WKE

DEC 2013

PROJECT ID: 4060-05-70/4060-05-71

COUNTY: WASHINGTON

ORDER OF SHEETS

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

TOTAL SHEETS = 694

STATE PROJECT	FEDERAL PROJECT	
	PROJECT	CONTRACT
4060-05-70	WISC 2013516	1

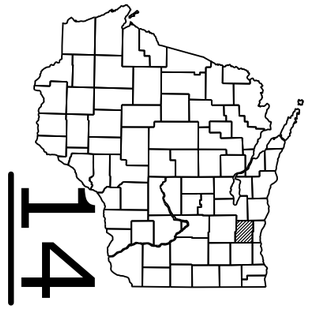
STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

PLAN OF PROPOSED IMPROVEMENT

MAIN STREET

USH 45 TO STH 144
STH 28
WASHINGTON COUNTY

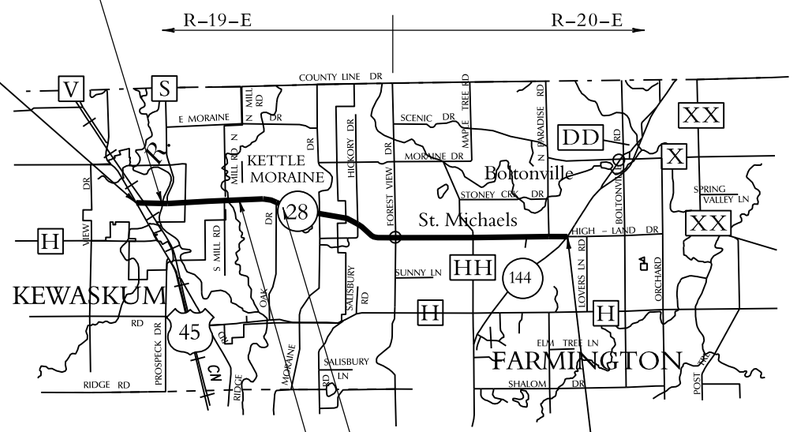
STATE PROJECT NUMBER
4060-05-70





B-66-184
STA. 96+40.66 - STA. 97+26.60

BEGIN PROJECT 4060-05-70
STA. 79+00.00
X=350267.09
Y=219829.47



T-12-N

EQUATION
STA. 185+61.36 BK =
STA. 185+63.17 AH

END PROJECT
STA. 382+88.00

NET EXCEPTION
B-66-122
STA. 146+63.95 - STA. 147+28.55

DESIGN DESIGNATION		STH 28 URBAN	STH 28 RURAL
A.A.D.T. 2008	=	7200	2700
A.A.D.T. 2028	=	8200	3600
D.H.V.	=	377	N/A
D.D.	=	62/38%	N/A
T.	=	5.7%	N/A
DESIGN SPEED	=	25 MPH	40 MPH STA. 248+97 - STA. 283+97
	=	STA. 79+00 - STA. 113+25	45 MPH STA. 113+25 - STA. 153+04
	=		55 MPH STA. 153+04 - STA. 248+97
			STA. 283+97 - STA. 382+88
ESALS	=	1,073,100	423,400

CONVENTIONAL SYMBOLS

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

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

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

LAYOUT
SCALE 0 1 MI.

TOTAL NET LENGTH OF CENTERLINE = 5.755 MI.

Coordinates on this plan are referenced to the Wisconsin County Coordinate System (WCCS), NAD83(97) Washington County.

Elevations shown on this plan are referenced to the North American Vertical Datum of 1988 NAVD88(91).

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

PREPARED BY

Surveyor	WDOT
Designer	NENG YANG
Project Manager	JASON ZEMKE
Regional Examiner	JASON ZEMKE
Regional Supervisor	REEM SHAHIN
C.O. Examiner	

APPROVED FOR THE DEPARTMENT
DATE: 9/30/13 (Signature)

E

2

GENERAL NOTES

THE LOCATIONS OF EXISTING OR PROPOSED UTILITIES, AS NOTED ON THE PLANS, ARE APPROXIMATE. THERE MAY BE OTHER UTILITY INSTALLATIONS WITHIN THE PROJECT AREA THAT ARE NOT SHOWN.

ANY LOCAL MUNICIPAL UTILITY WHICH IS NOT A MEMBER OF THE DIGGERS HOTLINE MUST BE CONTACTED SEPERATELY.

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

ALL HOLES OR OPENINGS BELOW SUBGRADE RESULTING FROM ABANDONMENT OR REMOVAL OF EXISTING STRUCTURES SHALL BE BACKFILLED WITH SUITABLE MATERIAL, OR AS DIRECTED BY THE ENGINEER.

DIMENSIONS GIVEN FOR EXISTING FEATURES SHALL BE CONSIDERED AS APPROXIMATE AND SHALL BE MEASURED IN THE FIELD FOR MATCHING PURPOSES.

CURB AND GUTTER RADII, GRADES AND OFFSETS ARE TO THE FLANGE UNLESS NOTED OTHERWISE.

CROSS SECTIONS SHOWN INCLUDE THE THICKNESS OF SALVAGED TOPSOIL WHERE REQUIRED. SALVAGED TOPSOIL SHALL BE PLACED WITH 4" MINIMUM DEPTH.

EXCAVATION BELOW SUBGRADE (EBS) SHALL BE MEASURED AND PAID FOR AS EXCAVATION COMMON. THE EXACT LOCATION OF EBS WILL BE DETERMINED IN THE FIELD BY THE ENGINEER.

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

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

EROSION CONTROL BMP'S ARE AT SUGESTED LOCATIONS. THE ACTUAL LOCATIONS WILL BE DETERMINED BY THE CONTRACTORS ECIP AND BY THE ENGINEER. EROSION CONTROL BMP'S SHALL BE MAINTAINED UNTIL PERMANENT VEGETATION IS ESTABLISHED OR UNTIL THE ENGINEER DETERMINES THAT THE BMP IS NO LONGER REQUIRED.

REINFORCED CONCRETE APRON ENDWALLS AND ADJOINING TWO SECTIONS OF CONCRETE PIPE SHALL BE TIED TOGETHER AS SHOWN ON THE STANDARD DETAIL DRAWINGS AND AS LOCATED IN THE MISCELLANEOUS QUANTITIES. JOINT TIES SHALL BE INCIDENTAL ITEMS INCLUDED IN THE COST OF THE CONCRETE PIPE.

INLET AND DISCHARGE ELEVATIONS FOR DRAINAGE STRUCTURES SHOWN ON THE PLAN MAY BE ADJUSTED BY THE ENGINEER TO FIT FIELD CONDITIONS. PRIOR TO ORDERING DRAINAGE PIPES AND STRUCTURES, THE CONTRACTOR SHALL VERIFY RELATED DRAINAGE INFORMATION IN THE PLAN WITH THE ENGINEER.

CONTRACTOR WILL CONNECT ALL YARD DRAINS AND SUMP PUMP DISCHARGES TO THE PROPOSED STORM SEWER. WORK WILL BE INCIDENTAL TO ALL STORM SEWER ITEMS.

LOCATION OF STORM SEWER STRUCTURES IN CURB AND GUTTER SECTION REFER TO FLOW LINE OF CURB.

LOCATION OF STRUCTURES NOT IN CURB AND GUTTER SECTION REFER TO CENTERLINE OF STRUCTURE.

IMMEDIATELY AFTER CONSTRUCTION OF ANY INLET, CONTRACTOR SHALL CONSTRUCT THE INLET PROTECTION TO MINIMIZE SEDIMENTATION IN THE INLET AND STORM SEWER.

WHEN TEMPORARY PAVEMENT MARKING, REMOVABLE TAPE IS REQUIRED TO BE USED, IT SHALL BE CUT THRU IT'S FULL WIDTH AND THICKNESS AT 25-FOOT INTERVALS TO CONTROL RAVELING.

EXISTING DRIVEWAYS AND FIELD ENTRANCES WILL BE RESTORED IN KIND AS DIRECTED BY THE ENGINEER IN THE FIELD AND AT THE LOCATION DETERMINED BY THE ENGINEER.

MISCELLANEOUS REMOVAL ITEMS REQUIRING RESTORAITON OF CONCRETE OR ASPHALT DRIVEWAYS, SIDEWALKS, OR SIDE STREETS SHALL BE REMOVED TO AN EXISTING JOINT OR SAWED AS DETERMINED BY THE ENGINEER.

A SAWED JOINT IS REQUIRED WHERE NEW HMA SURFACE MEETS EXISTING ASPHALTIC CONCRETE SURFACE.

SHOULDERS SHALL BE PAVED FULL WIDTH IN LOCATIONS WHICH REQUIRE STEEL PLATE BEAM GUARD AND SHALL BE PAVED PRIOR TO BEAM GUARD INSTALLATION.

THE REMOVAL OF CONCRETE DRIVEWAYS AND CONCRETE MEDIANS WILL BE MEASURED AND PAID FOR IN ACCORDANCE WITH THE ITEM OF REMOVING CONCRETE SIDEWALK.

THE REMOVAL OF CONCRETE CURB & GUTTER, CONCRETE SIDEWALK, CONCRETE DRIVEWAY THAT ARE INTEGRAL WITH OR TIED TO EXISTING CONCRETE PAVEMENT WILL BE MEASURED AND PAID FOR IN ACCORDANCE WITH THE ITEM OF REMOVING PAVEMENT.

FINISHING ROADWAY SHALL INCLUDE CLEANOUT OF EXISTING DRAINAGE STRUCTURES AS DIRECTED BY THE ENGINEER.

HMA PAVEMENTS WILL BE CONSTRUCTED WITH THE FOLLOWING LAYERS AND GRADATIONS:

6 INCH PAVEMENT TYPE E-3 (URBAN RECONSTRUCTION & PAVEMENT REPLACEMENT SECTION):

1 3/4 INCH UPPER LAYER (12.5 MM GRADATION)	12.5 MM	PG64-28
1 3/4 INCH UPPER LAYER (12.5 MM GRADATION)	12.5 MM	PG64-28
2 1/2 INCH LOWER LAYER (19.0 MM GRADATION)	19.0 MM	PG64-22

5 INCH PAVEMENT TYPE E-3 (RURAL RECONSTRUCTION SECTIONS):

2	INCH UPPER LAYER (12.5 MM GRADATION)	12.5 MM	PG64-28
3	INCH LOWER LAYER (19.0 MM GRADATION)	19.0 MM	PG64-22

4 1/2 INCH PAVEMENT TYPE E-1 (RURAL MILL & OVERLAY SECTIONS):

2	INCH UPPER LAYER (12.5 MM GRADATION)	12.5 MM	PG64-28
2 1/2	INCH LOWER LAYER (19.0 MM GRADATION)	19.0 MM	PG64-22

UTILITIES

1 Mr. Dan Sande, Project Manager
We Energies (Electric)
333 W. Everett St - A299
Milwaukee, WI 53203
Phone: (414) 221-4578
Fax: (414) 221-2336
dan.sande@we-energies.com

38 Mr. Jim Burton, Facilities Engineer II/OSP-East
Sprint Communications, L.P.
400 W Grand Avenue
Elmhurst, IL 60126
Phone: (708) 955-6659
Fax: (630) 379-5958
james.burton@ericsson.com

54 Mr. Tom Harycki
Charter Communications
2312 Continental Drive
West Bend, WI 53095
Phone: (262) 306-8756 Ext. 20702
Fax: (262) 306-9021
tharycki@chartercom.com

168 Mr. Kevin Anderson, Area Manager
AT&T Wisconsin
7721 W. Fond du Lac Ave., 1st Fl.
Milwaukee, WI 53218
Phone: (414) 536-2971
Fax: (414) 535-5197
ka8421@att.com

195 Mr. Dan Sande, Project Manager
We Energies (Gas Operations)
333 W. Everett St - A299
Milwaukee, WI 53203
Phone: (414) 221-4578
Fax: (414) 221-2336
dan.sande@we-energies.com

1383 Mr. Ryan Osness, Detailer
Frontier - Wisconsin
118 Division Street
Plymouth, WI 53073
Phone: (920) 893-7455
ryan.d.osness@ftr.com

212 Mr. Larry Huber, Property Rights Sp.
ANR Pipeline Co
W3925 Pipeline Lane
Eden, WI 53019
Phone: (920) 477-2235 Ext. 13
Fax: (920) 477-2240
lawrence_huber@transcanada.com

1059 Mr. Matt Heiser, Administrator
Kewaskum, Village of
204 First Street
Kewaskum, WI 53040
Phone: (262) 626-8484
Fax: (262) 626-4909
mheiser@village.kewaskum.wi.us

1141 Mr. John Haug, Traffic Engineering Supervisor
WisDOT Signals
141 NW Barstow
PO Box 798
Waukesha, WI 53187 0798
Phone: (262) 521-5356
John.haug@dot.wi.gov

1242 Mr. Dennis Newton
WisDOT OH Signing
935 S 60TH
PO Box 798
West Allis, WI 53214 3362
Phone: (414) 266-1165
dennis.newton@dot.wi.gov

1285 Mr. Jim Kostuch
Windstream NTI, Inc.
(f/k/a Norlight)
13935 Bishops Dr.
Brookfield, WI 53005
Phone: (262) 792-7938
james.kostuch@windstream.com

Ms. Denise Rosenthal
SE Region Utility Coordinator
141 NW Barstow Street
PO Box 798
Waukesha, WI 53187 0798
Phone: (262) 548-8733
Denise.rosenthal@dot.wi.gov

CONTACTS

MR. TOM WONDRA, COMMISSIONER
WASHINGTON HWY, COUNTY OF
900 LANG STREET
WEST BEND, WI 53095
PHONE: (262) 335-4437
FAX: (262) 335-4439
EMAIL: jon.edgren@washington.wi.us

MR. PAUL MUELLER, ADMINISTRATOR
WASHINGTON, COUNTY OF (PLANNING/PARKS)
333 W. WASHINGTON STREET
SUITE 2300
WEST BEND, WI 53095-7986
PHONE: (262) 335-4445

MR. MATT HEISER, ADMINISTRATOR
VILLAGE ADMINISTRATOR
KEWASKUM, VILLAGE OF
204 FIRST STREET
P.O. BOX 38
KEWASKUM, WI 53040-0038
PHONE: (262) 626-8484
FAX: (262) 626-4909
EMAIL: mheiser@village.kewaskum.wi.us

MS. NANCY BODEN, TOWN CLERK
KEWASKUM, TOWN OF
9019 KETTLE MORAINE DRIVE
P.O. BOX 484
KEWASKUM, WI 53040-0484
PHONE: (262) 626-2566
EMAIL: townkew@frontier.com

MS. DEBBIE SWANSO, TOWN CLERK
FARMINGTON, TOWN OF
9422 STH 144
KEWASKUM, WI 53040
PHONE: (715) 294-2370
EMAIL: clerktreas@farmingtontown.com

MR. JERRY GILLES
DIRECTOR OF PUBLIC WORK
KEWASKUM, VILLAGE OF
204 FIRST STREET
P.O. BOX 38
KEWASKUM, WI 53040-0038
PHONE: (262) 626-4310
E-MAIL: jgilles@village.kewaskum.wi.us

MS. JULIE WIDHOLM
DNR LIAISON
141 NW BARSTOW RM 180
WAUKESHA, WI 53188
PHONE: (262) 574-2112
FAX: (262) 574-2117
EMAIL: julie.widholm@wisconsin.gov

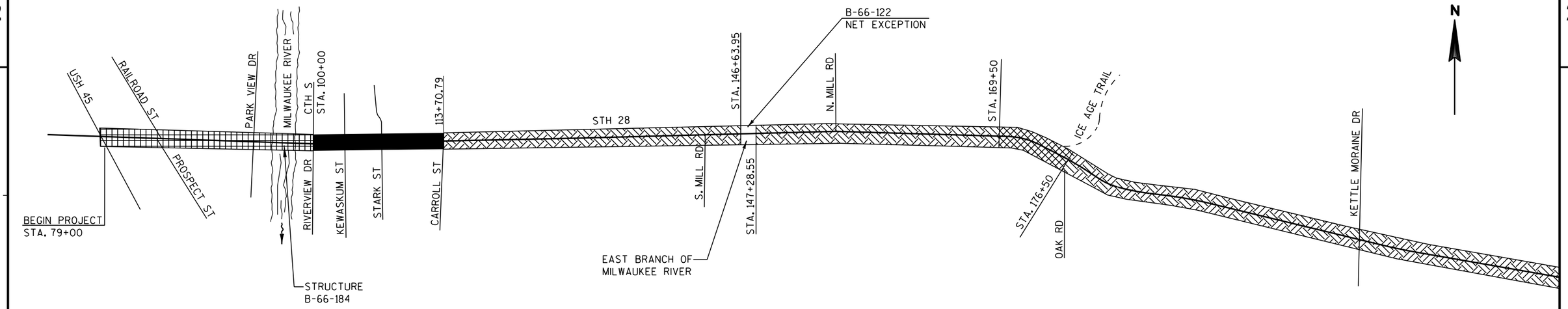
MR. JASON ZEMKE
WisDOT PROJECT MANAGER SE-REGION
141 N W BARSTOW STREET
PO BOX 798
WAUKESHA, WI 53187-0798
PHONE: (262) 548-8734
FAX: (262) 548-8645
E-MAIL: jason.zemke@dot.wi.gov

MR. MICK MAGALSKI
McMAHON
1445 McMAHON DRIVE
P.O. BOX 1025
NEENAH, WI 54956-1025
PHONE: (920)-751-4200
FAX: (920) 751-4284
EMAIL: PMagalskin@mcmgrp.com

MR. MIKE MCCARTHY
PROJECT MANAGER
EMCS, INC.
1300 W. CANAL STREET, SUITE 200
PHONE: (414)-347-1607
FAX: (414)-347-1347
E-MAIL: mmccarthy@emcsinc.com

DIGGERS HOTLINE

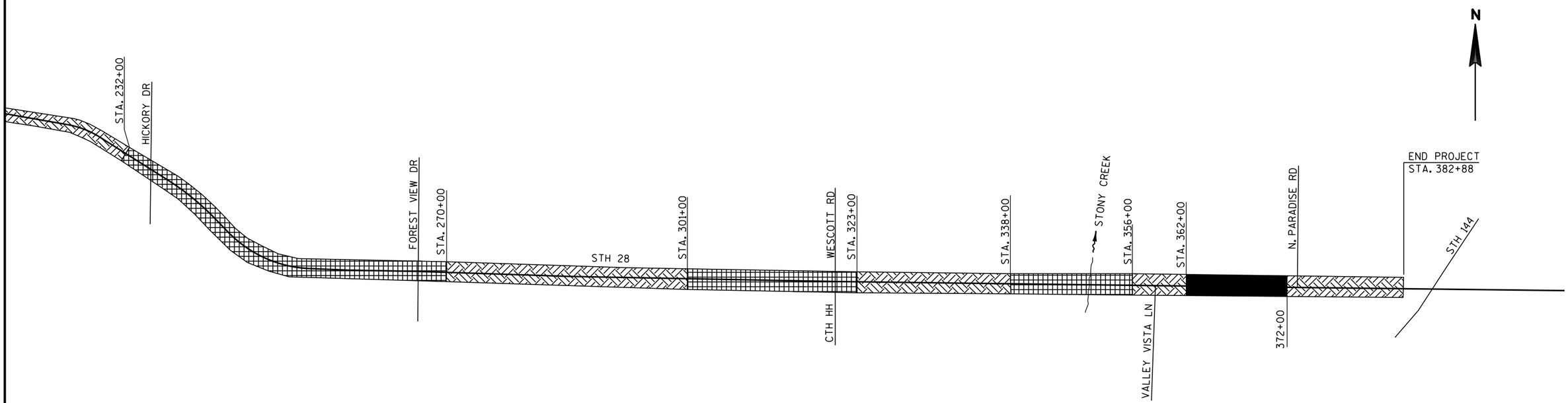
Call 811 3 Work Days Before You Dig
Or Toll Free (800) 242-8511
Hearing Impaired TDD (800) 542-2289
www.DiggersHotline.com



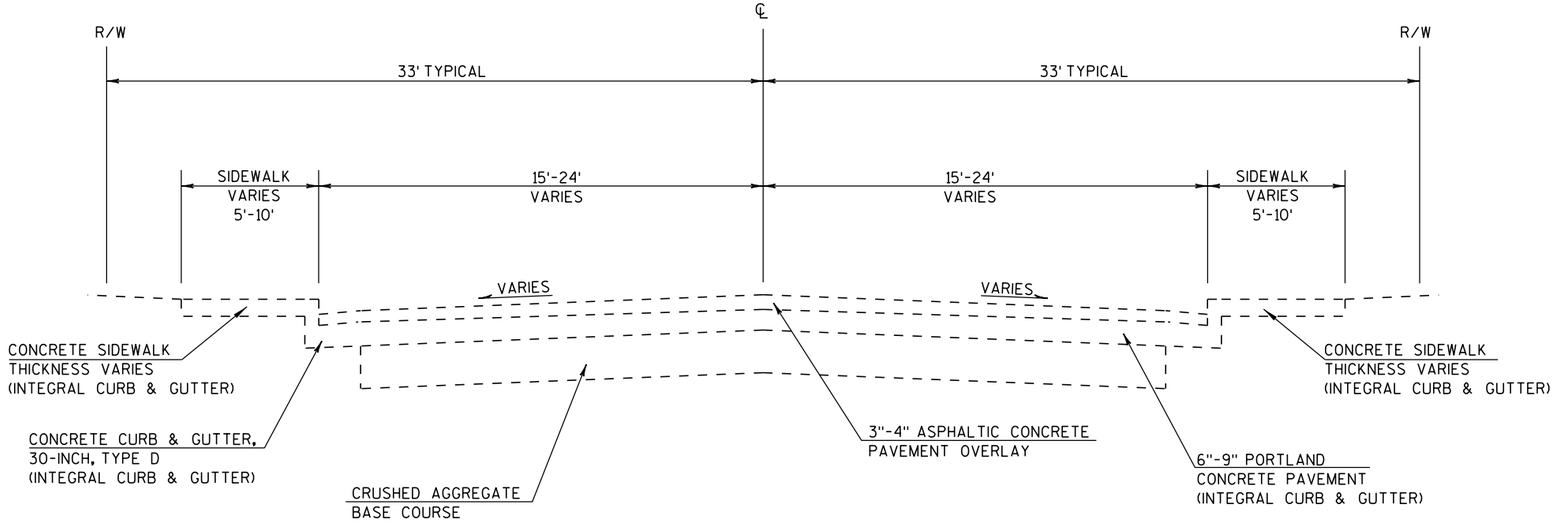
VILLAGE OF KEWASKUM

LEGEND

- RECONSTRUCTION
- PAVEMENT REPLACEMENT
- MILL AND OVERLAY WITH SHOULDER WIDENING

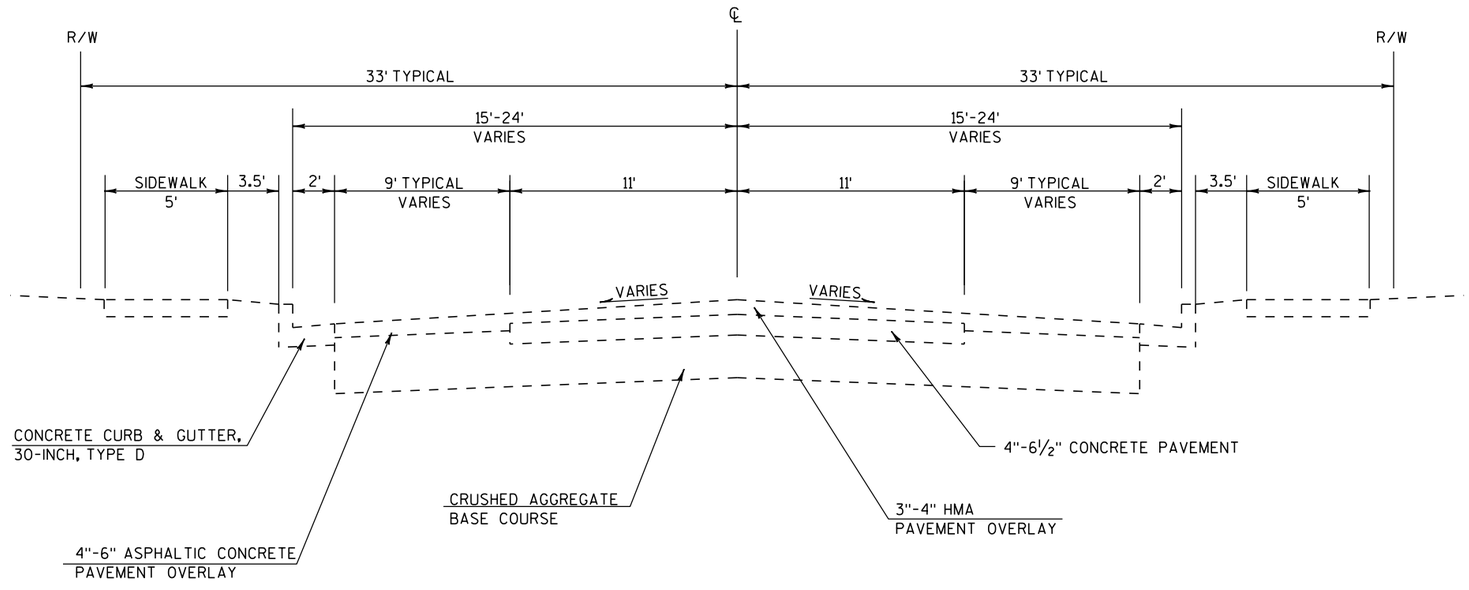


PROJECT NO: 4060-05-70	HWY: STH 28	COUNTY: WASHINGTON	PROJECT OVERVIEW	NOT TO SCALE	SHEET 4	E



TYPICAL EXISTING SECTION

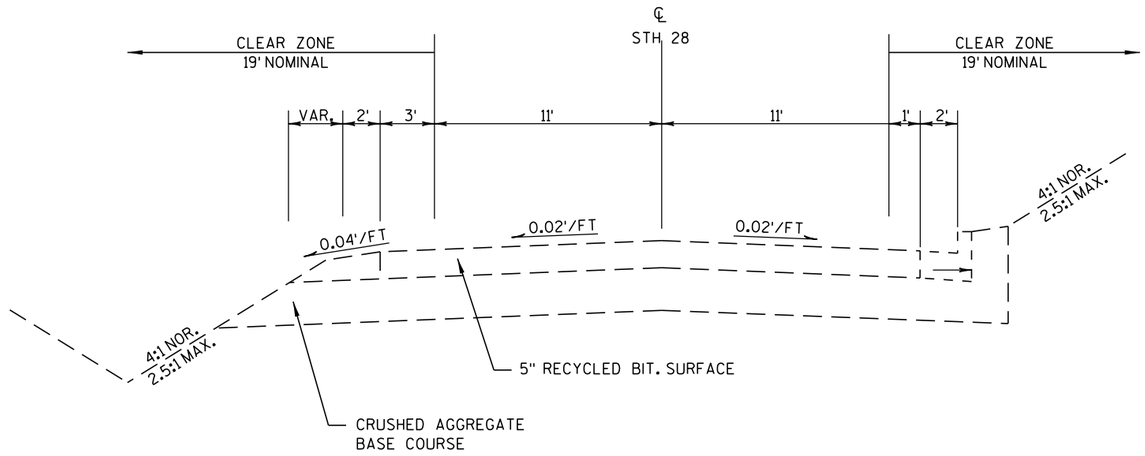
STA. 79+00 - STA. 96+40.66



TYPICAL EXISTING SECTION

STA. 97+26.60 - STA. 113+10.18

PROJECT NO: 4060-05-70	HWY: STH 28	COUNTY: WASHINGTON	TYPICAL SECTIONS	SHEET 5	E

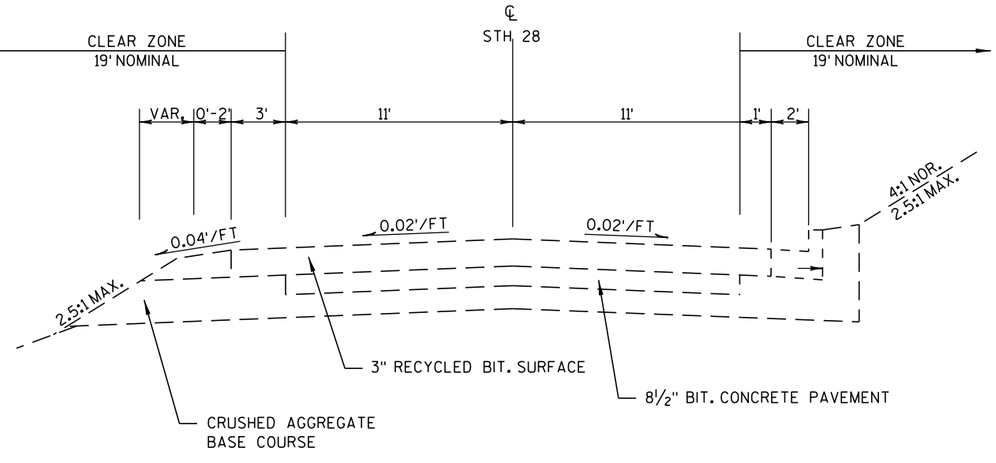


EXISTING TYPICAL SECTION

STA. 236+37 - STA. 256+03

TYPICAL HALF SECTION
WITH CURB & GUTTER
IN CUT*

*STA. 239+68.22 - STA. 246+28.89 RT
*STA. 253+46.03 - STA. 255+10.98 RT



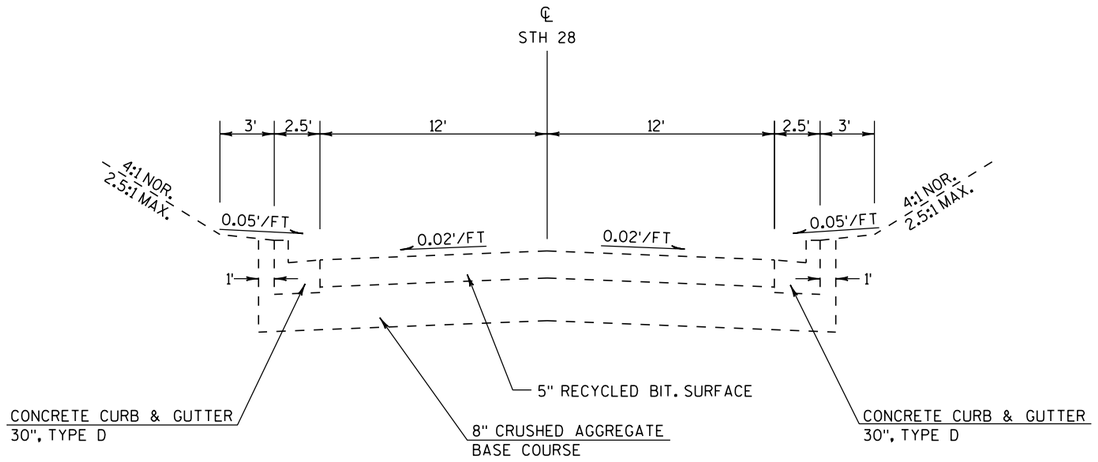
EXISTING TYPICAL SECTION

STA. 113+10.18 - STA. 236+37
STA. 256+03 - STA. 342+06.44
STA. 346+95.81 - STA. 382+88

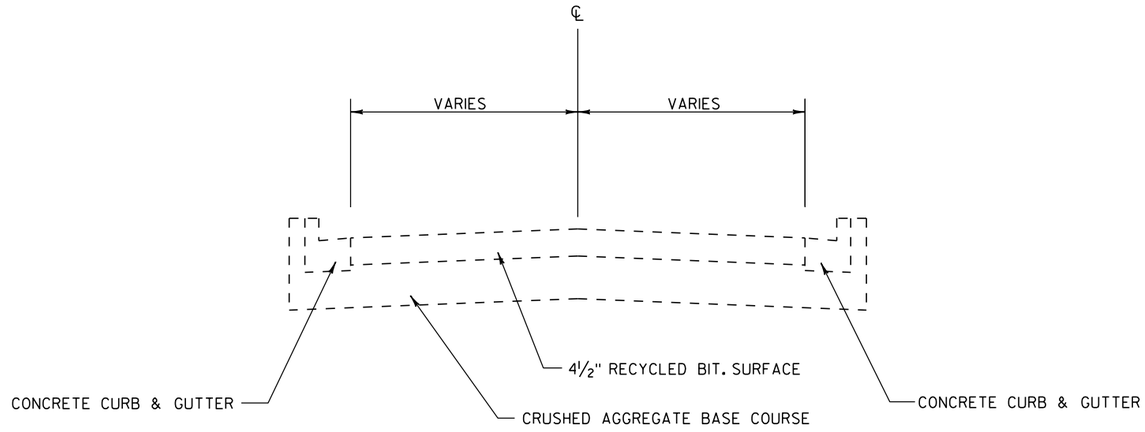
TYPICAL HALF SECTION
WITH CURB & GUTTER
IN CUT*

*CURB & GUTTER

STA. 114+69.95 - STA. 119+62.16 RT
STA. 263+52.15 - STA. 264+30.86 LT
STA. 342+06.44 - STA. 346+92.69 RT
STA. 342+4381 - STA. 346+95.81 LT

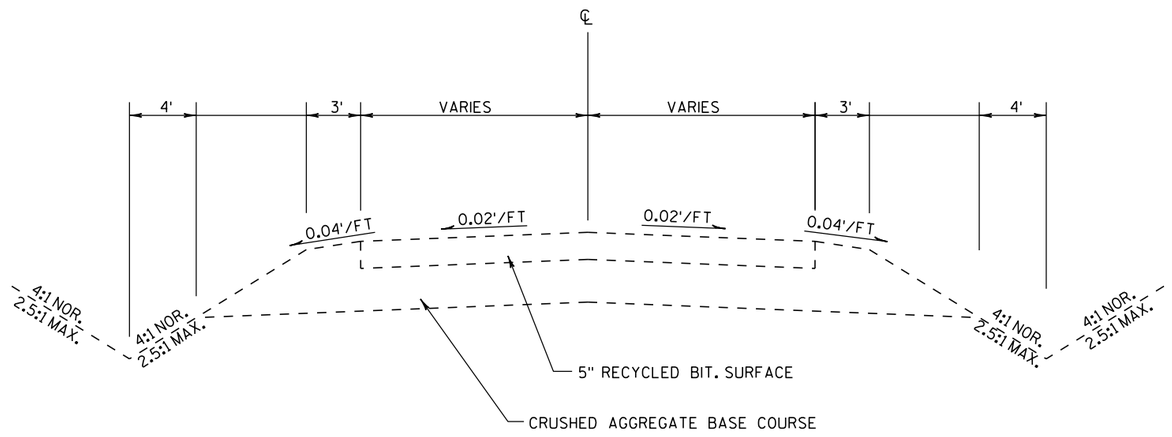


EXISTING TYPICAL SECTION
(WITH CURB & GUTTER SHOULDER)
STA. 342+06.44 - STA. 346+95.81



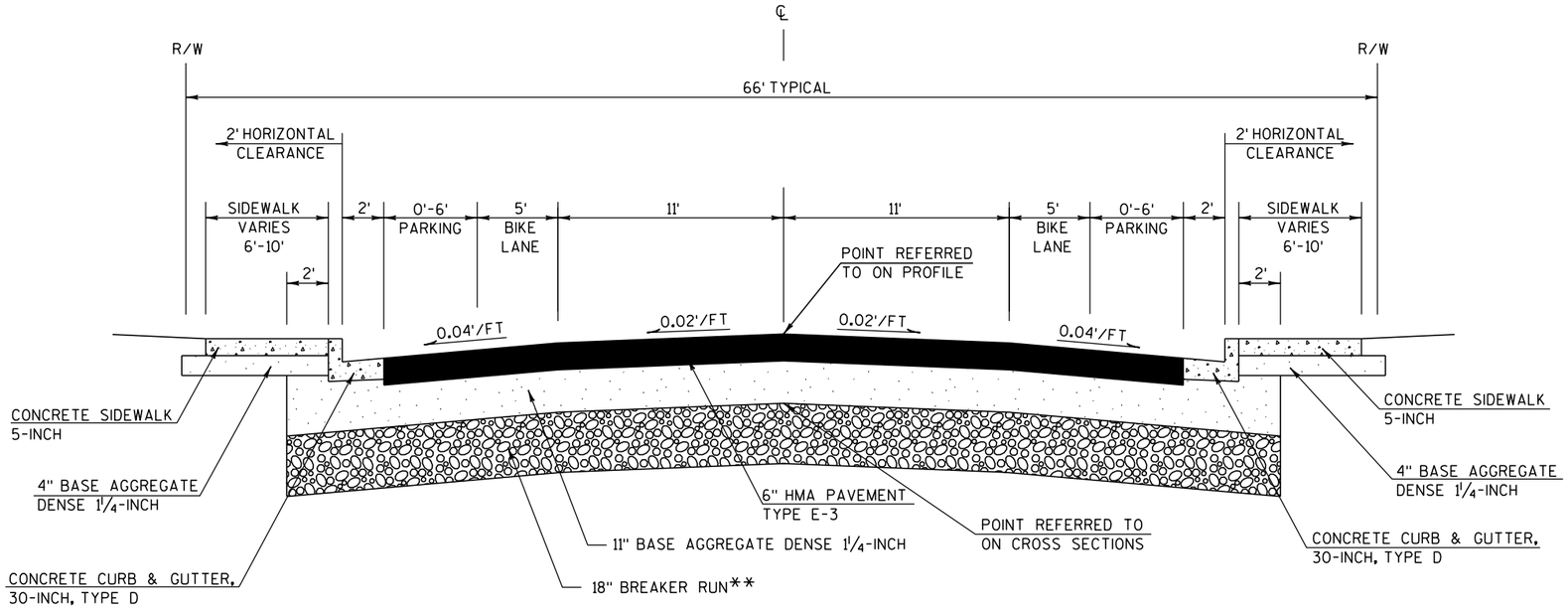
EXISTING TYPICAL SECTION

RAILROAD STREET
PROSPECT STREET
PARKVIEW STREET
KETTLE DRIVE



EXISTING TYPICAL SECTION

KETTLE MORAINE DRIVE
HICKORY DRIVE
FOREST VIEW DRIVE
WESCOTT ROAD

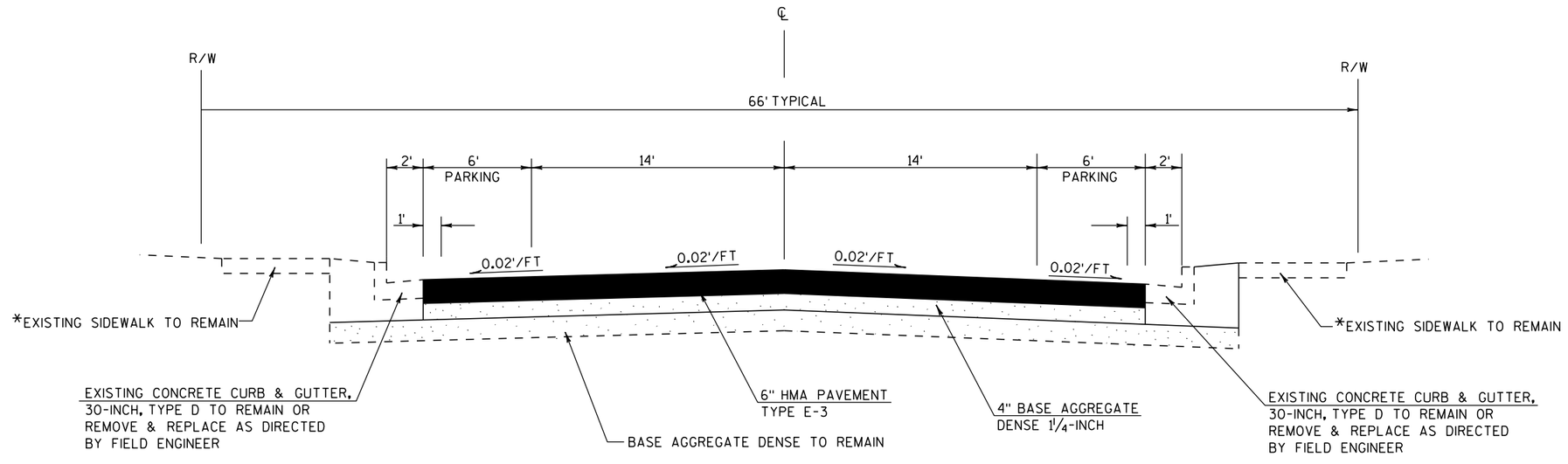


TYPICAL PROPOSED SECTION
RECONSTRUCTION

STA. 79+00 - STA. 96+40.66
STA. 97+26.60 - STA. 99+75

**EBS TO BE BACKFILLED WITH BREAKER RUN

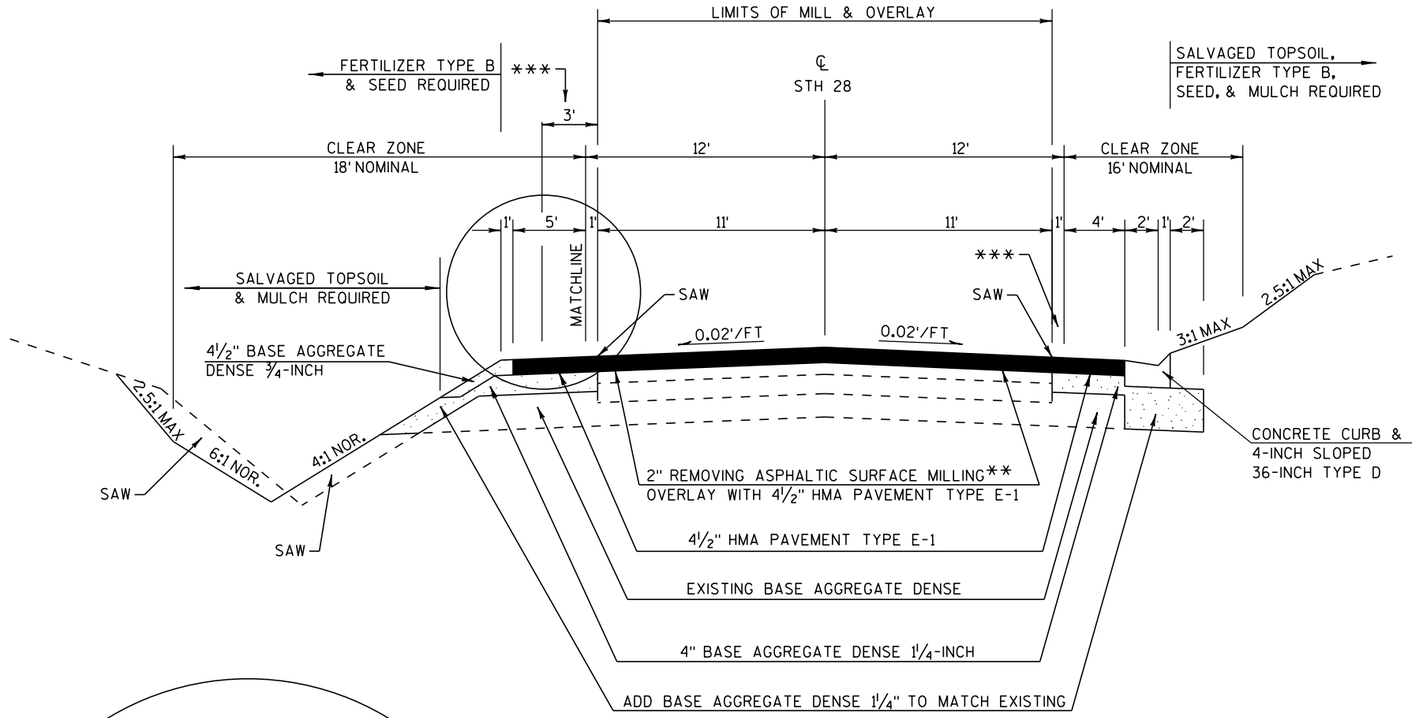
STA. 82+00 - STA. 85+00



TYPICAL PROPOSED SECTION
PAVEMENT REPLACEMENT

STA. 99+75 - STA. 113+70.59

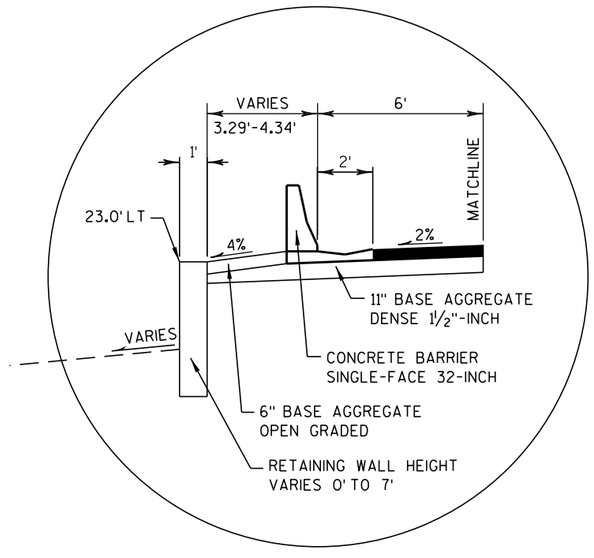
*REMOVE & REPLACE AS DIRECT BY THE FIELD ENGINEER



TYPICAL HALF SECTION
WITH CURB & GUTTER
IN CUT*

*CURB & GUTTER

STA. 112+70 - STA. 113+70 LT
STA. 133+00 - STA. 137+00 LT
STA. 135+00- STA. 137+50 RT
STA. 149+50 - STA. 150+50 LT
STA. 189+00 - STA. 192+33 RT
STA. 208+50 - STA. 214+00 LT
STA. 231+00 - STA. 232+00 LT
STA. 360+00 - STA. 361+50 RT
STA. 370+75 - STA. 373+50 RT
STA. 379+00 - STA. 381+75 RT



RETAINING WALL SECTION STH 28

STA. 270+70 - STA. 272+10

TYPICAL PROPOSED SECTION
MILL & OVERLAY

STA. 113+70.59 - STA. 169+50
STA. 176+50 - STA. 232+00
STA. 270+00 - STA. 301+00
STA. 323+00 - STA. 338+00
STA. 356+00 - STA. 382+88

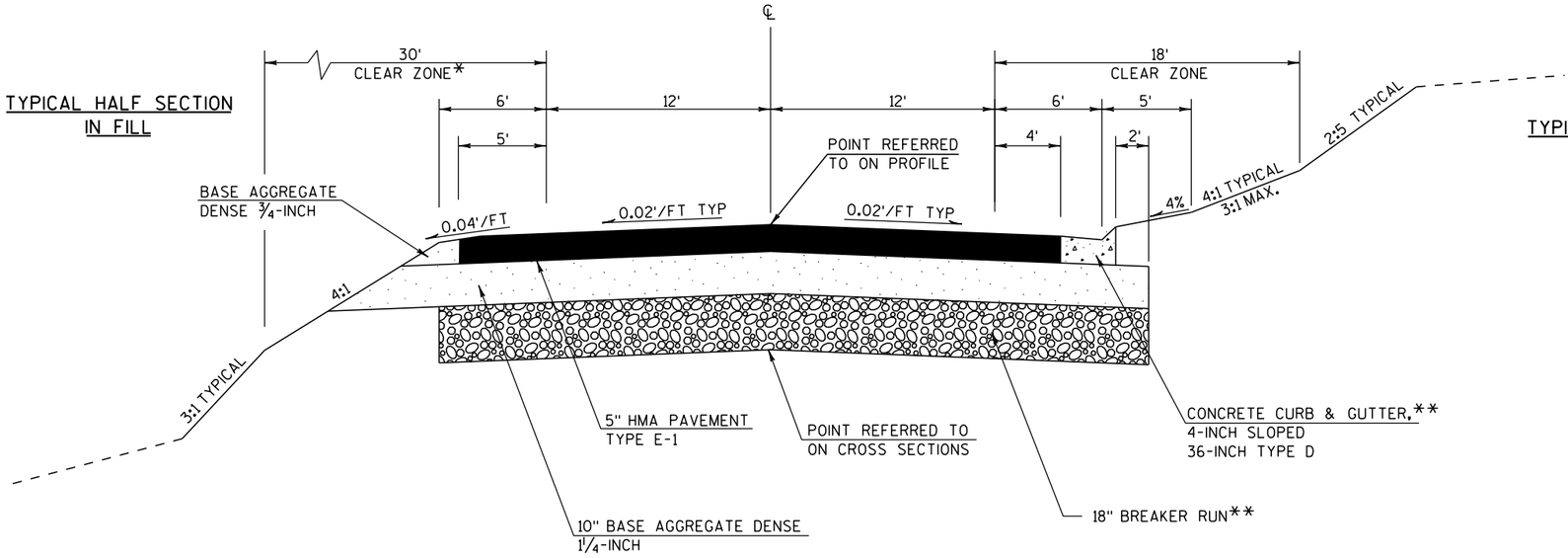
**STA. 362+00 - STA. 372+00

4½ REMOVING ASPHALTIC SURFACE MILLING
OVERLAY WITH 4½" HMA PAVEMENT TYPE E-1

** REMOVE 3" RECYCLED BIT. SURFACE & 3" BASE AGGREGATE DENSE (EXC. COMMON), PLACE 4" BASE AGGREGATE DENSE 1¼-INCH, 4½" HMA PAVEMENT TYPE E-1, AND 4¼" BASE AGGREGATE DENSE ¾-INCH (SHOILDER).

2

TYPICAL HALF SECTION
IN FILL



TYPICAL HALF SECTION
IN CUT

TYPICAL PROPOSED SECTION
RECONSTRUCTION

STA. 169+50 - STA. 176+50
STA. 232+00 - STA. 270+00
STA. 301+00 - STA. 323+00
STA. 338+00 - STA. 356+00

*18' CLEAR ZONE
STA. 248+97 - STA. 270+00

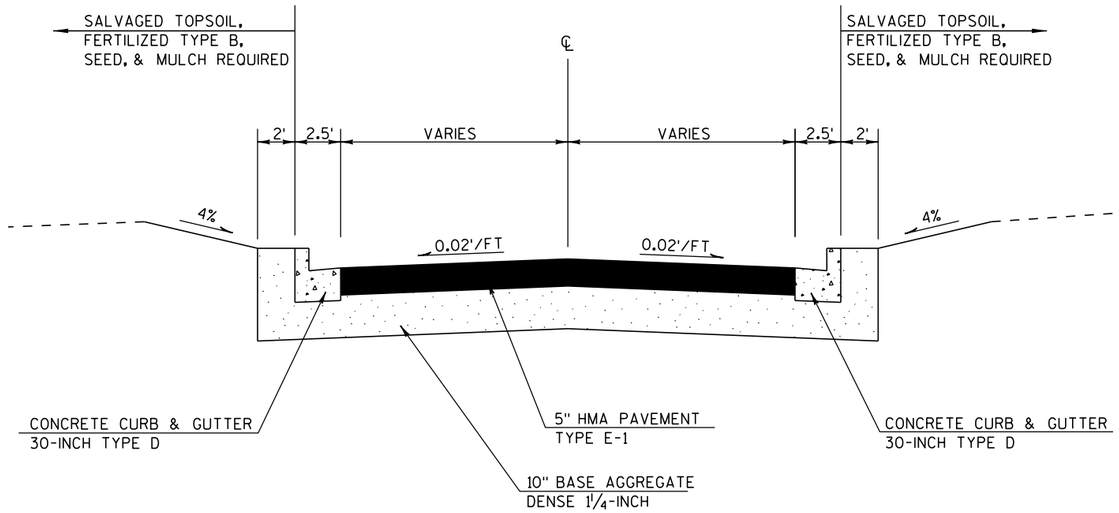
**STA. 265+50 - STA. 269+70

COMCRETE CURB & GUTTER,
6-INCH SLOPE 36-INCH TYPE D

**EBS TO BE BACKFILLED WITH BREAKER RUN

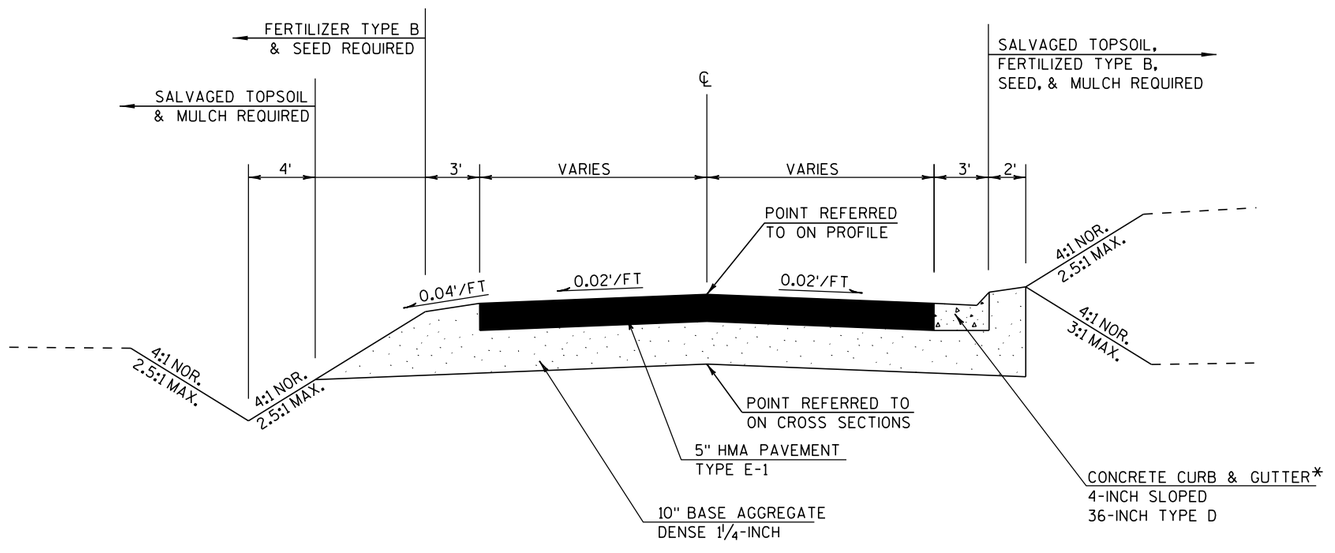
STA. 173+50 - STA. 176+50
STA. 310+00 - STA. 311+00
STA. 316+00 - STA. 318+00

2



PROPOSED TYPICAL SECTION

RAILROAD STREET
PROSPECT STREET
PARKVIEW DRIVE

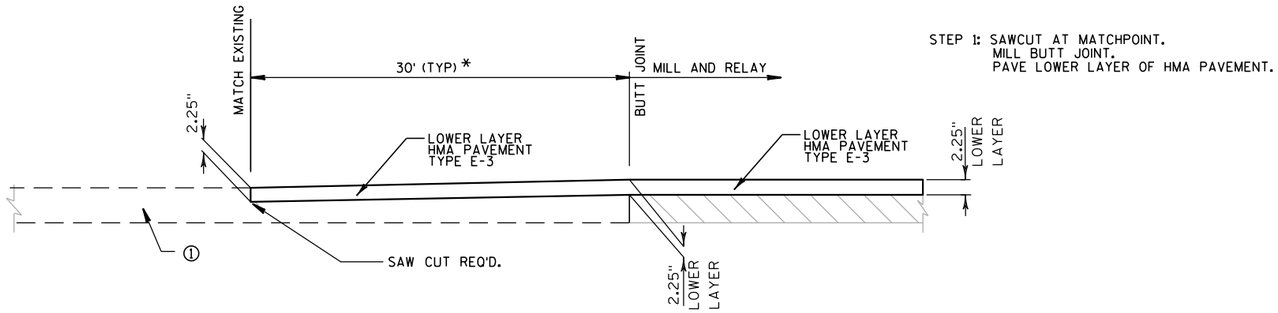


PROPOSED TYPICAL SECTION

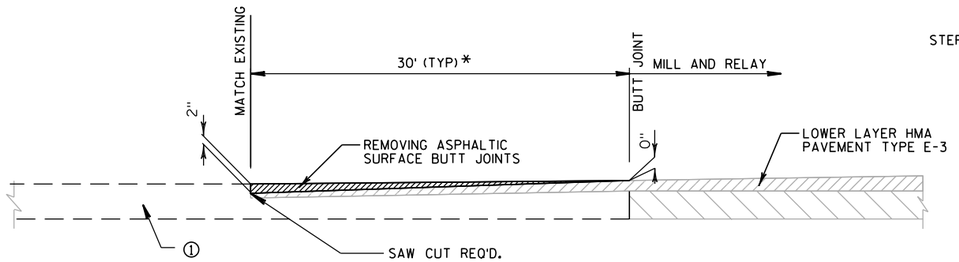
KETTLE MORAINE DRIVE
HICKORY DRIVE
FOREST VIEW DRIVE*
WESCOTT ROAD

*CONCRETE CURB & GUTTER
6-INCH SLOPE 36-INCH TYPE D

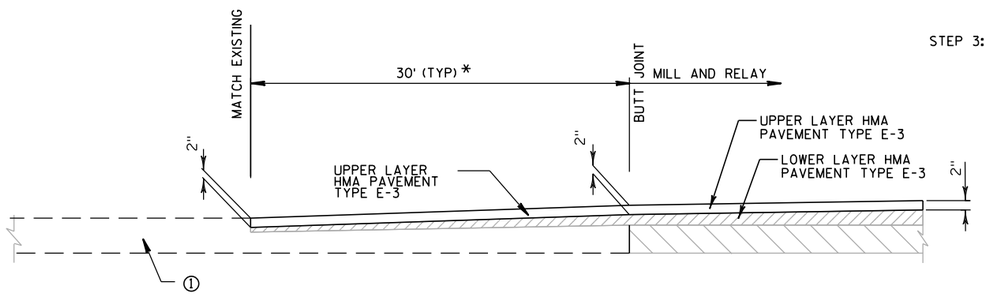
PROJECT NO: 4060-05-70	HWY: STH 28	COUNTY: WASHINGTON	TYPICAL SECTIONS	SHEET 11	E



STEP 1: SAWCUT AT MATCHPOINT.
MILL BUTT JOINT.
PAVE LOWER LAYER OF HMA PAVEMENT.



STEP 2: MILL BUTT JOINT INTO LOWER LAYER.



STEP 3: PAVE UPPER LAYER OF HMA PAVEMENT.

DETAIL OF ASPHALTIC SURFACE BUTT JOINT

* EXACT DIMENSIONS TO BE DETERMINED BY ENGINEER IN THE FIELD.

NOTE:
① EXISTING PAVEMENT TO REMAIN.

BUTT JOINT LOCATIONS:

STH 28

STA. 113+70 - STA. 114+00
STA. 146+13 - STA. 146+63
STA. 147+28 - STA. 147+78
STA. 169+00 - STA. 169+50
STA. 176+50 - STA. 177+00
STA. 213+50 - STA. 232+00
STA. 270+00 - STA. 270+50
STA. 300+50 - STA. 301+00
STA. 323+00 - STA. 323+50
STA. 337+50 - STA. 338+00
STA. 358+00 - STA. 356+50
STA. 382+88 - STA. 383+38

KETTLE DR.
S. MILL RD.
N. MILL RD.
OAK DR.

KETTLE MORAINE DR.

STA. 48+48 - STA. 48+73
STA. 51+28 - STA. 51+63

HICKORY DR.

STA. 7+00 - STA. 7+21
STA. 12+89 - STA. 13+14

FORSET VIEW DR.

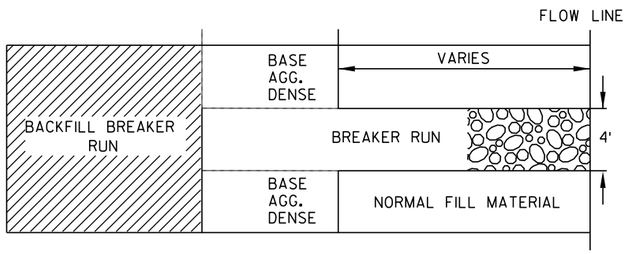
STA. 18+42 - STA. 18+67
STA. 21+33 - STA. 21+58

WESTCOTT RD.

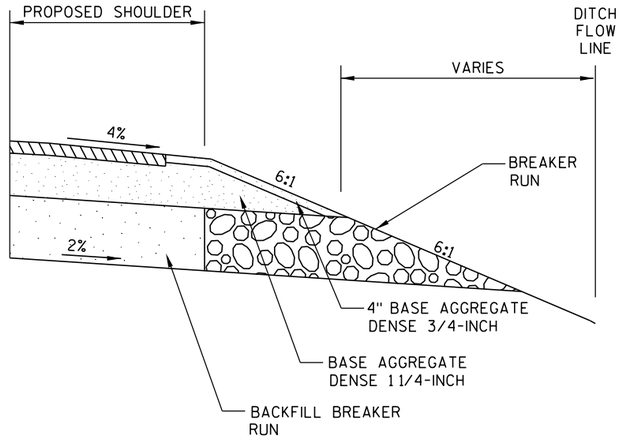
STA. 28+50 - STA. 28+75
STA. 31+75 - STA. 32+00

VALLEY VISTA LANE
PARADISE RD.

2



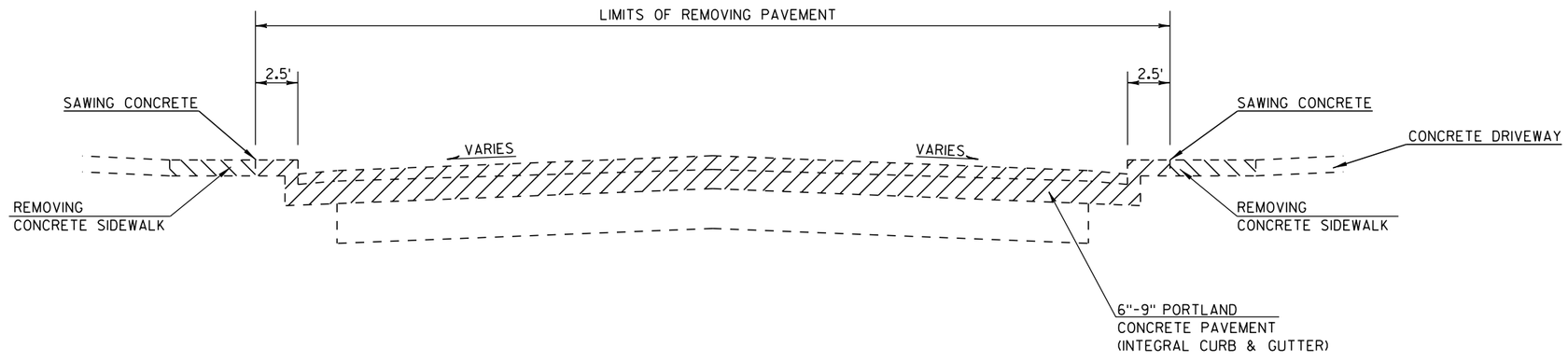
PLAN VIEW



PROFILE VIEW

RELIEF TRENCH DETAIL

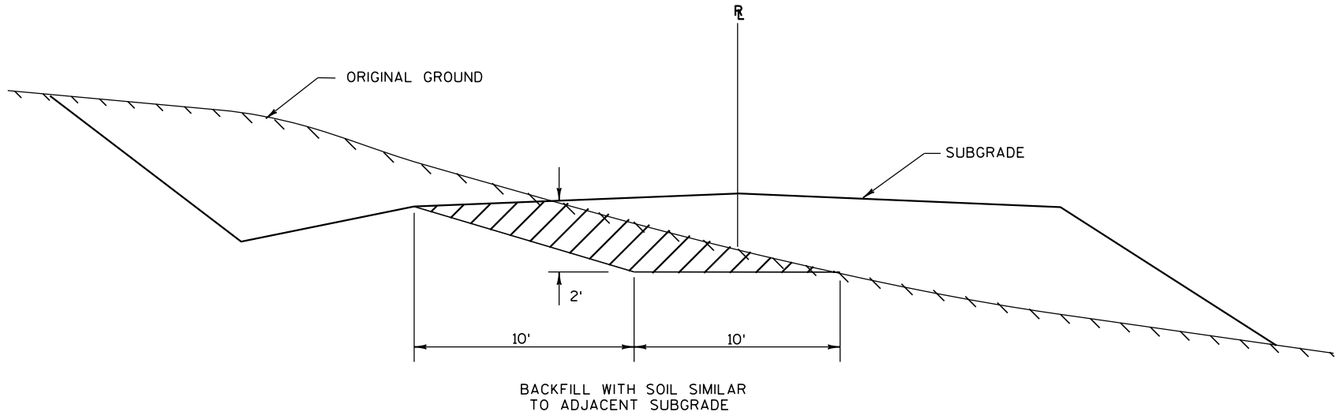
PLACE IN DITCH AREAS AT SAG CURVE
STA. 174+00. RT
STA. 309+75, LT & RT
STA. 318+00, RT



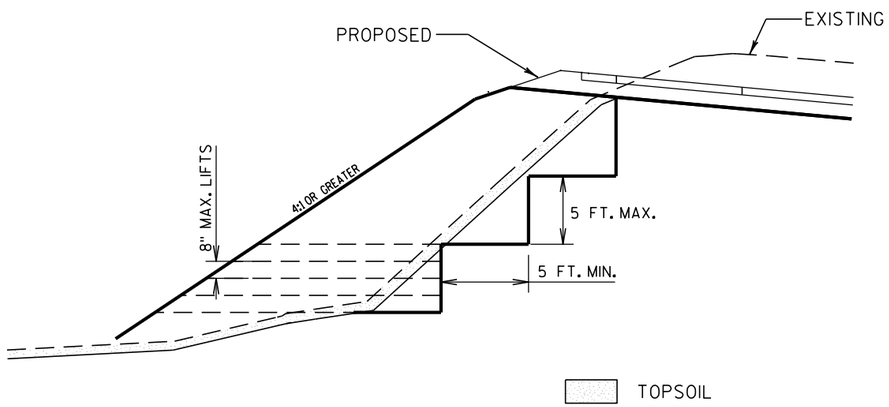
REMOVING PAVEMENT LIMITS

STA. 79+00 - STA. 96+40.66

2

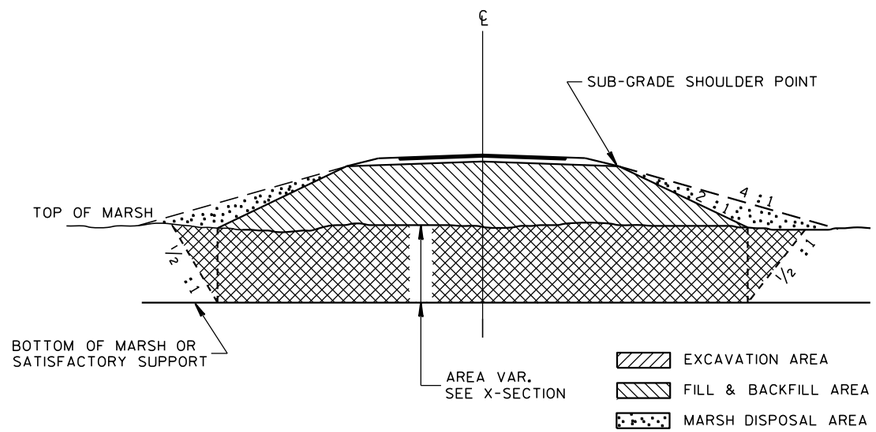


SIDE HILL CUT/FILL TRANSITION AREA



BENCH CONSTRUCTION

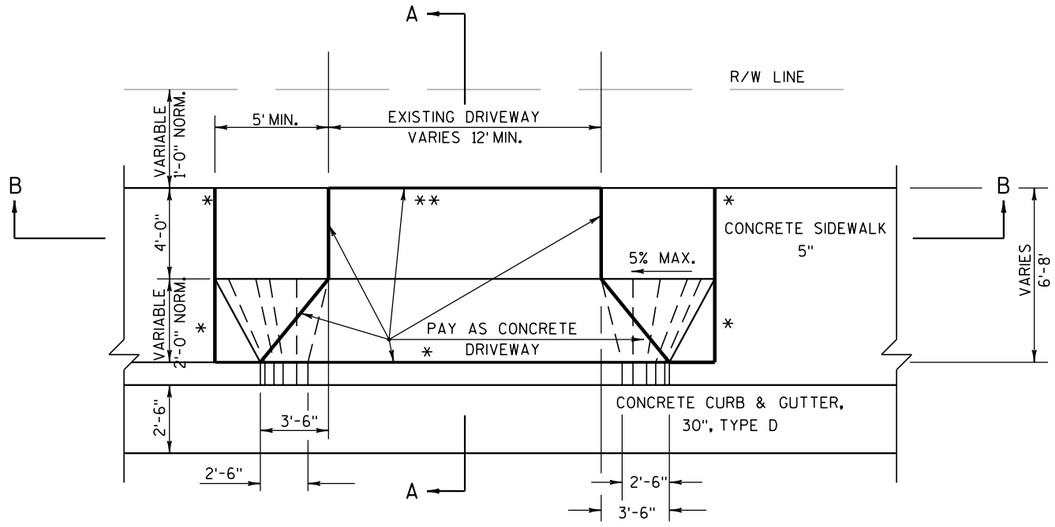
(APPLICABLE TO EXISTING SLOPES STEEPER THAN
4:1 AND HIGHER THAN 10 FEET.)



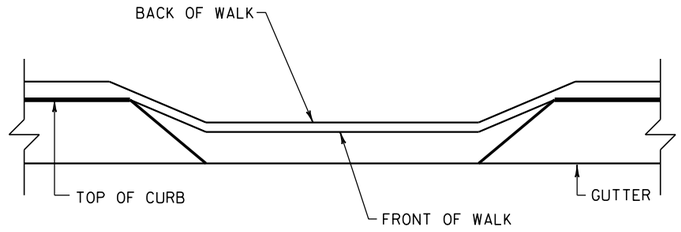
TYPICAL MARSH EXCAVATION SECTION

STA. 348+00 - STA. 352+00

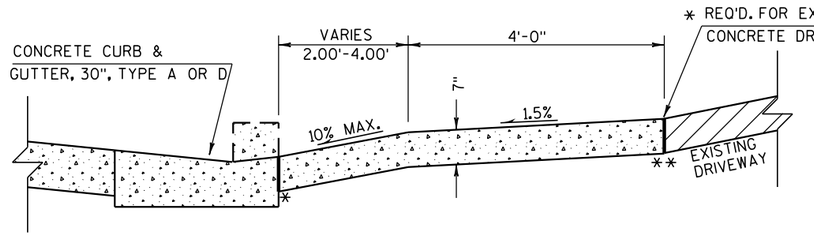
PROJECT NO: 4060-05-70	HWY: STH 28	COUNTY: WASHINGTON	CONSTRUCTION DETAILS	SHEET 14	E



PLAN



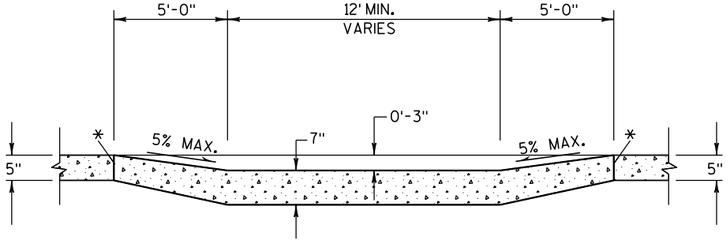
ELEVATION



SECTION A-A

*INDICATES 1/2" EXPANSION JOINT MATERIAL

**1/2" EXPANSION JOINT MATERIAL IS NOT REQUIRED FOR NON-RIGID DRIVEWAY

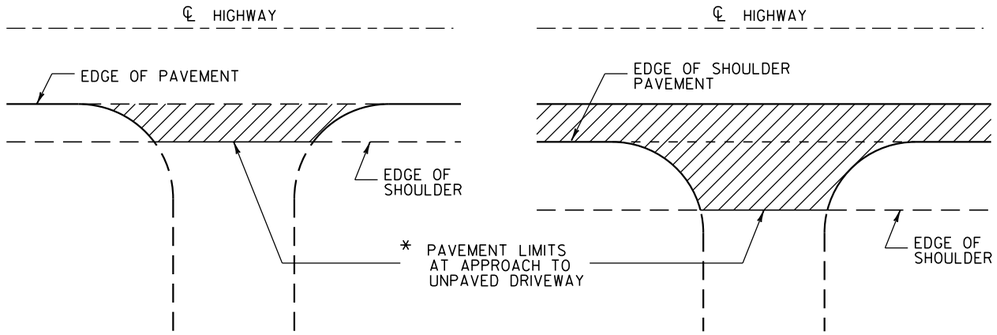


SECTION B-B

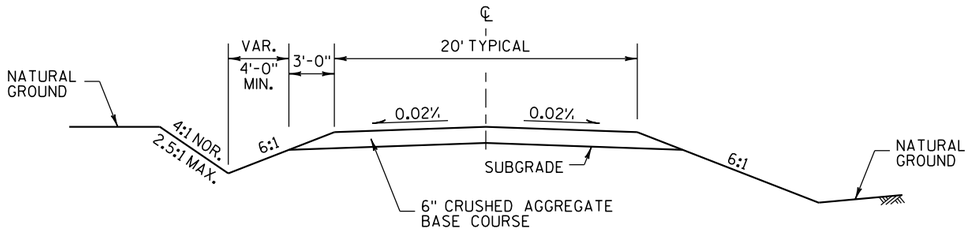
DRIVEWAY DETAIL

PROJECT NO: 4060-05-70	HWY: STH 28	COUNTY: WASHINGTON	CONSTRUCTION DETAILS	SHEET 15	E

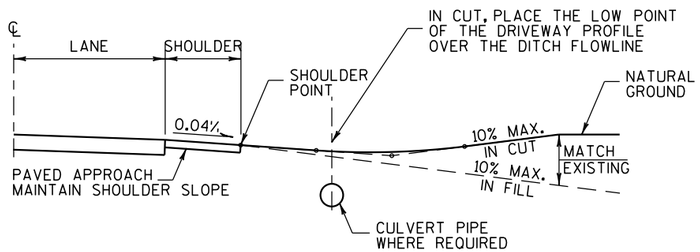
2



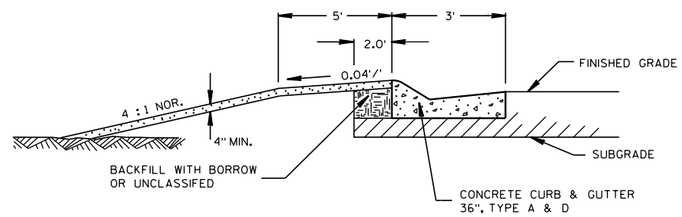
RURAL DRIVEWAY INTERSECTION DETAIL



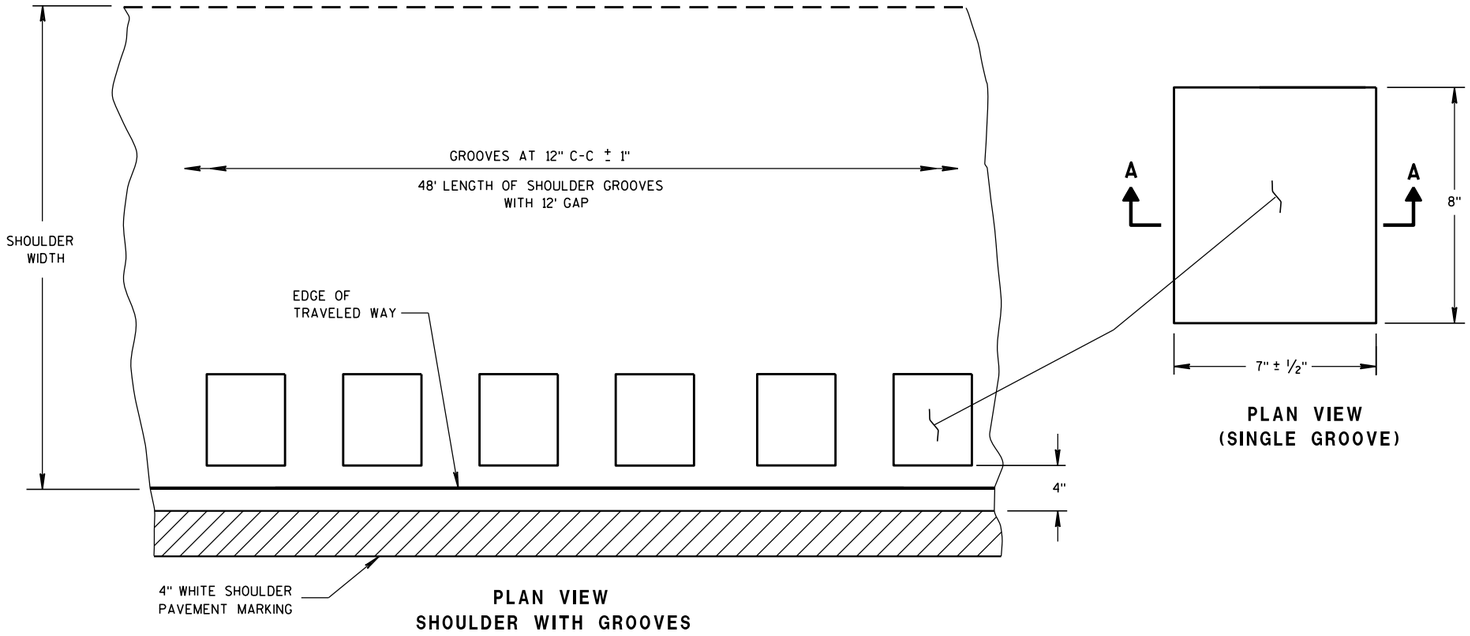
TYPICAL CROSS SECTION FOR PRIVATE DRIVE OR FIELD ENTRANCE



TYPICAL DRIVEWAY PROFILES



BERM DETAIL BEHIND 36" MOUNTABLE CURB & GUTTER



PLAN VIEW
SHOULDER WITH GROOVES

PLAN VIEW
(SINGLE GROOVE)

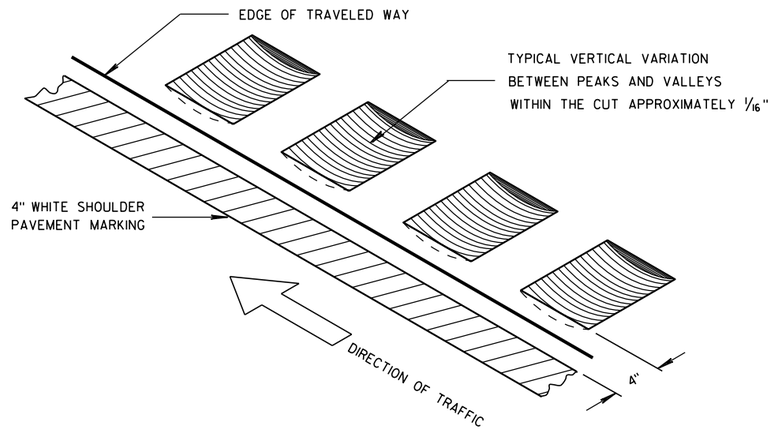
PLACEMENT DETAIL FOR TYPE 1 MILLED RUMBLE STRIP

GENERAL NOTES

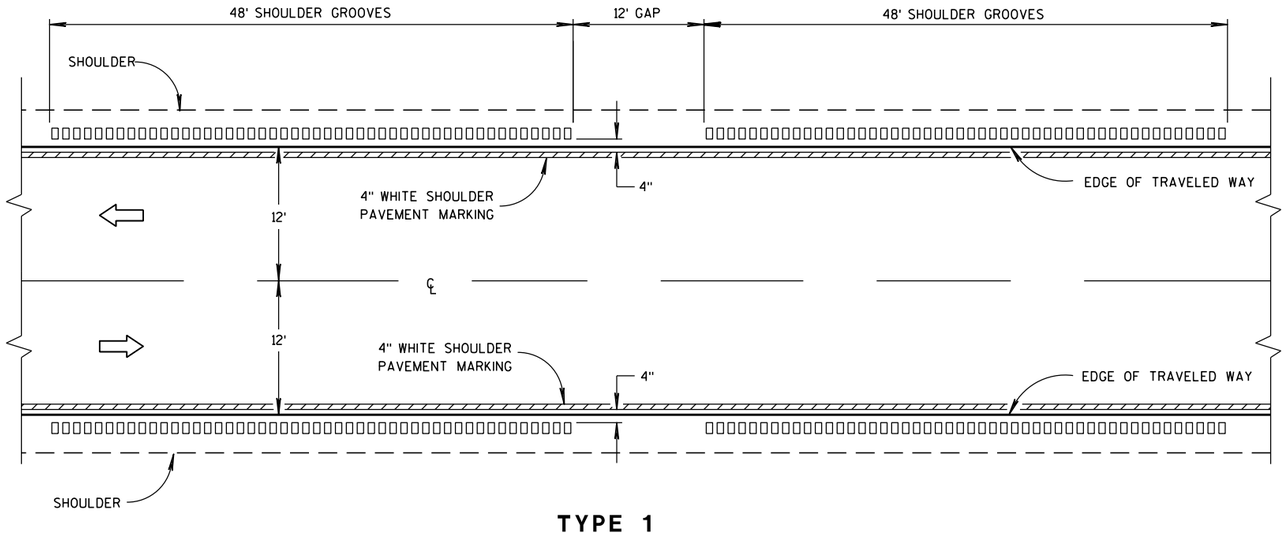
DETAILS OF CONSTRUCTION SHOWN ON THIS DRAWING SHALL CONFORM TO THE PERTINENT REQUIREMENTS OF THE STANDARD SPECIFICATIONS AND APPLICABLE SPECIAL PROVISIONS.

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

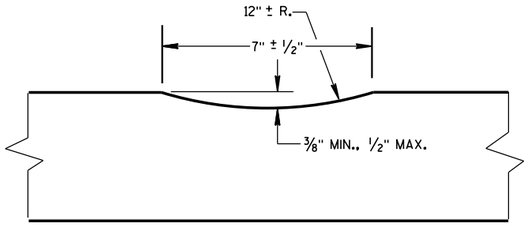
(1) SHOULDER GROOVES MAY BE OMITTED IN AREAS WITH HIGH CONCENTRATIONS OF DRIVEWAYS, WHEN DIRECTED BY THE ENGINEER.



ISOMETRIC



TYPE 1
2-LANE SHOULDER RUMBLE STRIP



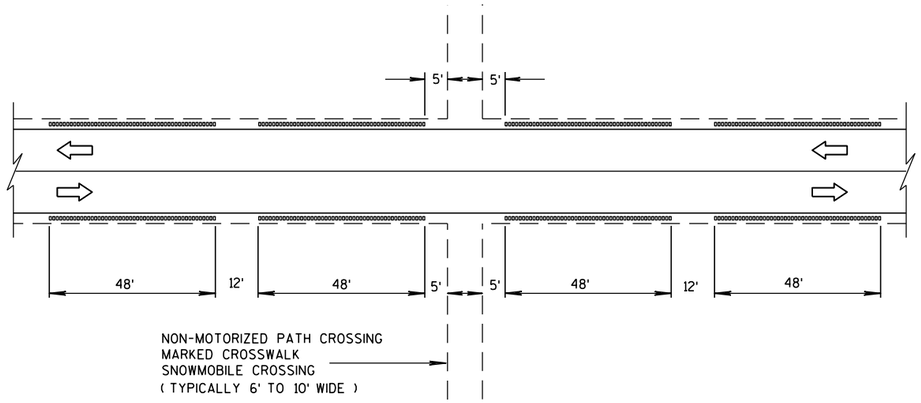
SECTION A-A

2-LANE RURAL
SHOULDER RUMBLE STRIP, MILLING

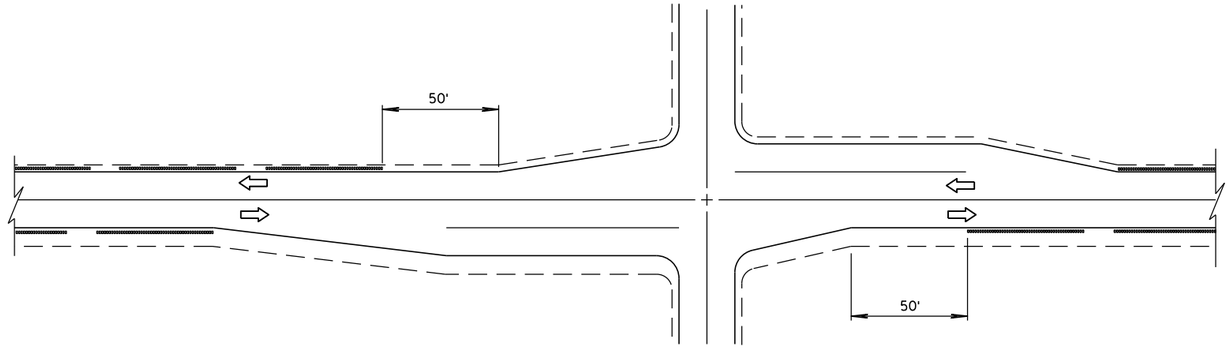
STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

PROJECT NO: 4060-05-70	HWY: STH 28	COUNTY: WASHINGTON	CONSTRUCTION DETAILS	SHEET 17	E

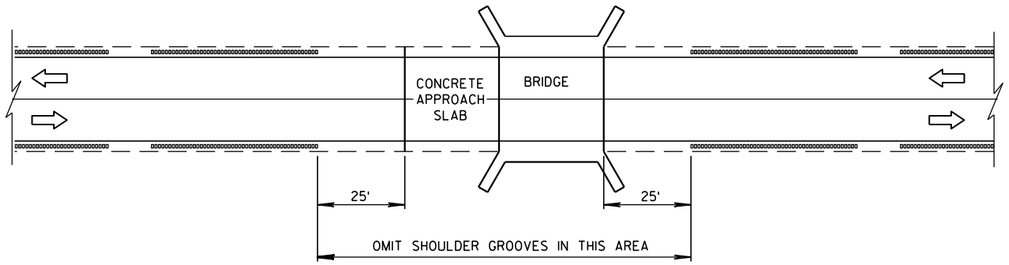
FILE NAME : J:\projects\D2_40600528\021004_cd.dgn PLOT DATE : 22-JUL-2013 07:50 PLOT BY : dotr3h PLOT NAME : PLOT SCALE : 200:1
WISDOT/CADDS SHEET 42



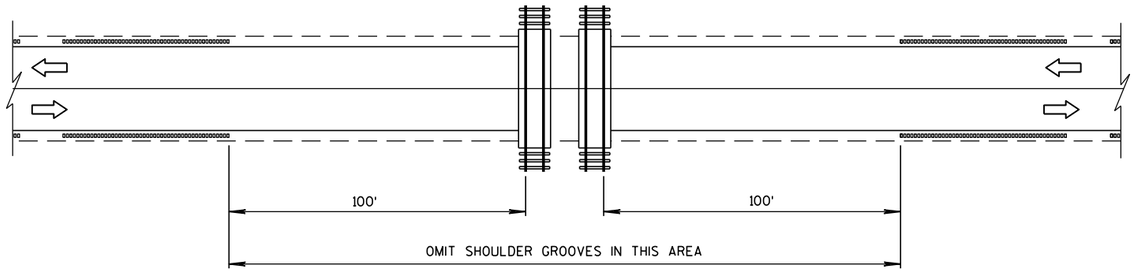
SHOULDER GROOVES AT MISCELLANEOUS CROSSINGS



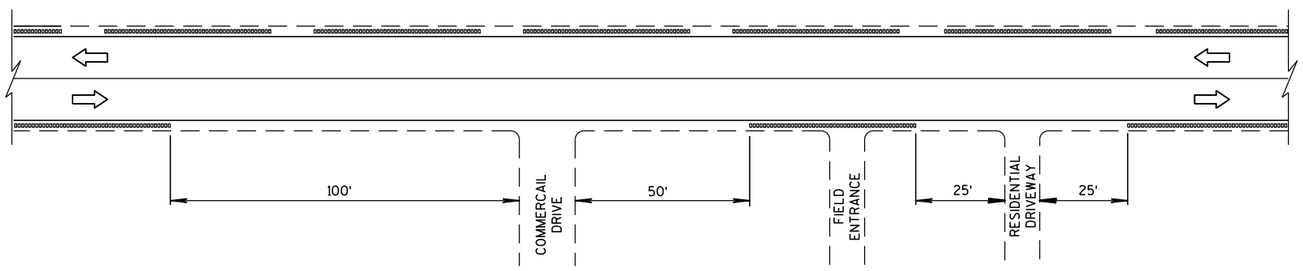
SHOULDER GROOVES AT INTERSECTIONS



SHOULDER GROOVES AT BRIDGES



SHOULDER GROOVES AT RAILROADS



SHOULDER GROOVES AT DRIVEWAYS (1)

2-LANE RURAL
SHOULDER RUMBLE STRIP, MILLING

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

PROJECT NO: 4060-05-70	HWY: STH 28	COUNTY: WASHINGTON	CONSTRUCTION DETAILS	SHEET 18	E

2

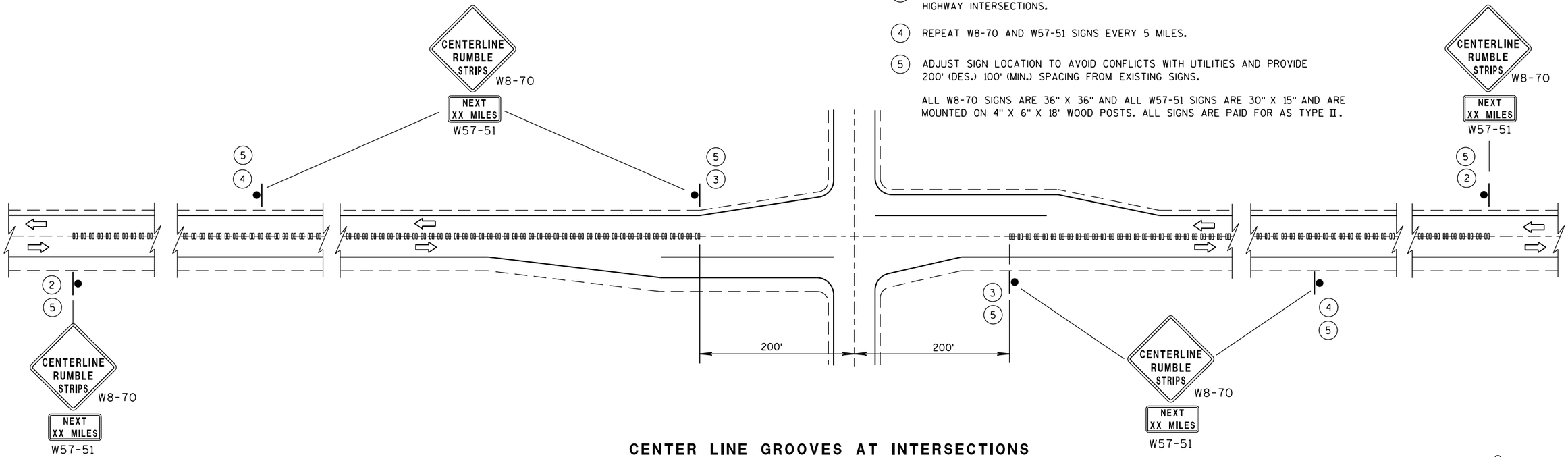
(2) INSTALL W8-70 AND W57-51 SIGNS AT BEGINNING OF CENTERLINE RUMBLE STRIP SEGMENT.

(3) REPEAT W8-70 AND W57-51 SIGNS AFTER STATE TRUNK HIGHWAY AND COUNTY TRUNK HIGHWAY INTERSECTIONS.

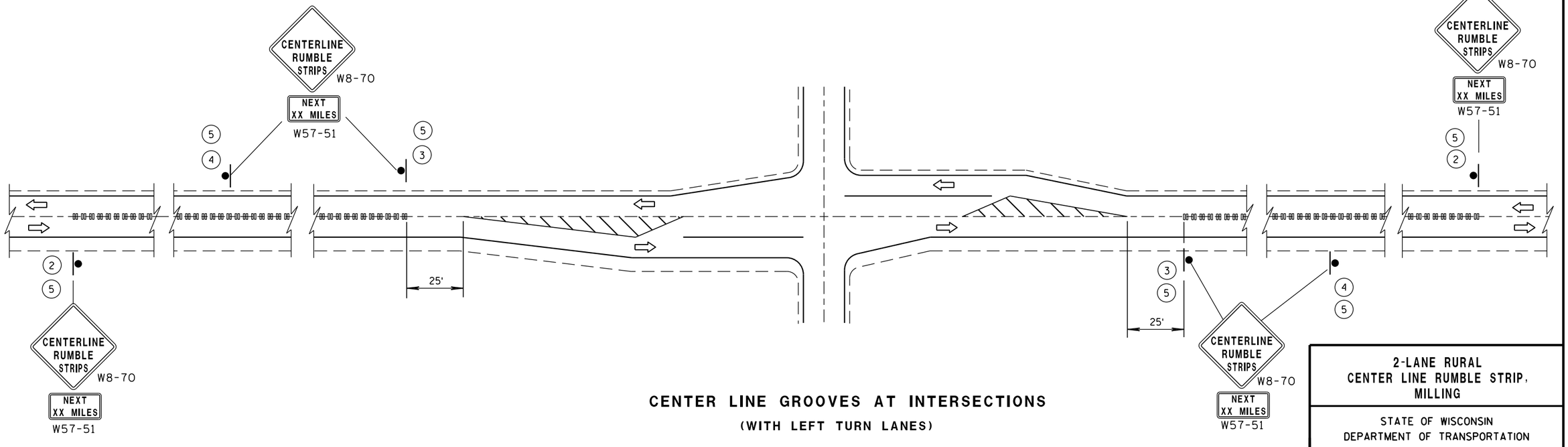
(4) REPEAT W8-70 AND W57-51 SIGNS EVERY 5 MILES.

(5) ADJUST SIGN LOCATION TO AVOID CONFLICTS WITH UTILITIES AND PROVIDE 200' (DES.) 100' (MIN.) SPACING FROM EXISTING SIGNS.

ALL W8-70 SIGNS ARE 36" X 36" AND ALL W57-51 SIGNS ARE 30" X 15" AND ARE MOUNTED ON 4" X 6" X 18' WOOD POSTS. ALL SIGNS ARE PAID FOR AS TYPE II.



CENTER LINE GROOVES AT INTERSECTIONS



CENTER LINE GROOVES AT INTERSECTIONS
(WITH LEFT TURN LANES)

2-LANE RURAL
CENTER LINE RUMBLE STRIP, MILLING

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

PROJECT NO: 4060-05-70	HWY: STH 28	COUNTY: WASHINGTON	CONSTRUCTION DETAILS	SHEET 19	E

2

GENERAL NOTES

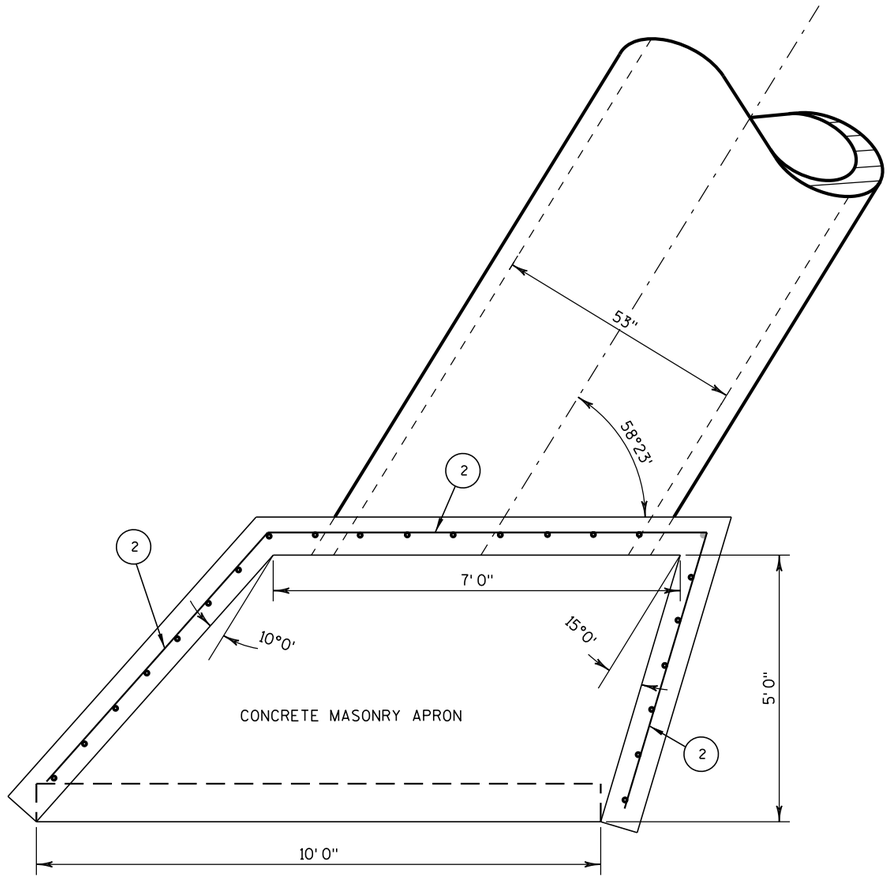
DETAILS OF CONSTRUCTION, MATERIALS AND WORKMANSHIP NOT SHOWN ON THIS DRAWING SHALL CONFORM TO THE PERTINENT REQUIREMENTS OF THE STANDARD SPECIFICATIONS AND THE APPLICABLE SPECIAL PROVISIONS.

FILL SLOPES FLATTER THAN 2 ½:1 SHALL BE WARPED TO MEET THE TOP OF THE WINGWALLS.

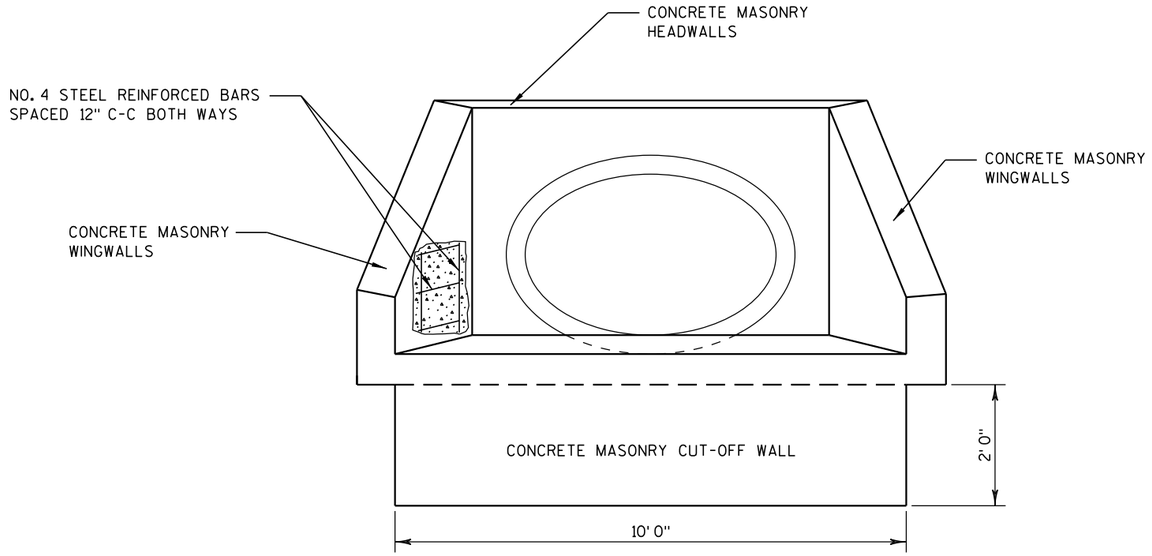
ALL STEEL REINFORCEMENT AND WELDED STEEL WIRE FABRIC SHALL BE EMBEDDED 2 INCHES CLEAR UNLESS OTHERWISE NOTED.

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

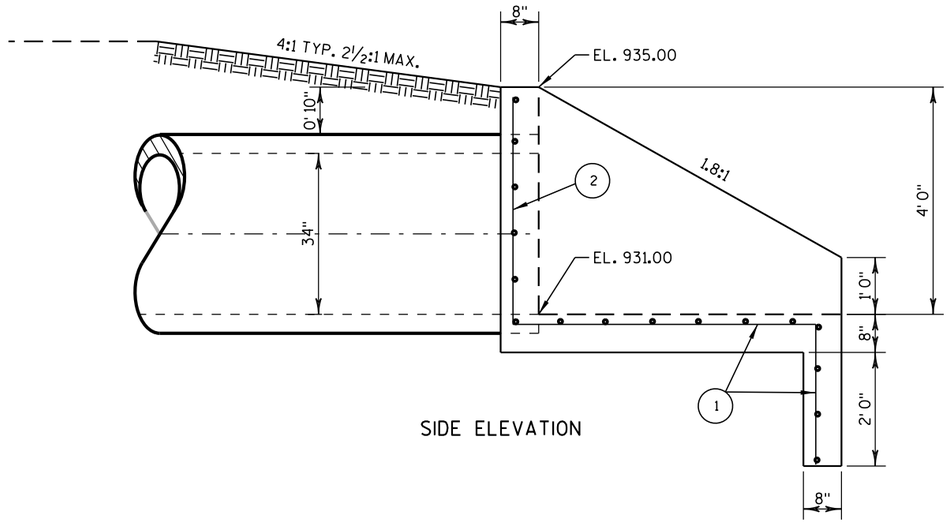
(2) NO. 4 STEEL REINFORCED BARS SPACED 12" C-C BOTH WAYS



PLAN VIEW



END ELEVATION



SIDE ELEVATION

CONCRETE MASONRY ENDWALLS FOR SSPRCHE CLASS-HE III 34X53-INCH

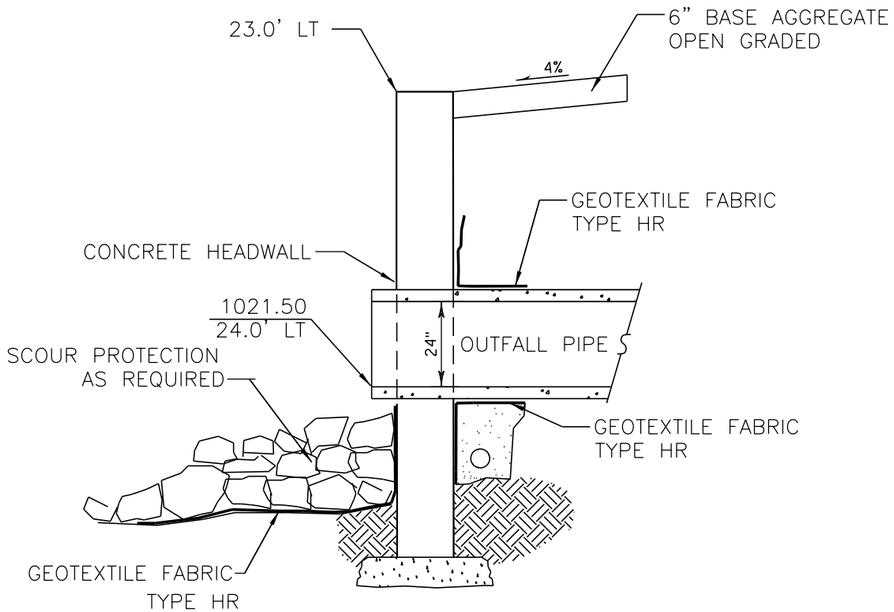
STA. 98+13.10, 49.70' LT

PROJECT NO: 4060-05-70	HWY: STH 28	COUNTY: WASHINGTON	CONSTRUCTION DETAILS	SHEET 20	E

2

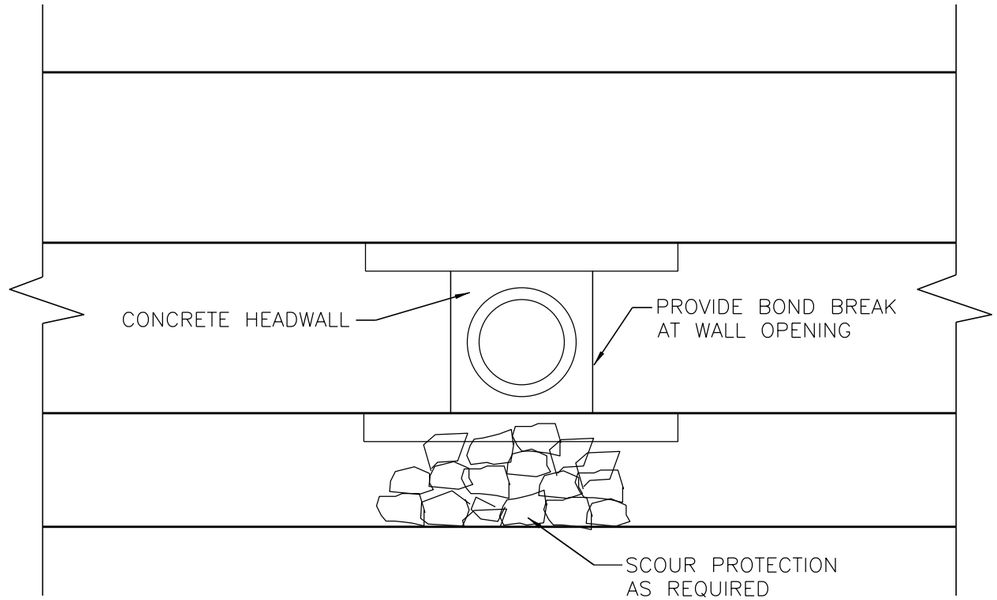
NOTES:

- PLACEMENT OF LINTEL BEAMS SHALL BE CONSISTENT WITH THE PLACEMENT OF OUTFALL PIPE
- INSTALL OUTFALL PIPE PRIOR TO CONSTRUCTION OF WALL ABOVE
- OUTFALL PIPE SHALL EXTEND BEYOND BASE COURSE OF WALL NO LESS THAN 6"
- GEOTEXTILE FABRIC SHALL BE INSTALLED AROUND PIPE OPENING



WALL W/ PIPE PENETRATION

SECTION
SCALE: NONE



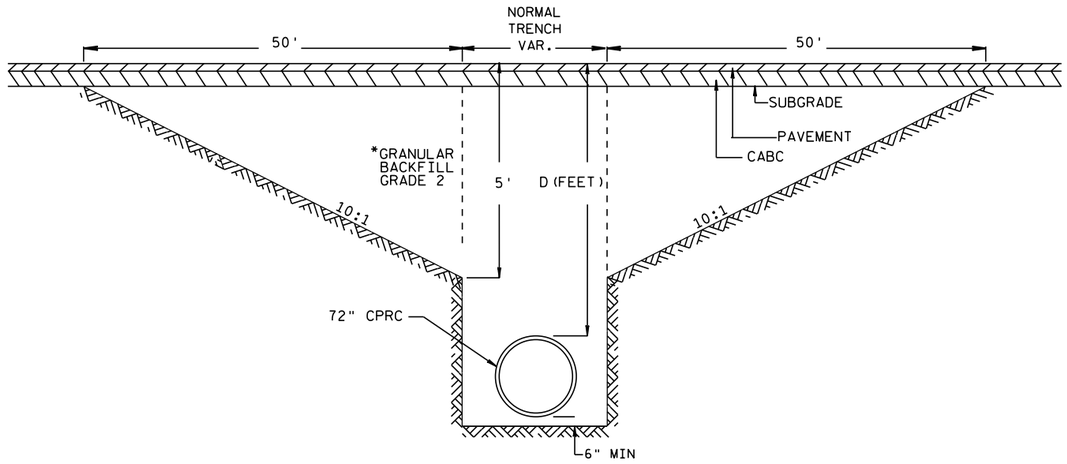
WALL W/ PIPE PENETRATION

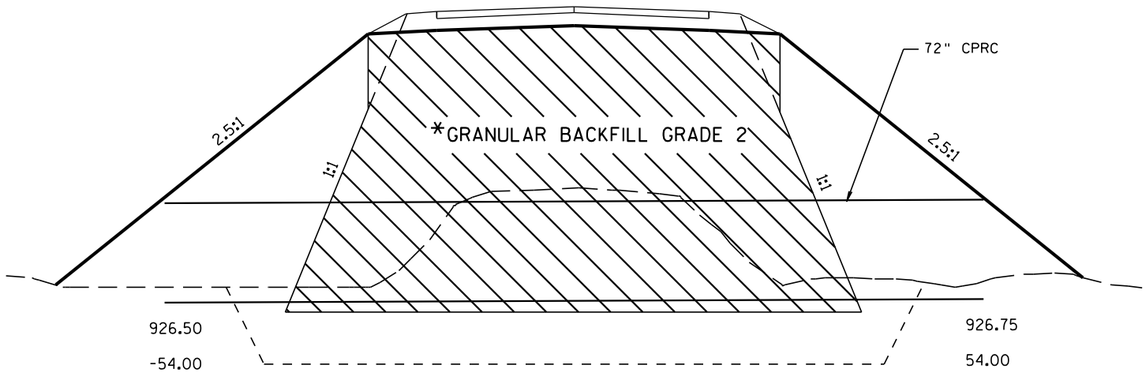
PROFILE
SCALE: NONE

CROSS CULVERT PIPE OUTFALL

STA. 272+00

PROJECT NO: 4060-05-70	HWY: STH 28	COUNTY: WASHINGTON	CONSTRUCTION DETAILS	SHEET 21	E

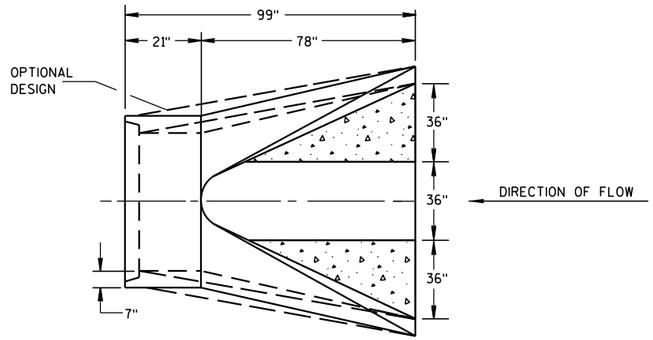




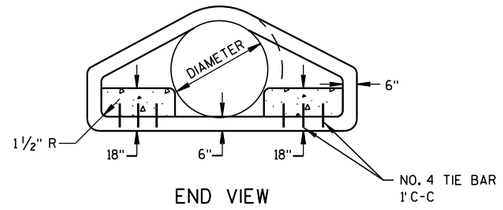
CROSS DRAIN INSTALLATION DETAIL

STA. 350+80

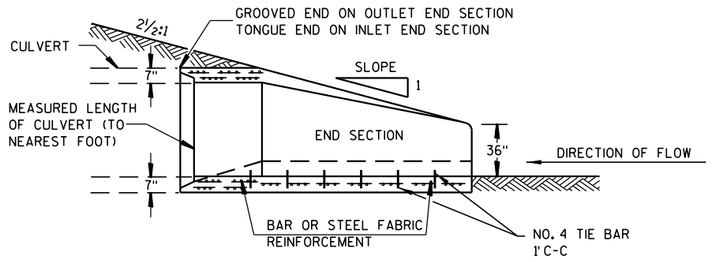
*GRANULAR BACKFILL INCIDENTAL TO CULVERT PIPE



PLAN



END VIEW

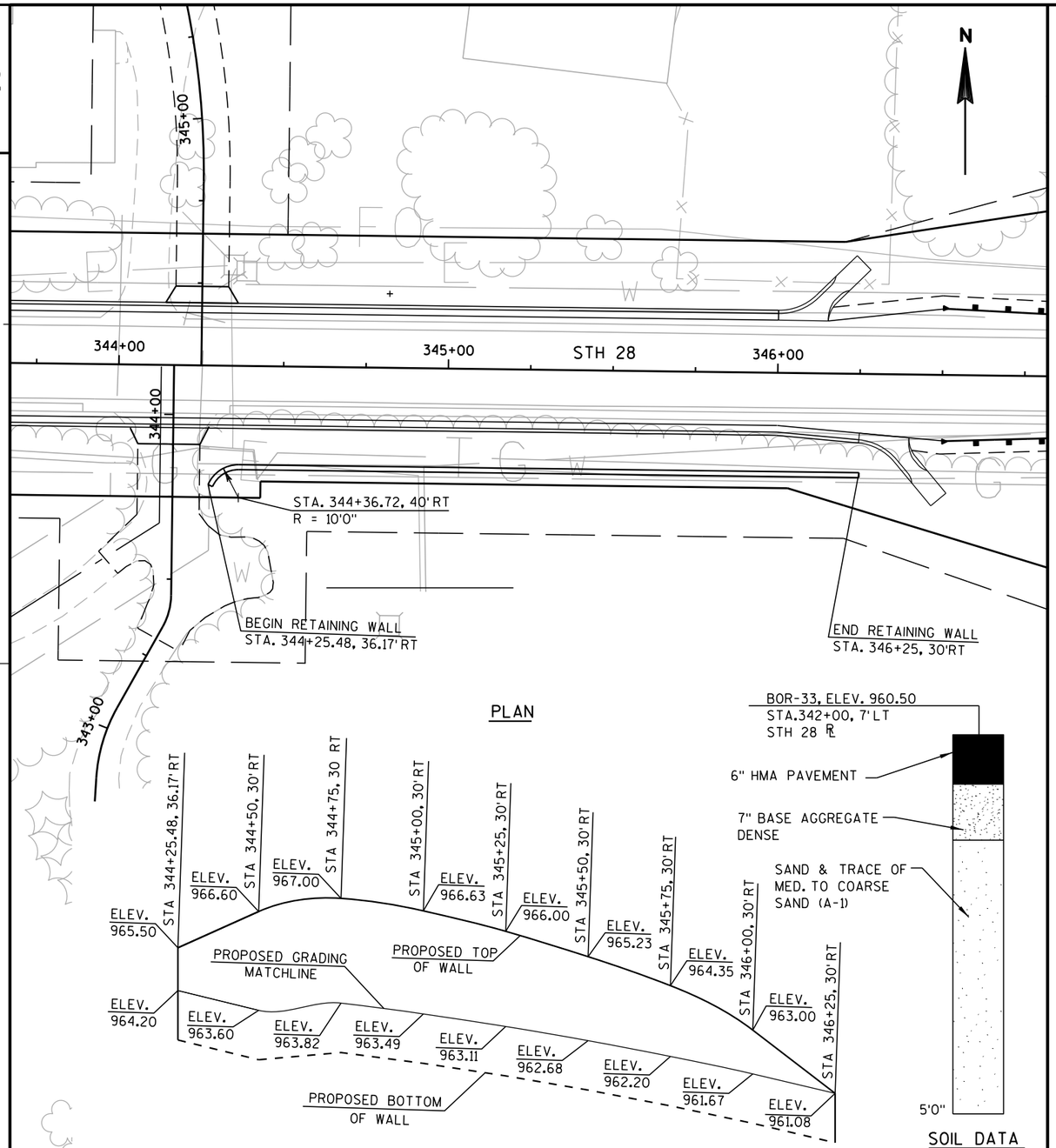


LONGITUDINAL SECTION

APRON ENDWALLS FOR CULVERT PIPE REINFORCED CONCRETE 72-INCH MODIFIED

STA. 350+80, 54' RT

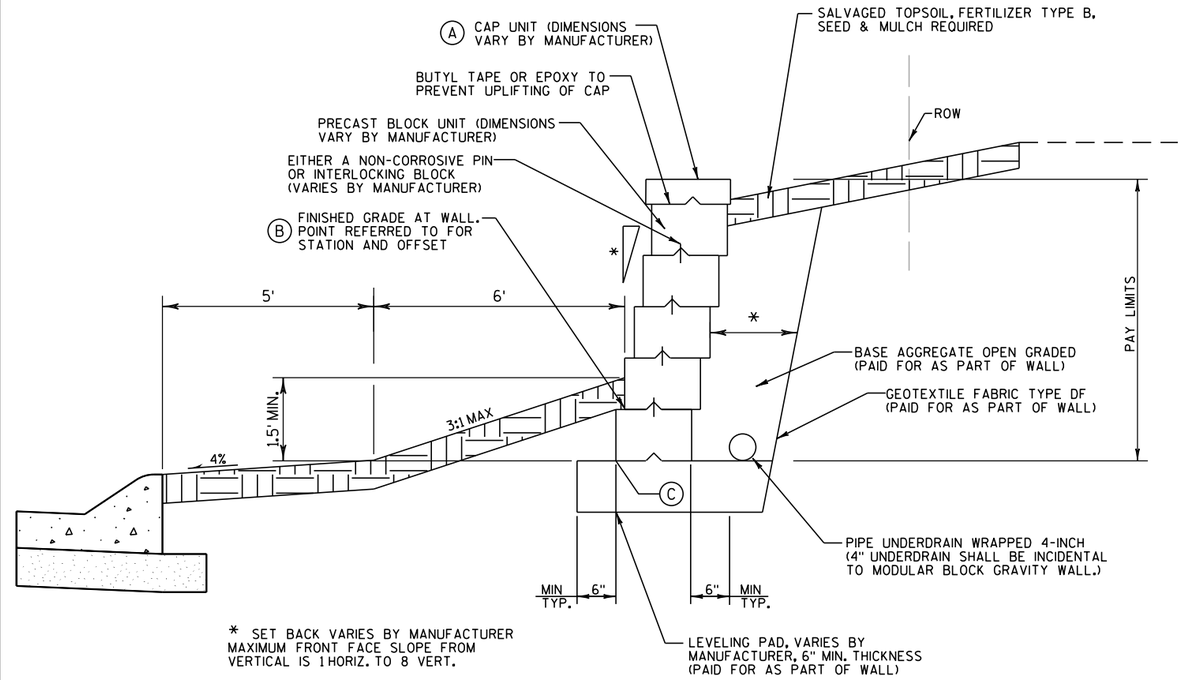
PROJECT NO: 4060-05-70	HWY: STH 28	COUNTY: WASHINGTON	CONSTRUCTION DETAILS	SHEET 22	E



PLAN

ELEVATION

SOIL DATA



* SET BACK VARIES BY MANUFACTURER MAXIMUM FRONT FACE SLOPE FROM VERTICAL IS 1 HORIZ. TO 8 VERT.

TYPICAL RETAINING WALL SECTION - REINFORCED

MODULAR CONCRETE UNIT
N.T.S.

STA. 344+27 TO STA. 346+25, 30' RT

NOTE:
THE CONTRACTOR SHALL PROVIDE COMPLETE DESIGN, PLANS, DETAILS, SPECIFICATIONS AND SHOP DRAWINGS FOR THE RETAINING WALLS IN ACCORDANCE WITH THE SPECIAL PROVISIONS. THE RETAINING WALL MANUFACTURER SHALL PROVIDE TECHNICAL ASSISTANCE TO THE CONTRACTOR DURING CONSTRUCTION. THE COST OF FURNISHING THESE ITEMS SHALL BE INCLUDED IN THE BID ITEM INSERT WALL SYSTEM OR SYSTEMS)".

PLANS, ELEVATIONS AND DETAILS SHOWN ON THESE DRAWINGS ARE INTENDED TO INDICATE WALL LOCATIONS, LENGTHS, HEIGHTS AND DETAILS COMMON TO THE WALL SYSTEM SELECTED. THE CONTRACTOR SHALL VERIFY THAT THE WALL SYSTEM SELECTED WILL CONFORM TO THE REQUIRED ALIGNMENTS AND DETAILS.

THE RETAINING WALL IS TO BE DESIGNED USING THE ELEVATIONS GIVEN ON THIS SHEET.

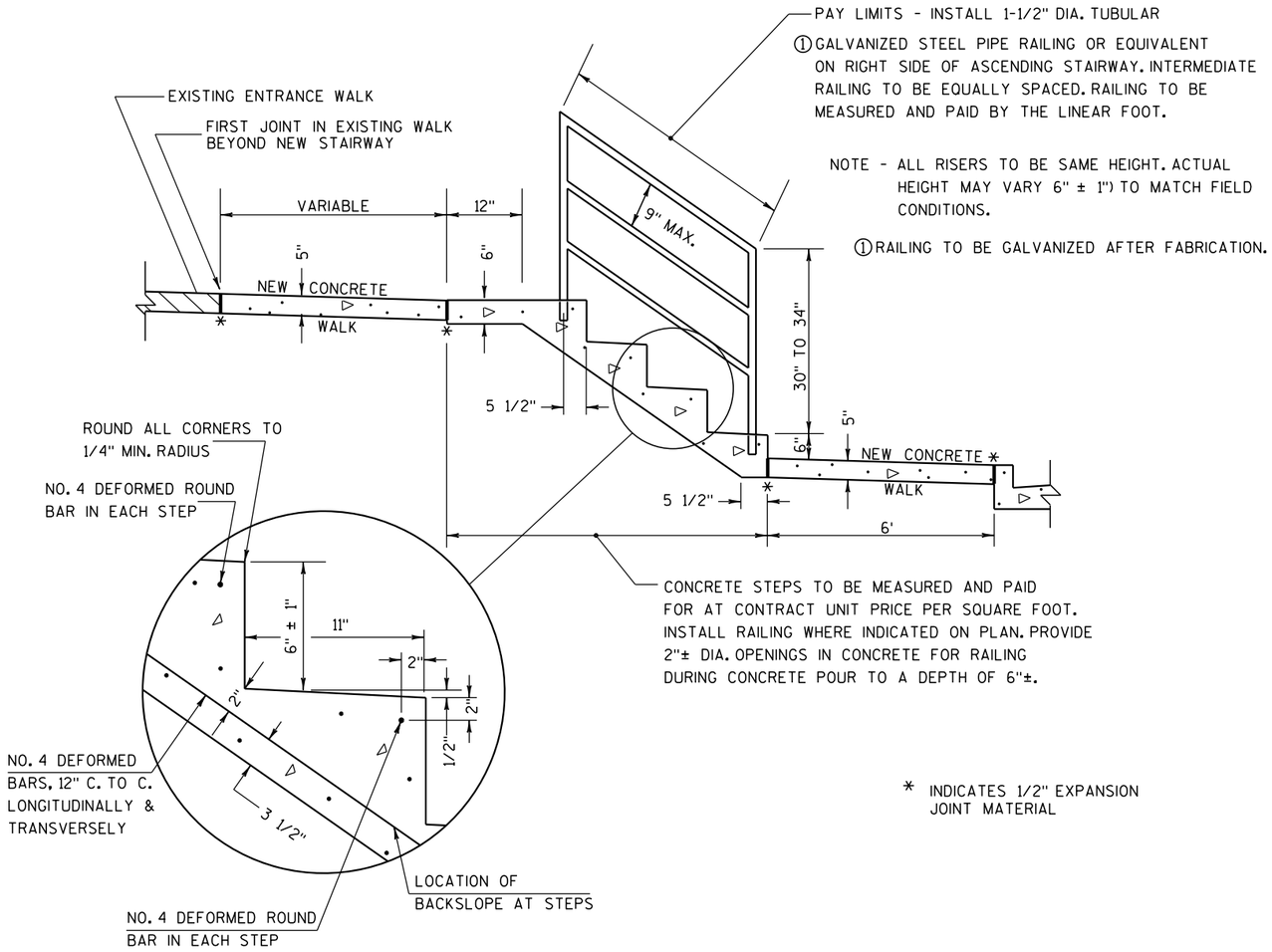
DESIGN FOR RETAINING WALL TO PROVIDE FOR FINISHED GRADE SLOPED BEHIND WALL AS SHOWN.

SEE SPECIAL PROVISIONS FOR AESTHETIC TREATMENT TO WALL.

DESIGN RETAINING WALL FOR A LIVE LOAD SURCHARGE OF (INSERT VALUE).

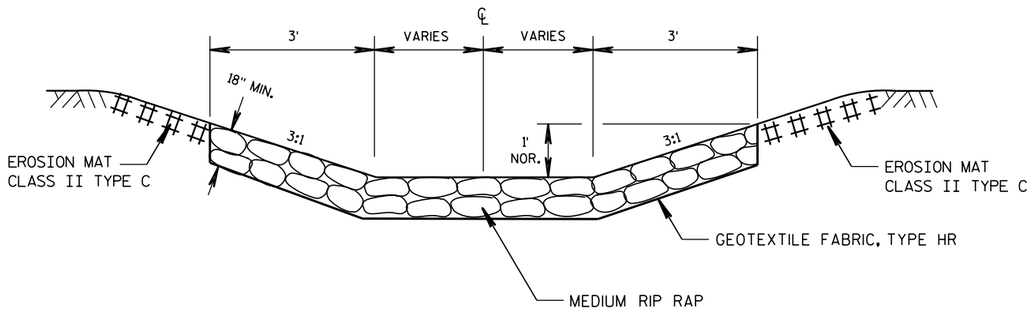
THE MAXIMUM VALUE OF THE ANGLE OF INTERNAL FRICTION OF THE WALL BACKFILL MATERIAL IN THE REINFORCED ZONE SHALL BE ASSUMED TO BE 30° WITHOUT CERTIFIED TEST VALUES.

2



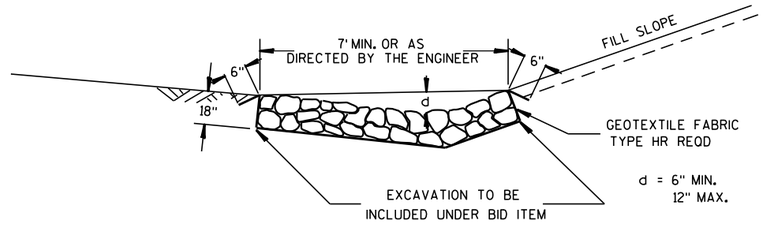
CONCRETE STEPS DETAIL

STH 28
STA. 263+78, 25'LT



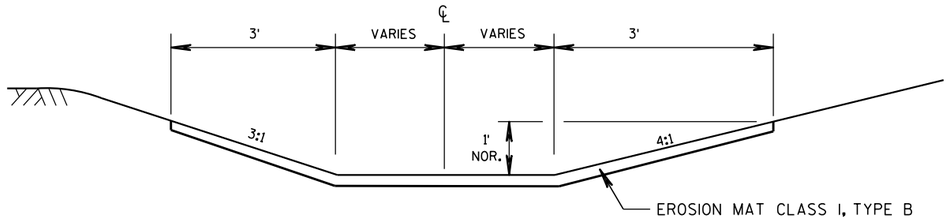
DETAIL FOR SPECIAL DITCH WITH MEDIUM
RIPRAP AND GEOTEXTILE FABRIC

STA. 96+00, 44'LT TO STA. 96+72, 154'LT
STA. 97+60, 50'LT TO STA. 98+10, 50'LT



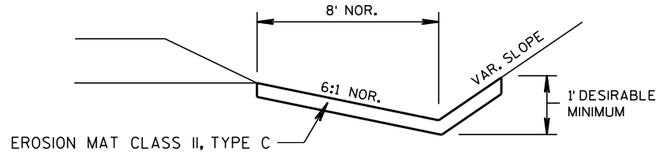
DETAIL FOR MEDIUM RANDOM RIPRAP IN DITCHES

STA. 346+32 TO 347+00, LT
STA. 346+30 TO 347+12, RT
STA. 352+05 TO 353+25, RT



DETAIL FOR SPECIAL DITCH WITH
EROSION MAT

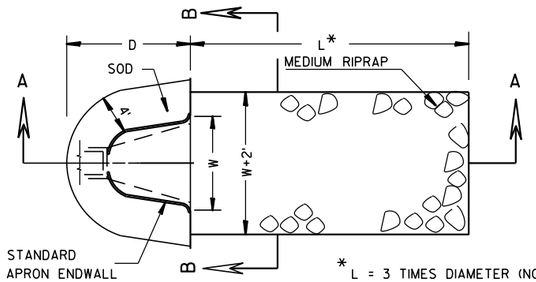
STA. 237+00 TO 245+65, LT



EROSION MAT DETAIL FOR DITCHES

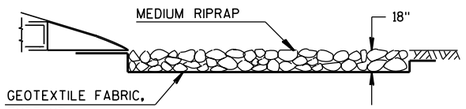
STA. 131+75 TO 132+80, LT
STA. 137+70 TO 138+50, RT
STA. 247+00 TO 248+50, RT
STA. 251+00 TO 253+00, RT
STA. 255+35 TO 258+10, LT
STA. 257+00 TO 261+30, RT
STA. 270+25 TO 271+50, RT
STA. 278+00 TO 283+00, RT
STA. 279+00 TO 281+50, LT
STA. 378+40 TO 383+00, LT

FILE NAME : J:\projects\D2_40600528\021004_cd.dgn PLOT DATE : 22-JUL-2013 07:50 PLOT BY : dotr3h PLOT NAME : PLOT SCALE : 200:1
WISDOT/CADDS SHEET 42

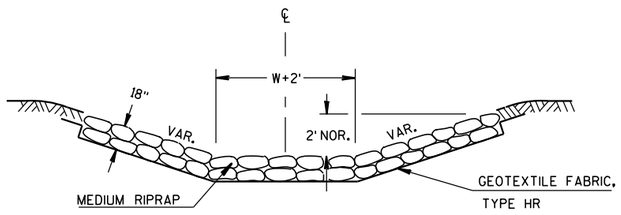


* L = 3 TIMES DIAMETER (NOR.) OR 10' MIN. OR AS DIRECTED BY THE ENGINEER

NOTE: PLACE GEOTEXTILE FABRIC ½D UNDER ENDWALL

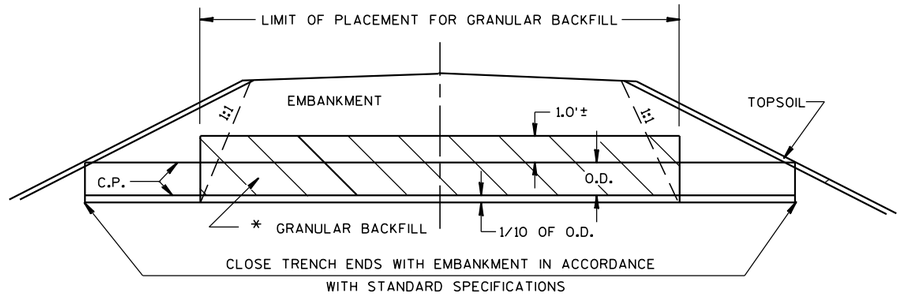


SECTION A-A



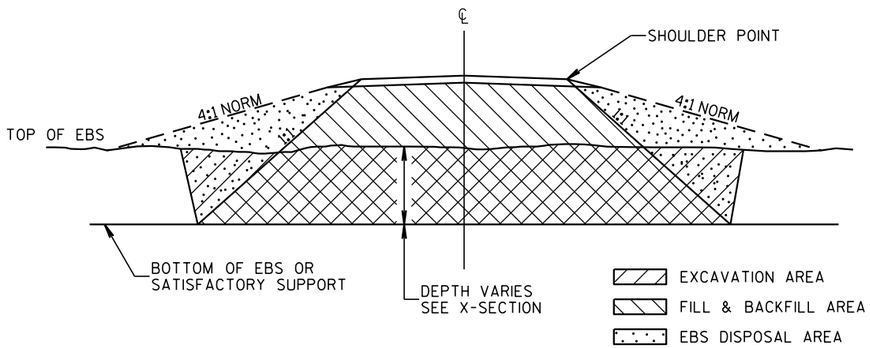
SECTION B-B

MEDIUM RIPRAP AND GEOTEXTILE FABRIC
DETAIL AT APRON ENDWALLS



CULVERT BACKFILL DETAIL

* GRANULAR BACKFILL INCIDENTAL TO CULVERT PIPE

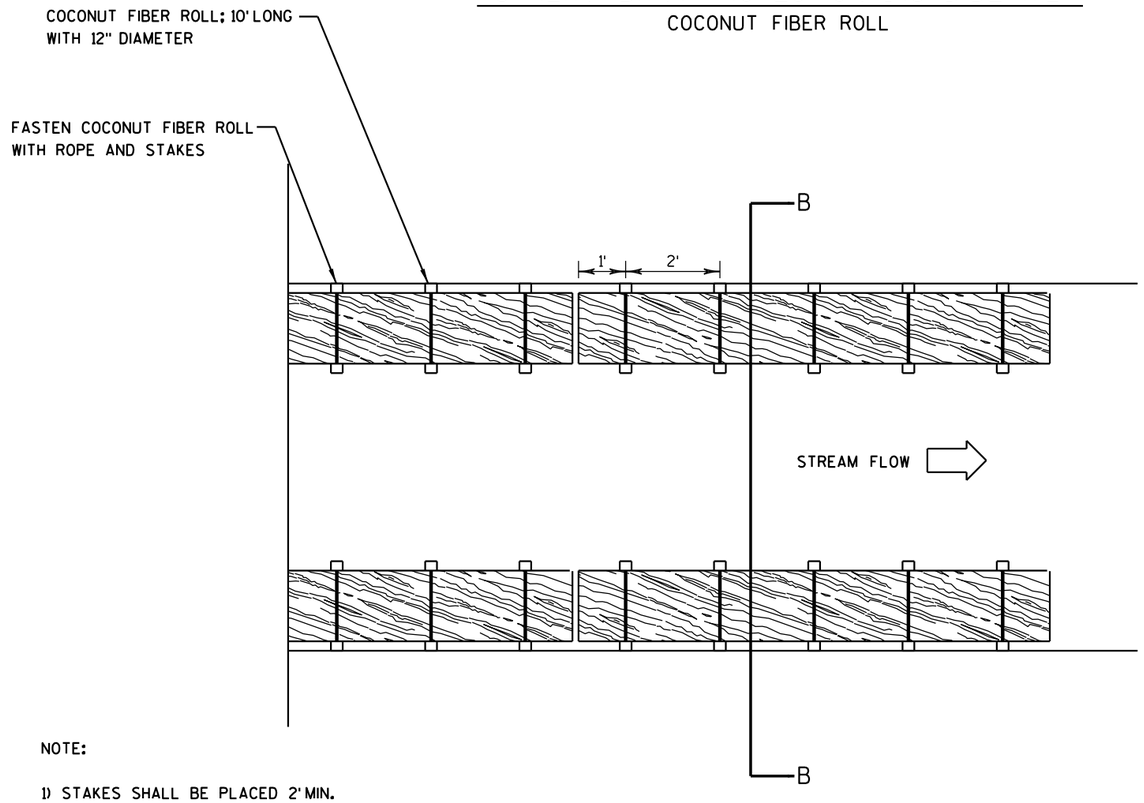


TYPICAL EBS EXCAVATION SECTION

2

STREAM BANK PROTECTION 1 (SP1) DETAIL

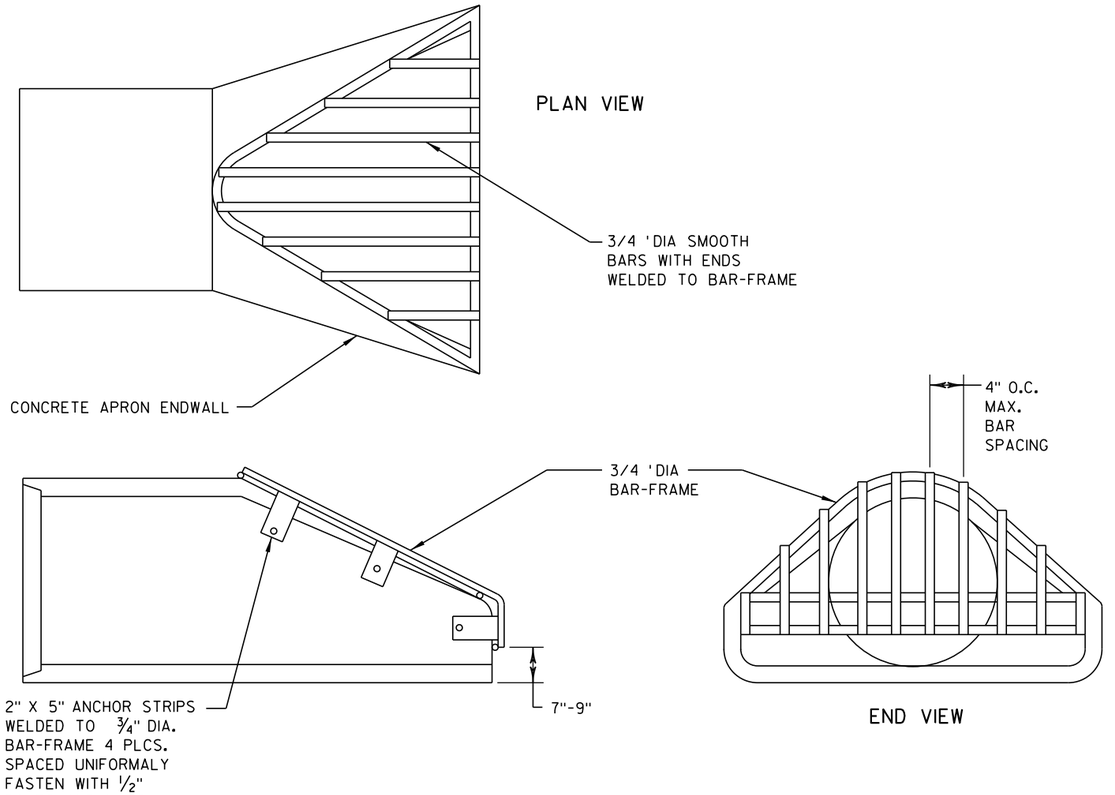
COCONUT FIBER ROLL



NOTE:

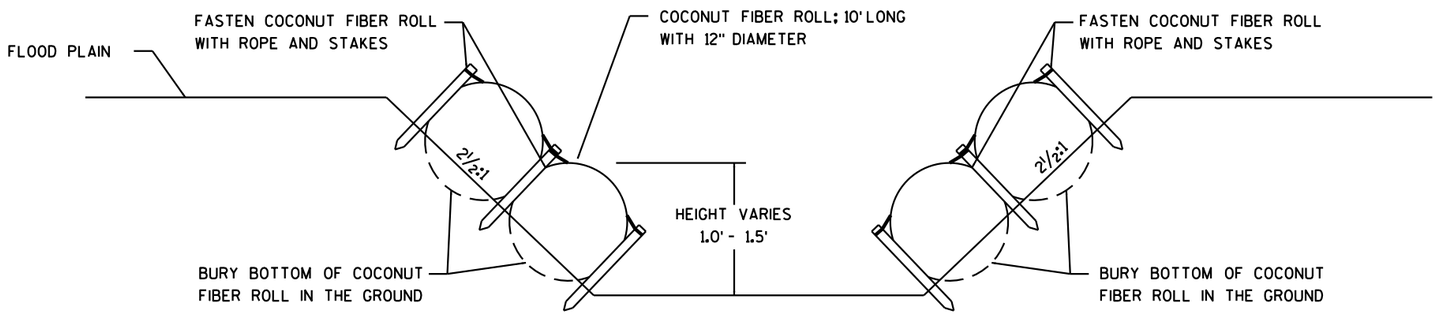
1) STAKES SHALL BE PLACED 2' MIN.
INTO THE GROUND

PLAN VIEW



PIPE GRATE DETAIL

N.T.S.

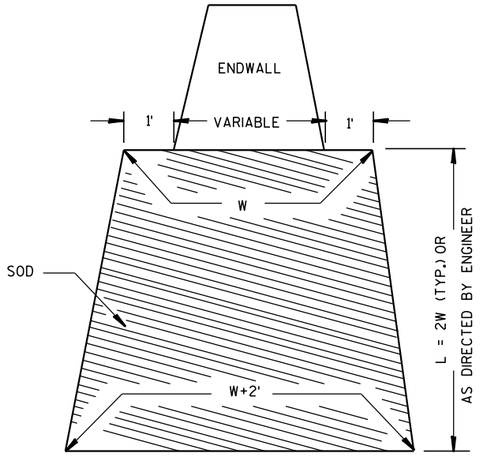


SECTION B-B

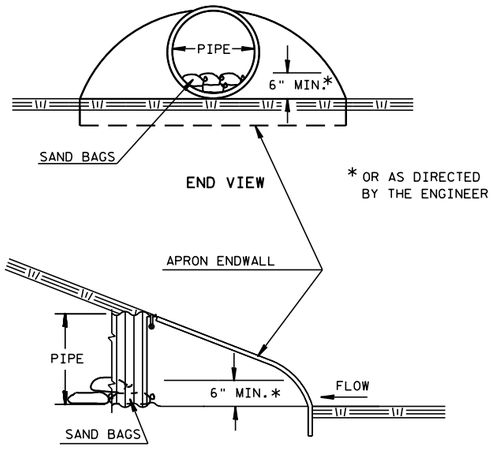
NOTE:

1) STAKES SHALL BE PLACED 2' MIN.
INTO THE GROUND

PROJECT NO: 4060-05-70	HWY: STH 28	COUNTY: WASHINGTON	CONSTRUCTION DETAILS	SHEET 27	E



SOD TREATMENT AT CULVERTS



CULVERT PIPE DITCH CHECK

(SIZE TO BE DETERMINED IN FIELD AS INDICATED BELOW:)

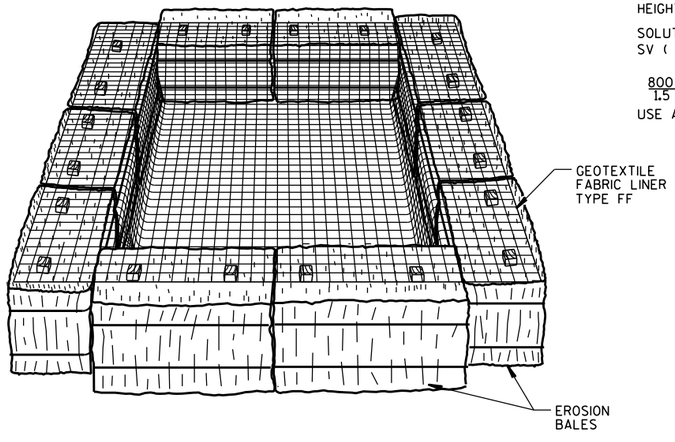
STORAGE VOLUME (C.F.) = 16 X GPM (PUMP RATE)

EXAMPLE:
CONTRACTOR INDICATES PUMP CAPABLE OF 50 GPM
HEIGHT OF BALES = 1.5 FT.

SOLUTION:
SV (C.F.) = 16 X 50
SV = 800 C.F.

$\frac{800 \text{ C.F.}}{1.5 \text{ FT.}}$ = 533 S.F.

USE A 20 FT. X 27 FT. BASIN

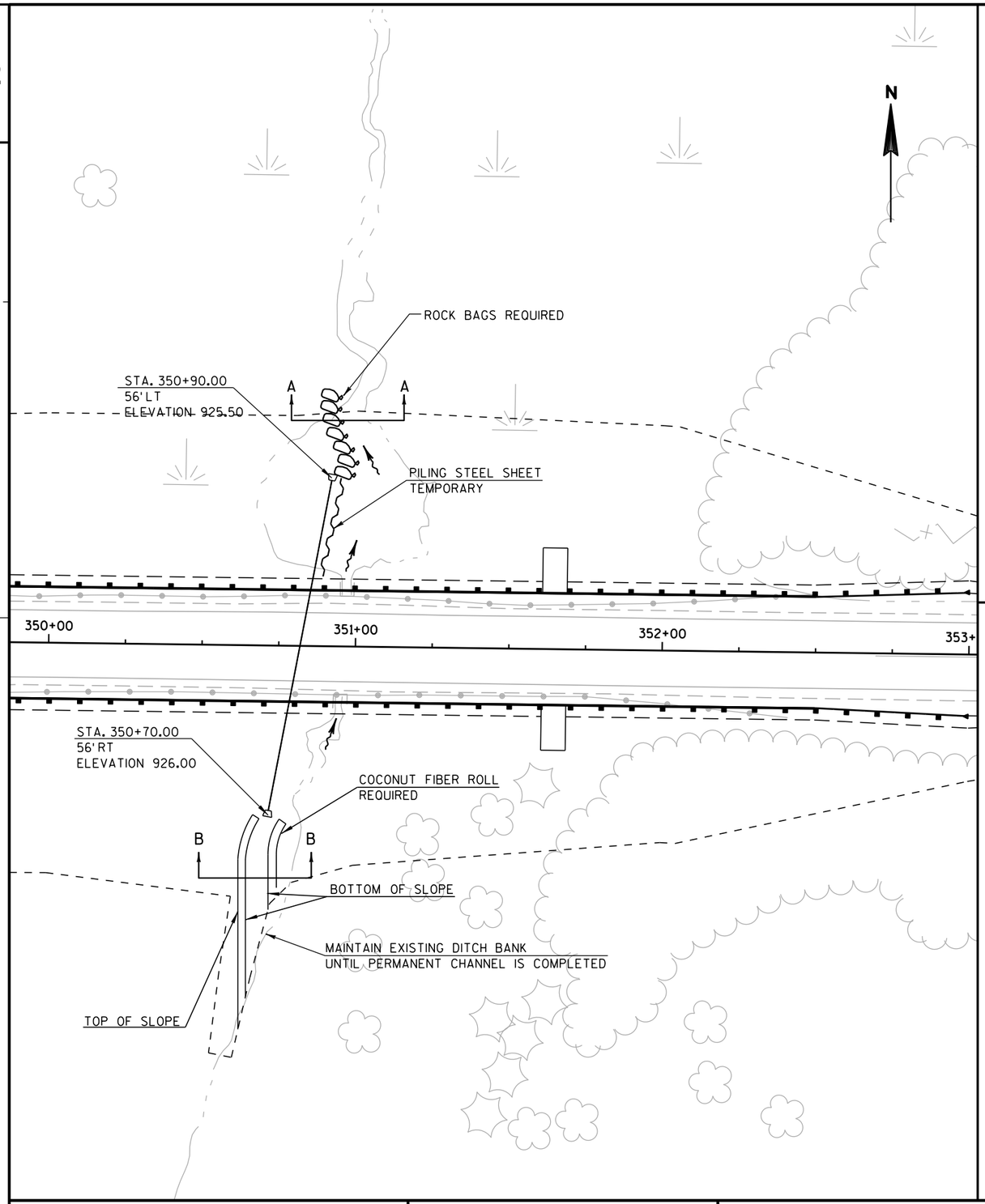


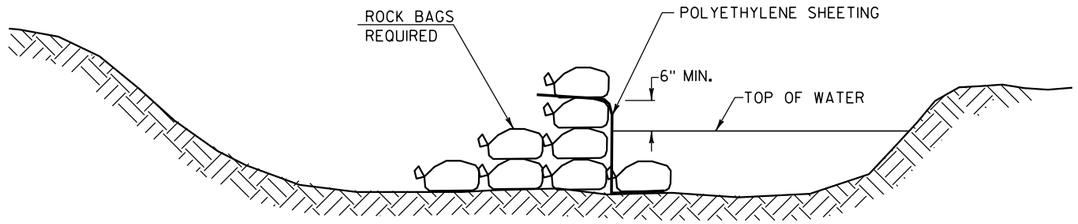
TEMPORARY SETTLING BASIN

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											

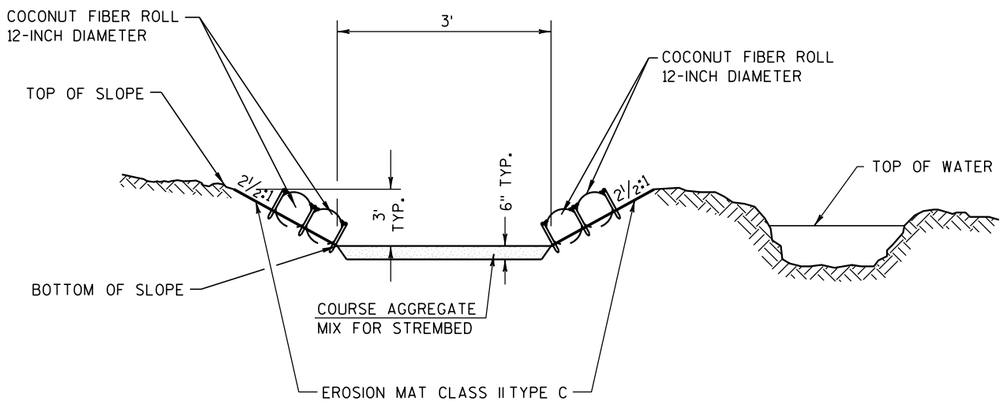
TOTAL PROJECT AREA = ACRES
TOTAL AREA EXPECTED TO BE DISTURBED BY CONSTRUCTION ACTIVITIES = 46.6 ACRES



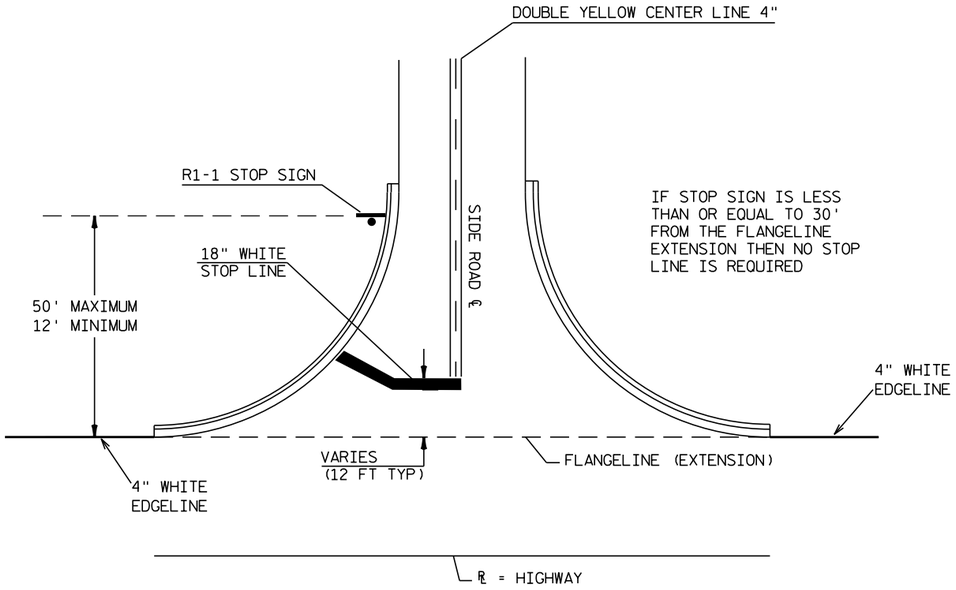


ROCK BAG STA. 350+95, 75' LT
(TO STOP BACKWASH INTO WORK AREA)

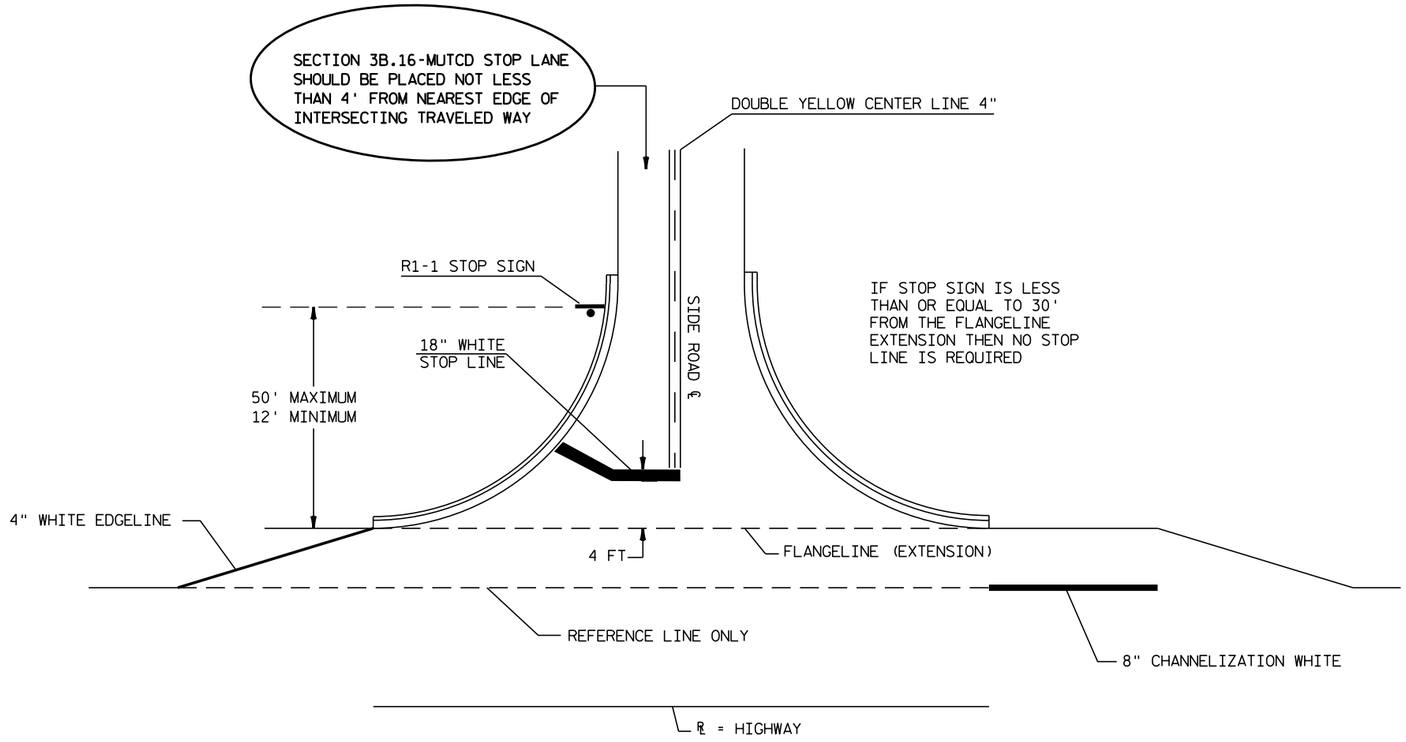
SECTION A-A



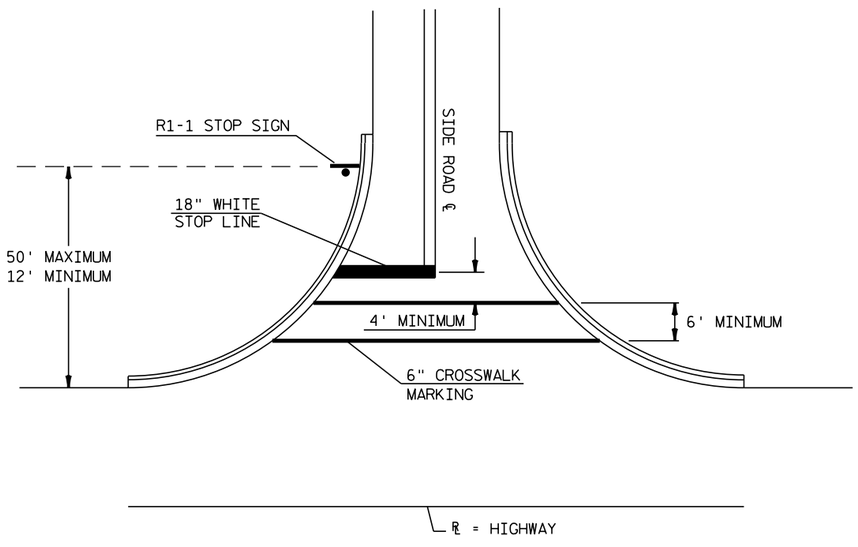
TYIPCAL SECTION OF PERMANENT CHANNEL
SECTION B-B



TYPICAL PAVEMENT MARKING FOR SIDEROADS



TYPICAL PAVEMENT MARKING FOR SIDEROADS WITH RIGHT TURN LANE



TYPICAL PAVEMENT MARKING FOR SIDEROADS WITH CROSSWALK MARKING

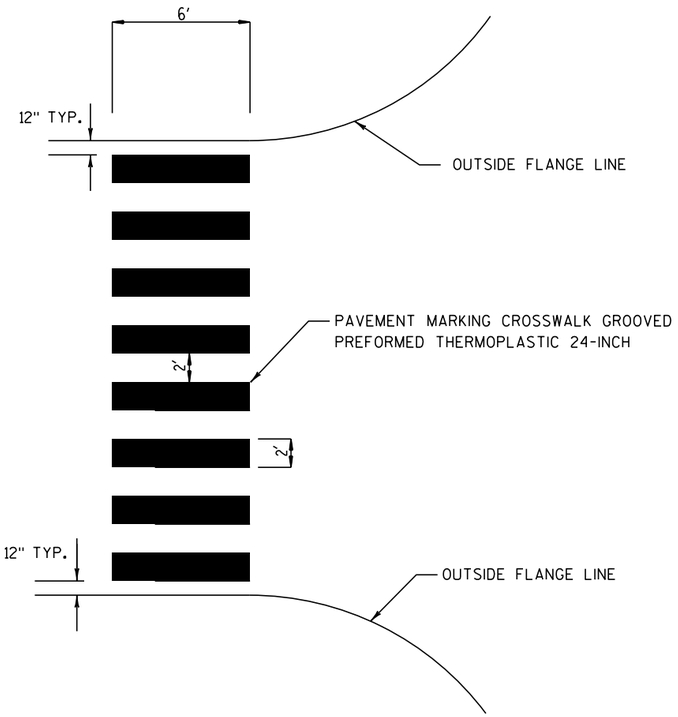
NOTES:

18-INCH STOP LINES MAY BE DELETED OR ADDED BY THE PROJECT ENGINEER BASED ON VISIBILITY AND SIGHT LINES.

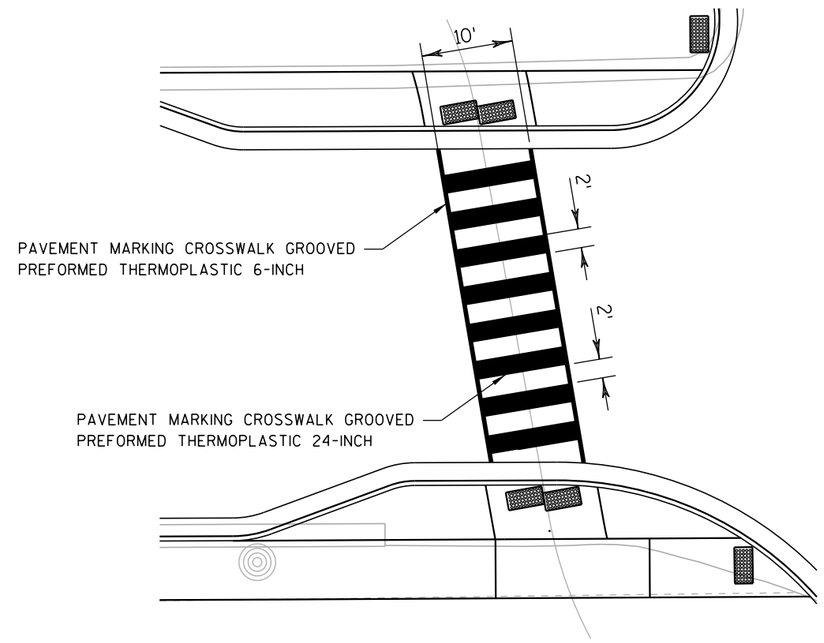
STOP LINES REQUIRED WHERE:

- CROSSWALK MARKINGS EXIST OR BEING PROVIDED
- LARGE RADII
- OFFSET LEFT TURNS WHERE STOP BAR FOR LEFT TURN IS SET BACK FROM THRU MOVEMENT.

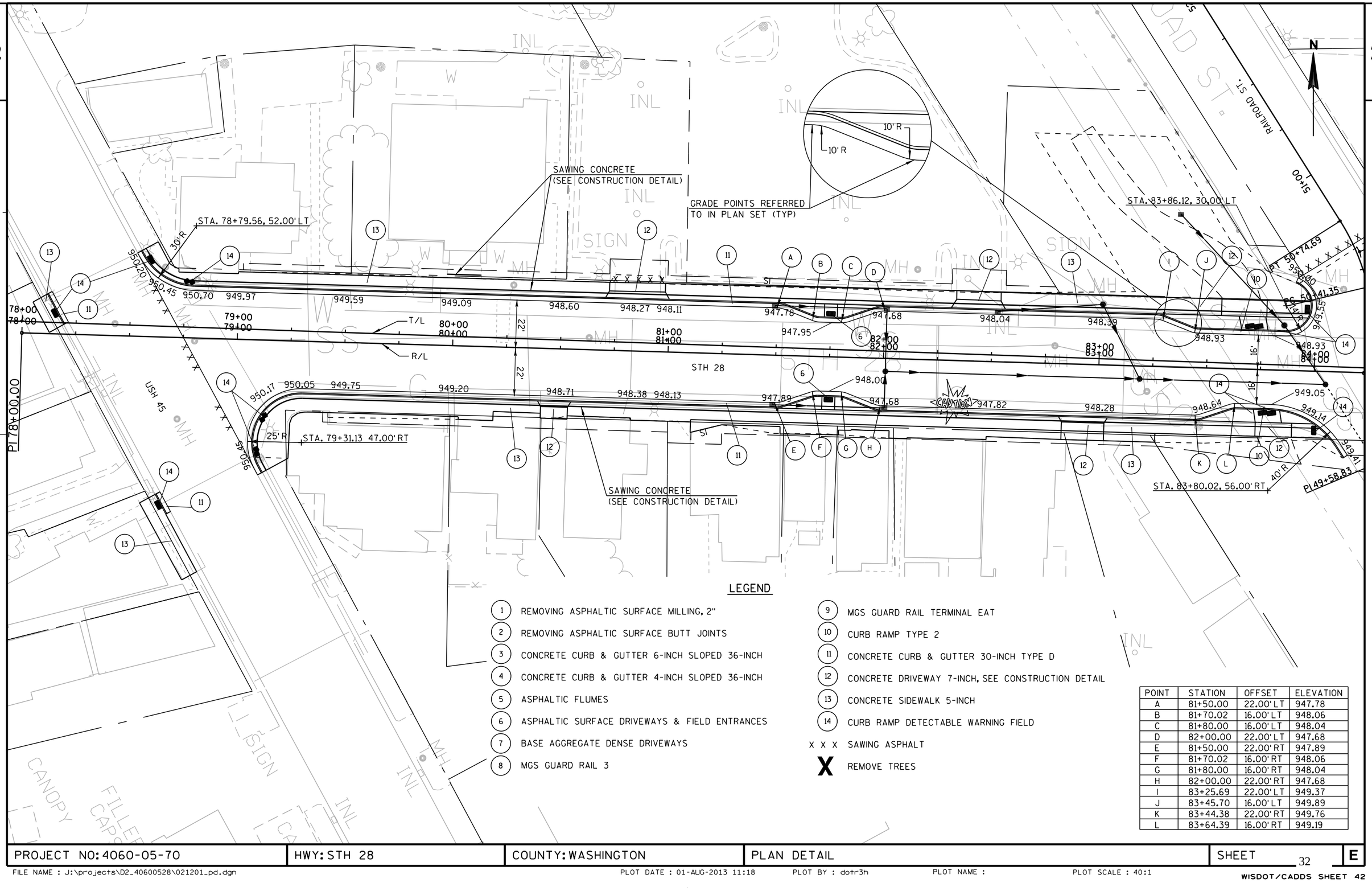
2



TYPICAL CROSSWALK AT SOME INTERSECTIONS
AND MID-BLOCK CROSSINGS



CROSSWALK AT
EISENBAHN STATE TRAIL



LEGEND

1. REMOVING ASPHALTIC SURFACE MILLING, 2"
2. REMOVING ASPHALTIC SURFACE BUTT JOINTS
3. CONCRETE CURB & GUTTER 6-INCH SLOPED 36-INCH
4. CONCRETE CURB & GUTTER 4-INCH SLOPED 36-INCH
5. ASPHALTIC FLUMES
6. ASPHALTIC SURFACE DRIVEWAYS & FIELD ENTRANCES
7. BASE AGGREGATE DENSE DRIVEWAYS
8. MGS GUARD RAIL 3
9. MGS GUARD RAIL TERMINAL EAT
10. CURB RAMP TYPE 2
11. CONCRETE CURB & GUTTER 30-INCH TYPE D
12. CONCRETE DRIVEWAY 7-INCH, SEE CONSTRUCTION DETAIL
13. CONCRETE SIDEWALK 5-INCH
14. CURB RAMP DETECTABLE WARNING FIELD

X X X SAWING ASPHALT

X REMOVE TREES

POINT	STATION	OFFSET	ELEVATION
A	81+50.00	22.00'LT	947.78
B	81+70.02	16.00'LT	948.06
C	81+80.00	16.00'LT	948.04
D	82+00.00	22.00'LT	947.68
E	81+50.00	22.00'RT	947.89
F	81+70.02	16.00'RT	948.06
G	81+80.00	16.00'RT	948.04
H	82+00.00	22.00'RT	947.68
I	83+25.69	22.00'LT	949.37
J	83+45.70	16.00'LT	949.89
K	83+44.38	22.00'RT	949.76
L	83+64.39	16.00'RT	949.19

PROJECT NO: 4060-05-70	HWY: STH 28	COUNTY: WASHINGTON	PLAN DETAIL	SHEET 32	E

2

N

STA. 84+34.31 STH 38 =
STA. 50+00.19 RAILROAD ST.

STA. 84+75.48, 46.00' LT

SAWING CONCRETE
(SEE CONSTRUCTION DETAIL)

STA. 84+65.32, 36.00' RT

SAWING CONCRETE
(SEE CONSTRUCTION DETAIL)

STA. 84+23.01 STH 38 =
STA. 49.99.99 RAILROAD ST.

RAILROAD ST.

STH 28

T/L

R/L

CAUTION

949.75 949.55 949.19 949.01 948.93 949.05 949.14 949.41 949.00

948.69 948.77 948.58 948.34 948.25 948.18 948.03 947.88 947.78 948.04 947.93 947.62 947.57 947.50 947.45 947.67

948.90 948.85 948.64 948.74 948.58 948.34 948.36 948.18 948.03 947.88 947.78 947.90 947.93 947.62 947.57 947.50 947.38 947.34

85+00 86+00 87+00 88+00 89+00 90+00

16' 22' 18' 14' 19' 13' 32'

LEGEND

1. REMOVING ASPHALTIC SURFACE MILLING, 2"
2. REMOVING ASPHALTIC SURFACE BUTT JOINTS
3. CONCRETE CURB & GUTTER 6-INCH SLOPED 36-INCH
4. CONCRETE CURB & GUTTER 4-INCH SLOPED 36-INCH
5. ASPHALTIC FLUMES
6. ASPHALTIC SURFACE DRIVEWAYS & FIELD ENTRANCES
7. BASE AGGREGATE DENSE DRIVEWAYS
8. MGS GUARD RAIL 3
9. MGS GUARD RAIL TERMINAL EAT
10. CURB RAMP TYPE 2
11. CONCRETE CURB & GUTTER 30-INCH TYPE D
12. CONCRETE DRIVEWAY 7-INCH, SEE CONSTRUCTION DETAIL
13. CONCRETE SIDEWALK 5-INCH
14. CURB RAMP DETECTABLE WARNING FIELD

X X X SAWING ASPHALT

X REMOVE TREES

POINT	STATION	OFFSET	ELEVATION
M	84+84.72	16.00' LT	949.18
N	85+04.73	22.00' LT	948.77
O	84+75.53	16.00' RT	948.86
P	84+95.34	22.00' RT	949.15
Q	87+86.15	22.00' LT	947.78
R	88+06.16	16.00' LT	948.12
S	88+16.14	16.00' LT	948.08
T	88+36.15	22.00' LT	947.62
U	87+86.15	22.00' LT	947.78
V	88+06.16	16.00' LT	948.12
W	88+16.14	16.00' LT	948.08
X	88+36.15	22.00' LT	947.62

PROJECT NO: 4060-05-70	HWY: STH 28	COUNTY: WASHINGTON	PLAN DETAIL	SHEET 33	E

2

2

STA. 93+94.21 STH 28 =
STA. 50+00.00 PARK VIEW DR.

PARK VIEW DR.

SAWING CONCRETE
(SEE CONSTRUCTION DETAIL)

STA. 93+35.36, 62.00' LT

40' R

SAWING CONCRETE
(SEE CONSTRUCTION DETAIL)

STA. 94+33.35, 42.00' LT

20' R

947.67 947.24 947.03 946.99 947.17 947.06 946.98 946.79 946.23 945.25 945.35 945.10 944.22 942.73 941.95 941.17 940.65 940.02 939.40 938.98 938.71

947.34 947.18 946.81 946.77 946.67 946.70 946.35 946.23 945.41 944.60 942.12 941.75 940.87 940.15 939.55 938.88 938.60 938.59

90+00 91+00 92+00 93+00 94+00 95+00 96+00

50+00 49+00

T/L R/L STH 28

22' 16' 30'

WALL MODULAR
BLOCK GRAVITY

SAWING CONCRETE
(SEE CONSTRUCTION DETAIL)

STA. 93+42.99, 45.57' RT

STA. 94+34.34, 46.00' RT

STA. 93+88.94 STH 28 =
STA. 50+00.00 PARK VIEW DR.

SAWING CONCRETE
(SEE CONSTRUCTION DETAIL)

LEGEND

1. REMOVING ASPHALTIC SURFACE MILLING, 2"
2. REMOVING ASPHALTIC SURFACE BUTT JOINTS
3. CONCRETE CURB & GUTTER 6-INCH SLOPED 36-INCH
4. CONCRETE CURB & GUTTER 4-INCH SLOPED 36-INCH
5. ASPHALTIC FLUMES
6. ASPHALTIC SURFACE DRIVEWAYS & FIELD ENTRANCES
7. BASE AGGREGATE DENSE DRIVEWAYS
8. MGS GUARD RAIL 3
9. MGS GUARD RAIL TERMINAL EAT
10. CURB RAMP TYPE 2
11. CONCRETE CURB & GUTTER 30-INCH TYPE D
12. CONCRETE DRIVEWAY 7-INCH, SEE CONSTRUCTION DETAIL
13. CONCRETE SIDEWALK 5-INCH
14. CURB RAMP DETECTABLE WARNING FIELD

X X X SAWING ASPHALT

X REMOVE TREES

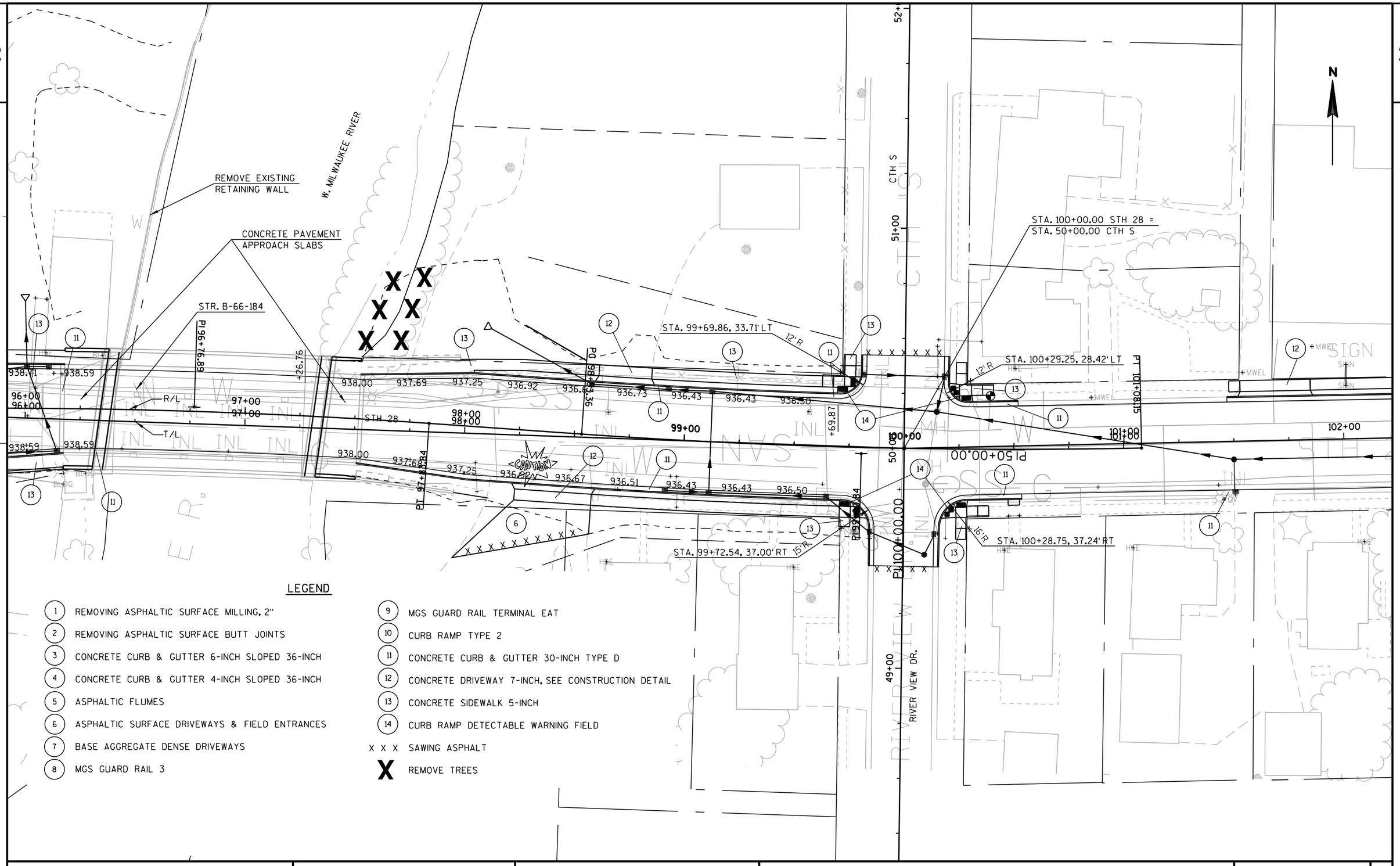
POINT	STATION	OFFSET	ELEVATION
Y	93+10.06	22.00' RT	946.09
Z	93+33.60	16.00' RT	945.78
AA	94+44.80	16.00' RT	942.01
AB	94+64.13	22.00' RT	941.04
AC	95+67.21	22.00' RT	938.65
AD	94+83.74	22.00' LT	940.98
AE	95+43.51	18.00' LT	939.68

PROJECT NO: 4060-05-70	HWY: STH 28	COUNTY: WASHINGTON	PLAN DETAIL	SHEET 34 E

FILE NAME : J:\projects\D2_40600528\021203_pd.dgn PLOT DATE : 01-OCT-2013 09:40 PLOT BY : dotr3h PLOT NAME : PLOT SCALE : 40:1

WISDOT/CADDS SHEET 42

2



LEGEND

1	REMOVING ASPHALTIC SURFACE MILLING, 2"
2	REMOVING ASPHALTIC SURFACE BUTT JOINTS
3	CONCRETE CURB & GUTTER 6-INCH SLOPED 36-INCH
4	CONCRETE CURB & GUTTER 4-INCH SLOPED 36-INCH
5	ASPHALTIC FLUMES
6	ASPHALTIC SURFACE DRIVEWAYS & FIELD ENTRANCES
7	BASE AGGREGATE DENSE DRIVEWAYS
8	MGS GUARD RAIL 3
9	MGS GUARD RAIL TERMINAL EAT
10	CURB RAMP TYPE 2
11	CONCRETE CURB & GUTTER 30-INCH TYPE D
12	CONCRETE DRIVEWAY 7-INCH, SEE CONSTRUCTION DETAIL
13	CONCRETE SIDEWALK 5-INCH
14	CURB RAMP DETECTABLE WARNING FIELD
X X X	SAWING ASPHALT
X	REMOVE TREES

PROJECT NO: 4060-05-70	HWY: STH 28	COUNTY: WASHINGTON	PLAN DETAIL	SHEET 35 E

2

N

KEWASKUM ST.

STARK ST.

FILLER CAPS

STA. 102+87.23, 32.23' LT 15'R

STA. 103+48.60, 32082' LT 16'R

STA. 106+93.11 STH 28 = STA. 50+00.00 STARK ST.

STA. 106+67.40, 26.23' LT 10.5'R

STA. 107+20.69+, 26.51' LT 10.5'R

STA. 102+93.68, 34.21' LT 12'R

STA. 103+45.23, 35.97' LT 14'R

STA. 106+71.06, 34.11' RT 11'R

STA. 107+21.55, 35.14' RT 12'R

STA. 106+95.88 STH 28 = STA. 50+00.00 STARK ST.

STH 28

102+00 103+00 104+00 105+00 106+00 107+00 108+00

51+00 50+00 49+00

P151+48.04

P150+00.00

CAUTION

LEGEND

1	REMOVING ASPHALTIC SURFACE MILLING, 2"
2	REMOVING ASPHALTIC SURFACE BUTT JOINTS
3	CONCRETE CURB & GUTTER 6-INCH SLOPED 36-INCH
4	CONCRETE CURB & GUTTER 4-INCH SLOPED 36-INCH
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10	CURB RAMP TYPE 2
11	CONCRETE CURB & GUTTER 30-INCH TYPE D
12	CONCRETE DRIVEWAY 7-INCH, SEE CONSTRUCTION DETAIL
13	CONCRETE SIDEWALK 5-INCH
14	CURB RAMP DETECTABLE WARNING FIELD
X X X	SAWING ASPHALT
X	REMOVE TREES

PROJECT NO: 4060-05-70	HWY: STH 28	COUNTY: WASHINGTON	PLAN DETAIL	SHEET 36 E

2

2

N

CEMETERY

SIGN

SIGN

SIGN

E NVS

W

G

W S S

G

G

MH

STH 28

108+00

109+00

110+00

111+00

112+00

113+00

114+00

+71.20 19.87' LT

936.46

935.82

935.25

934.90

934.58

+70.79 END PAVEMENT REPLACEMENT

20.08' LT BEGIN MILL & OVERLAY

XXXXXXXXXXXX

11

5

1

SI

CAUTION

CARROLL RD.

CARROLL RD.

W

LEGEND

1. REMOVING ASPHALTIC SURFACE MILLING, 2"
2. REMOVING ASPHALTIC SURFACE BUTT JOINTS
3. CONCRETE CURB & GUTTER 6-INCH SLOPED 36-INCH
4. CONCRETE CURB & GUTTER 4-INCH SLOPED 36-INCH
5. ASPHALTIC FLUMES
6. ASPHALTIC SURFACE DRIVEWAYS & FIELD ENTRANCES
7. BASE AGGREGATE DENSE DRIVEWAYS
8. MGS GUARD RAIL 3
9. MGS GUARD RAIL TERMINAL EAT
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11. CONCRETE CURB & GUTTER 30-INCH TYPE D
12. CONCRETE DRIVEWAY 7-INCH, SEE CONSTRUCTION DETAIL
13. CONCRETE SIDEWALK 5-INCH
14. CURB RAMP DETECTABLE WARNING FIELD

X X X SAWING ASPHALT

X REMOVE TREES

PROJECT NO: 4060-05-70	HWY: STH 28	COUNTY: WASHINGTON	PLAN DETAIL	SHEET 37	E

2

N

WETLAND BOUNDARY

KETTLE DR.

FILLER CAPS

G.P.

R/W

SIGN

SIGN

CAUTION

114+00

115+00

116+00

117+00

118+00

119+00

120+00

STH 28

STH 28

SIGN

R/W

GOLF GREEN

GOLF

LEGEND

1	REMOVING ASPHALTIC SURFACE MILLING, 2"
2	REMOVING ASPHALTIC SURFACE BUTT JOINTS
3	CONCRETE CURB & GUTTER 6-INCH SLOPED 36-INCH
4	CONCRETE CURB & GUTTER 4-INCH SLOPED 36-INCH
5	ASPHALTIC FLUMES
6	ASPHALTIC SURFACE DRIVEWAYS & FIELD ENTRANCES
7	BASE AGGREGATE DENSE DRIVEWAYS
8	MGS GUARD RAIL 3
9	MGS GUARD RAIL TERMINAL EAT
10	CURB RAMP TYPE 2
11	CONCRETE CURB & GUTTER 30-INCH TYPE D
12	CONCRETE DRIVEWAY 7-INCH, SEE CONSTRUCTION DETAIL
13	CONCRETE SIDEWALK 5-INCH
14	CURB RAMP DETECTABLE WARNING FIELD
X X X	SAWING ASPHALT
X	REMOVE TREES

PROJECT NO: 4060-05-70	HWY: STH 28	COUNTY: WASHINGTON	PLAN DETAIL	SHEET 38	E

2

N

WETLAND BOUNDARY

ATHLETIC FIELD

TREES TO REMAIN

WETLAND BOUNDARY

14.5'

R/W

+50

16

12

5

STH 28

PI 126+50.70

R/W

120 122 124 126 128 130 132 134

LEGEND (RURAL)

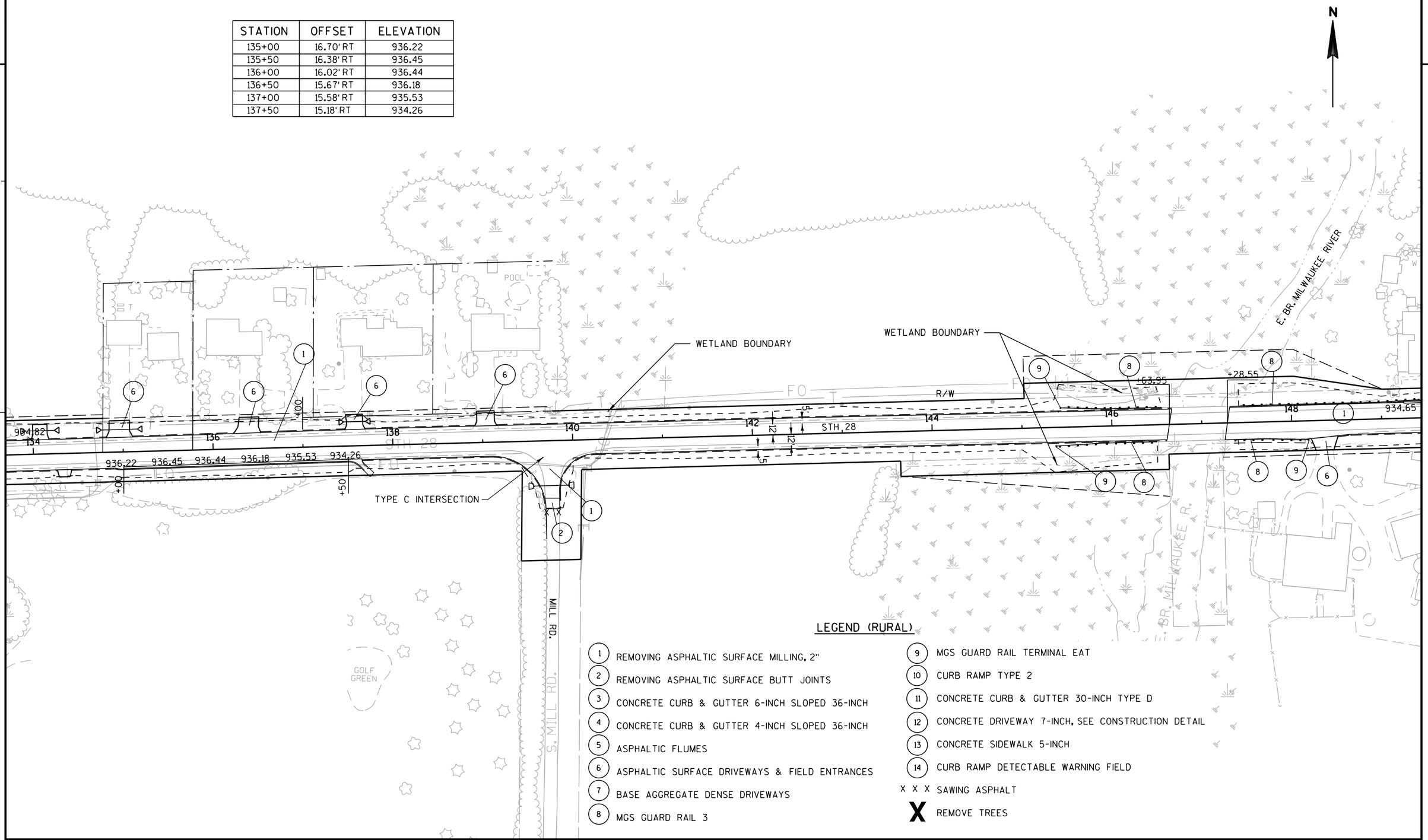
1. REMOVING ASPHALTIC SURFACE MILLING, 2"
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12. CONCRETE DRIVEWAY 7-INCH, SEE CONSTRUCTION DETAIL
13. CONCRETE SIDEWALK 5-INCH
14. CURB RAMP DETECTABLE WARNING FIELD

X X X SAWING ASPHALT

X REMOVE TREES

PROJECT NO: 4060-05-70	HWY: STH 28	COUNTY: WASHINGTON	PLAN DETAIL	SHEET 39 E

STATION	OFFSET	ELEVATION
135+00	16.70' RT	936.22
135+50	16.38' RT	936.45
136+00	16.02' RT	936.44
136+50	15.67' RT	936.18
137+00	15.58' RT	935.53
137+50	15.18' RT	934.26



LEGEND (RURAL)

1. REMOVING ASPHALTIC SURFACE MILLING, 2"
2. REMOVING ASPHALTIC SURFACE BUTT JOINTS
3. CONCRETE CURB & GUTTER 6-INCH SLOPED 36-INCH
4. CONCRETE CURB & GUTTER 4-INCH SLOPED 36-INCH
5. ASPHALTIC FLUMES
6. ASPHALTIC SURFACE DRIVEWAYS & FIELD ENTRANCES
7. BASE AGGREGATE DENSE DRIVEWAYS
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10. CURB RAMP TYPE 2
11. CONCRETE CURB & GUTTER 30-INCH TYPE D
12. CONCRETE DRIVEWAY 7-INCH, SEE CONSTRUCTION DETAIL
13. CONCRETE SIDEWALK 5-INCH
14. CURB RAMP DETECTABLE WARNING FIELD

X X X SAWING ASPHALT

X REMOVE TREES

PROJECT NO: 4060-05-70	HWY: STH 28	COUNTY: WASHINGTON	PLAN DETAIL	SHEET 40 E

2

N

N. MILL RD.

MILL RD.

WETLAND BOUNDARY

TYPE C INTERSECTION

PI 153+03.77

BEGIN RUMBLE STRIPS +04

R/W

934.65

994.96

152

154

156

158

160

162

164

STH 28

CAUTION

WETLAND BOUNDARY

LEGEND (RURAL)

1. REMOVING ASPHALTIC SURFACE MILLING, 2"
2. REMOVING ASPHALTIC SURFACE BUTT JOINTS
3. CONCRETE CURB & GUTTER 6-INCH SLOPED 36-INCH
4. CONCRETE CURB & GUTTER 4-INCH SLOPED 36-INCH
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6. ASPHALTIC SURFACE DRIVEWAYS & FIELD ENTRANCES
7. BASE AGGREGATE DENSE DRIVEWAYS
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12. CONCRETE DRIVEWAY 7-INCH, SEE CONSTRUCTION DETAIL
13. CONCRETE SIDEWALK 5-INCH
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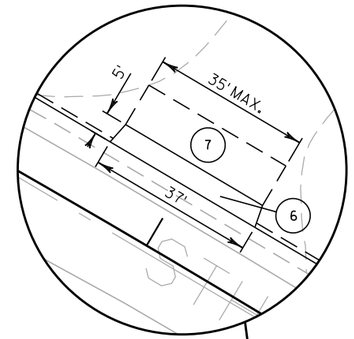
X X X SAWING ASPHALT

X REMOVE TREES

PROJECT NO: 4060-05-70	HWY: STH 28	COUNTY: WASHINGTON	PLAN DETAIL	SHEET 41	E

2

N



STH 28

164 166 168 170 172 174 176 178

17' 17'

+50' END MILL & OVERLAY
BEGIN RECONSTRUCTION

R/W

CAUTION

PI 168+49.38

PC 169+80.84

PC 170+46.12

PI 172+82.25

PROJECT
REFERENCE LINE

EBS REOD

WETLAND BOUNDARY

WETLAND BOUNDARY

CONSTRUCTION
REFERENCE LINE

PT 173+85.50

PT 174+55.56

+50' END RECONSTRUCTION
BEGIN MILL & OVERLAY

WETLAND BOUNDARY

PI 177+82.25

PC 175+43.77

25'

TYPE C INTERSECTION

OAK DR.

PT 179+32.06

LEGEND (RURAL)

1. REMOVING ASPHALTIC SURFACE MILLING, 2"
2. REMOVING ASPHALTIC SURFACE BUTT JOINTS
3. CONCRETE CURB & GUTTER 6-INCH SLOPED 36-INCH
4. CONCRETE CURB & GUTTER 4-INCH SLOPED 36-INCH
5. ASPHALTIC FLUMES
6. ASPHALTIC SURFACE DRIVEWAYS & FIELD ENTRANCES
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9. MGS GUARD RAIL TERMINAL EAT
10. CURB RAMP TYPE 2
11. CONCRETE CURB & GUTTER 30-INCH TYPE D
12. CONCRETE DRIVEWAY 7-INCH, SEE CONSTRUCTION DETAIL
13. CONCRETE SIDEWALK 5-INCH
14. CURB RAMP DETECTABLE WARNING FIELD

X X X SAWING ASPHALT

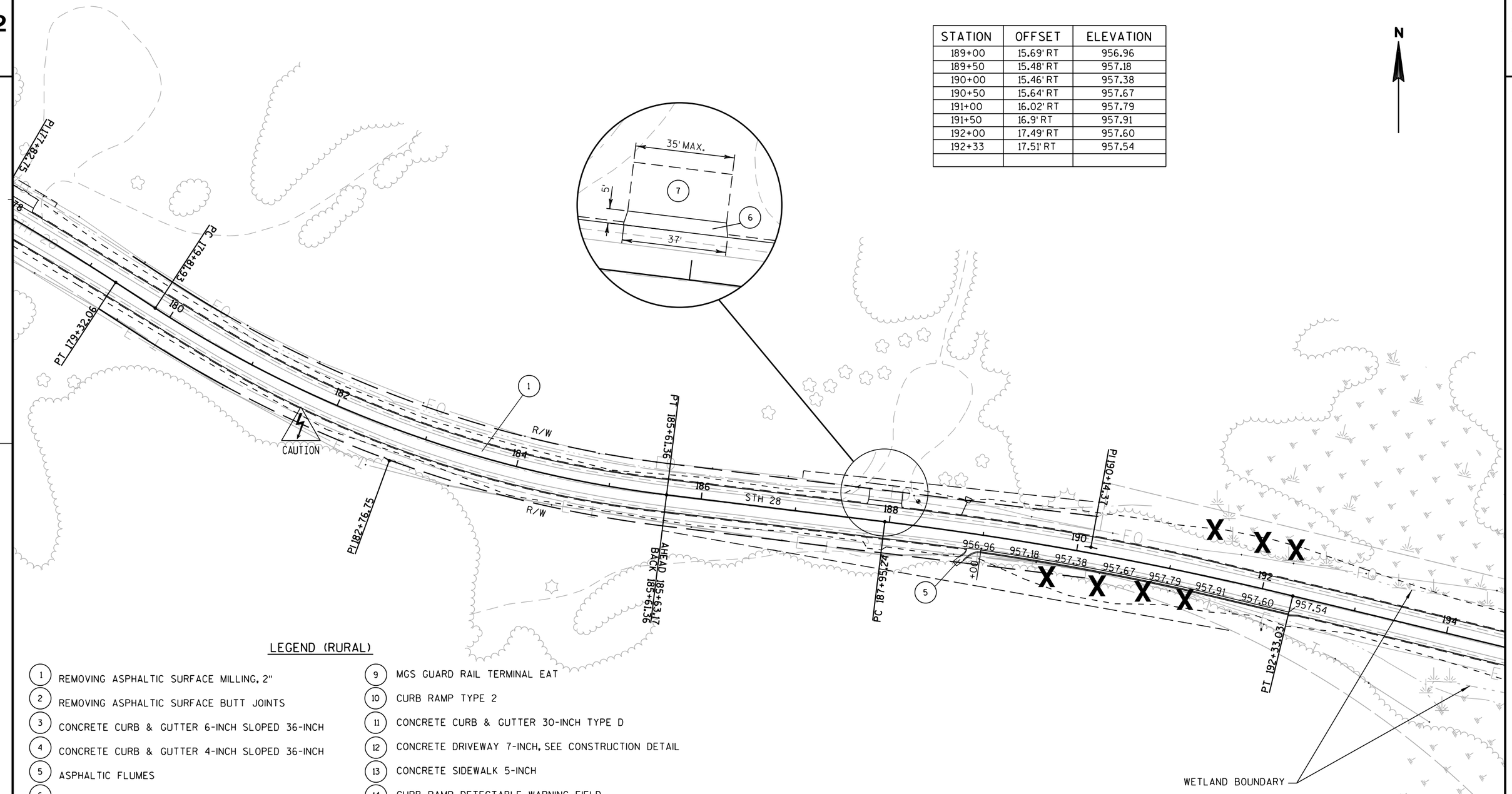
X REMOVE TREES

PROJECT NO: 4060-05-70	HWY: STH 28	COUNTY: WASHINGTON	PLAN DETAIL	SHEET 42 E

2

STATION	OFFSET	ELEVATION
189+00	15.69' RT	956.96
189+50	15.48' RT	957.18
190+00	15.46' RT	957.38
190+50	15.64' RT	957.67
191+00	16.02' RT	957.79
191+50	16.9' RT	957.91
192+00	17.49' RT	957.60
192+33	17.51' RT	957.54

N



LEGEND (RURAL)

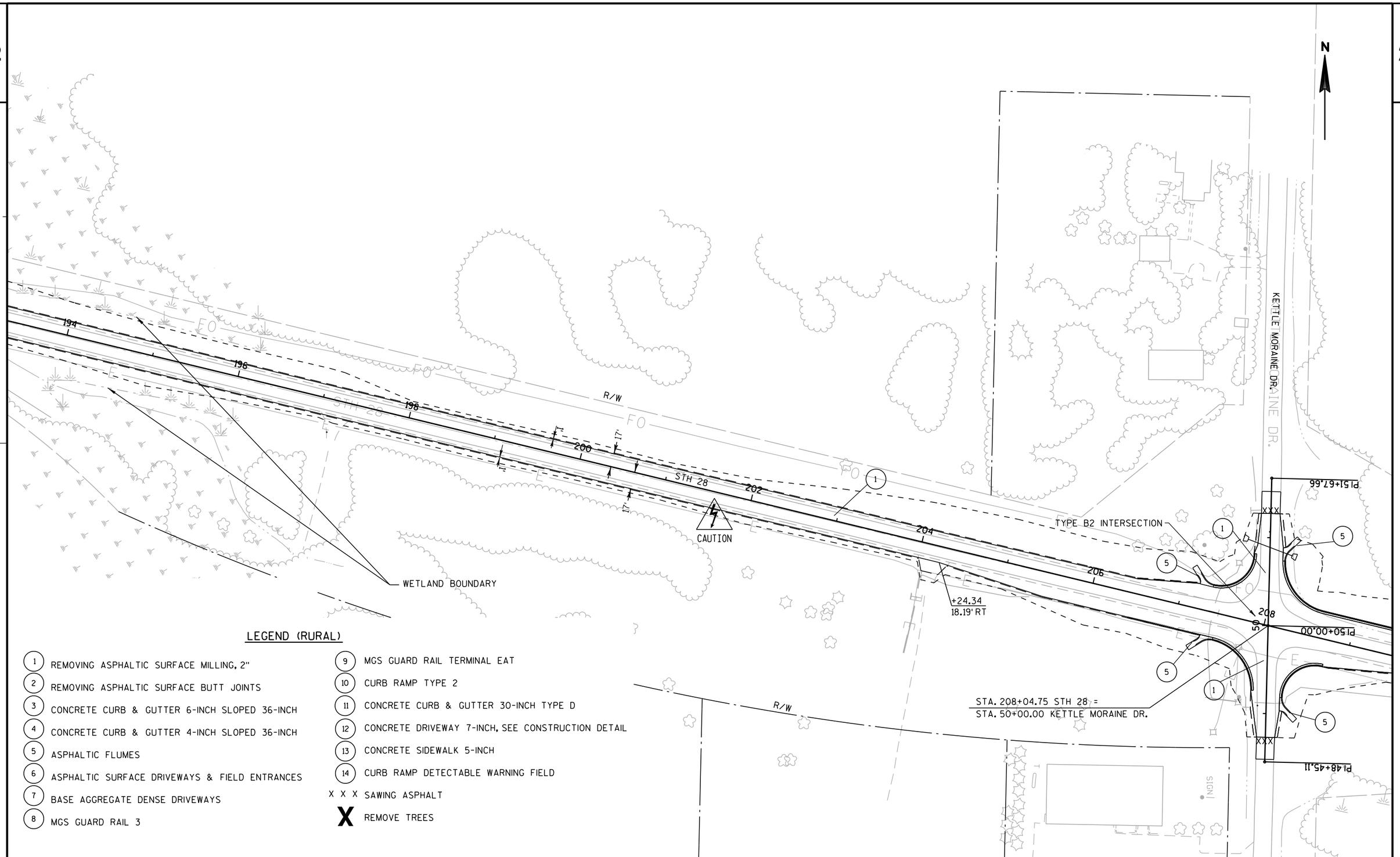
1. REMOVING ASPHALTIC SURFACE MILLING, 2"
2. REMOVING ASPHALTIC SURFACE BUTT JOINTS
3. CONCRETE CURB & GUTTER 6-INCH SLOPED 36-INCH
4. CONCRETE CURB & GUTTER 4-INCH SLOPED 36-INCH
5. ASPHALTIC FLUMES
6. ASPHALTIC SURFACE DRIVEWAYS & FIELD ENTRANCES
7. BASE AGGREGATE DENSE DRIVEWAYS
8. MGS GUARD RAIL 3
9. MGS GUARD RAIL TERMINAL EAT
10. CURB RAMP TYPE 2
11. CONCRETE CURB & GUTTER 30-INCH TYPE D
12. CONCRETE DRIVEWAY 7-INCH, SEE CONSTRUCTION DETAIL
13. CONCRETE SIDEWALK 5-INCH
14. CURB RAMP DETECTABLE WARNING FIELD

X X X SAWING ASPHALT

X REMOVE TREES

PROJECT NO: 4060-05-70	HWY: STH 28	COUNTY: WASHINGTON	PLAN DETAIL	SHEET 43	E

2



LEGEND (RURAL)

1	REMOVING ASPHALTIC SURFACE MILLING, 2"
2	REMOVING ASPHALTIC SURFACE BUTT JOINTS
3	CONCRETE CURB & GUTTER 6-INCH SLOPED 36-INCH
4	CONCRETE CURB & GUTTER 4-INCH SLOPED 36-INCH
5	ASPHALTIC FLUMES
6	ASPHALTIC SURFACE DRIVEWAYS & FIELD ENTRANCES
7	BASE AGGREGATE DENSE DRIVEWAYS
8	MGS GUARD RAIL 3
9	MGS GUARD RAIL TERMINAL EAT
10	CURB RAMP TYPE 2
11	CONCRETE CURB & GUTTER 30-INCH TYPE D
12	CONCRETE DRIVEWAY 7-INCH, SEE CONSTRUCTION DETAIL
13	CONCRETE SIDEWALK 5-INCH
14	CURB RAMP DETECTABLE WARNING FIELD
X X X	SAWING ASPHALT
X	REMOVE TREES

PROJECT NO: 4060-05-70	HWY: STH 28	COUNTY: WASHINGTON	PLAN DETAIL	SHEET 44	E

TYPE B2 INTERSECTION

STA. 207+34+21.68'LT STH 28 ℄
STA. 50+81.42, 55'LT KETTLE MORAINE DR. ℄

STA. 208+04.75 STH 28 =
STA. 50+00.00 KETTLE MORAINE DR.

STA. 208+62.50, 88'LT STH 28 ℄
STA. 50+73.84, 75'RT KETTLE MORAINE DR. ℄

STA. 207+47.02, 88'RT STH 28 ℄
STA. 49+26.15, 75'LT KETTLE MORAINE DR. ℄

STA. 208+75.67, 68'RT STH 28 ℄
STA. 49+18.53, 60'RT KETTLE MORAINE DR. ℄

LEGEND

1. REMOVING ASPHALTIC SURFACE MILLING, 2"
2. REMOVING ASPHALTIC SURFACE BUTT JOINTS
3. CONCRETE CURB & GUTTER 6-INCH SLOPED 36-INCH
4. CONCRETE CURB & GUTTER 4-INCH SLOPED 36-INCH
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6. ASPHALTIC SURFACE DRIVEWAYS & FIELD ENTRANCES
7. BASE AGGREGATE DENSE DRIVEWAYS
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11. CONCRETE CURB & GUTTER 30-INCH TYPE D
12. CONCRETE DRIVEWAY 7-INCH, SEE CONSTRUCTION DETAIL
13. CONCRETE SIDEWALK 5-INCH
14. CURB RAMP DETECTABLE WARNING FIELD

X X X SAWING ASPHALT

X REMOVE TREES

PROJECT NO: 4060-05-70	HWY: STH 28	COUNTY: WASHINGTON	PLAN DETAIL	SHEET 45 E

2

STATION	OFFSET	ELEVATION
210+00		985.42
210+50		985.84
211+00	17.06' LT	986.15
211+50	16.87' LT	986.35
212+00	16.96' LT	986.54
212+30	16.80' LT	986.72
212+50	16.76' LT	986.79
213+00	17.30' LT	986.70
213+00	17.40' LT	986.06
214+00	17.25' LT	985.27

N

WETLAND BOUNDARY

R/W

PC 210+31.75
+62.50
28' LT

+82.80
16.98' LT

PT 214+00.73

984.10
984.79
985.42
986.54
986.79
986.70
986.06
985.27

210
212
214
216
218
220
222
224

CAUTION

PI 212+16.30

PI 151+67.66

PI 150+00.0

PI 148+45.

STH 28

LEGEND (RURAL)

1. REMOVING ASPHALTIC SURFACE MILLING, 2"
2. REMOVING ASPHALTIC SURFACE BUTT JOINTS
3. CONCRETE CURB & GUTTER 6-INCH SLOPED 36-INCH
4. CONCRETE CURB & GUTTER 4-INCH SLOPED 36-INCH
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6. ASPHALTIC SURFACE DRIVEWAYS & FIELD ENTRANCES
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10. CURB RAMP TYPE 2
11. CONCRETE CURB & GUTTER 30-INCH TYPE D
12. CONCRETE DRIVEWAY 7-INCH, SEE CONSTRUCTION DETAIL
13. CONCRETE SIDEWALK 5-INCH
14. CURB RAMP DETECTABLE WARNING FIELD

X X X SAWING ASPHALT

X REMOVE TREES

PROJECT NO: 4060-05-70	HWY: STH 28	COUNTY: WASHINGTON	PLAN DETAIL	SHEET 46	E

2

N

STH 28

224

226

228

230

232

234

236

238

240

PI 228+23.10

PC 226+48.82

PT 223+92.91

PI 232+36.40

WETLAND BOUNDARY

CAUTION

SEPTIC

ANT.

HICKORY DR.

PI 13+49.09

PT 12+24.21

PI 12+03.64

PC 11+82.99

R/W

PT 10+92.91

PC 10+50.00

PI 10+71.29

TYPE D INTERSECTION

STA. 235+98.55 STH 28
STA. 10+00.00 HICKORY DR.

PI 10+00.00

PI 9+29.81

PC 9+09.03

PC 231+82.60

PT 8+16.22

PC 7+77.32

PI 7+96.80

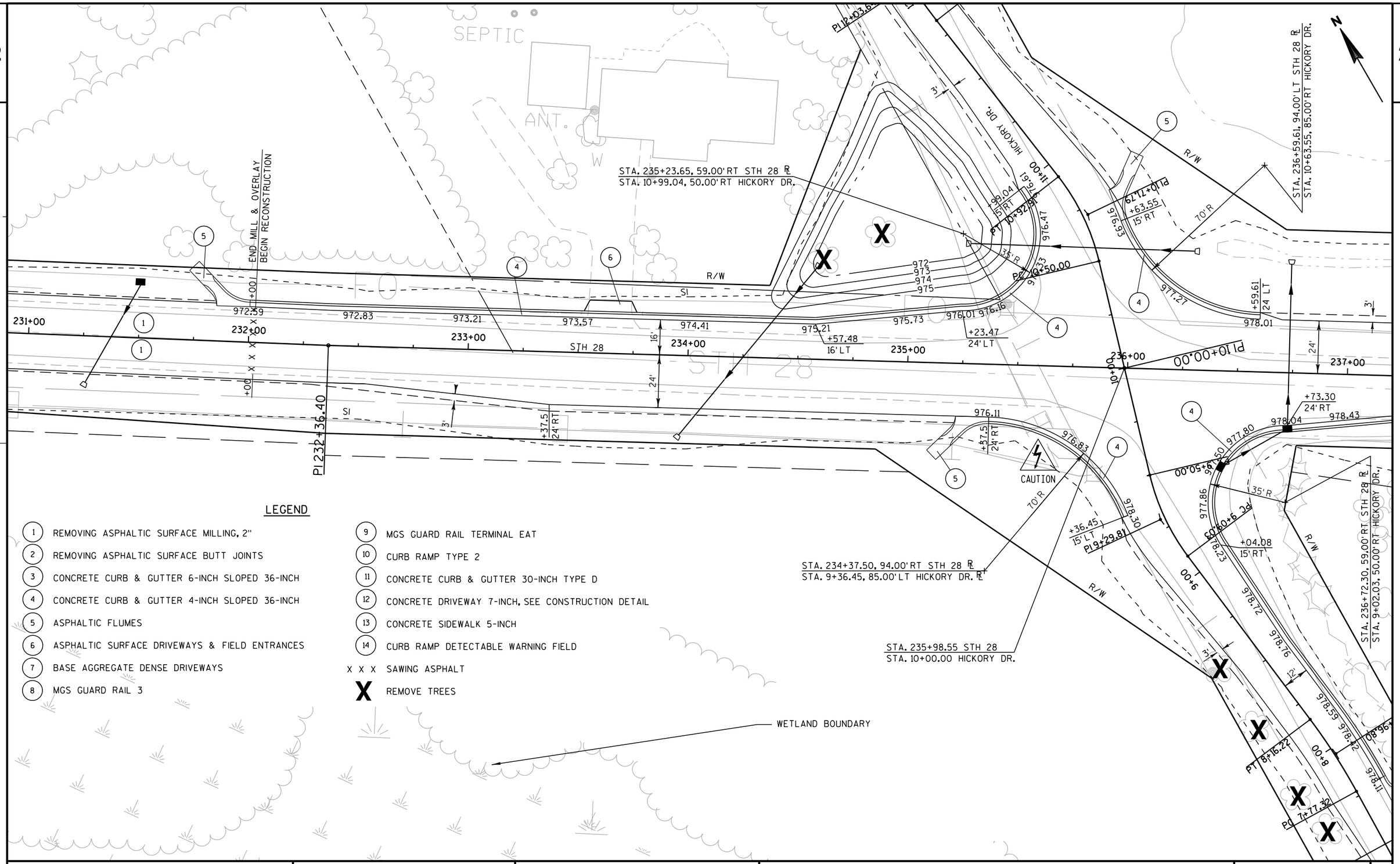
LEGEND (RURAL)

1. REMOVING ASPHALTIC SURFACE MILLING, 2"
2. REMOVING ASPHALTIC SURFACE BUTT JOINTS
3. CONCRETE CURB & GUTTER 6-INCH SLOPED 36-INCH
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13. CONCRETE SIDEWALK 5-INCH
14. CURB RAMP DETECTABLE WARNING FIELD

X X X SAWING ASPHALT

X REMOVE TREES

PROJECT NO: 4060-05-70	HWY: STH 28	COUNTY: WASHINGTON	PLAN DETAIL	SHEET 47 E



LEGEND

1. REMOVING ASPHALTIC SURFACE MILLING, 2"
2. REMOVING ASPHALTIC SURFACE BUTT JOINTS
3. CONCRETE CURB & GUTTER 6-INCH SLOPED 36-INCH
4. CONCRETE CURB & GUTTER 4-INCH SLOPED 36-INCH
5. ASPHALTIC FLUMES
6. ASPHALTIC SURFACE DRIVEWAYS & FIELD ENTRANCES
7. BASE AGGREGATE DENSE DRIVEWAYS
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11. CONCRETE CURB & GUTTER 30-INCH TYPE D
12. CONCRETE DRIVEWAY 7-INCH, SEE CONSTRUCTION DETAIL
13. CONCRETE SIDEWALK 5-INCH
14. CURB RAMP DETECTABLE WARNING FIELD

X X X SAWING ASPHALT

X REMOVE TREES

PROJECT NO: 4060-05-70	HWY: STH 28	COUNTY: WASHINGTON	PLAN DETAIL	SHEET 48 E

LEGEND

1. REMOVING ASPHALTIC SURFACE MILLING, 2"
2. REMOVING ASPHALTIC SURFACE BUTT JOINTS
3. CONCRETE CURB & GUTTER 6-INCH SLOPED 36-INCH
4. CONCRETE CURB & GUTTER 4-INCH SLOPED 36-INCH
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13. CONCRETE SIDEWALK 5-INCH
14. CURB RAMP DETECTABLE WARNING FIELD

X X X SAWING ASPHALT

X REMOVE TREES

2

STA. 234+37.50, 94.00' RT STH 28 ℄
STA. 9+36.45, 85.00' LT HICKORY DR. ℄

STA. 235+98.55 STH 28
STA. 10+00.00 HICKORY DR.

STA. 235+23.65, 59.00' RT STH 28 ℄
STA. 10+99.04, 50.00' RT HICKORY DR.

STA. 236+72.30, 59.00' RT STH 28 ℄
STA. 9+02.03, 50.00' RT HICKORY DR.

STA. 236+59.61, 94.00' LT STH 28 ℄
STA. 10+63.55, 85.00' RT HICKORY DR.

FENCE TO REMAIN

CAUTION

HICKORY DR.

STH 28

N

SETTLE

PROJECT NO: 4060-05-70	HWY: STH 28	COUNTY: WASHINGTON	PLAN DETAIL	SHEET 49 E

2

N

R/W

SI

PI 240+75.07

+58.83
24' LT

+45.98
17' LT

3'

1'

17'

16'

237+00 238+00 239+00 240+00 241+00 242+00

STH 28

PC 237+82.60

978.01 978.04 978.43 978.97 979.23 979.44 979.82 980.21 980.65 981.27 982.07 983.06 984.23 985.57

978.72 978.76 978.59 978.42 978.11

PC 7+96.80

8+16.22

00+8

PC 7+71.32

REMOVING GUARDRAIL

4

5

LEGEND

1. REMOVING ASPHALTIC SURFACE MILLING, 2"
2. REMOVING ASPHALTIC SURFACE BUTT JOINTS
3. CONCRETE CURB & GUTTER 6-INCH SLOPED 36-INCH
4. CONCRETE CURB & GUTTER 4-INCH SLOPED 36-INCH
5. ASPHALTIC FLUMES
6. ASPHALTIC SURFACE DRIVEWAYS & FIELD ENTRANCES
7. BASE AGGREGATE DENSE DRIVEWAYS
8. MGS GUARD RAIL 3
9. MGS GUARD RAIL TERMINAL EAT
10. CURB RAMP TYPE 2
11. CONCRETE CURB & GUTTER 30-INCH TYPE D
12. CONCRETE DRIVEWAY 7-INCH, SEE CONSTRUCTION DETAIL
13. CONCRETE SIDEWALK 5-INCH
14. CURB RAMP DETECTABLE WARNING FIELD

X X X SAWING ASPHALT

X REMOVE TREES

PROJECT NO: 4060-05-70	HWY: STH 28	COUNTY: WASHINGTON	PLAN DETAIL	SHEET 50	E

2

N

243+00

985.57

986.93

988.33

989.75

990.77

991.94

993.03

994.06

995.09

PT 243+64.54

244+00

245+00

246+00

247+00

248+00

STH 28

PCC 246+04.87

+50
16' RT

16'

17'

1:1

SI

R/W

4

REMOVING GUARDRAIL

REMOVING GUARDRAIL

LEGEND

1. REMOVING ASPHALTIC SURFACE MILLING, 2"
2. REMOVING ASPHALTIC SURFACE BUTT JOINTS
3. CONCRETE CURB & GUTTER 6-INCH SLOPED 36-INCH
4. CONCRETE CURB & GUTTER 4-INCH SLOPED 36-INCH
5. ASPHALTIC FLUMES
6. ASPHALTIC SURFACE DRIVEWAYS & FIELD ENTRANCES
7. BASE AGGREGATE DENSE DRIVEWAYS
8. MGS GUARD RAIL 3
9. MGS GUARD RAIL TERMINAL EAT
10. CURB RAMP TYPE 2
11. CONCRETE CURB & GUTTER 30-INCH TYPE D
12. CONCRETE DRIVEWAY 7-INCH, SEE CONSTRUCTION DETAIL
13. CONCRETE SIDEWALK 5-INCH
14. CURB RAMP DETECTABLE WARNING FIELD

X X X SAWING ASPHALT

X REMOVE TREES

PROJECT NO: 4060-05-70	HWY: STH 28	COUNTY: WASHINGTON	PLAN DETAIL	SHEET 51	E

2

N

END RUMBLE STRIP
+97

249+00

250+00

251+00

252+00

253+00

254+00

255+00

1'

17'

17'

1'

R/W

SI

X

X

X

STH 28

1014.96

1015.90

1017.65

1019.24

1020.80

1016.85

1017.79

1019.54

1021.13

1022.48

7

18'

5

+25.0
16' RT

6

4

+50.0
16' RT

P I 250+92.65

LEGEND

1	REMOVING ASPHALTIC SURFACE MILLING, 2"
2	REMOVING ASPHALTIC SURFACE BUTT JOINTS
3	CONCRETE CURB & GUTTER 6-INCH SLOPED 36-INCH
4	CONCRETE CURB & GUTTER 4-INCH SLOPED 36-INCH
5	ASPHALTIC FLUMES
6	ASPHALTIC SURFACE DRIVEWAYS & FIELD ENTRANCES
7	BASE AGGREGATE DENSE DRIVEWAYS
8	MGS GUARD RAIL 3
9	MGS GUARD RAIL TERMINAL EAT
10	CURB RAMP TYPE 2
11	CONCRETE CURB & GUTTER 30-INCH TYPE D
12	CONCRETE DRIVEWAY 7-INCH, SEE CONSTRUCTION DETAIL
13	CONCRETE SIDEWALK 5-INCH
14	CURB RAMP DETECTABLE WARNING FIELD
X X X	SAWING ASPHALT
X	REMOVE TREES

2

N

R/W

SI

7

15'

REMOVING GUARDRAIL

PT 255+31.84

20.80

55+00

256+00

257+00

258+00

259+00

260+00

261+00

2.48

17'

17'

STH 28

REMOVING GUARDRAIL

R/W

SI

6

CAUTION

LEGEND

1	REMOVING ASPHALTIC SURFACE MILLING, 2"
2	REMOVING ASPHALTIC SURFACE BUTT JOINTS
3	CONCRETE CURB & GUTTER 6-INCH SLOPED 36-INCH
4	CONCRETE CURB & GUTTER 4-INCH SLOPED 36-INCH
5	ASPHALTIC FLUMES
6	ASPHALTIC SURFACE DRIVEWAYS & FIELD ENTRANCES
7	BASE AGGREGATE DENSE DRIVEWAYS
8	MGS GUARD RAIL 3
9	MGS GUARD RAIL TERMINAL EAT
10	CURB RAMP TYPE 2
11	CONCRETE CURB & GUTTER 30-INCH TYPE D
12	CONCRETE DRIVEWAY 7-INCH, SEE CONSTRUCTION DETAIL
13	CONCRETE SIDEWALK 5-INCH
14	CURB RAMP DETECTABLE WARNING FIELD
X X X	SAWING ASPHALT
X	REMOVE TREES

PROJECT NO: 4060-05-70	HWY: STH 28	COUNTY: WASHINGTON	PLAN DETAIL	SHEET 53	E

2

TYPE B2 INTERSECTION

SEPTIC

CONCRETE STEPS

STA. 265+40.00, 58.00'RT STH 28 ℞
STA. 20+58.22, 55.00'LT FOREST VIEW DR. ℞

STA. 265+97.24 STH 28 =
STA. 20+00.00 FOREST VIEW DR.

STA. 265+23.07, 84.00'RT STH 28 ℞
STA. 19+16.75, 75.00'LT FOREST VIEW DR. ℞

STA. 266+71.45, 78.00'LT STH 28 ℞
STA. 20+77.24, 75.00'RT FOREST VIEW DR. ℞

STA. 266+53.28, 64.00'RT STH 28 ℞
STA. 19+35.10, 55'RT FOREST VIEW DR. ℞

NO CURB HEAD

REMOVE DRIVEWAY

CAUTION

STH 28

FOREST VIEW DR.

P121+99.98

P120+00.00

P1265+97.24

LEGEND

1	REMOVING ASPHALTIC SURFACE MILLING, 2"	9	MGS GUARD RAIL TERMINAL EAT
2	REMOVING ASPHALTIC SURFACE BUTT JOINTS	10	CURB RAMP TYPE 2
3	CONCRETE CURB & GUTTER 6-INCH SLOPED 36-INCH	11	CONCRETE CURB & GUTTER 30-INCH TYPE D
4	CONCRETE CURB & GUTTER 4-INCH SLOPED 36-INCH	12	CONCRETE DRIVEWAY 7-INCH, SEE CONSTRUCTION DETAIL
5	ASPHALTIC FLUMES	13	CONCRETE SIDEWALK 5-INCH
6	ASPHALTIC SURFACE DRIVEWAYS & FIELD ENTRANCES	14	CURB RAMP DETECTABLE WARNING FIELD
7	BASE AGGREGATE DENSE DRIVEWAYS	X X X	SAWING ASPHALT
8	MGS GUARD RAIL 3	X	REMOVE TREES

PROJECT NO: 4060-05-70	HWY: STH 28	COUNTY: WASHINGTON	PLAN DETAIL	SHEET 54	E

2

2

N

STEEL PLATE BEAM GUARD ENERGY ABSORBING TERMINAL

STEEL THRIE BEAM STRUCTURE APPROACH

CONCRETE BARRIER
SINGLE-FACED 32-INCH

REMOVING GUARDRAIL

RETAINING WALL
R-66-21

END RECONSTRUCTION
BEGIN MILL & OVERLAY

SEPTIC

50' 20' 20' 50'

35' 35'

R/W R/W

1050.52 1048.68 1046.83 1044.91 1042.37 1039.15

267+00 268+00 269+00 270+00 271+00 272+00 273+00

+70.66 18' LT

18' 16'

STH 28

CONCRETE SURFACE
DRAIN

1050.59 1049.82 1048.71 1046.87 1044.95 1042.41 1039.19 1035.37

+19.95 16' RT +00 15' RT

SI SI

CAUTION

LEGEND

1	REMOVING ASPHALTIC SURFACE MILLING, 2"
2	REMOVING ASPHALTIC SURFACE BUTT JOINTS
3	CONCRETE CURB & GUTTER 6-INCH SLOPED 36-INCH
4	CONCRETE CURB & GUTTER 4-INCH SLOPED 36-INCH
5	ASPHALTIC FLUMES
6	ASPHALTIC SURFACE DRIVEWAYS & FIELD ENTRANCES
7	BASE AGGREGATE DENSE DRIVEWAYS
8	MGS GUARD RAIL 3
9	MGS GUARD RAIL TERMINAL EAT
10	CURB RAMP TYPE 2
11	CONCRETE CURB & GUTTER 30-INCH TYPE D
12	CONCRETE DRIVEWAY 7-INCH, SEE CONSTRUCTION DETAIL
13	CONCRETE SIDEWALK 5-INCH
14	CURB RAMP DETECTABLE WARNING FIELD
X X X	SAWING ASPHALT
X	REMOVE TREES

PROJECT NO: 4060-05-70	HWY: STH 28	COUNTY: WASHINGTON	PLAN DETAIL	SHEET 55 E

2

N

BEGIN RUMBLE STRIPS +97

STH 28

R/W

CATCH

35'

32'

34'

18'

274 276 278 280 282 284 286

LEGEND (RURAL)

1. REMOVING ASPHALTIC SURFACE MILLING, 2"
2. REMOVING ASPHALTIC SURFACE BUTT JOINTS
3. CONCRETE CURB & GUTTER 6-INCH SLOPED 36-INCH
4. CONCRETE CURB & GUTTER 4-INCH SLOPED 36-INCH
5. ASPHALTIC FLUMES
6. ASPHALTIC SURFACE DRIVEWAYS & FIELD ENTRANCES
7. BASE AGGREGATE DENSE DRIVEWAYS
8. MGS GUARD RAIL 3
9. MGS GUARD RAIL TERMINAL EAT
10. CURB RAMP TYPE 2
11. CONCRETE CURB & GUTTER 30-INCH TYPE D
12. CONCRETE DRIVEWAY 7-INCH, SEE CONSTRUCTION DETAIL
13. CONCRETE SIDEWALK 5-INCH
14. CURB RAMP DETECTABLE WARNING FIELD

X X X SAWING ASPHALT

X REMOVE TREES

PROJECT NO: 4060-05-70	HWY: STH 28	COUNTY: WASHINGTON	PLAN DETAIL	SHEET 56	E

2

N

FENCE REMOVED BY OTHERS

POOL

SEPTIC

1

288 290 292 294 296 298 300 302

STH 28

CAUTION

PI 293+17.30

WETLAND BOUNDARY

END MILL & OVERLAY
BEGIN RECONSTRUCTION

WETLAND BOUNDARY

SEPTIC

LEGEND (RURAL)

1. REMOVING ASPHALTIC SURFACE MILLING, 2"
2. REMOVING ASPHALTIC SURFACE BUTT JOINTS
3. CONCRETE CURB & GUTTER 6-INCH SLOPED 36-INCH
4. CONCRETE CURB & GUTTER 4-INCH SLOPED 36-INCH
5. ASPHALTIC FLUMES
6. ASPHALTIC SURFACE DRIVEWAYS & FIELD ENTRANCES
7. BASE AGGREGATE DENSE DRIVEWAYS
8. MGS GUARD RAIL 3
9. MGS GUARD RAIL TERMINAL EAT
10. CURB RAMP TYPE 2
11. CONCRETE CURB & GUTTER 30-INCH TYPE D
12. CONCRETE DRIVEWAY 7-INCH, SEE CONSTRUCTION DETAIL
13. CONCRETE SIDEWALK 5-INCH
14. CURB RAMP DETECTABLE WARNING FIELD

X X X SAWING ASPHALT

X REMOVE TREES

PROJECT NO: 4060-05-70	HWY: STH 28	COUNTY: WASHINGTON	PLAN DETAIL	SHEET 57 E

2

N

WETLAND BOUNDARY

5

+0.3
16' LT

1

4

R/W

SI

+50
16' LT

CAUTION

979.04 980.46 981.88 983.30 984.71 986.13 987.55 988.97

302+00 303+00 304+00 305+00 306+00 307+00 308+00

STH 28

16'

17'

CAUTION

SI

R/W

7

16'

LEGEND

1	REMOVING ASPHALTIC SURFACE MILLING, 2"
2	REMOVING ASPHALTIC SURFACE BUTT JOINTS
3	CONCRETE CURB & GUTTER 6-INCH SLOPED 36-INCH
4	CONCRETE CURB & GUTTER 4-INCH SLOPED 36-INCH
5	ASPHALTIC FLUMES
6	ASPHALTIC SURFACE DRIVEWAYS & FIELD ENTRANCES
7	BASE AGGREGATE DENSE DRIVEWAYS
8	MGS GUARD RAIL 3
9	MGS GUARD RAIL TERMINAL EAT
10	CURB RAMP TYPE 2
11	CONCRETE CURB & GUTTER 30-INCH TYPE D
12	CONCRETE DRIVEWAY 7-INCH, SEE CONSTRUCTION DETAIL
13	CONCRETE SIDEWALK 5-INCH
14	CURB RAMP DETECTABLE WARNING FIELD
X X X	SAWING ASPHALT
X	REMOVE TREES

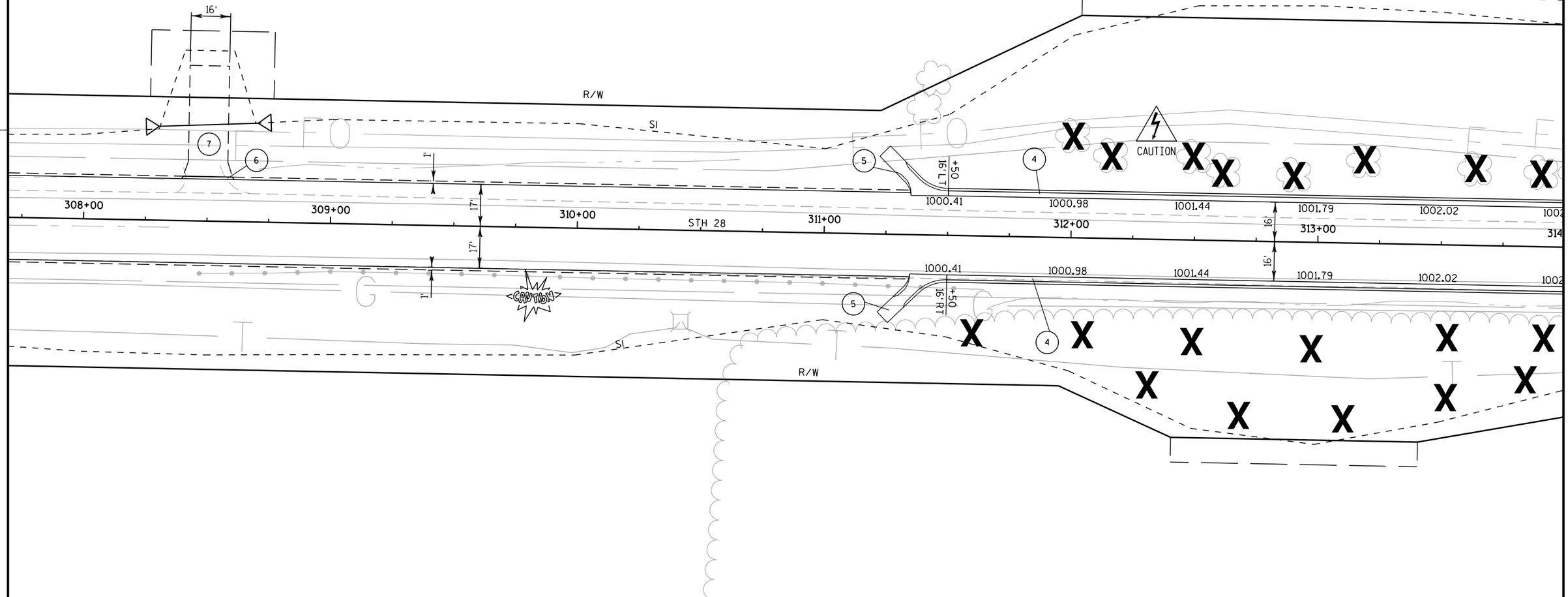
PROJECT NO: 4060-05-70	HWY: STH 28	COUNTY: WASHINGTON	PLAN DETAIL	SHEET 58	E

2

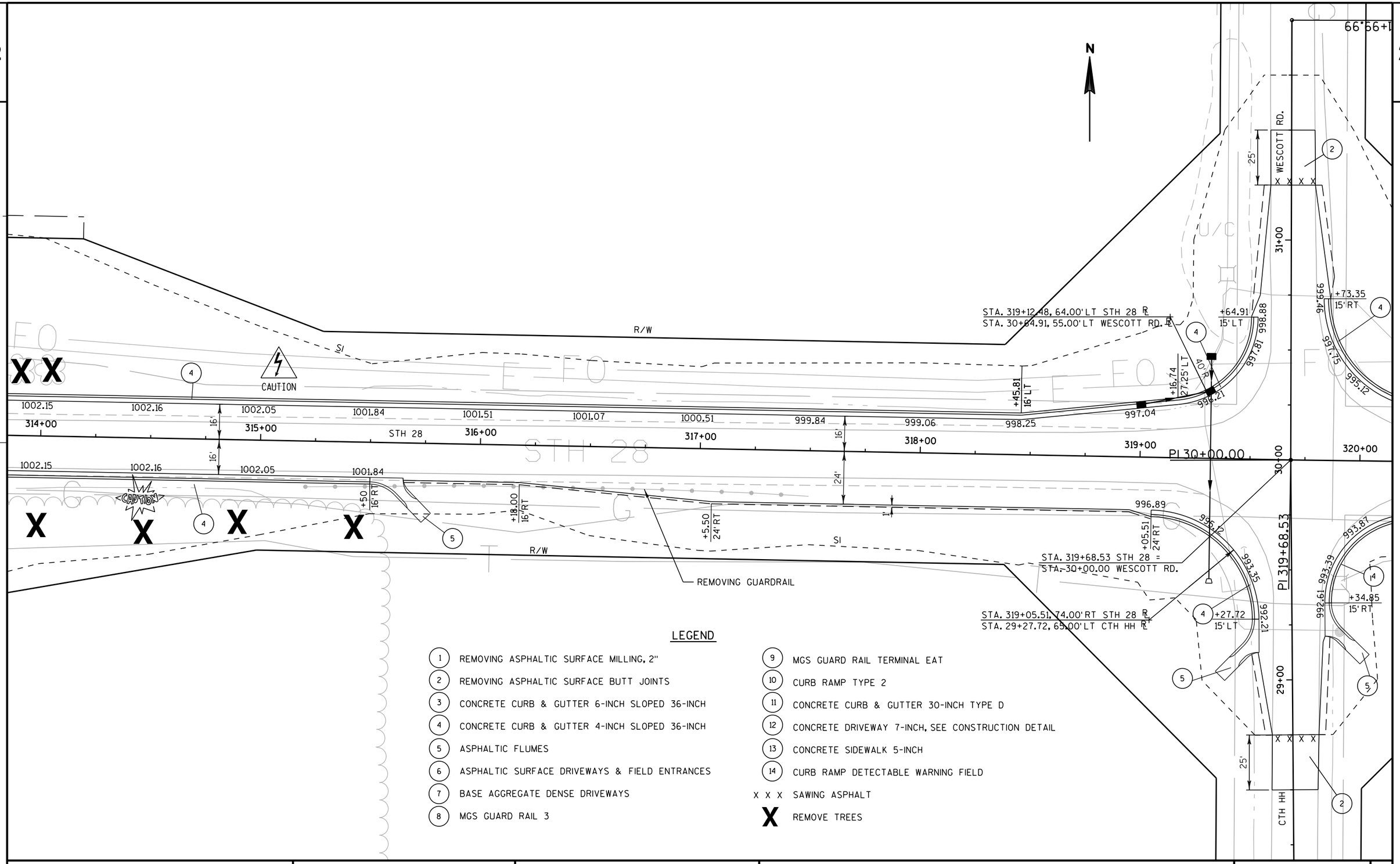
LEGEND

(1)	REMOVING ASPHALTIC SURFACE MILLING, 2"
(2)	REMOVING ASPHALTIC SURFACE BUTT JOINTS
(3)	CONCRETE CURB & GUTTER 6-INCH SLOPED 36-INCH
(4)	CONCRETE CURB & GUTTER 4-INCH SLOPED 36-INCH
(5)	ASPHALTIC FLUMES
(6)	ASPHALTIC SURFACE DRIVEWAYS & FIELD ENTRANCES
(7)	BASE AGGREGATE DENSE DRIVEWAYS
(8)	MGS GUARD RAIL 3
(9)	MGS GUARD RAIL TERMINAL EAT
(10)	CURB RAMP TYPE 2
(11)	CONCRETE CURB & GUTTER 30-INCH TYPE D
(12)	CONCRETE DRIVEWAY 7-INCH, SEE CONSTRUCTION DETAIL
(13)	CONCRETE SIDEWALK 5-INCH
(14)	CURB RAMP DETECTABLE WARNING FIELD
X X X	SAWING ASPHALT
X	REMOVE TREES

N



PROJECT NO: 4060-05-70	HWY: STH 28	COUNTY: WASHINGTON	PLAN DETAIL	SHEET 59	E



LEGEND

1. REMOVING ASPHALTIC SURFACE MILLING, 2"
2. REMOVING ASPHALTIC SURFACE BUTT JOINTS
3. CONCRETE CURB & GUTTER 6-INCH SLOPED 36-INCH
4. CONCRETE CURB & GUTTER 4-INCH SLOPED 36-INCH
5. ASPHALTIC FLUMES
6. ASPHALTIC SURFACE DRIVEWAYS & FIELD ENTRANCES
7. BASE AGGREGATE DENSE DRIVEWAYS
8. MGS GUARD RAIL 3
9. MGS GUARD RAIL TERMINAL EAT
10. CURB RAMP TYPE 2
11. CONCRETE CURB & GUTTER 30-INCH TYPE D
12. CONCRETE DRIVEWAY 7-INCH, SEE CONSTRUCTION DETAIL
13. CONCRETE SIDEWALK 5-INCH
14. CURB RAMP DETECTABLE WARNING FIELD

X X X SAWING ASPHALT

X REMOVE TREES

PROJECT NO: 4060-05-70	HWY: STH 28	COUNTY: WASHINGTON	PLAN DETAIL	SHEET 60	E

2

N

PI 31+99.99

WESCOTT RD.

25'

X X X X

R/W

R/W

STA. 319+68.53 STH 28 =
STA. 30+00.00 WESCOTT RD.

STA. 319+12.48, 64.00'LT STH 28 ℄
STA. 30+64.91, 55.00'LT WESCOTT RD. ℄

+64.91
15'LT

998.88

997.81

+73.35
15'RT

999.46

STA. 320+32.79, 74.00'LT STH 28 ℄
STA. 30+73.35, 65.00'RT WESCOTT RD. ℄

995.75

995.12

50'R

40'R

+45.81
16'LT

+16.74
27.25'LT

996.21

997.04

998.25

+32.79
24'LT

993.94

993.22

991.66

989.94

988.14

+00
24'LT

SI

CAUTION

END RECONSTRUCTION
BEGIN MILL AND OVERLAY
STA. 323+00. 17'LT

319+00

PI 30+00.00

320+00

321+00

STH 28

322+00

323+00

324+00

30+00

31+00

29+00

PI 319+68.53

16'

24'

1'

24'

17'

17'

17'

17'

996.89

+05.51
24'RT

995.12

50'R

993.35

STA. 319+05.51, 74.00'RT STH 28 ℄
STA. 29+27.72, 65.00'LT CTH HH ℄

+27.72
15'LT

992.12

993.95

+24.87
24'RT

993.87

993.39

992.61

40'R

+34.85
15'RT

+91.53
15'RT

CAUTION

STA. 320+24.87, 55.00'STH 28 ℄
STA. 29+34.85, 64.00'CTH HH ℄

+00
17'RT

R/W

R/W

X X X X

25'

CTH HH

LEGEND

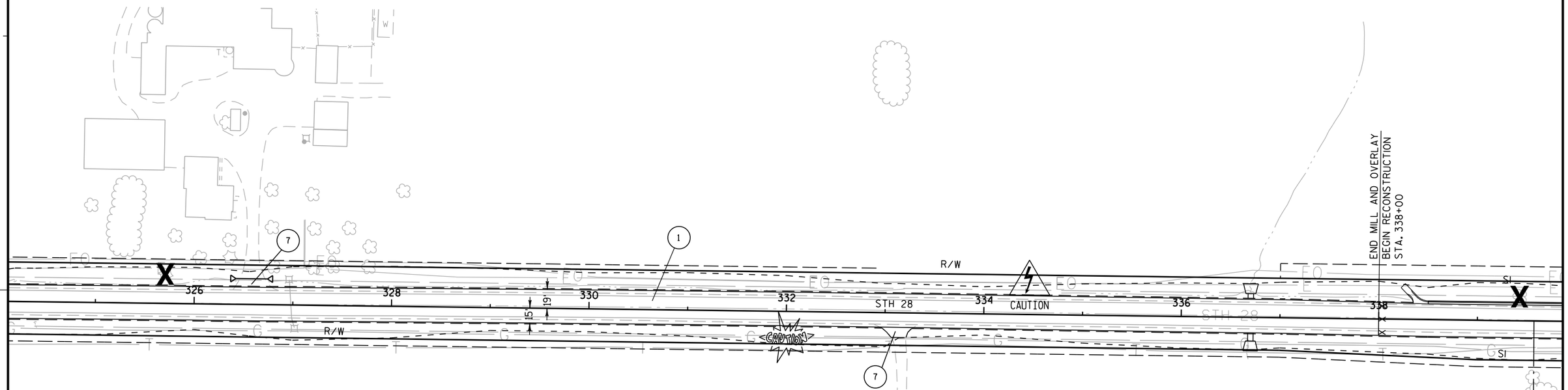
1. REMOVING ASPHALTIC SURFACE MILLING, 2"
2. REMOVING ASPHALTIC SURFACE BUTT JOINTS
3. CONCRETE CURB & GUTTER 6-INCH SLOPED 36-INCH
4. CONCRETE CURB & GUTTER 4-INCH SLOPED 36-INCH
5. ASPHALTIC FLUMES
6. ASPHALTIC SURFACE DRIVEWAYS & FIELD ENTRANCES
7. BASE AGGREGATE DENSE DRIVEWAYS
8. MGS GUARD RAIL 3
9. MGS GUARD RAIL TERMINAL EAT
10. CURB RAMP TYPE 2
11. CONCRETE CURB & GUTTER 30-INCH TYPE D
12. CONCRETE DRIVEWAY 7-INCH, SEE CONSTRUCTION DETAIL
13. CONCRETE SIDEWALK 5-INCH
14. CURB RAMP DETECTABLE WARNING FIELD

X X X SAWING ASPHALT

X REMOVE TREES

PROJECT NO: 4060-05-70	HWY: STH 28	COUNTY: WASHINGTON	PLAN DETAIL	SHEET 61	E

2



LEGEND (RURAL)

1. REMOVING ASPHALTIC SURFACE MILLING, 2"
2. REMOVING ASPHALTIC SURFACE BUTT JOINTS
3. CONCRETE CURB & GUTTER 6-INCH SLOPED 36-INCH
4. CONCRETE CURB & GUTTER 4-INCH SLOPED 36-INCH
5. ASPHALTIC FLUMES
6. ASPHALTIC SURFACE DRIVEWAYS & FIELD ENTRANCES
7. BASE AGGREGATE DENSE DRIVEWAYS
8. MGS GUARD RAIL 3
9. MGS GUARD RAIL TERMINAL EAT
10. CURB RAMP TYPE 2
11. CONCRETE CURB & GUTTER 30-INCH TYPE D
12. CONCRETE DRIVEWAY 7-INCH, SEE CONSTRUCTION DETAIL
13. CONCRETE SIDEWALK 5-INCH
14. CURB RAMP DETECTABLE WARNING FIELD

X X X SAWING ASPHALT

X REMOVE TREES

PROJECT NO: 4060-05-70	HWY: STH 28	COUNTY: WASHINGTON	PLAN DETAIL	SHEET 62	E

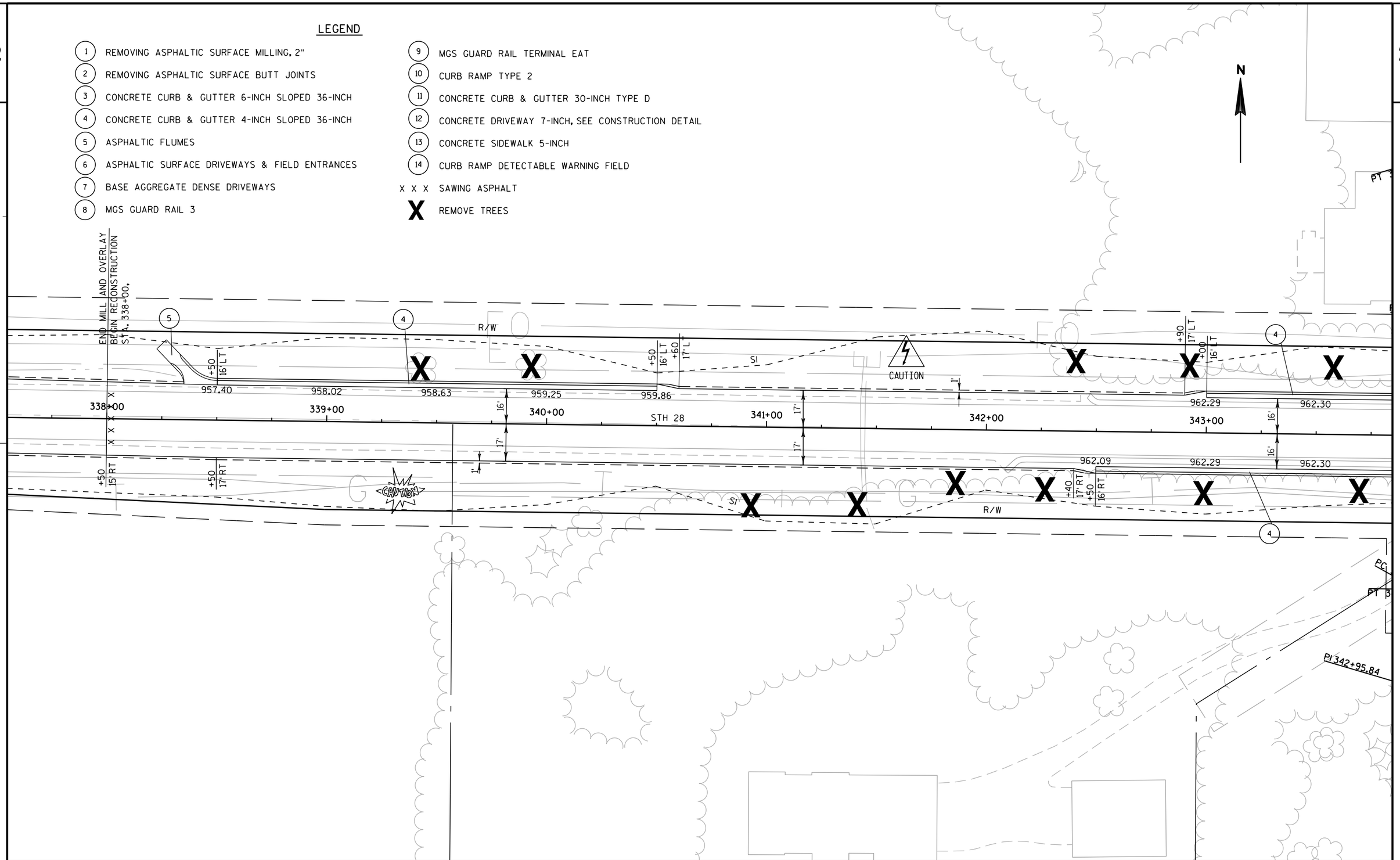
2

LEGEND

1. REMOVING ASPHALTIC SURFACE MILLING, 2"
2. REMOVING ASPHALTIC SURFACE BUTT JOINTS
3. CONCRETE CURB & GUTTER 6-INCH SLOPED 36-INCH
4. CONCRETE CURB & GUTTER 4-INCH SLOPED 36-INCH
5. ASPHALTIC FLUMES
6. ASPHALTIC SURFACE DRIVEWAYS & FIELD ENTRANCES
7. BASE AGGREGATE DENSE DRIVEWAYS
8. MGS GUARD RAIL 3
9. MGS GUARD RAIL TERMINAL EAT
10. CURB RAMP TYPE 2
11. CONCRETE CURB & GUTTER 30-INCH TYPE D
12. CONCRETE DRIVEWAY 7-INCH, SEE CONSTRUCTION DETAIL
13. CONCRETE SIDEWALK 5-INCH
14. CURB RAMP DETECTABLE WARNING FIELD

X X X SAWING ASPHALT

X REMOVE TREES



PROJECT NO: 4060-05-70	HWY: STH 28	COUNTY: WASHINGTON	PLAN DETAIL	SHEET 63 E

FILE NAME : J:\projects\D2_40600528\021230_pd.dgn PLOT DATE : 01-AUG-2013 11:19 PLOT BY : dotr3h PLOT NAME : PLOT SCALE : 40:1

WISDOT/CADDS SHEET 42

2

N

PI 345+79.53

PT 345+56.18

16'

T

17

PI 345+19.13

STA. 344+25.00 STH 28 =
STA. 344+25.00

REMOVING FENCE

PC 344+80.90

344+00

PI 346+20.30

R/W

SI

+50 20' LT

+00 18' LT

CAUTION

WETLAND BOUNDARY

4'

962.30 962.10 961.69 961.09 960.27 959.26

345+00 346+00 STH 28 347+00 348+00 349+00

16' 18'

PI 344+25.15

344+00

962.30 962.10 961.69 961.09 960.27 959.26 958.68

+00 16' LT

+50 20' RT

+00 18' RT

+25 18' LT

CAUTION

MODULAR BLOCK
RETAINING WALL

PC 343+35.10

PT 343+45.10

PI 343+40.21

STA. 344+16.93 STH 28 =
STA. 344+15.00

PI 342+95.84

343+00

PC 343+06.87

PT 342+84.42

PI 342+77.33

R/W

LEGEND

1. REMOVING ASPHALTIC SURFACE MILLING, 2"
2. REMOVING ASPHALTIC SURFACE BUTT JOINTS
3. CONCRETE CURB & GUTTER 6-INCH SLOPED 36-INCH
4. CONCRETE CURB & GUTTER 4-INCH SLOPED 36-INCH
5. ASPHALTIC FLUMES
6. ASPHALTIC SURFACE DRIVEWAYS & FIELD ENTRANCES
7. BASE AGGREGATE DENSE DRIVEWAYS
8. MGS GUARD RAIL 3
9. MGS GUARD RAIL TERMINAL EAT
10. CURB RAMP TYPE 2
11. CONCRETE CURB & GUTTER 30-INCH TYPE D
12. CONCRETE DRIVEWAY 7-INCH, SEE CONSTRUCTION DETAIL
13. CONCRETE SIDEWALK 5-INCH
14. CURB RAMP DETECTABLE WARNING FIELD

X X X SAWING ASPHALT

X REMOVE TREES

PROJECT NO: 4060-05-70	HWY: STH 28	COUNTY: WASHINGTON	PLAN DETAIL	SHEET 64	E

2

N

STONEY CREEK

WETLAND BOUNDARY

R/W

SI

CAUTION

REMOVING GURADRAIL

350+00 351+00 352+00 STH 28 353+00 354+00 355+00

947.31 947.50 947.75 947.79 947.64

947.02 947.46 947.61

+50 18' LT

+00 20' LT

+50 17' LT

+75 16' LT

+50 18' RT

+00 20' RT

+50 18' RT

+25 18' RT

4' 18' 16' 17' 1'

SPRUCE TREES TO REMAIN

WETLAND BOUNDARY

LEGEND

1	REMOVING ASPHALTIC SURFACE MILLING, 2"
2	REMOVING ASPHALTIC SURFACE BUTT JOINTS
3	CONCRETE CURB & GUTTER 6-INCH SLOPED 36-INCH
4	CONCRETE CURB & GUTTER 4-INCH SLOPED 36-INCH
5	ASPHALTIC FLUMES
6	ASPHALTIC SURFACE DRIVEWAYS & FIELD ENTRANCES
7	BASE AGGREGATE DENSE DRIVEWAYS
8	MGS GUARD RAIL 3
9	MGS GUARD RAIL TERMINAL EAT
10	CURB RAMP TYPE 2
11	CONCRETE CURB & GUTTER 30-INCH TYPE D
12	CONCRETE DRIVEWAY 7-INCH, SEE CONSTRUCTION DETAIL
13	CONCRETE SIDEWALK 5-INCH
14	CURB RAMP DETECTABLE WARNING FIELD
X X X	SAWING ASPHALT
X	REMOVE TREES

PROJECT NO: 4060-05-70	HWY: STH 28	COUNTY: WASHINGTON	PLAN DETAIL	SHEET 65	E

LEGEND

1. REMOVING ASPHALTIC SURFACE MILLING, 2"
2. REMOVING ASPHALTIC SURFACE BUTT JOINTS
3. CONCRETE CURB & GUTTER 6-INCH SLOPED 36-INCH
4. CONCRETE CURB & GUTTER 4-INCH SLOPED 36-INCH
5. ASPHALTIC FLUMES
6. ASPHALTIC SURFACE DRIVEWAYS & FIELD ENTRANCES
7. BASE AGGREGATE DENSE DRIVEWAYS
8. MGS GUARD RAIL 3
9. MGS GUARD RAIL TERMINAL EAT
10. CURB RAMP TYPE 2
11. CONCRETE CURB & GUTTER 30-INCH TYPE D
12. CONCRETE DRIVEWAY 7-INCH, SEE CONSTRUCTION DETAIL
13. CONCRETE SIDEWALK 5-INCH
14. CURB RAMP DETECTABLE WARNING FIELD

X X X SAWING ASPHALT

X REMOVE TREES

N

WETLAND BOUNDARY

STA. 358+52.07 STH 28 ℞
STA. 70+00.00 VALLEY VISTA LANE ℞

TYPE C INTERSECTION

END RECONSTRUCTION
BEGIN MILL AND OVERLAY
+00.16' LT

947.64
947.30
16'
17'
1'
356+00
357+00
17.13'
STH 28
358+00
359+00
360+00
361+00
18.64'
14.39'
23.86'
SL
CAUTION
R/W
+25.04
18.63' LT
+50.13
21.67' LT
+00.11
19.73' LT
Pl 70+00.00

945.60
945.29
+96.87
23.55' RT
38' R
70' R
944.98
+26.09
12.38' LT
69+00
25'
VALLEY VISTA LANE

STA. 357+99.42, 61.62' RT STH 28
STA. 69+38.37, 52.65" LT VALLEY VISTA LANE

STA. 357+69.98, 73.45' RT STH 28
STA. 69+25.54, 82.38' LT VALLEY VISTA LANE

STA. 357+97.20, 93.55' RT STH 28
STA. 69+06.44, 54.77' LT VALLEY VISTA LANE

944.38
943.43
942.50
940.62
938.30
936
944.52
944.86
+37.36
12.69' R
+01.41
23.02'
40' R

STA. 359+04.75, 62.89' RT STH 28
STA. 69+37.11, 52.69' RT VALLEY VISTA LANE

POOL

PROJECT NO: 4060-05-70	HWY: STH 28	COUNTY: WASHINGTON	PLAN DETAIL	SHEET 66	E

2

2

N

PARADISE RD.

PARADISE RD.

TYPE C INTERSECTION

R/W

STH 28

R/W

WETLAND BOUNDARY

WETLAND BOUNDARY

CAUTION

SIGN

362 364 366 368 370 372 374 376

931.30 932.13 934.16 936.85 940.10 943.18 945.95

938.30 936.15 935.05

+50 19.73' LT 2" 18.53'

+30.12 19.40' LT

+00.00 20.07' LT

+25.11 17.93' LT

+74.89 14.76' RT

15.05'

19.3'

+98.41 20.06' RT

+75.00 24.46' RT

+50.08 25.78' RT

50' R

45' R

25'

70

Pl 372+72.10

00+00.00 ld

00+00.00 ld

1 REMOVING ASPHALTIC SURFACE MILLING, 2"

2 REMOVING ASPHALTIC SURFACE BUTT JOINTS

3 CONCRETE CURB & GUTTER 6-INCH SLOPED 36-INCH

4 CONCRETE CURB & GUTTER 4-INCH SLOPED 36-INCH

5 ASPHALTIC FLUMES

6 ASPHALTIC SURFACE DRIVEWAYS & FIELD ENTRANCES

7 BASE AGGREGATE DENSE DRIVEWAYS

8 MGS GUARD RAIL 3

9 MGS GUARD RAIL TERMINAL EAT

10 CURB RAMP TYPE 2

11 CONCRETE CURB & GUTTER 30-INCH TYPE D

12 CONCRETE DRIVEWAY 7-INCH, SEE CONSTRUCTION DETAIL

13 CONCRETE SIDEWALK 5-INCH

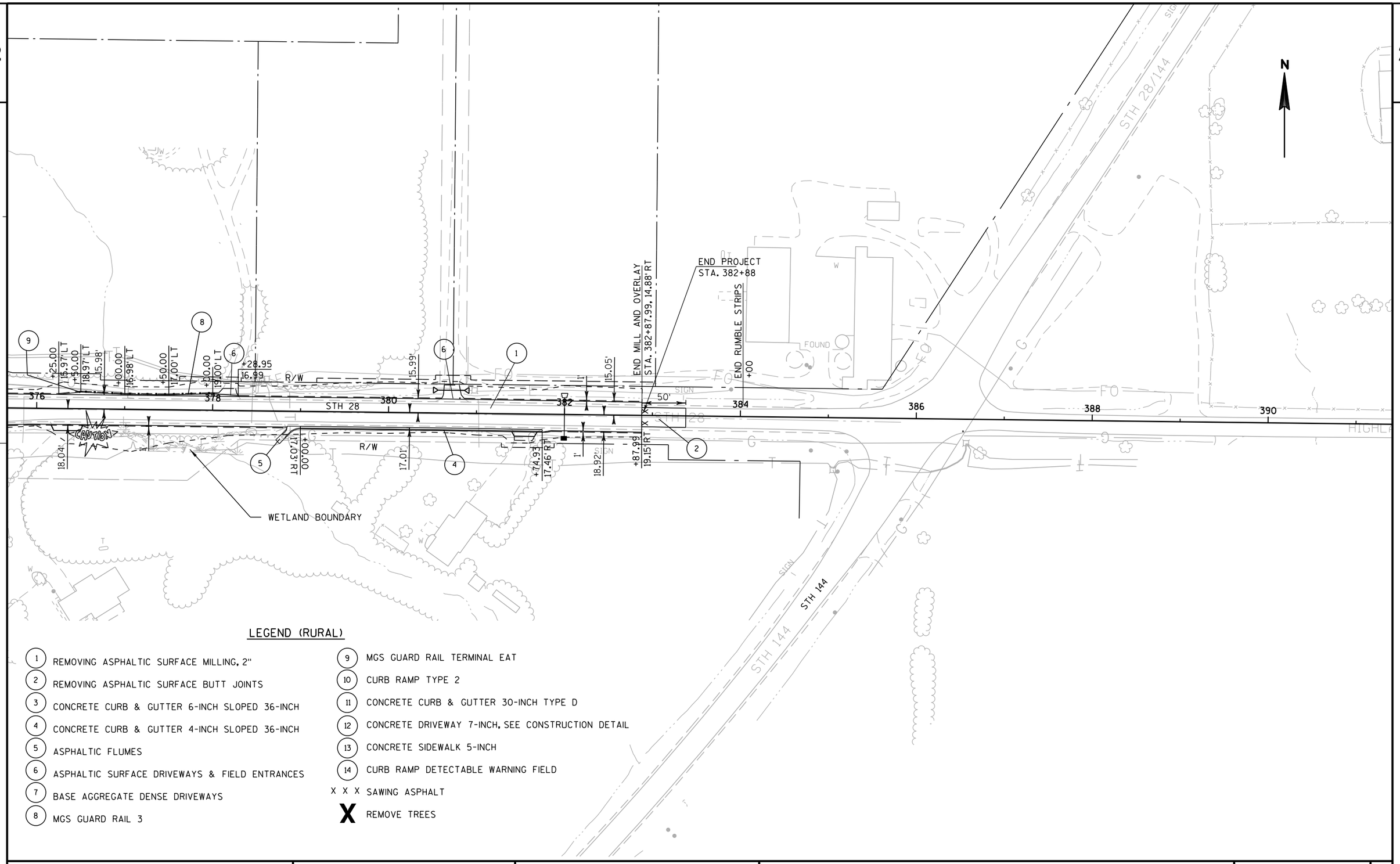
14 CURB RAMP DETECTABLE WARNING FIELD

X X X SAWING ASPHALT

X REMOVE TREES

LEGEND (RURAL)

PROJECT NO: 4060-05-70	HWY: STH 28	COUNTY: WASHINGTON	PLAN DETAIL	SHEET 67 E

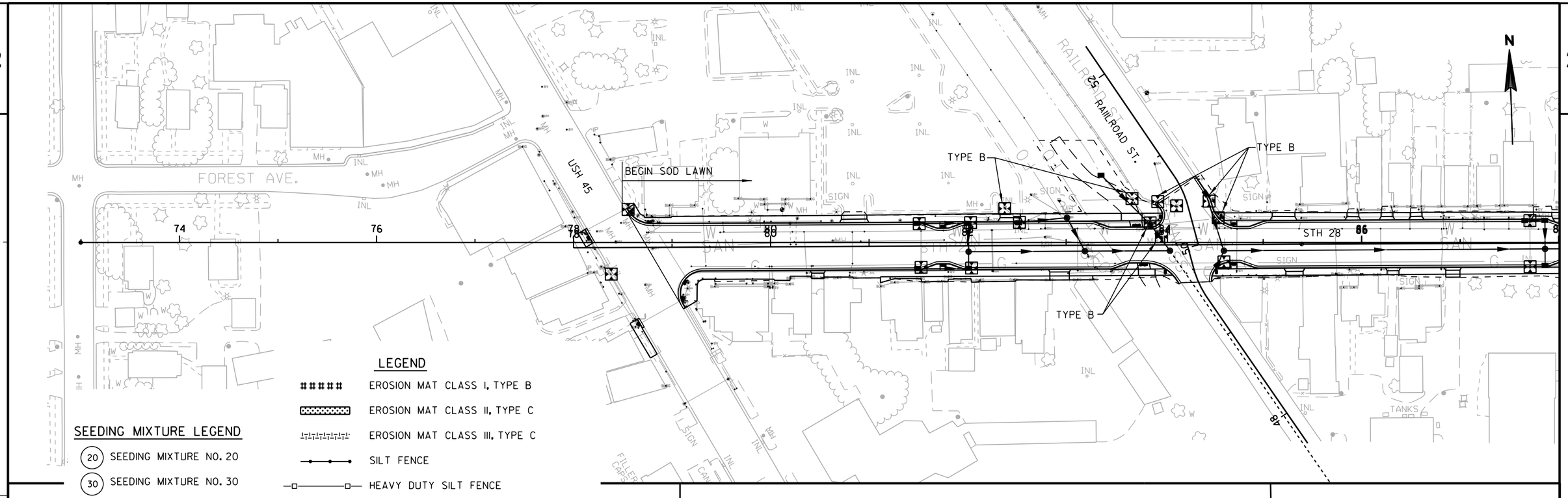


LEGEND (RURAL)

1. REMOVING ASPHALTIC SURFACE MILLING, 2"
2. REMOVING ASPHALTIC SURFACE BUTT JOINTS
3. CONCRETE CURB & GUTTER 6-INCH SLOPED 36-INCH
4. CONCRETE CURB & GUTTER 4-INCH SLOPED 36-INCH
5. ASPHALTIC FLUMES
6. ASPHALTIC SURFACE DRIVEWAYS & FIELD ENTRANCES
7. BASE AGGREGATE DENSE DRIVEWAYS
8. MGS GUARD RAIL 3
9. MGS GUARD RAIL TERMINAL EAT
10. CURB RAMP TYPE 2
11. CONCRETE CURB & GUTTER 30-INCH TYPE D
12. CONCRETE DRIVEWAY 7-INCH, SEE CONSTRUCTION DETAIL
13. CONCRETE SIDEWALK 5-INCH
14. CURB RAMP DETECTABLE WARNING FIELD

X X X SAWING ASPHALT

X REMOVE TREES

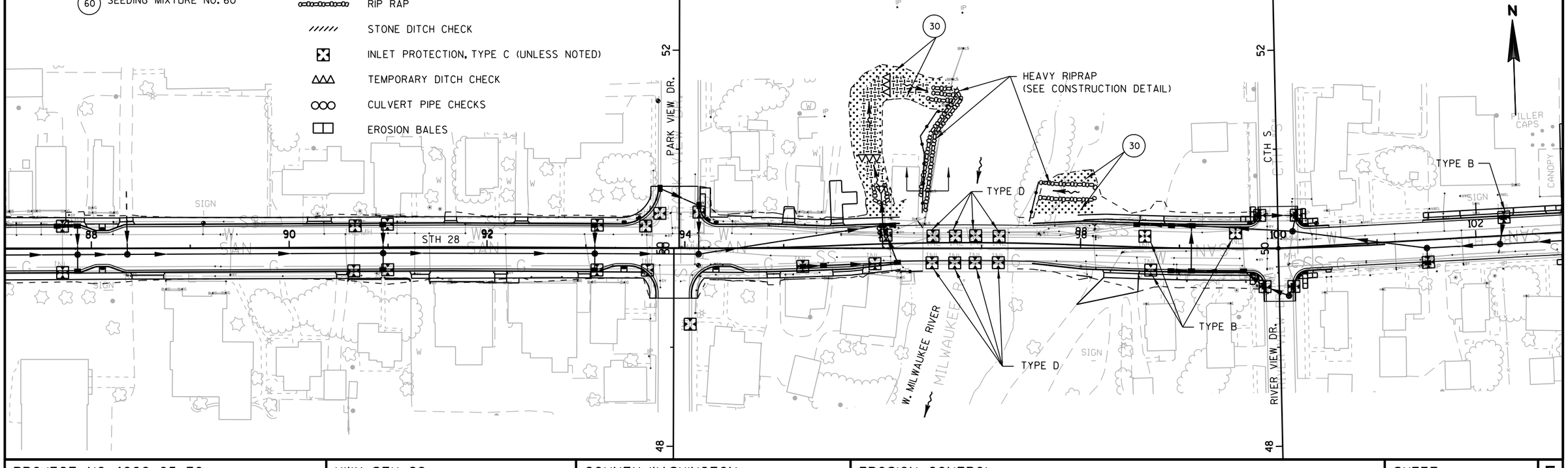


SEEDING MIXTURE LEGEND

- (20) SEEDING MIXTURE NO. 20
- (30) SEEDING MIXTURE NO. 30
- (60) SEEDING MIXTURE NO. 60

LEGEND

- EROSION MAT CLASS I, TYPE B
- EROSION MAT CLASS II, TYPE C
- EROSION MAT CLASS III, TYPE C
- SILT FENCE
- HEAVY DUTY SILT FENCE
- RIP RAP
- STONE DITCH CHECK
- INLET PROTECTION, TYPE C (UNLESS NOTED)
- TEMPORARY DITCH CHECK
- CULVERT PIPE CHECKS
- EROSION BALES



PROJECT NO: 4060-05-70	HWY: STH 28	COUNTY: WASHINGTON	EROSION CONTROL	SHEET 69 E

2

2

KEWASKUN ST.

STARK ST.

CEMETERY

FILLER CAPS

CANOPY

SIGN

ANT.

102 104 106 108 110 112 114 116

STH 28

50

48

GOLF COURSE

LAKROLL RD.

ATHLETIC FIELD

GOLF GREEN

U/C

KETTLE DR.

PRIVATE PONE

118 120 122 124 126 128 130 132

STH 28

LEGEND

- EROSION MAT CLASS I, TYPE B
- EROSION MAT CLASS II, TYPE C
- EROSION MAT CLASS III, TYPE C
- SILT FENCE
- HEAVY DUTY SILT FENCE
- RIP RAP
- STONE DITCH CHECK
- INLET PROTECTION, TYPE C (UNLESS NOTED)
- TEMPORARY DITCH CHECK
- CULVERT PIPE CHECKS
- EROSION BALES

SEEDING MIXTURE LEGEND

- (20) SEEDING MIXTURE NO. 20
- (30) SEEDING MIXTURE NO. 30
- (60) SEEDING MIXTURE NO. 60

WETLAND BOUNDARY

END SOD LAWN | BEGIN SEED & MULCH OR EROSION MATT

WETLAND BOUNDARY

WETLAND BOUNDARY

(30) USE ON SLOPES

(60) USE ON FLAT BOTTOM DITCH AREA

N

N

PROJECT NO: 4060-05-70	HWY: STH 28	COUNTY: WASHINGTON	EROSION CONTROL	SHEET 70	E

2

2

SEED & MULCH

SOD LAWN REOD

SEED & MULCH

WETLAND BOUNDARY

WETLAND BOUNDARY

WETLAND BOUNDARY

WETLAND BOUNDARY

WETLAND BOUNDARY

WETLAND BOUNDARY

WETLAND BOUNDARY

STH 28

STH 28

S. MILL RD.

N. MILL RD.

E. BR. MILWAUKEE RIVER

E. BR. MILWAUKEE RIVER

POOL

N

N

LEGEND

- EROSION MAT CLASS I, TYPE B
- EROSION MAT CLASS II, TYPE C
- EROSION MAT CLASS III, TYPE C
- SILT FENCE
- HEAVY DUTY SILT FENCE
- RIP RAP
- STONE DITCH CHECK
- INLET PROTECTION, TYPE C (UNLESS NOTED)
- TEMPORARY DITCH CHECK
- CULVERT PIPE CHECKS
- EROSION BALES

SEEDING MIXTURE LEGEND

- (20) SEEDING MIXTURE NO. 20
- (30) SEEDING MIXTURE NO. 30
- (60) SEEDING MIXTURE NO. 60

PROJECT NO: 4060-05-70	HWY: STH 28	COUNTY: WASHINGTON	EROSION CONTROL	SHEET	E

FILE NAME : J:\projects\D2_40600528\022003_ec.dgn PLOT DATE : 01-OCT-2013 10:38 PLOT BY : dotr3h PLOT NAME : PLOT SCALE : 100:1

WISDOT/CADDS SHEET 42

2

WETLAND BOUNDARY

WETLAND BOUNDARY

30

PI 172+22.25

162 164 166 168 STH 28 170 172 174

PI 168+49.48

PC 169+80.84

WETLAND BOUNDARY

WETLAND BOUNDARY

PT 174+56.56

176

WETLAND BOUNDARY

N

SEEDING MIXTURE LEGEND

- (20) SEEDING MIXTURE NO. 20
- (30) SEEDING MIXTURE NO. 30
- (60) SEEDING MIXTURE NO. 60

LEGEND

- ##### EROSION MAT CLASS I, TYPE B
- EROSION MAT CLASS II, TYPE C
- EROSION MAT CLASS III, TYPE C
- SILT FENCE
- HEAVY DUTY SILT FENCE
- RIP RAP
- STONE DITCH CHECK
- INLET PROTECTION, TYPE C (UNLESS NOTED)
- TEMPORARY DITCH CHECK
- CULVERT PIPE CHECKS
- EROSION BALES

N

30

190

188

20

WETLAND BOUNDARY

WETLAND BOUNDARY

176 178 STH 28 180 182 184 186

30

AHEAD 185+63.17
BACK 185+61.96

PROJECT NO: 4060-05-70	HWY: STH 28	COUNTY: WASHINGTON	EROSION CONTROL	SHEET 72	E

2

WETLAND BOUNDARY

WETLAND BOUNDARY

30

20

190 192 194 196 STH 28 198 200 202 204

N

LEGEND

- EROSION MAT CLASS I, TYPE B
- EROSION MAT CLASS II, TYPE C
- EROSION MAT CLASS III, TYPE C
- SILT FENCE
- HEAVY DUTY SILT FENCE
- RIP RAP
- STONE DITCH CHECK
- INLET PROTECTION, TYPE C (UNLESS NOTED)
- TEMPORARY DITCH CHECK
- CULVERT PIPE CHECKS
- EROSION BALES

SEEDING MIXTURE LEGEND

- (20) SEEDING MIXTURE NO. 20
- (30) SEEDING MIXTURE NO. 30
- (60) SEEDING MIXTURE NO. 60

30

20

204 206 208 210 STH 28 212 214 216 218

N

30

KETTLE MORAINE DR.

SIGN

PROJECT NO: 4060-05-70	HWY: STH 28	COUNTY: WASHINGTON	EROSION CONTROL	SHEET 73	E

2

2

WETLAND BOUNDARY

STH 28

220 222 224 226 228 230 232 234

30

SEPTIC

ANT.

W

N

LEGEND

- EROSION MAT CLASS I, TYPE B
- EROSION MAT CLASS II, TYPE C
- EROSION MAT CLASS III, TYPE C
- SILT FENCE
- HEAVY DUTY SILT FENCE
- RIP RAP
- STONE DITCH CHECK
- INLET PROTECTION, TYPE C (UNLESS NOTED)
- TEMPORARY DITCH CHECK
- CULVERT PIPE CHECKS
- EROSION BALES

SEEDING MIXTURE LEGEND

- (20) SEEDING MIXTURE NO. 20
- (30) SEEDING MIXTURE NO. 30
- (60) SEEDING MIXTURE NO. 60

60 USE ON FLAT BOTTOM DITCH AREA

N. HICKORY DRIVE

S. HICKORY DRIVE

STH 28

234 236 238 240 242 244 246 248

30 20 TYPE A

N

PROJECT NO: 4060-05-70	HWY: STH 28	COUNTY: WASHINGTON	EROSION CONTROL	SHEET 74	E

2

N

248 250 252 254 256 258 260 262

STH 28

15'

30 30 30 30 30 30 20 20

SEEDING MIXTURE LEGEND

(20) SEEDING MIXTURE NO. 20

(30) SEEDING MIXTURE NO. 30

(60) SEEDING MIXTURE NO. 60

LEGEND

- EROSION MAT CLASS I, TYPE B
- EROSION MAT CLASS II, TYPE C
- EROSION MAT CLASS III, TYPE C
- SILT FENCE
- HEAVY DUTY SILT FENCE
- RIP RAP
- STONE DITCH CHECK
- INLET PROTECTION, TYPE C (UNLESS NOTED)
- TEMPORARY DITCH CHECK
- CULVERT PIPE CHECKS
- EROSION BALES

N

SEPTIC

FOREST VIEW DR.

50142 1039.98

3_030

3_031

264 266 268 270 272 274 276

STH 28

20

40 40 40 40 40

30 30 30

SIGN SIGN SIGN SIGN SIGN

50129 1039.33

RUINS

50131 1035.76

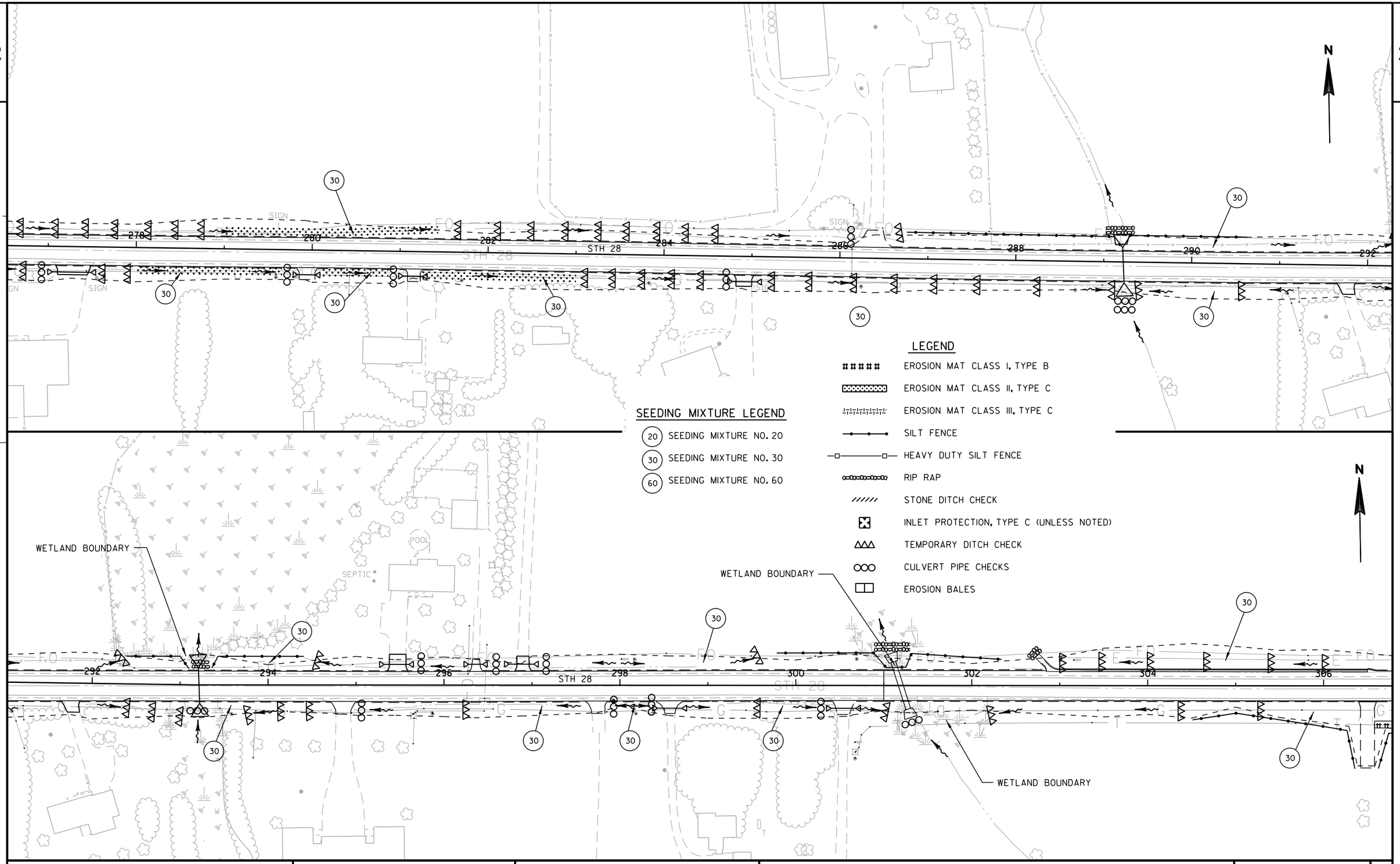
50132 1031.66

TYPE A

18

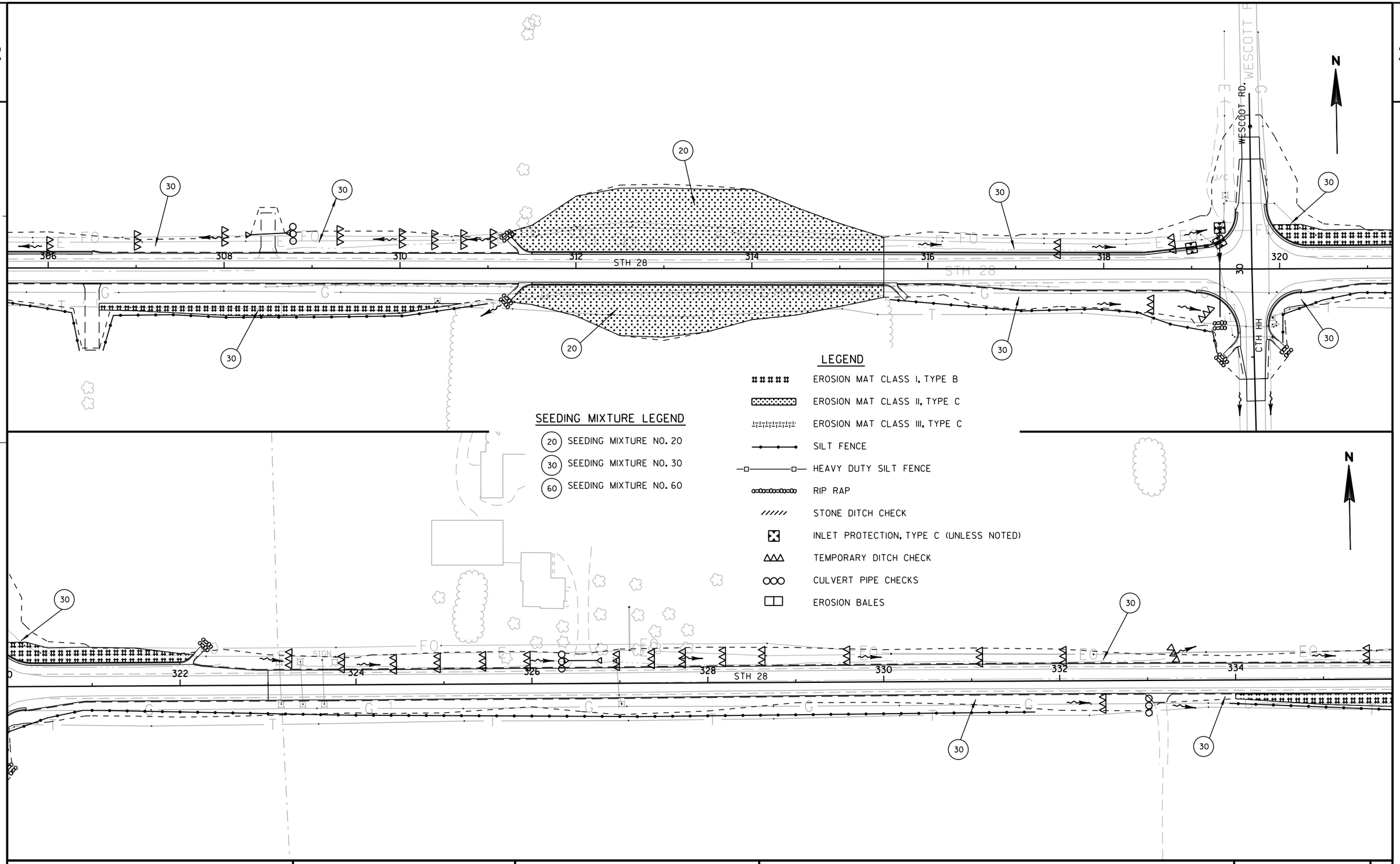
PROJECT NO: 4060-05-70	HWY: STH 28	COUNTY: WASHINGTON	EROSION CONTROL	SHEET 75 E

FILE NAME : J:\projects\D2_40600528\022007_ec.dgn PLOT DATE : 01-OCT-2013 10:38 PLOT BY : dotr3h PLOT NAME : PLOT SCALE : 100:1



PROJECT NO: 4060-05-70	HWY: STH 28	COUNTY: WASHINGTON	EROSION CONTROL	SHEET	E

FILE NAME : J:\projects\D2_40600528\022008_ec.dgn PLOT DATE : 01-OCT-2013 10:38 PLOT BY : dotr3h PLOT NAME : PLOT SCALE : 100:1



PROJECT NO: 4060-05-70	HWY: STH 28	COUNTY: WASHINGTON	EROSION CONTROL	SHEET 77	E

2

2

N

30 30 30 40 40 30 20

336 338 340 342 STH 28 344 346 348 350

15' 15' 15'

30 30 30 20

SEEDING MIXTURE LEGEND

- (20) SEEDING MIXTURE NO. 20
- (30) SEEDING MIXTURE NO. 30
- (60) SEEDING MIXTURE NO. 60

LEGEND

- EROSION MAT CLASS I, TYPE B
- EROSION MAT CLASS II, TYPE C
- EROSION MAT CLASS III, TYPE C
- SILT FENCE
- HEAVY DUTY SILT FENCE
- RIP RAP
- STONE DITCH CHECK
- INLET PROTECTION, TYPE C (UNLESS NOTED)
- TEMPORARY DITCH CHECK
- CULVERT PIPE CHECKS
- EROSION BALES

STONEY CREEK

WETLAND BOUNDARY

20 60 30

350 352 354 STH 28 356 358 360 362 364

15' 15'

30 30 30 30

20 60

WETLAND BOUNDARY

SEE CONSTRUCTION DETAIL

68' VALLEY VISTA TR.

WETLAND BOUNDARY

BEGIN
SEED MIX NO. SPV.0005.02

20

WETLAND BOUNDARY

BEGIN
SEED MIX NO. SPV.0005.02

HEAVY DUTY
SILT FENCE

SILT FENCE BACKED
WITH EROSION BALES

N

SEPTIC

PROJECT NO: 4060-05-70	HWY: STH 28	COUNTY: WASHINGTON	EROSION CONTROL	SHEET 78	E

FILE NAME : J:\projects\D2_40600528\022010_ec.dgn PLOT DATE : 01-OCT-2013 10:38 PLOT BY : dotr3h PLOT NAME : PLOT SCALE : 100:1

WISDOT/CADDS SHEET 42

HEAVY DUTY SILT FENCE

WETLAND BOUNDARY

END SEED MIX NO. SPV.0005.02

END SEED MIX NO. SPV.0005.02

WETLAND BOUNDARY

HEAVY DUTY SILT FENCE

END SEED MIX NO. 75

WETLAND BOUNDARY

N. PARADISE RD.

STH 28

364 366 368 370 372 374 376 378

380 382 384 386 388 390 392

STH 144

HIGHLAND DR.

FOUND

SIGN

LEGEND

- EROSION MAT CLASS I, TYPE B
- EROSION MAT CLASS II, TYPE C
- EROSION MAT CLASS III, TYPE C
- SILT FENCE
- HEAVY DUTY SILT FENCE
- RIP RAP
- STONE DITCH CHECK
- INLET PROTECTION, TYPE C (UNLESS NOTED)
- TEMPORARY DITCH CHECK
- CULVERT PIPE CHECKS
- EROSION BALES

SEEDING MIXTURE LEGEND

- (20) SEEDING MIXTURE NO. 20
- (30) SEEDING MIXTURE NO. 30
- (60) SEEDING MIXTURE NO. 60

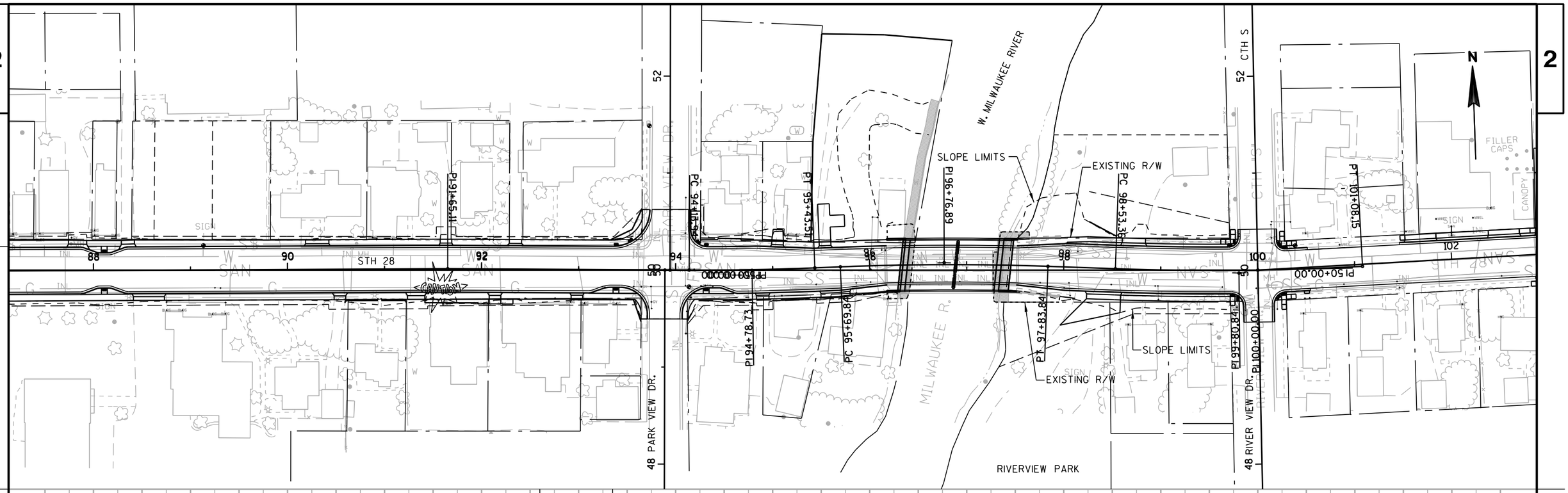
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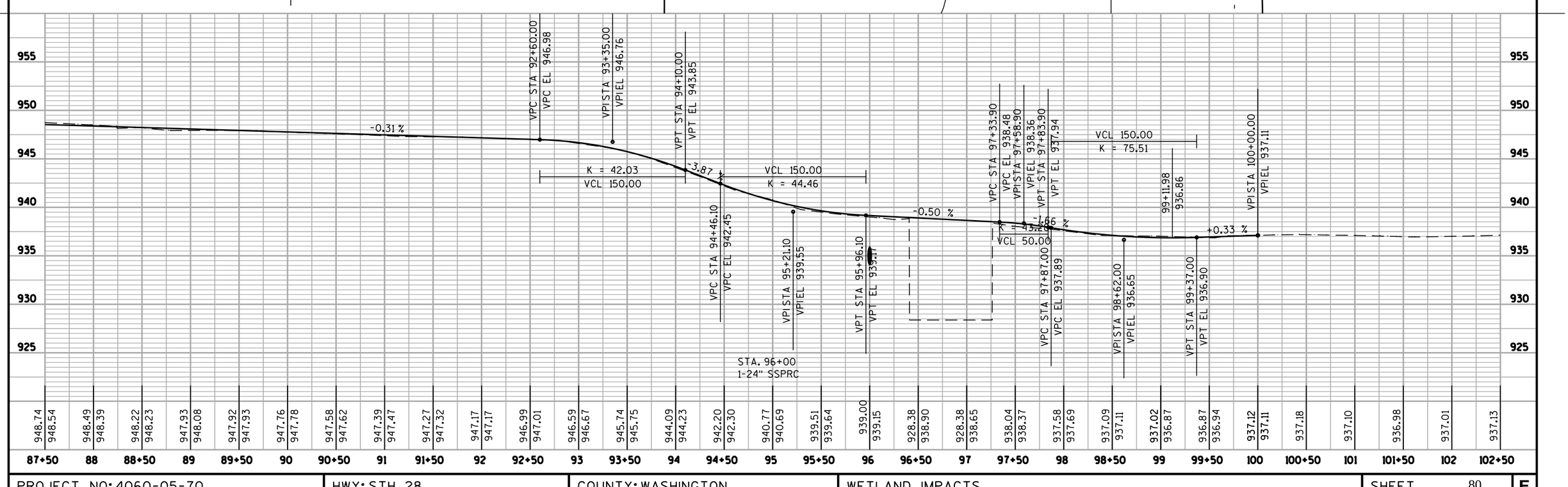
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PROJECT NO: 4060-05-70	HWY: STH 28	COUNTY: WASHINGTON	EROSION CONTROL	SHEET	E

FILE NAME : J:\projects\D2_40600528\022011_ec.dgn PLOT DATE : 01-OCT-2013 10:38 PLOT BY : dotr3h PLOT NAME : PLOT SCALE : 100:1

2





PROJECT NO: 4060-05-70	HWY: STH 28	COUNTY: WASHINGTON	WETLAND IMPACTS	SHEET 80	E

2

2

N

U/C

ATHLETIC FIELD

PRIVATE POND

WETLAND BOUNDARYS

0.011 ACRES

SLOPE LIMITS

EXISTING R/W

CAUTION

118 120 122 124 126 128 130 132

STH 28

STH 28

SLOPE LIMITS

EXISTING R/W

0.045 ACRES

PI 126+50.70

REMOVE SMALL
CULVERT PIPE

GOLF
GREEN

GOLF
COURSE

GOLF
COURSE

940
935
930
925
920

STA. 128+89.60
1-19"X30" CPRCHE
CLASS HE-III REQ'D

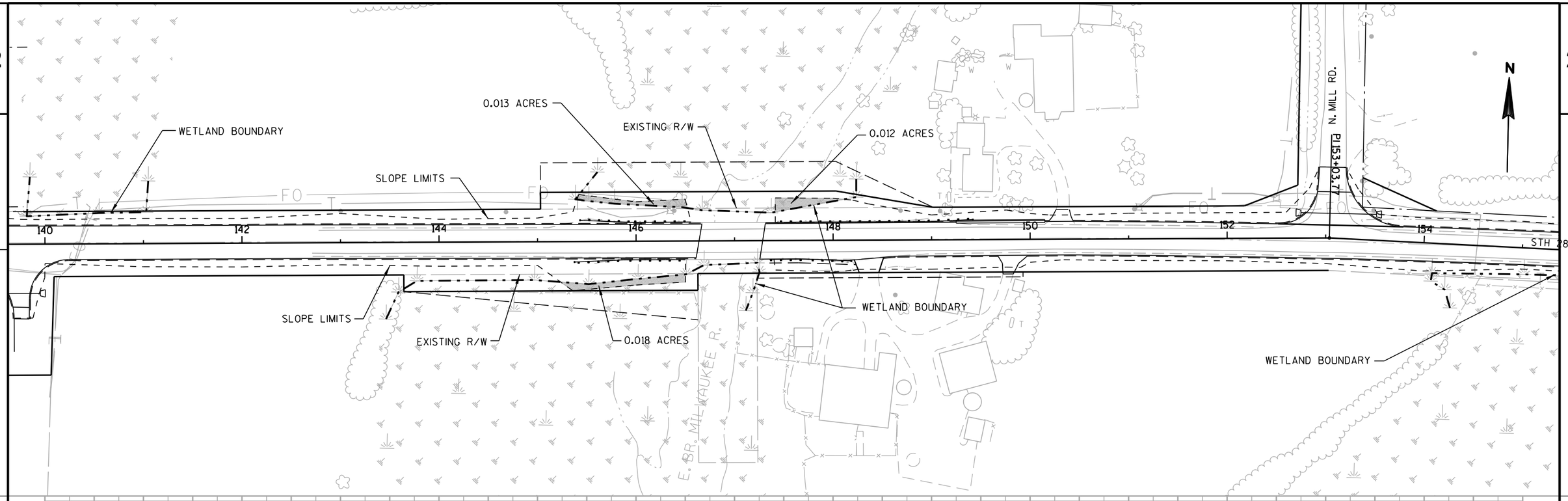
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117+50	118	118+50	119	119+50	120	120+50	121	121+50	122	122+50	123	123+50	124	124+50	125	125+50	126	126+50	127	127+50	128	128+50	129	129+50	130	130+50	131	131+50	132	132+50

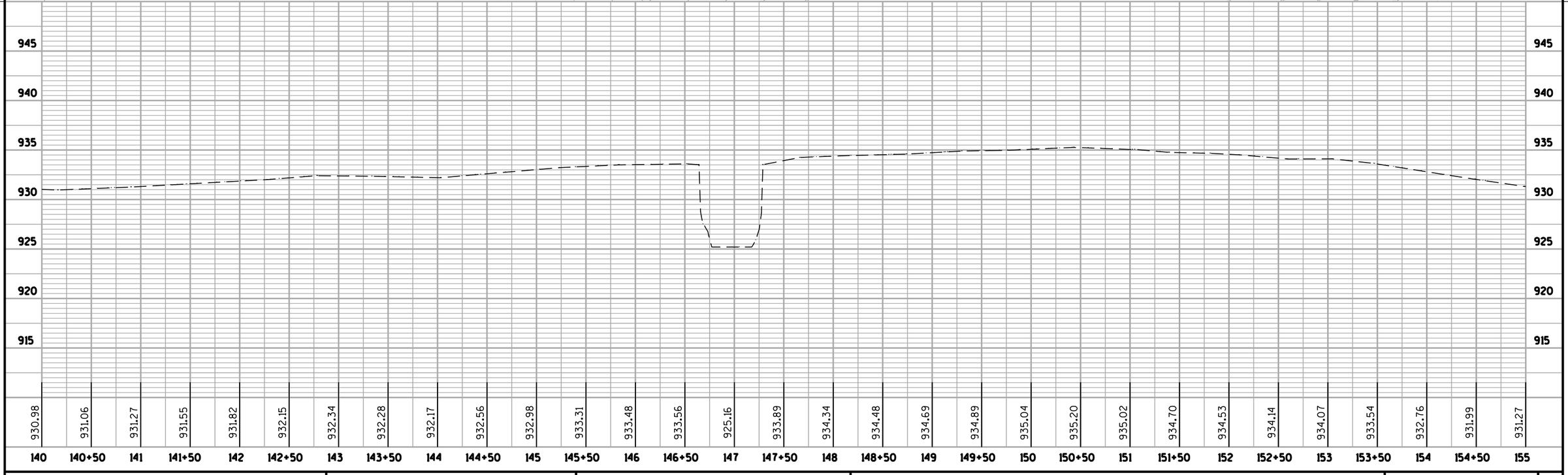
PROJECT NO: 4060-05-70	HWY: STH 28	COUNTY: WASHINGTON	WETLAND IMPACTS	SHEET 81	E

FILE NAME : J:\projects\D2_40600528\022201_wi.dgn PLOT DATE : 01-AUG-2013 11:24 PLOT BY : dotr3h PLOT NAME : PLOT SCALE : 100:1

WISDOT/CADDS SHEET 41a

2





PROJECT NO: 4060-05-70	HWY: STH 28	COUNTY: WASHINGTON	WETLAND IMPACTS	SHEET 82	E

2

WETLAND BOUNDARY

EXISTING R/W

WETLAND BOUNDARY

PRL5 ℞

0.011 ACRES

PI 172+82.25

28RL1 ℞

SLOPE LIMITS

STH 28

PI 168+49.48

EXISTING R/W

PC 169+80.84

WETLAND BOUNDARY

PC 170+46.12

0.026 ACRES

SLOPE LIMITS

PT 173+85.30

PT 174+55.56

0.002 ACRES (68 SF)

WETLAND BOUNDARY

PC 176+47.17

OAK DR.

PI 177+82.75

N

2

VCL 400.00
K = 366.48

VPOT STA 168+49.48
VPOT EL 933.77

STA. 171+00
1-19X30" CPRC TYPE III REQ'D

VPC STA 171+50.00
VPC EL 936.17

VPI STA 173+50.00
VPI EL 937.77

STA. 175+19
1-24" CPRC REQ'D

VPT STA 175+50.00
VPT EL 941.56

STA. 177+41
1-19X30" CPRC
HE-III REQ'D

EBS #2

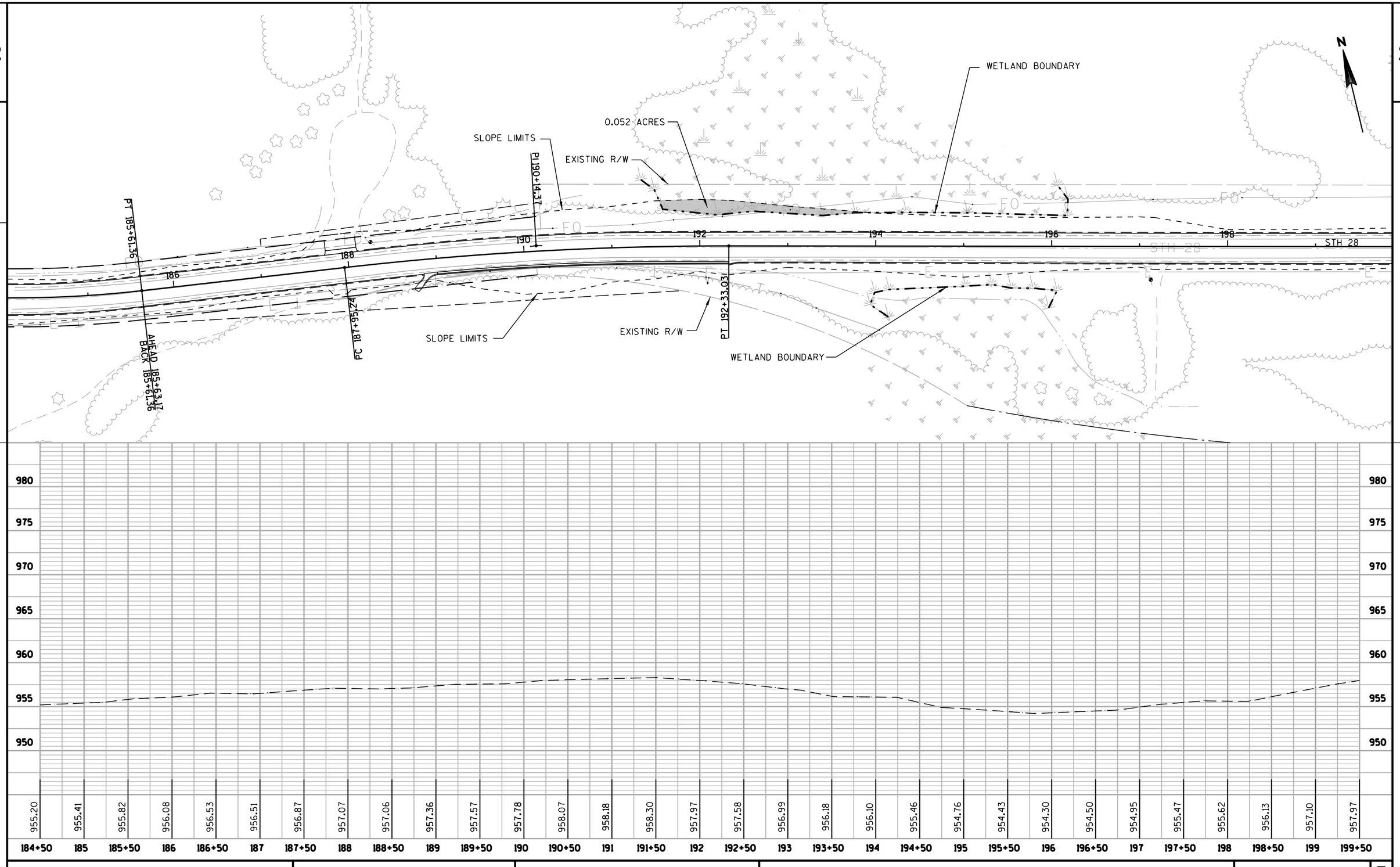
VPOT EL 945.34
VPOT STA 177+50.00

162+50	163	163+50	164	164+50	165	165+50	166	166+50	167	167+50	168	168+50	169	169+50	170	170+50	171	171+50	172	172+50	173	173+50	174	174+50	175	175+50	176	176+50	177	177+50
930.21	930.24	930.45	930.37	930.46	930.58	930.84	931.22	931.51	931.77	932.29	932.98	933.56	933.77	934.01	934.17	934.41	934.57	935.04	934.97	935.32	935.37	935.67	935.77	935.80	936.17	936.25	936.61	936.31	937.11	937.18	937.68	937.87	938.32	938.42	939.03	939.35	939.80	940.20	940.65	941.08	941.56	942.23	942.50	943.05	943.45	944.08	944.39	945.13	945.34

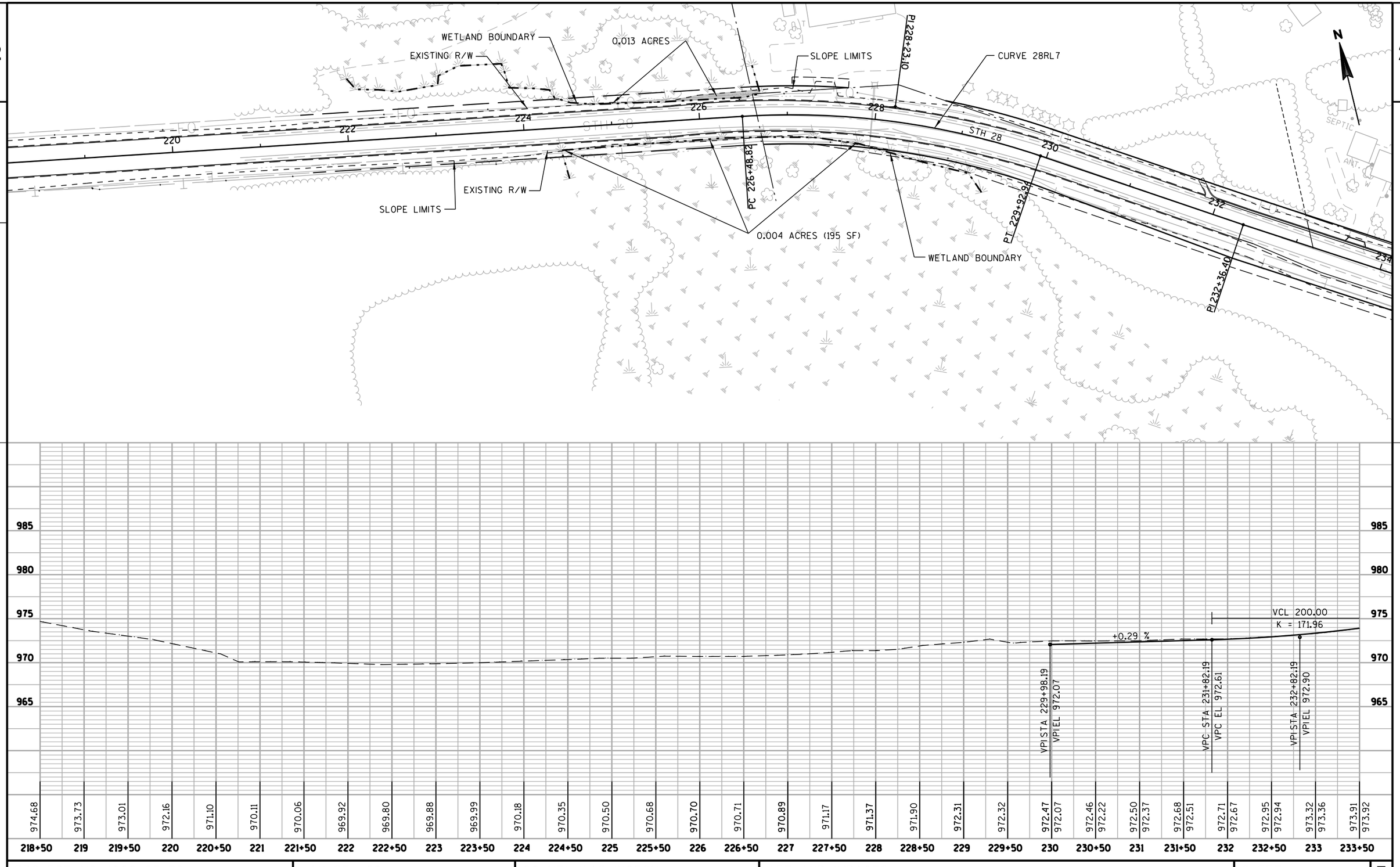
PROJECT NO: 4060-05-70	HWY: STH 28	COUNTY: WASHINGTON	WETLAND IMPACTS	SHEET 83	E

FILE NAME : J:\projects\D2_40600528\022203_wi.dgn PLOT DATE : 01-OCT-2013 10:45 PLOT BY : dotr3h PLOT NAME : PLOT SCALE : 100:1

WISDOT/CADDS SHEET 41a



PROJECT NO: 4060-05-70	HWY: STH 28	COUNTY: WASHINGTON	WETLAND IMPACTS	SHEET 84	E



PROJECT NO: 4060-05-70	HWY: STH 28	COUNTY: WASHINGTON	WETLAND IMPACTS	SHEET 85	E

FILE NAME : J:\projects\D2_40600528\022205_wi.dgn PLOT DATE : 01-OCT-2013 10:45 PLOT BY : dotr3h PLOT NAME : PLOT SCALE : 100:1

WISDOT/CADDS SHEET 41a

2

N

EXISTING R/W

SEPTIC

SLOPE LIMITS

SLOPE LIMITS

EXISTING R/W

RUINS

STH 28

CAUTION

SIGN

SIGN

SIGN

SIGN

SIGN

268 270 272 274 276 278 280 282

VP

VPI STA

VPI E

VPT STA 269+73.1

VPT EL1037.64

K = 36.24

VCL 150.00

-7.82 %

VPI STA 270+08.19

VPI EL 1034.91

STA. 272+00

1-24" CPRC REQ'D

1045 1040 1035 1030 1025 1020 1015 1010

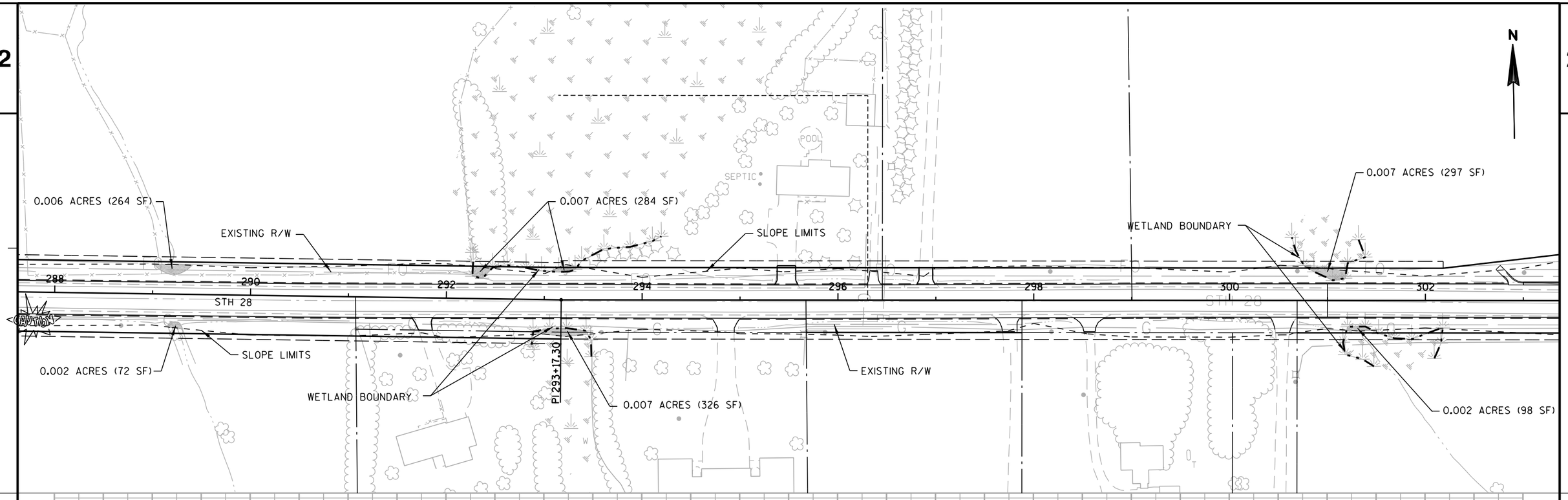
1015 1010 1005 1000 995 990

1048.53 1048.97 1047.01 1047.13 1045.21 1045.19 1042.90 1042.63 1039.66 1039.38 1035.55 1032.18 1029.38 1027.70 1027.15 1026.73 1026.18 1024.97 1023.39 1022.05 1020.23 1018.60 1017.25 1016.10 1014.64 1013.58 1012.22 1010.82 1009.01 1006.80 1004.64 1002.14 999.75 997.25 994.49 992.04

267+50 268 268+50 269 269+50 270 270+50 271 271+50 272 272+50 273 273+50 274 274+50 275 275+50 276 276+50 277 277+50 278 278+50 279 279+50 280 280+50 281 281+50 282 282+50

PROJECT NO: 4060-05-70	HWY: STH 28	COUNTY: WASHINGTON	WETLAND IMPACTS	SHEET E

FILE NAME : J:\projects\D2_40600528\022206_wi.dgn PLOT DATE : 01-AUG-2013 11:25 PLOT BY : dotr3h PLOT NAME : PLOT SCALE : 100:1



PROJECT NO: 4060-05-70	HWY: STH 28	COUNTY: WASHINGTON	WETLAND IMPACTS	SHEET 87 E

2

N

WETLAND BOUNDARY

0.227 ACRES

EXISTING R/W

STONEY CREEK

SLOPE LIMITS

SEPTIC

CAUTION

STH 28

EXISTING R/W

SLOPE LIMITS

0.375 ACRES

SEPTIC

VPI

343+24.01
962.64

REMOVING ASPHALTIC SURFACE

K = 122.79
VCL 600.00

VPT STA 347+73.19
VPT EL 954.42

-3.66 %

VPC STA 348+63.19
VPC EL 951.13

STA. 350+80
1-72" CPRC REQ'D

MARSH EXCAVATION

VPI STA 350+73.19
VPI EL 943.45

STA. 350+95
REMOVE STRUCTURE 66-028.050
3'X4' BOX CULVERT
32' OVERALL LENGTH

351+63.00
945.65

VCL 420.00
K = 81.95

VPC STA 352+98.19
VPC EL 946.75

+1.47 %

VPT STA 352+83.19
VPT EL 946.53

REMOVING ASPHALTIC SURFACE

354+84.95
948.12

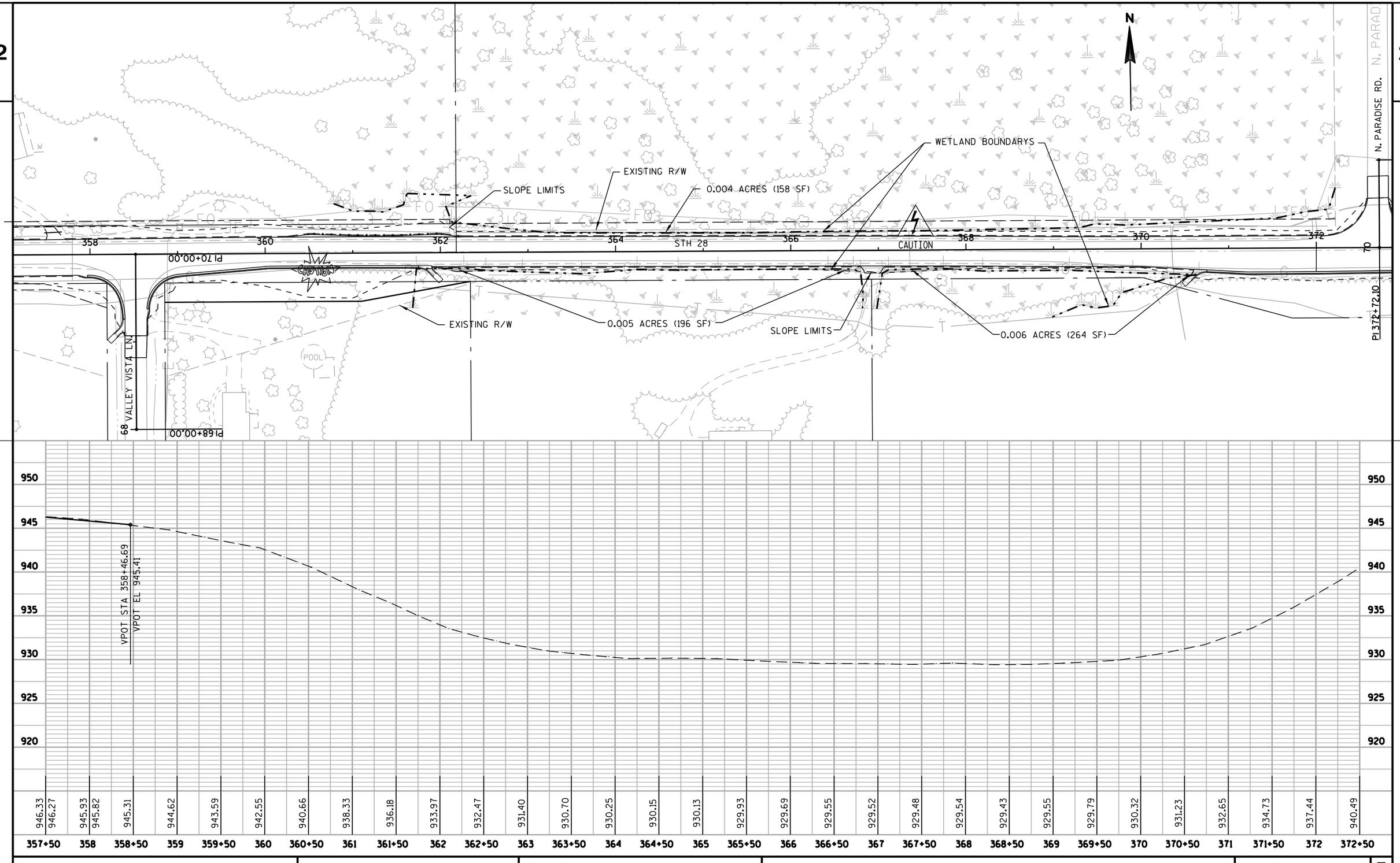
K = 127.34
VCL 300.00

VPI STA 354+48.19
VPI EL 948.95

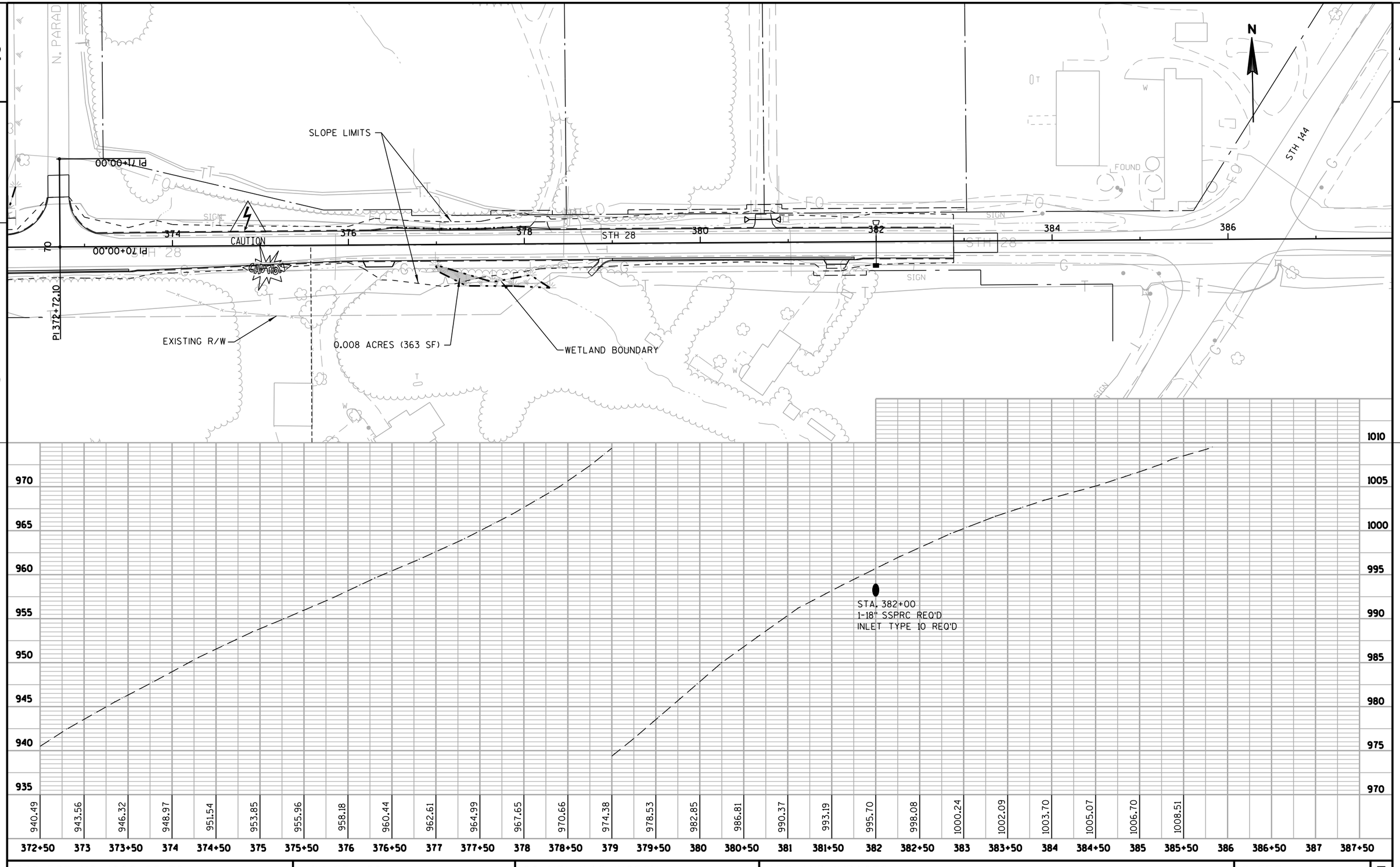
VPT STA 355+98.19
VPT EL 947.62

-0.89 %

| | | |



PROJECT NO:	HWY:	COUNTY:		SHEET 89 E



PROJECT NO: 4060-05-70	HWY: STH 28	COUNTY: WASHINGTON	WETLAND IMPACTS	SHEET 90 E

FILE NAME : J:\projects\D2_40600528\022210_wi.dgn PLOT DATE : 01-AUG-2013 11:25 PLOT BY : dotr3h PLOT NAME : PLOT SCALE : 100:1

WISDOT/CADDS SHEET 41a

NOTE:
STORM SEWER WAS DESIGNED FOR 10 YRS
AND CHECKED FOR 25 YRS

10 YR DESIGN DATA SHOWN

MILWAUKEE IDF CHARTS WERE
USED FOR INTENSITIES.

N

2ND ST

1ST ST

A129
Area=1.63Acres
Tc=10.00
C=0.68
Q=5.69cfs
Intensity=5.14

A208
Area=0.35Acres
Tc=5.00
C=0.80
Q=1.77cfs
Intensity=6.27

A109
Area=0.39Acres
Tc=5.00
C=0.73
Q=1.81cfs
Intensity=6.27

A219
Area=2.67Acres
Tc=5.40
C=0.50
Q=8.24cfs
Intensity=6.17

A107
Area=0.36Acres
Tc=5.00
C=0.73
Q=1.66cfs
Intensity=6.27

A218
Area=0.30Acres
Tc=5.00
C=0.75
Q=1.40cfs
Intensity=6.27

SYSTEM 1

SYSTEM 2

SYSTEM 1 OUTFALL
TO EXISTING SYSTEM

STH 28

USH 45

RAILROAD ST

78 80 82 84 86 88

SCALE 1"=100'

PROJECT NO: 4060-05-70	HWY: STH 28	COUNTY: WASHINGTON	STORM SEWER	SHEET 1	E

FILE NAME : P:\43xx\4360\Exhibits\4360_SS_design data_1.dgn PLOT DATE : 7/13/2013 PLOT BY : tmk PLOT NAME : PLOT SCALE : 1:100

NOTE:
STORM SEWER WAS DESIGNED FOR 10 YRS
AND CHECKED FOR 25 YRS

10 YR DESIGN DATA SHOWN

MILWAUKEE IDF CHARTS WERE
USED FOR INTENSITIES.

N

A259
Area=0.29Acres
Tc=5.00
C=0.80
Q=1.46cfs
Intensity=6.27

A239
Area=2.06Acres
Tc=13.00
C=0.45
Q=4.30cfs
Intensity=4.64

A249
Area=1.83Acres
Tc=6.30
C=0.40
Q=4.34cfs
Intensity=5.94

A268
Area=0.23Acres
Tc=5.00
C=0.49
Q=0.72cfs
Intensity=6.27

PARKVIEW DR

CTH "S"

SYSTEM 2
OUTFALL
TO SWALE

EX. OUTFALL

88 90 STH 28 92 94 96 98 100 102

SYSTEM 2

P210

A238
Area=0.30Acres
Tc=5.00
C=0.66
Q=1.23cfs
Intensity=6.27

A248
Area=0.18Acres
Tc=5.00
C=0.72
Q=0.82cfs
Intensity=6.27

A269
Area=0.22Acres
Tc=5.00
C=0.75
Q=1.04cfs
Intensity=6.27

MILWAUKEE RIVER

SIGN

RIVER VIEW DRIVER VIEW DR

SCALE 1"=100'

PROJECT NO: 4060-05-70	HWY: STH 28	COUNTY: WASHINGTON	STORM SEWER	SHEET 2	E

FILE NAME : P:\43xx\4360\Exhibits\4360_SS_design data_2.dgn PLOT DATE : 7/13/2013 PLOT BY : tmk PLOT NAME : PLOT SCALE : 1:100

NOTE:
STORM SEWER WAS DESIGNED FOR 10 YRS
AND CHECKED FOR 25 YRS

10 YR DESIGN DATA SHOWN

MILWAUKEE IDF CHARTS WERE
USED FOR INTENSITIES.

A358B
Area=0.22Acres
Tc=6.00
C=0.72
Q=0.94cfs
Intensity=6.01

A359A
Area=0.20Acres
Tc=6.00
C=0.65
Q=0.77cfs
Intensity=6.01

A317
Area=0.33Acres
Tc=6.00
C=0.70
Q=1.37cfs
Intensity=6.01

A318
Area=0.32Acres
Tc=6.00
C=0.62
Q=1.18cfs
Intensity=6.01

A368
Area=0.13Acres
Tc=5.00
C=0.73
Q=0.58cfs
Intensity=6.27

A359B
Area=0.26Acres
Tc=5.00
C=0.72
Q=1.16cfs
Intensity=6.27

A329
Area=0.35Acres
Tc=5.00
C=0.85
Q=1.84cfs
Intensity=6.27

A319
Area=0.39Acres
Tc=6.00
C=0.70
Q=1.63cfs
Intensity=6.01

A369
Area=0.15Acres
Tc=5.00
C=0.80
Q=0.77cfs
Intensity=6.27

A358A
Area=0.05Acres
Tc=5.00
C=0.80
Q=0.27cfs
Intensity=6.27

A308
Area=0.41Acres
Tc=6.00
C=0.50
Q=1.24cfs
Intensity=6.01

SYSTEM 3
OUTFALL
TO SWALE

EX.OUTFALL

RIVER VIEW DR

KEWASKUM ST

STARK ST

FILLER
CAPS

STH 28

SYSTEM 3

MILWAUKEE RIVER

A316
Area=1.83Acres
Tc=10.00
C=0.38
Q=3.57cfs
Intensity=5.14

A367
Area=0.13Acres
Tc=5.00
C=0.70
Q=0.56cfs
Intensity=6.27

A366
Area=0.05Acres
Tc=5.00
C=0.80
Q=0.23cfs
Intensity=6.27

A309A
Area=0.23Acres
Tc=5.00
C=0.62
Q=0.91cfs
Intensity=6.27

A309B
Area=0.22Acres
Tc=6.00
C=0.62
Q=0.82cfs
Intensity=6.01

A365
Area=0.25Acres
Tc=6.00
C=0.60
Q=0.91cfs
Intensity=6.01

A339
Area=1.50Acres
Tc=11.00
C=0.38
Q=2.83cfs
Intensity=4.97

A363B
Area=1.66Acres
Tc=11.00
C=0.38
Q=3.14cfs
Intensity=4.97

A315
Area=0.55Acres
Tc=8.00
C=0.62
Q=1.87cfs
Intensity=5.54

A309C
Area=0.21Acres
Tc=6.00
C=0.62
Q=0.78cfs
Intensity=6.01

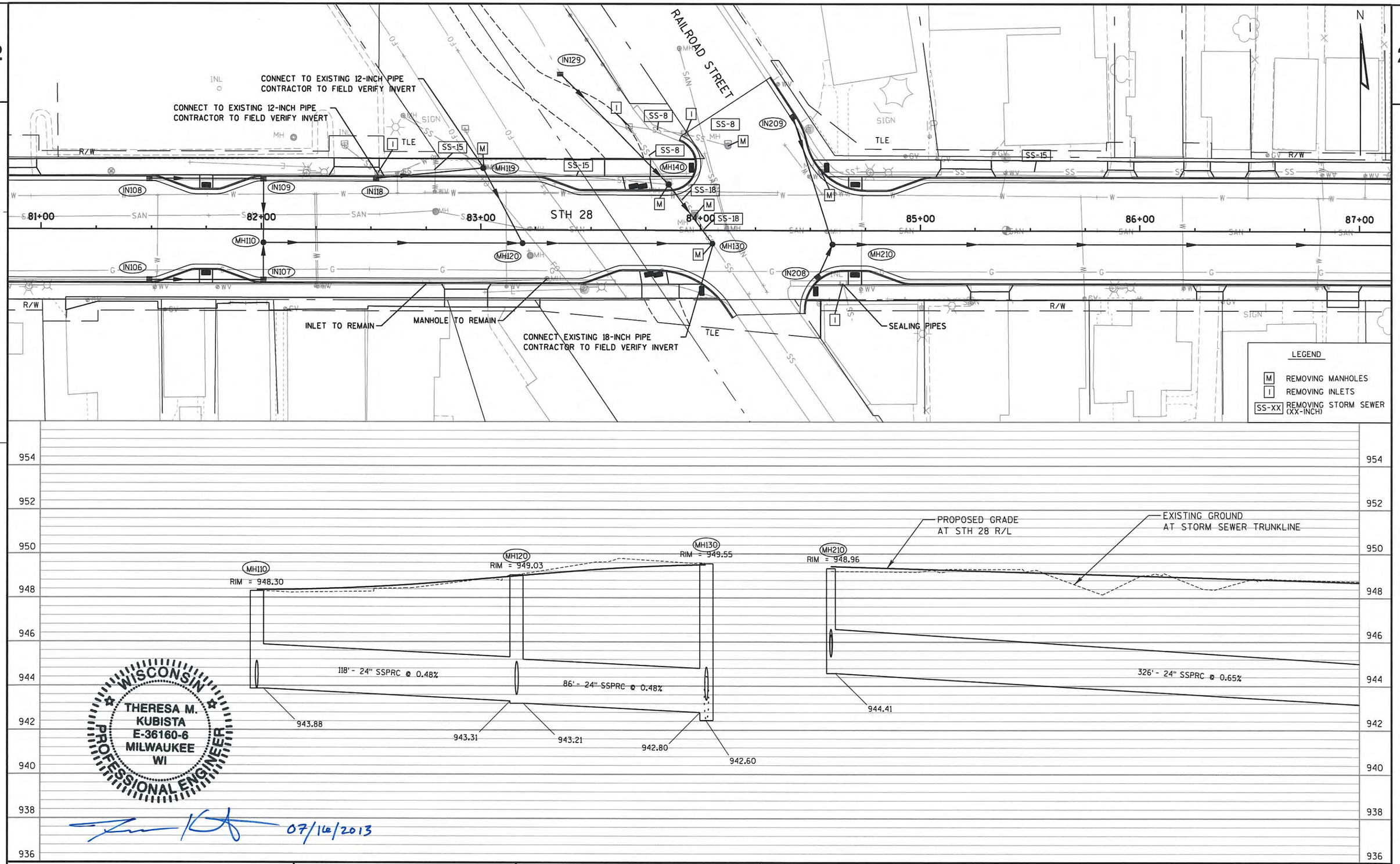
A363A
Area=0.27Acres
Tc=6.00
C=0.62
Q=1.02cfs
Intensity=6.01

A314
Area=0.66Acres
Tc=8.00
C=0.62
Q=2.26cfs
Intensity=5.54

SCALE 1"=100'

PROJECT NO: 4060-05-70	HWY: STH 28	COUNTY: WASHINGTON	STORM SEWER	SHEET 3	E

FILE NAME : P:\43xx\4360\Exhibits\4360_SS_design data_3.dgn PLOT DATE : 7/13/2013 PLOT BY : tmk PLOT NAME : PLOT SCALE : 1:100
WISDOT/CADDS SHEET 42



WISCONSIN
THERESA M. KUBISTA
E-36160-6
MILWAUKEE
WI
PROFESSIONAL ENGINEER

07/16/2013

PROJECT NO: 4060-05-70	HWY: STH 28	COUNTY: WASHINGTON	STORM SEWER	SHEET 94 E

FILE NAME : P:\43xx\4360\Plan\Storm Sewer\022501_ss.DGN | PLOT DATE : 7/16/2013 | PLOT BY : tmk | PLOT NAME : | PLOT SCALE : 1:40

2

CONNECT TO EXISTING MANHOLE

CONNECT EXISTING 8-INCH PIPE
CONCRETE COLLAR REQUIRED
CONTRACTOR TO FIELD VERIFY INVERT

SS-15 | M | EX216 | SS-15 | EX229 | SS-15 | SS-8 | M | SS-15

TLE
R/W

IN217 | I | SS-6 | IN219 | SS-6 | IN239

87+00 | 88+00 | 89+00 | STH 28 | 90+00 | SS-8 | 91+00 | 92+00 | 93+00

MH220 | MH230 | MH240

I | IN218 | I | IN238

R/W
TLE

N

LEGEND

M REMOVING MANHOLES
I REMOVING INLETS
SS-XX REMOVING STORM SEWER (XX-INCH)

954
952
950
948
946
944
942
940
938
936

MH220
RIM = 948.32

MH230
RIM = 948.16

MH240
RIM = 947.58

PROPOSED GRADE
AT STH 28 R/L

EXISTING GROUND
AT STORM SEWER TRUNKLINE

50' - 24" SSPRC @ 0.44%

259' - 24" SSPRC @ 0.49%

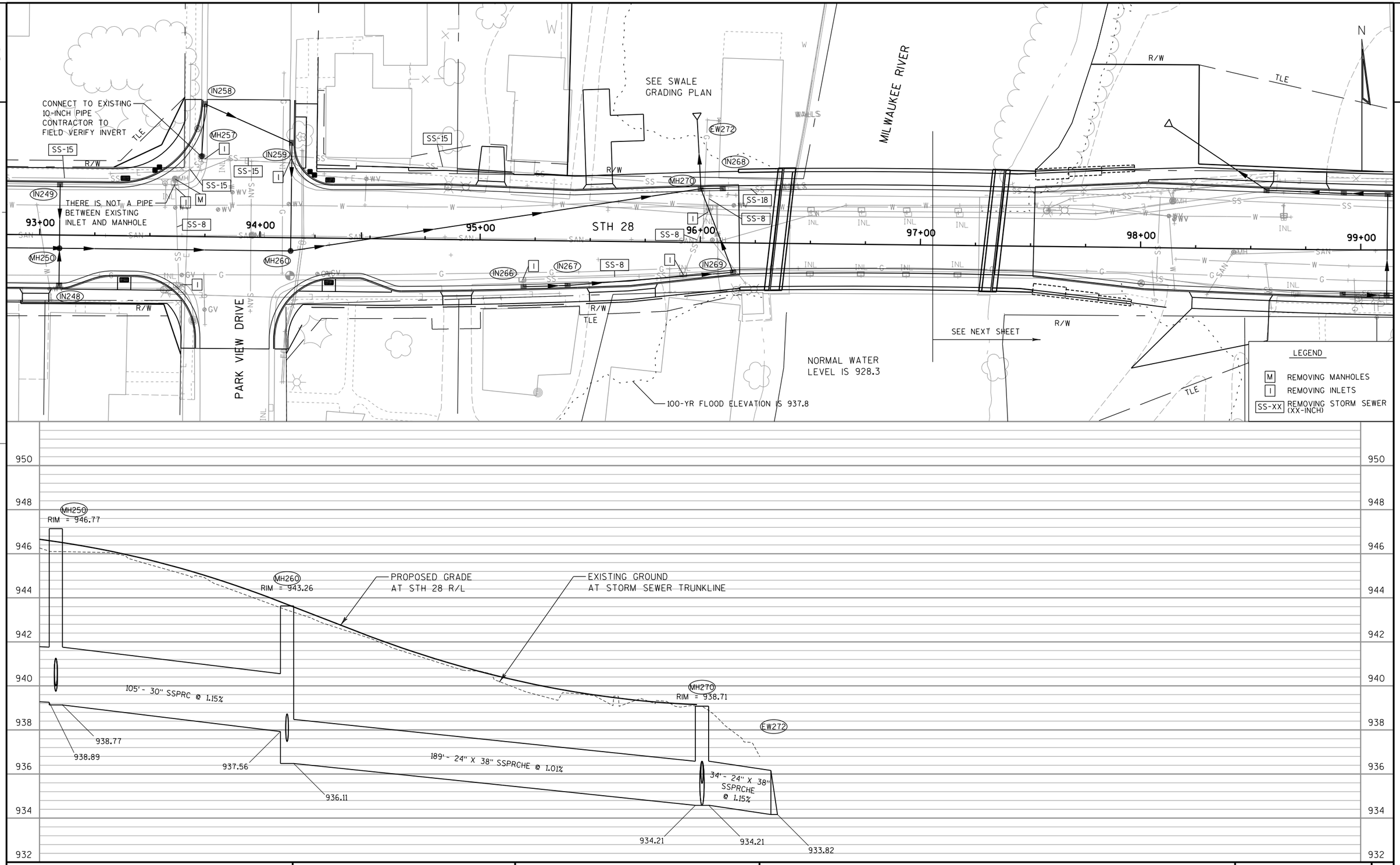
214' - 30" SSPRC @ 0.57%

942.30 | 942.20 | 941.98 | 941.88

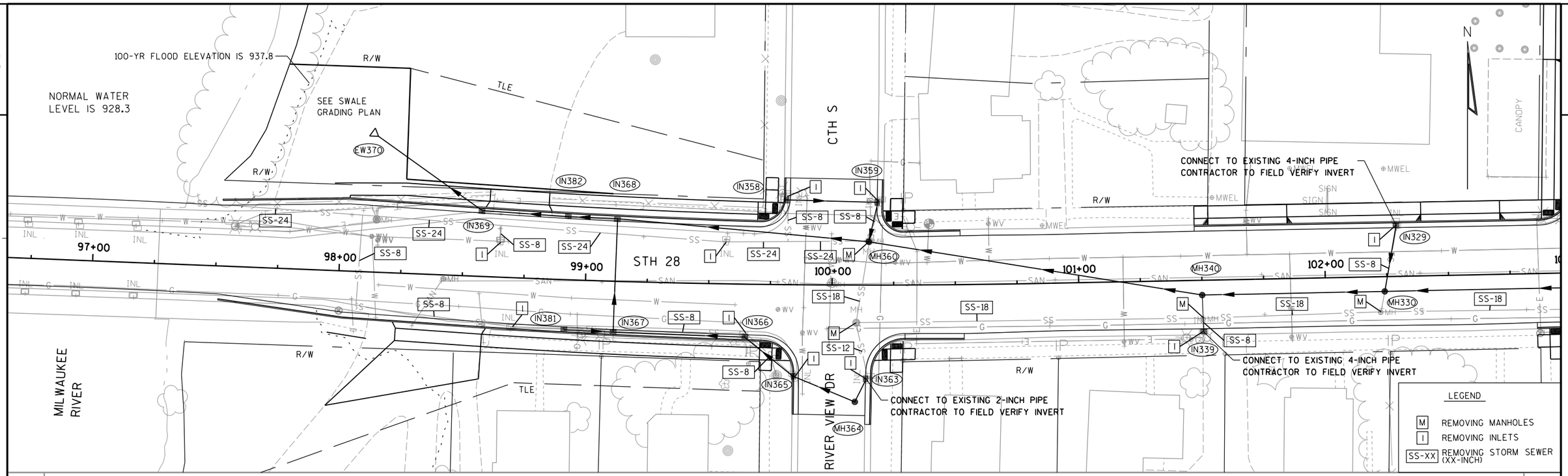
940.62 | 940.12

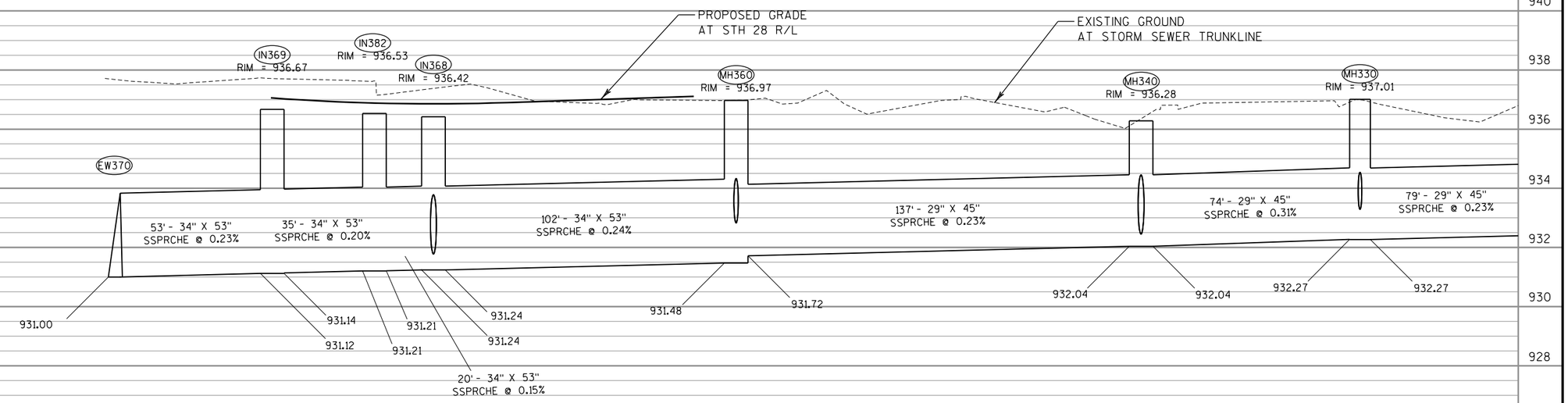
2

PROJECT NO: 4060-05-70	HWY: STH 28	COUNTY: WASHINGTON	STORM SEWER	SHEET 95	E



PROJECT NO: 4060-05-70	HWY: STH 28	COUNTY: WASHINGTON	STORM SEWER	SHEET 96 E





PROJECT NO: 4060-05-70	HWY: STH 28	COUNTY: WASHINGTON	STORM SEWER	SHEET 97	E

2

N

STARK ST

KEWASKUM ST

STH 28

R/W

IN317 IN318 IN319 IN316 IN315 IN314 IN311 IN308 IN309

MH325 MH320 MH312 MH300 MH310

SS-8 SS-10 SS-18 SS-12

103+00 104+00 105+00 106+00 107+00 108+00 109+00

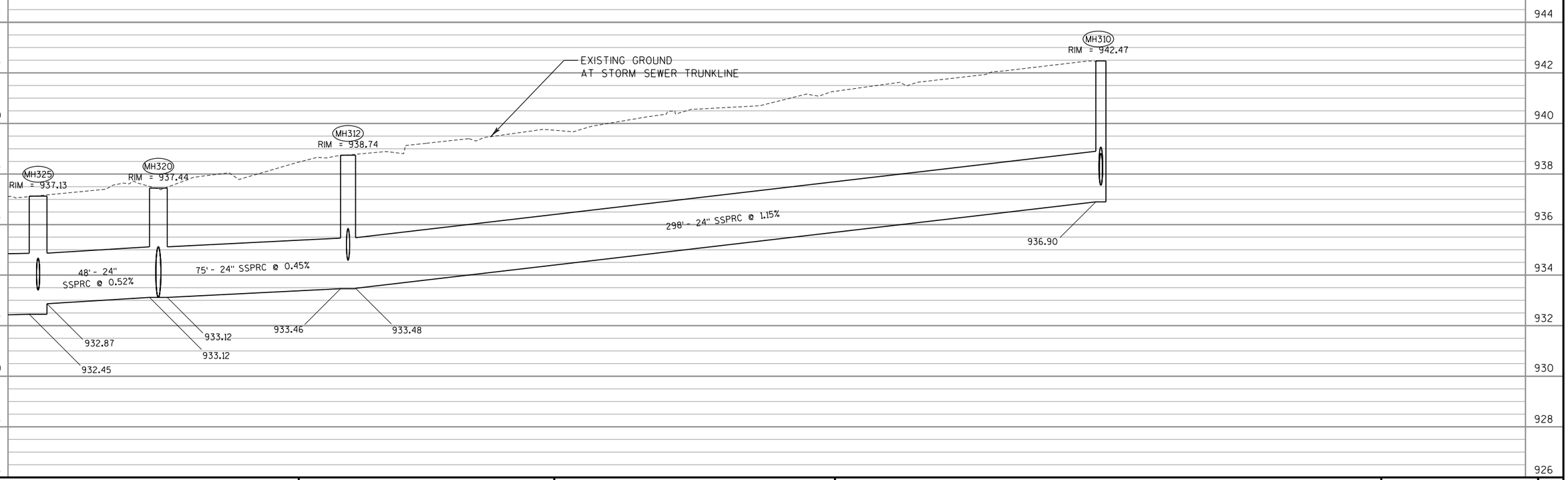
THERE IS NOT A PIPE BETWEEN EXISTING INLET AND MANHOLE

CONNECT EXISTING 4-INCH PIPE CONTRACTOR TO FIELD VERIFY INVERT

CONNECT EXISTING 12-INCH PIPE CONTRACTOR TO FIELD VERIFY INVERT

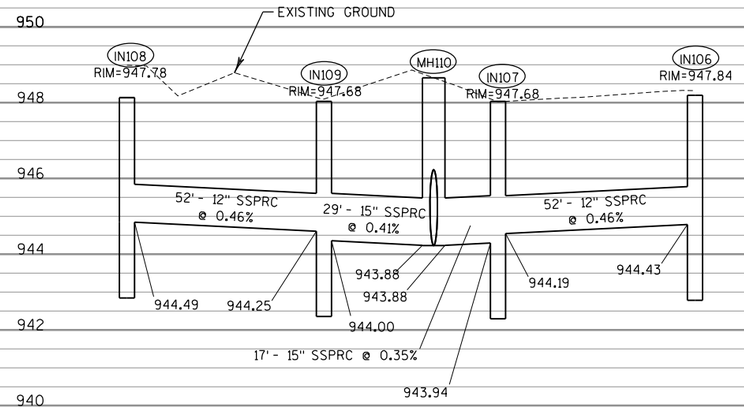
LEGEND

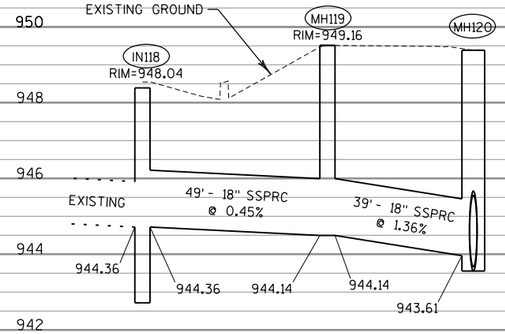
- M — REMOVING MANHOLES
- I — REMOVING INLETS
- SS-XX — REMOVING STORM SEWER (XX-INCH)

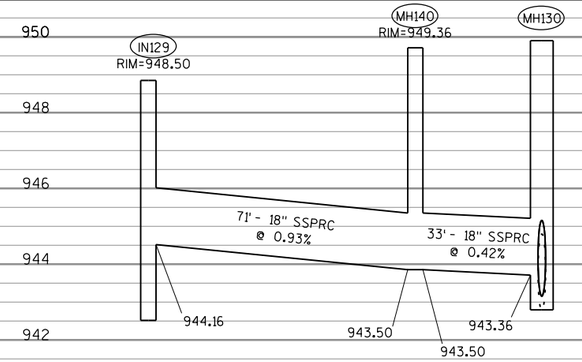


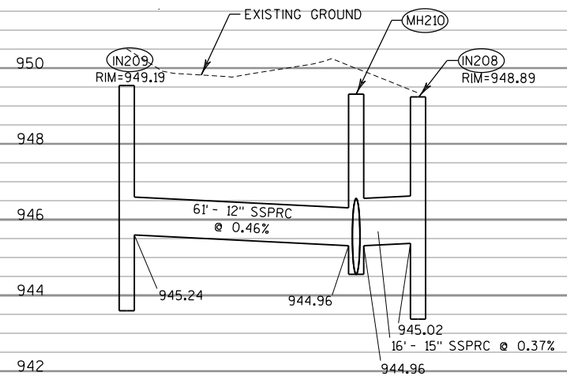
PROJECT NO: 4060-05-70	HWY: STH 28	COUNTY: WASHINGTON	STORM SEWER	SHEET 98	E

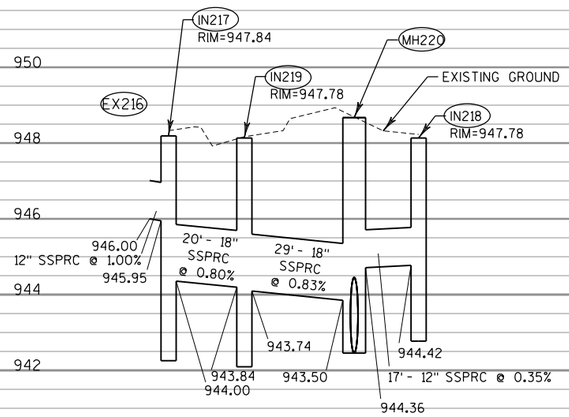
2

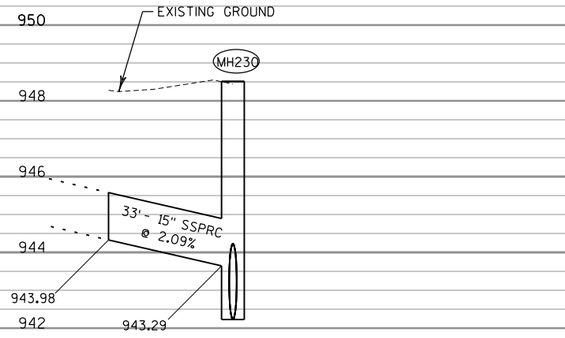


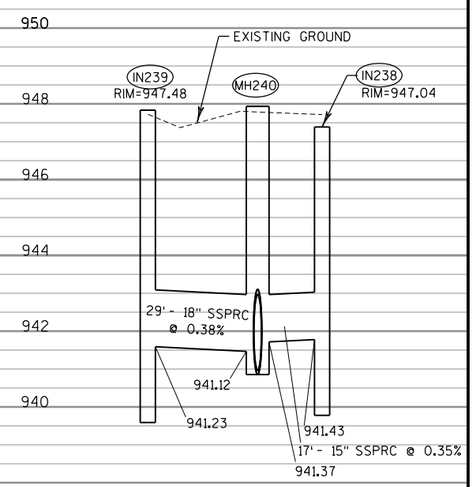


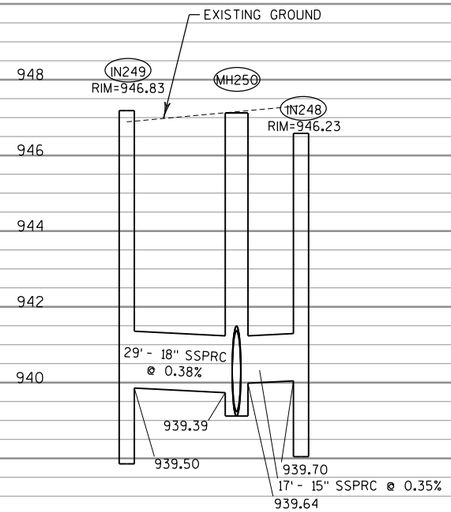


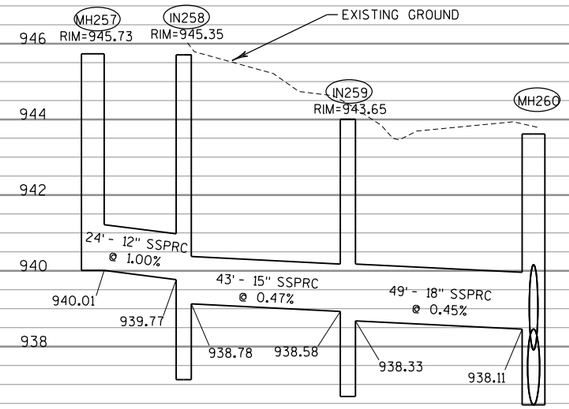


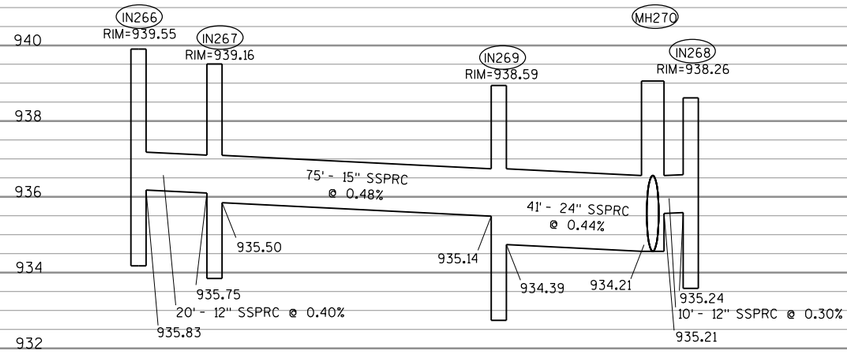






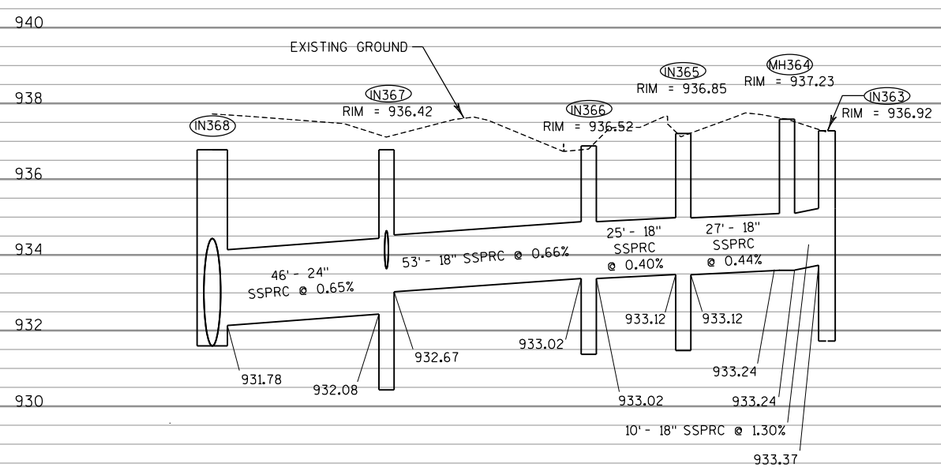


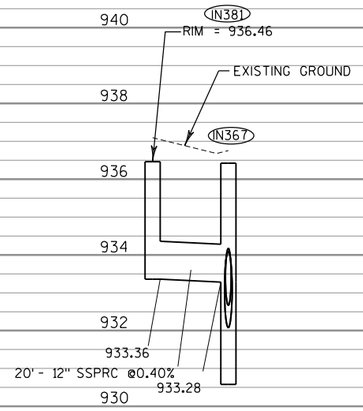


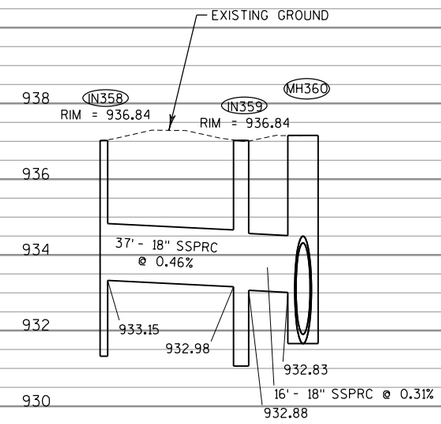


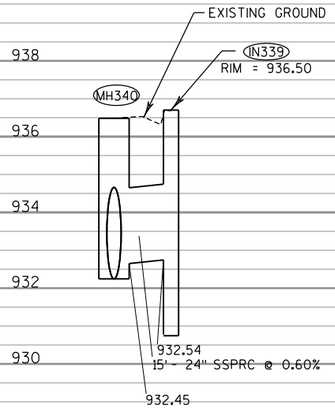
PROJECT NO: 4060-05-70	HWY: STH 28	COUNTY: WASHINGTON	STORM SEWER	SHEET 99	E

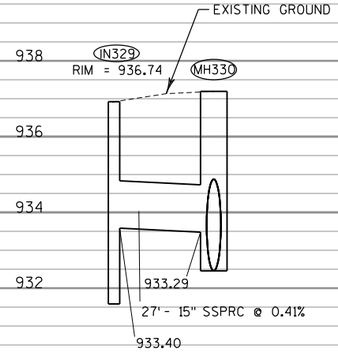
2

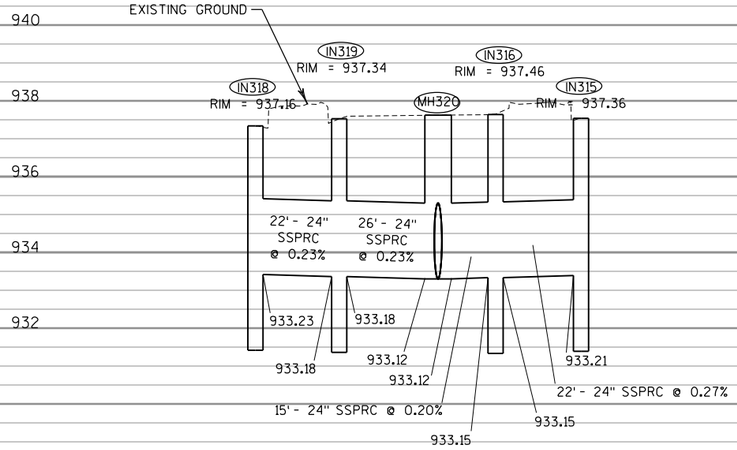


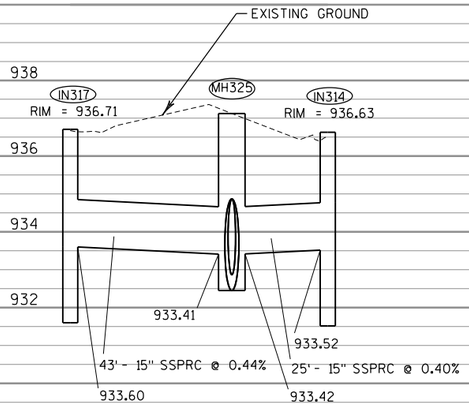


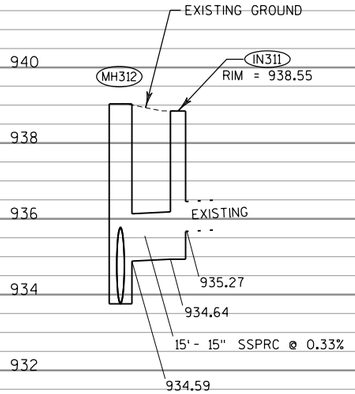


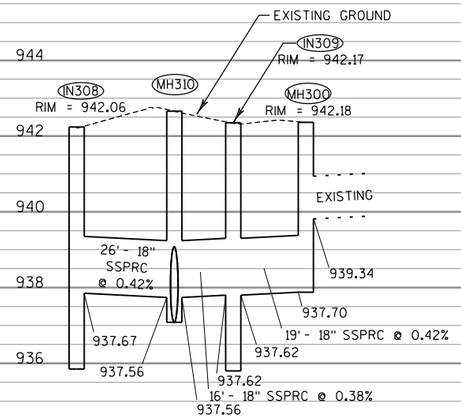








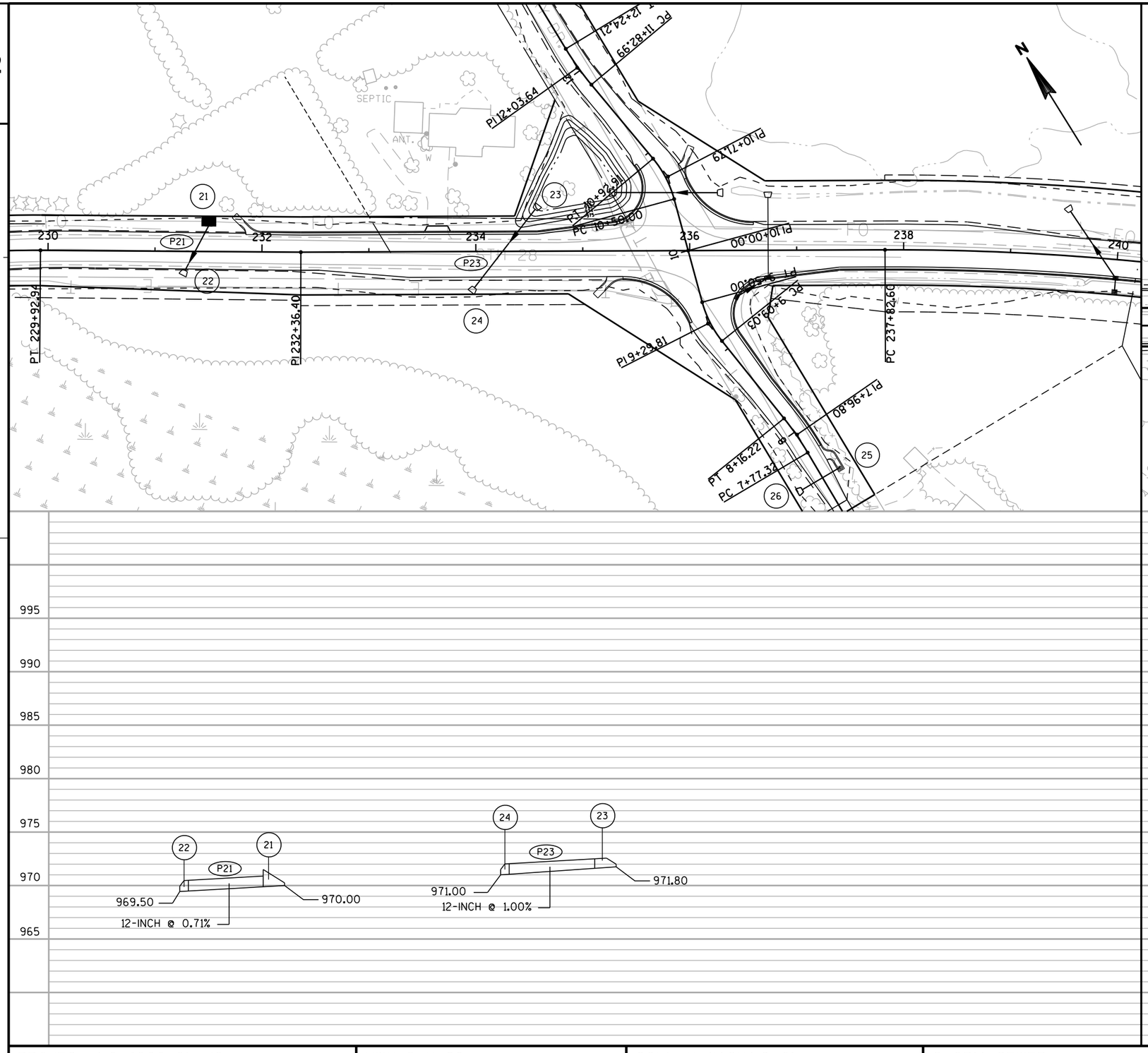




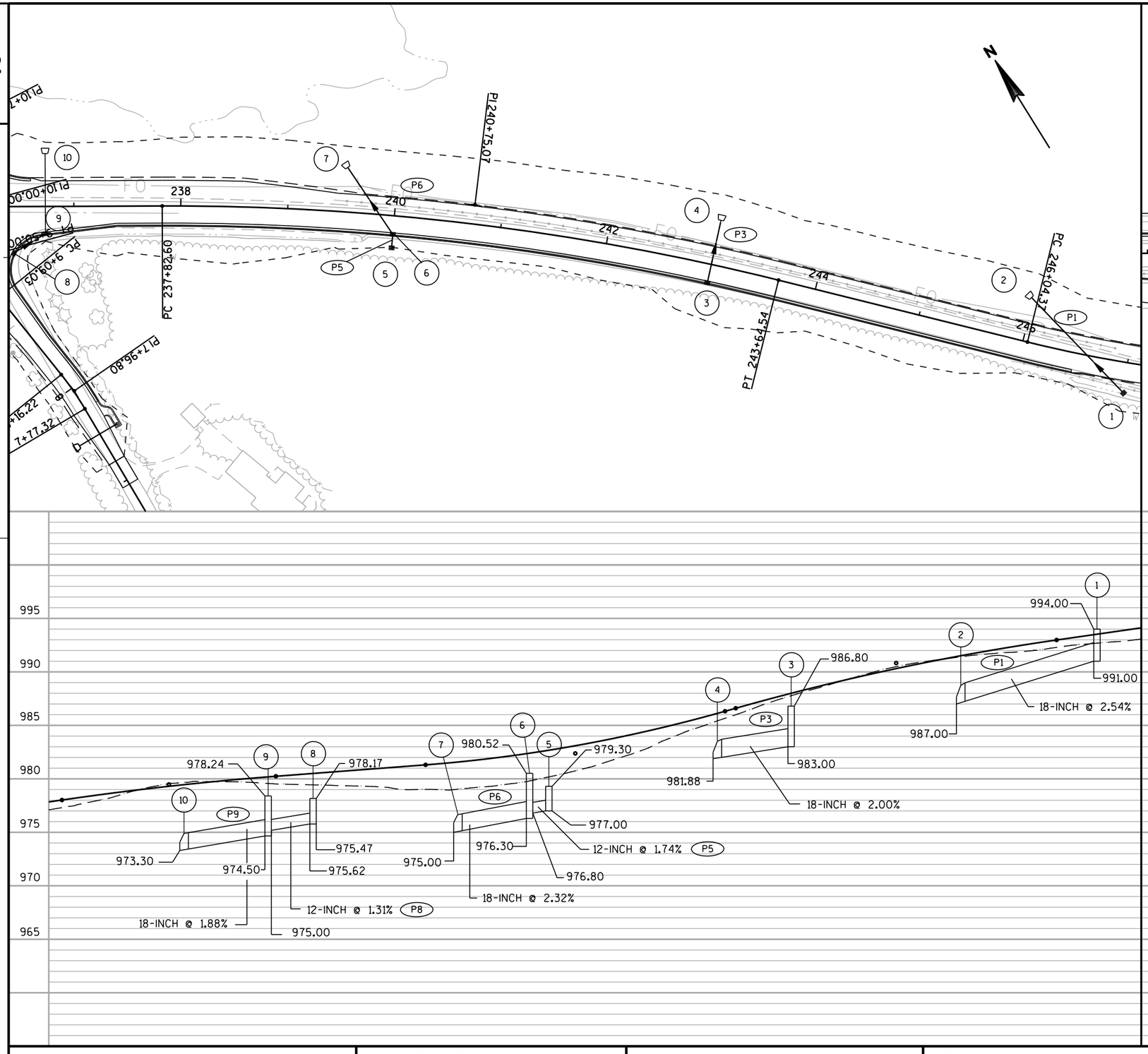
PROJECT NO: 4060-05-70	HWY: STH 28	COUNTY: WASHINGTON	STORM SEWER	SHEET 100	E

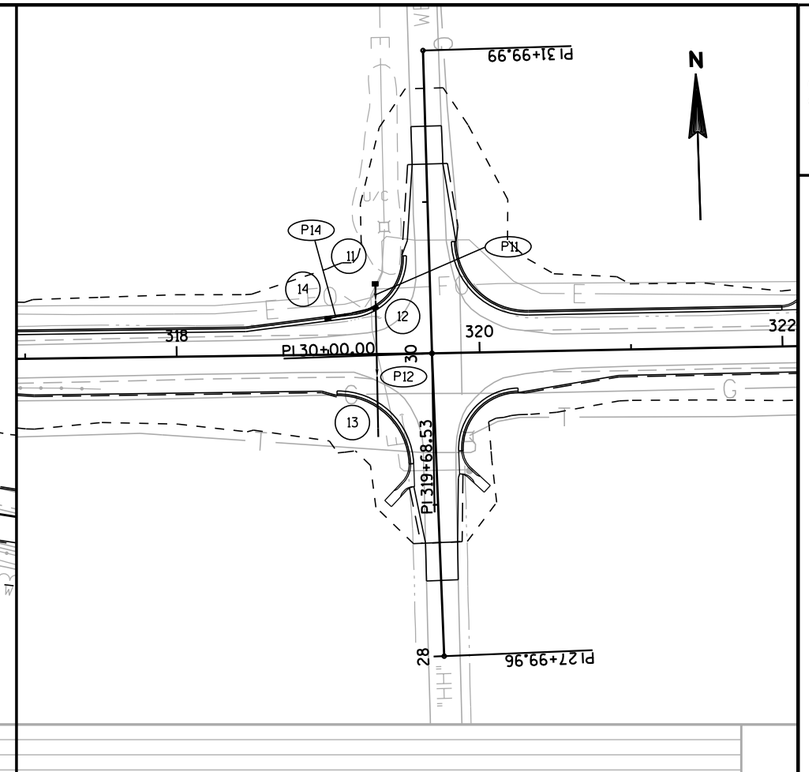
FILE NAME : P:\43xx\4360\Plan\Storm Sewer\022507_ss.dgn PLOT DATE : 7/16/2013 PLOT BY : tmk PLOT NAME : PLOT SCALE : 1:40.0001

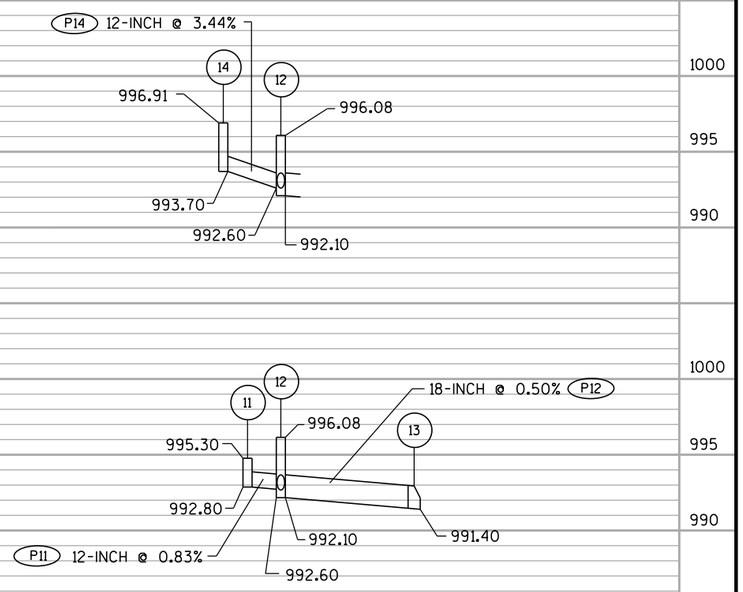
WISDOT/CADDS SHEET 41-MOD



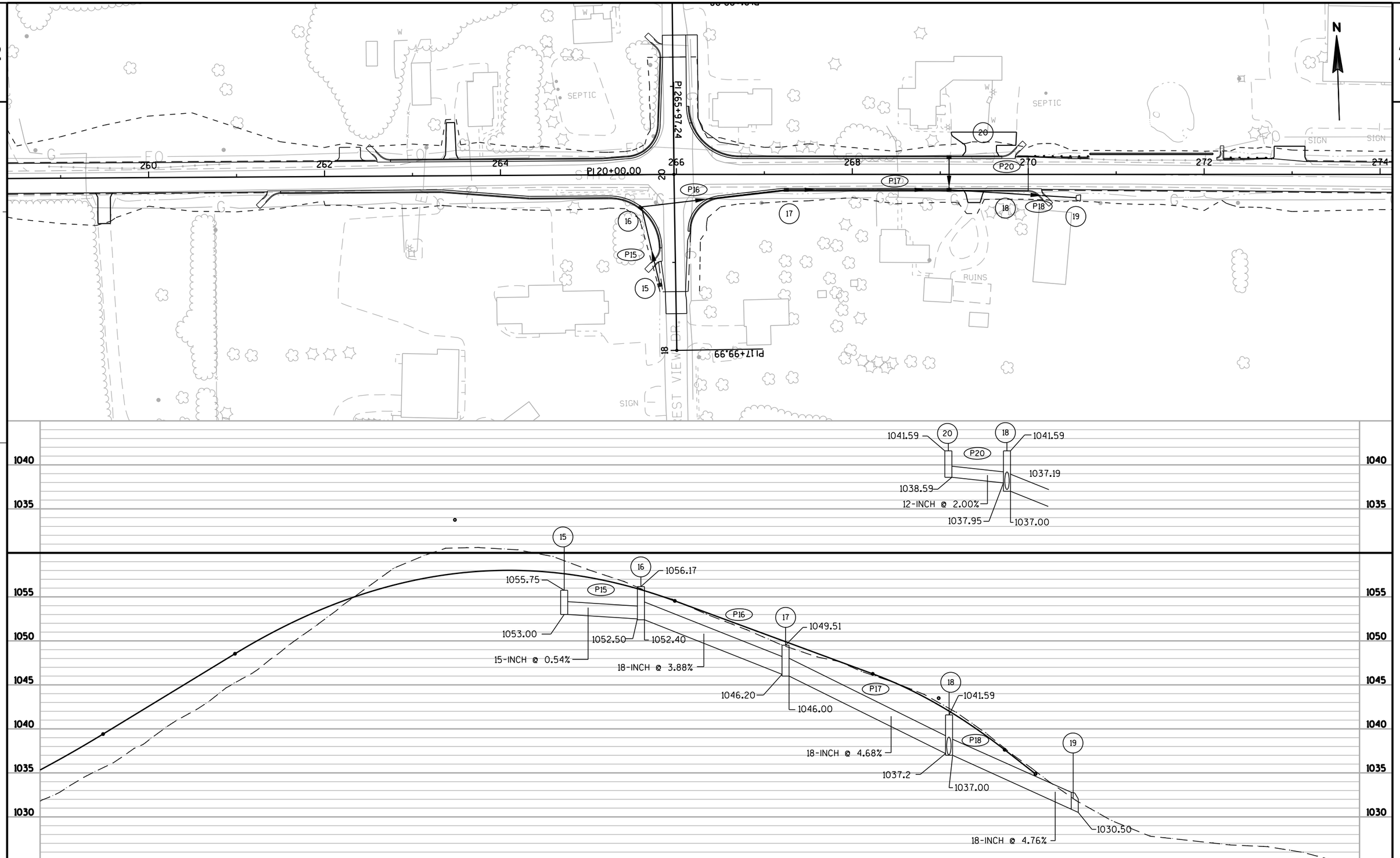
PROJECT NO: 4060-05-70	HWY: STH 28	COUNTY: WASHINGTON	STORM SEWER	SHEET 101	E







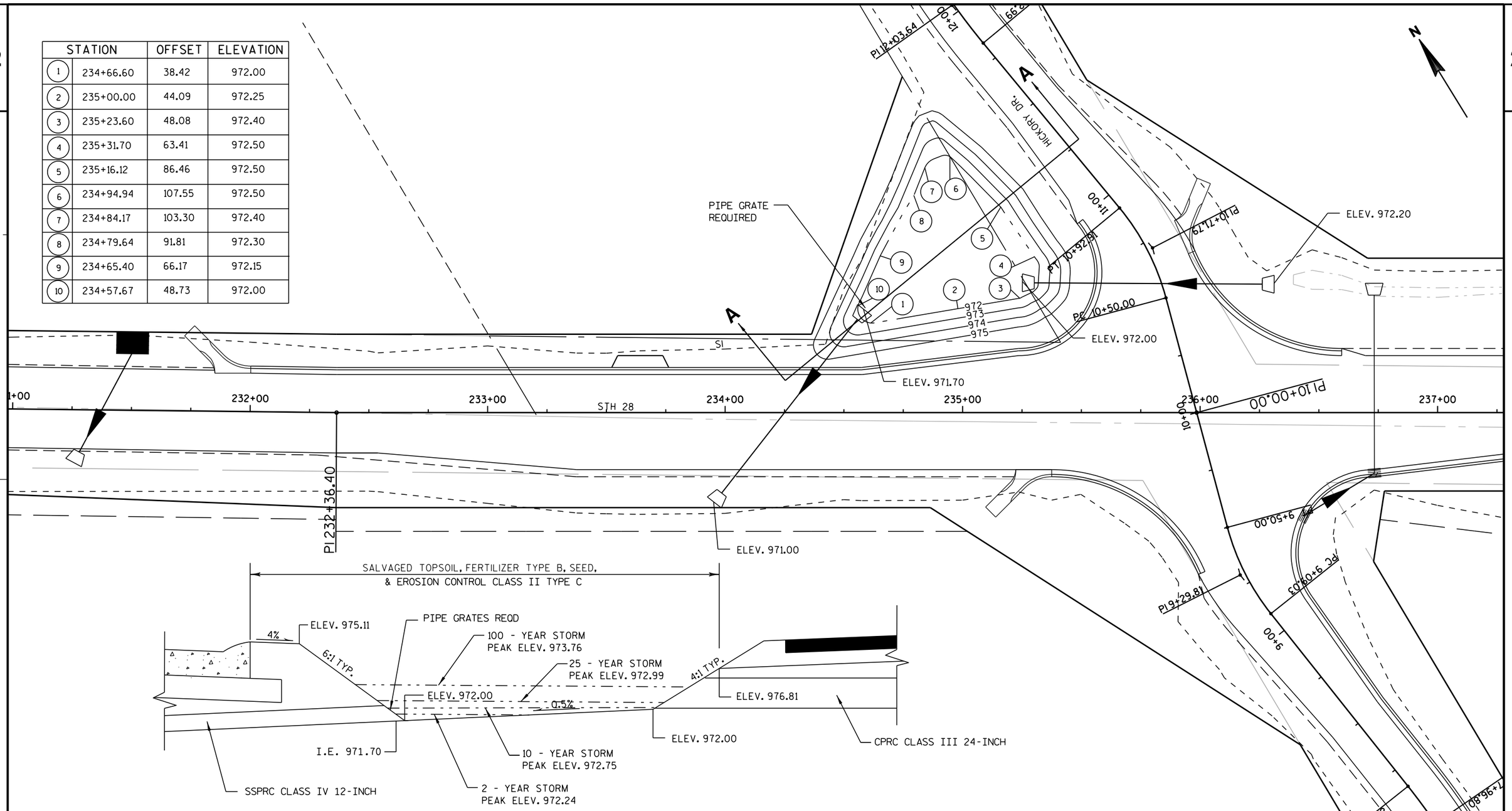
PROJECT NO: 4060-05-70	HWY: STH 28	COUNTY: WASHINGTON	STORM SEWER	SHEET 102	E



PROJECT NO: 4060-05-70	HWY: STH 28	COUNTY: WASHINGTON	STOM SEWER	SHEET E

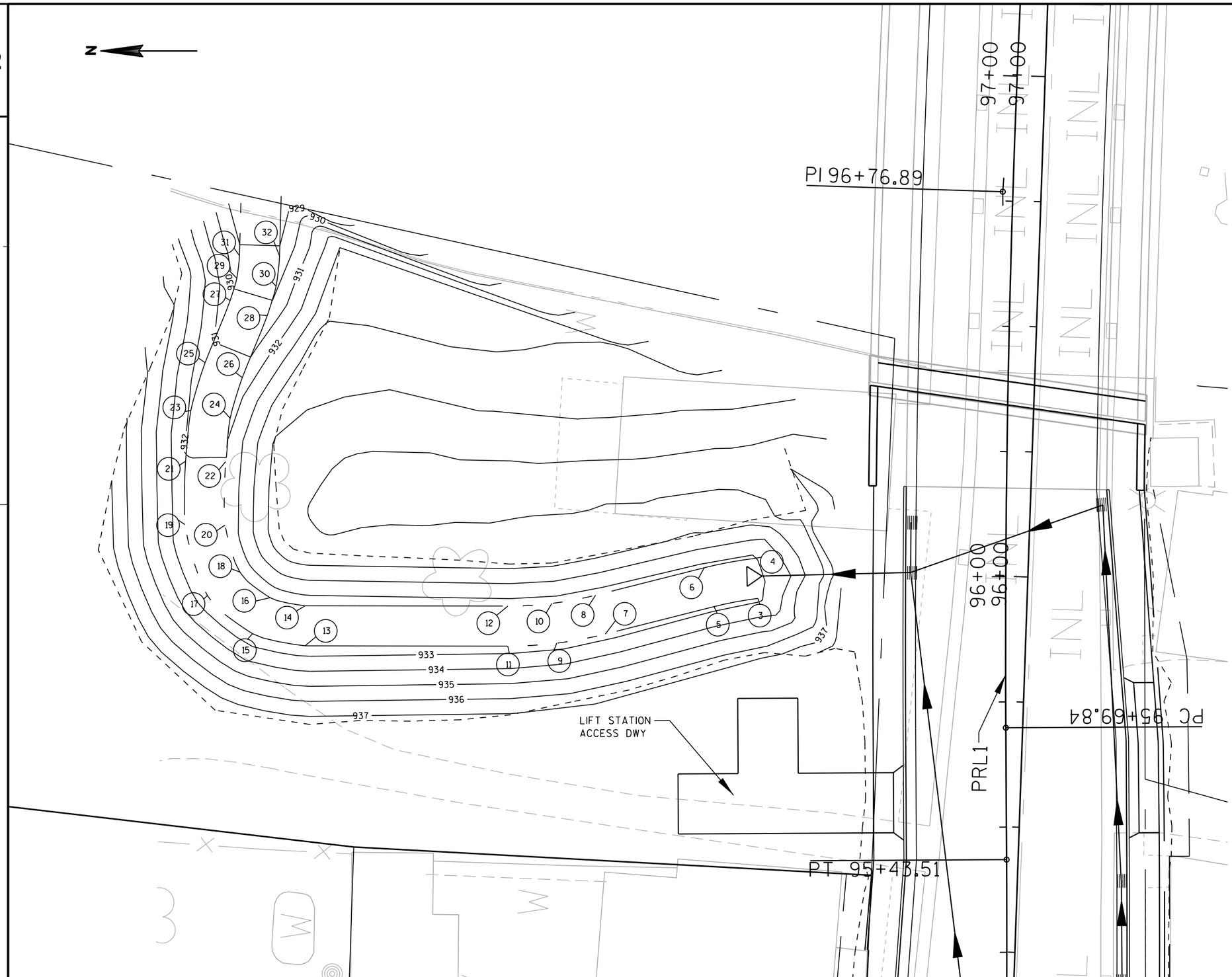
FILE NAME : J:\projects\D2_40600528\022503_ss.dgn PLOT DATE : 22-JUL-2013 07:52 PLOT BY : dotr3h PLOT NAME : PLOT SCALE : 100:1

	STATION	OFFSET	ELEVATION
1	234+66.60	38.42	972.00
2	235+00.00	44.09	972.25
3	235+23.60	48.08	972.40
4	235+31.70	63.41	972.50
5	235+16.12	86.46	972.50
6	234+94.94	107.55	972.50
7	234+84.17	103.30	972.40
8	234+79.64	91.81	972.30
9	234+65.40	66.17	972.15
10	234+57.67	48.73	972.00



SECTION A-A

PROJECT NO: 4060-05-70	HWY: STH 28	COUNTY: WASHINGTON	DRY POND GRADING PLAN	SHEET 104 E



STATION		REF. LINE	OFFSET	ELEV.
3	95+95.51	PRL1	49.47 LT	932.75
4	96+03.31	PRL1	50.48 LT	932.75
5	95+93.87	PRL1	58.23 LT	973.71
6	96+01.46	PRL1	60.22 LT	932.71
7	95+88.48	PRL1	79.91 LT	932.60
8	95+96.02	PRL1	81.89 LT	932.60
9	95+86.71	PRL1	89.63 LT	932.55
10	95+94.40	PRL1	90.62 LT	932.55
11	95+86.14	PRL1	99.39 LT	932.50
12	95+93.86	PRL1	99.39 LT	932.50
13	95+86.19	PRL1	139.86 LT	932.30
14	95+93.81	PRL1	139.86 LT	932.30
15	95+92.93	PRL1	156.89 LT	932.22
16	95+98.28	PRL1	151.22 LT	932.22
17	96+09.07	PRL1	163.93 LT	932.14
18	96+09.06	PRL1	155.93 LT	932.14
19	96+21.03	PRL1	163.95 LT	932.05
20	96+21.06	PRL1	155.95 LT	932.05
21	96+30.64	PRL1	163.04 LT	931.78
22	96+29.27	PRL1	155.17 LT	931.78
23	96+39.72	PRL1	160.36 LT	931.31
24	96+37.02	PRL1	152.88 LT	931.31
25	96+51.55	PRL1	155.63 LT	930.27
26	96+48.88	PRL1	148.15 LT	930.27
27	96+55.81	PRL1	154.40 LT	929.74
28	96+54.46	PRL1	146.52 LT	929.74
29	96+60.11	PRL1	153.99 LT	929.22
30	96+60.10	PRL1	145.99 LT	929.22
31	96+71.61	PRL1	153.99 LT	928.00
32	96+71.63	PRL1	145.99 LT	928.00

NOTE:
STREET SIGNS SHALL BE MOVED BY MUNICIPALITY AND SHALL NOT BE PLACED ON TOP OF STOP SIGNS.

N

100
EAST 28
REMOVE
EAST 28
J3-1(2S)
ABOVE SIGNALS

101
NORTH 45
WEST 28
REMOVE
NORTH 45
WEST 28
J4-2(2S)
ON LIGHT POLE

102
WEST 28
REMOVE
WEST 28
J3-1(2S)
ON SIGNAL POLE

103
103A
WEST 28
STOP
REMOVE
WEST 28
J3-1(2S)
ABOVE SIGNALS
STOP
R1-1F(3)

104
REMOVE
SOUTH NORTH
45 45
TWO HOUR PARKING 8AM-6PM
104A
SOUTH NORTH
45 45
J3-2(2S)
ON LIGHT POLE
TWO HOUR PARKING 8AM-6PM
R7-5D(2S)

105
REMOVE
W3-3(2S)

298
W11-2(2S)
W16-7L(2S)

STREET SIGNS

77+00
78+00
78+00
79+00
79+00
80+00
80+00
81+00
81+00
82+00
82+00

NO PARKING ANY TIME
REMOVE
NO PARKING ANY TIME
R7-1D(2S)
106

297
LEFT TURN YIELD ON FLASHING YELLOW ARROW
R10-50L(2S)
ON SIGNAL MAST ARM

SOUTH 45
REMOVE
SOUTH 45
J3-1(2S)
ON LIGHT POLE
107

STH 28

USH 45/FOND DU LAC AVE

EAST 28
EAST 28
J4-1(2S)
ON LIGHT POLE
110
STOP
REMOVE
EAST 28
J3-1(2S)
MOUNT ABOVE SIGNAL
STOP
R1-1F(3)
108
109

EAST 28
SPEED LIMIT 25
REMOVE
SPEED LIMIT 25
R2-1(2S)
ON LIGHT POLE
111

W11-2(2S)
W16-7L(2S)
299

LEGEND

- EXISTING SIGN MOUNTED ON POST(S)
- EXISTING SIGN MOUNTED ON BRIDGE OR SIGN BRIDGE
- PROPOSED SIGN MOUNTED ON POST(S)
- PROPOSED SIGN MOUNTED ON BRIDGE OR SIGN BRIDGE
- EXISTING LIGHT OR SIGNAL POLE
- PROPOSED LIGHT OR SIGNAL POLE
- SIGN BRIDGE
- CANTILEVER SIGN BRIDGE
- (XXX) DENOTES SIGN NUMBER
- (X) INDICATES SIGN SIZE
- (2010) SPEED LIMIT 25 INDICATES YEAR INSTALLED

SHEET 1 OF 25

PROJECT NO: 4060-05-70	HWY: STH 28	COUNTY: WASHINGTON	PERMANENT SIGNING	SHEET 106 E

NOTE:
STREET SIGNS SHALL BE MOVED
BY MUNICIPALITY AND SHALL NOT
BE PLACED ON TOP OF STOP SIGNS.

N

112
RECREATIONAL TRAIL XING
REMOVE
W11-15A(2S) TRAIL CROSSING
W16-7L(2S)

113
STOP
REMOVE
R1-1(3)

114
KEWASKUM
HIGH SCHOOL
ELEMENTARY SCHOOL
MUNICIPAL BLDG
MUNICIPAL BLDG
MOVE BY VILLAGE
JCT 45
REMOVE
JCT 45
J1-1(2S)
ON LIGHT POLE

300
ON LIGHT POLE
END SCHOOL ZONE
S5-2(2S)

TWO HOUR PARKING 8AM-6PM
MOVE BY VILLAGE

115
S1-1(2S)
WF16-7L(2S)

RAILROAD ST
RAILROAD ST
30" X 30"
SREET SIGNS
STH 28
SIGN
52+00
51+00
50+00
49+00
48+00
P150+58.18
P149+58.83
83+00
84+00
85+00
86+00
87+00
88+00
89+00

W11-15A(2S) TRAIL CROSSING
W16-7L(2S)
116

PROSPECT ST
PROSPECT ST

STOP
REMOVE
STOP
R1-1(3)
117

AHEAD
REMOVE
S1-1(2S)
WF16-9P(2M) AHEAD
R2-6P(2S) FINES HIGHER
ON LIGHT POLE
118

R3-4(2S)
ON LIGHT POLE
299

REMOVE
S1-1(2S)
WF16-7L(2S)
119

LEGEND

- EXISTING SIGN MOUNTED ON POST(S)
- EXISTING SIGN MOUNTED ON BRIDGE OR SIGN BRIDGE
- PROPOSED SIGN MOUNTED ON POST(S)
- PROPOSED SIGN MOUNTED ON BRIDGE OR SIGN BRIDGE
- EXISTING LIGHT OR SIGNAL POLE
- PROPOSED LIGHT OR SIGNAL POLE
- SIGN BRIDGE
- CANTILEVER SIGN BRIDGE
- (XXX) DENOTES SIGN NUMBER
- (X) INDICATES SIGN SIZE
- (2010) INDICATES YEAR INSTALLED

NOTE:
STREET SIGNS SHALL BE MOVED BY MUNICIPALITY AND SHALL NOT BE PLACED ON TOP OF STOP SIGNS.

N

120
REMOVE

121
R3-4(2S)

122
AHEAD
REMOVE
S1-1(2S)
WF16-9P(2M) AHEAD
R2-6P(2S) FINES HIGHER
ON LIGHT POLE

123
STOP
REMOVE
STOP
R1-1(3)

KEWASKUM
HIGH SCHOOL
ELEMENTARY SCHOOL
ST LUCAS
MUNICIPAL BLDG
MOVE BY VILLAGE

STH 28

90+00 91+00 92+00 93+00 94+00 95+00

51+00

50+00 50+00

PARKVIEW DR 00+69

NO U TURN
REMOVE
R3-4(2S)
126

END SCHOOL ZONE
S5-2(2S)
ON LIGHT POLE
125

LUTERAN ST. LUCAS
MOVE BY VILLAGE

SPEED LIMIT 25
REMOVE

R3-4(2S)
127
R2-1(2S)
SPEED LIMIT 25
128
ON LIGHT POLE

REMOVE
R3-4(2S)
ON LIGHT POLE
129

STOP (10)
R1-1
MOVE
130

LEGEND

- EXISTING SIGN MOUNTED ON POST(S)
- EXISTING SIGN MOUNTED ON BRIDGE OR SIGN BRIDGE
- PROPOSED SIGN MOUNTED ON POST(S)
- PROPOSED SIGN MOUNTED ON BRIDGE OR SIGN BRIDGE
- EXISTING LIGHT OR SIGNAL POLE
- PROPOSED LIGHT OR SIGNAL POLE
- SIGN BRIDGE
- CANTILEVER SIGN BRIDGE
- (XXX) DENOTES SIGN NUMBER
- (X) INDICATES SIGN SIZE
- (2010) SPEED LIMIT 25 INDICATES YEAR INSTALLED

PROJECT NO: 4060-05-70	HWY: STH 28	COUNTY: WASHINGTON	PERMANENT SIGNING	SHEET 108 E

FILE NAME : J:\projects\D2_40600528\Sign\023203_ps.dgn PLOT DATE : 22-JUL-2013 07:59 PLOT BY : dotr3h PLOT NAME : PLOT SCALE : 40:1
WISDOT/CADDS SHEET 42

2

NOTE:
STREET SIGNS SHALL BE MOVED BY MUNICIPALITY AND SHALL NOT BE PLACED ON TOP OF STOP SIGNS.

N

131 WEST 28 SPEED LIMIT 25 REMOVE

132 WEST 28 J4-1(2S)

133 SPEED LIMIT 25 R2-1(2S)

134 STOP REMOVE

STOP R1-1(3) BEACON BY VILLAGE

135 COUNTY S REMOVE

NORTH COUNTY S J3-1(2S) ON LIGHT POLE

CTH S/REIVERVIEW DR

52+00

51+00

50+00

49+00

STH 28

96+00

96+00

97+00

97+00

98+00

98+00

99+00

100+00

101+00

101+00

P196+76.89

P199+84

JCT COUNTY S REMOVE

JCT COUNTY S J1-1(2S)

136

NORTH COUNTY S J2-1(2S) ON LIGHT POLE

284

COUNTY S REMOVE

NORTH COUNTY S J3-1(2S)

137

DEAD END REMOVE

DEAD END W14-1(2S)

138

SREET SIGNS

STOP REMOVE

STOP R1-1(3)

139

MOVE BY VILLAGE

EAST 28 REMOVE

EAST 28 J4-1(2S) ON LIGHT POLE

140

LEGEND

- EXISTING SIGN MOUNTED ON POST(S)
- EXISTING SIGN MOUNTED ON BRIDGE OR SIGN BRIDGE
- PROPOSED SIGN MOUNTED ON POST(S)
- PROPOSED SIGN MOUNTED ON BRIDGE OR SIGN BRIDGE
- EXISTING LIGHT OR SIGNAL POLE
- PROPOSED LIGHT OR SIGNAL POLE
- SIGN BRIDGE
- CANTILEVER SIGN BRIDGE
- (XXX) DENOTES SIGN NUMBER
- (X) INDICATES SIGN SIZE
- (2010) SPEED LIMIT 25 INDICATES YEAR INSTALLED

SHEET 4 OF 25

PROJECT NO: 4060-05-70	HWY: STH 28	COUNTY: WASHINGTON	PERMANENT SIGNING	SHEET 109 E

NOTE:
STREET SIGNS SHALL BE MOVED
BY MUNICIPALITY AND SHALL NOT
BE PLACED ON TOP OF STOP SIGNS.

N

2

2

141
JCT
COUNTY S
REMOVE
JCT
COUNTY S
J1-1(2S)

142
STOP
REMOVE
STOP
R1-1(3)

143
SPEED LIMIT 25
REMOVE
SPEED LIMIT 25
R2-1(2S)
ON LIGHT POLE

144
STOP
R1-1(3)
STOP
REMOVE

145
WEST 28
REMOVE

146
STOP
REMOVE
STOP
R1-1(3)

147
SPEED LIMIT 25
REMOVE
SPEED LIMIT 25
R2-1(2S)
ON LIGHT POLE

148
STOP
REMOVE
STOP
R1-1(3)

SIGN

CANOPY

KEWASKUM ST

STARK ST

STH 28

SREET SIGNS

SREET SIGNS

102+00
103+00
104+00
105+00
106+00
107+00
108+00
51+00
50+00
49+00

LEGEND

- EXISTING SIGN MOUNTED ON POST(S)
- EXISTING SIGN MOUNTED ON BRIDGE OR SIGN BRIDGE
- PROPOSED SIGN MOUNTED ON POST(S)
- PROPOSED SIGN MOUNTED ON BRIDGE OR SIGN BRIDGE
- EXISTING LIGHT OR SIGNAL POLE
- PROPOSED LIGHT OR SIGNAL POLE
- SIGN BRIDGE
- CANTILEVER SIGN BRIDGE
- (XXX) DENOTES SIGN NUMBER
- (X) INDICATES SIGN SIZE
- (2010) INDICATES YEAR INSTALLED

SHEET 5 OF 25

PROJECT NO: 4060-05-70	HWY: STH 28	COUNTY: WASHINGTON	PERMANENT SIGNING	SHEET 110	E

2

LEGEND

- EXISTING SIGN MOUNTED ON POST(S)
- EXISTING SIGN MOUNTED ON BRIDGE OR SIGN BRIDGE
- PROPOSED SIGN MOUNTED ON POST(S)
- PROPOSED SIGN MOUNTED ON BRIDGE OR SIGN BRIDGE
- EXISTING LIGHT OR SIGNAL POLE
- PROPOSED LIGHT OR SIGNAL POLE
- SIGN BRIDGE
- CANTILEVER SIGN BRIDGE
- (XXX) DENOTES SIGN NUMBER
- (X) INDICATES SIGN SIZE
- (2010) SPEED LIMIT 25 INDICATES YEAR INSTALLED

NOTE:
STREET SIGNS SHALL BE MOVED BY MUNICIPALITY AND SHALL NOT BE PLACED ON TOP OF STOP SIGNS.

LOCATIONS OF PROPOSED LIGHT POLES ARE PRELIMINARY AND SHOULD BE FIELD VERIFIED.

N

2

STH 28

109+00 110+00 111+00 112+00 113+00 114+00

SIGN SIGN SIGN

KEWASKUM
HIGH SCHOOL
ELEMENTARY SCHOOL
MUNICIPAL BLDG
MUNICIPAL BLDG
MOVE BY VILLAGE

ESTR
KEWASKUM
WELCOMES YOU

150
SPEED LIMIT 25
REMOVE

151
Kewaskum
POPULATION 3,274
REMOVE
Kewaskum
POPULATION 4,004
12-3(2S)

SPEED LIMIT 25
REMOVE
SPEED LIMIT 25
R2-1(2S)
ON LIGHT POLE
152

ESTR

HIGHLAND AVE

STOP
R1-1(3)
275

EAST
28
J4-1(2S)
153

SHEET 6 OF 25

PROJECT NO: 4060-05-70	HWY: STH 28	COUNTY: WASHINGTON	PERMANENT SIGNING	SHEET 111 E

FILE NAME : J:\projects\D2_40600528\Sign\023206_ps.dgn PLOT DATE : 22-JUL-2013 08:00 PLOT BY : dotr3h PLOT NAME : PLOT SCALE : 40:1

WISDOT/CADDS SHEET 42

NOTE:
STREET SIGNS SHALL BE MOVED BY MUNICIPALITY AND SHALL NOT BE PLACED ON TOP OF STOP SIGNS.

NO PASSING LOCATIONS SHOWN ARE APPROXIMATE AND FINAL LOCATIONS TO BE DETERMINED THROUGH LOCATING NO PASSING BID ITEM.

N

KETTLE DR

SREET SIGNS

154 SPEED LIMIT 25 R2-1(3)

155 WEST 28 J4-1(2S)

156 STOP REMOVE STOP R1-1(3)

157 SPEED LIMIT 25 REMOVE SPEED LIMIT 25 W3-5(3)

SIGN

SIGN

115+00 116+00 117+00 118+00 119+00 120+00

STH 28

SIGN

EAST 28 Cascade 17 Sheboygan 34 REMOVE

Cascade 17 Sheboygan 34 D2-2(2S) 158

W1-7(2S) 149

SPEED LIMIT 45 REMOVE 159

NO PASSING ZONE REMOVE

NO PASSING ZONE W14-3(2S) 160

SPEED LIMIT 45 R2-1(2S) 161

LEGEND

- EXISTING SIGN MOUNTED ON POST(S)
- EXISTING SIGN MOUNTED ON BRIDGE OR SIGN BRIDGE
- PROPOSED SIGN MOUNTED ON POST(S)
- PROPOSED SIGN MOUNTED ON BRIDGE OR SIGN BRIDGE
- EXISTING LIGHT OR SIGNAL POLE
- PROPOSED LIGHT OR SIGNAL POLE
- SIGN BRIDGE
- CANTILEVER SIGN BRIDGE
- XXX DENOTES SIGN NUMBER
- (X) INDICATES SIGN SIZE
- (2010) SPEED LIMIT 25 INDICATES YEAR INSTALLED

SHEET 7 OF 25

PROJECT NO: 4060-05-70	HWY: STH 28	COUNTY: WASHINGTON	PERMANENT SIGNING	SHEET 112 E

NOTE:
STREET SIGNS SHALL AND WAYFINDING SIGNS SHALL BE MOVED BY MUNICIPALITY AND SHALL NOT BE PLACED ON TOP OF STOP SIGNS.

NO PASSING LOCATIONS SHOWN ARE APPROXIMATE AND FINAL LOCATIONS TO BE DETERMINED THROUGH LOCATING NO PASSING BID ITEM.

N

164
NO PASSING ZONE
REMOVE

NO PASSING ZONE
W14-3(2S)

165
SPEED LIMIT 45
REMOVE

SPEED LIMIT 45
R2-1(2S)

NO ENGINE BRAKING EXCEPT IN EMERGENCY
MOVE BY VILLAGE

MOVE BY VILLAGE

120 122 124 126 128 130 132 134

STH 28

SPEED LIMIT 45
REMOVE

166

GOLF COURSE

LEGEND

- EXISTING SIGN MOUNTED ON POST(S)
- EXISTING SIGN MOUNTED ON BRIDGE OR SIGN BRIDGE
- PROPOSED SIGN MOUNTED ON POST(S)
- PROPOSED SIGN MOUNTED ON BRIDGE OR SIGN BRIDGE
- EXISTING LIGHT OR SIGNAL POLE
- PROPOSED LIGHT OR SIGNAL POLE
- SIGN BRIDGE
- CANTILEVER SIGN BRIDGE
- (XXX) DENOTES SIGN NUMBER
- (X) INDICATES SIGN SIZE
- (2010) SPEED LIMIT 25 INDICATES YEAR INSTALLED

LEGEND

- EXISTING SIGN MOUNTED ON POST(S)
- EXISTING SIGN MOUNTED ON BRIDGE OR SIGN BRIDGE
- PROPOSED SIGN MOUNTED ON POST(S)
- PROPOSED SIGN MOUNTED ON BRIDGE OR SIGN BRIDGE
- EXISTING LIGHT OR SIGNAL POLE
- PROPOSED LIGHT OR SIGNAL POLE
- SIGN BRIDGE
- CANTILEVER SIGN BRIDGE
- (XXX) DENOTES SIGN NUMBER
- (X) INDICATES SIGN SIZE
- (2010) INDICATES YEAR INSTALLED

NOTE:
STREET SIGNS SHALL AND WAYFINDING SIGNS SHALL BE MOVED BY MUNICIPALITY AND SHALL NOT BE PLACED ON TOP OF STOP SIGNS.

NO PASSING LOCATIONS SHOWN ARE APPROXIMATE AND FINAL LOCATIONS TO BE DETERMINED THROUGH LOCATING NO PASSING BID ITEM.

N

2

274
W1-7(3)

167
168
SPEED LIMIT 45
REMOVE

POOL

136 138 140 142 144 146 148 150

STH 28

S. MILL RD

GOLF

STOP
REMOVE

STOP
R1-1(3)
169

SPEED LIMIT 45
R2-1(2S)
162

REMOVE
W5-52R(2S)
170
4' MOUNTING HEIGHT

REMOVE
W5-52L(2S)
171
4' MOUNTING HEIGHT

REMOVE
W5-52L(2S)
172
4' MOUNTING HEIGHT

REMOVE
W5-52R(2S)
173
4' MOUNTING HEIGHT

SHEET 9 OF 25

PROJECT NO: 4060-05-70	HWY: STH 28	COUNTY: WASHINGTON	PERMANENT SIGNING	SHEET 114 E

NOTE:
STREET SIGNS SHALL AND WAYFINDING SIGNS SHALL BE MOVED BY MUNICIPALITY AND SHALL NOT BE PLACED ON TOP OF STOP SIGNS.

NO PASSING LOCATIONS SHOWN ARE APPROXIMATE AND FINAL LOCATIONS TO BE DETERMINED THROUGH LOCATING NO PASSING BID ITEM.

N

175
STOP
REMOVE
STOP
R1-1(3)

174
SPEED LIMIT 45
R2-1(3)
SPEED LIMIT 45
REMOVE

N. MILL RD

176
DEAD END
REMOVE
DEAD END
W14-1(2S)

177
SPEED LIMIT 55
R2-1(2S)
SPEED LIMIT 55
REMOVE

178
NO PASSING ZONE
REMOVE
NO PASSING ZONE
W14-3(2S)

179
REDUCED SPEED AHEAD
45 M.P.H.
REMOVE
SPEED LIMIT 45
W3-5(3)

180
NO PASSING ZONE
REMOVE
NO PASSING ZONE
W14-3(2S)

152 154 156 158 160 162 164 166

STH 28

STH 28

W1-7(3)
273

W8-70(2S) CENTERLINE RUMBLE STRIPS NEXT 2 MILES
W57-512S)
163

45 M.P.H.
REMOVE
W1-4R(3)
45 M.P.H.
W13-1(3)
181
181A

LEGEND

- EXISTING SIGN MOUNTED ON POST(S)
- EXISTING SIGN MOUNTED ON BRIDGE OR SIGN BRIDGE
- PROPOSED SIGN MOUNTED ON POST(S)
- PROPOSED SIGN MOUNTED ON BRIDGE OR SIGN BRIDGE
- EXISTING LIGHT OR SIGNAL POLE
- PROPOSED LIGHT OR SIGNAL POLE
- SIGN BRIDGE
- CANTILEVER SIGN BRIDGE
- (XXX) DENOTES SIGN NUMBER
- (X) INDICATES SIGN SIZE
- (2010) SPEED LIMIT 25 INDICATES YEAR INSTALLED

SHEET 10 OF 25

PROJECT NO: 4060-05-70	HWY: STH 28	COUNTY: WASHINGTON	PERMANENT SIGNING	SHEET 115 E

FILE NAME : J:\projects\D2_40600528\Sign\023210_ps.dgn PLOT DATE : 22-JUL-2013 08:00 PLOT BY : dotr3h PLOT NAME : PLOT SCALE : 100:1

WISDOT/CADDS SHEET 42

2

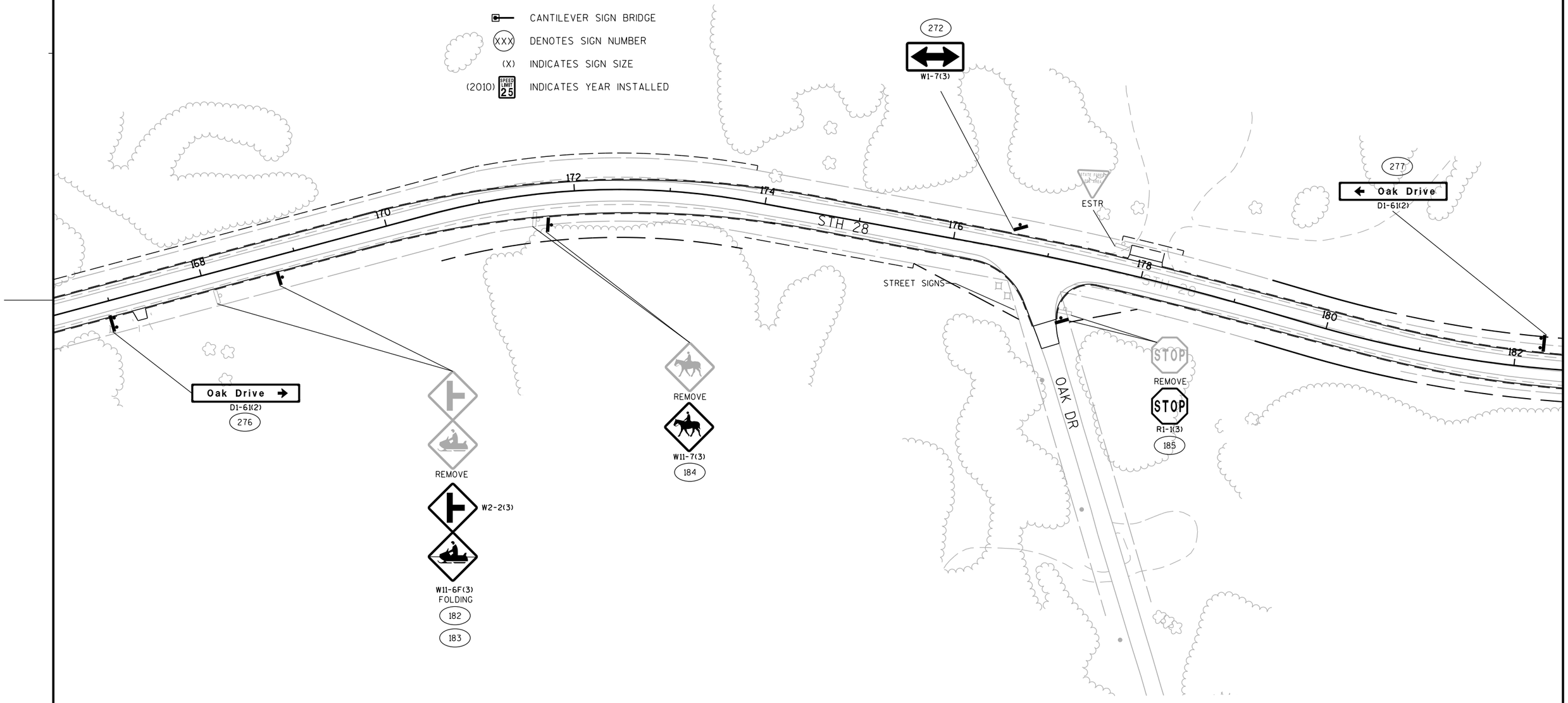
LEGEND

- EXISTING SIGN MOUNTED ON POST(S)
- EXISTING SIGN MOUNTED ON BRIDGE OR SIGN BRIDGE
- PROPOSED SIGN MOUNTED ON POST(S)
- PROPOSED SIGN MOUNTED ON BRIDGE OR SIGN BRIDGE
- EXISTING LIGHT OR SIGNAL POLE
- PROPOSED LIGHT OR SIGNAL POLE
- SIGN BRIDGE
- CANTILEVER SIGN BRIDGE
- (XXX) DENOTES SIGN NUMBER
- (X) INDICATES SIGN SIZE
- (2010) SPEED LIMIT 25 INDICATES YEAR INSTALLED

NOTE:
STREET SIGNS SHALL AND WAYFINDING SIGNS SHALL BE MOVED BY MUNICIPALITY AND SHALL NOT BE PLACED ON TOP OF STOP SIGNS.

NO PASSING LOCATIONS SHOWN ARE APPROXIMATE AND FINAL LOCATIONS TO BE DETERMINED THROUGH LOCATING NO PASSING BID ITEM.

N



SHEET 11 OF 25

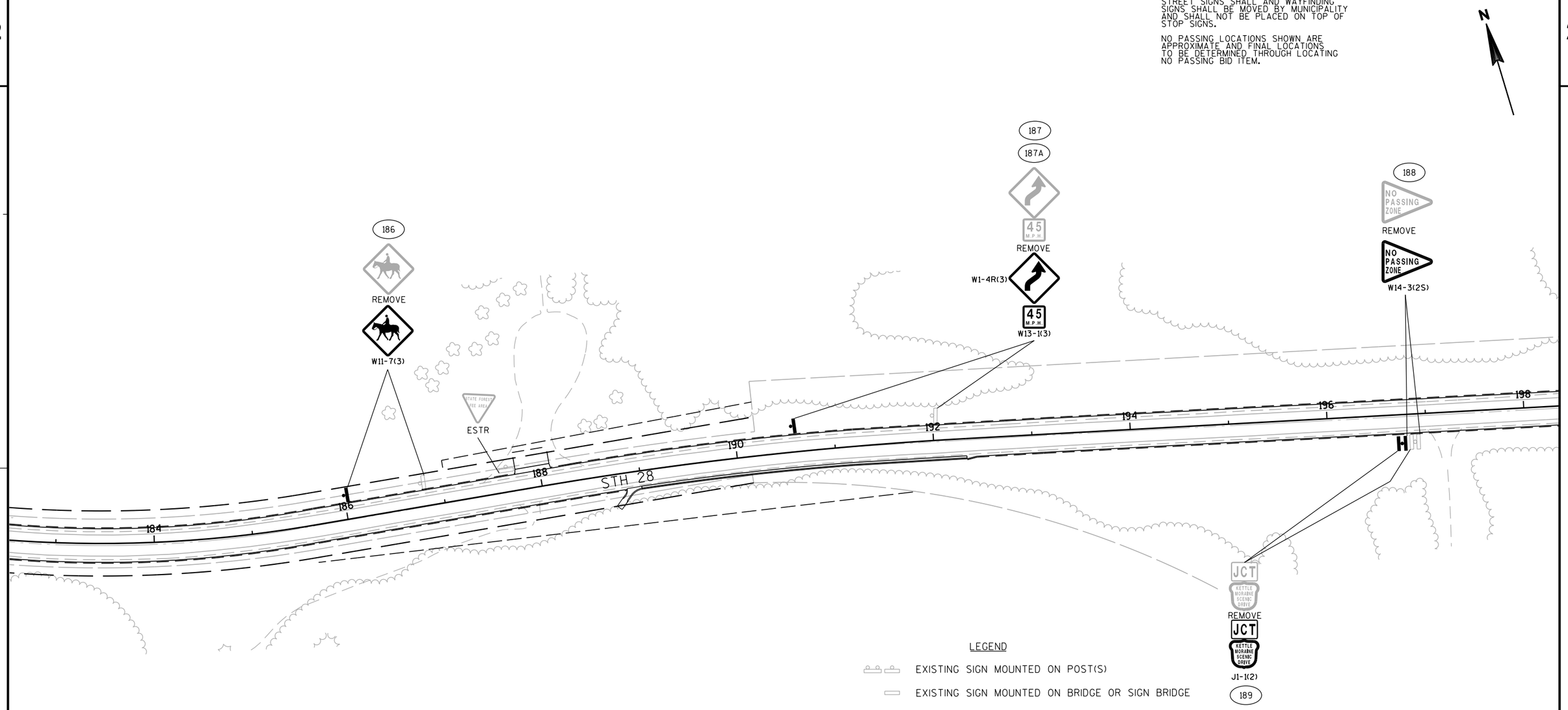
PROJECT NO: 4060-05-70	HWY: STH 28	COUNTY: WASHINGTON	PERMANENT SIGNING	SHEET 116	E

FILE NAME : J:\projects\D2_40600528\Sign\023211_ps.dgn PLOT DATE : 22-JUL-2013 08:00 PLOT BY : dotr3h PLOT NAME : PLOT SCALE : 100:1

WISDOT/CADDS SHEET 42

NOTE:
STREET SIGNS SHALL AND WAYFINDING SIGNS SHALL BE MOVED BY MUNICIPALITY AND SHALL NOT BE PLACED ON TOP OF STOP SIGNS.

NO PASSING LOCATIONS SHOWN ARE APPROXIMATE AND FINAL LOCATIONS TO BE DETERMINED THROUGH LOCATING NO PASSING BID ITEM.



LEGEND

- EXISTING SIGN MOUNTED ON POST(S)
- EXISTING SIGN MOUNTED ON BRIDGE OR SIGN BRIDGE
- PROPOSED SIGN MOUNTED ON POST(S)
- PROPOSED SIGN MOUNTED ON BRIDGE OR SIGN BRIDGE
- EXISTING LIGHT OR SIGNAL POLE
- PROPOSED LIGHT OR SIGNAL POLE
- SIGN BRIDGE
- CANTILEVER SIGN BRIDGE
- (XXX) DENOTES SIGN NUMBER
- (X) INDICATES SIGN SIZE
- (2010) SPEED LIMIT 25 INDICATES YEAR INSTALLED

SHEET 12 OF 25

PROJECT NO: 4060-05-70	HWY: STH 28	COUNTY: WASHINGTON	PERMANENT SIGNING	SHEET 117 E

FILE NAME : J:\projects\D2_40600528\Sign\023212_ps.dgn PLOT DATE : 22-JUL-2013 08:00 PLOT BY : dotr3h PLOT NAME : PLOT SCALE : 100:1

NOTE:
STREET SIGNS SHALL AND WAYFINDING SIGNS SHALL BE MOVED BY MUNICIPALITY AND SHALL NOT BE PLACED ON TOP OF STOP SIGNS.

NO PASSING LOCATIONS SHOWN ARE APPROXIMATE AND FINAL LOCATIONS TO BE DETERMINED THROUGH LOCATING NO PASSING BID ITEM.

N

190
NO PASSING ZONE
REMOVE
NO PASSING ZONE
W14-3(2S)

191
REMOVE
FOLDING
W11-6F(3)

192
STOP
REMOVE
STOP
R1-1(3)

193
SPEED LIMIT 45
REMOVE
SPEED LIMIT 45
R2-1(2S)
REMOVE

194
MOVE

195
REMOVE
J13-1(2)

KETTLE MORAINE DR

STH 28

200 202 204 206 208 210 212 214

T206 R20 S00

Kettle Moraine Dr
D1-61(2)
278

REMOVE
J13-1(2)
196

ESTR SIGN

STOP
REMOVE
STOP
R1-1(3)
197

LEGEND

- EXISTING SIGN MOUNTED ON POST(S)
- EXISTING SIGN MOUNTED ON BRIDGE OR SIGN BRIDGE
- PROPOSED SIGN MOUNTED ON POST(S)
- PROPOSED SIGN MOUNTED ON BRIDGE OR SIGN BRIDGE
- EXISTING LIGHT OR SIGNAL POLE
- PROPOSED LIGHT OR SIGNAL POLE
- SIGN BRIDGE
- CANTILEVER SIGN BRIDGE
- (XXX) DENOTES SIGN NUMBER
- (X) INDICATES SIGN SIZE
- (2010) SPEED LIMIT 25 INDICATES YEAR INSTALLED

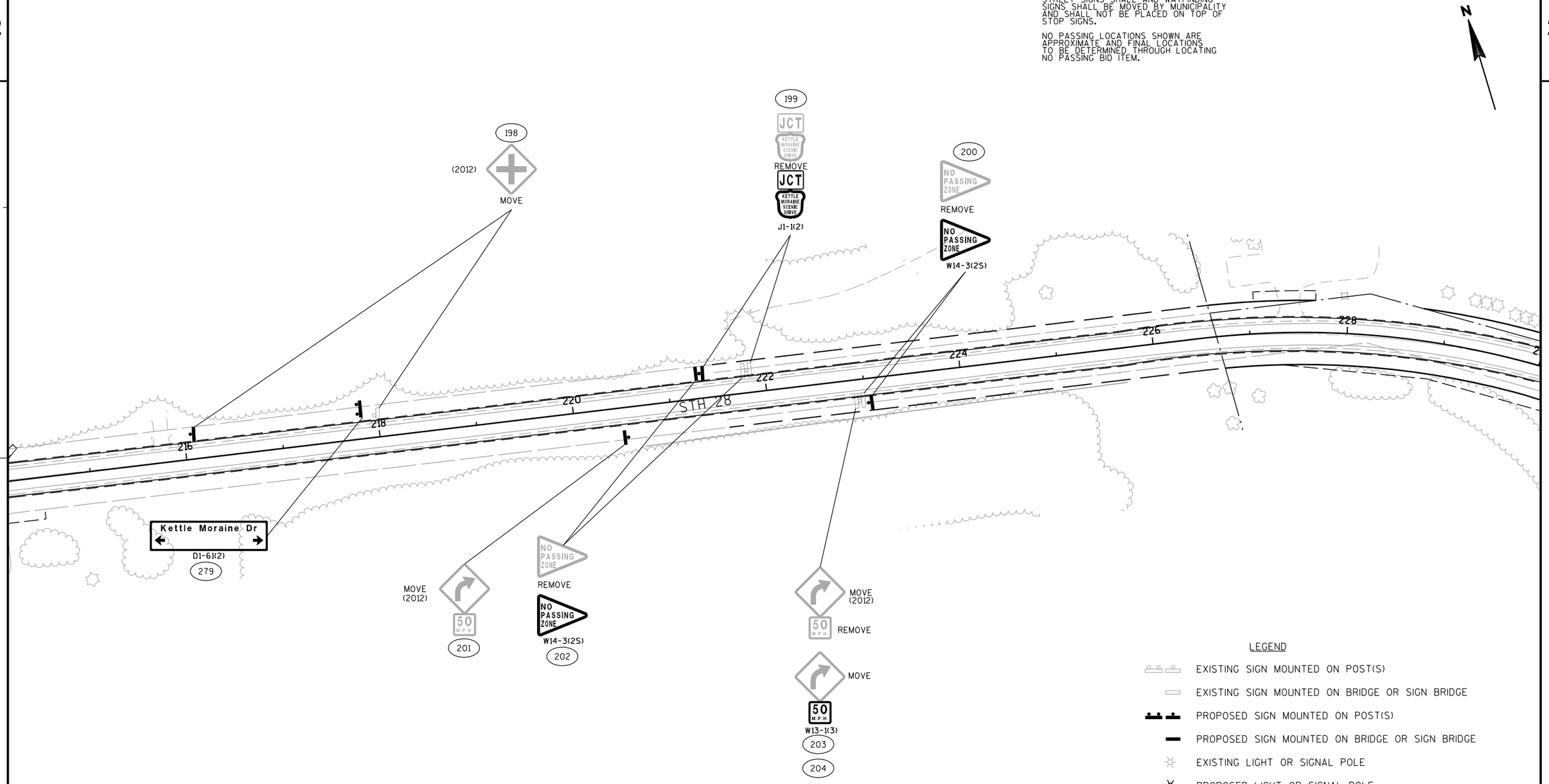
SHEET 13 OF 25

PROJECT NO: 4060-05-70	HWY: STH 28	COUNTY: WASHINGTON	PERMANENT SIGNING	SHEET 118	E

FILE NAME : J:\projects\D2_40600528\Sign\023213_ps.dgn PLOT DATE : 22-JUL-2013 08:00 PLOT BY : dotr3h PLOT NAME : PLOT SCALE : 100:1

NOTE:
STREET SIGNS SHALL AND WAYFINDING SIGNS SHALL BE MOVED BY MUNICIPALITY AND SHALL NOT BE PLACED ON TOP OF STOP SIGNS.

NO PASSING LOCATIONS SHOWN ARE APPROXIMATE AND FINAL LOCATIONS TO BE DETERMINED THROUGH LOCATING NO PASSING BID ITEM.



LEGEND

- EXISTING SIGN MOUNTED ON POST(S)
- EXISTING SIGN MOUNTED ON BRIDGE OR SIGN BRIDGE
- PROPOSED SIGN MOUNTED ON POST(S)
- PROPOSED SIGN MOUNTED ON BRIDGE OR SIGN BRIDGE
- EXISTING LIGHT OR SIGNAL POLE
- PROPOSED LIGHT OR SIGNAL POLE
- SIGN BRIDGE
- CANTILEVER SIGN BRIDGE
- (XXX) DENOTES SIGN NUMBER
- (X) INDICATES SIGN SIZE
- (2010) SPEED LIMIT 25 INDICATES YEAR INSTALLED

SHEET 14 OF 25

PROJECT NO: 4060-05-70	HWY: STH 28	COUNTY: WASHINGTON	PERMANENT SIGNING	SHEET 119 E

2

LEGEND

- EXISTING SIGN MOUNTED ON POST(S)
- EXISTING SIGN MOUNTED ON BRIDGE OR SIGN BRIDGE
- PROPOSED SIGN MOUNTED ON POST(S)
- PROPOSED SIGN MOUNTED ON BRIDGE OR SIGN BRIDGE
- EXISTING LIGHT OR SIGNAL POLE
- PROPOSED LIGHT OR SIGNAL POLE
- SIGN BRIDGE
- CANTILEVER SIGN BRIDGE
- (XXX) DENOTES SIGN NUMBER
- (X) INDICATES SIGN SIZE
- (2010) SPEED LIMIT 25 INDICATES YEAR INSTALLED

NOTE:
STREET SIGNS SHALL AND WAYFINDING SIGNS SHALL BE MOVED BY MUNICIPALITY AND SHALL NOT BE PLACED ON TOP OF STOP SIGNS.

NO PASSING LOCATIONS SHOWN ARE APPROXIMATE AND FINAL LOCATIONS TO BE DETERMINED THROUGH LOCATING NO PASSING BID ITEM.

N

205
(2012)
50 M.P.H.
MOVE

206
STOP
REMOVE
STOP
R1-1(3)

HICKORY DR

21

STREET SIGNS

207
(2012)
MOVE

230
STH 28
232
234
236
238
240
242
244

10

8

STOP
REMOVE
STOP
R1-1(3)
208

HICKORY DR

9

SPEED LIMIT 40
(2012)
MOVE
209

W1-2L(3)
W13-1(3) 40 M.P.H.

40 M.P.H.
REMOVE
210

STH 28

SHEET 15 OF 25

PROJECT NO: 4060-05-70	HWY: STH 28	COUNTY: WASHINGTON	PERMANENT SIGNING	SHEET 120	E

FILE NAME : J:\projects\D2_40600528\Sign\023215_ps.dgn PLOT DATE : 22-JUL-2013 08:00 PLOT BY : dotr3h PLOT NAME : PLOT SCALE : 100:1

WISDOT/CADDS SHEET 42

2

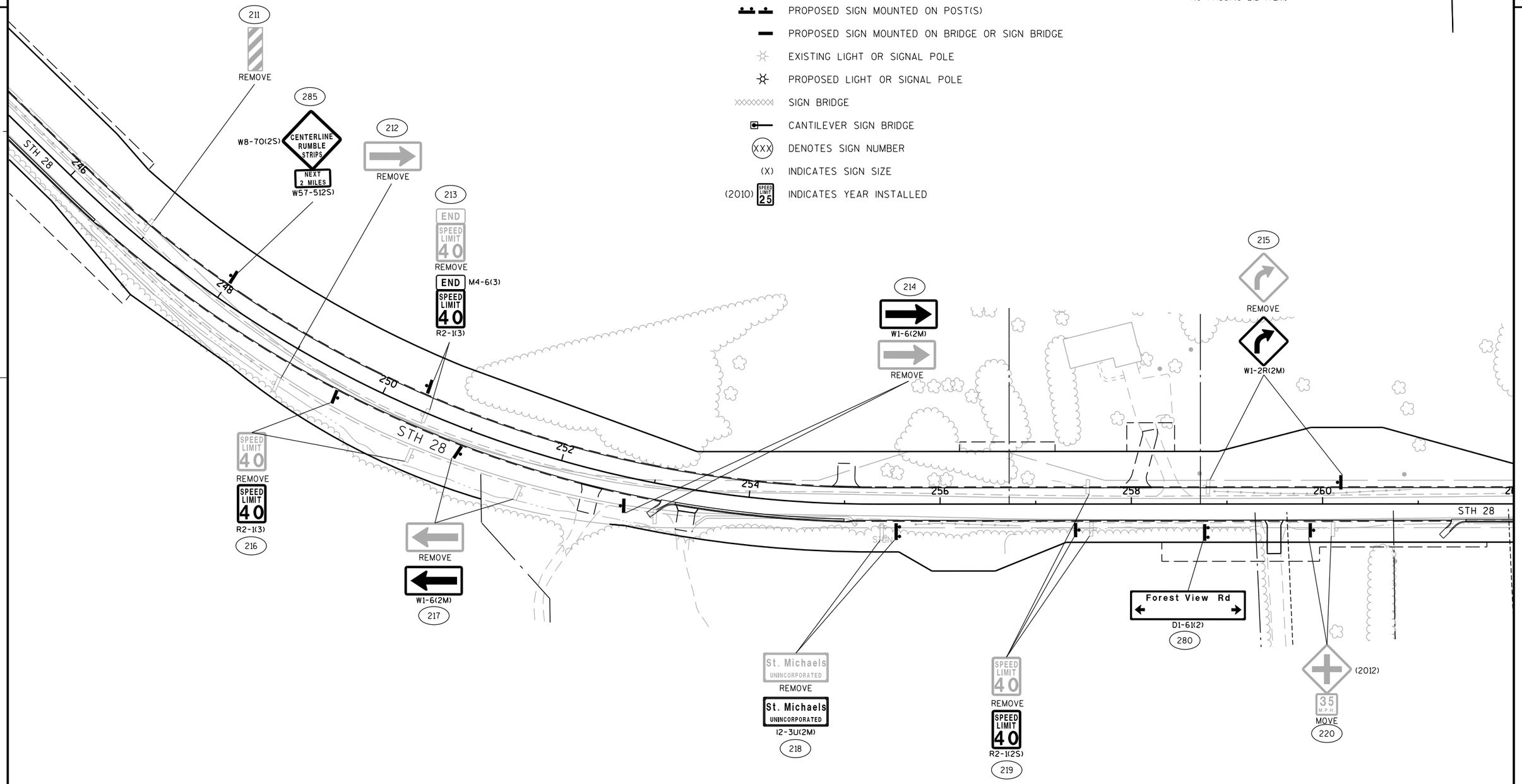
LEGEND

- EXISTING SIGN MOUNTED ON POST(S)
- EXISTING SIGN MOUNTED ON BRIDGE OR SIGN BRIDGE
- PROPOSED SIGN MOUNTED ON POST(S)
- PROPOSED SIGN MOUNTED ON BRIDGE OR SIGN BRIDGE
- EXISTING LIGHT OR SIGNAL POLE
- PROPOSED LIGHT OR SIGNAL POLE
- SIGN BRIDGE
- CANTILEVER SIGN BRIDGE
- (XXX) DENOTES SIGN NUMBER
- (X) INDICATES SIGN SIZE
- (2010) SPEED LIMIT 25 INDICATES YEAR INSTALLED

NOTE:
STREET SIGNS SHALL AND WAYFINDING SIGNS SHALL BE MOVED BY MUNICIPALITY AND SHALL NOT BE PLACED ON TOP OF STOP SIGNS.

NO PASSING LOCATIONS SHOWN ARE APPROXIMATE AND FINAL LOCATIONS TO BE DETERMINED THROUGH LOCATING NO PASSING BID ITEM.

N



SHEET 16 OF 25

PROJECT NO: 4060-05-70	HWY: STH 28	COUNTY: WASHINGTON	PERMANENT SIGNING	SHEET 121 E

NOTE:
STREET SIGNS SHALL AND WAYFINDING SIGNS SHALL BE MOVED BY MUNICIPALITY AND SHALL NOT BE PLACED ON TOP OF STOP SIGNS.

NO PASSING LOCATIONS SHOWN ARE APPROXIMATE AND FINAL LOCATIONS TO BE DETERMINED THROUGH LOCATING NO PASSING BID ITEM.

N

221
SPEED LIMIT 40
REMOVE
SPEED LIMIT 40
R2-1(2S)

222
STOP
REMOVE
STOP
R1-1(3)

223
223A
MOVE (2012)
35 M.P.H.
REMOVE
35 M.P.H.
W13-1(2M)

224
REMOVE

281
Forest View Rd
D1-6(2)

FOREST VIEW DR

STH 28

STREET SIGNS

SEPTIC

RUINS

SIGN

STOP
REMOVE
STOP
R1-1(3)
225

SPEED LIMIT 40
REMOVE
SPEED LIMIT 40
R2-1(2S)
226

MOVE
227

SPEED LIMIT 40
REMOVE
228
229

LEGEND

- EXISTING SIGN MOUNTED ON POST(S)
- EXISTING SIGN MOUNTED ON BRIDGE OR SIGN BRIDGE
- PROPOSED SIGN MOUNTED ON POST(S)
- PROPOSED SIGN MOUNTED ON BRIDGE OR SIGN BRIDGE
- EXISTING LIGHT OR SIGNAL POLE
- PROPOSED LIGHT OR SIGNAL POLE
- SIGN BRIDGE
- CANTILEVER SIGN BRIDGE
- (XXX) DENOTES SIGN NUMBER
- (X) INDICATES SIGN SIZE
- (2010) SPEED LIMIT 25 INDICATES YEAR INSTALLED

SHEET 17 OF 25

PROJECT NO: 4060-05-70	HWY: STH 28	COUNTY: WASHINGTON	PERMANENT SIGNING	SHEET 122	E

FILE NAME : J:\projects\D2_40600528\Sign\023217_ps.dgn PLOT DATE : 22-JUL-2013 08:00 PLOT BY : dotr3h PLOT NAME : PLOT SCALE : 100:1

WISDOT/CADDS SHEET 42

NOTE:
STREET SIGNS SHALL AND WAYFINDING SIGNS SHALL BE MOVED BY MUNICIPALITY AND SHALL NOT BE PLACED ON TOP OF STOP SIGNS.

NO PASSING LOCATIONS SHOWN ARE APPROXIMATE AND FINAL LOCATIONS TO BE DETERMINED THROUGH LOCATING NO PASSING BID ITEM.

N

230
St. Michaels UNINCORPORATED
REMOVE
St. Michaels UNINCORPORATED
I2-3U(2M)

231
SPEED LIMIT 40
REMOVE
SPEED LIMIT 40
R2-1(3)

232
NO PASSING ZONE
REMOVE
NO PASSING ZONE
W14-3(2M)

233
NO PASSING ZONE
REMOVE
NO PASSING ZONE
W14-3(2M)

234
SPEED LIMIT 40
2012
MOVE

278 280 282 284 286 288 290 292

STH 28

SIGN

SIGN

PI 293+17.30

W8-70(2S)
CENTERLINE RUMBLE STRIPS
NEXT 2 MILES
W57-512S)
286

SPEED LIMIT 55
REMOVE
SPEED LIMIT 55
R2-1(2S)
235

LEGEND

- EXISTING SIGN MOUNTED ON POST(S)
- EXISTING SIGN MOUNTED ON BRIDGE OR SIGN BRIDGE
- PROPOSED SIGN MOUNTED ON POST(S)
- PROPOSED SIGN MOUNTED ON BRIDGE OR SIGN BRIDGE
- EXISTING LIGHT OR SIGNAL POLE
- PROPOSED LIGHT OR SIGNAL POLE
- SIGN BRIDGE
- CANTILEVER SIGN BRIDGE
- XXX DENOTES SIGN NUMBER
- (X) INDICATES SIGN SIZE
- (2010) SPEED LIMIT 25 INDICATES YEAR INSTALLED

SHEET 18 OF 25

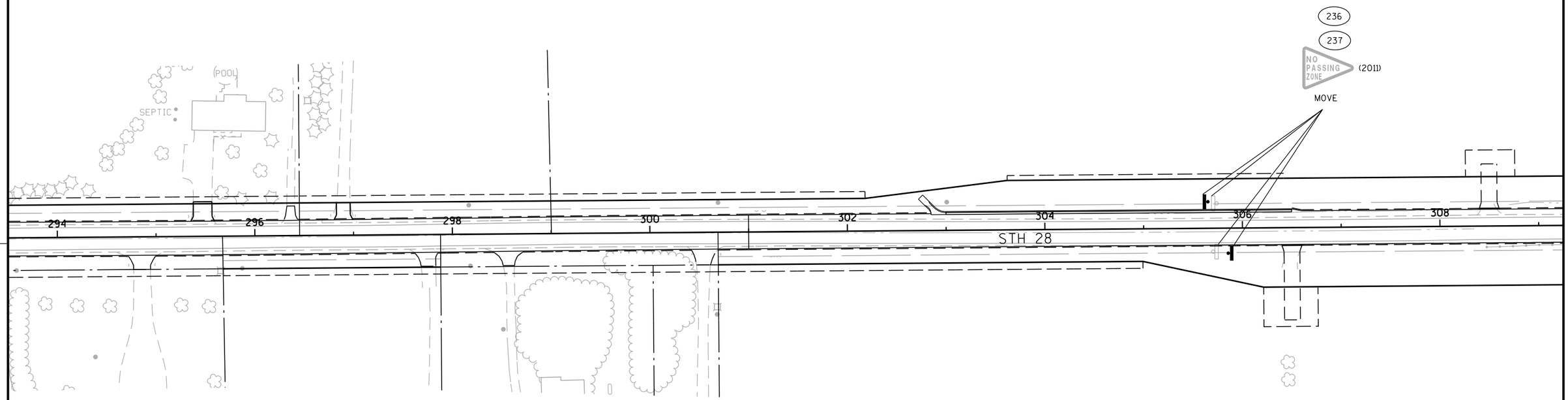
PROJECT NO: 4060-05-70	HWY: STH 28	COUNTY: WASHINGTON	PERMANENT SIGNING	SHEET 123	E

FILE NAME : J:\projects\D2_40600528\Sign\023218_ps.dgn PLOT DATE : 22-JUL-2013 08:00 PLOT BY : dotr3h PLOT NAME : PLOT SCALE : 100:1

NOTE:
STREET SIGNS SHALL AND WAYFINDING SIGNS SHALL BE MOVED BY MUNICIPALITY AND SHALL NOT BE PLACED ON TOP OF STOP SIGNS.

NO PASSING LOCATIONS SHOWN ARE APPROXIMATE AND FINAL LOCATIONS TO BE DETERMINED THROUGH LOCATING NO PASSING BID ITEM.

N



LEGEND

- EXISTING SIGN MOUNTED ON POST(S)
- EXISTING SIGN MOUNTED ON BRIDGE OR SIGN BRIDGE
- PROPOSED SIGN MOUNTED ON POST(S)
- PROPOSED SIGN MOUNTED ON BRIDGE OR SIGN BRIDGE
- EXISTING LIGHT OR SIGNAL POLE
- PROPOSED LIGHT OR SIGNAL POLE
- SIGN BRIDGE
- CANTILEVER SIGN BRIDGE
- (XXX) DENOTES SIGN NUMBER
- (X) INDICATES SIGN SIZE
- (2010) SPEED LIMIT 25 INDICATES YEAR INSTALLED

SHEET 19 OF 25

PROJECT NO: 4060-05-70	HWY: STH 28	COUNTY: WASHINGTON	PERMANENT SIGNING	SHEET 124 E

NOTE:
STREET SIGNS SHALL AND WAYFINDING SIGNS SHALL BE MOVED BY MUNICIPALITY AND SHALL NOT BE PLACED ON TOP OF STOP SIGNS.

NO PASSING LOCATIONS SHOWN ARE APPROXIMATE AND FINAL LOCATIONS TO BE DETERMINED THROUGH LOCATING NO PASSING BID ITEM.

N

WESCOTT RD

STH 28

CTH HH

287 SPEED LIMIT 55 R2-1(2M)

288 W8-70(2S) CENTERLINE RUMBLE STRIPS NEXT 1/2 MILE W57-512S)

289 WEST 28 J4-1(2M)

238 STOP REMOVE STOP R1-1(3)

239 COUNTY HH REMOVE SOUTH COUNTY HH J3-1(2M)

290 SOUTH COUNTY HH J2-1(2M)

JCT COUNTY HH REMOVE JCT COUNTY HH J1-1(2M) 241

SOUTH COUNTY HH J2-1(2M) 291

Wescott Rd D1-61(2) 292

COUNTY HH REMOVE SOUTH COUNTY HH J3-1(2M) 242

COUNTY HH REMOVE SOUTH COUNTY HH J4-1(2S) 243

28 REMOVE (2013) STOP MOVE STOP R1-1(3) 244

28 J13-1(2S) 245

246 REMOVE W3-1(2S)

247 JCT END 28 COUNTY HH REMOVE JCT END 28 COUNTY HH J1-2(2S)

NO PASSING ZONE REMOVE NO PASSING ZONE W14-3(2S) 240

W8-70(2S) CENTERLINE RUMBLE STRIPS NEXT 1 1/4 MILES W57-51(2S) 293

LEGEND

- EXISTING SIGN MOUNTED ON POST(S)
- EXISTING SIGN MOUNTED ON BRIDGE OR SIGN BRIDGE
- PROPOSED SIGN MOUNTED ON POST(S)
- PROPOSED SIGN MOUNTED ON BRIDGE OR SIGN BRIDGE
- EXISTING LIGHT OR SIGNAL POLE
- PROPOSED LIGHT OR SIGNAL POLE
- SIGN BRIDGE
- CANTILEVER SIGN BRIDGE
- (XXX) DENOTES SIGN NUMBER
- (X) INDICATES SIGN SIZE
- (2010) SPEED LIMIT 25 INDICATES YEAR INSTALLED

SHEET 20 OF 25

PROJECT NO: 4060-05-70	HWY: STH 28	COUNTY: WASHINGTON	PERMANENT SIGNING	SHEET 125 E

NOTE:
STREET SIGNS SHALL AND WAYFINDING SIGNS SHALL BE MOVED BY MUNICIPALITY AND SHALL NOT BE PLACED ON TOP OF STOP SIGNS.

NO PASSING LOCATIONS SHOWN ARE APPROXIMATE AND FINAL LOCATIONS TO BE DETERMINED THROUGH LOCATING NO PASSING BID ITEM.

N

294
Wescott Rd
D1-6(2)

249
JCT COUNTY HH
REMOVE

JCT COUNTY HH
J1-1(2M)

248
NO PASSING ZONE
REMOVE

NO PASSING ZONE
W14-3(2S)

326 328 330 332 334 336 338 340

STH 28

EAST 28
J4-1(2M)
300

SPEED LIMIT 55
R2-1(2M)
295

LEGEND

- EXISTING SIGN MOUNTED ON POST(S)
- EXISTING SIGN MOUNTED ON BRIDGE OR SIGN BRIDGE
- PROPOSED SIGN MOUNTED ON POST(S)
- PROPOSED SIGN MOUNTED ON BRIDGE OR SIGN BRIDGE
- EXISTING LIGHT OR SIGNAL POLE
- PROPOSED LIGHT OR SIGNAL POLE
- SIGN BRIDGE
- CANTILEVER SIGN BRIDGE
- XXX DENOTES SIGN NUMBER
- (X) INDICATES SIGN SIZE
- (2010) SPEED LIMIT 25 INDICATES YEAR INSTALLED

SHEET 21 OF 25

PROJECT NO: 4060-05-70	HWY: STH 28	COUNTY: WASHINGTON	PERMANENT SIGNING	SHEET	E

FILE NAME : J:\projects\D2_40600528\Sign\023221_ps.dgn PLOT DATE : 22-JUL-2013 08:00 PLOT BY : dotr3h PLOT NAME : PLOT SCALE : 100:1

NOTE:
STREET SIGNS SHALL AND WAYFINDING SIGNS SHALL BE MOVED BY MUNICIPALITY AND SHALL NOT BE PLACED ON TOP OF STOP SIGNS.

NO PASSING LOCATIONS SHOWN ARE APPROXIMATE AND FINAL LOCATIONS TO BE DETERMINED THROUGH LOCATING NO PASSING BID ITEM.

N

250
REMOVE

251
REMOVE
W5-52R(2S)
4' MOUNTING HEIGHT

252
REMOVE
W5-52L(2S)
4' MOUNTING HEIGHT

342 344 346 348 350 352 354 356

STH 28

STH 44

253
REMOVE

(2012)
254
MOVE

SEPTIC
POOL

255
REMOVE
W5-52L(2S)
4' MOUNTING HEIGHT

256
REMOVE
W5-52R(2S)
4' MOUNTING HEIGHT

LEGEND

- EXISTING SIGN MOUNTED ON POST(S)
- EXISTING SIGN MOUNTED ON BRIDGE OR SIGN BRIDGE
- PROPOSED SIGN MOUNTED ON POST(S)
- PROPOSED SIGN MOUNTED ON BRIDGE OR SIGN BRIDGE
- EXISTING LIGHT OR SIGNAL POLE
- PROPOSED LIGHT OR SIGNAL POLE
- SIGN BRIDGE
- CANTILEVER SIGN BRIDGE
- (XXX) DENOTES SIGN NUMBER
- (X) INDICATES SIGN SIZE
- (2010) SPEED LIMIT 25 INDICATES YEAR INSTALLED

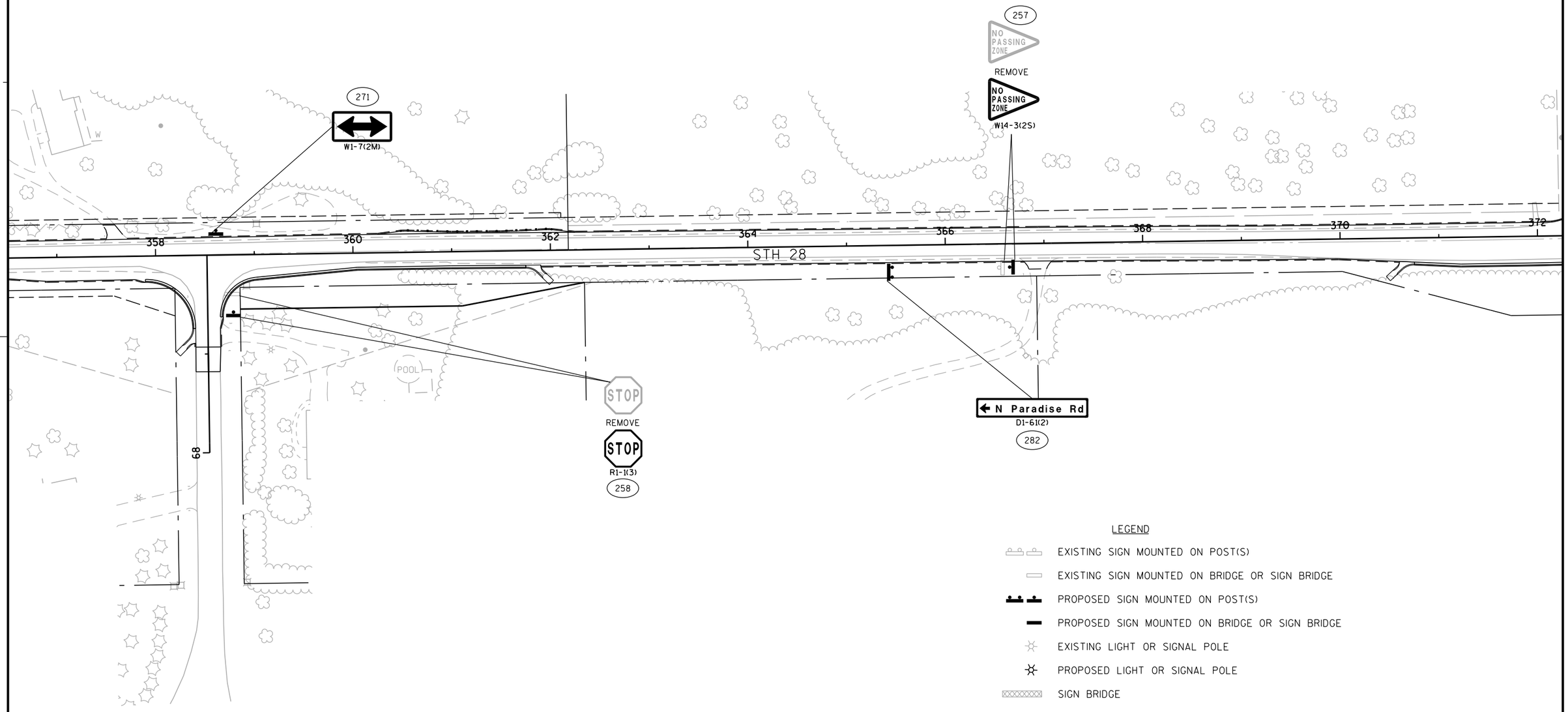
SHEET 22 OF 25

PROJECT NO: 4060-05-70	HWY: STH 28	COUNTY: WASHINGTON	PERMANENT SIGNING	SHEET 127 E

NOTE:
STREET SIGNS SHALL AND WAYFINDING SIGNS SHALL BE MOVED BY MUNICIPALITY AND SHALL NOT BE PLACED ON TOP OF STOP SIGNS.

NO PASSING LOCATIONS SHOWN ARE APPROXIMATE AND FINAL LOCATIONS TO BE DETERMINED THROUGH LOCATING NO PASSING BID ITEM.

N



LEGEND

- EXISTING SIGN MOUNTED ON POST(S)
- EXISTING SIGN MOUNTED ON BRIDGE OR SIGN BRIDGE
- PROPOSED SIGN MOUNTED ON POST(S)
- PROPOSED SIGN MOUNTED ON BRIDGE OR SIGN BRIDGE
- EXISTING LIGHT OR SIGNAL POLE
- PROPOSED LIGHT OR SIGNAL POLE
- SIGN BRIDGE
- CANTILEVER SIGN BRIDGE
- (XXX) DENOTES SIGN NUMBER
- (X) INDICATES SIGN SIZE
- (2010) INDICATES YEAR INSTALLED

SHEET 23 OF 25

PROJECT NO: 4060-05-70	HWY: STH 28	COUNTY: WASHINGTON	PERMANENT SIGNING	SHEET 128 E

NOTE:
STREET SIGNS SHALL AND WAYFINDING SIGNS SHALL BE MOVED BY MUNICIPALITY AND SHALL NOT BE PLACED ON TOP OF STOP SIGNS.

NO PASSING LOCATIONS SHOWN ARE APPROXIMATE AND FINAL LOCATIONS TO BE DETERMINED THROUGH LOCATING NO PASSING BID ITEM.

N

259 STOP REMOVE
STOP R1-1(3)

260 RIDESHARE INFO CALL 1-800-455-POOL (2012) MOVE

296 W8-70(2S) CENTERLINE RUMBLE STRIPS NEXT 1 3/4 MILES W57-512(S)

298 SPEED LIMIT 55 R2-1(2S)

283 N Paradise Rd D1-61(2M)

261 (2011) WEST 28 MOVE

262 SPONSOR MOVE

To Hwy 41 15
Kewaskum 5
(2011) ESTR

(2011) WEST 28 ESTR

(2011) STOP ESTR

374 376 378 380 382 384 386

STH 28

CHURCH ESTR

(2011) STOP ESTR

(2011) SOUTH 144 ESTR

(2011) DO NOT ENTER ESTR

(2011) ESTR

(2011) EAST NORTH 28 144 ESTR

(2011) ESTR

(2011) SOUTH 144 ESTR

(2011) WEST EAST 28 28 ESTR

STH 144

REMOVE
W1-7(2M) 263

JCT 144 REMOVE
JCT 144 J1-1(2M) 264

JCT 144 (2011) REMOVE 265

(2011) MOVE 266

Cascade Random Lake West Bend (2011) MOVE 267

LEGEND

- EXISTING SIGN MOUNTED ON POST(S)
- EXISTING SIGN MOUNTED ON BRIDGE OR SIGN BRIDGE
- PROPOSED SIGN MOUNTED ON POST(S)
- PROPOSED SIGN MOUNTED ON BRIDGE OR SIGN BRIDGE
- EXISTING LIGHT OR SIGNAL POLE
- PROPOSED LIGHT OR SIGNAL POLE
- SIGN BRIDGE
- CANTILEVER SIGN BRIDGE
- (XXX) DENOTES SIGN NUMBER
- (X) INDICATES SIGN SIZE
- (2010) SPEED LIMIT 25 INDICATES YEAR INSTALLED

SHEET 24 OF 25

PROJECT NO: 4060-05-70	HWY: STH 28	COUNTY: WASHINGTON	PERMANENT SIGNING	SHEET 129 E

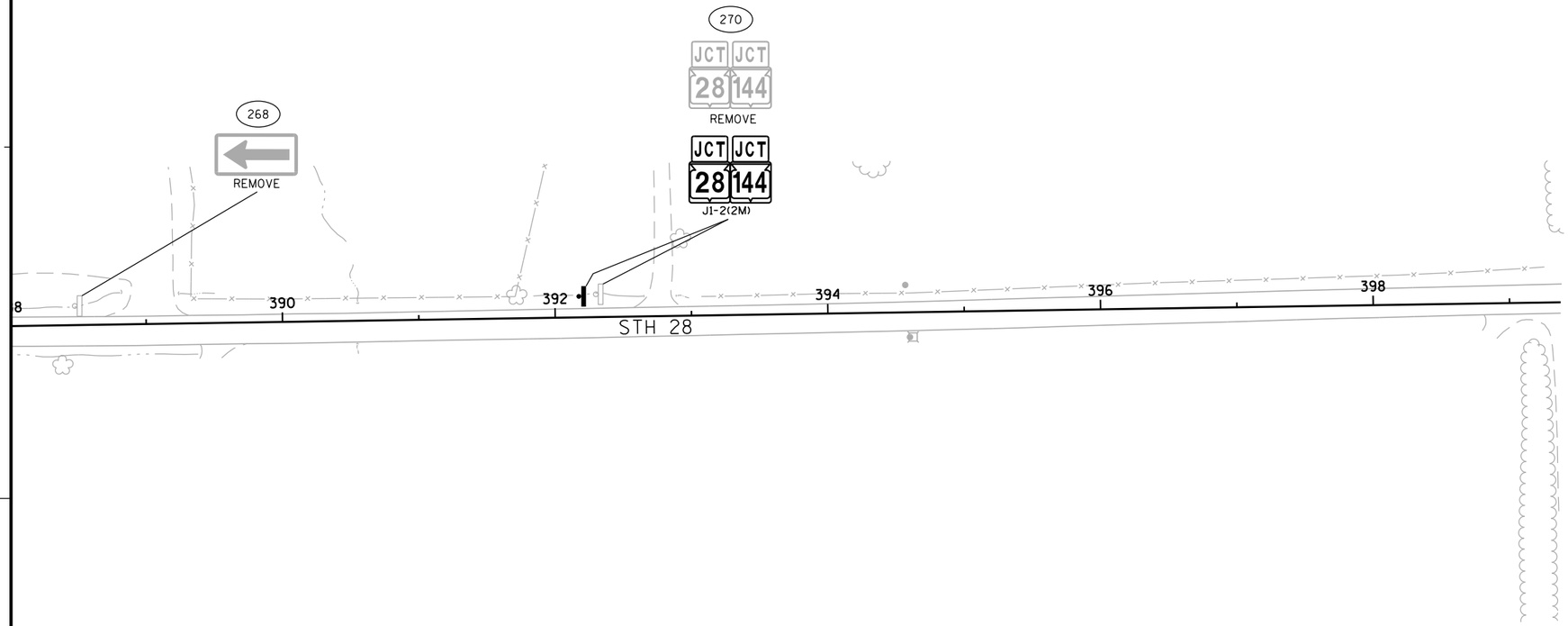
FILE NAME : J:\projects\D2_40600528\Sign\023224_ps.dgn PLOT DATE : 22-JUL-2013 08:00 PLOT BY : dotr3h PLOT NAME : PLOT SCALE : 100:1

WISDOT/CADDS SHEET 42

NOTE:
STREET SIGNS SHALL AND WAYFINDING SIGNS SHALL BE MOVED BY MUNICIPALITY AND SHALL NOT BE PLACED ON TOP OF STOP SIGNS.

NO PASSING LOCATIONS SHOWN ARE APPROXIMATE AND FINAL LOCATIONS TO BE DETERMINED THROUGH LOCATING NO PASSING BID ITEM.

N



LEGEND

- EXISTING SIGN MOUNTED ON POST(S)
- EXISTING SIGN MOUNTED ON BRIDGE OR SIGN BRIDGE
- PROPOSED SIGN MOUNTED ON POST(S)
- PROPOSED SIGN MOUNTED ON BRIDGE OR SIGN BRIDGE
- EXISTING LIGHT OR SIGNAL POLE
- PROPOSED LIGHT OR SIGNAL POLE
- SIGN BRIDGE
- CANTILEVER SIGN BRIDGE
- XXX DENOTES SIGN NUMBER
- (X) INDICATES SIGN SIZE
- (2010) SPEED LIMIT 25 INDICATES YEAR INSTALLED

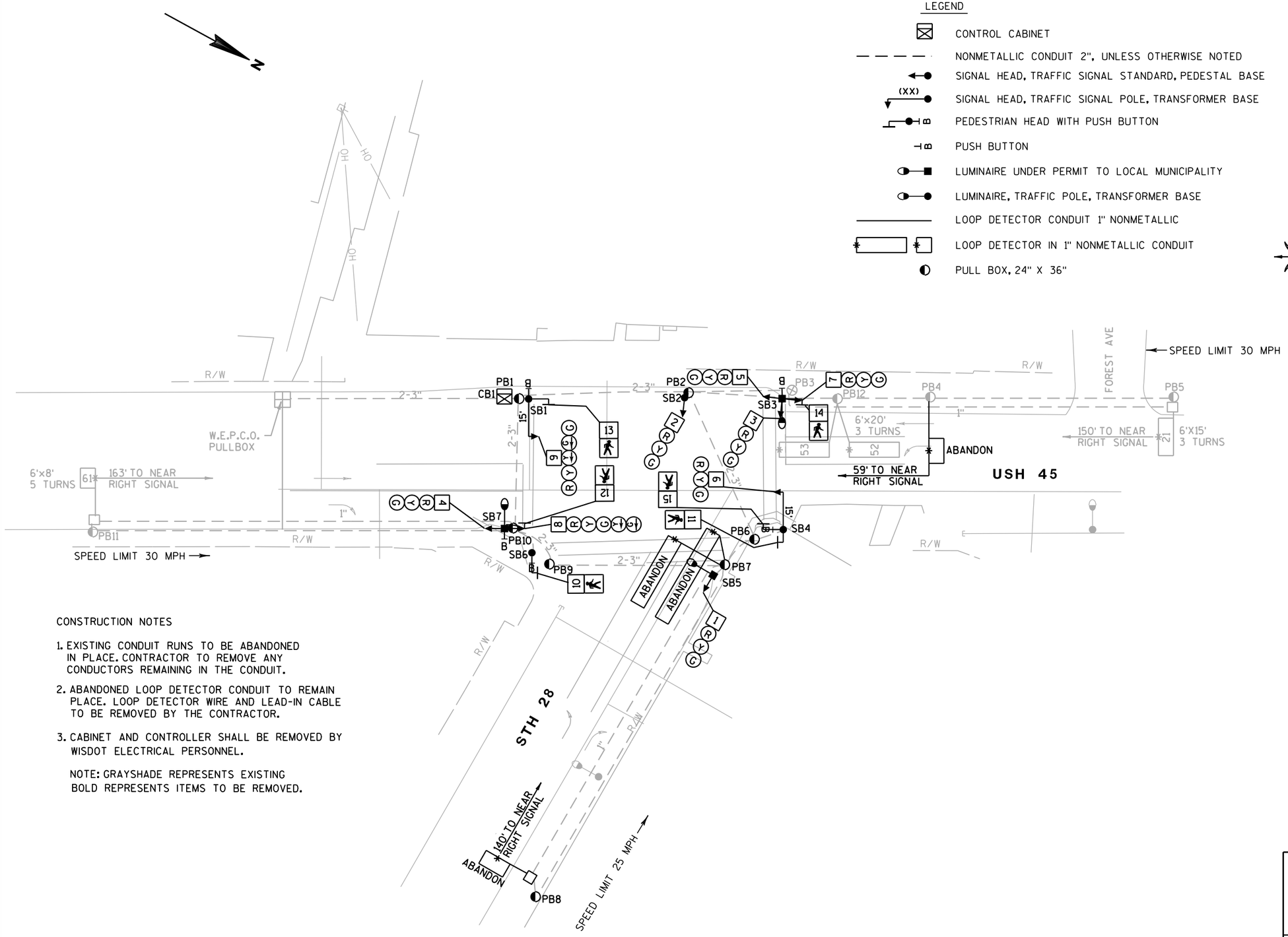
SHEET 25 OF 25

PROJECT NO: 4060-05-70	HWY: STH 28	COUNTY: WASHINGTON	PERMANENT SIGNING	SHEET 130 E

LEGEND

- CONTROL CABINET
- NONMETALLIC CONDUIT 2", UNLESS OTHERWISE NOTED
- SIGNAL HEAD, TRAFFIC SIGNAL STANDARD, PEDESTAL BASE
- (XX) SIGNAL HEAD, TRAFFIC SIGNAL POLE, TRANSFORMER BASE
- PEDESTRIAN HEAD WITH PUSH BUTTON
- PUSH BUTTON
- LUMINAIRE UNDER PERMIT TO LOCAL MUNICIPALITY
- LUMINAIRE, TRAFFIC POLE, TRANSFORMER BASE
- LOOP DETECTOR CONDUIT 1" NONMETALLIC
- LOOP DETECTOR IN 1" NONMETALLIC CONDUIT
- PULL BOX, 24" X 36"
- PULL BOX, 12" X 24"
- PULL BOX, 24" X 42"
- SIGNAL HEAD NUMBER
- (R) RED CIRCULAR INDICATOR
- (Y) YELLOW CIRCULAR INDICATOR
- (G) GREEN CIRCULAR INDICATOR
- (R) RED ARROW
- (Y) YELLOW ARROW
- DON'T WALK INDICATOR 16"
  WALK INDICATOR 16" (COUNTDOWN TIMER)
- LANE DESIGNATION FOR INFO ONLY

NOTE: ALL LENSES ARE 12-INCH
GRAYSHADE REPRESENTS EXISTING



CONSTRUCTION NOTES

1. EXISTING CONDUIT RUNS TO BE ABANDONED IN PLACE. CONTRACTOR TO REMOVE ANY CONDUCTORS REMAINING IN THE CONDUIT.
2. ABANDONED LOOP DETECTOR CONDUIT TO REMAIN PLACE. LOOP DETECTOR WIRE AND LEAD-IN CABLE TO BE REMOVED BY THE CONTRACTOR.
3. CABINET AND CONTROLLER SHALL BE REMOVED BY WISDOT ELECTRICAL PERSONNEL.

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

TRAFFIC SIGNAL REMOVAL PLAN
USH 45 AND STH 28
VILLAGE OF KEWASKUM
WASHINGTON COUNTY

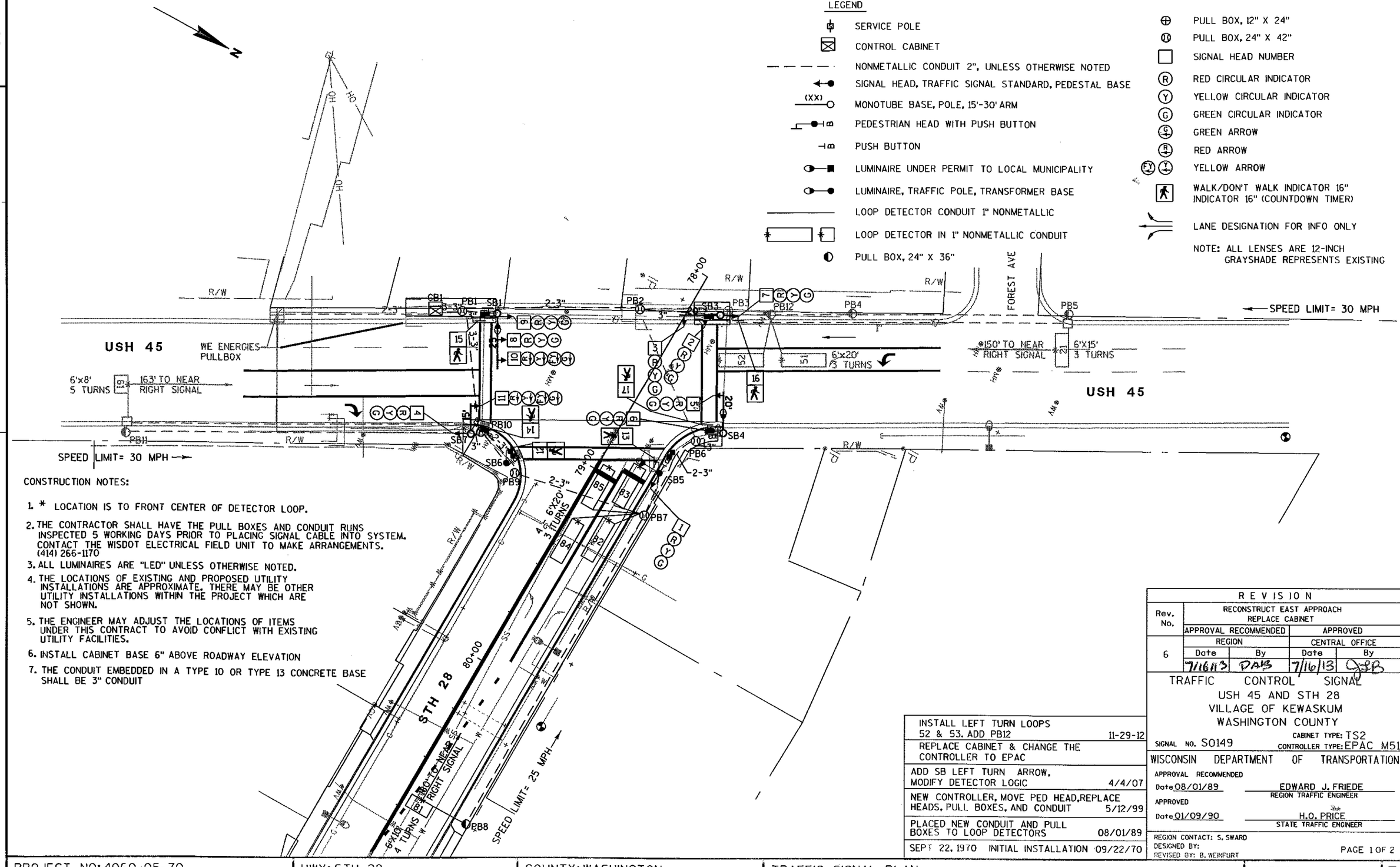
SIGNAL NO. S0149

REGION CONTACT: S. SWARD
DESIGNED BY:
REVISED BY: B. WEINFURT

PAGE 1 OF 1

PROJECT NO: 4060-05-70	HWY: STH 28	COUNTY: WASHINGTON	TRAFFIC SIGNAL REMOVAL PLAN	SHEET 131	E

2



CONSTRUCTION NOTES:

1. * LOCATION IS TO FRONT CENTER OF DETECTOR LOOP.
2. THE CONTRACTOR SHALL HAVE THE PULL BOXES AND CONDUIT RUNS INSPECTED 5 WORKING DAYS PRIOR TO PLACING SIGNAL CABLE INTO SYSTEM. CONTACT THE WISDOT ELECTRICAL FIELD UNIT TO MAKE ARRANGEMENTS. (414) 266-1170
3. ALL LUMINAIRES ARE "LED" UNLESS OTHERWISE NOTED.
4. THE LOCATIONS OF EXISTING AND PROPOSED UTILITY INSTALLATIONS ARE APPROXIMATE. THERE MAY BE OTHER UTILITY INSTALLATIONS WITHIN THE PROJECT WHICH ARE NOT SHOWN.
5. THE ENGINEER MAY ADJUST THE LOCATIONS OF ITEMS UNDER THIS CONTRACT TO AVOID CONFLICT WITH EXISTING UTILITY FACILITIES.
6. INSTALL CABINET BASE 6" ABOVE ROADWAY ELEVATION
7. THE CONDUIT EMBEDDED IN A TYPE 10 OR TYPE 13 CONCRETE BASE SHALL BE 3" CONDUIT

INSTALL LEFT TURN LOOPS 52 & 53. ADD PB12	11-29-12
REPLACE CABINET & CHANGE THE CONTROLLER TO EPAC	
ADD SB LEFT TURN ARROW, MODIFY DETECTOR LOGIC	4/4/07
NEW CONTROLLER, MOVE PED HEAD, REPLACE HEADS, PULL BOXES, AND CONDUIT	5/12/99
PLACED NEW CONDUIT AND PULL BOXES TO LOOP DETECTORS	08/01/89
SEPT 22, 1970 INITIAL INSTALLATION	09/22/70

REVISION

Rev. No.	RECONSTRUCT EAST APPROACH REPLACE CABINET			
	APPROVAL RECOMMENDED		APPROVED	
	REGION		CENTRAL OFFICE	
6	Date	By	Date	By
	7/16/13	DAB	7/16/13	SSB

TRAFFIC CONTROL SIGNAL
USH 45 AND STH 28
VILLAGE OF KEWASKUM
WASHINGTON COUNTY

SIGNAL NO. S0149 CABINET TYPE: TS2
CONTROLLER TYPE: EPAC M51

WISCONSIN DEPARTMENT OF TRANSPORTATION

APPROVAL RECOMMENDED
Date 08/01/89 EDWARD J. FRIEDE, REGION TRAFFIC ENGINEER

APPROVED
Date 01/09/90 H.O. PRICE, STATE TRAFFIC ENGINEER

REGION CONTACT: S. SWARD
DESIGNED BY:
REVISED BY: B. WEINFURT

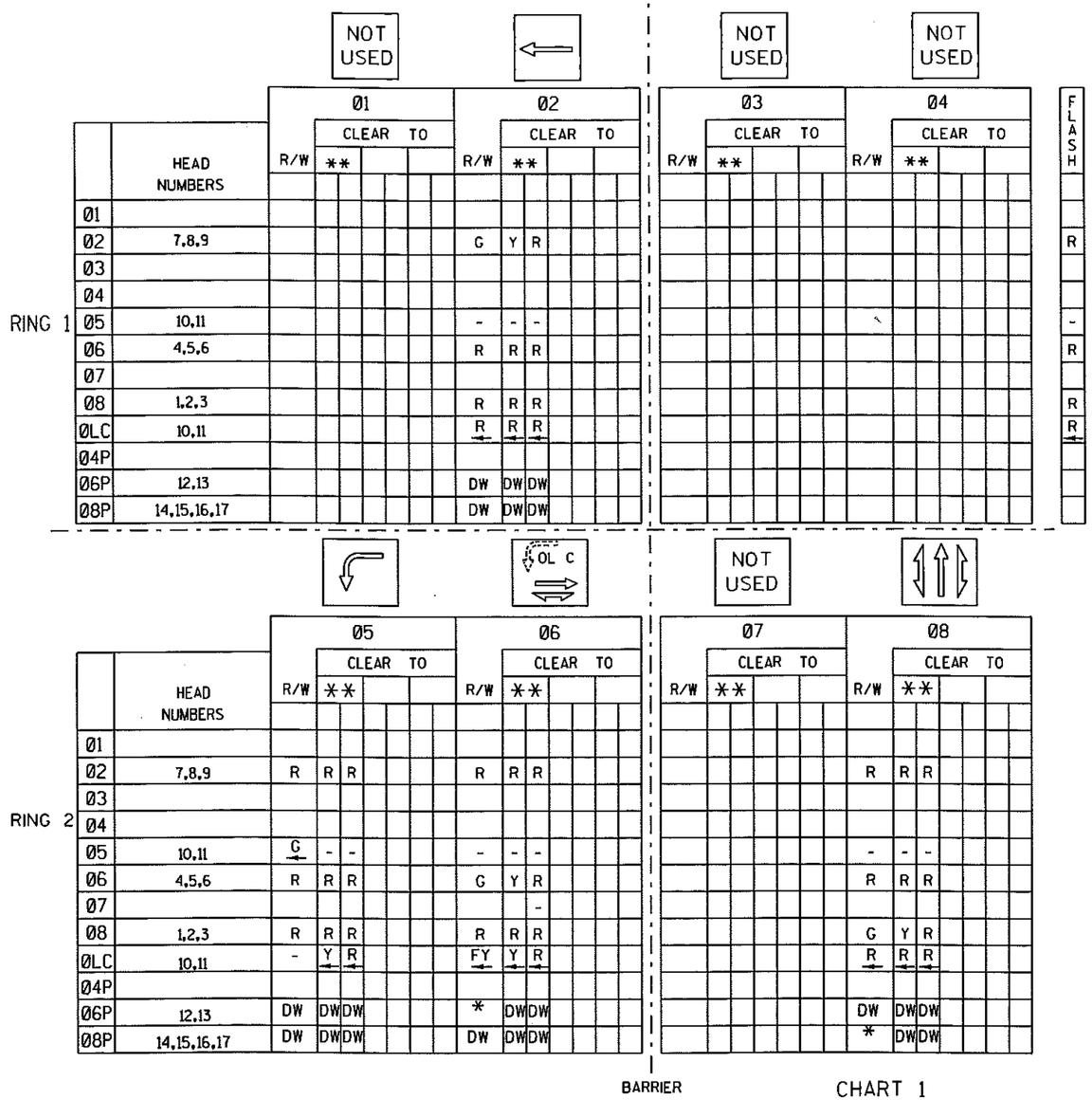
PAGE 1 OF 2

SSS 7/16/13

PROJECT NO: 4060-05-70	HWY: STH 28	COUNTY: WASHINGTON	TRAFFIC SIGNAL PLAN	SHEET 132	E

FILE NAME : J:\projects\D2_40600528\SIG\S149_D.dgn PLOT DATE : 16-JUL-2013 07:42 PLOT BY : datbgw PLOT NAME : PLOT SCALE : 40:1

SEQUENCE OF OPERATION



	HEAD NUMBERS	01 R/W	01 **	02 R/W	02 **	03 R/W	03 **	04 R/W	04 **	FLASH
01										
02	7,8,9			G	Y R					R
03										
04										
RING 1 05	10,11			-	- -					-
06	4,5,6			R	R R					R
07										
08	1,2,3			R	R R					R
ØLC	10,11			R	R R					R
04P										
06P	12,13			DW	DW DW					
08P	14,15,16,17			DW	DW DW					

	HEAD NUMBERS	05 R/W	05 **	06 R/W	06 **	07 R/W	07 **	08 R/W	08 **
01									
02	7,8,9	R	R R	R	R R			R	R R
03									
04									
RING 2 05	10,11	G	- -	-	- -			-	- -
06	4,5,6	R	R R	G	Y R			R	R R
07					-				
08	1,2,3	R	R R	R	R R			G	Y R
ØLC	10,11	-	Y R	FY	Y R			R	R R
04P									
06P	12,13	DW	DW DW	*	DW DW			DW	DW DW
08P	14,15,16,17	DW	DW DW	DW	DW DW			*	DW DW

** CLEARANCE TO A PHASE IN CONFLICT WITH THIS PHASE ON (SEE CHART 1)

* WHEN CALLED, TIMED STEADY WALK, THEN FLASHING DON'T WALK, THEN GOES TO STEADY DON'T WALK

CHART 1

PHASE ON	NONCONFLICTING PHASE ALLOWED TO TIME CONCURRENTLY	PHASES IN CONFLICT WITH PHASE ON
1		
2	5 OR 6	8
3		
4		
5	2	6,8
6	2	5,8
7		
8	NONE	2,5,6

DETECTOR LOGIC

DETECTOR NUMBER	DETECTOR INPUT NUMBER	DETECTOR OPERATION: CALLS AND EXTENDS	CALLS ONLY	EXTENDS ONLY	PHASE CALLED	PHASE EXTENDED	DETECTOR DISCONNECT PHASE	CALLING DELAY	EXTENSION STRETCH	SIZE	NUMBER OF TURNS
21	3	X			2	2				6'X15'	3
51	1	X			5	5				6'X20'	3
52	2	X			5	5				6'X20'	3
61	7	X			6	6				6'X8'	5
81	5			X		8			X	6'X10'	4
82	6	X			8	8				6'X20'	3
83	11	X			8	8		X		6'X20'	3
84	12	X			8	8				6'X20'	3
85	9	X			8	8		X		6'X20'	3

CONTROLLER LOGIC

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

SPECIAL OVERLAPS

	PROTECTED	PERMITTED
O.L. "A" =		
O.L. "B" =		
O.L. "C" =	5	6
O.L. "D" =		

Z

TYPE OF INTERCONNECT COMMUNICATION	
NONE	X
TBC	
CLOSED LOOP TWISTED PAIR*	
CLOSED LOOP FIBER OPTIC*	
RADIO	
*LOCATION OF MASTER CONTROLLER NO:	S-
SIGNAL SYSTEM #:	SS- -

TYPE OF PRE-EMPT	
NONE	X
RAILROAD	
EMERGENCY VEHICLE	
3M	
TOMAR	
HARDWIRE	
OTHER	
LIFT BRIDGE	
QUEUE DETECTOR	

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

GENERAL NOTES:

1. ANY ACTUATED PHASE FOR WHICH THERE IS NO CALL SHALL BE SKIPPED.
2. WHEN ONE PHASE IS ON ALONE, ANY NONCONFLICTING PHASE MAY START TIMING CONCURRENTLY WITHOUT A CLEARANCE INTERVAL. (SEE CHART 1 AT LEFT.)

USH 45 AND STH 28
VILLAGE OF KEWASKUM
WASHINGTON COUNTY

SIGNAL NO. S0149

CONTROLLER TYPE: EPAC M51

DATE 7/13 PAGE NO. 2 OF 2

7/6/13 Dags SSS 7/16/13

PROJECT NO: 4060-05-70	HWY: STH 28	COUNTY: WASHINGTON	SEQUENCE OF OPERATIONS	SHEET 133 E

PROJECT ID:	4060-05-70
INTERSECTION:	USH 45 & STH 28

Signal Wire Color Coding	BLK - black	RED - red	GRN - green
	WHT - white	BLU - blue	ORG - orange

CB1 TO	AWG14 # OF CONDUCTORS	HEAD NO.	JUMPER	SIGNAL INDICATION WIRE COLOR									PED BUTTON	OTHER
				RED	YELLOW	GREEN	<RED>	<YELLOW>	<GREEN>	<FLASHING> <YELLOW>	D/WALK	WALK		
SB1	12	8		RED	ORG	GRN								
		9		RED	ORG	GRN								
		10					RED/BLK	ORG/BLK	GRN/BLK	BLK/WHT				
		15									BLK	BLU		
		BUTTON											WHT/BLK	
SB3	12	7		RED	ORG	GRN								
		2		RED/BLK	ORG/BLK	GRN/BLK								
		3		RED/BLK	ORG/BLK	GRN/BLK								
		16									BLK	BLU		
		BUTTON											WHT/BLK	
SB4	12	5		RED	ORG	GRN								
		6		RED	ORG	GRN								
		17									BLK	BLU		
		BUTTON											WHT/BLK	
SB5	12	1		RED	ORG	GRN								
		13									BLK	BLU		
		BUTTON											WHT/BLK	
SB6	7	12									BLK	BLU		
		BUTTON											WHT/BLK	
SB7	12	4		RED	ORG	GRN								
		11					RED/BLK	ORG/BLK	GRN/BLK	BLK/WHT				
		14									BLK	BLU		
		BUTTON											WHT/BLK	

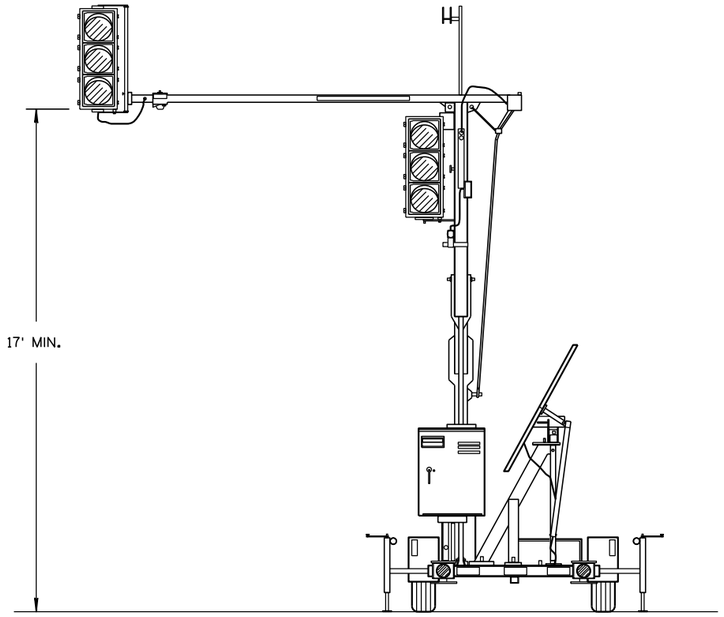
Equipment grounding conductor 10 AWG Green XLP	
From	TO
CB1	SB1
SB1	SB7
SB7	SB6
SB6	SB5
SB5	SB4
SB4	SB3
SB3	CB1

Pull Box Bonding Jumper 10 AWG Green XLP	
From	To
PB1	SB1
PB2	SB3
PB6	SB4
PB7	SB5
PB10	SB6
PB10	SB7
PB 9	SB 7

Lighting UF #12 w/ground	
From	To
CB1	SB1
SB1	SB4
SB4	SB5

*Use the white conductor in the cable assembly as the grounded conductor for all traffic signal indications
*Ensure the grounded conductor in the feeder cable and the pole cables are both 18" longer than the ungrounded conductors.
*At the signal bases, connect one terminal from the pedestrian push buttons to the color indicated in the chart. Connect the other terminal to the grounded conductor.
*Reconnect the grounding conductors wherever the circuit has been interrupted to ensure the grounding circuit is complete.

2



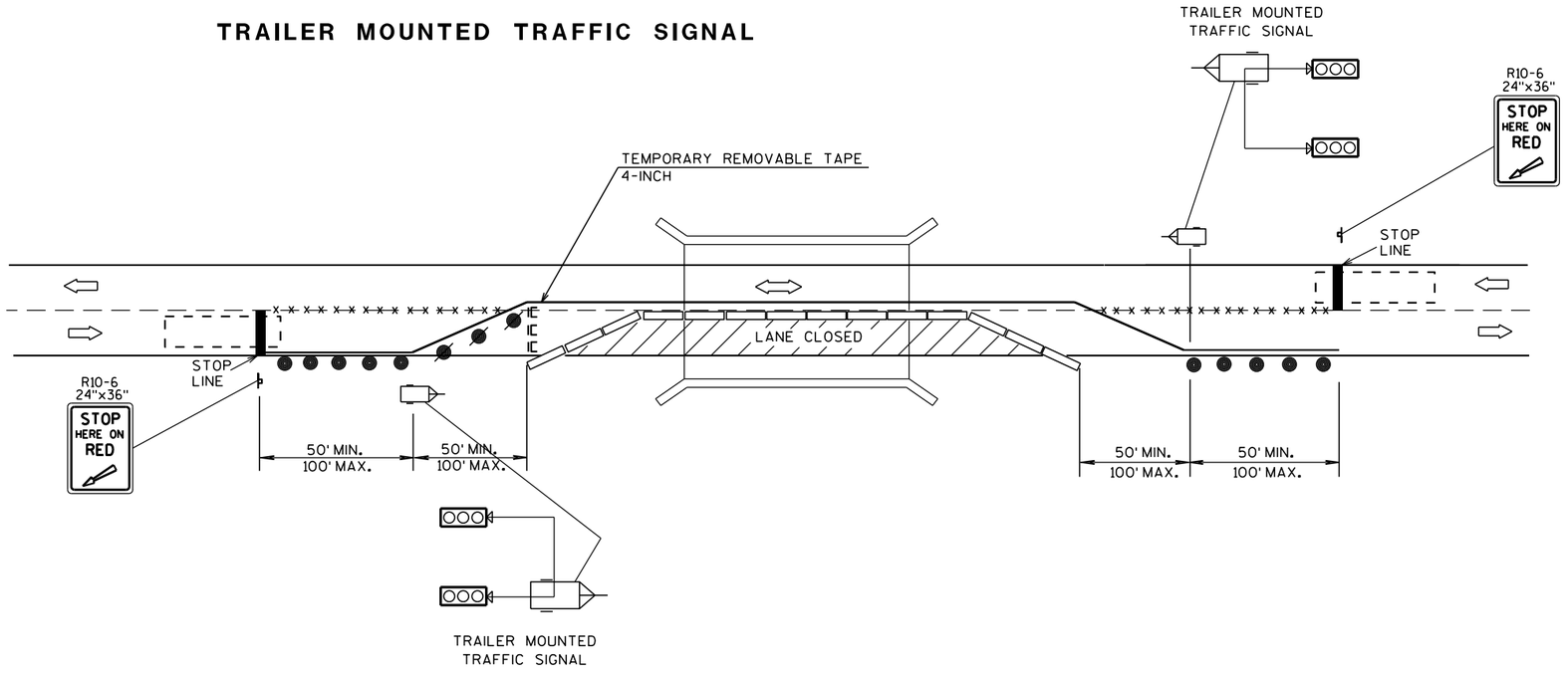
TRAILER MOUNTED TRAFFIC SIGNAL

GENERAL NOTES

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

SIGNING, PAVEMENT MARKING AND LANE CONTROL REQUIREMENTS SHALL CONFORM TO STANDARD DETAIL DRAWING 15 D 33.

ADJUST TEMPORARY SIGNALS WITHIN EACH CONSTRUCTION STAGE AS DIRECTED BY THE ENGINEER TO MAINTAIN MUTCD SIGNAL REQUIREMENTS.



TYPICAL TRAILER MOUNTED TRAFFIC SIGNAL LOCATION

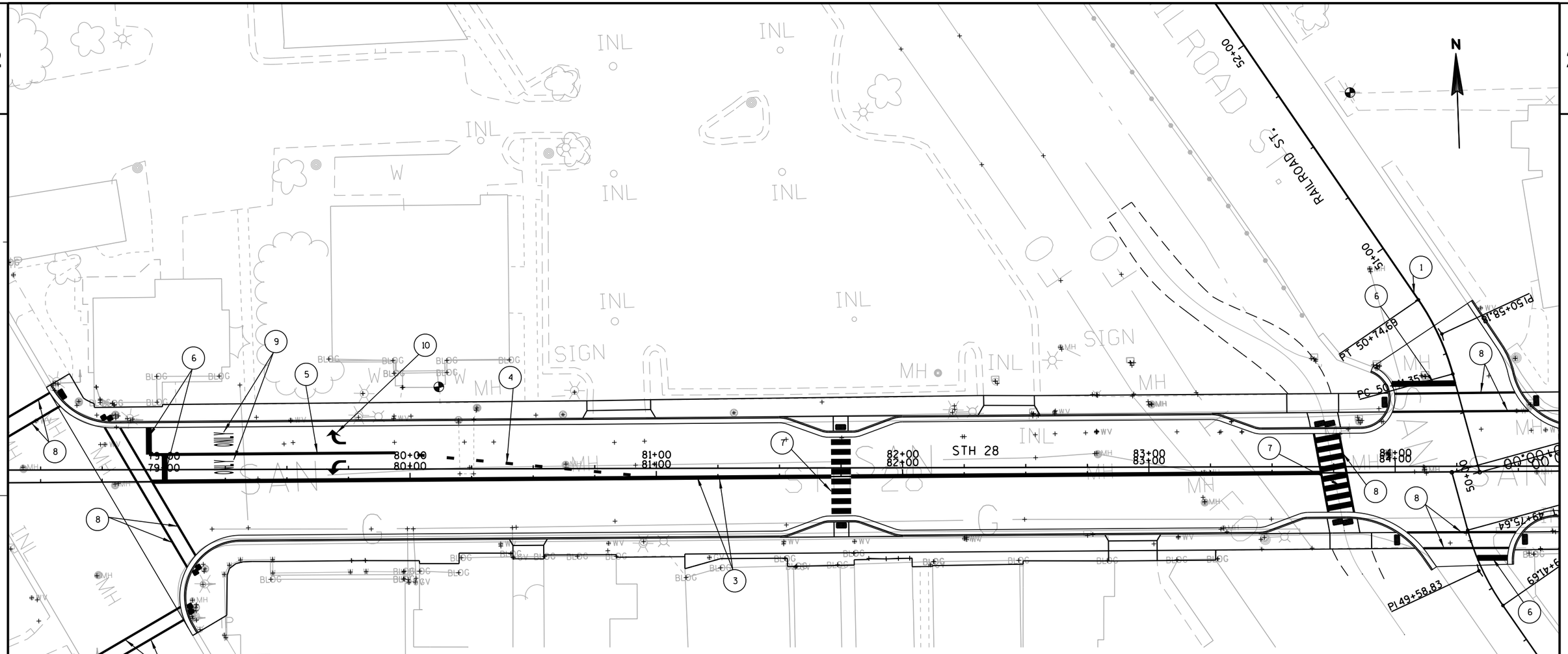
LEGEND

- POST MOUNTED SIGN
- REMOVING PAVEMENT MARKING
- TYPE III BARRICADE WITH SIGN
- DRUM WITH/WITHOUT WARNING LIGHT, TYPE C (STEADY-BURN)
- TEMPORARY PRECAST CONCRETE BARRIER
- TRAILER MOUNTED TRAFFIC SIGNAL
- DIRECTION OF TRAFFIC FLOW
- VIDEO DETECTION AREA

BRIDGE TEMPORARY TRAFFIC SIGNAL INSTALLATION

PROJECT NO: 4060-05-70	HWY: STH 28	COUNTY: WASHINGTON	CONSTRUCTION DETIAL	SHEET 135	E

2



PAVEMENT MARKING LEGEND

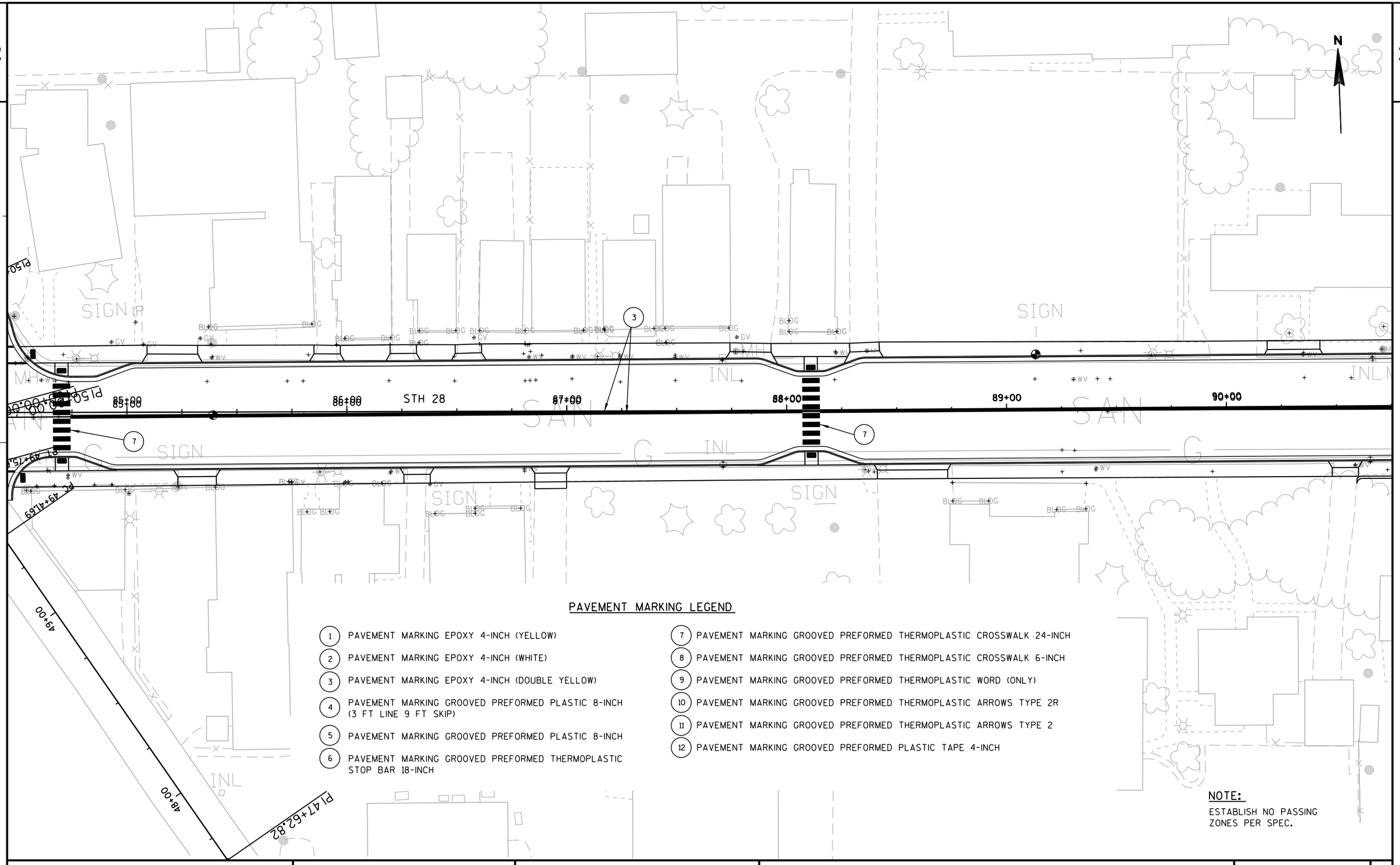
1. PAVEMENT MARKING EPOXY 4-INCH (YELLOW)
2. PAVEMENT MARKING EPOXY 4-INCH (WHITE)
3. PAVEMENT MARKING EPOXY 4-INCH (DOUBLE YELLOW)
4. PAVEMENT MARKING GROOVED PREFORMED PLASTIC 8-INCH (3 FT LINE 9 FT SKIP)
5. PAVEMENT MARKING GROOVED PREFORMED PLASTIC 8-INCH
6. PAVEMENT MARKING GROOVED PREFORMED THERMOPLASTIC STOP BAR 18-INCH
7. PAVEMENT MARKING GROOVED PREFORMED THERMOPLASTIC CROSSWALK 24-INCH
8. PAVEMENT MARKING GROOVED PREFORMED THERMOPLASTIC CROSSWALK 6-INCH
9. PAVEMENT MARKING GROOVED PREFORMED THERMOPLASTIC WORD (ONLY)
10. PAVEMENT MARKING GROOVED PREFORMED THERMOPLASTIC ARROWS TYPE 2R
11. PAVEMENT MARKING GROOVED PREFORMED THERMOPLASTIC ARROWS TYPE 2
12. PAVEMENT MARKING GROOVED PREFORMED PLASTIC TAPE 4-INCH

NOTE:

ESTABLISH NO PASSING ZONES PER SPEC.

PROJECT NO: 4060-05-70	HWY: STH 28	COUNTY: WASHINGTON	PAVEMENT MARKING	SHEET 136	E

2



PAVEMENT MARKING LEGEND

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NOTE:
ESTABLISH NO PASSING ZONES PER SPEC.

PROJECT NO: 4060-05-70	HWY: STH 28	COUNTY: WASHINGTON	PAVEMENT MARKING	SHEET 137	E

2

N

PARK VIEW DR.

STH 28

PI 91+65.11

PC 94+13.64

PT 95+76.51

PC 95+89.84

PI 94+78.73

91+00 92+00 93+00 94+00 95+00 96+00

52+00 51+00 50+00 49+00

INL MH

INL

W

3 6 7 8 4 5

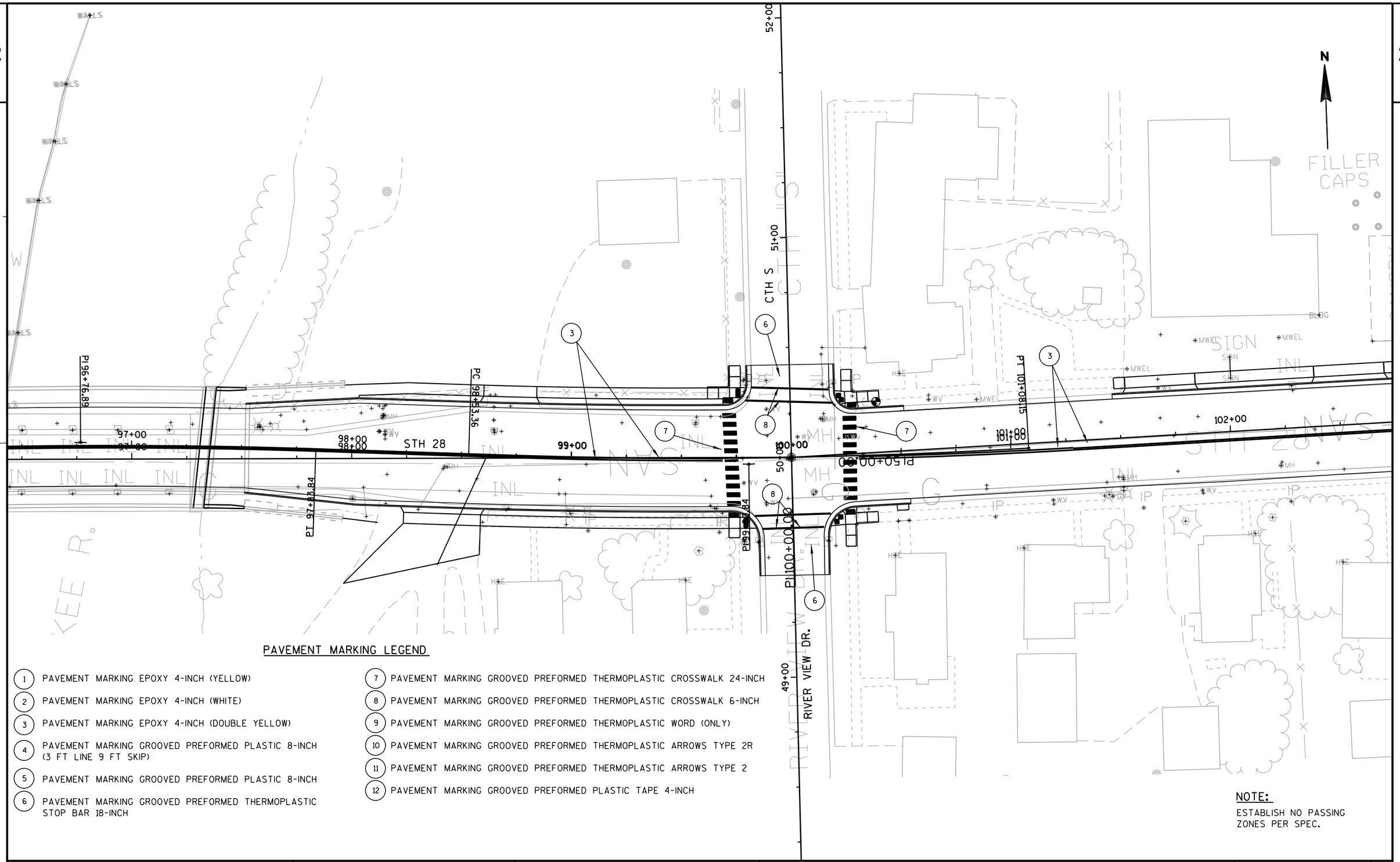
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NOTE:
ESTABLISH NO PASSING ZONES PER SPEC.

PROJECT NO: 4060-05-70	HWY: STH 28	COUNTY: WASHINGTON	PAVEMENT MARKING	SHEET 138	E

2



PAVEMENT MARKING LEGEND

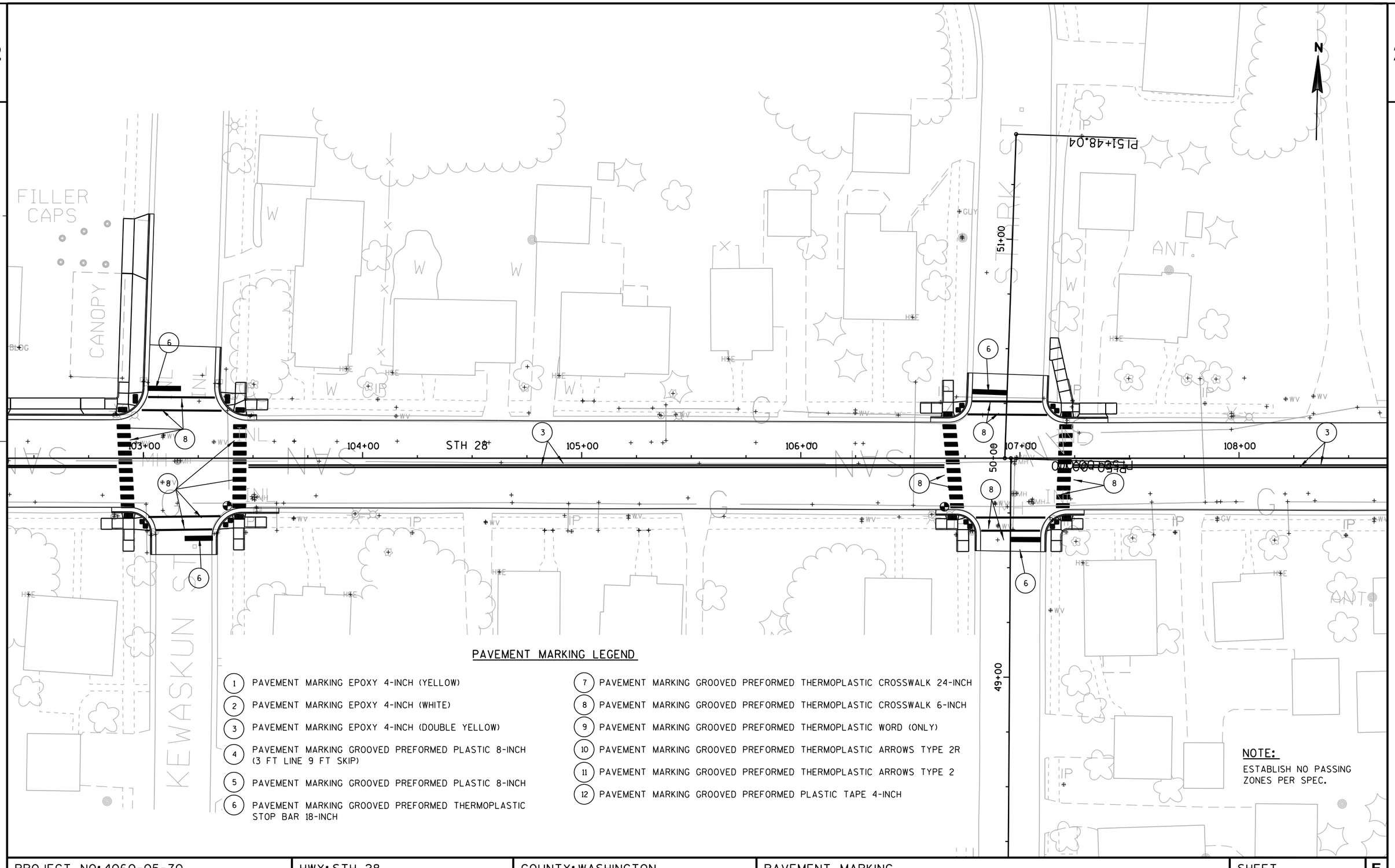
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NOTE:

ESTABLISH NO PASSING ZONES PER SPEC.

PROJECT NO: 4060-05-70	HWY: STH 28	COUNTY: WASHINGTON	PAVEMENT MARKING	SHEET 139 E

2



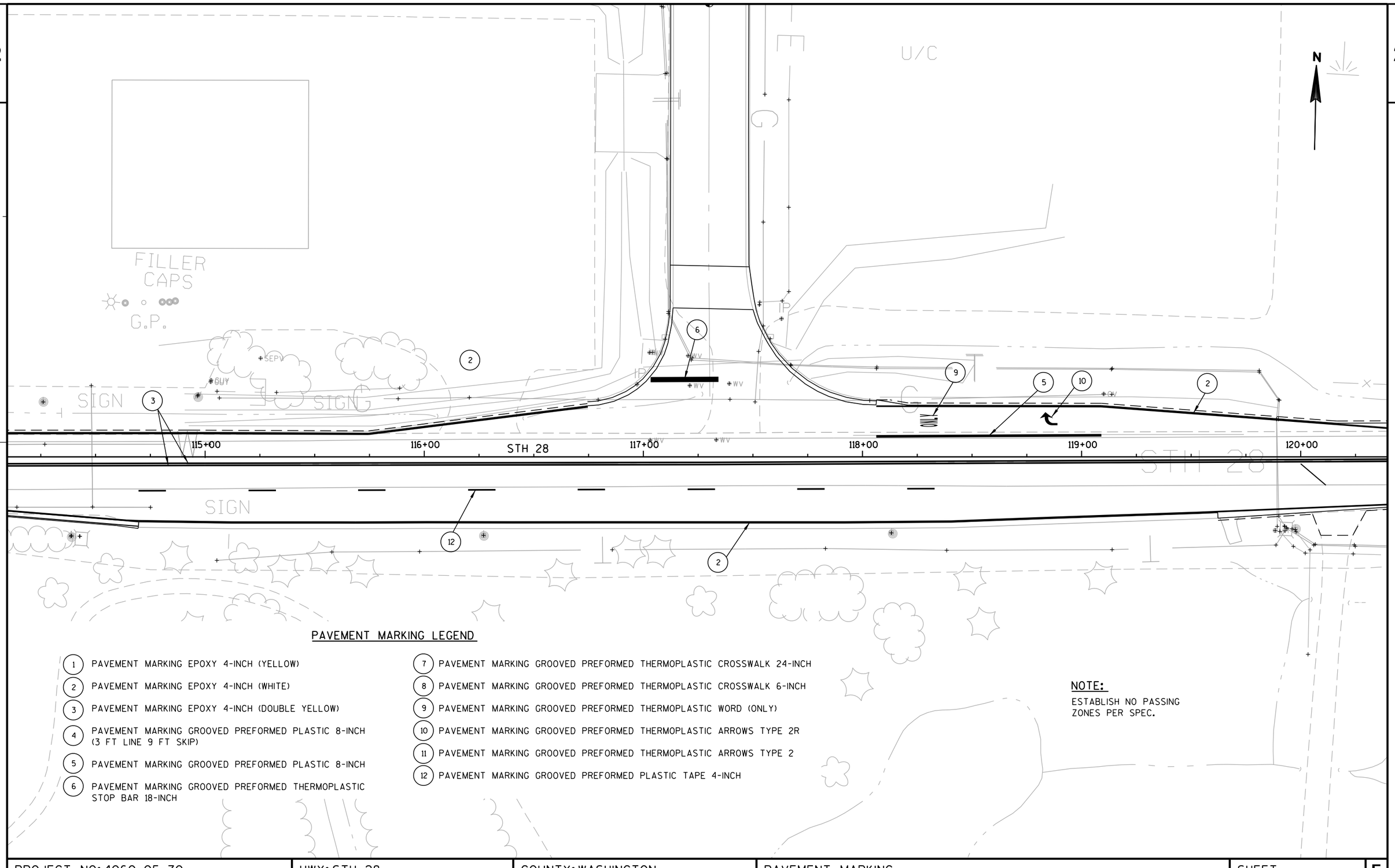
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NOTE:
ESTABLISH NO PASSING ZONES PER SPEC.

PROJECT NO: 4060-05-70	HWY: STH 28	COUNTY: WASHINGTON	PAVEMENT MARKING	SHEET 140	E

2



PAVEMENT MARKING LEGEND

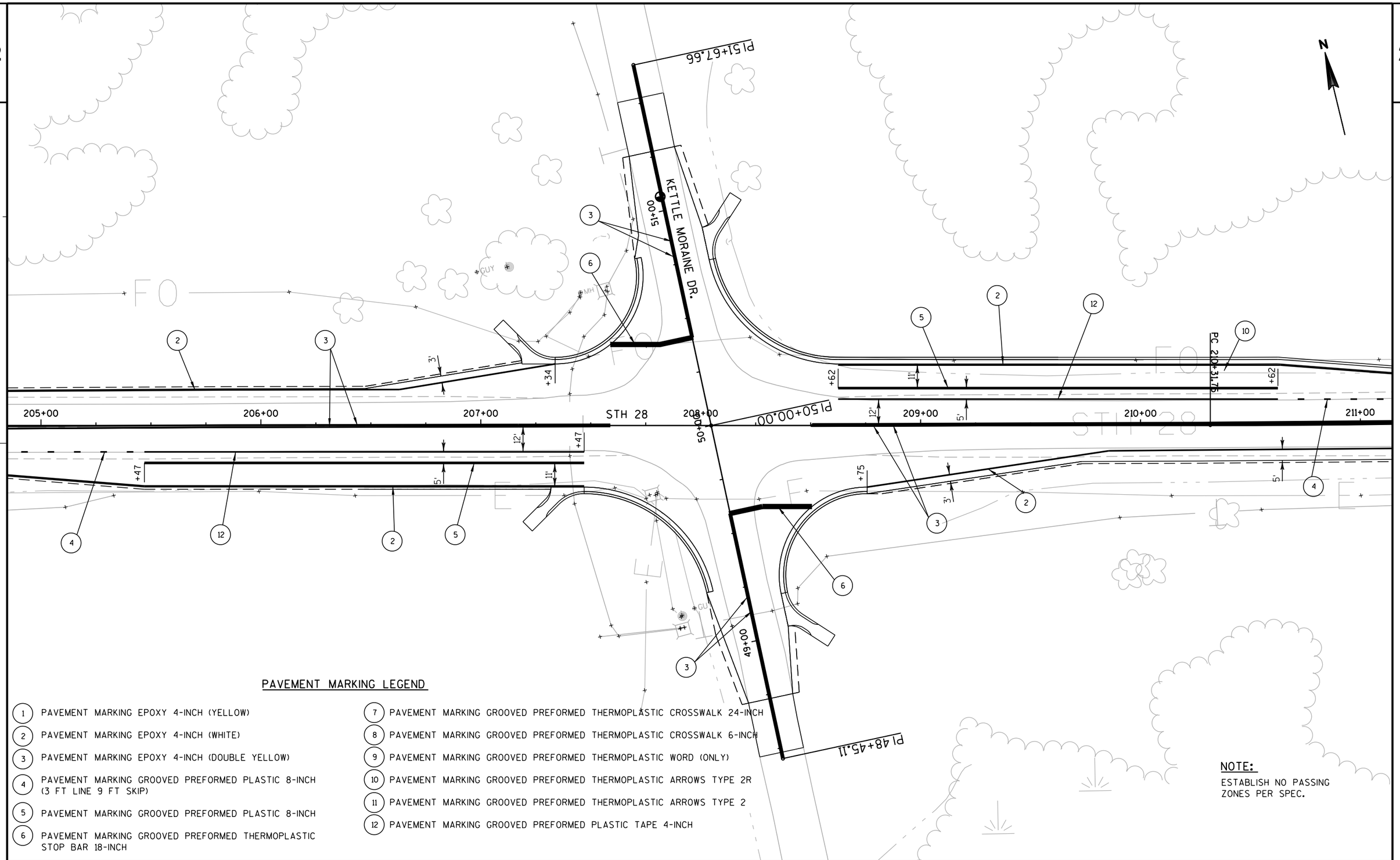
1. PAVEMENT MARKING EPOXY 4-INCH (YELLOW)
2. PAVEMENT MARKING EPOXY 4-INCH (WHITE)
3. PAVEMENT MARKING EPOXY 4-INCH (DOUBLE YELLOW)
4. PAVEMENT MARKING GROOVED PREFORMED PLASTIC 8-INCH (3 FT LINE 9 FT SKIP)
5. PAVEMENT MARKING GROOVED PREFORMED PLASTIC 8-INCH
6. PAVEMENT MARKING GROOVED PREFORMED THERMOPLASTIC STOP BAR 18-INCH
7. PAVEMENT MARKING GROOVED PREFORMED THERMOPLASTIC CROSSWALK 24-INCH
8. PAVEMENT MARKING GROOVED PREFORMED THERMOPLASTIC CROSSWALK 6-INCH
9. PAVEMENT MARKING GROOVED PREFORMED THERMOPLASTIC WORD (ONLY)
10. PAVEMENT MARKING GROOVED PREFORMED THERMOPLASTIC ARROWS TYPE 2R
11. PAVEMENT MARKING GROOVED PREFORMED THERMOPLASTIC ARROWS TYPE 2
12. PAVEMENT MARKING GROOVED PREFORMED PLASTIC TAPE 4-INCH

NOTE:

ESTABLISH NO PASSING ZONES PER SPEC.

PROJECT NO: 4060-05-70	HWY: STH 28	COUNTY: WASHINGTON	PAVEMENT MARKING	SHEET 141	E

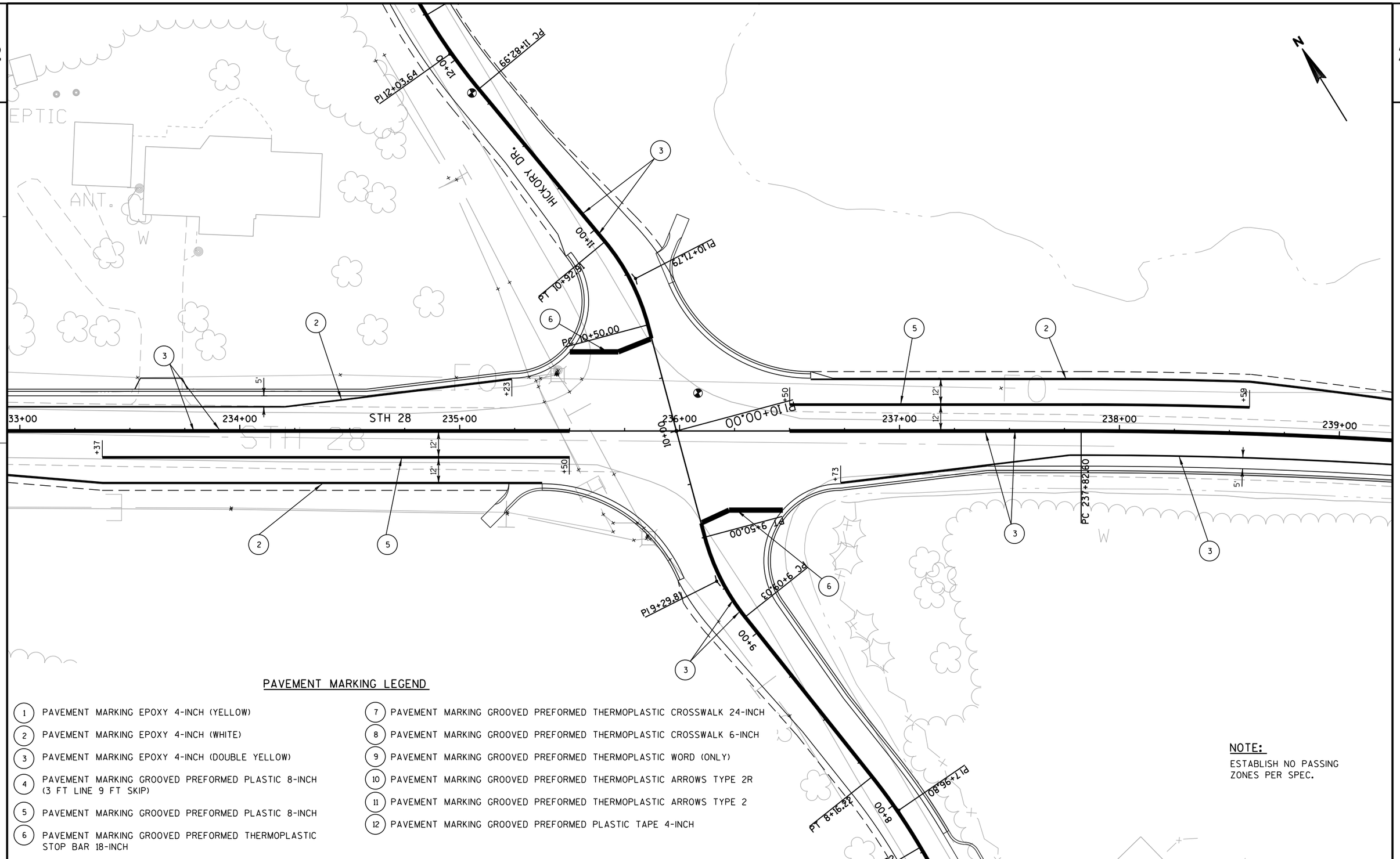
2



PAVEMENT MARKING LEGEND

1. PAVEMENT MARKING EPOXY 4-INCH (YELLOW)
2. PAVEMENT MARKING EPOXY 4-INCH (WHITE)
3. PAVEMENT MARKING EPOXY 4-INCH (DOUBLE YELLOW)
4. PAVEMENT MARKING GROOVED PREFORMED PLASTIC 8-INCH (3 FT LINE 9 FT SKIP)
5. PAVEMENT MARKING GROOVED PREFORMED PLASTIC 8-INCH
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10. PAVEMENT MARKING GROOVED PREFORMED THERMOPLASTIC ARROWS TYPE 2R
11. PAVEMENT MARKING GROOVED PREFORMED THERMOPLASTIC ARROWS TYPE 2
12. PAVEMENT MARKING GROOVED PREFORMED PLASTIC TAPE 4-INCH

PROJECT NO: 4060-05-70	HWY: STH 28	COUNTY: WASHINGTON	PAVEMENT MARKING	SHEET 142 E



PAVEMENT MARKING LEGEND

1. PAVEMENT MARKING EPOXY 4-INCH (YELLOW)
2. PAVEMENT MARKING EPOXY 4-INCH (WHITE)
3. PAVEMENT MARKING EPOXY 4-INCH (DOUBLE YELLOW)
4. PAVEMENT MARKING GROOVED PREFORMED PLASTIC 8-INCH (3 FT LINE 9 FT SKIP)
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10. PAVEMENT MARKING GROOVED PREFORMED THERMOPLASTIC ARROWS TYPE 2R
11. PAVEMENT MARKING GROOVED PREFORMED THERMOPLASTIC ARROWS TYPE 2
12. PAVEMENT MARKING GROOVED PREFORMED PLASTIC TAPE 4-INCH

NOTE:

ESTABLISH NO PASSING ZONES PER SPEC.

PROJECT NO: 4060-05-70	HWY: STH 28	COUNTY: WASHINGTON	PAVEMENT MARKING	SHEET 143	E

2

N

SEPTIC

GUY

NO PARKING ALLOW

STH 28

263+00 264+00 265+00 266+00 267+00 268+00 269+00

PI 20+00.00

PI 265+97.24

21+00

20+00

19+00

18+00

FOREST VIEW DR.

+33 +50 +49 +25

12' 12' 5' 5'

PAVEMENT MARKING LEGEND

1. PAVEMENT MARKING EPOXY 4-INCH (YELLOW)
2. PAVEMENT MARKING EPOXY 4-INCH (WHITE)
3. PAVEMENT MARKING EPOXY 4-INCH (DOUBLE YELLOW)
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11. PAVEMENT MARKING GROOVED PREFORMED THERMOPLASTIC ARROWS TYPE 2
12. PAVEMENT MARKING GROOVED PREFORMED PLASTIC TAPE 4-INCH

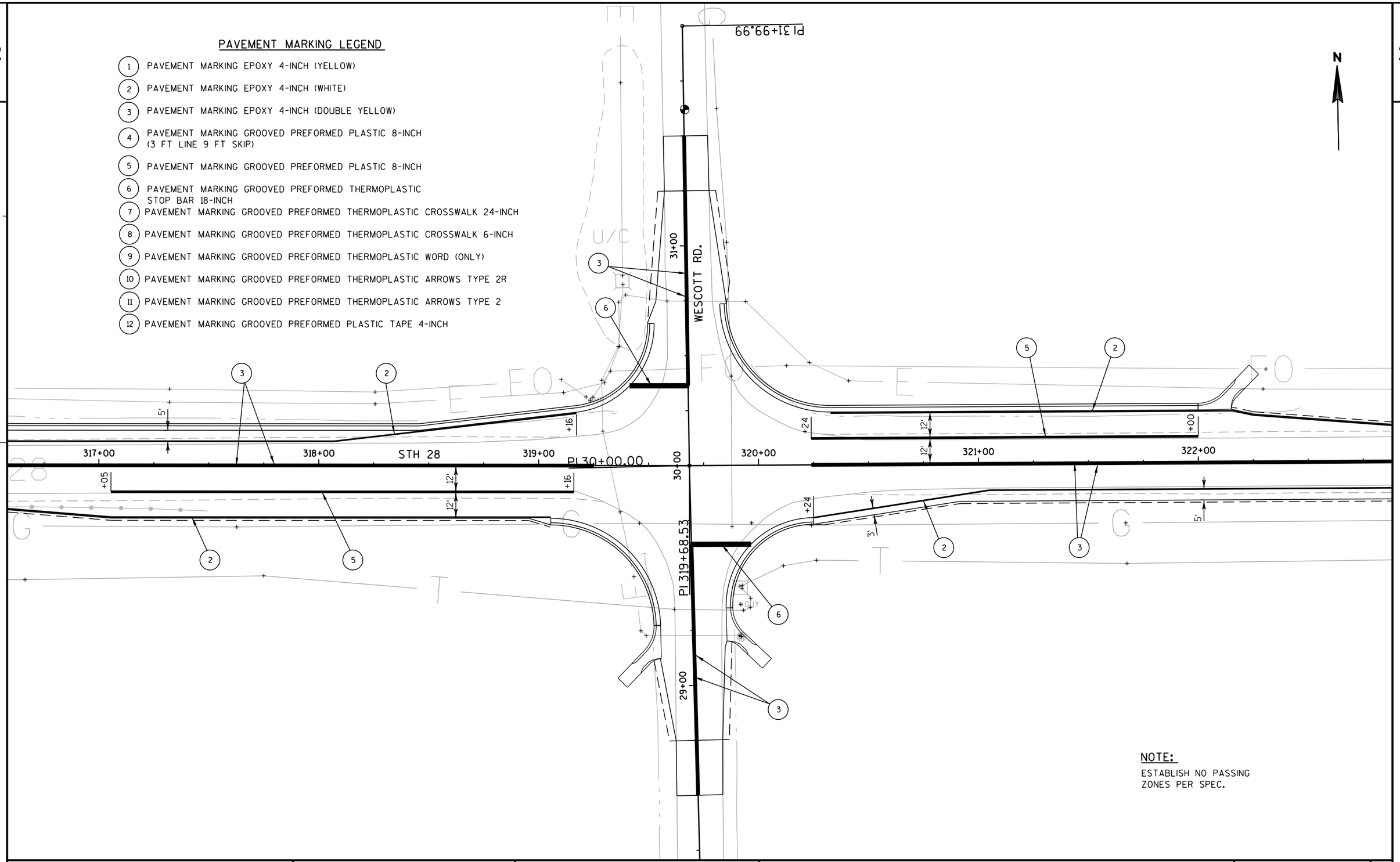
NOTE:

ESTABLISH NO PASSING ZONES PER SPEC.

PROJECT NO: 4060-05-70	HWY: STH 28	COUNTY: WASHINGTON	PAVEMENT MARKING	SHEET 144	E

PAVEMENT MARKING LEGEND

1. PAVEMENT MARKING EPOXY 4-INCH (YELLOW)
2. PAVEMENT MARKING EPOXY 4-INCH (WHITE)
3. PAVEMENT MARKING EPOXY 4-INCH (DOUBLE YELLOW)
4. PAVEMENT MARKING GROOVED PREFORMED PLASTIC 8-INCH (3 FT LINE 9 FT SKIP)
5. PAVEMENT MARKING GROOVED PREFORMED PLASTIC 8-INCH
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11. PAVEMENT MARKING GROOVED PREFORMED THERMOPLASTIC ARROWS TYPE 2
12. PAVEMENT MARKING GROOVED PREFORMED PLASTIC TAPE 4-INCH

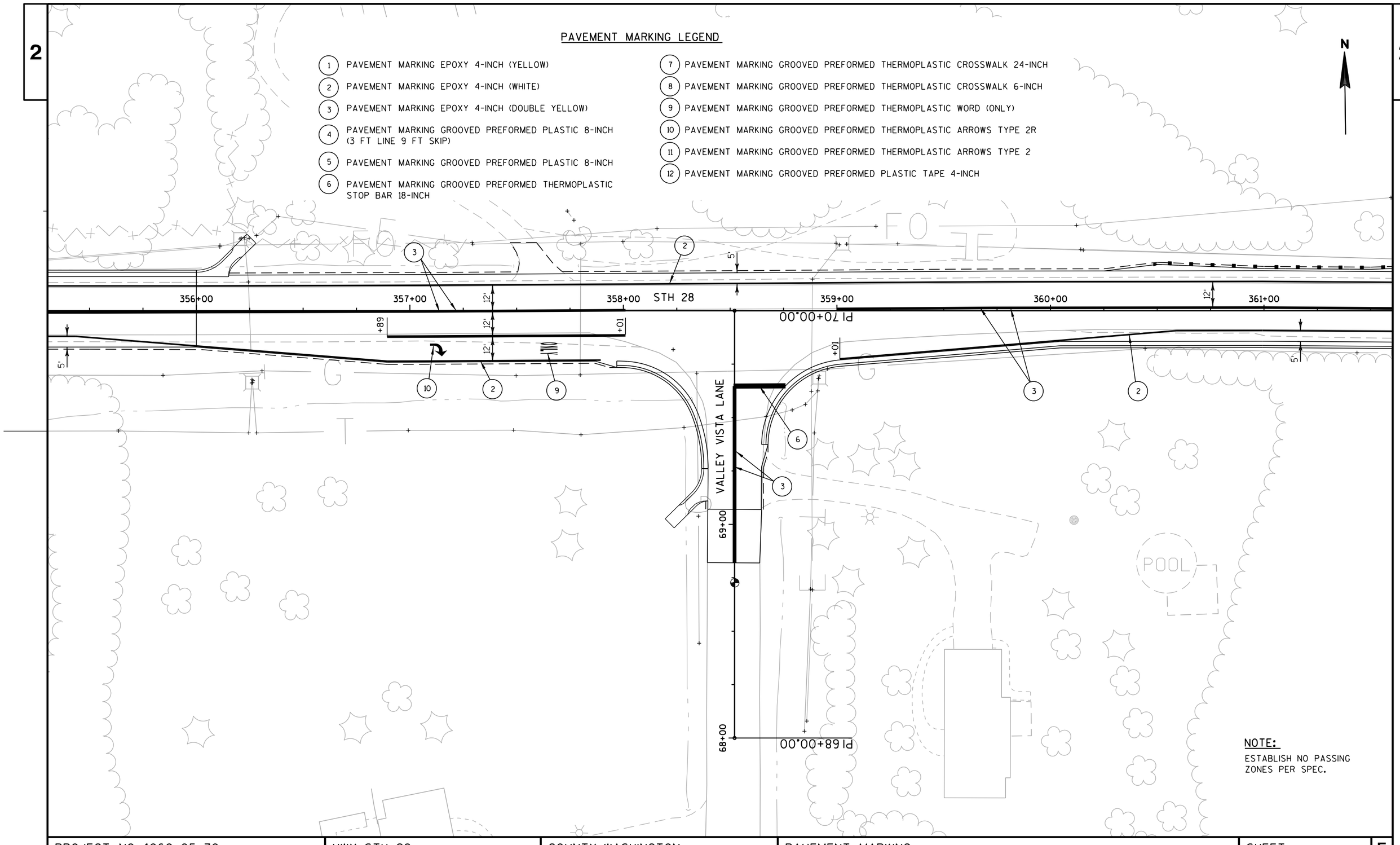


NOTE:
ESTABLISH NO PASSING ZONES PER SPEC.

PROJECT NO: 4060-05-70	HWY: STH 28	COUNTY: WASHINGTON	PAVEMENT MARKING	SHEET 145	E

PAVEMENT MARKING LEGEND

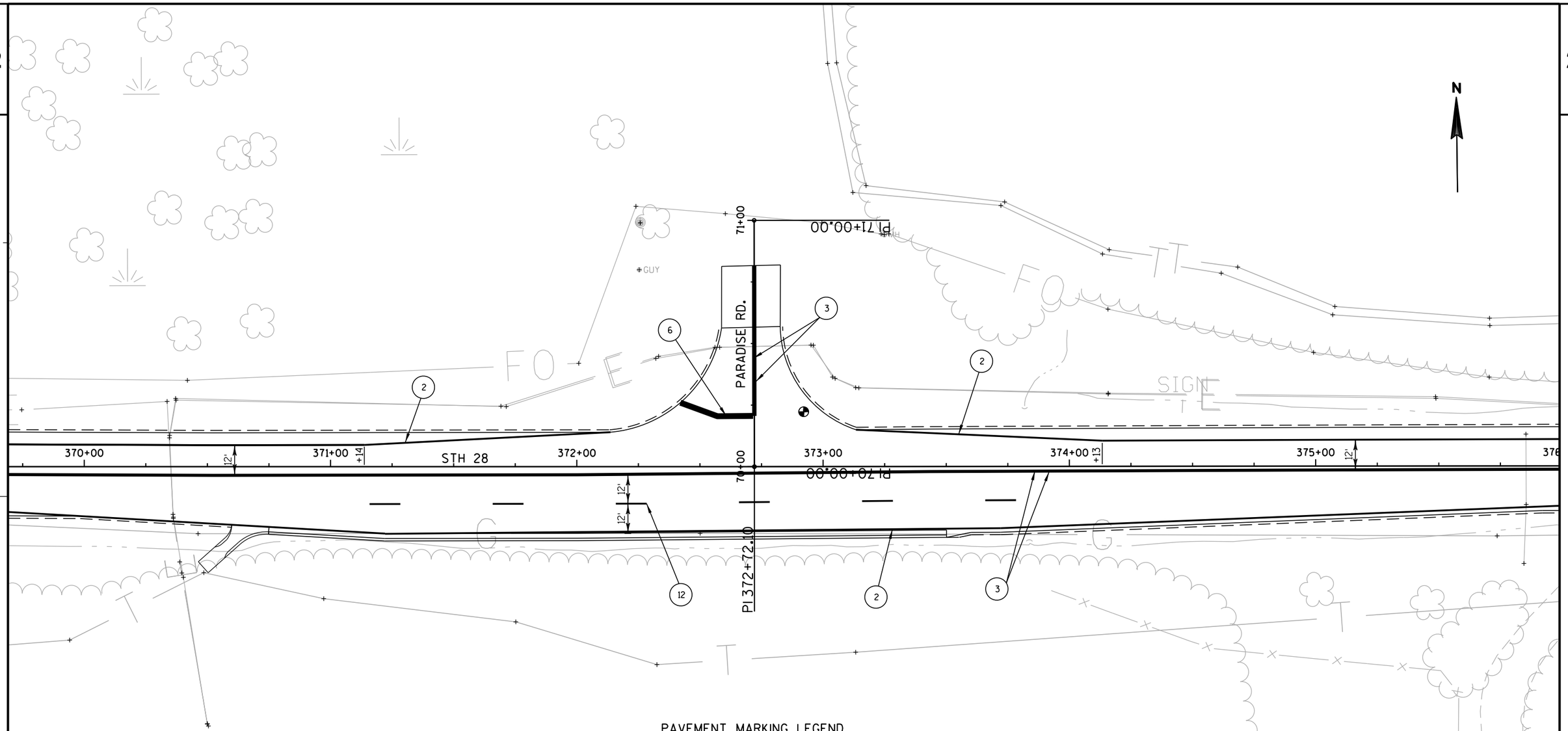
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11. PAVEMENT MARKING GROOVED PREFORMED THERMOPLASTIC ARROWS TYPE 2
12. PAVEMENT MARKING GROOVED PREFORMED PLASTIC TAPE 4-INCH



NOTE:
ESTABLISH NO PASSING ZONES PER SPEC.

PROJECT NO: 4060-05-70	HWY: STH 28	COUNTY: WASHINGTON	PAVEMENT MARKING	SHEET 146	E

2



PAVEMENT MARKING LEGEND

1. PAVEMENT MARKING EPOXY 4-INCH (YELLOW)
2. PAVEMENT MARKING EPOXY 4-INCH (WHITE)
3. PAVEMENT MARKING EPOXY 4-INCH (DOUBLE YELLOW)
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12. PAVEMENT MARKING GROOVED PREFORMED PLASTIC TAPE 4-INCH

NOTE:

ESTABLISH NO PASSING ZONES PER SPEC.

PROJECT NO: 4060-05-70	HWY: STH 28	COUNTY: WASHINGTON	PAVEMENT MARKING	SHEET 147	E

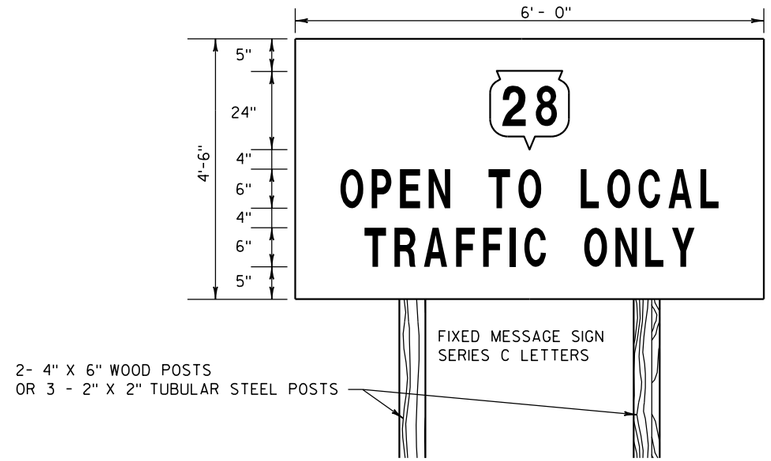
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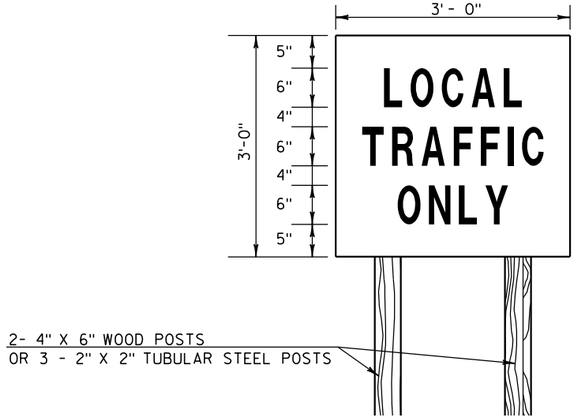
FIXED MESSAGE SIGNS

GENERAL NOTES:

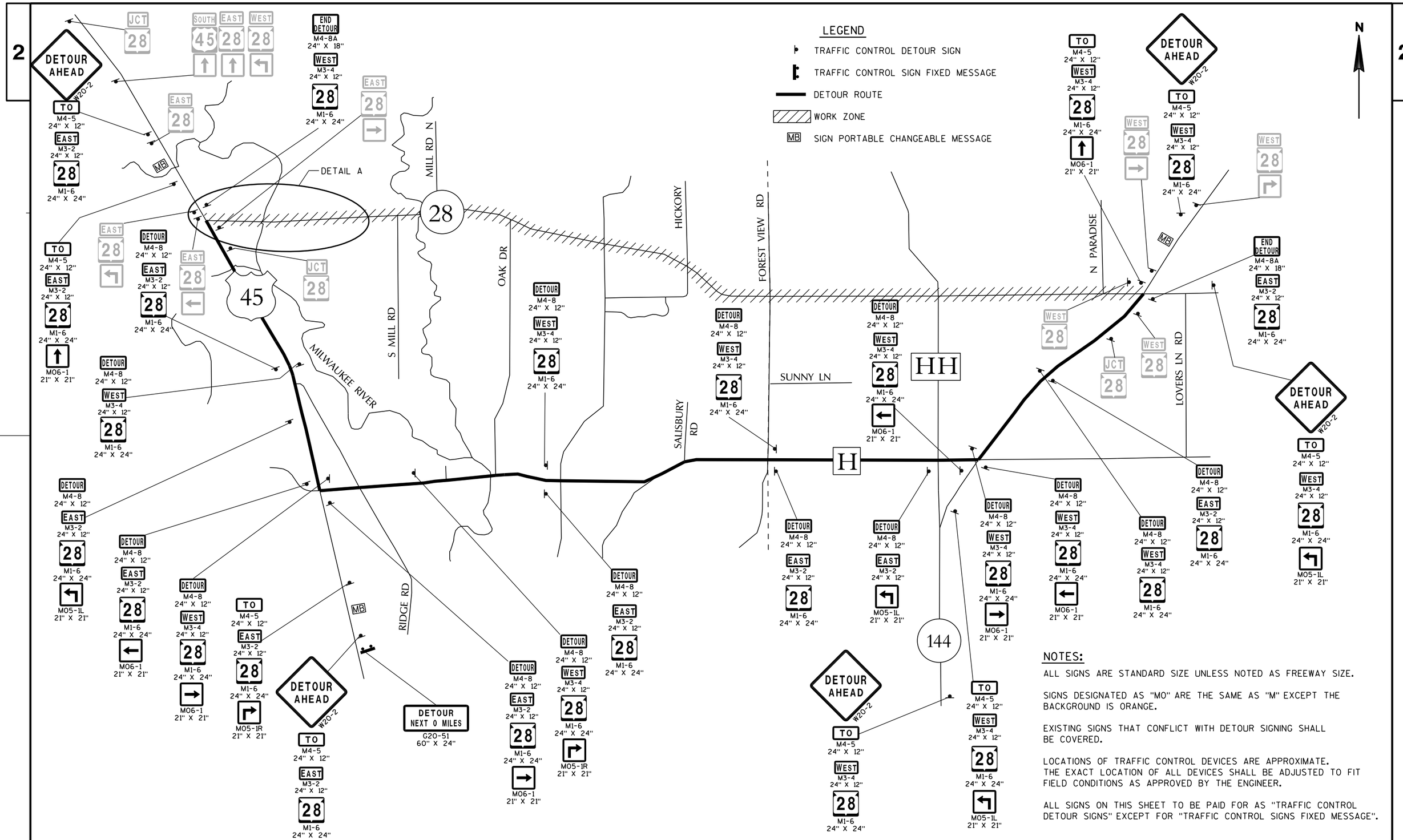
1. ALL SIGNS TO HAVE STANDARD REFLECTIVE SHEETING - REFERENCE: "WISDOT STANDARD SPECIFICATIONS FOR ROAD AND BRIDGE CONSTRUCTION," LATEST EDITION.
2. AFTER SIGNS HAVE BEEN LOCATED IN THE FIELD, BUT BEFORE INSTALLATION, THE SIGNING AND MARKING SUPERVISOR SHALL VERIFY EACH SIGN LOCATION.
3. ALL SIGNS TO BE MOUNTED ON WOODEN POST SUPPORTS (4"x6"). THE NUMBER OF POSTS REQUIRED FOR EACH LAYOUT IS SHOWN.
4. SIGNS ON THIS SHEET TO BE PAID UNDER THE ITEM "FIXED MESSAGE SIGNS."
5. SIGNS SHALL BE BLACK NON-REFLECTIVE MESSAGE ON ORANGE REFLECTIVE BACKGROUND.
6. ALL SIGNS SHALL HAVE CAPITAL LETTERS AND NUMERALS:
   12" CAPS SHALL BE SERIES "D"
   6" CAPS SHALL BE SERIES "C"
7. BEGIN XXX XX SIGNS SHALL BE SEPARATE PANELS, BUT SHALL BE CONSIDERED AS PART OF THE SIGN AND SHOULD BE REMOVED OR COVERED AFTER THEIR EFFECTIVE DATE. THE MONTH AND DAY SHALL BE AS DIRECTED BY THE ENGINEER IN THE FIELD.
8. CONTRACTOR SHALL SUBMIT SHOP DRAWINGS TO ENGINEER FOR REVIEW PRIOR TO MANUFACTURING.
9. SIGN BASE MATERIAL SHALL BE ACCORDING TO SECTION 637.2.1.2.
10. SIGNS TO BE IN PLACE 10 DAYS PRIOR TO CONSTRUCTION.

(X) = SIGN NUMBER





FIXED MESSAGE SIGN
SERIES C LETTERS



NOTES:

ALL SIGNS ARE STANDARD SIZE UNLESS NOTED AS FREEWAY SIZE.

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

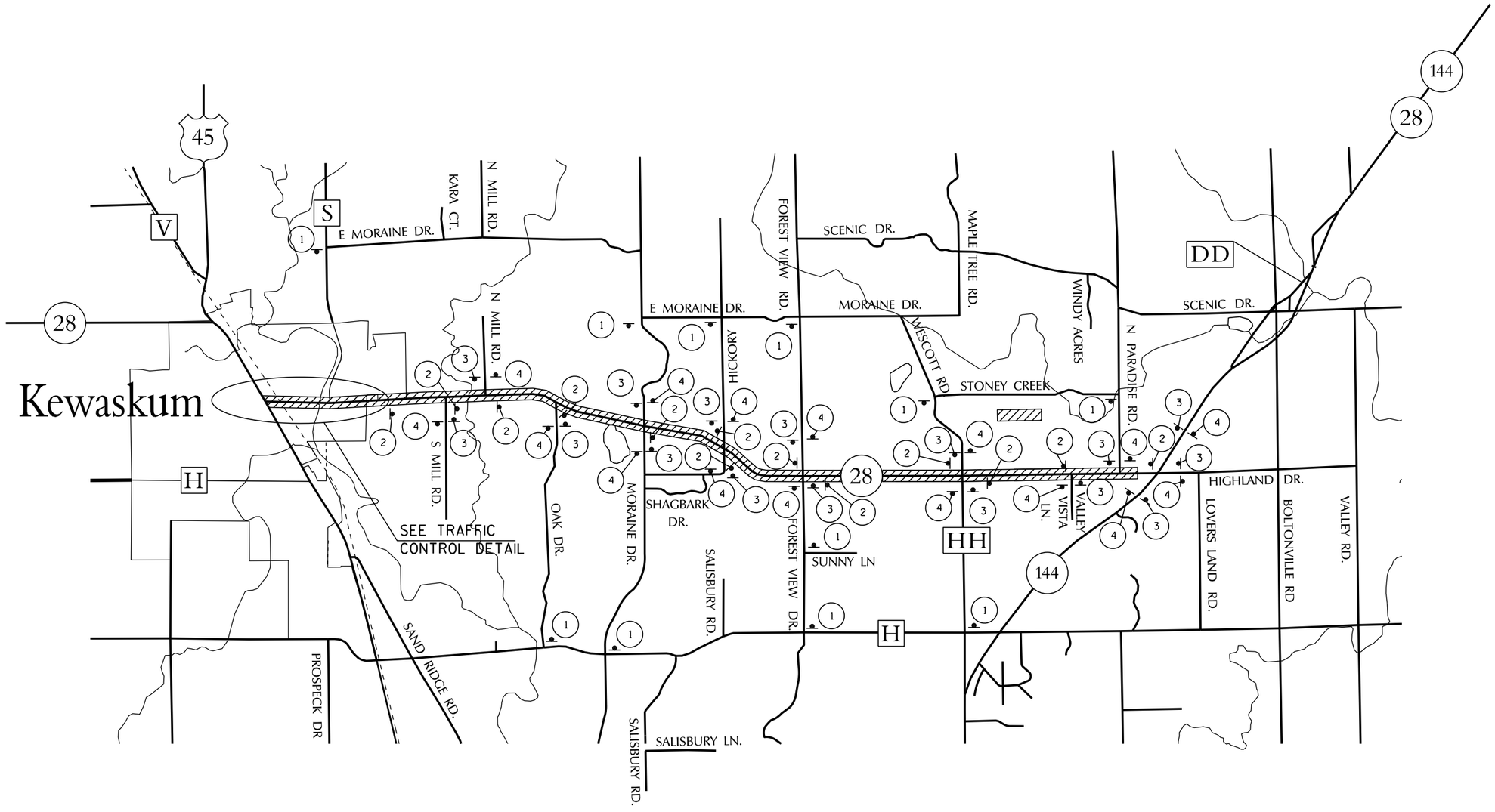
EXISTING SIGNS THAT CONFLICT WITH DETOUR SIGNING SHALL BE COVERED.

LOCATIONS OF TRAFFIC CONTROL DEVICES ARE APPROXIMATE. THE EXACT LOCATION OF ALL DEVICES SHALL BE ADJUSTED TO FIT FIELD CONDITIONS AS APPROVED BY THE ENGINEER.

ALL SIGNS ON THIS SHEET TO BE PAID FOR AS "TRAFFIC CONTROL DETOUR SIGNS" EXCEPT FOR "TRAFFIC CONTROL SIGNS FIXED MESSAGE".

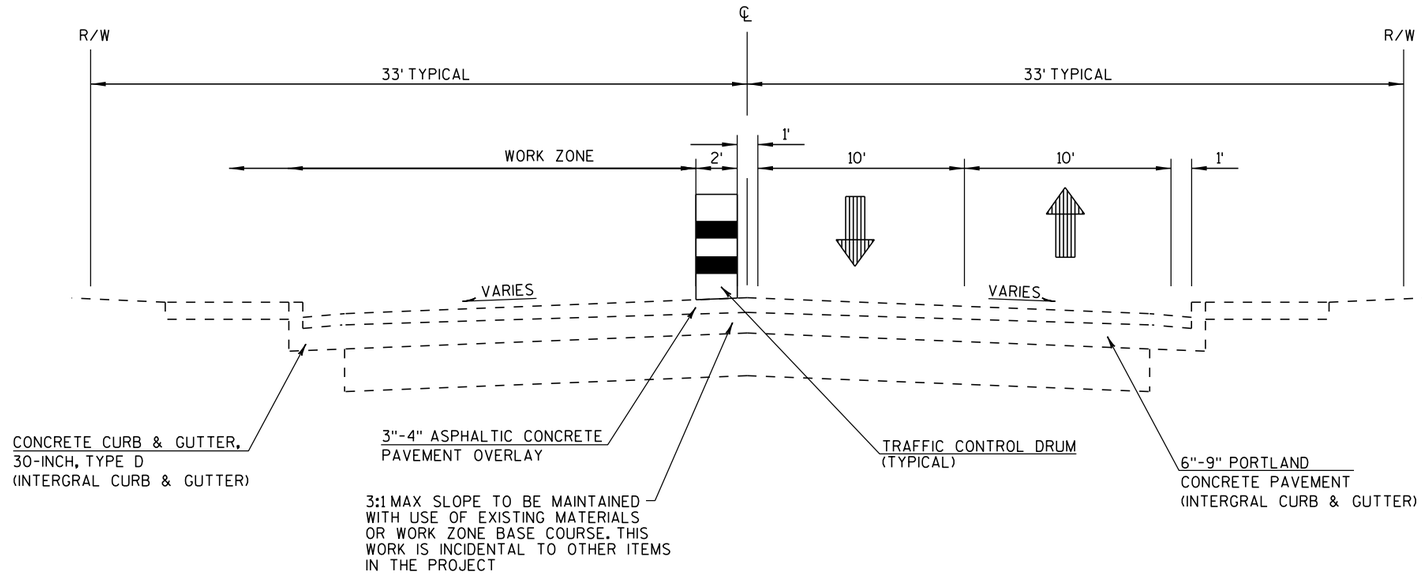
PROJECT NO: 4060-05-70	HWY: STH 28	COUNTY: WASHINGTON	DETOUR ROUTE	SHEET 149	E

2



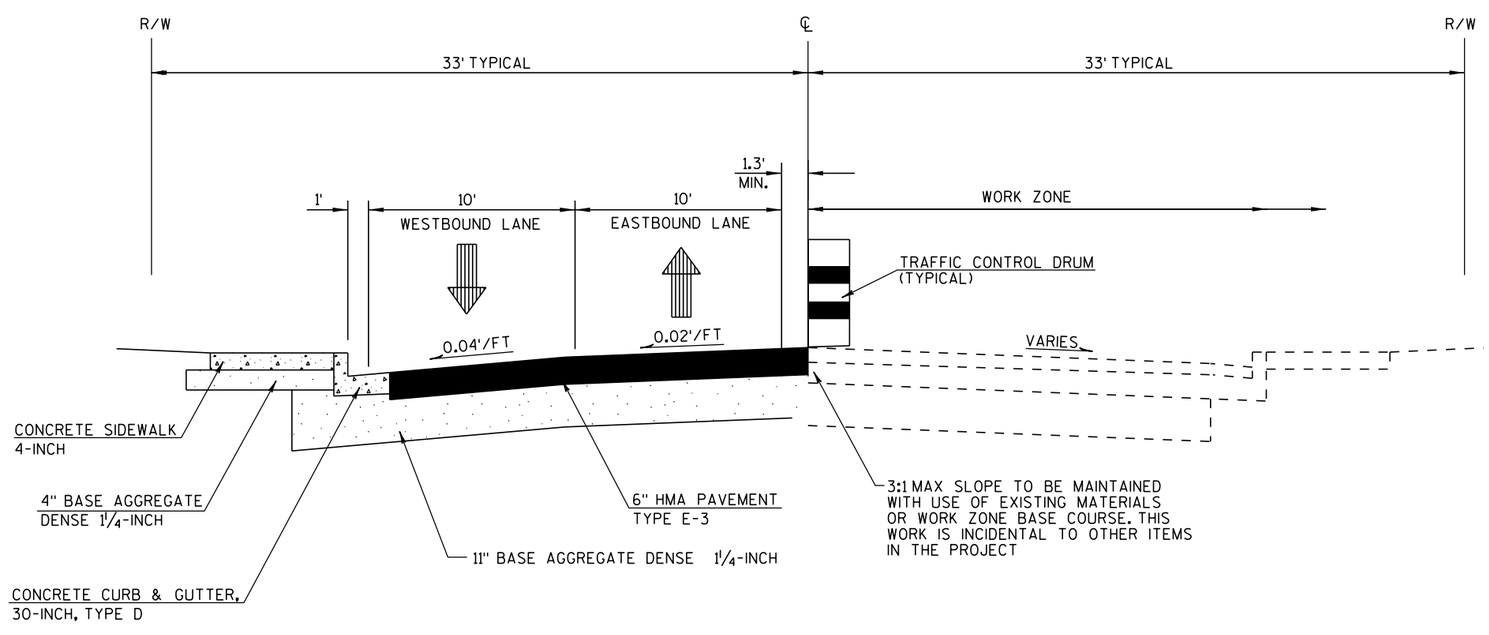
FMS: SEE FIXED MESSAGE SIGN DETAILS

PROJECT NO: 4060-05-70	HWY: STH 28	COUNTY: WASHINGTON	TRAFFIC CONTROL	SHEET 150	E



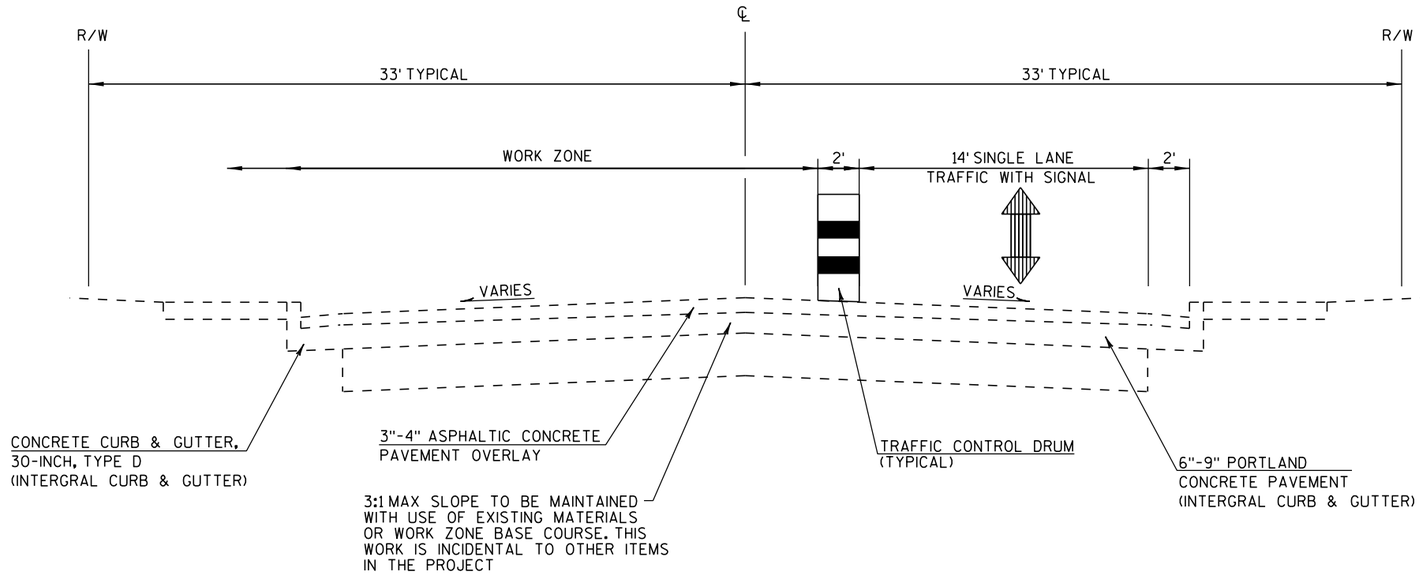
TYPICAL PROPOSED SECTION
RECONSTRUCTION STAGE 1

STA. 94+00 TO STA. 95+50
STA. 98+25 TO STA. 100+00

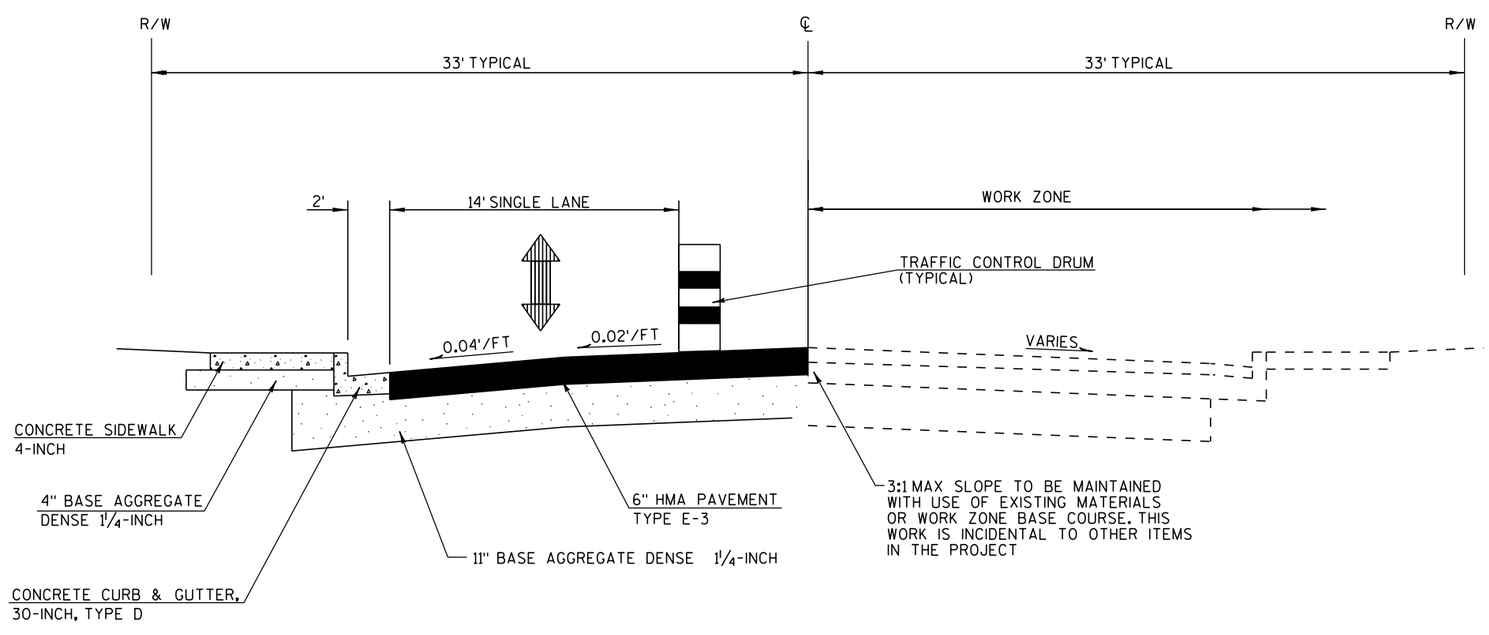


TYPICAL PROPOSED SECTION
RECONSTRUCTION STAGE 2

STA. 94+00 TO STA. 95+50
STA. 98+25 TO STA. 100+00



TYPICAL PROPOSED SECTION
RECONSTRUCTION STAGE 1
STA. 95+50 TO STA. 98+25



TYPICAL PROPOSED SECTION
RECONSTRUCTION STAGE 2
STA. 95+50 TO STA. 98+25

2

2

SEE DETOUR PLAN FOR SIGN PLACEMENT ON USH 45

ROAD CLOSED AHEAD W20-3

SIGN PLACED 1000' NORTH OF OLD BRIDGE ROAD ON CTH S

ROAD CLOSED 2.5 MILES AHEAD LOCAL TRAFFIC ONLY

R11-3
60" X 30"

R11-3 SIGNS ON TYPE III BARRICADES ON BOTH SIDES OF CTH S SOUTH OF OLD BRIDGE ROAD

ROAD CLOSED 1000 FT W20-3

PLACE SIGN 1000' NORTH OF HABECK ST.

ROAD CLOSED 500 FT W20-3

PLACE SIGN 500' NORTH OF HABECK ST.

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

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

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

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

MAINTAIN ACCESS ON RAILROAD STREET THROUGHOUT CONSTRUCTION

MAINTAIN ACCESS ON PARK VIEW DRIVE THROUGHOUT CONSTRUCTION

MAINTAIN ACCESS ON CTH S & RIVER VIEW DRIVE THROUGHOUT CONSTRUCTION

ROAD CLOSED TO THRU TRAFFIC

STORAGE

ONE LANE ROAD WITH TEMPORARY SIGNAL SEE S.D.D. FOR SIGNING & SIGNAL PLACEMENT

STORAGE

ROAD CLOSED TO THRU TRAFFIC

RECONSTRUCTION

PAVEMENT REPLACEMENT

KEWASKUM ELEMENTARY SCHOOL

USH 45
SECOND ST.
RAILROAD ST.
SCHOOL ST.
BILGO LN.
PARK VIEW DR.
HABECK ST.
MILWUKEE RIVER
CTH S
FIRST ST.
FOREST AVE.
STH 28
KEWASKUM ST.
PROSPECT ST.
ROSELAND DR.
MIL WUKEE RIVER

N

SIGN LEGEND

1. ROAD WORK AHEAD W20-1
2. END ROAD WORK G20-2A 48" X 24"
3. NO PARKING ANY TIME R7-1D 18" X 24"
4. STOP R1-1 36" X 36"

LEGEND

- TRAFFIC CONTROL DRUM WITH/WITHOUT TYPE C WARNING LIGHT
- POST MOUNTED TRAFFIC CONTROL SIGN
- TYPE III BARRICADE (8' WIDE) WITH TWO TYPE A WARNING LIGHTS WITH/WITHOUT SIGN
- SIGN ON PORTABLE SUPPORT
- TRAFFIC FLOW
- WORK ZONE

PROJECT NO: 4060-05-70	HWY: STH 28	COUNTY: WASHINGTON	TRAFFIC CONTROL RECONSTRUCTION STAGE 1	SHEET 153 E

2

2

ROAD CLOSED AHEAD
W20-3
SIGN PLACED 1000' NORTH OF OLD BRIDGE ROAD ON CTH S

ROAD CLOSED
2.5 MILES AHEAD
LOCAL TRAFFIC ONLY
R11-3
60" X 30"
R11-3 SIGNS ON TYPE III BARRICADES ON BOTH SIDES OF CTH S SOUTH OF OLD BRIDGE ROAD

ROAD CLOSED 1000 FT
W20-3
PLACE SIGN 1000' NORTH OF HABECK ST.

ROAD CLOSED 500 FT
W20-3
PLACE SIGN 500' NORTH OF HABECK ST.

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

N

KEWASKUM ELEMENTARY SCHOOL

BILGO LN.

HABECK ST.

PARK VIEW DR.

MILWUKEE RIVER

CTH S

KEWASKUM ST.

SECOND ST.

USH 45

USH 45/STH 28

RAILROAD ST.

SCHOOL ST.

FIRST ST.

FOREST AVE.

SEE DETOUR PLAN FOR SIGN PLACEMENT ON USH 45

STH 28

MAINTAIN ACCESS ON RAILROAD STREET THROUGHOUT CONSTRUCTION

MAINTAIN ACCESS ON PARK VIEW DRIVE THROUGHOUT CONSTRUCTION

MAINTAIN ACCESS ON CTH S & RIVER VIEW DRIVE THROUGHOUT CONSTRUCTION

EXISTING B-66-0950
PROPOSED B-66-0184

RIVER VIEW DR.

ROAD CLOSED TO THRU TRAFFIC

TWO WAY TRAFFIC

PROSPECT ST.

ROSELAND DR.

RECONSTRUCTION

PAVEMENT REPLACEMENT

SIGN LEGEND

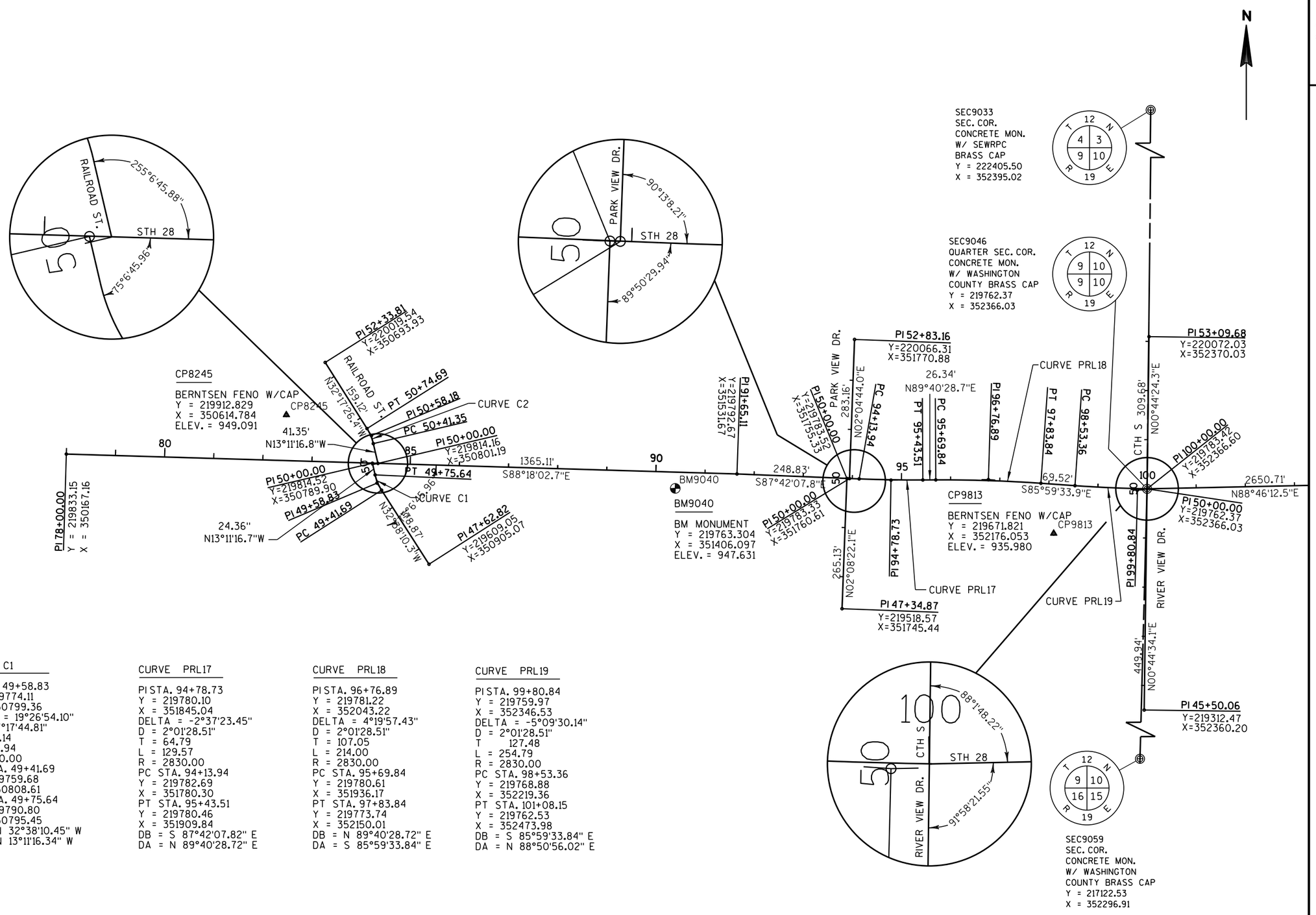
1. ROAD WORK AHEAD W20-1
2. END ROAD WORK G20-2A 48" X 24"
3. NO PARKING ANY TIME R7-1D 18" X 24"
4. STOP R1-1 36" X 36"

LEGEND

- TRAFFIC CONTROL DRUM WITH/WITHOUT TYPE C WARNING LIGHT
- POST MOUNTED TRAFFIC CONTROL SIGN
- TYPE III BARRICADE (8' WIDE) WITH TWO TYPE A WARNING LIGHTS WITH/WITHOUT SIGN
- SIGN ON PORTABLE SUPPORT
- TRAFFIC FLOW
- WORK ZONE

PROJECT NO: 4060-05-70	HWY: STH 28	COUNTY: WASHINGTON	TRAFFIC CONTROL RECONSTRUCTION STAGE 2	SHEET 154 E

2



CURVE C2

PI STA. 50+58.18
Y = 219870.80
X = 350787.92
DELTA = -19°06'10.32"
D = 57°17'44.81"
T = 16.83
L = 33.34
R = 100.00
PC STA. 50+41.35
Y = 219885.03
X = 350791.76
PT STA. 50+74.69
Y = 219885.03
X = 350778.93
DB = N 13°11'16.34" W
DA = N 32°17'26.66" W

CURVE C1

PI STA. 49+58.83
Y = 219774.11
X = 350799.36
DELTA = 19°26'54.10"
D = 57°17'44.81"
T = 17.14
L = 33.94
R = 100.00
PC STA. 49+41.69
Y = 219759.68
X = 350808.61
PT STA. 49+75.64
Y = 219790.80
X = 350795.45
DB = N 32°38'10.45" W
DA = N 13°11'16.34" W

CURVE PRL17

PI STA. 94+78.73
Y = 219780.10
X = 351845.04
DELTA = -2°37'23.45"
D = 2°01'28.51"
T = 64.79
L = 129.57
R = 2830.00
PC STA. 94+13.94
Y = 219782.69
X = 351780.30
PT STA. 95+43.51
Y = 219780.46
X = 351909.84
DB = S 87°42'07.82" E
DA = N 89°40'28.72" E

CURVE PRL18

PI STA. 96+76.89
Y = 219781.22
X = 352043.22
DELTA = 4°19'57.43"
D = 2°01'28.51"
T = 107.05
L = 214.00
R = 2830.00
PC STA. 95+69.84
Y = 219780.61
X = 351936.17
PT STA. 97+83.84
Y = 219773.74
X = 352150.01
DB = N 89°40'28.72" E
DA = S 85°59'33.84" E

CURVE PRL19

PI STA. 99+80.84
Y = 219759.97
X = 352346.53
DELTA = -5°09'30.14"
D = 2°01'28.51"
T = 127.48
L = 254.79
R = 2830.00
PC STA. 98+53.36
Y = 219768.88
X = 352219.36
PT STA. 101+08.15
Y = 219762.53
X = 352473.98
DB = S 85°59'33.84" E
DA = N 88°50'56.02" E

PROJECT NO: 4060-05-70	HWY: STH 28	COUNTY: WASHINGTON	ALIGNMENT LAYOUT	SHEET 155	E

2

N

SEC9034
QUARTER SEC. COR.
CONCRETE MON.
W/ SEWRPC
BRASS CAP
Y = 222470.44
X = 355040.71

SEC9047
CENTER OF SEC
CONCRETE MON.
W/ WASHINGTON
COUNTY BRASS CAP
Y = 219819.27
X = 355016.12

CP12594

BERNTSEN FENO W/CAP
Y = 219879.059
X = 355318.505
ELEV. = 931.997

CP12954

CP11254

BERNTSEN FENO W/CAP
Y = 219825.636
X = 353619.422
ELEV. = 941.222

CP11254

105 110 115 STH 28 120 125 130

2650.71'
N88°46'12.5"E

2653.07'
N88°29'42.7"E

PI 51+48.04
Y=219925.27
X=353060.96

148.04'
N0°45'59.2"E

STARK ST.

88°01'13.3"

PI 50+00.00
Y=219777.25
X=353058.98

50

PI 50+00.00
Y=219777.31
X=353061.76

2510.2'
N0°51'7.3"W

90°22'40.2"

PI 47+48.98
Y=219526.32
X=353065.49

PI 126+50.70
Y=219819.27
X=355016.12

SEC9060
QUARTER SEC. COR.
CONCRETE MON.
W/ WASHINGTON
COUNTY BRASS CAP
Y = 217171.75
X = 354978.78

PROJECT NO: 4060-05-70	HWY: STH 28	COUNTY: WASHINGTON	ALIGNMENT LAYOUT	SHEET 156	E

2

N

CP12594
BERNTSEN FENO W/CAP
Y = 219879.059
X = 355318.505
ELEV. = 931.997

CP14037
BERNTSEN FENO W/CAP
Y = 219814.033
X = 356403.394
ELEV. = 928.387

CP12954

130

PI 50+00.00
Y=219853.29
X=356340.73

140

CP14037

89°59'59.24"

PI 49+00.00
Y=219754.09
X=356343.14

50

N1°30'18.1"W

S. MILL RD.

100'

BM14655

DOT ALUM CAP
Y = 219852.953
X = 357019.899
ELEV. = 936.080

2653.1'

N88°29'42.67"E

BM14655

150

105'

N°5'33.8"E

PI 53+03.77
Y=219888.94
X=357668.27

SEC9035
SEC. COR.
CONCRETE MON.
W/ IRON PLATE
Y = 222549.16
X = 357658.29

CP15334
BERNTSEN FENO W/CAP
Y = 220033.100
X = 357702.371
ELEV. = 936.340

CP15334
Y=219993.94
X=357668.44

PI 61+05.00

91°54'14.85"

60

PI 60+00.00
Y=219888.94
X=357668.27

160

1742.4'

S88°18'38.96"E

SEC9048
QUARTER SEC. COR.
CONCRETE MON.
W/ WISDOT
ALUMINUM CAP
Y = 219888.94
X = 357668.27

SEC9061
SEC. COR.
CONCRETE MON.
W/ BRASS CAP
Y = 217223.25
X = 357661.39

131.3'

S88°12'37.6"E

CURVE 28RL1

STH 28

170

PI 172+82.75

CP17644
BERNTSEN FENO W/CAP
Y = 219675.864
X = 359986.185
ELEV. = 944.816

CURVE 28RL2

247.9'

S62°52'19.36"E

CP17644

SEC9049
CENTER OF SEC.
3" X 48" IRON PIPE
W/ CAP ON WALL
OF OLD GRAVEL PIT
Y = 219807.01
X = 360336.56

PI 177+82.75

PC 179+81.93

CURVE 28RL10

CURVE 28RL5

PI 190+14.37

PT 192+33.03

180

232.1'

S82°58'8.2"E

CP18693

190

CP18693
BERNTSEN FENO W/CAP
Y = 219289.844
X = 360929.979
ELEV. = 958.163

PC 187+95.24

AHEAD 185+63.17

BACK 185+61.36

PT 185+61.36

PI 182+76.75

PI 168+49.48
Y=219843.78
X=359213.33

PC 169+80.84

PC 170+46.12

PT 173+85.30

PT 174+55.56

CURVE PRL25

188.2'

S62°33'2.15"E

PT 178+32.06

49.9'

S56°53'38.96"E

SEC9062
QUARTER SEC. COR.
CONCRETE MON.
W/ WASHINGTON
COUNTY CAP
Y = 217157.78
X = 360316.42

CURVE 28RL1

PI STA. 172+18.55
Y = 219832.50
X = 359582.23
DELTA = 25°26'19.41"
D = 7°30'00.00"
T = 172.43
L = 339.18
R = 763.94
PC STA. 170+46.12
Y = 219837.58
X = 359409.87
PT STA. 173+85.30
Y = 219753.87
X = 359735.69
DA = S 62°52'19.56" E
DB = S 88°18'38.96" E

CURVE 28RL2

PI STA. 177+82.75
Y = 219572.64
X = 360089.42
DELTA = 5°58'40.28"
D = 2°00'00.00"
T = 149.58
L = 298.89
R = 2864.79
PC STA. 176+33.17
Y = 219640.85
X = 359956.29
PT STA. 179+32.06
Y = 219490.94
X = 360214.72
DB = S 62°52'19.56" E
DA = S 56°53'39.28" E

CURVE 28RL10

PI STA. 182+76.75
Y = 219302.68
X = 360503.45
DELTA = -26°04'28.91"
D = 4°29'60.00"
T = 294.82
L = 579.44
R = 1273.24
PC STA. 179+81.93
Y = 219463.71
X = 360256.49
Y = 219266.59
PT STA. 185+63.17(2)
X = 360796.06
DB = S 56°53'39.28" E
DA = S 82°58'08.19" E

CURVE 28RL5

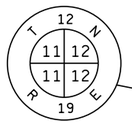
PI STA. 190+14.37(2)
Y = 219211.36
X = 361243.87
DELTA = 6°34'00.42"
D = 1°30'00.00"
T = 219.13
L = 437.79
R = 3819.72
PC STA. 187+95.24(2)
Y = 219238.18
X = 361026.39
PT STA. 192+33.03(2)
Y = 219159.84
X = 361456.86
DB = S 82°58'08.19" E
DA = S 76°24'07.76" E

CURVE PRL25

PI STA. 172+22.25
Y = 219832.14
X = 359585.92
DELTA = 25°39'35.47"
D = 5°24'18.94"
T = 241.41
L = 474.72
R = 1060.00
PC STA. 169+80.84
Y = 219839.68
X = 359344.63
PT STA. 174+55.56
Y = 219720.86
X = 359800.15
DA = S 62°33'02.12" E
DB = S 88°12'37.59" E

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SEC9050
QUARTER SEC. COR
CAST IRON PLUG
IN CONCRETE
Y = 219686.28
X = 363003.63



CURVE HICK1

PI STA. 7+96.80
Y = 217804.13
X = 365624.65
DELTA = 8°06'14.60" (LT)
D = 20°50'05.38"
T = 19.48
L = 38.90
R = 275.00
PC STA. 7+77.32
Y = 217784.65
X = 365624.22
PT STA. 8+16.22
Y = 217823.47
X = 365622.33
DB = N 1°15'38.85" E
DA = N 6°50'35.75" W

CURVE HICK2

PI STA. 9+29.81
Y = 217936.25
X = 365608.79
DELTA = 23°28'24.10" (RT)
D = 57°17'44.81"
T = 20.78
L = 40.97
R = 100.00
PC STA. 9+09.03
Y = 217915.62
X = 365611.27
PT STA. 9+50.00
Y = 217956.15
X = 365614.74
DB = N 6°50'35.75" W
DA = N 16°37'48.35" E

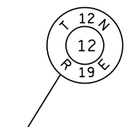
CURVE HICK3

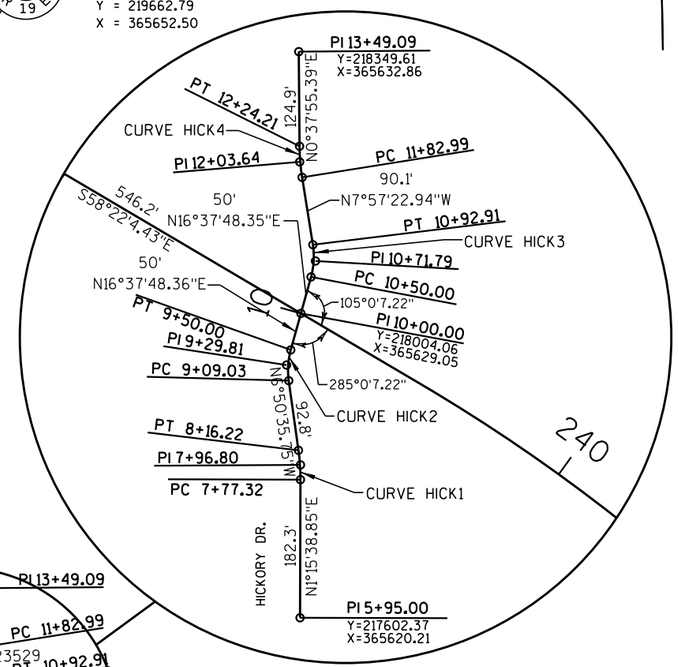
PI STA. 10+71.79
Y = 218072.85
X = 365649.60
DELTA = 24°35'11.30" (LT)
D = 57°17'44.81"
T = 21.79
L = 42.91
R = 100.00
PC STA. 10+50.00
Y = 218051.97
X = 365643.36
PT STA. 10+92.91
Y = 218094.43
X = 365646.58
DB = N 16°37'48.35" E
DA = N 7°57'22.94" W

CURVE HICK4

PI STA. 12+03.64
Y = 218204.09
X = 365631.25
DELTA = 8°35'18.33" (RT)
D = 20°50'05.38"
T = 20.65
L = 41.22
R = 275.00
PC STA. 11+82.99
Y = 218183.64
X = 365634.11
PT STA. 12+24.21
Y = 218224.74
X = 365631.48
DB = N 7°57'22.94" W
DA = N 0°37'55.39" E

SEC9051
CENTER OF SEC.
CONCRETE MON.
W/ WASHINGTON
COUNTY CAP
Y = 219662.79
X = 365652.50





CURVE 28RL6

PI STA. 212+16.30(2)
Y = 218693.56
X = 363384.54
DELTA = -3°41'23.29"
D = 1°00'00.00"
T = 184.55
L = 368.98
R = 5729.58
PC STA. 210+31.75(2)
Y = 218736.95
X = 363205.16
PT STA. 214+00.73(2)
Y = 218661.80
X = 363566.35
DB = S 76°24'07.76" E
DA = S 80°05'31.06" E

CURVE 28RL7

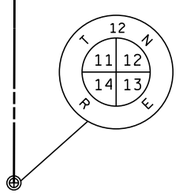
PI STA. 228+23.10(2)
Y = 218417.06
X = 364967.51
DELTA = 22°22'03.73"
D = 6°30'00.00"
T = 174.28
L = 344.12
R = 881.47
PC STA. 226+48.82(2)
Y = 218447.05
X = 364795.83
PT STA. 229+92.94(2)
Y = 218324.00
X = 365114.86
DB = S 80°05'31.06" E
DA = S 57°43'27.33" E

CURVE PRL1

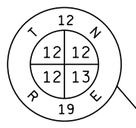
PI STA. 240+75.07(2)
Y = 217754.15
X = 366034.77
DELTA = 14°11'18.46"
D = 2°26'17.23"
T = 292.47
L = 581.94
R = 2350.00
PC STA. 237+82.60(2)
Y = 217907.54
X = 365785.75
PT STA. 243+64.54(2)
Y = 217544.40
X = 366238.59
DB = S 58°22'04.54" E
DA = S 44°10'46.08" E

CURVE PRL2

PI STA. 250+92.65(2)
Y = 217022.23
X = 366746.02
DELTA = -44°17'00.08"
D = 4°46'28.73"
T = 488.29
L = 927.47
R = 1200.00
PC STA. 246+04.37(2)
Y = 217372.41
X = 366405.73
PT STA. 255+31.84(2)
Y = 217009.13
X = 367234.13
DB = S 44°10'46.08" E
DA = S 88°27'46.16" E



SEC9063
SEC. COR.
CONCRETE MON.
W/ WASHINGTON
COUNTY CAP
Y = 217024.04
X = 362944.64



SEC9064
QUARTER SEC. COR.
CONCRETE MON.
W/ BRASS CAP
Y = 217016.95
X = 365613.37

CP23529
BERNTSEN FENO W/CAP
Y = 218174.793
X = 365652.569
ELEV. = 976.830

CP21107
BERNTSEN FENO W/CAP
Y = 218672.815
X = 363268.726
ELEV. = 988.069

CP25083
BERNTSEN FENO W/CAP
Y = 217048.510
X = 366774.304
ELEV. = 1003.088

2

N

SEC9052
QUARTER SEC. COR.
CONCRETE MON.
W/ WASHINGTON
COUNTY BRASS CAP
Y = 219638.78
X = 368300.74

SEC9065
SEC. COR.
CONCRETE MON.
W/ WASHINGTON
COUNTY BRASS CAP
Y = 216980.55
X = 368299.15

PT 255+31.84

1065.4'
S88°27'46.15"E

260

PI 20+00.00
Y=216980.55
X=368299.15

PI 265+97.24
Y=216980.55
X=368299.15

FOREST VIEW DR.

200'
N1°18'34.35"E

PI 21+99.98
Y=217180.48
X=368303.72
269°25'3.34"

270

88°46'16.59"

PI 17+99.99
Y=216780.57
X=368295.78

200'
N0°57'54.61"E

CP26560

CP26560
BERNTSEN FENO W/CAP
Y = 216845.954
X = 368258.910
ELEV. = 1057.710

SEC9078
QUARTER SEC. COR.
CONCRETE MON.
W/ WASHINGTON
COUNTY BRASS CAP
Y = 214329.58
X = 368268.46

CP27670

280

2720.1'
S88°6'28.99"E

CP27670
BERNTSEN FENO W/CAP
Y = 216982.523
X = 369372.677
ELEV. = 1015.229

290

PI 293+17.30
Y=216890.75
X=371017.73

CTL41
CENTER OF SEC.
CONCRETE MON.
W/ WASHINGTON
COUNTY BRASS CAP
Y = 219559.72
X = 371029.74

SEC54
QUARTER SEC. COR.
CONCRETE MON.
W/ WISDOT
ALUMINUM CAP
Y = 216890.75
X = 371017.73

CTL67
CENTER OF SEC
CONCRETE MON.
W/ BRONZE CAP
Y = 214253.13
X = 370992.46

300

CP30177

2651.2'
S88°54'1.56"E

310

CP30177
BERNTSEN FENO W/CAP
Y = 216821.169
X = 371876.265
ELEV. = 973.394

PI 30+00

PI 319+5

PROJECT NO: 4060-05-70	HWY: STH 16	COUNTY: WASHINGTON	ALIGNMENT LAYOUT	SHEET 159	E

2

N

SEC55
SEC. COR.
CONCRETE MON.
W/ WISDOT
ALUMINUM CAP
Y = 216839.87
X = 373668.48

T 12 N R 20 E: 7 8 / 18 17

CTL42
QUARTER SEC. COR.
CONCRETE MON.
W/ WASHINGTON
COUNTY CAP
Y = 219502.47
X = 373684.15

T 12 N R 20 E: 7 8 / 7 7

CTL43
CENTER OF SEC.
CAST IRON PLUG
IN CONCRETE
Y = 219461.78
X = 376339.72

T 12 N R 20 E: 8

SEC56
QUARTER SEC. COR.
CONCRETE MON.
W/ WISDOT
ALUMINUM CAP
Y = 216805.77
X = 376320.03

T 12 N R 20 E: 8 8 / 17 17

CTL68
QUARTER SEC. COR.
CONCRETE MON.
W/ WASHINGTON
COUNTY CAP
Y = 214179.36
X = 373652.90

T 12 N R 20 E: 18 17 / 18 17

CTL69
CENTER OF SEC.
CONCRETE MON.
W/ BRASS CAP
Y = 214142.98
X = 376301.00

T 12 N R 20 E: 17

200'
N0°9'32.1"E

200'
N0°26'43.09"W

WESCOTT RD.

CTH HH

PI 31+99.99
Y=217039.86
X=373669.03

90°23'58.77"

88°49'3.94"

PI 27+99.96
Y=216639.84
X=373670.03

PI 30+00.00
Y=216839.87
X=373668.48

PI 29+68.53
Y=216839.87
X=373668.48

CP31954

CP31954

BERNTSEN FENO W/CAP
Y = 216479.550
X = 373647.148
ELEV. = 977.816

CP33942

BERNTSEN FENO W/CAP
Y = 216759.072
X = 375641.146
ELEV. = 957.013

CP35813

BERNTSEN FENO W/CAP
Y = 216722.666
X = 377512.088
ELEV. = 944.869

310 — 2651.2' S88°54'1.56"E — 320 — 330 — 2651.8' S89°15'47.03"E — 340 — 350 — STH 28 — 360 — 2651.8' S89°15'44.48"E — 370

PT 345+04.43
PI 345+77.25
PI 346+20.30
PI 344+15.00
PC 344+68.19
PI 344+45.00
PI 344+86.88
PI 344+20.00
PI 343+40.21
PT 343+45.10
PI 342+77.33
PC 343+35.11
PI 342+95.84
PT 343+05.87
PC 342+84.42

PROJECT NO: 4060-05-70	HWY: STH 16	COUNTY: WASHINGTON	ALIGNMENT LAYOUT	SHEET 160	E

2

N

CTL44
QUARTER SEC. COR.
CAST IRON PLUG
IN CONCRETE
Y = 219426.37
X = 378995.46

SEC2057
SECTION COR.
CONCRETE MON.
W/ WASHINGTON
COUNTY CAP
Y = 216771.63
X = 378971.60

SEC2058
QUARTER SEC. COR.
CONCRETE MON.
W/ ALUMINUM CAP
Y = 216740.005
X = 381636.78

PARADISE RD.

1139.7'
N0°30'53.59"E

Y=216871.62
X=378972.79
PI 71+00.00

CP37325
89°59'59.11"

370
2651.8'
S89°15'44.48"E

380
2665.4'
S89°19'15.46"E

390

STH 28

CP38453

PI 70+00.00
Y=216771.63
X=378971.60

PI 372+72.10
Y=216771.63
X=378971.60

CP37325

BERNTSEN FENO W/CAP
Y = 216813.771
X = 379025.054
ELEV. = 941.445

CP38453

BERNTSEN FENO W/CAP
Y = 216687.378
X = 380151.905
ELEV. = 1007.014

PI 399+37.48
Y=216740.04
X=381636.80

CTL70
QUARTER SEC. COR.
CONCRETE MON.
W/ BRASS CAP
Y = 214113.28
X = 378917.95

PROJECT NO: 4060-05-70	HWY: STH 16	COUNTY: WASHINGTON	ALIGNMENT LAYOUT	SHEET 161	E

DATE 29OCT13 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	4060-05-70 QUANTITY
0010	201.0105	CLEARING	STA	74.000	74.000
0020	201.0205	GRUBBING	STA	74.000	74.000
0030	203.0100	REMOVING SMALL PIPE CULVERTS	EACH	43.000	43.000
0040	203.0200	REMOVING OLD STRUCTURE (STATION) 001. 97+60	LS	1.000	1.000
0050	203.0200	REMOVING OLD STRUCTURE (STATION) 002. 175+19	LS	1.000	1.000
0060	203.0200	REMOVING OLD STRUCTURE (STATION) 003. 177+41	LS	1.000	1.000
0070	203.0200	REMOVING OLD STRUCTURE (STATION) 004. 351+00	LS	1.000	1.000
0080	203.0700.S	REMOVING OLD STRUCTURE OVER WATERWAY WITH DEBRIS CAPTURE SYSTEM (STATION) 001. 96+40.9	LS	1.000	1.000
0090	204.0100	REMOVING PAVEMENT	SY	11,822.000	11,822.000
0100	204.0110	REMOVING ASPHALTIC SURFACE	SY	4,044.000	4,044.000
0110	204.0115	REMOVING ASPHALTIC SURFACE BUTT JOINTS	SY	1,157.000	1,157.000
0120	204.0125	REMOVING ASPHALTIC SURFACE MILLING	TON	7,617.000	7,617.000
0130	204.0150	REMOVING CURB & GUTTER	LF	3,292.000	3,292.000
0140	204.0155	REMOVING CONCRETE SIDEWALK	SY	2,209.000	2,209.000
0150	204.0165	REMOVING GUARDRAIL	LF	1,044.000	1,044.000
0160	204.0170	REMOVING FENCE	LF	95.000	95.000
0170	204.0195	REMOVING CONCRETE BASES	EACH	4.000	4.000
0180	204.0210	REMOVING MANHOLES	EACH	15.000	15.000
0190	204.0220	REMOVING INLETS	EACH	33.000	33.000
0200	204.0245	REMOVING STORM SEWER (SIZE) 001. 6-INCH	LF	55.000	55.000
0210	204.0245	REMOVING STORM SEWER (SIZE) 002. 8-INCH	LF	759.000	759.000
0220	204.0245	REMOVING STORM SEWER (SIZE) 003. 10-INCH	LF	36.000	36.000
0230	204.0245	REMOVING STORM SEWER (SIZE) 004. 12-INCH	LF	379.000	379.000
0240	204.0245	REMOVING STORM SEWER (SIZE) 005. 15-INCH	LF	1,285.000	1,285.000
0250	204.0245	REMOVING STORM SEWER (SIZE) 006. 18-INCH	LF	447.000	447.000
0260	204.0245	REMOVING STORM SEWER (SIZE) 007. 24-INCH	LF	277.000	277.000
0270	204.0280	SEALING PIPES	EACH	1.000	1.000
0290	205.0100	EXCAVATION COMMON	CY	63,876.020	63,876.020
0300	205.0400	EXCAVATION MARSH	CY	9,348.290	9,348.290
0310	205.0501.S	EXCAVATION, HAULING, AND DISPOSAL OF PETROLEUM CONTAMINATED SOIL	TON	995.000	995.000
0320	206.1000	EXCAVATION FOR STRUCTURES BRIDGES (STRUCTURE) 001. B-66-184	LS	1.000	1.000
0330	206.3000	EXCAVATION FOR STRUCTURES RETAINING WALLS (STRUCTURE) 001. R-66-31	LS	1.000	1.000
0340	206.3000	EXCAVATION FOR STRUCTURES RETAINING WALLS (STRUCTURE) 002. R-66-21	LS	1.000	1.000
0350	206.5000	COFFERDAMS (STRUCTURE) 001. B-66-184	LS	1.000	1.000
0360	206.6000.S	TEMPORARY SHORING	SF	620.000	620.000
0370	208.1100	SELECT BORROW	CY	7,084.980	7,084.980
0380	209.0100	BACKFILL GRANULAR	CY	136.000	136.000
0390	210.0100	BACKFILL STRUCTURE	CY	600.000	600.000
0400	213.0100	FINISHING ROADWAY (PROJECT) 001. 4060-05-70	EACH	1.000	1.000
0420	305.0110	BASE AGGREGATE DENSE 3/4-INCH	TON	4,593.000	4,593.000

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LINE NUMBER	ITEM	ITEM DESCRIPTION	UNIT	TOTAL	4060-05-70 QUANTITY
0430	305.0120	BASE AGGREGATE DENSE 1 1/4-INCH	TON	42,316.000	42,316.000
0440	310.0110	BASE AGGREGATE OPEN GRADED	TON	22.000	22.000
0450	311.0110	BREAKER RUN	TON	5,710.000	5,710.000
0460	415.0410	CONCRETE PAVEMENT APPROACH SLAB	SY	159.000	159.000
0470	416.0170	CONCRETE DRIVEWAY 7-INCH	SY	675.000	675.000
0480	416.0270	CONCRETE DRIVEWAY HES 7-INCH	SY	100.000	100.000
0490	416.0610	DRILLED TIE BARS	EACH	100.000	100.000
0500	416.1010	CONCRETE SURFACE DRAINS	CY	2.000	2.000
0510	440.4410.S	INCENTIVE IRI RIDE	DOL	37,193.510	37,193.510
0520	455.0115	ASPHALTIC MATERIAL PG64-22	TON	1,456.000	1,456.000
0530	455.0120	ASPHALTIC MATERIAL PG64-28	TON	776.000	776.000
0540	455.0605	TACK COAT	GAL	3,874.000	3,874.000
0550	460.1101	HMA PAVEMENT TYPE E-1	TON	31,481.000	31,481.000
0560	460.1103	HMA PAVEMENT TYPE E-3	TON	5,712.000	5,712.000
0580	460.2000	INCENTIVE DENSITY HMA PAVEMENT	DOL	37,193.000	37,193.000
0590	465.0120	ASPHALTIC SURFACE DRIVEWAYS AND FIELD ENTRANCES	TON	120.000	120.000
0600	465.0125	ASPHALTIC SURFACE TEMPORARY	TON	460.000	460.000
0610	465.0310	ASPHALTIC CURB	LF	1,100.000	1,100.000
0620	465.0315	ASPHALTIC FLUMES	SY	420.000	420.000
0630	465.0425	ASPHALTIC SHOULDER RUMBLE STRIP 2-LANE RURAL	LF	22,314.000	22,314.000
0640	465.0475	ASPHALT CENTER LINE RUMBLE STRIP 2-LANE RURAL	LF	16,895.000	16,895.000
0650	502.0100	CONCRETE MASONRY BRIDGES	CY	732.000	732.000
0660	502.3200	PROTECTIVE SURFACE TREATMENT	SY	670.000	670.000
0670	504.0500	CONCRETE MASONRY RETAINING WALLS	CY	35.000	35.000
0680	504.0900	CONCRETE MASONRY ENDWALLS	CY	5.000	5.000
0690	505.0405	BAR STEEL REINFORCEMENT HS BRIDGES	LB	10,770.000	10,770.000
0700	505.0415	BAR STEEL REINFORCEMENT HS RETAINING WALLS	LB	3,000.000	3,000.000
0710	505.0605	BAR STEEL REINFORCEMENT HS COATED BRIDGES	LB	115,300.000	115,300.000
0720	505.0615	BAR STEEL REINFORCEMENT HS COATED RETAINING WALLS	LB	560.000	560.000
0730	505.0904	BAR COUPLERS NO. 4	EACH	46.000	46.000
0740	505.0905	BAR COUPLERS NO. 5	EACH	257.000	257.000
0750	505.0906	BAR COUPLERS NO. 6	EACH	23.000	23.000
0760	505.0908	BAR COUPLERS NO. 8	EACH	14.000	14.000
0770	512.1000	PILING STEEL SHEET TEMPORARY	SF	400.000	400.000
0780	516.0500	RUBBERIZED MEMBRANE WATERPROOFING	SY	29.000	29.000
0790	517.1050.S	ARCHITECTURAL SURFACE TREATMENT (STRUCTURE) 001. B-66-184	SF	2,220.000	2,220.000
0800	517.1050.S	ARCHITECTURAL SURFACE TREATMENT (STRUCTURE) 002. R-66-31	SF	330.000	330.000
0810	520.8000	CONCRETE COLLARS FOR PIPE	EACH	1.000	1.000
0820	521.0115	CULVERT PIPE CORRUGATED STEEL 15-INCH	LF	536.000	536.000
0830	521.0118	CULVERT PIPE CORRUGATED STEEL 18-INCH	LF	136.000	136.000
0840	521.0124	CULVERT PIPE CORRUGATED STEEL 24-INCH	LF	80.000	80.000
0850	521.0136	CULVERT PIPE CORRUGATED STEEL 36-INCH	LF	20.000	20.000
0860	521.1015	APRON ENDWALLS FOR CULVERT PIPE STEEL 15-INCH	EACH	38.000	38.000
0870	521.1018	APRON ENDWALLS FOR CULVERT PIPE STEEL 18-INCH	EACH	8.000	8.000
0880	521.1024	APRON ENDWALLS FOR CULVERT PIPE STEEL 24-INCH	EACH	4.000	4.000

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LINE NUMBER	ITEM	ITEM DESCRIPTION	UNIT	TOTAL	4060-05-70 QUANTITY
0890	522.0124	CULVERT PIPE REINFORCED CONCRETE CLASS III 24-INCH	LF	372.000	372.000
0900	522.0130	CULVERT PIPE REINFORCED CONCRETE CLASS III 30-INCH	LF	120.000	120.000
0910	522.0172	CULVERT PIPE REINFORCED CONCRETE CLASS III 72-INCH	LF	120.000	120.000
0920	522.1012	APRON ENDWALLS FOR CULVERT PIPE REINFORCED CONCRETE 12-INCH	EACH	5.000	5.000
0930	522.1018	APRON ENDWALLS FOR CULVERT PIPE REINFORCED CONCRETE 18-INCH	EACH	6.000	6.000
0940	522.1024	APRON ENDWALLS FOR CULVERT PIPE REINFORCED CONCRETE 24-INCH	EACH	7.000	7.000
0950	522.1030	APRON ENDWALLS FOR CULVERT PIPE REINFORCED CONCRETE 30-INCH	EACH	4.000	4.000
0960	522.1072	APRON ENDWALLS FOR CULVERT PIPE REINFORCED CONCRETE 72-INCH	EACH	1.000	1.000
0970	523.0419	CULVERT PIPE REINFORCED CONCRETE HORIZONTAL ELLIPTICAL CLASS HE-IV 19X30-INCH	LF	648.000	648.000
0980	523.0519	APRON ENDWALLS FOR CULVERT PIPE REINFORCED CONCRETE HORIZONTAL ELLIPTICAL 19X30-INCH	EACH	26.000	26.000
0990	523.0524	APRON ENDWALLS FOR CULVERT PIPE REINFORCED CONCRETE HORIZONTAL ELLIPTICAL 24X38-INCH	EACH	1.000	1.000
1000	532.0200.S	WALL MODULAR BLOCK GRAVITY	SF	1,056.000	1,056.000
1010	550.0010	PRE-BORING UNCONSOLIDATED MATERIALS	LF	75.000	75.000
1020	550.1100	PILING STEEL HP 10-INCH X 42 LB	LF	1,325.000	1,325.000
1040	601.0411	CONCRETE CURB & GUTTER 30-INCH TYPE D	LF	5,498.000	5,498.000
1050	601.0553	CONCRETE CURB AND GUTTER 4-INCH SLOPED 36-INCH TYPE D	LF	7,183.000	7,183.000
1060	601.0557	CONCRETE CURB AND GUTTER 6-INCH SLOPED 36-INCH TYPE D	LF	1,616.000	1,616.000
1070	601.0600	CONCRETE CURB PEDESTRIAN	LF	192.000	192.000
1090	602.0410	CONCRETE SIDEWALK 5-INCH	SF	27,930.000	27,930.000
1110	602.0505	CURB RAMP DETECTABLE WARNING FIELD YELLOW	SF	416.000	416.000
1120	602.1500	CONCRETE STEPS	SF	46.000	46.000
1130	603.1132	CONCRETE BARRIER TYPE S32	LF	140.000	140.000
1140	606.0200	RIPRAP MEDIUM	CY	279.000	279.000
1150	606.0300	RIPRAP HEAVY	CY	435.000	435.000
1160	608.0312	STORM SEWER PIPE REINFORCED CONCRETE CLASS III 12-INCH	LF	370.000	370.000
1170	608.0315	STORM SEWER PIPE REINFORCED CONCRETE CLASS III 15-INCH	LF	91.000	91.000
1180	608.0318	STORM SEWER PIPE REINFORCED CONCRETE CLASS III 18-INCH	LF	855.000	855.000
1190	608.0412	STORM SEWER PIPE REINFORCED CONCRETE CLASS IV 12-INCH	LF	241.000	241.000
1200	608.0415	STORM SEWER PIPE REINFORCED CONCRETE CLASS IV 15-INCH	LF	357.000	357.000
1210	608.0418	STORM SEWER PIPE REINFORCED CONCRETE CLASS IV 18-INCH	LF	577.000	577.000
1220	608.0424	STORM SEWER PIPE REINFORCED CONCRETE CLASS IV 24-INCH	LF	1,447.000	1,447.000
1230	608.0430	STORM SEWER PIPE REINFORCED CONCRETE CLASS IV 30-INCH	LF	319.000	319.000

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LINE NUMBER	ITEM	ITEM DESCRIPTION	UNIT	TOTAL	4060-05-70 QUANTITY
1240	610.0424	STORM SEWER PIPE REINFORCED CONCRETE HORIZONTAL ELLIPTICAL CLASS HE-IV 24X38-INCH	LF	215.000	215.000
1250	610.0429	STORM SEWER PIPE REINFORCED CONCRETE HORIZONTAL ELLIPTICAL CLASS HE-IV 29X45-INCH	LF	290.000	290.000
1260	610.0434	STORM SEWER PIPE REINFORCED CONCRETE HORIZONTAL ELLIPTICAL CLASS HE-IV 34X53-INCH	LF	175.000	175.000
1270	611.0530	MANHOLE COVERS TYPE J	EACH	21.000	21.000
1280	611.0615	INLET COVERS TYPE F	EACH	10.000	10.000
1290	611.0624	INLET COVERS TYPE H	EACH	35.000	35.000
1300	611.0642	INLET COVERS TYPE MS	EACH	10.000	10.000
1310	611.0654	INLET COVERS TYPE V	EACH	6.000	6.000
1320	611.1004	CATCH BASINS 4-FT DIAMETER	EACH	7.000	7.000
1330	611.1005	CATCH BASINS 5-FT DIAMETER	EACH	2.000	2.000
1340	611.1230	CATCH BASINS 2X3-FT	EACH	9.000	9.000
1350	611.1253	CATCH BASINS 2.5X3-FT	EACH	19.000	19.000
1360	611.2004	MANHOLES 4-FT DIAMETER	EACH	5.000	5.000
1370	611.2005	MANHOLES 5-FT DIAMETER	EACH	5.000	5.000
1380	611.2006	MANHOLES 6-FT DIAMETER	EACH	5.000	5.000
1390	611.2007	MANHOLES 7-FT DIAMETER	EACH	3.000	3.000
1400	611.2008	MANHOLES 8-FT DIAMETER	EACH	6.000	6.000
1410	611.3004	INLETS 4-FT DIAMETER	EACH	5.000	5.000
1420	611.3253	INLETS 2.5X3-FT	EACH	5.000	5.000
1430	611.3901	INLETS MEDIAN 1 GRATE	EACH	7.000	7.000
1440	611.3903	INLETS MEDIAN 3 GRATE	EACH	1.000	1.000
1460	611.8120.S	COVER PLATES TEMPORARY	EACH	10.000	10.000
1470	611.9800.S	PIPE GRATES	EACH	2.000	2.000
1480	612.0206	PIPE UNDERDRAIN UNPERFORATED 6-INCH	LF	250.000	250.000
1490	612.0406	PIPE UNDERDRAIN WRAPPED 6-INCH	LF	1,728.000	1,728.000
1500	612.0806	APRON ENDWALLS FOR UNDERDRAIN REINFORCED CONCRETE 6-INCH	EACH	1.000	1.000
1510	614.2300	MGS GUARDRAIL 3	LF	1,450.000	1,450.000
1520	614.2500	MGS THRIE BEAM TRANSITION	LF	120.000	120.000
1530	614.2610	MGS GUARDRAIL TERMINAL EAT	EACH	14.000	14.000
1550	618.0100	MAINTENANCE AND REPAIR OF HAUL ROADS (PROJECT) 001. 4060-05-70	EACH	1.000	1.000
1560	619.1000	MOBILIZATION	EACH	1.000	1.000
1570	623.0200	DUST CONTROL SURFACE TREATMENT	SY	17,719.000	17,719.000
1580	624.0100	WATER	MGAL	155.000	155.000
1590	625.0100	TOPSOIL	SY	5,950.000	5,950.000
1600	625.0500	SALVAGED TOPSOIL	SY	86,345.000	86,345.000
1610	627.0200	MULCHING	SY	57,508.000	57,508.000
1620	628.1104	EROSION BALES	EACH	810.000	810.000
1630	628.1504	SILT FENCE	LF	22,235.000	22,235.000
1640	628.1520	SILT FENCE MAINTENANCE	LF	2,224.000	2,224.000
1650	628.1905	MOBILIZATIONS EROSION CONTROL	EACH	1.000	1.000
1660	628.1910	MOBILIZATIONS EMERGENCY EROSION CONTROL	EACH	2.000	2.000
1670	628.2004	EROSION MAT CLASS I TYPE B	SY	12,168.000	12,168.000
1680	628.2027	EROSION MAT CLASS II TYPE C	SY	14,801.000	14,801.000
1690	628.2037	EROSION MAT CLASS III TYPE C	SY	1,868.000	1,868.000
1700	628.5505	POLYETHYLENE SHEETING	SY	15.000	15.000
1710	628.7005	INLET PROTECTION TYPE A	EACH	49.000	49.000
1720	628.7010	INLET PROTECTION TYPE B	EACH	6.000	6.000

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1730	628.7015	INLET PROTECTION TYPE C	EACH	45.000	45.000
1740	628.7020	INLET PROTECTION TYPE D	EACH	4.000	4.000
1750	628.7504	TEMPORARY DITCH CHECKS	LF	1,250.000	1,250.000
1760	628.7555	CULVERT PIPE CHECKS	EACH	60.000	60.000
1770	628.7560	TRACKING PADS	EACH	2.000	2.000
1780	628.7570	ROCK BAGS	EACH	560.000	560.000
1790	629.0210	FERTILIZER TYPE B	CWT	54.000	54.000
1800	630.0120	SEEDING MIXTURE NO. 20	LB	1,920.000	1,920.000
1810	630.0130	SEEDING MIXTURE NO. 30	LB	1,541.000	1,541.000
1820	630.0160	SEEDING MIXTURE NO. 60	LB	1,138.000	1,138.000
1830	630.0200	SEEDING TEMPORARY	LB	500.000	500.000
1840	631.0300	SOD WATER	MGAL	167.000	167.000
1850	631.1000	SOD LAWN	SY	5,950.000	5,950.000
1860	633.5200	MARKERS CULVERT END	EACH	56.000	56.000
1870	634.0616	POSTS WOOD 4X6-INCH X 16-FT	EACH	92.000	92.000
1880	634.0618	POSTS WOOD 4X6-INCH X 18-FT	EACH	52.000	52.000
1890	634.0816	POSTS TUBULAR STEEL 2X2-INCH X 16-FT	EACH	23.000	23.000
1900	637.2210	SIGNS TYPE II REFLECTIVE H	SF	826.330	826.330
1910	637.2215	SIGNS TYPE II REFLECTIVE H FOLDING	SF	14.920	14.920
1920	637.2230	SIGNS TYPE II REFLECTIVE F	SF	472.750	472.750
1930	637.2235	SIGNS TYPE II REFLECTIVE F FOLDING	SF	18.000	18.000
1940	638.2102	MOVING SIGNS TYPE II	EACH	24.000	24.000
1950	638.2602	REMOVING SIGNS TYPE II	EACH	151.000	151.000
1960	638.3000	REMOVING SMALL SIGN SUPPORTS	EACH	124.000	124.000
1970	642.5001	FIELD OFFICE TYPE B	EACH	1.000	1.000
1980	643.0100	TRAFFIC CONTROL (PROJECT) 001. 4060-05-70	EACH	1.000	1.000
2000	643.0300	TRAFFIC CONTROL DRUMS	DAY	30,516.000	30,516.000
2010	643.0410	TRAFFIC CONTROL BARRICADES TYPE II	DAY	13,650.000	13,650.000
2020	643.0420	TRAFFIC CONTROL BARRICADES TYPE III	DAY	24,816.000	24,816.000
2030	643.0705	TRAFFIC CONTROL WARNING LIGHTS TYPE A	DAY	36,848.000	36,848.000
2040	643.0715	TRAFFIC CONTROL WARNING LIGHTS TYPE C	DAY	9,400.000	9,400.000
2050	643.0800	TRAFFIC CONTROL ARROW BOARDS	DAY	30.000	30.000
2060	643.0900	TRAFFIC CONTROL SIGNS	DAY	33,033.000	33,033.000
2080	643.1000	TRAFFIC CONTROL SIGNS FIXED MESSAGE	SF	414.000	414.000
2090	643.1050	TRAFFIC CONTROL SIGNS PCMS	DAY	30.000	30.000
2100	643.2000	TRAFFIC CONTROL DETOUR (PROJECT) 001. 4060-05-70	EACH	1.000	1.000
2120	643.3000	TRAFFIC CONTROL DETOUR SIGNS	DAY	15,416.000	15,416.000
2130	645.0120	GEOTEXTILE FABRIC TYPE HR	SY	1,668.000	1,668.000
2140	646.0106	PAVEMENT MARKING EPOXY 4-INCH	LF	102,818.000	102,818.000
2150	649.0100	TEMPORARY PAVEMENT MARKING 4-INCH	LF	1,300.000	1,300.000
2160	649.1100	TEMPORARY PAVEMENT MARKING STOP LINE 18-INCH	LF	60.000	60.000
2170	650.4000	CONSTRUCTION STAKING STORM SEWER	EACH	94.000	94.000
2180	650.4500	CONSTRUCTION STAKING SUBGRADE	LF	15,382.000	15,382.000
2190	650.5000	CONSTRUCTION STAKING BASE	LF	15,382.000	15,382.000
2200	650.5500	CONSTRUCTION STAKING CURB GUTTER AND CURB & GUTTER	LF	13,597.000	13,597.000
2210	650.6000	CONSTRUCTION STAKING PIPE CULVERTS	EACH	47.000	47.000
2220	650.6500	CONSTRUCTION STAKING STRUCTURE LAYOUT (STRUCTURE) 001. B-66-184	LS	1.000	1.000
2230	650.6500	CONSTRUCTION STAKING STRUCTURE LAYOUT (STRUCTURE) 002. R-66-31	LS	1.000	1.000

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2240	650.6500	CONSTRUCTION STAKING STRUCTURE LAYOUT (STRUCTURE) 003. R-66-21	LS	1.000	1.000
2250	650.7500	CONSTRUCTION STAKING CONCRETE BARRIER	LF	140.000	140.000
2260	650.9910	CONSTRUCTION STAKING SUPPLEMENTAL CONTROL (PROJECT) 001. 4060-05-70	LS	1.000	1.000
2270	650.9920	CONSTRUCTION STAKING SLOPE STAKES	LF	32,457.000	32,457.000
2280	652.0125	CONDUIT RIGID METALLIC 2-INCH	LF	135.000	135.000
2290	652.0225	CONDUIT RIGID NONMETALLIC SCHEDULE 40 2-INCH	LF	414.000	414.000
2300	652.0235	CONDUIT RIGID NONMETALLIC SCHEDULE 40 3-INCH	LF	544.000	544.000
2310	652.0615	CONDUIT SPECIAL 3-INCH	LF	168.000	168.000
2320	652.0800	CONDUIT LOOP DETECTOR	LF	318.000	318.000
2330	653.0135	PULL BOXES STEEL 24X36-INCH	EACH	1.000	1.000
2340	653.0140	PULL BOXES STEEL 24X42-INCH	EACH	6.000	6.000
2350	653.0222	JUNCTION BOXES 18X12X6-INCH	EACH	4.000	4.000
2360	653.0905	REMOVING PULL BOXES	EACH	7.000	7.000
2370	654.0101	CONCRETE BASES TYPE 1	EACH	1.000	1.000
2380	654.0102	CONCRETE BASES TYPE 2	EACH	1.000	1.000
2390	654.0110	CONCRETE BASES TYPE 10	EACH	4.000	4.000
2400	654.0217	CONCRETE CONTROL CABINET BASES TYPE 9 SPECIAL	EACH	1.000	1.000
2410	655.0230	CABLE TRAFFIC SIGNAL 5-14 AWG	LF	484.000	484.000
2420	655.0240	CABLE TRAFFIC SIGNAL 7-14 AWG	LF	117.000	117.000
2430	655.0260	CABLE TRAFFIC SIGNAL 12-14 AWG	LF	809.000	809.000
2440	655.0305	CABLE TYPE UF 2-12 AWG GROUNDED	LF	366.000	366.000
2450	655.0515	ELECTRICAL WIRE TRAFFIC SIGNALS 10 AWG	LF	774.000	774.000
2460	655.0610	ELECTRICAL WIRE LIGHTING 12 AWG	LF	360.000	360.000
2470	655.0700	LOOP DETECTOR LEAD IN CABLE	LF	1,793.000	1,793.000
2480	655.0800	LOOP DETECTOR WIRE	LF	917.000	917.000
2490	656.0200	ELECTRICAL SERVICE METER BREAKER PEDESTAL (LOCATION) 001. USH 45 & STH 28	LS	1.000	1.000
2500	657.0100	PEDESTAL BASES	EACH	1.000	1.000
2510	657.0255	TRANSFORMER BASES BREAKAWAY 11 1/2-INCH BOLT CIRCLE	EACH	1.000	1.000
2520	657.0310	POLES TYPE 3	EACH	1.000	1.000
2530	657.0430	TRAFFIC SIGNAL STANDARDS ALUMINUM 10-FT	EACH	1.000	1.000
2540	657.0615	LUMINAIRE ARMS SINGLE MEMBER 4 1/2-INCH CLAMP 8-FT	EACH	1.000	1.000
2550	657.0630	LUMINAIRE ARMS SINGLE MEMBER 6-INCH CLAMP 8-FT	EACH	1.000	1.000
2560	657.1345	INSTALL POLES TYPE 9	EACH	2.000	2.000
2570	657.1350	INSTALL POLES TYPE 10	EACH	2.000	2.000
2580	657.1515	INSTALL MONOTUBE ARMS 15-FT	EACH	1.000	1.000
2590	657.1520	INSTALL MONOTUBE ARMS 20-FT	EACH	2.000	2.000
2600	657.1525	INSTALL MONOTUBE ARMS 25-FT	EACH	1.000	1.000
2610	657.1808	INSTALL LUMINAIRE ARMS STEEL 8-FT	EACH	2.000	2.000
2620	657.6005.S	ANCHOR ASSEMBLIES LIGHT POLES ON STRUCTURES	EACH	4.000	4.000
2630	658.0110	TRAFFIC SIGNAL FACE 3-12 INCH VERTICAL	EACH	9.000	9.000
2640	658.0115	TRAFFIC SIGNAL FACE 4-12 INCH VERTICAL	EACH	2.000	2.000
2650	658.0215	BACKPLATES SIGNAL FACE 3 SECTION 12-INCH	EACH	9.000	9.000
2660	658.0220	BACKPLATES SIGNAL FACE 4 SECTION 12-INCH	EACH	2.000	2.000
2670	658.0500	PEDESTRIAN PUSH BUTTONS	EACH	6.000	6.000
2680	658.0600	LED MODULES 12-INCH RED BALL	EACH	9.000	9.000

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LINE NUMBER	ITEM	ITEM DESCRIPTION	UNIT	TOTAL	4060-05-70 QUANTITY
2690	658.0605	LED MODULES 12-INCH YELLOW BALL	EACH	9.000	9.000
2700	658.0610	LED MODULES 12-INCH GREEN BALL	EACH	9.000	9.000
2710	658.0615	LED MODULES 12-INCH RED ARROW	EACH	2.000	2.000
2720	658.0620	LED MODULES 12-INCH YELLOW ARROW	EACH	4.000	4.000
2730	658.0625	LED MODULES 12-INCH GREEN ARROW	EACH	2.000	2.000
2740	658.0635	LED MODULES PEDESTRIAN COUNTDOWN TIMER 16-INCH	EACH	6.000	6.000
2750	658.5069	SIGNAL MOUNTING HARDWARE (LOCATION) 001. USH 45 & STH 28	LS	1.000	1.000
2760	659.1125	LUMINAIRES UTILITY LED C	EACH	3.000	3.000
2770	661.0100	TEMPORARY TRAFFIC SIGNALS FOR BRIDGES (STRUCTURE) 001. STH 28 & MILWAUKEE RIVER	LS	1.000	1.000
2780	690.0150	SAWING ASPHALT	LF	39,994.000	39,994.000
2790	690.0250	SAWING CONCRETE	LF	3,213.000	3,213.000
2800	715.0502	INCENTIVE STRENGTH CONCRETE STRUCTURES	DOL	1,261.000	1,261.000
2810	999.1000.S	SEISMOGRAPH 001. 4060-05-70	LS	1.000	1.000
2830	999.1500.S	CRACK AND DAMAGE SURVEY 001. 4060-05-70	LS	1.000	1.000
2850	ASP.1T0A	ON-THE-JOB TRAINING APPRENTICE AT $5.00/HR	HRS	4,000.000	4,000.000
2860	ASP.1T0G	ON-THE-JOB TRAINING GRADUATE AT $5.00/HR	HRS	3,000.000	3,000.000
2870	SPV.0005	SPECIAL 001. SEED BED PREPARATION **P**	ACRE	0.300	0.300
2880	SPV.0005	SPECIAL 002. SEEDING SPECIAL **P**	ACRE	0.300	0.300
2900	SPV.0060	SPECIAL 001. APRON ENDWALLS FOR CULVERT PIPE REINFORCED CONCRETE 72-INCH MODIFIED	EACH	1.000	1.000
2910	SPV.0060	SPECIAL 002. PAVEMENT MARKING ARROWS GROOVED PREFORMED THERMOPLASTIC TYPE 2R	EACH	3.000	3.000
2920	SPV.0060	SPECIAL 003. PAVEMENT MARKING ARROWS GROOVED PREFORMED THERMOPLASTIC TYPE 2	EACH	1.000	1.000
2930	SPV.0060	SPECIAL 004. PAVEMENT MARKING WORDS GROOVED PREFORMED THERMOPLASTIC "ONLY"	EACH	4.000	4.000
2940	SPV.0060	SPECIAL 005. SECTION CORNER MONUMENTS SPECIAL	EACH	8.000	8.000
2950	SPV.0060	SPECIAL 006. CONTRACTOR PROVIDED HIGH STR BOLT ASSY FOR MONOTUBE ARMS (TY 9 POLE)	EACH	2.000	2.000
2960	SPV.0060	SPECIAL 007. CONTRACTOR PROVIDED HIGH STR BOLT ASSY FOR MONOTUBE ARMS (TY 10 POLE)	EACH	2.000	2.000
3270	SPV.0085	SPECIAL 001. SEED MIX SPECIAL	LB	4.200	4.200
3280	SPV.0090	SPECIAL 001. PAVEMENT MARKING GROOVED PREFORMED PLASTIC 4-INCH	LF	575.000	575.000
3290	SPV.0090	SPECIAL 002. PAVEMENT MARKING GROOVED PREFORMED PLASTIC 8-INCH	LF	1,842.000	1,842.000
3300	SPV.0090	SPECIAL 003. PAVEMENT MARKING STOP LINE GROOVED PREFORMED THERMOPLASTIC 18-INCH	LF	516.000	516.000
3310	SPV.0090	SPECIAL 004. PAVEMENT MARKING CROSSWALK GROOVED PREFORMED THERMOPLASTIC 6-INCH	LF	1,460.000	1,460.000
3320	SPV.0090	SPECIAL 005. PAVEMENT MARKING CROSSWALK GROOVED PREFORMED THERMOPLASTIC 24-INCH	LF	476.000	476.000
3330	SPV.0090	SPECIAL 006. COCONUT FIBER ROLLS DELIVERED	LF	240.000	240.000
3340	SPV.0090	SPECIAL 007. COCONUT FIBER ROLLS INSTALLED	LF	240.000	240.000

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DATE 29OCT13 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	4060-05-70 QUANTITY
3490	SPV.0105	SPECIAL 001. TRANSPORTING TRAFFIC SIGNAL AND INTERSECT LTG MATERIALS USH 45 & STH 28	LS	1.000	1.000
3500	SPV.0105	SPECIAL 002. REMOVE TRAFFIC SIGNALS USH 45 & STH 28	LS	1.000	1.000
3510	SPV.0105	SPECIAL 003. REMOVE LOOP WIRE & LEAD-IN CABLE USH 45 & STH 28	LS	1.000	1.000
3520	SPV.0105	SPECIAL 004. INSTALL STATE FURNISHED TRAFFIC SIGNAL CABINET USH 45 & STH 28	LS	1.000	1.000
3530	SPV.0105	SPECIAL 005. WILDLIFE ECO-PASSAGE	LS	1.000	1.000
3540	SPV.0105	SPECIAL 006. RAILING STEEL TYPE C3 GALVANIZED R-66-31	LS	1.000	1.000
3550	SPV.0105	SPECIAL 007. WE ENERGIES GAS MAIN REMOVAL STRUCTURE B-66-950	LS	1.000	1.000
3560	SPV.0105	SPECIAL 008. RAILING STEEL TYPE C3 GALVANIZED B-66-184	LS	1.000	1.000
3600	SPV.0165	SPECIAL 002. WALL CONCRETE PANEL MECHANICALLY STABILIZED EARTH LRFD	SF	1,010.000	1,010.000
3630	SPV.0195	SPECIAL 001. COARSE AGGREGATE MIX FOR STREAM BED	TON	6.000	6.000

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CLEARING & GRUBBING

CATEGORY	STATION TO	STATION	LOCATION	CLEARING 201.0105 STA	GRUBBING 201.0205 STA	REMARKS
0010	96+00	- 98+00	STH 28 LT	2	2	
0010	126+00	- 127+00	STH 28 LT	1	1	
0010	131+00	- 134+00	STH 28 LT	3	3	
0010	171+00	- 174+00	STH 28 RT	4	4	
0010	234+00	- 235+00	STH 28 LT	2	2	
0010	189+00	- 193+00	STH 28 LT & RT	3	3	
0010	234+00	- 235+00	STH 28 LT	1	1	
0010	7+00	- 9+00	HICKORY DR LT	2	2	
0010	237+00	- 240+00	STH 28 RT	3	3	
0010	242+00	- 248+00	STH 28 RT	6	6	
0010	250+00	- 260+00	STH 28 LT & RT	10	10	
0010	263+00	- 269+00	STH 28 LT & RT	6	6	
0010	276+00	- 277+00	STH 28	1	1	
0010	291+00	- 293+00	STH 28	2	2	
0010	311+00	- 316+00	STH 28	5	5	
0010	325+00	- 326+00	STH 28	1	1	
0010	338+00	- 350+00	STH 28	12	12	
0010	351+00	- 359+00	STH 28	8	8	
0010	360+00	- 362+00	STH 28	2	2	
			TOTAL 0010	74	74	

REMOVING OLD STRUCTURE (BOX CULVERTS)

CATEGORY	STATION	LOCATION	REMOVING OLD STRUCTURE STA 175+19 203.0200.002 LS	STA 177+41 203.0200.003 LS	STA 351+00 203.0200.004 LS	REMARKS
0010	175+19	STH 28	1	--	--	
0010	177+41	STH 28	--	1	--	
0010	351+00	STH 28	--	--	1	
		TOTAL 0010	1	1	1	

REMOVING SMALL PIPE CULVERTS

CATEGORY	STATION	LOCATION	203.0100 EACH	203.0100 EACH
0010	126+10	R/L	1	24" CMP
0010	126+55	24' LT	1	
0010	128+90	R/L	1	NEWLY INSTALLED 24" CMP
0010	137+58	25' LT	1	
0010	139+76	34' LT	1	
0010	153+00	20' LT	1	
0010	156+00	R/L	1	24" CMP
0010	160+50	R/L	1	24" CMP
0010	165+10	R/L	1	24" CMP
0010	214+00	24' RT	1	
0010	225+75	R/L	1	24" CMP
0010	233+64	18' RT	1	
0010	239+64	R/L	1	24" CMP
0010	246+32	R/L	1	24" CMP
0010	252+33	48' RT	1	
0010	259+50	23' RT	1	
0010	265+97	20' RT	1	
0010	269+22	18' LT	1	
0010	269+36	20' RT	1	
0010	269+70	18' LT	1	
0010	272+00	R/L	1	24" CMP
0010	275+50	22' LT	1	
0010	275+73	22' RT	1	
0010	277+25	26' RT	1	
0010	279+92	23' RT	1	
0010	281+14	24' RT	1	
0010	284+89	26' RT	1	
0010	293+21	R/L	1	24" CMP
0010	295+45	20' LT	1	
0010	296+88	20' LT	1	
0010	300+52	22' RT	1	
0010	301+22	R/L	2	TWIN 24" CMP
0010	319+40	R/L	1	24" CMP
0010	324+28	R/L	1	24" CMP
0010	326+56	24' LT	1	
0010	357+64	21' LT	1	
0010	358+50	42' RT	1	
0010	365+00	R/L	1	18" CMP
0010	373+82	R/L	1	24" CMP
0010	377+08	R/L	1	30" CMP
0010	380+70	22' LT	1	
0010	381+50	24' RT	1	
		TOTAL 0010	43	

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REMOVING ASPHALTIC SURFACE

			REMOVING ASPHALTIC SURFACE			
				BUTT JOINTS	MILLING	
			204.0110	204.0115	204.0125	
CATEGORY	STATION TO STATION	LOCATION	SY	SY	TON	REMARKS
0010	235+00 - 235+65	STH 28	241	--	--	REMOVE BELOW SUBGRADE
0010	238+45 - 242+00	STH 28	1057	--	--	REMOVE BELOW SUBGRADE
0010	246+08 - 247+60	STH 28	459	--	--	REMOVE BELOW SUBGRADE
0010	251+28 - 252+12	STH 28	266	--	--	REMOVE BELOW SUBGRADE
0010	255+30 - 255+71	STH 28	128	--	--	REMOVE BELOW SUBGRADE
0010	262+70 - 262+06	STH 28	423	--	--	REMOVE BELOW SUBGRADE
0010	305+07 - 306+50	STH 28	445	--	--	REMOVE BELOW SUBGRADE
0010	309+50 - 310+02	STH 28	162	--	--	REMOVE BELOW SUBGRADE
0010	340+64 - 342+29	STH 28	513	--	--	REMOVE BELOW SUBGRADE
0010	345+53 - 346+13	STH 28	160	--	--	REMOVE BELOW SUBGRADE
0010	353+43 - 354+04	STH 28	190	--	--	REMOVE BELOW SUBGRADE
0010	117+13 - 117+47	STH 28 LT	--	79	--	Kettle Drive
0010	139+68 - 139+84	STH 28 RT	--	21	--	S. Mill Road
0010	152+94 - 153+17	STH 28 LT	--	85	--	N. Mill Road
0010	177+00 - 177+22	STH 28 RT	--	60	--	Oak Drive
0010	48+48 - 48+73	Kattle Moraine Drive	--	57	--	
0010	51+27 - 51+52	Kattle Moraine Drive	--	59	--	
0010	6+96 - 7+21	Hickory Drive	--	45	--	
0010	12+89 - 13+14	Hickory Drive	--	58	--	
0010	18+42 - 18+67	Forest View Drive	--	66	--	
0010	21+27 - 21+52	Forest View Drive	--	111	--	
0010	28+50 - 28+75	CTH "HH"	--	58	--	
0010	31+75 - 32+00	Wescott Road	--	56	--	
0010	358+39 - 358+65	STH 28 RT	--	69	--	Valley Vista Lane
0010	372+59 - 372+83	STH 28 LT	--	66	--	Paradise Road
0010	382+88 - 383+38	STH 28	--	167	--	
0010	100+50 - 113+71	STH 28	--	--	1937	MILL TO SUBGRADE
0010	113+71 - 120+00	STH 28	--	--	308	MILL OFF 2-INCH
0010	120+00 - 146+64	STH 28	--	--	716	MILL OFF 2-INCH
0010	149+29 - 169+50	STH 28	--	--	543	MILL OFF 2-INCH
0010	169+50 - 173+85	STH 28	--	--	351	MILL TO SUBGRADE
0010	176+50 - 232+00	STH 28	--	--	1492	MILL OFF 2-INCH
0010	270+00 - 301+00	STH 28	--	--	834	MILL OFF 2-INCH
0010	324+00 - 338+00	STH 28	--	--	376	MILL OFF 2-INCH
0010	356+00 - 362+00	STH 28	--	--	161	MILL OFF 2-INCH
0010	362+00 - 372+00	STH 28	--	--	605	MILL OFF 4 1/2-INCH
0010	372+00 - 382+88	STH 28	--	--	293	MILL OFF 2-INCH
0010		UNDISTRIBUTED	--	100	--	
		TOTAL 0010	4044	1157	7617	

REMOVING PAVEMENT

CATEGORY	STATION TO	STATION	LOCATION	204.0100 SY	REMARKS
0010	79+00	- 96+29	STH 28	7952	
0010	97+27	- 113+10	STH 28	3870	
			TOTAL 0010	11822	

REMOVING CURB & GUTTER

CATEGORY	STATION TO	STATION	LOCATION	204.0150 LF	REMARKS
0010	100+20	- 100+53	STH 28 LT	51	
0010	100+16	- 100+54	STH 28 RT	68	
0010	101+36	- 103+00	STH 28 LT	241	
0010	102+89	- 103+05	STH 28 RT	35	
0010	103+32	- 103+62	STH 28 RT	45	
0010	103+34	- 103+84	STH 28 LT	65	
0010	106+57	- 106+75	STH 28 NW	28	
0010	106+60	- 106+80	STH 28 SW	33	
0010	107+11	- 107+29	STH 28 SE	32	
0010	107+11	- 107+38	STH 28 LT	44	
0010	112+70	- 113+69	STH 28 LT	100	
0010	239+71	- 246+30	STH 28 RT	659	
0010	253+48	- 255+22	STH 28 RT	174	
0010	263+54	- 264+33	STH 28 LT	79	
0010	342+09	- 346+61	STH 28 RT	452	
0010	342+46	- 347+33	STH 28 LT	487	
0010			UNDISTRIBUTED	700	
			TOTAL 0010	3292	

REMOVING CONCRETE SIDEWALK

CATEGORY	STATION TO	STATION	LOCATION	204.0155 SY	REMARKS
0010	79+00	84+00	STH 28 LT & RT	450	
0010	84+50	93+75	STH 28 LT & RT	870	
0010	94+25	96+00	STH 28 LT & RT	150	
0010	97+50	- 99+75	STH 28 LT	125	
0010	97+50	- 99+75	STH 28 RT	125	
0010	100+25	- 100+25	STH 28 LT	12	
0010	100+25	- 100+25	STH 28 RT	12	
0010	101+45	- 103+00	STH 28 LT	175	
0010	103+00	- 103+00	STH 28 RT	12	
0010	103+40	- 103+40	STH 28 LT	12	
0010	103+40	- 103+40	STH 28 RT	12	
0010	106+65	- 106+54	STH 28 LT	12	
0010	106+65	- 106+65	STH 28 RT	20	
0010	107+25	- 107+25	STH 28 LT	10	
0010	107+25	- 107+25	STH 28 RT	12	
0010			UNDISTRIBUTED	200	
			TOTAL 0010	2209	

REMOVING GUARDRAIL

CATEGORY	STATION TO	STATION	LOCATION	204.0165 LF	REMARKS
0010	145+50	- 146+55	STH 28, LT	105	
0010	145+57	- 146+50	STH 28, RT	93	
0010	147+35	- 148+15	STH 28, RT	80	
0010	147+41	- 148+97	STH 28, LT	156	
0010	182+80	- 187+50	STH 28, LT	510	
0010	199+36	- 199+86	STH 28, RT	50	
0010	199+49	- 200+00	STH 28, LT	50	
			TOTAL 0010	1044	

REMOVING FENCE

CATEGORY	STATION TO	STATION	LOCATION	204.0170 LF	REMARKS
0010	345+70	- 346+35	STH 28 LT	95	
			TOTAL 0010	95	

Division	From Station	To Station	Common Excavation (1)	(item # 205.0100)	Salvaged / Unusable Pavement Material (4)	Available Material (5)	Marsh Excavation (6)	Reduced Marsh in Fill (8)	Reduced EBS in Fill (9)	Expanded Marsh Backfill (10)	Expanded EBS Backfill (11)	Unexpanded Fill	Expanded Fill (13)	Mass Ordinate + / - (14)	Waste	Select Borrow
			Cut (2)	EBS Excavation (3)			(item #205.0400)	Factor 0.60	Factor 0.80	Factor 1.50	Factor 1.30		Factor 1.25			(item #208.1100)
Division 1																
STH 28	79+00.00	96+28.30	3,721.45	1,317.91	3,897.22	-175.77	0.00	0.00	1,054.33	0.00	1,713.28	36.54	-1,272.24	1,096.47	1,096.47	0.00
STH 28	97+60.00	99+50.00	721.20	0.00	183.33	537.87	0.00	0.00	0.00	0.00	0.00	11.36	14.19	523.67	523.67	0.00
STH 28	112+71.20	116+00.00	53.68	0.00	17.04	36.64	0.00	0.00	0.00	0.00	0.00	25.10	31.38	5.26	5.26	0.00
STH 28	120+00.00	146+50.00	1,100.05	0.00	288.89	811.17	0.00	0.00	0.00	0.00	0.00	367.64	459.56	351.61	351.61	0.00
STH 28	147+41.50	169+99.90	627.03	0.00	239.83	387.20	0.00	0.00	0.00	0.00	0.00	269.04	336.30	50.90	50.90	0.00
STH 28	170+00.00	176+50.00	279.69	816.96	333.33	-53.65	0.00	0.00	653.57	0.00	1,062.05	286.28	-459.12	405.47	405.47	0.00
STH 28	176+50.10	207+75.00	1,303.59	0.00	344.23	959.35	0.00	0.00	0.00	0.00	0.00	1,889.19	2,361.49	-1,402.13	0.00	-1,402.13
STH 28	208+50.00	232+00.00	2,746.50	0.00	255.21	2,491.29	0.00	0.00	0.00	0.00	0.00	618.22	772.77	1,718.51	1,718.51	0.00
STH 28	232+00.00	270+00.00	7,974.39	884.68	1,638.89	6,335.50	0.00	0.00	707.74	0.00	1,150.09	17,973.80	21,582.57	-15,247.07	0.00	-15,247.07
STH 28	270+00.00	301+00.00	2,364.76	0.00	333.33	2,031.43	0.00	0.00	0.00	0.00	0.00	791.93	989.92	1,041.51	1,041.51	0.00
STH 28	301+00.00	323+00.00	28,455.07	1,040.06	680.56	27,774.52	0.00	0.00	832.05	0.00	1,352.08	4,471.12	4,548.83	23,225.69	23,225.69	0.00
STH 28	323+00.00	338+00.00	1,134.04	0.00	155.56	978.48	0.00	0.00	0.00	0.00	0.00	502.89	628.61	349.87	349.87	0.00
STH 28	338+00.00	356+00.00	4,145.82	0.00	751.39	3,394.44	9,348.29	5,608.97	0.00	14,022.43	0.00	26,199.00	25,737.53	-22,343.10	0.00	-22,343.10
STH 28	356+00.00	383+00.00	1,633.34	0.00	298.67	1,334.67	0.00	0.00	0.00	0.00	0.00	341.72	427.15	907.52	907.52	0.00
Division 1 Subtotal			56260.61	4059.62	9417.48	46843.13	9348.29	5608.97	3247.69	14022.43	5277.50	53783.82	56158.95	-9315.82		
Division 2																
Drainage Swale	96+40.00	98+40.00	518.94	0.00	0.00	518.94	0.00	0.00	0.00	0.00	0.00	20.02	25.03	493.91	493.91	0.00
S. Mill Rd.	49+25.00	49+75.00	24.71	0.00	0.00	24.71	0.00	0.00	0.00	0.00	0.00	7.94	9.92	14.78	14.78	0.00
N. Mill Rd.	60+25.00	60+75.00	23.46	0.00	0.00	23.46	0.00	0.00	0.00	0.00	0.00	4.79	5.99	17.46	17.46	0.00
S. Kettle Moraine	48+73.00	49+50.00	38.41	0.00	6.36	32.05	0.00	0.00	0.00	0.00	0.00	110.03	137.53	-105.49	0.00	-105.49
N. Kettle Moraine	50+50.00	51+50.00	118.80	0.00	8.61	110.19	0.00	0.00	0.00	0.00	0.00	97.25	121.57	-11.37	0.00	-11.37
S. Hickory Dr.	7+20.60	9+63.00	743.90	0.00	86.05	657.85	0.00	0.00	0.00	0.00	0.00	43.68	54.60	603.24	603.24	0.00
N. Hickory Dr.	10+37.00	12+89.35	522.75	0.00	78.89	443.86	0.00	0.00	0.00	0.00	0.00	423.91	529.89	-86.02	0.00	-86.02
S. Forest View	18+66.75	19+60.00	151.10	0.00	39.22	111.88	0.00	0.00	0.00	0.00	0.00	36.60	45.75	66.13	66.13	0.00
N. Forest View	20+40.00	21+33.25	186.94	0.00	26.67	160.27	0.00	0.00	0.00	0.00	0.00	7.26	9.07	151.20	151.20	0.00
CTH "HH"	28+75.00	29+60.00	220.55	0.00	35.56	184.99	0.00	0.00	0.00	0.00	0.00	14.33	17.91	167.08	167.08	0.00
Wescott Rd.	30+40.00	31+75.00	688.64	0.00	61.11	627.53	0.00	0.00	0.00	0.00	0.00	0.85	1.06	626.46	626.46	0.00
Valley Vista Ln.	69+07.10	69+58.00	16.41	0.00	0.00	16.41	0.00	0.00	0.00	0.00	0.00	19.30	24.12	-7.71	0.00	-7.71
DWY 344+20 RT	343+30.00	343+90.00	68.25	0.00	0.00	68.25	0.00	0.00	0.00	0.00	0.00	0.00	0.00	68.25	68.25	0.00
DWY 344+25 LT	344+50.00	345+50.00	204.39	0.00	0.00	204.39	0.00	0.00	0.00	0.00	0.00	0.04	0.05	204.34	204.34	0.00
Stoney Creek	100+25.00	100+75.00	28.57	0.00	0.00	28.57	0.00	0.00	0.00	0.00	0.00	0.00	0.00	28.57	28.57	0.00
Division 2 Subtotal			3555.80	0.00	342.46	3213.33	0.00	0.00	0.00	0.00	0.00	786.00	982.50	2230.83		7084.98
Grand Total			59816.40	4059.62	9759.94	50056.46	**9348.29**	5608.97	3247.69	14022.43	5277.50	54569.82	57141.44	-7084.98	0.00	7084.98
			Total Common Exc	**63876.02**												

1) Common Excavation is the sum of the Cut and EBS Excavation columns. Item number 205.0100
2) Salvaged/Unsuable Pavement Material is included in Cut.
3) EBS Excavation to be backfilled with Select Borrow material. Note: this is designers choice, can be backfilled with Borrow, or Cut as well.
4) Salvaged/Unusable Pavement Material
5) Available Material = Cut - Salvaged/Unusuable Pavement Material
6) Marsh Excavation - to be backfilled with Select Borrow Material. Note: this is designers choice, can be backfilled with Borrow, or Cut as well. Item number 20505
7) Rock Excavation item number 205.0200
8) Reduced Marsh in Fill - Excavated Marsh material is usuable in Fills outside the 1:1 slope. Marsh in Fill Reduction factor = 0.6
9) Reduced EBS in Fill - Excavated EBS material is usuable in Fills outside the 1:1 slope. EBS in Fill Reduction factor = 0.8
10) Expanded Marsh Backfill - This is to be filled with Select Borrow material. Marsh Backfill Factor = 1.5. Item number 208.1100
11) Expanded EBS Backfill - This is to be filled with Select Borrow material. EBS Backfill Factor = 1.3. Item number 208.1100
12) Expanded Rock - Factor = 1.1
13) Expanded Fill. Factor = 1.25

Depending on selections:
Expanded Fill = (Unexpanded Fill - Rock* Rock Factor - Reduced Marsh - Reduced EBS) * Fill Factor
Or Expanded Fill = (Unexpanded Fill - Rock* Rock Factor - Reduced EBS) * Fill Factor
Or Expanded Fill = (Unexpanded Fill - Rock* Rock Factor - Reduced Marsh) * Fill Factor
Or Expanded Fill = (Unexpanded Fill - Rock* Rock Factor) * Fill Factor

14) The Mass Ordinate + or - Qty calculated for the Division. Plus quantity indicates an excess of material within the Division. Minus indicates a shortage of material within the Division.
15) Use 111,764 CY of material from Division 1. Borrow Excavation item number 208.0100

EXCAVATION, HAULING, AND DISPOSAL OF PETROLEUM CONTAMINATED SOIL

CATEGORY	STATION TO STATION	LOCATION	205.0501.S TON	REMARKS
0010	91+20 - 92+30	STH 28	285	STORM SEWER
0010	95+00 - 96+00	STH 28	259	STORM SEWER
0010	263+90 - 265+00	STH 28 R/L-30' RT	451	ROADWAY EXCAVATION
		TOTAL 0010	995	

FINISHING ROADWAY (PROJECT 4060-05-70)

CATEGORY	STATION TO STATION	LOCATION	213.0100 EACH	REMARKS
0010	79+00 - 382+88	STH 28	1	PROJECT LIMITS
		TOTAL 0010	1	

BASE AGGREGATE DESNE, CONSTRUCTION STAKING SUBGRADE, AND CONSTRUCITON STAKING BASE

CATEGORY	STATION TO STATION	LOCATION	BASE AGGREGAE DENSE 3/4-INCH 305.0110 TON	BASE AGGREGAE DENSE 1 1/4-INCH 305.0120 TON	DUST CONTROL SURFACE TREATMENT 623.0200 SY	WATER 624.0100 MGAL	CONSTRUCTION STAKING SUBGRADE 650.4500 LF	CONSTRUCTION STAKING BASE 650.5000 LF	REMARKS
0010	79+00 - 96+25	STH 28	--	--	10158	45	1725	1725	RECONSTRUCTION
0010	97+50 - 100+00	STH 28	--	--	1472	7	250	250	RECONSTRUCTION
0010	100+00 - 113+70	STH 28	--	--	6089	23	1370	1370	PAVEMENT REPLACEMENT
0010	120+00 - 146+76	STH 28	452	925	--	3	--	--	SHOULDER WIDENING
0010	147+25 - 169+50	STH 28	383	769	--	2	--	--	SHOULDER WIDENING
0010	169+50 176+50	STH 28	120	1763	--	4	700	700	RECONSTRUCTION
0010	176+50 207+31	STH 28	530	1065	--	3	--	--	SHOULDER WIDENING
0010	48+48 - 51+52	Kettle Moraine Dr	43	30	--	--	--	--	SHOULDER WIDENING
0010	208+75 - 232+00	STH 28	363	804	--	2	2325	2325	RECONSTRUCTION
0010	232+00 - 270+00	STH 28	372	10197	--	21	3800	3800	RECONSTRUCTION
0010	7+20 - 12+90	Hickory Dr	97	1182	--	1	570	570	RECONSTRUCTION
0010	18+42 - 21+59	Forest View Dr	44	737	--	1	317	317	RECONSTRUCTION
0010	270+00 - 301+00	STH 28	545	1072	--	3	--	--	SHOULDER WIDENING
0010	301+00 - 323+00	STH 28	218	4501	--	12	2200	2200	RECONSTRUCTION
0010	28+50 - 31+75	Wescott Rd	45	626	--	1	325	325	RECONSTRUCTION
0010	323+00 - 338+00	STH 28	273	519	--	1	--	--	SHOULDER WIDENING
0010	338+00 - 356+00	STH 28	128	4595	--	10	1800	1800	RECONSTRUCTION
0010	356+00 - 383+00	STH 28	480	933	--	3	--	--	SHOULDER WIDENING
0010		UNDISTRIBUTED	500	3500	--	14	--	--	
		TOTAL 0010	4593	33218	17719	155	15382	15382	

BASE AGGREGATE DESNE, CONSTRUCTION STAKING SUBGRADE, AND CONSTRUCITON STAKING BASE

CATEGORY	STATION TO STATION	LOCATION	BASE AGGREGAE DENSE 3/4-INCH 305.0110 TON	BASE AGGREGAE DENSE 1 1/4-INCH 305.0120 TON	DUST CONTROL SURFACE TREATMENT 623.0200 SY	WATER 624.0100 MGAL	CONSTRUCTION STAKING SUBGRADE 650.4500 LF	CONSTRUCTION STAKING BASE 650.5000 LF	REMARKS
0060	79+00 - 96+25	STH 28	--	6422.0	--	--	--	--	RECONSTRUCTION
0060	97+50 - 100+00	STH 28	--	1097.0	--	--	--	--	RECONSTRUCTION
0060	100+00 - 113+70	STH 28	--	1579.0	--	--	--	--	PAVEMENT REPLACEMENT
		TOTAL 0060	0	9098	0	0	0	0	

CONCRETE PAVEMENT APPROACH SLAB

CATEGORY	STATION TO STATION	LOCATION	415.0410 SY	REMARKS
0010	96+16 - 96+34	STH 28	81	
0010	97+36 - 97+53	STH 28	78	
		TOTAL 0010	159	

CONCRETE SURFACE DRAINS

CATEGORY	STATION TO STATION	LOCATION	416.1010 CY	REMARKS
0010	272+10 - 272+22	STH 28 16' LT	2	
		TOTAL 0010	2	

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CONCRETE DRIVEWAY

CATEGORY	STATION TO STATION	LOCATION	CONCRETE DRIVEWAY 7-INCH 416.0170 SY	CONCRETE DRIVEWAY HES 7-INCH 416.0270 SY	REMARKS
0010	79+00 - 84+50	STH 28	125	--	
0010	84+50 - 94+00	STH 28	214	--	
0010	94+00 - 100+00	STH 28	146	--	
0010	100+00 - 103+50	STH 28	90	--	
0010		UNDISTRIBUTED	100	100	
		TOTAL 0010	675	100	

ASPHALTIC SURFACE DRIVEWAYS AND FIELD ENTRANCES

CATEGORY	STATION TO STATION	LOCATION	465.0120 TON	REMARKS
0010	95+50 - 95+50	STH 28 LT	10	
0010	98+40 - 98+40	STH 28 RT	15	
0010	135+00 - 139+00	STH 28 LT	12	
0010	150+30 - 150+30	STH 28 LT	3	
0010	263+45 - 263+45	STH 28 LT	10	
0010	273+00 - 285+00	STH 28 LT	40	
0010		URBAN UNDISTRIBUTED	10	
0010		RURAL UNDISTRIBUTED	20	
		TOTAL 0010	120	

ASPHALTIC ITEMS

CATEGORY	STATION TO	STATION	LOCATION	ASPHALTIC MATERIAL PG64-22 455.0115 TON	ASPHALTIC MATERIAL PG64-28 455.0120 TON	TACK COAT 455.0600 TON	HMA PAVEMENT TYPE E-1 460.1101 TON	HMA PAVEMENT TYPE E-3 460.1103 TON	INCENTIVE DENSITY HMA PAVEMENT 460.2000 DOL	REMARKS
0010	113+71 -	146+50	STH 28	141	75	375	3598	--	3598	
0010	147+42 -	170+00	STH 28	92	49	245	2350	--	2350	
0010	170+00	176+50	STH 28	104	55	276	2654	--	2654	
0010	176+50	232+00	STH 28	230	123	613	5886	--	5886	
0010	232+00 -	270+00	STH 28	172	92	458	4398	--	4398	
0010	270+00 -	301+00	STH 28	119	64	317	3043	--	3043	
0010	301+00 -	323+00	STH 28	76	41	202	1941	--	1941	
0010	323+00 -	338+00	STH 28	57	31	153	1465	--	1465	
0010	338+00 -	356+00	STH 28	78	41	206	1982	--	1982	
0010	356+00 -	383+38	STH 28	115	61	305	2930	--	2930	
0010	49+25 -	49+66	S. MILL ROAD	1	0	2	14	--	14	
0010	60+25 -	60+73	N. MILL ROAD	1	0	2	14	--	14	
0010	48+73 -	49+50	KETTLE MORAINE DR.	1	0	2	14	--	14	
0010	50+50 -	51+28	KETTLE MORAINE DR.	1	0	2	14	--	14	
0010	7+21 -	9+63	HICKORY DR.	10	5	26	249	--	249	
0010	10+37 -	12+89	HICKORY DR.	10	5	27	261	--	261	
0010	18+67 -	19+60	FOREST VIEW DR.	6	3	16	153	--	153	
0010	20+40 -	21+33	FOREST VIEW DR.	6	3	17	165	--	165	
0010	28+75 -	29+60	WESCOTT RD.	5	3	14	136	--	136	
0010	30+40 -	31+75	WESCOTT RD.	5	3	14	134	--	134	
0010	69+26 -	69+58	VALLEY VISTA	1	0	2	16	--	16	
0010			UNDISTRIBUTED	3	1	7	64	--	64	
			TOTAL 0010	1232	657	3279	31481	0	31481	
CATERGORY 0060										
0060	79+00 -	96+32	STH 28	120	64	319	--	3065	3065	
0060	97+45 -	100+00	STH 28	17	9	46	--	444	444	
0060	100+00 -	113+71	STH 28	86	46	230	--	2203	2203	
			TOTAL 0060	224	119	595	0	5712	5712	

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ASPHALTIC SURFACE TEMPORARY

CATEGORY	STATION TO	STATION	LOCATION	465.0125 TON	REMARKS
0010	94+00	100+00	STH 28	460	
			TOTAL 0010	460	

ASPHALTIC CURB

CATEGORY	STATION TO	STATION	LOCATION	465.0310 LF	REMARKS
0010	347+00	352+50	STH 28 LT	550	
0010	347+00	352+50	STH 28 RT	550	
			TOTAL 0010	1100	

CONCRETE MASONRY ENDWALLS

CATEGORY	STATION TO	STATION	LOCATION	504.0900 CY	REMARKS
0010	98+09	98+14	STH 28 LT	2.5	
0010	301+17	301+27	STH 28 LT & RT	2.5	
			TOTAL 0010	5.0	

PILING STEEL SHEET TEMPORARY

CATEGORY	STATION TO	STATION	LOCATION	512.1000 SF	REMARKS
0010	350+80	350+80	STH 28 LT	400	
			TOTAL 0010	400	

ASPHALTIC FLUMES

CATEGORY	STATION TO	STATION	LOCATION	465.0315 SY	REMARKS
0010	113+71	113+83	STH 28, 20' LT	8	
0010	137+50	137+62	STH 28, 16' RT	8	
0010	188+88	190+00	STH 28, 16' RT	8	
0010	207+22	207+34	STH 28, 28' LT	8	
0010	207+35	207+47	STH 28, 28' RT	8	
0010	49+17	49+19	KETTLE MORAINE DR, 15' RT	8	
0010	50+73	50+85	KETTLE MORAINE DR, 15' RT	8	
0010	214+00	214+12	STH 28, 16' LT	8	
0010	231+88	232+00	STH 28, 16' LT	8	
0010	235+26	235+38	STH 28, 24' RT	8	
0010	7+44	7+75	HICKORTY DR, 12' RT	22	
0010	10+64	10+76	HICKORTY DR, 15' RT	8	
0010	253+13	253+25	STH 28, 16' RT	8	
0010	261+38	261+50	STH 28, 16' RT	8	
0010	262+63	262+75	STH 28, 16' LT	8	
0010	19+05	19+17	FOREST VIEW DR, 15' LT	8	
0010	21+33	21+45	FOREST VIEW DR, 12' LT	8	
0010	269+70	269+82	STH 28, 16' LT	8	
0010	270+00	270+12	STH 28, 16' RT	8	
0010	302+88	303+00	STH 28, 16' LT	8	
0010	311+38	311+50	STH 28, 16' LT	8	
0010	311+38	311+50	STH 28, 16' RT	8	
0010	315+50	315+62	STH 28, 16' RT	8	
0010	29+16	29+28	CTH "HH", 15' LT	8	
0010	29+23	29+35	CTH "HH", 15' RT	8	
0010	322+00	322+12	STH 28, 24' LT	8	
0010	338+38	338+50	STH 28, 16' LT	8	
0010	346+00	346+12	STH 28, 16' LT	8	
0010	346+25	345+37	STH 28, 18' RT	8	
0010	351+60	351+66	STH 28, 18' LT	48	
0010	351+60	351+66	STH 28, 18' RT	48	
0010	356+00	356+12	STH 28, 16' LT	8	
0010	69+14	69+26	VALLEY VISTA LN, 12.4' LT	8	
0010	361+75	361+87	STH 28, 14.76' RT	8	
0010	370+58	370+75	STH 28, 24.46' RT	8	
0010	378+88	379+00	STH 28, 17' RT	8	
0010			UNDISTRIBUTED	38	
			TOTAL 0010	420	

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ASPHALTIC SHOULDER & ASPHALTIC CENTER LINE RUMBLE STRIP 2-LANE RURAL

CATEGORY	STATION	TO	STATION	LOCATION	ASPHALTIC SHOULDER RUMBLE STRIP 2-LANE RURAL 465.0425 LF	ASPHALTIC CENTER LINE RUMBLE STRIP 2-LANE RURAL 465.0475 LF	REMARKS
0010	154+04	-	174+65	STH 28, C/L	--	2061	
0010	154+04	-	175+50	STH 28, 12.5' RT	1716	--	
0010	154+04	-	177+32	STH 28, 12.5' LT	1862	--	
0010	178+00	-	188+88	STH 28, 12.5' RT	870	--	
0010	178+65	-	186+95	STH 28, C/L & 12.5' LT	664	830	
0010	179+00	-	187+45	STH 28, 12.5' LT	676		
0010	188+95	-	206+05	STH 28, C/L	--	1710	
0010	188+95	-	206+00	STH 28, 12.5' LT	1364	--	
0010	192+35	-	203+65	STH 28, 12.5' RT	904	--	
0010	210+05	-	233+99	STH 28, C/L	--	2394	
0010	210+25	-	232+00	STH 28, 12.5' RT	1740	--	
0010	214+12	-	231+88	STH 28, 12.5' LT	1421	--	
0010	237+99		248+97	STH 28, C/L	--	1098	
0010	239+95	-	248+97	STH 28, 12.5' LT	722	--	
0010	247+12	-	248+97	STH 28, 12.5' RT	148	--	
0010	283+97	-	302+88	STH 28, 12.5' LT	1513	--	
0010	283+97	-	317+68	STH 28, C/L	--	3371	
0010	283+97	-	311+38	STH 28, 12.5' RT	2193	--	
0010	306+62	-	311+38	STH 28, 12.5' LT	381	--	
0010	321+41	-	342+38	STH 28, 12.5' RT	1678	--	
0010	321+69	-	356+52	STH 28, C/L	--	3483	
0010	323+50	-	338+38	STH 28, 12.5' LT	1190	--	
0010	340+62	-	342+88	STH 28, 12.5' LT	181	--	
0010	346+12	-	353+63	STH 28, 12.5' LT	601	--	
0010	346+38	-	355+50	STH 28, 12.5' RT	730	--	
0010	356+12	-	371+50	STH 28, 12.5' LT	1230	--	
0010	360+52	-	370+72	STH 28, C/L	--	1020	
0010	361+87	-	368+50	STH 28, 12.5' RT	530	--	
0010	374+72	-	384+00	STH 28, C/L	--	928	
				TOTAL 0010	22314	16895	

CULVERT PIPE CORRUGATED STEEL , APRON ENDWALLS FOR CULVERT PIPE STEEL, AND STAKING

CATEGORY	INVERT STATION	TO	DISCHARGE STATION	LOCATION	INVERT ELEV.	DISCHARGE ELEV.	CULVERT PIPE CORRUGATED STEEL 15-INCH 521.0115 LF	CULVERT PIPE CORRUGATED STEEL 18-INCH 521.0118 LF	CULVERT PIPE CORRUGATED STEEL 24-INCH 521.0124 LF	APRON ENDWALLS FOR CULVERT PIPE SLOPED SIDE DRAINS STEEL 15-INCH 521.1015 EACH	APRON ENDWALLS FOR CULVERT PIPE SLOPED SIDE DRAINS STEEL 18-INCH 521.1028 EACH	APRON ENDWALLS FOR CULVERT PIPE SLOPED SIDE DRAINS STEEL 24-INCH 521.1024 EACH	CONSTRUCTION STAKING PIPE CULVERTS* 650.6000 EACH	REMARKS
0010	126+35		126+75	STH 28, 28.0' LT	927.77	927.57	--	40	--	--	2	--	1	
0010	134+32	-	134+08	STH 28, 25.4' LT	933.20	932.80	24	--	--	2	--	--	1	
0010	135+12	-	134+88	STH 28, 26.0' LT	934.14	933.86	24	--	--	2	--	--	1	
0010	137+46	-	137+70	sth 28, 26.5' lt	932.00	931.40	24	--	--	2	--	--	1	
0010	213+88	-	214+12	STH 28, 25.6' RT	983.96	983.50	24	--	--	2	--	--	1	
0010	227+21	-	227+57	STH 28, 27.0' LT	969.56	968.84	36	--	--	2	--	--	1	
0010	252+49	-	252+17	STH 28, 32.0' RT	1011.10	1010.46	--	32	--	--	2	--	1	
0010	258+20	-	257+80	STH 28, 36.0' LT	1027.80	1025.80	--	40	--	--	2	--	1	
0010	259+62	-	259+38	STH 28, 30.0' RT	1036.69	1035.57	--	24	--	--	2	--	1	
0010	275+12	-	275+56	STH 28, 21.5' LT	1016.34	1016.06	44	--	--	2	--	--	1	
0010	275+53	-	275+93	STH 28, 29.0' RT	1016.08	1014.92	44	--	--	2	--	--	1	
0010	277+03	-	277+47	STH 28, 29.1' RT	1012.02	1010.98	44	--	--	2	--	--	1	
0010	279+79	-	280+05	STH 28, 28.2' RT	1002.80	1002.70	26	--	--	2	--	--	1	
0010	281+02	-	281+26	STH 28, 24.4' LT	997.43	996.03	24	--	--	2	--	--	1	
0010	281+02	-	281+26	STH 28, 28.0' RT	997.13	995.87	24	--	--	2	--	--	1	
0010	284+74	-	285+04	STH 28, 28.9' RT	980.90	980.60	30	--	--	2	--	--	1	
0010	295+59	-	295+31	STH 28, 23.5' LT	974.30	973.90	28	--	--	2	--	--	1	
0010	296+44	-	296+24	STH 28, 25.0' LT	975.25	975.05	20	--	--	2	--	--	1	
0010	296+98	-	296+78	STH 28, 25.0' LT	975.60	975.28	20	--	--	2	--	--	1	
0010	298+41	-	298+69	STH 28, 26.0' RT	976.17	975.83	28	--	--	2	--	--	1	
0010	300+38	-	300+66	STH 28, 26.0' RT	974.19	973.81	28	--	--	2	--	--	1	
0010	308+70	-	308+30	STH 28, 39.0' LT	989.31	989.05	--	--	40	--	--	2	1	
0010	322+40	-	322+60	STH 28, 29.4' RT	983.97	983.25	20	--	--	2	--	--	1	
0010	326+36	-	326+76	STH 28, 26.3' LT	974.70	973.50	--	--	40	--	--	2	1	
0010	357+38	-	357+62	STH 28, 26.4' LT	943.74	943.26	24	--	--	2	--	--	1	
				TOTAL 0010			536	136	80	38	8	4	25	

* ADDITIONAL QUANTITIES SHOWN ELSEWHERE IN PLAN.

GENERAL NOTES:

1) STATIONS, OFFSETS, AND ELEVATIONS SHALL BE VERIFIED IN THE FIELD TO FIT FIELD CONDITIONS.
2) STATIONS, OFFSETS, AND FLOWLINE ELEVATIONS ARE AT ENDS OF PIPE,
3) PIPE LENGTHS ARE MEASURED TO ENDS OF PIPE (SEE S.D.D. 8 F 1-11).

CULVERT PIPE REINFORCED CONCRETE CLASS III 24-INCH, APRON ENDWALLS FOR CPRC 24-INCH, AND STAKING

CATEGORY	STATION TO	STATION	LOCATION	INLET OFFSET	INLET ELEVATION	OUTLET OFFSET	OUTLET ELEVATION	CULVERT PIPE REINFORCED CONCRETE CLASS III 24-INCH 522.0124 LF	APRON ENDWALLS FOR CULVERT PIPE REINFORCED CONCRETE 24-INCH 522.1024 EACH	MARKERS CULVERT END* 633.5200 EACH	CONSTRUCTION STAKING PIPE CULVERTS* 650.6000 EACH	REMARKS
0010	175+19 -	175+19	STH 28	30.5' LT	936.00	30.5' RT	935.17	56	2	2	1	
0010	50+80 -	50+94	KETTLE MORAINE DR	29.5' LT	978.25	29.5' RT	977.25	56	2	2	1	SKEWED
0010	235+25	236+34	STH 28	54.1' LT	972.20	54.6' LT	972.00	104	2	2	1	UNDER HICKORY DR
0010	272+00 -	272+00	STH 28	26.5' RT	1023.00	24.0' LT	1021.50	48	1	2	1	THRU WALL R-66-021
0010	301+22	301+22	STH 28	26.0' RT	971.80	28.0' LT	971.50	108	--	2	2	MASONRY ENDWALLS REQD
						TOTAL 0010		372	7	10	6	

CULVERT PIPE REINFORCED CONCRETE CLASS III 24-INCH, APRON ENDWALLS FOR CPRC 30-INCH, AND STAKING

CATEGORY	STATION TO	STATION	LOCATION	INLET OFFSET	INLET ELEVATION	OUTLET OFFSET	OUTLET ELEVATION	CULVERT PIPE REINFORCED CONCRETE CLASS III 30-INCH 522.0130 LF	APRON ENDWALLS FOR CULVERT PIPE REINFORCED CONCRETE 30-INCH 522.1030 EACH	MARKERS CULVERT END* 633.5200 EACH	CONSTRUCTION STAKING PIPE CULVERTS* 650.6000 EACH	REMARKS
0010	293+21 -	293+21	STH 28	30.0' RT	967.00	30.0' LT	966.38	60	2	2	1	
0010	377+00 -	377+08	STH 28	30.0' RT	957.37	30.0' LT	955.69	60	2	2	1	SKEWED
						TOTAL 0010		120	4	4	2	

GENERAL NOTES:

1) STATIONS, OFFSETS, AND ELEVATIONS SHALL BE VERIFIED IN THE FIELD TO FIT FIELD CONDITIONS.
2) JOINT TIES FOR CONCRETE PIPE SHALL BE PROVIDED AT ALL CONCRETE APRON ENDWALLS. APRON ENDWALLS SHALL BE TIED FOR THE LAST THREE JOINTS AT PIPE ENDS. THE COST OF THESE TIES SHALL BE INCEDENTAL TO THE COST OF THE PIPE.
3) STATIONS, OFFSETS, AND FLOWLINE ELEVATIONS ARE AT THE POINT BETWEEN DIMENSIONS "C" AND "B" OF THE APRON ENDWALLS FOR CULVERT PIPE REINFORCED CONCRETE (SEE S.D.D. 8 F 1-11).
4) PIPE LENGTHS ARE MEASURED TO ENDS OF PIPES AND NOT INCLUDED APRON ENDWALLS FOR CULVERT PIPE REINFORCED CONCRETE (SEE S.D.D. 8 F 1-11).

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CULVERT PIPE REINFORCED CONCRETE CLASS III 72-INCH, APRON ENDWALLS FOR CPRC 72-INCH, AND STAKING

CATEGORY	INVERT STATION TO	DISCHARGE STATION	INVERT OFFSET	INVERT ELEVATION	DISCHARGE OFFSET	DISCHARGE ELEVATION	CULVERT PIPE REINFORCED CONCRETE CLASS III 72-INCH 522.0172 LF	APRON ENDWALLS FOR CULVERT PIPE REINFORCED CONCRETE 72-INCH 522.1072 EACH	APRON ENDWALLS FOR CULVERT PIPE REINFORCED CONCRETE 72-INCH MODIFIED SPV.0060.001 EACH	MARKERS CULVERT END * 633.5200 EACH	CONSTRUCTION STAKING PIPE CULVERTS * 650.6000 EACH	REMARKS
0010	350+70 -	350+90	61.75' RT	926.75	61.75' LT	926.50	120	1	1	2	1	
					TOTAL 0010		120	1	1	2	1	

* ADDITIONAL QUANTITIES SHOWN ELSEWHERE IN PLAN.

GENERAL NOTES:

1) STATIONS, OFFSETS, AND ELEVATIONS SHALL BE VERIFIED IN THE FIELD TO FIT FIELD CONDITIONS.
2) JOINT TIES FOR CONCRETE PIPE SHALL BE PROVIDED AT ALL CONCRETE APRON ENDWALLS. APRON ENDWALLS SHALL BE TIED FOR THE LAST THREE JOINTS AT PIPE ENDS. THE COST OF THESE TIES SHALL BE INCEDENTAL TO THE COST OF THE PIPE.
3) STATIONS, OFFSETS, AND FLOWLINE ELEVATIONS ARE AT THE POINT BETWEEN DIMENSIONS "C" AND "B" OF THE APRON ENDWALLS FOR CULVERT PIPE REINFORCED CONCRETE (SEE S.D.D. 8 F 1-11).
4) PIPE LENGTHS ARE MEASURED TO ENDS OF PIPES AND NOT INCLUDED APRON ENDWALLS FOR CULVERT PIPE REINFORCED CONCRETE (SEE S.D.D. 8 F 1-11).

3

CPRC HORIZONTAL ELLIPTICAL CLASS HE-IV 19X30-INCH, APRRON ENDWALLS FOR CPRC HE 19X30-INCH, AND STAKING

CATEGORY	STATION TO	STATION	LOCATION	INLET OFFSET	INLET ELEVATION	OUTLET OFFSET	OUTLET ELEVATION	CULVERT PIPE REINFORCED CONCRETE HORIZONTAL ELLIPTICAL CLASS HE-IV 19X30-INCH 523.0419 LF	APRON ENDWALLS FOR CULVERT PIPE REINFORCED CONCRETE HORIZONTAL ELLIPTICAL 19X30-INCH 523.0519 EACH	MARKERS CULVERT END* 633.5200 EACH	CONSTRUCTION STAKING PIPE CULVERTS* 650.6000 EACH	REMARKS
0010	126+10 -	126+10	STH 28	24.0' LT	926.52	24.0' RT	926.40	48	2	2	1	
0010	128+90 -	128+90	STH 28	21.5' LT	926.85	24.0' RT	926.60	40	2	2	1	
0010	139+44 -	140+22	STH 28	50.0' RT	927.25	50.0' RT	927.00	72	2	2	1	UNDER S. MILL RD
0010	152+78 -	153+24	STH 28	26.0' LT	931.00	25.0' LT	930.50	40	2	2	1	UNDER N. MILL RD
0010	156+00 -	156+00	STH 28	24.0' LT	927.00	24.0' RT	926.75	48	2	2	1	
0010	161+50 -	161+50	STH 28	24.0' LT	926.75	24.0' RT	926.50	48	2	2	1	
0010	165+10 -	165+10	STH 28	24.0' RT	927.00	24.0' LT	926.75	48	2	2	1	
0010	171+00 -	171+00	STH 28	24.0' RT	931.50	29.5' LT	931.25	48	2	2	1	
0010	177+41 -	177+41	STH 28	27.5' LT	941.80	34.0' RT	940.10	56	2	2	1	
0010	225+75 -	225+75	STH 28	24.0' LT	967.00	24.0' RT	966.75	48	2	2	1	
0010	324+18 -	324+39	STH 28	24.0' LT	979.00	26.0' RT	976.96	56	2	2	1	
0010	365+00 -	365+00	STH 28	24.0' RT	926.25	24.0' LT	926.00	48	2	2	1	
0010	373+82 -	373+82	STH 28	24.0' RT	944.50	24.0' LT	944.00	48	2	2	1	
							TOTAL 0010	648	26	26	13	

* ADDITIONAL QUANTITIES SHOWN ELSEWHERE IN PLAN.

GENERAL NOTES:

1) STATIONS, OFFSETS, AND ELEVATIONS SHALL BE VERIFIED IN THE FIELD TO FIT FIELD CONDITIONS.
2) JOINT TIES FOR CONCRETE PIPE SHALL BE PROVIDED AT ALL CONCRETE APRON ENDWALLS. APRON ENDWALLS SHALL BE TIED FOR THE LAST THREE JOINTS AT PIPE ENDS. THE COST OF THESE TIES SHALL BE INCEDENTAL TO THE COST OF THE PIPE.
3) STATIONS, OFFSETS, AND FLOWLINE ELEVATIONS ARE AT THE POINT BETWEEN DIMENSIONS "C" AND "B" OF THE APRON ENDWALLS FOR CULVERT PIPE REINFORCED CONCRETE (SEE S.D.D. 8 F 2-1).
4) PIPE LENGTHS ARE MEASURED TO ENDS OF PIPES AND NOT INCLUDED APRON ENDWALLS FOR CULVERT PIPE REINFORCED CONCRETE (SEE S.D.D. 8 F 2-1).

WALL MODULAR BLOCK GRAVITY

CATEGORY	STATION TO	STATION	LOCATION	532.0200.S SF	REMARKS
0010	90+60	91+20	STH 28 RT	180	
0010	344+25.48	346+25	STH 28 RT	876	
			TOTAL 0010	1056	

CONCRETE STEPS

CATEGORY	STATION TO	STATION	LOCATION	602.1500 SF	REMARKS
0010	263+76	263+80	STH 28,25' LT LT	46	
			TOTAL 0010	46	

3

CONCRETE CURB PEDESTRIAN

CATEGORY	STATION	LOCATION	601.0600 LF	REMARKS
		STH 28 & RIVER VIEW DR		
0010	STA 99+75 LT	NW QUAD	19	
0010	STA 100+25 LT	NE QUAD	21	
0010	STA 100+25 RT	SE QUAD	20	
		STH 28 & KEWASKUM ST		
0010	STA 103+45 LT	NE QUAD	20	
0010	STA 103+45 RT	SE QUAD	20	
0010	STA 102+85 RT	SW QUAD	15	
		STH 28 & STARK ST		
0010	STA 106+65 LT	NW QUAD	20	
0010	STA 107+25 LT	NE QUAD	14	
0010	STA 107+25 RT	SE QUAD	22	
0010	STA 106+65 RT	SW QUAD	21	
		TOTAL 0020	192	

CURB RAMP DETECTABLE WARNING FIELD YELLOW

CATEGORY	STATION TO	STATION	LOCATION	602.0505 SF	REMARKS
0010			SW & NW QUAD AT USH 45 & STH 28	16	
0010	79+00	79+00	SE QUAD AT USH 45 & STH 28	16	
0010	78+50	78+75	NE QUAD AT USH 45 & STH 28	16	
0010	81+75	81+75	STH 28 MID BLOCK CROSSING	16	
0010	83+75	83+75	EISENBAHN STATE TRAIL CROSSING	32	
0010	84+00	84+00	NW QUAD AT STH 28 & RAILROAD ST	8	
0010	84+00	84+00	SW QUAD AT STH 28 & RAILROAD ST	8	
0010	84+50	84+70	NE QUAD AT STH 28 & RAILROAD ST	16	
0010	84+50	84+70	SE QUAD AT STH 28 & RAILROAD ST	16	
0010	88+10	88+10	STH 28 MID BLOCK CROSSING	16	
0010	93+38	94+30	AT STH 28 & PARK VIEW DR	64	
0010	99+70	100+25	AT STH 28 & RIVER VIEW DR	64	
0010	102+90	103+50	AT STH 28 & KEWASKUM ST	64	
0010	106+65	107+25	AT STH 28 & STARK ST	64	
			TOTAL 0010	416	

BASE AGGREGATE OPEN GRADED, CONCRETE BARRIER SINGLE-FACED 32-INCH AND CONSTRUCTION STAKING CONCRETE BARRIER

CATEGORY	STATION TO	STATION	LOCATION	BASE AGGREGATE OPEN GRADED * 310.0110 TON	CONCRETE BARRIER TYPE S32 603.1132 LF	CONSTRUCTION STAKING CONCRETE BARRIER 650.7500 LF	REMARKS
0010	270+70	270+10	STH 28 18' LT	22	140	140	
			TOTAL 0010	22	140	140	

* BASE AGGREGATE OPEN GRADED TO BE INSTALLED BETWEEN RETAINING WALL R-66-21 AND CONCRETE BARRIER SINGLE FACE 32-INCH.

DRILLED TIE BARS, CONRETE CURB & GUTTER, AND CONSTRUCTION STAKING CURB GUTTER AND CURB & GUTTER

					CONCRETE CURB & GUTTER			COSNTRUCTION STAKING CURB GUTTER AND CURB & GUTTER	
CATEGORY	STATION TO STATION	LOCATION	DRILLED TIE BARS 416.0610 EACH	30-INCH TYPE D 601.0411 LF	4-INCH SLOPED 36-INCH TYPE D 601.0553 LF	4-INCH SLOPED 36-INCH TYPE D 601.0557 LF	CURB & GUTTER 650.5500 LF	REMARKS
0010	78+50 - 84+00	STH 28 LT	--	577	--	--	577	
0010	79+00 - 84+25	STH 28 RT	--	549	--	--	549	
0010	84+28 - 93+75	STH 28 LT	--	997	--	--	997	
0010	84+44 - 93+75	STH 28 RT	--	963	--	--	963	
0010	94+16 - 96+18	STH 28 LT	--	234	--	--	234	
0010	94+08 - 96+18	STH 28 RT	--	234	--	--	234	
0010	97+50 - 99+82	STH 28 LT	--	243	--	--	243	
0010	97+50 - 99+86	STH 28 RT	--	260	--	--	260	
0010	100+20 - 100+53	STH 28 LT	--	50.5	--	--	51	
0010	100+16 - 100+54	STH 28 RT	--	68	--	--	68	
0010	101+36 - 103+00	STH 28 LT	--	241	--	--	241	
0010	102+89 - 103+05	STH 28 RT	--	35	--	--	35	
0010	103+32 - 103+62	STH 28 RT	--	45	--	--	45	
0010	103+34 - 103+84	STH 28 LT	--	65	--	--	65	
0010	106+57 - 106+75	STH 28 NW	--	28			28	
0010	106+60 - 106+80	STH 28 SW	--	33	--	--	33	
0010	107+11 - 107+29	STH 28 SE	--	32	--	--	32	
0010	107+11 - 107+38	STH 28 LT	--	44	--	--	44	
0010	112+70 - 113+69	STH 28 LT	--	99.5	--	--	100	
0010	135+00 - 137+70	STH 28 RT	--	--	150	--	150	
0010	138+75 - 192+33	STH 28 RT	--	--	332	--	332	
0010	207+30 - 208+00	STH 28 SW	--	--	79.5	--	80	
0010	207+20 - 207+80	STH 28 NW	--	--	64	--	64	
0010	208+30 - 208+90	STH 28 SE	--	--	69	--	69	
0010	208+10 - 214+15	STH 28 LT	--	--	615	--	615	
0010	228+70 - 235+58	STH 28 LT	--	--	399.5	--	400	
0010	235+20 - 235+95	STH 28 SW	--	--	80	--	80	
0010	235+98 - 236+60	STH 28 LT-NE	--	--	80	--	80	
0010	236+37 - 246+50	STH 28 RT	--	--	1175.5	--	1176	
0010	253+07 - 255+00	STH 28 RT	--	--	177.5	--	178	
0010	256+00 - 256+50	STH 28 RT	--	--	50	--	50	
0010	262+32 - 265+78	STH 28 LT-NW	--	--	--	353	353	
0010	261+33 - 265+80	STH 28 RT-SW	--	--	--	465	465	
0010	266+16 - 269+86	STH 28 LT-NE	--	--	--	390	390	
0010	266+16 - 270+16	STH 28 RT-SE	--	--	--	408	408	
0010	302+82 - 306+50	STH 28 LT	--	--	350	--	350	
0010	311+50 - 318+45	STH 28 LT	--	--	824	--	824	
0010	311+50 - 315+50	STH 28 RT	--	--	400	--	400	
0010	319+84 - 322+00	STH 28 LT	--	--	243	--	243	
0010	319+84 - 320+25	STH 28 RT	--	--	61	--	61	
0010	338+50 - 340+50	STH 28 LT	--	--	200	--	200	
0010	342+50 - 346+25	STH 28 RT	--	--	375	--	375	
0010	343+00 - 346+00	STH 28 LT	--	--	300	--	300	
0010	354+00 - 356+00	STH 28 LT	--	--	200	--	200	
0010	357+97 - 358+38	STH 28 RT-SW	--	--	77	--	73	
0010	358+63 - 361+85	STH 28 RT	--	--	331	--	331	
0010	370+60 - 373+50	STH 28 RT	--	--	275	--	275	
0010	379+00 - 381+75	STH 28 RT	--	--	275	--	275	
		UNDISTRIBUTED	100	700	--	--	--	
		TOTAL 0010	100	5498	7183	1616	13597	

CONCRETE SIDEWALK 5-INCH

CATEGORY	STATION	TO	STATION	LOCATION	602.0410 SF	REMARKS
STAGE 1:						
0010				USH 45, 26.5' LT	121.1	
0010				USH 45, 26.5' LT	85.3	
0010	78+55	-	80+72	STH 28, 24.5' LT	1489.6	
0010	80+98	-	82+33	STH 28, 24.5' LT	1197.6	
0010	82+54	-	83+57	STH 28, 24.5' LT	915.9	
0010	83+76	-	83+98	STH 28, 24.5' LT	260.4	
0010	84+52	-	85+09	STH 28, 24.5' LT	601.8	
0010	85+32	-	85+85	STH 28, 24.5' LT	387.1	
0010	85+97	-	86+20	STH 28, 24.5' LT	154.6	
0010	86+32	-	86+49	STH 28, 24.5' LT	119.3	
0010	86+61	-	87+74	STH 28, 24.5' LT	794.2	
0010	87+93	-	88+29	STH 28, 24.5' LT	382.7	
0010	88+42	-	89+92	STH 28, 24.5' LT	949.8	
0010	90+14	-	91+57	STH 28, 24.5' LT	857.0	
0010	91+69	-	92+28	STH 28, 24.5' LT	352.5	
0010	92+41	-	93+73	STH 28, 24.5' LT	899.0	
0010	94+15	-	95+00	STH 28, 24.5' LT	693.0	
0010	95+12	-	95+49	STH 28, 24.5' LT	216.2	
0010	95+61	-	96+37	STH 28, 20.5' LT	459.0	
0010	97+37	-	98+59	STH 28, 24.5' LT	678.5	
0010	98+84	-	99+79	STH 28, 24.5' LT	532.8	
0010	100+21	-	100+33	STH 28, 22.5' LT	99.6	
0010	101+47	-	101+53	STH 28, 22.5' LT	28.3	
0010	101+85	-	102+39	STH 28, 22.5' LT	271.6	
0010	102+71	-	102+99	STH 28, 22.5' LT	426.3	
0010	103+36	-	103+51	STH 28, 22.5' LT	115.7	
0010	106+59	-	106+75	STH 28, 22.5' LT	116.9	
0010	107+13	-	107+27	STH 28, 22.5' LT	94.8	
0010				UNDISTRIBUTED	500.0	

CONCRETE SIDEWALK 5-INCH CONTINUES

CATEGORY	STATION	TO	STATION	LOCATION	602.0410 SF	REMARKS
STAGE 2:						
0010	79+09	-	80+41	STH 28, 24.5' RT	1372.6	
0010	80+54	-	82+83	STH 28, 24.5' RT	2387.0	
0010	83+03	-	83+74	STH 28, 24.5' RT	670.0	
0010	83+90	-	84+08	STH 28, 24.5' RT	117.8	
0010	84+48	-	85+23	STH 28, 24.5' RT	697.7	
0010	85+40	-	86+25	STH 28, 24.5' RT	590.8	
0010	86+38	-	86+85	STH 28, 24.5' RT	318.2	
0010	87+00	-	88+41	STH 28, 24.5' RT	1103.0	
0010	88+73	-	90+48	STH 28, 24.5' RT	1172.3	
0010	90+60	-	91+25	STH 28, 24.5' RT	450.0	
0010	91+41	-	92+08	STH 28, 24.5' RT	698.0	
0010	92+20	-	92+92	STH 28, 24.5' RT	521.5	
0010	93+04	-	93+70	STH 28, 24.5' RT	688.5	
0010	94+07	-	94+83	STH 28, 24.5' RT	721.4	
0010	94+95	-	95+49	STH 28, 24.5' RT	319.7	
0010	95+79	-	96+31	STH 28, 24.5' RT	310.4	
0010	97+33	-	98+25	STH 28, 24.5' RT	573.7	
0010	98+60	-	99+84	STH 28, 24.5' RT	656.0	
0010	100+18	-	100+34	STH 28, 24.5' RT	114.6	
0010	102+85	-	103+03	STH 28, 24.5' RT	125.8	
0010	103+34	-	103+51	STH 28, 24.5' RT	113.8	
0010	106+62	-	106+80	STH 28, 24.5' RT	157.4	
0010	107+12	-	107+23	STH 28, 24.5' RT	111.9	
0010	263+74	-	263+78	STH 28, 19.0' LT	40.0	
				UNDISTRIBUTED	97.3	
				TOTAL 0010	27930.0	

STORM SEWER PIPES, INLET COVERS, INLETS, PIPE GRATES, AND CONSTRUCTION STAKING STORM SEWER

CONTINUES

CATEGORY	STATION	OFFSET	STR. NO.	BOTTOM OF STRUCTURE ELEV.	TOP OF STRUCTURE GRATE ELEV.	STRUCTURE DEPTH FT	APRON ENDWALLS FOR CULVERT PIPE REINFORCED CONCRETE 12-INCH 522.1012 EACH	APRON ENDWALLS FOR CULVERT PIPE REINFORCED CONCRETE 18-INCH 522.1018 EACH	STORM SEWER PIPE REINFORCED CONCRETE CLASS III 12-INCH 608.0312 LF	STORM SEWER PIPE REINFORCED CONCRETE CLASS III 15-INCH 608.0315 LF	STORM SEWER PIPE REINFORCED CONCRETE CLASS III 18-INCH 608.0318 LF	REMARKS
0010	231+00.00	25.00' RT	22	969.50	--	--	1	--	--	--	--	
0010	231+50.00	24.00' LT	21	970.00	971.50	1.50	--	--	70	--	--	
0010	234+00.00	32.00' RT	24	971.00	--	--	1	--	--	--	--	
0010	234+50.00	32.00' LT	23	971.80	--	--	1	--	80	--	--	
0010	7+50.00	20.00' LT	26	973.80	--	--	1	--	--	--	--	
0010	7+50.00	20.00' RT	25	974.00	976.23	2.23	--	--	40	--	--	
0010	236+73.48	48.00' LT	10	973.30	--	--	--	1	--	--	--	
0010	236+73.48	25.50' RT	9	974.50	978.24	3.74	--	--	--	--	72	
0010	236+43.56	43.56' RT	8	975.62	978.17	2.55	--	--	34	--	--	
0010	239+50.00	46.00' LT	7	975.00	--	--	--	1	--	--	--	
0010	240+00.00	17.50' RT	6	976.30	980.52	4.22	--	--	12	--	--	
0010	240+00.00	29.50' RT	5	977.00	979.30	2.30	--	--	--	--	58	
0010	243+00.00	46.00' LT	4	981.88	--	--	--	1	--	--	--	
0010	243+00.00	17.50' RT	3	983.00	986.80	3.80	--	--	--	--	28	
0010	246+00.00	48.00' LT	2	987.00	--	--	--	1	--	--	--	
0010	247+00.00	29.35' RT	1	991.00	994.00	3.00	--	--	--	--	120	
0010	265+80.29	125.18' RT	15	1053.00	1055.75	2.75	--	--	--	91	--	
0010	265+57.82	36.96' RT	16	1052.40	1056.17	3.77	--	--	--	--	163	
0010	267+19.94	17.50' RT	17	1046.20	1049.51	3.31	--	--	--	--	194	
0010	269+10.00	17.50' RT	18	1037.00	1037.19	0.19	--	--	--	--	140	
0010	269+10.00	17.50' LT	20	1038.59	1039.07	0.48	--	--	34	--	--	
0010	270+50.00	26.00' RT	19	1030.50	--	--	--	1	--	--	--	
0010	319+00.00	23.78' LT	14	993.70	996.91	3.21	--	--	32	--	--	
0010	319+31.82	46.00' LT	11	992.80	995.30	2.50	--	--	16	--	--	
0010	319+31.82	29.96' LT	12	992.10	996.08	3.98	--	--	--	--	80	
0010	319+32.33	52.00' RT	13	991.40	--	--	--	1	--	--	--	
0010	382+00.00	23.00' LT	28	992.65	--	--	1	--	--	--	--	
0010	382+00.00	25.00' RT	27	992.85	994.50	1.65	--	--	48	--	--	
					TOTAL 0010		5	6	370	91	855	

* ADDITIONAL QUANTITIES SHOWND ELSEWHERE IN PLAN.

GENERAL NOTES:

1) ELEVATIONS AND STRUCTURE DEPTHS SHALL BE VERIFIED IN THE FIELD.
2) JOINT TIES FOR CONCRETE PIPE SHALL BE PROVIDED AT ALL CONCRETE APRON ENDWALLS. APRON ENDWALLS SHALL BE TIED FOR THE LAST THREE JOINTS AT PIPE ENDS. THE COST OF THESE TIES SHALL BE INCEDENTAL TO THE COST OF THE PIPE.
3) STATIONS AND OFFSETS ARE TO THE CENTER OF STRUCTURES OR TO THE POINT BETWEEN DIMENSIONS "C" AND "B" OF THE APRON ENDWALLS FOR CULVERT PIPE REINFORCED CONCRETE (SEE S.D.D. 8 F 1-11).
4) PIPE LENGTHS ARE MEASURED TO THE CENTER OF STRUCTURES OR TO THE ENDS OF PIPES. APRON ENDWALLS FOR CULVERT PIPE REINFORCED CONCRETE ARE NOT INCLUDED FOR PIPE LENGTHS (SEE S.D.D. 8 F 1-11).
5) RIM ELEVATIONS ARE GIVEN AT THE FLANGE LINE FOR INLET GRATES OR THE CENTER OF THE MANHOLE COVERS FOR MANHOLES.
6) STRUCTURE DEPTH = RIM ELEVATION - INVERT FLOWLINE ELEVATION.
7) ADJUSTMENT (RINGS) = 0.5 FT FOR ALL COVERS EXCEPT TYPE MS COVERS

STORM SEWER PIPES, INLET COVERS, INLETS, PIPE GRATES, AND CONSTRUCTION STAKING STORM SEWER

CONTINUES

CATEGORY	STATION	OFFSET	STR. NO.	BOTTOM OF STRUCTURE ELEV.	TOP OF STRUCTURE GRATE ELEV.	STRUCTURE DEPTH FT	INLET COVERS TYPE F 611.0615 EACH	INLET COVERS TYPE MS* 611.0642 EACH	COVER PLATES TEMPORAY 611.8120.S EACH	REMARKS
0010	231+00.00	25.00' RT	22	969.50	--	--	--	--	--	
0010	231+50.00	24.00' LT	21	970.00	971.50	1.50	--	1	--	
0010	234+00.00	32.00' RT	24	971.00	--	--	--	--	--	
0010	234+50.00	32.00' LT	23	971.80	--	--	--	--	--	
0010	7+50.00	20.00' LT	26	973.80	--	--	--	--	--	
0010	7+50.00	20.00' RT	25	974.00	976.23	2.23	--	1	--	
0010	236+73.48	48.00' LT	10	973.30	--	--	--	--	--	
0010	236+73.48	25.50' RT	9	974.50	978.24	3.74	1	--	1	
0010	236+43.56	43.56' RT	8	975.62	978.17	2.55	1	--	1	
0010	239+50.00	46.00' LT	7	975.00	--	--	--	--	--	
0010	240+00.00	17.50' RT	6	976.30	980.52	4.22	1	--	1	
0010	240+00.00	29.50' RT	5	977.00	979.30	2.30	--	1	--	
0010	243+00.00	46.00' LT	4	981.88	--	--	--	--	--	
0010	243+00.00	17.50' RT	3	983.00	986.80	3.80	1	--	1	
0010	246+00.00	48.00' LT	2	987.00	--	--	--	--	--	
0010	247+00.00	29.35' RT	1	991.00	994.00	3.00	--	1	--	
0010	265+80.29	125.18' RT	15	1053.00	1055.75	2.75		1		
0010	265+57.82	36.96' RT	16	1052.40	1056.17	3.77	1	--	1	
0010	267+19.94	17.50' RT	17	1046.20	1049.51	3.31	1	--	1	
0010	269+10.00	17.50' RT	18	1037.00	1037.19	0.19	1	--	1	
0010	269+10.00	17.50' LT	20	1038.59	1039.07	0.48	1	--	1	
0010	270+50.00	26.00' RT	19	1030.50	--	--	--	--	--	
0010	319+00.00	23.78' LT	14	993.70	996.91	3.21	1	--	1	
0010	319+31.82	46.00' LT	11	992.80	995.30	2.50	--	1	--	
0010	319+31.82	29.96' LT	12	992.10	996.08	3.98	1	--	1	
0010	319+32.33	52.00' RT	13	991.40	--	--	--	--	--	
0010	382+00.00	23.00' LT	28	992.65	--	--	--	--	--	
0010	382+00.00	25.00' RT	27	992.85	994.50	1.65	--	3	--	
					TOTAL 0010		10	9	10	

* ADDITIONAL QUANTITIES SHOWND ELSEWHERE IN PLAN.

GENERAL NOTES:

1) ELEVATIONS AND STRUCTURE DEPTHS SHALL BE VERIFIED IN THE FIELD.
2) JOINT TIES FOR CONCRETE PIPE SHALL BE PROVIDED AT ALL CONCRETE APRON ENDWALLS. APRON ENDWALLS SHALL BE TIED FOR THE LAST THREE JOINTS AT PIPE ENDS. THE COST OF THESE TIES SHALL BE INCEDENTAL TO THE COST OF THE PIPE.
3) STATIONS AND OFFSETS ARE TO THE CENTER OF STRUCTURES OR TO THE POINT BETWEEN DIMENSIONS "C" AND "B" OF THE APRON ENDWALLS FOR CULVERT PIPE REINFORCED CONCRETE (SEE S.D.D. 8 F 1-11).
4) PIPE LENGTHS ARE MEASURED TO THE CENTER OF STRUCTURES OR TO THE ENDS OF PIPES. APRON ENDWALLS FOR CULVERT PIPE REINFORCED CONCRETE ARE NOT INCLUDED FOR PIPE LENGTHS (SEE S.D.D. 8 F 1-11).
5) RIM ELEVATIONS ARE GIVEN AT THE FLANGE LINE FOR INLET GRATES OR THE CENTER OF THE MANHOLE COVERS FOR MANHOLES.
6) STRUCTURE DEPTH = RIM ELEVATION - INVERT FLOWLINE ELEVATION.
7) ADJUSTMENT (RINGS) = 0.5 FT FOR ALL COVERS EXCEPT TYPE MS COVERS

STORM SEWER PIPES, INLET COVERS, INLETS, PIPE GRATES, AND CONSTRUCTION STAKING STORM SEWER

CONTINUES

CATEGORY	STATION	OFFSET	STR. NO.	BOTTOM OF STRUCTURE ELEV.	TOP OF STRUCTURE GRATE ELEV.	STRUCTURE DEPTH FT	INLETS 4-FT DIAMETER 611.3004 EACH	INLETS 2.5X3-FT 611.3253 EACH	INLETS MEDIAN 1 GRATE * 611.3901 EACH	INLETS MEDIAN 3 GRATE 611.3903 EACH	PIPE GRATES * 611.9800.S EACH	CONSTRUCTION STAKING STORM SEWER * 650.4000 EACH	REMARKS
0010	231+00.00	25.00' RT	22	969.50	--	--	--	--	--	--	--	1	
0010	231+50.00	24.00' LT	21	970.00	971.50	1.50	--	--	1	--	--	1	
0010	234+00.00	32.00' RT	24	971.00	--	--	--	--	--	--	1	1	
0010	234+50.00	32.00' LT	23	971.80	--	--	--	--	--	--	--	1	
0010	7+50.00	20.00' LT	26	973.80	--	--	--	--	--	--	--	1	
0010	7+50.00	20.00' RT	25	974.00	976.23	2.23	--	--	1	--	--	1	
0010	236+73.48	48.00' LT	10	973.30	--	--	--	--	--	--	--	1	
0010	236+73.48	25.50' RT	9	974.50	978.24	3.74	1	--	--	--	--	1	
0010	236+43.56	43.56' RT	8	975.62	978.17	2.55	--	1	--	--	--	1	
0010	239+50.00	46.00' LT	7	975.00	--	--	--	--	--	--	--	1	
0010	240+00.00	17.50' RT	6	976.30	980.52	4.22	--	1	--	--	--	1	
0010	240+00.00	29.50' RT	5	977.00	979.30	2.30	--	--	1	--	--	1	
0010	243+00.00	46.00' LT	4	981.88	--	--	--	--	--	--	--	1	
0010	243+00.00	17.50' RT	3	983.00	986.80	3.80	--	1	--	--	--	1	
0010	246+00.00	48.00' LT	2	987.00	--	--	--	--	--	--	--	1	
0010	247+00.00	29.35' RT	1	991.00	994.00	3.00	--	--	1	--	--	1	
0010	265+80.29	125.18' RT	15	1053.00	1055.75	2.75	--	--	1	--	--	1	
0010	265+57.82	36.96' RT	16	1052.40	1056.17	3.77	1	--	--	--	--	1	
0010	267+19.94	17.50' RT	17	1046.20	1049.51	3.31	1	--	--	--	--	1	
0010	269+10.00	17.50' RT	18	1037.00	1037.19	0.19	1	--	--	--	--	1	
0010	269+10.00	17.50' LT	20	1038.59	1039.07	0.48	--	1	--	--	--	1	
0010	270+50.00	26.00' RT	19	1030.50	--	--	--	--	--	--	--	1	
0010	319+00.00	23.78' LT	14	993.70	996.91	3.21	--	1	--	--	--	1	
0010	319+31.82	46.00' LT	11	992.80	995.30	2.50	--	--	1	--	--	1	
0010	319+31.82	29.96' LT	12	992.10	996.08	3.98	1	--	--	--	--	1	
0010	319+32.33	52.00' RT	13	991.40	--	--	--	--	--	--	--	1	
0010	382+00.00	23.00' LT	28	992.65	--	--	--	--	--	--	--	1	
0010	382+00.00	25.00' RT	27	992.85	994.50	1.65	--	--	--	1	--	1	
					TOTAL 0010		5	5	6	1	1	28	

* ADDITIONAL QUANTITIES SHOWND ELSEWHERE IN PLAN.

GENERAL NOTES:

1) ELEVATIONS AND STRUCTURE DEPTHS SHALL BE VERIFIED IN THE FIELD.
2) JOINT TIES FOR CONCRETE PIPE SHALL BE PROVIDED AT ALL CONCRETE APRON ENDWALLS. APRON ENDWALLS SHALL BE TIED FOR THE LAST THREE JOINTS AT PIPE ENDS. THE COST OF THESE TIES SHALL BE INCEDENTAL TO THE COST OF THE PIPE.
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5) RIM ELEVATIONS ARE GIVEN AT THE FLANGE LINE FOR INLET GRATES OR THE CENTER OF THE MANHOLE COVERS FOR MANHOLES.
6) STRUCTURE DEPTH = RIM ELEVATION - INVERT FLOWLINE ELEVATION.
7) ADJUSTMENT (RINGS) = 0.5 FT FOR ALL COVERS EXCEPT TYPE MS COVERS

RIPRAP MEDIUM AND GEOTEXTILE FABRIC TYPE HR

CATEGORY	STATION TO STATION	LOCATION	RIPRAP MEDIUM 606.0200 CY	GEOTEXTILE FABRIC TYPE HR 645.0120 SY	REMARKS
0010	95+96 - 96+04	STH 28, 48' - 58' LT	4	13	SWALE
0010	96+04 - 96+44	STH 28, 150' LT	8	26	SWALE
0010	97+60 - 98+10	STH 25, 50' LT	17	45	SWALE
0010	113+71 - 113+83	STH 28, 20.0' LT	4	13	ASP. FLUMES
0010	128+90 - 128+90	STH 28, 24.0' RT	4	13	19X30-INCH
0010	137+50 - 137+62	STH 28, 16.0' RT	4	13	ASP. FLUMES
0010	139+44 - 140+22	STH 28, 50.0' RT	4	13	19X30-INCH
0010	152+78 - 153+24	STH 28, 25.0' LT	4	13	19X30-INCH
0010	171+00 - 171+00	STH 28, 29.5' LT	4	13	19X30-INCH
0010	175+19 - 175+19	STH 28, 30.5' RT	4	13	24-INCH
0010	177+41 - 177+41	STH 28, 34.0' RT	4	13	19X30-INCH
0010	188+88 - 190+00	STH 28, 16.0' RT	4	13	ASP. FLUMES
0010	207+22 - 207+34	STH 28, 28.0' LT	4	13	ASP. FLUMES
0010	207+35 - 207+47	STH 28, 28.0' RT	4	13	ASP. FLUMES
0010	49+17 - 49+19	KETTLE MORAINE DR, 15.0' RT	4	13	ASP. FLUMES
0010	50+73 - 50+85	KETTLE MORAINE DR, 15'.0 RT	4	13	ASP. FLUMES
0010	50+80 - 50+94	KETTLE MORAINE DR, 29.5' LT	4	13	24-INCH
0010	214+00 - 214+12	STH 28, 16.0' LT	4	13	ASP. FLUMES
0010	231+00 - 231+00	STH 28, 25.0' RT	4	13	12-INCH SS
0010	231+88 - 232+00	STH 28, 16.0' LT	4	13	ASP. FLUMES
0010	234+00 - 234+00	STH 28, 32.0' RT	4	13	12-INCH SS
0010	235+25 - 236+34	STH 28, 54.6' LT	4	13	24-INCH
0010	235+26 - 235+38	STH 28, 24.0' RT	4	13	ASP. FLUMES
0010	7+50 - 7+50	HICKORY DR, 20.0' LT	4	13	12-INCH SS
0010	7+44 - 7+75	HICKORTY DR, 12.0' RT	4	13	ASP. FLUMES
0010	10+64 - 10+76	HICKORTY DR, 15.0' RT	4	13	ASP. FLUMES
0010	236+73 - 236+73	STH 28, 48.0' LT	4	13	18-INCH SS
0010	239+50 - 239+50	STH 28, 46.0' LT	4	13	18-INCH SS
0010	243+00 - 243+00	STH 28, 46.0' LT	4	13	18-INCH SS
0010	246+00 - 246+00	STH 28, 48.0' LT	4	13	18-INCH SS
0010	253+13 - 253+25	STH 28, 16.0' RT	4	13	ASP. FLUMES
0010	261+38 - 261+50	STH 28, 16.0' RT	4	13	ASP. FLUMES
0010	262+63 - 262+75	STH 28, 16.0' LT	4	13	ASP. FLUMES

RIPRAP MEDIUM AND GEOTEXTILE FABRIC TYPE HR CONTINUES

CATEGORY	STATION TO STATION	LOCATION	RIPRAP MEDIUM 606.0200 CY	GEOTEXTILE FABRIC TYPE HR 645.0130 SY	REMARKS
0010	19+05 - 19+17	FOREST VIEW DR, 15.0' LT	4	13	ASP. FLUMES
0010	21+33 - 21+45	FOREST VIEW DR, 12.0' LT	4	13	ASP. FLUMES
0010	269+70 - 269+82	STH 28, 16.0' LT	4	13	ASP. FLUMES
0010	270+50 - 270+50	STH 28, 26.0' RT	4	13	18-INCH SS
0010	272+00 - 272+00	STH 28, 24.0' LT	4	13	24-INCH
0010	270+00 - 270+12	STH 28, 16.0' RT	4	13	ASP. FLUMES
0010	301+22 - 301+22	STH 28, 28.0' LT	4	13	24-INCH
0010	302+88 - 303+00	STH 28, 16.0' LT	4	13	ASP. FLUMES
0010	311+38 - 311+50	STH 28, 16.0' LT	4	13	ASP. FLUMES
0010	311+38 - 311+50	STH 28, 16.0' RT	4	13	ASP. FLUMES
0010	315+50 - 315+62	STH 28, 16.0' RT	4	13	ASP. FLUMES
0010	319+32 - 319+32	STH 28, 52.0' RT	4	13	18-INCH SS
0010	29+16 - 29+28	CTH "HH", 15.0' LT	4	13	ASP. FLUMES
0010	29+23 - 29+35	CTH "HH", 15.0' RT	4	13	ASP. FLUMES
0010	322+00 - 322+12	STH 28, 24.0' LT	4	13	ASP. FLUMES
0010	338+38 - 338+50	STH 28, 16.0' LT	4	13	ASP. FLUMES
0010	346+00 - 346+12	STH 28, 16.0' LT	4	13	ASP. FLUMES
0010	346+25 - 345+37	STH 28, 18.0' RT	4	13	ASP. FLUMES
0010	351+60 - 351+66	STH 28, 18.0' LT	4	13	ASP. FLUMES
0010	351+60 - 351+66	STH 28, 18.0' RT	4	13	ASP. FLUMES
0010	356+00 - 356+12	STH 28, 16.0' LT	4	13	ASP. FLUMES
0010	69+14 - 69+26	VALLEY VISTA LN, 12.4' LT	4	13	ASP. FLUMES
0010	361+75 - 361+87	STH 28, 14.76' RT	4	13	ASP. FLUMES
0010	370+58 - 370+75	STH 28, 24.5' RT	4	13	ASP. FLUMES
0010	378+88 - 379+00	STH 28, 17.0' RT	4	13	ASP. FLUMES
0010	382+00 - 382+00	STH 28, 23.0' LT	4	13	12-INCH SS
		UNDISTRIBUTED	26	102	
		TOTAL 0010	279	914	

PIPE UNDERDRAIN AND APRON ENDWALLS FOR UNDERDRAIN

CATEGORY	STATION TO	STATION	LOCATION	PIPE UNDERDRAIN UNPERFORATED 6-INCH 612.0206 LF	PIPE UNDERDRAIN WRAPPED 6-INCH 612.0406 LF	APRON ENDWALLS FOR UNDERDRAIN REINFORCED CONCRETE 6-INCH 612.0806 EACH	REMARKS
0010	82+00 -	85+00	STH 28 LT & RT	--	600	--	TAPPED INTO INLETS IN109 & IN107
0010	264+10 -	267+20	STH 28 LT	125	190	--	TAPPED INTO INLETS NO. 17
0010	264+10 -	265+58	STH 28 RT	--	148	--	TAPPED INTO INLETS NO. 16
0010	316+00 -	319+00	STH 28 LT	100	200	--	TAPPED INTO INLETS NO. 14
0010	344+25 -	346+25	STH 28 RT	25	200	1	
			TOTAL 0010	250	1338	1	

MIDWEST GUARDRAIL SYSTEM

CATEGORY	STATION	TO	STATION	LOCATION	MGS GUARDRAIL 3 614.2300 LF	MGS THRIE BEAM TRANSITION 614.2500 LF	MGS GUARDRAIL TERMINAL EAT 614.2610 EACH	REMARKS
0010	145+88	-	146+50	STH 28, LT	62.5	20	1	
0010	145+94	-	146+31	STH 28, RT	37.5	20	1	
0010	147+41	-	148+91	STH 28, LT	150.0	20	1	
0010	147+36	-	147+73	STH 28, RT	--	20	1	
0010	270+00	-	270+70	STH 28, LT	--	20	1	
0010	272+10	-	272+80	STH 28, LT	--	20	1	
0010	347+00	-	352+50	STH 28, LT	550.0	--	2	
0010	347+00	-	352+50	STH 28, RT	550.0	--	2	
0010	361+00	-	361+50	STH 28, LT	50.0	--	2	
0010	377+00	-	377+50	STH 28, LT	50.0	--	2	
				TOTAL 0010	1450	120	14	

MOBILIZATION

CATEGORY	STATION TO	STATION	LOCATION	619.1000 EACH	REMARKS
0010	79+00	- 382+88	STH 28 PROJECT LIMITS	1	
			TOTAL 0010	1	

3

MOBILIZATION

CATEGORY	STATION TO	STATION	LOCATION	EROSION CONTROL 628.1905 EACH	EMERGENCY EROSION CONTROL 628.1910 EACH	REMARKS
0010	79+00	- 382+88	STH 28 PROJECT LIMITS	1	2	
			TOTAL 0010	1	2	

FIELD OFFICE TYPE B

CATEGORY	STATION TO	STATION	LOCATION	642.5001 EACH	REMARKS
0010	79+00	- 382+88	STH 28 PROJECT LIMITS	1	
			TOTAL 0010	1	

3

POLYETHYLENE SHEETING & ROCK BAGS

CATEGORY	STATION TO	STATION	LOCATION	POLYETHYLENE SHEETING 628.5505 SY	ROCK BAGS 628.7570 EACH	REMARKS
0010	351+00 -	351+00	STH 28, 56' - 76' LT	15	560	
			TOTAL 0010	15	560	

3

TRACKING PADS

CATEGORY	STATION TO	STATION	LOCATION	TRACKING PADS 628.7560 EACH	REMARKS
0010	347+00 -	353+00	STH , LT	1	MARSH EXCAVATION WORK
0010	347+00 -	353+00	STH , RT	1	MARSH EXCAVATION WORK
			TOTAL 0010	2	

BIO-LOG 12-INCH DIAMETER AND COARSE AGGREGATE SIZE NO. 2

SEED BED PREPARATION, SEEDING SPECIAL & SEED MIX SPECIAL

CATEGIRT	STATION TO	STATION	LOCATION	SEED BED PREPARATION SPV.0005.001 AC	SEEDING SPECIAL SPV.0005.002 AC	SEED MIX SPECIAL SPV.0085.001 LB	REMARKS
0010	360+40 -	372+50	STH 28 LT	0.2	0.2	2.8	
0010	361+70 -	370+80	STH 28 RT	0.1	0.1	1.4	
			TOTAL 0010	0.3	0.3	4.2	

BIO-LOG 12-INCH DIAMETER AND COURSE AGGREGATE SIZE NO. 2

CATEGORY	STATION TO	STATION	LOCATION	COCONUT FIBER ROLLS DELIVERED & INSTALLED SPV.0090.006 SPV.0090.007 LF	COARSE AGGREGATE MIX FOR STREAM BED SPV.0195.001 TON	REMARKS
0010	351+70 -	351+80	STH 28, 56' - 120' RT	240	6	STREAM RELOCATION
			TOTAL 0010	240	6	

TOPSOIL, SOD WATER, AND SOD LAWN

CATEGORY	STATION TO	STATION	LOCATION	TOPSOIL 625.0100 SY	SOD WATER 631.0300 MGAL	SOD LAWN 631.1000 SY	REMARKS
0010	79+00 -	84+25	STH 28, LT & RT	330	9	330	
0010	84+25 -	94+00	STH 28, LT & RT	670	19	670	
0010	94+00 -	97+00	STH 28, LT & RT	200	6	200	
0010	97+00 -	100+00	STH 28, LT & RT	200	6	200	
0010	100+00 -	120+00	STH 28, LT & RT	200	6	200	
0010	134+75 -	140+00	STH 28, LT	350	10	350	
0010	262+00 -	270+00	STH 28, LT & RT	3000	84	3000	
0010	-		UNDISTRIBUTED	1000	28	1000	
			TOTAL 0010	5950	167	5950	

MARKERS CULVERT END *

CATEGORY	STATION	OFFSET	LOCATION	633.5200 EACH	REMARKS
0010	96+00.00	48.00' LT	STH 28	1	SSPRC CLASS IV 24X38-INCH
0010	98+13.10	49.70' LT	STH 28	1	SSPRC CLASS IV 34X53-INCH
0010	231+00.00	25.00' RT	STH 28	1	SSPRC CLASS III 12-INCH
0010	234+00.00	32.00' RT	STH 28	1	SSPRC CLASS III 12-INCH
0010	234+50.00	32.00' LT	STH 28	1	SSPRC CLASS III 12-INCH
0010	7+50.00	20.00' LT	HICKORY DR	1	SSPRC CLASS III 12-INCH
0010	236+73.48	48.00' LT	STH 28	1	SSPRC CLASS III 18-INCH
0010	239+50.00	46.00' LT	STH 28	1	SSPRC CLASS III 18-INCH
0010	243+00.00	46.00' LT	STH 28	1	SSPRC CLASS III 18-INCH
0010	246+00.00	48.00' LT	STH 28	1	SSPRC CLASS III 18-INCH
0010	270+50.00	26.00' RT	STH 28	1	SSPRC CLASS III 18-INCH
0010	319+32.33	52.00' RT	STH 28	1	SSPRC CLASS III 18-INCH
0010	346+35.00	32.00' RT	STH 28	1	PIPE UNDERDRAIN 6-INCH
0010	382+00.00	23.00' LT	STH 28	1	SSPRC CLASS III 12-INCH
			TOTAL 0010	14	

* ADDITIONAL QUANTITIES SHOWN ELSEWHERE IN PLAN.

SALVAGED TOPSOIL, MULCHING, EROSION MAT, FERTILIZER, AND SEEDING

						EROSION MAT				SEEDING MIXTURE		
			SALVAGED TOPSOIL 625.0500	MULCHING 627.0200	CLASS I TYPE B 628.2004	CLASS II TYPE C 628.2027	CLASS III TYPE C 628.2037	FERTILIZER TYPE B 629.0210	NO. 20 630.0120	NO. 30 630.0130	NO. 60 630.0160
CATEGORY	STATION TO STATION	LOCATION	SY	SY	SY	SY	SY	CWT	LB	LB	LB
0010	96+40 - 98+40	SWALE AT STA. 96+00 LT	534	--	--	534	--	0	--	--	--
0010	97+60 - 98+13	STH 28 LT	199	--	--	199	--	0	--	--	--
0010	120+00 - 127+00	STH 28 LT & RT	1004	1004	--	--	--	1	--	18	--
0010	127+00 - 130+00	STH 28 LT	639	316	--	323	--	0	--	12	4
0010	127+00 - 130+00	STH 28 RT	316	316	--	--	--	0	--	6	4
0010	130+00 - 188+69	STH 28 LT & RT	10609	10609	--	--	--	7	--	191	143
0010	188+69 - 197+17	STH 28 LT	2723	703	2020	--	--	2	55	49	37
0010	188+69 191+50	STH 28 RT	1153	469	--	--	684	1	18	21	16
0010	191+50 - 197+17	STH 28 RT	234	234	--	--	--	0	--	4	3
0010	197+17 - 203+00	STH 28 LT & RT	522	522	--	--	--	0	--	9	7
0010	203+00 - 207+50	STH 28 LT	2166	730	1436	--	--	1	58	39	29
0010	207+50 - 236+47	STH 28 LT & RT	6823	6823	--	--	--	4	184	123	92
0010	236+47 - 251+00	STH 28 LT	7642	4559	3083	--	--	5	206	138	103
0010	237+47 - 251+00	STH 28 RT	1979	--	--	795	1184	1	53	36	27
0010	251+00 - 264+50	STH 28 LT	2773	1753	1020	--	--	2	75	50	37
0010	251+00 - 264+50	STH 28 RT	1000	--	330	670	--	1	27	18	14
0010	264+50 - 278+00	STH 28 LT & RT	4359	4359	--	--	--	3	118	78	59
0010	278+00 - 283+00	STH 28 LT & RT	2811	1844	--	967	--	2	76	51	38
0010	283+00 - 311+25	STH 28 LT & RT	9813	9813	--	--	--	6	265	177	132
0010	311+25 - 322+00	STH 28 LT & RT	5702	324	1039	4339	--	4	154	103	77
0010	322+00 - 335+00	STH 28 LT & RT	5441	4257	1184	--	--	3	147	98	73
0010	335+00 - 346+50	STH 28 LT & RT	2071	2071	--	--	--	1	56	37	28
0010	346+50 - 353+00	STH 28 LT & RT	6179	--	200	5979	--	4	167	111	83
0010	353+00 - 359+00	STH 28 LT & RT	1575	1575	--		--	1	43	28	21
0010	359+00 - 372+00	STH 28 LT & RT	5441	3930	1400	111	--	3	147	98	73
0010	372+00 - 382+88	STH 28 LT & RT	2636	1296	456	884	--	2	71	47	36
0010	48+75 51+25	KETTLE MORAINE DR	0	--	--	--	--	0	0	0	0
0010	7+25 12+90	HICKORY DR	0	--	--	--	--	0	0	0	0
0010	18+70 21+25	FOREST VIEW DR	0	--	--	--	--	0	0	0	0
0010	28+25 31+25	WESCOTT RD	0	--	--	--	--	0	0	0	0
0010		UNDISTRIBUTED	0	--	--	--	--				
		TOTAL 0010	86345	57508	12168	14801	1868	54	1920	1541	1138

EROSION BALES & SILT FENCE

CATEGORY	STATION TO STATION	LOCATION	EROSION BALES 628.1104 EACH	SILT FENCE 628.1504 LF	SILT FENCE MAINTENANCE 628.1520 LF	REMARKS
0010	96+50	STH 28, LT	--	150	15	
0010	120+00 - 126+25	STH 28, LT	--	625	63	
0010	127+00 - 134+00	STH 28, RT	--	700	70	
0010	139+10 - 142+10	STH 28, LT	--	300	30	
0010	140+25 - 145+00	STH 28, RT	--	475	48	
0010	143+50 - 145+25	STH 28, LT	--	175	18	
0010	145+00 - 147+00	STH 28, RT	80	200	20	
0010	145+25 - 147+00	STH 28, LT	70	175	18	
0010	147+25 - 148+35	STH 28, RT	--	110	11	
0010	147+30 - 149+00	STH 28, LT	--	170	17	
0010	150+50 - 152+60	STH 28, LT	--	210	21	
0010	151+00 - 167+00	STH 28, RT	--	1600	160	
0010	156+00 - 174+00	STH 28, LT	--	1800	180	
0010	174+00 - 177+00	STH 28, RT	--	300	30	
0010	177+25 - 184+00	STH 28, RT	--	675	68	
0010	179+00 - 187+50	STH 28, LT	--	850	85	
0010	189+00 - 196+00	STH 28, LT	--	700	70	
0010	193+00 - 204+00	STH 28, RT	--	1100	110	
0010	196+00 - 203+00	STH 28, LT	--	700	70	
0010	203+00 - 207+50	STH 28, LT	--	450	45	
0010	208+25 - 209+50	STH 28, RT	--	125	13	
0010	214+00 - 220+00	STH 28, RT	--	600	60	
0010	215+90 - 227+30	STH 28, LT	--	1140	114	
0010	224+00 - 227+60	STH 28, RT	--	360	36	
0010	235+00 - 252+00	STH 28, LT	--	1700	170	
0010	255+00 - 257+00	STH 28, RT	80	200	20	
0010	258+25 - 262+00	STH 28, LT	--	375	38	
0010	267+00 - 268+50	STH 28, LT	--	150	15	
0010	270+25 - 272+50	STH 28, LT	--	225	23	
0010	286+50 - 290+75	STH 28, LT	--	425	43	
0010	292+25 - 294+50	STH 28, LT	--	225	23	
0010	299+75 - 302+50	STH 28, LT	--	275	28	
0010	304+50 - 306+50	STH 28, RT	--	200	20	
0010	306+50 - 311+00	STH 28, RT	--	450	45	
0010	315+50 - 319+75	STH 28, RT	--	425	43	
0010	319+75 - 331+75	STH 28, RT	--	1200	120	
0010	334+00 - 338+00	STH 28, RT	--	400	40	
0010	340+00 - 342+50	STH 28, RT	--	250	25	
0010	340+50 - 342+50	STH 28, LT	--	200	20	
0010	346+00 - 353+50	STH 28, LT	300	750	75	
0010	346+00 - 353+00	STH 28, RT	280	700	70	
0010	372+75 - 373+75	STH 28, LT	--	100	10	
0010	376+50 - 378+20	STH 28, LT	--	170	17	
0010	377+50 - 378+75	STH 28, RT	--	125	13	
		TOTAL 0010	810	22235	2224	

INLET PROTECTION

			INLET PROTECTION				
			TYPE A	TYPE B	TYPE C	TYPE D	
			628.7005	628.7010	628.7015	628.7020	
CATEGORY	STATION	LOCATION	EACH	EACH	EACH	EACH	REMARKS
0010	81+49	STH 28, 23' LT	1	--	1	--	INLET COVERS TYPE H
0010	81+49	STH 28, 23' RT	1	--	1	--	INLET COVERS TYPE H
0010	82+01	STH 28, 23' LT	1	--	1	--	INLET COVERS TYPE H
0010	82+01	STH 28, 23' RT	1	--	1	--	INLET COVERS TYPE H
0010	82+52	STH 28, 23' LT	1	1	--	--	INLET COVERS TYPE V
0010	83+36	STH 28, 71' LT	1	--	--	--	INLET COVERS TYPE MS
0010	84+42	STH 28, 51.6' LT	1	--	1	--	INLET COVERS TYPE H
0010	84+53	STH 28, 23' RT	1	--	1	--	INLET COVERS TYPE H
0010	87+77	STH 28, 23' LT	1	1	--	--	INLET COVERS TYPE V
0010	87+86	STH 28, 23' LT	1	1	--	--	INLET COVERS TYPE V
0010	87+86	STH 28, 23' RT	1	--	1	--	INLET COVERS TYPE H
0010	90+95	STH 28, 23' LT	1	--	1	--	INLET COVERS TYPE H
0010	90+95	STH 28, 23' RT	1	--	1	--	INLET COVERS TYPE H
0010	93+09	STH 28, 23' LT	1	--	1	--	INLET COVERS TYPE H
0010	93+09	STH 28, 23' RT	1	--	1	--	INLET COVERS TYPE H
0010	93+74	STH 28, 60.3' LT	1	--	1	--	INLET COVERS TYPE H
0010	94+14	STH 28, 40' LT	1	--	1	--	INLET COVERS TYPE H
0010	95+20	STH 28, 23' RT	1	--	1	--	INLET COVERS TYPE H
0010	95+40	STH 28, 23' RT	1	--	1	--	INLET COVERS TYPE H
0010	96+10	STH 28, 23' LT	1	--	1	--	INLET COVERS TYPE H
0010	96+15	STH 28, 16' RT	1	--	1	--	INLET COVERS TYPE H
0010	96+50	STH 28, 20.4' RT	--	--	--	1	EXISTING INLET ON BRIDGE
0010	96+77	STH 28, 20.7' RT	--	--	--	1	EXISTING INLET ON BRIDGE
0010	96+81	STH 28, 20.7' RT	--	--	--	1	EXISTING INLET ON BRIDGE
0010	96+72	STH 28, 20.5' RT	--	--	--	1	EXISTING INLET ON BRIDGE
0010	98+92	STH 28, 26' LT	1	--	1	--	INLET COVERS TYPE H
0010	98+92	STH 28, 20.1' RT	1	--	1	--	INLET COVERS TYPE H
0010	98+57	STH 28, 26.5' LT	1	1	--	--	INLET COVERS TYPE V
0010	99+12	STH 28, 25.7' LT	1	1	--	--	INLET COVERS TYPE V
0010	99+12	STH 28, 20.3' RT	1	--	1	--	INLET COVERS TYPE H

TO BE CONTINUED ON NEXT SHEET

INLET PROTECTION CONTINUES

			INLET PROTECTION				
			TYPE A	TYPE B	TYPE C	TYPE D	
			628.7005	628.7010	628.7015	628.7020	
CATEGORY	STATION	LOCATION	EACH	EACH	EACH	EACH	REMARKS
0010	99+65	STH 28, 20.3' RT	1	--	1	--	INLET COVERS TYPE H
0010	99+82	STH 28, 36' LT	1	--	1	--	INLET COVERS TYPE H
0010	99+83	STH 28, 35.5' RT	1	--	1	--	INLET COVERS TYPE H
0010	100+13	STH 28, 37.3' RT	1	--	1	--	INLET COVERS TYPE H
0010	100+19	STH 28, 34.2' LT	1	--	1	--	INLET COVERS TYPE H
0010	101+50	STH 28, 21.1' RT	1	1	--	--	INLET COVERS TYPE V
0010	102+29	STH 28, 20.3' LT	1	--	1	--	INLET COVERS TYPE H
0010	103+01	STH 28, 36.6' LT	1	--	1	--	INLET COVERS TYPE H
0010	103+04	STH 28, 31.3' RT	1	--	1	--	INLET COVERS TYPE H
0010	103+33	STH 28, 36.2' LT	1	--	1	--	INLET COVERS TYPE H
0010	103+33	STH 28, 31.9' RT	1	--	1	--	INLET COVERS TYPE H
0010	103+48	STH 28, 20' LT	1	--	1	--	INLET COVERS TYPE H
0010	103+52	STH 28, 21.1' RT	1	--	1	--	INLET COVERS TYPE H
0010	104+25	STH 28, 21.2' RT	1	--	1	--	INLET COVERS TYPE H
0010	107+21	STH 28, 19.7' LT	1	--	1	--	INLET COVERS TYPE H
0010	107+24	STH 28, 21.5' RT	1	--	1	--	INLET COVERS TYPE H
0010	231+50	STH 28, 31.6' LT	1	--	--	--	INLET COVERS TYPE MS
0010	236+44	STH 28, 43.6' RT	--	--	1	--	INLET COVERS TYPE F
0010	236+73	STH 28, 25.5' RT	--	--	1	--	INLET COVERS TYPE F
0010	7+50	HICKORY DR, 19.5' RT	1	--	--	--	INLET COVERS TYPE MS
0010	240+00	STH 28, 17.5' RT	--	--	1	--	INLET COVERS TYPE F
0010	240+00	STH 28, 17.5' RT	--	--	1	--	INLET COVERS TYPE F
0010	243+00	STH 28, 29.5' RT	1	--	--	--	INLET COVERS TYPE MS
0010	247+00	STH 28, 28' RT	1	--	--	--	INLET COVERS TYPE MS
0010	265+58	STH 28,37' RT	--	--	1	--	INLET COVERS TYPE F
0010	265+80	STH 28, 125.2' RT	1	--	--	--	INLET COVERS TYPE MS
0010	267+20	STH 28, 17.5' RT	--	--	1	--	INLET COVERS TYPE F
0010	269+10	STH 28, 17.5' LT	--	--	1	--	INLET COVERS TYPE F
0010	269+10	STH 28, 17.5' RT	--	--	1	--	INLET COVERS TYPE F
0010	319+00	STH 28, 23.8' LT	--	--	1	--	INLET COVERS TYPE F
0010	319+32	STH 28, 30' LT	--	--	1	--	INLET COVERS TYPE F
0010	319+32	STH 28, 46' LT	1	--	--	--	INLET COVERS TYPE MS
0010	382+00	STH 28, 25' RT	1	--	--	--	INLET COVERS TYPE MS
		TOTAL 0010	49	6	45	4	

CULVERT PIPE CHECKS

CATEGORY	STATION	LOCATION	628.7555 EACH	REMARKS
0010	116+90	STH 28, LT	1	EXISTING CULVERT PIPE
0010	126+35	STH 28, 28.0' LT	1	CPCS
0010	128+90	STH 28, 21.5' LT	1	19X30 CPRCHE
0010	134+32	STH 28, 25.4' LT	1	CPCS
0010	135+12	STH 28, 26.0' LT	1	CPCS
0010	137+46	STH 28, 26.5' LT	1	CPCS
0010	138+80	STH 28, LT	1	EXISTING DWY PIPE
0010	139+44	STH 28, 50.0' RT	1	19X30 CPRCHE
0010	152+78	STH 28, 26.0 'LT	1	19X30 CPRCHE
0010	171+00	STH 28, 24.0' RT	1	19X30 CPRCHE
0010	175+19	STH 28, 30.5' LT	1	24-INCH CPRC
0010	177+41	STH 28, 27.5' LT	1	19X30 CPRCHE
0010	188+70	STH 28, RT	1	EXISTING CULVERT PIPE
0010	50+80	K. MORAINE DR, 29.5' RT	1	24-INCH CPRC
0010	213+88	STH 28, 25.6' RT	1	CPCS
0010	227+21	STH 28, 27.0' LT	1	CPCS
0010	236+34	STH 28, 54.1' LT	1	24-INCH CPRC
0010	252+49	STH 28, 32.0' RT	1	CPCS
0010	258+20	STH 28, 36.0' LT	1	CPCS
0010	259+62	STH 28, 30.0' RT	1	CPCS
0010	272+00	STH 28, 26.5' RT	1	24-INCH CPRC
0010	275+12	STH 28, 21.5' LT	1	CPCS
0010	275+53	STH 28, 29.0' RT	1	CPCS
0010	277+03	STH 28, 29.1' RT	1	CPCS
0010	279+79	STH 28, 28.2' RT	1	CPCS

CULVERT PIPE CHECKS CONTINUES

CATEGORY	STATION	LOCATION	628.7555 EACH	REMARKS
0010	281+02	STH 28, 24.4' LT	1	CPCS
0010	281+02	STH 28, 28.0' RT	1	CPCS
0010	284+74	STH 28, 28.9' RT	1	CPCS
0010	286+15	STH 28, LT	1	EXISTING DWY PIPE
0010	295+59	STH 28, 23.5' LT	1	CPCS
0010	296+44	STH 28, 25.0' LT	1	CPCS
0010	296+98	STH 28, 25.0' LT	1	CPCS
0010	298+41	STH 28, 26.0' RT	1	CPCS
0010	289+20	STH 28, RT	1	EXISTING CULVERT PIPE
0010	293+20	STH 28, RT	1	EXISTING CULVERT PIPE
0010	295+35	STH 28, 25.0' LT	1	CPCS
0010	296+44	STH 28, 25.0' LT	1	CPCS
0010	296+78	STH 28, 25.0' LT	1	CPCS
0010	298+45	STH 28, 26.0' RT	1	CPCS
0010	297+65	STH 28, RT	1	EXISTING DWY PIPE
0010	300+38	STH 28, 26.0' RT	1	CPCS
0010	301+22	STH 28, 26.0' RT	2	24-INCH CPRC
0010	308+70	STH 28, 39.0' LT	1	CPCS
0010	322+40	STH 28, 29.4' RT	1	CPCS
0010	326+36	STH 28, 26.3' LT	1	CPCS
0010	350+70	STH 28, 56.0' RT	1	72-INCH CPRC
0010	357+38	STH 28, 26.4' LT	1	CPCS
0010	365+00	STH 28, RT	1	EXISTING CULVERT PIPE
0010	373+95	STH 28, RT	1	EXISTING CULVERT PIPE
0010	377+08	STH 28, 34.0' RT	1	EXISTING CULVERT PIPE
0010	380+80	STH 28, 26.1' LT	1	CPCS
0010		UNDISTRIBUTED	8	
		TOTAL 0010	60	

TEMPORARY DITCH CHECKS

CATEGORY	STATION TO	STATION	LOCATION	628.7504 LF	REMARKS
0010	95+95	96+05	STH 28, LT	30	
0010	114+00 -	252+00	STH 28, LT	50	
0010	273+00 -	319+50	STH 28, LT & RT	790	
0010	323+25 -	358+25	STH 28, LT & RT	340	
0010	374+00 -	382+25	STH 28, LT & RT	40	
		TOTAL 0010		1250	

TRAFFIC CONTROL ITEMS

CATEGORY	STATION - STATION	LOCATION	PROJECT 4060-05-70 643.0100 EACH	DRUMS 643.0300 DAY	BARRICADES TYPE II 643.0410 DAY	TRAFFIC CONTROL: BARRICADES TYPE III 643.0420 DAY	WARNING LIGHTS TYPE A 643.0705 DAY	WARNING LIGHTS TYPE C 643.0715 DAY	ARROW BOARDS 643.0800 DAY	SIGNS 643.0900 DAY	SIGNS FIXED MESSAGE 643.1000 SF	SIGNS PCMS 643.1050 DAY	DETOUR 4060-05-70 643.2000 EACH	DETOUR SIGNS 643.3000 DAY
0010	79+00 - 84+25	STH 28	--	3948	1092	752	1504	940	--	1092	--	--	--	--
0010	84+25 - 94+00	STH 28	--	7332	1092	752	1504	1880	--	1092	--	--	--	--
0010	94+00 - 100+00	STH 28	--	4512	1092	752	1504	4512	--	1092	--	--	--	--
0010	100+00 - 103+25	STH 28	--	2444	1092	752	1504	564	--	1092	--	--	--	--
0010	103+25 - 107+00	STH 28	--	2820	1092	752	1504	564	--	1092	--	--	--	--
0010	107+00 - 113+71	STH 28	--	5076	1092	752	1504	940	--	1092	--	--	--	--
0010	113+71 - 139+75	STH 28	--	0	--	752	1504	--	--	1092	9	--	--	--
0010	139+75 - 153+00	STH 28	--	0	--	752	1504	--	--	1092	9	--	--	--
0010	153+00 - 177+00	STH 28	--	0	--	752	1504	--	--	1092	9	--	--	--
0010	177+00 - 208+00	STH 28	--	0	--	752	1504	--	--	1092	9	--	--	--
0010	208+00 - 236+00	STH 28	--	0	--	752	1504	--	--	1092	27	--	--	--
0010	236+00 - 266+00	STH 28	--	0	--	752	1504	--	--	1092	18	--	--	--
0010	266+00 - 319+68	STH 28	--	0	--	752	1504	--	--	1092	9	--	--	--
0010	319+68 - 358+52	STH 28	--	0	--	752	1504	--	--	1092	9	--	--	--
0010	358+52 - 372+72	STH 28	--	0	--	752	1504	--	--	1092	9	--	--	--
0010	372+72 - 386+00	STH 28	--	0	--	752	1504	--	--	546	9	--	--	--
0010		PROJECT LIMITS	1	0	546	--	--	--	--	0	--	--	1	--
0010		USH 45	--	1376	546	--	--	--	30	0	--	30	--	5640
0010		CTH "H"	--	3008	546	--	--	--	--	0	--	--	--	4324
0010		STH 144	--	--	546	--	--	--	--	0	--	--	--	5452
0010		HIGH LAND DR	--	--	546	--	--	--	--	0	--	--	--	--
0010		RAIL ROAD ST	--	--	546	752	752	--	--	546	--	--	--	--
0010		PROSPECT ST	--	--	546	752	752	--	--	546	--	--	--	--
0010		PARK VIEW DR	--	--	546	752	752	--	--	1092	--	--	--	--
0010		RIVERVIEW DR	--	--	546	752	752	--	--	546	--	--	--	--
0010		CTH "S"	--	--	546	--	--	--	--	2184	27	--	--	--
0010		KEWASKUM ST	--	--	546	752	752	--	--	1092	--	--	--	--
0010		STARK ST	--	--	546	752	752	--	--	1092	--	--	--	--
0010		CARROLL ST	--	--	546	376	376	--	--	546	--	--	--	--
0010		KETTLE DR	--	--	--	752	752	--	--	546	--	--	--	--
0010		S. MILL RD	--	--	--	376	376	--	--	546	--	--	--	--
0010		N. MILL RD	--	--	--	376	376	--	--	546	--	--	--	--
0010		OAK RD	--	--	--	376	376	--	--	819	27	--	--	--
0010		KETTLE MORAINE DR	--	--	--	1504	1504	--	--	1638	54	--	--	--
0010		HICKORY DR	--	--	--	1504	1504	--	--	546	27	--	--	--
0010		FOREST VIEW DR	--	--	--	1504	1504	--	--	819	81	--	--	--
0010		CTH "HH"	--	--	--	752	752	--	--	819	27	--	--	--
0010		WESCOTT RD	--	--	--	752	752	--	--	819	27	--	--	--
0010		VALLEY VISTA LN	--	--	--	--	--	--	--	546	--	--	--	--
0010		N. PARADISE RD	--	--	--	--	--	--	--	819	27	--	--	--
		TOTAL 0010	1	30516	13650	24816	36848	9400	30	33033	414	30	1	15416

PAVEMENT MARKING EPOXY 4-INCH

CATEGORY	STATION TO	STATION	LOCATION	(WHITE) 646.0106 LF	(YELLOW) 646.0106 LF	REMARKS
0010	79+00 -	83+70	STH 28 CL	--	800	
0010	84+75 -	88+09	STH 28 CL	--	668	
0010	88+19 -	93+43	STH 28 CL	--	1048	
0010	94+44 -	99+68	STH 28 CL	--	1048	
0010	100+30 -	102+84	STH 28 CL	--	508	
0010	103+47 -	106+65	STH 28 CL	--	636	
0010	107+26 -	112+75	STH 28 CL	--	1098	
0010	113+75 -	116+75	STH 28 LT, CL, RT	600	600	
0010	116+75 -	118+06	STH 28, RT	131	--	
0010	118+06 -	130+00	STH 28 LT, CL, RT	2388	597	
0010	130+00 -	139+77	STH 28 LT, CL, RT	1888	1888	
0010	139+77 -	153+04	STH 28 LT, CL, RT	2554	2554	
0010	153+04 -	157+00	STH 28 LT, CL, RT	792	594	
0010	157+00 -	165+00	STH 28 LT, CL, RT	1600	400	
0010	165+00 -	177+00	STH 28 LT, CL, RT	2300	2300	
0010	177+00 -	197+00	STH 28 LT, CL, RT	3900	3900	
0010	197+00 -	202+00	STH 28 LT, CL, RT	1000	250	
0010	202+00 -	208+00	STH 28 LT, CL, RT	1100	1100	
0010	208+00 -	236+00	STH 28 LT, CL, RT	5400	5400	
0010	236+00 -	266+00	STH 28 LT, CL, RT	5800	5800	
0010	266+00 -	319+68	STH 28 LT, CL, RT	10536	7902	
0010	319+68 -	358+50	STH 28 LT, CL, RT	7664	3782	
0010	358+50 -	372+72	STH 28 LT, CL, RT	2744	2058	
0010	372+72 -	383+00	STH 28 LT, CL, RT	1956	1856	
0010	48+45 -	49+57	KETTLE MORAINE DE	--	224	
0010	50+40 -	51+65	KETTLE MORAINE DE	--	230	
0010	7+00 -	9+63	HICKORY DR	--	526	
0010	10+37 -	13+37	HICKORY DR	--	600	
0010	18+43 -	19+63	FOREST VIEW DR	--	240	
0010	20+37 -	21+57	FOREST VIEW DR	--	240	
0010	28+50 -	29+63	WESCOTT RD	--	226	
0010	30+37 -	31+50	WESCOTT RD	--	226	
0010	68+80 -	69+63	VALLEY VISTA LN	--	166	
0010			UNDISTRIBUTED	500	500	
			SUBTOTAL	52853	49965	

TOTAL 0010 102818 LF

PAVEMENT MARKING GROOVED PREFORMED THERMOPLASTIC CROSSWALK

CATEGORY	STATION TO	STATION	LOCATION	CROSSWALK 6-INCH SPV.0090.004 LF	CROSSWAK 24-INCH SPV.0090.005 LF	REMARKS
0010	78+16 -	78+58	STH 28, LT	88	--	USH 45
0010	78+67 -	79+07	STH 28, RT	87	--	USH 45
0010	78+89 -	78+95	STH 28, C/L	125	--	
0010	81+72 -	81+78	STH 28, C/L	--	48	MID-BLOCK CROSSING
0010	83+70 -	83+80	STH 28, C/L	64	80	TRAIL CROSSING
0010	84+00 -	84+50	STH 28, LT	103	--	RAILROAD ST
0010	84+08 -	84+46	STH 28, RT	78	--	PROSPECT ST
0010	84+67 -	84+73	STH 28, C/L	--	48	
0010	88+08 -	88+14	STH 28, C/L	--	48	MID-BLOCK CROSSING
0010	93+35 -	93+41	STH 28, C/L	--	60	
0010	93+59 -	94+18	STH 28, LT	120	--	PARK VIEW DR
0010	93+66 -	94+10	STH 28, RT	89	--	PARK VIEW DR
0010	94+29 -	94+35	STH 28, C/L	--	60	
0010	99+69 -	99+75	STH 28, C/L	--	66	
0010	99+82 -	100+17	STH 28, LT	73	--	CTH "S"
0010	99+86 -	100+16	STH 28, RT	63	--	RIVER VIEW DR
0010	100+23 -	100+29	STH 28, C/L	--	66	
0010	102+89 -	102+95	STH 28, C/L	79	--	
0010	103+00 -	103+35	STH 28, LT	70	--	KEWASKUM ST
0010	103+05 -	103+33	STH 28, RT	56	--	KEWASKUM ST
0010	103+41 -	103+47	STH 28, C/L	78	--	
0010	106+65 -	106+71	STH 28, C/L	78	--	
0010	106+77 -	107+11	STH 28, LT	67	--	STARK ST
0010	106+81 -	107+11	STH 28, RT	59	--	STARK ST
0010	107+20 -	107+26	STH 28, C/L	83	--	
			TOTAL 0010	1460	476	

PAVEMENT MARKING GROOVED WET REFLECTIVE TAPE &
PAVEMENT MARKING GROOVED PREFORMED THERMOPLASTIC

					PAVEMENT MARKING GROOVED PREFORMED PLASTIC		PAVEMENT MARKING GROOVED PREFORMED THERMOPLASTIC				
					4-INCH	8-INCH	ARROWS TYPE 2R	ARROWS TYPE 2	WORDS	STOP LINE 18-INCH	
					SPV.0090.001	SPV.0090.002	SPV.0060.002	SPV.0060.003	SPV.0060.004	SPV.0090.003	
CATEGORY	STATION	TO	STATION	LOCATION	LF	LF	EACH	EACH	EACH	LF	REMARKS
0010	78+94	-	79+00	STH 28, 0'-22' LT	--	--	--	--	--	22	
0010	78+96	-	80+88	STH 28, 11' LT	--	149	1	1	2	--	
0010	83+99	-	83+24	STH 28, 40' LT	--	--	--	--	--	25	RAILROAD ST
0010	84+33	-	84+45	STH 28, 35' RT	--	--	--	--	--	12	PROSPECT ST
0010	93+76	-	93+94	STH 28, 66' LT	--	--	--	--	--	18	PARK VIEW DR
0010	93+89	-	94+07	STH 28, 34' RT	--	--	--	--	--	18	PARK VIEW DR
0010	94+33	-	95+80	STH 28, 11' LT	--	74	--	--	--	--	
0010	99+83	-	100+00	STH 28, 37' LT	--	--	--	--	--	17	RIVER VIEW DR
0010	100+00	-	100+14	STH 28, 36' RT	--	--	--	--	--	14	RIVER VIEW DR
0010	103+03	-	103+18	STH 28, 31' LT	--	--	--	--	--	15	KEWASKUM ST
0010	103+18	-	103+30	STH 28, 36' RT	--	--	--	--	--	12	KEWASKUM ST
0010	106+78	-	106+94	STH 28, 30' LT	--	--	--	--	--	16	STARK ST
0010	106+94	-	107+08	STH 28, 36' RT	--	--	--	--	--	14	STARK ST
0010	114+70	-	118+40	STH 28, 12' RT	100	--	--	--	--	--	
0010	117+05	-	117+34	STH 28, 35' LT	--	--	--	--	--	29	KETTLE DR
0010	118+06	-	118+09	STH 28, 12' LT	--	103	1	--	1	--	
0010	205+47	-	207+47	STH 28, 12' RT	200	239	--	--	--	--	
0010	207+59	-	207+95	STH 28, 37' LT	--	--	--	--	--	36	KETTLE MORAINE DR
0010	208+13	-	208+49	STH 28, 37' RT	--	--	--	--	--	36	KETTLE MORAINE DR
0010	208+62	-	210+62	STH 28, 12' LT	200	239	--	--	--	--	
0010	233+37	-	235+50	STH 28, 12' RT	--	213	--	--	--	--	
0010	235+51	-	235+88	STH 28, 36' LT	--	--	--	--	--	37	HICKORY DR
0010	236+08	-	236+45	STH 28, 36' RT	--	--	--	--	--	37	HICKORY DR
0010	236+50	-	238+59	STH 28, 12' LT	--	209	--	--	--	--	
0010	264+33	-	265+50	STH 28, 12' RT	--	117	--	--	--	--	
0010	265+71	-	265+97	STH 28, 30' LT	--	--	--	--	--	26	FOREST VIEW DR
0010	265+97	-	266+23	STH 28, 36' RT	--	--	--	--	--	26	FOREST VIEW DR
0010	317+05	-	319+16	STH 28, 12' RT	--	211	--	--	--	--	
0010	319+43	-	319+69	STH 28, 36' LT	--	--	--	--	--	26	WESCOTT RD
0010	319+69	-	319+95	STH 28, 36' RT	--	--	--	--	--	26	WESCOTT RD
0010	320+24	-	322+00	STH 28, 12' LT	--	176	--	--	--	--	
0010	356+89	-	358+01	STH 28, 12' RT	--	112	1	--	1	--	
0010	358+52	-	358+75	STH 28, 35' RT	--	--	--	--	--	23	VALLEY VIST LN
0010	371+16		374+78	STH 28, 15' RT	75	--	--	--	--	--	
0010	373+42	-	373+72	STH 28, 20' LT	--	--	--	--	--	31	PARADISE RD
				TOTAL 0010	575	1842	3	1	4	516	

TEMPORARY PAVEMENT MARKING

CATEGORY	STATION TO	STATION	LOCATION	4-INCH 649.0100 LF	STOP LINE 18-INCH 649.1100 LF	REMARKS
STAGE 1						
0010	94+25 -	95+50		250	--	
0010	95+50 -	95+50		--	15	
0010	97+75 -	97+75		--	15	
0010	97+75	99+75		400	--	
STAGE 2						
0010	94+00 -	10+00		250	--	
0010	95+50 -	95+50		--	15	
0010	97+75 -	97+75		--	15	
0010	97+75	99+75		400	--	
			TOTAL 0010	1300	60	

CONSTRUCTION STAKING SUPPLEMENTAL CONTROL 4060-05-70

CATEGORY	STATION TO	STATION	LOCATION	650.9910 LS	REMARKS
0010	79+00 -	386+00	PROJECT LIMITS	1	
			TOTAL 0010	1	

SECTION CORNER MONUMENTS SPECIAL

CATEGORY	STATION	LOCATION	SPV.0060.005 EACH	REMARKS
0010	100+00.00	28RL1 R/L	1	SEC9046
0010	126+50.70	28RL1 R/L	1	sec9047
0010	153+03.77	28RL1 R/L	1	SEC9048
0010	265+97.24	28RL1 R/L	1	SEC9065
0010	293+17.30	28RL1 R/L	1	SEC54
0010	319+68.53	28RL1 R/L	1	SEC55
0010	346+20.30	28RL1 R/L	1	SEC56
0010	372+72.10	28RL1 R/L	1	SEC2057
		TOTAL 0010	8	

CONSTRUCTON STAKING SLOPE STAKES

CATEGORY	STATION TO	STATION	LOCATION	650.9920 LF	REMARKS
0010	79+00 -	96+32	STH 28, LT & RT	1732	RECONSTRUCTION
0010	97+45 -	100+00	STH 28, LT & RT	255	RECONSTRUCTION
0010	112+71 -	115+00	STH 28, LT ONLY	229	SHOULDER WIDENING
0010	120+00 -	232+00	STH 28, LT & RT	11200	SHOULDER WIDENING
0010	232+00 -	270+00	STH 28, LT & RT	3800	RECONSTRUCTION
0010	270+00 -	301+00	STH 28, LT & RT	3100	SHOULDER WIDENING
0010	301+00 -	323+50	STH 28, LT & RT	2250	RECONSTRUCTION
0010	323+50 -	338+00	STH 28, LT & RT	1450	SHOULDER WIDENING
0010	338+00 -	356+00	STH 28, LT & RT	1800	RECONSTRUCTION
0010	356+00 -	383+00	STH 28, LT & RT	2700	SHOULDER WIDENING
0010	48+72 -	79+50	Kettle Moraine Drive	3078	SHOULDER WIDENING
0010	50+50 -	51+27	Kettle Moraine Drive	77	SHOULDER WIDENING
0010	7+20 -	9+50	Hickory Drive	230	RECONSTRUCTION
0010	10+50 -	12+90	Hickory Drive	240	RECONSTRUCTION
0010	18+67 -	19+50	Forest View Drive	83	RECONSTRUCTION
0010	20+50 -	21+33	Forest View Drive	83	RECONSTRUCTION
0010	28+75 -	29+50	Wescott Road	75	RECONSTRUCTION
0010	30+50 -	31+25	Wescott Road	75	RECONSTRUCTION
			TOTAL 0010	32457	

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SAWING ASPHALT

CATEGORY	STATION TO	STATION	LOCATION	690.0150 LF	REMARKS
0010	78+75.0		STH 28, C/L	115	
0010	80+72.0	- 80+97.9	STH 28, 36' LT	20	DRIVEWAY
0010	82+30.6	- 82+56.2	STH 28, 36' LT	20	DRIVEWAY
0010	50+62.7		RAILROAD ST	46	
0010	49+60.0		PROSPECT ST	29	
0010	49+50.0		PARK VIEW DR	31	
0010	50+62.5		PARK VIEW DR	38	
0010	49+46.4		RIVER VIEW DR	27	
0010	50+63.2		CTH S	35	
0010	103+05.7	- 103+31.7	STH 28, LT	26	KEWASKUM ST
0010	103+02.5	- 103+32.5	STH 28, LT	30	KEWASKUM ST
0010	49+57.5		STARK ST	27	
0010	50+31.0		STARK ST	32	
0010	100+50.0	- 100+50.0	STH 28, RC/L	40	END RECONSTRUCTION
0010	100+50.0	- 113+71.0	STH 28, LT & RT	2642	PAVEMENT REPLACEMENT
0010	113+70.8	- 113+70.8	STH 28, C/L	24	END PAVT REPLACEMENT
0010	112+71.2	- 116+75.0	STH 28, LT	404	SHOULDER WIDENING
0010	118+06.0	- 146+64.0	STH 28, LT	2858	SHOULDER WIDENING
0010	120+00.0	- 138+70.0	STH 28, RT	1870	SHOULDER WIDENING
0010	138+85.0	- 146+64.0	STH 28, RT	779	SHOULDER WIDENING
0010	147+29.0	- 152+90.0	STH 28, LT	561	SHOULDER WIDENING
0010	152+90.0	- 153+20.0	N. MILL RD	30	BUTT JOINT
0010	147+29.0	- 169+50.0	STH 28, RT	2221	SHOULDER WIDENING
0010	153+20.0	- 169+50.0	STH 28, LT	1630	SHOULDER WIDENING
0010	169+50.0	- 169+50.0	STH 28, C/L	22	END MILL & OVERLAY
0010	176+50.0	- 176+50.0	STH 28, C/L	22	END RECONSTRUCTION
0010	177+00.0	177+20.0	S. MILL RD	20	BUTT JOINT
0010	176+50.0	- 207+34.0	STH 28, LT	3084	SHOULDER WIDENING
0010	177+20.0	- 207+47.0	STH 28, RT	3027	SHOULDER WIDENING
0010	48+48.0	- 48+73.0	K. MORAINE DR	40	BUTT JOINT

SAWING ASPHALT CONTINUES

CATEGORY	STATION TO	STATION	LOCATION	690.0150 LF	REMARKS
0010	51+27.6	- 51+52.6	K. MORAINE DR	40	BUTT JOINT
0010	208+62.5	- 232+00.0	STH 28, LT	2338	SHOULDER WIDENING
0010	208+75.7	- 232+00.0	STH 28, RT	2324	SHOULDER WIDENING
0010	232+00.0	- 232+00.0	STH 28, C/L	22	END MILL & OVERLAY
0010	6+95.6	- 7+20.6	HICKORY DR	32	BUTT JOINT
0010	12+89.4	- 13+14.4	HICKORY DR	45	BUTT JOINT
0010	18+41.7	- 18+66.7	FOREST VIEW DR	59	BUTT JOINT
0010	21+33.2	- 21+58.2	FOREST VIEW DR	78	BUTT JOINT
0010	270+00.0	- 270+00.0	STH 28, C/L	22	END RECONSTRUCTION
0010	270+00.0	- 301+00.0	STH 28, LT & RT	6200	SHOULDER WIDENING
0010	301+00.0	- 301+00.0	STH 28, C/L	22	END MILL & OVERLAY
0010	28+50.0	- 28+75.0	WESCOTT RD	42	BUTT JOINT
0010	31+25.0	- 31+50.0	WESCOTT RD	40	BUTT JOINT
0010	323+00.0	- 323+00.0	STH 28, C/L	22	END RECONSTRUCTION
0010	323+00.0	- 338+00.0	STH 28, LT & RT	3000	SHOULDER WIDENING
0010	338+00.0	- 338+00.0	STH 28, C/L	22	END MILL & OVERLAY
0010	356+00.0	- 356+00.0	STH 28, C/L	22	END RECONSTRUCTION
0010	356+00.0	- 372+72.0	STH 28, LT	1672	SHOULDER WIDENING
0010	356+00.0	- 357+89.0	STH 28, RT	189	SHOULDER WIDENING
0010	68+82.0	- 69+07.0	VALLEY VISTA LN	50	BUTT JOINT
0010	359+01.0	- 382+88.0	STH 28, RT	2387	SHOULDER WIDENING
0010	70+56.5	- 70+81.5	PARDISE RD	48	BUTT JOINT
0010	372+72.0	- 382+88.0	STH 28, LT	1016	SHOULDER WIDENING
0010	382+88.0	- 382+88.0	STH 28, C/L	52	END MILL & OVERLAY
0010			UNDISTRIBUTED	500	
			TOTAL 0010	39994	

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SAWING CONCRETE

CATEGORY	STATION TO	STATION	LOCATION	690.0250 LF	REMARKS
0010	78+50	- 83+97	STH 28 LT	546	SAW 2' BEHIND BACK OF CURB
0010	79+00	- 84+03	STH 28 RT	518	SAW 2' BEHIND BACK OF CURB
0010	84+56	- 93+47	STH 28 LT	891	SAW 2' BEHIND BACK OF CURB
0010	84+51	- 93+63	STH 28 RT	912	SAW 2' BEHIND BACK OF CURB
0010		-	STH 28 RT	135	SAW 2' BEHIND BACK OF CURB
0010			USH 45 LT	17.0	
0010			USH 45 RT	8.5	
0010			USH 45 LT	17.0	
0010			USH 45 RT	8.5	
0010	79+00	- 79+60	STH 28 RT	60	
0010					
0010	97+00	113+71	VARIOUS LOCATIONS	100	SAW CURB & GUTTER AND SIDEWALK
			TOTAL 0010	3213	

SEISMOGRAPH & CRACK AND DAMAGE SURVEY

CATEGORY	STATION TO	STATION	LOCATION	SEISMOGRAPH 999.1000.S LS	CRACK AND DAMAGE SURVEY 999.1500.S LS
0010	79+00	- 113+70	STH 28 LT & RT	1	1
			TOTAL 0010	1	1

REMOVING STORM SEWER

STATION		LOC.		204.0210 REMOVING MANHOLES EACH	204.0220 REMOVING INLETS EACH	204.0280 SEALING PIPES EACH	204.0245.001 REMOVING STORM SEWER 6-INCH LF	204.0245.002 REMOVING STORM SEWER 8-INCH LF	204.0245.003 REMOVING STORM SEWER 10-INCH LF	204.0245.004 REMOVING STORM SEWER 12-INCH LF	204.0245.005 REMOVING STORM SEWER 15-INCH LF	204.0245.006 REMOVING STORM SEWER 18-INCH LF	204.0245.007 REMOVING STORM SEWER 24-INCH LF
82+53	STH 28	25.6'	LT	--	1	--	--	--	--	--	48	--	--
83+01	STH 28	28.3'	LT	1	--	--	--	--	--	--	84	--	--
83+67	STH 28	47.3'	LT	--	1	--	--	32	--	--	--	--	--
83+85	STH 28	20.8'	LT	1	--	--	--	--	--	--	--	18	--
83+93	STH 28	43.8'	LT	--	1	--	--	26	--	--	--	--	--
83+97	STH 28	7.0'	LT	1	--	--	--	--	--	--	--	15	--
84+12	STH 28	38.4'	LT	1	--	--	--	20	--	--	--	--	--
84+55	STH 28	26.7'	LT	1	--	--	--	--	--	--	322	--	--
84+65	STH 28	24.7'	RT	--	1	1	--	--	--	--	--	--	--
87+71	STH 28	24.2'	RT	--	1	--	47	--	--	--	--	--	--
87+71	STH 28	21.3'	LT	--	1	--	8	--	--	--	--	--	--
87+77	STH 28	27.5'	LT	1	--	--	--	--	--	--	60	--	--
86+37	STH 28	27.3'	LT	1	--	--	--	--	--	--	235	--	--
90+65	STH 28	25.1'	RT	--	1	--	--	45	--	--	--	--	--
90+66	STH 28	21.4'	LT	--	1	--	--	7	--	--	--	--	--
90+71	STH 28	26.3'	LT	1	--	--	--	--	--	--	290	--	--
93+64	STH 28	23.2'	RT	--	1	--	--	44	--	--	--	--	--
93+61	STH 28	22.1'	LT	--	1	--	--	--	--	--	--	--	--
93+61	STH 28	26.0'	LT	1	--	--	--	--	--	--	16	--	--
93+75	STH 28	35.2'	LT	--	1	--	--	--	--	--	40	--	--
94+14	STH 28	37.0'	LT	--	1	--	--	--	--	--	190	--	--
95+20	STH 28	17.8'	RT	--	1	--	--	73	--	--	--	--	--
95+93	STH 28	14.8'	RT	--	1	--	--	31	--	--	--	--	--
96+03	STH 28	13.9'	LT	--	1	--	--	12	--	--	--	--	--
96+04	STH 28	25.8'	LT	--	--	--	--	--	--	--	--	39	--
98+07	STH 28	14.0'	RT	--	--	--	--	37	--	--	--	--	--
98+65	STH 28	14.2'	LT	--	1	--	--	7	--	--	--	--	--
98+71	STH 28	19.9'	RT	--	1	--	--	64	--	--	--	--	--
99+57	STH 28	17.9'	LT	--	1	--	--	--	--	--	--	--	219
99+66	STH 28	18.9'	RT	--	1	--	--	95	--	--	--	--	--
99+81	STH 28	36.3'	LT	--	1	--	--	17	--	--	--	--	--
99+86	STH 28	35.8'	RT	--	1	--	--	27	--	--	--	--	--
100+09	STH 28	15.3'	RT	1	--	--	--	--	--	--	--	34	--
100+15	STH 28	38.4'	RT	--	1	--	--	--	--	24	--	--	--
100+15	STH 28	17.8'	LT	1	--	--	--	--	--	--	--	--	58
100+19	STH 28	33.6'	LT	--	1	--	--	16	--	--	--	--	--
101+50	STH 28	21.2'	RT	--	1	--	--	5	--	--	--	--	--
101+50	STH 28	15.9'	RT	1	--	--	--	--	--	--	--	141	--
102+22	STH 28	16.7'	RT	1	--	--	--	--	--	--	--	72	--
102+30	STH 28	17.9'	LT	--	1	--	--	36	--	--	--	--	--
103+01	STH 28	37.'	LT	--	1	--	--	33	--	--	--	--	--
103+05	STH 28	32.4'	RT	--	1	--	--	28	--	--	--	--	--
103+32	STH 28	31.5'	RT	--	1	--	--	25	--	--	--	--	--
103+34	STH 28	36.5'	LT	--	1	--	--	22	--	--	--	--	--
103+49	STH 28	20.4'	LT	--	1	--	--	--	36	--	--	--	--
103+51	STH 28	15.1'	RT	1	--	--	--	--	--	--	--	128	--
103+53	STH 28	20.7'	RT	--	1	--	--	--	--	--	--	--	--
107+05	STH 28	17.0'	RT	1	--	--	--	--	--	355	--	--	--
107+14	STH 28	24.1'	RT	--	1	--	--	12	--	--	--	--	--
107+21	STH 28	20.2'	LT	--	1	--	--	45	--	--	--	--	--
		TOTALS		15	33	1	55	759	36	379	1,285	447	277

STORM SEWER

STR. NO	STATION	LOC.	COVER/ GRATE ELEV.	CATCH BASIN TYPE	INLET TYPE	MH TYPE	COVER TYPE	DEPTH (FEET)	FROM STR.	TO STR.	INVERT ELEV.	DISCH. ELEV.	SLOPE (%)	608.0412 STORM SEWER REINFORCED CONCRETE CL IV 12-INCH LF	608.0415 STORM SEWER REINFORCED CONCRETE CL IV 15-INCH LF	608.0418 STORM SEWER REINFORCED CONCRETE CL IV 18-INCH LF	608.0424 STORM SEWER REINFORCED CONCRETE CL IV 24-INCH LF	608.0430 STORM SEWER REINFORCED CONCRETE CL IV 30-INCH LF	610.0424 STORM SEWER PIPE REINFORCED CONCRETE HORIZONTAL ELLIPTICAL CL HE-IV 24x38-INCH LF	610.0429 STORM SEWER PIPE REINFORCED CONCRETE HORIZONTAL ELLIPTICAL CL HE-IV 29x45-INCH LF	610.0434 STORM SEWER PIPE REINFORCED CONCRETE HORIZONTAL ELLIPTICAL CL HE-IV 34x53-INCH LF	520.8000 CONCRETE COLLARS FOR PIPE EACH	650.4000 CONSTRUCTION STAKING STORM SEWER EACH	COMMENTS
IN106	81+49 STH 28	23.0' RT	947.84	2X3-FT	--	--	H	4.1	IN106	IN107	944.43	944.19	0.46	52	--	--	--	--	--	--	--	--	--	1	
IN107	82+01 STH 28	23.0' RT	947.68	2X3-FT	--	--	H	4.4	IN107	MH110	943.94	943.88	0.35	--	17	--	--	--	--	--	--	--	--	1	
IN108	81+49 STH 28	23.0' LT	947.78	2X3-FT	--	--	H	4.0	IN108	IN109	944.49	944.25	0.46	52	--	--	--	--	--	--	--	--	--	1	
IN109	82+01 STH 28	23.0' LT	947.68	2X3-FT	--	--	H	4.3	IN109	MH110	944.00	943.88	0.41	--	29	--	--	--	--	--	--	--	--	1	
MH110	82+01 STH 28	6.0' RT	948.30	--	--	5-FT	J	3.2	MH110	MH120	943.88	943.31	0.48	--	--	--	118	--	--	--	--	--	--	1	
IN118	82+52 STH 28	23.3' LT	948.04	2.5X3-FT	--	--	V	4.3	IN118	MH119	944.36	944.14	0.45	--	--	49	--	--	--	--	--	--	--	1	
MH119	83+01 STH 28	28.1' LT	949.16	--	--	4-FT	J	3.8	MH119	MH120	944.14	943.61	1.36	--	--	39	--	--	--	--	--	--	--	1	
MH120	83+19 STH 28	6.0' RT	949.03	--	--	6-FT	J	4.6	MH120	MH130	943.21	942.80	0.48	--	--	--	86	--	--	--	--	--	--	1	
IN129	83+36 STH 28	71.0' LT	948.50	--	1M-1G	--	MS	3.6	IN129	MH140	944.16	943.50	0.93	--	--	71	--	--	--	--	--	--	--	1	
MH140	83+85 STH 28	20.8' LT	949.36	--	--	4-FT	J	4.6	MH140	MH130	943.50	943.36	0.42	--	--	33	--	--	--	--	--	--	--	1	
MH130	84+05 STH 28	6.0' RT	949.55	--	--	6-FT	J	5.9	--	--	942.44	--		--	--	--	--	--	--	--	--	--	--	1	
IN208	84+53 STH 28	21.2' RT	948.89	2.5X3-FT	--	--	H	4.5	IN208	MH210	945.02	944.96	0.37	--	16	--	--	--	--	--	--	--	--	1	
IN209	84+42 STH 28	51.6' LT	949.19	2.5X3-FT	--	--	H	4.6	IN209	MH210	945.24	944.96	0.46	61	--	--	--	--	--	--	--	--	--	1	
MH210	84+60 STH 28	6.3' RT	948.96	--	--	5-FT	J	3.3	MH210	MH220	944.41	942.30	0.65	--	--	--	326	--	--	--	--	--	--	1	
EX216	87+77 STH 28	27.5' LT	--	--	--	--	--	--	EX216	IN217	946.00	945.95	1.00	5	--	--	--	--	--	--	--	--	--	1	
IN217	87+77 STH 28	23.0' LT	947.84	2.5X3-FT	--	--	V	4.4	IN217	IN219	944.00	943.84	0.80	--	--	20	--	--	--	--	--	--	--	1	
IN218	87+86 STH 28	23.0' RT	947.78	2X3-FT	--	--	H	4.0	IN218	MH220	944.42	944.36	0.35	17	--	--	--	--	--	--	--	--	--	1	
IN219	87+86 STH 28	23.0' LT	947.78	2.5X3-FT	--	--	V	4.7	IN219	MH220	943.74	943.50	0.83	--	--	29	--	--	--	--	--	--	--	1	
MH220	87+86 STH 28	6.0' RT	948.32	--	--	5-FT	J	4.9	MH220	MH230	942.20	941.98	0.44	--	--	--	50	--	--	--	--	--	--	1	
EX229	88+36 STH 28	26.8' LT	--	--	--	--	--	--	EX229	MH230	943.98	943.29	2.09	--	33	--	--	--	--	--	--	--	1	1	
MH230	88+36 STH 28	6.0' RT	948.16	--	--	5-FT	J	5.0	MH230	MH240	941.88	940.62	0.49	--	--	--	259	--	--	--	--	--	--	1	
IN238	90+95 STH 28	23.0' RT	947.04	2.5X3-FT	--	--	H	6.3	IN238	MH240	941.43	941.37	0.35	--	17	--	--	--	--	--	--	--	--	1	
IN239	90+95 STH 28	23.0' LT	947.48	2.5X3-FT	--	--	H	6.9	IN239	MH240	941.23	941.12	0.38	--	--	29	--	--	--	--	--	--	--	1	
MH240	90+95 STH 28	6.0' RT	947.58	--	--	6-FT	J	6.2	MH240	MH250	940.12	938.89	0.57	--	--	--	--	214	--	--	--	--	--	1	
IN248	93+09 STH 28	23.0' RT	946.23	2.5X3-FT	--	--	H	7.2	IN248	MH250	939.70	939.64	0.35	--	17	--	--	--	--	--	--	--	--	1	
IN249	93+09 STH 28	23.0' LT	946.83	2.5X3-FT	--	--	H	8.0	IN249	MH250	939.50	939.39	0.38	--	--	29	--	--	--	--	--	--	--	1	
MH250	93+09 STH 28	6.0' RT	946.77	--	--	6-FT	J	6.8	MH250	MH260	938.77	937.56	1.15	--	--	--	--	105	--	--	--	--	--	1	
MH257	93+72 STH 28	36.6' LT	945.73	--	--	6-FT	J	4.5	MH257	IN258	940.01	939.77	1.00	24	--	--	--	--	--	--	--	--	--	1	
IN258	93+74 STH 28	60.3' LT	945.35	2X3-FT	--	--	H	7.2	IN258	IN259	938.78	938.58	0.47	--	43	--	--	--	--	--	--	--	--	1	
IN259	94+14 STH 28	43.0' LT	943.65	2.5X3-FT	--	--	H	6.0	IN259	MH260	938.33	938.11	0.45	--	--	49	--	--	--	--	--	--	--	1	
MH260	94+14 STH 28	6.0' RT	943.26	--	--	6-FT	J	5.9	MH260	MH270	936.11	934.21	1.01	--	--	--	--	--	189	--	--	--	--	1	
IN266	95+20 STH 28	21.0' RT	939.55	2X3-FT	--	--	H	4.4	IN266	IN267	935.83	935.75	0.40	20	--	--	--	--	--	--	--	--	--	1	
IN267	95+40 STH 28	20.2' RT	939.16	2.5X3-FT	--	--	H	4.3	IN267	IN269	935.50	935.14	0.48	--	75	--	--	--	--	--	--	--	--	1	
IN268	96+10 STH 28	24.7' LT	938.26	2X3-FT	--	--	H	3.7	IN268	MH270	935.24	935.21	0.30	10	--	--	--	--	--	--	--	--	--	1	
IN269	96+15 STH 28	13.4' RT	938.59	5-FT	--	--	H	4.9	IN269	MH270	934.39	934.21	0.44	--	--	--	41	--	--	--	--	--	--	1	

GENERAL NOTES

1) ELEVATIONS AND STRUCTURE DEPTHS SHALL BE VERIFIED IN THE FIELD

2) JOINT TIES FOR CONCRETE PIPE SHALL BE PROVIDED AT ALL CONCRETE APRON ENDWALLS. APRON ENDWALLS SHALL BE TIED FOR THE LAST THREE JOINTS AT PIPE ENDS. THE COST OF THESE TIES SHALL BE INCIDENTAL TO THE COST OF THE PIPE.

3) STATIONS AND OFFSETS ARE CALLED OFF FROM THE APPRAISAL ALIGMENT
CALL OFFS ARE TO THE CENTER OF STRUCTURES OR TO THE APRON END OF ENDWALLS UNLESS OTHERWISE NOTED.

4) PIPE LENGTHS ARE MEASURED TO THE CENTER OF STRUCTURES.

5) RIM ELEVATIONS ARE GIVEN AT THE FLANGE LINE FOR INLET GRATES OR THE CENTER OF THE MANHOLE COVER FOR MANHOLES UNLESS OTHERWISE NOTED.

6) STRUCTURE DEPTH = RIM ELEVATION - INVERT - CASTING HEIGHT ADJUSTMENT + 2' SUMP (CATCH BASINS ONLY)
CASTING HEIGHT = 0.5 FT FOR TYPE H COVERS; 0.75 FT FOR TYPE J COVERS; 0 FT FOR MS COVERS
ADJUSTMENT (RINGS) = 0.5 FT FOR ALL COVERS EXCEPT TYPE MS COVERS

7) DEPTH OF MH340 DOES NOT INCLUDE 0.5 FT OF ADJUSTMENT RINGS, CASTING IS TO BE PLACED DIRECTLY ON THE FLAT SLAB ON TOP OF THE STRUCTURE

8) PIPE LENGTH FOR P369 IS 1.6' LONGER THAN THE INVERT LENGTH DUE TO THE SKEW OF THE ENDWALL.
STATION AND OFFSET FOR EW370 ARE GIVEN ALONG THE INVERT OF P369, AND ARE FOR PIPE PLACEMENT ONLY.
CONSTRUCTION DETAILS SHOULD BE REFERENCED FOR CONCRETE MASONRY ENDWALL PLACEMENT.

STORM SEWER

STR. NO	STATION	LOC.	COVER/ GRATE ELEV.	CATCH BASIN TYPE	INLET TYPE	MH TYPE	COVER TYPE	DEPTH (FEET)	FROM STR.	TO STR.	INVERT ELEV.	DISCH. ELEV.	SLOPE (%)	608.0412 STORM SEWER REINFORCED CONCRETE CL IV 12-INCH LF	608.0415 STORM SEWER REINFORCED CONCRETE CL IV 15-INCH LF	608.0418 STORM SEWER REINFORCED CONCRETE CL IV 18-INCH LF	608.0424 STORM SEWER REINFORCED CONCRETE CL IV 24-INCH LF	608.0430 STORM SEWER REINFORCED CONCRETE CL IV 30-INCH LF	610.0424 STORM SEWER PIPE REINFORCED CONCRETE HORIZONTAL ELLIPTICAL CL HE-IV 24x38-INCH LF	610.0429 STORM SEWER PIPE REINFORCED CONCRETE HORIZONTAL ELLIPTICAL CL HE-IV 29x45-INCH LF	610.0434 STORM SEWER PIPE REINFORCED CONCRETE HORIZONTAL ELLIPTICAL CL HE-IV 34x53-INCH LF	520.8000 CONCRETE COLLARS FOR PIPE EACH	650.4000 CONSTRUCTION STAKING STORM SEWER EACH	COMMENTS
MH270	96+00 STH 28	24.4' LT	938.71	--	--	8-FT	J	3.3	MH270	EW272	934.21	933.82	1.15	--	--	--	--	--	34	--	--	--	1	
EW272	95+98 STH 28	50.6' LT	--	--	--	--	--	--	--	--	--	--		--	--	--	--	--	--	--	--	--	1	
MH300	107+05 STH 28	16.7' RT	942.18	--	--	5-FT	J	3.2	MH300	IN309	937.70	937.62	0.42	--	--	19	--	--	--	--	--	--	1	
IN308	107+21 STH 28	19.7' LT	942.06	2.5X3-FT	--	--	H	5.1	IN308	MH310	937.67	937.56	0.42	--	--	26	--	--	--	--	--	--	1	
IN309	107+24 STH 28	21.5' RT	942.17	4-FT	--	--	H	5.2	IN309	MH310	937.62	937.56	0.38	--	--	16	--	--	--	--	--	--	1	
MH310	107+23 STH 28	6.0' RT	942.47	--	--	4-FT	J	4.3	MH310	MH312	936.90	933.48	1.15	--	--	--	298	--	--	--	--	--	1	
IN311	104+25 STH 28	21.2' RT	938.55	2.5X3-FT	--	--	H	4.6	IN311	MH312	934.64	934.59	0.33	--	15	--	--	--	--	--	--	--	1	
MH312	104+25 STH 28	6.0' RT	938.74	--	--	4-FT	J	4.0	MH312	MH320	933.46	933.12	0.45	--	--	--	75	--	--	--	--	--	1	
IN314	103+04 STH 28	31.3' RT	936.63	2.5X3-FT	--	--	H	3.8	IN314	MH325	933.52	933.42	0.40	--	25	--	--	--	--	--	--	--	1	
IN315	103+33 STH 28	31.9' RT	937.36	4-FT	--	--	H	4.8	IN315	IN316	933.21	933.15	0.27	--	--	--	22	--	--	--	--	--	1	
IN316	103+52 STH 28	21.1' RT	937.46	5-FT	--	--	H	5.0	IN316	MH320	933.15	933.12	0.20	--	--	--	15	--	--	--	--	--	1	
IN317	103+01 STH 28	36.6' LT	936.71	2.5X3-FT	--	--	H	3.8	IN317	MH325	933.60	933.41	0.44	--	43	--	--	--	--	--	--	--	1	
IN318	103+33 STH 28	36.2' LT	937.16	4-FT	--	--	H	4.6	IN318	IN319	933.23	933.18	0.23	--	--	--	22	--	--	--	--	--	1	
IN319	103+48 STH 28	20.0' LT	937.34	4-FT	--	--	H	4.8	IN319	MH320	933.18	933.12	0.23	--	--	--	26	--	--	--	--	--	1	
MH320	103+50 STH 28	6.0' RT	937.44	--	--	7-FT	J	3.1	MH320	MH325	933.12	932.87	0.52	--	--	--	48	--	--	--	--	--	1	
MH325	103+03 STH 28	6.0' RT	937.13	--	--	7-FT	J	3.4	MH325	MH330	932.45	932.27	0.23	--	--	--	--	--	--	79	--	--	1	
IN329	102+29 STH 28	20.3' LT	936.74	2.5X3-FT	--	--	H	4.0	IN329	MH330	933.40	933.29	0.41	--	27	--	--	--	--	--	--	--	1	
MH330	102+24 STH 28	6.0' RT	937.01	--	--	7-FT	J	3.5	MH330	MH340	932.27	932.04	0.31	--	--	--	--	--	--	74	--	--	1	
IN339	101+50 STH 28	21.1' RT	936.50	2.5X3-FT	--	--	V	4.6	IN339	MH340	932.54	932.45	0.60	--	--	--	15	--	--	--	--	--	1	
MH340	101+50 STH 28	6.0' RT	936.28	--	--	8-FT	J	3.5	MH340	MH360	932.04	931.72	0.23	--	--	--	--	--	--	137	--	--	1	SEE GENERAL NOTE #7
IN358	99+82 STH 28	36.0' LT	936.84	2.5X3-FT	--	--	H	4.4	IN358	IN359	933.15	932.98	0.46	--	--	37	--	--	--	--	--	--	1	
IN359	100+19 STH 28	34.2' LT	936.84	4-FT	--	--	H	4.6	IN359	MH360	932.88	932.83	0.31	--	--	16	--	--	--	--	--	--	1	
MH360	100+15 STH 28	18.3' LT	936.97	--	--	8-FT	J	4.2	MH360	IN368	931.48	931.24	0.24	--	--	--	--	--	--	--	102	--	1	
IN363	100+13 STH 28	37.3' RT	936.92	4-FT	--	--	H	4.2	IN363	MH364	933.37	933.24	1.30	--	--	10	--	--	--	--	--	--	1	
MH364	100+08 STH 28	46.5' RT	937.23	--	--	4-FT	J	2.7	MH364	IN365	933.24	933.12	0.44	--	--	27	--	--	--	--	--	--	1	
IN365	99+83 STH 28	35.5' RT	936.85	4-FT	--	--	H	4.4	IN365	IN366	933.12	933.02	0.40	--	--	25	--	--	--	--	--	--	1	
IN366	99+65 STH 28	20.3' RT	936.52	4-FT	--	--	H	4.2	IN366	IN367	933.02	932.67	0.66	--	--	53	--	--	--	--	--	--	1	
IN367	99+12 STH 28	20.3' RT	936.42	2.5X3-FT	--	3	H	3.0	IN367	IN368	932.08	931.78	0.65	--	--	--	46	--	--	--	--	--	1	
IN368	99+12 STH 28	25.7' LT	936.42	--	--	8-FT	V	3.8	IN368	IN382	931.24	931.21	0.15	--	--	--	--	--	--	--	20	--	1	
IN369	98+57 STH 28	26.5' LT	936.67	--	--	8-FT	V	4.2	IN369	EW370	931.12	931.00	0.23	--	--	--	--	--	--	--	53	--	1	SEE GENERAL NOTE #8
EW370	98+14 STH 28	55.1' LT	--	--	--	--	--	--	--	--	--	--		--	--	--	--	--	--	--	--	--	1	SEE GENERAL NOTE #8
IN381	98+92 STH 28	20.1' RT	936.46	2X3-FT	--	--	H	1.8	IN381	IN367	933.36	933.28	0.40	20	--	--	--	--	--	--	--	--	1	
IN382	98+92 STH 28	26.0' LT	936.53	--	--	8-FT	H	4.1	IN382	IN369	931.21	931.14	0.20	--	--	--	--	--	--	--	35	--	1	
		TOTALS												241	357	577	1,447	319	215	290	175	1	66	

GENERAL NOTES

1) ELEVATIONS AND STRUCTURE DEPTHS SHALL BE VERIFIED IN THE FIELD

2) JOINT TIES FOR CONCRETE PIPE SHALL BE PROVIDED AT ALL CONCRETE APRON ENDWALLS. APRON ENDWALLS SHALL BE TIED FOR THE LAST THREE JOINTS AT PIPE ENDS. THE COST OF THESE TIES SHALL BE INCIDENTAL TO THE COST OF THE PIPE.

3) STATIONS AND OFFSETS ARE CALLED OFF FROM THE APPRAISAL ALIGMENT
CALL OFFS ARE TO THE CENTER OF STRUCTURES OR TO THE APRON END OF ENDWALLS UNLESS OTHERWISE NOTED.

4) PIPE LENGTHS ARE MEASURED TO THE CENTER OF STRUCTURES.

5) RIM ELEVATIONS ARE GIVEN AT THE FLANGE LINE FOR INLET GRATES OR THE CENTER OF THE MANHOLE COVER FOR MANHOLES UNLESS OTHERWISE NOTED.

6) STRUCTURE DEPTH = RIM ELEVATION - INVERT - CASTING HEIGHT ADJUSTMENT + 2' SUMP (CATCH BASINS ONLY)
CASTING HEIGHT = 0.5 FT FOR TYPE H COVERS; 0.75 FT FOR TYPE J COVERS; 0 FT FOR MS COVERS
ADJUSTMENT (RINGS) = 0.5 FT FOR ALL COVERS EXCEPT TYPE MS COVERS

7) DEPTH OF MH340 DOES NOT INCLUDE 0.5 FT OF ADJUSTMENT RINGS, CASTING IS TO BE PLACED DIRECTLY ON THE FLAT SLAB ON TOP OF THE STRUCTURE

8) PIPE LENGTH FOR P369 IS 1.6' LONGER THAN THE INVERT LENGTH DUE TO THE SKEW OF THE ENDWALL.
STATION AND OFFSET FOR EW370 ARE GIVEN ALONG THE INVERT OF P369, AND ARE FOR PIPE PLACEMENT ONLY.
CONSTRUCTION DETAILS SHOULD BE REFERENCED FOR CONCRETE MASONRY ENDWALL PLACEMENT.

3

INLETS AND MANHOLES

LOCATION	611.1004 CATCH BASINS 4-FT DIAMETER EACH	611.1005 CATCH BASINS 5-FT DIAMETER EACH	611.1230 CATCH BASINS 2X3-FT EACH	611.1253 CATCH BASINS 2.5X3-FT EACH	611.2004 MANHOLES 4-FT DIAMETER EACH	611.2005 MANHOLES 5-FT DIAMETER EACH	611.2006 MANHOLES 6-FT DIAMETER EACH	611.2007 MANHOLES 7-FT DIAMETER EACH	611.2008 MANHOLES 8-FT DIAMETER EACH	611.3901 INLETS MEDIAN 1 GRATE* EACH	611.0530 MANHOLE COVERS TYPE J EACH	611.0642 INLET COVERS TYPE H EACH	611.0642 INLET COVERS, TYPE MS* EACH	611.0654 INLET COVERS TYPE V EACH
STH 28														
VARIOUS LOCATIONS	7	2	9	19	5	5	5	3	6	1	21	35	1	6
TOTALS	7	2	9	19	5	5	5	3	6	1	21	35	1	6

*ADDITIONAL QUANTITIES SHOWN ELSEWHERE IN PLAN

APRON ENDWALLS

LOCATION	523.0524 APRON ENDWALLS FOR CULVERT PIPE REINFOCED CONCRETE HORIZONTAL ELLIPTICAL 24x38-INCH EACH	611.9800.S PIPE GRATES* EACH	JOINT TIES REQUIRED EACH
EW272	1	1	4
TOTALS	1	1	4

*ADDITIONAL QUANTITIES SHOWN ELSEWHERE IN PLAN

TYPE I & II PERMANENT SIGNING

CATEGORY CODE 1000

SIGN NO.		SIGN MESSAGE	TYPE II SIGN SIZE W x H [IN.] x [IN.]	637.2210 SIGNS TYPE II REFLECTIVE H [SF]	637.2215 SIGNS TYPE II REFLECTIVE H FOLDING SF	637.2230 SIGNS TYPE II REFLECTIVE F [SF]	637.2235 SIGNS TYPE II REFLECTIVE F FOLDING [SF]	634.0816 POSTS TUBULAR STEEL 2X2-INCH X 16-FT [EA]	634.0616 WOOD POSTS 4"x 6"X16' [EA]	634.0618 WOOD POSTS 4"x 6"X18' [EA]	638.2102 MOVING SIGNS TYPE II [EA]	638.2602 REMOVING SIGNS TYPE II [EA]	638.3000 REMOVING SMALL SIGN SUPPORTS [EA]	MOUNT ON SAME POST AS SIGN #	REMARKS NEW SIGN LOCATION
100	J3-1(2S)	ROUTE ASSEMBLY	24 x 57	9.50	--	--	--	--	--	--	--	1	--	--	ON SIGNAL POLE, ABOVE SIGNALS
	M3-2	--	24 x 12	--	--	--	--	--	--	--	--	--	--	--	--
	M1-6	STH 28	24 x 24	--	--	--	--	--	--	--	--	--	--	--	--
	M6-1	--	21 x 21	--	--	--	--	--	--	--	--	--	--	--	--
101	J4-2(2S)	ROUTE ASSEMBLY	24 x 72	12.00	--	--	--	--	--	--	--	1	--	--	ON LIGHT POLE
	M3-1	--	24 x 12	--	--	--	--	--	--	--	--	--	--	--	--
	M1-4	USH 45	24 x 24	--	--	--	--	--	--	--	--	--	--	--	--
	M3-4	--	24 x 12	--	--	--	--	--	--	--	--	--	--	--	--
	M1-6	STH 28	24 x 24	--	--	--	--	--	--	--	--	--	--	--	--
102	J3-1(2S)	ROUTE ASSEMBLY	24 x 57	9.50		--	--	--	--	--	--	1	--	--	ON SIGNAL
	M3-4	--	24 x 12	--	--	--	--	--	--	--	--	--	--	--	--
	M1-6	STH 28	24 x 24	--	--	--	--	--	--	--	--	--	--	--	--
	M6-1	--	21 x 21	--	--	--	--	--	--	--	--	--	--	--	--
103	J3-1(2S)	ROUTE ASSEMBLY	24 x 57	9.50	--	--	--	--	--	--	--	1	--	--	ON SIGNAL POLE, ABOVE SIGNAL
	M3-4	--	24 x 12	--	--	--	--	--	--	--	--	--	--	--	--
	M1-6	STH 28	24 x 24	--	--	--	--	--	--	--	--	--	--	--	--
	M6-1	--	21 x 21	--	--	--	--	--	--	--	--	--	--	--	--
103A	R1-1F(3)	--	36 x 36	--	7.46	--	--	--	--	--	--	1	--	--	ON SIGNAL POLE, ABOVE SIGNAL
104	J3-2(2S)	--	48 x 57	19.00	--	--	--	--	--	--	--	1	--	--	ON LIGHT POLE
	M3-3	--	-- x --	--	--	--	--	--	--	--	--	--	--	--	--
	M1-4	USH 45	-- x --	--	--	--	--	--	--	--	--	--	--	--	--
	M6-1	--	-- x --	--	--	--	--	--	--	--	--	--	--	--	--
	M3-1	--	-- x --	--	--	--	--	--	--	--	--	--	--	--	--
	M1-4	USH 45	-- x --	--	--	--	--	--	--	--	--	--	--	--	--
	M6-1	--	-- x --	--	--	--	--	--	--	--	--	--	--	--	--
104A	R7-5D(2S)	TWO HOUR, 8 AM TO 6 PM	18 x 24	3.00	--	--	--	--	--	--	--	--	--	--	ON LIGHT POLE
105	W3-3(2S)	--	36 x 36	--	--	9.00	--	1	--	--	--	1	--	--	--
106	R7-1D(2S)	--	18 x 24	3.00	--	--	--	1	--	--	--	1	1	--	--
107	J3-1(2S)	ROUTE ASSEMBLY	24 x 57	9.50	--	--	--	--	--	--	--	1	--	--	ON LIGHT POLE
	M3-3	--	24 x 12	--	--	--	--	--	--	--	--	--	--	--	--
	M1-4	USH 45	24 x 24	--	--	--	--	--	--	--	--	--	--	--	--
	M6-1	--	21 x 21	--	--	--	--	--	--	--	--	--	--	--	--
108	J3-1(2S)	ROUTE ASSEMBLY	24 x 57	9.50	--	--	--	--	--	--	--	1	--	--	ON SIGNAL POLE, ABOVE SIGNALS
	M3-2	--	24 x 12	--	--	--	--	--	--	--	--	--	--	--	--
	M1-6	STH 28	24 x 24	--	--	--	--	--	--	--	--	--	--	--	--
	M6-1	--	21 x 21	--	--	--	--	--	--	--	--	--	--	--	--
109	R1-1F(3)	--	36 x 36	--	7.46	--	--	--	--	--	--	1	--	--	ON SIGNAL POLE
110	J4-1(2S)	--	24 x 36	6.00	--	--	--	--	--	--	--	--	--	--	ON LIGHT POLE
	M3-2	--	24 x 12	--	--	--	--	--	--	--	--	--	--	--	--
	M1-6	STH 28	24 x 24	--	--	--	--	--	--	--	--	--	--	--	--
111	R2-1(2S)	25 MPH	24 x 30	5.00	--	--	--	--	--	--	--	2	--	--	--
112	W11-15A(2S)	--	30 x 30	--	--	6.25	--	1	--	--	--	1	1	--	--
	W16-7L(2S)	--	24 x 12	--	--	2.00	--	--	--	--	--	1	--	--	--
113	R1-1(3)	--	36 x 36	7.46	--	--	--	1	--	--	--	1	1	--	--
114	J1-1(2S)	--	24 x 39	6.50	--	--	--	--	--	--	--	1	--	--	ON LIGHT POLE
	M2-1	--	24 x 15	--	--	--	--	--	--	--	--	--	--	--	--
	M1-4	USH 45	24 x 24	--	--	--	--	--	--	--	--	--	--	--	--
115	S1-1(2S)	--	36 x 36	--	--	6.75	--	1	--	--	--	--	--	--	--
	WF16-7L(2S)	--	24 x 12	--	--	2.00	--	--	--	--	--	--	--	--	--
116	W11-15A(2S)	--	30 x 30	--	--	6.25	--	--	--	1	--	--	--	--	--
	W16-7L(2S)	--	24 x 12	--	--	2.00	--	--	--	--	--	--	--	--	--
117	R1-1(3)	--	36 x 36	7.46	--	--	--	1	--	--	--	1	1	--	--
118	S1-1(2S)	--	36 x 36	--	--	6.75	--	1	--	--	--	1	--	--	ON LIGHT POLE
	WF16-9P(2M)	--	30 x 18	--	--	3.75	--	--	--	--	--	1	--	--	--
	R2-6P(2S)	--	24 x 18	--	--	3.00	--	--	--	--	--	--	--	--	--

3

TYPE I & II PERMANENT SIGNING

CATEGORY CODE 1000

SIGN NO.		SIGN MESSAGE	TYPE II SIGN SIZE W x H [IN.] x [IN.]	637.2210 SIGNS TYPE II REFLECTIVE H [SF]	637.2215 SIGNS TYPE II REFLECTIVE H FOLDING SF	637.2230 SIGNS TYPE II REFLECTIVE F [SF]	637.2235 SIGNS TYPE II REFLECTIVE F FOLDING [SF]	634.0816 POSTS TUBULAR STEEL 2X2-INCH X 16-FT [EA]	634.0616 WOOD POSTS 4"x 6"X16' [EA]	634.0618 WOOD POSTS 4"x 6"X18' [EA]	638.2102 MOVING SIGNS TYPE II [EA]	638.2602 REMOVING SIGNS TYPE II [EA]	638.3000 REMOVING SMALL SIGN SUPPORTS [EA]	MOUNT ON SAME POST AS SIGN #	REMARKS NEW SIGN LOCATION
119	S1-1(2S)	--	36 x 36	--	--	6.75	--	1	--	--	--	1	--	--	--
	WF16-7L(2S)	--	24 x 12	--	--	2.00	--	--	--	--	--	1	--	--	--
120	S1-1	--	-- x --	--	--	--	--	--	--	--	--	1	--	--	--
121	R3-4(2S)	--	24 x 24	4.00	--	--	--	--	--	--	--	--	--	--	ON LIGHT POLE
122	S1-1(2S)	--	36 x 36	--	--	6.75	--	--	--	--	--	2	--	--	ON LIGHT POLE
	WF16-9P(2M)	--	24 x 12	--	--	2.00	--	--	--	--	--	1	--	--	--
	R2-6P(2S)	--	24 x 18	--	--	3.00	--	--	--	--	--	--	--	--	--
123	R1-1(3)	--	36 x 36	7.46	--	--	--	1	--	--	--	1	1	--	--
124	NOT USED	--	-- x --	--	--	--	--	--	--	--	--	--	--	--	--
125	S5-2(2S)	--	24 x 30	5.00	--	--	--	--	--	--	--	--	--	--	ON LIGHT POLE
126	R3-4(2S)	--	24 x 24	4.00	--	--	--	--	--	--	--	2	--	--	ON LIGHT POLE
127	R3-4(2S)	--	24 x 24	4.00	--	--	--	--	--	--	--	1	--	--	ON LIGHT POLE
128	R2-1(2S)	25 MPH	24 x 30	5.00	--	--	--	--	--	--	--	1	--	--	ON LIGHT POLE
129	R3-4(2S)	--	24 x 24	4.00	--	--	--	--	--	--	--	1	--	--	ON LIGHT POLE
130	R1-1	--	36 x 36	--	--	--	--	1	--	--	1	--	1	--	--
131	ROUTE ASSEMBLY	--	-- x --	--	--	--	--	--	--	--	--	2	--	--	--
132	J4-1(2S)	--	24 x 36	6.00	--	--	--	--	--	--	--	--	--	--	ON LIGHT POLE
	M3-4	--	24 x 12	--	--	--	--	--	--	--	--	--	--	--	--
	M1-6	STH 28	24 x 24	--	--	--	--	--	--	--	--	--	--	--	--
133	R2-1(2S)	25 MPH	24 x 30	5.00	--	--	--	1	--	--	--	--	--	--	--
134	R1-1(3)	--	36 x 36	7.46	--	--	--	--	--	--	--	1	--	--	FLASHING ATTENUATOR TO REMAIN
135	J13-1(2S)	--	24 x 45	7.50	--	--	--	--	--	--	--	1	--	--	ON LIGHT POLE
	M3-1	--	24 x 12	--	--	--	--	--	--	--	--	--	--	--	--
	M1-5A	CTH S	24 x 24	--	--	--	--	--	--	--	--	--	--	--	--
	M6-1	--	-- x --	--	--	--	--	--	--	--	--	--	--	--	--
136	J1-1(2S)	--	24 x 39	6.50	--	--	--	1	--	--	--	1	--	--	--
	M2-1	--	24 x 15	--	--	--	--	--	--	--	--	--	--	--	--
	M1-5A	CTH S	24 x 24	--	--	--	--	--	--	--	--	--	--	--	--
137	J3-1(2S)	--	24 x 45	7.50	--	--	--	1	--	--	--	1	--	--	--
	M3-1	--	24 x 12	--	--	--	--	--	--	--	--	--	--	--	--
	M1-5A	CTH S	24 x 24	--	--	--	--	--	--	--	--	--	--	--	--
	M6-1	--	21 x 21	--	--	--	--	--	--	--	--	--	--	--	--
138	W14-1(2S)	--	30 x 30	--	--	6.25	--	1	--	--	--	1	1	--	--
139	R1-1(3)	--	36 x 36	7.46	--	--	--	1	--	--	--	1	1	--	--
140	J4-1(2S)	--	24 x 36	6.00	--	--	--	--	--	--	--	1	--	--	ON LIGHT POLE
	M3-2	--	24 x 12	--	--	--	--	--	--	--	--	--	--	--	--
	M1-6	STH 28	24 x 24	--	--	--	--	--	--	--	--	--	--	--	--
141	J1-1(2S)	--	24 x 39	6.50	--	--	--	1	--	--	--	1	--	--	--
	M2-1	--	24 x 15	--	--	--	--	--	--	--	--	--	--	--	--
	M1-5A	CTH S	24 x 24	--	--	--	--	--	--	--	--	--	--	--	--
142	R1-1(3)	--	36 x 36	7.46	--	--	--	1	--	--	--	1	1	--	--
143	R2-1(2S)	25 MPH	24 x 30	5.00	--	--	--	--	--	--	--	1	1	--	ON LIGHT POLE
144	R1-1(3)	--	36 x 36	7.46	--	--	--	1	--	--	--	1	1	--	--
145	J4-1	ROUTE ASSEMBLY	-- x --	--	--	--	--	--	--	--	--	1	--	--	--
146	R1-1(3)	--	36 x 36	7.46	--	--	--	1	--	--	--	1	1	--	--
147	R2-1(2S)	25 MPH	24 x 30	5.00	--	--	--	--	--	--	--	1	--	--	ON LIGHT POLE
148	R1-1(3)	--	36 x 36	7.46	--	--	--	1	--	--	--	1	1	--	--
149	W1-7(2S)	--	48 x 24	--	--	8.00	--	--	1	--	--	--	--	--	SHEET 7
150	R2-1	--	-- x --	--	--	--	--	--	--	--	--	1	1	--	--
151	I2-3(2S)	KEWASKUM, POP 4,004	72 x 24	12.00	--	--	--	2	--	--	--	1	2	--	--

TYPE I & II PERMANENT SIGNING

CATEGORY CODE 1000

SIGN NO.		SIGN MESSAGE	TYPE II SIGN SIZE W x H [IN.] x [IN.]	637.2210 SIGNS TYPE II REFLECTIVE H [SF]	637.2215 SIGNS TYPE II REFLECTIVE H FOLDING SF	637.2230 SIGNS TYPE II REFLECTIVE F [SF]	637.2235 SIGNS TYPE II REFLECTIVE F FOLDING [SF]	634.0816 POSTS TUBULAR STEEL 2X2-INCH X 16-FT [EA]	634.0616 WOOD POSTS 4"x 6"X16' [EA]	634.0618 WOOD POSTS 4"x 6"X18' [EA]	638.2102 MOVING SIGNS TYPE II [EA]	638.2602 REMOVING SIGNS TYPE II [EA]	638.3000 REMOVING SMALL SIGN SUPPORTS [EA]	MOUNT ON SAME POST AS SIGN #	REMARKS NEW SIGN LOCATION
152	R2-1(2S)	25 MPH	24 x 30	5.00	--	--	--	--	--	--	--	1	1	--	ON LIGHT POLE
153	J4-1(2S)	--	24 x 36	6.00	--	--	--	--	--	1	--	--	--	--	--
	M3-2	--	24 x 12	--	--	--	--	--	--	--	--	--	--	--	--
	M1-6	STH 28	24 x 24	--	--	--	--	--	--	--	--	--	--	--	--
154	R2-1(3)	25 MPH	36 x 48	12.00	--	--	--	--	1	--	--	--	--	--	--
155	J4-1(2S)	--	24 x 36	6.00	--	--	--	--	--	1	--	--	--	--	--
	M3-4	--	24 x 12	--	--	--	--	--	--	--	--	--	--	--	--
	M1-6	STH 28	24 x 24	--	--	--	--	--	--	--	--	--	--	--	--
156	R1-1(3)	--	36 x 36	7.46	--	--	--	--	1	--	--	1	1	--	--
157	W3-5(3)	25 MPH	36 x 36	--	--	9.00	--	--	1	--	--	1	1	--	--
158	D2-2(2S)	CASCADE 17, SHEBOYGAN 34	84 x 24	14.00	--	--	--	--	2	--	--	2	2	--	--
159	R2-1	--	-- x --	--	--	--	--	--	--	--	--	1	1	--	--
160	W14-3(2S)	--	48 x 36	--	--	6.00	--	--	--	1	--	1	--	--	--
161	R2-1(2S)	45 MPH	24 x 30	5.00	--	--	--	--	1	--	--	--	--	--	--
162	R2-1(2S)	45 MPH	24 x 30	5.00	--	--	--	--	1	--	--	--	--	--	SHEET 9
163	W8-70(2S)	--	36 x 36	--	--	9.00	--	--	--	1	--	--	--	--	SHEET 10
	W57-51(2S)	2 MILES	30 x 15	--	--	3.13	--	--	--	--	--	--	--	--	
164	W14-3(2S)	--	48 x 36	--	--	6.00	--	--	--	1	--	1	1	--	--
165	R2-1(2S)	45 MPH	24 x 30	5.00	--	--	--	--	1	--	--	1	--	--	--
166	R2-1	--	-- x --	--	--	--	--	--	--	--	--	1	1	--	--
167	R2-1	--	-- x --	--	--	--	--	--	--	--	--	1	1	--	--
168	R2-1	--	-- x --	--	--	--	--	--	--	--	--	1	1	--	--
169	R1-1(3)	--	36 x 36	7.46	--	--	--	--	1	--	--	1	1	--	--
170	W5-52R(2S)	--	18 x 54	--	--	6.75	--	--	1	--	--	1	1	--	4' MOUNTING HEIGHT
171	W5-52L(2S)	--	18 x 54	--	--	6.75	--	--	1	--	--	1	1	--	4' MOUNTING HEIGHT
172	W5-52L(2S)	--	18 x 54	--	--	6.75	--	--	1	--	--	1	1	--	4' MOUNTING HEIGHT
173	W5-52R(2S)	--	18 x 54	--	--	6.75	--	--	1	--	--	1	1	--	4' MOUNTING HEIGHT
174	R2-1(3)	45 MPH	36 x 48	12.00	--	--	--	--	1	--	--	1	1	--	--
175	R1-1(3)	--	36 x 36	7.46	--	--	--	--	1	--	--	1	1	--	--
176	W14-1(2S)	--	30 x 30	--	--	6.25	--	--	1	--	--	1	1	--	--
177	R2-1(2S)	55 MPH	24 x 30	5.00	--	--	--	--	1	--	--	1	1	--	--
178	W14-3(2S)	--	48 x 36	--	--	6.00	--	--	--	1	--	1	1	--	--
179	W3-5(3)	45MPH	36 x 36	--	--	9.00	--	--	--	1	--	1	1	--	--
180	W14-3(2S)	--	48 x 36	--	--	6.00	--	--	--	1	--	1	1	--	--
181	W1-4R(3)	--	36 x 36	--	--	9.00	--	--	--	1	--	1	1	--	--
181A	W13-1(3)	45 MPH	24 x 24	--	--	4.00	--	--	--	--	--	1	--	--	--
182	W2-2(3)	--	36 x 36	--	--	9.00	--	--	--	1	--	1	1	--	--
183	W11-6F	--	36 x 36	--	--	--	9.00	--	--	--	--	1	--	--	FOLDING
184	W11-7(3)	--	36 x 36	--	--	9.00	--	--	1	--	--	1	1	--	--
185	R1-1(3)	--	36 x 36	7.46	--	--	--	--	1	--	--	1	1	--	--
186	W11-7(3)	--	36 x 36	--	--	9.00	--	--	1	--	--	1	1	--	--
187	W1-4R(3)	--	36 x 36	--	--	9.00	--	--	--	1	--	1	1	--	--
187A	W13-1(3)	45 MPH	24 x 24	--	--	4.00	--	--	--	--	--	1	--	--	--
188	W14-3(2S)	--	48 x 36	--	--	6.00	--	--	--	1	--	1	1	--	--
189	J1-1(2)	--	24 x 39	6.50	--	--	--	--	--	1	--	1	--	--	--
	M2-1	--	21 x 15	--	--	--	--	--	--	--	--	--	--	--	--
	M1-97	--	24 x 24	--	--	--	--	--	--	--	--	--	--	--	--
190	W14-3(2S)	--	48 x 36	--	--	6.00	--	--	--	1	--	1	1	--	--
191	W11-6F(3)	--	36 x 36	--	--	--	9.00	--	--	--	--	1	--	--	FOLDING
192	R1-1(3)	--	36 x 36	7.46	--	--	--	--	1	--	--	1	1	--	--
193	R2-1(2S)	45 MPH	24 x 30	5.00	--	--	--	--	1	--	--	1	1	--	--
194	J13-1	ROUTE ASSEMBLY	-- x --	--	--	--	--	--	--	1	1	--	1	--	--
195	J13-1(2)	ROUTE ASSEMBLY	24 x 45	7.50	--	--	--	--	--	1	--	1	1	--	--
	M1-97	--	24 x 24	--	--	--	--	--	--	--	--	--	--	--	--
	MG6-4	--	21 x 21	--	--	--	--	--	--	--	--	--	--	--	GREEN BACKGROUND

TYPE I & II PERMANENT SIGNING

CATEGORY CODE 1000

SIGN NO.		SIGN MESSAGE	TYPE II SIGN SIZE W x H [IN.] x [IN.]	637.2210 SIGNS TYPE II REFLECTIVE H [SF]	637.2215 SIGNS TYPE II REFLECTIVE H FOLDING SF	637.2230 SIGNS TYPE II REFLECTIVE F [SF]	637.2235 SIGNS TYPE II REFLECTIVE F FOLDING [SF]	634.0816 POSTS TUBULAR STEEL 2X2-INCH X 16-FT [EA]	634.0616 WOOD POSTS 4"x 6"X16' [EA]	634.0618 WOOD POSTS 4"x 6"X18' [EA]	638.2102 MOVING SIGNS TYPE II [EA]	638.2602 REMOVING SIGNS TYPE II [EA]	638.3000 REMOVING SMALL SIGN SUPPORTS [EA]	MOUNT ON SAME POST AS SIGN #	REMARKS NEW SIGN LOCATION
196	J13-1(2)	ROUTE ASSEMBLY	24 x 45	7.50	--	--	--	--	--	1	--	1	1	--	--
	M1-97	--	24 x 24	--	--	--	--	--	--	--	--	--	--	--	--
	MG6-4	--	21 x 21	--	--	--	--	--	--	--	--	--	--	--	GREEN BACKGROUND
197	R1-1(3)	--	36 x 36	7.46	--	--	--	--	1	--	--	1	1	--	--
198	W1-2	--	-- x --	--	--	--	--	--	1	--	1	1	--	--	--
199	J1-1(2)	--	24 x 39	6.50	--	--	--	--	--	1	--	1	1	--	--
	M2-1	--	21 x 15	--	--	--	--	--	--	--	--	--	--	--	--
	M1-97	--	24 x 24	--	--	--	--	--	--	--	--	--	--	--	--
200	W14-3(2S)	--	48 x 36	--	--	6.00	--	--	--	1	--	1	1	--	--
201	W1-2, W13-1	--	-- x --	--	--	--	--	--	--	1	2	--	1	--	--
202	W14-3(2S)	--	48 x 36	--	--	6.00	--	--	1	--	--	1	--	--	--
203	W1-2	--	-- x --	--	--	--	--	--	--	1	1	--	--	--	--
204	W13-1(3)	50 MPH	24 x 24	--	--	4.00	--	--	--	--	--	1	--	--	--
205	W1-2, W13-1	--	-- x --	--	--	--	--	--	--	1	2	--	1	--	--
206	R1-1(3)	--	36 x 36	7.46	--	--	--	--	1	--	--	1	1	--	--
207	W2-1	--	-- x --	--	--	--	--	--	1	--	1	--	1	--	--
208	R1-1(3)	--	36 x 36	7.46	--	--	--	--	1	--	--	1	1	--	--
209	W3-5	--	-- x --	--	--	--	--	--	1	--	1	--	1	--	--
210	W1-2L(3)	--	36 x 36	--	--	9.00	--	--	--	1	--	1	1	--	--
	W13-1(3)	40 MPH	24 x 24	--	--	4.00	--	--	--	--	--	1	--	--	--
211	W5-52	--	-- x --	--	--	--	--	--	--	--	--	1	1	--	--
212	W1-6	--	-- x --	--	--	--	--	--	--	--	--	1	1	--	--
213	M4-6(3)	--	36 x 18	4.50	--	--	--	--	--	1	--	1	1	--	--
	R2-1(2M)	40 MPH	36 x 48	12.00	--	--	--	--	--	--	--	1	--	--	--
214	W1-6(2M)	--	48 x 24	--	--	8.00	--	--	1	--	--	1	1	--	--
215	W1-2R(2M)	--	36 x 36	--	--	9.00	--	--	1	--	--	1	1	--	--
216	R2-1(3)	40 MPH	36 x 48	12.00	--	--	--	--	1	--	--	1	1	--	--
217	W1-6(2M)	--	48 x 24	--	--	8.00	--	--	1	--	--	1	1	--	--
218	I2-3U(2M)	ST MICHAELS	84 x 24	14.00	--	--	--	--	2	--	--	1	2	--	--
219	R2-1(2S)	40 MPH	24 x 30	5.00	--	--	--	--	1	--	--	2	2	--	--
220	W2-1, W13-1	--	-- x --	--	--	--	--	--	--	1	2	--	1	--	--
221	R2-1(2S)	40 MPH	24 x 30	5.00	--	--	--	--	1	--	--	1	1	--	--
222	R1-1(3)	--	36 x 36	7.46	--	--	--	--	1	--	--	1	1	--	--
223	W2-1	--	-- x --	--	--	--	--	--	--	1	1	--	1	--	--
223A	W13-1(2M)	35 MPH	18 x 18	--	--	2.25	--	--	--	--	--	1	--	--	--
224	W5-52	--	-- x --	--	--	--	--	--	--	--	--	1	1	--	--
225	R1-1(3)	--	36 x 36	7.46	--	--	--	--	1	--	--	1	1	--	--
226	R2-1(2S)	40 MPH	24 x 30	5.00	--	--	--	--	1	--	--	1	1	--	--
227	ADOPT A HWY	--	-- x --	--	--	--	--	--	1	--	1	--	1	--	--
228	R2-1	--	-- x --	--	--	--	--	--	--	--	--	1	1	--	--
229	R2-1	--	-- x --	--	--	--	--	--	--	--	--	1	1	--	--
230	I2-3U(2M)	ST MICHAELS	84 x 24	14.00	--	--	--	--	2	--	--	1	2	--	--
231	R2-1(3)	40 MPH	36 x 48	12.00	--	--	--	--	1	--	--	1	1	--	--
232	W14-3(2M)	--	48 x 36	--	--	6.00	--	--	1	--	--	1	1	--	--
233	W14-3(2M)	--	48 x 36	--	--	6.00	--	--	1	--	--	1	1	--	--
234	W3-5	40MPH	-- x --	--	--	--	--	--	--	1	1	--	1	--	--
235	R2-1(2S)	55 MPH	24 x 30	5.00	--	--	--	--	1	--	--	1	--	--	--
236	W14-3	--	-- x --	--	--	--	--	--	1	--	1	--	1	--	--
237	W14-3	--	-- x --	--	--	--	--	--	1	--	1	--	1	--	--
238	R1-1(3)	--	36 x 36	7.46	--	--	--	--	1	--	--	1	1	--	--
239	J3-1(2M)	--	24 x 57	9.50	--	--	--	--	--	1	--	1	1	--	--
	M3-3	--	24 x 12	--	--	--	--	--	--	--	--	--	--	--	--
	M5-1A	CTH HH	24 x 24	--	--	--	--	--	--	--	--	--	--	--	--
	M6-1	--	21 x 21	--	--	--	--	--	--	--	--	--	--	--	--
240	W14-3(2M)	--	48 x 36	--	--	6.00	--	--	--	1	--	1	1	--	--

TYPE I & II PERMANENT SIGNING

CATEGORY CODE 1000

SIGN NO.		SIGN MESSAGE	TYPE II SIGN SIZE W x H [IN.] x [IN.]	637.2210 SIGNS TYPE II REFLECTIVE H [SF]	637.2215 SIGNS TYPE II REFLECTIVE H FOLDING SF	637.2230 SIGNS TYPE II REFLECTIVE F [SF]	637.2235 SIGNS TYPE II REFLECTIVE F FOLDING [SF]	634.0816 POSTS TUBULAR STEEL 2X2-INCH X 16-FT [EA]	634.0616 WOOD POSTS 4"x 6"X16' [EA]	634.0618 WOOD POSTS 4"x 6"X18' [EA]	638.2102 MOVING SIGNS TYPE II [EA]	638.2602 REMOVING SIGNS TYPE II [EA]	638.3000 REMOVING SMALL SIGN SUPPORTS [EA]	MOUNT ON SAME POST AS SIGN #	REMARKS NEW SIGN LOCATION
241	J1-1	--	24 x 39	6.50	--	--	--	--	--	1	--	1	1	--	--
	M2-1	--	21 x 15	--	--	--	--	--	--	--	--	--	--	--	--
	M1-5A	CTH HH	24 x 24	--	--	--	--	--	--	--	--	--	--	--	--
242	J3-1(2M)	--	24 x 57	9.50	--	--	--	--	--	1	--	1	1	--	--
	M3-3	--	24 x 12	--	--	--	--	--	--	--	--	--	--	--	--
	M5-1A	CTH HH	24 x 24	--	--	--	--	--	--	--	--	--	--	--	--
	M6-1	--	21 x 21	--	--	--	--	--	--	--	--	--	--	--	--
243	J4-1(2M)	--	24 x 36	6.00	--	--	--	--	--	1	--	1	1	--	--
	M3-3	--	24 x 12	--	--	--	--	--	--	--	--	--	--	--	--
	M1-5A	CTH HH	24 x 24	--	--	--	--	--	--	--	--	--	--	--	--
244	R1-1	--	-- x --	--	--	--	--	--	1	--	1	--	1	--	--
245	J13-1(2S)	--	24 x 45	7.50	--	--	--	--	--	1	--	1	--	--	--
	M1-6	STH 28	24 x 24	--	--	--	--	--	--	--	--	--	--	--	--
	M6-4	--	21 x 21	--	--	--	--	--	--	--	--	--	--	--	--
246	W3-1(2S)	--	36 x 36	--	--	9.00	--	--	1	--	--	1	1	--	--
247	J1-2(2S)	--	48 x 39	13.00	--	--	--	--	--	1	--	1	1	--	--
	M2-1	--	21 x 15	--	--	--	--	--	--	--	--	--	--	--	--
	M1-6	STH 28	24 x 24	--	--	--	--	--	--	--	--	--	--	--	--
	M4-6	--	24 x 12	--	--	--	--	--	--	--	--	--	--	--	--
	M1-5A	CTH HH	24 x 24	--	--	--	--	--	--	--	--	--	--	--	--
248	W14-3(2S)	--	48 x 36	--	--	6.00	--	--	1	--	--	1	1	--	--
249	J1-1(2M)	--	24 x 39	6.50	--	--	--	--	--	1	--	1	--	--	--
	M2-1	--	21 x 15	--	--	--	--	--	--	--	--	--	--	--	--
	M1-5A	CTH HH	24 x 24	--	--	--	--	--	--	--	--	--	--	--	--
250	W5-52	--	-- x --	--	--	--	--	--	--	--	--	1	1	--	--
251	W5-52R(2S)	--	12 x 36	--	--	3.00	--	--	1	--	--	1	1	--	4' MOUNTING HEIGHT
252	W5-52L(2S)	--	12 x 36	--	--	3.00	--	--	1	--	--	1	1	--	4' MOUNTING HEIGHT
253	W5-52	--	-- x --	--	--	--	--	--	--	--	--	1	1	--	--
254	S3-1	--	-- x --	--	--	--	--	--	1	--	1	--	1	--	--
255	W5-52L(2S)	--	12 x 36	--	--	3.00	--	--	1	--	--	1	1	--	4' MOUNTING HEIGHT
256	W5-52R(2S)	--	12 x 36	--	--	3.00	--	--	1	--	--	1	1	--	4' MOUNTING HEIGHT
257	W14-3(2S)	--	48 x 36	--	--	6.00	--	--	1	--	--	1	1	--	--
258	R1-1(3)	--	36 x 36	7.46	--	--	--	--	1	--	--	1	1	--	--
259	R1-1(3)	--	36 x 36	7.46	--	--	--	--	1	--	--	1	1	--	--
260	D12-2A	RIDESHARE	-- x --	--	--	--	--	--	--	2	1	--	2	--	--
261	J4-1	--	-- x --	--	--	--	--	--	--	1	1	--	1	--	--
262	ADOPT A HWY	--	-- x --	--	--	--	--	--	1	--	1	--	1	--	--
263	W1-7(2M)	--	48 x 24	--	--	8.00	--	--	1	--	--	1	1	--	--
264	J1-1(2M)	--	24 x 39	6.50	--	--	--	--	--	1	--	1	1	--	--
	M2-1	--	21 x 15	--	--	--	--	--	--	--	--	--	--	--	--
	M6-1	STH 144	24 x 24	--	--	--	--	--	--	--	--	--	--	--	--
265	J1-1	--	-- x --	--	--	--	--	--	--	--	--	1	1	--	--
266	W3-1	--	-- x --	--	--	--	--	--	1	--	1	--	1	--	--
267	D2-2	CASCADE RANDOM LAKE LA, WEST BEND RA	-- x --	--	--	--	--	--	--	2	1	--	2	--	--
268	W1-6	--	-- x --	--	--	--	--	--	--	--	--	1	1	--	--
269	NOT USED	--	-- x --	--	--	--	--	--	--	--	--	--	--	--	--
270	J1-2(2M)	--	48 x 39	13.00	--	--	--	--	--	1	--	1	1	--	--
	M2-1	--	21 x 15	--	--	--	--	--	--	--	--	--	--	--	--
	M1-6	STH 28	24 x 24	--	--	--	--	--	--	--	--	--	--	--	--
	M2-1	--	21 x 15	--	--	--	--	--	--	--	--	--	--	--	--
	M1-6	STH 144	24 x 24	--	--	--	--	--	--	--	--	--	--	--	--
271	W1-7(2M)	--	48 x 24	--	--	8.00	--	--	1	--	--	--	--	--	SHEET 23
272	W1-7(3)	--	60 x 30	--	--	12.50	--	--	1	--	--	--	--	--	SHEET 11
273	W1-7(3)	--	60 x 30	--	--	12.50	--	--	1	--	--	--	--	--	SHEET 10
274	W1-7(3)	--	60 x 30	--	--	12.50	--	--	1	--	--	--	--	--	SHEET 9

TYPE I & II PERMANENT SIGNING

CATEGORY CODE 1000

SIGN NO.		SIGN MESSAGE	TYPE II SIGN SIZE W x H	637.2210 SIGNS TYPE II REFLECTIVE H	637.2215 SIGNS TYPE II REFLECTIVE H FOLDING	637.2230 SIGNS TYPE II REFLECTIVE F	637.2235 SIGNS TYPE II REFLECTIVE F FOLDING	634.0816 POSTS TUBULAR STEEL 2X2-INCH X 16-FT	634.0616 WOOD POSTS 4"x 6"X16'	634.0618 WOOD POSTS 4"x 6"X18'	638.2102 MOVING SIGNS TYPE II	638.2602 REMOVING SIGNS TYPE II	638.3000 REMOVING SMALL SIGN SUPPORTS	MOUNT ON SAME POST AS	REMARKS
275	R1-1(3)	--	36 x 36	7.46	--	--	--	--	1	--	--	--	--	--	SHEET 6
276	D1-61(2M)	OAK DRIVE	72 x 18	9.00	--	--	--	--	2	--	--	--	--	--	SHEET 11
277	D1-61(2M)	OAK DRIVE	72 x 18	9.00	--	--	--	--	2	--	--	--	--	--	SHEET 11
278	D1-61(2M)	KETTLE MORAINE DR	96 x 24	16.00	--	--	--	--	2	--	--	--	--	--	SHEET 13
279	D1-61(2M)	KETTLE MORAINE DR	96 x 24	16.00	--	--	--	--	2	--	--	--	--	--	SHEET 14
280	D1-61(2M)	FOREST VIEW RD	84 x 24	14.00	--	--	--	--	2	--	--	--	--	--	SHEET 16
281	D1-61(2M)	FOREST VIEW RD	84 x 24	14.00	--	--	--	--	2	--	--	--	--	--	SHEET 17
282	D1-61(2M)	N PARADISE RD	84 x 24	14.00	--	--	--	--	2	--	--	--	--	--	SHEET 23
283	D1-61(2M)	N PARADISE RD	84 x 24	14.00	--	--	--	--	2	--	--	--	--	--	SHEET 24
284	J2-1(2S)	--	24 x 57	9.50	--	--	--	--	--	--	--	--	--	--	ON LIGHT POLE, SHEET 4
	M3-1	--	24 x 12	--	--	--	--	--	--	--	--	--	--	--	--
	M1-5A	CTH S	24 x 24	--	--	--	--	--	--	--	--	--	--	--	--
	M6-1	--	21 x 21	--	--	--	--	--	--	--	--	--	--	--	--
285	W8-70(2S)	--	36 x 36	--	--	9.00	--	--	--	1	--	--	--	--	SHEET 16
	W57-51(2S)	2 MILES	30 x 15	--	--	3.13	--	--	--	--	--	--	--	--	SHEET 16
286	W8-70(2S)	--	36 x 36	--	--	9.00	--	--	--	1	--	--	--	--	SHEET 18
	W57-51(2S)	2 MILES	30 x 15	--	--	3.13	--	--	--	--	--	--	--	--	SHEET 28
287	R2-1(2M)	55 MPH	30 x 36	7.50	--	--	--	--	1	--	--	--	--	--	SHEET 20
288	W8-70(2S)	1/2 MILE	36 x 36	--	--	9.00	--	--	--	1	--	--	--	--	SHEET 20
	W57-51(2S)	--	30 x 15	--	--	3.13	--	--	--	--	--	--	--	--	SHEET 20
289	J4-1(2M)	--	24 x 36	6.00	--	--	--	--	--	1	--	--	1	--	SHEET 20
	M3-4	--	24 x 12	--	--	--	--	--	--	--	--	--	--	--	--
	M1-6	STH 28	24 x 24	--	--	--	--	--	--	--	--	--	--	--	--
290	J2-1(2M)	--	24 x 57	9.50	--	--	--	--	--	1	--	--	--	--	SHEET 20
	M3-3	--	24 x 12	--	--	--	--	--	--	--	--	--	--	--	--
	M1-5A	CTH HH	24 x 24	--	--	--	--	--	--	--	--	--	--	--	--
	M5-1L		21 x 21	--	--	--	--	--	--	--	--	--	--	--	--
291	J2-1(2M)	--	24 x 57	9.50	--	--	--	--	--	1	--	--	--	--	SHEET 20
	M3-3	--	24 x 12	--	--	--	--	--	--	--	--	--	--	--	--
	M1-5A	CTH HH	24 x 24	--	--	--	--	--	--	--	--	--	--	--	--
	M5-1R		21 x 21	--	--	--	--	--	--	--	--	--	--	--	--
292	D1-61(2)	WESCOTT RD	78 x 15	8.13	--	--	--	--	2	--	--	--	--	--	SHEET 20
293	W8-70(2S)	--	36 x 36	--	--	9.00	--	--	--	1	--	--	--	--	SHEET 20
	W57-51(2S)	1 1/4 MILES	30 x 15	--	--	3.13	--	--	--	--	--	--	--	--	SHEET 20
294	D1-61(2)	WESCOTT RD	78 x 15	8.13	--	--	--	--	2	--	--	--	--	--	SHEET 21
295	R2-1(2M)	55 MPH	30 x 36	7.50	--	--	--	--	1	--	--	--	--	--	SHEET 21
296	W8-70(2S)	--	36 x 36	--	--	9.00	--	--	--	1	--	--	--	--	SHEET 24
	W57-51(2S)	1 3/4 MILES	30 x 15	--	--	3.13	--	--	--	--	--	--	--	--	SHEET 24
297	R10-50L(2S)	--	30 x 36	7.50	--	--	--	--	--	--	--	--	--	--	ON SIGNAL MAST ARM, SHEET 1
298	W11-2(2S)	--	30 x 30	--	--	6.25	--	--	--	--	--	--	--	--	ON LIGHT POLE, SHEET 1
	W16-7L(2S)	--	24 x 12	--	--	2.00	--	--	--	--	--	--	--	--	--
299	W11-2(2S)	--	30 x 30	--	--	6.25	--	1	--	--	--	--	--	--	SHEET 1
	W16-7L(2S)	--	24 x 12	--	--	2.00	--	--	--	--	--	--	--	--	--
300	J4-1(2M)	--	24 x 36	6.00	--	--	--	--	--	1	--	--	1	--	SHEET 21
	M3-2	--	24 x 12	--	--	--	--	--	--	--	--	--	--	--	--
	M1-6	STH 28	24 x 24	--	--	--	--	--	--	--	--	--	--	--	--
TOTALS				826.33	14.92	472.75	18.00	23	92	52	24	151	124	--	--

USH 45 & STH 28
WASHINGTON COUNTY
S0149
CATEGORY 0050

3

STATE FURNISHED FOR INFORMATION ONLY

SIG. BASE NO.	POLE TYPE 9 EACH	POLE TYPE 10 EACH	MONO 15' ARM EACH	MONO 20' ARM EACH	MONO 25' ARM EACH	LUMIN. 8' ARMS EACH
SB1		1			1	1
SB3	1			1		
SB4		1		1		1
SB7	1		1			
TOTAL	2	2	1	2	1	2

CONTRACTOR PROVIDED HIGH-STRENGTH BOLT ASSEMBLIES

SIG. BASE NO.	SPV.0060.06 CONTRACTOR PROVIDED HIGH-STRENGTH BOLT ASSEMBLIES FOR MONOTUBE ARMS (TYPE 9 POLE) EACH	SPV.0060.07 CONTRACTOR PROVIDED HIGH-STRENGTH BOLT ASSEMBLIES FOR MONOTUBE ARMS (TYPE 10 POLE) EACH
SB1		1
SB3	1	
SB4		1
SB7	1	
TOTAL	2	2

3

TRANSPORTING TRAFFIC SIGNAL AND INTERSECTION LIGHTING MATERIALS

LOCATION	SPV.0105.001 TRANSPORTING TRAFFIC SIGNAL AND INTERSECTION LIGHTING MATERIALS L.S.
USH 45 & STH 28 WASHINGTON COUNTY	1
TOTAL	1

STATE FURNISHED MATERIALS SUMMARY

EACH	DESCRIPTION
1	TRAFFIC SIGNAL CONTROLLER, FULLY ACTUATED, 8 PHASE
1	TRAFFIC SIGNAL CABINET
2	POLES, TYPE 9
2	POLES, TYPE 10
1	15' MONOTUBE ARM
2	20' MONOTUBE ARM
1	25' MONOTUBE ARM
2	8' STEEL LUMINAIRE ARMS

TRAFFIC SIGNAL MOUNTING HARDWARE

LOCATION	658.5069 SIGNAL MOUNTING HARDWARE L.S.
USH 45 & STH 28 WASHINGTON COUNTY	1
TOTAL	1

POLES

SIG. BASE NO.	657.0100 PED. BASE EACH	657.0255 TRANS. BASE EACH	657.0310 POLE TYPE 3 EACH	657.0430 10-FOOT STAND. EACH	657.0615 LUMIN.ARM SINGLE MEMBER 4 1/2" CLAMP 8-FT EACH	657.0630 ARM 6-INCH CLAMP 8-FOOT EACH	657.1345 INSTALL POLE TYPE 9 EACH	657.1350 INSTALL POLE TYPE 10 EACH	657.1515 INSTALL MONO 15' ARM EACH	657.1520 INSTALL MONO 20' ARM EACH	657.1525 INSTALL MONO 25' ARM EACH	657.1808 INSTALL LUMIN. ARMS STEEL 8-FT EACH	658.0500 PUSH BUTTON EACH	659.1125 LUMINAIRES UTILITY LED CATEGORY C EACH
SB1								1			1	1	1	1
SB3							1			1			1	
SB4								1		1		1	1	1
SB5		1	1		1	1							1	1
SB6	1			1									1	
SB7							1		1				1	
TOTAL	1	1	1	1	1	1	2	2	1	2	1	2	6	3

SHEET 1 OF 4

PROJECT NO: 4060-05-70	HWY: STH 28	COUNTY: WASHINGTON	MISCELLANEOUS SIGNAL QUANTITIES	SHEET:	E

FILE NAME J:PROJECTS\D2_40600528\SIG\S0149_qty.PPTX PLOT DATE : 5/2013 PLOT NAME : B. WEINFURT PLOT SCALE : 1:1

USH 45 & STH 28
WASHINGTON COUNTY
S0149
CATEGORY 0050

3

PULL BOXES

PULL BOX NO.	LOCATION*	653.0135 PULL BOXES 24"x36" EACH	653.0140 PULL BOXES 24"x42" EACH
PB1	78+70.0', 88.0' RT		1
PB2	78+28.0', 19.0' RT		1
PB6	78+66.0', 33.0' LT		1
PB7	79+7.0', 30.0' LT		1
PB8	80+67.0', 30.0' LT	1	
PB9	79+20.0', 30.0' RT		1
PB10	79+12.0', 53.0' RT		1
	TOTAL	1	6

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

CONDUIT

LOC.	TO	LOC.	652.0225 CONDUIT NONMET. 2-INCH L.F.	652.0235 CONDUIT NONMET. 3-INCH L.F.	652.0615 CONDUIT SPECIAL 3-INCH L.F.
CB1		PB1		42	
PB1		SB1		18	
PB1		PB2		164	
PB2		SB3		40	
PB6		SB4		15	
PB6		PB7		86	
PB7		SB5	22		
PB7		PB8	162		
PB7		PB9		124	
PB9		PB10		50	
PB10		SB6	20		
PB10		SB7		5	
PB10		PB1			168
		TOTAL	204	544	168

FACES

SIG. HEAD NO.	SIG. BASE NO.	658.0110 3-12" VERT. EACH	658.0115 4-12" VERT. EACH	658.0215 BCKPLT 3-SEC. EACH	658.0220 BCKPLT 4-SEC. EACH	658.0600 RED BALL EACH	658.0605 YELLOW BALL EACH	658.0610 GREEN BALL EACH	658.0615 RED ARROW EACH	658.0620 YELLOW ARROW EACH	658.0625 GREEN ARROW EACH	658.0635 LED MODULES PED COUNTDOWN TIMER 16" EACH
1	SB5	1		1		1	1	1				
2	SB3	1		1		1	1	1				
3	SB3	1		1		1	1	1				
4	SB7	1		1		1	1	1				
5	SB4	1		1		1	1	1				
6	SB4	1		1		1	1	1				
7	SB3	1		1		1	1	1				
8	SB1	1		1		1	1	1				
9	SB1	1		1		1	1	1				
10	SB1		1		1				1	2	1	
11	SB7		1		1				1	2	1	
12	SB6											1
13	SB5											1
14	SB7											1
15	SB1											1
16	SB3											1
17	SB4											1
TOTAL		9	2	9	2	9	9	9	2	4	2	6

PROJECT NO: 4060-05-70	HWY: STH 28	COUNTY: WASHINGTON	MISCELLANEOUS SIGNAL QUANTITIES	SHEET:	E

USH 45 & STH 28
WASHINGTON COUNTY
S0149
CATEGORY 0050

METER BREAKER PEDESTAL

LOCATION*	656.0200 METER BREAKER PEDESTAL L.S.
USH 45 & STH 28 WASHINGTON AVE	1
TOTAL	1

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

CONCRETE BASES

SIGNAL BASE NO.	LOCATION*	654.0101 CONCRETE BASES TYPE 1 EACH	654.0102 CONCRETE BASES TYPE 2 EACH	654.0110 CONCRETE BASES TYPE 10 EACH	654.0217 CONCRETE BASES TYPE 9, SPECIAL EACH
CB1	78+76.0', 98.0' RT				1
SB1	78+63.0', 73.0' RT			1	
SB3	78+12.0', 14.0' LT			1	
SB4	78+67.0', 42.0' LT			1	
SB5	78+87.0', 26.0' LT		1		
SB6	79+18.0', 36.0' RT	1			
SB7	79+15.0', 57.0' RT			1	
	TOTAL	1	1	4	1

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

ABOVE GROUND WIRE

LOC.	To	LOC.	655.0230 CABLE TRAFFIC SIGNAL 5-14 AWG L.F.	655.0610 ELECTRICAL WIRE LIGHTING 12 AWG L.F.	655.0700 LOOP DETECTOR LEAD IN CABLE L.F.
SB1		HEAD 8	50		
SB1		HEAD 9	25		
SB1		HEAD 10	50		
SB1		HEAD 15	15		
SB1		LUMINAIRE		120	
SB3		HEAD 2	45		
SB3		HEAD 3	45		
SB3		HEAD 7	25		
SB3		HEAD 16	15		
SB4		HEAD 5	45		
SB4		HEAD 6	25		
SB4		HEAD 17	15		
SB4		LUMINAIRE		120	
SB5		HEAD 1	19		
SB5		HEAD 13	15		
SB5		LUMINAIRE		120	
SB6		HEAD 12	15		
SB7		HEAD 4	25		
SB7		HEAD 11	40		
SB7		HEAD 14	15		
CB1		PB5			292
CB1		PB7			632
CB1		PB8			318
CB1		PB11			235
CB1		PB12			316
		TOTALS	484	360	1793

TRAFFIC DETECTOR LOOPS

LOOP NO.	HOME RUN PB	LOCATION*	SIZE (FT)x(FT)	NO. OF TURNS	PAVEMENT TYPE	SDD INSTALLATION REFERENCE	652.0800 CONDUIT LOOP DETECTOR L.F.	655.0800 LOOP DETECTOR WIRE L.F.
81	PB8	80+67.0', 8.0' LT	6'X10'	4	ASPHLAT	LOOP DETECTOR PLACED IN CRUSHED AGGREGATE BASE(NEW ASPHALTIC PAVEMENT)	44	128
82	PB7	79+17.0', 17.0' LT	6'X20'	3	ASPHLAT	LOOP DETECTOR PLACED IN CRUSHED AGGREGATE BASE(NEW ASPHALTIC PAVEMENT)	62	186
83	PB7	78+89.0', 17.0' LT	6'X20'	3	ASPHLAT	LOOP DETECTOR PLACED IN CRUSHED AGGREGATE BASE(NEW ASPHALTIC PAVEMENT)	58	176
84	PB7	79+24.0', 5.0' LT	6'X20'	3	ASPHLAT	LOOP DETECTOR PLACED IN CRUSHED AGGREGATE BASE(NEW ASPHALTIC PAVEMENT)	82	222
85	PB7	78+96.0', 5.0' LT	6'X20'	3	ASPHLAT	LOOP DETECTOR PLACED IN CRUSHED AGGREGATE BASE(NEW ASPHALTIC PAVEMENT)	72	205
						TOTAL	318	917

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

USH 45 & STH 28
WASHINGTON COUNTY
S0149
CATEGORY 0050

REMOVING CONCRETE BASES

SIGNAL BASE NO.	204.0195 REMOVING CONCRETE BASES EACH
SB1	1
SB2	1
SB4	1
SB6	1
TOTAL	4

UNDERGROUND WIRE

LOC.	TO	LOC.	655.0240 CABLE TRAFFIC SIGNAL 7-14 AWG L.F.	655.0260 CABLE TRAFFIC SIGNAL 12-14 AWG L.F.	655.0305 CABLE TYPE UF 2-12 AWG GROUNDED L.F.	655.0515 ELECTRICAL WIRE TRAFFIC SIGNALS 10 AWG L.F.
CB1		SB1		42	42	42
CB1		SB3		165		
CB1		SB4		220		
CB1		SB5		280		
CB1		SB6	117			
CB1		SB7		102		
SB1		SB7				107
SB7		SB6				36
SB6		SB5				171
SB5		SB4			100	100
SB4		SB3				148
SB3		SB1				170
SB1		SB4			224	
		TOTALS	117	809	366	774

CATEGORY 0010
TEMPORARY TRAFFIC SIGNAL FOR BRIDGES

LOCATION	661.0100 TEMPORARY TRAFFIC SIGNAL L.S.
STH 28 & MILWAUKEE RIVER WASHINGTON COUNTY	1
TOTAL	1

REMOVE PULL BOXES

PULL BOX NO.	653.0905 REMOVE PULL BOX EACH
PB1	1
PB2	1
PB6	1
PB7	1
PB8	1
PB9	1
PB10	1

INSTALL STATE FURNISHED TRAFFIC SIGNAL CABINET

LOCATION	SPV.0105.004 INSTALL STATE FURNISHED TRAFFIC SIGNAL CABINET L.S.
USH 45 & STH 28 WASHINGTON COUNTY	1
TOTAL	1

REMOVE TRAFFIC SIGNALS

LOCATION	SPV.0105.002 REMOVE TRAFFIC SIGNALS L.S.
USH 45 & STH 28 WASHINGTON COUNTY	1
TOTAL	1

REMOVE LOOP DETECTOR WIRE AND LEAD-IN CABLE

LOCATION	SPV.0105.003 REMOVE LOOP WIRE & LEAD-IN CABLE L.S.
USH 45 & STH 28 WASHINGTON COUNTY	1
TOTAL	1

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

TRANSPORTATION PROJECT PLAT TITLE SHEET

PROJECT NO. 4060-05-20

USH 45 TO STH 144

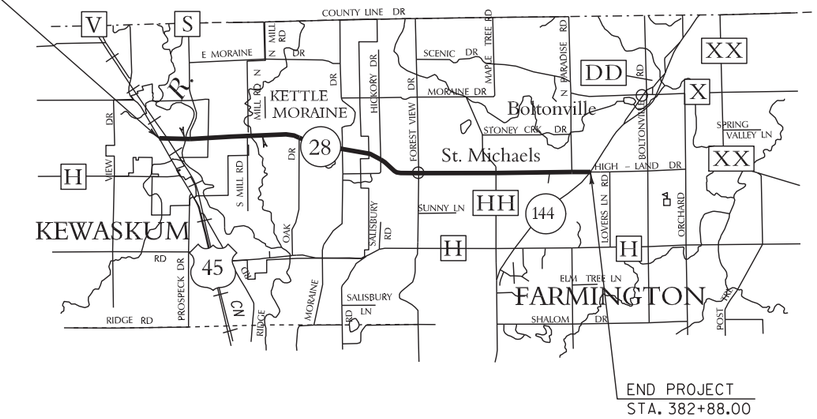
STH 28

WASHINGTON COUNTY



R-19-E R-20-E

BEGIN PROJECT 4060-05-70
STA. 79+00.00
X=350267.09
Y=219829.47



N

LAYOUT
SCALE 0 1.0 MI.

NOTES:

COORDINATES AND BEARINGS SHOWN ON THIS PLAT ARE REFERENCED TO THE WISCONSIN COUNTY COORDINATE SYSTEM, WASHINGTON COUNTY ZONE, NAD83 (1997) ADJUSTMENT. THE COORDINATES SHOWN ARE GRID COORDINATES AND ARE TO BE USED AS GRID OR GROUND VALUES ON THIS PLAT.

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

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

RIGHT-OF-WAY MONUMENTS ARE TYPE 2 (TYPICAL ¾" REBAR) AND WILL BE PLACED PRIOR TO THE COMPLETION OF THE PROJECT BY SOUTHEAST REGION SURVEY.

A **TEMPORARY LIMITED EASEMENT** (TLE) IS A RIGHT FOR CONSTRUCTION PURPOSES, AS DEFINED HEREIN, INCLUDING THE RIGHT TO OPERATE NECESSARY EQUIPMENT THEREON AND THE RIGHT OF INGRESS AND EGRESS, AS LONG AS REQUIRED FOR SUCH PUBLIC PURPOSE, INCLUDING THE RIGHT TO PRESERVE, PROTECT, REMOVE, OR PLANT THEREON ANY VEGETATION THAT THE HIGHWAY AUTHORITIES MAY DEEM NECESSARY OR DESIRABLE. ALL TLES EXPIRE AT THE COMPLETION OF THE CONSTRUCTION PROJECT FOR WHICH THIS INSTRUMENT IS GIVEN.

A **PERMANENT LIMITED EASEMENT** (PLE) IS A RIGHT FOR CONSTRUCTION AND MAINTENANCE PURPOSES, AS DEFINED HEREIN, INCLUDING THE RIGHT TO OPERATE NECESSARY EQUIPMENT THEREON AND THE RIGHT OF INGRESS AND EGRESS, AS LONG AS REQUIRED FOR SUCH PUBLIC PURPOSE, INCLUDING THE RIGHT TO PRESERVE, PROTECT, REMOVE, OR PLANT THEREON ANY VEGETATION THAT THE HIGHWAY AUTHORITIES MAY DEEM NECESSARY OR DESIRABLE. BUT WITHOUT PREJUDICE TO THE OWNER'S RIGHT TO MAKE OR CONSTRUCT IMPROVEMENT ON SAID LANDS OR TO FLATTEN THE SLOPES, PROVIDING SAID ACTIVITIES WILL NOT IMPAIR OR OTHERWISE ADVERSELY AFFECT THE HIGHWAY FACILITIES.

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

CONVENTIONAL ABBREVIATIONS

ACCESS POINT/ DRIVEWAY CONNECTION	AP	REFERENCE LINE	R/L
ACCESS RIGHTS	AR	RELEASE OF RIGHTS	ROR
ACRES	AC.	REMAINING	REM.
AND OTHERS	ET.AL.	RIGHT-OF-WAY	R/W
CENTERLINE	C/L	SECTION	SEC.
CERTIFIED SURVEY MAP	CSM	STATION	STA.
CORNER	COR.	TEMPORARY LIMITED EASEMENT	TLE
DOCUMENT	DOC.	VOLUME	V.
EASEMENT	EASE.	**CURVE DATA**	
HIGHWAY EASEMENT	H.E.	LONG CHORD	LCH
LAND CONTRACT	LC	LONG CHORD BEARING	LCB
MONUMENT	MON.	RADIUS	R
PAGE	P.	DEGREE OF CURVE	D
PERMANENT LIMITED EASEMENT	PLE	CENTRAL ANGLE OR DELTA	DELTA
PROPERTY LINE	PL	LENGTH OF CURVE	L
RECORDED AS	(100')	TANGENT	TAN

CONVENTIONAL SYMBOLS

FOUND IRON PIPE/PIN	○ (1" UNLESS NOTED)	PROPOSED R/W LINE	
R/W MONUMENT	●(SET)	EXISTING H.E. LINE	
R/W STANDARD	▲(SET)	PROPERTY LINE	
SIGN	ISIGN	LOT & TIE LINES	
SECTION CORNER MONUMENT		SLOPE INTERCEPTS	
SECTION CORNER SYMBOL	FOUND MONUMENT SET MONUMENT	CORPORATE LIMITS	
FEE (HATCH VARIES)		NO ACCESS (BY PREVIOUS ACQUISITION/CONTROL)	
TEMPORARY LIMITED EASEMENT		NO ACCESS (BY ACQUISITION)	
PERMANENT LIMITED EASEMENT		NO ACCESS (BY STATUTORY AUTHORITY)	
R/W BOUNDARY POINT		SECTION LINE	
PARCEL NUMBER	RWB20	QUARTER LINE	
UTILITY PARCEL NUMBER	102	SIXTEENTH LINE	
SIGN NUMBER (OFF PREMISE)	92	EXISTING CENTERLINE	
BUILDING	21-1	PROPOSED REFERENCE LINE	
		PARALLEL OFFSET	

CONVENTIONAL UTILITY SYMBOLS

WATER	W	
GAS	G	
TELEPHONE	T	
OVERHEAD TRANSMISSION LINES	OH	
ELECTRIC	E	
CABLE TELEVISION	TV	
FIBER OPTIC	FO	
SANITARY SEWER	SAN	
STORM SEWER	SS	
	NON COMPENSABLE	COMPENSABLE
POWER POLE		
TELEPHONE POLE		
TELEPHONE PEDESTAL		
ELECTRIC TOWER		

RESERVED FOR REGISTER OF DEEDS
PROJECT NUMBER 4060-05-20 - 4.01
SHEET 2 OF 2
AMENDMENT NO:

FILE NAME : J:\projects\d2_r_40600528\20\040400_ti.dgn PLOT DATE : 19-JUL-2012 09:42 PLOT BY : dotsls PLOT NAME : PLOT SCALE : 100.000000:1.000000
CONST. 4060-05-70 R/W 4060-05-20 4.01

TRANSPORTATION PROJECT PLAT NO: 4060-05-20 - 4.01

THAT PART OF LOTS 1-7, BLOCK 19, LOTS 1B,3,4,5, BLOCK 20, LOTS 13-19,21,24-26, BLOCK30,LOTS 1-7,8A, BLOCK 31 OF THE ASSESSOR'S PLAT OF THE VILLAGE OF KEWASKUM, AND ALSO THAT PART OF LOT 2, CSM 4491, LOT 1, CSM 6263, AND ALSO THAT PART OF THE SW1/4-NE1/4 AND THE NW1/4-SE1/4, SECTION 9, TOWN 12 NORTH, RANGE 19 EAST, OF THE VILLAGE OF KEWASKUM, WASHINGTON COUNTY, WISCONSIN.

RELOCATION ORDER STH 28 WASHINGTON COUNTY

TO PROPERLY ESTABLISH, LAY OUT, WIDEN, ENLARGE, EXTEND, CONSTRUCT, RECONSTRUCT, IMPROVE, OR MAINTAIN A PORTION OF THE HIGHWAY DESIGNATED ABOVE, THE STATE OF WISCONSIN DEPARTMENT OF TRANSPORTATION DEEMS IT NECESSARY TO RELOCATE OR CHANGE SAID HIGHWAY AND ACQUIRE CERTAIN LANDS AND INTERESTS OR RIGHTS IN LANDS FOR THE ABOVE PROJECT.

TO EFFECT THIS CHANGE, PURSUANT TO AUTHORITY GRANTED UNDER SECTION 84.02 (3) AND 84.09, WISCONSIN STATUTES, THE DEPARTMENT OF TRANSPORTATION HEREBY ORDERS THAT:
1. THAT PORTION OF SAID HIGHWAY AS SHOWN ON THIS PLAT IS LAID OUT AND ESTABLISHED TO THE LINES AND WIDTHS AS SO SHOWN FOR THE ABOVE PROJECT.
2. THE LANDS OR INTERESTS OR RIGHTS IN LANDS AS SHOWN ON THIS PLAT ARE REQUIRED BY THE DEPARTMENT FOR THE ABOVE PROJECT AND SHALL BE ACQUIRED IN THE NAME OF THE STATE OF WISCONSIN, PURSUANT TO THE PROVISIONS OF SECTION 84.09 (1) OR (2), WISCONSIN STATUTES.

SEC9045
CENTER OF SEC.
CONCRETE MON.
W/ WASHINGTON
COUNTY BRASS CAP.
Y = 219855.80
X = 349667.37

SEC. LINE = STH 28 ℞
S88°01'02"E (2700.28')

SEC9046
QUARTER SEC. COR.
CONCRETE MON.
W/ WASHINGTON
COUNTY BRASS CAP
Y = 219762.37
X = 352366.03

NOTES:

COORDINATES AND BEARINGS SHOWN ON THIS PLAT ARE REFERENCED TO THE WISCONSIN COUNTY COORDINATE SYSTEM, WASHINGTON COUNTY ZONE, NAD83 (1997) ADJUSTMENT. THE COORDINATES SHOWN ARE GRID COORDINATES AND ARE TO BE USED AS GRID OR GROUND VALUES ON THIS PLAT.

RIGHT-OF-WAY MONUMENTS ARE TYPE 2 (TYPICAL ¾" REBAR) AND WILL BE PLACED PRIOR TO THE COMPLETION OF THE PROJECT BY SOUTHEAST REGION SURVEY.

FOR THE LATEST ACCESS / DRIVEWAY INFORMATION, CONTACT THE PLANNING UNIT OF THE WISCONSIN DEPARTMENT OF TRANSPORTATION OFFICE IN WAUKESHA.

HWY	BASIS OF EXISTING R/W	WIDTH	YEAR
STH 28	ASSESSOR'S PLAT OF KEWASKUM	VARIES	1957
RAILROAD ST.	ASSESSOR'S PLAT OF KEWASKUM	VARIES	1957
PARK VIEW DR.	ASSESSOR'S PLAT OF KEWASKUM	VARIES	1957

TLE DOES NOT INCLUDE STAMPED CONCRETE BORDER.

TLE DOES NOT INCLUDE FLOWER BED

TLE DOES NOT INCLUDE RAISED CONCRETE WALK.

TLE DOES NOT INCLUDE PORCH.

TLE FOR SLOPES DO NOT INCLUDE BUILDINGS.
TLE FOR DRIVEWAYS ON THE FOLLOWING PARCELS:
8,11,12,14,15,16,18,20,21,22,23,25,26,30,93,104.

TLE DOES NOT INCLUDE STEPS.

SEE TPP SHEET 4060-06-20-4.13A1

STH 28 / MAIN STREET EXISTING RIGHT OF WAY DETERMINED FROM THE RAIL ROAD SURVEY OF 9/01/1999 AND A BEST FIT ANALYSIS OF THE FOUND PROPERTY CORNER MONUMENTATION ON STH 28 / MAIN STREET.

201 UT. UNDERGOUND EASEMENT WEPCO & CHARTER — PARCEL 23 DOC. 863145

202 WE ENERGIES-ELECTRIC — PARCEL 1-7 V.321,P.464,DOC. 244228; PARCELS 9-12 V.130,P.66,DOC. 175197; PARCELS 14,19,20 NO RECORDED EASEMENT

203 WE ENERGIES-GAS — PARCEL 14 V.356,P.42,DOC. 259277; PARCEL 15 V.356,P.47,DOC. 259282; PARCEL 16 DOC. 259279,259939,105761; PARCEL 17 V.356,P.43,DOC. 259278; PARCEL 18 V.356,P.45,DOC. 259280

BEGIN RELOCATION ORDER 4060-05-20

BEGIN PROJECT STA. 79+00.00 X=350267.09 Y=219829.47

END PROJECT STA. 382+88.00

SHEET LOCATION

PROJECT LOCATION

SCHEDULE OF LANDS & INTERESTS REQUIRED — OWNERS NAMES ARE SHOWN FOR REFERENCE PURPOSES ONLY, AND ARE SUBJECT TO CHANGE PRIOR TO THE TRANSFER OF LAND INTEREST TO THE DEPARTMENT.

PARCEL NUMBER	OWNER	* COMPUTED	INTEREST REQUIRED	R/W REQUIRED (ACRES) NEW	EXISTING	TOTAL	T.L.E. TEMP. ACRES	P.L.E. PERM. ACRES
1	DOUBLE G, LLC		TLE				0.01	
2	DOUBLE G, LLC		TLE				0.01	
3	RICKY R & LORRAINE A MASKE		TLE				0.01	
4	RATI, LLC		TLE				0.01	
5	DANIEL S & PHYLLIS I SCHMIDT		TLE				0.01	
6	DOUBLE G, LLC		TLE				0.01	
7	DOUBLE G, LLC		TLE				0.01	
8	DOUBLE G, LLC		TLE				0.01	
9	JESSICA L & TONY U TRUNKEL		TLE				0.01	
10	KEWASKUM PROPERTIES, LLC		TLE				0.01	
11	VILLAGE OF KEWASKUM		TLE				0.01	
12	VILLAGE OF KEWASKUM		TLE				0.02	
13	DOUBLE G, LLC		TLE				0.01	
14	JUDITH F JAEGER		TLE				0.01	
15	JAMES A & AUTUMN M CHRISTENSEN		TLE				0.01	
16	CNS INVESTMENTS		TLE				0.01	
17	DOUBLE G, LLC		TLE				0.01	
18	DOUBLE G, LLC		TLE				0.01	
19	DENNIS W & TAMMY S BUTZ		FEE,TLE	105 SF		105 SF	0.01	
20	WILLIAM D & VALERA R MCDONALD		TLE				0.01	
21	JAMES P FILO		TLE				0.01	
22	RANDALL J & WENDI J DREHER		TLE				0.01	
23	HOLY TRINITY CONGREGATION		TLE				0.04	
24	ROBERT A & MARY JANE KIRST		TLE				0.01	
25	MACO MANAGEMENT CO, INC		TLE				0.01	
26	DONATH ENTERPRISES, LLC		FEE,TLE	16 SF		16 SF	0.01	
27	GARY R & LINDA M GAVIN LC		FEE,TLE	190 SF		190 SF	0.01	
28	EVANGELICAL PEACE CONGREGATION		TLE				0.01	
29	RANDALL J & WENDI J DREHER		TLE				0.01	
30	JOHN L & JODI A STROBEL		TLE				0.01	

UTILITY SCHEDULE & INTERESTS REQUIRED

UTILITY NUMBER	OWNER	INTEREST REQUIRED
201	CHARTER COMMUNICATIONS	RELEASE OF RIGHTS
202	WE-ENERGIES - ELECTRIC	RELEASE OF RIGHTS
203	WE-ENERGIES - GAS	RELEASE OF RIGHTS

SCHEDULE OF LANDS & INTERESTS REQUIRED — OWNERS NAMES ARE SHOWN FOR REFERENCE PURPOSES ONLY, AND ARE SUBJECT TO CHANGE PRIOR TO THE TRANSFER OF LAND INTEREST TO THE DEPARTMENT.

PARCEL NUMBER	OWNER	* COMPUTED	INTEREST REQUIRED	R/W REQUIRED (ACRES) NEW	EXISTING	TOTAL	T.L.E. TEMP. ACRES	P.L.E. PERM. ACRES
31	CHARLES A & DIANE M MUCKERHEIDE		TLE				0.01	
32	GARY R & LINDA M GAVIN LC		FEE,TLE	330 SF		330 SF	0.01	
92	STATE OF WISCONSIN DNR		TLE				0.24	
93	CAL J. & BRENDA J. BOWE		TLE				0.01	
104	MICHAEL D & DEBORAH J HERBERT		TLE				0.01	

REFER TO THE TITLE SHEET, RECORDED AS SHEET 2 OF 2 OF THIS DOCUMENT FOR ADDITIONAL INFORMATION.

SCALE, FEET
0 50 100

THIS IS A COPY. ORIGINAL DOCUMENT IS AT THE WASHINGTON COUNTY REGISTER OF DEEDS.

I HEREBY CERTIFY THAT THIS PLAT MEETS ALL REQUIREMENTS OF SECTION 84.095, WISCONSIN STATUTES. THIS PLAT WAS PREPARED BY OR UNDER THE DIRECTION OF

STEVEN L. SCHMIDT RLS — JULY 19, 2012
PRINTED NAME — SIGNATURE — DATE

THIS PLAT AND RELOCATION ORDER ARE APPROVED FOR THE WISCONSIN DEPARTMENT OF TRANSPORTATION

ROBERT L. DUFFECK RLS — JULY 19, 2012
PRINTED NAME — SIGNATURE — DATE

RESERVED FOR REGISTER OF DEEDS
PROJECT NUMBER 4060-05-20-4.01
PAGE 1OF 2

1310750
RECORDED
July 23, 2012 10:38 AM
SHARON A MARTIN, REGISTER OF DEEDS
WASHINGTON COUNTY, WISCONSIN
Fee Amount: 125.00

SEC9046
QUARTER SEC. COR.
CONCRETE MON.
W/ WASHINGTON
COUNTY BRASS CAP
Y = 219762.37
X = 352366.03

FILE NAME : J:\projects\d2_r_40600528\20\040401_RP.dgn
APPRAISAL PLAT DATE : MAY 1, 2012
PLOT DATE : 19-JUL-2012 09:25
PLOT BY : $$...plotuser...$$ PLOT NAME :
PLOT SCALE : 50.000000:1.000000
CONST. 4060-05-70 R/W 4060-05-20 4.01

TRANSPORTATION PROJECT PLAT NO: 4060-05-20 - 4.02

THAT PART OF NE1/4-SW1/4, SECTION 10, TOWN 12 NORTH, RANGE 19 EAST, OF THE TOWN OF KEWASKUM, WASHINGTON COUNTY, WISCONSIN.

RELOCATION ORDER STH 28 WASHINGTON COUNTY

TO PROPERLY ESTABLISH, LAY OUT, WIDEN, ENLARGE, EXTEND, CONSTRUCT, RECONSTRUCT, IMPROVE, OR MAINTAIN A PORTION OF THE HIGHWAY DESIGNATED ABOVE, THE STATE OF WISCONSIN DEPARTMENT OF TRANSPORTATION DEEMS IT NECESSARY TO RELOCATE OR CHANGE SAID HIGHWAY AND ACQUIRE CERTAIN LANDS AND INTERESTS OR RIGHTS IN LANDS FOR THE ABOVE PROJECT.

TO EFFECT THIS CHANGE, PURSUANT TO AUTHORITY GRANTED UNDER SECTION 84.02 (3) AND 84.09, WISCONSIN STATUTES, THE DEPARTMENT OF TRANSPORTATION HEREBY ORDERS THAT:
1. THAT PORTION OF SAID HIGHWAY AS SHOWN ON THIS PLAT IS LAID OUT AND ESTABLISHED TO THE LINES AND WIDTHS AS SO SHOWN FOR THE ABOVE PROJECT.
2. THE LANDS OR INTERESTS OR RIGHTS IN LANDS AS SHOWN ON THIS PLAT ARE REQUIRED BY THE DEPARTMENT FOR THE ABOVE PROJECT AND SHALL BE ACQUIRED IN THE NAME OF THE STATE OF WISCONSIN, PURSUANT TO THE PROVISIONS OF SECTION 84.09 (1) OR (2), WISCONSIN STATUTES.

NOTES:

COORDINATES AND BEARINGS SHOWN ON THIS PLAT ARE REFERENCED TO THE WISCONSIN COUNTY COORDINATE SYSTEM, WASHINGTON COUNTY ZONE, NAD83 (1997) ADJUSTMENT. THE COORDINATES SHOWN ARE GRID COORDINATES AND ARE TO BE USED AS GRID OR GROUND VALUES ON THIS PLAT.

RIGHT-OF-WAY MONUMENTS ARE TYPE 2 (TYPICAL ¾" REBAR) AND WILL BE PLACED PRIOR TO THE COMPLETION OF THE PROJECT BY SOUTHEAST REGION SURVEY.

FOR THE LATEST ACCESS / DRIVEWAY INFORMATION, CONTACT THE PLANNING UNIT OF THE WISCONSIN DEPARTMENT OF TRANSPORTATION OFFICE IN WAUKESHA.

SEC9033
SEC. COR.
CONCRETE MON.
W/ SEWRPC
BRASS CAP
Y = 222405.50
X = 352395.02

SEC9046
QUARTER SEC. COR.
CONCRETE MON.
W/ WASHINGTON
COUNTY BRASS CAP
Y = 219762.37
X = 352366.03

SEC9059
SEC. COR.
CONCRETE MON.
W/ WASHINGTON
COUNTY BRASS CAP
Y = 217122.53
X = 352296.91

SEC9034
QUARTER SEC. COR.
CONCRETE MON.
W/ SEWRPC
BRASS CAP
Y = 222470.44
X = 355040.71

SEC9047
CENTER OF SEC
CONCRETE MON.
W/ WASHINGTON
COUNTY BRASS CAP
Y = 219819.27
X = 355016.12

SEC9060
QUARTER SEC. COR.
CONCRETE MON.
W/ WASHINGTON
COUNTY BRASS CAP
Y = 217171.75
X = 354978.78

SEE TPP SHEET 4060-05-20-4.13A1

SEE TPP SHEET 4060-05-20-4.03

SEC. LINE N00°37'42"E (2643.28')

1/16TH LINE N00°34'47"E

N. 1/4 LINE N00°31'53"E (2651.28')

S. 1/4 LINE N00°48'29"E (2647.78')

SEC. LINE N01°30'00"E (2640.75')

1/16TH LINE N01°09'13"E

STA 100+00.00 ℄

STA 126+50.70 ℄

SW-NW
10-12-19

NW-SW
10-12-19

NE-SW
10-12-19

SE-NW
10-12-19

KEWASKUM

OF

VILLAGE

KEWASKUM

KETTLE

COUNTRY

ESTATES

TOWN

OUTLOT 3

VILLAGE OF KEWASKUM ASSESSOR'S PLAT AMENDMENT A

CSM 530 LOT 2

CSM 2275

CSM 505 LOT 1

KEWASKUM ST.

STARK ST.

CTH S

KETTLE DR.

CARROLL RD

STH 28 ℄ = W. 1/4 LINE N88°46'13"E (2650.70')

12' ACCESS EASEMENT DOC. 860141 FOR PARCEL 35 ON TPP 4060-05-20-4.03

TLE FOR SLOPES AND A D/W

NO ACCESS PER SUBDIVISION

858.40'

856.20'

204 FRONTIER COMMUNICATIONS PARCEL 40 V.857, P.441, DOC. 478976

SCHEDULE OF LANDS & INTERESTS REQUIRED			OWNERS NAMES ARE SHOWN FOR REFERENCE PURPOSES ONLY, AND ARE SUBJECT TO CHANGE PRIOR TO THE TRANSFER OF LAND INTEREST TO THE DEPARTMENT.					
PARCEL NUMBER	OWNER * COMPUTED		INTEREST REQUIRED	R/W REQUIRED (ACRES) NEW	EXISTING	TOTAL	T.L.E. TEMP. ACRES	P.L.E. PERM. ACRES
40	HON-E-KOR, INC.		TLE				0.01	

UTILITY SCHEDULE & INTERESTS REQUIRED		
UTILITY NUMBER	OWNER	INTEREST REQUIRED
204	FRONTIER COMMUNICATIONS	RELEASE OF RIGHTS

HWY	BASIS OF EXISTING R/W	YEAR
STH 28/MAIN ST	VILLAGE OF KEWASKUM ASSESSOR'S PLAT	1957
CTH S, KEWASKUM ST, STARK ST	VILLAGE OF KEWASKUM ASSESSOR'S PLAT	1957
CARROLL RD	CSM 2775 V.12, P.48, DOC.428581	
STH28 / KETTLE DRIVE	KETTLE COUNTRY ESTATES	2005

BEGIN PROJECT
STA. 79+00.00
X=350267.09
Y=219829.47

SHEET LOCATION

PROJECT LOCATION

R-20-E

T-12-N

KEWASKUM
KETTLE MORAINE
St. Michaels
N. MILL RD
S MILL RD
OAK DR
HICKORY DR
FOREST VIEW DR
MORAINE DR
STONEY CRK DR
N. PARADISE
SUNNY LN
HH
28
45
144

END PROJECT
STA. 382+88.00

SCALE, FEET
0 100 200

N

FOR ADDITIONAL INFORMATION REFER TO THE TITLE SHEET, RECORDED AS SHEET 2 OF 2 OF DOCUMENT 1310750, OF TRANSPORTATION PROJECT PLATS IN THE WASHINGTON COUNTY REGISTER OF DEEDS.

THIS IS A COPY. ORIGINAL DOCUMENT IS AT THE WASHINGTON COUNTY REGISTER OF DEEDS

I HEREBY CERTIFY THAT THIS PLAT MEETS ALL REQUIREMENTS OF SECTION 84.095, WISCONSIN STATUTES. THIS PLAT WAS PREPARED BY OR UNDER THE DIRECTION OF

STEVEN L. SCHMIDT RLS — PRINTED NAME — SIGNATURE — AUG. 7, 2012 — DATE

THIS PLAT AND RELOCATION ORDER ARE APPROVED FOR THE WISCONSIN DEPARTMENT OF TRANSPORTATION

ROBERT L. DUFFECK RLS — PRINTED NAME — SIGNATURE — AUG. 7, 2012 — DATE

RESERVED FOR REGISTER OF DEEDS
PROJECT NUMBER 4060-05-20-4.02
AMENDMENT NO:

1312922
RECORDED
August 16, 2012 10:00 AM
SHARON A MARTIN, REGISTER OF DEEDS
WASHINGTON COUNTY, WISCONSIN
Fee Amount: $25.00
Vol 57 of maps Page 33

FILE NAME : J:\projects\d2_r_40600528\20\040402_RP.dgn
APPRAISAL PLAT DATE :
PLOT DATE : 07-AUG-2012 14:53
PLOT BY : $$...plotuser...$$ PLOT NAME :
PLOT SCALE : 100.000000:1.000000
CONST. 4060-05-70 R/W 4060-05-20 4.02

TRANSPORTATION PROJECT PLAT NO: 4060-05-20 - 4.03

THAT PART OF LOTS 1,2, AND 3 OF CSM 857, AND ALSO THAT PART OF THE SW1/4-NE1/4, SE1/4-NE1/4, NW1/4-SE1/4, AND NE1/4-SE1/4, SECTION 10, TOWN 12 NORTH, RANGE 19 EAST, TOWN OF KEWASKUM, WASHINGTON COUNTY, WISCONSIN.

RELOCATION ORDER STH 28 WASHINGTON COUNTY

TO PROPERLY ESTABLISH, LAY OUT, WIDEN, ENLARGE, EXTEND, CONSTRUCT, RECONSTRUCT, IMPROVE, OR MAINTAIN A PORTION OF THE HIGHWAY DESIGNATED ABOVE, THE STATE OF WISCONSIN DEPARTMENT OF TRANSPORTATION DEEMS IT NECESSARY TO RELOCATE OR CHANGE SAID HIGHWAY AND ACQUIRE CERTAIN LANDS AND INTERESTS OR RIGHTS IN LANDS FOR THE ABOVE PROJECT.

TO EFFECT THIS CHANGE, PURSUANT TO AUTHORITY GRANTED UNDER SECTION 84.02 (3) AND 84.09, WISCONSIN STATUTES, THE DEPARTMENT OF TRANSPORTATION HEREBY ORDERS THAT:
1. THAT PORTION OF SAID HIGHWAY AS SHOWN ON THIS PLAT IS LAID OUT AND ESTABLISHED TO THE LINES AND WIDTHS AS SO SHOWN FOR THE ABOVE PROJECT.
2. THE LANDS OR INTERESTS OR RIGHTS IN LANDS AS SHOWN ON THIS PLAT ARE REQUIRED BY THE DEPARTMENT FOR THE ABOVE PROJECT AND SHALL BE ACQUIRED IN THE NAME OF THE STATE OF WISCONSIN, PURSUANT TO THE PROVISIONS OF SECTION 84.09 (1) OR (2), WISCONSIN STATUTES.

NOTES:

COORDINATES AND BEARINGS SHOWN ON THIS PLAT ARE REFERENCED TO THE WISCONSIN COUNTY COORDINATE SYSTEM, WASHINGTON COUNTY ZONE, NAD83 (1997) ADJUSTMENT. THE COORDINATES SHOWN ARE GRID COORDINATES AND ARE TO BE USED AS GRID OR GROUND VALUES ON THIS PLAT.

RIGHT-OF-WAY MONUMENTS ARE TYPE 2 (TYPICAL ¾" REBAR) AND WILL BE PLACED PRIOR TO THE COMPLETION OF THE PROJECT BY SOUTHEAST REGION SURVEY.

FOR THE LATEST ACCESS / DRIVEWAY INFORMATION, CONTACT THE PLANNING UNIT OF THE WISCONSIN DEPARTMENT OF TRANSPORTATION OFFICE IN WAUKESHA.

SEC9034
QUARTER SEC. COR.
CONCRETE MON.
W/ SEWRPC
BRASS CAP
Y = 222470.44
X = 355040.71

SEC9035
SEC. COR.
CONCRETE MON.
W/ IRON PLATE
Y = 222549.16
X = 357658.29

SEC9047
CENTER OF SEC
CONCRETE MON.
W/ WASHINGTON
COUNTY BRASS CAP
Y = 219819.27
X = 355016.12

SEC9048
QUARTER SEC. COR.
CONCRETE MON.
W/ WISDOT
ALUMINUM CAP
Y = 219888.94
X = 357668.27

SEC9060
QUARTER SEC. COR.
CONCRETE MON.
W/ WASHINGTON
COUNTY BRASS CAP
Y = 217171.75
X = 354978.78

SEC9061
SEC. COR.
CONCRETE MON.
W/ BRASS CAP
Y = 217223.25
X = 357661.39

VILLAGE OF KEWASKUM

TOWN

SW-NE
10-12-19

SE-NE
10-12-19

NW-SE
10-12-19

NE-SE
10-12-19

12' ACCESS EASEMENT DOC. 860141
FOR PARCEL 35 ON TPP 4060-05-20-4.02

TLE FOR SLOPES AND D/W'S

PARCELS 37,38,39
V.569, P.122, DOC.355232
SEPTIC EASEMENT ON
S. 30' OF W. 50'
OF LOT 3 CSM 857.

1/16TH LINE N00°09'27"E

S. 1/4 LINE N00°48'29"E (2647.78')

N. 1/4 LINE N00°31'53"E (2651.28')

S. MILL RD. ℄ = SEC. LINE
S00°12'54"E (2660.241')

N. MILL RD. ℄ = SEC. LINE

1/16TH LINE S00°28'37"W

STH 28 ℄=E. 1/4 LINE
N88°29'43"E (2653.06')

SEE TPP SHEET
4060-05-20-4.02

SEE TPP SHEET
4060-05-20-4.04

TLE FOR SLOPES

TLE FOR SLOPES
AND 2 D/W'S
DOES NOT INCLUDE HOUSE

PARCEL 42 - V.121, P.202, DOC.168187
HIGHWAY EASEMENT FOR RIVER

E. BR. MILWAUKEE R.

CSM 857 LOT 3

CSM 857 LOT 2

CSM 857 LOT 1

BARN

HWY	BASIS OF EXISTING R/W	WIDTH	YEAR
STH 28	TOWN RECORDS NO. 19	4 RODS	1856
S. MILL RD.	TOWN RECORDS NO. 37	4 RODS	1865
N. MILL RD.	TOWN RECORDS NO. 16	4 RODS	1856
STH 28	CSM 857 V. P	33'	XXXX

202 WE ENERGIES-ELECTRIC — PARCEL 39 NO RECORDED EASEMENT; PARCEL 41 V.857, P.440, DOC. 478975

204 FRONTIER COMMUNICATIONS — PARCEL 39 NO RECORDED EASEMENT; PARCEL 40 V.857, P.441, DOC. 478976; PARCEL 41 V.857, P.440, DOC. 478975

UTILITY SCHEDULE & INTERESTS REQUIRED		
UTILITY NUMBER	OWNER	INTEREST REQUIRED
202	WE-ENERGIES - ELECTRIC	RELEASE OF RIGHTS
204	FRONTIER COMMUNICATIONS	RELEASE OF RIGHTS

SCHEDULE OF LANDS & INTERESTS REQUIRED — OWNERS NAMES ARE SHOWN FOR REFERENCE PURPOSES ONLY, AND ARE SUBJECT TO CHANGE PRIOR TO THE TRANSFER OF LAND INTEREST TO THE DEPARTMENT.

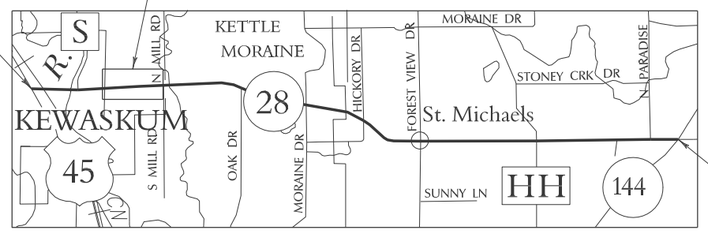
PARCEL NUMBER	OWNER * COMPUTED	INTEREST REQUIRED	R/W REQUIRED (ACRES) NEW	EXISTING	TOTAL	T.L.E. TEMP. ACRES	P.L.E. PERM. ACRES
35	DOUGLAS J & KAREN J GONRING	FEE,TLE	0.17	0.63	0.80	0.04	
36	RUDY & CORY DIMICKELE	TLE				0.01	
37	CONNIE M. & RICHARD A. MARKS	TLE				0.02	
38	NEIL R WALTERS, JR	TLE				0.02	
39	STEVEN BATH	TLE				0.02	
40	HON-E-KOR, INC	FEE	0.00	1.08	1.08		
41	WENDY ANN HAMMES	FEE,TLE	0.15	1.32	1.47	0.24	
42	EUGENE E EBERT, ET AL	FEE,TLE	0.12	1.08	1.20	0.13	

BEGIN PROJECT
STA. 79+00.00
X=350267.09
Y=219829.47

SHEET LOCATION

PROJECT LOCATION

R-20-E



END PROJECT
STA. 382+88.00

T-12-N

N

SCALE, FEET
0 100 200

FOR ADDITIONAL INFORMATION REFER TO THE TITLE SHEET, RECORDED AS SHEET 2 OF 2 OF DOCUMENT 1310750, OF TRANSPORTATION PROJECT PLATS IN THE WASHINGTON COUNTY REGISTER OF DEEDS.

THIS IS A COPY. ORIGINAL DOCUMENT IS AT THE WASHINGTON COUNTY REGISTER OF DEEDS.

I HEREBY CERTIFY THAT THIS PLAT MEETS ALL REQUIREMENTS OF SECTION 84.095, WISCONSIN STATUTES. THIS PLAT WAS PREPARED BY OR UNDER THE DIRECTION OF

STEVEN L. SCHMIDT RLS — PRINTED NAME — SIGNATURE — AUG. 7, 2012 — DATE

THIS PLAT AND RELOCATION ORDER ARE APPROVED FOR THE WISCONSIN DEPARTMENT OF TRANSPORTATION

ROBERT L. DUFFECK RLS — PRINTED NAME — SIGNATURE — AUG. 7, 2012 — DATE

RESERVED FOR REGISTER OF DEEDS
PROJECT NUMBER 4060-05-20-4.03
AMENDMENT NO:

1312923
RECORDED
August 16, 2012 10:00 AM
SHARON A MARTIN, REGISTER OF DEEDS
WASHINGTON COUNTY, WISCONSIN
Fee Amount: $25.00

Vol. 51 of Maps
Page 34

FILE NAME : J:\projects\d2_r_40600528\20\040403_RP.dgn
APPRAISAL PLAT DATE :
PLOT DATE : 07-AUG-2012 14:54
PLOT BY : $$...plotuser...$$ PLOT NAME :
PLOT SCALE : 100.000000:1.000000
CONST. 4060-05-70 R/W 4060-05-20 4.03

TRANSPORTATION PROJECT PLAT NO: 4060-05-20 - 4.04

THAT PART OF THE SW1/4-NW1/4, SE1/4-NW1/4, NW1/4-SW1/4, NE1/4-SW1/4 OF SECTION 11, TOWN 12 NORTH, RANGE 19 EAST, TOWN OF KEWASKUM, WASHINGTON COUNTY, WISCONSIN.

RELOCATION ORDER STH 28 WASHINGTON COUNTY

TO PROPERLY ESTABLISH, LAY OUT, WIDEN, ENLARGE, EXTEND, CONSTRUCT, RECONSTRUCT, IMPROVE, OR MAINTAIN A PORTION OF THE HIGHWAY DESIGNATED ABOVE, THE STATE OF WISCONSIN DEPARTMENT OF TRANSPORTATION DEEMS IT NECESSARY TO RELOCATE OR CHANGE SAID HIGHWAY AND ACQUIRE CERTAIN LANDS AND INTERESTS OR RIGHTS IN LANDS FOR THE ABOVE PROJECT.

TO EFFECT THIS CHANGE, PURSUANT TO AUTHORITY GRANTED UNDER SECTION 84.02 (3) AND 84.09, WISCONSIN STATUTES, THE DEPARTMENT OF TRANSPORTATION HEREBY ORDERS THAT:
1. THAT PORTION OF SAID HIGHWAY AS SHOWN ON THIS PLAT IS LAID OUT AND ESTABLISHED TO THE LINES AND WIDTHS AS SO SHOWN FOR THE ABOVE PROJECT.
2. THE LANDS OR INTERESTS OR RIGHTS IN LANDS AS SHOWN ON THIS PLAT ARE REQUIRED BY THE DEPARTMENT FOR THE ABOVE PROJECT AND SHALL BE ACQUIRED IN THE NAME OF THE STATE OF WISCONSIN, PURSUANT TO THE PROVISIONS OF SECTION 84.09 (1) OR (2), WISCONSIN STATUTES.

NOTES:

COORDINATES AND BEARINGS SHOWN ON THIS PLAT ARE REFERENCED TO THE WISCONSIN COUNTY COORDINATE SYSTEM, WASHINGTON COUNTY ZONE, NAD83 (1997) ADJUSTMENT. THE COORDINATES SHOWN ARE GRID COORDINATES AND ARE TO BE USED AS GRID OR GROUND VALUES ON THIS PLAT.

RIGHT-OF-WAY MONUMENTS ARE TYPE 2 (TYPICAL ¾" REBAR) AND WILL BE PLACED PRIOR TO THE COMPLETION OF THE PROJECT BY SOUTHEAST REGION SURVEY.

FOR THE LATEST ACCESS / DRIVEWAY INFORMATION, CONTACT THE PLANNING UNIT OF THE WISCONSIN DEPARTMENT OF TRANSPORTATION OFFICE IN WAUKESHA.

SEC9035
SEC. COR.
CONCRETE MON.
W/ IRON PLATE
Y = 222549.16
X = 357658.29

SEC9048
QUARTER SEC. COR.
CONCRETE MON.
W/ WISDOT
ALUMINUM CAP
Y = 219888.94
X = 357668.27

SEC9049
CENTER OF SEC.
3" X 48" IRON PIPE
W/ CAP ON WALL
OF OLD GRAVEL PIT
Y = 219807.01
X = 360336.56

SEC9061
SEC. COR.
CONCRETE MON.
W/ BRASS CAP
Y = 217223.25
X = 357661.39

SEC9062
QUARTER SEC. COR.
CONCRETE MON.
W/ WASHINGTON
COUNTY CAP
Y = 217157.78
X = 360316.42

TOWN

SW-NW
11-12-19

SE-NW
11-12-19

NW-SW
11-12-19

NE-SW
11-12-19

OF

KEWASKUM

1/16TH LINE S00°28'03"E

1/16TH LINE N00°17'29"E

PROP1033

33.54'

PL S79°53'54"E

N. MILL RD. R = SEC. LINE

S00°12'54"E 453.00'
(2660.24')

PL 385.35'

33'

CSM 1249
LOT 1

RWB541 153+34.70 62.71'

RWB542 154+11.08 32.87'

S66°58'26"E 82.00'

75.39'

PL 195.51'

33.01'

SEC. LINE N00°08'52"E (2665.70')

STA 153+03.76 R

SEE TPP SHEET
4060-05-20-4.03

SEE TPP SHEET
4060-05-20-4.05

TLE299 166+37.11 36.38'

EXRW31 166+37.29 31.38'

EXRW40 166+39.34 34.62'

S88°14'29"E 1030.71'

S88°14'29"E 1334.69'

33' TO W. 1/4 LINE

33' TO W. 1/4 LINE

S88°18'39"E

S88°14'29"E 406.78'

S88°14'29"E 467.81'

TLE FOR SLOPES

STA 196+42.23 R
= W. 1/4 LINE

(2669.54')
W. 1/4 LINE S88°14'29"E 896.46' TO R

EXRW32 TLE300 171+02.71 33'38"

PL172+18.55

EXRW33 TLE301 173+85.30 33'38"

TLE FOR D/W

EXRW34 176+33.17 33'

TLE303 177+71.40 33'38"

TLE304

PL177+82.75

TLE305 TLE306 178+35.96 33'38"

EXRW35 179+32.06 33'

EXRW36 179+81.93 33'

PC 179+81.93

S56°53'39"E 49.86' R

180+53.42 33'

RWB554

CUR28RL10

37.74' 37.45' S. 1/4 LINE N00°26'08"E (2649.31')

STA 180+71.98

PC 170+46.12

50' 35.12'

RWB543 RWB544 RWB545 TLE307 RWB546 PT 173+85.30 50'38.33'

RWB547 175+63.68 38.33'

TLE308

RWB548 176+83.42 70.22'

PC 176+33.17

RWB549 177+36.54 62.24'

S70°04'32"E 52.51'

CUR9201

CUR9202

PLE4

S62°52'20"E 247.87'

194.12'

S45°14'51"E 124.34'

72.34' S83°58'13"E

OAK DRIVE 49.5'

RWB550 178+03.83 33'

PT 179+32.06

RWB551 180+88.46 33'

EXRW37 179+81.93 33'

EXRW38 179+32.06 33'

RW4 RW5 RW6 RW7 RW8

SEC. LINE N00°08'52"E

PLE FOR VISION 0.12 ACRES

TLE FOR SLOPES

PLE FOR VISION CORNER 0.04 ACRES

PLE FOR VISION CORNER 0.03 ACRES

202 WE ENERGIES-ELECTRIC PARCEL 44 NO RECORDED EASEMENT

204 FRONTIER COMMUNICATIONS PARCELS 43-44 NO RECORDED EASEMENT

UTILITY SCHEDULE & INTERESTS REQUIRED		
UTILITY NUMBER	OWNER	INTEREST REQUIRED
202	WE-ENERGIES - ELECTRIC	RELEASE OF RIGHTS
204	FRONTIER COMMUNICATIONS	RELEASE OF RIGHTS

SCHEDULE OF LANDS & INTERESTS REQUIRED		OWNERS NAMES ARE SHOWN FOR REFERENCE PURPOSES ONLY, AND ARE SUBJECT TO CHANGE PRIOR TO THE TRANSFER OF LAND INTEREST TO THE DEPARTMENT.					
PARCEL NUMBER	OWNER * COMPUTED	INTEREST REQUIRED	R/W REQUIRED (ACRES) NEW	EXISTING	TOTAL	T.L.E. TEMP. ACRES	P.L.E. PERM. ACRES
43	M & K BARTON, LLC	FEE	0.03	0.00	0.03		
44	STATE OF WISCONSIN	PLE,TLE				0.12	0.19

CURVE INFORMATION

STH 28 ℄ CUR9201		STH 28 ℄ CUR9202		STH 28 ℄ CUR28RL10	
PI	172+18.55	PI	177+82.75	PI	182+76.75
Y	219832.50	Y	219572.64	Y	219302.68
X	359582.23	X	360089.42	X	360503.45
DELTA	25°26'19"	DELTA	5°58'40"	DELTA	-26°04'29"
D	7°30'00"	D	2°00'00"	D	4°30'00"
T	172.43'	T	149.58'	T	294.82'
L	339.18'	L	298.89'	L	579.44'
R	763.94'	R	2864.79'	R	1273.24'
LCH	336.40'	LCH	298.76'	LCH	574.45'
CB	S75°35'29"E	CB	S59°52'59"E	CB	S69°55'54"E

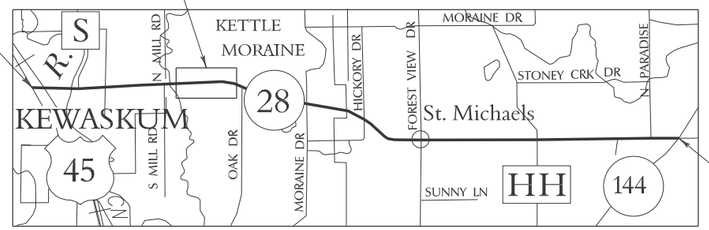
CURVE INFORMATION

CURVE RW4 PARCEL 44		CURVE RW5 PARCEL 44		CURVE RW6 PARCEL 44	
L	294.80'	L	302.34'	L	69.64'
R	796.94'	R	2897.79'	R	1240.24'
LCH	293.12'	LCH	302.20'	LCH	69.63'
CB	S73°28'09"E	CB	S59°52'59"E	CB	S58°30'10"E
CURVE RW7 PARCEL 44		CURVE RW8 PARCEL 44		CURVE PLE4 PARCEL 44	
L	110.32'	L	126.96'	L	316.98'
R	1306.24'	R	2833.79'	R	713.94'
LCH	110.29'	LCH	126.95'	LCH	314.39'
CB	S59°18'50"E	CB	S58°10'40"E	CB	S75°35'29"E

SHEET LOCATION

PROJECT LOCATION

R-20-E



BEGIN PROJECT
STA. 79+00.00
X=350267.09
Y=219829.47

END PROJECT
STA. 382+88.00

T-12-N

N

SCALE, FEET
0 100 200

FOR ADDITIONAL INFORMATION REFER TO THE TITLE SHEET, RECORDED AS SHEET 2 OF 2 OF DOCUMENT 1310750, OF TRANSPORTATION PROJECT PLATS IN THE WASHINGTON COUNTY REGISTER OF DEEDS.

THIS IS A COPY. ORIGINAL DOCUMENT IS AT THE WASHINGTON COUNTY REGISTER OF DEEDS.

HWY	BASIS OF EXISTING R/W	WIDTH	YEAR
STH28	NO RECORD, STATUTE 82.31 (2)	4 RODS	
STH 28	TOWN RECORDS NO. 22	4 RODS	1856
STH 28 & N. MILL RD.	CSM 1249 V.6, P.266, DOC.368057	33'	1975
OAK DR.	TOWN RECORDS NO. 40	3 RODS	1874
N. MILL RD.	TOWN RECORDS NO. 16	4 RODS	1856

I HEREBY CERTIFY THAT THIS PLAT MEETS ALL REQUIREMENTS OF SECTION 84.095, WISCONSIN STATUTES. THIS PLAT WAS PREPARED BY OR UNDER THE DIRECTION OF

STEVEN L. SCHMIDT RLS — PRINTED NAME — SIGNATURE — AUG. 7, 2012 — DATE

THIS PLAT AND RELOCATION ORDER ARE APPROVED FOR THE WISCONSIN DEPARTMENT OF TRANSPORTATION

ROBERT L. DUFFECK RLS — PRINTED NAME — SIGNATURE — AUG. 7, 2012 — DATE

RESERVED FOR REGISTER OF DEEDS
PROJECT NUMBER 4060-05-20-4.04
AMENDMENT NO:

1310954
RECORDED
August 16, 2012 10:08 AM
SHARON A MARTIN, REGISTER OF DEEDS
WASHINGTON COUNTY, WISCONSIN
Fee Amount: $25.00
Vol 51 of Maps
Page 35

FILE NAME : J:\projects\d2_r_40600528\20\040404_RP.dgn
APPRAISAL PLAT DATE :
PLOT DATE : 07-AUG-2012 14:55 PLOT BY : $$...plotuser...$$ PLOT NAME :
PLOT SCALE : 100.000000:1.000000
CONST. 4060-05-70 R/W 4060-05-20 4.04

TRANSPORTATION PROJECT PLAT NO: 4060-05-20 - 4.05

THAT PART OF THE NW1/4-SE1/4 OF SECTION 11, TOWN 12 NORTH, RANGE 19 EAST, TOWN OF KEWASKUM, WASHINGTON COUNTY, WISCONSIN.

RELOCATION ORDER STH 28 WASHINGTON COUNTY

TO PROPERLY ESTABLISH, LAY OUT, WIDEN, ENLARGE, EXTEND, CONSTRUCT, RECONSTRUCT, IMPROVE, OR MAINTAIN A PORTION OF THE HIGHWAY DESIGNATED ABOVE, THE STATE OF WISCONSIN DEPARTMENT OF TRANSPORTATION DEEMS IT NECESSARY TO RELOCATE OR CHANGE SAID HIGHWAY AND ACQUIRE CERTAIN LANDS AND INTERESTS OR RIGHTS IN LANDS FOR THE ABOVE PROJECT.

TO EFFECT THIS CHANGE, PURSUANT TO AUTHORITY GRANTED UNDER SECTION 84.02 (3) AND 84.09, WISCONSIN STATUTES, THE DEPARTMENT OF TRANSPORTATION HEREBY ORDERS THAT:
1. THAT PORTION OF SAID HIGHWAY AS SHOWN ON THIS PLAT IS LAID OUT AND ESTABLISHED TO THE LINES AND WIDTHS AS SO SHOWN FOR THE ABOVE PROJECT.
2. THE LANDS OR INTERESTS OR RIGHTS IN LANDS AS SHOWN ON THIS PLAT ARE REQUIRED BY THE DEPARTMENT FOR THE ABOVE PROJECT AND SHALL BE ACQUIRED IN THE NAME OF THE STATE OF WISCONSIN, PURSUANT TO THE PROVISIONS OF SECTION 84.09 (1) OR (2), WISCONSIN STATUTES.

NOTES:

COORDINATES AND BEARINGS SHOWN ON THIS PLAT ARE REFERENCED TO THE WISCONSIN COUNTY COORDINATE SYSTEM, WASHINGTON COUNTY ZONE, NAD83 (1997) ADJUSTMENT. THE COORDINATES SHOWN ARE GRID COORDINATES AND ARE TO BE USED AS GRID OR GROUND VALUES ON THIS PLAT.

RIGHT-OF-WAY MONUMENTS ARE TYPE 2 (TYPICAL ¾" REBAR) AND WILL BE PLACED PRIOR TO THE COMPLETION OF THE PROJECT BY SOUTHEAST REGION SURVEY.

FOR THE LATEST ACCESS / DRIVEWAY INFORMATION, CONTACT THE PLANNING UNIT OF THE WISCONSIN DEPARTMENT OF TRANSPORTATION OFFICE IN WAUKESHA.

SEC9049
CENTER OF SEC.
3" X 48" IRON PIPE
W/ CAP ON WALL
OF OLD GRAVEL PIT
Y = 219807.01
X = 360336.56

SEC9050
QUARTER SEC. COR
CAST IRON PLUG
IN CONCRETE
Y = 219686.28
X = 363003.63

SEC9062
QUARTER SEC. COR.
CONCRETE MON.
W/ WASHINGTON
COUNTY CAP
Y = 217157.78
X = 360316.42

SEC9063
SEC. COR.
CONCRETE MON.
W/ WASHINGTON
COUNTY CAP
Y = 217024.04
X = 362944.64

SEE TPP SHEET 4060-05-20-4.04

SEE TPP SHEET 4060-05-20-4.06

E. ¼ LINE S87°24'29"E (2669.80')

S ¼ LINE N00°26'08"E (2649.31')

1/16TH LINE S87°14'55"E

1/16TH LINE N00°51'13"E STA 194+42.66 R

STA 180+71.98

STA 208+03.98 R

TOWN

KEWASKUM

OF

NE-SE
11-12-19

NW-SE
11-12-19

CSM 6236
LOT 1

CSM 6014
LOT 1

CSM 4099
LOT 1

CURVE PARCEL	PLE2 44
L	494.78'
R	1240.24'
LCH	491.51'
CB	S71°32'25"E

PLE FOR SLOPES
0.19 ACRES

PLE FOR SLOPES
0.18 ACRES

TLE FOR SLOPES
AND A D/W

TLE FOR SLOPES

EQUATION

PC 179+81.93

PI 182+76.75

PC 187+95.24

PT 192+33.03

PI 190+14.37

PI 190+20.40
39.70', 55', 76.03'

33' TO R/L TAN.

448.99'

459.44'

611.04'

232.07'

1553.15'

1570.95'

N10°24'29"E
36.33'

N50°48'17"E
202.68'

S88°43'51"E
33.00'

S88°43'51"E
27.00'

296.30'

349.70'

896.00'
TO R

170.87'

CURVE INFORMATION	STH 28 ℄ CUR28RL10	STH 28 ℄ CUR9205
PI	182+76.75	190+14.37
Y	219302.68	219211.36
X	360503.45	361243.87
DELTA	-26°04'29"	6°34'00"
D	4°30'00"	1°30'00"
T	294.82'	219.13'
L	579.44'	437.79'
R	1273.24'	3819.72'
LCH	574.45'	437.55'
CB	S69°55'54"E	S79°41'08"E

CURVE PARCEL	PLE3 44	CURVE PARCEL	RW1 44
L	484.13'	L	489.17'
R	1306.24'	R	943.17'
LCH	481.37'	LCH	483.70'
CB	S72°21'04"E	CB	S60°21'55"E

SCHEDULE OF LANDS & INTERESTS REQUIRED — OWNERS NAMES ARE SHOWN FOR REFERENCE PURPOSES ONLY, AND ARE SUBJECT TO CHANGE PRIOR TO THE TRANSFER OF LAND INTEREST TO THE DEPARTMENT.

PARCEL NUMBER	OWNER * COMPUTED	INTEREST REQUIRED	R/W REQUIRED (ACRES) NEW	EXISTING	TOTAL	T.L.E. TEMP. ACRES	P.L.E. PERM. ACRES
44	STATE OF WISCONSIN	PLE, TLE				0.32	0.37

202 WE ENERGIES-ELECTRIC PARCEL 44 NO RECORDED EASEMENT

204 FRONTIER COMMUNICATIONS PARCEL 44 NO RECORDED EASEMENT

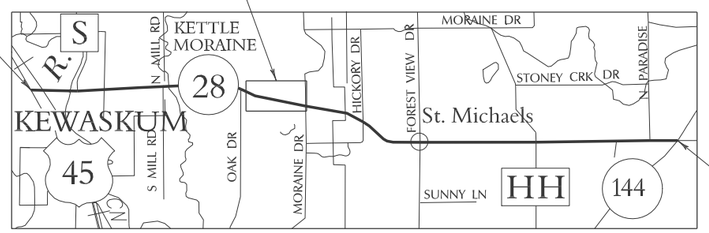
UTILITY SCHEDULE & INTERESTS REQUIRED		
UTILITY NUMBER	OWNER	INTEREST REQUIRED
202	WE-ENERGIES - ELECTRIC	RELEASE OF RIGHTS
204	FRONTIER COMMUNICATIONS	RELEASE OF RIGHTS

BEGIN PROJECT
STA. 79+00.00
X=350267.09
Y=219829.47

SHEET LOCATION

PROJECT LOCATION

R-20-E



N

SCALE, FEET
0 100 200

END PROJECT
STA. 382+88.00

T-12-N

HWY	BASIS OF EXISTING R/W	WIDTH	YEAR
STH 28	DEED V.89, P.548, DOC.124769	3 RODS	1921
STH 28	PROJECT PO-2(1)	VARIES	1954
KETTLE MORAINE DR.	PROJECT PO-2(1)	VARIES	1954

FOR ADDITIONAL INFORMATION REFER TO THE TITLE SHEET, RECORDED AS SHEET 2 OF 2 OF DOCUMENT 1310750, OF TRANSPORTATION PROJECT PLATS IN THE WASHINGTON COUNTY REGISTER OF DEEDS.

THIS IS A COPY. ORIGINAL DOCUMENT IS AT THE WASHINGTON COUNTY REGISTER OF DEEDS.

I HEREBY CERTIFY THAT THIS PLAT MEETS ALL REQUIREMENTS OF SECTION 84.095, WISCONSIN STATUTES. THIS PLAT WAS PREPARED BY OR UNDER THE DIRECTION OF

STEVEN L. SCHMIDT RLS — PRINTED NAME — SIGNATURE — AUG. 7, 2012 — DATE

THIS PLAT AND RELOCATION ORDER ARE APPROVED FOR THE WISCONSIN DEPARTMENT OF TRANSPORTATION

ROBERT L. DUFFECK RLS — PRINTED NAME — SIGNATURE — AUG. 7, 2012 — DATE

RESERVED FOR REGISTER OF DEEDS
PROJECT NUMBER 4060-05-20-4.05
AMENDMENT NO:

1312925
RECORDED
August 16, 2012 10:00 AM
SHARON A MARTIN, REGISTER OF DEEDS
WASHINGTON COUNTY, WISCONSIN
Fee Amount: $25.00
Vol. 51 of Maps
Page 36

FILE NAME : J:\projects\d2_r_40600528\20\040405_RP.dgn
APPRAISAL PLAT DATE :
PLOT DATE : 07-AUG-2012 14:56 PLOT BY : $$...plotuser...$$ PLOT NAME :
PLOT SCALE : 100.000000:1.000000
CONST. 4060-05-70 R/W 4060-05-20 4.05

TRANSPORTATION PROJECT PLAT NO: 4060-05-20 - 4.06

THAT PART OF LOT 1, CSM 1273, LOT 1, CSM 3122, AND ALSO THAT PART OF THE NW1/4-SW1/4, NE1/4-SW1/4, SE1/4-SW1/4 OF SECTION 12, TOWN 12 NORTH, RANGE 19 EAST, TOWN OF KEWASKUM, WASHINGTON COUNTY, WISCONSIN.

RELOCATION ORDER STH 28 WASHINGTON COUNTY

TO PROPERLY ESTABLISH, LAY OUT, WIDEN, ENLARGE, EXTEND, CONSTRUCT, RECONSTRUCT, IMPROVE, OR MAINTAIN A PORTION OF THE HIGHWAY DESIGNATED ABOVE, THE STATE OF WISCONSIN DEPARTMENT OF TRANSPORTATION DEEMS IT NECESSARY TO RELOCATE OR CHANGE SAID HIGHWAY AND ACQUIRE CERTAIN LANDS AND INTERESTS OR RIGHTS IN LANDS FOR THE ABOVE PROJECT.

TO EFFECT THIS CHANGE, PURSUANT TO AUTHORITY GRANTED UNDER SECTION 84.02 (3) AND 84.09, WISCONSIN STATUTES, THE DEPARTMENT OF TRANSPORTATION HEREBY ORDERS THAT:

1. THAT PORTION OF SAID HIGHWAY AS SHOWN ON THIS PLAT IS LAID OUT AND ESTABLISHED TO THE LINES AND WIDTHS AS SO SHOWN FOR THE ABOVE PROJECT.
2. THE LANDS OR INTERESTS OR RIGHTS IN LANDS AS SHOWN ON THIS PLAT ARE REQUIRED BY THE DEPARTMENT FOR THE ABOVE PROJECT AND SHALL BE ACQUIRED IN THE NAME OF THE STATE OF WISCONSIN, PURSUANT TO THE PROVISIONS OF SECTION 84.09 (1) OR (2), WISCONSIN STATUTES.

NOTES:

COORDINATES AND BEARINGS SHOWN ON THIS PLAT ARE REFERENCED TO THE WISCONSIN COUNTY COORDINATE SYSTEM, WASHINGTON COUNTY ZONE, NAD83 (1997) ADJUSTMENT. THE COORDINATES SHOWN ARE GRID COORDINATES AND ARE TO BE USED AS GRID OR GROUND VALUES ON THIS PLAT.

RIGHT-OF-WAY MONUMENTS ARE TYPE 2 (TYPICAL 3/4" REBAR) AND WILL BE PLACED PRIOR TO THE COMPLETION OF THE PROJECT BY SOUTHEAST REGION SURVEY.

FOR THE LATEST ACCESS / DRIVEWAY INFORMATION, CONTACT THE PLANNING UNIT OF THE WISCONSIN DEPARTMENT OF TRANSPORTATION OFFICE IN WAUKESHA.

UTILITY SCHEDULE & INTERESTS REQUIRED		
UTILITY NUMBER	OWNER	INTEREST REQUIRED
202	WE-ENERGIES - ELECTRIC	RELEASE OF RIGHTS
204	FRONTIER COMMUNICATIONS	RELEASE OF RIGHTS

202 WE ENERGIES-ELECTRIC PARCEL 44,47 NO RECORDED EASEMENT

204 FRONTIER COMMUNICATIONS PARCEL 44,45,47 NO RECORDED EASEMENT

PARCEL 46 V.876, P.648, DOC.486436

SEC9050
QUARTER SEC. COR
CAST IRON PLUG
IN CONCRETE
Y = 219686.28
X = 363003.63

SEC9051
CENTER OF SEC.
CONCRETE MON.
W/ WASHINGTON
COUNTY CAP
Y = 219662.79
X = 365652.50

SEC9063
SEC. COR.
CONCRETE MON.
W/ WASHINGTON
COUNTY CAP
Y = 217024.04
X = 362944.64

SEC9064
QUARTER SEC. COR.
CONCRETE MON.
W/ BRASS CAP
Y = 217016.95
X = 365613.37

SEE TPP 4060-05-20-4.05

SEE TPP 4060-05-20-4.07

TOWN OF KEWASKUM

NW-SW 12-12-19

NE-SW 12-12-19

SE-SW 12-12-19

1/16TH LINE

1/16TH LINE S89°40'14"E

KETTLE MORAINE DR. ℄=SEC LINE S01°16'09"W (2662.89')

STH 28 ℞ S80°05'31"E 1248.10'

N86°32'03"E 537.26'

S59°44'21"E 646.33'

S76°24'08"E 227.73'

PLE FOR SLOPES 0.10 ACRES

PLE FOR SLOPES 0.09 ACRES

TLE FOR SLOPES AND A D/W

TLE FOR A D/W

TLE FOR SLOPES

TLE FOR SLOPES

DETAIL NOT TO SCALE

EQUATION
STH 28 ℞
PI 232+36.40
Y 218194.00
X 365320.70

CSM 3122 LOT 1

CSM 1273 LOT 1

HICKORY DR. ℞=S 1/4 LINE S00°50'50"W (2646.13')

STA 208+03.98 ℞

STA 235+97.29 ℞

CURVE INFORMATION

STH 28 ℞ CUR9206		STH 28 ℞ CUR9207	
PI	212+16.30	PI	228+23.10
Y	218693.56	Y	218417.06
X	363384.54	X	364967.51
DELTA	-3°41'23"	DELTA	22°22'04"
D	1°00'00"	D	6°30'00"
T	184.55'	T	174.28'
L	368.98'	L	344.12'
R	5729.58'	R	881.47'
LCH	368.92'	LCH	341.94'
CB	S78°14'49"E	CB	S68°54'19"E

CURVE PRW2 PARCELS 44,45		CURVE PRW3 PARCEL 45		CURVE PRW4 PARCEL 44,47	
L	122.92'	L	122.93'	L	331.24'
R	914.47'	R	914.47'	R	848.47'
LCH	122.83'	LCH	122.84'	LCH	329.14'
CB	S76°14'28"E	CB	S61°34'31"E	CB	S68°54'29"E

SCHEDULE OF LANDS & INTERESTS REQUIRED		OWNERS NAMES ARE SHOWN FOR REFERENCE PURPOSES ONLY, AND ARE SUBJECT TO CHANGE PRIOR TO THE TRANSFER OF LAND INTEREST TO THE DEPARTMENT.					
PARCEL NUMBER	OWNER * COMPUTED	INTEREST REQUIRED	R/W REQUIRED (ACRES) NEW	EXISTING	TOTAL	T.L.E. TEMP. ACRES	P.L.E. PERM. ACRES
44	STATE OF WISCONSIN	PLE,TLE				0.01	0.19
45	BRYANT K & CYNTHIA S BORLAND	FEE,TLE	0.03	0.00	0.03	0.01	
46	THOMAS E & GERTRUDE M VAN ALSTYNE	FEE	0.14	0.25	0.39		
47	JANET G VOLM	FEE,TLE	0.38	0.73	1.11	0.14	

SHEET LOCATION

PROJECT LOCATION

R-20-E

T-12-N

BEGIN PROJECT
STA. 79+00.00
X=350267.09
Y=219829.47

END PROJECT
STA. 382+88.00

KEWASKUM

St. Michaels

KETTLE MORAINE

MORAINE DR

STONEY CRK DR

N. PARADISE

HICKORY DR

FOREST VIEW DR

N. MILL RD

S. MILL RD

OAK DR

SUNNY LN

HH

SCALE, FEET
0 100 200

FOR ADDITIONAL INFORMATION REFER TO THE TITLE SHEET, RECORDED AS SHEET 2 OF 2 OF DOCUMENT 1310750, OF TRANSPORTATION PROJECT PLATS IN THE WASHINGTON COUNTY REGISTER OF DEEDS.

HWY HWY	BASIS OF EXISTING R/W	WIDTH	YEAR
STH 28	DEED V.89, P.550, DOC.124771	3 RODS	1921
STH 28	PROJECT PO-2(1)	VARIES	1954
STH 28	CSM 3122 V.18, P.101, DOC.518137	24.75'	1987
STH 28	CSM 1273 V.6, P.317, DOC.369506	33'	1975
KETTLE MORAINE DR.	PROJECT PO-2(1)	VARIES	1954
HICKORY DR.	CSM 1273 V.6, P.317, DOC.369506	33'	1975
HICKORY DR.	CSM 3122 V.18, P.101, DOC.518137	33'	1987

THIS IS A COPY. ORIGINAL DOCUMENT IS AT THE WASHINGTON COUNTY REGISTER OF DEEDS.

I HEREBY CERTIFY THAT THIS PLAT MEETS ALL REQUIREMENTS OF SECTION 84.095, WISCONSIN STATUTES. THIS PLAT WAS PREPARED BY OR UNDER THE DIRECTION OF

STEVEN L. SCHMIDT RLS — PRINTED NAME — SIGNATURE — AUG. 7, 2012 — DATE

THIS PLAT AND RELOCATION ORDER ARE APPROVED FOR THE WISCONSIN DEPARTMENT OF TRANSPORTATION

ROBERT L. DUFFECK RLS — PRINTED NAME — SIGNATURE — AUG. 7, 2012 — DATE

RESERVED FOR REGISTER OF DEEDS
PROJECT NUMBER 4060-05-20-4.06
AMENDMENT NO:

1312926
RECORDED
August 16, 2012 10:05 AM
SHARON A MARTIN, REGISTER OF DEEDS
WASHINGTON COUNTY, WISCONSIN
Fee Amount: $25.00
Map No. 57 Page 37

4.06 4060-05-20 W

FILE NAME : J:\projects\d2_r_40600528\20\040406_RP.dgn
APPRAISAL PLAT DATE :
PLOT DATE : 07-AUG-2012 14:57 PLOT BY : $$...plotuser...$$ PLOT NAME :
PLOT SCALE : 100.000000:1.000000
CONST. 4060-05-70 R/W 4060-05-20 4.06

TRANSPORTATION PROJECT PLAT NO: 4060-05-20 - 4.07 AMENDMENT NO. 1

AMENDS TRANSPORTATION PROJECT PLAT 4060-05-20-4.07 RECORDED AS DOCUMENT 1312927 BY REVISING PARCEL 54.
THAT PART OF THE SW1/4-SE1/4 AND THE SE1/4-SE1/4, SECTION 12, TOWN 12 NORTH, RANGE 19 EAST, AND ALSO THE NW1/4-NE1/4 AND THE NE1/4-NE/14, SECTION 13, TOWN 12 NORTH, RANGE 19 EAST, TOWN OF KEWASKUM, WASHINGTON COUNTY, WISCONSIN.

RELOCATION ORDER STH 28 WASHINGTON COUNTY

TO PROPERLY ESTABLISH, LAY OUT, WIDEN, ENLARGE, EXTEND, CONSTRUCT, RECONSTRUCT, IMPROVE, OR MAINTAIN A PORTION OF THE HIGHWAY DESIGNATED ABOVE, THE STATE OF WISCONSIN DEPARTMENT OF TRANSPORTATION DEEMS IT NECESSARY TO RELOCATE OR CHANGE SAID HIGHWAY AND ACQUIRE CERTAIN LANDS AND INTERESTS OR RIGHTS IN LANDS FOR THE ABOVE PROJECT.

TO EFFECT THIS CHANGE, PURSUANT TO AUTHORITY GRANTED UNDER SECTION 84.02 (3) AND 84.09, WISCONSIN STATUTES, THE DEPARTMENT OF TRANSPORTATION HEREBY ORDERS THAT:
1. THAT PORTION OF SAID HIGHWAY AS SHOWN ON THIS PLAT IS LAID OUT AND ESTABLISHED TO THE LINES AND WIDTHS AS SO SHOWN FOR THE ABOVE PROJECT.
2. THE LANDS OR INTERESTS OR RIGHTS IN LANDS AS SHOWN ON THIS PLAT ARE REQUIRED BY THE DEPARTMENT FOR THE ABOVE PROJECT AND SHALL BE ACQUIRED IN THE NAME OF THE STATE OF WISCONSIN, PURSUANT TO THE PROVISIONS OF SECTION 84.09 (1) OR (2), WISCONSIN STATUTES.

NOTES:

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RIGHT-OF-WAY MONUMENTS ARE TYPE 2 (TYPICAL) ¾" REBAR) AND WILL BE PLACED PRIOR TO THE COMPLETION OF THE PROJECT BY SOUTHEAST REGION SURVEY.

FOR THE LATEST ACCESS / DRIVEWAY INFORMATION, CONTACT THE PLANNING UNIT OF THE WISCONSIN DEPARTMENT OF TRANSPORTATION OFFICE IN WAUKESHA.

HWY	BASIS OF EXISTING R/W	WIDTH	YEAR
STH 28	PROJECT PO-2(1)	VARIES	1954
STH 28	V.89, P.551, DOC.124772	24.75'	1934
STH 28	V.121, P.227, DOC.168212	VARIES	1934
HICKORY DR.	CSM 1069	33'	1975
HICKORY DR.	NO RECORD, STATUTE	33'	
FOREST VIEW RD.	TOWN RECORD 46	33'	1860
FOREST VIEW RD.	TOWN RECORD 46	33'	1853

202 WE ENERGIES-ELECTRIC PARCELS 50,51,52,53 NO RECORDED EASEMENT

203 WE ENERGIES-GAS PARCELS 50,51,54,55,56 NO RECORDED EASEMENT

204 FRONTIER COMMUNICATIONS PARCELS 50,52,53 NO RECORDED EASEMENT

UTILITY SCHEDULE & INTERESTS REQUIRED		
UTILITY NUMBER	OWNER	INTEREST REQUIRED
202	WE-ENERGIES - ELECTRIC	RELEASE OF RIGHTS
203	WE-ENERGIES - GAS	RELEASE OF RIGHTS
204	FRONTIER COMMUNICATIONS	RELEASE OF RIGHTS

SCHEDULE OF LANDS & INTERESTS REQUIRED — OWNERS NAMES ARE SHOWN FOR REFERENCE PURPOSES ONLY, AND ARE SUBJECT TO CHANGE PRIOR TO THE TRANSFER OF LAND INTEREST TO THE DEPARTMENT.

PARCEL NUMBER	OWNER * COMPUTED	INTEREST REQUIRED	R/W REQUIRED (ACRES) NEW	EXISTING	TOTAL	T.L.E. TEMP. ACRES	P.L.E. PERM. ACRES
48	JAMES A & NANCY L HARMON	FEE,TLE	0.02	0.41	0.43	0.18	
49	KAREN WOLLNER, ET AL	FEE,TLE	0.07	0.64	0.71	0.39	
50	SCOTT J & CAROLINE E WOLLNER	FEE,TLE	2.56	1.73	4.29	0.10	
51	RAYMOND A & MARIANNE J STAEHLER	FEE,TLE	0.10	0.15	0.25	0.05	
52	RMSF INVESTMENTS, LLC	FEE,TLE	0.06	0.11	0.17	0.02	
53	THERESA C HANSEN	FEE	0.07	0.23	0.30		
54	FRANCIS N & JUDITH R VANDEBOOM	FEE,TLE	0.33	0.18	0.51	0.05	
55	ALBERT T HERRIGES	FEE,TLE	0.05	0.06	0.11	0.04	
56	ST. MICHAELS CONGREGATION	FEE,TLE	0.12	0.51	0.63	0.03	

CURVE INFORMATION			
STH 28 ℄ CUR PRL1		STH 28 ℄ CUR PRL2	
PI	240+75.06	PI	250+92.65
Y	217754.15	Y	217022.23
X	366034.77	X	366746.02
DELTA	14°11'18"	DELTA	-44°17'00"
D	2°26'17"	D	4°46'29"
T	292.47'	T	488.29'
L	581.94'	L	927.47'
R	2350.00'	R	1200.00'
LCH	580.46'	LCH	904.56'
CB	S51°16'25"E	CB	S66°19'16"E

STH 28 EX. & CUR 9211	
PI	250+87.50
Y	217022.36
X	366740.92
DELTA	44°13'54" (LT)
D	8°00'00"
T	291.05'
L	552.89'
R	716.20'
LCH	539.27'
CB	S66°20'50"E

CURVE PRW1 PARCEL 50	
L	598.04'
R	2415.00'
LCH	596.51'
CB	N51°16'25"W

CURVE PRW5 PARCELS 48,49	
L	573.77'
R	2317.00'
LCH	572.31'
CB	S51°16'25"E

CURVE PRW6 PARCELS 49,EXRW,54	
L	453.49'
R	740.95'
LCH	446.44'
CB	S66°22'39"E

CURVE PRW7 PARCEL 54	
L	263.09'
R	1250.00'
LCH	262.60'
CB	S82°26'00"E

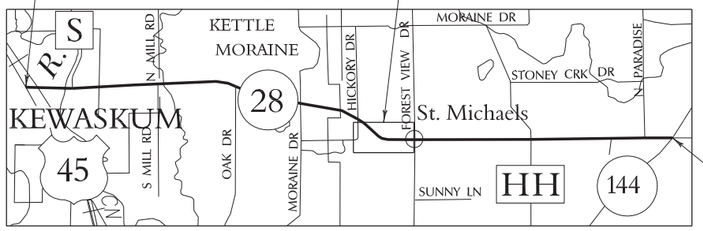
CURVE PRW8 PARCEL 50	
L	390.68'
R	1140.00'
LCH	388.78'
CB	N56°30'12"W

FOR ADDITIONAL INFORMATION REFER TO THE TITLE SHEET, RECORDED AS SHEET 2 OF 2 OF DOCUMENT 1310750, OF TRANSPORTATION PROJECT PLATS IN THE WASHINGTON COUNTY REGISTER OF DEEDS.

BEGIN PROJECT
STA. 79+00.00
X=350267.09
Y=219829.47

END PROJECT
STA. 382+88.00

PROJECT LOCATION



SHEET LOCATION

R-20-E

T-12-N

N

SCALE, FEET
0 100 200

THIS IS A COPY. ORIGINAL DOCUMENT IS AT THE WASHINGTON COUNTY REGISTER OF DEEDS.

I HEREBY CERTIFY THAT THIS PLAT MEETS ALL REQUIREMENTS OF SECTION 84.095, WISCONSIN STATUTES. THIS PLAT WAS PREPARED BY OR UNDER THE DIRECTION OF

STEVEN L. SCHMIDT RLS — Steven Schmidt — NOV. 2, 2012
PRINTED NAME — SIGNATURE — DATE

THIS PLAT AND RELOCATION ORDER ARE APPROVED FOR THE WISCONSIN DEPARTMENT OF TRANSPORTATION

ROBERT L. DUFFECK RLS — Robert L Duffeck — NOV. 2, 2012
PRINTED NAME — SIGNATURE — DATE

SEC9051
CENTER OF SEC.
CONCRETE MON.
W/ WASHINGTON
COUNTY CAP
Y = 219662.79
X = 365652.50

SEC9052
QUARTER SEC. COR.
CONCRETE MON.
W/ WASHINGTON
COUNTY BRASS CAP
Y = 219638.78
X = 368300.74

SEC9064
QUARTER SEC. COR.
CONCRETE MON.
W/ BRASS CAP
Y = 217016.95
X = 365613.37

SEC9065
SEC. COR.
CONCRETE MON.
W/ WASHINGTON
COUNTY BRASS
CAP
Y = 216980.55
X = 368299.15

SEC9078
QUARTER SEC. COR.
CONCRETE MON.
W/ WASHINGTON
COUNTY BRASS CAP
Y = 214329.58
X = 368268.46

TOWN OF FARMINGTON

KEWASKUM

TOWN

SEE TPP 4060-05-20-4.06

SEE TPP 4060-05-20-4.08

STA 235+97.29 ℞ S LINE S00°50'50"W (2646.13')

SECTION LINE S89°13'25"E (2686.03')

FOREST VIEW RD. ℞ = TOWN LINE S00°02'03"W (2658.23')

STA 255+97.24 ℞

(2651.15')

RESERVED FOR REGISTER OF DEEDS
PROJECT NUMBER 4060-05-20-4.07
AMENDMENT NO: 1

1320595
RECORDED
November 12, 2012 10:05 AM
SHARON A MARTIN, REGISTER OF DEEDS
WASHINGTON COUNTY, WISCONSIN
Fee Amount: 125.00

Map Book 51
Page 45

FILE NAME : J:\projects\d2_r_40600528\20\040407A1_RP.dgn
APPRAISAL PLAT DATE :
PLOT DATE : 02-NOV-2012 10:57
PLOT BY : $$...plotuser...$$
PLOT NAME :
PLOT SCALE : 100.000000:1.000000
CONST. 4060-05-70 R/W 4060-05-20 4.07 AMENDMENT NO. 1

TRANSPORTATION PROJECT PLAT NO: 4060-05-20 - 4.07

THAT PART OF THE SW1/4-SE1/4 AND THE SE1/4-SE1/4, SECTION 12, TOWN 12 NORTH, RANGE 19 EAST, AND ALSO THE NW1/4-NE1/4 AND THE NE1/4-NE/14, SECTION 13, TOWN 12 NORTH, RANGE 19 EAST, TOWN OF KEWASKUM, WASHINGTON COUNTY, WISCONSIN.

RELOCATION ORDER STH 28 WASHINGTON COUNTY

TO PROPERLY ESTABLISH, LAY OUT, WIDEN, ENLARGE, EXTEND, CONSTRUCT, RECONSTRUCT, IMPROVE, OR MAINTAIN A PORTION OF THE HIGHWAY DESIGNATED ABOVE, THE STATE OF WISCONSIN DEPARTMENT OF TRANSPORTATION DEEMS IT NECESSARY TO RELOCATE OR CHANGE SAID HIGHWAY AND ACQUIRE CERTAIN LANDS AND INTERESTS OR RIGHTS IN LANDS FOR THE ABOVE PROJECT.

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2. THE LANDS OR INTERESTS OR RIGHTS IN LANDS AS SHOWN ON THIS PLAT ARE REQUIRED BY THE DEPARTMENT FOR THE ABOVE PROJECT AND SHALL BE ACQUIRED IN THE NAME OF THE STATE OF WISCONSIN, PURSUANT TO THE PROVISIONS OF SECTION 84.09 (1) OR (2), WISCONSIN STATUTES.

NOTES:

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RIGHT-OF-WAY MONUMENTS ARE TYPE 2 (TYPICAL) ¾" REBAR) AND WILL BE PLACED PRIOR TO THE COMPLETION OF THE PROJECT BY SOUTHEAST REGION SURVEY.

FOR THE LATEST ACCESS / DRIVEWAY INFORMATION, CONTACT THE PLANNING UNIT OF THE WISCONSIN DEPARTMENT OF TRANSPORTATION OFFICE IN WAUKESHA.

HWY	BASIS OF EXISTING R/W	WIDTH	YEAR
STH 28	PROJECT PO-2(1)	VARIES	1954
STH 28	V.89, P.551, DOC.124772	24.75'	1934
STH 28	V.121, P.227, DOC.168212	VARIES	1934
HICKORY DR.	CSM 1069	33'	1975
HICKORY DR.	NO RECORD, STATUTE	33'	
FOREST VIEW RD.	TOWN RECORD 46	33'	1860
FOREST VIEW RD.	TOWN RECORD 46	33'	1853

UTILITY SCHEDULE & INTERESTS REQUIRED

UTILITY NUMBER	OWNER	INTEREST REQUIRED
202	WE-ENERGIES - ELECTRIC	RELEASE OF RIGHTS
203	WE-ENERGIES - GAS	RELEASE OF RIGHTS
204	FRONTIER COMMUNICATIONS	RELEASE OF RIGHTS

SCHEDULE OF LANDS & INTERESTS REQUIRED — OWNERS NAMES ARE SHOWN FOR REFERENCE PURPOSES ONLY, AND ARE SUBJECT TO CHANGE PRIOR TO THE TRANSFER OF LAND INTEREST TO THE DEPARTMENT.

PARCEL NUMBER	OWNER * COMPUTED	INTEREST REQUIRED	R/W REQUIRED (ACRES) NEW	EXISTING	TOTAL	T.L.E. TEMP. ACRES	P.L.E. PERM. ACRES
48	JAMES A & NANCY L HARMON	FEE,TLE	0.02	0.41	0.43	0.18	
49	KAREN WOLLNER, ET AL	FEE,TLE	0.07	0.64	0.71	0.39	
50	SCOTT J & CAROLINE E WOLLNER	FEE,TLE	2.56	1.73	4.29	0.10	
51	RAYMOND A & MARIANNE J STAEHLER	FEE,TLE	0.10	0.15	0.25	0.05	
52	RMSF INVESTMENTS, LLC	FEE,TLE	0.06	0.11	0.17	0.02	
53	THERESA C HANSEN	FEE	0.07	0.23	0.30		
54	FRANCIS N & JUDITH R VANDEBOOM	FEE,TLE	0.37	0.38	0.75	0.05	
55	ALBERT T HERRIGES	FEE,TLE	0.05	0.06	0.11	0.04	
56	ST. MICHAELS CONGREGATION	FEE,TLE	0.12	0.51	0.63	0.03	

202 WE ENERGIES-ELECTRIC PARCELS 50,51,52,53 NO RECORDED EASEMENT

203 WE ENERGIES-GAS PARCELS 50,51,54,55,56 NO RECORDED EASEMENT

204 FRONTIER COMMUNICATIONS PARCELS 50,52,53 NO RECORDED EASEMENT

HIGHWAY EASEMENT V. 89, P. 551, DOC. 124772

TLE FOR SLOPES

EQUATION

SEC9051 CENTER OF SEC. CONCRETE MON. W/ WASHINGTON COUNTY CAP Y = 219662.79 X = 365652.50

SEC9052 QUARTER SEC. COR. CONCRETE MON. W/ WASHINGTON COUNTY BRASS CAP Y = 219638.78 X = 368300.74

SEC9064 QUARTER SEC. COR. CONCRETE MON. W/ BRASS CAP Y = 217016.95 X = 365613.37

SEC9065 SEC. COR. CONCRETE MON. W/ WASHINGTON COUNTY BRASS CAP Y = 216980.55 X = 368299.15

SEC9078 QUARTER SEC. COR. CONCRETE MON. W/ WASHINGTON COUNTY BRASS CAP Y = 214329.58 X = 368268.46

TOWN OF FARMINGTON

FOREST VIEW RD. R = TOWN LINE

STA 265+97.24 R
S00°02'03"W (2658.23')

STA 235+97.29 R
S00°50'50"W (2646.13')

SECTION LINE S89°13'25"E (2686.03')

SEE TPP 4060-05-20-4.06

SEE TPP 4060-05-20-4.08

HICKORY DR. R = S 1/4 LINE

1/16TH LINE

SW-SE 12-12-19

SE-SE 12-12-19

NE-NE 13-12-19

NW-NE 13-12-19

OF

KEWASKUM

CURVE INFORMATION

STH 28 ℄ CUR PRL1		STH 28 ℄ CUR PRL2	
PI	240+75.06	PI	250+92.65
Y	217754.15	Y	217022.23
X	366034.77	X	366746.02
DELTA	14°11'18"	DELTA	-44°17'00"
D	2°26'17"	D	4°46'29"
T	292.47'	T	488.29'
L	581.94'	L	927.47'
R	2350.00'	R	1200.00'
LCH	580.46'	LCH	904.56'
CB	S51°16'25"E	CB	S66°19'16"E

STH 28 EX. ℄ CUR 9211

PI	250+87.50
Y	217022.36
X	366740.92
DELTA	44°13'54" (LT)
D	8°00'00"
T	291.05'
L	552.89'
R	716.20'
LCH	539.27'
CB	S66°20'50"E

FOR ADDITIONAL INFORMATION REFER TO THE TITLE SHEET, RECORDED AS SHEET 2 OF 2 OF DOCUMENT 1310750, OF TRANSPORTATION PROJECT PLATS IN THE WASHINGTON COUNTY REGISTER OF DEEDS.

BEGIN PROJECT STA. 79+00.00 X=350267.09 Y=219829.47

END PROJECT STA. 382+88.00

T-12-N

R-20-E

PROJECT LOCATION

SHEET LOCATION

KEWASKUM · KETTLE MORAINE · MORAINE DR · HICKORY DR · FOREST VIEW DR · N MILL RD · S MILL RD · OAK DR · STONEY CRK DR · N PARADISE · St. Michaels · SUNNY LN · 28 · 45 · 144 · HH

SCALE, FEET 0 100 200

THIS IS A COPY. ORIGINAL DOCUMENT IS AT THE WASHINGTON COUNTY REGISTER OF DEEDS.

I HEREBY CERTIFY THAT THIS PLAT MEETS ALL REQUIREMENTS OF SECTION 84.095, WISCONSIN STATUTES. THIS PLAT WAS PREPARED BY OR UNDER THE DIRECTION OF

STEVEN L. SCHMIDT RLS — PRINTED NAME — SIGNATURE — AUG. 7, 2012 — DATE

THIS PLAT AND RELOCATION ORDER ARE APPROVED FOR THE WISCONSIN DEPARTMENT OF TRANSPORTATION

ROBERT L. DUFFECK RLS — PRINTED NAME — SIGNATURE — AUG. 7, 2012 — DATE

CURVE PRW1 PARCEL 50	
L	598.04'
R	2415.00'
LCH	596.51'
CB	N51°16'25"W
CURVE PRW5 PARCELS 48,49	
L	573.77'
R	2317.00'
LCH	572.31'
CB	S51°16'25"E
CURVE PRW6 PARCELS 49,EXRW,54	
L	453.49'
R	740.95'
LCH	446.44'
CB	S66°22'39"E
CURVE PRW7 PARCEL 54	
L	263.09'
R	1250.00'
LCH	262.60'
CB	S82°26'00"E
CURVE PRW8 PARCEL 50	
L	390.68'
R	1140.00'
LCH	388.78'
CB	N56°30'12"W

RESERVED FOR REGISTER OF DEEDS
PROJECT NUMBER 4060-05-20-4.07
AMENDMENT NO:

1312927
RECORDED
August 16, 2012 10:00 AM
SHARON A MARTIN, REGISTER OF DEEDS
WASHINGTON COUNTY, WISCONSIN
Fee Amount: 625.00

Vol. 57 of MAPS Page 38

FILE NAME : J:\projects\d2_r_40600528\20\040407_RP.dgn
APPRAISAL PLAT DATE :
PLOT DATE : 07-AUG-2012 14:58 PLOT BY : $$...plotuser...$$ PLOT NAME :
PLOT SCALE : 100.000000:1.000000
CONST. 4060-05-70 R/W 4060-05-20 4.07

TRANSPORTATION PROJECT PLAT NO: 4060-05-20 - 4.08 AMENDMENT NO. 1

AMENDS TRANSPORTATION PROJECT PLAT 4060-05-20-4.08 RECORDED AS DOCUMENT 1312928 BY REVISING PARCEL 57.

THAT PART OF LOT 2, CSM 877, LOTS 1 & 2, CSM 1869, LOTS 1 & 2, CSM 6258, AND ALSO THAT PART OF SW1/4-SW1/4 AND THE SE1/4-SW1/4, SECTION 7, TOWN 12 NORTH, RANGE 20 EAST, AND ALSO THAT PART OF THE NW1/4-NW1/4 AND THE NE1/4-NW1/4, SECTION 18, TOWN 12 NORTH, RANGE 20 EAST, TOWN OF FARMINGTON, WASHINGTON COUNTY, WISCONSIN.

RELOCATION ORDER STH 28 WASHINGTON COUNTY

TO PROPERLY ESTABLISH, LAY OUT, WIDEN, ENLARGE, EXTEND, CONSTRUCT, RECONSTRUCT, IMPROVE, OR MAINTAIN A PORTION OF THE HIGHWAY DESIGNATED ABOVE, THE STATE OF WISCONSIN DEPARTMENT OF TRANSPORTATION DEEMS IT NECESSARY TO RELOCATE OR CHANGE SAID HIGHWAY AND ACQUIRE CERTAIN LANDS AND INTERESTS OR RIGHTS IN LANDS FOR THE ABOVE PROJECT.

TO EFFECT THIS CHANGE, PURSUANT TO AUTHORITY GRANTED UNDER SECTION 84.02 (3) AND 84.09, WISCONSIN STATUTES, THE DEPARTMENT OF TRANSPORTATION HEREBY ORDERS THAT:
1. THAT PORTION OF SAID HIGHWAY AS SHOWN ON THIS PLAT IS LAID OUT AND ESTABLISHED TO THE LINES AND WIDTHS AS SO SHOWN FOR THE ABOVE PROJECT.
2. THE LANDS OR INTERESTS OR RIGHTS IN LANDS AS SHOWN ON THIS PLAT ARE REQUIRED BY THE DEPARTMENT FOR THE ABOVE PROJECT AND SHALL BE ACQUIRED IN THE NAME OF THE STATE OF WISCONSIN, PURSUANT TO THE PROVISIONS OF SECTION 84.09 (1) OR (2), WISCONSIN STATUTES.

HWY	BASIS OF EXISTING R/W	WIDTH	YEAR
STH 28	TOWN RECORDS NO. 10	3 RODS	1847
STH 28	CSM 2721	33'	1984
STH 28	CSM 1869	33'	1978
STH 28	CSM 877	33'	1973
FOREST VIEW RD	TOWN RECORDS NO. 46	4 RODS	1860
FOREST VIEW RD	TOWN RECORDS NO. 46	4 RODS	1853

NOTES:
COORDINATES AND BEARINGS SHOWN ON THIS PLAT ARE REFERENCED TO THE WISCONSIN COUNTY COORDINATE SYSTEM, WASHINGTON COUNTY ZONE, NAD83 (1997) ADJUSTMENT. THE COORDINATES SHOWN ARE GRID COORDINATES AND ARE TO BE USED AS GRID OR GROUND VALUES ON THIS PLAT.

RIGHT-OF-WAY MONUMENTS ARE TYPE 2 (TYPICAL 3/4" REBAR) AND WILL BE PLACED PRIOR TO THE COMPLETION OF THE PROJECT BY SOUTHEAST REGION SURVEY.

FOR THE LATEST ACCESS / DRIVEWAY INFORMATION, CONTACT THE PLANNING UNIT OF THE WISCONSIN DEPARTMENT OF TRANSPORTATION OFFICE IN WAUKESHA.

SCHEDULE OF LANDS & INTERESTS REQUIRED — OWNERS NAMES ARE SHOWN FOR REFERENCE PURPOSES ONLY, AND ARE SUBJECT TO CHANGE PRIOR TO THE TRANSFER OF LAND INTEREST TO THE DEPARTMENT.

PARCEL NUMBER	OWNER * COMPUTED	INTEREST REQUIRED	R/W REQUIRED (ACRES) NEW	EXISTING	TOTAL	T.L.E. TEMP. ACRES	P.L.E. PERM. ACRES
57	CALL OF THE WILD BAR AND PUB,LLC	FEE,TLE	0.01	0.20	0.21	0.06	
58	PATRICK A & CHRISTINE J TETZLAFF	FEE,TLE	0.07	0.22	0.29	0.07	
59	WP PROPERTIES, LLC	FEE,TLE	0.07	0.32	0.39	0.02	
60	ST. MICHAEL'S, LLC	FEE	0.08	0.22	0.30		
61	KEVIN THULL	FEE,TLE	0.26	0.77	1.03	0.10	
62	GERALD G BACKHAUS FAMILY TRUST	FEE,TLE	0.06	0.36	0.42	0.01	
63	VERNON H JUNG JR	FEE,TLE	0.01		0.01	0.03	
64	WILLARD L & JEAN E GOEDEN	FEE,TLE	0.19	0.31	0.50	0.07	
65	WILLIAM THULL FARMS, ET AL	FEE,TLE	0.19	0.31	0.50	0.06	
66	HAROLD & BETTY L STROHMEYER	FEE,TLE	0.06		0.06	0.01	
67	HAROLD A & FREIDA M BACKHAUS	FEE,TLE	0.09	0.07	0.16	0.05	
68	DOLORES EDER	FEE,TLE	0.03		0.03	0.02	
105	JAMES I LAUTNER LE	FEE,TLE	0.02		0.02	0.02	

UTILITY NUMBER	OWNER	INTEREST REQUIRED
202	WE-ENERGIES - ELECTRIC	RELEASE OF RIGHTS
203	WE-ENERGIES - GAS	RELEASE OF RIGHTS
204	FRONTIER COMMUNICATIONS	RELEASE OF RIGHTS

202	WE ENERGIES-ELECTRIC	PARCELS 62,63,64,65,67	NO RECORDED EASEMENT
203	WE ENERGIES-GAS	PARCELS 62,63,64,65,67	NO RECORDED EASEMENT
204	FRONTIER COMMUNICATIONS	PARCELS 57,58,59 PARCEL 60 PARCEL 61 PARCEL 65	NO RECORDED EASEMENT V.1183, P.226, DOC.597604 V.1183, P.227, DOC.597605 V.952, P.98, DOC.515025

FOR ADDITIONAL INFORMATION REFER TO THE TITLE SHEET, RECORDED AS SHEET 2 OF 2 OF DOCUMENT 1310750, OF TRANSPORTATION PROJECT PLATS IN THE WASHINGTON COUNTY REGISTER OF DEEDS.

THIS IS A COPY. ORIGINAL DOCUMENT IS AT THE WASHINGTON COUNTY REGISTER OF DEEDS.

I HEREBY CERTIFY THAT THIS PLAT MEETS ALL REQUIREMENTS OF SECTION 84.095, WISCONSIN STATUTES. THIS PLAT WAS PREPARED BY OR UNDER THE DIRECTION OF

STEVEN L. SCHMIDT RLS — PRINTED NAME — SIGNATURE — MAR. 21, 2013 — DATE

THIS PLAT AND RELOCATION ORDER ARE APPROVED FOR THE WISCONSIN DEPARTMENT OF TRANSPORTATION

ROBERT L. DUFFECK RLS — PRINTED NAME — SIGNATURE — MAR. 21, 2013 — DATE

RESERVED FOR REGISTER OF DEEDS
PROJECT NUMBER 4060-05-20-4.08
AMENDMENT NO: 1

1332256
RECORDED
March 25, 2013 1:55 PM
SHARON A MARTIN, REGISTER OF DEEDS
WASHINGTON COUNTY, WISCONSIN
Fee Amount: $25.00
MAP Book 51
Page 50

SEC9052
QUARTER SEC. COR.
CONCRETE MON.
W/ WASHINGTON
COUNTY BRASS CAP
Y = 219638.78
X = 368300.74

SEC9065
SEC. COR.
CONCRETE MON.
W/ WASHINGTON
COUNTY BRASS CAP
Y = 216980.55
X = 368299.15

SEC9078
QUARTER SEC. COR.
CONCRETE MON.
W/ WASHINGTON
COUNTY BRASS CAP
Y = 214329.58
X = 368268.46

CTL41
CENTER OF SEC.
CONCRETE MON.
W/ WASHINGTON
COUNTY BRASS CAP
Y = 219559.72
X = 371029.74

SEC54
QUARTER SEC. COR.
CONCRETE MON.
W/ WISDOT
ALUMINUM CAP
Y = 216890.75
X = 371017.73

CTL67
CENTER OF SEC
CONCRETE MON.
W/ BRONZE CAP
Y = 214253.13
X = 370992.46

TOWN OF KEWASKUM

TOWN OF FARMINGTON

FOREST VIEW RD (TOWNLINE)

STH 28 R=SEC. LINE S88°06'29"E (2720.06')

SW-SW 7-12-20

SE-SW 7-12-20

NW-NW 18-12-20

NE-NW 18-12-20

1/16TH LINE

PL=S.1/4 LINE

CSM 6258 LOT 1

CSM 6258 LOT 2

CSM 1869 LOT 1

CSM 1869 LOT 2

CSM 877 LOT 2

12' ACCESS EASEMENT V.78, P.508, DOC.108622

DETAIL NOT TO SCALE

SEE TPP 4060-05-20-4.07

SEE TPP 4060-05-20-4.09

SHEET LOCATION

PROJECT LOCATION

R-20-E

T-12-N

BEGIN PROJECT
STA. 79+00.00
X=350267.09
Y=219829.47

END PROJECT
STA. 382+88.00

SCALE, FEET
0 100 200

N

KETTLE MORAINE
KEWASKUM
St. Michaels
MORAINE DR
STONEY CRK DR
N. PARADISE
HICKORY DR
FOREST VIEW DR
N. AMILL RD
S. MILL RD
OAK DR
SUNNY LN
HH
28
45
144

FILE NAME : J:\projects\d2_r_40600528\20\040408A1_RP.dgn
APPRAISAL PLAT DATE :
PLOT DATE : 21-MAR-2013 13:40
PLOT BY : $$...plotuser...$$ PLOT NAME :
PLOT SCALE : 100.000000:1.000000
CONST. 4060-05-70 R/W 4060-05-20 4.08 AMENDMENT NO. 1

TRANSPORTATION PROJECT PLAT NO: 4060-05-20 - 4.08

THAT PART OF LOT 2, CSM 877, LOTS 1& 2, CSM 1869, LOTS 1& 2, CSM 6258, AND ALSO THAT PART OF SW1/4-SW1/4 AND THE SE1/4-SW1/4, SECTION 7, TOWN 12 NORTH, RANGE 20 EAST, AND ALSO THAT PART OF THE NW1/4-NW1/4 AND THE NE1/4-NW1/4, SECTION 18, TOWN 12 NORTH, RANGE 20 EAST, TOWN OF FARMINGTON, WASHINGTON COUNTY, WISCONSIN.

RELOCATION ORDER STH 28 WASHINGTON COUNTY

TO PROPERLY ESTABLISH, LAY OUT, WIDEN, ENLARGE, EXTEND, CONSTRUCT, RECONSTRUCT, IMPROVE, OR MAINTAIN A PORTION OF THE HIGHWAY DESIGNATED ABOVE, THE STATE OF WISCONSIN DEPARTMENT OF TRANSPORTATION DEEMS IT NECESSARY TO RELOCATE OR CHANGE SAID HIGHWAY AND ACQUIRE CERTAIN LANDS AND INTERESTS OR RIGHTS IN LANDS FOR THE ABOVE PROJECT.

TO EFFECT THIS CHANGE, PURSUANT TO AUTHORITY GRANTED UNDER SECTION 84.02 (3) AND 84.09, WISCONSIN STATUTES, THE DEPARTMENT OF TRANSPORTATION HEREBY ORDERS THAT:
1. THAT PORTION OF SAID HIGHWAY AS SHOWN ON THIS PLAT IS LAID OUT AND ESTABLISHED TO THE LINES AND WIDTHS AS SO SHOWN FOR THE ABOVE PROJECT.
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HWY	BASIS OF EXISTING R/W	WIDTH	YEAR
STH 28	TOWN RECORDS NO. 10	3 RODS	1847
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STH 28	CSM 1869	33'	1978
STH 28	CSM 877	33'	1973
FOREST VIEW RD	TOWN RECORDS NO. 46	4 RODS	1860
FOREST VIEW RD	TOWN RECORDS NO. 46	4 RODS	1853

CTL41
CENTER OF SEC.
CONCRETE MON.
W/ WASHINGTON
COUNTY BRASS CAP
Y = 219559.72
X = 371029.74

SEC9052
QUARTER SEC. COR.
CONCRETE MON.
W/ WASHINGTON
COUNTY BRASS CAP
Y = 219638.78
X = 368300.74

NOTES:
COORDINATES AND BEARINGS SHOWN ON THIS PLAT ARE REFERENCED TO THE WISCONSIN COUNTY COORDINATE SYSTEM, WASHINGTON COUNTY ZONE, NAD83 (1997) ADJUSTMENT. THE COORDINATES SHOWN ARE GRID COORDINATES AND ARE TO BE USED AS GRID OR GROUND VALUES ON THIS PLAT.

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SCHEDULE OF LANDS & INTERESTS REQUIRED			OWNERS NAMES ARE SHOWN FOR REFERENCE PURPOSES ONLY, AND ARE SUBJECT TO CHANGE PRIOR TO THE TRANSFER OF LAND INTEREST TO THE DEPARTMENT.				
PARCEL NUMBER	OWNER * COMPUTED	INTEREST REQUIRED	R/W REQUIRED (ACRES) NEW	EXISTING	TOTAL	T.L.E. TEMP. ACRES	P.L.E. PERM. ACRES
57	CALL OF THE WILD BAR AND PUB,LLC	FEE,TLE	0.04	0.20	0.24	0.05	
58	PATRICK A & CHRISTINE J TETZLAFF	FEE,TLE	0.07	0.22	0.29	0.07	
59	WP PROPERTIES, LLC	FEE,TLE	0.07	0.32	0.39	0.02	
60	ST. MICHAEL'S, LLC	FEE	0.08	0.22	0.30		
61	KEVIN THULL	FEE,TLE	0.26	0.77	1.03	0.10	
62	GERALD G BACKHAUS FAMILY TRUST	FEE,TLE	0.06	0.36	0.42	0.01	
63	VERNON H JUNG JR	FEE,TLE	0.01		0.01	0.03	
64	WILLARD L & JEAN E GOEDEN	FEE,TLE	0.19	0.31	0.50	0.07	
65	WILLIAM THULL FARMS, ET AL	FEE,TLE	0.19	0.31	0.50	0.06	
66	HAROLD & BETTY L STROHMEYER	FEE,TLE	0.06		0.06	0.01	
67	HAROLD A & FREIDA M BACKHAUS	FEE,TLE	0.09	0.07	0.16	0.05	
68	DOLORES EDER	FEE,TLE	0.03		0.03	0.02	
105	JAMES I LAUTNER LE	FEE,TLE	0.02		0.02	0.02	

UTILITY SCHEDULE & INTERESTS REQUIRED		
UTILITY NUMBER	OWNER	INTEREST REQUIRED
202	WE-ENERGIES - ELECTRIC	RELEASE OF RIGHTS
203	WE-ENERGIES - GAS	RELEASE OF RIGHTS
204	FRONTIER COMMUNICATIONS	RELEASE OF RIGHTS

202	WE ENERGIES-ELECTRIC	PARCELS 62,63,64,65,67	NO RECORDED EASEMENT
203	WE ENERGIES-GAS	PARCELS 62,63,64,65,67	NO RECORDED EASEMENT
204	FRONTIER COMMUNICATIONS	PARCELS 57,58,59 PARCEL 60 PARCEL 61 PARCEL 65	NO RECORDED EASEMENT V.1183, P.226, DOC.597604 V.1183, P.227, DOC.597605 V.952, P.98, DOC.515025

SEC9065
SEC. COR.
CONCRETE MON.
W/ WASHINGTON
COUNTY BRASS CAP
Y = 216980.55
X = 368299.15

SEC54
QUARTER SEC. COR.
CONCRETE MON.
W/ WISDOT
ALUMINUM CAP
Y = 216890.75
X = 371017.73

CTL67
CENTER OF SEC
CONCRETE MON.
W/ BRONZE CAP
Y = 214253.13
X = 370992.46

SEC9078
QUARTER SEC. COR.
CONCRETE MON.
W/ WASHINGTON
COUNTY BRASS CAP
Y = 214329.58
X = 368268.46

BEGIN PROJECT
STA. 79+00.00
X=350267.09
Y=219829.47

END PROJECT
STA. 382+88.00

SHEET LOCATION
PROJECT LOCATION
R-20-E
T-12-N

SCALE, FEET
0 100 200

FOR ADDITIONAL INFORMATION REFER TO THE TITLE SHEET, RECORDED AS SHEET 2 OF 2 OF DOCUMENT 1310750, OF TRANSPORTATION PROJECT PLATS IN THE WASHINGTON COUNTY REGISTER OF DEEDS.

FARMINGTON

THIS IS A COPY. ORIGINAL DOCUMENT IS AT THE WASHINGTON COUNTY REGISTER OF DEEDS.

I HEREBY CERTIFY THAT THIS PLAT MEETS ALL REQUIREMENTS OF SECTION 84.095, WISCONSIN STATUTES. THIS PLAT WAS PREPARED BY OR UNDER THE DIRECTION OF
STEVEN L. SCHMIDT RLS — SIGNATURE — AUG. 7, 2012 (PRINTED NAME / SIGNATURE / DATE)
THIS PLAT AND RELOCATION ORDER ARE APPROVED FOR THE WISCONSIN DEPARTMENT OF TRANSPORTATION
ROBERT L. DUFFECK RLS — SIGNATURE — AUG. 7, 2012 (PRINTED NAME / SIGNATURE / DATE)

RESERVED FOR REGISTER OF DEEDS
PROJECT NUMBER 4060-05-20-4.08
AMENDMENT NO:

1312928
RECORDED
August 16, 2012 10:00 AM
SHARON A MARTIN, REGISTER OF DEEDS
WASHINGTON COUNTY, WISCONSIN
Fee Amount: $25.00
Map No 51
Page 39

FILE NAME : J:\projects\d2_r_40600528\20\040408_RP.dgn
APPRAISAL PLAT DATE :
PLOT DATE : 07-AUG-2012 14:58 PLOT BY : $$...plotuser...$$ PLOT NAME :
PLOT SCALE : 100.000000:1.000000
CONST. 4060-05-70 R/W 4060-05-20 4.08

TRANSPORTATION PROJECT PLAT NO: 4060-05-20 - 4.09

THAT PART OF FARMINGTON COUNTRY CONDOMINIUMS, AND ALSO THAT PART OF LOT 1, CSM 986, LOT 1, CSM 2418, AND ALSO THAT PART OF THE SW1/4-SE1/4 AND THE SE1/4-SE1/4, SECTION 7, TOWN 12 NORTH, RANGE 20 EAST, AND ALSO THAT PART OF THE NW1/4-NE1/4 AND THE NE1/4-NE1/4, SECTION 18, TOWN 12 NORTH, RANGE 20 EAST, TOWN OF FARMINGTON, WASHINGTON COUNTY, WISCONSIN.

RELOCATION ORDER STH 28 WASHINGTON COUNTY

TO PROPERLY ESTABLISH, LAY OUT, WIDEN, ENLARGE, EXTEND, CONSTRUCT, RECONSTRUCT, IMPROVE, OR MAINTAIN A PORTION OF THE HIGHWAY DESIGNATED ABOVE, THE STATE OF WISCONSIN DEPARTMENT OF TRANSPORTATION DEEMS IT NECESSARY TO RELOCATE OR CHANGE SAID HIGHWAY AND ACQUIRE CERTAIN LANDS AND INTERESTS OR RIGHTS IN LANDS FOR THE ABOVE PROJECT.

TO EFFECT THIS CHANGE, PURSUANT TO AUTHORITY GRANTED UNDER SECTION 84.02 (3) AND 84.09, WISCONSIN STATUTES, THE DEPARTMENT OF TRANSPORTATION HEREBY ORDERS THAT:
1. THAT PORTION OF SAID HIGHWAY AS SHOWN ON THIS PLAT IS LAID OUT AND ESTABLISHED TO THE LINES AND WIDTHS AS SO SHOWN FOR THE ABOVE PROJECT.
2. THE LANDS OR INTERESTS OR RIGHTS IN LANDS AS SHOWN ON THIS PLAT ARE REQUIRED BY THE DEPARTMENT FOR THE ABOVE PROJECT AND SHALL BE ACQUIRED IN THE NAME OF THE STATE OF WISCONSIN, PURSUANT TO THE PROVISIONS OF SECTION 84.09 (1) OR (2), WISCONSIN STATUTES.

UTILITY SCHEDULE & INTERESTS REQUIRED		
UTILITY NUMBER	OWNER	INTEREST REQUIRED
202	WE-ENERGIES - ELECTRIC	RELEASE OF RIGHTS
203	WE-ENERGIES - GAS	RELEASE OF RIGHTS
204	FRONTIER COMMUNICATIONS	RELEASE OF RIGHTS

202	WE ENERGIES-ELECTRIC	PARCELS 65,69	NO RECORDED EASEMENT
		PARCEL 71	V.579,P.621,DOC.360139
		PARCEL 74	V.1321,P.419,DOC.637607
203	WE ENERGIES-GAS	PARCELS 65,69,75	NO RECORDED EASEMENT
204	FRONTIER COMMUNICATIONS	PARCELS 57,58,59	NO RECORDED EASEMENT
		PARCEL 71	V.952, P.100, DOC.515026
		PARCEL 72	V.1177, P.24, DOC.595780
		PARCELS 72,74	V.565, P.538, DOC.353619
		PARCELS 73,74	V.1177, P.23, DOC.595779
		PARCEL 74	V.565, P.530, DOC.353611
		PARCEL 74	V.952, P.95, DOC.515022

CTL41
CENTER OF SEC.
CONCRETE MON.
W/ WASHINGTON
COUNTY BRASS CAP
Y = 219559.72
X = 371029.74

CTL42
QUARTER SEC. COR.
CONCRETE MON.
W/ WASHINGTON
COUNTY CAP
Y = 219502.47
X = 373684.15

SEC54
QUARTER SEC. COR.
CONCRETE MON.
W/ WISDOT
ALUMINUM CAP
Y = 216890.75
X = 371017.73

SEC54
SEC. COR.
CONCRETE MON.
W/ WISDOT
ALUMINUM CAP
Y = 216839.87
X = 373668.48

CTL67
CENTER OF SEC
CONCRETE MON.
W/ BRONZE CAP
Y = 214253.13
X = 370992.46

CTL68
QUARTER SEC. COR.
CONCRETE MON.
W/ WASHINGTON
COUNTY CAP
Y = 214179.36
X = 373652.90

TOWN

FARMINGTON

SW-SE
7-12-20

SE-SE
7-12-20

NW-NE
18-12-20

NE-NE
18-12-20

OF

S00°15'28"W (2669.00')

S00°32'56"W (2637.74')

S00°20'14"E (2662.64')

S00°20'08"W (2660.56')

N84°22'00"E 145.00'

S88°54'02"E (2651.24')

N64°42'42"E 90.00'

S68°54'32"E 117.00'

N45°30'29"E 137.00'

S76°25'34"E 125.00'

S65°19'20"E 100.00'

N80°17'34"E 160.00'

S44°49'54"E 137.00'

8.25+24.75' S89°39'46"E

8.25'+24.75' S89°39'52"E

STH 319+68.53 R

STA 293+17.30 R

PL=S. 1/4 LINE

N. 1/4 LINE

WESCOTT RD. R.=SEC. LINE

CTH HH R.=SEC. LINE

1/16TH LINE S00°17'51"E

PL = 1/16TH LINE S00°26'30"W

TLE FOR SLOPES AND A D/W

TLE FOR A D/W

TLE FOR SLOPES

33' DEED V1725, P86 #754267

CSM 2418 LOT 1

CSM 986 LOT 1

FARMINGTON COUNTRY CONDOMINIUMS

V.101, P.341, DOC.137063 HIGHWAY EASEMENT

V.101, P.51, DOC.135442 HIGHWAY EASEMENT

V.101, P.230, DOC.168215 HIGHWAY EASEMENT

STH 28

SEE TPP 4060-05-20-4.08

SEE TPP 4060-05-20-4.10

HWY	BASIS OF EXISTING R/W	WIDTH	YEAR
STH 28	TOWN RECORDS NO. 10	3 RODS	1847
STH 28	CSM 1218 V.6, P.203, DOC.366690	33'	1975
STH 28	CSM 2418 V.13, P.28, DOC.438827	33'	1981
STH 28	CSM 986 V.5, P.146, DOC.355901	33'	1974
STH 28	DEED V.1725, P.86, DOC.754267	33'	1997
STH 28	DEED V.101, P.51, DOC.135442	VARIES	1926
STH 28	DEED V.101, P.341, DOC.137063	VARIES	1926
STH 28	DEED V.121, P.230, DOC.168215	VARIES	1935
WESCOTT RD.	TOWN RECORDS NO. 17	3 RODS	XXXX
CTH HH	TOWN RECORDS NO. 6	3 RODS	XXXX

SCHEDULE OF LANDS & INTERESTS REQUIRED		OWNERS NAMES ARE SHOWN FOR REFERENCE PURPOSES ONLY, AND ARE SUBJECT TO CHANGE PRIOR TO THE TRANSFER OF LAND INTEREST TO THE DEPARTMENT.					
PARCEL NUMBER	* COMPUTED OWNER	INTEREST REQUIRED	R/W REQUIRED (ACRES) NEW	EXISTING	TOTAL	T.L.E. TEMP. ACRES	P.L.E. PERM. ACRES
65	WILLIAM F THULL, ET AL	FEE,TLE	0.20	0.45	0.65	0.04	
69	FARMINGTON COUNTRY CONDOMINIUM	TLE				0.04	
70	DONALD J KONRATH	TLE				0.03	
71	GARY L KLEMME & DIANE M. KONRATH	TLE				0.01	
72	PATRICK L & KELLEY M BRAUN	FEE,TLE	0.06	0.19	0.25	0.05	
73	RANDALL J & JANET A HEBERER	FEE,TLE	0.05	0.14	0.19	0.04	
74	RALPH A & ESTELLE L. MATENAER	FEE,TLE	1.49	1.45	2.94	0.16	
75	JASON M THULL	FEE,TLE	1.14	0.98	2.12	0.05	

NOTES:
COORDINATES AND BEARINGS SHOWN ON THIS PLAT ARE REFERENCED TO THE WISCONSIN COUNTY COORDINATE SYSTEM, WASHINGTON COUNTY ZONE, NAD83 (1997) ADJUSTMENT. THE COORDINATES SHOWN ARE GRID COORDINATES AND ARE TO BE USED AS GRID OR GROUND VALUES ON THIS PLAT.

RIGHT-OF-WAY MONUMENTS ARE TYPE 2 (TYPICAL ¾" REBAR) AND WILL BE PLACED PRIOR TO THE COMPLETION OF THE PROJECT BY SOUTHEAST REGION SURVEY.

FOR THE LATEST ACCESS / DRIVEWAY INFORMATION, CONTACT THE PLANNING UNIT OF THE WISCONSIN DEPARTMENT OF TRANSPORTATION OFFICE IN WAUKESHA.

SHEET LOCATION
PROJECT LOCATION
R-20-E
T-12-N

BEGIN PROJECT
STA. 79+00.00
X=350267.09
Y=219829.47

END PROJECT
STA. 382+88.00

KEWASKUM
KETTLE MORAINE
St. Michaels
HH
28
45
144

FOR ADDITIONAL INFORMATION REFER TO THE TITLE SHEET, RECORDED AS SHEET 2 OF 2 OF DOCUMENT 1310750, OF TRANSPORTATION PROJECT PLATS IN THE WASHINGTON COUNTY REGISTER OF DEEDS.

THIS IS A COPY. ORIGINAL DOCUMENT IS AT THE WASHINGTON COUNTY REGISTER OF DEEDS.

N

SCALE, FEET
0 100 200

I HEREBY CERTIFY THAT THIS PLAT MEETS ALL REQUIREMENTS OF SECTION 84.095, WISCONSIN STATUTES. THIS PLAT WAS PREPARED BY OR UNDER THE DIRECTION OF

STEVEN L. SCHMIDT RLS — SIGNATURE — AUG. 7, 2012 (PRINTED NAME / DATE)

THIS PLAT AND RELOCATION ORDER ARE APPROVED FOR THE WISCONSIN DEPARTMENT OF TRANSPORTATION

ROBERT L. DUFFECK RLS — SIGNATURE — AUG. 7, 2012 (PRINTED NAME / DATE)

RESERVED FOR REGISTER OF DEEDS
PROJECT NUMBER 4060-05-20-4.09
AMENDMENT NO:

1312929
RECORDED
August 16, 2012 10:08 AM
SHARON A MARTIN, REGISTER OF DEEDS
WASHINGTON COUNTY, WISCONSIN
Fee Amount: $25.00
Map Book 51 Page 40

FILE NAME : J:\projects\d2_r_40600528\20\040409_RP.dgn
APPRAISAL PLAT DATE :
PLOT DATE : 07-AUG-2012 14:59
PLOT BY : $$...plotuser...$$ PLOT NAME :
PLOT SCALE : 100.000000:1.000000
CONST. 4060-05-70 R/W 4060-05-20 4.09

TRANSPORTATION PROJECT PLAT NO: 4060-05-20 - 4.10

THAT PART OF THE SW1/4-SW1/4 AND THE SE1/4-SW1/4, SECTION 8, TOWN 12 NORTH, RANGE 20 EAST, AND ALSO THAT PART OF THE NW1/4-NW1/4 AND THE NE1/4-NW1/4, SECTION 17, TOWN 12 NORTH, RANGE 20 EAST, TOWN OF FARMINGTON, WASHINGTON COUNTY, WISCONSIN.

RELOCATION ORDER STH 28 WASHINGTON COUNTY

TO PROPERLY ESTABLISH, LAY OUT, WIDEN, ENLARGE, EXTEND, CONSTRUCT, RECONSTRUCT, IMPROVE, OR MAINTAIN A PORTION OF THE HIGHWAY DESIGNATED ABOVE, THE STATE OF WISCONSIN DEPARTMENT OF TRANSPORTATION DEEMS IT NECESSARY TO RELOCATE OR CHANGE SAID HIGHWAY AND ACQUIRE CERTAIN LANDS AND INTERESTS OR RIGHTS IN LANDS FOR THE ABOVE PROJECT.

TO EFFECT THIS CHANGE, PURSUANT TO AUTHORITY GRANTED UNDER SECTION 84.02 (3) AND 84.09, WISCONSIN STATUTES, THE DEPARTMENT OF TRANSPORTATION HEREBY ORDERS THAT:
1. THAT PORTION OF SAID HIGHWAY AS SHOWN ON THIS PLAT IS LAID OUT AND ESTABLISHED TO THE LINES AND WIDTHS AS SO SHOWN FOR THE ABOVE PROJECT.
2. THE LANDS OR INTERESTS OR RIGHTS IN LANDS AS SHOWN ON THIS PLAT ARE REQUIRED BY THE DEPARTMENT FOR THE ABOVE PROJECT AND SHALL BE ACQUIRED IN THE NAME OF THE STATE OF WISCONSIN, PURSUANT TO THE PROVISIONS OF SECTION 84.09 (1) OR (2), WISCONSIN STATUTES.

NOTES:

COORDINATES AND BEARINGS SHOWN ON THIS PLAT ARE REFERENCED TO THE WISCONSIN COUNTY COORDINATE SYSTEM, WASHINGTON COUNTY ZONE, NAD83 (1997) ADJUSTMENT. THE COORDINATES SHOWN ARE GRID COORDINATES AND ARE TO BE USED AS GRID OR GROUND VALUES ON THIS PLAT.

RIGHT-OF-WAY MONUMENTS ARE TYPE 2 (TYPICAL ¾" REBAR) AND WILL BE PLACED PRIOR TO THE COMPLETION OF THE PROJECT BY SOUTHEAST REGION SURVEY.

FOR THE LATEST ACCESS / DRIVEWAY INFORMATION, CONTACT THE PLANNING UNIT OF THE WISCONSIN DEPARTMENT OF TRANSPORTATION OFFICE IN WAUKESHA.

HWY HWY	BASIS OF EXISTING R/W	WIDTH	YEAR
STH 28	TOWN RECORDS NO. 20	3 RODS	1847
WESCOTT RD.	TOWN RECORDS NO. 17	3 RODS	XXXX
CTH HH	TOWN RECORDS NO. 6	3 RODS	XXXX

CTL42
QUARTER SEC. COR.
CONCRETE MON.
W/ WASHINGTON
COUNTY CAP
Y = 219502.47
X = 373684.15

SEC54
SEC. COR.
CONCRETE MON.
W/ WISDOT
ALUMINUM CAP
Y = 216839.87
X = 373668.48

CTL68
QUARTER SEC. COR.
CONCRETE MON.
W/ WASHINGTON
COUNTY CAP
Y = 214179.36
X = 373652.90

CTL43
CENTER OF SEC.
CAST IRON PLUG
IN CONCRETE
Y = 21946178
X = 376339.72

SEC56
QUARTER SEC. COR.
CONCRETE MON.
W/ WISDOT
ALUMINUM CAP
Y = 216805.77
X = 376320.03

CTL69
CENTER OF SEC.
CONCRETE MON.
W/ BRASS CAP
Y = 214142.98
X = 376301.00

TOWN

FARMINGTON

SW-SW 8-12-20

SE-SW 8-12-20

NW-NW 17-12-20

NE-NW 17-12-20

WESCOTT RD. R=SEC. LINE S00°20'14"E (2662.64')

STH 28 R = SEC. LINE S89°15'47"E (2651.77')

PL = 1/16TH LINE S00°22'52"W

PL = 1/16TH LINE S00°22'21"W

S.1/4 LINE S00°25'29"W (2656.09')

N.1/4 LINE S00°24'34"W 40.00'

STA 346+20.30 R N.1/4 LINE S00°24'34"W (2662.85')

CTH HH R=SEC. LINE S00°20'08"W (2660.56')

STH 319+68.53 R

DETAIL NOT TO SCALE

SEE DETAIL

TLE DOES NOT INCLUDE HOUSE

TLE FOR SLOPES AND A D/W

TLE FOR A D/W AND SLOPES. DOES NOT INCLUDE SEPTIC SYSTEM

MICHIGAN-WISCONSIN PIPELINE COMPANY

PARCELS 78 & 79
MUTUAL ACCESS EASEMENT
V.679, P.569, DOC.404451

SEE TPP 4060-05-20-4.09

SEE TPP 4060-05-20-4.11

202	WE ENERGIES-ELECTRIC	PARCELS 74,76	NO RECORDED EASEMENT
203	WE ENERGIES-GAS	PARCELS 75,77,78,79	NO RECORDED EASEMENT
204	FRONTIER COMMUNICATIONS	PARCEL 74	V.1177, P.23, DOC.595779
		PARCEL 75	V.565, P.530, DOC.353611
		PARCEL 76	V.1182, P.229, DOC.597321
		PARCEL 77	V.565, P.538, DOC.353619
		PARCEL 78	V.953, P.225, DOC.515463
		PARCEL 79	V.953, P.224, DOC.515462
205	MICHIGAN-WISCONSIN PIPELINE COMPANY	PARCEL 74	V.176, P.25, DOC.207398
		PARCEL 75	V.176, P.23, DOC.207396

UTILITY SCHEDULE & INTERESTS REQUIRED

UTILITY NUMBER	OWNER	INTEREST REQUIRED
202	WE-ENERGIES - ELECTRIC	RELEASE OF RIGHTS
203	WE-ENERGIES - GAS	RELEASE OF RIGHTS
204	FRONTIER COMMUNICATIONS	RELEASE OF RIGHTS
205	MICHIGAN-WISCONSIN PIPELINE CO.	RELEASE OF RIGHTS

SCHEDULE OF LANDS & INTERESTS REQUIRED — OWNERS NAMES ARE SHOWN FOR REFERENCE PURPOSES ONLY, AND ARE SUBJECT TO CHANGE PRIOR TO THE TRANSFER OF LAND INTEREST TO THE DEPARTMENT.

PARCEL NUMBER	* COMPUTED OWNER	INTEREST REQUIRED	R/W REQUIRED (ACRES) NEW	EXISTING	TOTAL	T.L.E. TEMP. ACRES	P.L.E. PERM. ACRES
74	RALPH A. & ESTELLE L. MATENAER	FEE,TLE	0.64	0.94	1.58	0.14	
75	JASON M. THULL	FEE,TLE	0.46	0.94	1.40	0.19	
76	EUGENE H & ANNE M PANZER	FEE,TLE	0.46	0.75	1.21	0.36	
77	RALPH A & ESTELLE M MATENAER	FEE,TLE	0.15	0.38	0.53	0.09	
78	GARY D & ELLEN L SLICKER	FEE,TLE	0.07	0.34	0.41	0.08	
79	DEAN S & CAROL POK	FEE,TLE	0.01	0.16	0.17	0.13	

BEGIN PROJECT
STA. 79+00.00
X=350267.09
Y=219829.47

PROJECT LOCATION

SHEET LOCATION
R-20-E

END PROJECT
STA. 382+88.00
T-12-N

SCALE, FEET
0 100 200

N

FOR ADDITIONAL INFORMATION REFER TO THE TITLE SHEET, RECORDED AS SHEET 2 OF 2 OF DOCUMENT 1310750, OF TRANSPORTATION PROJECT PLATS IN THE WASHINGTON COUNTY REGISTER OF DEEDS.

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I HEREBY CERTIFY THAT THIS PLAT MEETS ALL REQUIREMENTS OF SECTION 84.095, WISCONSIN STATUTES. THIS PLAT WAS PREPARED BY OR UNDER THE DIRECTION OF

STEVEN L. SCHMIDT RLS — SIGNATURE — AUG. 7, 2012 (PRINTED NAME / SIGNATURE / DATE)

THIS PLAT AND RELOCATION ORDER ARE APPROVED FOR THE WISCONSIN DEPARTMENT OF TRANSPORTATION

ROBERT L. DUFFECK RLS — SIGNATURE — AUG. 7, 2012 (PRINTED NAME / SIGNATURE / DATE)

RESERVED FOR REGISTER OF DEEDS
PROJECT NUMBER 4060-05-20-4.10
AMENDMENT NO:

1312930
RECORDED
August 15, 2012 10:08 AM
SHARON D MARTIN, REGISTER OF DEEDS
WASHINGTON COUNTY, WISCONSIN
Fee Amount: $25.00
Map Book 51 Page 41

FILE NAME : J:\projects\d2_r_40600528\20\040410_RP.dgn
APPRAISAL PLAT DATE :
PLOT DATE : 07-AUG-2012 15:00 PLOT BY : $$...plotuser...$$ PLOT NAME :
PLOT SCALE : 100.000000:1.000000
CONST. 4060-05-70 R/W 4060-05-20 4.10

TRANSPORTATION PROJECT PLAT NO: 4060-05-20 - 4.11

THAT PART OF LOT 1, CSM 1715, LOT 1, CSM 1717, PARCEL A, CSM 1730, LOTS 1 & 2, CSM 4622, AND ALSO THAT PART OF THE SW1/4-SE1/4 AND THE SE1/4-SE1/4, SECTION 8, TOWN 12 NORTH, RANGE 20 EAST, AND ALSO THAT PART OF THE NW1/4-NE1/4, SECTION 17, TOWN 12 NORTH, RANGE 20 EAST, TOWN OF FARMINGTON, WASHINGTON COUNTY, WISCONSIN.

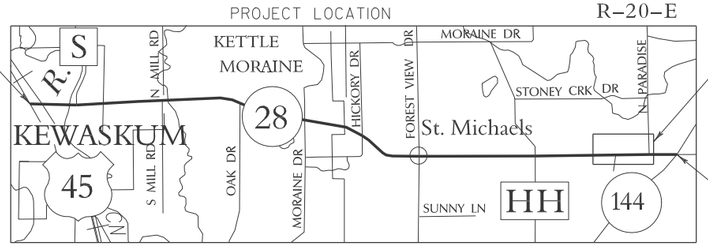
RELOCATION ORDER STH 28 WASHINGTON COUNTY

TO PROPERLY ESTABLISH, LAY OUT, WIDEN, ENLARGE, EXTEND, CONSTRUCT, RECONSTRUCT, IMPROVE, OR MAINTAIN A PORTION OF THE HIGHWAY DESIGNATED ABOVE, THE STATE OF WISCONSIN DEPARTMENT OF TRANSPORTATION DEEMS IT NECESSARY TO RELOCATE OR CHANGE SAID HIGHWAY AND ACQUIRE CERTAIN LANDS AND INTERESTS OR RIGHTS IN LANDS FOR THE ABOVE PROJECT.

TO EFFECT THIS CHANGE, PURSUANT TO AUTHORITY GRANTED UNDER SECTION 84.02 (3) AND 84.09, WISCONSIN STATUTES, THE DEPARTMENT OF TRANSPORTATION HEREBY ORDERS THAT:
1. THAT PORTION OF SAID HIGHWAY AS SHOWN ON THIS PLAT IS LAID OUT AND ESTABLISHED TO THE LINES AND WIDTHS AS SO SHOWN FOR THE ABOVE PROJECT.
2. THE LANDS OR INTERESTS OR RIGHTS IN LANDS AS SHOWN ON THIS PLAT ARE REQUIRED BY THE DEPARTMENT FOR THE ABOVE PROJECT AND SHALL BE ACQUIRED IN THE NAME OF THE STATE OF WISCONSIN, PURSUANT TO THE PROVISIONS OF SECTION 84.09 (1) OR (2), WISCONSIN STATUTES.

HWY	BASIS OF EXISTING R/W	WIDTH	YEAR
STH 28	TOWN RECORDS NO. 20	3 RODS	1847
STH 28	DEED V.1128, P.55, DOC.580240	33'	1991
STH 28	CSM 1715 V.9, P.27	33'	1977
STH 28/VALLEY VISTA TRAIL	CSM 1716 V.9, P.29	33'	1977
STH 28	CSM 1717 V.9, P.31	33'	1977
STH 28/VALLEY VISTA TRAIL	CSM 1730 V.9, P.60	33'	1977
STH 28	CSM 1731 V.9, P.62	33'	1977
STH 28	CSM 1774	VARIES	1977
N. PARADISE RD.	DEED V.506, P.502, DOC.325975	50'	1971

PROJECT LOCATION



R-20-E

BEGIN PROJECT
STA. 79+00.00
X=350267.09
Y=219829.47

SHEET LOCATION

END PROJECT
STA. 382+88.00

T-12-N

N

SCALE, FEET
0 100 200

1/16TH LINE S00°28'11"W

CTL43
CENTER OF SEC.
CAST IRON PLUG
IN CONCRETE
Y = 219461.78
X = 376339.72

S. 1/4 LINE S00°25'29"W (2656.09')

SEC56
QUARTER SEC. COR.
CONCRETE MON.
W/ WISDOT
ALUMINUM CAP
Y = 216805.77
X = 376320.03

SEE TPP 4060-05-20-4.10

N. 1/4 LINE S00°24'34"W (2662.85')
STA 346+20.30 R

CTL69
CENTER OF SEC.
CONCRETE MON.
W/ BRASS CAP
Y = 214142.98
X = 376301.00

CTL44
QUARTER SEC. COR.
CAST IRON PLUG
IN CONCRETE
Y = 219426.37
X = 378995.46

N. PARADISE RD. (2654.85') R=SEC. LINE S00°30'53"W

SEE TPP 4060-05-20-4.12

PL = SEC. LINE S01°09'23"W (2658.89')

SEC2057
SECTION COR.
CONCRETE MON.
W/ WASHINGTON
COUNTY CAP
Y = 216771.63
X = 378971.60

CTL70
QUARTER SEC. COR.
CONCRETE MON.
W/ BRASS CAP
Y = 214113.28
X = 378917.95

TOWN
SW-SE
8-12-20

SE-SE
8-12-20

NW-NE
17-12-20

NE-NE
17-12-20

FARMINGTON

CSM 1715 LOT 1
CSM 1717 LOT 1
CSM 4622 LOT 1
CSM 1730 PARCEL A
CSM 1731 LOT 1
CSM 1774 LOT 1

DEED V.1128, P.55, DOC.580240

STH 28 R = SEC. LINE S89°15'44"E (2651.80')

VALLEY VISTA TRAIL

1/16TH LINE S00°46'57"W

TLE FOR SLOPES 76
TLE FOR SLOPES 79
TLE FOR SLOPES 80
TLE FOR SLOPES 81
TLE FOR SLOPES AND A D/W 84
TLE FOR SLOPES 85
TLE FOR SLOPES DOES NOT INCLUDE SILO

100' DRAIN. EASE. PER CSM 1716 V.9, P.29

VISION CORNER PER CSM CSM 4622 LOT 2

VISION CORNER PER CSM 125.94' N80°40'37"E

BUILDING ENCROACHES 0.49' PER CSM 1715

PROP1080 358+19.10 33'

OF 935.17' PL

1003.83'

1003.80'

1038.00'

592.8'

290.50'

225.00'

66.27'

UTILITY SCHEDULE & INTERESTS REQUIRED		
UTILITY NUMBER	OWNER	INTEREST REQUIRED
202	WE-ENERGIES - ELECTRIC	RELEASE OF RIGHTS
203	WE-ENERGIES - GAS	RELEASE OF RIGHTS
204	FRONTIER COMMUNICATIONS	RELEASE OF RIGHTS

202	WE ENERGIES-ELECTRIC	PARCELS 76,83,84,85	NO RECORDED EASEMENT
		PARCEL 82	V.678, P.579, DOC.403955
203	WE ENERGIES-GAS	PARCEL 80	NO RECORDED EASEMENT
204	FRONTIER COMMUNICATIONS	PARCEL 76	V.1182, P.229, DOC.597321
		PARCEL 79	V.953, P.224, DOC.515462
		PARCEL 80	V.952, P.102, DOC.515028
		PARCEL 82	V.952, P.97, DOC.515024
		PARCEL 84	V.1207, P.628, DOC.604830
		PARCEL 85	V.1182, P.228, DOC.597320

NOTES:

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RIGHT-OF-WAY MONUMENTS ARE TYPE 2 (TYPICAL ¾" REBAR) AND WILL BE PLACED PRIOR TO THE COMPLETION OF THE PROJECT BY SOUTHEAST REGION SURVEY.

FOR THE LATEST ACCESS / DRIVEWAY INFORMATION, CONTACT THE PLANNING UNIT OF THE WISCONSIN DEPARTMENT OF TRANSPORTATION OFFICE IN WAUKESHA.

SCHEDULE OF LANDS & INTERESTS REQUIRED — OWNERS NAMES ARE SHOWN FOR REFERENCE PURPOSES ONLY, AND ARE SUBJECT TO CHANGE PRIOR TO THE TRANSFER OF LAND INTEREST TO THE DEPARTMENT.

PARCEL NUMBER	OWNER * COMPUTED	INTEREST REQUIRED	R/W REQUIRED (ACRES) NEW	EXISTING	TOTAL	T.L.E. TEMP. ACRES	P.L.E. PERM. ACRES
76	EUGENE H & ANNE M PANZER	FEE,TLE	0.68	0.38	1.02	0.30	
79	DEAN S & CAROL POK	FEE	0.40	0.36	0.76	0.22	
80	PATRICK W. FITZGERALD	FEE,TLE	0.20		0.20	0.18	
81	DEAN K & DONNA M HOSS	TLE				0.06	
82	DAVID C. & DOROTHY J GROSKOPF	FEE	0.15		0.15		
83	LEE R & ARLENE J CARSTENS	TLE				0.05	
84	RICHARD J & RHONDA R ELLIOTT	TLE				0.07	
85	RICHARD V & LOIS J FINCH	TLE				0.19	

FOR ADDITIONAL INFORMATION REFER TO THE TITLE SHEET, RECORDED AS SHEET 2 OF 2 OF DOCUMENT 1310750, OF TRANSPORTATION PROJECT PLATS IN THE WASHINGTON COUNTY REGISTER OF DEEDS.

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I HEREBY CERTIFY THAT THIS PLAT MEETS ALL REQUIREMENTS OF SECTION 84.095, WISCONSIN STATUTES. THIS PLAT WAS PREPARED BY OR UNDER THE DIRECTION OF

STEVEN L. SCHMIDT RLS — PRINTED NAME — SIGNATURE — AUG. 7, 2012 — DATE

THIS PLAT AND RELOCATION ORDER ARE APPROVED FOR THE WISCONSIN DEPARTMENT OF TRANSPORTATION

ROBERT L. DUFFECK RLS — PRINTED NAME — SIGNATURE — AUG. 7, 2012 — DATE

RESERVED FOR REGISTER OF DEEDS
PROJECT NUMBER 4060-05-20-4.11
AMENDMENT NO:

1312931
RECORDED
August 15, 2012 10:00 AM
SHARON A MARTIN, REGISTER OF DEEDS
WASHINGTON COUNTY, WISCONSIN
Fee Amount: $25.00
Map Book 51 Page 42

FILE NAME : J:\projects\d2_r_40600528\20\040411_RP.dgn
APPRAISAL PLAT DATE :
PLOT DATE : 07-AUG-2012 15:01
PLOT BY : $$...plotuser...$$ PLOT NAME :
PLOT SCALE : 100.000000:1.000000
CONST. 4060-05-70 R/W 4060-05-20 4.11

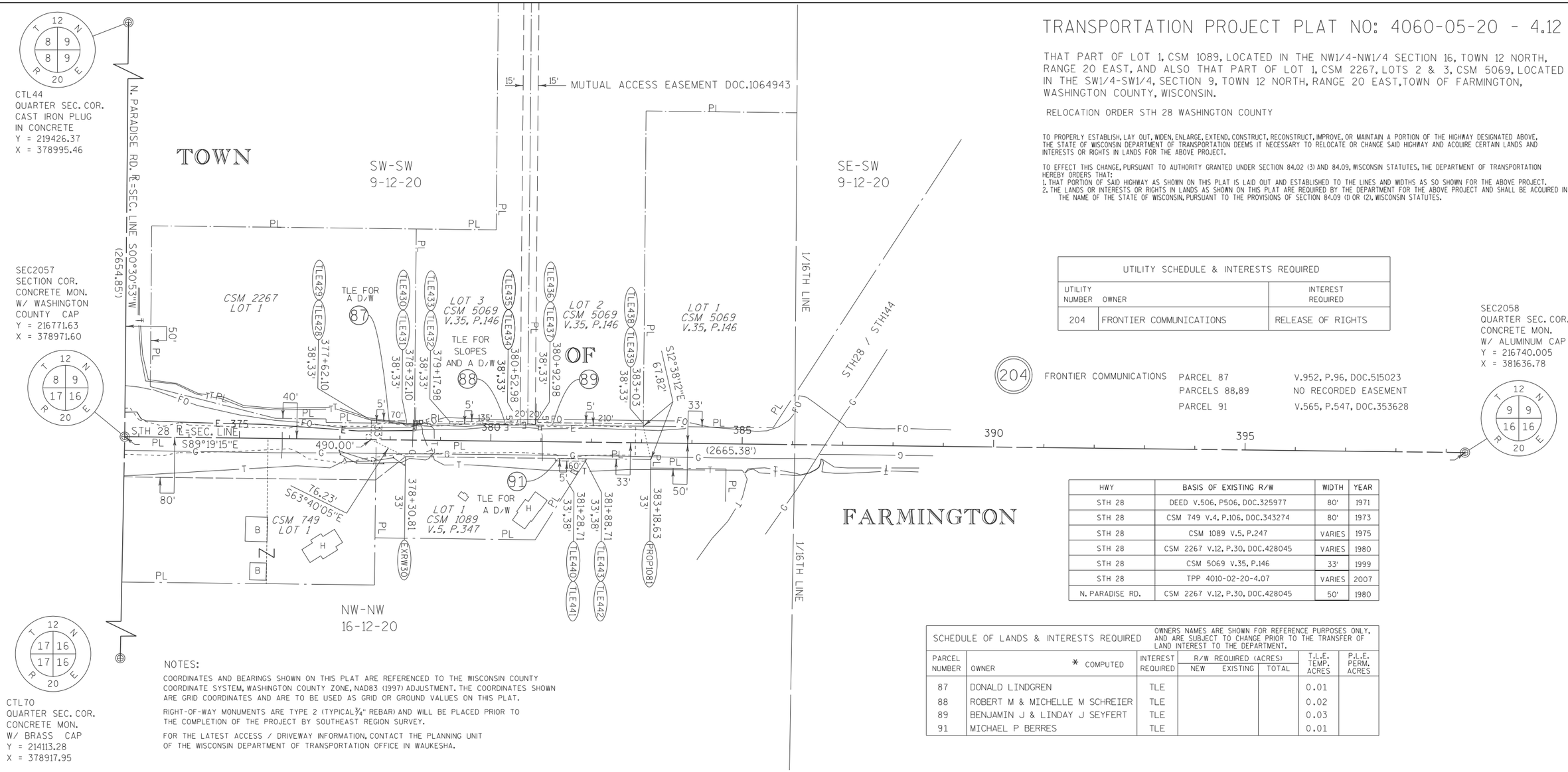
TRANSPORTATION PROJECT PLAT NO: 4060-05-20 - 4.12

THAT PART OF LOT 1, CSM 1089, LOCATED IN THE NW1/4-NW1/4 SECTION 16, TOWN 12 NORTH, RANGE 20 EAST, AND ALSO THAT PART OF LOT 1, CSM 2267, LOTS 2 & 3, CSM 5069, LOCATED IN THE SW1/4-SW1/4, SECTION 9, TOWN 12 NORTH, RANGE 20 EAST, TOWN OF FARMINGTON, WASHINGTON COUNTY, WISCONSIN.

RELOCATION ORDER STH 28 WASHINGTON COUNTY

TO PROPERLY ESTABLISH, LAY OUT, WIDEN, ENLARGE, EXTEND, CONSTRUCT, RECONSTRUCT, IMPROVE, OR MAINTAIN A PORTION OF THE HIGHWAY DESIGNATED ABOVE, THE STATE OF WISCONSIN DEPARTMENT OF TRANSPORTATION DEEMS IT NECESSARY TO RELOCATE OR CHANGE SAID HIGHWAY AND ACQUIRE CERTAIN LANDS AND INTERESTS OR RIGHTS IN LANDS FOR THE ABOVE PROJECT.

TO EFFECT THIS CHANGE, PURSUANT TO AUTHORITY GRANTED UNDER SECTION 84.02 (3) AND 84.09, WISCONSIN STATUTES, THE DEPARTMENT OF TRANSPORTATION HEREBY ORDERS THAT:
1. THAT PORTION OF SAID HIGHWAY AS SHOWN ON THIS PLAT IS LAID OUT AND ESTABLISHED TO THE LINES AND WIDTHS AS SO SHOWN FOR THE ABOVE PROJECT.
2. THE LANDS OR INTERESTS OR RIGHTS IN LANDS AS SHOWN ON THIS PLAT ARE REQUIRED BY THE DEPARTMENT FOR THE ABOVE PROJECT AND SHALL BE ACQUIRED IN THE NAME OF THE STATE OF WISCONSIN, PURSUANT TO THE PROVISIONS OF SECTION 84.09 (1) OR (2), WISCONSIN STATUTES.



UTILITY SCHEDULE & INTERESTS REQUIRED		
UTILITY NUMBER	OWNER	INTEREST REQUIRED
204	FRONTIER COMMUNICATIONS	RELEASE OF RIGHTS

HWY	BASIS OF EXISTING R/W	WIDTH	YEAR
STH 28	DEED V.506, P506, DOC.325977	80'	1971
STH 28	CSM 749 V.4, P.106, DOC.343274	80'	1973
STH 28	CSM 1089 V.5, P.247	VARIES	1975
STH 28	CSM 2267 V.12, P.30, DOC.428045	VARIES	1980
STH 28	CSM 5069 V.35, P.146	33'	1999
STH 28	TPP 4010-02-20-4.07	VARIES	2007
N. PARADISE RD.	CSM 2267 V.12, P.30, DOC.428045	50'	1980

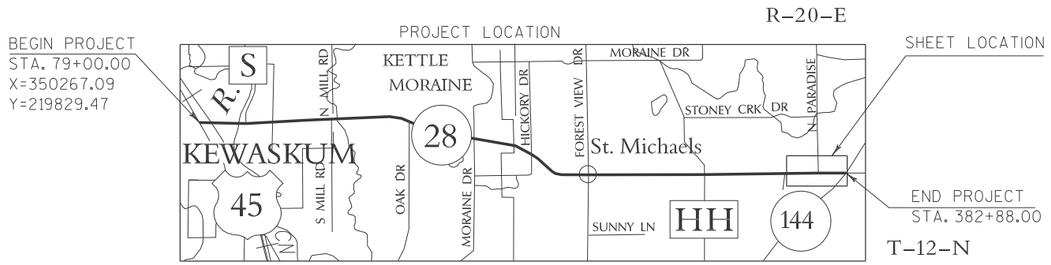
SCHEDULE OF LANDS & INTERESTS REQUIRED		OWNERS NAMES ARE SHOWN FOR REFERENCE PURPOSES ONLY, AND ARE SUBJECT TO CHANGE PRIOR TO THE TRANSFER OF LAND INTEREST TO THE DEPARTMENT.				
PARCEL NUMBER	OWNER * COMPUTED	INTEREST REQUIRED	R/W REQUIRED (ACRES) NEW	EXISTING	TOTAL	T.L.E. TEMP. ACRES	P.L.E. PERM. ACRES
87	DONALD LINDGREN	TLE				0.01	
88	ROBERT M & MICHELLE M SCHREIER	TLE				0.02	
89	BENJAMIN J & LINDAY J SEYFERT	TLE				0.03	
91	MICHAEL P BERRES	TLE				0.01	

NOTES:

COORDINATES AND BEARINGS SHOWN ON THIS PLAT ARE REFERENCED TO THE WISCONSIN COUNTY COORDINATE SYSTEM, WASHINGTON COUNTY ZONE, NAD83 (1997) ADJUSTMENT. THE COORDINATES SHOWN ARE GRID COORDINATES AND ARE TO BE USED AS GRID OR GROUND VALUES ON THIS PLAT.

RIGHT-OF-WAY MONUMENTS ARE TYPE 2 (TYPICAL ¾" REBAR) AND WILL BE PLACED PRIOR TO THE COMPLETION OF THE PROJECT BY SOUTHEAST REGION SURVEY.

FOR THE LATEST ACCESS / DRIVEWAY INFORMATION, CONTACT THE PLANNING UNIT OF THE WISCONSIN DEPARTMENT OF TRANSPORTATION OFFICE IN WAUKESHA.



FOR ADDITIONAL INFORMATION REFER TO THE TITLE SHEET, RECORDED AS SHEET 2 OF 2 OF DOCUMENT 1310750, OF TRANSPORTATION PROJECT PLATS IN THE WASHINGTON COUNTY REGISTER OF DEEDS.

N

SCALE, FEET
0 100 200

THIS IS A COPY. ORIGINAL DOCUMENT IS AT THE WASHINGTON COUNTY REGISTER OF DEEDS.

I HEREBY CERTIFY THAT THIS PLAT MEETS ALL REQUIREMENTS OF SECTION 84.095, WISCONSIN STATUTES. THIS PLAT WAS PREPARED BY OR UNDER THE DIRECTION OF

STEVEN L. SCHMIDT RLS — Steve Schmidt — AUG. 7, 2012
PRINTED NAME — SIGNATURE — DATE

THIS PLAT AND RELOCATION ORDER ARE APPROVED FOR THE WISCONSIN DEPARTMENT OF TRANSPORTATION

ROBERT L. DUFFECK RLS — Robert L Duffeck — AUG. 7, 2012
PRINTED NAME — SIGNATURE — DATE

RESERVED FOR REGISTER OF DEEDS
PROJECT NUMBER 4060-05-20-4.12
AMENDMENT NO:

1312932
RECORDED
August 16, 2012 10:06 AM
SHARON A MARTIN, REGISTER OF DEEDS
WASHINGTON COUNTY, WISCONSIN
Fee Amount: 25.00
Map Book 51
Page 43

FILE NAME : J:\projects\d2_r_40600528\20\040412_RP.dgn
APPRAISAL PLAT DATE :
PLOT DATE : 07-AUG-2012 15:02
PLOT BY : $$...plotuser...$$ PLOT NAME :
PLOT SCALE : 100.000000:1.000000
CONST. 4060-05-70 R/W 4060-05-20 4.12

TRANSPORTATION PROJECT PLAT NO: 4060-05-20 - 4.13 AMENDMENT NO. 1

AMENDS TRANSPORTATION PROJECT PLAT 4060-06-20-4.13 RECORDED AS DOCUMENT 128014
BY ADDING PARCELS 94,96,97,98,99,100,101,102,103,202
ALL OF LOT 3, BLOCK 26, AND ALSO THAT PART OF LOTS 1 AND 2, BLOCK 26,
LOTS 1, 2, AND 3, BLOCK 32A, LOTS 1, 2 AND RIVERVIEW PARK, BLOCK 33, LOT 1, BLOCK 38,
OF THE ASSESSOR'S PLAT OF THE VILLAGE OF KEWASKUM, WASHINGTON COUNTY, WISCONSIN.

RELOCATION ORDER STH 28 WASHINGTON COUNTY

TO PROPERLY ESTABLISH, LAY OUT, WIDEN, ENLARGE, EXTEND, CONSTRUCT, RECONSTRUCT, IMPROVE, OR MAINTAIN A PORTION OF THE HIGHWAY DESIGNATED ABOVE, THE STATE OF WISCONSIN DEPARTMENT OF TRANSPORTATION DEEMS IT NECESSARY TO RELOCATE OR CHANGE SAID HIGHWAY AND ACQUIRE CERTAIN LANDS AND INTERESTS OR RIGHTS IN LANDS FOR THE ABOVE PROJECT.

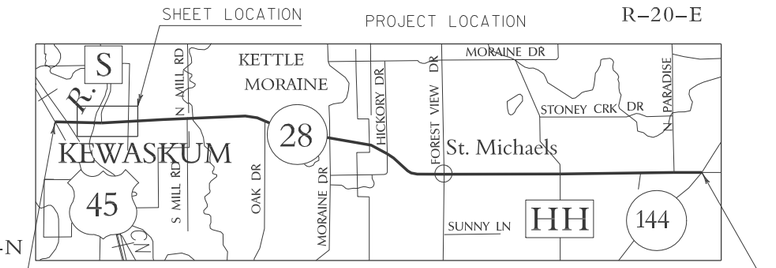
TO EFFECT THIS CHANGE, PURSUANT TO AUTHORITY GRANTED UNDER SECTION 84.02 (3) AND 84.09, WISCONSIN STATUTES, THE DEPARTMENT OF TRANSPORTATION HEREBY ORDERS THAT:
1. THAT PORTION OF SAID HIGHWAY AS SHOWN ON THIS PLAT IS LAID OUT AND ESTABLISHED TO THE LINES AND WIDTHS AS SO SHOWN FOR THE ABOVE PROJECT.
2. THE LANDS OR INTERESTS OR RIGHTS IN LANDS AS SHOWN ON THIS PLAT ARE REQUIRED BY THE DEPARTMENT FOR THE ABOVE PROJECT AND SHALL BE ACQUIRED IN THE NAME OF THE STATE OF WISCONSIN, PURSUANT TO THE PROVISIONS OF SECTION 84.09 (1) OR (2), WISCONSIN STATUTES.

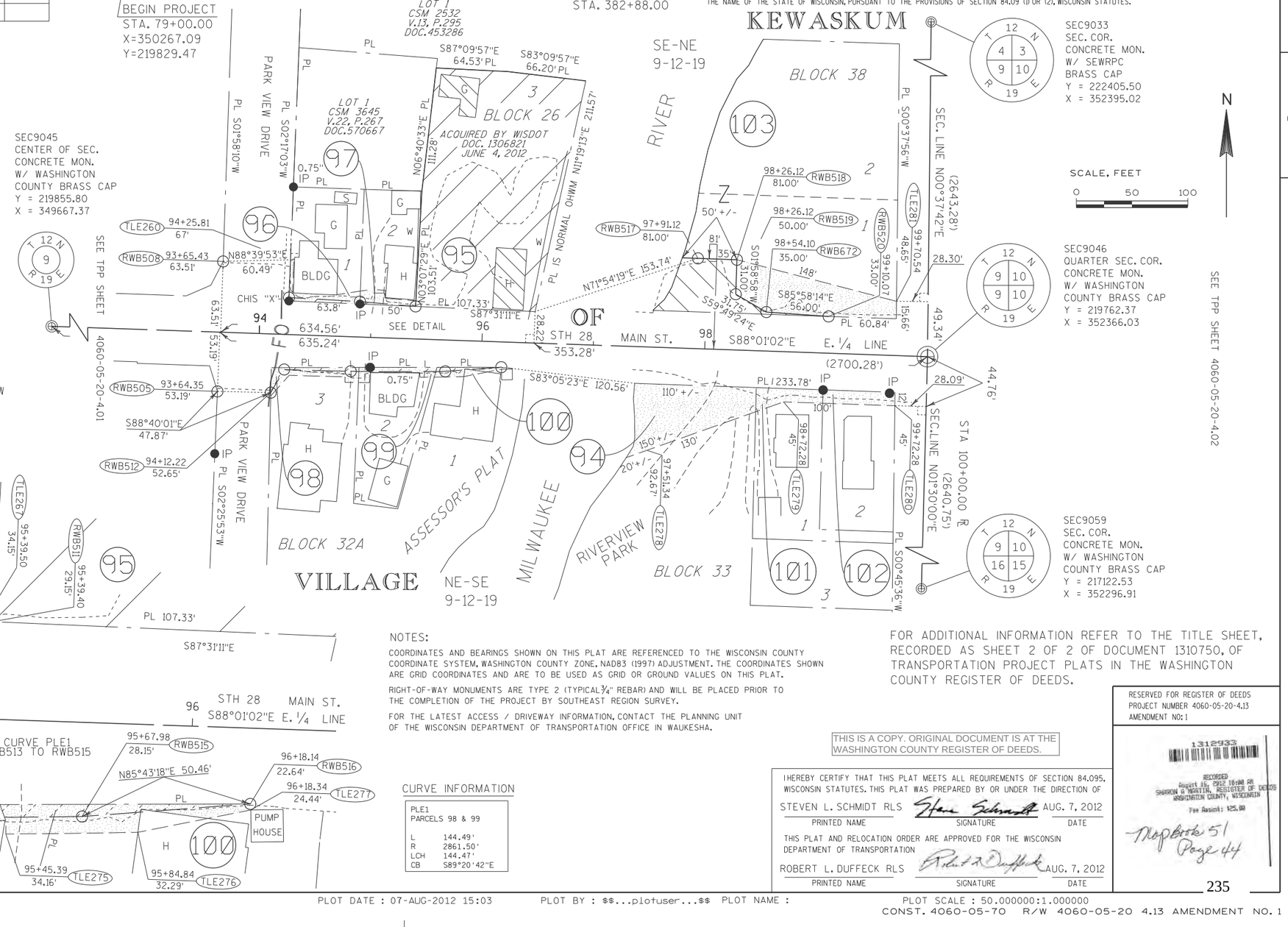
SCHEDULE OF LANDS & INTERESTS REQUIRED	OWNERS NAMES ARE SHOWN FOR REFERENCE PURPOSES ONLY, AND ARE SUBJECT TO CHANGE PRIOR TO THE TRANSFER OF LAND INTEREST TO THE DEPARTMENT.						
PARCEL NUMBER	* COMPUTED OWNER	INTEREST REQUIRED	R/W REQUIRED (ACRES) NEW	EXISTING	TOTAL	T.L.E. TEMP. ACRES	P.L.E. PERM. ACRES
94	VILLAGE OF KEWASKUM	TLE				0.11	
95	JACOB S. PETERSON	FEE	* 0.59	0.00	0.59		
96	BRIAN J & SARA M REICHEL	PLE,TLE		0.00	0.00	0.01	166SF
97	RYAN & SARAH AMERLING	PLE,TLE		0.00	0.00	0.01	54SF
98	DOUBLE G, LLC	PLE,TLE		0.00	0.00	0.01	313SF
99	ROBERT A & MARY J KIRST	PLE,TLE		0.00	0.00	0.01	250SF
100	MICHAEL W BERGER	PLE,TLE		0.00	0.00	0.01	120SF
101	PAMELA J PERKINS	TLE				0.02	
102	DENNIS & LAUREL HOMUTH	TLE				0.02	
103	M & K BRAUN, LLC	FEE,TLE	0.07	0.00	0.07	0.10	

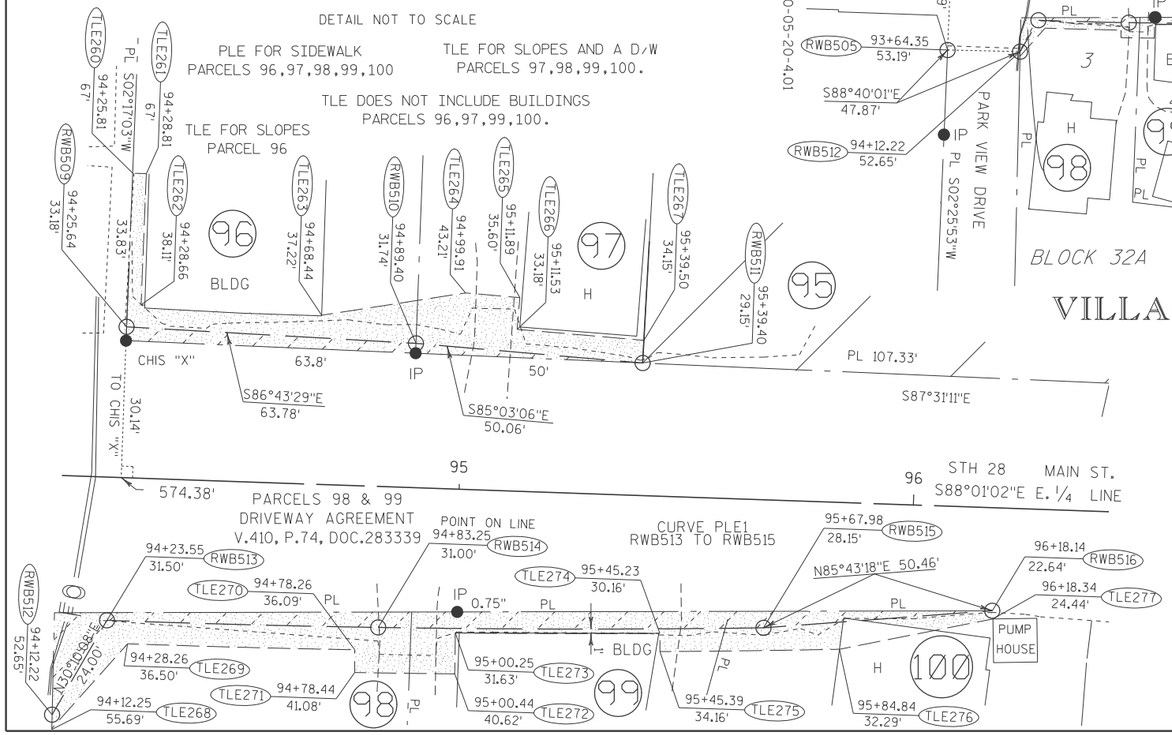
UTILITY SCHEDULE & INTERESTS REQUIRED		
UTILITY NUMBER	OWNER	INTEREST REQUIRED
202	WE-ENERGIES - ELECTRIC	RELEASE OF RIGHTS

(202) WE ENERGIES-ELECTRIC — PARCEL 96 V.130,P.33,DOC. 175107; PARCEL 97 V.130,P.32,DOC. 175106; PARCEL 98 V.130,P.70,DOC. 175203

HWY	BASIS OF EXISTING R/W	WIDTH	YEAR
STH 28/MAIN ST	VILLAGE OF KEWASKUM ASSESSOR'S PLAT	VARIES	1957
PARKVIEW DRIVE	VILLAGE OF KEWASKUM ASSESSOR'S PLAT	VARIES	1957







CURVE INFORMATION	
PLE1 PARCELS 98 & 99	
L	144.49'
R	2861.50'
LCH	144.47'
CB	S89°20'42"E

NOTES:

COORDINATES AND BEARINGS SHOWN ON THIS PLAT ARE REFERENCED TO THE WISCONSIN COUNTY COORDINATE SYSTEM, WASHINGTON COUNTY ZONE, NAD83 (1997) ADJUSTMENT. THE COORDINATES SHOWN ARE GRID COORDINATES AND ARE TO BE USED AS GRID OR GROUND VALUES ON THIS PLAT.

RIGHT-OF-WAY MONUMENTS ARE TYPE 2 (TYPICAL ¾" REBAR) AND WILL BE PLACED PRIOR TO THE COMPLETION OF THE PROJECT BY SOUTHEAST REGION SURVEY.

FOR THE LATEST ACCESS / DRIVEWAY INFORMATION, CONTACT THE PLANNING UNIT OF THE WISCONSIN DEPARTMENT OF TRANSPORTATION OFFICE IN WAUKESHA.

FOR ADDITIONAL INFORMATION REFER TO THE TITLE SHEET, RECORDED AS SHEET 2 OF 2 OF DOCUMENT 1310750, OF TRANSPORTATION PROJECT PLATS IN THE WASHINGTON COUNTY REGISTER OF DEEDS.

RESERVED FOR REGISTER OF DEEDS
PROJECT NUMBER 4060-05-20-4.13
AMENDMENT NO: 1

THIS IS A COPY. ORIGINAL DOCUMENT IS AT THE WASHINGTON COUNTY REGISTER OF DEEDS.

I HEREBY CERTIFY THAT THIS PLAT MEETS ALL REQUIREMENTS OF SECTION 84.095, WISCONSIN STATUTES. THIS PLAT WAS PREPARED BY OR UNDER THE DIRECTION OF

STEVEN L. SCHMIDT RLS — PRINTED NAME — SIGNATURE — AUG. 7, 2012 — DATE

THIS PLAT AND RELOCATION ORDER ARE APPROVED FOR THE WISCONSIN DEPARTMENT OF TRANSPORTATION

ROBERT L. DUFFECK RLS — PRINTED NAME — SIGNATURE — AUG. 7, 2012 — DATE

1312933
RECORDED August 16, 2012 10:00 AM
SHARON G MARTIN, REGISTER OF DEEDS
WASHINGTON COUNTY, WISCONSIN
Fee Recvd: 25.00
Map Book 51 Page 44

FILE NAME : J:\projects\d2_r_40600528\20\040413A1_RP.dgn
APPRAISAL PLAT DATE :
PLOT DATE : 07-AUG-2012 15:03
PLOT BY : $$...plotuser...$$ PLOT NAME :
PLOT SCALE : 50.000000:1.000000
CONST. 4060-05-70 R/W 4060-05-20 4.13 AMENDMENT NO. 1

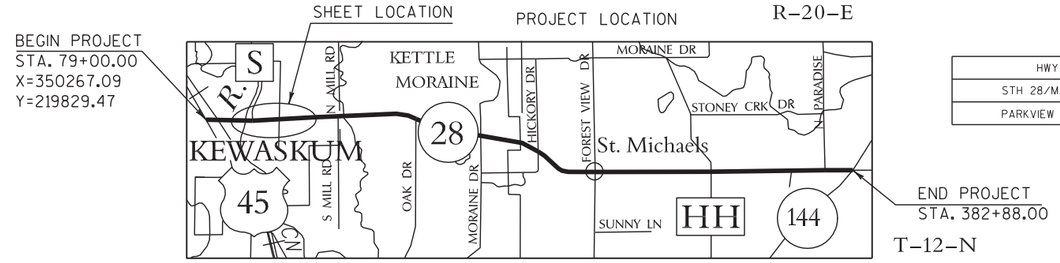
TRANSPORTATION PROJECT PLAT NO: 4060-05-20 - 4.13

ALL OF LOT 3, BLOCK 26 OF THE ASSESSOR'S PLAT OF THE VILLAGE OF KEWASKUM, WASHINGTON COUNTY, WISCONSIN.

RELOCATION ORDER STH 28 WASHINGTON COUNTY

TO PROPERLY ESTABLISH, LAY OUT, WIDEN, ENLARGE, EXTEND, CONSTRUCT, RECONSTRUCT, IMPROVE, OR MAINTAIN A PORTION OF THE HIGHWAY DESIGNATED ABOVE, THE STATE OF WISCONSIN DEPARTMENT OF TRANSPORTATION DEEMS IT NECESSARY TO RELOCATE OR CHANGE SAID HIGHWAY AND ACQUIRE CERTAIN LANDS AND INTERESTS OR RIGHTS IN LANDS FOR THE ABOVE PROJECT.

TO EFFECT THIS CHANGE, PURSUANT TO AUTHORITY GRANTED UNDER SECTION 84.02 (3) AND 84.09, WISCONSIN STATUTES, THE DEPARTMENT OF TRANSPORTATION HEREBY ORDERS THAT:
1. THAT PORTION OF SAID HIGHWAY AS SHOWN ON THIS PLAT IS LAID OUT AND ESTABLISHED TO THE LINES AND WIDTHS AS SO SHOWN FOR THE ABOVE PROJECT.
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HWY	BASIS OF EXISTING R/W	WIDTH	YEAR
STH 28/MAIN ST	VILLAGE OF KEWASKUM ASSESSOR'S PLAT	VARIES	1957
PARKVIEW DRIVE	VILLAGE OF KEWASKUM ASSESSOR'S PLAT	VARIES	1957

SCHEDULE OF LANDS & INTERESTS REQUIRED — OWNERS NAMES ARE SHOWN FOR REFERENCE PURPOSES ONLY, AND ARE SUBJECT TO CHANGE PRIOR TO THE TRANSFER OF LAND INTEREST TO THE DEPARTMENT.

PARCEL NUMBER	OWNER * COMPUTED	INTEREST REQUIRED	R/W REQUIRED (ACRES) NEW	EXISTING	TOTAL	T.L.E. TEMP. ACRES	P.L.E. PERM. ACRES
95	JACOB S. PETERSON	FEE	* 0.59	0.00	0.59		

NOTES:

COORDINATES AND BEARINGS SHOWN ON THIS PLAT ARE REFERENCED TO THE WISCONSIN COUNTY COORDINATE SYSTEM, WASHINGTON COUNTY ZONE, NAD83 (1997) ADJUSTMENT. THE COORDINATES SHOWN ARE GRID COORDINATES AND ARE TO BE USED AS GRID OR GROUND VALUES ON THIS PLAT.

RIGHT-OF-WAY MONUMENTS ARE TYPE 2 AND WILL BE PLACED PRIOR TO THE COMPLETION OF THE PROJECT.

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

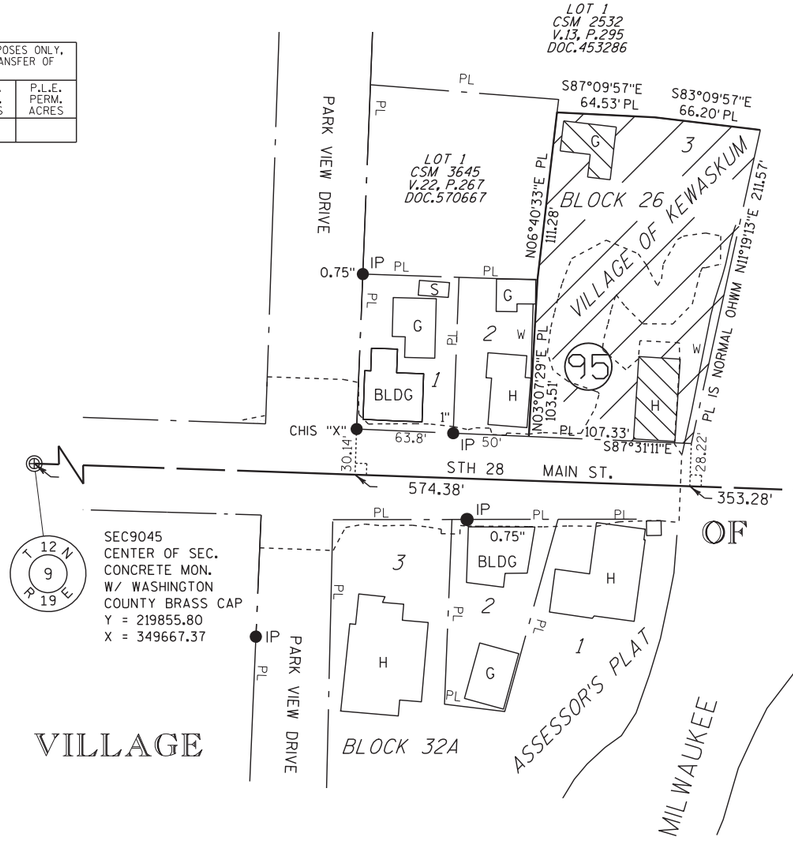
PROPERTY LINES SHOWN ON THIS PLAT ARE DRAWN FROM DATA DERIVED FROM MAPS AND DOCUMENTS OF PUBLIC RECORD AND/OR EXISTING OCCUPATIONAL LINES. THIS PLAT MAY NOT BE A TRUE REPRESENTATION OF EXISTING PROPERTY LINES, EXCLUDING RIGHT-OF-WAY LINES, AND SHOULD NOT BE USED AS A SUBSTITUTE FOR AN ACCURATE FIELD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

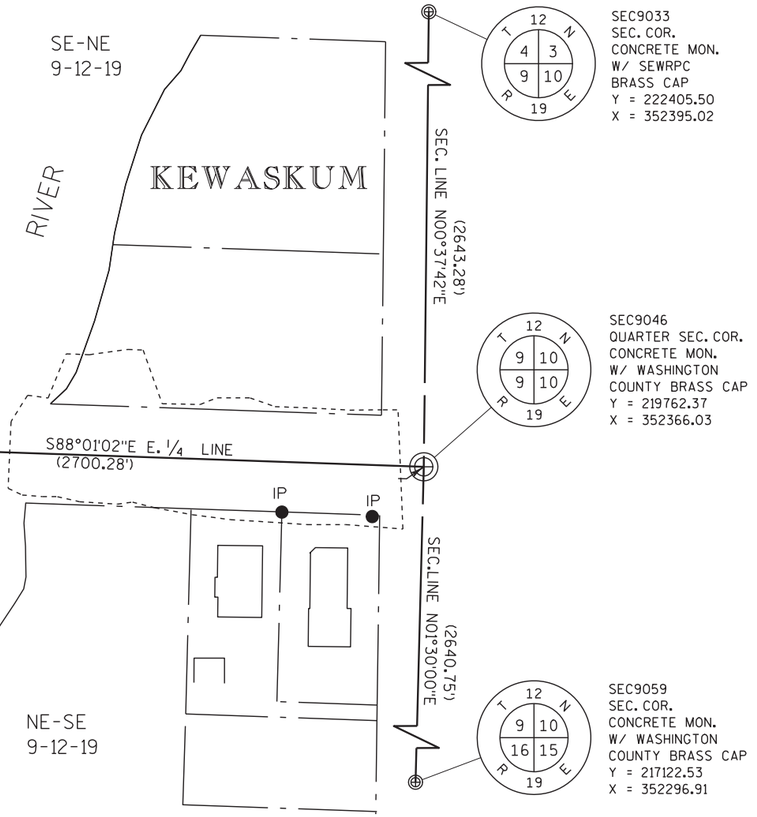
A **TEMPORARY LIMITED EASEMENT** (TLE) IS A RIGHT FOR CONSTRUCTION PURPOSES, AS DEFINED HEREIN, INCLUDING THE RIGHT TO OPERATE NECESSARY EQUIPMENT THEREON AND THE RIGHT OF INGRESS AND EGRESS, AS LONG AS REQUIRED FOR SUCH PUBLIC PURPOSE, INCLUDING THE RIGHT TO PRESERVE, PROTECT, REMOVE, OR PLANT THEREON ANY VEGETATION THAT THE HIGHWAY AUTHORITIES MAY DEEM NECESSARY OR DESIRABLE. ALL TLES EXPIRE AT THE COMPLETION OF THE CONSTRUCTION PROJECT FOR WHICH THIS INSTRUMENT IS GIVEN.

A **PERMANENT LIMITED EASEMENT** (PLE) IS A RIGHT FOR CONSTRUCTION AND MAINTENANCE PURPOSES, AS DEFINED HEREIN, INCLUDING THE RIGHT TO OPERATE NECESSARY EQUIPMENT THEREON AND THE RIGHT OF INGRESS AND EGRESS, AS LONG AS REQUIRED FOR SUCH PUBLIC PURPOSE, INCLUDING THE RIGHT TO PRESERVE, PROTECT, REMOVE, OR PLANT THEREON ANY VEGETATION THAT THE HIGHWAY AUTHORITIES MAY DEEM NECESSARY OR DESIRABLE. BUT WITHOUT PREJUDICE TO THE OWNER'S RIGHT TO MAKE OR CONSTRUCT IMPROVEMENT ON SAID LANDS OR TO FLATTEN THE SLOPES, PROVIDING SAID ACTIVITIES WILL NOT IMPAIR OR OTHERWISE ADVERSELY AFFECT THE HIGHWAY FACILITIES.

A **HIGHWAY EASEMENT** (HE) IS AN EASEMENT FOR HIGHWAY PURPOSES, AS LONG AS SO USED, INCLUDING THE RIGHT TO PRESERVE, PROTECT, REMOVE OR PLANT THEREON ANY VEGETATION THAT THE HIGHWAY AUTHORITIES MAY DEEM NECESSARY OR DESIRABLE.

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





CONVENTIONAL ABBREVIATIONS

ACCESS POINT/ DRIVEWAY CONNECTION	AP	RELEASE OF RIGHTS	ROR	FOUND IRON PIPE/PIN	
ACCESS RIGHTS	AR	REMAINING	REM.		
ACRES	AC.	RIGHT-OF-WAY	R/W	R/W MONUMENT	
AND OTHERS	ET.AL.	SECTION	SEC.	R/W STANDARD	
CENTERLINE	C/L	STATION	STA.	SIGN	
CERTIFIED SURVEY MAP	CSM	TEMPORARY LIMITED EASEMENT	TLE	SECTION CORNER MONUMENT	
CORNER	COR.	VOLUME	V.	SECTION CORNER SYMBOL	
DOCUMENT	DOC.			FEE (HATCH VARIES)	
EASEMENT	EASE.	**CURVE DATA**		TEMPORARY LIMITED EASEMENT	
HIGHWAY EASEMENT	H.E.	LONG CHORD	LCH	PERMANENT LIMITED EASEMENT	
LAND CONTRACT	LC	LONG CHORD BEARING	LCB	R/W BOUNDARY POINT	
MONUMENT	MON.	RADIUS	R	PARCEL NUMBER	
PAGE	P.	DEGREE OF CURVE	D	SIGN NUMBER (OFF PREMISE)	
PERMANENT LIMITED EASEMENT	PLE	CENTRAL ANGLE OR DELTA	DELTA	BUILDING	
PROPERTY LINE	PL	LENGTH OF CURVE	L		
RECORDED AS	(100')	TANGENT	TAN		
REFERENCE LINE	R/L				

CONVENTIONAL SYMBOLS

LF (1" UNLESS NOTED)	PROPOSED R/W LINE
•(SET)	EXISTING H.E. LINE
▲(SET)	PROPERTY LINE
SIGN	LOT & TIE LINES
	SLOPE INTERCEPTS
	CORPORATE LIMITS
	NO ACCESS (BY PREVIOUS ACQUISITION/CONTROL)
	NO ACCESS (BY ACQUISITION)
	NO ACCESS (BY STATUTORY AUTHORITY)
RWB20 102 21-1	SECTION LINE
	QUARTER LINE
	SIXTEENTH LINE
	EXISTING CENTERLINE
	PROPOSED REFERENCE LINE
	PARALLEL OFFSET

CONVENTIONAL UTILITY SYMBOLS

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

N

SCALE. FEET
0 50 100

THIS IS A COPY. ORIGINAL DOCUMENT IS AT THE WASHINGTON COUNTY REGISTER OF DEEDS.

I HEREBY CERTIFY THAT THIS PLAT MEETS ALL REQUIREMENTS OF SECTION 84.095, WISCONSIN STATUTES. THIS PLAT WAS PREPARED BY OR UNDER THE DIRECTION OF

STEVEN L. SCHMIDT RLS — PRINTED NAME — Steven Schmidt — SIGNATURE — JUNE 7, 2011 — DATE

THIS PLAT AND RELOCATION ORDER ARE APPROVED FOR THE WISCONSIN DEPARTMENT OF TRANSPORTATION

ROBERT L. DUFFECK RLS — PRINTED NAME — Robert L Duffeck — SIGNATURE — JUNE 7, 2011 — DATE

RESERVED FOR REGISTER OF DEEDS
PROJECT NUMBER 4060-05-20-4.13
AMENDMENT NO:

ACCEPTED FOR RECORDING AND FILING IN THE OFFICE OF THE REGISTER OF DEEDS IN Washington COUNTY, WISCONSIN AT 9:30 AM ON June 10, 2011 AS DOCUMENT # 1284474 AND FILED IN Map Book 31 Page 3
Sharon M. Martin Register
Susan M. Olsen Deputy
SIGNATURE OF REGISTER OF DEEDS

FILE NAME : J:\projects\d2_r_40600528\20\040413_RP.dgn
APPRAISAL PLAT DATE :
PLOT DATE : 07-JUN-2011 15:39
PLOT BY : dotsls
PLOT NAME :
PLOT SCALE : 50.000000:1.000000
CONST. 4060-05-70 R/W 4060-05-20 4.13

BEGIN RECONSTRUCTION
STA. 78+75.00

BEGIN PROJECT
STA. 78+75.00

PIPE UNDERDRAIN
WRAPPED 6-INCH

CP8245

FOREST AVE.

USH 45

STH 28

EISENBAHN STATE TRAIL

RAILROAD ST.

PROSPECT ST.

<CAUTION>

Pl 72+99.72

Pl 78+00.00

Pl 49+58.83

Pl 52+33.81

Pl 50+58.18

Pl 47+62.82

N

BENCH MARKS

NO.	STATION	DESCRIPTION	ELEV.
CP8245	82+"PRL1" 45.06	BERNTSEN FENO W/CAP	949.091
	92.92' LT		

VCL 200.00
K = 109.29

VPOT STA 78+63.68
VPOT EL 951.10

-0.99 %

VPC STA 80+88.41
VPC EL 948.88

VPI STA 81+88.41
VPI EL 947.89

81+96.44
948.34

+0.84 %

VPT STA 82+88.41
VPT EL 948.73

VPC STA 83+44.53
VPC EL 949.20

VPI STA 83+94.53
VPI EL 949.62

VPT STA 84+44.53
VPT EL 949.47

-0.31 %

EBS #1

84+17.92
949.51

K = 87.22
VCL 100.00

79	79+50	80	80+50	81	81+50	82	82+50	83	83+50	84	84+50	85	85+50	86	86+50	87	87+50
950.74	950.34 / 950.25	949.93 / 949.75	949.38 / 949.26	948.93 / 948.77	948.67 / 948.44	948.50 / 948.34	948.49 / 948.48	948.92 / 948.83	949.69 / 949.25	949.60 / 949.49	949.48 / 949.45	949.39 / 949.30	949.39 / 949.15	949.25 / 949.00	948.98 / 948.84	948.83 / 948.69	948.74 / 948.54

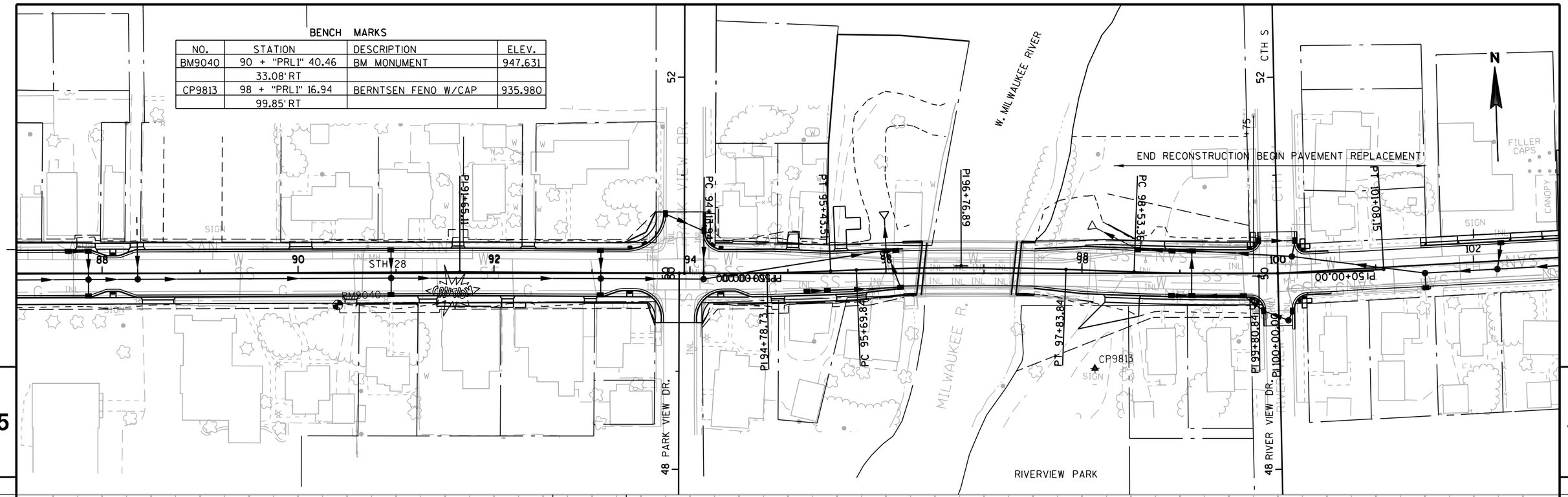
PROJECT NO: 4060-05-70	HWY: STH 28	COUNTY: WASHINGTON	PLAN & PROFILE	SHEET 237	E

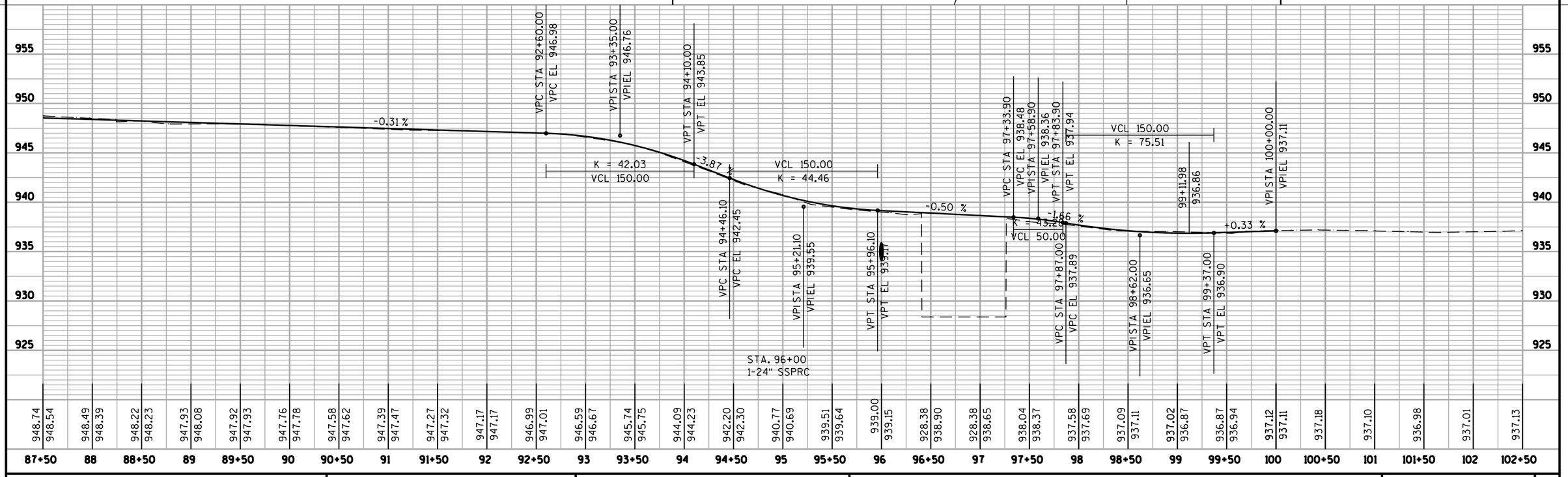
FILE NAME : J:\projects\D2_40600528\050101_pp.dgn PLOT DATE : 22-JUL-2013 07:53 PLOT BY : dotr3h PLOT NAME : PLOT SCALE : 100:1

WISDOT/CADDS SHEET 40

BENCH MARKS

NO.	STATION	DESCRIPTION	ELEV.
BM9040	90 + "PRL1" 40.46	BM MONUMENT	947.631
	33.08' RT		
CP9813	98 + "PRL1" 16.94	BERNTSEN FENO W/CAP	935.980
	99.85' RT		





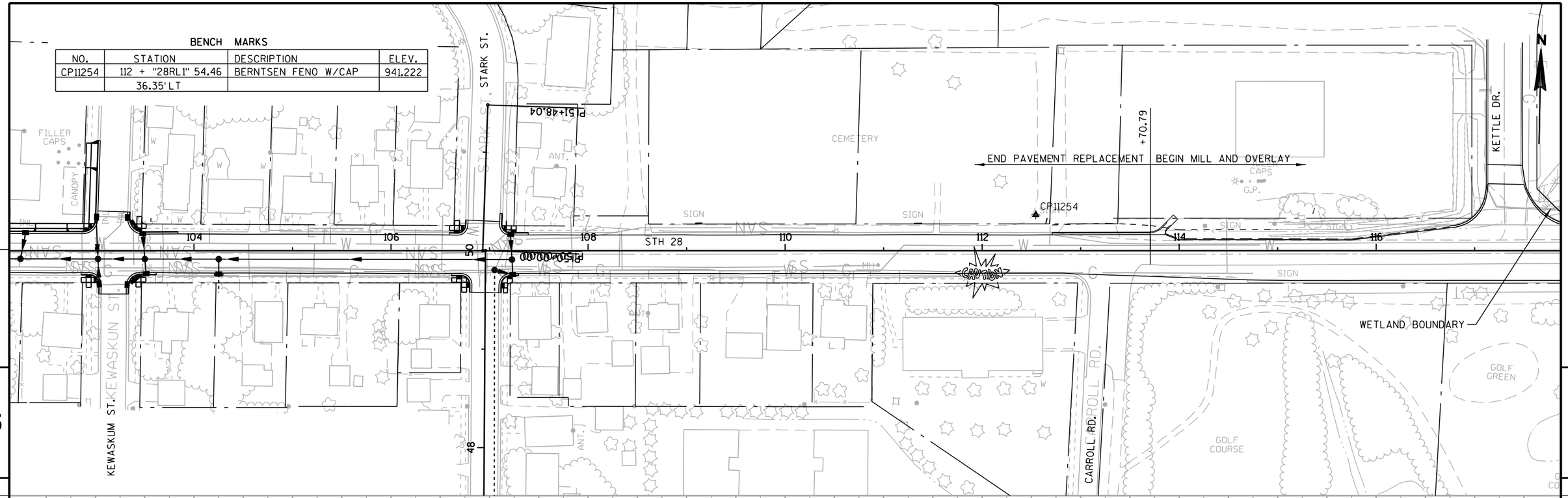
PROJECT NO: 4060-05-70	HWY: STH 28	COUNTY: WASHINGTON	PLAN & PROFILE	SHEET 238 E

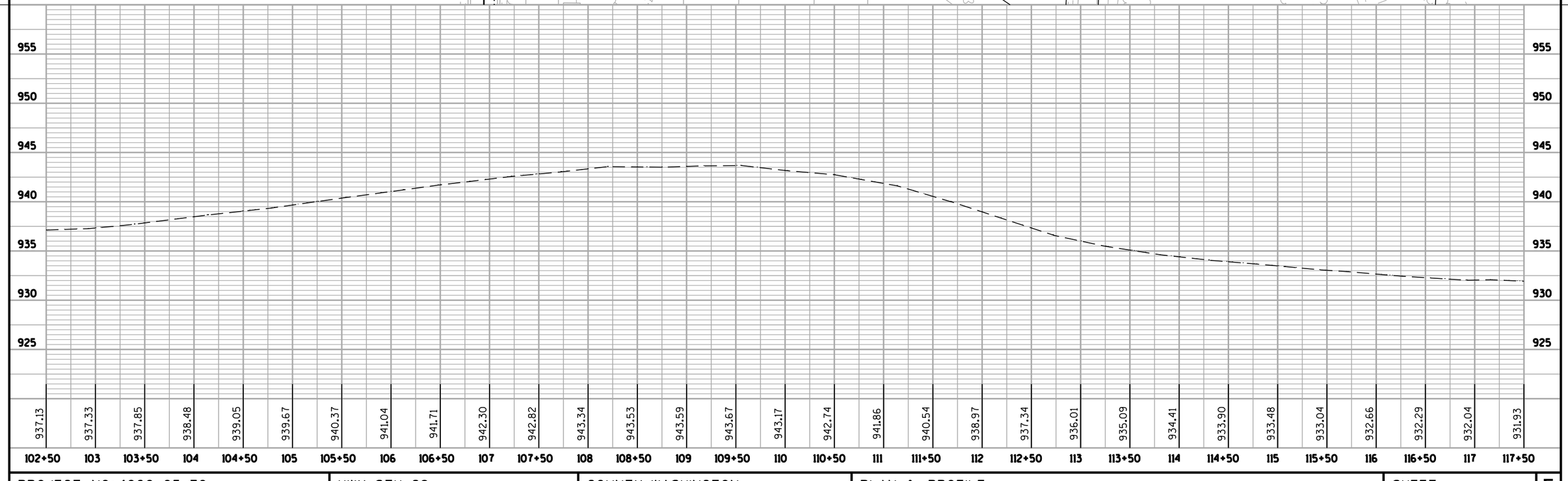
FILE NAME : J:\projects\D2_40600528\050102_pp.dgn PLOT DATE : 22-JUL-2013 07:53 PLOT BY : dotr3h PLOT NAME : PLOT SCALE : 100:1

WISDOT/CADDS SHEET 40

BENCH MARKS

NO.	STATION	DESCRIPTION	ELEV.
CP11254	112 + "28RL1" 54.46	BERNTSEN FENO W/CAP	941.222
	36.35' LT		





PROJECT NO: 4060-05-70	HWY: STH 28	COUNTY: WASHINGTON	PLAN & PROFILE	SHEET 239 E

N

ATHLETIC FIELD

PRIVATE POND

U/C

CAUTION

STH 28

GOLF GREEN

GOLF COURSE

GOLF COURSE

BENCH MARKS

NO.	STATION	DESCRIPTION	ELEV.
CP12945	129 + "28RL1" 54.55	BERNTSEN FENO W/CAP	931.997
	51.83'LT		

CP12954

WETLAND BOUNDARYS

REMOVE SMALL CULVERT PIPE

PI 126+50.70

REMOVE SMALL CULVERT PIPE

STA. 126+10
1-19"X30" CPRCHE
CLASS HE-IV REQ'D

STA. 128+89.60
1-19"X30" CPRCHE
CLASS HE-IV REQ'D

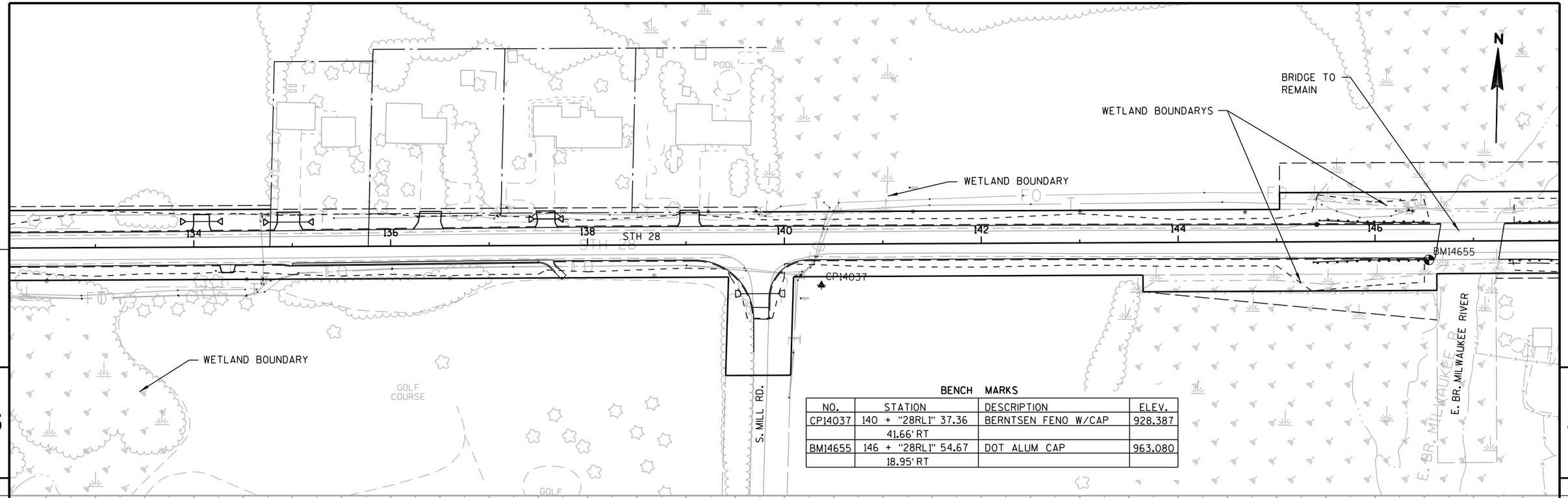
940	935	930	925	920

931.93	931.76	931.68	931.57	931.51	931.35	931.20	931.10	930.86	930.56	930.54	930.64	930.46	930.26	930.17	930.25	930.11	930.10	930.25	930.15	930.22	930.30	930.29	930.28	930.10	930.10	930.17	930.55	931.19	931.93	932.39
117+50	118	118+50	119	119+50	120	120+50	121	121+50	122	122+50	123	123+50	124	124+50	125	125+50	126	126+50	127	127+50	128	128+50	129	129+50	130	130+50	131	131+50	132	132+50

PROJECT NO: 4060-05-70	HWY: STH 28	COUNTY: WASHINGTON	PLAN & PROFILE	SHEET 240	E

FILE NAME : J:\projects\D2_40600528\050104_pp.dgn PLOT DATE : 02-OCT-2013 12:32 PLOT BY : dotr3h PLOT NAME : PLOT SCALE : 100:1

WISDOT/CADDS SHEET 40



BENCH MARKS

NO.	STATION	DESCRIPTION	ELEV.
CP14037	140 + "28RL1" 37.36	BERNTSEN FENO W/CAP	928.387
	41.66' RT		
BM14655	146 + "28RL1" 54.67	DOT ALUM CAP	963.080
	18.95' RT		

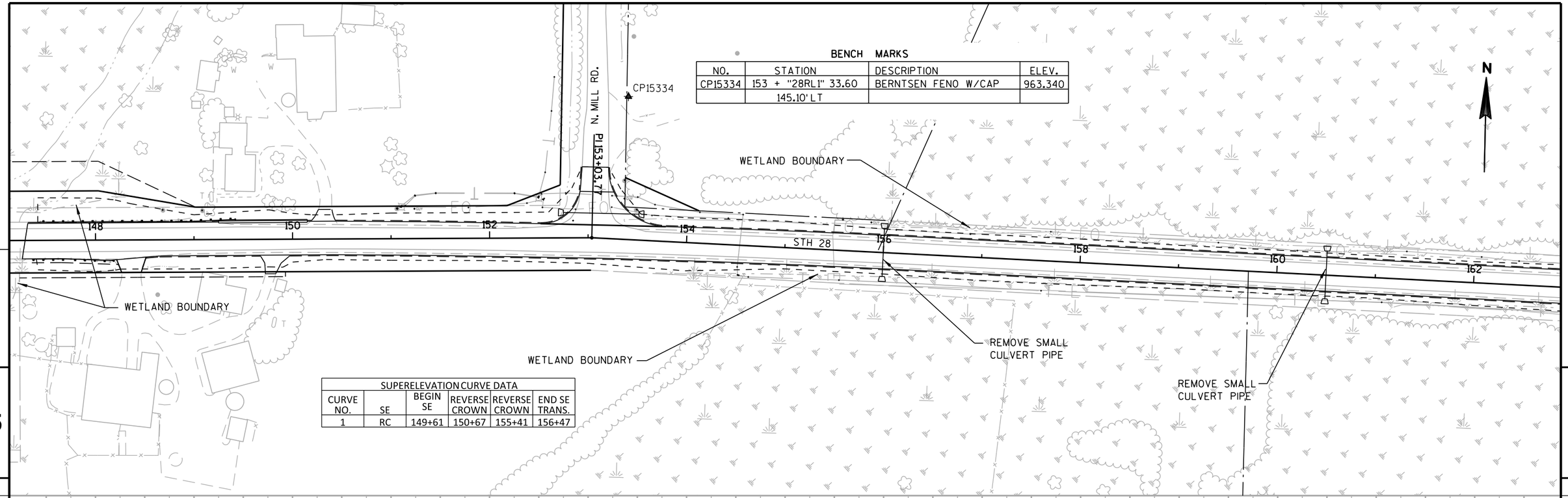
PROJECT NO: 4060-05-70	HWY: STH 28	COUNTY: WASHINGTON	PLAN & PROFILE	SHEET 241	E

FILE NAME : J:\projects\D2_40600528\050105_pp.dgn PLOT DATE : 02-OCT-2013 12:32 PLOT BY : dotr3h PLOT NAME : PLOT SCALE : 100:1

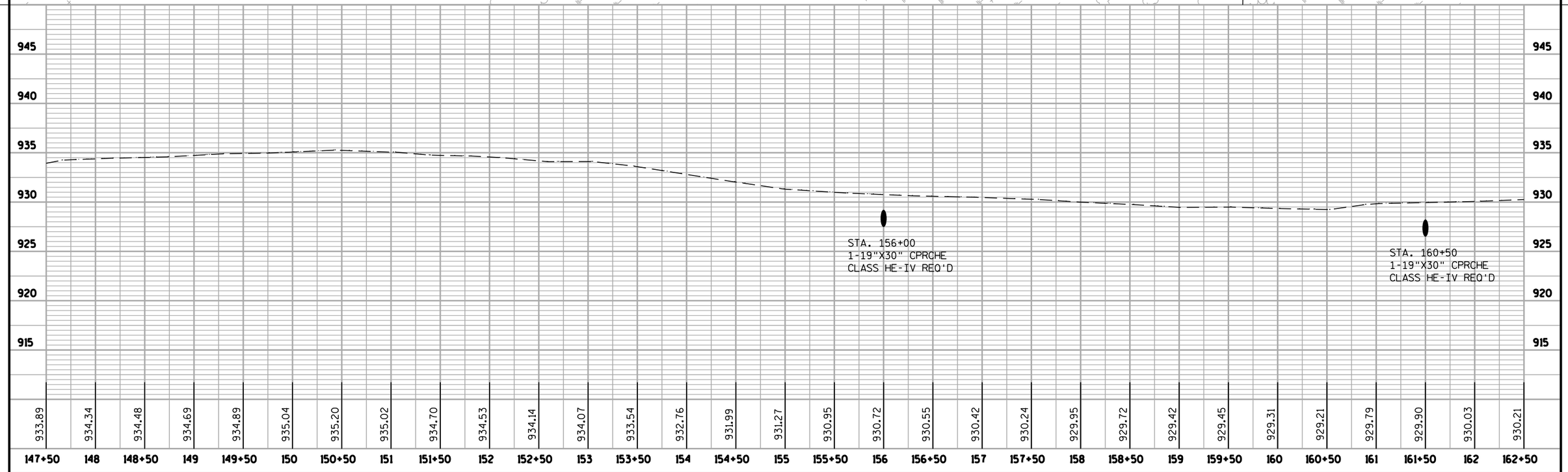
WISDOT/CADDS SHEET 40

BENCH MARKS

NO.	STATION	DESCRIPTION	ELEV.
CP15334	153 + "28RL1" 33.60	BERNTSEN FENO W/CAP	963.340
	145.10' LT		



SUPERELEVATION CURVE DATA					
CURVE NO.	SE	BEGIN SE	REVERSE CROWN	REVERSE CROWN	END SE TRANS.
1	RC	149+61	150+67	155+41	156+47



PROJECT NO: 4060-05-70	HWY: STH 28	COUNTY: WASHINGTON	PLAN & PROFILE	SHEET 242	E

WETLAND BOUNDARY

WETLAND BOUNDARY

PRL5 ℞

28RL1 ℞

REMOVE OLD STRUCTURE (BOX CULVERT)

END MILL AND OVERLAY

BEGIN RECONSTRUCTION

+50

PI 172+82.25

STH 28

164 166 168 170 172 174 176 178

PI 168+49.48

PC 169+80.84

PC 170+46.12

WETLAND BOUNDARY

REMOVE SMALL CULVERT PIPE

REMOVE SMALL PIPE CULVERT

PT 173+85.30

PT 174+55.56

RELEASE TRENCH

END RECONSTRUCTION

+50

BEGIN MILL AND OVERLAY

CP17644

CURVE 28RL2

PI 177+82.75

WETLAND BOUNDARY

REMOVE OLD STRUCTURE (BOX CULVERT)

PC 176+47.17

OAK DR.

N

5

5

SUPERELEVATION CURVE DATA

CURVE NO.	SE	BEGIN SE	REVERSE CROWN	BEGIN FULL SE	END FULL SE	REVERSE CROWN	0% SE
28RL1	6.00%	169+14	170+03	170+90	173+41	174+29	
28RL2	4.40%		176+08	176+73	178+93	179+58	180+09

BENCH MARKS

NO.	STATION	DESCRIPTION	ELEV.
CP17644	176 + "28RL1" 43.64	BERNTSEN FENO W/CAP	944.816
	44.81' LT		

945 940 935 930 925 920

STA. 165+10
1-19"X30" CPRCHE
CLASS HE-IV REQ'D

VPOT STA 168+49.48
VPOT EL 933.77

STA. 171+00
1-19X30" CPRC HE-III REQ'D

VPC STA 171+50.00
VPC EL 936.17

VCL 400.00
K = 366.48

VPI STA 173+50.00
VPI EL 937.77

STA. 175+19
1-24" CPRC REQ'D

VPT STA 175+50.00
VPT EL 941.56

STA. 177+41
1-19X30" CPRC
HE-III REQ'D

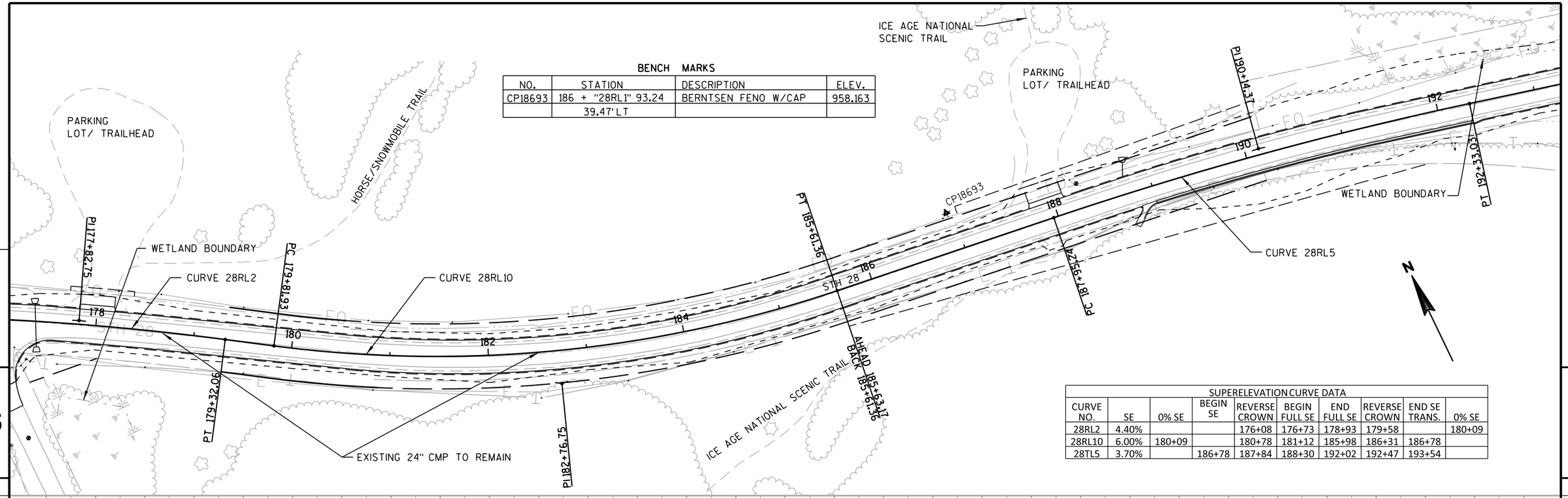
EBS #2

VPOT EL 945.34
VPOT STA 177+50.00

| | | |

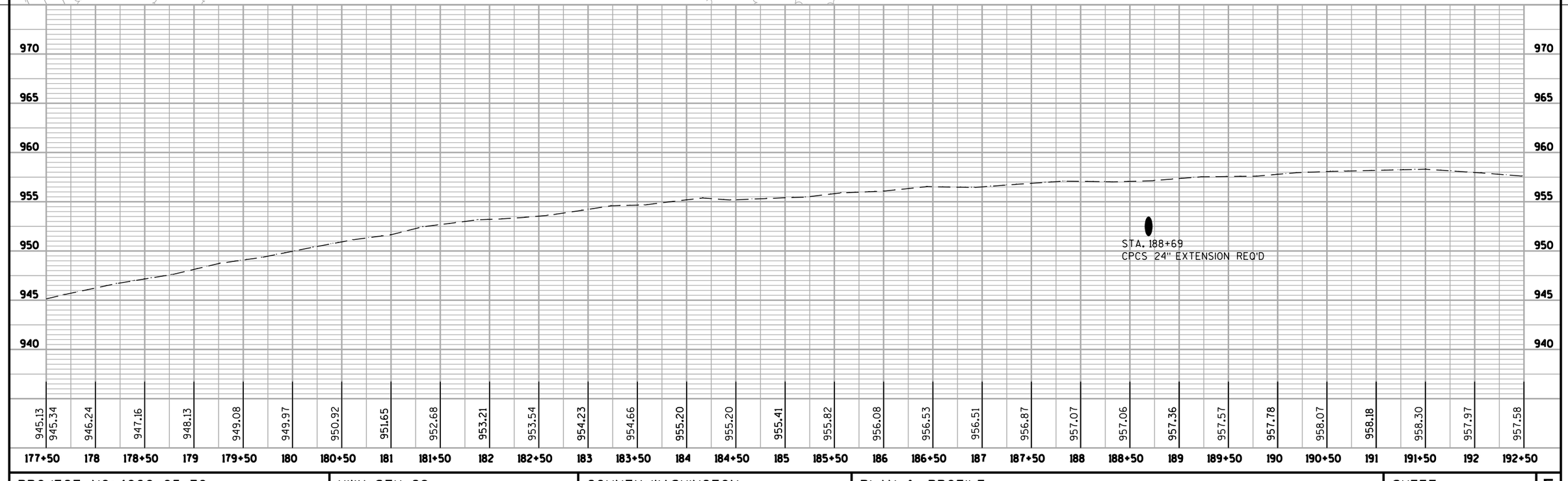
BENCH MARKS

NO.	STATION	DESCRIPTION	ELEV.
CP18693	186 + "28RL1" 93.24	BERNTSEN FENO W/CAP	958.163
	39.47' LT		



SUPERELEVATION CURVE DATA

CURVE NO.	SE	0% SE	BEGIN SE	REVERSE CROWN	BEGIN FULL SE	END FULL SE	REVERSE CROWN	END SE TRANS.	0% SE
28RL2	4.40%			176+08	176+73	178+93	179+58		180+09
28RL10	6.00%	180+09		180+78	181+12	185+98	186+31	186+78	
28TL5	3.70%		186+78	187+84	188+30	192+02	192+47	193+54	



PROJECT NO: 4060-05-70	HWY: STH 28	COUNTY: WASHINGTON	PLAN & PROFILE	SHEET 244	E

WETLAND BOUNDARY

WETLAND BOUNDARY

PT 192+33.03

STH 28

RAINE DR.

N

194 196 198 200 202 204 206

FO FO FO FO FO

E E E E E

5 5

980 975 970 965 960 955 950

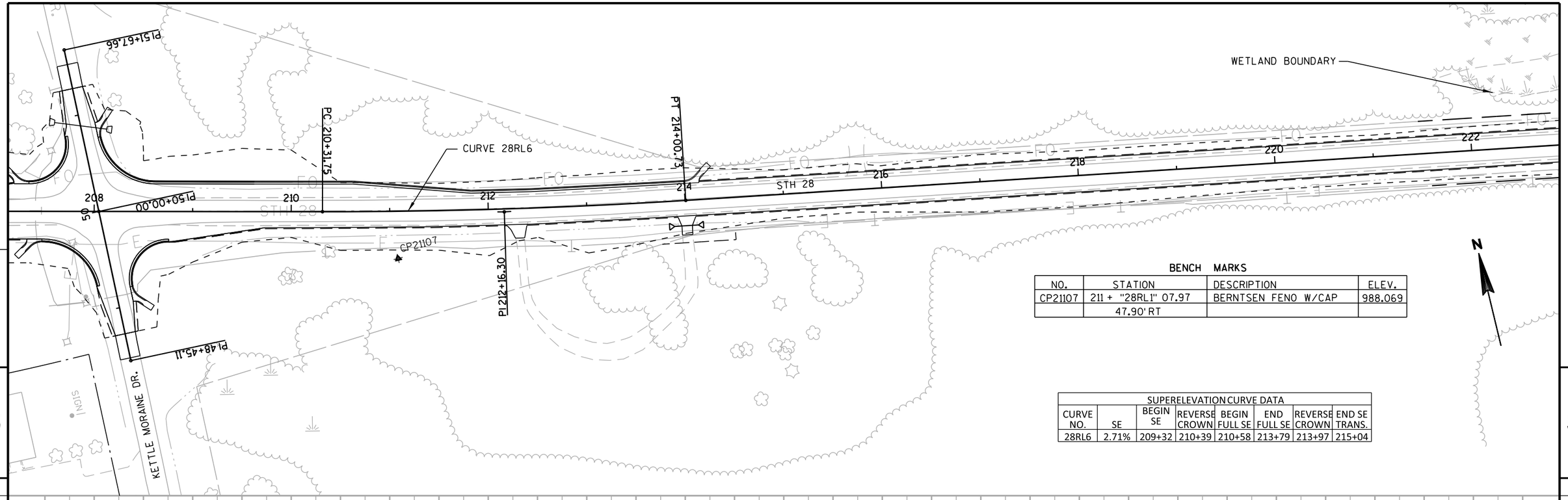
957.58 956.99 956.18 956.10 955.46 954.76 954.43 954.30 954.50 954.95 955.47 955.62 956.13 957.10 957.97 958.89 960.03 961.31 962.48 963.63 965.29 967.46 969.12 971.06 972.66 974.26 975.85 977.27 978.58 979.58 981.20

192+50 193 193+50 194 194+50 195 195+50 196 196+50 197 197+50 198 198+50 199 199+50 200 200+50 201 201+50 202 202+50 203 203+50 204 204+50 205 205+50 206 206+50 207 207+50

PROJECT NO: 4060-05-70	HWY: STH 28	COUNTY: WASHINGTON	PLAN & PROFILE	SHEET E

FILE NAME : J:\projects\D2_40600528\050109_pp.dgn PLOT DATE : 22-JUL-2013 07:53 PLOT BY : dotr3h PLOT NAME : PLOT SCALE : 100:1

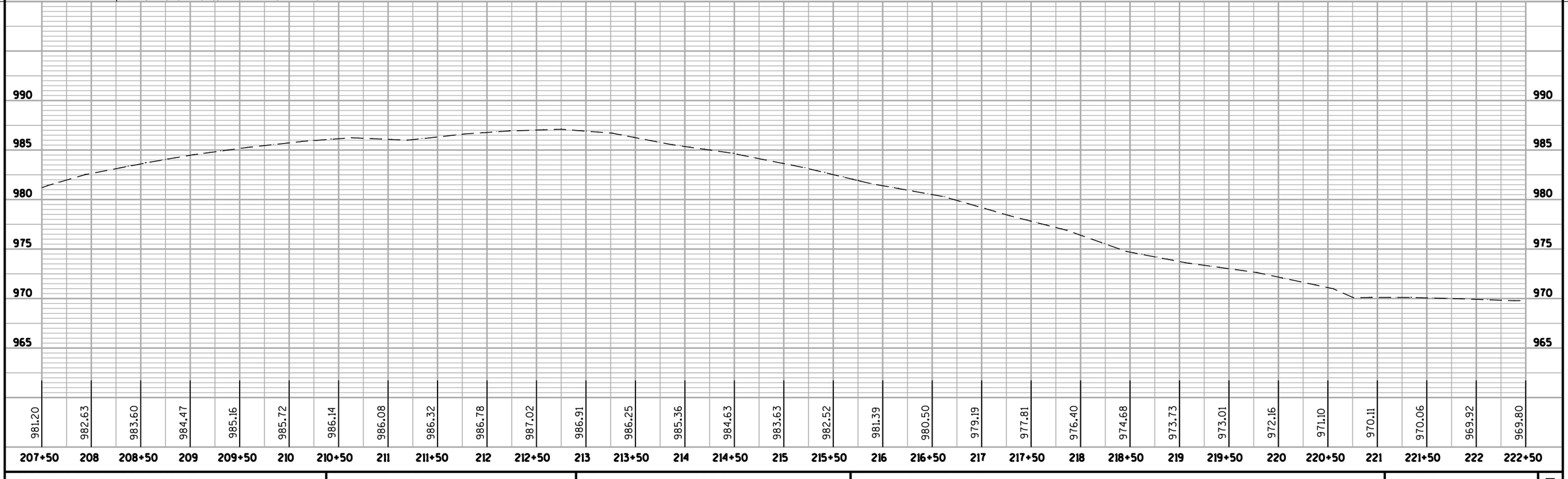
WISDOT/CADDS SHEET 40



BENCH MARKS

NO.	STATION	DESCRIPTION	ELEV.
CP21107	211 + "28RL1" 07.97	BERNTSEN FENO W/CAP	988.069
	47.90' RT		

SUPERELEVATION CURVE DATA							
CURVE NO.	SE	BEGIN SE	REVERSE CROWN	BEGIN FULL SE	END FULL SE	REVERSE CROWN	END SE TRANS.
28RL6	2.71%	209+32	210+39	210+58	213+79	213+97	215+04



PROJECT NO: 4060-05-70	HWY: STH 28	COUNTY: WASHINGTON	PLAN & PROFILE	SHEET 246 E

FILE NAME : J:\projects\D2_40600528\050110_pp.dgn PLOT DATE : 22-JUL-2013 07:53 PLOT BY : dotr3h PLOT NAME : PLOT SCALE : 100:1

WISDOT/CADDS SHEET 40

REMOVE SMALL CULVERT PIPE

WETLAND BOUNDARY

PC 226+48.82

PI 228+23.10

CURVE 28RL7

STH 28

PT 229+92.94

END MILL AND OVERLAY

BEGIN RECONSTRUCTION

PI 232+36.40

PI 13+49.09

PI 12+24.21

PC 11+82.99

PI 12+03.64

PI 10+97.91

PC 10+59.80

PI 10+71.79

PI 10+00.00

PT 9+50.00

PC 9+09.02

PI 9+29.81

S. HICKORY DR.

SEPTIC

ANT.

W

N

SUPERELEVATION CURVE DATA								
CURVE NO.	SE	BEGIN SE	REVERSE CROWN	BEGIN FULL SE	END FULL SE	REVERSE CROWN	END SE TRANS.
28RL7	6.00%	225+21	226+10	226+93	229+52	230+35	231+25

BENCH MARKS

NO.	STATION	DESCRIPTION	ELEV.
CP23529	235 + "28RL1" 29.04	BERNTSEN FENO W/CAP	976.830
	157.70' LT		

STA. 225+75
1-19"X30" CPRCHE
CLASS HE-IV REQ'D

VPI STA 229+98.19
VPI EL 972.07

VPC STA 231+82.19
VPC EL 972.61

VPI STA 232+82.19
VPI EL 972.90

VPT STA 233+82.19
VPT EL 974.36

STA. 234+25
1-12" CPRC
CLASS HE-III REQ'D

VPC STA 236+18.19
VPC EL 977.79

VPI STA 237+18.19
VPI EL 979.25

+0.29 %

VCL 200.00
K = 171.96

+1.46 %

K = 288.49
VCL 200.00

REMOVING ASPHALTIC SURFACE

STA. 236+73.29
1-18" SSPRC REQ'D

969.80	969.88	969.99	970.18	970.35	970.50	970.68	970.70	970.71	970.89	971.17	971.37	971.90	972.31	972.32	972.47	972.07	972.46	972.22	972.50	972.37	972.68	972.51	972.71	972.67	972.95	972.94	973.32	973.36	973.91	973.92	974.42	974.62	974.78	975.34	975.04	976.07	975.79	976.80	976.77	977.53	977.71	978.24	978.99	978.87	979.52	979.41
222+50	223	223+50	224	224+50	225	225+50	226	226+50	227	227+50	228	228+50	229	229+50	230	230+50	231	231+50	232	232+50	233	233+50	234	234+50	235	235+50	236	236+50	237	237+50																		

PROJECT NO: 4060-05-70	HWY: STH 28	COUNTY: WASHINGTON	PLAN & PROFILE	SHEET 247	E

BENCH MARKS

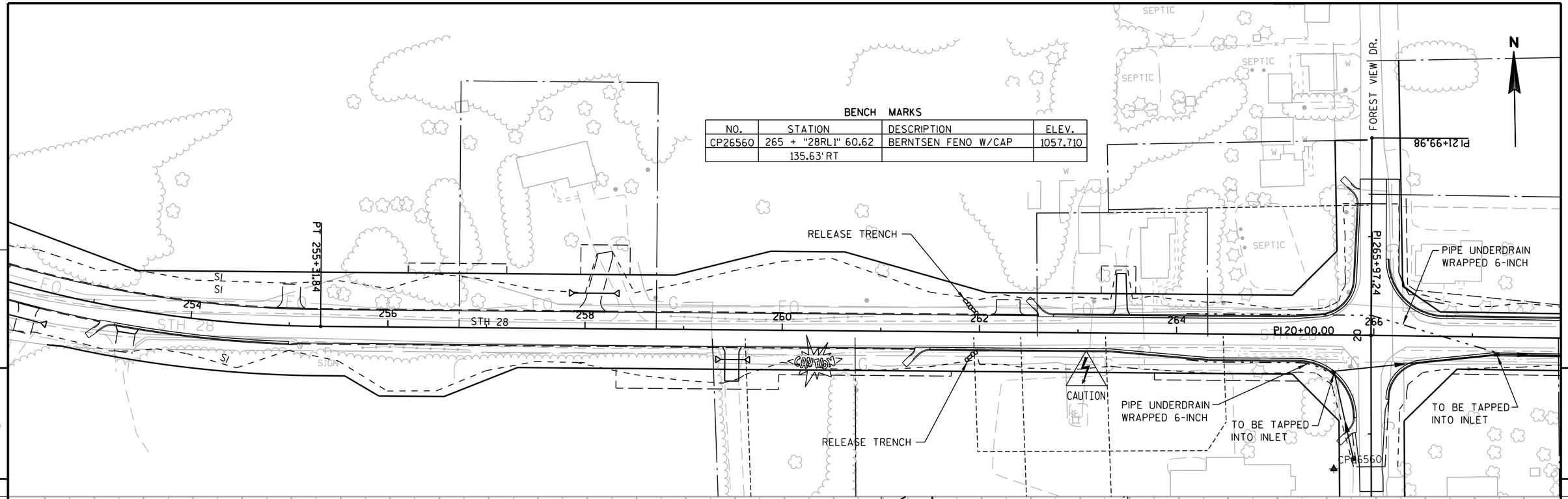
NO.	STATION	DESCRIPTION	ELEV.
CP25083	250 + "28RL1" 82.72	BERNTSEN FENO W/CAP	1003.088
	60.21' RT		

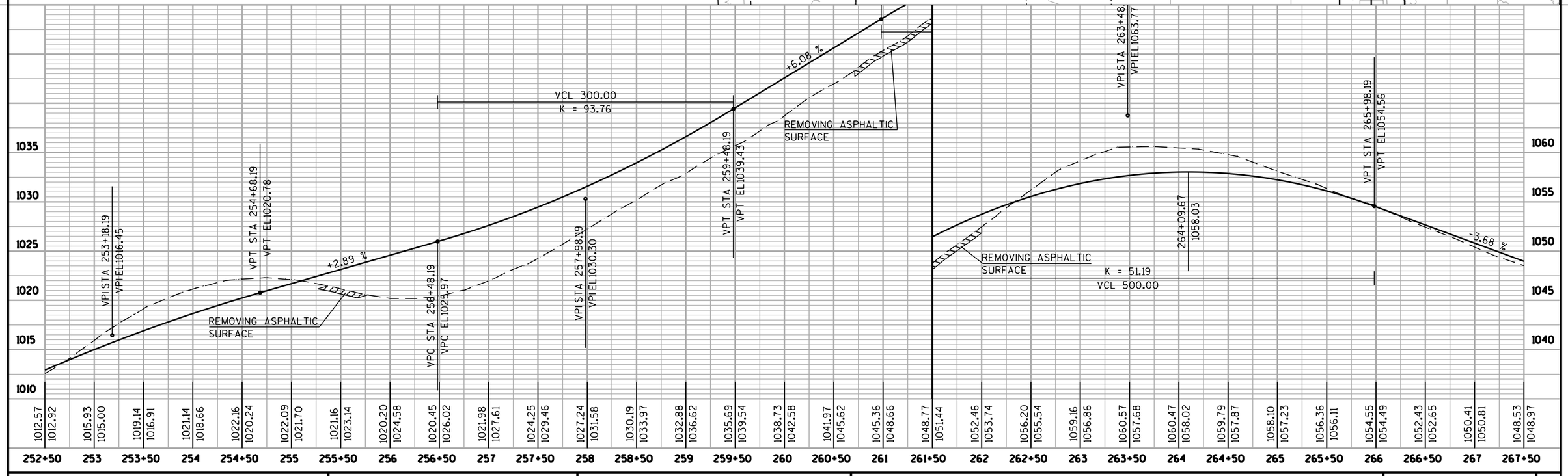
SUPERELEVATION CURVE DATA							
CURVE NO.	SE	BEGIN SE	REVERSE CROWN	BEGIN FULL SE	END FULL SE	REVERSE CROWN	END SE TRANS.
PRL1	5.00%	236+43	237+49	238+29	243+22	244+02	244+54
PRL2	5.90%	244+54	245+57	246+57	254+83	255+83	256+85

PROJECT NO: 4060-05-70	HWY: STH 28	COUNTY: WASHINGTON	PLAN & PROFILE	SHEET 248 E

BENCH MARKS

NO.	STATION	DESCRIPTION	ELEV.
CP26560	265 + "28RL1" 60.62	BERNTSEN FENO W/CAP	1057.710
	135.63' RT		





PROJECT NO: 4060-05-70	HWY: STH 28	COUNTY: WASHINGTON	PLAN & PROFILE	SHEET 249 E

END RECONSTRUCTION
BEGIN MILL AND OVERLAY

REMOVE & REPLACE
GUARDRAIL

R-66-21
RETAINING WALL

CP27670

STH 28

CAUTION

RUINS

SEPTIC

SIGN

BENCH MARKS

NO.	STATION	DESCRIPTION	ELEV.
CP27670	256 + "28RL1" 70.11	BERNTSEN FENO W/CAP	1015.229
	37.41' LT		

N

5

5

VP

VPI STA
VPI E

VPT STA 269+73.1
VPT EL1037.64

K = 36.24
VCL 150.00

-7.82 %

VPI STA 270+08.19
VPI EL 1034.91

STA. 272+00
1-24" CPRC REQ'D

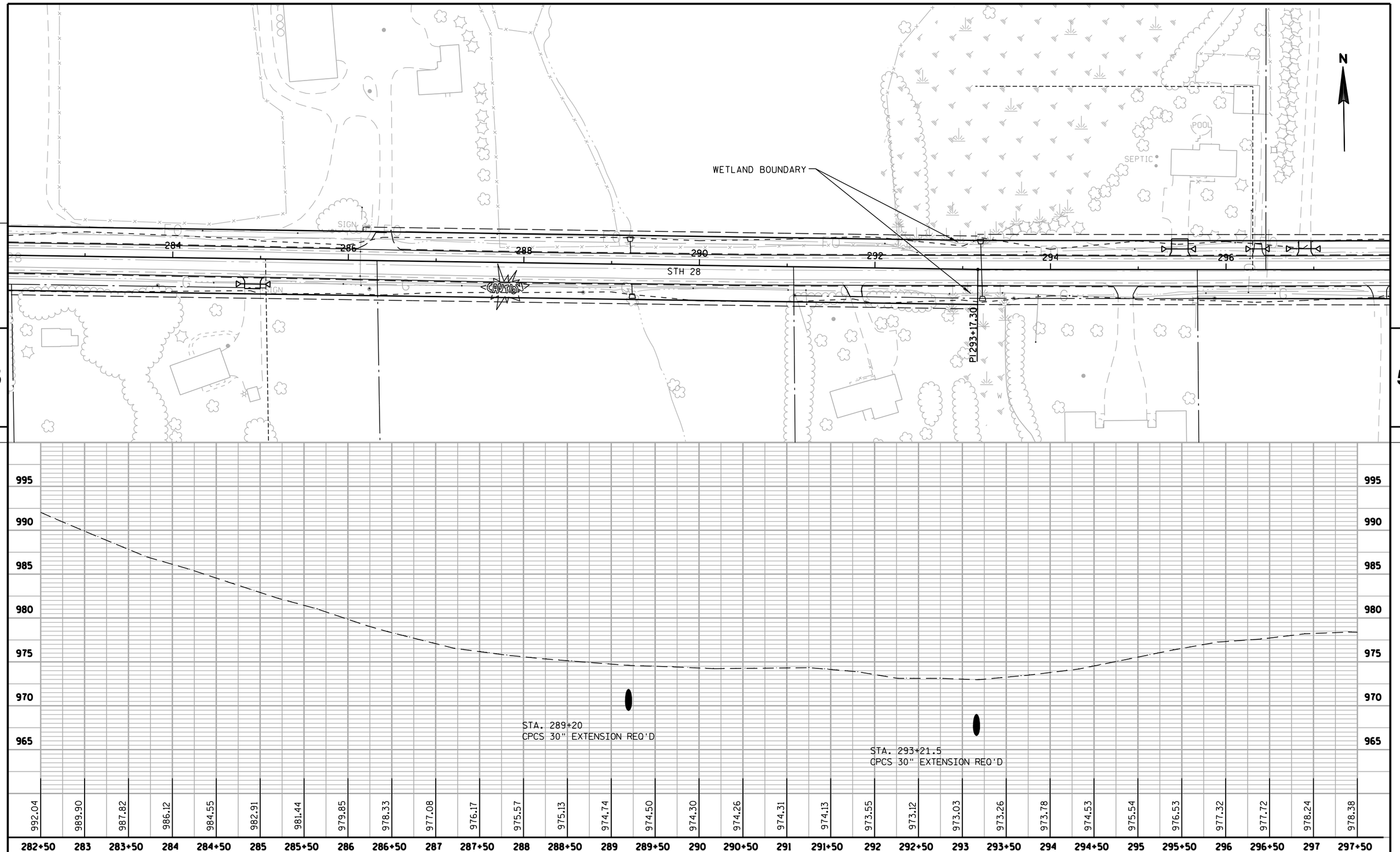
1045
1040
1035
1030
1025
1020
1015
1010

1015
1010
1005
1000
995
990

1048.53 1048.97 | 1047.01 1047.13 | 1045.21 1045.19 | 1042.90 1042.63 | 1039.66 1039.38 | 1035.55 | 1032.18 | 1029.38 | 1027.70 | 1027.15 | 1026.73 | 1026.18 | 1024.97 | 1023.39 | 1022.05 | 1020.23 | 1018.60 | 1017.25 | 1016.10 | 1014.64 | 1013.58 | 1012.22 | 1010.82 | 1009.01 | 1006.80 | 1004.64 | 1002.14 | 999.75 | 997.25 | 994.49 | 992.04

267+50 | 268 | 268+50 | 269 | 269+50 | 270 | 270+50 | 271 | 271+50 | 272 | 272+50 | 273 | 273+50 | 274 | 274+50 | 275 | 275+50 | 276 | 276+50 | 277 | 277+50 | 278 | 278+50 | 279 | 279+50 | 280 | 280+50 | 281 | 281+50 | 282 | 282+50

PROJECT NO: 4060-05-70	HWY: STH 28	COUNTY: WASHINGTON	PLAN & PROFILE	SHEET 250	E



PROJECT NO: 4060-05-70	HWY: STH 28	COUNTY: WASHINGTON	PLAN & PROFILE	SHEET 251	E

BENCH MARKS

NO.	STATION	DESCRIPTION	ELEV.
CP30177	301 + "28RL1" 77.01	BERNTSEN FENO W/CAP	973.394
	53.09' RT		

N

+00

END MILL AND OVERLAY | BEGIN RECONSTRUCTION

WETLAND BOUNDARY

RELEASE TRENCH

STH 28

CP30177

CAUTION

RELEASE TRENCH

5

5

VCL 250.00
K = 62.15

300+96.76
976.14

-1.18 %

VPI STA 299+33.19
VPI EL 977.64

C STA 300+23.20
VPC EL 976.58

STA. 301+22.34
30" CPRC

TA 301+48.20
PTEL 975.10

VPT STA 302+73.20
VPT EL 978.65

+2.84 %

REMOVING ASPHALTIC SURFACE

VPC STA 307+98.19
VPC EL 993.55

+2.84 %

EBS #4

REMOVING ASPHALTIC SURFACE

| | | |

BENCH MARKS

NO.	STATION	DESCRIPTION	ELEV.
CP31954	319 + "28RL1" 54.13	BERNTSEN FENO W/CAP	977.816
	360.67' RT		

PIPE UNDERDRAIN UNPERFORATED 6-INCH

PIPE UNDERDRAIN WRAPPED 6-INCH

WESCOTT RD.

PI 31+99.99

END RECONSTRUCTION
BEGIN MILL AND OVERLAY

CAUTION

N

SI

STH 28

PI 30+00.00

RELEASE TRENCH

TO BE TAPPED INTO INLET

PI 319+68.53

REMOVE SMALL CULVERT PIPE

CAUTION 326

5

5

VPI STA 313+7
VPI EL 1009.8

314+27.42
1002.48

K = 221.62
VCL 1150.00

EBS #5

STA. 319+31.82
1-18" SSPRC REQ'D

VPC STA 319+48.19
VPC EL 996.37

VPI STA 320+48.19
VPI EL 994.02

VPT STA 321+48.19
VPT EL 990.42

K = 160.15
VCL 200.00

-3.60%

VPC STA 322+38.19
VPC EL 987.18

VCL 200.00
K = 95.59

VPI STA 323+38.19
VPI EL 983.58

-1.51%

VPT STA 324+38.19
VPT EL 982.07

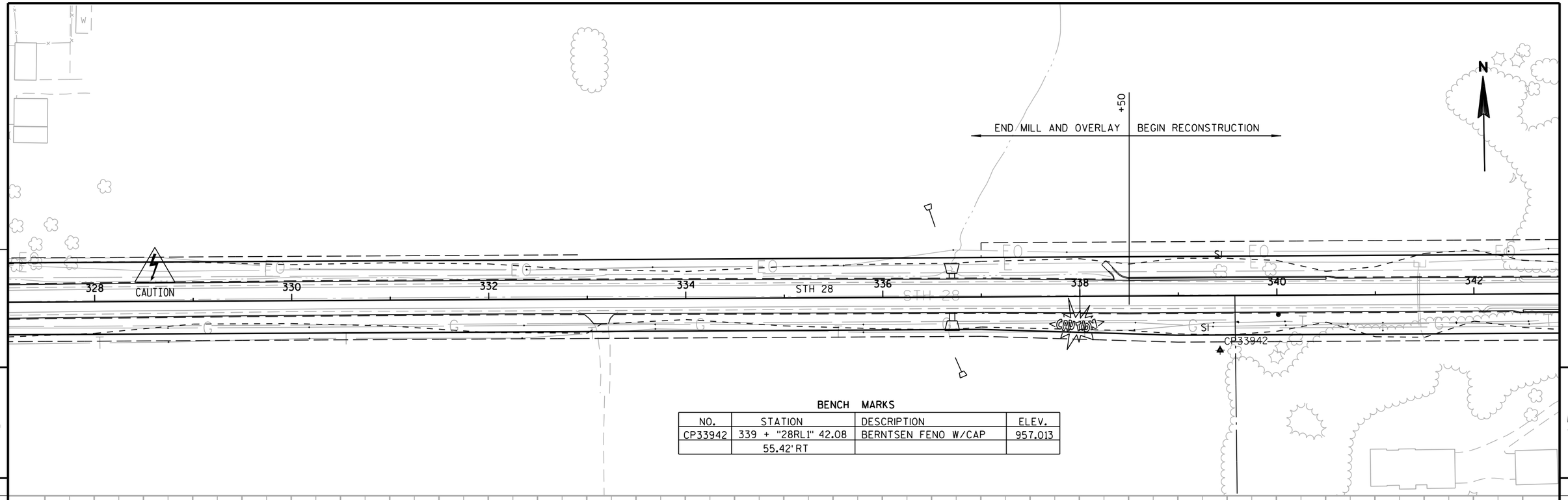
VPI STA 324+77.20
VPI EL 981.49

STA. 324+50
1-19"X30" CPRCHE
CLASS HE-IV REQ'D

1014.39	1016.38	1017.28	1016.87	1015.40	1012.75	1009.34	1006.00	1003.42	1001.36	999.97	998.80	997.91	997.15	996.33	995.22	993.93	992.50	990.77	989.02	986.57	985.15	983.78	982.55	981.55	981.09	980.10	978.75	977.30	975.73	974.43
1001.77	1002.12	1002.35	1002.47	1002.47	1002.37	1002.15	1001.81	1001.37	1000.81	1000.14	999.35	998.46	997.45	996.32	995.06	993.65	992.08	990.35	988.55	986.76		983.81	982.72	981.90					

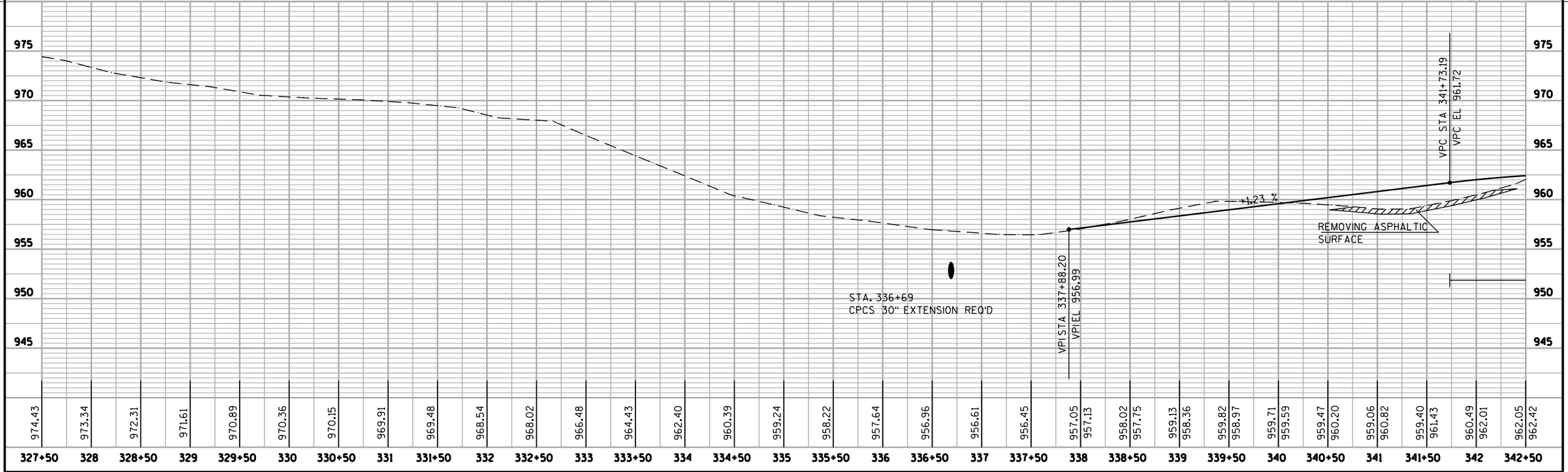
312+50 | 313 | 313+50 | 314 | 314+50 | 315 | 315+50 | 316 | 316+50 | 317 | 317+50 | 318 | 318+50 | 319 | 319+50 | 320 | 320+50 | 321 | 321+50 | 322 | 322+50 | 323 | 323+50 | 324 | 324+50 | 325 | 325+50 | 326 | 326+50 | 327 | 327+50

PROJECT NO: 4060-05-70	HWY: STH 28	COUNTY: WASHINGTON	PLAN & PROFILE	SHEET 253	E



BENCH MARKS

NO.	STATION	DESCRIPTION	ELEV.
CP33942	339 + "28RL1" 42.08	BERNTSEN FENO W/CAP	957.013
	55.42' RT		



PROJECT NO: 4060-05-70	HWY: STH 28	COUNTY: WASHINGTON	PLAN & PROFILE	SHEET 254	E

WETLAND BOUNDARY

STONEY CREEK

END RECONSTRUCTION
BEGIN MILL AND OVERLAY

N

SEPTIC

SEPTIC

STH 28

CAUTION

PIPE UNDERDRAIN
WRAPPED 6-INCH

APRON ENDWALLS FOR UNDERDRAIN
REINFORCED CONCRETE 6-INCH

5

5

VPI

343+24.01
962.64

REMOVING ASPHALTIC
SURFACE

K = 122.79
VCL 600.00

VPT STA 347+73.19
VPT EL 954.42

-3.66 %

VPC STA 348+63.19
VPC EL 951.13

VCL 420.00
K = 81.95

351+63.00
945.65

VPC STA 352+98.19
VPC EL 946.75

+1.47 %

VPI STA 354+48.19
VPI EL 948.95

VPT STA 355+98.19
VPT EL 947.62

-0.89 %

STA. 350+95
REMOVE STRUCTURE 66-028.050
3'X4' BOX CULVERT
32' OVERALL LENGTH

VPI STA 350+73.19
VPI EL 943.45

VPT STA 352+83.19
VPT EL 946.53

354+84.95
948.12

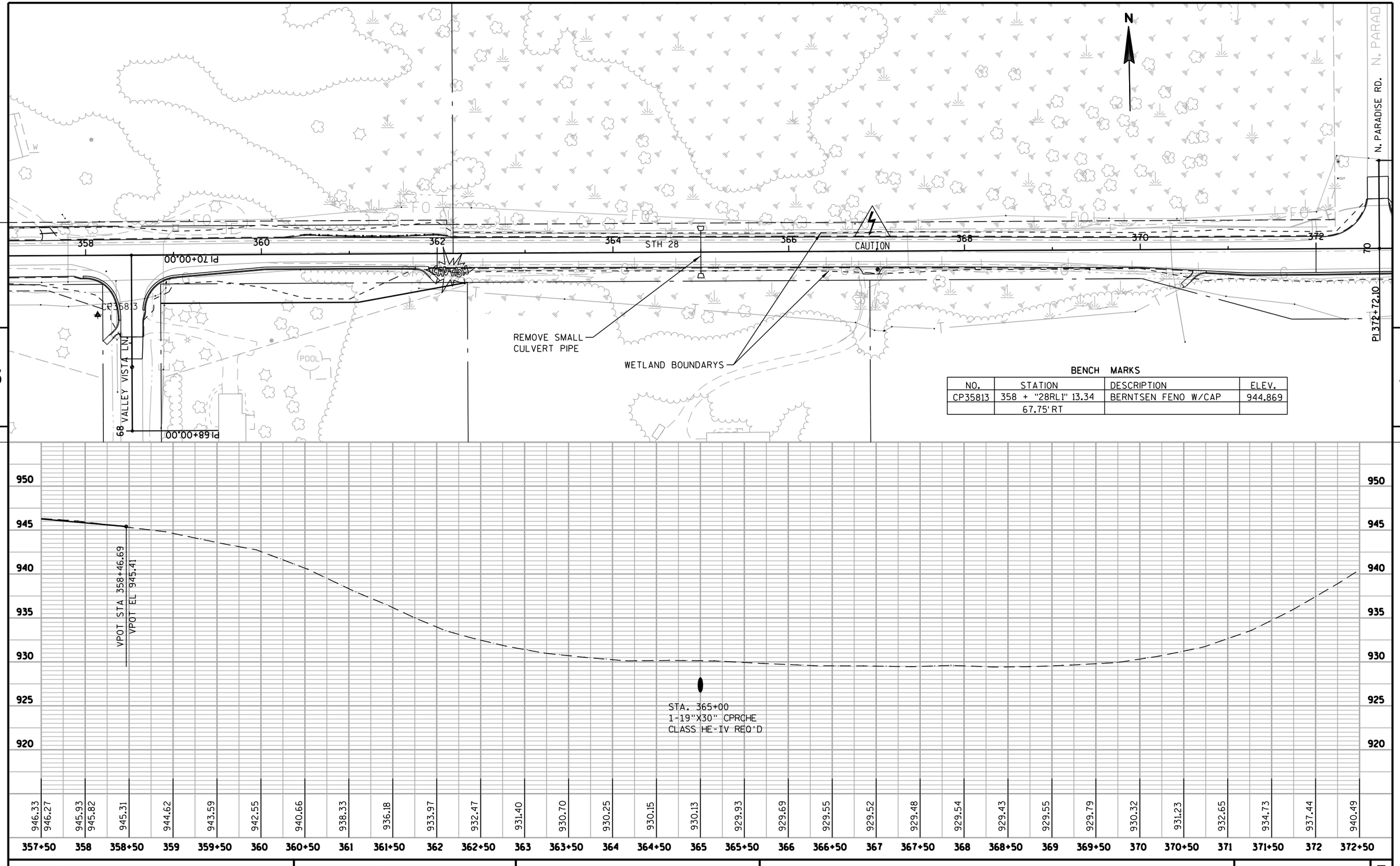
REMOVING ASPHALTIC
SURFACE

K = 127.34
VCL 300.00

STA. 350+80
1-72" CPRC REQ'D

MARSH EXCAVATION

| | | |



PROJECT NO: 4060-05-70	HWY: STH 28	COUNTY: WASHINGTON	PLAN & PROFILE	SHEET 256 E

BENCH MARKS

NO.	STATION	DESCRIPTION	ELEV.
CP37325	373 + "28RL1" 25.05	BERNTSEN FENO W/CAP	941.445
	42.77' LT		
CP38453	384 + "28RL1" 53.32	BERNTSEN FENO W/CAP	1007.041
	70.26' RT		

N. PARAD

00°00+17 ld

CP37325

70

00°00+70 ld

PI 372+72.10

CAUTION

374 376 378 STH 28 380 382 384 386

REMOVE SMALL CULVERT PIPE

REMOVE SMALL CULVERT PIPE

WETLAND BOUNDARY

CP38453

END PROJECT
STA. 382+88.00

STH 144

FOUND

STA. 373+82
1-19"X30" CPRCHE
CLASS HE-IV REQ'D

STA. 377+08
1-19"X30" CPRCHE
CLASS HE-IV REQ'D

STA. 382+00
1-18" SSPRC REQ'D
INLET TYPE 10 REQ'D

970 965 960 955 950 945 940 935

1010 1005 1000 995 990 985 980 975 970

940.49 943.56 946.32 948.97 951.54 953.85 955.96 958.18 960.44 962.61 964.99 967.65 970.66 974.38 978.53 982.85 986.81 990.37 993.19 995.70 998.08 1000.24 1002.09 1003.70 1005.07 1006.70 1008.51

372+50 373 373+50 374 374+50 375 375+50 376 376+50 377 377+50 378 378+50 379 379+50 380 380+50 381 381+50 382 382+50 383 383+50 384 384+50 385 385+50 386 386+50 387 387+50

PROJECT NO: 4060-05-70	HWY: STH 28	COUNTY: WASHINGTON	PLAN & PROFILE	SHEET 257 E

FILE NAME : J:\projects\D2_40600528\050121_pp.dgn PLOT DATE : 02-OCT-2013 12:59 PLOT BY : dotr3h PLOT NAME : PLOT SCALE : 100:1

WISDOT/CADDS SHEET 40

BENCH MARKS

NO.	STATION	DESCRIPTION	ELEV.
CP23529	11 + "SR3REV1" 71.76	BERNTSEN FENO W/CAP	976.830
	17.05' RT		

NORTH HICKORY DRIVE

PC 7+77.32 PT 8+16.22 PI9+29.81 PC 10+89.80 PT 11+82.69 PI12+03.64 PI5+95.00 CP23529 PI7+96.80 PC 9+60.05 PT 9+88.00 PI10+00.00 PI10+71.79 PC 231+82.60 PC 11+82.69 PT 12+24.21 PI13+49.09

STA. 10+56.30
1-24" CPRC REQ'D

VCL 150.00
K = 36.76

VCL 26.00
K = 8.93

VCL 200.00
K = 24.57

K = 25.57
VCL 100.00

K = 43.87
VCL 50.00

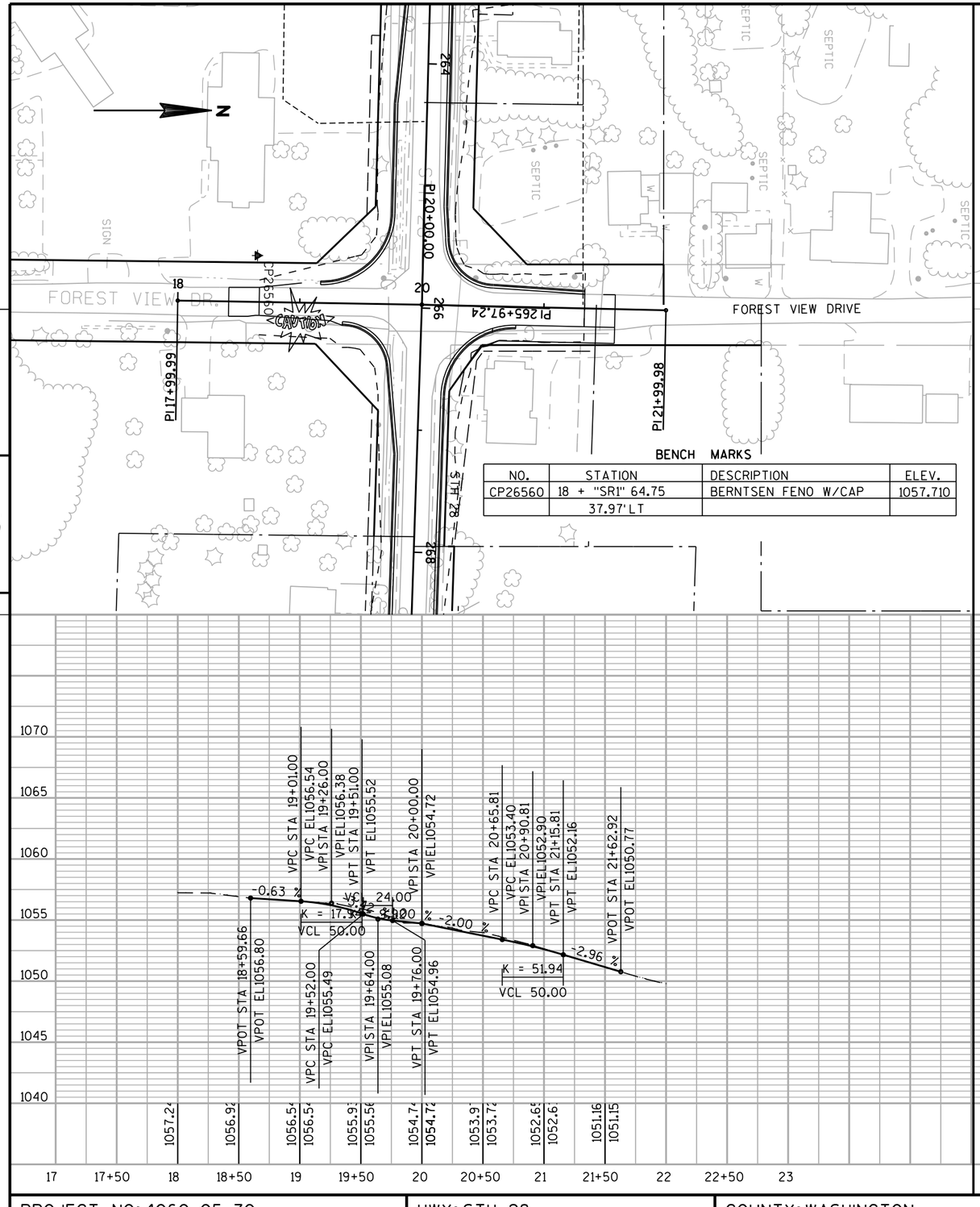
-2.08 %
-1.91 %
+1.00 %
+6.14 %
+5.00 %

VPOT STA 6+50.00 VPOT EL 978.75 VPC STA 6+75.00 VPC EL 978.23
VPI STA 7+50.00 VPI EL 976.67 7+51.49 977.44
VPC STA 8+25.00 VPC EL 978.17 VPT STA 8+25.00 VPT EL 978.17
VPI STA 8+75.00 VPI EL 979.17 8+76.13 978.68
VPT STA 9+25.00 VPT EL 978.22
VPC STA 9+62.00 VPC EL 977.51 VPI STA 9+75.00 VPI EL 977.26 9+79.07 977.35
VPT STA 9+88.00 VPT EL 977.39
VPI STA 10+00.00 VPI EL 977.51
VPC STA 10+24.00 VPC EL 977.03
10+73.14 976.54
VPI STA 11+24.00 VPI EL 975.03
VPT STA 12+24.00 VPT EL 981.17
VPC STA 12+35.00 VPC EL 981.85
VPI STA 12+60.00 VPI EL 983.38
VPT STA 12+85.00 VPT EL 984.63
VPT STA 12+96.00 VPOT EL 985.18

995 990 985 980 975 970 965 960

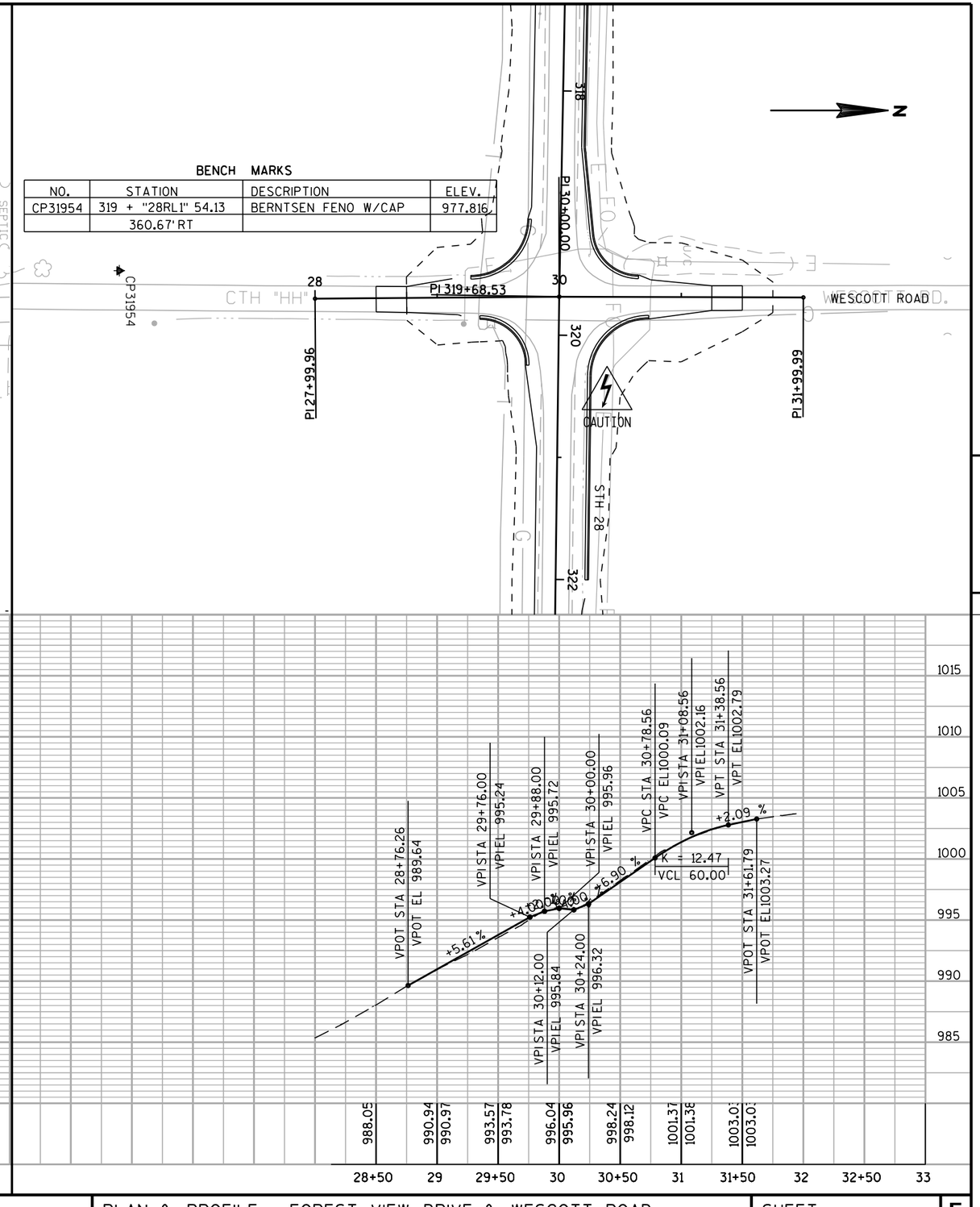
5	5+50	6	6+50	7	7+50	8	8+50	9	9+50	10	10+50	11	11+50	12	12+50	13	13+50	14	14+50	15
		979.79	978.73 978.75	977.78 977.80	977.49 977.44	978.02 977.76	979.41 978.55	980.34 978.57	978.37 977.74	976.72 977.51	975.43 976.65	974.94 976.69	976.13 977.74	978.78 979.81	982.44 982.74	985.39					

PROJECT NO: 4060-05-70	HWY: STH 28	COUNTY: WASHINGTON	PLAN & PROFILE - HICKORY DRIVE	SHEET 258 E



BENCH MARKS

NO.	STATION	DESCRIPTION	ELEV.
CP26560	18 + "SR1" 64.75	BERNTSEN FENO W/CAP	1057.710
	37.97'LT		



BENCH MARKS

NO.	STATION	DESCRIPTION	ELEV.
CP31954	319 + "28RL1" 54.13	BERNTSEN FENO W/CAP	977.816
	360.67'RT		

PROJECT NO: 4060-05-70	HWY: STH 28	COUNTY: WASHINGTON	PLAN & PROFILE - FOREST VIEW DRIVE & WESCOTT ROAD	SHEET 259 E

Standard Detail Drawing List

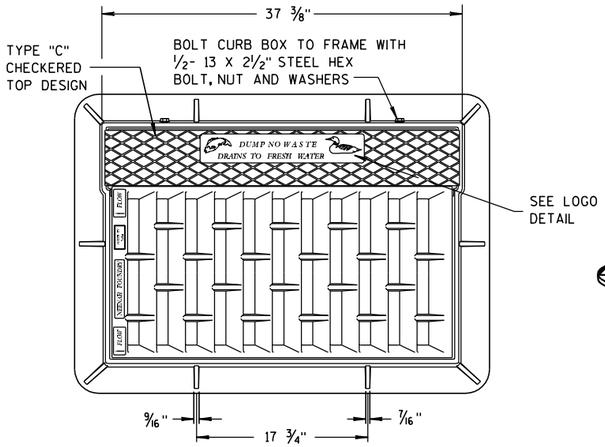
08A05-18A	INLET COVERS TYPE A, H, A-S, & H-S
08A05-18B	INLET COVERS TYPE B, B-A, C, MS, MS-A, & WM
08A05-18C	INLET COVERS TYPE F, HM, HM-S, S, T, V, HM-GJ, & HM-GJ-S
08A05-18D	INLET COVER, TYPE BW, Z MANHOLE COVERS, TYPE K, J, J-S, L & M
08A08-01	CATCH BASINS 3-FT, 4-FT, 5-FT AND 6-FT DIAMETER
08A09-01	CATCH BASINS 2X3-FT AND 2.5X3-FT
08B09-01	MANHOLES 3-FT, 4-FT, 5-FT, 6-FT, 7-FT AND 8-FT DIAMETER
08C06-01	INLETS 3-FT AND 4-FT DIAMETER
08C07-01	INLETS 2X2-FT, 2X2.5-FT, 2X3-FT AND 2.5X3-FT
08C08-01	INLETS MEDIAN 1 AND 2 GRATE
08C09-01	INLETS MEDIAN 3 AND 4 GRATE
08D01-17	CONCRETE CURB, CONCRETE CURB AND GUTTER AND TIES
08D04-05	CONCRETE SURFACE DRAINS & ASPHALTIC FLUMES
08D05-15A	CURB RAMPS TYPES 1 AND 1-A
08D05-15B	CURB RAMPS TYPES 2 AND 3
08D05-15C	CURB RAMPS TYPES 4A AND 4A1
08D05-15D	CURB RAMPS TYPE 4B AND 4B1
08D05-15E	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
08E14-01	TRACKING PAD
08F01-11	APRON ENDWALLS FOR CULVERT PIPE
08F02-01	APRON ENDWALLS FOR PIPE ARCH AND ELLIPTICAL PIPE
08F04-07	JOINT TIES FOR CONCRETE PIPE AND CONCRETE COLLAR DETAIL
08F05-01	CLASS "B" BEDDING FOR CULVERT PIPE OR STORM SEWER
08F06-04	REINFORCED CONCRETE APRON ENDWALL FOR PIPE UNDERDRAIN
08F10-01	CONCRETE MASONRY ENDWALLS FOR CULVERT PIPE AND PIPE ARCH
09A01-13A	AT-GRADE SIDE ROAD INTERSECTION, TYPES "B1", "B2", "C" AND D AND TEE INTERSECTION BYPASS LANE
09A01-13B	AT-GRADE SIDE ROAD INTERSECTION, TYPE "A1" & "A2"
09B02-07	CONDUIT
09B04-10	PULL BOX
09C02-06	CONCRETE BASES, TYPES 1, 2 & 5
09C03-03	TRANSFORMER/PEDESTAL BASES
09C06-05	CONCRETE CONTROL CABINET BASE, TYPE 9, SPECIAL
09C11-03	CONCRETE BASE TYPE 10
09D01-04	CABINET SERVICE INSTALLATION (METER BREAKER PEDESTAL)
09E01-12B	POLE MOUNTINGS FOR TRAFFIC SIGNALS AND LIGHTING UNITS, TYPE 3 (HEAVY DUTY)
09E01-12G	HARDWARE DETAILS FOR POLE MOUNTINGS
09E03-04	NON-FREEWAY LIGHTING UNIT POLE WIRING
09E06-04	TRAFFIC SIGNAL STANDARD POLY BRACKET MOUNTINGS (TYPICAL) 13 FT. OR 15 FT.
09E07-05	TRAFFIC SIGNAL STANDARD PEDESTRIAN AND FLASHER TYPICAL MOUNTING DETAILS
09E08-04A	TYPE 9 POLE 15'-30' MONOTUBE ARM
09E08-04B	TYPE 10 POLE 15'-30' MONOTUBE ARM
09E08-04E	GENERAL NOTES AND HARDWARE DETAILS FOR TYPE 9, 10, 12 & 13 POLES WITH MONOTUBE ARMS
09F09-03	LOOP DETECTOR PLACED IN CRUSHED AGGREGATE BASE (NEW CONCRETE PAVEMENT)
09F15-03A	LOOP DETECTOR INSTALLED IN BASE COURSE WITH PULL (SPLICE) BOX OFF ROADWAY (OPTION 1)
09F15-03B	LOOP DETECTOR INSTALLED IN BASE COURSE WITH PULL (SPLICE) BOX OFF ROADWAY (OPTION 2)
09G02-03A	BRIDGE TEMPORARY TRAFFIC SIGNAL INSTALLATION
09G02-03B	BRIDGE TEMPORARY TRAFFIC SIGNAL INSTALLATION
09G02-03C	BRIDGE TEMPORARY TRAFFIC SIGNAL INSTALLATION
13A10-01A	2-LANE RURAL SHOULDER RUMBLE STRIP, MILLING
13A10-01B	2-LANE RURAL SHOULDER RUMBLE STRIP, MILLING
13A10-01C	2-LANE RURAL SHOULDER RUMBLE STRIP, MILLING
13A10-01D	2-LANE RURAL SHOULDER RUMBLE STRIP, MILLING
13A11-02A	2-LANE RURAL CENTER LINE RUMBLE STRIP, MILLING
13A11-02B	2-LANE RURAL CENTER LINE RUMBLE STRIP, MILLING
14B24-07A	STEEL PLATE BEAM GUARD ENERGY ABSORBING TERMINAL
14B24-07B	STEEL PLATE BEAM GUARD ENERGY ABSORBING TERMINAL
14B24-07C	STEEL PLATE BEAM GUARD ENERGY ABSORBING TERMINAL
14B29-01	SAFETY EDGE
14B32-01A	CONCRETE BARRIER SINGLE SLOPE (CBSS)
14B32-01B	CONCRETE BARRIER SINGLE SLOPE (CBSS)
14B32-01C	CONCRETE BARRIER SINGLE SLOPE (CBSS)
14B32-01D	CONCRETE BARRIER SINGLE SLOPE (CBSS)
14B33-01A	CONCRETE BARRIER SINGLE SLOPE 32" THRIE BEAM ANCHOR
14B33-01B	CONCRETE BARRIER SINGLE SLOPE 32" THRIE BEAM ANCHOR
14B33-01C	CONCRETE BARRIER SINGLE SLOPE 32" THRIE BEAM ANCHOR

6

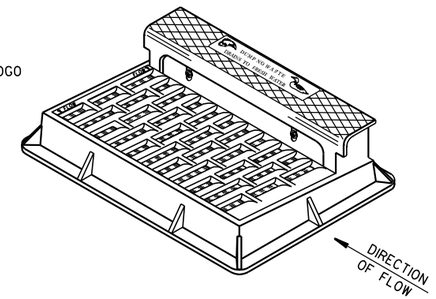
Standard Detail Drawing List

14B42-02A	MIDWEST GUARDRAIL SYSTEM (MGS) GUARDRAIL
14B42-02B	MIDWEST GUARDRAIL SYSTEM (MGS) GUARDRAIL
14B42-02C	MIDWEST GUARDRAIL SYSTEM (MGS) GUARDRAIL
14B44-01A	MIDWEST GUARDRAIL SYSTEM ENERGY ABSORBING TERMINAL (MGS)
14B44-01B	MIDWEST GUARDRAIL SYSTEM ENERGY ABSORBING TERMINAL (MGS)
14B44-01C	MIDWEST GUARDRAIL SYSTEM ENERGY ABSORBING TERMINAL (MGS)
14B45-03A	MIDWEST GUARDRAIL SYSTEM THRIE BEAM TRANSITION (MGS)
14B45-03B	MIDWEST GUARDRAIL SYSTEM THRIE BEAM TRANSITION (MGS)
14B45-03C	MIDWEST GUARDRAIL SYSTEM THRIE BEAM TRANSITION (MGS)
14B45-03D	MIDWEST GUARDRAIL SYSTEM THRIE BEAM TRANSITION (MGS)
14B45-03E	MIDWEST GUARDRAIL SYSTEM THRIE BEAM TRANSITION (MGS)
14B45-03F	MIDWEST GUARDRAIL SYSTEM THRIE BEAM TRANSITION (MGS)
14B45-03G	MIDWEST GUARDRAIL SYSTEM THRIE BEAM TRANSITION (MGS)
14B45-03H	MIDWEST GUARDRAIL SYSTEM THRIE BEAM TRANSITION (MGS)
14B45-03I	MIDWEST GUARDRAIL SYSTEM THRIE BEAM TRANSITION (MGS)
14B45-03J	MIDWEST GUARDRAIL SYSTEM THRIE BEAM TRANSITION (MGS)
15A03-02A	FLEXIBLE MARKER POST FOR CULVERT END
15A03-02B	FLEXIBLE MARKER POST FOR CULVERT END
15C07-12B	PAVEMENT MARKING WORDS
15C07-12C	PAVEMENT MARKING ARROWS
15C08-16A	PAVEMENT MARKING (MAINLINE)
15C08-16B	PAVEMENT MARKING (INTERSECTIONS)
15C33-01	STOP LINE AND CROSSWALK PAVEMENT MARKING
15D33-02	TRAFFIC CONTROL, ONE LANE ROAD WITH TEMPORARY SIGNALS

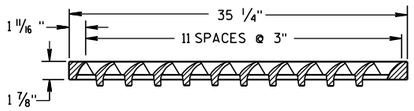
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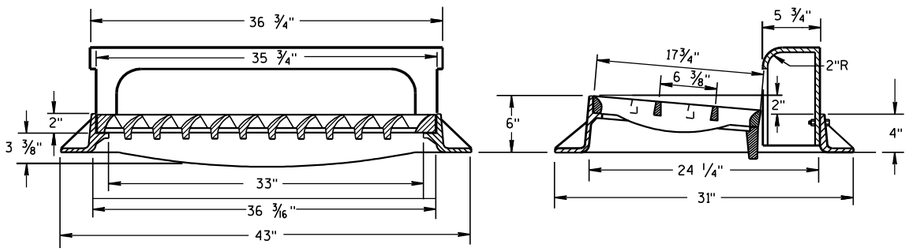


NOTE:
GRATE IS REVERSIBLE.



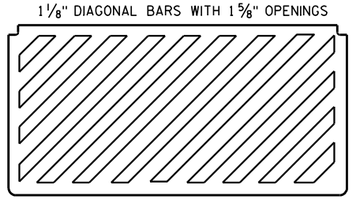
NOTE: CURB BOX HEIGHT ADJUSTABLE 6" TO 9"





TYPE "H"

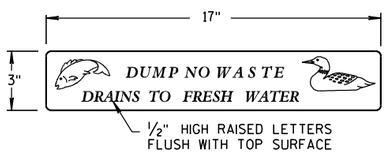
(APPROXIMATE WEIGHT 441 LBS.)
FRAME..... 181 LBS.
GRATE..... 146 LBS.
CURB BOX..... 114 LBS.



SPECIAL GRATE FOR TYPE "H" COVER

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

(NOTED AS TYPE H-S ON DRAINAGE TABLE)



LOGO DETAIL

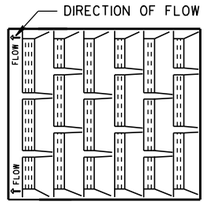
GENERAL NOTES

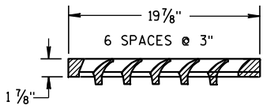
DETAILS OF CONSTRUCTION, MATERIALS AND WORKMANSHIP NOT SHOWN ON THIS DRAWING SHALL CONFORM TO THE PERTINENT REQUIREMENTS OF THE STANDARD SPECIFICATIONS AND THE APPLICABLE SPECIAL PROVISIONS.

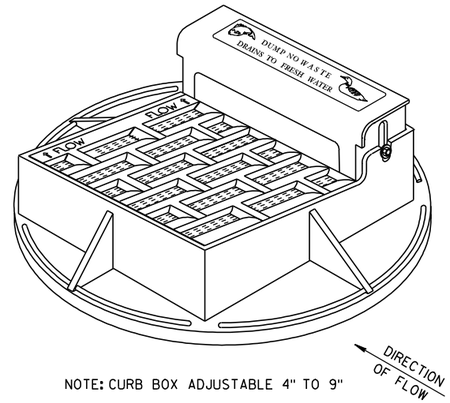
DETAIL DRAWINGS FOR PROPOSED ALTERNATE DESIGNS FOR CATCH BASIN, MANHOLE AND INLET COVERS SHALL BE SUBMITTED TO THE ENGINEER FOR APPROVAL PROVIDING THAT SUCH ALTERNATE DESIGNS MAKE PROVISION FOR EQUIVALENT CAPACITY AND STRENGTH.

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

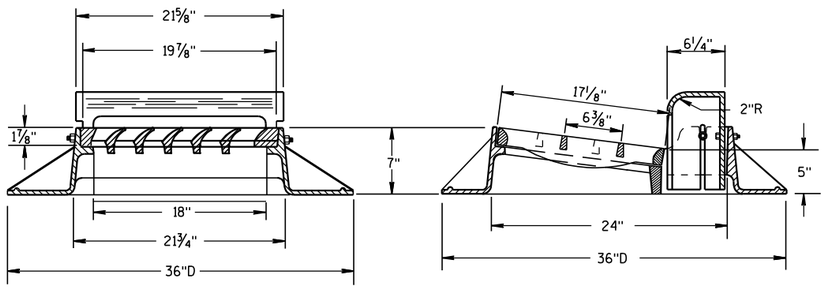
THE ACTUAL WEIGHT OF COVERS MAY VARY WITHIN 5 PERCENT, PLUS OR MINUS, OF THE APPROXIMATE WEIGHT.





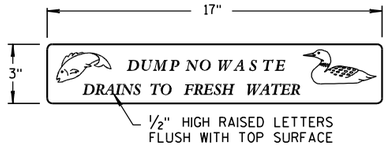


NOTE: CURB BOX ADJUSTABLE 4" TO 9"



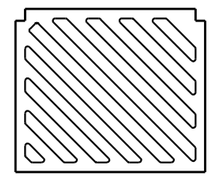
TYPE "A"

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



LOGO DETAIL

NOTE:
GRATE IS REVERSIBLE.



SPECIAL GRATE FOR TYPE "A" COVER

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

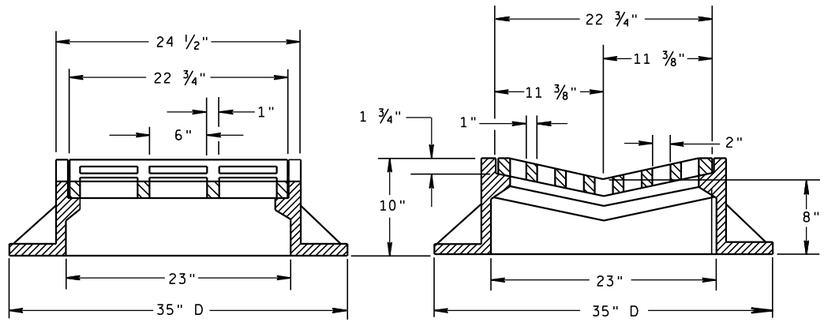
(NOTED AS TYPE A-S ON DRAINAGE TABLE)

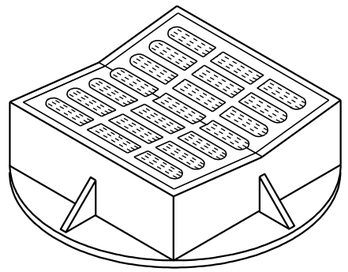
INLET COVERS
TYPE A, H, A-S, & H-S

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

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

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

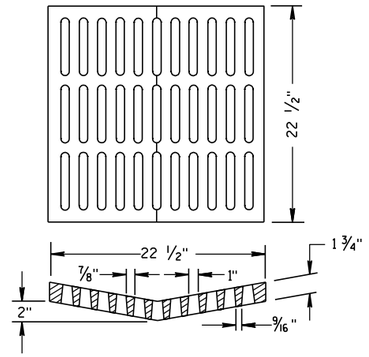




TYPE "B"

(APPROXIMATE WEIGHT 405 LBS.)

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

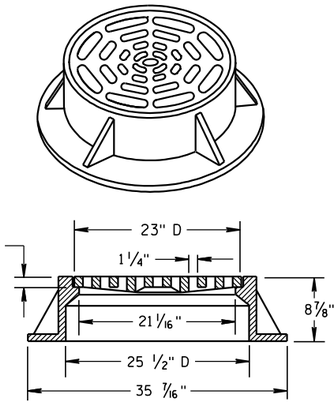


ALTERNATIVE GRATE FOR TYPE "B" COVER

(APPROXIMATE GRATE WEIGHT 134 LBS.)

USE WHERE PEDESTRIAN OR BICYCLE TRAFFIC IS POSSIBLE.

NOTED AS TYPE B-A ON THE DRAINAGE TABLE



TYPE "C"

(APPROXIMATE WEIGHT 259 LBS.)

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

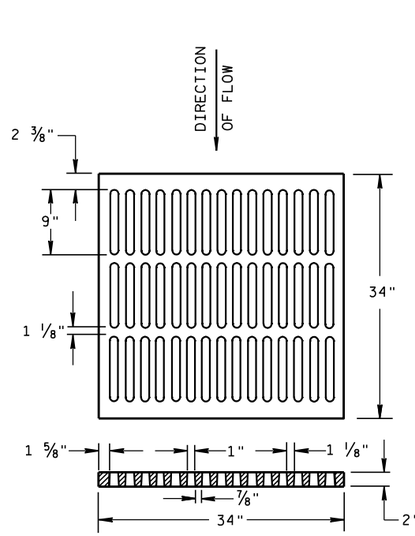
GENERAL NOTES

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

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

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

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

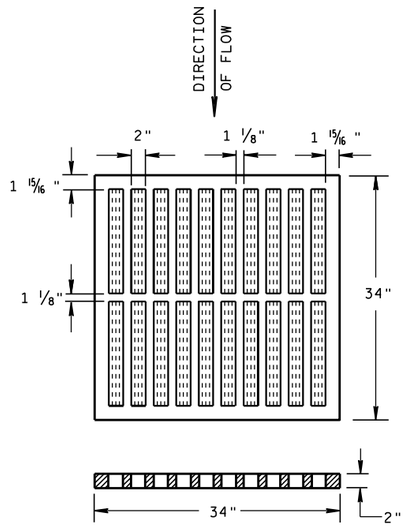


ALTERNATIVE TYPE "MS"

(APPROXIMATE GRATE WEIGHT 329 LBS.)

USE WHERE PEDESTRIAN OR BICYCLE TRAFFIC IS PERMITTED

NOTED AS TYPE MS-A ON THE DRAINAGE TABLE

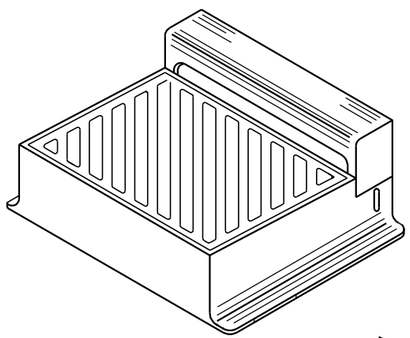


TYPE "MS"

(APPROXIMATE GRATE WEIGHT 268 LBS.)

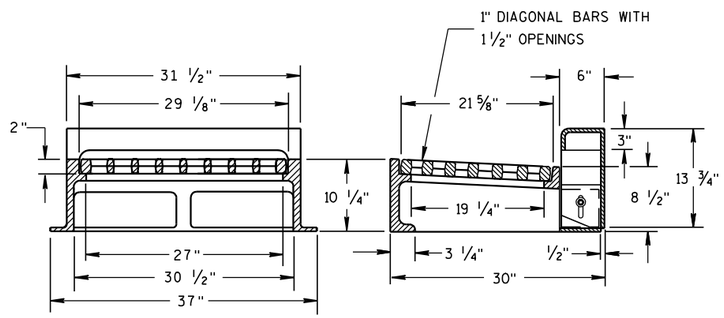
USE ON FREEWAYS AND EXPRESSWAYS

NOTED AS TYPE MS ON DRAINAGE TABLE



DIRECTION OF FLOW

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



NOTE: CURB BOX HEIGHT ADJUSTABLE 6" TO 9"

TYPE "WM"

(APPROXIMATE WEIGHT 648 LBS.)

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

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

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED

6/5/2012
DATE

/S/ Jerry H. Zogg
ROADWAY STANDARDS ENGINEER

263

ENT

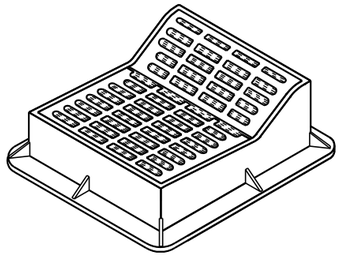
FHWA

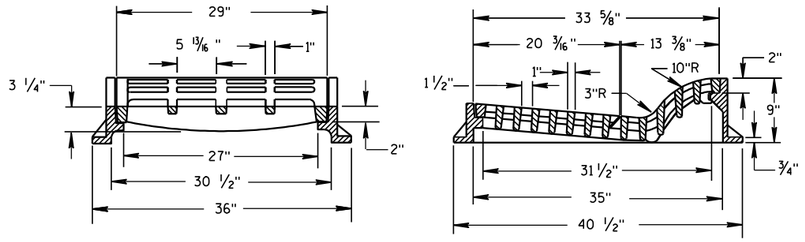
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S.D.D. 8 A 5-18b

6

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



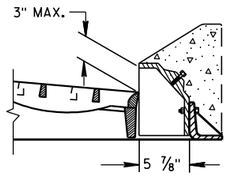


TYPE "F"

(APPROXIMATE WEIGHT 644 LBS.)

FRAME.....302 LBS.
GRATE.....160 LBS.
GRATE.....182 LBS.

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



ALTERNATIVE CURB BOX FOR TYPE "HM" COVER

(APPROXIMATE WEIGHT CURB BOX 68 LBS.)

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

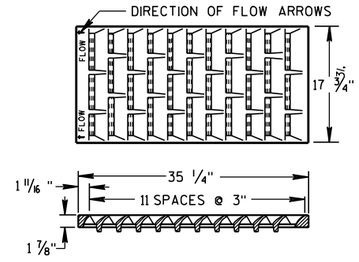
NOTE:
SPECIAL GRATE FOR THE
TYPE "H" COVER MAY ALSO BE
USED FOR THE TYPE "HM-GJ" COVER
NOTED AS TYPE HM-GJ-S ON DRAINAGE TABLE

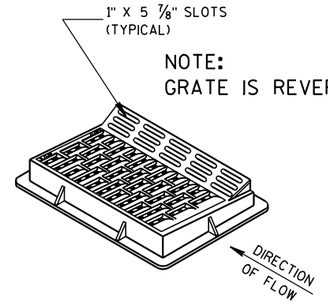
GENERAL NOTES

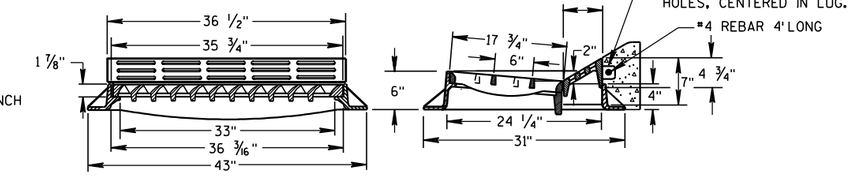
DETAILS OF CONSTRUCTION, MATERIALS AND WORKMANSHIP NOT SHOWN ON THIS DRAWING SHALL CONFORM TO THE PERTINENT REQUIREMENTS OF THE STANDARD SPECIFICATIONS AND THE APPLICABLE SPECIAL PROVISIONS.

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.

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





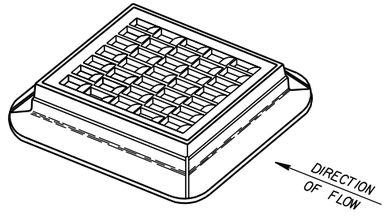


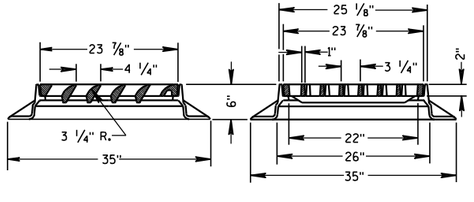
TYPE "HM"

(APPROXIMATE WEIGHT 414 LBS.)
FRAME..... 181 LBS.
GRATE..... 159 LBS.
CURB BOX..... 74 LBS.

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

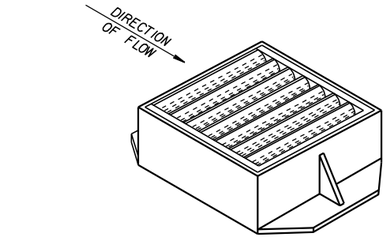


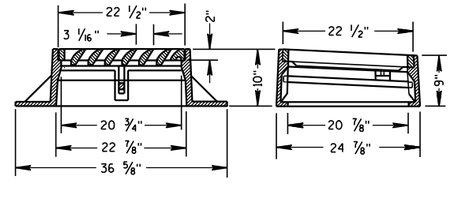


TYPE "S"

(APPROXIMATE WEIGHT 333 LBS.)

FRAME.....164 LBS.
GRATE..... 169 LBS.

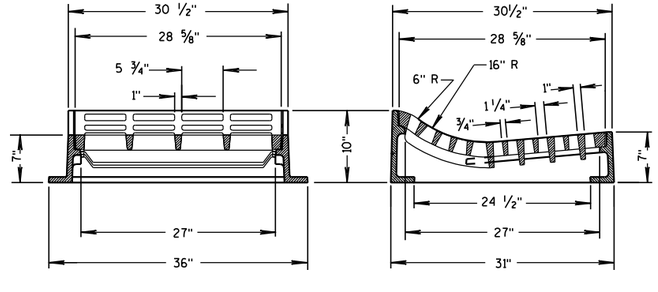




TYPE "V"

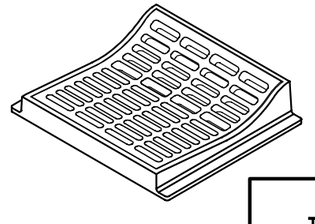
(APPROXIMATE WEIGHT 410 LBS.)

FRAME..... 269 LBS.
GRATE..... 136 LBS.
SAFETY BAR..... 5 LBS.



TYPE "T"

(APPROXIMATE WEIGHT 530 LBS.)
FRAME.....270 LBS.
GRATE.....260 LBS.
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

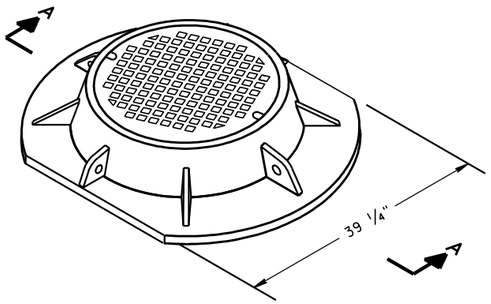
APPROVED
6/5/2012 — DATE
/S/ Jerry H. Zogg — ROADWAY STANDARDS ENGINEER
FHWA

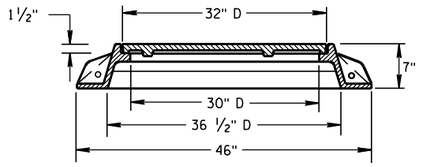
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S.D.D. 8 A 5-18c

6

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



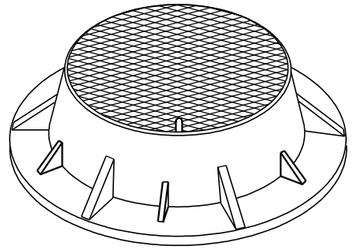


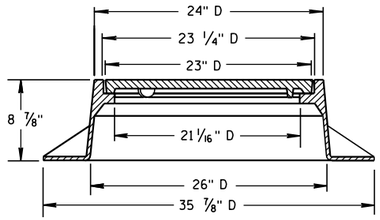
SECTION A-A

TYPE "K"

(APPROXIMATE WEIGHT 439 LBS.)

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

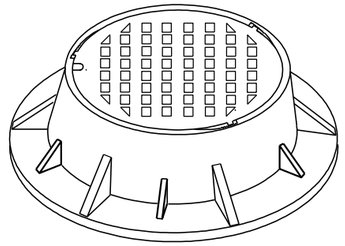


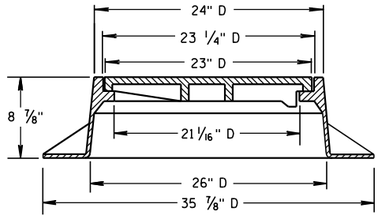


TYPE "J"

(APPROXIMATE WEIGHT 267 LBS.)

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





TYPE "J" SPECIAL

TYPE "B" NON-ROCKING SELF-SEAL LID

(APPROXIMATE WEIGHT 267 LBS.)

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

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

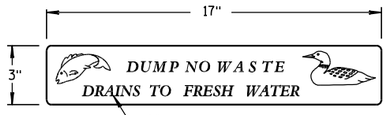
GENERAL NOTES

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

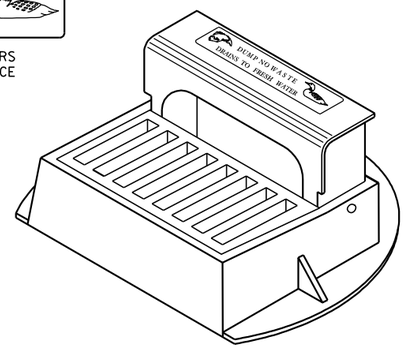
DETAIL DRAWINGS FOR PROPOSED ALTERNATE DESIGNS FOR MANHOLE COVERS SHALL BE SUBMITTED TO THE ENGINEER FOR APPROVAL PROVIDING THAT SUCH ALTERNATE DESIGNS MAKE PROVISION FOR EQUIVALENT CAPACITY AND STRENGTH.

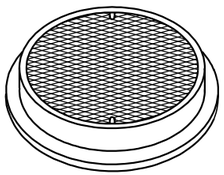
ROUND FRAMES AND COVERS SHALL HAVE CONTINUOUSLY MACHINED BEARING SURFACES TO PREVENT ROCKING AND RATTLING.

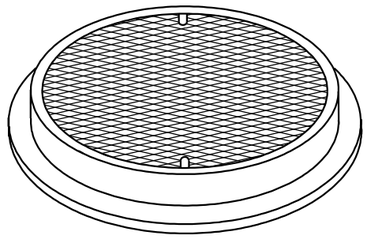
THE ACTUAL WEIGHT OF COVERS MAY VARY WITH 5 PERCENT, PLUS OR MINUS, OF THE APPROXIMATE WEIGHT.

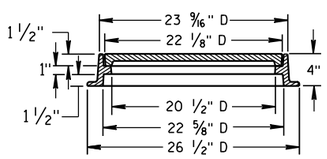


LOGO DETAIL





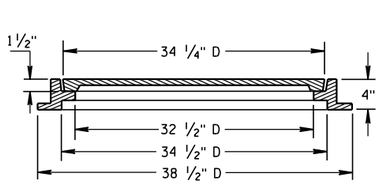




TYPE "L"

(APPROXIMATE WEIGHT 158 LBS.)

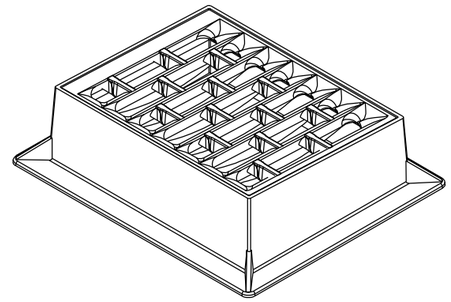
FRAME.....81 LBS.
LID.....77 LBS.

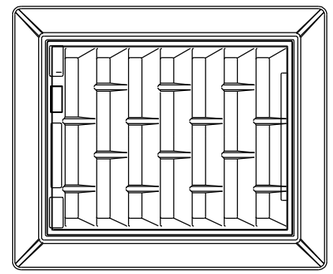


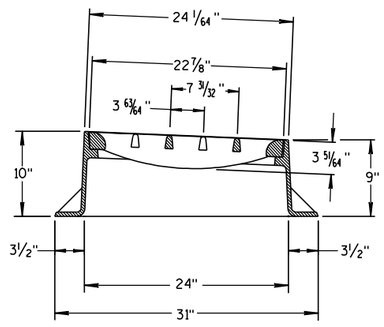
TYPE "M"

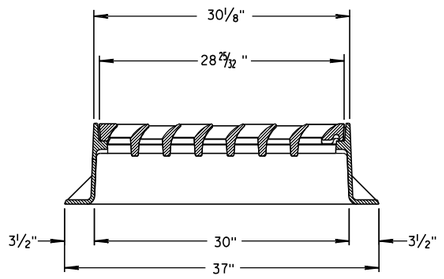
(APPROXIMATE WEIGHT 377 LBS.)

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

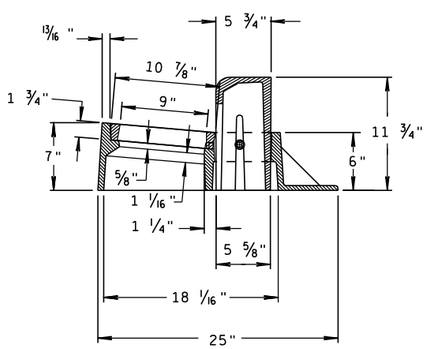








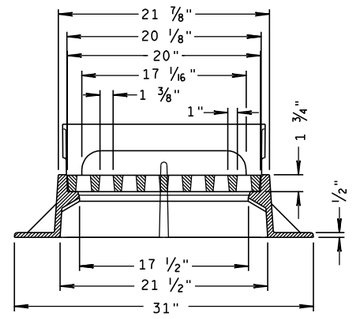
INLET COVER TYPE "BW"



INLET COVER TYPE "Z"

(APPROXIMATE WEIGHT 344 LBS.)

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



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

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

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

FHWA

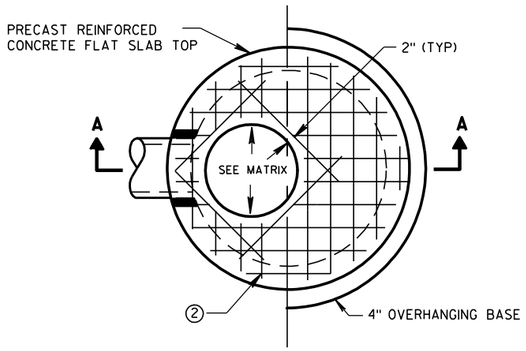
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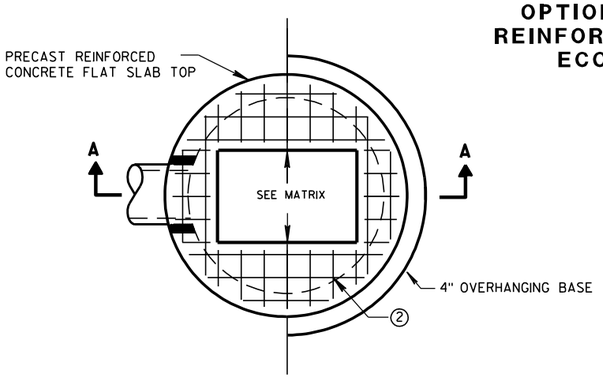
S.D.D. 8 A 5-18d

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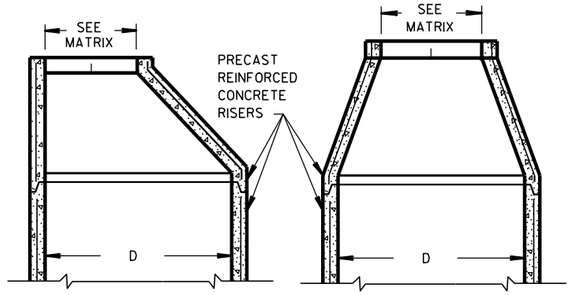
S.D.D. 8 A 5-18d



PLAN VIEW CIRCULAR OPENING

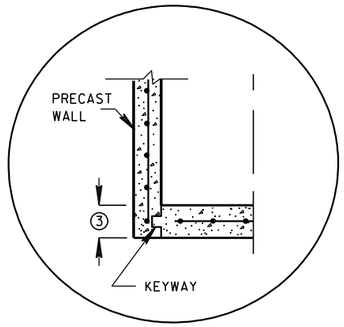


PLAN VIEW RECTANGULAR OPENING



OPTIONAL PRECAST REINFORCED CONCRETE ECCENTRIC TOP

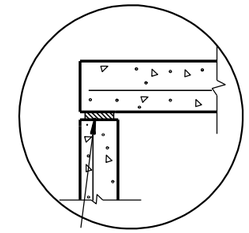
OPTIONAL PRECAST REINFORCED CONCRETE CONCENTRIC TOP



PRECAST REINFORCED CONCRETE WITH INTEGRAL BASE OPTION

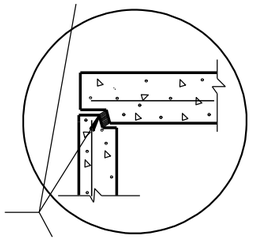
SEPERATE PRECAST REINFORCED CONCRETE BASE OPTION

DETAIL "A"

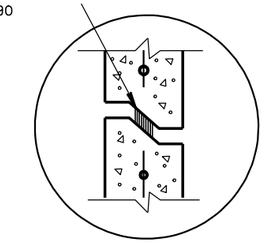


TOP WITH PLAIN END JOINT

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

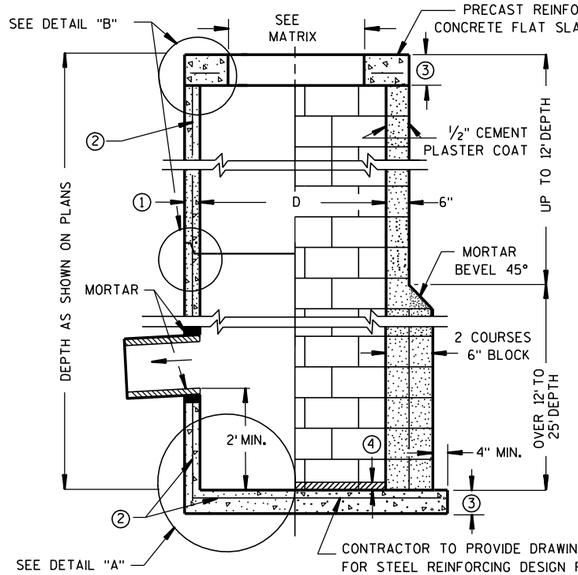


TOP WITH TONGUE AND GROOVE JOINT



RISER WITH TONGUE AND GROOVE JOINT

DETAIL "B"

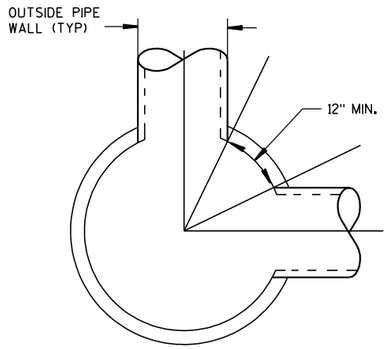


CONTRACTOR TO PROVIDE DRAWING(S) STAMPED BY A PROFESSIONAL ENGINEER FOR STEEL REINFORCING DESIGN FOR CAST-IN-PLACE STRUCTURES

SECTION A-A

PRECAST REINFORCED CONCRETE WITH MONOLITHIC BASE

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



DETAIL "C"

GENERAL NOTES

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

CATCH BASIN COVER OPENING MATRIX

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

PIPE MATRIX

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

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

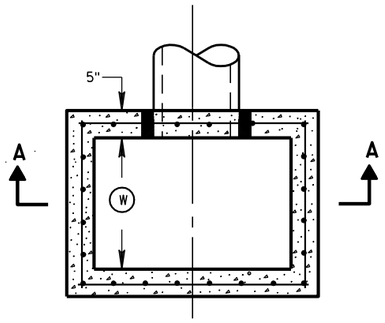
CATCH BASINS 3-FT, 4-FT, 5-FT AND 6-FT DIAMETER

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

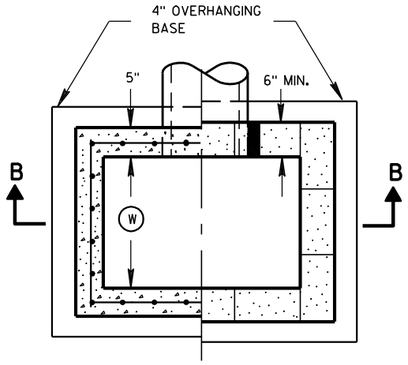
APPROVED
6/5/2012 — DATE
/S/ Jerry H. Zogg — ROADWAY STANDARDS ENGINEER
FHWA

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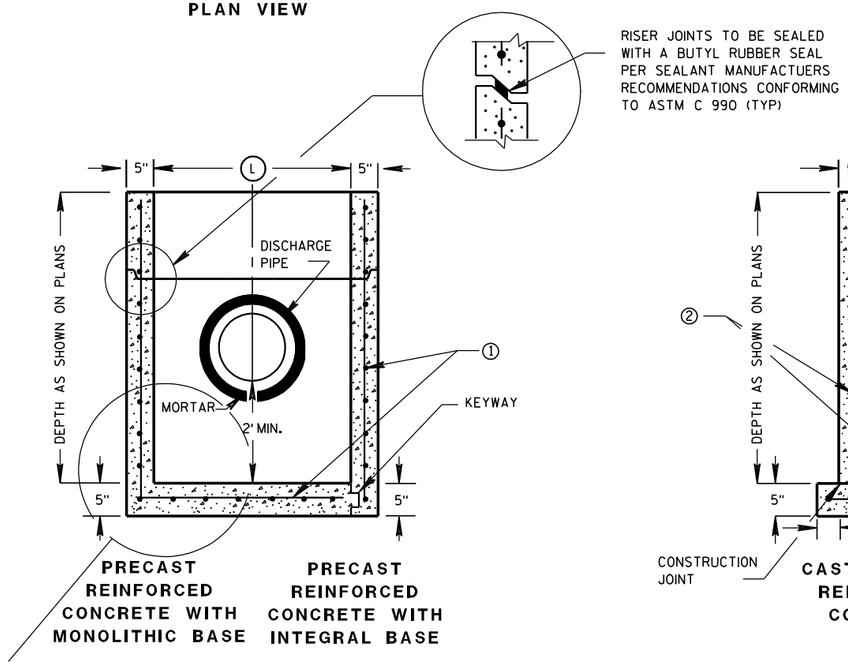
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PLAN VIEW



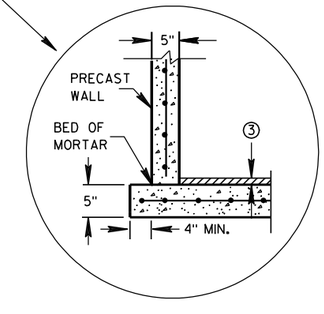
PLAN VIEW



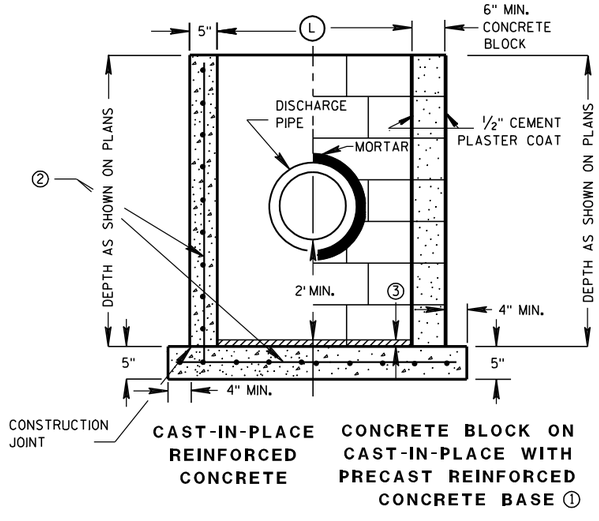
PRECAST REINFORCED CONCRETE WITH MONOLITHIC BASE

PRECAST REINFORCED CONCRETE WITH INTEGRAL BASE

SECTION A-A



SEPERATE PRECAST REINFORCED CONCRETE BASE OPTION



CAST-IN-PLACE REINFORCED CONCRETE

CONCRETE BLOCK ON CAST-IN-PLACE WITH PRECAST REINFORCED CONCRETE BASE ①

SECTION B-B

GENERAL NOTES

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

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

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

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

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

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

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

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

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

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

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

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

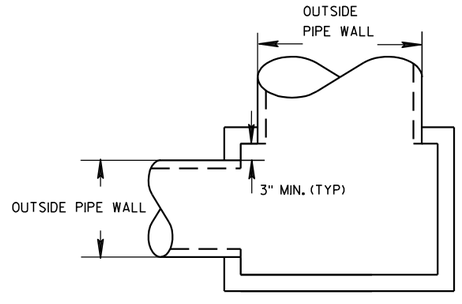
③ 1" CONCRETE KEY POURED AFTER INSTALLATION. 2' SUMP MEASURED FROM TOP OF KEY.

CATCH BASIN COVER MATRIX

CATCH BASIN SIZE		INLET COVER TYPE	F	ALL H'S
	WIDTH (W) (FT)	LENGTH (L) (FT)		
2X3-FT	2	3		X
2.5X3-FT	2.5	3	X	

PIPE MATRIX

CATCH BASIN SIZE	MAXIMUM INSIDE PIPE DIAMETER FOR TWO PIPES	
	WIDTH (IN)	LENGTH (IN)
2X3-FT	12	24
2.5X3-FT	18	24



DETAIL "A"

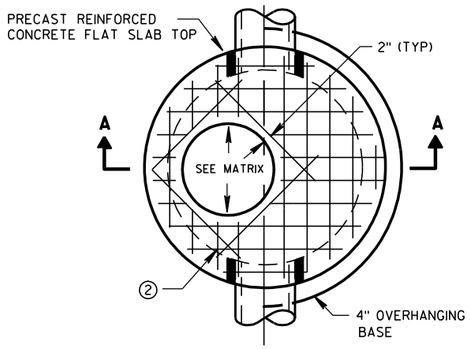
CATCH BASINS 2X3-FT AND 2.5X3-FT

CATCH BASINS 2X3-FT AND 2.5X3-FT

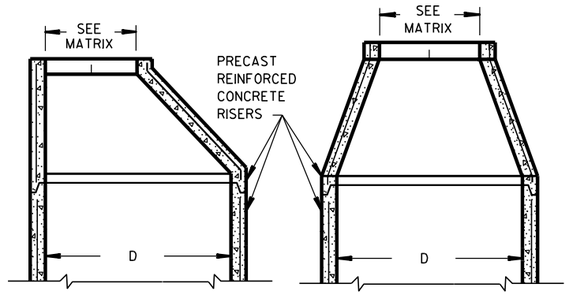
STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

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

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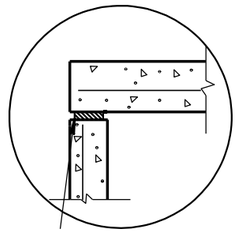


PLAN VIEW CIRCULAR OPENING



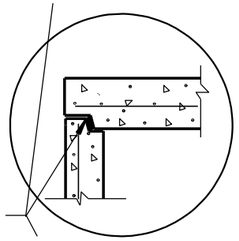
OPTIONAL PRECAST REINFORCED CONCRETE ECCENTRIC TOP

OPTIONAL PRECAST REINFORCED CONCRETE CONCENTRIC TOP

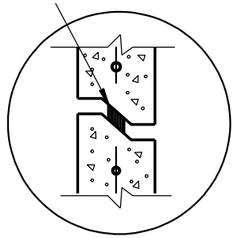


TOP WITH PLAIN END JOINT

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

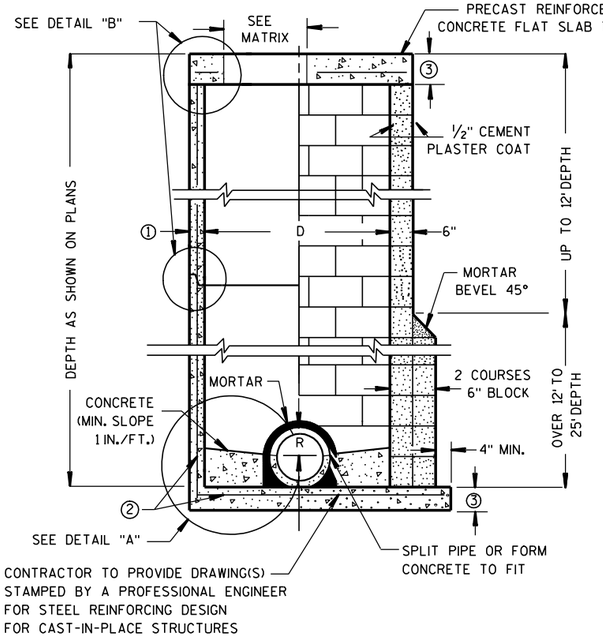


TOP WITH TONGUE AND GROOVE JOINT



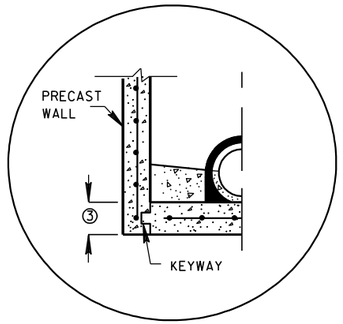
RISER WITH TONGUE AND GROOVE JOINT

DETAIL "B"

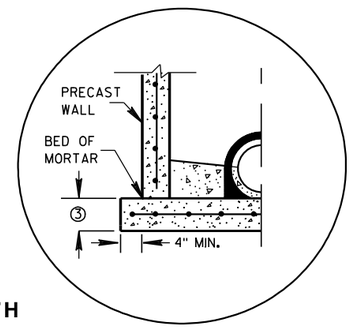


PRECAST REINFORCED CONCRETE WITH MONOLITHIC BASE

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

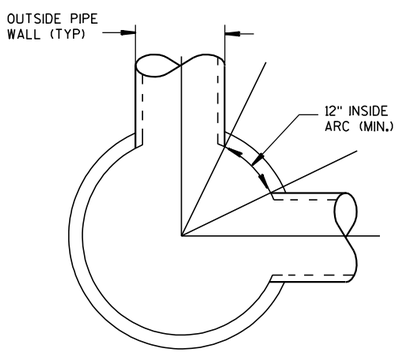


PRECAST REINFORCED CONCRETE WITH INTEGRAL BASE OPTION



SEPERATE PRECAST REINFORCED CONCRETE BASE OPTION

DETAIL "A"



DETAIL "C"

GENERAL NOTES

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

MANHOLE COVER OPENING MATRIX

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

PIPE MATRIX

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

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

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

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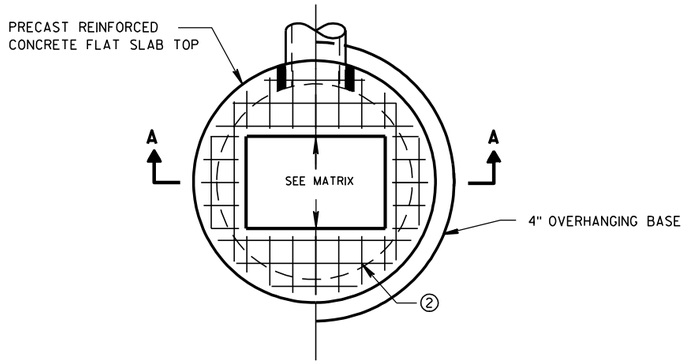
6/5/2012
DATE

/S/ Jerry H. Zogg
ROADWAY STANDARDS DEVELOPMENT ENGINEER

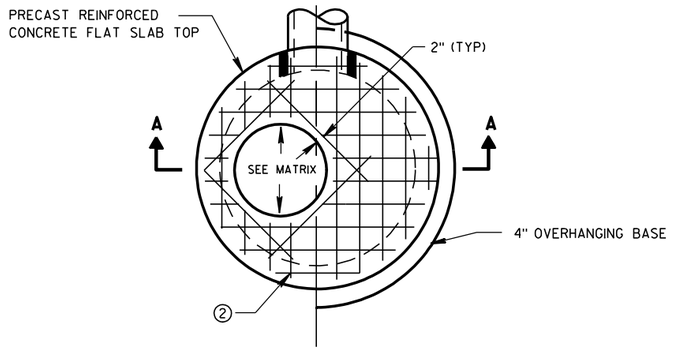
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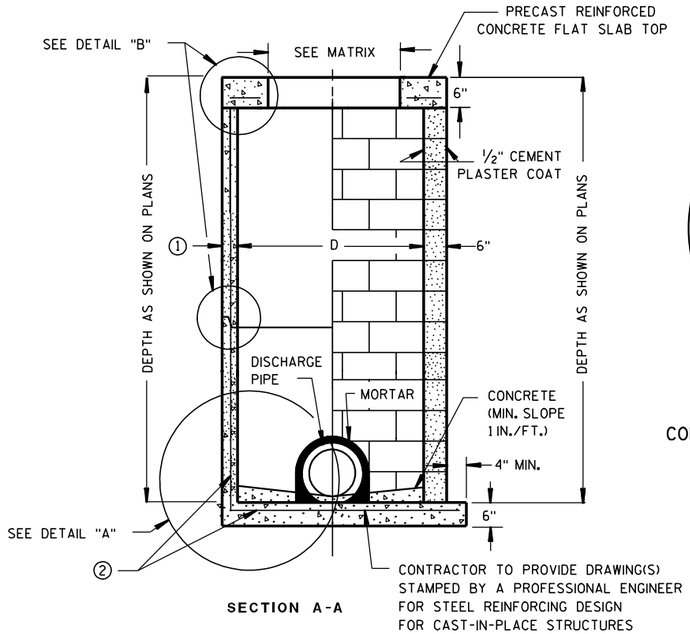
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PLAN VIEW RECTANGULAR OPENING



PLAN VIEW CIRCULAR OPENING

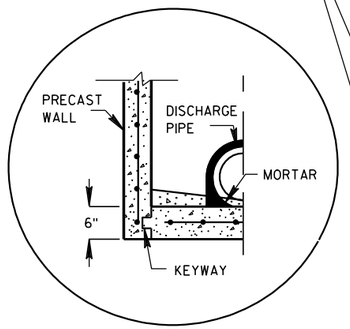


SECTION A-A

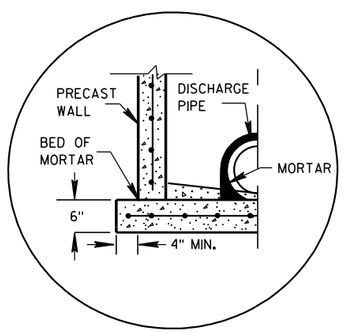
PRECAST REINFORCED CONCRETE WITH MONOLITHIC BASE

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

CIRCULAR INLETS W/ FLAT TOP

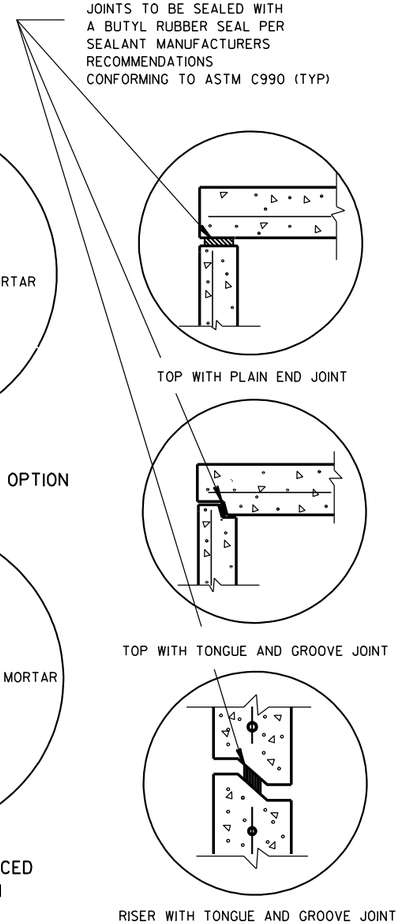


PRECAST REINFORCED
CONCRETE WITH INTEGRAL BASE OPTION



SEPERATE PRECAST REINFORCED
CONCRETE BASE OPTION

DETAIL "A"



DETAIL "B"

GENERAL NOTES

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

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

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

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

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

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

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

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

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

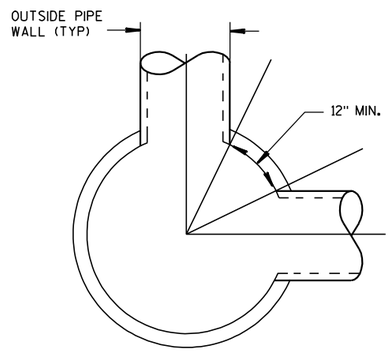
FOR ADDITIONAL CONFIGURATIONS, MAINTAIN A MINIMUM OF 12 INCHES AS MEASURED FROM THE INSIDE OF THE STRUCTURE WALL BETWEEN THE OUTSIDE PIPE WALLS OF ADJACENT PIPES. SEE DETAIL "C".

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

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

INLET COVER OPENING MATRIX

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



DETAIL "C"

PIPE MATRIX

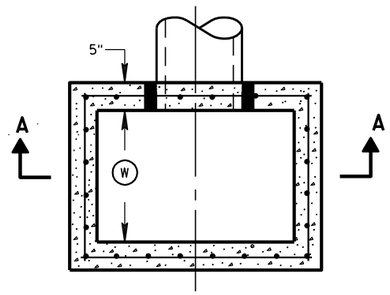
INLET SIZE	MAXIMUM INSIDE PIPE DIAMETER FOR TWO PIPES	
	180° SEPARATION (IN)	90° SEPARATION (IN)
3-FT	15	12
4-FT	24	18

INLETS 3-FT AND 4-FT DIAMETER

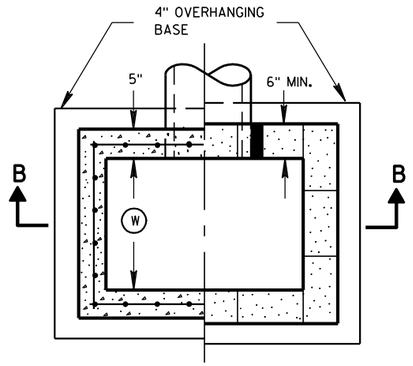
STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

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

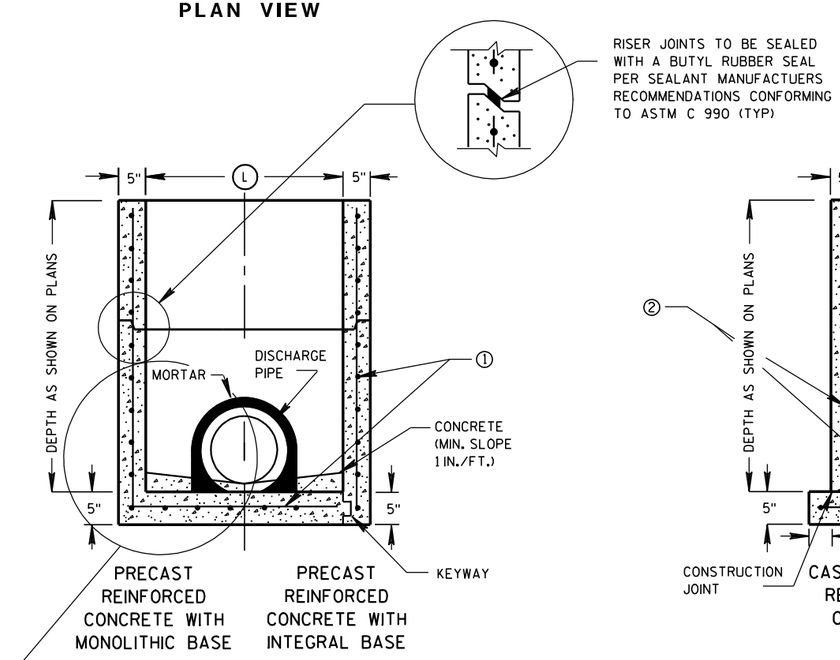
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S.D.D. 8 C 6-1



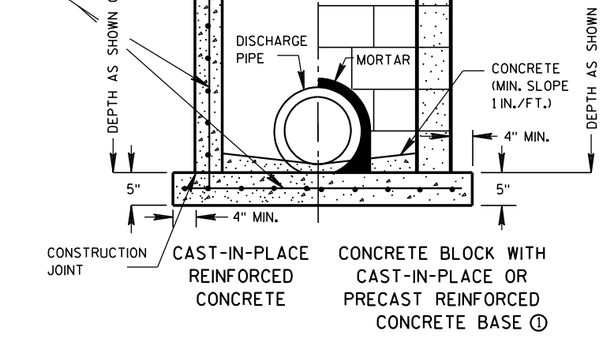
PLAN VIEW



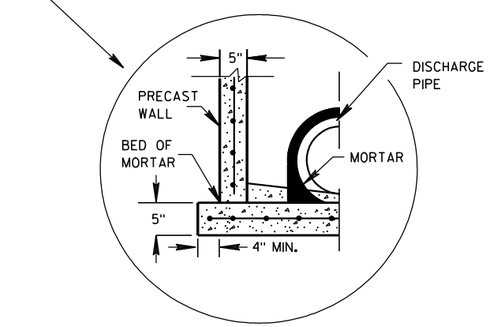
PLAN VIEW



SECTION A-A



SECTION B-B



SEPERATE PRECAST REINFORCED CONCRETE BASE OPTION

GENERAL NOTES

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

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

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

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

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

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

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

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

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

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

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

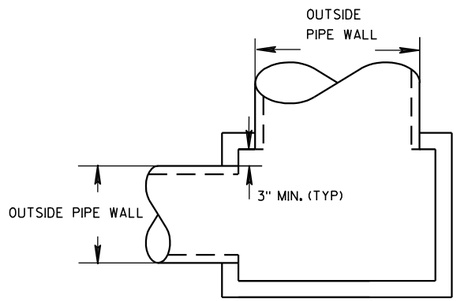
② CONTRACTOR TO PROVIDE DRAWING(S) STAMPED BY A PROFESSIONAL ENGINEER FOR STEEL REINFORCING DESIGN FOR CAST-IN-PLACE STRUCTURES.

INLET COVER MATRIX

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

PIPE MATRIX

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



DETAIL "A"

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

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

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

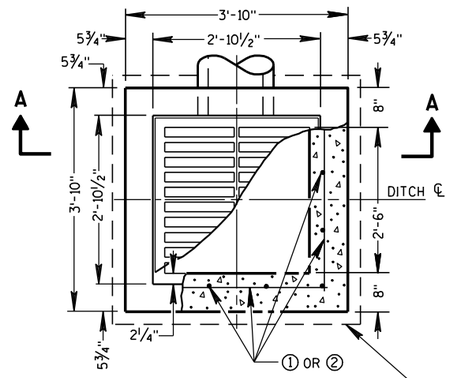
APPROVED
6/5/2012 — DATE
/S/ Jerry H. Zoda — ROADWAY STANDARDS D 270 ENGINEER
FHWA

6

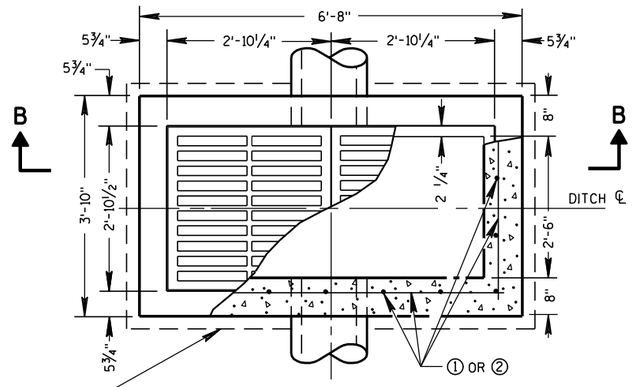
S.D.D. 8 C 7-1

6

S.D.D. 8 C 7-1

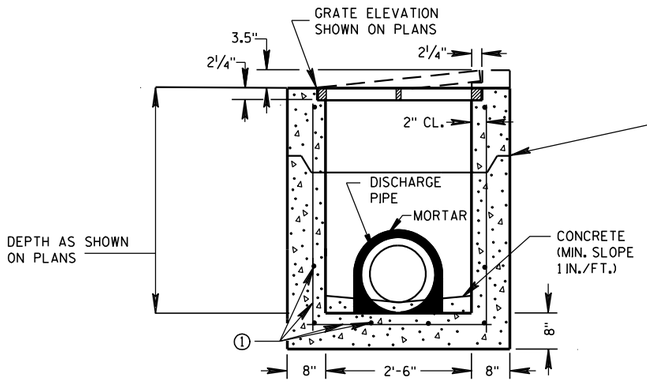


PLAN VIEW

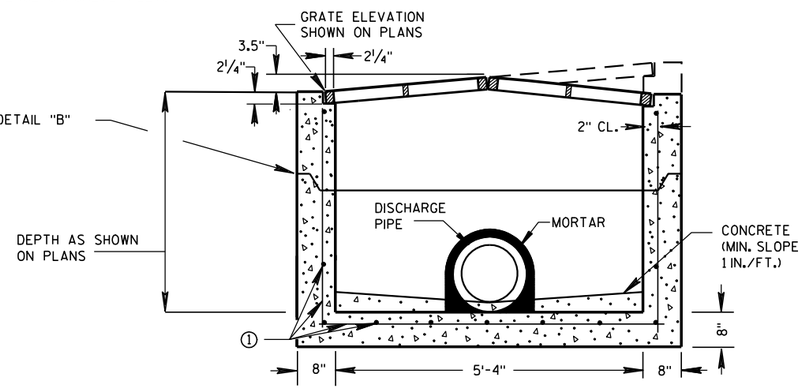


PLAN VIEW

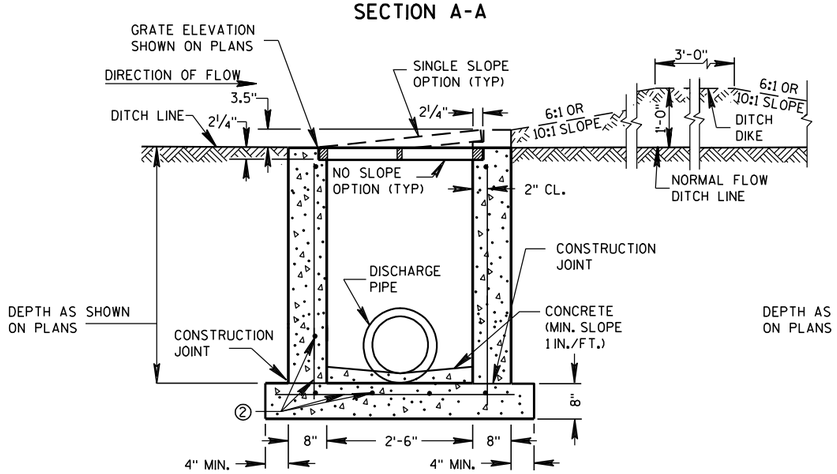
4" OVERHANGING BASE ON REINFORCED CAST-IN-PLACE CONCRETE INLETS



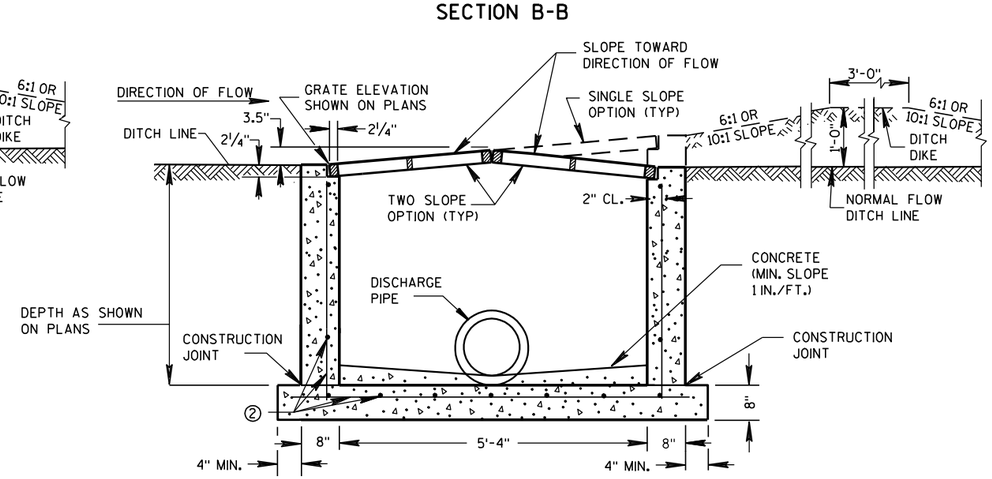
PRECAST REINFORCED CONCRETE SECTION A-A



PRECAST REINFORCED CONCRETE SECTION B-B



REINFORCED CAST-IN-PLACE CONCRETE SECTION A-A



REINFORCED CAST-IN-PLACE CONCRETE SECTION B-B

INLETS MEDIAN 1 GRATE

INLETS MEDIAN 2 GRATE

GENERAL NOTES

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

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

DETAILED DRAWINGS FOR PROPOSED ALTERNATE DESIGNS FOR INLETS WHICH MAY INCLUDE PRECAST REINFORCED CONCRETE INLETS, SHALL BE SUBMITTED TO THE ENGINEER FOR APPROVAL PROVIDING THAT SUCH ALTERNATE DESIGNS MAKE PROVISION FOR EQUIVALENT CAPACITY AND STRENGTH.

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

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

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

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

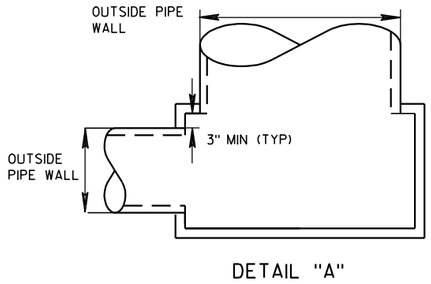
MAXIMUM INSIDE PIPE DIAMETER DETERMINED BY 3" CLEARANCE ON EACH SIDE OF THE OUTSIDE WALL OF THE PIPE. SEE DETAIL "A". ASSUMES PIPE ENTERS PERPENDICULAR TO THE STRUCTURE.

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

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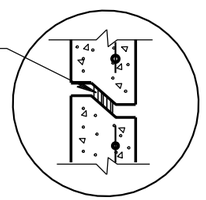
PIPE MATRIX

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



DETAIL "A"

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



DETAIL "B"

INLETS MEDIAN 1 AND 2 GRATE

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED

6/5/2012
DATE

/S/ Jerry H. Zogg
ROADWAY STANDARDS DEVELOPMENT ENGINEER

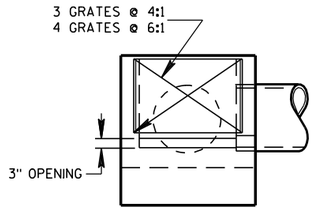
FHWA

6

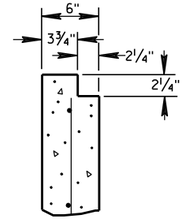
S.D.D. 8 C 8-1

6

S.D.D. 8 C 8-1



SECTION B-B



SECTION C-C

GENERAL NOTES

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

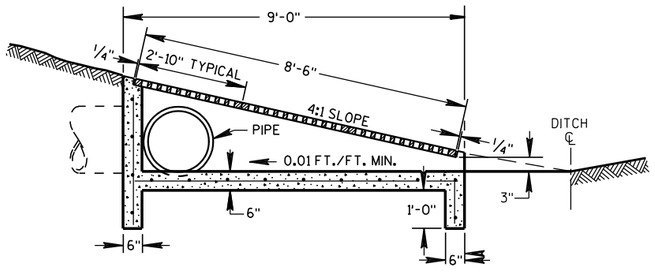
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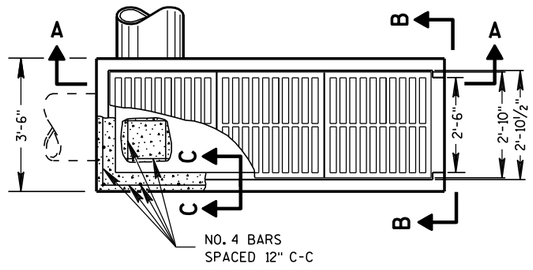
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ALL PRECAST INLET UNITS SHALL CONFORM TO THE PERTINENT REQUIREMENTS OF ASTM C 913.

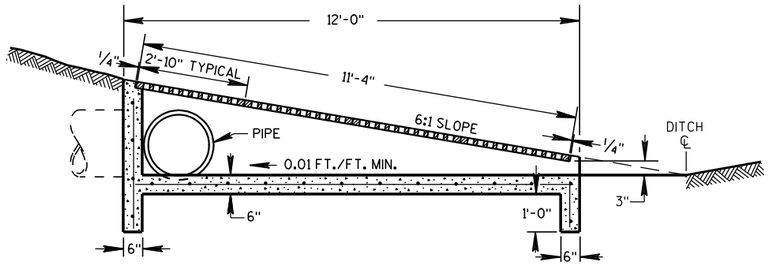


SECTION A-A

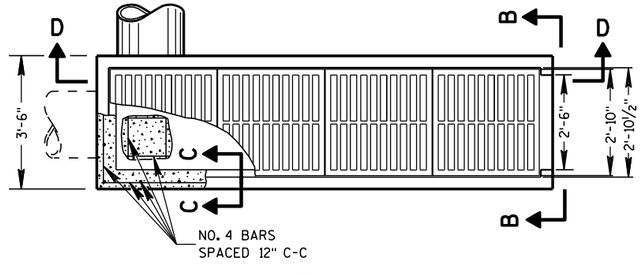


PLAN VIEW

INLETS MEDIAN 3 GRATE



SECTION D-D



PLAN VIEW

INLETS MEDIAN 4 GRATE

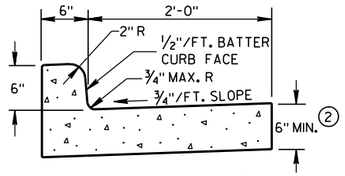
INLETS MEDIAN 3 AND 4 GRATE	
STATE OF WISCONSIN DEPARTMENT OF TRANSPORTATION	
APPROVED 6/5/2012 DATE FHWA	/S/ Jerry H. Zogg ROADWAY STANDARDS DEV ENGINEER

6

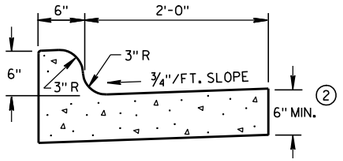
S.D.D. 8 C 9-1

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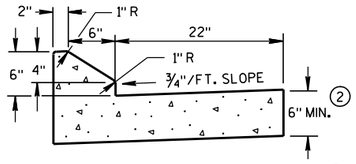
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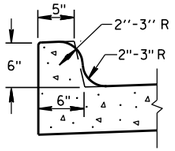
TYPES A & D (1)



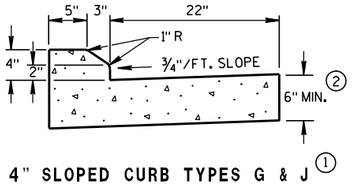
TYPES K & L (1)



6" SLOPED CURB TYPES G & J (1)

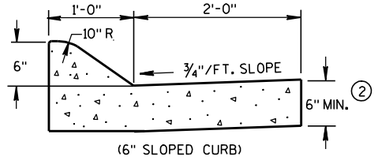


OPTIONAL CURB SHAPE FOR TYPES K & L (1)

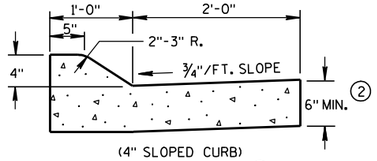


4" SLOPED CURB TYPES G & J (1)

CONCRETE CURB & GUTTER 30"

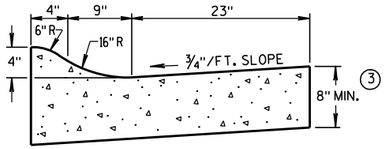


(6" SLOPED CURB)



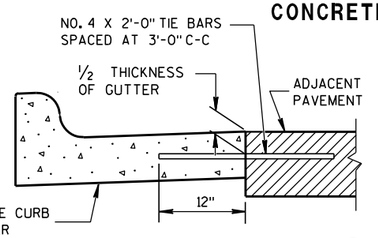
(4" SLOPED CURB)

TYPES A & D (1)

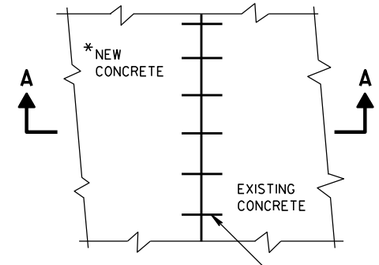


4" SLOPED CURB TYPES R & T (1) (4)

CONCRETE CURB & GUTTER 36"

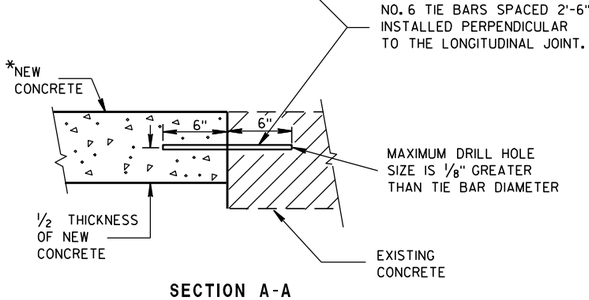


TYPICAL TIE BAR LOCATION (1)



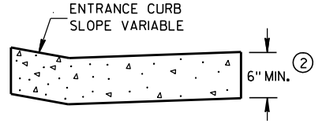
*NEW CURB & GUTTER, SURFACE DRAINS, CONCRETE PAVEMENT OR OTHER NEW CONCRETE.

PLAN VIEW



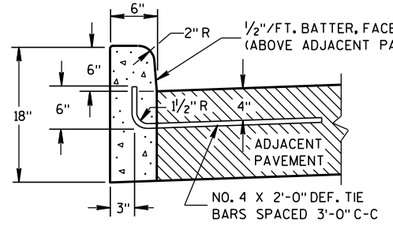
SECTION A-A

TIE BARS DRILLED INTO EXISTING PAVEMENT



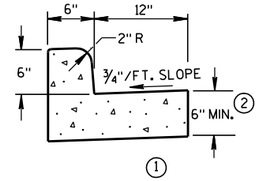
DRIVEWAY ENTRANCE CURB

(WHEN DIRECTED BY THE ENGINEER)



(1)

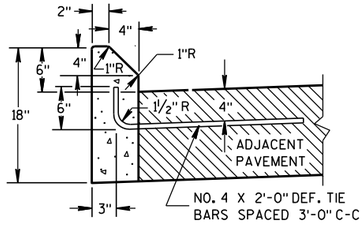
TYPES A & D



(1)

TYPES A & D

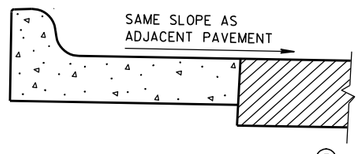
CONCRETE CURB & GUTTER 18"



(1)

TYPES G & J

CONCRETE CURB



(5)

REVERSE SLOPE GUTTER

(TYPICAL FOR ALL CURB & GUTTER TYPES)

GENERAL NOTES

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

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

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

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

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

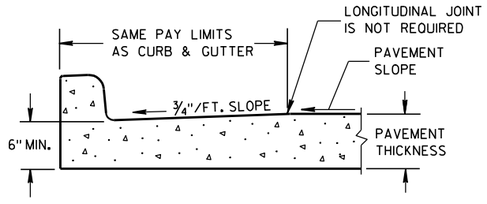
(1) TIE BARS ARE REQUIRED FOR CURB AND GUTTER TYPES A, G, K AND R.

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

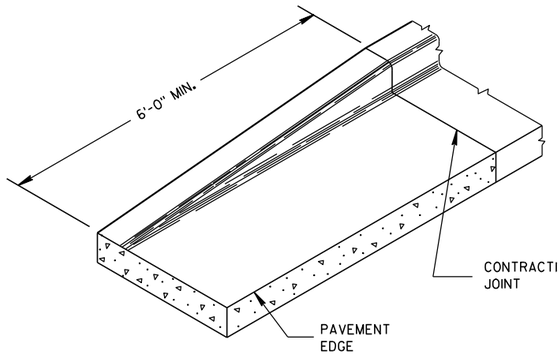
(3) THE BOTTOM OF CURB AND GUTTER MAY BE CONSTRUCTED EITHER LEVEL OR PARALLEL TO THE SLOPE OF THE SUBGRADE OR BASE AGGREGATE PROVIDED A 8" MINIMUM GUTTER THICKNESS IS MAINTAINED.

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

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



PARTIAL SECTION OF PAVEMENT WITH INTEGRAL CURB & GUTTER



END SECTION CURB & GUTTER

CONCRETE CURB, CONCRETE CURB & GUTTER AND TIES

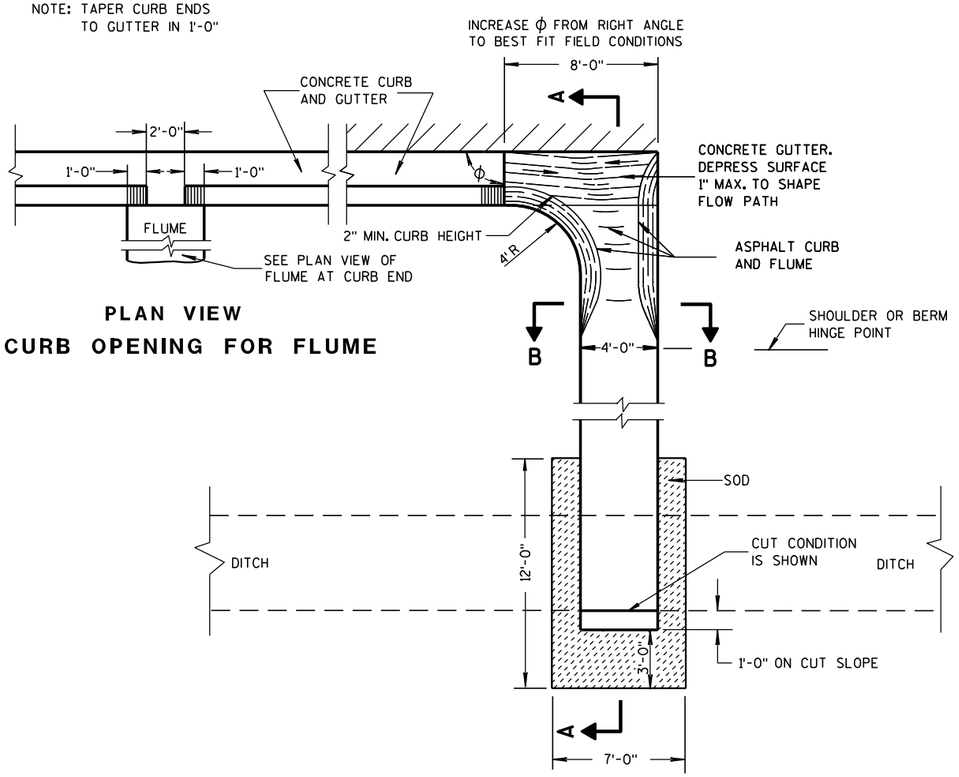
STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

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

6

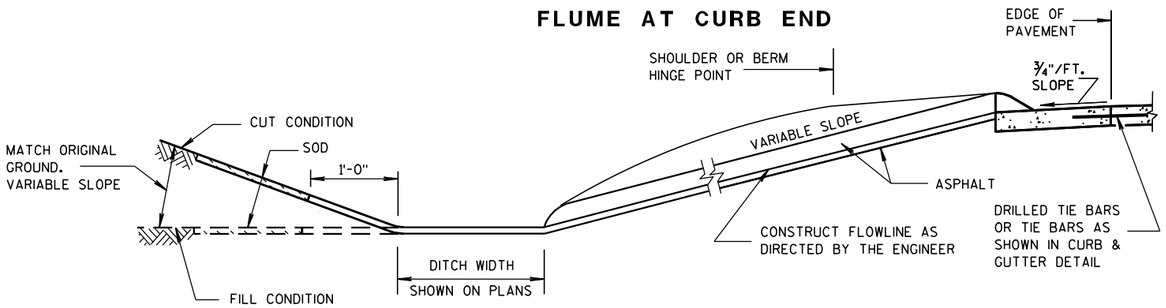
S.D.D. 8 D 1-17

ASPHALTIC FLUME

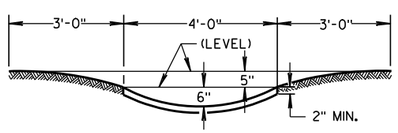


PLAN VIEW
CURB OPENING FOR FLUME

PLAN VIEW
FLUME AT CURB END



SECTION A-A



SECTION B-B

GENERAL NOTES

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

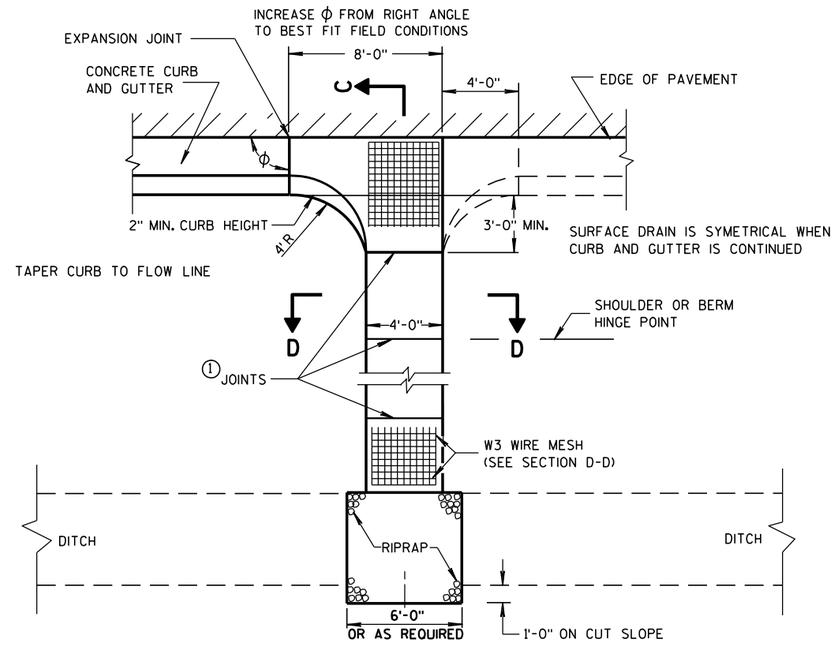
WELDED STEEL WIRE FABRIC SHALL BE IN ACCORDANCE WITH AASHTO SPECIFICATION M55.

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

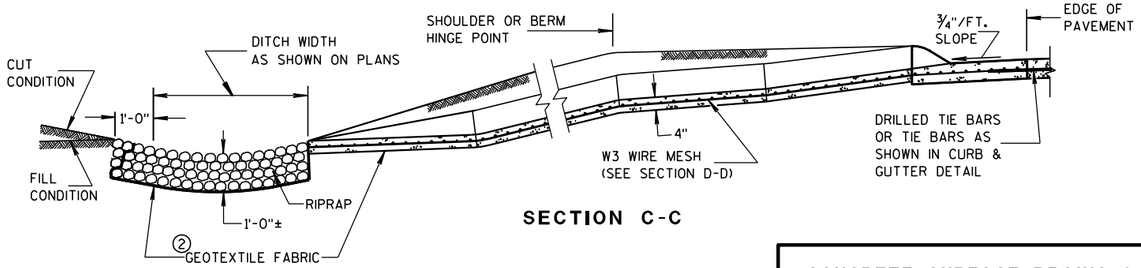
② GEOTEXTILE FABRIC TYPE "R" SHALL UNDERLAY THE FULL LENGTH AND WIDTH OF THE CONCRETE SURFACE DRAIN AND RIPRAP.

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

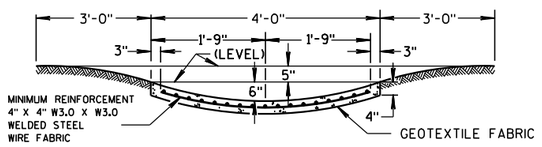
③ CONCRETE SURFACE DRAIN



PLAN VIEW



SECTION C-C



SECTION D-D

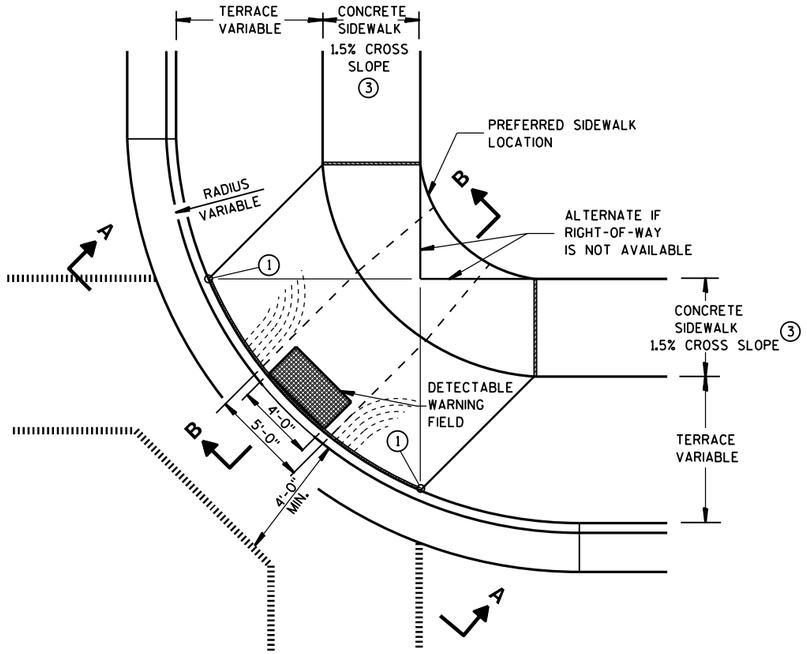
CONCRETE SURFACE DRAINS & ASPHALTIC FLUMES

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
9-4-08 DATE
/S/ Jerry H. Zogg
ROADWAY STANDARDS ENGINEER
274
MENT

FHWA

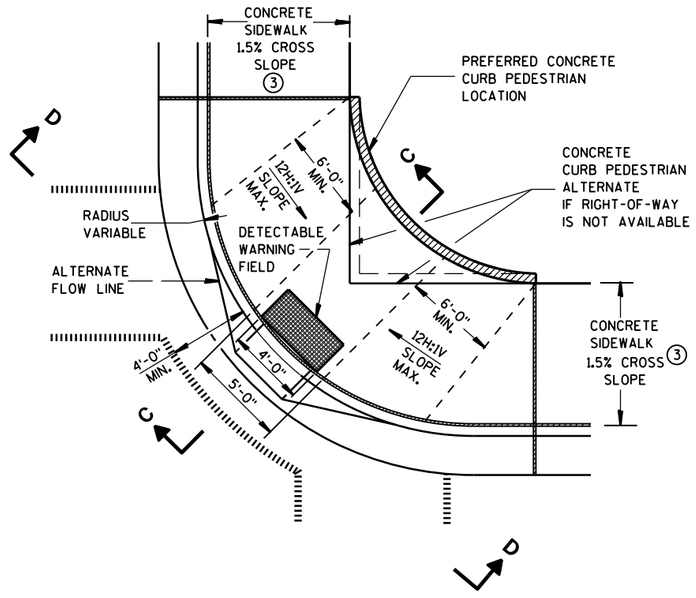
6
S.D.D. 8 D 4-5



PLAN VIEW

TYPE 1 RAMP

(CENTER OF CORNER RADIUS)



PLAN VIEW

TYPE 1-A RAMP

(NO TERRACE)

GENERAL NOTES

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

RAMPS SHALL BE BUILT AT 12H:1V OR FLATTER. WHEN NECESSARY, THE SIDEWALK ELEVATION MAY BE LOWERED TO MEET THE HIGH POINT ON THE RAMP.

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

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

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

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.

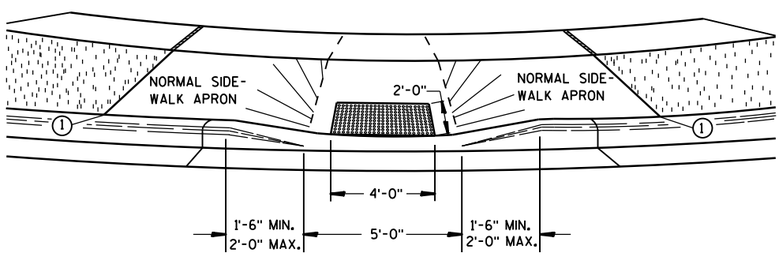
① THIS POINT IS AN EXTENSION OF OUTSIDE EDGE OF APPROACHING SIDEWALK WHERE IT MEETS THE BACK OF CONCRETE CURB.

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

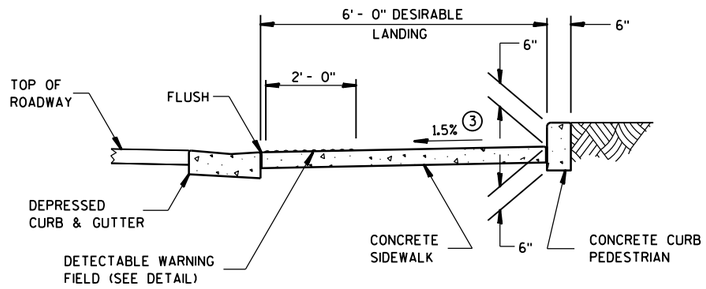
③ ±0.5% CONSTRUCTION TOLERANCE IN SIDEWALK CROSS SLOPE. THE SIDEWALK CROSS SLOPE SHALL NOT EXCEED 2% WITHOUT PRIOR APPROVAL FROM THE ENGINEER.

LEGEND

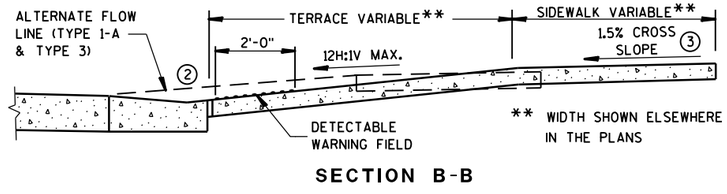
- ½" EXPANSION JOINT-SIDEWALK
- CONTRACTION JOINT FIELD LOCATED
- PAVEMENT MARKING CROSSWALK (WHITE)
- ALTERNATIVE LAYOUT



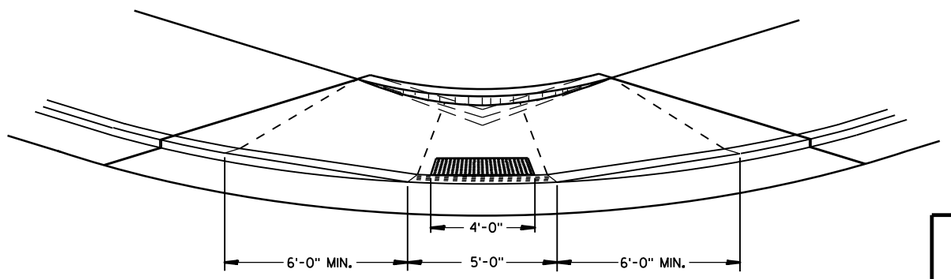
VIEW A-A



SECTION C-C



SECTION B-B



VIEW D-D

CURB RAMPS TYPES 1 AND 1-A

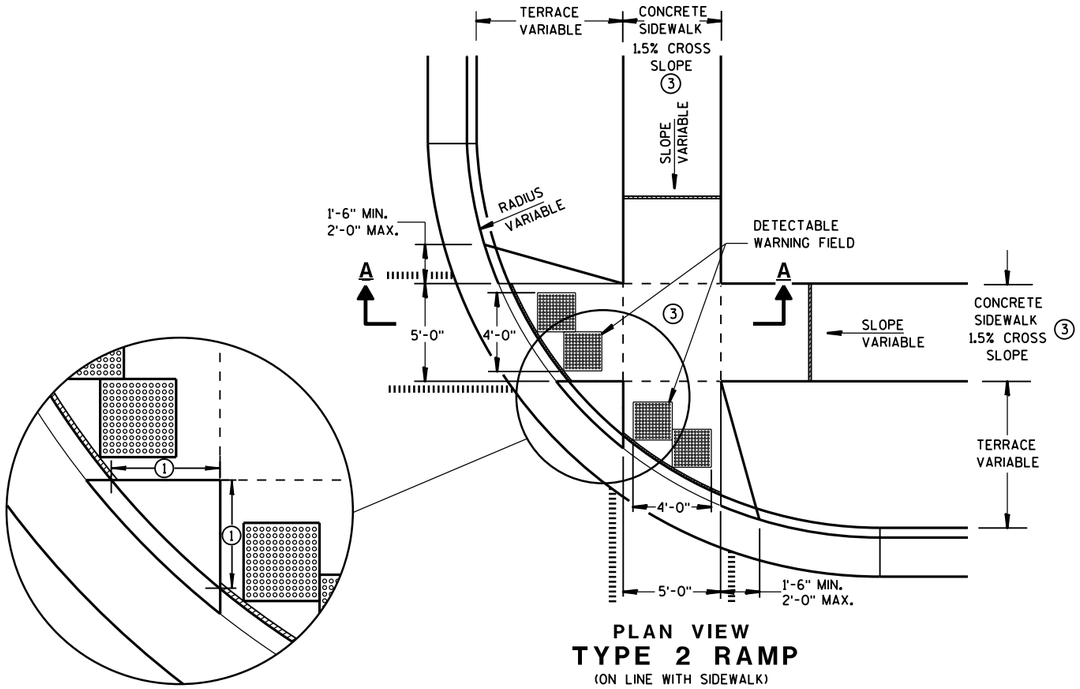
STATE OF WISCONSIN
DEPARTMENT OF TRANSPOR

6

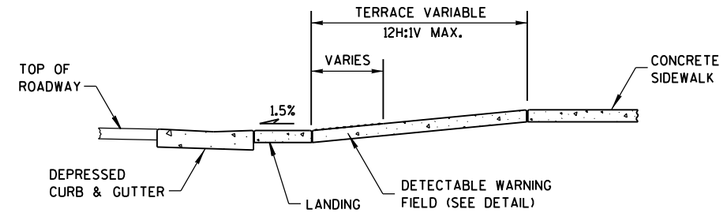
S.D.D. 8 D 5-15a

6

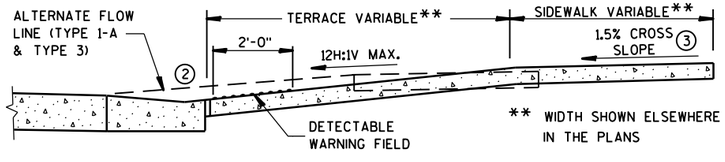
S.D.D. 8 D 5-15a



PLAN VIEW
TYPE 2 RAMP
(ON LINE WITH SIDEWALK)



SECTION A-A



SECTION B-B

GENERAL NOTES

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

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

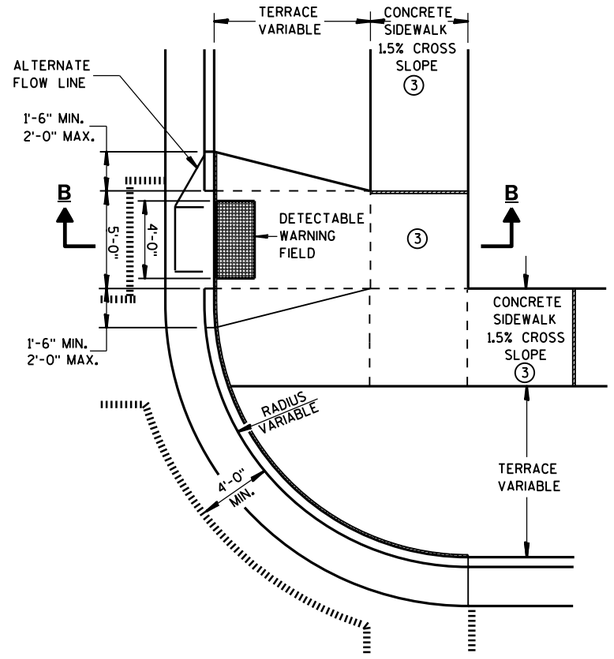
① WHEN THIS DISTANCE IS LESS THAN 6'-0" IT MAY BE DIFFICULT TO ACHIEVE A 12H:1V SLOPE, OR FLATTER, ON THE RAMP. REDUCE CURB HEIGHT IN TRIANGLE AREA TO ACHIEVE 12H:1V SLOPE, OR FLATTER, ON RAMP. 2" MINIMUM CURB HEIGHT.

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

③ ±0.5% CONSTRUCTION TOLERANCE IN SIDEWALK CROSS SLOPE. THE SIDEWALK CROSS SLOPE SHALL NOT EXCEED 2% WITHOUT PRIOR APPROVAL FROM THE ENGINEER.

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

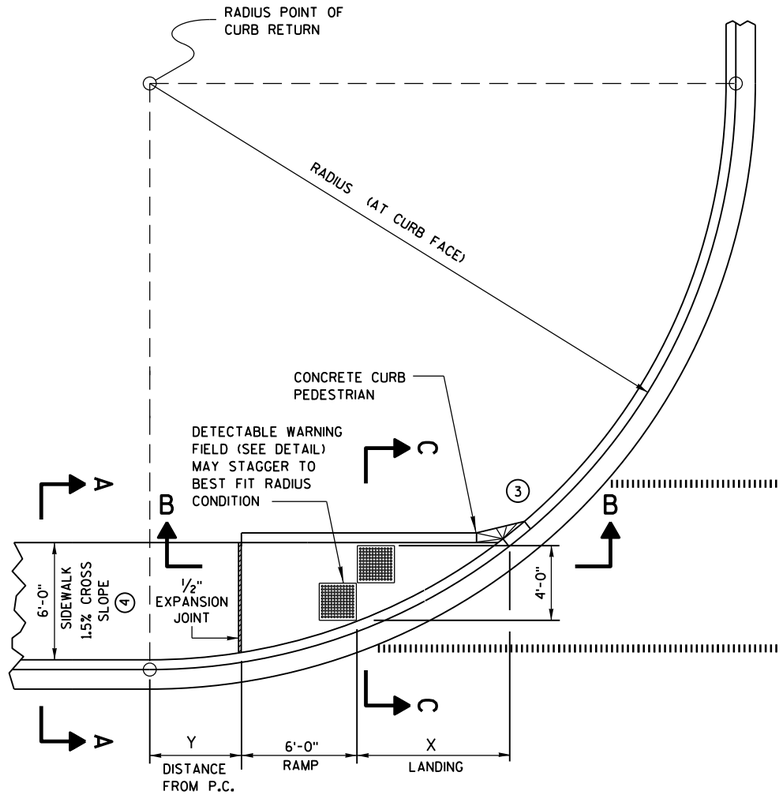
STATE OF WISCONSIN
DEPARTMENT OF TRANSPOR

6

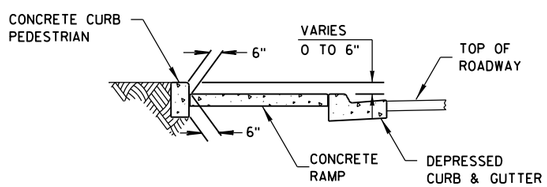
S.D.D. 8 D 5-15b

6

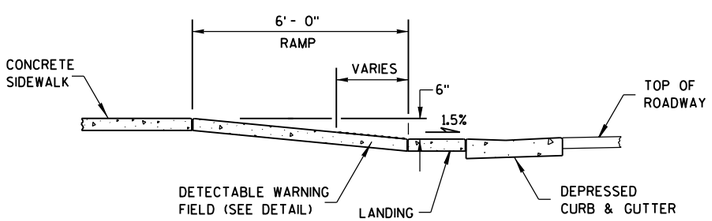
S.D.D. 8 D 5-15b



CURB RAMP TYPE 4A
PLAN VIEW



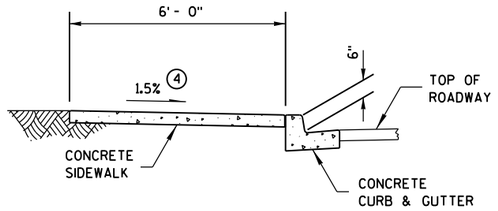
SECTION C-C FOR TYPE 4A



SECTION B-B FOR TYPE 4A

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

GENERAL NOTES

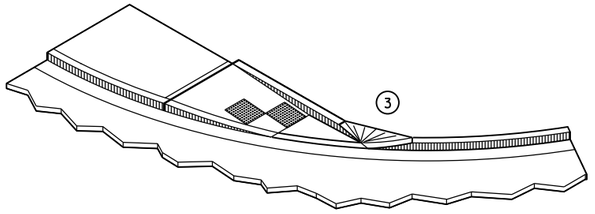
AVOID PLACING DRAINAGE STRUCTURES, JUNCTION BOXES OR OTHER OBSTRUCTIONS IN FRONT OF RAMP ACCESS AREAS.

RAMP SLOPES SHALL NOT BE STEEPER THAN 12:1.

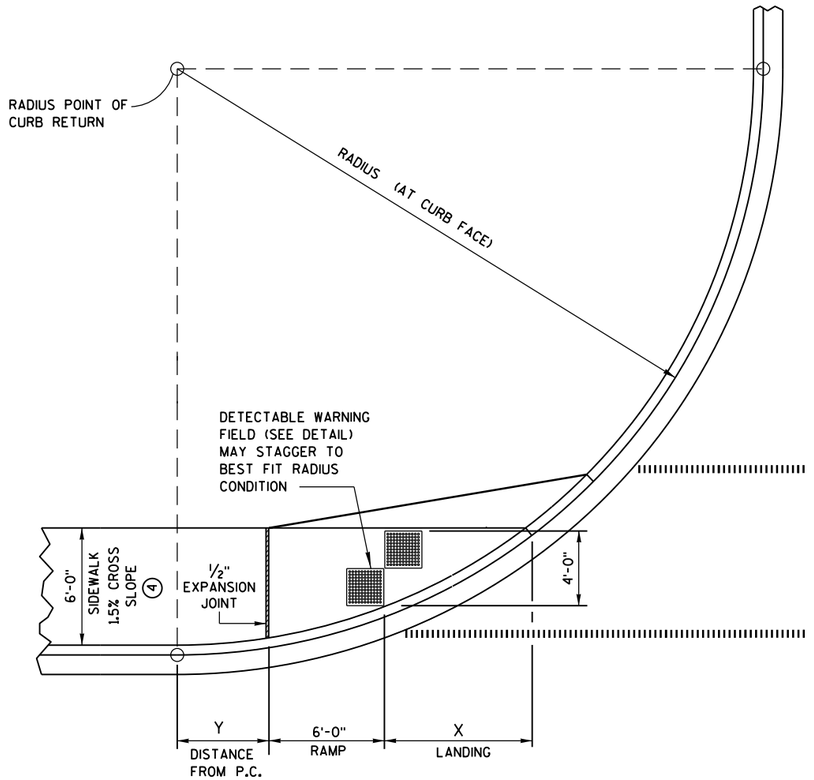
DETECTABLE WARNING FIELDS THAT ARE INSTALLED AS A GROUP OR SIDE BY SIDE, SHALL BE FROM THE SAME MANUFACTURER.

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

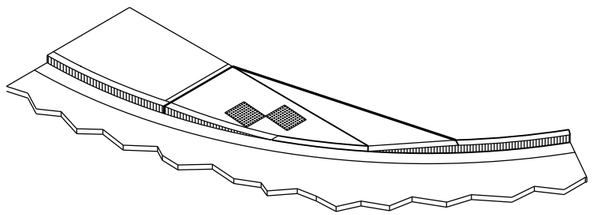
(4) ±0.5% CONSTRUCTION TOLERANCE IN SIDEWALK CROSS SLOPE. THE SIDEWALK CROSS SLOPE SHALL NOT EXCEED 2% WITHOUT PRIOR APPROVAL FROM THE ENGINEER.



ISOMETRIC VIEW FOR TYPE 4A



CURB RAMP TYPE 4A1
PLAN VIEW



ISOMETRIC VIEW FOR TYPE 4A1

LEGEND

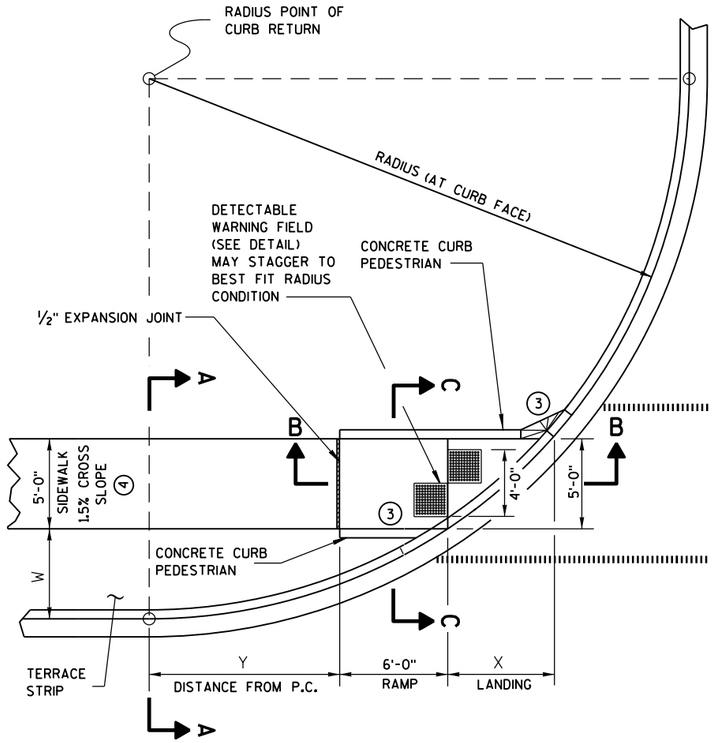
- ½" EXPANSION JOINT-SIDEWALK
- CONTRACTION JOINT FIELD LOCATED
- PAVEMENT MARKING CROSSWALK (WHITE)

CURB RAMPS
TYPES 4A AND 4A1

STATE OF WISCONSIN
DEPARTMENT OF TRANSPOR

6

S.D.D. 8 D 5-15c



CURB RAMP TYPE 4B
PLAN VIEW

LEGEND

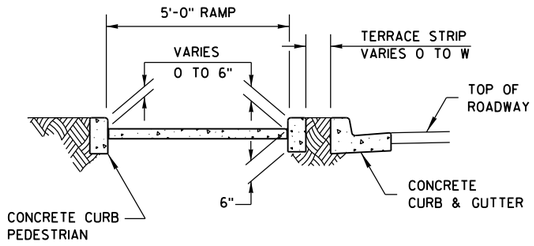
½" EXPANSION JOINT-SIDEWALK

CONTRACTION JOINT FIELD LOCATED

PAVEMENT MARKING CROSSWALK (WHITE)

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



SECTION C-C FOR TYPE 4B

GENERAL NOTES

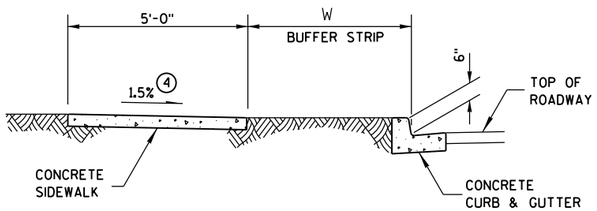
AVOID PLACING DRAINAGE STRUCTURES, JUNCTION BOXES OR OTHER OBSTRUCTIONS IN FRONT OF RAMP ACCESS AREAS.

RAMP SLOPES SHALL NOT BE STEEPER THAN 12:1.

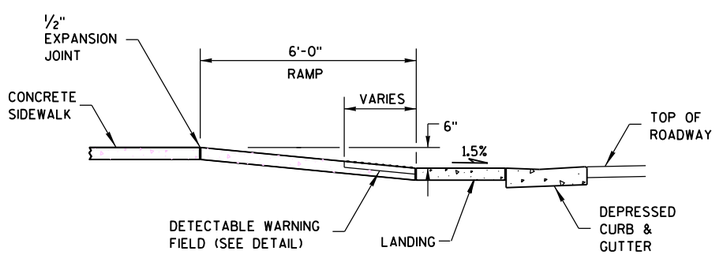
DETECTABLE WARNING FIELDS THAT ARE INSTALLED AS A GROUP OR SIDE BY SIDE, SHALL BE FROM THE SAME MANUFACTURER.

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

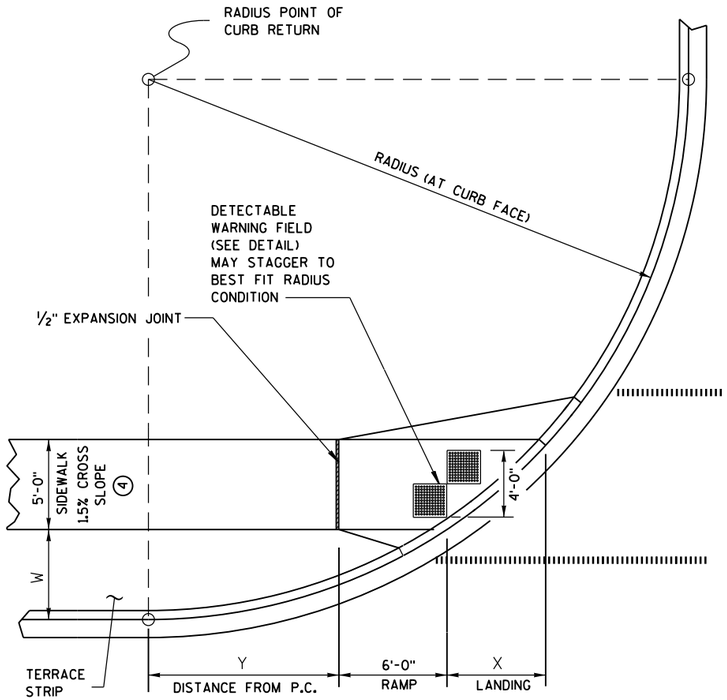
(4) ±0.5% CONSTRUCTION TOLERANCE IN SIDEWALK CROSS SLOPE. THE SIDEWALK CROSS SLOPE SHALL NOT EXCEED 2% WITHOUT PRIOR APPROVAL FROM THE ENGINEER.



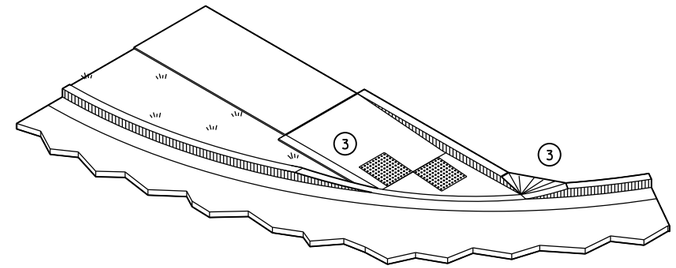
SECTION A-A FOR TYPE 4B



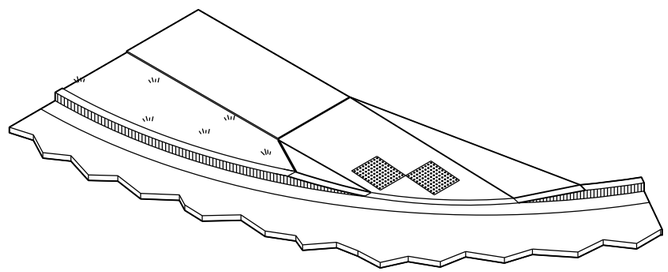
SECTION B-B FOR TYPE 4B



CURB RAMP TYPE 4B1
PLAN VIEW



ISOMETRIC VIEW FOR TYPE 4B



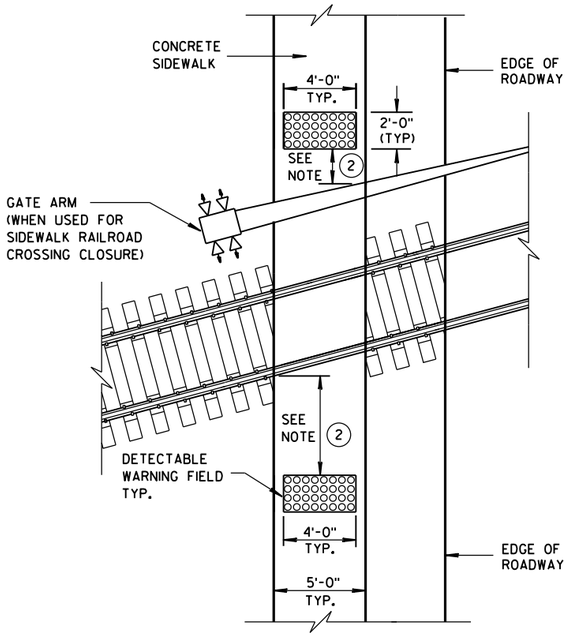
ISOMETRIC VIEW FOR TYPE 4B1

CURB RAMPS
TYPE 4B AND 4B1

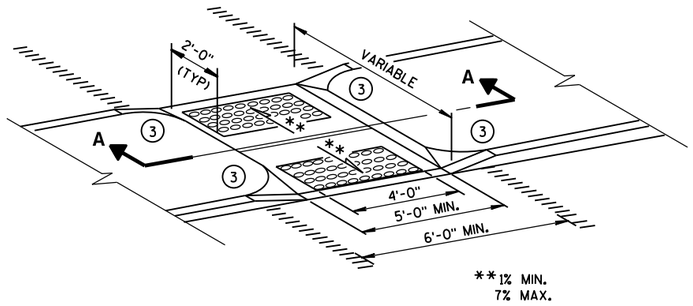
STATE OF WISCONSIN
DEPARTMENT OF TRANSPOR

6

S.D.D. 8 D 5-15d



TYPE 8
DETECTABLE WARNINGS AT RAILROAD CROSSING



MEDIAN ISLAND
NON-ELEVATED CROSSING
TYPE 5

GENERAL NOTES

SIDEWALK CROSS SLOPE SHALL NOT EXCEED 2%.

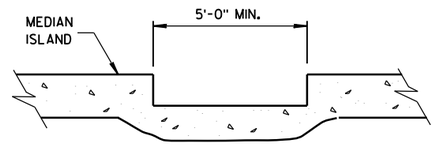
DETECTABLE WARNING FIELDS THAT ARE INSTALLED AS A GROUP OR SIDE BY SIDE, SHALL BE FROM THE SAME MANUFACTURER.

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

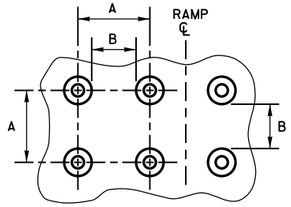
(2) THE EDGE OF THE DETECTABLE WARNING FIELD NEAREST TO A RAILROAD CROSSING SHALL BE 1.5 FEET ± 0.1' FROM THE FACE OF THE GATE ARM IF THE GATE ARM EXTENDS ACROSS THE SIDEWALK. WHERE THERE IS NO PEDESTRIAN GATE, THE EDGE OF THE DETECTABLE WARNING FIELD NEAREST TO THE RAILROAD CROSSING SHALL BE 15 FEET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

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

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



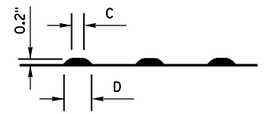
SECTION A-A



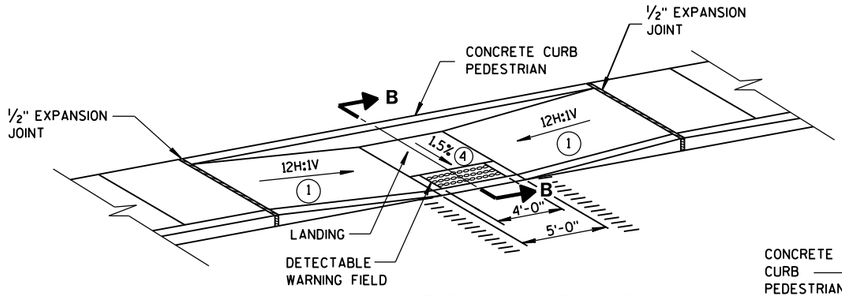
PLAN VIEW

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

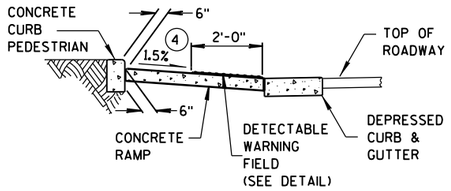
* THE C DIMENSION IS 50% TO 65% OF THE D DIMENSION.



ELEVATION VIEW

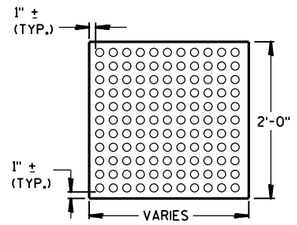


MID-BLOCK CROSSING
TYPE 7A



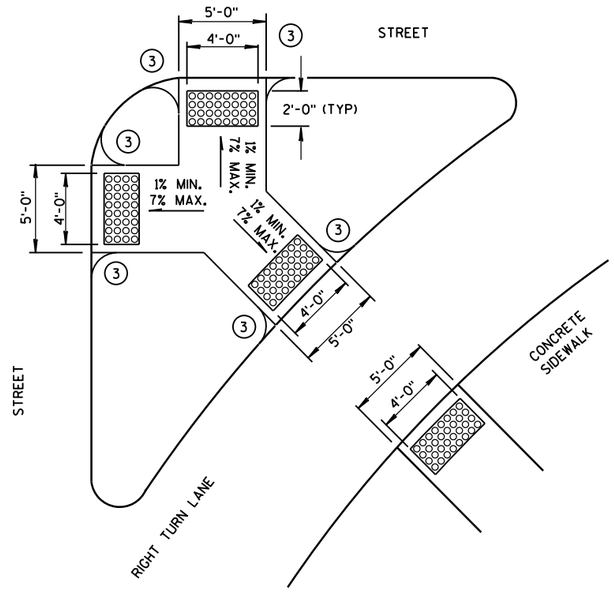
SECTION B-B

TRUNCATED DOMES
DETECTABLE WARNING PATTERN DETAIL

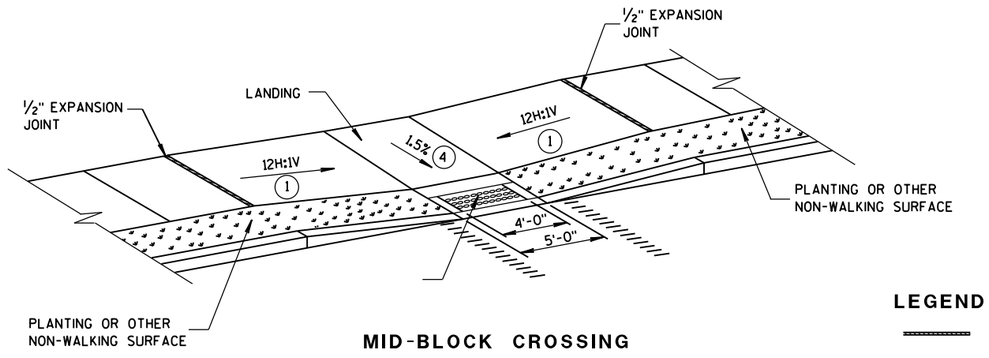


PLAN VIEW

DETECTABLE WARNING FIELD (TYPICAL)



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

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

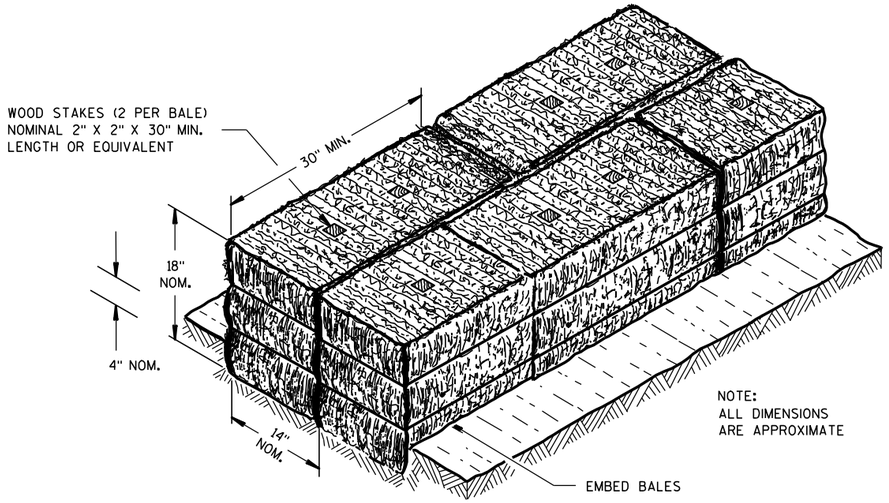
CURB RAMPS
TYPES 5, 6, 7A, 7B & 8

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

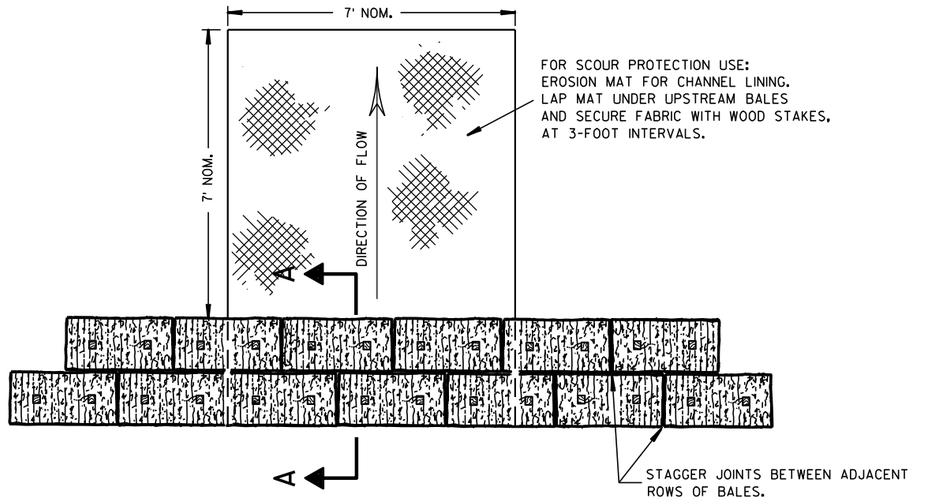
APPROVED
2-6-2013 DATE
/S/ Jerry H. Zogg
ROADWAY STANDARDS DEVELOPMENT ENGINEER
FHWA

6

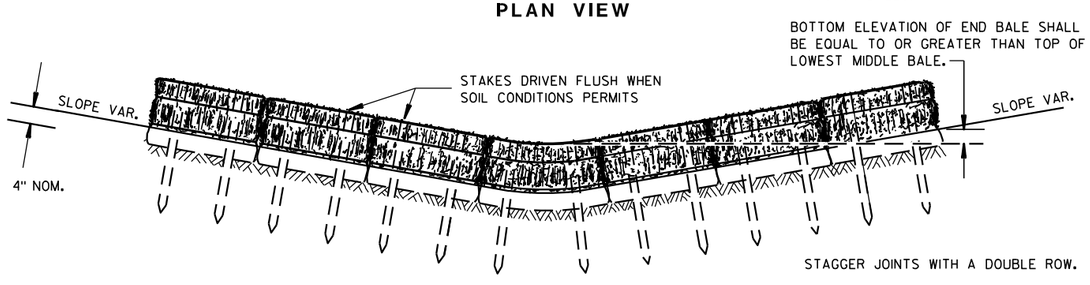
S.D.D. 8 D 5-15e



SECTION A-A



PLAN VIEW



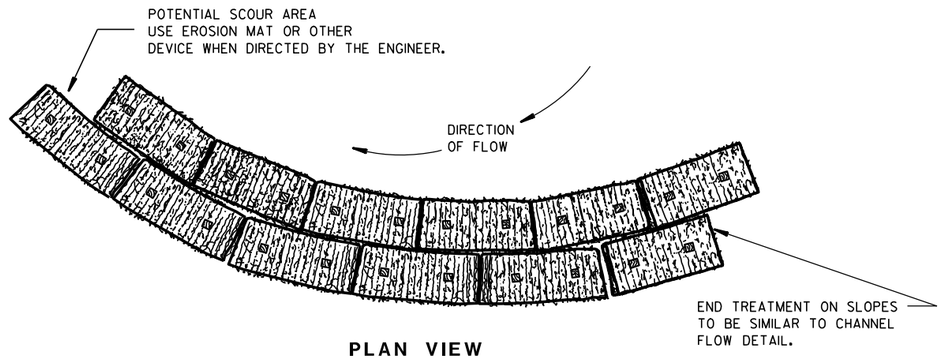
FRONT ELEVATION

TEMPORARY DITCH CHECK USING EROSION BALES (1)

GENERAL NOTES

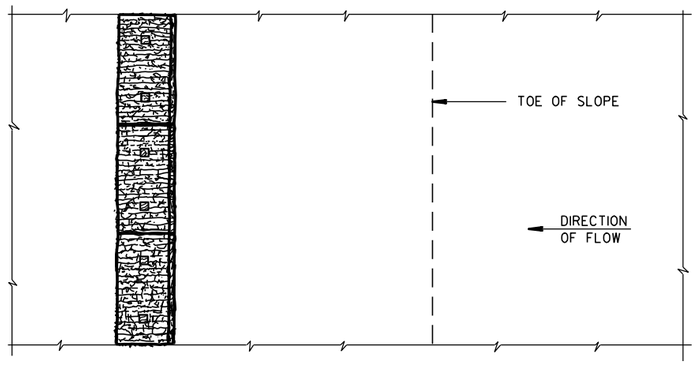
DETAILS OF CONSTRUCTION, MATERIALS AND WORKMANSHIP NOT SHOWN ON THIS DRAWING SHALL CONFORM TO THE PERTINENT REQUIREMENTS OF THE STANDARD SPECIFICATIONS AND THE APPLICABLE SPECIAL PROVISIONS.

(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.

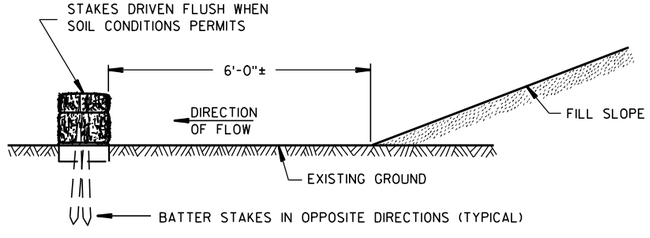


PLAN VIEW

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

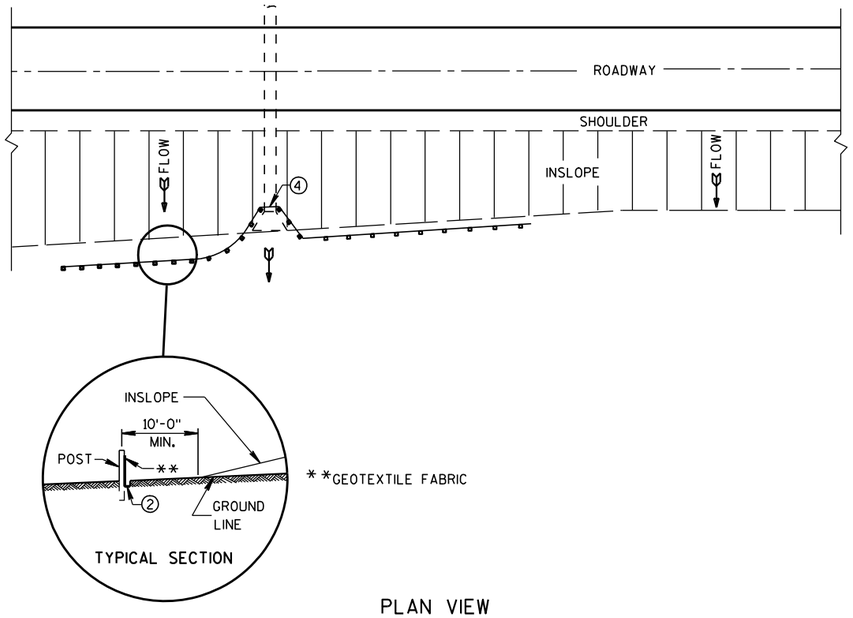
APPROVED

6/04/02 — DATE

/S/ Beth Cannestra — CHIEF ROADWAY DEVELOPMENT ENGINEER

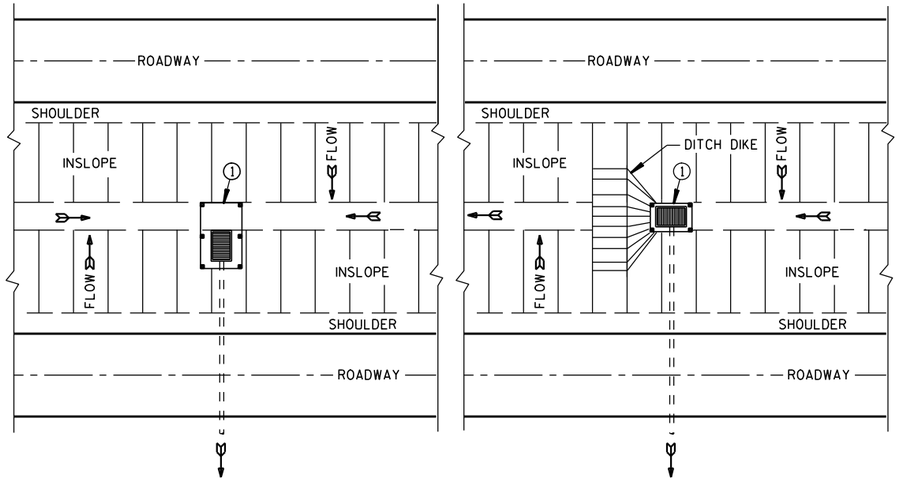
FHWA

6
S.D.D. 8 E 8-3



PLAN VIEW

TYPICAL APPLICATION OF SILT FENCE



PLAN VIEW

SILT FENCE AT MEDIAN SURFACE DRAINS

GENERAL NOTES

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

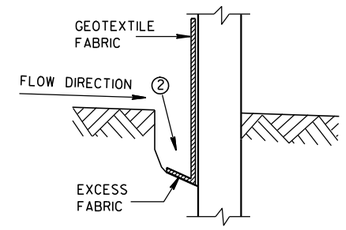
① HORIZONTAL BRACE REQUIRED WITH 2" X 4" WOODEN FRAME OR EQUIVALENT AT TOP OF POSTS.

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

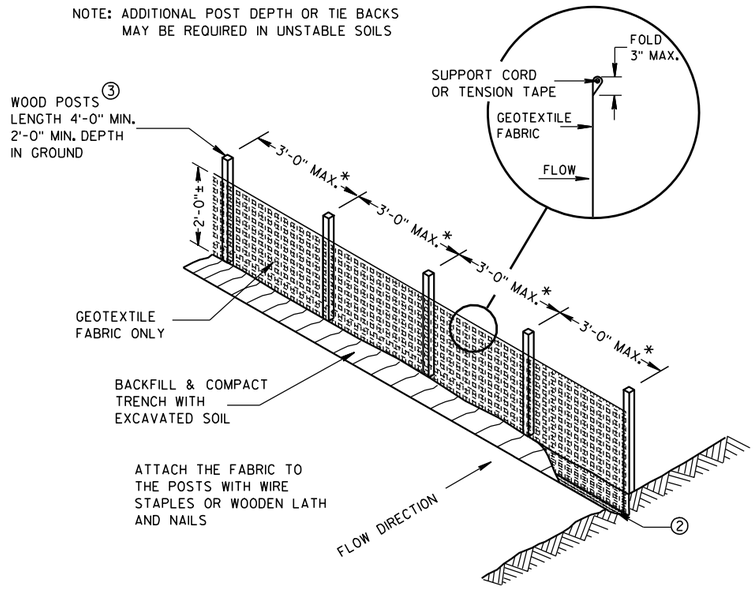
③ WOOD POSTS SHALL BE A MINIMUM SIZE OF 1⅛" X 1⅛" OF OAK OR HICKORY.

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

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

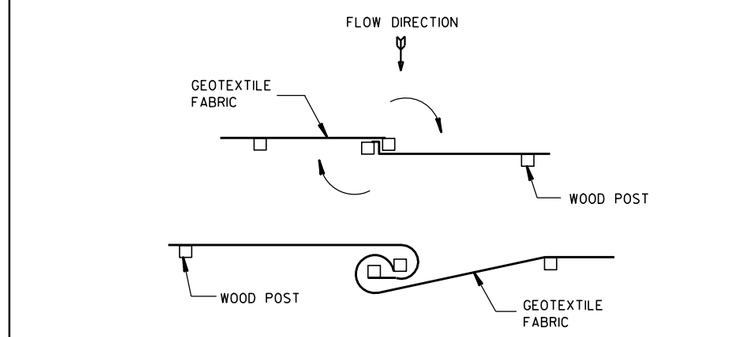


TRENCH DETAIL

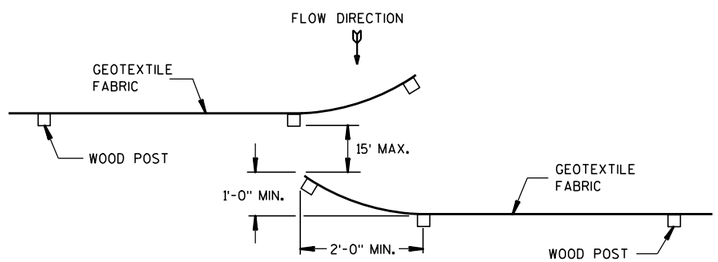


*NOTE: 8'-0" POST SPACING ALLOWED IF A WOVEN GEOTEXTILE FABRIC IS USED.

SILT FENCE

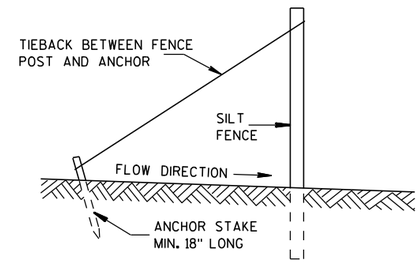


TWIST METHOD



HOOK METHOD

JOINING TWO LENGTHS OF SILT FENCE ⑤



SILT FENCE TIE BACK

(WHEN REQUIRED BY THE ENGINEER)

SILT FENCE

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

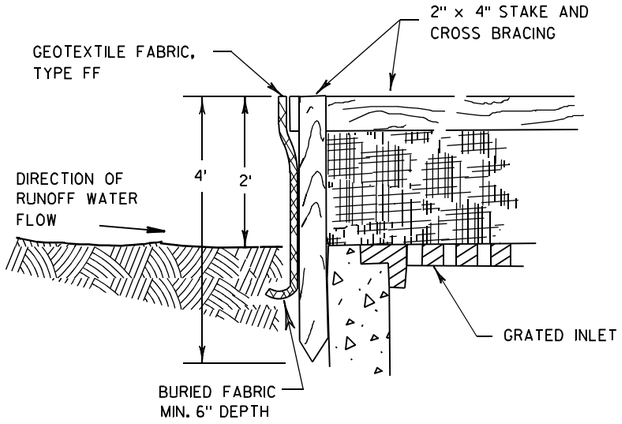
APPROVED
4-29-05 DATE
/S/ Beth Cannestra
CHIEF ROADWAY DEVELOPMENT ENGINEER
FHWA

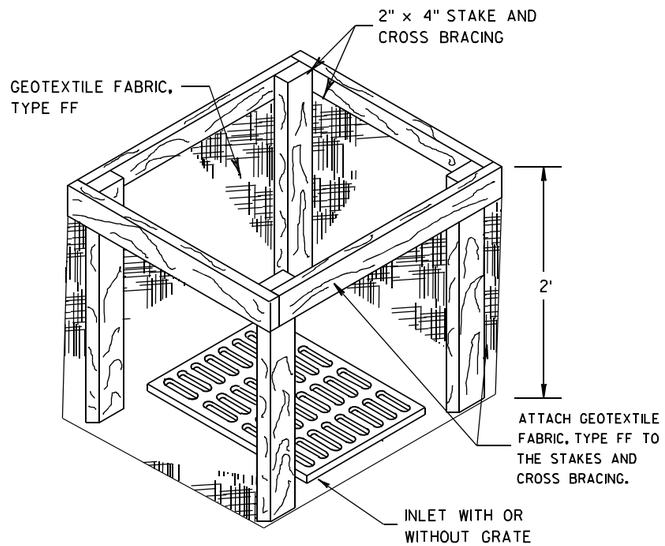
6

S.D.D. 8 E 9-6

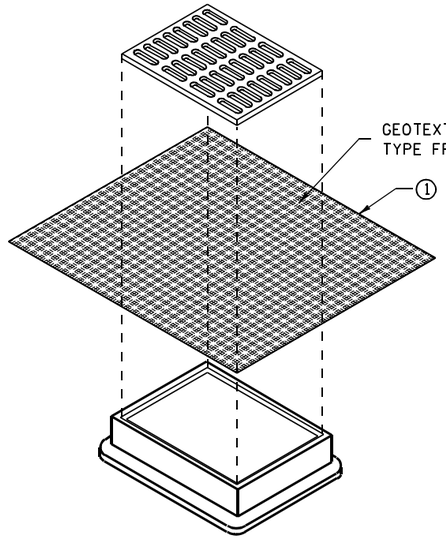
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S.D.D. 8 E 9-6



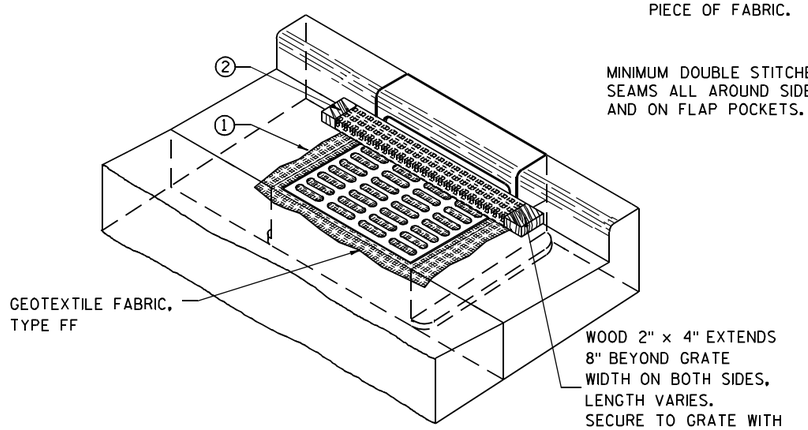


INLET PROTECTION, TYPE A

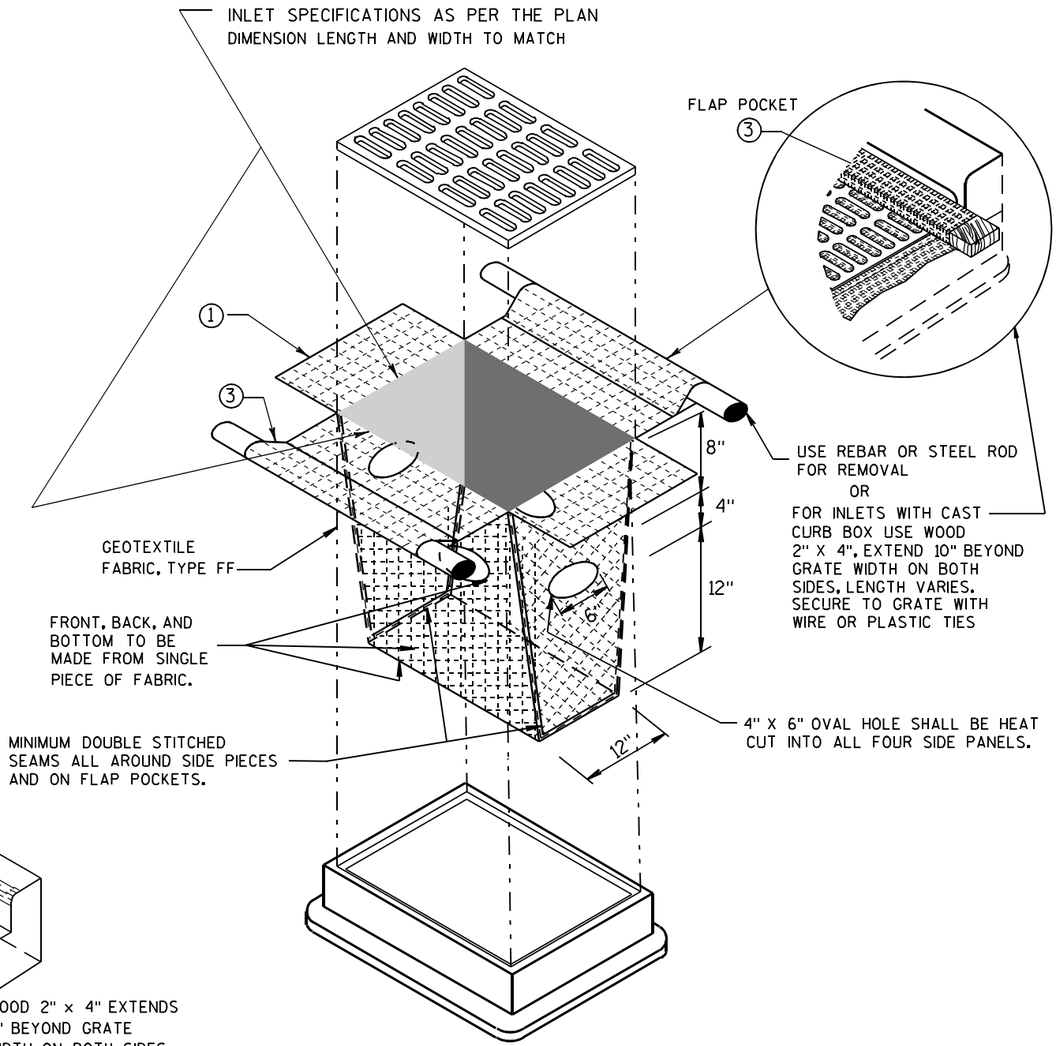


INLET PROTECTION, TYPE B
(WITHOUT CURB BOX)

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



INLET PROTECTION, TYPE C (WITH CURB BOX)



INLET PROTECTION, TYPE D

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

GENERAL NOTES

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

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

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

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

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

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

INSTALLATION NOTES

TYPE B & C

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

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

TYPE D

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

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

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

INLET PROTECTION
TYPE A, B, C, AND D

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED

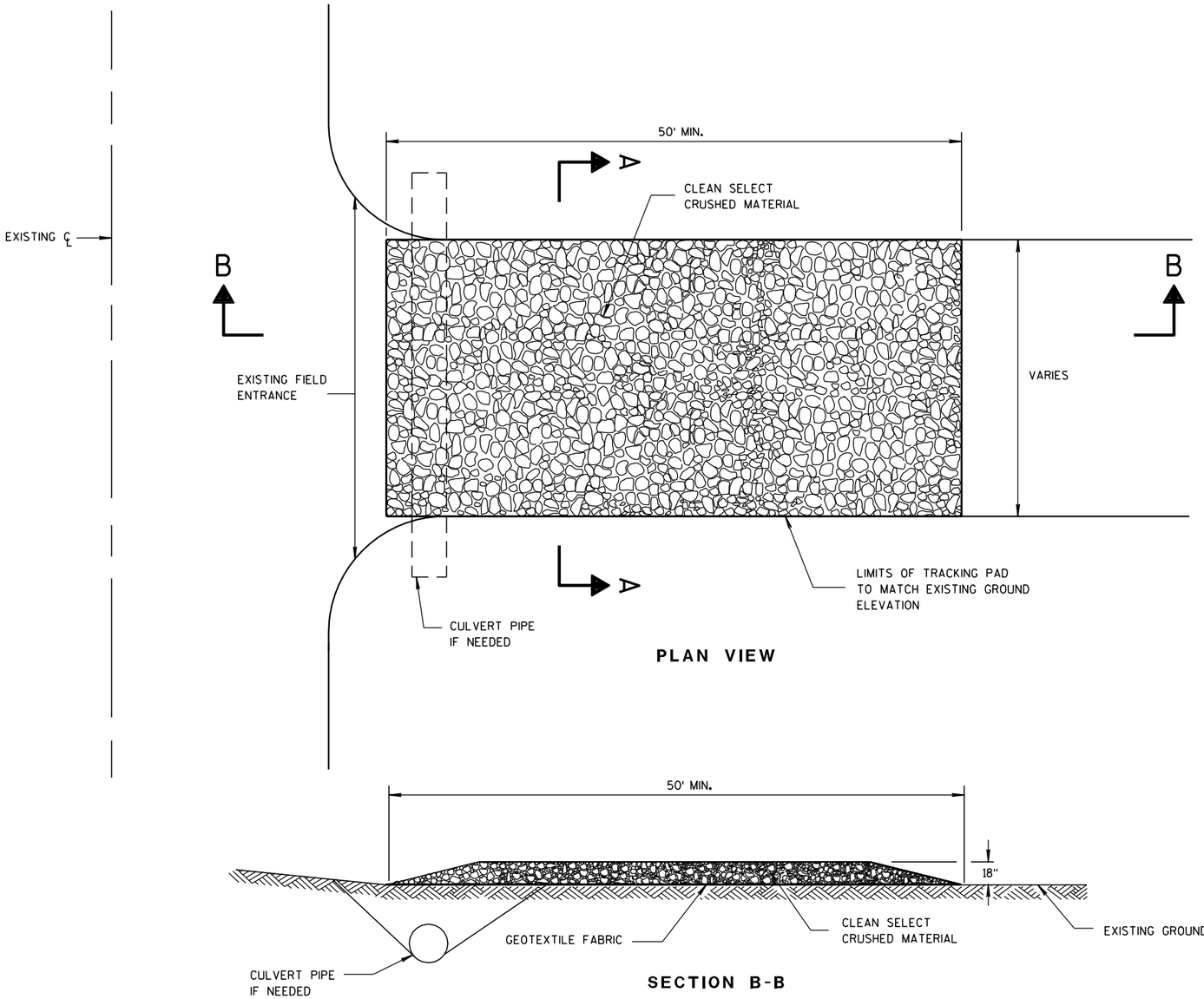
10/16/02
DATE

/S/ Beth Cannestra
CHIEF ROADWAY DEVELOPMENT ENGINEER

FHWA

6

S.D.D. 8 E 10-2



PLAN VIEW

SECTION B-B

GENERAL NOTES

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

TRACKING PAD SHALL BE INSPECTED DAILY. DEFICIENT AREAS SHALL BE REPAIRED OR REPLACED IMMEDIATELY.

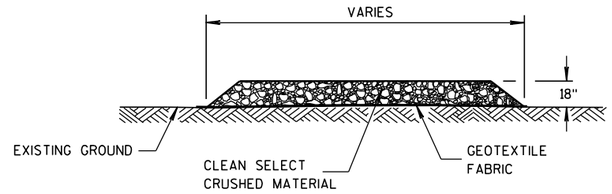
TRACKING PAD TO BE REMOVED AFTER CONSTRUCTION IS COMPLETED.

TRACKING PAD SHALL BE THE FULL WIDTH OF THE EGRESS POINT.

SURFACE WATER MUST BE PREVENTED FROM PASSING THROUGH THE TRACKING PAD. FLOWS SHALL BE DIVERTED AWAY, AROUND OR CONVEYED UNDER THE TRACKING PAD.

CULVERT PIPE OR OTHER BMP USED TO DIVERT WATER AWAY, AROUND OR UNDER THE TRACKING PAD SHALL BE DESIGNED TO CONVEY THE 2 YEAR - 24 HOUR EVENT.

THE COST OF ADDITIONAL BMP TO DIVERT WATER ARE INCIDENTAL TO THE TRACKING PAD BID ITEM.



SECTION A-A

TRACKING PAD

TRACKING PAD

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
3/24/2011 — DATE
/S/ Jerry H. Zoda — ROADWAY STANDARDS ENGINEER
FHWA

6

S.D.D. 8 E 14-1

6

S.D.D. 8 E 14-1

METAL APRON ENDWALLS

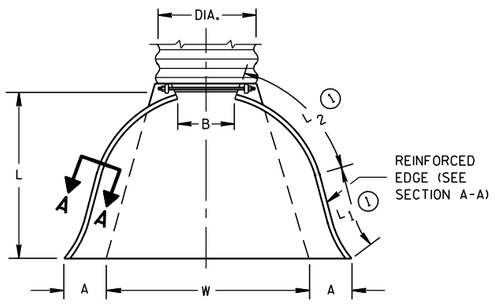
PIPE DIA. (IN.)	MIN. THICK. (Inches) STEEL	MIN. THICK. (Inches) ALUM.	DIMENSIONS (Inches) A (±1")	B (MAX.)	H (±1")	L (±1 1/2")	L1 ①	L2 ①	W (±2")	APPROX. SLOPE	BODY
12	.064	.060	6	6	6	21	12	17 1/2	24	2 1/2 to 1	1 Pc.
15	.064	.060	7	8	6	26	14	21 3/4	30	2 1/2 to 1	1 Pc.
18	.064	.060	8	10	6	31	15	28 1/4	36	2 1/2 to 1	1 Pc.
21	.064	.060	9	12	6	36	18	29 5/8	42	2 1/2 to 1	1 Pc.
24	.064	.075	10	13	6	41	18	37 1/4	48	2 1/2 to 1	1 Pc.
30	.079	.075	12	16	8	51	18	52 1/4	60	2 1/2 to 1	1 Pc.
36	.079	.105	14	19	9	60	24	59 3/4	72	2 1/2 to 1	2 Pc.
42	.109	.105	16	22	11	69	24	75 5/8	84	2 1/2 to 1	2 Pc.
48	.109	.105	18	27	12	78	24	81	90	2 1/4 to 1	3 Pc.
54	.109	.105	18	30	12	84	30	85 1/2	102	2 1/4 to 1	3 Pc.
60	.109×	.105×	18	33	12	87	—	—	114	2 to 1	3 Pc.
66	.109×	.105×	18	36	12	87	—	—	120	2 to 1	3 Pc.
72	.109×	.105×	18	39	12	87	—	—	126	2 to 1	3 Pc.
78	.109×	.105×	18	42	12	87	—	—	132	1 1/2 to 1	3 Pc.
84	.109×	.105×	18	45	12	87	—	—	138	1 1/2 to 1	3 Pc.
90	.109×	.105×	18	37	12	87	—	—	144	1 1/2 to 1	3 Pc.
96	.109×	.105×	18	35	12	87	—	—	150	1 1/2 to 1	3 Pc.

× EXCEPT CENTER PANEL SEE GENERAL NOTES

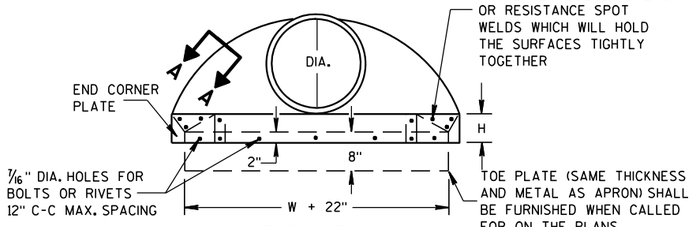
REINFORCED CONCRETE APRON ENDWALLS

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

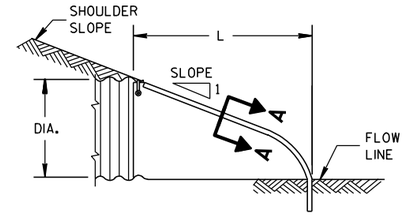
*MINIMUM
**MAXIMUM



PLAN VIEW

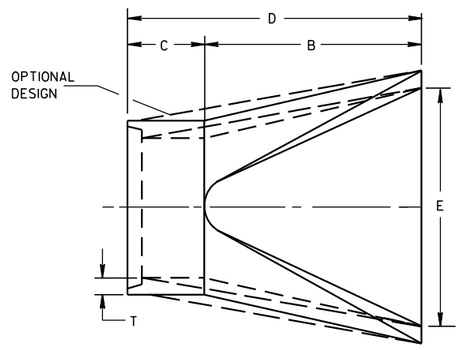


END VIEW

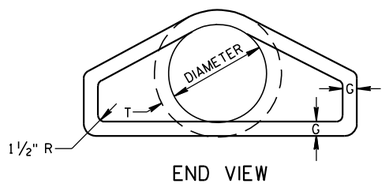


SIDE ELEVATION

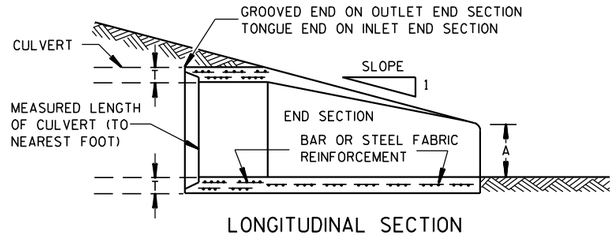
METAL ENDWALLS



PLAN

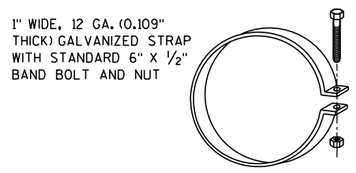


END VIEW



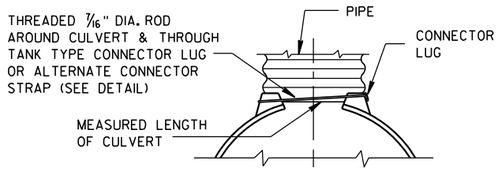
LONGITUDINAL SECTION

CONCRETE ENDWALLS

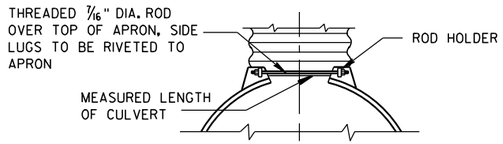


ALTERNATE FOR TYPE 1 CONNECTION

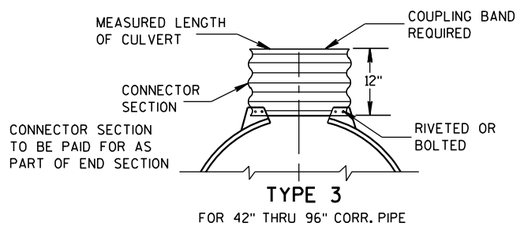
END SECTION CONNECTOR STRAP



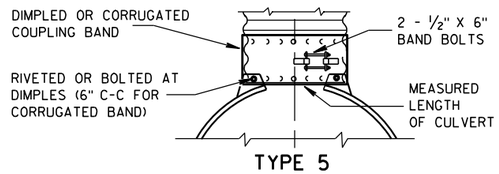
TYPE 1
FOR 12" THRU 24" CORR. PIPE



TYPE 2
FOR 30" THRU 96" CORR. PIPE



TYPE 3
FOR 42" THRU 96" CORR. PIPE



TYPE 5
ALTERNATE FOR:
ALL SIZES CORRUGATED CIRCULAR PIPE

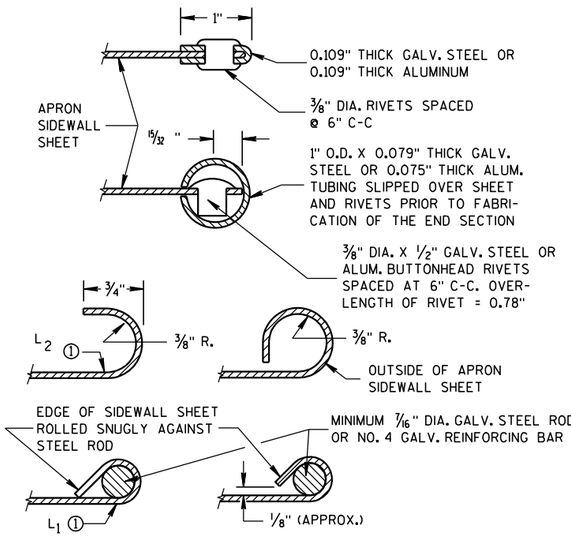
NOTE: DIMPLED BAND FITS OVER OUTSIDE OF ENDWALL. AND CORRUGATED BAND FITS INSIDE ENDWALL. DIMPLED BAND MAY BE USED WITH HELICALLY CORRUGATED PIPE.

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

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

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

CONNECTION DETAILS



SECTION A-A

GENERAL NOTES

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

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

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

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

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

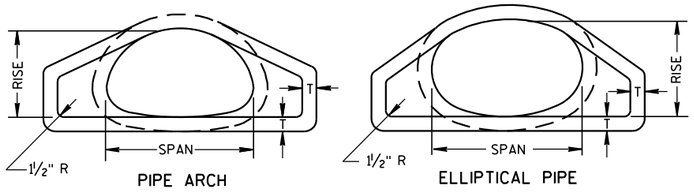
① FOR PIPE SIZES UP TO 60" DIAMETER, A 180° ROLLED EDGE MAY BE USED INSTEAD OF STEEL ROD REINFORCEMENT. SEE SECTION A-A.

APRON ENDWALLS FOR CULVERT PIPE

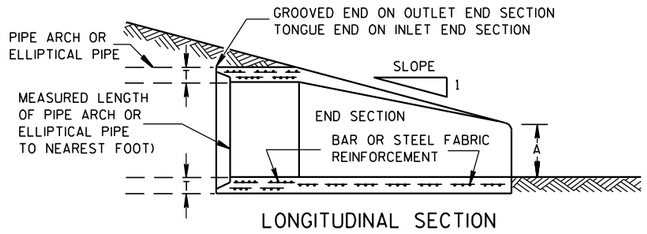
STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

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

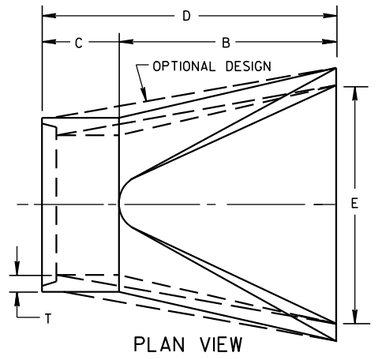
6
S.D.D. 8 F 1-11



END VIEW

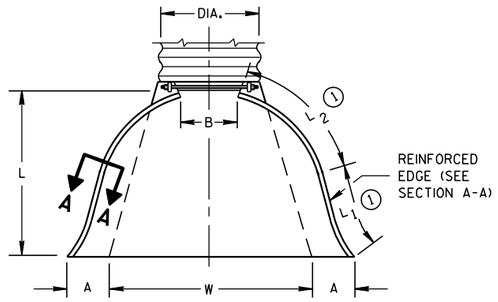


LONGITUDINAL SECTION

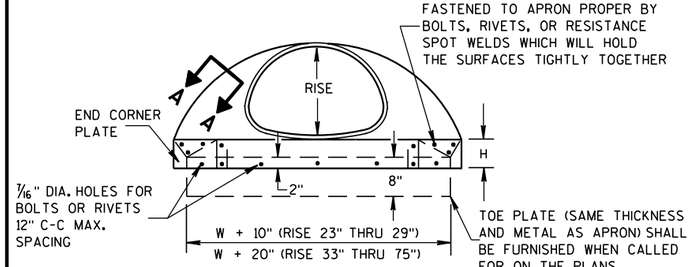


PLAN VIEW

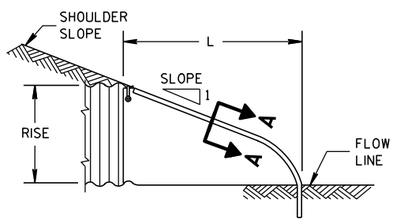
CONCRETE ENDWALLS



PLAN VIEW

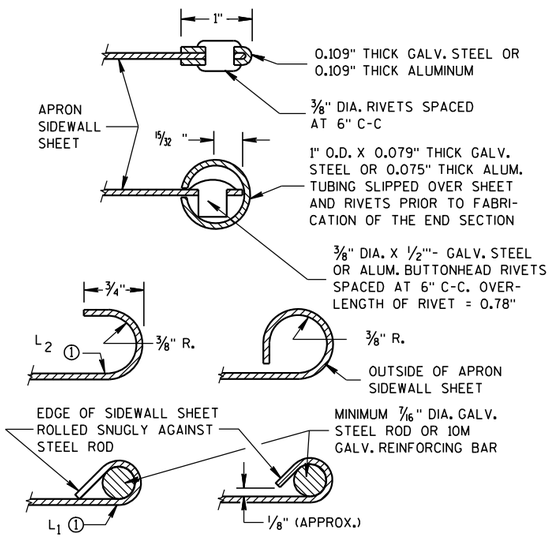


END VIEW



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

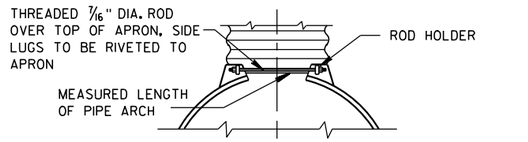
REINFORCED CONCRETE PIPE ARCH

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

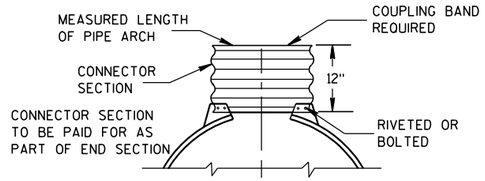
EQUIV. DIA. (Inches)	DIMENSIONS (Inches) ** SPAN	** RISE	T	A	B	C	D	E	APPROX. SLOPE
24	30	19	3¼	8½	39	33	72	48	3 to 1
30	38	24	3¾	9½	54	18	72	60	3 to 1
36	45	29	4½	11⅛	60	24	84	72	2½ to 1
42	53	34	5	15¾	60	36	96	78	2½ to 1
48	60	38	5½	21	60	36	96	84	2½ to 1
54	68	43	6	25½	60	36	96	90	2½ to 1
60	76	48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

**NOMINAL SIZE



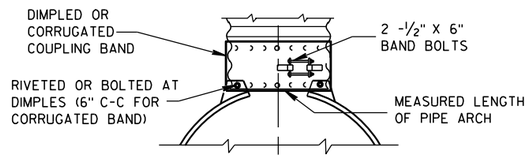
TYPE 2

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

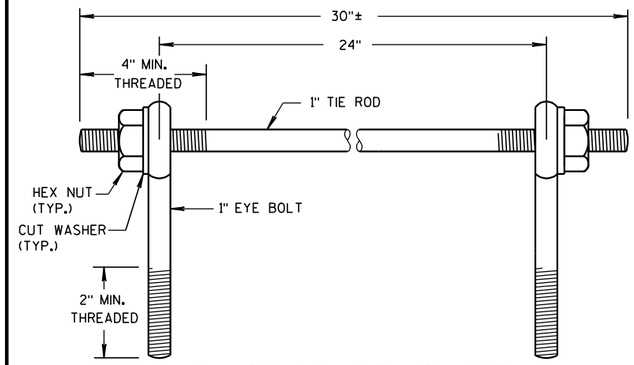
FHWA

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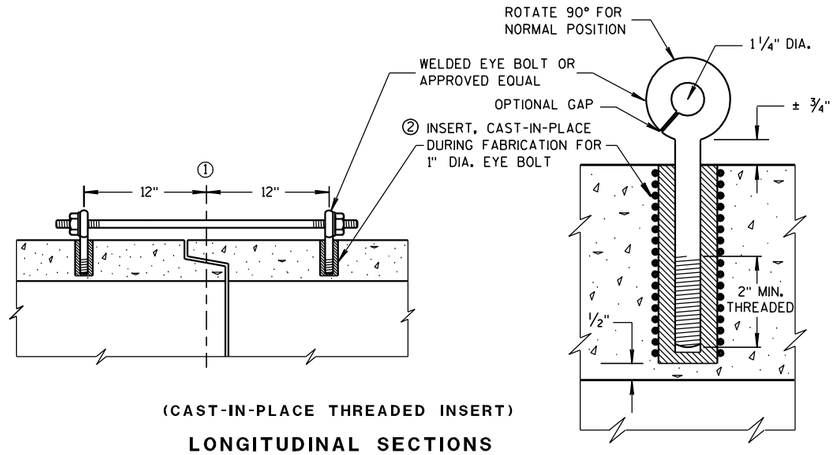
S.D.D. 8 F 2-1

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.

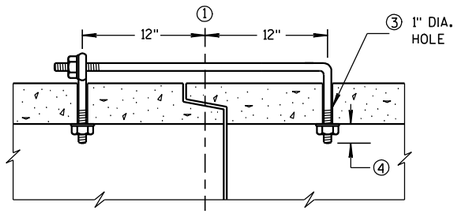
② THE INSIDE OF THE THREADED INSERTS SHALL BE CLEAN TO ALLOW THE INSERTION OF THREADED EYE BOLTS.

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

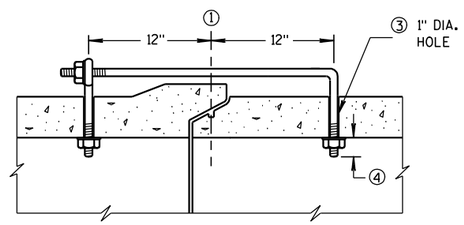
④ BOLT PROJECTION INSIDE OF PIPE SHALL NOT EXCEED 2 INCHES.

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)

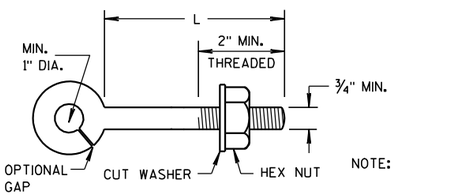


(MODIFIED BELL PIPE)

LONGITUDINAL SECTION

EYE BOLT DIMENSION TABLE

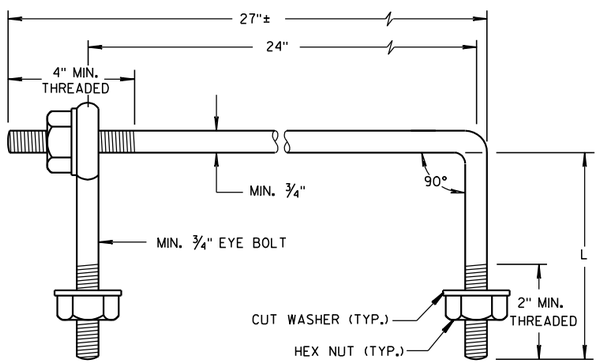
PIPE SIZE	L = LENGTH	
	TONGUE & GROOVE PIPE	MODIFIED BELL PIPE
18" TO 24"	4 1/2"	6 1/4"
30"	5"	7"
36"	5 1/2"	7"
42"	6"	
48"	6 1/2"	
60"	7 1/2"	
66"	8"	



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

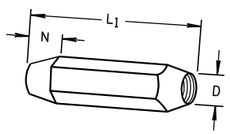
(JOINT TIES FOR 18" TO 66" DIA. CONCRETE PIPE)

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

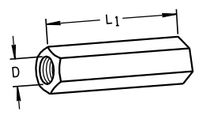
ADJUSTABLE TIE ROD TABLE

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



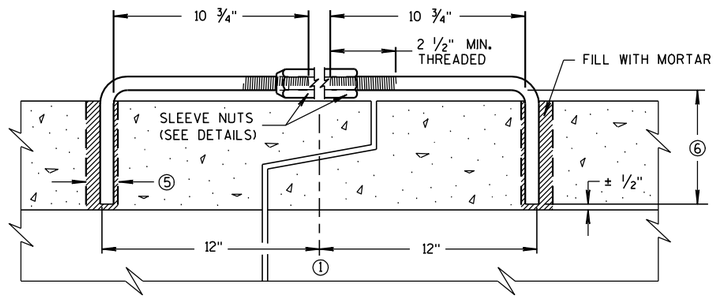
TAPERED



PLAIN

RIGHT AND LEFT THREADS

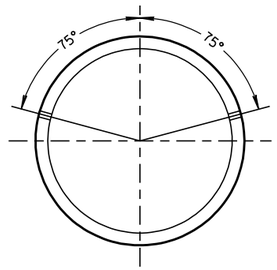
SLEEVE NUTS



LONGITUDINAL SECTION

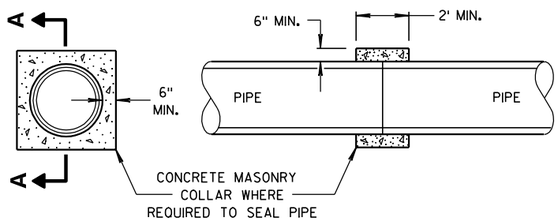
(JOINT TIES FOR 12" TO 108" DIA. CONCRETE PIPE)

ADJUSTABLE TIE ROD (ALTERNATE NO. 3)



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

TRANSVERSE SECTION



SECTION A-A

CONCRETE COLLAR DETAIL

JOINT TIES FOR CONCRETE PIPE AND CONCRETE COLLAR DETAIL

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

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

6

S.D.D. 8 F 4-7

6

S.D.D. 8 F 4-7

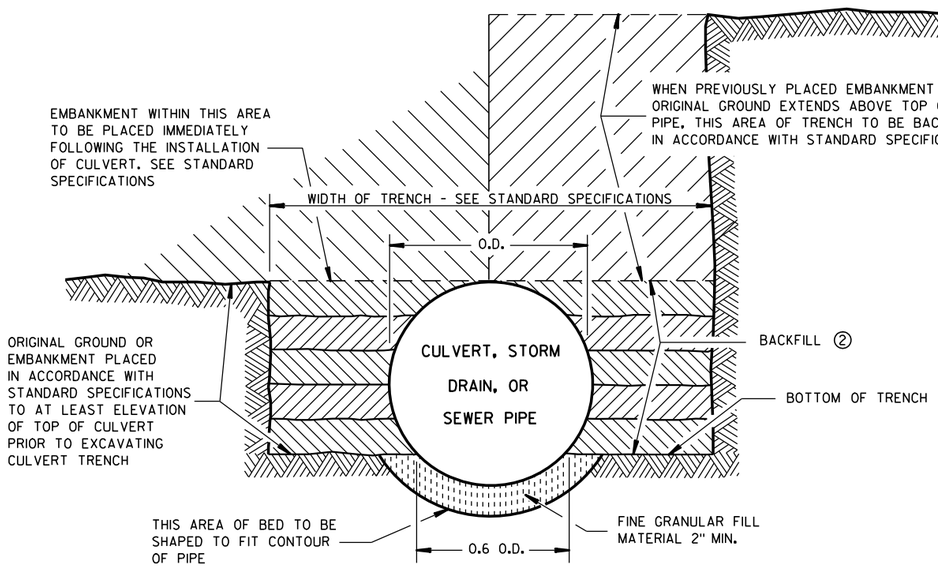
GENERAL NOTES

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

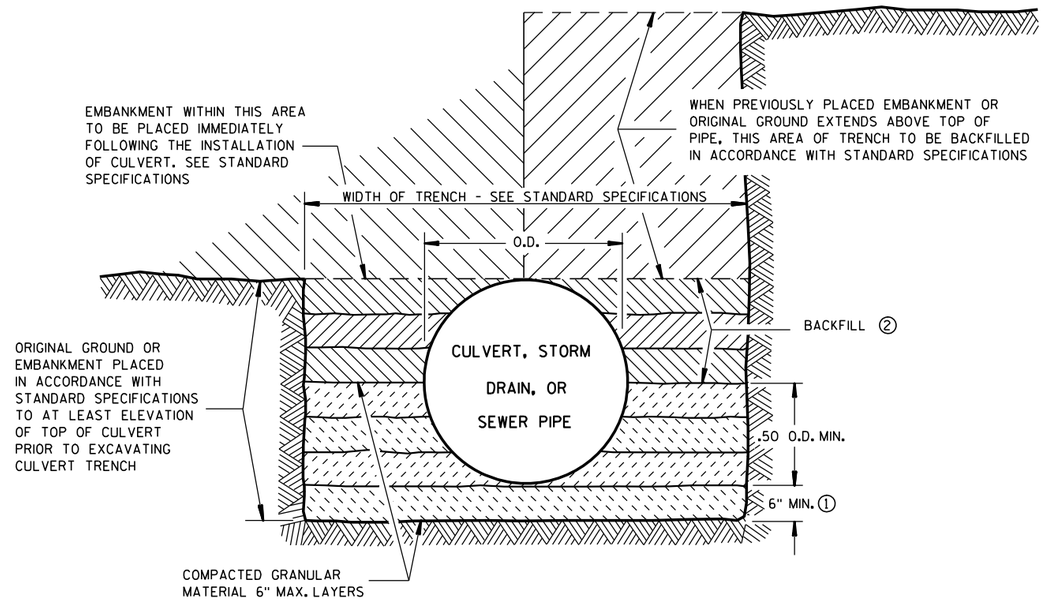
THE SHAPED SUBGRADE WITH GRANULAR FOUNDATION IS AN EQUAL ALTERNATE TO THE GRANULAR FOUNDATION EXCEPT WHERE ROCK IS ENCOUNTERED.

① WHERE ROCK, HARD PAN OR FRAGMENTED MATERIAL IS ENCOUNTERED, THE TRENCH SHALL BE EXCAVATED BELOW THE BOTTOM OF THE PIPE AN AMOUNT EQUAL TO ½ INCH PER FOOT OF PROPOSED EMBANKMENT ABOVE THE TOP OF THE PIPE, BUT NOT LESS THAN 6 INCHES.

② TRENCH SHALL BE BACKFILLED AS REQUIRED BY STANDARD SPECIFICATIONS; SECTION 520 FOR PIPE CULVERTS AND SECTION 607 FOR STORM SEWERS.



SHAPED SUBGRADE WITH GRANULAR FOUNDATION



GRANULAR FOUNDATION

CLASS "B" BEDDING

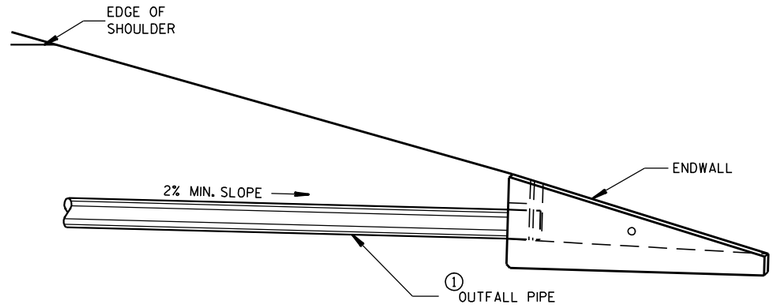
CLASS "B" BEDDING FOR CULVERT PIPE OR STORM SEWER	
STATE OF WISCONSIN DEPARTMENT OF TRANSPORTATION	
APPROVED	
4/7/83 DATE	/S/ D. L. Strand STATE DESIGN ENGINEER
FHWA	HWYS

6

S.D.D. 8 F 5-1

DIMENSIONS IN INCHES											
PIPE DIA.	A	B	C	D	E	F	G	H	J	L	Z
**4	6	12	5 1/4	9	8	32	36	11	2 3/8	6 1/2	4
6	8	14	7 1/4	11	10	42	44	13	3 5/8	8 1/2	6

**APRON ENDWALL FOR 6 INCH DIAMETER PIPE MAY BE SUBSTITUTED FOR THIS SIZE PROVIDED THE HOLE IN THE HEADWALL IS SIZED AND LOCATED TO CONFORM TO THE 4 INCH DIAMETER PIPE DIMENSIONS (C & J)



INSTALLATION 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.

ALTERNATIVE DESIGNS WHICH PROVIDE EQUIVALENT CAPACITY AND STRENGTH MAY BE USED WHEN APPROVED BY THE ENGINEER. ENDWALL MAY BE EITHER PRECAST OR CAST-IN-PLACE CONCRETE.

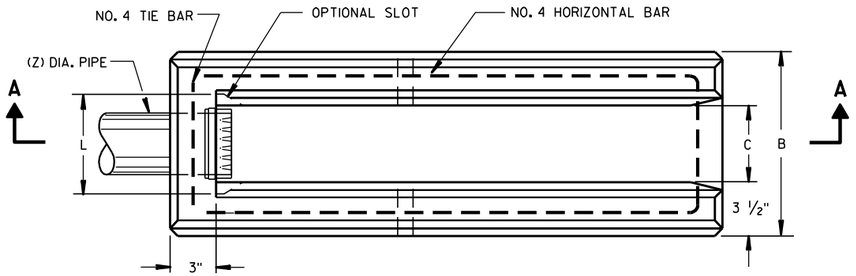
THE UNDERDRAIN PIPE SHALL BE FULLY INSERTED AND SEALED INTO THE ENDWALL WITH CEMENT MORTAR PRIOR TO BACKFILLING AROUND THE STRUCTURE.

THE UPPERMOST POINT OF THE ENDWALL SHALL BE PLACED FLUSH WITH THE ROADWAY SLOPE. ADJACENT EMBANKMENT SLOPES SHALL BE SHAPED TO FIT THE SIDES AND TOE OF THE ENDWALL. EXACT PLACEMENT OF THE OUTFALL PIPE AND ENDWALL SHALL BE DETERMINED BY THE ENGINEER TO MATCH THE ELEVATIONS AND FLOW DIRECTION OF THE ROADSIDE DITCH.

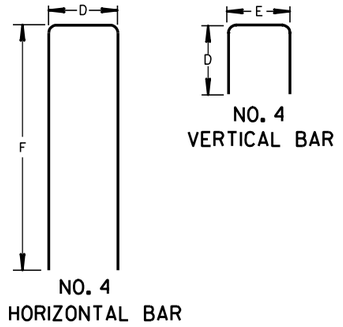
① THE OUTFALL PIPE UNDERDRAIN AND FITTINGS SHALL CONFORM TO THE REQUIREMENTS OF THE SPECIFICATION FOR POLY (VINYL CHORIDE) (PVC) PLASTIC DRAIN, WASTE AND VENT PIPE AND FITTINGS, ASTM DESIGNATION: D 2665, SCHEDULE 40 PVC OR THE STANDARD SPECIFICATION FOR TYPE PSM POLY (VINYL CHORIDE) (PVC) SEWER PIPE AND FITTINGS, ASTM DESIGNATION: D 3034, TYPE PSM SDR 23.5 PVC SEWER PIPE, ALL JOINTS SHALL BE SOLVENT WELDED.

THE OUTFALL PIPE INCLUDING ALL FITTINGS AND THE RODENT SHIELD SHALL BE MEASURED AND PAID FOR AS PIPE UNDERDRAIN UNPERFORATED.

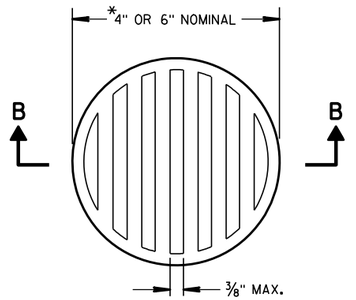
② THE RODENT SHIELD SHALL BE A PVC GRATE SIMILAR TO THIS DETAIL. THE GRATE IS COMMERCIALLY AVAILABLE AS A FLOOR STRAINER. A PIPE COUPLING IS REQUIRED FOR THE ATTACHMENT OF THIS SHIELD TO THE OUTFALL PIPE. THE SHIELD SHALL BE FASTENED TO THE PIPE COUPLING WITH TWO OR MORE NO. 10 X 1-INCH STAINLESS STEEL SHEET METAL SCREWS.

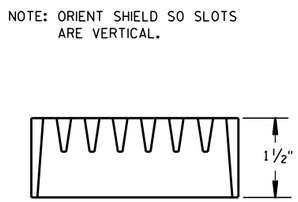


PLAN VIEW



BAR STEEL REINFORCEMENT DETAILS

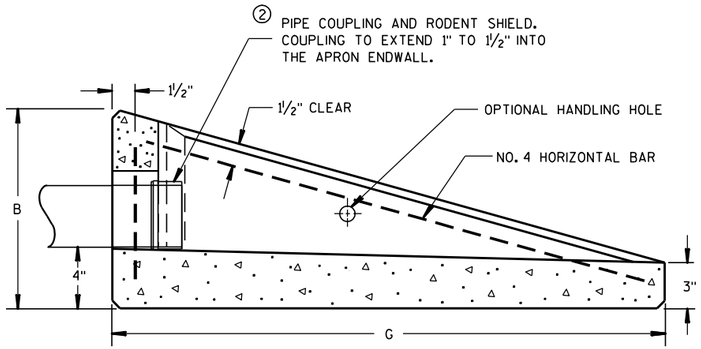




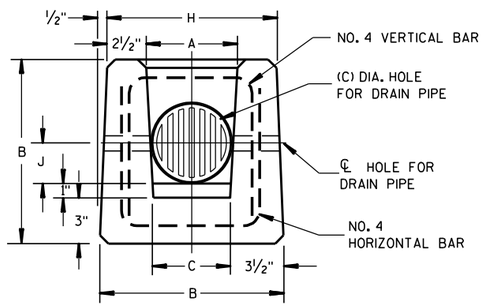
SECTION B-B

② RODENT SHIELD

*NOTE: DIMENSIONS ARE APPROXIMATE. THE GRATE IS SIZED TO FIT INTO A PIPE COUPLING.



SECTION A-A



END VIEW

CONCRETE APRON ENDWALL FOR UNDERDRAIN

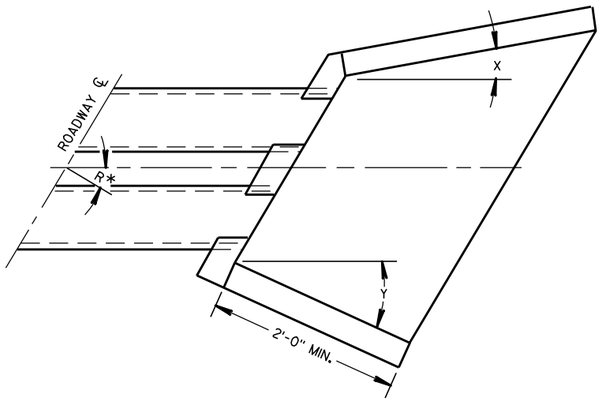
REINFORCED CONCRETE APRON ENDWALL FOR PIPE UNDERDRAIN

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
3/10/98 DATE
/S/ Rory L. Rhinesmith
CHIEF ROADWAY DEVELOPMENT ENGINEER
FHWA

6

S.D.D. 8 F 6-4



WINGWALL ANGLE DETAILS

INLET			OUTLET		
R*	X	Y	R*	X	Y
0 - 7°	30°	30°	0 - 15°	15°	15°
8 - 22°	25°	"	16 - 45°	10°	"
23 - 37°	20°	"	46 - 75°	5°	"
38 - 52°	15°	"	OVER 75°	0°	"
53 - 67°	10°	"			
68 - 82°	5°	"			
OVER 82°	0°	"			

*R = NUMBER OF DEGREES RIGHT OR LEFT HAND FORWARD

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.

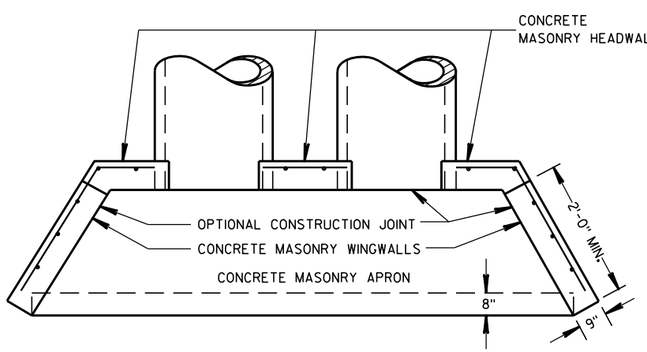
FILL SLOPES FLATTER THAN 2 ½:1 SHALL BE WARPED TO MEET THE TOP OF THE WINGWALLS.

ALL STEEL REINFORCEMENT AND WELDED STEEL WIRE FABRIC SHALL BE EMBEDDED 2 INCHES CLEAR UNLESS OTHERWISE NOTED.

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

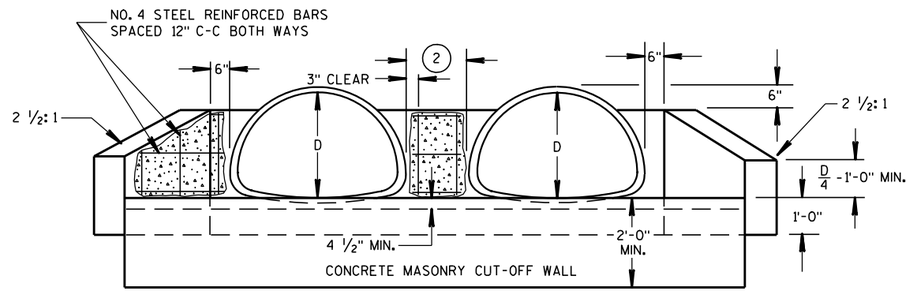
(2) THE SPACE BETWEEN PIPES SHALL BE AS FOLLOWS:

DIAMETER OR SPAN	SPACE
UP TO AND INCLUDING 48"	2'-0"
OVER 48" TO 72"	½ DIA. OR SPAN
OVER 72"	3'-0"



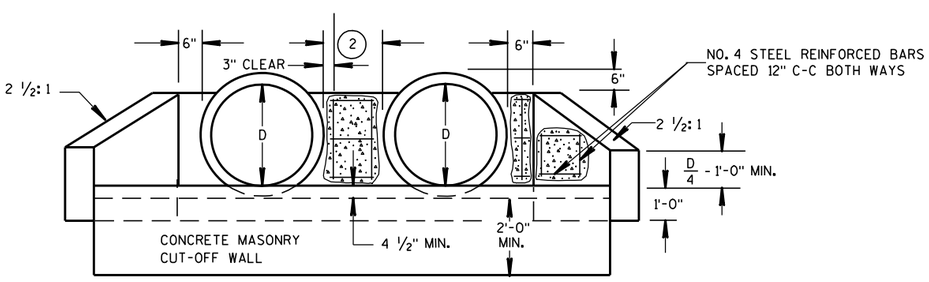
PLAN VIEW

CULVERT PIPE AND PIPE ARCH



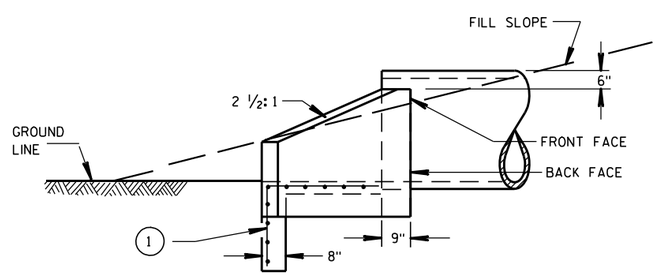
END ELEVATION

PIPE ARCH



END ELEVATION

CULVERT PIPE



SIDE ELEVATION

CULVERT PIPE AND PIPE ARCH

CONCRETE MASONRY ENDWALLS FOR CULVERT PIPE AND PIPE ARCH

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED

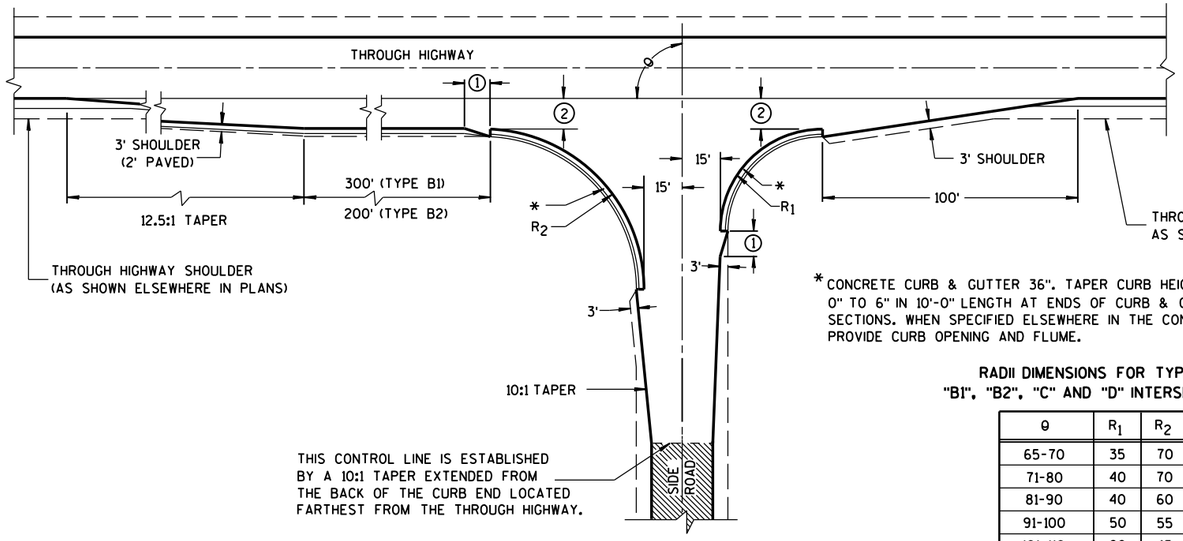
9/14/98 DATE

/S/ Rory L. Rhinehart
CHIEF ROADWAY DEVELOPMENT ENGINEER

FHWA

6

S.D.D. 8 F 10-1

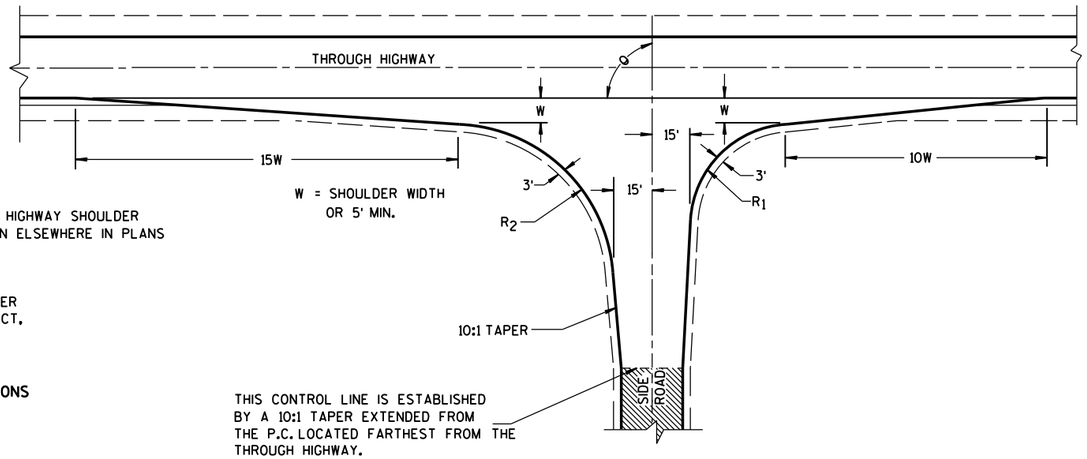


TYPE "B1" AND "B2"

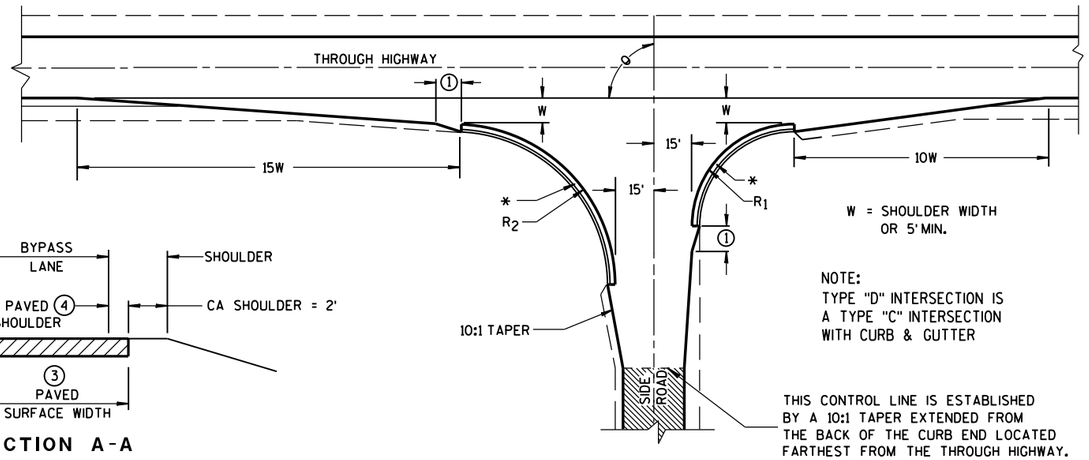
*CONCRETE CURB & GUTTER 36". TAPER CURB HEIGHT 0" TO 6" IN 10'-0" LENGTH AT ENDS OF CURB & GUTTER SECTIONS. WHEN SPECIFIED ELSEWHERE IN THE CONTRACT, PROVIDE CURB OPENING AND FLUME.

RADII DIMENSIONS FOR TYPES "B1", "B2", "C" AND "D" INTERSECTIONS

θ	R_1	R_2
65-70	35	70
71-80	40	70
81-90	40	60
91-100	50	55
101-110	60	45



TYPE "C"



TYPE "D"

GENERAL NOTES

DESIGNS MAY BE USED INTERCHANGEABLY IN COMBINATION OR SEPARATELY FOR ANY ONE COMPLETE INTERSECTION DEPENDING UPON INTERSECTION ANGLE AND SURFACING OF EACH APPROACH ROADWAY.

SIDE ROAD SURFACING NOTE

WHEN THE SIDE ROAD IS NOT PRESENTLY PAVED, PAVEMENT SHALL BE PLACED TO THE LIMITS SHOWN UNLESS OTHERWISE PROVIDED IN THE CONTRACT. WHERE THE CONSTRUCTION LIMITS ARE BEYOND THE PAVING LIMITS, CRUSHED AGGREGATE SURFACING SHALL BE PLACED BETWEEN THE PAVING LIMITS AND CONSTRUCTION LIMITS.

WHEN THE SIDE ROAD IS PRESENTLY PAVED, NEW PAVEMENT SHALL BE PLACED TO THE LIMITS OF DESIGN AS SHOWN AND BEYOND, IF NECESSARY, TO MEET EXISTING PAVEMENT.

WHEN THE SIDE ROAD IS THE CONSTRUCTION PROJECT, THE INTERSECTION SURFACING SHALL BE THE SAME AS FOR THE PROJECT.

EXISTING PAVED SURFACE

BYPASS LANE

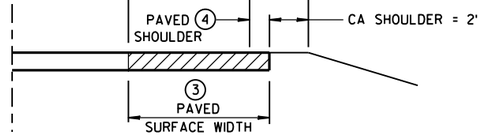
(1) 10-FT TYPICAL.

(2) 12-FT** PLUS ADDITIONAL WIDTH FOR BIKE LANE IF SHOWN ELSEWHERE IN THE PLAN.

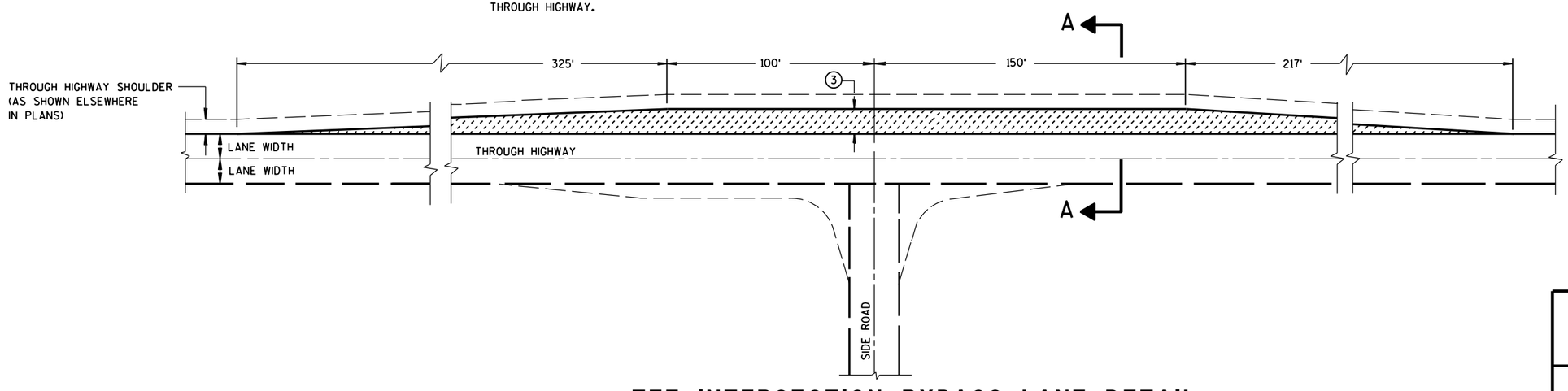
**10-FT MAY BE USED ON TYPE B2 ON RESURFACING PROJECTS IF SPECIFIED IN THE CONTRACT.

(3) BYPASS LANE PAVED SURFACE WIDTH OUTSIDE OF TRAVEL LANE
-ASPHALT = 12-FT PLUS PAVED SHOULDER WIDTH.
-PC CPNCRETE = 13-FT PLUS PAVED SHOULDER WIDTH.

(4) BYPASS LANE PAVED SHOULDER WIDTH = THE GREATER OF 1-FT OR THE PAVED SHOULDER WIDTH OF THE THROUGH HIGHWAY.



SECTION A-A
(SHOWING BYPASS LANE AND SHOULDER)

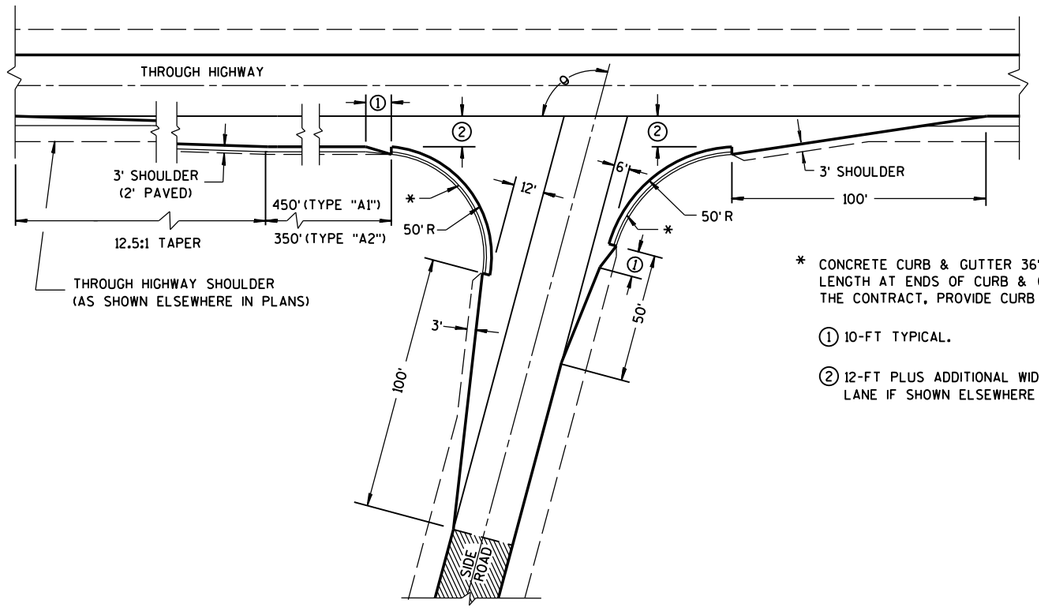


TEE INTERSECTION BYPASS LANE DETAIL

AT-GRADE SIDE ROAD INTERSECTION, TYPES "B1", "B2", "C" AND "D" AND TEE INTERSECTION BYPASS LANE

STATE OF WISCONSIN
DEPARTMENT OF TRANSPO

6
S.D.D. 9 A 1-13a



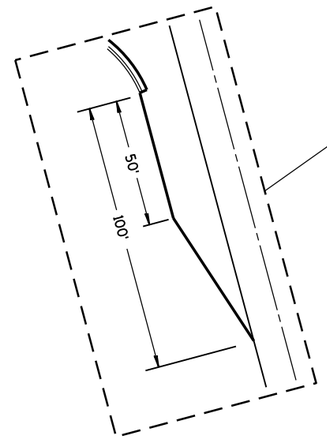
θ = MORE THAN 80°

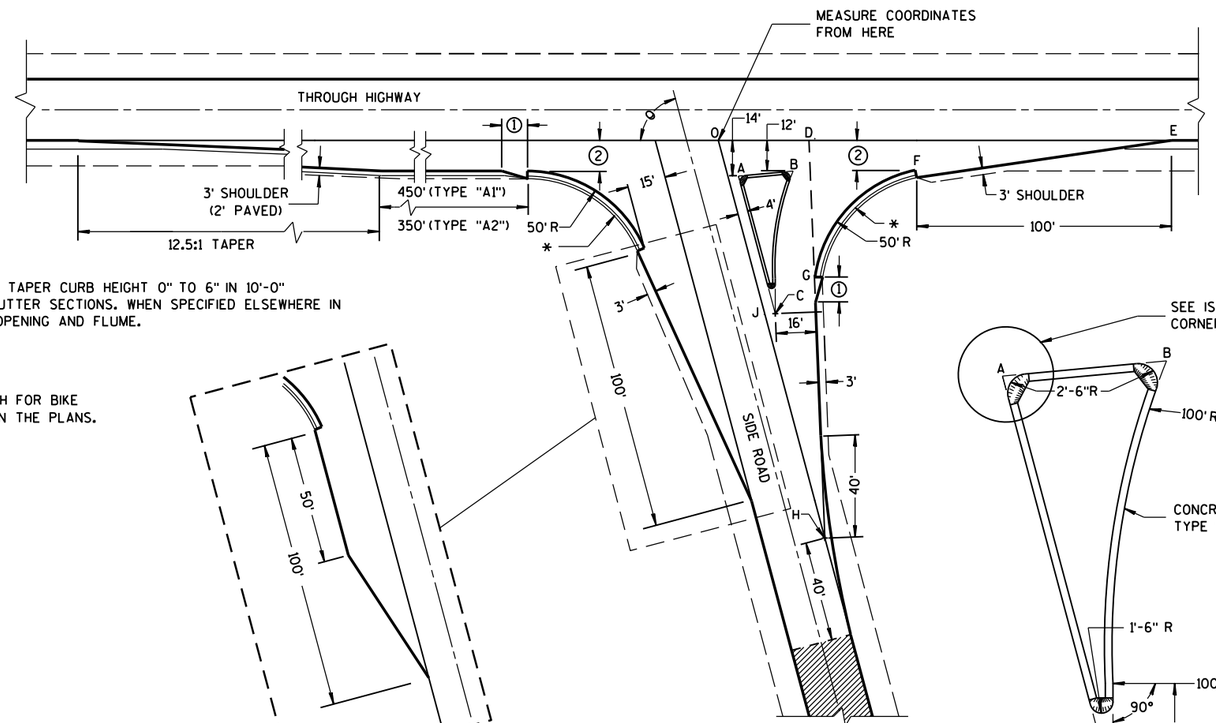
* CONCRETE CURB & GUTTER 36". TAPER CURB HEIGHT 0" TO 6" IN 10'-0" LENGTH AT ENDS OF CURB & GUTTER SECTIONS. WHEN SPECIFIED ELSEWHERE IN THE CONTRACT, PROVIDE CURB OPENING AND FLUME.

① 10-FT TYPICAL.

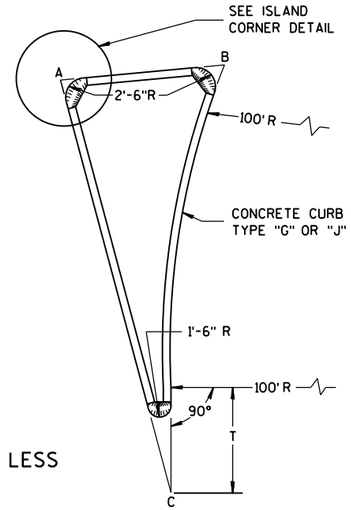
② 12-FT PLUS ADDITIONAL WIDTH FOR BIKE LANE IF SHOWN ELSEWHERE IN THE PLANS.

EXISTING PAVED SURFACE

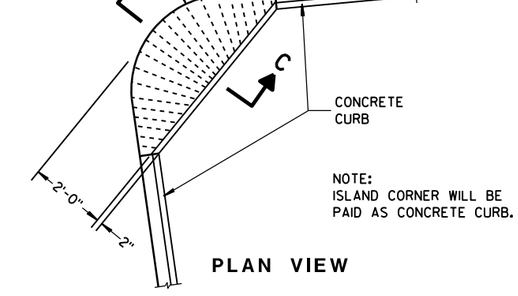




θ = ACUTE ANGLES 80° OR LESS

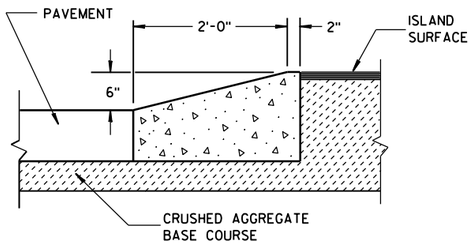


SIDE ROAD WIDENING AND TAPER REQUIRED WHERE
THE THROUGH HIGHWAY CARRIES TWO-WAY TRAFFIC
θ = ACUTE ANGLES 70° OR LESS



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

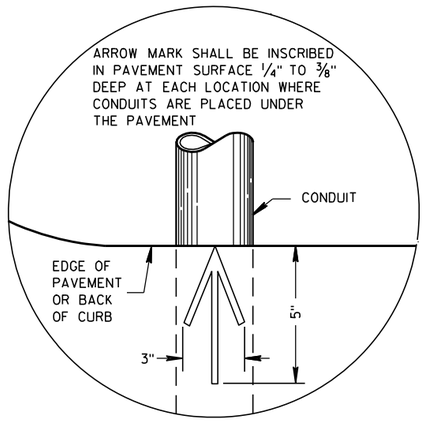
TYPE "A1" & "A2" SIDE ROAD INTERSECTION DETAILS

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

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

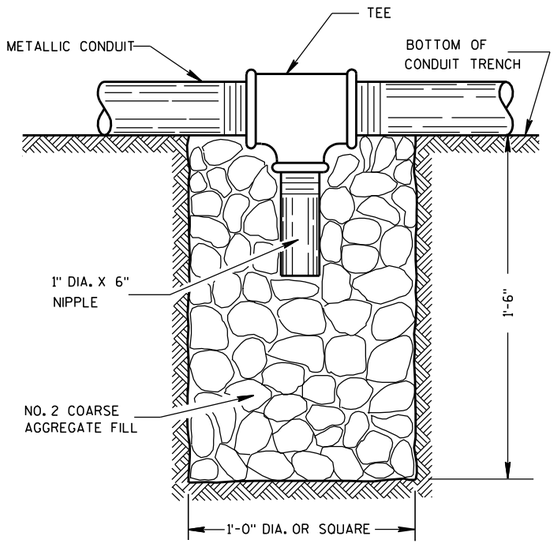
APPROVED
12/18/12 — DATE
/S/ Jerry H. Zogg — ROADWAY STANDARDS DEVELOPMENT ENGINEER
FHWA

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



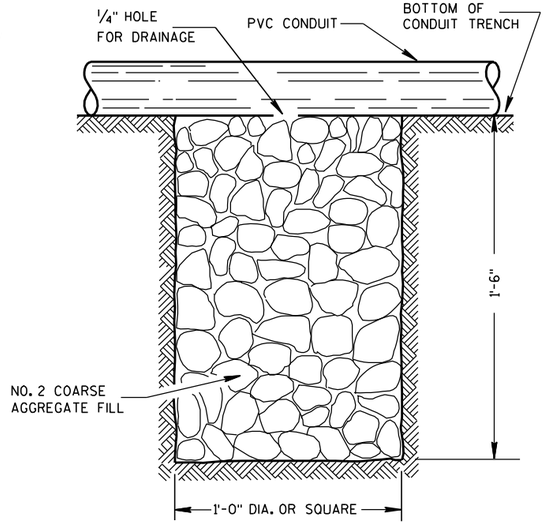
PLAN VIEW

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.

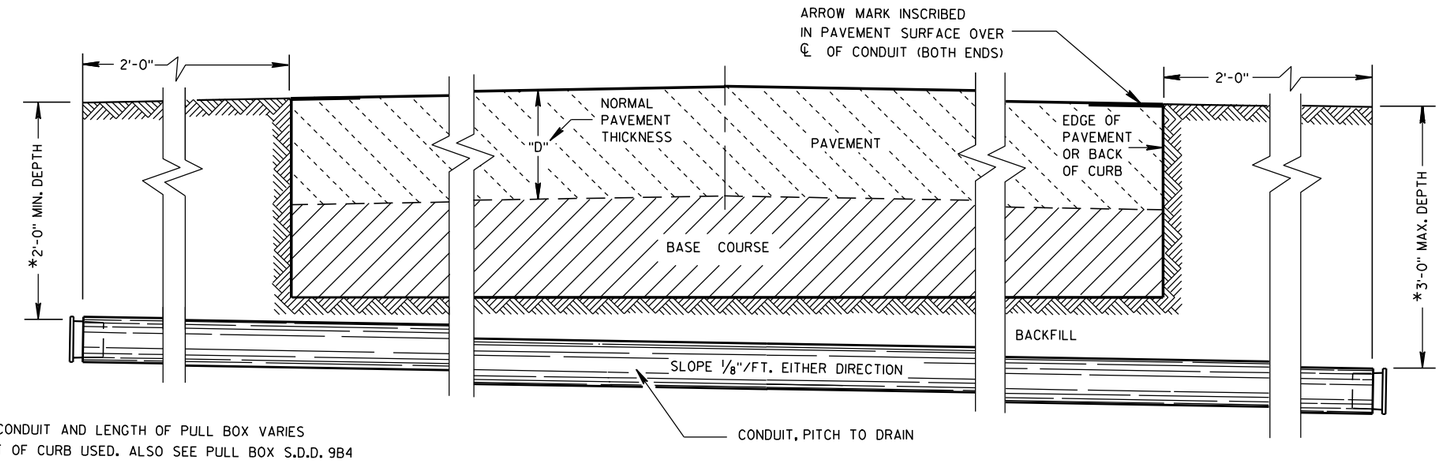
PRIOR TO CONDUIT ACCEPTANCE, CONDUIT CAPS OR PLUGS SHALL BE REMOVED, AND THE CAPS, PLUGS AND CONDUIT ENDS SHALL BE THOROUGHLY CLEANED AND THEN THE CAPS OR PLUGS REINSTALLED TO ENSURE THAT THE CAPS OR PLUGS CAN BE EASILY REMOVED IN THE FUTURE.

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.).

POLY ROPE OR A PULL WIRE SHALL BE INSTALLED AS STATED IN THE STANDARD SPECIFICATION, ITEM 652.3.1.1.

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



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

SIDE ELEVATION

DETAIL FOR CONDUIT UNDER PAVED HIGHWAYS

CONDUIT

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED

10/23/03 DATE

/S/ Balu Ananthanarayanan STATE ELECTRICAL ENGI

FHWA

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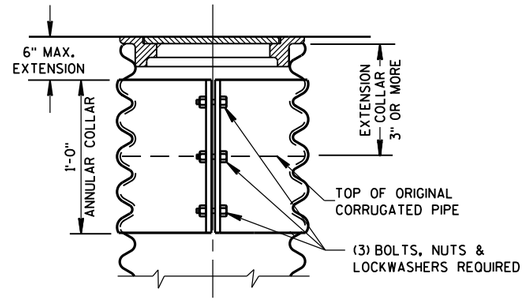
S.D.D. 9 B 2-7

TABLE OF NOMINAL DIMENSIONS AND WEIGHTS

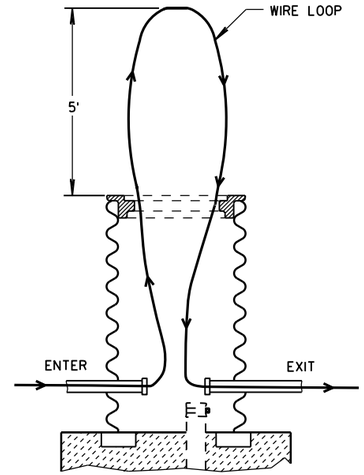
DIMENSION IN INCHES		CORRUGATED STEEL PIPE								
PIPE DIAMETER (INSIDE)	A	12	12	12	18	18	18	24	24	24
PIPE LENGTH **	B	24	30	36	24	30	36	36	42	48
WALL THICKNESS	C	0.064	0.064	0.064	0.064	0.064	0.064	0.064	0.064	0.064
COVER	D	10 1/4	10 1/4	10 1/4	16 1/4	16 1/4	16 1/4	22 1/4	22 1/4	22 1/4
FRAME	E	14 1/2	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.

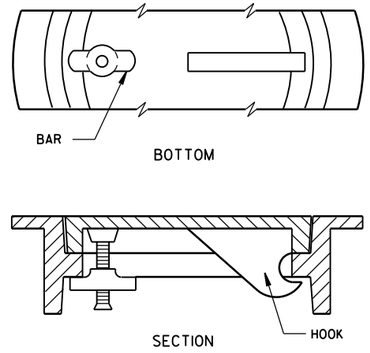
** NORMALLY USED LENGTHS. THE PROJECT ENGINEER SHALL DETERMINE IF PIPE LENGTHS, OTHER THAN THOSE SPECIFIED, SHALL BE USED, TO A MAXIMUM OF 48" (CONTINUOUS LENGTH, NON-SPLICED). THE ADDITIONAL LENGTH SHALL BE INCIDENTAL TO THE PULL BOX BID PRICE.



CORRUGATED PIPE EXTENDER

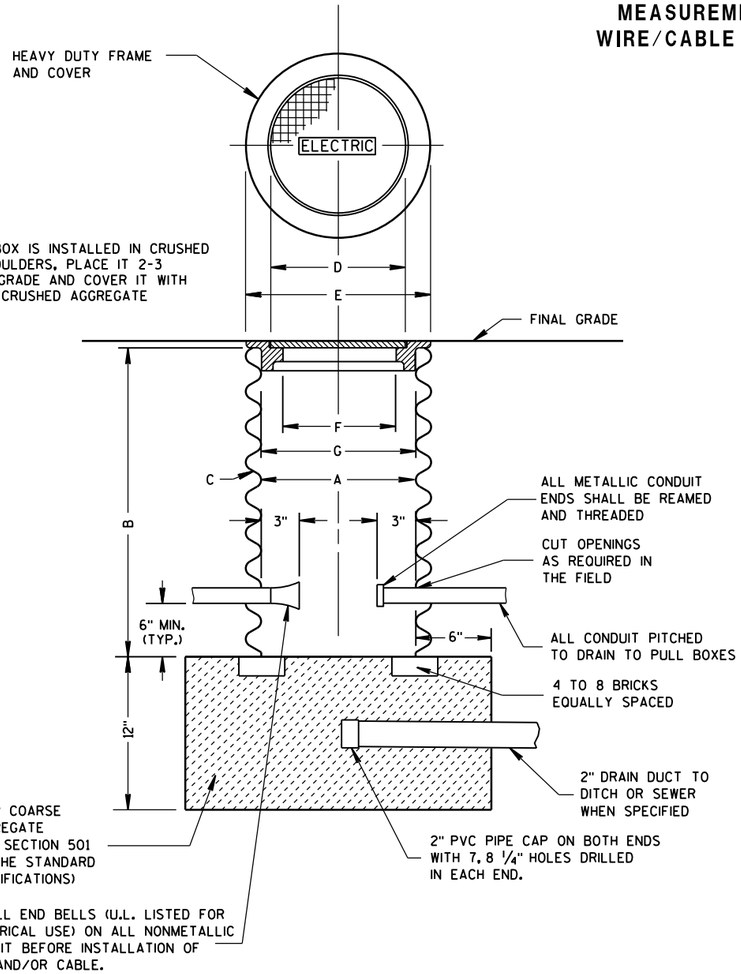


MEASUREMENT DETAIL FOR WIRE/CABLE IN THE PULL BOX



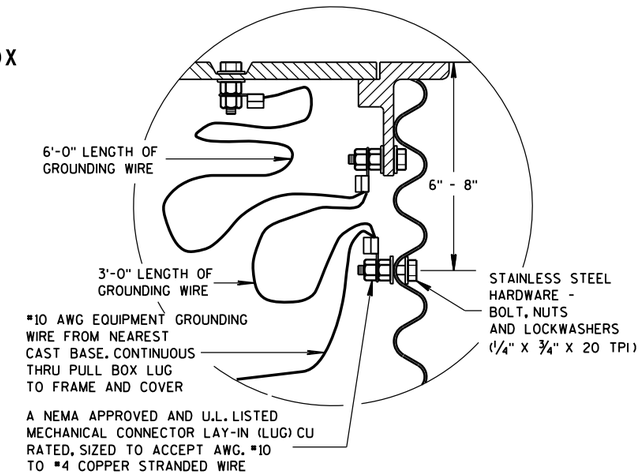
ALTERNATE COVER (LOCKING)

TIGHTENING BAR TYPE

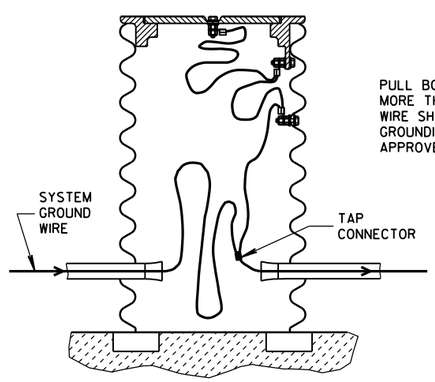


WHEN A PULL BOX IS INSTALLED IN CRUSHED AGGREGATE SHOULDERS, PLACE IT 2-3 INCHES BELOW GRADE AND COVER IT WITH 2-3 INCHES OF CRUSHED AGGREGATE

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.

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

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

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

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

PULL BOX

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED

2-7-2013 — DATE

/S/ Ahmet Demirbilek — STATE ELECTRICAL

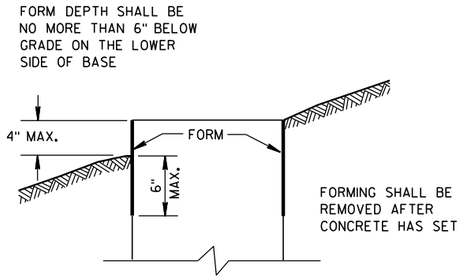
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S.D.D. 9 B 4-10



FORMING DETAIL

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

GENERAL NOTES

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

BASES SHALL BE EXCAVATED BY USE OF A CIRCULAR AUGER.

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

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

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

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

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

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

GENERAL NOTES (CONTINUED)

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

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

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

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

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

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

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

WASHERS AND LOCK WASHERS ARE REQUIRED ON ALL ANCHOR RODS.

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

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

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

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

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

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

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

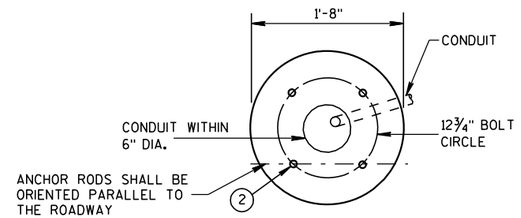
(4) (6) NO. 6 X 6'-8" BAR STEEL REINFORCEMENT.

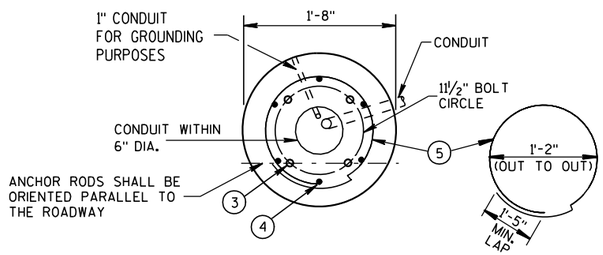
(5) (7) NO. 4 X 5'-1" BAR STEEL REINFORCEMENT @ 1'-0" C-C.

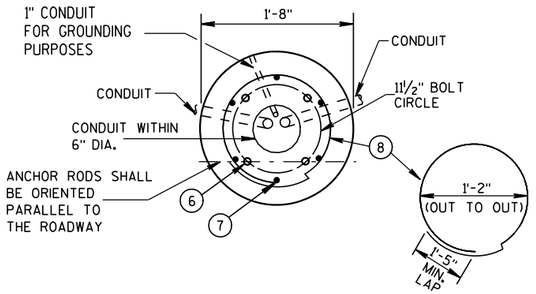
(6) (4) 1" DIA. X 3'-6" ANCHOR RODS.

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

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

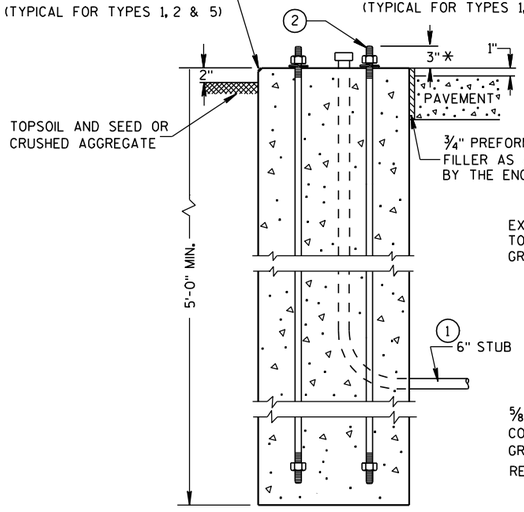






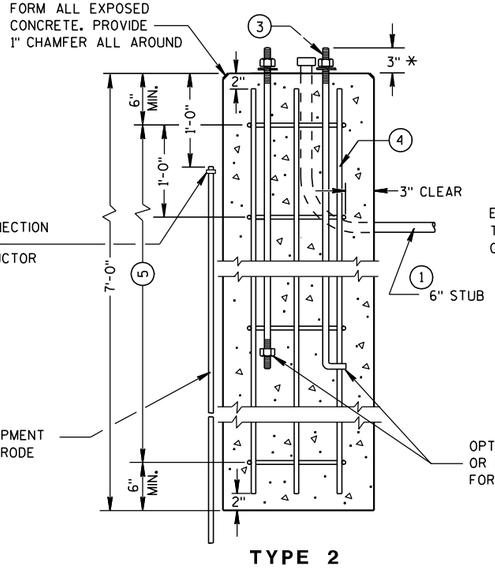
FORM ALL EXPOSED CONCRETE. PROVIDE 1" CHAMFER ALL AROUND

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

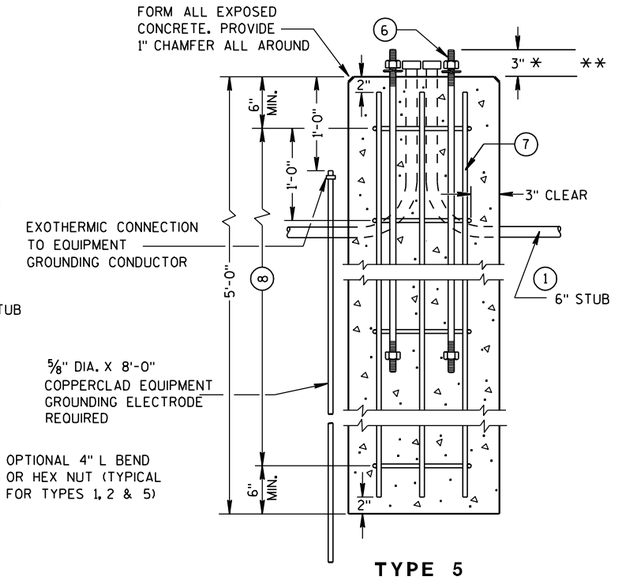


HALF SECTION IN PAVEMENT
(TYPICAL FOR TYPES 1, 2 & 5)

TYPE 1



TYPE 2



TYPE 5

CONCRETE BASES

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

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

CONCRETE BASES, TYPES 1, 2 & 5

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
3/3/10 — DATE
/S/ Joanna L. Rush — STATE ELECTRICAL ENGI
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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, ASTM A-325, (92,000 YIELD) HEAVY HEX NUT AND BE GALVANIZED IN ACCORDANCE WITH ASTM A-153, CLASS C.

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 AND U.L. LISTED MECHANICAL CONNECTOR (LUG) AL/CU RATED AND SIZED TO ACCEPT #10 AWG STRANDED WIRE, SHALL BE FURNISHED AND INSTALLED IN THE PEDESTAL AND TRANSFORMER BASES.

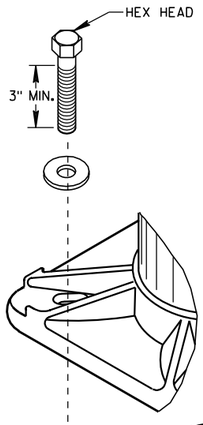
THE MECHANICAL CONNECTOR SHALL BE INSTALLED USING A 1/4" - 20 (TPI) STAINLESS STEEL HEX HEAD BOLT OF SUFFICIENT LENGTH TO FIRMLY ATTACH THE LUG TO THE BASE.

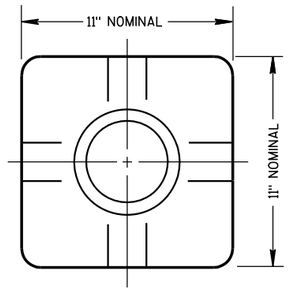
SHOULD THE MANNER OF ATTACHMENT OF THE LUG REQUIRE WASHERS, HEX NUTS, LOCK WASHER - THEY SHALL BE STAINLESS STEEL AS IS THE BOLT. THE MANNER OF ATTACHMENT SHALL NOT BLOCK ACCESSIBILITY TO WIRE PLACEMENT IN THE CONNECTOR.

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

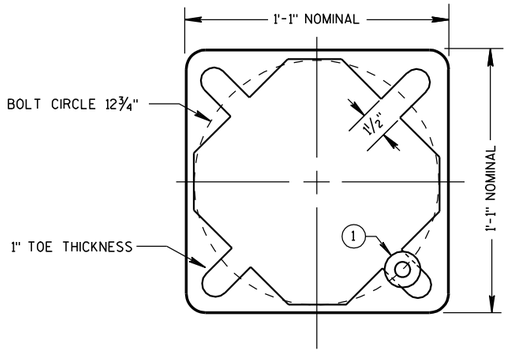
BASE COLLAR THREADING SHALL EXTEND INTO THE BASE COLLAR WITH SUFFICIENT DEPTH TO ACCEPT THE INSTALLATION OF TRAFFIC SIGNAL STANDARDS TO A DEPTH OF 1½", THEN TIGHTENING TO A POINT OF BEING IMMOVABLE.

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

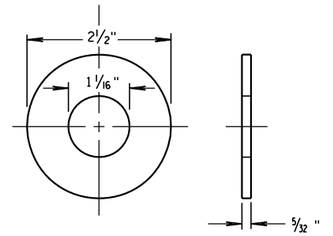




TOP VIEW
(PEDESTAL BASE)

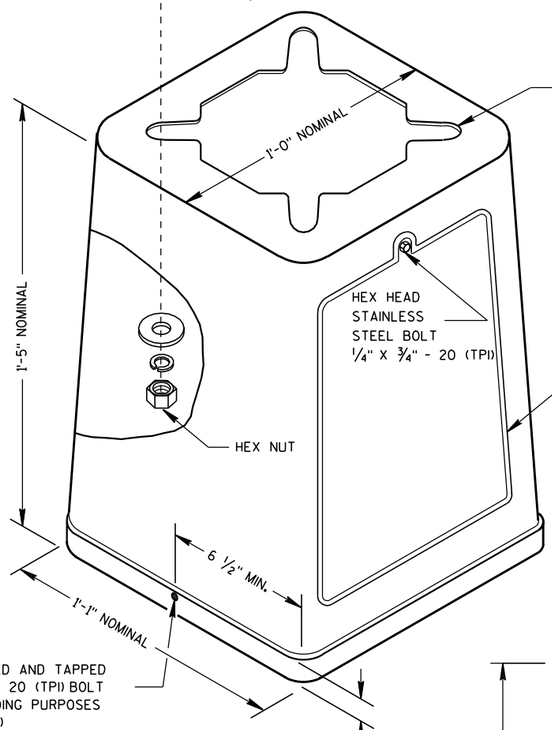


BOTTOM VIEW
(PEDESTAL BASE)

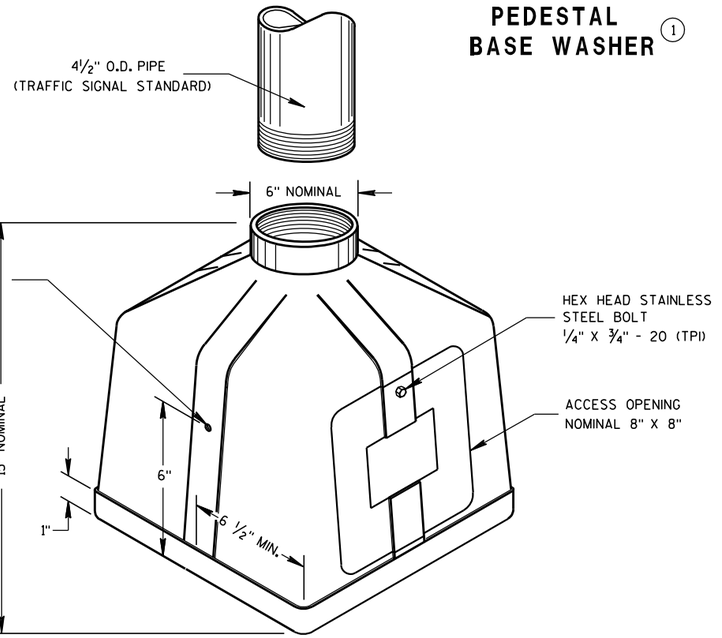


ZINC COATED STEEL WASHER
TO BE PROVIDED BY THE CONTRACTOR

PEDESTAL BASE WASHER (1)

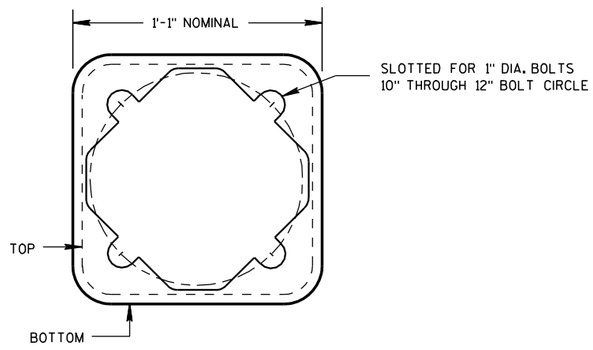


ISOMETRIC VIEW

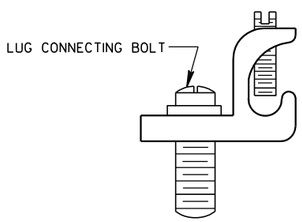


ISOMETRIC VIEW

PEDESTAL BASE



BOTTOM VIEW
(TRANSFORMER BASE)

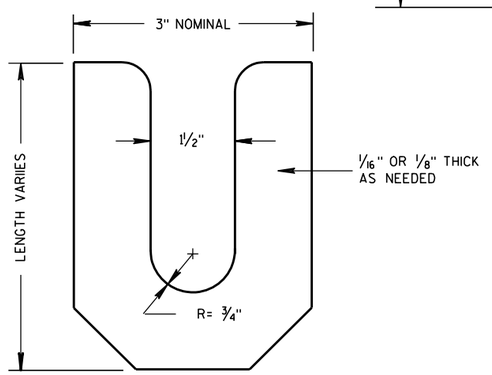


TYPICAL MECHANICAL CONNECTOR LUG

TO BE FURNISHED WITH EACH BASE

TRANSFORMER BASE

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



LEVELING SHIM

TRANSFORMER/PEDESTAL BASES

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

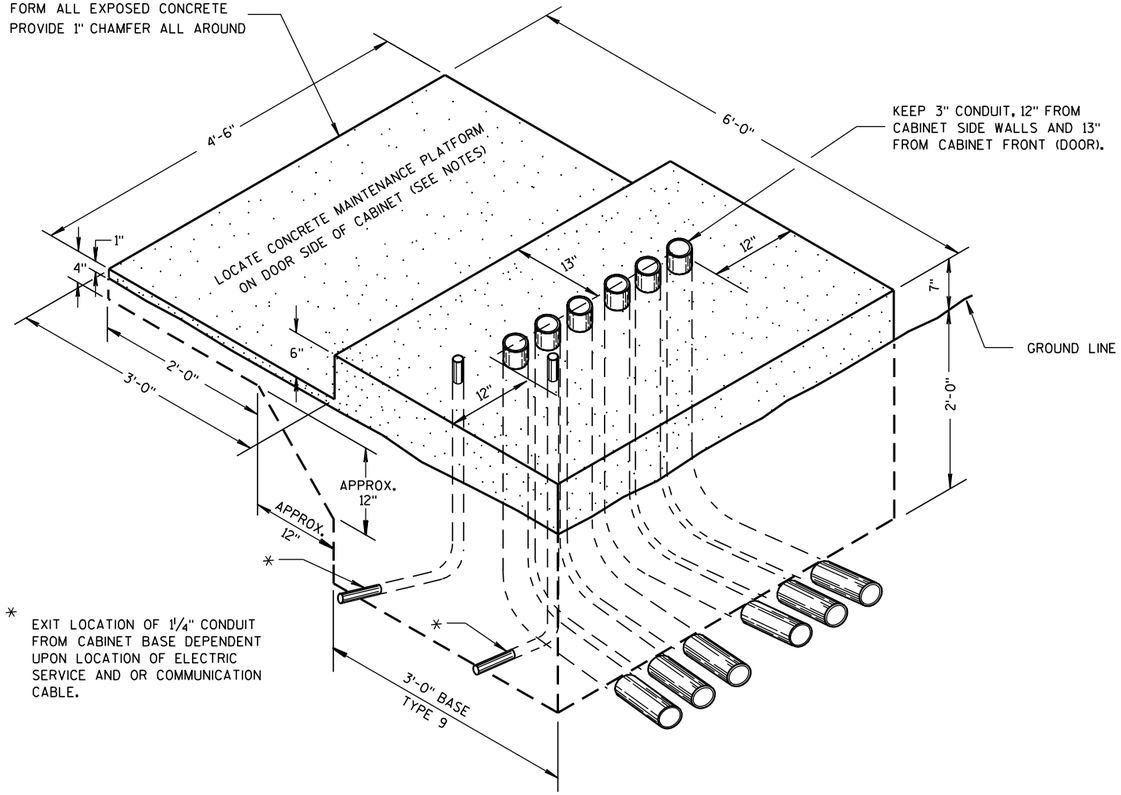
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10/27/09 — DATE
/S/ Joanna L. Rich — STATE ELECTRICAL ENGI
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S.D.D. 9 C 3-3

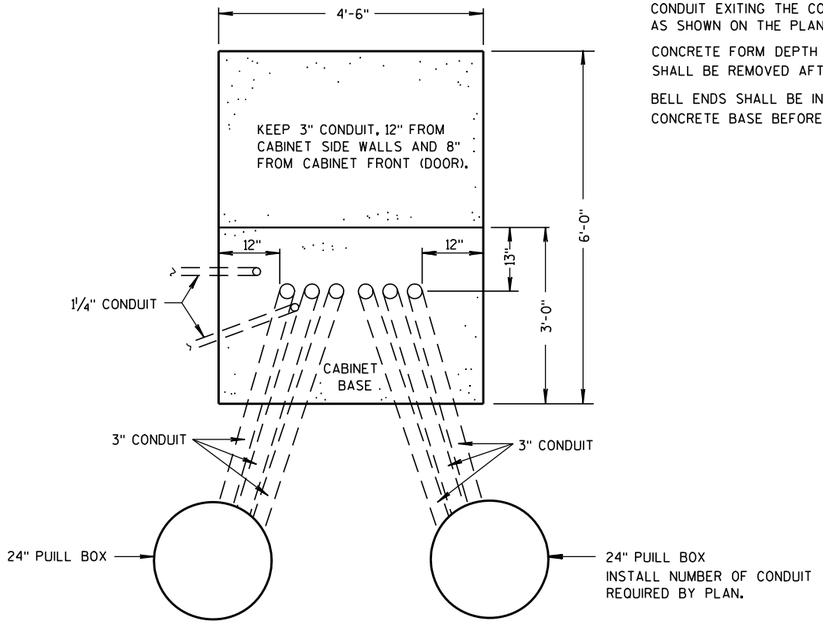


* EXIT LOCATION OF 1¼" CONDUIT FROM CABINET BASE DEPENDENT UPON LOCATION OF ELECTRIC SERVICE AND OR COMMUNICATION CABLE.

ISOMETRIC VIEW

TYPE 9, SPECIAL

(C.Y. CONCRETE = APPROX. 1.56)



PLAN VIEW

CONCRETE CONTROL CABINET BASE, TYPE 9, SPECIAL

GENERAL NOTES

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

INSTALL FOUR ½ INCH MINIMUM DIAMETER X 4 INCH MINIMUM LENGTH STAINLESS STEEL APPROVED CONCRETE MASONRY ANCHORS TO ANCHOR THE CABINET TO TYPE 6, 7, 8, AND 9 BASES. THE ANCHOR STUDS SHALL BE LOCATED AS DIRECTED BY THE ENGINEER TO PROPERLY ANCHOR THE CONTROL CABINET TO THE BASE.

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

CONDUIT HEIGHT ABOVE THE CONCRETE BASE SHALL BE 1 INCH.

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

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

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

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

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

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

MINIMUM BENDING RADIUS OF CONDUIT = 6 X THE DIAMETER.

ALL METALLIC CONDUIT ENDS SHALL BE REAMED AND THREADED.

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

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

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

CONDUIT EXITING THE CONCRETE BASE (SIX THREE INCH) SHALL TERMINATE IN PULL BOXES AS SHOWN ON THE PLANS.

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

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

CONCRETE CONTROL CABINET BASE, TYPE 9, SPECIAL

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED

2/27/07 — DATE

/S/ Balu Ananthapadmanabhan — STATE ELECTRICAL ENGI

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S.D.D. 9 C 6-5

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GENERAL NOTES

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

BASES SHALL BE EXCAVATED BY USE OF A CIRCULAR AUGER.

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

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

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

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

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

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

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

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

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

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

A NO. 4 AWG, STRANDED COPPER EQUIPMENT GROUNDING CONDUCTOR SHALL BE EXOTHERMICALLY WELDED TO THE EQUIPMENT GROUNDING ELECTRODE (GROUND ROD).

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

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

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

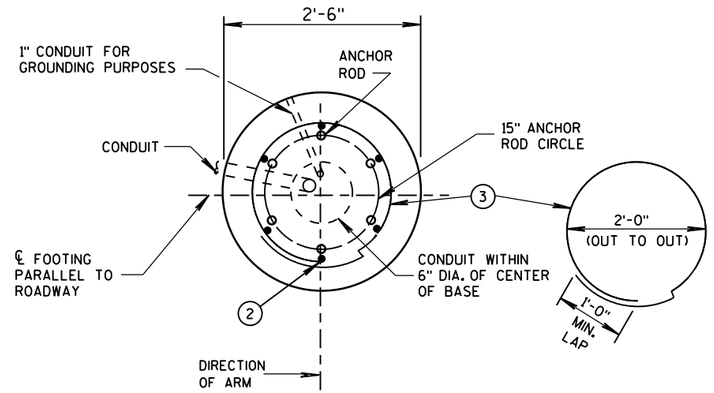
ANCHOR RODS SHALL BE INSTALLED WITH MISALIGNMENTS OF LESS THAN 1:40 FROM VERTICAL.

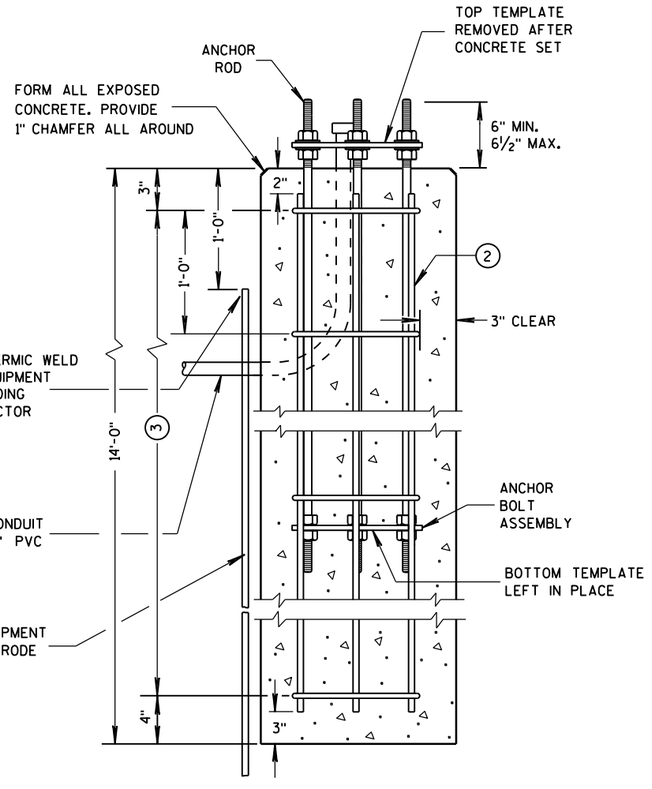
(1) THE MINIMUM DEPTH OF CONDUIT EXITING THE CONCRETE BASE AND INSTALLED BELOW THE TRAVELED WAY SHALL BE 24 INCHES. THE MINIMUM DEPTH OF CONDUIT EXITING THE CONCRETE BASE THAT IS NOT INSTALLED BELOW THE TRAVELED WAY SHALL BE 18 INCHES. THE MAXIMUM DEPTH OF ALL CONDUIT SHALL BE 36 INCHES, (GREATER THAN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

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

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

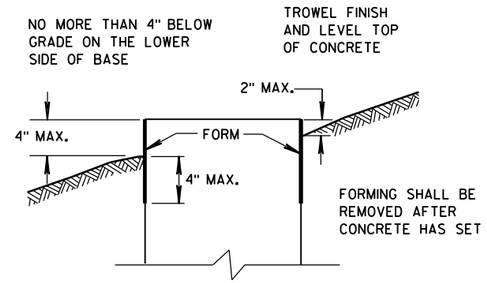
CONCRETE MASONRY	fc=3,500 p.s.i.
HIGH STRENGTH BAR STEEL REINFORCEMENT, GRADE 60	fy=60,000 p.s.i.
ANCHOR RODS, AASHTO M314 GRADE 55	fy=55,000 p.s.i.
TEMPLATES, ASTM, A709 GRADE 36	fy=36,000 p.s.i.



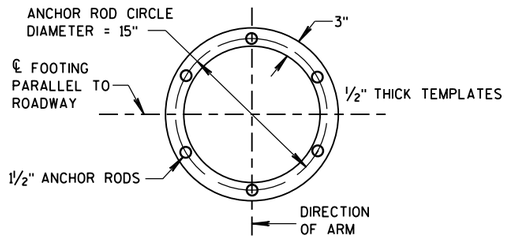


CONCRETE BASE TYPE 10
(FOR TYPE 9 & 10 POLES)

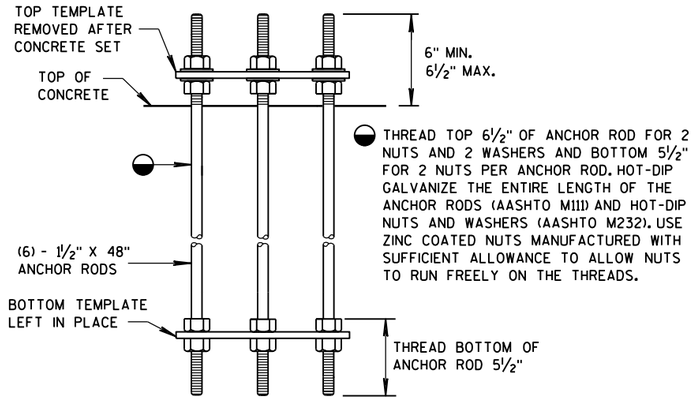
TO BE USED WHEN GROUND ELEVATION AT BASE EQUALS OR IS GREATER THAN HIGH POINT OF ROADWAY ELEVATION. SEE S.D.D. 9C13-1 WHEN GROUND ELEVATION AT BASE IS LOWER THAN HIGH POINT OF ROADWAY ELEVATION.



FORMING DETAIL



TOP AND BOTTOM TEMPLATES



ANCHOR BOLT ASSEMBLY DETAIL

CONCRETE BASE TYPE 10 ANCHOR ASSEMBLY

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

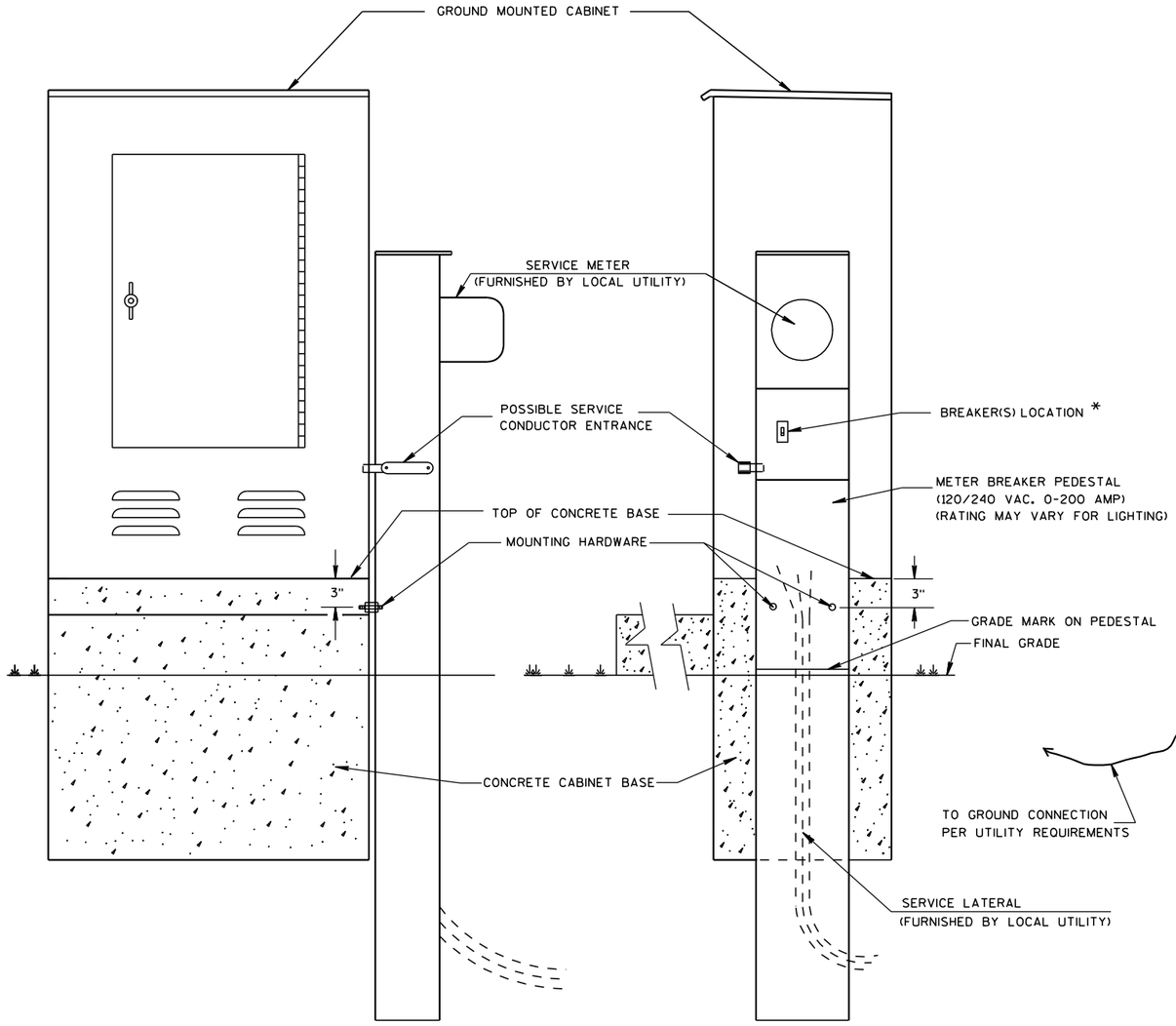
CONCRETE BASE TYPE 10

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
1-16-2013 DATE
/S/ Ahmet Demirbilek STATE ELECTRICAL
FHWA

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S.D.D. 9 C 11-3



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 1-4

CABINET SERVICE INSTALLATION (METER BREAKER PEDESTAL)

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED

10/27/09 DATE

/S/ Joanna L. Bush
STATE ELECTRICAL ENGI

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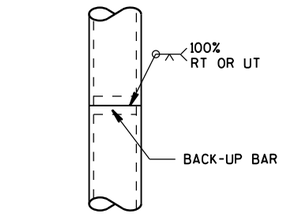
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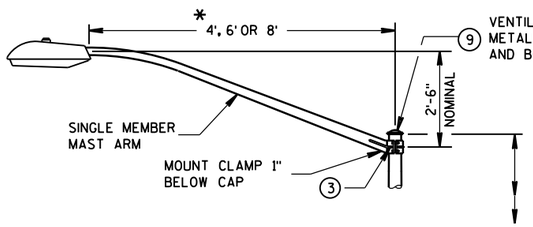
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FOR MANUFACTURERS USE ONLY

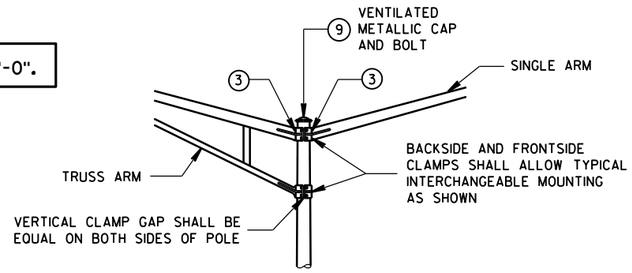
WELD TO BE 100% R.T. OR U.T. TESTED AS PER THE REQUIREMENTS OF AWS D 1.5-88. RECORDS OF COMPLIANCE OF SUCH TESTING SHALL BE FURNISHED TO THE OFFICE OF DESIGN/BRIDGE FOR VERIFICATION AND APPROVAL.

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





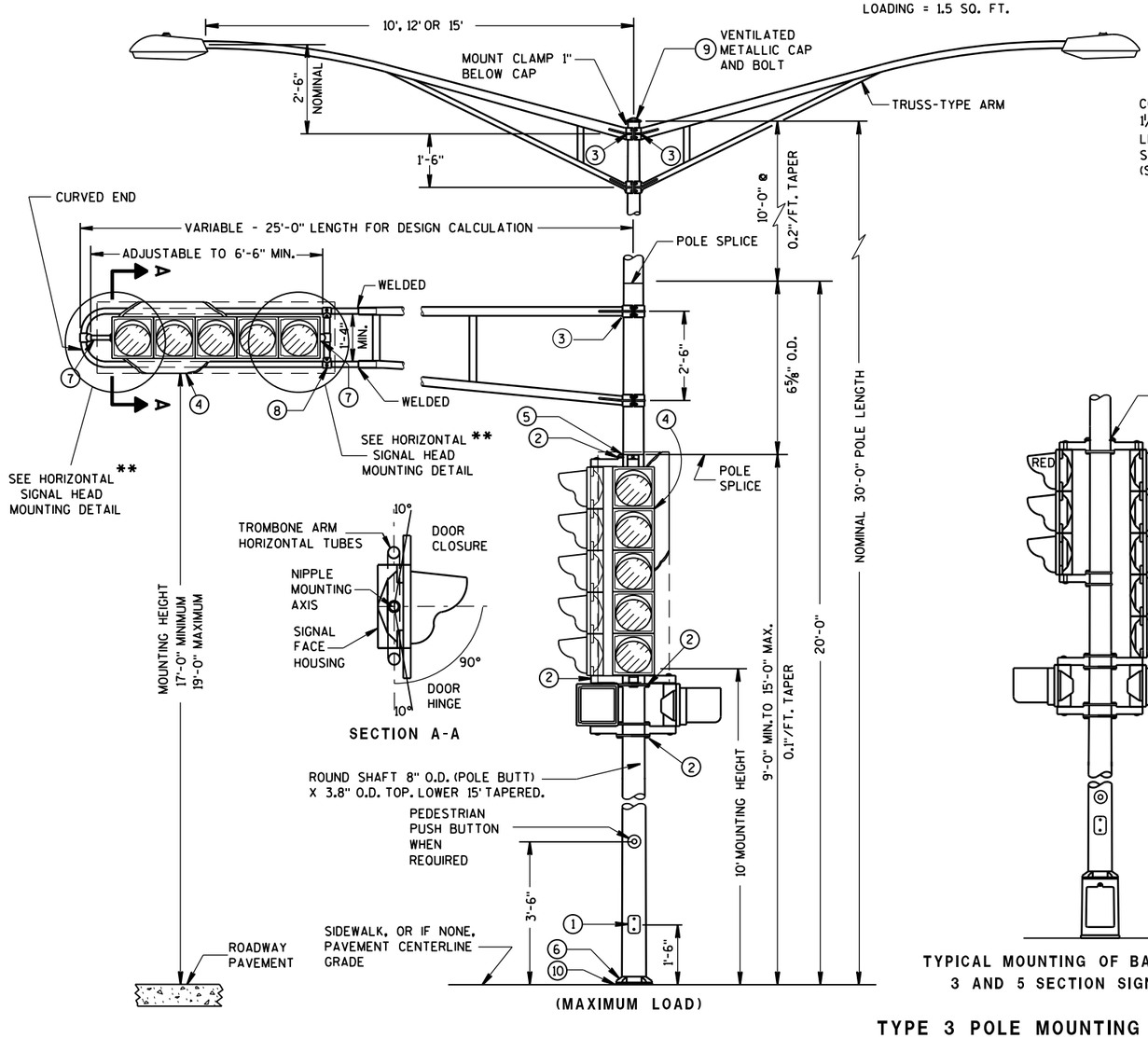
POLE SPLICE DETAIL

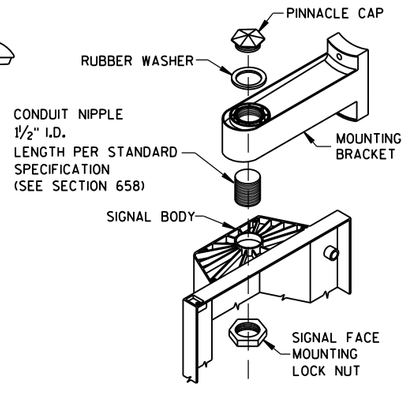


INTERCHANGEABLE MOUNTING DETAIL

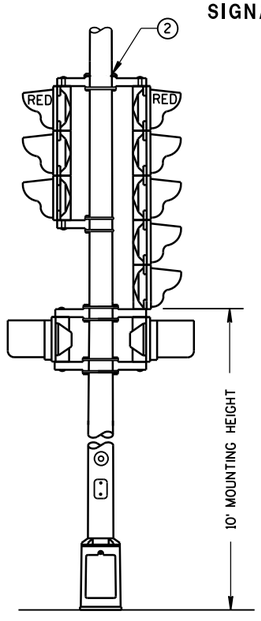
LUMINAIRE

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

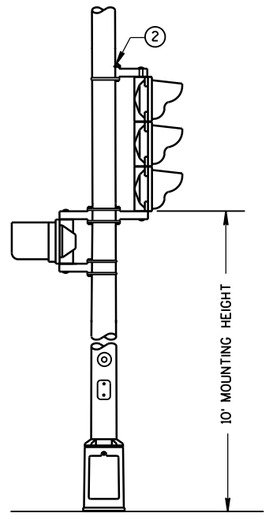




SIGNAL FACE MOUNTING DETAIL
(BANDED)



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



TYPICAL MOUNTING OF 3 SECTION
SIGNAL FACE

TYPE 3 POLE MOUNTING CONFIGURATION

GENERAL NOTES

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

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

POLES SHALL BE GALVANIZED STEEL.

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

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

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

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

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

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

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

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

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

(6) TYPE 3 POLE CONFIGURATIONS SHALL BE MOUNTED DIRECTLY TO THEIR CONCRETE BASES.

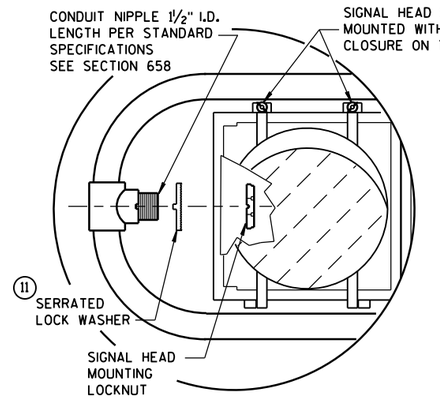
(7) MOUNTING BRACKET NIPPLES FOR THE SIGNAL FACE(S) SHALL BE 2 INCHES IN LENGTH AND 1½ INCHES IN DIAMETER. (SEE STANDARD SPECIFICATION - SECTION 658)

(8) VERTICAL STRUT (ADJUSTABLE). ONE (1) SET SCREW (1/4 " X ¾" -20 TPI, STAINLESS STEEL, HEX HEAD) INTO EACH ARM MEMBER IF STRUT IS THE SLIDING TYPE.

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

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

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



HORIZONTAL SIGNAL HEAD MOUNTING DETAIL **

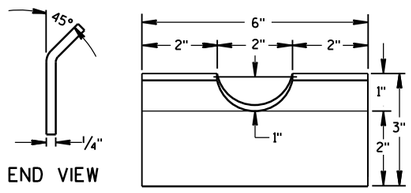
** SIGNAL HEAD ATTACHMENT ALSO APPLYS TO MOUNTING AT CROSS BAR

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

STATE OF WISCONSIN
DEPARTMENT OF TRANSPOI

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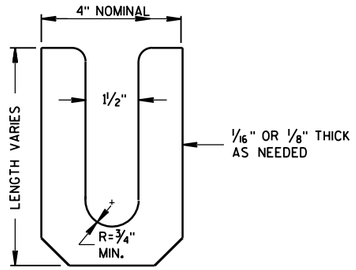
S.D.D. 9 E 1-12b



FRONT VIEW

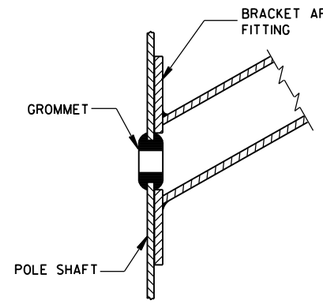
RECTANGULAR CLAMP SHIM

(4 TO A SET)

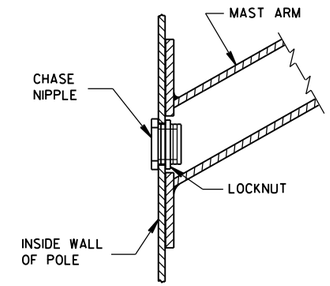


LEVELING SHIM (15)

SHALL BE ALUMINUM



TYPICAL APPLICATION OF GROMMET IN POLE SHAFT



TYPICAL APPLICATION OF CHASE NIPPLE IN POLE SHAFT

GENERAL NOTES

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

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

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

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

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

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

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

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

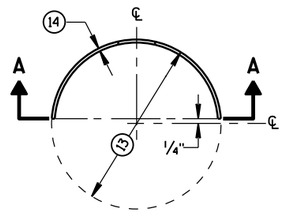
SHIM MATERIAL SHALL BE ALUMINUM ALLOY.

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

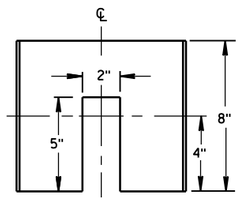
THE CONTRACTOR SHALL SUBMIT TWO COPIES OF ALL SHIM SHOP DRAWINGS TO THE ENGINEER FOR APPROVAL.

(15) LEVELING SHIMS, DESIGNED FOR THE PURPOSE, SHALL BE USED WHEN PLUMBING POLES. THE USE OF WASHERS IN LIEU OF PROPER LEVELING SHIMS IS NOT ACCEPTABLE. LEVELING SHIMS SHALL BE USED ONLY BETWEEN THE TOP OF THE CONCRETE BASE AND A METALLIC BASE PLATE.

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



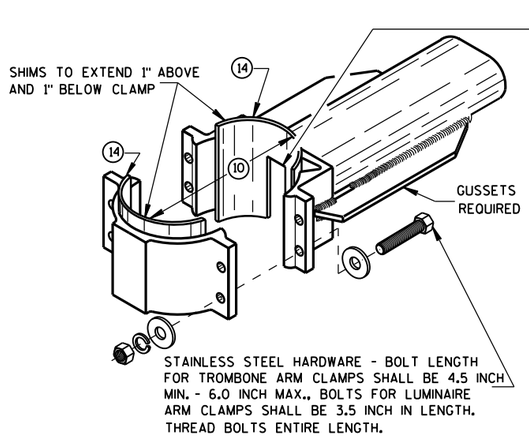
PLAN VIEW



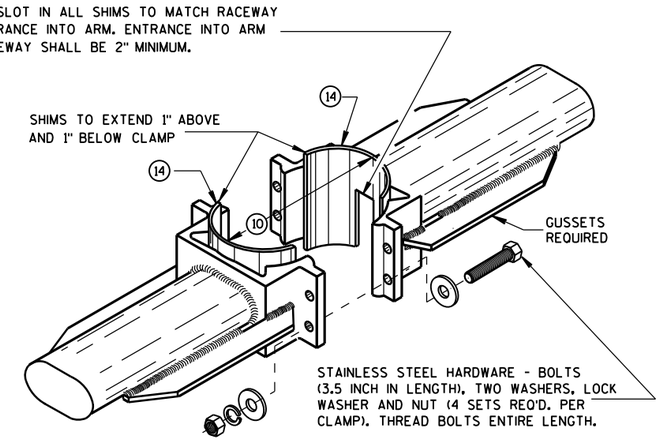
SECTION A-A

CIRCULAR CLAMP SHIM

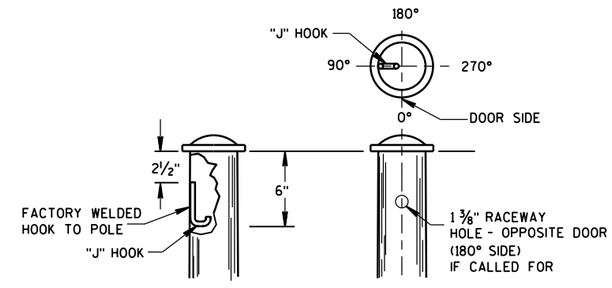
(2 TO A SET)



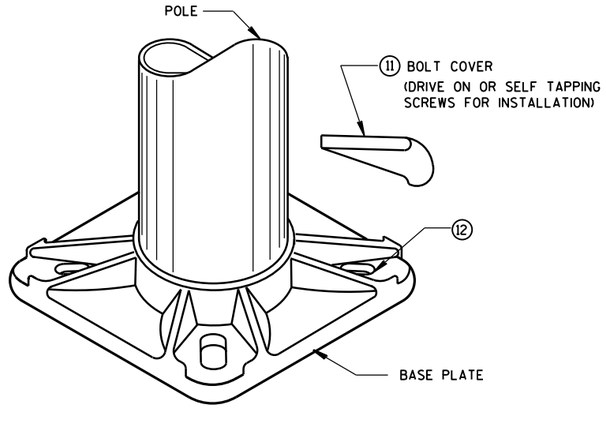
TYPICAL TROMBONE MAST ARM AND SINGLE LUMINAIRE MAST ARM MOUNTING CLAMP



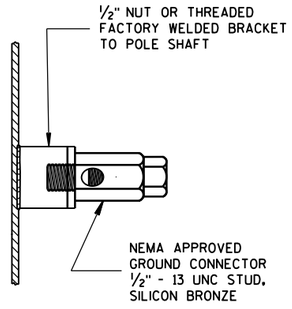
TYPICAL LUMINAIRE MAST ARM (DOUBLE) MOUNTING BRACKETS

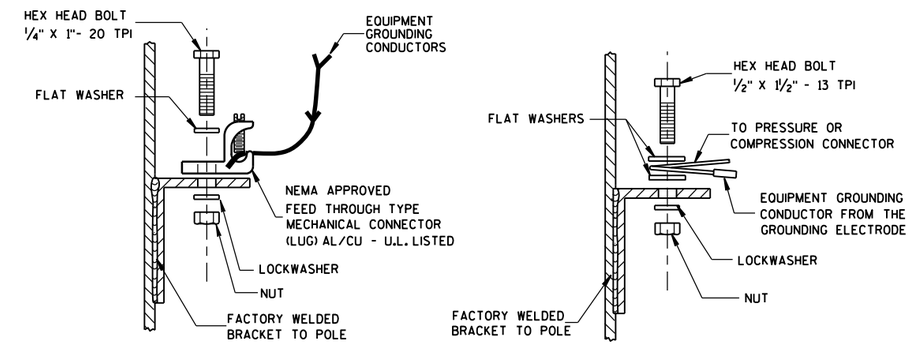


TYPICAL "J" HOOK LOCATION



BASE PLATE





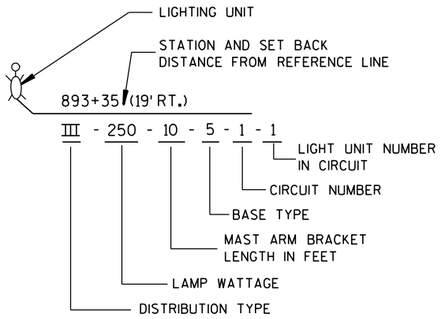
TYPICAL GROUNDING CONNECTIONS

NUT, BOLT AND WASHERS SHALL BE STAINLESS STEEL

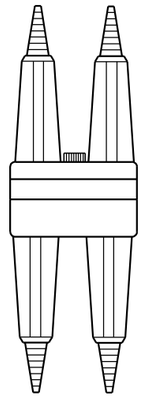
HARDWARE DETAILS FOR POLE MOUNTINGS

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

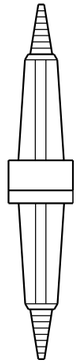
APPROVED
2/7/2013 — DATE
/S/ Ahmet Demirbilek — STATE ELECTRICAL 300
FHWA



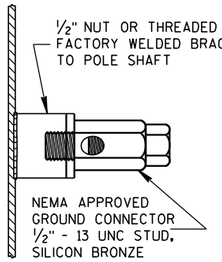
LIGHTING UNIT CODE
(TYPICAL)

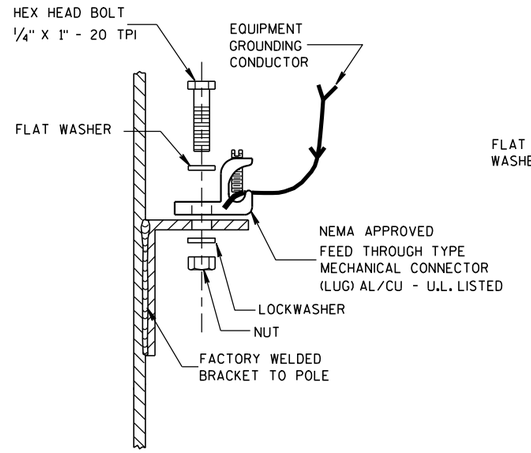


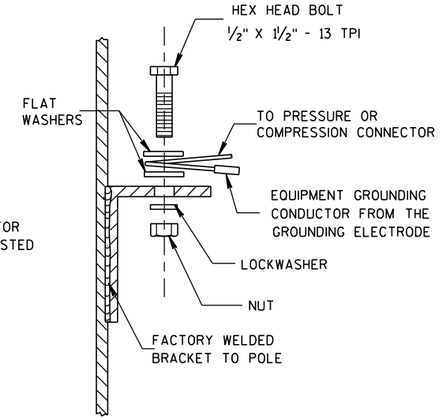
DETAIL "A"
BREAKAWY
DOUBLE POLE WITH
WATERPROOF
INSULATING BOOT



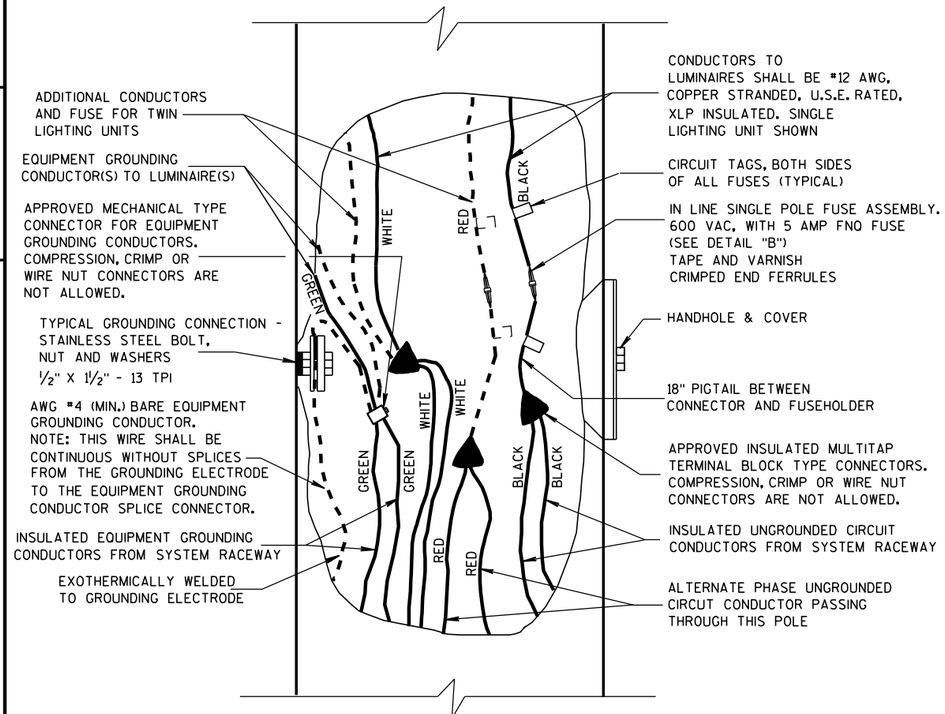
DETAIL "B"
BREAKAWY
SINGLE POLE WITH
WATERPROOF
INSULATING BOOT



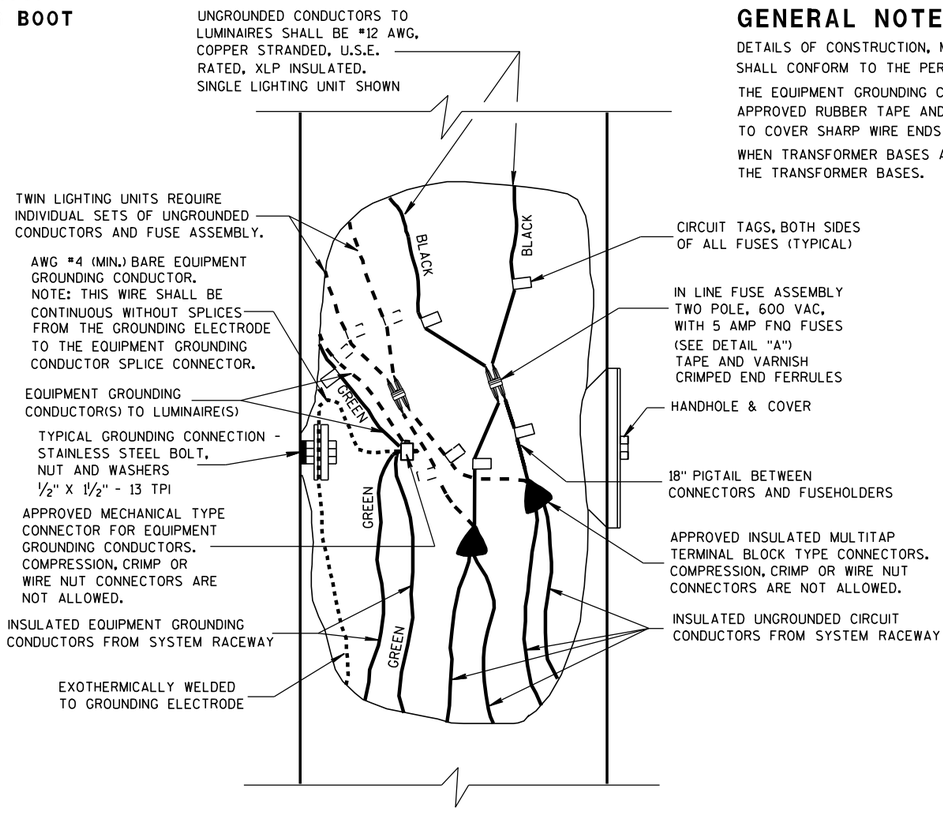




TYPICAL GROUNDING CONNECTIONS
NUT, BOLT, WASHERS AND LOCKWASHERS SHALL BE STAINLESS STEEL



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



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

GENERAL NOTES

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

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

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

NON-FREEWAY LIGHTING UNIT POLE WIRING

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED

3/2/2011 — DATE

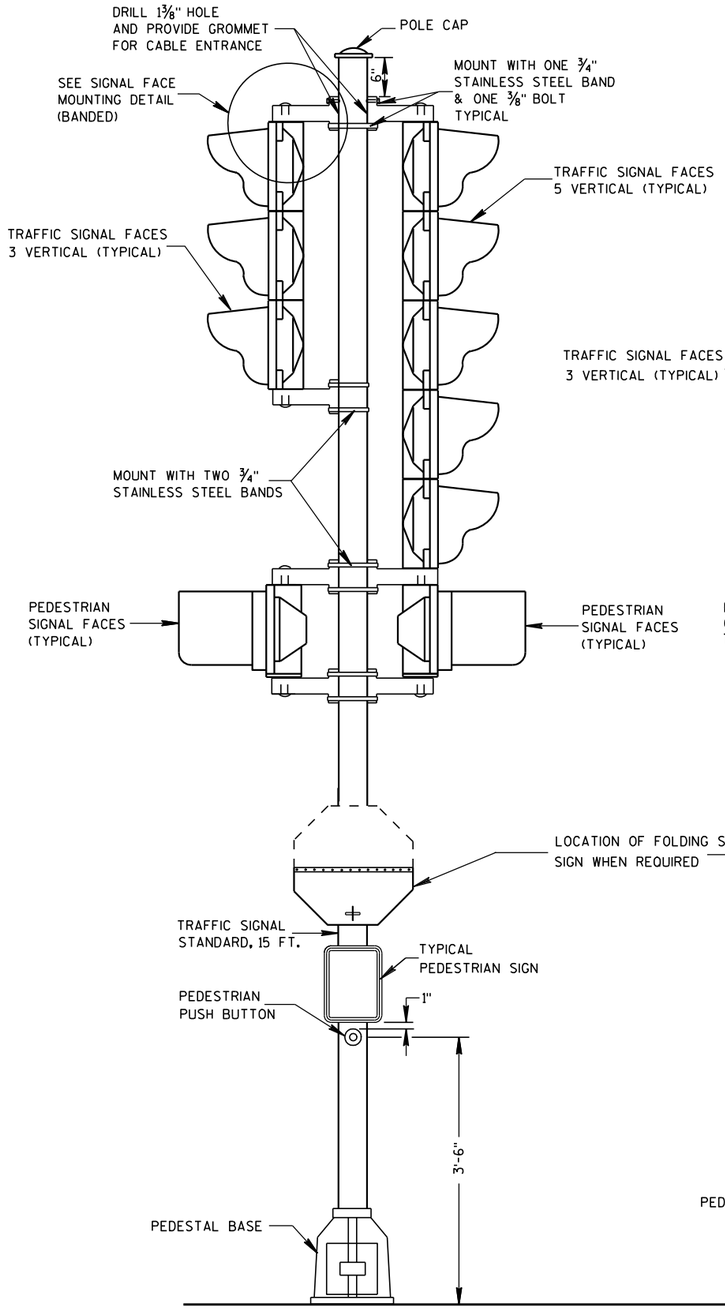
/S/ Thomas J. Gosnine — STATE ELECTRICAL ENGI

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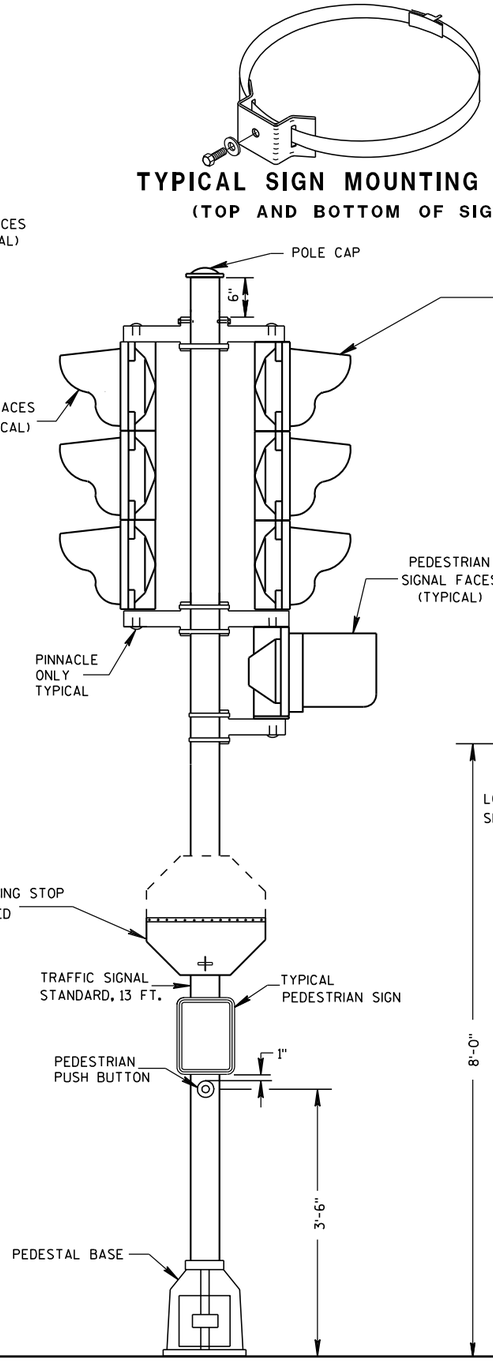
HWYS

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S.D.D. 9 E 3-4

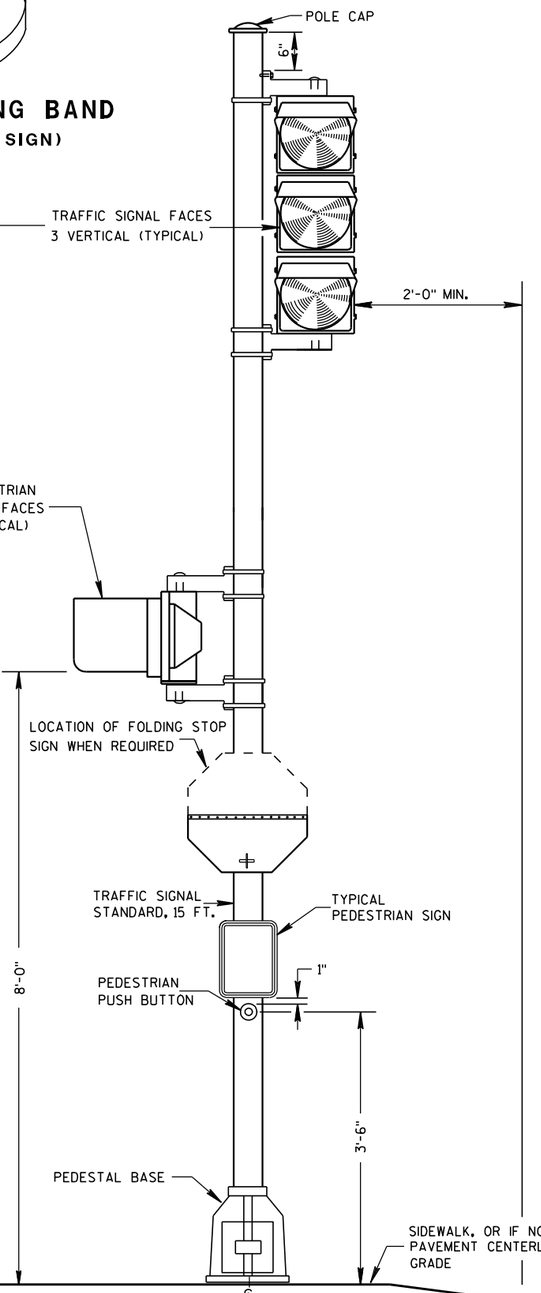


TRAFFIC SIGNAL STANDARD-15 FT.



TRAFFIC SIGNAL STANDARD-13 FT.

TYPICAL SIGN MOUNTING BAND
(TOP AND BOTTOM OF SIGN)



TRAFFIC SIGNAL STANDARD-15 FT.
3M MOUNTING (TYPICAL)

GENERAL NOTES

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

SEE THE SIGNAL PLAN FOR REQUIRED SIGNAL FACE SIZES.

ALL PEDESTAL BASES SHALL BE MOUNTED ON CONCRETE BASE - TYPE 1.

FOR APPROVED MOUNTING HARDWARE, SEE THE CONTRACT SPECIAL PROVISIONS.

POLYCARBONATE MOUNTING BRACKETS SHALL BE USED.

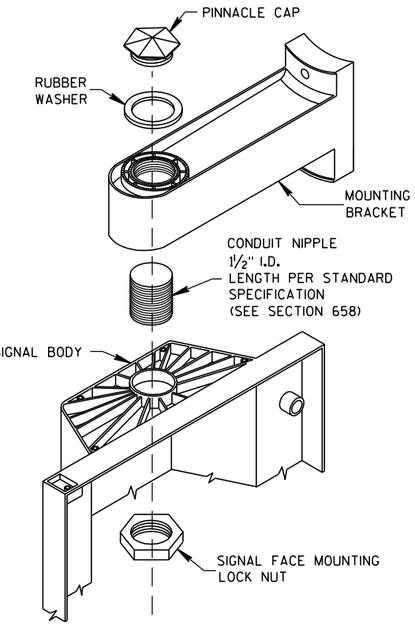
LENGTH AND LOCATION OF TRAFFIC SIGNAL STANDARDS SHALL BE AS SHOWN ON THE PLANS.

OPTICALLY PROGRAMMED SIGNAL FACES SHALL BE MASKED IN ACCORDANCE WITH MANUFACTURERS INSTRUCTIONS, AND UNDER THE DIRECTIONS OF THE DISTRICT TRAFFIC ENGINEER.

FOLDING STOP SIGNS SHALL BE IN ACCORDANCE WITH THE MUTCD AND/OR THE LATEST WISCONSIN SUPPLEMENT. THE SIGNS SHALL BE SIZED AND LOCATED AS CALLED FOR IN IN THE PLANS.

PEDESTRIAN SIGNS SHALL BE AS DESIGNATED IN THE PLANS.

FURNISH AND INSTALL VENTILATED, CAST, METALLIC (ALUMINUM ALLOY) CAPS. FASTEN CAPS WITH ONE (1) 1/4" X ¾" - 20 TPI STAINLESS STEEL, HEX HEAD BOLT.



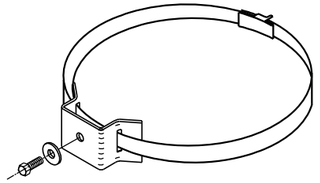
SIGNAL FACE MOUNTING DETAIL
(BANDED)

TRAFFIC SIGNAL STANDARD POLY BRACKET MOUNTINGS (TYPICAL) 13 FT. OR 15 FT.

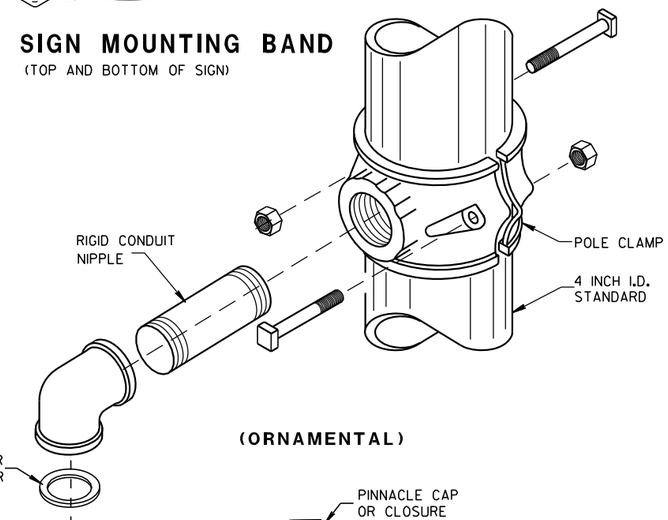
STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
5/11/10 DATE
/S/ John Corbin STATE ELECTRICAL ENGI
302
HWYS
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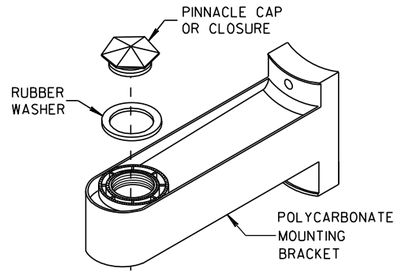
6
S.D.D. 9 E 6-4



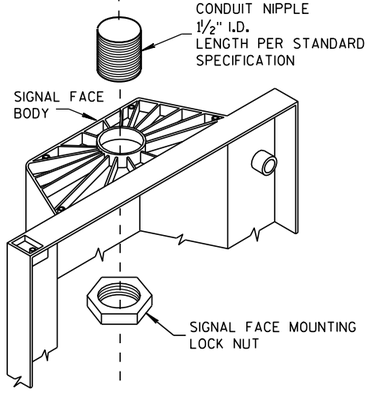
TYPICAL SIGN MOUNTING BAND
(TOP AND BOTTOM OF SIGN)



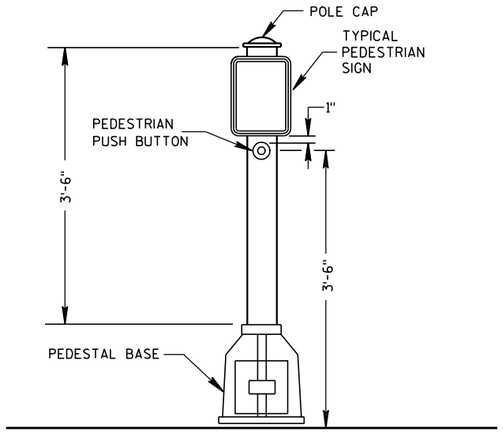
(ORNAMENTAL)



(BANDED)



SIGNAL FACE MOUNTING DETAILS



PEDESTRIAN PUSH BUTTON TYPICAL MOUNTING

GENERAL NOTES

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

SEE THE SIGNAL PLAN FOR REQUIRED SIGNAL FACE SIZES.

LOCATIONS SHALL BE AS SHOWN ON THE PLANS.

ALL PEDESTAL BASES SHALL BE MOUNTED ON CONCRETE BASE - TYPE 1.

FOR APPROVED MOUNTING HARDWARE, SEE THE CONTRACT SPECIFICATIONS.

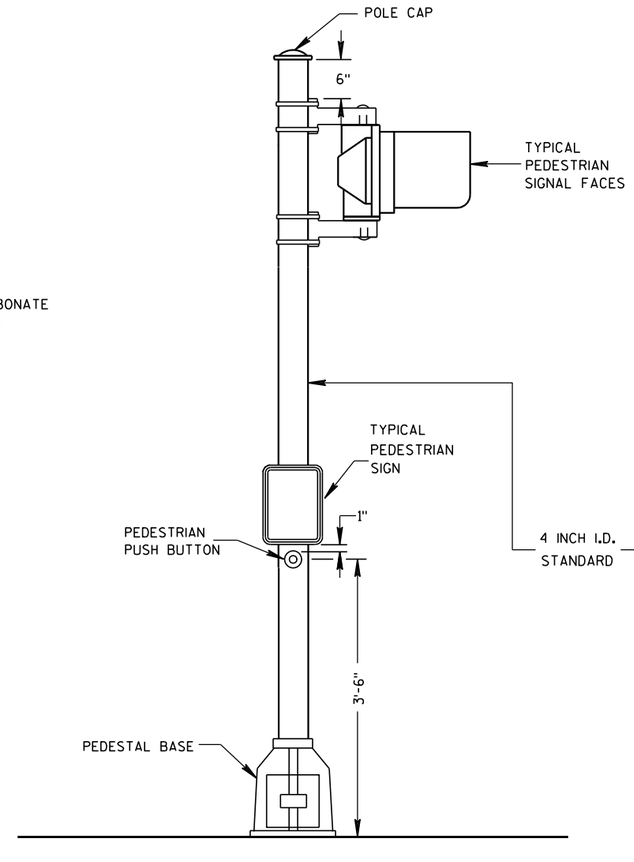
POLYCARBONATE SIGNAL FACE MOUNTING BRACKETS SHALL BE USED UNLESS ORNAMENTAL POLE CLAMPS ARE SPECIFIED.

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

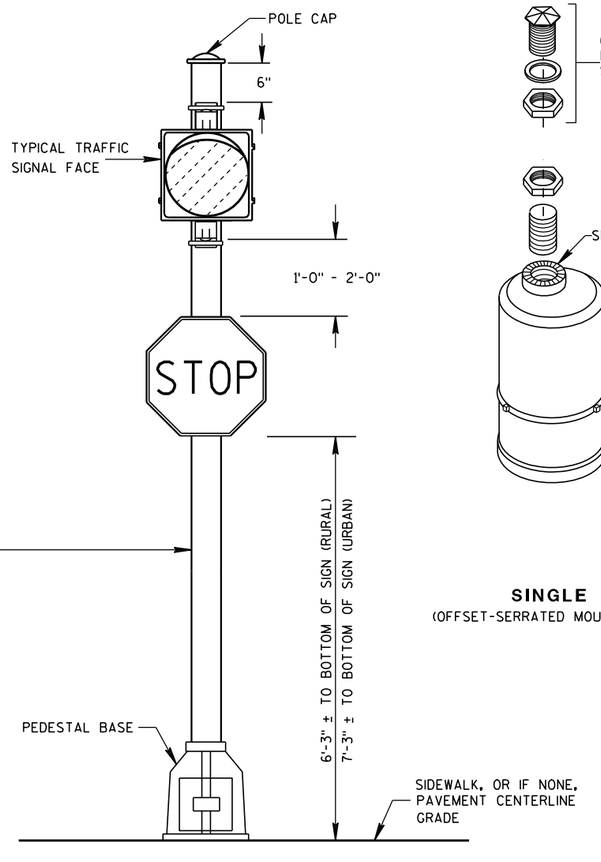
MOUNTINGS AND BRACKETS SHALL BE AS SHOWN ON THE PLANS OR DESCRIBED IN THE SPECIAL PROVISIONS (BY THE DISTRICT TRAFFIC ENGINEER).

PEDESTRIAN SIGNS SHALL BE AS DESIGNATED IN THE PLANS.

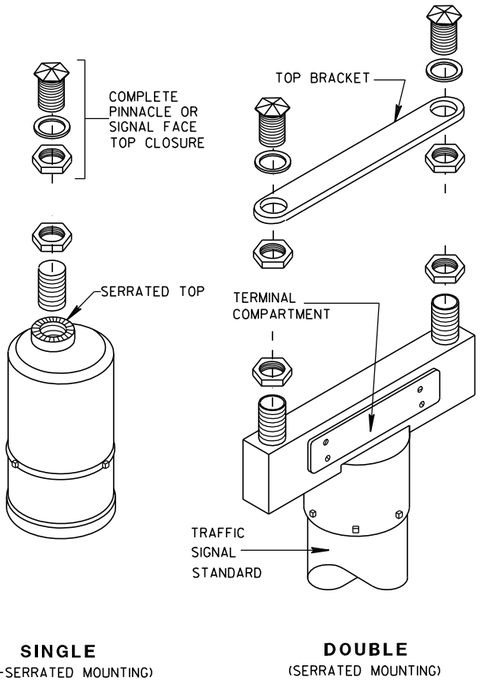
FURNISH AND INSTALL VENTILATED, CAST, METALLIC (ALUMINUM ALLOY) CAPS. FASTEN CAPS WITH ONE (1) ¼" X ¾" - 20 TPI STAINLESS STEEL, HEX HEAD BOLT.



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



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



SINGLE
(OFFSET-SERRATED MOUNTING)

DOUBLE
(SERRATED MOUNTING)

SLIPFITTERS

TRAFFIC SIGNAL STANDARD PEDESTRIAN AND FLASHER TYPICAL MOUNTING DETAILS

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED

5/11/10
DATE

/S/ John Corbin
STATE ELECTRICAL ENGI

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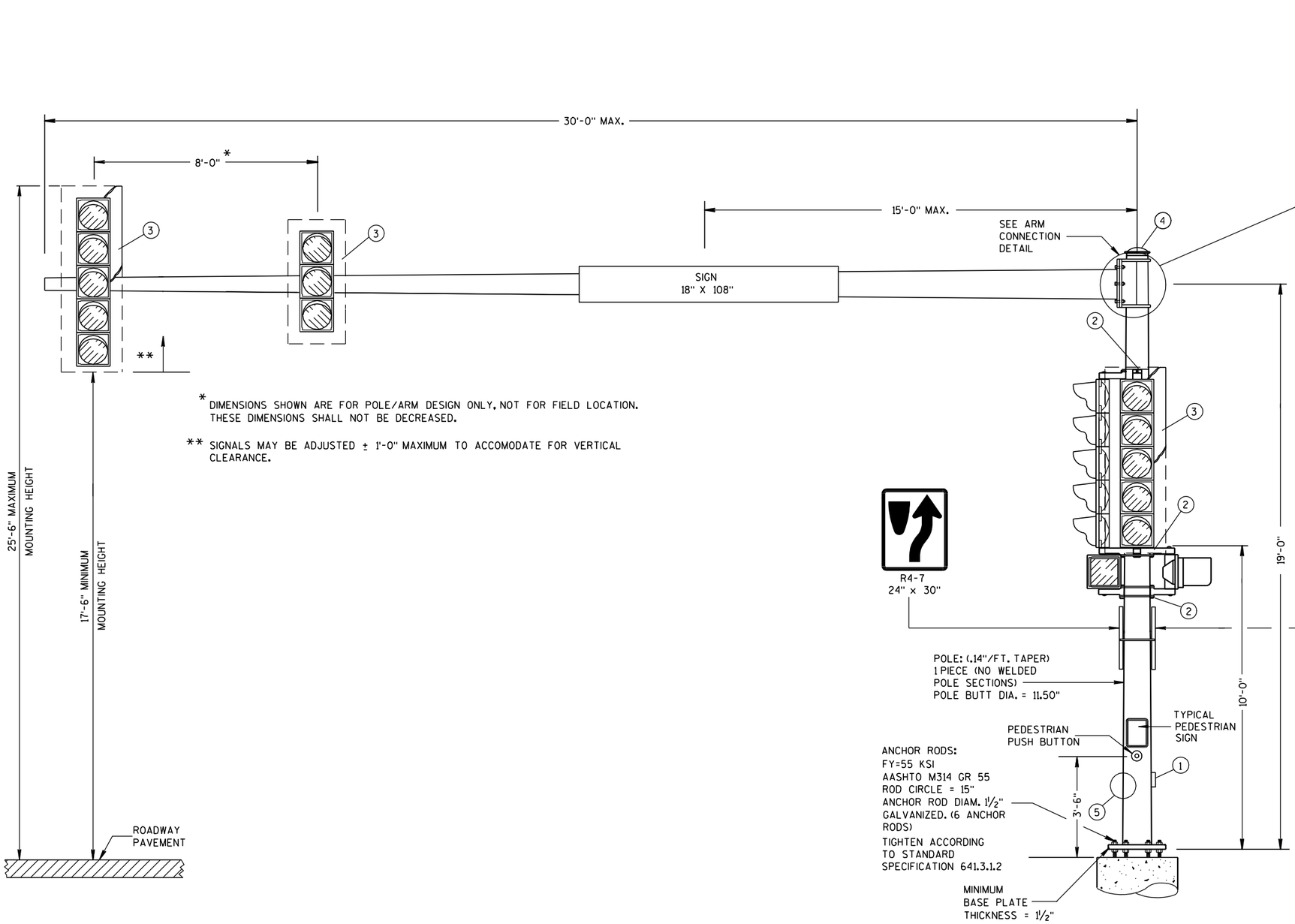
HWYS

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S.D.D. 9 E 7-5

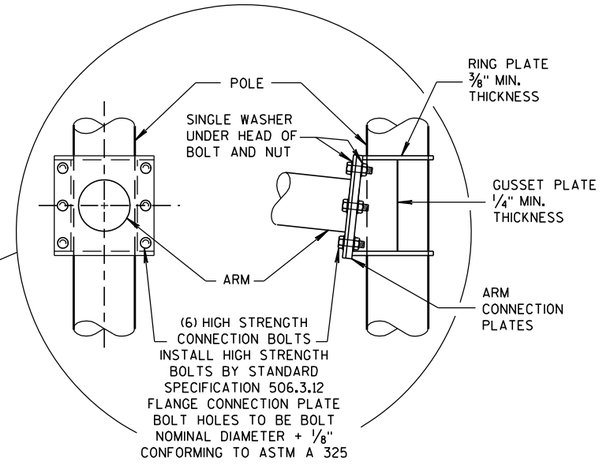
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S.D.D. 9 E 7-5



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

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



6 BOLT ARM CONNECTION DETAIL

ANCHOR ROD LOCATION

(MAXIMUM LOAD)

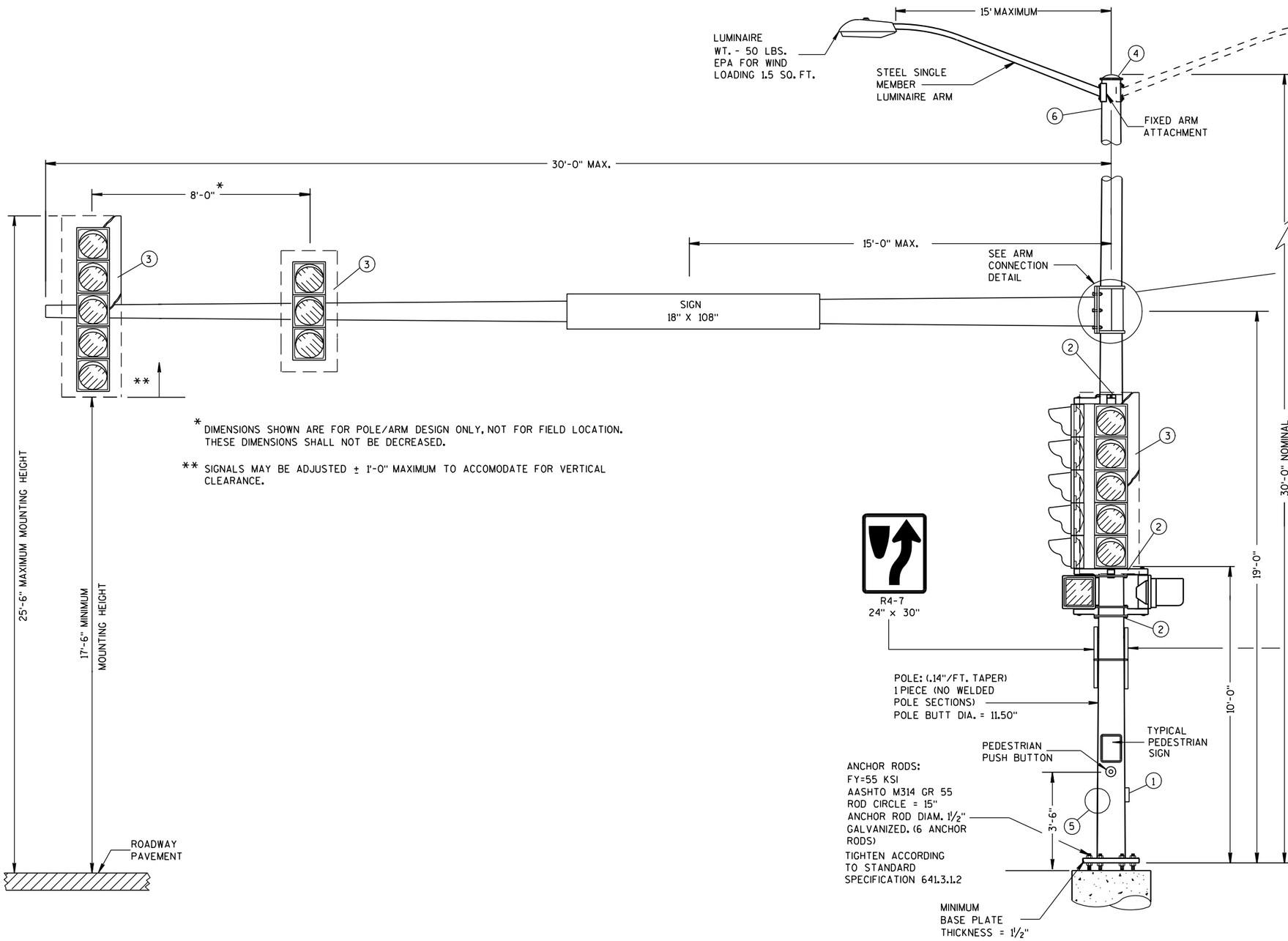
TYPE 9 POLE 15'- 30' MONOTUBE ARM

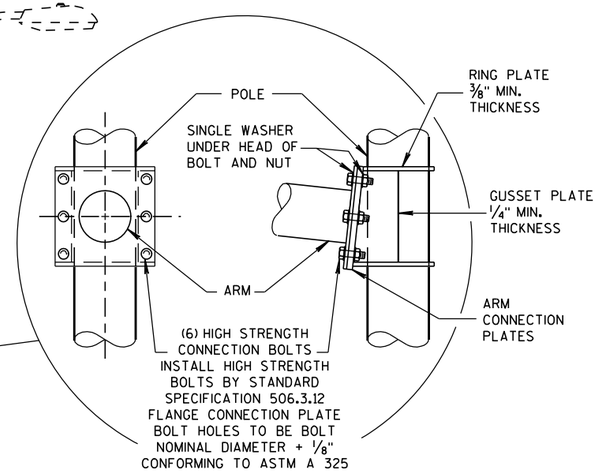
TYPE 9 POLE
15' - 30' MONOTUBE ARM

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

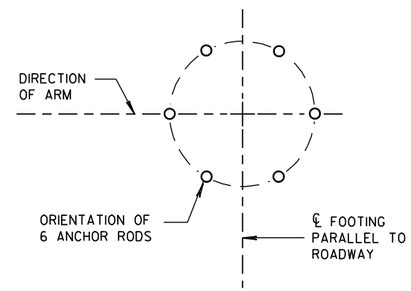
APPROVED
3/2/2011 DATE
/S/ Thomas J. Corrigan
STATE ELECTRICAL ENGI 304 HWYS
FHWA

6
S.D.D. 9 E 8-4a





6 BOLT ARM CONNECTION DETAIL



ANCHOR ROD LOCATION

* 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.

(MAXIMUM LOAD)

TYPE 10 POLE
15'- 30' MONOTUBE ARM

TYPE 10 POLE
15' - 30' MONOTUBE ARM

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED

3/2/2011 — DATE

/S/ Thomas J. Corrigan — STATE ELECTRICAL ENGI

305 — HWYS

FHWA

6

S.D.D. 9 E 8-4b

6

S.D.D. 9 E 8-4b

GENERAL NOTES

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

POLE TYPES 9 AND 10 ARE FOR ARM LENGTHS 15-FOOT TO 30-FOOT.

POLE TYPES 12 AND 13 ARE FOR ARM LENGTHS 35-FOOT TO 55-FOOT.

MONOTUBE POLE AND ARM SHALL BE GALVANIZED STEEL.

RING-STIFFENED BUILT-UP BOX TYPE OF ATTACHMENT FOR TRAFFIC SIGNAL ARM.

ONE (1) PIECE POLE CONSTRUCTION (NO WELDED POLE SECTIONS).

STANDARD STRAIGHT ARM DESIGN (3 % ± RISE).

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

PROVIDE WIREWAY THRU POLE WALL AND ARM CONNECTION PLATES. PROVIDE ROUND, SMOOTH INSIDE SURFACE.

MANUFACTURER'S SUBMITTED POLE DESIGNS AND DRAWINGS SHALL BE SIGNED AND STAMPED BY A REGISTERED PROFESSIONAL ENGINEER AND CERTIFIED AS BEING IN COMPLIANCE WITH THE LATEST AASHTO AND ALL PERTINENT WISDOT SPECIFICATIONS AND DRAWINGS FOR TRAFFIC AND LIGHTING STRUCTURES AND AS FOLLOWS:

- CATEGORY III FATIGUE LOADS OF GALLOPING, TRUCK GUSTS (AT 45 MPH VEHICLE VELOCITY) AND NATURAL WIND GUSTS FOR DESIGN OF TYPE 9 AND TYPE 10 STRUCTURES.
- CATEGORY II FATIGUE LOADS OF GALLOPING, TRUCK GUSTS (AT 45 MPH VEHICLE VELOCITY) AND NATURAL WIND GUSTS FOR DESIGN OF TYPE 12 AND TYPE 13 STRUCTURES.
- 90 MPH (3-SECOND GUST) WIND SPEED AND A 50 YEAR DESIGN LIFE.

SECURE THE OPENING BELOW THE BASE PLATE WITH STAINLESS STEEL OR GALVANIZED STEEL MESH AND SECURE THE MESH WITH ¾" S.S. BANDING AROUND THE LEVELING NUTS.

INDENT PRINT (NOMINAL ½" HIGH) THE POLE LENGTH AND FIRST TWO LETTERS OF THE MANUFACTURERS NAME ON TWO SIDES OF THE BASE PLATE 180 DEGREES APART, BEFORE GALVANIZING. THE ARM SHALL BE IDENTIFIED WITH THE SAME INFORMATION BY INDENT PRINT.

SIGNAL FACE SHALL BE MOUNTED 6 INCHES (NOMINAL) FROM THE END OF THE MONOTUBE ARM OR AS SHOWN ON THE PLAN CONSTRUCTION DETAIL OR AS DIRECTED BY THE PROJECT ENGINEER/ELECTRICAL OPERATIONS PERSONNEL. MOUNT ALL LIKE HEADS AT SAME ELEVATION.

SIGN MOUNTING BRACKETS SHALL BE FURNISHED IN ACCORDANCE WITH SECTION 637 OF THE STANDARD SPECIFICATIONS FOR HIGHWAY AND STRUCTURE CONSTRUCTION.

(1) DESIGN FOR MAXIMUM ALLOWABLE HANDHOLE WITH COVER ASSEMBLY WITH TWO ¼" X ¾" - 20 TPI STAINLESS STEEL HEX HEAD BOLTS.

(2) SIGNAL MOUNTING BRACKETS FOR POLE MOUNTING, MOUNT WITH CAP SCREW AND BANDING, (SEE SPECIFICATIONS SEC. 658).

(3) SECURELY MOUNT BACKPLATES, PROJECTING 5" BEYOND ALL SIDES OF THE SIGNAL FACE HOUSING, PER MANUFACTURERS RECOMMENDATIONS.

(4) THE TOP OF THE POLE SHAFT AND THE END OF THE MONOTUBE ARM SHALL BE EQUIPPED WITH A REMOVABLE, VENTILATED CAP HELD SECURELY IN PLACE WITH SET SCREWS.

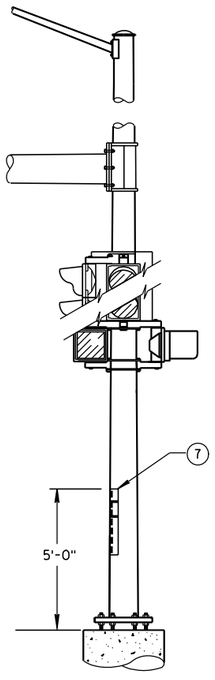
(5) FACTORY-WELDED BRACKET FOR GROUNDING LUG, OPPOSITE HANDHOLE, (LUG AND HARDWARE PAID UNDER SEPARATE ITEM). PROVIDE HOLE IN BRACKET FOR ¼" X ¾" - 20 TPI STAINLESS STEEL HEX HEAD BOLT.

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

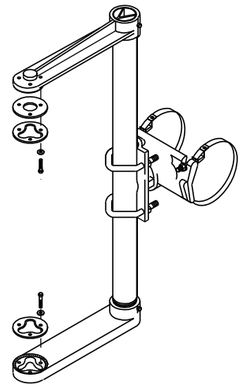
(7) INSTALL DEPARTMENT PROVIDED STRUCTURAL IDENTIFICATION PLAQUES.

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

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

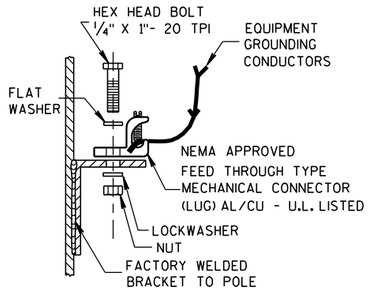


STRUCTURAL IDENTIFICATION PLAQUE PLACEMENT



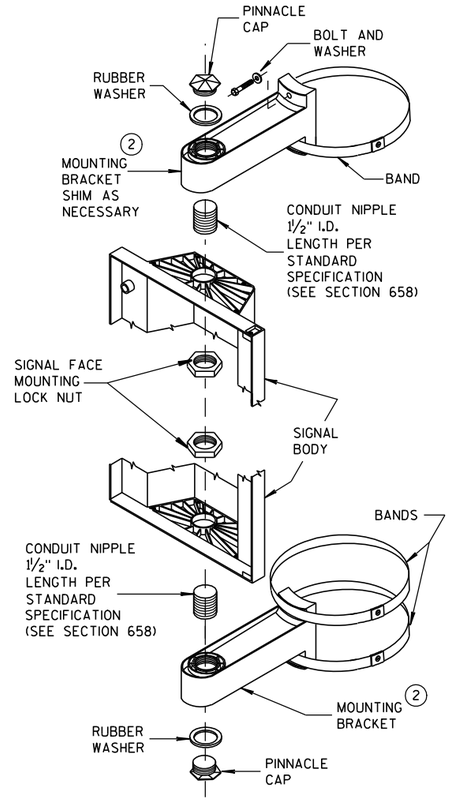
SIGNAL FACE MOUNTING BRACKET DETAIL FOR MONOTUBE ARM

(MOUNT PER MANUFACTURER'S RECOMMENDATION)

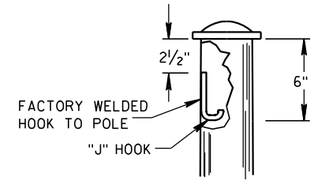


TYPICAL GROUNDING CONNECTIONS (5)

NUT, BOLT AND WASHERS SHALL BE STAINLESS STEEL



SIGNAL FACE VERTICAL MOUNTING DETAIL



"J" HOOK WIRE SUPPORT (6)

GENERAL NOTES AND HARDWARE DETAILS FOR TYPE 9, 10, 12 & 13 POLES WITH MONOTUBE ARMS

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED

3/2/2011 DATE

/S/ Thomas J. Corrigan
STATE ELECTRICAL ENGI

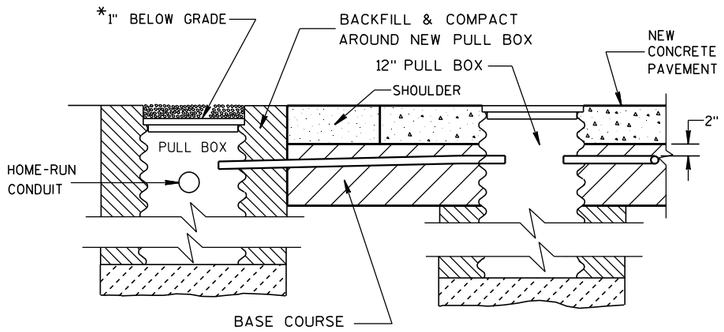
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HWYS

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SECTION A-A

NO CURB & GUTTER

LOOP DETECTOR INSTALLATION DETAILS

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

GENERAL NOTES

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

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

PITCH LEAD OUT CONDUIT TO DRAIN TO ROADSIDE PULL BOX.

SPLICES SHALL BE INSTALLED BY USING CAST IN PLACE SPLICE KITS SUCH AS 3M TYPE 82A1 OR APPROVED EQUAL. NON-INSULATED BUTT SPLICES TO FIT #12 AWG STRANDED WIRE SHALL BE USED. SPLICES SHALL BE SOLDERED AND INSULATED FROM EACH OTHER AS PER INSTRUCTIONS INCLUDED IN THE SPLICE KIT.

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

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

ANTI-SIEZE LUBRICATING MATERIAL SHALL BE USED ON ALL THREADS OF THREADED ASSEMBLIES BEFORE INSTALLATION.

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

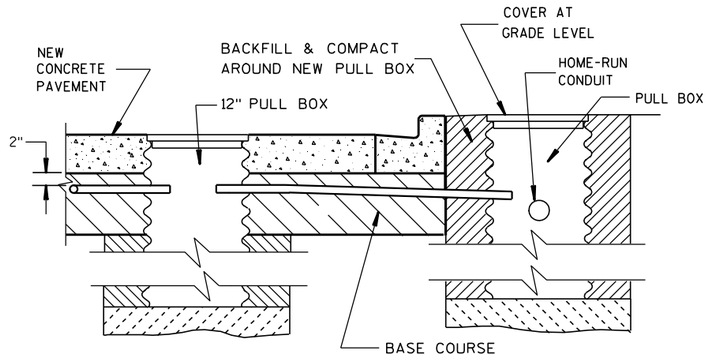
THE #12 AWG LOOP WIRE FROM THE LOOP TO THE ROADSIDE PULL BOX, SHALL BE HAND TWISTED AT LEAST 3 TWISTS PER FOOT BEFORE INSTALLATION.

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

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

PROTECTION OF THE CONDUIT, CONDULET AND PULL BOX SHALL BE REQUIRED AFTER INSTALLATION AND BEFORE THE NEW CONCRETE PAVEMENT IS PLACED.

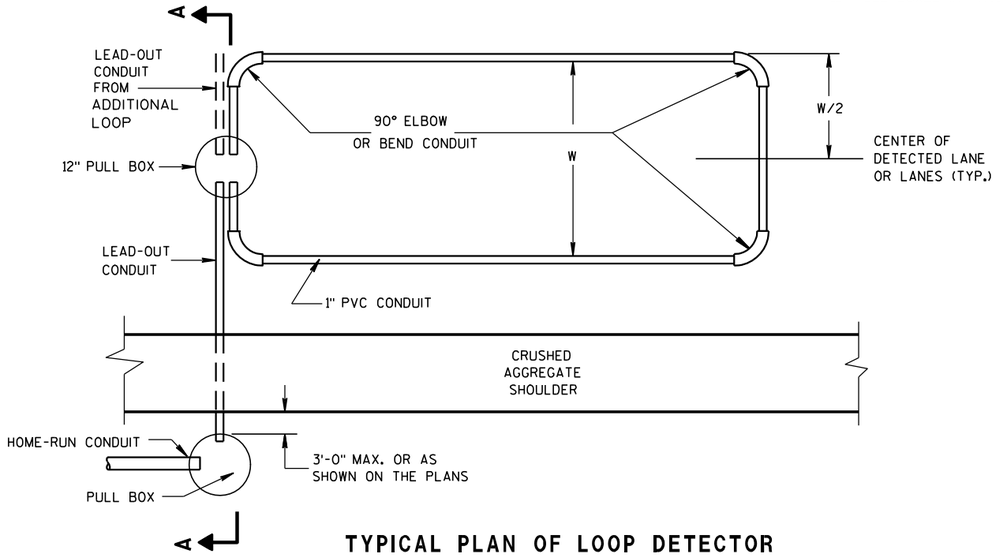
12" PULL BOXES IN PAVEMENT SHALL BE CORRUGATED STEEL ONLY.



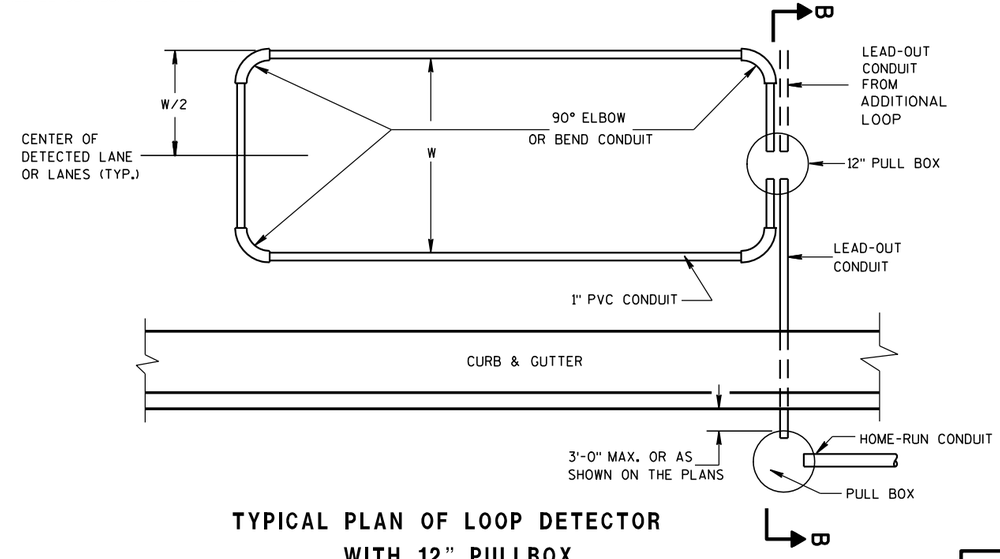
SECTION B-B

CURB & GUTTER

LOOP DETECTOR INSTALLATION DETAILS



TYPICAL PLAN OF LOOP DETECTOR WITH 12" PULLBOX



TYPICAL PLAN OF LOOP DETECTOR WITH 12" PULLBOX

LOOP DETECTOR PLACED IN CRUSHED AGGREGATE BASE (NEW CONCRETE PAVEMNET)

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED

6-7-06 DATE — /S/ Balu Ananthanarayanan, STATE ELECTRICAL ENGI — HWYS

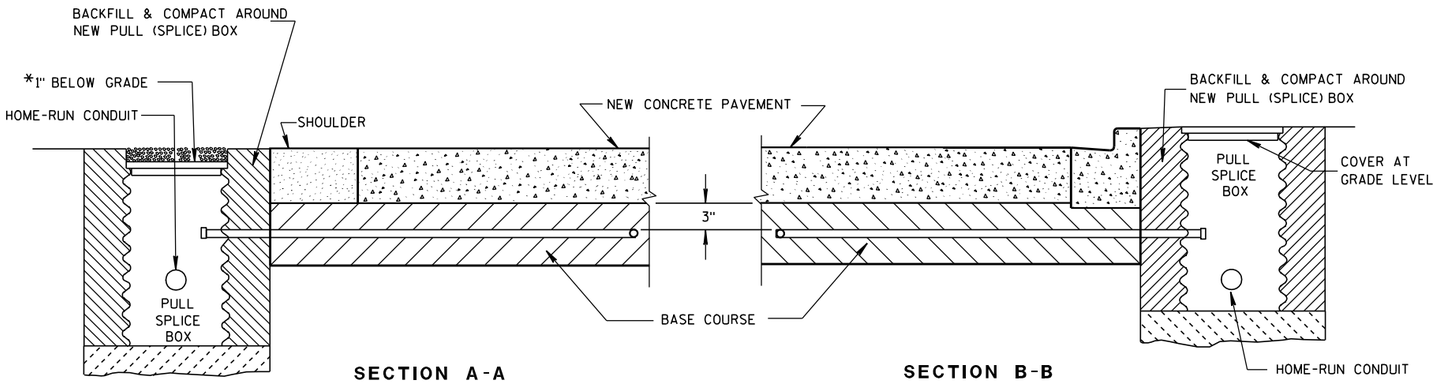
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SECTION A-A
NO CURB & GUTTER

SECTION B-B
CURB & GUTTER

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

LOOP DETECTOR INSTALLATION DETAIL

GENERAL NOTES

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

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

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

SPLICES SHALL BE INSTALLED BY USING CAST IN PLACE SPLICE KITS SUCH AS 3M TYPE 82A1 OR APPROVED EQUAL. NON-INSULATED BUTT SPLICES TO FIT #12 AWG STRANDED WIRE SHALL BE USED. SPLICES SHALL BE SOLDERED AND INSULATED FROM EACH OTHER AS PER INSTRUCTIONS INCLUDED IN THE SPLICE KIT.

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

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

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

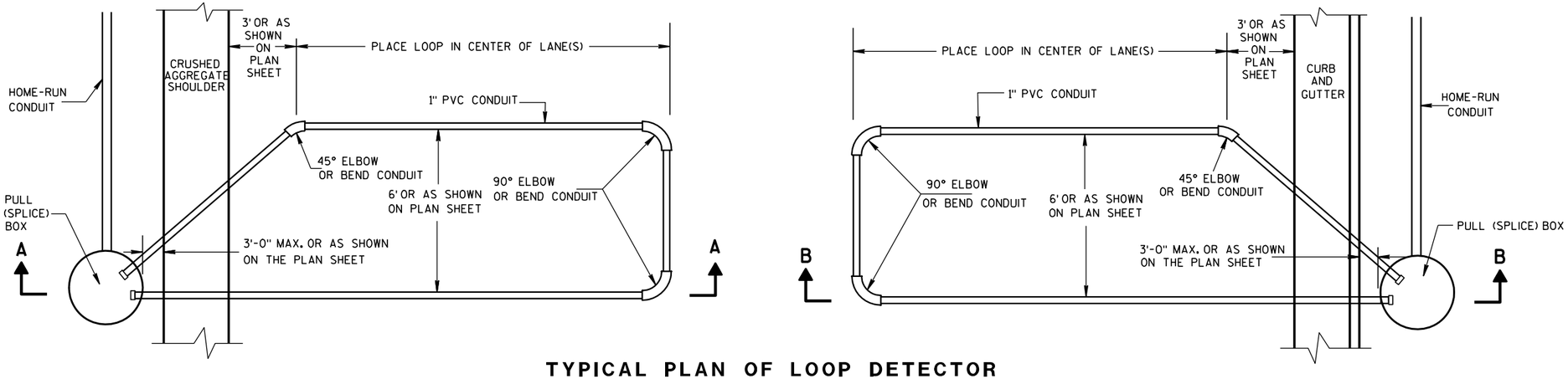
THE #12 AWG. LOOP WIRE IN THE PULL (SPLICE) BOX SHALL BE HAND TWISTED AT LEAST 3 TWISTS PER FOOT BEFORE BEING SPLICED TO THE LOOP LEAD-IN CABLE.

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

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

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

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



TYPICAL PLAN OF LOOP DETECTOR WITH 18" OR 24" PULL (SPLICE) BOX

LOOP DETECTOR INSTALLED IN BASE COURSE WITH PULL (SPLICE) BOX OFF ROADWAY (OPTION 1)

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

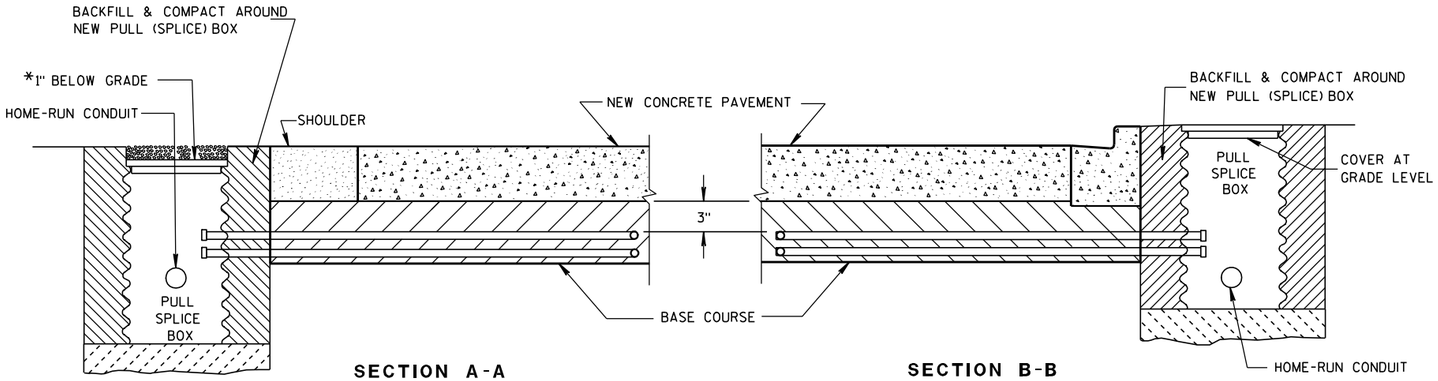
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6/7/06 — DATE
/S/ Balu Aganthangarayanan — STATE ELECTRICAL ENGI
FHWA

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S.D.D. 9 F 15-3a



SECTION A-A
NO CURB & GUTTER

SECTION B-B
CURB & GUTTER

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

LOOP DETECTOR INSTALLATION DETAIL

GENERAL NOTES

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

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

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

SPLICES SHALL BE INSTALLED BY USING CAST IN PLACE SPLICE KITS SUCH AS 3M TYPE 82A1 OR APPROVED EQUAL. NON-INSULATED BUTT SPLICES TO FIT #12 AWG STRANDED WIRE SHALL BE USED. SPLICES SHALL BE SOLDERED AND INSULATED FROM EACH OTHER AS PER INSTRUCTIONS INCLUDED IN THE SPLICE KIT.

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

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

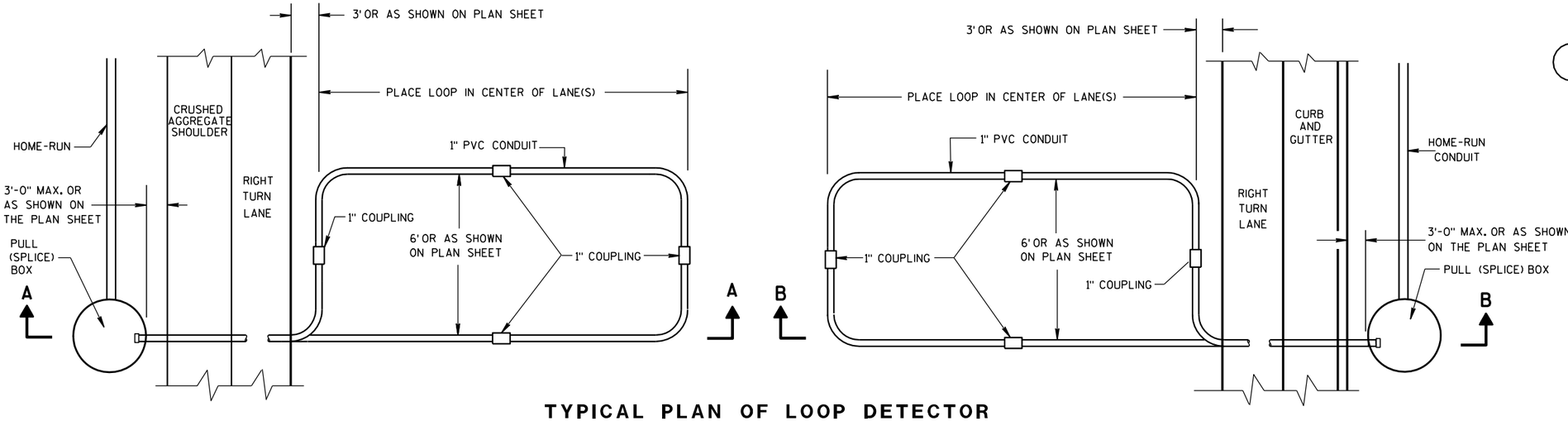
THE #12 AWG. LOOP WIRE IN THE PULL (SPLICE) BOX SHALL BE HAND TWISTED AT LEAST 3 TWISTS PER FOOT BEFORE BEING SPLICED TO THE LOOP LEAD-IN CABLE.

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

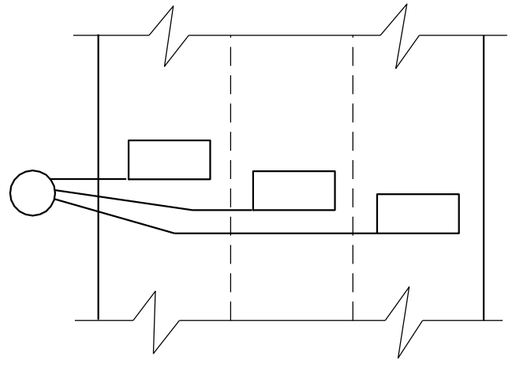
THE #12 AWG LOOP WIRE SHALL BE INSTALLED FROM THE ROADSIDE PULL (SPLICE) BOX, THROUGH THE LOOP CONDUIT, BACK TO THE ROADSIDE PULL (SPLICE) BOX, AND BE INSTALLED IN ONE, NON-SPLICED CONTINUOUS LENGTH.

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

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



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

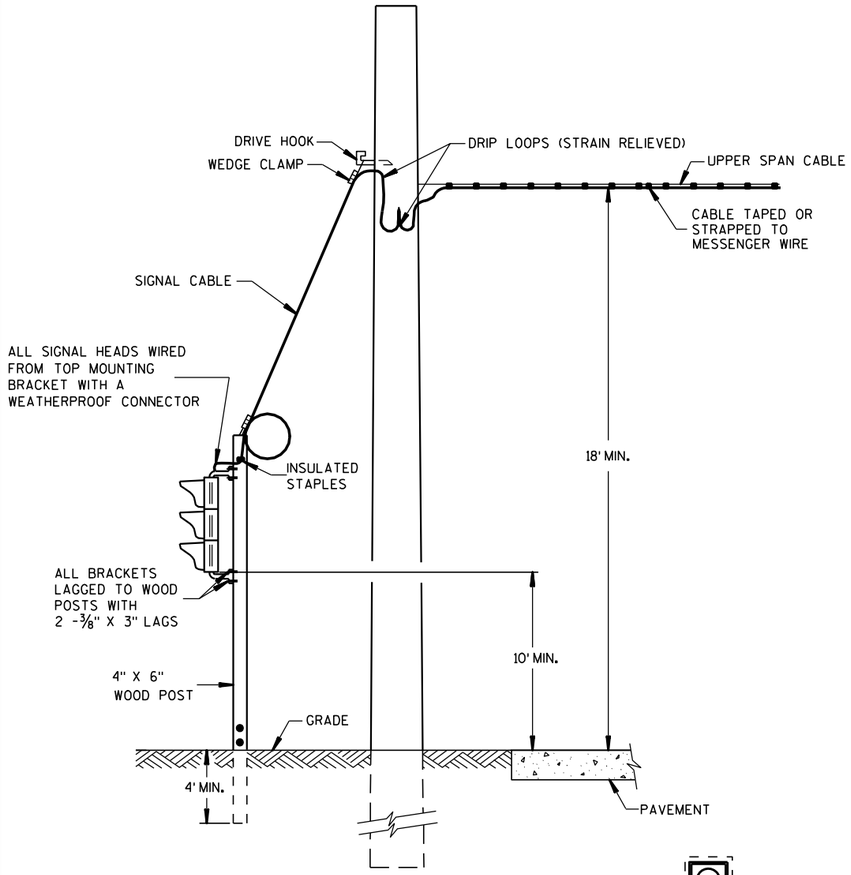


MULTI-LANE INSTALLATION

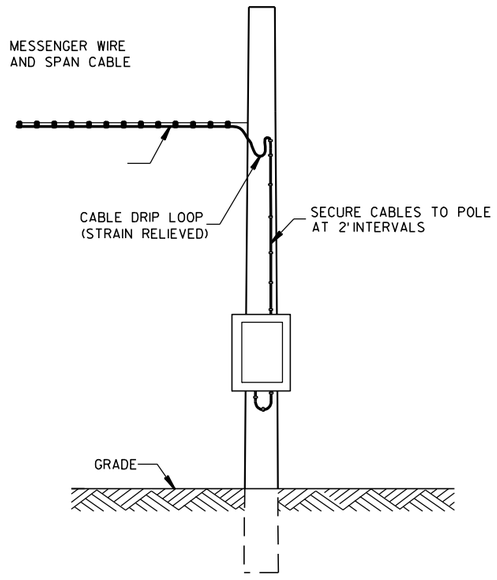
LOOP DETECTOR INSTALLED IN BASE COURSE WITH PULL (SPLICE) BOX OFF ROADWAY (OPTION 2)

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
6/7/06 DATE
/S/ Balu Anantharaman
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TYPICAL DROP TO TRAFFIC SIGNAL FACE



POLE MOUNT CABINET INSTALLATION

GENERAL NOTES

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

POLE MOUNTED TRAFFIC SIGNAL CONTROL CABINET MAYBE MOUNTED ON THE SERVICE POLE IF THE ELECTRICAL UTILITY ALLOWS THE INSTALLATION.

WHEN UTILITY PLOLES ARE USED TO SPAN THE TEMPORARY OVERHEAD CABLE, WRITTEN PERMISSION MUST BE OBTAINED FROM THE OWNER OF THE POLES AND GIVEN TO THE PROJECT MANAGER. ALL PERTINENT UTILITY AND CODE CLEARANCES SHALL BE MAINTAINED.

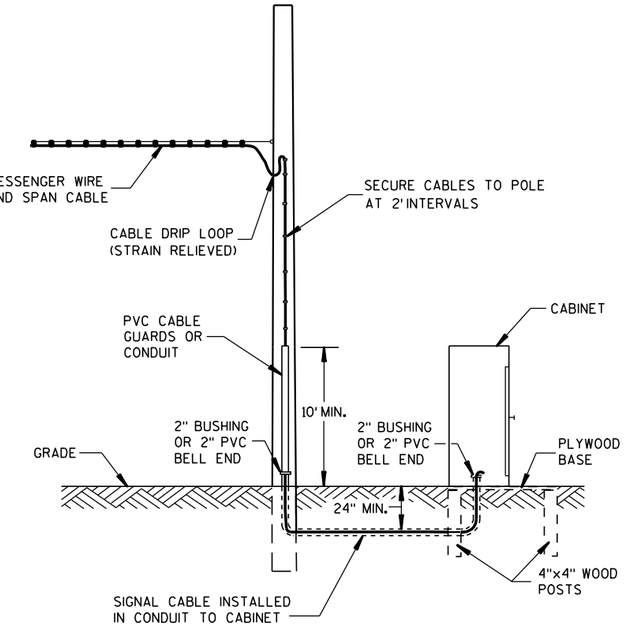
WOOD POLES (NONBREAKAWAY) SHALL BE NO CLOSER TO EDGE OF PAVEMENT THAN OFFSET DISTANCE CHART ALLOWS OR 4 FEET BEHIND PROTECTIVE BARRIER (BEAMGUARD, ETC.).

WOOD POSTS (BREAKAWAY) SHALL BE NO CLOSER THAN 2 FEET OUTSIDE OF SHOULDER.

VERTICAL CLEARANCE ETC. PER NEC.

TRAFFIC SIGNAL FACES SHALL BE TYPICALLY PLACED 12 FEET FROM EDGE OF PAVEMENT.

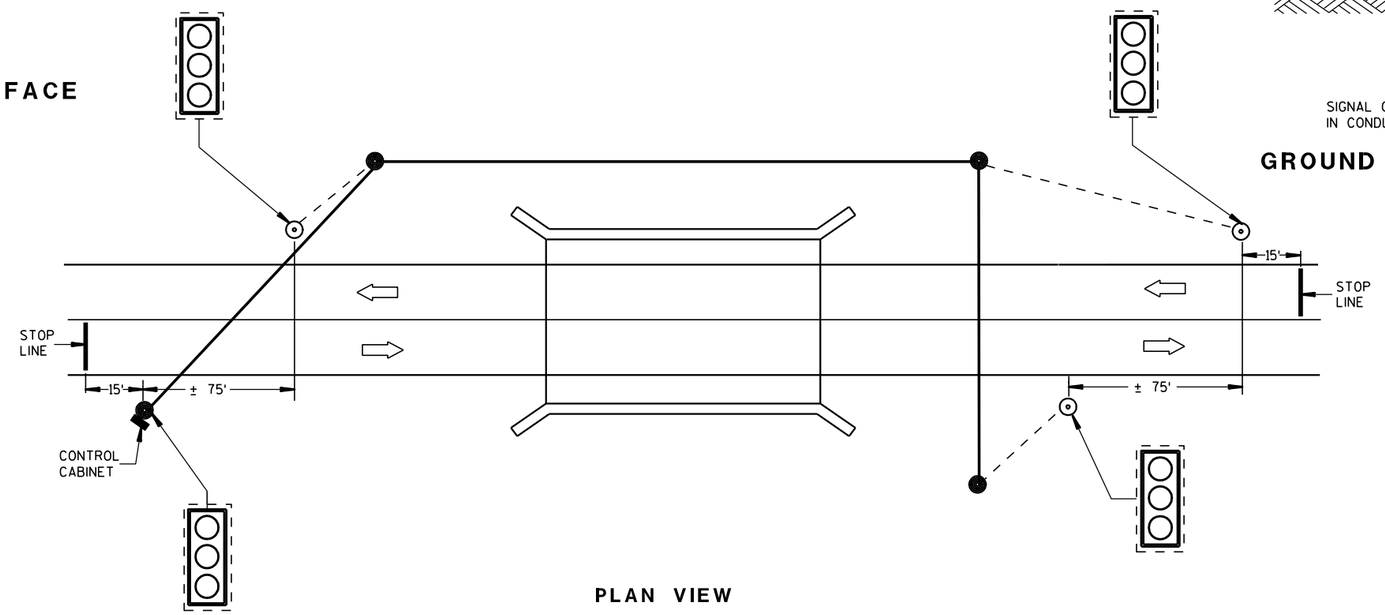
EACH TRAFFIC SIGNAL FACE SHALL HAVE A BACKPLATE.



GROUND MOUNT CABINET INSTALLATION

OFFSET DISTANCES FOR TEMPORARY NON-BREAKAWAY POLES	
SPEED LIMIT	OFFSET DISTANCE**
GREATER THAN 45 MPH	18 FT
45 MPH OR LESS	12 FT
45 MPH OR LESS W/ CURBS	2 FT

**NOTE: OFFSET MEASURED FROM OUTER EDGE OF OUTSIDE THRU LANE.



PLAN VIEW

TYPICAL BRIDGE TEMPORARY TRAFFIC SIGNAL LOCATION

LEGEND

- WOOD POLE (NONBREAKAWAY)
- WOOD POST (BREAKAWAY)
- SIGNAL CABLE
- SIGNAL CABLE W/MESSENGER
- LED TRAFFIC SIGNAL FACE WITH BACKPLATE (3-12")
- DIRECTION OF TRAFFIC

MINIMUM POLE LENGHTS	CLASS	MINIMUM BURIAL DEPTHS
25 FEET	V	5 FEET
30 FEET	V	6 FEET
35 FEET	IV	7 FEET
40 FEET	IV	8 FEET
45 FEET	IV	9 FEET

BRIDGE TEMPORARY TRAFFIC SIGNAL INSTALLATION

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED

3/2/2011 DATE

/S/ Thomas J. Gosling STATE ELECTRICAL ENGI

310 HWYS

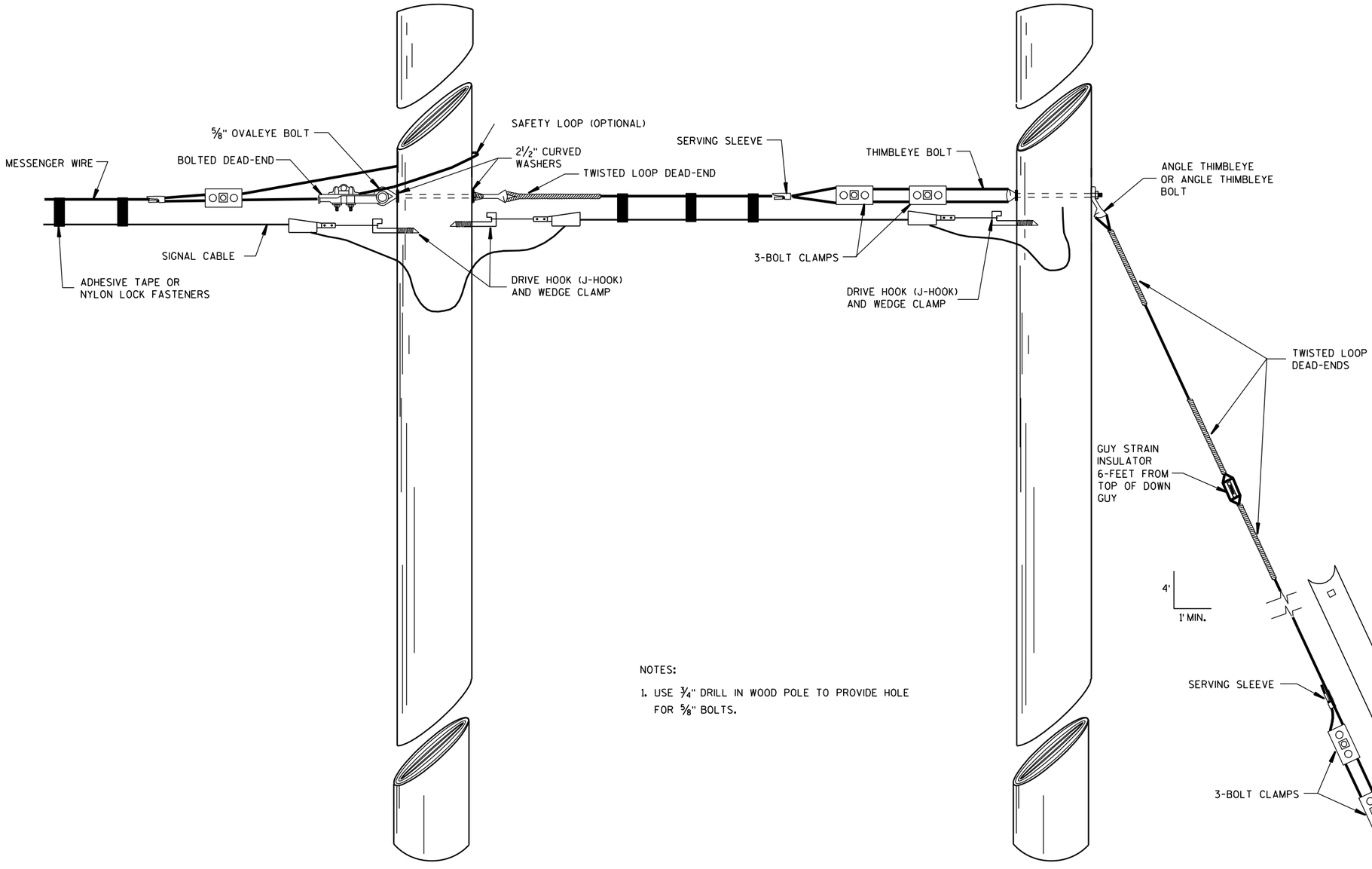
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S.D.D. 9 G 2-3a



SPAN WIRE POLE

GUY POLE

NOTES:

1. USE 3/4" DRILL IN WOOD POLE TO PROVIDE HOLE FOR 5/8" BOLTS.

TYPICAL DEAD-ENDINGS OR GUYING

BRIDGE TEMPORARY TRAFFIC SIGNAL INSTALLATION

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED

3/2/2011 DATE

/S/ Thomas J. G... STATE ELECTRICAL ENGI

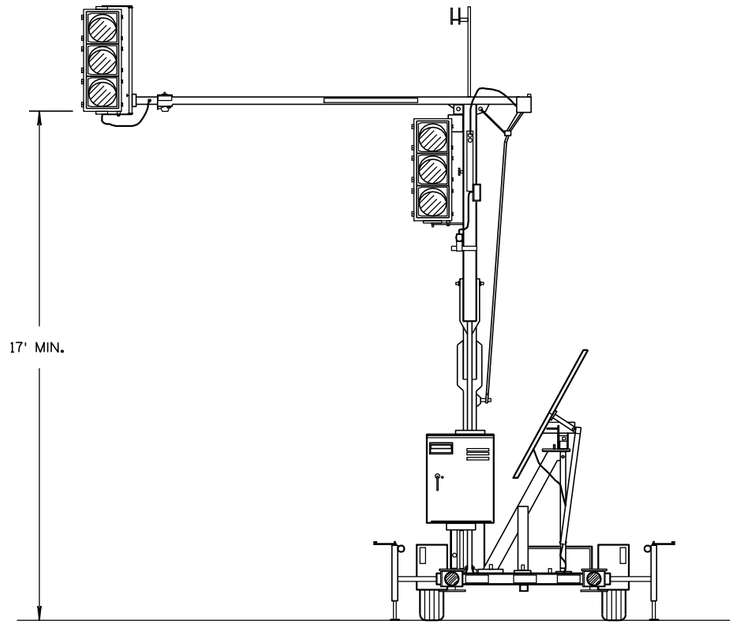
311

HWYS

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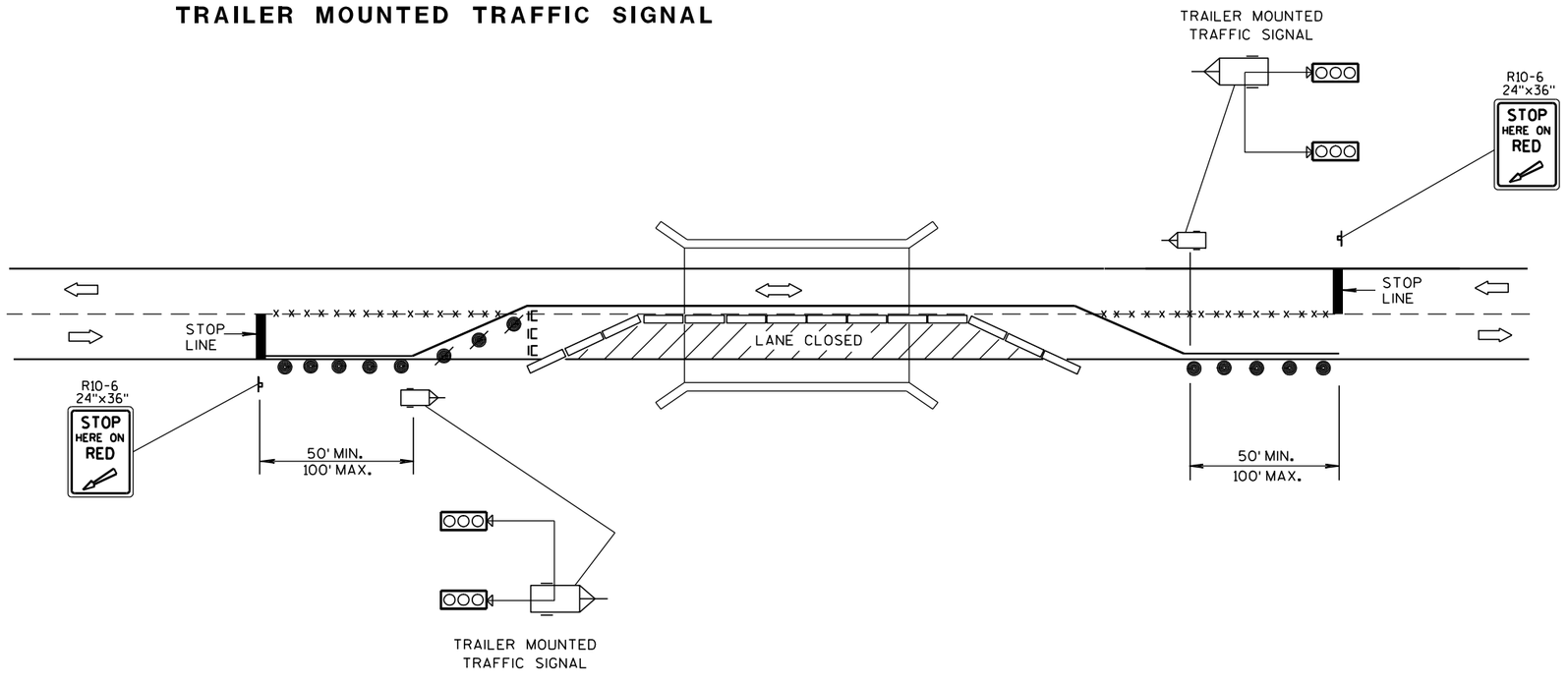


TRAILER MOUNTED TRAFFIC SIGNAL

GENERAL NOTES

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

SIGNING, PAVEMENT MARKING AND LANE CONTROL REQUIREMENTS SHALL CONFORM TO STANDARD DETAIL DRAWING 15 D 33.



TYPICAL TRAILER MOUNTED TRAFFIC SIGNAL LOCATION

LEGEND

- POST MOUNTED SIGN
- REMOVING PAVEMENT MARKING
- TYPE III BARRICADE WITH SIGN
- DRUM WITH/WITHOUT WARNING LIGHT, TYPE C (STEADY-BURN)
- TEMPORARY PRECAST CONCRETE BARRIER
- TRAILER MOUNTED TRAFFIC SIGNAL
- DIRECTION OF TRAFFIC FLOW

BRIDGE TEMPORARY TRAFFIC SIGNAL INSTALLATION

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED

3/2/2011 — DATE

/S/ Thomas J. Gosling — STATE ELECTRICAL ENGI

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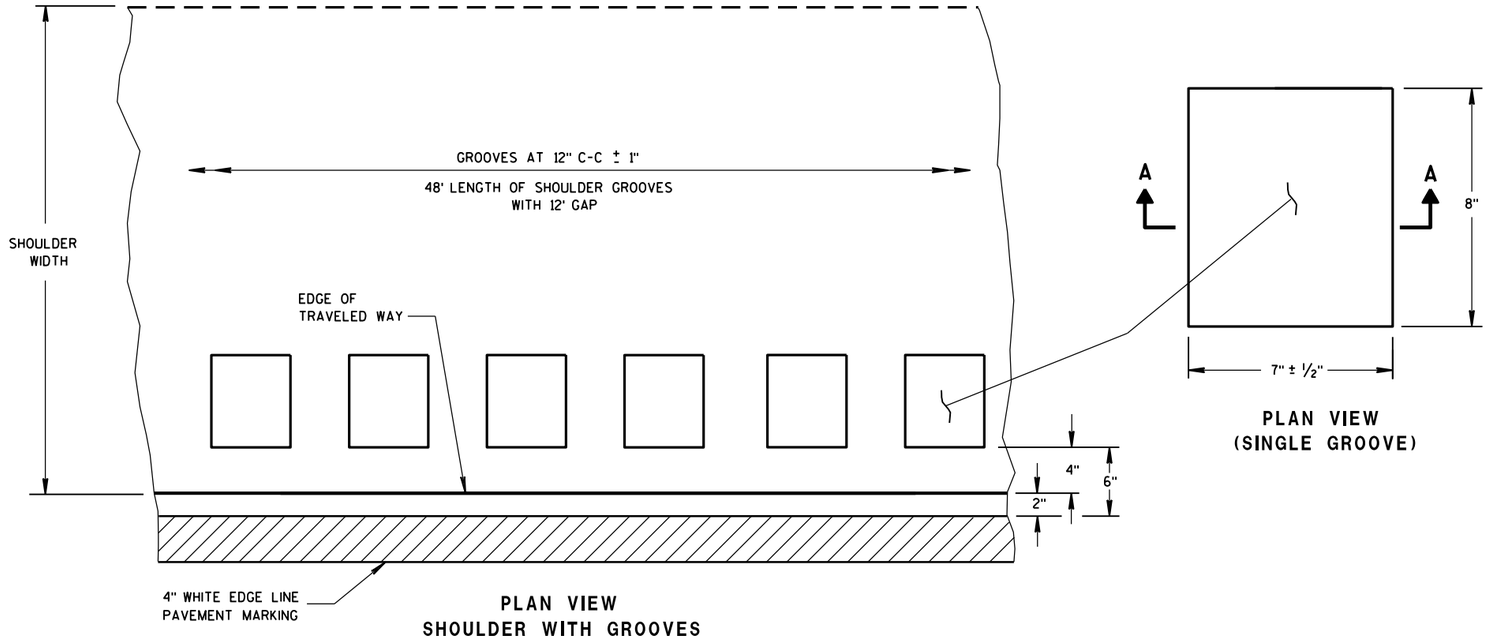
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S.D.D. 9 G 2-3c



PLAN VIEW
SHOULDER WITH GROOVES

PLAN VIEW
(SINGLE GROOVE)

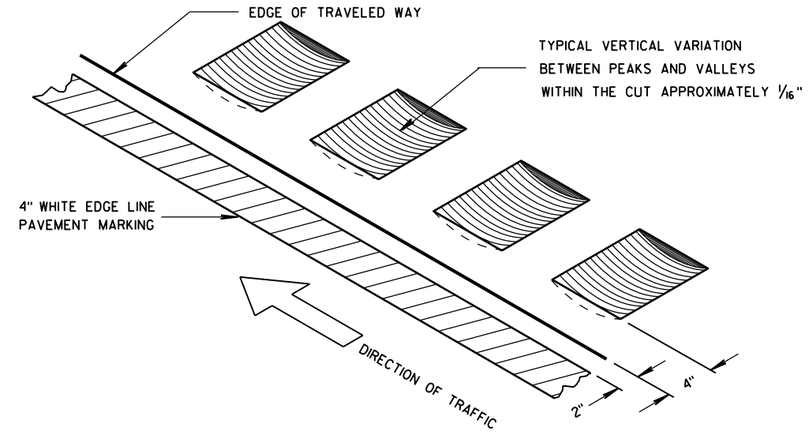
PLACEMENT DETAIL FOR TYPE 1 MILLED RUMBLE STRIP

GENERAL NOTES

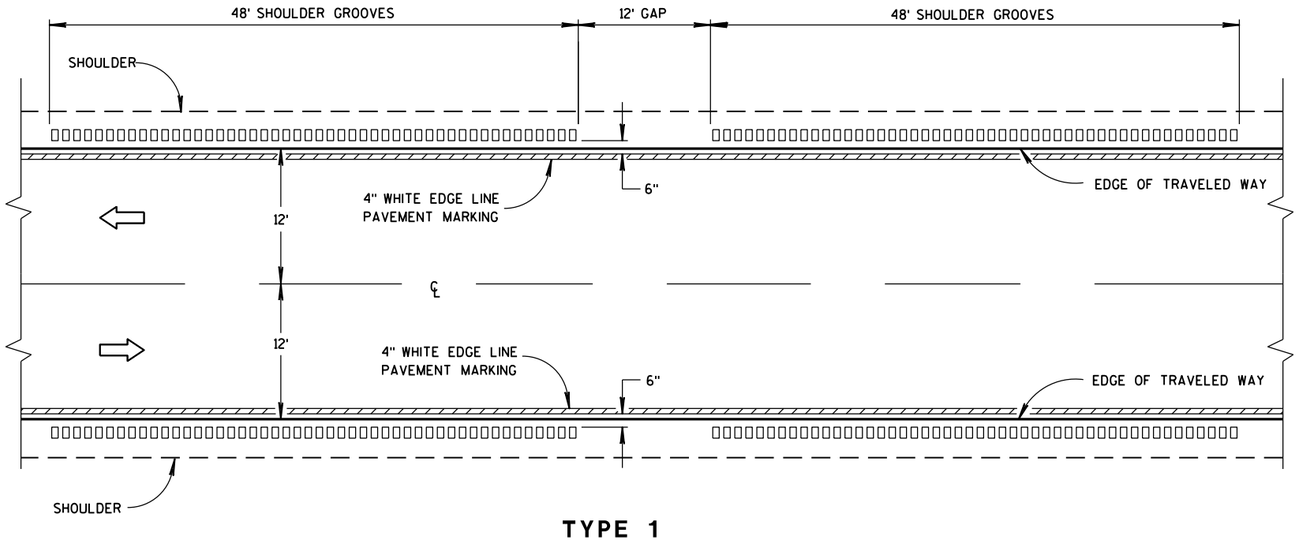
DETAILS OF CONSTRUCTION SHOWN ON THIS DRAWING SHALL CONFORM TO THE PERTINENT REQUIREMENTS OF THE STANDARD SPECIFICATIONS AND APPLICABLE SPECIAL PROVISIONS.

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

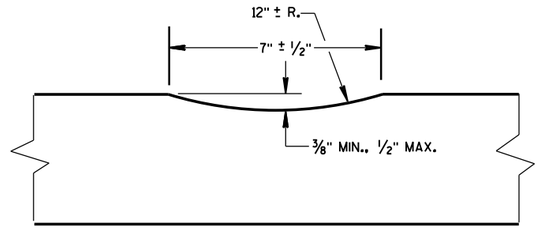
(1) SHOULDER GROOVES MAY BE OMITTED IN AREAS WITH HIGH CONCENTRATIONS OF DRIVEWAYS, WHEN DIRECTED BY THE ENGINEER.



ISOMETRIC



TYPE 1
2-LANE SHOULDER RUMBLE STRIP



SECTION A-A

2-LANE RURAL
SHOULDER RUMBLE STRIP, MILLING

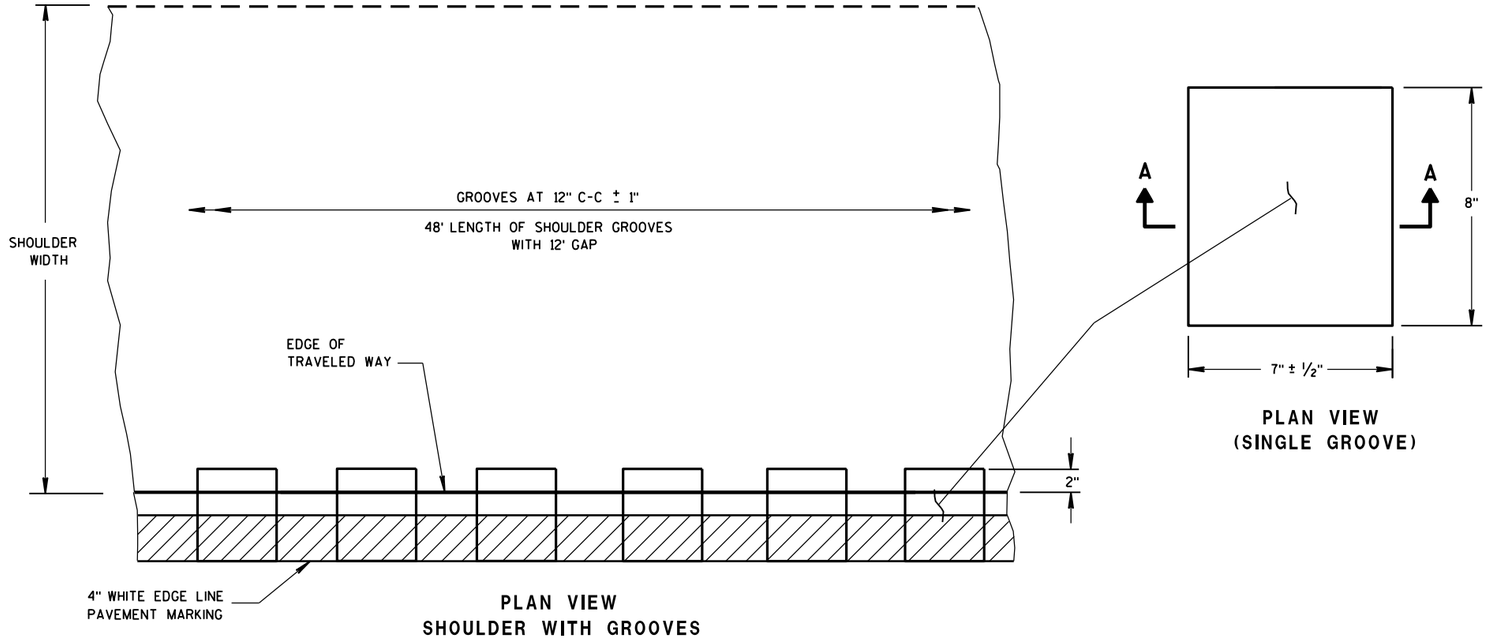
STATE OF WISCONSIN
DEPARTMENT OF TRANSPO

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S.D.D. 13 A 10-1a

6

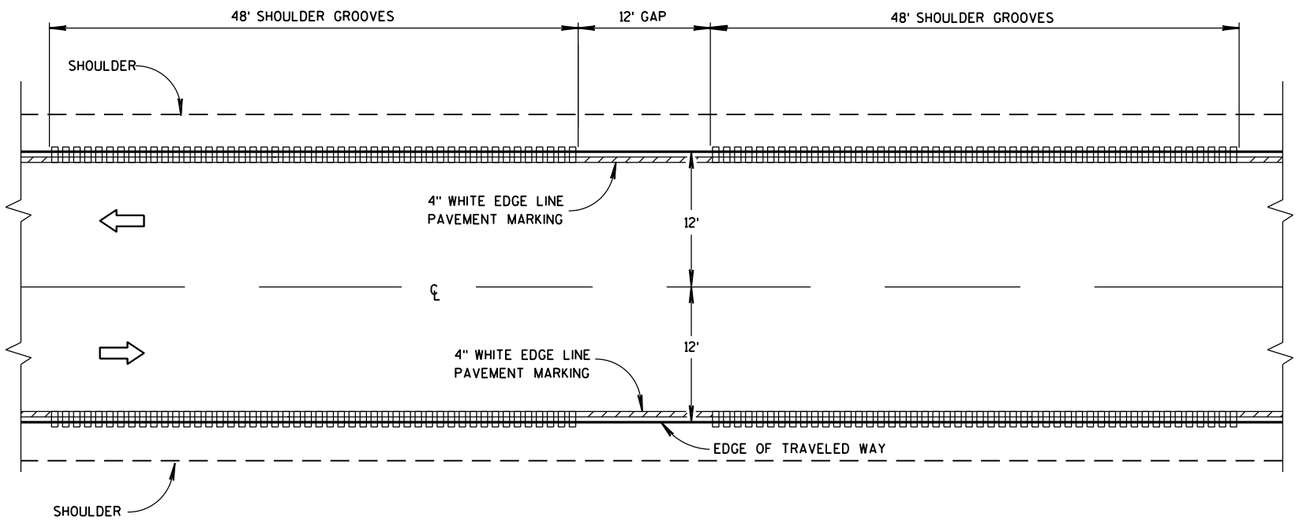
S.D.D. 13 A 10-1a



PLAN VIEW
SHOULDER WITH GROOVES

PLAN VIEW
(SINGLE GROOVE)

PLACEMENT DETAIL FOR TYPE 2 MILLED RUMBLE STRIP



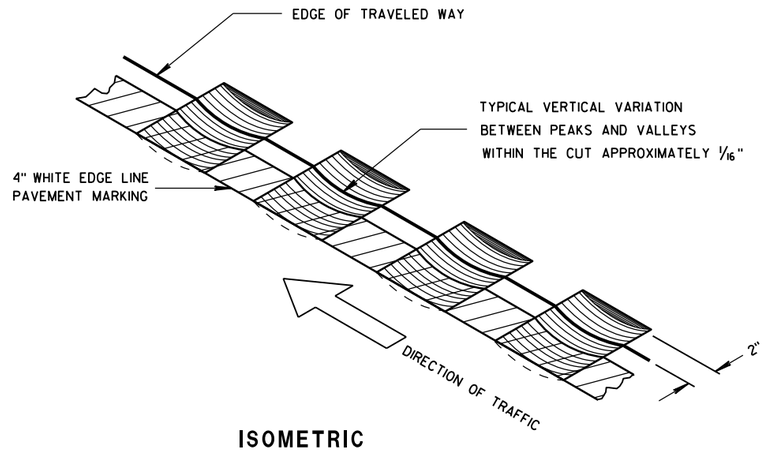
TYPE 2
2-LANE SHOULDER RUMBLE STRIP

GENERAL NOTES

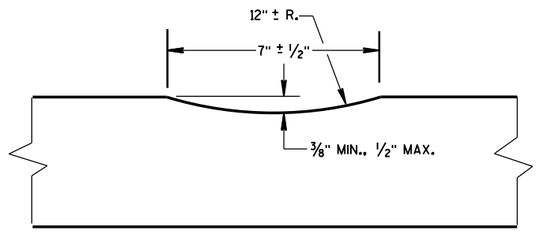
DETAILS OF CONSTRUCTION SHOWN ON THIS DRAWING SHALL CONFORM TO THE PERTINENT REQUIREMENTS OF THE STANDARD SPECIFICATIONS AND APPLICABLE SPECIAL PROVISIONS.

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

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



ISOMETRIC



SECTION A-A

2-LANE RURAL
SHOULDER RUMBLE STRIP, MILLING

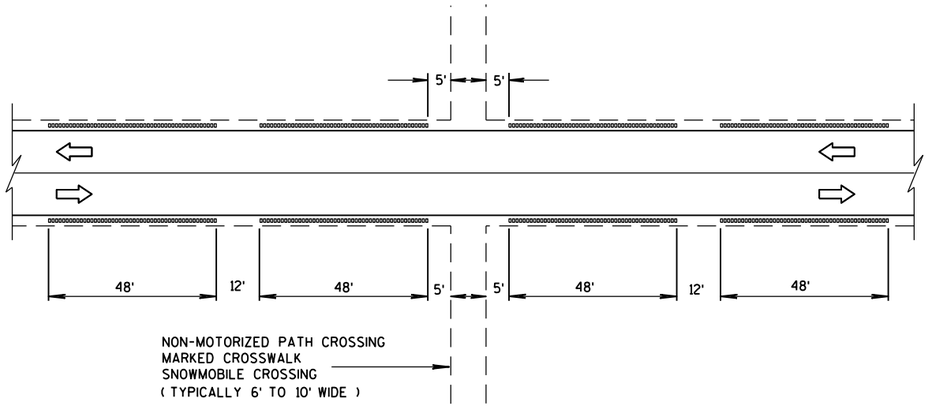
STATE OF WISCONSIN
DEPARTMENT OF TRANSPOR

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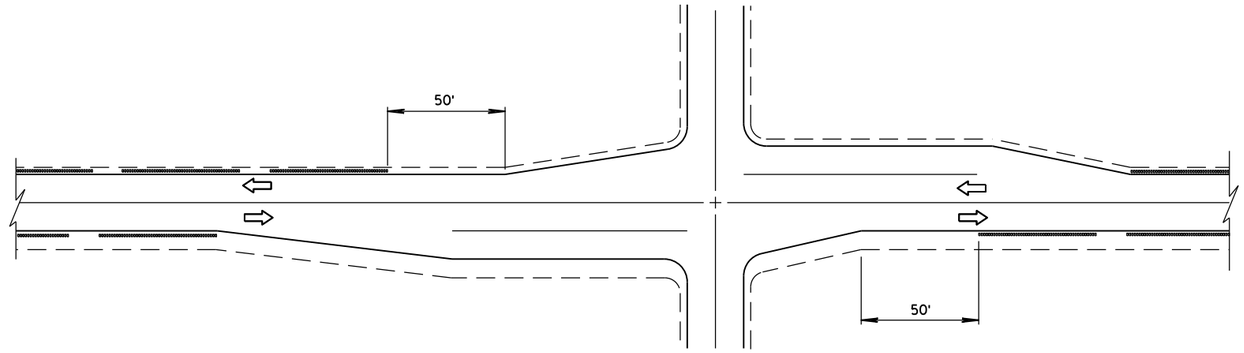
S.D.D. 13 A 10-1b

6

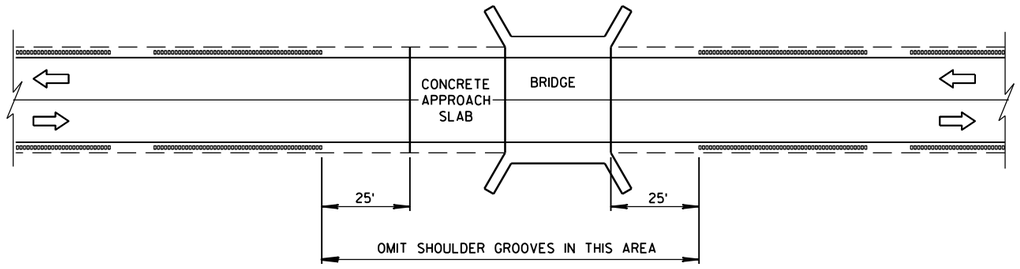
S.D.D. 13 A 10-1b



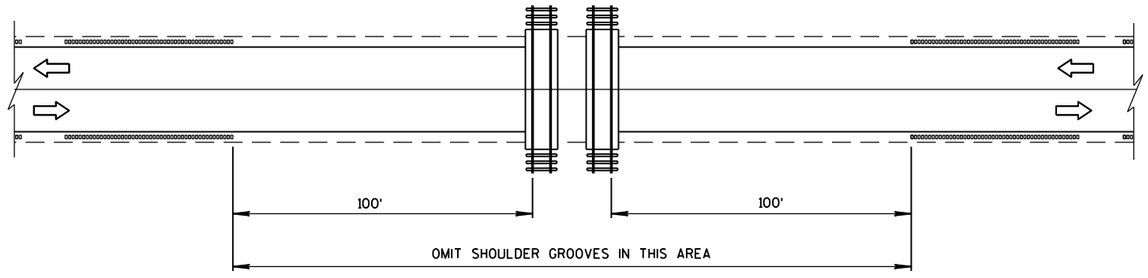
SHOULDER GROOVES AT MISCELLANEOUS CROSSINGS



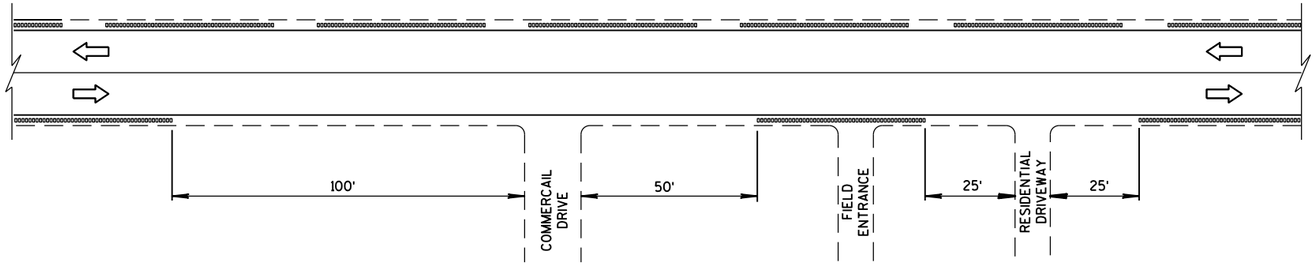
SHOULDER GROOVES AT INTERSECTIONS



SHOULDER GROOVES AT BRIDGES



SHOULDER GROOVES AT RAILROADS

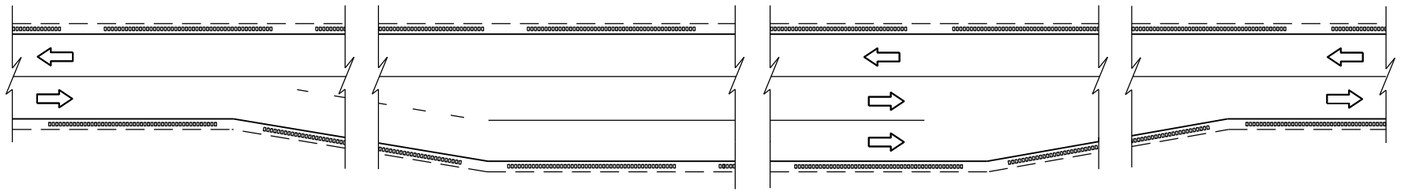


SHOULDER GROOVES AT DRIVEWAYS (1)

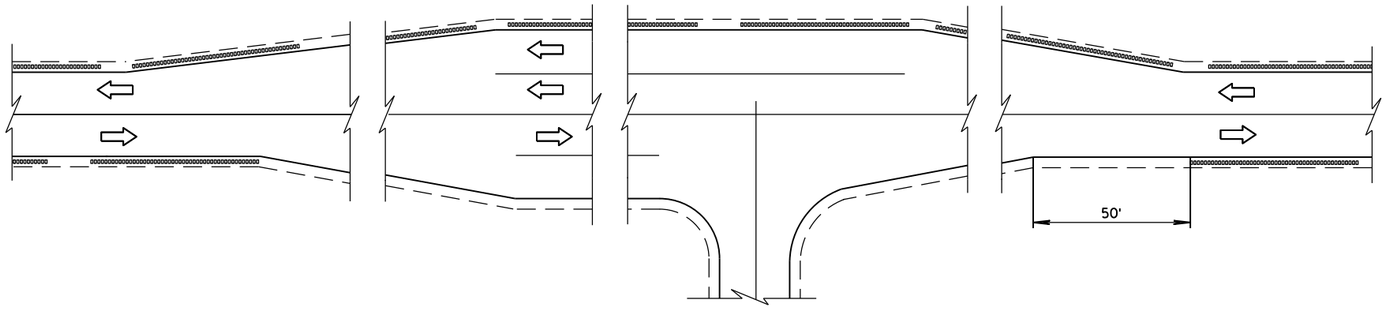
2-LANE RURAL
SHOULDER RUMBLE STRIP, MILLING

STATE OF WISCONSIN
DEPARTMENT OF TRANSPOI

6
S.D.D. 13 A 10-1c



SHOULDER GROOVES AT PASSING AND CLIMBING LANES



SHOULDER GROOVES AT BYPASS LANES

6

6

2-LANE RURAL
SHOULDER RUMBLE STRIP, MILLING

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED

12/17/2012
DATE

/S/ Jerry H. Zoga
ROADWAY STANDARDS ENGINEER

FHWA

S.D.D. 13 A 10-1d

S.D.D. 13 A 10-1d

GENERAL NOTES

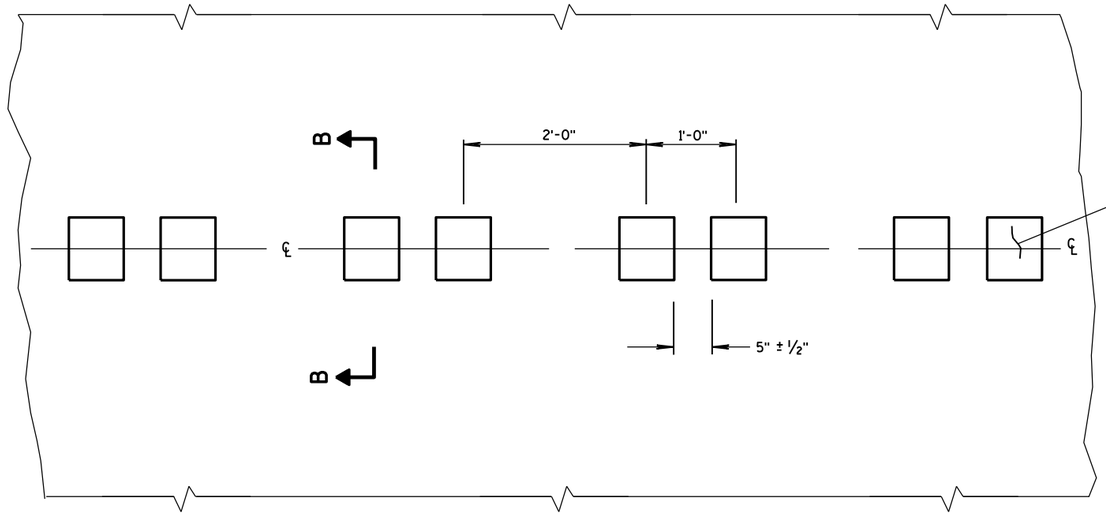
DETAILS OF CONSTRUCTION SHOWN ON THIS DRAWING SHALL CONFORM TO THE PERTINENT REQUIREMENTS OF THE STANDARD SPECIFICATIONS AND APPLICABLE SPECIAL PROVISIONS.

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

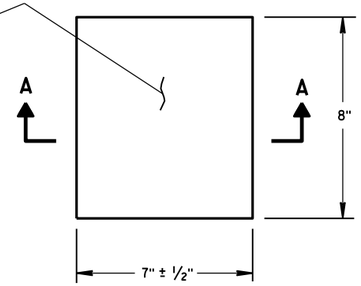
INSTALL PAVEMENT MARKING AFTER THE GROOVES ARE INSTALLED.

SEE SIGNING PLAN FOR SIGN REQUIREMENTS THAT MAY BE NEEDED.

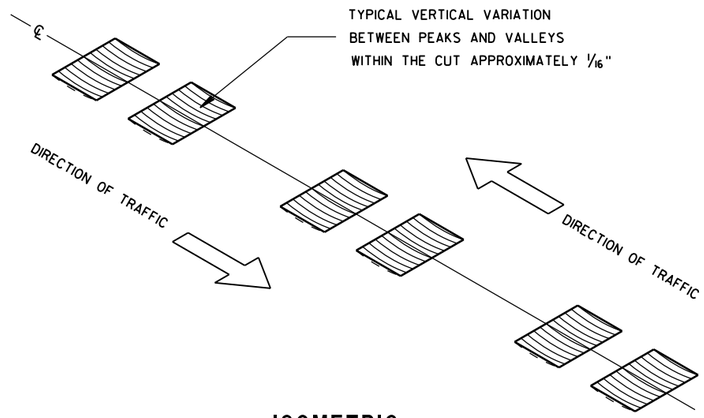
(1) CENTERLINE GROOVES MAY BE OMITTED IN AREAS WITH HIGH CONCENTRATIONS OF DRIVEWAYS, WHEN DIRECTED BY THE ENGINEER.



PLAN VIEW
CENTER LINE WITH GROOVES

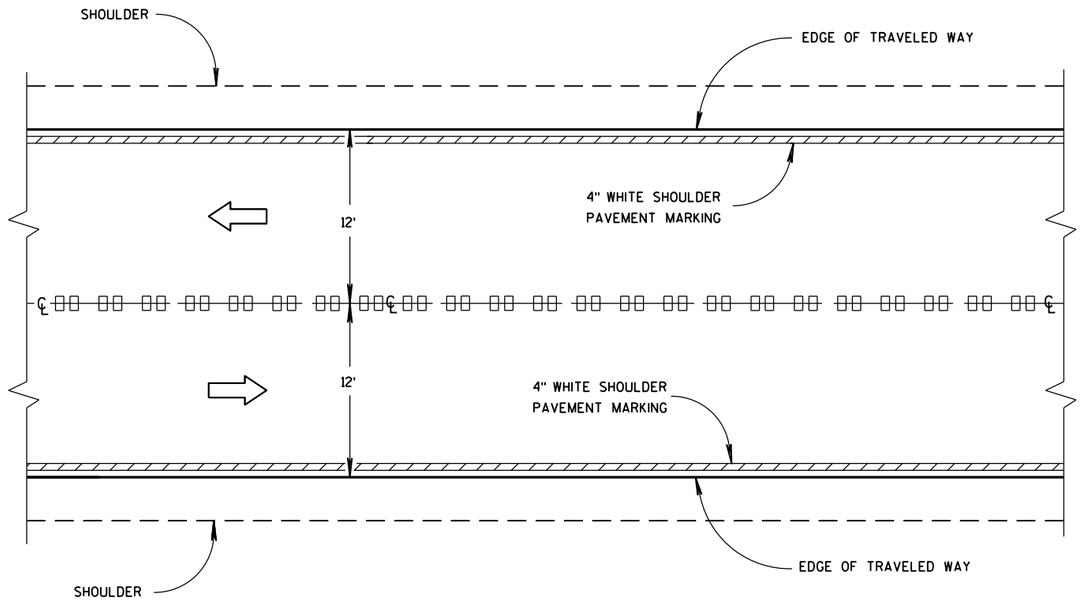


PLAN VIEW
(SINGLE GROOVE)

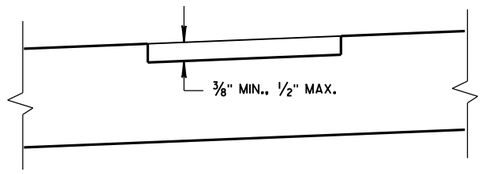


ISOMETRIC

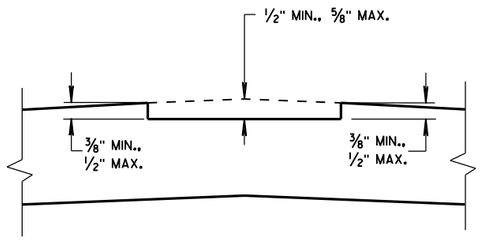
PLACEMENT DETAIL FOR MILLED RUMBLE STRIP



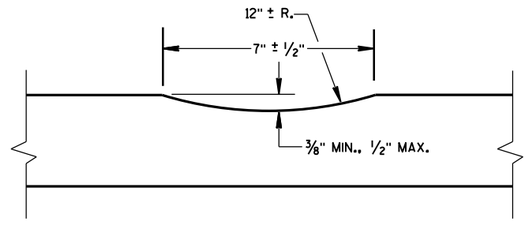
CENTER LINE GROOVES ON TWO-WAY ROADWAYS



SECTION B-B
SUPERELEVATED ROADWAY



SECTION B-B
CROWNED ROADWAY



SECTION A-A

6

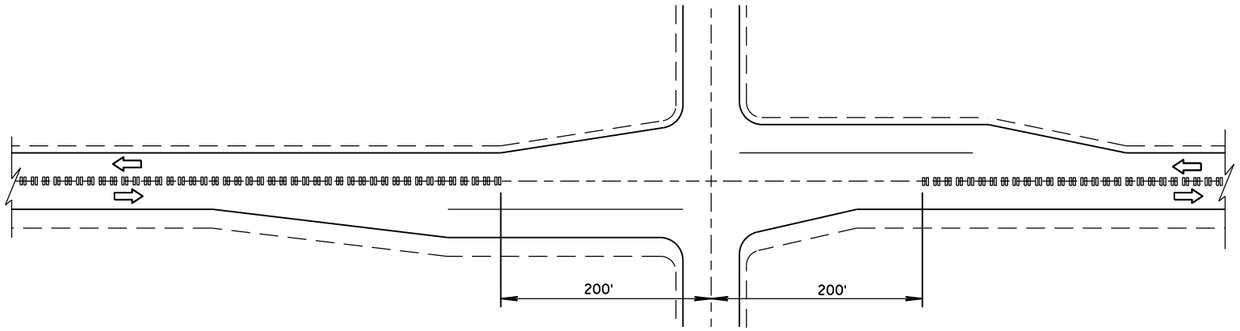
S.D.D. 13 A 11-2a

2-LANE RURAL
CENTER LINE RUMBLE STRIP,
MILLING

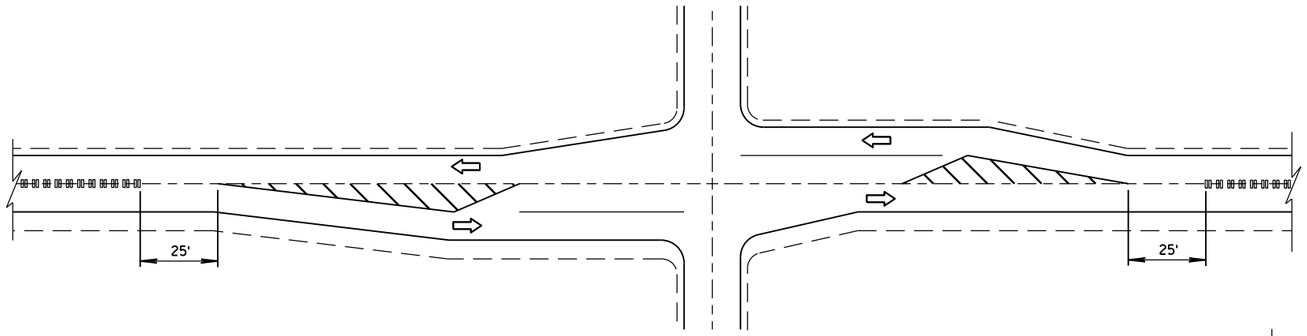
STATE OF WISCONSIN
DEPARTMENT OF TRANSPOI

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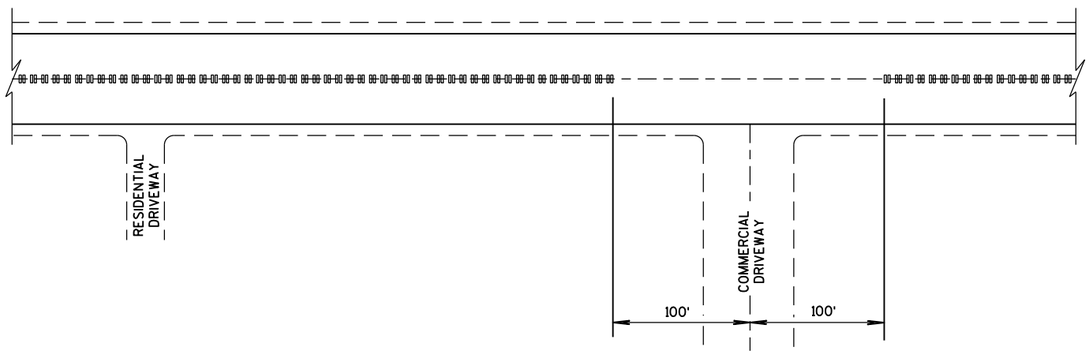
S.D.D. 13 A 11-2a



CENTER LINE GROOVES AT INTERSECTIONS

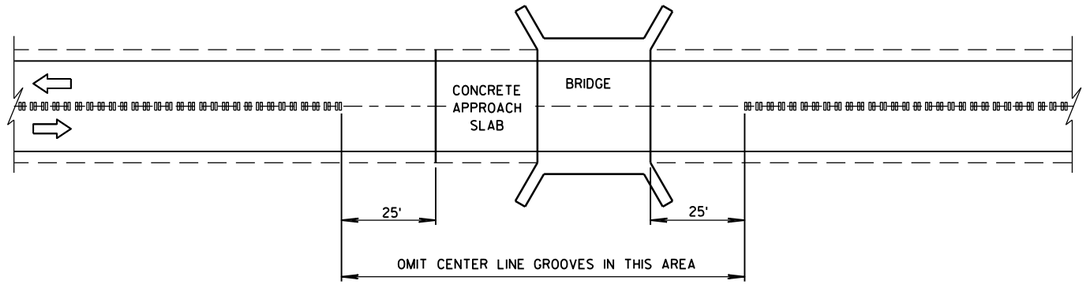


CENTER LINE GROOVES AT INTERSECTIONS
(WITH LEFT TURN LANES)

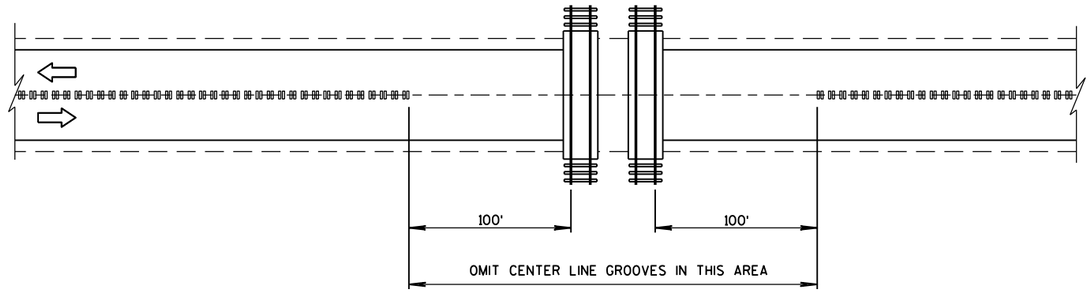


CENTER LINE GROOVES AT DRIVEWAYS (1)

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



CENTER LINE GROOVES AT BRIDGES



CENTER LINE GROOVES AT RAILROADS

6

S.D.D. 13 A 11-2b

2-LANE RURAL CENTER LINE RUMBLE STRIP, MILLING

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED

5/15/2013
DATE

/S/ Jerry H. Zoda
ROADWAY STANDARDS DEVELOPMENT ENGINEER

FHWA

NT

6

S.D.D. 13 A 11-2b

BILL OF MATERIALS

NOTE NO.	QTY.	DESCRIPTION
(1)	4	WOOD BREAKAWAY TERMINAL POST: 5½" X 7½" X 3'-9"
(2)	**	STEEL TUBE: OPTION 1 - QUANITY OF 4 TS 8" X 6" X 0.188", 4'-6" LONG OR OPTION 2 - QUANITY OF 2 TS 8" X 6" X 0.188", 6'-0" AND 2 TS 8" X 6" X 0.188", 4'-6" LONG
(3)	2	SOIL PLATE: 2'-0" X 1'-6" X ¼" **
(4)	4	WOOD BREAKAWAY CRT POST: 6" X 8" X 6'-0"
(5)	6	WOOD OFFSET BLOCKS: 6' X 8" X 1'-2"
(6)	1	PIPE SLEEVE: 2" X 5 ½" STANDARD PIPE
(7)	1	BEARING PLATE
(8)	1	BCT CABLE ASSEMBLY
(9)	1	CABLE ANCHOR BOX
(10)	1	STRUT & YOKE
(11)	1	STEEL PLATE BEAM, END PANEL 12 GA. 13'-6½" LONG FOR SKT-350, ET-2000 AND ET-2000 PLUS
(12)	3	STEEL PLATE BEAM: 12 GA. 13'-6½"
(13)	1	ET-2000/ET-2000 PLUS GUARDRAIL EXTRUDER OR SKT-350 IMPACT HEAD: AS FURNISHED BY MANUFACTURER
(14)	1	REFLECTIVE SHEETING TYPE H: 18" X 18"
(15)	1	E.A.T. MARKER POST

GENERAL NOTES

FOLLOW MANUFACTURE'S BOLTING RECOMMENDATIONS. IF NONE ARE AVAILABLE, INSTALL ⅝" ϕ X 1'-6" BUTTON HEAD BOLTS AT ALL POSTS EXCEPT FOR POST 1.

(A) THE SLOPE IN THE AREA BOUNDED BY THE EXTENDED VEHICLE RUNOUT PATH (EVRP), THE HINGE POINT LINE (HPL),AND THE CLEAR ZONE LIMITS (CZL) SHALL BE 4:1 OR FLATTER.

(B) AFTER FINAL ASSEMBLY, RECHECK CABLE TO BE SURE IT IS TAUT AND HAS NOT RELAXED.

(C) THE 13 SLOT FIRST RAIL PANEL MAY BE USED IN LIEU OF THE 3 SLOT RAIL PANEL ON SKT-350 ONLY.

(D) THE TOP OF THE STEEL TUBE ON POSTS 1 THROUGH 4 SHALL NOT BE MORE THAN 3" ABOVE THE FINISH GROUND ELEVATION.

(E) THE CENTER OF THE UPPER 3½" DIAMETER HOLE ON POST 5 THROUGH 8 SHALL BE ¾" ABOVE THE FINISHED GROUND LINE.

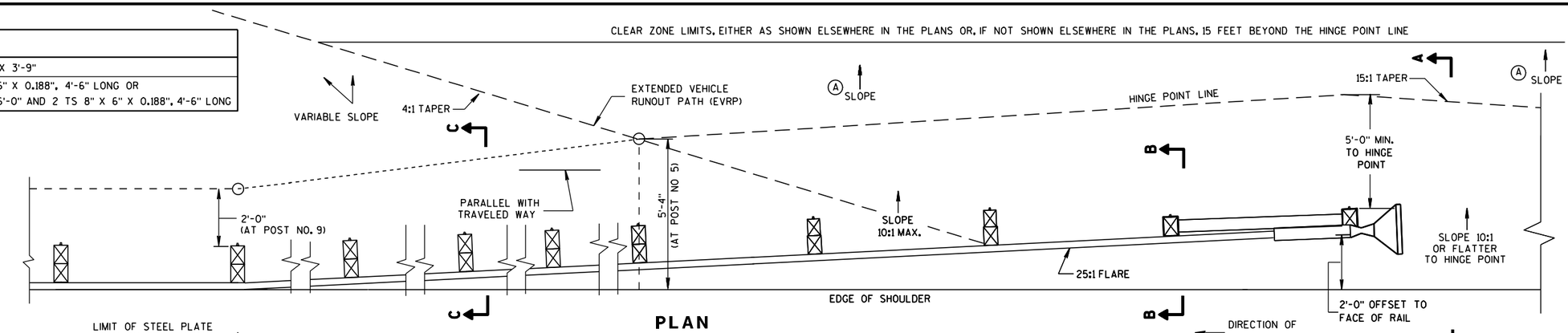
(F) SHEETING IS ATTACHED TO 0.040 ALUMINUM SHEET AND ATTACHED TO E.A.T. HEAD USING 4 STAINLESS STEEL SELF-TAPPING SCREWS. ONE SCREW PER CORNER OF E.A.T.

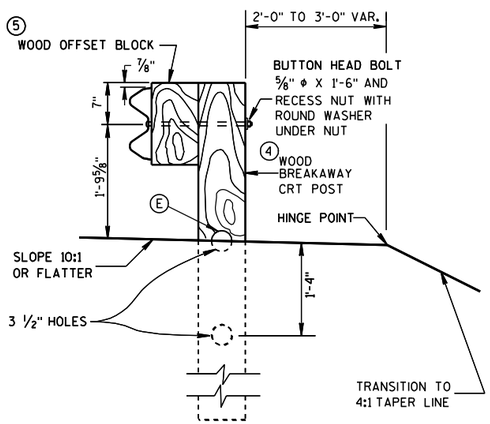
STEEL POSTS SHALL NOT BE ALLOWED FOR USE WITH ENERGY ABSORBING TERMINALS.

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

* DO NOT ATTACH BLOCKOUTS TO POSTS 1 AND 2.

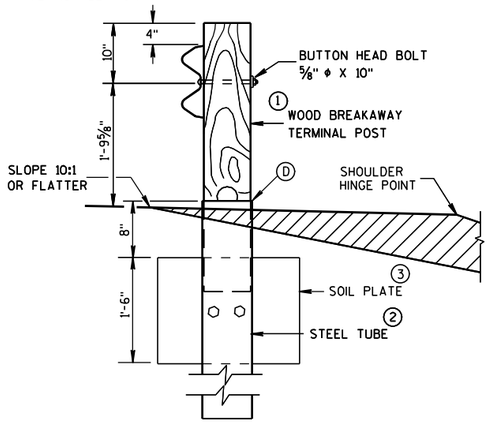
** SDD SHOWS 4 - 54 INCH STEEL TUBES WITH SOIL PLATES INSTALLED ON POST 1 AND POST 2. POST 3 AND 4 DO NOT NEED SOIL PLATES. AN ALTERNATIVE INSTALLATION WOULD CONSIST OF 2 - 72 INCH STEEL TUBES ON POST 1 AND POST 2 AND 54 INCH SOIL TUBES ON POSTS 3 AND 4. THE ALTERNATIVE INSTALLATION DOES NOT REQUIRE SOIL PLATES.





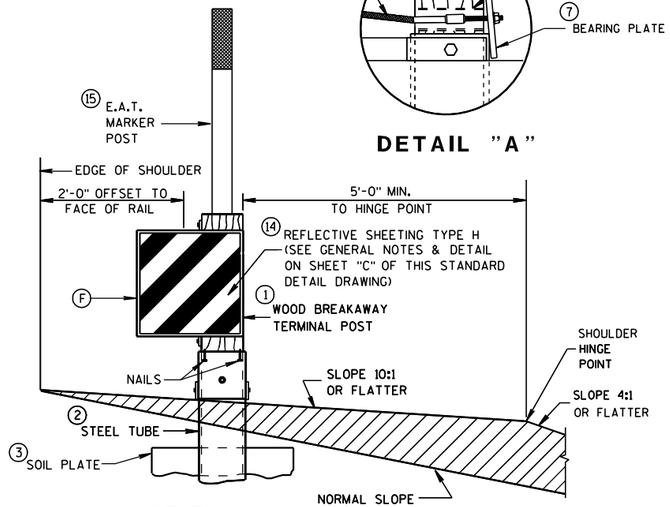
SECTION C-C

TYPICAL AT POST NOS. 6, 8



SECTION B-B

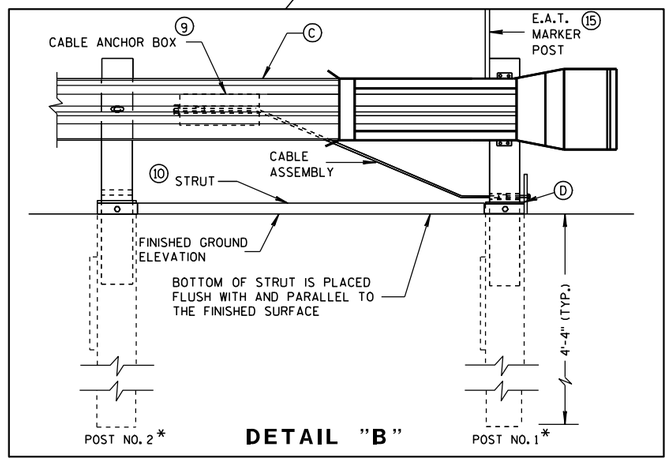
TYPICAL AT POST NO. 2*



DETAIL "A"

SECTION A-A

TYPICAL AT POST NO. 1*



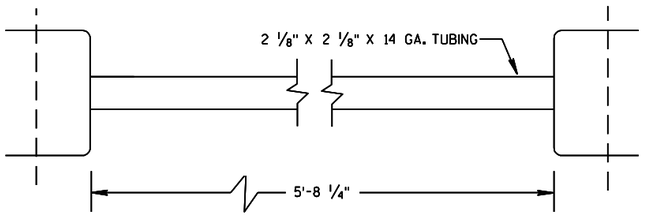
DETAIL "B"

STEEL PLATE BEAM GUARD ENERGY ABSORBING TERMINAL

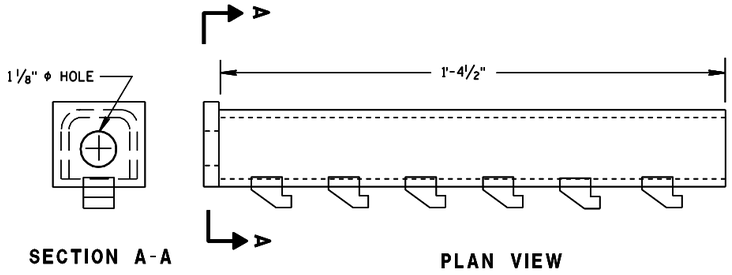
STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

S.D.D. 14 B 24-7a

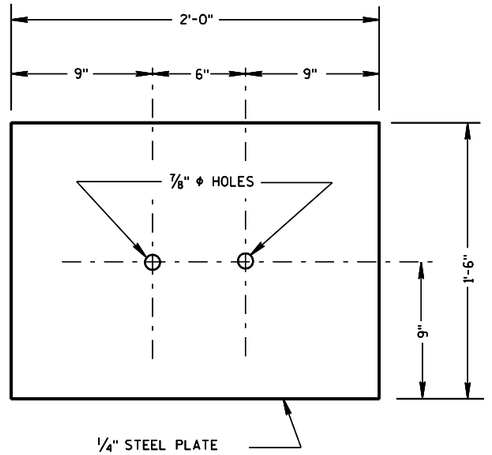
S.D.D. 14 B 24-7a



⑩ STRUT DETAIL (SKT-350)

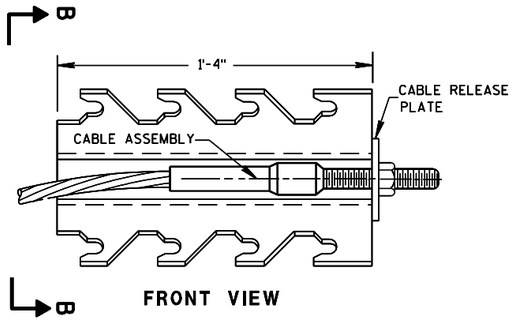


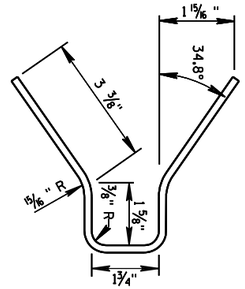
⑨ CABLE ANCHOR BOX (ET-2000/ET-2000 PLUS)



③ SOIL PLATE

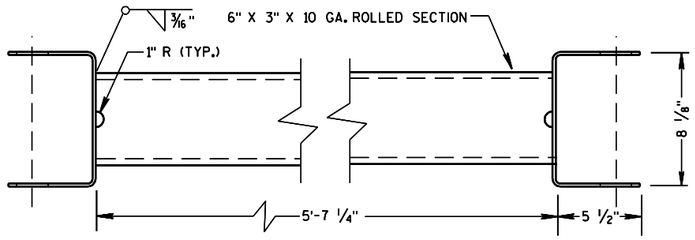
(SKT-350, ET-2000/ET-2000 PLUS)





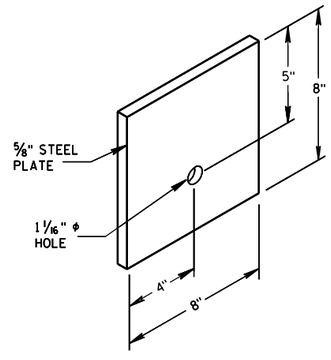
⑨ CABLE ANCHOR BOX (SKT-350)

(SKT-350)



⑩ STRUT DETAIL (ET-2000/ET-2000 PLUS)

(ET-2000/ET-2000 PLUS)



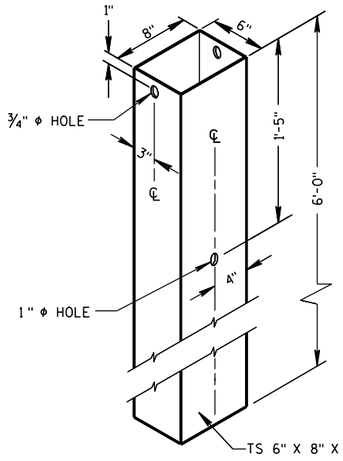
⑦ STEEL BEARING PLATE

(SKT-350, ET-2000/ET-2000 PLUS)

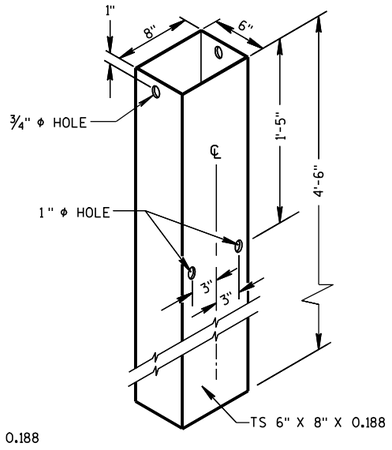
STEEL PLATE BEAM GUARD
ENERGY ABSORBING TERMINAL

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

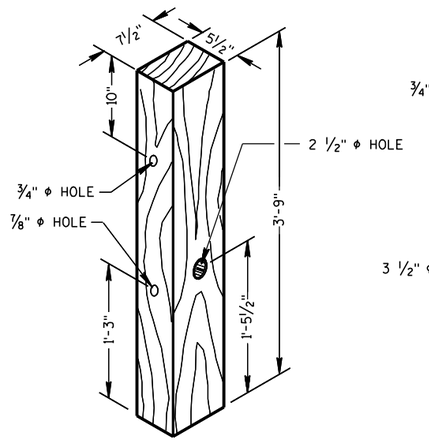
6
S.D.D. 14 B 24-7b



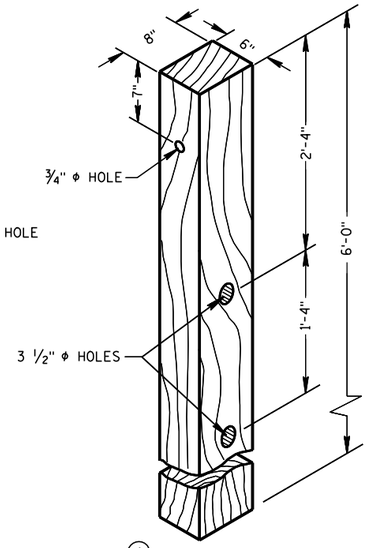
(2) 72" STEEL TUBE
(POSTS NO. 1-4



(2) 54" STEEL TUBE
(POSTS NO. 1-4



(1) TERMINAL POST
(POSTS NO. 1-4



(4) CRT POST
(POSTS NO'S 5-8

WOOD BREAKAWAY POSTS

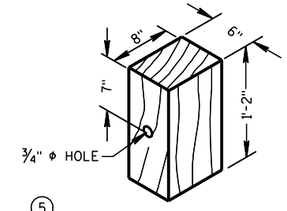
GENERAL NOTES

STEEL PLATE BEAM GUARD, ENERGY ABSORBING TERMINAL SHALL BE PAID FOR AT THE CONTRACT UNIT PRICE EACH, WHICH SHALL INCLUDE HARDWARE, STEEL PLATE BEAM GUARD, POSTS, REFLECTIVE SHEETING AND INSTALLATION AS SHOWN.

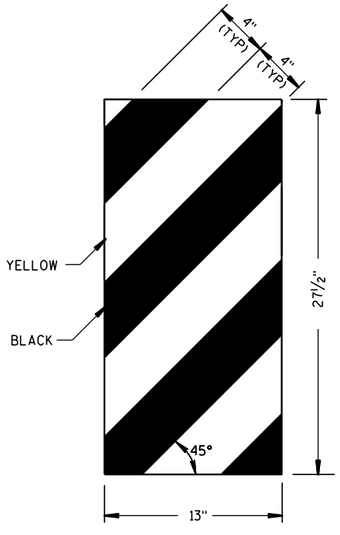
WHEN ROCK IS ENCOUNTERED DURING EXCAVATION, A 12 INCH DIA. POST HOLE EXTENDING 20 INCHES DEEP INTO THE ROCK MAY BE USED IF APPROVED BY THE ENGINEER. GRANULAR MATERIAL SHALL BE PLACED IN THE BOTTOM OF THE HOLE APPROXIMATELY 2 ½" INCHES DEEP TO PROVIDE DRAINAGE. THE SOIL TUBES SHALL BE FIELD CUT TO LENGTH, PLACED IN THE HOLE AND BACKFILLED WITH ADEQUATELY COMPACTED MATERIAL EXCAVATED FROM THE HOLE.

SEE APPROVED PRODUCTS LIST FOR ACCEPTABLE E. A. T. MARKER POST.

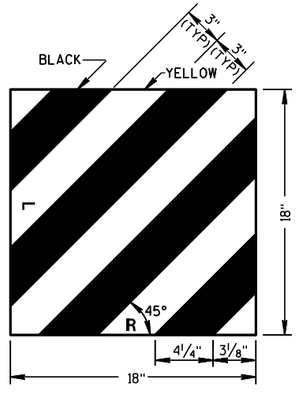
(G) ½" DIA. X 3" LAG BOLT WITH WASHER.



(5) WOOD OFFSET BLOCK
REQ'D. AT ALL POSTS EXCEPT POST NO'S 1 & 2

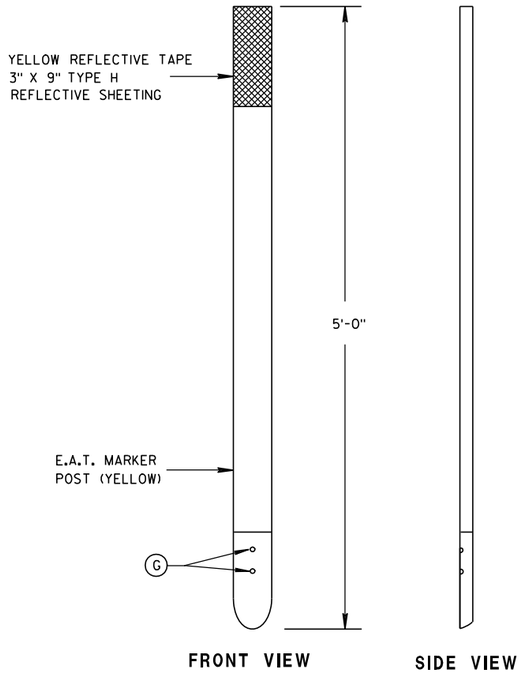


ET-2000 PLUS ONLY

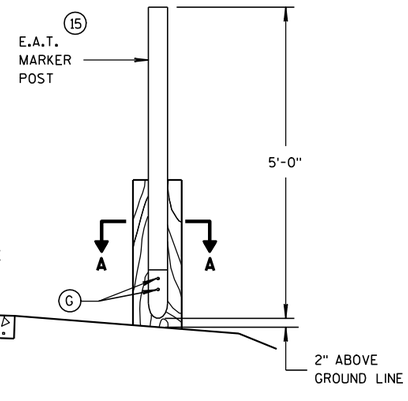


ET-2000 AND SKT-350

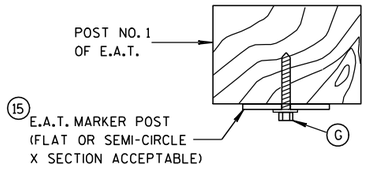
(14) REFLECTIVE SHEETING DETAILS



(15) E.A.T. MARKER POST



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



SECTION A-A

STEEL PLATE BEAM GUARD
ENERGY ABSORBING TERMINAL

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

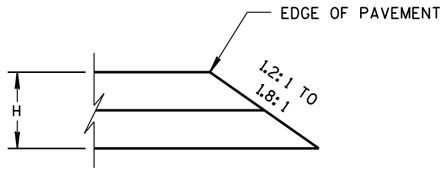
APPROVED
4-12-10 DATE
/S/ Jerry H. [illegible] ROADWAY STANDARDS ENGINEER
321
[illegible]ENT
FHWA

6

S.D.D. 14 B 24-7c

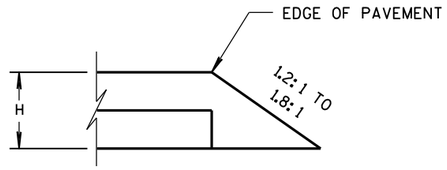
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S.D.D. 14 B 24-7c



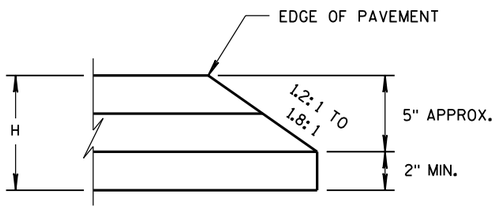
CONSTRUCTED WITH FINAL TWO LAYERS

FOR H 5" OR LESS



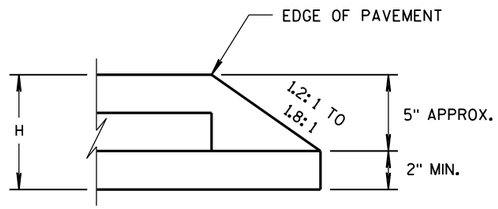
CONSTRUCTED WITH FINAL LAYER

FOR H 5" OR LESS



CONSTRUCTED WITH FINAL TWO LAYERS

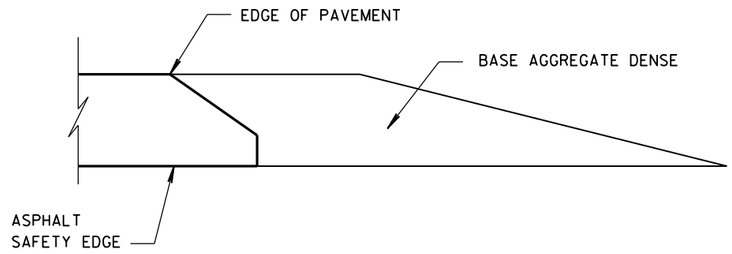
FOR H GREATER THAN 5"



CONSTRUCTED WITH FINAL LAYER

FOR H GREATER THAN 5"

HMA PAVEMENT AND HMA OVERLAYS



FINISHED SHOULDER AGGREGATE PLACEMENT

6

6

S.D.D. 14 B 29-1

S.D.D. 14 B 29-1

SAFETY EDGE SM

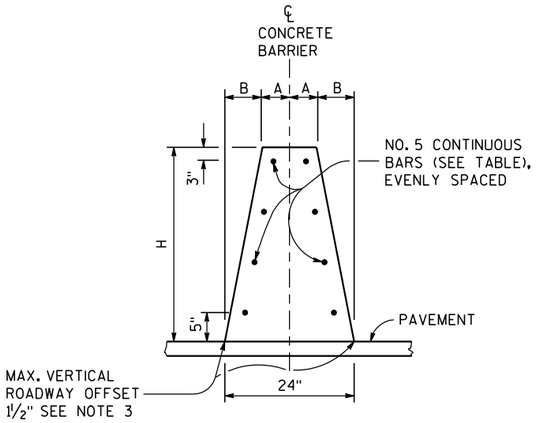
STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED

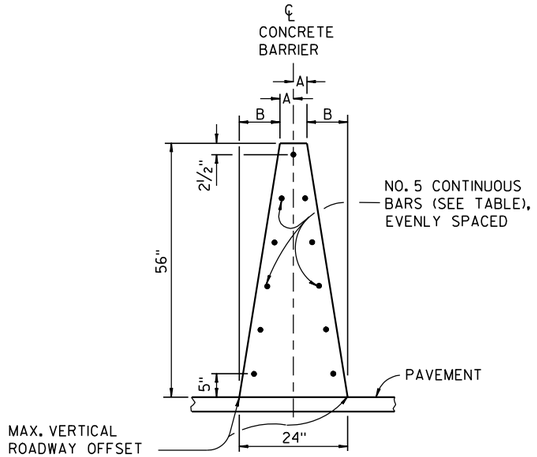
11/30/2012
DATE

/S/ Jerry H. Zoda
ROADWAY STANDARDS DEVELOPMENT ENGINEER

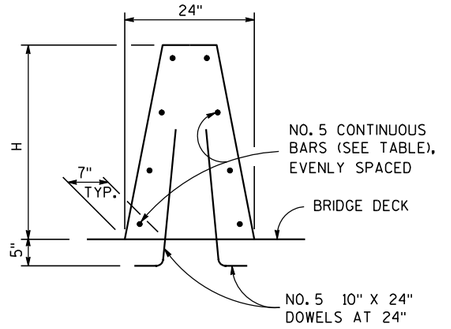
FHWA



32-INCH, 36-INCH OR 42-INCH SINGLE SLOPE CONCRETE BARRIER (TYPE S32, TYPE S36, AND TYPE S42)



56-INCH SINGLE SLOPE CONCRETE BARRIER (TYPE S56)



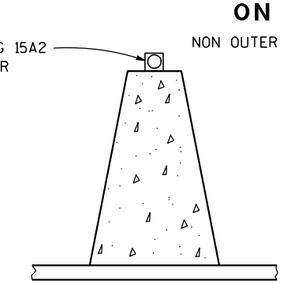
SINGLE SLOPE CONCRETE BARRIER ON BRIDGE

NON OUTER PARAPET APPLICATION

GENERAL NOTES

1. WHERE THE CONCRETE BARRIER IS ADDED TO THE FACE OF EXISTING CONCRETE STRUCTURE, MATCH EXISTING WEEP HOLES.
2. EXPANSION JOINTS IN CONCRETE BARRIER SHALL BE LOCATED AT ALL DECK, PAVEMENT AND PRINCIPAL WALL JOINTS. EXPANSION JOINT FILLER MATERIAL SHALL BE THE SAME SIZE AS JOINT OR ½" MINIMUM.
3. WHERE VERTICAL ROADWAY OFFSET IS GREATER THAN 1½", USE TYPE A
4. PLACE BARRIER PERPENDICULAR TO SHOULDER GRADE, UNLESS INDICATED IN PLAN.
5. EXCEPT IN ANCHORS, VERTICAL REINFORCING STIRRUP NOT REQUIRED FOR ROADWAY OFFSETS LESS THAN 1'-0".
6. FOR TYPE S32, TYPE S36, TYPE S42, AND S56 MONOLITHIC FOOTING OR DOWELED FOOTING WITH 2-#8 x 8" @ 2'-0".
7. STAGGER LAPPING OF LONGITUDINAL STEEL. MINIMUM OVERLAP OF STEEL 2 FEET. BARS AT LAPS TO BE FIRMLY TIED OR CONNECTED.
8. 4000 PSI CONCRETE AIR ENTRAINMENT PER STANDARD SPECIFICATION 501.
9. WHEN SWITCHING BETWEEN SLIP FORM AND CAST-IN-PLACE OPERATIONS, EXTEND LONGITUDINAL STEEL 3 FEET BEYOND SLIP-FORMING CUT OFF POINT. EXPOSED STEEL INTO NEXT POURS REINFORCEMENT. LAPS TO BE FIRMLY TIED.
10. USE ¾" BEVEL OR 1" RADIUS ON ALL EXPOSED SHARP EDGES UNLESS OTHERWISE NOTED.
11. 2" CLEAR COVER TYPICAL.
12. COLD-JOINTS MAY BE USED BETWEEN ANCHOR INSTALLATIONS. WHEN A COLD JOINT IS NEEDED, 3 FEET OF LAP OF LONGITUDINAL STEEL IS REQUIRED. LAPS TO BE FIRMLY TIED
13. IN TYPE S32, TYPE S36, TYPE S42 AND TYPE S56 NO ADDITIONAL VERTICAL STEEL NEEDED. IN TYPE S32A, TYPE S36A, TYPE S42A AND TYPE S56A REQUIRES VERTICAL STEEL. SEE OTHER DETAIL
14. IN TYPE S32, TYPE S36, TYPE S42 AND TYPE S56 DEPTH OF FOOTING 10". IN TYPE S32A, TYPE S36A, TYPE S42A AND TYPE S56A MATCH TOTAL HEIGHT OF SINGLE SLOPE BARRIER RETAINING WALL.
15. FOR ALL BARRIER TYPES SHOWN, ANCHOR IS REQUIRED AT CONCRETE BARRIER ENDS AND AT INTERRUPTIONS IN CONCRETE BARRIER. ANCHOR MAY BE AS SHOWN ON DRAWING OR DETAILS SHOWN ON S.D.D. 14B33. ANCHORS INCIDENTAL TO CBSS.

BARRIER HEIGHT H INCHES	A INCHES	B INCHES	NUMBER OF NO. 5 BARS EACH
32	7	5	8
36	6¼	5¾	8
42	5¼	6¾	10
56	3	9	11



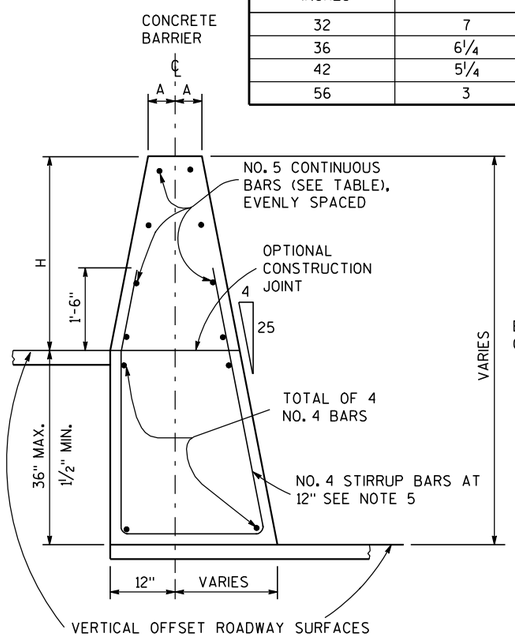
DELINEATION

DELINEATOR SPACING ON HORIZONTAL CURVES

RADIUS OF CURVE	APPROXIMATE SPACING ON CURVE
50 FEET	20 FEET
115 FEET	25 FEET
180 FEET	35 FEET
250 FEET	40 FEET
300 FEET	50 FEET
400 FEET	55 FEET
500 FEET	65 FEET
600 FEET	70 FEET
700 FEET	75 FEET
800 FEET	80 FEET
900 FEET	85 FEET
1000 FEET	90 FEET

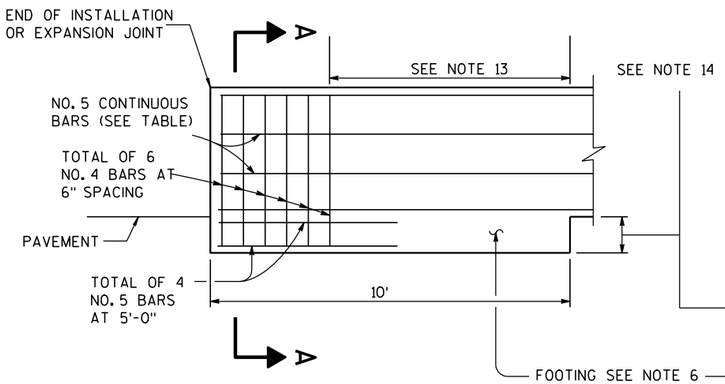
DELINEATOR SPACING ON RADIUS GREATER THAN 1000 FEET OR TANGENT SECTIONS

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



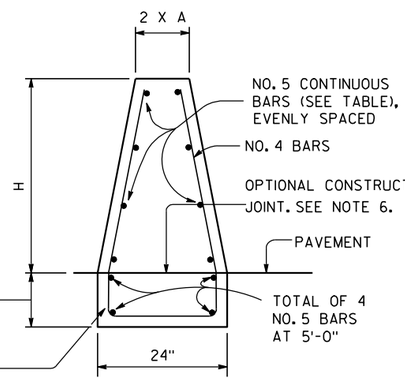
SINGLE SLOPE CONCRETE BARRIER AND RETAINING WALL (TYPE S32A, TYPE S36A, TYPE S42A, TYPE S56A)

(BETWEEN ADJACENT ROADWAYS)



END ANCHOR SINGLE SLOPE CONCRETE BARRIER

AT CONSTRUCTION JOINT



SECTION A-A

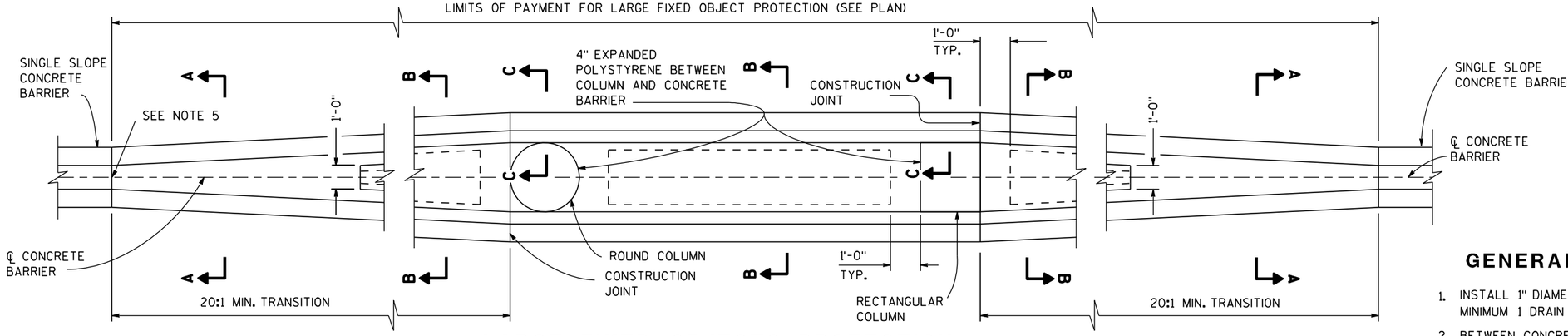
CONCRETE BARRIER SINGLE SLOPE (CBSS)	
STATE OF WISCONSIN DEPARTMENT OF TRANSPORTATION	323

S.D.D. 14 B 32-1a

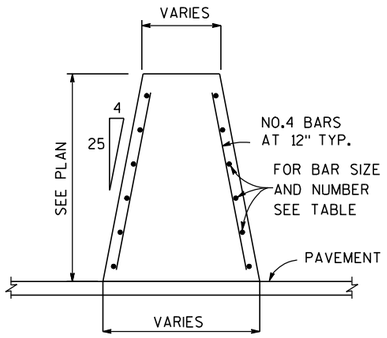
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S.D.D. 14 B 32-1a

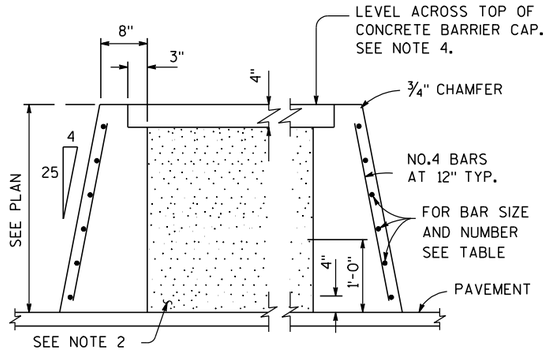
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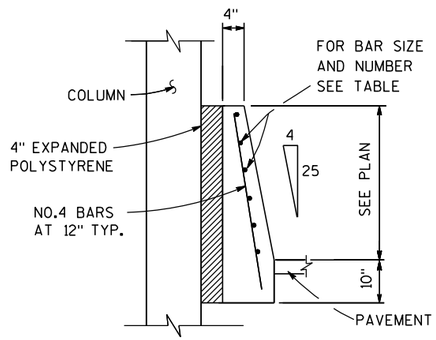
LARGE FIXED OBJECTS PROTECTION
TYPE S32, TYPE S36, TYPE S42, TYPE S56



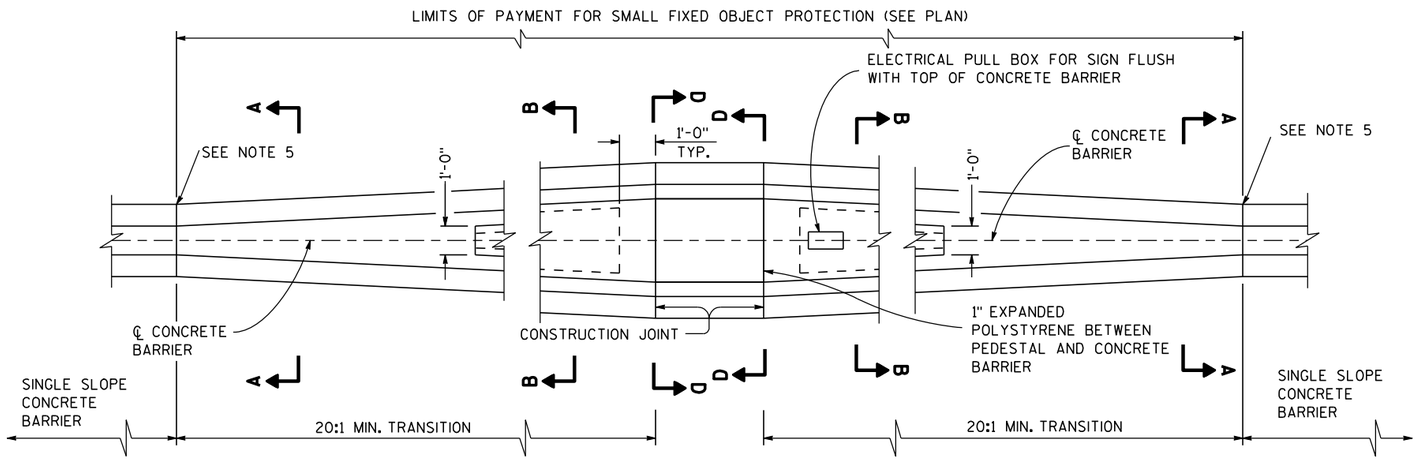
SECTION A-A



SECTION B-B



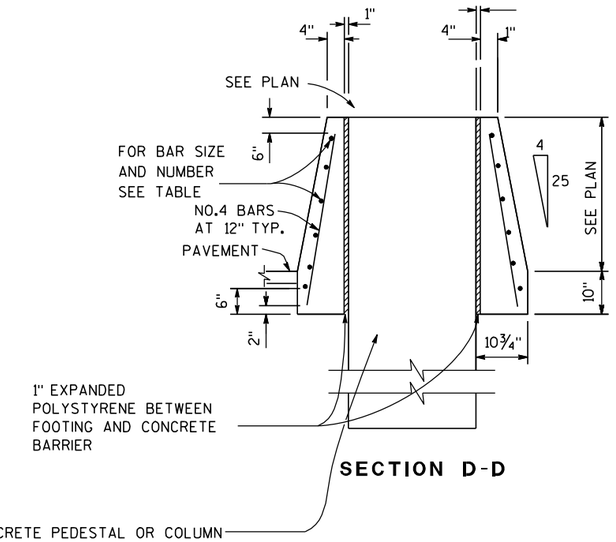
SECTION C-C



SMALL FIXED OBJECTS PROTECTION
TYPE S32, TYPE S36, TYPE S42, TYPE S56

GENERAL NOTES

1. INSTALL 1" DIAMETER DRAIN PIPE EVERY 20' OF CROSS SECTION B-B. MINIMUM 1 DRAIN PER CAVITY.
2. BETWEEN CONCRETE BARRIER WALLS FILL WITH GRANULAR BACKFILL GRADE 2
3. REINFORCING STEEL SHALL EXTEND CONTINUOUS THROUGH CONSTRUCTION JOINTS.
4. ADJUST HEIGHT OF CONCRETE BARRIER WALL ON LOW SIDE OF OFFSET OR SUPERELEVATED ROADWAYS TO PROVIDE LEVEL GRADE ACROSS TOP OF CONCRETE CAP.
5. IF FIXED OBJECT PROTECTION IS INSTALLED FIRST, USE COLD JOINTS. IF CBSS PLACED FIRST, USE EXPANSION JOINT.



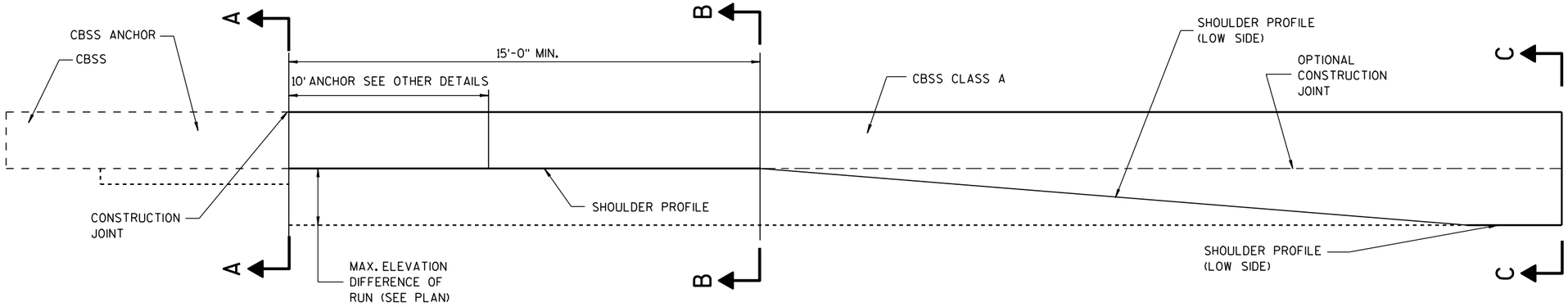
SECTION D-D

BARRIER HEIGHT H INCHES	BAR SIZE	NUMBER OF BARS EACH
32	4	6
36	4	6
42	5	6
56	5	9

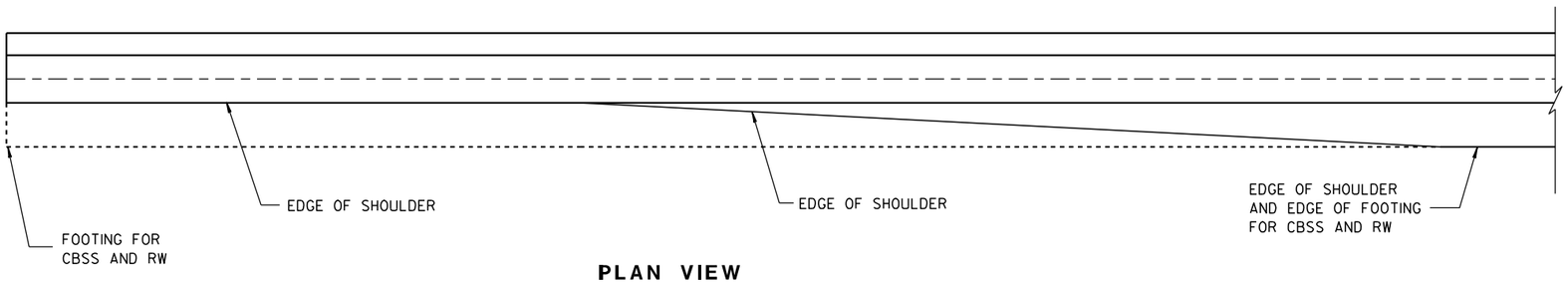
CONCRETE BARRIER SINGLE SLOPE (CBSS)

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

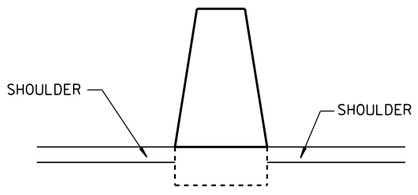
6
S.D.D. 14 B 32-1b



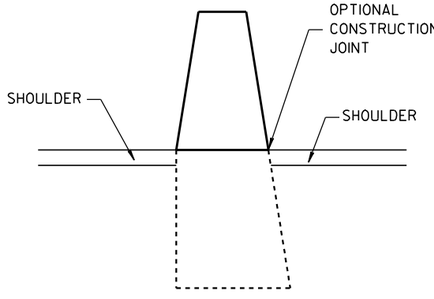
ELEVATION VIEW
TRANSITION TO CBSS CLASS A
(TYPE S32A, TYPE S36A, TYPE S42A, TYPE S56A)



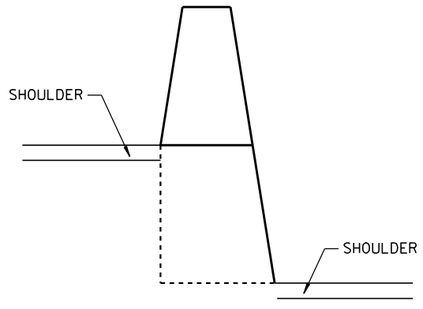
PLAN VIEW
TRANSITION TO CBSS CLASS A
(TYPE S32A, TYPE S36A, TYPE S42A, TYPE S56A)



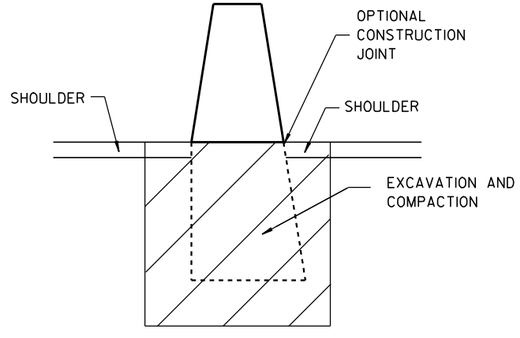
SECTION A-A



SECTION B-B



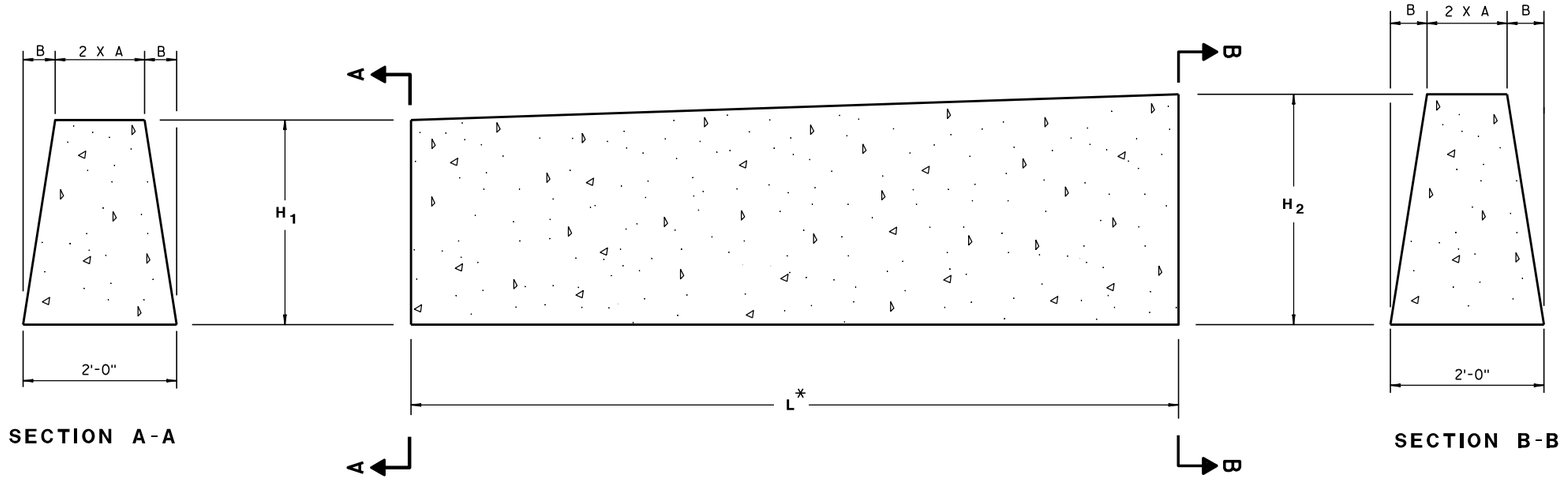
SECTION C-C



CONCRETE BARRIER SINGLE SLOPE (CBSS)

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

6
S.D.D. 14 B 32-1c



DOUBLE COLD JOINT HEIGHT TRANSITION

BARRIER DIMENSIONS

BARRIER HEIGHT INCHES	A INCHES	B INCHES
32	7	5
36	6 1/4	5 3/4
42	5 1/4	6 3/4
56	3	9

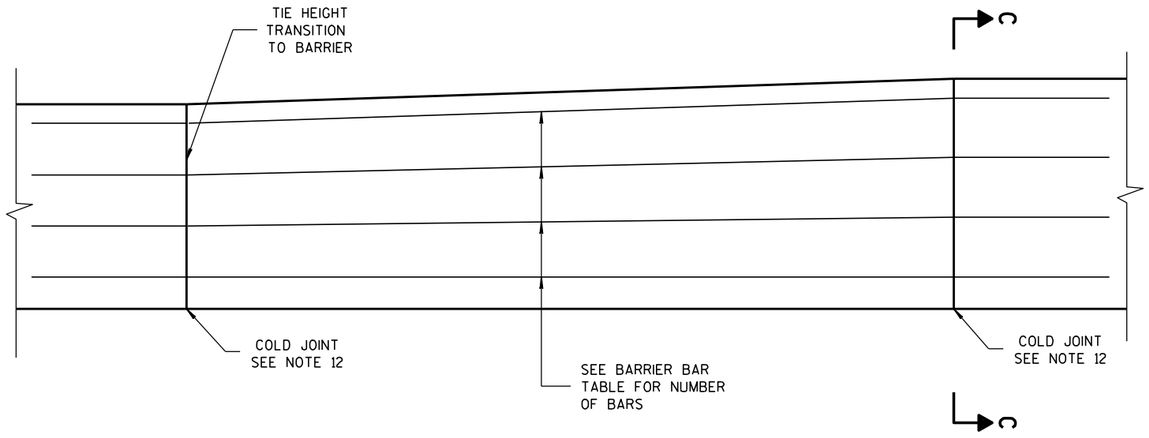
MULTIPLE HEIGHT TRANSITIONS MAY BE USED IN SEQUENCE TO GET TO APPROPRIATE HEIGHT.

USE COLD JOINT TO CONNECT MULTIPLE HEIGHT TRANSITIONS.

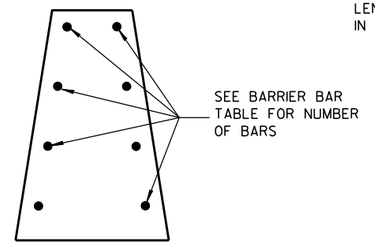
BARRIER BARS

H_1	H_2	L*	NUMBER OF NO. 5 BARS
32"	36"	10'-0"	8
36"	42"	10'-6"	10
42"	56"	24'-6"	11

* LENGTH OF DOUBLE COLD JOINT INCLUDED IN THE TOTAL LENGTH OF CBSS.



STEEL REINFORCEMENT DETAIL



SECTION C-C

CONCRETE BARRIER SINGLE SLOPE

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED

6-3-2010
DATE

/S/ Jerry H. Zogg
ROADWAY STANDARDS ENGINEER

326

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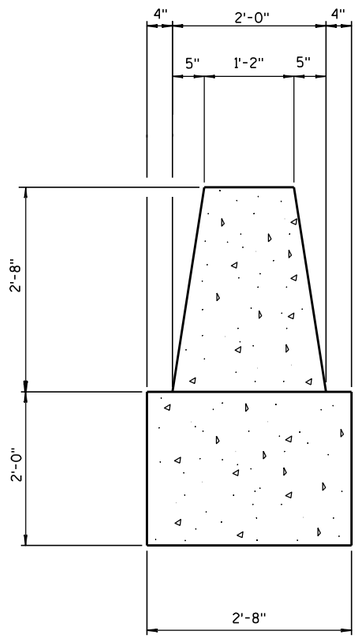
FHWA

6

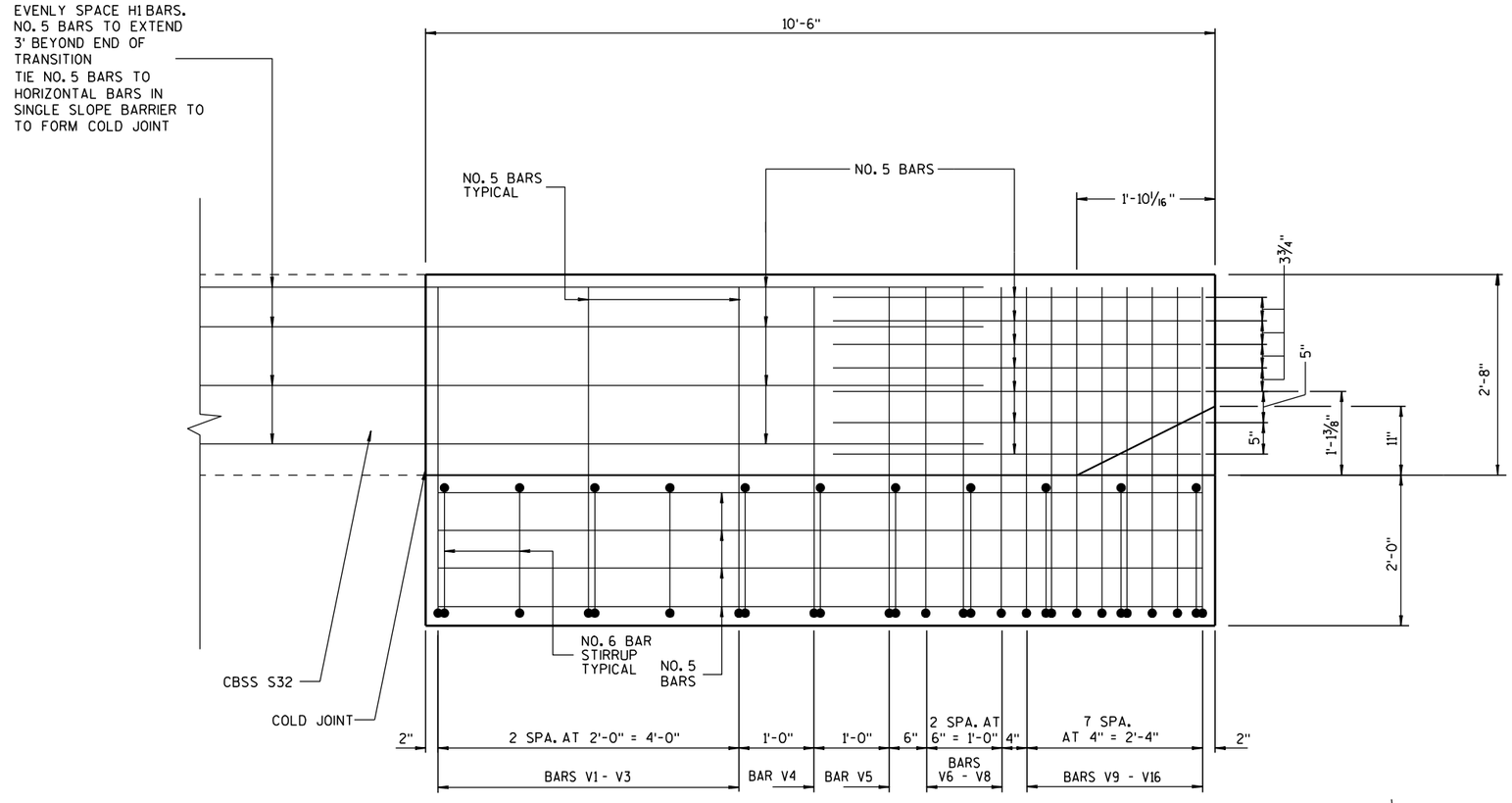
S.D.D. 14 B 32-1d

6

S.D.D. 14 B 32-1d

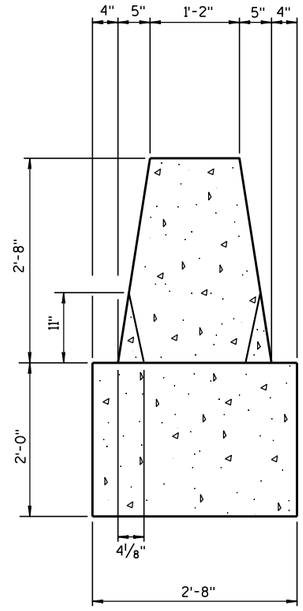


SECTION A-A

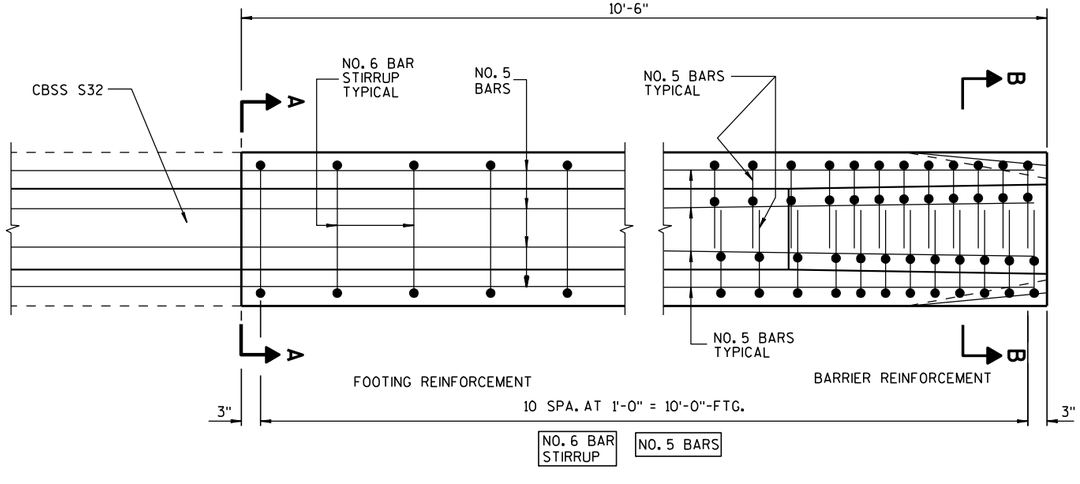


SEE SECTIONS (1) THRU (16)

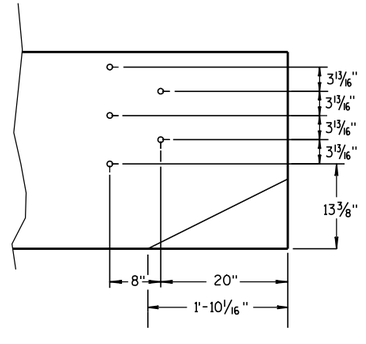
ELEVATION VIEW



SECTION B-B



PLAN VIEW



PVC PIPE LOCATIONS

GENERAL NOTES

CONSTRUCT PER STANDARD SPECIFICATION 603.

SPLICES OF LONGITUDINAL BARS TO BE 2' LONG AND FIRMLY TIED AND FASTENED TOGETHER UNLESS NOTED OTHERWISE.

4000 PSI CONCRETE AIR ENTRAINMENT PER STANDARD SPECIFICATIONS SECTION 501.

USE 3/4" BEVEL OR 1" RADIUS ON ALL EXPOSED SHARP EDGES UNLESS NOTED OTHERWISE.

THRIE BEAM ANCHOR INCIDENTAL TO CONCRETE BARRIER ITEM.

INSTALL SCHEDULE 40 PVC PIPE 1" DIAMETER AT LOCATIONS INDICATED.

EXTEND PVC PIPE COMPLETELY THROUGH BARRIER.

CUT ENDS OF PVC PIPE FLUSH WITH FINISHED FACE of BARRIER.

THE NUMBER IN BAR DESIGNATION REPRESENTS THE BARS LOCATION.

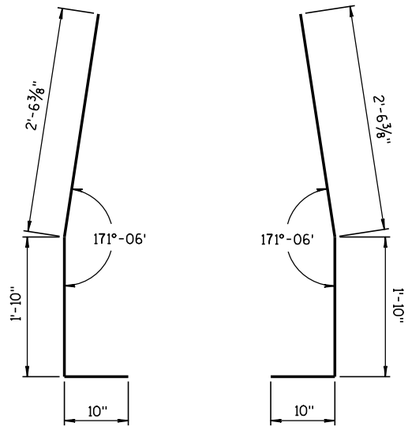
2" CLEAR COVER TYPICAL.

CONCRETE BARRIER
SINGLE SLOPE 32"
THRIE BEAM ANCHOR

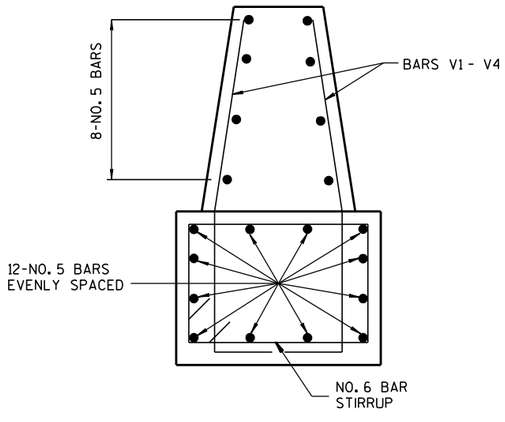
STATE OF WISCONSIN
DEPARTMENT OF TRANSPO...

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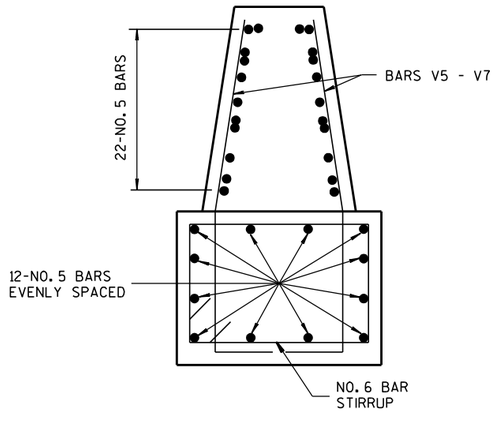
S.D.D. 14 B 33-1a



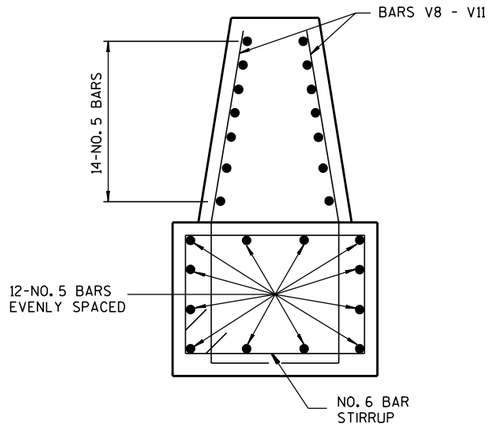
BAR BENDING DETAIL
FOR BARS V1 - V11



BAR DETAIL
SECTIONS 1 - 4



BAR DETAIL
SECTIONS 5 - 7



BAR DETAIL
SECTIONS 8 - 11

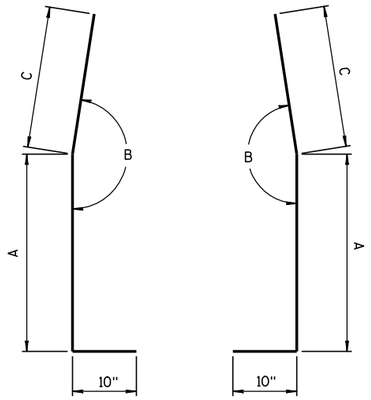
CONCRETE BARRIER
SINGLE SLOPE 32"
THRIE BEAM ANCHOR

STATE OF WISCONSIN
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6
S.D.D. 14 B 33-1b

BAR CHART
SECTIONS V12 - V13

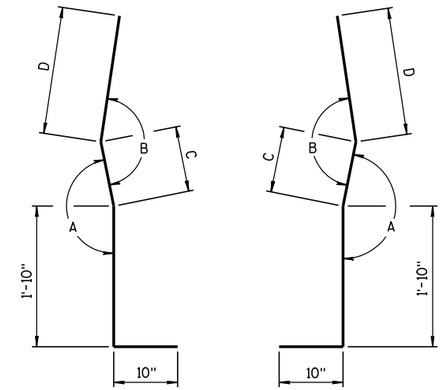
BAR	A	B	C
V12	2'-2"	171°-15'	2'-1 3/4"
V13	2'-7"	171°-05'	1'-9 3/8"



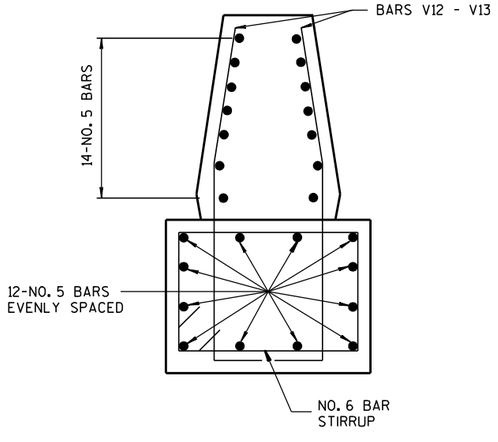
BAR BENDING DETAIL
FOR BARS V12 - V13

BAR CHART
SECTIONS V14 - V16

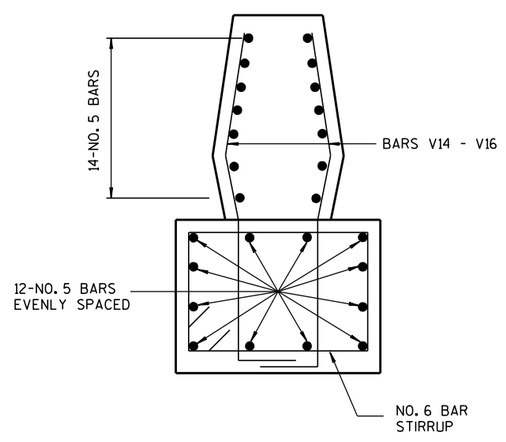
BAR	A	B	C	D
V14	168°-15'	159°-15'	6"	2'-0"
V15	169°-20'	161°-00'	8"	1'-10"
V16	168°-40'	160°-10'	10"	1'-8"



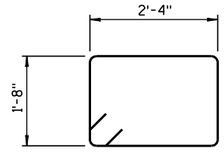
BAR BENDING DETAIL
FOR BARS V14 - V16



BAR DETAIL
SECTIONS 12 - 13



BAR DETAIL
SECTIONS 14 - 16



STIRRUP BAR
BENDING DETAIL

CONCRETE BARRIER
SINGLE SLOPE 32"
THRIE BEAM ANCHOR

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

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6-3-2010
DATE

/S/ Jerry H. Zoss
ROADWAY STANDARDS ENGINEER

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GENERAL NOTES

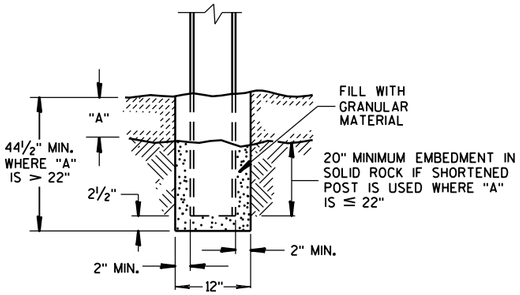
1. WOOD OR STEEL POSTS (w6X9 OR w6X8.5) MAY BE USED. DO NOT INTERMIX WOOD AND STEEL POSTS. INSTALL STEEL POSTS WITH HOLES ON APPROACHING TRAFFIC SIDE.

2. USE WOOD OR APPROVED PLASTIC BLOCKOUTS. WOOD BLOCKOUTS MAY BE CONSTRUCTED OUT OF TWO OR MORE WOOD BLOCKOUTS. SEE ALTERNATE WOOD BLOCKOUT DETAIL. DIMENSIONS OF APPROVED PLASTIC BLOCKOUTS MAY VARY.

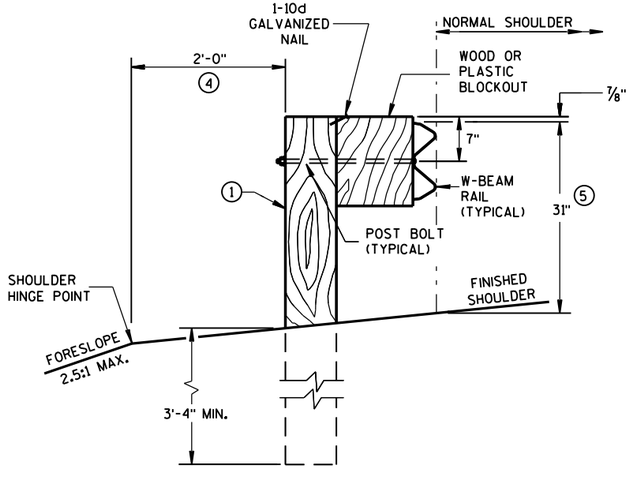
3. IF ROCK IS ENCOUNTERED DURING EXCAVATION, PROVIDE A HOLE 12 INCHES IN DIAMETER EXTENDING 20 INCHES DEEP INTO THE ROCK. PLACE APPROXIMATELY 2½ INCHES OF GRANULAR MATERIAL IN THE BOTTOM OF THE HOLE. CUT THE POSTS THE TO LENGTH AMD INSTALL. BACKFILL WITH EXCAVATED MATERIAL AND COMPACT. BACKFILL IS TO BE FREE OF LARGE ROCKS.

4. WHEN THE DISTANCE FROM BACK OF POST TO SHOULDER HINGE POINT IS LESS THAN 2 FEET INSTALL LONGER POST AT HALF POST SPACING (K).

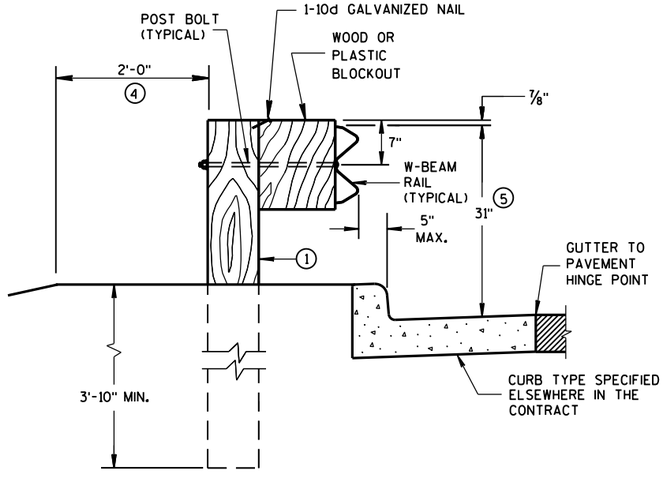
5. FOR NEW MGS INSTALLATION TOP OF W-BEAM RAIL TOLERANCE IS ± 1". FOR EXISTING MGS INSTALLATION TOP OF W-BEAM IS BETWEEN 27¾" TO 32".



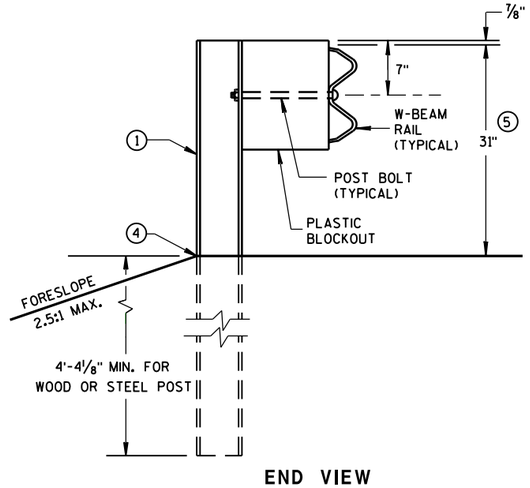
END VIEW
SETTING STEEL OR WOOD POST IN ROCK ③



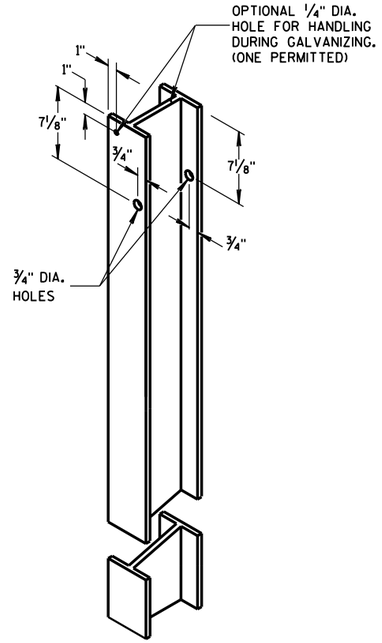
END VIEW
LOCATED ALONG A ROADWAY SHOULDER
STANDARD INSTALLATION



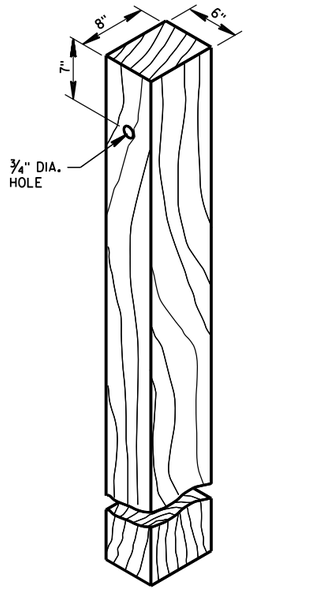
END VIEW
LOCATED ALONG A CURBED ROADWAY



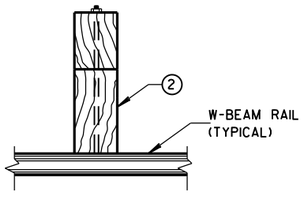
END VIEW
MGS LONGER POST AT HALFPOST SPACING W BEAM (K)



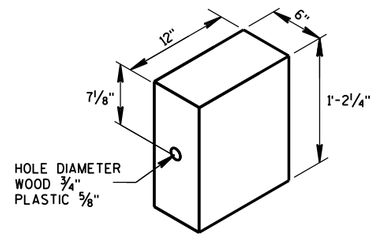
STEEL POST &
HOLE PUNCHING DETAIL
(w6X9) ①



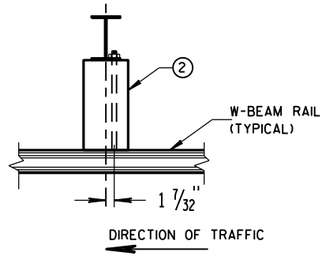
WOOD POST
(6" X 8") NOMINAL ①



PLAN VIEW
WOOD POST,
BLOCKOUT & BEAM



WOOD OR
PLASTIC BLOCKOUT ②

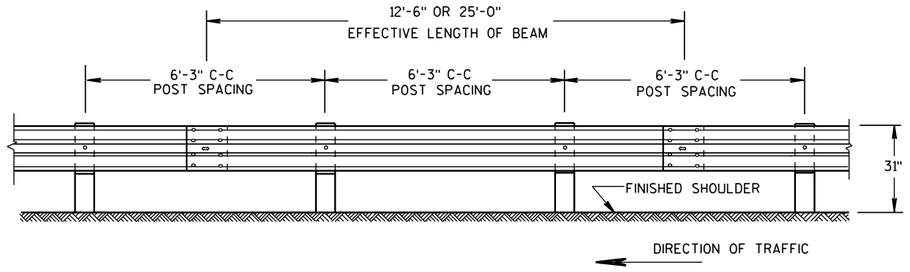


PLAN VIEW
STEEL POST,
PLASTIC BLOCKOUT & BEAM

MIDWEST GUARDRAIL SYSTEM
(MGS) GUARDRAIL

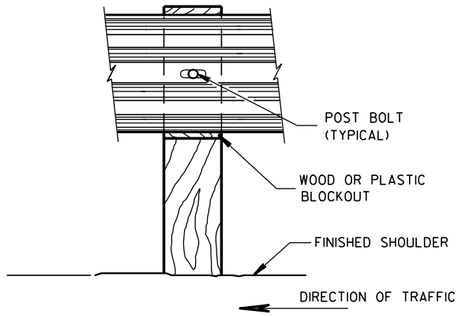
STATE OF WISCONSIN
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6
S.D.D. 14 B 42-2a



FRONT VIEW

POST SPACING STANDARD INSTALLATION



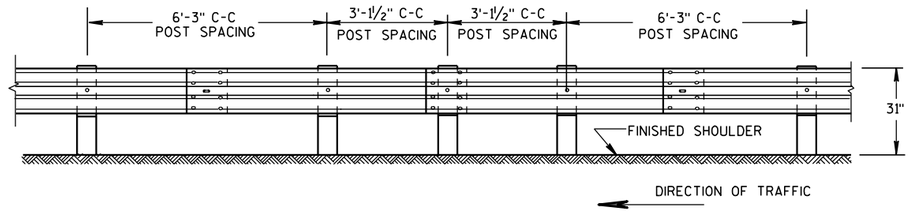
FRONT VIEW AT WOOD POST

GENERAL NOTES

1. PROVIDE TYPE "H" SILVER REFLECTIVE SHEETING ON ALL REFLECTORS EXCEPT THOSE LOCATED ALONG THE LEFT EDGE OF ONE-WAY ROADWAYS, WHICH SHALL BE PROVIDED WITH TYPE "H" YELLOW REFLECTIVE SHEETING.
2. DO NOT INSTALL REFLECTORS ON THE FIRST 50 FEET OF THE APPROACH END OF THE ENERGY ABSORBING TERMINAL. RAIL SPLICE LOCATIONS ARE THE ONLY ACCEPTABLE LOCATIONS FOR REFLECTORS.
3. REVERSE EVERY OTHER REFLECTOR FOR 2-WAY VISIBILITY. THE CONTRACTOR MAY FURNISH TWO-SIDED REFLECTORS IN LIEU OF ONE-SIDED REFLECTORS.
4. PROVIDE AN ANGLE OF BEND OF 90° ± 1° FOR TWO-SIDED REFLECTORS.
5. 25 FEET OF HALF POST SPACING IS REQUIRED ON APPROACH AND DEPARTURE ENDS OF QUARTER POST SPACING.

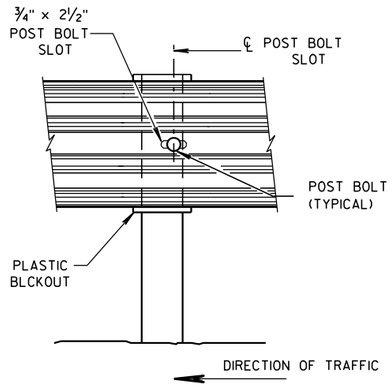
POST BOLTS ARE A 5/8" DIAMETER ASTM A307 GUARDRAIL BOLT. A POST BOLT REQUIRES 5/8" DIAMETER A563A DOUBLE RECESSED (DR) HEAVY HEX NUT AND 5/8" DIAMETER F844 FLAT WASHER. POST BOLTS MAY BE LONGER IF MULTIPLE BLOCKOUTS ARE BEING USED.

GUARD RAIL SPLICE BOLTS ARE A 5/8" DIAMETER ASTM A307 GUARDRAIL HEAD BOLT. A GUARDRAIL SPLICE BOLT REQUIRES 5/8" DIAMETER A563A DOUBLE RECESSED (DR) HEAVY HEX NUT.

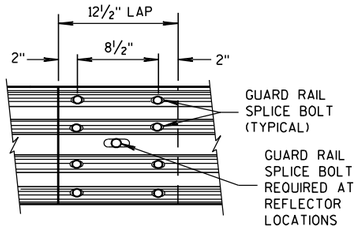


FRONT VIEW

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

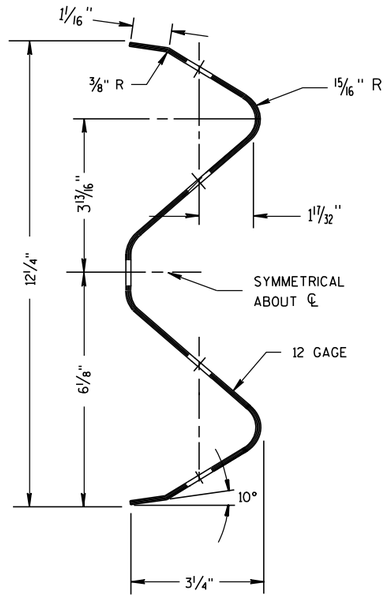


FRONT VIEW AT STEEL POST

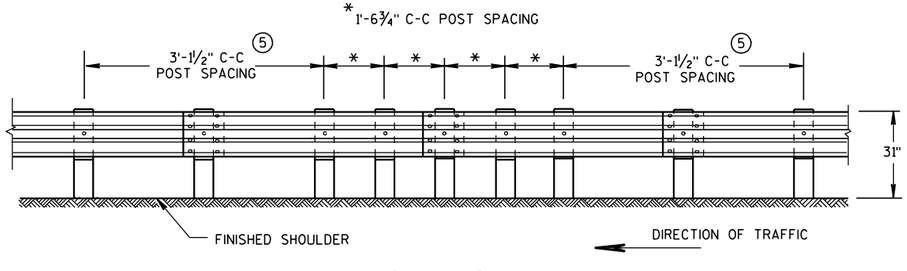


FRONT VIEW

MID-SPAN BEAM SPLICE

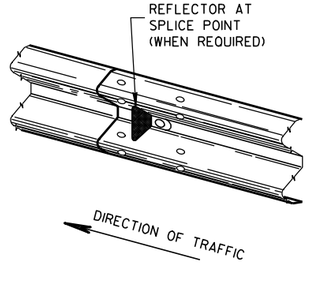


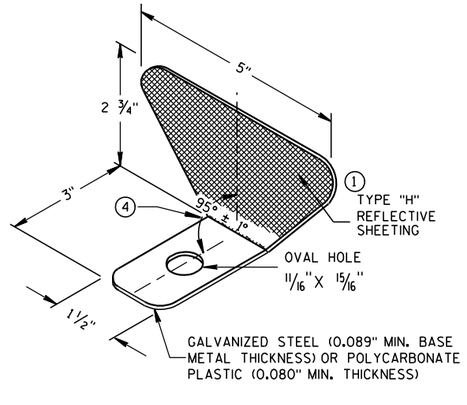
SECTION THRU W-BEAM RAIL



FRONT VIEW

QUARTER POST SPACING (QS)





ONE SIDED REFLECTOR DETAIL AND TYPICAL INSTALLATION ①

REFLECTOR SPACING ②

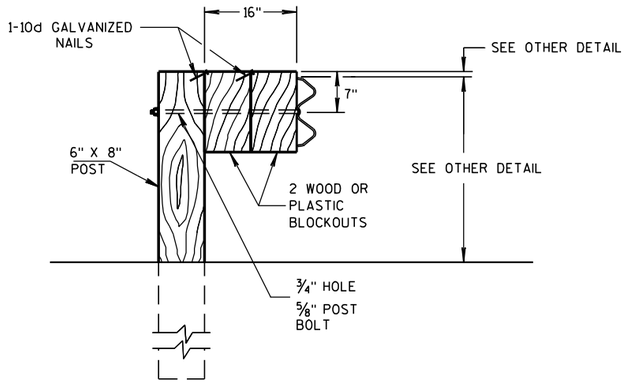
	BEAM GUARD LENGTH	REFLECTOR SPACING	NO. SURFACES REFLECTORIZED	MIN. NO. REFLECTORS
ONE WAY TRAFFIC	< 200' > 200'	50' C-C 100' C-C	1 1	3
TWO WAY TRAFFIC	< 200' > 200'	25' C-C 50' C-C	1 ③ 1	6
TWO WAY TRAFFIC	< 200' > 200'	50' C-C 100' C-C	2 ④ 2	3

MIDWEST GUARDRAIL SYSTEM
(MGS) GUARDRAIL

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

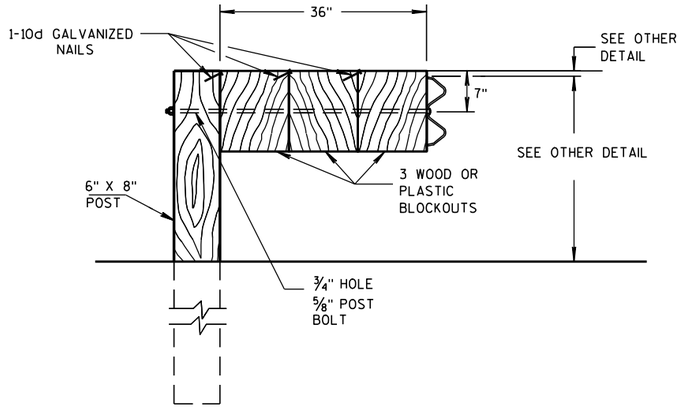
S.D.D. 14 B 42-2b

S.D.D. 14 B 42-2b



DETAIL FOR 16" BLOCKOUT DEPTH

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

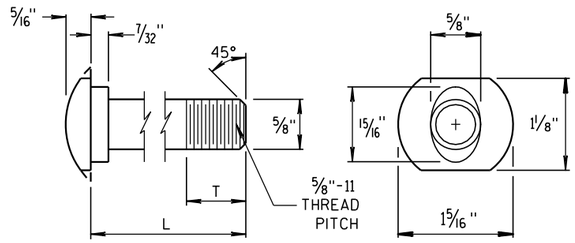


DETAIL FOR 36" BLOCKOUT DEPTH

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

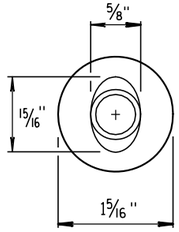
DO NOT USE 16" OR 36" BLOCKOUTS IF IT CAUSES THE POST TO BE DRIVEN BEYOND SHOULDER HINGE POINT OR CAUSES A FIXED OBJECT TO BE WITHIN THE DEFLECTION DISTANCE OF THE BARRIER.

NOTE: 1. ALL FILLETS SHALL HAVE A MINIMUM RADIUS OF 1/16".
2. IF THE BOLT EXTENDS MORE THAN 1/4" FROM THE NUT THE BOLT SHOULD BE TRIMMED BACK.

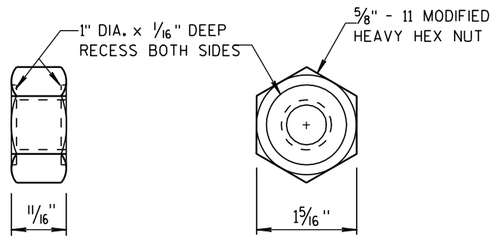


POST BOLT TABLE

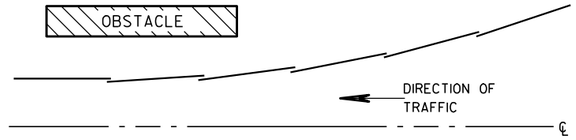
L	T (MIN.)
1 1/4"	1 1/8"
2"	1 3/4"
10"	4"
14"	4 1/16"
18"	4"
21"	4 1/16"
25"	4"



ALTERNATE BOLT HEAD

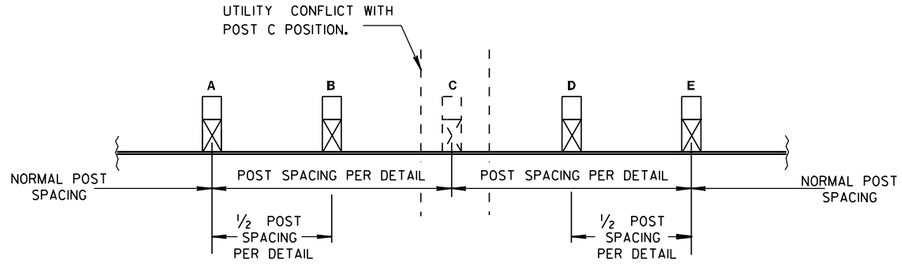


POST BOLT AND RECESS NUT

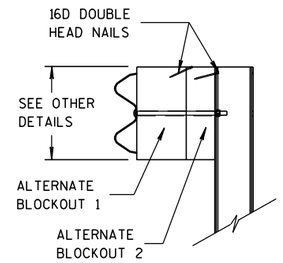


PLAN VIEW

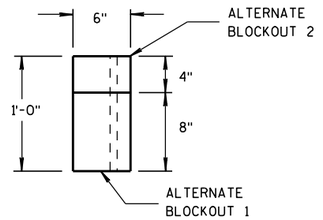
BEAM LAPPING DETAIL



POST DRIVING FOR CONTINUOUS UNDERGROUND OBSTRUCTION



SIDE VIEW



TOP VIEW

ALTERNATE WOOD BLOCKOUT DETAIL

MIDWEST GUARDRAIL SYSTEM (MGS) GUARDRAIL	
STATE OF WISCONSIN DEPARTMENT OF TRANSPORTATION	
APPROVED	
11/15/2011 DATE	/S/ Jerry H. [illegible] ROADWAY STANDARDS ENGINEER
FHWA	332 ENT

6

S.D.D. 14 B 42-2c

GENERAL NOTES

(A) THE SLOPE IN THE AREA BOUNDED BY THE EXTENDED VEHICLE RUNOUT PATH (EVRP), THE HINGE POINT LINE (HPL),AND THE CLEAR ZONE LIMITS (CZL) SHALL BE 4:1 OR FLATTER.

(B) AFTER FINAL ASSEMBLY, RECHECK CABLE TO BE SURE IT IS TAUT AND HAS NOT RELAXED.

(C) DIFFERENT MANUFACTURES REQUIRE DIFFERENT PERFORATED W-BEAM RAIL END PANELS. SEE MANUFACTURES INFORMATION.

(D) THE TOP OF THE STEEL TUBE ON POST 1 AND POST 2 SHALL NOT BE MORE THAN 3" ABOVE THE FINISH GROUND ELEVATION.

(F) SHEETING IS ATTACHED TO 0.040 ALUMINUM SHEET AND ATTACHED TO E.A.T. HEAD USING 4 STAINLESS STEEL SELF-TAPPING SCREWS. ONE SCREW PER CORNER OF E.A.T.

(G) ½" DIAMETER X 3" LONG LAG BOLT AND WASHER.

(H) HARDWARE VARIES BETWEEN DIFFERENT MANUFACTURES. SEE MANUFACTURE'S DRAWING FOR INFORMATION.

(I) DIMENSIONS MAY VARY. SEE MANUFACTURE'S INFORMATION.

SEE SDD 14B42 FOR MORE INFORMATION.

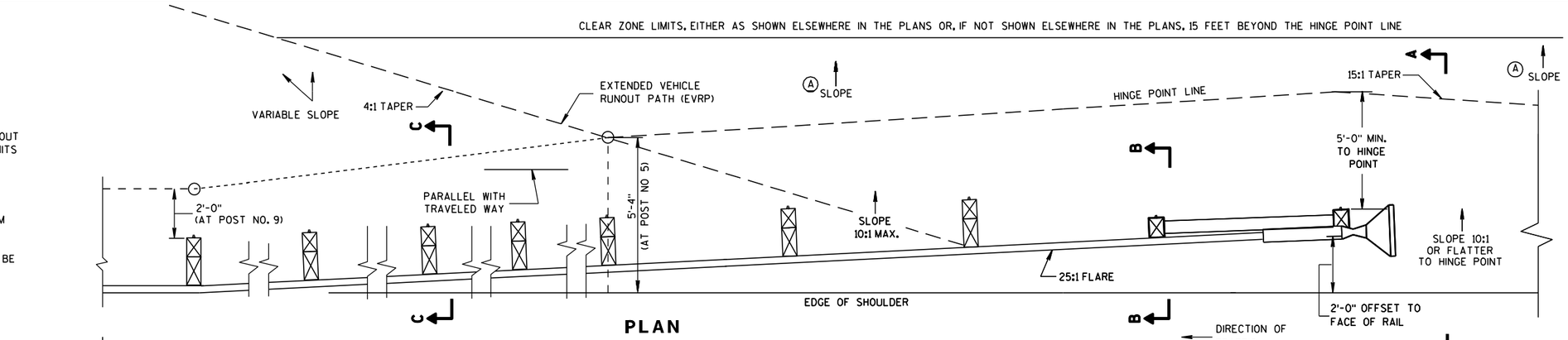
* DO NOT ATTACH BLOCKOUTS TO POSTS 1 AND 2.

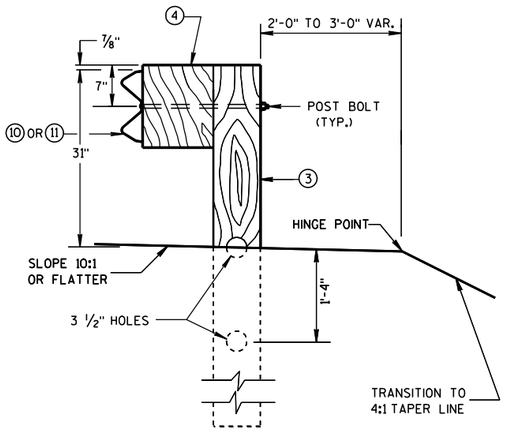
DO NOT INSTALL REFLECTORS ON THE FIRST 50 FEET OF THE APPROACH END OF THE ENERGY ABSORBING TERMINAL.

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

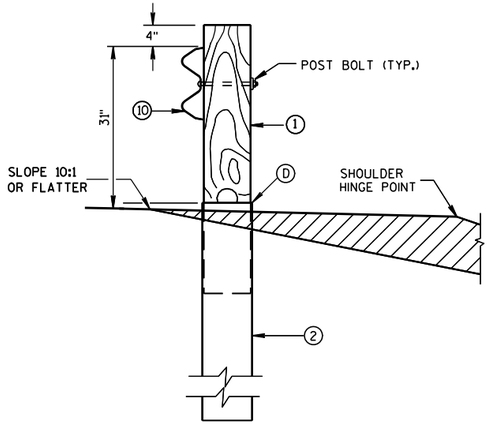
PATTERN AND COLORS ON REFLECTIVE SHEETING TYPE H ARE TO CONFORM TO OM3-L OR OM3-R OF THE MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES.

THE CENTER OF THE UPPER 3½" DIAMETER HOLE ON POST NUMBER 3 THROUGH POST 9 IS TO BE FLUSH WITH THE GROUND LINE (± ¾")

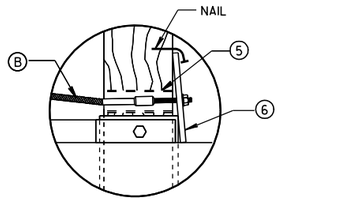


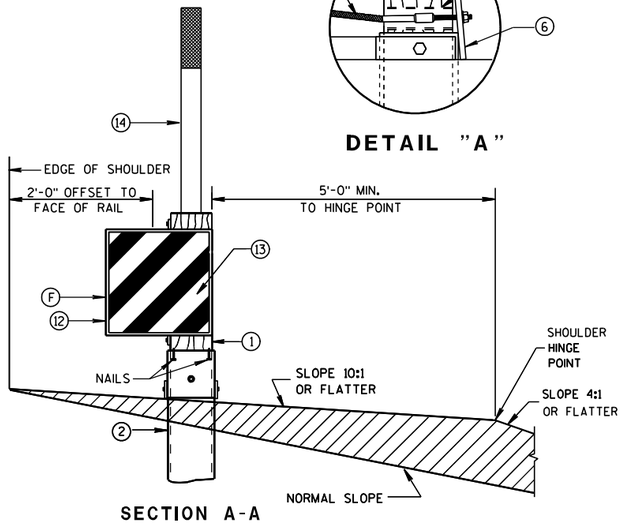


SECTION C-C
TYPICAL AT POST NOS. 3-9

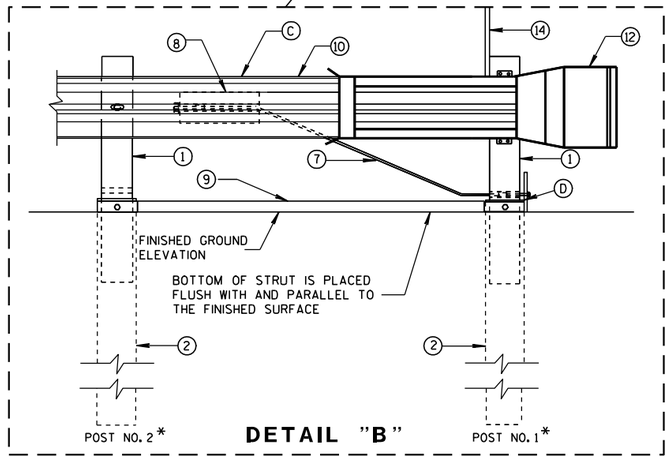


SECTION B-B
TYPICAL AT POST NO. 2*





SECTION A-A
TYPICAL AT POST NO. 1*



DETAIL "B"

MIDWEST GUARDRAIL SYSTEM
ENERGY ABSORBING TERMINAL (MGS)

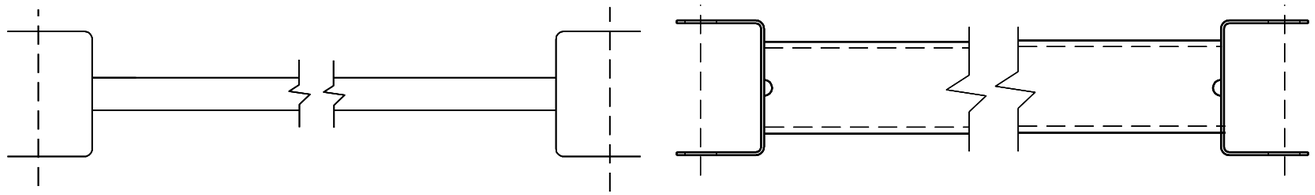
STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

6

S.D.D. 14 B 44-1a

6

S.D.D. 14 B 44-1a

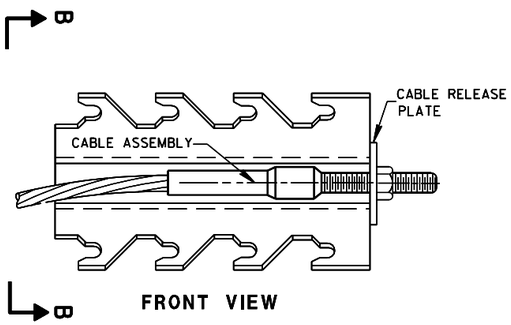


(9) (H)

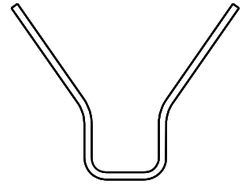
GENERIC GROUND STRUT

BILL OF MATERIALS

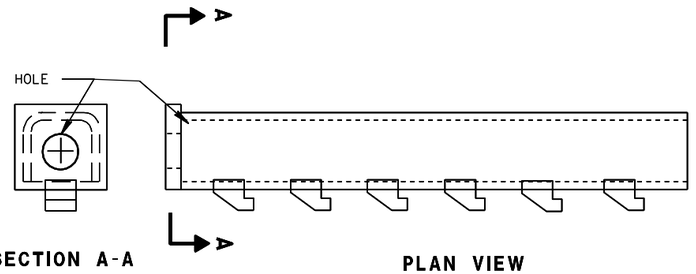
PART NO.	DESCRIPTION MATERIALS PROVIDED BY MGS EAT MANUFACTURER. SEE MANUFACTURER'S DETAILS FOR MORE INFORMATION.
(1)	WOOD BREAKAWAY POST
(2)	6" X 8" X 0.188", 6'-0" LONG FOUNDATION TUBE AT POSTS 1 AND 2
(3)	WOOD CRT
(4)	WOOD BLOCKOUT
(5)	PIPE SLEEVE
(6)	BEARING PLATE
(7)	BCT CABLE ASSEMBLY
(8)	ANCHOR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



FRONT VIEW



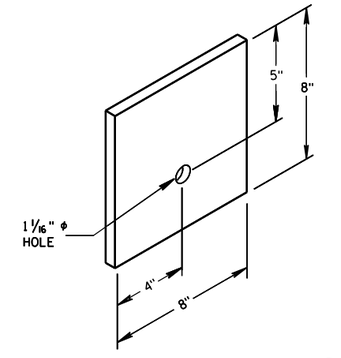
SECTION B-B



SECTION A-A

PLAN VIEW

GENERIC ANCHOR CABLE BOX (8) (H)



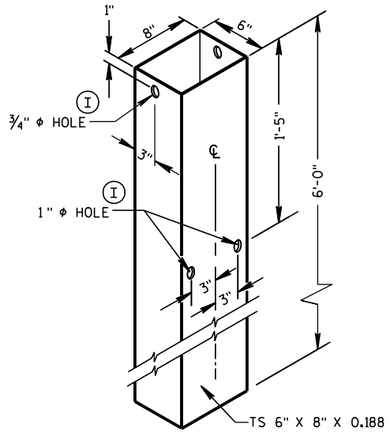
BEARING PLATE (6)

MIDWEST GUARDRAIL SYSTEM
ENERGY ABSORBING TERMINAL
(MGS)

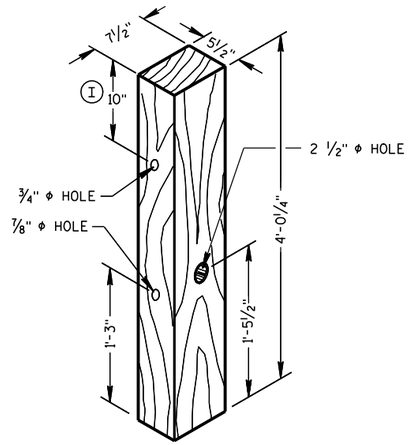
STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

6

S.D.D. 14 B 44-1b

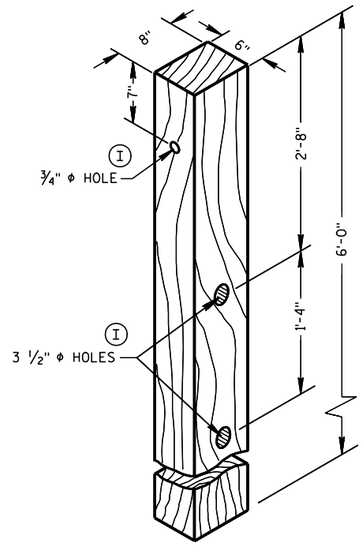


FOUNDATION TUBE (2)



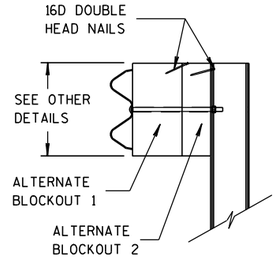
POSTS NUMBER 1 AND 2

WOOD BREAKAWAY POST (1)

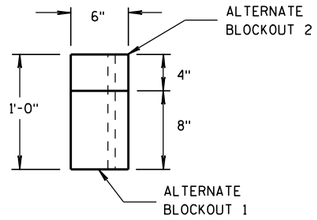


POSTS NUMBER 3-9

WOOD CRT POST (3)

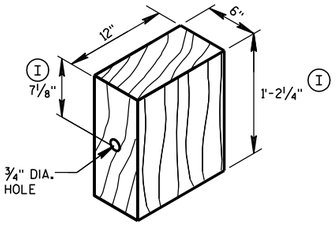


SIDE VIEW



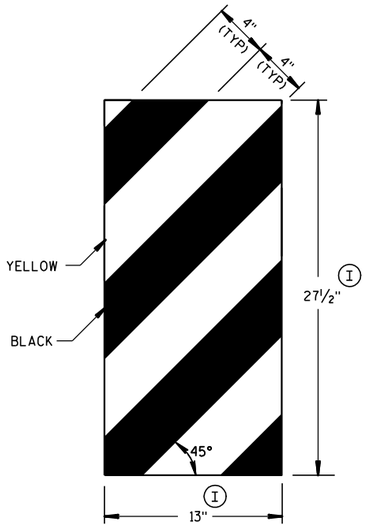
TOP VIEW

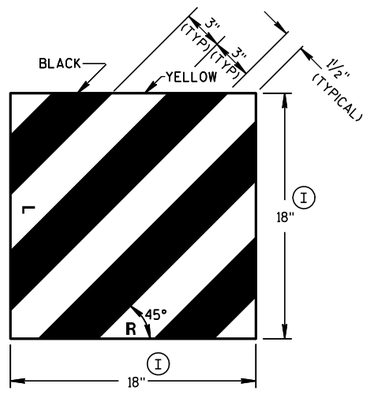
ALTERNATE WOOD BLOCKOUT DETAIL



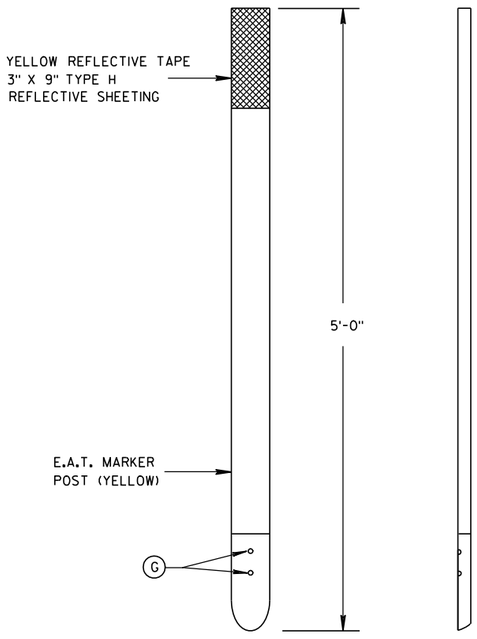
WOOD BLOCKOUT (4)

REQ'D. AT ALL POSTS EXCEPT POST NO'S 1 & 2





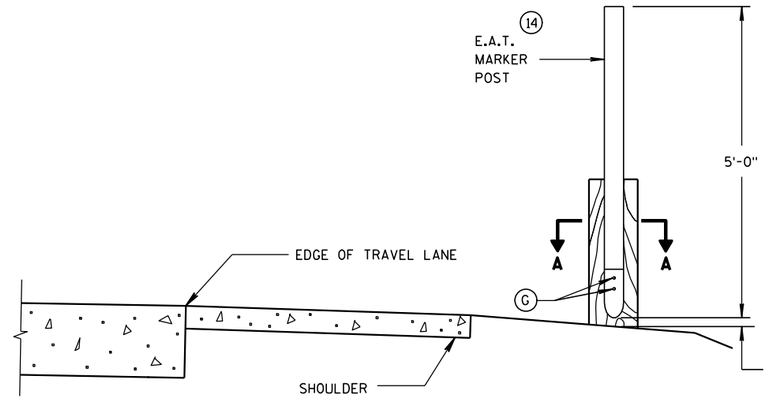
GENERIC REFLECTIVE SHEETING (13) (H)



FRONT VIEW

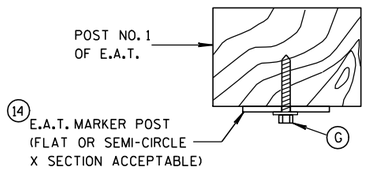
SIDE VIEW

E.A.T. MARKER POST (14)



TYPICAL INSTALLATION OF E.A.T. MARKER POST BACKSIDE OF POST NO. 1

(E.A.T. AND RAIL REMOVED FOR CLARITY)



SECTION A-A

MIDWEST GUARDRAIL SYSTEM ENERGY ABSORBING TERMINAL (MGS)

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

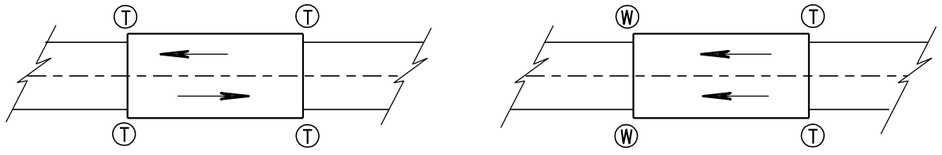
APPROVED
5/23/2011
DATE
/S/ Jerry H. [illegible]
ROADWAY STANDARDS 335 ENGINEER
tENT
FHWA

6

S.D.D. 14 B 44-1c

6

S.D.D. 14 B 44-1c



TWO WAY TRAFFIC

ONE WAY TRAFFIC

Ⓣ THRIE BEAM CONNECTION

Ⓦ W-BEAM CONNECTION WHEN REQUIRED

TYPICAL LOCATIONS OF THRIE BEAM AND W-BEAM CONNECTIONS TO BRIDGE

GENERAL NOTES

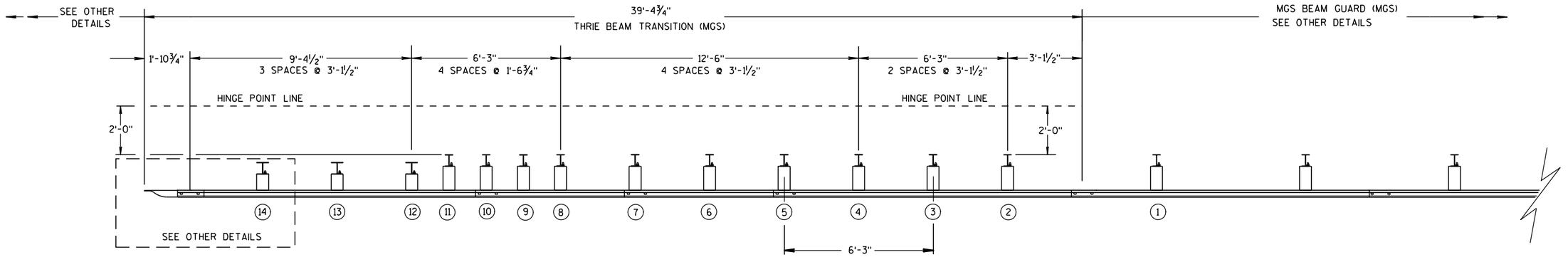
BOLT THE THRIE BEAM TO ALL POSTS AND BLOCKOUTS. DRILL OR PUNCH BOLT HOLES IN THE BEAM IF THE POST SPACING IS LESS THAN 6'-3.

IF ROCK IS ENCOUNTERED, REMOVE ROCK TO FULL DEPTH OF POST PLUS 2½", AND 12" DIAMETER AROUND POST. SEE 14B42 FOR MORE DETAILS.

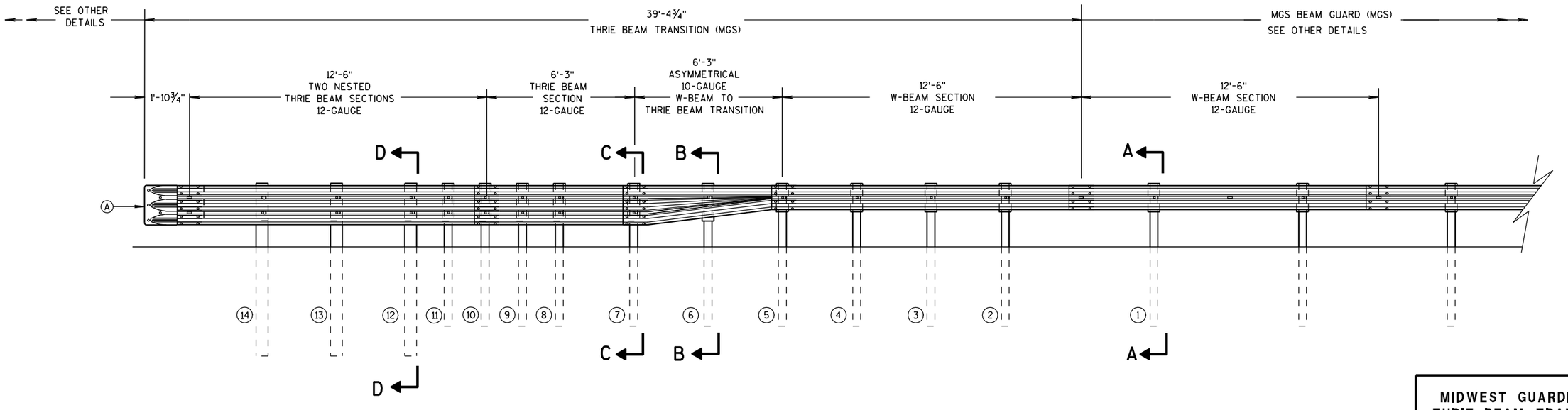
TRANSITION USES STEEL POSTS ONLY.

SEE STANDARD DETAIL DRAWING 14 B 42 FOR MORE INFORMATION.

Ⓐ BRIDGE RAILING TYPE "W" DOES NOT REQUIRE A TERMINAL CONNECTOR.



PLAN VIEW



ELEVATION VIEW

MIDWEST GUARDRAIL SYSTEM THRIE BEAM TRANSITION

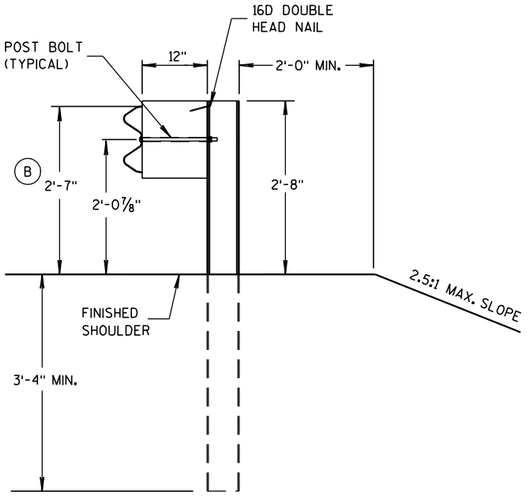
MIDWEST GUARDRAIL SYSTEM
THRIE BEAM TRANSITION (MGS)

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

6
S.D.D. 14 B 45-3a

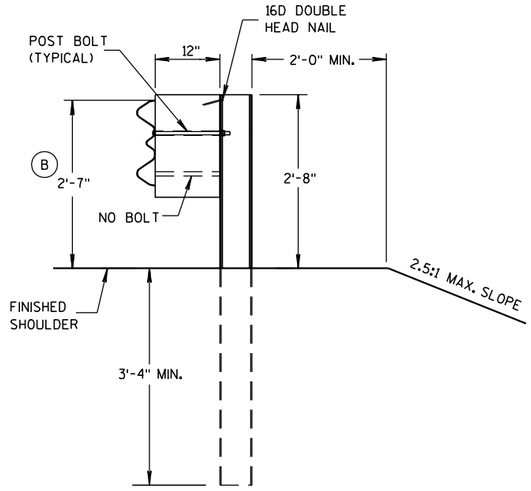
GENERAL NOTES

(B) TOLERANCE FOR TOP OF W-BEAM RAIL IS ± 1".



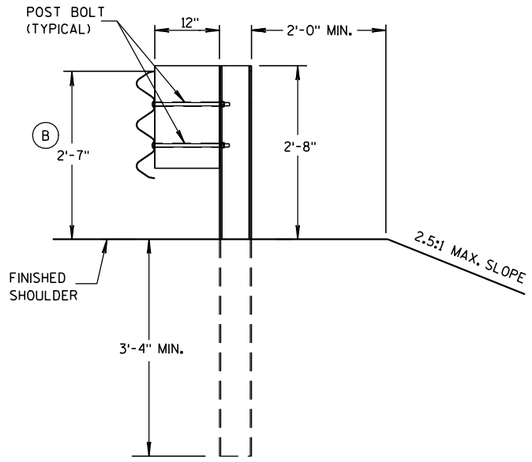
SECTION A-A

POSTS 1-5



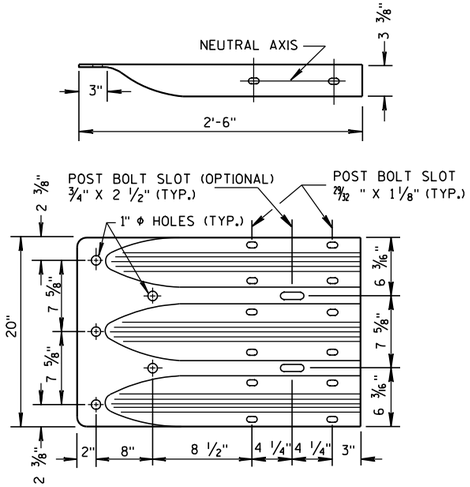
SECTION B-B

POST 6

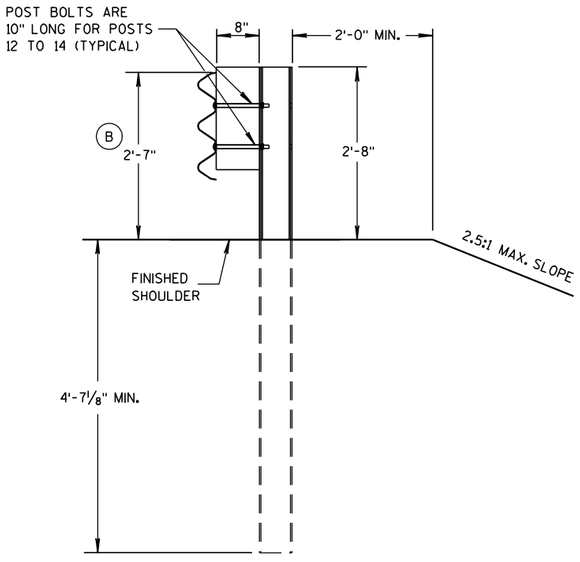


SECTION C-C

POSTS 7-11



THRIE BEAM TERMINAL CONNECTOR



SECTION D-D

POSTS 12-14

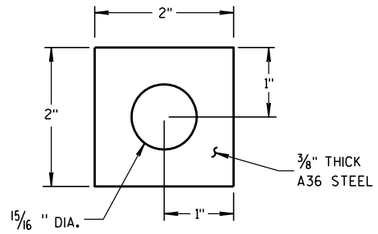
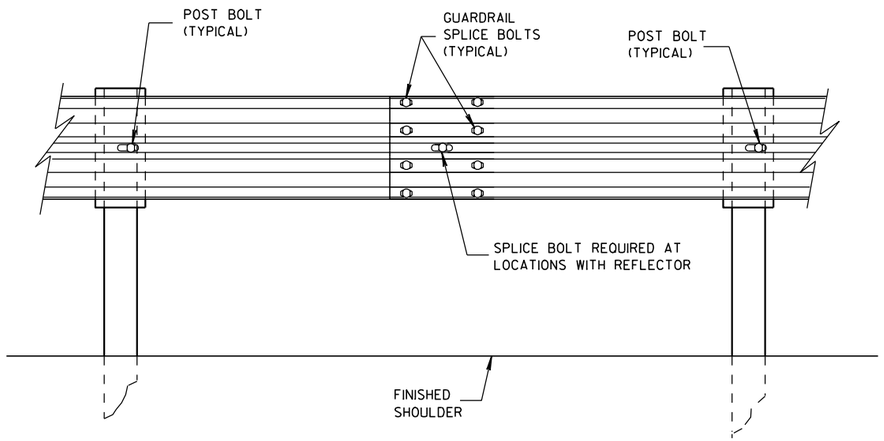
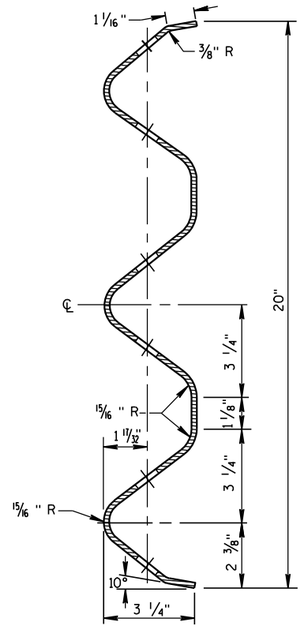


PLATE WASHER DETAIL



SPLICE DETAIL



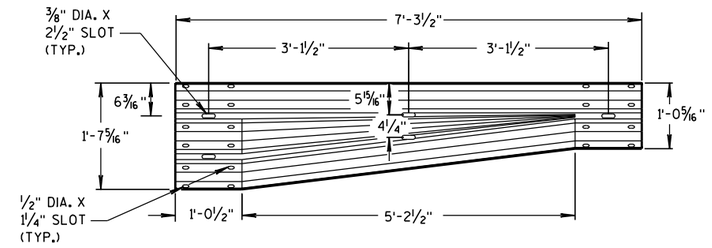
SECTION THRU THRIE BEAM RAIL ELEMENT

MIDWEST GUARDRAIL SYSTEM
THRIE BEAM TRANSITION (MGS)

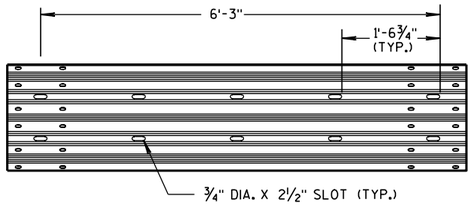
STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

6

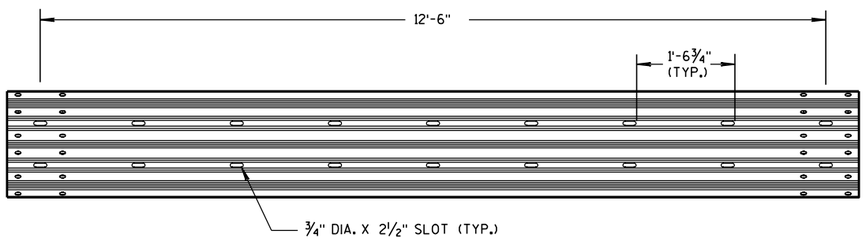
S.D.D. 14 B 45-3b



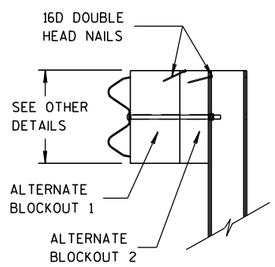
W-BEAM TO THRIE BEAM TRANSITION SECTION



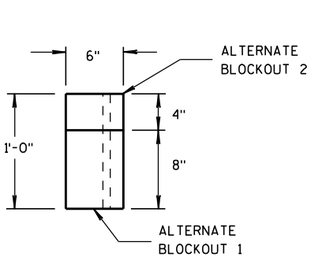
6'-3" THRIE BEAM SECTION



12'-6" THRIE BEAM SECTION

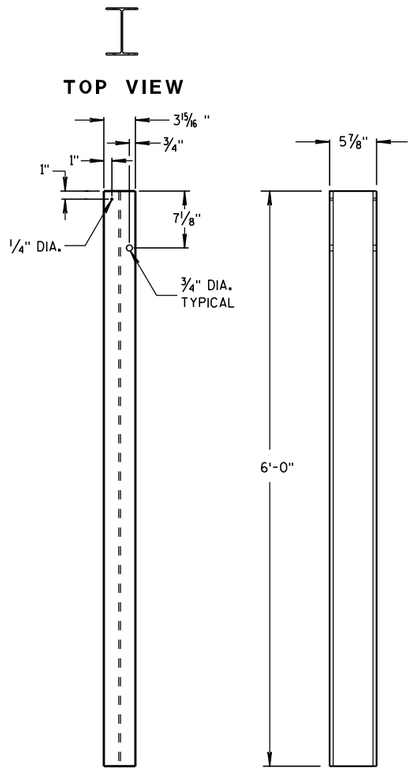


SIDE VIEW

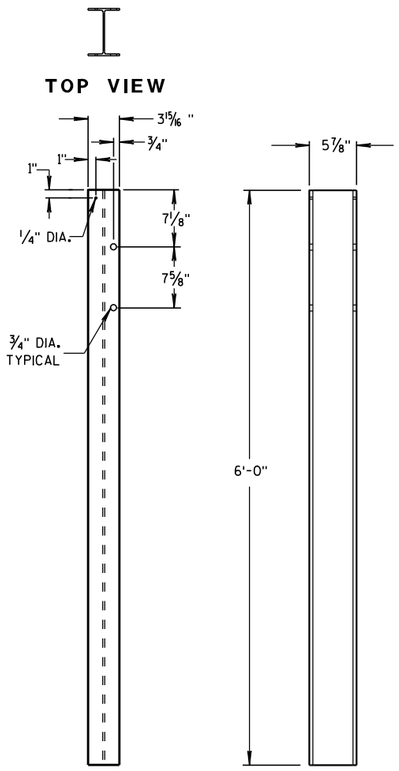


TOP VIEW

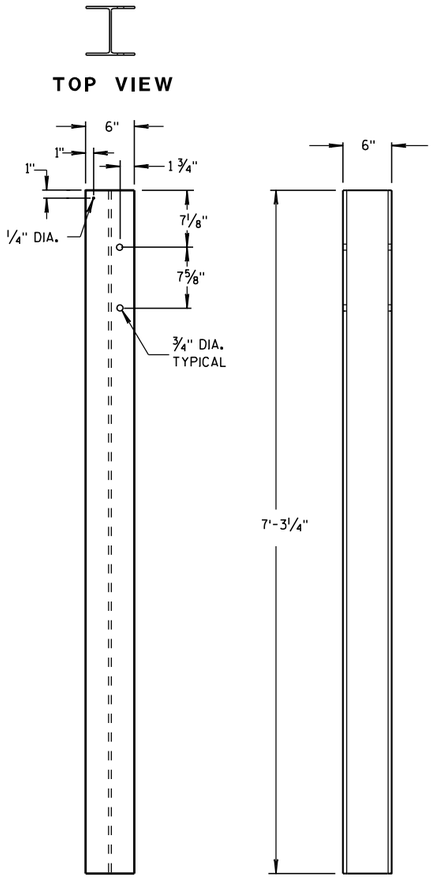
ALTERNATE WOOD BLOCKOUT DETAIL



STEEL POSTS 1-5

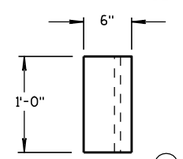


STEEL POSTS 6-11

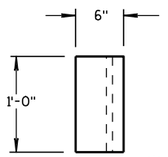


STEEL POSTS 12-14

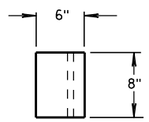
1 WOOD BLOCKS MAY BE CONSTRUCTED OUT OF 2 WOOD BLOCKS. SEE ALTERNATE WOOD BLOCK DETAIL.



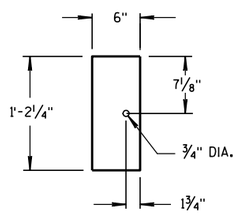
TOP VIEW (1)



TOP VIEW (1)

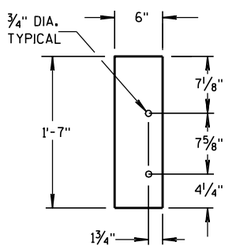


TOP VIEW



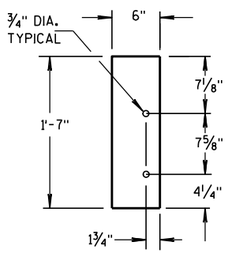
FRONT VIEW

BLOCKOUT POSTS 1-5



FRONT VIEW

BLOCKOUT POSTS 6-11



FRONT VIEW

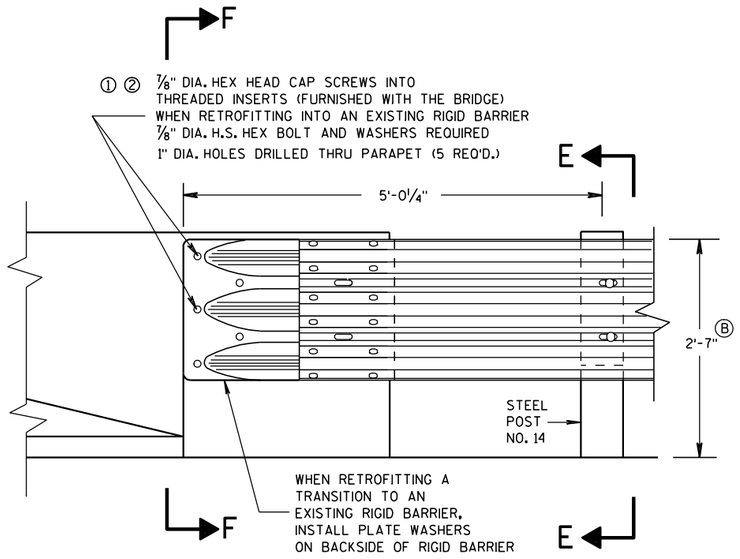
BLOCKOUT POSTS 12-14

STEEL POST SIZES

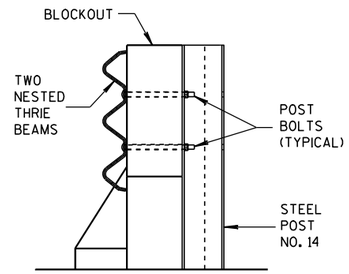
POST NUMBER	SECTION TYPE	LENGTH
1	W6x9	72"
2	W6x9	72"
3	W6x9	72"
4	W6x9	72"
5	W6x9	72"
6	W6x9	72"
7	W6x9	72"
8	W6x9	72"
9	W6x9	72"
10	W6x9	72"
11	W6x9	72"
12	W6x15	87 1/8"
13	W6x15	87 1/8"
14	W6x15	87 1/8"

MIDWEST GUARDRAIL SYSTEM
THRIE BEAM TRANSITION (MGS)

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION



FRONT VIEW



SECTION E-E

GENERAL NOTES

THESE ARE TYPICAL CONNECTION DETAILS. ADJUST THE POSTION OF CONNECTIONS TO EXISTING BRIDGES TO FIT THE ACTUAL BRIDGE AND SITE DIMENSIONS.

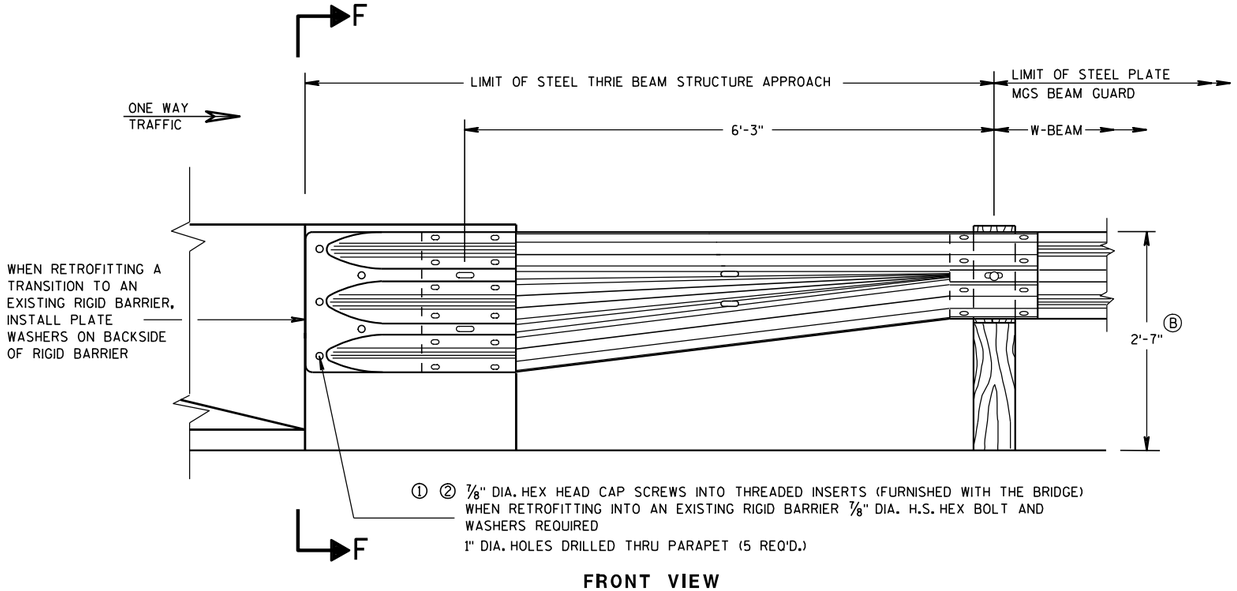
① DRILLING BOLT HOLES THROUGH THE PARAPET, BOLTS, NUTS, WASHERS AND REPAIRING DAMAGED CONCRETE ARE INCIDENTAL TO THE CONTRACT.

② BOLTS MAY BE A325 BOLTS OR A449 BOLTS. BOLT LENGTH AND THREADING LENGTH ARE TO ALLOW FOR A TIGHT CONNECTION BETWEEN RIGID BARRIER AND THRIE BEAM CONNECTION PLATE. CONTRACTOR IS TO FIELD VERIFY BOLT LENGTH AND THREAD LENGTH. ONE ROUND WASHER REQUIRED BETWEEN BOLT HEAD AND THRIE BEAM CONNECTOR PLATE. BOLTS THAT EXTEND THROUGH THE PARAPET AND OUT THE BACK FACE REQUIRE A HARDENED ROUND STEEL WASHER THAT IS 2" O.D. X 5/8" THICK AND ONE PLATE WASHER. REPAIR ANY DAMAGED CONCRETE FROM BOLT INSTALLATION.

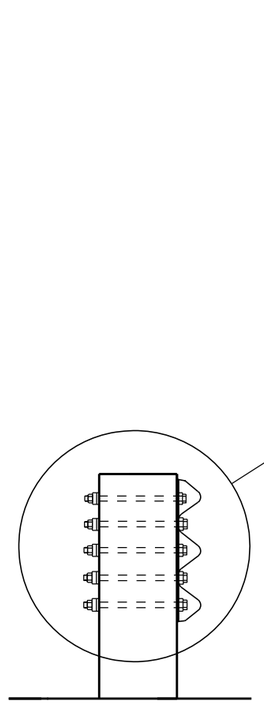
③ THE RECESS FOR A W-BEAM CONNECTION, WHICH EXISTS ON SOME PARAPETS OF THIS TYPE, SHALL BE FILLED WITH A TREATED TIMBER BLOCKOUT. BLOCKOUT SIZE IS 1'-6" X 2'-0" X 3 1/2".

Ⓑ TOLERANCE FOR TOP OF BEAM IS ± 1".

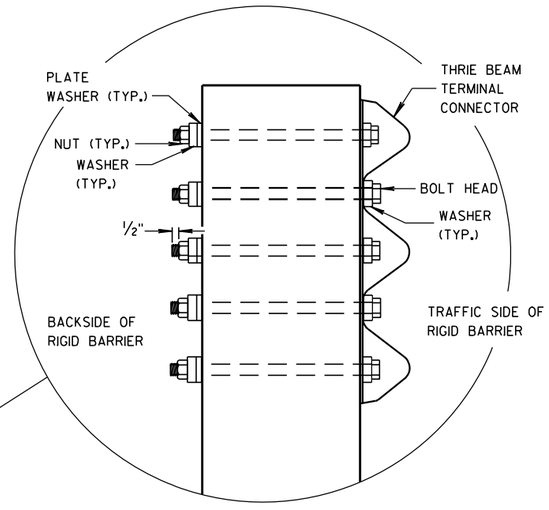
THRIE BEAM CONNECTION TO BRIDGE PARAPET WITH SQUARE ENDS



FRONT VIEW



SECTION F-F



W BEAM TRANSITION AND CONNECTION TO BRIDGE PARAPETS WITH SQUARE ENDS

(USE ONLY ON THE TRAFFIC EXIT END OF ONE WAY BRIDGES)

MIDWEST GUARDRAIL SYSTEM
THRIE BEAM TRANSITION (MGS)

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED

8/31/2012 — DATE

/S/ Jerry H. [illegible] — ROADWAY STANDARDS [illegible] ENGINEER

FHWA

6
S.D.D. 14 B 45-3d

GENERAL NOTES

THESE ARE TYPICAL CONNECTION DETAILS. ADJUST THE POSTION OF CONNECTIONS TO EXISTING BRIDGES TO FIT THE ACTUAL BRIDGE AND SITE DIMENSIONS.

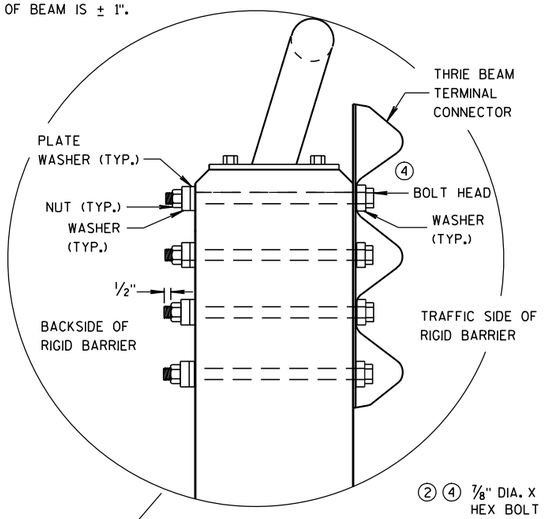
① DRILLING BOLT HOLES THROUGH THE PARAPET, BOLTS, NUTS, WASHERS AND REPAIRING DAMAGED CONCRETE ARE INCIDENTAL TO THE CONTRACT.

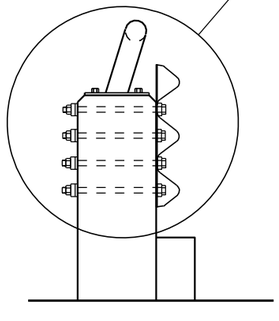
② BOLTS MAY BE A325 BOLTS OR A449 BOLTS. BOLT LENGTH AND THREADING LENGTH ARE TO ALLOW FOR A TIGHT CONNECTION BETWEEN RIGID BARRIER AND THRIE BEAM CONNECTION PLATE. CONTRACTOR IS TO FIELD VERIFY BOLT LENGTH AND THREAD LENGTH. ONE ROUND WASHER REQUIRED BETWEEN BOLT HEAD AND THRIE BEAM CONNECTOR PLATE. BOLTS THAT EXTEND THROUGH THE PARAPET AND OUT THE BACK FACE REQUIRE A HARDENED ROUND STEEL WASHER THAT IS 2" O.D. X 5/8" THICK AND ONE PLATE WASHER. REPAIR ANY DAMAGED CONCRETE FROM BOLT INSTALLATION.

③ THE RECESS FOR A W-BEAM CONNECTION, WHICH EXISTS ON SOME PARAPETS OF THIS TYPE, SHALL BE FILLED WITH A TREATED TIMBER BLOCKOUT. BLOCKOUT SIZE IS 1'-6" X 2'-0" X 3 1/2". BLOCK IS INCIDENTAL TO THE CONTRACT.

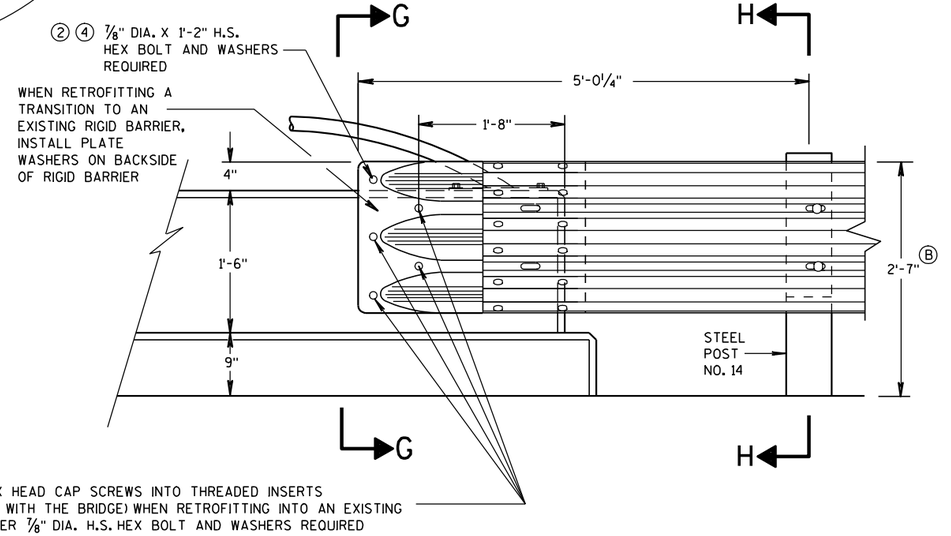
④ BOLT, NUT AND WASHERS NOT REQUIRED FOR THIS LOCATION WHEN RETROFITTING AN EXISTING PAPAPET AND THE HOLE IS EITHER ABOVE PARAPET OR WITHIN 4 INCHES OF THE EDGE OF PARAPET.

Ⓑ TOLERANCE FOR TOP OF BEAM IS ± 1".

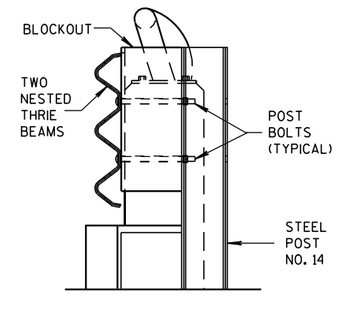




SECTION G-G

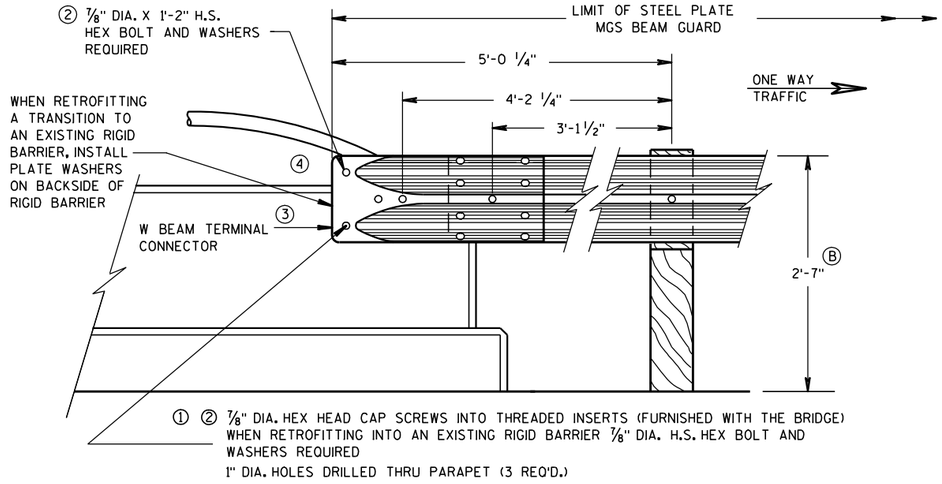


FRONT VIEW



SECTION H-H

THRIE BEAM CONNECTION TO VERTICAL FACED PARAPETS



FRONT VIEW

W BEAM CONNECTION TO VERTICAL FACE PARAPET

(USE ONLY ON THE TRAFFIC EXIT END OF ONE WAY BRIDGES)

MIDWEST GUARDRAIL SYSTEM
THRIE BEAM TRANSITION (MGS)

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

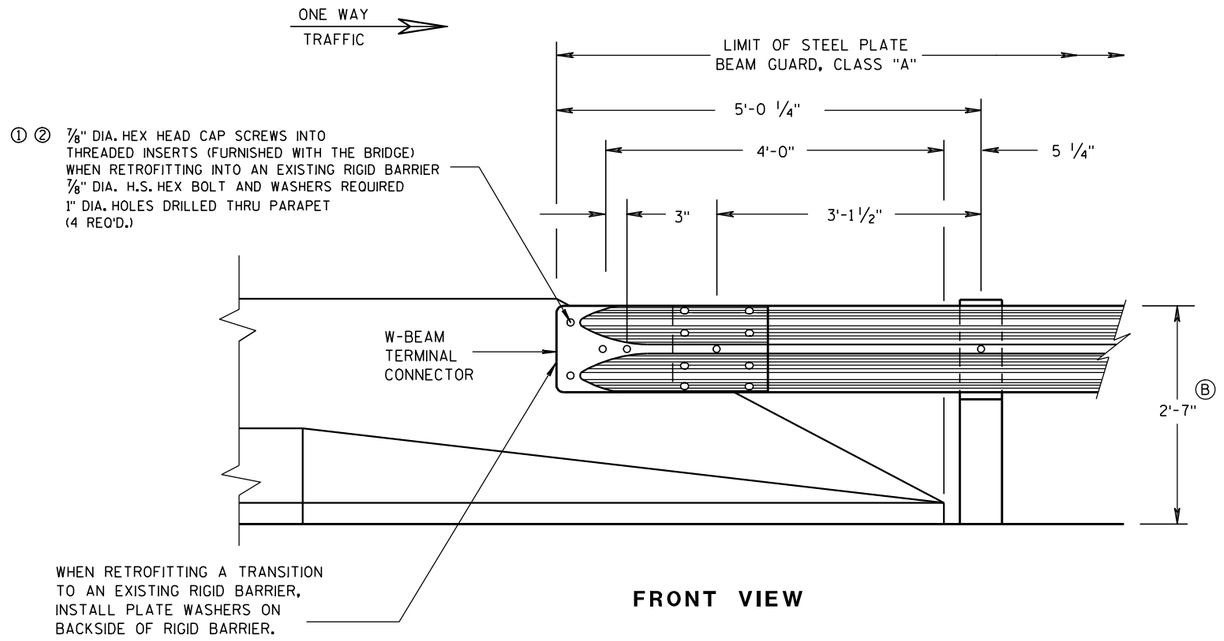
APPROVED

8-31-2012
DATE

/S/ Jerry H. Zogg
ROADWAY STANDARDS DEVELOPMENT ENGINEER

FHWA

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S.D.D. 14 B 45-3e



FRONT VIEW

W BEAM CONNECTION TO PARAPETS WITH SLOPED ENDS

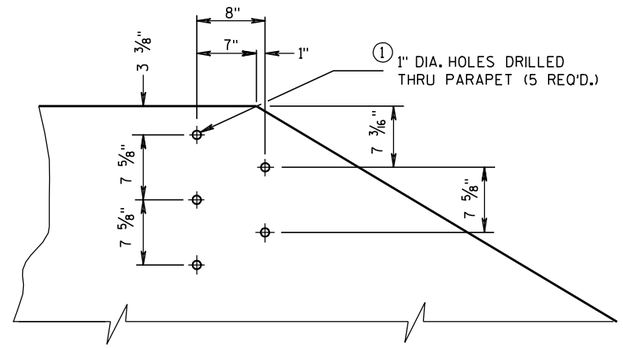
(USE ONLY AT TRAFFIC EXIT END OF ONE WAY BRIDGE)

GENERAL NOTES

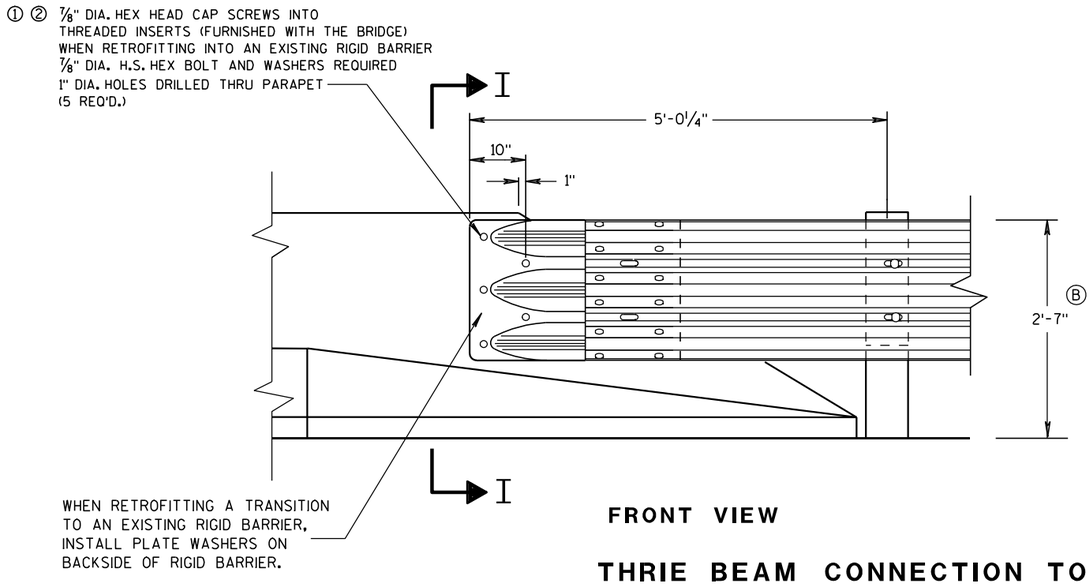
① DRILLING BOLT HOLES THROUGH THE PARAPET, BOLTS, NUTS, WASHERS AND REPAIRING DAMAGED CONCRETE ARE INCIDENTAL TO THE CONTRACT.

② BOLTS MAY BE A325 BOLTS OR A449 BOLTS. BOLT LENGTH AND THREADING LENGTH ARE TO ALLOW FOR A TIGHT CONNECTION BETWEEN RIGID BARRIER AND THRIE BEAM CONNECTION PLATE. CONTRACTOR IS TO FIELD VERIFY BOLT LENGTH AND THREAD LENGTH. ONE ROUND WASHER REQUIRED BETWEEN BOLT HEAD AND THRIE BEAM CONNECTOR PLATE. BOLTS THAT EXTEND THROUGH THE PARAPET AND OUT THE BACK FACE REQUIRE A HARDENED ROUND STEEL WASHER THAT IS 2" O.D. X 5/8" THICK AND ONE PLATE WASHER. REPAIR ANY DAMAGED CONCRETE FROM BOLT INSTALLATION.

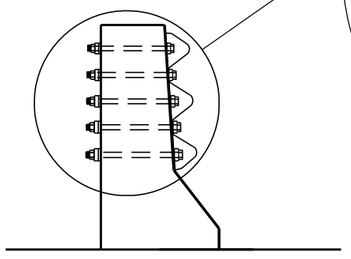
Ⓑ TOLERANCE FOR TOP OF BEAM IS ± 1".



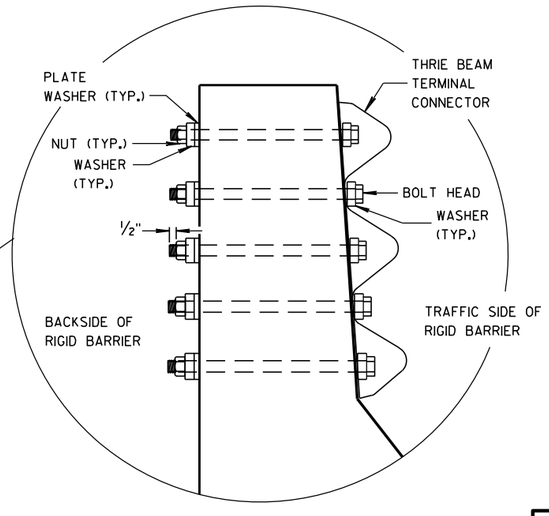
DRILL HOLE LOCATION AND PATTERN FOR THRIE BEAM CONNECTION



FRONT VIEW



SECTION I-I



THRIE BEAM CONNECTION TO BRIDGE PARAPETS WITH SLOPED ENDS

MIDWEST GUARDRAIL SYSTEM
THRIE BEAM TRANSITION (MGS)

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED

8/31/2012 — DATE

/S/ Jerry H. Zogg — ROADWAY STANDARDS ENGINEER

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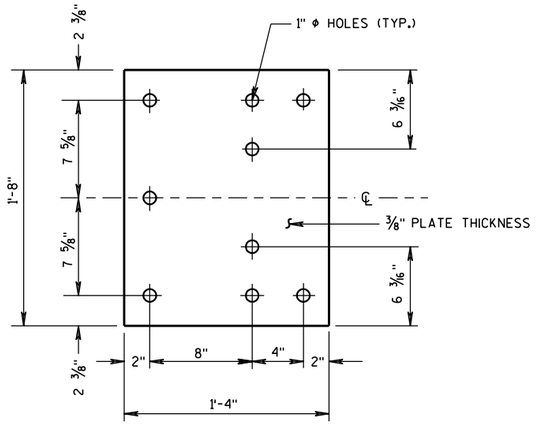
FHWA

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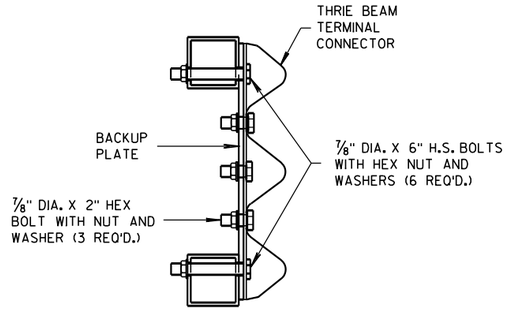
S.D.D. 14 B 45-3f

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S.D.D. 14 B 45-3f



BACK-UP PLATE DETAIL

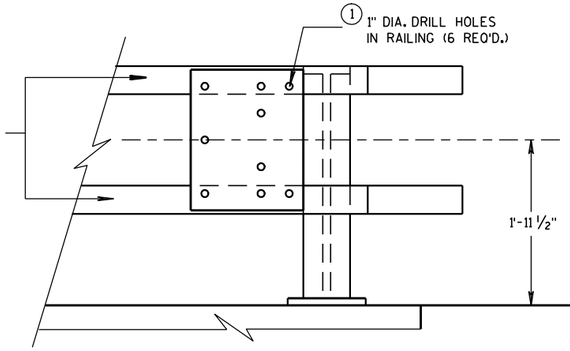


SECTION J-J

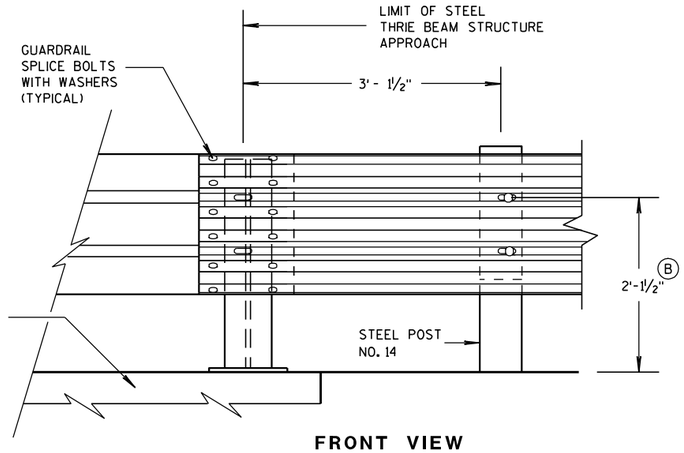
GENERAL NOTES

(1) DRILLING HOLES THROUGH THE PAPRPET, BOLTS, NUTS, WASHERS AND REPAIRING DAMAGED CONCRETE ARE INCIDENTAL TO THE CONTRACT.

(B) TOLERANCE FOR TOP OF BEAM IS ± 1".

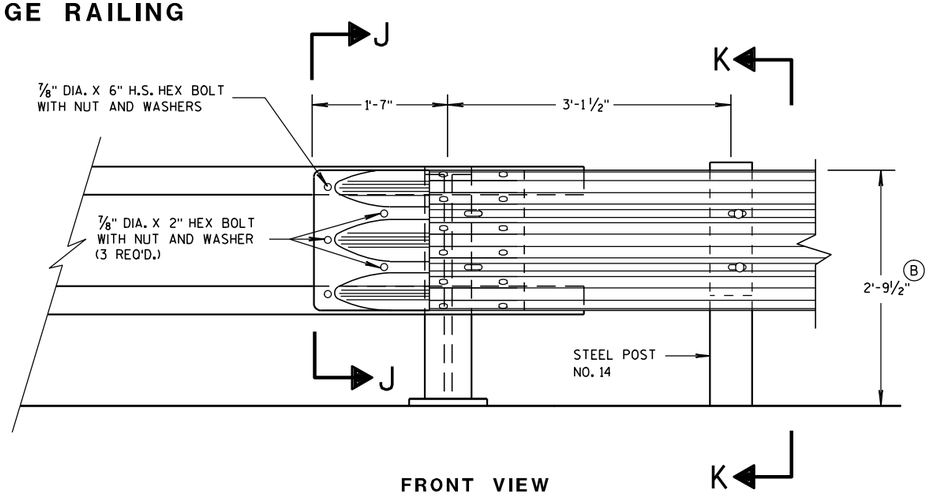


BACK-UP PLATE MOUNTING ONTO BRIDGE RAILING

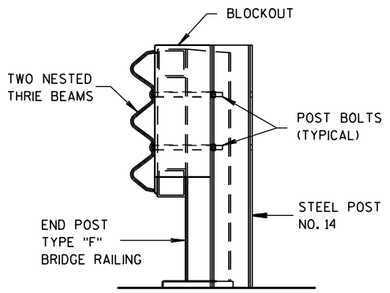


FRONT VIEW

THRIE BEAM CONNECTION TO STEEL RAILING TYPE "W"



FRONT VIEW



SECTION K-K

THRIE BEAM CONNECTION TO TUBULAR RAILING TYPE "F"

MIDWEST GUARDRAIL SYSTEM
THRIE BEAM TRANSITION (MGS)

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
8/31/2012 — DATE
/S/ Jerry H. Zogg — ROADWAY STANDARDS DEVELOPMENT ENGINEER
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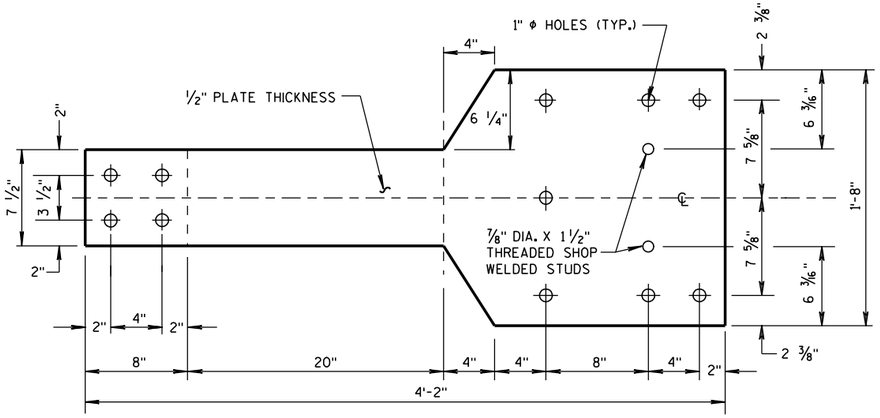
S.D.D. 14 B 45-3g

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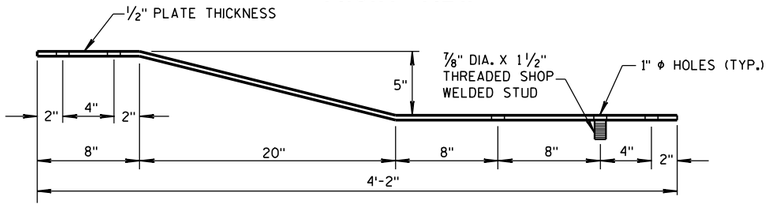
S.D.D. 14 B 45-3g

GENERAL NOTES

(B) TOLERANCE FOR TOP OF W-BEAM RAIL IS ± 1".

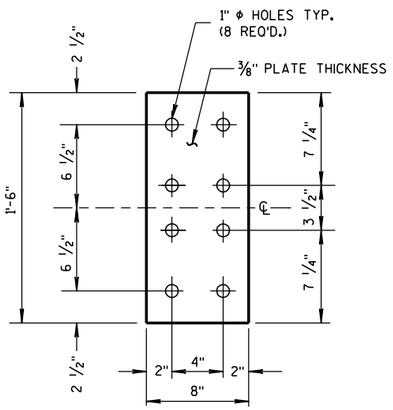


FRONT VIEW



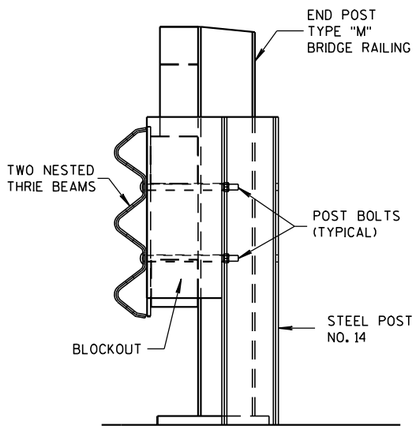
PLAN VIEW

BACK-UP PLATE DETAIL, TYPE "M"

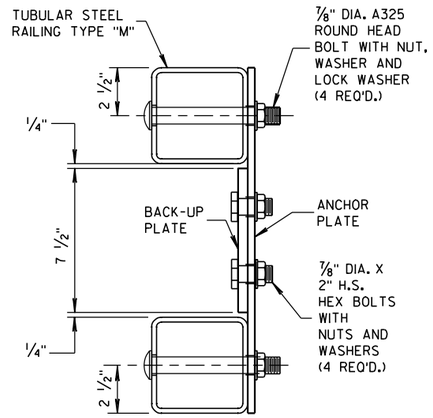


FRONT VIEW

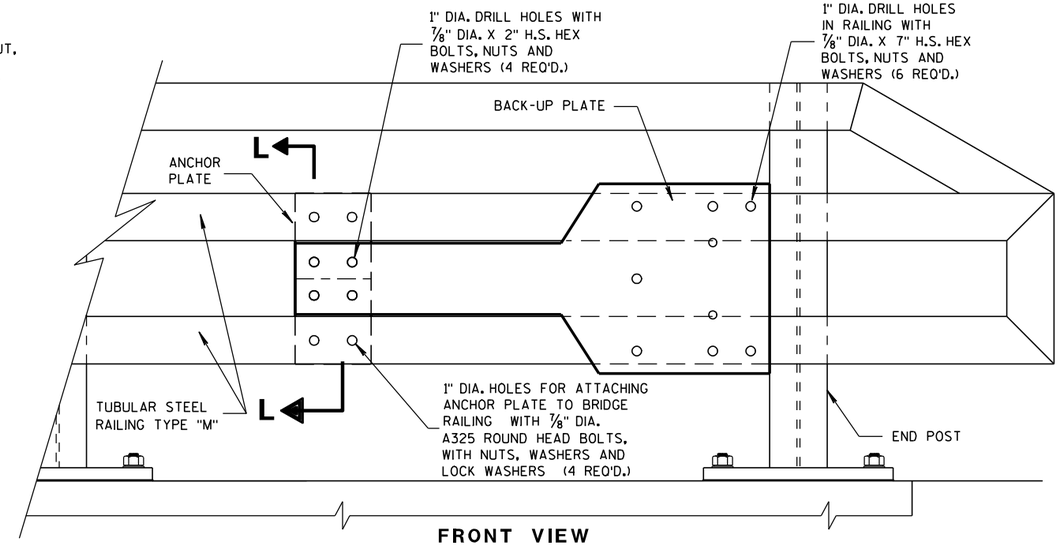
ANCHOR PLATE DETAIL, TYPE "M"



SECTION M-M

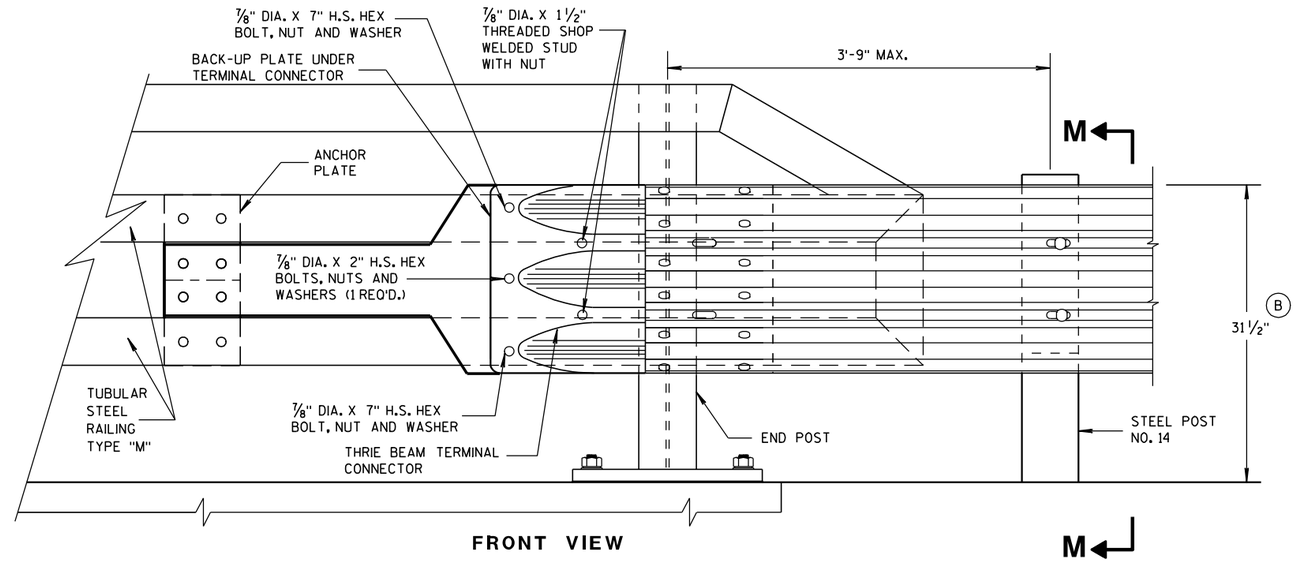


SECTION L-L

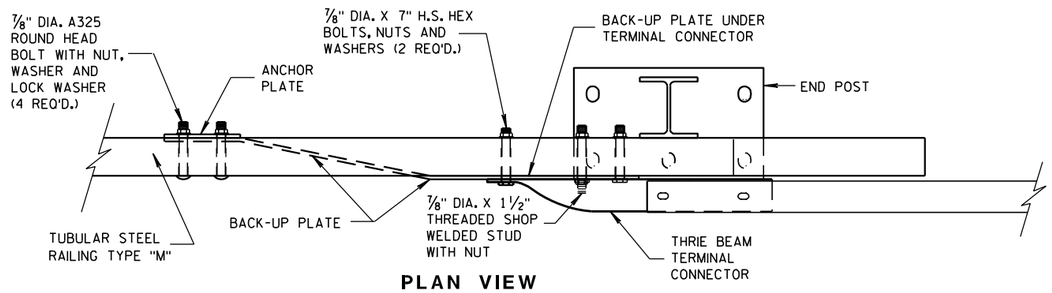


FRONT VIEW

ANCHOR AND BACK-UP PLATE MOUNTING TO BRIDGE RAILING, TYPE "M"



FRONT VIEW



PLAN VIEW

THRIE BEAM CONNECTION TO TUBULAR RAILING, TYPE "M"

MIDWEST GUARDRAIL SYSTEM THRIE BEAM TRANSITION (MGS)

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED

8-31-2012
DATE

/S/ Jerry H. Zogg
ROADWAY STANDARDS ENGINEER

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S.D. 14 B 45-3h

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S.D. 14 B 45-3h

GENERAL NOTES

COVER PLATE PANELS ARE 3/16" THICK.

ALL STIFFENERS ARE 1/4" THICK.

CONNECTOR PLATE SHALL BE FABRICATED FROM ASTM GRADE A36 STEEL AND GALVANIZED.

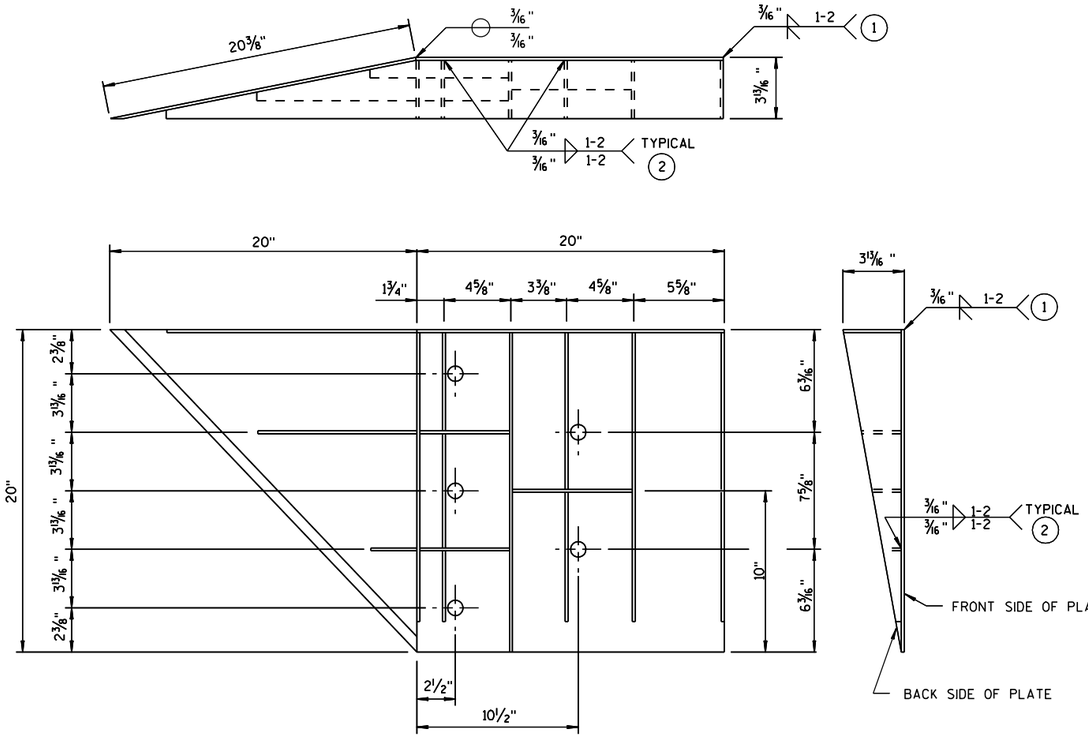
FOR GALVANIZED REQUIREMENTS, SEE SECTION 614 OF THE STANDARD SPECIFICATIONS.

ALL HOLE DIAMETERS SHALL BE 1".

FOR OPPOSITE SIDE INSTALLATION MIRROR DRAWINGS.

(1) STIFFENERS LOCATED AT THE OUTSIDE EDGES OF THE COVER PLATES SHALL BE WELDED AS FOLLOWS:
SINGLE BEVEL GROOVE WELD ON EXTERNAL SIDES AND 3/16" FILLET WELD BY 1" LONG SPACED AT 2" ON INTERNAL SIDES.

(2) STIFFENERS LOCATED ON THE INSIDE OF THE COVER PLATE SHALL BE WELDED AS FOLLOWS:
3/16" FILLET WELD BY 1" LONG SPACED AT 2".



WELDING INSTRUCTION

(VIEWED FROM BACK SIDE OF PLATE)

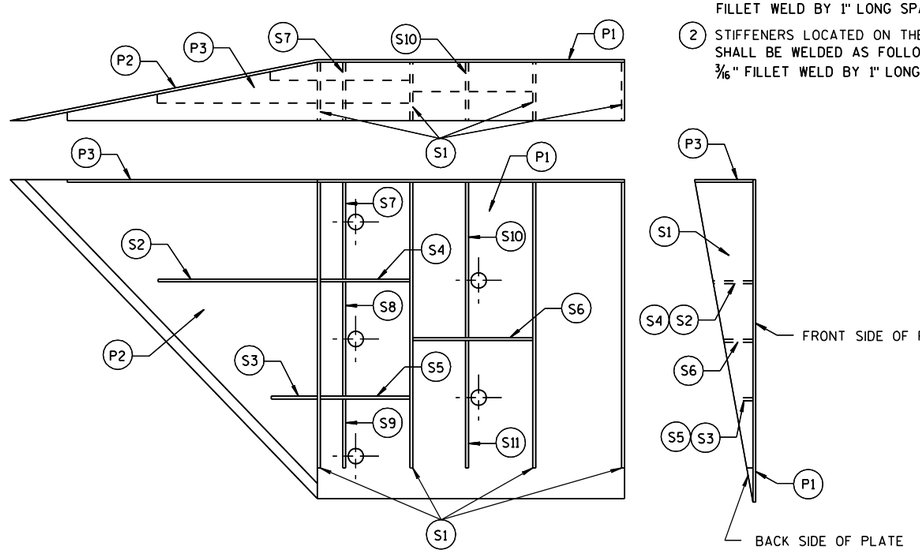


PLATE AND STIFFENER IDENTIFICATION

(VIEWED FROM BACK SIDE OF PLATE)

CONNECTOR PLATE DIMENSION (PER ASSEMBLY)

PLATE	QUANTITY	SHAPE	SIZE (A x B x C x D)	THICKNESS
P1	1		20" x 20"	3/16"
P2	1		20" x 20" x 28 9/16"	3/16"
P3	1		39" x 3 5/8" x 20" x 19 5/16"	3/16"
S1	4		18 7/16" x 3 5/8" x 18 3/4"	1/4"
S2	1		10 1/4" x 2 7/16" x 10 3/8" x 1/2"	1/4"
S3	1		3" x 1 1/16" x 3 1/8" x 1/2"	1/4"
S4	1		6 1/8" x 2 7/16"	1/4"
S5	1		6 1/8" x 1 1/16"	1/4"
S6	1		7 3/4" x 1 3/4"	1/4"
S7	1		2 9/16" x 6" x 3 5/8" x 5 7/8"	1/4"
S8	1		1 5/32" x 7 1/2" x 2 1/2" x 7 3/8"	1/4"
S9	1		6 1/16" x 6 3/16" x 1 3/32"	1/4"
S10	1		1 7/8" x 9 7/8" x 3 5/8" x 9 11/16"	1/4"
S11	1		8 1/2" x 8 3/4" x 1 13/16"	1/4"

SINGLE SLOPE CONNECTION PLATE

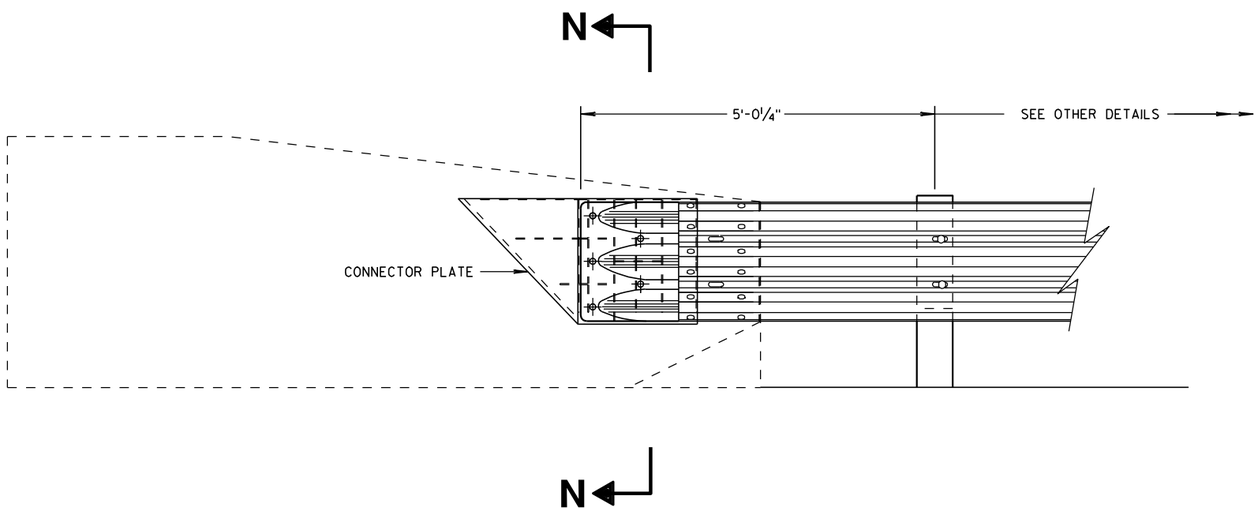
MIDWEST GUARDRAIL SYSTEM
THRIE BEAM TRANSITION (MGS)

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

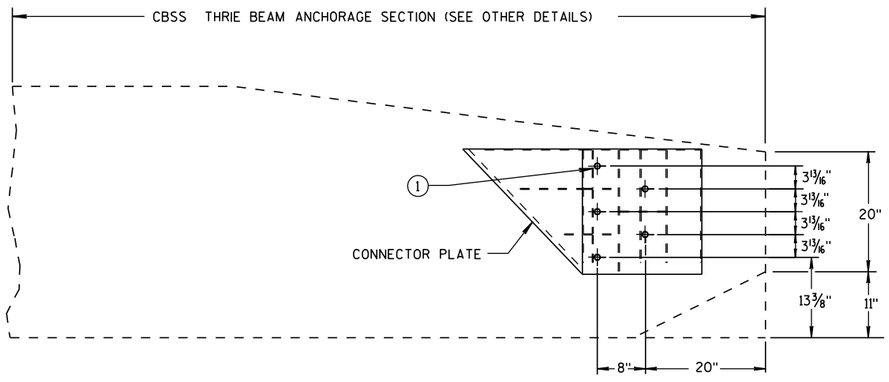
APPROVED
8/31/2012 DATE
/S/ Jerry H ---- ROADWAY STANDARDS ENGINEER
FHWA

6

S.D.D. 14 B 45-3i



THRIE BEAM CONNECTION TO SINGLE SLOPE BARRIER

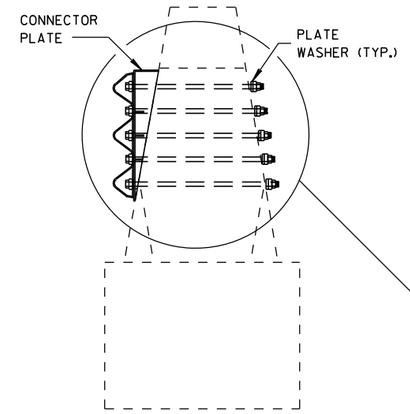


SINGLE SLOPE CONNECTION PLATE PLACEMENT

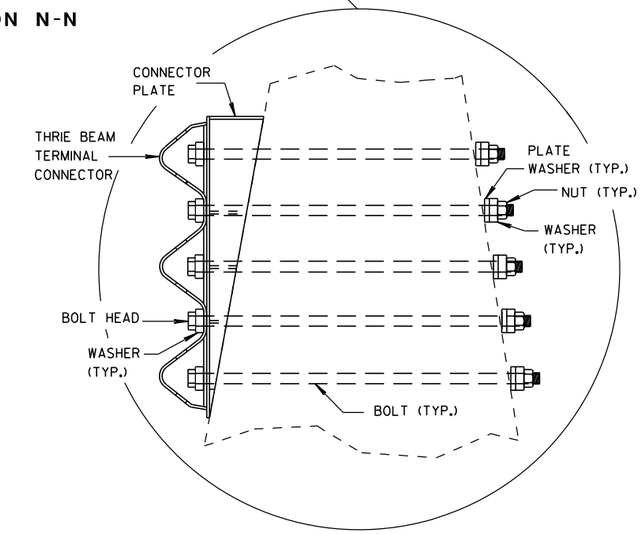
GENERAL NOTES

CONNECTOR PLATE, DRILLING BOLT HOLES THROUGH THE PARAPET, BOLTS, NUTS, WASHERS AND REPAIRING DAMAGED CONCRETE ARE INCIDENTAL TO THE CONTRACT.

(1) BOLTS MAY BE A325 BOLTS OR A449 BOLTS. BOLT LENGTH AND THREADING LENGTH ARE TO ALLOW FOR A TIGHT CONNECTION BETWEEN RIGID BARRIER AND THRIE BEAM CONNECTION PLATE. CONTRACTOR IS TO FIELD VERIFY BOLT LENGTH AND THREAD LENGTH. ONE ROUND WASHER REQUIRED BETWEEN BOLT HEAD AND THRIE BEAM CONNECTOR PLATE. BOLTS THAT EXTEND THROUGH THE PARAPET AND OUT THE BACK FACE REQUIRE A HARDENED ROUND STEEL WASHER THAT IS 2" O.D. X ⅝" THICK AND ONE PLATE WASHER. REPAIR ANY DAMAGED CONCRETE FROM BOLT INSTALLATION.



SECTION N-N



MIDWEST GUARDRAIL SYSTEM
THRIE BEAM TRANSITION (MGS)

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

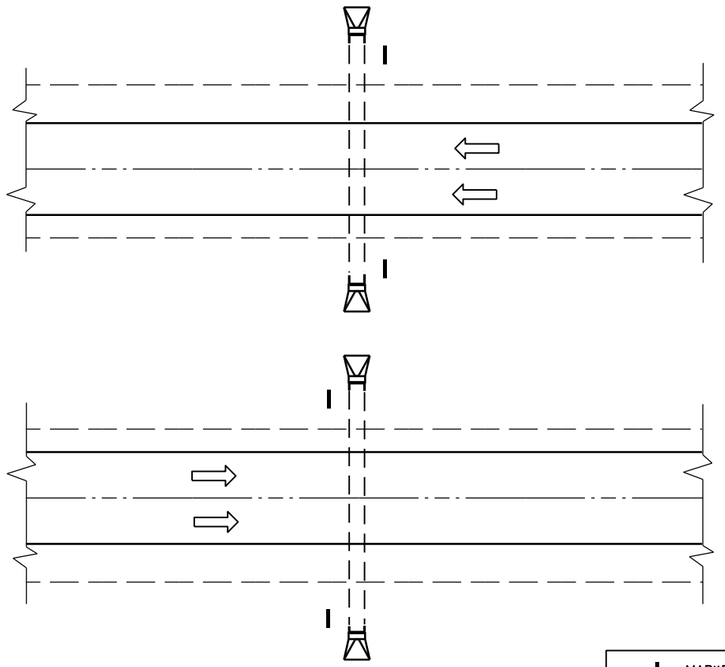
APPROVED
8/31/2012 — DATE
/S/ Jerry H. [illegible] — ROADWAY STANDARDS ENGINEER
FHWA

6

S.D.D. 14 B 45-3j

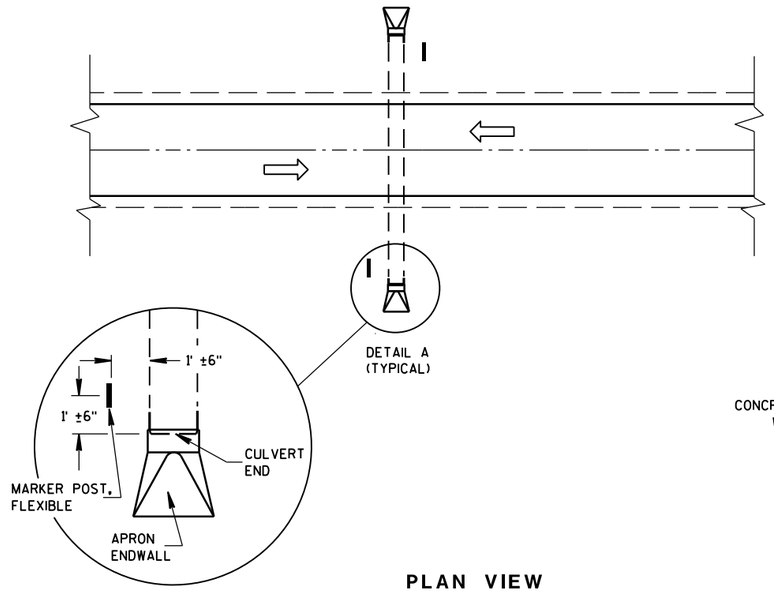
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S.D.D. 14 B 45-3j



PLAN VIEW

DIVIDED HIGHWAY



DETAIL A
(TYPICAL)

PLAN VIEW

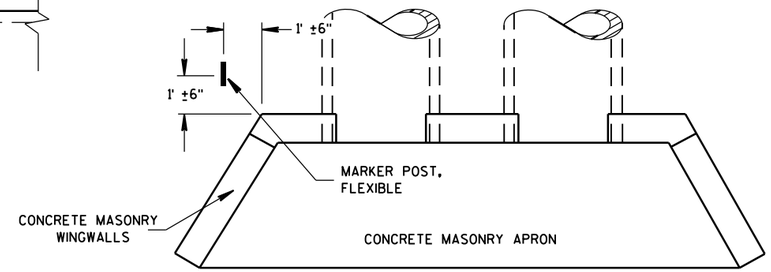
UNDIVIDED HIGHWAY

MARKER POST, FLEXIBLE

DIRECTION OF TRAFFIC FLOW

GENERAL NOTES

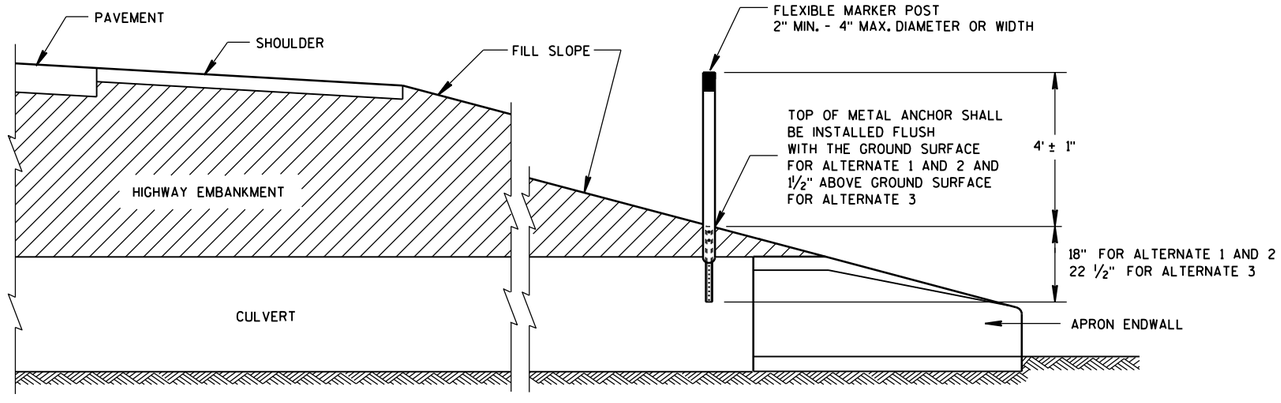
DETAILS OF CONSTRUCTION, MATERIALS AND WORKMANSHIP NOT SHOWN ON THIS DRAWING SHALL CONFORM TO THE PERTINENT REQUIREMENTS OF THE STANDARD SPECIFICATIONS AND THE APPLICABLE SPECIAL PROVISIONS.



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

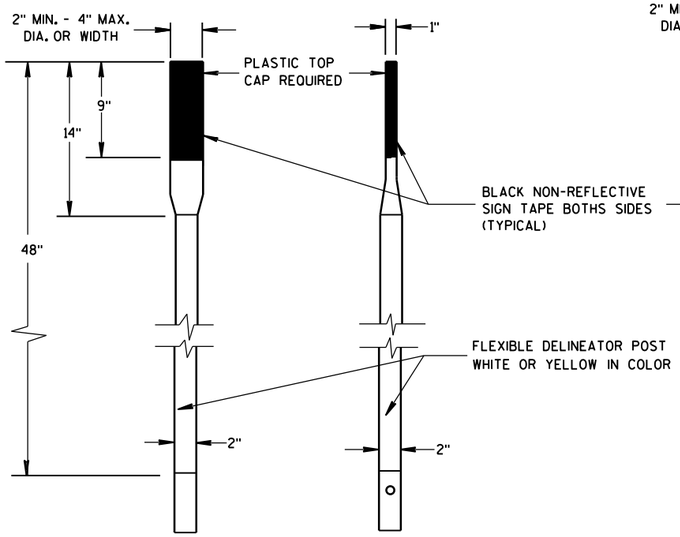
STATE OF WISCONSIN
DEPARTMENT OF TRANSPOI

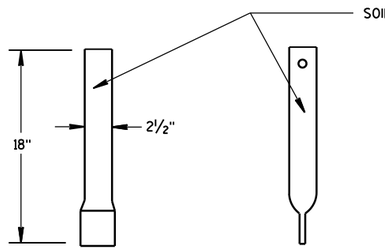
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S.D.D. 15 A 3-2a

6

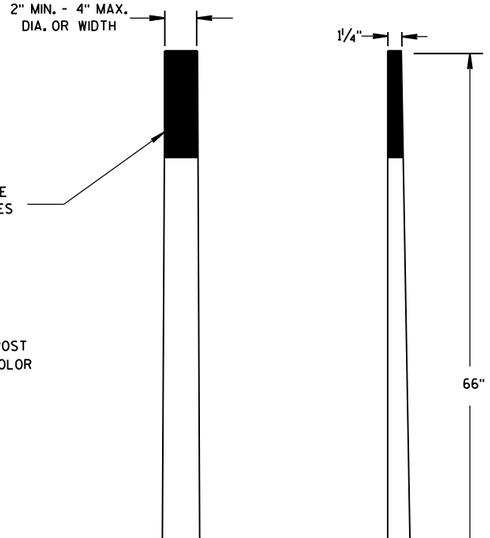
S.D.D. 15 A 3-2a





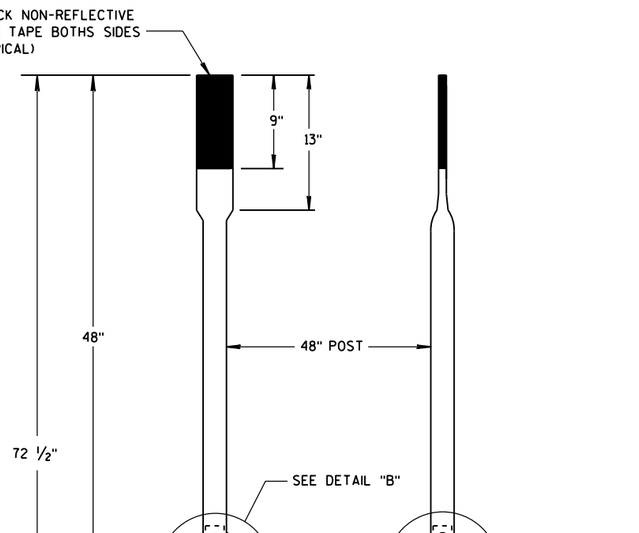
FRONT VIEW SIDE VIEW

ALTERNATE 1



FRONT VIEW SIDE VIEW

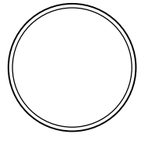
ALTERNATE 2



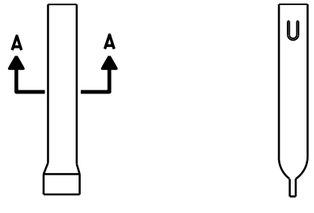
FRONT VIEW SIDE VIEW

ALTERNATE 3

FLEXIBLE MARKER POSTS

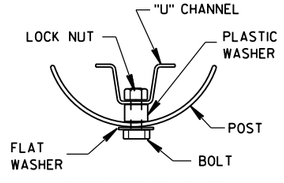


SECTION A-A

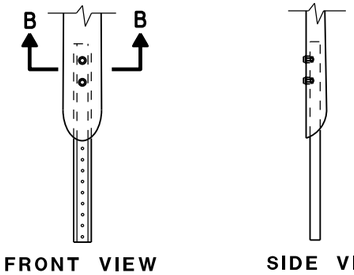


FRONT VIEW SIDE VIEW

ALTERNATE 1

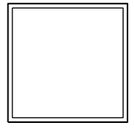


SECTION B-B

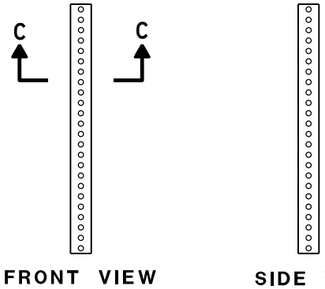


FRONT VIEW SIDE VIEW

ALTERNATE 2



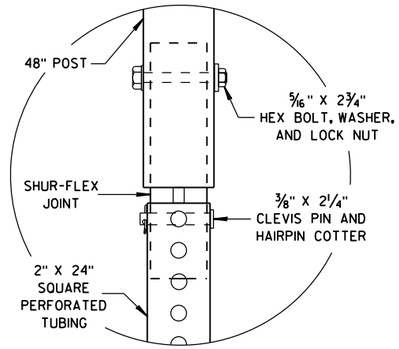
SECTION C-C



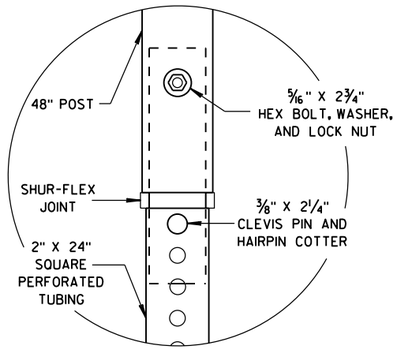
FRONT VIEW SIDE VIEW

ALTERNATE 3

FLEXIBLE MARKER POST ANCHORS



DETAIL B



DETAIL C

FLEXIBLE MARKER POST
FOR CULVERT END

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

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

6

S.D.D. 15 A 3-2b

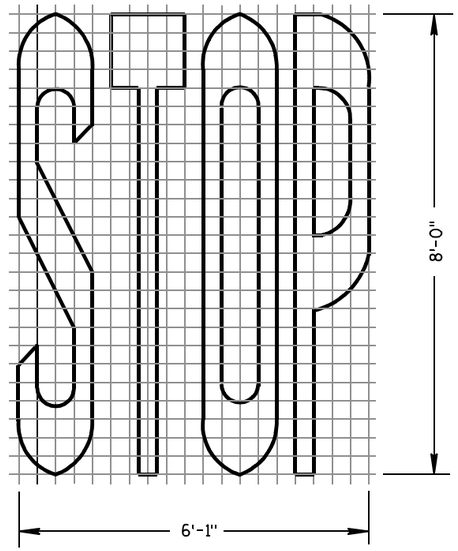
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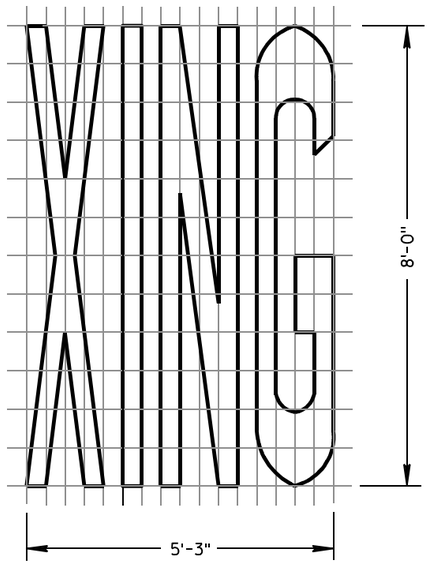
S.D.D. 15 A 3-2b

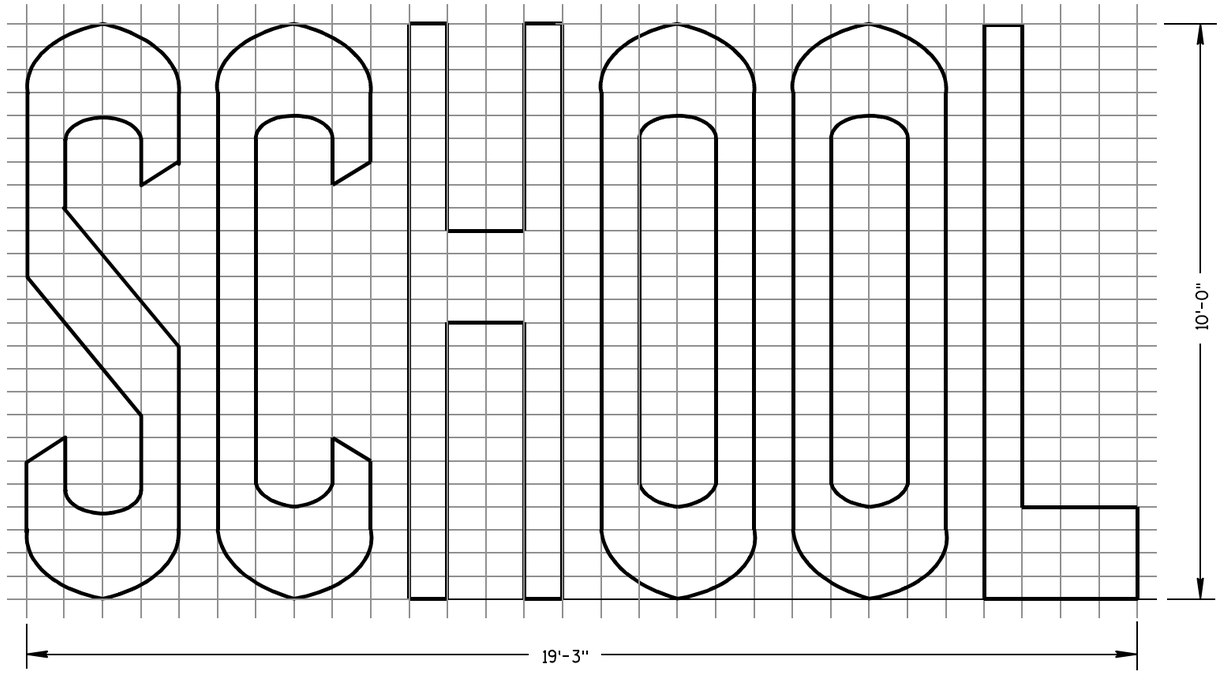
GENERAL NOTES

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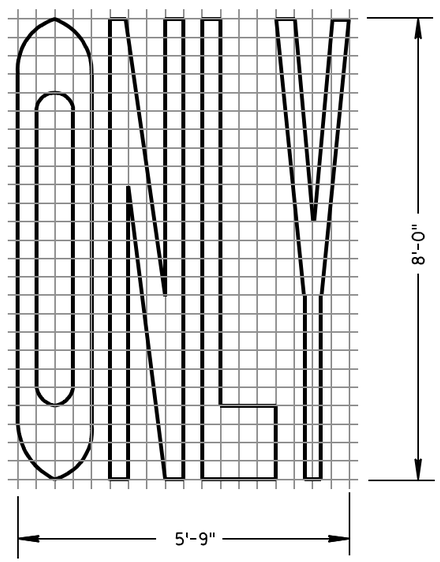
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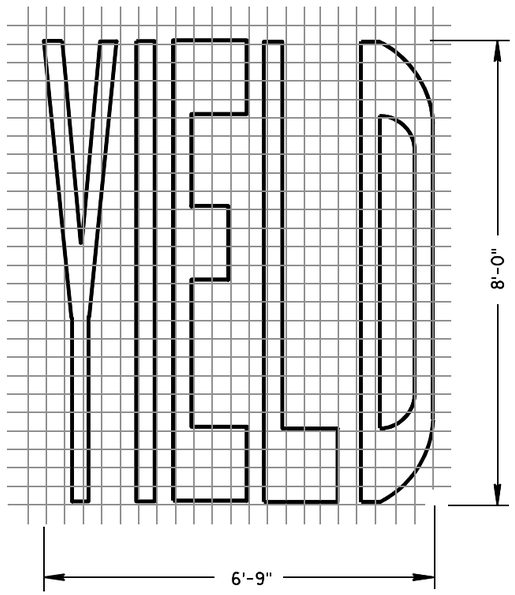


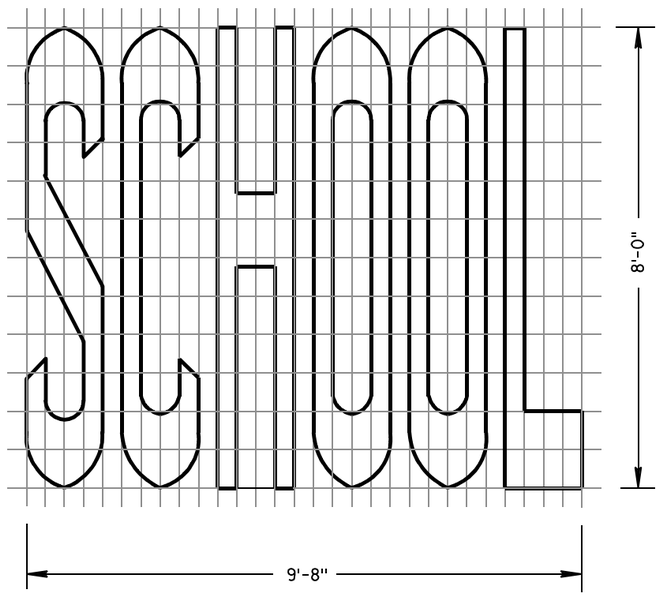




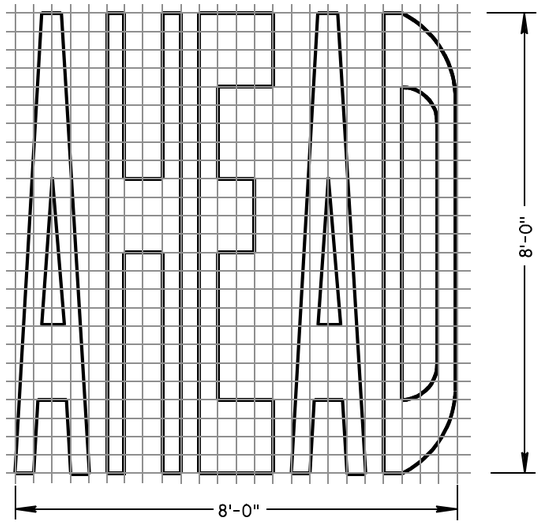
TWO-LANE







SINGLE-LANE



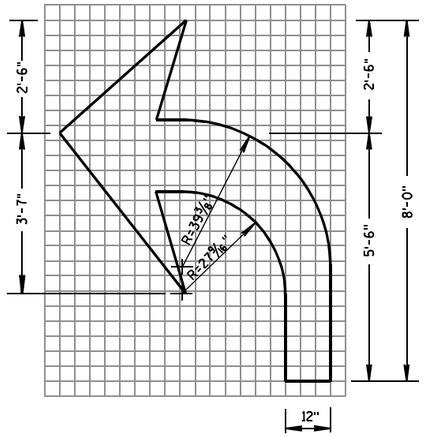
PAVEMENT MARKING WORDS	
STATE OF WISCONSIN DEPARTMENT OF TRANSPORTATION	
APPROVED 7-1-11 DATE	/S/ Thomas N. Nothohm STATE TRAFFIC ENGINEER
FHWA	

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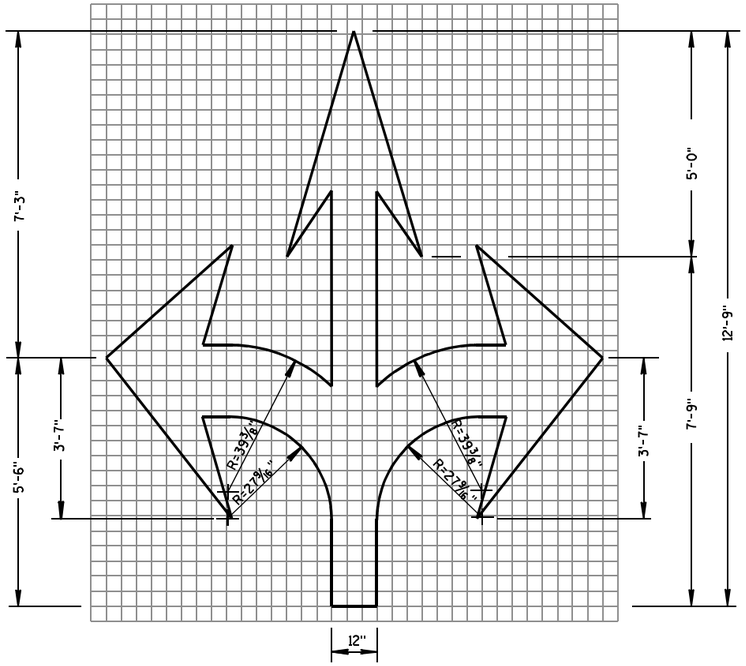
S.D.D. 15 C 7-12b

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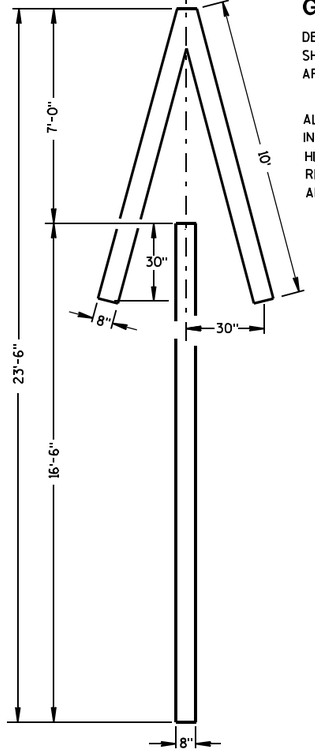
S.D.D. 15 C 7-12b



TYPE 2



TYPE 6

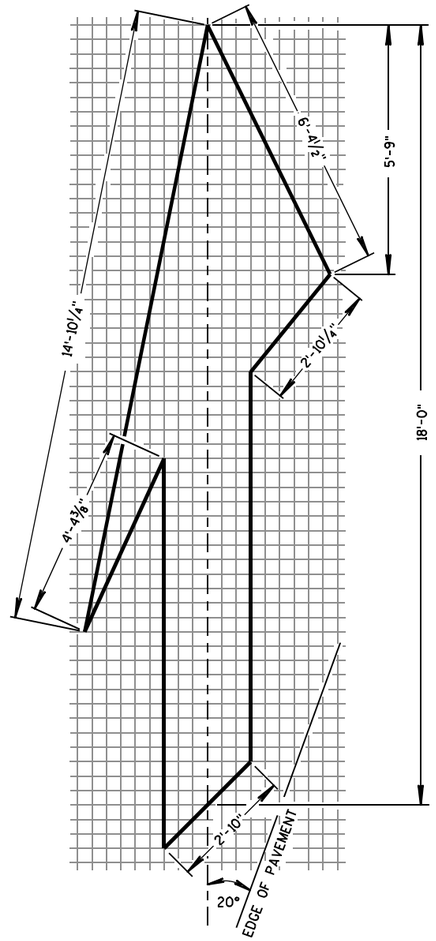


TYPE 4

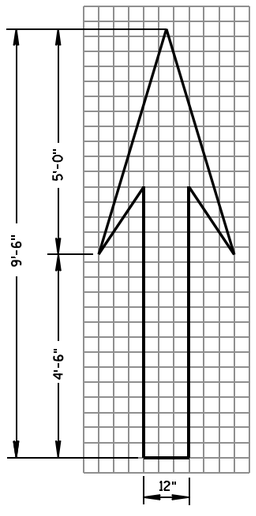
GENERAL NOTES

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

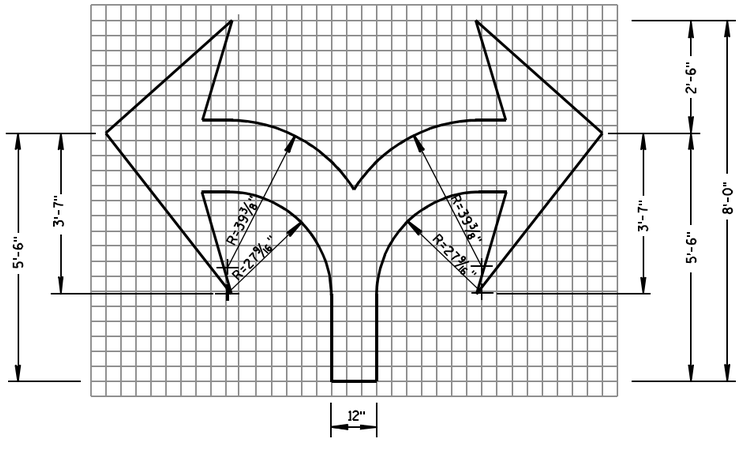
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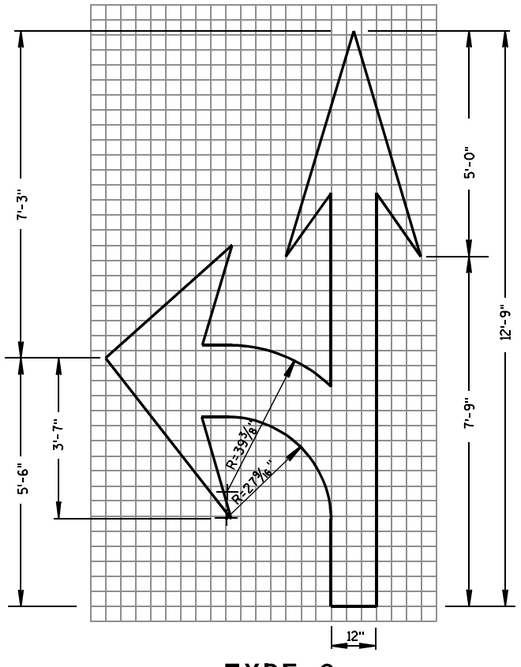
TYPE 5 LANE DROP ARROW



TYPE 1



TYPE 7



TYPE 3

PAVEMENT MARKING ARROWS

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED

7/1/11 — DATE

/S/ Thomas N. Nothdurft — STATE TRAFFIC ENGINEER

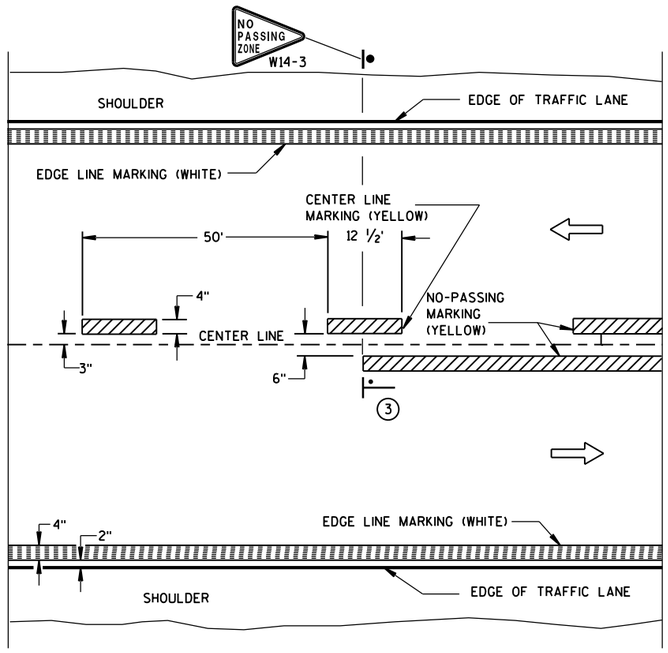
FHWA

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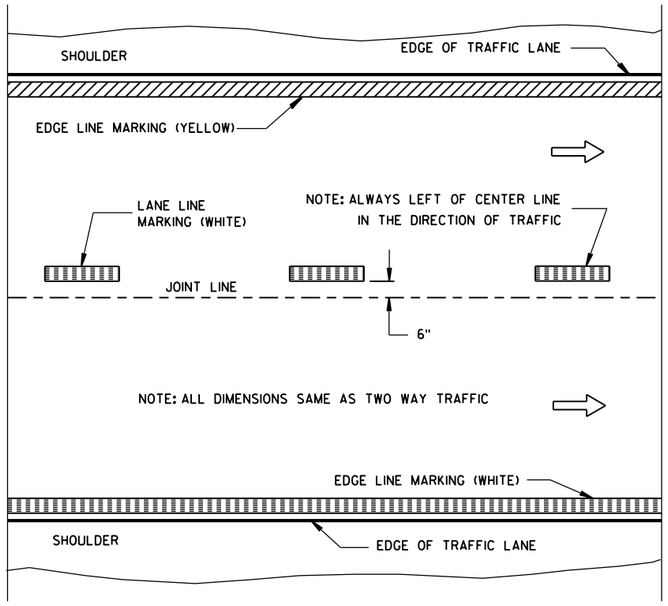
S.D.D. 15 C 7-12c

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

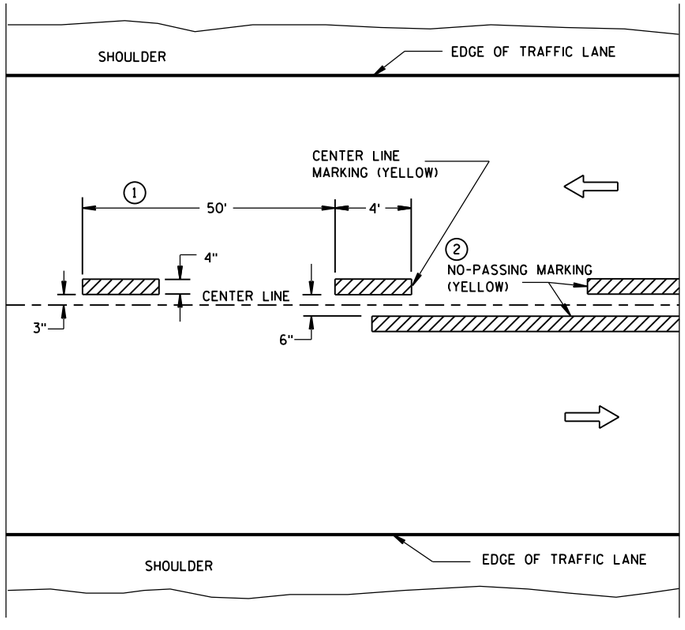


TWO WAY TRAFFIC

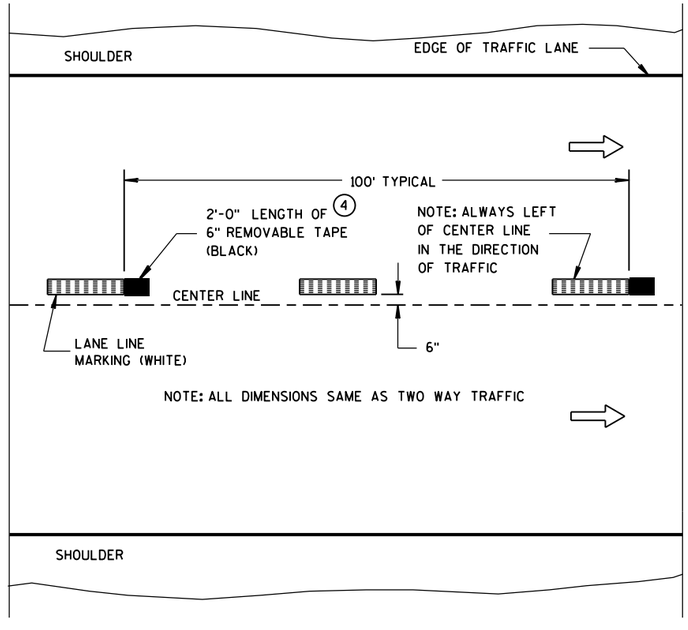


ONE WAY TRAFFIC

PERMANENT PAVEMENT MARKING



TWO WAY TRAFFIC



ONE WAY TRAFFIC

TEMPORARY (INTERMEDIATE) PAVEMENT MARKING

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

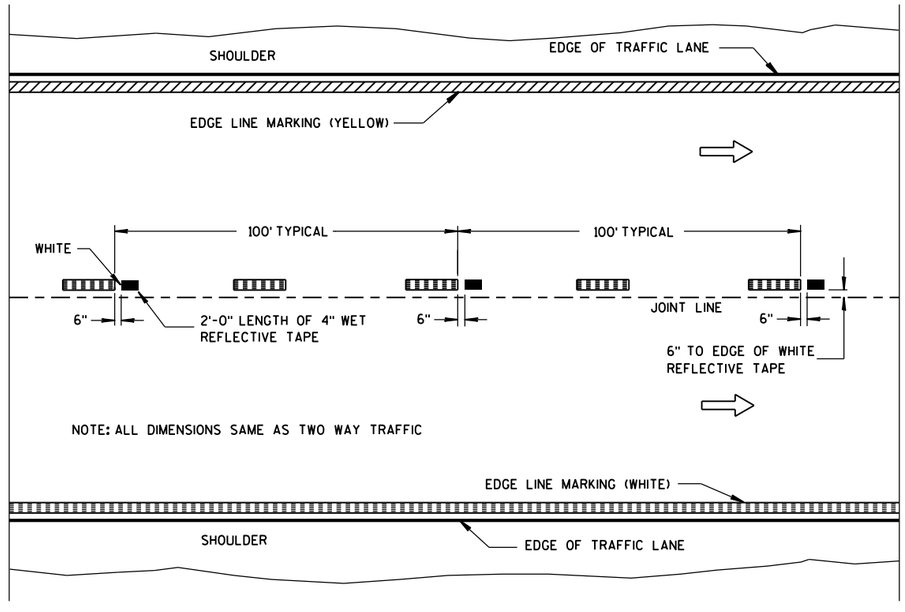
GENERAL NOTES

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

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

NOTE

ARROW SYMBOL (⇨) SHOWS DIRECTION OF TRAVEL



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

LEGEND

"T" MARKING

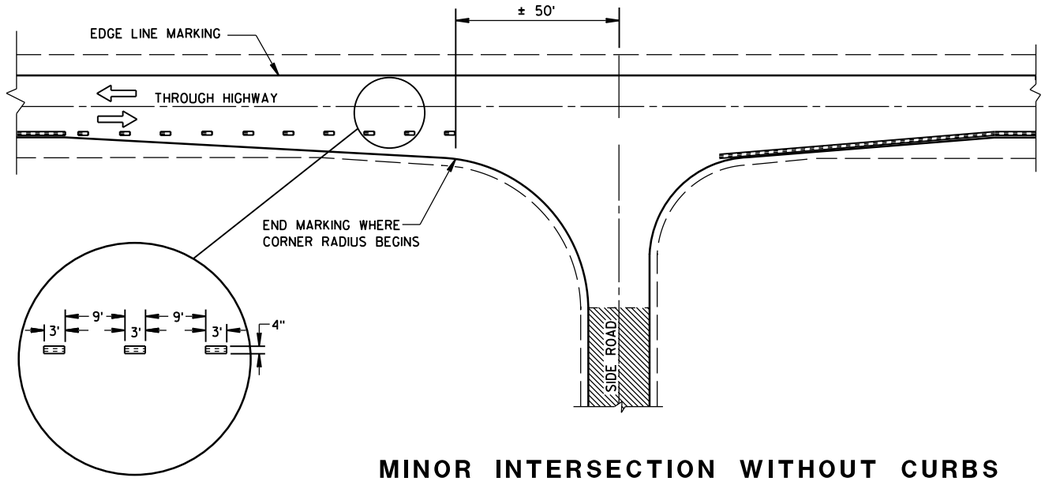
POST MOUNTED SIGN

PAVEMENT MARKING (MAINLINE)

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
5-13-2013 DATE
/S/ Travis Feltes STATE TRAFFIC E
FHWA

6
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.

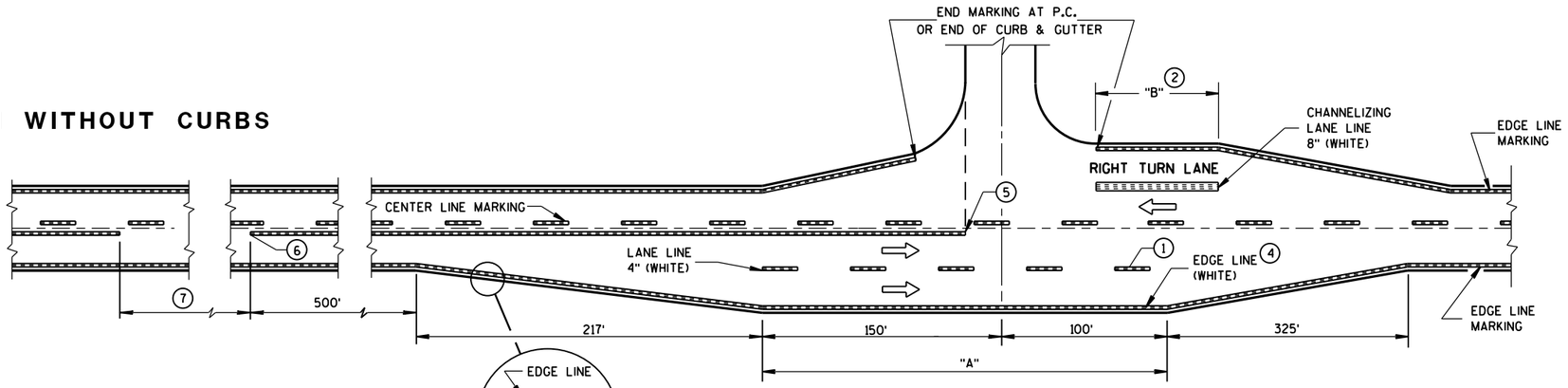
(7) IF THE DISTANCE BETWEEN 2 SUCCESSIVE NO-PASSING ZONES IS LESS THAN THE MINIMUM DISTANCE BETWEEN ZONES, CONNECT THE 2 ZONES.

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

ARROW SYMBOL (⇨) SHOWS DIRECTION OF TRAVEL

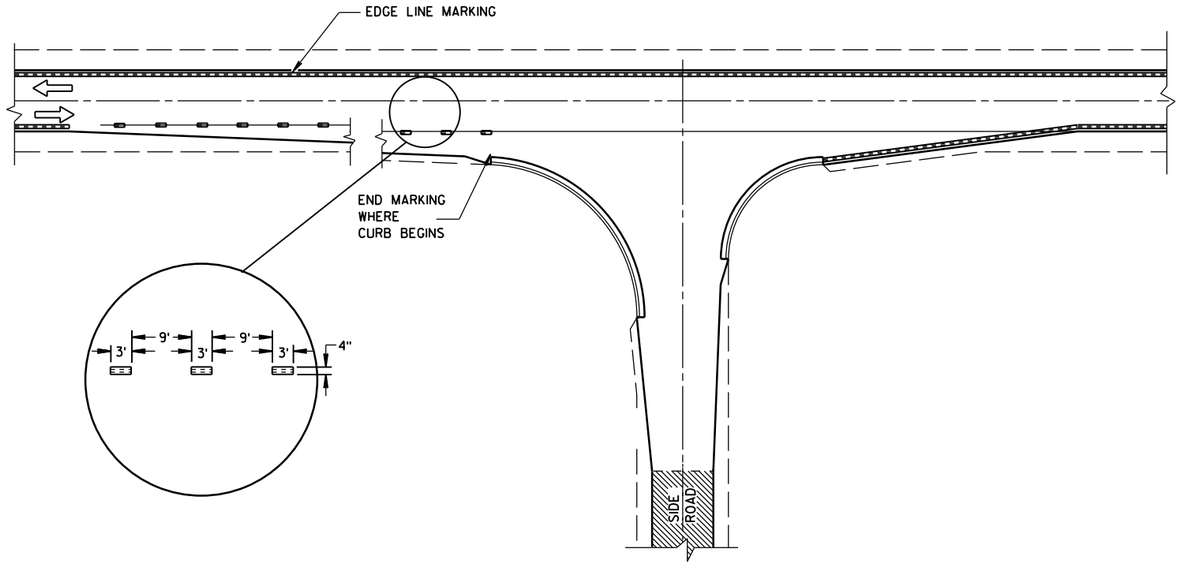
(7)

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



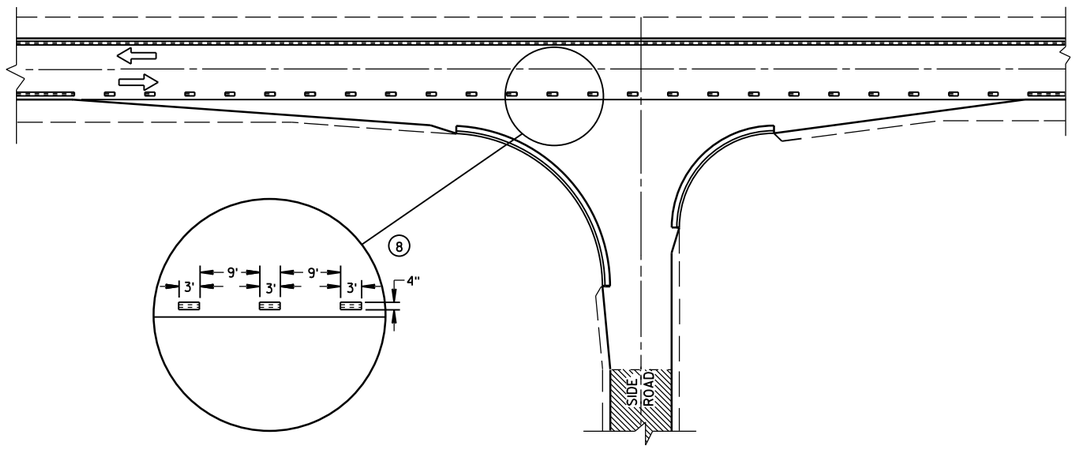
MAJOR INTERSECTIONS

(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)

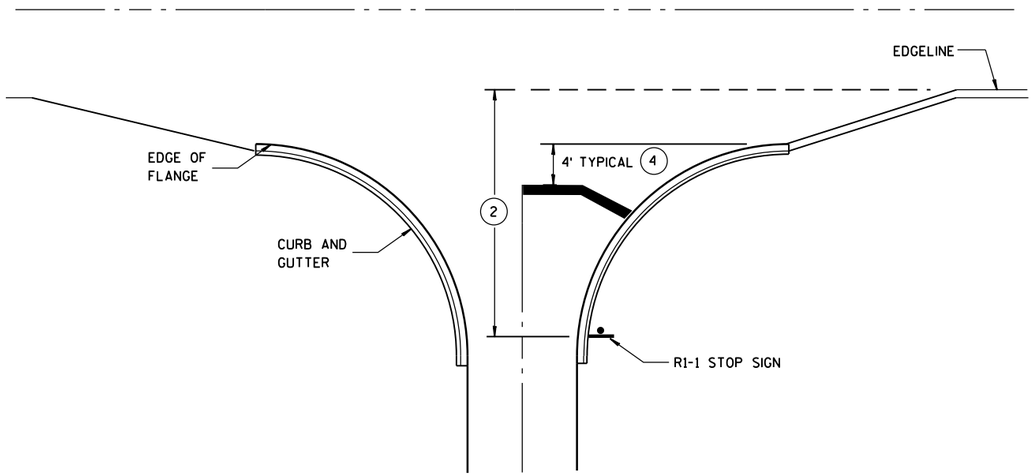
STATE OF WISCONSIN
DEPARTMENT OF TRANSPOR 351

6

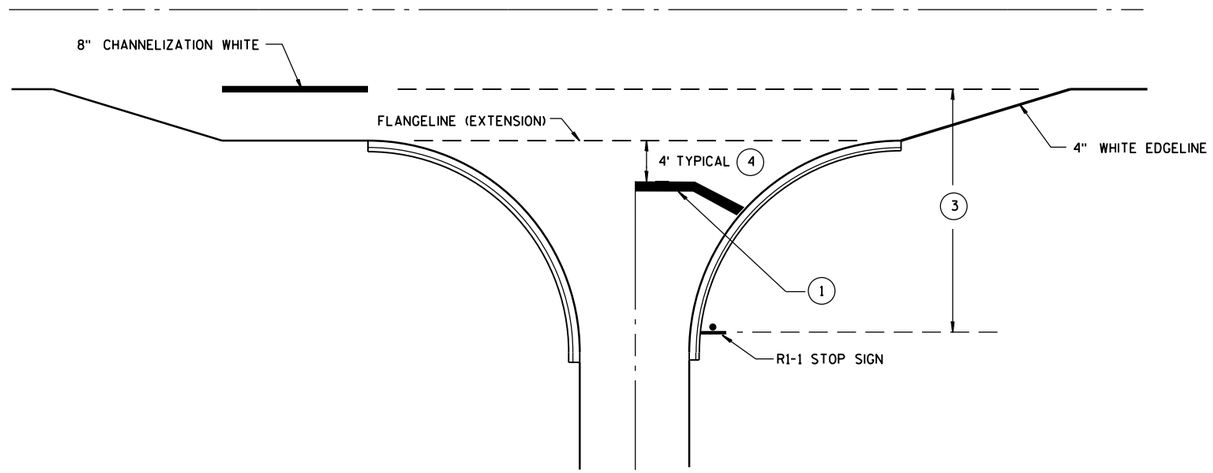
S.D.D. 15 C 8-16b

6

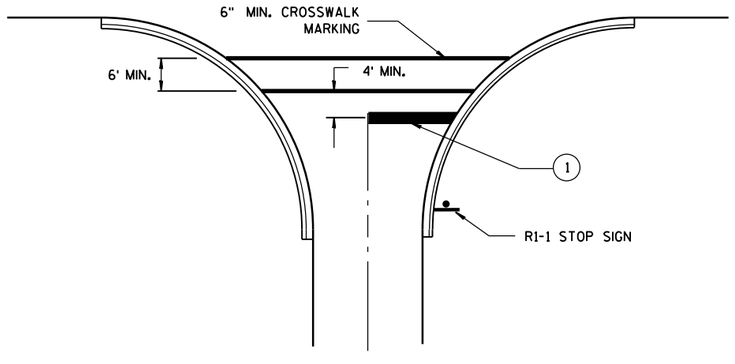
S.D.D. 15 C 8-16b



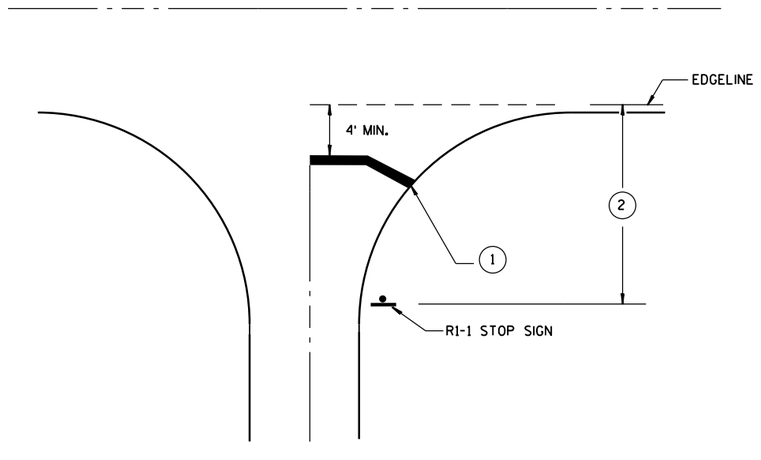
TYPICAL STOP LINE PAVEMENT MARKING WITH CURB AND GUTTER



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

LEGEND

- POST MOUNTED SIGN
- REMOVING PAVEMENT MARKING
- TYPE III BARRICADE WITH SIGN
- DRUM WITH/WITHOUT WARNING LIGHT, TYPE C (STEADY-BURN)
- TEMPORARY PRECAST CONCRETE BARRIER
- FLAGS, 16"x16" MIN., ORANGE
- TEMPORARY SIGNAL WITH BACKPLATE AND 12-INCH LENSES ON BREAKAWAY POLE
- ASPHALTIC PAVEMENT WIDENING
- DIRECTION OF TRAFFIC FLOW
- 4" X 6" WOOD POST



W057-52
36"x24"

INSTALL ON EACH APPROACH AT THE CLOSEST INTERSECTION WITH A STATE OR COUNTY TRUNK HIGHWAY, OR AS DIRECTED BY THE ENGINEER. WIDTH ON SIGN TO BE APPROX. 1 FOOT LESS THAN AVAILABLE WIDTH. (OMIT IF AVAILABLE WIDTH IS MORE THAN 16 FEET.)

GENERAL NOTES :

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

NON-OPERATIONAL EQUIPMENT OR MATERIAL SHALL BE LOCATED BEHIND THE PRECAST CONCRETE BARRIER.

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

ALL SIGNS ARE 48"x48" UNLESS OTHERWISE NOTED.

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

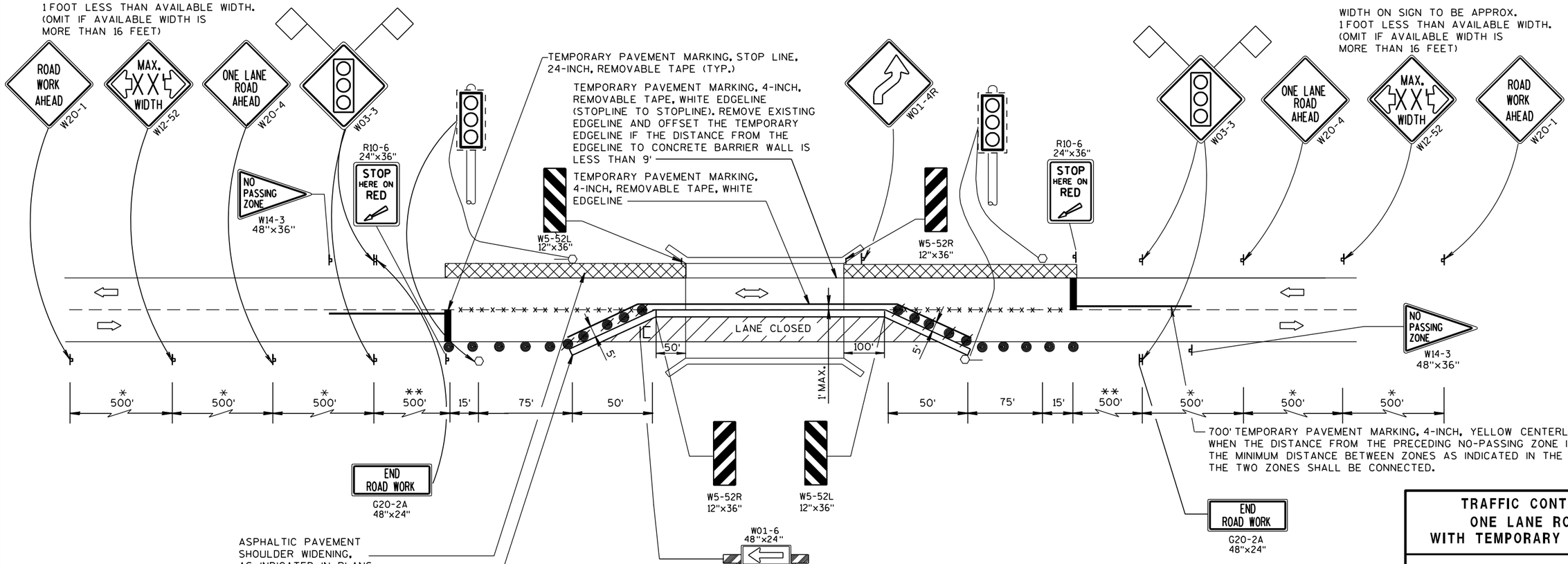
SIGN LAYOUTS SHALL BE IN ACCORDANCE WITH THE FHWA'S MANUAL OF STANDARD HIGHWAY SIGNS OR THE WISCONSIN STANDARD SIGN PLATES.

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.

PLACE TEMPORARY PAVEMENT MARKING EDGELINE AND CENTERLINE, AND REMOVE EXISTING PAVEMENT MARKINGS IF LANE CLOSURE IS TO BE IN PLACE FOR 7 OR MORE CONTINUOUS DAYS AND NIGHTS OR AS NOTED ON DETAIL.

* 500' SPACING SHOWN IS FOR ROADWAYS WITH A PRE-CONSTRUCTION REGULATORY SPEED LIMIT OF 45 MPH OR MORE. FOR 35-40 MPH, USE 350' TYPICAL SPACING. FOR 25-30 MPH, USE 200' TYPICAL SPACING.

** USE 300' SPACING IF PRE-CONSTRUCTION REGULATORY SPEED LIMIT IS 35 MPH OR LESS.



TRAFFIC CONTROL, ONE LANE ROAD WITH TEMPORARY SIGNALS

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED

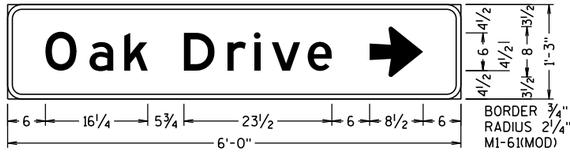
9-8-03
DATE

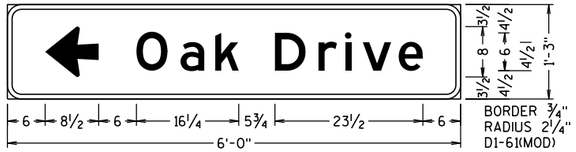
/S/ Thomas N. Nothohm for
CHIEF SIGNS AND MARKINGS ENGINEER

FHWA

6

S.D.D. 15 D 33-2





GENERAL NOTES:

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

2. UNLESS OTHERWISE NOTED, ALL SIGNS SHOWN ON THIS SHEET ARE "SIGNS, TYPE II".

3. UNLESS OTHERWISE NOTED, TYPE II SIGNS ON THIS SHEET SHALL HAVE "TYPE H REFLECTIVE SHEETING" AND, "TYPE H MESSAGE MATERIAL". TYPE I SIGNS SHALL HAVE TYPE SH REFLECTIVE SHEETING.

4. UNLESS OTHERWISE NOTED, ALL SIGNS SHOWN ON THIS SHEET SHALL HAVE A GREEN BACKGROUND AND WHITE MESSAGE.

5. TYPE II SIGNS ALL UPPER CASE MESSAGE (EXCEPT ON SHIELDS OR WHERE OTHERWISE NOTED) SHALL BE "SERIES E. ALL LOWER CASE MESSAGE WITH AN INITIAL UPPER CASE LETTER SHALL BE "SERIES E.

6. TYPE I SIGNS - ALL UPPER CASE MESSAGE (EXCEPT ON SHIELDS OR WHERE OTHERWISE NOTED) SHALL BE SERIES "E" MODIFIED. ALL LOWER CASE MESSAGE WITH AN INITIAL UPPER CASE LETTER SHALL BE SERIES "E" MODIFIED. ALL CAP WORDS ARE "SERIES E"

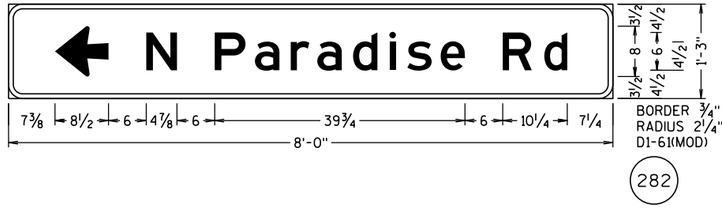
7. UNLESS OTHERWISE NOTED, ALL SIGNS SHOWN ON THIS SHEET SHALL HAVE "TYPE A" OR "TYPE C" ARROWS AS SHOWN. SEE THE STANDARD SIGN PLATES FOR FURTHER DETAILS.

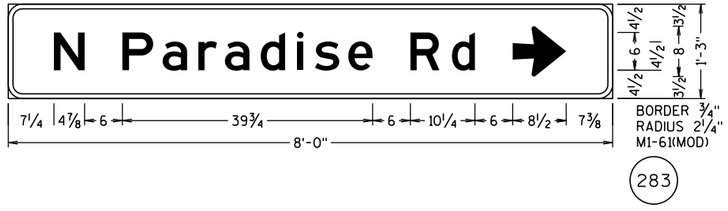
8. SEE THE STANDARD SIGN PLATES FOR FURTHER DETAILS ON ROUTE MARKER SHIELDS.

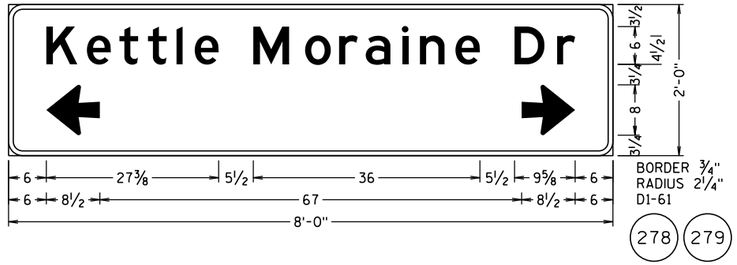
9. THE SIGN NUMBER IS DENOTED IN THE CIRCLE NEAR EACH DETAIL.

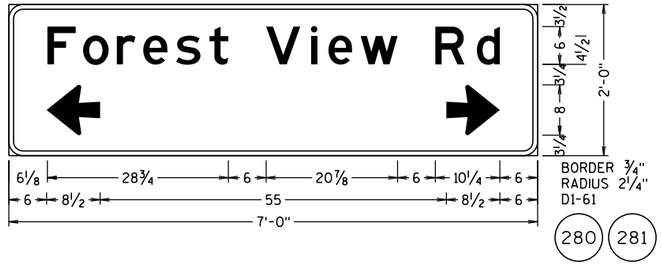
10. NUMBER FRACTIONS FOR INTERCHANGE SEQUENCE SIGNS SHALL BE SERIES "E" PER PLATES A11-7 AND A11-10

11. DO NOT SCALE.









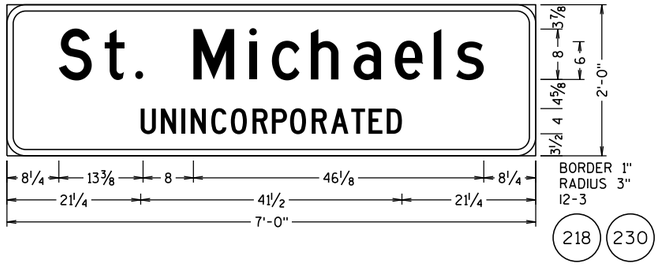
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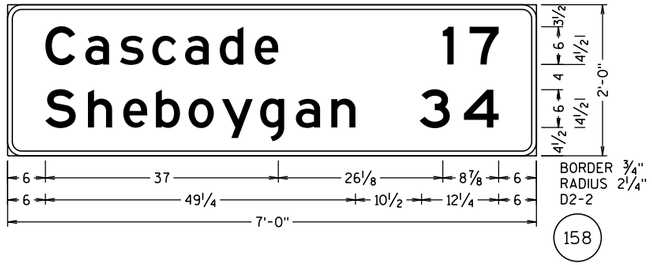
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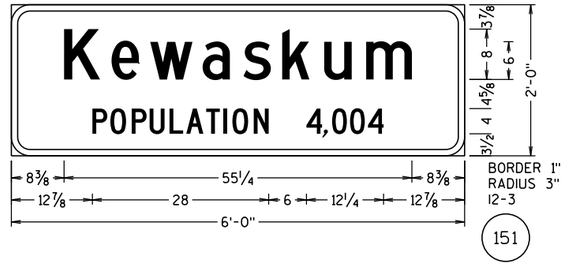
SHEET 1 OF 2

PROJECT NO: 4060-05-70	HWY: STH 28	COUNTY: WASHINGTON	SIGNING DETAIL - TYPE II SIGNS	SCALE: 0 ½" 1"	SHEET 354	E

FILE NAME : J:\projects\D2_40600528\Sign\070101_ms.dgn PLOT DATE : 08-JUL-2013 08:50 PLOT BY : MSCCXV PLOT NAME : PLOT SCALE : 48.125:1







GENERAL NOTES:

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

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3. UNLESS OTHERWISE NOTED, TYPE II SIGNS ON THIS SHEET SHALL HAVE "TYPE H REFLECTIVE SHEETING" AND, "TYPE H MESSAGE MATERIAL". TYPE I SIGNS SHALL HAVE TYPE SH REFLECTIVE SHEETING.

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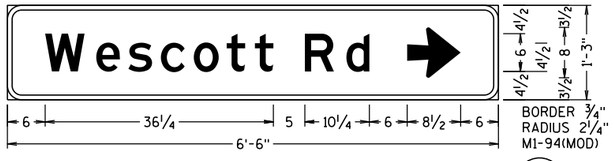
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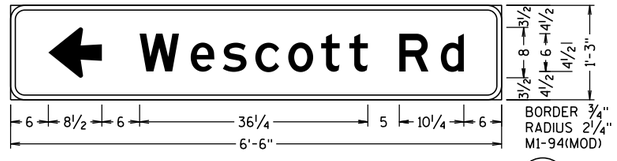
8. SEE THE STANDARD SIGN PLATES FOR FURTHER DETAILS ON ROUTE MARKER SHIELDS.

9. THE SIGN NUMBER IS DENOTED IN THE CIRCLE NEAR EACH DETAIL.

10. NUMBER FRACTIONS FOR INTERCHANGE SEQUENCE SIGNS SHALL BE SERIES "E" PER PLATES A11-7 AND A11-10

11. DO NOT SCALE.





7

7

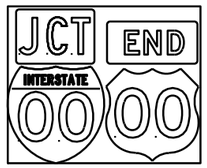
SHEET 2 OF 2

PROJECT NO: 4060-05-70	HWY: STH 28	COUNTY: WASHINGTON	SIGNING DETAIL - TYPE II SIGNS	SCALE: 0 ½" 1"	SHEET 355	E

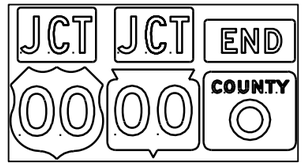
TYPICAL ASSEMBLIES



J1-1



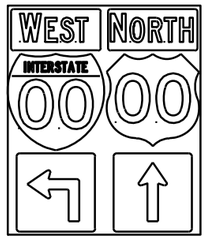
J1-2



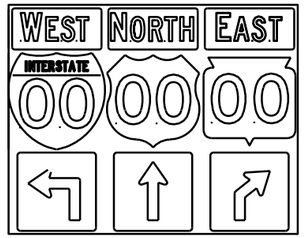
J1-3



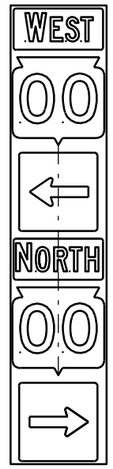
J2-1



J2-2

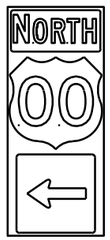


J2-3

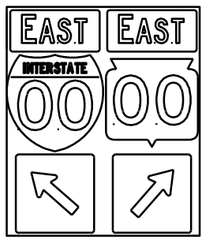


JV

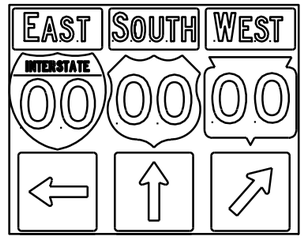
(Typical Vertical J-Assembly
See Note 10 and 11)



J3-1



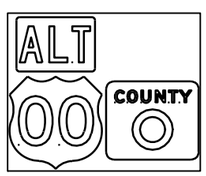
J3-2



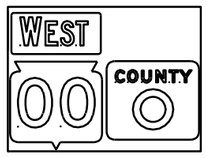
J3-3



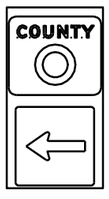
J4-1



J4-2



J4-2



J13-1



J12-1



J32-1



J33-1

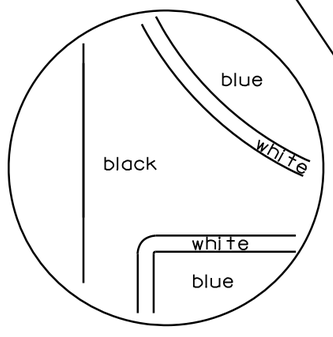


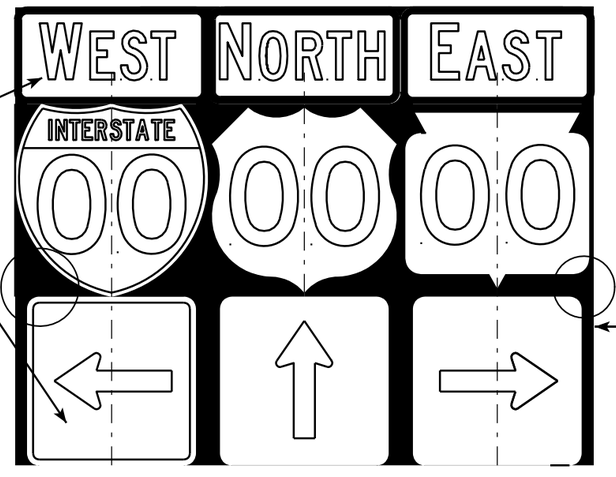
J23-1

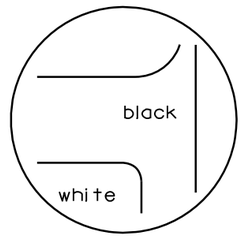


J22-1

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

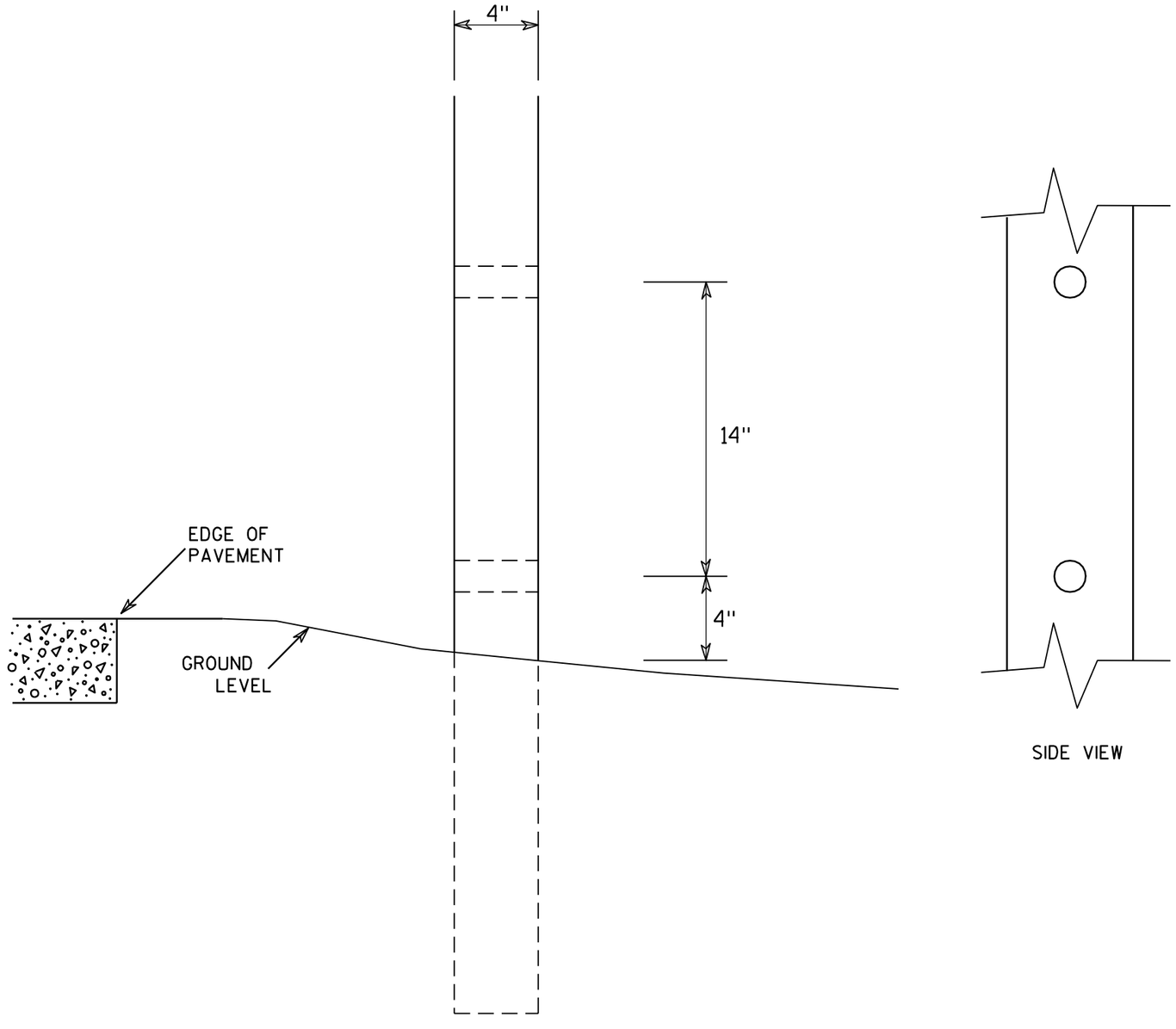
DATE 3/25/13 PLATE NO. A2-1S.7

7

7

PROJECT NO:

SHEET NO: 356 E



SIDE VIEW

GENERAL NOTES

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

7

7

4 X 6 WOOD POST MODIFICATIONS

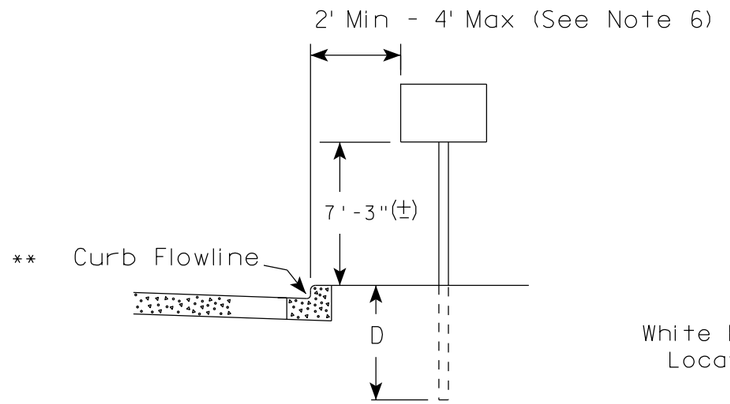
WISCONSIN DEPT OF TRANSPORTATION

APPROVED Chester J Spang
for State Traffic Engineer

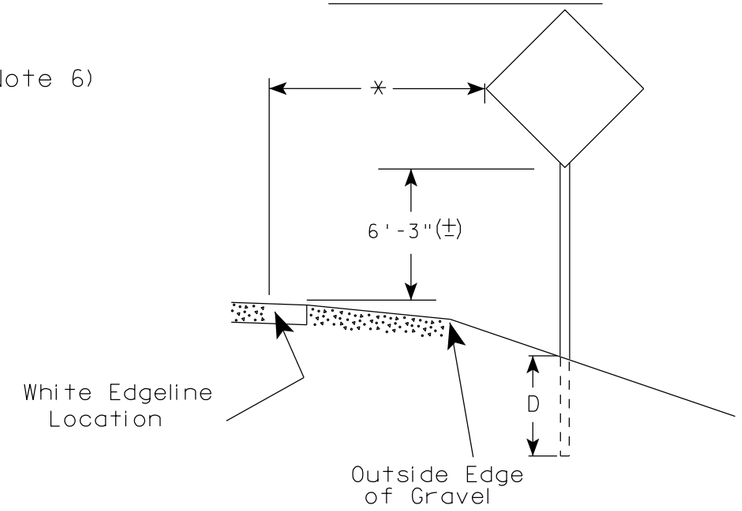
DATE 3/27/97 PLATE NO. A4-11.2

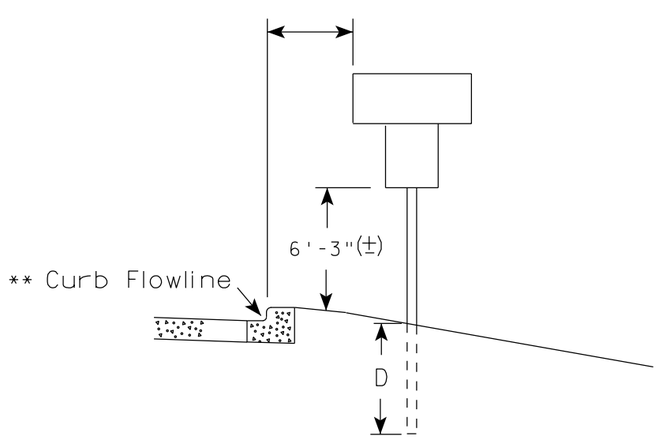
PROJECT NO:	HWY:	COUNTY:		SHEET NO: 357	E

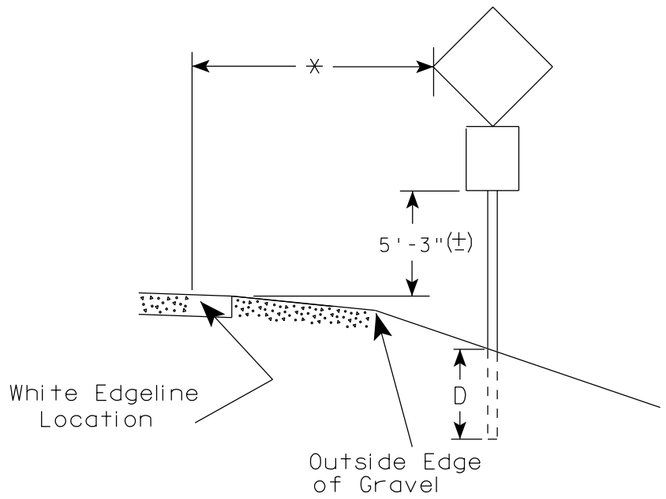
URBAN AREA



RURAL AREA (See Note 2)







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

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

GENERAL NOTES

1. Signs wider than 4 feet, 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 (A4-5) is 7'-3" (±) or 6'-3" (±) per urban or rural detail respectively.
5. Minimum mounting height for signs mounted on traffic signal poles is 5'- 3" (±).
6. Offset distance shall be consistent with existing signs or consistent throughout length of project.
7. The (±) tolerance for mounting height is 3 inches.
8. Folding stop signs (R1-1F) shall be mounted at a height of 5'-3" (±) or as directed by the Engineer.
9. The Double Arrow sign (W12-1) shall be mounted at a height of 2'-3" (±). The Chevron sign (W1-8), Roundabout Chevron panel (R6-4B), Enhanced Reference Markers, Clearance Markers (W5-52), Mile Markers (D10 series) & End of Rod Markers (W5-56 & W5-56A) shall be mounted at a height of 4'-3" (+).

POST EMBEDMENT DEPTH

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

TYPICAL INSTALLATION OF PERMANENT TYPE II SIGNS ON SINGLE POSTS

WISCONSIN DEPT OF TRANSPORTATION

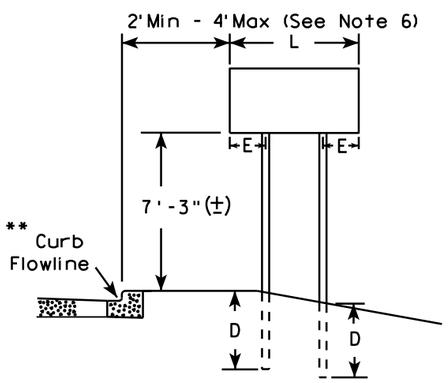
APPROVED Matthew R Rauch
for State Traffic Engineer

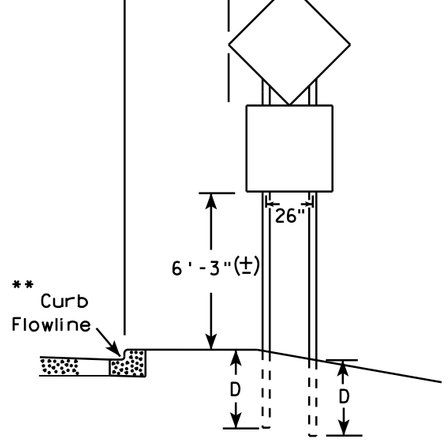
DATE 9/30/13 PLATE NO. A4-3.18

PROJECT NO:	HWY:	COUNTY:		SHEET NO:	E

7

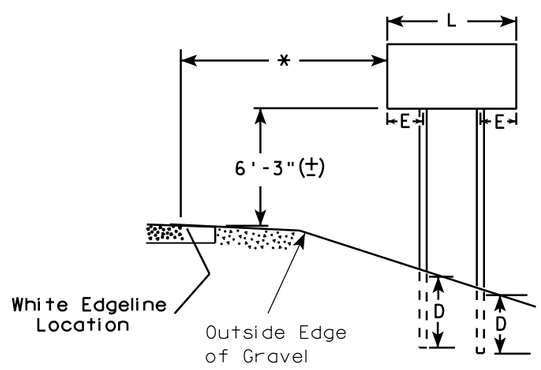
URBAN AREA

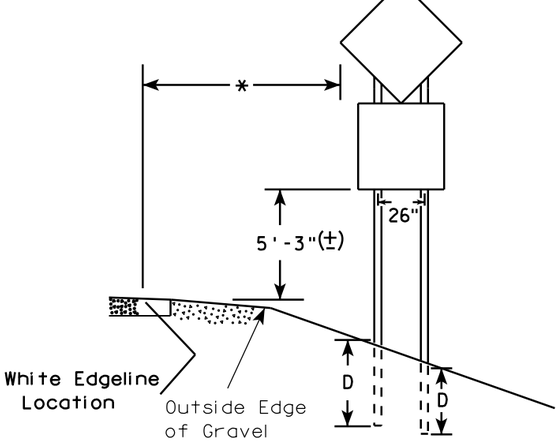




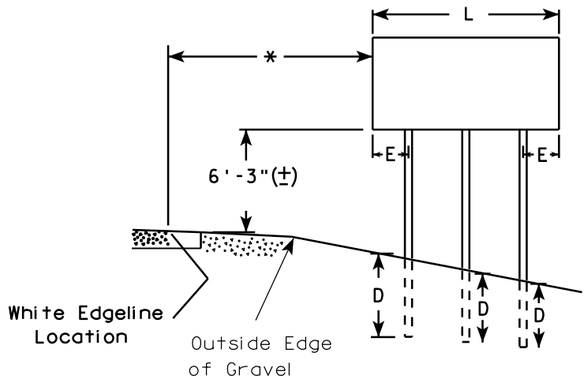
48" DIAMOND WARNING SIGN

RURAL AREA (See Note 3)





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 (A4-5) 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 stop signs (R1-1F) 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) & End of Road Markers (W5-56 & W5-56A) shall be mounted at a height of 4"-3" (±).

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

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

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

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

***

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

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

POST EMBEDMENT DEPTH

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

TYPICAL INSTALLATION OF TYPE II SIGNS ON MULTIPLE POSTS

WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 9/30/13 PLATE NO. A4-4 12

359

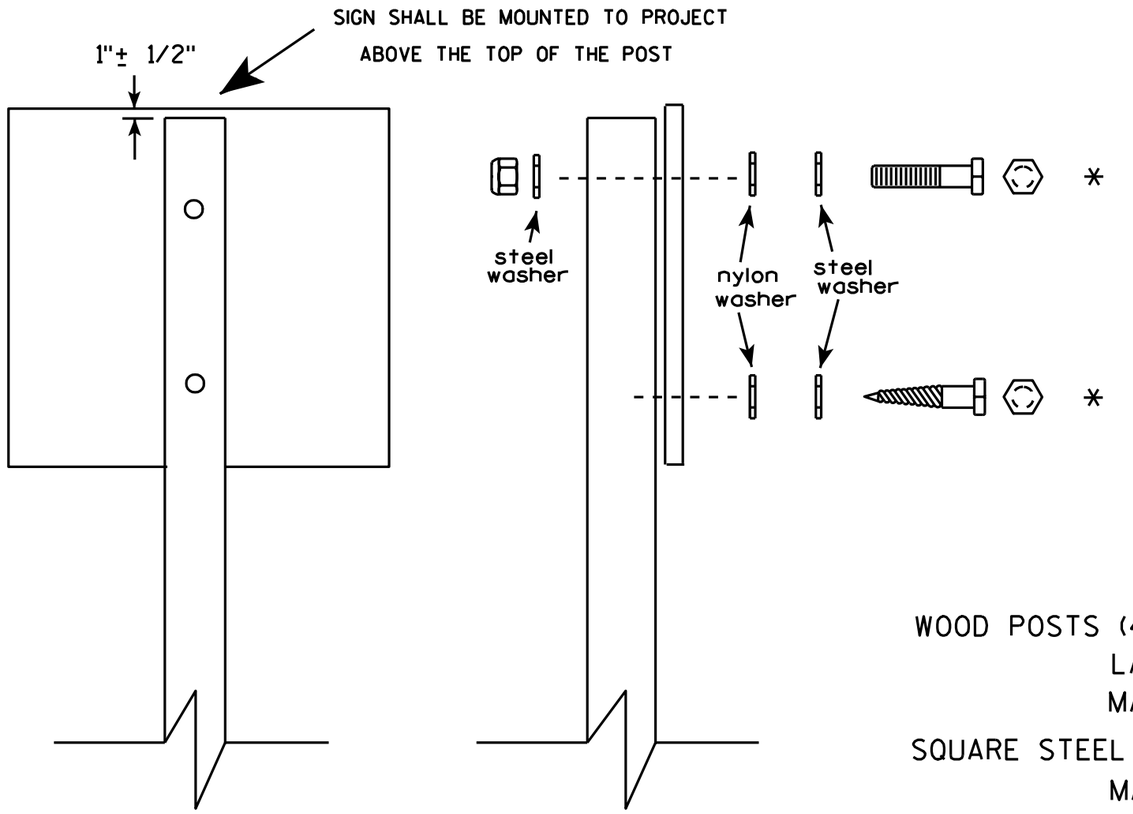
PROJECT NO:	HWY:	COUNTY:		SHEET NO:	E

FILE NAME : C:\CAEfiles\Projects\tr_stdplate\A44.DGN PLOT DATE : 30-SEP-2013 13:27 PLOT BY : mscj9h PLOT NAME : PLOT SCALE : 107.021305:1.000000

WISDOT/CADDS SHEET 42

7

7



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

a. Hot dip galvanized in accordance with ASTM Designation: A 153, Class D, or SC 3

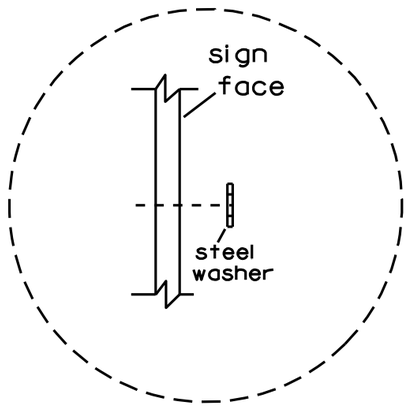
b. Electro-galvanized in accordance with ASTM Designation : B 633, TYPE III, SC 3.

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

WOOD POSTS (4" x 4" or 4" x 6")
LAG SCREWS - 3/8" X 3"
MACHINE BOLTS - 5/16" X 6-1/2" or 7" Length w/ nuts

SQUARE STEEL POSTS (2" x 2")
MACHINE BOLTS - 3/8" X 3-1/4" Length w/ nuts
RIVETS - 9/32 " (6605-9-6) BULB-TITE, TRI-FOLD, ALUMINUM BODY/MANDREL
O.D. FLANGE .720-.765 INCH, GRIP RANGE .042-.375 INCH

WASHERS (ALL POSTS) -
1-1/4" O.D. X 3/8" I.D. X 1/16" STEEL
1-1/4" O.D. X 3/8" I.D. X .080 NYLON for all Type H signs.



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

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

ATTACHMENT OF SIGNS TO POSTS

WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 3/23/10 PLATE NO. A4-8.7

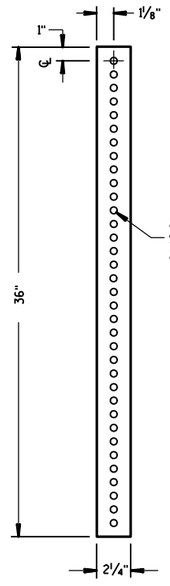
PROJECT NO:

SHEET NO: 360 E

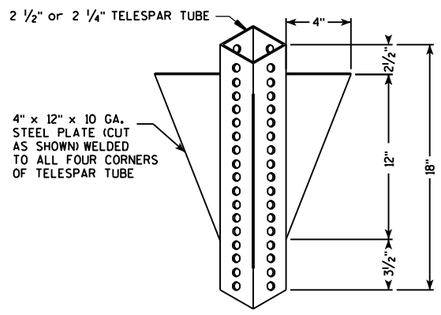
FILE NAME : C:\Users\PROJECTS\tr_stdplate\A48.DGN PLOT DATE : 23-MAR-2010 10:15 PLOT BY : ditjph
WISDOT/CADDS SHEET 42

TELESCOPIC TUBING ANCHORS
TWO PIECE SYSTEM

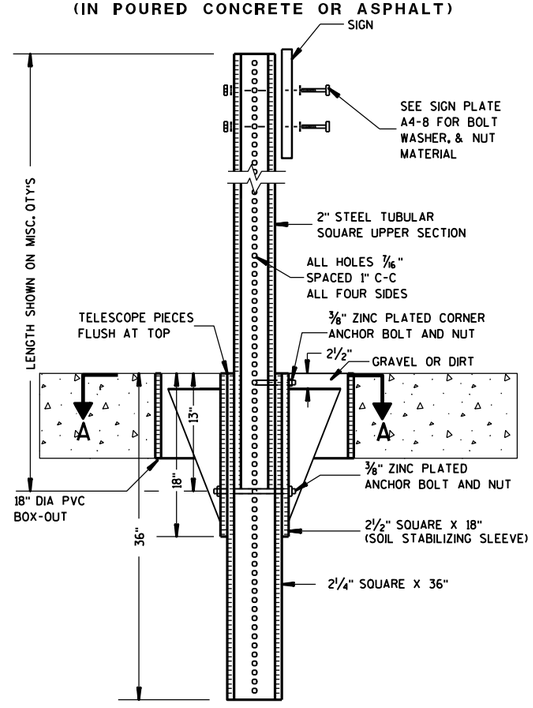
2 1/4 " SQUARE
12 GAUGE
PERFORATED
GALVANIZED FINISH



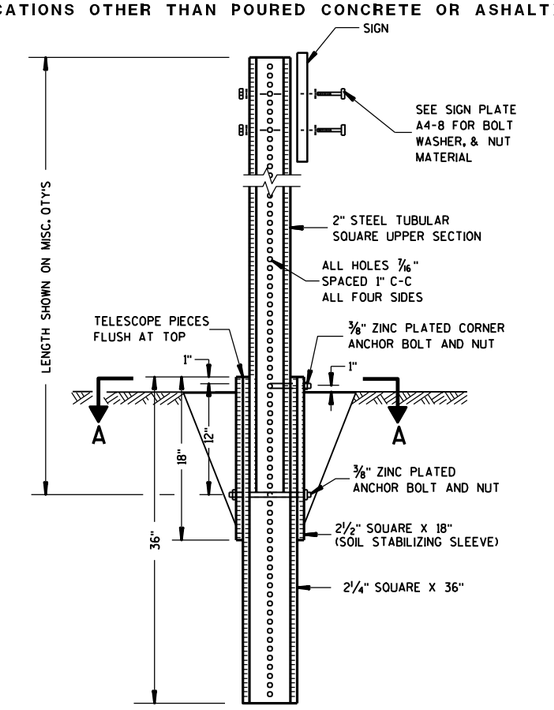
2 1/2 " SQUARE
12 GAUGE
OMNI-DIRECTIONAL
PERFORATED
SOIL STABILIZING SLEEVE
GALVANIZED FINISH

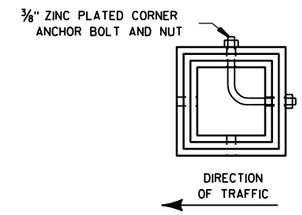


DETAIL OF TUBULAR STEEL SIGN POST
(IN POURED CONCRETE OR ASPHALT)



DETAIL OF TUBULAR STEEL SIGN POST
(IN LOCATIONS OTHER THAN POURED CONCRETE OR ASHALT)





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).

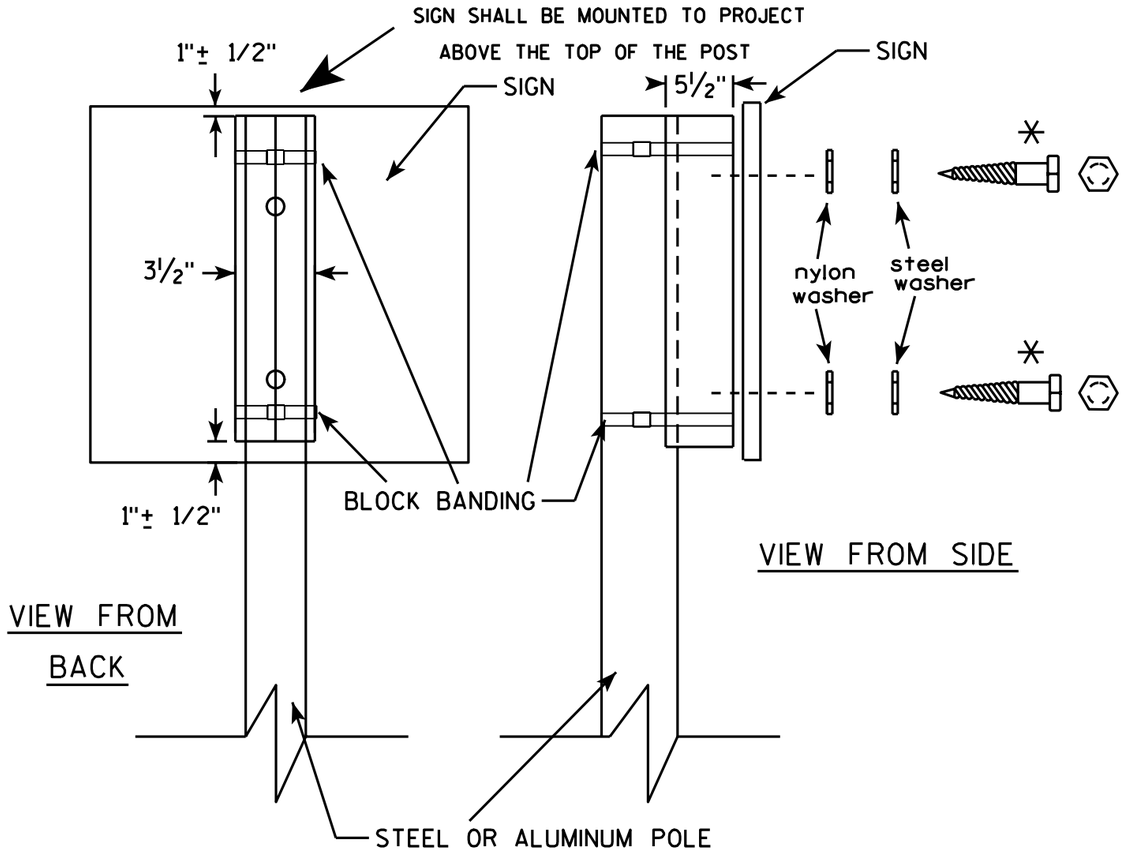
TUBULAR STEEL SIGN POST A4-9

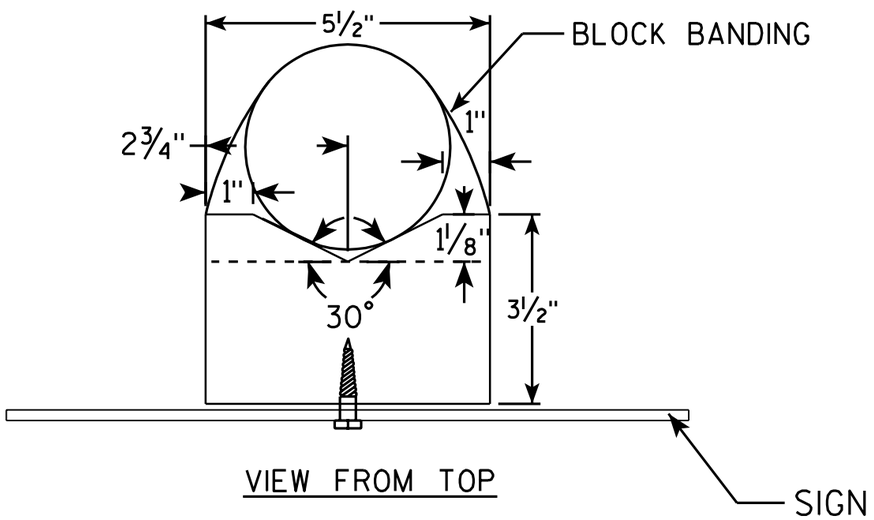
WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 5/30/12 PLATE NO. A4-9.7

PROJECT NO:	HWY:	COUNTY:		SHEET NO: 361	E





GENERAL NOTES

1. WOOD 4"X6" POST MATERIAL SHALL CONFORM TO 507.2.2 OF THE WisDOT STANDARD SPECIFICATIONS
2. BLOCK BANDING AND CLIPS SHALL BE STAINLESS STEEL, ¾" WIDTH AND 0.025" THICKNESS
3. SIGNS 3' OR GREATER IN HEIGHT SHALL UTILIZE 3 BLOCK BANDS. SIGNS UNDER 3' IN HEIGHT SHALL UTILIZE 2 BLOCK BANDS
4. ACTUAL NUMBER OF FASTENERS PER SIGN VARIES WITH THE SIGN AREA, BUT NORNALLY THERE ARE TWO. FOR SIGNS GREATER THAN 9 S.F. 3 FASTENERS SHALL BE USED.
5. ALL SIGN MOUNTING BOLTS AND WASHERS SHALL BE EITHER:
   a. Hot dip or mechanically galvanized in accordance with ASTM Designation: A 153, Class D, or
   b. Cadmium plated in accordance with ASTM Designation : B 766 TYPE 3, Class 12, or
   c. Electro-galvanized in accordance with ASTM Designation : B 633, TYPE III, SC 3.
6. ALL BOLTS SHALL HAVE HEXAGONAL HEADS.
7. STEEL WASHERS SHALL BE 1¼" O.D. X ⅜" I.D. X 1/16"
8. NYLON WASHERS SHALL BE 1¼" O.D. X ⅜" I.D. X .080 FOR TYPE H OR TYPE F FACE SIGN

✳ LAG BOLTS SHALL BE ⅜" X 2½"

BLOCK BANDING DETAIL (V-BLOCK OPTION)

WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 7/12/07 PLATE NO. A5-10.1

PROJECT NO:

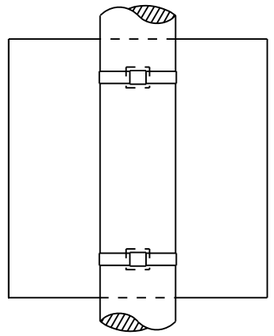
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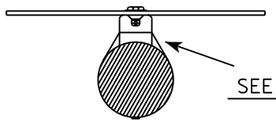
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WISDOT/CADDS SHEET 42

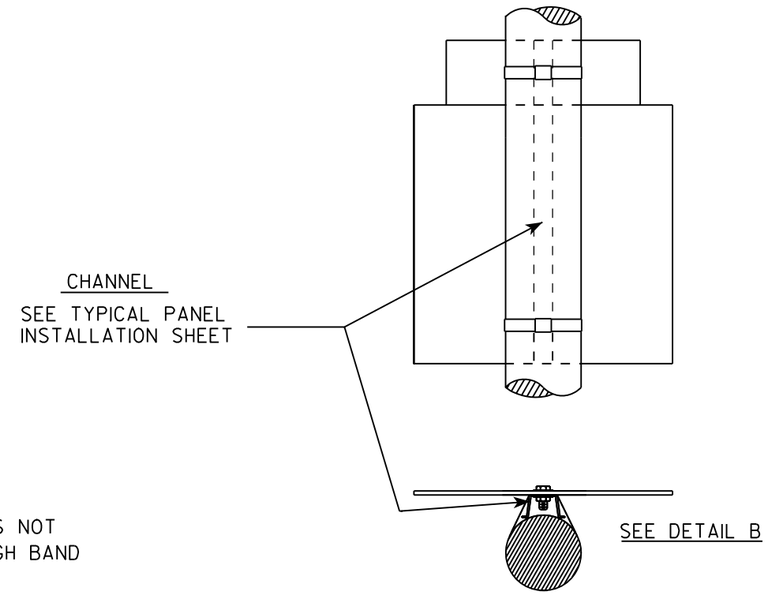
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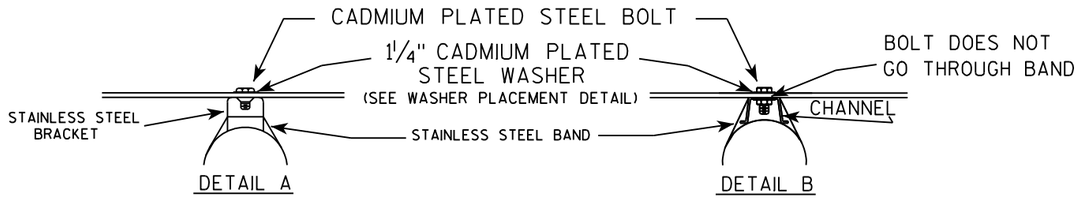
SINGLE SIGN



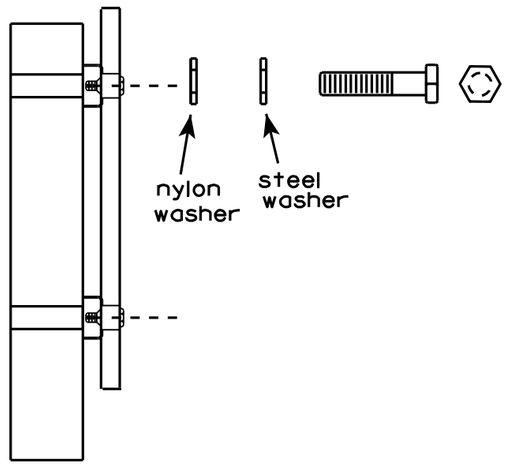


"J" ASSEMBLY





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 ¾" in width and 0.025" thickness.

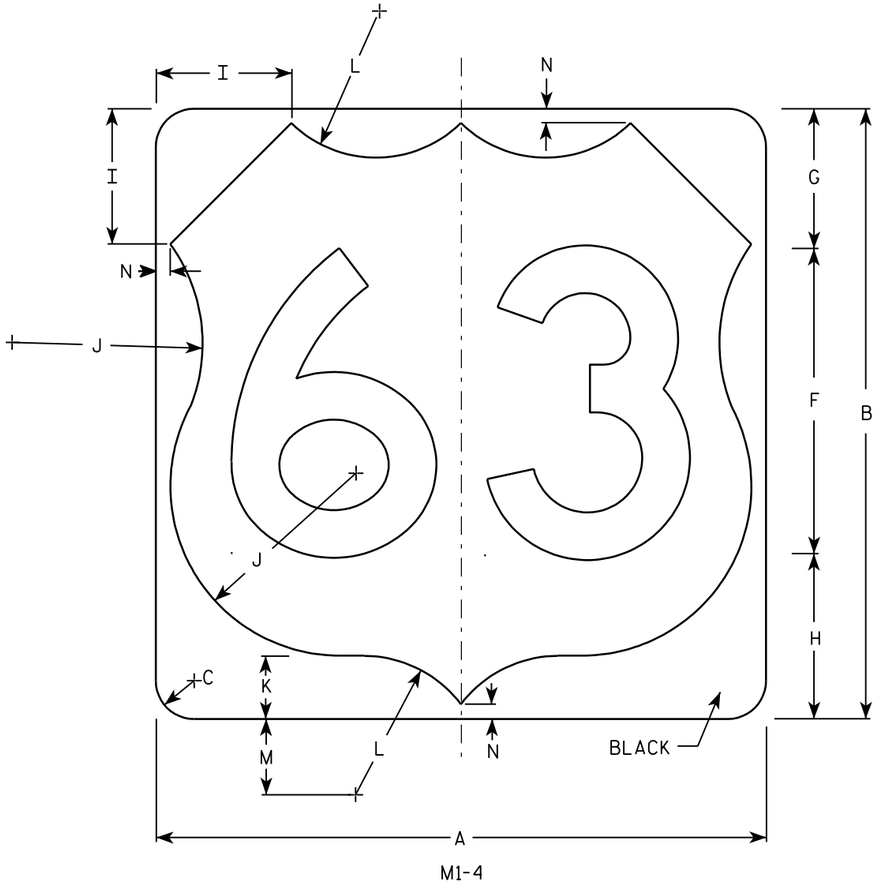
STANDARD SIGN
SIGN BANDING DETAILS

WISCONSIN DEPT OF TRANSPORTATION

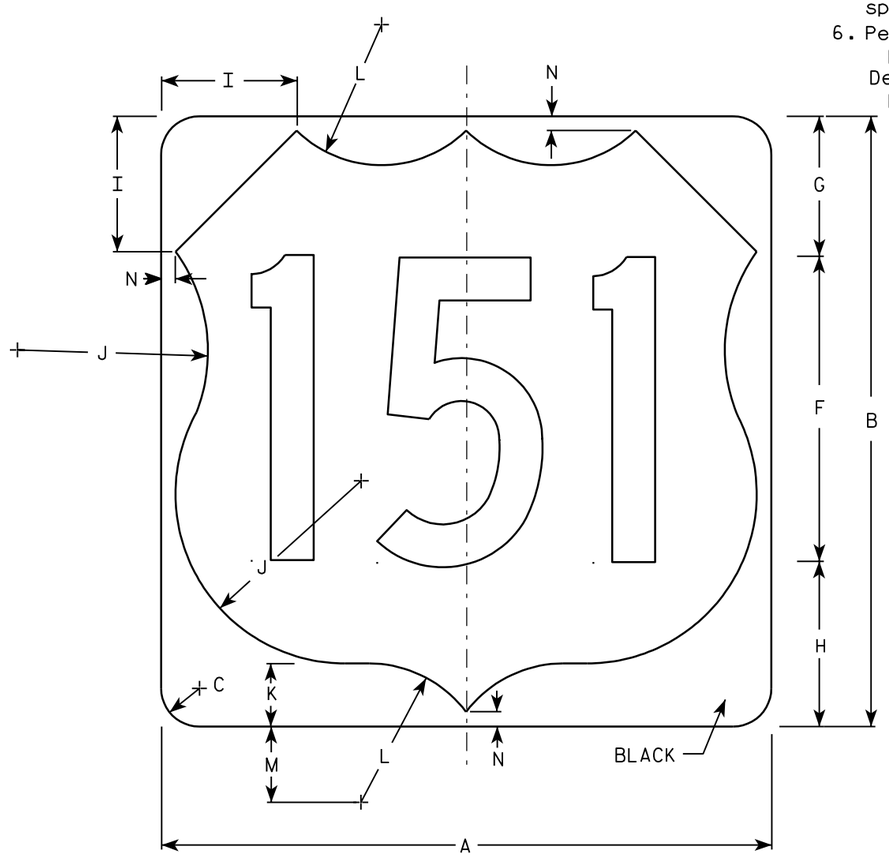
APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 8/16/13 PLATE NO. A5-9.3

PROJECT NO:	HWY:	COUNTY:		SHEET NO: 363	E



M1-4



M1-4

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

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
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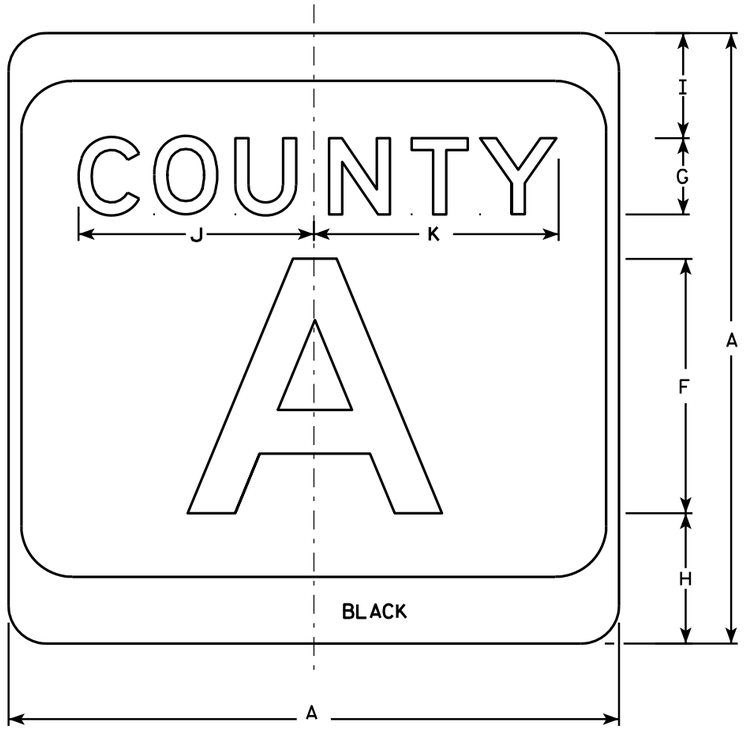
USH MARKER
M1-4 FOR ASSEMBLIES

WISCONSIN DEPT OF TRANSPORTATION

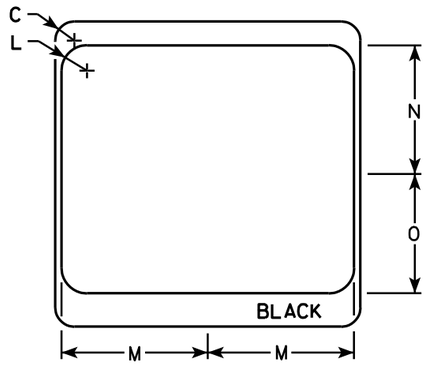
APPROVED Matthew R Rauch
for State Traffic Engineer

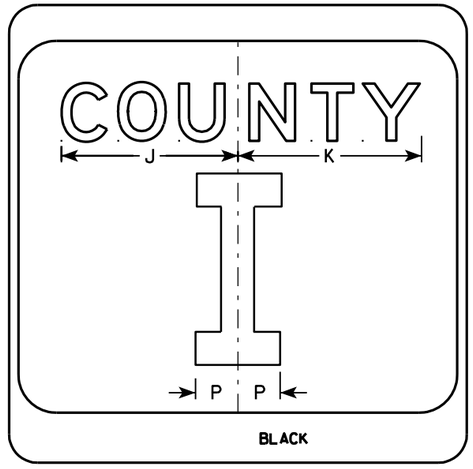
DATE 08/25/05 PLATE NO. M1-4.9

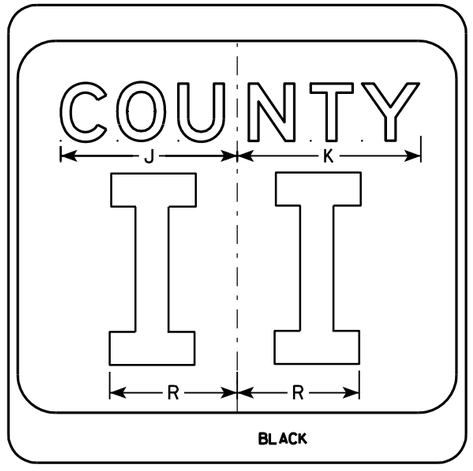
PROJECT NO: | HWY: | COUNTY: | SHEET NO: 364 | E



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

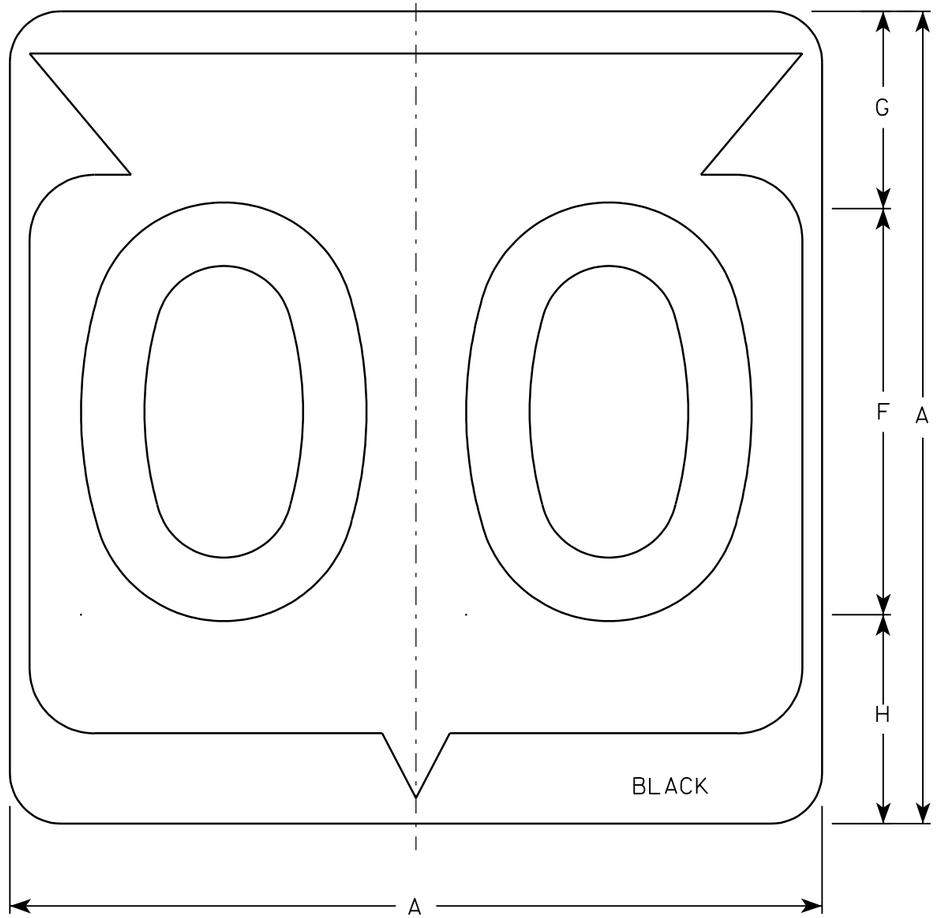
PROJECT NO:	HWY:	COUNTY:		SHEET NO: 365	E

FILE NAME : C:\Users\PROJECTS\tr_stdplate\M15A.DGN PLOT DATE : 29-SEP-2011 11:25 PLOT BY : mscsja PLOT NAME : PLOT SCALE : 5.959043:1.000000

WISDOT/CADDS SHEET 42

7

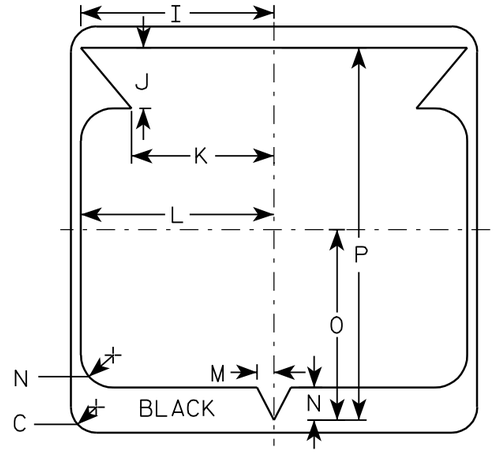
7



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

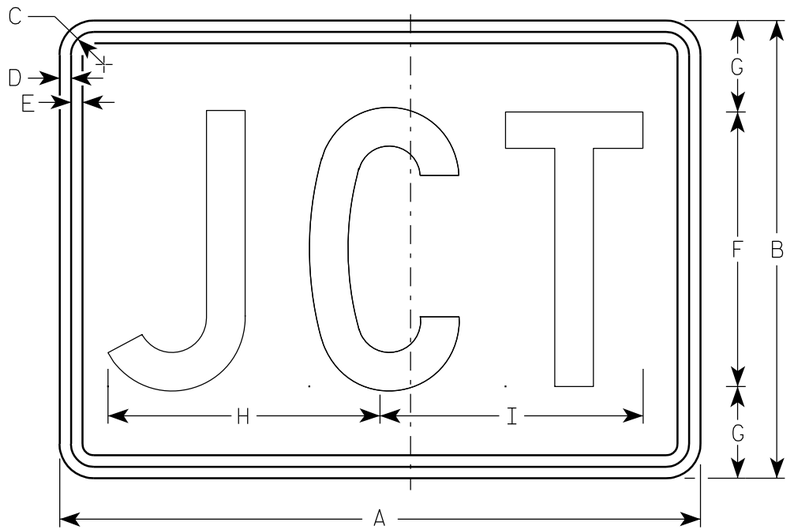
STATE ROUTE MARKER M1-6 FOR ASSEMBLIES

WISCONSIN DEPT OF TRANSPORTATION

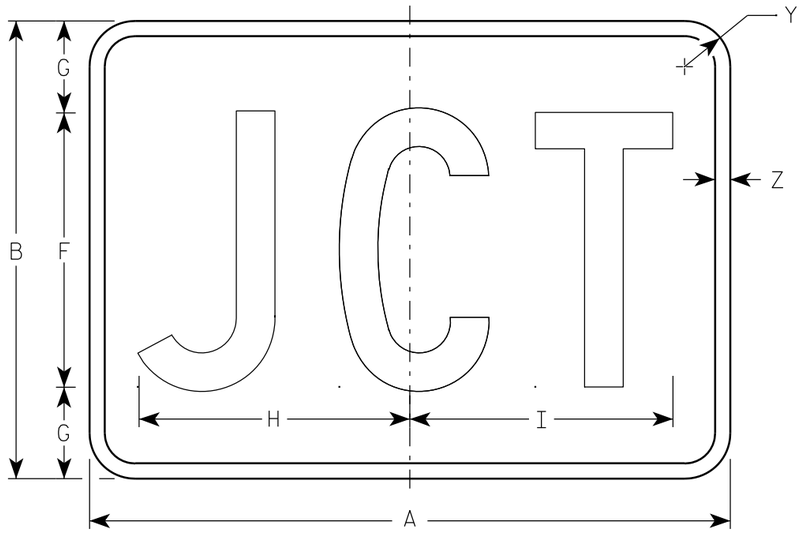
APPROVED Chester J Spang for State Traffic Engineer

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

PROJECT NO:	HWY:	COUNTY:		SHEET NO: 366	E



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



MB2-1
MG2-1
MN2-1

NOTES

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

Metric equivalent for this sign is:

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

SIZE	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	Area sq. ft.	Area m2
1																												
2	21	15	1 1/8	3/8	3/8	9	3	8 7/8	8 5/8																1 1/2	1/2	2.20	0.20
3	30	21	1 1/8	3/8	3/8	13	4	12 7/8	12 3/8																1 1/2	1/2	4.40	0.20
4	30	21	1 1/8	3/8	3/8	13	4	12 7/8	12 3/8																1 1/2	1/2	4.40	0.20
5	30	21	1 1/8	3/8	3/8	13	4	12 7/8	12 3/8																1 1/2	1/2	4.40	0.20

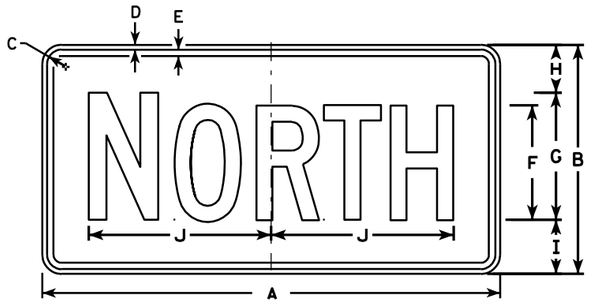
STANDARD SIGN
M2-1

WISCONSIN DEPT OF TRANSPORTATION

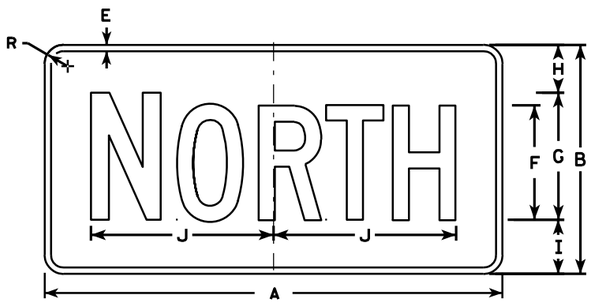
APPROVED Matthew R Rauch
for State Traffic Engineer

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

PROJECT NO:	HWY:	COUNTY:		SHEET NO: 367	E



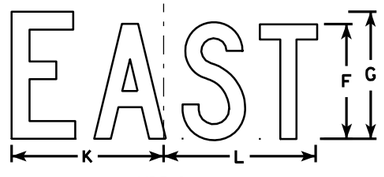
M3-1
MK3-1
MO3-1



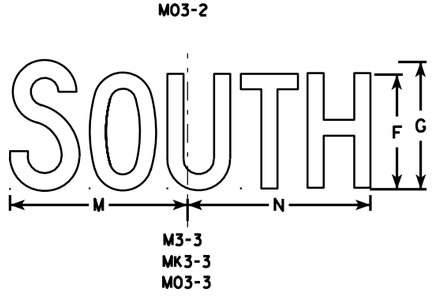
MB3-1
MG3-1
MM3-1
MN3-1



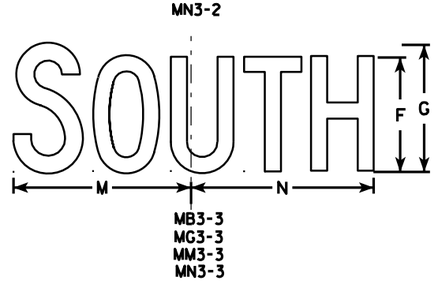
M3-2
MK3-2
MO3-2



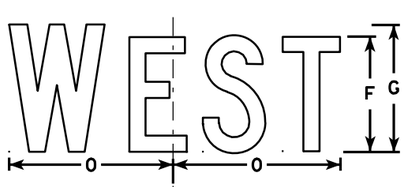
MB3-2
MG3-2
MM3-2
MN3-2



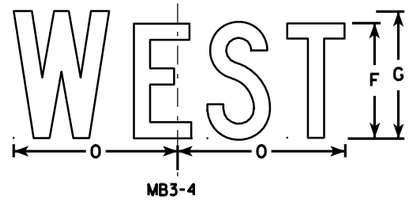
M3-3
MK3-3
MO3-3



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



M3-4
MK3-4
MO3-4



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

NOTES

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

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

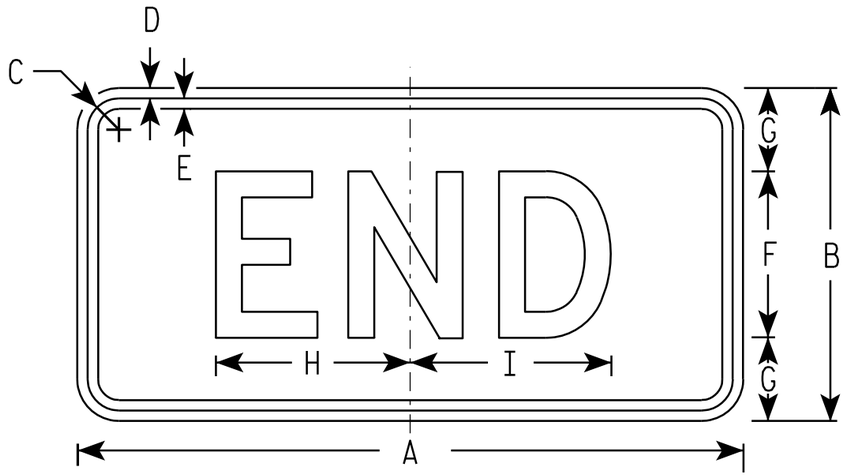
STANDARD SIGNS
M3-1 thur M3-4
SERIES

WISCONSIN DEPT OF TRANSPORTATION

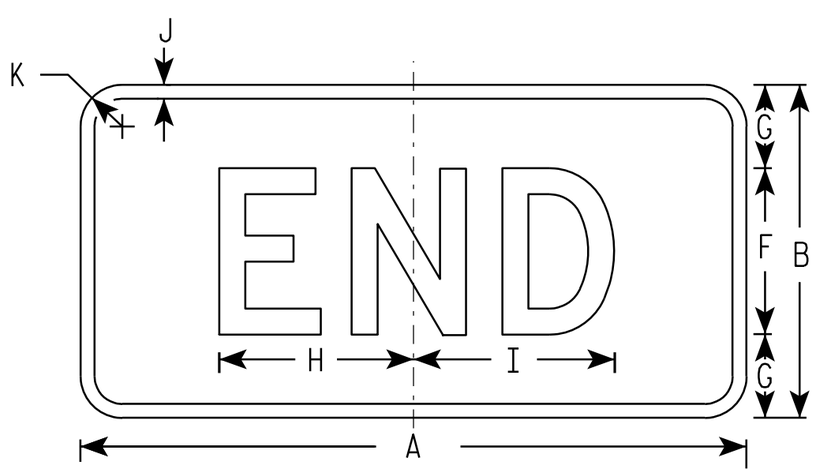
APPROVED Matthew R Rauch for State Traffic Engineer

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

PROJECT NO:	HWY:	COUNTY:		SHEET NO: 368	E



M4-6
MK4-6
MM4-6
MR4-6



MB4-6
MG4-6
MN4-6

NOTES

1. Sign is Type II - See Note 5 - reference WIS DOT Standard Specification for HIGHWAY and STRUCTURE CONSTRUCTION latest edition.
2. Color:
   Background - See note 5
   Message - See note 5
3. Message Series - 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. M4-6 Background - White - Type H Reflective (Detour or temporary Signs - Reflective)
   Message - Black

   MB4-6 Background - Blue
   Message - White - Type H Reflective (Detour or temporary Signs - Reflective)

   MG4-6 Background - Green
   Message - White - Type H Reflective

   MK4-6 Background - Green
   Message - White - Type H Reflective

   MM4-6 Background - White - Type H Reflective
   Message - Green

   MN4-6 Background - Brown
   Message - White - Type H Reflective

   MR4-6 Background - Brown
   Message - Yellow - Type H 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	12	1 1/8	3/8	3/8	6	3	7	7 1/4	1/2	1 1/2																2.00
3	36	18	1 1/8	3/8	1/2	9	4 1/2	12	11 7/8	1/2	1 1/2																4.5
4	36	18	1 1/8	3/8	1/2	9	4 1/2	12	11 7/8	1/2	1 1/2																4.5
5	36	18	1 1/8	3/8	1/2	9	4 1/2	12	11 7/8	1/2	1 1/2																4.5

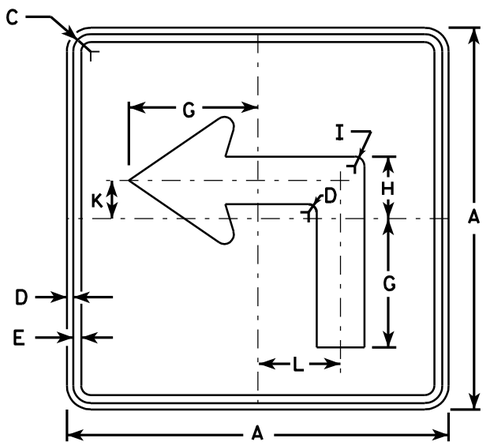
STANDARD SIGN
M4-6

WISCONSIN DEPT OF TRANSPORTATION

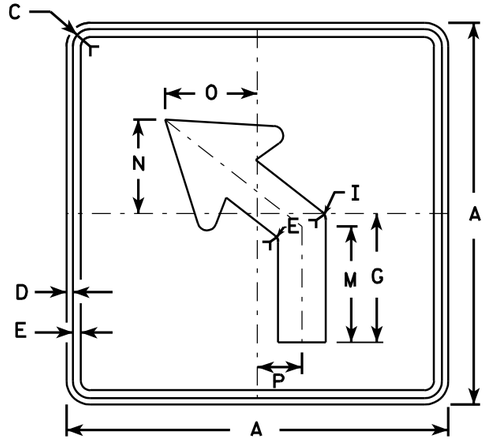
APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 11/10/10 PLATE NO. M4-6.7

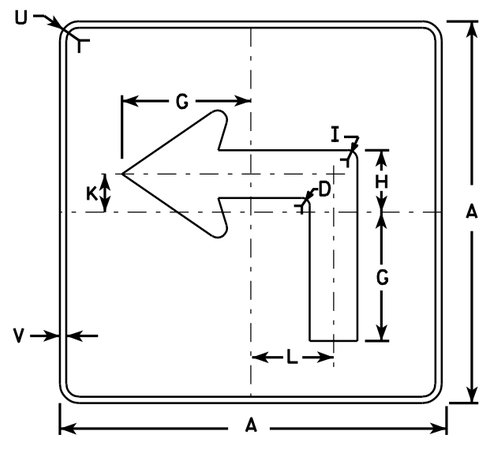
PROJECT NO: | HWY: | COUNTY: | SHEET NO: 369 | E



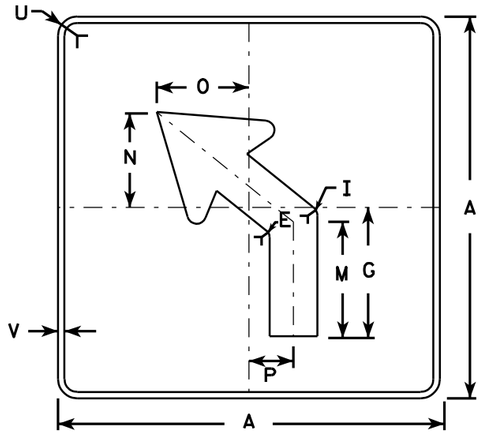
M5-1L
MK5-1L
MM5-1L
MO5-1L
MP5-1L
MR5-1L



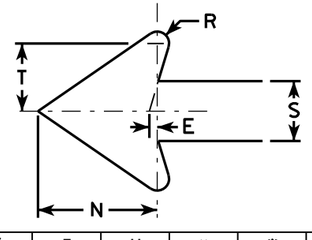
M5-2L
MK5-2L
MM5-2L
MO5-2L
MP5-2L
MR5-2L



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



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



NOTES

1. Signs are Type II - See Note 4 - reference WIS DOT Standard Specification for HIGHWAY and STRUCTURE CONSTRUCTION latest edition.
2. Color:
   Background - See note 4
   Message - See note 4
3. Corners may be square or rounded when base material is plywood but borders shall be rounded as shown. When base material is metal, the corners and borders shall be rounded.
4. M5-1 and M5-2 Background - White - Type H Reflective
   Message - Black
   MB5-1 and MB5-2 Background - Blue
   Message - White - Type H Reflective
   MG5-1 and MG5-2 Background - Green
   Message - White - Type H Reflective
   MK5-1 and MK5-2 Background - Green
   Message - White Type H Reflective
   MM5-1 and MM5-2 Background - White - Type H Reflective
   Message - Green
   MN5-1 and MN5-2 Background - Brown
   Message - White - Type H Reflective
   MO5-1 and MO5-2 Background - Orange - Type F Reflective
   Message - Black
   MP5-1 and MP5-2 Background - White - Type H Reflective
   Message - Blue
   MR5-1 and MR5-2 Background - Brown
   Message - Yellow - Type H Reflective
5. M5-1R same as M5-1L except arrow points right.
6. M5-2R same as M5-2L except arrow tilts right.

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

STANDARD SIGN
M5-1 & M5-2

WISCONSIN DEPT OF TRANSPORTATION

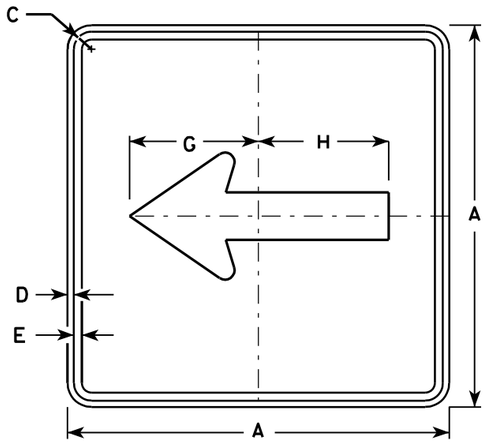
APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 7/29/13 PLATE NO. M5-1.12

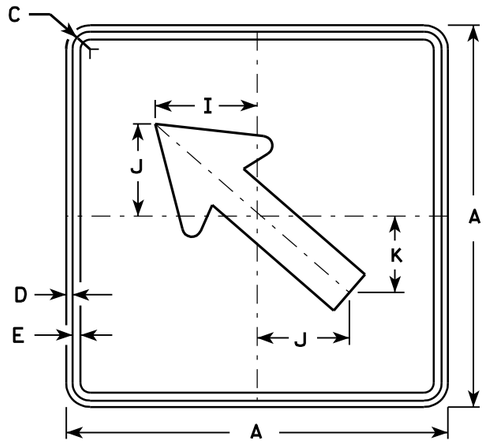
PROJECT NO: | HWY: | COUNTY: | SHEET NO: 370 | E

7

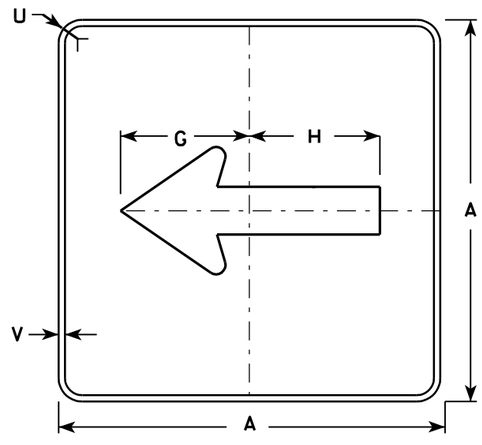
FILE NAME : C:\CAEFiles\Projects\tr_stdplate\M51.DGN PLOT DATE : 29-JUL-2013 13:34 PLOT BY : mscj9h PLOT NAME : PLOT SCALE : 11.908552:1.000000



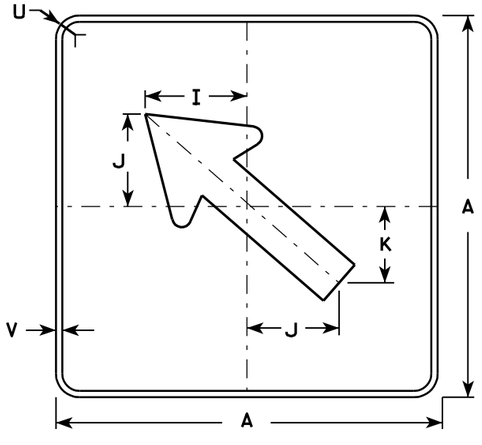
M6-1
MK6-1
MM6-1
MO6-1
MP6-1
MR6-1



M6-2
MK6-2
MM6-2
MO6-2
MP6-2
MR6-2



MB6-1
MG6-1
MN6-1



MB6-2
MG6-2
MN6-2

NOTES

1. Signs are Type II - See Note 4 - reference WIS DOT Standard Specification for HIGHWAY and STRUCTURE CONSTRUCTION latest edition.
2. Color:
   Background - See note 4
   Message - See note 4
3. Corners may be square or rounded when base material is plywood but borders shall be rounded as shown. When base material is metal, the corners and borders shall be rounded.
4. M6-1 and M6-2 Background - White - Type H Reflective
   Message - Black

   MB6-1 and MB6-2 Background - Blue
   Message - White - Type H Reflective

   MG6-1 and MG6-2 Background - Green
   Message - White - Type H Reflective

   MK6-1 and MK6-2 Background - Green
   Message - White - Type H Reflective

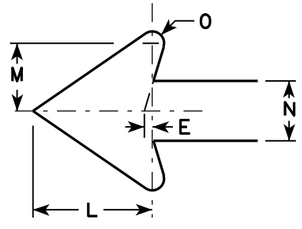
   MM6-1 and MM6-2 Background - White - Type H Reflective
   Message - Green

   MN6-1 and MN6-2 Background - Brown
   Message - White - Type H Reflective

   MO6-1 and MO6-2 Background - Orange - Type F Reflective
   Message - Black

   MP6-1 and MP6-2 Background - White - Type H Reflective
   Message - Blue

   MR6-1 and MR6-2 Background - Brown
   Message - Yellow - Type H 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	21		1 1/8	3/8	3/8		7 1/2	7 1/8	5 5/8	5	4 1/4	5 1/4	3	2 5/8	1/2						1 1/2	1/2						3.06
3	30		1 3/8	1/2	5/8		10 3/4	10 1/4	8	7 1/4	6	7 1/2	4 1/4	3 3/4	3/4						1 7/8	1/2						6.25
4	30		1 3/8	1/2	5/8		10 3/4	10 1/4	8	7 1/4	6	7 1/2	4 1/4	3 3/4	3/4						1 7/8	1/2						6.25
5	30		1 3/8	1/2	5/8		10 3/4	10 1/4	8	7 1/4	6	7 1/2	4 1/4	3 3/4	3/4						1 7/8	1/2						6.25

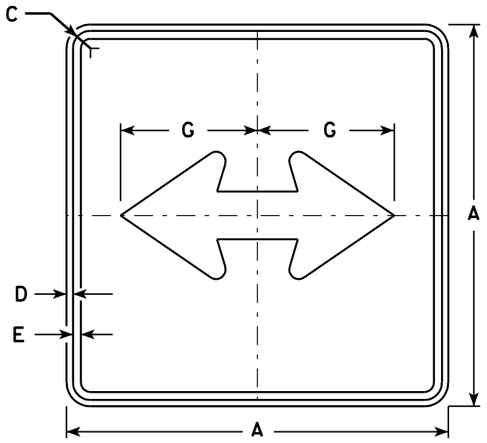
STANDARD SIGN M6-1 & M6-2 SERIES

WISCONSIN DEPT OF TRANSPORTATION

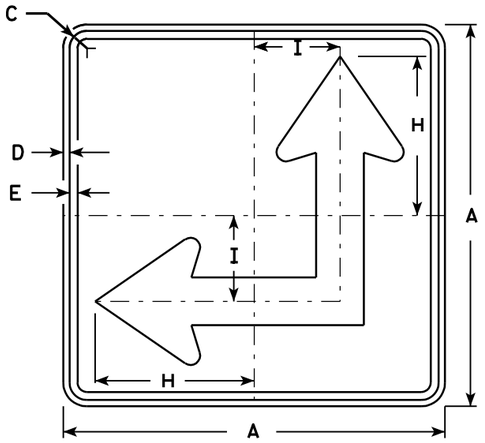
APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 7/29/13 PLATE NO. M6-1.13

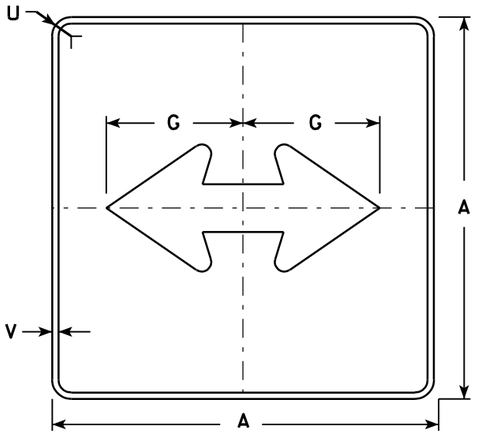
PROJECT NO:	HWY:	COUNTY:		SHEET NO: 371	E



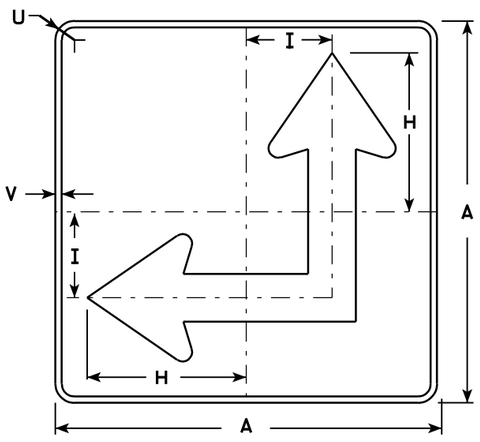
M6-4
MK6-4
MM6-4
MO6-4
MP6-4
MR6-4



M6-6
MK6-6
MM6-6
MO6-6
MP6-6
MR6-6



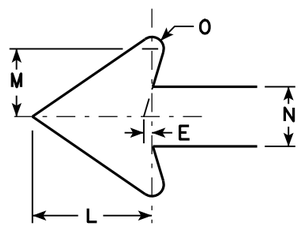
MB6-4
MG6-4
MN6-4



MB6-6
MG6-6
MN6-6

NOTES

1. Signs are Type II - See Note 4 - reference WIS DOT Standard Specification for HIGHWAY and STRUCTURE CONSTRUCTION latest edition.
2. Color:
   Background - See Note 4
   Message - See Note 4
3. Corners may be square or rounded when base material is plywood but borders shall be rounded as shown. When base material is metal, the corners and borders shall be rounded.
4. M6-4 and M6-6 Background - White - Type H Reflective
   Message - Black
   MB6-4 and MB6-6 Background - Blue
   Message - White - Type H Reflective
   MG6-4 and MG6-6 Background - Green
   Message - White - Type H Reflective
   MK6-4 and MK6-6 Background - Green
   Message - White - Type H Reflective
   MM6-4 and MM6-6 Background - White - Type H Reflective
   Message - Green
   MN6-4 and MN6-6 Background - Brown
   Message - White - Type H Reflective
   MO6-4 and MO6-6 Background - Orange - Type F Reflective
   Message - Black
   MP6-4 and MP6-6 Background - White - Type H Reflective
   Message - Blue
   MR6-4 and MR6-6 Background - Brown
   Message - Yellow - Type H Reflective
5. M6-6R same as M6-6L except arrow points ahead and right.



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

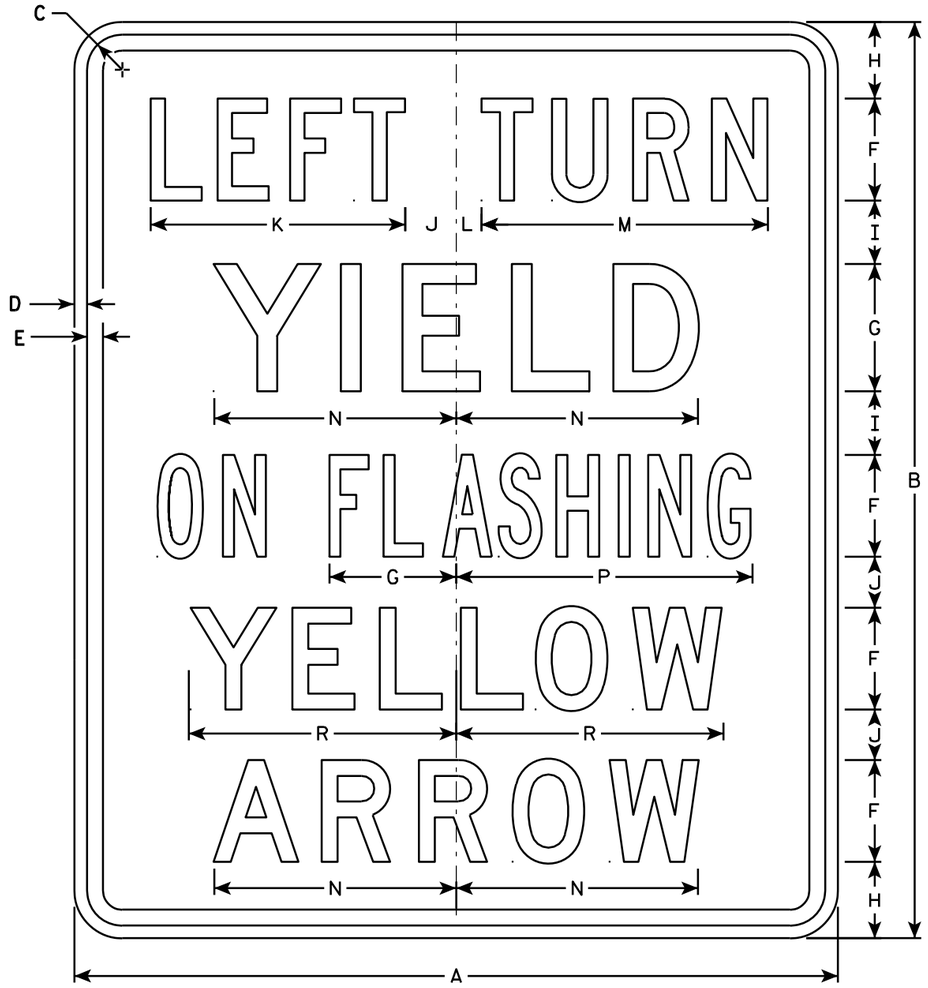
STANDARD SIGN M6-4 & M6-6 SERIES

WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch for State Traffic Engineer

DATE 7/29/13 PLATE NO. M6-4.8

PROJECT NO: | HWY: | COUNTY: | SHEET NO: 372 | E

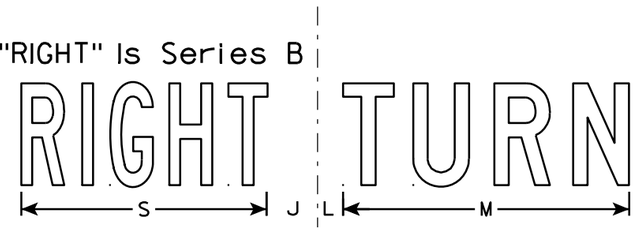


R10-50L

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 - see note 5
4. Corners may be square or rounded when base material is plywood but borders shall be rounded as shown. When base material is metal, the corners and borders shall be rounded.
5. Line 1 is Series C.
   Lines 2, 4 and 5 are Series D.
   Line 3 is Series B.

"RIGHT" Is Series B



R10-50R

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	36	1 3/8	1/2	5/8	4	5	3	2 1/2	2	10	1	11 1/4	9 1/2	4 1/4	11 5/8		10 1/2	9 5/8								7.5
2M	30	36	1 3/8	1/2	5/8	4	5	3	2 1/2	2	10	1	11 1/4	9 1/2	4 1/4	11 5/8		10 1/2	9 5/8								7.5
3																											
4																											
5																											

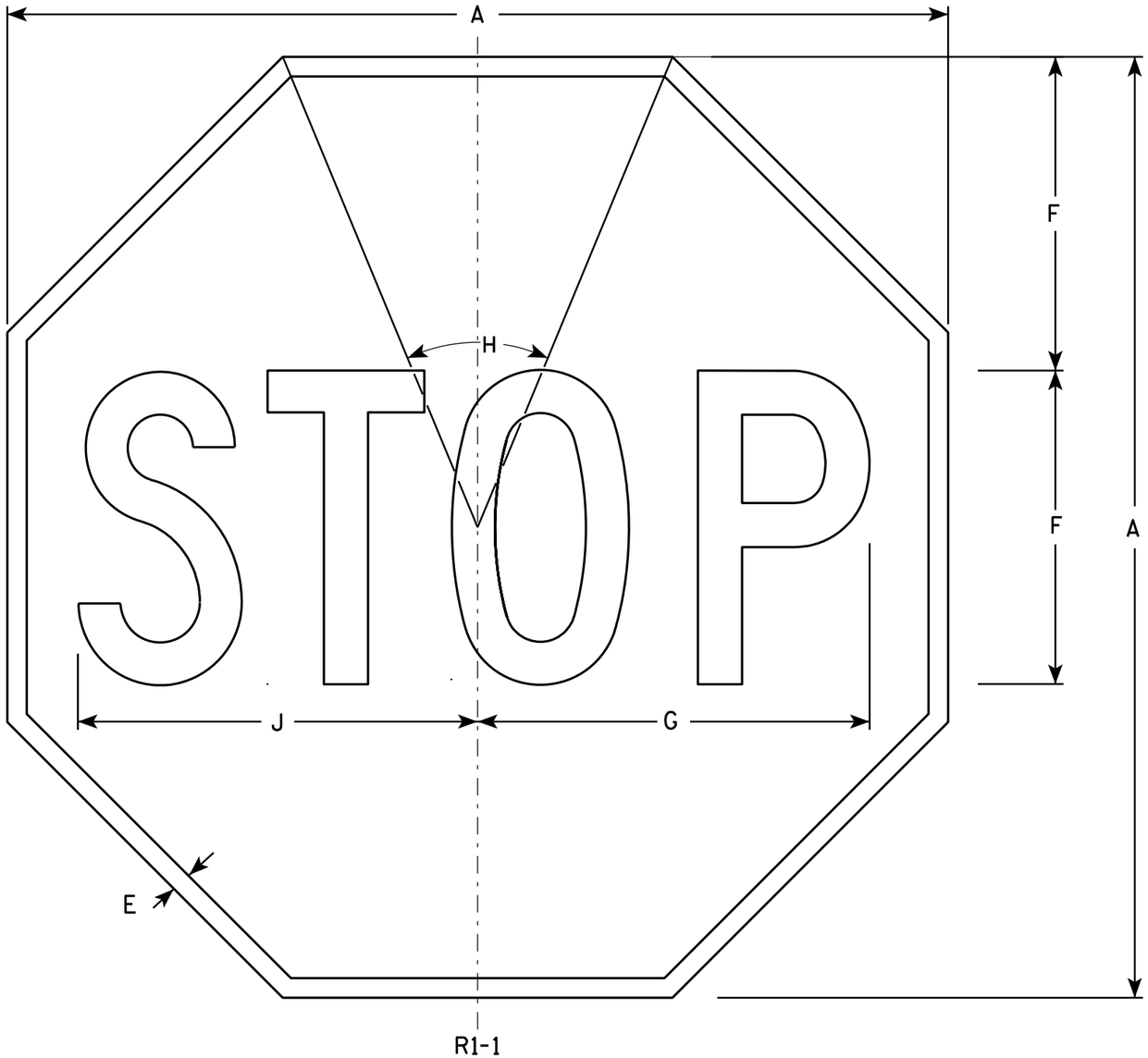
STANDARD SIGN
R10-50

WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 4/11/13 PLATE NO. R10-50.2

PROJECT NO:	HWY:	COUNTY:		SHEET NO: 373	E



NOTES

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

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

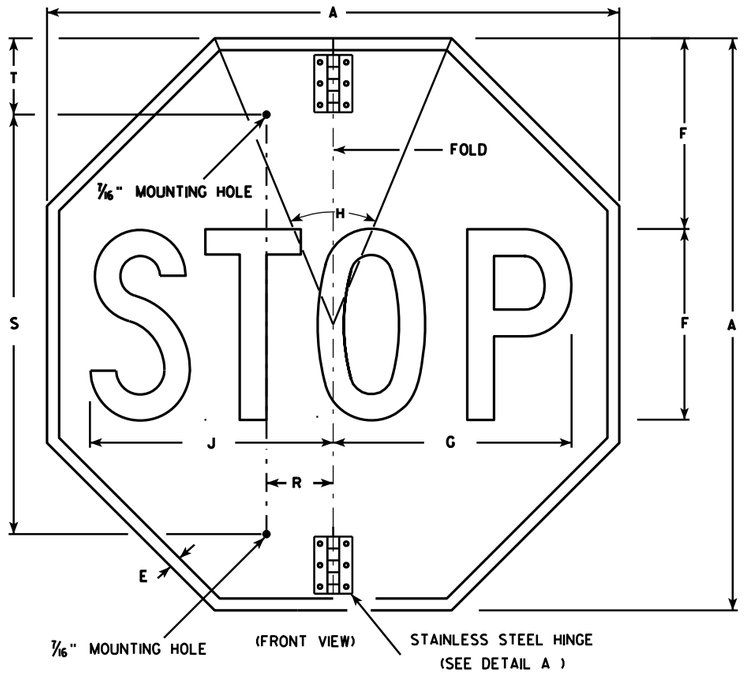
STANDARD SIGN
R1-1

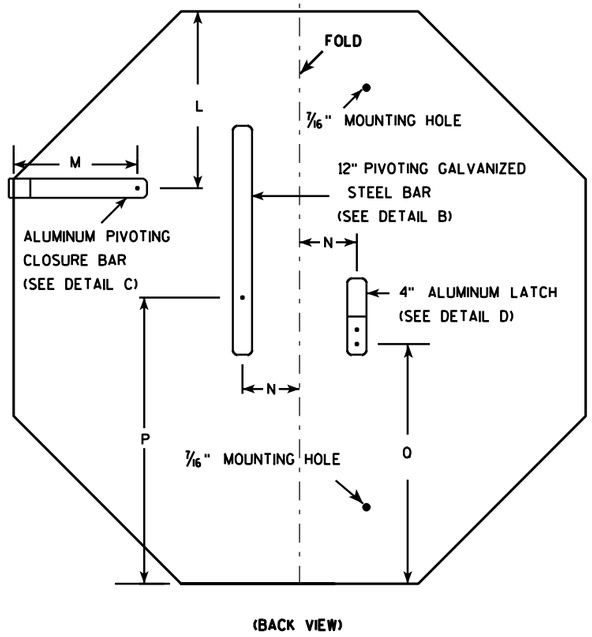
WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

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

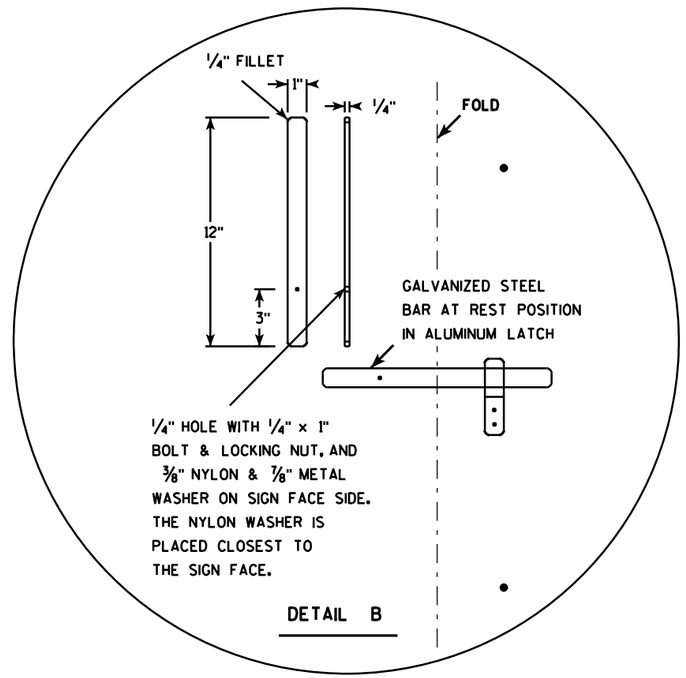
PROJECT NO:	HWY:	COUNTY:		SHEET NO: 374	E

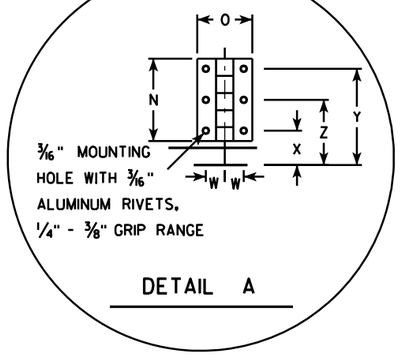


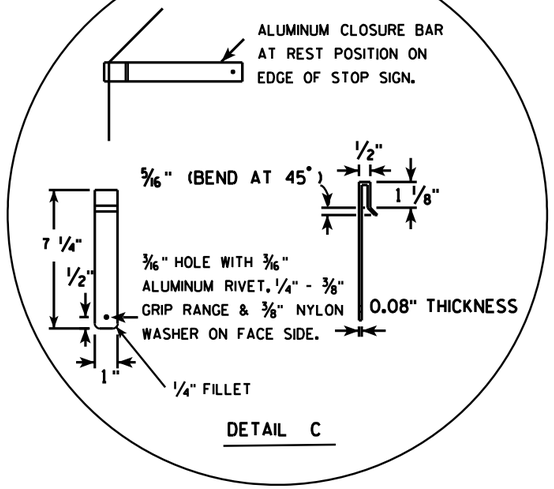


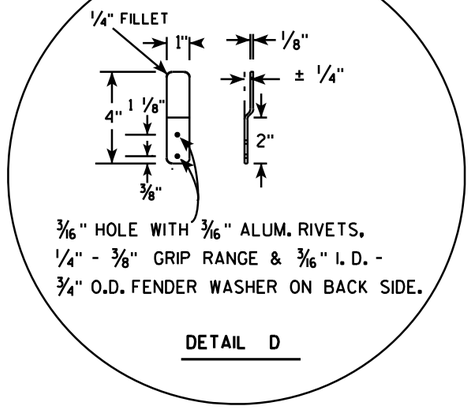
NOTES

1. Sign is Type II - Type H Reflective - reference WIS DOT Standard Specification for HIGHWAY and STRUCTURE CONSTRUCTION latest edition.
2. Color:
   Background - Red
   Message - White
3. Message Series - C
4. All hardware used on the folding STOP sign installation shall conform to 637.2.4 of the WIS DOT Standard Specification.









SIZE	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	O	R	S	T	U	V	W	X	Y	Z	Area sq. ft.
1																											
2S	30				5/8	10	12 1/2	45		12 3/4		9 1/4	6 1/2	3	2	15	12 3/8	2 1/2	22	5			11/16	1 1/4	3 1/2	2 3/8	5.18
2M	36				3/4	12	15	45		15 3/8		11	6 1/2	3	2	18	15 3/8	2 1/2	26	5			11/16	1 1/4	3 1/2	2 3/8	7.46
3	36				3/4	12	15	45		15 3/8		11	6 1/2	3	2	18	15 3/8	2 1/2	26	5			11/16	1 1/4	3 1/2	2 3/8	7.46
4																											
5																											

STANDARD SIGN
R1-1F

WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 12/03/10 PLATE NO. R1-1F.3

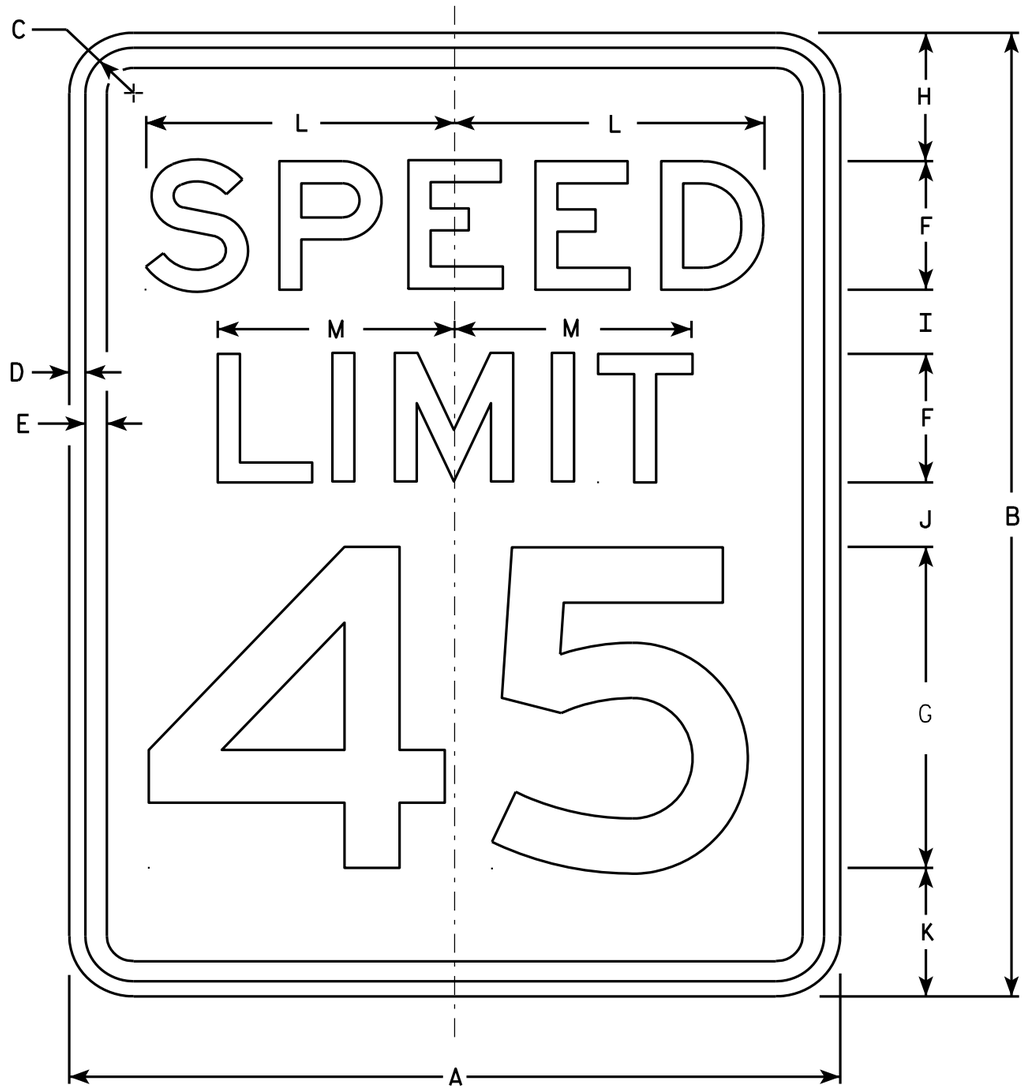
PROJECT NO:	HWY:	COUNTY:		SHEET NO: 375	E

FILE NAME : C:\Users\PROJECTS\tr_stdplate\R11F.DGN PLOT DATE : 02-DEC-2010 15:26 PLOT BY : dotsja PLOT NAME : PLOT SCALE : 7.945391:1.000000

WISDOT/CADDS SHEET 42

7

7



R2-1

NOTES

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

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

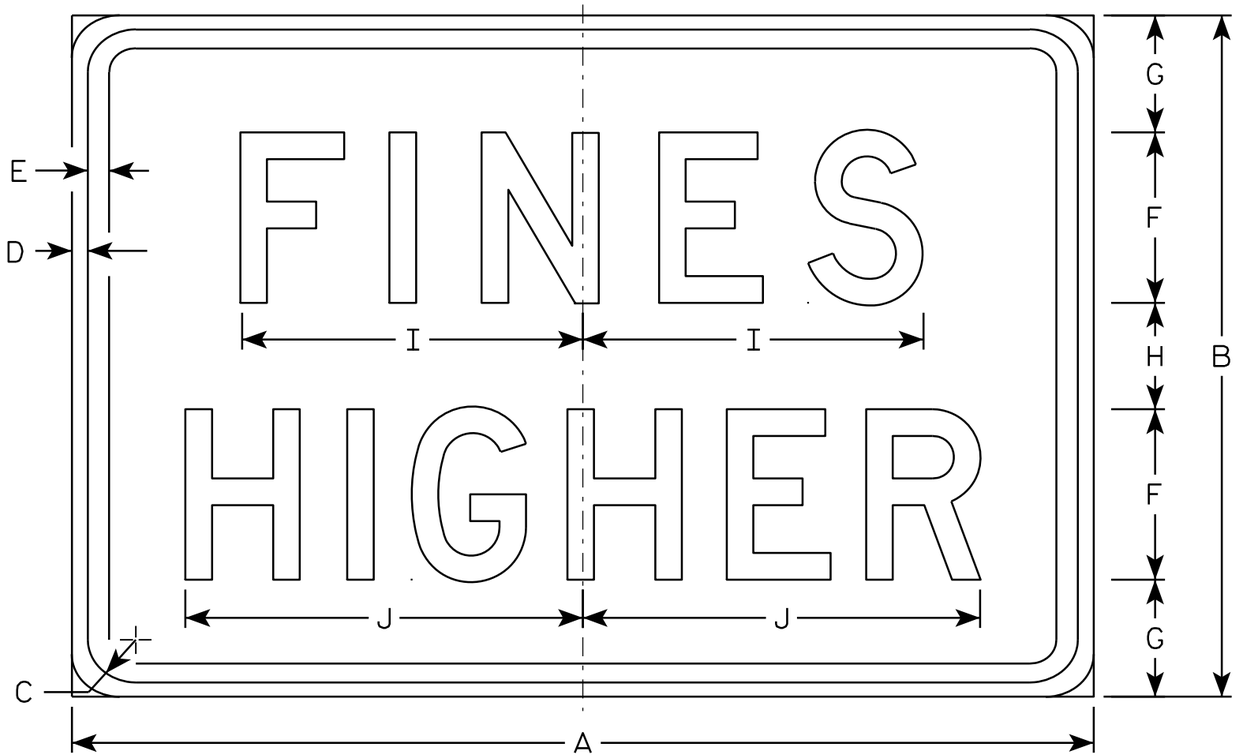
STANDARD SIGN
R2-1

WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 5/26/10 PLATE NO. R2-1.13

PROJECT NO:	HWY:	COUNTY:		SHEET NO: 376	E



R2-6P

NOTES

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

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

STANDARD SIGN
R2-6P

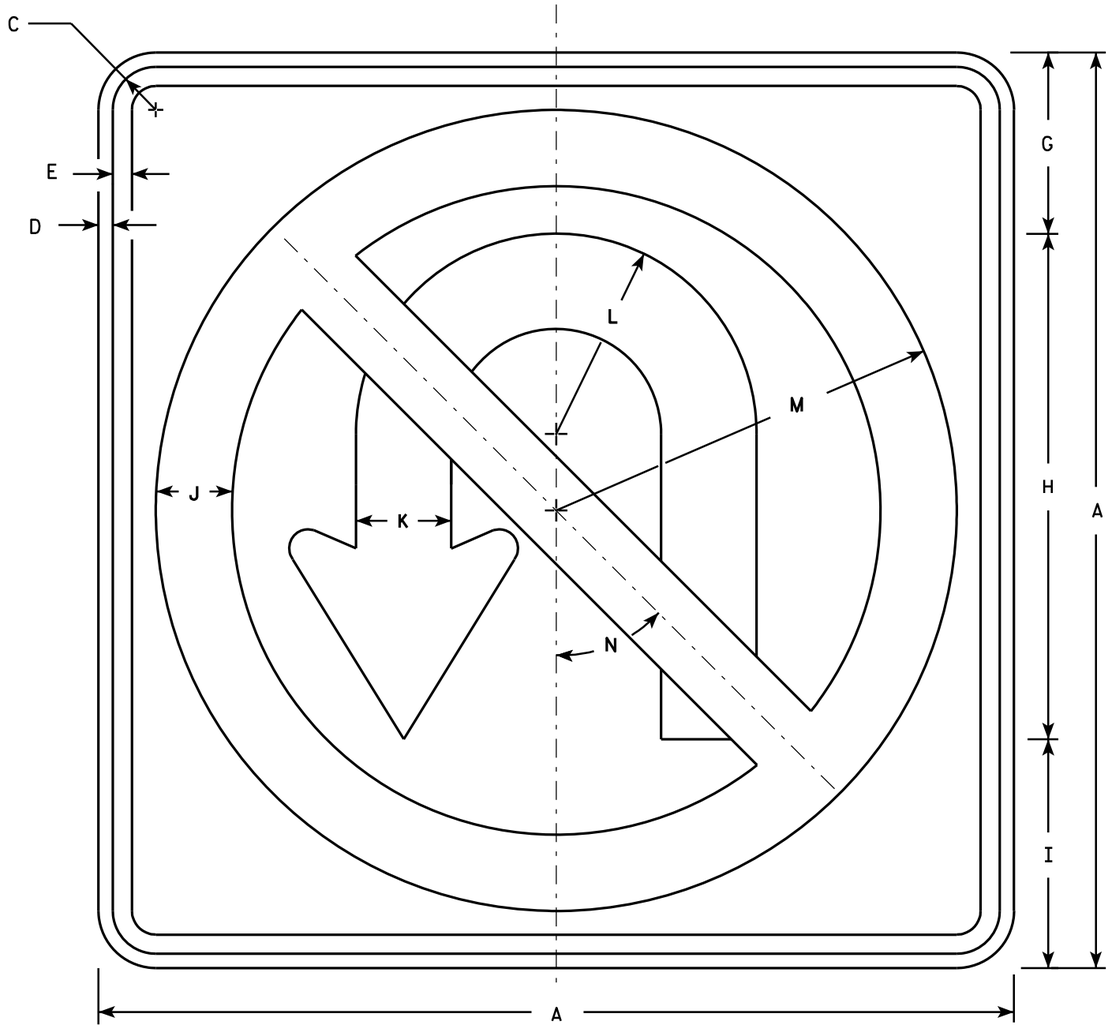
WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

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

PROJECT NO: | HWY: | COUNTY: | SHEET NO: 377 | E

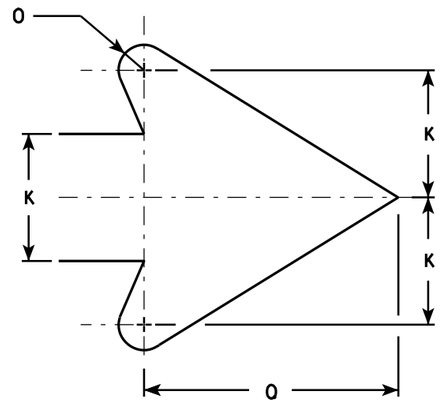
7



R3-4

NOTES

1. Sign is Type II - Type H Reflective - reference WIS DOT Standard Specification for HIGHWAY and STRUCTURE CONSTRUCTION latest edition.
2. Color:
   Background - White
   Message - See note 4
3. Corners may be square or rounded when base material is plywood but borders shall be rounded as shown. When base material is metal, the corners and borders shall be rounded.
4. Border & Arrow are non reflective black, the circle with diagonal bar is reflective red.



ARROW DETAIL

SIZE	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	O	R	S	T	U	V	W	X	Y	Z	Area sq. ft.
1																											
2S	24		1 1/8	3/8	1/2		4 3/4	13 1/4	6	2	2 1/2	5 1/4	10 1/2	45°	1/2		5										4.0
2M	36		1 5/8	5/8	3/4		7 1/8	19 7/8	9	3	3 3/4	7 7/8	15 3/4	45°	3/4		7 5/8										9.0
3	36		1 5/8	5/8	3/4		7 1/8	19 7/8	9	3	3 3/4	7 7/8	15 3/4	45°	3/4		7 5/8										9.0
4	36		1 5/8	5/8	3/4		7 1/8	19 7/8	9	3	3 3/4	7 7/8	15 3/4	45°	3/4		7 5/8										9.0
5	36		1 5/8	5/8	3/4		7 1/8	19 7/8	9	3	3 3/4	7 7/8	15 3/4	45°	3/4		7 5/8										9.0

STANDARD SIGN
R3-4

WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 12/08/10 PLATE NO. R3-4.11

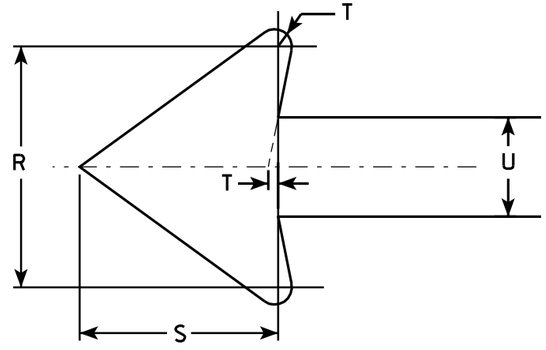
PROJECT NO:	HWY:	COUNTY:		SHEET NO: 378	E



R7-5

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 - Green
3. Message Series - See Note 7
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 as required & adjust spacing to achieve proper balance.
6. R7-5D (double arrow)
   R7-5L (left arrow)
   R7-5R (right arrow)
7. Lines 1, 2 & 3 are series C Copy
   Line 4 Series B Copy.



* - See Note 5

SIZE	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	Area sq. ft.
1	12	18	1 1/8	3/8	3/8	2	2	2 1/4	1 1/4	4	2 1/2	2 1/8	2	2 7/8	4 5/8	4 1/2	3 7/8	1 3/4	1 1/2	1/8	3/4						1.5
2S	18	24	1 1/8	3/8	1/2	3	3	2 5/8	1 1/4	5 5/8	3 1/4	3 1/8	3 1/8	4 1/4	6 7/8	6 3/4	5 7/8	2 5/8	2 1/4	1/4	1 1/8						3.0
2M	24	30	1 1/8	3/8	1/2	4	3	3	2	6	3 1/2	4 1/4	4 1/8	5 3/4	9 1/8	9 1/8	7 3/4	3 1/2	3	1/4	1 1/2						5.0
3	24	30	1 1/8	3/8	1/2	4	3	3	2	6	3 1/2	4 1/4	4 1/8	5 3/4	9 1/8	9 1/8	7 3/4	3 1/2	3	1/4	1 1/2						5.0
4																											
5																											

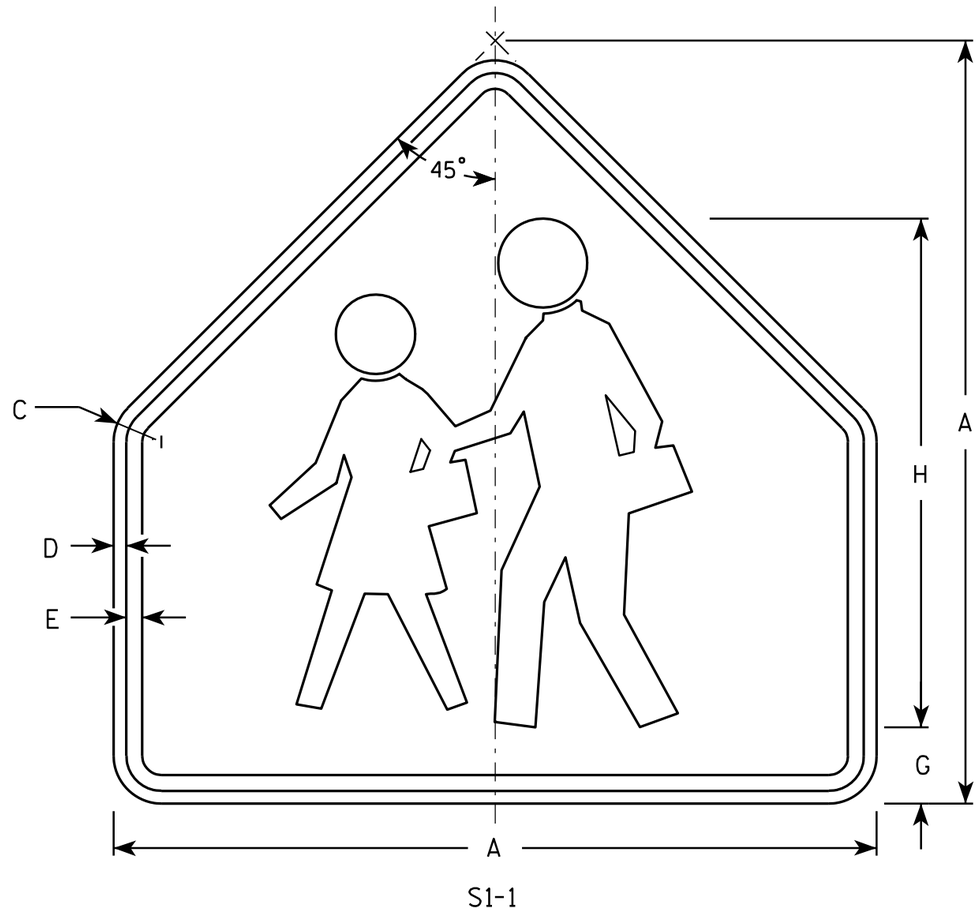
STANDARD SIGN
R7-5

WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 03/31/2011 PLATE NO. R7-5.8

PROJECT NO:	HWY:	COUNTY:		SHEET NO: 379	E



S1-1

NOTES

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

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

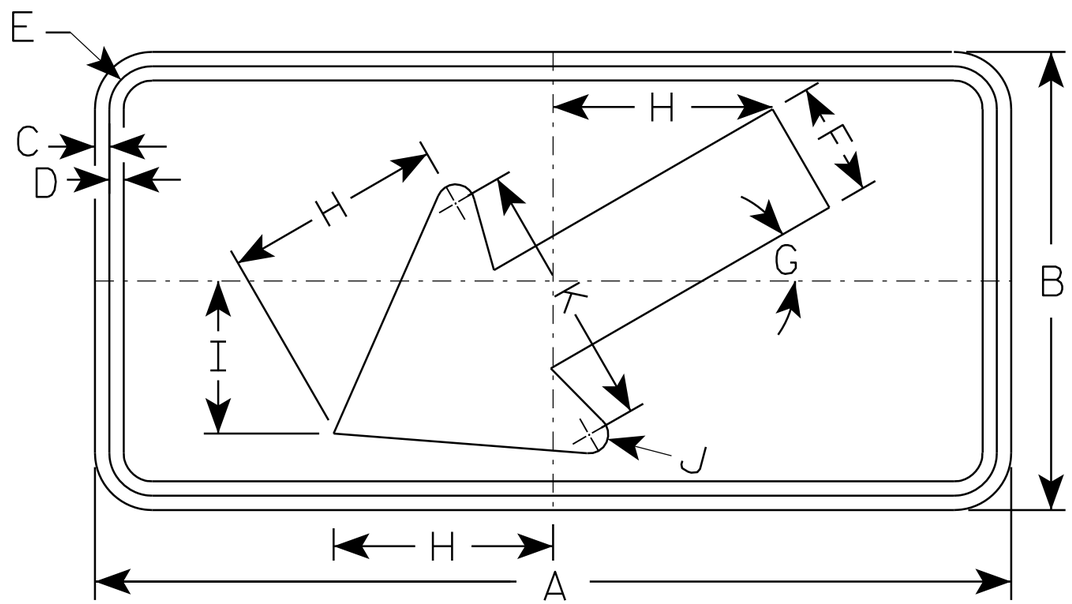
STANDARD SIGN
S1-1

WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 6/30/05 PLATE NO. S1-1.8

PROJECT NO:	HWY:	COUNTY:		SHEET NO: 380	E



S16-7L

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-Green
   Message - Black
3. Corners may be square or rounded when base material is plywood but borders shall be rounded as shown. When base material is metal, the corners and borders shall be rounded.
4. S16-7R are the same as S16-7L except the arrow is reversed along the vertical centerline.

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

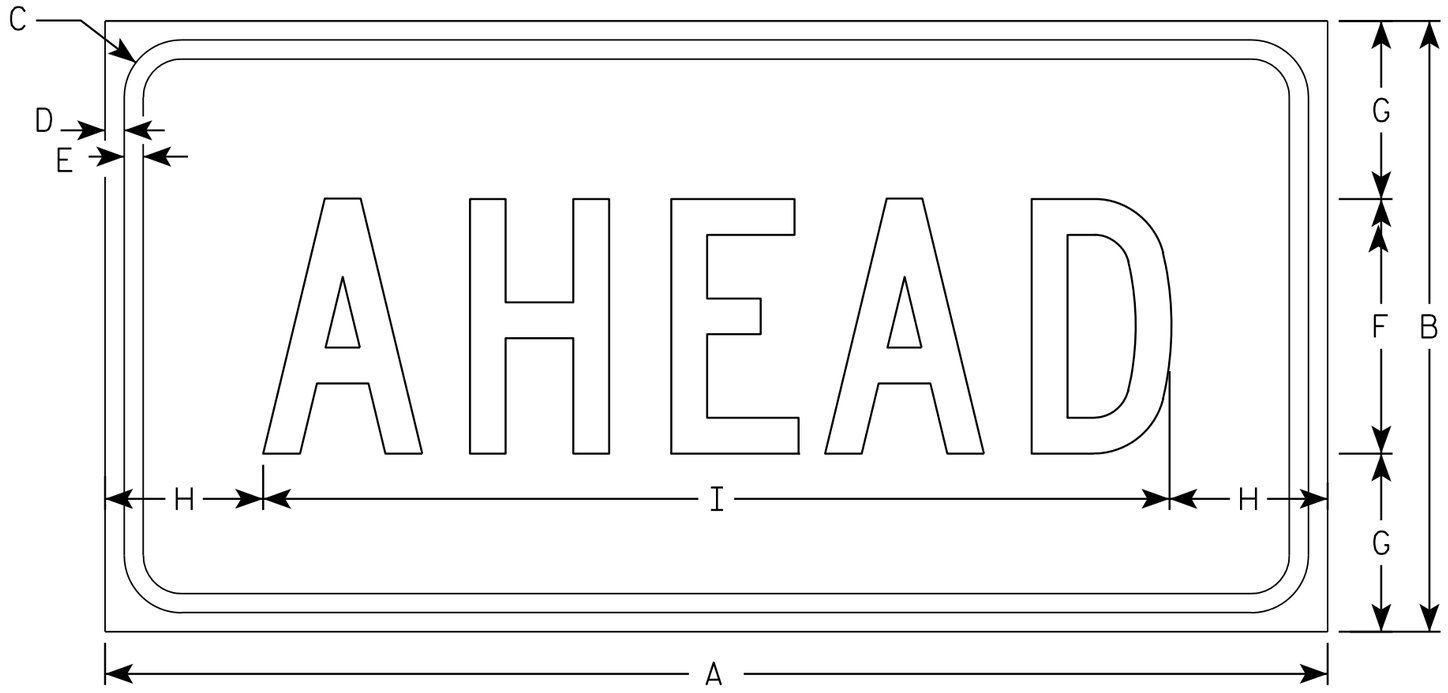
STANDARD SIGN
S16-7

WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 7/22/13 PLATE NO. S16-7.1

PROJECT NO: | HWY: | COUNTY: | SHEET NO: 381 | E



S16-9P

NOTES

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

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

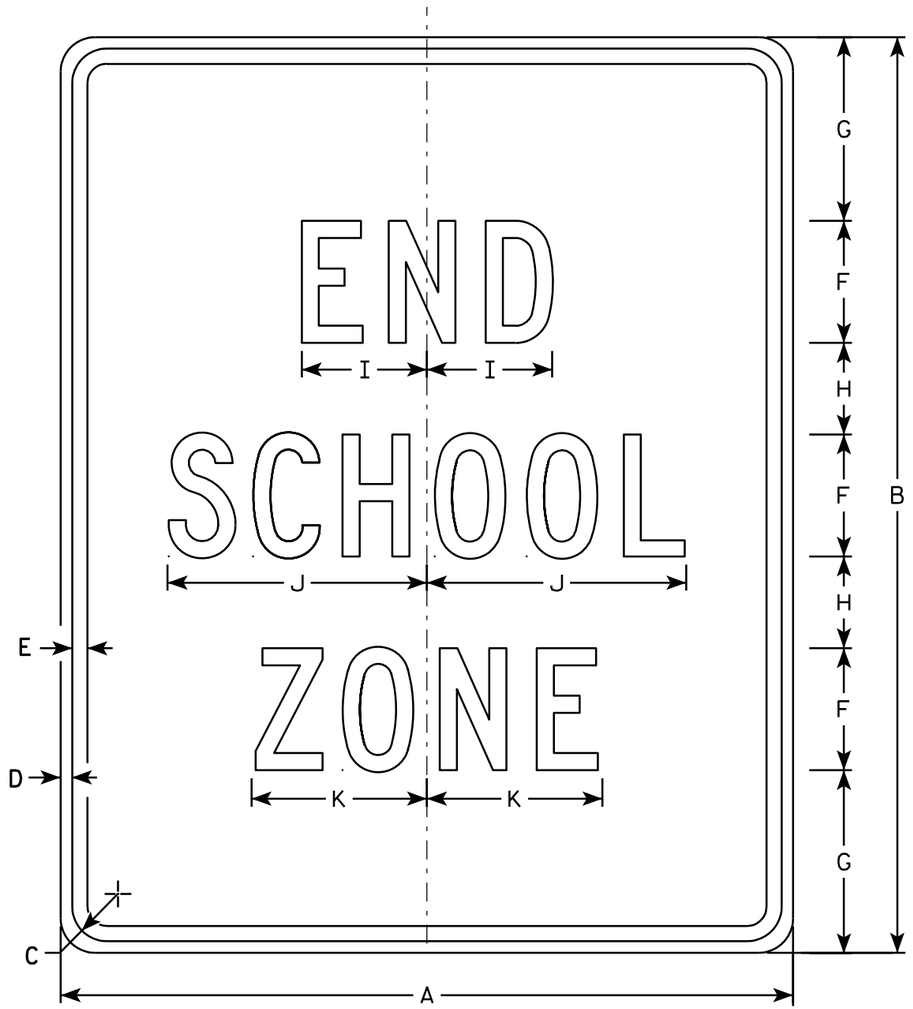
STANDARD SIGN
S16-9P

WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 7/22/13 PLATE NO. S16-9P.1

PROJECT NO: | HWY: | COUNTY: | SHEET NO: 382 | E



S5-2

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 - 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																											
2	24	30	1 1/8	3/8	1/2	4	6	3	4 1/8	8 1/2	5 3/4																5.0
3	36	42	1 5/8	5/8	3/4	6	7	5	6 1/8	12 5/8	8 5/8																10.5
4																											
5																											

STANDARD SIGN
S5-2

WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

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

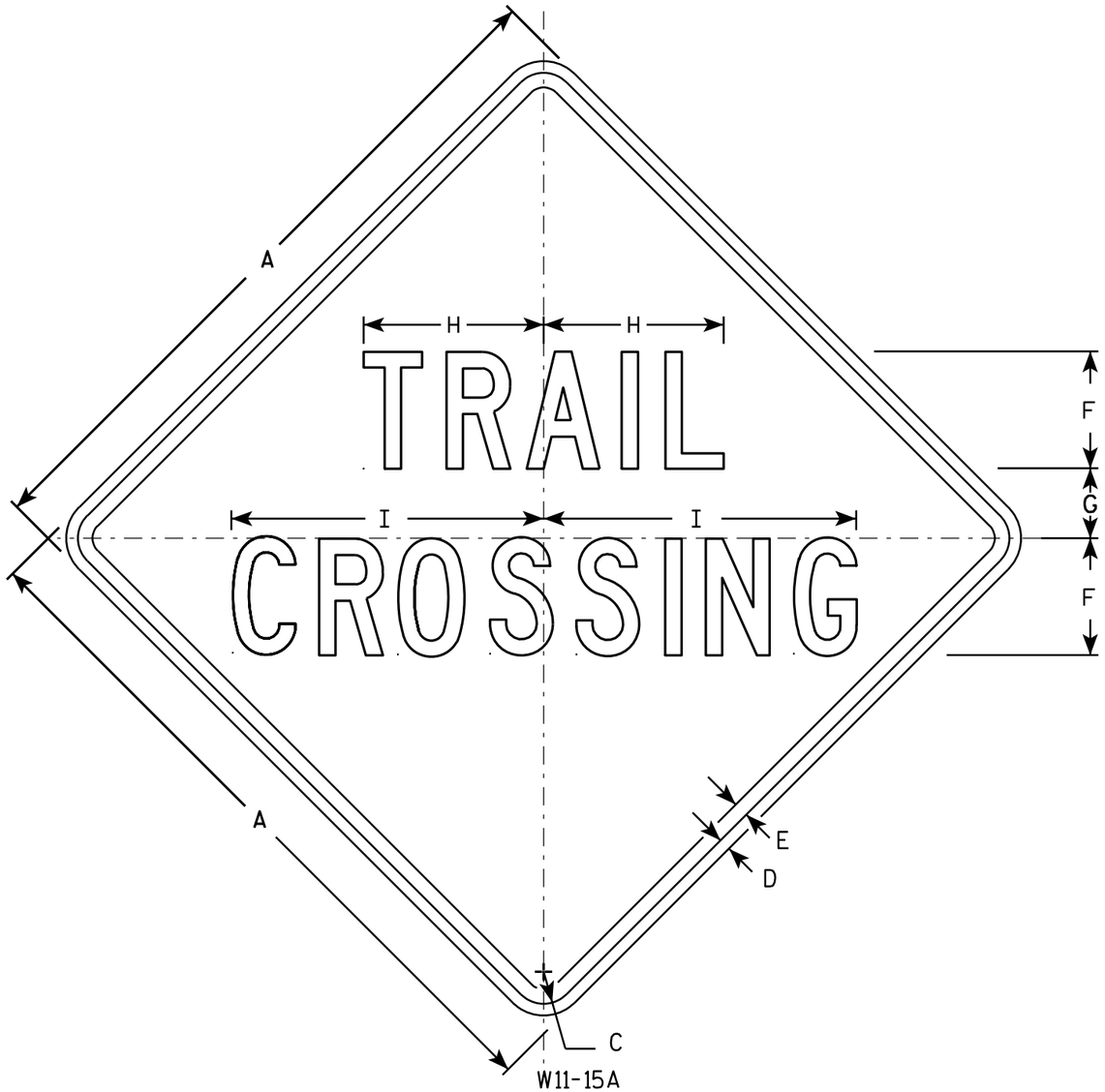
PROJECT NO: | HWY: | COUNTY: | SHEET NO: 383 | E

FILE NAME : C:\Users\PROJECTS\tr_stdplate\S52.DGN PLOT DATE : 08-MAR-2011 08:54 PLOT BY : mscj9h PLOT NAME : PLOT SCALE : 4.965868:1.000000

WISDOT/CADDS SHEET 42

7

7



NOTES

1. Sign is Type II - Type F Reflective - reference WIS DOT Standard Specification for HIGHWAY and STRUCTURE CONSTRUCTION latest edition.
2. Color:
   Background - Yellow
   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	24		1 1/8	3/8	1/2	4	2 3/8	6 1/8	10 3/4																		4.0
2S	30		1 3/8	1/2	5/8	5	3	7 3/4	13 3/8																		6.25
2M	36		1 5/8	5/8	3/4	6	3 1/2	9 1/4	16																		9.0
3	36		1 5/8	5/8	3/4	6	3 1/2	9 1/4	16																		9.0
4	48		2 1/4	3/4	1	8	5	12 7/8	21 1/4																		16.0
5																											

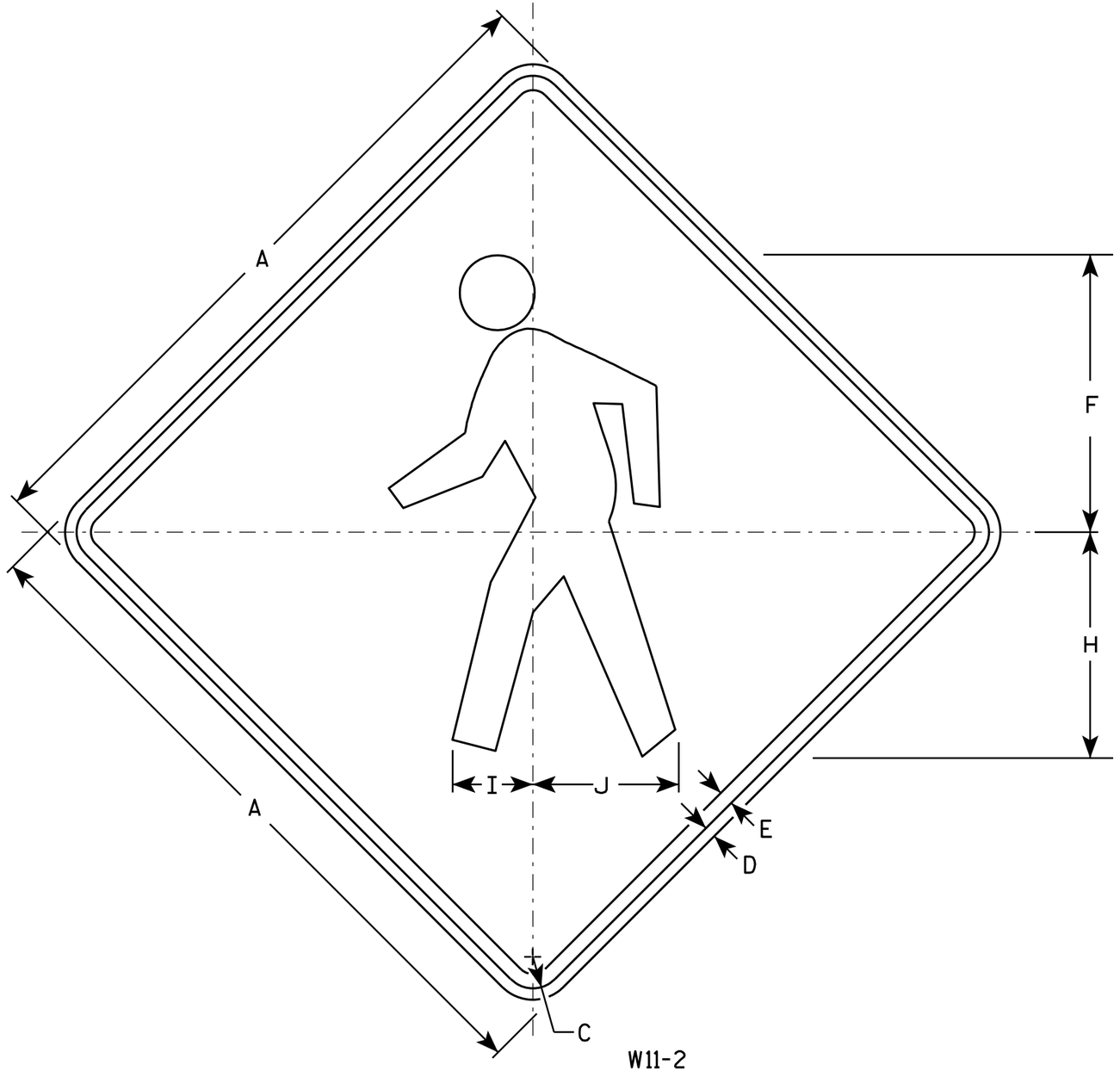
STANDARD SIGN
W11-15A

WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 12/21/10 PLATE NO. W11-15A.1

PROJECT NO:	HWY:	COUNTY:		SHEET NO: 384	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																											

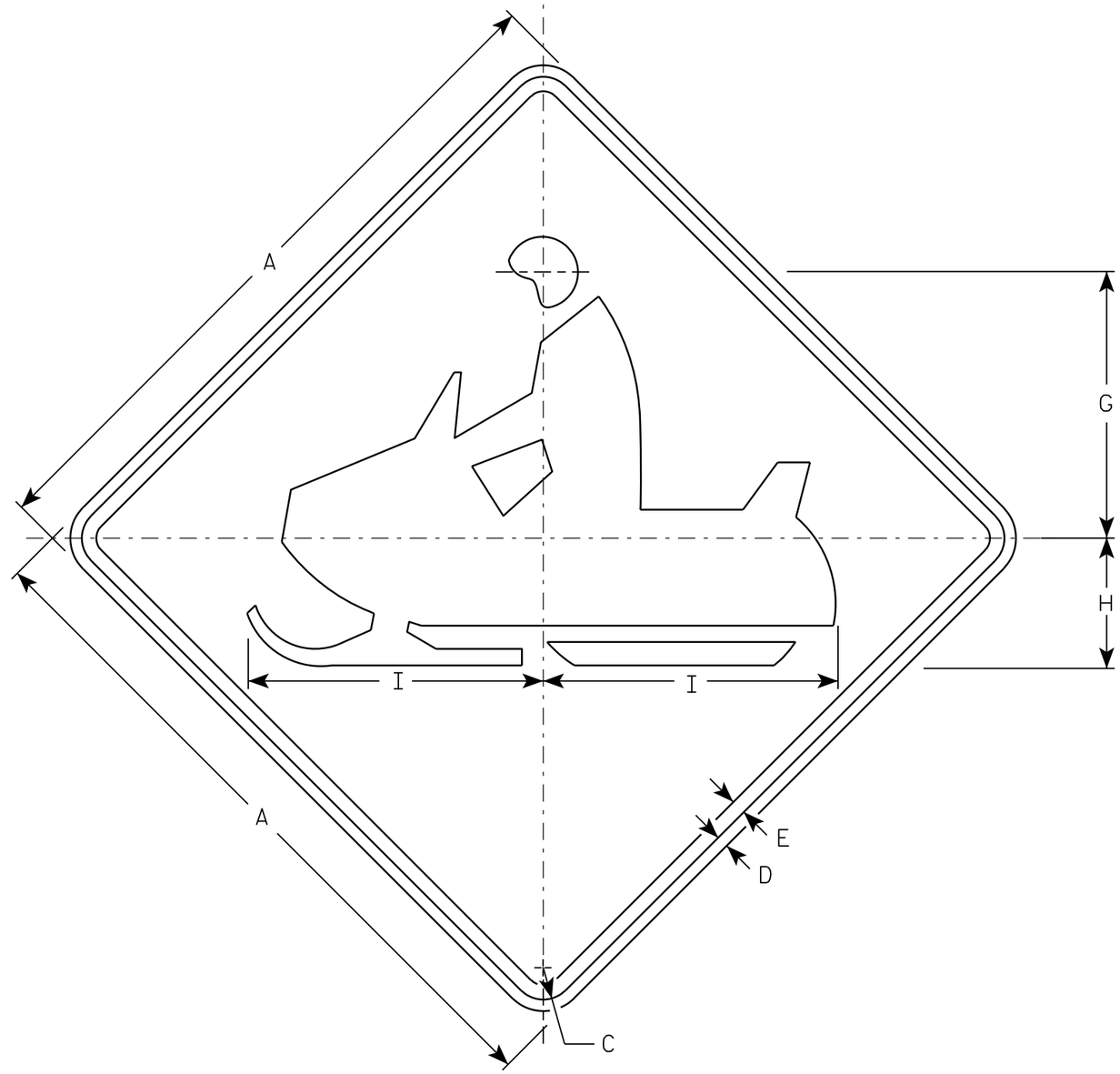
STANDARD SIGN
W11-2

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: 385	E



W11-6

NOTES

1. Sign is Type II - Type F Reflective - reference WIS DOT Standard Specification for HIGHWAY and STRUCTURE CONSTRUCTION latest edition.
2. Color:
   Background - Yellow
   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 1/2	4 1/2	10 1/4																		4.0
2S	30		1 3/8	1/2	5/8		11 1/2	5 5/8	12 3/4																		6.25
2M	30		1 3/8	1/2	5/8		11 1/2	5 5/8	12 3/4																		6.25
3	36		1 5/8	5/8	3/4		14 1/8	6 3/4	15 1/4																		9.0
4	48		2 1/4	3/4	1		19	9	20 1/2																		16.0
5																											

STANDARD SIGN
W11-6

WISCONSIN DEPT OF TRANSPORTATION

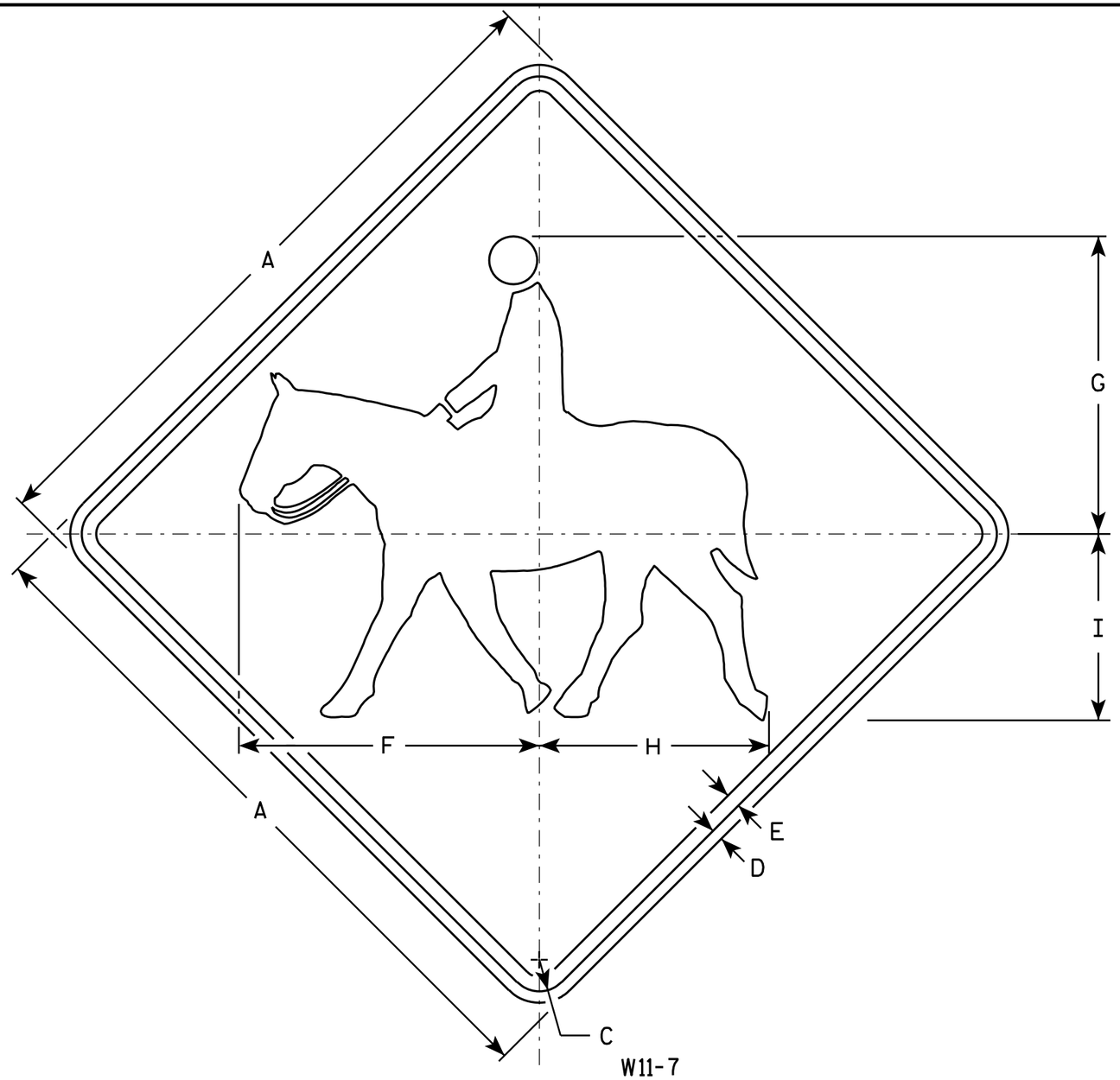
APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 3/13/13 PLATE NO. W11-6.8

PROJECT NO:	HWY:	COUNTY:		SHEET NO: 386	E

FILE NAME : C:\CAEFiles\Projects\tr_stdplate\W116.DGN PLOT DATE : 13-MAR-2013 12:57 PLOT BY : mscj9h PLOT NAME : PLOT SCALE : 5.954276:1.000000

WISDOT/CADDS SHEET 42



W11-7

NOTES

1. Sign is Type II - Type F Reflective - reference WIS DOT Standard Specification for HIGHWAY and STRUCTURE CONSTRUCTION latest edition.
2. Color:
   Background - Yellow
   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	10 1/2	10 5/8	8	6 1/2																		4.0
2S	30		1 3/8	1/2	5/8	13	13	10	8 1/8																		6.25
2M	30		1 3/8	1/2	5/8	13	13	10	8 1/8																		6.25
3	36		1 5/8	5/8	3/4	15 1/2	15 5/8	12	9 3/4																		9.0
4	48		2 1/4	3/4	1	21	21	16	13																		16.0
5																											

STANDARD SIGN
W11-7

WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

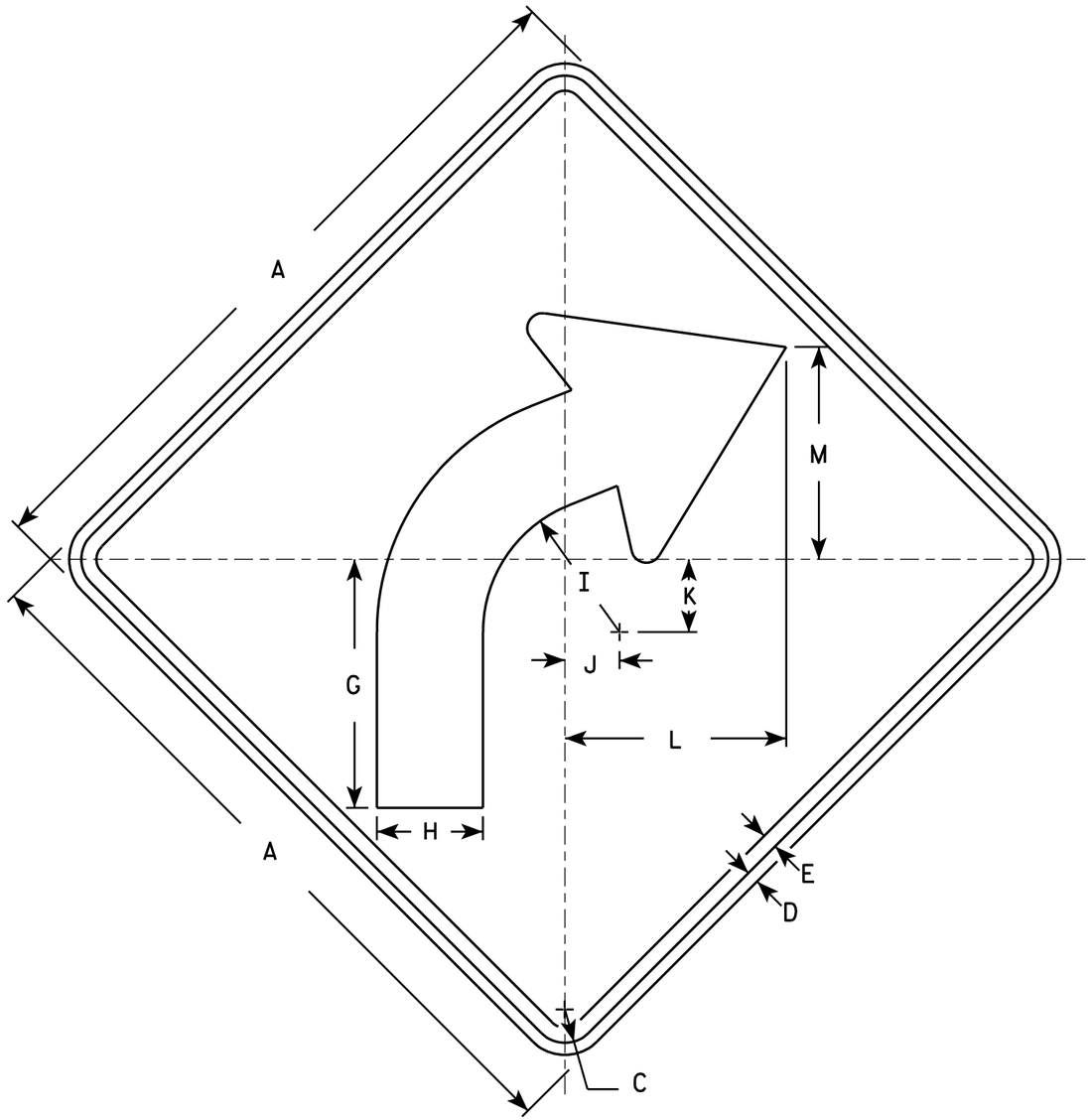
DATE 3/13/13 PLATE NO. W11-7.6

PROJECT NO:	HWY:	COUNTY:		SHEET NO: 387	E

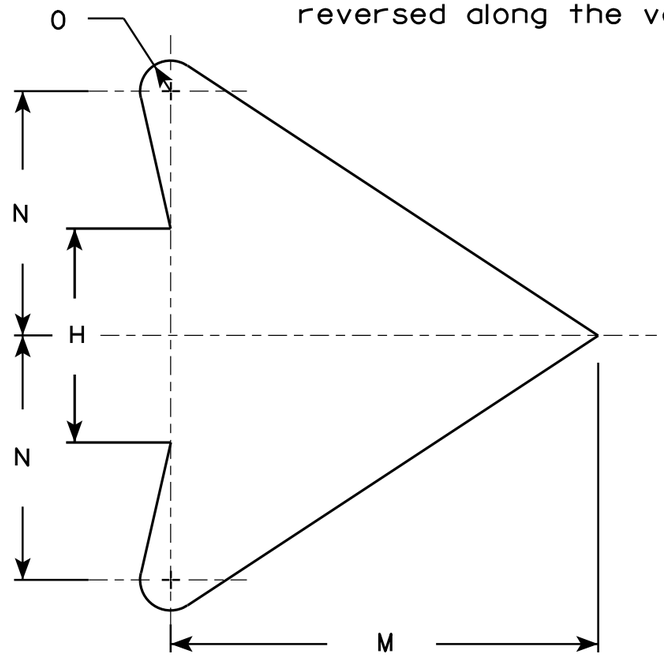
FILE NAME : C:\CAEFiles\Projects\tr_stdplate\W117.DGN PLOT DATE : 13-MAR-2013 12:58 PLOT BY : mscj9h PLOT NAME : PLOT SCALE : 5.706180:1.000000
WISDOT/CADDS SHEET 42

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. W1-2L is the same as W1-2R except the arrow is reversed along the vertical centerline.



W1-2R



ARROW DETAIL

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

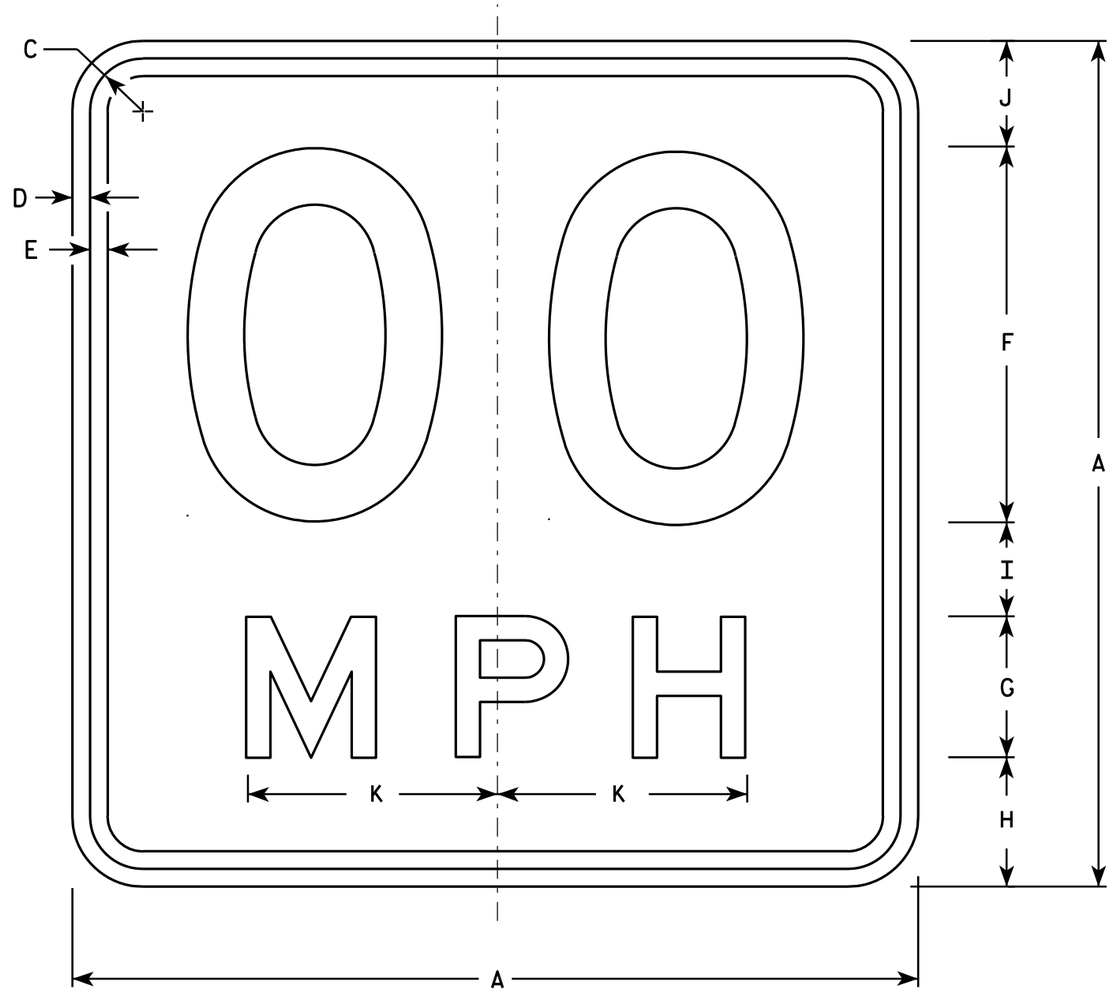
STANDARD SIGN
W1-2

WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 5/15/12 PLATE NO. W1-2.10

PROJECT NO:	HWY:	COUNTY:		SHEET NO: 388	E



W13-1

* For 30" x 30" Warning Signs, use 18" x 18" W13-1 signs.
For 36" x 36" Warning Signs, use 24" x 24" W13-1 signs.

NOTES

1. Sign is Type II - Type F Reflective - reference WIS DOT Standard Specification for HIGHWAY and STRUCTURE CONSTRUCTION latest edition.
2. Color:
   Background - Yellow
   Message - Black
3. Message Series - See Note 6
4. Corners may be square or rounded when base material is plywood but borders shall be rounded as shown. When base material is metal, the corners and borders shall be rounded.
5. Substitute appropriate numerals and optically space about centerline to achieve proper balance.
6. Line 1 is Series D
   Line 2 is Series E

	SIZE	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	Area sq. ft.
	1	18		1 1/8	3/8	3/8	8	3	2 3/4	2	2 1/4	5 3/8																2.25
*	2S	18		1 1/8	3/8	3/8	8	3	2 3/4	2	2 1/4	5 3/8																2.25
*	2M	18		1 1/8	3/8	3/8	8	3	2 3/4	2	2 1/4	5 3/8																2.25
	3	24		1 1/8	3/8	1/2	10	4	4	2 3/4	3 1/4	6 5/8																4.00
	4	36		1 5/8	5/8	3/4	16	6	5 1/2	4	4 1/2	10 5/8																9.00
	5	36		1 5/8	5/8	3/4	16	6	5 1/2	4	4 1/2	10 5/8																9.00

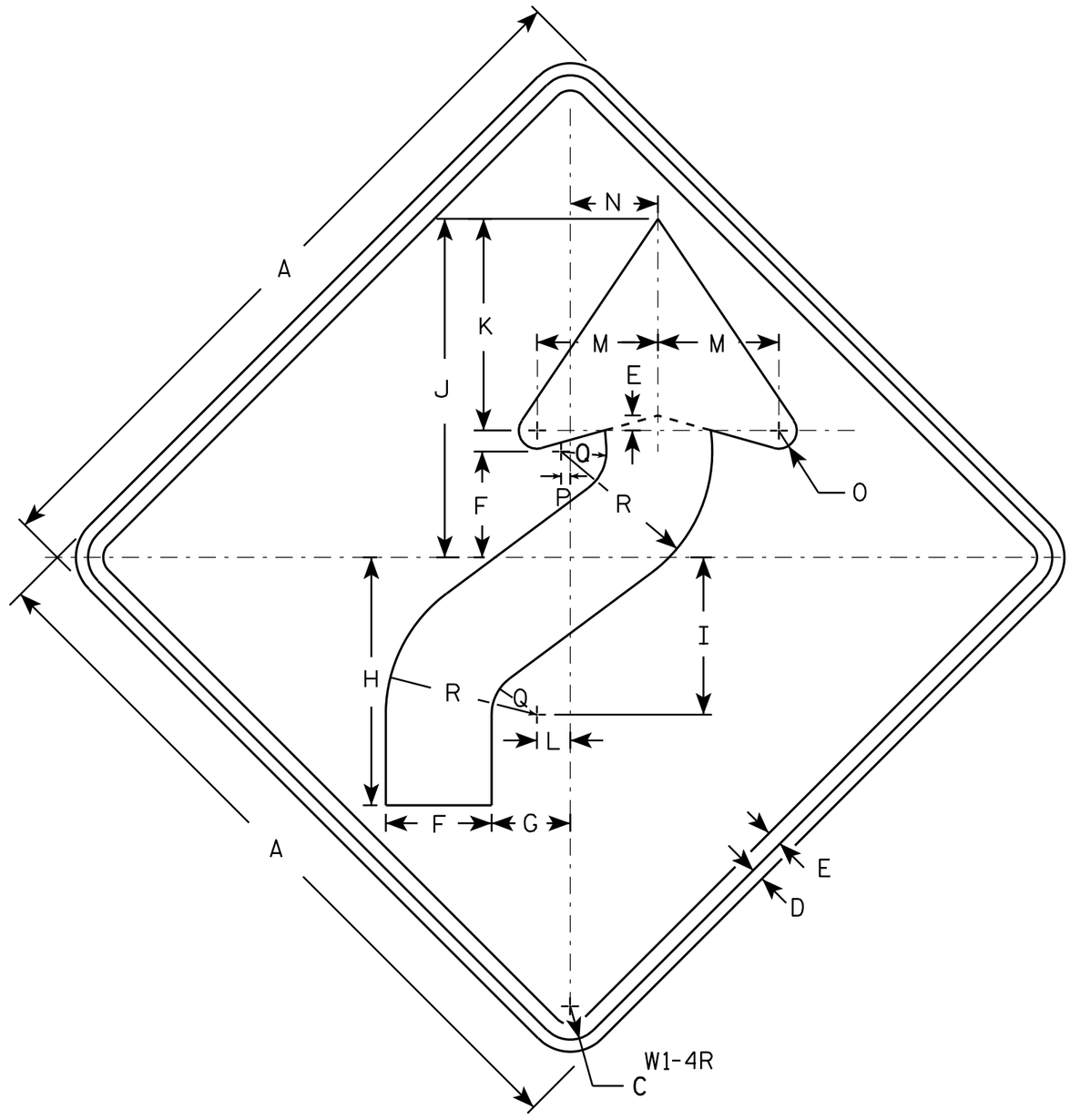
STANDARD SIGN
W13-1

WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
For State Traffic Engineer

DATE 5/31/12 PLATE NO. W13-1.16

PROJECT NO: | HWY: | COUNTY: | SHEET NO: 389 | 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.
4. W1-4L is the same as W1-4R 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	24		1 1/8	3/8	1/2	3 1/2	2 5/8	8 1/4	5 1/4	11 1/4	7	1 1/8	4	3	5/8	1/4	1 1/2	5									4.0
2S	30		1 3/8	1/2	5/8	4 3/8	3 1/4	10 1/4	6 1/2	14	8 3/4	1 3/8	5	3 5/8	3/4	3/8	1 7/8	6 1/4									6.25
2M	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
3	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
4	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
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

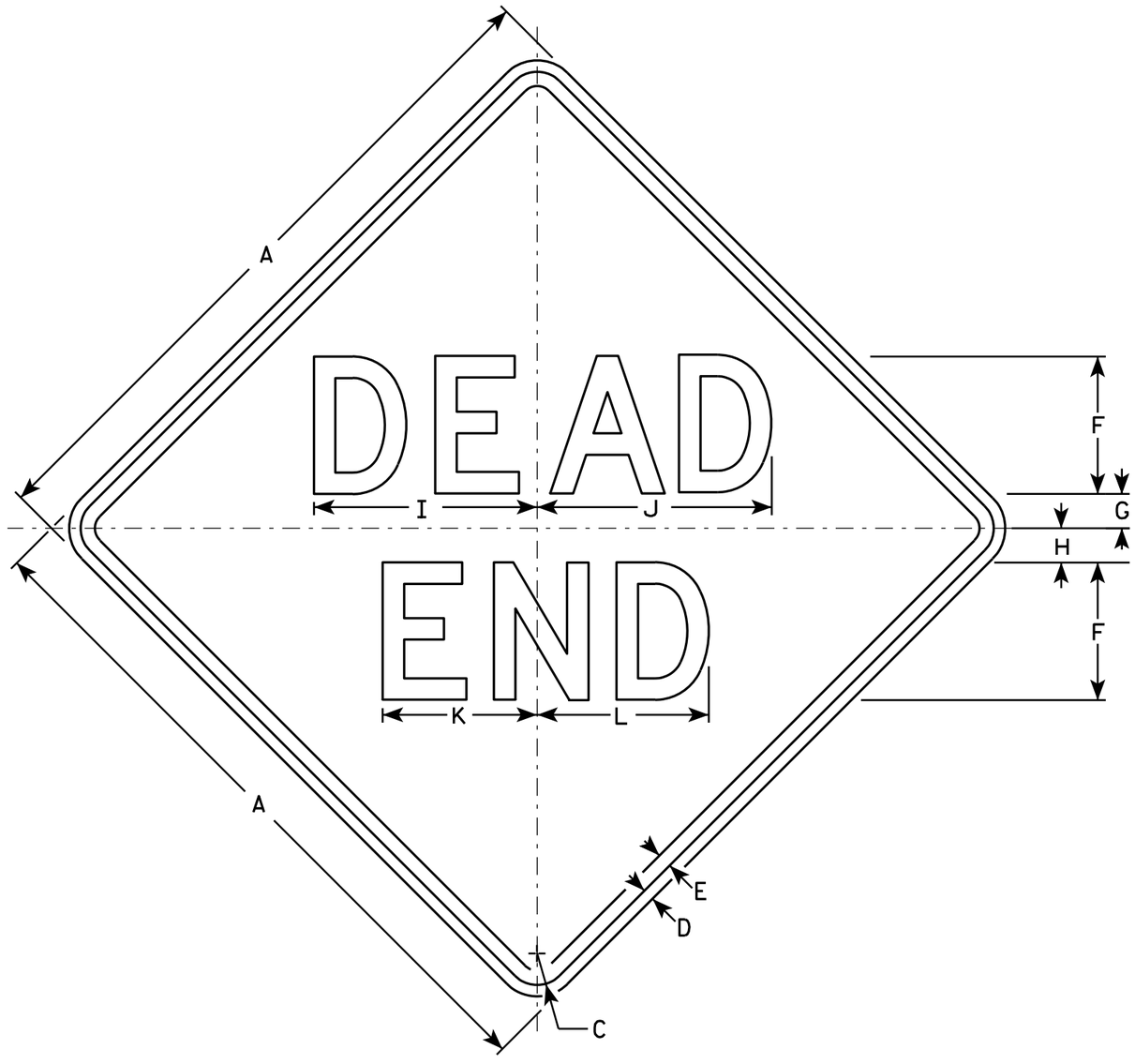
W1-4

WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch for State Traffic Engineer

DATE 5/17/12 PLATE NO. W1-4.11

PROJECT NO: | HWY: | COUNTY: | SHEET NO: 390 | E



W14-1

NOTES

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

SIZE	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	Area sq. ft.
1	24		1 1/8	3/8	1/2	5	1	2	8 1/4	8 5/8	5 5/8	6 1/4															4.0
2S	30		1 3/8	1/2	5/8	6	1 1/2	2 1/2	9 3/4	10 1/4	6 3/4	7 1/2															6.25
2M	30		1 3/8	1/2	5/8	6	1 1/2	2 1/2	9 3/4	10 1/4	6 3/4	7 1/2															6.25
3	36		1 5/8	5/8	3/4	7	2	3	11 3/8	12	7 7/8	8 3/4															9.0
4																											
5																											

STANDARD SIGN
W14-1

WISCONSIN DEPT OF TRANSPORTATION

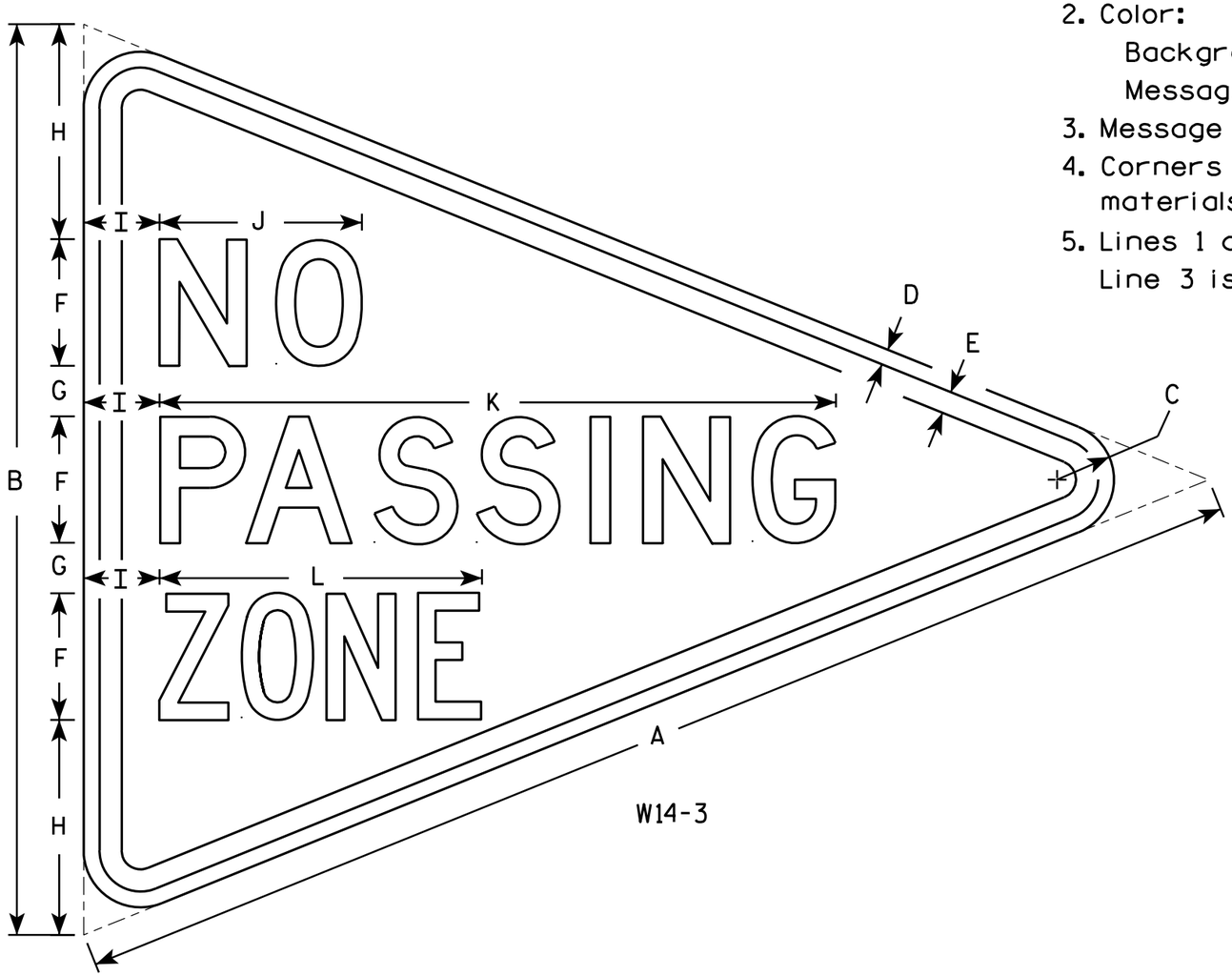
APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 3/13/13 PLATE NO. W14-1.7

PROJECT NO:	HWY:	COUNTY:		SHEET NO: 391	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. Message Series - See note 5
4. Corners and borders shall be rounded on all base materials for this sign.
5. Lines 1 and 2 are Series D.
   Line 3 is series C.



W14-3

SIZE	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	O	R	S	T	U	V	W	X	Y	Z	Area sq. ft.
1																											
2S	48	36	2 1/4	5/8	7/8	5	2	8 1/2	3	8	26 3/4	12 3/4															6.0
2M	48	36	2 1/4	5/8	7/8	5	2	8 1/2	3	8	26 3/4	12 3/4															6.0
3	64	48	3	3/4	1 1/4	6	3	12	4	10 3/4	33 5/8	16 1/2															10.7
4																											
5																											

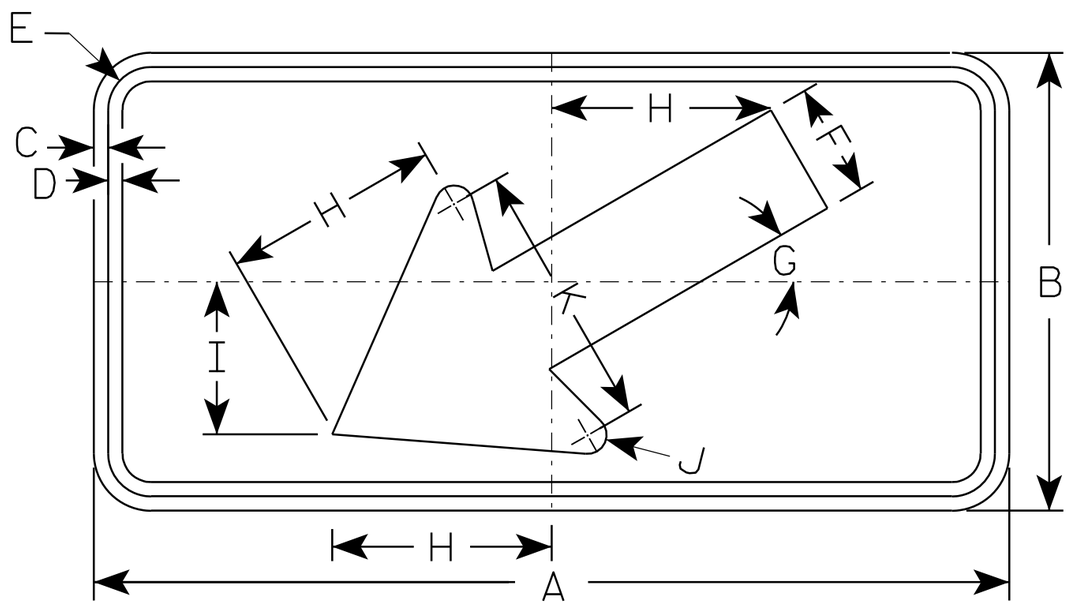
STANDARD SIGN
W14-3

WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 6/7/10 PLATE NO. W14-3.9

PROJECT NO:	HWY:	COUNTY:		SHEET NO: 392	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

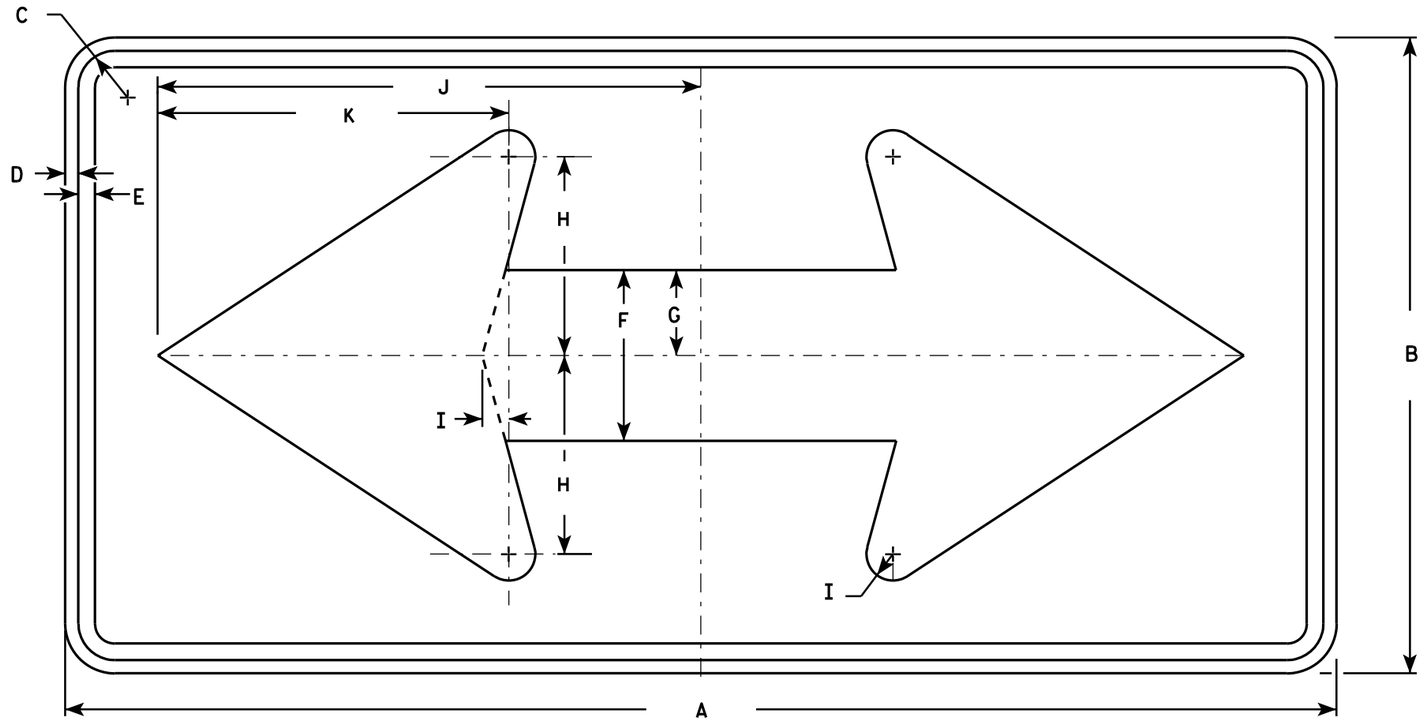
STANDARD SIGN
W16-7

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: 393	E



W1-7

NOTES

1. Sign is Type II - Type F Reflective - reference WIS DOT Standard Specification for HIGHWAY and STRUCTURE CONSTRUCTION latest edition.
2. Color:
   Background - Yellow
   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	36	18	1 1/8	3/8	1/2	5	2 1/2	5 3/4	3/4	15 5/8	10 1/8																4.5
2S	48	24	1 3/8	1/2	5/8	6 1/2	3 1/4	7 1/2	1	20 1/2	13 1/4																8.0
2M	48	24	1 3/8	1/2	5/8	6 1/2	3 1/4	7 1/2	1	20 1/2	13 1/4																8.0
3	60	30	1 3/8	1/2	5/8	8	4	9 1/4	1 1/4	25 3/8	16 1/4																12.5
4	60	30	1 3/8	1/2	5/8	8	4	9 1/4	1 1/4	25 3/8	16 1/4																12.5
5	96	48	2 1/4	3/4	1	13	6 1/2	15	2	41	26 1/2																32.0

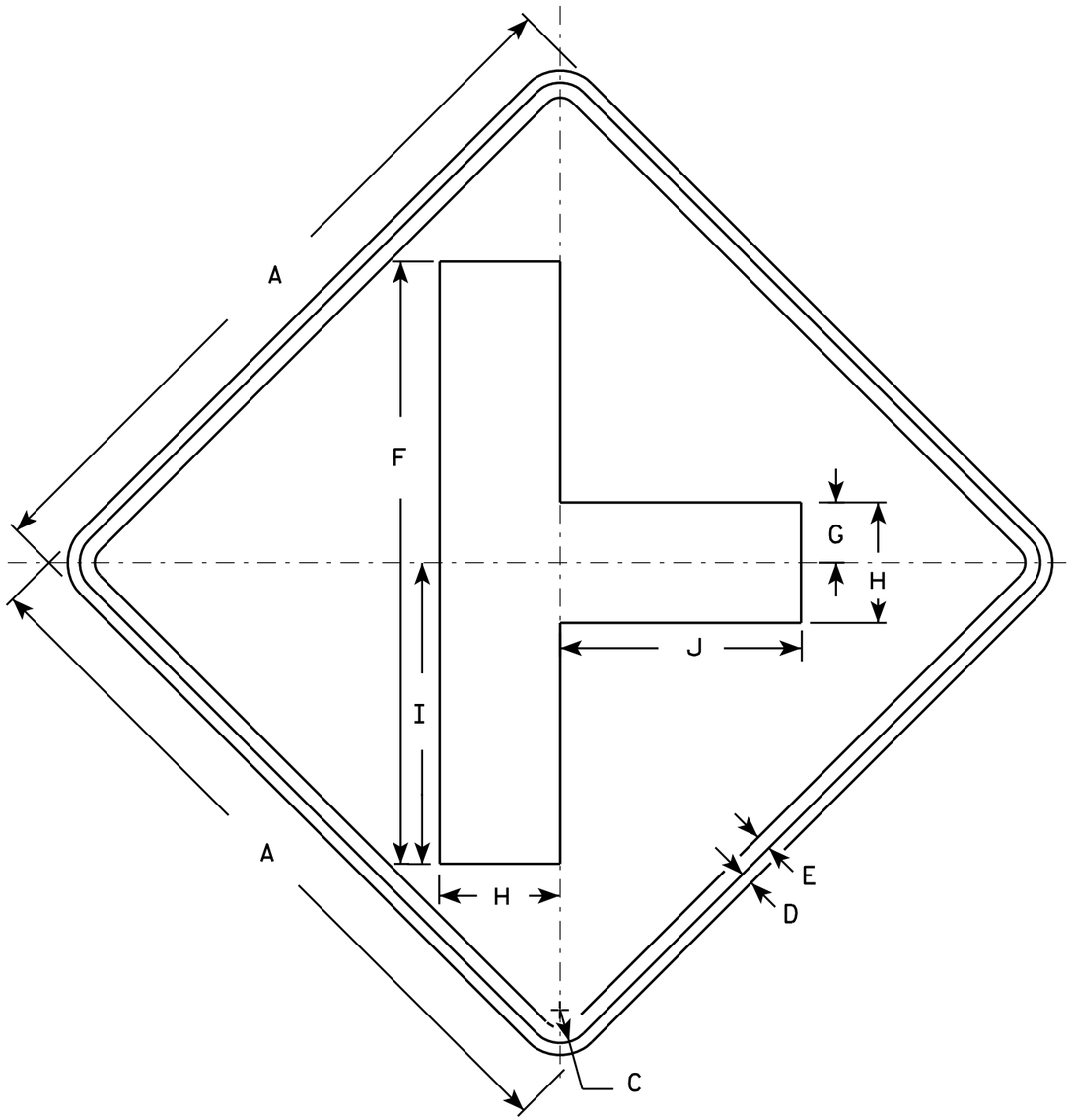
STANDARD SIGN
W1-7

WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 6/7/10 PLATE NO. W1-7.7

PROJECT NO: | HWY: | COUNTY: | SHEET NO: 394 | E



W2-2

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	20	2	4	10	8																	4.0
2S	30		1 3/8	1/2	5/8	25	2 1/2	5	12 1/2	10																	6.25
2M	30		1 3/8	1/2	5/8	25	2 1/2	5	12 1/2	10																	6.25
3	36		1 5/8	5/8	3/4	30	3	6	15	12																	9.0
4	48		2 1/4	3/4	1	40	4	8	20	16																	16.0
5																											

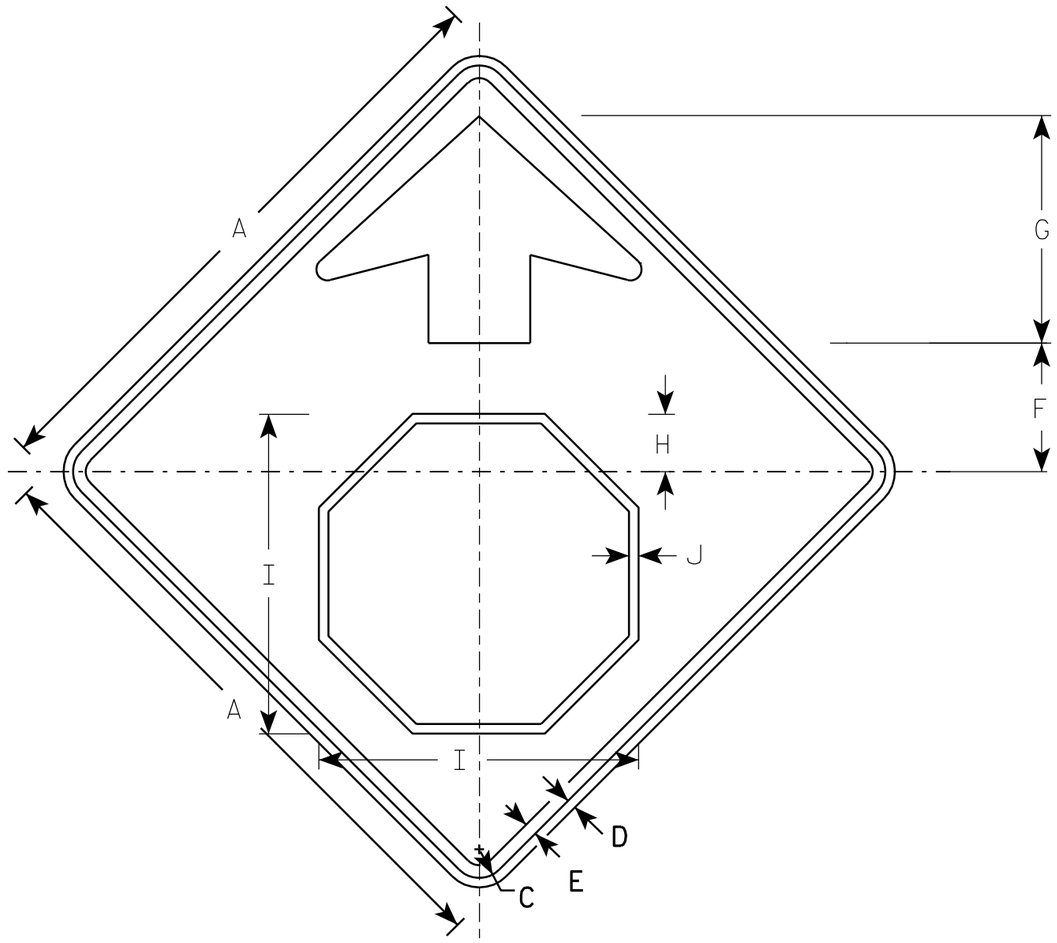
STANDARD SIGN
W2-2

WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 5/29/12 PLATE NO. W2-2.6

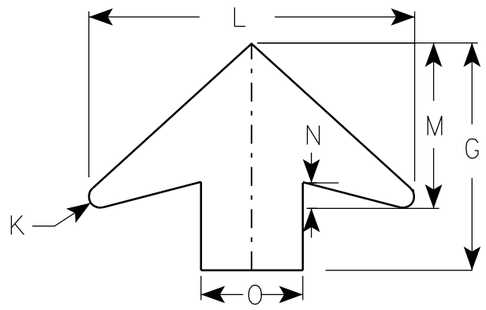
PROJECT NO:	HWY:	COUNTY:		SHEET NO: 395	E



W3-1

NOTES

1. All Signs Type II - Type F Reflective - reference WIS DOT Standard Specification for HIGHWAY and STRUCTURE CONSTRUCTION latest edition.
2. Color:
   Background - YELLOW
   Arrow & Border - BLACK
   Stop Symbol - WHITE BORDER ON RED BACKGROUND



ARROW DETAIL

SIZE	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	Area sq. ft.
1	30		1 3/8	1/2	5/8	6 1/4	11 1/4	2 7/8	15 3/4	1/2	1/2	16	8	1 1/4	5												6.25
2S	36		1 5/8	5/8	3/4	7 1/2	13 1/2	3 1/2	19	5/8	5/8	19 1/4	9 3/4	1 5/8	6												9.0
2M	36		1 5/8	5/8	3/4	7 1/2	13 1/2	3 1/2	19	5/8	5/8	19 1/4	9 3/4	1 5/8	6												9.0
3	36		1 5/8	5/8	3/4	7 1/2	13 1/2	3 1/2	19	5/8	5/8	19 1/4	9 3/4	1 5/8	6												9.0
4	48		2 1/4	3/4	1	10	17 7/8	4 1/2	25 1/8	3/4	7/8	25 5/8	13	2	8												16.0
5	48		2 1/4	3/4	1	10	17 7/8	4 1/2	25 1/8	3/4	7/8	25 5/8	13	2	8												16.0

STANDARD SIGN
W3-1

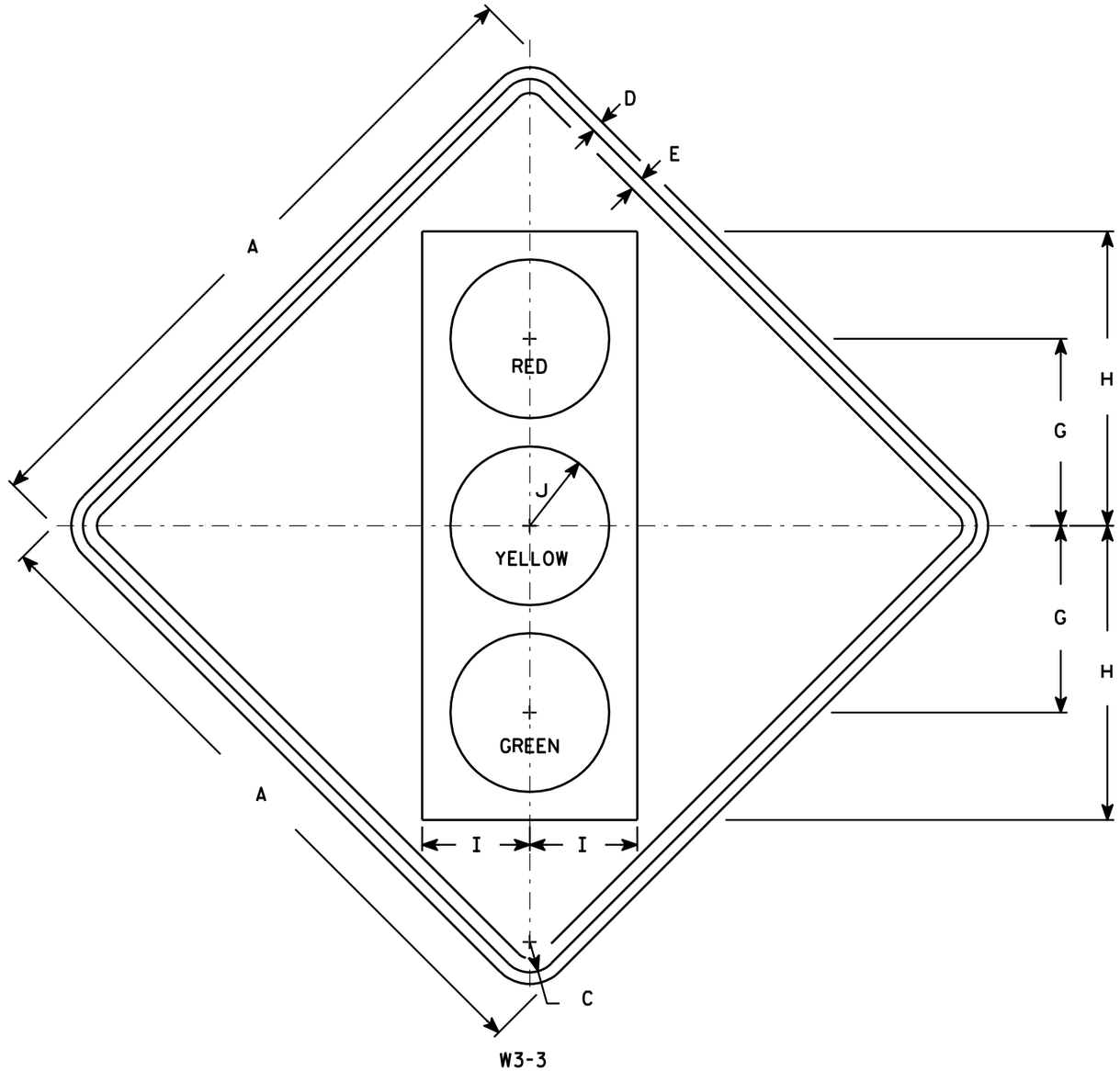
WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 6/7/10 PLATE NO. W3-1.12

PROJECT NO:

SHEET NO: 396 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

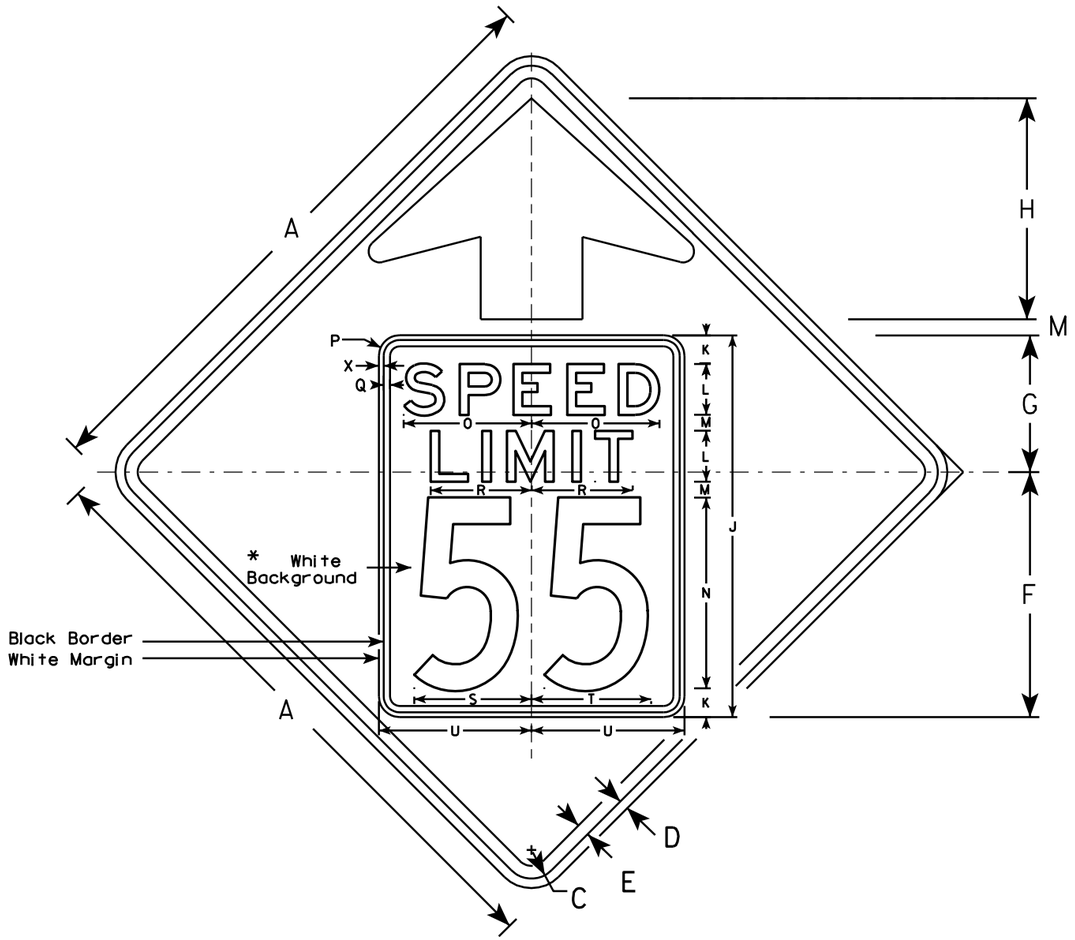
APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 6/7/10 PLATE NO. W3-3.11

PROJECT NO: | HWY: | COUNTY: | SHEET NO: 397 | E

7

FILE NAME : C:\Users\PROJECTS\tr_stdplate\W33.DGN PLOT DATE : 07-JUN-2010 13:07 PLOT BY : ditjph PLOT NAME : PLOT SCALE : 7.448805:1.000000
WISDOT/CADDS SHEET 42

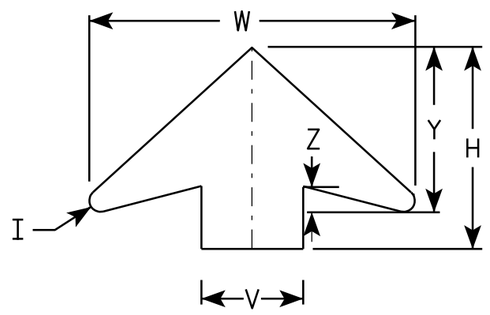


W3-5

NOTES

1. Sign is Type II - Type F Reflective - reference WIS DOT Standard Specification for HIGHWAY and STRUCTURE CONSTRUCTION latest edition.
2. Color: *
   Background - YELLOW*
   Message - BLACK
3. Message Series - C for numbers Series E for wording
4. Substitute appropriate numerals and optically adjust spacing to achieve proper balance

*Speed Limit Sign shall have a White Background



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	36		1 5/8	5/8	3/4	14 1/2	9 1/2	11 1/2	5/8	24	2	3	1	12	7 1/8	1 1/2	3/8	5 3/4	7 1/4	7 1/8	9	6	19 1/4	3/8	9 3/4	1 5/8	9.0
2M	36		1 5/8	5/8	3/4	14 1/2	9 1/2	11 1/2	5/8	24	2	3	1	12	7 1/8	1 1/2	3/8	5 3/4	7 1/4	7 1/8	9	6	19 1/4	3/8	9 3/4	1 5/8	9.0
3	36		1 5/8	5/8	3/4	14 1/2	9 1/2	11 1/2	5/8	24	2	3	1	12	7 1/8	1 1/2	3/8	5 3/4	7 1/4	7 1/8	9	6	19 1/4	3/8	9 3/4	1 5/8	9.0
4	48		2 1/4	3/4	1	19 1/4	10 3/4	17 3/8	7/8	30	2 1/4	4	1 1/4	15	10	1 5/8	1/2	8	9 1/4	9 3/8	12	8	25 5/8	3/8	13	2	16.0
5	48		2 1/4	3/4	1	19 1/4	10 3/4	17 3/8	7/8	30	2 1/4	4	1 1/4	15	10	1 5/8	1/2	8	9 1/4	9 3/8	12	8	25 5/8	3/8	13	2	16.0

STANDARD SIGN
W3-5

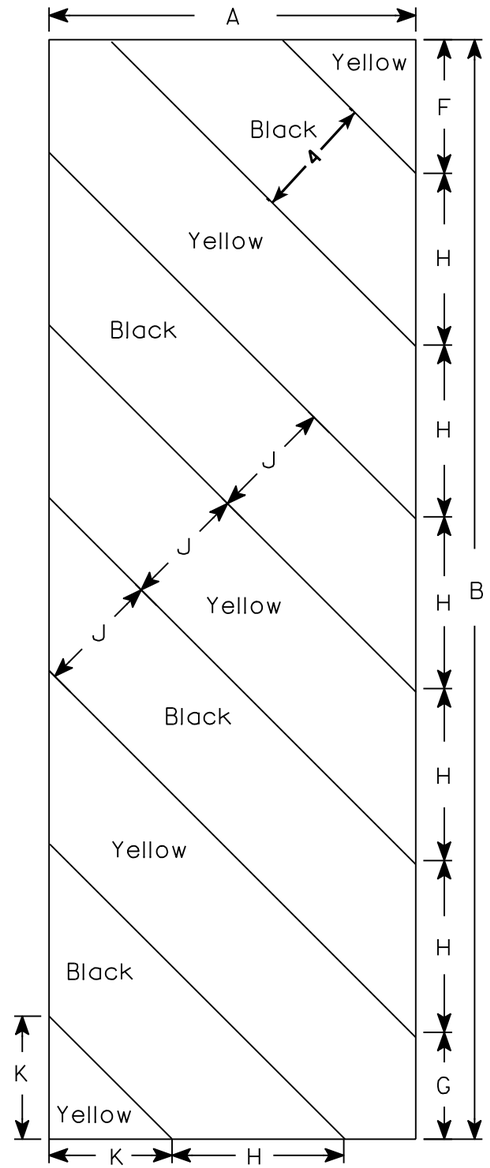
WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

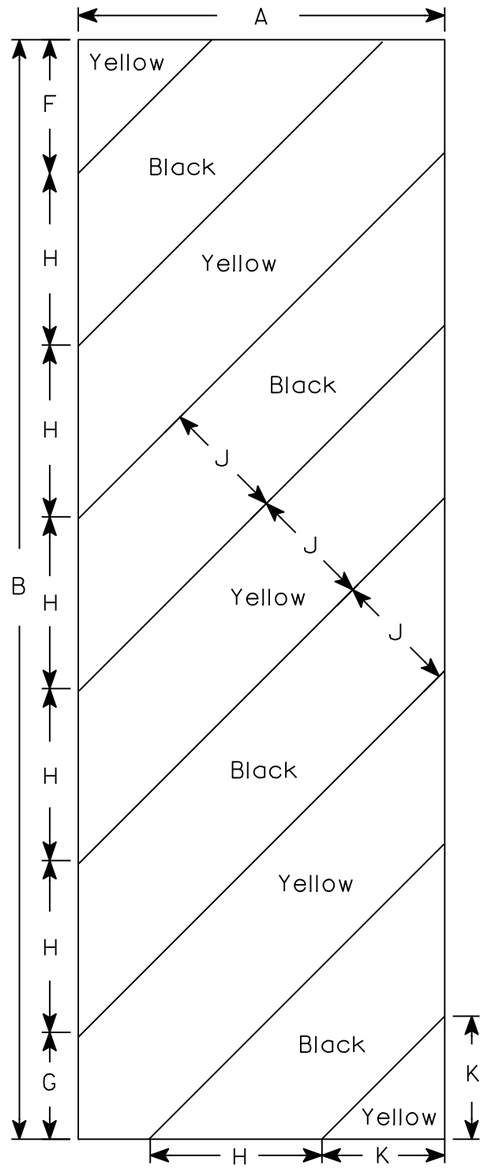
DATE 5/29/12 PLATE NO. W3-5.5

PROJECT NO:

SHEET NO: 398 E



W5-52L



W5-52R

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. Alternate colors of stripes as shown.

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	12	36				4 3/8	3 1/2	5 5/8	45°	4	4																3.0
2M	12	36				4 3/8	3 1/2	5 5/8	45°	4	4																3.0
3	18	54				6	5 1/2	8 1/2	45°	6	6 9/16																6.75
4																											
5																											

STANDARD SIGN

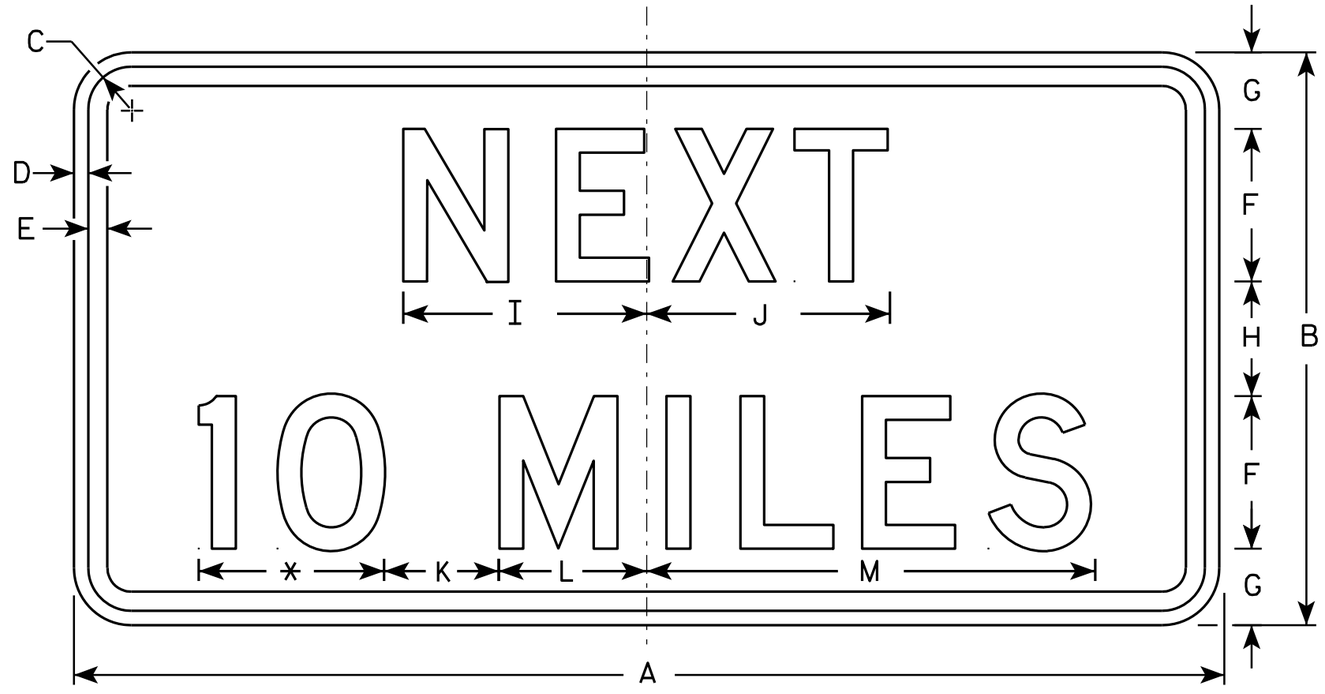
W5-52L & W5-52R

WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 5/29/12 PLATE NO. W5-52.9

PROJECT NO:	HWY:	COUNTY:		SHEET NO: 399	E



W57-51

NOTES

1. Sign is Type II - Type F Reflective - reference WIS DOT Standard Specification for HIGHWAY and STRUCTURE CONSTRUCTION latest edition.
2. Color:
   Background - Yellow
   Message - Black
3. Message Series - 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. Substitute appropriate numerals and optically adjust spacing to achieve proper balance.

* See note 5

SIZE	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	Area sq. ft.
1	24	12	1 1/8	3/8	3/8	3	1 3/4	2 1/2	5	5 1/8	3	2 3/4	9 5/8														2.0
2S	30	15	1 1/8	3/8	1/2	4	2	3	6 3/8	6 3/8	3	3 7/8	11 3/4														3.13
2M	36	18	1 1/8	3/8	1/2	5	2 5/8	2 3/4	7 7/8	8	5	4 1/8	15 3/8														4.5
3	36	18	1 1/8	3/8	1/2	5	2 5/8	2 3/4	7 7/8	8	5	4 1/8	15 3/8														4.5
4	48	24	1 3/8	1/2	5/8	6	3 1/2	5	10	10 1/8	6	5 5/8	19														8.0
5	48	24	1 3/8	1/2	5/8	6	3 1/2	5	10	10 1/8	6	5 5/8	19														8.0

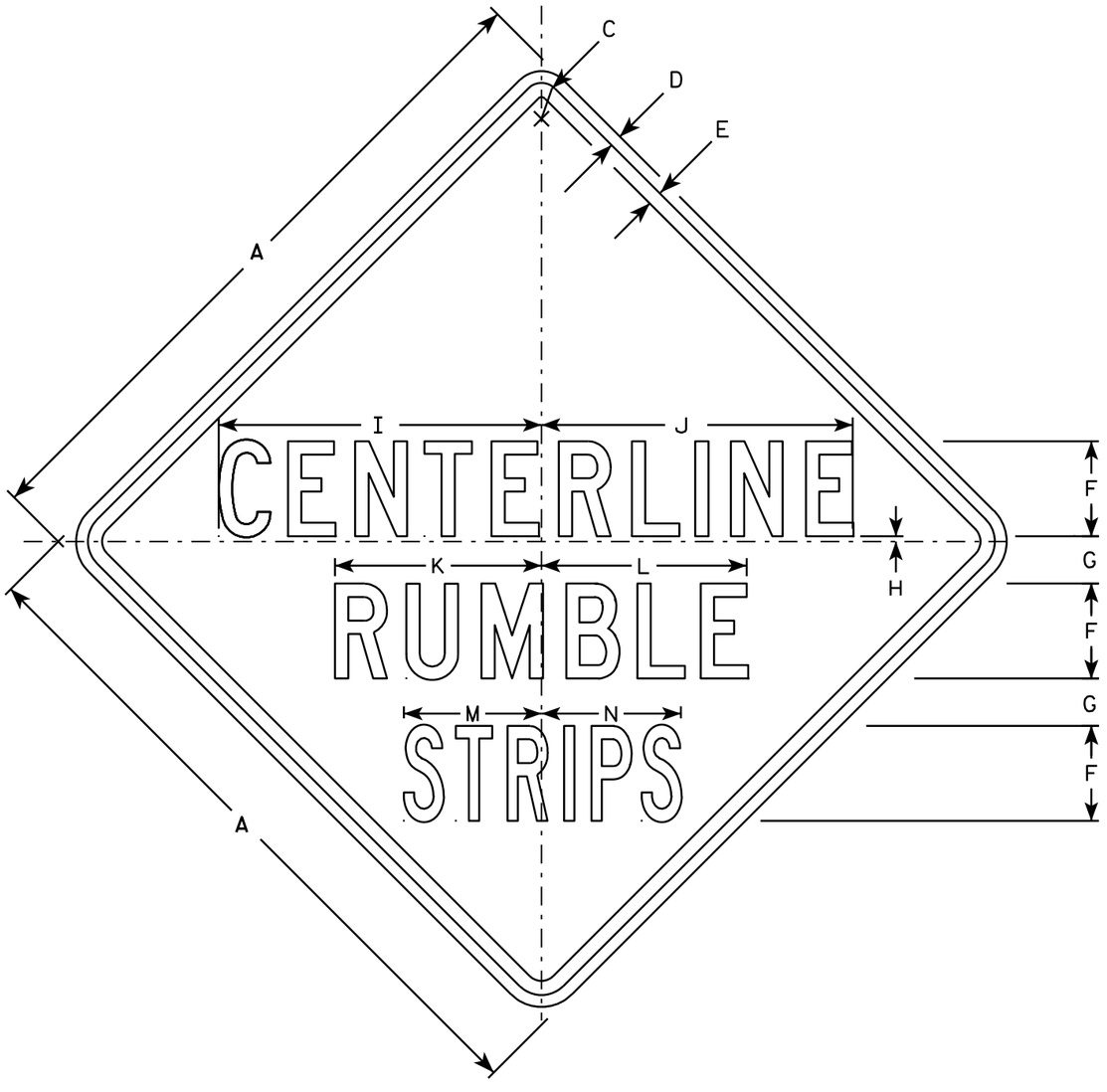
STANDARD SIGN
W57-51

WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 3/13/13 PLATE NO. W57-51.9

PROJECT NO:	HWY:	COUNTY:		SHEET NO: 400	E



W8-70

NOTES

1. Sign is Type II - Type F Reflective - reference WIS DOT Standard Specification for HIGHWAY and STRUCTURE CONSTRUCTION latest edition.
2. Color:
   Background - YELLOW
   Message - BLACK
3. Message Series - SEE NOTE 5.
4. Corners may be square or rounded when base material is plywood but borders shall be rounded as shown. When base material is metal, the corners and borders shall be rounded.
5. Line 1 and 2 are Series C.
   Line 3 is Series B.

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	36		1 5/8	5/8	3/4	5	2 1/2	1/4	17	16 3/8	10 7/8	10 3/4	7 1/4	7 3/8													9.0
2M	36		1 5/8	5/8	3/4	5	2 1/2	1/4	17	16 3/8	10 7/8	10 3/4	7 1/4	7 3/8													9.0
3	36		1 5/8	5/8	3/4	5	2 1/2	1/4	17	16 3/8	10 7/8	10 3/4	7 1/4	7 3/8													9.0
4																											
5																											

STANDARD SIGN
W8-70

WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 03/18/13 PLATE NO. W8-70.3

PROJECT NO:

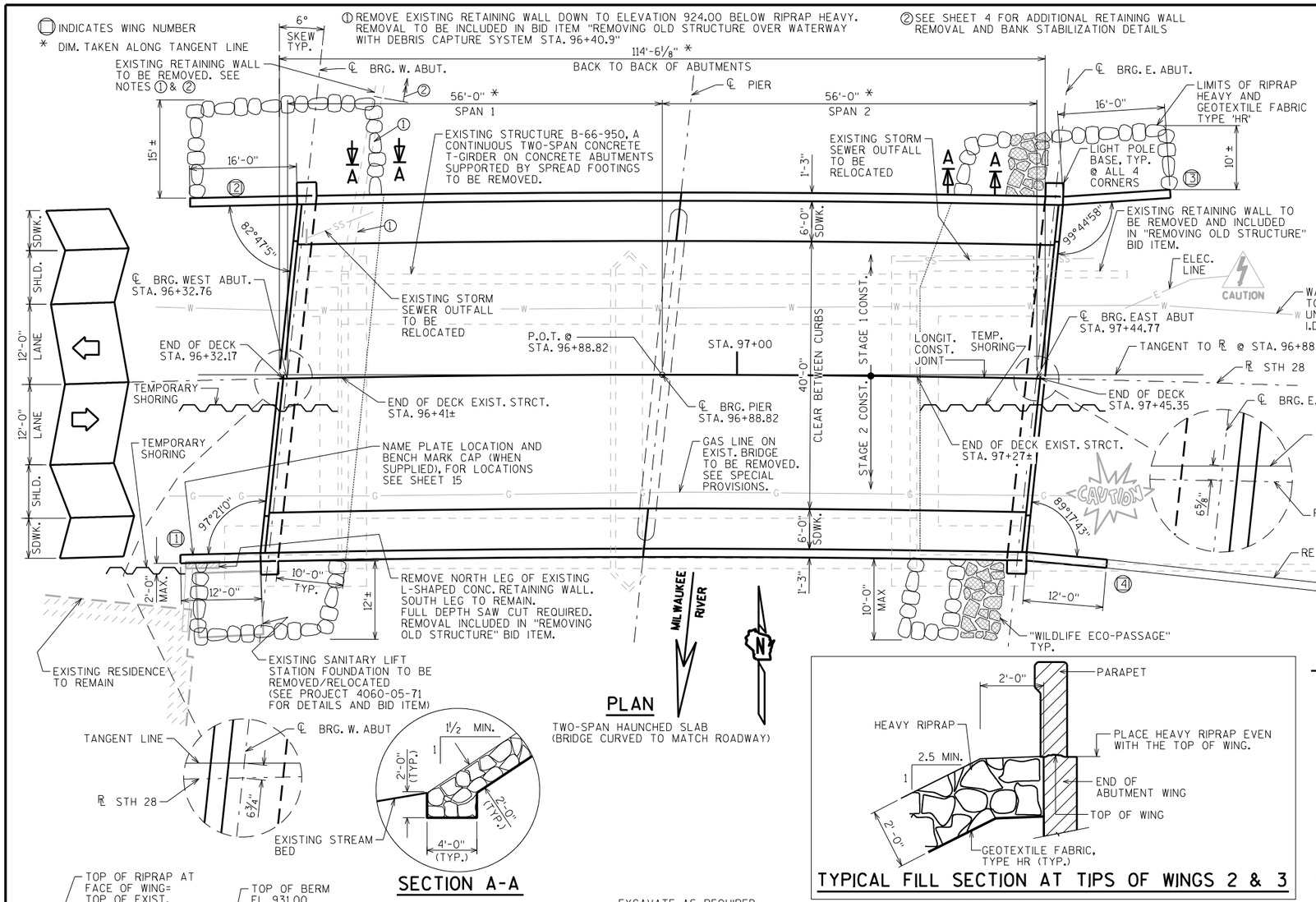
SHEET NO: 401 E

STATE PROJECT NUMBER
4060-05-70

(N) INDICATES WING NUMBER
* DIM. TAKEN ALONG TANGENT LINE

① REMOVE EXISTING RETAINING WALL DOWN TO ELEVATION 924.00 BELOW RIPRAP HEAVY. REMOVAL TO BE INCLUDED IN BID ITEM "REMOVING OLD STRUCTURE OVER WATERWAY WITH DEBRIS CAPTURE SYSTEM STA. 96+40.9"

② SEE SHEET 4 FOR ADDITIONAL RETAINING WALL REMOVAL AND BANK STABILIZATION DETAILS

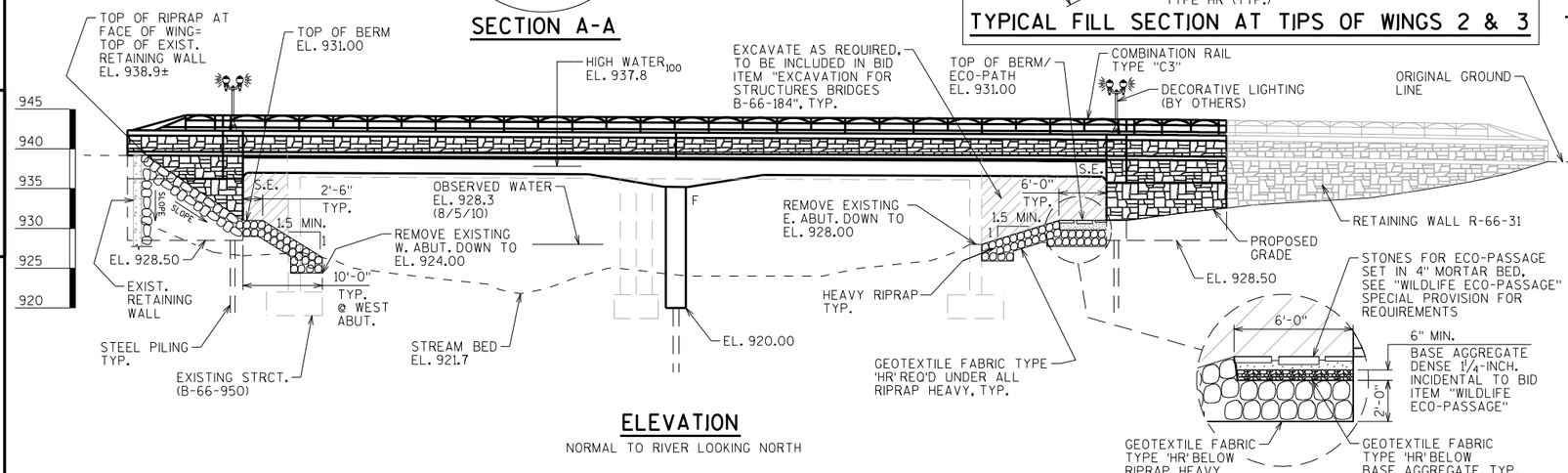


PLAN

SECTION A-A

TWO-SPAN HAUNCHED SLAB (BRIDGE CURVED TO MATCH ROADWAY)

TYPICAL FILL SECTION AT TIPS OF WINGS 2 & 3



ELEVATION

NORMAL TO RIVER LOOKING NORTH

DESIGN DATA

LIVE LOAD:

DESIGN LOADING: HL-93
INVENTORY RATING FACTOR: RF=1.20
OPERATING RATING FACTOR: RF=1.56
WISCONSIN STANDARD PERMIT VEHICLE (WIS.-SPV): 250 (KIPS)

STRUCTURE IS DESIGNED FOR A FUTURE WEARING SURFACE OF 20 POUNDS PER SQUARE FOOT.

ULTIMATE DESIGN STRESSES:

CONCRETE MASONRY SLAB — f'c = 4,000 P.S.I. ALL OTHER — f'c = 3,500 P.S.I.
BAR STEEL REINFORCEMENT, GRADE 60 — fy = 60,000 P.S.I.

FOUNDATION DATA

ABUTMENTS TO BE SUPPORTED ON HP 10 X 42 STEEL PILING DRIVEN TO A REQUIRED DRIVING RESISTANCE OF 155 TONS ** PER PILE AS DETERMINED BY THE MODIFIED GATES DYNAMIC FORMULA. ESTIMATED 45'-0" LONG @ W. ABUT & 40'-0" LONG @ E. ABUT. (PREBORING REQUIRED AT PILES 1 THRU 3 AT WEST ABUTMENT 25'-0" BELOW BOTTOM OF ABUTMENT. SEE "PILE PLAN" ON SHEET 6.)

PIER TO BE SUPPORTED ON HP 10 X 42 STEEL PILING DRIVEN TO A REQUIRED DRIVING RESISTANCE OF 175 TONS ** PER PILE AS DETERMINED BY THE MODIFIED GATES DYNAMIC FORMULA. ESTIMATED 35'-0" ■ LONG.

** THE FACTORED AXIAL RESISTANCE OF PILES IN COMPRESSION USED FOR DESIGN IS THE REQUIRED DRIVING RESISTANCE MULTIPLIED BY A RESISTANCE FACTOR OF 0.5 USING MODIFIED GATES TO DETERMINE DRIVEN PILE CAPACITY.

■ AT THE PIER, IF THE REQ'D. DRIVING RESISTANCE IS MET BEFORE ACHIEVING THE ESTIMATED PILE LENGTH, PILES SHALL BE DRIVEN DOWN TO EL. 902.00 AT A MINIMUM.

HYDRAULIC DATA

100 YEAR FREQUENCY

Q_{100} =6100 C.F.S.
VEL. =5.5 F.P.S.
HW.= EL. 937.8
WATERWAY AREA= 1118 SQ. FT.
DRAINAGE AREA= 135.8 SQ. MI.
SCOUR CRITICAL CODE = 8

ROAD OVERTOPPING FREQUENCY ★
FREQUENCY = 40 YEARS
Q_{40} = 5175 C.F.S.
HW_{40} = 936.8

★ DUE TO FLOODPLAIN STANDING WATER

2 YEAR FREQUENCY
Q_2 =1738 C.F.S.
HW_2 = EL. 932.8

CURVE DATA

STH 28

P.I. = 96+76.89
Δ = 4°19'57.43"
D = 2°01'28.51"
T = 107.05'
L = 214.00'
R = 2830.00'
S.E. = N/A
P.C. = 95+69.84
P.T. = 97+83.84

TRAFFIC VOLUME

STH 28
A.D.T.=8200 (2028)
R.D.S.=25 M.P.H.

LIST OF DRAWINGS

1. GENERAL PLAN
2. CROSS SECTION & QUANTITIES
3. CONSTRUCTION STAGING
4. RETAINING WALL REMOVAL
5. SUBSURFACE EXPLORATION
6. WEST ABUTMENT
7. WEST ABUTMENT DETAILS
8. EAST ABUTMENT
9. EAST ABUTMENT DETAILS
10. PIER
11. SUPERSTRUCTURE
12. SUPERSTRUCTURE DETAILS
13. SUPERSTRUCTURE DETAILS 2
14. RAIL POST SPACING & SLAB LAYOUT
15. MODIFIED VERT. FACE PPT. "A" & TYPE "C3" RAIL
16. COMBINATION RAIL TYPE "C3"
17. PARAPET ELECTRICAL WORK
18. AESTHETIC DETAILS

STRUCTURE DESIGN CONTACTS:
CHRIS DOLL (608) 266-3229
LAURA SHADEWALD (608) 267-9592

NO.	DATE	REVISION	BY

Plans Prepared By WISDOT
BUREAU OF STRUCTURES
ACCEPTED William C. Dreher LLS 9/18/13
CHIEF STRUCTURES DESIGN ENGINEER DATE

STRUCTURE B-66-184
STH 28 OVER MILWAUKEE RIVER

COUNTY WASHINGTON ~~TOWN/CITY~~/VILLAGE KEWASKUM
DESIGN SPEC. AASHTO LRFD BRIDGE DESIGN SPECIFICATIONS
DESIGNED BY CAD | DESIGN CK'D. ARC | DRAWN BY WWR | PLANS CK'D. CAD

GENERAL PLAN

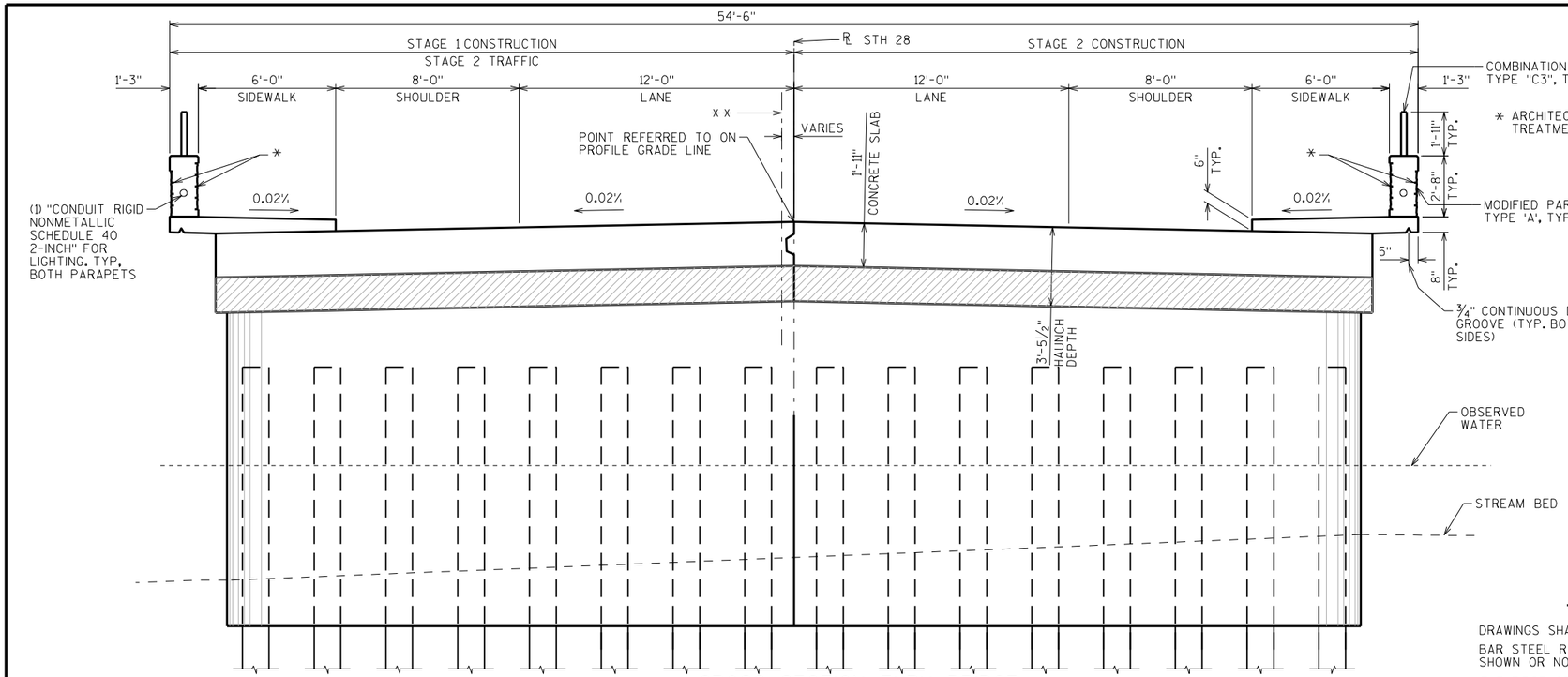
SHEET 1 OF 18
402

I.D. 4060-05-00

DATE: MAY 2013

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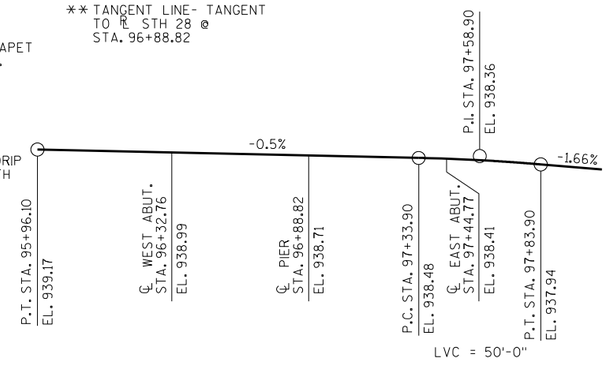
STATE PROJECT NUMBER
4060-05-70



CROSS SECTION THRU BRIDGE

(LOOKING EAST)

** TANGENT LINE- TANGENT TO ℄ STH 28 @ STA. 96+88.82



PROFILE GRADE LINE - STH 28

TOTAL ESTIMATED QUANTITIES

	BID ITEM NUMBER	BID ITEMS	UNIT	SUPER.	WEST ABUT.	EAST ABUT.	PIER	TOTALS
	203.0700.S	REMOVING OLD STRUCTURE OVER WATERWAY WITH DEBRIS CAPTURE SYSTEM STA. 96+40.9	LS	——	——	——	——	1
	206.1000	EXCAVATION FOR STRUCTURES BRIDGES B-66-184	LS	——	——	——	——	1
☆	206.5000	COFFERDAMS B-66-184	LS	——	——	——	——	1
	206.6000.S	TEMPORARY SHORING	SF	——	270	350	——	620
	210.0100	BACKFILL STRUCTURE	CY	——	222	200	——	422
	502.0100	CONCRETE MASONRY BRIDGES	CY	529	69	64	70	732
	502.3200	PROTECTIVE SURFACE TREATMENT	SY	670	——	——	——	670
	505.0405	BAR STEEL REINFORCEMENT HS BRIDGES	LB	——	3,825	3,695	3,250	10,770
	505.0605	BAR STEEL REINFORCEMENT HS COATED BRIDGES	LB	110,555	2,385	2,255	105	115,300
	505.0904	BAR COUPLERS NO. 4	EACH	4	6	6	30	46
	505.0905	BAR COUPLERS NO. 5	EACH	257	——	——	——	257
	505.0906	BAR COUPLERS NO. 6	EACH	——	12	11	——	23
	505.0908	BAR COUPLERS NO. 8	EACH	——	7	7	——	14
	516.0500	RUBBERIZED MEMBRANE WATERPROOFING	SY	——	13	13	——	26
	517.1050.S	ARCHITECTURAL SURFACE TREATMENT B-66-184	SF	1,140	540	540	——	2,220
	550.0010	PRE-BORING (UNCONSOLIDATED MATERIALS)	LF	——	75	——	——	75
	550.1100	PILING STEEL HP 10-INCH X 42 LB	LF	——	405	360	560	1,325
	606.0300	RIPRAP HEAVY	CY	——	330	105	——	435
	612.0406	PIPE UNDERDRAIN WRAPPED 6-INCH	LF	——	95	95	——	190
	645.0120	GEOTEXTILE FABRIC TYPE HR	SY	——	530	224	——	754
	652.0125	CONDUIT RIGID METALLIC 2-INCH	LF	90	——	——	——	90
	652.0225	CONDUIT RIGID NONMETALLIC SCHEDULE 40 2-INCH	LF	210	——	——	——	210
	653.0222	JUNCTION BOXES 18X12X6-INCH	EACH	4	——	——	——	4
	657.6005.S	ANCHOR ASSEMBLIES LIGHT POLES ON STRUCTURES	EACH	4	——	——	——	4
	SPV.0105	RAILING STEEL TYPE C3 GALVANIZED B-66-184	LS	——	——	——	——	1
	SPV.0105	WILDLIFE ECO-PASSAGE	LS	——	——	——	——	1
CATEGORY 0070	SPV.0105	WE ENERGIES GAS MAIN REMOVAL STR. B-66-184	LS	——	——	——	——	1
		NON-BID ITEMS						
		FILLER	SIZE	——	——	——	——	½" & ¾"

☆ BID ITEM SHALL INCLUDE BOTH COFFERDAMS WHICH THE CONTRACTOR DEEMS NECESSARY TO REMOVE PORTIONS OF THE EXISTING STRUCTURE AND RETAINING WALL ALONG THE WEST BANK OF THE RIVER, AND COFFERDAMS WHICH THE CONTRACTOR DEEMS NECESSARY TO BUILD THE NEW BRIDGE SUBSTRUCTURE ELEMENTS.

GENERAL NOTES

DRAWINGS SHALL NOT BE SCALED.

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

THE FIRST OR FIRST TWO DIGITS OF THE BAR MARK SIGNIFIES THE BAR SIZE.

AT THE BACKFACE OF ABUTMENT ALL VOLUME WHICH CANNOT BE PLACED BEFORE ABUTMENT CONSTRUCTION AND IS NOT OCCUPIED BY THE NEW STRUCTURE SHALL BE BACKFILLED WITH STRUCTURE BACKFILL.

SLAB FALSEWORK SHALL BE SUPPORTED ON PILES OR THE SUBSTRUCTURE, UNLESS AN ALTERNATE METHOD IS APPROVED BY THE ENGINEER.

THE GRADATION OF THE STRUCTURE BACKFILL SHALL MEET THE REQUIREMENTS OF SECTION 209.2.2 OF THE STANDARD SPECIFICATIONS FOR GRADE 1 MATERIAL.

PROTECTIVE SURFACE TREATMENT TO BE APPLIED TO THE ENTIRE TOP OF DECK SURFACE AND THE CURB AND THE TOP OF THE SIDEWALK.

THE EXISTING STREAM BED SHALL BE USED AS THE UPPER LIMITS OF EXCAVATION AT THE PIER.

AT ABUTMENTS AND PIER, IF COFFERDAMS ARE NOT USED, CONCRETE POURED UNDER WATER WILL BE ALLOWED AND SHALL BE DONE IN ACCORDANCE WITH SECTION 502.3.5.3 OF THE STANDARD SPECIFICATIONS.

THE SLOPE OF THE FILL IN FRONT OF THE ABUTMENTS SHALL BE COVERED WITH HEAVY RIPRAP AND GEOTEXTILE FABRIC TYPE 'HR' TO THE EXTENT SHOWN ON SHEET 1 AND IN THE ABUTMENT DETAILS.

THE UTILITY INFORMATION SHOWN ON THESE DRAWINGS CONCERNING TYPE AND LOCATION OF UNDERGROUND UTILITIES IS NOT GUARANTEED TO BE ACCURATE OR ALL-INCLUSIVE. THE CONTRACTOR IS RESPONSIBLE FOR MAKING THEIR OWN DETERMINATION AS TO TYPE AND LOCATION OF UNDERGROUND UTILITIES AS MAY BE NECESSARY TO AVOID DAMAGE.

IN-STREAM WORK IS NOT ALLOWED FROM MAY 1ST THRU JUNE 30TH. CONSTRUCTION RELATED ITEMS MAY BE PLACED PRIOR TO THIS PERIOD AND REMOVED AFTER, BUT NO IN-STREAM DISTURBANCE WILL BE ALLOWED DURING THIS PERIOD.

DUE TO THE PROXIMITY OF THE PRIVATE RESIDENCE TO THE SOUTH CORNER OF THE WEST ABUTMENT, VIBRATION MONITORING OF ALL PILE DRIVING ACTIVITIES WITHIN 100'-0" OF THE RESIDENCE SHOULD BE UNDERTAKEN. PARTICULAR ATTENTION SHOULD BE TAKEN WITH SHEET PILE INSTALLATION & REMOVAL USED FOR TEMPORARY SHORING BECAUSE THESE ACTIVITIES CAN GENERATE HIGHER VIBRATION LEVELS THAN CONVENTIONAL PILE DIVING DUE TO THE USE OF VIBRATORY HAMMERS. SEE "SEISMOGRAPH" AND "CRACK AND DAMAGE SURVEY" SPECIAL PROVISIONS FOR VIBRATION MONITORING REQUIREMENTS.

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION
STRUCTURES DESIGN SECTION

STRUCTURE B-66-184

DRAWN BY WWR | PLANS CK'D. CAD

CROSS SECTION & QUANTITIES

SHEET 2

403

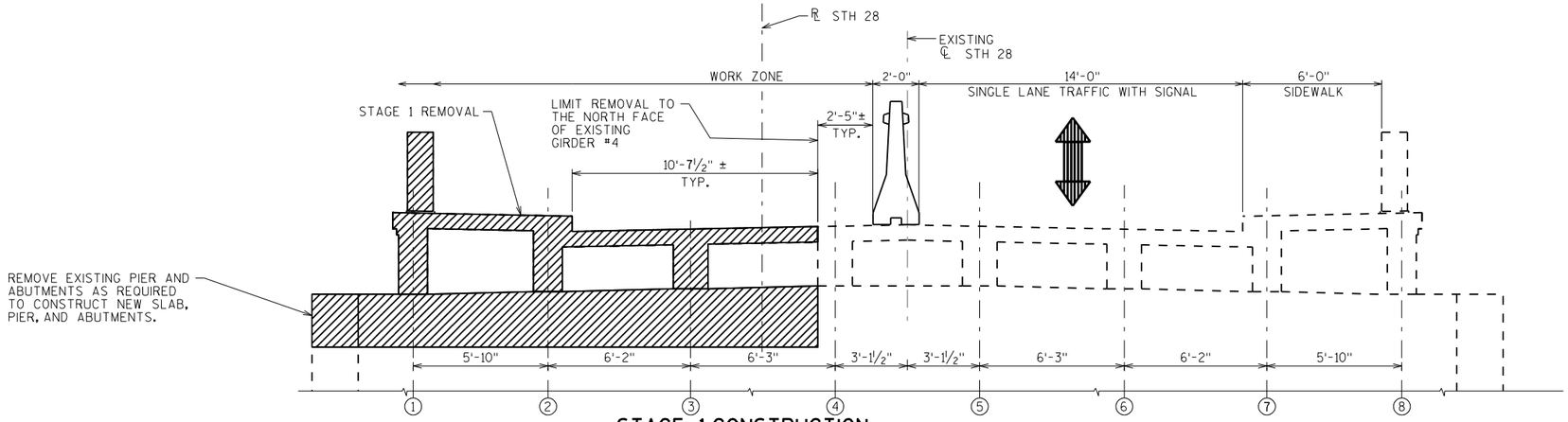
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STATE PROJECT NUMBER

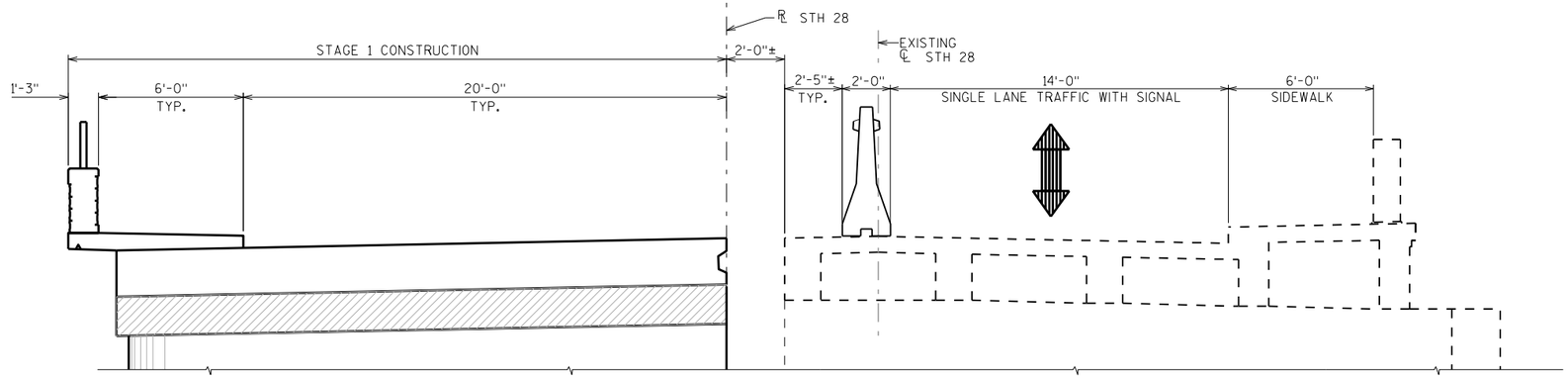
4060-05-70



STAGE 1 CONSTRUCTION

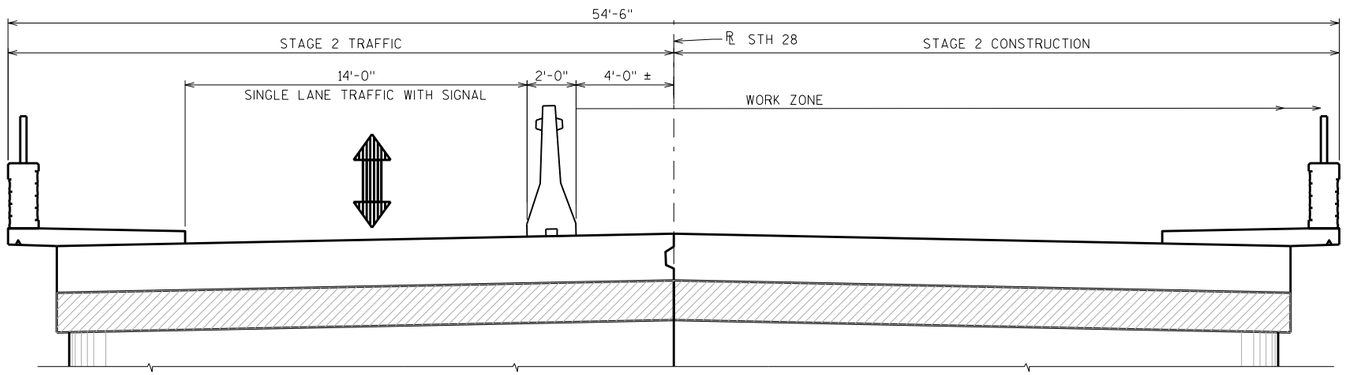
LOOKING EAST (SHOWING REMOVAL)

④ - INDICATES EXISTING GIRDER NUMBER



STAGE 1 CONSTRUCTION OF B-66-184

LOOKING EAST



STAGE 2 CONSTRUCTION OF B-66-184

LOOKING EAST

NOTE:
REMOVE ALL PORTIONS OF EXISTING SUPERSTRUCTURE AND SUBSTRUCTURES AS NOTED IN THE PLANS AND REQUIRED BY THE SPECIFICATIONS

8

8

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION
STRUCTURES DESIGN SECTION

STRUCTURE B-66-184

DRAWN BY WWR | PLANS CK'D. CAD

CONSTRUCTION STAGING

SHEET 3

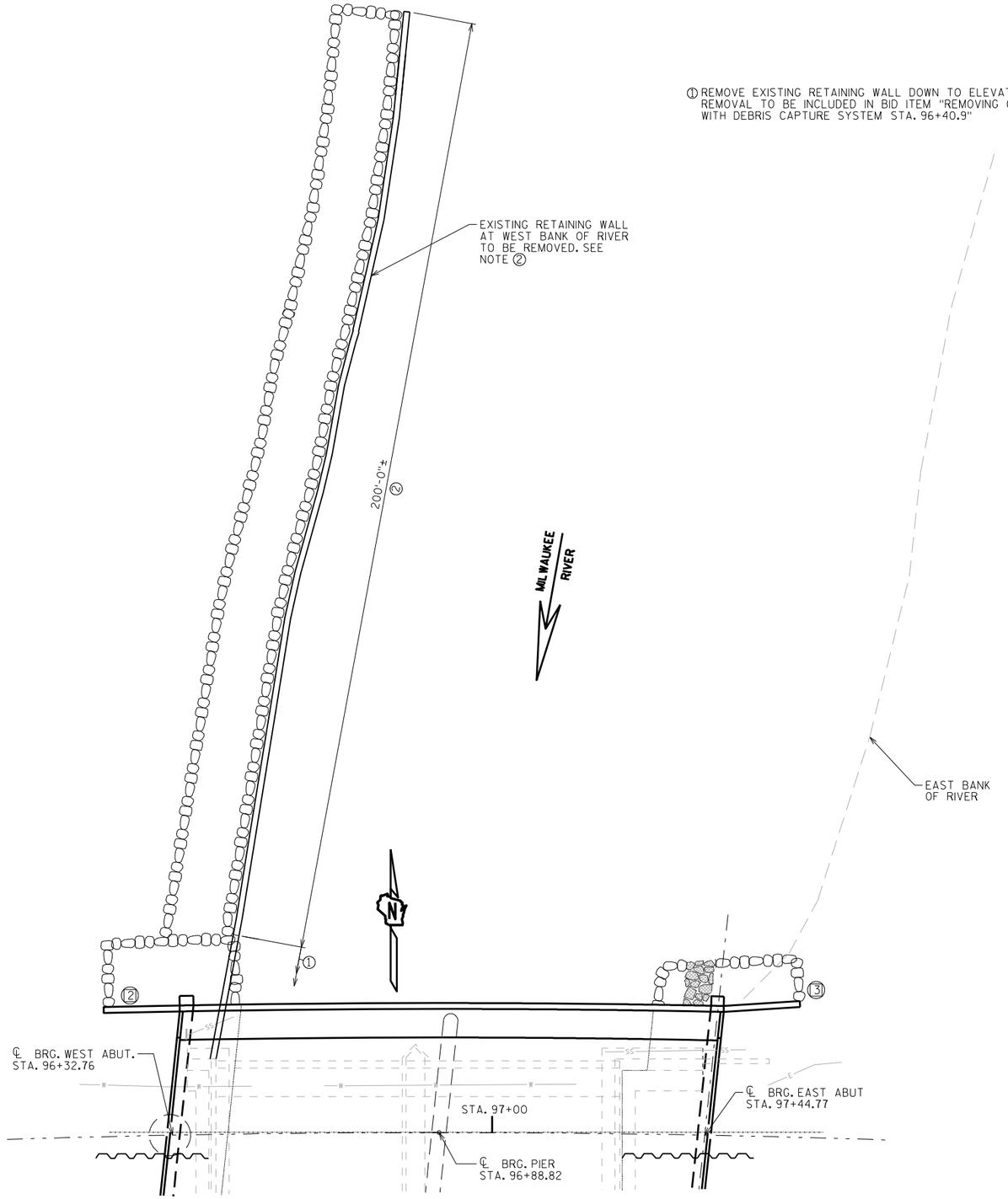
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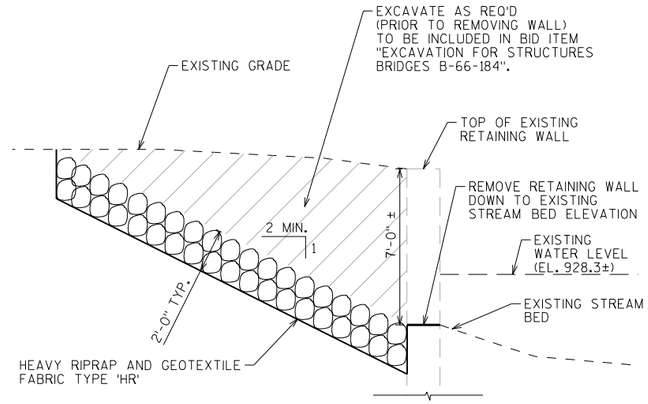
STATE PROJECT NUMBER
4060-05-70

① REMOVE EXISTING RETAINING WALL DOWN TO ELEVATION 924.00 BELOW RIPRAP HEAVY. REMOVAL TO BE INCLUDED IN BID ITEM "REMOVING OLD STRUCTURE OVER WATERWAY WITH DEBRIS CAPTURE SYSTEM STA. 96+40.9"

② REMOVE EXISTING RETAINING WALL AS SHOWN IN 'BANK STABILIZATION DETAIL'. REMOVAL TO BE INCLUDED IN BID ITEM "REMOVING OLD STRUCTURE OVER WATERWAY WITH DEBRIS CAPTURE SYSTEM STA. 96+40.9" AND CONFORM WITH THE REQUIREMENTS OF THIS BID ITEM.



RETAINING WALL REMOVAL PLAN



BANK STABILIZATION DETAIL

⬡ INDICATES WING NUMBER

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION
STRUCTURES DESIGN SECTION

STRUCTURE B-66-184

DRAWN BY WWR | PLANS CK'D. CAD

RETAINING WALL REMOVAL

SHEET 4

405

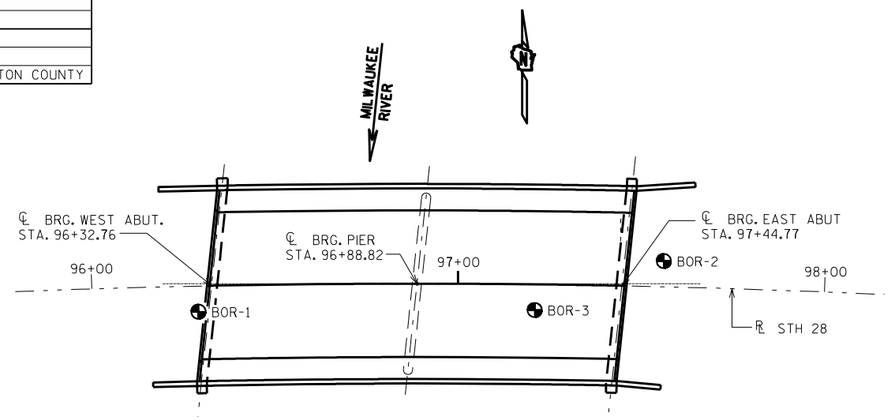
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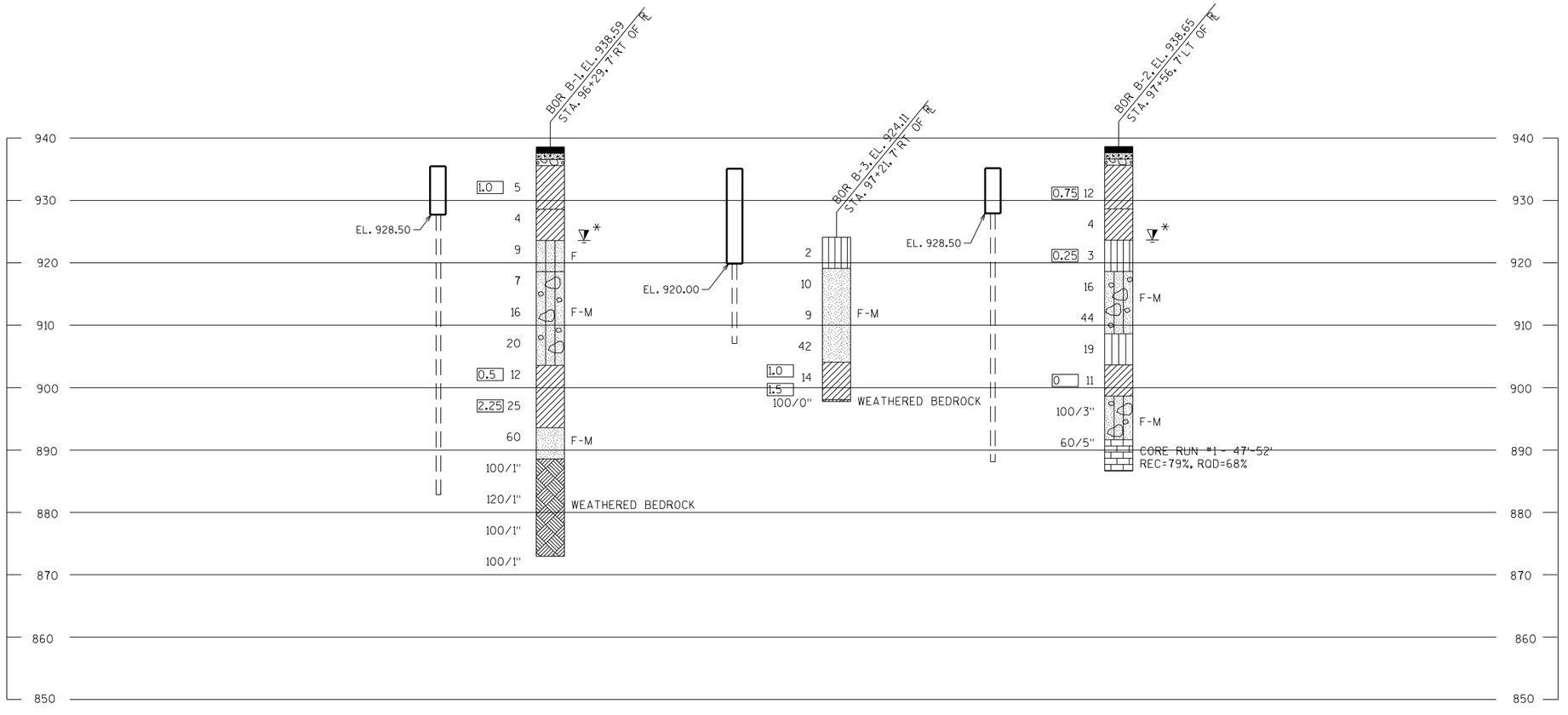
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STH 28
MILWAUKEE RIVER BRIDGE

BORING #	DATE COMPLETED	NORTHING (Y)	EASTING (X)
1	1/10/13	219,761.2227	351,992.8964
2	1/14/13	219,773.1298	352,121.1292
3	1/16/13	219,748.9542	352,054.7676
BORINGS COMPLETED BY: PSI			
REPORT COMPLETED BY: WISDOT			
ALL COORDINATES REFERENCED TO WCCS NAD 83(91) WASHINGTON COUNTY			





* THE GROUND WATER ELEVATION WAS DETERMINED FROM WHERE THE SOIL SAMPLE WAS DESCRIBED AS WET.

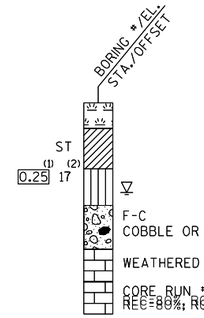
STATE PROJECT NUMBER

4060-05-70

MATERIAL SYMBOLS

ASPHALT	TOPSOIL	PEAT
CONCRETE	FILL	GRAVEL
SAND	CLAY	SILT
BOULDERS OR COBBLES	LIMESTONE	BEDROCK (UNKNOWN)
SHALE	SANDSTONE	IGNEOUS/ META

LEGEND OF BORING



(1) UNCONFINED STRENGTH, AS DETERMINED BY A POCKET PENETROMETER (TSF)

(2) UNLESS OTHERWISE, SPECIFIED THE SPT 'N' VALUE IS BASED ON AASHTO T-206, STANDARD PENETRATION TEST. THE SPT 'N' VALUE PRESENTED HAS NOT BEEN CORRECTED FOR OVERBURDEN PRESSURE OR HAMMER EFFICIENCY.

GROUND WATER ELEVATION

- AT TIME OF DRILLING
- END OF DRILLING
- AFTER DRILLING

ABBREVIATIONS

F-FINE M-MEDIUM C-COARSE ST-SHELBY TUBE

SUBSURFACE EXPLORATION FOR FOUNDATION DESIGN AND BIDDERS INFORMATION

BORINGS WERE COMPLETED AT POINTS APPROXIMATELY AS INDICATED ON THIS DRAWING TO OBTAIN INFORMATION CONCERNING THE CHARACTER OF SUBSURFACE MATERIALS FOUND AT THE SITE. BECAUSE THE INVESTIGATED DEPTHS ARE LIMITED AND THE AREA OF THE BORINGS IS VERY SMALL IN RELATION TO THE ENTIRE SITE, THE WISCONSIN DEPARTMENT OF TRANSPORTATION DOES NOT WARRANT SIMILAR SUBSURFACE CONDITIONS BELOW, BETWEEN, OR BEYOND THESE BORINGS. VARIATIONS IN SOIL CONDITIONS SHOULD BE EXPECTED AND FLUCTUATIONS IN GROUNDWATER LEVELS MAY OCCUR.

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION
STRUCTURES DESIGN SECTION

STRUCTURE B-66-184

DRAWN BY WWR | PLANS CK'D. CAD

SUBSURFACE EXPLORATION

SHEET 5

406

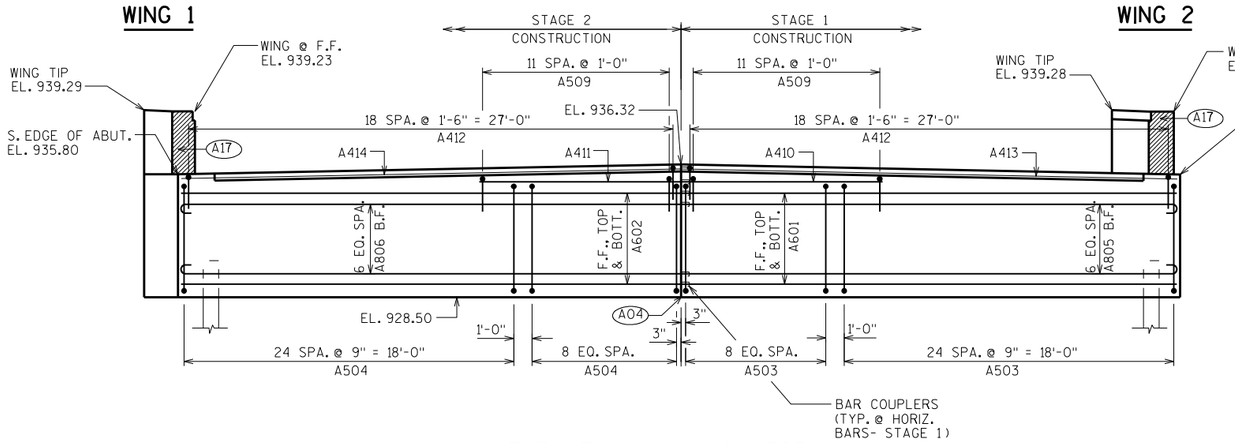
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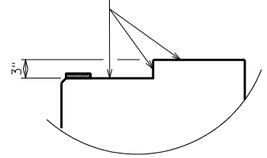
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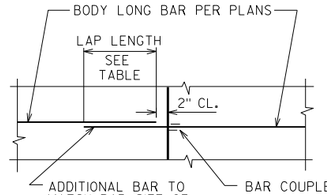


ELEVATION LOOKING WEST

STEEL TROWEL TOP SURFACE OF ABUTMENT. PLACE MULTIPLE LAYERS OF POLYETHYLENE SHEETS OVER ENTIRE ABUTMENT TOP. TOTAL THICKNESS OF SHEETS SHALL BE AT LEAST 0.03".



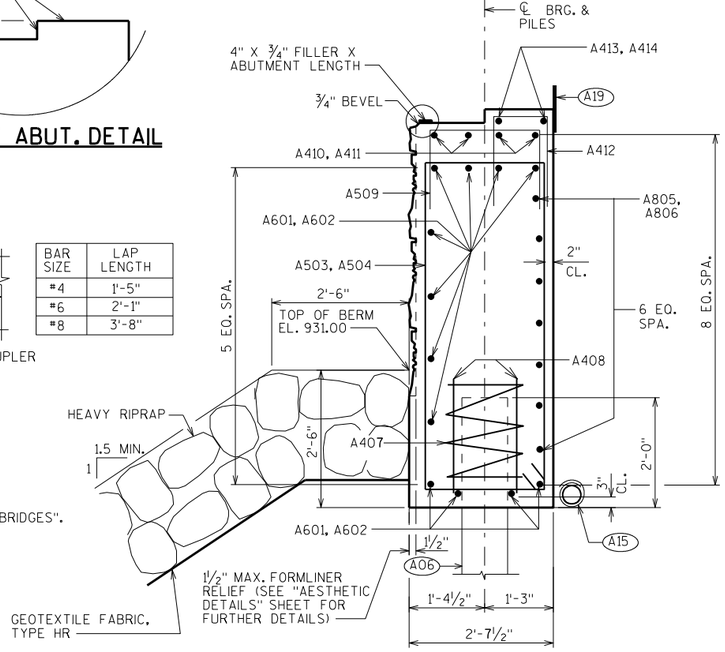
TOP OF ABUT. DETAIL



BAR SIZE	LAP LENGTH
#4	1'-5"
#6	2'-1"
#8	3'-8"

OPTIONAL SPLICE AT BAR COUPLER

ADDITIONAL SHORT BAR SHALL BE CONSIDERED INCIDENTAL TO BID ITEM "CONCRETE MASONRY BRIDGES".



SECTION THRU BODY

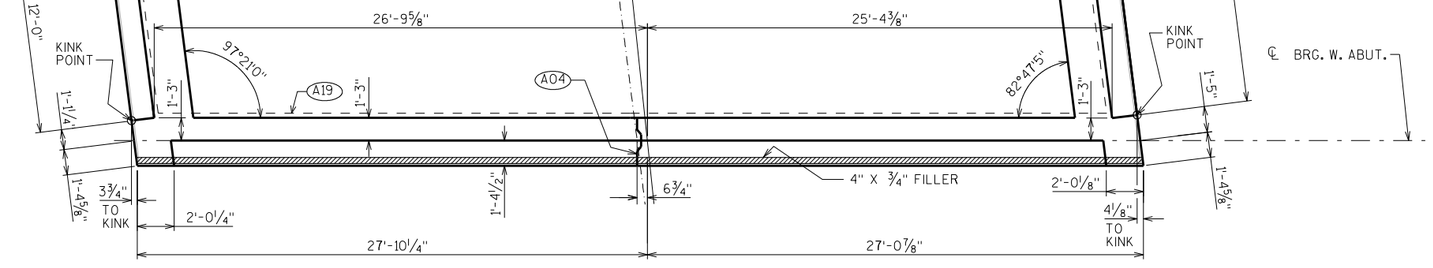
(A04) VERT. CONSTRUCTION JOINT: KEYWAY FORMED BY A BEVELED 2 x 8. 18" R.M.W. @ BACKFACE.

(A06) SUPPORT ABUTMENT ON HP 10 x 42 STEEL PILING, ESTIMATED 45 FEET LONG WITH A REQUIRED DRIVING RESISTANCE OF 155 TONS PER PILE. SEE SHEET 10 FOR PILE SPLICE DETAILS.

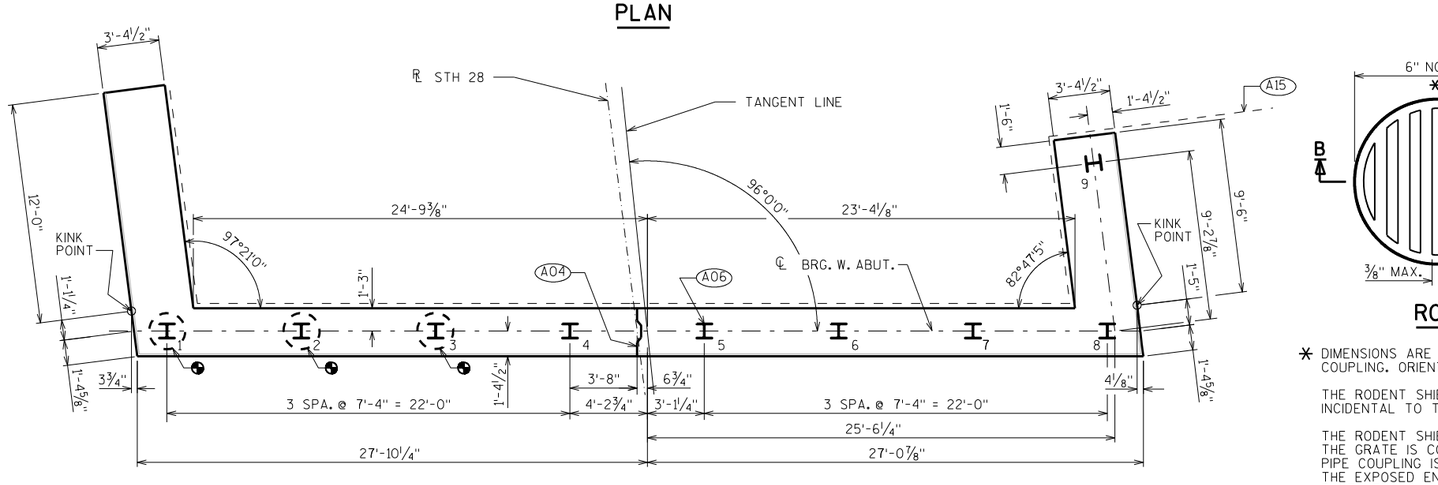
(A15) PIPE UNDERDRAIN WRAPPED (6-INCH). SLOPE 0.5% MIN. TO SUITABLE DRAINAGE. RODENT SHIELD REQUIRED.

(A17) 1/2" FILLER (INCLUDED IN WING LENGTH): SEAL ALL EXPOSED HORIZ. & VERT. SURFACES OF 1/2" FILLER WITH NON-STAINING GRAY NON-BITUMINOUS JOINT SEALER. (1" DEEP AND HOLD 1/8" BELOW SURFACE OF CONCRETE). EXTEND SEALER 3" BELOW GUTTER LINE AT INSIDE FACE.

(A19) 18" (RMW) RUBBERIZED MEMBRANE WATERPROOFING SEAL ALL HORIZ. & VERT. JOINTS AT BACKFACE.

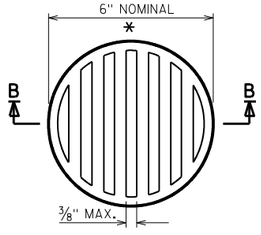


PLAN

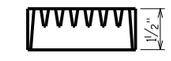


● PRE-BORE PILES 25'-0" BELOW BOTTOM OF ABUT. ELEVATION

PILE PLAN



RODENT SHIELD DETAIL



SECTION B-B

* DIMENSIONS ARE APPROXIMATE. THE GRATE IS SIZED TO FIT INTO A PIPE COUPLING. ORIENT SO SLOTS ARE VERTICAL.

THE RODENT SHIELD, PIPE COUPLING AND SCREWS SHALL BE CONSIDERED INCIDENTAL TO THE BID ITEM "PIPE UNDERDRAIN WRAPPED 6-INCH".

THE RODENT SHIELD SHALL BE A PVC GRATE SIMILAR TO THIS DETAIL. THE GRATE IS COMMERCIALLY AVAILABLE AS A FLOOR STRAINER. A PIPE COUPLING IS REQUIRED FOR THE ATTACHMENT OF THIS SHIELD TO THE EXPOSED END OF THE PIPE UNDERDRAIN. THE SHIELD SHALL BE FASTENED TO THE PIPE COUPLING WITH TWO OR MORE NO. 10 X 1-INCH STAINLESS STEEL SHEET METAL SCREWS.

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION
STRUCTURES DESIGN SECTION

STRUCTURE B-66-184

DRAWN BY WWR | PLANS CK'D. CAD

WEST ABUTMENT

SHEET 6

407

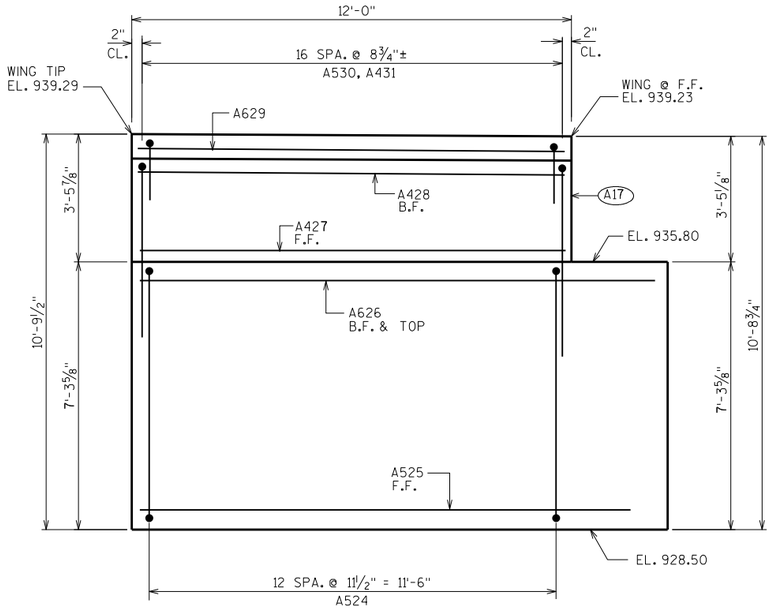
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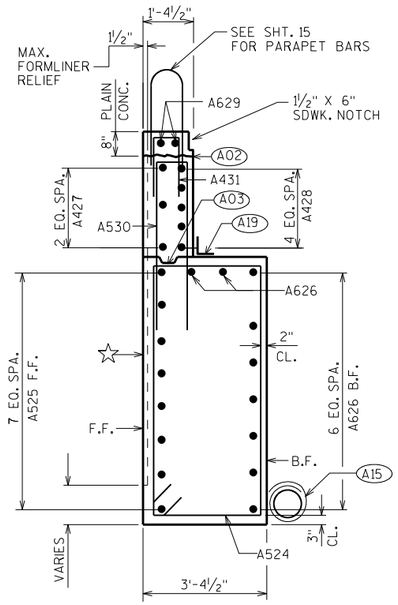
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STATE PROJECT NUMBER

4060-05-70



WING 1 ELEVATION



WING 1 SECTION

◐ BAR COUPLERS NO. 6 BARS REQ'D.

◪ BAR COUPLERS NO. 8 BARS REQ'D.

◭ BAR COUPLERS NO. 4 BARS REQ'D.

* BAR LENGTHS SHOWN ASSUME THE BAR TERMINATES AT THE FACE OF THE VERT. CONST. JOINT. CONTRACTOR TO DETERMINE ACTUAL LENGTH REQUIRED BASED ON BAR COUPLER TYPE BEING UTILIZED.

(A02) CONSTRUCTION JOINT: POUR CONCRETE ABOVE THIS JOINT AFTER SUPERSTRUCTURE CONCRETE IS IN PLACE. STRIKE OFF AND LEAVE ROUGH.

(A03) OPTIONAL CONST. JOINT: KEYWAY FORMED BY BEVELED 2 x 6. (18" R.M.W. @ B.F. & 3/4" "V" GROOVE @ F.F. IF JOINT IS USED).

(A06) SUPPORT ABUTMENT ON HP 10 x 42 STEEL PILING, ESTIMATED 45'-0" LONG WITH A REQUIRED DRIVING RESISTANCE OF 155 TONS PER PILE. SEE SHEET 10 FOR PILE SPLICE DETAILS.

(A15) PIPE UNDERDRAIN WRAPPED (6-INCH). SLOPE 0.5% MIN. TO SUITABLE DRAINAGE. RODENT SHIELD REQUIRED.

(A17) 1/2" FILLER (INCLUDED IN WING LENGTH): SEAL ALL EXPOSED HORIZ. & VERT. SURFACES OF 1/2" FILLER WITH NON-STAINING GRAY NON-BITUMINOUS JOINT SEALER. (1" DEEP AND HOLD 1/8" BELOW SURFACE OF CONCRETE). EXTEND SEALER 3" BELOW GUTTER LINE AT INSIDE FACE.

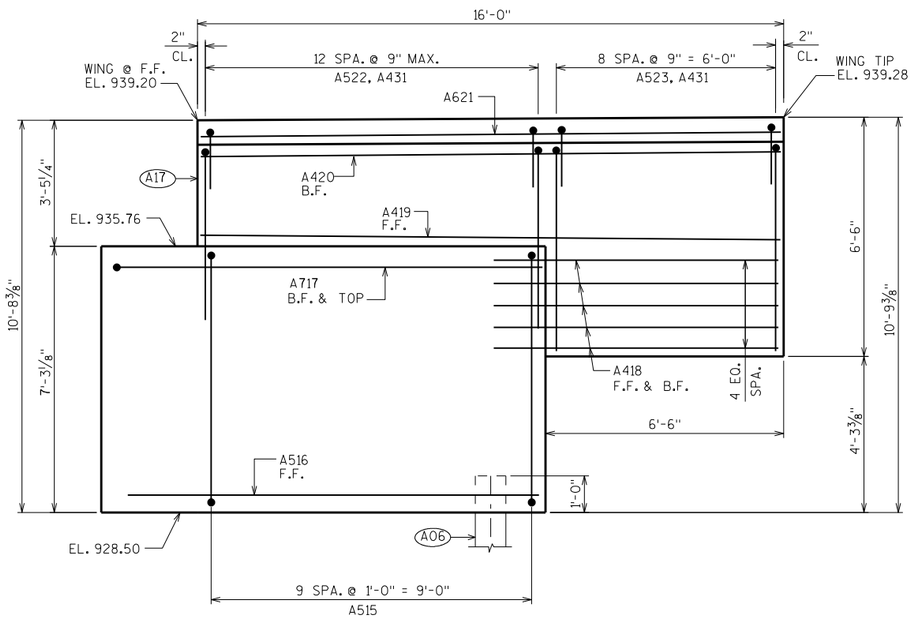
(A19) 18" (RMW) RUBBERIZED MEMBRANE WATERPROOFING SEAL ALL HORIZ. & VERT. JOINTS AT BACKFACE.

☆ FORMLINER, SEE "AESTHETIC DETAILS" SHEET

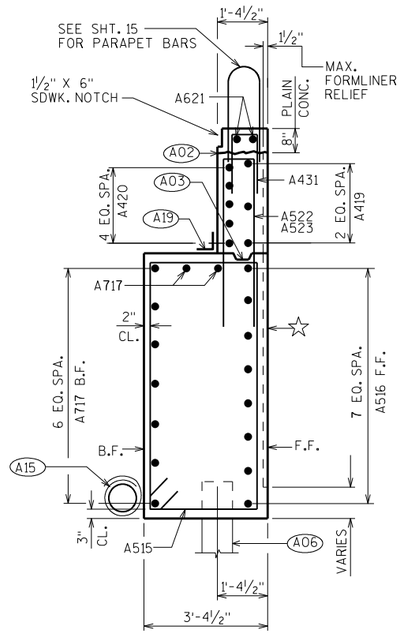
BILL OF BARS

NOTE: THE FIRST OR FIRST TWO DIGITS OF THE BAR MARK SIGNIFIES THE BAR SIZE.

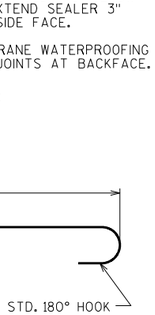
	BAR MARK	COAT	NO. REQ'D.	LENGTH	BENT	BAR SERIES	LOCATION
* ◐	A601		12	26'-11"			BODY-HORIZ.-STAGE 1
*	A602		12	26'-11"			BODY-HORIZ.-STAGE 2
	A503		34	18'-0"	X		BODY-VERT.-STAGE 1
	A504		34	18'-0"	X		BODY-VERT.-STAGE 2
* ◪	A805		7	27'-10"	X		BODY-HORIZ.-B.F.-STAGE 1
*	A806		7	28'-0"	X		BODY-HORIZ.-B.F.-STAGE 2
	A407		8	28'-0"	X		BODY-PILE
	A408		16	2'-3"			BODY-PILE
	A509		24	5'-11"	X		BODY-TOP-VERT.
* ◭	A410		4	11'-0"			BODY-TOP-HORIZ.-STAGE 1
*	A411		4	11'-0"			BODY-TOP-HORIZ.-STAGE 2
	A412		38	3'-3"	X		BODY-TOP-VERT.-STAGE 1 & 2
* ◭	A413		2	26'-11"			BODY-TOP-HORIZ.-STAGE 1
*	A414		2	26'-11"			BODY-TOP-HORIZ.-STAGE 2
	A515	X	10	20'-0"	X		WING 2 BODY-VERT.
	A516	X	8	11'-9"			WING 2 BODY-HORIZ.
	A717	X	9	12'-0"	X		WING 2 BODY-HORIZ.
	A418	X	10	7'-9"			WINGWALL 2-HORIZ.
	A419	X	3	15'-8"			WINGWALL 2-HORIZ. F.F.
	A420	X	5	15'-8"			WINGWALL 2-HORIZ. B.F.
	A621	X	2	15'-8"			WINGWALL 2-HORIZ.-TOP
	A522	X	13	10'-8"	X		WINGWALL 2-VERT.
	A523	X	9	11'-6"	X		WINGWALL 2-VERT.
	A524	X	13	20'-1"	X		WING 1 BODY-VERT.
	A525	X	8	13'-10"			WING 1 BODY-HORIZ.
	A626	X	9	14'-2"			WING 1 BODY-HORIZ.
	A427	X	3	11'-8"			WINGWALL 1-HORIZ. F.F.
	A428	X	5	11'-8"			WINGWALL 1-HORIZ. B.F.
	A629	X	2	11'-8"			WINGWALL 1-HORIZ.-TOP
	A530	X	17	10'-4"	X		WINGWALL 1-VERT.
	A431	X	39	3'-7"	X		WINGWALL 1 & 2-VERT.-TOP



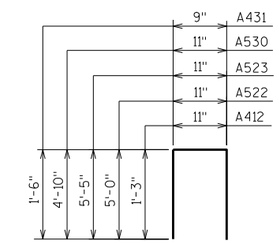
WING 2 ELEVATION



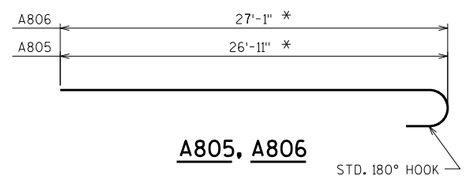
WING 2 SECTION



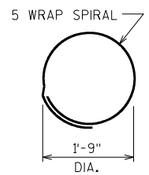
A717



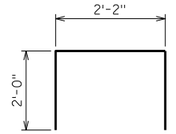
A412, A522, A523, A530, A431



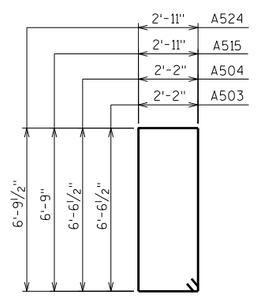
A805, A806



A407



A509



A503, A504, A515, A524

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION
STRUCTURES DESIGN SECTION

STRUCTURE B-66-184

DRAWN BY WWR | PLANS CK'D. CAD

WEST ABUTMENT DETAILS

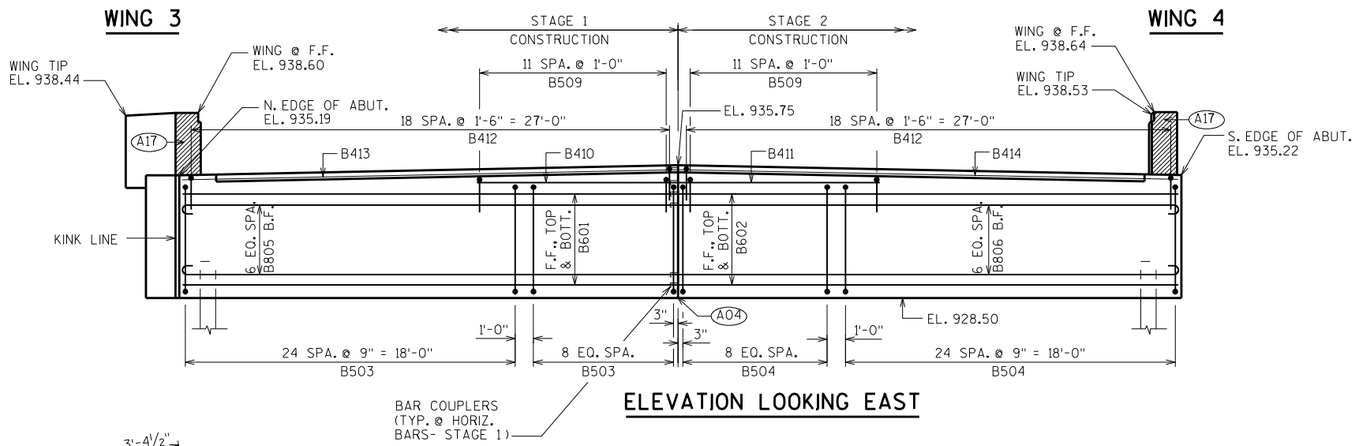
SHEET 7

408

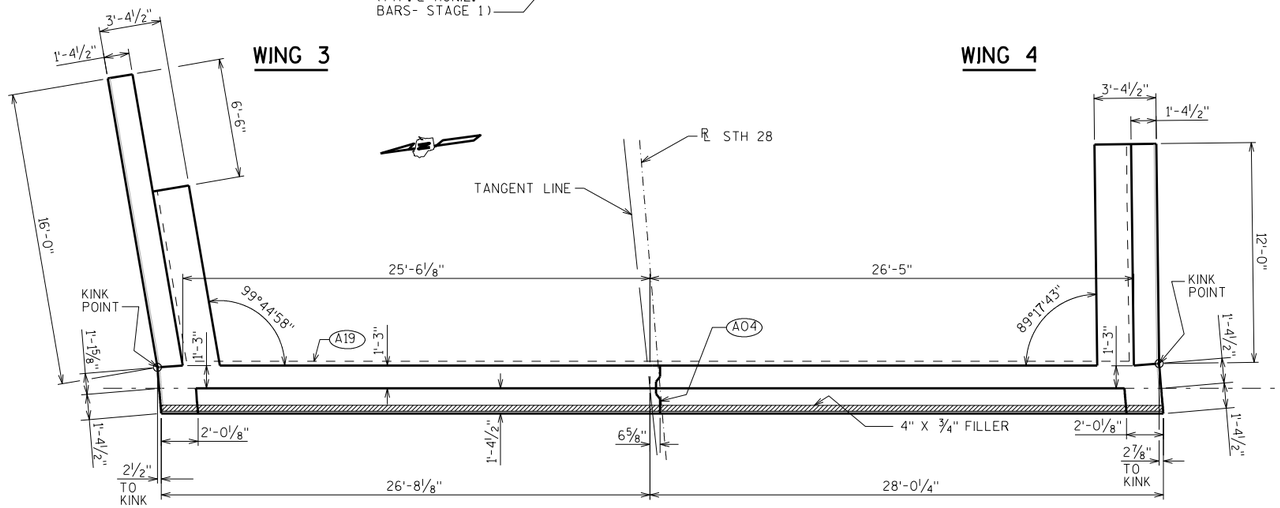
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STATE PROJECT NUMBER

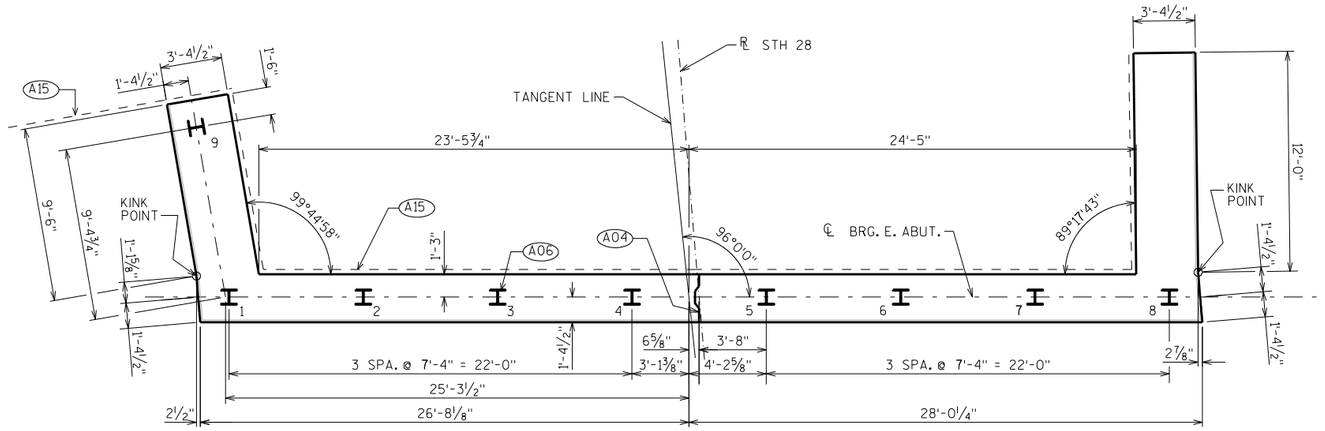
4060-05-70



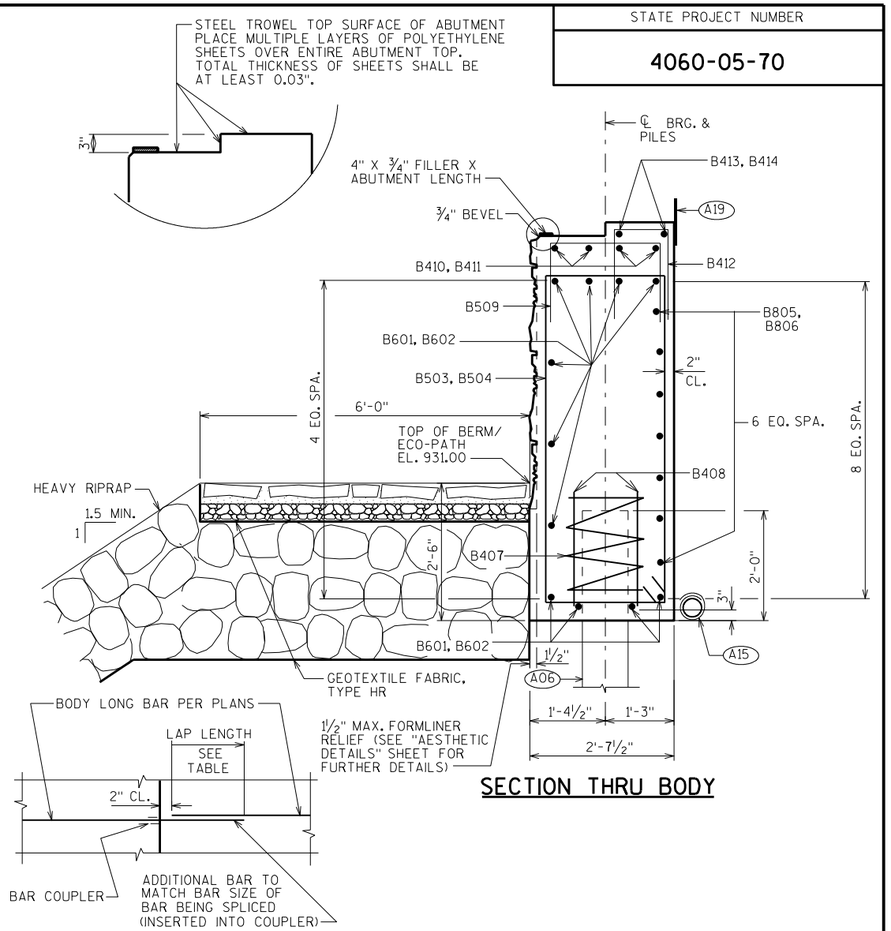
ELEVATION LOOKING EAST



PLAN



PILE PLAN

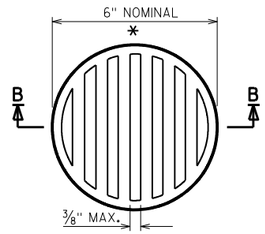


SECTION THRU BODY

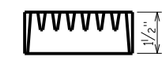
BAR SIZE	LAP LENGTH
#4	1'-5"
#6	2'-1"
#8	3'-8"

OPTIONAL SPLICE AT BAR COUPLER

ADDITIONAL SHORT BAR SHALL BE CONSIDERED INCIDENTAL TO BID ITEM "CONCRETE MASONRY BRIDGES".



RODENT SHIELD DETAIL



SECTION B-B

* DIMENSIONS ARE APPROXIMATE. THE GRATE IS SIZED TO FIT INTO A PIPE COUPLING. ORIENT SO SLOTS ARE VERTICAL.

THE RODENT SHIELD, PIPE COUPLING AND SCREWS SHALL BE CONSIDERED INCIDENTAL TO THE BID ITEM "PIPE UNDERDRAIN WRAPPED 6-INCH".

THE RODENT SHIELD SHALL BE A PVC GRATE SIMILAR TO THIS DETAIL. THE GRATE IS COMMERCIALLY AVAILABLE AS A FLOOR STRAINER. A PIPE COUPLING IS REQUIRED FOR THE ATTACHMENT OF THIS SHIELD TO THE EXPOSED END OF THE PIPE UNDERDRAIN. THE SHIELD SHALL BE FASTENED TO THE PIPE COUPLING WITH TWO OR MORE NO. 10 X 1-INCH STAINLESS STEEL SHEET METAL SCREWS.

(A04) VERT. CONSTRUCTION JOINT: KEYWAY FORMED BY A BEVELED 2 x 8. 18" R.M.W. @ BACKFACE.

(A06) SUPPORT ABUTMENT ON HP 10 x 42 STEEL PILING, ESTIMATED 40 FEET LONG WITH A REQUIRED DRIVING RESISTANCE OF 155 TONS PER PILE.

(A15) PIPE UNDERDRAIN WRAPPED (6-INCH). SLOPE 0.5% MIN. TO SUITABLE DRAINAGE. RODENT SHIELD REQUIRED.

(A17) 1/2" FILLER (INCLUDED IN WING LENGTH): SEAL ALL EXPOSED HORIZ. & VERT. SURFACES OF 1/2" FILLER WITH NON-STAINING GRAY NON-BITUMINOUS JOINT SEALER. (1" DEEP AND HOLD 1/8" BELOW SURFACE OF CONCRETE). EXTEND SEALER 3" BELOW GUTTER LINE AT INSIDE FACE.

(A19) 18" (RMW) RUBBERIZED MEMBRANE WATERPROOFING SEAL ALL HORIZ. & VERT. JOINTS AT BACKFACE.

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION
STRUCTURES DESIGN SECTION

STRUCTURE B-66-184

DRAWN BY WWR | PLANS CK'D. CAD

EAST ABUTMENT

SHEET 8

409

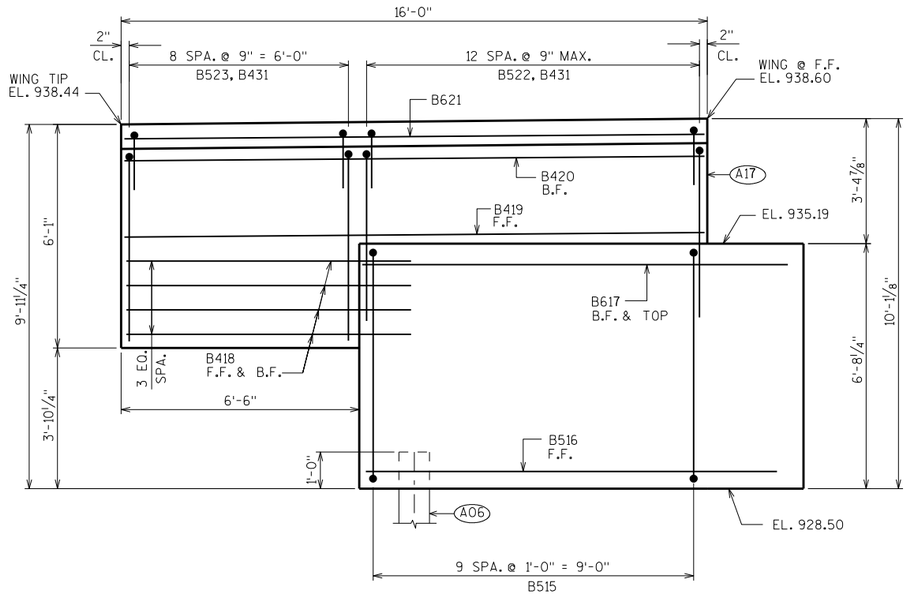
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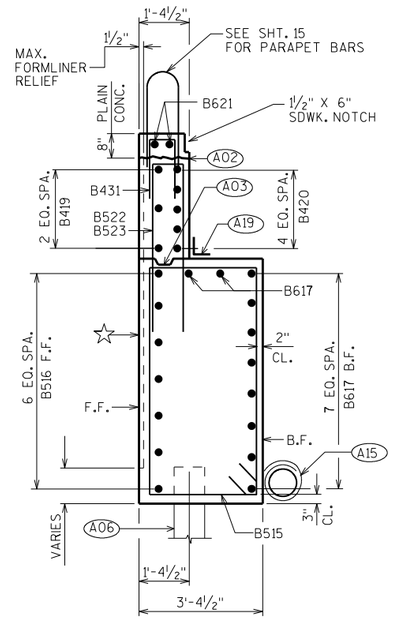
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STATE PROJECT NUMBER

4060-05-70



WING 3 ELEVATION



WING 3 SECTION

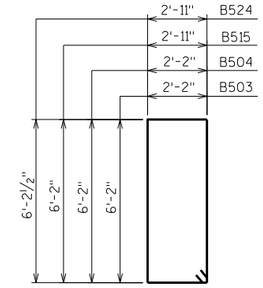
☆ FORMLINER, SEE "AESTHETIC DETAILS" SHEET

◐ BAR COUPLERS NO. 6 BARS REQ'D.

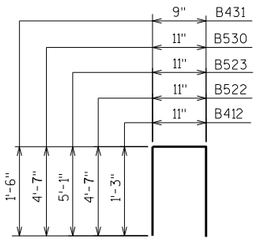
◪ BAR COUPLERS NO. 8 BARS REQ'D.

◭ BAR COUPLERS NO. 4 BARS REQ'D.

* BAR LENGTHS SHOWN ASSUME THE BAR TERMINATES AT THE FACE OF THE VERT. CONST. JOINT. CONTRACTOR TO DETERMINE ACTUAL LENGTH REQUIRED BASED ON BAR COUPLER TYPE BEING UTILIZED.



B503, B504, B515, B524

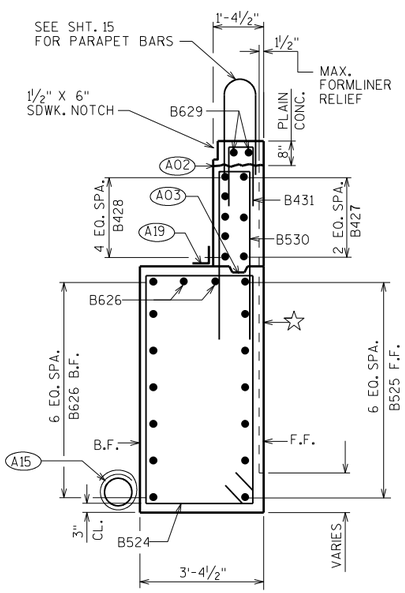


B412, B522, B523, B530, B431

BILL OF BARS

NOTE: THE FIRST OR FIRST TWO DIGITS OF THE BAR MARK SIGNIFIES THE BAR SIZE.

	BAR MARK	COAT	NO. REQ'D.	LENGTH	BENT	BAR SERIES	LOCATION
* ◐	B601		11	26'-11"			BODY-HORIZ.-STAGE 1
*	B602		11	26'-11"			BODY-HORIZ.-STAGE 2
	B503		34	17'-4"	X		BODY-VERT.-STAGE 1
	B504		34	17'-4"	X		BODY-VERT.-STAGE 2
* ◪	B805		7	27'-10"	X		BODY-HORIZ.-B.F.-STAGE 1
*	B806		7	27'-10"	X		BODY-HORIZ.-B.F.-STAGE 2
	B407		8	28'-0"	X		BODY-PILE
	B408		16	2'-3"			BODY-PILE
	B509		24	5'-11"	X		BODY-TOP-VERT.
* ◭	B410		4	11'-0"			BODY-TOP-HORIZ.-STAGE 1
*	B411		4	11'-0"			BODY-TOP-HORIZ.-STAGE 2
	B412		38	3'-3"	X		BODY-TOP-VERT.-STAGE 1 & 2
* ◭	B413		2	26'-11"			BODY-TOP-HORIZ.-STAGE 1
*	B414		2	26'-11"			BODY-TOP-HORIZ.-STAGE 2
	B515	X	10	18'-10	X		WING 3 BODY-VERT.
	B516	X	7	11'-7"			WING 3 BODY-HORIZ.
	B617	X	10	12'-1"			WING 3 BODY-HORIZ.
	B418	X	8	7'-9"			WINGWALL 3-HORIZ.
	B419	X	3	15'-8"			WINGWALL 3-HORIZ. F.F.
	B420	X	5	15'-8"			WINGWALL 3-HORIZ. B.F.
	B621	X	2	15'-8"			WINGWALL 3-HORIZ.-TOP
	B522	X	13	9'-10"	X		WINGWALL 3-VERT.
	B523	X	9	10'-10"	X		WINGWALL 3-VERT.
	B524	X	13	18'-11"	X		WING 4 BODY-VERT.
	B525	X	7	14'-1"			WING 4 BODY-HORIZ.
	B626	X	9	14'-2"			WING 4 BODY-HORIZ.
	B427	X	3	11'-8"			WINGWALL 4-HORIZ. F.F.
	B428	X	5	11'-8"			WINGWALL 4-HORIZ. B.F.
	B629	X	2	11'-8"			WINGWALL 4-HORIZ.-TOP
	B530	X	17	9'-10"	X		WINGWALL 4-VERT.
	B431	X	39	3'-7"	X		WINGWALL 3 & 4-VERT.-TOP



WING 4 ELEVATION

WING 4 SECTION

☆ FORMLINER, SEE "AESTHETIC DETAILS" SHEET

(A02) CONSTRUCTION JOINT: POUR CONCRETE ABOVE THIS JOINT AFTER SUPERSTRUCTURE CONCRETE IS IN PLACE. STRIKE OFF AND LEAVE ROUGH.

(A03) OPTIONAL CONST. JOINT: KEYWAY FORMED BY BEVELED 2 x 6. (18" R.M.W. @ B.F. & 3/4" "V" GROOVE @ F.F. IF JOINT IS USED).

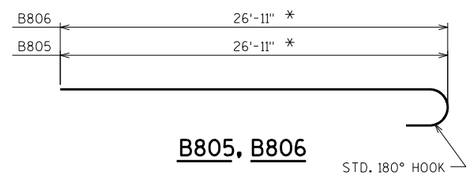
(A06) SUPPORT ABUTMENT ON HP 10 x 42 STEEL PILING, ESTIMATED 40'-0" LONG WITH A REQUIRED DRIVING RESISTANCE OF 155 TONS PER PILE. SEE SHEET 10 FOR PILE SPLICE DETAILS.

(A15) PIPE UNDERDRAIN WRAPPED (6-INCH). SLOPE 0.5% MIN. TO SUITABLE DRAINAGE. RODENT SHIELD REQUIRED.

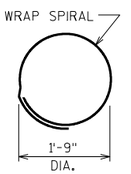
(A17) 1/2" FILLER (INCLUDED IN WING LENGTH): SEAL ALL EXPOSED HORIZ. & VERT. SURFACES OF 1/2" FILLER WITH NON-STAINING GRAY NON-BITUMINOUS JOINT SEALER. (1" DEEP AND HOLD 1/8" BELOW SURFACE OF CONCRETE). EXTEND SEALER 3" BELOW GUTTER LINE AT INSIDE FACE.

(A19) 18" (RMW) RUBBERIZED MEMBRANE WATERPROOFING SEAL ALL HORIZ. & VERT. JOINTS AT BACKFACE.

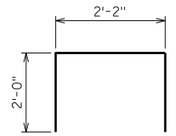
☆ FORMLINER, SEE "AESTHETIC DETAILS" SHEET



B805, B806



B407



B509

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION
STRUCTURES DESIGN SECTION

STRUCTURE B-66-184

DRAWN BY WWR | PLANS CK'D. CAD

EAST ABUTMENT DETAILS

SHEET 9

410

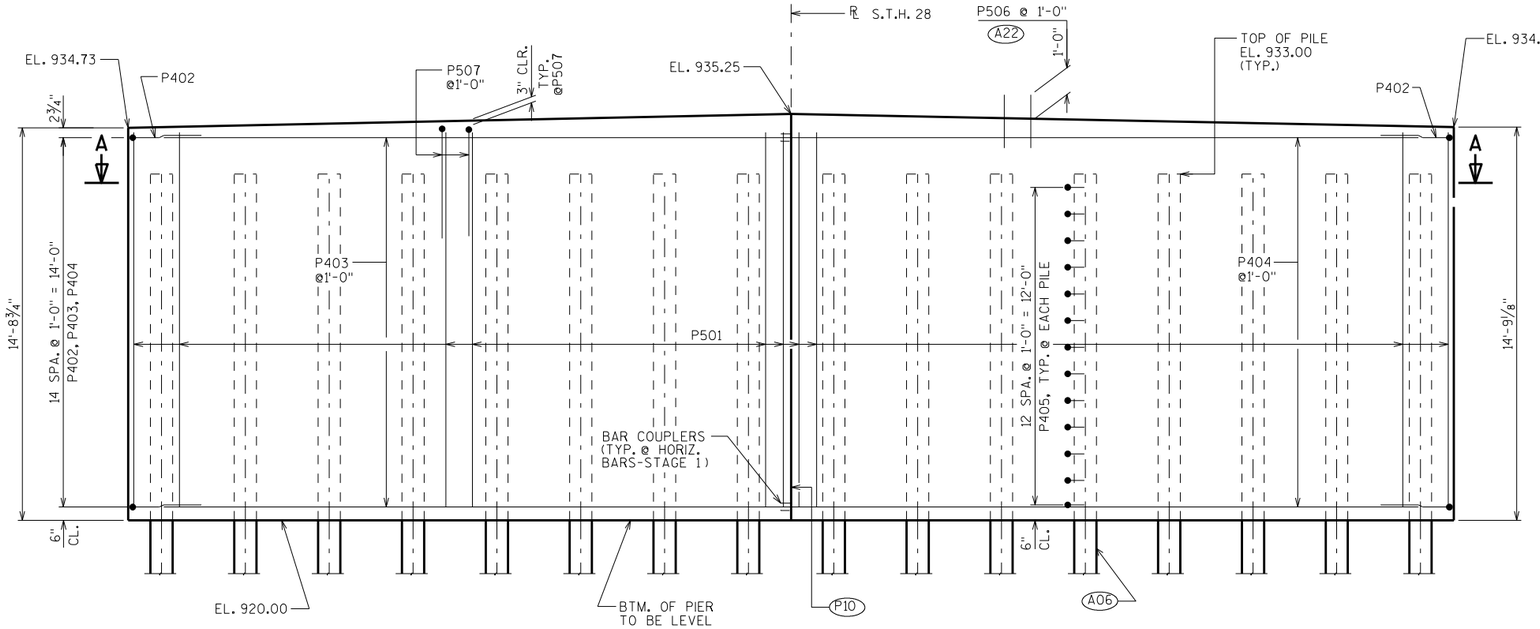
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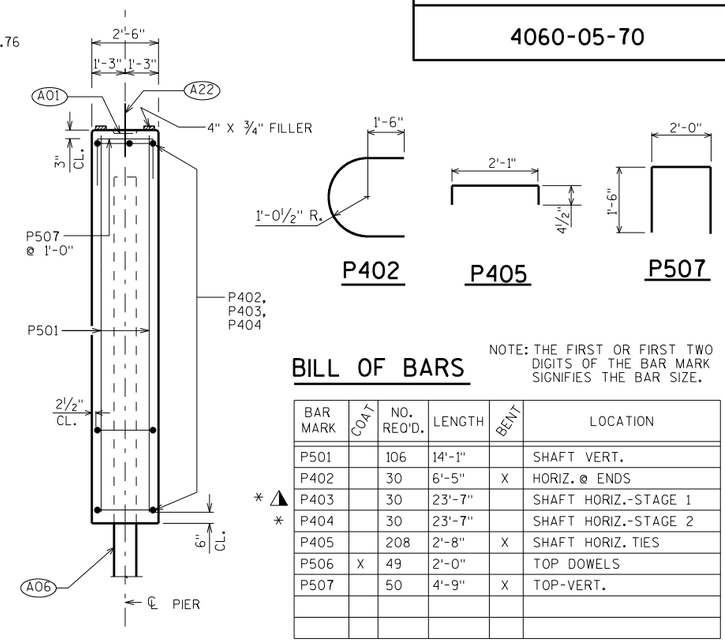
STATE PROJECT NUMBER

4060-05-70



ELEVATION

LOOKING EAST



END VIEW

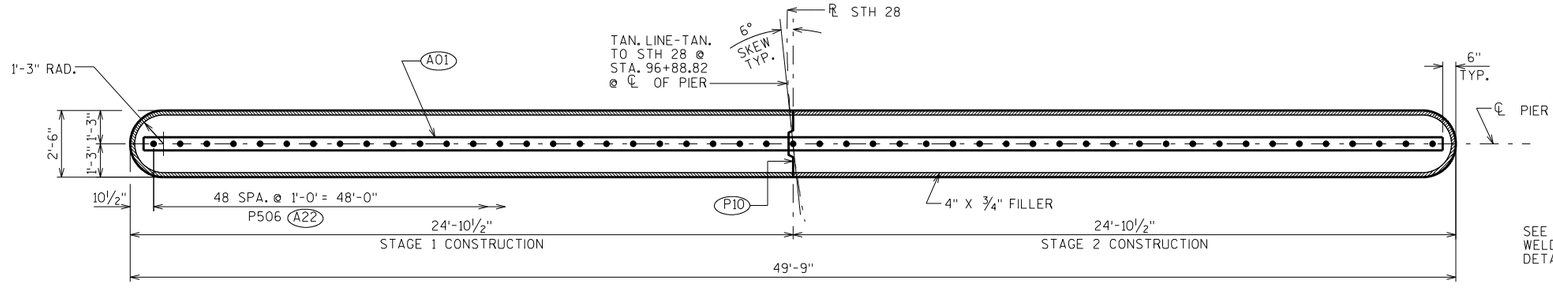
BILL OF BARS

NOTE: THE FIRST OR FIRST TWO DIGITS OF THE BAR MARK SIGNIFIES THE BAR SIZE.

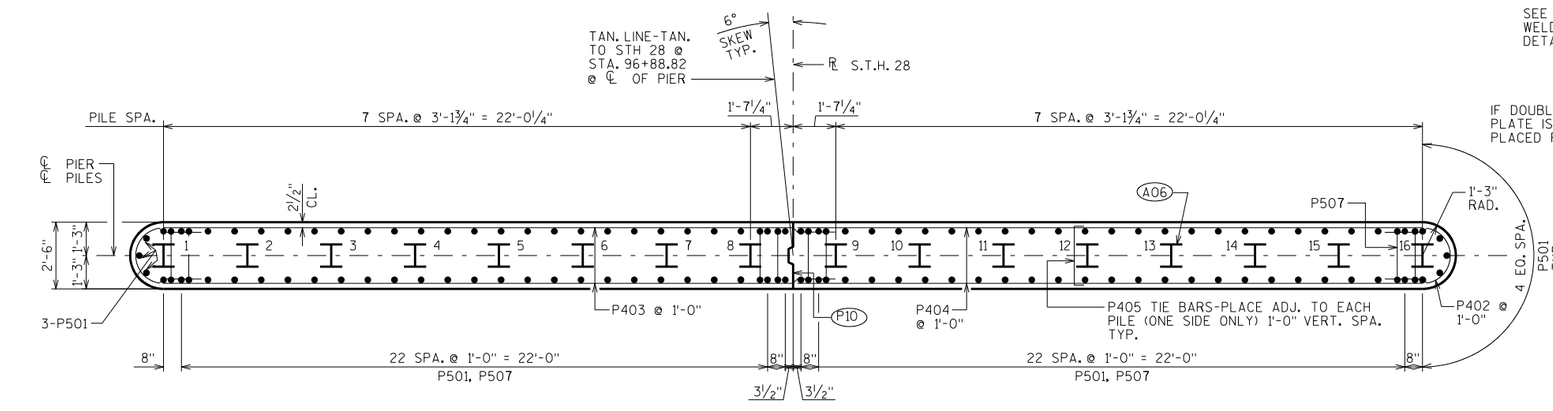
	BAR MARK	COAT	NO. REQ'D.	LENGTH	BENT	LOCATION
	P501		106	14'-1"		SHAFT VERT.
	P402		30	6'-5"	X	HORIZ. @ ENDS
* ◭	P403		30	23'-7"		SHAFT HORIZ.-STAGE 1
*	P404		30	23'-7"		SHAFT HORIZ.-STAGE 2
	P405		208	2'-8"	X	SHAFT HORIZ. TIES
	P506	X	49	2'-0"		TOP DOWELS
	P507		50	4'-9"	X	TOP-VERT.

◭ BAR COUPLERS NO. 4 BARS REQ'D.

* BAR LENGTHS SHOWN ASSUME THE BAR TERMINATES AT THE FACE OF THE VERT. CONST. JOINT. CONTRACTOR TO DETERMINE ACTUAL LENGTH REQUIRED BASED ON BAR COUPLER TYPE BEING UTILIZED.

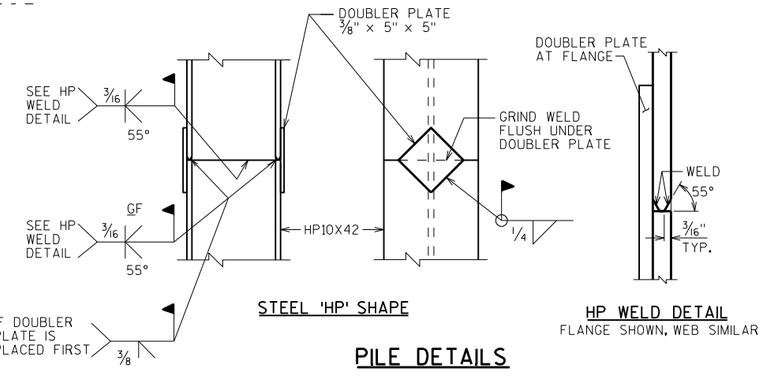


PLAN



SECTION A-A

◪ AT THE PIER, IF THE REQ'D. DRIVING RESISTANCE IS MET BEFORE ACHIEVING THE ESTIMATED PILE LENGTH, PILES SHALL BE DRIVEN DOWN TO EL. 902.00 AT A MINIMUM.



STEEL 'HP' SHAPE

HP WELD DETAIL

FLANGE SHOWN, WEB SIMILAR

PILE DETAILS

(A01) CONSTRUCTION JOINT: KEYWAY FORMED BY A BEVELED 2 × 6.

(A06) SUPPORT ABUTMENT ON HP 10 × 42 STEEL PILING, ESTIMATED 35'-0" LONG WITH A REQUIRED DRIVING RESISTANCE OF 175 TONS PER PILE. ◪

(A22) P506 BARS SPACED @ 1'-0" CTRS. BETWEEN BEAM SEATS. MAY BE PLACED AFTER CONCRETE IS POURED BUT BEFORE INITIAL SET HAS TAKEN PLACE. (EMBED 1'-0" INTO CONC.)

(P10) VERT. CONST. JOINT: KEYWAY FORMED BY SURFACED BEVELED 2 X 6.

NO.	DATE	REVISION	BY

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STRUCTURE B-66-184

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PIER

SHEET 10

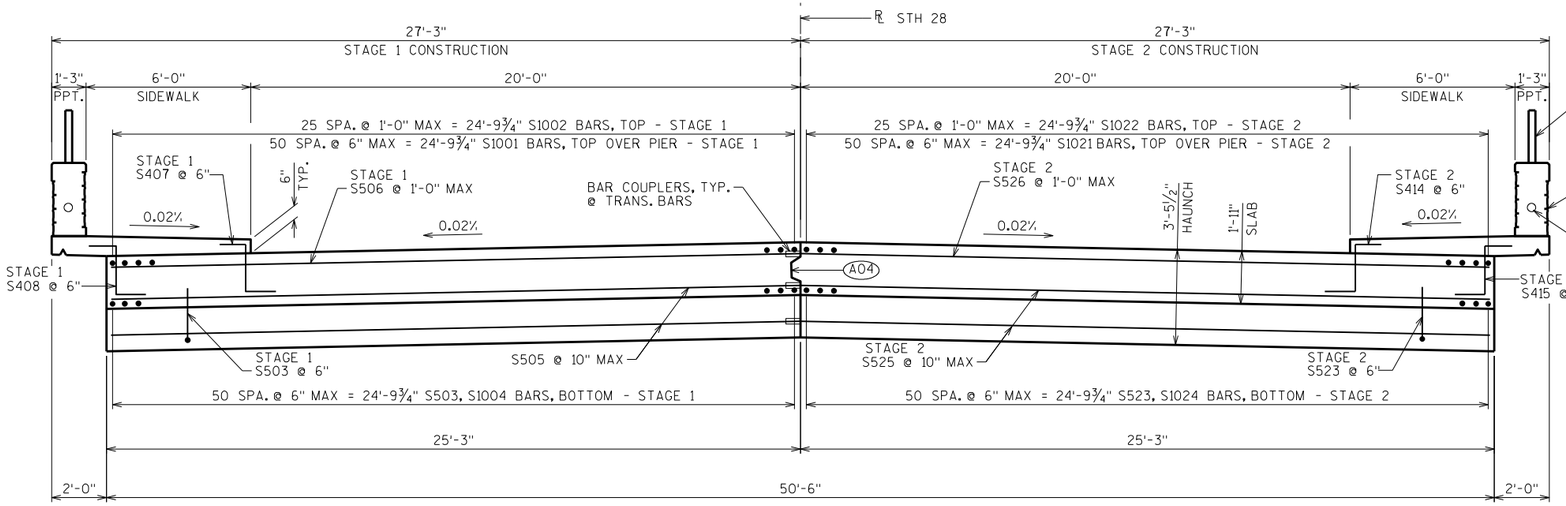
411

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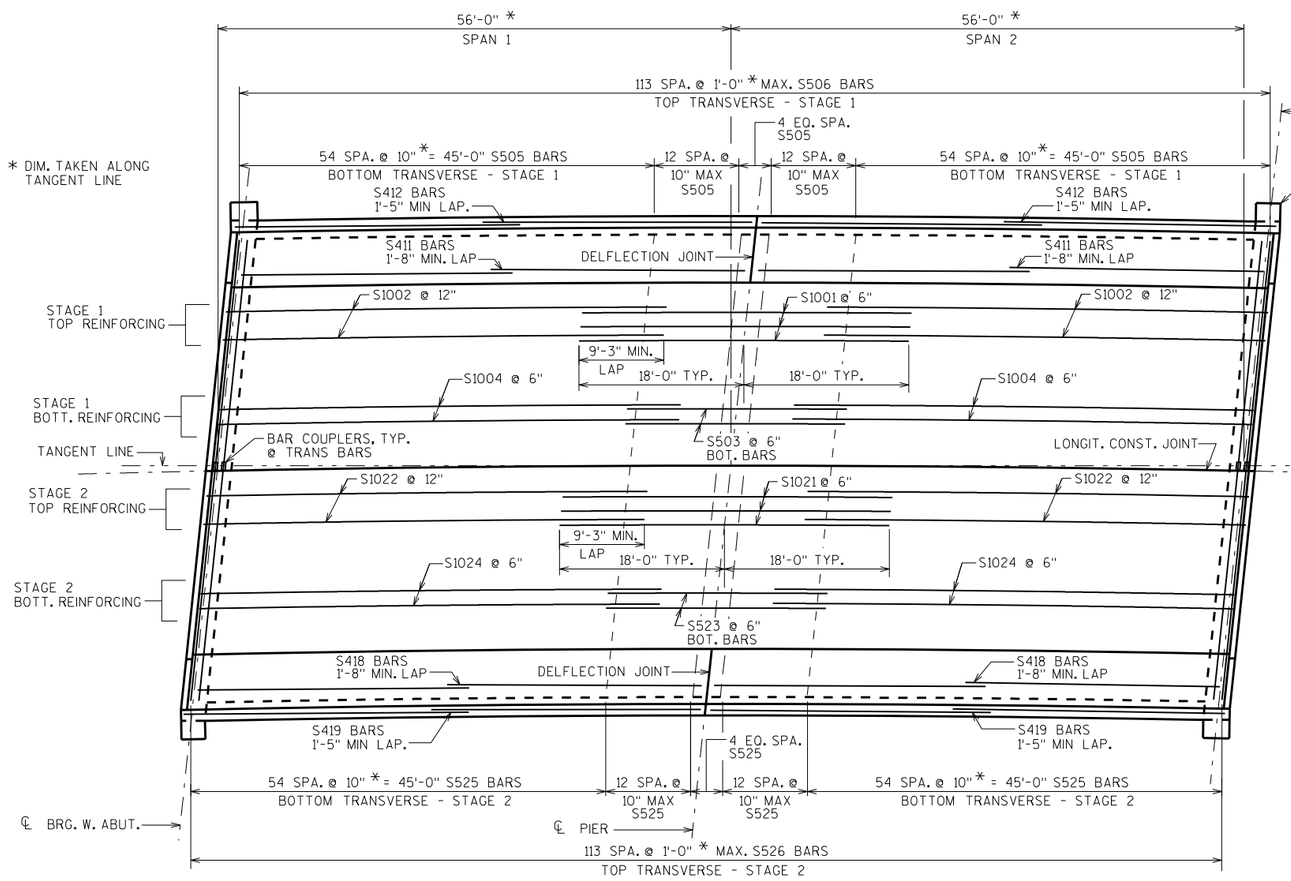
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8

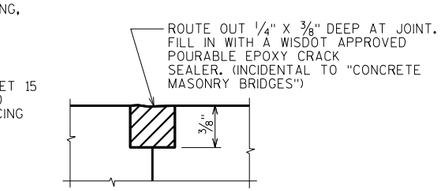
STATE PROJECT NUMBER
4060-05-70



CROSS SECTION THRU ROADWAY LOOKING EAST



SUPERSTRUCTURE BAR REINFORCEMENT LAYOUT



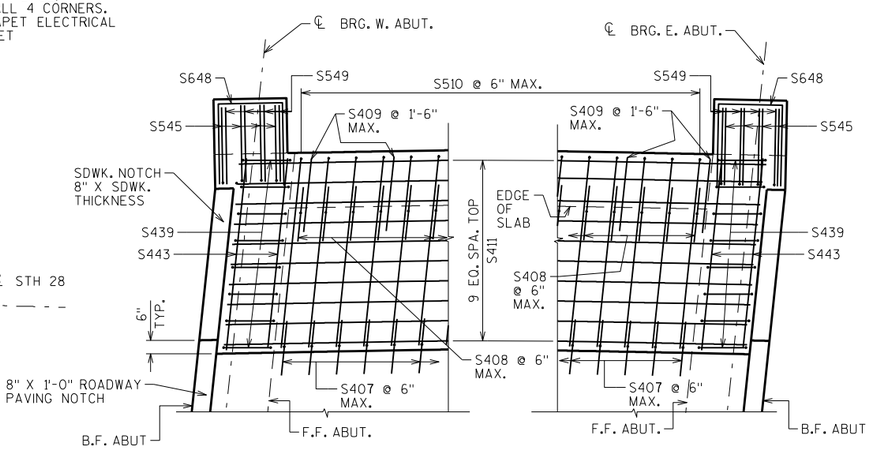
LONGITUDINAL CONSTRUCTION JOINT DETAIL

NOTES:

TOP TRANSVERSE BARS IN SLAB SHALL BE SUPPORTED BY INDIVIDUAL BAR CHAIRS AT APPROXIMATELY 4'-0" CENTERS.

ALL SLAB THICKNESS DIMENSIONS ARE MINIMUM. ANY TOLERANCE NECESSARY TO CORRECT CONSTRUCTION DISCREPANCIES ARE TO BE PLUS (+).

(A04) LONG. CONSTRUCTION JOINT: KEYWAY FORMED BY A BEVELED 2 x 6. SEE "LONGITUDINAL CONSTRUCTION JOINT" DETAIL FOR ADDITIONAL REQUIREMENTS.



PART PLAN SHOWING SDWK. REINF.

(PARAPET DOWEL BARS NOT SHOWN FOR CLARITY)

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STRUCTURE B-66-184

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SUPERSTRUCTURE | SHEET 11

412

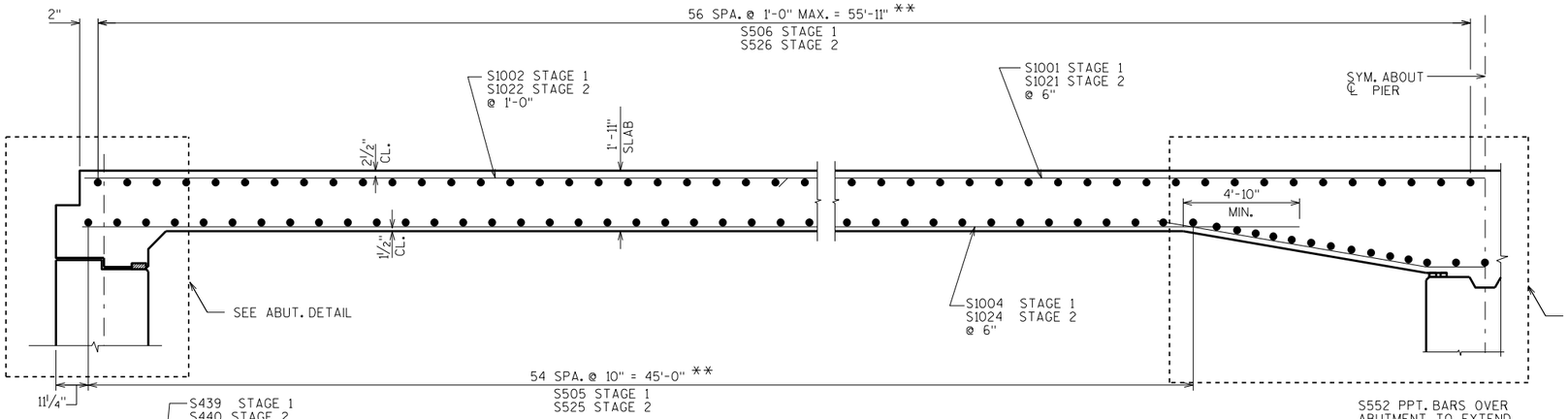
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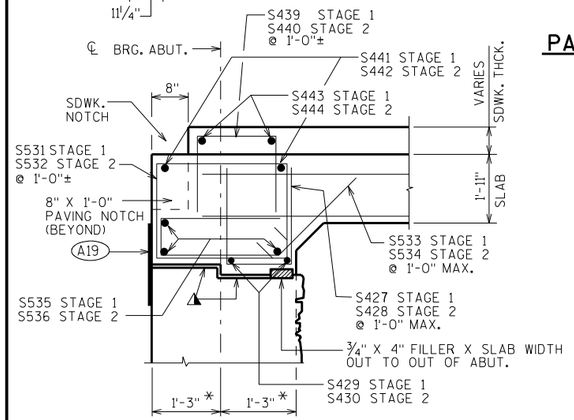
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STATE PROJECT NUMBER

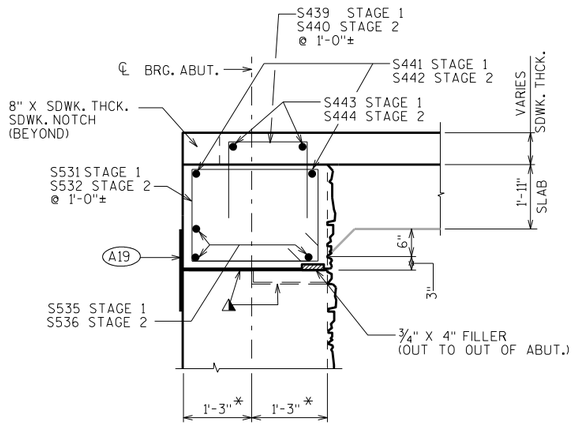
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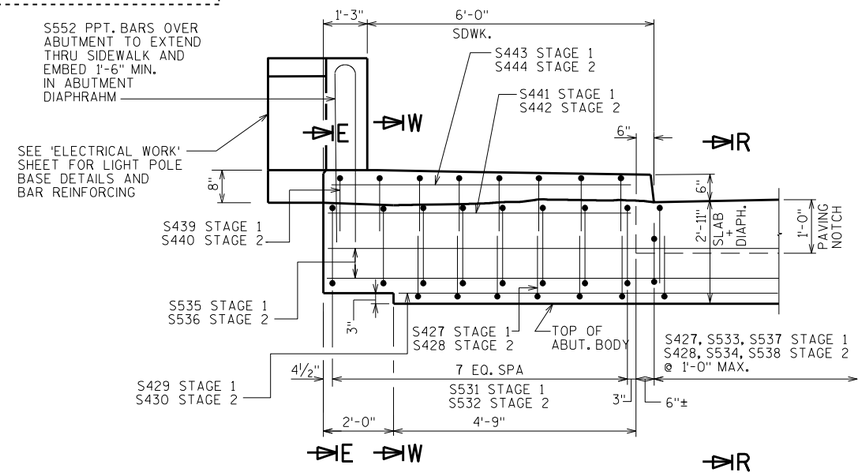
PART LONGITUDINAL SECTION THRU RDWY.



SECTION W-W

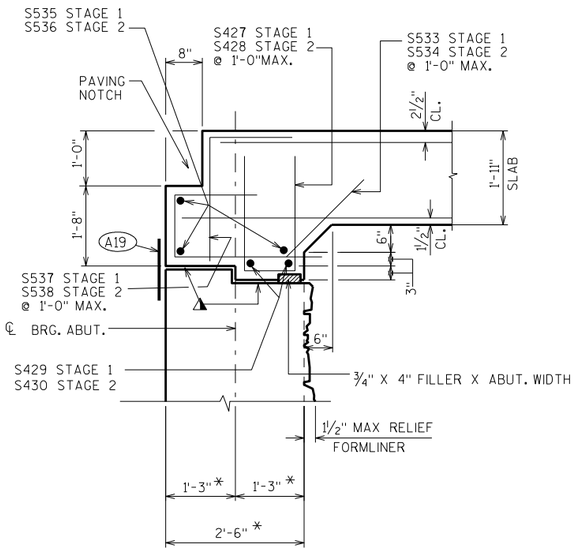


SECTION E-E



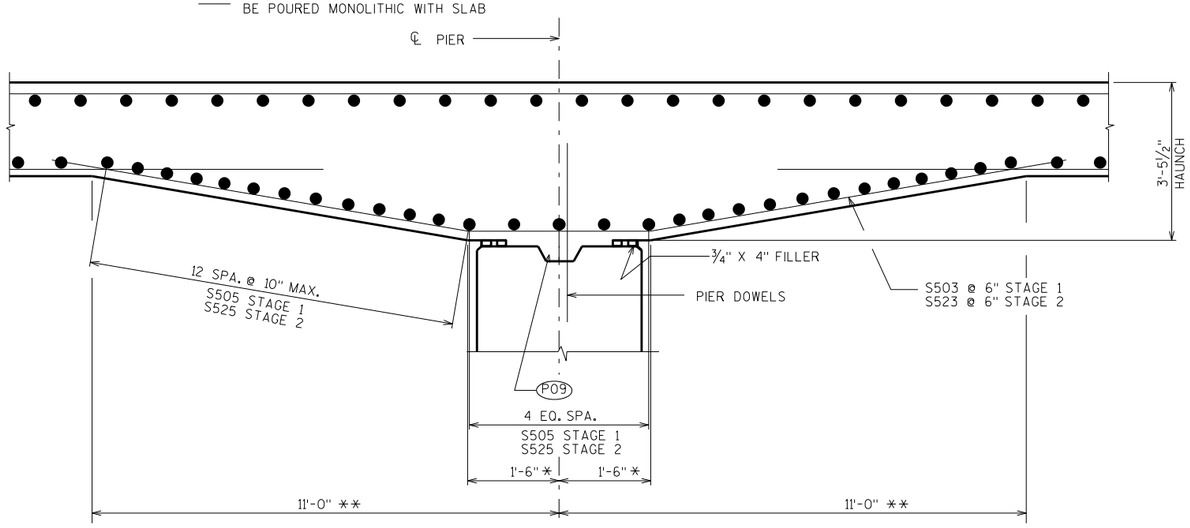
ABUT. DIAPH. DETAIL @ SIDEWALK

(LOOKING @ WEST ABUT.)
(SDWK. NOTCH NOT SHOWN FOR CLAIRITY)



ABUT. DETAIL/SECTION R-R

NOTE: DIAPHRAGM BELOW SIDEWALK TO BE POURED MONOLITHIC WITH SLAB



HAUNCH DETAIL

P09 KEYED CONSTRUCTION JOINT-FORMED BY BEVELED 2 x 6.

A19 18" (RMW) RUBBERIZED MEMBRANE WATERPROOFING SEAL ALL HORIZ. & VERT. JOINTS AT BACKFACE

* DIM. MEASURED PERPENDICULAR TO ℄ SUBSTRUCTURE

** DIM. MEASURED ALONG TANGENT LINE

▲ STEEL TROWEL TOP SURFACE OF ABUTMENT PLACE MULTIPLE LAYERS (0.03" MIN. TOTAL THICKNESS) OF POLYETHYLENE SHEETS OVER ABUTMENT TOP.

NO.	DATE	REVISION	BY

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STRUCTURE B-66-184

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SUPERSTRUCTURE DETAILS

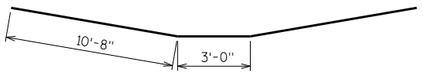
SHEET 12

413

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STATE PROJECT NUMBER

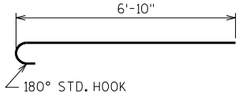
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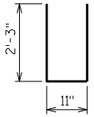
S503, S523



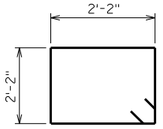
S407, S408, S414, S415



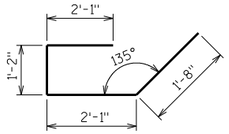
S510, S517



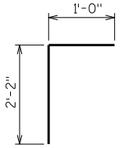
S427, S428



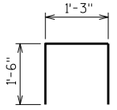
S531, S532



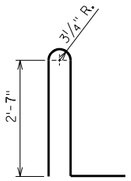
S533, S534



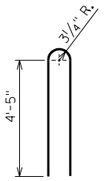
S537, S538



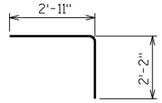
S439, S440



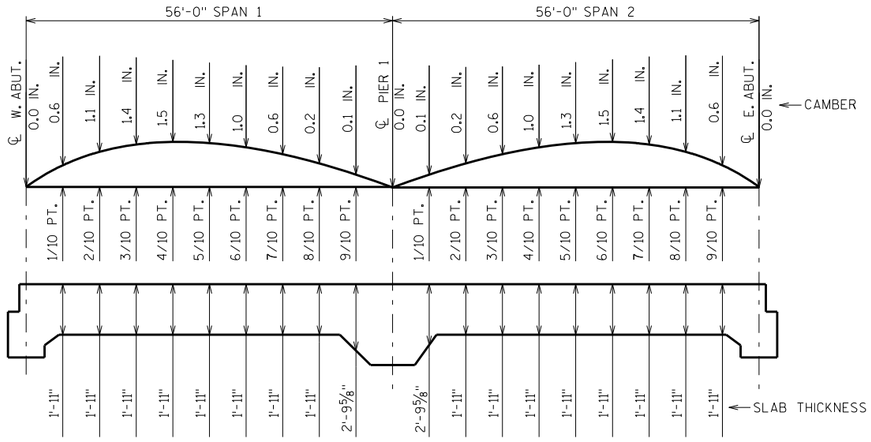
S513, S520



S552



S545



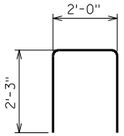
CAMBER AND SLAB THICKNESS DIAGRAM

CAMBER SHOWN IS BASED ON 3 TIMES DEAD LOAD DEFLECTIONS. CAMBER SPANS AS SHOWN TO PROVIDE FOR DEAD LOAD DEFLECTION AND FUTURE CREEP. CAMBER DOES NOT INCLUDE ALLOWANCE FOR FORM SETTLEMENT.

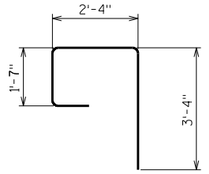
TO DETERMINE FALSEWORK ELEVATION AT EDGE OF SLAB, CROWN OR CENTERLINE FOLLOW THIS PROCEDURE:

TOP OF SLAB ELEVATION AT FINAL GRADE
LESS (-)SLAB THICKNESS
PLUS (+)CAMBER
PLUS (+)FORM SETTLEMENT/DEFLECTION DUE TO PLACEMENT OF SLAB CONCRETE (TO BE COMPUTED BY THE CONTRACTOR)
EQUALS = TOP OF SLAB FALSEWORK ELEVATION.

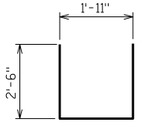
PRIOR TO RELEASING SLAB FALSEWORK, TAKE TOP OF SLAB ELEVATIONS AT THE ℄ OF ABUTMENTS AND AT 5/10 PTS. ALONG CENTER OF DECK AND GUTTERLINES TO VERIFY CAMBER.



S546



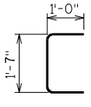
S547



S648



S550



S551

BAR COUPLERS NO. 6 BARS REQ'D.

BAR COUPLERS NO. 4 BARS REQ'D.

* BAR LENGTHS SHOWN ASSUME THE BAR TERMINATES AT THE FACE OF THE LONGIT. CONST. JOINT. CONTRACTOR TO DETERMINE ACTUAL LENGTH REQUIRED BASED ON BAR COUPLER TYPE BEING UTILIZED.

BILL OF BARS

NOTE: THE FIRST OR FIRST TWO DIGITS OF THE BAR MARK SIGNIFIES THE BAR SIZE.

	BAR MARK	COAT	NO. REQ'D.	LENGTH	BENT	BAR SERIES	LOCATION
	S1001	X	51	36'-0"			SLAB-TOP-LONGIT. OVER PIER -STAGE 1
	S1002	X	52	47'-7"			SLAB-TOP-LONGIT. -STAGE 1
	S503	X	51	24'-4"	X		SLAB-BOT.-LONGIT. OVER PIER -STAGE 1
	S1004	X	102	50'-4"			SLAB-BOT-LONGIT. -STAGE 1
⬬	S505	X	137	25'-1"			SLAB-BOT.-TRANSVERSE -STAGE 1
⬬	S506	X	114	25'-1"			SLAB-TOP-TRANSVERSE -STAGE 1
	S407	X	218	3'-8"	X		SLAB/SDWK.-VERT. -STAGE 1
	S408	X	218	3'-8"	X		SLAB/SDWK.-VERT. -STAGE 1
	S409	X	74	2'-10"			SDWK.-BOT. -STAGE 1
	S510	X	218	7'-5"	X		SDWK.-TOP -STAGE 1
	S411	X	52	29'-2"			SDWK.-LONGIT. -STAGE 1
	S412	X	24	29'-2"			PPT.-LONGIT. -STAGE 1
	S513	X	109	6'-9"	X		PPT.-VERT. -STAGE 1
	S414	X	218	3'-8"	X		SLAB/SDWK.-VERT. -STAGE 2
	S415	X	218	3'-8"	X		SLAB/SDWK.-VERT. -STAGE 2
	S416	X	74	2'-10"			SDWK.-BOT. -STAGE 2
	S517	X	218	7'-5"	X		SDWK.-TOP -STAGE 2
	S418	X	52	29'-2"			SDWK.-LONGIT. -STAGE 2
	S419	X	24	29'-2"			PPT.-LONGIT. -STAGE 2
	S520	X	109	6'-9"	X		PPT.-VERT. -STAGE 2
	S1021	X	51	36'-0"			SLAB-TOP-LONGIT. OVER PIER -STAGE 2
	S1022	X	52	47'-7"			SLAB-TOP-LONGIT. -STAGE 2
	S523	X	51	24'-4"	X		SLAB-BOT.-LONGIT. OVER PIER -STAGE 2
	S1024	X	102	50'-4"			SLAB-BOT-LONGIT. -STAGE 2
*	S525	X	137	25'-1"			SLAB-BOT.-TRANSVERSE -STAGE 2
*	S526	X	114	25'-1"			SLAB-TOP-TRANSVERSE -STAGE 2
	S427	X	52	5'-3"	X		DIAPH.-VERT.U-BAR -STAGE 1
	S428	X	52	5'-3"	X		DIAPH.-VERT.U-BAR -STAGE 2
◭	S429	X	4	25'-2"			DIAPH.-HORIZ. -STAGE 1
*	S430	X	4	25'-2"			DIAPH.-HORIZ. -STAGE 2
	S531	X	16	9'-4"	X		DIAPH.-VERT. STIRRUP -STAGE 1
	S532	X	16	9'-4"	X		DIAPH.-VERT. STIRRUP -STAGE 2
	S533	X	56	6'-8"	X		DIAPH.-VERT.HAUNCH -STAGE 1
	S534	X	56	6'-8"	X		DIAPH.-VERT.HAUNCH -STAGE 2
⬬	S535	X	6	27'-2"			DIAPH.-HORIZ. -STAGE 1
*	S536	X	6	27'-2"			DIAPH.-HORIZ. -STAGE 2
	S537	X	56	3'-1"	X		DIAPH. VERT. -STAGE 1
	S538	X	56	3'-1"	X		DIAPH. VERT. -STAGE 2
	S439	X	16	4'-1"	X		DIAPH.-VERT U-BAR -STAGE 1
	S440	X	16	4'-1"	X		DIAPH.-VERT U-BAR -STAGE 2
	S441	X	4	6'-5"			DIAPH.-HORIZ. BELOW SDWK. -STAGE 1
	S442	X	4	6'-5"			DIAPH.-HORIZ. BELOW SDWK. -STAGE 2
	S443	X	4	6'-10"			DIAPH.-HORIZ. @ SDWK. -STAGE 1
	S444	X	4	6'-10"			DIAPH.-HORIZ. @ SDWK. -STAGE 2
	S545	X	16	5'-0"	X		SDWK.-HORIZ. @ JUNCTION BOX -STAGE 1&2
	S546	X	16	6'-3"	X		PPT.-VERT. @ JUNCTION BOX -STAGE 1&2
	S547	X	16	7'-11"	X		PPT.-VERT. @ LIGHT STD. -STAGE 1&2
	S648	X	28	6'-7"	X		PPT.-HORIZ. @ LIGHT STD. -STAGE 1&2
	S549	X	16	2'-11"			SDWK.-HORIZ. @ JUNCTION BOX -STAGE 1&2
	S550	X	8	3'-2"	X		PPT.-VERT. @ LIGHT STD. -STAGE 1&2
	S551	X	8	3'-5"	X		PPT.-VERT. @ LIGHT STD. -STAGE 1&2
	S552	X	12	9'-8"	X		PPT.-VERT. OVER ABUT. DIAPH. -STAGE 1&2

TOP OF SLAB ELEVATIONS

LOCATION	WEST ABUT	1/10	2/10	3/10	4/10	5/10	6/10	7/10	8/10	9/10	PIER	1/10	2/10	3/10	4/10	5/10	6/10	7/10	8/10	9/10	EAST ABUT
NORTH EOD	938.47	938.44	938.42	938.39	938.36	938.33	938.30	938.28	938.25	938.22	938.19	938.16	938.14	938.11	938.08	938.05	938.03	938.00	937.97	937.94	937.90
CROWN/PGL/℞	938.99	938.96	938.94	938.91	938.88	938.85	938.82	938.79	938.77	938.74	938.71	938.68	938.65	938.63	938.60	938.57	938.54	938.51	938.49	938.46	938.42
SOUTH EOD	938.50	938.47	938.45	938.42	938.39	938.36	938.33	938.30	938.28	938.25	938.22	938.19	938.16	938.13	938.11	938.08	938.05	938.02	937.99	937.96	937.93

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION
STRUCTURES DESIGN SECTION

STRUCTURE B-66-184

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SUPERSTRUCTURE DETAILS 2

SHEET 13

414

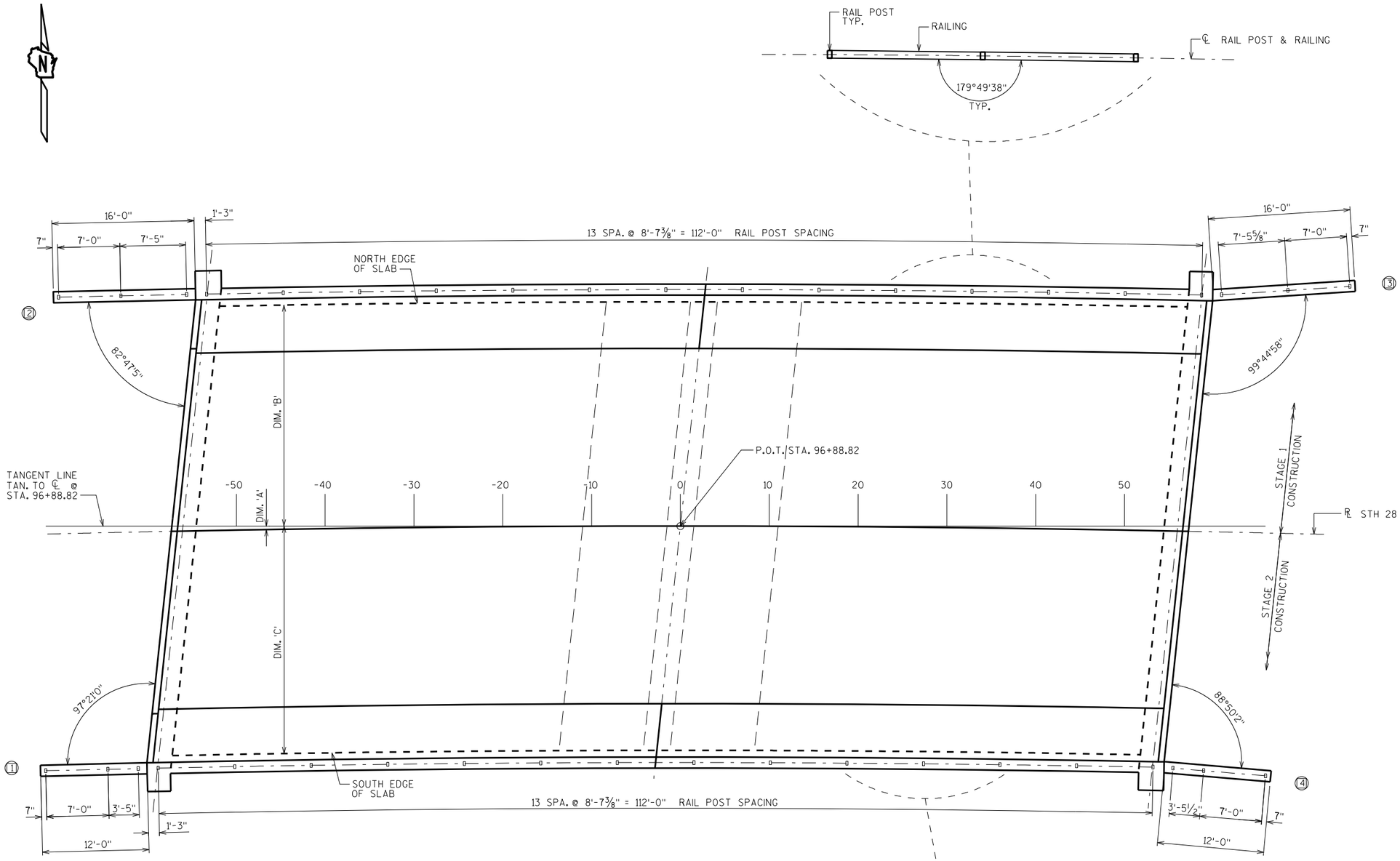
SCALE = 1.25

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8

STATE PROJECT NUMBER

4060-05-70

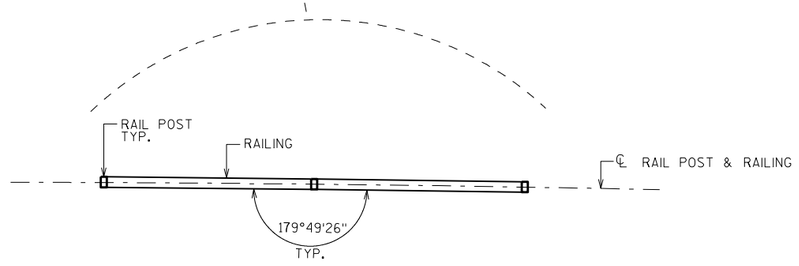


PLAN

TANGENT OFFSET TABLE

TAKEN NORMAL TO TANGENT LINE (FT.)

DIST. FROM P.O.T. STA. 96+88.82	REF. LINE DIM. 'A'	N. EDGE DIM. 'B'	S. EDGE DIM. 'C'
-50	0.44	24.81	25.70
-40	0.28	24.97	25.54
-30	0.16	25.09	25.41
-20	0.07	25.18	25.32
-10	0.02	25.23	25.27
0	0.00	25.25	25.25
10	0.02	25.23	25.27
20	0.07	25.18	25.32
30	0.16	25.09	25.41
40	0.28	24.97	25.54
50	0.44	24.81	25.70



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STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION
STRUCTURES DESIGN SECTION

STRUCTURE B-66-184

DRAWN BY WWR | PLANS CK'D. CAD

RAIL POST SPACING & SLAB LAYOUT

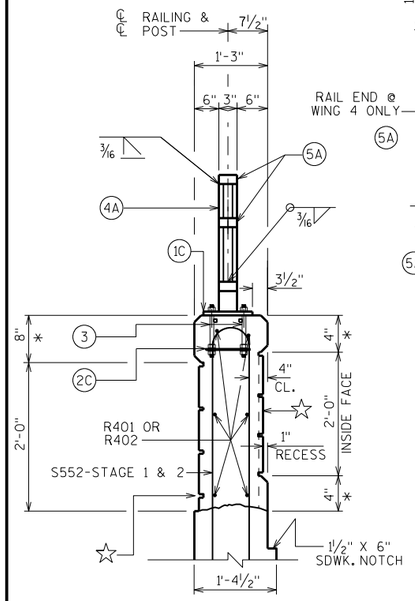
SHEET 14

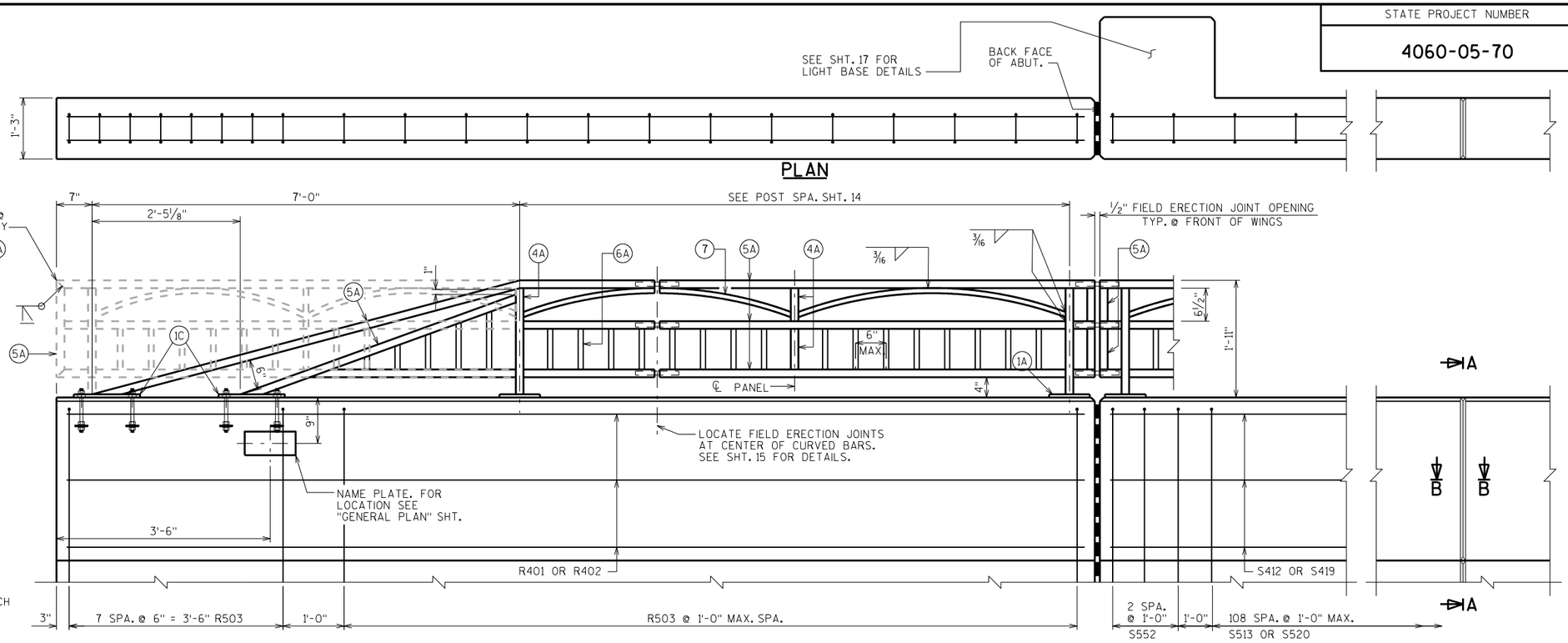
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SCALE =

STATE PROJECT NUMBER

4060-05-70



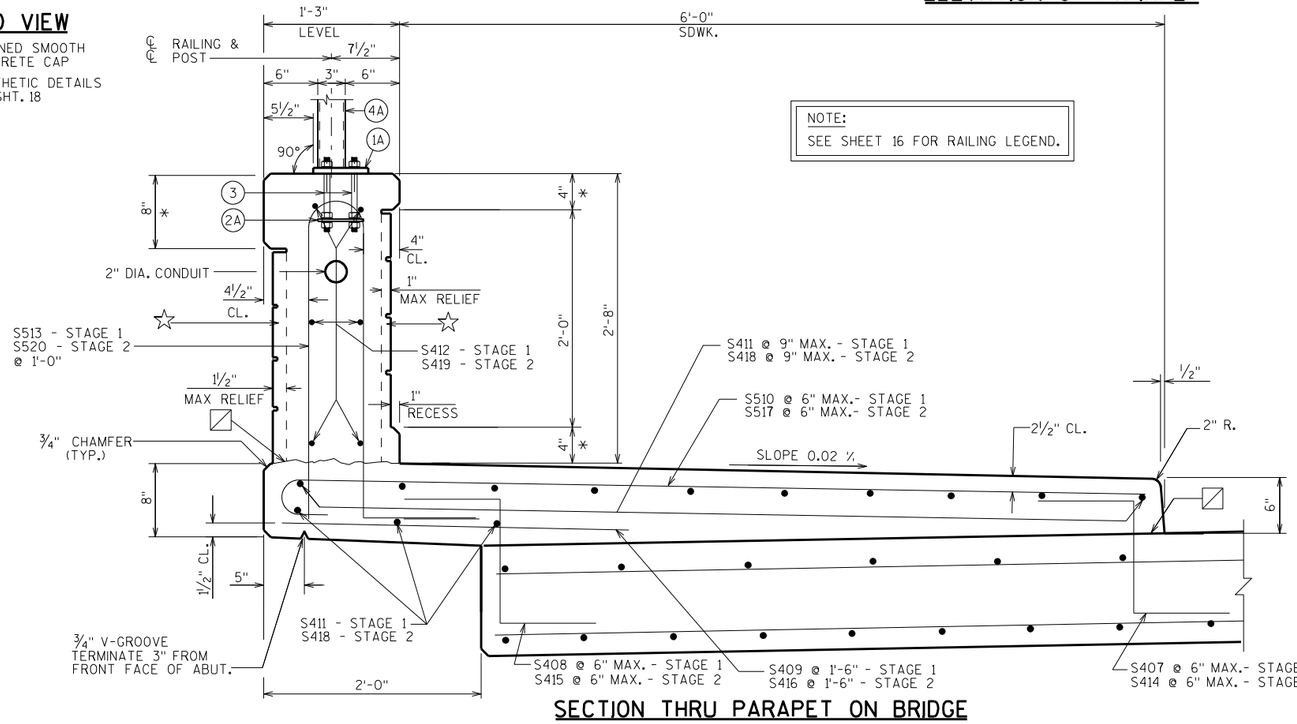


ELEVATION OF PARAPET

END VIEW

* UNSTAINED SMOOTH CONCRETE CAP

☆ SEE AESTHETIC DETAILS SHT. 18

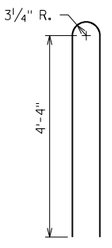


NOTE:
SEE SHEET 16 FOR RAILING LEGEND.

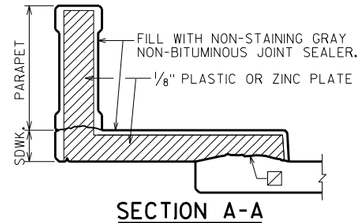
SECTION THRU PARAPET ON BRIDGE

BILL OF BARS

BAR MARK	COAT	WEST ABUT.	EAST ABUT.	LENGTH	BENT	LOCATION
R401	X	6	6	11'-8"		PARAPET HORIZ.-WING 1 & 4
R402	X	6	6	15'-8"		PARAPET HORIZ.-WING 2 & 3
R503	X	36	36	9'-6"	X	PARAPET VERT.



R503

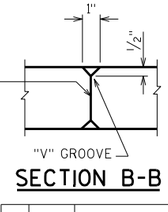


SECTION A-A

(SHOWING DEFLECTION JOINT IN PARAPET AND SIDEWALK.)

WHEN PARAPETS ARE POURED CONTINUOUSLY FROM END TO END, THEY SHALL BE SEPARATED AT THE DEFLECTION JOINTS BY A PIECE OF ⅛" ZINC OR PLASTIC PLATE CUT AS SHOWN IN SECTION A-A BY SHADED AREA. IF CONSTRUCTION JOINTS IN PARAPETS ARE USED AT THE DEFLECTION JOINTS, ONE SIDE OF JOINT SHALL BE COATED WITH AN APPROVED LIQUID BOND BREAKER AND PLATE SEPARATORS MAY BE OMITTED.

☒ HORIZ. CONST. JOINT - STRIKE OFF AS SHOWN AND LEAVE ROUGH.



SECTION B-B

NO.	DATE	REVISION	BY

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STRUCTURES DESIGN SECTION

STRUCTURE B-66-184

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MODIFIED VERT. FACE PPT. "A" & TYPE "C3" RAIL

SHEET 15

416

8

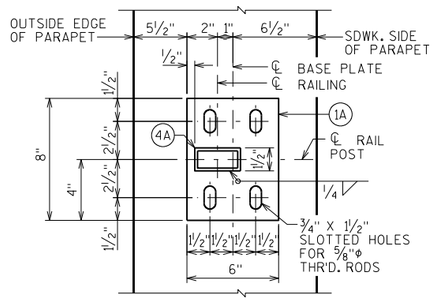
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SCALE = 1.000

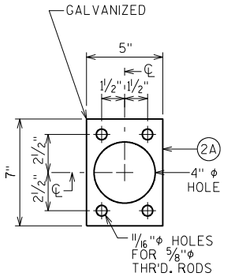
RAILCOMB

STATE PROJECT NUMBER

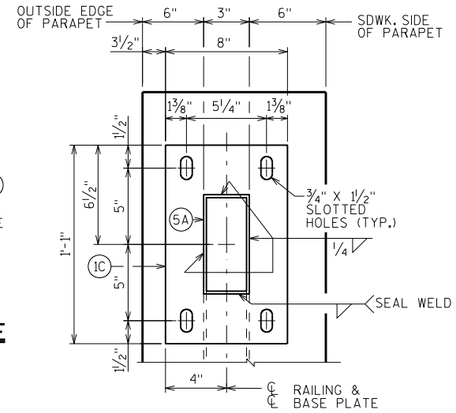
4060-05-70



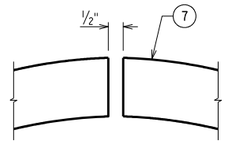
TYPICAL RAIL POST BASE PLATE



ANCHOR PLATE



END RAIL BASE PLATE



CURVED MEMBER JOINT DETAIL

LEGEND

(1A) PLATE ⅝" X 6" X 8" WITH ¾" X 1½" SLOTTED HOLES.

(1C) PLATE ⅝" X 8" X 1'-1" WITH ¾" X 1½" SLOTTED HOLES.

(2A) ¼" X 5" X 7" ANCHOR PLATE WITH 11/16" φ HOLES FOR THR'D. RODS NO. 3.

(2C) ¼" X 2½" X 7¼" ANCHOR PLATE WITH 11/16" φ HOLES FOR THR'D. RODS NO. 3.

(3) ⅝" DIA. X 9" LONG, TYPE 316 STAINLESS STEEL THREADED RODS (MIN. TENSILE STRENGTH = 70 KSI) WITH NUT AND WASHERS OF SAME ALLOY GROUP. (ALTERNATE RAIL POST ANCHORAGE - 4 EQUIV. STAINLESS STEEL CONCRETE MASONRY ANCHORS, TYPE S (EPOXY), ⅝" φ, MINIMUM PULLOUT CAPACITY OF 13 KIPS. EMBED A MIN. OF 7" FOR RAIL POSTS AND 5" FOR END RAILS.)

(4A) STRUCTURAL TUBING 3" X 1½" X 3/16". PLACE VERTICAL. WELD TO NO. 1 & 5.

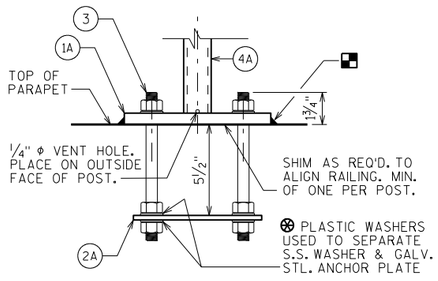
(5A) STRUCTURAL TUBING 3" X 1½" X 3/16" RAILS. WELD TO NO. 1 & NO. 4. INSIDE OF TUBE TO BE PAINTED AT ALL FIELD ERECTION & EXPANSION JOINTS.

(6A) BAR 1" X 1" PICKETS. WELD TO NO. 5. PLACE VERTICAL.

(7) BAR 1" X 1". BEND TO REQUIRED RADIUS. WELD TO NO. 4 & 5.

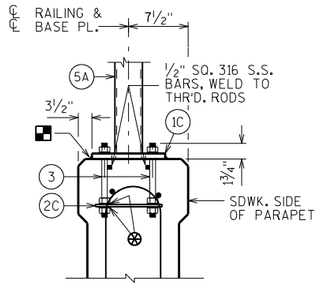
(9A) RECTANGULAR SLEEVE FABRICATED FROM 3/16" PLATES. PROVIDE "SLIDING FIT".

(10A) RECTANGULAR SLEEVE FABRICATED FROM 3/16" PLATES. (1'-4" @ FIELD ERECTION JTS.)



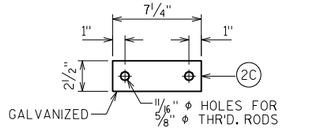
ANCHORAGE FOR RAIL POSTS

NOTE: ANCHOR PLATE NOT REQUIRED WHEN TYPE S ANCHORS ARE USED.



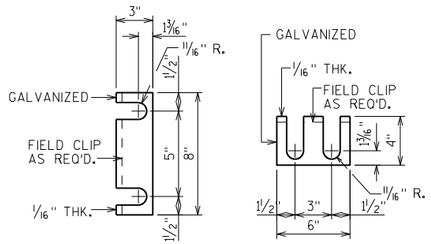
ANCHORAGE FOR END RAIL

NOTE: ANCHOR PLATES NOT REQ'D. WHEN TYPE "S" ANCHORS ARE USED.



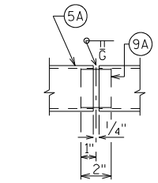
END RAIL ANCHOR PLATE

FOR END RAIL BASE PLATES
2 REQ'D. PER END RAIL BASE PLATE



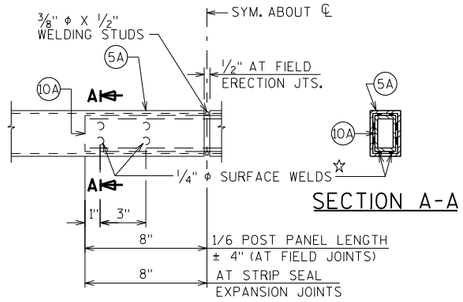
RAIL POST SHIM DETAIL

(2 SETS PER POST)



SHOP RAIL SPLICE DETAIL

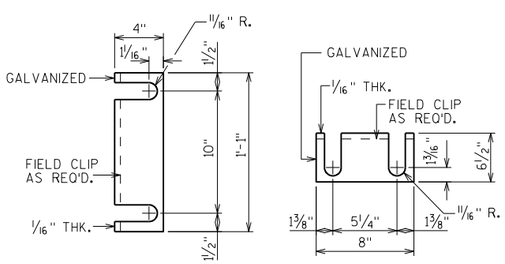
(LOCATION MUST BE SHOWN ON SHOP DRAWINGS)



SECTION A-A

FIELD ERECTION JOINT DETAIL

☆ MIN. ⅝" FLAT SURFACE DIA. PUNCHINGS OR STUDS MAY BE USED AS AN ALTERNATE.



END RAIL SHIM DETAIL

(2 SETS PER POST)

RAILING NOTES

BID ITEM SHALL BE "RAILING STEEL TYPE C3 GALVANIZED B-66-184", WHICH SHALL INCLUDE ALL STEEL ITEMS SHOWN.

POST BASE PLATES SHALL BE FLAT WITH ALL SURFACES SMOOTH AND FREE FROM WARP AND ALL EDGES SMOOTH, STRAIGHT AND VERTICAL. ALL PLATE CUTS SHALL BE MACHINE OR MACHINE FLAME CUTS.

NO. 1, 2, 6, 7, 9, AND NO. 10 SHALL CONFORM TO ASTM A709 GRADE 36. STRUCTURAL TUBING SHALL CONFORM TO ASTM A500 GRADE B (NO. 4, AND NO. 5).

ANCHORAGES SHALL BE ACCURATELY PLACED TO PROVIDE CORRECT ALIGNMENT OF RAILING. SET NORMAL TO GRADE.

CUT BOTTOM OF POST TO MAKE POST VERTICAL IN BOTH TRANSVERSE AND LONGITUDINAL DIRECTION.

STEEL SHIMS SHALL BE PROVIDED & USED UNDER BASE PLATES WHERE REQUIRED FOR ALIGNMENT, AND SHALL BE GALVANIZED.

■ CAULK AROUND PERIMETER OF BASE PLATES, NO. 1, AND FILL BOLT SLOT OPENINGS IN SHIMS AND BASE PLATES WITH NON-STAINING GRAY NON-BITUMINOUS JOINT SEALER.

ALL JOINTS AND RECESSES IN CONCRETE PARAPET ARE TO BE VERTICAL.

ALL MATERIAL (EXCEPT NO. 3) SHALL BE GALVANIZED AFTER FABRICATION. PRIOR TO GALVANIZING, THE STEEL RAILING SHALL BE GIVEN A NO. 6 BLAST CLEANING PER SSPC SPECIFICATIONS. PAINT OVER GALVANIZING WITH AN APPROVED TIE COAT AND TOP COAT AS SPECIFIED IN THE "BRIDGE SPECIAL PROVISIONS". THE RAILING SHALL BE PAINTED FEDERAL COLOR NO. 27038, BLACK.

VENT HOLES SHALL BE DRILLED IN POST AND RAIL MEMBERS AS REQUIRED TO FACILITATE GALVANIZING AND DRAINAGE.

RAILING SHALL BE FABRICATED IN LENGTHS THAT INCLUDE 3 OR 4 POSTS.

TOUCH-UP PAINTING TO BE DONE AT COMPLETION OF STEEL RAILING INSTALLATION TO THE SATISFACTION OF THE ENGINEER AT NO EXTRA COST.

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STATE OF WISCONSIN
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STRUCTURE B-66-184

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COMBINATION RAIL TYPE "C3"

SHEET 16

417

SCALE = 1.000

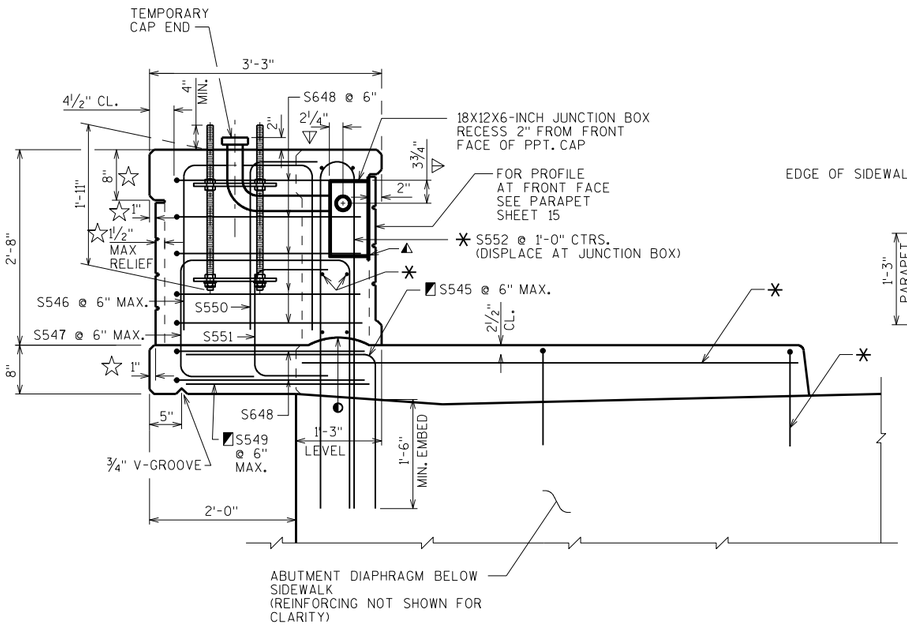
RAILCOMBDET
1-12

8

8

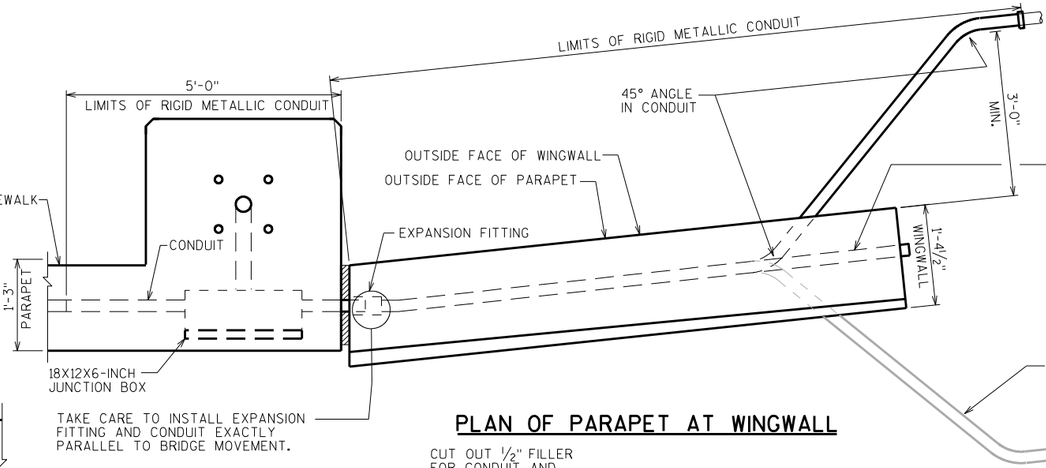
STATE PROJECT NUMBER

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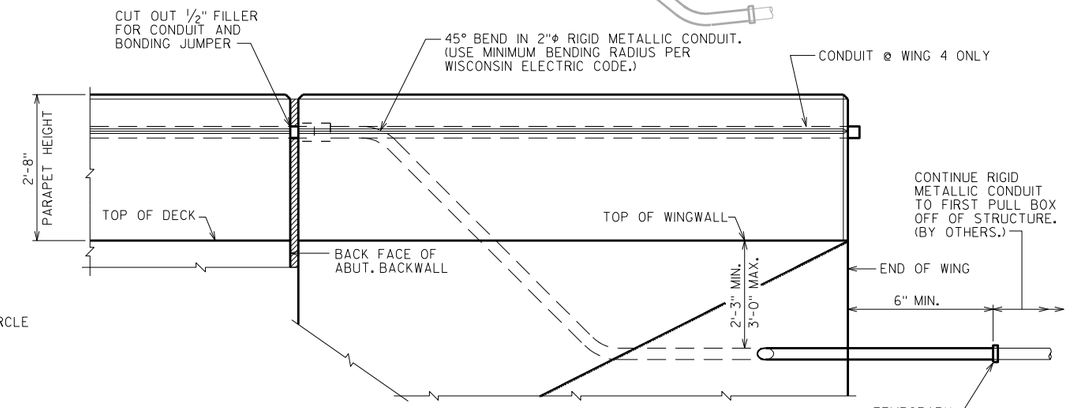


SECTION A-A

☆ TYPICAL AT BACK FACE AND BOTH EXPOSED SIDES OF LIGHT POLE SUPPORT



PLAN OF PARAPET AT WINGWALL



OUTSIDE ELEVATION OF PARAPET AT WINGWALL

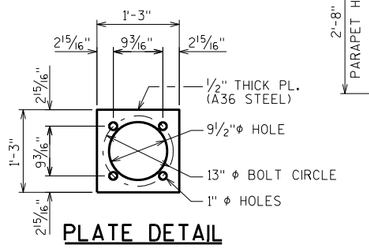
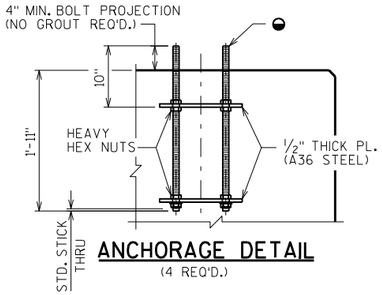


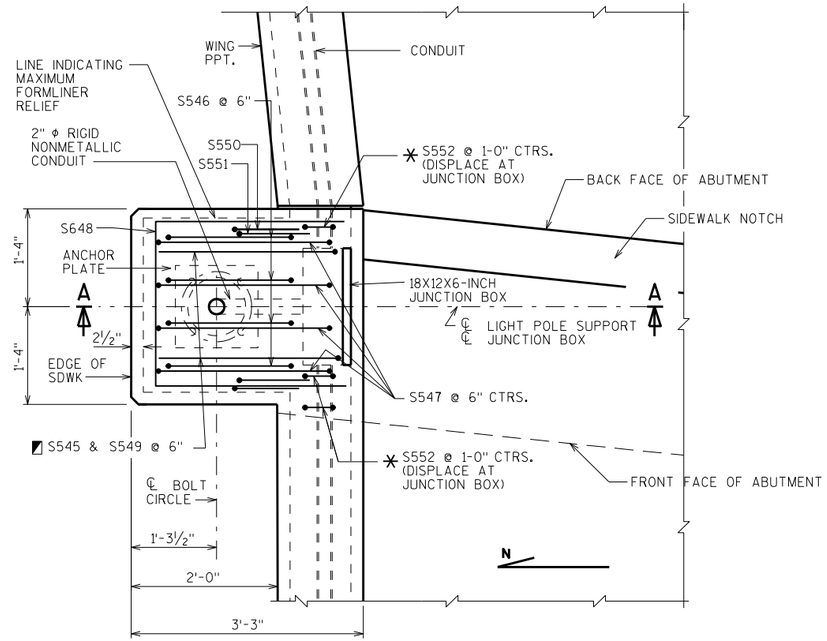
PLATE DETAIL

(8 REQ'D.)



ANCHORAGE DETAIL

(4 REQ'D.)



PLAN AT LIGHT POLE SUPPORT

(N.E. CORNER NEAR WING 3 SHOWN, ALL OTHER CORNERS SIMILAR)

NOTES

◐ CONSTR. JT. STRIKE OFF AS SHOWN

◭ CUT OUT ± 1" OF GASKET AT BOTTOM OF JUNCTION BOX COVER TO ALLOW FOR DRAINAGE.

▽ LOCATION OF CONDUIT IS MEASURED FROM OUTSIDE EDGE OF JUNCTION BOX.

◩ THESE BARS ARE IN ADDITION TO STANDARD TRANSVERSE BARS IN SIDEWALK.

◒ ¾" ϕ THREADED ANCHOR BOLTS ASTM A449 OR AASHTO M 314-90 GR 55. HOT DIP ASTM A153, CLASS C, UPPER 8" OF BOLT INCLUDING NUTS & WASHERS. PROVIDE ENLARGED THREAD ON NUTS FOR PROPER FIT AFTER GALVANIZING. PROVIDE DOUBLE FLAT WASHERS & NUTS.

✳ SEE 'ABUT. DIAPH. DETAIL @ SIDEWALK' SHT. 12 FOR ADDITIONAL BAR STEEL DETAILS.

BID ITEMS SHALL BE:
"JUNCTION BOXES 18X12X6-INCH", EACH.
"ANCHOR ASSEMBLIES LIGHT POLES", EACH.
"CONDUIT RIGID NONMETALLIC SCHEDULE 40 2-INCH"
"CONDUIT RIGID METALLIC 2-INCH".

APPROVED MANUFACTURERS - JUNCTION BOXES:
SEE APPROVED MATERIAL LIST.

APPROVED MANUFACTURER OR EQUIVALENT - EXPANSION FITTING:
O-Z/GEDNEY TYPE AX-200 AND BONDING JUMPER (4" TOTAL CONDUIT MOVEMENT).

EXPANSION FITTINGS, ANGLES AND ADAPTER FITTINGS TO BE INCIDENTAL TO "CONDUIT RIGID METALLIC 2-INCH".

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

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STRUCTURE B-66-184

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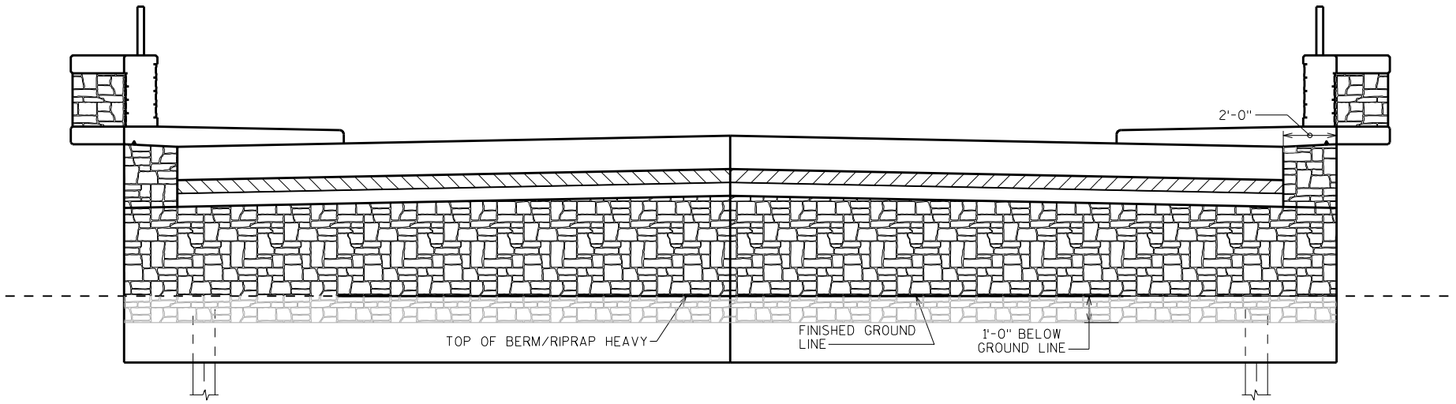
PARAPET ELECTRICAL WORK

SHEET 17

418

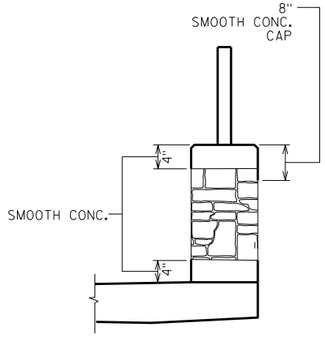
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STATE PROJECT NUMBER
4060-05-70

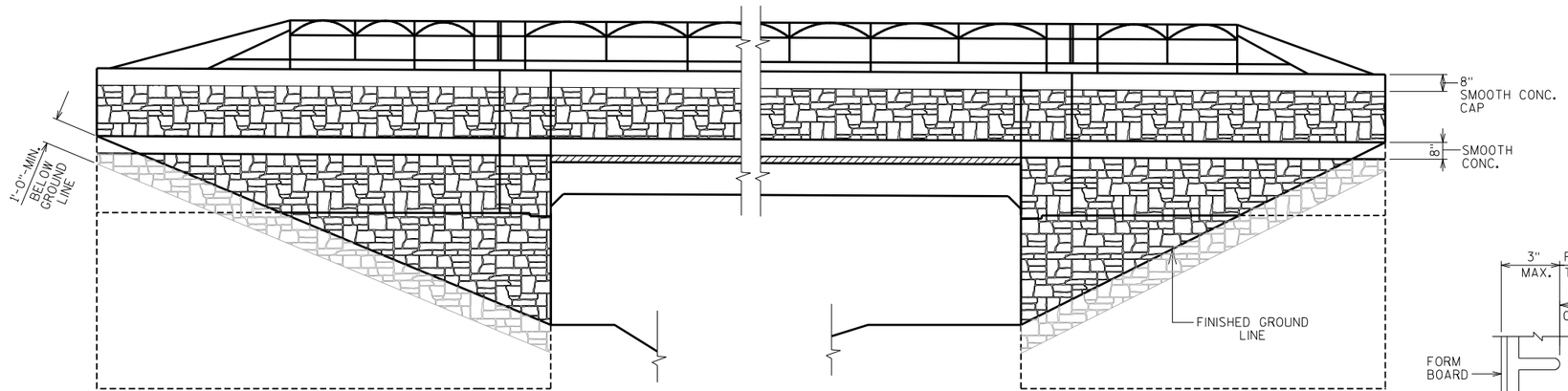


CROSS SECTION THRU BRIDGE

(LOOKING EAST- F.F. EAST ABUT. SHOWN)

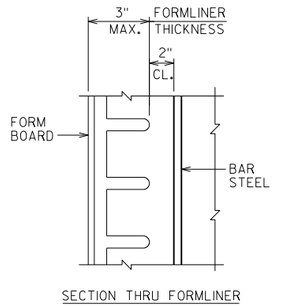


END VEIW AT SDWK.

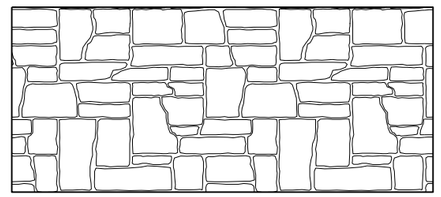


OUTSIDE ELEVATION

(LOOKING SOUTH, SEE SHEET 1 FOR ELEVATION LOOKING NORTH)

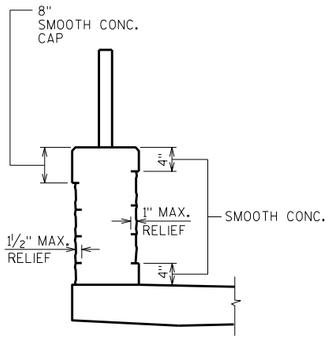


SECTION THRU FORMLINER

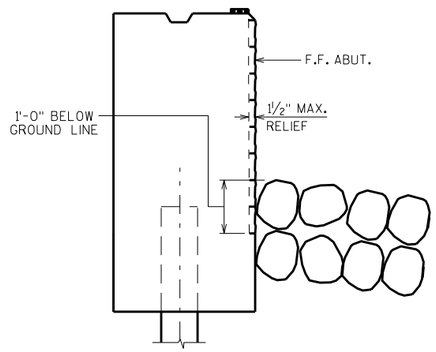


RUSTIC ASHLAR
SIZE = 8" TO 32"
RELIEF = 1" TO 1½"

FORMLINER DETAILS



SECTION THRU SDWK.



SECTION THRU ABUT. BODY

(ABUTMENT BODY SHOWN, WINGS & WING BODY SIMILAR)

ABUTMENT NOTES

FORMLINER COURSING ON ABUTMENTS AND WINGS SHALL BE LEVEL.

THE FORMLINER COURSING ON THE WINGS SHALL BE VERTICALLY ALIGNED WITH THE FORMLINER COURSING ON THE FRONT OF THE ABUTMENT.

THE FORMLINER PATTERN SHALL BE CONTINUOUS ACROSS CONSTRUCTION JOINTS.

WRAP AROUND/MATCH FORMLINER PATTERN AT CORNERS.

PARAPET NOTES

FORMLINER COURSING ON PARAPETS SHALL BE PARALLEL TO TOP OF PARAPET.

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STRUCTURE B-66-184

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AESTHETIC DETAILS

SHEET 18

419

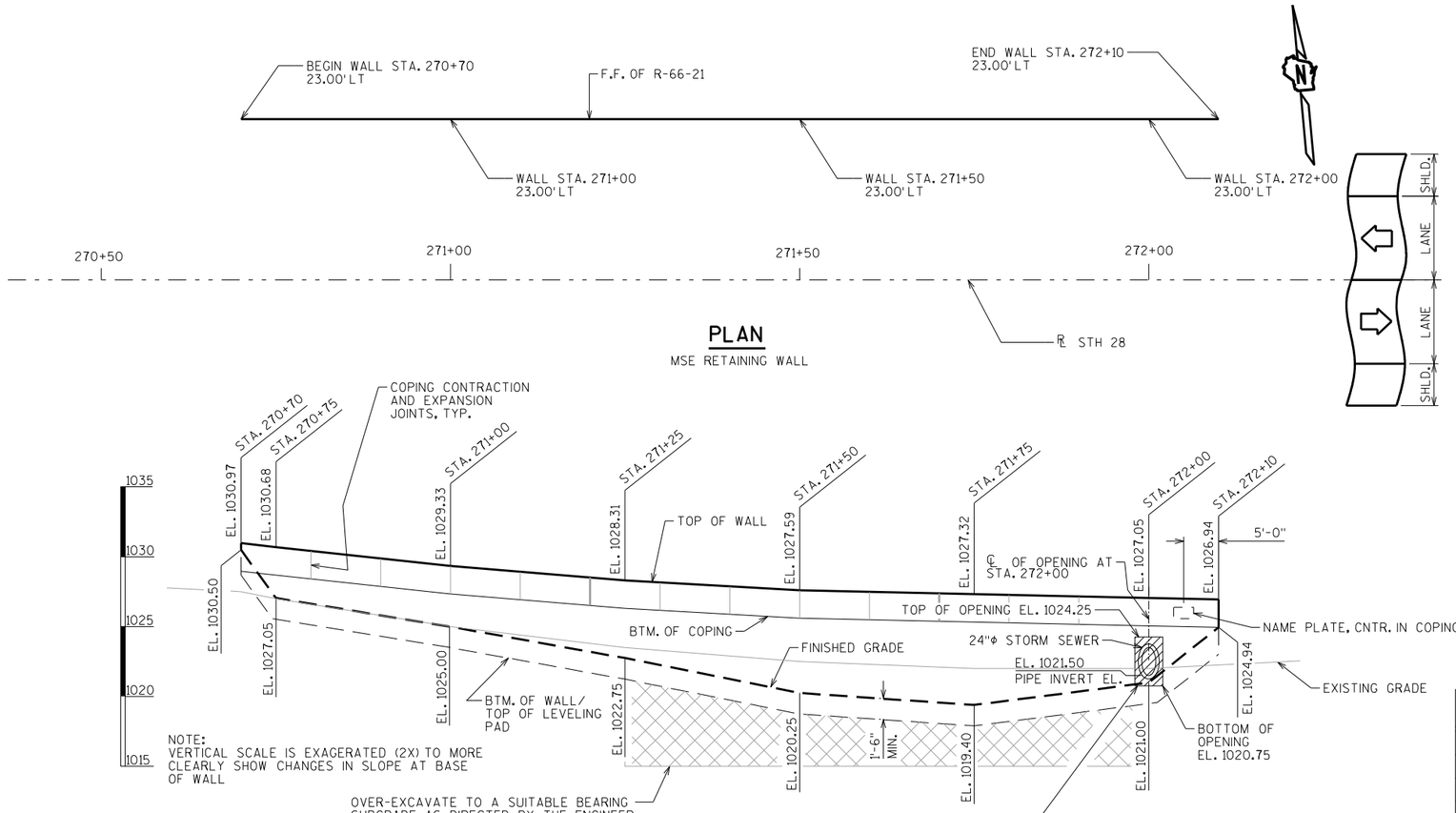
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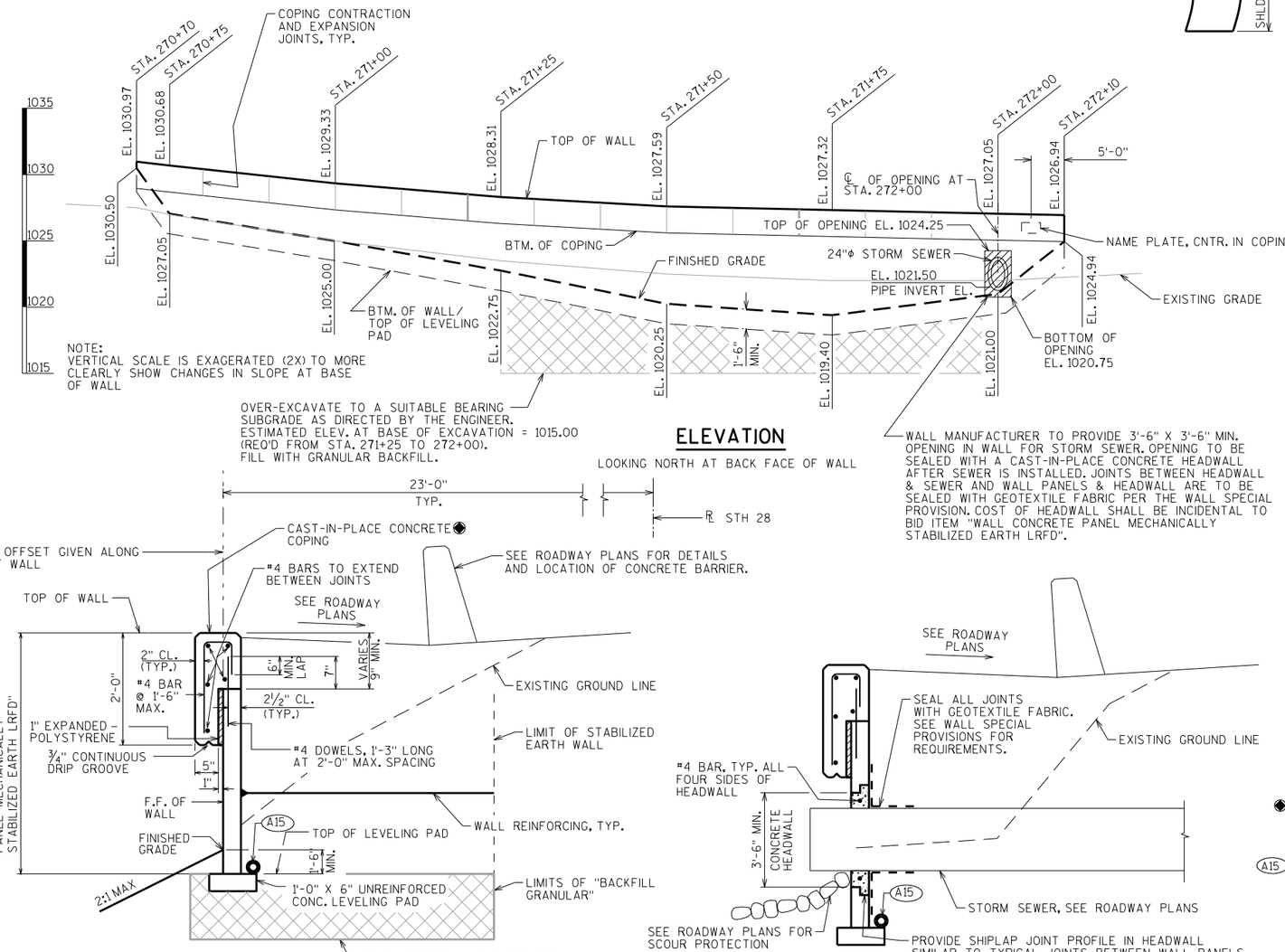
STATE PROJECT NUMBER

4060-05-70



PLAN

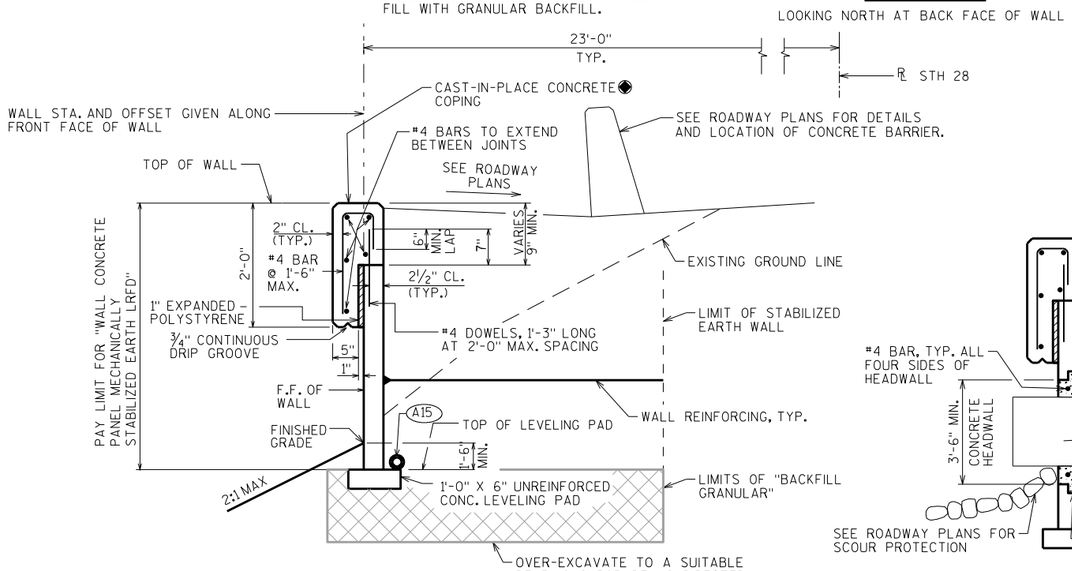
MSE RETAINING WALL



WALL MANUFACTURER TO PROVIDE 3'-6" X 3'-6" MIN. OPENING IN WALL FOR STORM SEWER. OPENING TO BE SEALED WITH A CAST-IN-PLACE CONCRETE HEADWALL AFTER SEWER IS INSTALLED. JOINTS BETWEEN HEADWALL & SEWER AND WALL PANELS & HEADWALL ARE TO BE SEALED WITH GEOTEXTILE FABRIC PER THE WALL SPECIAL PROVISION. COST OF HEADWALL SHALL BE INCIDENTAL TO BID ITEM "WALL CONCRETE PANEL MECHANICALLY STABILIZED EARTH LRFD".

ELEVATION

LOOKING NORTH AT BACK FACE OF WALL



SECTION THRU WALL

SECTION THRU WALL @ STORM SEWER

DESIGN DATA

THE CONTRACTOR SHALL PROVIDE COMPLETE DESIGN, PLANS, DETAILS, SPECIFICATIONS AND SHOP DRAWINGS FOR THE RETAINING WALLS IN ACCORDANCE WITH THE SPECIAL PROVISIONS. THE RETAINING WALL MANUFACTURER SHALL PROVIDE TECHNICAL ASSISTANCE TO THE CONTRACTOR DURING CONSTRUCTION. THE COST OF FURNISHING THESE ITEMS SHALL BE INCLUDED IN THE BID ITEM "WALL CONCRETE PANEL MECHANICALLY STABILIZED EARTH LRFD".

PLANS, ELEVATIONS AND DETAILS SHOWN ON THESE DRAWINGS ARE INTENDED TO INDICATE WALL LOCATIONS, LENGTHS, HEIGHTS AND DETAILS COMMON TO THE WALL SYSTEM SELECTED. THE CONTRACTOR SHALL VERIFY THAT THE WALL SYSTEM SELECTED WILL CONFORM TO THE REQUIRED ALIGNMENTS AND DETAILS.

THE RETAINING WALL IS TO BE DESIGNED USING THE ELEVATIONS GIVEN ON THIS SHEET.

DESIGN RETAINING WALL TO PROVIDE FOR FINISH GRADE SLOPED BEHIND WALL AS SHOWN IN ROADWAY PLANS.

DESIGN RETAINING WALL FOR A LIVE LOAD SURCHARGE OF 240 PSF.

THE MAXIMUM VALUE OF THE ANGLE OF INTERNAL FRICTION OF THE WALL BACKFILL MATERIAL IN THE REINFORCED ZONE SHALL BE ASSUMED TO BE 30° WITHOUT CERTIFIED TEST VALUES.

ULTIMATE DESIGN STRESSES

CONCRETE MASONRY (CONCRETE COPING) _____ f'c = 3,500 P.S.I.
BAR STEEL REINFORCEMENT, GRADE 60 _____ fy = 60,000 P.S.I.

ALLOWABLE WALL SYSTEMS

WALL CONCRETE PANEL MECHANICALLY STABILIZED EARTH LRFD.

TOTAL ESTIMATED QUANTITIES

BID ITEM NUMBER	BID ITEMS	UNIT	TOTALS
206.3000	EXCAVATION FOR STRUCTURES RETAINING WALLS R-66-21	LS	1
209.0100	BACKFILL GRANULAR	CY	136
612.0406	PIPE UNDERDRAIN WRAPPED 6-INCH	LF	160
SPV.0165	WALL CONCRETE PANEL MECHANICALLY STABILIZED EARTH LRFD	SF	1,010
	NON-BID ITEMS		
	PREFORMED FILLER	SIZE	¾"
	EXPANDED POLYSTYRENE	SIZE	1"
	NON-BITUMINOUS JOINT SEALER		

ELEVATION TABLE

℄ STH 28/ WALL STA.	TOP OF WALL EL.	FINISHED GRADE EL.
270+70	1030.97	1030.50
270+75	1030.68	1027.05
271+00	1029.33	1025.00
271+25	1028.31	1022.75
271+50	1027.59	1020.25
271+75	1027.32	1019.40
272+00	1027.05	1021.00
272+10	1026.94	1024.94

◆ COST OF C.I.P. COPING AND REINFORCING SHALL BE INCIDENTAL TO BID ITEM "WALL CONCRETE PANEL MECHANICALLY STABILIZED EARTH LRFD".

(A15) PIPE UNDERDRAIN WRAPPED (6-INCH). SLOPE 0.5% MIN. TO SUITABLE DRAINAGE. RODENT SCREEN REQUIRED. SEE 'WALL DETAILS' SHEET FOR RODENT SCREEN DETAIL.

LIST OF DRAWINGS

1. GENERAL PLAN
2. WALL DETAILS
3. SUBSURFACE EXPLORATION

STRUCTURES DESIGN CONTACTS:
CHRIS DOLL (608) 266-3229
LAURA SHADEWALD (608) 267-9592

NO.	DATE	REVISION	BY

Plans Prepared By **WISDOT**
BUREAU OF STRUCTURES

ACCEPTED William C. Dreher LLS 8/16/13
CHIEF STRUCTURES DESIGN ENGINEER — DATE

STRUCTURE R-66-21

MSE RETAINING WALL ALONG STH 28

COUNTY: WASHINGTON — TOWN/~~CITY/VILLAGE~~: FARMINGTON

DESIGN SPEC.: AASHTO LRFD DESIGN SPEC.

DESIGNED BY	CAD	DESIGN CK'D.	ARC	DRAWN BY	CAD	PLANS CK'D.	ARC

GENERAL PLAN

SHEET 1 OF 3

420

I.D. 4060-05-00B

DATE: APRIL 2013

SCALE = 10

STATE PROJECT NUMBER

4060-05-70

SOIL PARAMETERS

STRATUM LOCATIONS & SOIL DESCRIPTIONS	FRICTION ANGLE (DEGREES)	COHESION (PSF)	UNIT WEIGHT (PCF)
GRANULAR BACKFILL (WITHIN THE WALL REINFORCING ZONE)*	30	0	120
FILL (BEHIND THE REINFORCEMENT ZONE)	31	0	110
BORING 1, STA 271+60			
EL. 1018.9 - EL. 1015.9 (SILT, BROWN, SOME CLAY)	0	250	105
EL. 1015.9 - EL. 1014.9 (SILT, LIGHT BROWN, LITTLE CLAY)	0	500	105
EL. 1014.9 - EL. 1010.9 (SILT, BROWN, LITTLE CLAY, MOTTLED)	0	1000	110
EL. 1010.9 - EL. 1000.9 (SILT, BROWN, LITTLE CLAY)	0	2000	120
EL. 1000.9 AND BELOW (CLAY, BROWN, TRACE SILT)	0	3500	130

* DESIGN WALL FOR THESE VALUES

THE TYPICAL WALL SECTION USED IN THE ANALYSES HAS AN EXPOSED HEIGHT THAT VARIES FROM 3.6 TO 7.9 FEET. THE FOLLOWING ASSUMPTIONS ARE ALSO INCLUDED IN THE ANALYSES:

1. THE SLOPE BEHIND THE WALL IS HORIZONTAL.
2. THE SLOPE IN FRONT OF THE WALL IS VARIABLE FROM HORIZONTAL.
3. THE GROUNDWATER ELEVATION WAS ESTIMATED TO BE 1015 FEET.
4. THE GRANULAR BACKFILL IS FREE DRAINING AND WILL NOT BECOME SATURATED.
5. THE MINIMUM EMBEDMENT DEPTH WAS 1.5 FEET.
6. A SURCHARGE LOAD OF 240 PSF IS INCLUDED TO MODEL LIGHTWEIGHT CONSTRUCTION EQUIPMENT AND LIVE LOAD.
7. GLOBAL STABILITY WAS DETERMINED BY THE COMPUTER PROGRAM XSTABL
8. BEARING RESISTANCE IS DETERMINED BY TERZAGHI'S BEARING CAPACITY EQUATION.
9. SETTLEMENT OF THE FOUNDATION ON COHESIONLESS SOIL IS BASED UPON METHODS DESCRIBED IN THE FHWA SOILS AND FOUNDATIONS MANUAL.
10. DESIGN COMPLETED USING LOAD AND RESISTANCE FACTOR DESIGN (LRFD) METHODS.

WALL EXTERNAL STABILITY EVALUATION

DIMENSIONS		
WALL HEIGHT[1] (FEET)	5.1	9.4
EXPOSED WALL HEIGHT (FEET)	3.6	2.1
MINIMUM LENGTH OF REINFORCEMENT[2]	8.0	8.0
LENGTH OF REIN./WALL HT.	NA[4]	NA[4]
WALL STATION	270+75	271+75
BORING USED	B-1	B-1
CAPACITY TO DEMAND RATIO (CDR)[3]		
SLIDING (CDR>1.0)	2.1	1.4
ECCENTRICITY (CDR>1.0)	6.0	1.7
BEARING (CDR>1.0)	3.5	2.2[6]
REQUIRED BEARING RESISTANCE (PSF)	1400	5000[6]
GLOBAL STABILITY (CDR>1.0)	NA[5]	1.6[6]

1. THE WALL HEIGHT INCLUDES AN EMBEDMENT OF 1.5 FEET.
2. THE LENGTH OF REINFORCEMENT IS THE MINIMUM REQUIRED LENGTH.
3. REQUIRED CDR'S ARE PRESENTED IN CHAPTER 14 OF THE BRIDGE MANUAL.
4. NA-NOT APPLICABLE, THE MINIMUM LENGTH OF REINFORCEMENT OF 8 FEET CONTROLS OVER THE 0.7 RATIO.
5. NA-NOT APPLICABLE, GLOBAL SLOPE STABILITY WAS EVALUATED AT THE CRITICAL WALL LOCATION.
6. THE BEARING RESISTANCE CDR AND GLOBAL STABILITY CDR REQUIRES THE REMOVAL OF THE SOFT SILTS AND CLAYS.

GENERAL NOTES

DRAWINGS SHALL NOT BE SCALED.

BEVEL ALL EXPOSED EDGES OF CONCRETE 3/4" UNLESS NOTED OTHERWISE

BAR STEEL REINFORCEMENT SHALL HAVE 2" CLEAR COVER UNLESS OTHERWISE SHOWN OR NOTED.

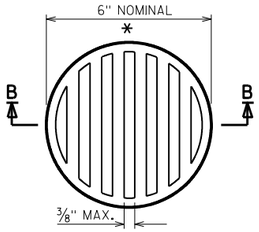
ALL BAR STEEL IN CAST-IN-PLACE CONCRETE COPING SHALL BE EPOXY COATED.

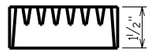
ALL WALL STATIONING AND OFFSETS ARE GIVEN AT THE FRONT FACE OF THE WALL (R-66-21).

EXPANSION AND CONTRACTION JOINT LOCATIONS AND DIMENSIONS ARE FOR INFORMATIONAL USE ONLY. THE CONTRACTOR IS RESPONSIBLE FOR DETERMINING THE LOCATION OF THE JOINTS.

THE PLAN QUANTITY FOR THE ITEM "WALL CONCRETE PANEL MECHANICALLY STABILIZED EARTH LRFD" IS BASED ON A WALL HEIGHT MEASURED FROM THE TOP OF WALL TO THE TOP OF LEVELING PAD, SET A CONSTANT DEPTH OF 1'-6" BELOW FINISHED GRADE.

THE SOUTHEAST REGION SOILS ENGINEER SHOULD REVIEW THE SUBSURFACE CONDITIONS PRIOR TO CONSTRUCTION OF THE WALL.





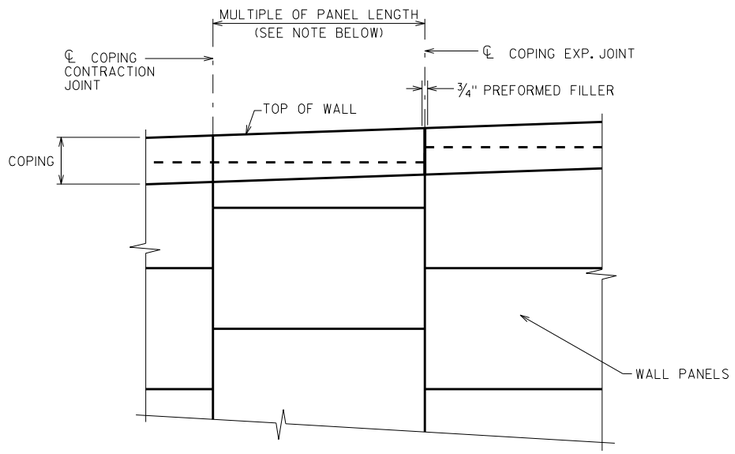
SECTION B-B

RODENT SCREEN DETAIL

* DIMENSIONS ARE APPROXIMATE. THE GRATE IS SIZED TO FIT INTO A PIPE COUPLING. ORIENT SO SLOTS ARE VERTICAL.

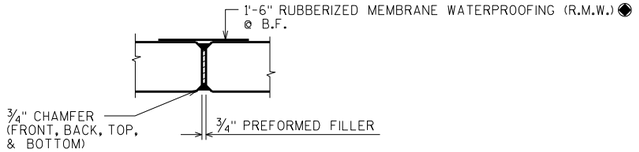
THE RODENT SCREEN, PIPE COUPLING AND SCREWS SHALL BE CONSIDERED INCIDENTAL TO THE BID ITEM "PIPE UNDERDRAIN WRAPPED 6-INCH".

THE RODENT SCREEN SHALL BE A PVC GRATE SIMILAR TO THIS DETAIL. THE GRATE IS COMMERCIALLY AVAILABLE AS A FLOOR STRAINER. A PIPE COUPLING IS REQUIRED FOR THE ATTACHMENT OF THIS SCREEN TO THE EXPOSED END OF THE PIPE UNDERDRAIN. THE SCREEN SHALL BE FASTENED TO THE PIPE COUPLING WITH TWO OR MORE NO. 10 X 1-INCH SHEET METAL SCREWS.



NOTE:
ALL JOINTS MUST COINCIDE WITH WALL PANEL JOINT ON FRONT FACE WHERE BOTTOM OF LIP INTERSECTS WITH WALL PANEL JOINT.

WALL & COPING PARTIAL ELEVATION

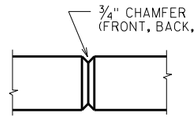


SEAL ALL EXPOSED HORIZ. AND VERT. SURFACES OF FILLER WITH A GRAY, NON-STAINING, NON-BITUMINOUS JOINT SEALER. (1" DEEP AND HOLD 1/8" BELOW SURFACE OF CONRETE).

R.M.W. TO EXTEND FROM TOP OF COPING TO 6" BELOW BOTTOM OF COPING AT THE BACK FACE OF THE WALL.

COPING EXPANSION JOINT PLAN

MAX. SPA. OF JOINT = 50'-0"



COPING CONTRACTION JOINT PLAN

MAX. SPA. OF JOINT = 12'-0"

NOTES:

DO NOT RUN ANY BAR STEEL THRU JOINTS.

ALL JOINTS TO EXTEND FULL DEPTH OF COPING.

◆ COST OF R.M.W. SHALL BE INCIDENTAL TO BID ITEM "WALL CONCRETE PANEL MECHANICALLY STABILIZED EARTH LRFD".

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION
STRUCTURES DESIGN SECTION

STRUCTURE R-66-21

DRAWN BY CAD | PLANS CK'D. ARC

WALL DETAILS

SHEET 2

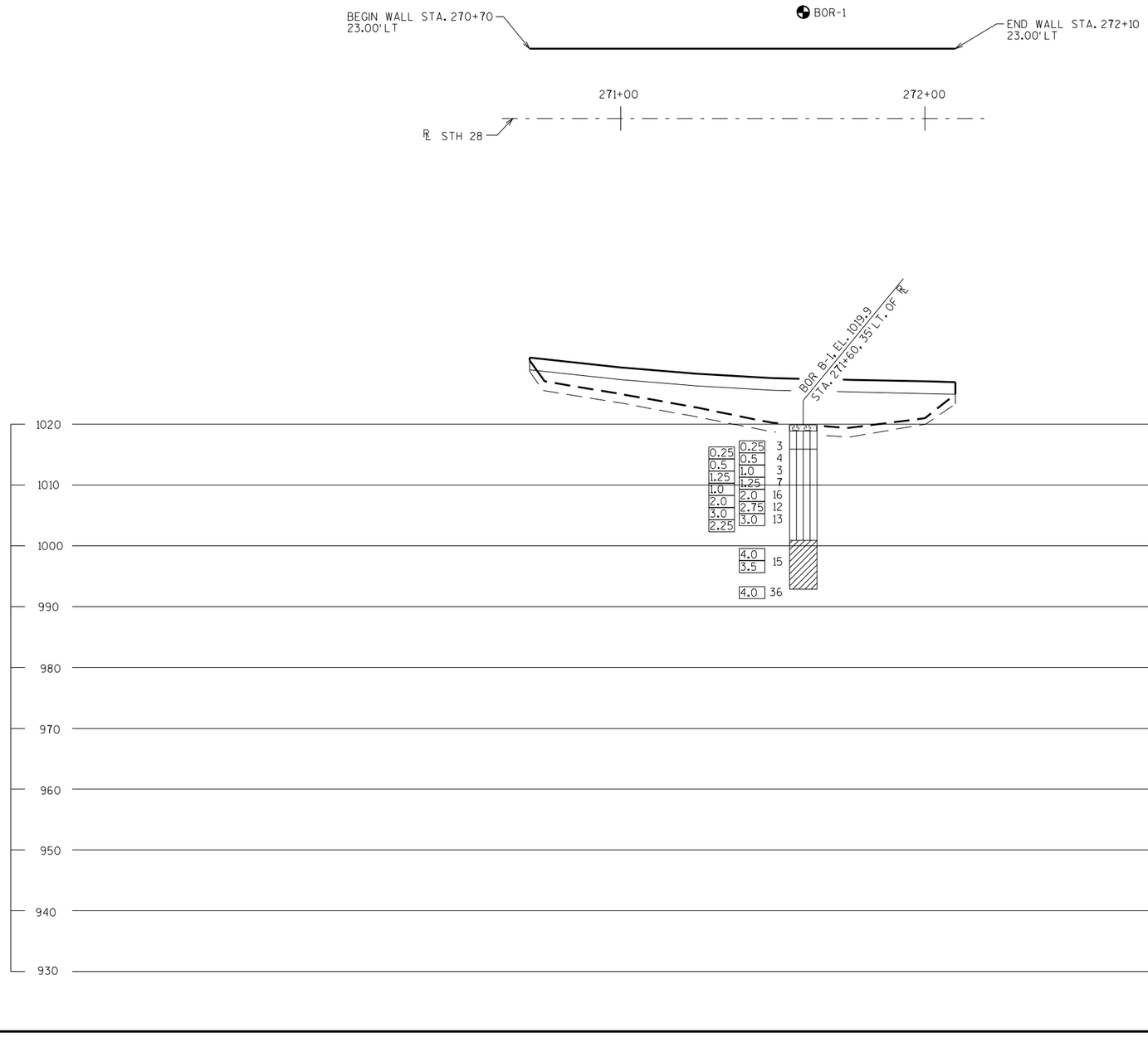
421

SCALE = 6.0

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STH 28
USH 45 TO STH 144



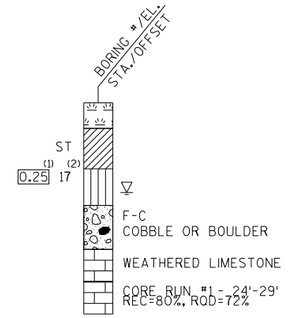
STATE PROJECT NUMBER

4060-05-70

MATERIAL SYMBOLS

ASPHALT	TOPSOIL	PEAT
CONCRETE	FILL	GRAVEL
SAND	CLAY	SILT
BOULDERS OR COBBLES	LIMESTONE	BEDROCK (UNKNOWN)
SHALE	SANDSTONE	IGNEOUS/ META

LEGEND OF BORING



(1) UNCONFINED STRENGTH, AS DETERMINED BY A POCKET PENETROMETER (TSF)

(2) UNLESS OTHERWISE, SPECIFIED THE SPT 'N' VALUE IS BASED ON AASHTO T-206, STANDARD PENETRATION TEST. THE SPT 'N' VALUE PRESENTED HAS NOT BEEN CORRECTED FOR OVERBURDEN PRESSURE OR HAMMER EFFICIENCY.

GROUND WATER ELEVATION

- ▽ AT TIME OF DRILLING
- ▼ END OF DRILLING
- ▽ AFTER DRILLING

ABBREVIATIONS

F-FINE M-MEDIUM C-COARSE ST-SHELBY TUBE

SUBSURFACE EXPLORATION FOR FOUNDATION DESIGN AND BIDDERS INFORMATION

BORINGS WERE COMPLETED AT POINTS APPROXIMATELY AS INDICATED ON THIS DRAWING TO OBTAIN INFORMATION CONCERNING THE CHARACTER OF SUBSURFACE MATERIALS FOUND AT THE SITE. BECAUSE THE INVESTIGATED DEPTHS ARE LIMITED AND THE AREA OF THE BORINGS IS VERY SMALL IN RELATION TO THE ENTIRE SITE, THE WISCONSIN DEPARTMENT OF TRANSPORTATION DOES NOT WARRANT SIMILAR SUBSURFACE CONDITIONS BELOW, BETWEEN, OR BEYOND THESE BORINGS. VARIATIONS IN SOIL CONDITIONS SHOULD BE EXPECTED AND FLUCTUATIONS IN GROUNDWATER LEVELS MAY OCCUR.

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NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION
STRUCTURES DESIGN SECTION

STRUCTURE R-66-21

DRAWN BY CAD | PLANS CK'D. ARC

SUBSURFACE EXPLORATION

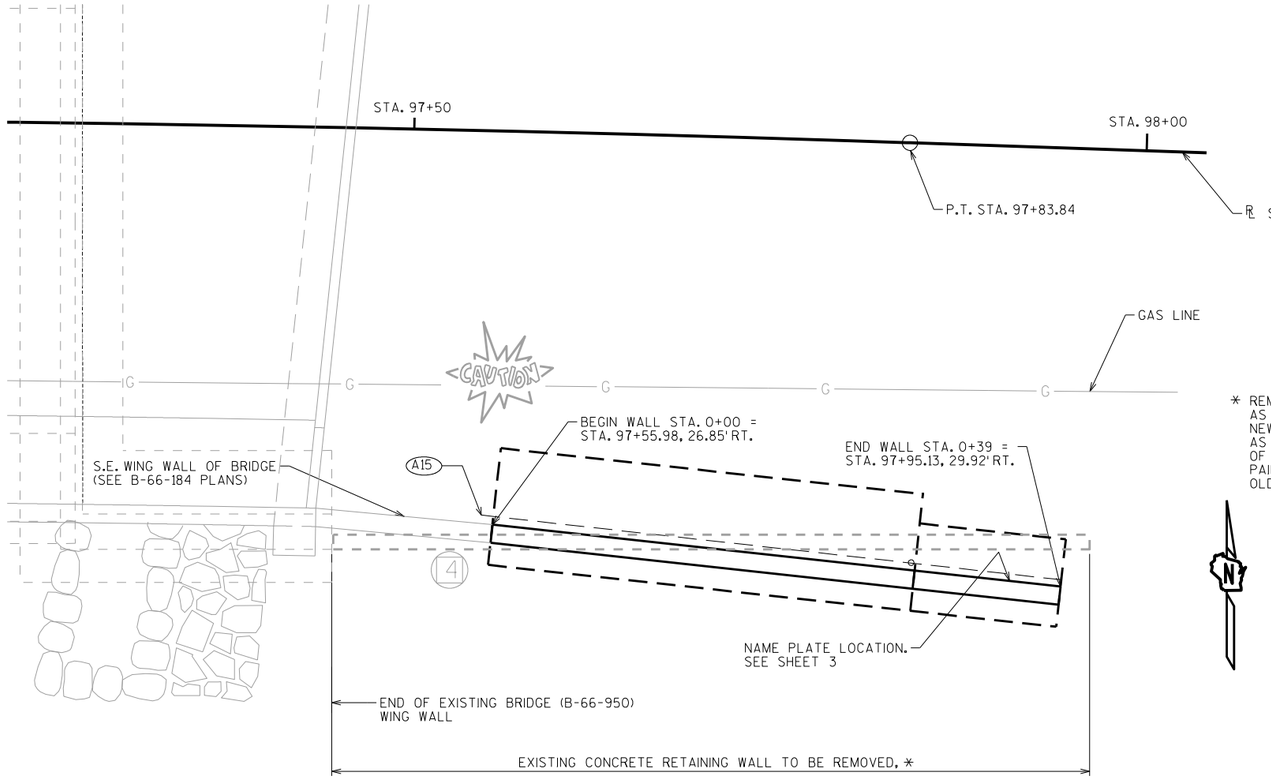
SHEET 3

422

SCALE =

STATE PROJECT NUMBER

4060-05-70



PLAN

CAST-IN-PLACE CONCRETE RETAINING WALL

CURVE DATA

STH 28

P.I. = 96+76.89
Δ = 4°19'57.43"
D = 2°01'28.51"
T = 107.05'
L = 214.00'
R = 2830.00'
S.E. = N/A
P.C. = 95+69.84
P.T. = 97+83.84

* REMOVE EXISTING RETAINING WALL AS REQUIRED TO BUILD THE NEW S.E. WING (WING 4) OF B-66-184 AS WELL AS R-66-31. REMOVAL OF RETAINING WALL SHALL BE PAID FOR UNDER BID ITEM "REMOVING OLD STRUCTURE STA. 97+60"

FOUNDATION DATA

FOOTING AT THE RETAINING WALL IS DESIGNED TO PLACE A MAXIMUM LOAD OF 1.2 TONS PER SQUARE FOOT ON THE UNDERLYING SOIL. SOILS AT THE RETAINING WALL FOOTING ELEVATIONS ARE ESTIMATED TO HAVE A FACTORED BEARING RESISTANCE OF 2.5 TONS PER SQUARE FOOT.

DESIGN DATA

ULTIMATE DESIGN STRESSES

CONCRETE MASONRY RETAINING WALL _____ f'c = 3,500 P.S.I.
CONCRETE PARAPET _____ f'c = 4,000 P.S.I.
BAR STEEL REINFORCEMENT, GRADE 60 _____ fy = 60,000 P.S.I.

GENERAL NOTES

DRAWINGS SHALL NOT BE SCALED.

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

THE FIRST OR FIRST TWO DIGITS OF THE BAR MARK SIGNIFIES THE BAR SIZE.

AT THE BACKFACE OF THE WALL ALL VOLUME NOT OCCUPIED BY THE NEW STRUCTURE SHALL BE BACKFILLED WITH STRUCTURE BACKFILL.

THE GRADATION OF THE STRUCTURE BACKFILL SHALL MEET THE REQUIREMENTS OF SECTION 209.2.2 OF THE STANDARD SPECIFICATIONS FOR GRADE 1 MATERIAL.

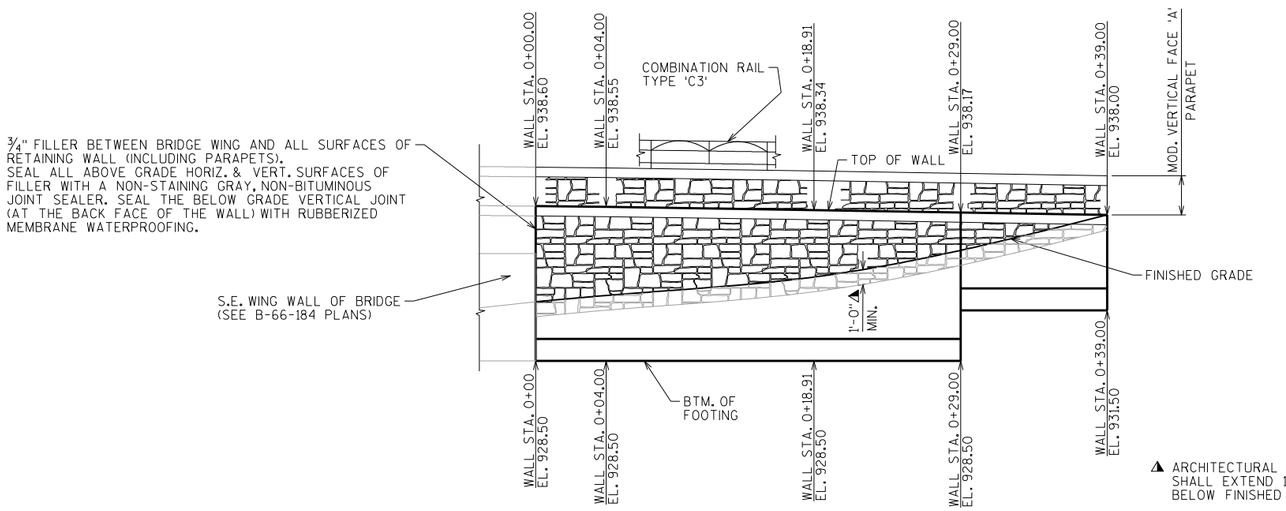
THE EXISTING GROUND LINE SHALL BE USED AS THE UPPER LIMITS OF EXCAVATION AT THE PIERS.

IF SOFT SOILS ARE ENCOUNTERED AT THE BASE OF RETAINING WALL FOOTING, REMOVE THEM TO AT LEAST 6" BELOW THE BOTTOM OF FOOTING ELEVATION AND REPLACE THEM WITH STRUCTURE BACKFILL AS DIRECTED BY THE ENGINEER.

TOTAL ESTIMATED QUANTITIES

BID ITEM NUMBER	BID ITEMS	UNIT	TOTALS
203.0200	REMOVING OLD STRUCTURE STA. 97+60	LS	1
206.3000	EXCAVATION FOR STRUCTURES RETAINING WALLS R-66-31	LS	1
210.0100	BACKFILL STRUCTURE	CY	178
504.0500	CONCRETE MASONRY RETAINING WALLS	CY	35
505.0415	BAR STEEL REINFORCEMENT HS RETAINING WALLS	LB	3,000
505.0615	BAR STEEL REINFORCEMENT HS COATED RETAINING WALLS	LB	560
516.0500	RUBBERIZED MEMBRANE WATERPROOFING	SY	3
517.1050.S	ARCHITECTURAL SURFACE TREATMENT R-66-31	SF	330
612.0406	PIPE UNDERDRAIN WRAPPED 6-INCH	LF	40
652.0125	CONDUIT RIGID METALLIC 2-INCH	LF	45
SPV.0105	RAILING STEEL TYPE C3 GALVANIZED R-66-31	LS	1
	NON-BID ITEMS		
	FILLER	SIZE	¾"

A15 PIPE UNDERDRAIN WRAPPED (6-INCH). SLOPE 0.5% MIN. TO SUITABLE DRAINAGE. RODENT SHIELD (SEE DETAIL SHT. 4) REQUIRED AT END OF RETAINING WALL. TIE INTO BRIDGE (B-66-184) PIPE UNDERDRAIN AT BEGINNING OF WALL.



ELEVATION

(STATIONS ALONG BACK FACE OF WALL)

ELEVATION TABLE

℄ STH 28 STA.	WALL STA.	TOP OF WALL EL.	BOTTOM OF FTG. EL.	FINISHED GRADE EL.
97+55.98	0+00.00	938.60	928.50	932.50
97+60.00	0+04.00	938.55	928.50	932.51
97+75.00	0+18.91	938.34	928.50	933.77
97+85.14	0+29.00	938.17	928.50/931.50	935.58
97+95.13	0+39.00	938.00	931.50	938.00

▲ ARCHITECTURAL SURFACE TREATMENT SHALL EXTEND 1'-0" MINIMUM BELOW FINISHED GRADE.

STRUCTURE DESIGN CONTACTS:

CHRIS DOLL (608) 266-3229
LAURA SHADEWALD (608) 267-9592

LIST OF DRAWINGS

1. GENERAL PLAN
2. WALL DETAILS
3. COMBINATION RAIL TYPE "C3"
4. COMBINATION RAIL TYPE "C3" DETAILS
5. SUBSURFACE EXPLORATION

NO.	DATE	REVISION	BY

Plans Prepared By WISDOT
BUREAU OF STRUCTURES

ACCEPTED William C. Dreher LLS 8/16/13
CHIEF STRUCTURES DESIGN ENGINEER DATE

STRUCTURE R-66-31

SE WING WALL EXTENSION OF B-66-184

COUNTY WASHINGTON | ~~TOWN/CITY~~ VILLAGE KEWASKUM

DESIGN SPEC. AASHTO LRFD BRIDGE DESIGN SPECIFICATIONS

DESIGNED BY	CAD	DESIGN CK'D.	JLR	DRAWN BY	CAD	PLANS CK'D.	JLR

GENERAL PLAN

SHEET 1 OF 5

423

I.D. 4060-05-00C

DATE: JUNE 2013

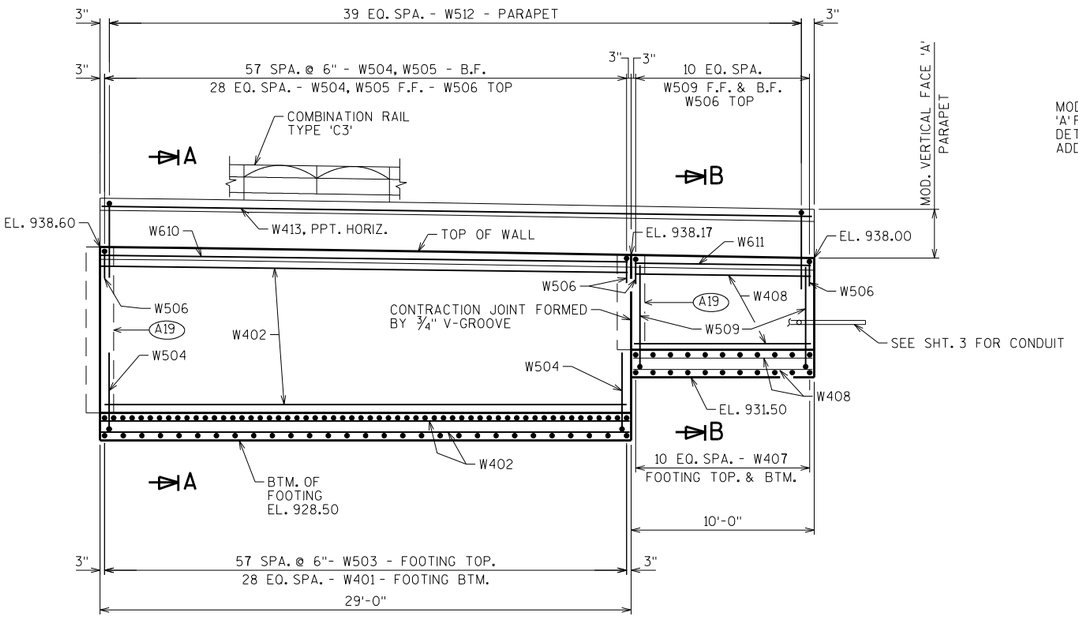
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STATE PROJECT NUMBER

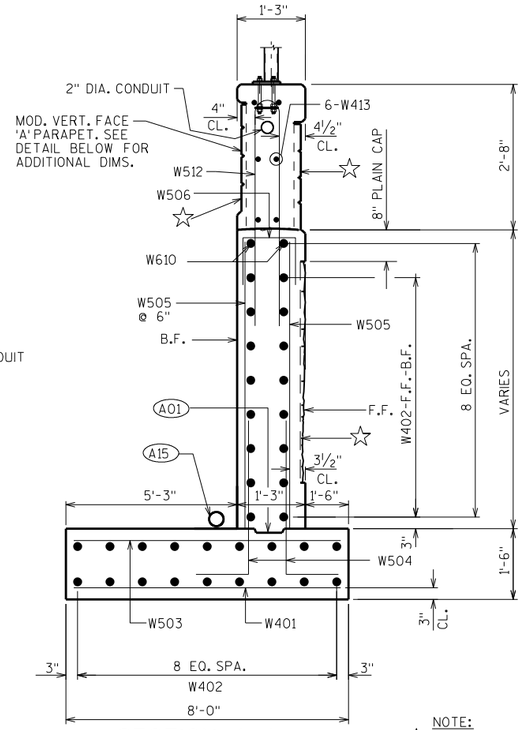
4060-05-70



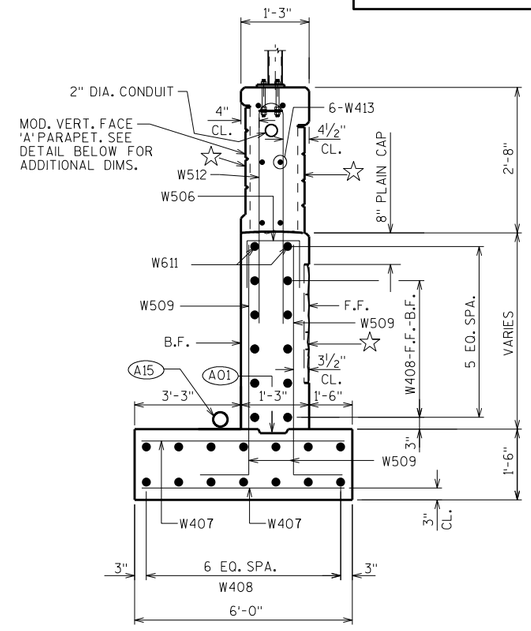
ELEVATION

(FORMLINER NOT SHOWN FOR CLARITY)

(A19) 18" (RMW) RUBBERIZED MEMBRANE WATERPROOFING SEAL ALL VERT. JOINTS AT BACKFACE.



SECTION A-A



SECTION B-B

NOTE:
☆ ARCHITECTURAL SURFACE TREATMENT. SEE 'FORMLINER DETAILS' THIS SHEET.

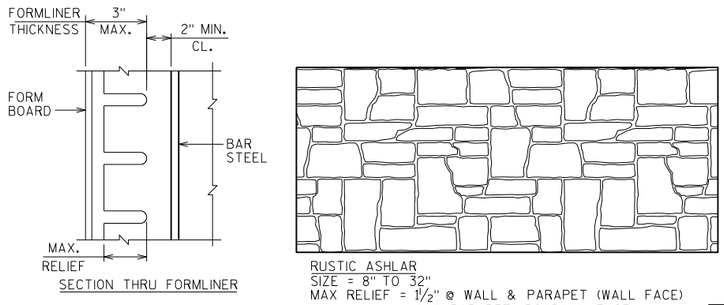
(A01) CONSTRUCTION JOINT: KEYWAY FORMED BY A BEVELED 2 x 6.

(A15) PIPE UNDERDRAIN WRAPPED (6-INCH). SLOPE 0.5% MIN. TO SUITABLE DRAINAGE. RODENT SCREEN REQUIRED. SEE SHEET 4 FOR RODENT SCREEN DETAIL.

BILL OF BARS

NOTE: THE FIRST OR FIRST TWO DIGITS OF THE BAR MARK SIGNIFIES THE BAR SIZE.

BAR MARK	COAT	NO. REQ'D.	LENGTH	BENT	BAR SERIES	LOCATION
W401		29	7'-8"			FOOTING BTM.
W402		34	28'-8"			FOOTING & WALL LONG.
W503		58	7'-8"			FOOTING TOP
W504		87	4'-11"	X		FOOTING DOWELS VERT.
W505		87	7'-5"			WALL VERT.
W506		40	2'-6"	X		WALL-TOP
W407		22	5'-8"			FOOTING BTM.
W408		24	9'-8"			FOOTING & WALL LONG.
W509		22	6'-11"	X		FOOTING DOWELS VERT.
W610		2	28'-8"			WALL LONG.-TOP
W611		2	9'-8"			WALL LONG.-TOP
W512	X	40	9'-8"	X		PARAPET VERT.
W413	X	6	38'-7"			PARAPET HORIZ.



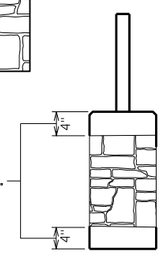
FORMLINER DETAILS

NOTES:

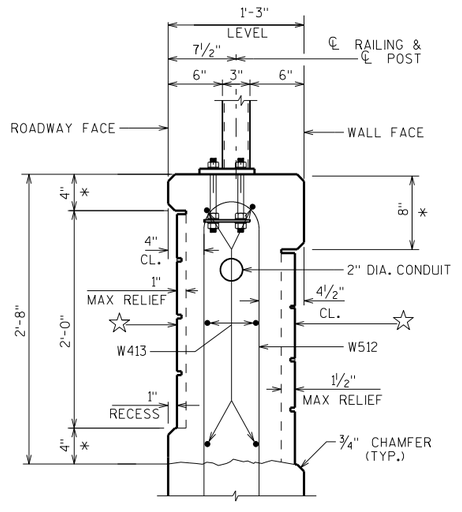
FORMLINER COURSING ON PARAPETS SHALL BE PARALLEL TO TOP OF PARAPET.

FORMLINER COURSING ON WALL SHALL BE LEVEL.

THE FORMLINER PATTERN SHALL BE CONTINUOUS ACROSS WALL JOINTS.

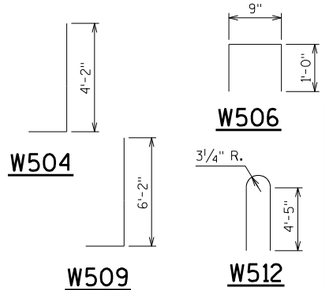


END VIEW OF PARAPET



MOD. VERT. FACE 'A' PARAPET DETAIL

* PLAIN CONCRETE



NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION
STRUCTURES DESIGN SECTION

STRUCTURE R-66-31

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WALL DETAILS

SHEET 2

424

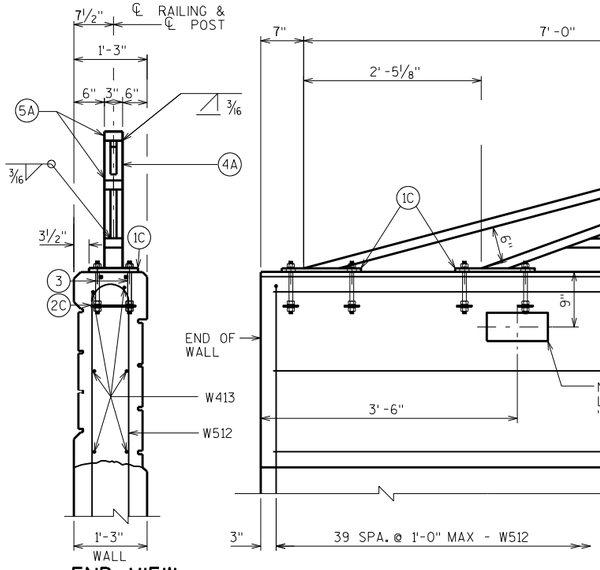
SCALE = 4

8

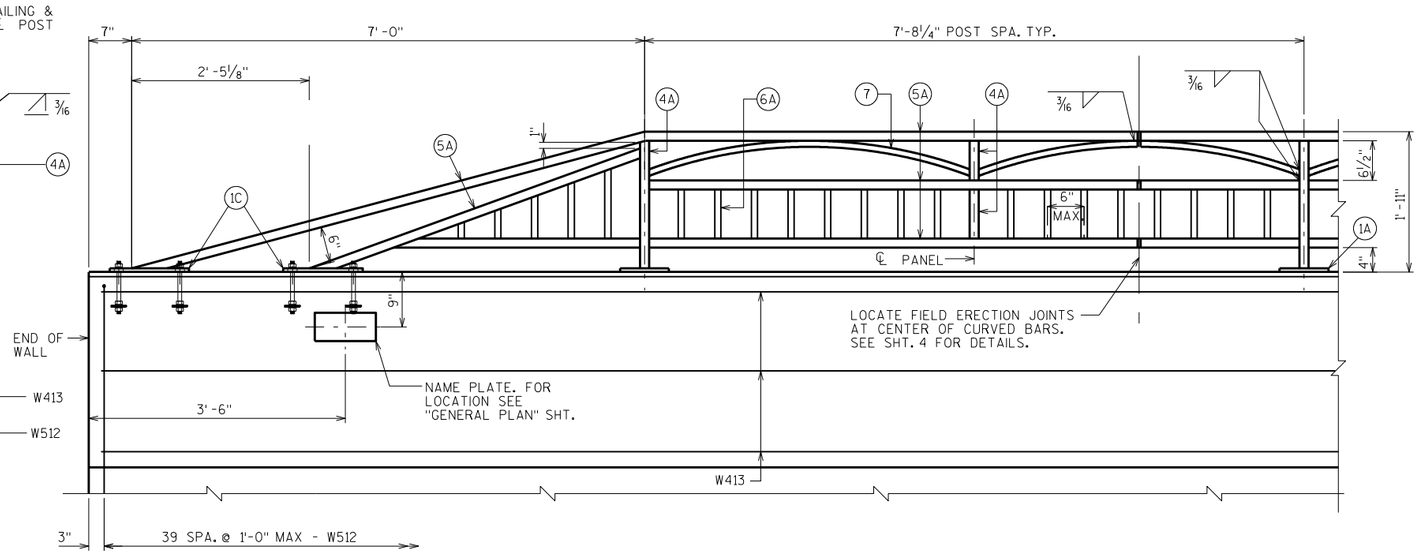
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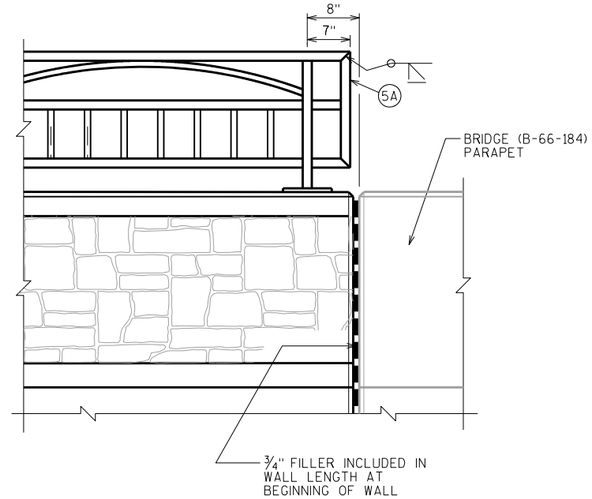
STATE PROJECT NUMBER

4060-05-70



END VIEW

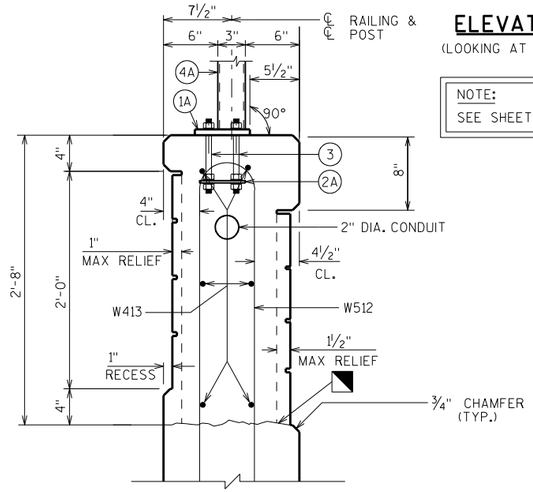




ELEVATION OF PARAPET

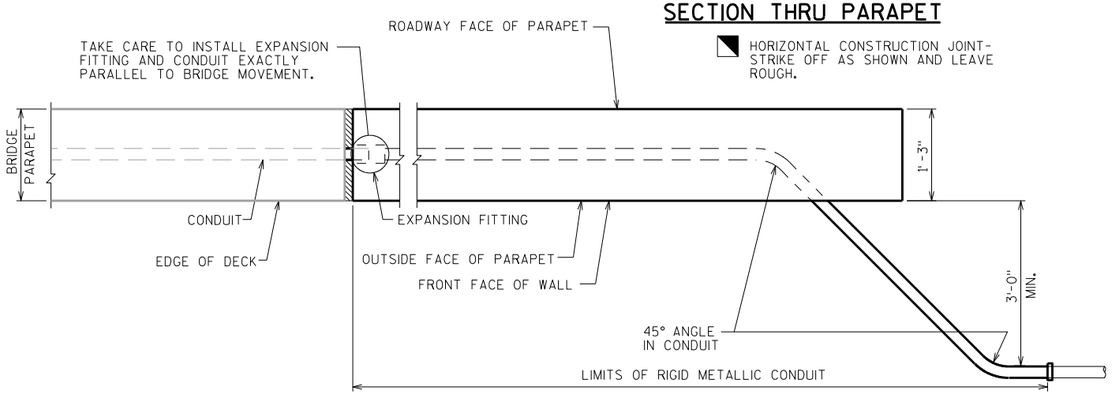
(LOOKING AT ROADWAY FACE OF PARAPET)

NOTE:
SEE SHEET 4 FOR RAILING LEGEND.



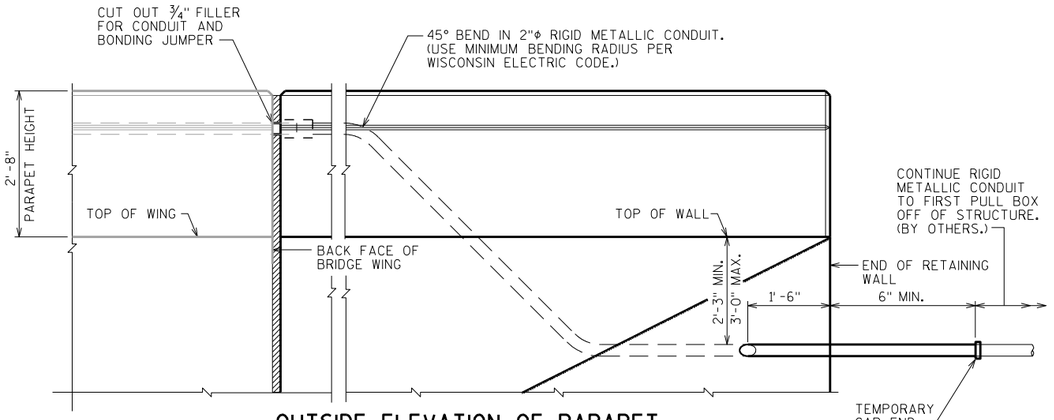
SECTION THRU PARAPET

◥ HORIZONTAL CONSTRUCTION JOINT- STRIKE OFF AS SHOWN AND LEAVE ROUGH.



PLAN OF PARAPET

(SHOWING CONDUIT)



OUTSIDE ELEVATION OF PARAPET

(SHOWING CONDUIT)

NOTES

BID ITEMS SHALL BE:

"CONDUIT RIGID METALLIC 2-INCH".

APPROVED MANUFACTURER OR EQUIVALENT - EXPANSION FITTING: O-Z/GEDNEY TYPE AX-200 AND BONDING JUMPER (4" TOTAL CONDUIT MOVEMENT).

EXPANSION FITTINGS, ANGLES AND ADAPTER FITTINGS TO BE INCIDENTAL TO "CONDUIT RIGID METALLIC 2-INCH".

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

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STRUCTURE R-66-31

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COMBINATION RAIL TYPE "C3"

SHEET 3

425

SCALE = 1.000

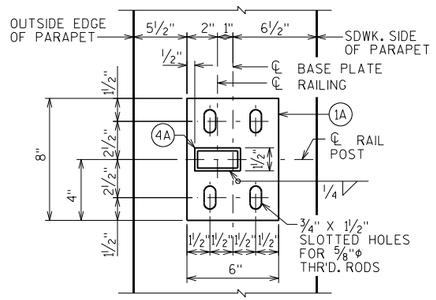
RAILCOMB 7-11

8

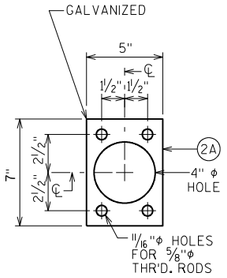
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STATE PROJECT NUMBER

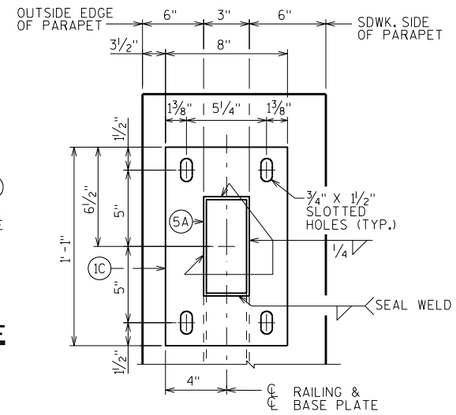
4060-05-70



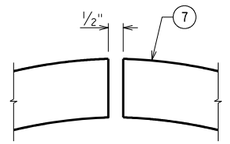
TYPICAL RAIL POST BASE PLATE



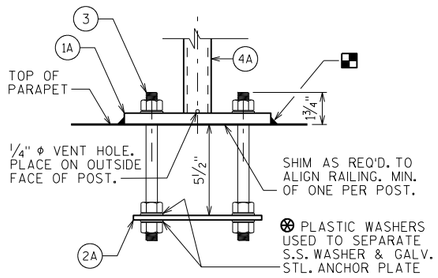
ANCHOR PLATE



END RAIL BASE PLATE

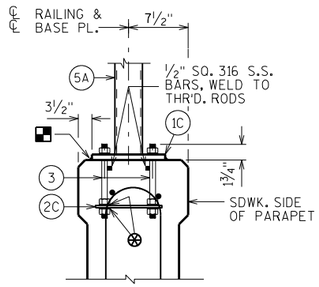


CURVED MEMBER JOINT DETAIL



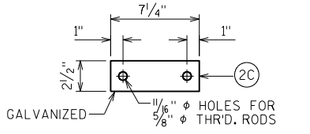
ANCHORAGE FOR RAIL POSTS

NOTE: ANCHOR PLATE NOT REQUIRED WHEN TYPE S ANCHORS ARE USED.



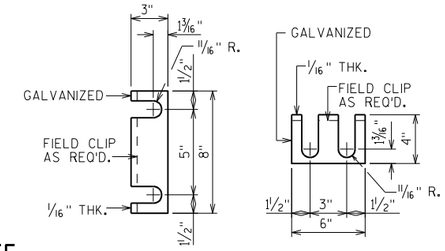
ANCHORAGE FOR END RAIL

NOTE: ANCHOR PLATES NOT REQ'D. WHEN TYPE "S" ANCHORS ARE USED.



END RAIL ANCHOR PLATE

FOR END RAIL BASE PLATES
2 REQ'D. PER END RAIL BASE PLATE



RAIL POST SHIM DETAIL

(2 SETS PER POST)

LEGEND

(1A) PLATE ⅝" X 6" X 8" WITH ¾" X 1½" SLOTTED HOLES.

(1C) PLATE ⅝" X 8" X 1'-1" WITH ¾" X 1½" SLOTTED HOLES.

(2A) ¼" X 5" X 7" ANCHOR PLATE WITH 11/16" φ HOLES FOR THR'D. RODS NO. 3.

(2C) ¼" X 2½" X 7¼" ANCHOR PLATE WITH 11/16" φ HOLES FOR THR'D. RODS NO. 3.

(3) ⅝" DIA. X 9" LONG, TYPE 316 STAINLESS STEEL THREADED RODS (MIN. TENSILE STRENGTH = 70 KSI) WITH NUT AND WASHERS OF SAME ALLOY GROUP. (ALTERNATE RAIL POST ANCHORAGE - 4 EQUIV. STAINLESS STEEL CONCRETE MASONRY ANCHORS, TYPE S (EPOXY), ⅝" φ, MINIMUM PULLOUT CAPACITY OF 13 KIPS. EMBED A MIN. OF 7" FOR RAIL POSTS AND 5" FOR END RAILS.)

(4A) STRUCTURAL TUBING 3" X 1½" X 3/16". PLACE VERTICAL. WELD TO NO. 1 & 5.

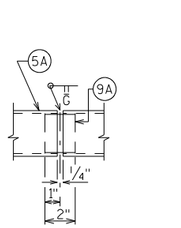
(5A) STRUCTURAL TUBING 3" X 1½" X 3/16" RAILS. WELD TO NO. 1 & NO. 4. INSIDE OF TUBE TO BE PAINTED AT ALL FIELD ERECTION & EXPANSION JOINTS.

(6A) BAR 1" X 1" PICKETS. WELD TO NO. 5. PLACE VERTICAL.

(7) BAR 1" X 1". BEND TO REQUIRED RADIUS. WELD TO NO. 4 & 5.

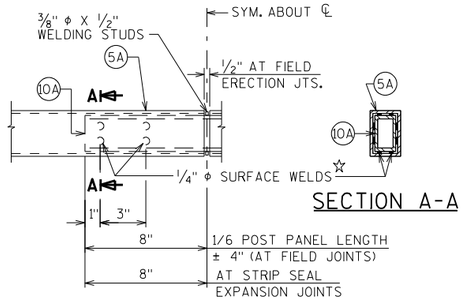
(9A) RECTANGULAR SLEEVE FABRICATED FROM 3/16" PLATES. PROVIDE "SLIDING FIT".

(10A) RECTANGULAR SLEEVE FABRICATED FROM 3/16" PLATES. (1'-4" @ FIELD ERECTION JTS.)



SHOP RAIL SPLICE DETAIL

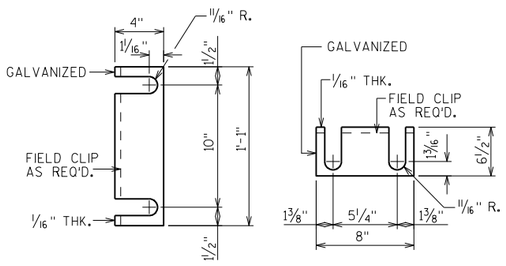
(LOCATION MUST BE SHOWN ON SHOP DRAWINGS)



SECTION A-A

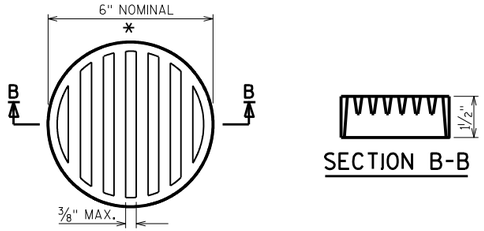
FIELD ERECTION JOINT DETAIL

☆ MIN. ⅝" FLAT SURFACE DIA. PUNCHINGS OR STUDS MAY BE USED AS AN ALTERNATE.



END RAIL SHIM DETAIL

(2 SETS PER POST)



RODENT SHIELD DETAIL

SECTION B-B

✳ DIMENSIONS ARE APPROXIMATE. THE GRATE IS SIZED TO FIT INTO A PIPE COUPLING. ORIENT SO SLOTS ARE VERTICAL.

THE RODENT SHIELD, PIPE COUPLING AND SCREWS SHALL BE CONSIDERED INCIDENTAL TO THE BID ITEM "PIPE UNDERDRAIN WRAPPED 6-INCH".

THE RODENT SHIELD SHALL BE A PVC GRATE SIMILAR TO THIS DETAIL. THE GRATE IS COMMERCIALLY AVAILABLE AS A FLOOR STRAINER. A PIPE COUPLING IS REQUIRED FOR THE ATTACHMENT OF THIS SHIELD TO THE EXPOSED END OF THE PIPE UNDERDRAIN. THE SHIELD SHALL BE FASTENED TO THE PIPE COUPLING WITH TWO OR MORE NO. 10 X 1-INCH STAINLESS STEEL SHEET METAL SCREWS.

RAILING NOTES

BID ITEM SHALL BE "RAILING STEEL TYPE C3 GALVANIZED R-66-31", WHICH SHALL INCLUDE ALL STEEL ITEMS SHOWN.

POST BASE PLATES SHALL BE FLAT WITH ALL SURFACES SMOOTH AND FREE FROM WARP AND ALL EDGES SMOOTH, STRAIGHT AND VERTICAL. ALL PLATE CUTS SHALL BE MACHINE OR MACHINE FLAME CUTS.

NO. 1, 2, 6, 7, 9, AND NO. 10 SHALL CONFORM TO ASTM A709 GRADE 36. STRUCTURAL TUBING SHALL CONFORM TO ASTM A500 GRADE B (NO. 4, AND NO. 5).

ANCHORAGES SHALL BE ACCURATELY PLACED TO PROVIDE CORRECT ALIGNMENT OF RAILING. SET NORMAL TO GRADE.

CUT BOTTOM OF POST TO MAKE POST VERTICAL IN BOTH TRANSVERSE AND LONGITUDINAL DIRECTION.

STEEL SHIMS SHALL BE PROVIDED & USED UNDER BASE PLATES WHERE REQUIRED FOR ALIGNMENT, AND SHALL BE GALVANIZED.

■ CAULK AROUND PERIMETER OF BASE PLATES, NO. 1, AND FILL BOLT SLOT OPENINGS IN SHIMS AND BASE PLATES WITH NON-STAINING GRAY NON-BITUMINOUS JOINT SEALER.

ALL JOINTS AND RECESSES IN CONCRETE PARAPET ARE TO BE VERTICAL.

ALL MATERIAL (EXCEPT NO. 3 & 12) SHALL BE GALVANIZED AFTER FABRICATION. PRIOR TO GALVANIZING, THE STEEL RAILING SHALL BE GIVEN A NO. 6 BLAST CLEANING PER SSPC SPECIFICATIONS. PAINT OVER GALVANIZING WITH AN APPROVED TIE COAT AND TOP COAT AS SPECIFIED IN THE "BRIDGE SPECIAL PROVISIONS". THE RAILING SHALL BE PAINTED FEDERAL COLOR NO. 27038, BLACK.

VENT HOLES SHALL BE DRILLED IN POST AND RAIL MEMBERS AS REQUIRED TO FACILITATE GALVANIZING AND DRAINAGE.

RAILING SHALL BE FABRICATED IN LENGTHS THAT INCLUDE 3 OR 4 POSTS.

TOUCH-UP PAINTING TO BE DONE AT COMPLETION OF STEEL RAILING INSTALLATION TO THE SATISFACTION OF THE ENGINEER AT NO EXTRA COST.

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
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STRUCTURES DESIGN SECTION

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COMBINATION RAIL TYPE "C3" DETAILS

SHEET 4

426

SCALE = 1.000

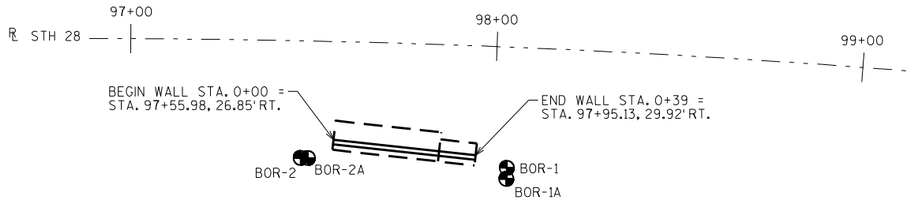
RAILCOMBDET
1-12

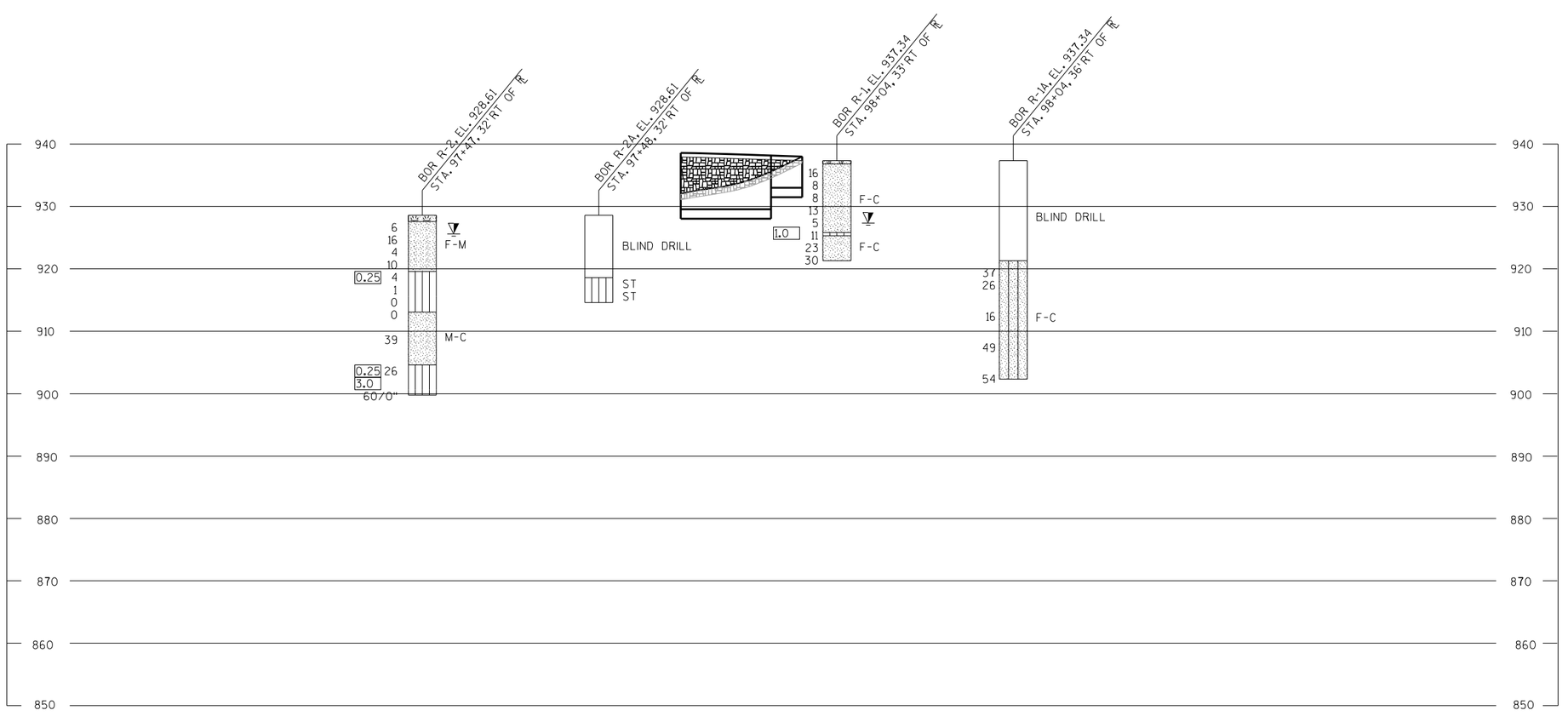
8

8

STH 28
B-66-184 SE ABUTMENT

BORING #	DATE COMPLETED	NORTHING (Y)	EASTING (X)
1	1/17/13	219,736.5936	352,165.2703
1A	1/17/13	219,736.5936	352,165.2703
2	2/13/13	219,754.9288	352,107.8315
2A	2/13/13	219,748.8450	352,112.2410
BORINGS COMPLETED BY: PSI			
REPORT COMPLETED BY: WISDOT			
ALL COORDINATES REFERENCED TO WCCS NAD 83(91) WASHINGTON COUNTY			





* THE GROUND WATER ELEVATION WAS DETERMINED FROM WHERE THE SOIL SAMPLE WAS DESCRIBED AS WET.

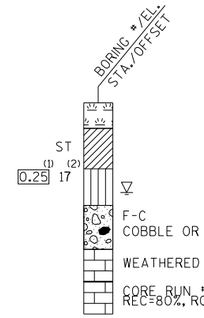
STATE PROJECT NUMBER

4060-05-70

MATERIAL SYMBOLS

ASPHALT, TOPSOIL, PEAT, CONCRETE, FILL, GRAVEL, SAND, CLAY, SILT, BOULDERS OR COBBLES, LIMESTONE, BEDROCK (UNKNOWN), SHALE, SANDSTONE, IGNEOUS/META

LEGEND OF BORING



(1) UNCONFINED STRENGTH, AS DETERMINED BY A POCKET PENETROMETER (TSF)

(2) UNLESS OTHERWISE, SPECIFIED THE SPT 'N' VALUE IS BASED ON AASHTO T-206, STANDARD PENETRATION TEST. THE SPT 'N' VALUE PRESENTED HAS NOT BEEN CORRECTED FOR OVERBURDEN PRESSURE OR HAMMER EFFICIENCY.

GROUND WATER ELEVATION

▽ AT TIME OF DRILLING
▼ END OF DRILLING
▽ AFTER DRILLING

ABBREVIATIONS

F-FINE M-MEDIUM C-COARSE ST-SHELBY TUBE

SUBSURFACE EXPLORATION FOR FOUNDATION DESIGN AND BIDDERS INFORMATION

BORINGS WERE COMPLETED AT POINTS APPROXIMATELY AS INDICATED ON THIS DRAWING TO OBTAIN INFORMATION CONCERNING THE CHARACTER OF SUBSURFACE MATERIALS FOUND AT THE SITE. BECAUSE THE INVESTIGATED DEPTHS ARE LIMITED AND THE AREA OF THE BORINGS IS VERY SMALL IN RELATION TO THE ENTIRE SITE, THE WISCONSIN DEPARTMENT OF TRANSPORTATION DOES NOT WARRANT SIMILAR SUBSURFACE CONDITIONS BELOW, BETWEEN, OR BEYOND THESE BORINGS. VARIATIONS IN SOIL CONDITIONS SHOULD BE EXPECTED AND FLUCTUATIONS IN GROUNDWATER LEVELS MAY OCCUR.

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SUBSURFACE EXPLORATION

SHEET 5

427

SCALE =

STH 28 PRL1 R/L STATION	Real Station	Distance	AREA (SF)			Incremental Vol (CY) (Unadjusted)				Cumulative Vol (CY)				Mass Ordinate
			Cut	Salvaged/Unusable Pavement Material	Fill	Cut (205.0100) Note 1	Salvaged/Unusable Pavement Material Note 2	Fill Note 3	EBS (205.0100)	Cut 1.00 Note 1	Expanded Fill 1.25	Expanded EBS Backfill 1.30 Note 5	Reduced EBS In Fill 0.80 Note 7	Note 8
79+00.00	7,900		88.12	61.00	0.00									
79+50.00	7,950	50	41.32	61.00	0.00	119.85	112.96	0.00	0.00	119.85	0.00	0.00	0.00	6.89
80+00.00	8,000	50	39.06	61.00	0.00	74.43	112.96	0.00	0.00	194.28	0.00	0.00	0.00	-31.65
80+50.00	8,050	50	96.17	61.00	0.00	125.21	112.96	0.00	0.00	319.49	0.00	0.00	0.00	-19.40
81+00.00	8,100	50	42.17	61.00	0.00	128.09	112.96	0.00	0.00	447.58	0.00	0.00	0.00	-4.27
81+50.00	8,150	50	48.83	61.00	0.00	84.26	112.96	0.00	0.00	531.84	0.00	0.00	0.00	-32.97
81+96.60	8,197	47	45.53	61.00	0.00	81.43	105.28	0.00	126.36	613.27	-126.36	164.26	101.08	69.53
82+00.00	8,200	3	48.09	61.00	0.00	5.89	7.68	0.00	18.23	619.17	-144.59	187.96	115.67	85.97
82+50.00	8,250	50	40.94	61.00	0.00	82.44	112.96	0.00	259.85	701.60	-404.44	525.77	323.55	315.30
83+00.00	8,300	50	99.10	61.00	0.00	129.67	112.96	0.00	202.49	831.27	-606.93	789.01	485.54	534.49
83+50.00	8,350	50	72.72	61.00	0.45	159.09	112.96	0.42	191.59	990.36	-798.00	1038.08	638.82	771.69
83+75.00	8,375	25	110.02	61.00	0.00	84.60	56.48	0.21	86.71	1074.96	-884.45	1150.80	708.18	886.26
84+00.00	8,400	25	141.77	61.00	0.00	116.57	56.48	0.00	61.34	1191.53	-945.79	1230.54	757.25	1007.69
84+12.00	8,412	12	140.52	61.00	0.00	62.73	27.11	0.00	32.56	1254.26	-978.35	1272.86	783.30	1075.87
84+16.50	8,417	5	147.10	61.00	0.00	23.97	10.17	0.00	12.58	1278.23	-990.92	1289.21	793.36	1102.25
84+25.00	8,425	9	155.13	61.00	0.00	47.57	19.20	0.00	23.76	1325.80	-1014.68	1320.10	812.37	1154.37
84+29.84	8,430	5	179.18	61.00	0.00	29.96	10.93	0.00	13.52	1355.77	-1028.20	1337.68	823.19	1186.92
84+41.82	8,442	12	141.66	61.00	0.00	71.18	27.07	0.00	33.45	1426.95	-1061.65	1381.16	849.95	1264.49
84+45.30	8,445	3	117.26	61.00	0.00	16.69	7.86	0.00	9.73	1443.63	-1071.38	1393.82	857.73	1283.04
84+50.00	8,450	5	99.60	61.00	0.00	18.87	10.62	0.00	14.78	1462.51	-1086.17	1413.03	869.56	1306.08
85+00.00	8,500	50	35.87	61.00	0.00	125.44	112.96	0.00	230.68	1587.94	-1316.84	1712.91	1054.10	1549.23
85+00.10	8,500	0	33.75	61.00	0.00	0.13	0.23	0.00	0.29	1588.07	-1317.13	1713.28	1054.33	1549.42
85+50.00	8,550	50	34.84	61.00	0.04	63.38	112.74	0.04	0.00	1651.45	-1317.08	1713.28	1054.33	1500.02
85+75.00	8,575	25	35.93	61.00	0.09	32.76	56.48	0.06	0.00	1684.22	-1317.01	1713.28	1054.33	1476.23
86+00.00	8,600	25	36.49	61.00	0.00	33.53	56.48	0.04	0.00	1717.75	-1316.95	1713.28	1054.33	1453.22
86+50.00	8,650	50	38.73	61.00	0.38	69.65	112.96	0.35	0.00	1787.39	-1316.51	1713.28	1054.33	1409.47
87+00.00	8,700	50	93.03	61.00	0.06	122.00	112.96	0.41	0.00	1909.39	-1316.01	1713.28	1054.33	1417.99
87+50.00	8,750	50	35.14	61.00	0.51	118.68	112.96	0.53	0.00	2028.07	-1315.35	1713.28	1054.33	1423.05
88+00.00	8,800	50	76.31	61.00	5.24	103.19	112.96	5.32	0.00	2131.27	-1308.69	1713.28	1054.33	1406.62
88+50.00	8,850	50	86.86	61.00	0.11	151.08	112.96	4.95	0.00	2282.35	-1302.50	1713.28	1054.33	1438.55
88+75.00	8,875	25	32.17	61.00	0.00	55.11	56.48	0.05	0.00	2337.45	-1302.43	1713.28	1054.33	1437.11
89+00.00	8,900	25	33.25	61.00	0.00	30.29	56.48	0.00	0.00	2367.74	-1302.43	1713.28	1054.33	1410.92
89+50.00	8,950	50	33.05	61.00	0.00	61.39	112.96	0.00	0.00	2429.13	-1302.43	1713.28	1054.33	1359.34
90+00.00	9,000	50	43.18	61.00	0.00	70.58	112.96	0.00	0.00	2499.71	-1302.43	1713.28	1054.33	1316.96
90+50.00	9,050	50	93.38	61.00	0.00	126.44	112.96	0.00	0.00	2626.16	-1302.43	1713.28	1054.33	1330.45
91+00.00	9,100	50	34.97	61.00	0.00	118.84	112.96	0.00	0.00	2745.00	-1302.43	1713.28	1054.33	1336.33
91+50.00	9,150	50	29.29	61.00	0.00	59.50	112.96	0.00	0.00	2804.50	-1302.43	1713.28	1054.33	1282.86
92+00.00	9,200	50	32.30	61.00	0.00	57.03	112.96	0.00	0.00	2861.53	-1302.43	1713.28	1054.33	1226.93
92+50.00	9,250	50	31.84	61.00	0.01	59.39	112.96	0.01	0.00	2920.92	-1302.42	1713.28	1054.33	1173.34
93+00.00	9,300	50	81.89	61.00	0.00	105.31	112.96	0.01	0.00	3026.22	-1302.41	1713.28	1054.33	1165.67
93+10.06	9,310	10	27.35	61.00	0.06	20.35	22.73	0.01	0.00	3046.57	-1302.40	1713.28	1054.33	1163.28
93+50.00	9,350	40	95.61	61.00	1.80	90.94	90.23	1.38	0.00	3137.52	-1300.68	1713.28	1054.33	1162.27
93+63.50	9,364	14	89.07	61.00	0.00	46.17	30.50	0.45	0.00	3183.69	-1300.12	1713.28	1054.33	1177.38
93+69.25	9,369	6	108.72	61.00	0.00	21.06	12.99	0.00	0.00	3204.75	-1300.12	1713.28	1054.33	1185.45
93+75.00	9,375	6	161.24	61.00	0.00	28.75	12.99	0.00	0.00	3233.50	-1300.12	1713.28	1054.33	1201.20
93+90.00	9,390	15	167.04	61.00	0.00	91.19	33.89	0.00	0.00	3324.68	-1300.12	1713.28	1054.33	1258.50
94+00.00	9,400	10	165.36	61.00	0.00	61.56	22.59	0.00	0.00	3386.24	-1300.12	1713.28	1054.33	1297.47
94+25.00	9,425	25	73.61	61.00	0.50	110.63	56.48	0.23	0.00	3496.87	-1299.83	1713.28	1054.33	1351.33
94+50.00	9,450	25	62.45	61.00	1.84	62.99	56.48	1.08	0.00	3559.87	-1298.47	1713.28	1054.33	1356.49
94+75.00	9,475	25	17.64	61.00	1.07	37.08	56.48	1.35	0.00	3596.94	-1296.79	1713.28	1054.33	1335.40
95+00.00	9,500	25	18.75	61.00	0.01	16.85	56.48	0.50	0.00	3613.79	-1296.16	1713.28	1054.33	1295.14
95+25.00	9,525	25	15.18	61.00	0.00	15.71	56.48	0.00	0.00	3629.50	-1296.16	1713.28	1054.33	1254.36
95+50.00	9,550	25	19.44	61.00	1.70	16.03	56.48	0.79	0.00	3645.53	-1295.17	1713.28	1054.33	1212.92
96+00.00	9,600	50	17.98	61.00	3.75	34.65	112.96	5.05	0.00	3680.18	-1288.87	1713.28	1054.33	1128.30
96+25.00	9,625	25	56.02	61.00	19.25	34.26	56.48	10.65	0.00	3714.43	-1275.56	1713.28	1054.33	1092.77
96+28.30	9,628	3	58.77	61.00	24.18	7.01		2.65	0.00	3721.45	-1272.24	1713.28	1054.33	1096.47
					SUBTOTAL =	**3721.45**	3897.22	36.54	**1317.91**	3721.45	-1272.24	1713.28	1054.33	1096.47

STH 28 PRL1 R/L STATION	Real Station	Distance	AREA (SF)			Incremental Vol (CY) (Unadjusted)			Cumulative Vol (CY)		Mass Ordinate
			Cut	Salvaged/Unusable Pavement Material	Fill	Cut (205.0100) Note 1	Salvaged/Unusable Pavement Material Note 2	Fill Note 3	Cut 1.00 Note 1	Expanded Fill 1.25	Note 8
97+60.00	9,760		81.63	30.00	38.91						
97+75.00	9,775	15	239.70	30.00	0.23	89.26	16.67	10.87	89.26	13.59	59.00
97+95.00	9,795	20	79.89	30.00	0.08	118.37	22.22	0.11	207.63	13.73	155.00
98+00.00	9,800	5	26.36	30.00	1.32	9.84	5.56	0.13	217.46	13.90	159.12
98+02.81	9,803	3	26.67	30.00	0.88	2.76	3.12	0.11	220.22	14.04	158.62
98+07.43	9,807	5	27.20	30.00	0.33	4.61	5.13	0.10	224.83	14.17	157.96
98+10.00	9,810	3	27.04	30.00	0.05	2.58	2.86	0.02	227.41	14.19	157.67
98+12.43	9,812	2	117.48	30.00	0.00	6.50	2.70	0.00	233.92	14.19	161.47
98+13.10	9,813	1	32.60	30.00	0.00	1.86	0.74	0.00	235.78	14.19	162.58
98+25.00	9,825	12	51.33	30.00	0.00	18.50	13.22	0.00	254.27	14.19	167.86
98+50.00	9,850	25	51.27	30.00	0.00	47.50	27.78	0.00	301.77	14.19	187.58
98+59.44	9,859	9	107.28	30.00	0.00	27.72	10.49	0.00	329.49	14.19	204.81
98+75.00	9,875	16	117.24	30.00	0.00	64.70	17.29	0.00	394.19	14.19	252.21
98+83.72	9,884	9	118.08	30.00	0.00	38.00	9.69	0.00	432.19	14.19	280.53
99+00.00	9,900	16	119.61	30.00	0.00	71.66	18.09	0.00	503.84	14.19	334.10
99+11.98	9,912	12	120.12	30.00	0.00	53.18	13.31	0.00	557.03	14.19	373.97
99+25.00	9,925	13	122.48	30.00	0.00	58.49	14.47	0.00	615.52	14.19	418.00
99+50.00	9,950	25	105.78	30.00	0.00	105.68		0.00	721.20	14.19	523.67
					SUBTOTAL =	**721.20**	183.33	11.36	721.20	14.19	523.67

STH 28 SHOULDER WIDENING STATION	Real Station	Distance	AREA (SF)			Incremental Vol (CY) (Unadjusted)			Cumulative Vol (CY)		Mass Ordinate
			Cut	Salvaged/Unusable Pavement Material	Fill	Cut (205.0100) Note 1	Salvaged/Unusable Pavement Material Note 2	Fill Note 3	Cut 1.00 Note 1	Expanded Fill 1.25	Note 8
112+71.20(1)	11,271		10.60	1.50	0.00						
113+00.00(1)	11,300	29	7.72	1.50	0.00	9.77	1.60	0.00	9.77	0.00	8.17
113+27.00(1)	11,327	27	7.41	1.50	0.00	7.57	1.50	0.00	17.34	0.00	14.24
113+50.00(1)	11,350	23	6.13	1.50	3.41	5.77	1.28	1.45	23.10	1.82	16.91
113+70.62(1)	11,371	21	4.57	1.50	4.89	4.09	1.15	3.17	27.19	5.78	15.89
114+00.00(1)	11,400	29	4.44	1.50	0.00	4.90	1.63	2.66	32.09	9.10	15.83
115+00.00(1)	11,500	100	1.64	1.50	4.82	11.26	5.56	8.93	43.35	20.26	10.38
115+77.89(1)	11,578	78	3.12	1.50	0.83	6.87	4.33	8.15	50.22	30.45	2.73
116+00.00(1)	11,600	22	5.33	1.50	0.99	3.46		0.75	53.68	31.38	5.26
					SUBTOTAL =	**53.68**	17.04	25.10	53.68	31.38	5.26

STH 28 SHOULDER WIDENING STATION	Real Station	Distance	AREA (SF)			Incremental Vol (CY) (Unadjusted)			Cumulative Vol (CY)		
			Cut	Salvaged / Unusable Pavement Material	Fill	Cut (205.0100) Note 1	Salvaged / Unusable Pavement Material Note 2	Fill Note 3	Cut 1.00 Note 1	Expanded Fill 1.25	Mass Ordinate Note 8
120+00.00(1)	12,000		8.98	3.00	2.91						
121+00.00(1)	12,100	100	6.50	3.00	0.37	28.67	11.11	6.07	28.67	7.59	9.96
122+00.00(1)	12,200	100	4.41	3.00	2.48	20.20	11.11	5.28	48.87	14.19	12.46
123+00.00(1)	12,300	100	3.04	3.00	1.18	13.80	11.11	6.78	62.67	22.66	6.67
124+00.00(1)	12,400	100	4.73	3.00	0.80	14.39	11.11	3.67	77.06	27.25	5.37
125+00.00(1)	12,500	100	3.39	3.00	3.26	15.04	11.11	7.52	92.09	36.64	-0.11
126+00.00(1)	12,600	100	7.46	3.00	1.73	20.09	11.11	9.24	112.19	48.19	-2.68
127+00.00(1)	12,700	100	7.23	3.00	3.98	27.20	11.11	10.57	139.39	61.41	0.20
128+00.00(1)	12,800	100	6.42	3.00	6.50	25.28	11.11	19.41	164.67	85.67	-9.89
129+00.00(1)	12,900	100	6.52	3.00	4.66	23.96	11.11	20.67	188.63	111.50	-22.88
130+00.00(1)	13,000	100	7.75	3.00	2.91	26.43	11.11	14.02	215.06	129.03	-25.08
131+00.00(1)	13,100	100	10.93	3.00	2.44	34.59	11.11	9.91	249.65	141.41	-13.99
132+00.00(1)	13,200	100	6.81	3.00	1.92	32.85	11.11	8.07	282.50	151.50	-2.34
133+00.00(1)	13,300	100	32.01	3.00	0.54	71.89	11.11	4.56	354.39	157.20	52.75
133+50.00(1)	13,350	50	28.27	3.00	0.15	55.81	5.56	0.64	410.20	158.00	102.21
134+00.00(1)	13,400	50	32.21	3.00	0.18	56.00	5.56	0.31	466.20	158.38	152.27
135+00.00(1)	13,500	100	30.79	3.00	4.52	116.67	11.11	8.70	582.87	169.26	246.94
135+50.00(1)	13,550	50	28.42	3.00	5.67	54.82	5.56	9.44	637.69	181.05	284.42
136+00.00(1)	13,600	50	23.15	3.00	1.60	47.75	5.56	6.73	685.44	189.47	318.20
136+50.00(1)	13,650	50	9.20	3.00	4.53	29.95	5.56	5.68	715.40	196.56	335.50
137+00.00(1)	13,700	50	16.37	3.00	3.37	23.68	5.56	7.31	739.07	205.71	344.48
138+00.00(1)	13,800	100	11.64	3.00	0.93	51.87	11.11	7.96	790.94	215.66	375.28
139+00.00(1)	13,900	100	8.41	3.00	3.40	37.13	11.11	8.02	828.07	225.68	391.28
140+00.00(1)	14,000	100	5.94	3.00	0.98	26.57	11.11	8.11	854.65	235.82	396.60
141+00.00(1)	14,100	100	5.58	3.00	2.34	21.33	11.11	6.15	875.98	243.51	399.14
142+00.00(1)	14,200	100	7.74	3.00	2.83	24.67	11.11	9.57	900.65	255.47	400.73
143+00.00(1)	14,300	100	13.78	3.00	0.01	39.85	11.11	5.26	940.50	262.05	422.90
144+00.00(1)	14,400	100	15.87	3.00	0.09	54.91	11.11	0.19	995.41	262.28	466.46
145+00.00(1)	14,500	100	7.63	3.00	0.48	43.52	11.11	1.06	1038.93	263.60	497.55
145+36.00(1)	14,536	36	10.92	3.00	31.49	12.37	4.00	21.31	1051.29	290.24	479.27
145+42.00(1)	14,542	6	12.60	3.00	44.60	2.61	0.67	8.45	1053.91	300.81	470.65
146+00.00(1)	14,600	58	10.28	3.00	19.13	24.57	6.44	68.45	1078.48	386.37	403.22
146+50.00(1)	14,650	50	13.02	3.00	44.10	21.57		58.55	1100.05	459.56	351.61
					SUBTOTAL =	**1100.05**	288.89	367.64	1100.05	459.56	351.61

STH 28 SHOULDER WIDENING STATION	Real Station	Distance	AREA (SF)			Incremental Vol (CY) (Unadjusted)			Cumulative Vol (CY)		
			Cut	Salvaged / Unusable Pavement Material	Fill	Cut (205.0100) Note 1	Salvaged / Unusable Pavement Material Note 2	Fill Note 3	Cut 1.00 Note 1	Expanded Fill 1.25	Mass Ordinate Note 8
147+41.50(1)	14741.50		10.62	3.00	58.44						
148+00.00(1)	14800.00	58.50	7.57	3.00	19.01	19.71	6.50	83.90	19.71	104.88	-91.67
148+20.00(1)	14820.00	20.00	9.83	3.00	6.00	6.44	2.22	9.26	26.15	116.46	-99.03
149+00.00(1)	14900.00	80.00	17.32	3.00	0.04	40.22	8.89	8.95	66.37	127.64	-78.88
150+00.00(1)	15000.00	100.00	13.89	3.00	0.35	57.80	11.11	0.72	124.17	128.55	-33.10
151+00.00(1)	15100.00	100.00	8.67	3.00	1.79	41.78	11.11	3.96	165.95	133.50	-7.39
152+00.00(1)	15200.00	100.00	8.24	3.00	4.37	31.31	11.11	11.41	197.26	147.76	-1.44
153+00.00(1)	15300.00	100.00	4.99	3.00	0.02	24.50	11.11	8.13	221.76	157.92	1.78
154+00.00(1)	15400.00	100.00	1.81	3.00	7.13	12.59	11.11	13.24	234.35	174.47	-13.29
155+00.00(1)	15500.00	100.00	5.29	3.00	3.09	13.15	11.11	18.93	247.50	198.13	-34.91
156+00.00(1)	15600.00	100.00	4.51	3.00	0.85	18.15	11.11	7.30	265.65	207.25	-36.99
157+00.00(1)	15700.00	100.00	4.77	3.00	1.41	17.19	11.11	4.19	282.84	212.48	-36.15
158+00.00(1)	15800.00	100.00	6.06	3.00	1.01	20.06	11.11	4.48	302.89	218.08	-32.80
159+00.00(1)	15900.00	100.00	10.69	3.00	0.01	31.02	11.11	1.89	333.91	220.45	-15.26
160+00.00(1)	16000.00	100.00	12.56	3.00	0.01	43.06	11.11	0.04	376.97	220.49	16.64
161+00.00(1)	16100.00	100.00	6.43	3.00	0.23	35.17	11.11	0.44	412.13	221.05	40.14
162+00.00(1)	16200.00	100.00	8.21	3.00	0.30	27.11	11.11	0.98	439.24	222.27	54.91
163+00.00(1)	16300.00	100.00	5.79	3.00	1.99	25.93	11.11	4.24	465.17	227.57	64.43
164+00.00(1)	16400.00	100.00	4.34	3.00	3.52	18.76	11.11	10.20	483.93	240.33	59.32
165+00.00(1)	16500.00	100.00	8.84	3.00	0.39	24.41	11.11	7.24	508.34	249.38	63.57
166+00.00(1)	16600.00	100.00	5.68	3.00	2.79	26.89	11.11	5.89	535.22	256.74	71.98
167+00.00(1)	16700.00	100.00	5.75	3.00	3.48	21.17	11.11	11.61	556.39	271.26	67.52
167+29.00(1)	16729.00	29.00	6.62	3.00	6.16	6.64	3.22	5.18	563.03	277.73	64.47
168+00.00(1)	16800.00	71.00	8.21	3.00	1.25	19.50	7.89	9.74	582.53	289.90	63.91
169+00.00(1)	16900.00	100.00	6.96	3.00	0.85	28.09	11.11	3.89	610.63	294.77	76.03
169+99.90(1)	16999.90	99.90	1.91	3.00	17.11	16.41		33.23	627.03	336.30	50.90
					SUBTOTAL =	**627.03**	239.83	269.04	627.03	336.30	50.90

STH 28 PRL3 R/L RECONST. STATION	Real Station	Distance	AREA (SF)				Incremental Vol (CY) (Unadjusted)				Cumulative Vol (CY)				Mass Ordinate
			Cut	Salvaged/Unusable Pavement Material	Fill	EBS	Cut (205.0100) Note 1	Salvaged/Unusable Pavement Material Note 2	Fill Note 3	EBS (205.0100)	Cut 1.00 Note 1	Expanded Fill 1.25	Expanded EBS Backfill 1.30 Note 5	Reduced EBS In Fill 0.80 Note 7	Note 8
170+00.00(1)	17,000		14.46	15.00	10.75	0.00									
171+00.00(1)	17,100	100	15.13	15.00	25.43	0.00	54.80	55.56	67.00	0.00	54.80	83.75	0.00	0.00	-84.51
172+00.00(1)	17,200	100	16.10	15.00	25.97	0.00	57.83	55.56	95.19	0.00	112.63	202.73	0.00	0.00	-201.21
173+00.00(1)	17,300	100	18.46	15.00	12.64	0.00	64.00	55.56	71.50	0.00	176.63	292.11	0.00	0.00	-282.14
174+00.00(1)	17,400	100	7.35	15.00	3.65	72.51	47.80	55.56	30.17	134.28	224.43	195.54	174.56	107.42	-193.33
175+00.00(1)	17,500	100	6.22	15.00	3.15	73.00	25.13	55.56	12.59	269.46	249.56	-58.19	524.86	322.99	29.96
176+00.00(1)	17,600	100	3.95	15.00	1.12	73.03	18.83	55.56	7.91	270.43	268.39	-318.73	876.42	539.33	253.78
176+50.00(1)	17,650	50	8.25	15.00	0.96	81.19	11.30		1.93	142.80	279.69	-459.12	1062.05	653.57	405.47
					SUBTOTAL =		**279.69**	333.33	286.28	**816.96**	279.69	-459.12	1062.05	653.57	405.47

STH 28 SHOULDER WIDENING STATION	Real Station	Distance	AREA (SF)			Incremental Vol (CY) (Unadjusted)			Cumulative Vol (CY)		Mass Ordinate
			Cut	Salvaged/Unusable Pavement Material	Fill	Cut (205.0100) Note 1	Salvaged/Unusable Pavement Material Note 2	Fill Note 3	Cut 1.00 Note 1	Expanded Fill 1.25	Note 8
176+50.10(1)	17,650		10.07	3.00	0.80						
177+00.00(1)	17,700	49.90	1.16	3.00	1.24	10.38	5.54	1.89	10.38	2.36	2.48
178+00.00(1)	17,800	100.00	4.00	3.00	5.02	9.56	11.11	11.59	19.93	16.85	-13.57
179+00.00(1)	17,900	100.00	6.21	3.00	4.90	18.91	11.11	18.37	38.84	39.81	-28.74
180+00.00(1)	18,000	100.00	5.24	3.00	3.88	21.20	11.11	16.26	60.04	60.13	-38.97
181+00.00(1)	18,100	100.00	6.76	3.00	1.34	22.22	11.11	9.67	82.27	72.22	-39.94
182+00.00(1)	18,200	100.00	6.81	3.00	0.51	25.13	11.11	3.43	107.40	76.50	-30.20
183+00.00(1)	18,300	100.00	7.95	3.00	0.01	27.33	11.11	0.96	134.73	77.70	-15.19
184+00.00(1)	18,400	100.00	8.24	3.00	2.08	29.98	11.11	3.87	164.71	82.54	-1.15
185+00.00(1)	18,500	100.00	7.88	3.00	0.31	29.85	11.11	4.43	194.56	88.07	12.06
186+00.00(2)	18,598	98.19	6.66	3.00	4.35	26.44	10.91	8.47	221.00	98.67	16.99
187+00.00(2)	18,698	100.00	9.67	3.00	0.02	30.24	11.11	8.09	251.24	108.78	26.01
188+00.00(2)	18,798	100.00	3.05	3.00	14.79	23.56	11.11	27.43	274.80	143.06	4.17
189+00.00(2)	18,898	100.00	3.67	3.00	47.61	12.44	11.11	115.56	287.24	287.51	-138.94
189+50.00(2)	18,948	50.00	13.40	3.00	42.97	15.81	5.56	83.87	303.05	392.35	-233.53
190+00.00(2)	18,998	50.00	34.62	3.00	35.25	44.46	5.56	72.43	347.51	482.88	-285.16
190+50.00(2)	19,048	50.00	66.52	3.00	39.41	93.65	5.56	69.13	441.16	569.29	-283.48
191+00.00(2)	19,098	50.00	16.19	3.00	41.08	76.58	5.56	74.53	517.74	662.45	-305.61
191+50.00(2)	19,148	50.00	7.14	3.00	58.12	21.60	5.56	91.85	539.34	777.27	-404.38
192+00.00(2)	19,198	50.00	5.58	3.00	69.26	11.78	5.56	117.94	551.12	924.70	-545.58
192+33.00(2)	19,231	33.00	4.21	3.00	72.40	5.98	3.67	86.57	557.11	1032.91	-651.48
193+00.00(2)	19,298	67.00	5.58	3.00	37.09	12.15	7.44	135.85	569.25	1202.72	-816.59
194+00.00(2)	19,398	100.00	5.37	3.00	15.77	20.28	11.11	97.89	589.53	1325.08	-929.78
195+00.00(2)	19,498	100.00	11.48	3.00	11.30	31.20	11.11	50.13	620.73	1387.74	-972.35
196+00.00(2)	19,598	100.00	15.08	3.00	7.97	49.19	11.11	35.69	669.92	1432.35	-978.89
197+00.00(2)	19,698	100.00	8.78	3.00	11.14	44.19	11.11	35.39	714.10	1476.59	-990.05
198+00.00(2)	19,798	100.00	8.19	3.00	0.04	31.43	11.11	20.70	745.53	1502.47	-995.61
199+00.00(2)	19,898	100.00	7.97	3.00	0.26	29.93	11.11	0.56	775.46	1503.16	-977.49
200+00.00(2)	19,998	100.00	10.49	3.00	0.00	34.19	11.11	0.48	809.64	1503.76	-955.02
201+00.00(2)	20,098	100.00	13.77	3.00	0.00	44.93	11.11	0.00	854.57	1503.76	-921.20
202+00.00(2)	20,198	100.00	25.74	3.00	0.00	73.17	11.11	0.00	927.73	1503.76	-859.15
203+00.00(2)	20,298	100.00	3.43	3.00	7.55	54.02	11.11	13.98	981.75	1521.24	-833.72
204+00.00(2)	20,398	100.00	5.13	3.00	22.69	15.85	11.11	56.00	997.60	1591.24	-898.98
204+24.33(2)	20,423	24.33	7.63	3.00	23.49	5.75	2.70	20.81	1003.35	1617.25	-921.94
205+00.00(2)	20,498	75.67	11.97	3.00	49.01	27.47	8.41	101.59	1030.82	1744.24	-1029.88
205+47.00(2)	20,545	47.00	13.23	3.00	42.80	21.93	5.22	79.91	1052.75	1844.12	-1113.05
206+00.00(2)	20,598	53.00	31.69	3.00	31.74	44.09	5.89	73.16	1096.84	1935.57	-1166.30
206+50.00(2)	20,648	50.00	25.94	3.00	34.39	53.36	5.56	61.23	1150.20	2012.11	-1195.03
207+00.00(2)	20,698	50.00	45.36	3.00	81.01	66.02	5.56	106.85	1216.22	2145.68	-1268.14
207+34.21(2)	20,732	34.21	41.08	3.00	81.23	54.76	3.80	102.78	1270.98	2274.16	-1345.65
207+47.02(2)	20,745	12.81	23.89	3.00	56.64	15.41	1.42	32.71	1286.39	2315.04	-1372.55
207+50.00(2)	20,748	2.98	22.82	3.00	56.04	2.58	0.33	6.22	1288.97	2322.81	-1378.07
207+75.00(2)	20,773	25.00	8.75	1.50	10.79	14.62		30.94	1303.59	2361.49	-1402.13
					SUBTOTAL =	**1303.59**	344.23	1889.19	1303.59	2361.49	-1402.13

STH 28 SHOULDER WIDENING STATION	Real Station	Distance	AREA (SF)			Incremental Vol (CY) (Unadjusted)			Cumulative Vol (CY)		Mass Ordinate
			Cut	Salvaged / Unusable Pavement Material	Fill	Cut (205.0100) Note 1	Salvaged / Unusable Pavement Material Note 2	Fill Note 3	Cut 1.00 Note 1	Expanded Fill 1.25	Note 8
208+50.00(2)	20,848		19.37	1.50	100.61						
208+62.50(2)	20,861	12.50	32.33	3.00	107.78	11.97	1.04	48.24	11.97	60.30	-49.37
208+75.67(2)	20,874	13.17	54.92	3.00	107.90	21.28	1.46	52.60	33.25	126.05	-95.31
209+00.00(2)	20,898	24.33	69.18	3.00	55.17	55.91	2.70	73.47	89.16	217.89	-133.94
209+50.00(2)	20,948	50.00	95.97	3.00	5.89	152.92	5.56	56.54	242.08	288.56	-57.25
210+00.00(2)	20,998	50.00	117.89	3.00	1.92	198.02	5.56	7.23	440.10	297.60	126.18
210+50.00(2)	21,048	50.00	168.87	3.00	5.01	265.52	5.56	6.42	705.61	305.62	378.12
210+62.64(2)	21,061	12.64	266.00	3.00	4.83	101.79	1.40	2.30	807.41	308.50	475.63
211+00.00(2)	21,098	37.36	394.23	3.00	1.00	456.78	4.15	4.03	1264.19	313.54	923.21
211+50.00(2)	21,148	50.00	325.31	3.00	1.35	666.24	5.56	2.18	1930.43	316.26	1581.18
211+82.79(2)	21,181	32.79	14.54	3.00	8.13	206.36	3.64	5.76	2136.79	323.46	1776.70
212+00.00(2)	21,198	17.21	18.01	3.00	8.12	10.37	1.91	5.18	2147.17	329.93	1778.69
212+30.00(2)	21,228	30.00	1.10	3.00	14.42	10.62	3.33	12.52	2157.78	345.58	1770.32
212+50.00(2)	21,248	20.00	3.90	3.00	10.31	1.85	2.22	9.16	2159.64	357.03	1758.50
213+00.00(2)	21,298	50.00	19.70	3.00	15.99	21.85	5.56	24.35	2181.49	387.47	1744.36
213+50.00(2)	21,348	50.00	16.38	3.00	13.86	33.41	5.56	27.64	2214.89	422.02	1737.66
214+00.00(2)	21,398	50.00	21.72	3.00	13.53	35.28	5.56	25.36	2250.17	453.72	1735.68
215+00.00(2)	21,498	100.00	11.16	3.00	1.27	60.89	11.11	27.41	2311.06	487.98	1751.20
216+00.00(2)	21,598	100.00	8.51	3.00	0.35	36.43	11.11	3.00	2347.49	491.73	1772.77
217+00.00(2)	21,698	100.00	5.96	3.00	10.64	26.80	11.11	20.35	2374.28	517.17	1763.01
218+00.00(2)	21,798	100.00	6.87	3.00	7.21	23.76	11.11	33.06	2398.04	558.49	1734.34
219+00.00(2)	21,898	100.00	9.90	3.00	2.91	31.06	11.11	18.74	2429.10	581.92	1730.86
220+00.00(2)	21,998	100.00	5.09	3.00	4.36	27.76	11.11	13.46	2456.86	598.75	1730.68
221+00.00(2)	22,098	100.00	6.59	3.00	0.10	21.63	11.11	8.26	2478.49	609.07	1730.87
222+00.00(2)	22,198	100.00	6.69	3.00	1.19	24.59	11.11	2.39	2503.08	612.06	1741.37
223+00.00(2)	22,298	100.00	6.83	3.00	1.74	25.04	11.11	5.43	2528.12	618.84	1748.51
224+00.00(2)	22,398	100.00	7.31	3.00	1.34	26.19	11.11	5.70	2554.30	625.97	1756.46
225+00.00(2)	22,498	100.00	3.16	3.00	2.82	19.39	11.11	7.70	2573.69	635.60	1755.11
226+00.00(2)	22,598	100.00	2.06	3.00	7.49	9.67	11.11	19.09	2583.36	659.46	1729.80
227+00.00(2)	22,698	100.00	5.86	3.00	7.40	14.67	11.11	27.57	2598.02	693.93	1698.88
228+00.00(2)	22,798	100.00	2.89	3.00	4.29	16.20	11.11	21.65	2614.23	720.99	1676.92
229+00.00(2)	22,898	100.00	3.94	3.00	5.38	12.65	11.11	17.91	2626.88	743.38	1656.07
230+00.00(2)	22,998	100.00	8.34	3.00	2.30	22.74	11.11	14.22	2649.62	761.15	1649.92
231+00.00(2)	23,098	100.00	13.30	3.00	1.43	40.07	11.11	6.91	2689.69	769.79	1670.25
231+50.00(2)	23,148	50.00	17.18	3.00	0.40	28.22	5.56	1.69	2717.91	771.91	1690.80
232+00.00(2)	23,198	50.00	13.69	3.00	0.35	28.58		0.69	2746.50	772.77	1718.51
					SUBTOTAL =	**2746.50**	255.21	618.22	2746.50	772.77	1718.51

STH 28 28RL1 R/L RECONST. STATION	Real Station	Distance	AREA (SF)				Incremental Vol (CY) (Unadjusted)				Cumulative Vol (CY)				Mass Ordinate
			Cut	Salvaged/Unusable Pavement Material	Fill	EBS	Cut	Salvaged/Unusable Pavement Material	Fill	EBS	Cut 1.00	Expanded Fill 1.25	Expanded EBS Backfill 1.30	Reduced EBS In Fill 0.80	
							Note 1	Note 2	Note 3		Note 1		Note 5	Note 7	Note 8
232+00.00(2)	23198.19		56.06	15.00	2.35	0.00									
232+50.00(2)	23248.19	50.00	59.67	15.00	1.17	0.00	107.16	27.78	3.26	0.00	107.16	4.07	0.00	0.00	75.31
232+53.80(2)	23251.99	3.80	60.05	15.00	0.95	0.00	8.42	2.11	0.15	0.00	115.58	4.26	0.00	0.00	81.43
233+00.00(2)	23298.19	46.20	71.78	15.00	0.00	0.00	112.79	25.67	0.81	0.00	228.37	5.28	0.00	0.00	167.54
233+37.50(2)	23335.69	37.50	71.58	15.00	0.29	0.00	99.56	20.83	0.20	0.00	327.93	5.53	0.00	0.00	246.01
233+50.00(2)	23348.19	12.50	73.01	15.00	0.09	0.00	33.47	6.94	0.09	0.00	361.40	5.64	0.00	0.00	272.42
234+00.00(2)	23398.19	50.00	46.37	15.00	4.09	0.00	110.54	27.78	3.87	0.00	471.93	10.48	0.00	0.00	350.35
234+50.00(2)	23448.19	50.00	67.15	15.00	18.42	0.00	105.11	27.78	20.84	0.00	577.04	36.53	0.00	0.00	401.63
234+57.68(2)	23455.87	7.68	79.66	15.00	23.29	0.00	20.88	4.27	5.93	0.00	597.92	43.94	0.00	0.00	410.82
235+00.00(2)	23498.19	42.32	45.46	15.00	39.81	0.00	98.06	23.51	49.45	0.00	695.98	105.76	0.00	0.00	423.55
235+23.66(2)	23521.85	23.66	15.55	15.00	40.05	0.00	26.73	13.14	34.99	0.00	722.71	149.50	0.00	0.00	393.40
235+37.49(2)	23535.68	13.83	7.70	15.00	48.03	0.00	5.95	7.68	22.56	0.00	728.67	177.70	0.00	0.00	363.48
235+50.00(2)	23548.19	12.51	14.93	15.00	12.37	0.00	5.24	6.95	13.99	0.00	733.91	195.19	0.00	0.00	344.28
235+76.25(2)	23574.44	26.25	41.81	15.00	0.01	0.00	27.58	14.58	6.02	0.00	761.49	202.71	0.00	0.00	349.75
235+88.99(2)	23587.18	12.74	41.94	15.00	0.00	0.00	19.76	7.08	0.00	0.00	781.25	202.71	0.00	0.00	362.43
236+08.15(2)	23606.34	19.16	38.35	15.00	13.15	0.00	28.49	10.64	4.67	0.00	809.74	208.54	0.00	0.00	374.44
236+20.87(2)	23619.06	12.72	41.56	15.00	26.03	0.00	18.82	7.07	9.23	0.00	828.56	220.08	0.00	0.00	374.66
236+47.17(2)	23645.36	26.30	57.82	15.00	68.91	0.00	48.40	14.61	46.24	0.00	876.96	277.88	0.00	0.00	350.66
236+59.61(2)	23657.80	12.44	48.72	15.00	83.21	0.00	24.54	6.91	35.04	0.00	901.51	321.68	0.00	0.00	324.48
236+73.29(2)	23671.48	13.68	47.83	15.00	62.44	0.00	24.46	7.60	36.90	0.00	925.97	367.81	0.00	0.00	295.22
237+00.00(2)	23698.19	26.71	67.08	15.00	70.13	0.00	56.84	14.84	65.57	0.00	982.80	449.77	0.00	0.00	255.25
237+39.96(2)	23738.15	39.96	83.68	15.00	110.72	0.00	111.56	22.20	133.83	0.00	1094.37	617.06	0.00	0.00	177.33
237+50.00(2)	23748.19	10.04	66.51	15.00	120.31	0.00	27.92	5.58	42.95	0.00	1122.29	670.75	0.00	0.00	145.98
238+00.00(2)	23798.19	50.00	53.48	15.00	179.22	0.00	111.10	27.78	277.34	0.00	1233.39	1017.43	0.00	0.00	-117.37
238+50.00(2)	23848.19	50.00	50.41	15.00	212.40	0.00	96.19	27.78	362.61	0.00	1329.59	1470.69	0.00	0.00	-502.22
238+58.83(2)	23857.02	8.83	43.72	15.00	210.94	0.00	15.39	4.91	69.22	0.00	1344.98	1557.22	0.00	0.00	-578.26
239+00.00(2)	23898.19	41.17	3.68	15.00	205.04	0.00	36.14	22.87	317.15	0.00	1381.12	1953.66	0.00	0.00	-961.43
239+45.89(2)	23944.08	45.89	0.00	15.00	214.44	0.00	3.13	25.49	356.48	0.00	1384.24	2399.26	0.00	0.00	-1429.40
239+50.00(2)	23948.19	4.11	0.00	15.00	225.85	0.00	0.00	2.28	33.51	0.00	1384.24	2441.15	0.00	0.00	-1473.57
240+00.00(2)	23998.19	50.00	0.88	15.00	198.46	0.00	0.81	27.78	392.88	0.00	1385.06	2932.25	0.00	0.00	-1991.63
240+50.00(2)	24048.19	50.00	1.66	15.00	200.56	0.00	2.35	27.78	369.46	0.00	1387.41	3394.07	0.00	0.00	-2478.89
241+00.00(2)	24098.19	50.00	3.28	15.00	190.70	0.00	4.57	27.78	362.28	0.00	1391.98	3846.92	0.00	0.00	-2954.94
241+50.00(2)	24148.19	50.00	10.19	15.00	136.38	0.00	12.47	27.78	302.85	0.00	1404.46	4225.49	0.00	0.00	-3348.81
242+00.00(2)	24198.19	50.00	29.26	15.00	85.52	0.00	36.53	27.78	205.46	0.00	1440.98	4482.32	0.00	0.00	-3596.89
242+50.00(2)	24248.19	50.00	41.80	15.00	95.10	0.00	65.80	27.78	167.24	0.00	1506.78	4691.37	0.00	0.00	-3767.92
243+00.00(2)	24298.19	50.00	102.09	15.00	108.47	0.00	133.23	27.78	188.49	0.00	1640.01	4926.98	0.00	0.00	-3898.08
243+50.00(2)	24348.19	50.00	106.81	15.00	93.18	0.00	193.43	27.78	186.71	0.00	1833.44	5160.37	0.00	0.00	-3965.82
244+00.00(2)	24398.19	50.00	87.01	15.00	61.07	0.00	179.46	27.78	142.82	0.00	2012.90	5338.90	0.00	0.00	-3992.67
244+50.00(2)	24448.19	50.00	77.33	15.00	46.87	0.00	152.17	27.78	99.94	0.00	2165.07	5463.83	0.00	0.00	-3993.21
245+00.00(2)	24498.19	50.00	81.83	15.00	57.76	0.00	147.37	27.78	96.88	0.00	2312.44	5584.93	0.00	0.00	-3994.71
245+50.00(2)	24548.19	50.00	58.43	15.00	61.72	0.00	129.87	27.78	110.63	0.00	2442.31	5723.22	0.00	0.00	-4030.91
246+00.00(2)	24598.19	50.00	22.49	15.00	75.72	0.00	74.93	27.78	127.26	0.00	2517.23	5882.29	0.00	0.00	-4142.84
246+50.00(2)	24648.19	50.00	0.90	15.00	144.35	0.00	21.66	27.78	203.77	0.00	2538.89	6137.00	0.00	0.00	-4403.67
247+00.00(2)	24698.19	50.00	14.44	15.00	160.77	0.00	14.20	27.78	282.52	0.00	2553.10	6490.15	0.00	0.00	-4770.39
247+50.00(2)	24748.19	50.00	4.62	15.00	235.10	0.00	17.65	27.78	366.55	0.00	2570.74	6948.33	0.00	0.00	-5238.70
248+00.00(2)	24798.19	50.00	1.59	0.00	319.53	0.00	5.75	13.89	513.55	0.00	2576.49	7590.27	0.00	0.00	-5888.77
248+50.00(2)	24848.19	50.00	0.00	0.00	333.79	0.00	1.47	0.00	604.93	0.00	2577.97	8346.42	0.00	0.00	-6643.46
249+00.00(2)	24898.19	50.00	0.00	0.00	365.56	0.00	0.00	0.00	647.55	0.00	2577.97	9155.86	0.00	0.00	-7452.89
249+50.00(2)	24948.19	50.00	0.00	0.00	381.39	0.00	0.00	0.00	691.62	0.00	2577.97	10020.38	0.00	0.00	-8317.42

EARTHWORK TABLE TO BE CONTINUED ON NEXT SHEET

STH 28 28RL1 R/L RECONST. STATION	Real Station	Distance	AREA (SF)				Incremental Vol (CY) (Unadjusted)				Cumulative Vol (CY)				Mass Ordinate
			Cut	Salvaged / Unusable Pavement Material	Fill	EBS	Cut Note 1	Salvaged / Unusable Pavement Material Note 2	Fill Note 3	EBS	Cut 1.00 Note 1	Expanded Fill 1.25	Expanded EBS Backfill 1.30 Note 5	Reduced EBS In Fill 0.80 Note 7	Note 8
250+00.00(2)	24998.19	50.00	0.00	0.00	366.73	0.00	0.00	0.00	692.70	0.00	2577.97	10886.26	0.00	0.00	-9183.30
250+50.00(2)	25048.19	50.00	0.00	0.00	336.98	0.00	0.00	0.00	651.58	0.00	2577.97	11700.74	0.00	0.00	-9997.77
251+00.00(2)	25098.19	50.00	21.48	15.00	204.07	0.00	19.89	13.89	500.97	0.00	2597.86	12326.96	0.00	0.00	-10617.99
251+50.00(2)	25148.19	50.00	37.19	15.00	78.94	0.00	54.32	27.78	262.05	0.00	2652.18	12654.51	0.00	0.00	-10919.00
252+00.00(2)	25198.19	50.00	48.29	15.00	7.39	0.00	79.15	27.78	79.94	0.00	2731.33	12754.43	0.00	0.00	-10967.55
252+50.00(2)	25248.19	50.00	89.03	15.00	0.01	0.00	127.15	27.78	6.85	0.00	2858.48	12763.00	0.00	0.00	-10876.74
253+00.00(2)	25298.19	50.00	132.29	15.00	3.95	0.00	204.93	27.78	3.67	0.00	3063.40	12767.58	0.00	0.00	-10704.18
253+25.00(2)	25323.19	25.00	198.49	15.00	0.00	0.00	153.14	13.89	1.83	0.00	3216.54	12769.87	0.00	0.00	-10567.22
254+00.00(2)	25398.19	75.00	210.65	15.00	0.00	0.00	568.25	41.67	0.00	0.00	3784.79	12769.87	0.00	0.00	-10040.63
255+00.00(2)	25498.19	100.00	99.59	15.00	0.11	0.00	574.52	55.56	0.20	0.00	4359.31	12770.12	0.00	0.00	-9521.92
255+50.00(2)	25548.19	50.00	0.01	15.00	125.08	0.00	92.22	27.78	115.92	0.00	4451.53	12915.02	0.00	0.00	-9602.38
256+00.00(2)	25598.19	50.00	0.00	0.00	409.36	0.00	0.01	13.89	494.85	0.00	4451.54	13533.58	0.00	0.00	-10234.82
256+50.00(2)	25648.19	50.00	0.00	0.00	600.35	0.00	0.00	0.00	934.92	0.00	4451.54	14702.23	0.00	0.00	-11403.47
257+00.00(2)	25698.19	50.00	0.00	0.00	385.36	0.00	0.00	0.00	912.69	0.00	4451.54	15843.10	0.00	0.00	-12544.33
257+50.00(2)	25748.19	50.00	0.00	0.00	266.71	0.00	0.00	0.00	603.77	0.00	4451.54	16597.81	0.00	0.00	-13299.04
258+00.00(2)	25798.19	50.00	1.27	0.00	203.12	0.00	1.18	0.00	435.03	0.00	4452.72	17141.59	0.00	0.00	-13841.65
258+50.00(2)	25848.19	50.00	39.64	0.00	155.53	0.00	37.88	0.00	332.08	0.00	4490.60	17556.70	0.00	0.00	-14218.88
259+00.00(2)	25898.19	50.00	59.53	0.00	234.21	0.00	91.82	0.00	360.87	0.00	4582.42	18007.78	0.00	0.00	-14578.14
260+00.00(2)	25998.19	100.00	0.00	0.00	501.37	0.00	110.24	0.00	1362.19	0.00	4692.66	19710.52	0.00	0.00	-16170.63
260+50.00(2)	26048.19	50.00	3.68	15.00	520.96	0.00	3.41	13.89	946.60	0.00	4696.07	20893.77	0.00	0.00	-17364.37
261+00.00(2)	26098.19	50.00	7.93	15.00	211.07	0.00	10.75	27.78	677.81	0.00	4706.82	21741.02	0.00	0.00	-18228.65
261+50.00(2)	26148.19	50.00	0.01	15.00	119.91	0.00	7.35	27.78	306.46	0.00	4714.17	22124.10	0.00	0.00	-18632.16
261+99.10(2)	26197.29	49.10	1.69	15.00	30.92	0.00	1.55	27.28	137.14	0.00	4715.72	22295.53	0.00	0.00	-18829.32
262+00.00(2)	26198.19	0.90	2.15	15.00	31.21	39.77	0.06	0.50	1.04	0.66	4715.78	22296.16	0.86	0.53	-18830.38
262+50.00(2)	26248.19	50.00	83.70	15.00	8.04	50.71	79.49	27.78	36.34	83.78	4795.27	22257.81	109.77	67.55	-18740.32
263+00.00(2)	26298.19	50.00	204.12	15.00	0.01	51.99	266.50	27.78	7.45	95.09	5061.77	22172.04	233.39	143.63	-18415.82
263+32.97(2)	26331.16	32.97	230.31	15.00	0.00	51.98	265.24	18.32	0.01	63.48	5327.01	22108.57	315.92	194.41	-18105.43
263+38.00(2)	26336.19	5.03	299.19	15.00	0.00	53.19	49.32	2.79	0.00	9.80	5376.34	22098.77	328.65	202.25	-18049.10
263+50.00(2)	26348.19	12.00	309.10	15.00	0.00	54.32	135.18	6.67	0.00	23.89	5511.51	22074.88	359.71	221.36	-17896.70
263+55.00(2)	26353.19	5.00	249.31	15.00	0.00	53.45	51.70	2.78	0.00	9.98	5563.22	22064.90	372.68	229.34	-17837.80
264+00.00(2)	26398.19	45.00	243.25	15.00	0.00	58.27	410.47	25.00	0.00	93.10	5973.68	21971.80	493.71	303.82	-17359.23
264+32.97(2)	26431.16	32.97	214.05	15.00	0.00	59.36	279.21	18.32	0.00	71.82	6252.89	21899.98	587.08	361.28	-17026.52
264+50.00(2)	26448.19	17.03	205.35	15.00	0.00	61.19	132.27	9.46	0.00	38.02	6385.16	21861.96	636.50	391.69	-16865.70
265+00.00(2)	26498.19	50.00	131.94	15.00	0.00	64.28	312.31	27.78	0.00	116.18	6697.46	21745.79	787.53	484.63	-16464.99
265+16.61(2)	26514.80	16.61	115.08	15.00	0.00	65.73	75.98	9.23	0.00	39.99	6773.44	21705.80	839.52	516.63	-16358.25
265+23.07(2)	26521.26	6.46	110.94	15.00	0.00	64.29	27.04	3.59	0.00	15.55	6800.48	21690.24	859.74	529.07	-16319.24
265+42.01(2)	26540.20	18.94	101.81	15.00	0.00	68.52	74.62	10.52	0.00	46.58	6875.10	21643.66	920.29	566.33	-16208.57
265+50.00(2)	26548.19	7.99	88.41	15.00	0.04	64.45	28.15	4.44	0.01	19.67	6903.25	21623.99	945.87	582.07	-16165.19
265+57.82(2)	26556.01	7.82	109.88	15.00	0.09	73.55	28.72	4.34	0.02	19.98	6931.96	21604.03	971.85	598.06	-16120.86
265+64.22(2)	26562.41	6.40	103.82	15.00	0.18	75.08	25.33	3.56	0.03	17.62	6957.29	21586.46	994.75	612.15	-16081.51
265+77.68(2)	26575.87	13.46	102.23	15.00	0.00	66.90	51.36	7.48	0.04	35.39	7008.65	21551.12	1040.76	640.47	-16002.30
265+97.25(2)	26595.44	19.57	110.59	15.00	0.00	73.64	77.13	10.87	0.00	50.93	7085.78	21500.19	1106.97	681.21	-15885.11
266+21.57(2)	26619.76	24.32	84.57	15.00	0.00	0.00	87.89	13.51	0.00	33.17	7173.67	21467.03	1150.09	707.74	-15777.56
266+24.22(2)	26622.41	2.65	85.19	15.00	3.73	0.00	8.33	1.47	0.18	0.00	7182.00	21467.26	1150.09	707.74	-15770.93
266+50.00(2)	26648.19	25.78	46.06	15.00	8.06	0.00	62.66	14.32	5.63	0.00	7244.66	21474.29	1150.09	707.74	-15729.63
266+71.44(2)	26669.63	21.44	44.18	15.00	4.51	0.00	35.83	11.91	4.99	0.00	7280.49	21480.53	1150.09	707.74	-15711.95
267+00.00(2)	26698.19	28.56	37.91	15.00	6.32	0.00	43.42	15.87	5.73	0.00	7323.91	21487.69	1150.09	707.74	-15691.56
267+19.95(2)	26718.14	19.95	33.47	15.00	12.15	0.00	26.37	11.08	6.82	0.00	7350.28	21496.22	1150.09	707.74	-15684.80
267+50.00(2)	26748.19	30.05	30.16	15.00	24.55	0.00	35.41	16.69	20.42	0.00	7385.69	21521.75	1150.09	707.74	-15691.62
268+00.00(2)	26798.19	50.00	49.89	15.00	4.79	0.00	74.12	27.78	27.17	0.00	7459.81	21555.71	1150.09	707.74	-15679.23
268+50.00(2)	26848.19	50.00	75.57	15.00	0.00	0.00	116.17	27.78	4.44	0.00	7575.97	21561.25	1150.09	707.74	-15596.39
269+00.00(2)	26898.19	50.00	81.64	15.00	0.00	0.00	145.56	27.78	0.00	0.00	7721.54	21561.25	1150.09	707.74	-15478.60
270+00.00(2)	26998.19	100.00	54.90	15.00	9.21	0.00	252.85		17.06	0.00	7974.39	21582.57	1150.09	707.74	-15247.07
						SUBTOTAL =	**7,974.39**	1,638.89	17,973.80	**884.68**	7,974.39	21,582.57	1,150.09	707.74	-15,247.07

STH 28 SHOULDER WIDENING STATION	Real Station	Distance	AREA (SF)			Incremental Vol (CY) (Unadjusted)			Cumulative Vol (CY)		
			Cut	Salvaged / Unusable Pavement Material	Fill	Cut (205.0100) Note 1	Salvaged / Unusable Pavement Material Note 2	Fill Note 3	Cut 1.00 Note 1	Expanded Fill 1.25	Mass Ordinate Note 8
270+00.00(2)	26,998		22.72	3.00	11.13						
270+10.00(2)	27,008	10.00	8.59	3.00	16.68	5.80	1.11	5.15	5.80	6.44	-1.75
270+20.00(2)	27,018	10.00	8.15	3.00	21.93	3.10	1.11	7.15	8.90	15.38	-8.70
270+30.00(2)	27,028	10.00	7.12	3.00	23.28	2.83	1.11	8.37	11.73	25.84	-17.45
270+40.00(2)	27,038	10.00	7.48	3.00	22.07	2.70	1.11	8.40	14.43	36.34	-26.35
270+50.00(2)	27,048	10.00	8.34	3.00	24.03	2.93	1.11	8.54	17.36	47.01	-35.21
270+60.00(2)	27,058	10.00	6.99	3.00	17.45	2.84	1.11	7.68	20.20	56.61	-43.08
270+70.00(2)	27,068	10.00	4.95	3.00	18.52	2.21	1.11	6.66	22.41	64.94	-50.31
271+00.00(2)	27,098	30.00	9.59	3.00	1.73	8.08	3.33	11.25	30.49	79.00	-59.62
271+50.00(2)	27,148	50.00	30.93	3.00	13.19	37.52	5.56	13.81	68.01	96.27	-44.93
272+00.00(2)	27,198	50.00	16.09	3.00	34.43	43.54	5.56	44.09	111.54	151.38	-62.06
272+10.00(2)	27,208	10.00	3.18	3.00	33.14	3.57	1.11	12.51	115.11	167.03	-75.25
272+20.00(2)	27,218	10.00	4.19	3.00	23.30	1.36	1.11	10.45	116.48	180.09	-88.06
272+30.00(2)	27,228	10.00	5.75	3.00	13.89	1.84	1.11	6.89	118.32	188.70	-95.94
272+40.00(2)	27,238	10.00	11.41	3.00	10.73	3.18	1.11	4.56	121.49	194.40	-99.57
272+50.00(2)	27,248	10.00	16.41	3.00	7.96	5.15	1.11	3.46	126.65	198.72	-99.86
272+60.00(2)	27,258	10.00	19.29	3.00	4.83	6.61	1.11	2.37	133.26	201.69	-97.32
272+70.00(2)	27,268	10.00	23.30	3.00	2.27	7.89	1.11	1.31	141.14	203.33	-92.18
272+80.00(2)	27,278	10.00	40.41	3.00	1.48	11.80	1.11	0.69	152.94	204.20	-82.37
273+00.00(2)	27,298	20.00	49.07	3.00	1.46	33.14	2.22	1.09	186.08	205.56	-52.81
274+00.00(2)	27,398	100.00	31.63	3.00	0.11	149.44	11.11	2.91	335.53	209.19	81.89
275+00.00(2)	27,498	100.00	32.77	3.00	0.01	119.26	11.11	0.22	454.79	209.47	189.76
276+00.00(2)	27,598	100.00	24.02	3.00	1.04	105.17	11.11	1.94	559.95	211.90	281.39
277+00.00(2)	27,698	100.00	21.43	3.00	1.68	84.17	11.11	5.04	644.12	218.20	348.15
278+00.00(2)	27,798	100.00	11.10	3.00	2.48	60.24	11.11	7.70	704.36	227.83	387.65
279+00.00(2)	27,898	100.00	20.30	3.00	1.83	58.15	11.11	7.98	762.51	237.80	424.71
280+00.00(2)	27,998	100.00	26.96	3.00	0.09	87.52	11.11	3.56	850.03	242.25	496.67
281+00.00(2)	28,098	100.00	14.09	3.00	2.71	76.02	11.11	5.19	926.05	248.73	555.09
282+00.00(2)	28,198	100.00	18.40	3.00	2.43	60.17	11.11	9.52	986.21	260.63	592.25
283+00.00(2)	28,298	100.00	22.60	3.00	5.99	75.93	11.11	15.59	1062.14	280.12	637.58
284+00.00(2)	28,398	100.00	8.21	3.00	10.61	57.06	11.11	30.74	1119.19	318.54	645.09
285+00.00(2)	28,498	100.00	28.85	3.00	1.01	68.63	11.11	21.52	1187.82	345.44	675.72
286+00.00(2)	28,598	100.00	9.15	3.00	3.42	70.37	11.11	8.20	1258.19	355.70	724.72
287+00.00(2)	28,698	100.00	7.99	3.00	14.03	31.74	11.11	32.31	1289.94	396.09	704.96
288+00.00(2)	28,798	100.00	8.57	3.00	20.32	30.67	11.11	63.61	1320.60	475.60	645.00
289+00.00(2)	28,898	100.00	5.36	3.00	26.13	25.80	11.11	86.02	1346.40	583.13	552.16
289+20.00(2)	28,918	20.00	13.20	3.00	34.18	6.87	2.22	22.34	1353.27	611.05	528.89
290+00.00(2)	28,998	80.00	10.51	3.00	17.60	35.13	8.89	76.71	1388.40	706.94	459.24
291+00.00(2)	29,098	100.00	51.83	3.00	0.00	115.44	11.11	32.59	1503.84	747.68	522.83
292+00.00(2)	29,198	100.00	49.90	3.00	0.00	188.39	11.11	0.00	1692.23	747.68	700.11
293+00.00(2)	29,298	100.00	4.29	3.00	8.97	100.35	11.11	16.61	1792.58	768.44	768.59
293+21.50(2)	29,320	21.50	4.75	3.00	46.24	3.60	2.39	21.98	1796.18	795.92	742.32
294+00.00(2)	29,398	78.50	5.01	3.00	3.54	14.19	8.72	72.37	1810.37	886.38	657.33
295+00.00(2)	29,498	100.00	20.09	3.00	1.20	46.48	11.11	8.78	1856.85	897.35	681.73
296+00.00(2)	29,598	100.00	33.91	3.00	0.00	100.00	11.11	2.22	1956.85	900.13	767.84
297+00.00(2)	29,698	100.00	26.03	3.00	0.52	111.00	11.11	0.96	2067.85	901.33	866.52
298+00.00(2)	29,798	100.00	16.41	3.00	1.15	78.59	11.11	3.09	2146.44	905.20	930.14
299+00.00(2)	29,898	100.00	31.29	3.00	0.00	88.33	11.11	2.13	2234.78	907.86	1004.70
300+00.00(2)	29,998	100.00	18.15	3.00	6.94	91.56	11.11	12.85	2326.33	923.92	1069.08
301+00.00(2)	30,098	100.00	2.60	3.00	21.57	38.43		52.80	2364.76	989.92	1041.51
					SUBTOTAL =	**2,364.76**	333.33	791.93	2,364.76	989.92	1,041.51

STH 28 28RL1 R/L RECONST. STATION	Real Station	Distance	AREA (SF)				Incremental Vol (CY) (Unadjusted)				Cumulative Vol (CY)				Mass Ordinate
			Cut	Salvaged / Unusable Pavement Material	Fill	EBS	Cut (205.0100) Note 1	Salvaged / Unusable Pavement Material Note 2	Fill Note 3	EBS (205.0100)	Cut 1.00 Note 1	Expanded Fill 1.25	Expanded EBS Backfill 1.30 Note 5	Reduced EBS In Fill 0.80 Note 7	Note 8
301+00.00(2)	30,098		43.73	15.00	14.21	0.00									
302+00.00(2)	30,198	100	41.66	15.00	2.16	0.00	158.13	55.56	30.31	0.00	158.13	37.89	0.00	0.00	64.68
303+00.00(2)	30,298	100	62.80	15.00	0.56	0.00	193.44	55.56	5.04	0.00	351.57	44.19	0.00	0.00	196.27
303+50.00(2)	30,348	50	108.43	15.00	0.00	0.00	158.55	27.78	0.52	0.00	510.12	44.84	0.00	0.00	326.39
304+00.00(2)	30,398	50	118.68	15.00	0.00	0.00	210.29	27.78	0.00	0.00	720.41	44.84	0.00	0.00	508.90
304+50.00(2)	30,448	50	102.74	15.00	1.71	0.00	205.02	27.78	1.58	0.00	925.43	46.82	0.00	0.00	684.16
305+00.00(2)	30,498	50	62.51	15.00	0.04	0.00	153.01	27.78	1.62	0.00	1078.44	48.84	0.00	0.00	807.37
305+50.00(2)	30,548	50	23.64	15.00	23.51	0.00	79.77	27.78	21.81	0.00	1158.20	76.10	0.00	0.00	832.10
306+00.00(2)	30,598	50	17.37	15.00	66.46	0.00	37.97	27.78	83.31	0.00	1196.18	180.23	0.00	0.00	738.17
307+00.00(2)	30,698	100	1.17	0.00	197.23	0.00	34.33	27.78	488.31	0.00	1230.51	790.63	0.00	0.00	134.33
308+00.00(2)	30,798	100	0.00	0.00	330.49	0.00	2.17	0.00	977.26	0.00	1232.68	2012.20	0.00	0.00	-1085.08
309+00.00(2)	30,898	100	0.00	0.00	333.53	0.00	0.00	0.00	1229.67	0.00	1232.68	3549.28	0.00	0.00	-2622.16
310+00.00(2)	30,998	100	5.28	0.00	149.36	52.75	9.78	0.00	894.24	97.69	1242.45	4569.40	126.99	78.15	-3632.50
311+00.00(2)	31,098	100	271.63	0.00	0.00	63.32	512.80	0.00	276.59	214.94	1755.25	4700.19	406.42	250.10	-3250.50
311+25.00(2)	31,123	25	359.48	0.00	0.00	87.61	292.18	0.00	0.00	69.88	2047.43	4630.32	497.26	306.00	-2888.44
311+25.10(2)	31,123	0	360.25	0.00	0.00	0.00	1.33	0.00	0.00	0.16	2048.76	4630.16	497.47	306.13	-2886.95
311+50.00(2)	31,148	25	564.54	0.00	0.00	0.00	426.43	0.00	0.00	0.00	2475.19	4630.16	497.47	306.13	-2460.52
312+00.00(2)	31,198	50	1390.98	0.00	0.00	0.00	1810.67	0.00	0.00	0.00	4285.86	4630.16	497.47	306.13	-649.85
312+50.00(2)	31,248	50	2069.98	0.00	0.00	0.00	3204.59	0.00	0.00	0.00	7490.45	4630.16	497.47	306.13	2554.74
313+00.00(2)	31,298	50	2229.14	0.00	0.00	0.00	3980.67	0.00	0.00	0.00	11471.12	4630.16	497.47	306.13	6535.41
313+50.00(2)	31,348	50	2119.41	0.00	0.00	0.00	4026.44	0.00	0.00	0.00	15497.56	4630.16	497.47	306.13	10561.84
314+00.00(2)	31,398	50	1836.53	0.00	0.00	0.00	3662.91	0.00	0.00	0.00	19160.46	4630.16	497.47	306.13	14224.75
314+50.00(2)	31,448	50	1406.64	0.00	0.00	0.00	3002.94	0.00	0.00	0.00	22163.40	4630.16	497.47	306.13	17227.69
315+00.00(2)	31,498	50	862.66	0.00	0.00	0.00	2101.20	0.00	0.00	0.00	24264.60	4630.16	497.47	306.13	19328.89
315+49.90(2)	31,548	50	425.81	0.00	0.00	0.00	1190.64	0.00	0.00	0.00	25455.24	4630.16	497.47	306.13	20519.53
315+50.00(2)	31,548	0	425.16	0.00	0.00	75.47	1.58	0.00	0.00	0.14	25456.82	4630.02	497.65	306.25	20521.25
316+00.00(2)	31,598	50	267.00	15.00	0.00	71.02	640.89	13.89	0.00	135.64	26097.71	4494.38	673.98	414.76	21283.89
316+18.00(2)	31,616	18	216.00	15.00	0.00	71.20	161.00	10.00	0.00	47.41	26258.71	4446.97	735.61	452.68	21482.29
316+50.00(2)	31,648	32	141.00	15.00	21.37	74.17	211.56	17.78	12.66	86.15	26470.26	4376.66	847.60	521.60	21746.39
317+00.00(2)	31,698	50	69.00	15.00	50.80	69.93	194.44	27.78	66.82	133.43	26664.71	4326.76	1021.05	628.34	21962.95
317+05.50(2)	31,704	6	65.70	15.00	52.82	69.44	13.72	3.06	10.55	14.20	26678.43	4325.76	1039.50	639.69	21974.61
317+50.00(2)	31,748	45	41.01	15.00	42.94	68.36	87.94	24.72	78.91	113.56	26766.36	4310.84	1187.13	730.54	22052.74
318+00.00(2)	31,798	50	33.66	15.00	36.49	68.54	69.14	27.78	73.55	126.76	26835.50	4276.02	1351.92	831.95	22128.93
318+00.10(2)	31,798	0	33.65	15.00	36.49	0.00	0.12	0.06	0.14	0.13	26835.63	4276.06	1352.08	832.05	22128.96
318+45.81(2)	31,844	46	35.78	15.00	36.76	0.00	58.77	25.39	62.00	0.00	26894.40	4353.56	1352.08	832.05	22084.83
318+50.00(2)	31,848	4	36.33	15.00	35.99	0.00	5.60	2.33	5.64	0.00	26899.99	4360.62	1352.08	832.05	22081.04
319+00.00(2)	31,898	50	70.58	15.00	26.72	0.00	98.99	27.78	58.06	0.00	26998.99	4433.20	1352.08	832.05	22079.67
319+05.50(2)	31,904	6	73.07	15.00	52.19	0.00	14.63	3.06	8.04	0.00	27013.62	4443.25	1352.08	832.05	22081.20
319+10.00(2)	31,908	5	78.11	15.00	49.53	0.00	12.60	2.50	8.48	0.00	27026.21	4453.84	1352.08	832.05	22080.71
319+17.08(2)	31,915	7	83.10	15.00	46.13	0.00	21.14	3.93	12.54	0.00	27047.35	4469.52	1352.08	832.05	22082.23
319+25.00(2)	31,923	8	84.36	15.00	40.82	0.00	24.56	4.40	12.75	0.00	27071.91	4485.46	1352.08	832.05	22086.45
319+31.82(2)	31,930	7	78.91	15.00	45.60	0.00	20.62	3.79	10.91	0.00	27092.53	4499.10	1352.08	832.05	22089.64
319+35.00(2)	31,933	3	75.49	15.00	29.99	0.00	9.09	1.77	4.45	0.00	27101.62	4504.67	1352.08	832.05	22091.40
319+42.82(2)	31,941	8	76.62	15.00	1.40	0.00	22.03	4.34	4.55	0.00	27123.65	4510.35	1352.08	832.05	22103.40
319+44.22(2)	31,942	1	75.61	15.00	0.97	0.00	3.95	0.78	0.06	0.00	27127.60	4510.43	1352.08	832.05	22106.49
319+68.54(2)	31,967	24	96.57	15.00	0.00	0.00	77.54	13.51	0.44	0.00	27205.14	4510.97	1352.08	832.05	22169.98
319+93.24(2)	31,991	25	98.24	15.00	0.00	0.00	89.11	13.72	0.00	0.00	27294.25	4510.97	1352.08	832.05	22245.37
319+95.95(2)	31,994	3	98.30	15.00	0.26	0.00	9.86	1.51	0.01	0.00	27304.11	4510.99	1352.08	832.05	22253.71
320+00.00(2)	31,998	4	91.30	15.00	9.04	0.00	14.22	2.25	0.70	0.00	27318.33	4511.86	1352.08	832.05	22264.81
320+05.00(2)	32,003	5	96.29	15.00	13.00	0.00	17.37	2.78	2.04	0.00	27335.70	4514.41	1352.08	832.05	22276.85
320+10.00(2)	32,008	5	124.03	15.00	13.21	0.00	20.40	2.78	2.43	0.00	27356.10	4517.45	1352.08	832.05	22291.44
320+15.00(2)	32,013	5	140.39	15.00	17.15	0.00	24.48	2.78	2.81	0.00	27380.59	4520.96	1352.08	832.05	22309.63
320+20.00(2)	32,018	5	145.86	15.00	16.63	0.00	26.50	2.78	3.13	0.00	27407.09	4524.87	1352.08	832.05	22329.44
320+24.86(2)	32,023	5	139.12	15.00	15.95	0.00	25.65	2.70	2.93	0.00	27432.74	4528.54	1352.08	832.05	22348.73
320+32.79(2)	32,031	8	125.49	15.00	1.68	0.00	38.86	4.41	2.59	0.00	27471.60	4531.77	1352.08	832.05	22379.94
320+50.00(2)	32,048	17	97.45	15.00	2.81	0.00	71.05	9.56	1.43	0.00	27542.65	4533.56	1352.08	832.05	22439.65
320+91.53(2)	32,090	42	118.75	15.00	0.02	0.00	166.27	23.07	2.18	0.00	27708.92	4536.28	1352.08	832.05	22580.13
321+00.00(2)	32,098	8	114.08	15.00	0.01	0.00	36.52	4.71	0.00	0.00	27745.44	4536.29	1352.08	832.05	22611.94
321+50.00(2)	32,148	50	124.67	15.00	0.00	0.00	221.06	27.78	0.01	0.00	27966.51	4536.30	1352.08	832.05	22805.21
322+00.00(2)	32,198	50	109.35	15.00	0.00	0.00	216.69	27.78	0.00	0.00	28183.19	4536.30	1352.08	832.05	22994.12
322+50.00(2)	32,248	50	73.40	15.00	5.34	0.00	169.21	27.78	4.94	0.00	28352.41	4542.48	1352.08	832.05	23129.37
323+00.00(2)	32,298	50	37.48	15.00	0.15	0.00	102.67		5.08	0.00	28455.07	4548.83	1352.08	832.05	23225.69
						SUBTOTAL =	**28,455.07**	680.56	4,471.12	**1,040.06**	28,455.07	4,548.83	1,352.08	832.05	23,225.69

STH 28 SHOULDER WIDENING STATION	Real Station	Distance	AREA (SF)			Incremental Vol (CY) (Unadjusted)			Cumulative Vol (CY)		
			Cut	Salvaged / Unusable Pavement Material	Fill	Cut (205.0100) Note 1	Salvaged / Unusable Pavement Material Note 2	Fill Note 3	Cut 1.00 Note 1	Expanded Fill 1.25	Mass Ordinate Note 8
323+00.00(2)	32,298		16.78	3.00	0.06						
324+00.00(2)	32,398	100	14.33	3.00	13.81	57.61	11.11	25.69	57.61	32.11	14.39
325+00.00(2)	32,498	100	22.84	3.00	12.26	68.83	11.11	48.28	126.44	92.45	11.77
326+00.00(2)	32,598	100	21.37	3.00	0.28	81.87	11.11	23.22	208.31	121.48	53.50
327+00.00(2)	32,698	100	22.94	3.00	33.57	82.06	11.11	62.69	290.37	199.84	46.09
328+00.00(2)	32,798	100	22.05	3.00	21.42	83.31	11.11	101.83	373.69	327.13	-9.00
329+00.00(2)	32,898	100	23.80	3.00	2.20	84.91	11.11	43.74	458.59	381.81	10.12
330+00.00(2)	32,998	100	21.13	3.00	2.16	83.20	11.11	8.07	541.80	391.90	72.12
331+00.00(2)	33,098	100	20.12	3.00	6.78	76.39	11.11	16.56	618.19	412.59	116.70
332+00.00(2)	33,198	100	60.39	3.00	0.00	149.09	11.11	12.56	767.28	428.29	238.99
333+00.00(2)	33,298	100	20.88	3.00	2.41	150.50	11.11	4.46	917.78	433.87	372.80
334+00.00(2)	33,398	100	0.54	3.00	6.11	39.67	11.11	15.78	957.44	453.59	381.63
335+00.00(2)	33,498	100	8.29	3.00	4.73	16.35	11.11	20.07	973.80	478.68	361.78
336+00.00(2)	33,598	100	7.23	3.00	19.70	28.74	11.11	45.24	1002.54	535.23	322.86
337+00.00(2)	33,698	100	17.49	3.00	6.78	45.78	11.11	49.04	1048.31	596.53	296.23
338+00.00(2)	33,798	100	28.80	3.00	7.08	85.72		25.67	1134.04	628.61	349.87
					SUBTOTAL =	**1134.04**	155.56	502.89	1134.04	628.61	349.87

STH 28 28RL1 R/L RECONST. STATION	Real Station	Distance	AREA (SF)				Incremental Vol (CY) (Unadjusted)				Cumulative Vol (CY)				
			Cut	Salvaged / Unusable Pavement Material	Fill	Marsh Exc	Cut (205.0100) Note 1	Salvaged / Unusable Pavement Material Note 2	Fill Note 3	Marsh Exc (205.0400)	Cut 1.00 Note 1	Expanded Fill 1.25	Expanded Marsh Backfill 1.50 Note 4	Reduced Marsh in Fill 0.60 Note 6	Mass Ordinate Note 8
338+00.00(2)	33,798		64.42	15.00	8.52	0.00									
338+50.00(2)	33,848	50	90.17	15.00	0.01	0.00	143.14	27.78	7.90	0.00	143.14	9.87	0.00	0.00	105.49
339+00.00(2)	33,898	50	156.26	15.00	0.00	0.00	228.18	27.78	0.01	0.00	371.31	9.88	0.00	0.00	305.88
339+50.00(2)	33,948	50	169.75	15.00	0.00	0.00	301.86	27.78	0.00	0.00	673.18	9.88	0.00	0.00	579.96
340+00.00(2)	33,998	50	118.35	15.00	0.00	0.00	266.76	27.78	0.00	0.00	939.94	9.88	0.00	0.00	818.94
340+50.00(2)	34,048	50	23.33	15.00	4.58	0.00	131.19	27.78	4.24	0.00	1071.12	15.19	0.00	0.00	917.05
341+00.00(2)	34,098	50	0.00	15.00	84.95	0.00	21.60	27.78	82.90	0.00	1092.72	118.81	0.00	0.00	807.25
341+50.00(2)	34,148	50	0.00	15.00	143.76	0.00	0.00	27.78	211.77	0.00	1092.72	383.52	0.00	0.00	514.76
342+00.00(2)	34,198	50	0.03	15.00	95.38	0.00	0.03	27.78	221.43	0.00	1092.75	660.30	0.00	0.00	210.23
342+50.00(2)	34,248	50	71.30	15.00	0.81	0.00	66.05	27.78	89.06	0.00	1158.80	771.63	0.00	0.00	137.16
343+00.00(2)	34,298	50	231.32	15.00	0.00	0.00	280.20	27.78	0.75	0.00	1439.00	772.57	0.00	0.00	388.65
343+50.00(2)	34,348	50	283.38	15.00	0.00	0.00	476.57	27.78	0.00	0.00	1915.57	772.57	0.00	0.00	837.45
344+00.00(2)	34,398	50	231.16	15.00	0.00	0.00	476.43	27.78	0.00	0.00	2392.00	772.57	0.00	0.00	1286.10
344+50.00(2)	34,448	50	219.67	15.00	0.00	0.00	417.44	27.78	0.00	0.00	2809.44	772.57	0.00	0.00	1675.75
345+00.00(2)	34,498	50	181.78	15.00	0.00	0.00	371.71	27.78	0.00	0.00	3181.15	772.57	0.00	0.00	2019.69
345+50.00(2)	34,548	50	131.66	15.00	0.00	0.00	290.22	27.78	0.00	0.00	3471.37	772.57	0.00	0.00	2282.13
346+00.00(2)	34,598	50	80.05	0.00	42.24	0.00	196.03	13.89	39.11	0.00	3667.40	821.46	0.00	0.00	2415.38
346+50.00(2)	34,648	50	31.08	0.00	104.90	0.00	102.90	0.00	136.24	0.00	3770.30	991.76	0.00	0.00	2347.98
347+00.00(2)	34,698	50	0.00	0.00	445.12	0.00	28.78	0.00	509.28	0.00	3799.07	1628.36	0.00	0.00	1740.16
347+95.00(2)	34,793	95	0.00	0.00	903.46	0.00	0.00	0.00	2372.50	0.00	3799.07	4593.98	0.00	0.00	-1225.47
348+00.00(2)	34,798	5	0.00	15.00	927.30	480.60	0.00	1.39	169.51	44.50	3799.07	4772.50	66.75	26.70	-1405.37
349+00.00(2)	34,898	100	0.00	15.00	1388.18	577.12	0.00	55.56	4287.93	1958.74	3799.07	8663.35	3004.86	1201.94	-5351.78
350+00.00(2)	34,998	100	0.00	15.00	1457.76	621.15	0.00	55.56	5270.26	2219.02	3799.07	13586.91	6333.39	2533.36	-10330.90
351+00.00(2)	35,098	100	0.00	15.00	1436.81	694.88	0.00	55.56	5360.31	2437.09	3799.07	18459.49	9989.03	3995.61	-15259.03
352+00.00(2)	35,198	100	0.00	0.00	1047.75	721.08	0.00	27.78	4601.04	2622.15	3799.07	22244.17	13922.25	5568.90	-19071.49
352+05.00(2)	35,203	5	0.00	0.00	1016.82	0.01	0.00	0.00	191.16	66.77	3799.07	22433.05	14022.40	5608.96	-19260.37
353+00.00(2)	35,298	95	0.00	0.00	246.88	0.00	0.00	0.00	2223.18	0.02	3799.07	25212.01	14022.43	5608.97	-22039.32
353+50.00(2)	35,348	50	0.00	0.00	86.10	0.00	0.00	0.00	308.31	0.00	3799.07	25597.40	14022.43	5608.97	-22424.72
354+00.00(2)	35,398	50	26.68	15.00	3.46	0.00	24.70	13.89	82.93	0.00	3823.78	25701.06	14022.43	5608.97	-22517.56
354+50.00(2)	35,448	50	48.06	15.00	0.35	0.00	69.20	27.78	3.53	0.00	3892.98	25705.47	14022.43	5608.97	-22480.54
355+00.00(2)	35,498	50	52.70	15.00	5.87	0.00	93.30	27.78	5.76	0.00	3986.28	25712.67	14022.43	5608.97	-22422.22
355+50.00(2)	35,548	50	40.53	15.00	6.17	0.00	86.32	27.78	11.15	0.00	4072.60	25726.60	14022.43	5608.97	-22377.61
356+00.00(2)	35,598	50	38.55	15.00	3.27	0.00	73.22	27.78	8.74	0.00	4145.82	25737.53	14022.43	5608.97	-22343.10
						SUBTOTAL =	**4,145.82**	751.39	26,199.00	**9,348.29**	4145.82	25,737.53	14,022.43	5,608.97	-22,343.10

STH 28 SHOULDER WIDENING STATION	Real Station	Distance	AREA (SF)			Incremental Vol (CY) (Unadjusted)			Cumulative Vol (CY)		Mass Ordinate
			Cut	Salvaged / Unusable Pavement Material	Fill	Cut (205.0100) Note 1	Salvaged / Unusable Pavement Material Note 2	Fill Note 3	Cut 1.00 Note 1	Expanded Fill 1.25	Note 8
356+00.00(2)	35,598		6.93	3.00	4.01						
357+00.00(2)	35,698	100	9.89	3.00	2.20	31.15	11.11	11.50	31.15	14.38	5.66
357+50.00(2)	35,748	50	14.78	3.00	5.11	22.84	5.56	6.77	53.99	22.84	14.49
358+00.00(2)	35,798	50	8.53	3.00	13.49	21.58	5.56	17.22	75.57	44.36	8.99
358+50.00(2)	35,848	50	0.81	3.00	17.03	8.65	5.56	28.26	84.22	79.69	-23.24
359+00.00(2)	35,898	50	22.68	3.00	2.55	21.75	5.56	18.13	105.97	102.35	-29.71
359+50.00(2)	35,948	50	26.48	3.00	0.15	45.52	5.56	2.50	151.49	105.47	7.13
360+00.00(2)	35,998	50	35.07	3.00	0.00	56.99	5.56	0.14	208.48	105.65	58.39
360+50.00(2)	36,048	50	148.19	3.00	0.17	169.69	5.56	0.16	378.17	105.84	222.32
361+00.00(2)	36,098	50	169.49	3.00	0.13	294.15	5.56	0.28	672.31	106.19	510.57
361+50.00(2)	36,148	50	18.70	3.00	0.29	174.25	5.56	0.39	846.56	106.68	678.78
362+00.00(2)	36,198	50	9.09	3.00	9.82	25.73	5.56	9.36	872.30	118.38	687.25
362+18.18(2)	36,216	18	8.32	3.00	0.10	5.86	2.02	3.34	878.16	122.55	686.92
363+00.00(2)	36,298	82	4.69	3.00	1.41	19.71	9.09	2.29	897.87	125.41	694.68
364+00.00(2)	36,398	100	3.49	3.00	0.50	15.15	11.11	3.54	913.02	129.84	694.29
365+00.00(2)	36,498	100	2.20	3.00	1.48	10.54	11.11	3.67	923.56	134.42	689.14
366+00.00(2)	36,598	100	5.51	3.00	0.48	14.28	11.11	3.63	937.83	138.96	687.77
367+00.00(2)	36,698	100	6.14	3.00	0.91	21.57	11.11	2.57	959.41	142.17	695.01
368+00.00(2)	36,798	100	6.10	3.00	0.76	22.67	11.11	3.09	982.07	146.04	702.70
369+00.00(2)	36,898	100	10.93	3.00	0.21	31.54	11.11	1.80	1013.61	148.28	720.88
370+00.00(2)	36,998	100	10.30	3.00	0.01	39.31	11.11	0.41	1052.93	148.79	748.58
370+75.00(2)	37,073	75	16.18	3.00	1.96	36.78	8.33	2.74	1089.70	152.21	773.60
371+00.00(2)	37,098	25	15.14	3.00	1.01	14.50	2.78	1.38	1104.20	153.93	783.60
371+50.00(2)	37,148	50	15.40	3.00	2.71	28.28	5.56	3.44	1132.48	158.24	802.02
372+00.00(2)	37,198	50	18.90	3.00	5.10	31.76	5.56	7.23	1164.24	167.28	819.19
372+50.00(2)	37,248	50	13.16	3.00	3.05	29.69	5.56	7.55	1193.93	176.71	833.88
372+70.00(2)	37,268	20	13.41	3.00	2.82	9.84	2.22	2.17	1203.77	179.43	838.78
373+00.00(2)	37,298	30	17.71	3.00	3.52	17.29	3.33	3.52	1221.06	183.83	848.34
373+50.00(2)	37,348	50	16.63	3.00	4.09	31.80	5.56	7.05	1252.85	192.64	865.77
373+82.00(2)	37,380	32	14.16	3.00	4.15	18.25	3.56	4.88	1271.10	198.74	874.36
374+00.00(2)	37,398	18	12.64	3.00	2.63	8.93	2.00	2.26	1280.03	201.57	878.46
375+00.00(2)	37,498	100	7.60	3.00	0.51	37.48	11.11	5.81	1317.51	208.84	897.57
376+00.00(2)	37,598	100	5.97	3.00	0.21	25.13	11.11	1.33	1342.64	210.50	909.92
376+50.00(2)	37,648	50	17.32	3.00	2.72	21.56	5.56	2.71	1364.21	213.89	922.54
377+00.00(2)	37,698	50	4.18	3.00	10.17	19.91	5.56	11.94	1384.11	228.81	921.97
377+08.31(2)	37,707	8	15.62	3.00	28.55	3.05	0.92	5.96	1387.16	236.26	916.64
377+50.00(2)	37,748	42	2.32	3.00	26.87	13.85	4.63	42.79	1401.01	289.74	872.38
378+00.00(2)	37,798	50	6.33	3.00	16.92	8.01	5.56	40.55	1409.02	340.43	824.15
378+18.00(2)	37,816	18	2.94	3.00	6.34	3.09	2.00	7.75	1412.11	350.12	815.55
379+00.00(2)	37,898	82	9.44	3.00	3.85	18.80	9.11	15.47	1430.91	369.46	805.89
379+50.00(2)	37,948	50	14.33	3.00	1.13	22.01	5.56	4.61	1452.92	375.22	816.58
380+00.00(2)	37,998	50	22.18	3.00	0.86	33.81	5.56	1.84	1486.72	377.53	842.53
380+50.00(2)	38,048	50	18.59	3.00	1.79	37.75	5.56	2.45	1524.47	380.59	871.66
381+00.00(2)	38,098	50	11.44	3.00	2.02	27.81	5.56	3.53	1552.28	385.00	889.50
381+75.00(2)	38,173	75	9.93	3.00	11.11	29.68	8.33	18.24	1581.96	407.80	888.05
382+00.00(2)	38,198	25	13.40	3.00	2.17	10.80	2.78	6.15	1592.76	415.48	888.39
382+88.00(2)	38,286	88	10.12	3.00	3.13	38.33	9.78	8.64	1631.09	426.28	906.14
383+00.00(2)	38,298	12	0.00	3.00	0.00	2.25		0.70	1633.34	427.15	907.52
					SUBTOTAL =	**1,633.34**	298.67	341.72	1,633.34	427.15	907.52

SWALE:

DRAINAGE SWALE STATION	Real Station	Distance	AREA (SF)		Incremental Vol (CY) (Unadjusted)		Cumulative Vol (CY)		Mass Ordinate
			Cut	Fill	Cut (205.0100) Note 1	Fill Note 3	Cut 1.00 Note 1	Expanded Fill 1.25	Note 8
96+40.00	9,640		70.64	12.22					
96+50.00	9,650	10.00	57.87	12.54	23.80	4.59	23.80	5.73	18.07
96+59.42	9,659	9.42	53.36	11.78	19.40	4.24	43.20	11.03	32.17
96+70.00	9,670	10.58	57.28	7.24	21.68	3.73	64.88	15.69	49.19
96+81.80	9,682	11.80	58.64	3.23	25.33	2.29	90.21	18.55	71.66
96+91.19	9,691	9.39	59.57	1.81	20.56	0.88	110.76	19.65	91.12
97+00.48	9,700	9.29	69.51	0.52	22.21	0.40	132.97	20.15	112.82
97+10.00	9,710	9.52	76.74	0.00	25.78	0.09	158.75	20.26	138.49
97+20.00	9,720	10.00	82.23	0.00	29.44	0.00	188.19	20.26	167.93
97+30.00	9,730	10.00	85.37	0.00	31.04	0.00	219.23	20.26	198.97
97+40.95	9,741	10.95	92.96	0.00	36.16	0.00	255.39	20.26	235.13
97+50.00	9,750	9.05	96.42	0.00	31.74	0.00	287.13	20.26	266.87
97+56.73	9,757	6.73	93.70	0.00	23.69	0.00	310.83	20.26	290.56
97+60.00	9,760	3.27	91.51	0.00	11.22	0.00	322.04	20.26	301.78
97+72.51	9,773	12.51	79.35	0.00	39.58	0.00	361.62	20.26	341.36
97+85.17	9,785	12.66	62.24	0.00	33.19	0.00	394.82	20.26	374.55
97+94.63	9,795	9.46	54.98	0.00	20.54	0.00	415.35	20.26	395.09
98+03.87	9,804	9.24	55.97	0.00	18.98	0.00	434.34	20.26	414.07
98+17.23	9,817	13.36	70.23	0.00	31.22	0.00	465.56	20.26	445.30
98+22.61	9,823	5.38	78.61	0.00	14.83	0.00	480.39	20.26	460.13
98+27.87	9,828	5.26	83.96	0.00	15.84	0.00	496.23	20.26	475.96
98+30.00	9,830	2.13	86.37	0.00	6.72	0.00	502.94	20.26	482.68
98+40.00	9,840	10.00	0.00	20.57	15.99	3.81	518.94	25.03	493.91
				SUBTOTAL =	**518.94**	20.02	518.94	25.03	493.91

S. MILL RD:

S. MILL RD. SHOULDER WIDENING STATION	Real Station	Distance	AREA (SF)		Incremental Vol (CY) (Unadjusted)		Cumulative Vol (CY)		Mass Ordinate
			Cut	Fill	Cut (205.0100) Note 1	Fill Note 3	Cut 1.00 Note 1	Expanded Fill 1.25	Note 8
49+25.00	4,925		5.01	0.61					
49+50.00	4,950	25	18.91	3.25	11.07	1.79	11.07	2.23	8.84
49+66.00	4,966	16	7.12	11.21	7.71	4.28	18.79	7.59	11.20
49+75.00	4,975	9	28.39	0.00	5.92	1.87	24.71	9.92	14.78
				SUBTOTAL =	**24.71**	7.94	24.71	9.92	14.78

N. MILL RD.

N. MILL RD. SHOULDER WIDENING STATION	Real Station	Distance	AREA (SF)		Incremental Vol (CY) (Unadjusted)		Cumulative Vol (CY)		Mass Ordinate
			Cut	Fill	Cut (205.0100) Note 1	Fill Note 3	Cut 1.00 Note 1	Expanded Fill 1.25	Note 8
60+25.00	6,025		32.80	10.28					
60+50.00	6,050	25.00	9.54	0.04	19.60	4.78	19.60	5.97	13.63
60+71.82	6,072	21.82	0.00	0.00	3.85	0.02	23.46	5.99	17.46
60+75.00	6,075	3.18	0.00	0.00	0.00	0.00	23.46	5.99	17.46
				SUBTOTAL =	**23.46**	4.79	23.46	5.99	17.46

S. KETTLE MORAINE DR:

KMORAINE DR SHOULDER WIDENING STATION	Real Station	Distance	AREA (SF)			Incremental Vol (CY) (Unadjusted)			Cumulative Vol (CY)		
			Cut	Salvaged / Unusable Pavement Material	Fill	Cut (205.0100) Note 1	Salvaged / Unusable Pavement Material Note 2	Fill Note 3	Cut 1.00 Note 1	Expanded Fill 1.25	Mass Ordinate Note 8
48+73.00	4,873		9.98	3.00	7.72						
49+00.00	4,900	27.00	11.27	3.00	16.58	10.63	3.00	12.15	10.63	15.19	-7.56
49+22.66	4,923	22.66	15.66	3.00	55.15	11.30	2.52	30.10	21.93	52.81	-36.40
49+30.24	4,930	7.58	16.13	3.00	64.12	4.46	0.84	16.74	26.39	73.74	-53.71
49+50.00	4,950	19.76	16.71	3.00	75.35	12.02		51.04	38.41	137.53	-105.49
					SUBTOTAL =	**38.41**	6.36	110.03	38.41	137.53	-105.49

N. KETTLE MORAINE DR:

KMORAINE DR SHOULDER WIDENING STATION	Real Station	Distance	AREA (SF)			Incremental Vol (CY) (Unadjusted)			Cumulative Vol (CY)		
			Cut	Salvaged / Unusable Pavement Material	Fill	Cut (205.0100) Note 1	Salvaged / Unusable Pavement Material Note 2	Fill Note 3	Cut 1.00 Note 1	Expanded Fill 1.25	Mass Ordinate Note 8
50+50.00	5,050		43.21	3.00	81.24						
50+69.75	5,070	19.75	67.75	3.00	61.79	40.58	2.19	52.31	40.58	65.39	-27.00
50+77.33	5,077	7.58	70.97	3.00	48.64	19.47	0.84	15.50	60.05	84.77	-27.75
50+80.00	5,080	2.67	78.92	3.00	26.62	7.41	0.30	3.72	67.47	89.42	-25.29
50+94.00	5,094	14.00	28.80	3.00	25.19	27.93	1.56	13.43	95.39	106.21	-15.70
51+00.00	5,100	6.00	13.20	3.00	9.31	4.67	0.67	3.83	100.06	111.00	-16.50
51+27.50	5,128	27.50	12.98	3.00	4.01	13.33	3.06	6.78	113.39	119.48	-14.70
51+50.00	5,150	22.50	0.01	3.00	0.00	5.41		1.67	118.80	121.57	-11.37
					SUBTOTAL =	**118.80**	8.61	97.25	118.80	121.57	-11.37

S. HICKORY DR.

HICKORY DR STATION	Real Station	Distance	AREA (SF)			Incremental Vol (CY) (Unadjusted)			Cumulative Vol (CY)		
			Cut	Salvaged / Unusable Pavement Material	Fill	Cut (205.0100) Note 1	Salvaged / Unusable Pavement Material Note 2	Fill Note 3	Cut 1.00 Note 1	Expanded Fill 1.25	Mass Ordinate Note 8
7+20.60	720.60		22.62	10.00	1.54						
7+50.00	750.00	29.40	43.55	10.00	10.92	36.03	10.89	6.78	36.03	8.48	16.66
7+77.32	777.32	27.32	29.86	10.00	14.13	37.14	10.12	12.67	73.17	24.32	27.84
8+00.00	800.00	22.68	35.34	10.00	8.58	27.38	8.40	9.54	100.55	36.24	34.90
8+16.22	816.22	16.22	39.49	10.00	8.51	22.48	6.01	5.13	123.03	42.66	44.95
8+50.00	850.00	33.78	58.42	10.00	3.48	61.25	12.51	7.50	184.27	52.04	84.31
8+52.04	852.04	2.04	60.30	10.00	2.67	4.48	0.76	0.23	188.76	52.33	87.75
8+75.00	875.00	22.96	93.52	10.00	0.62	65.40	8.50	1.40	254.16	54.08	142.90
9+00.00	900.00	25.00	143.45	10.00	0.00	109.71	9.26	0.29	363.87	54.43	242.99
9+04.08	904.08	4.08	150.93	10.00	0.00	22.24	1.51	0.00	386.11	54.43	263.72
9+12.69	912.69	8.61	170.32	10.00	0.00	51.22	3.19	0.00	437.33	54.43	311.75
9+25.26	925.26	12.57	195.01	10.00	0.00	85.04	4.66	0.00	522.37	54.43	392.14
9+36.45	936.45	11.19	172.38	10.00	0.00	76.13	4.14	0.00	598.51	54.43	464.13
9+46.07	946.07	9.62	169.80	10.00	0.00	60.96	3.56	0.00	659.46	54.43	521.52
9+50.00	950.00	3.93	168.90	10.00	0.00	24.65	1.46	0.00	684.11	54.43	544.72
9+52.93	952.93	2.93	157.19	10.00	0.00	17.69	1.09	0.00	701.81	54.43	561.33
9+63.00	963.00	10.07	68.51	10.00	0.73	42.09		0.14	743.90	54.60	603.24
					SUBTOTAL =	**743.90**	86.05	43.68	743.90	54.60	603.24

N. HICKORY DR:

HICKORY DR STATION	Real Station	Distance	AREA (SF) Cut	AREA (SF) Salvaged/Unusable Pavement Material	AREA (SF) Fill	Incremental Vol (CY) (Unadjusted) Cut (205.0100) Note 1	Incremental Vol (CY) (Unadjusted) Salvaged/Unusable Pavement Material Note 2	Incremental Vol (CY) (Unadjusted) Fill Note 3	Cumulative Vol (CY) Cut 1.00 Note 1	Cumulative Vol (CY) Expanded Fill 1.25	Mass Ordinate Note 8
10+37.00	1037.00		0.00	10.00	86.11						
10+47.12	1047.12	10.12	14.75	10.00	93.62	2.76	3.75	33.68	2.76	42.10	-43.09
10+50.00	1050.00	2.88	14.14	10.00	99.87	1.54	1.07	10.32	4.31	55.00	-55.51
10+55.43	1055.43	5.43	13.06	10.00	99.58	2.74	2.01	20.06	7.04	80.07	-79.86
10+56.30	1056.30	0.87	10.21	10.00	108.96	0.37	0.32	3.36	7.42	84.27	-84.01
10+63.55	1063.55	7.25	10.83	10.00	99.08	2.82	2.69	27.93	10.24	119.19	-118.78
10+73.22	1073.22	9.67	12.20	10.00	87.59	4.12	3.58	33.43	14.36	160.97	-160.02
10+77.18	1077.18	3.96	13.95	10.00	85.49	1.92	1.47	12.69	16.28	176.84	-175.44
10+92.92	1092.92	15.74	46.58	10.00	76.34	17.64	5.83	47.17	33.93	235.80	-222.59
10+99.05	1099.05	6.13	70.83	10.00	73.81	13.33	2.27	17.04	47.25	257.11	-232.83
11+25.00	1125.00	25.95	121.60	10.00	42.63	92.47	9.61	55.96	139.73	327.05	-219.92
11+43.16	1143.16	18.16	150.60	10.00	27.67	91.54	6.73	23.64	231.27	356.60	-164.65
11+49.04	1149.04	5.88	161.77	10.00	25.48	34.01	2.18	5.79	265.28	363.84	-140.05
11+82.94	1182.94	33.90	12.56	10.00	35.41	109.44	12.56	38.23	374.72	411.62	-90.95
12+00.00	1200.00	17.06	26.44	10.00	37.05	12.32	6.32	22.89	387.04	440.23	-113.56
12+24.18	1224.18	24.18	39.25	10.00	34.96	29.41	8.96	32.24	416.46	480.54	-133.41
12+50.00	1250.00	25.82	51.43	10.00	18.86	43.36	9.56	25.73	459.81	512.71	-131.78
12+89.35	1289.35	39.35	34.94	10.00	0.00	62.94		13.74	522.75	529.89	-86.02
					SUBTOTAL =	**522.75**	78.89	423.91	522.75	529.89	-86.02

S. FOREST VIEW DR:

FOREST VIEW DR. STATION	Real Station	Distance	AREA (SF) Cut	AREA (SF) Salvaged/Unusable Pavement Material	AREA (SF) Fill	Incremental Vol (CY) (Unadjusted) Cut (205.0100) Note 1	Incremental Vol (CY) (Unadjusted) Salvaged/Unusable Pavement Material Note 2	Incremental Vol (CY) (Unadjusted) Fill Note 3	Cumulative Vol (CY) Cut 1.00 Note 1	Cumulative Vol (CY) Expanded Fill 1.25	Mass Ordinate Note 8
18+66.75	1866.75		36.08	12.00	0.38						
18+75.00	1875.00	8.25	31.87	12.00	0.72	10.38	3.67	0.17	10.38	0.21	6.50
19+00.00	1900.00	25.00	32.92	12.00	10.62	30.00	11.11	5.25	40.38	6.77	18.83
19+16.75	1916.75	16.75	33.79	12.00	11.72	20.69	7.44	6.93	61.07	15.43	23.41
19+25.10	1925.10	8.35	37.09	12.00	10.37	10.96	3.71	3.42	72.03	19.70	26.39
19+35.10	1935.10	10.00	47.97	12.00	22.70	15.75	4.44	6.12	87.78	27.36	30.04
19+40.00	1940.00	4.90	55.83	12.00	20.63	9.42	2.18	3.93	97.20	32.27	32.37
19+45.00	1945.00	5.00	65.35	12.00	19.22	11.22	2.22	3.69	108.42	36.89	36.76
19+50.00	1950.00	5.00	74.85	12.00	18.49	12.98	2.22	3.49	121.40	41.25	43.15
19+55.00	1955.00	5.00	84.55	12.00	10.18	14.76	2.22	2.65	136.16	44.57	52.37
19+60.00	1960.00	5.00	76.78	12.00	0.00	14.94		0.94	151.10	45.75	66.13
					SUBTOTAL =	**151.10**	39.22	36.60	151.10	45.75	66.13

N. FOREST VIEW DR:

FOREST VIEW DR. STATION	Real Station	Distance	AREA (SF) Cut	AREA (SF) Salvaged/Unusable Pavement Material	AREA (SF) Fill	Incremental Vol (CY) (Unadjusted) Cut (205.0100) Note 1	Incremental Vol (CY) (Unadjusted) Salvaged/Unusable Pavement Material Note 2	Incremental Vol (CY) (Unadjusted) Fill Note 3	Cumulative Vol (CY) Cut 1.00 Note 1	Cumulative Vol (CY) Expanded Fill 1.25	Mass Ordinate Note 8
20+40.00	2040.00		71.54	12.00	0.00						
20+45.00	2045.00	5.00	84.73	12.00	1.80	14.47	2.22	0.17	14.47	0.21	12.04
20+50.00	2050.00	5.00	79.78	12.00	0.55	15.23	2.22	0.22	29.70	0.48	24.78
20+55.00	2055.00	5.00	74.24	12.00	1.11	14.26	2.22	0.15	43.96	0.67	36.62
20+60.00	2060.00	5.00	67.55	12.00	1.21	13.13	2.22	0.21	57.09	0.94	47.26
20+64.22	2064.22	4.22	59.87	12.00	1.62	9.96	1.88	0.22	67.05	1.22	55.07
20+74.22	2074.22	10.00	52.10	12.00	2.29	20.74	4.44	0.72	87.78	2.12	70.45
20+83.24	2083.24	9.02	47.82	12.00	3.38	16.69	4.01	0.95	104.47	3.31	81.95
21+00.00	2100.00	16.76	44.53	12.00	2.00	28.66	7.45	1.67	133.14	5.39	101.08
21+33.25	2133.25	33.25	42.85	12.00	2.78	53.80		2.94	186.94	9.07	151.20
					SUBTOTAL =	**186.94**	26.67	7.26	186.94	9.07	177.87

CTH "HH"

WESCOTT RD. (CTH "HH") STATION	Real Station	Distance	AREA (SF)			Incremental Vol (CY) (Unadjusted)			Cumulative Vol (CY)		Mass Ordinate
			Cut	Salvaged / Unusable Pavement Material	Fill	Cut Note 1	Salvaged / Unusable Pavement Material Note 2	Fill Note 3	Cut 1.00 Note 1	Expanded Fill 1.25	Note 8
28+75.00	2875.00		29.92	12.00	1.85						
29+00.00	2900.00	25.00	106.95	12.00	0.00	63.37	11.11	0.86	63.37	1.07	51.18
29+27.73	2927.73	27.73	85.50	12.00	1.51	98.83	12.32	0.78	162.19	2.04	136.72
29+34.85	2934.85	7.12	58.32	12.00	4.13	18.96	3.16	0.74	181.16	2.97	151.59
29+40.00	2940.00	5.15	46.31	12.00	6.63	9.98	2.29	1.03	191.13	4.25	157.99
29+45.00	2945.00	5.00	40.87	12.00	11.54	8.07	2.22	1.68	199.21	6.36	161.74
29+50.00	2950.00	5.00	39.18	12.00	20.38	7.41	2.22	2.96	206.62	10.05	163.24
29+55.00	2955.00	5.00	37.02	12.00	20.62	7.06	2.22	3.80	213.67	14.79	163.32
29+60.00	2960.00	5.00	37.21	12.00	6.30	6.87		2.49	220.55	17.91	167.08
					SUBTOTAL =	**220.55**	35.56	14.33	220.55	17.91	167.08

WESCOTT RD.

WESCOTT RD STATION	Real Station	Distance	AREA (SF)			Incremental Vol (CY) (Unadjusted)			Cumulative Vol (CY)		Mass Ordinate
			Cut	Salvaged / Unusable Pavement Material	Fill	Cut (205.0100) Note 1	Salvaged / Unusable Pavement Material Note 2	Fill Note 3	Cut 1.00 Note 1	Expanded Fill 1.25	Note 8
30+40.00	3040.00		81.85	15.00	0.00						
30+45.00	3045.00	5.00	88.51	15.00	1.31	15.77	2.78	0.12	15.77	0.15	12.84
30+50.00	3050.00	5.00	113.51	15.00	0.88	18.71	2.78	0.20	34.48	0.41	28.52
30+55.00	3055.00	5.00	153.48	15.00	0.57	24.72	2.78	0.13	59.20	0.57	50.29
30+60.00	3060.00	5.00	170.63	15.00	0.52	30.01	2.78	0.10	89.21	0.70	77.40
30+64.91	3064.91	4.91	176.52	15.00	0.41	31.56	2.73	0.08	120.78	0.80	106.13
30+73.35	3073.35	8.44	183.56	15.00	0.20	56.28	4.69	0.10	177.06	0.92	157.60
31+00.00	3100.00	26.65	213.30	15.00	0.00	195.86	14.81	0.10	372.91	1.05	338.53
31+50.00	3150.00	50.00	74.89	15.00	0.00	266.84	27.78	0.00	639.76	1.05	577.60
31+75.00	3175.00	25.00	30.70	15.00	0.03	48.88		0.01	688.64	1.06	626.46
					SUBTOTAL =	**688.64**	61.11	0.85	688.64	1.06	626.46

VALLEY VISTA LN.

VALLEY VISTA LN STATION	Real Station	Distance	AREA (SF)			Incremental Vol (CY) (Unadjusted)			Cumulative Vol (CY)		Mass Ordinate
			Cut	Salvaged / Unusable Pavement Material	Fill	Cut (205.0100) Note 1	Salvaged / Unusable Pavement Material Note 2	Fill Note 3	Cut 1.00 Note 1	Expanded Fill 1.25	Note 8
69+07.10	6907.10		0.00	0.00	0.00						
69+26.11	6926.11	19.01	4.45	0.00	7.13	1.57	0.00	2.51	1.57	3.14	-1.57
69+37.36	6937.36	11.25	10.77	0.00	12.02	3.17	0.00	3.99	4.74	8.12	-3.39
69+50.00	6950.00	12.64	12.90	0.00	13.03	5.54	0.00	5.86	10.28	15.45	-5.18
69+58.00	6958.00	8.00	28.47	0.00	33.77	6.13		6.93	16.41	24.12	-7.71
					SUBTOTAL =	**16.41**	0.00	19.30	16.41	24.12	-7.71

DWY AT STA 344+20 RT

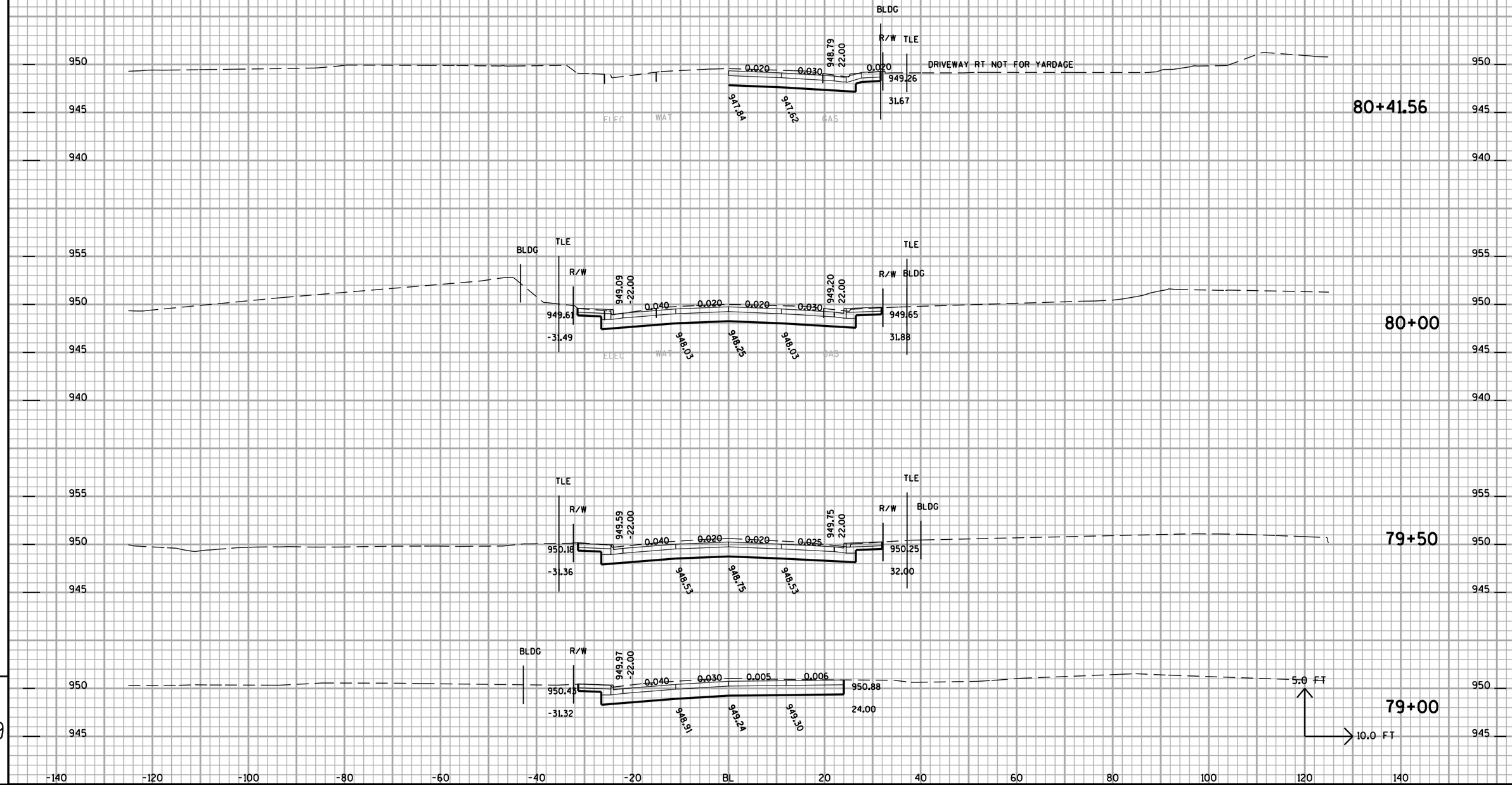
DRIVEWAY RECONST. STATION	Real Station	Distance	AREA (SF)			Incremental Vol (CY) (Unadjusted)			Cumulative Vol (CY)		Mass Ordinate
			Cut	Salvaged / Unusable Pavement Material	Fill	Cut Note 1	Salvaged / Unusable Pavement Material Note 2	Fill Note 3	Cut 1.00 Note 1	Expanded Fill 1.25	Note 8
343+30.00	34330.00		6.48	0.00	0.00						
343+40.00	34340.00	10.00	7.37	0.00	0.00	2.56	0.00	0.00	2.56	0.00	2.56
343+50.00	34350.00	10.00	24.56	0.00	0.00	5.91	0.00	0.00	8.48	0.00	8.48
343+60.00	34360.00	10.00	36.25	0.00	0.00	11.26	0.00	0.00	19.74	0.00	19.74
343+70.00	34370.00	10.00	32.93	0.00	0.00	12.81	0.00	0.00	32.55	0.00	32.55
343+80.00	34380.00	10.00	44.81	0.00	0.00	14.40	0.00	0.00	46.95	0.00	46.95
343+90.00	34390.00	10.00	70.22	0.00	0.00	21.30		0.00	68.25	0.00	68.25
					SUBTOTAL =	68.25	0.00	0.00	68.25	0.00	68.25

DWY AT STA 344+25 LT

DRIVEWAY RECONST. STATION	Real Station	Distance	AREA (SF)			Incremental Vol (CY) (Unadjusted)			Cumulative Vol (CY)		Mass Ordinate
			Cut	Salvaged / Unusable Pavement Material	Fill	Cut (205.0100) Note 1	Salvaged / Unusable Pavement Material Note 2	Fill Note 3	Cut 1.00 Note 1	Expanded Fill 1.25	Note 8
344+50.00	34450.00		118.36	0.00	0.00						
344+60.00	34460.00	10.00	119.52	0.00	0.00	44.05	0.00	0.00	44.05	0.00	44.05
344+70.00	34470.00	10.00	97.74	0.00	0.00	40.23	0.00	0.00	84.29	0.00	84.29
344+80.00	34480.00	10.00	76.34	0.00	0.00	32.24	0.00	0.00	116.52	0.00	116.52
344+90.00	34490.00	10.00	62.55	0.00	0.00	25.72	0.00	0.00	142.24	0.00	142.24
345+00.00	34500.00	10.00	48.40	0.00	0.00	20.55	0.00	0.00	162.79	0.00	162.79
345+10.00	34510.00	10.00	35.66	0.00	0.00	15.57	0.00	0.00	178.36	0.00	178.36
345+20.00	34520.00	10.00	25.05	0.00	0.00	11.24	0.00	0.00	189.60	0.00	189.60
345+30.00	34530.00	10.00	14.18	0.00	0.01	7.26	0.00	0.00	196.86	0.00	196.86
345+40.00	34540.00	10.00	9.35	0.00	0.07	4.36	0.00	0.01	201.22	0.02	201.20
345+50.00	34550.00	10.00	7.74	0.00	0.04	3.16		0.02	204.39	0.05	204.34
					SUBTOTAL =	**204.39**	0.00	0.04	204.39	0.05	204.34

STREAM RELOCATION AT STA 350+70 RT

STONEY CREEK RELOCATION STATION	Real Station	Distance	AREA (SF)			Incremental Vol (CY) (Unadjusted)			Cumulative Vol (CY)		Mass Ordinate
			Cut	Salvaged / Unusable Pavement Material	Fill	Cut (205.0100) Note 1	Salvaged / Unusable Pavement Material Note 2	Fill Note 3	Cut 1.00 Note 1	Expanded Fill 1.25	Note 8
100+25.00	10,025		11.53	0.00	0.00						
100+50.00	10,050	25.00	15.86	0.00	0.00	12.68	0.00	0.00	12.68	0.00	12.68
100+75.00	10,075	25.00	18.46	0.00	0.00	15.89	0.00	0.00	28.57	0.00	28.57
					SUBTOTAL =	**28.57**	0.00	0.00	28.57	0.00	28.57

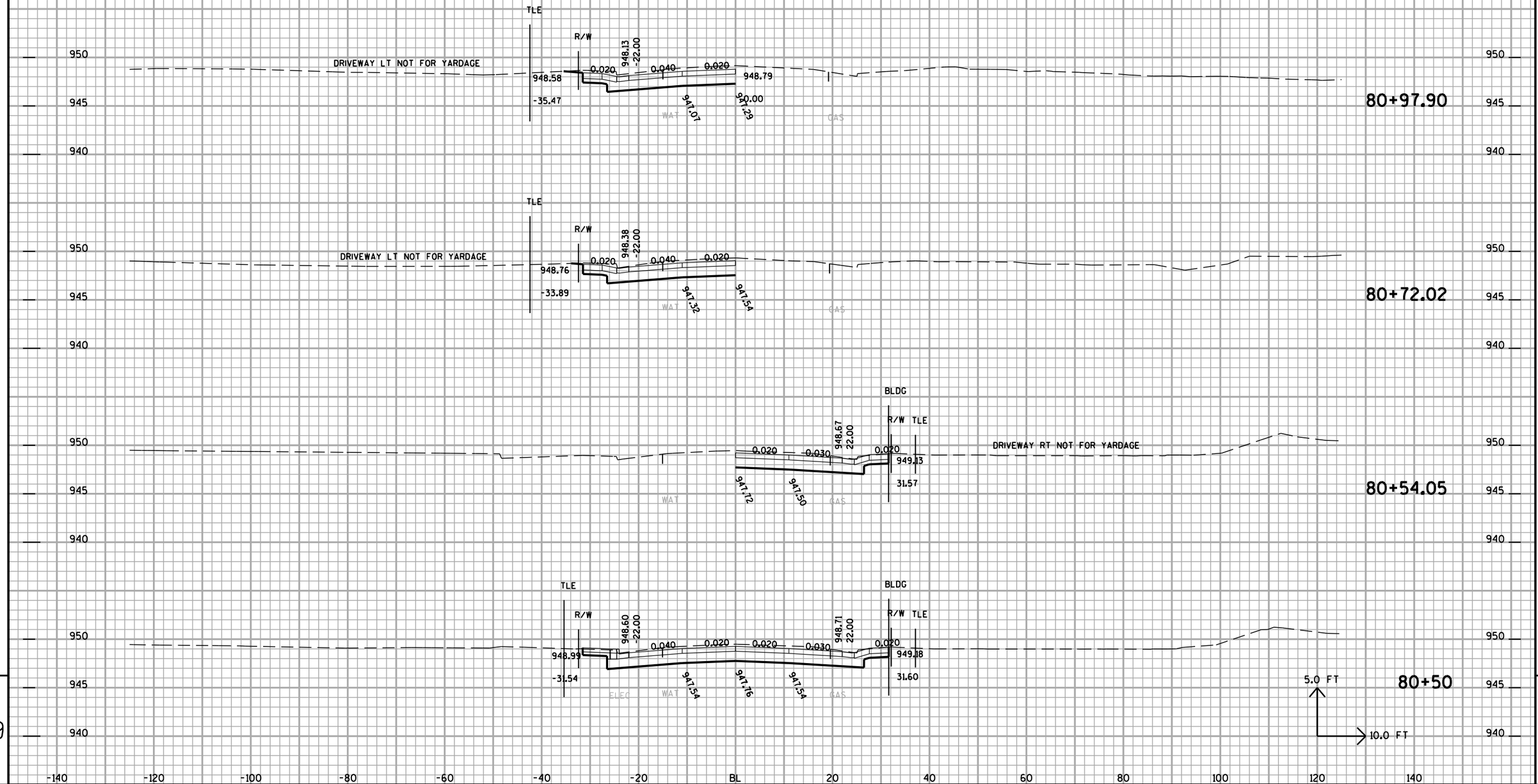


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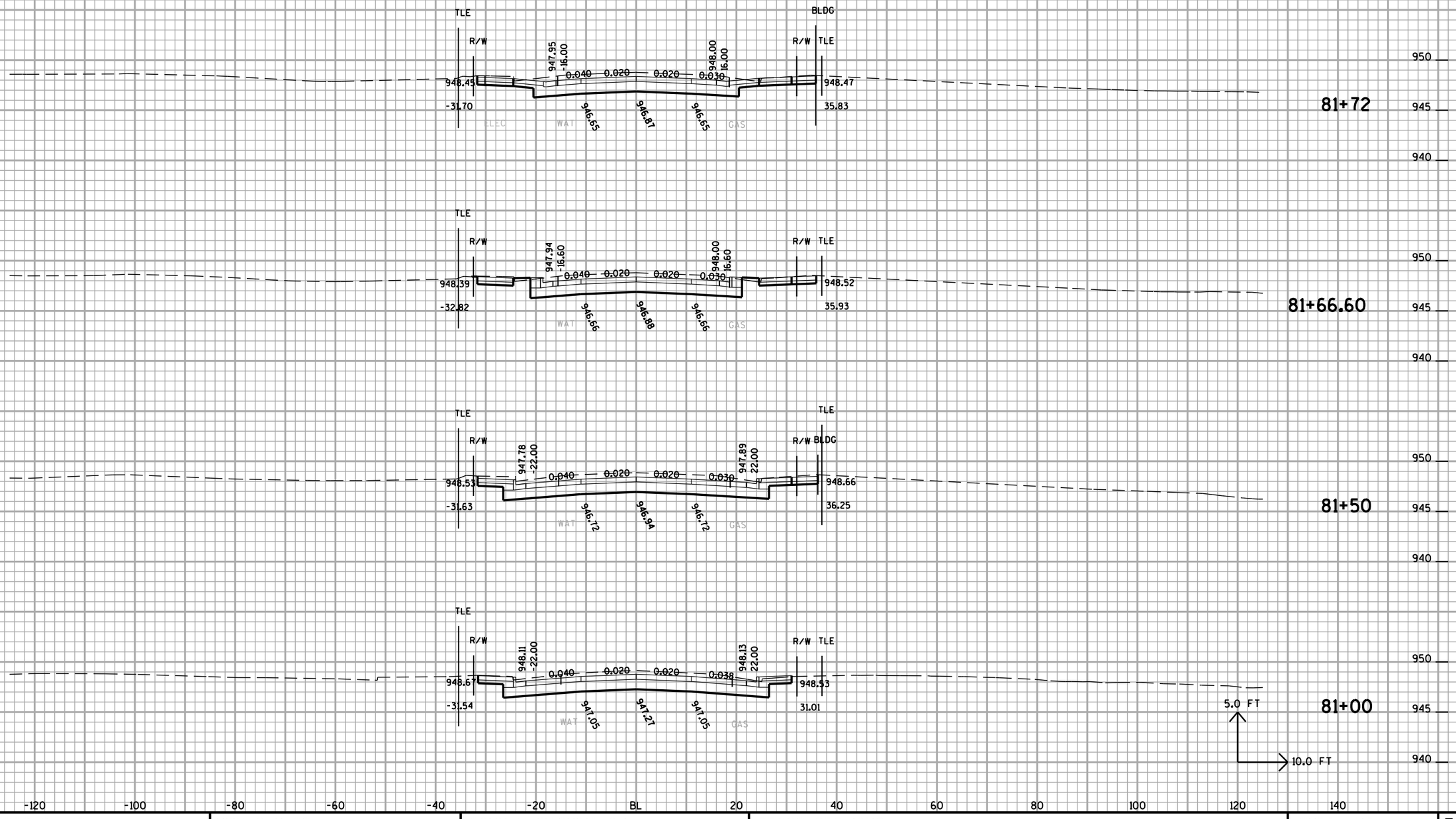
PROJECT NO: 4060-05-70	HWY: STH 28	COUNTY: WASHINGTON	CROSS SECTIONS	SHEET NO: 444	E

FILE NAME : J:±projects±D2_40600528±XS_July±090201_xs.DGN PLOT DATE : 22-JUL-2013 10:33 PLOT BY : dotr3h PLOT NAME : PLOT SCALE : 2:1



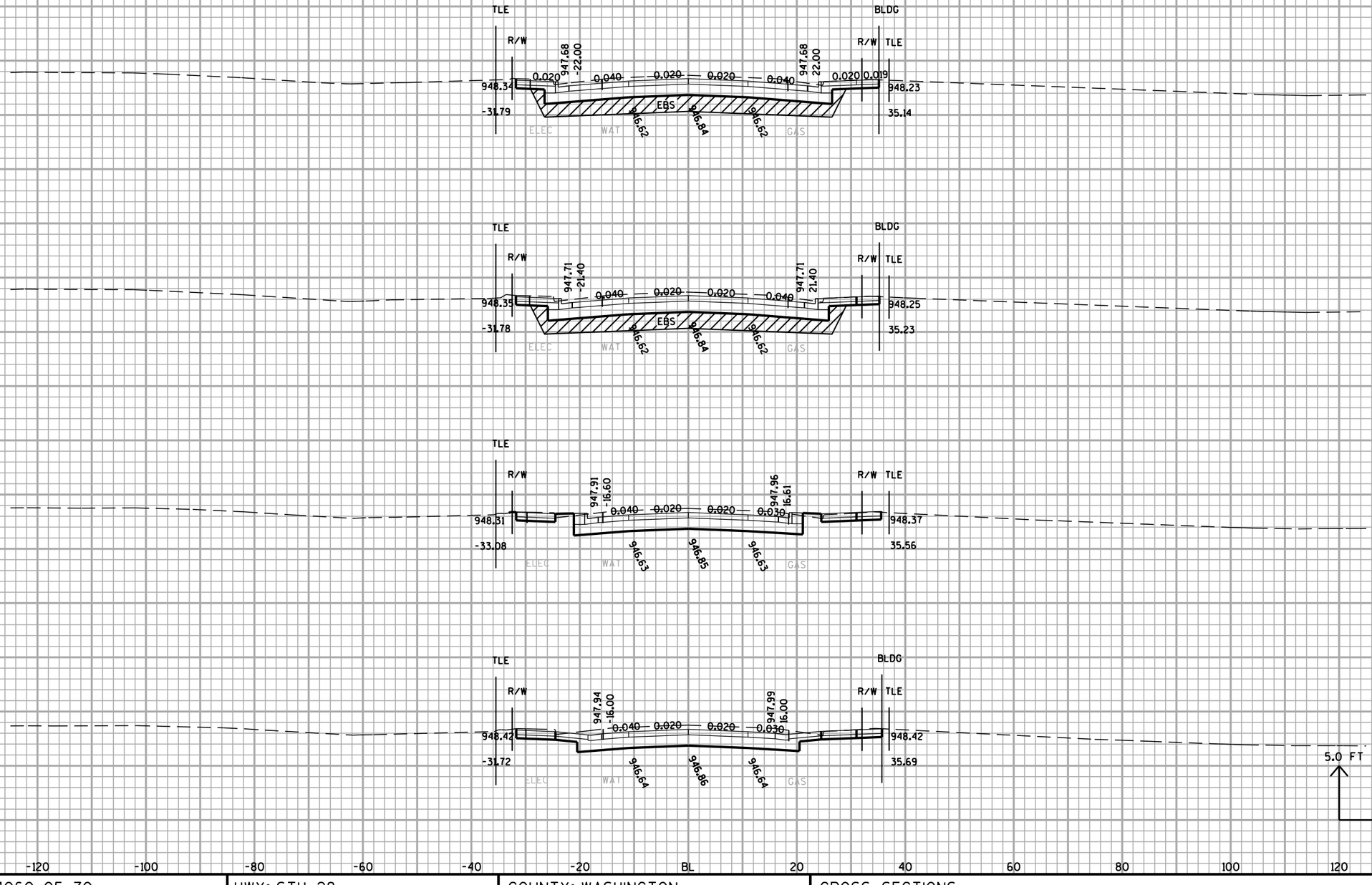
PROJECT NO: 4060-05-70	HWY: STH 28	COUNTY: WASHINGTON	CROSS SECTIONS	SHEET NO: 445	E

FILE NAME : J:±projects±D2_40600528±XS_July±090201_xs.DGN PLOT DATE : 22-JUL-2013 10:33 PLOT BY : dotr3h PLOT NAME : PLOT SCALE : 2:1



PROJECT NO: 4060-05-70	HWY: STH 28	COUNTY: WASHINGTON	CROSS SECTIONS	SHEET NO: 446	E

FILE NAME : J:±projects±D2_40600528±XS_July±090201_xs.DGN PLOT DATE : 22-JUL-2013 10:33 PLOT BY : dotr3h PLOT NAME : PLOT SCALE : 2:1

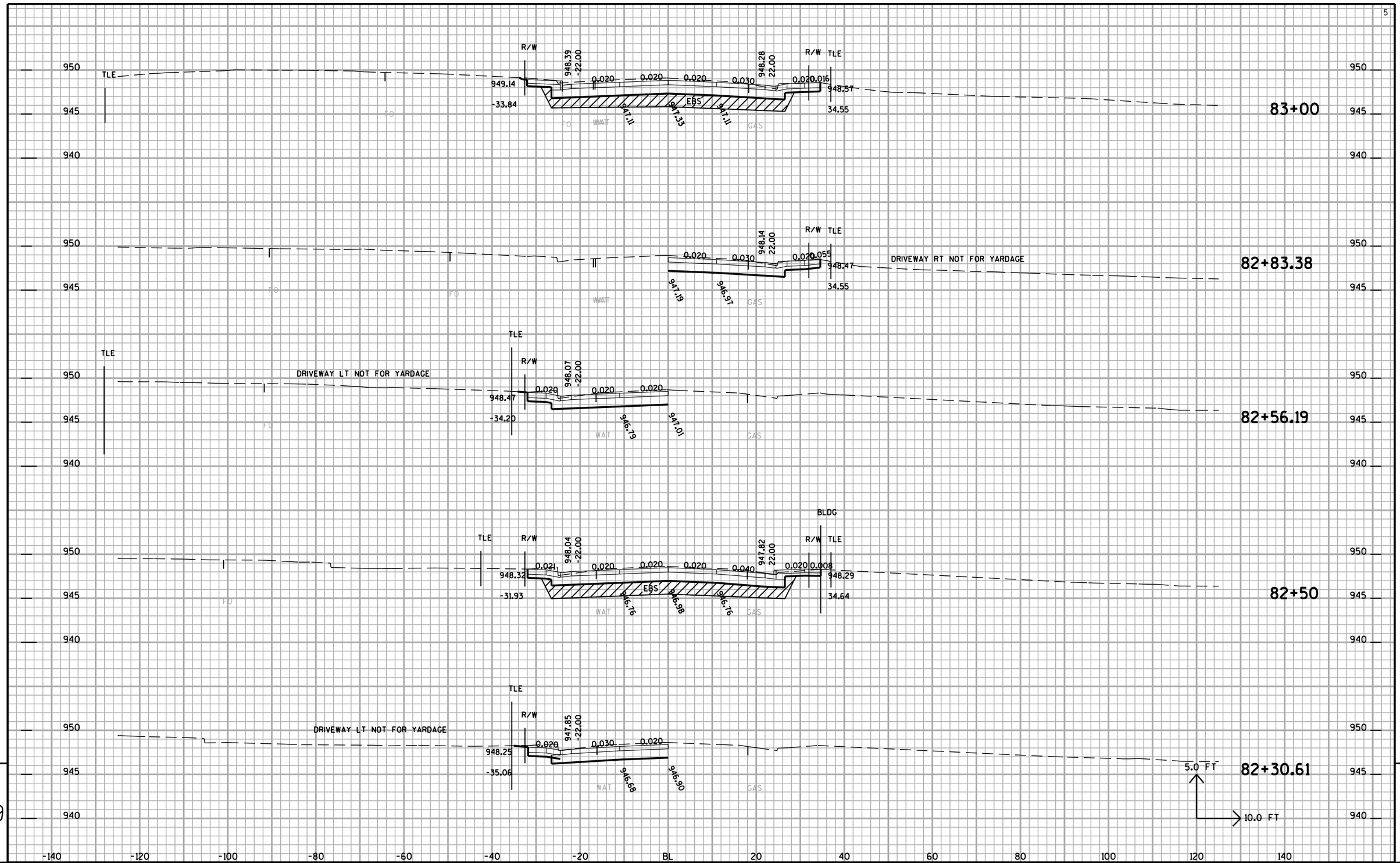


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PROJECT NO: 4060-05-70	HWY: STH 28	COUNTY: WASHINGTON	CROSS SECTIONS	SHEET NO: 447	E

FILE NAME : J:±projects±D2_40600528±XS_July±090201_xs.DGN PLOT DATE : 22-JUL-2013 10:33 PLOT BY : dotr3h PLOT NAME : PLOT SCALE : 2:1

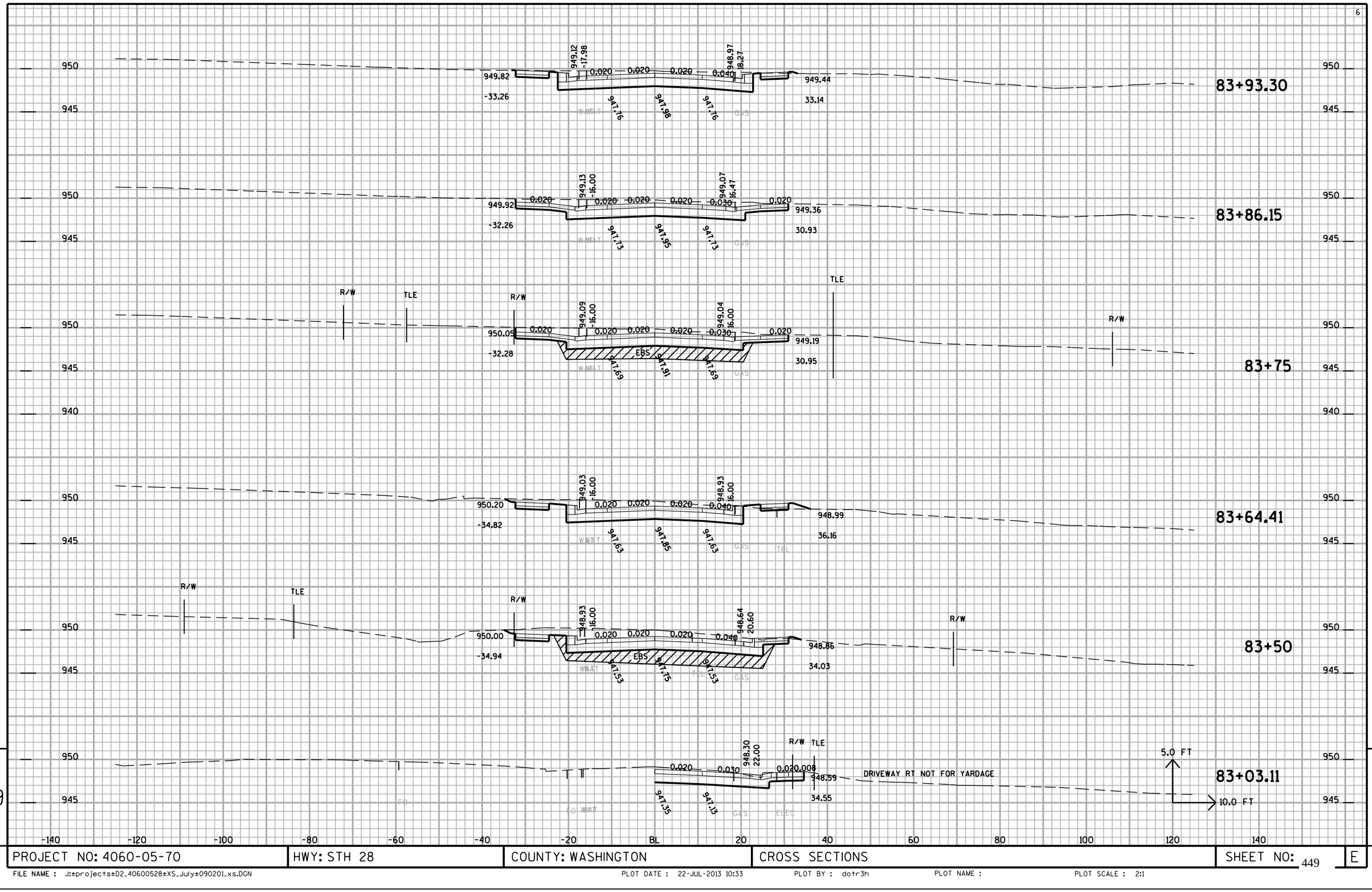


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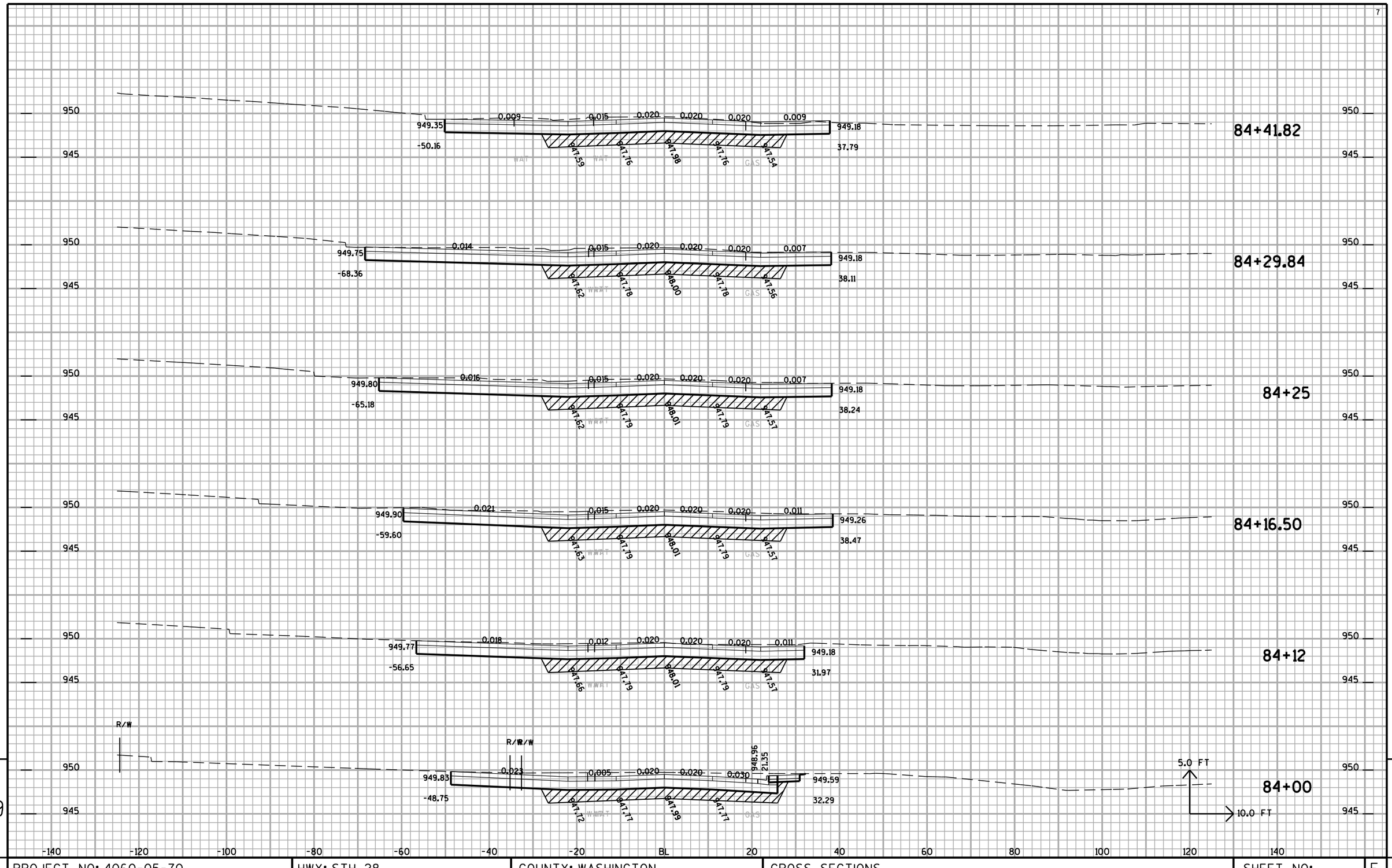
PROJECT NO: 4060-05-70	HWY: STH 28	COUNTY: WASHINGTON	CROSS SECTIONS	SHEET NO: 448	E

FILE NAME : J:±projects±D2_40600528±XS_July±090201_xs.DGN PLOT DATE : 22-JUL-2013 10:33 PLOT BY : dotr3h PLOT NAME : PLOT SCALE : 2:1



PROJECT NO: 4060-05-70	HWY: STH 28	COUNTY: WASHINGTON	CROSS SECTIONS	SHEET NO: 449	E

FILE NAME : J:±projects±D2_40600528±XS_July±090201_xs.DGN PLOT DATE : 22-JUL-2013 10:33 PLOT BY : dotr3h PLOT NAME : PLOT SCALE : 2:1

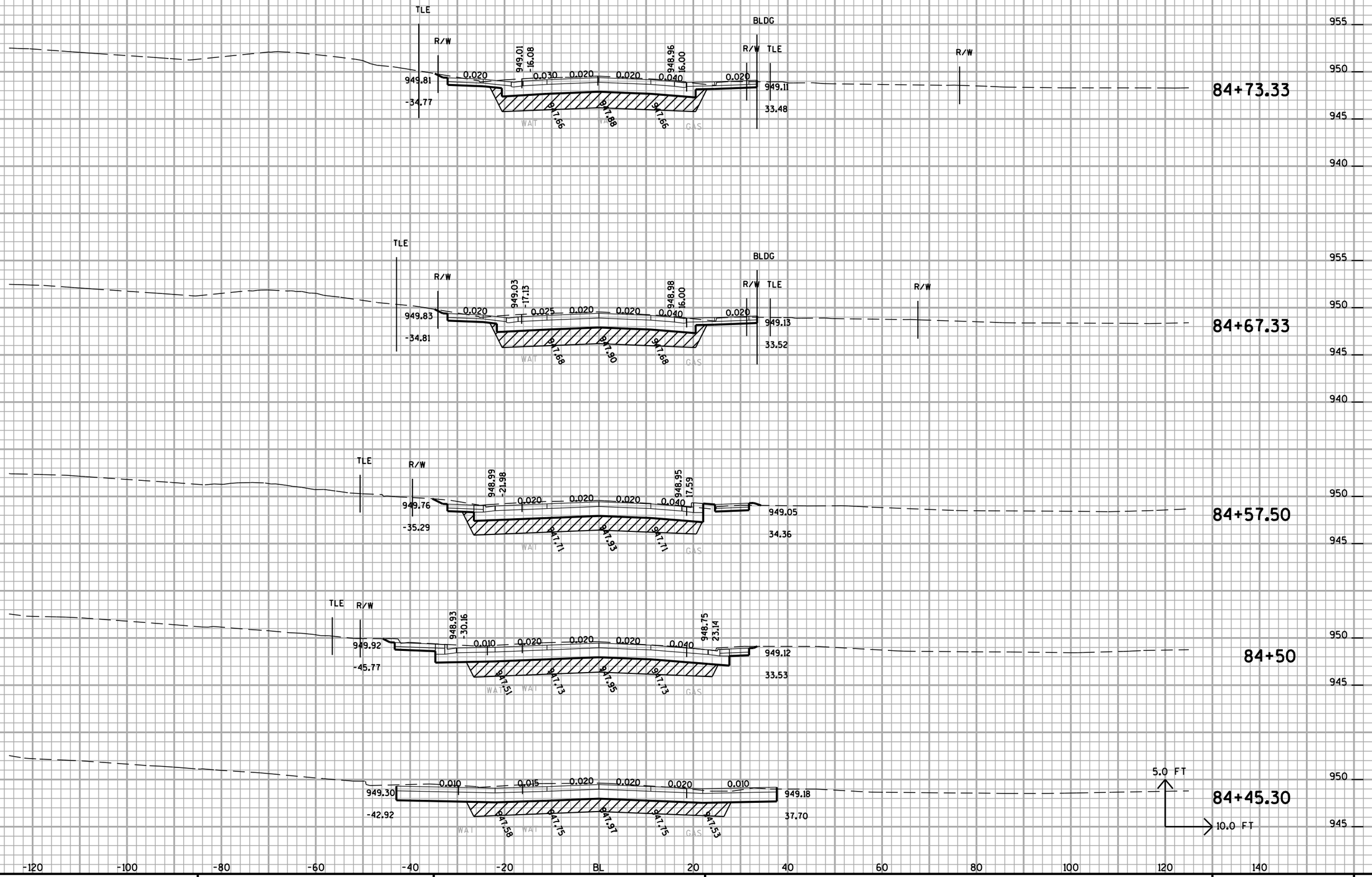


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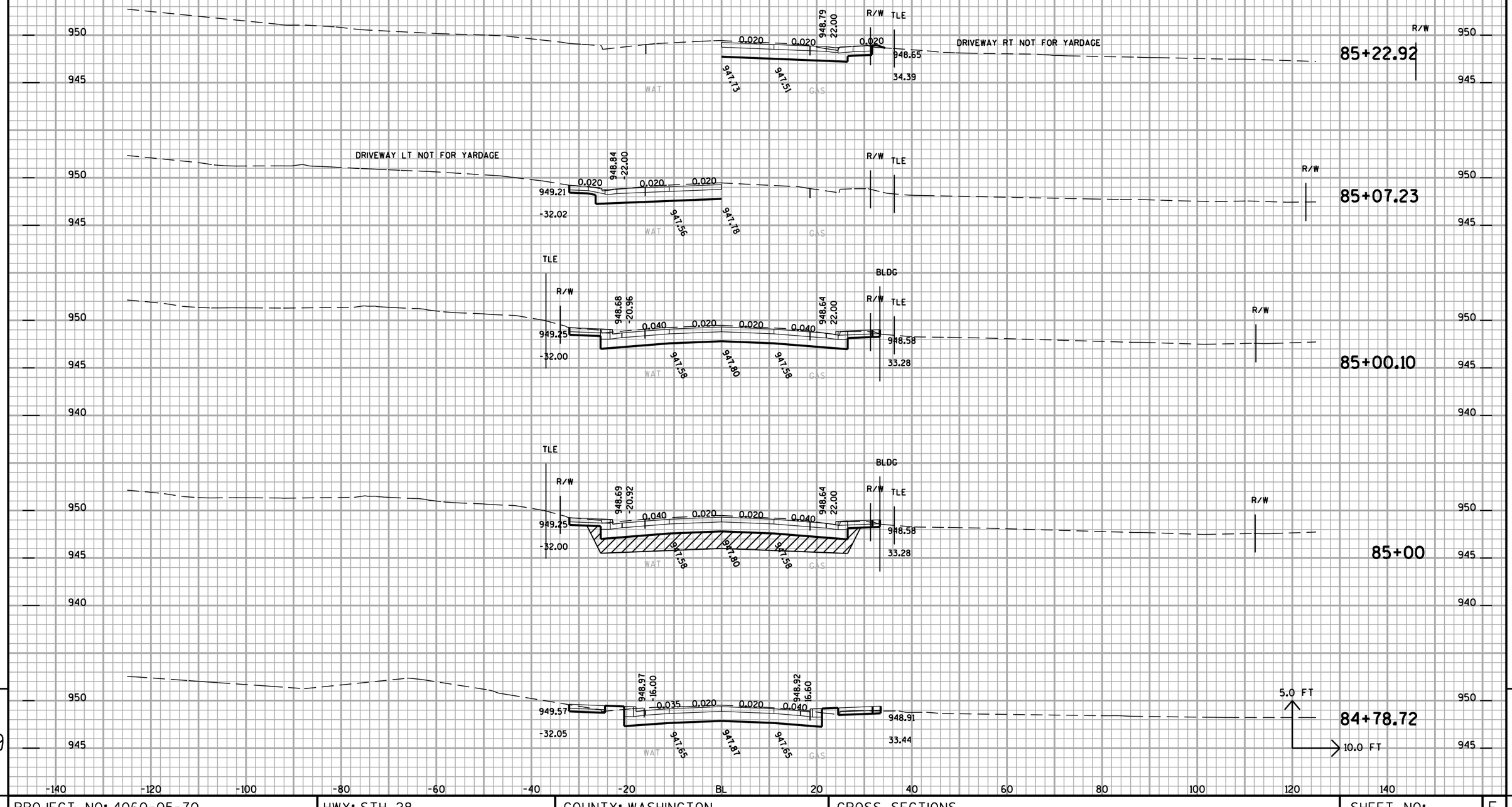
PROJECT NO: 4060-05-70	HWY: STH 28	COUNTY: WASHINGTON	CROSS SECTIONS	SHEET NO: 450	E

FILE NAME : J:±projects±D2_40600528±XS_July±090201_xs.DGN PLOT DATE : 22-JUL-2013 10:33 PLOT BY : dotr3h PLOT NAME : PLOT SCALE : 2:1



PROJECT NO: 4060-05-70	HWY: STH 28	COUNTY: WASHINGTON	CROSS SECTIONS	SHEET NO: 451	E

FILE NAME : J:±projects±D2_40600528±XS_July±090201_xs.DGN PLOT DATE : 22-JUL-2013 10:33 PLOT BY : dotr3h PLOT NAME : PLOT SCALE : 2:1



PROJECT NO: 4060-05-70	HWY: STH 28	COUNTY: WASHINGTON	CROSS SECTIONS	SHEET NO: 452	E

FILE NAME : J:±projects±D2_40600528±XS_July±090201_xs.DGN PLOT DATE : 22-JUL-2013 10:33 PLOT BY : dotr3h PLOT NAME : PLOT SCALE : 2:1



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PROJECT NO: 4060-05-70	HWY: STH 28	COUNTY: WASHINGTON	CROSS SECTIONS	SHEET NO: 453	E

FILE NAME : J:±projects±D2_40600528±XS_July±090201_xs.DGN PLOT DATE : 22-JUL-2013 10:33 PLOT BY : dotr3h PLOT NAME : PLOT SCALE : 2:1



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PROJECT NO: 4060-05-70	HWY: STH 28	COUNTY: WASHINGTON	CROSS SECTIONS	SHEET NO: 454	E

FILE NAME : J:±projects±D2_40600528±XS_July±090201_xs.DGN PLOT DATE : 22-JUL-2013 10:33 PLOT BY : dotr3h PLOT NAME : PLOT SCALE : 2:1

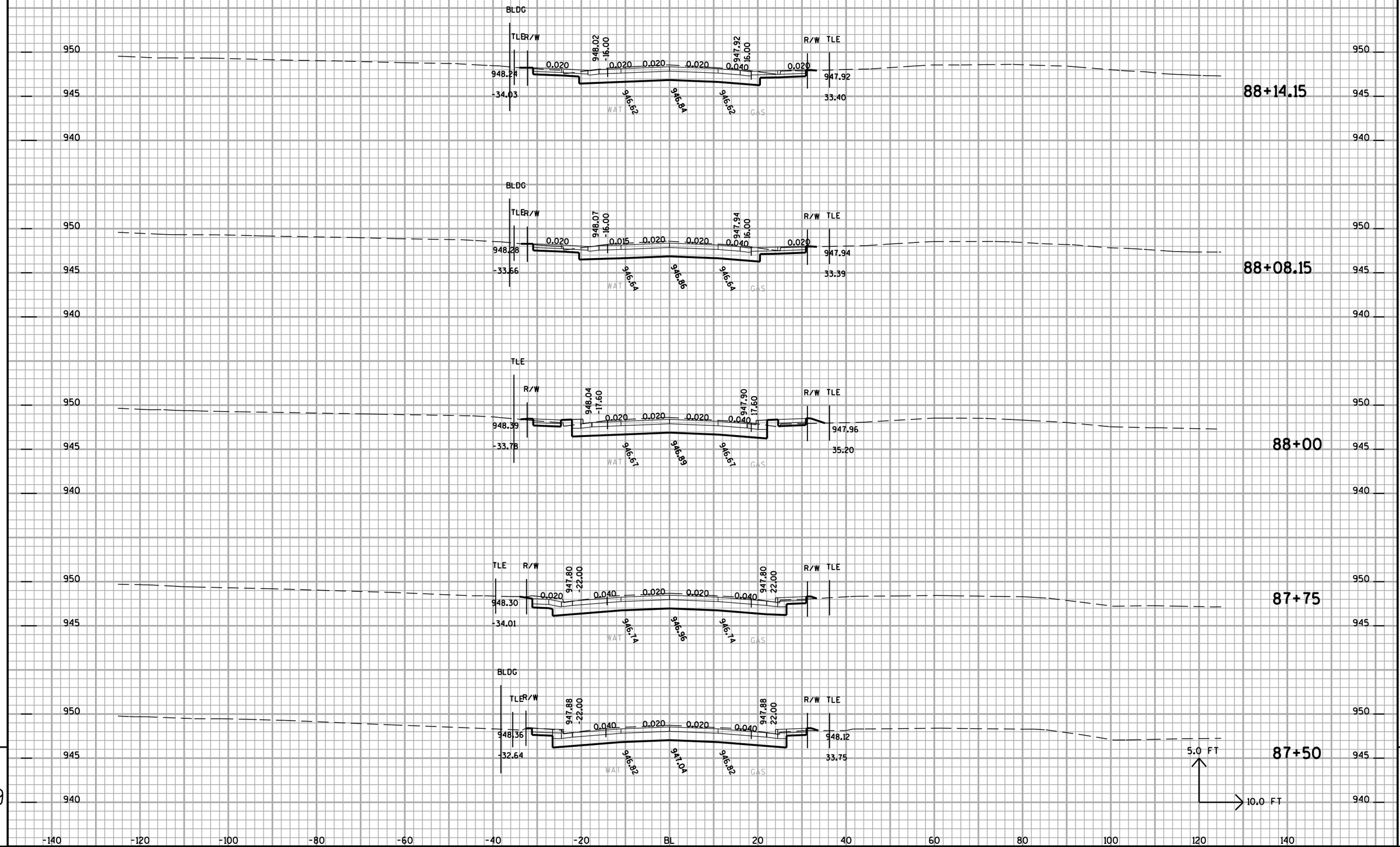


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PROJECT NO: 4060-05-70	HWY: STH 28	COUNTY: WASHINGTON	CROSS SECTIONS	SHEET NO: 455	E

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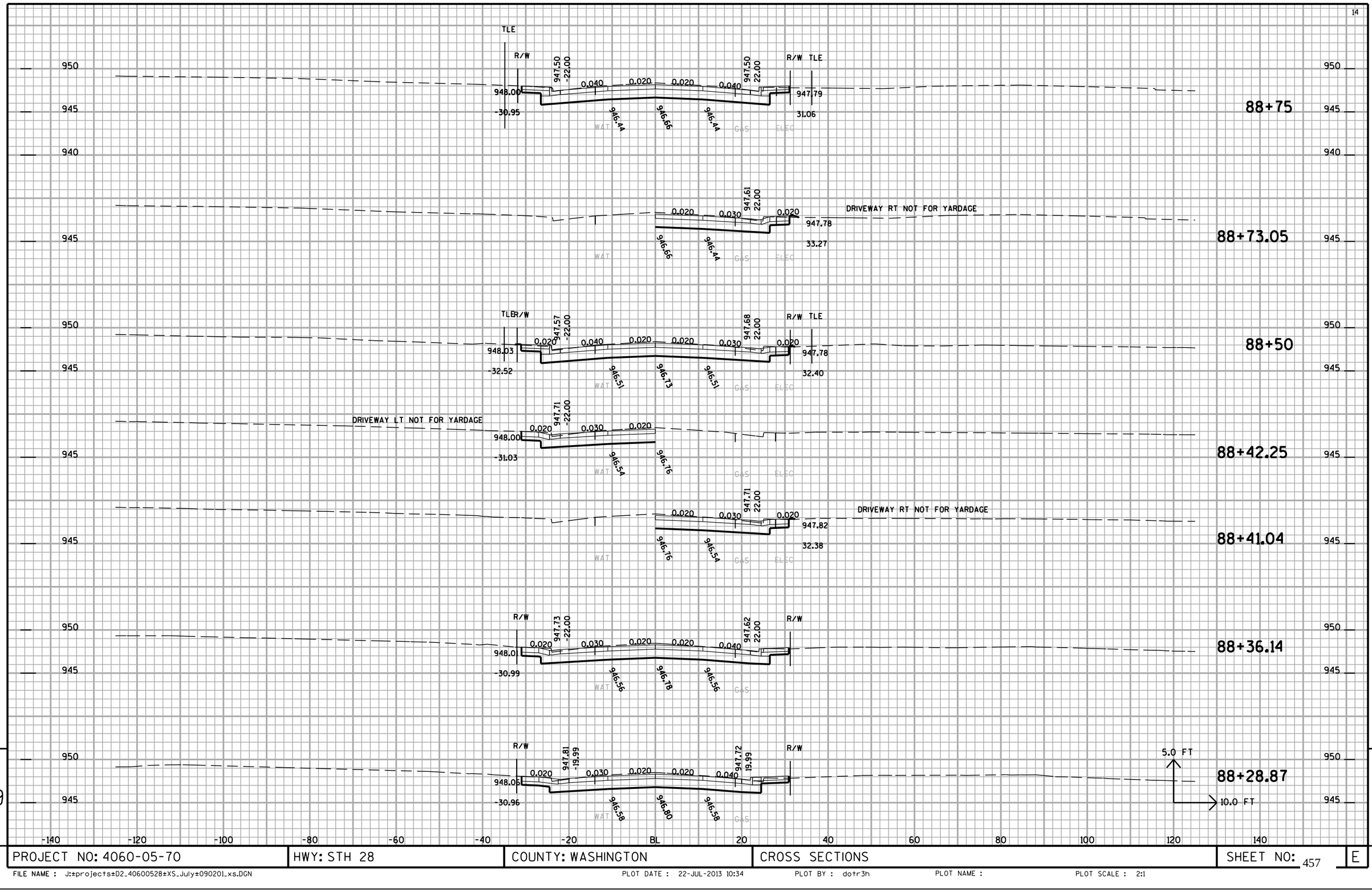


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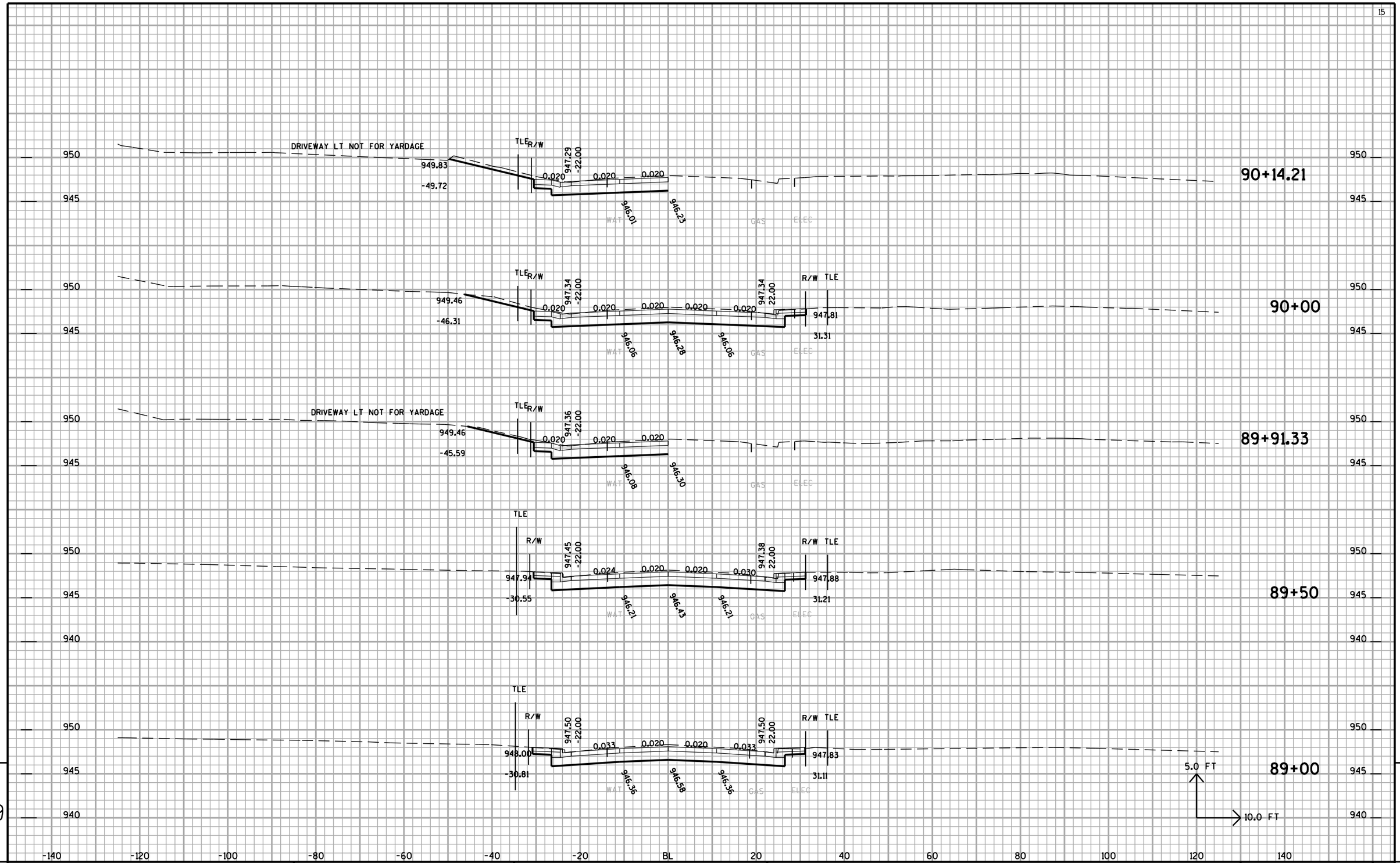
PROJECT NO: 4060-05-70	HWY: STH 28	COUNTY: WASHINGTON	CROSS SECTIONS	SHEET NO: 456	E

FILE NAME : J:±projects±D2_40600528±XS_July±090201_xs.DGN PLOT DATE : 22-JUL-2013 10:34 PLOT BY : dotr3h PLOT NAME : PLOT SCALE : 2:1



PROJECT NO: 4060-05-70	HWY: STH 28	COUNTY: WASHINGTON	CROSS SECTIONS	SHEET NO: 457	E

FILE NAME : J:±projects±D2_40600528±XS_July±090201_xs.DGN PLOT DATE : 22-JUL-2013 10:34 PLOT BY : dotr3h PLOT NAME : PLOT SCALE : 2:1

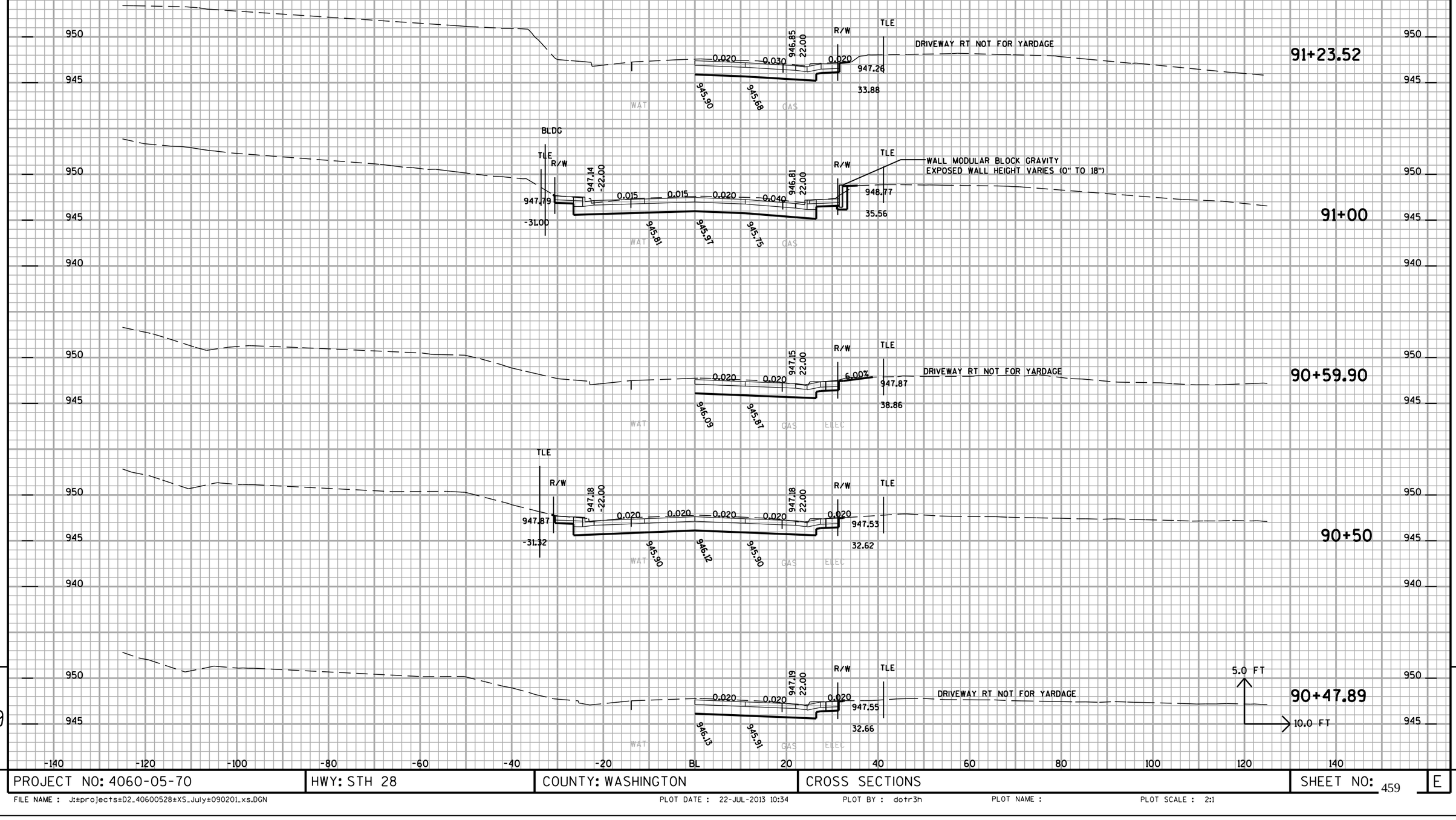


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PROJECT NO: 4060-05-70	HWY: STH 28	COUNTY: WASHINGTON	CROSS SECTIONS	SHEET NO: 458	E

FILE NAME : J:±projects±D2_40600528±XS_July±090201_xs.DGN PLOT DATE : 22-JUL-2013 10:34 PLOT BY : dotr3h PLOT NAME : PLOT SCALE : 2:1

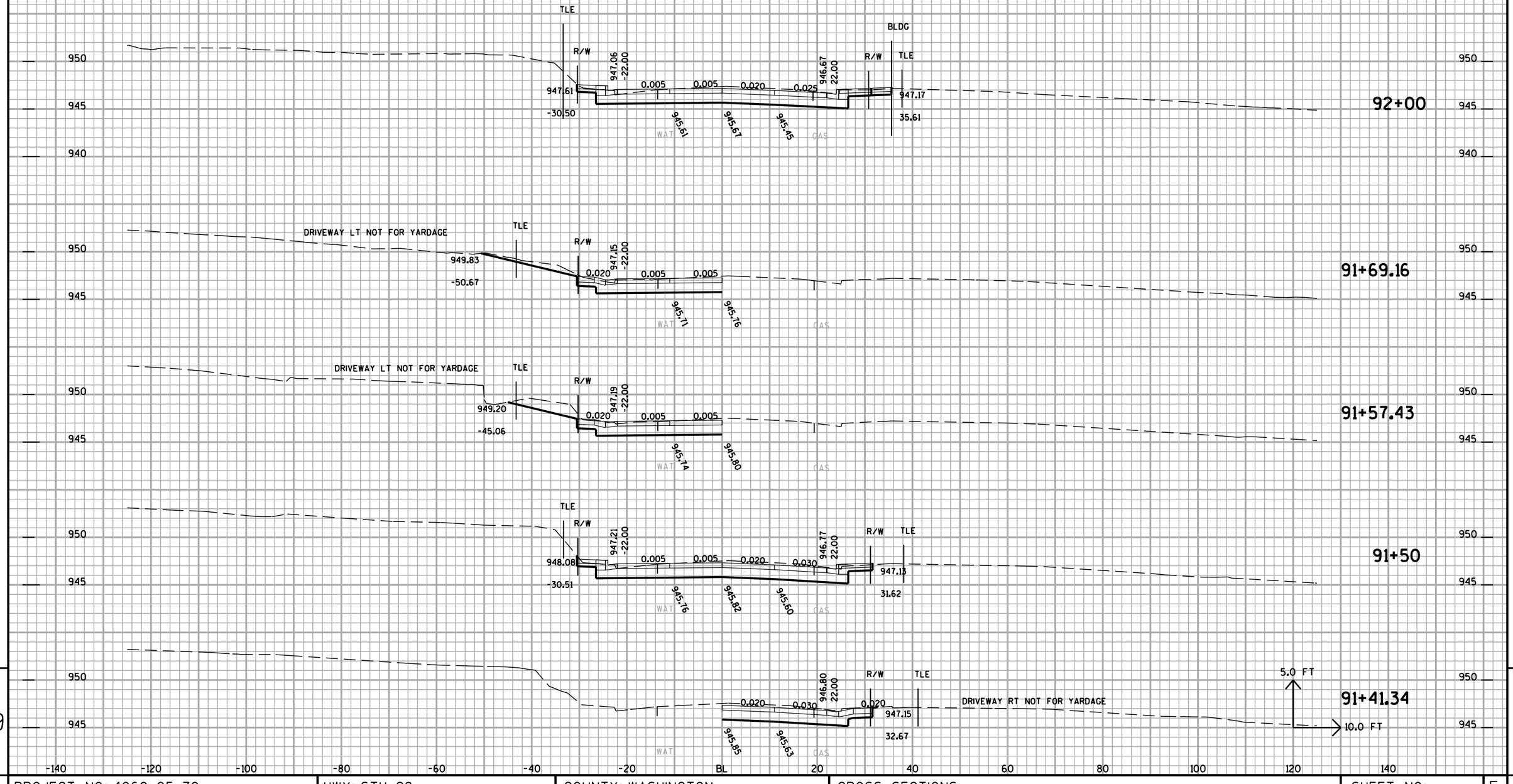


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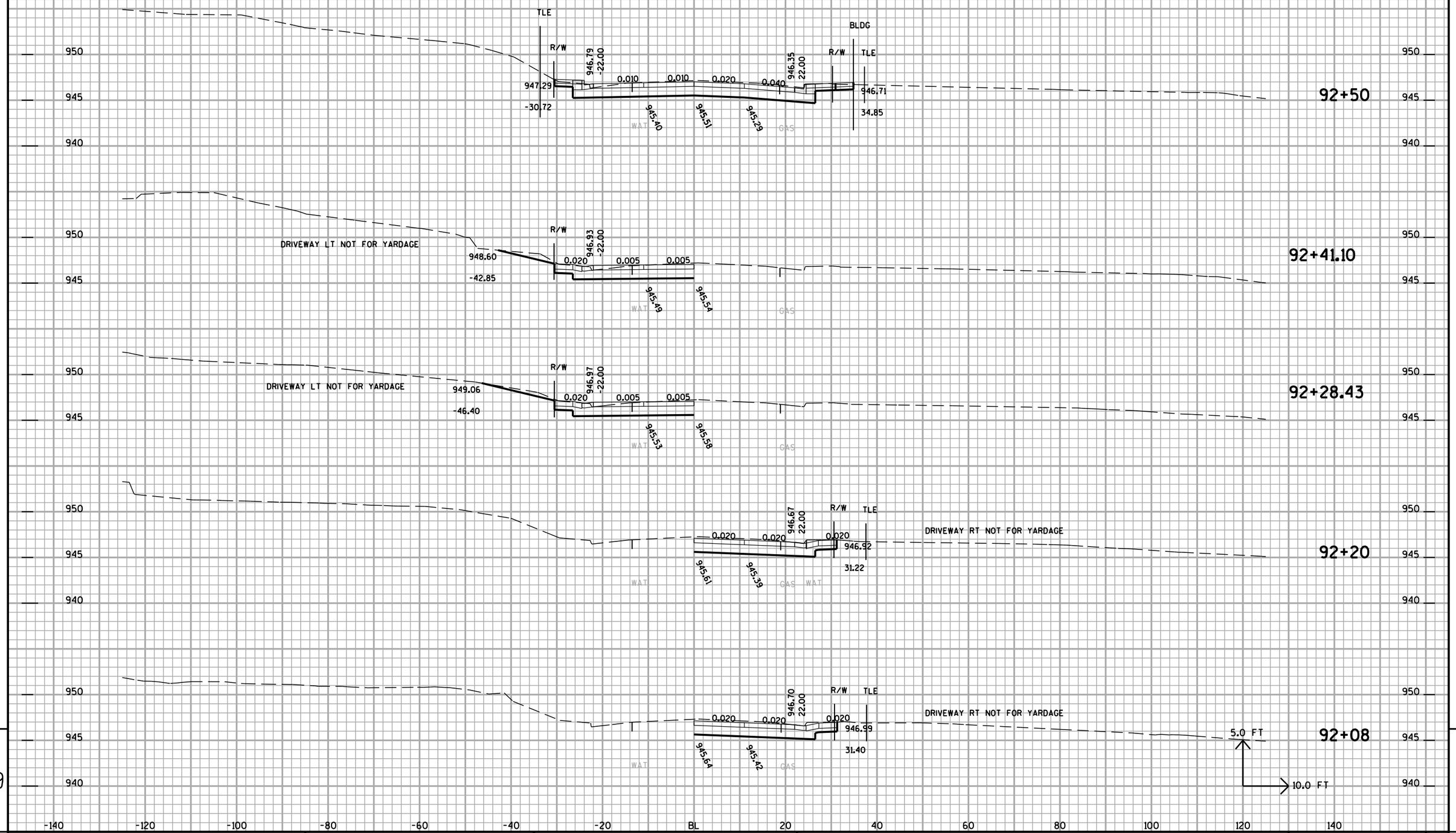
PROJECT NO: 4060-05-70	HWY: STH 28	COUNTY: WASHINGTON	CROSS SECTIONS	SHEET NO: 459	E

FILE NAME : J:±projects±D2_40600528±XS_July±090201_xs.DGN PLOT DATE : 22-JUL-2013 10:34 PLOT BY : dotr3h PLOT NAME : PLOT SCALE : 2:1



PROJECT NO: 4060-05-70	HWY: STH 28	COUNTY: WASHINGTON	CROSS SECTIONS	SHEET NO: 460	E

FILE NAME : J:±projects±D2_40600528±XS_July±090201_xs.DGN PLOT DATE : 22-JUL-2013 10:34 PLOT BY : dotr3h PLOT NAME : PLOT SCALE : 2:1



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PROJECT NO: 4060-05-70	HWY: STH 28	COUNTY: WASHINGTON	CROSS SECTIONS	SHEET NO: 461	E

FILE NAME : J:±projects±D2_40600528±XS_July±090201_xs.DGN PLOT DATE : 22-JUL-2013 10:34 PLOT BY : dotr3h PLOT NAME : PLOT SCALE : 2:1

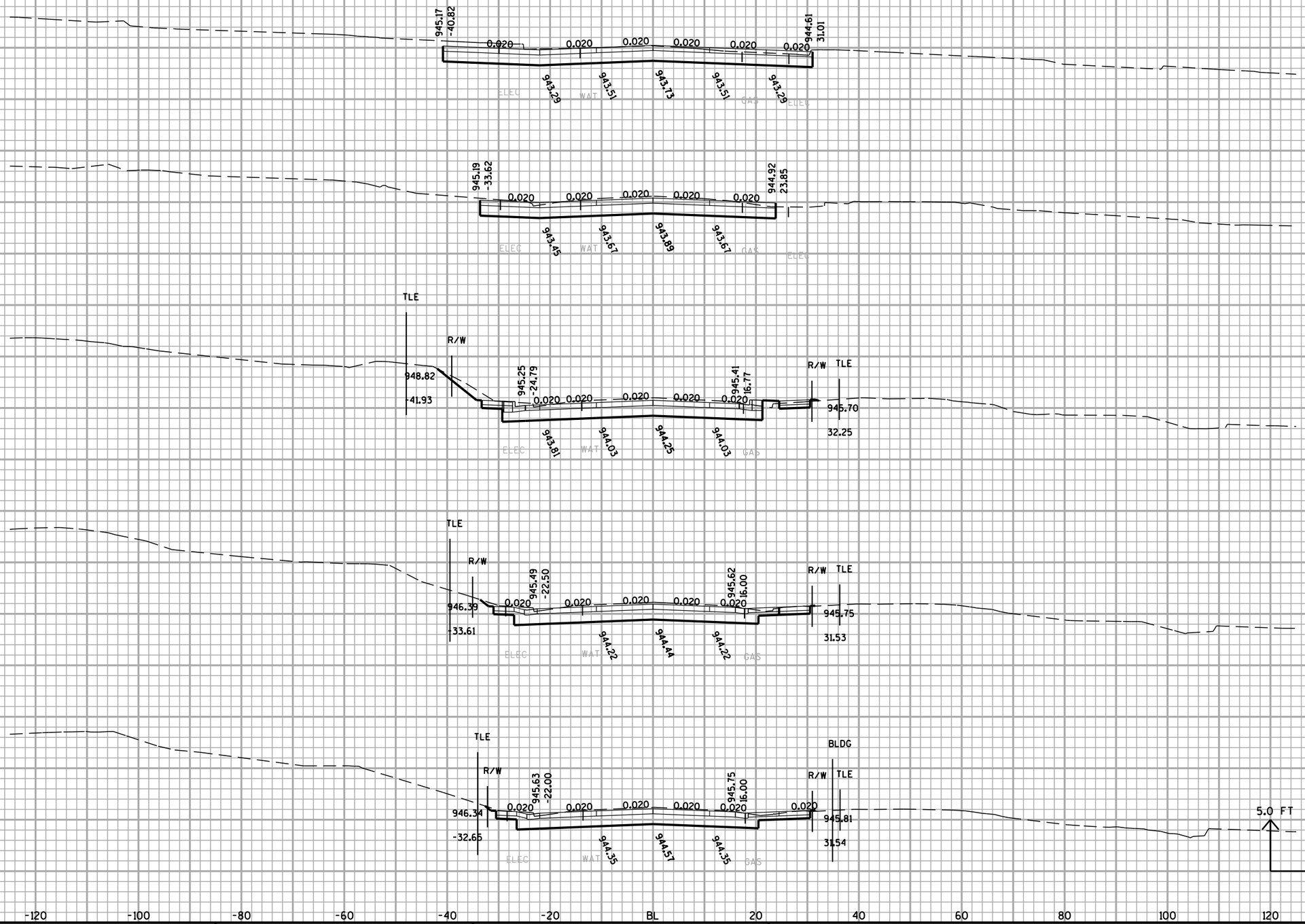


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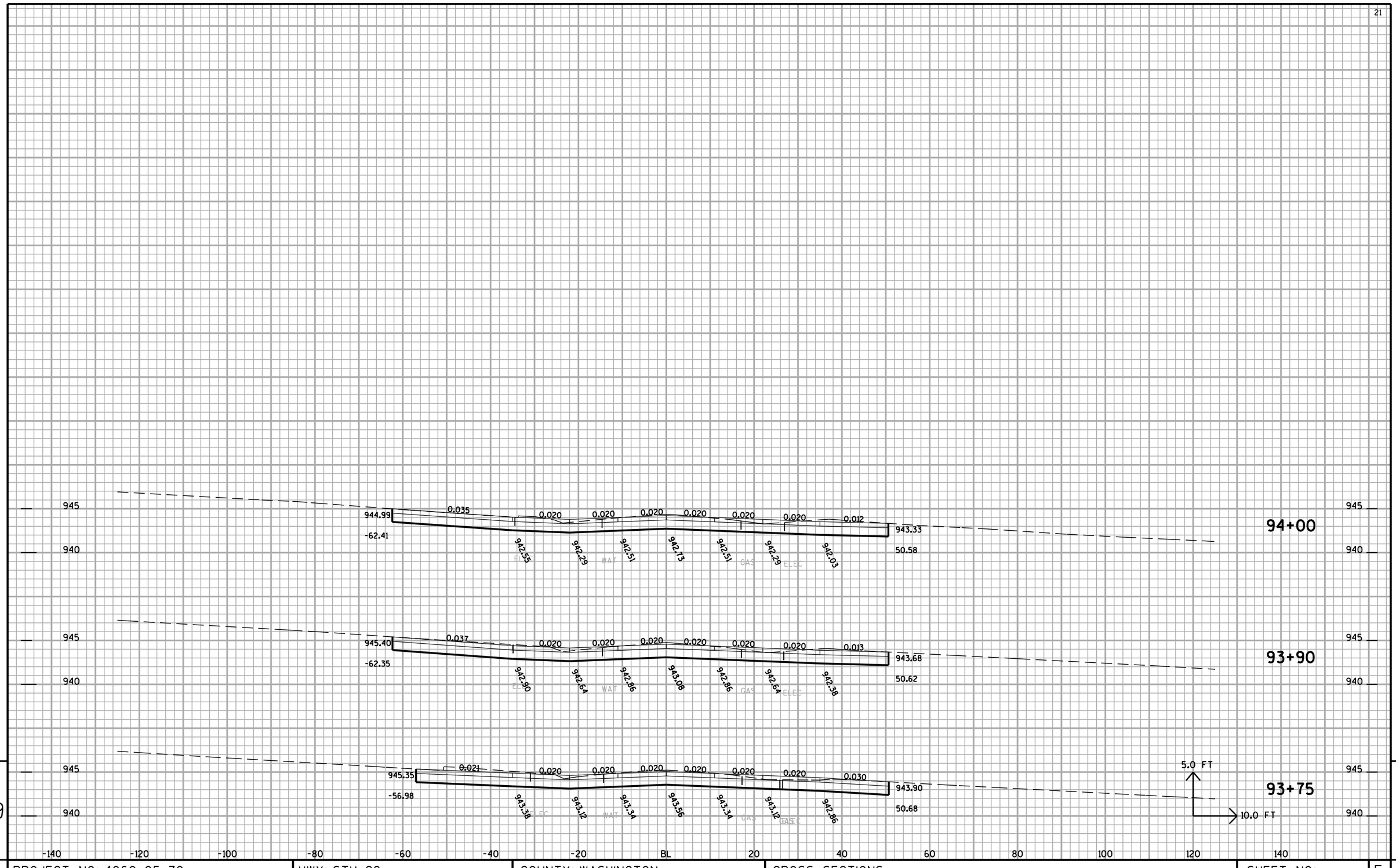
PROJECT NO: 4060-05-70	HWY: STH 28	COUNTY: WASHINGTON	CROSS SECTIONS	SHEET NO: 462	E

FILE NAME : J:±projects±D2_40600528±XS_July±090201_xs.DGN PLOT DATE : 22-JUL-2013 10:34 PLOT BY : dotr3h PLOT NAME : PLOT SCALE : 2:1



PROJECT NO: 4060-05-70	HWY: STH 28	COUNTY: WASHINGTON	CROSS SECTIONS	SHEET NO: 463	E

FILE NAME : J:±projects±D2_40600528±XS_July±090201_xs.DGN PLOT DATE : 22-JUL-2013 10:34 PLOT BY : dotr3h PLOT NAME : PLOT SCALE : 2:1



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PROJECT NO: 4060-05-70	HWY: STH 28	COUNTY: WASHINGTON	CROSS SECTIONS	SHEET NO: 464	E

FILE NAME : J:±projects±D2_40600528±XS_July±090201_xs.DGN PLOT DATE : 22-JUL-2013 10:34 PLOT BY : dotr3h PLOT NAME : PLOT SCALE : 2:1



PROJECT NO: 4060-05-70	HWY: STH 28	COUNTY: WASHINGTON	CROSS SECTIONS	SHEET NO: 465	E

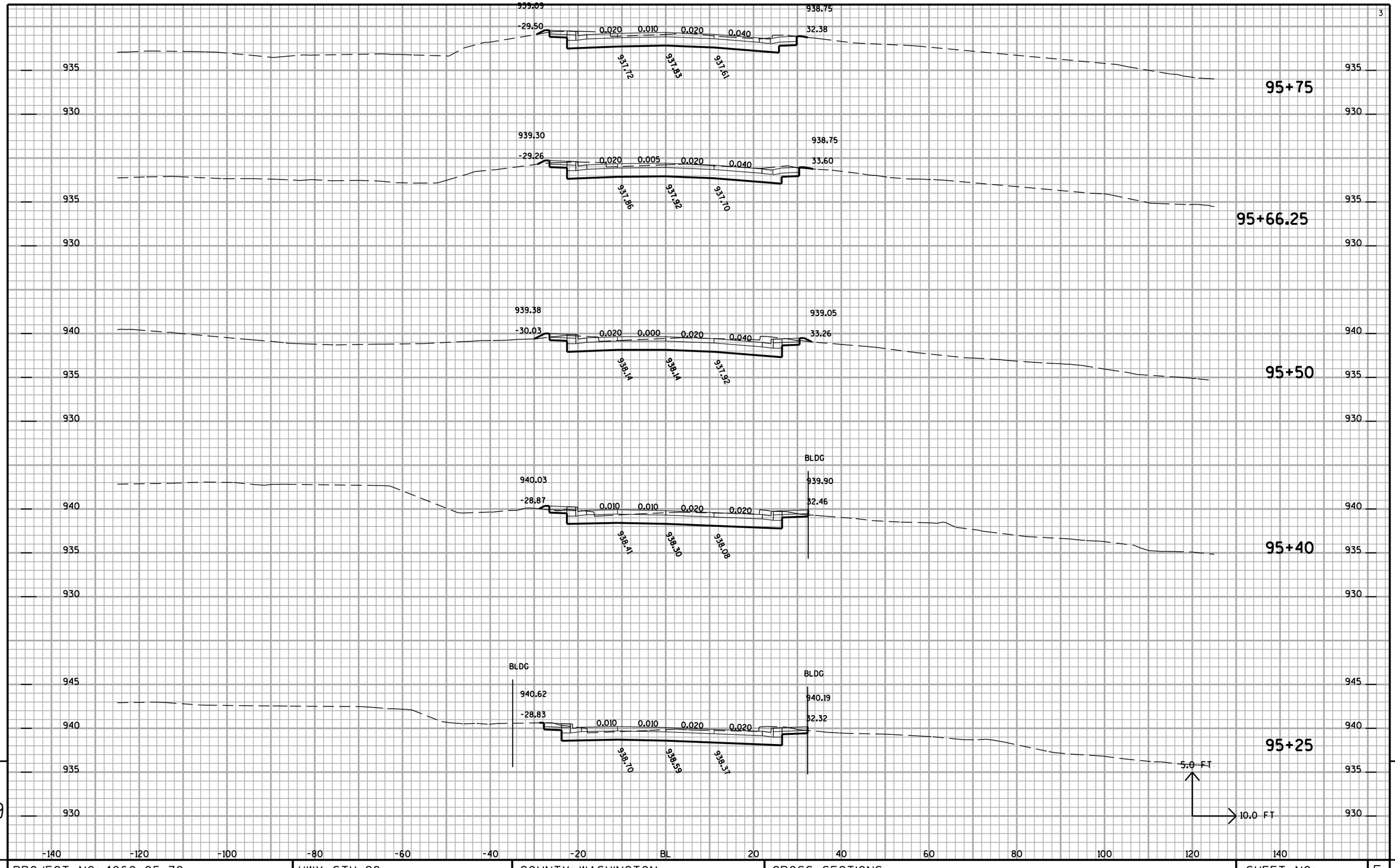
FILE NAME : J:±projects±D2_40600528±XS_July±090202_xs.DGN PLOT DATE : 22-JUL-2013 10:34 PLOT BY : dotr3h PLOT NAME : PLOT SCALE : 2:1



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PROJECT NO: 4060-05-70 | HWY: STH 28 | COUNTY: WASHINGTON | CROSS SECTIONS | SHEET NO: 466 | E

FILE NAME : J:±projects±D2_40600528±XS_July±090202_xs.DGN PLOT DATE : 22-JUL-2013 10:34 PLOT BY : dotr3h PLOT NAME : PLOT SCALE : 2:1

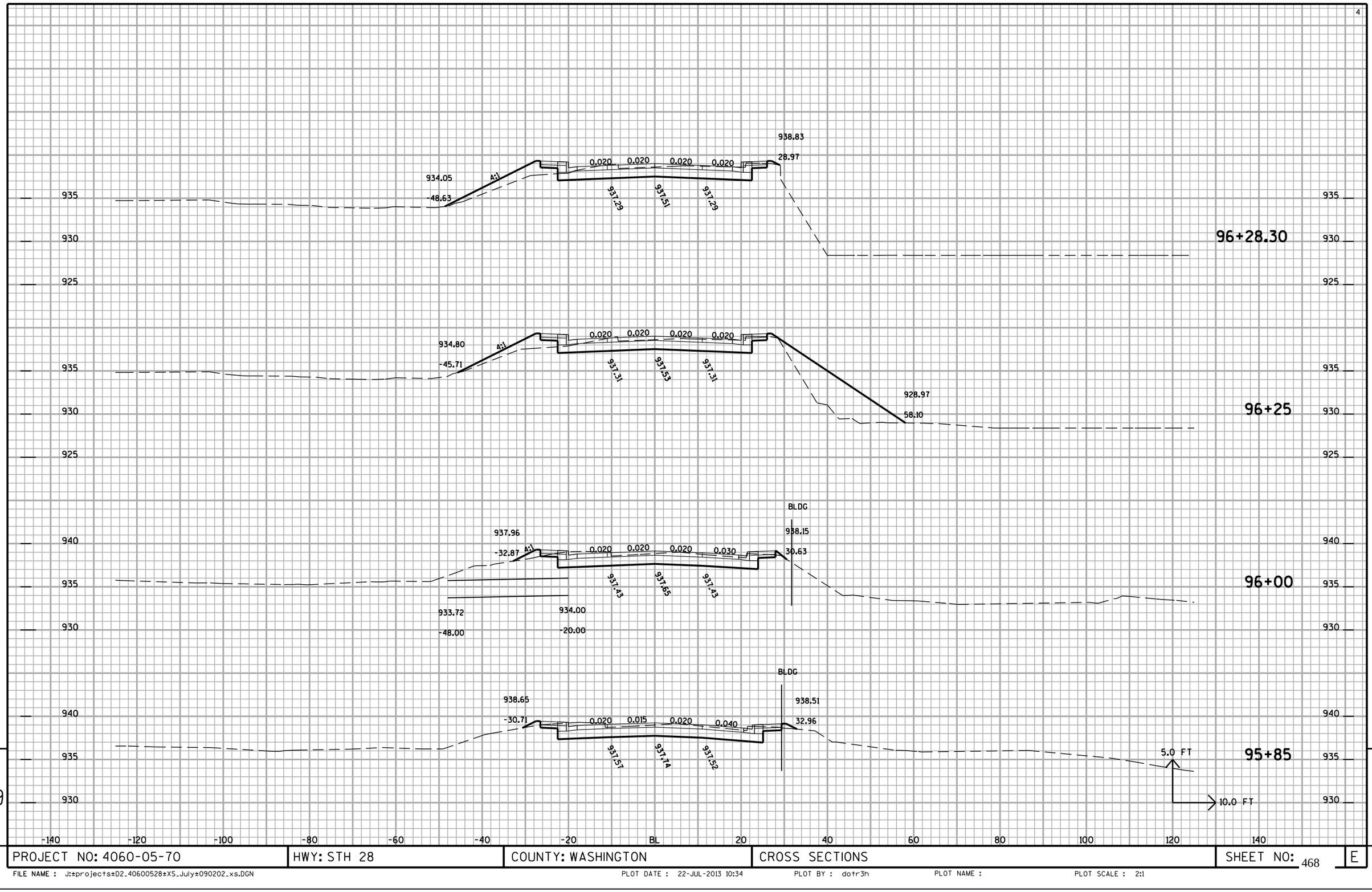


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PROJECT NO: 4060-05-70	HWY: STH 28	COUNTY: WASHINGTON	CROSS SECTIONS	SHEET NO: 467	E

FILE NAME : J:±projects±D2_40600528±XS_July±090202_xs.DGN PLOT DATE : 22-JUL-2013 10:34 PLOT BY : dotr3h PLOT NAME : PLOT SCALE : 2:1

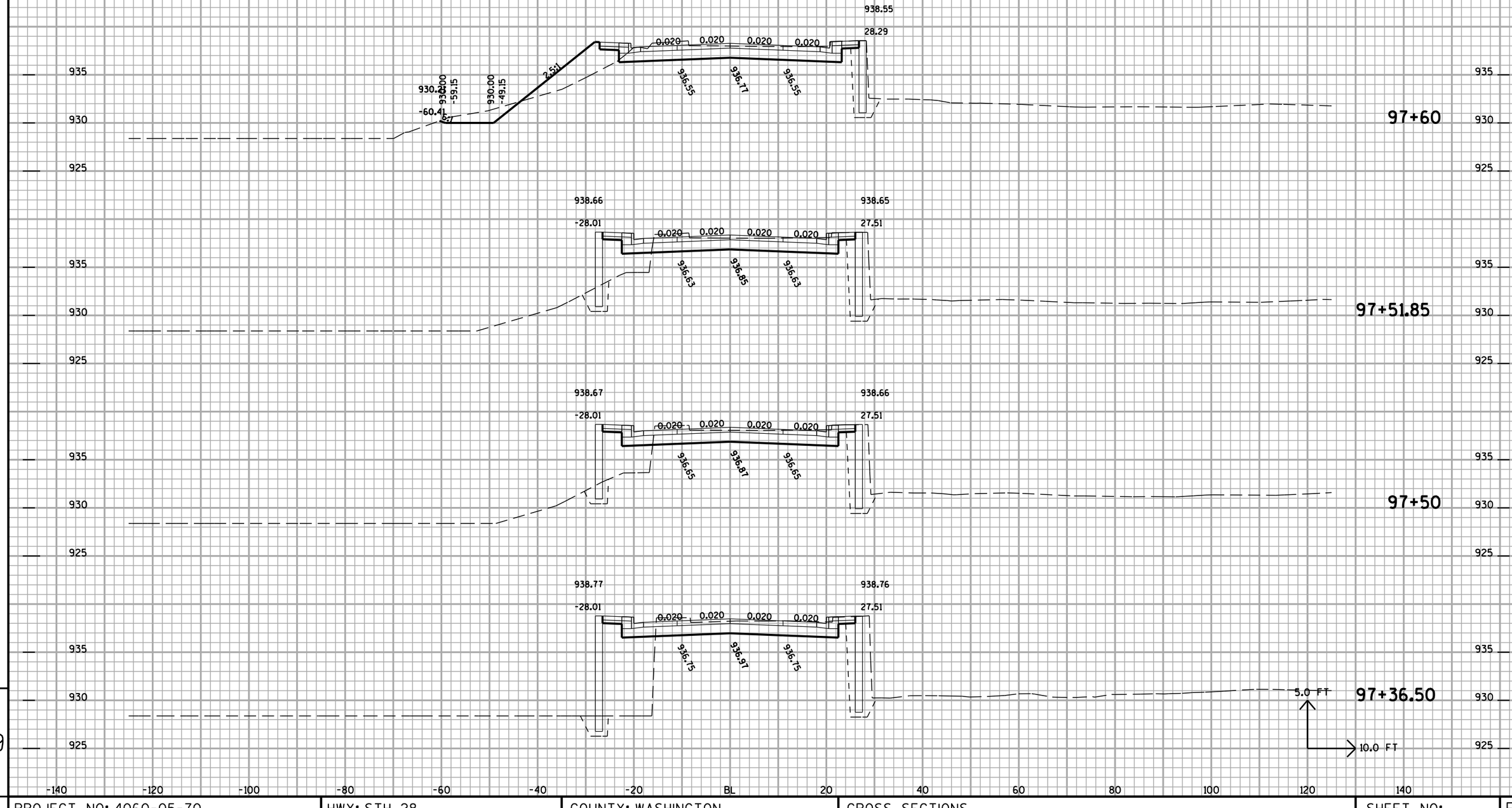


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PROJECT NO: 4060-05-70	HWY: STH 28	COUNTY: WASHINGTON	CROSS SECTIONS	SHEET NO: 468	E

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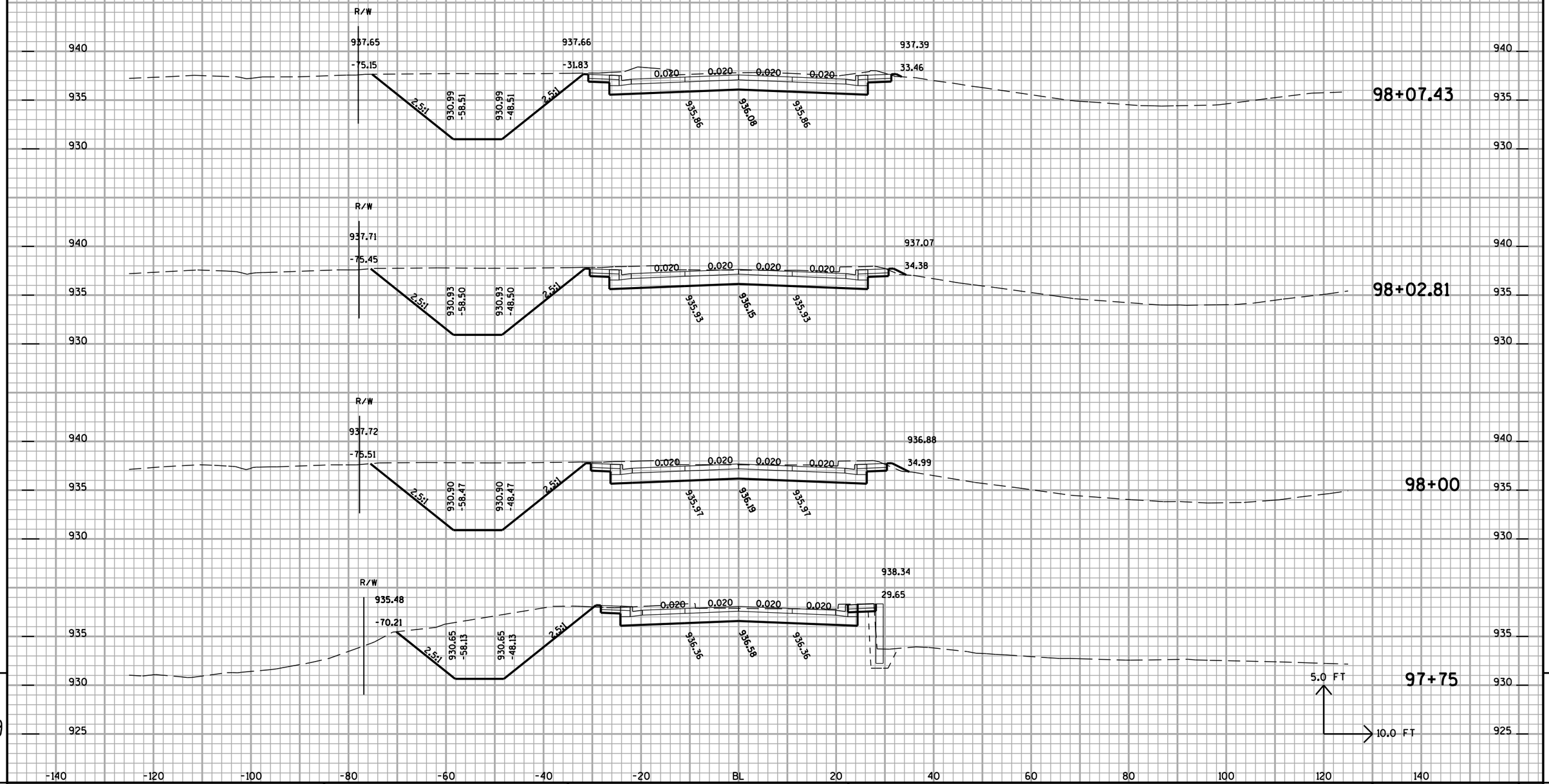


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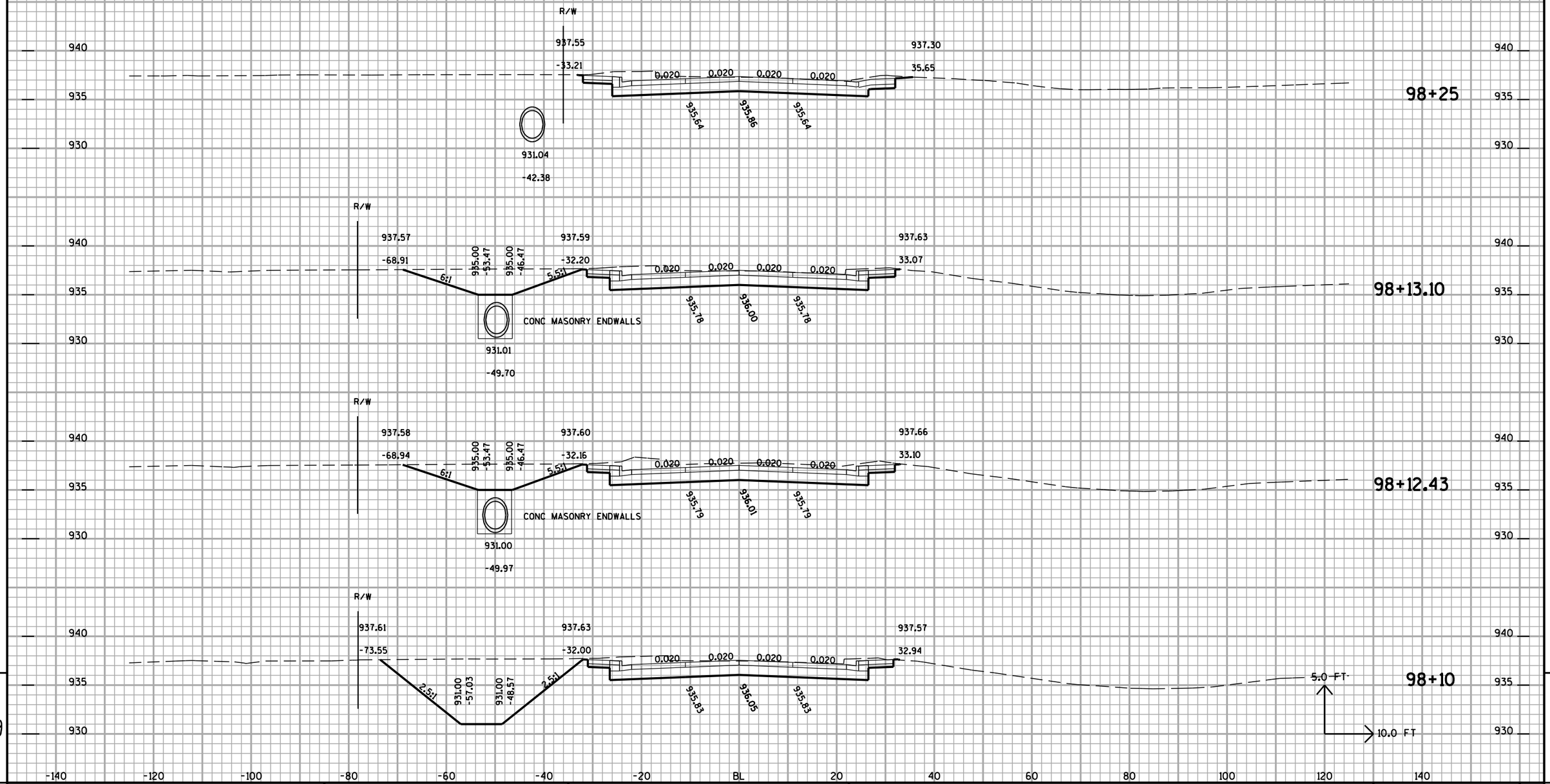
PROJECT NO: 4060-05-70	HWY: STH 28	COUNTY: WASHINGTON	CROSS SECTIONS	SHEET NO: 469	E

FILE NAME : J:±projects±D2_40600528±XS_July±090202_xs.DGN PLOT DATE : 22-JUL-2013 10:34 PLOT BY : dotr3h PLOT NAME : PLOT SCALE : 2:1



PROJECT NO: 4060-05-70	HWY: STH 28	COUNTY: WASHINGTON	CROSS SECTIONS	SHEET NO: 470	E

FILE NAME : J:±projects±D2_40600528±XS_July±090202_xs.DGN PLOT DATE : 22-JUL-2013 10:34 PLOT BY : dotr3h PLOT NAME : PLOT SCALE : 2:1



PROJECT NO: 4060-05-70	HWY: STH 28	COUNTY: WASHINGTON	CROSS SECTIONS	SHEET NO: 471	E

FILE NAME : J:±projects±D2_40600528±XS_July±090202_xs.DGN PLOT DATE : 22-JUL-2013 10:34 PLOT BY : dotr3h PLOT NAME : PLOT SCALE : 2:1

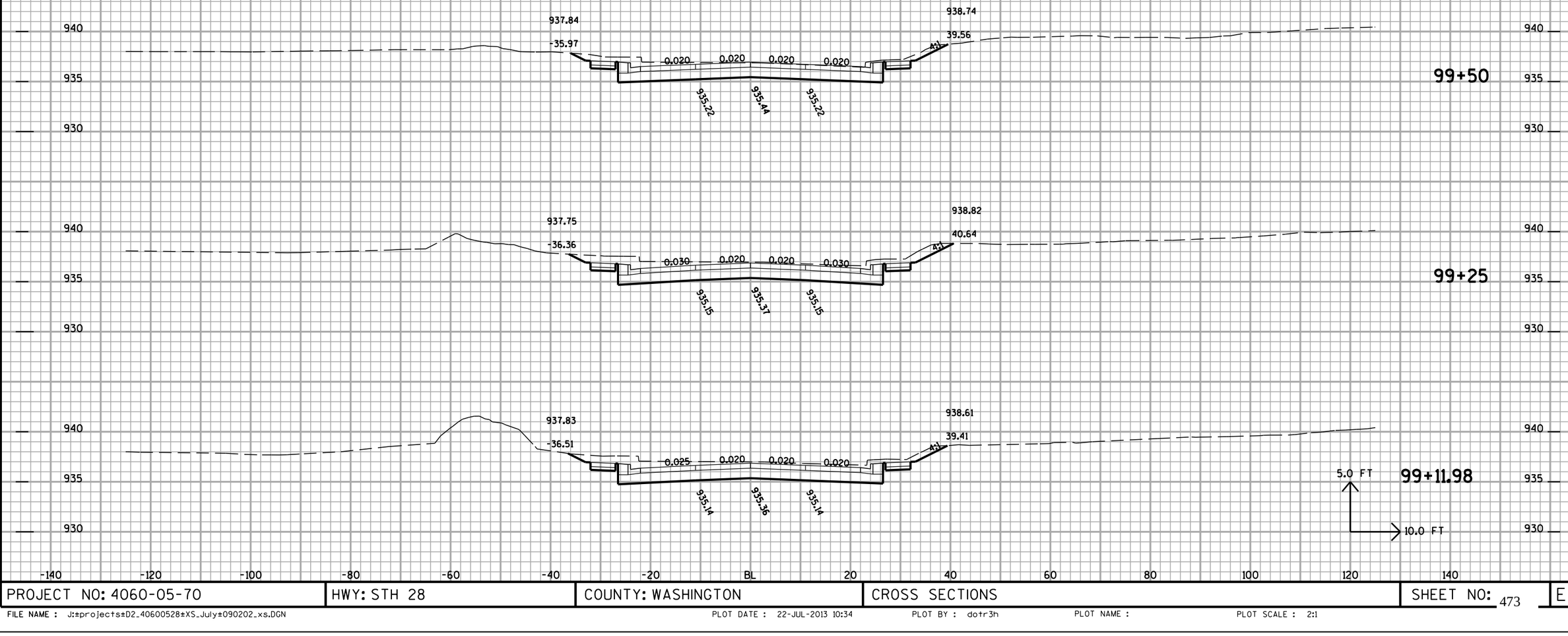


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PROJECT NO: 4060-05-70	HWY: STH 28	COUNTY: WASHINGTON	CROSS SECTIONS	SHEET NO: 472	E

FILE NAME : J:±projects±D2_40600528±XS_July±090202_xs.DGN PLOT DATE : 22-JUL-2013 10:34 PLOT BY : dotr3h PLOT NAME : PLOT SCALE : 2:1

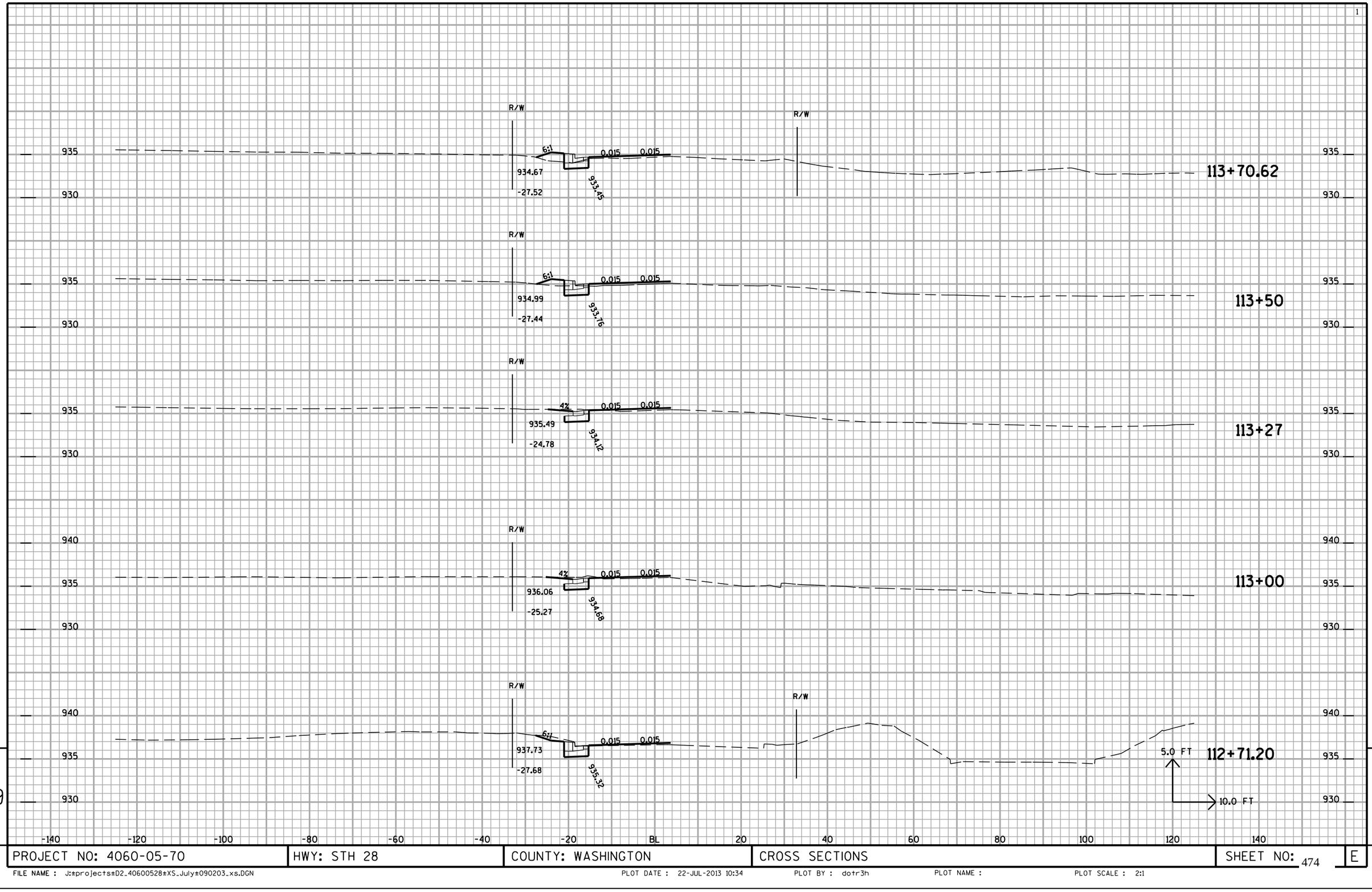


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PROJECT NO: 4060-05-70	HWY: STH 28	COUNTY: WASHINGTON	CROSS SECTIONS	SHEET NO: 473	E

FILE NAME : J:±projects±D2_40600528±XS_July±090202_xs.DGN PLOT DATE : 22-JUL-2013 10:34 PLOT BY : dotr3h PLOT NAME : PLOT SCALE : 2:1

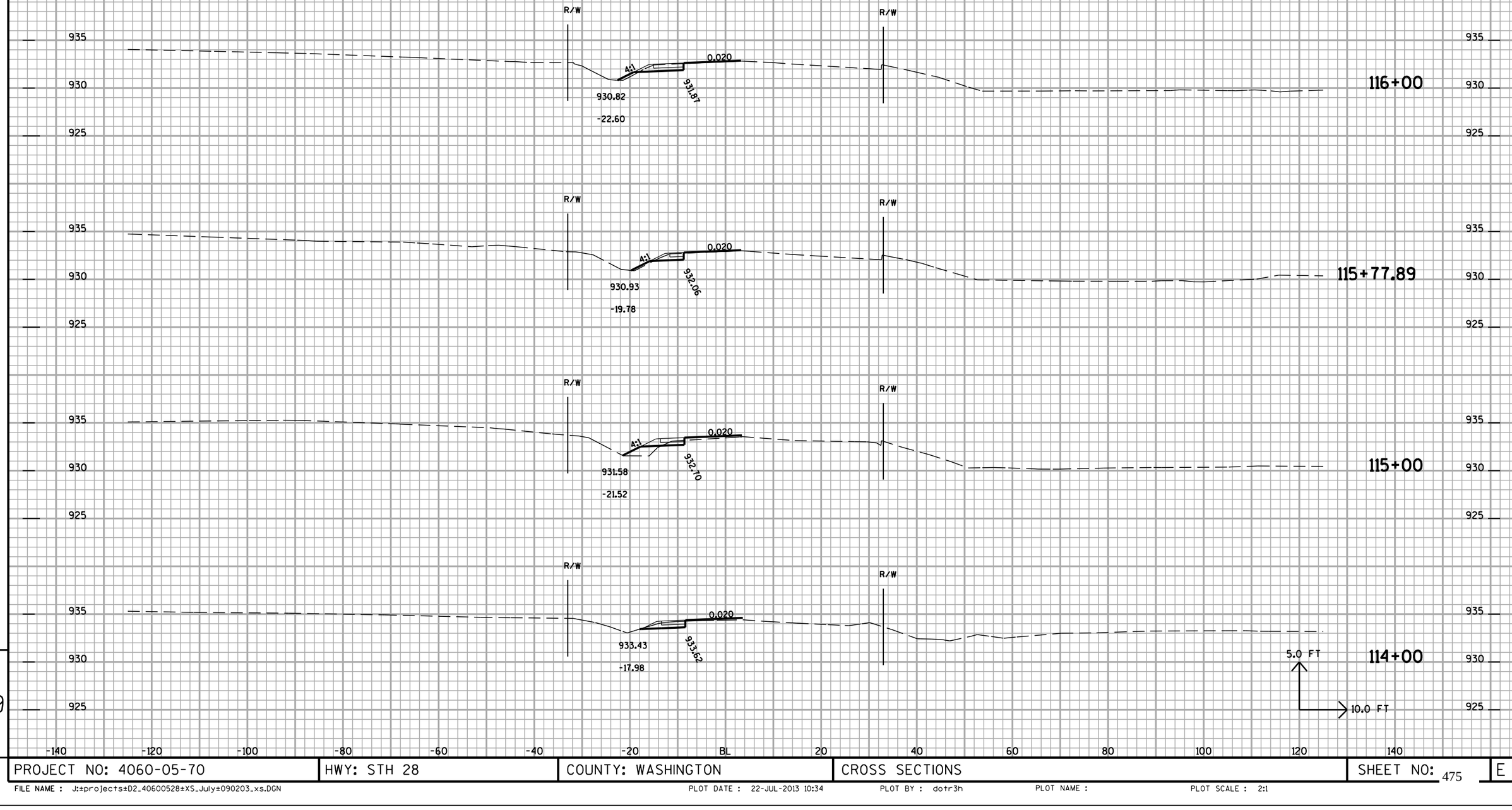


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PROJECT NO: 4060-05-70	HWY: STH 28	COUNTY: WASHINGTON	CROSS SECTIONS	SHEET NO: 474	E

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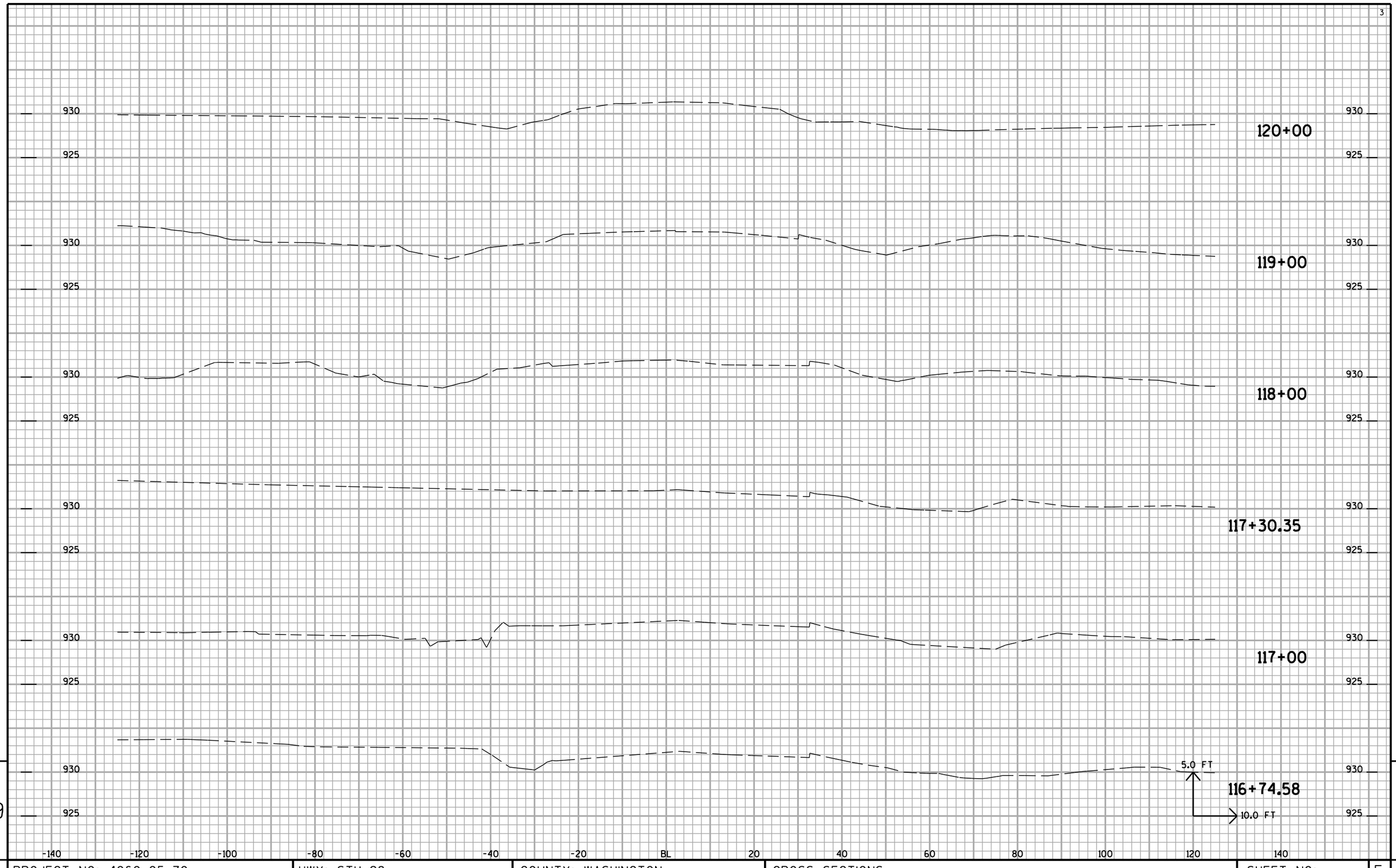


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PROJECT NO: 4060-05-70	HWY: STH 28	COUNTY: WASHINGTON	CROSS SECTIONS	SHEET NO: 475	E

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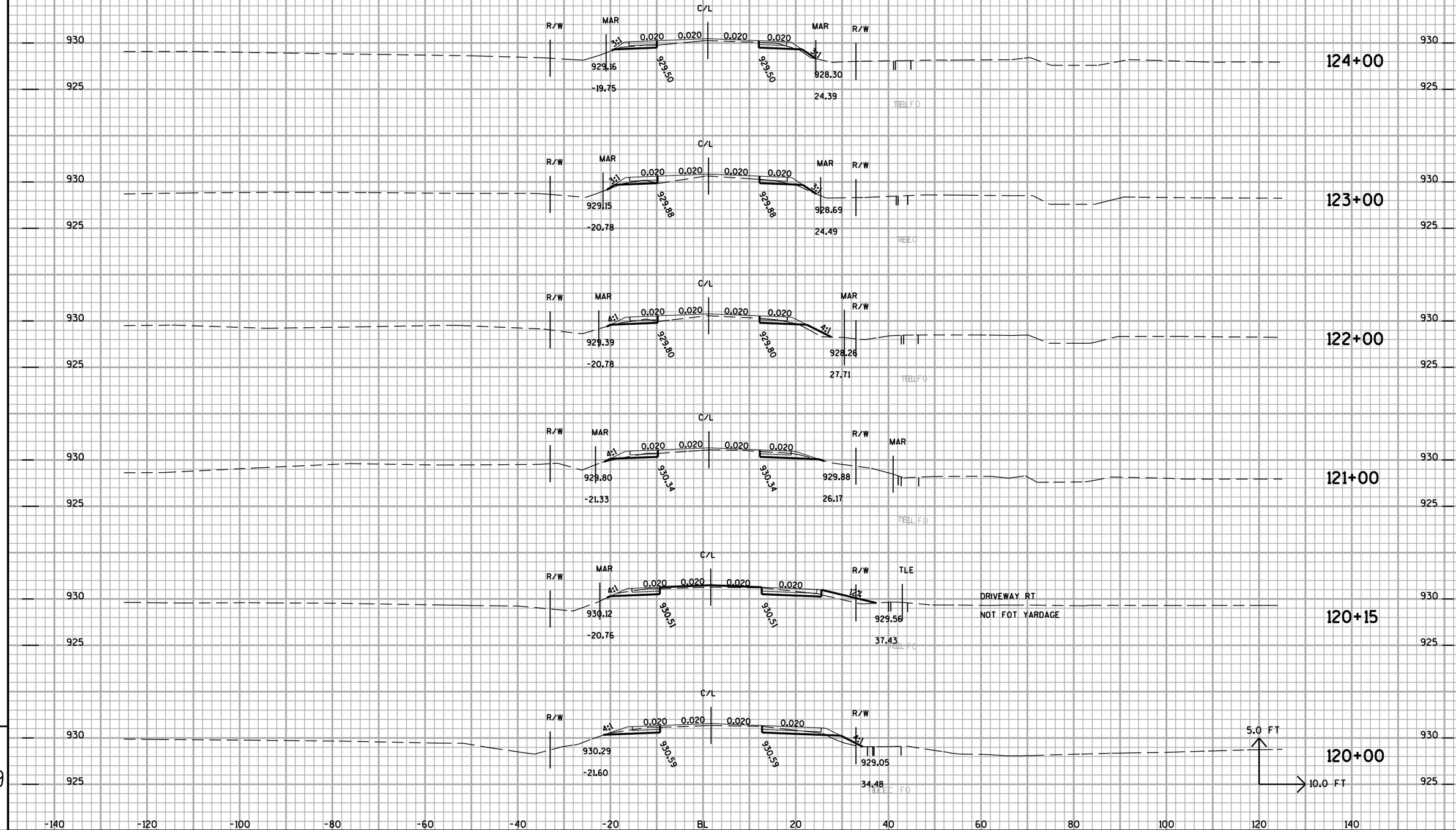


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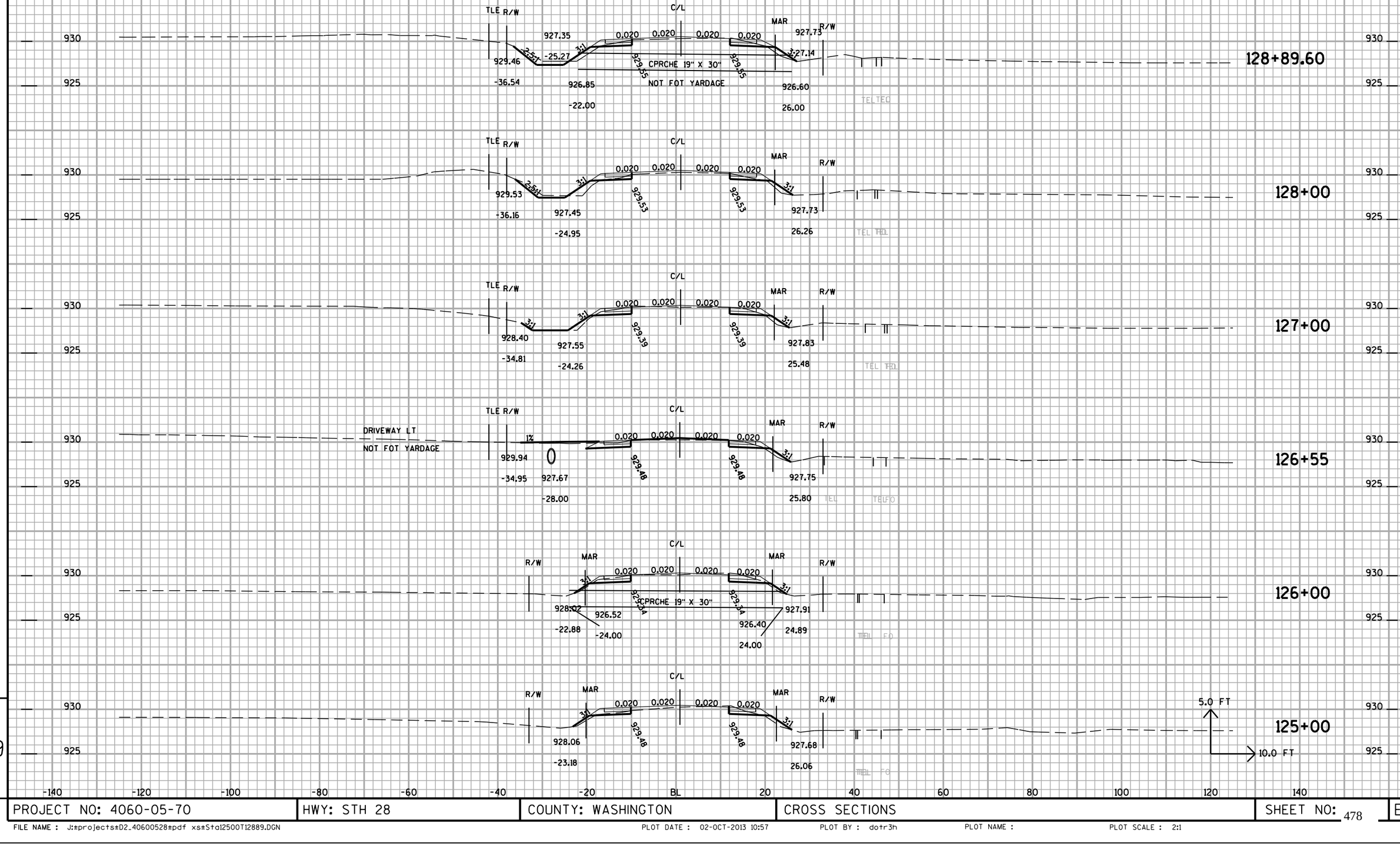
PROJECT NO: 4060-05-70	HWY: STH 28	COUNTY: WASHINGTON	CROSS SECTIONS	SHEET NO: 476	E

FILE NAME : J:±projects±D2_40600528±XS_July±090203_xs.DGN PLOT DATE : 22-JUL-2013 10:34 PLOT BY : dotr3h PLOT NAME : PLOT SCALE : 2:1



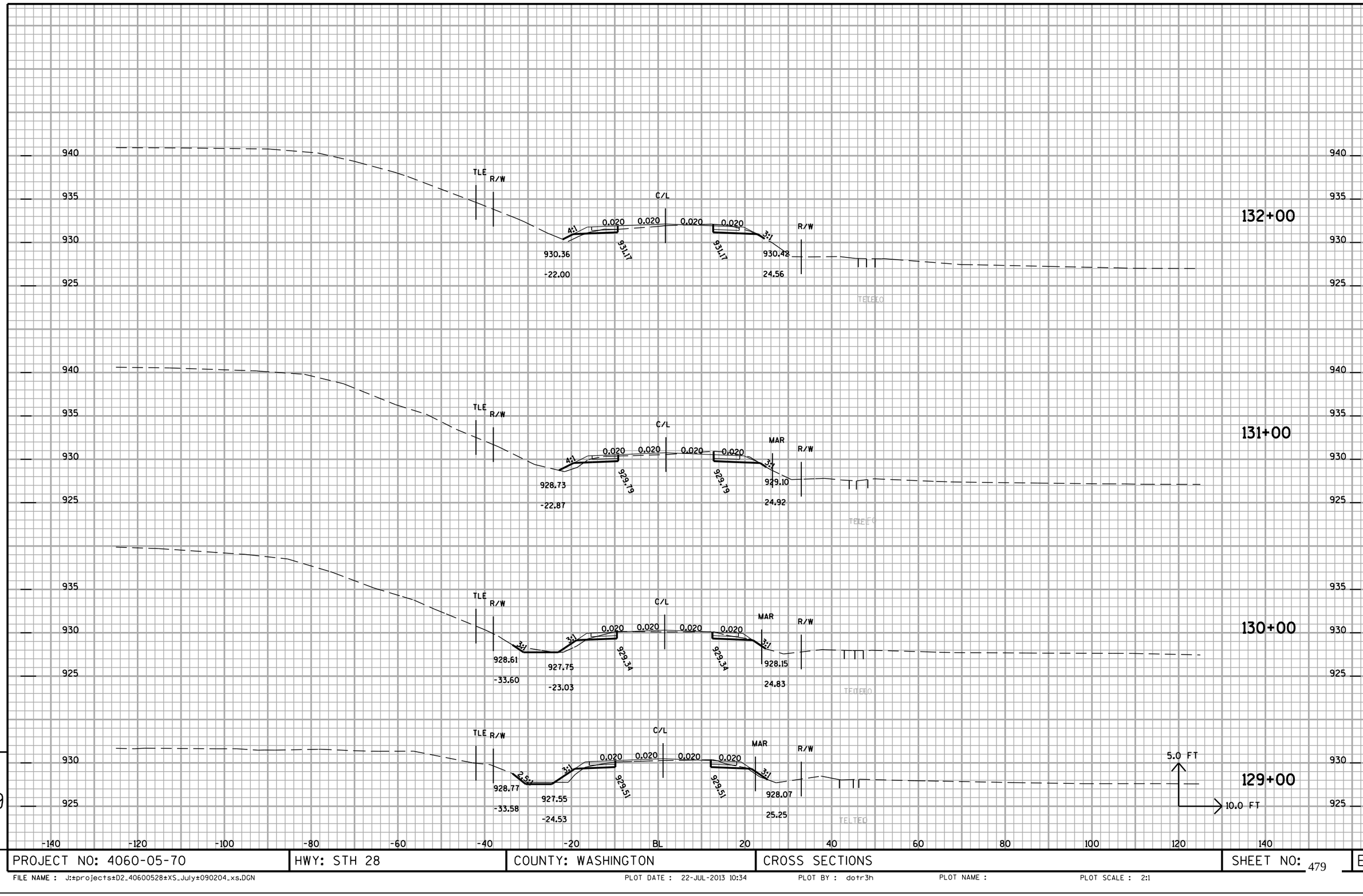
PROJECT NO: 4060-05-70	HWY: STH 28	COUNTY: WASHINGTON	CROSS SECTIONS	SHEET NO: 477	E

FILE NAME : J:±projects±D2_40600528±XS_July±090204_xs.DGN PLOT DATE : 22-JUL-2013 10:34 PLOT BY : dotr3h PLOT NAME : PLOT SCALE : 2:1



PROJECT NO: 4060-05-70	HWY: STH 28	COUNTY: WASHINGTON	CROSS SECTIONS	SHEET NO: 478	E

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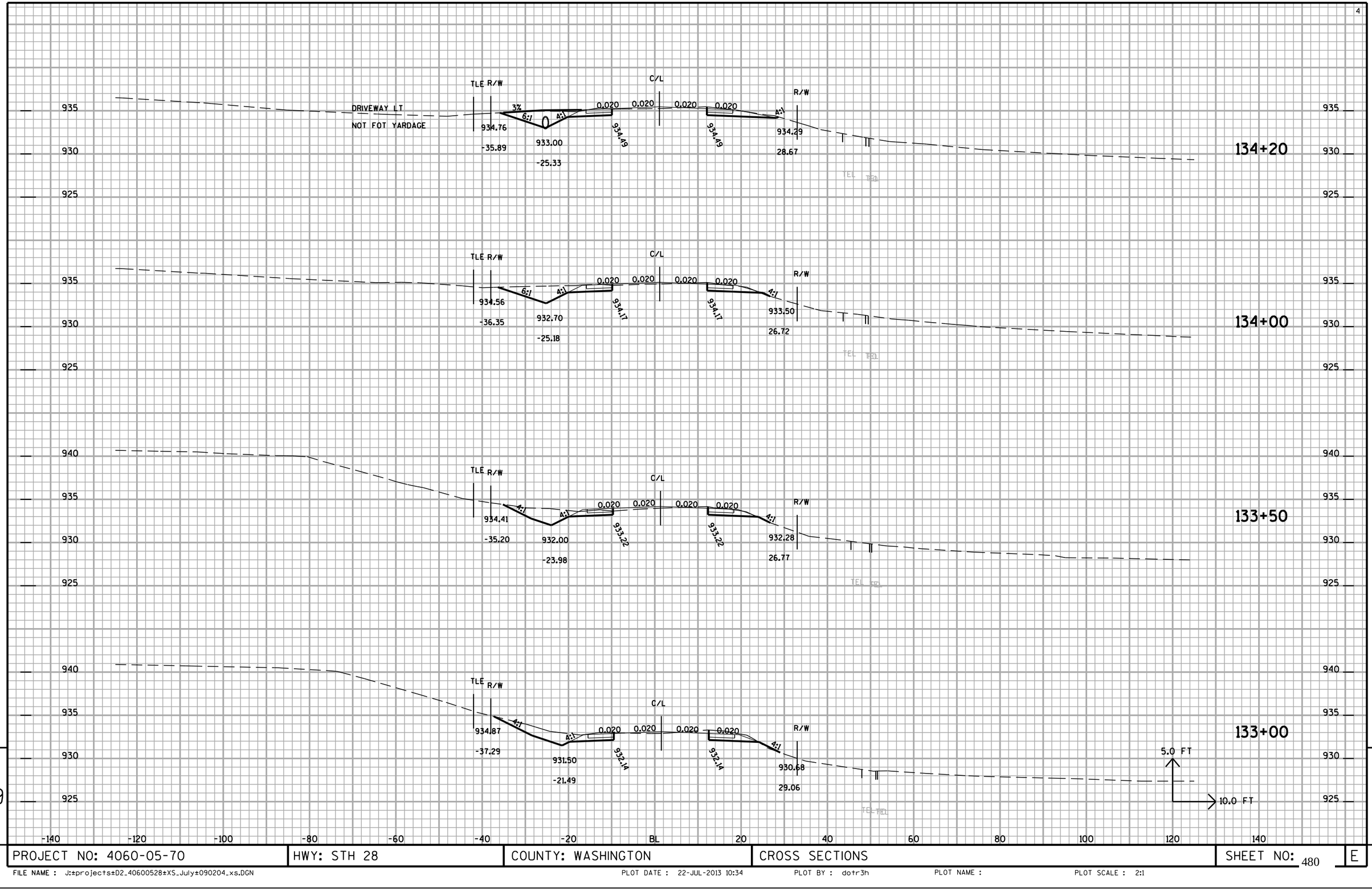


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PROJECT NO: 4060-05-70	HWY: STH 28	COUNTY: WASHINGTON	CROSS SECTIONS	SHEET NO: 479	E

FILE NAME : J:±projects±D2_40600528±XS_July±090204_xs.DGN PLOT DATE : 22-JUL-2013 10:34 PLOT BY : dotr3h PLOT NAME : PLOT SCALE : 2:1

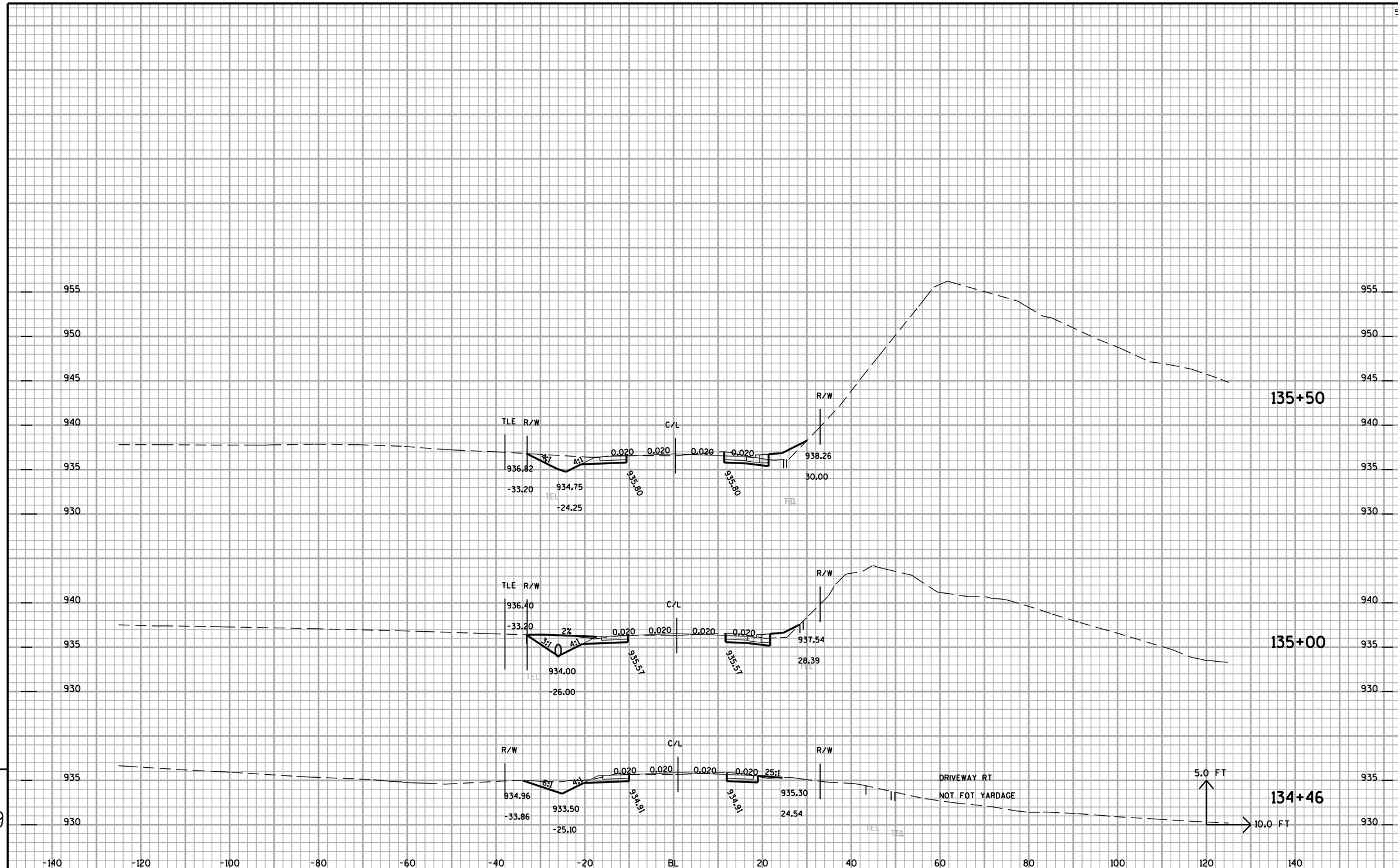


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PROJECT NO: 4060-05-70	HWY: STH 28	COUNTY: WASHINGTON	CROSS SECTIONS	SHEET NO: 480	E

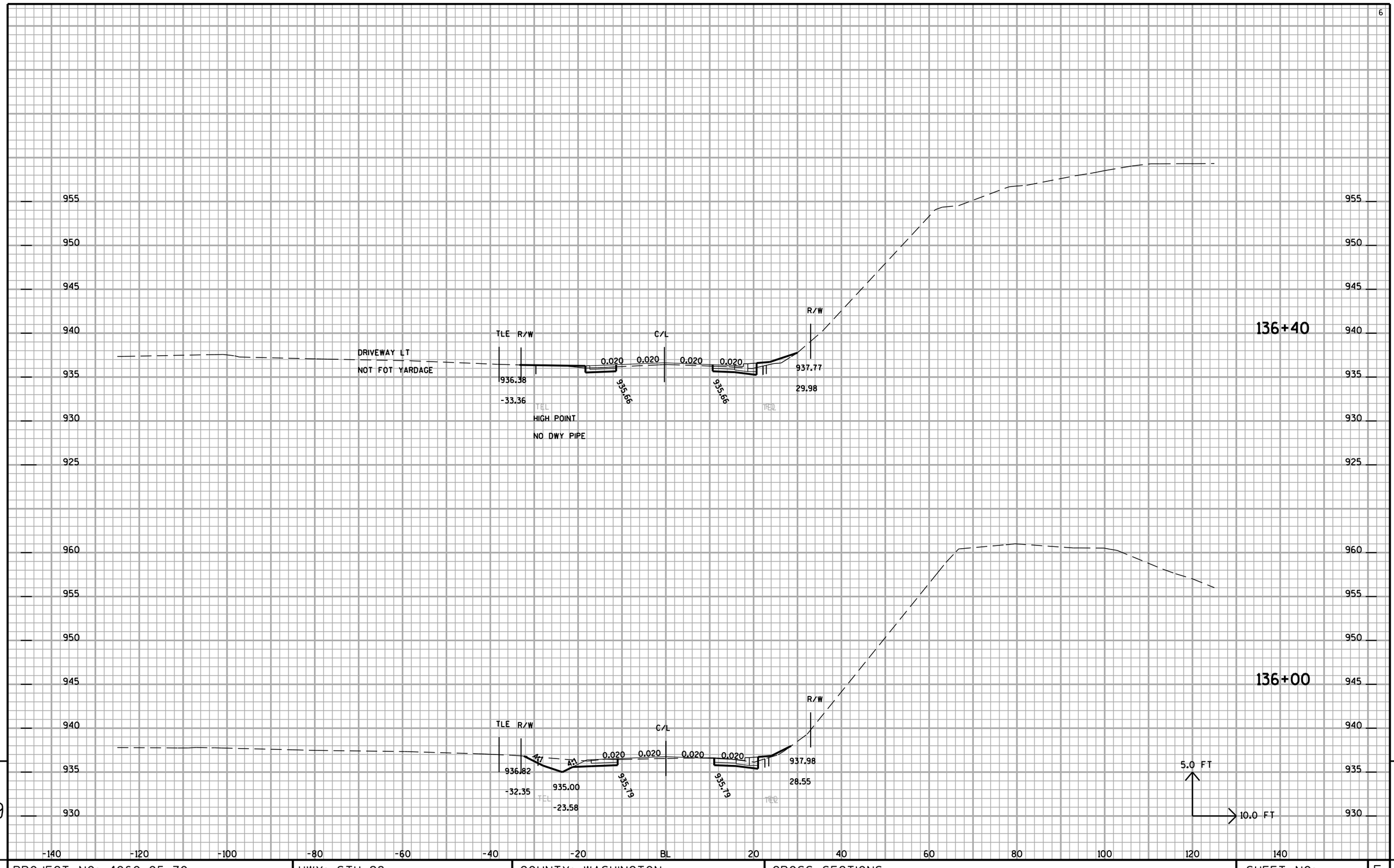
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PROJECT NO: 4060-05-70	HWY: STH 28	COUNTY: WASHINGTON	CROSS SECTIONS	SHEET NO: 481	E

FILE NAME : J:±projects±D2_40600528±XS_July±090204_xs.DGN PLOT DATE : 22-JUL-2013 10:34 PLOT BY : dotr3h PLOT NAME : PLOT SCALE : 2:1

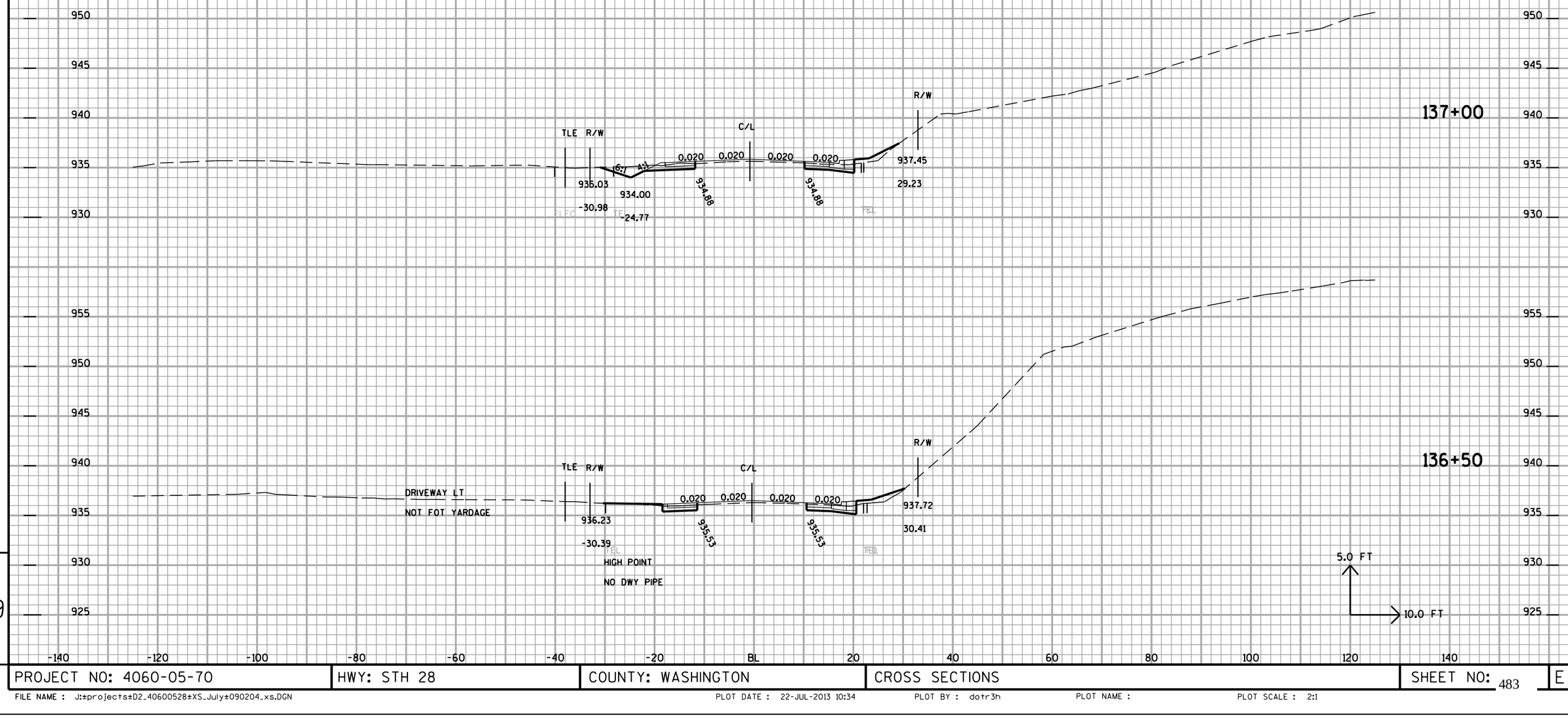


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PROJECT NO: 4060-05-70	HWY: STH 28	COUNTY: WASHINGTON	CROSS SECTIONS	SHEET NO: 482	E

FILE NAME : J:±projects±D2_40600528±XS_July±090204_xs.DGN PLOT DATE : 22-JUL-2013 10:34 PLOT BY : dotr3h PLOT NAME : PLOT SCALE : 2:1

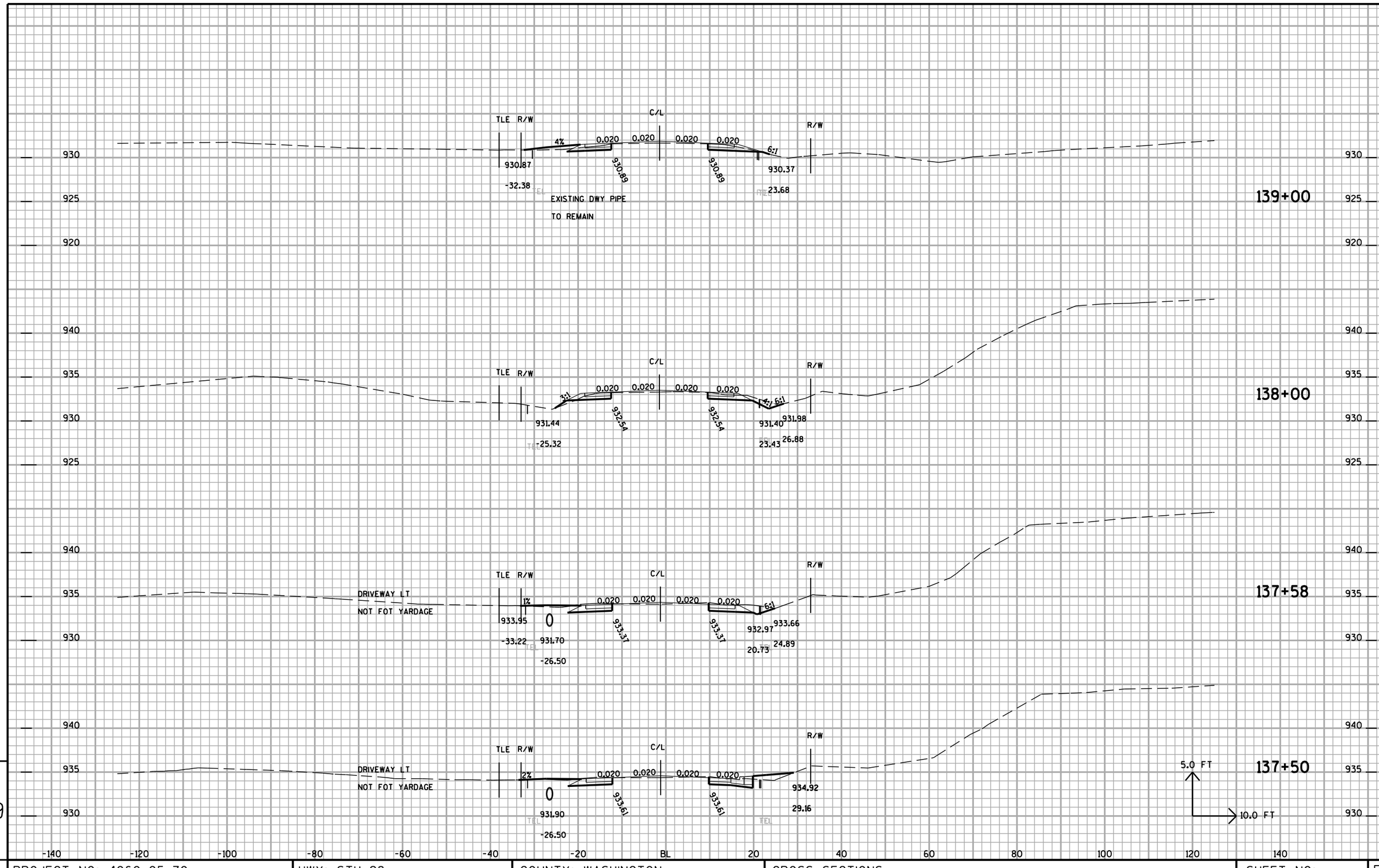


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PROJECT NO: 4060-05-70	HWY: STH 28	COUNTY: WASHINGTON	CROSS SECTIONS	SHEET NO: 483	E

FILE NAME : J:±projects±D2_40600528±XS_July±090204_xs.DGN PLOT DATE : 22-JUL-2013 10:34 PLOT BY : dotr3h PLOT NAME : PLOT SCALE : 2:1



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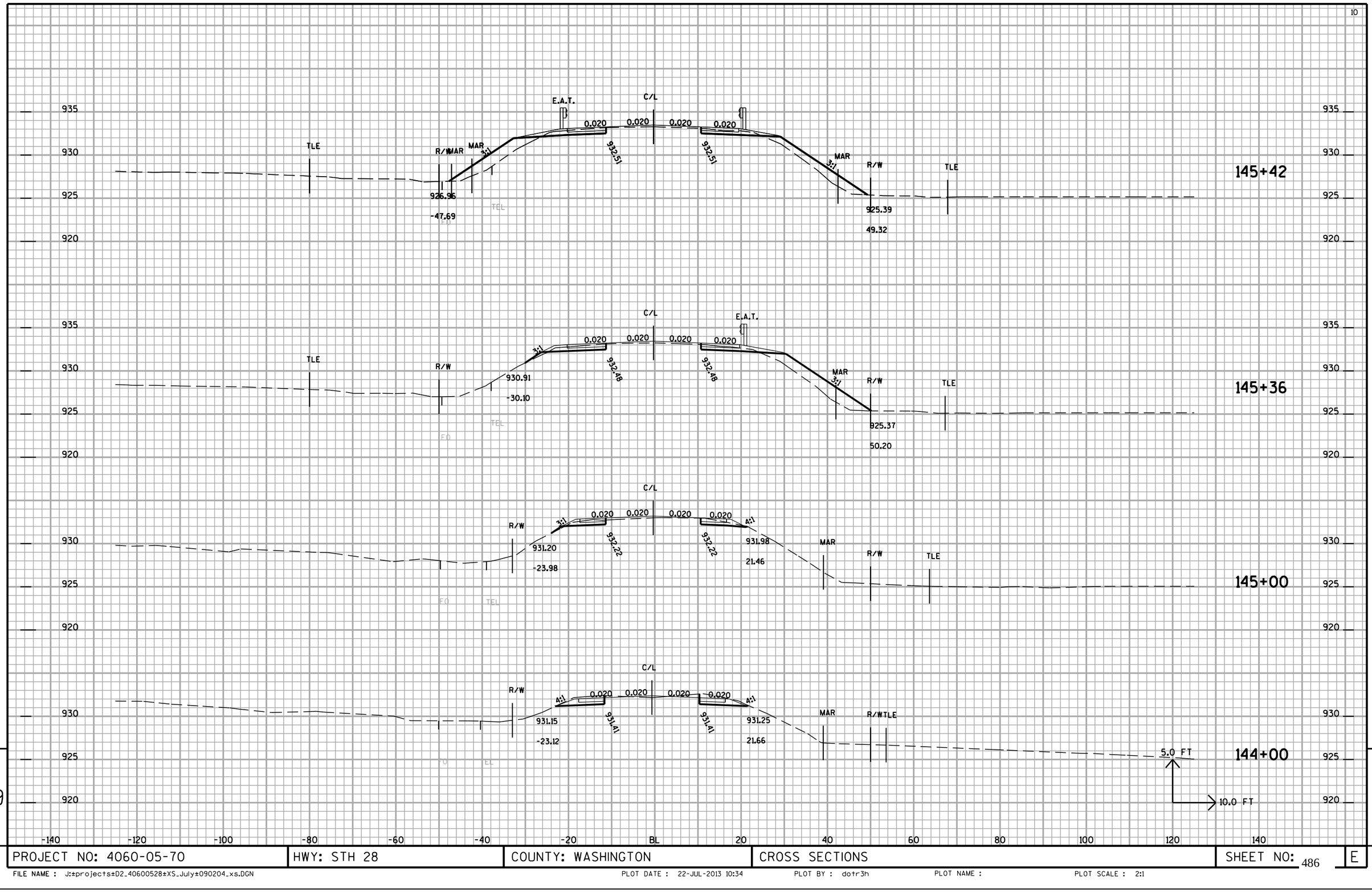
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PROJECT NO: 4060-05-70	HWY: STH 28	COUNTY: WASHINGTON	CROSS SECTIONS	SHEET NO: 485	E

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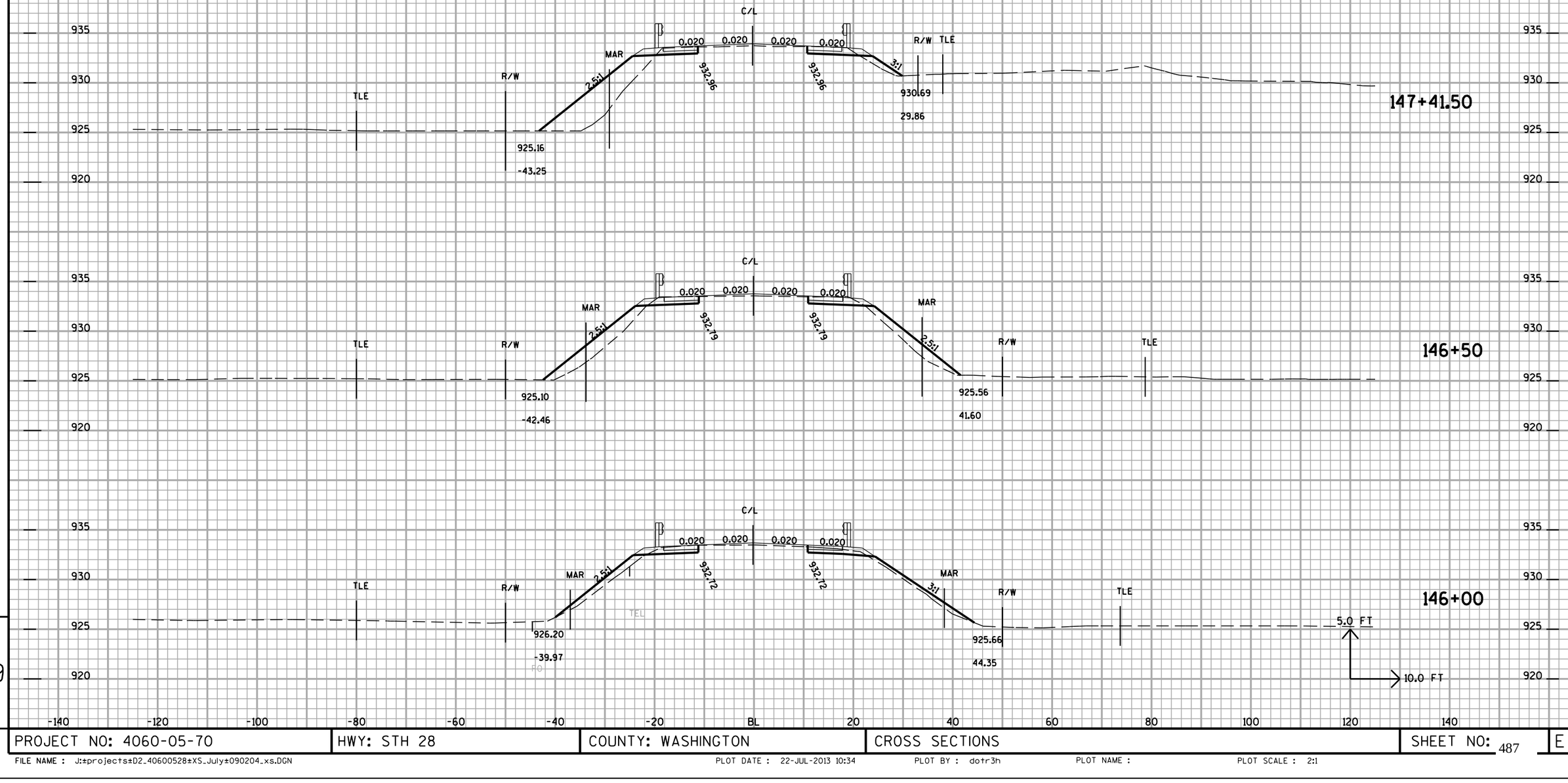


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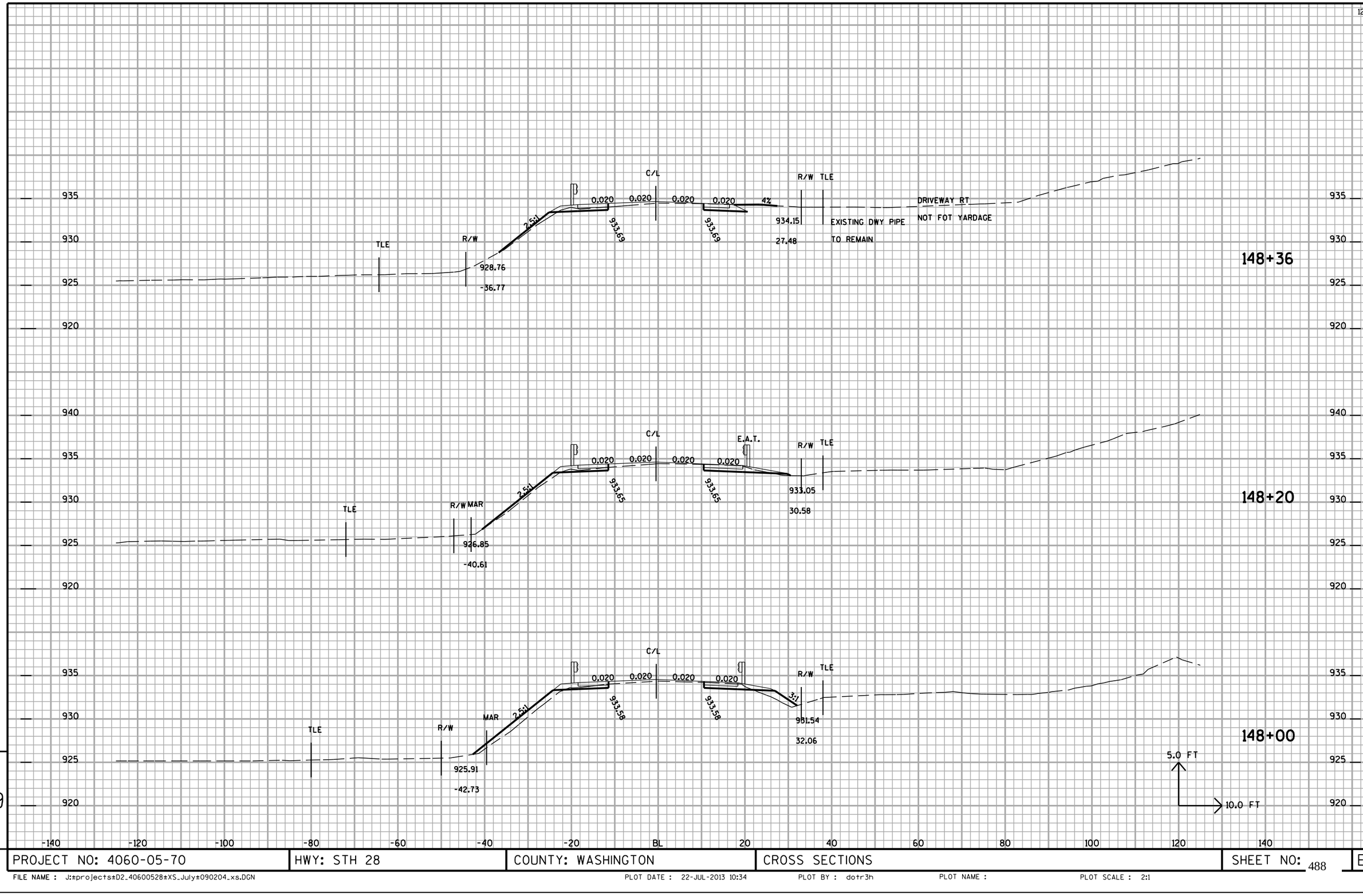
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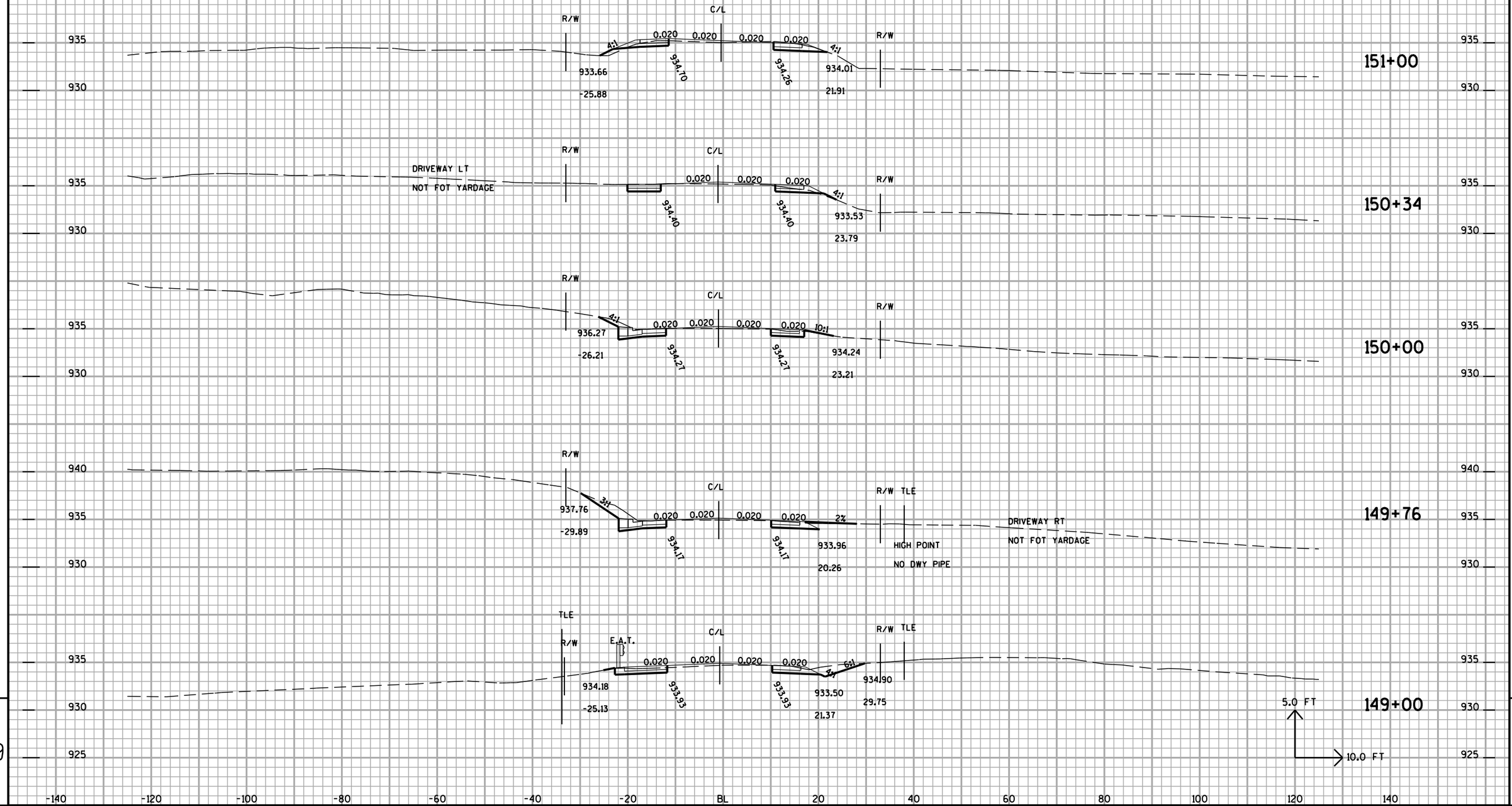
PROJECT NO: 4060-05-70	HWY: STH 28	COUNTY: WASHINGTON	CROSS SECTIONS	SHEET NO: 487	E

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PROJECT NO: 4060-05-70	HWY: STH 28	COUNTY: WASHINGTON	CROSS SECTIONS	SHEET NO: 488	E

FILE NAME : J:±projects±D2_40600528±XS_July±090204_xs.DGN PLOT DATE : 22-JUL-2013 10:34 PLOT BY : dotr3h PLOT NAME : PLOT SCALE : 2:1

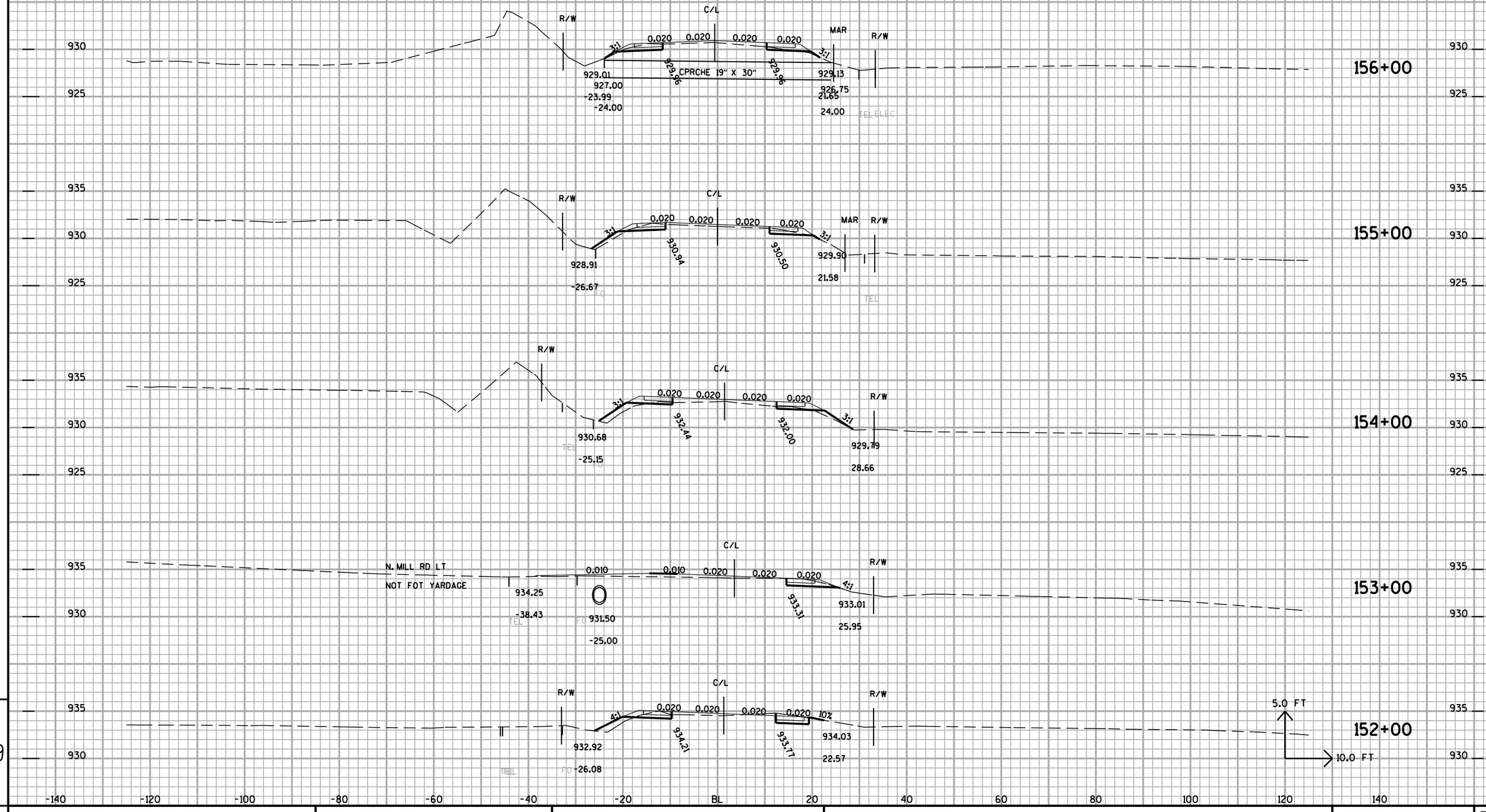


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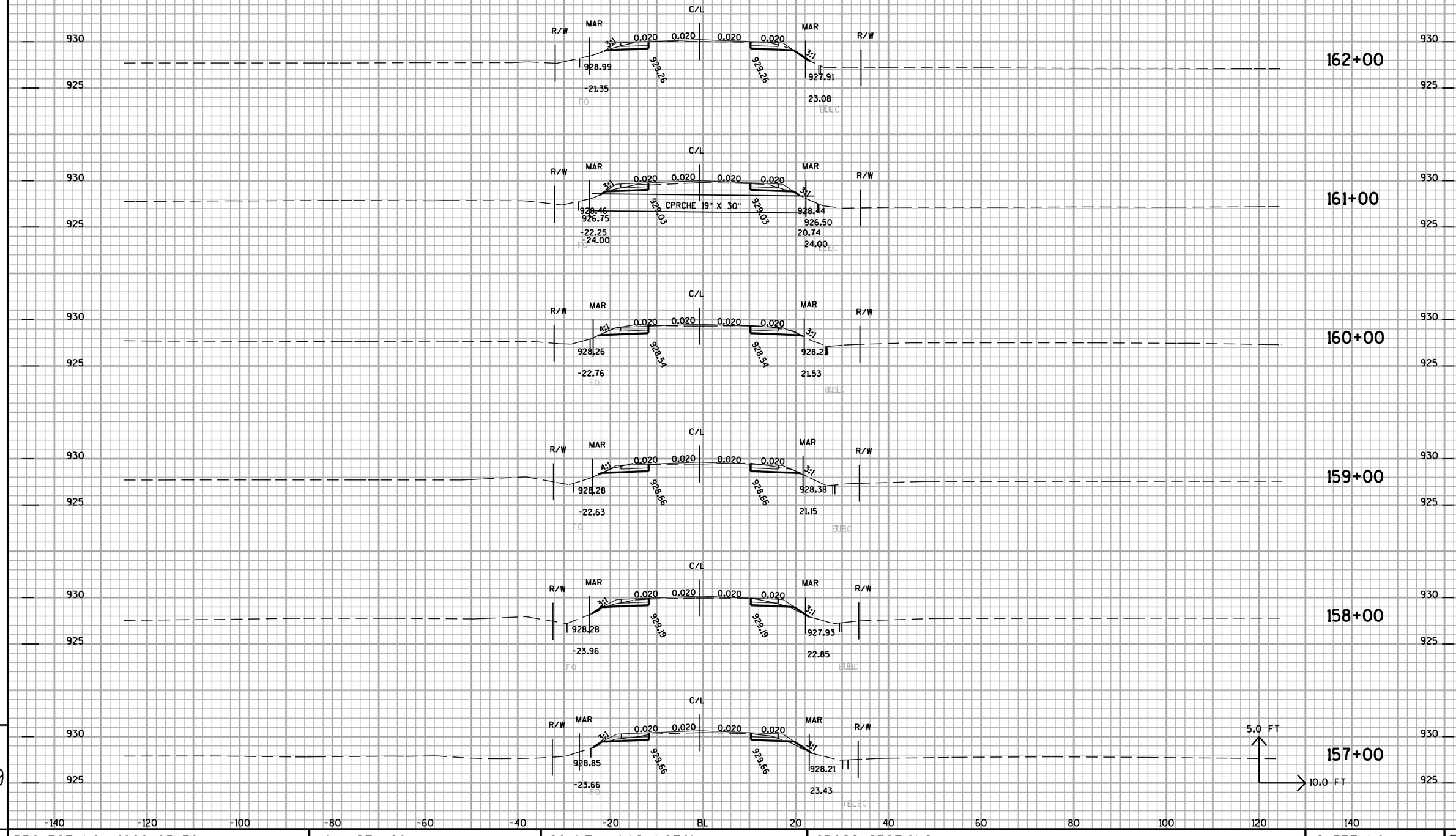
PROJECT NO: 4060-05-70	HWY: STH 28	COUNTY: WASHINGTON	CROSS SECTIONS	SHEET NO: 489	E

FILE NAME : J:±projects±D2_40600528±XS_July±090204_xs.DGN PLOT DATE : 22-JUL-2013 10:34 PLOT BY : dotr3h PLOT NAME : PLOT SCALE : 2:1



PROJECT NO: 4060-05-70	HWY: STH 28	COUNTY: WASHINGTON	CROSS SECTIONS	SHEET NO: 490	E

FILE NAME : J:±projects±D2_40600528±pdf xs±Sta15200T16729.DGN PLOT DATE : 02-OCT-2013 10:56 PLOT BY : dotr3h PLOT NAME : PLOT SCALE : 2:1

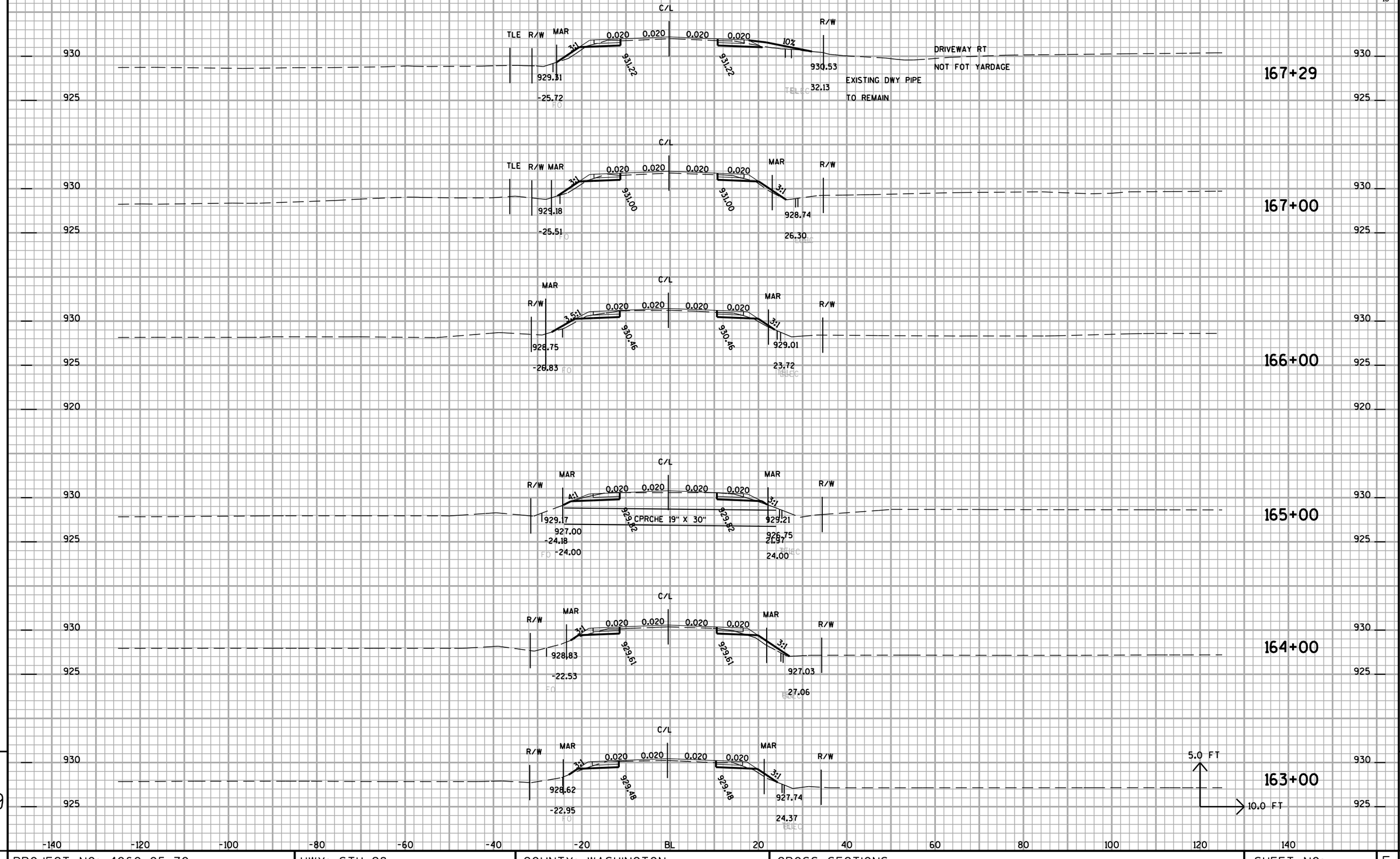


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PROJECT NO: 4060-05-70	HWY: STH 28	COUNTY: WASHINGTON	CROSS SECTIONS	SHEET NO: 491	E

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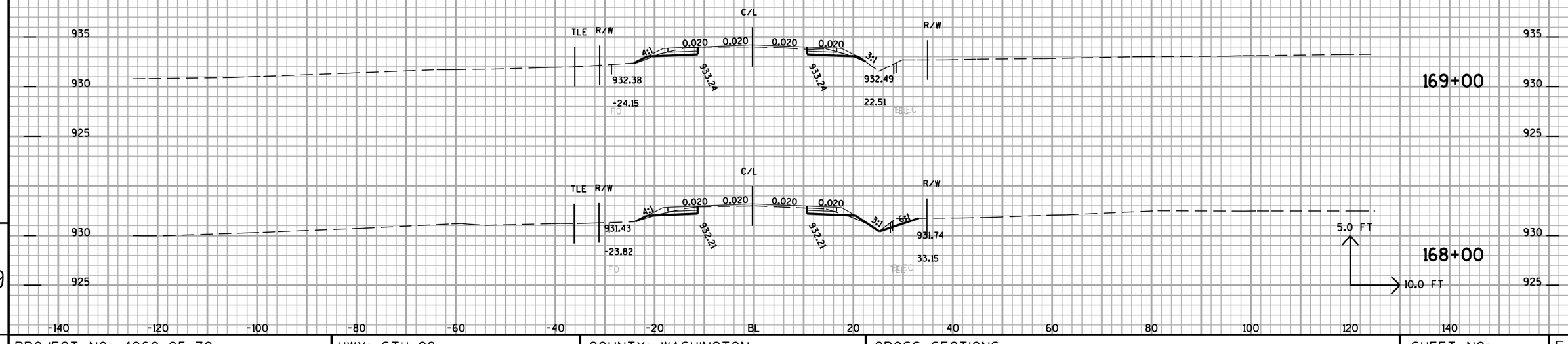


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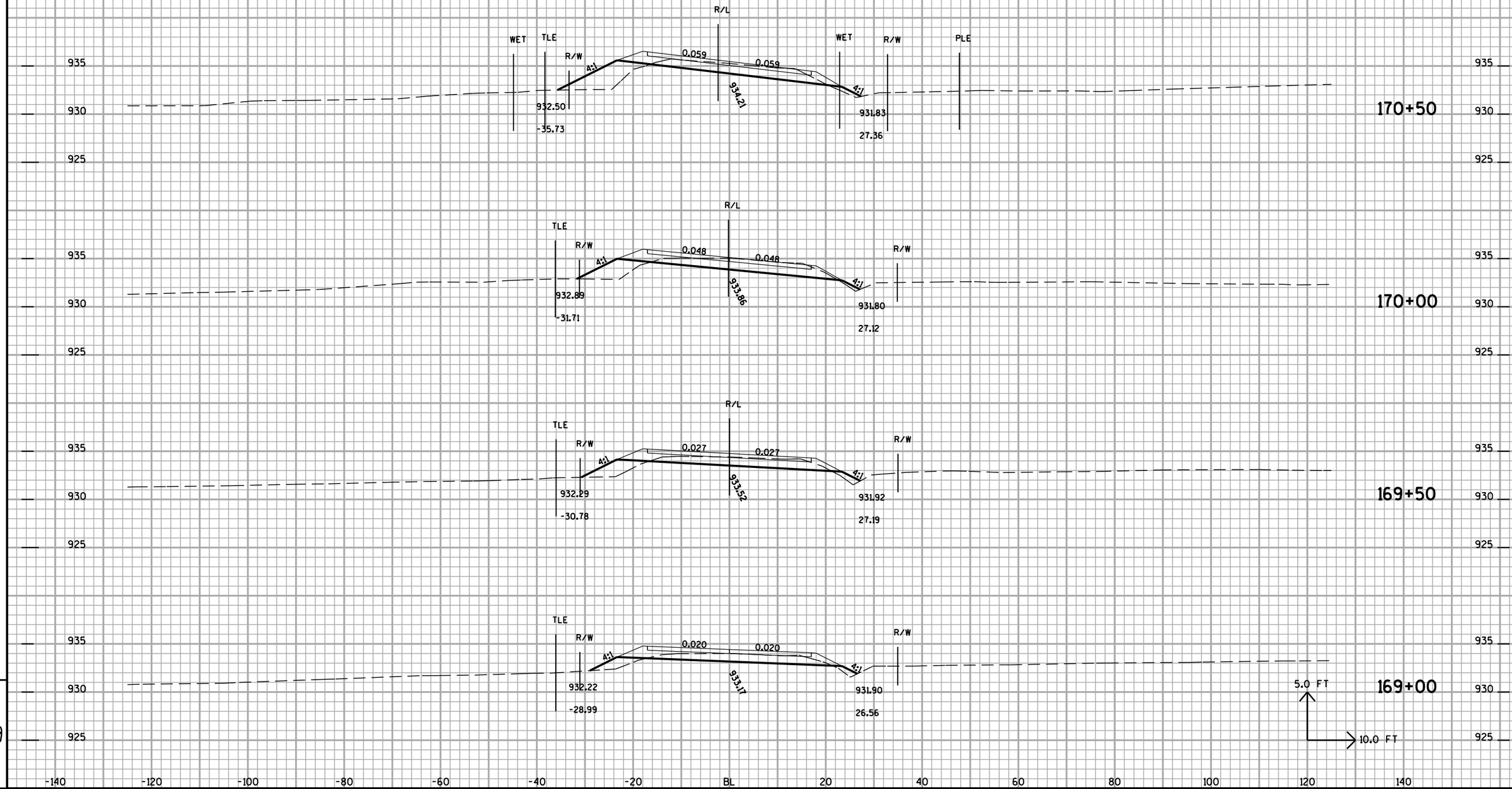
PROJECT NO: 4060-05-70	HWY: STH 28	COUNTY: WASHINGTON	CROSS SECTIONS	SHEET NO: 492	E

FILE NAME : J:±projects±D2_40600528±pdf xs±Sta15200T16729.DGN PLOT DATE : 02-OCT-2013 10:56 PLOT BY : dotr3h PLOT NAME : PLOT SCALE : 2:1



PROJECT NO: 4060-05-70	HWY: STH 28	COUNTY: WASHINGTON	CROSS SECTIONS	SHEET NO: 493	E

FILE NAME : J:±projects±D2_40600528±XS_July±090204_xs.DGN PLOT DATE : 22-JUL-2013 10:34 PLOT BY : dotr3h PLOT NAME : PLOT SCALE : 2:1

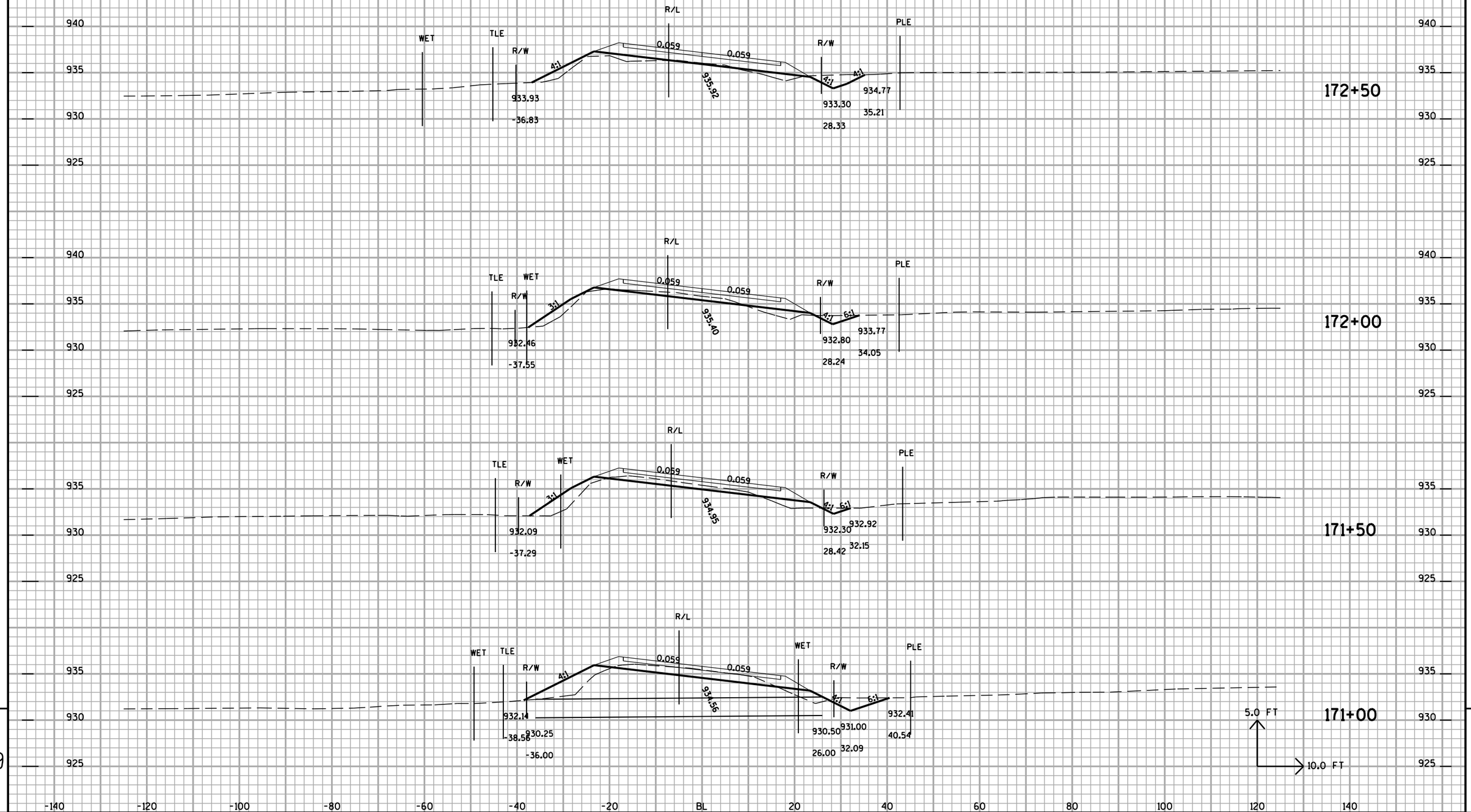


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PROJECT NO: 4060-05-70	HWY: STH 28	COUNTY: WASHINGTON	CROSS SECTIONS	SHEET NO: 494	E

FILE NAME : J:±projects±D2_40600528±XS_July±090205_xs.DGN PLOT DATE : 22-JUL-2013 10:35 PLOT BY : dotr3h PLOT NAME : PLOT SCALE : 2:1

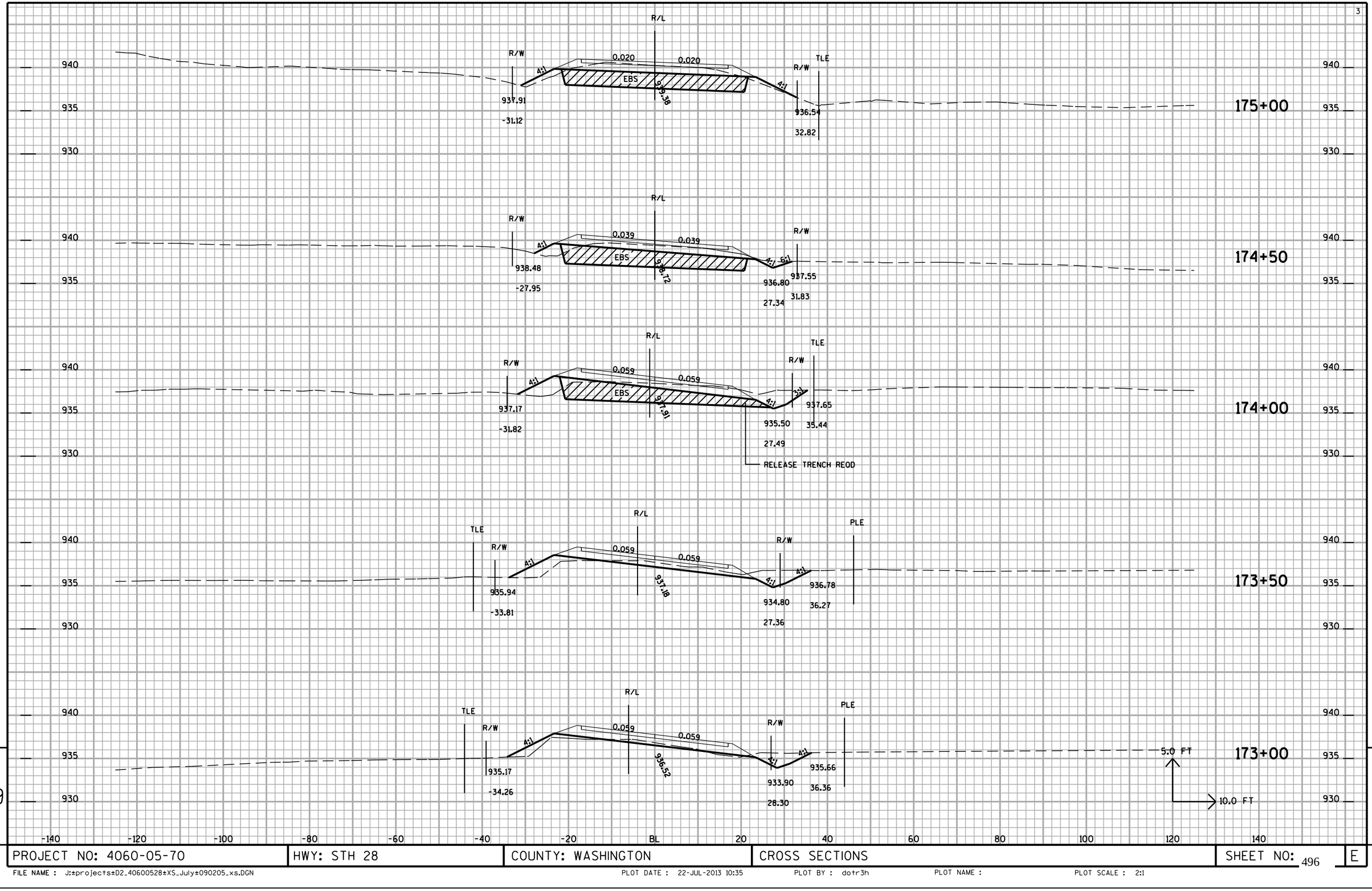


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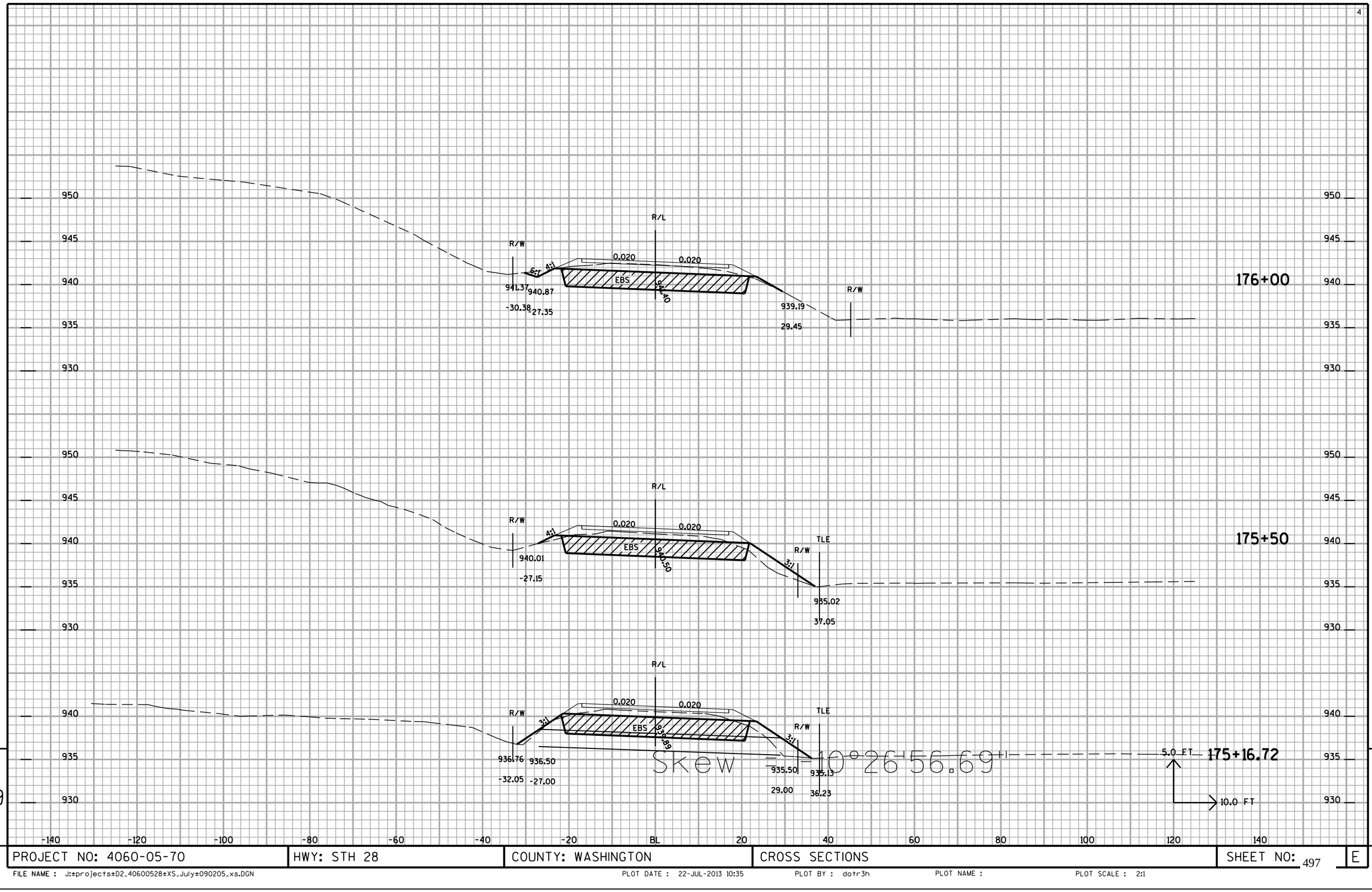
PROJECT NO: 4060-05-70	HWY: STH 28	COUNTY: WASHINGTON	CROSS SECTIONS	SHEET NO: 495	E

FILE NAME : J:±projects±D2_40600528±XS_July±090205_xs.DGN PLOT DATE : 22-JUL-2013 10:35 PLOT BY : dotr3h PLOT NAME : PLOT SCALE : 2:1



PROJECT NO: 4060-05-70	HWY: STH 28	COUNTY: WASHINGTON	CROSS SECTIONS	SHEET NO: 496	E

FILE NAME : J:±projects±D2_40600528±XS_July±090205_xs.DGN PLOT DATE : 22-JUL-2013 10:35 PLOT BY : dotr3h PLOT NAME : PLOT SCALE : 2:1

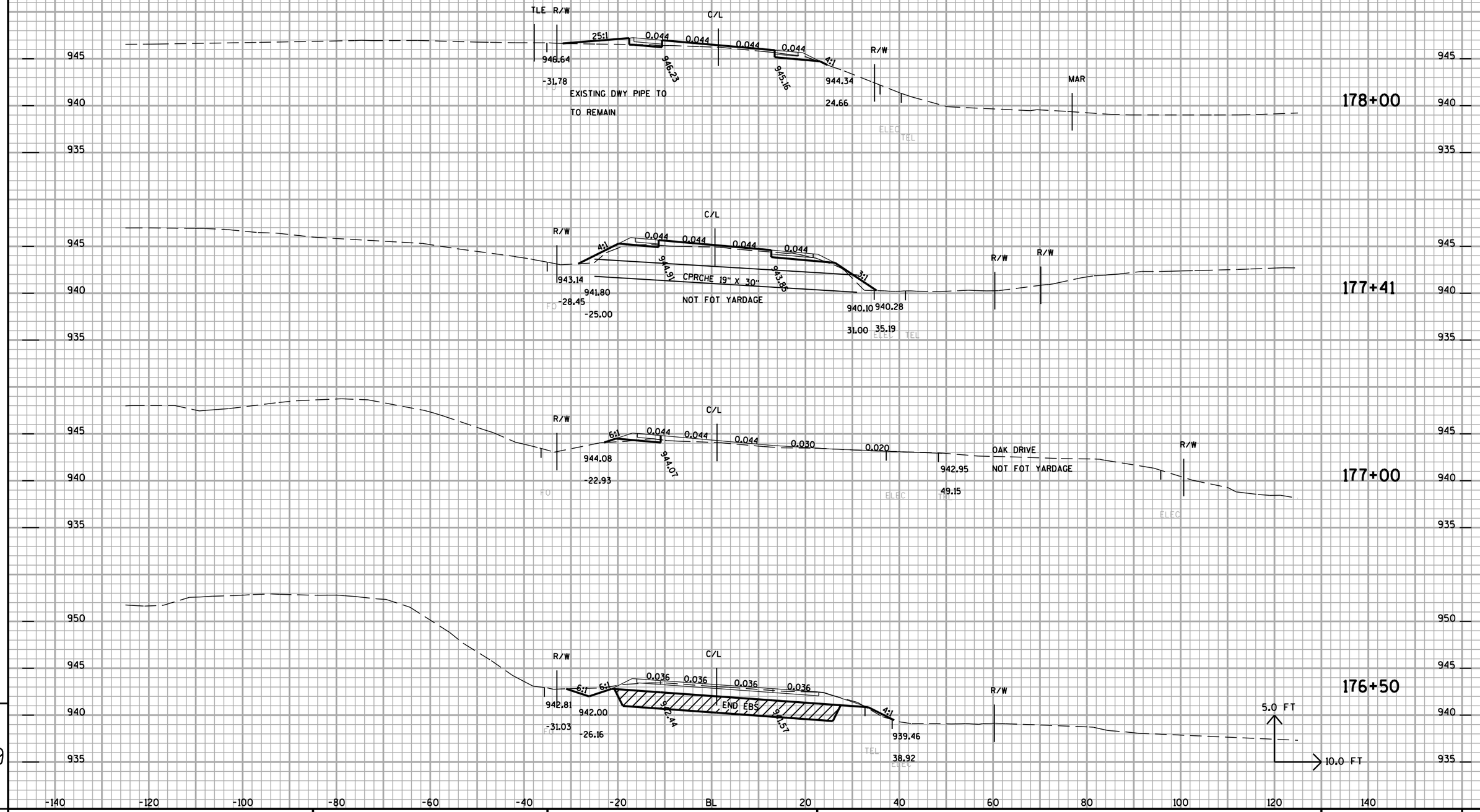


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PROJECT NO: 4060-05-70	HWY: STH 28	COUNTY: WASHINGTON	CROSS SECTIONS	SHEET NO: 497	E

FILE NAME : J:±projects±D2_40600528±XS_July±090205_xs.DGN PLOT DATE : 22-JUL-2013 10:35 PLOT BY : dotr3h PLOT NAME : PLOT SCALE : 2:1



PROJECT NO: 4060-05-70	HWY: STH 28	COUNTY: WASHINGTON	CROSS SECTIONS	SHEET NO: 498 E

FILE NAME : J:±projects±D2_40600528±XS_July±090206_xs.DGN PLOT DATE : 22-JUL-2013 10:35 PLOT BY : dotr3h PLOT NAME : PLOT SCALE : 2:1

970
965
960
955
950
945

PLE
R/W
6:1
0.046
0.046
C/L
0.046
0.046
R/W
4:1
PLE
950.06
950.60
951.61
952.03
21.29
-24.31

181+00

965
960
955
950
945
940

R/W
4:1
0.003
0.003
0.003
0.003
C/L
4:1
R/W
948.38
949.46
949.39
949.24
20.40
-27.29

180+00

950
945
940

R/W
4:1
0.042
0.042
0.042
0.042
C/L
3:1
R/W
947.04
948.09
947.09
946.53
24.09
-25.45

5.0 FT
10.0 FT

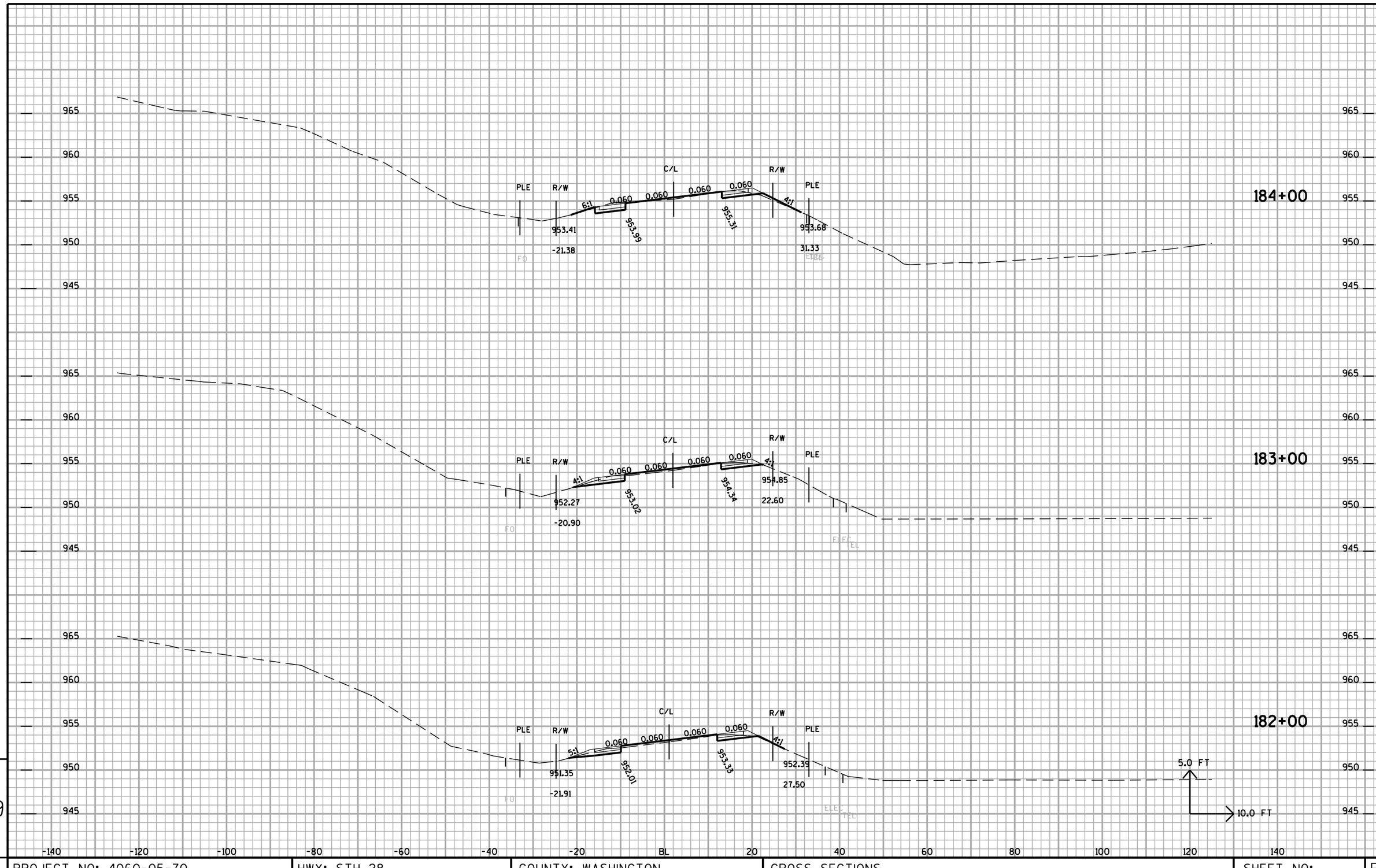
179+00

-140 -120 -100 -80 -60 -40 -20 BL 20 40 60 80 100 120 140

9

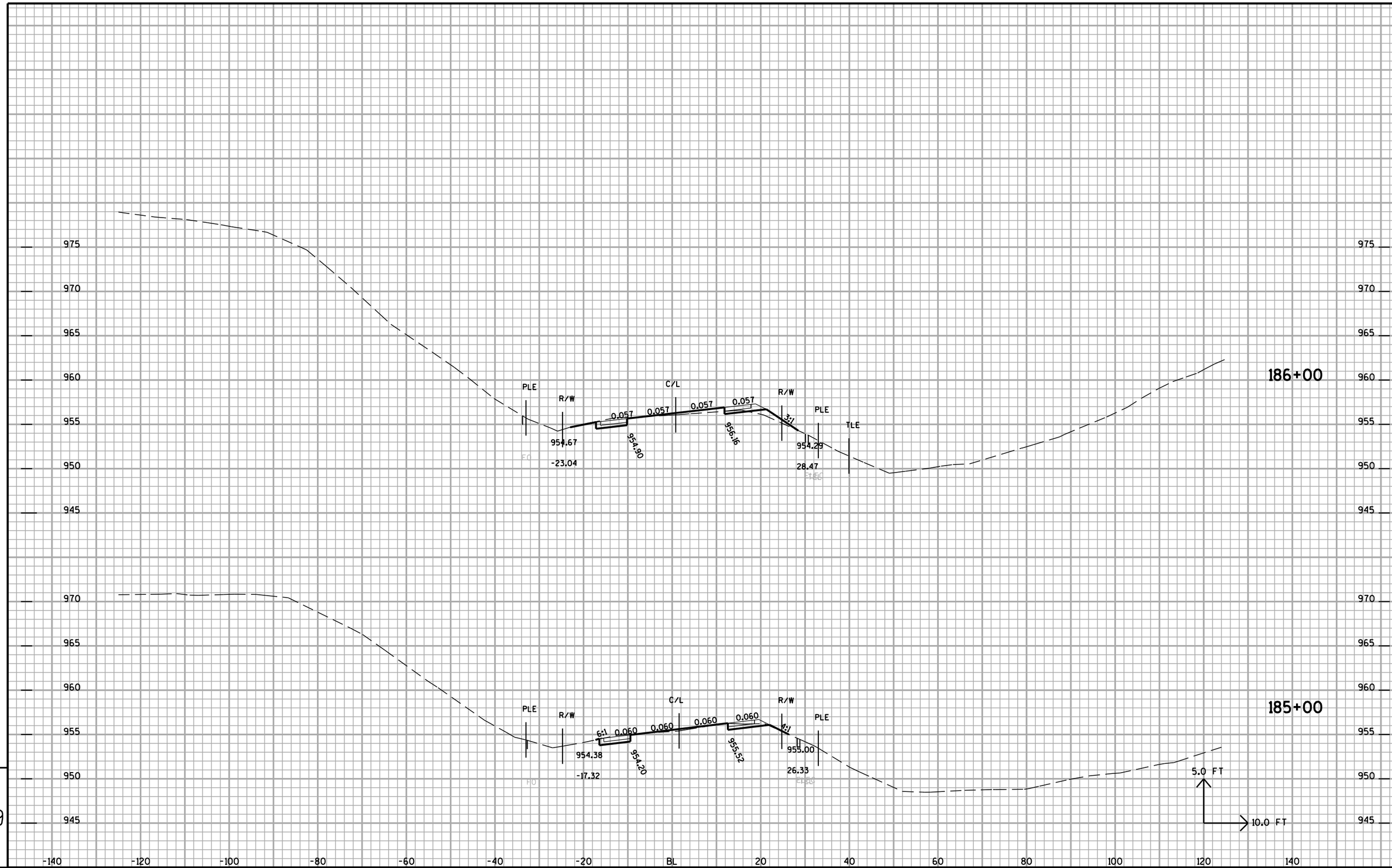
PROJECT NO: 4060-05-70	HWY: STH 28	COUNTY: WASHINGTON	CROSS SECTIONS	SHEET NO: 499	E

FILE NAME : J:±projects±D2_40600528±XS_July±090206_xs.DGN PLOT DATE : 22-JUL-2013 10:35 PLOT BY : dotr3h PLOT NAME : PLOT SCALE : 2:1



PROJECT NO: 4060-05-70	HWY: STH 28	COUNTY: WASHINGTON	CROSS SECTIONS	SHEET NO: 500	E

FILE NAME : J:±projects±D2_40600528±XS_July±090206_xs.DGN PLOT DATE : 22-JUL-2013 10:35 PLOT BY : dotr3h PLOT NAME : PLOT SCALE : 2:1



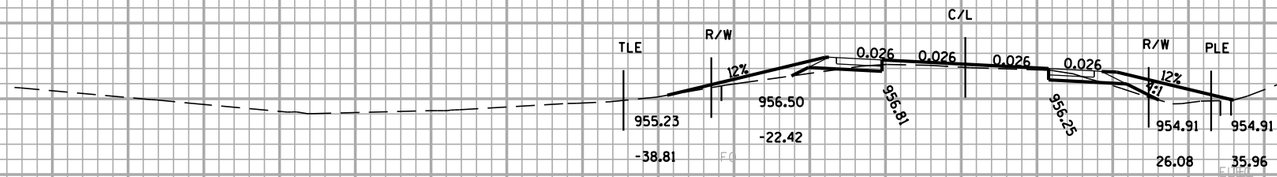
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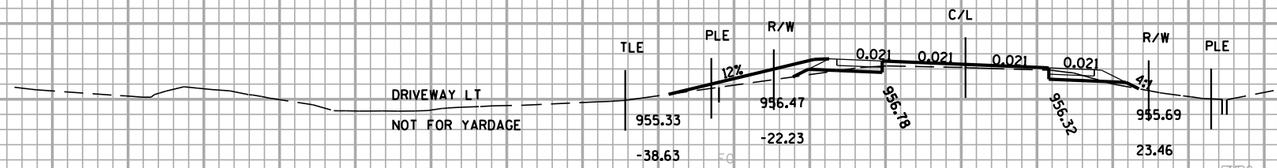
PROJECT NO: 4060-05-70	HWY: STH 28	COUNTY: WASHINGTON	CROSS SECTIONS	SHEET NO: 501	E

FILE NAME : J:±projects±D2_40600528±XS_July±090206_xs.DGN PLOT DATE : 22-JUL-2013 10:35 PLOT BY : dotr3h PLOT NAME : PLOT SCALE : 2:1

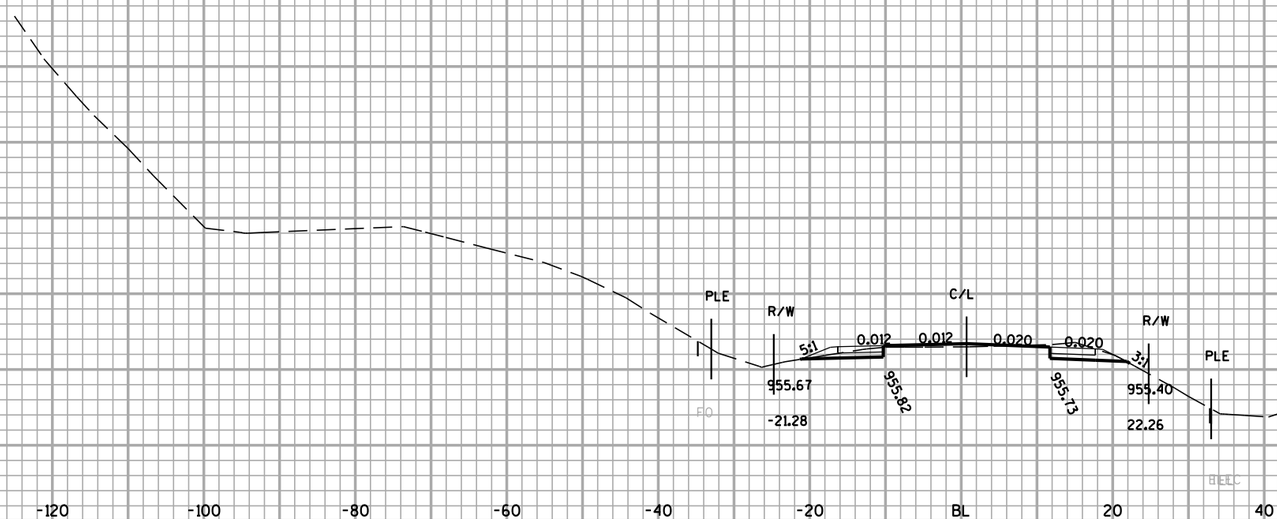
188+00



187+86



187+00



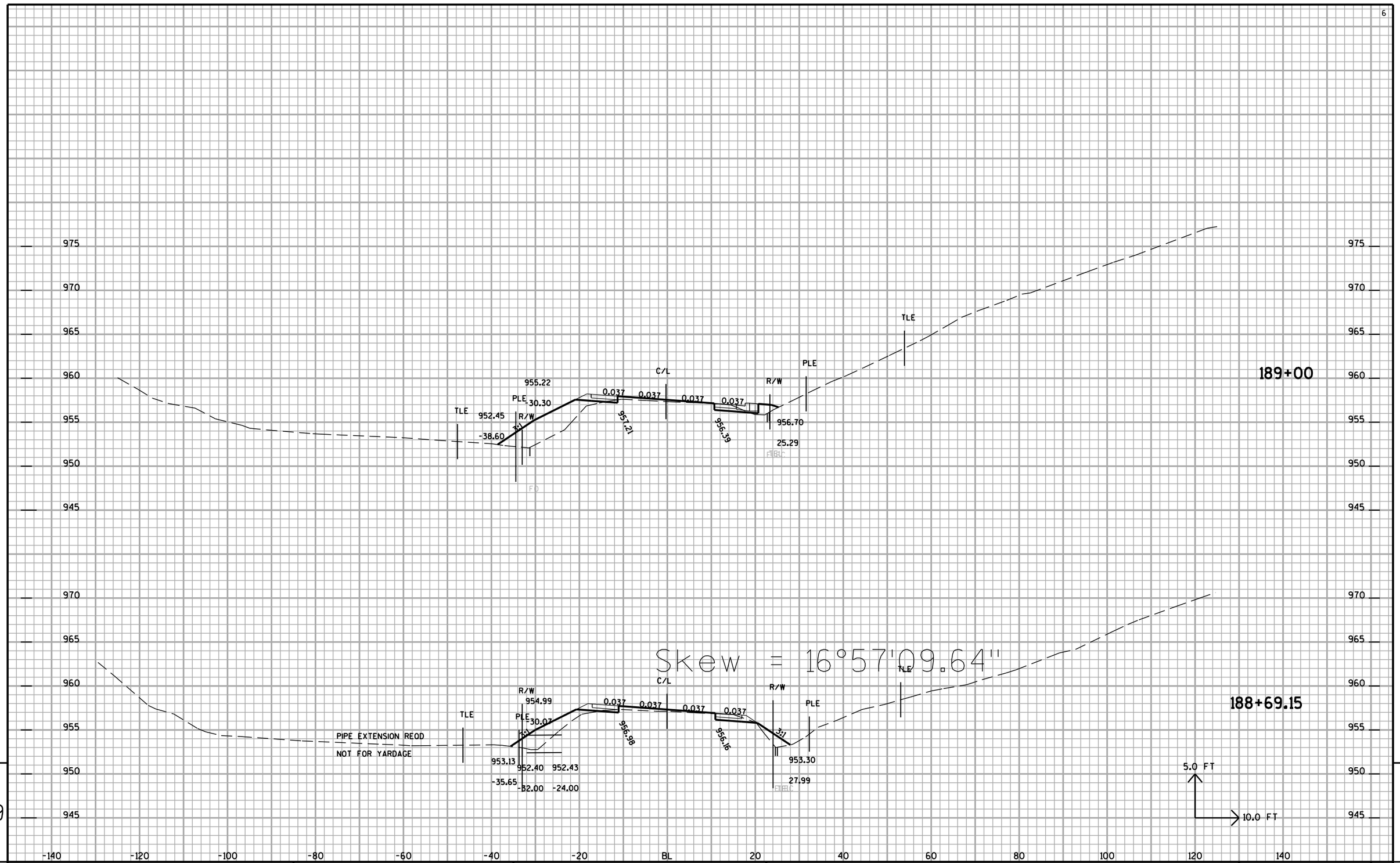
970 965 960 955 950 975 970 965 960 955 950

-140 -120 -100 -80 -60 -40 -20 BL 20 40 60 80 100 120 140

9 9

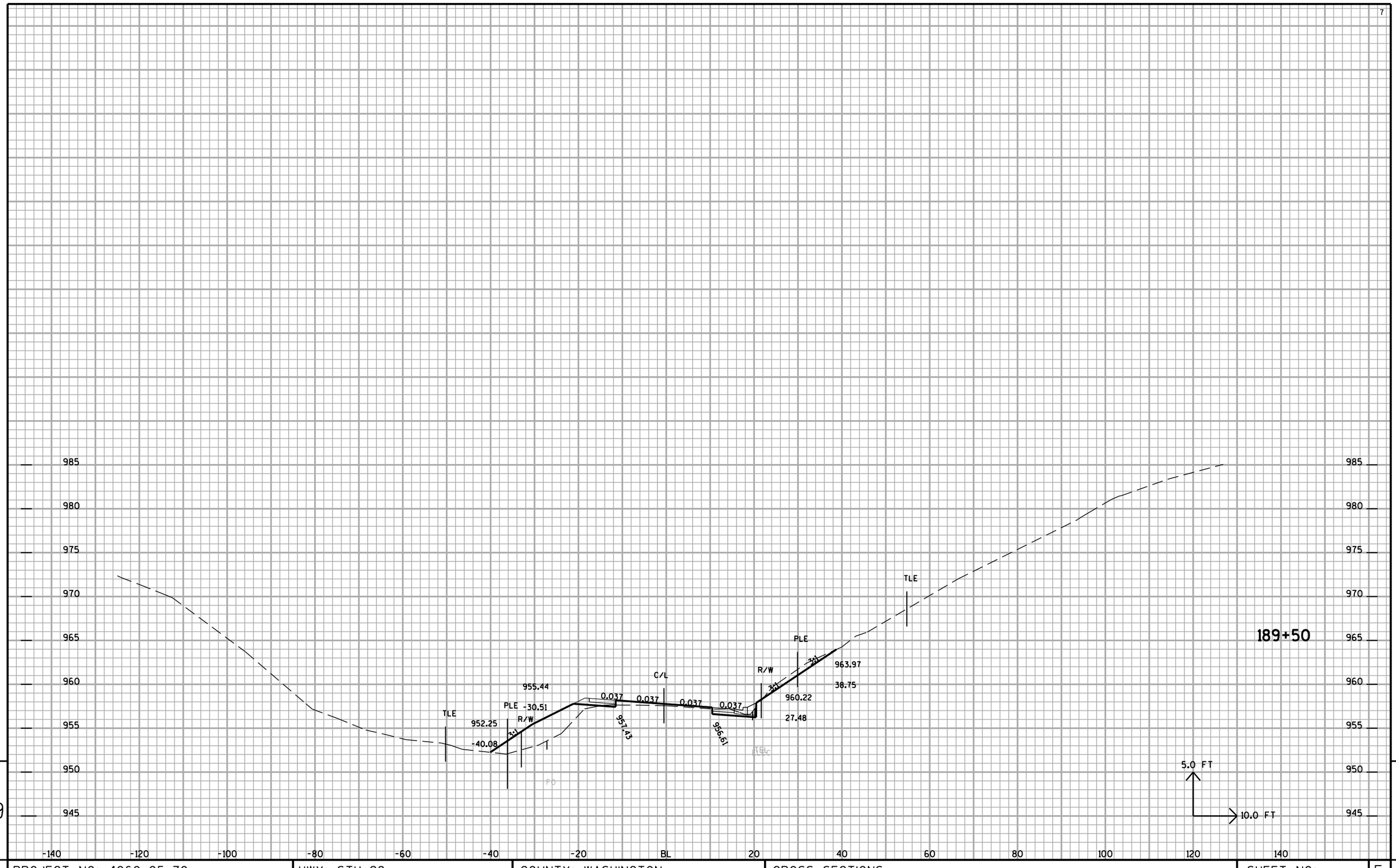
PROJECT NO: 4060-05-70	HWY: STH 28	COUNTY: WASHINGTON	CROSS SECTIONS	SHEET NO: 502 E

FILE NAME : J:±projects±D2_40600528±XS_July±090206_xs.DGN PLOT DATE : 22-JUL-2013 10:35 PLOT BY : dotr3h PLOT NAME : PLOT SCALE : 2:1



PROJECT NO: 4060-05-70	HWY: STH 28	COUNTY: WASHINGTON	CROSS SECTIONS	SHEET NO: 503	E

FILE NAME : J:±projects±D2_40600528±XS_July±090206_xs.DGN PLOT DATE : 22-JUL-2013 10:35 PLOT BY : dotr3h PLOT NAME : PLOT SCALE : 2:1



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PROJECT NO: 4060-05-70	HWY: STH 28	COUNTY: WASHINGTON	CROSS SECTIONS	SHEET NO: 504	E

FILE NAME : J:±projects±D2_40600528±XS_July±090206_xs.DGN PLOT DATE : 22-JUL-2013 10:35 PLOT BY : dotr3h PLOT NAME : PLOT SCALE : 2:1

995
990
985
980
975
970
965
960
955
950
945

995
990
985
980
975
970
965
960
955
950
945

TLE
951.59
-42.70
PLE
3:1
R/W
955.65
-30.53
0.037
0.037
957.63
C/L
0.037
0.037
956.82
R/W
3:1
PLE
959.76
25.47
7.5:1
TLE
968.81
48.10

190+00

5.0 FT
10.0 FT

-140 -120 -100 -80 -60 -40 -20 BL 20 40 60 80 100 120 140

9 9

PROJECT NO: 4060-05-70	HWY: STH 28	COUNTY: WASHINGTON	CROSS SECTIONS	SHEET NO: 505	E

FILE NAME : J:±projects±D2_40600528±XS_July±090206_xs.DGN PLOT DATE : 22-JUL-2013 10:35 PLOT BY : dotr3h PLOT NAME : PLOT SCALE : 2:1

995
990
985
980
975
970
965
960
955
950
945

995
990
985
980
975
970
965
960
955
950
945

TLE
R/W
966.07
38.78
C/L
956.22
-29.97
0.037
0.037
0.037
0.037
956.04
957.23
950.56
-46.94
R/W
TEL
ELEC
FO

191+00

5.0 FT
10.0 FT

-140 -120 -100 -80 -60 -40 -20 BL 20 40 60 80 100 120 140

9

9

PROJECT NO: 4060-05-70	HWY: STH 28	COUNTY: WASHINGTON	CROSS SECTIONS	SHEET NO: 506	E

FILE NAME : J:±projects±D2_40600528±XS_July±090206_xs.DGN PLOT DATE : 22-JUL-2013 10:35 PLOT BY : dotr3h PLOT NAME : PLOT SCALE : 2:1

10

995
990
985
980
975
970
965
960
955
950
945

995
990
985
980
975
970
965
960
955
950
945

191+50

R/W
MAR
948.68
-52.06
7:1
956.34
-29.08
0.037
0.037
0.037
0.037
C/L
958.17
957.35
5:1
3:1
961.84
959.37
36.34
28.91
R/W
TLE

5.0 FT
10.0 FT

-140 -120 -100 -80 -60 -40 -20 BL 20 40 60 80 100 120 140

9

9

PROJECT NO: 4060-05-70	HWY: STH 28	COUNTY: WASHINGTON	CROSS SECTIONS	SHEET NO: 507	E

FILE NAME : J:±projects±D2_40600528±XS_July±090206_xs.DGN PLOT DATE : 22-JUL-2013 10:35 PLOT BY : dotr3h PLOT NAME : PLOT SCALE : 2:1

11

990
985
980
975
970
965
960
955
950
945
940

990
985
980
975
970
965
960
955
950
945
940

192+00

R/W
947.86
-52.97
3:1
MAR
956.02
-28.50
0.037
0.037
C/L
0.037
957.85
0.037
957.03
6:1
956.99
29.20
R/W

5.0 FT
10.0 FT

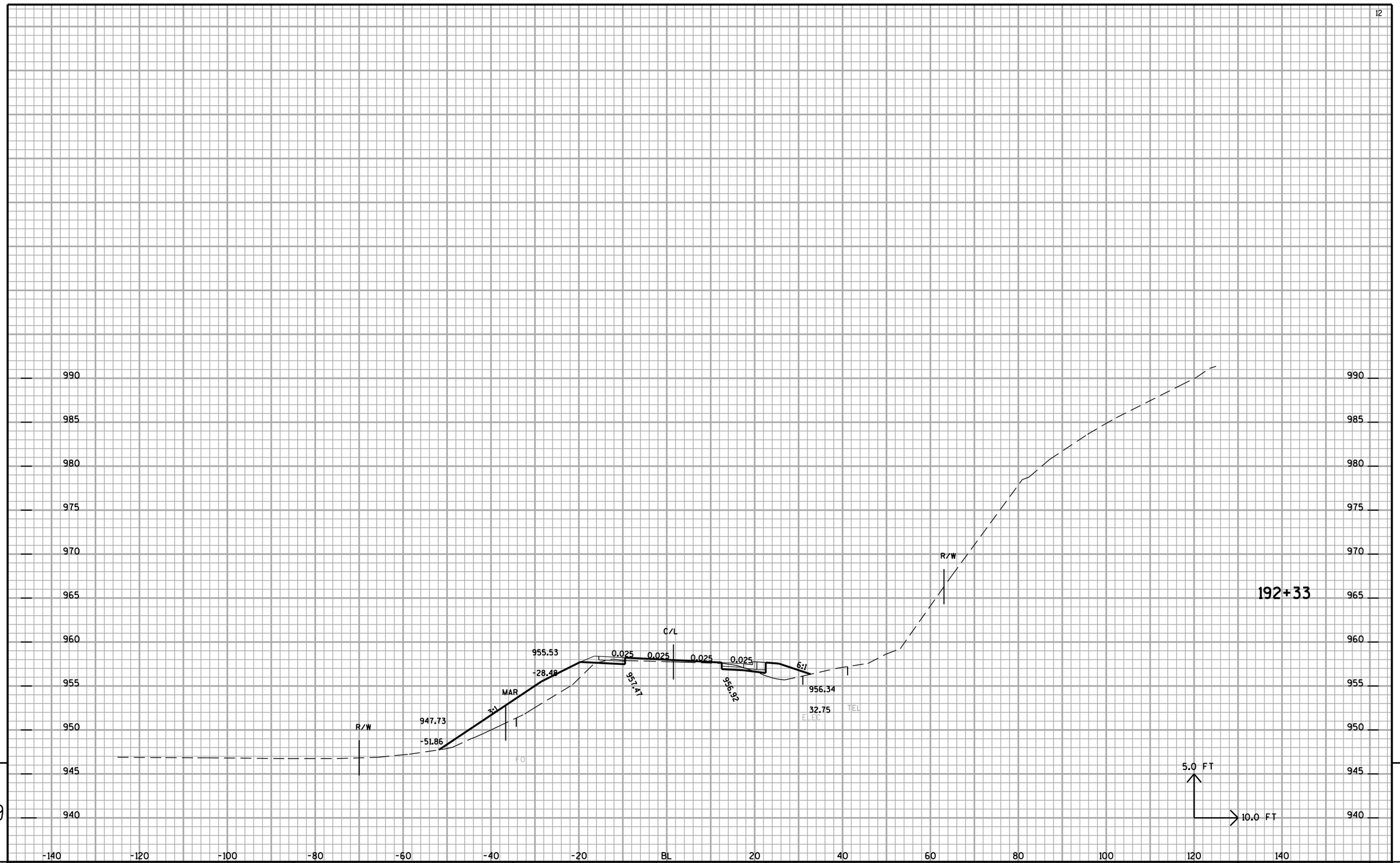
-140 -120 -100 -80 -60 -40 -20 BL 20 40 60 80 100 120 140

9

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PROJECT NO: 4060-05-70	HWY: STH 28	COUNTY: WASHINGTON	CROSS SECTIONS	SHEET NO: 508	E

FILE NAME : J:±projects±D2_40600528±XS_July±090206_xs.DGN PLOT DATE : 22-JUL-2013 10:35 PLOT BY : dotr3h PLOT NAME : PLOT SCALE : 2:1

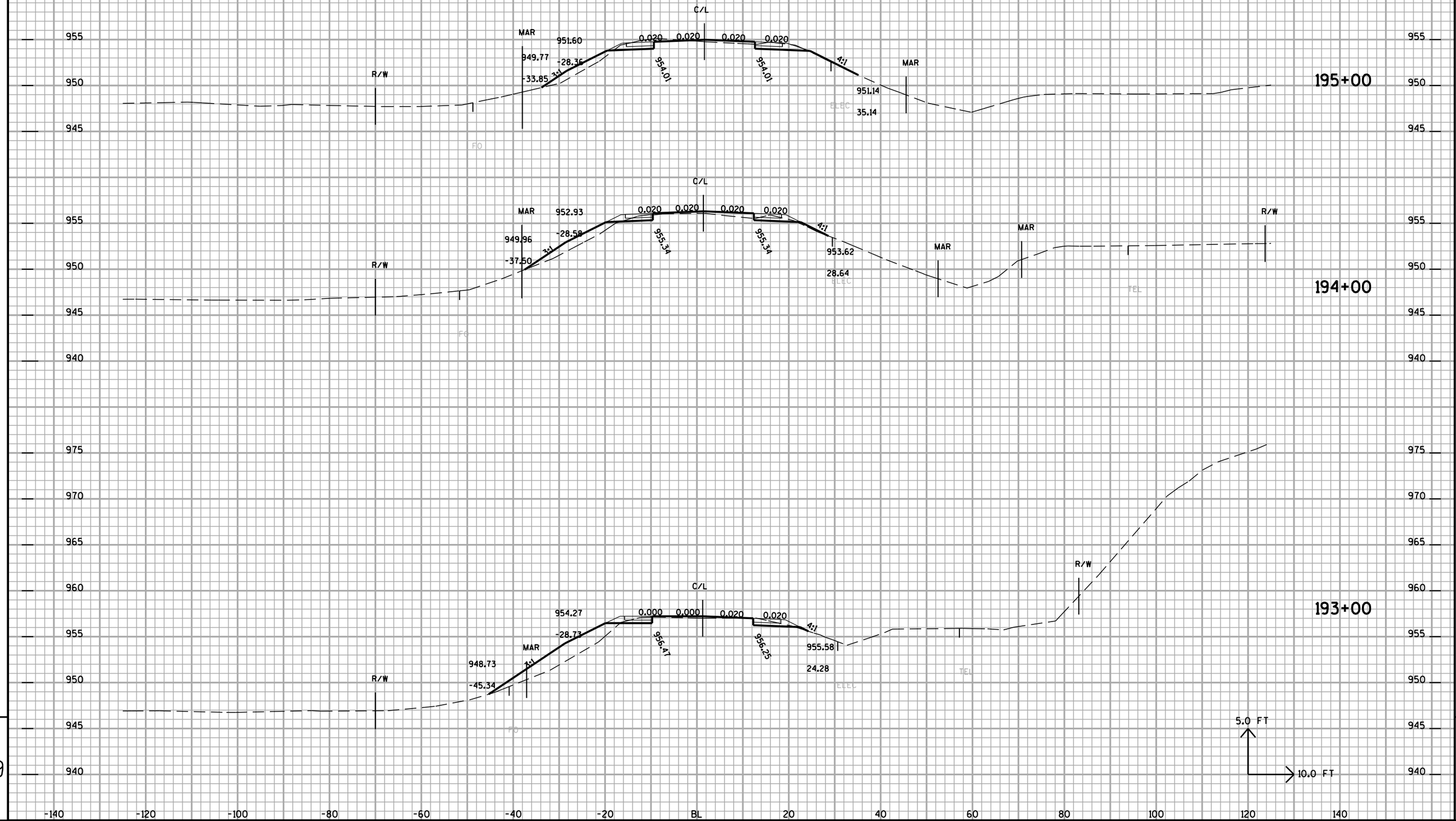


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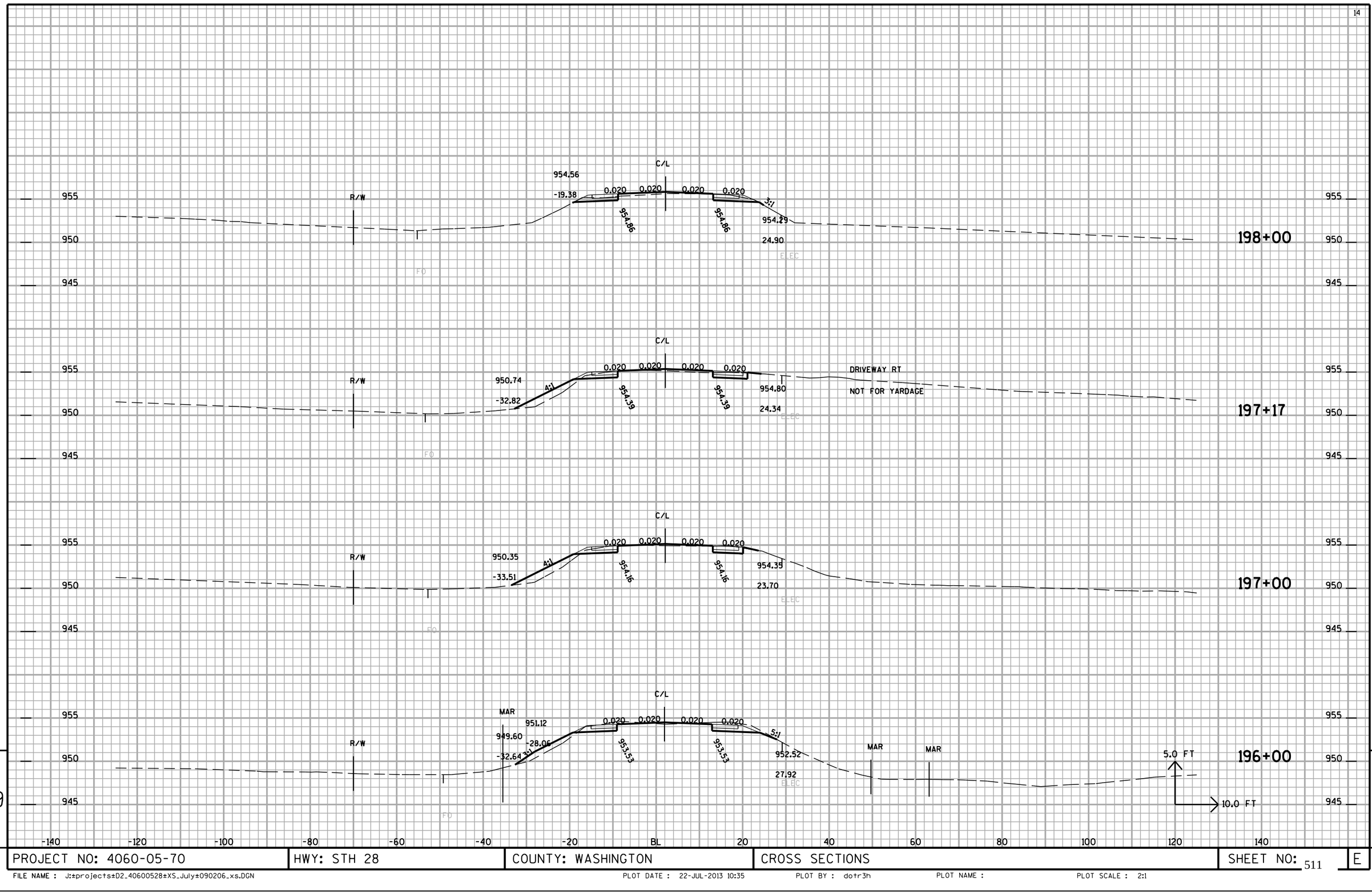
PROJECT NO: 4060-05-70	HWY: STH 28	COUNTY: WASHINGTON	CROSS SECTIONS	SHEET NO: 509	E

FILE NAME : J:±projects±D2_40600528±XS_July±090206_xs.DGN PLOT DATE : 22-JUL-2013 10:35 PLOT BY : dotr3h PLOT NAME : PLOT SCALE : 2:1



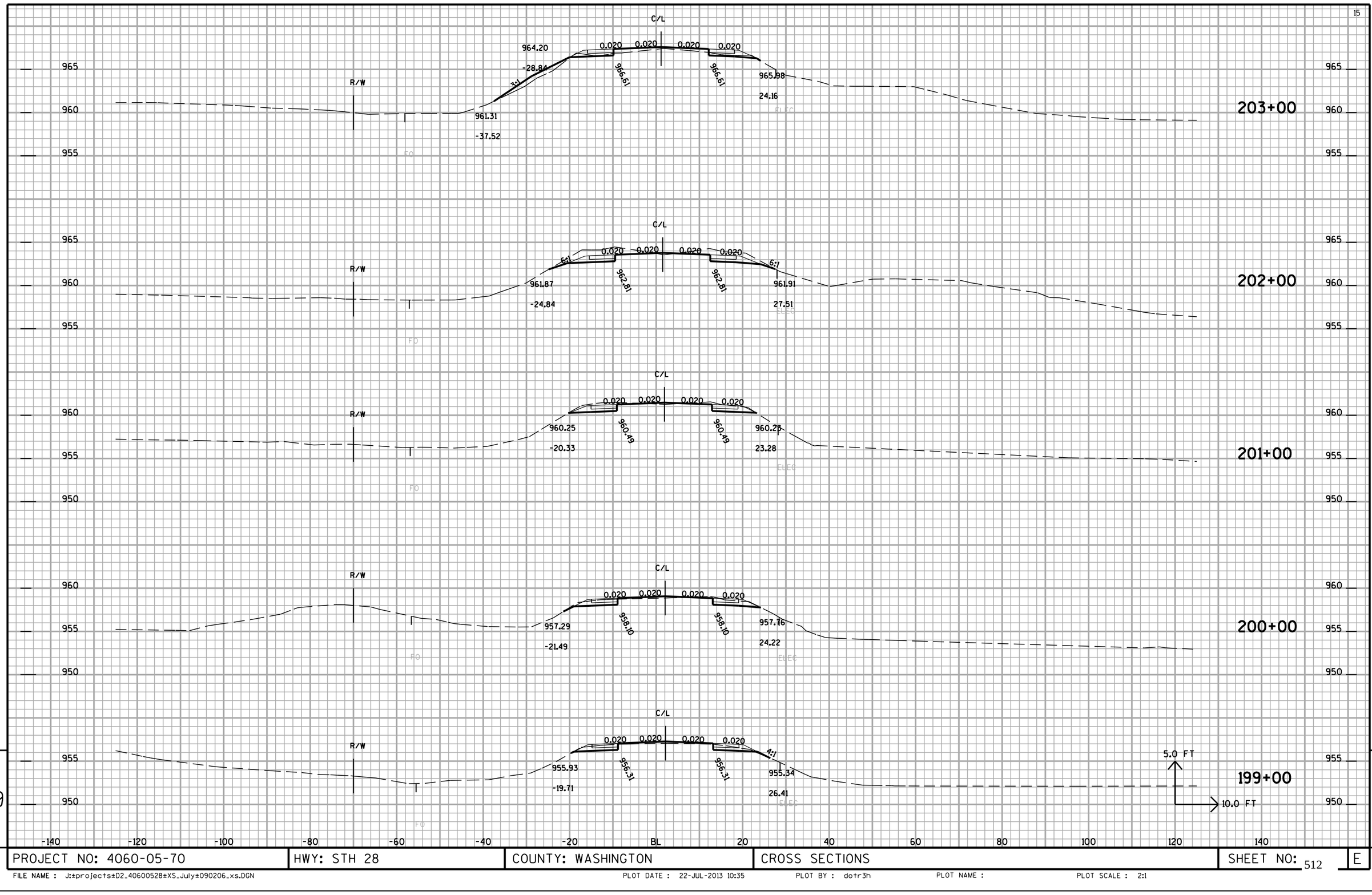
PROJECT NO: 4060-05-70	HWY: STH 28	COUNTY: WASHINGTON	CROSS SECTIONS	SHEET NO: 510	E

FILE NAME : J:±projects±D2_40600528±XS_July±090206_xs.DGN PLOT DATE : 22-JUL-2013 10:35 PLOT BY : dotr3h PLOT NAME : PLOT SCALE : 2:1



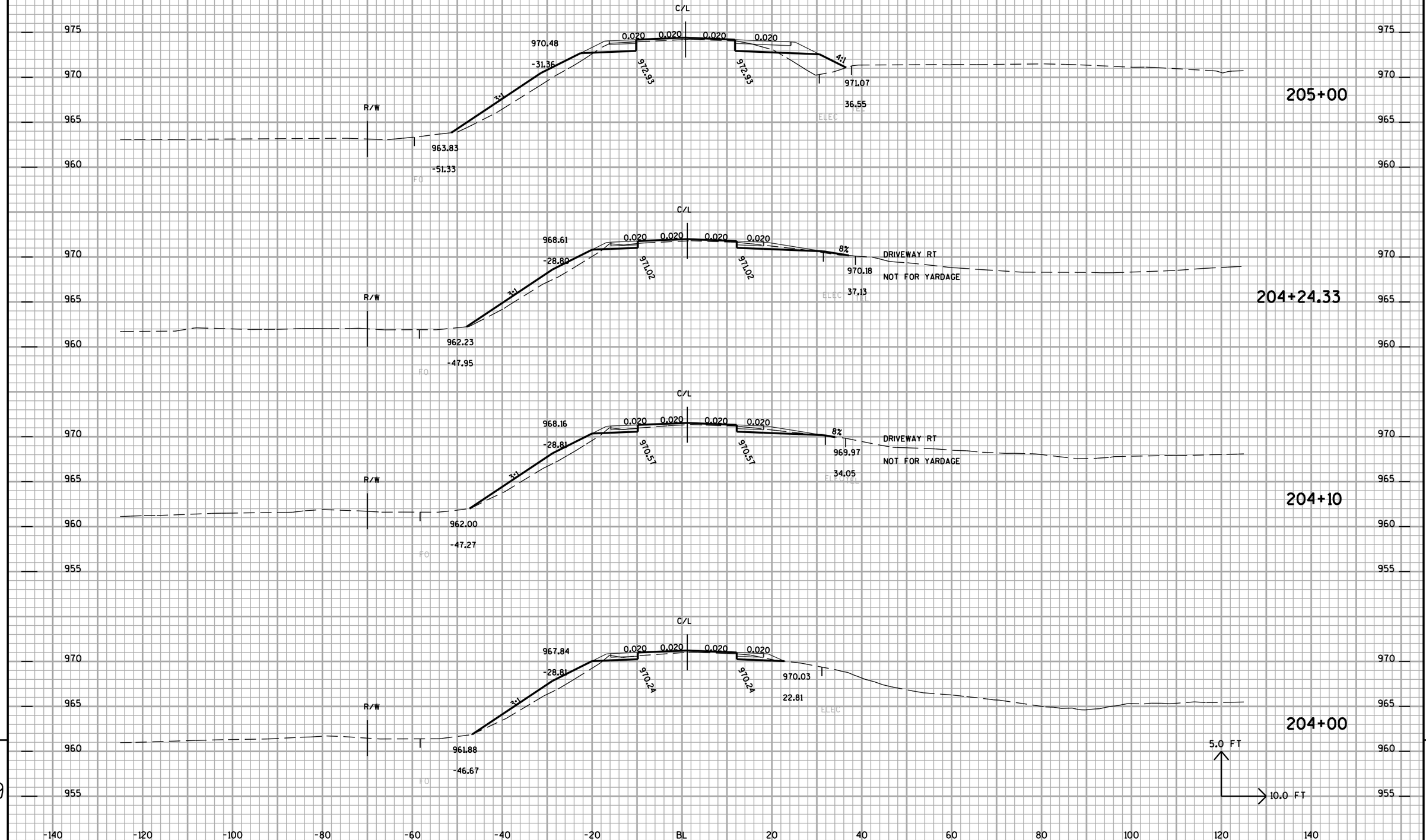
PROJECT NO: 4060-05-70	HWY: STH 28	COUNTY: WASHINGTON	CROSS SECTIONS	SHEET NO: 511	E

FILE NAME : J:±projects±D2_40600528±XS_July±090206_xs.DGN PLOT DATE : 22-JUL-2013 10:35 PLOT BY : dotr3h PLOT NAME : PLOT SCALE : 2:1



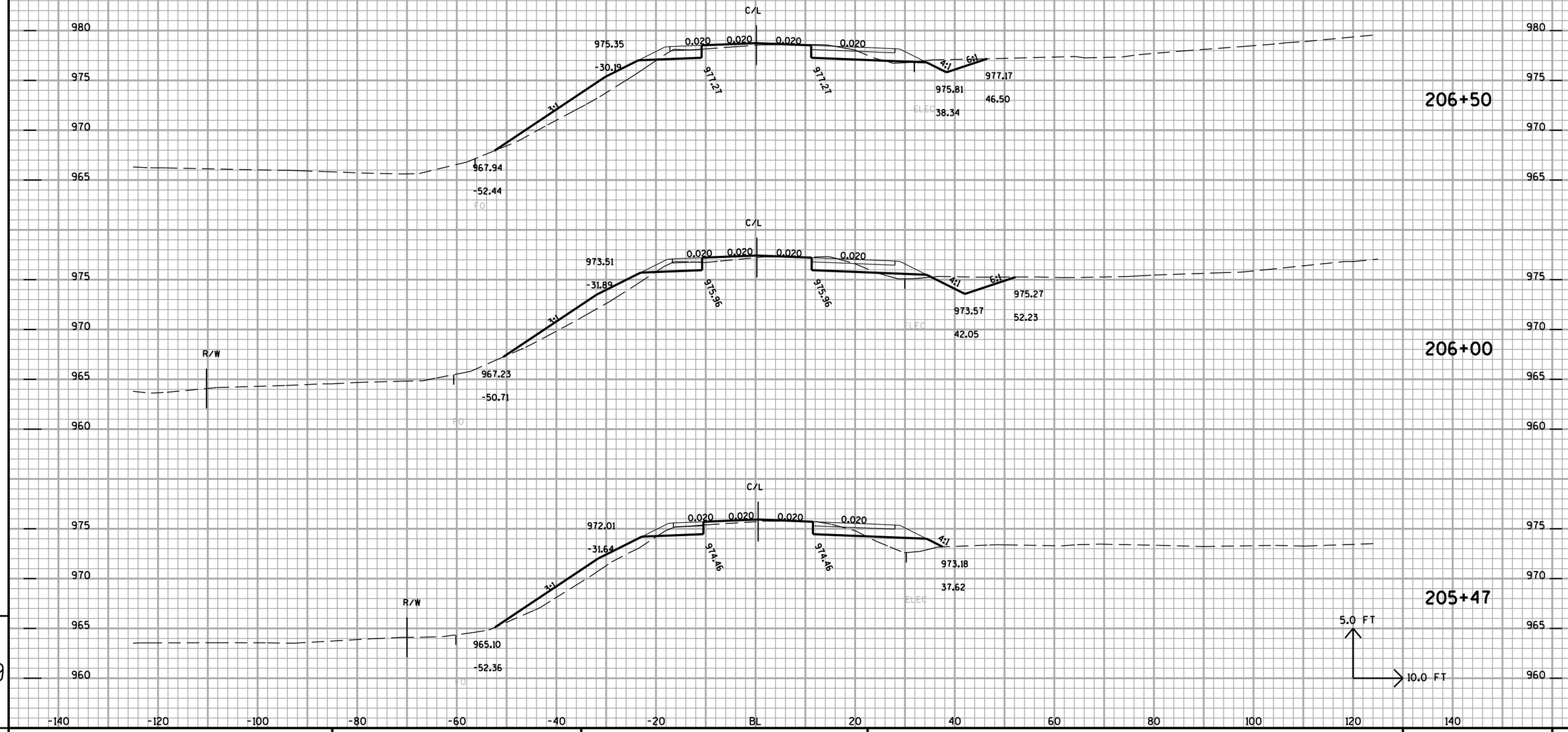
PROJECT NO: 4060-05-70	HWY: STH 28	COUNTY: WASHINGTON	CROSS SECTIONS	SHEET NO: 512	E

FILE NAME : J:±projects±D2_40600528±XS_July±090206_xs.DGN PLOT DATE : 22-JUL-2013 10:35 PLOT BY : dotr3h PLOT NAME : PLOT SCALE : 2:1



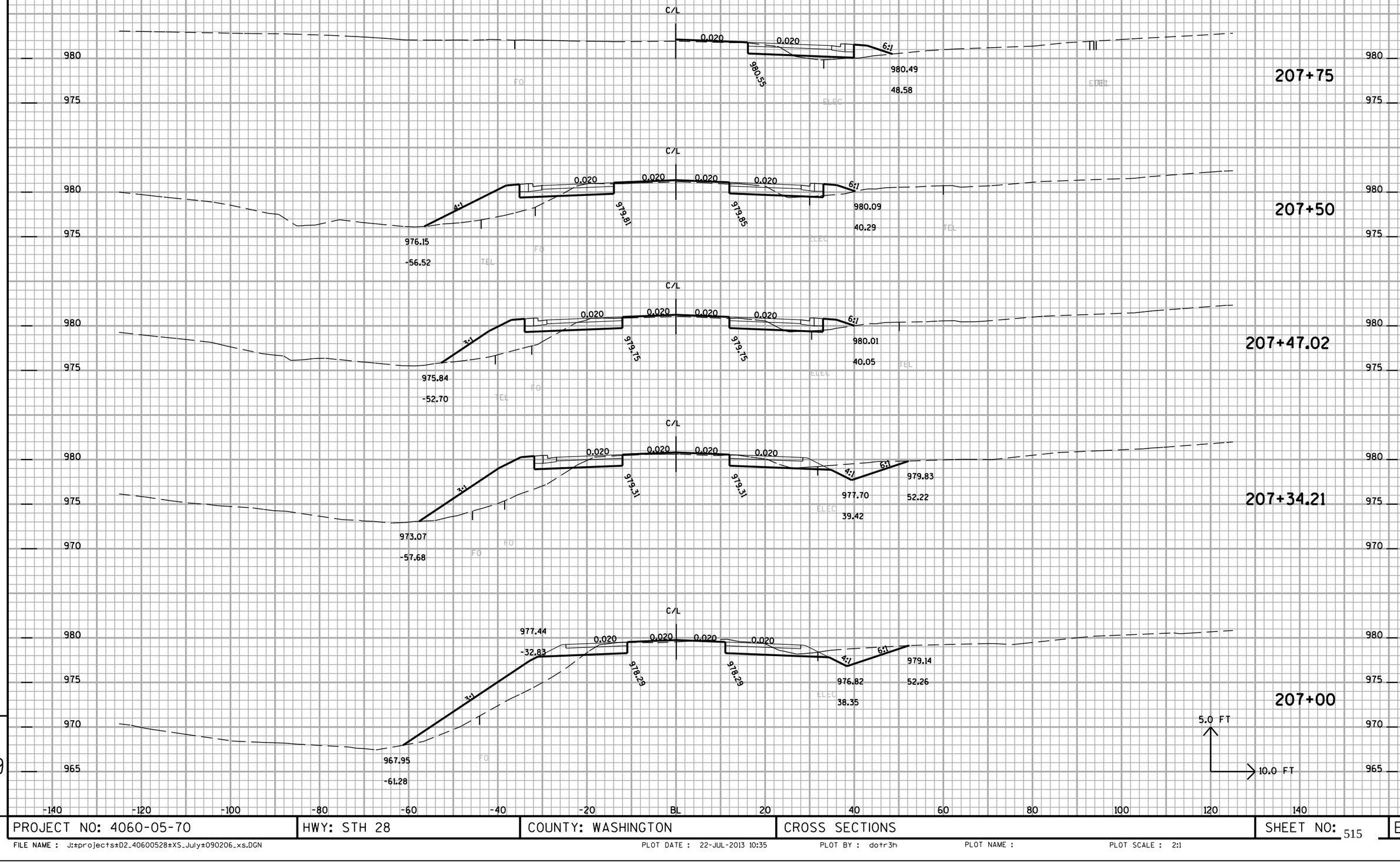
PROJECT NO: 4060-05-70	HWY: STH 28	COUNTY: WASHINGTON	CROSS SECTIONS	SHEET NO: 513	E

FILE NAME : J:±projects±D2_40600528±XS_July±090206_xs.DGN PLOT DATE : 22-JUL-2013 10:35 PLOT BY : dotr3h PLOT NAME : PLOT SCALE : 2:1



PROJECT NO: 4060-05-70	HWY: STH 28	COUNTY: WASHINGTON	CROSS SECTIONS	SHEET NO: 514	E

FILE NAME : J:±projects±D2_40600528±XS_July±090206_xs.DGN PLOT DATE : 22-JUL-2013 10:35 PLOT BY : dotr3h PLOT NAME : PLOT SCALE : 2:1

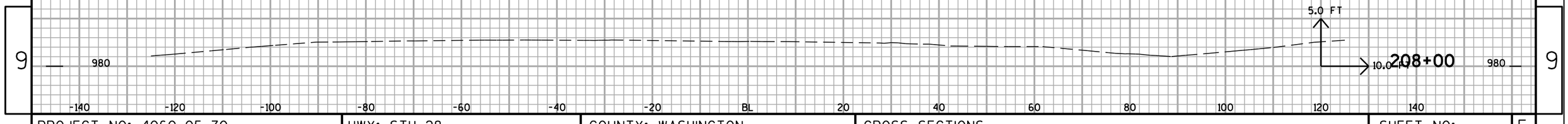


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PROJECT NO: 4060-05-70	HWY: STH 28	COUNTY: WASHINGTON	CROSS SECTIONS	SHEET NO: 515	E

FILE NAME : J:±projects±D2_40600528±XS_July±090206_xs.DGN PLOT DATE : 22-JUL-2013 10:35 PLOT BY : dotr3h PLOT NAME : PLOT SCALE : 2:1

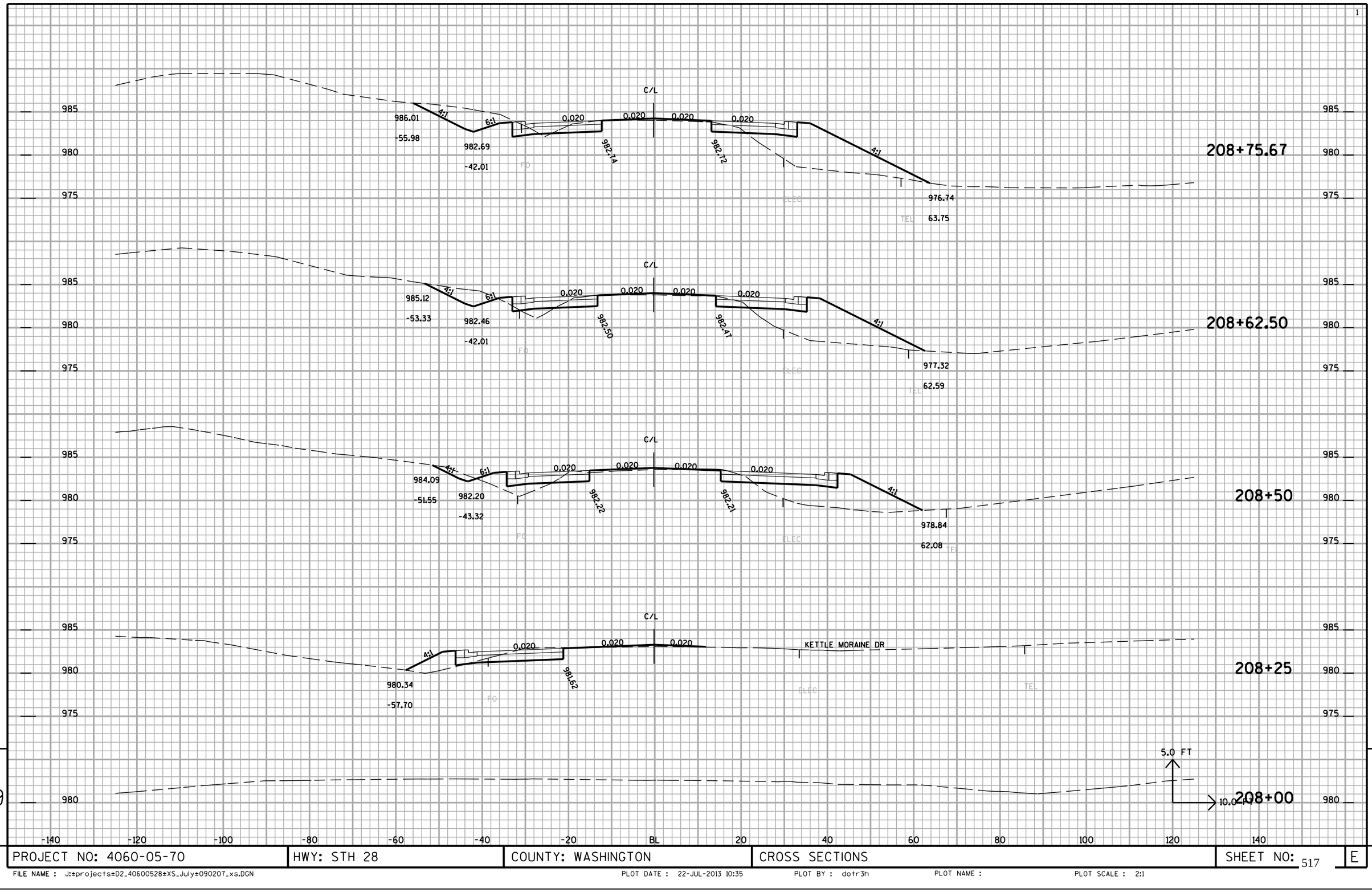


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PROJECT NO: 4060-05-70	HWY: STH 28	COUNTY: WASHINGTON	CROSS SECTIONS	SHEET NO: 516	E

FILE NAME : J:±projects±D2_40600528±XS_July±090206_xs.DGN PLOT DATE : 22-JUL-2013 10:35 PLOT BY : dotr3h PLOT NAME : PLOT SCALE : 2:1

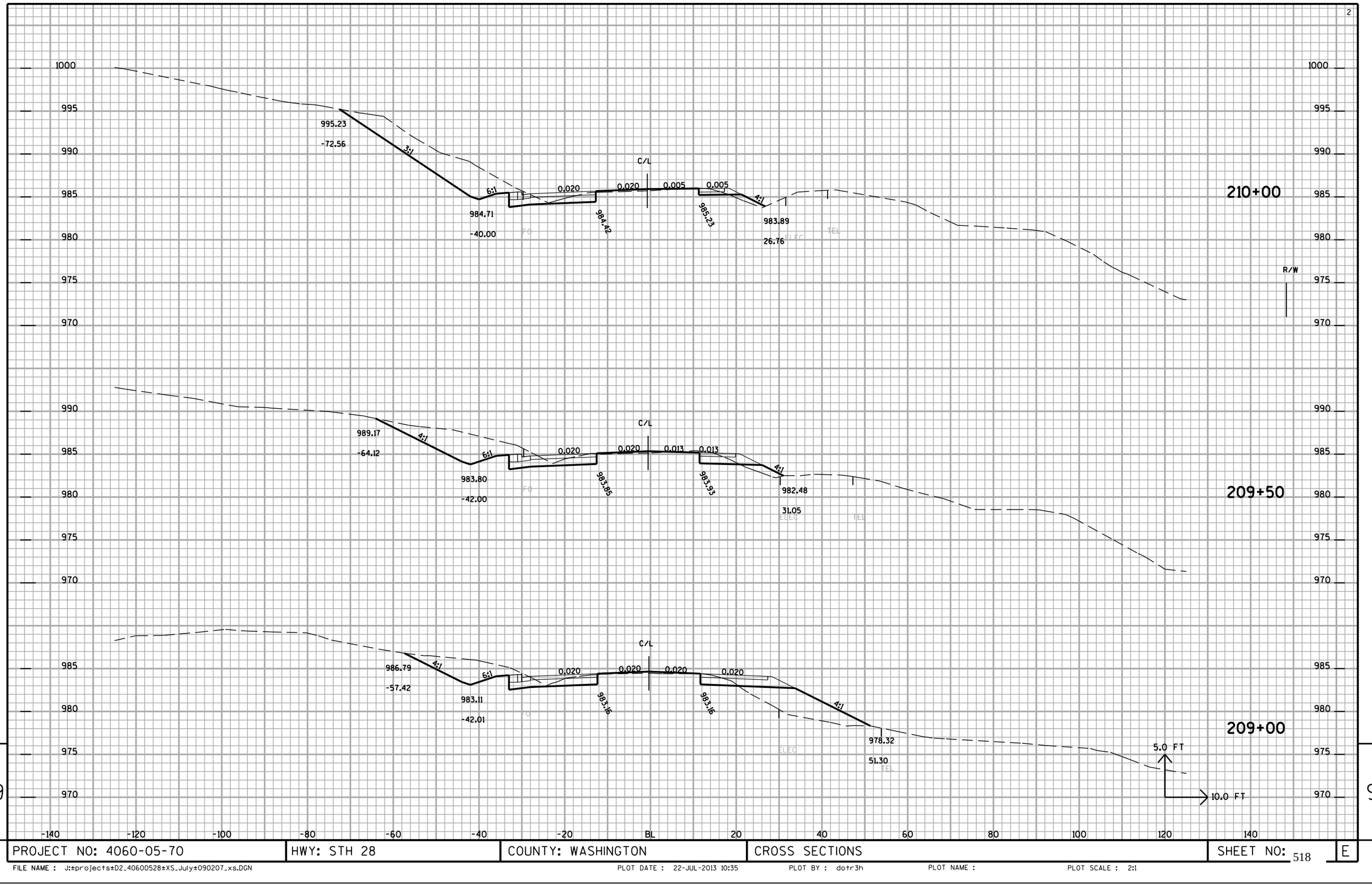


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PROJECT NO: 4060-05-70	HWY: STH 28	COUNTY: WASHINGTON	CROSS SECTIONS	SHEET NO: 517	E

FILE NAME : J:±projects±D2_40600528±XS_July±090207_xs.DGN PLOT DATE : 22-JUL-2013 10:35 PLOT BY : dotr3h PLOT NAME : PLOT SCALE : 2:1

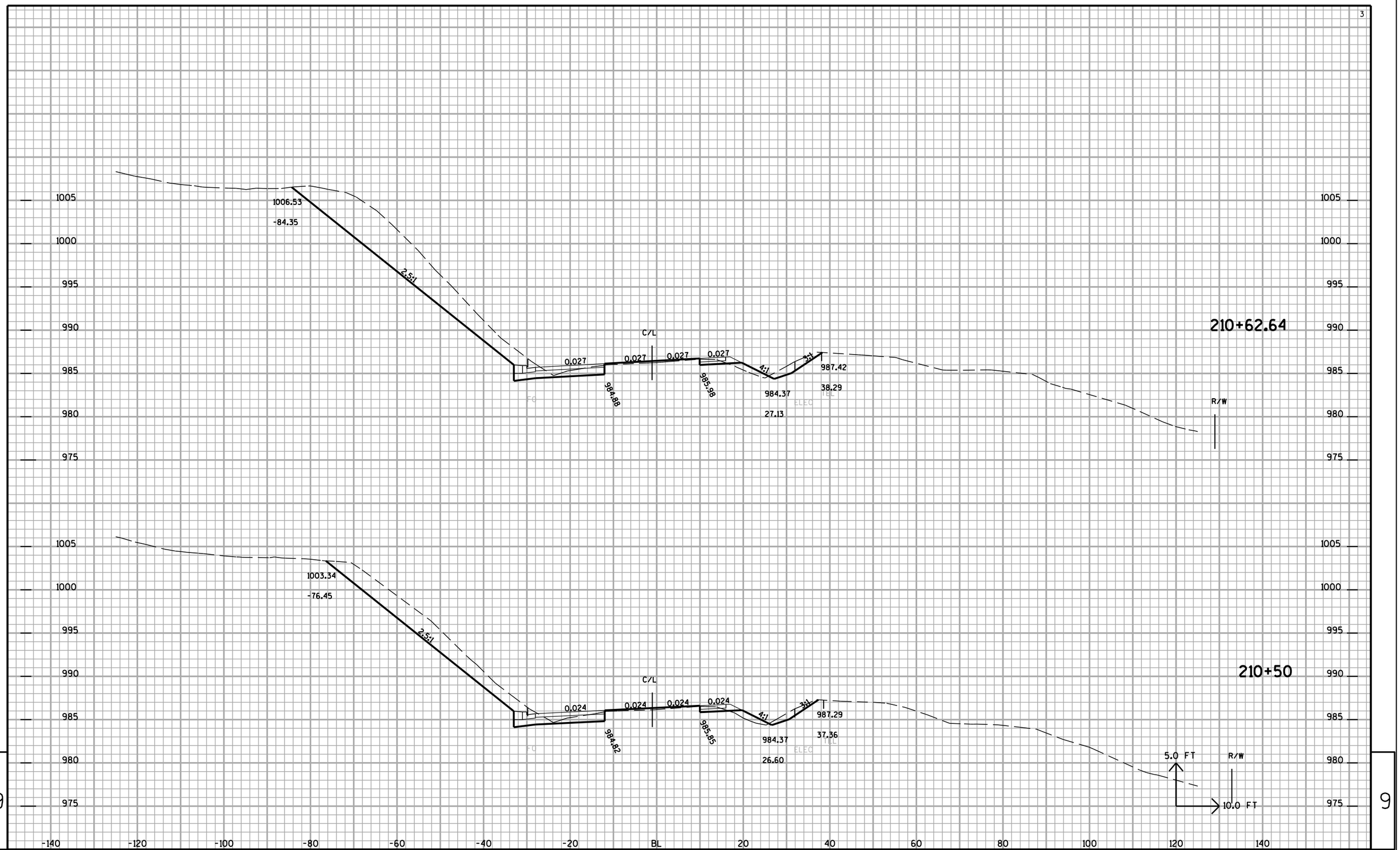


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PROJECT NO: 4060-05-70	HWY: STH 28	COUNTY: WASHINGTON	CROSS SECTIONS	SHEET NO: 518	E

FILE NAME : J:±projects±D2_40600528±XS_July±090207_xs.DGN PLOT DATE : 22-JUL-2013 10:35 PLOT BY : dotr3h PLOT NAME : PLOT SCALE : 2:1

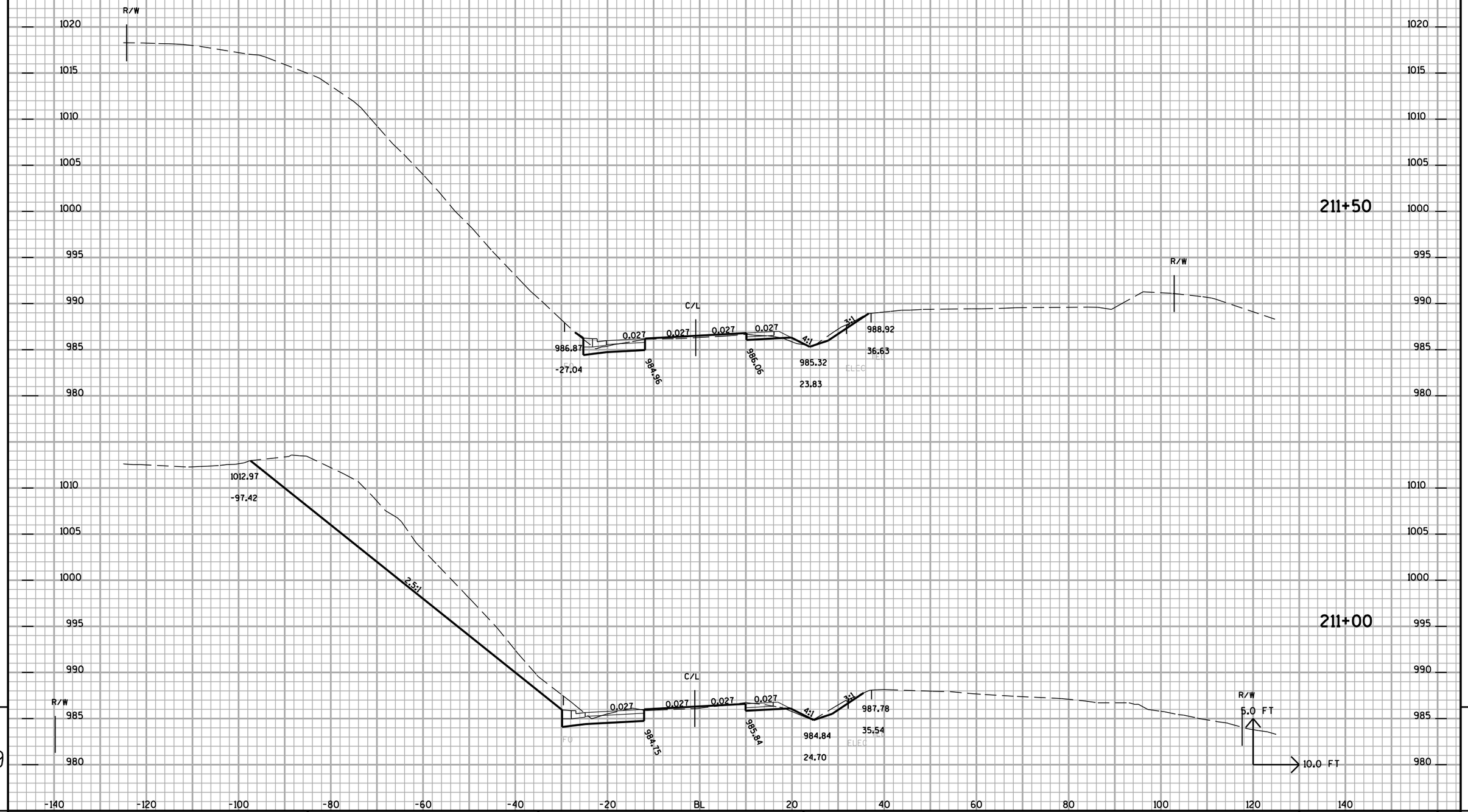


9

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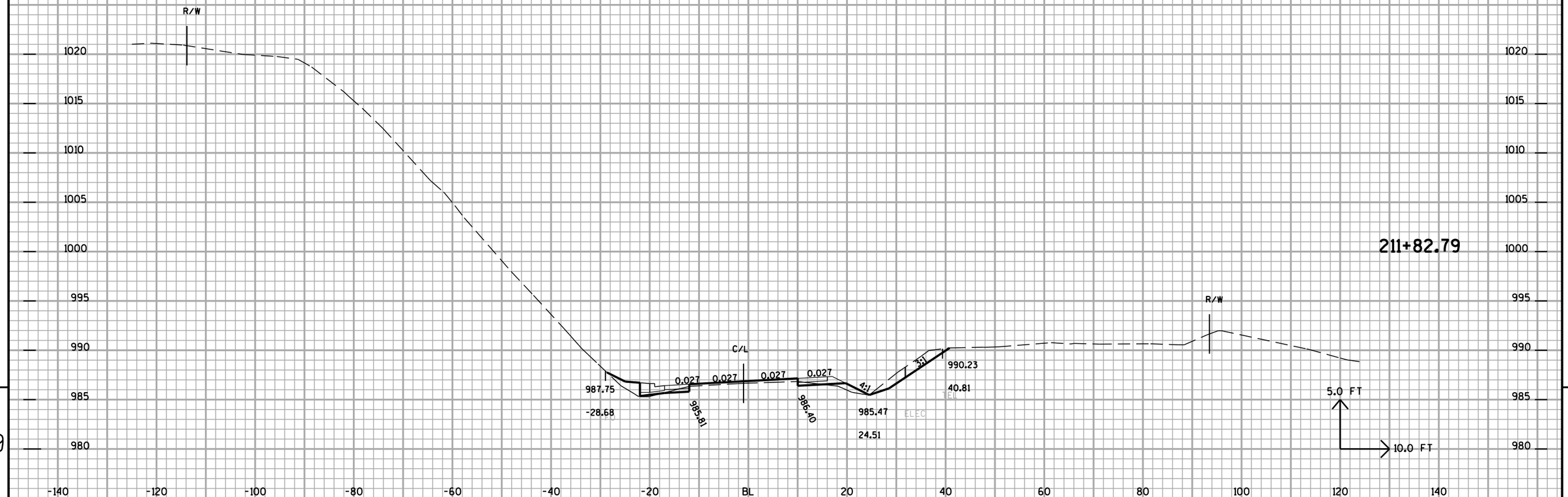
PROJECT NO: 4060-05-70	HWY: STH 28	COUNTY: WASHINGTON	CROSS SECTIONS	SHEET NO: 519	E

FILE NAME : J:±projects±D2_40600528±XS_July±090207_xs.DGN PLOT DATE : 22-JUL-2013 10:35 PLOT BY : dotr3h PLOT NAME : PLOT SCALE : 2:1



PROJECT NO: 4060-05-70	HWY: STH 28	COUNTY: WASHINGTON	CROSS SECTIONS	SHEET NO: 520	E

FILE NAME : J:±projects±D2_40600528±XS_July±090207_xs.DGN PLOT DATE : 22-JUL-2013 10:35 PLOT BY : dotr3h PLOT NAME : PLOT SCALE : 2:1

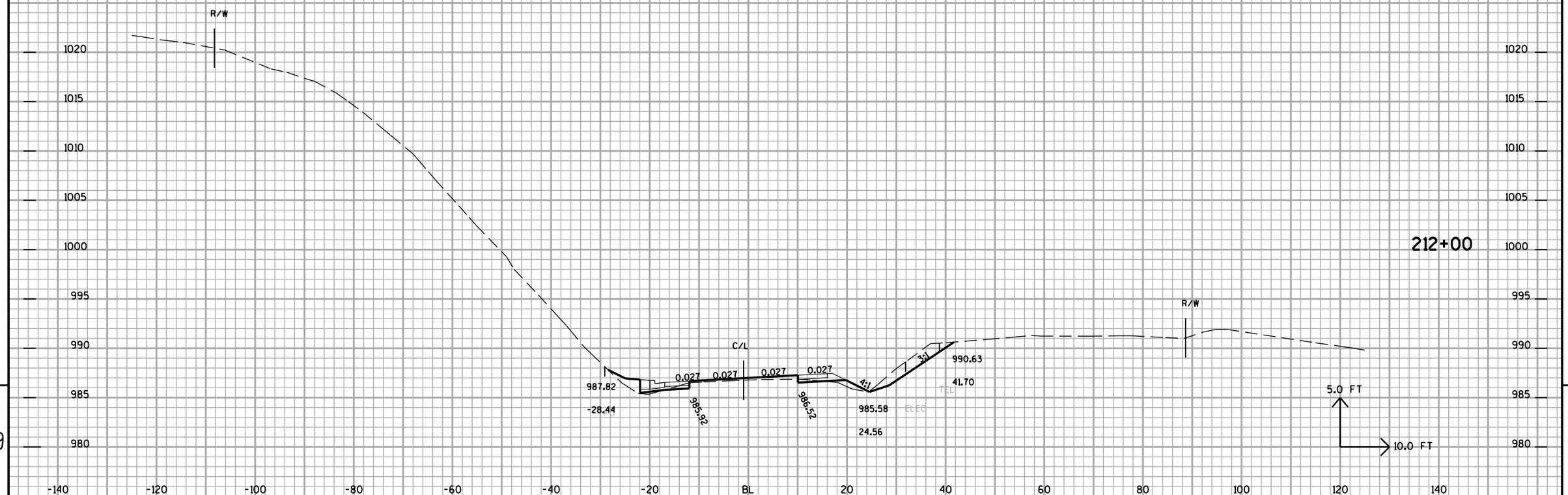


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PROJECT NO: 4060-05-70	HWY: STH 28	COUNTY: WASHINGTON	CROSS SECTIONS	SHEET NO: 521	E

FILE NAME : J:±projects±D2_40600528±XS_July±090207_xs.DGN PLOT DATE : 22-JUL-2013 10:35 PLOT BY : dotr3h PLOT NAME : PLOT SCALE : 2:1

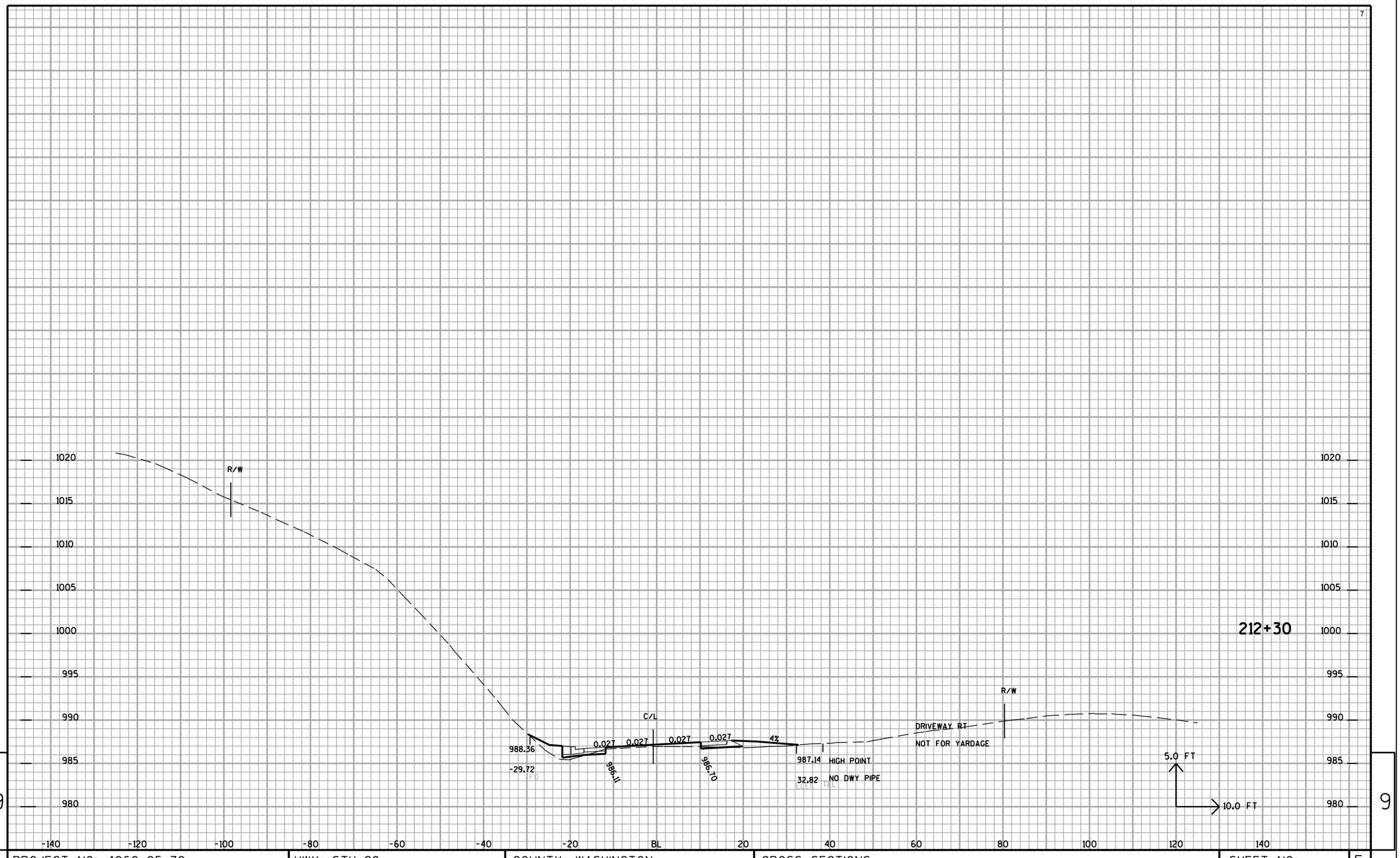


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PROJECT NO: 4060-05-70	HWY: STH 28	COUNTY: WASHINGTON	CROSS SECTIONS	SHEET NO: 522	E

FILE NAME : J:±projects±D2_40600528±XS_July±090207_xs.DGN PLOT DATE : 22-JUL-2013 10:35 PLOT BY : dotr3h PLOT NAME : PLOT SCALE : 2:1

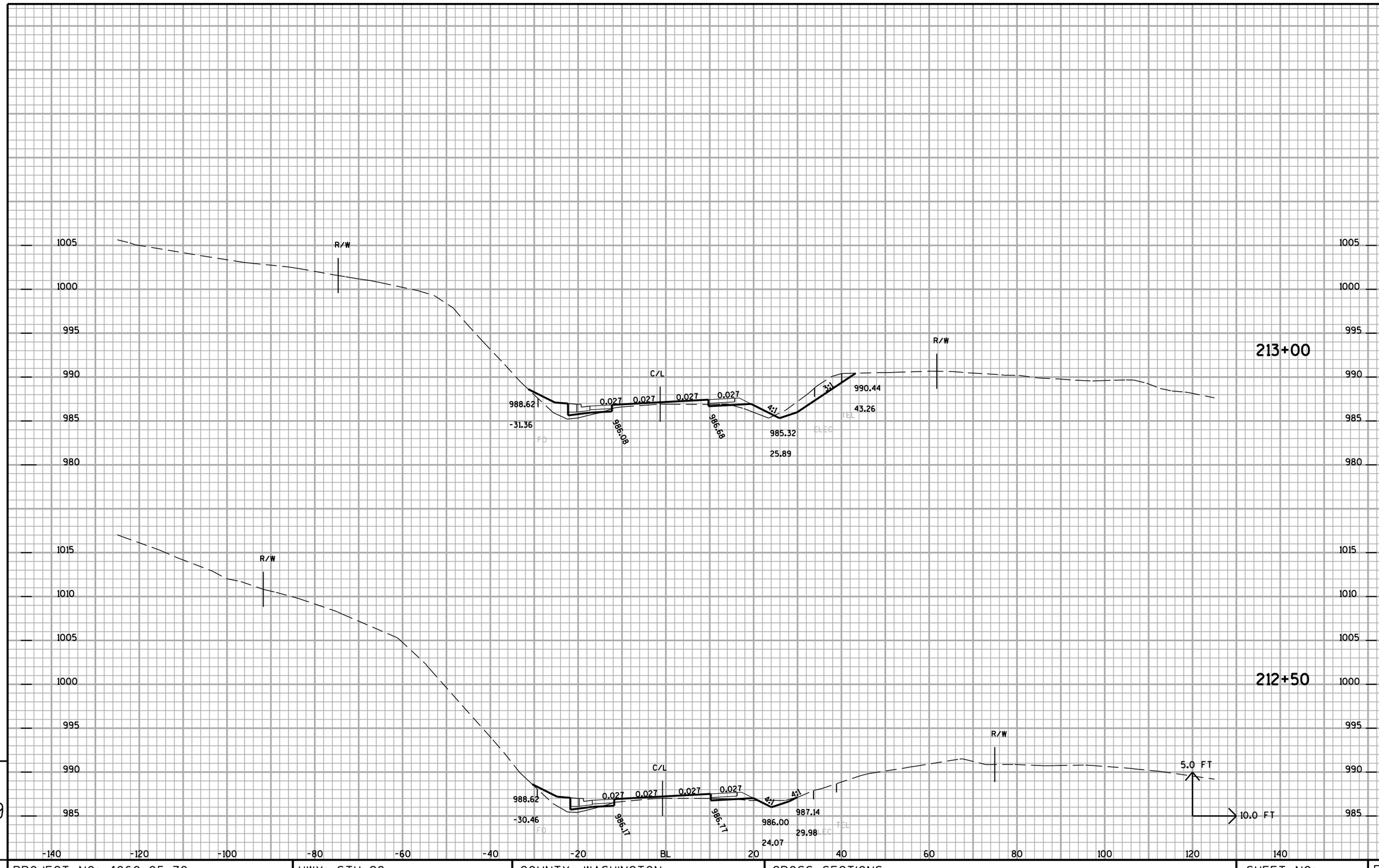


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PROJECT NO: 4060-05-70	HWY: STH 28	COUNTY: WASHINGTON	CROSS SECTIONS	SHEET NO: 523	E

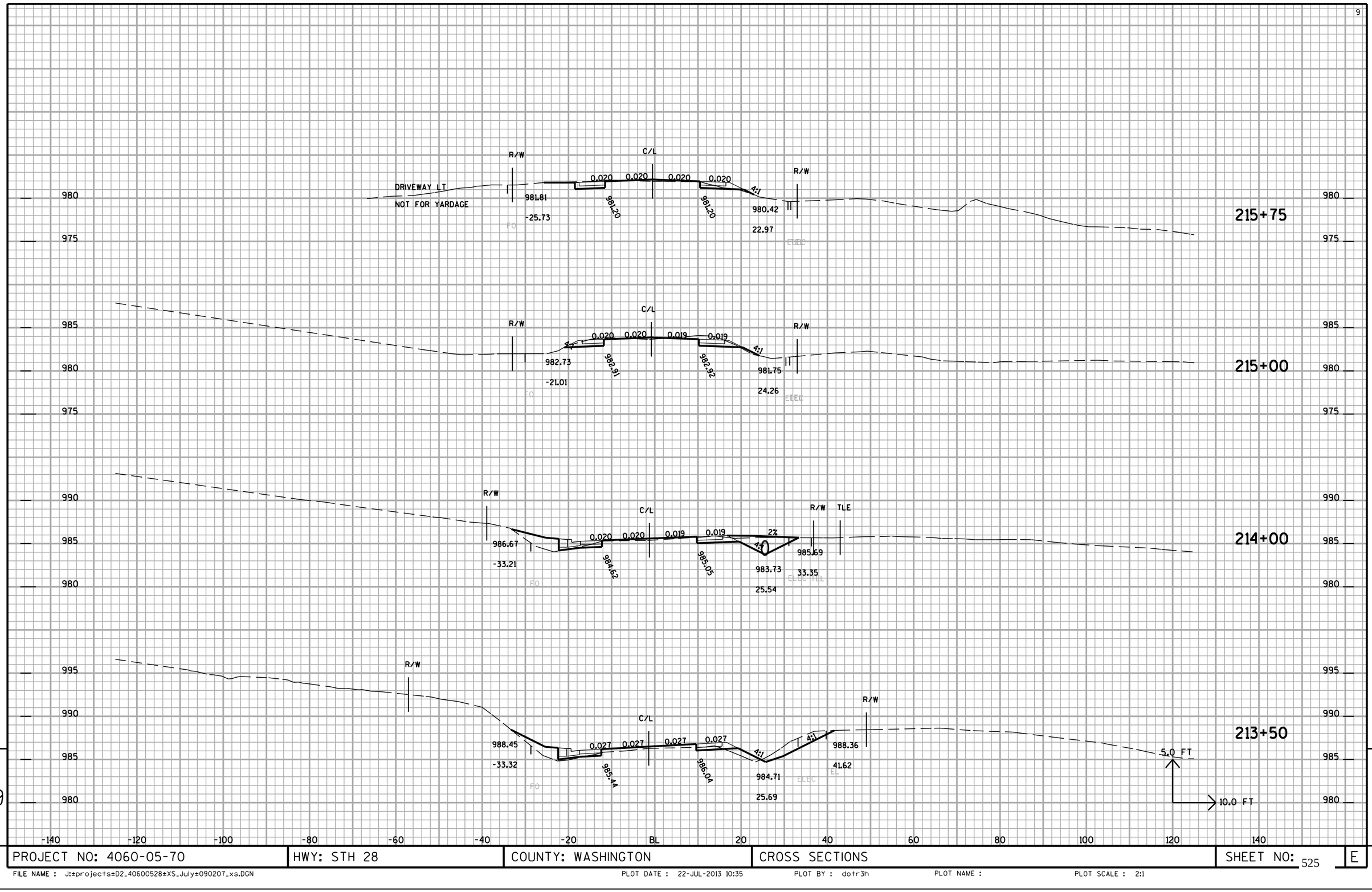
FILE NAME : J:±projects±D2_40600528±XS_July±090207_xs.DGN PLOT DATE : 22-JUL-2013 10:35 PLOT BY : dotr3h PLOT NAME : PLOT SCALE : 2:1



9

PROJECT NO: 4060-05-70	HWY: STH 28	COUNTY: WASHINGTON	CROSS SECTIONS	SHEET NO: 524	E

FILE NAME : J:±projects±D2_40600528±XS_July±090207_xs.DGN PLOT DATE : 22-JUL-2013 10:35 PLOT BY : dotr3h PLOT NAME : PLOT SCALE : 2:1



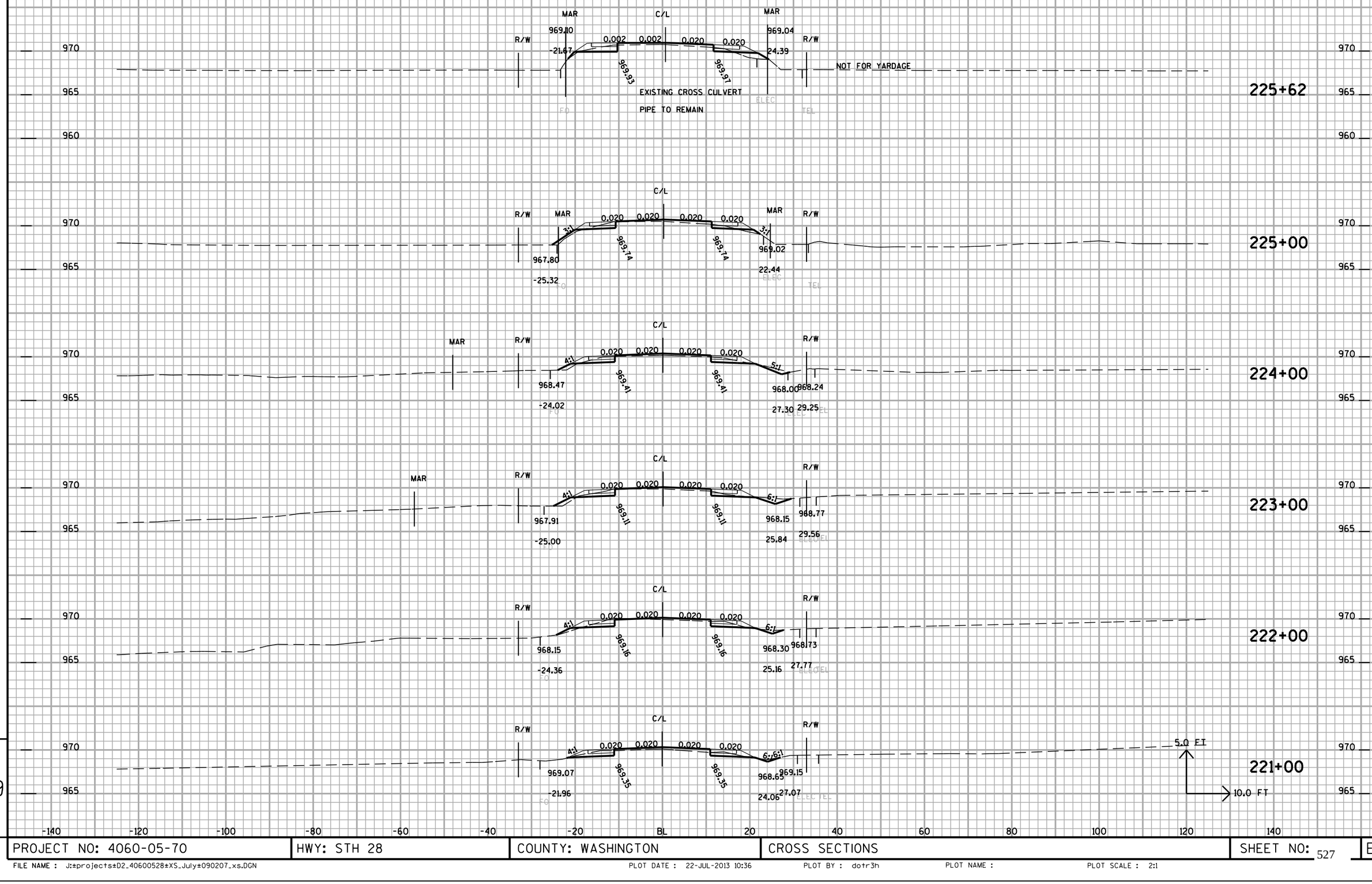
PROJECT NO: 4060-05-70	HWY: STH 28	COUNTY: WASHINGTON	CROSS SECTIONS	SHEET NO: 525	E

FILE NAME : J:±projects±D2_40600528±XS_July±090207_xs.DGN PLOT DATE : 22-JUL-2013 10:35 PLOT BY : dotr3h PLOT NAME : PLOT SCALE : 2:1



PROJECT NO: 4060-05-70	HWY: STH 28	COUNTY: WASHINGTON	CROSS SECTIONS	SHEET NO: 526 E

FILE NAME : J:±projects±D2_40600528±XS_July±090207_xs.DGN PLOT DATE : 22-JUL-2013 10:35 PLOT BY : dotr3h PLOT NAME : PLOT SCALE : 2:1

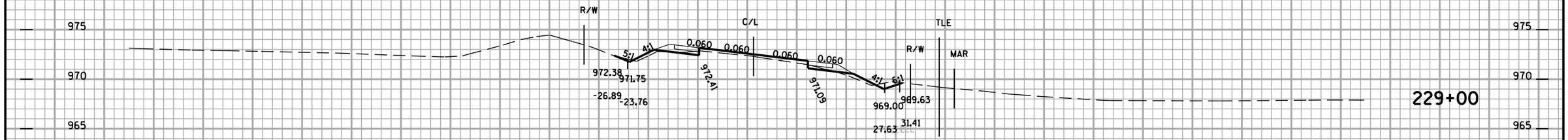


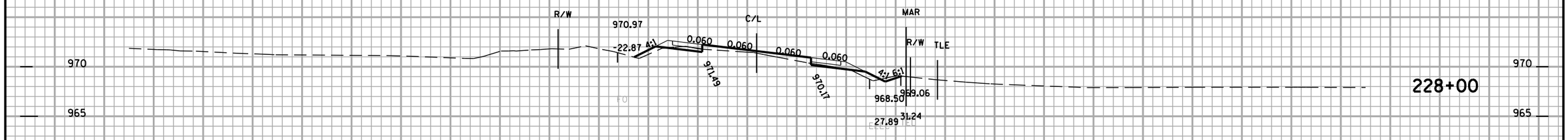
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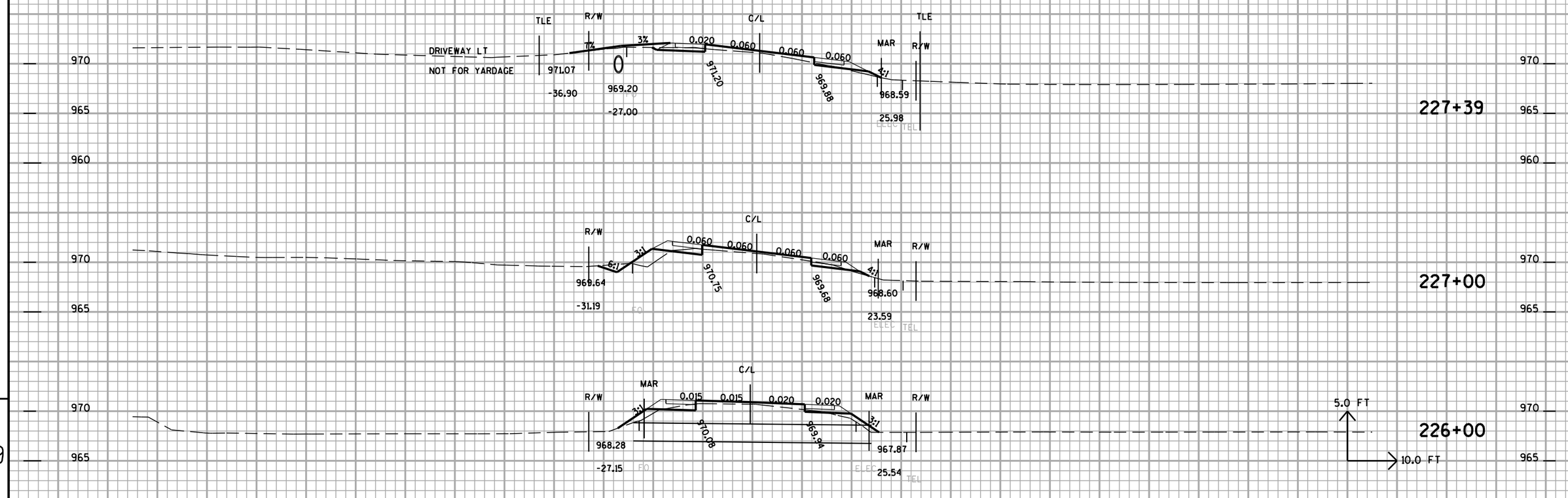
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PROJECT NO: 4060-05-70	HWY: STH 28	COUNTY: WASHINGTON	CROSS SECTIONS	SHEET NO: 527	E

FILE NAME : J:±projects±D2_40600528±XS_July±090207_xs.DGN PLOT DATE : 22-JUL-2013 10:36 PLOT BY : dotr3h PLOT NAME : PLOT SCALE : 2:1





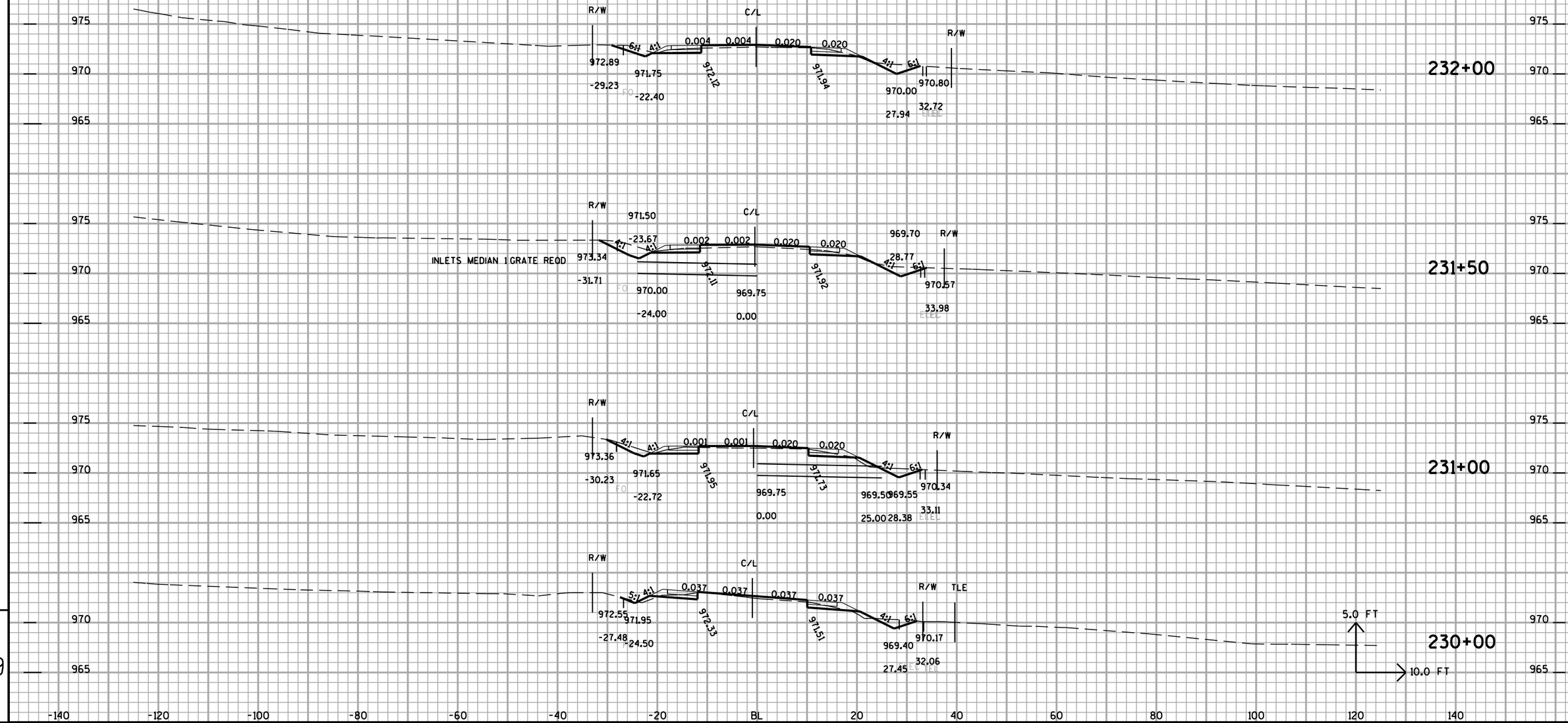


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9

PROJECT NO: 4060-05-70	HWY: STH 28	COUNTY: WASHINGTON	CROSS SECTIONS	SHEET NO: 528	E

FILE NAME : J:±projects±D2_40600528±pdf xs±Sta22600T22900.DGN PLOT DATE : 02-OCT-2013 10:57 PLOT BY : dotr3h PLOT NAME : PLOT SCALE : 2:1

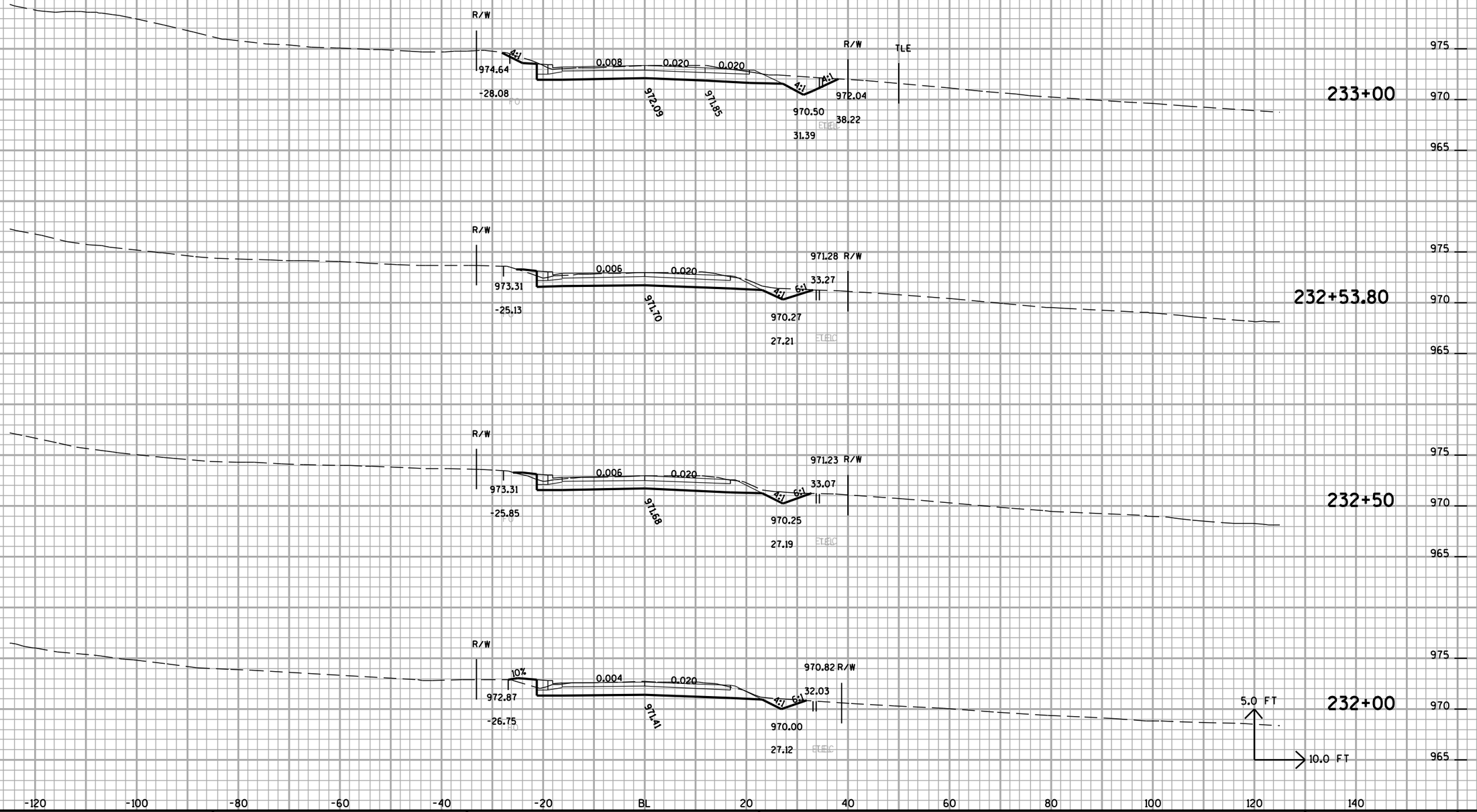


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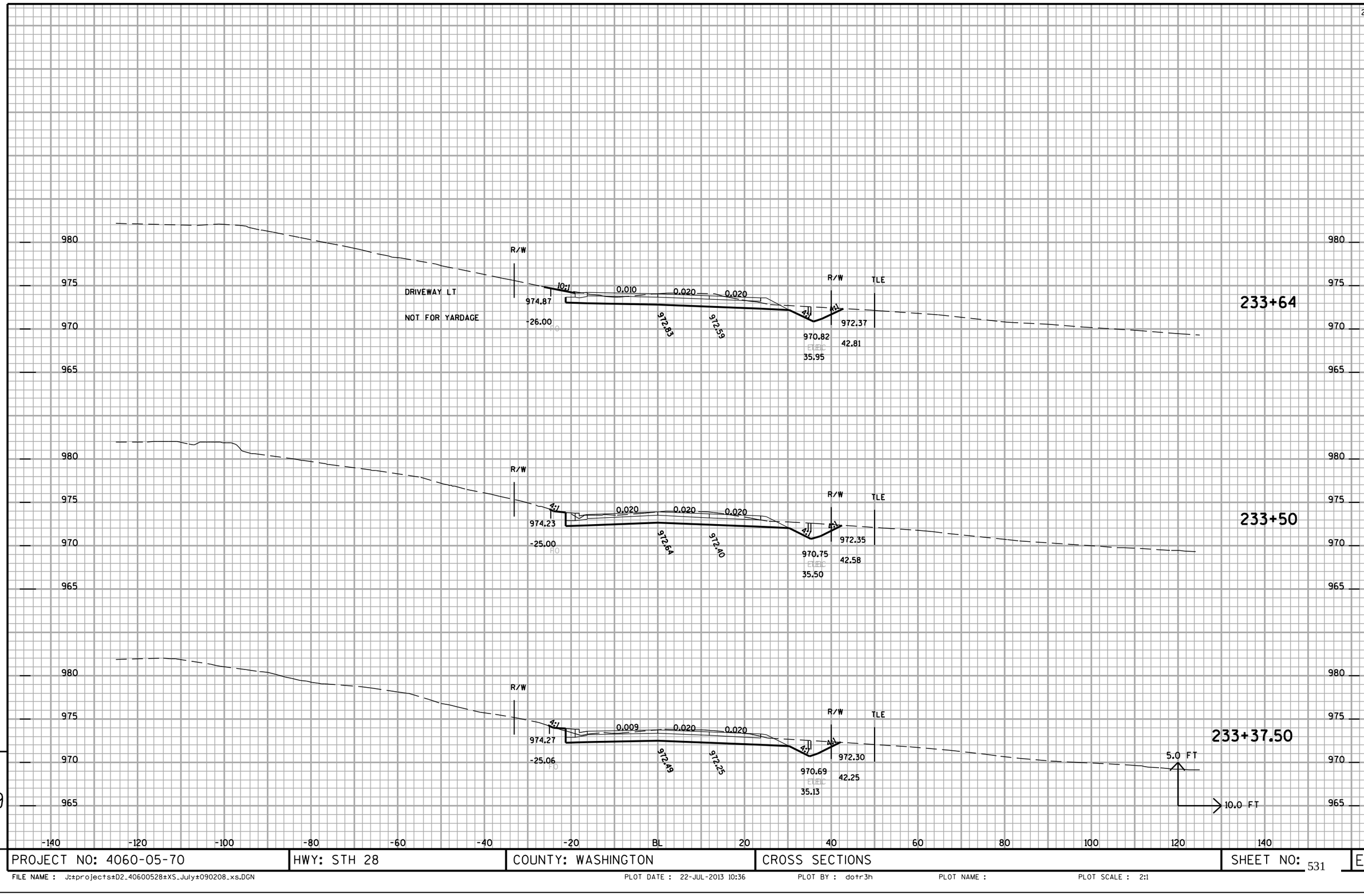
PROJECT NO: 4060-05-70	HWY: STH 28	COUNTY: WASHINGTON	CROSS SECTIONS	SHEET NO: 529	E

FILE NAME : J:±projects±D2_40600528±XS_July±090207_xs.DGN PLOT DATE : 22-JUL-2013 10:36 PLOT BY : dotr3h PLOT NAME : PLOT SCALE : 2:1



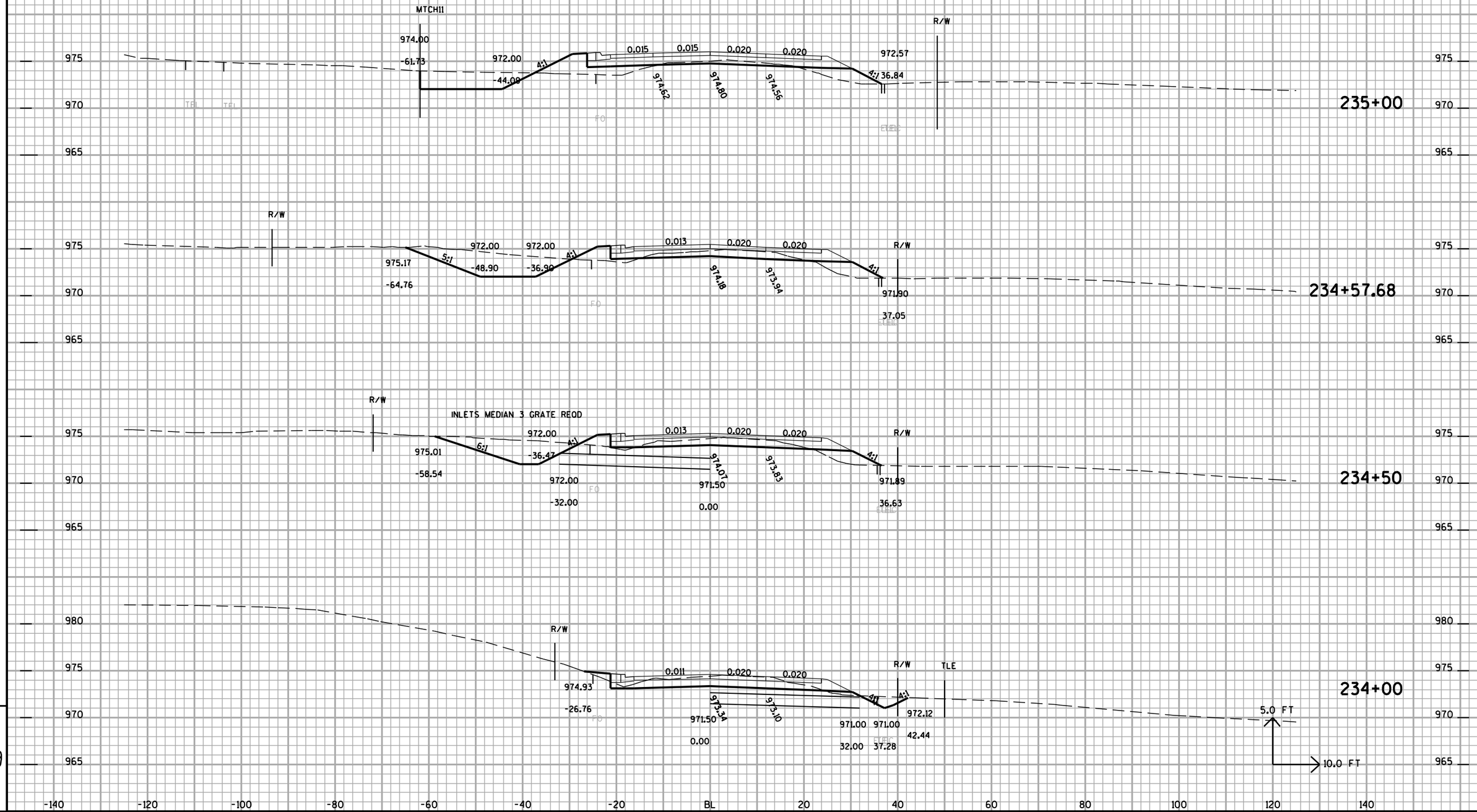
PROJECT NO: 4060-05-70	HWY: STH 28	COUNTY: WASHINGTON	CROSS SECTIONS	SHEET NO: 530	E

FILE NAME : J:±projects±D2_40600528±XS_July±090208_xs.DGN PLOT DATE : 22-JUL-2013 10:36 PLOT BY : dotr3h PLOT NAME : PLOT SCALE : 2:1



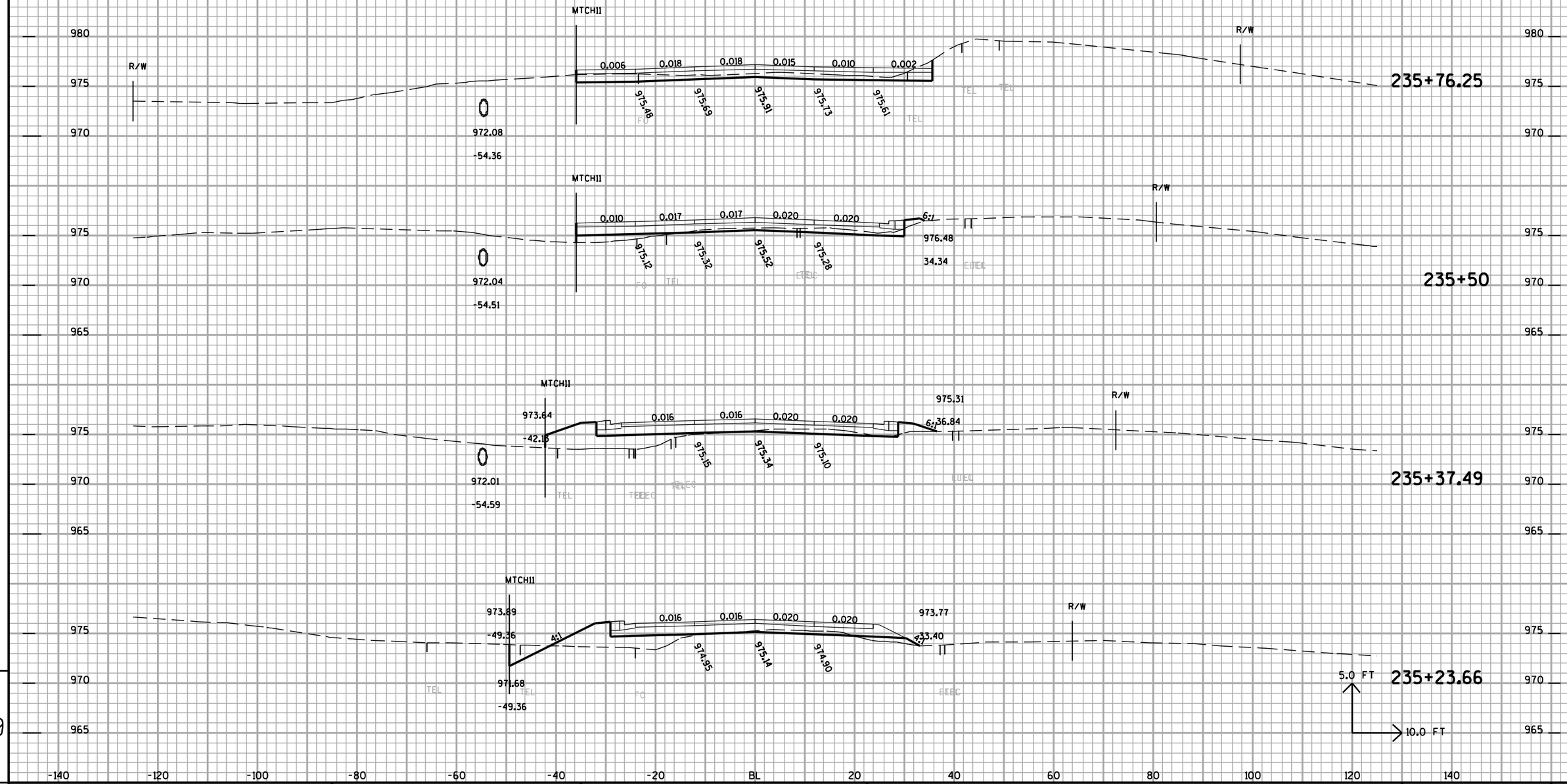
PROJECT NO: 4060-05-70	HWY: STH 28	COUNTY: WASHINGTON	CROSS SECTIONS	SHEET NO: 531	E

FILE NAME : J:±projects±D2_40600528±XS_July±090208_xs.DGN PLOT DATE : 22-JUL-2013 10:36 PLOT BY : dotr3h PLOT NAME : PLOT SCALE : 2:1



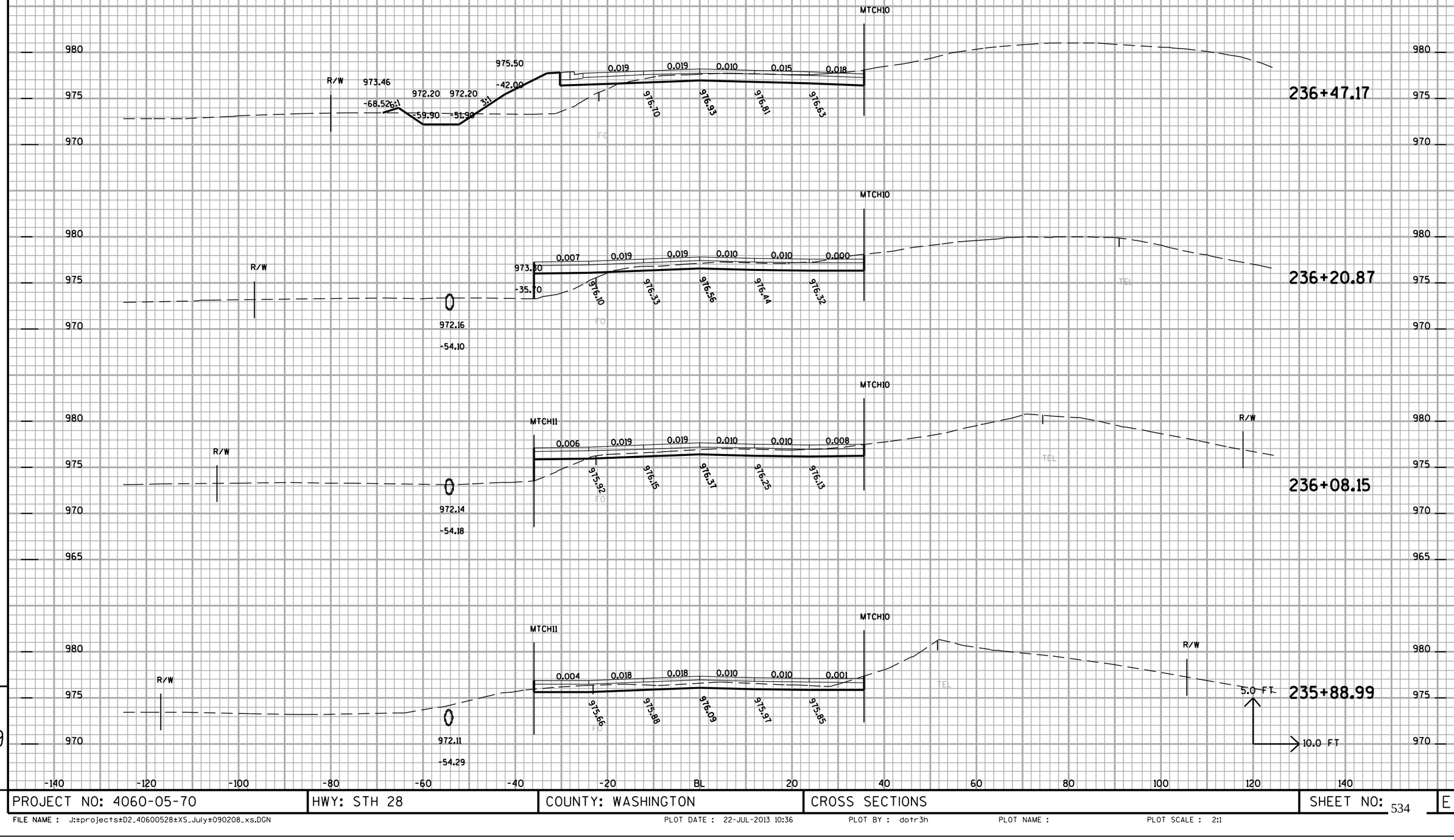
PROJECT NO: 4060-05-70	HWY: STH 28	COUNTY: WASHINGTON	CROSS SECTIONS	SHEET NO: 532	E

FILE NAME : J:±projects±D2_40600528±XS_July±090208_xs.DGN PLOT DATE : 22-JUL-2013 10:36 PLOT BY : dotr3h PLOT NAME : PLOT SCALE : 2:1



PROJECT NO: 4060-05-70	HWY: STH 28	COUNTY: WASHINGTON	CROSS SECTIONS	SHEET NO: 533	E

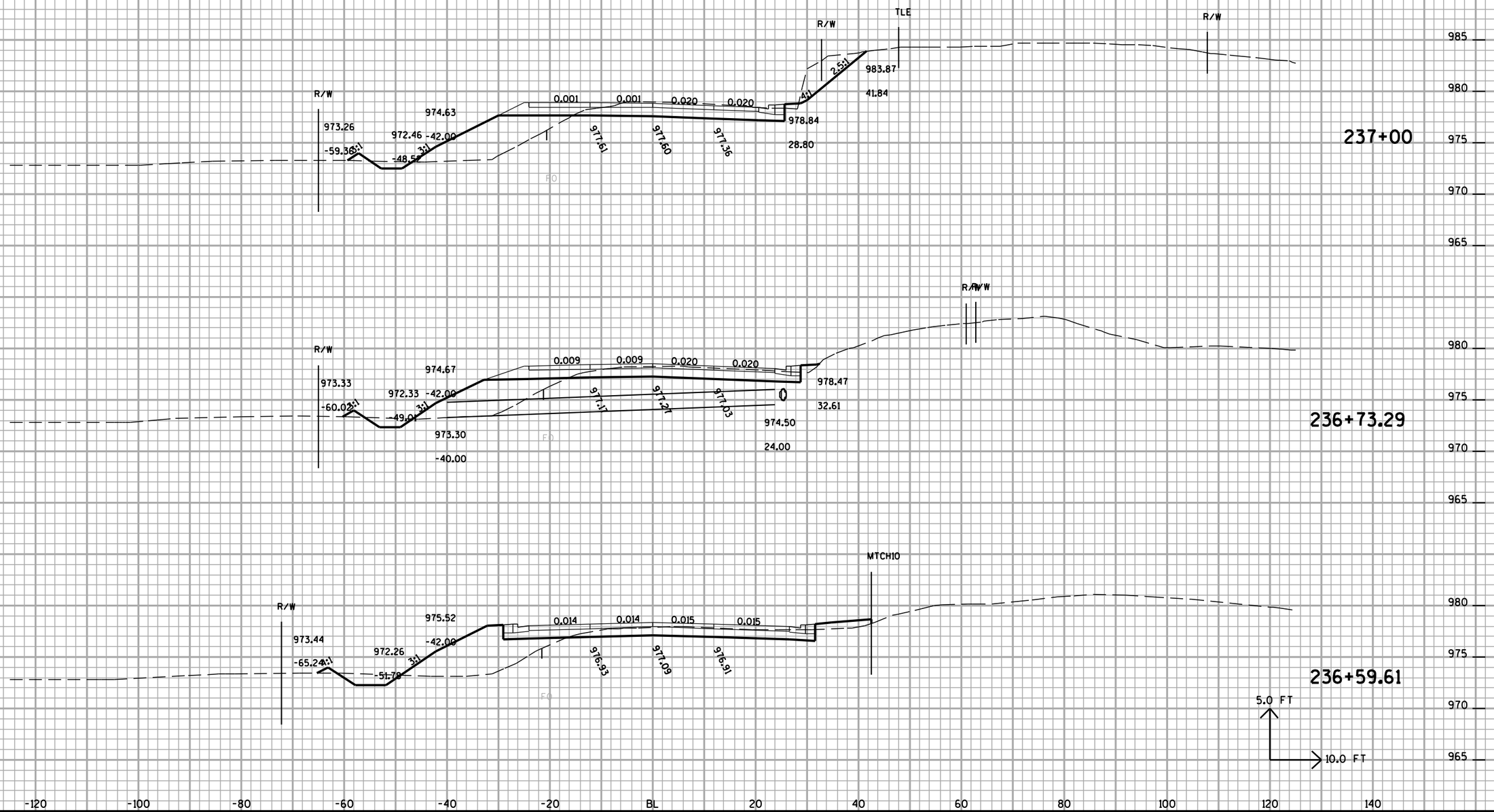
FILE NAME : J:±projects±D2_40600528±XS_July±090208_xs.DGN PLOT DATE : 22-JUL-2013 10:36 PLOT BY : dotr3h PLOT NAME : PLOT SCALE : 2:1



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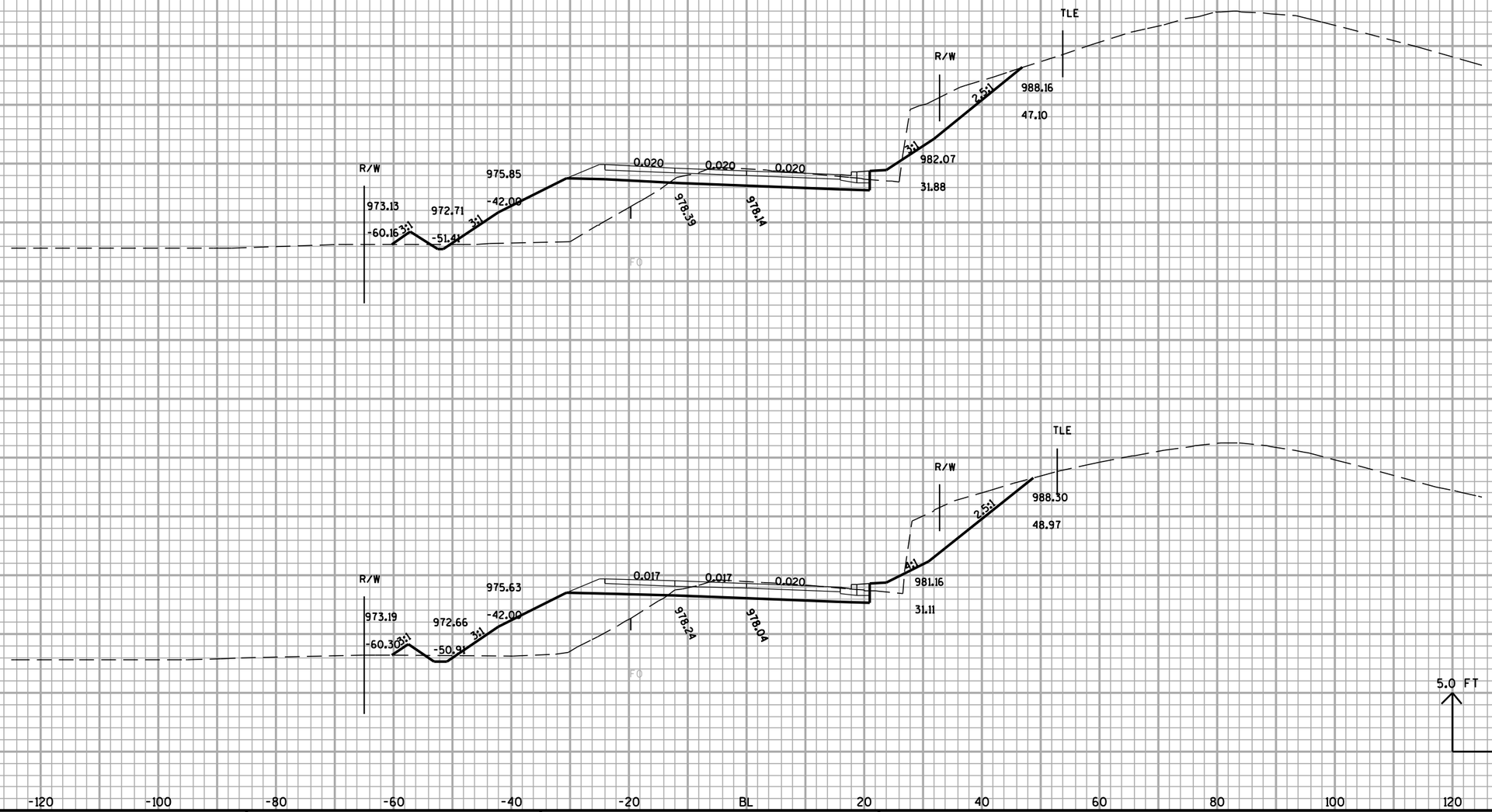
PROJECT NO: 4060-05-70	HWY: STH 28	COUNTY: WASHINGTON	CROSS SECTIONS	SHEET NO: 534	E

FILE NAME : J:±projects±D2_40600528±XS_July±090208_xs.DGN PLOT DATE : 22-JUL-2013 10:36 PLOT BY : dotr3h PLOT NAME : PLOT SCALE : 2:1



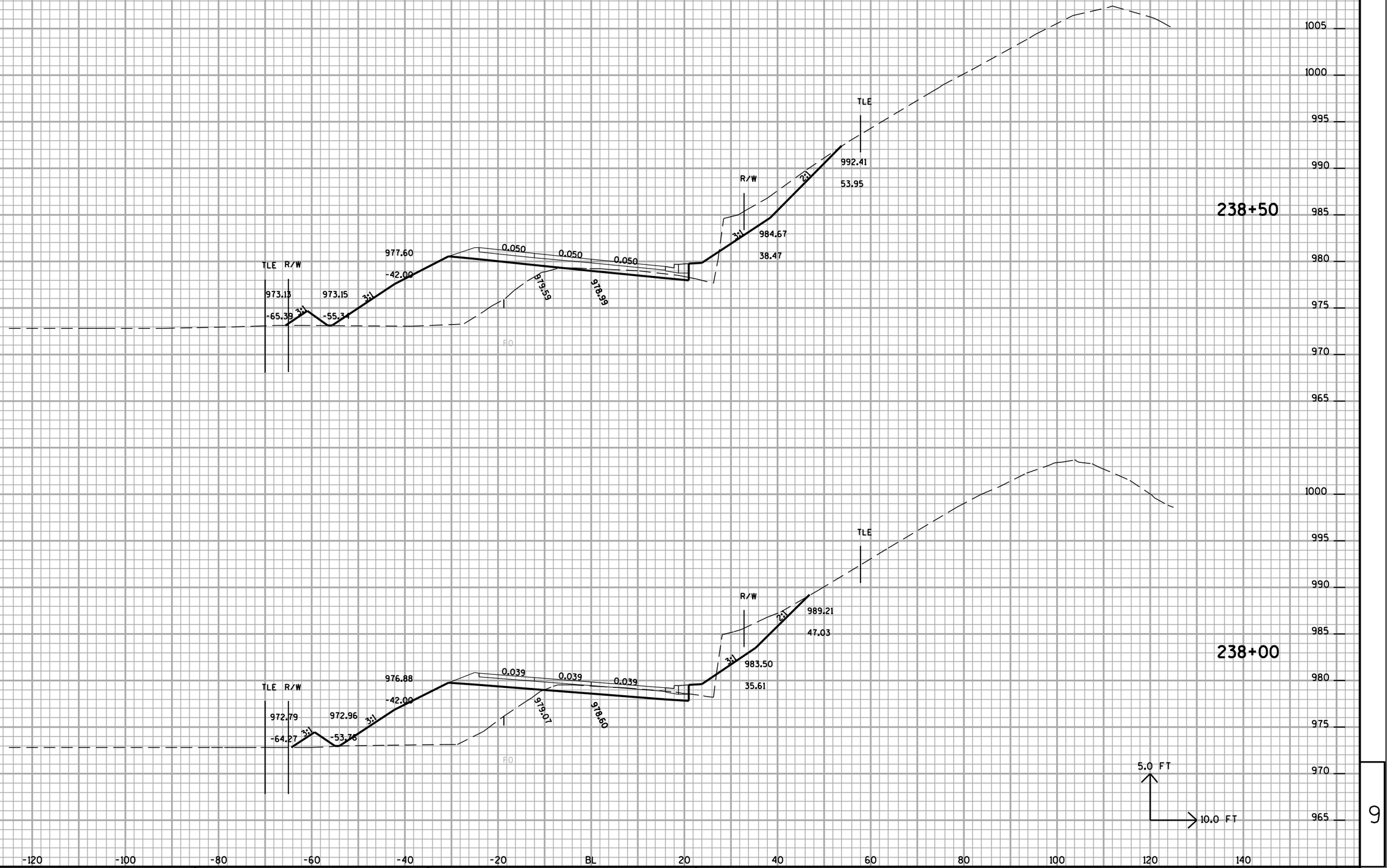
PROJECT NO: 4060-05-70	HWY: STH 28	COUNTY: WASHINGTON	CROSS SECTIONS	SHEET NO: 535	E

FILE NAME : J:±projects±D2_40600528±XS_July±090208_xs.DGN PLOT DATE : 22-JUL-2013 10:36 PLOT BY : dotr3h PLOT NAME : PLOT SCALE : 2:1



PROJECT NO: 4060-05-70	HWY: STH 28	COUNTY: WASHINGTON	CROSS SECTIONS	SHEET NO: 536	E

FILE NAME : J:±projects±D2_40600528±XS_July±090208_xs.DGN PLOT DATE : 22-JUL-2013 10:36 PLOT BY : dotr3h PLOT NAME : PLOT SCALE : 2:1

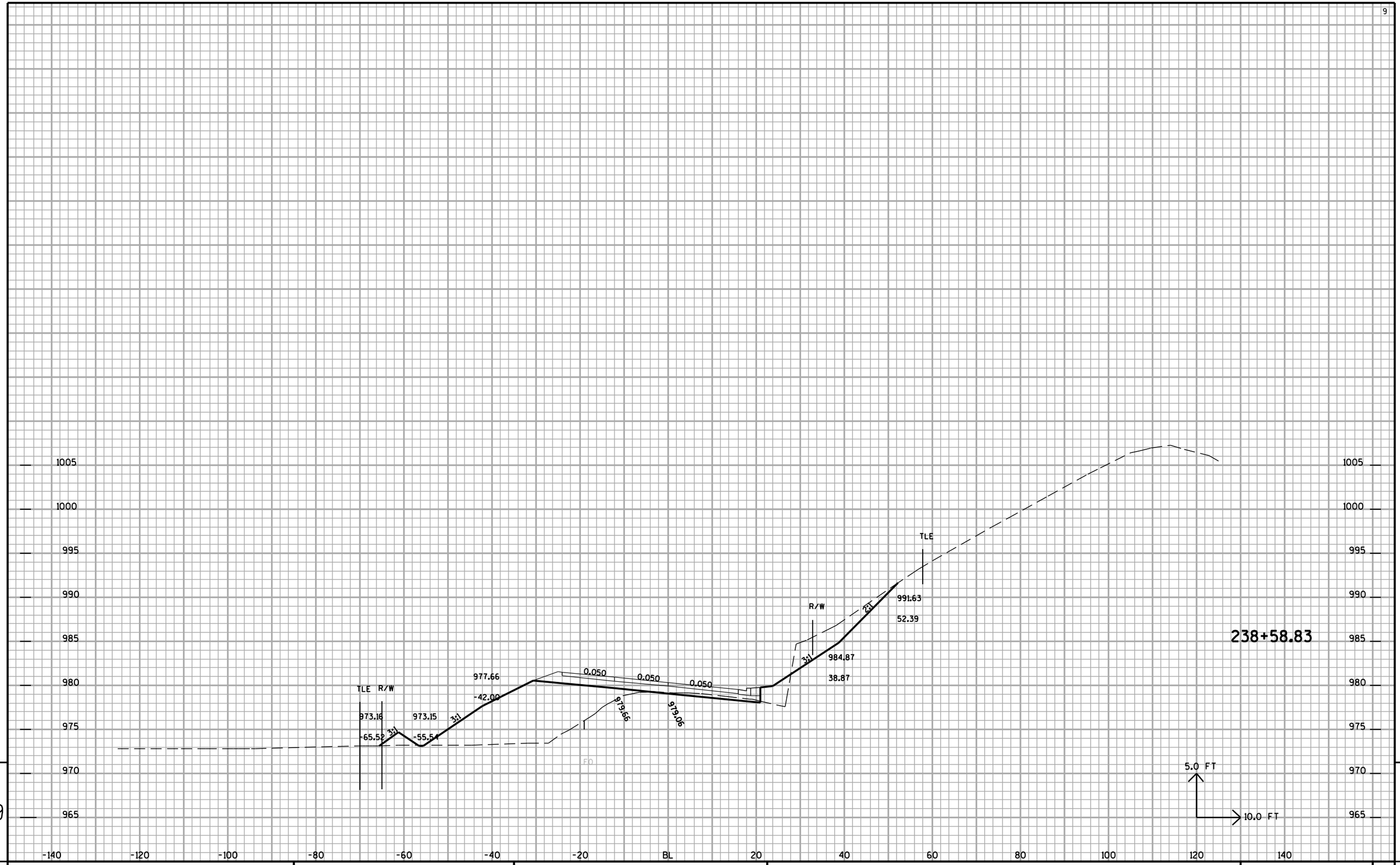


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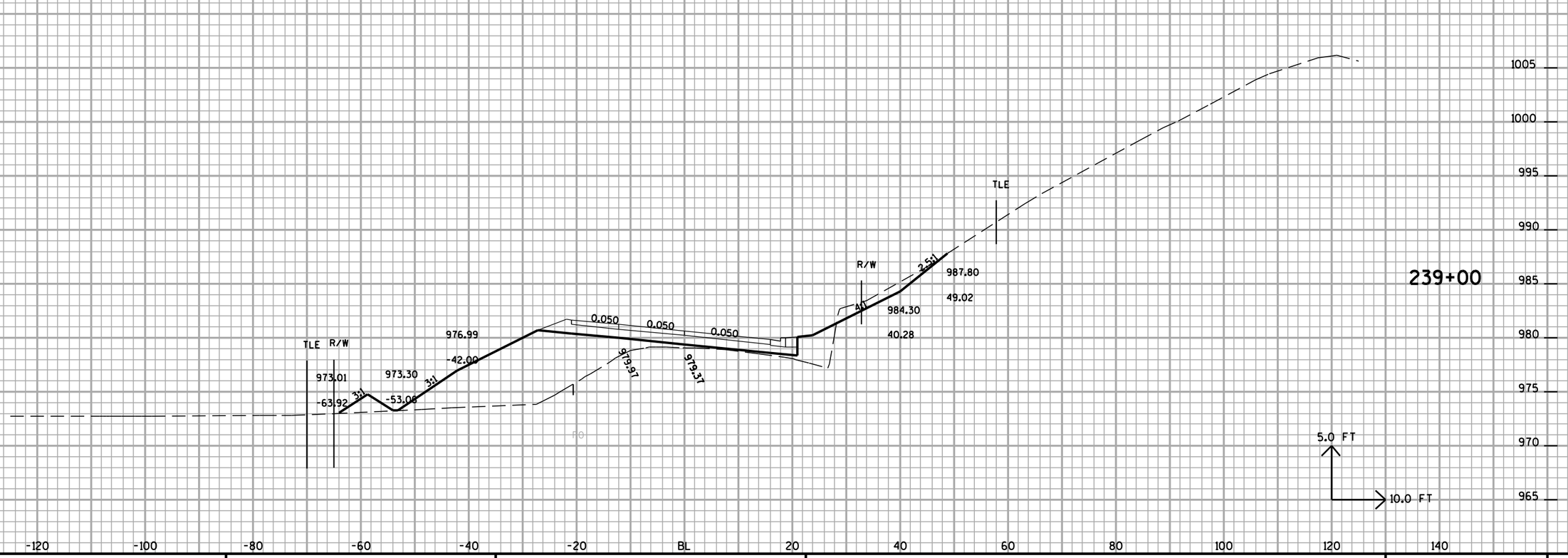
PROJECT NO: 4060-05-70	HWY: STH 28	COUNTY: WASHINGTON	CROSS SECTIONS	SHEET NO: 537	E

FILE NAME : J:±projects±D2_40600528±XS_July±090208_xs.DGN PLOT DATE : 22-JUL-2013 10:36 PLOT BY : dotr3h PLOT NAME : PLOT SCALE : 2:1



PROJECT NO: 4060-05-70	HWY: STH 28	COUNTY: WASHINGTON	CROSS SECTIONS	SHEET NO: 538	E

FILE NAME : J:±projects±D2_40600528±XS_July±090208_xs.DGN PLOT DATE : 22-JUL-2013 10:36 PLOT BY : dotr3h PLOT NAME : PLOT SCALE : 2:1



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PROJECT NO: 4060-05-70	HWY: STH 28	COUNTY: WASHINGTON	CROSS SECTIONS	SHEET NO: 539	E

FILE NAME : J:±projects±D2_40600528±XS_July±090208_xs.DGN PLOT DATE : 22-JUL-2013 10:36 PLOT BY : dotr3h PLOT NAME : PLOT SCALE : 2:1

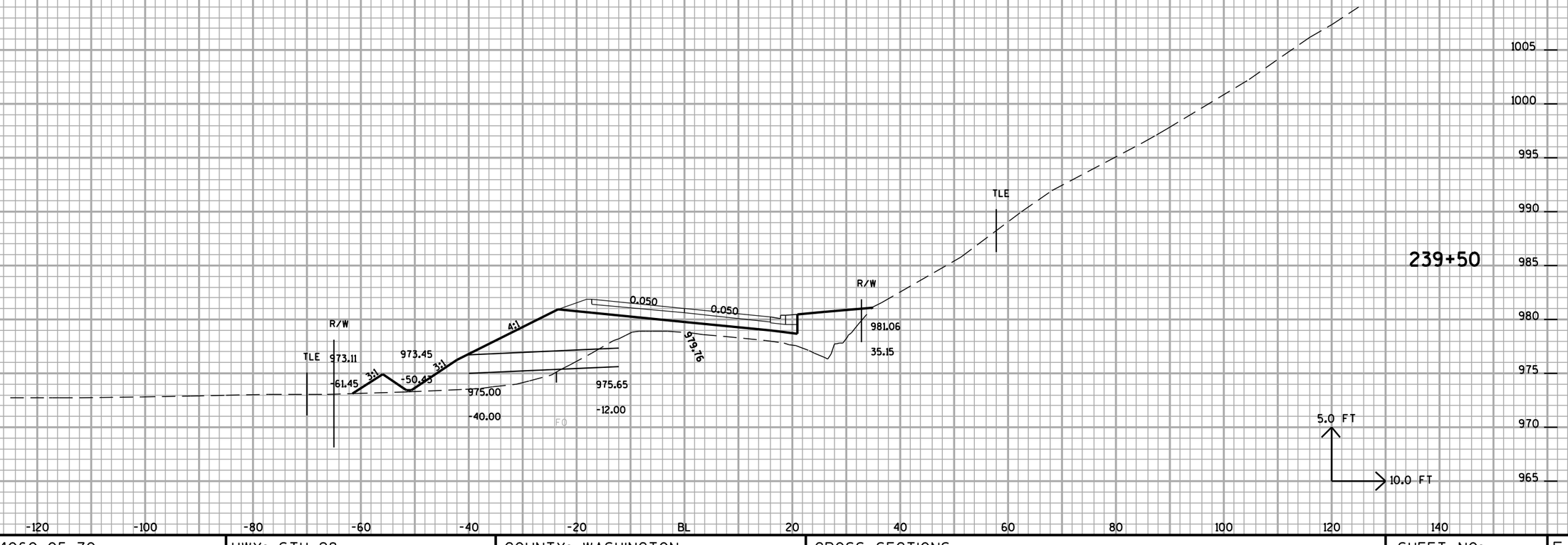


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PROJECT NO: 4060-05-70	HWY: STH 28	COUNTY: WASHINGTON	CROSS SECTIONS	SHEET NO: 540	E

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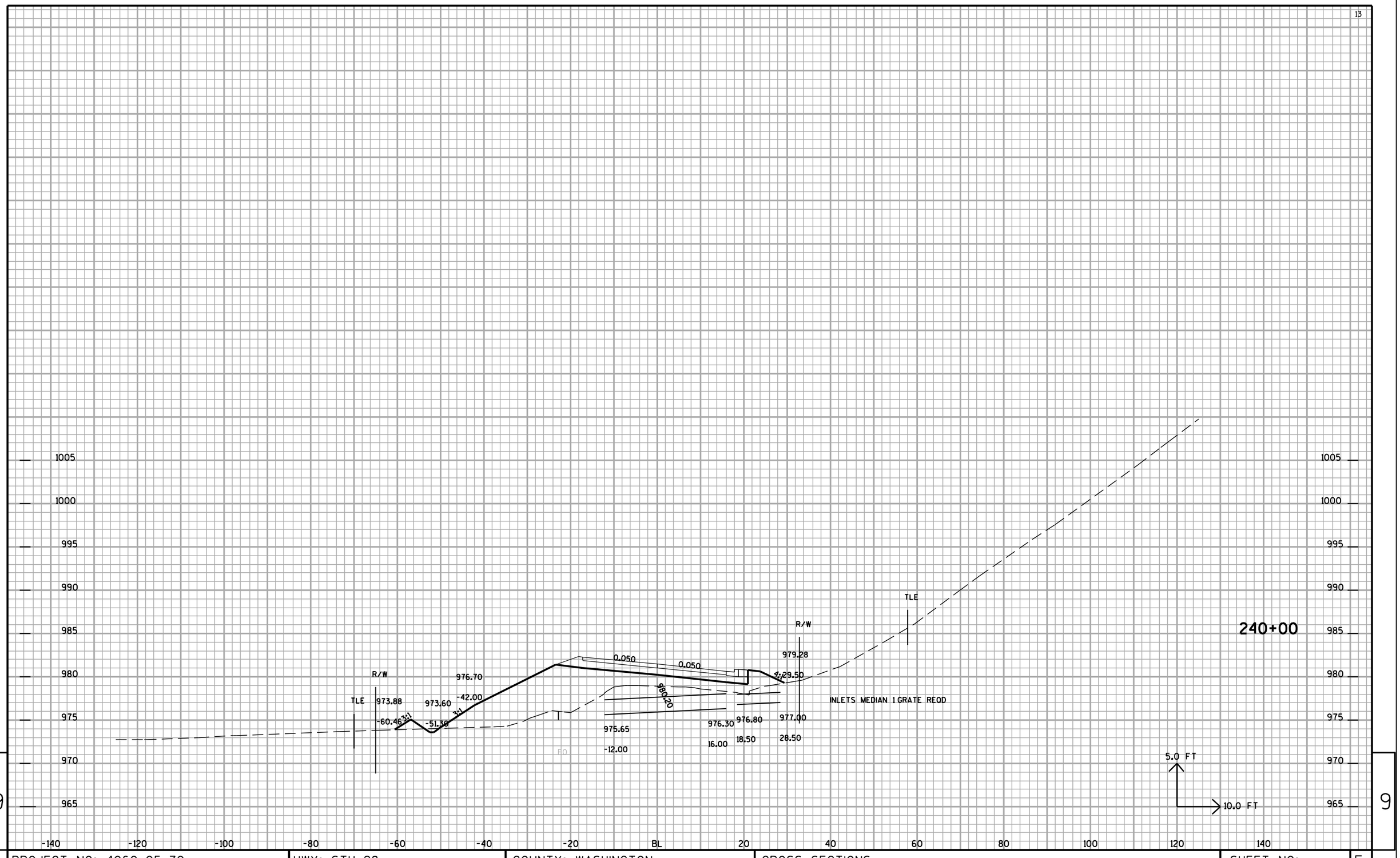


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PROJECT NO: 4060-05-70	HWY: STH 28	COUNTY: WASHINGTON	CROSS SECTIONS	SHEET NO: 541	E

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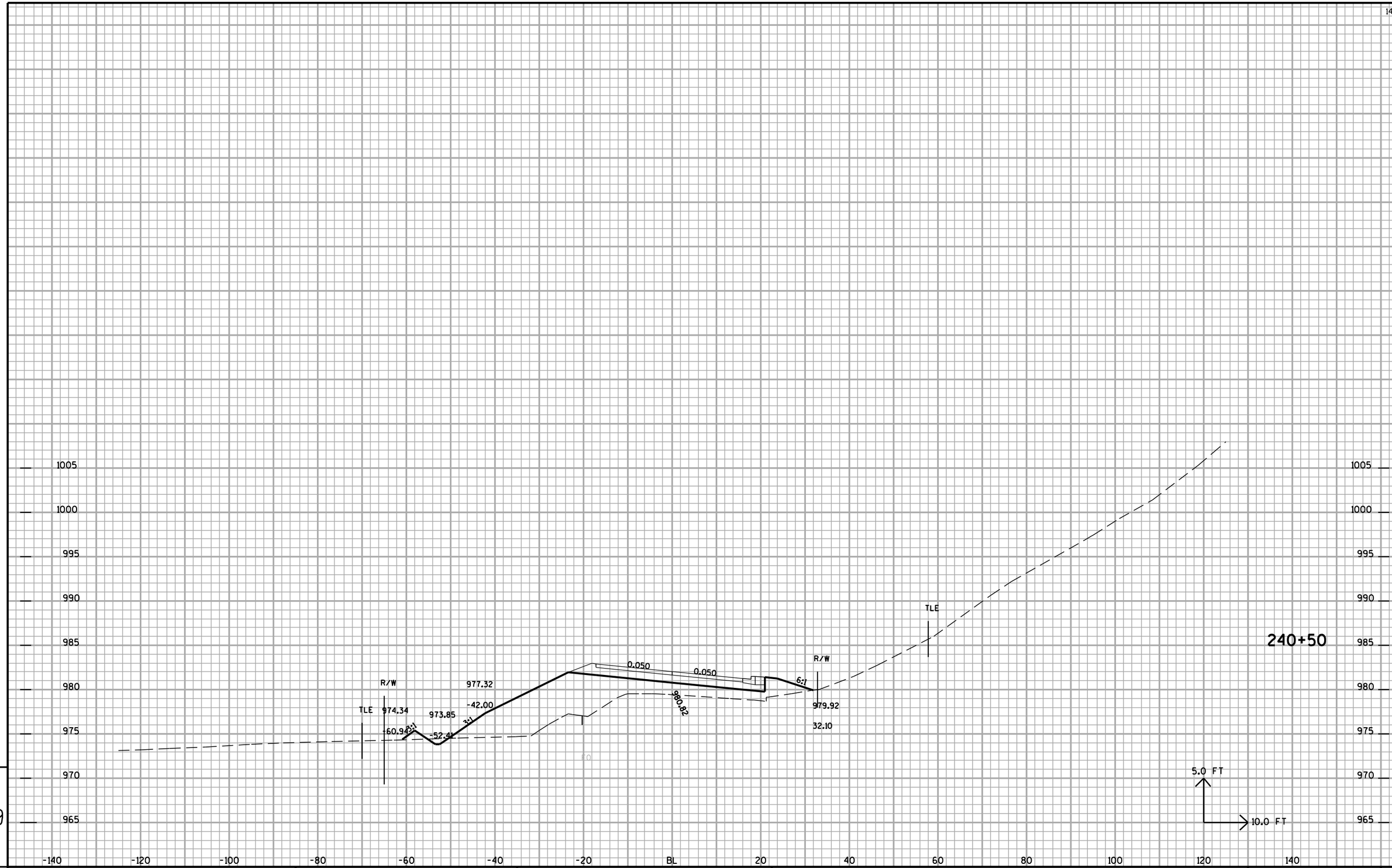


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PROJECT NO: 4060-05-70	HWY: STH 28	COUNTY: WASHINGTON	CROSS SECTIONS	SHEET NO: 542	E

FILE NAME : J:±projects±D2_40600528±XS_July±090208_xs.DGN PLOT DATE : 22-JUL-2013 10:36 PLOT BY : dotr3h PLOT NAME : PLOT SCALE : 2:1



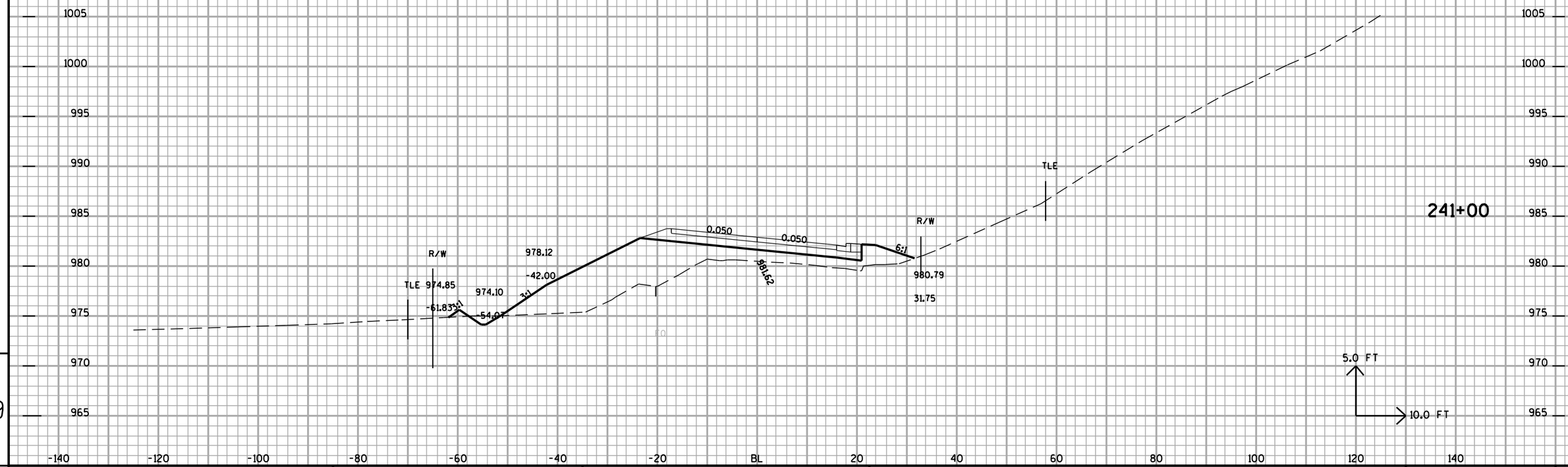
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PROJECT NO: 4060-05-70	HWY: STH 28	COUNTY: WASHINGTON	CROSS SECTIONS	SHEET NO: 543	E

FILE NAME : J:±projects±D2_40600528±XS_July±090208_xs.DGN PLOT DATE : 22-JUL-2013 10:36 PLOT BY : dotr3h PLOT NAME : PLOT SCALE : 2:1

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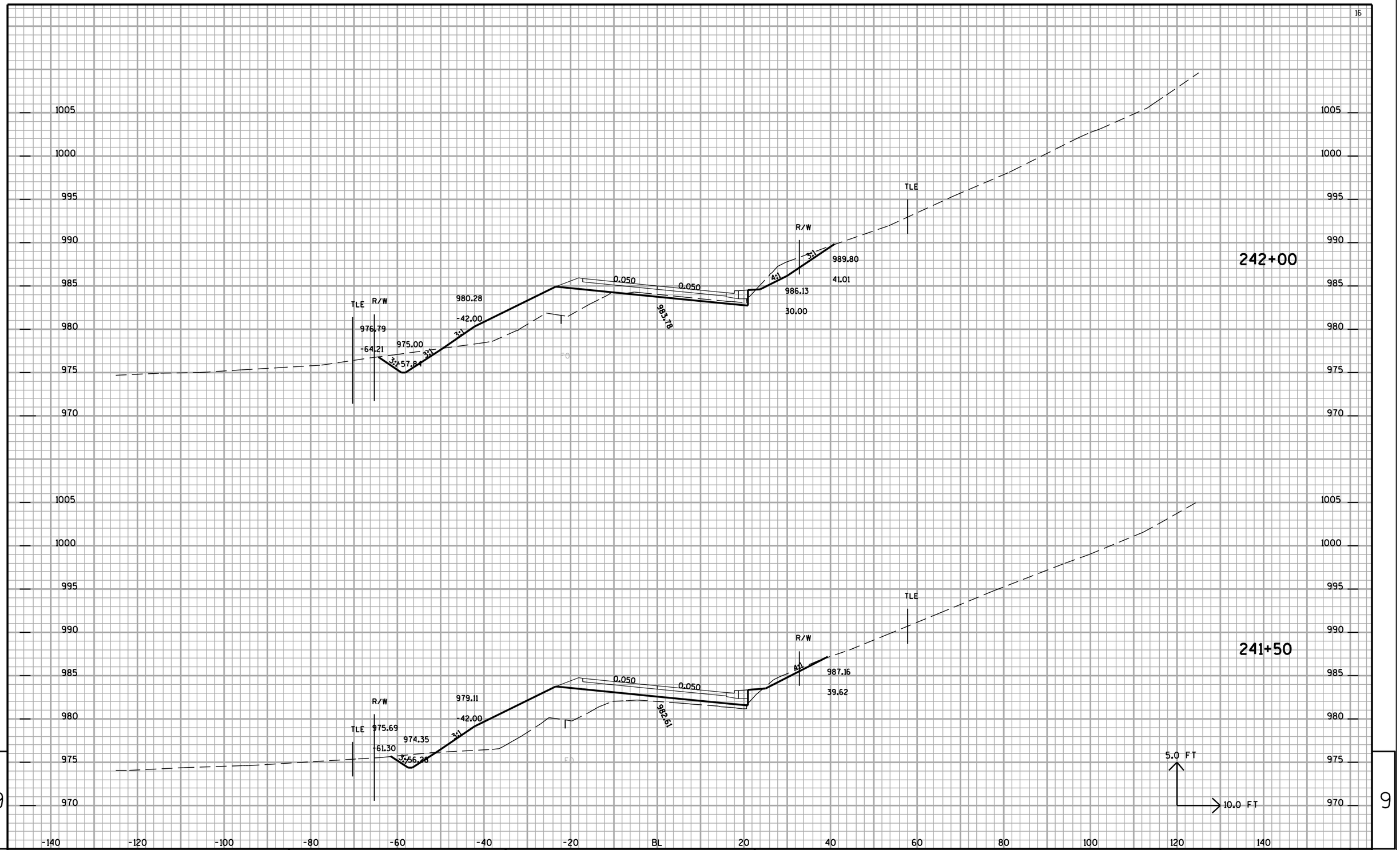


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PROJECT NO: 4060-05-70	HWY: STH 28	COUNTY: WASHINGTON	CROSS SECTIONS	SHEET NO: 544	E

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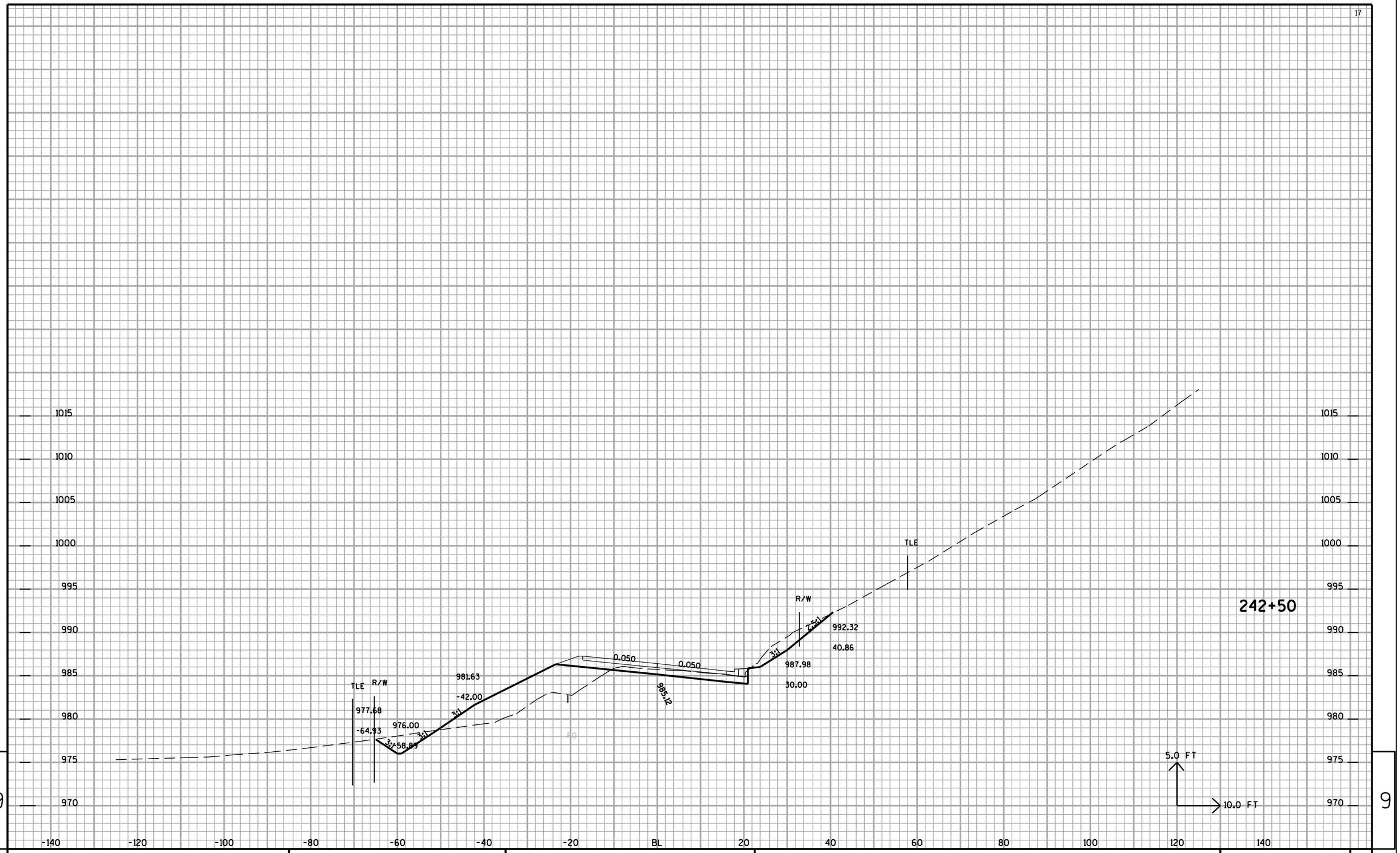


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PROJECT NO: 4060-05-70	HWY: STH 28	COUNTY: WASHINGTON	CROSS SECTIONS	SHEET NO: 545	E

FILE NAME : J:±projects±D2_40600528±XS_July±090208_xs.DGN PLOT DATE : 22-JUL-2013 10:36 PLOT BY : dotr3h PLOT NAME : PLOT SCALE : 2:1



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PROJECT NO: 4060-05-70	HWY: STH 28	COUNTY: WASHINGTON	CROSS SECTIONS	SHEET NO: 546	E

FILE NAME : J:\projects\D2_40600528\XS_July\090208_xs.DGN PLOT DATE : 22-JUL-2013 10:36 PLOT BY : dotr3h PLOT NAME : PLOT SCALE : 2:1

243+00

TLE
R/W
978.42
977.00
-66.19
-59.81
3:1
3:1
982.98
-42.00
981.88
-40.00
0.050
0.050
985.48
983.00
16.00
R/W
3:1
989.63
30.00
2:1
TLE
1002.46
55.66

5.0 FT
10.0 FT

1025 1020 1015 1010 1005 1000 995 990 985 980 975 970

-140 -120 -100 -80 -60 -40 -20 BL 20 40 60 80 100 120 140

9

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PROJECT NO: 4060-05-70	HWY: STH 28	COUNTY: WASHINGTON	CROSS SECTIONS	SHEET NO: 547	E

FILE NAME : J:\projects\D2_40600528\XS_July\090208_xs.DGN PLOT DATE : 22-JUL-2013 10:36 PLOT BY : dotr3h PLOT NAME : PLOT SCALE : 2:1

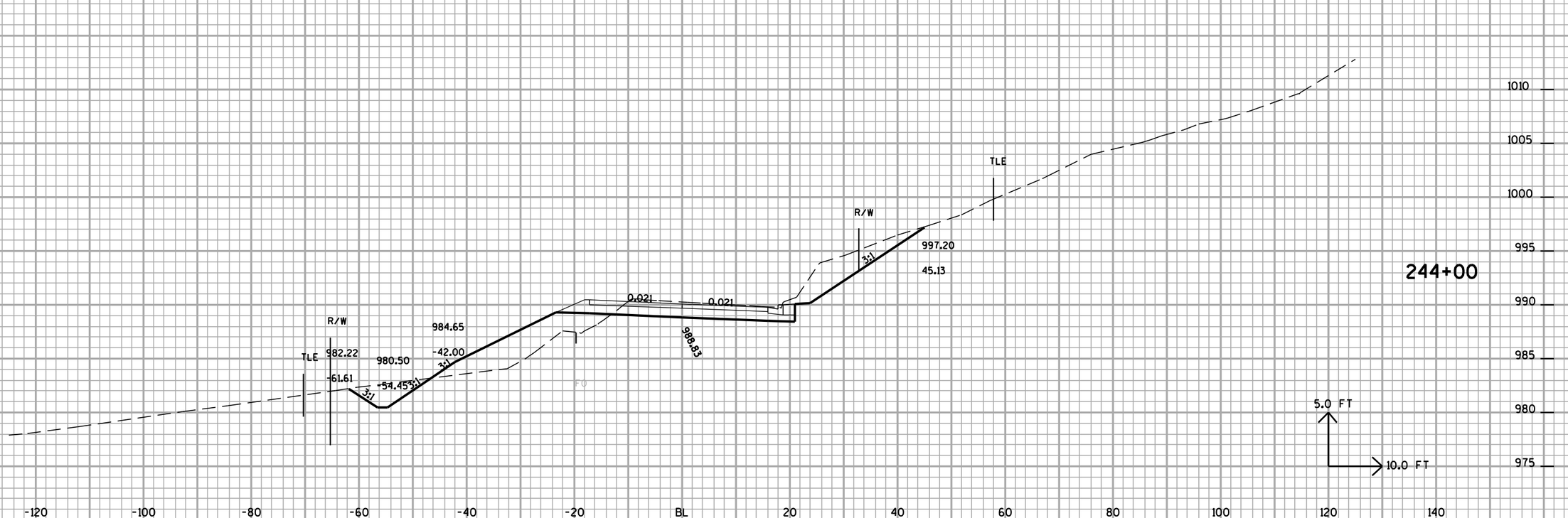


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PROJECT NO: 4060-05-70	HWY: STH 28	COUNTY: WASHINGTON	CROSS SECTIONS	SHEET NO: 548	E

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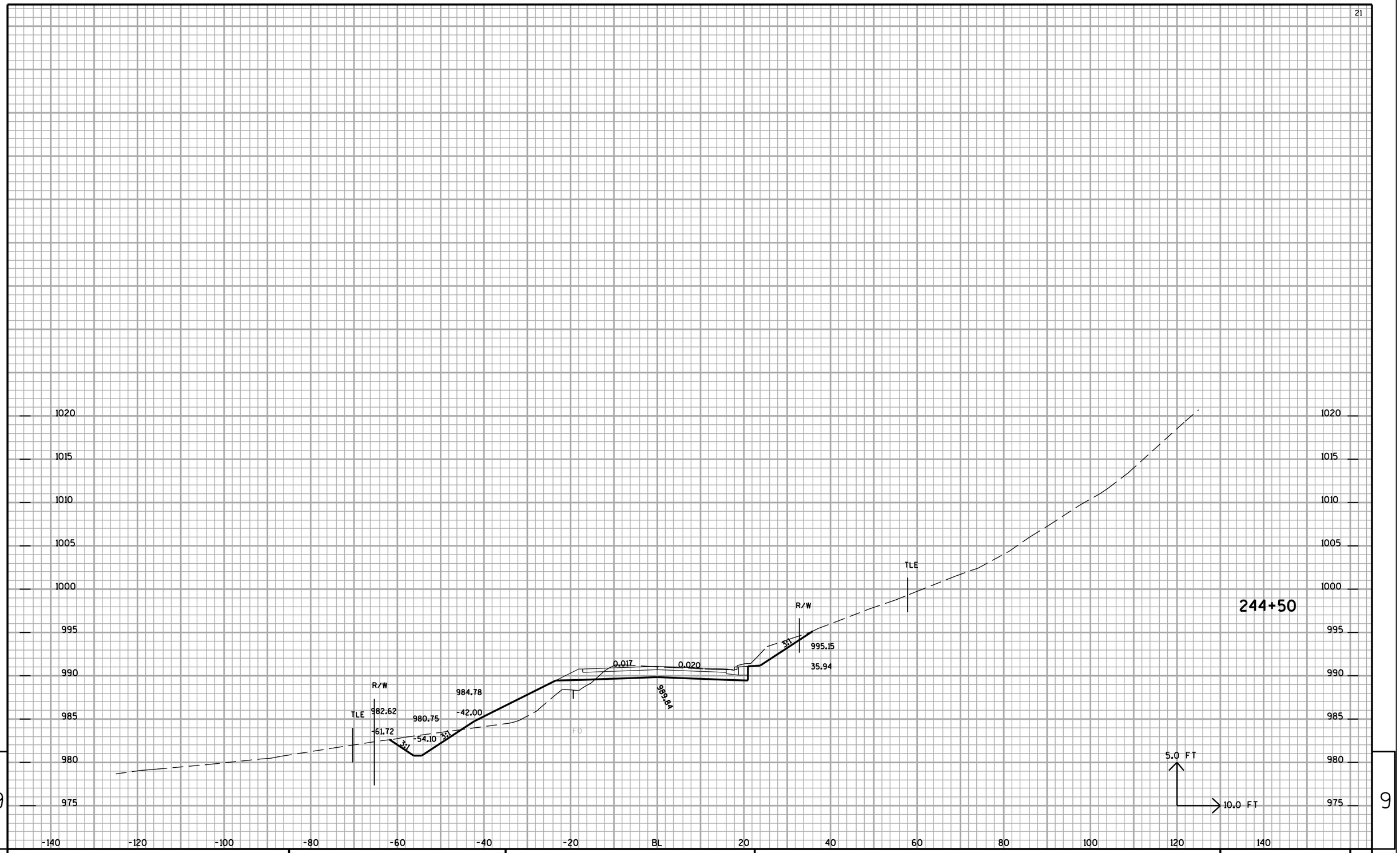


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PROJECT NO: 4060-05-70	HWY: STH 28	COUNTY: WASHINGTON	CROSS SECTIONS	SHEET NO: 549	E

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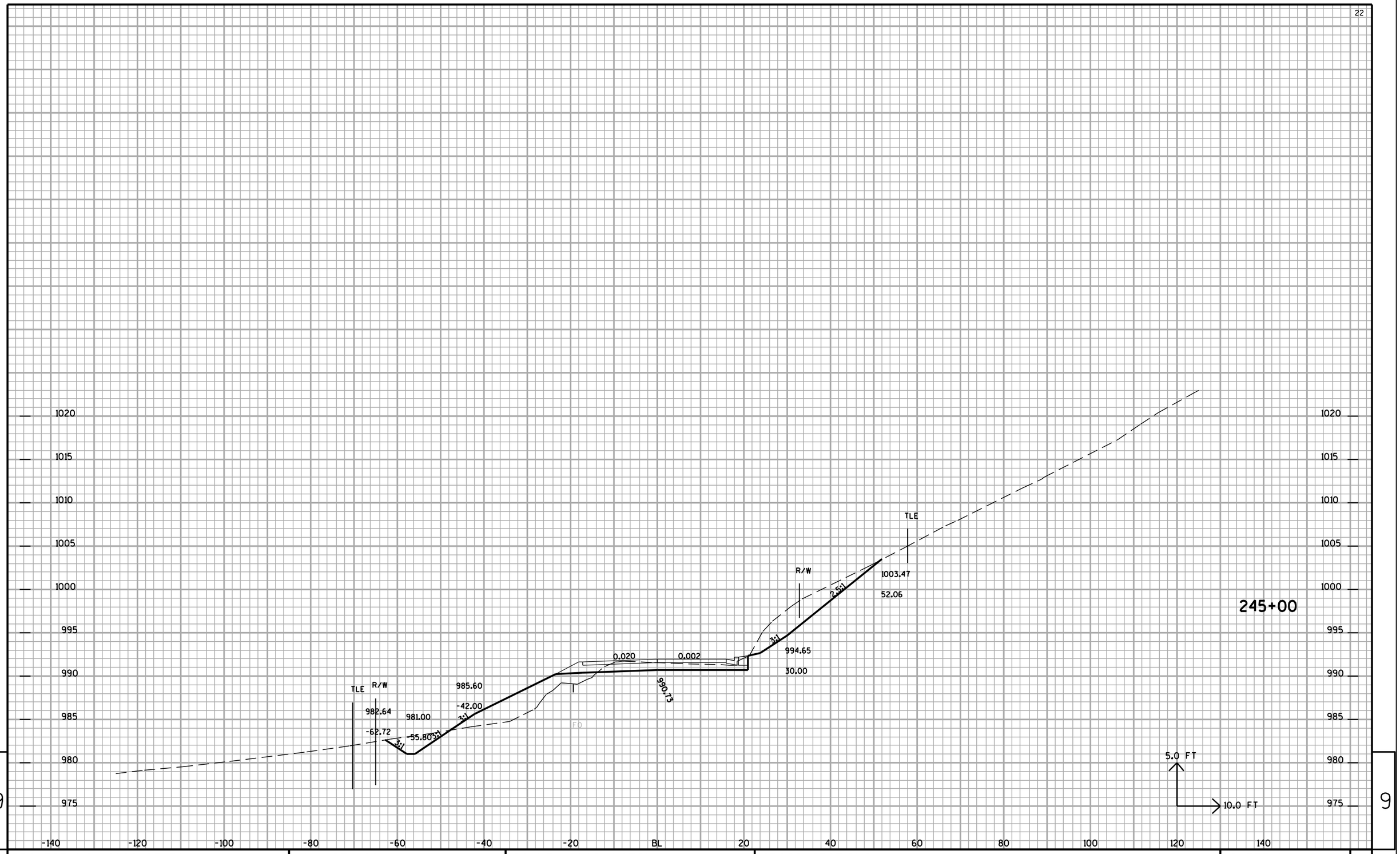


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PROJECT NO: 4060-05-70	HWY: STH 28	COUNTY: WASHINGTON	CROSS SECTIONS	SHEET NO: 550	E

FILE NAME : J:±projects±D2_40600528±XS_July±090208_xs.DGN PLOT DATE : 22-JUL-2013 10:36 PLOT BY : dotr3h PLOT NAME : PLOT SCALE : 2:1



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PROJECT NO: 4060-05-70	HWY: STH 28	COUNTY: WASHINGTON	CROSS SECTIONS	SHEET NO: 551	E

FILE NAME : J:±projects±D2_40600528±XS_July±090208_xs.DGN PLOT DATE : 22-JUL-2013 10:36 PLOT BY : dotr3h PLOT NAME : PLOT SCALE : 2:1

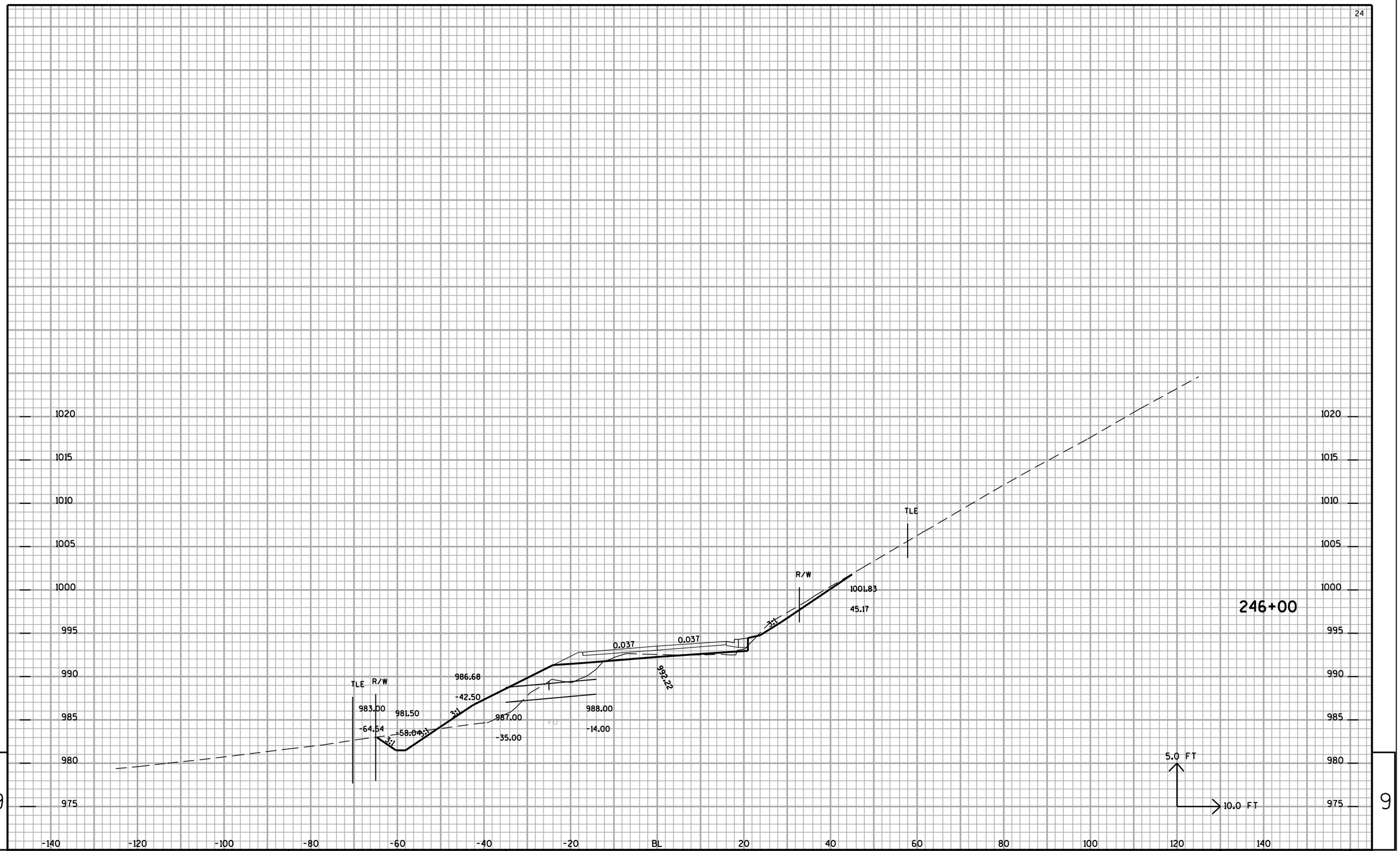


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PROJECT NO: 4060-05-70	HWY: STH 28	COUNTY: WASHINGTON	CROSS SECTIONS	SHEET NO: 552	E

FILE NAME : J:±projects±D2_40600528±XS_July±090208_xs.DGN PLOT DATE : 22-JUL-2013 10:36 PLOT BY : dotr3h PLOT NAME : PLOT SCALE : 2:1



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PROJECT NO: 4060-05-70	HWY: STH 28	COUNTY: WASHINGTON	CROSS SECTIONS	SHEET NO: 553	E

FILE NAME : J:±projects±D2_40600528±XS_July±090208_xs.DGN PLOT DATE : 22-JUL-2013 10:36 PLOT BY : dotr3h PLOT NAME : PLOT SCALE : 2:1

25

246+50

1025
1020
1015
1010
1005
1000
995
990
985
980
975

R/W
983.70
-52.44
987.17
-42.00
3%
0.056
0.056
992.94
988.00
-14.00
989.00
7.00
995.20
27.01
995.95
29.98
R/W
TLE

-140 -120 -100 -80 -60 -40 -20 BL 20 40 60 80 100 120 140

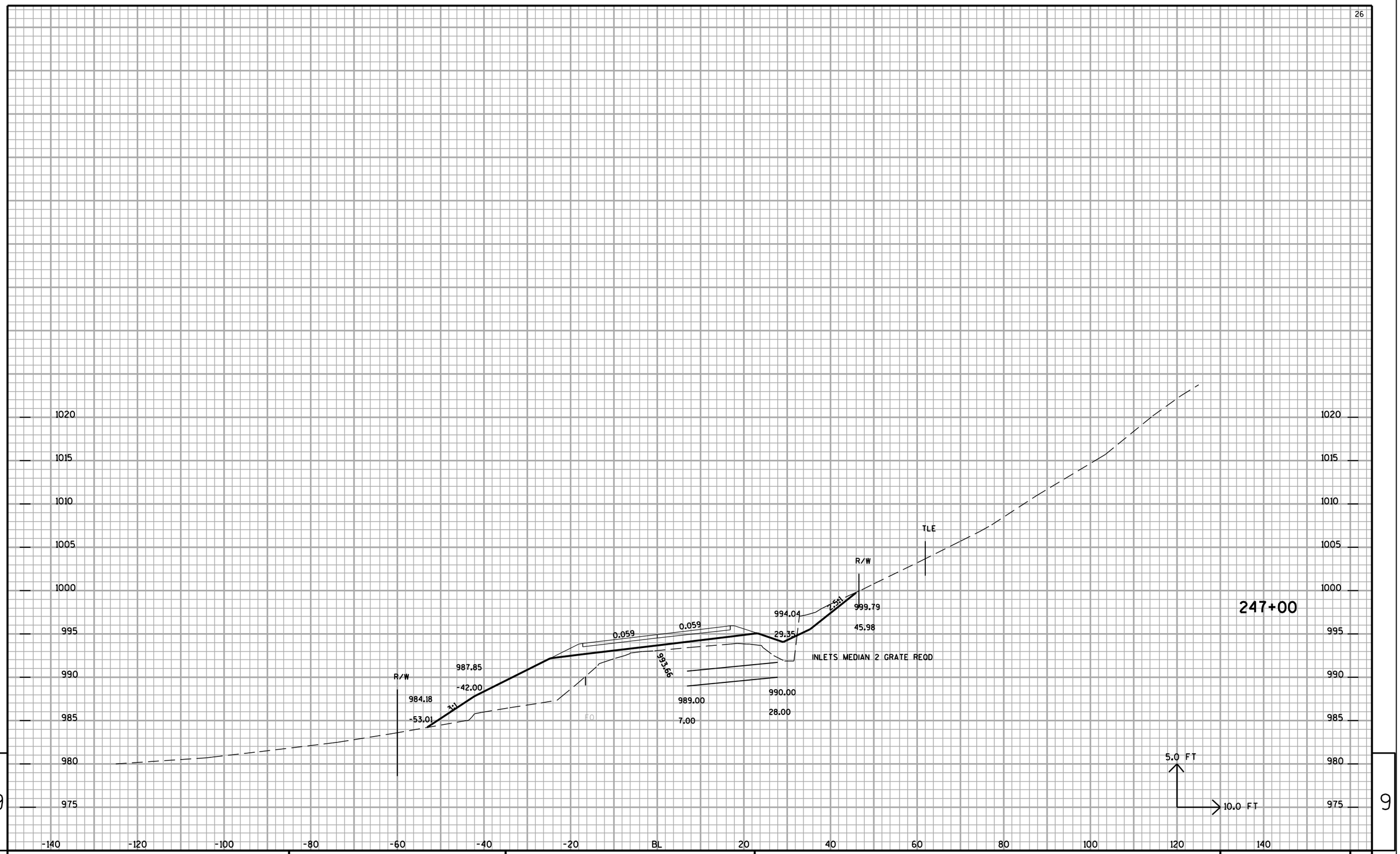
5.0 FT
10.0 FT

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PROJECT NO: 4060-05-70	HWY: STH 28	COUNTY: WASHINGTON	CROSS SECTIONS	SHEET NO: 554	E

FILE NAME : J:±projects±D2_40600528±XS_July±090208_xs.DGN PLOT DATE : 22-JUL-2013 10:36 PLOT BY : dotr3h PLOT NAME : PLOT SCALE : 2:1

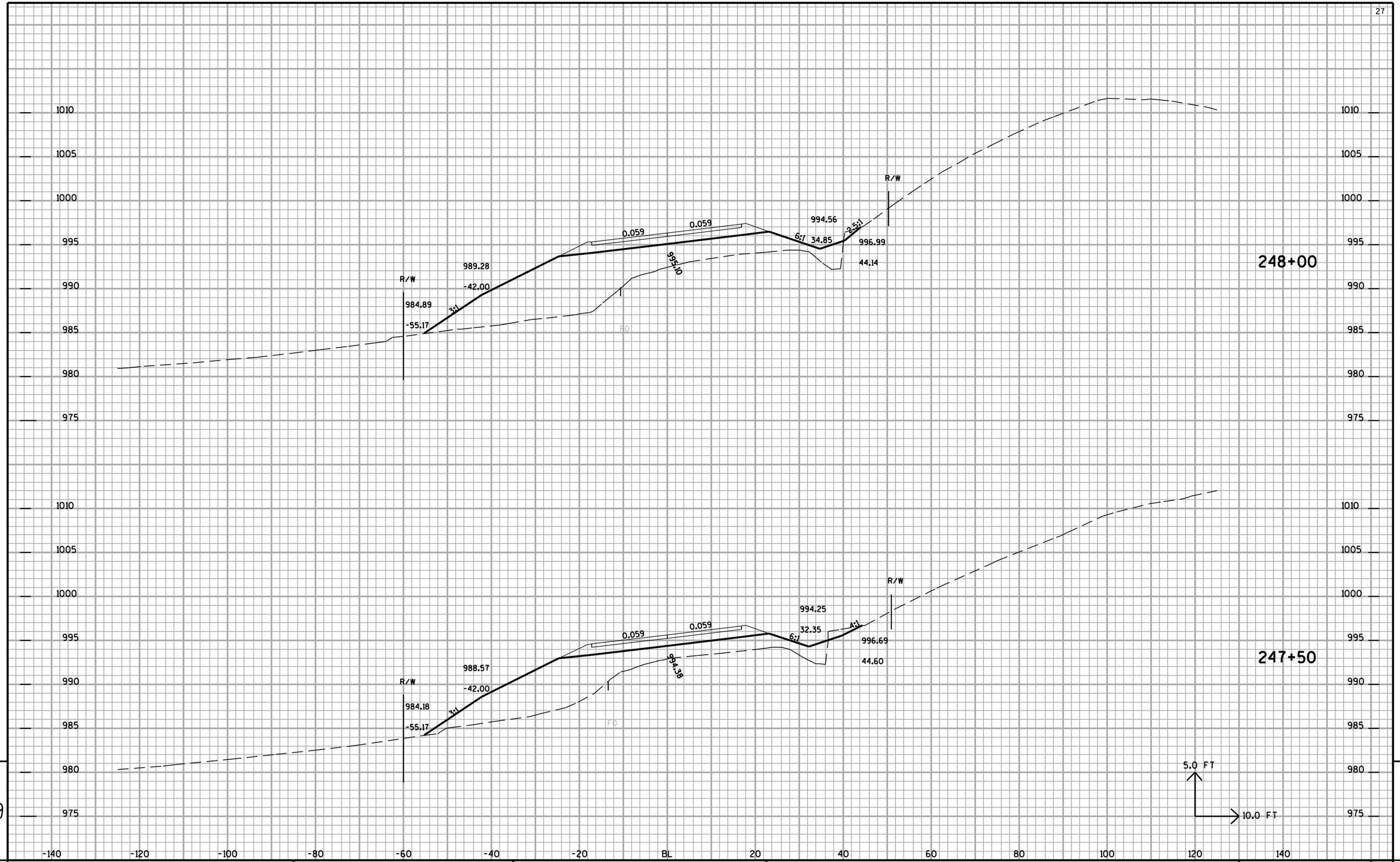


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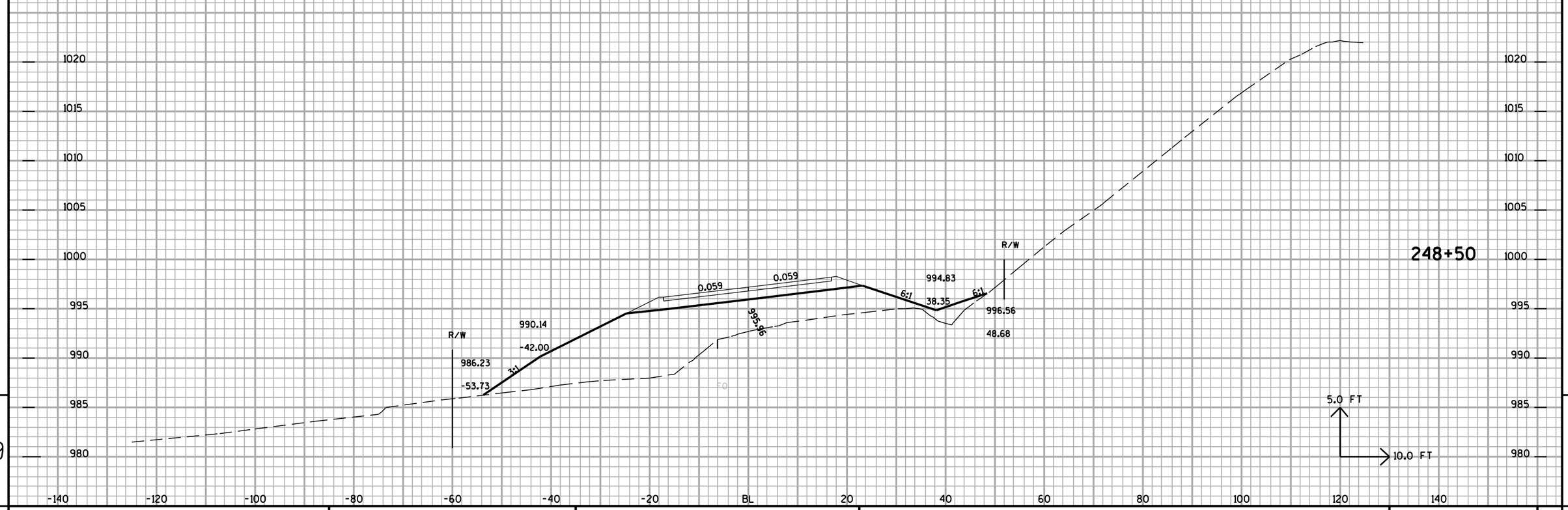
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FILE NAME : J:±projects±D2_40600528±XS_July±090208_xs.DGN PLOT DATE : 22-JUL-2013 10:36 PLOT BY : dotr3h PLOT NAME : PLOT SCALE : 2:1



PROJECT NO: 4060-05-70	HWY: STH 28	COUNTY: WASHINGTON	CROSS SECTIONS	SHEET NO: 556	E

FILE NAME : J:±projects±D2_40600528±XS_July±090208_xs.DGN PLOT DATE : 22-JUL-2013 10:36 PLOT BY : dotr3h PLOT NAME : PLOT SCALE : 2:1



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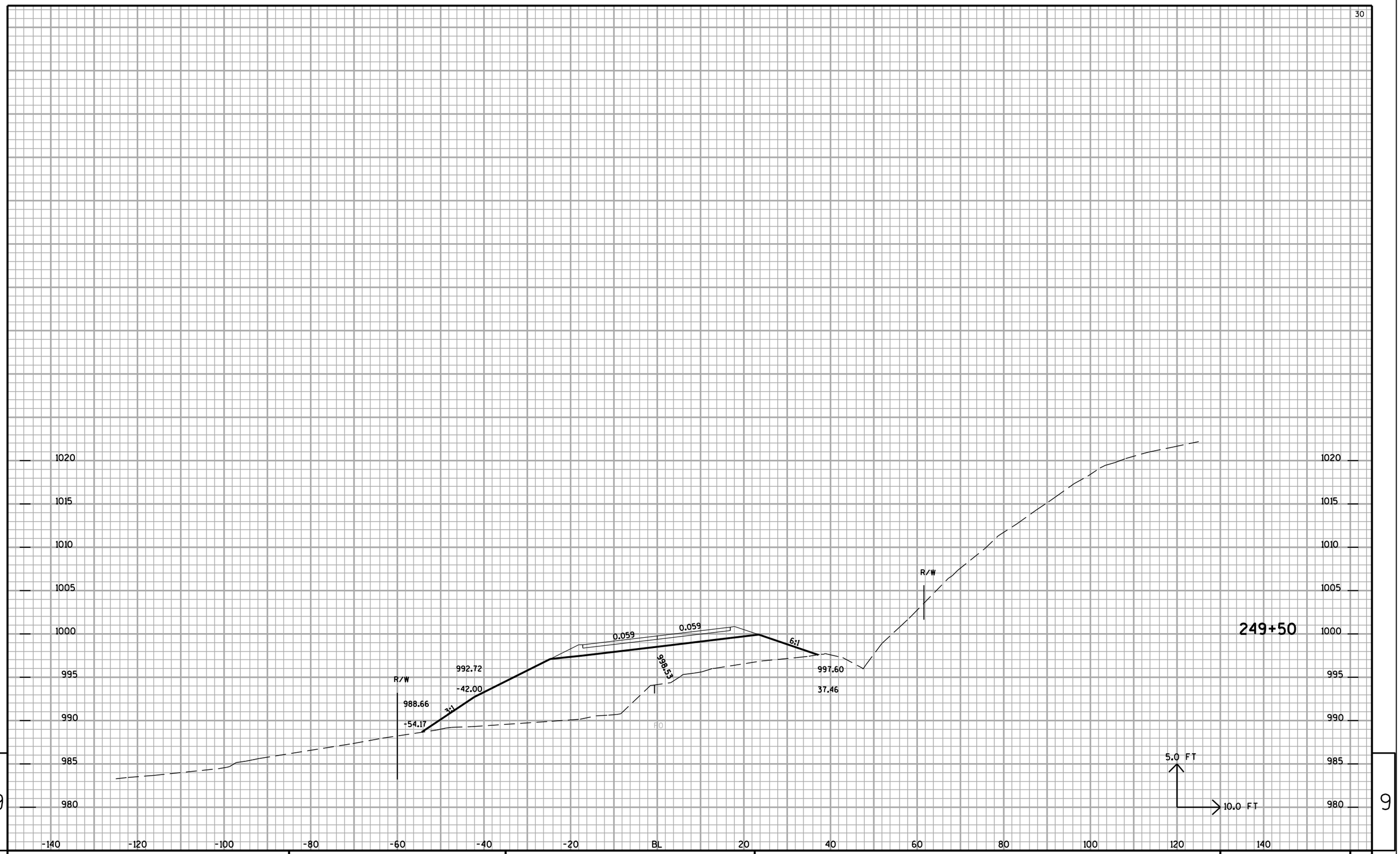
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FILE NAME : J:±projects±D2_40600528±XS_July±090208_xs.DGN PLOT DATE : 22-JUL-2013 10:36 PLOT BY : dotr3h PLOT NAME : PLOT SCALE : 2:1



PROJECT NO: 4060-05-70	HWY: STH 28	COUNTY: WASHINGTON	CROSS SECTIONS	SHEET NO: 558	E

FILE NAME : J:±projects±D2_40600528±XS_July±090208_xs.DGN PLOT DATE : 22-JUL-2013 10:36 PLOT BY : dotr3h PLOT NAME : PLOT SCALE : 2:1

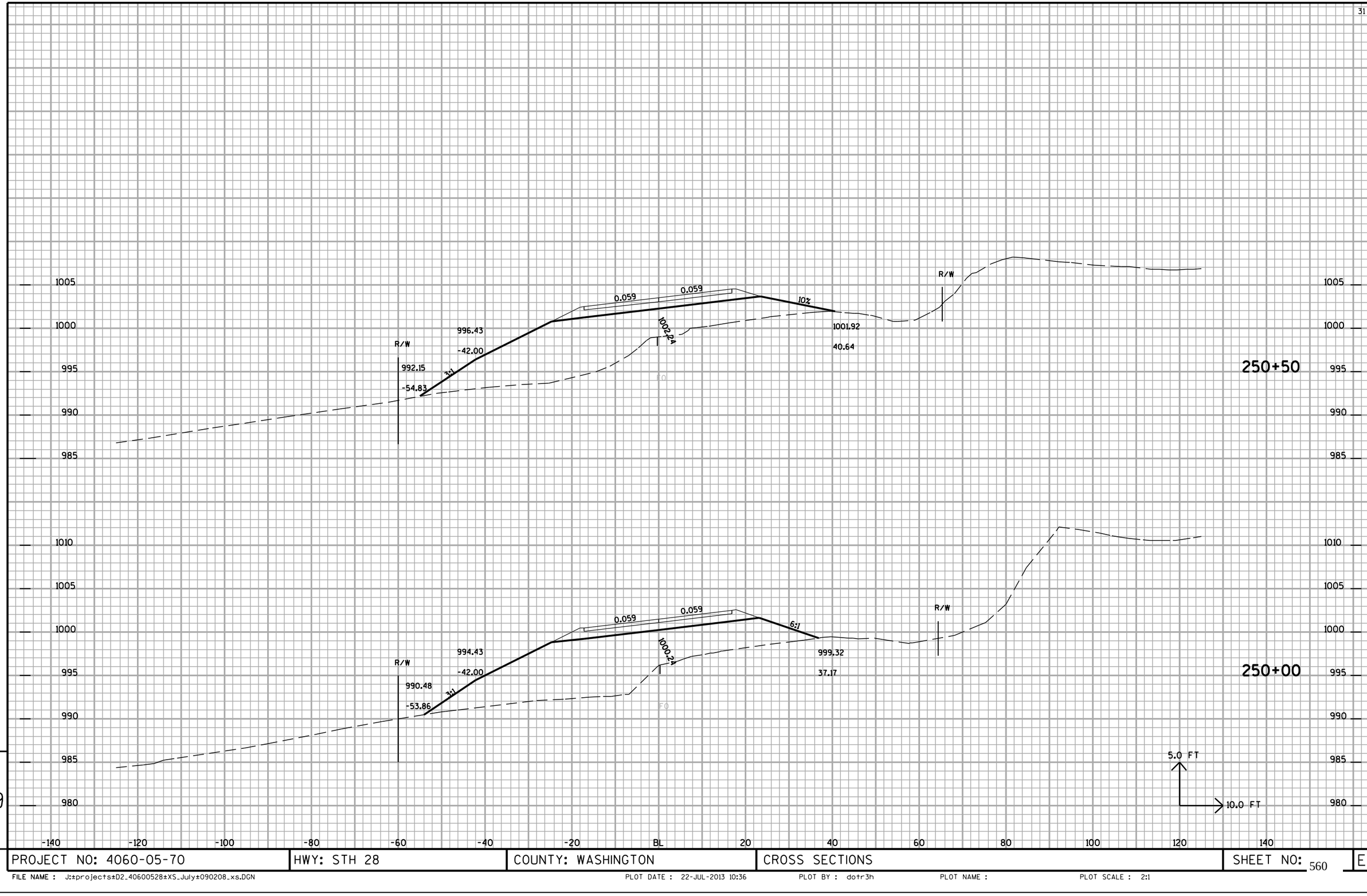


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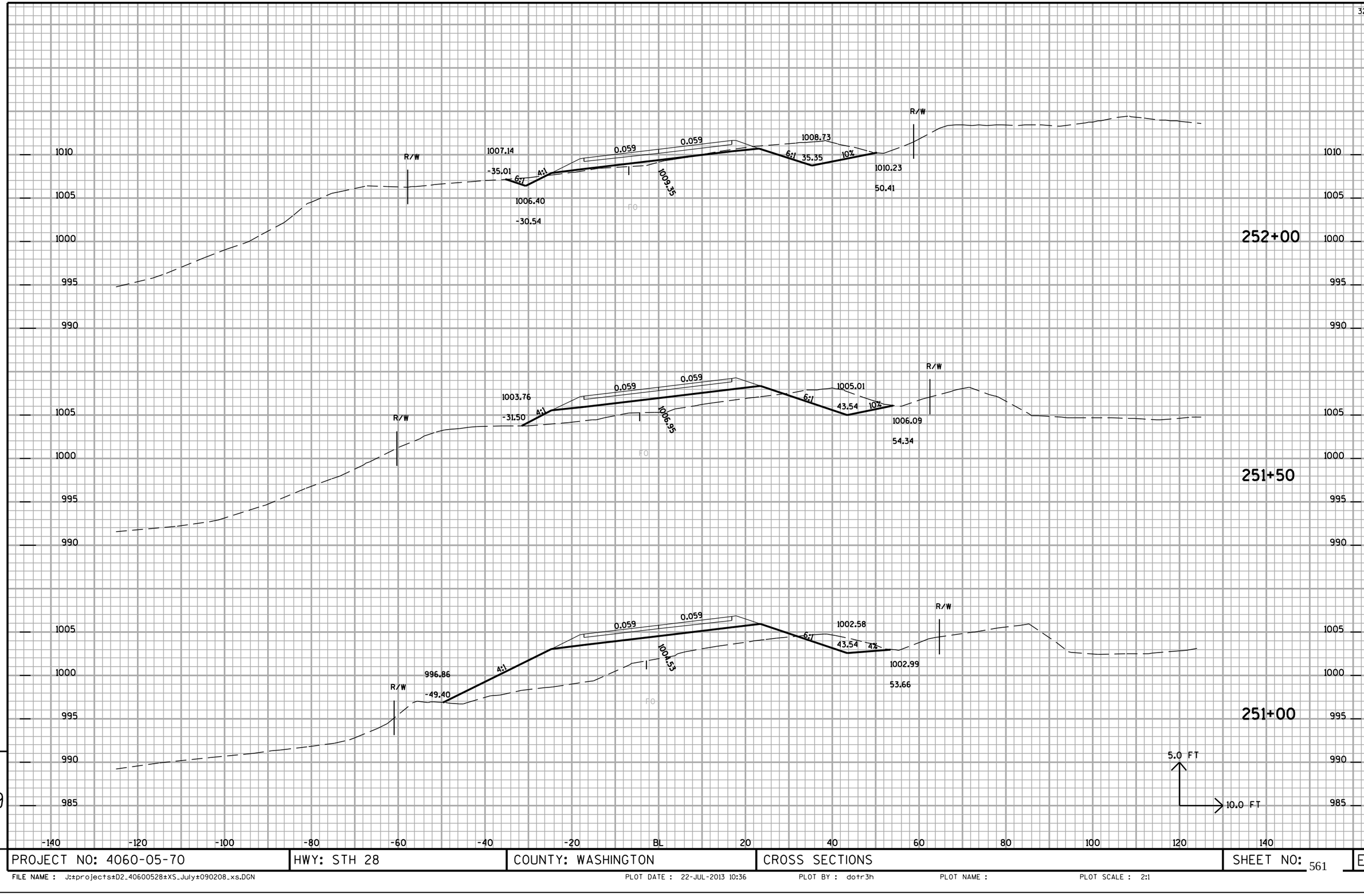
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FILE NAME : J:±projects±D2_40600528±XS_July±090208_xs.DGN PLOT DATE : 22-JUL-2013 10:36 PLOT BY : dotr3h PLOT NAME : PLOT SCALE : 2:1



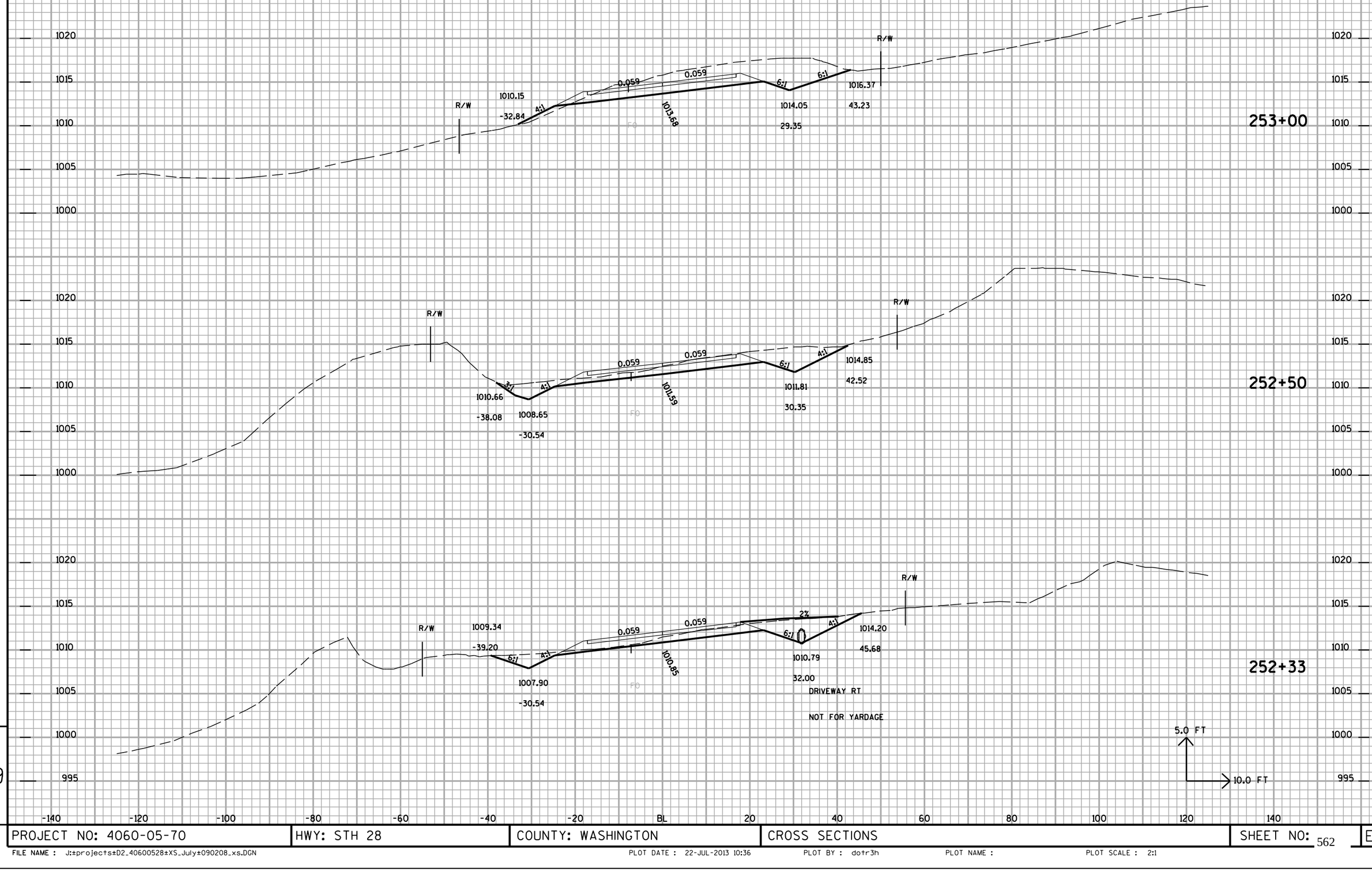
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FILE NAME : J:±projects±D2_40600528±XS_July±090208_xs.DGN PLOT DATE : 22-JUL-2013 10:36 PLOT BY : dotr3h PLOT NAME : PLOT SCALE : 2:1



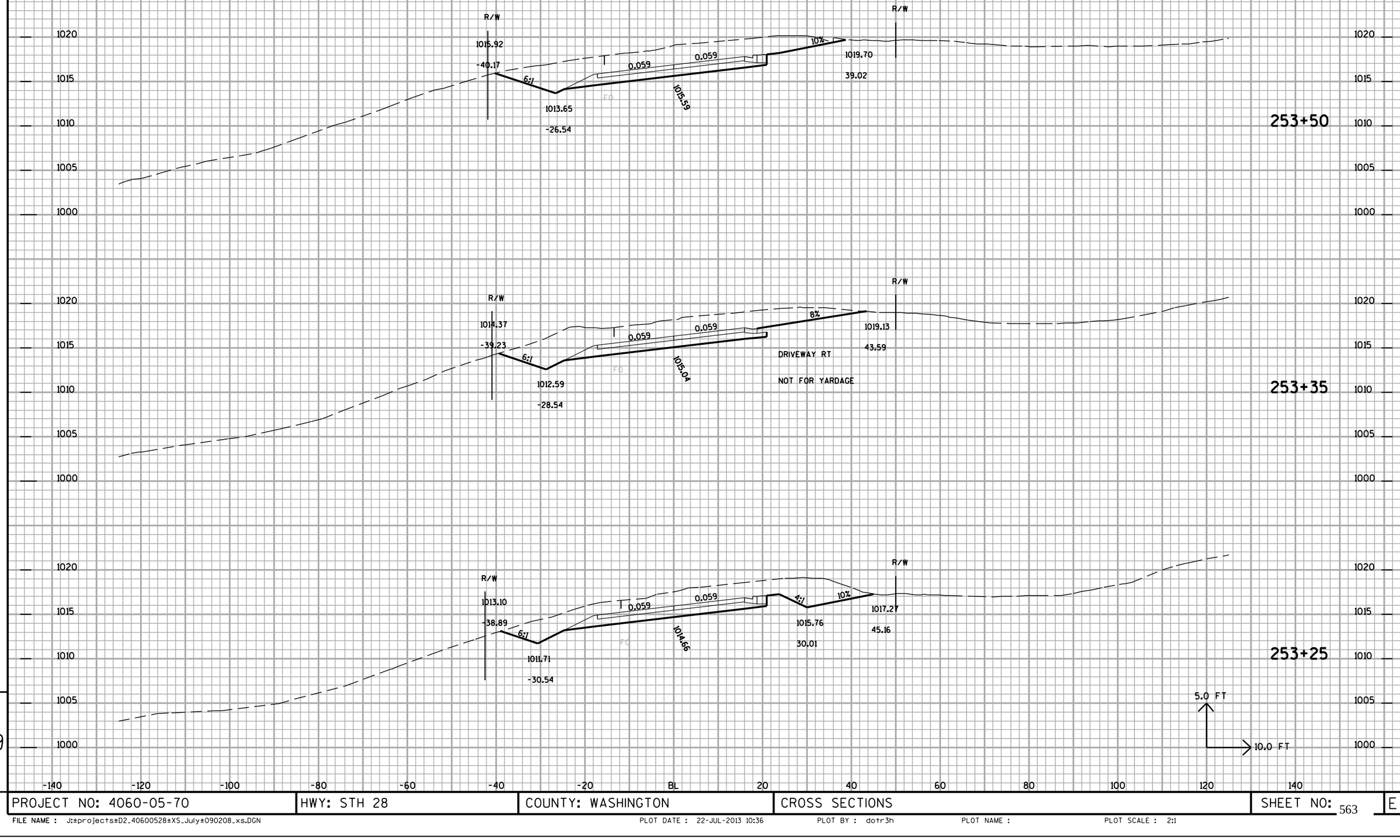
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FILE NAME : J:±projects±D2_40600528±XS_July±090208_xs.DGN PLOT DATE : 22-JUL-2013 10:36 PLOT BY : dotr3h PLOT NAME : PLOT SCALE : 2:1



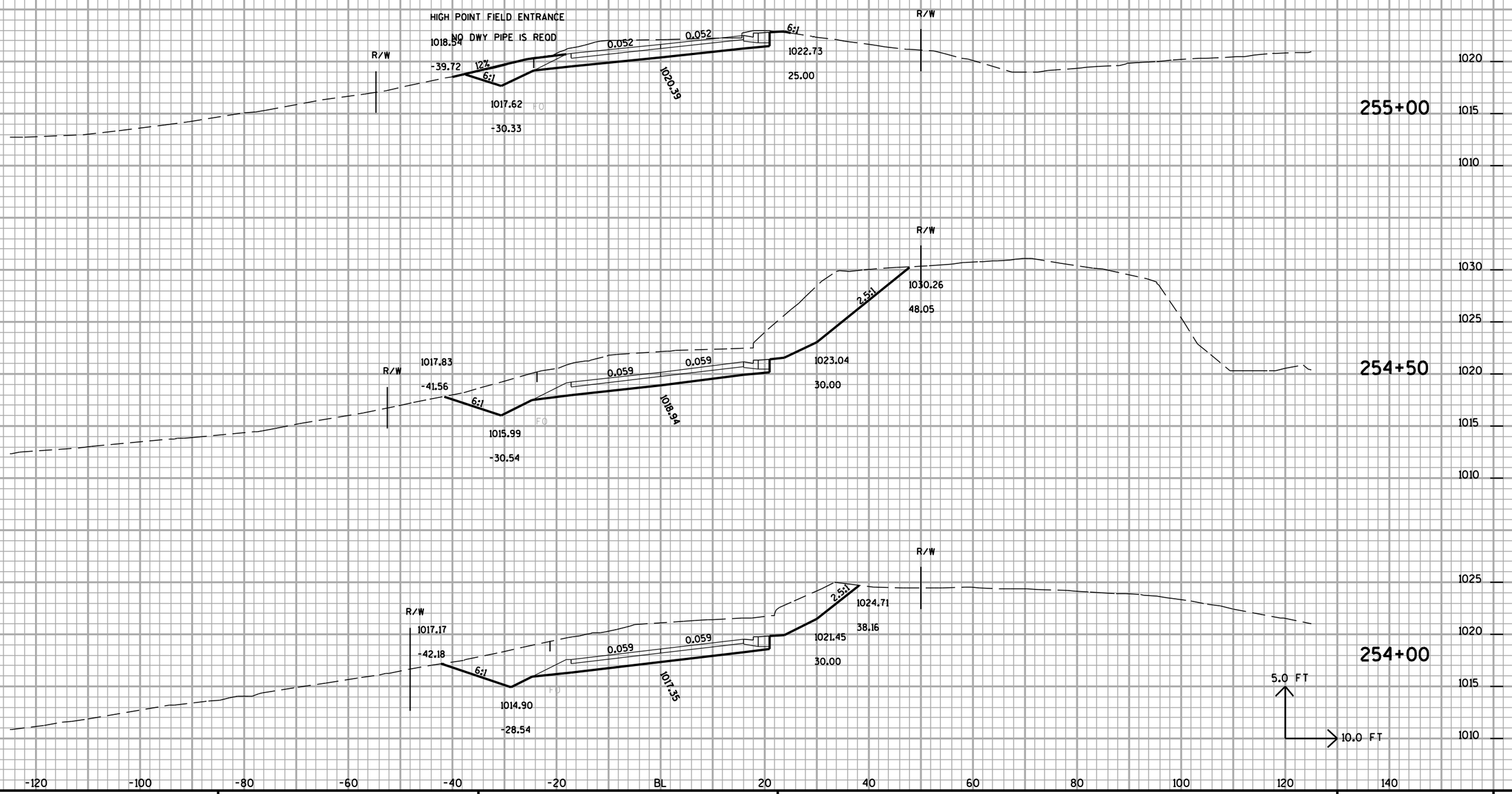
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FILE NAME : J:±projects±D2_40600528±XS_July±090208_xs.DGN PLOT DATE : 22-JUL-2013 10:36 PLOT BY : dotr3h PLOT NAME : PLOT SCALE : 2:1



PROJECT NO: 4060-05-70	HWY: STH 28	COUNTY: WASHINGTON	CROSS SECTIONS	SHEET NO: 563	E

FILE NAME : J:±projects±D2_40600528±XS_July±090208_xs.DGN PLOT DATE : 22-JUL-2013 10:36 PLOT BY : dotr3h PLOT NAME : PLOT SCALE : 2:1

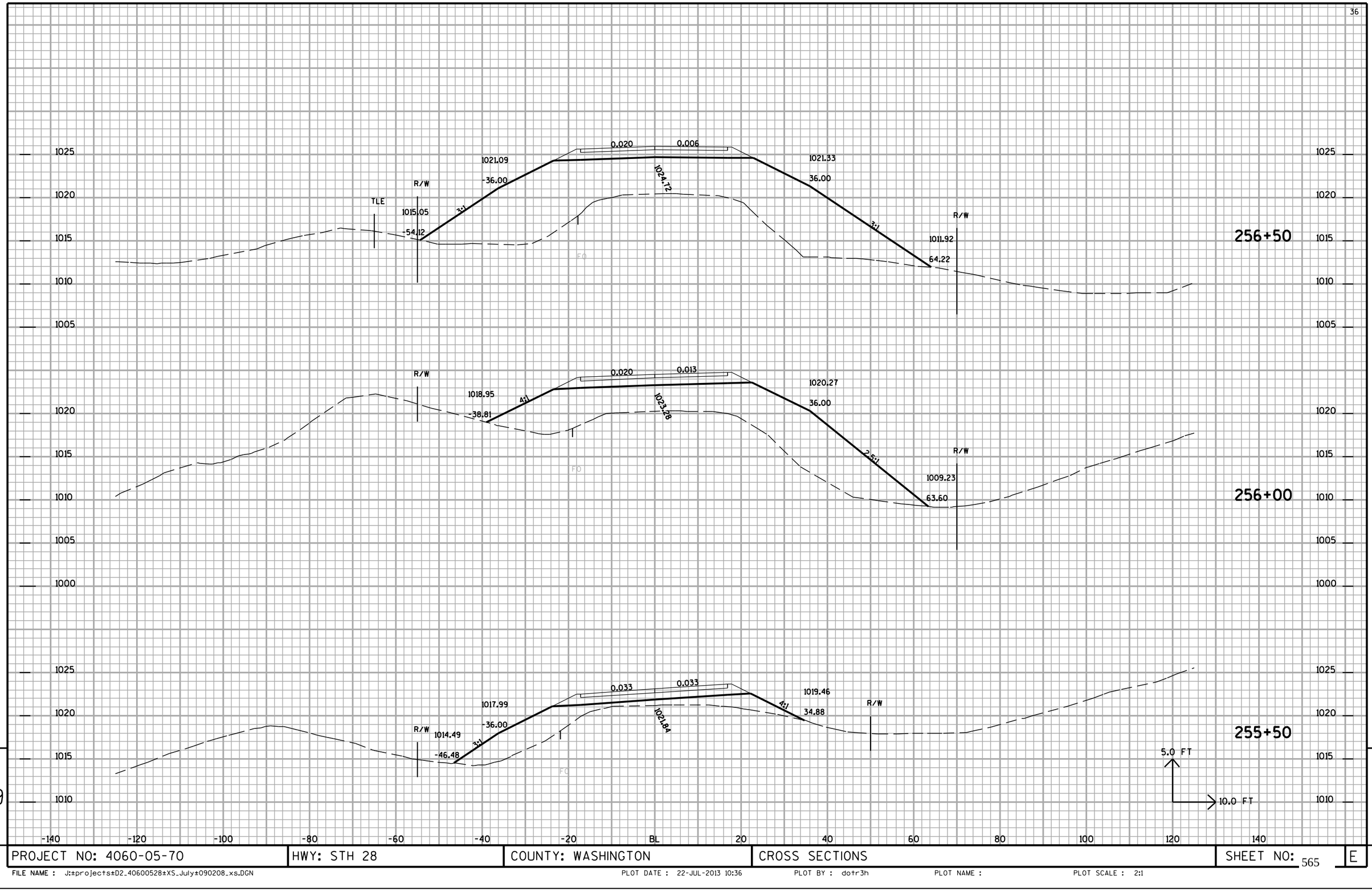


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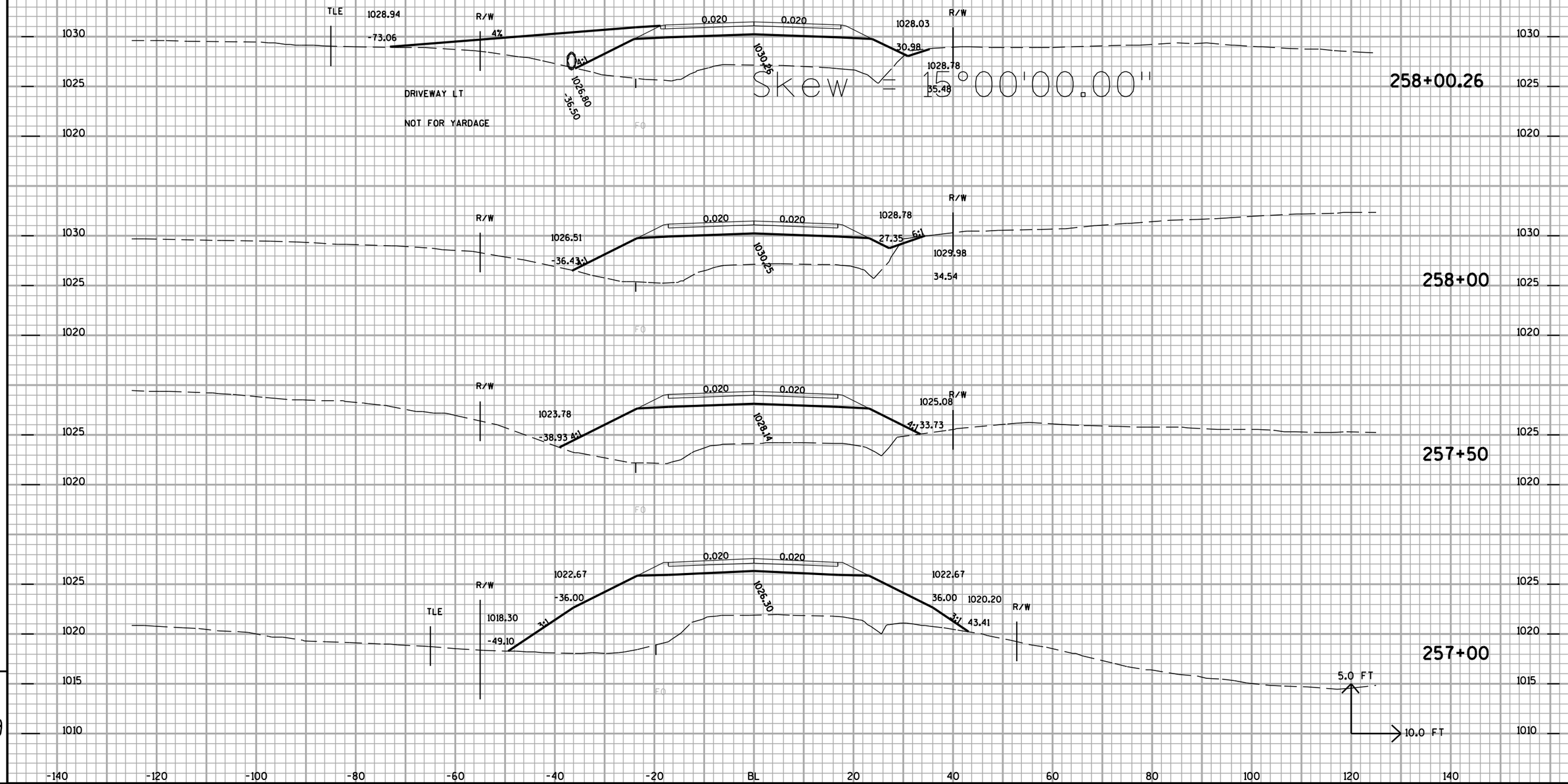
PROJECT NO: 4060-05-70	HWY: STH 28	COUNTY: WASHINGTON	CROSS SECTIONS	SHEET NO: 564	E

FILE NAME : J:±projects±D2_40600528±XS_July±090208_xs.DGN PLOT DATE : 22-JUL-2013 10:36 PLOT BY : dotr3h PLOT NAME : PLOT SCALE : 2:1



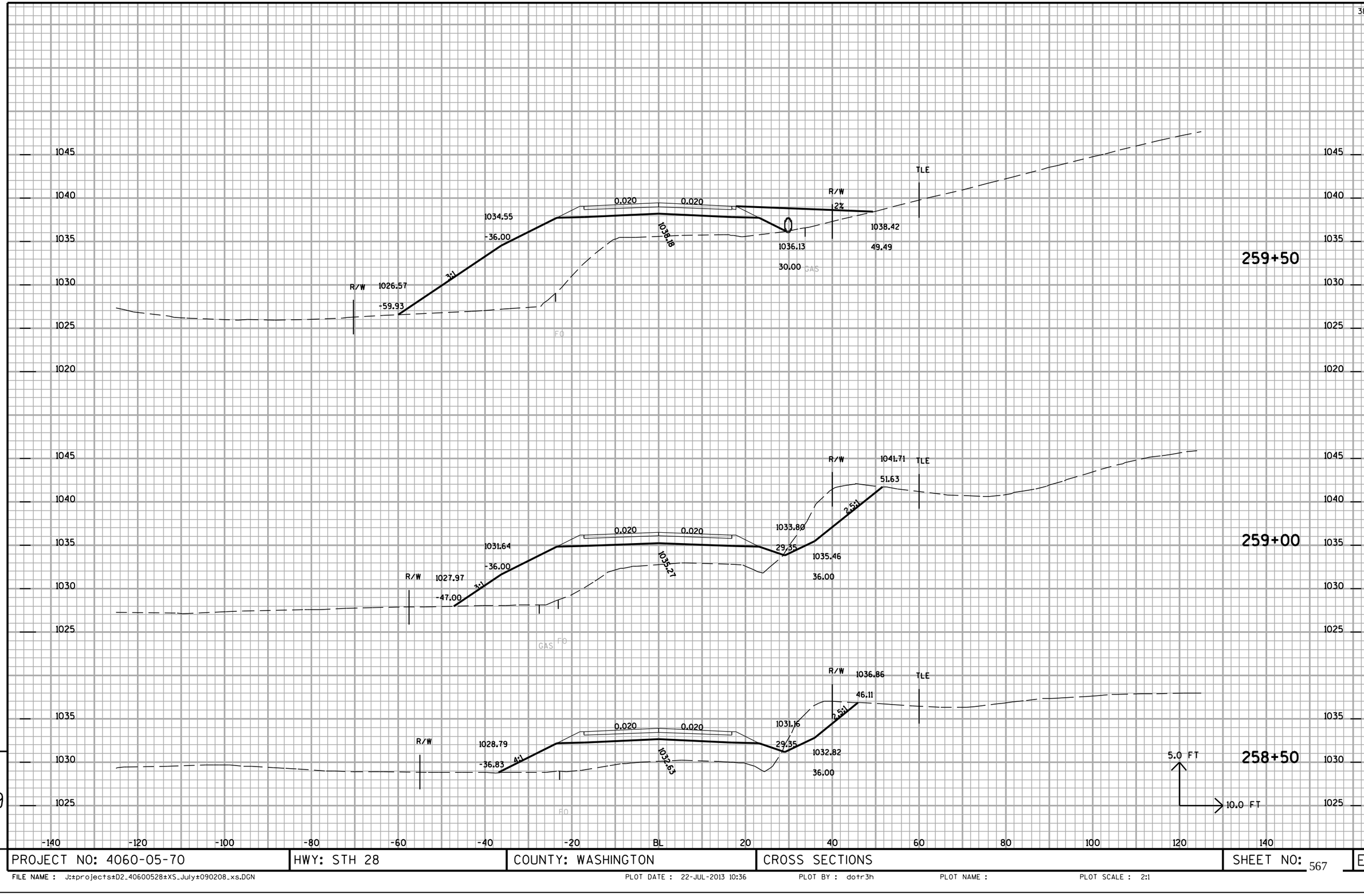
PROJECT NO: 4060-05-70	HWY: STH 28	COUNTY: WASHINGTON	CROSS SECTIONS	SHEET NO: 565	E

FILE NAME : J:±projects±D2_40600528±XS_July±090208_xs.DGN PLOT DATE : 22-JUL-2013 10:36 PLOT BY : dotr3h PLOT NAME : PLOT SCALE : 2:1



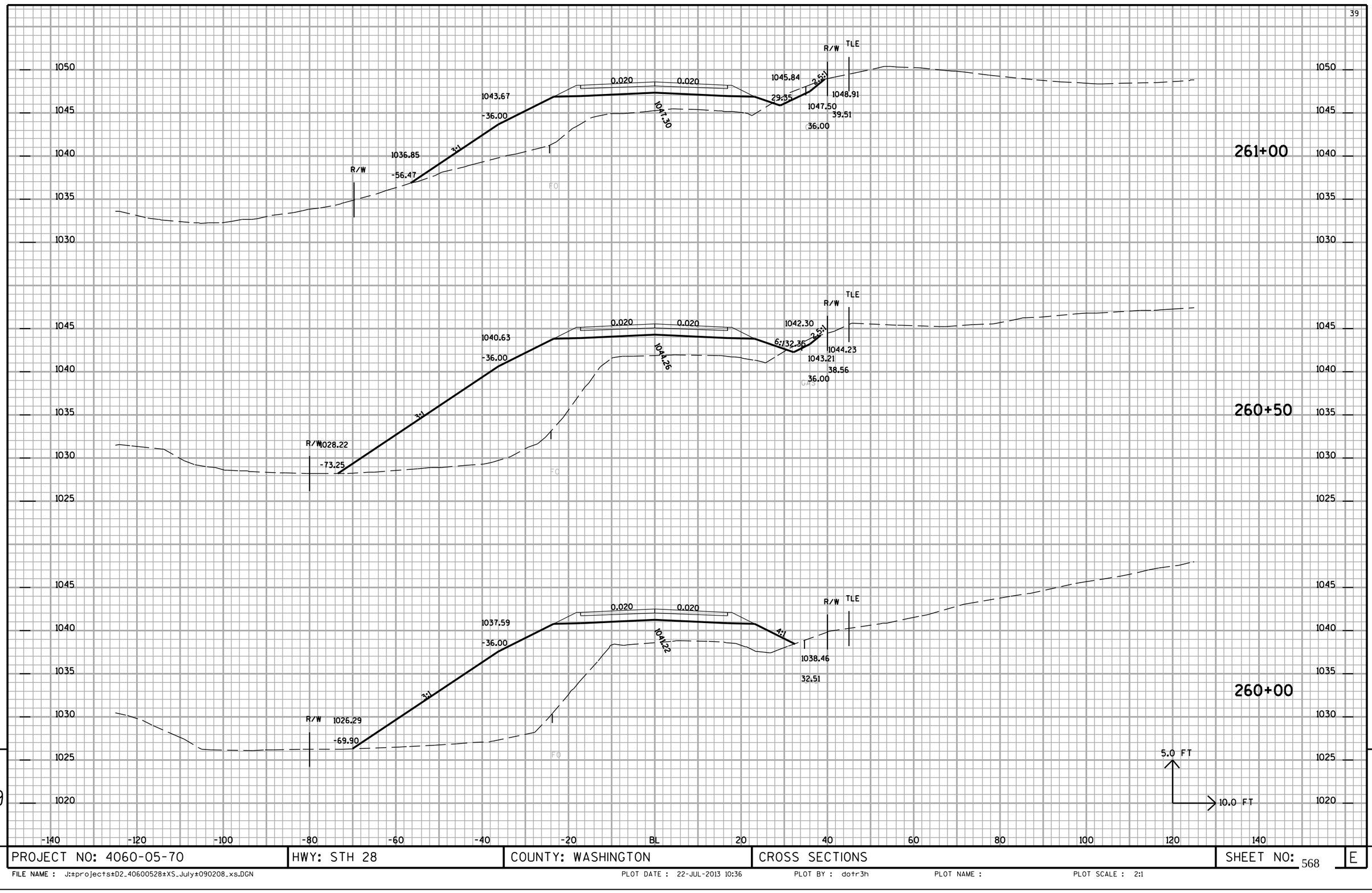
PROJECT NO: 4060-05-70	HWY: STH 28	COUNTY: WASHINGTON	CROSS SECTIONS	SHEET NO: 566	E

FILE NAME : J:±projects±D2_40600528±XS_July±090208_xs.DGN PLOT DATE : 22-JUL-2013 10:36 PLOT BY : dotr3h PLOT NAME : PLOT SCALE : 2:1



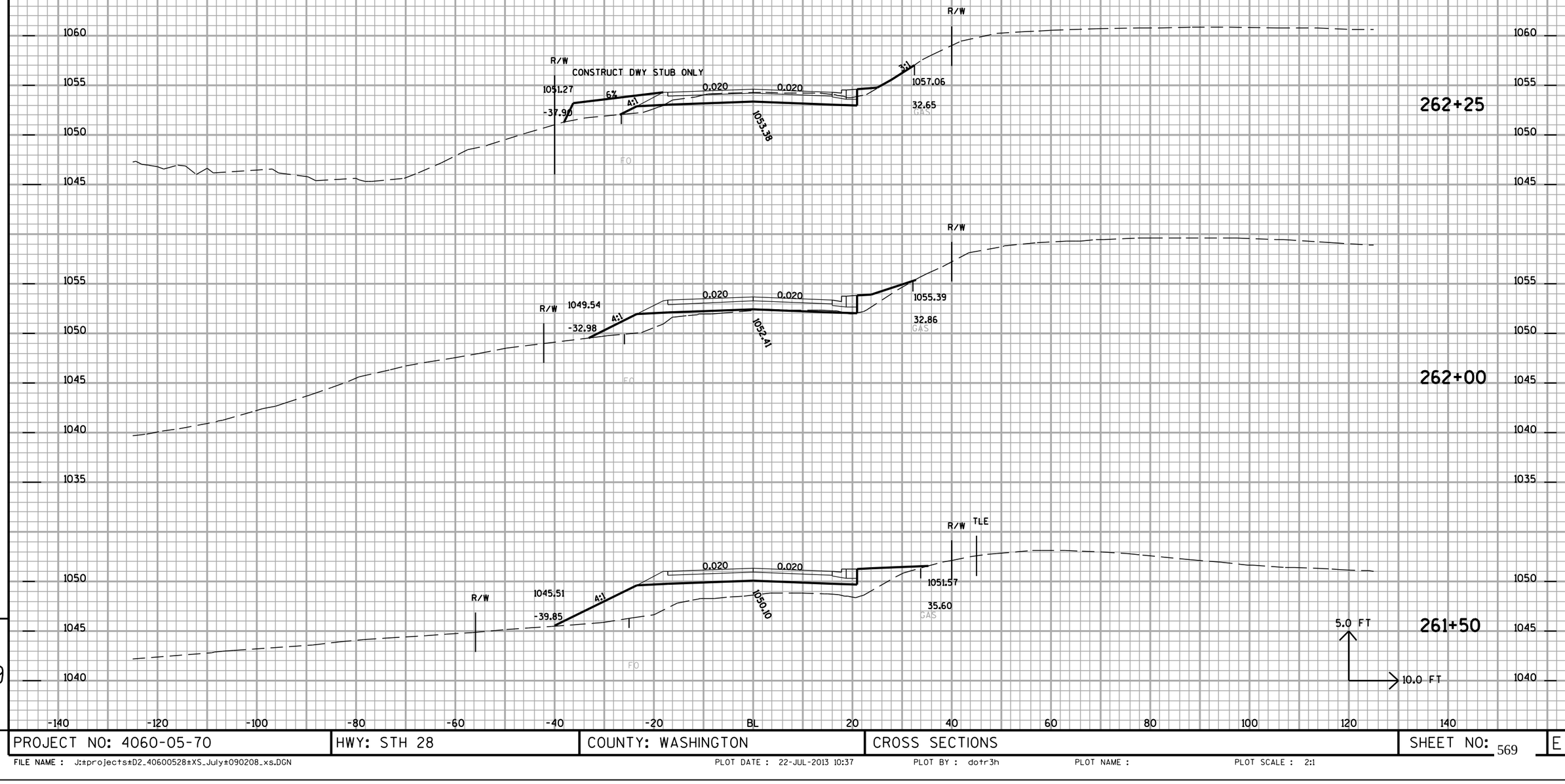
PROJECT NO: 4060-05-70	HWY: STH 28	COUNTY: WASHINGTON	CROSS SECTIONS	SHEET NO: 567	E

FILE NAME : J:±projects±D2_40600528±XS_July±090208_xs.DGN PLOT DATE : 22-JUL-2013 10:36 PLOT BY : dotr3h PLOT NAME : PLOT SCALE : 2:1



PROJECT NO: 4060-05-70	HWY: STH 28	COUNTY: WASHINGTON	CROSS SECTIONS	SHEET NO: 568	E

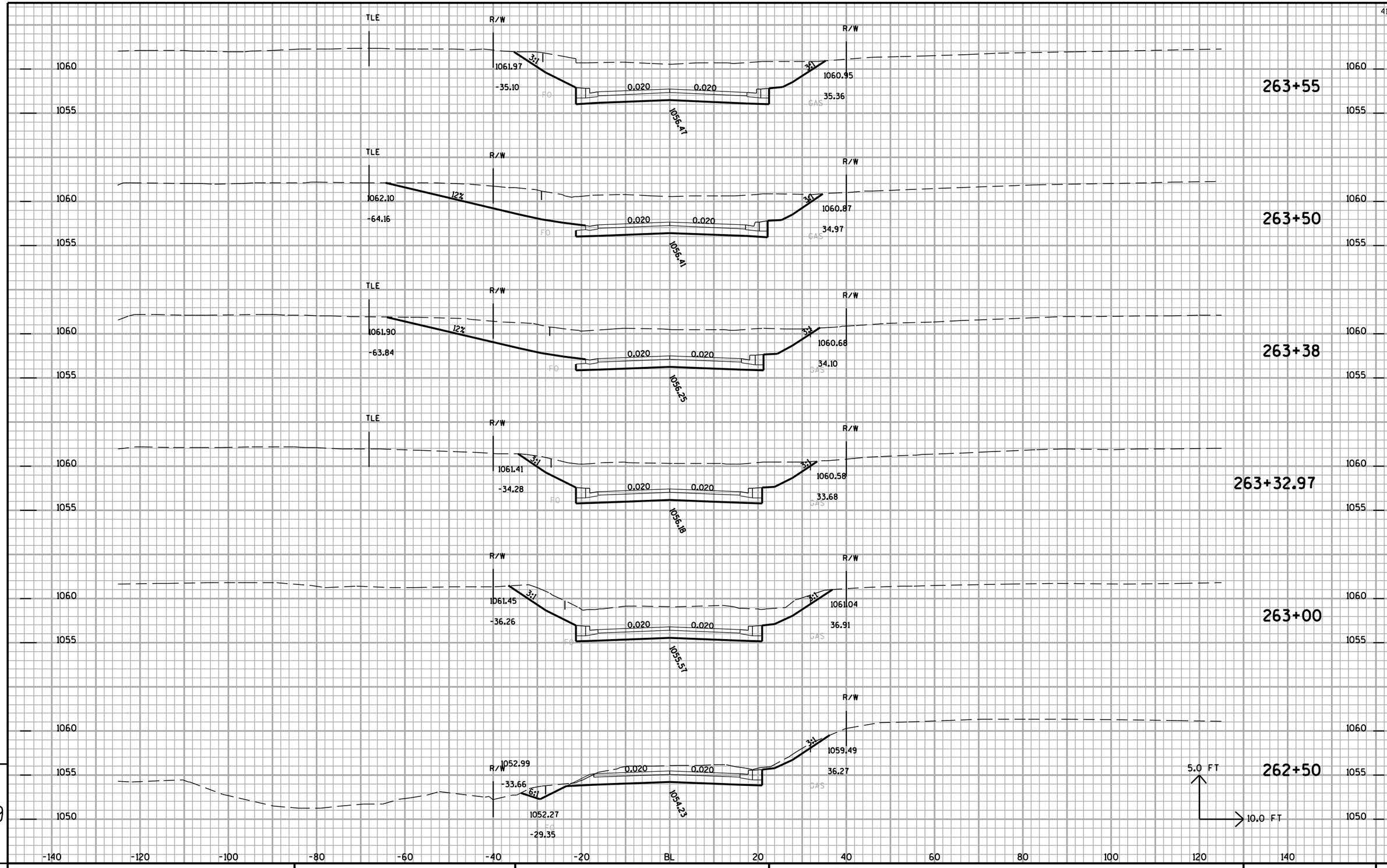
FILE NAME : J:±projects±D2_40600528±XS_July±090208_xs.DGN PLOT DATE : 22-JUL-2013 10:36 PLOT BY : dotr3h PLOT NAME : PLOT SCALE : 2:1



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PROJECT NO: 4060-05-70	HWY: STH 28	COUNTY: WASHINGTON	CROSS SECTIONS	SHEET NO: 569	E

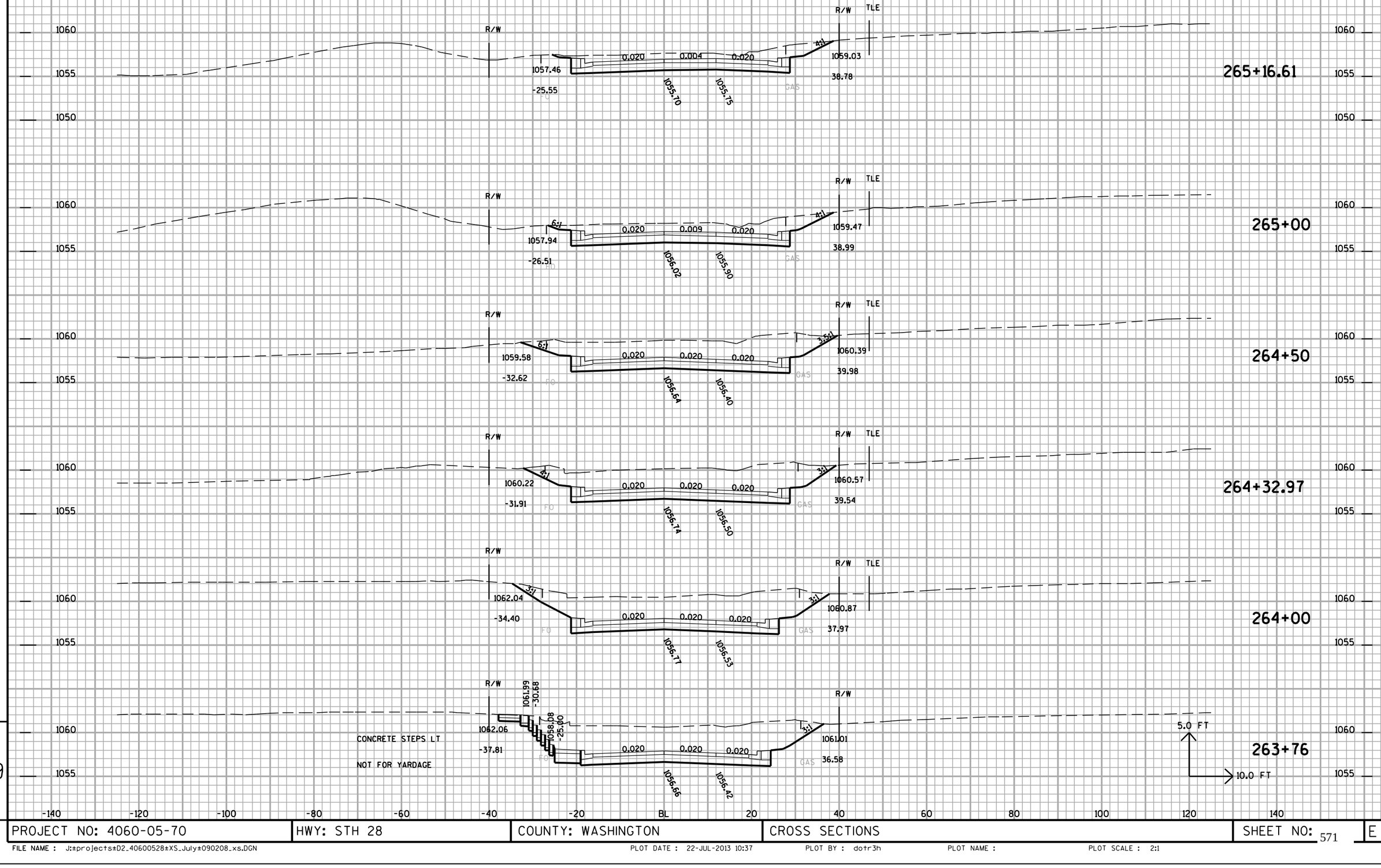
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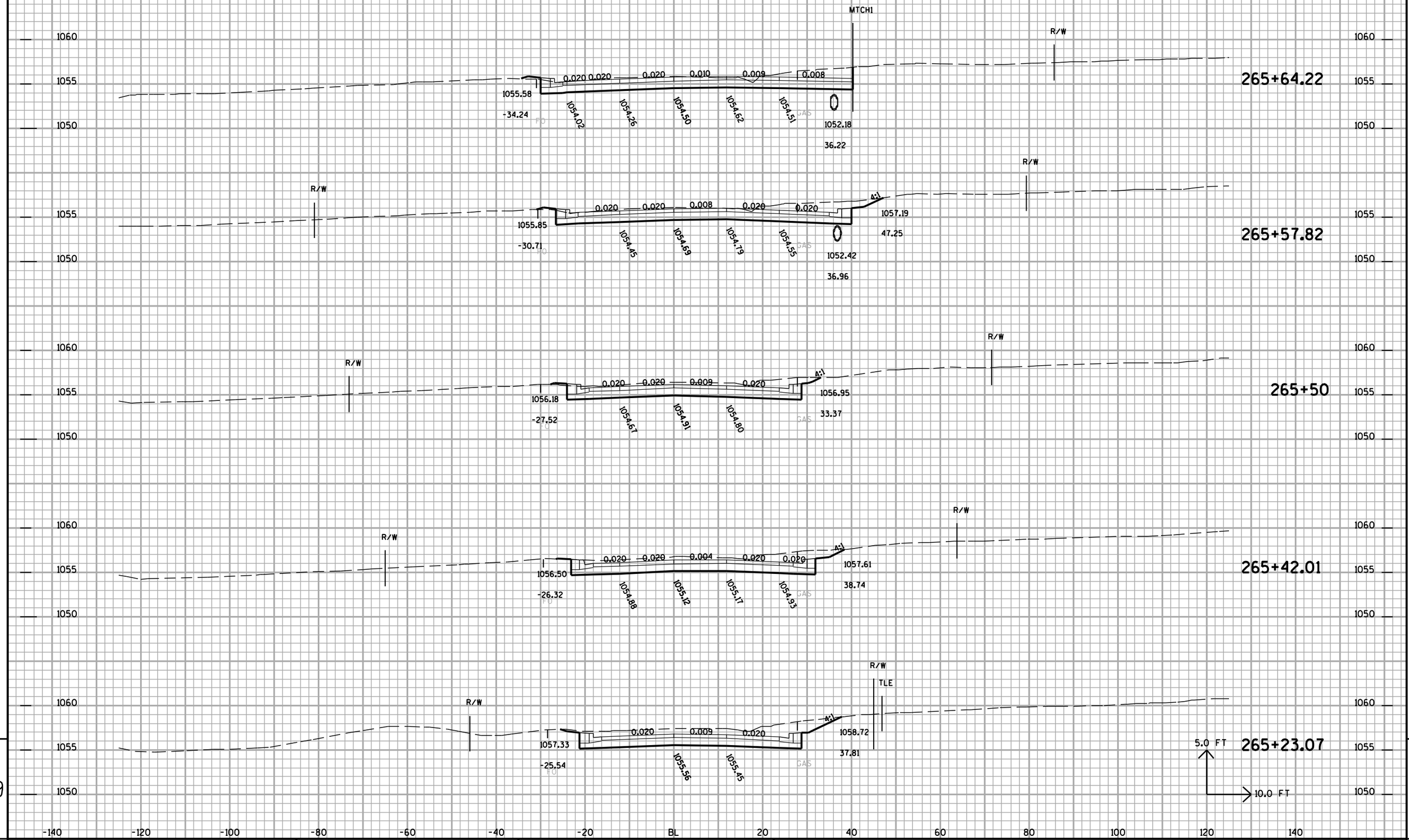
PROJECT NO: 4060-05-70	HWY: STH 28	COUNTY: WASHINGTON	CROSS SECTIONS	SHEET NO: 570	E

FILE NAME : J:±projects±D2_40600528±XS_July±090208_xs.DGN PLOT DATE : 22-JUL-2013 10:37 PLOT BY : dotr3h PLOT NAME : PLOT SCALE : 2:1



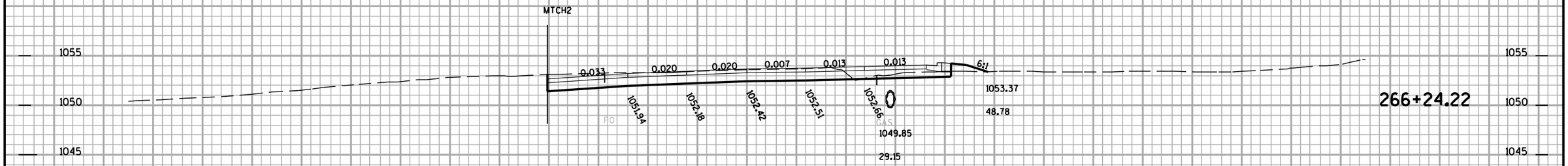
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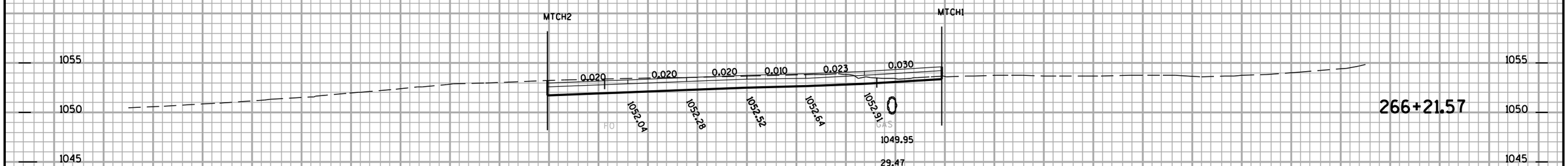
FILE NAME : J:±projects±D2_40600528±XS_July±090208_xs.DGN PLOT DATE : 22-JUL-2013 10:37 PLOT BY : dotr3h PLOT NAME : PLOT SCALE : 2:1

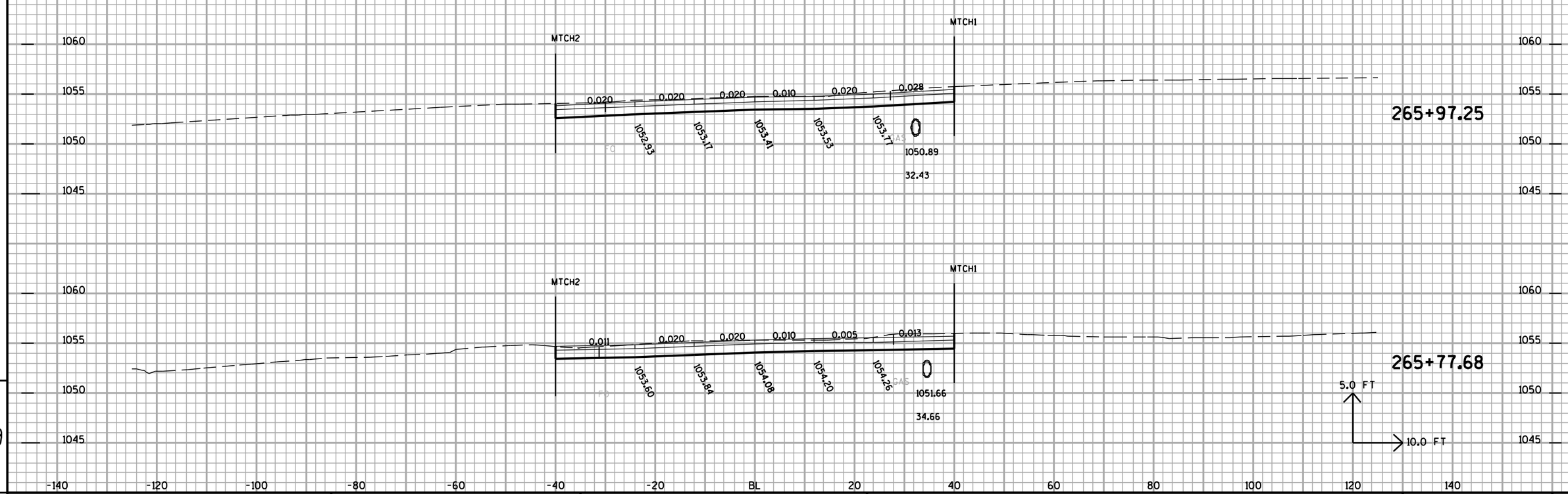


PROJECT NO: 4060-05-70	HWY: STH 28	COUNTY: WASHINGTON	CROSS SECTIONS	SHEET NO: 572	E

FILE NAME : J:±projects±D2_40600528±XS_July±090208_xs.DGN PLOT DATE : 22-JUL-2013 10:37 PLOT BY : dotr3h PLOT NAME : PLOT SCALE : 2:1

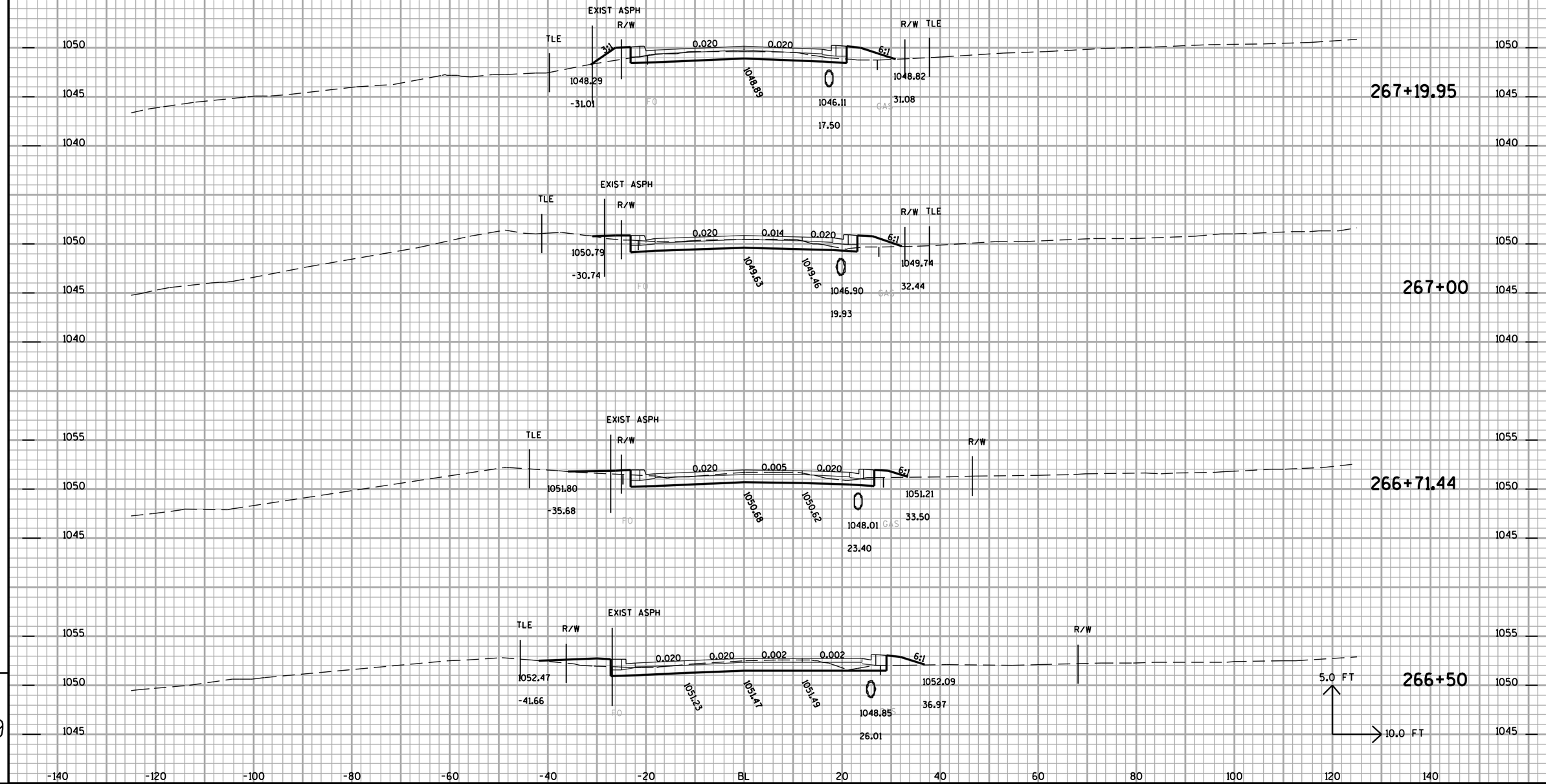






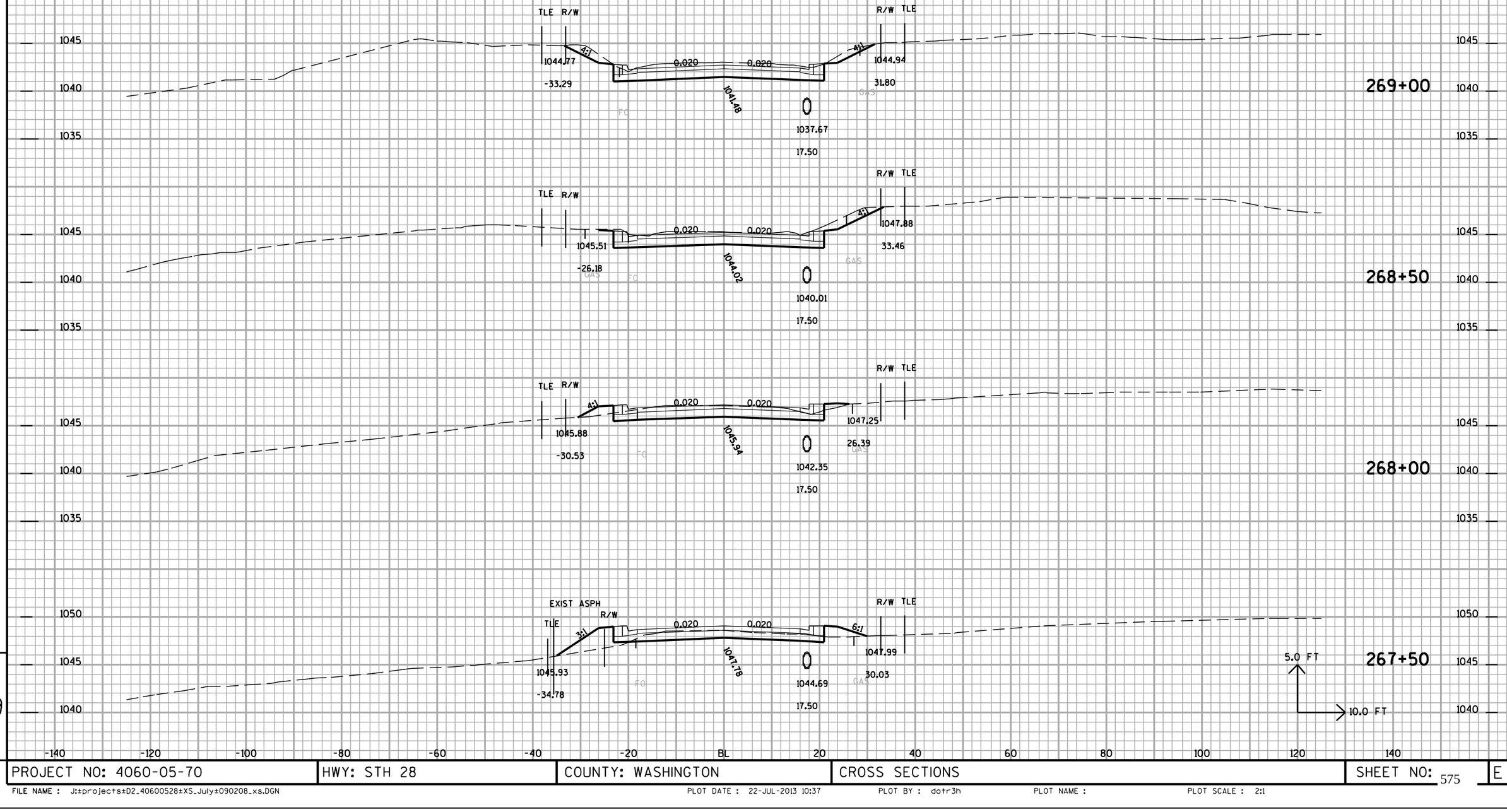
PROJECT NO: 4060-05-70	HWY: STH 28	COUNTY: WASHINGTON	CROSS SECTIONS	SHEET NO: 573	E

FILE NAME : J:±projects±D2_40600528±XS_July±090208_xs.DGN PLOT DATE : 22-JUL-2013 10:37 PLOT BY : dotr3h PLOT NAME : PLOT SCALE : 2:1



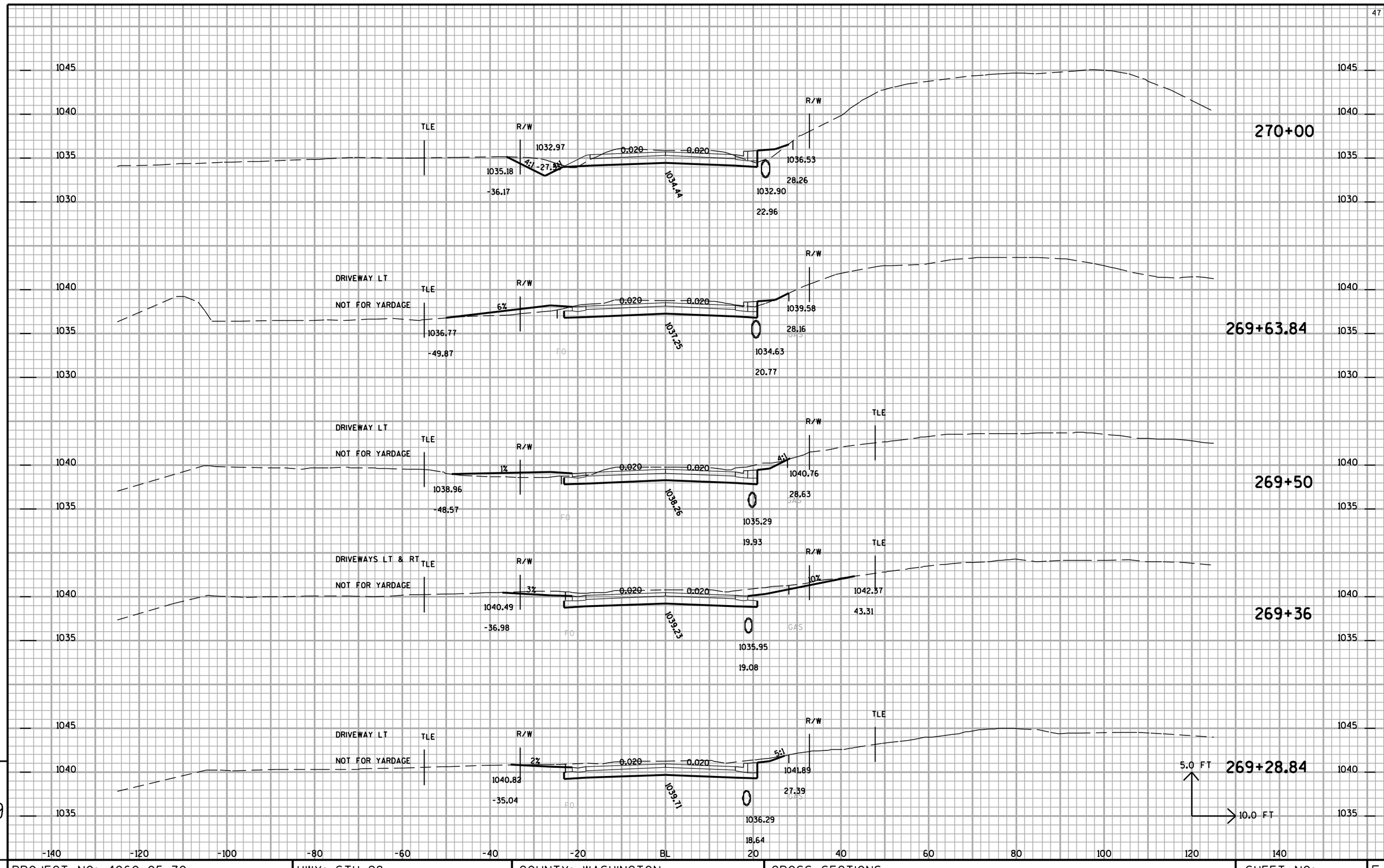
PROJECT NO: 4060-05-70	HWY: STH 28	COUNTY: WASHINGTON	CROSS SECTIONS	SHEET NO: 574	E

FILE NAME : J:±projects±D2_40600528±XS_July±090208_xs.DGN PLOT DATE : 22-JUL-2013 10:37 PLOT BY : dotr3h PLOT NAME : PLOT SCALE : 2:1



PROJECT NO: 4060-05-70	HWY: STH 28	COUNTY: WASHINGTON	CROSS SECTIONS	SHEET NO: 575	E

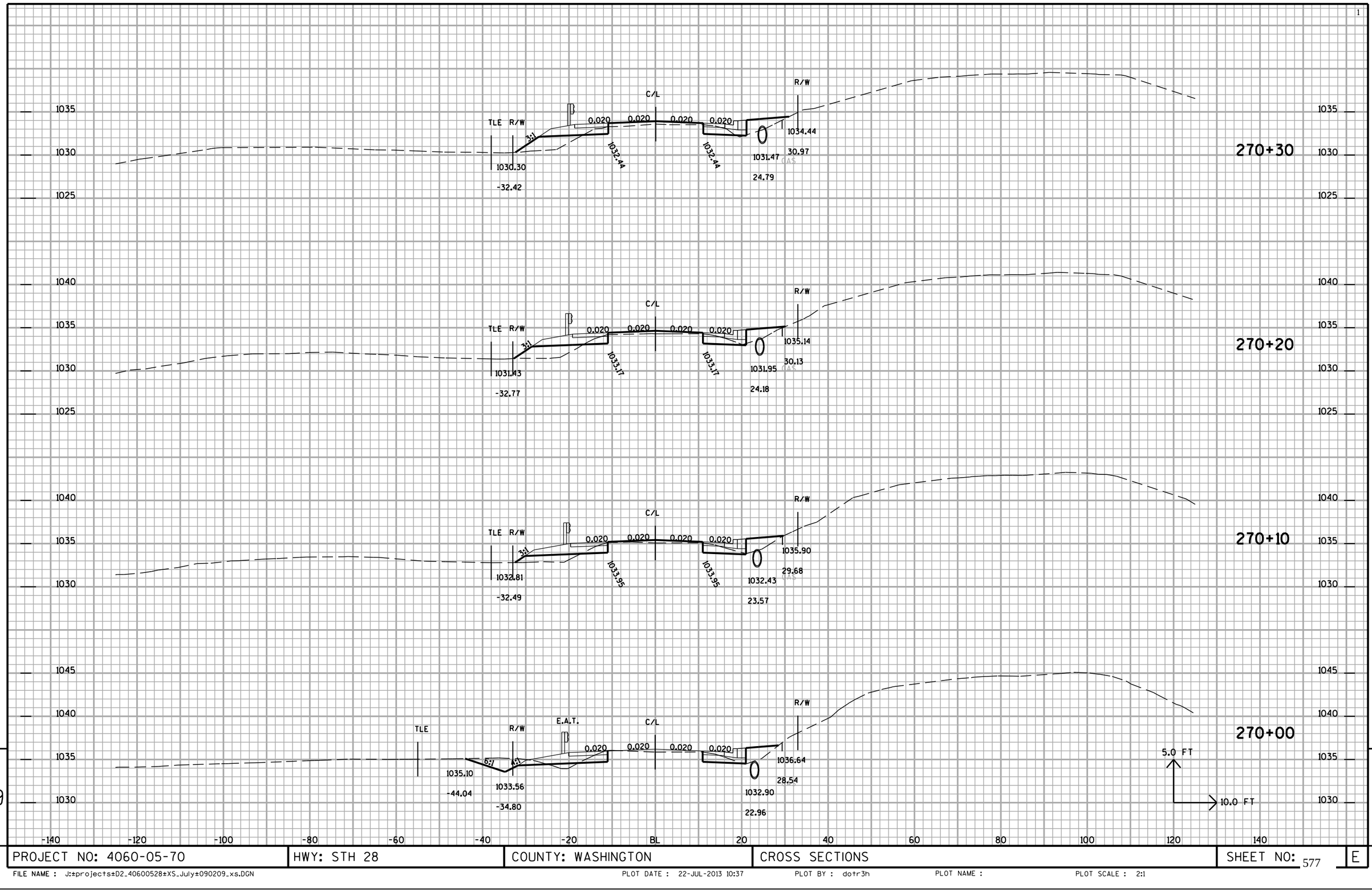
FILE NAME : J:±projects±D2_40600528±XS_July±090208_xs.DGN PLOT DATE : 22-JUL-2013 10:37 PLOT BY : dotr3h PLOT NAME : PLOT SCALE : 2:1



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PROJECT NO: 4060-05-70	HWY: STH 28	COUNTY: WASHINGTON	CROSS SECTIONS	SHEET NO: 576	E

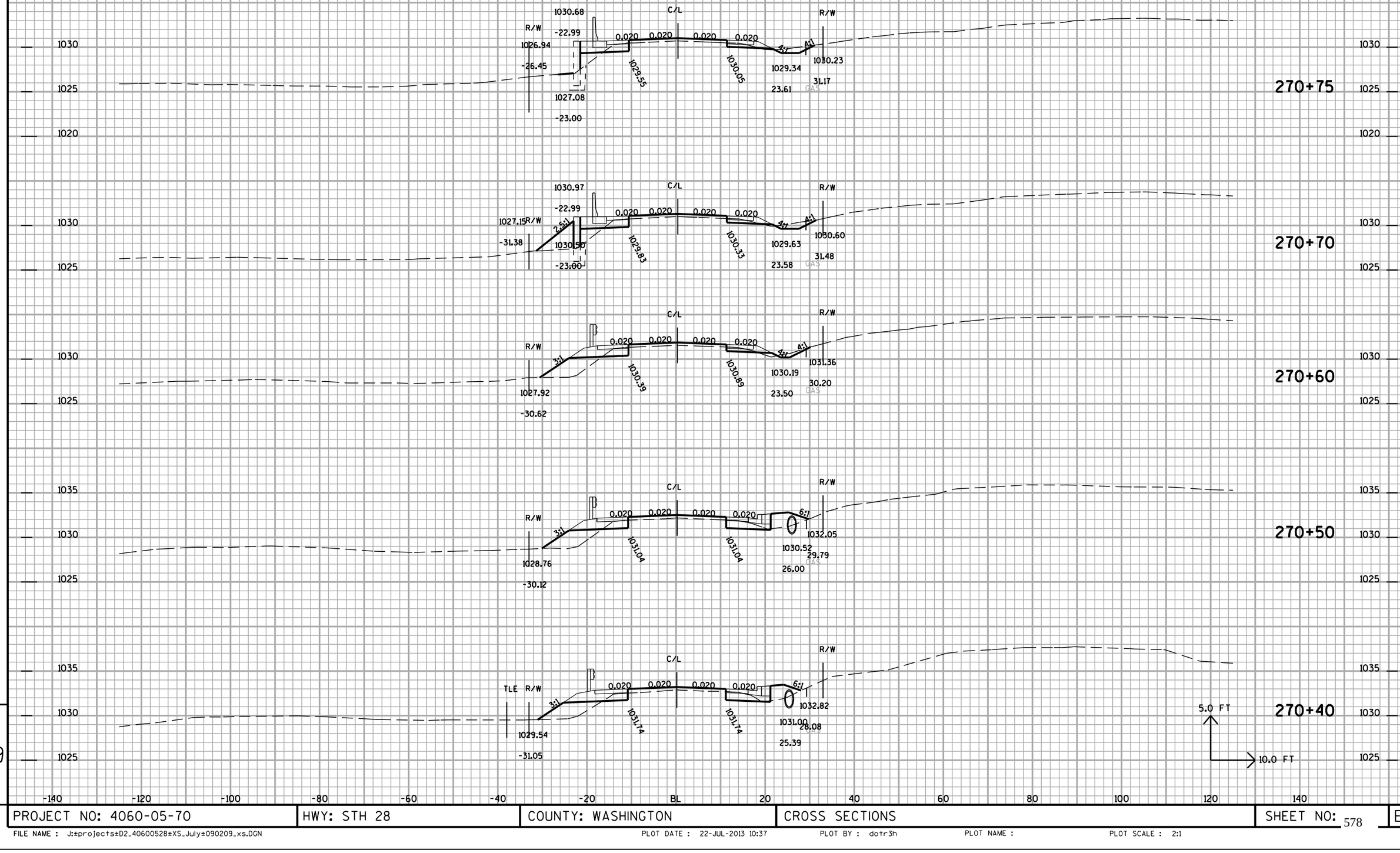
FILE NAME : J:\projects\D2_40600528\XS_July\090208_xs.DGN PLOT DATE : 22-JUL-2013 10:37 PLOT BY : dotr3h PLOT NAME : PLOT SCALE : 2:1



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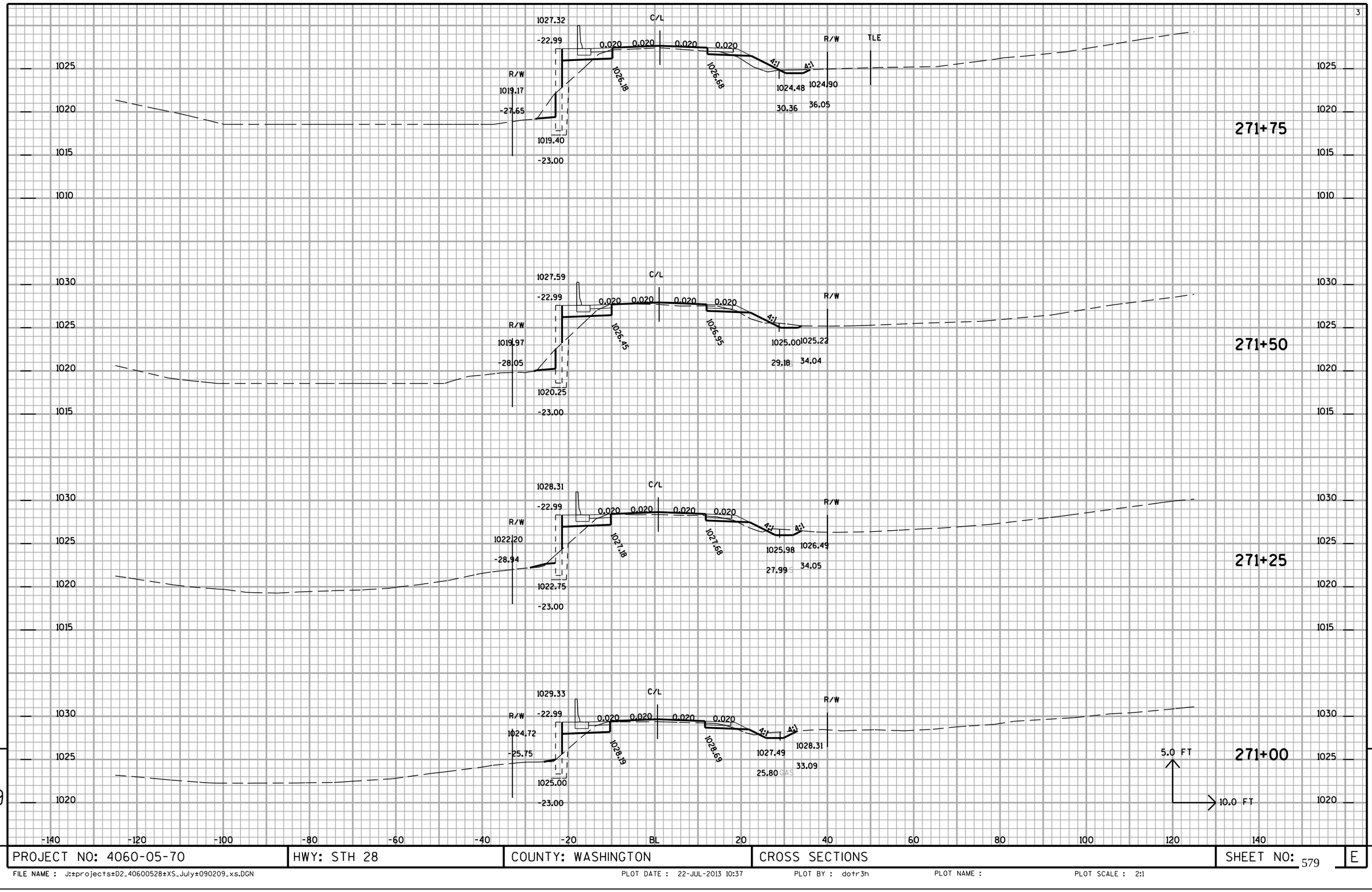
PROJECT NO: 4060-05-70	HWY: STH 28	COUNTY: WASHINGTON	CROSS SECTIONS	SHEET NO: 577	E

FILE NAME : J:±projects±D2_40600528±XS_July±090209_xs.DGN PLOT DATE : 22-JUL-2013 10:37 PLOT BY : dotr3h PLOT NAME : PLOT SCALE : 2:1



PROJECT NO: 4060-05-70	HWY: STH 28	COUNTY: WASHINGTON	CROSS SECTIONS	SHEET NO: 578	E

FILE NAME : J:±projects±D2_40600528±XS_July±090209_xs.DGN PLOT DATE : 22-JUL-2013 10:37 PLOT BY : dotr3h PLOT NAME : PLOT SCALE : 2:1

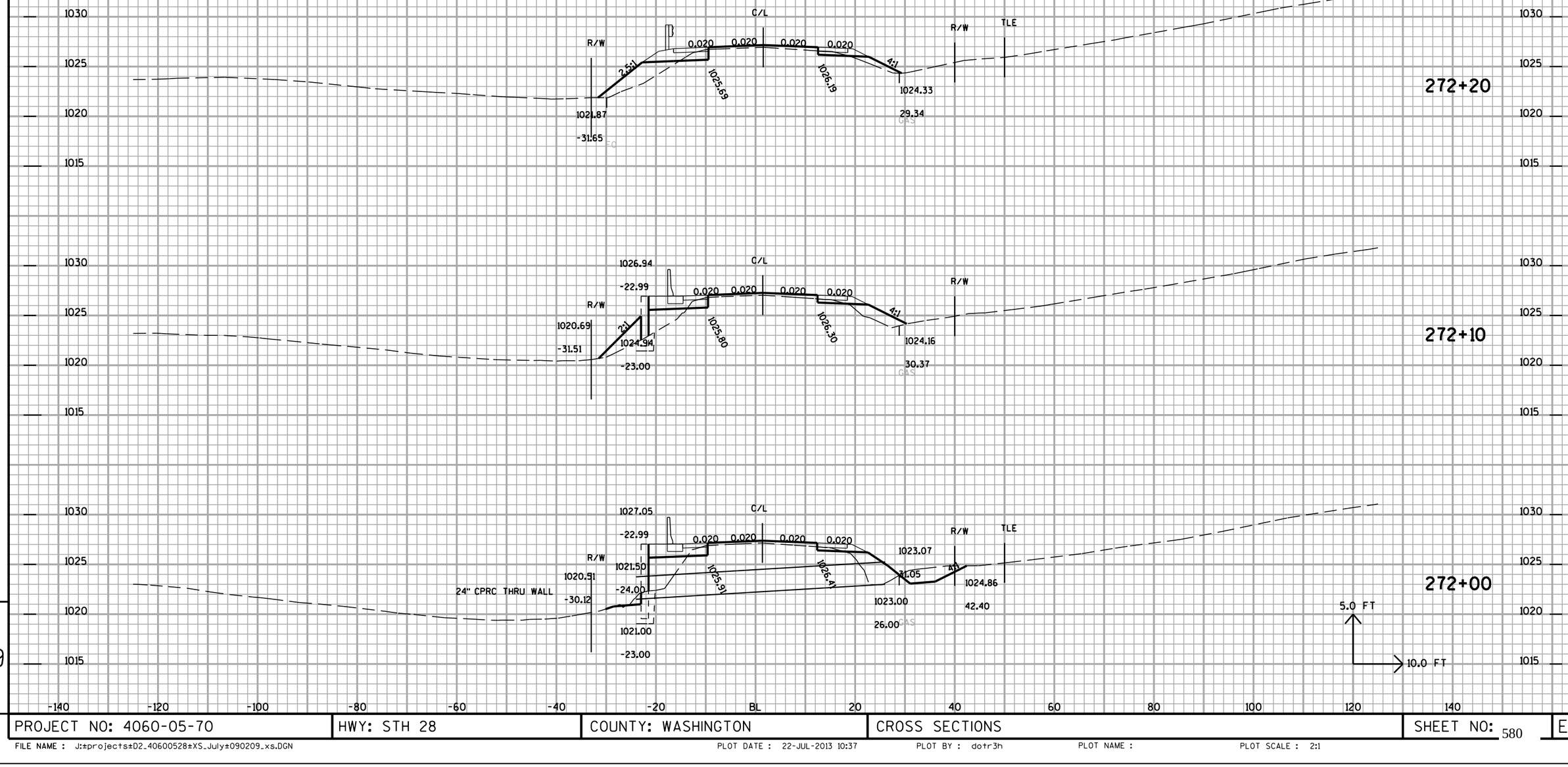


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PROJECT NO: 4060-05-70	HWY: STH 28	COUNTY: WASHINGTON	CROSS SECTIONS	SHEET NO: 579	E

FILE NAME : J:±projects±D2_40600528±XS_July±090209_xs.DGN PLOT DATE : 22-JUL-2013 10:37 PLOT BY : dotr3h PLOT NAME : PLOT SCALE : 2:1

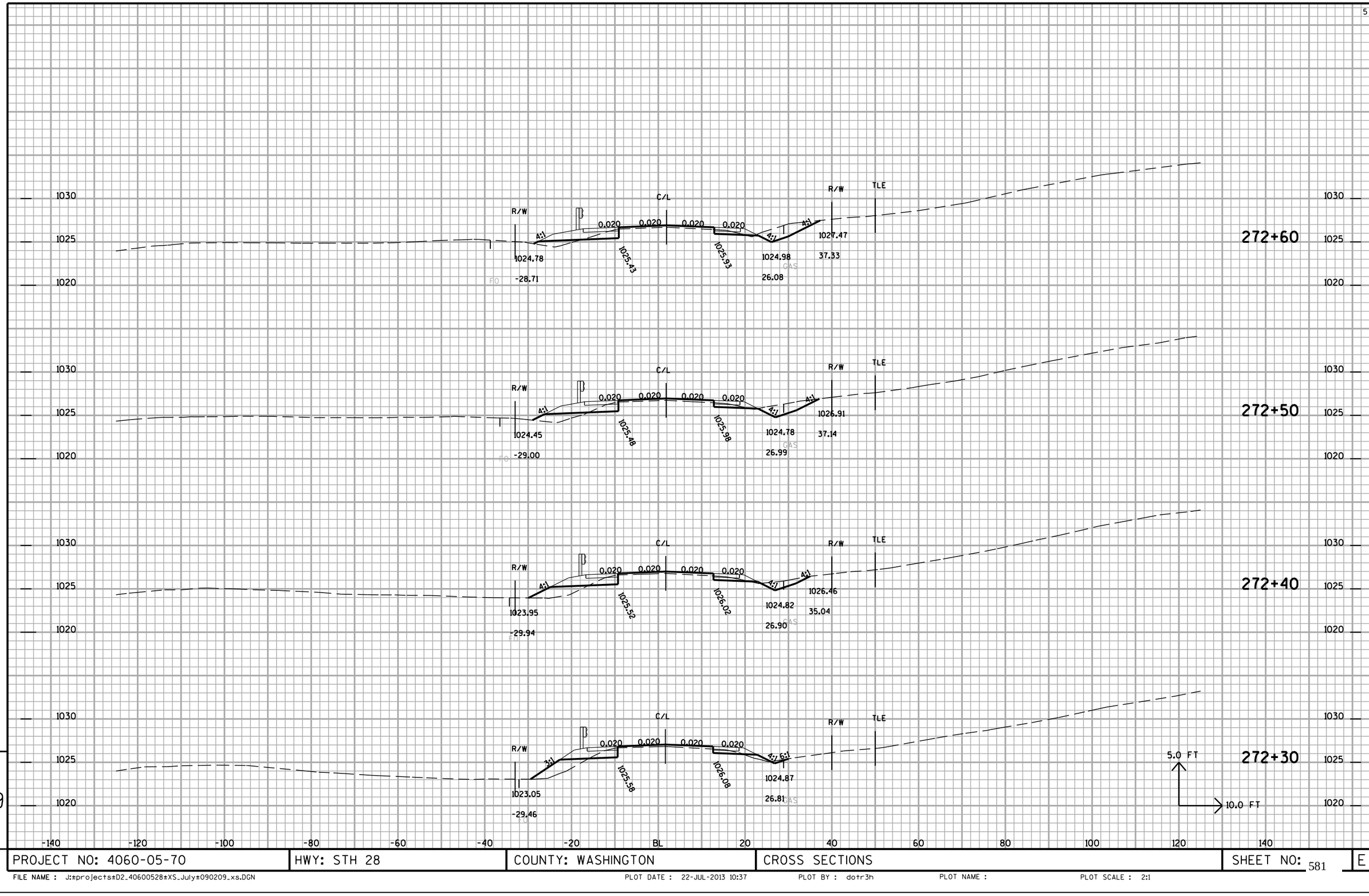


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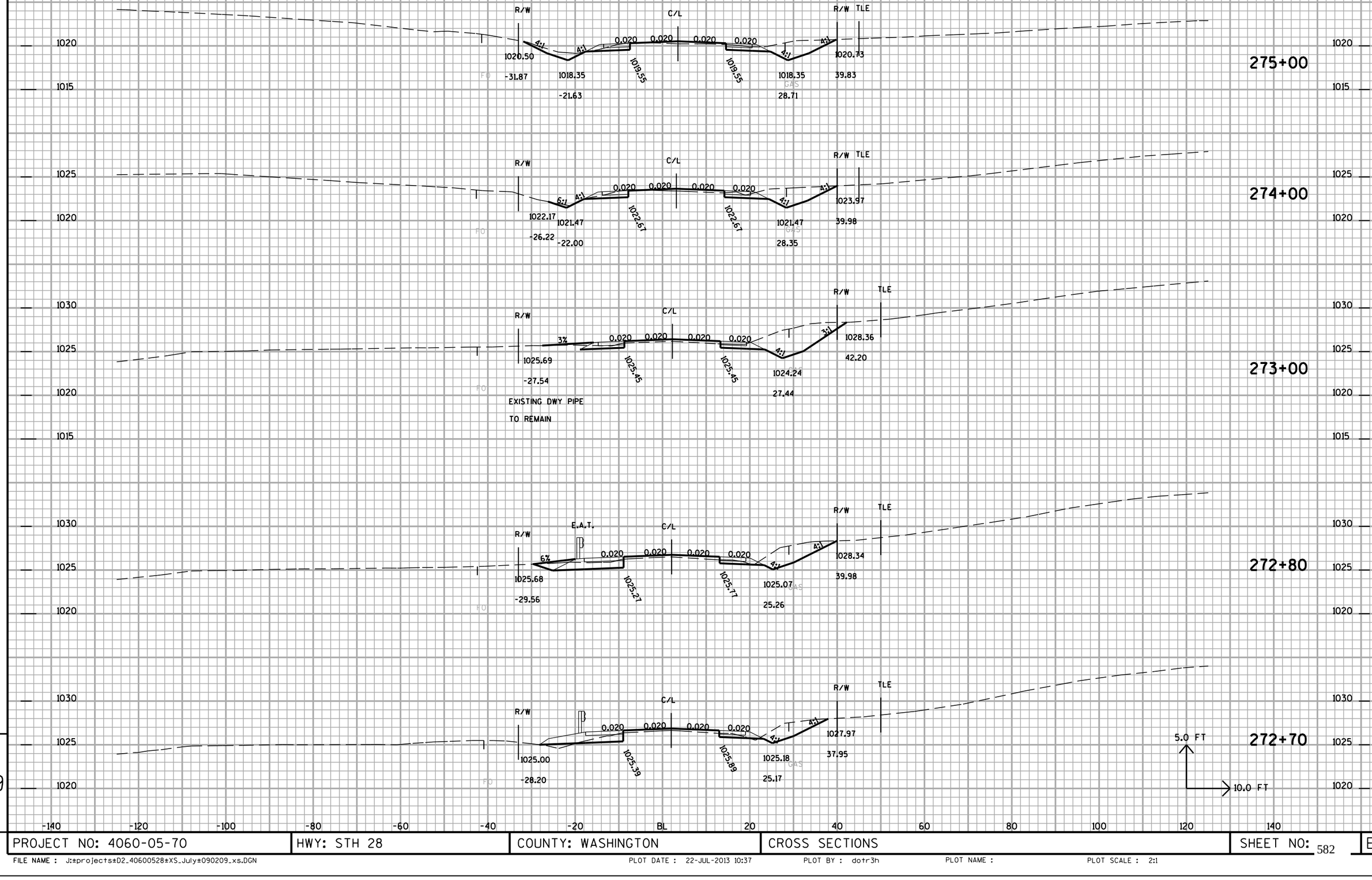
PROJECT NO: 4060-05-70	HWY: STH 28	COUNTY: WASHINGTON	CROSS SECTIONS	SHEET NO: 580	E

FILE NAME : J:±projects±D2_40600528±XS_July±090209_xs.DGN PLOT DATE : 22-JUL-2013 10:37 PLOT BY : dotr3h PLOT NAME : PLOT SCALE : 2:1



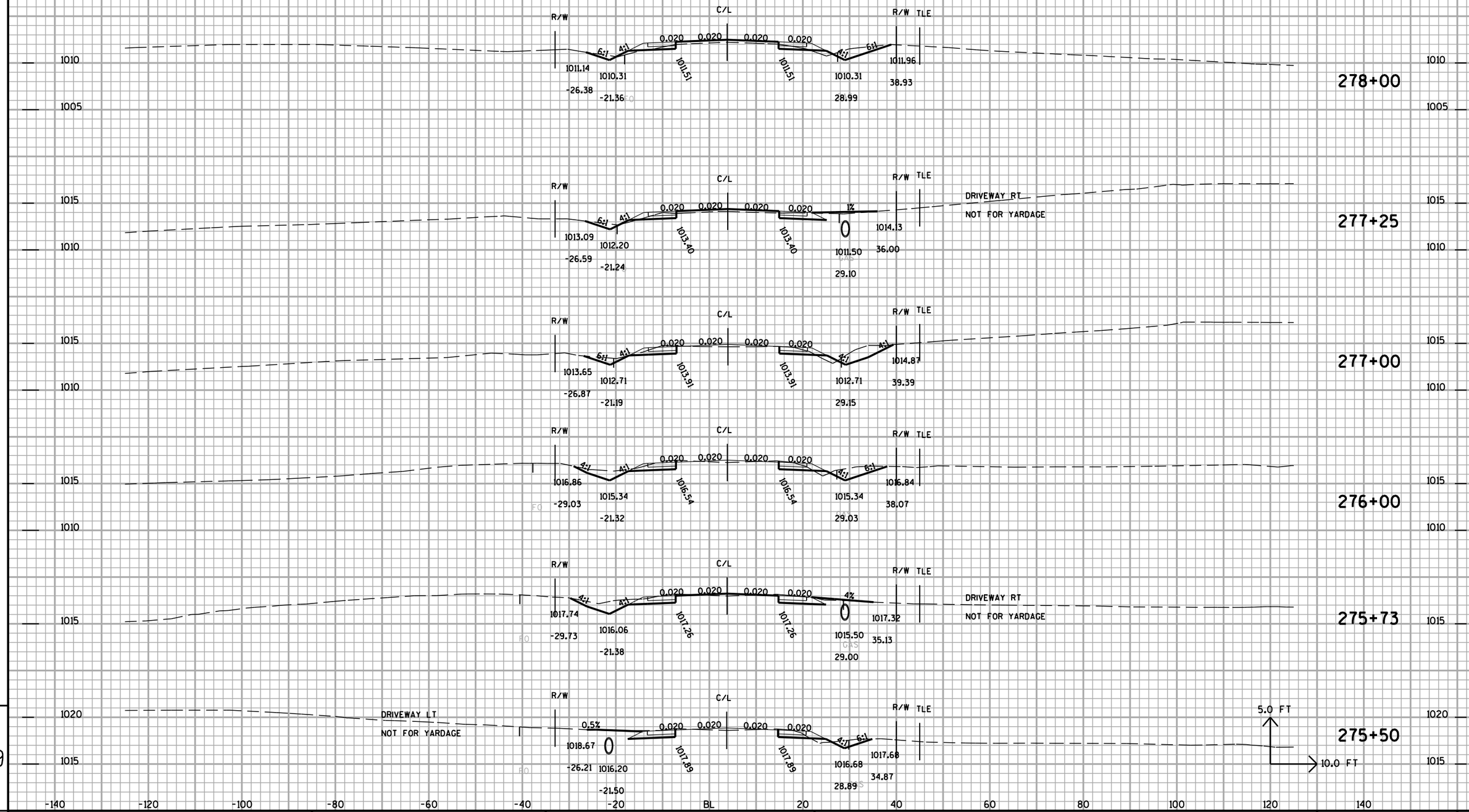
PROJECT NO: 4060-05-70	HWY: STH 28	COUNTY: WASHINGTON	CROSS SECTIONS	SHEET NO: 581	E

FILE NAME : J:±projects±D2_40600528±XS_July±090209_xs.DGN PLOT DATE : 22-JUL-2013 10:37 PLOT BY : dotr3h PLOT NAME : PLOT SCALE : 2:1



PROJECT NO: 4060-05-70	HWY: STH 28	COUNTY: WASHINGTON	CROSS SECTIONS	SHEET NO: 582	E

FILE NAME : J:±projects±D2_40600528±XS_July±090209_xs.DGN PLOT DATE : 22-JUL-2013 10:37 PLOT BY : dotr3h PLOT NAME : PLOT SCALE : 2:1



PROJECT NO: 4060-05-70	HWY: STH 28	COUNTY: WASHINGTON	CROSS SECTIONS	SHEET NO: 583	E

FILE NAME : J:±projects±D2_40600528±XS_July±090209_xs.DGN PLOT DATE : 22-JUL-2013 10:37 PLOT BY : dotr3h PLOT NAME : PLOT SCALE : 2:1



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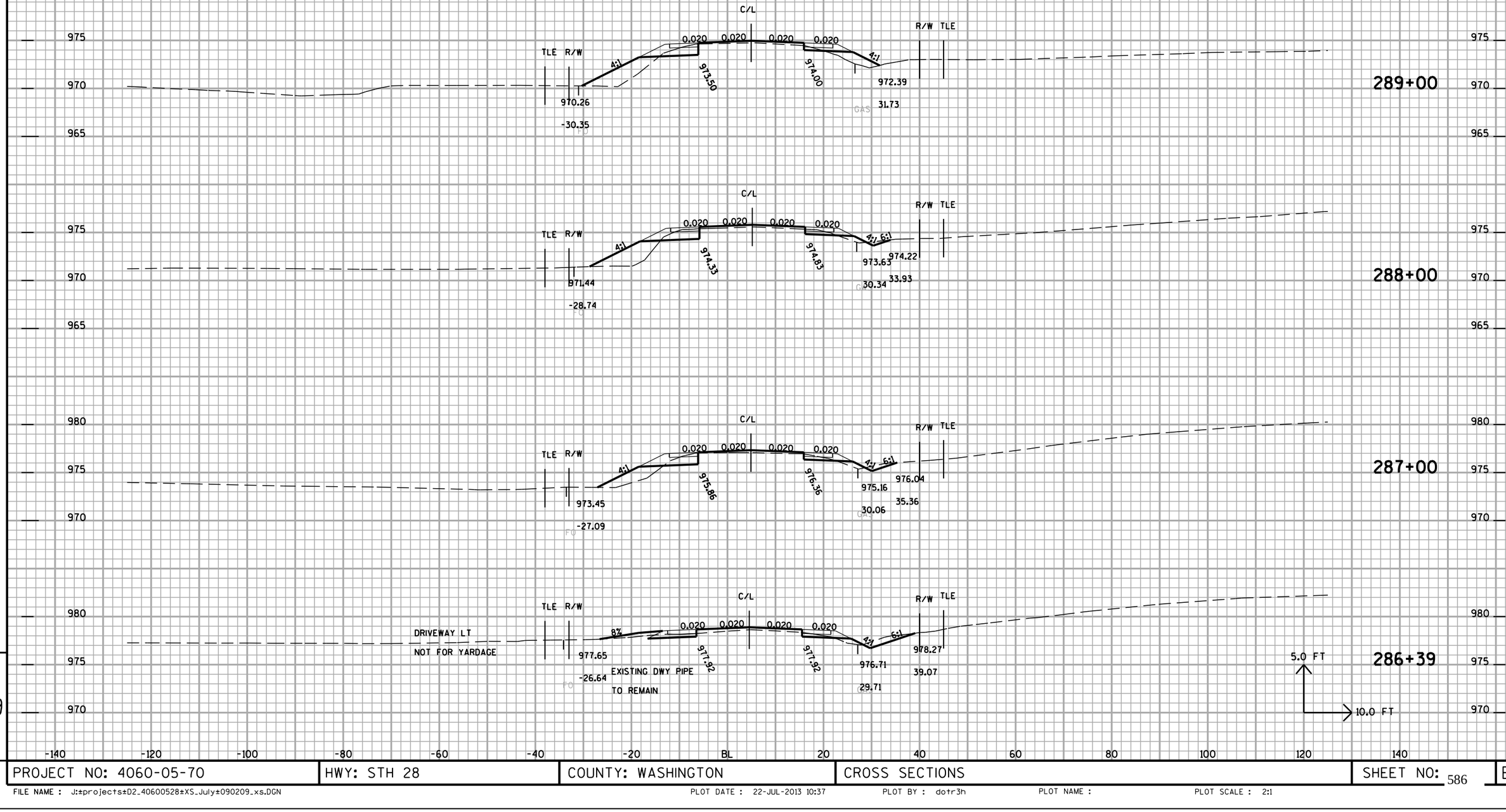
PROJECT NO: 4060-05-70	HWY: STH 28	COUNTY: WASHINGTON	CROSS SECTIONS	SHEET NO: 584	E

FILE NAME : J:±projects±D2_40600528±XS_July±090209_xs.DGN PLOT DATE : 22-JUL-2013 10:37 PLOT BY : dotr3h PLOT NAME : PLOT SCALE : 2:1



PROJECT NO: 4060-05-70	HWY: STH 28	COUNTY: WASHINGTON	CROSS SECTIONS	SHEET NO: 585	E

FILE NAME : J:±projects±D2_40600528±XS_July±090209_xs.DGN PLOT DATE : 22-JUL-2013 10:37 PLOT BY : dotr3h PLOT NAME : PLOT SCALE : 2:1

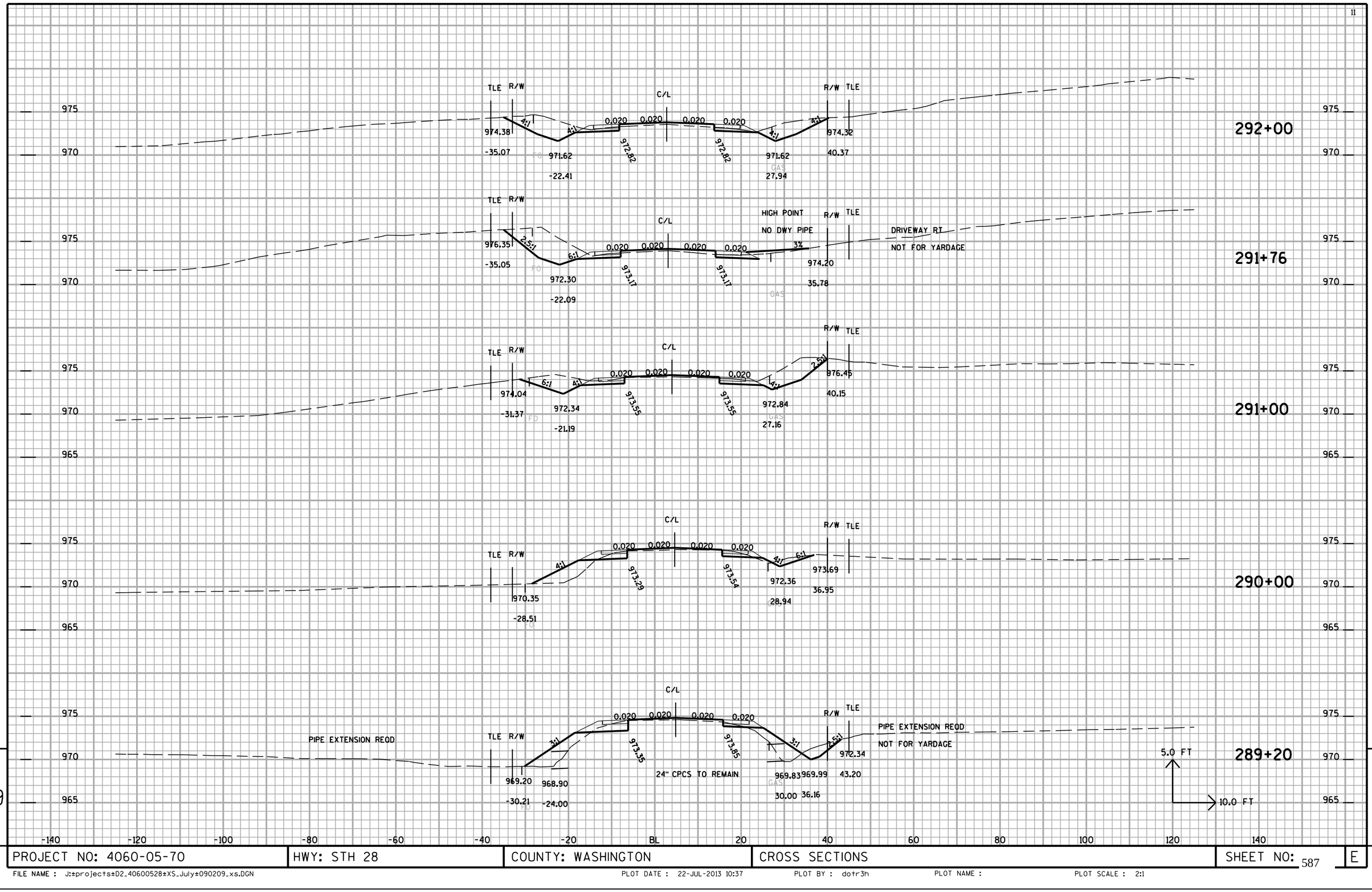


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PROJECT NO: 4060-05-70	HWY: STH 28	COUNTY: WASHINGTON	CROSS SECTIONS	SHEET NO: 586	E

FILE NAME : J:±projects±D2_40600528±XS_July±090209_xs.DGN PLOT DATE : 22-JUL-2013 10:37 PLOT BY : dotr3h PLOT NAME : PLOT SCALE : 2:1

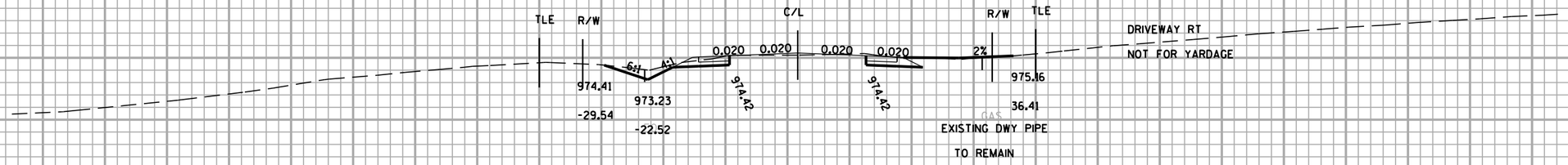


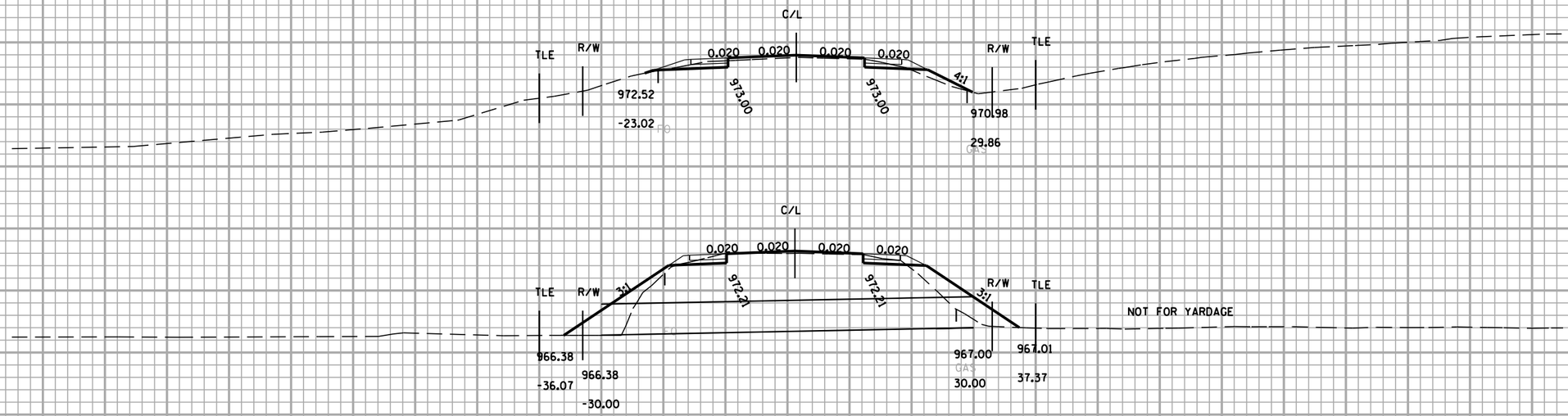
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PROJECT NO: 4060-05-70	HWY: STH 28	COUNTY: WASHINGTON	CROSS SECTIONS	SHEET NO: 587	E

FILE NAME : J:±projects±D2_40600528±XS_July±090209_xs.DGN PLOT DATE : 22-JUL-2013 10:37 PLOT BY : dotr3h PLOT NAME : PLOT SCALE : 2:1



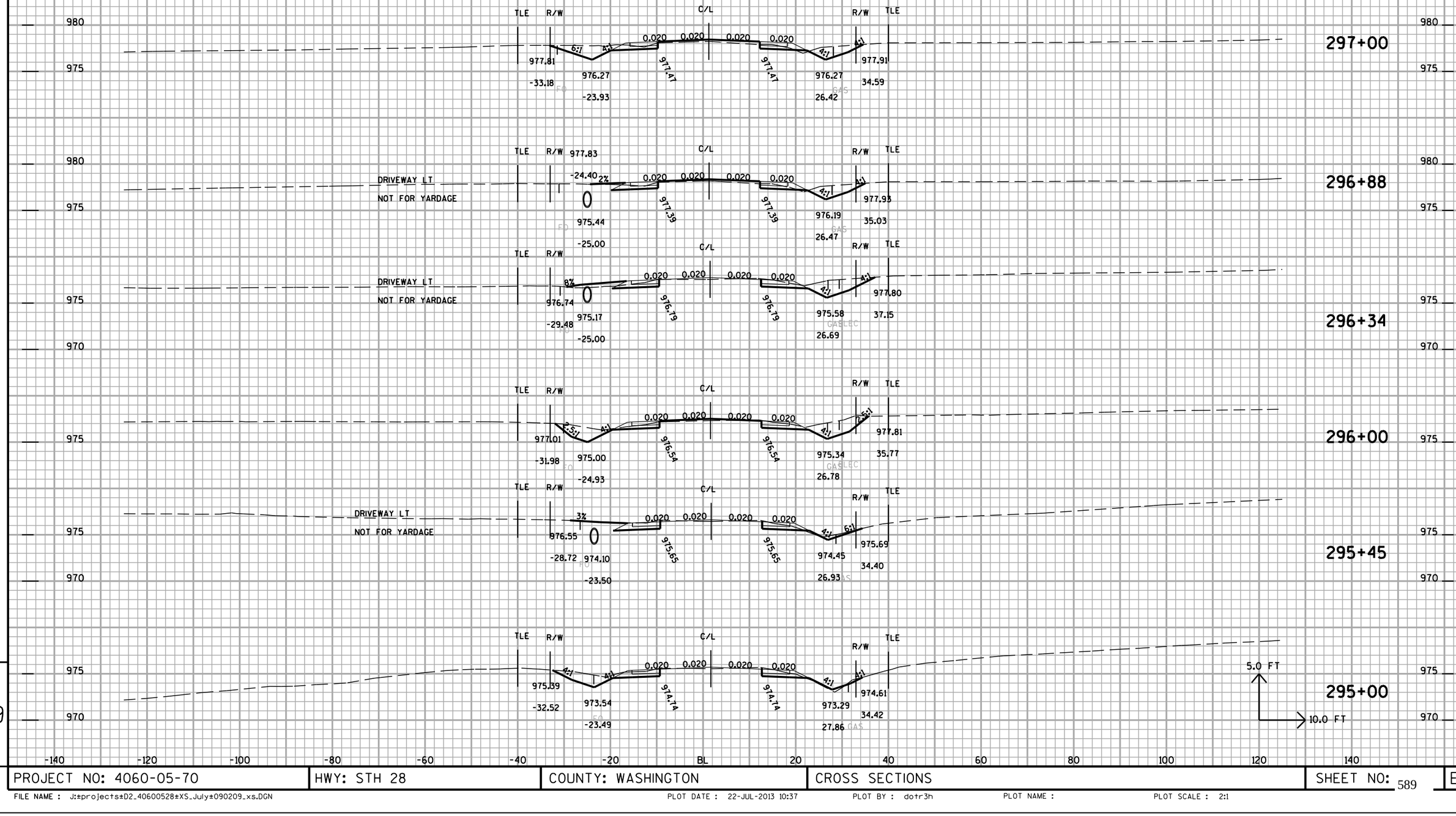


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9 9

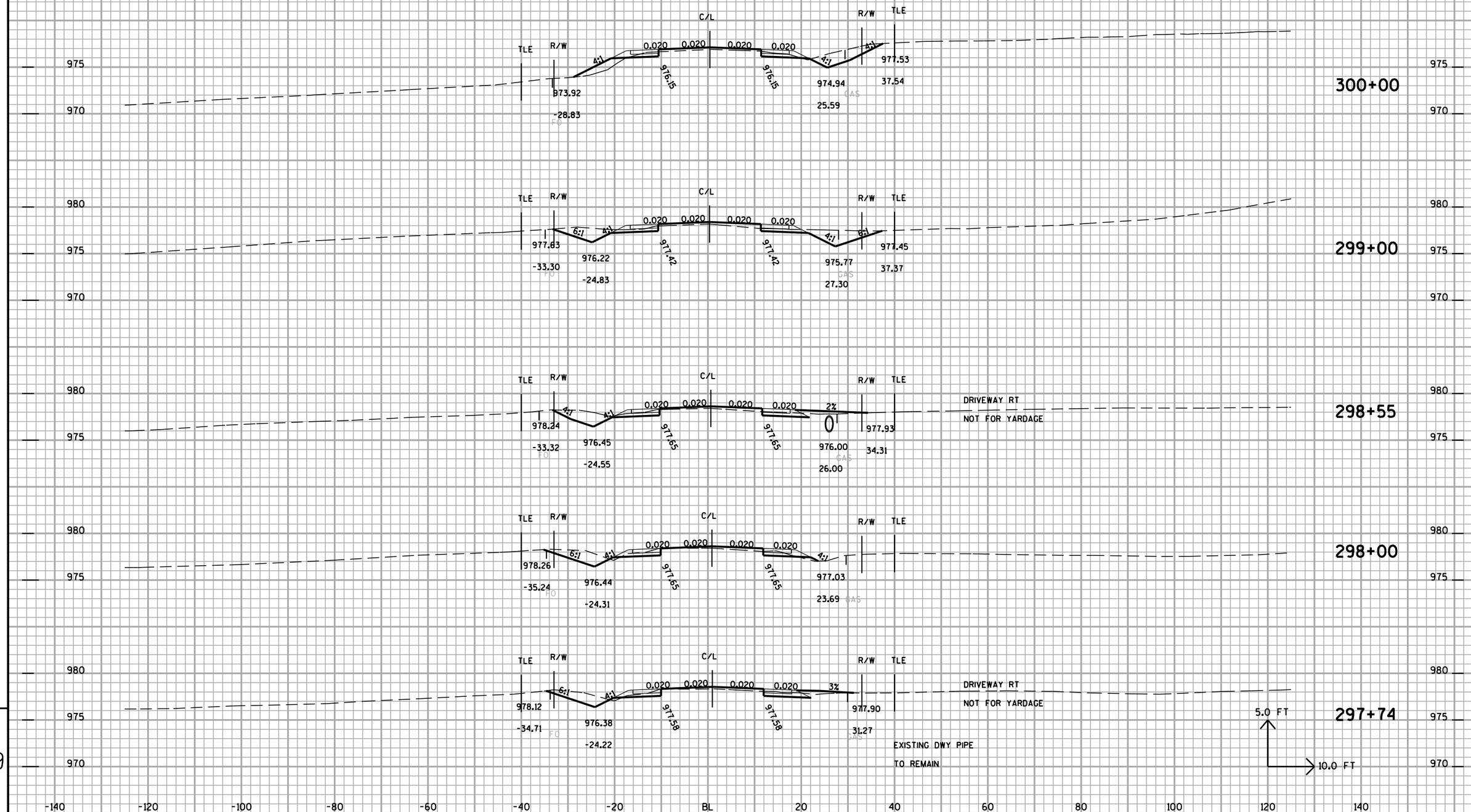
PROJECT NO: 4060-05-70	HWY: STH 28	COUNTY: WASHINGTON	CROSS SECTIONS	SHEET NO: 588	E

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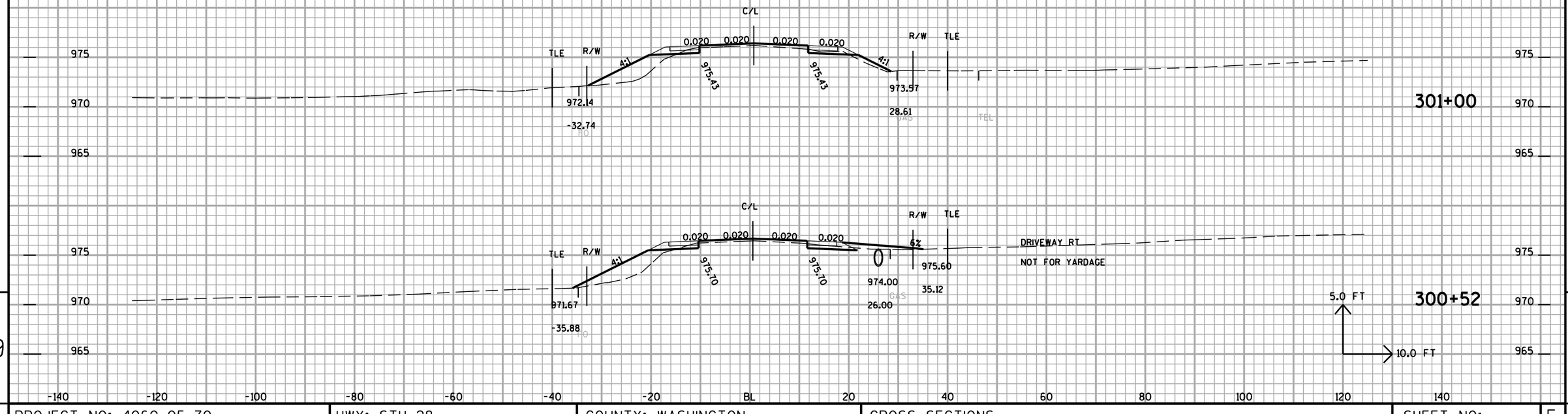
PROJECT NO: 4060-05-70	HWY: STH 28	COUNTY: WASHINGTON	CROSS SECTIONS	SHEET NO: 589	E

FILE NAME : J:±projects±D2_40600528±XS_July±090209_xs.DGN PLOT DATE : 22-JUL-2013 10:37 PLOT BY : dotr3h PLOT NAME : PLOT SCALE : 2:1



PROJECT NO: 4060-05-70	HWY: STH 28	COUNTY: WASHINGTON	CROSS SECTIONS	SHEET NO: 590 E

FILE NAME : J:±projects±D2_40600528±XS_July±090209_xs.DGN PLOT DATE : 22-JUL-2013 10:37 PLOT BY : dotr3h PLOT NAME : PLOT SCALE : 2:1

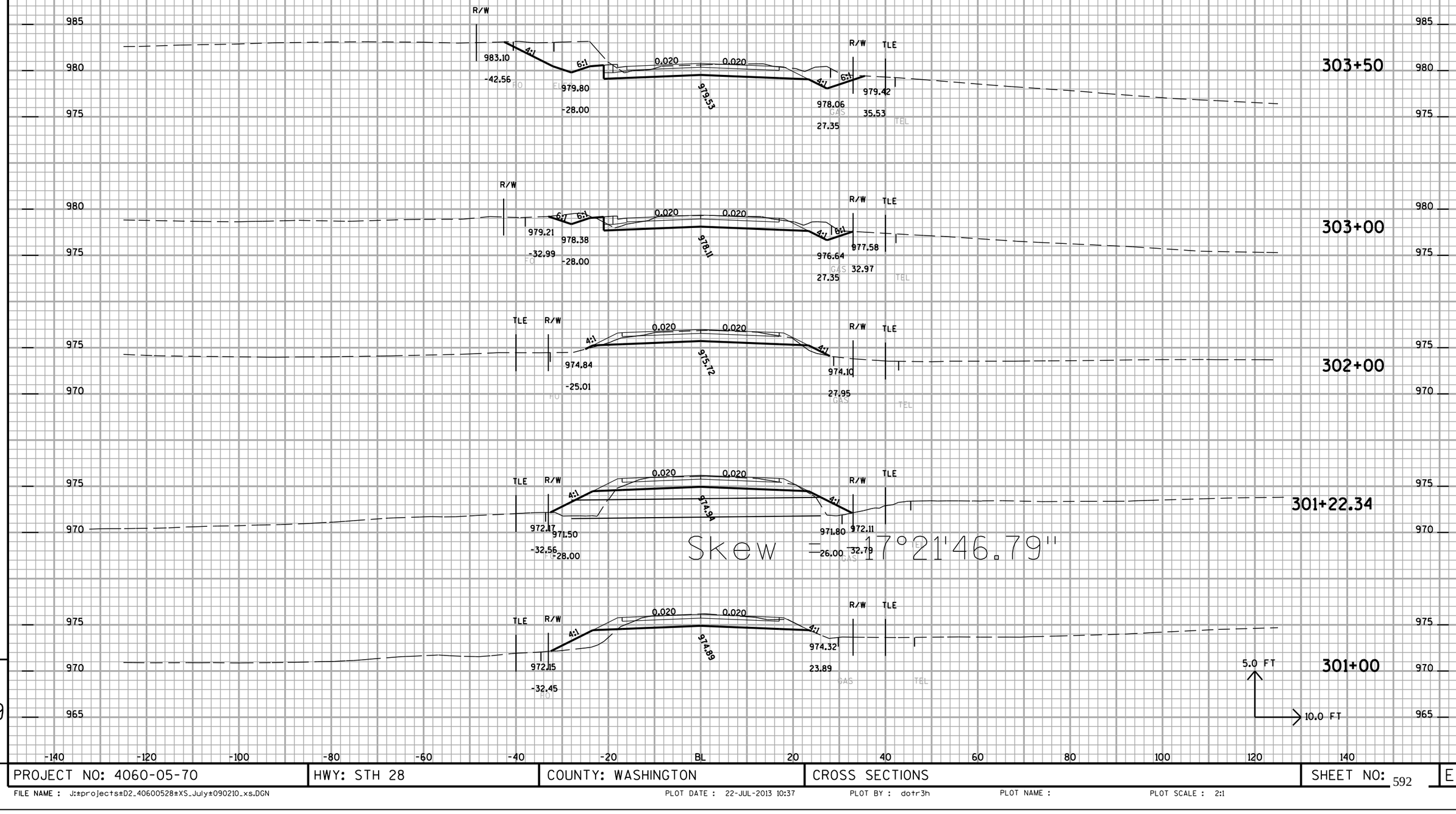


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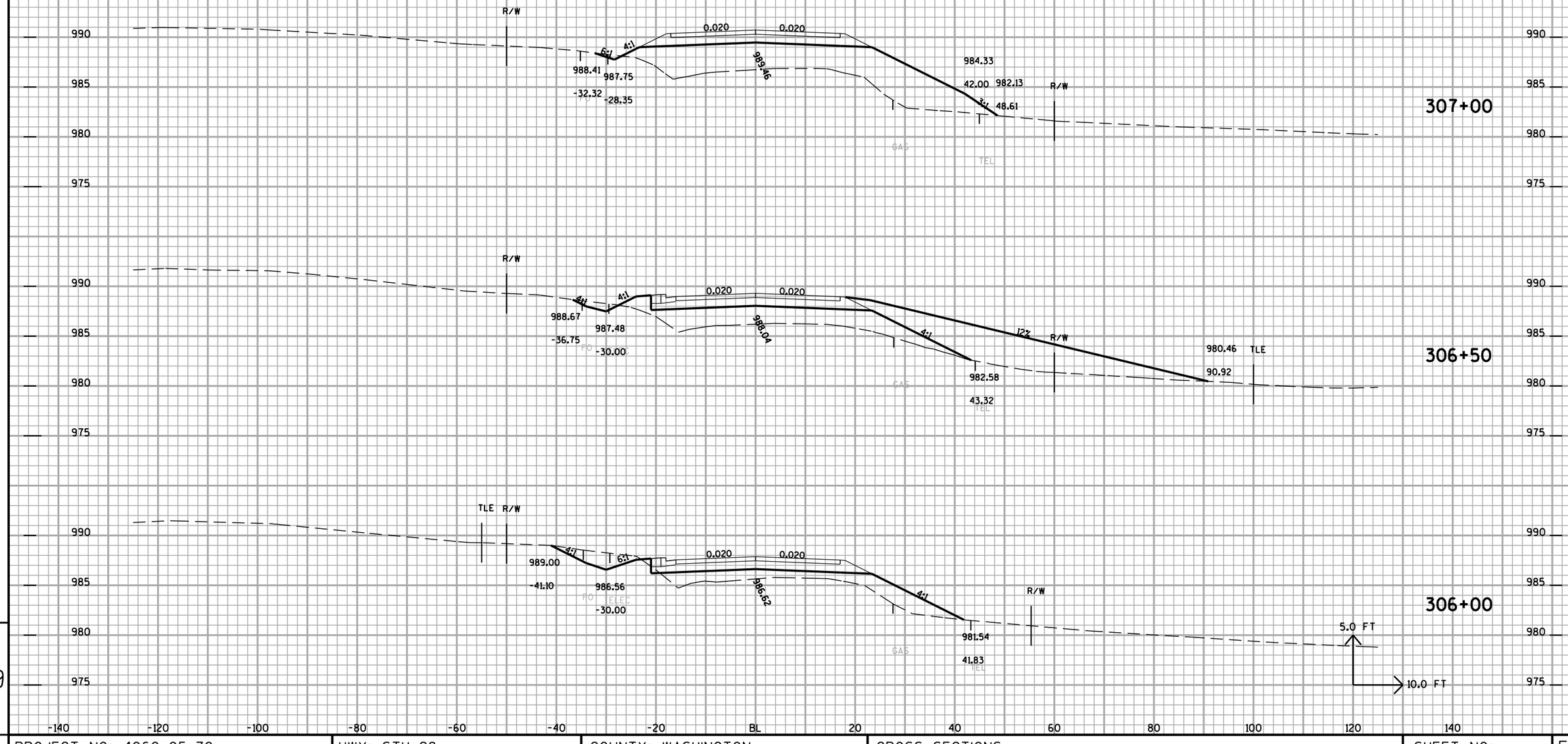
PROJECT NO: 4060-05-70	HWY: STH 28	COUNTY: WASHINGTON	CROSS SECTIONS	SHEET NO: 591	E

FILE NAME : J:±projects±D2_40600528±XS_July±090209_xs.DGN PLOT DATE : 22-JUL-2013 10:37 PLOT BY : dotr3h PLOT NAME : PLOT SCALE : 2:1



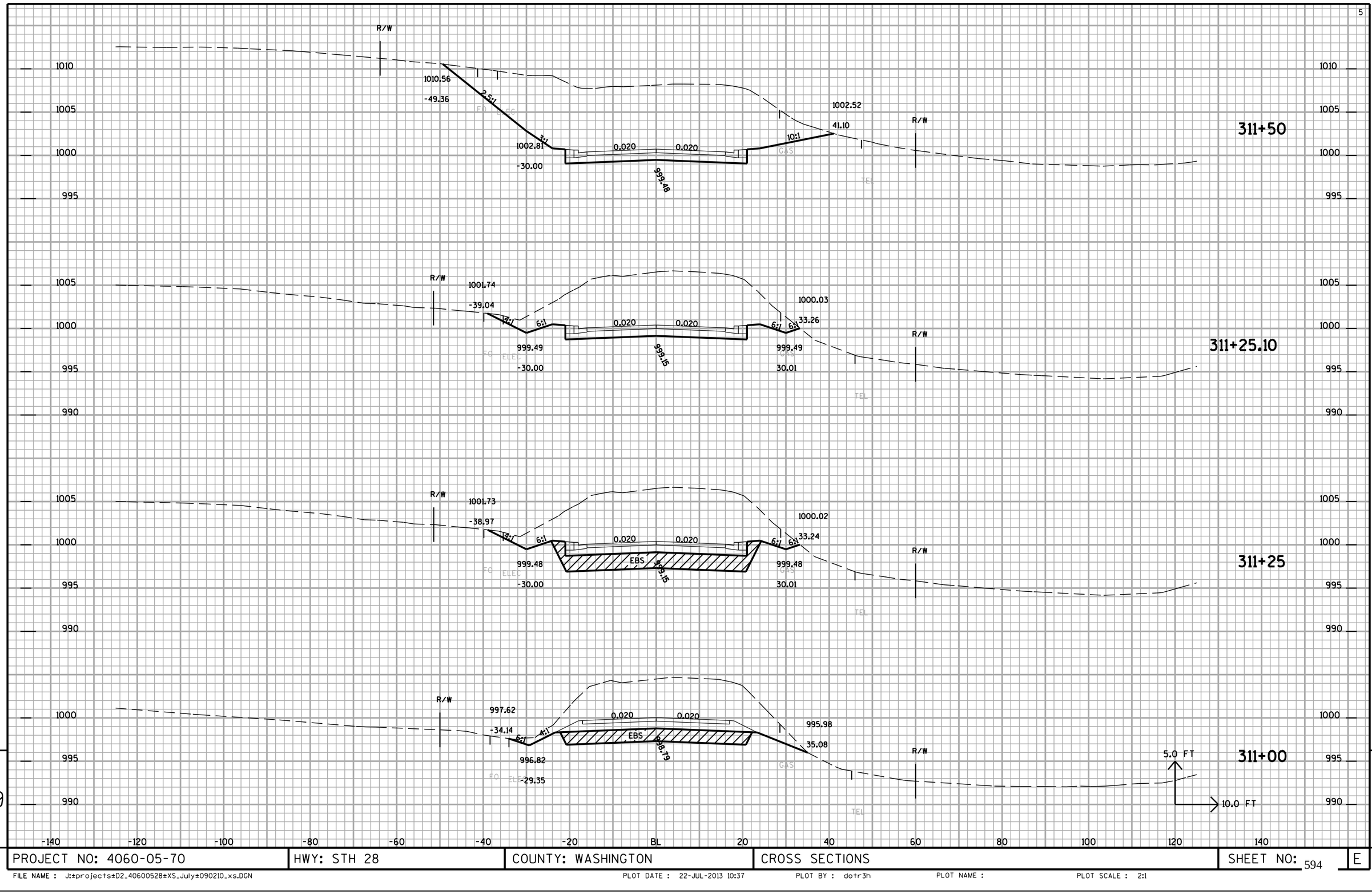
PROJECT NO: 4060-05-70	HWY: STH 28	COUNTY: WASHINGTON	CROSS SECTIONS	SHEET NO: 592	E

FILE NAME : J:±projects±D2_40600528±XS_July±090210_xs.DGN PLOT DATE : 22-JUL-2013 10:37 PLOT BY : dotr3h PLOT NAME : PLOT SCALE : 2:1



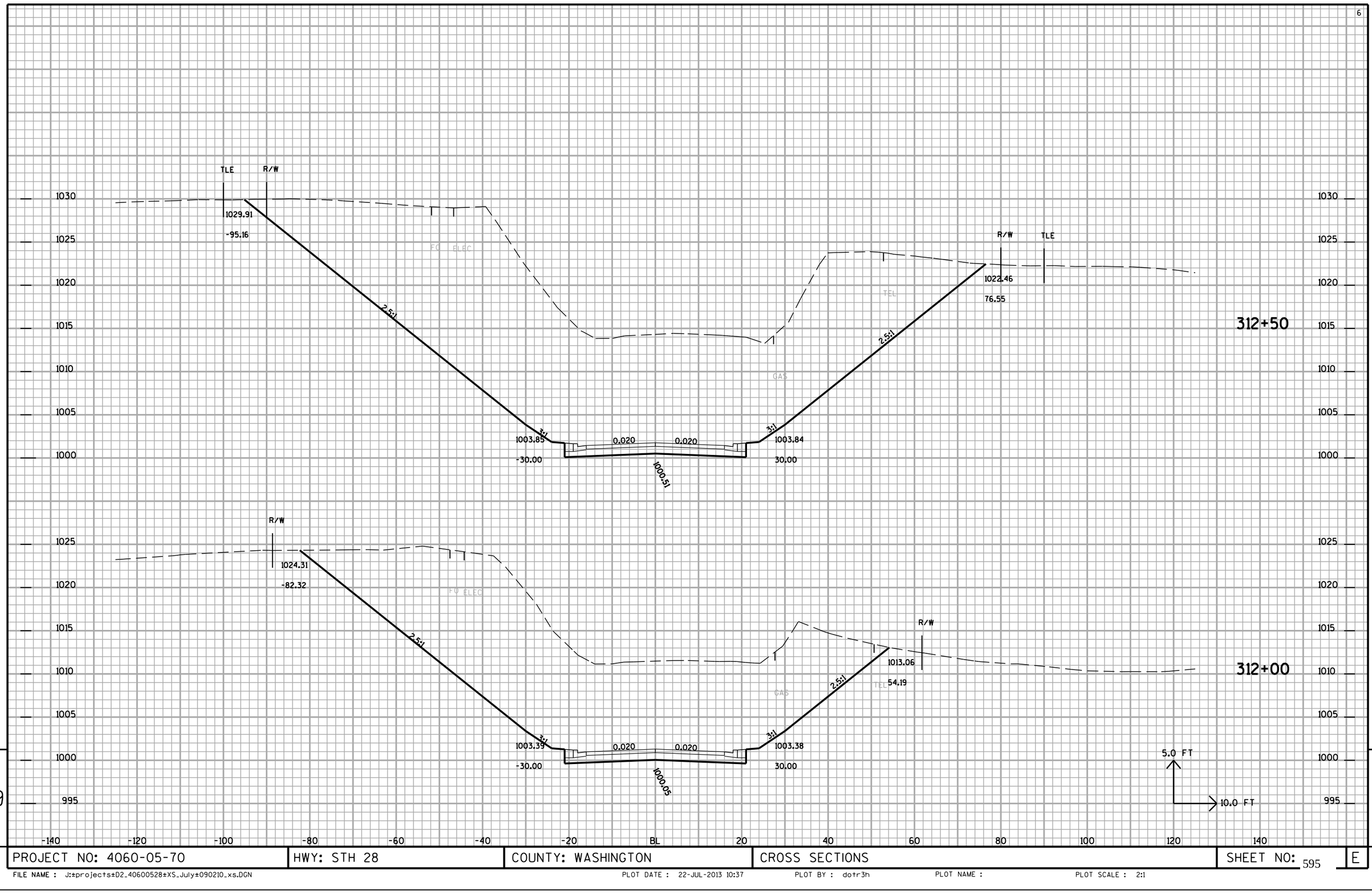
PROJECT NO: 4060-05-70	HWY: STH 28	COUNTY: WASHINGTON	CROSS SECTIONS	SHEET NO: 593	E

FILE NAME : J:±projects±D2_40600528±XS_July±090210_xs.DGN PLOT DATE : 22-JUL-2013 10:37 PLOT BY : dotr3h PLOT NAME : PLOT SCALE : 2:1



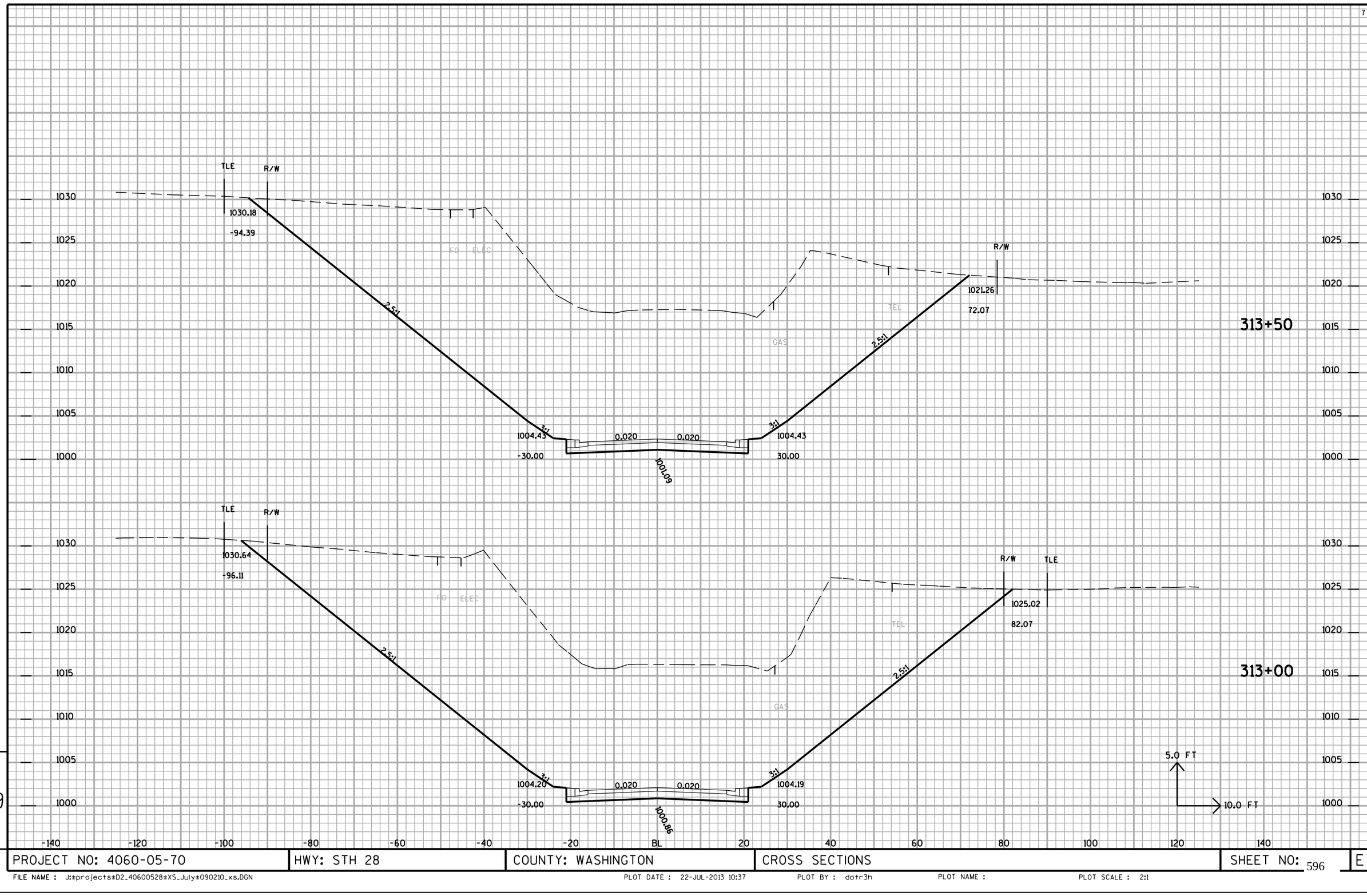
PROJECT NO: 4060-05-70	HWY: STH 28	COUNTY: WASHINGTON	CROSS SECTIONS	SHEET NO: 594	E

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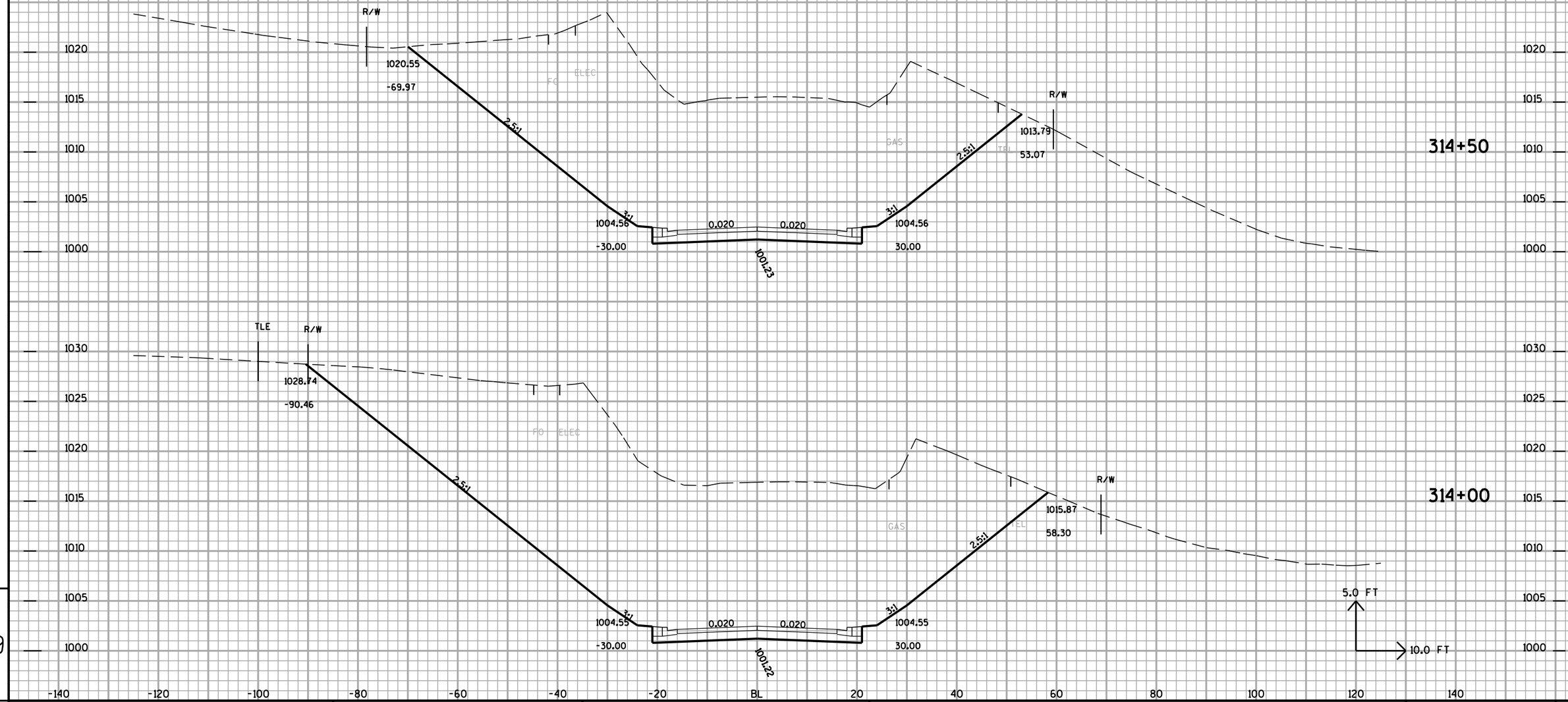
PROJECT NO: 4060-05-70	HWY: STH 28	COUNTY: WASHINGTON	CROSS SECTIONS	SHEET NO: 595	E

FILE NAME : J:±projects±D2_40600528±XS_July±090210_xs.DGN PLOT DATE : 22-JUL-2013 10:37 PLOT BY : dotr3h PLOT NAME : PLOT SCALE : 2:1



PROJECT NO: 4060-05-70	HWY: STH 28	COUNTY: WASHINGTON	CROSS SECTIONS	SHEET NO: 596	E

FILE NAME : J:±projects±D2_40600528±XS_July±090210_xs.DGN PLOT DATE : 22-JUL-2013 10:37 PLOT BY : dotr3h PLOT NAME : PLOT SCALE : 2:1

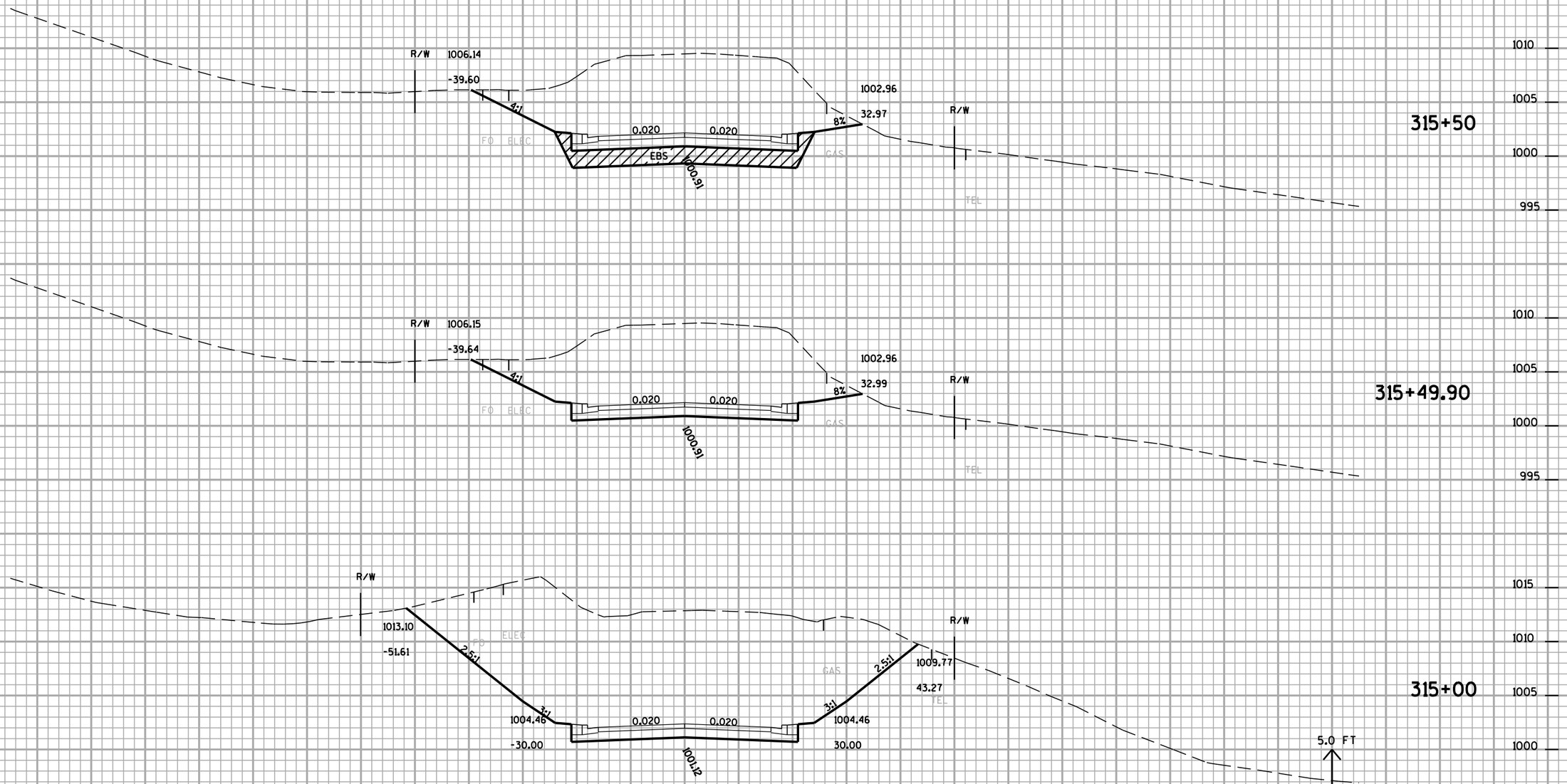


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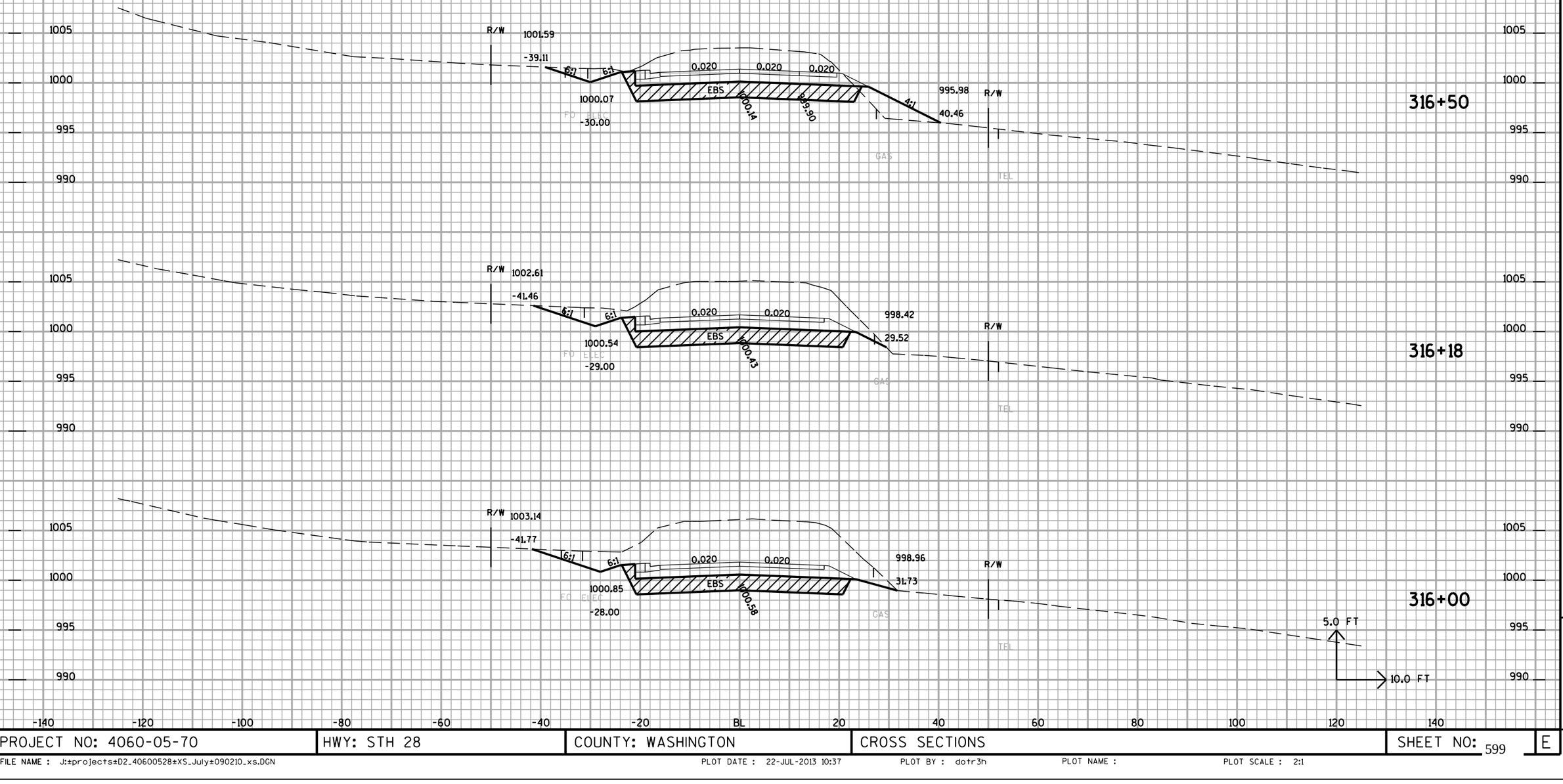
PROJECT NO: 4060-05-70	HWY: STH 28	COUNTY: WASHINGTON	CROSS SECTIONS	SHEET NO: 597	E

FILE NAME : J:±projects±D2_40600528±XS_July±090210_xs.DGN PLOT DATE : 22-JUL-2013 10:37 PLOT BY : dotr3h PLOT NAME : PLOT SCALE : 2:1



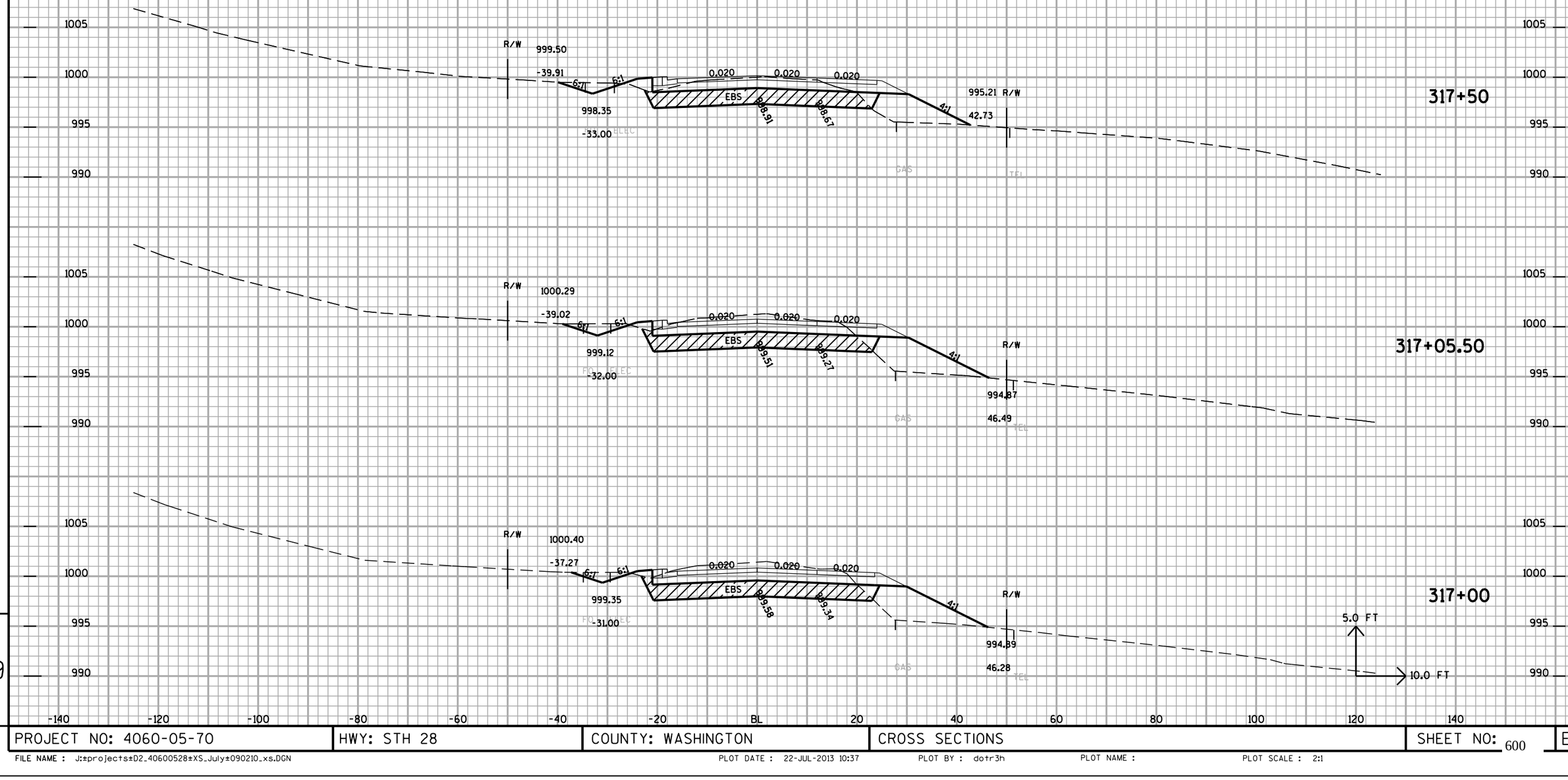
PROJECT NO: 4060-05-70	HWY: STH 28	COUNTY: WASHINGTON	CROSS SECTIONS	SHEET NO: 598	E

FILE NAME : J:±projects±D2_40600528±XS_July±090210_xs.DGN PLOT DATE : 22-JUL-2013 10:37 PLOT BY : dotr3h PLOT NAME : PLOT SCALE : 2:1



PROJECT NO: 4060-05-70	HWY: STH 28	COUNTY: WASHINGTON	CROSS SECTIONS	SHEET NO: 599	E

FILE NAME : J:±projects±D2_40600528±XS_July±090210_xs.DGN PLOT DATE : 22-JUL-2013 10:37 PLOT BY : dotr3h PLOT NAME : PLOT SCALE : 2:1

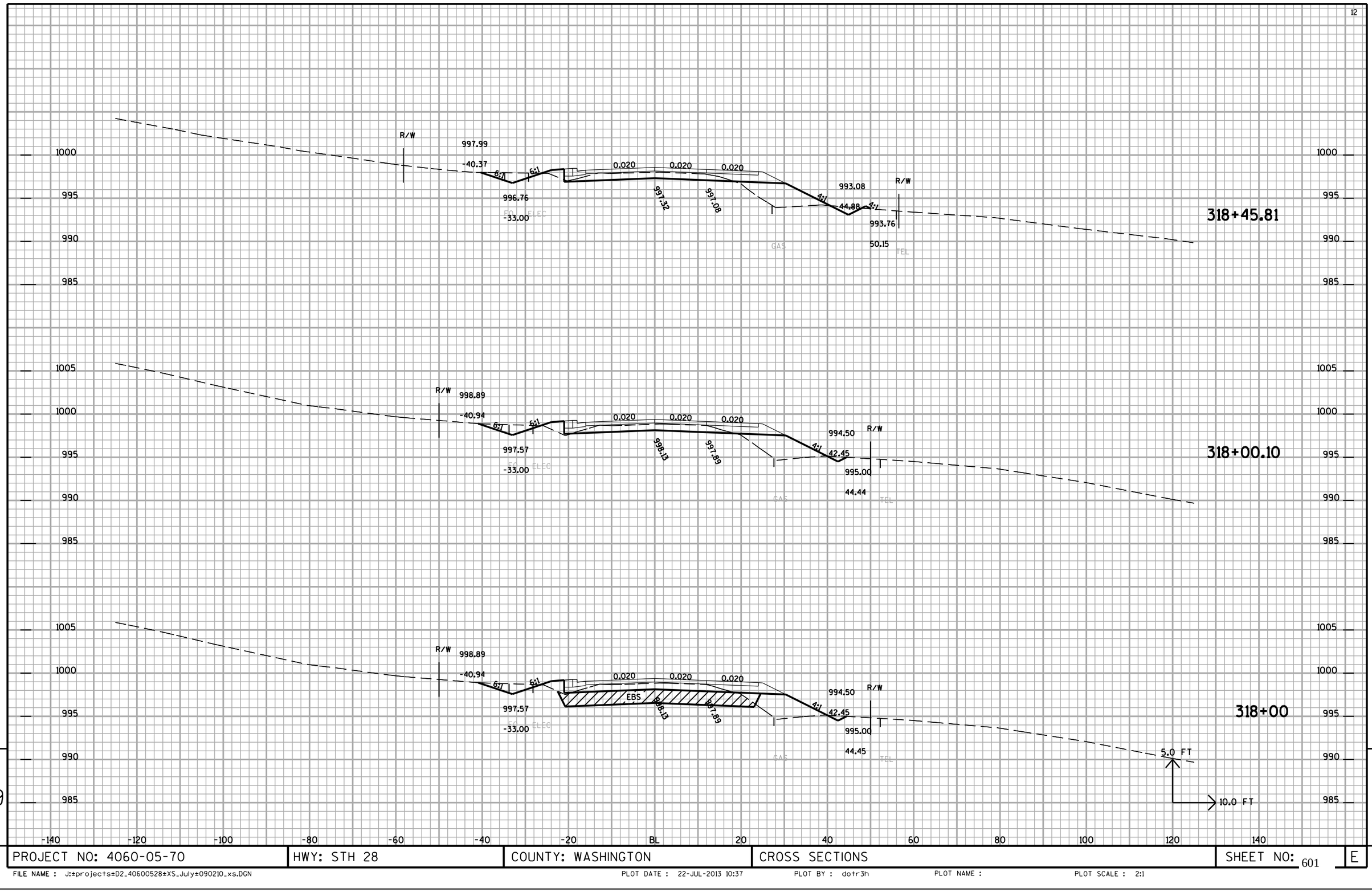


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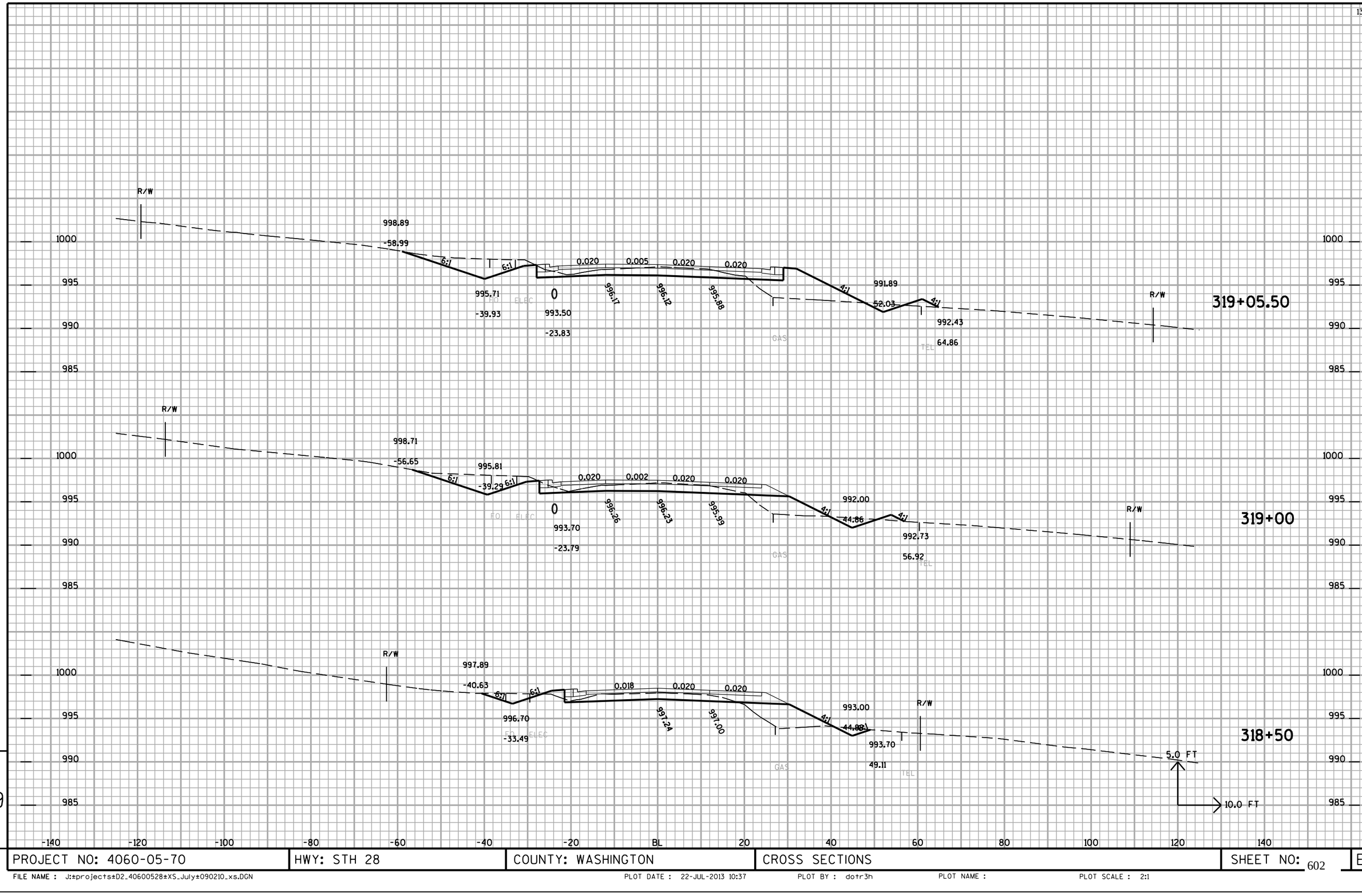
PROJECT NO: 4060-05-70	HWY: STH 28	COUNTY: WASHINGTON	CROSS SECTIONS	SHEET NO: 600	E

FILE NAME : J:±projects±D2_40600528±XS_July±090210_xs.DGN PLOT DATE : 22-JUL-2013 10:37 PLOT BY : dotr3h PLOT NAME : PLOT SCALE : 2:1



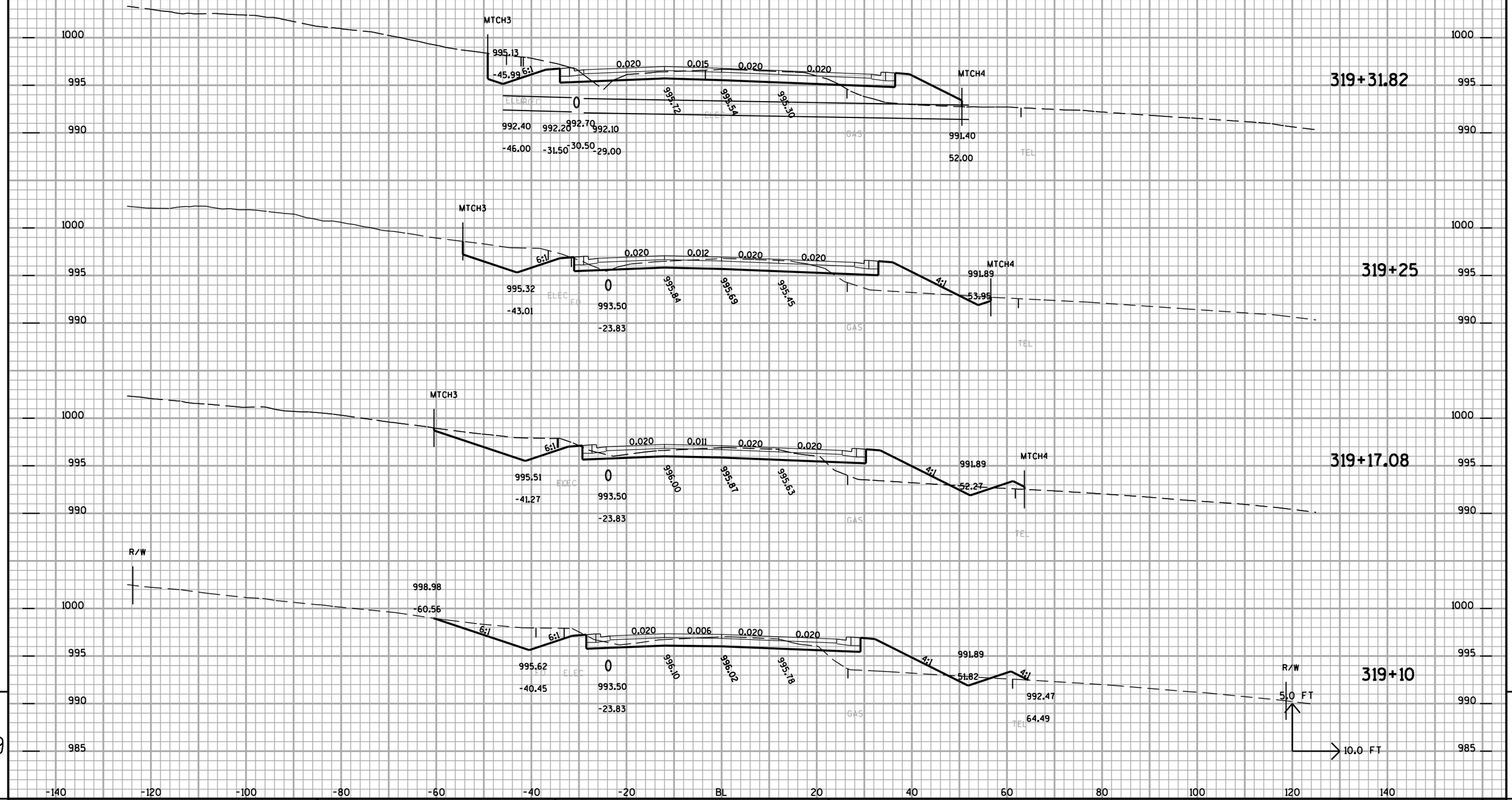
PROJECT NO: 4060-05-70	HWY: STH 28	COUNTY: WASHINGTON	CROSS SECTIONS	SHEET NO: 601	E

FILE NAME : J:±projects±D2_40600528±XS_July±090210_xs.DGN PLOT DATE : 22-JUL-2013 10:37 PLOT BY : dotr3h PLOT NAME : PLOT SCALE : 2:1



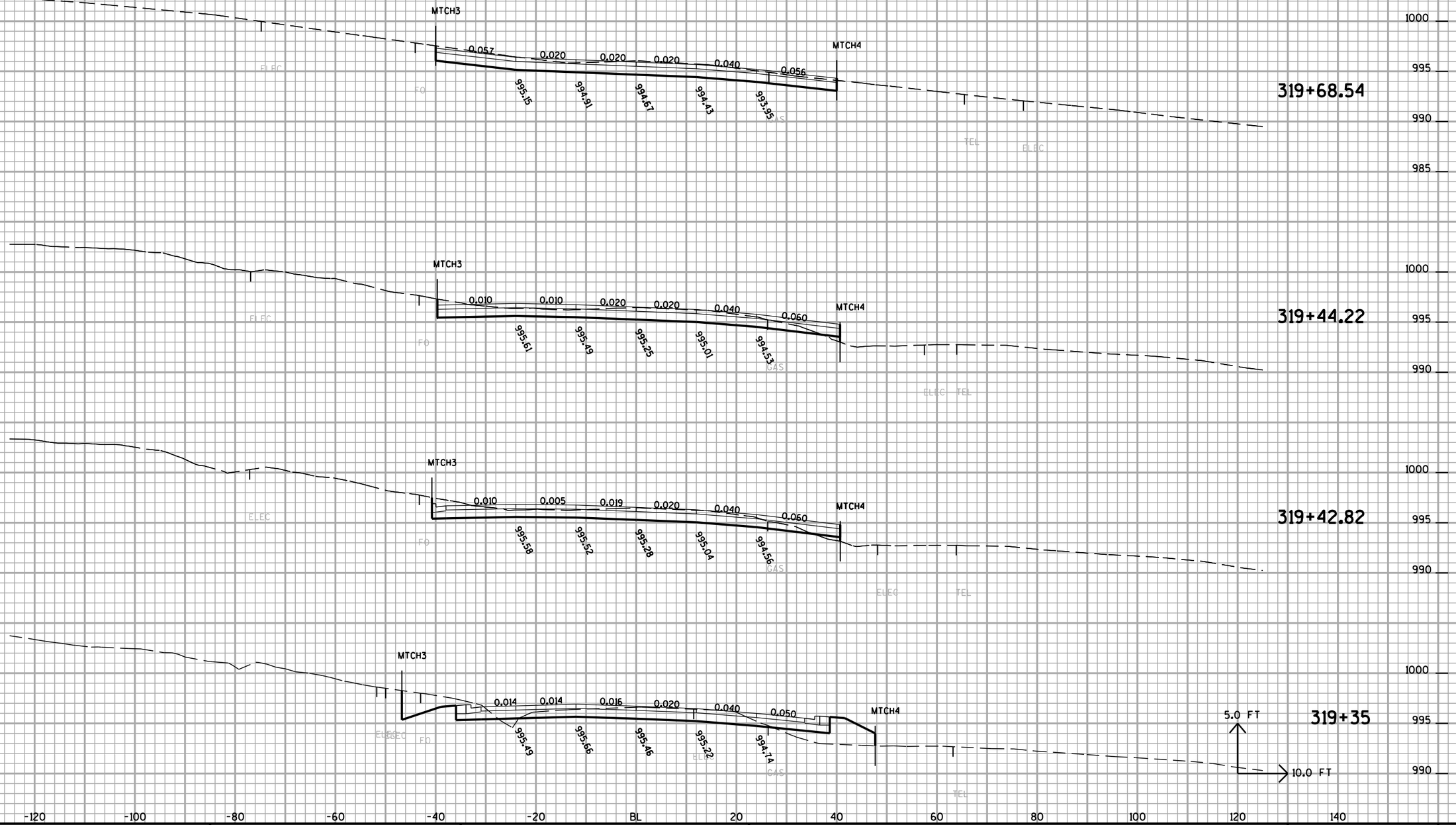
PROJECT NO: 4060-05-70	HWY: STH 28	COUNTY: WASHINGTON	CROSS SECTIONS	SHEET NO: 602	E

FILE NAME : J:±projects±D2_40600528±XS_July±090210_xs.DGN PLOT DATE : 22-JUL-2013 10:37 PLOT BY : dotr3h PLOT NAME : PLOT SCALE : 2:1



PROJECT NO: 4060-05-70	HWY: STH 28	COUNTY: WASHINGTON	CROSS SECTIONS	SHEET NO: 603	E

FILE NAME : J:±projects±D2_40600528±XS_July±090210_xs.DGN PLOT DATE : 22-JUL-2013 10:37 PLOT BY : dotr3h PLOT NAME : PLOT SCALE : 2:1

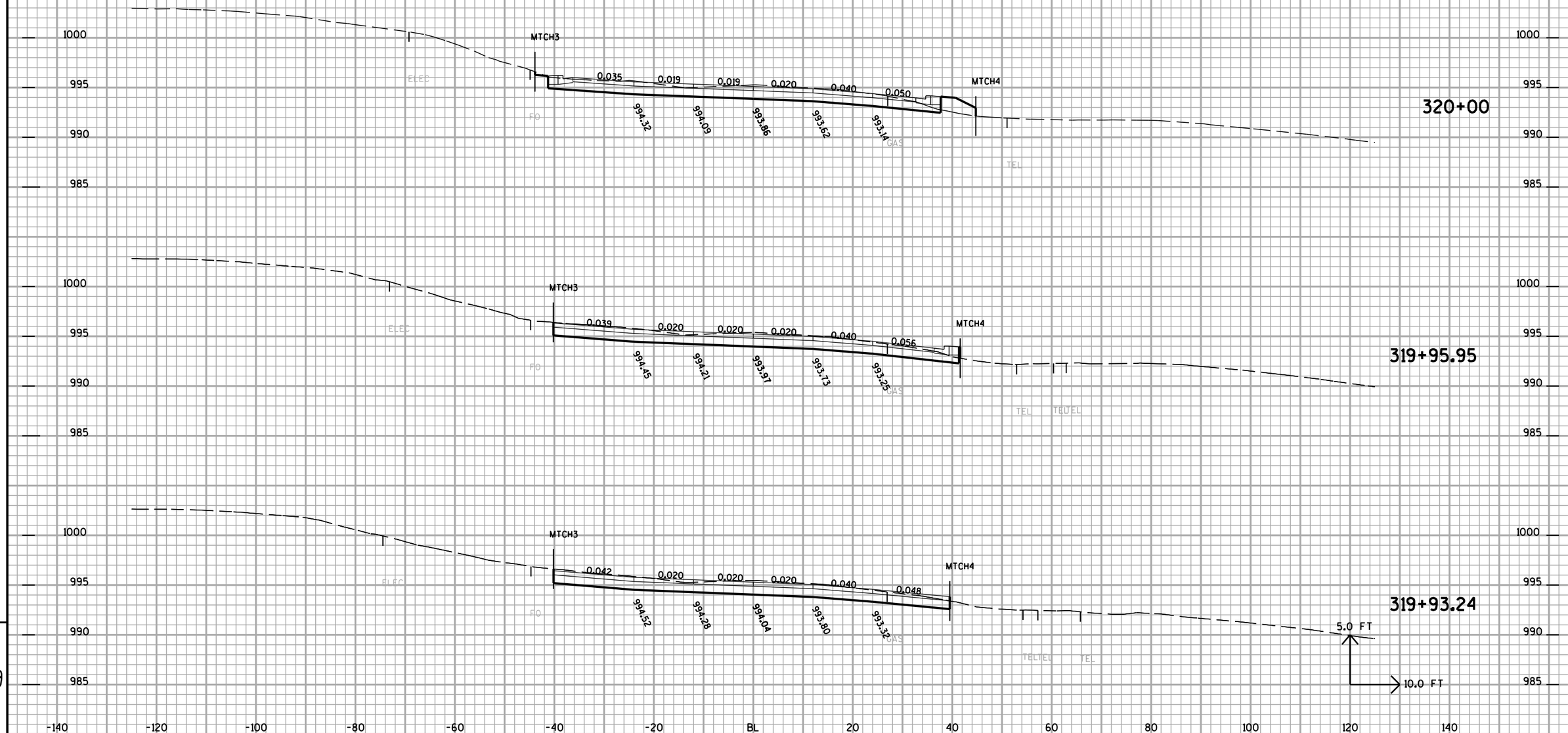


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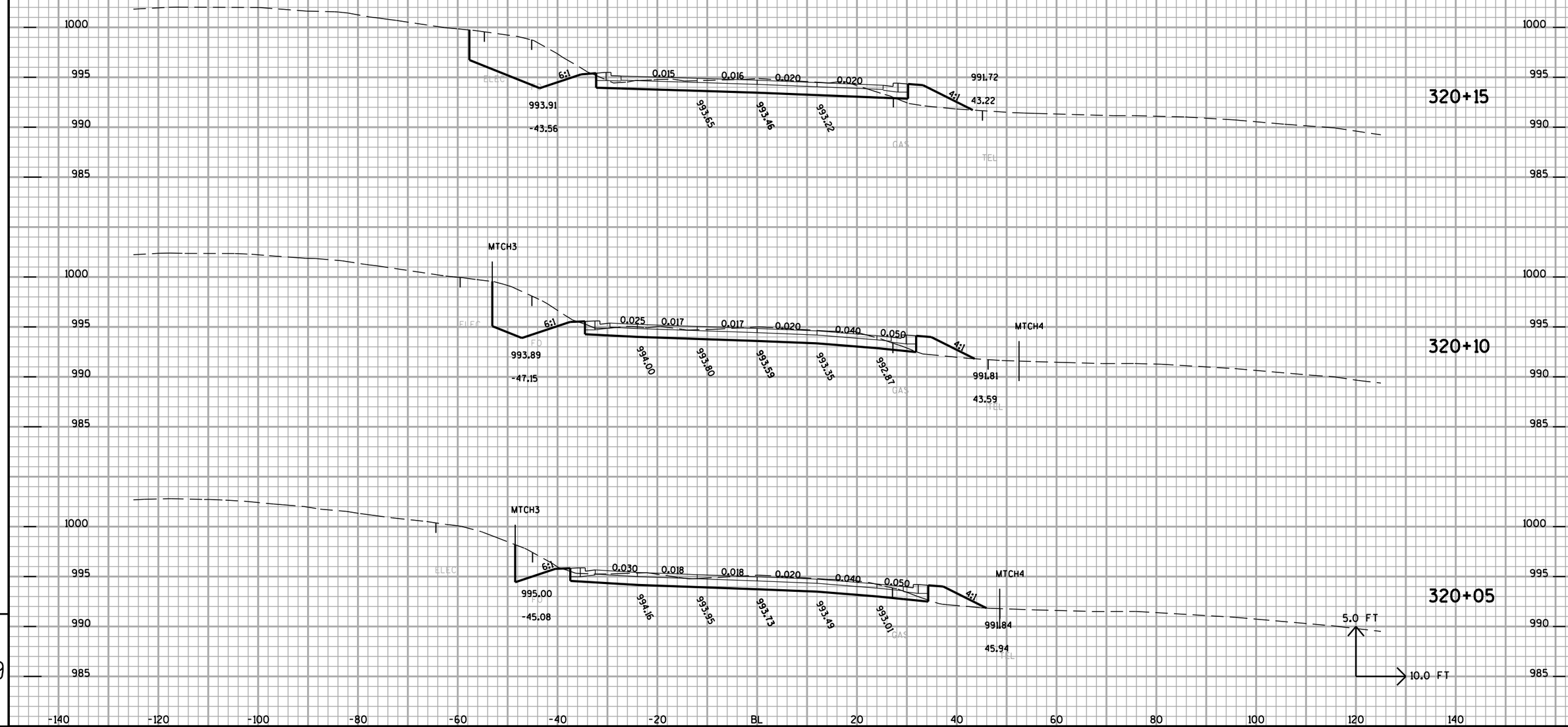
PROJECT NO: 4060-05-70	HWY: STH 28	COUNTY: WASHINGTON	CROSS SECTIONS	SHEET NO: 604	E

FILE NAME : J:±projects±D2_40600528±XS_July±090210_xs.DGN PLOT DATE : 22-JUL-2013 10:37 PLOT BY : dotr3h PLOT NAME : PLOT SCALE : 2:1



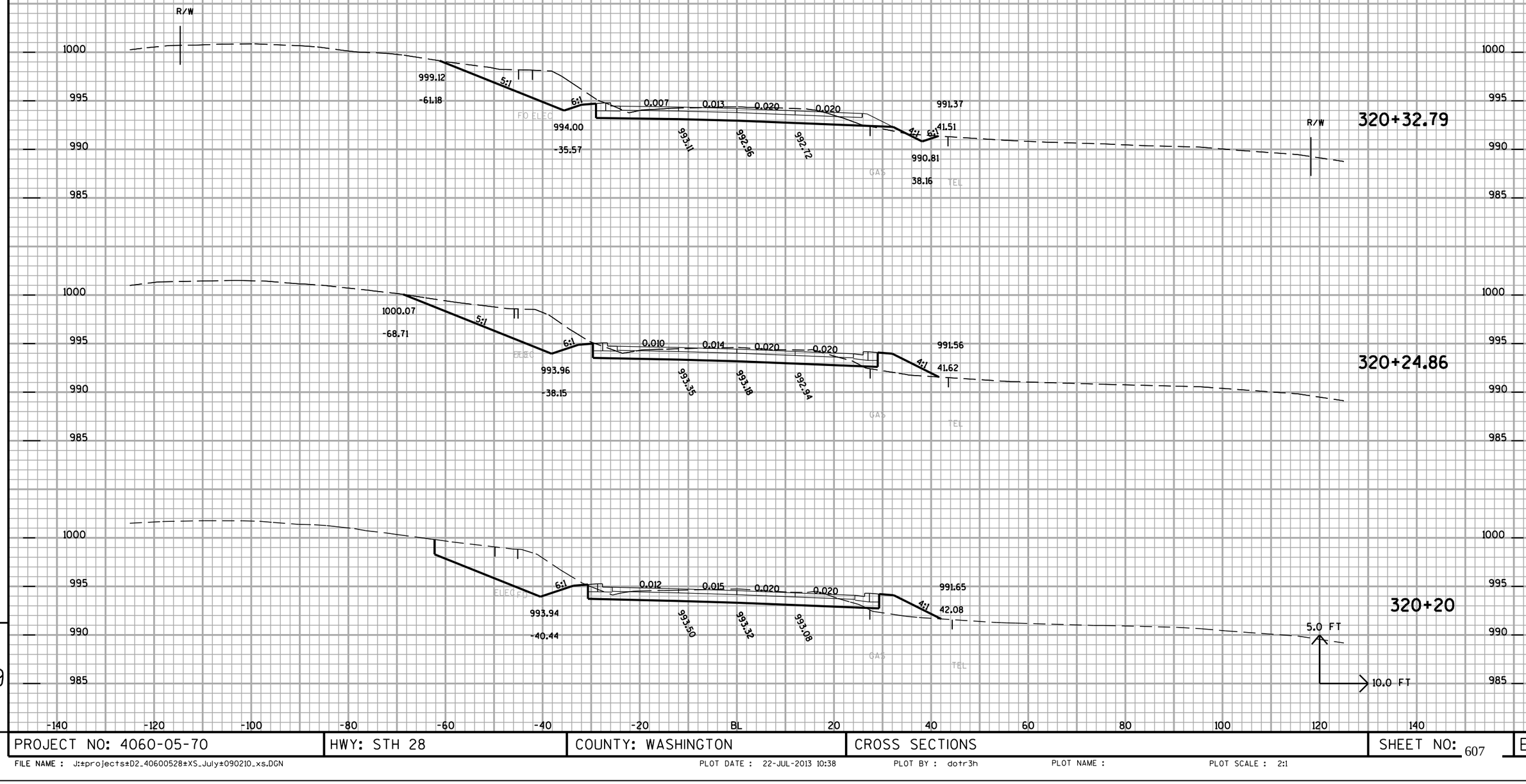
PROJECT NO: 4060-05-70	HWY: STH 28	COUNTY: WASHINGTON	CROSS SECTIONS	SHEET NO: 605	E

FILE NAME : J:±projects±D2_40600528±XS_July±090210_xs.DGN PLOT DATE : 22-JUL-2013 10:37 PLOT BY : dotr3h PLOT NAME : PLOT SCALE : 2:1



PROJECT NO: 4060-05-70	HWY: STH 28	COUNTY: WASHINGTON	CROSS SECTIONS	SHEET NO: 606	E

FILE NAME : J:±projects±D2_40600528±XS_July±090210_xs.DGN PLOT DATE : 22-JUL-2013 10:37 PLOT BY : dotr3h PLOT NAME : PLOT SCALE : 2:1

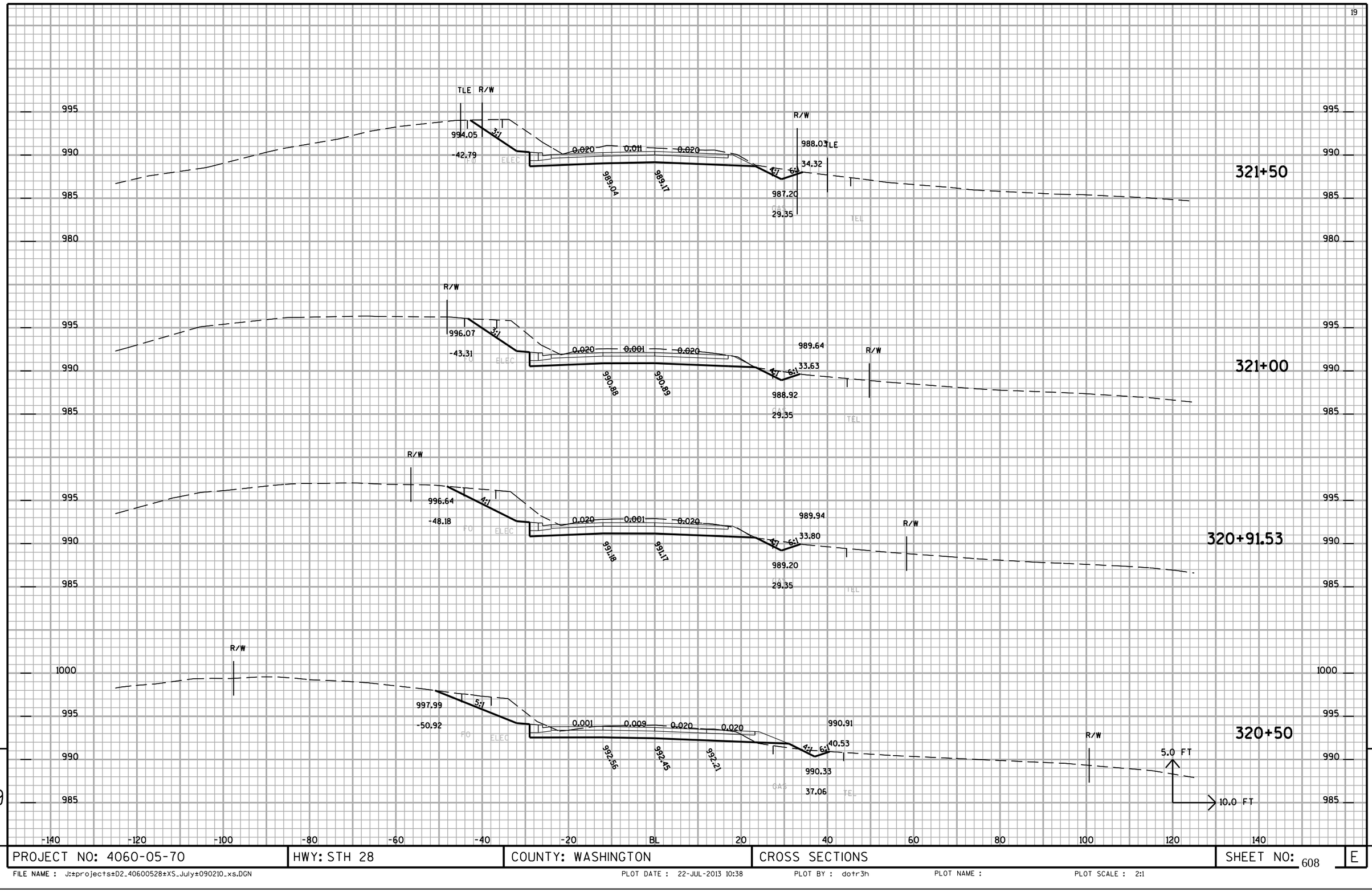


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PROJECT NO: 4060-05-70	HWY: STH 28	COUNTY: WASHINGTON	CROSS SECTIONS	SHEET NO: 607	E

FILE NAME : J:±projects±D2_40600528±XS_July±090210_xs.DGN PLOT DATE : 22-JUL-2013 10:38 PLOT BY : dotr3h PLOT NAME : PLOT SCALE : 2:1

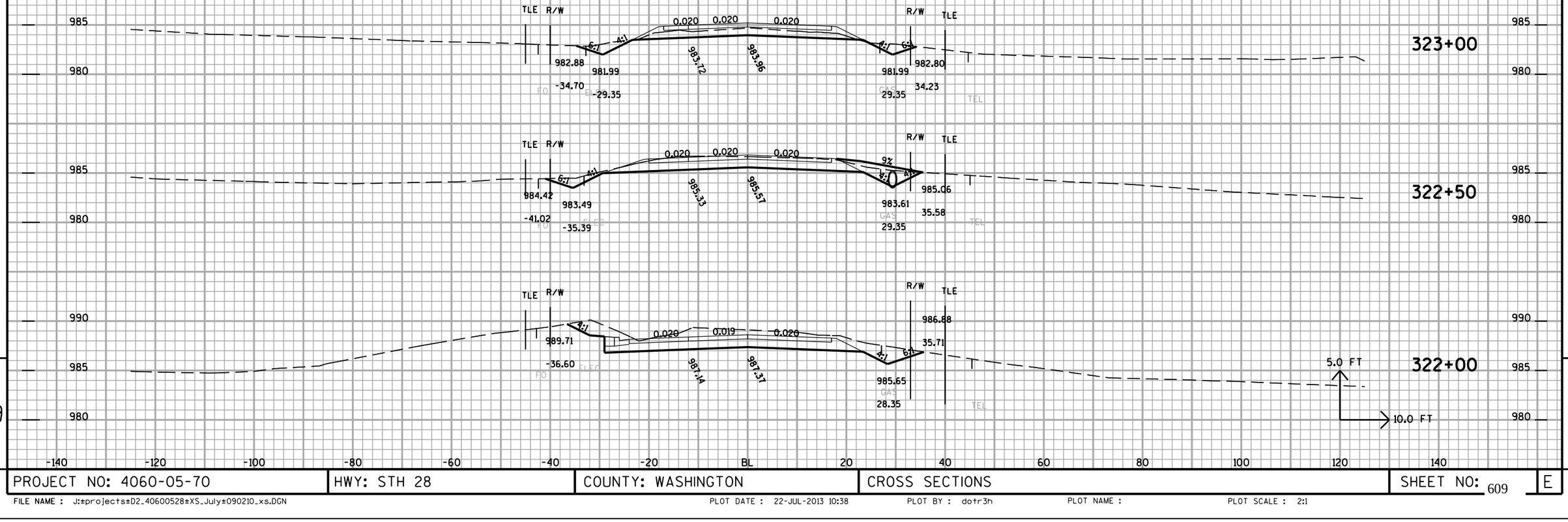


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PROJECT NO: 4060-05-70	HWY: STH 28	COUNTY: WASHINGTON	CROSS SECTIONS	SHEET NO: 608	E

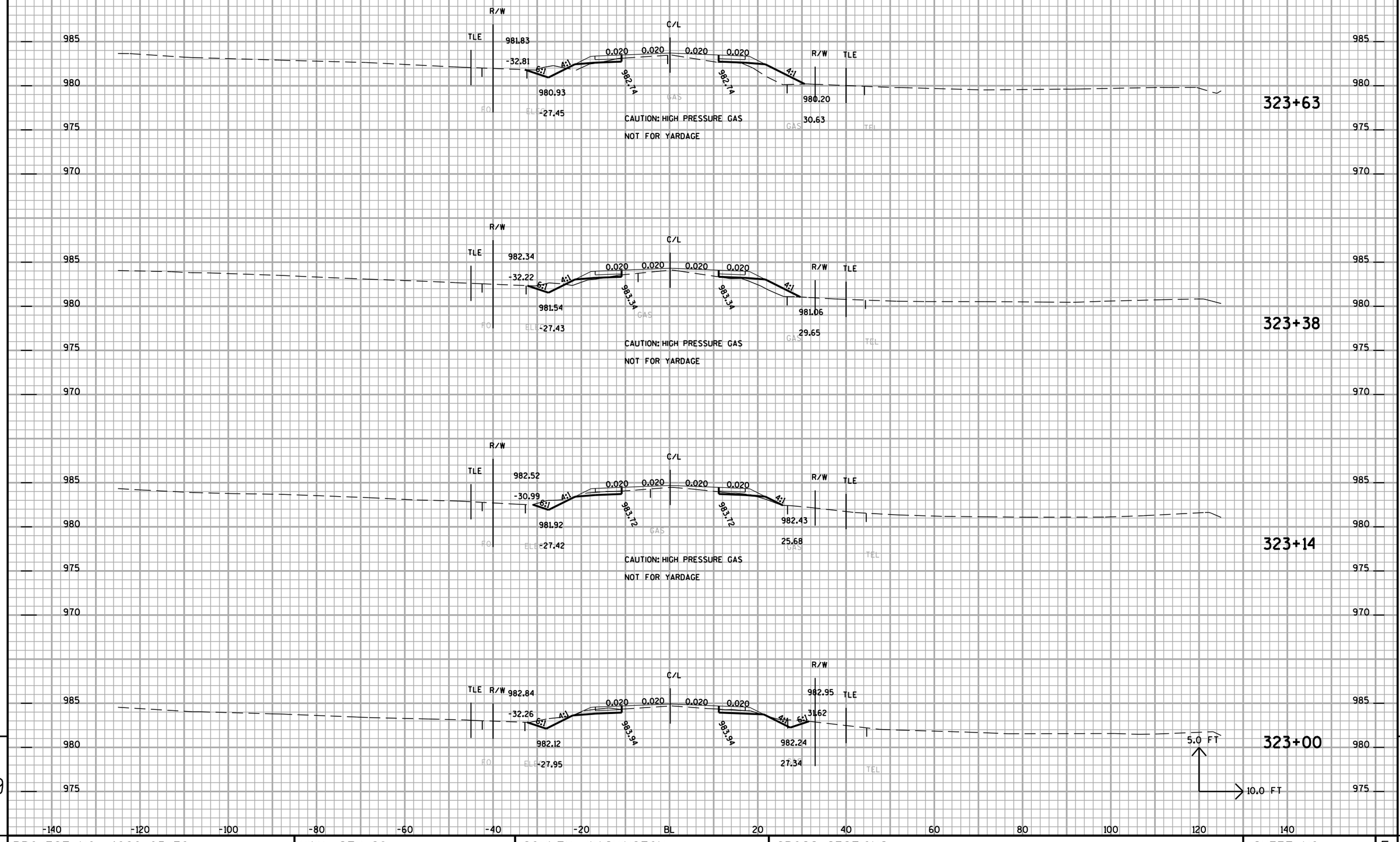
FILE NAME : J:±projects±D2_40600528±XS_July±090210_xs.DGN PLOT DATE : 22-JUL-2013 10:38 PLOT BY : dotr3h PLOT NAME : PLOT SCALE : 2:1



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PROJECT NO: 4060-05-70	HWY: STH 28	COUNTY: WASHINGTON	CROSS SECTIONS	SHEET NO: 609	E

FILE NAME : J:±projects±D2_40600528±XS_July±090210_xs.DGN PLOT DATE : 22-JUL-2013 10:38 PLOT BY : dotr3h PLOT NAME : PLOT SCALE : 2:1

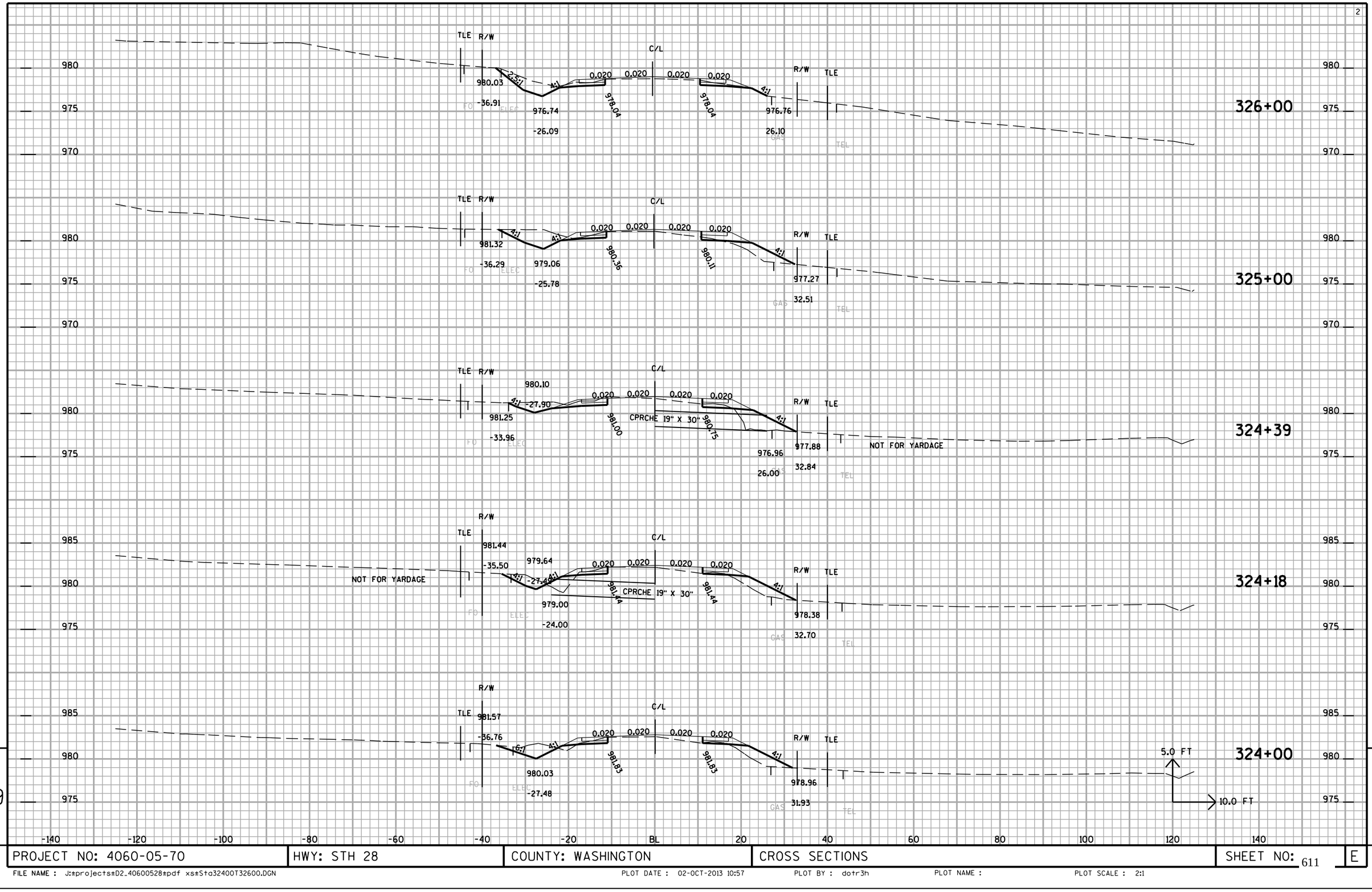


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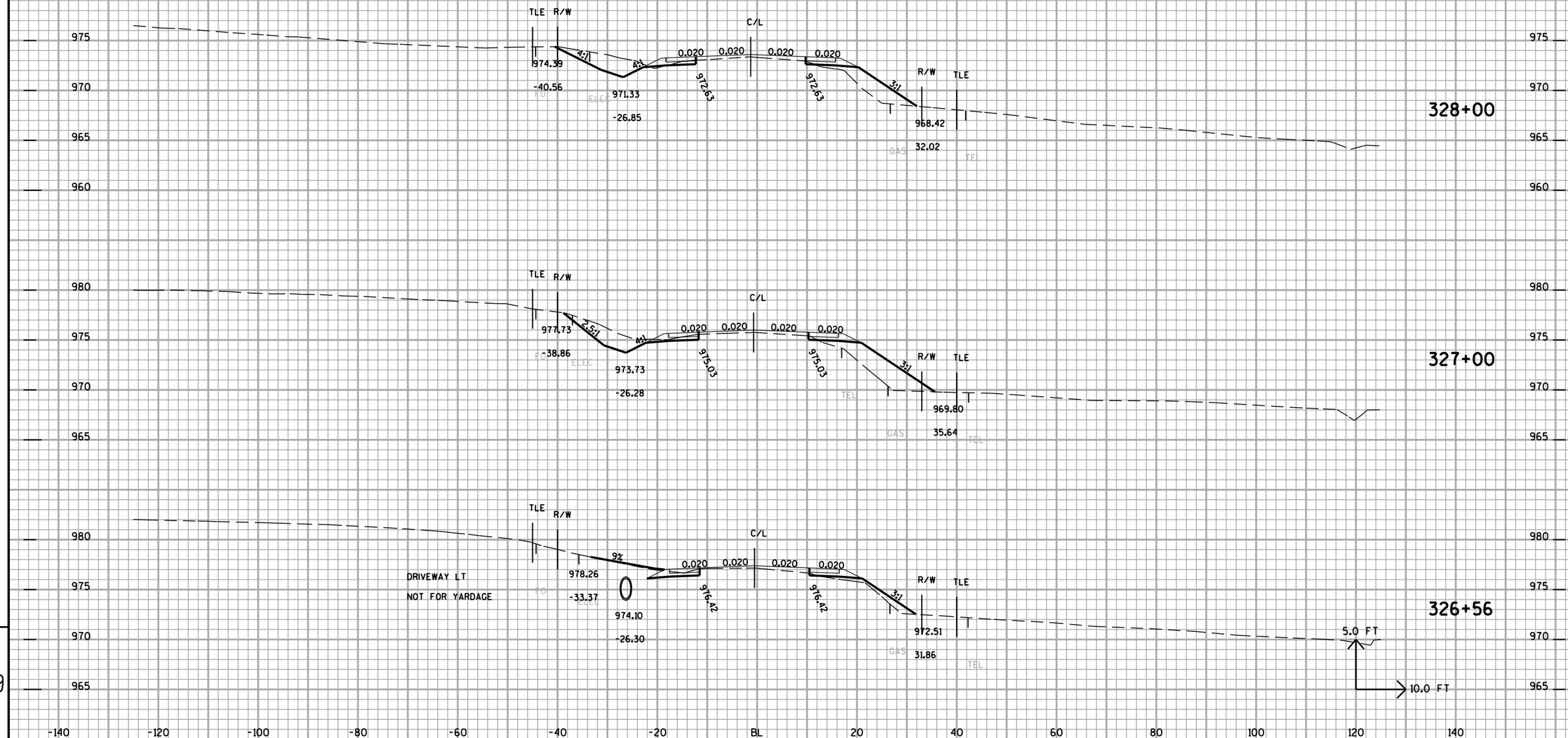
PROJECT NO: 4060-05-70	HWY: STH 28	COUNTY: WASHINGTON	CROSS SECTIONS	SHEET NO: 610	E

FILE NAME : J:±projects±D2_40600528±XS_July±090211_xs.DGN PLOT DATE : 22-JUL-2013 10:38 PLOT BY : dotr3h PLOT NAME : PLOT SCALE : 2:1



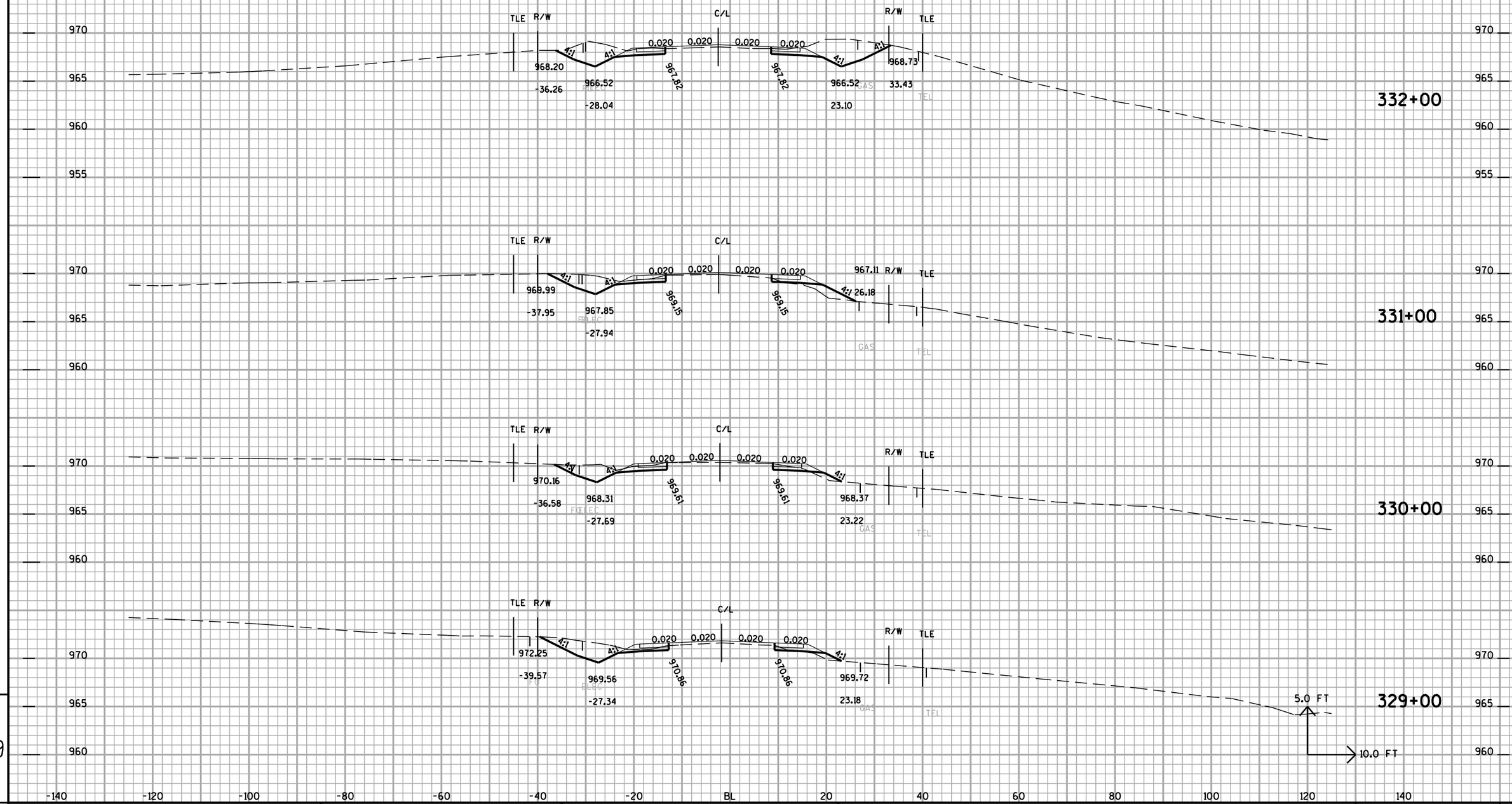
PROJECT NO: 4060-05-70	HWY: STH 28	COUNTY: WASHINGTON	CROSS SECTIONS	SHEET NO: 611	E

FILE NAME : J:±projects±D2_40600528±pdf xs±Sta32400T32600.DGN PLOT DATE : 02-OCT-2013 10:57 PLOT BY : dotr3h PLOT NAME : PLOT SCALE : 2:1

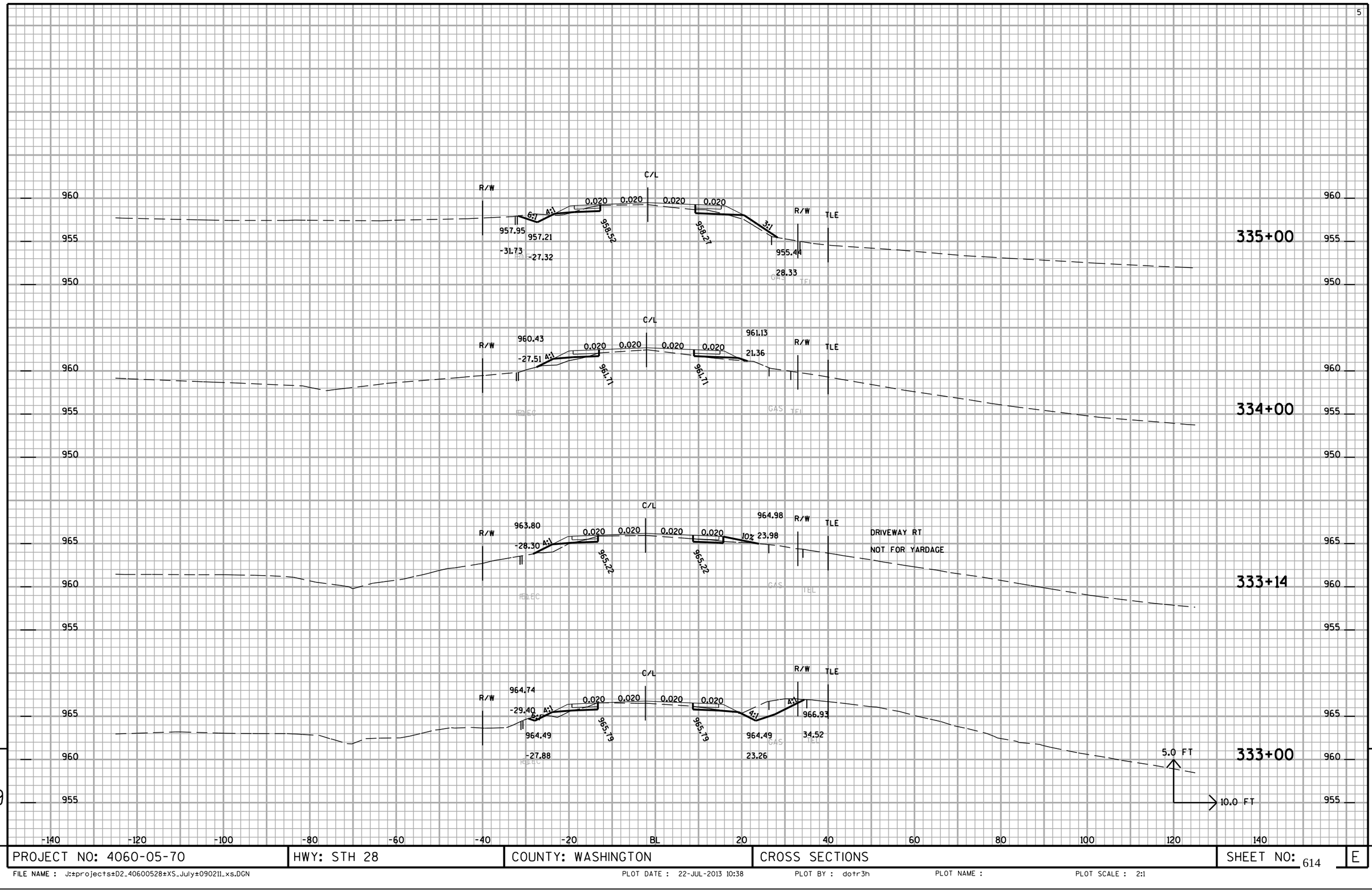


PROJECT NO: 4060-05-70	HWY: STH 28	COUNTY: WASHINGTON	CROSS SECTIONS	SHEET NO: 612	E

FILE NAME : J:±projects±D2_40600528±XS_July±090211_xs.DGN PLOT DATE : 22-JUL-2013 10:38 PLOT BY : dotr3h PLOT NAME : PLOT SCALE : 2:1

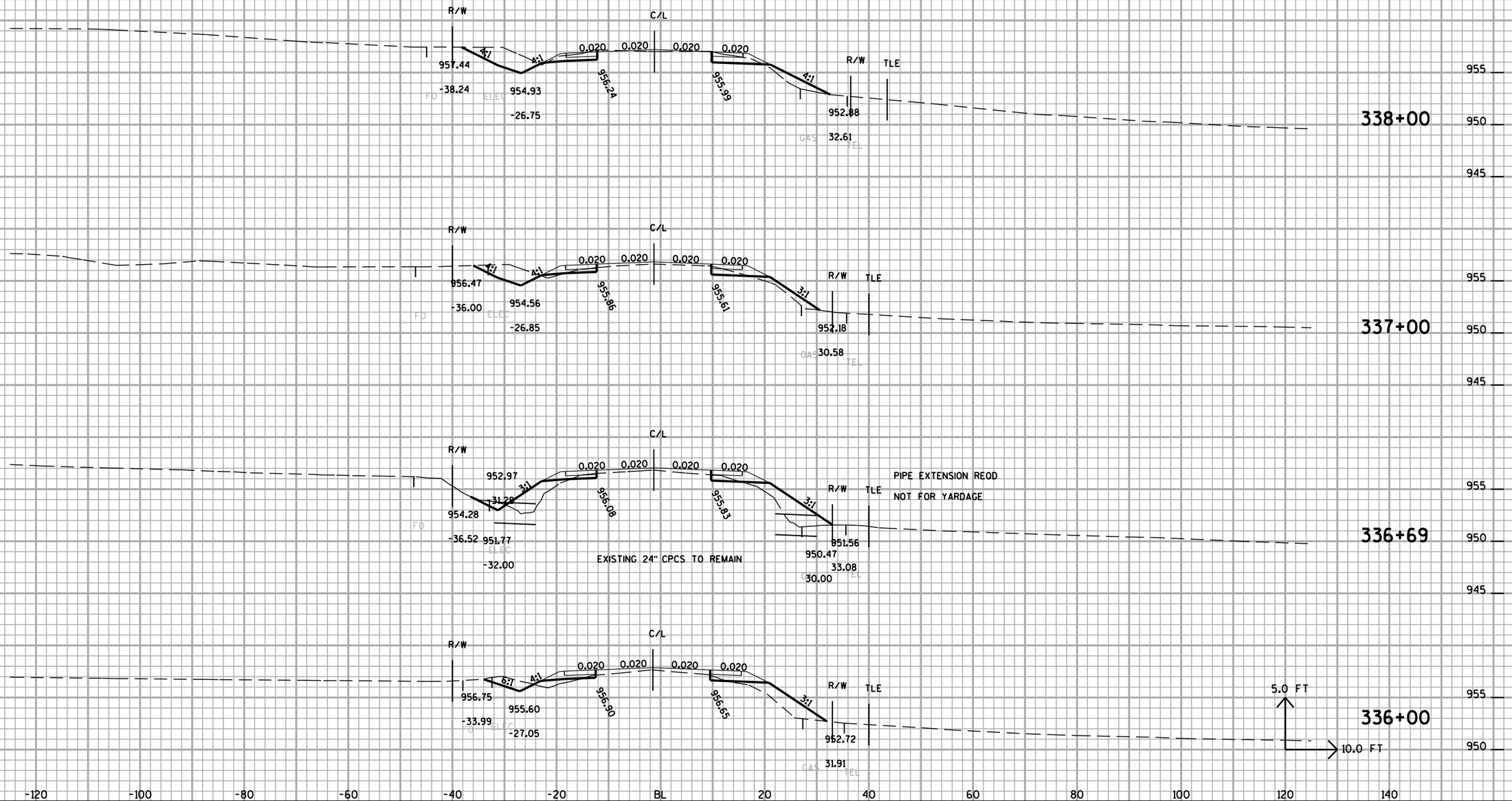


PROJECT NO: 4060-05-70	HWY: STH 28	COUNTY: WASHINGTON	CROSS SECTIONS	SHEET NO: 613	E



PROJECT NO: 4060-05-70	HWY: STH 28	COUNTY: WASHINGTON	CROSS SECTIONS	SHEET NO: 614	E

FILE NAME : J:±projects±D2_40600528±XS_July±090211_xs.DGN PLOT DATE : 22-JUL-2013 10:38 PLOT BY : dotr3h PLOT NAME : PLOT SCALE : 2:1

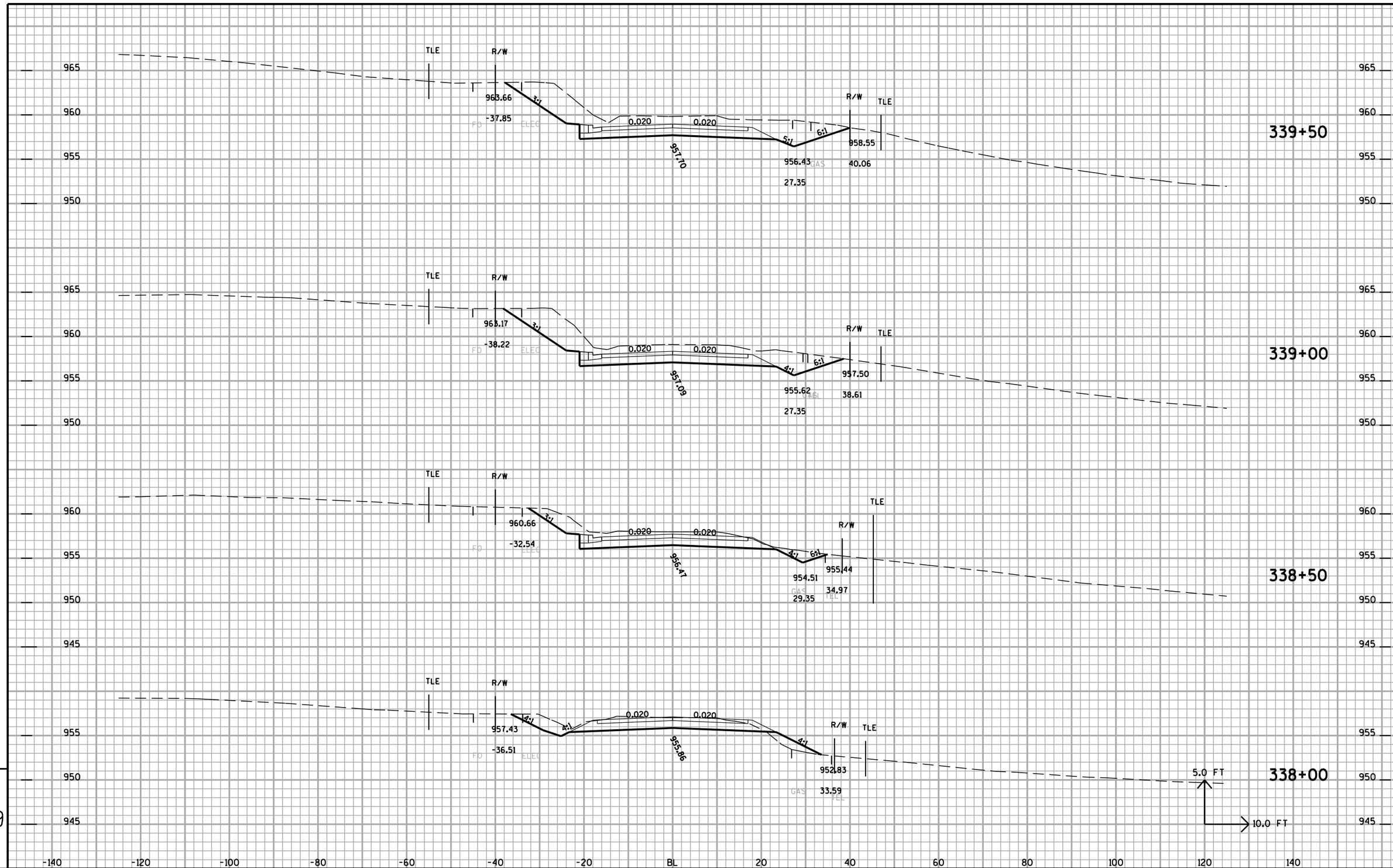


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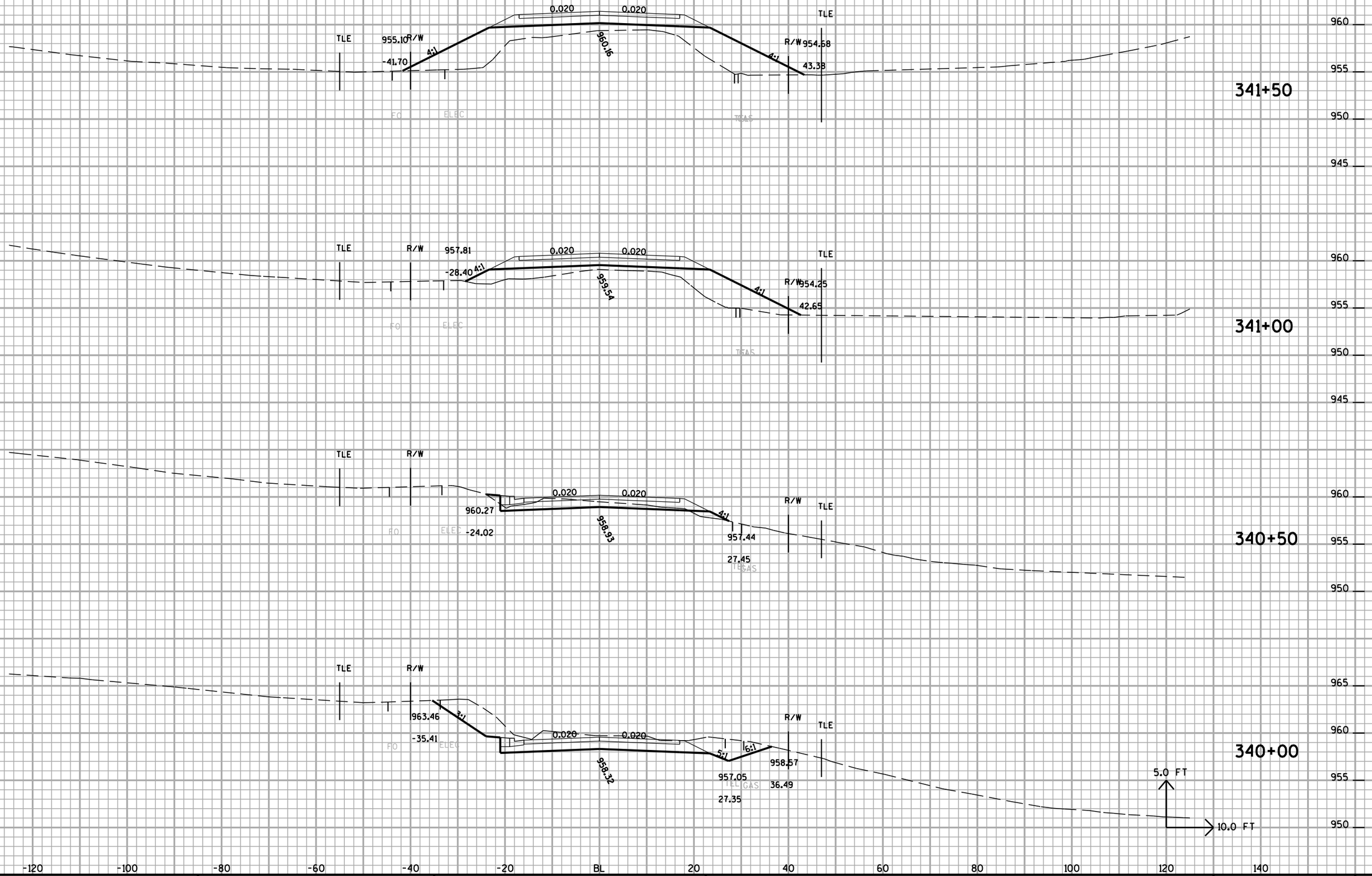
PROJECT NO: 4060-05-70	HWY: STH 28	COUNTY: WASHINGTON	CROSS SECTIONS	SHEET NO: 615	E

FILE NAME : J:±projects±D2_40600528±XS_July±090211_xs.DGN PLOT DATE : 22-JUL-2013 10:38 PLOT BY : dotr3h PLOT NAME : PLOT SCALE : 2:1



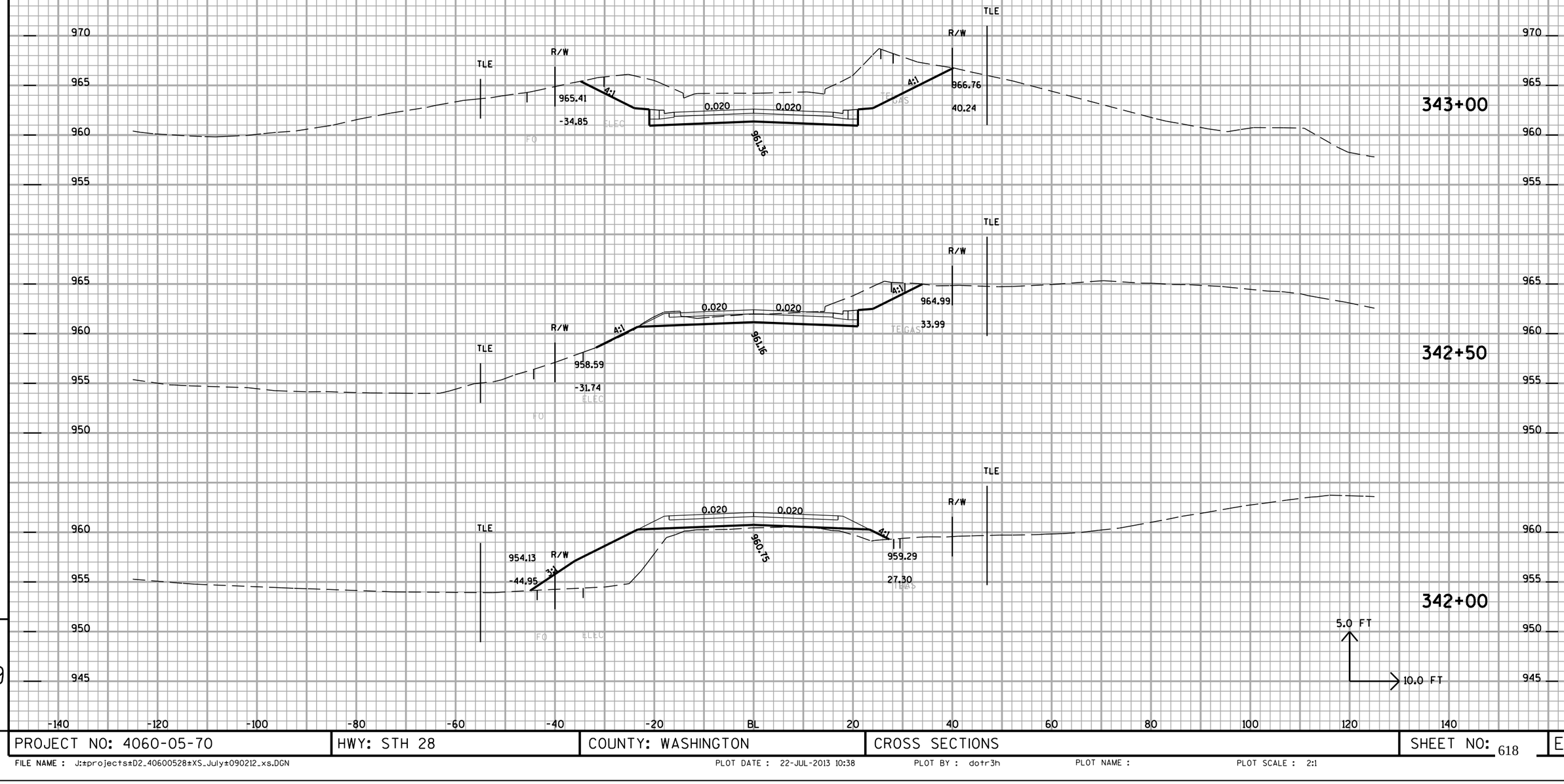
PROJECT NO: 4060-05-70	HWY: STH 28	COUNTY: WASHINGTON	CROSS SECTIONS	SHEET NO: 616	E

FILE NAME : J:±projects±D2_40600528±XS_July±090212_xs.DGN PLOT DATE : 22-JUL-2013 10:38 PLOT BY : dotr3h PLOT NAME : PLOT SCALE : 2:1



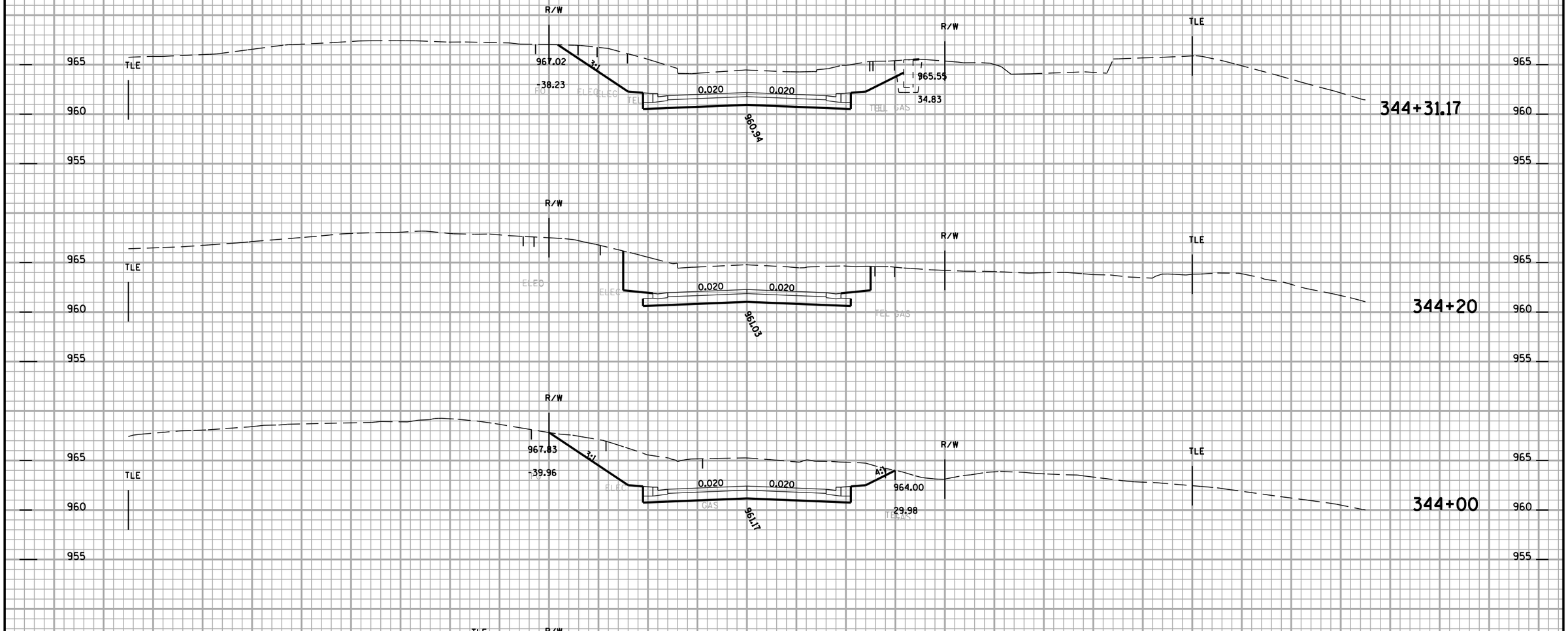
PROJECT NO: 4060-05-70	HWY: STH 28	COUNTY: WASHINGTON	CROSS SECTIONS	SHEET NO: 617	E

FILE NAME : J:±projects±D2_40600528±XS_July±090212_xs.DGN PLOT DATE : 22-JUL-2013 10:38 PLOT BY : dotr3h PLOT NAME : PLOT SCALE : 2:1



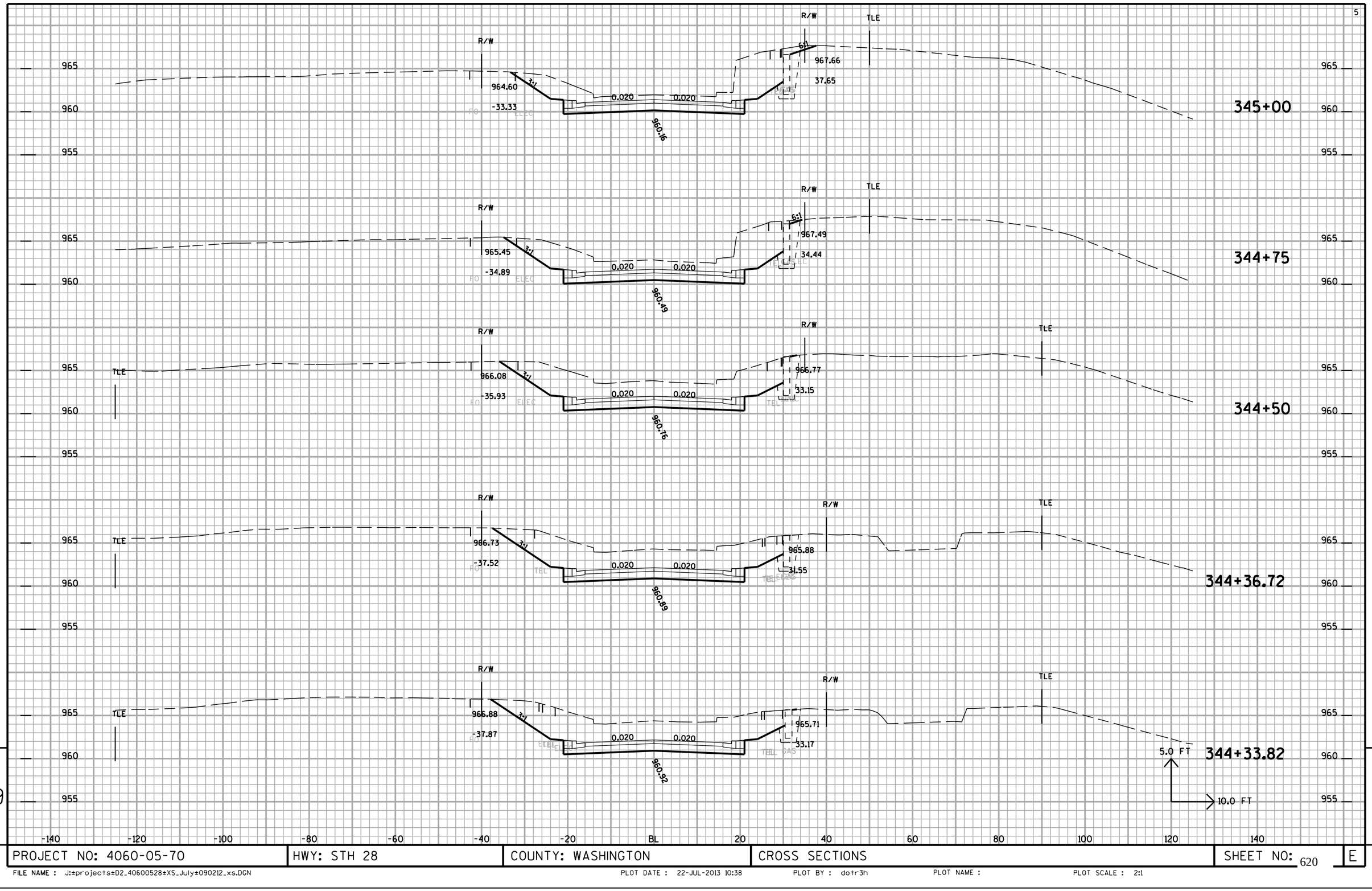
PROJECT NO: 4060-05-70	HWY: STH 28	COUNTY: WASHINGTON	CROSS SECTIONS	SHEET NO: 618	E

FILE NAME : J:±projects±D2_40600528±XS_July±090212_xs.DGN PLOT DATE : 22-JUL-2013 10:38 PLOT BY : dotr3h PLOT NAME : PLOT SCALE : 2:1



PROJECT NO: 4060-05-70	HWY: STH 28	COUNTY: WASHINGTON	CROSS SECTIONS	SHEET NO: 619 E

FILE NAME : J:±projects±D2_40600528±XS_July±090212_xs.DGN PLOT DATE : 22-JUL-2013 10:38 PLOT BY : dotr3h PLOT NAME : PLOT SCALE : 2:1

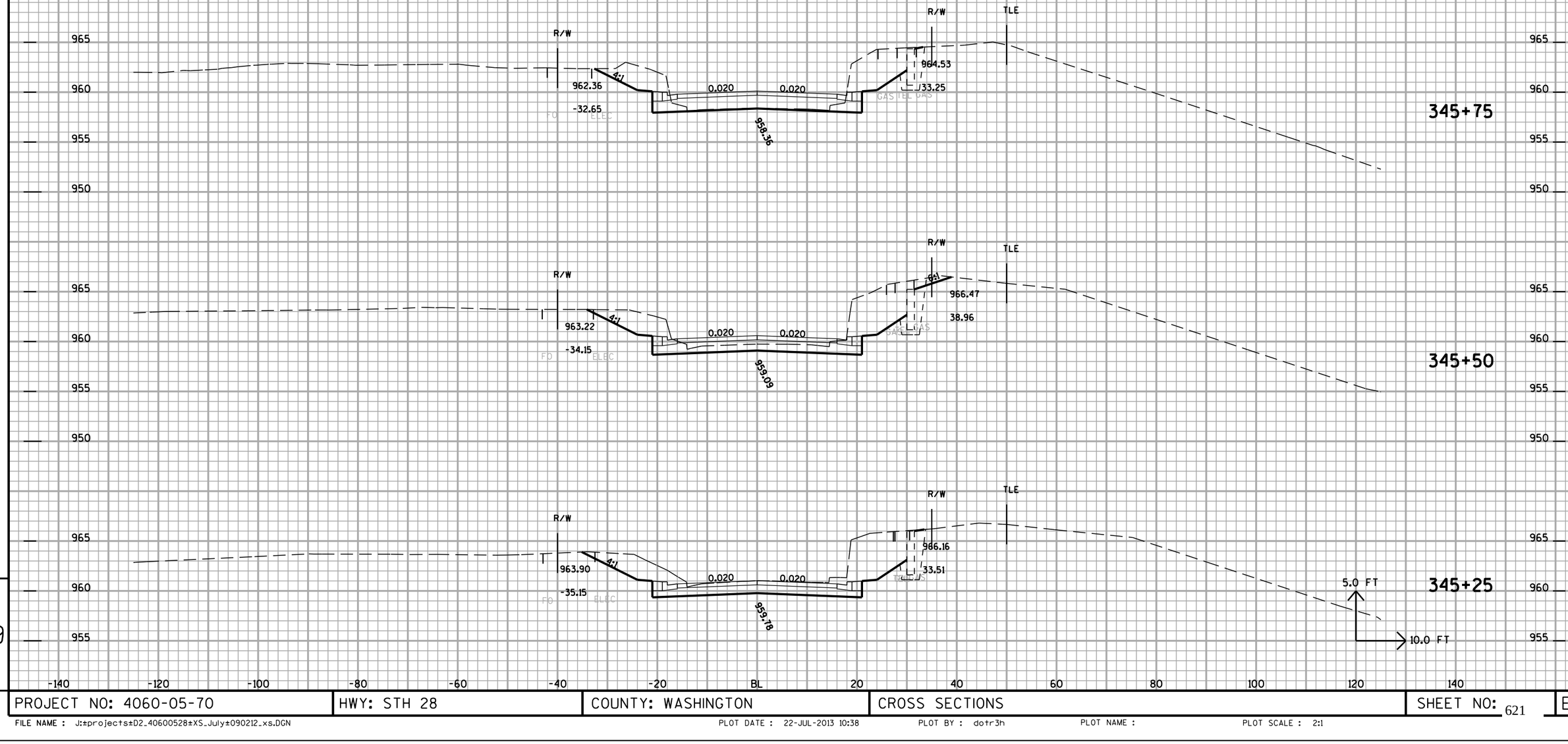


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PROJECT NO: 4060-05-70	HWY: STH 28	COUNTY: WASHINGTON	CROSS SECTIONS	SHEET NO: 620	E

FILE NAME : J:±projects±D2_40600528±XS_July±090212_xs.DGN PLOT DATE : 22-JUL-2013 10:38 PLOT BY : dotr3h PLOT NAME : PLOT SCALE : 2:1

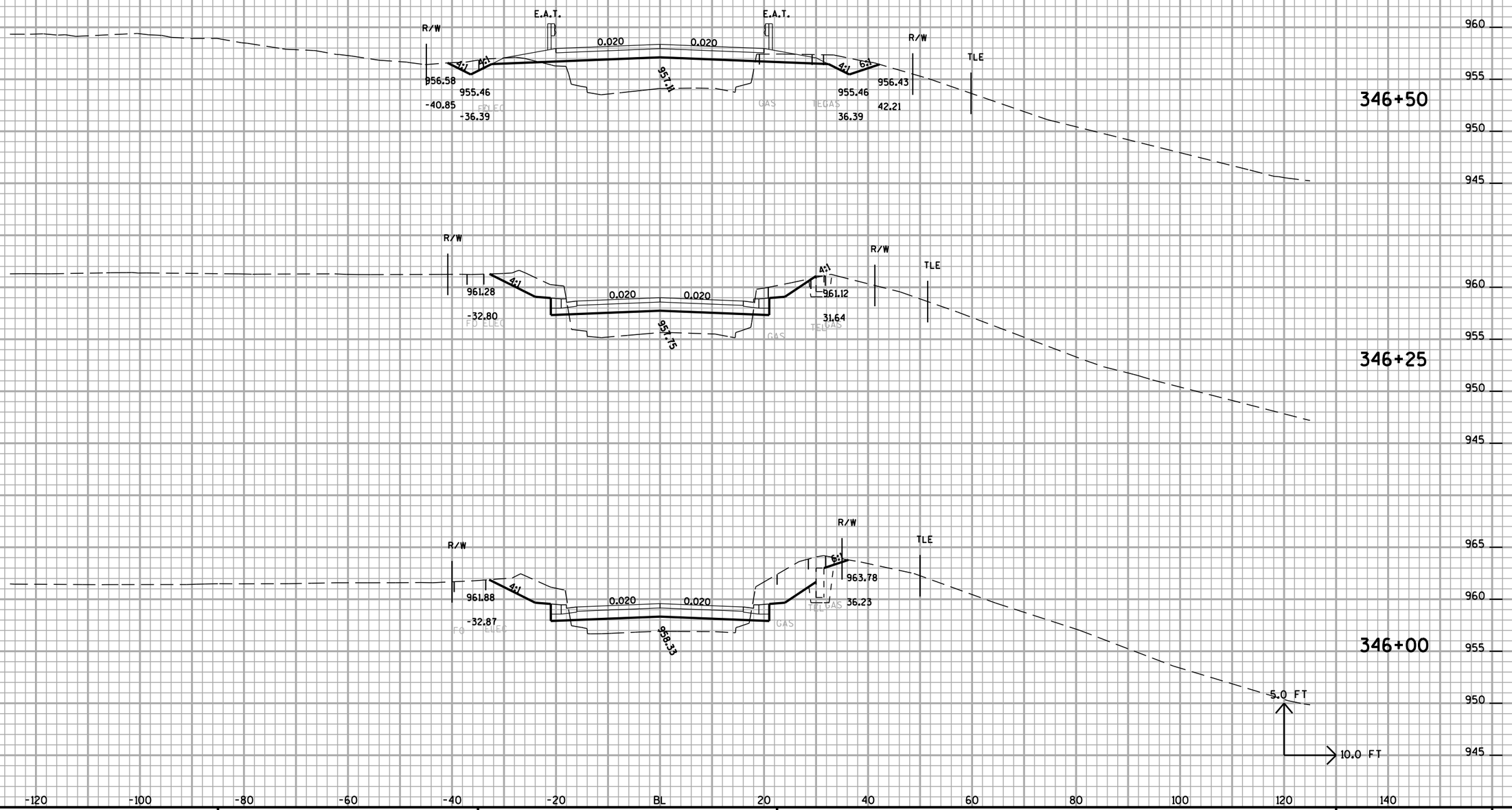


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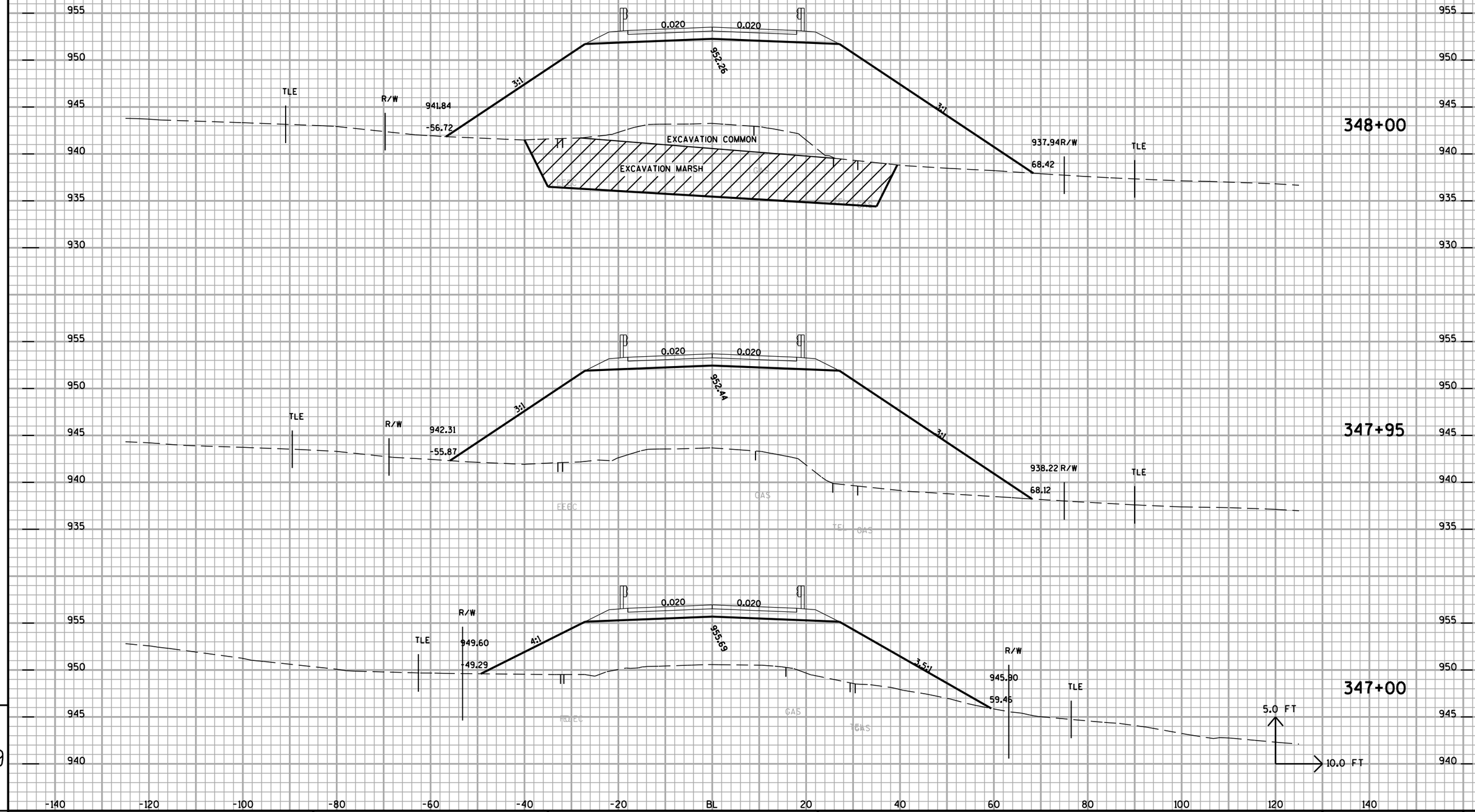
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FILE NAME : J:±projects±D2_40600528±XS_July±090212_xs.DGN PLOT DATE : 22-JUL-2013 10:38 PLOT BY : dotr3h PLOT NAME : PLOT SCALE : 2:1



PROJECT NO: 4060-05-70	HWY: STH 28	COUNTY: WASHINGTON	CROSS SECTIONS	SHEET NO: 622	E

FILE NAME : J:±projects±D2_40600528±XS_July±090212_xs.DGN PLOT DATE : 22-JUL-2013 10:38 PLOT BY : dotr3h PLOT NAME : PLOT SCALE : 2:1

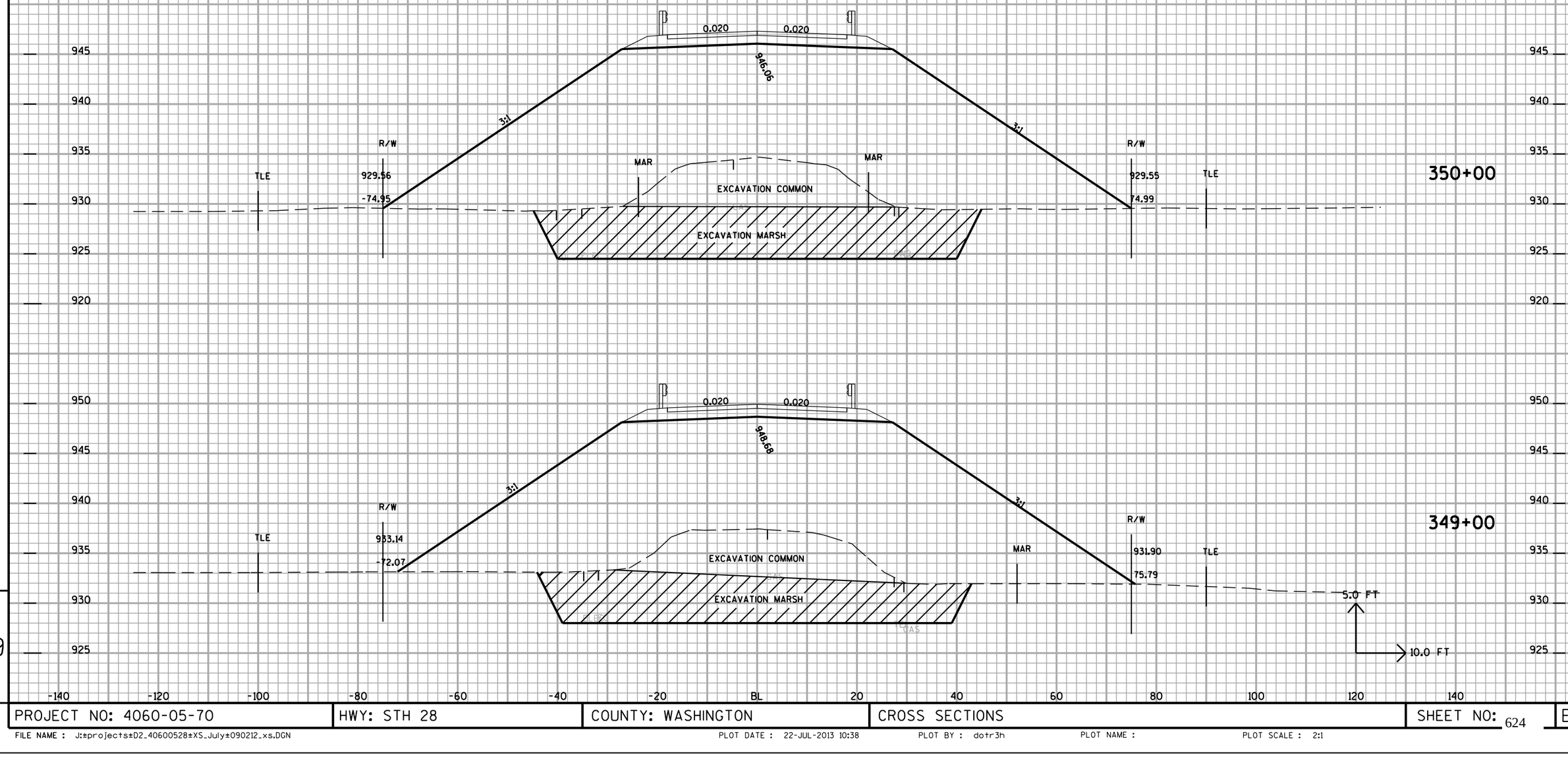


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PROJECT NO: 4060-05-70	HWY: STH 28	COUNTY: WASHINGTON	CROSS SECTIONS	SHEET NO: 623	E

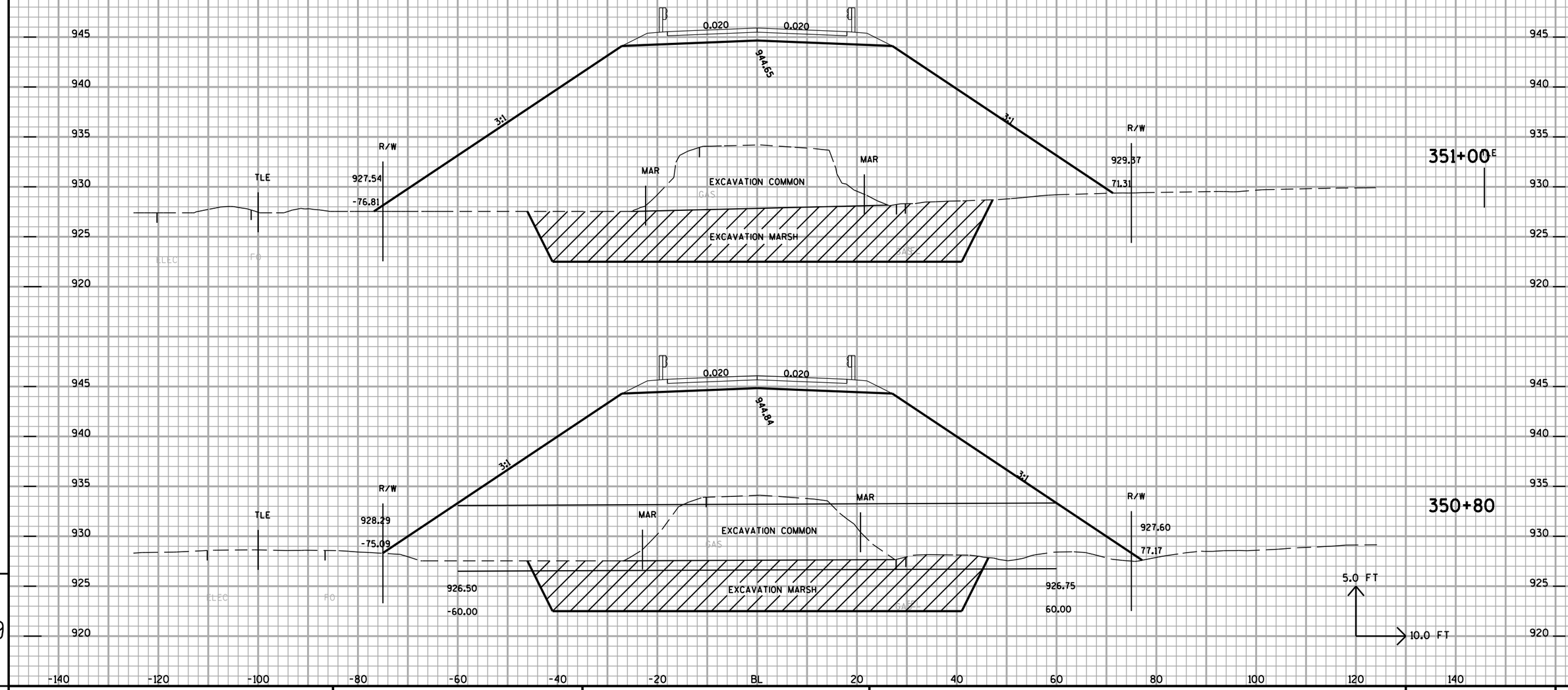
FILE NAME : J:±projects±D2_40600528±XS_July±090212_xs.DGN PLOT DATE : 22-JUL-2013 10:38 PLOT BY : dotr3h PLOT NAME : PLOT SCALE : 2:1

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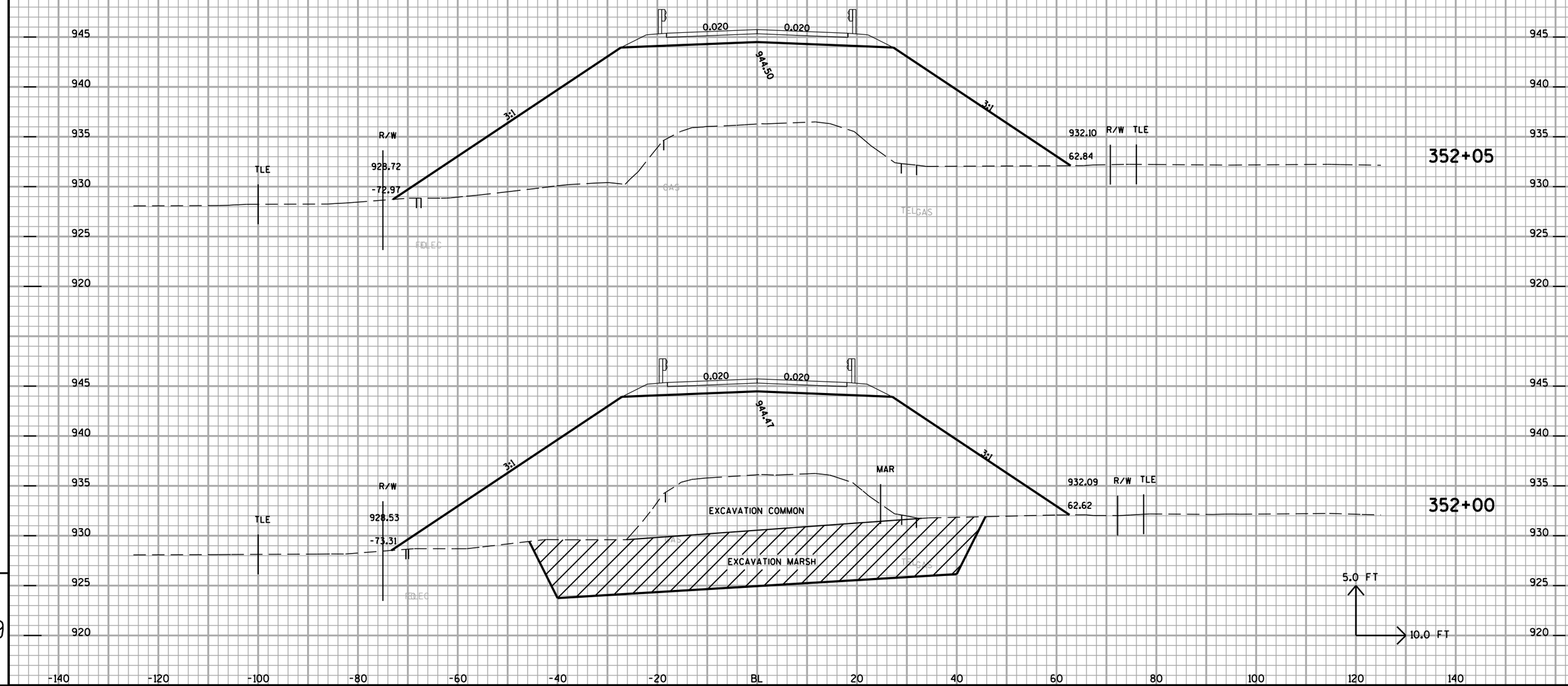
PROJECT NO: 4060-05-70	HWY: STH 28	COUNTY: WASHINGTON	CROSS SECTIONS	SHEET NO: 624	E

FILE NAME : J:±projects±D2_40600528±XS_July±090212_xs.DGN PLOT DATE : 22-JUL-2013 10:38 PLOT BY : dotr3h PLOT NAME : PLOT SCALE : 2:1



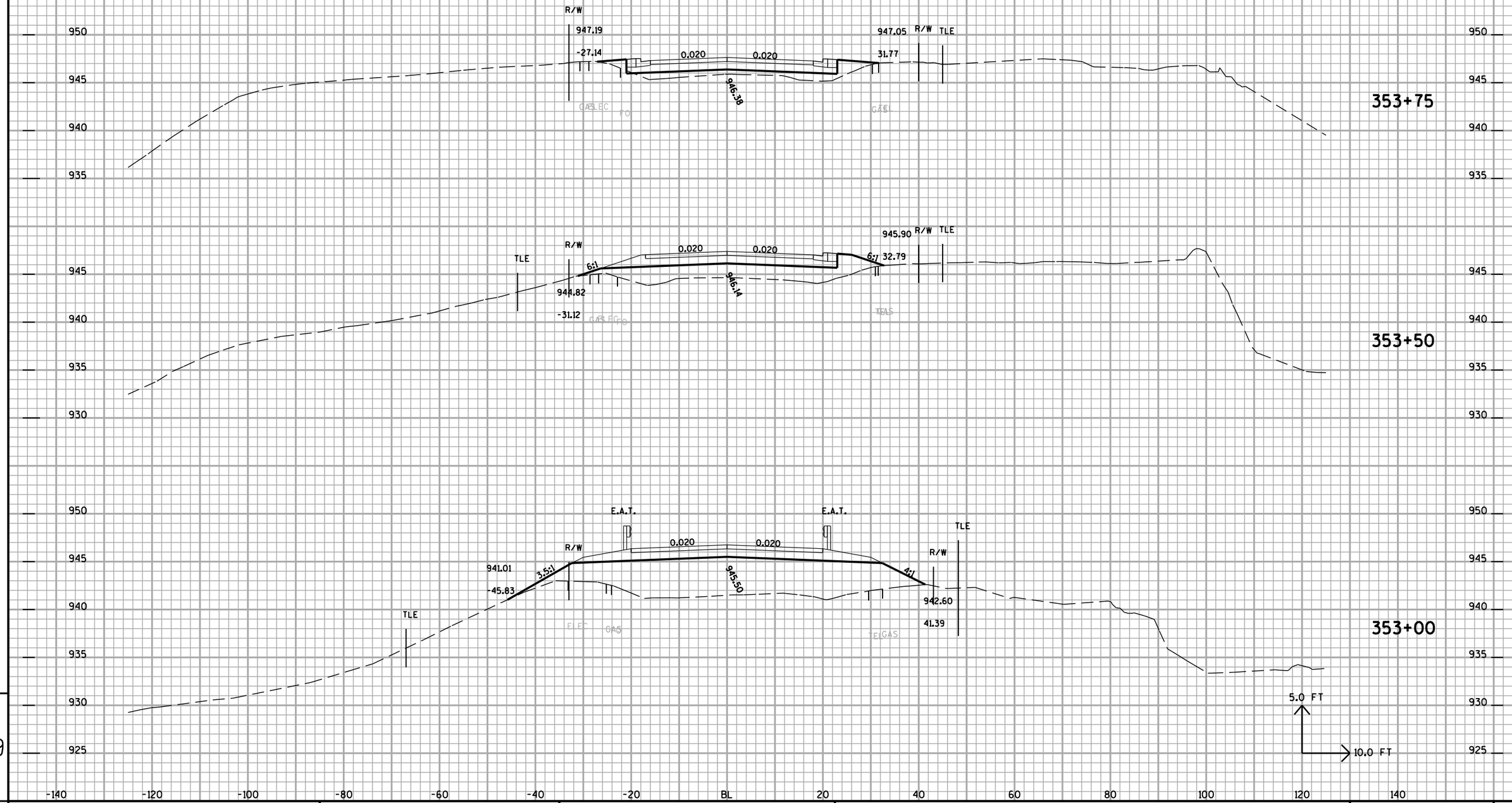
PROJECT NO: 4060-05-70	HWY: STH 28	COUNTY: WASHINGTON	CROSS SECTIONS	SHEET NO: 625	E

FILE NAME : J:±projects±D2_40600528±XS_July±090212_xs.DGN PLOT DATE : 22-JUL-2013 10:38 PLOT BY : dotr3h PLOT NAME : PLOT SCALE : 2:1



PROJECT NO: 4060-05-70	HWY: STH 28	COUNTY: WASHINGTON	CROSS SECTIONS	SHEET NO: 626	E

FILE NAME : J:±projects±D2_40600528±XS_July±090212_xs.DGN PLOT DATE : 22-JUL-2013 10:38 PLOT BY : dotr3h PLOT NAME : PLOT SCALE : 2:1

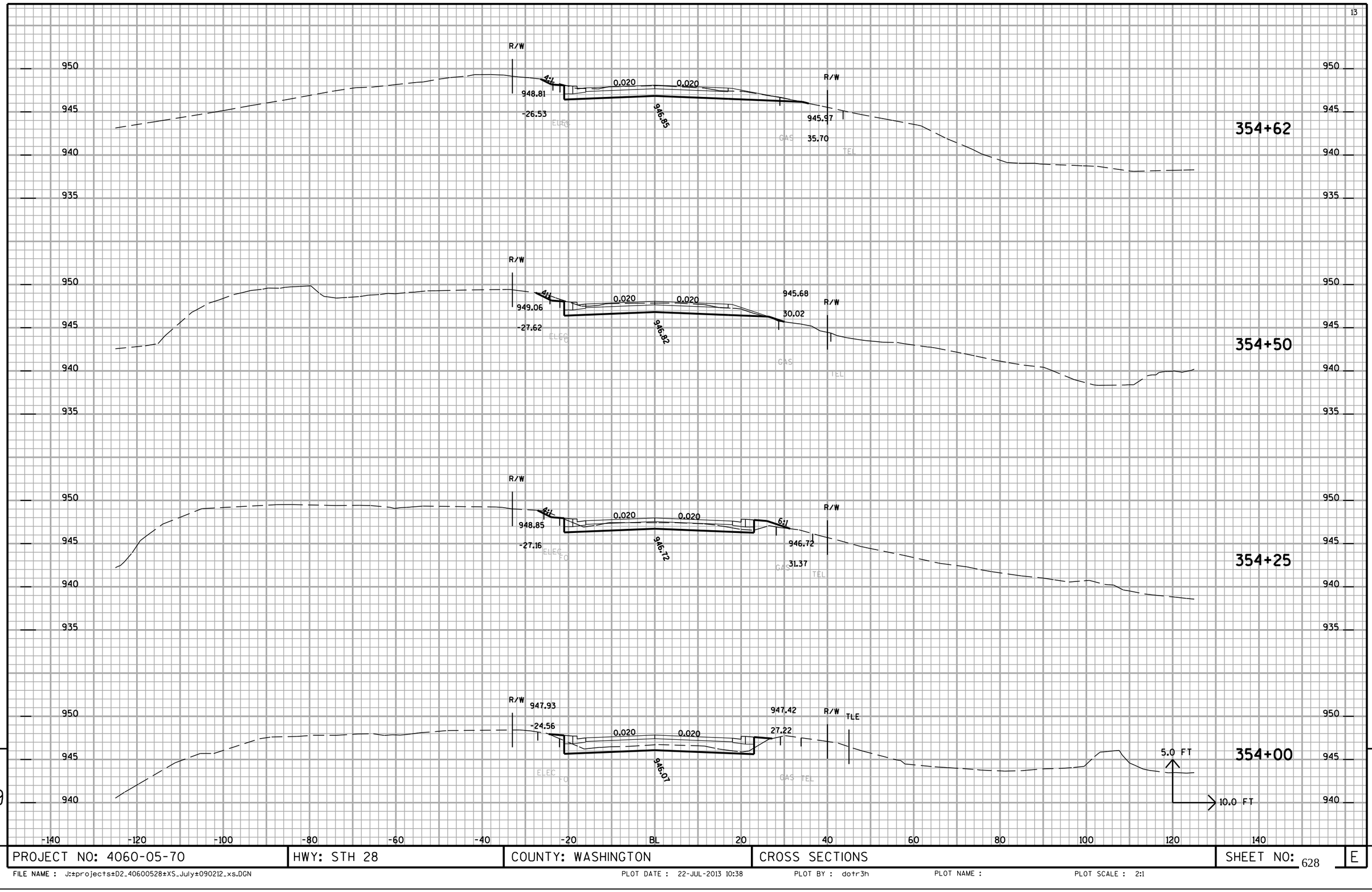


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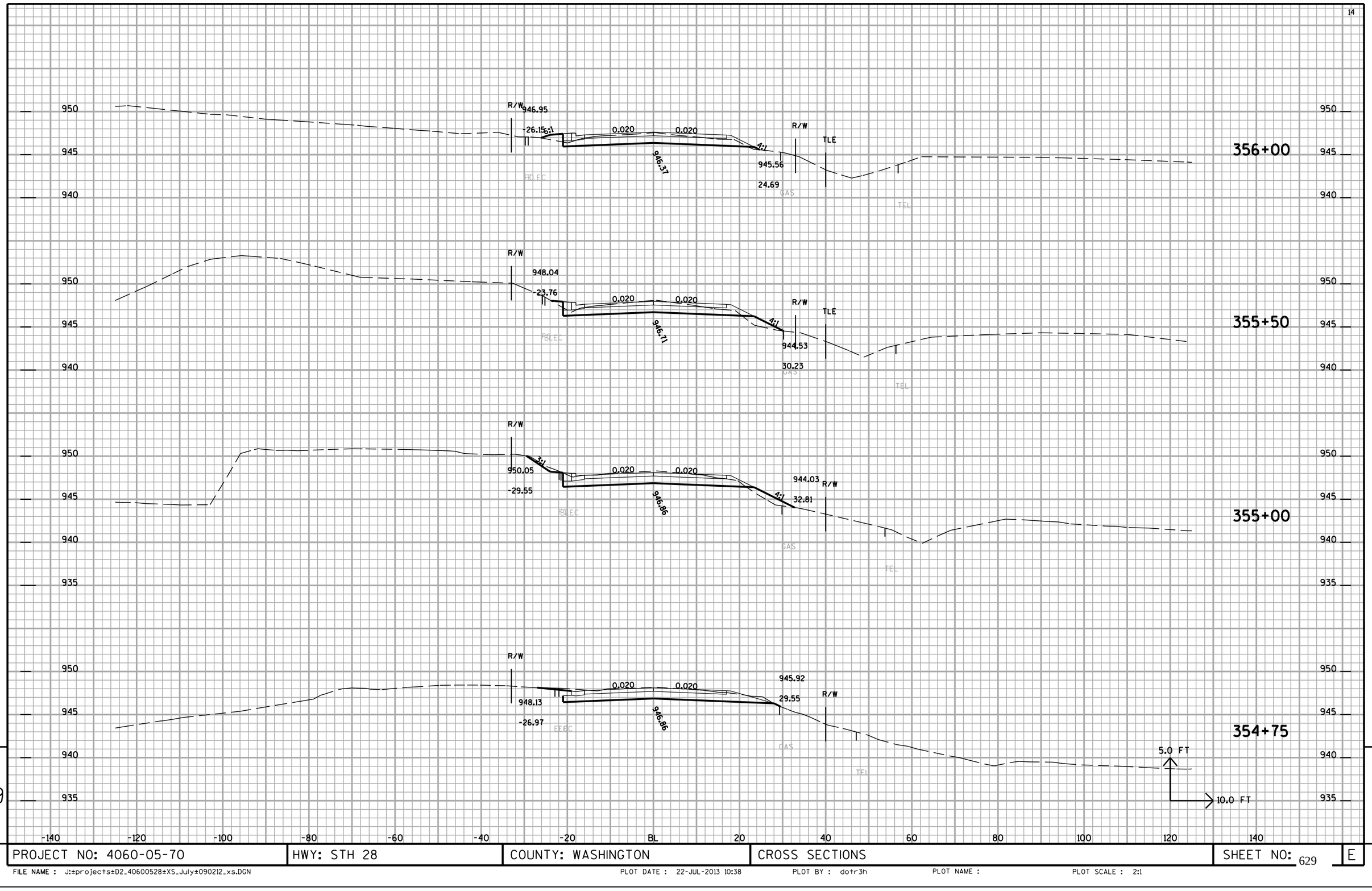
PROJECT NO: 4060-05-70	HWY: STH 28	COUNTY: WASHINGTON	CROSS SECTIONS	SHEET NO: 627	E

FILE NAME : J:±projects±D2_40600528±XS_July±090212_xs.DGN PLOT DATE : 22-JUL-2013 10:38 PLOT BY : dotr3h PLOT NAME : PLOT SCALE : 2:1



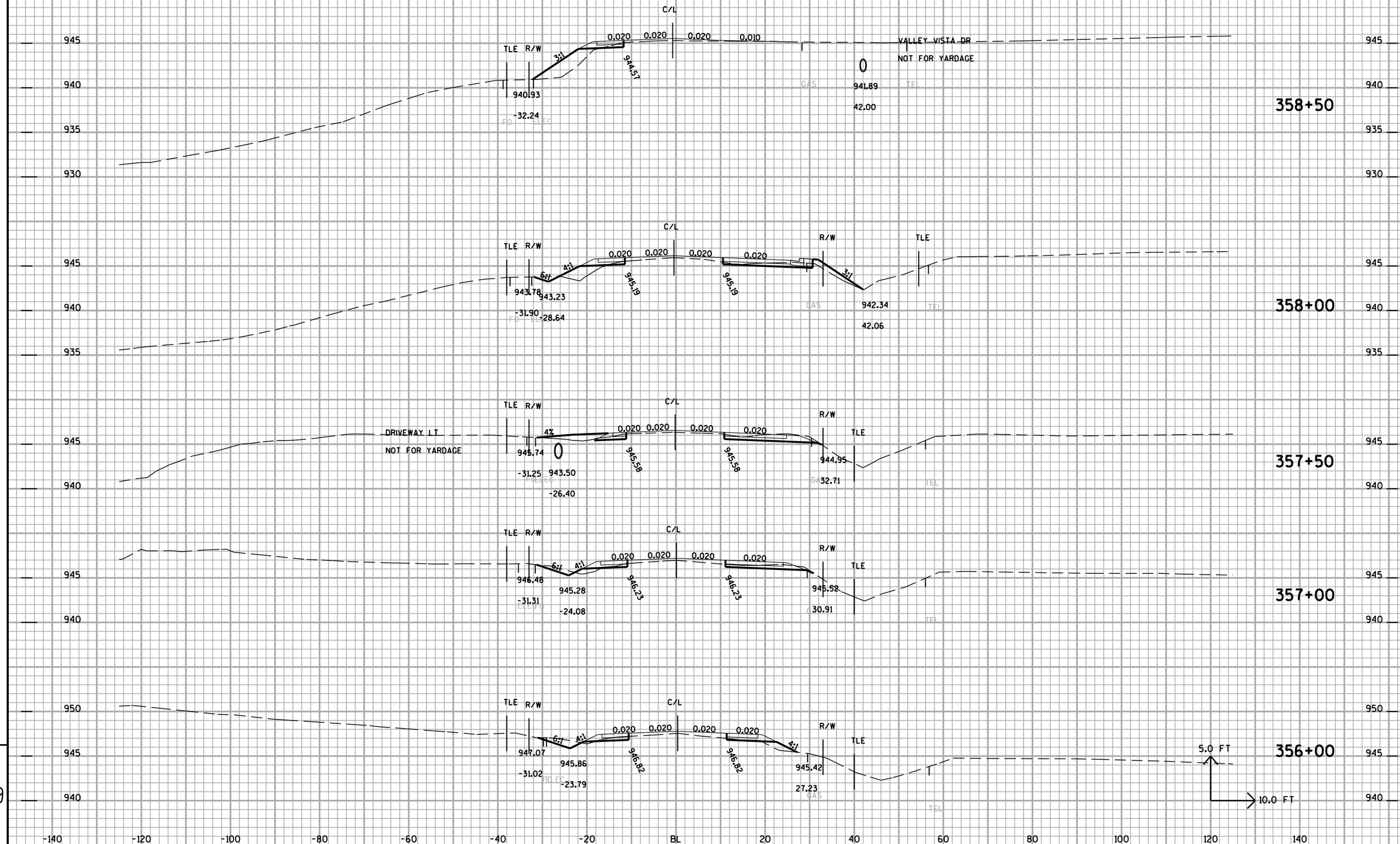
PROJECT NO: 4060-05-70	HWY: STH 28	COUNTY: WASHINGTON	CROSS SECTIONS	SHEET NO: 628	E

FILE NAME : J:±projects±D2_40600528±XS_July±090212_xs.DGN PLOT DATE : 22-JUL-2013 10:38 PLOT BY : dotr3h PLOT NAME : PLOT SCALE : 2:1



PROJECT NO: 4060-05-70	HWY: STH 28	COUNTY: WASHINGTON	CROSS SECTIONS	SHEET NO: 629	E

FILE NAME : J:±projects±D2_40600528±XS_July±090212_xs.DGN PLOT DATE : 22-JUL-2013 10:38 PLOT BY : dotr3h PLOT NAME : PLOT SCALE : 2:1

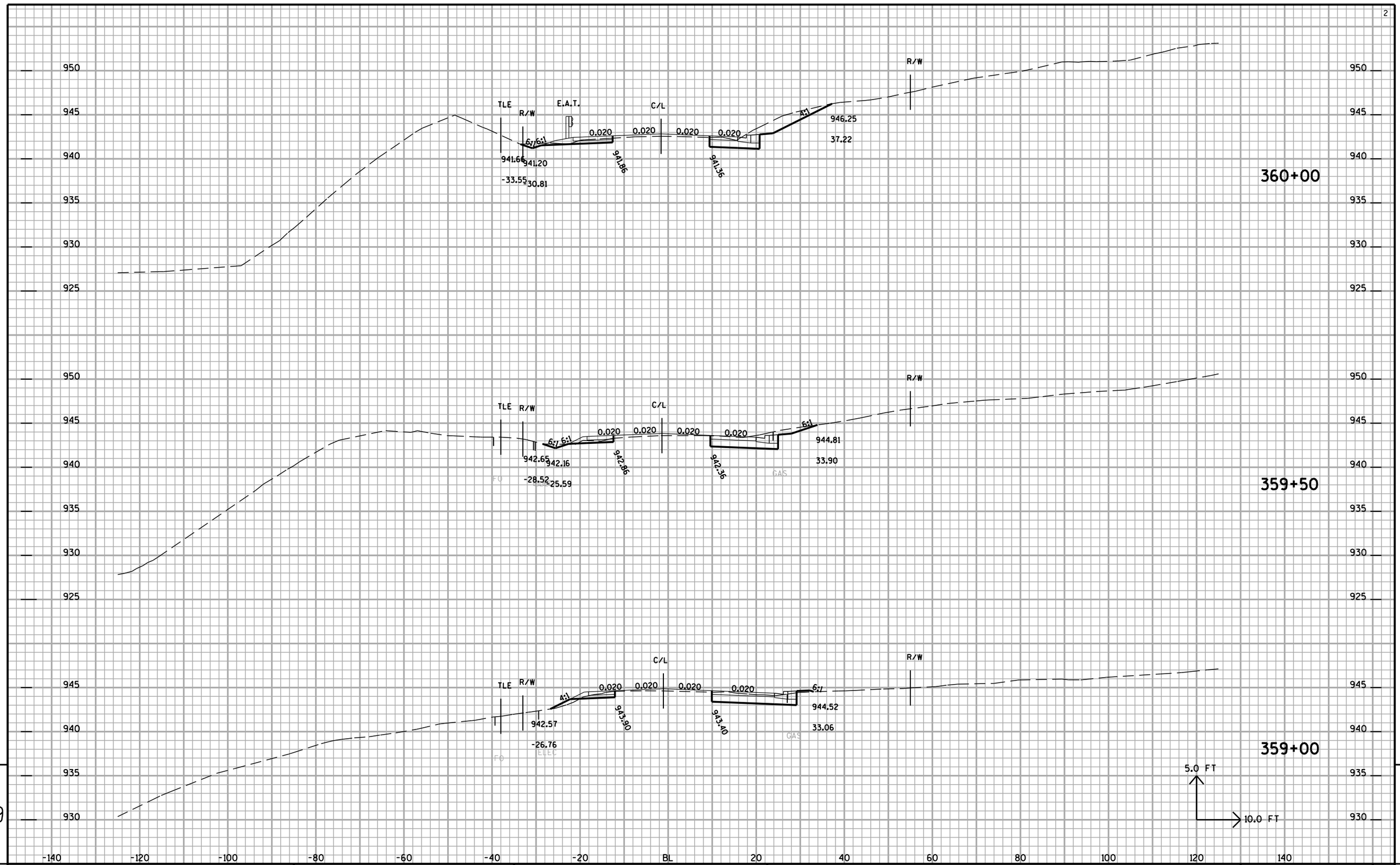


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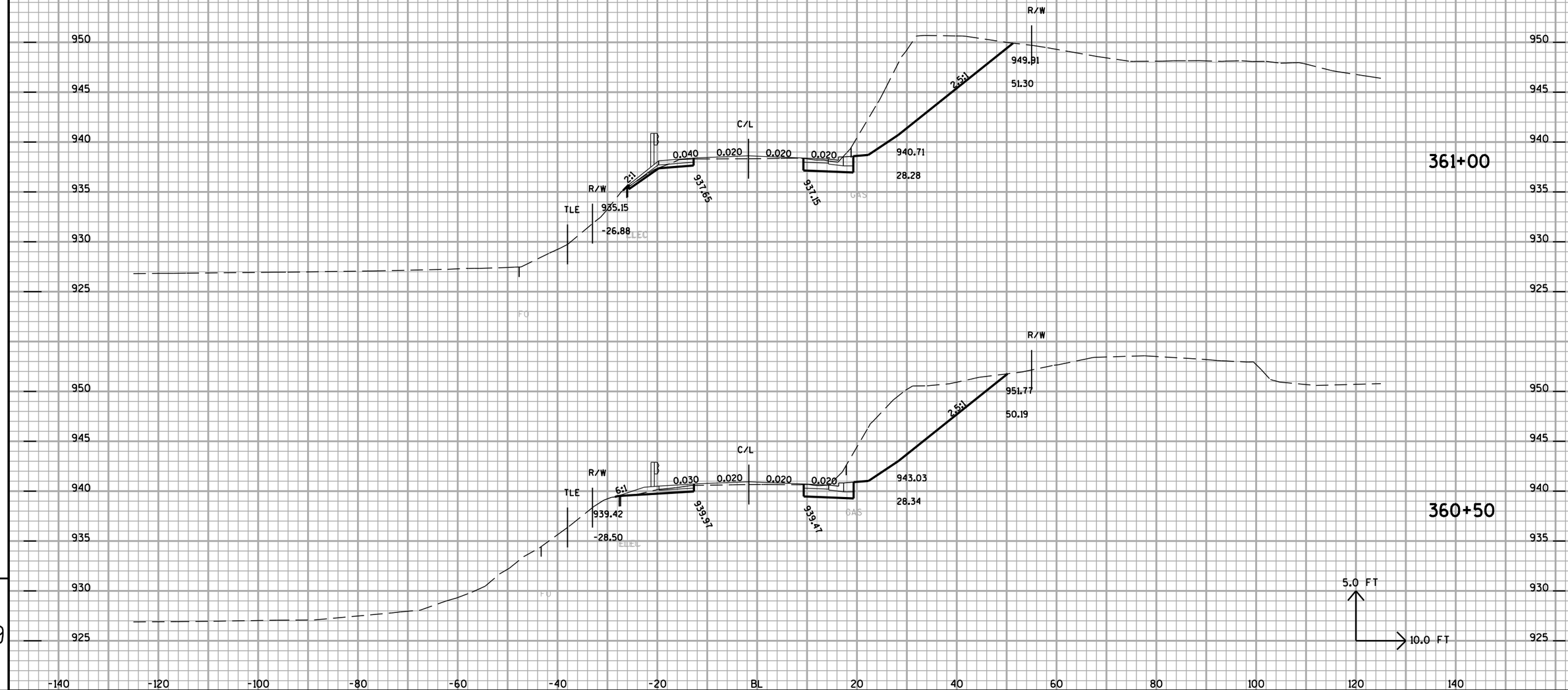
PROJECT NO: 4060-05-70	HWY: STH 28	COUNTY: WASHINGTON	CROSS SECTIONS	SHEET NO: 630	E

FILE NAME : J:±projects±D2_40600528±XS_July±090213_xs.DGN PLOT DATE : 22-JUL-2013 10:38 PLOT BY : dotr3h PLOT NAME : PLOT SCALE : 2:1



PROJECT NO: 4060-05-70	HWY: STH 28	COUNTY: WASHINGTON	CROSS SECTIONS	SHEET NO: 631	E

FILE NAME : J:±projects±D2_40600528±XS_July±090213_xs.DGN PLOT DATE : 22-JUL-2013 10:38 PLOT BY : dotr3h PLOT NAME : PLOT SCALE : 2:1

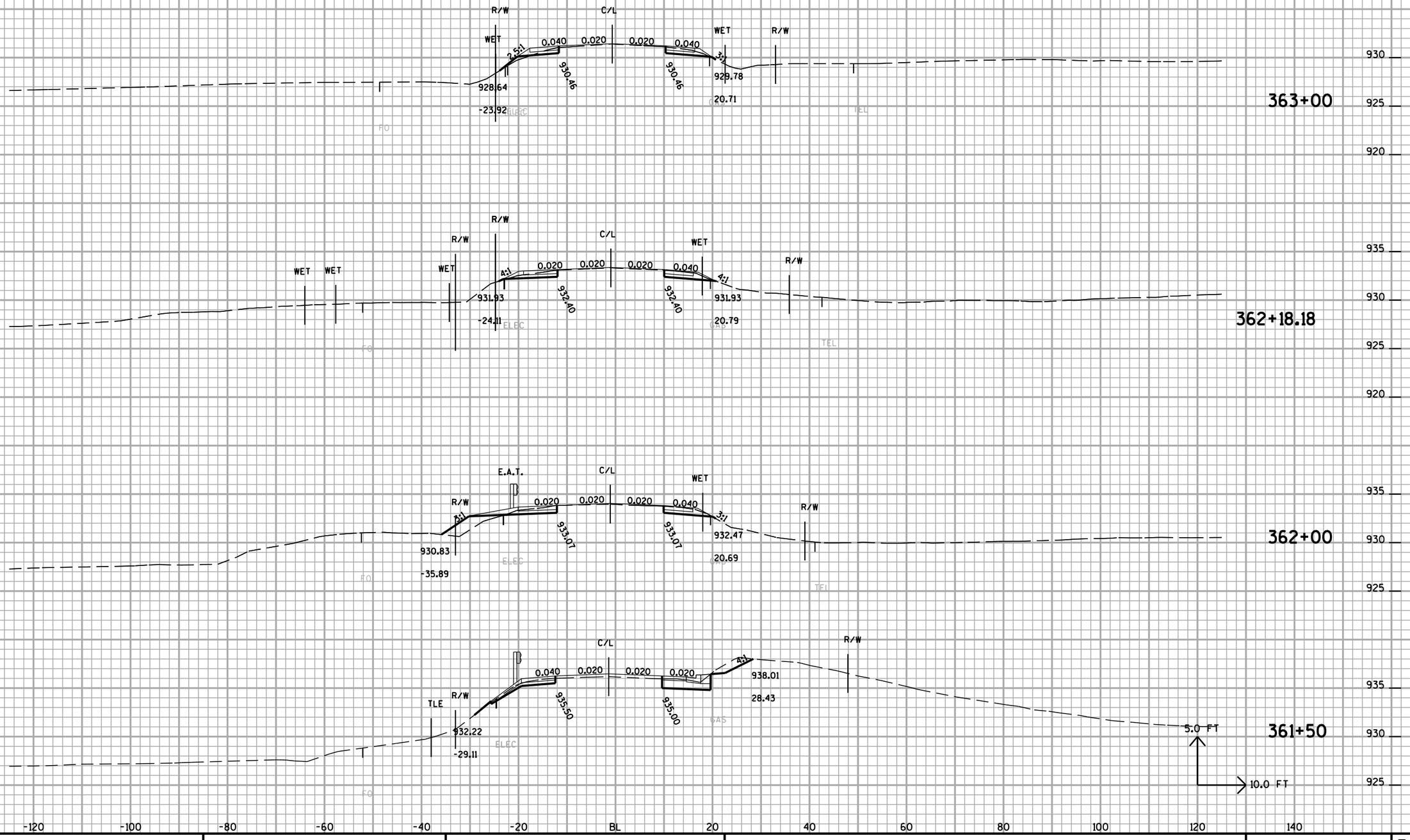


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PROJECT NO: 4060-05-70	HWY: STH 28	COUNTY: WASHINGTON	CROSS SECTIONS	SHEET NO: 632	E

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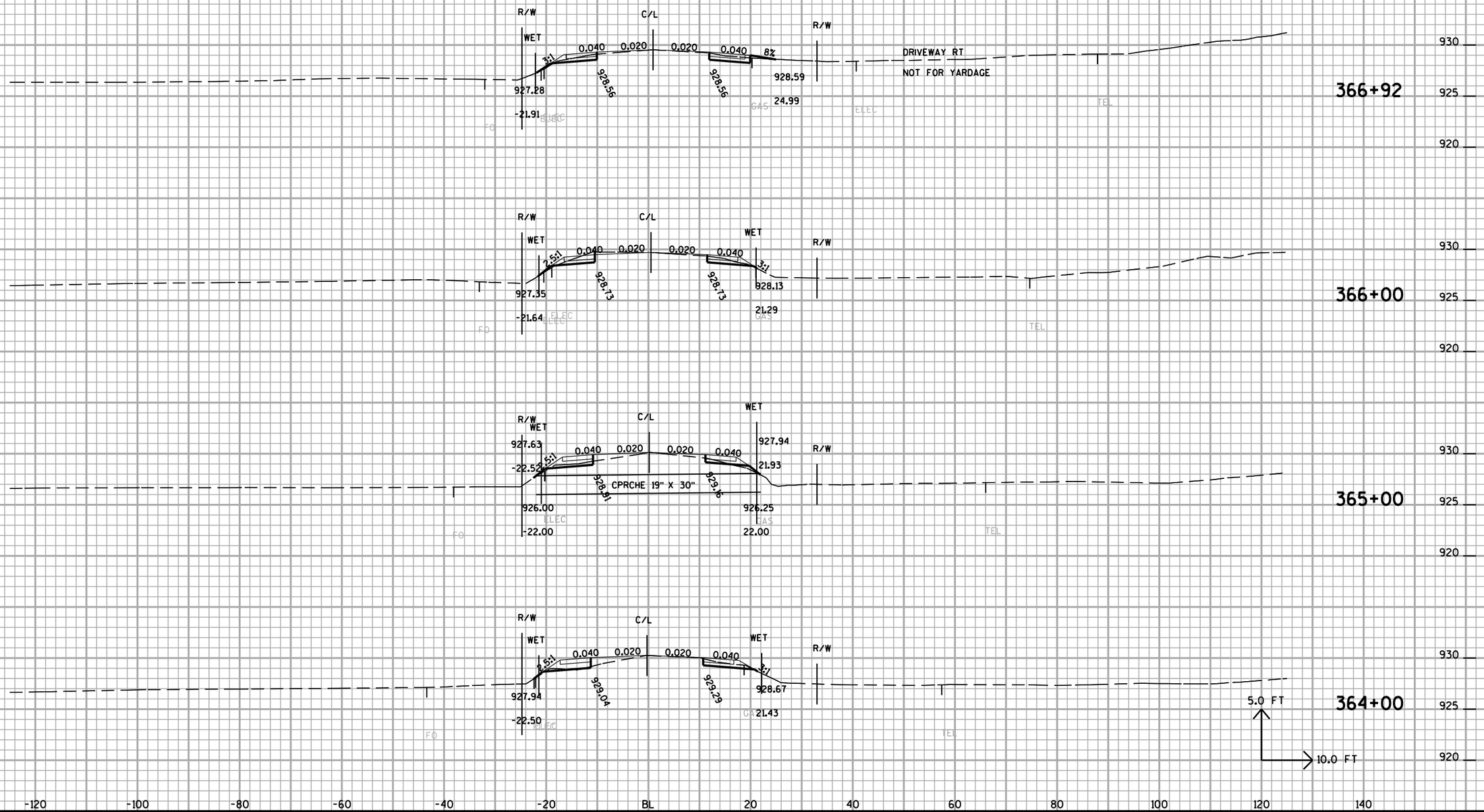


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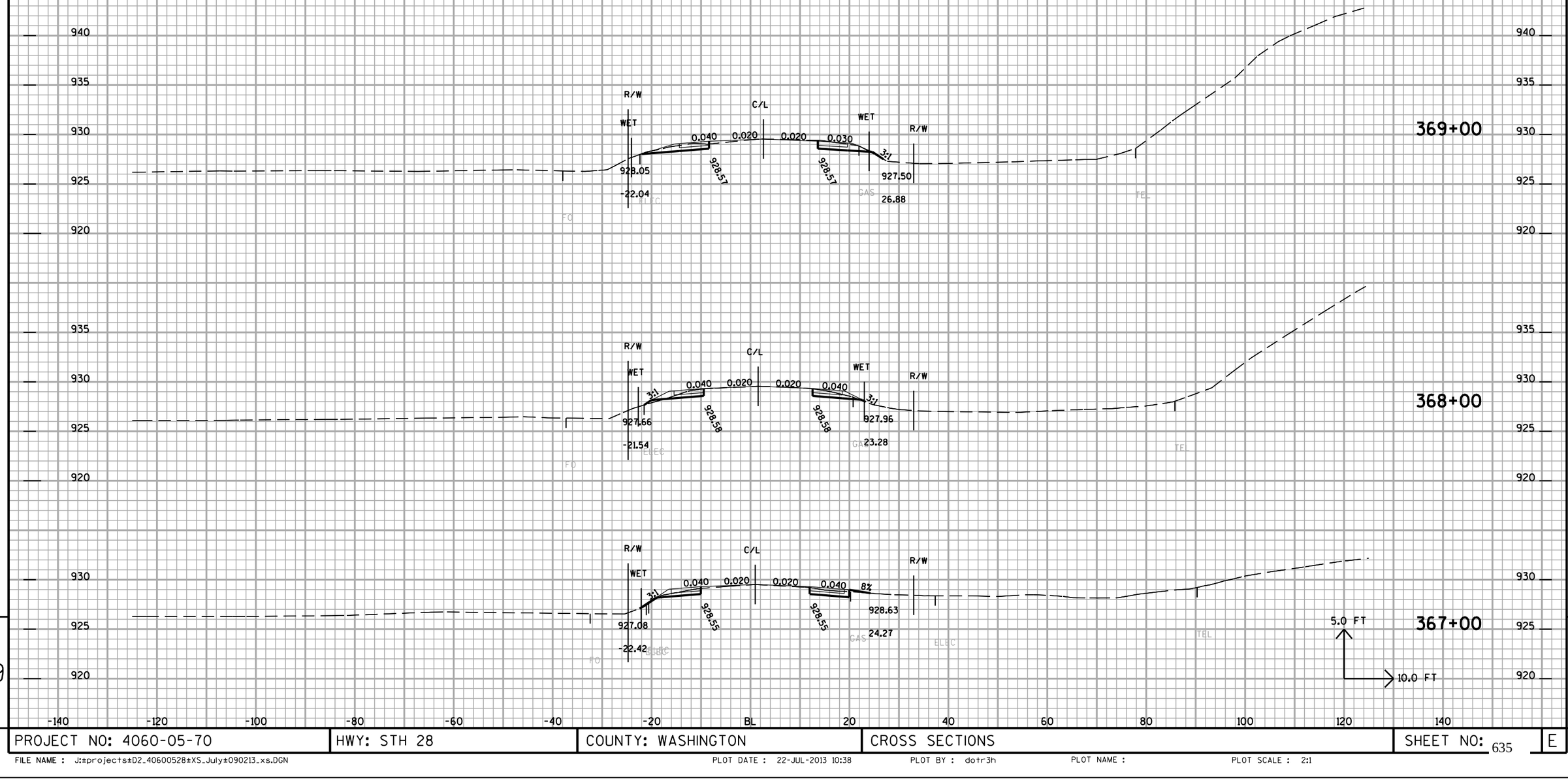
PROJECT NO: 4060-05-70	HWY: STH 28	COUNTY: WASHINGTON	CROSS SECTIONS	SHEET NO: 633	E

FILE NAME : J:±projects±D2_40600528±XS_July±090213_xs.DGN PLOT DATE : 22-JUL-2013 10:38 PLOT BY : dotr3h PLOT NAME : PLOT SCALE : 2:1



PROJECT NO: 4060-05-70	HWY: STH 28	COUNTY: WASHINGTON	CROSS SECTIONS	SHEET NO: 634	E

FILE NAME : J:±projects±D2_40600528±pdf xs±Sta36400T36692.DGN PLOT DATE : 02-OCT-2013 10:57 PLOT BY : dotr3h PLOT NAME : PLOT SCALE : 2:1

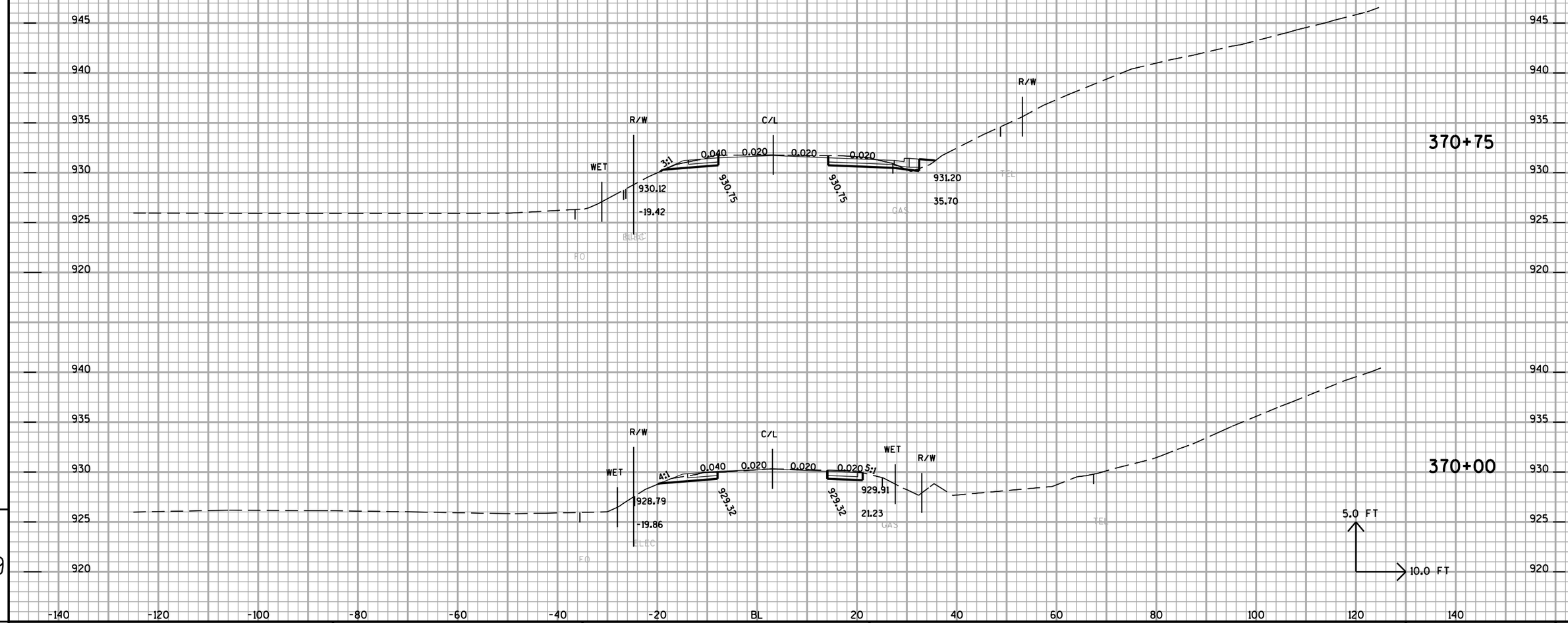


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PROJECT NO: 4060-05-70	HWY: STH 28	COUNTY: WASHINGTON	CROSS SECTIONS	SHEET NO: 635	E

FILE NAME : J:±projects±D2_40600528±XS_July±090213_xs.DGN PLOT DATE : 22-JUL-2013 10:38 PLOT BY : dotr3h PLOT NAME : PLOT SCALE : 2:1



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PROJECT NO: 4060-05-70	HWY: STH 28	COUNTY: WASHINGTON	CROSS SECTIONS	SHEET NO: 636	E

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960 955 950 945 940 935 930 925

371+50

R/W
C/L
R/W
WET
LE
932.76
-19.01
4:1
0.040
0.020
0.020
0.020
933.67
933.67
934.58
35.46
FEL
ELEC
GAS
FO

371+00

R/W
C/L
R/W
WET
930.93
-19.44
4:1
0.040
0.020
0.020
0.020
931.62
931.62
932.52
33.36
TEL
ELEC
GAS
FO

960 955 950 945 940 935 930 925 920

5.0 FT
10.0 FT

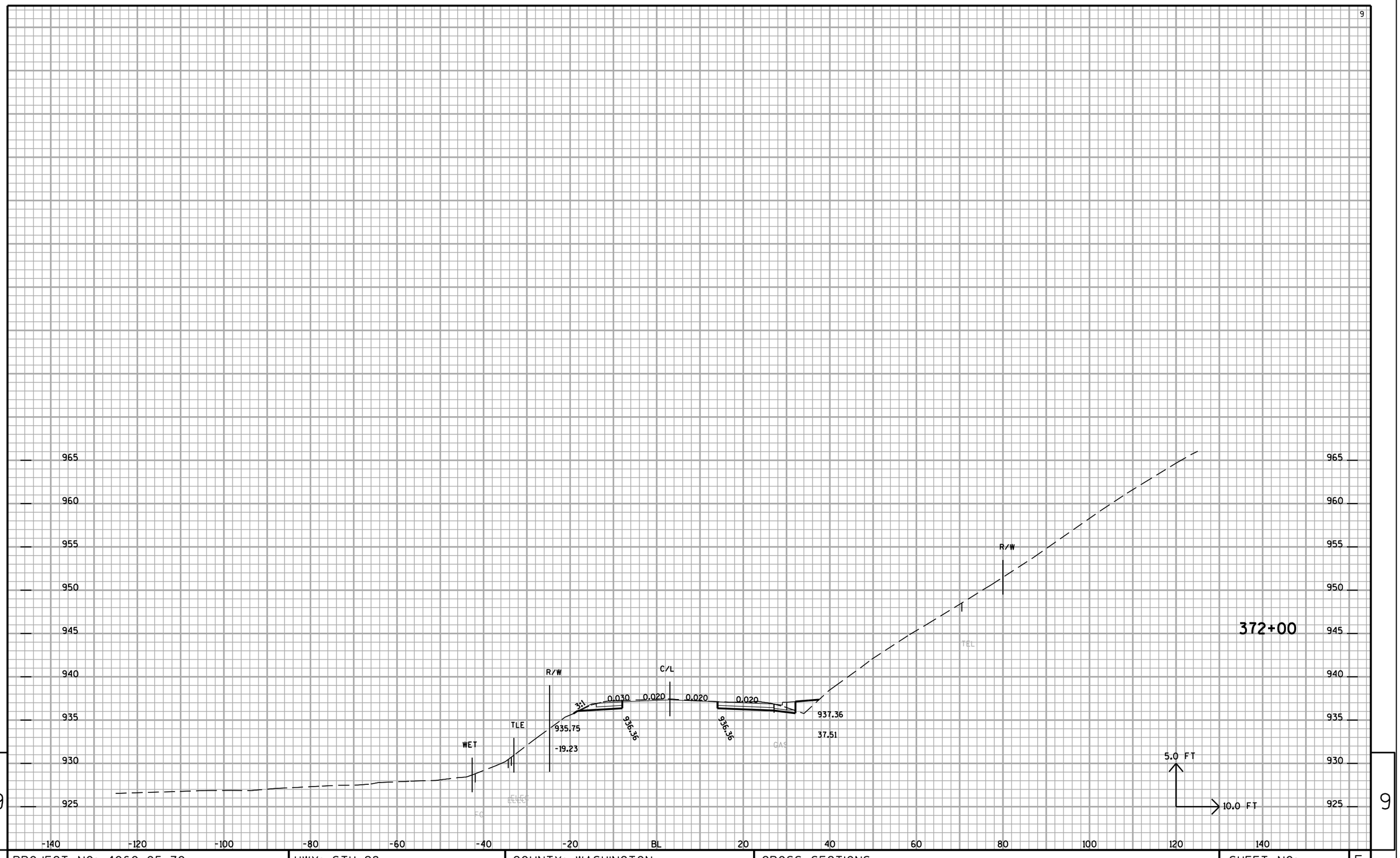
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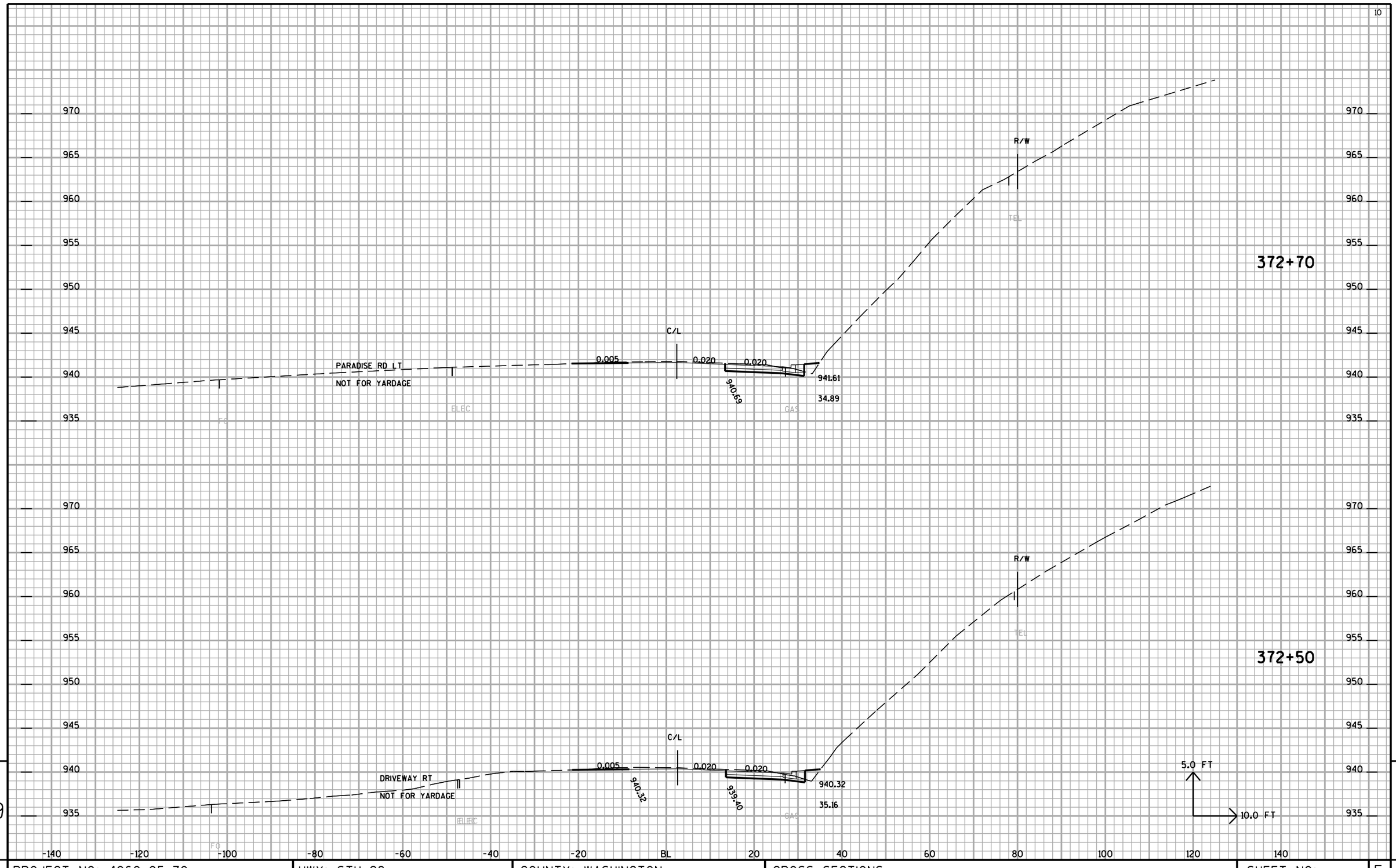
PROJECT NO: 4060-05-70	HWY: STH 28	COUNTY: WASHINGTON	CROSS SECTIONS	SHEET NO: 637	E

FILE NAME : J:±projects±D2_40600528±XS_July±090213_xs.DGN PLOT DATE : 22-JUL-2013 10:38 PLOT BY : dotr3h PLOT NAME : PLOT SCALE : 2:1



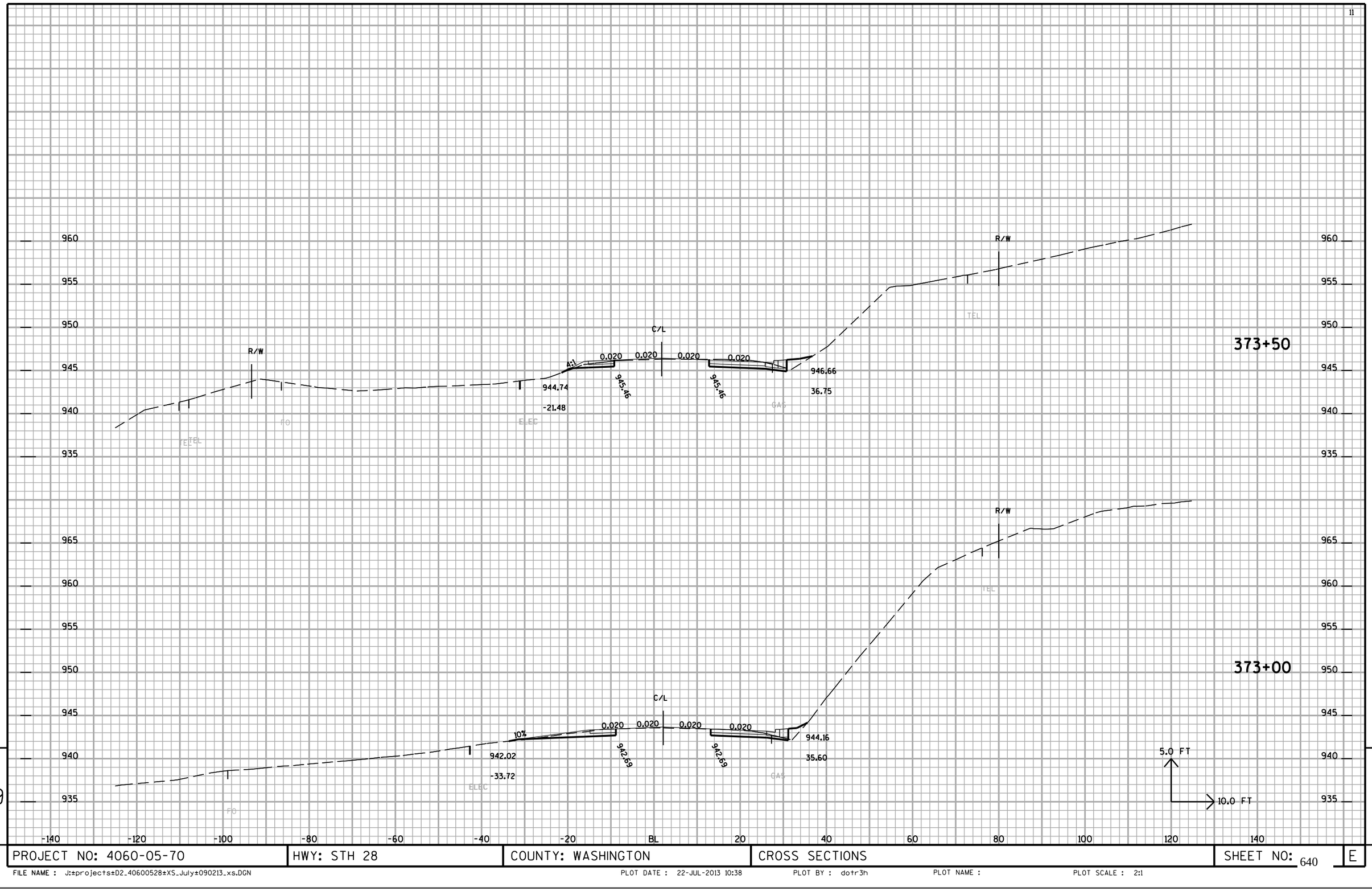
PROJECT NO: 4060-05-70	HWY: STH 28	COUNTY: WASHINGTON	CROSS SECTIONS	SHEET NO: 638	E

FILE NAME : J:±projects±D2_40600528±XS_July±090213_xs.DGN PLOT DATE : 22-JUL-2013 10:38 PLOT BY : dotr3h PLOT NAME : PLOT SCALE : 2:1



PROJECT NO: 4060-05-70	HWY: STH 28	COUNTY: WASHINGTON	CROSS SECTIONS	SHEET NO: 639	E

FILE NAME : J:±projects±D2_40600528±XS_July±090213_xs.DGN PLOT DATE : 22-JUL-2013 10:38 PLOT BY : dotr3h PLOT NAME : PLOT SCALE : 2:1

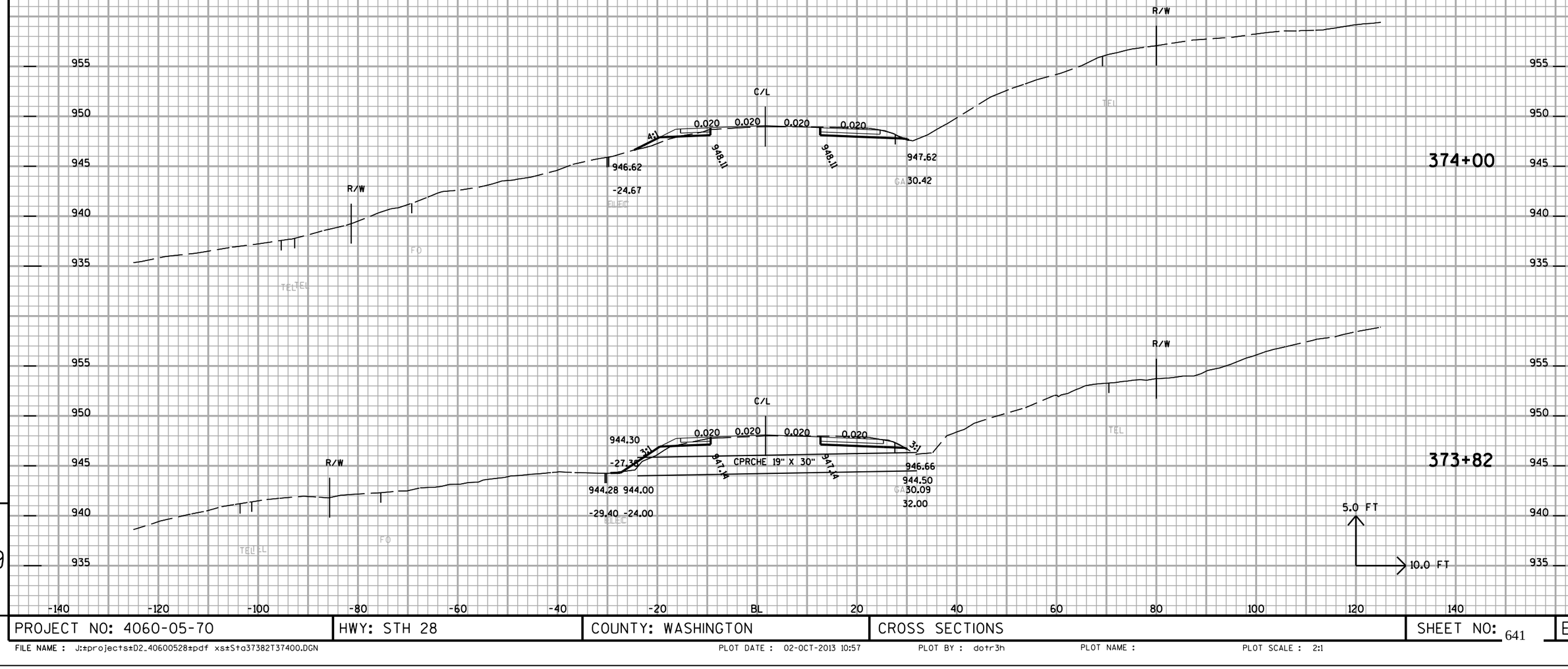


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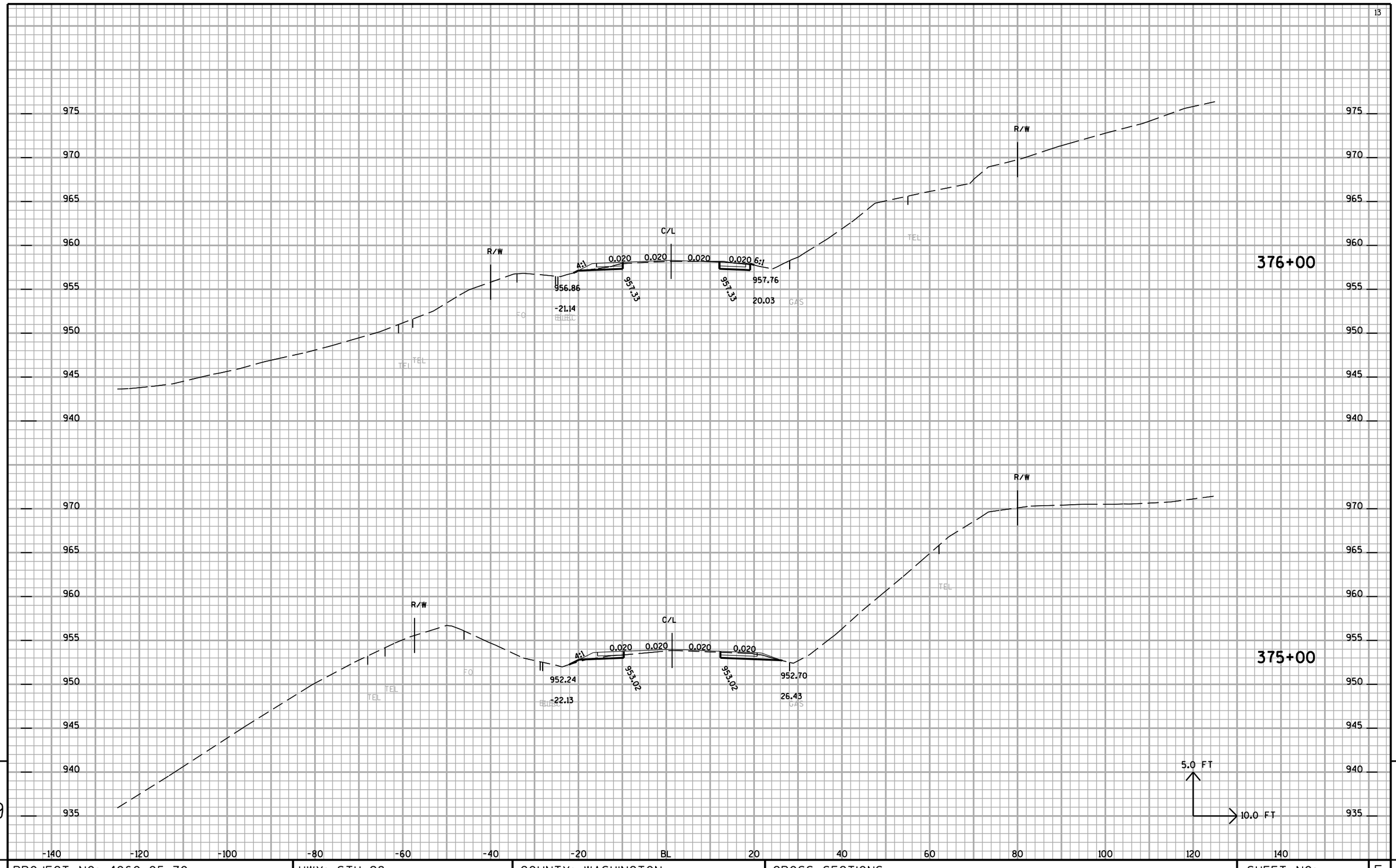
PROJECT NO: 4060-05-70	HWY: STH 28	COUNTY: WASHINGTON	CROSS SECTIONS	SHEET NO: 640	E

FILE NAME : J:±projects±D2_40600528±XS_July±090213_xs.DGN PLOT DATE : 22-JUL-2013 10:38 PLOT BY : dotr3h PLOT NAME : PLOT SCALE : 2:1



PROJECT NO: 4060-05-70	HWY: STH 28	COUNTY: WASHINGTON	CROSS SECTIONS	SHEET NO: 641	E

FILE NAME : J:±projects±D2_40600528±pdf xs±Sta37382T37400.DGN PLOT DATE : 02-OCT-2013 10:57 PLOT BY : dotr3h PLOT NAME : PLOT SCALE : 2:1

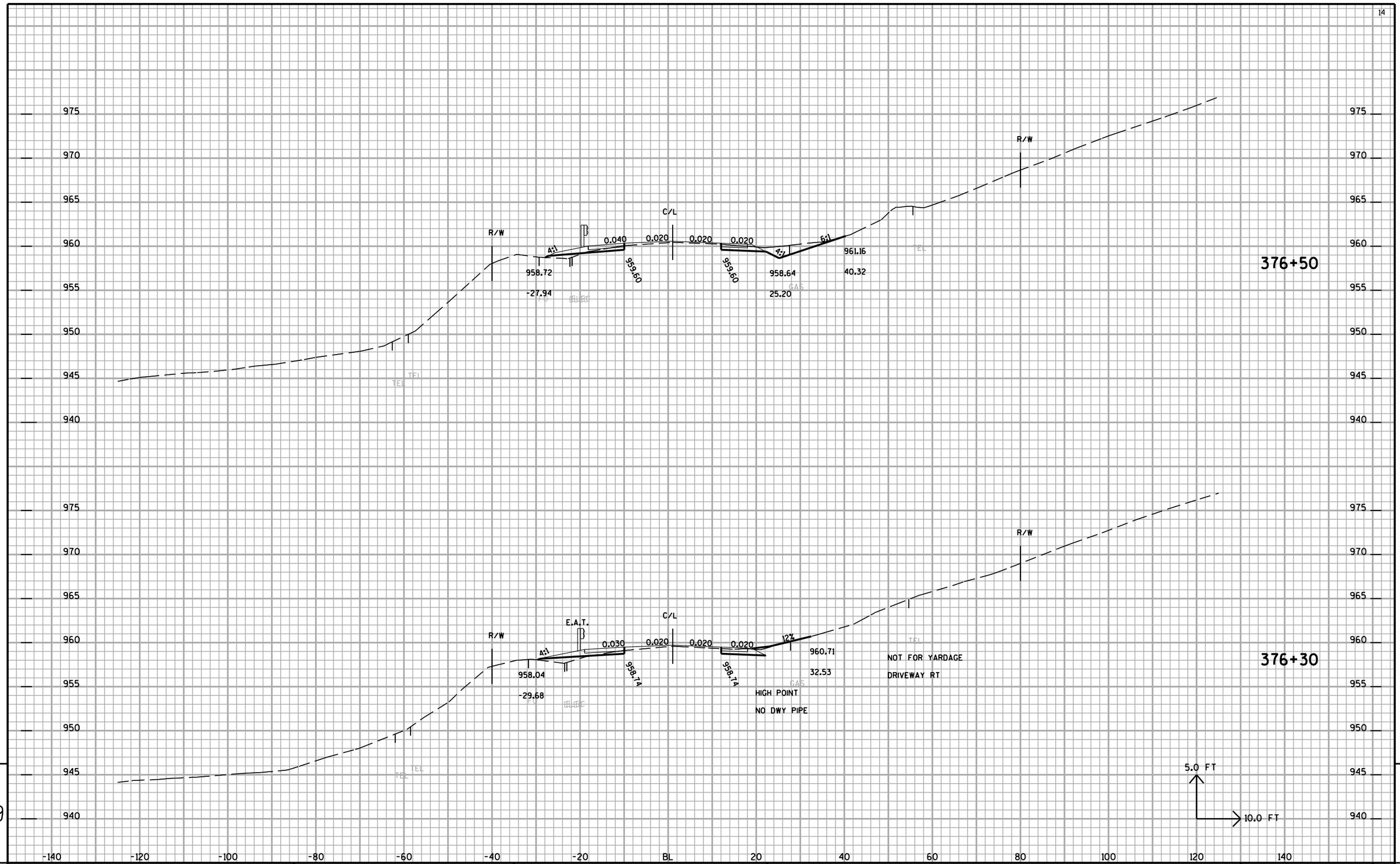


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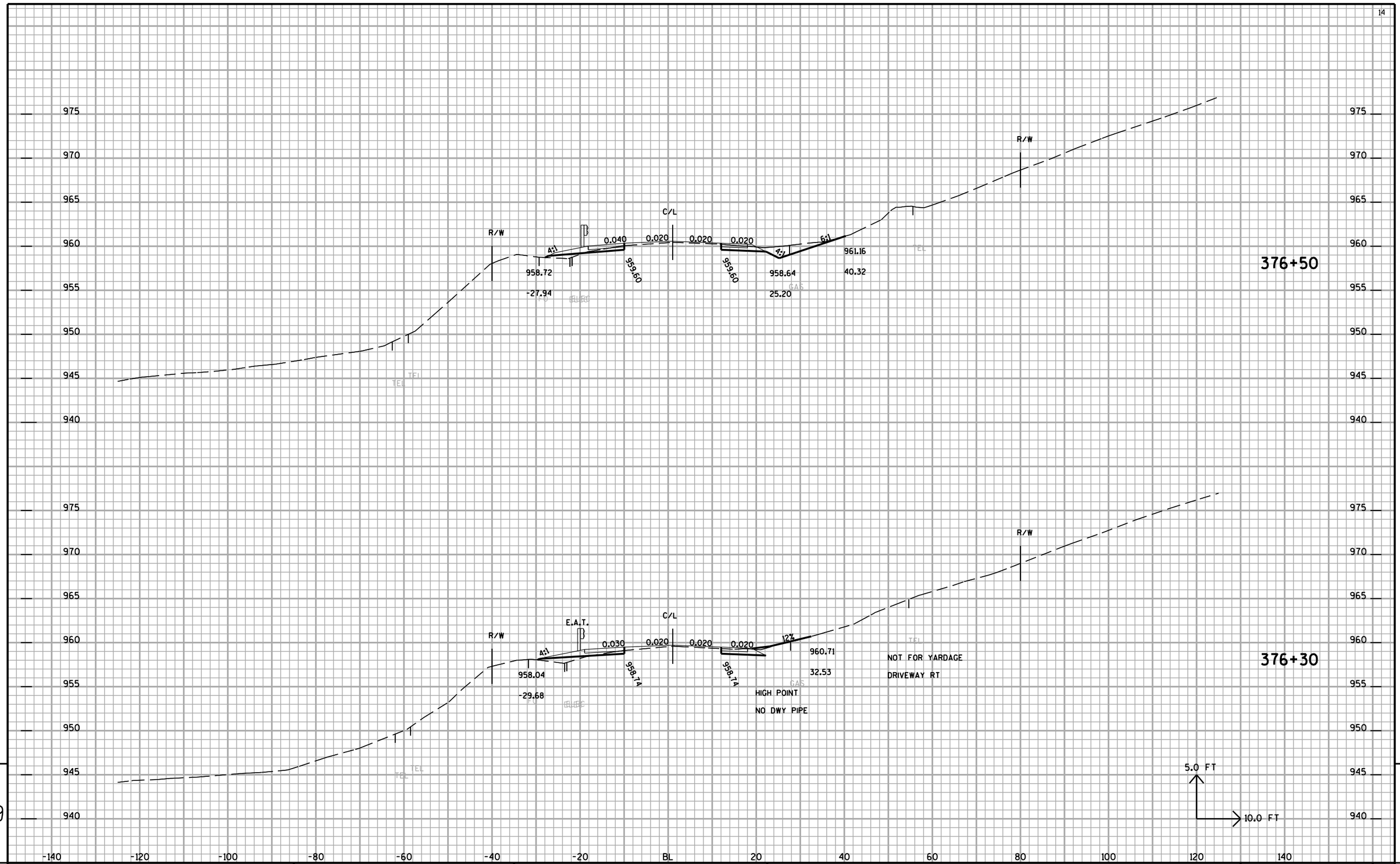
PROJECT NO: 4060-05-70	HWY: STH 28	COUNTY: WASHINGTON	CROSS SECTIONS	SHEET NO: 642	E

FILE NAME : J:±projects±D2_40600528±XS_July±090213_xs.DGN PLOT DATE : 22-JUL-2013 10:38 PLOT BY : dotr3h PLOT NAME : PLOT SCALE : 2:1



PROJECT NO: 4060-05-70	HWY: STH 28	COUNTY: WASHINGTON	CROSS SECTIONS	SHEET NO: 643	E

FILE NAME : J:±projects±D2_40600528±XS_July±090213_xs.DGN PLOT DATE : 22-JUL-2013 10:38 PLOT BY : dotr3h PLOT NAME : PLOT SCALE : 2:1

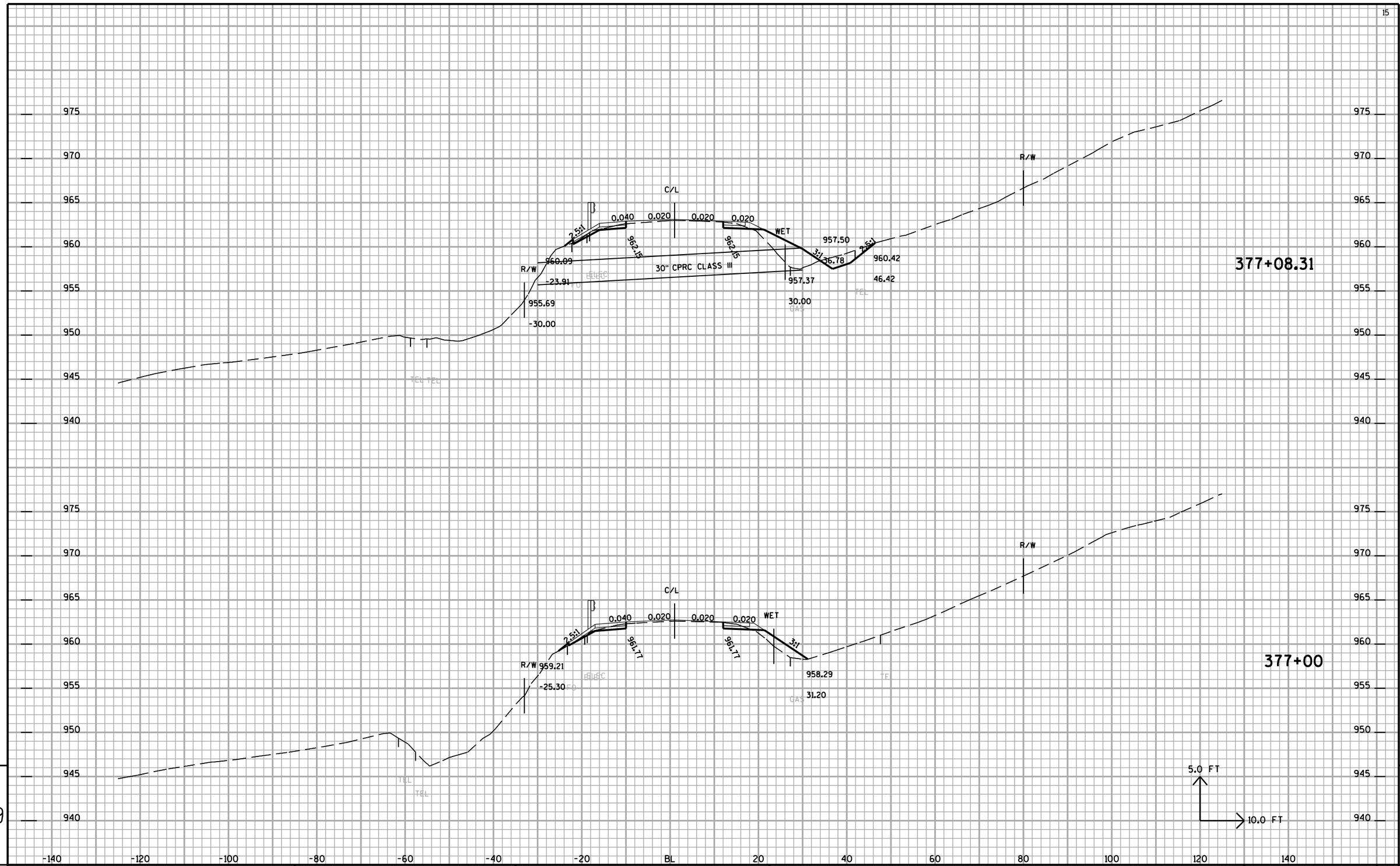


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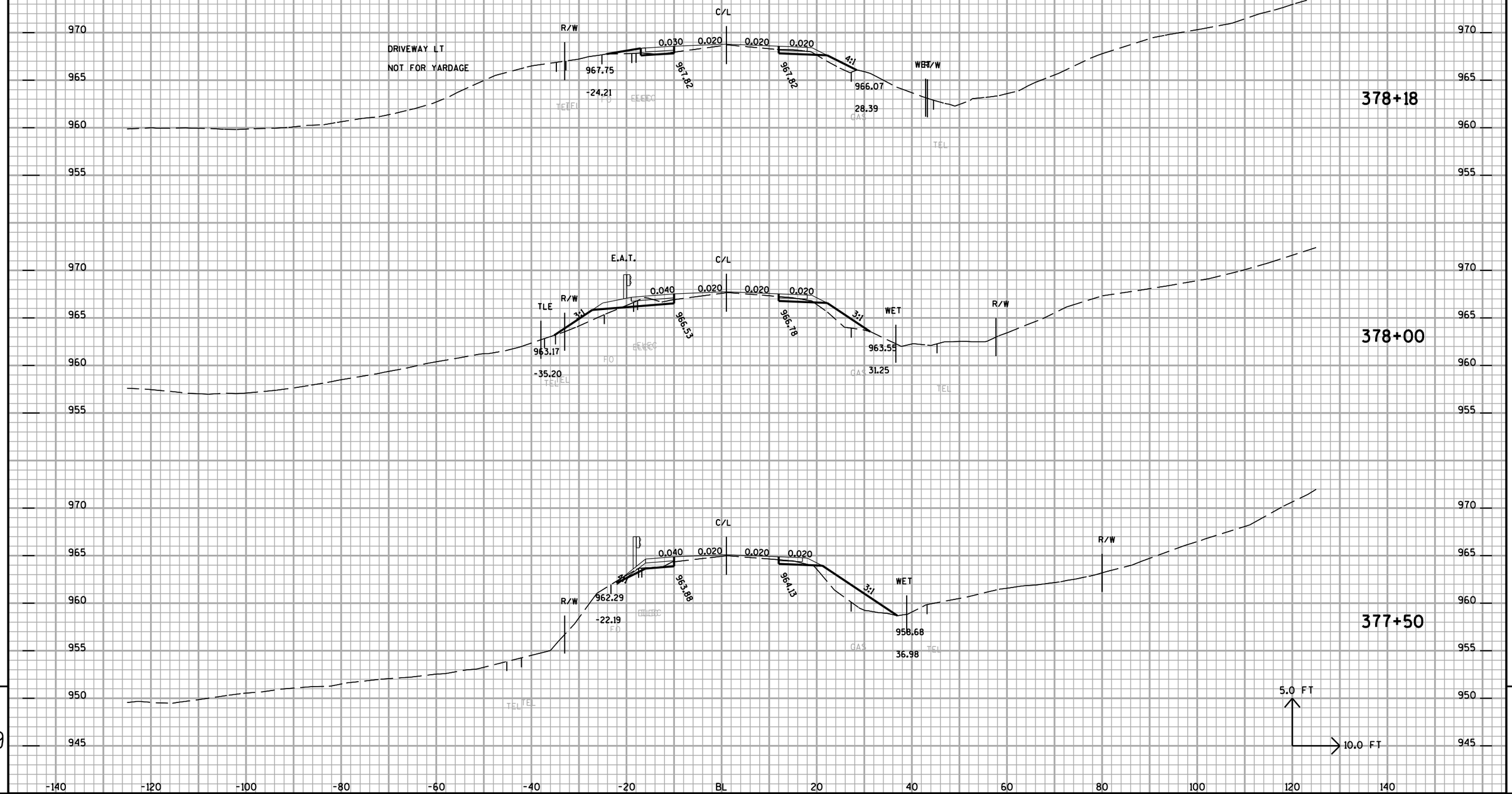
PROJECT NO: 4060-05-70	HWY: STH 28	COUNTY: WASHINGTON	CROSS SECTIONS	SHEET NO: 644	E

FILE NAME : J:±projects±D2_40600528±XS_July±090213_xs.DGN PLOT DATE : 22-JUL-2013 10:38 PLOT BY : dotr3h PLOT NAME : PLOT SCALE : 2:1



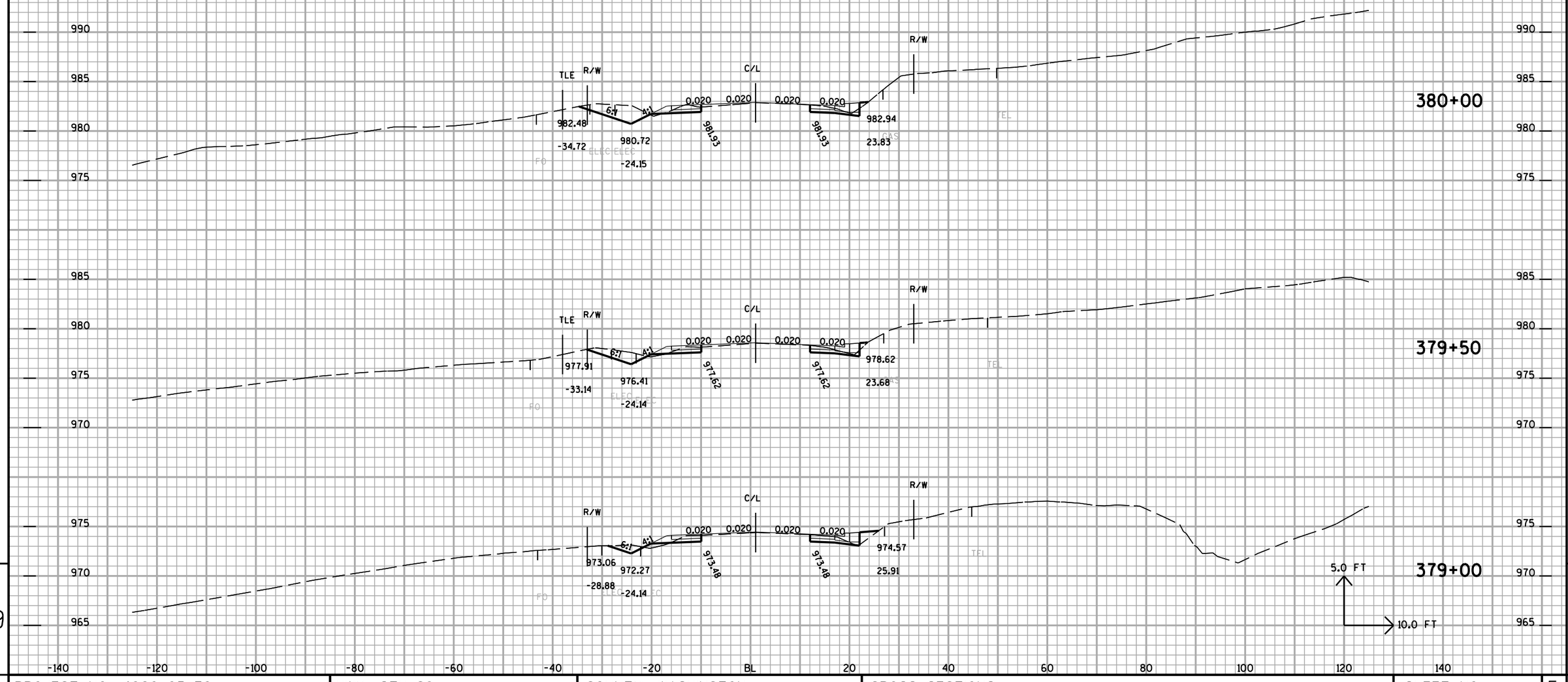
PROJECT NO: 4060-05-70	HWY: STH 28	COUNTY: WASHINGTON	CROSS SECTIONS	SHEET NO: 645	E

FILE NAME : J:±projects±D2_40600528±pdf xs±Sta37700T37708.DGN PLOT DATE : 02-OCT-2013 10:57 PLOT BY : dotr3h PLOT NAME : PLOT SCALE : 2:1



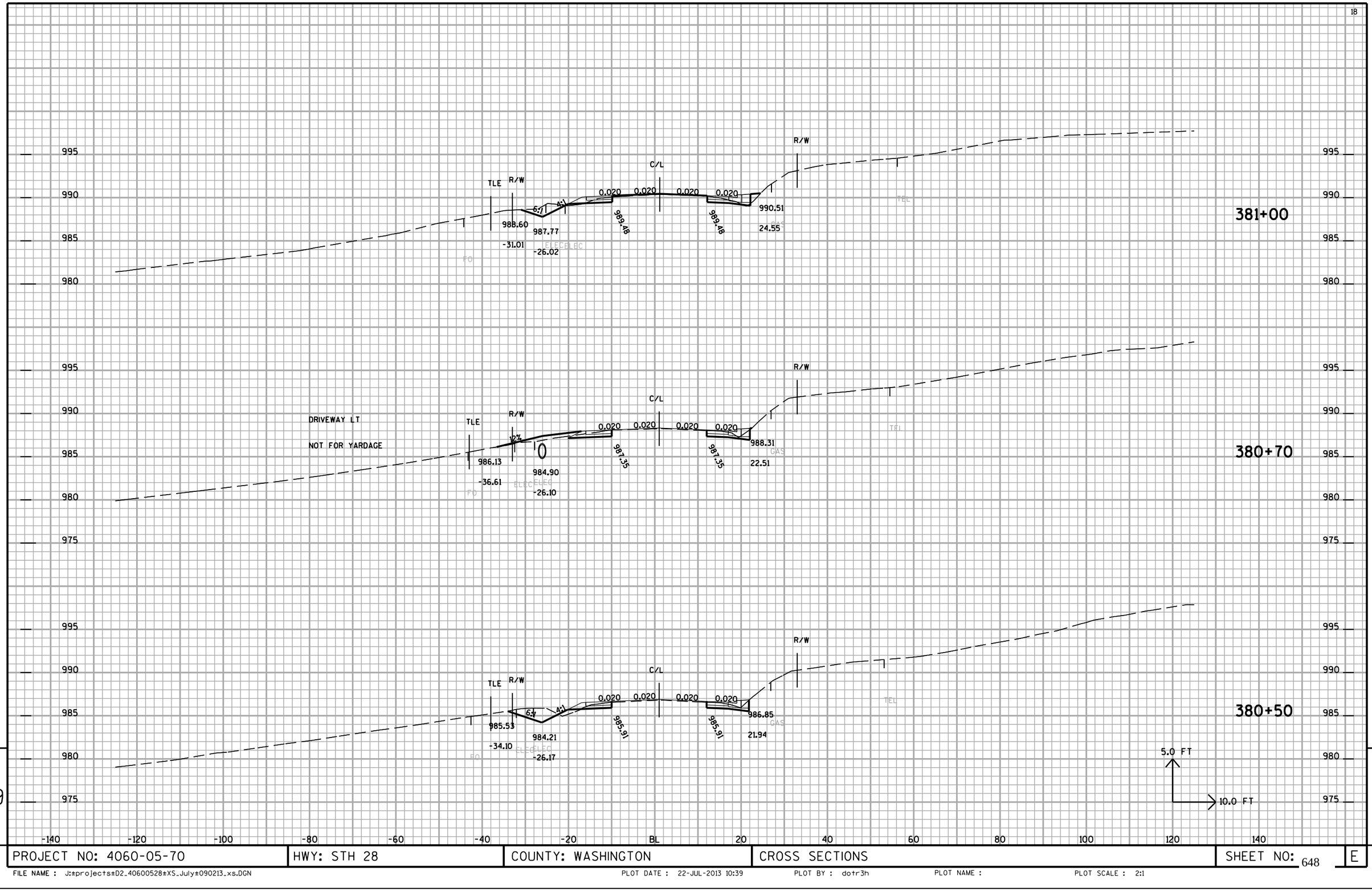
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FILE NAME : J:±projects±D2_40600528±XS_July±090213_xs.DGN PLOT DATE : 22-JUL-2013 10:39 PLOT BY : dotr3h PLOT NAME : PLOT SCALE : 2:1



PROJECT NO: 4060-05-70	HWY: STH 28	COUNTY: WASHINGTON	CROSS SECTIONS	SHEET NO: 647	E

FILE NAME : J:±projects±D2_40600528±XS_July±090213_xs.DGN PLOT DATE : 22-JUL-2013 10:39 PLOT BY : dotr3h PLOT NAME : PLOT SCALE : 2:1

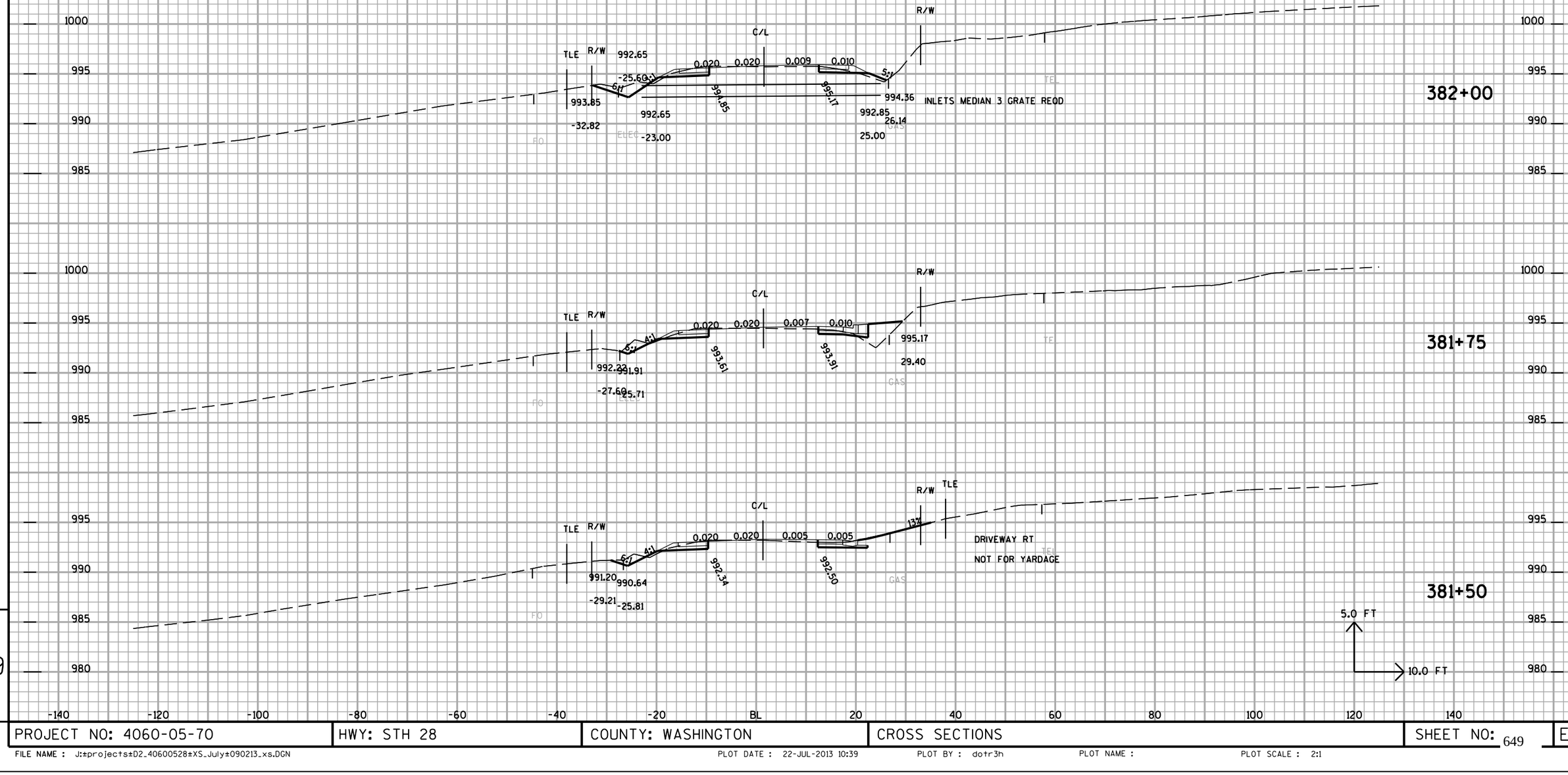


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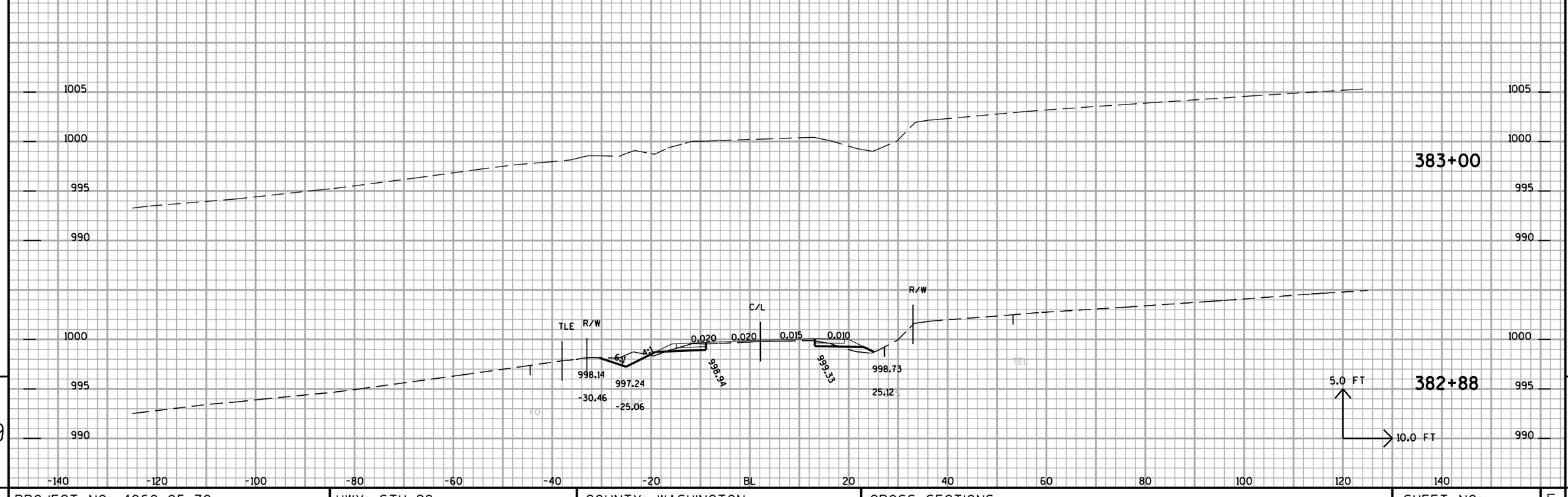
PROJECT NO: 4060-05-70	HWY: STH 28	COUNTY: WASHINGTON	CROSS SECTIONS	SHEET NO: 648	E

FILE NAME : J:±projects±D2_40600528±XS_July±090213_xs.DGN PLOT DATE : 22-JUL-2013 10:39 PLOT BY : dotr3h PLOT NAME : PLOT SCALE : 2:1



PROJECT NO: 4060-05-70	HWY: STH 28	COUNTY: WASHINGTON	CROSS SECTIONS	SHEET NO: 649	E

FILE NAME : J:±projects±D2_40600528±XS_July±090213_xs.DGN PLOT DATE : 22-JUL-2013 10:39 PLOT BY : dotr3h PLOT NAME : PLOT SCALE : 2:1

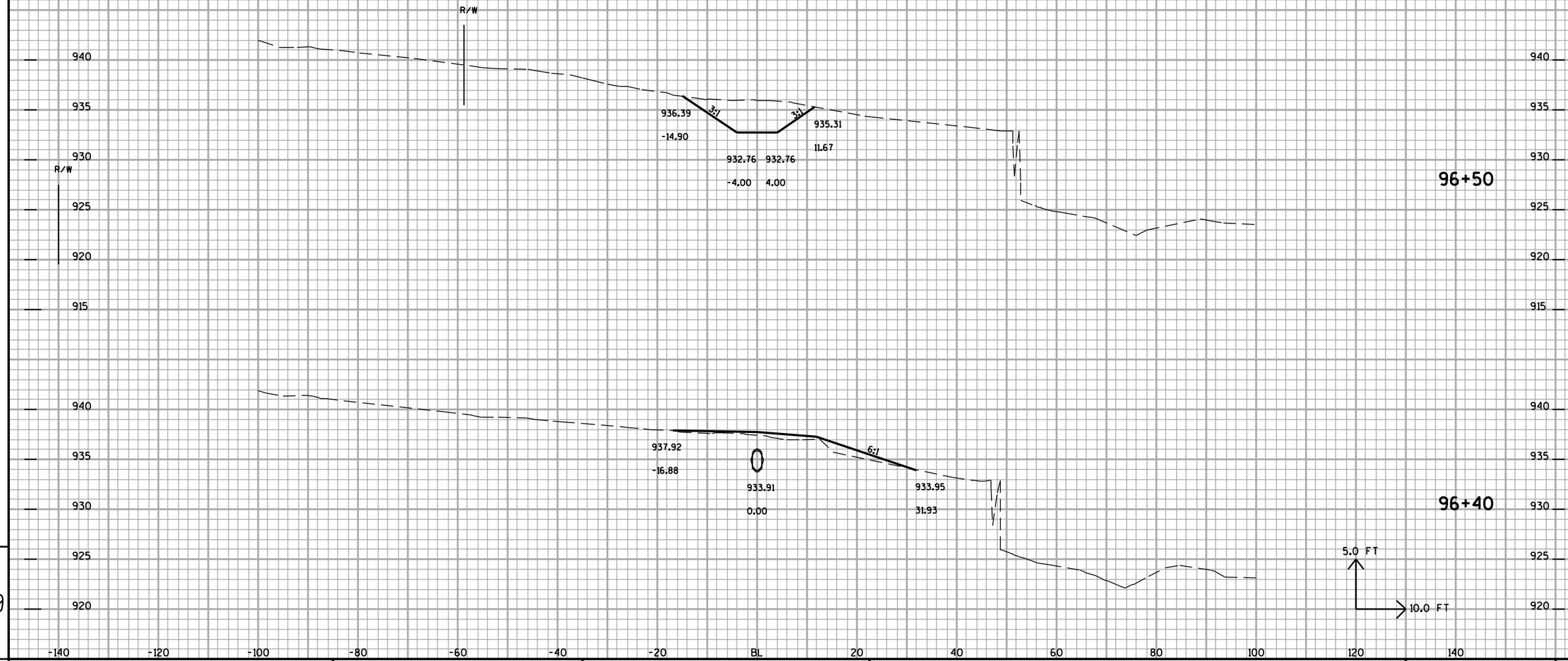


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PROJECT NO: 4060-05-70	HWY: STH 28	COUNTY: WASHINGTON	CROSS SECTIONS	SHEET NO: 650	E

FILE NAME : J:±projects±D2_40600528±XS_July±090213_xs.DGN PLOT DATE : 22-JUL-2013 10:39 PLOT BY : dotr3h PLOT NAME : PLOT SCALE : 2:1

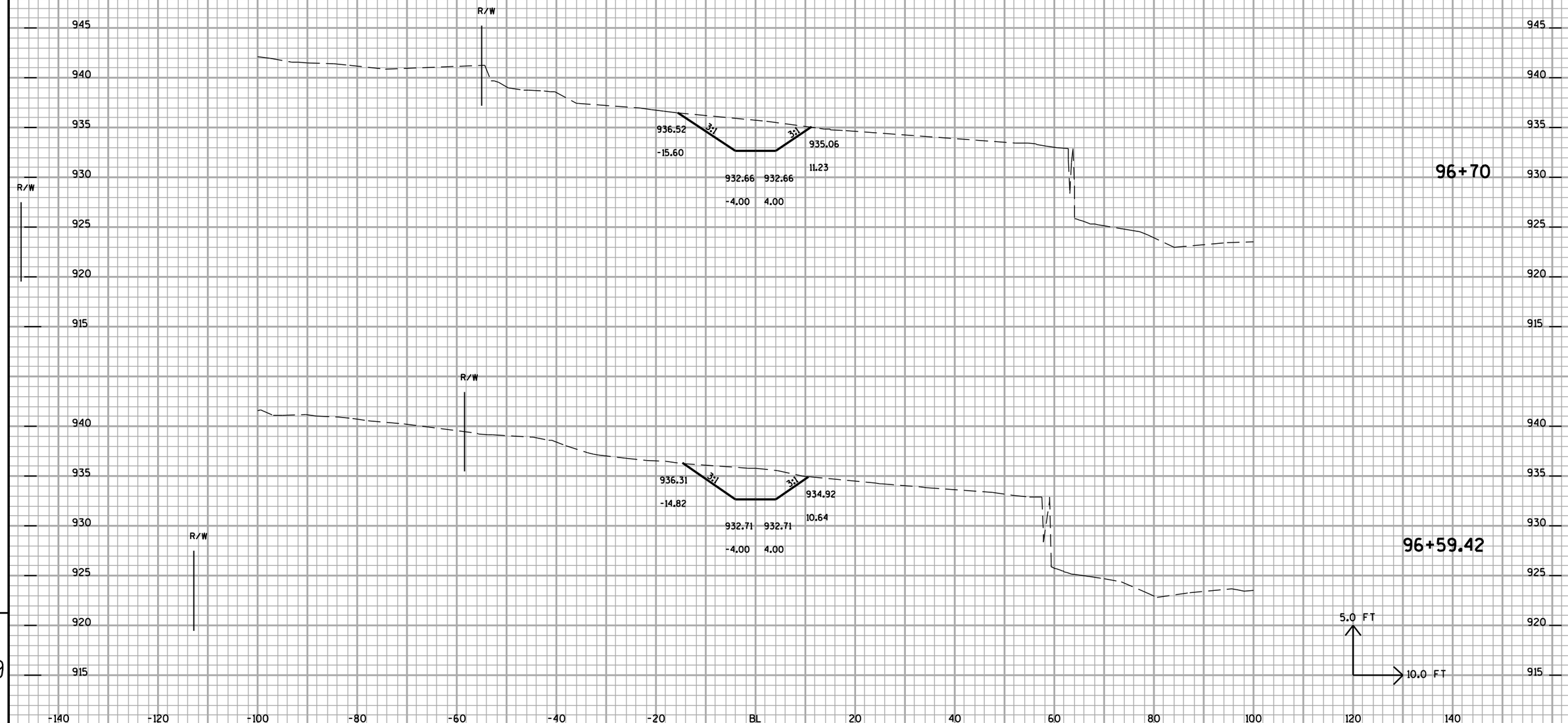


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PROJECT NO:	HWY:	COUNTY:	CROSS SECTIONS	SHEET NO: 651	E

FILE NAME : J:±projects±D2_40600528±XS_July±090214_xs.DGN PLOT DATE : 22-JUL-2013 10:39 PLOT BY : dotr3h PLOT NAME : PLOT SCALE : 2:1

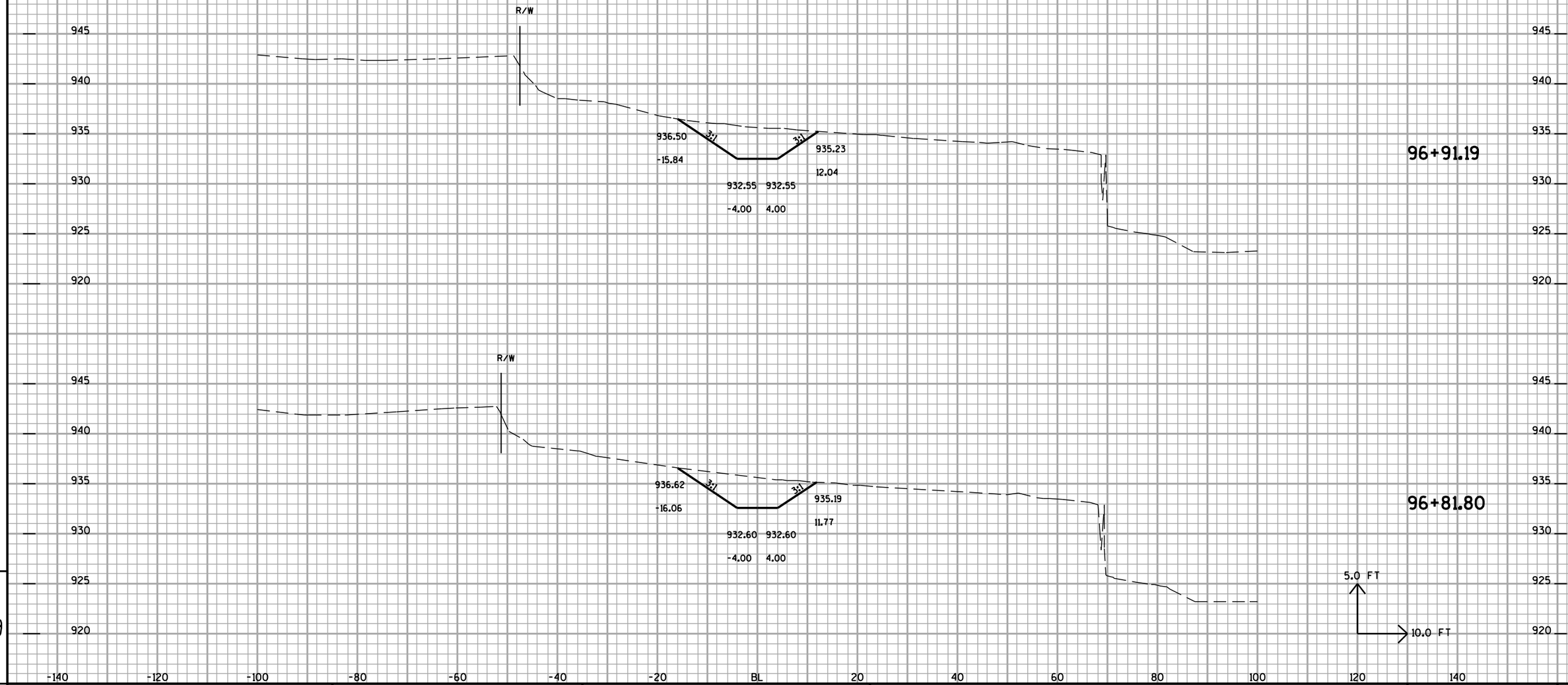


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PROJECT NO:	HWY:	COUNTY:	CROSS SECTIONS	SHEET NO: 652	E

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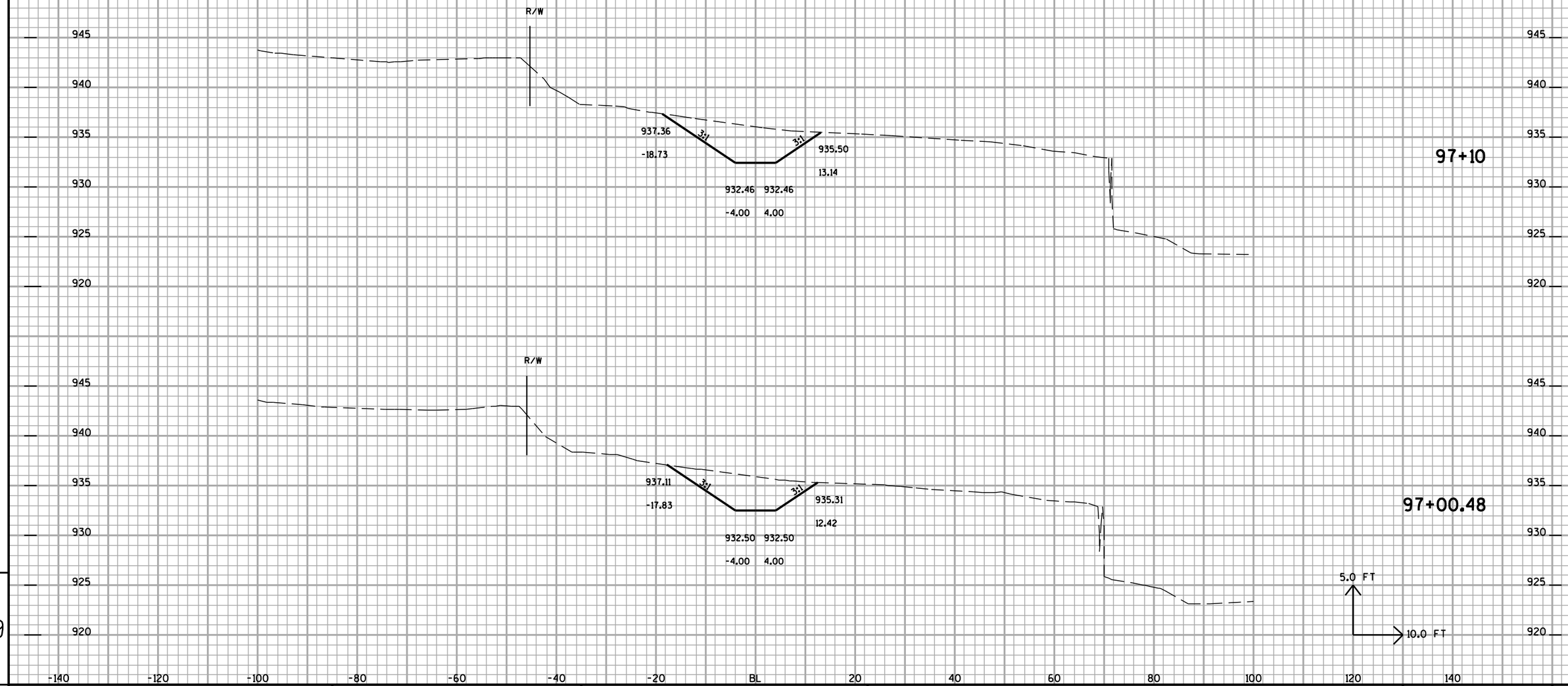


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PROJECT NO:	HWY:	COUNTY:	CROSS SECTIONS	SHEET NO: 653	E

FILE NAME : J:±projects±D2_40600528±XS_July±090214_xs.DGN PLOT DATE : 22-JUL-2013 10:39 PLOT BY : dotr3h PLOT NAME : PLOT SCALE : 2:1

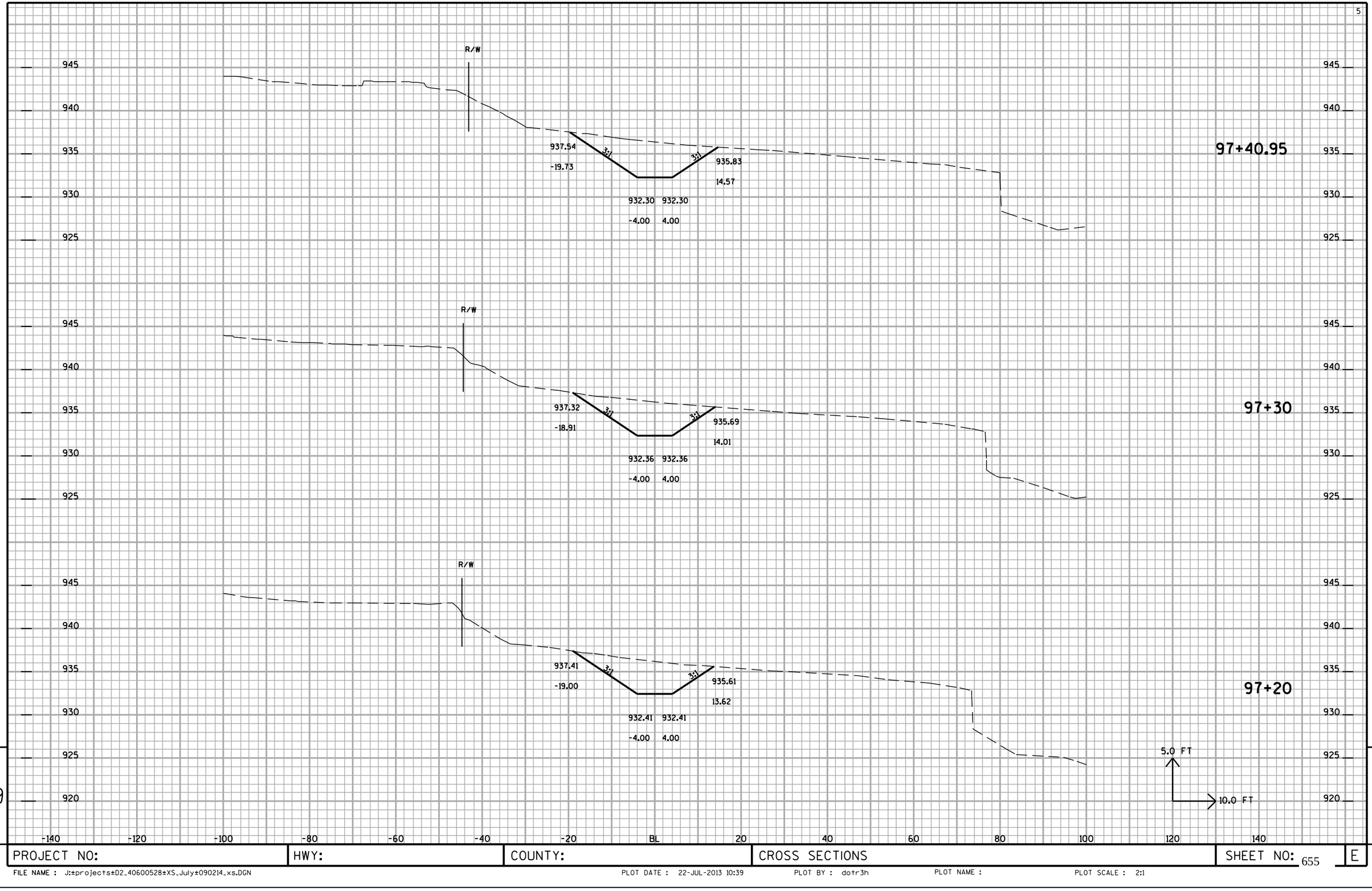


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PROJECT NO:	HWY:	COUNTY:	CROSS SECTIONS	SHEET NO: 654	E

FILE NAME : J:±projects±D2_40600528±XS_July±090214_xs.DGN PLOT DATE : 22-JUL-2013 10:39 PLOT BY : dotr3h PLOT NAME : PLOT SCALE : 2:1

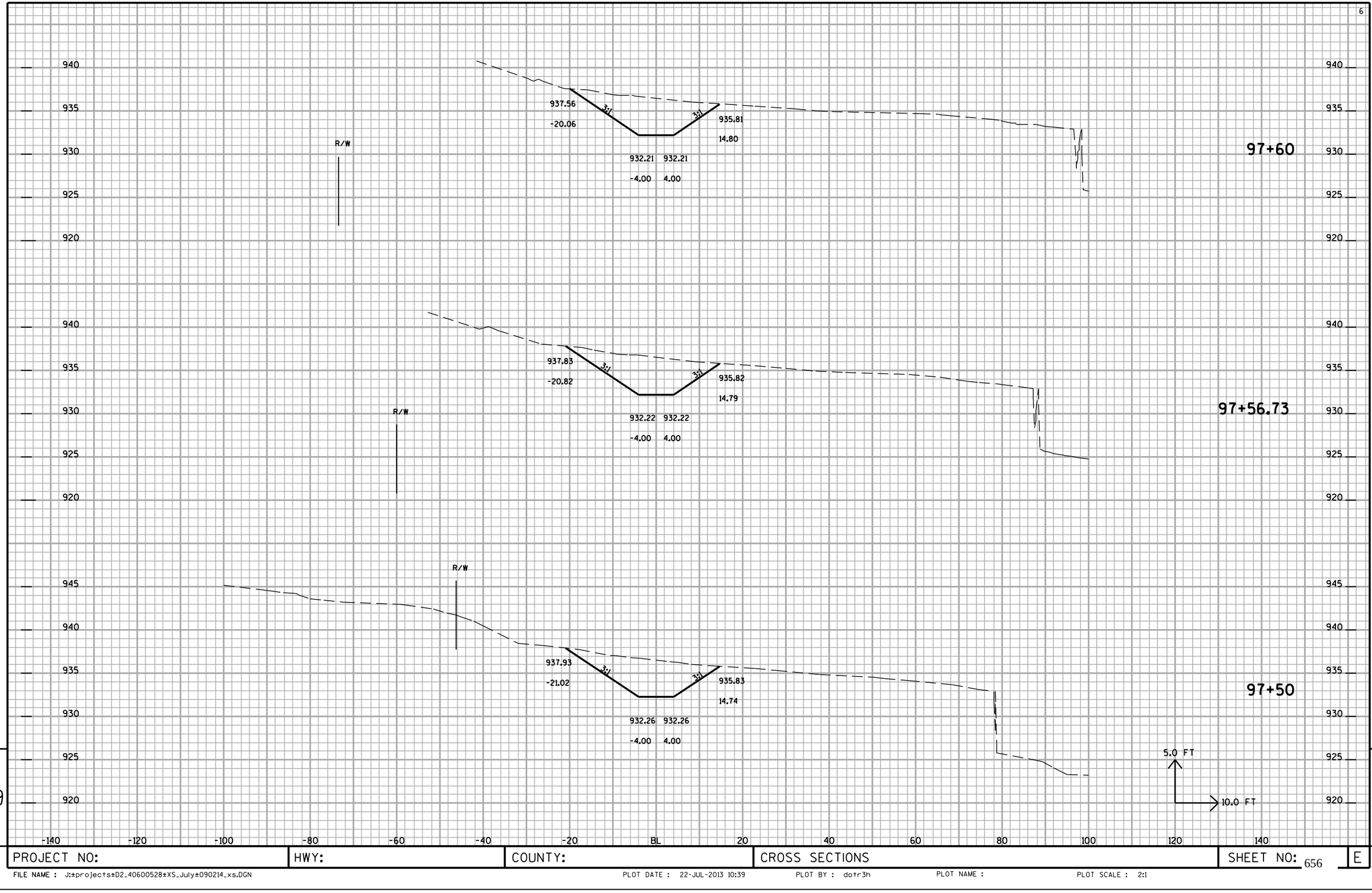


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PROJECT NO:	HWY:	COUNTY:	CROSS SECTIONS	SHEET NO: 655	E

FILE NAME : J:±projects±D2_40600528±XS_July±090214_xs.DGN PLOT DATE : 22-JUL-2013 10:39 PLOT BY : dotr3h PLOT NAME : PLOT SCALE : 2:1

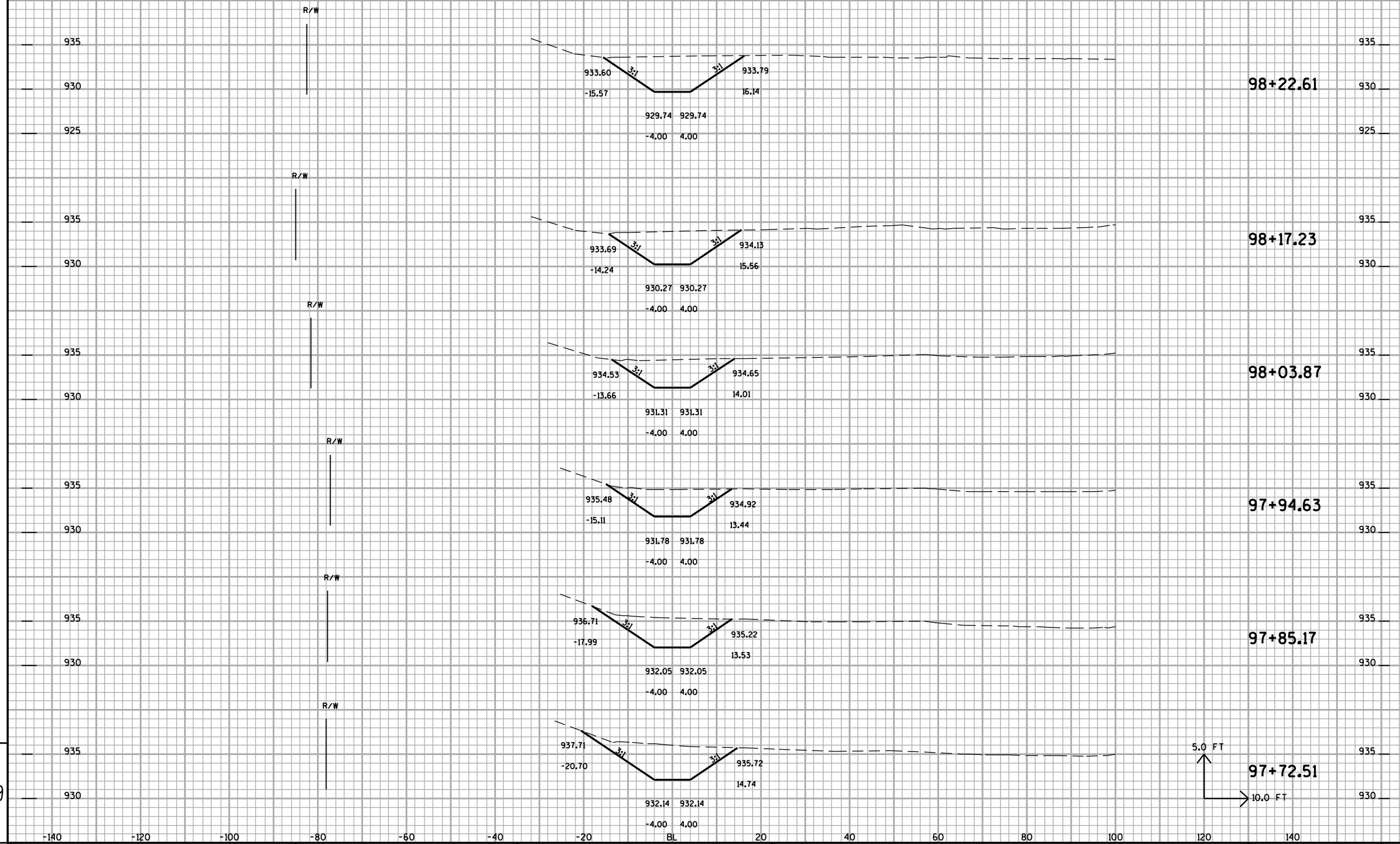


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PROJECT NO:	HWY:	COUNTY:	CROSS SECTIONS	SHEET NO: 656	E

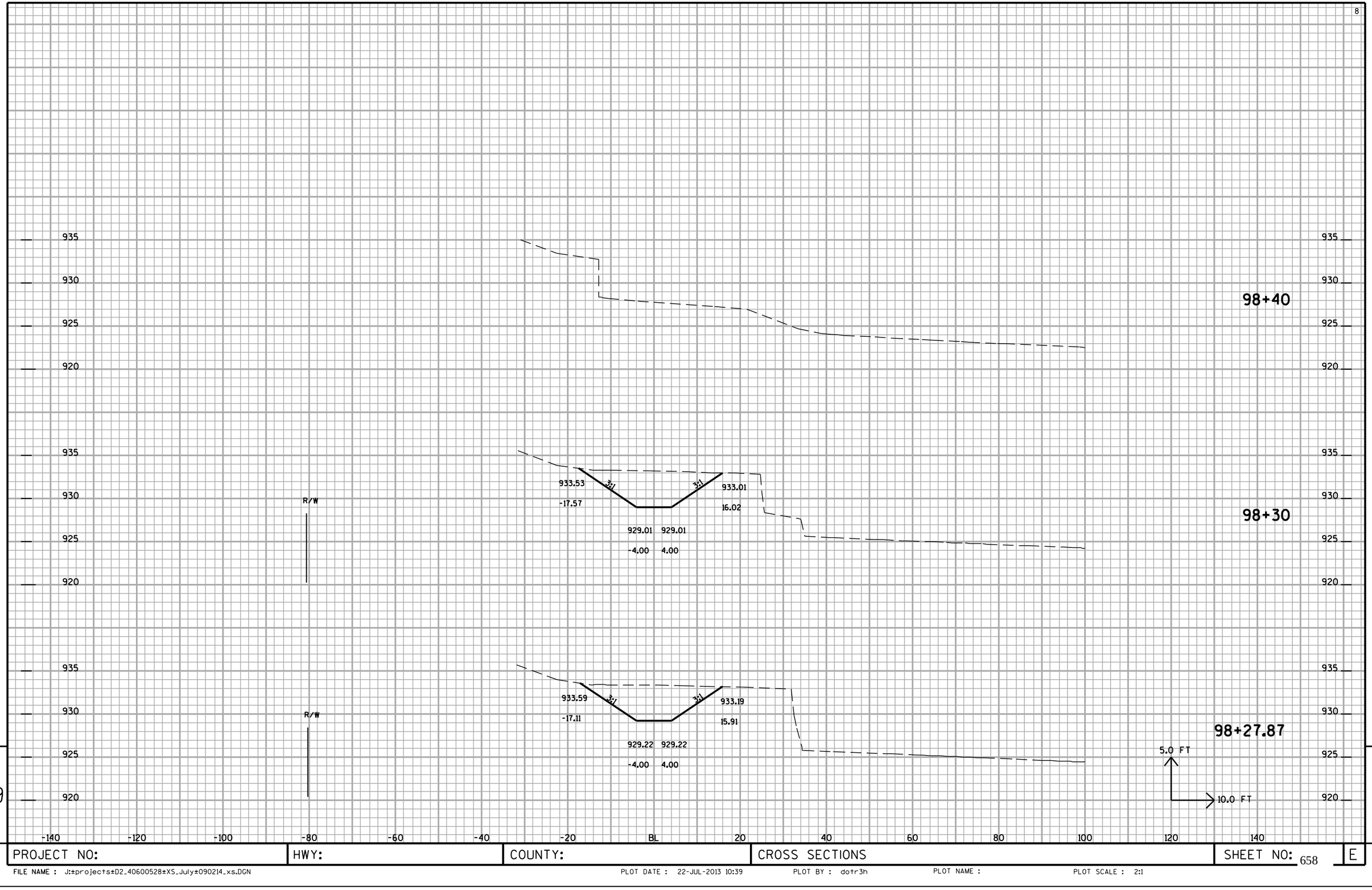
FILE NAME : J:±projects±D2_40600528±XS_July±090214_xs.DGN PLOT DATE : 22-JUL-2013 10:39 PLOT BY : dotr3h PLOT NAME : PLOT SCALE : 2:1



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PROJECT NO:	HWY:	COUNTY:	CROSS SECTIONS	SHEET NO: 657	E

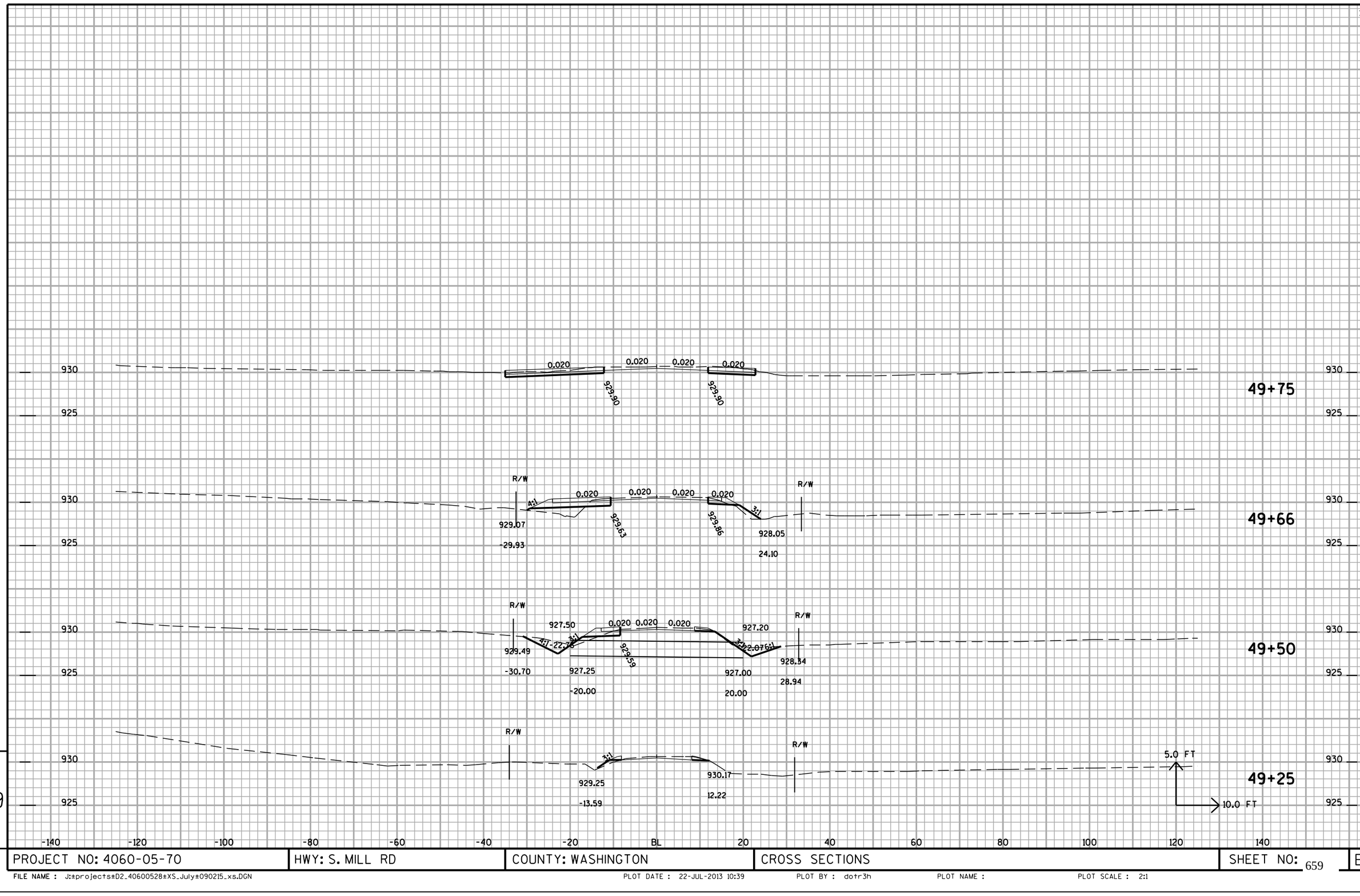


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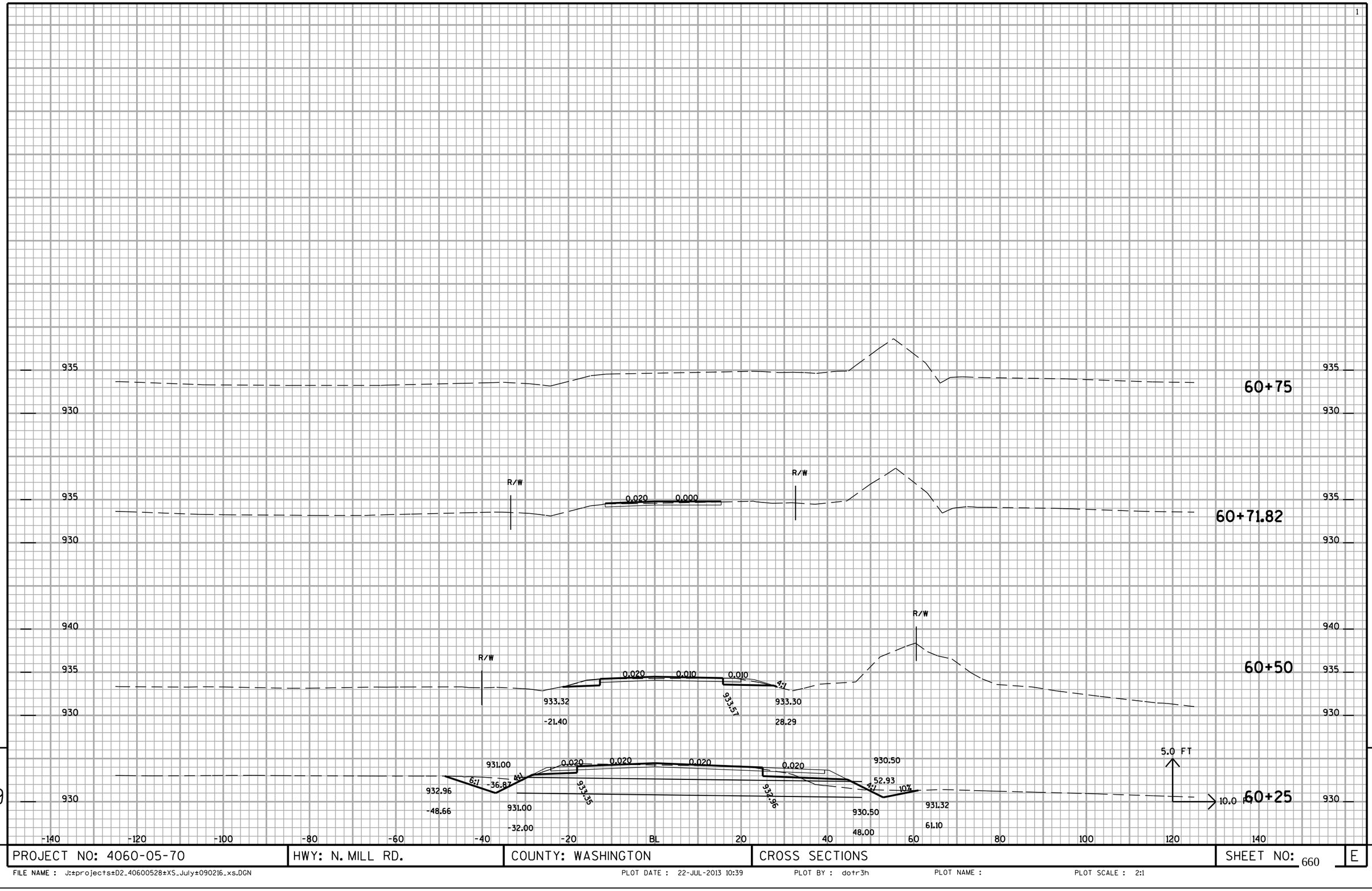
PROJECT NO:	HWY:	COUNTY:	CROSS SECTIONS	SHEET NO: 658	E

FILE NAME : J:±projects±D2_40600528±XS_July±090214_xs.DGN PLOT DATE : 22-JUL-2013 10:39 PLOT BY : dotr3h PLOT NAME : PLOT SCALE : 2:1



PROJECT NO: 4060-05-70	HWY: S. MILL RD	COUNTY: WASHINGTON	CROSS SECTIONS	SHEET NO: 659	E

FILE NAME : J:±projects±D2_40600528±XS_July±090215_xs.DGN PLOT DATE : 22-JUL-2013 10:39 PLOT BY : dotr3h PLOT NAME : PLOT SCALE : 2:1



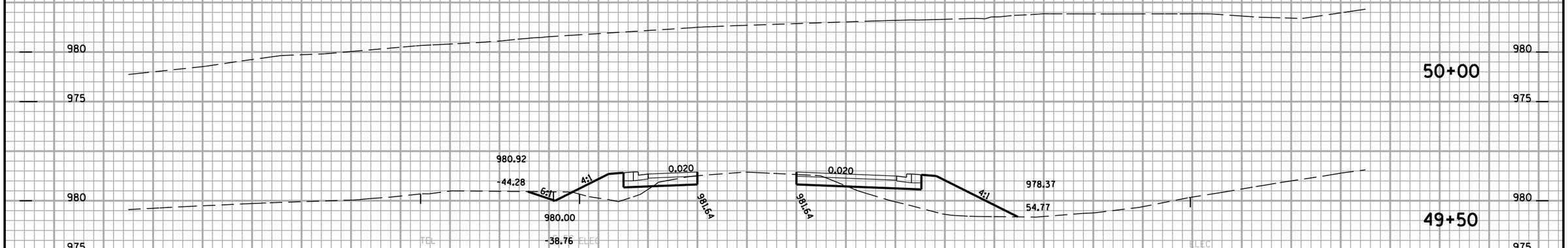
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PROJECT NO: 4060-05-70	HWY: N. MILL RD.	COUNTY: WASHINGTON	CROSS SECTIONS	SHEET NO: 660	E

FILE NAME : J:±projects±D2_40600528±XS_July±090216_xs.DGN PLOT DATE : 22-JUL-2013 10:39 PLOT BY : dotr3h PLOT NAME : PLOT SCALE : 2:1

50+00



49+50

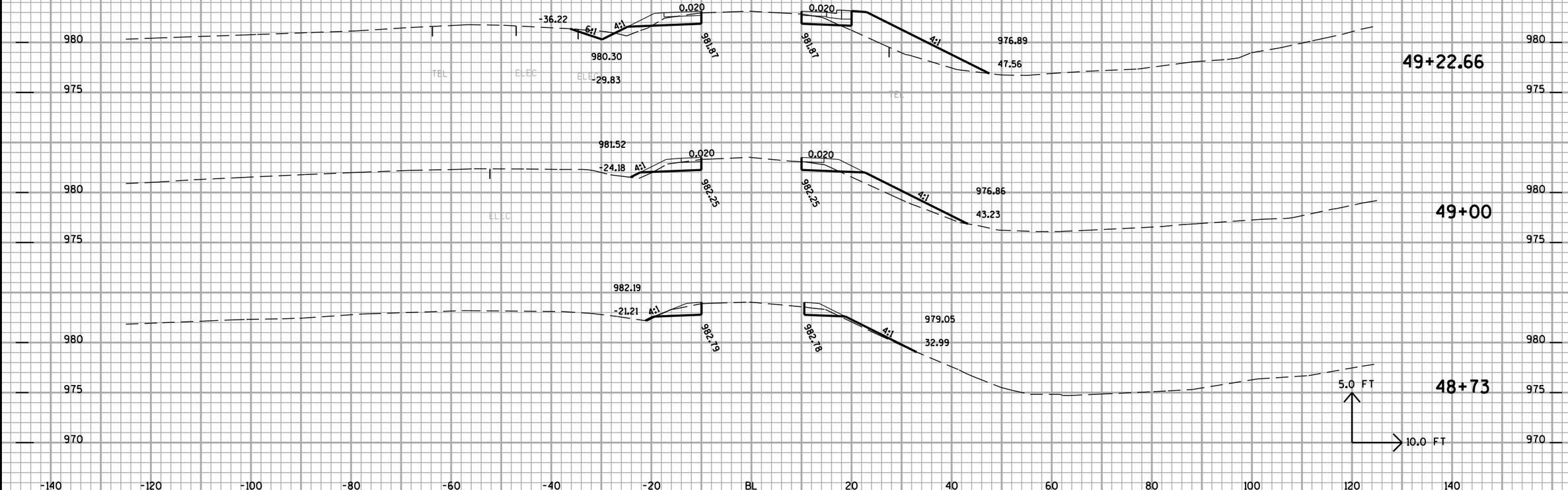


49+30.24

49+22.66

49+00

48+73

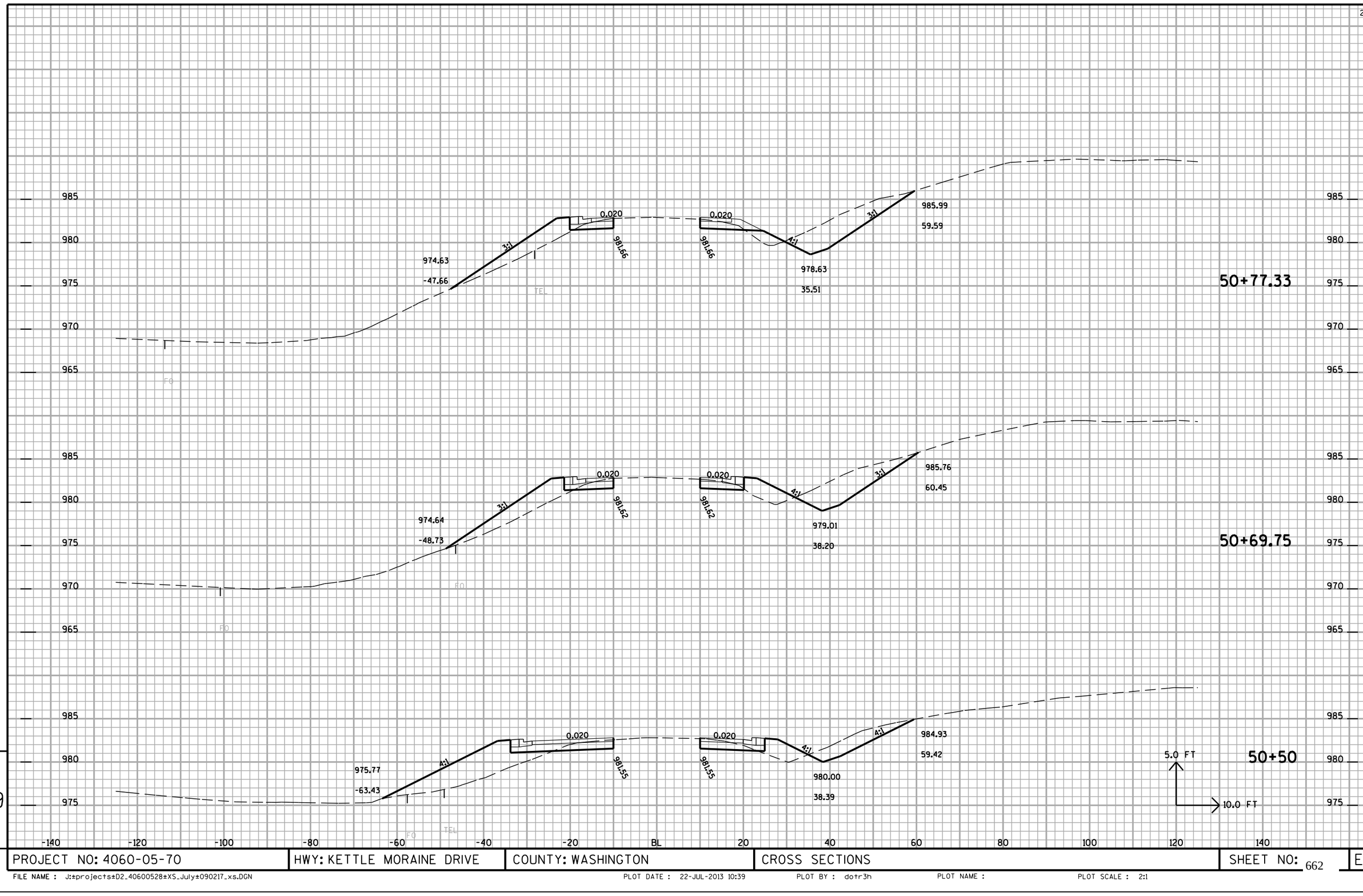


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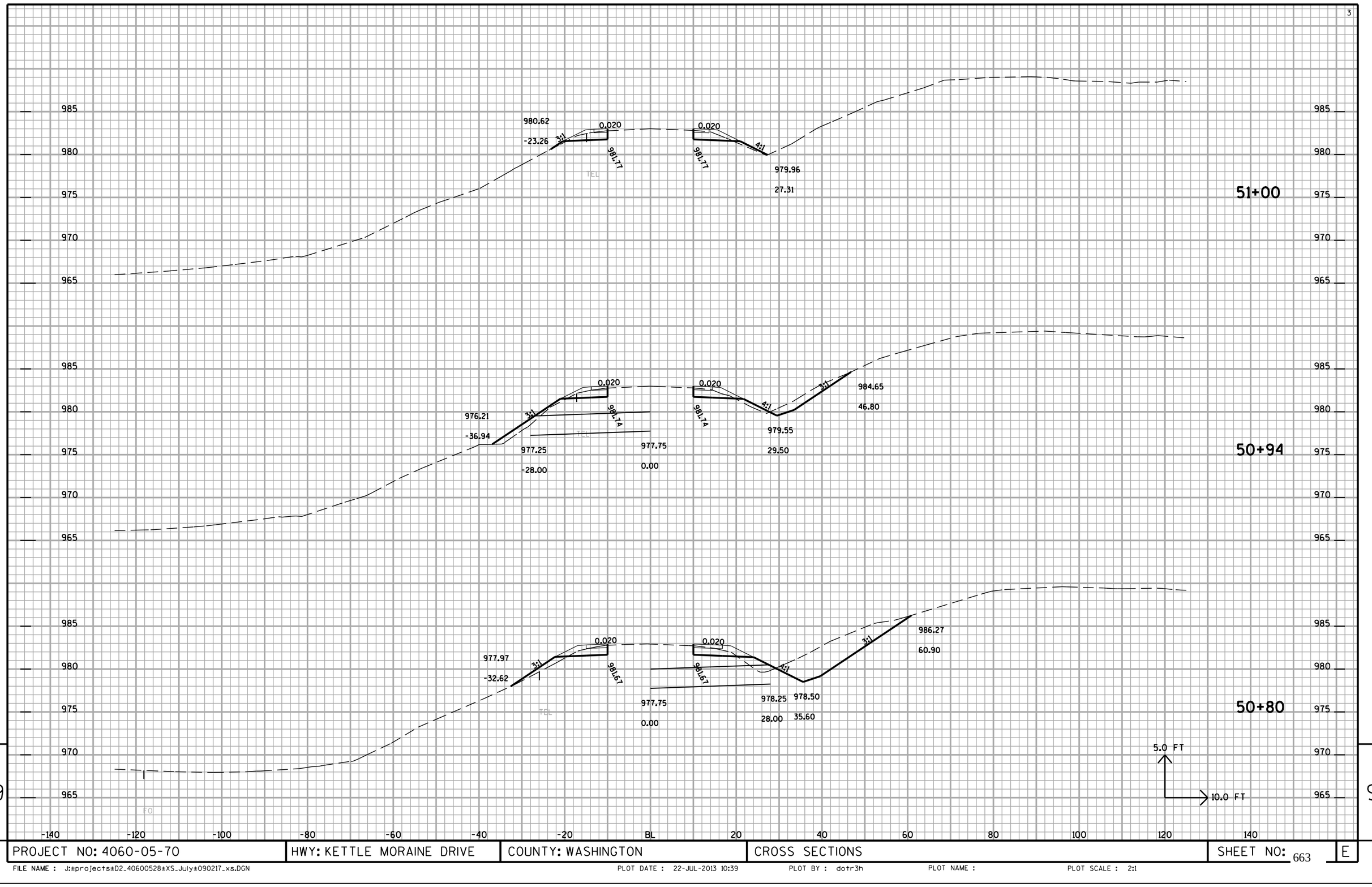
PROJECT NO: 4060-05-70	HWY: KETTLE MORAINE DRIVE	COUNTY: WASHINGTON	CROSS SECTIONS	SHEET NO: 661	E

FILE NAME : J:±projects±D2_40600528±XS_July±090217_xs.DGN PLOT DATE : 22-JUL-2013 10:39 PLOT BY : dotr3h PLOT NAME : PLOT SCALE : 2:1



PROJECT NO: 4060-05-70	HWY: KETTLE MORAINE DRIVE	COUNTY: WASHINGTON	CROSS SECTIONS	SHEET NO: 662	E

FILE NAME : J:±projects±D2_40600528±XS_July±090217_xs.DGN PLOT DATE : 22-JUL-2013 10:39 PLOT BY : dotr3h PLOT NAME : PLOT SCALE : 2:1



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PROJECT NO: 4060-05-70	HWY: KETTLE MORAINE DRIVE	COUNTY: WASHINGTON	CROSS SECTIONS	SHEET NO: 663	E

FILE NAME : J:±projects±D2_40600528±XS_July±090217_xs.DGN PLOT DATE : 22-JUL-2013 10:39 PLOT BY : dotr3h PLOT NAME : PLOT SCALE : 2:1

980
975
970
965
985
980
975
970
965

981.20
-21.89
0.020
981.87
TEL
0.020
981.87
981.24
20.92
4:1

51+50
51+27.50

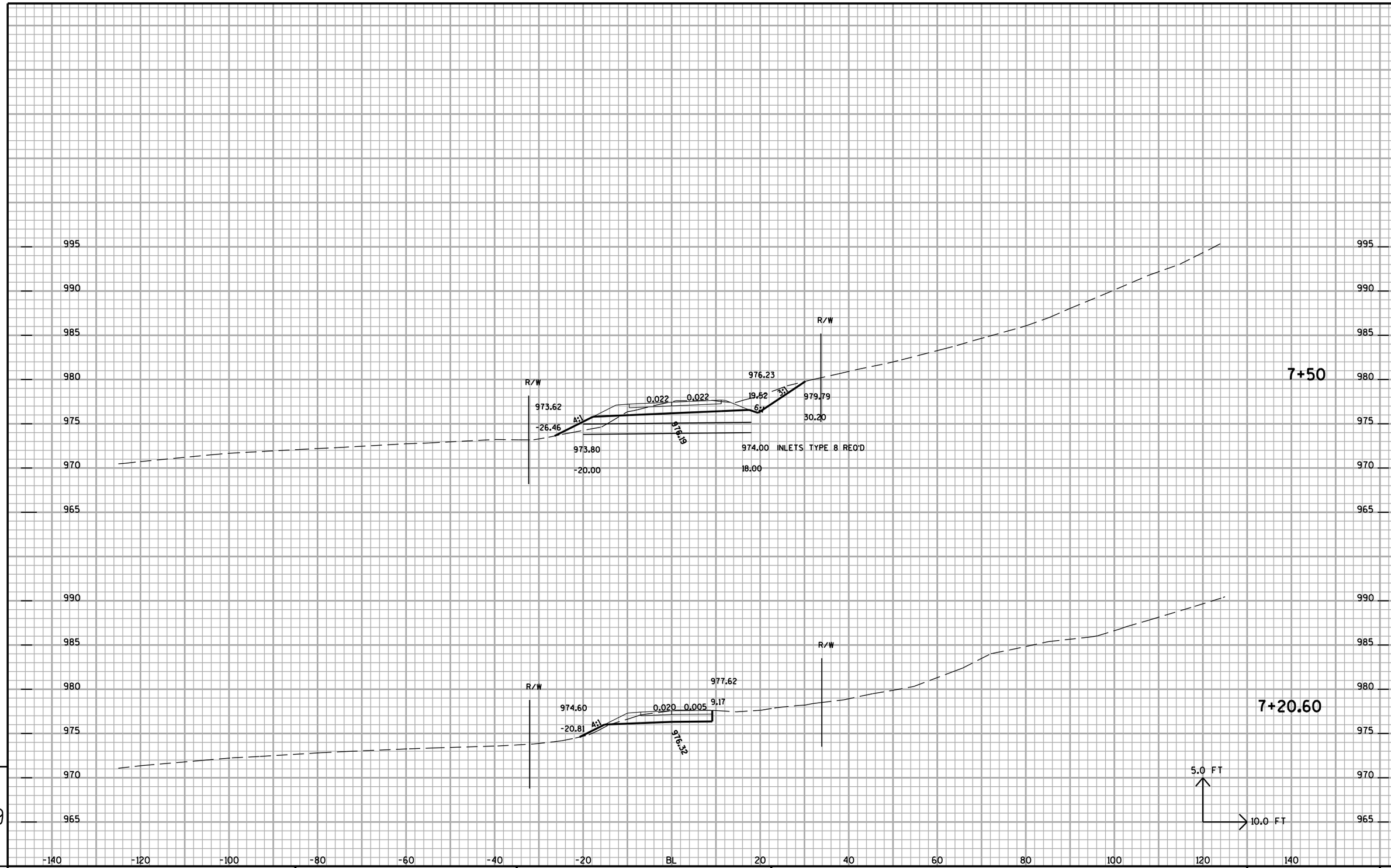
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10.0 FT

-140 -120 -100 -80 -60 -40 -20 BL 20 40 60 80 100 120 140

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PROJECT NO: 4060-05-70	HWY: KETTLE MORAINE DRIVE	COUNTY: WASHINGTON	CROSS SECTIONS	SHEET NO: 664	E

FILE NAME : J:±projects±D2_40600528±XS_July±090217_xs.DGN PLOT DATE : 22-JUL-2013 10:39 PLOT BY : dotr3h PLOT NAME : PLOT SCALE : 2:1

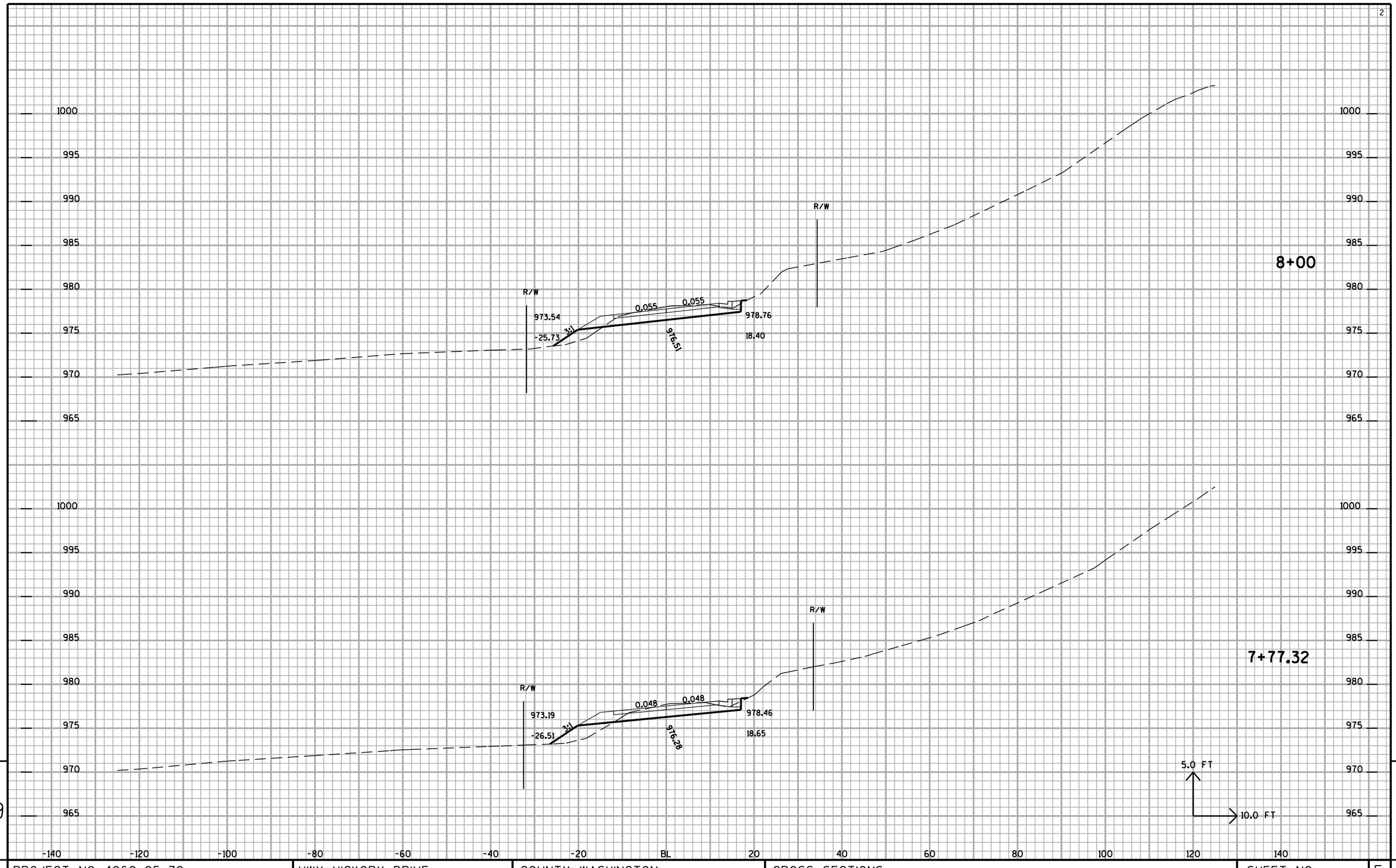


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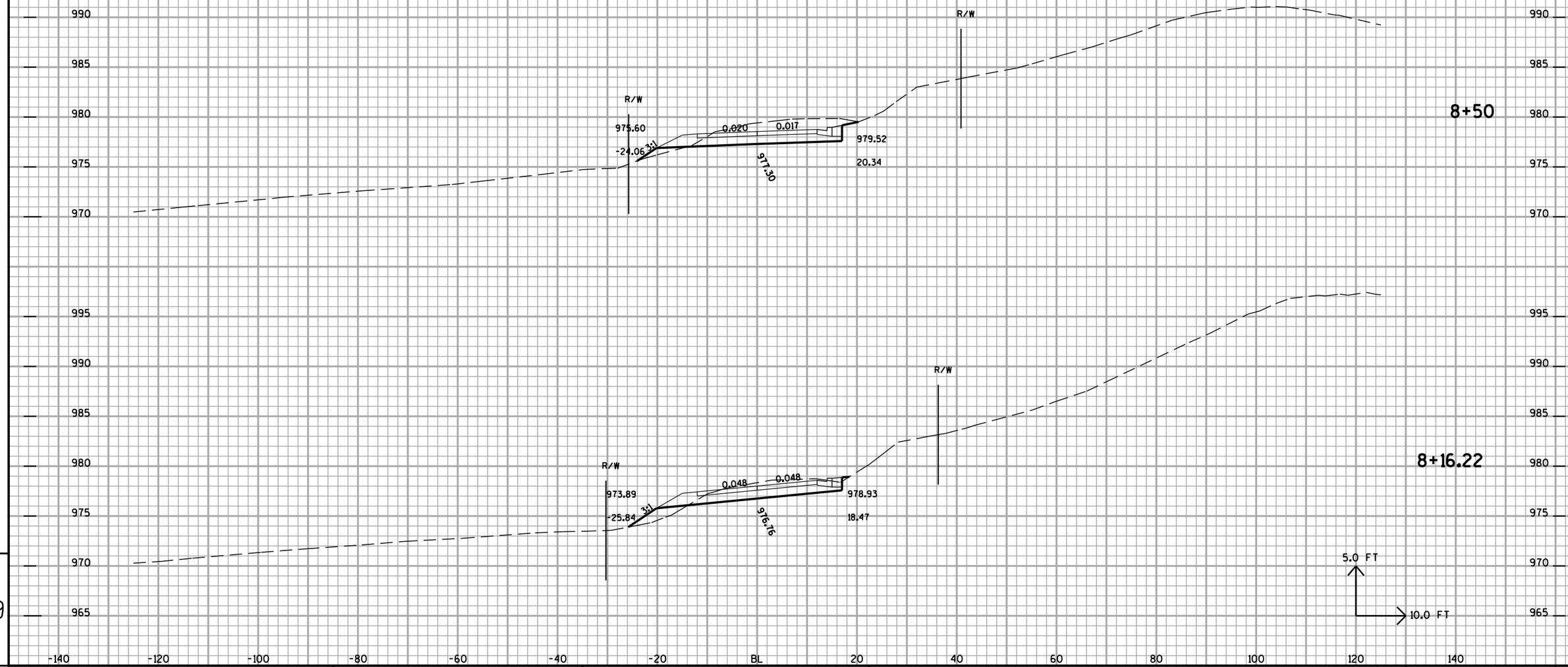


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PROJECT NO: 4060-05-70	HWY: HICKORY DRIVE	COUNTY: WASHINGTON	CROSS SECTIONS	SHEET NO: 666	E

FILE NAME : J:±projects±D2_40600528±XS_July±090218_xs.DGN PLOT DATE : 22-JUL-2013 10:39 PLOT BY : dotr3h PLOT NAME : PLOT SCALE : 2:1

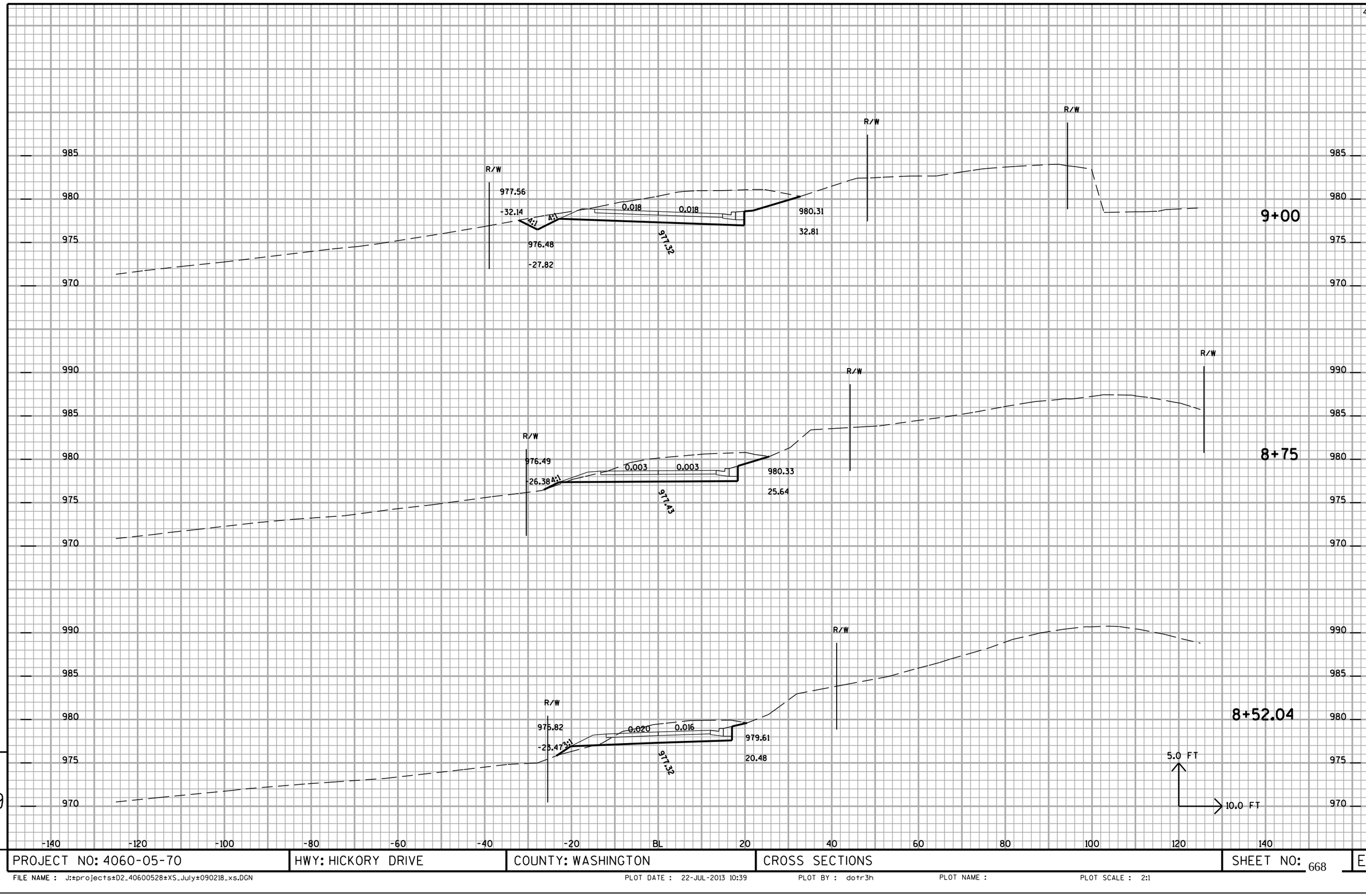


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PROJECT NO: 4060-05-70	HWY: HICKORY DRIVE	COUNTY: WASHINGTON	CROSS SECTIONS	SHEET NO: 667	E

FILE NAME : J:±projects±D2_40600528±XS_July±090218_xs.DGN PLOT DATE : 22-JUL-2013 10:39 PLOT BY : dotr3h PLOT NAME : PLOT SCALE : 2:1

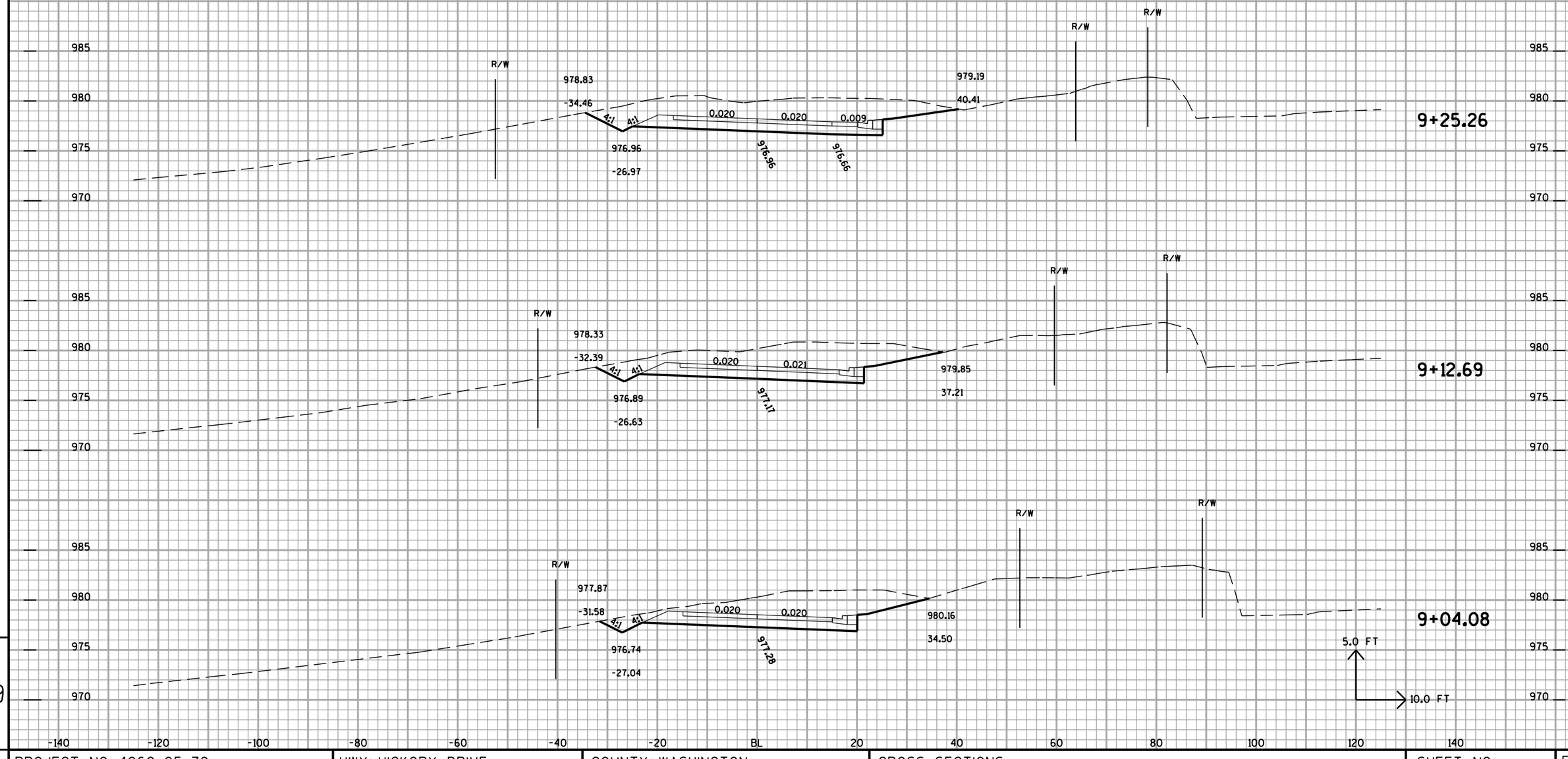


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PROJECT NO: 4060-05-70	HWY: HICKORY DRIVE	COUNTY: WASHINGTON	CROSS SECTIONS	SHEET NO: 668	E

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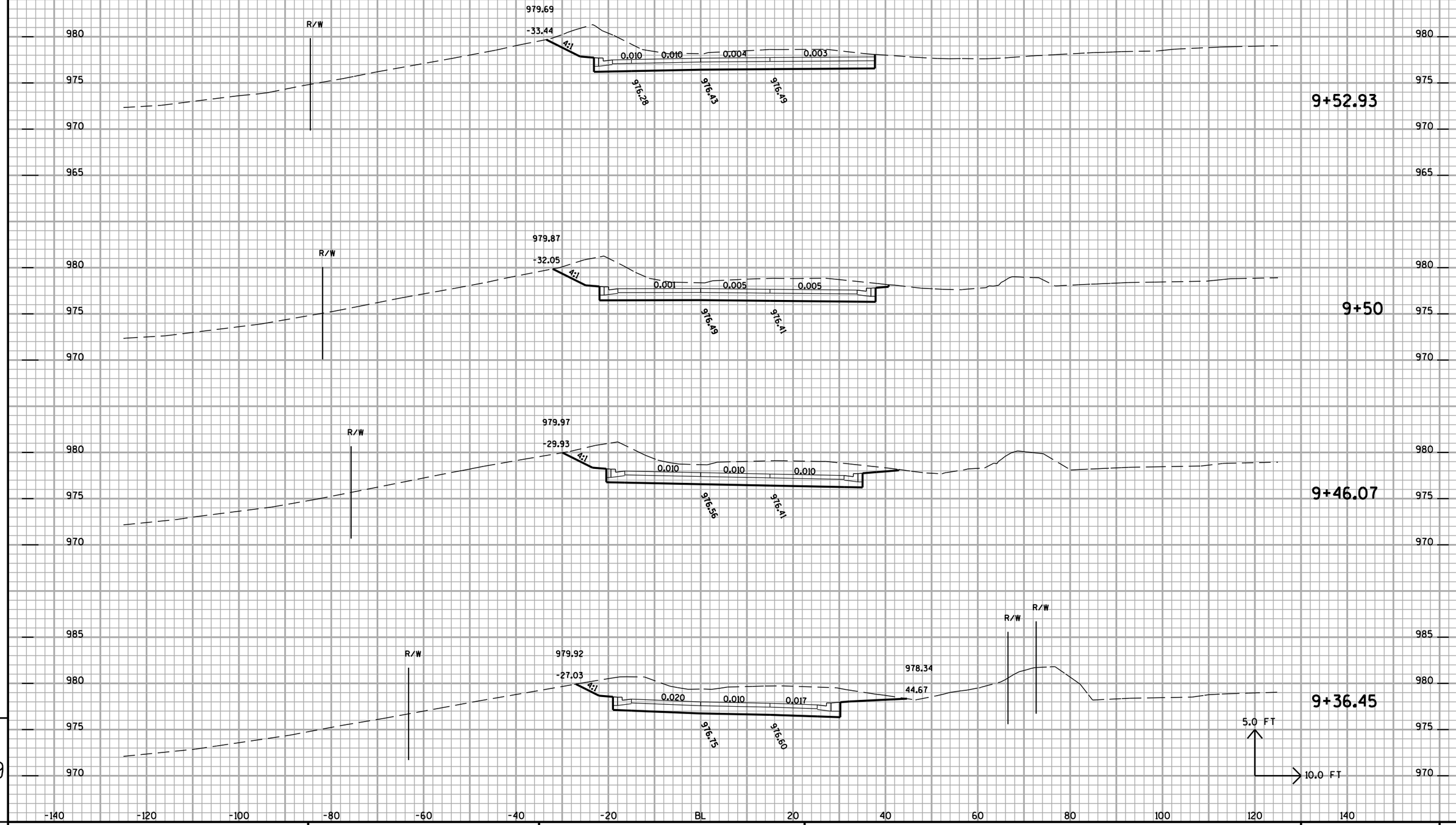


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PROJECT NO: 4060-05-70	HWY: HICKORY DRIVE	COUNTY: WASHINGTON	CROSS SECTIONS	SHEET NO: 669	E

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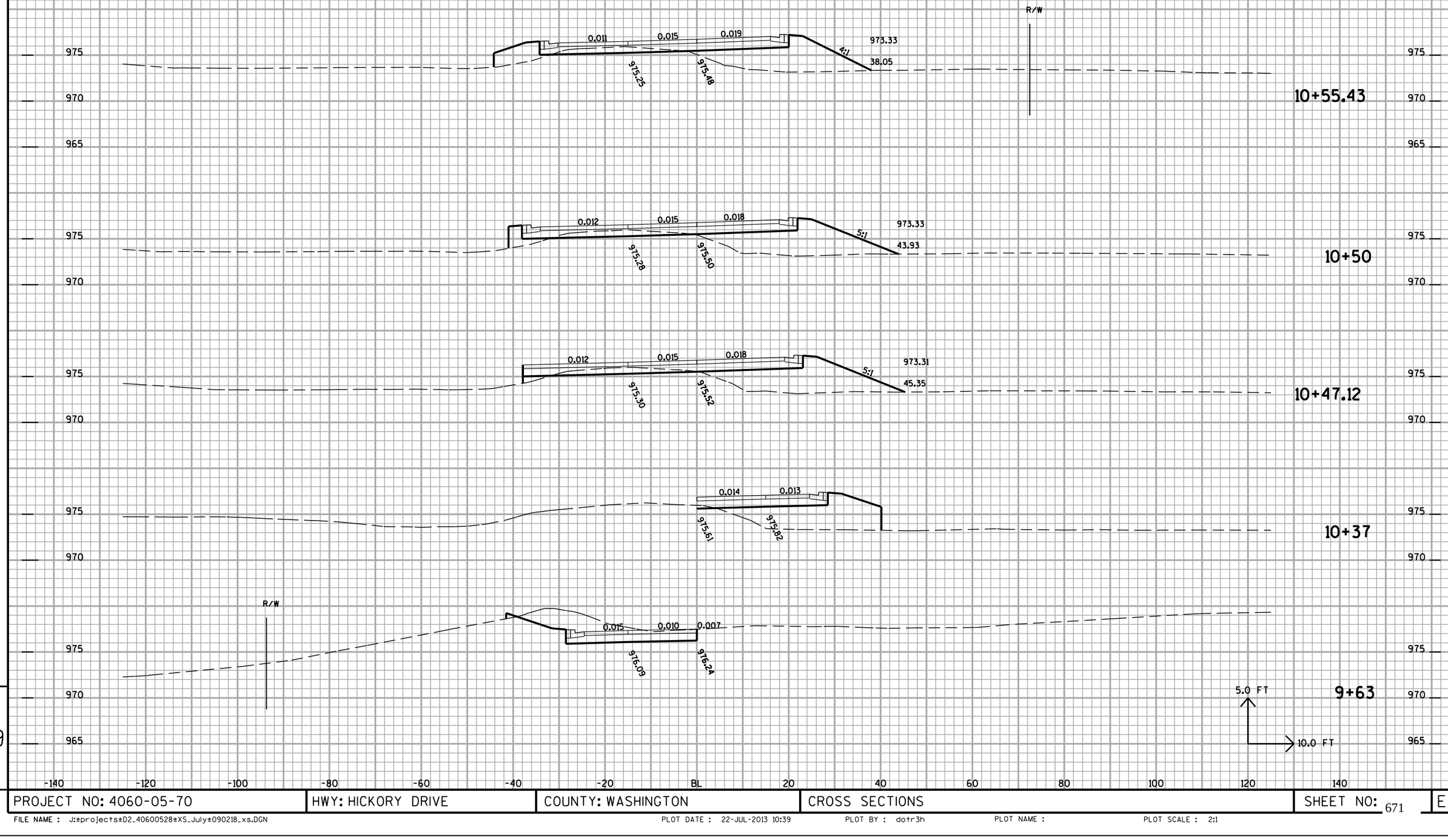


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PROJECT NO: 4060-05-70	HWY: HICKORY DRIVE	COUNTY: WASHINGTON	CROSS SECTIONS	SHEET NO: 670	E

FILE NAME : J:±projects±D2_40600528±XS_July±090218_xs.DGN PLOT DATE : 22-JUL-2013 10:39 PLOT BY : dotr3h PLOT NAME : PLOT SCALE : 2:1

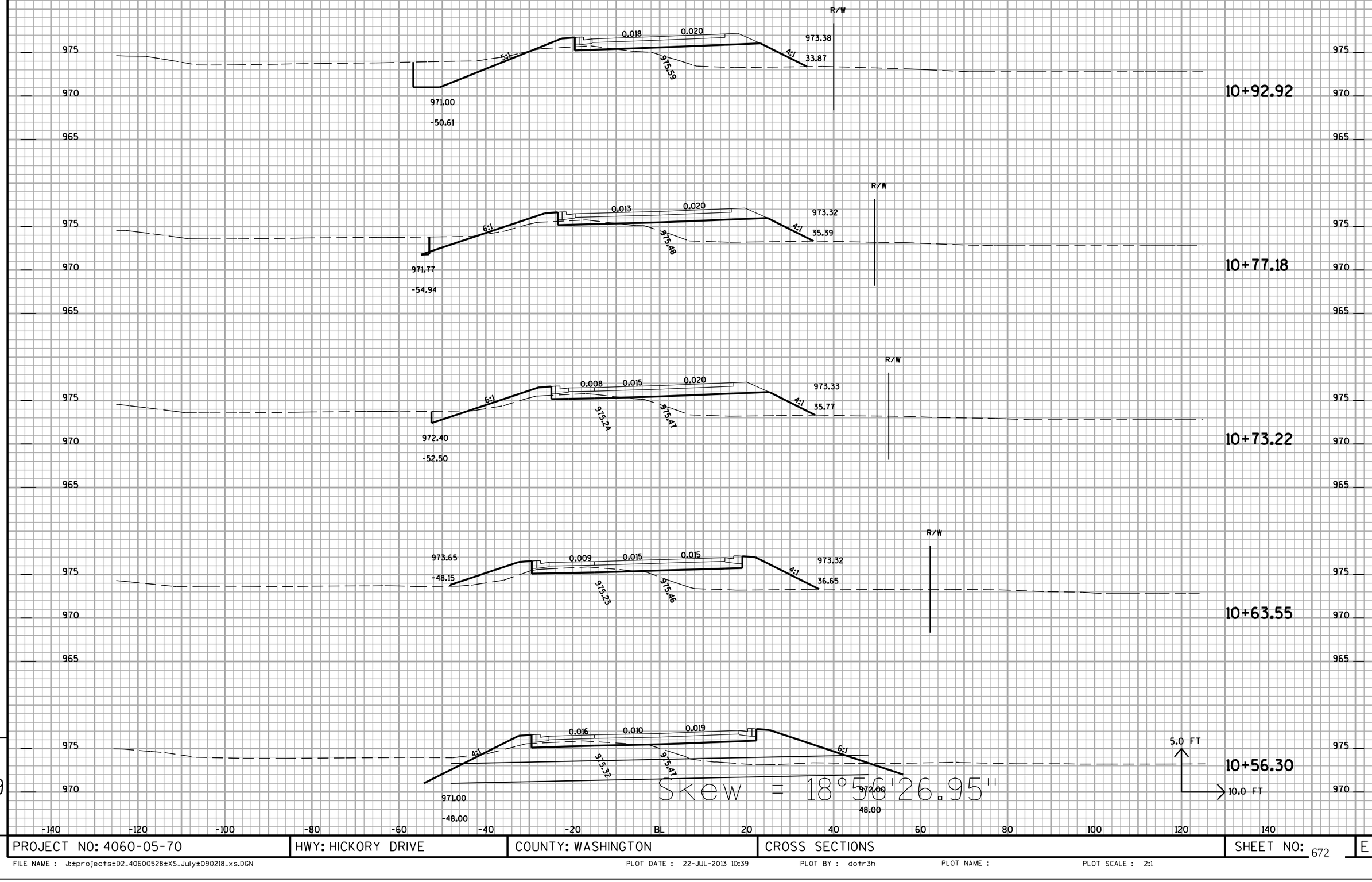


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PROJECT NO: 4060-05-70	HWY: HICKORY DRIVE	COUNTY: WASHINGTON	CROSS SECTIONS	SHEET NO: 671	E

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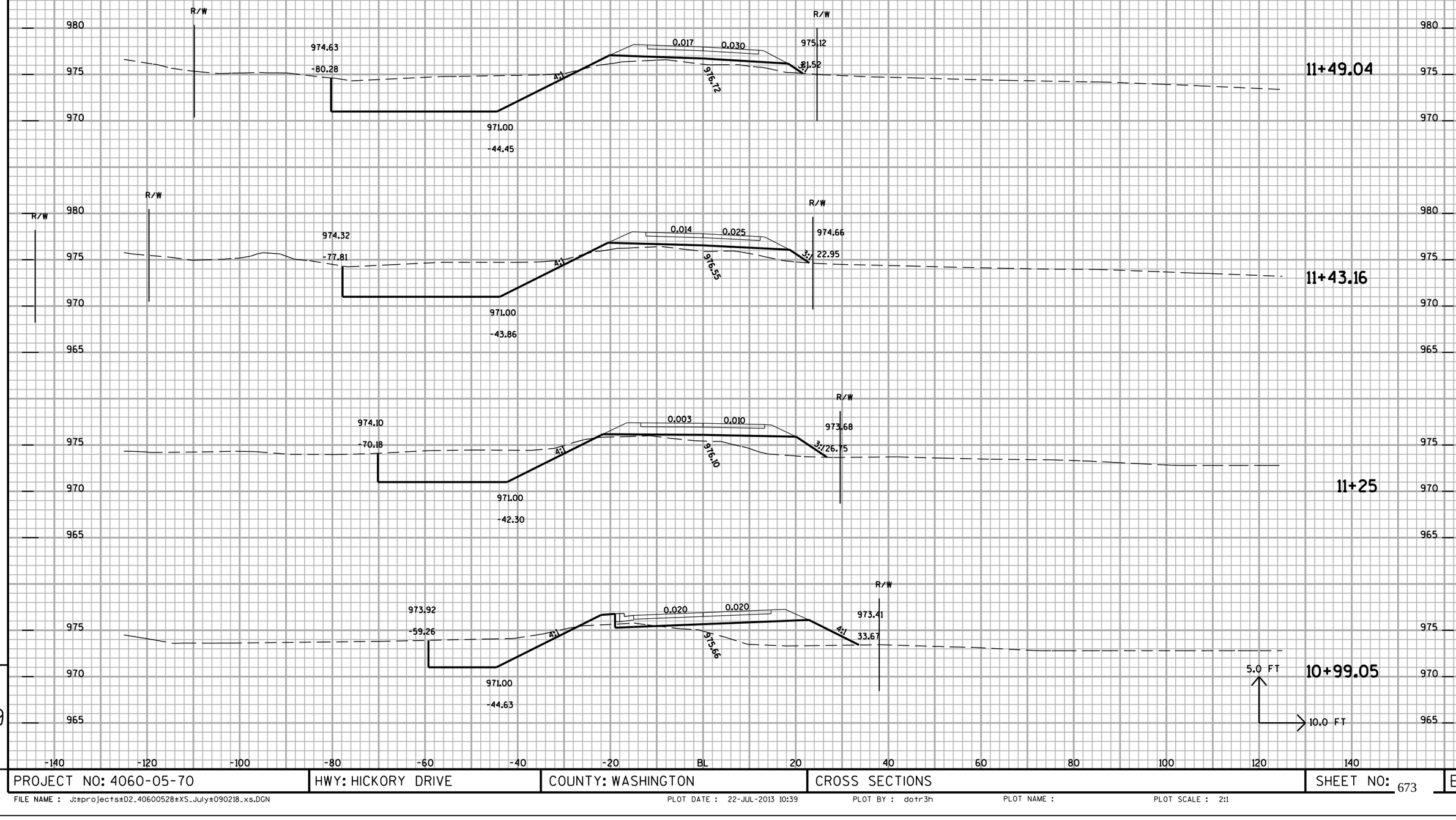


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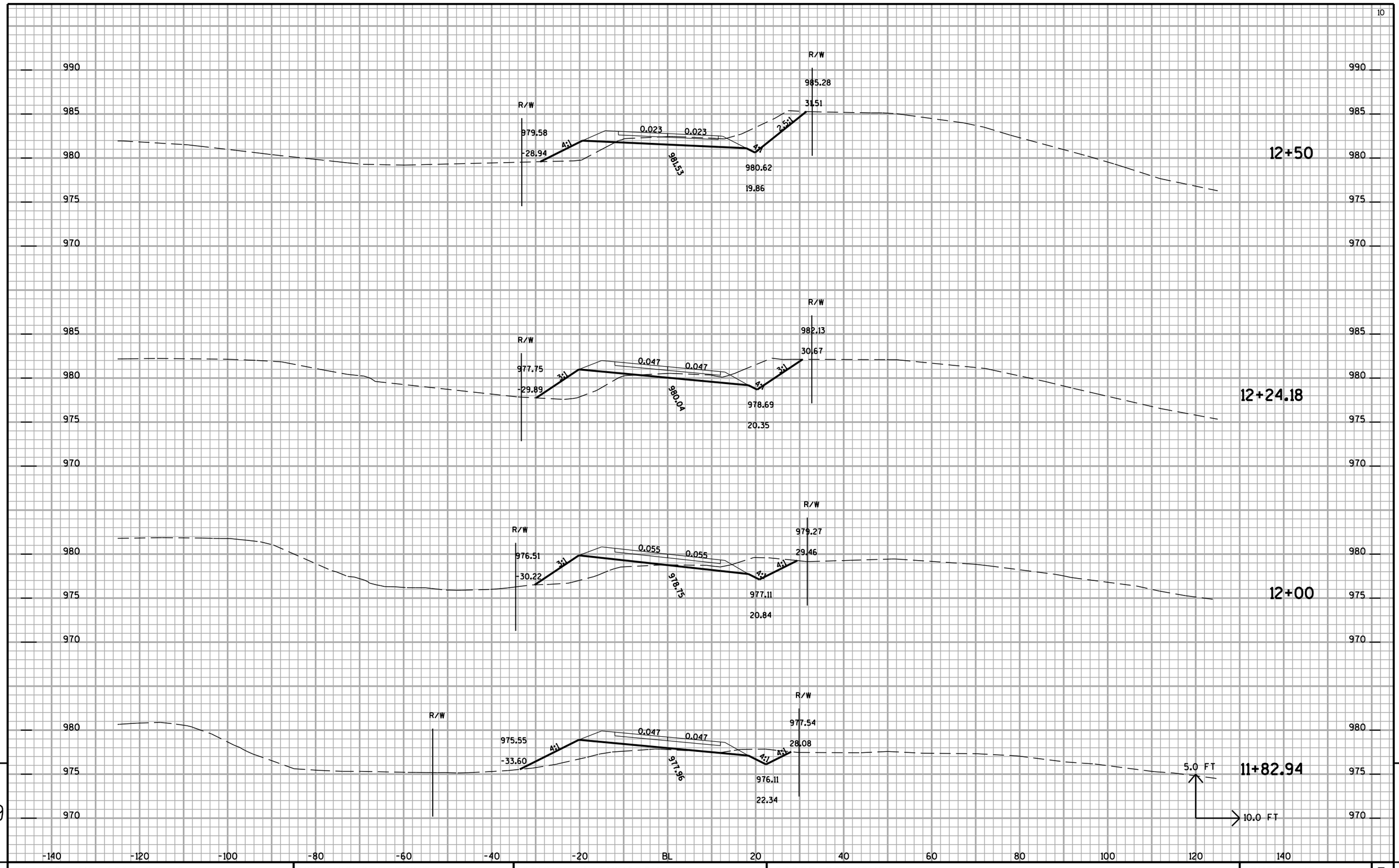
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FILE NAME : J:±projects±D2_40600528±XS_July±090218_xs.DGN PLOT DATE : 22-JUL-2013 10:39 PLOT BY : dotr3h PLOT NAME : PLOT SCALE : 2:1



PROJECT NO: 4060-05-70	HWY: HICKORY DRIVE	COUNTY: WASHINGTON	CROSS SECTIONS	SHEET NO: 673	E

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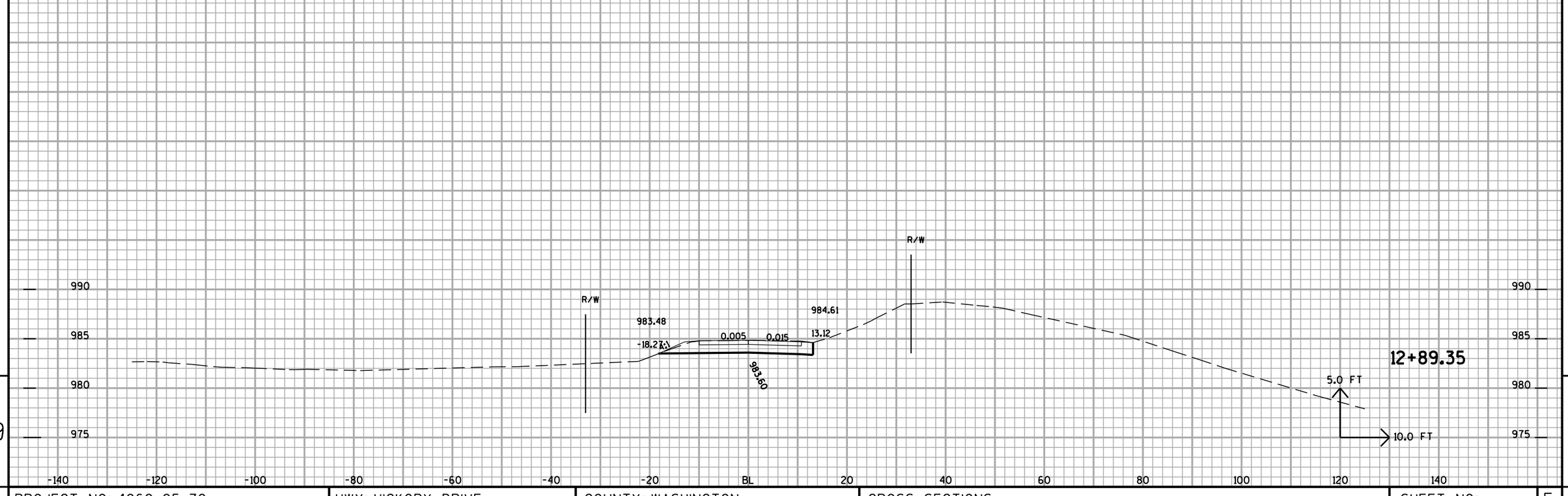


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PROJECT NO: 4060-05-70	HWY: HICKORY DRIVE	COUNTY: WASHINGTON	CROSS SECTIONS	SHEET NO: 674	E

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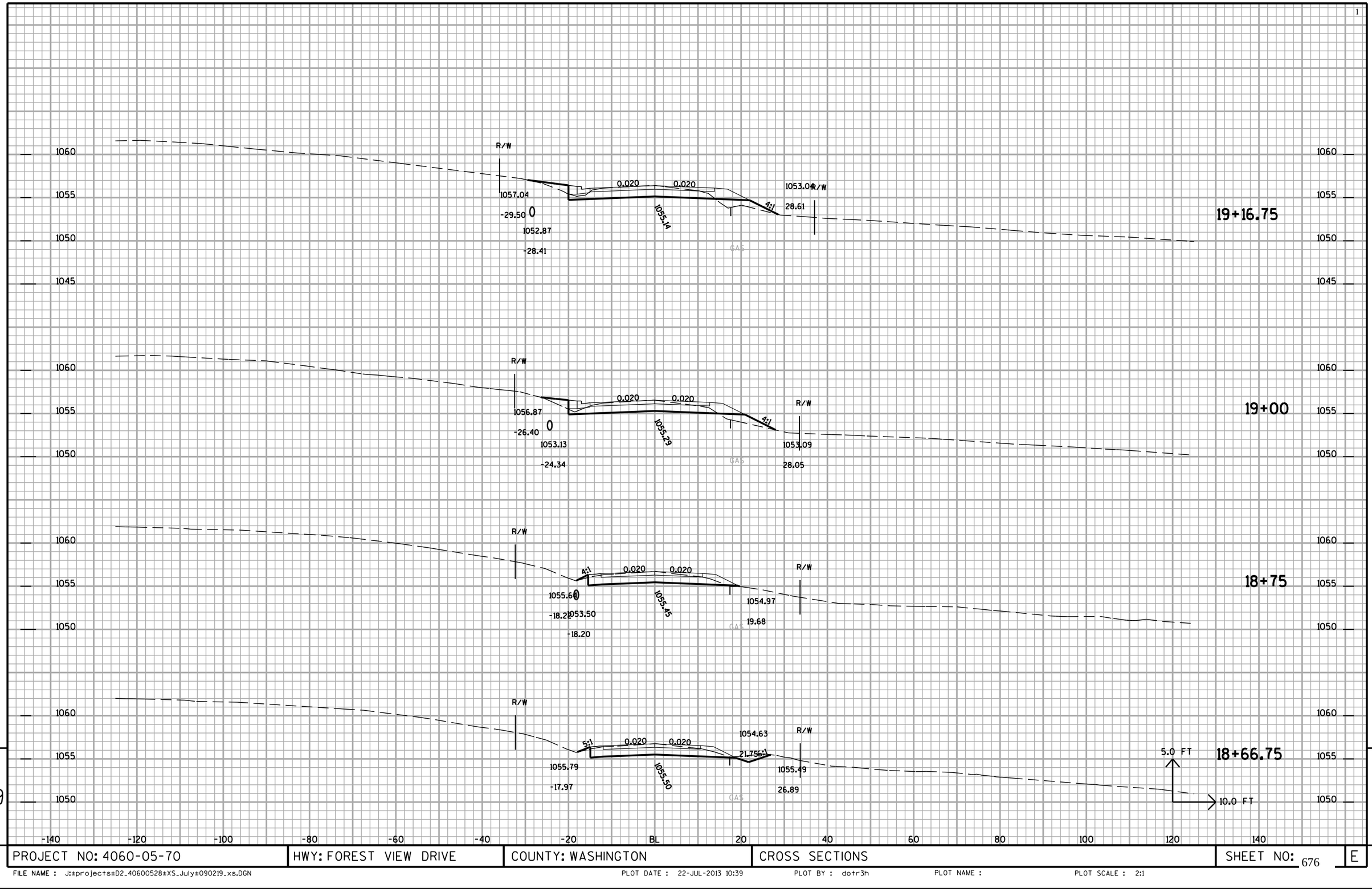


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PROJECT NO: 4060-05-70	HWY: HICKORY DRIVE	COUNTY: WASHINGTON	CROSS SECTIONS	SHEET NO: 675	E

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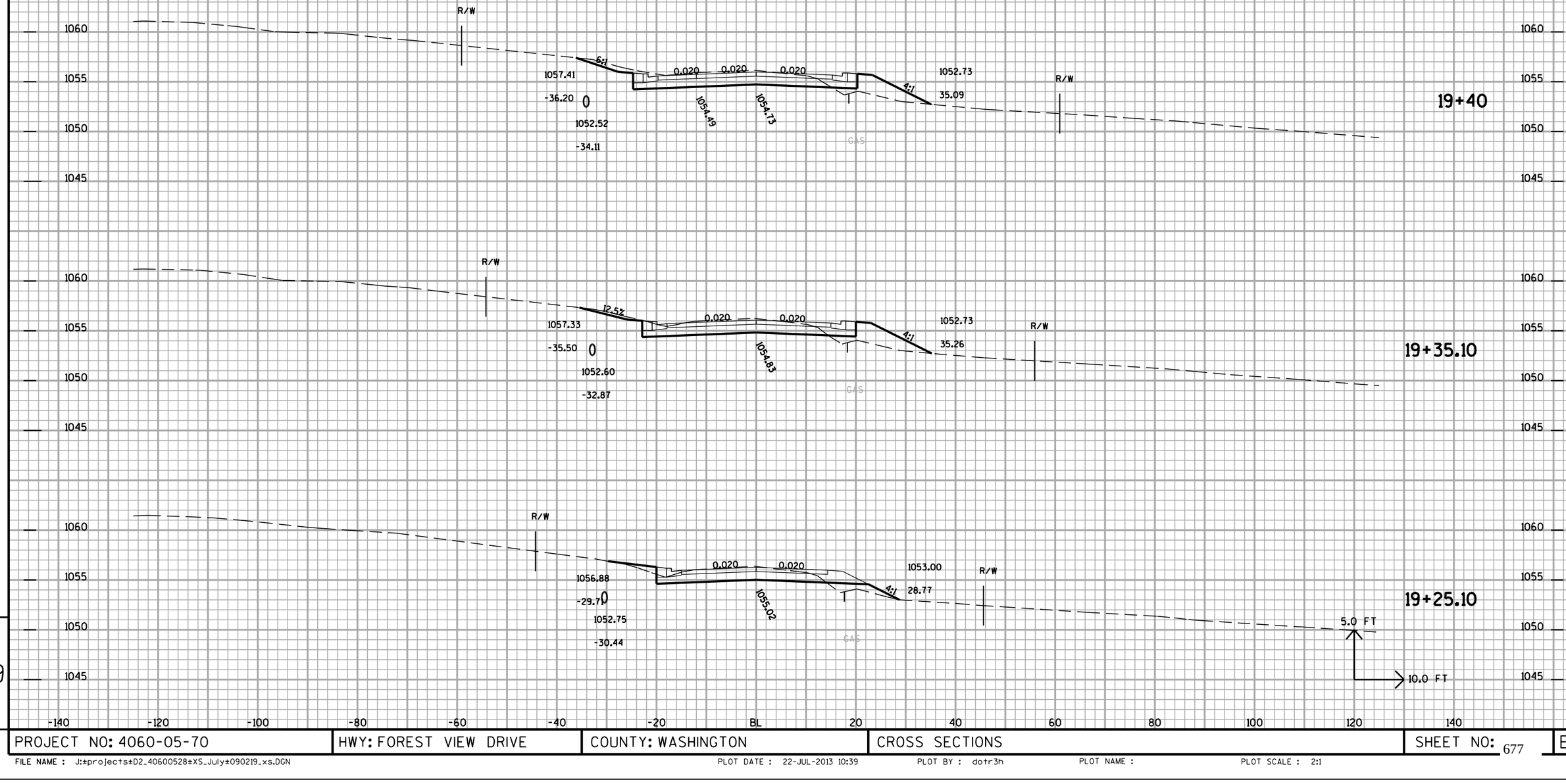


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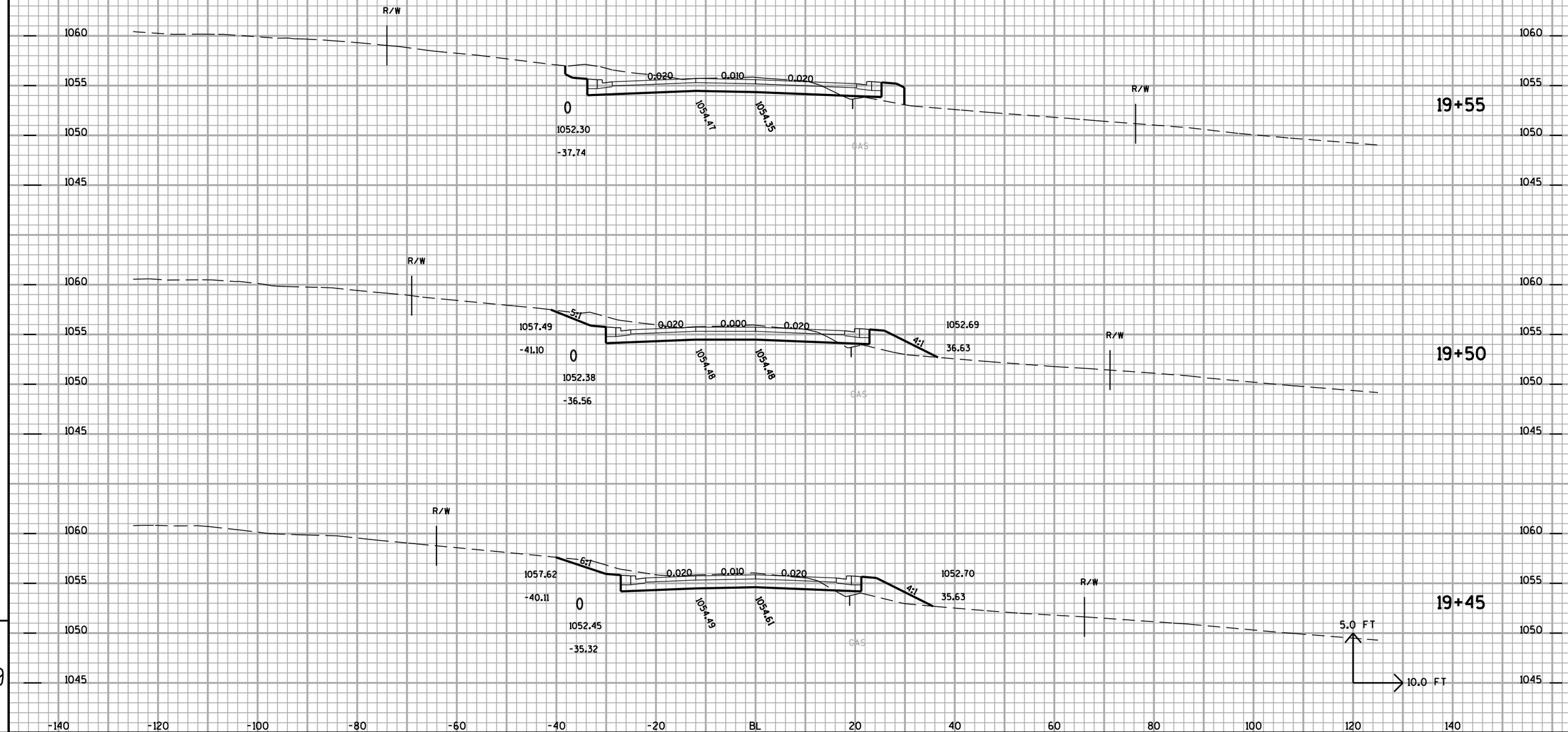
PROJECT NO: 4060-05-70	HWY: FOREST VIEW DRIVE	COUNTY: WASHINGTON	CROSS SECTIONS	SHEET NO: 676	E

FILE NAME : J:±projects±D2_40600528±XS_July±090219_xs.DGN PLOT DATE : 22-JUL-2013 10:39 PLOT BY : dotr3h PLOT NAME : PLOT SCALE : 2:1



PROJECT NO: 4060-05-70	HWY: FOREST VIEW DRIVE	COUNTY: WASHINGTON	CROSS SECTIONS	SHEET NO: 677	E

FILE NAME : J:±projects±D2_40600528±XS_July±090219_xs.DGN PLOT DATE : 22-JUL-2013 10:39 PLOT BY : dotr3h PLOT NAME : PLOT SCALE : 2:1

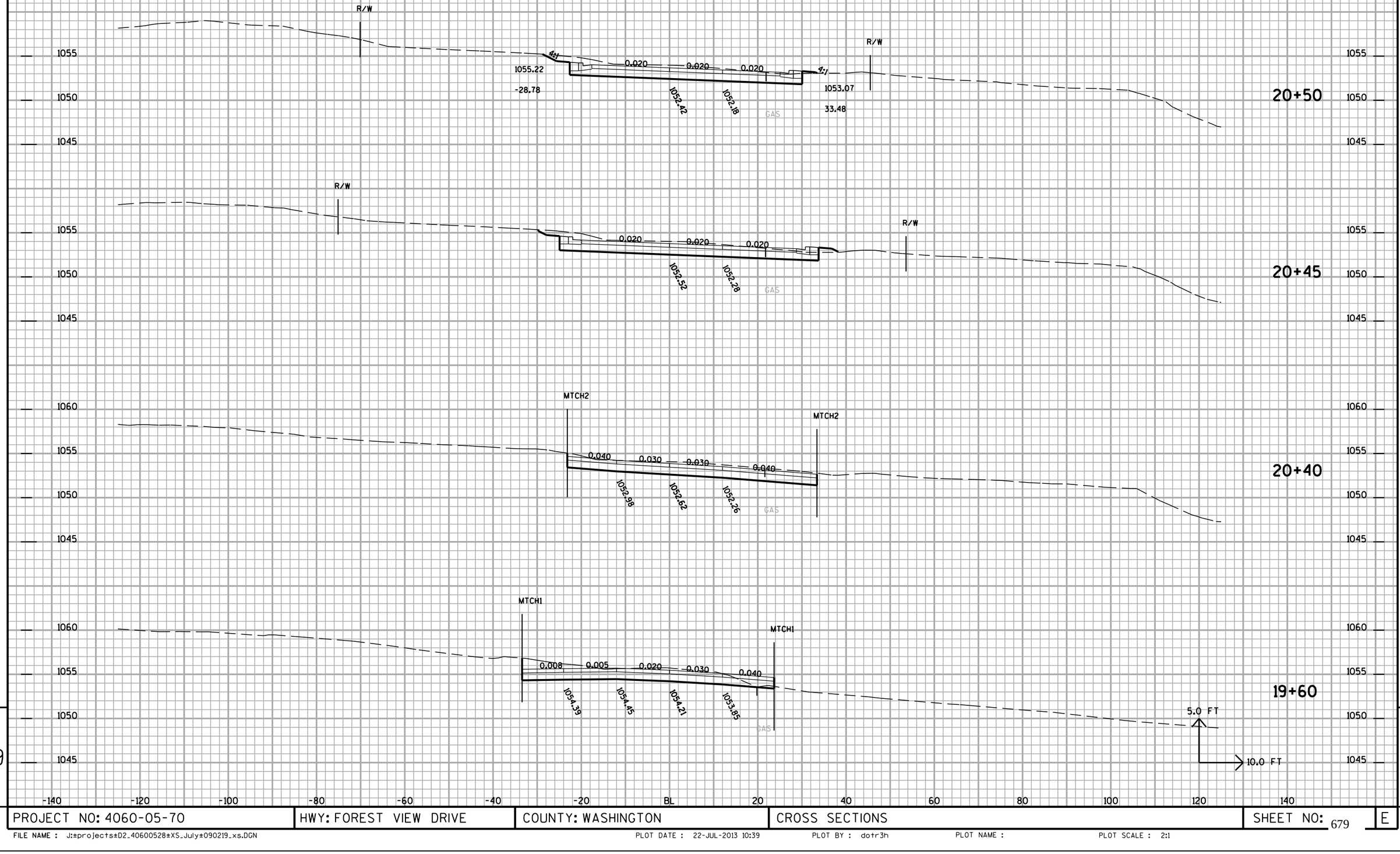


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PROJECT NO: 4060-05-70	HWY: FOREST VIEW DRIVE	COUNTY: WASHINGTON	CROSS SECTIONS	SHEET NO: 678	E

FILE NAME : J:±projects±D2_40600528±XS_July±090219_xs.DGN PLOT DATE : 22-JUL-2013 10:39 PLOT BY : dotr3h PLOT NAME : PLOT SCALE : 2:1

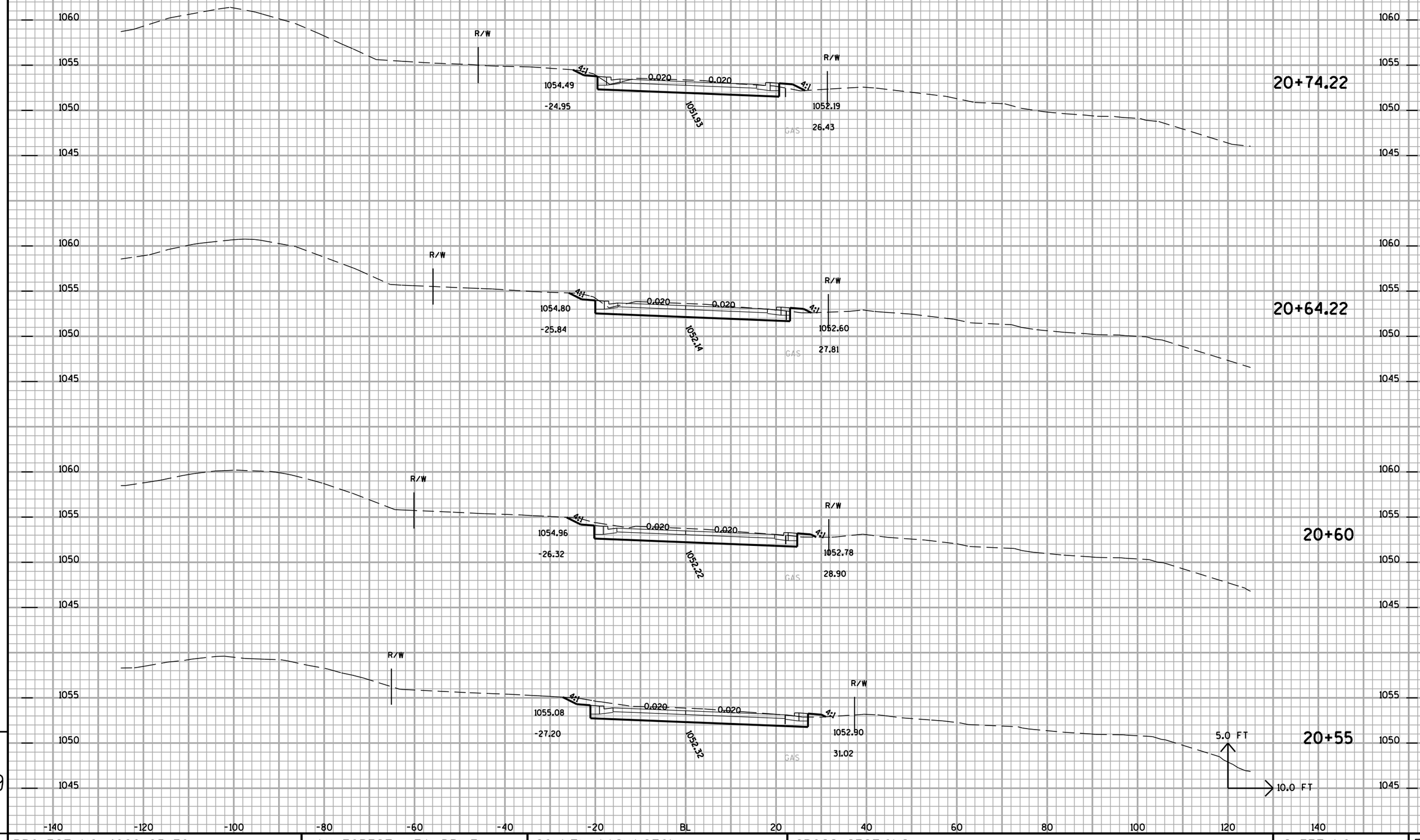


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PROJECT NO: 4060-05-70	HWY: FOREST VIEW DRIVE	COUNTY: WASHINGTON	CROSS SECTIONS	SHEET NO: 679	E

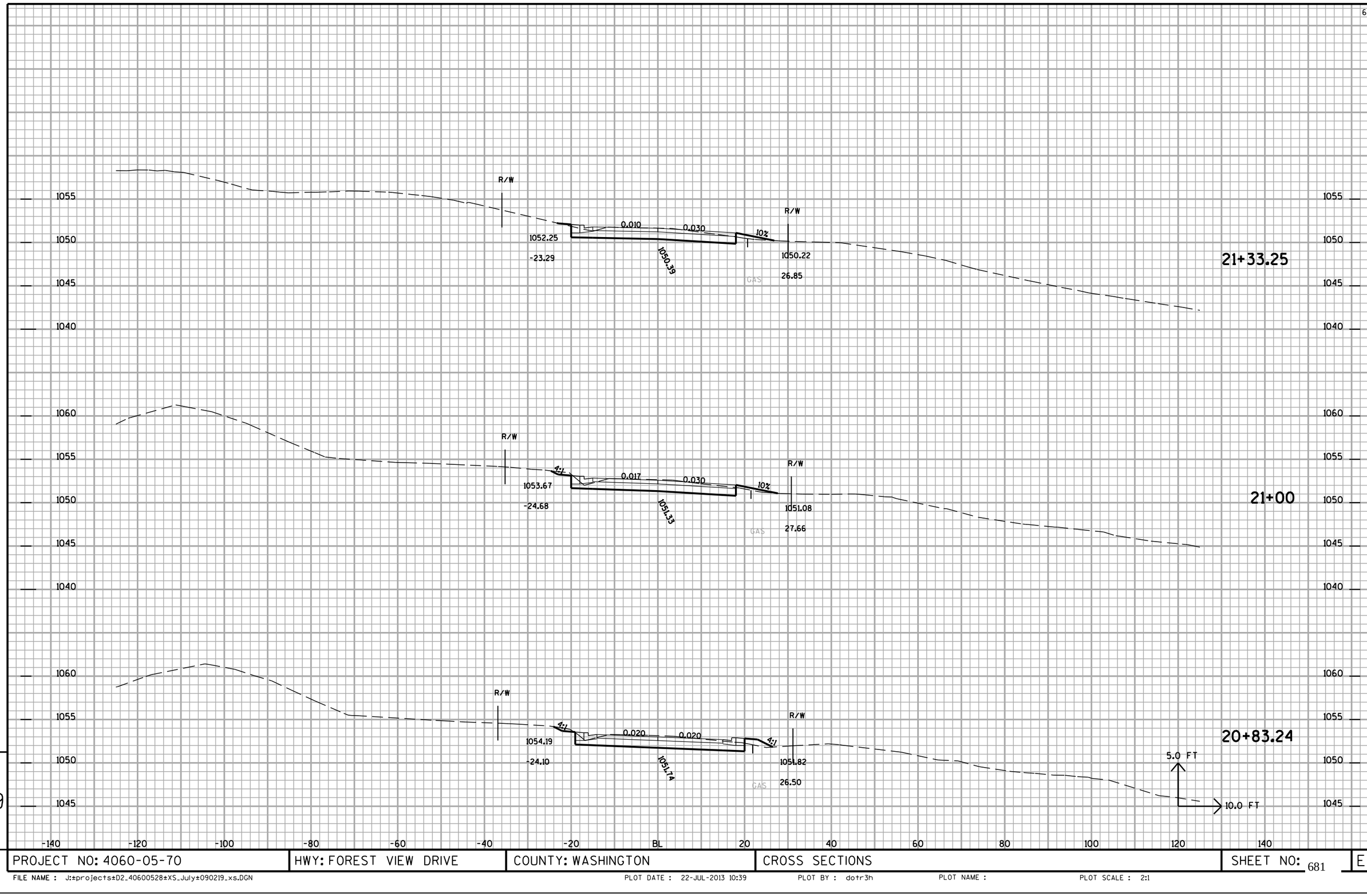
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PROJECT NO: 4060-05-70	HWY: FOREST VIEW DRIVE	COUNTY: WASHINGTON	CROSS SECTIONS	SHEET NO: 680	E

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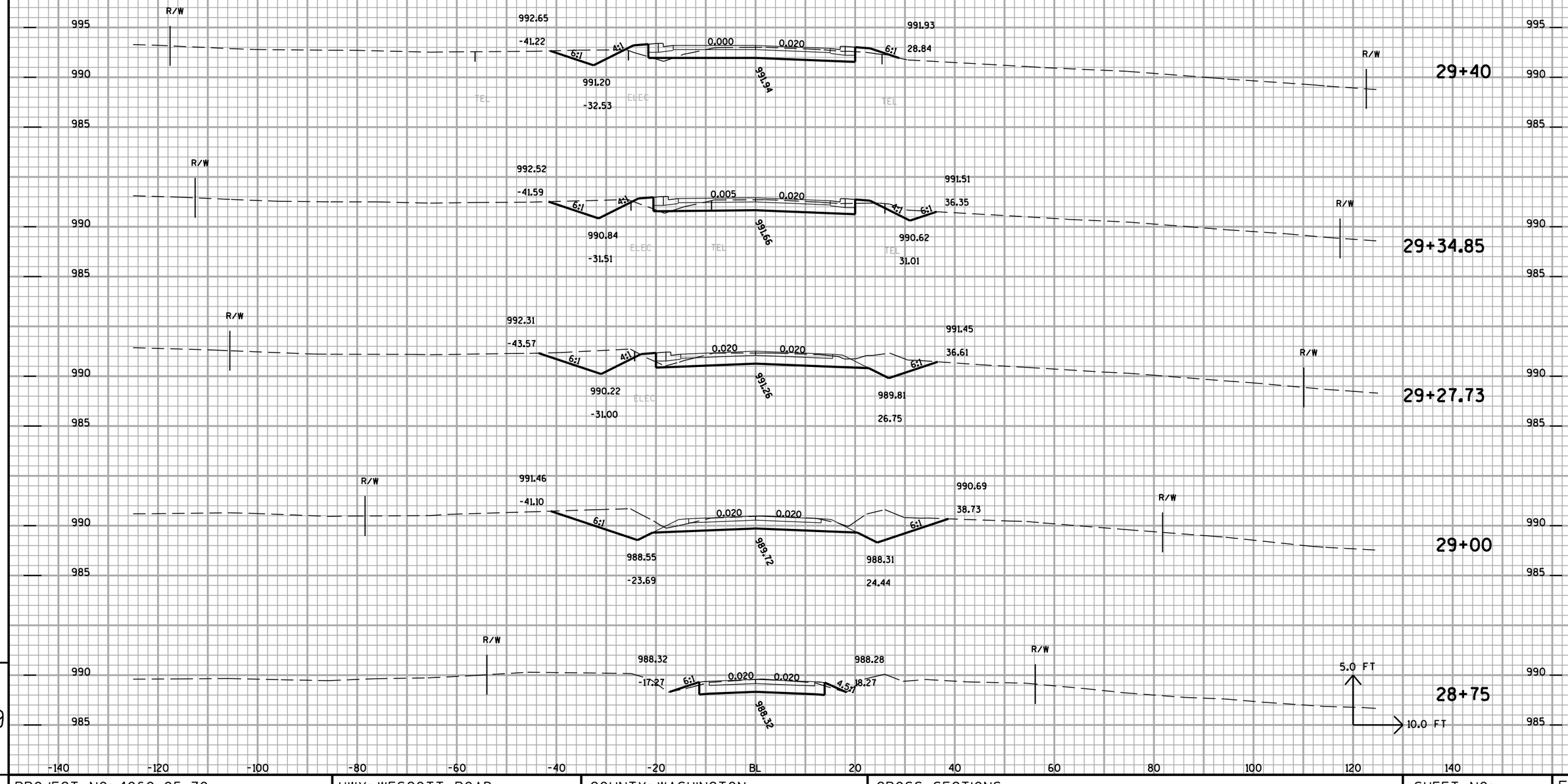


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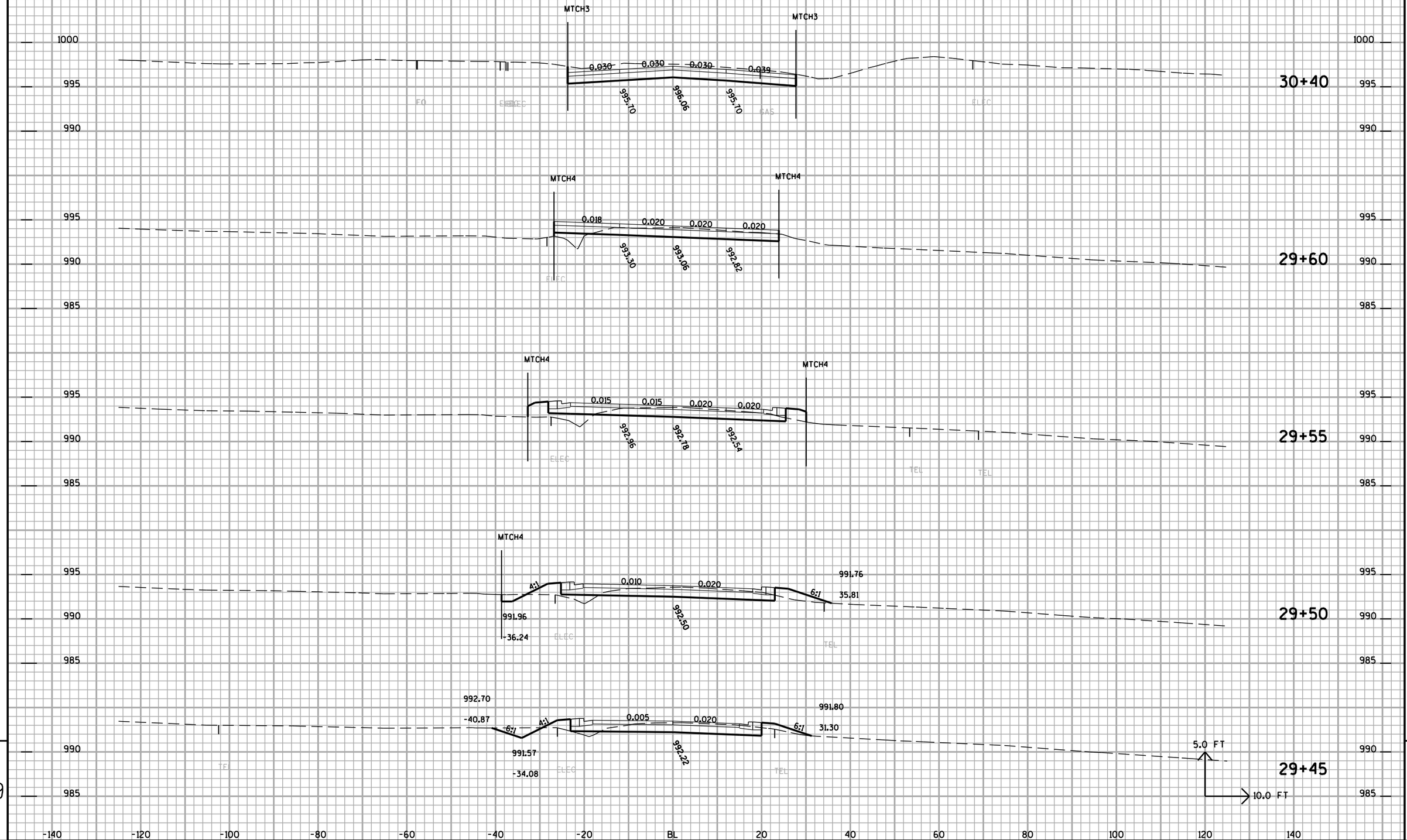
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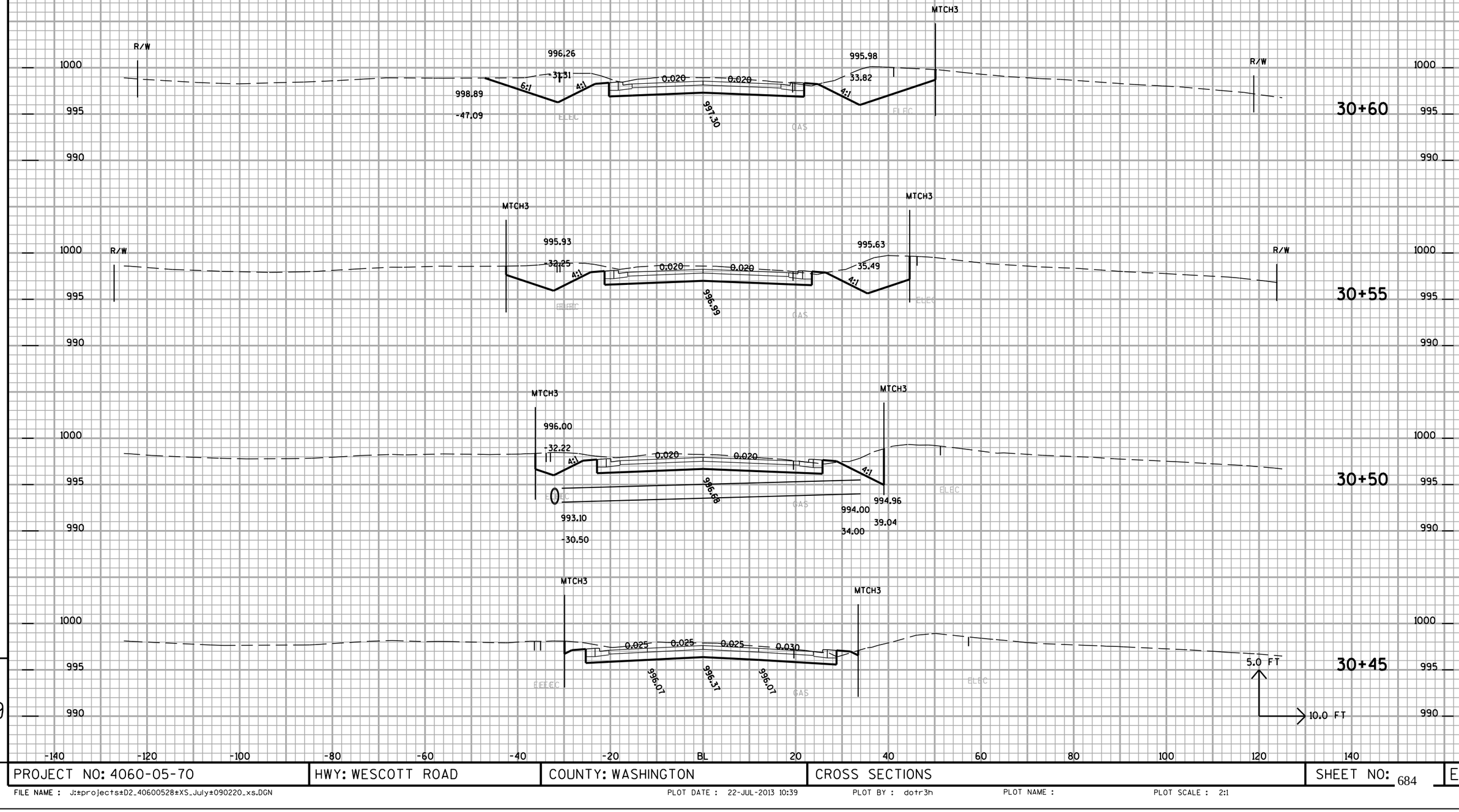
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FILE NAME : J:±projects±D2_40600528±XS_July±090220_xs.DGN PLOT DATE : 22-JUL-2013 10:39 PLOT BY : dotr3h PLOT NAME : PLOT SCALE : 2:1



PROJECT NO: 4060-05-70	HWY: WESCOTT ROAD	COUNTY: WASHINGTON	CROSS SECTIONS	SHEET NO: 683 E

FILE NAME : J:±projects±D2_40600528±XS_July±090220_xs.DGN PLOT DATE : 22-JUL-2013 10:39 PLOT BY : dotr3h PLOT NAME : PLOT SCALE : 2:1

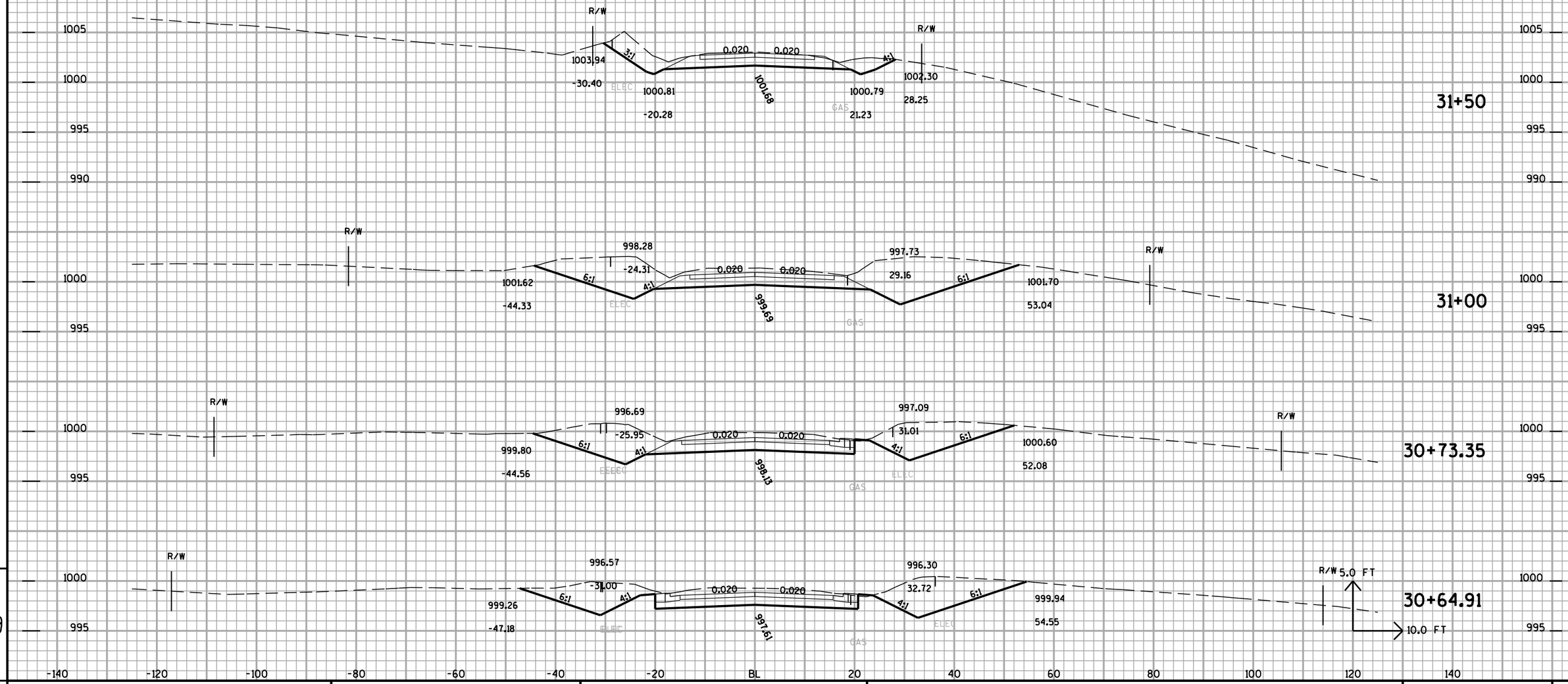


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PROJECT NO: 4060-05-70	HWY: WESCOTT ROAD	COUNTY: WASHINGTON	CROSS SECTIONS	SHEET NO: 684	E

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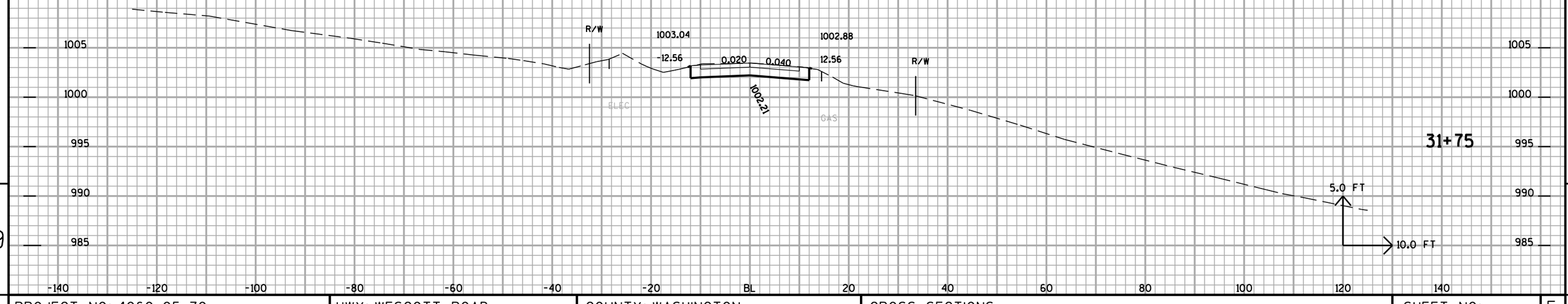


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PROJECT NO: 4060-05-70	HWY: WESCOTT ROAD	COUNTY: WASHINGTON	CROSS SECTIONS	SHEET NO: 685	E

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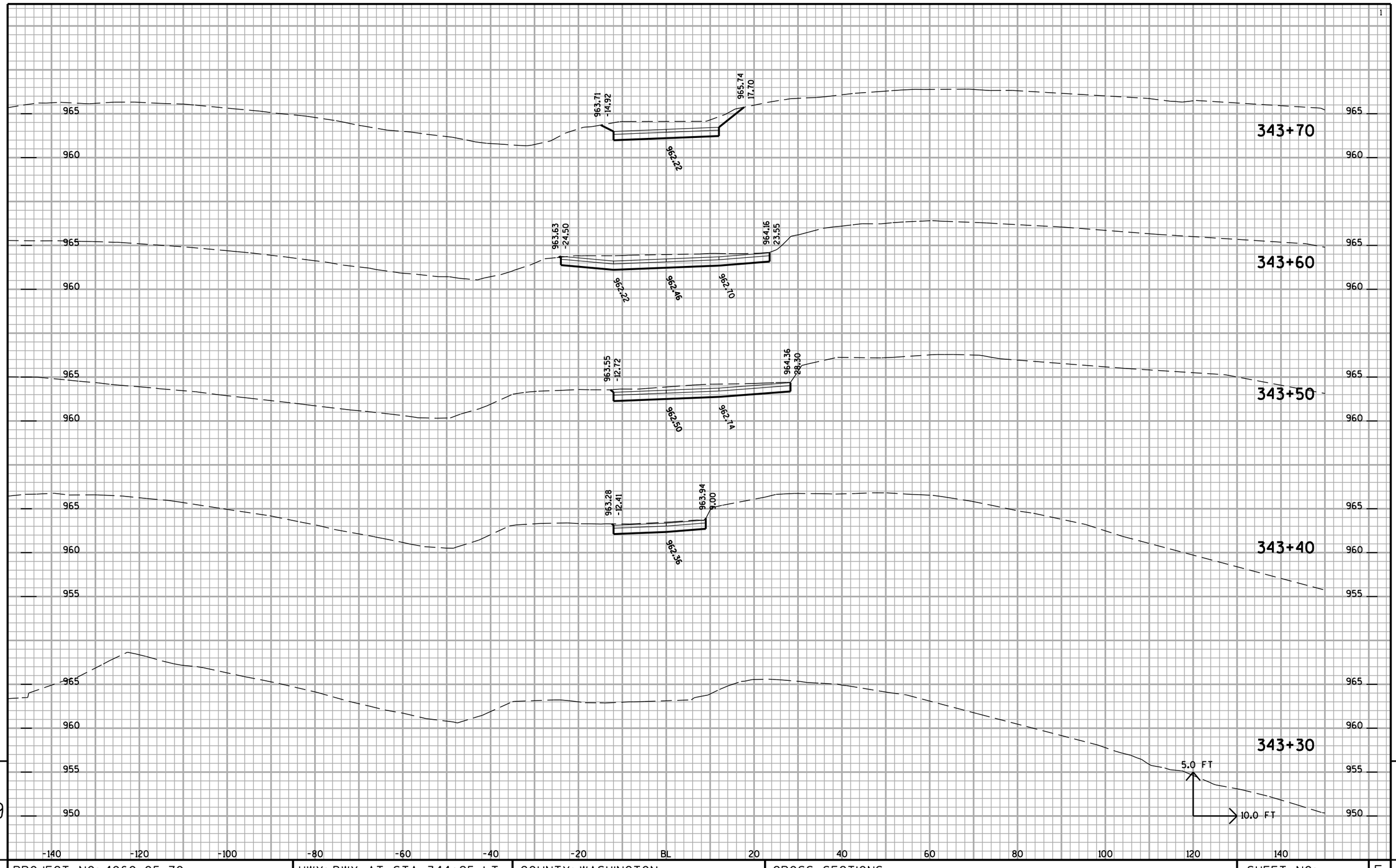


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PROJECT NO: 4060-05-70	HWY: WESCOTT ROAD	COUNTY: WASHINGTON	CROSS SECTIONS	SHEET NO: 686	E

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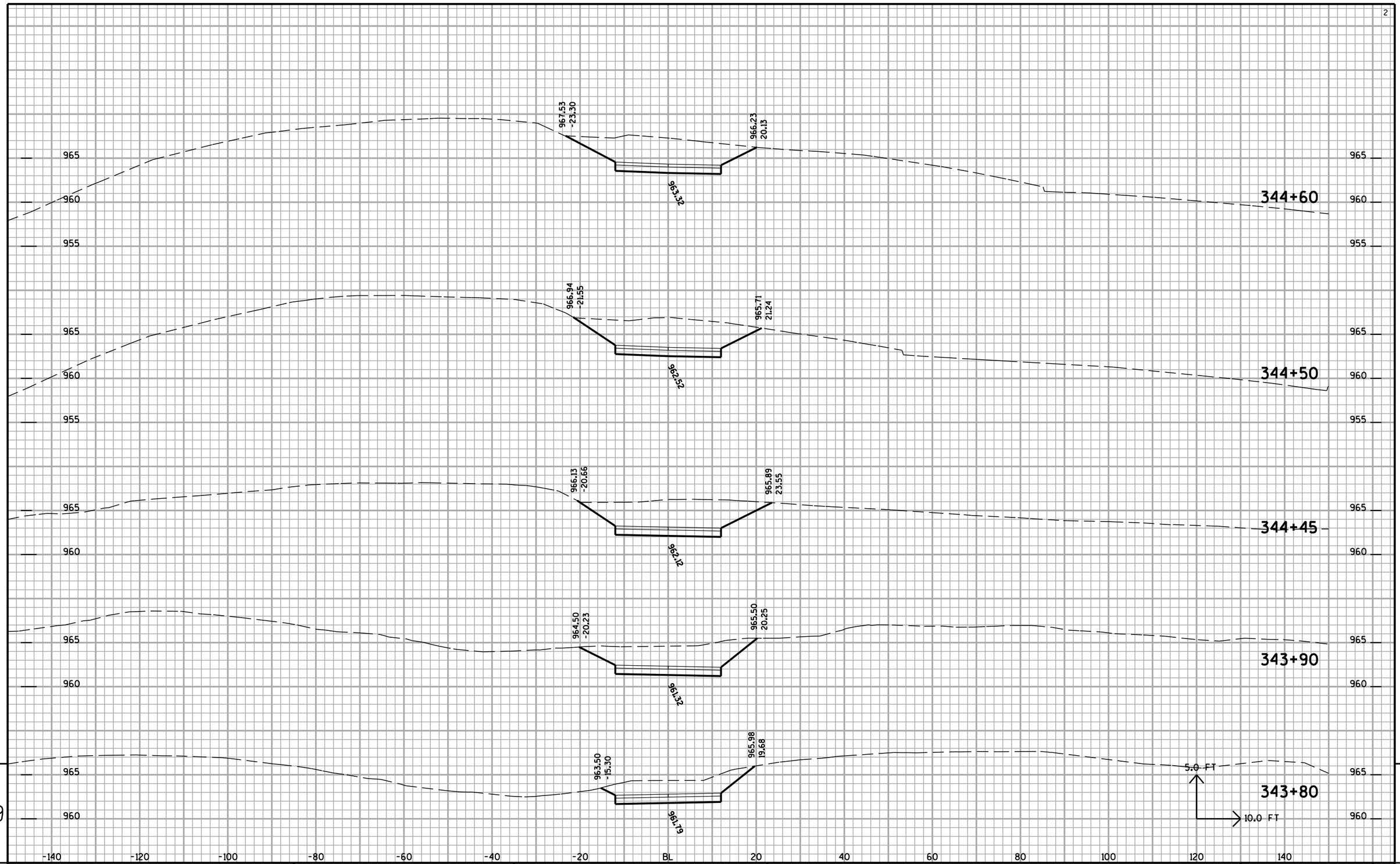


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9

PROJECT NO: 4060-05-70	HWY: DWY AT STA 344+25 LT	COUNTY: WASHINGTON	CROSS SECTIONS	SHEET NO: 687	E

FILE NAME : J:±projects±D2_40600528±XS_July±090221_xs.DGN PLOT DATE : 22-JUL-2013 10:40 PLOT BY : dotr3h PLOT NAME : PLOT SCALE : 2:1

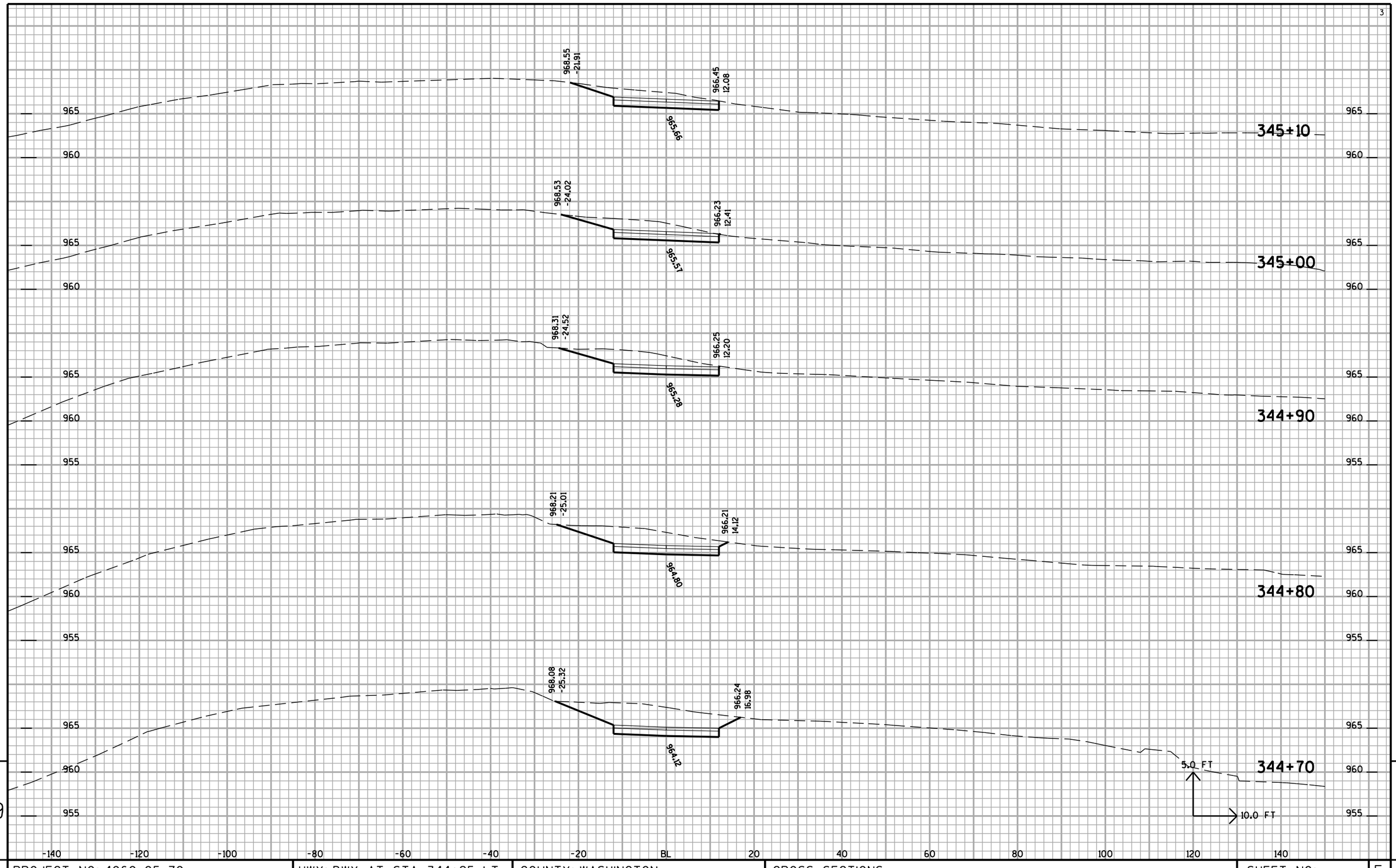


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9

PROJECT NO: 4060-05-70	HWY: DWY AT STA 344+25 LT	COUNTY: WASHINGTON	CROSS SECTIONS	SHEET NO: 688	E

FILE NAME : J:±projects±D2_40600528±XS_July±090221_xs.DGN PLOT DATE : 22-JUL-2013 10:40 PLOT BY : dotr3h PLOT NAME : PLOT SCALE : 2:1



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9

PROJECT NO: 4060-05-70	HWY: DWY AT STA 344+25 LT	COUNTY: WASHINGTON	CROSS SECTIONS	SHEET NO: 689	E

FILE NAME : J:±projects±D2_40600528±XS_July±090221_xs.DGN PLOT DATE : 22-JUL-2013 10:40 PLOT BY : dotr3h PLOT NAME : PLOT SCALE : 2:1

345+50

345+40

345+30

345+20

965
960
955

968.17
-18.92
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12.18
965.68

968.54
-21.71
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12.01
965.67

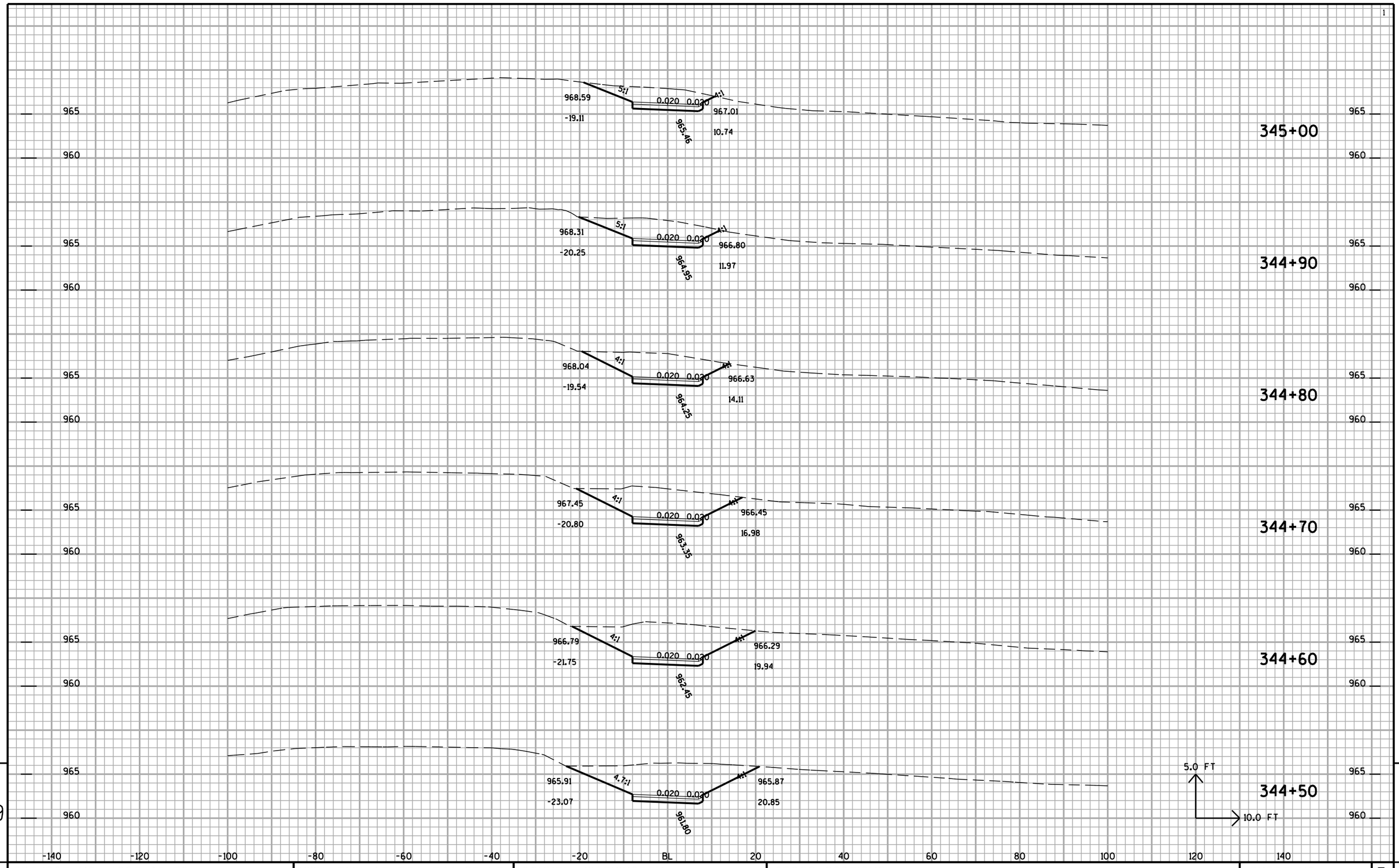
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10.0 FT

-140 -120 -100 -80 -60 -40 -20 BL 20 40 60 80 100 120 140

9

PROJECT NO: 4060-05-70	HWY: DWY AT STA 344+25 LT	COUNTY: WASHINGTON	CROSS SECTIONS	SHEET NO: 690	E

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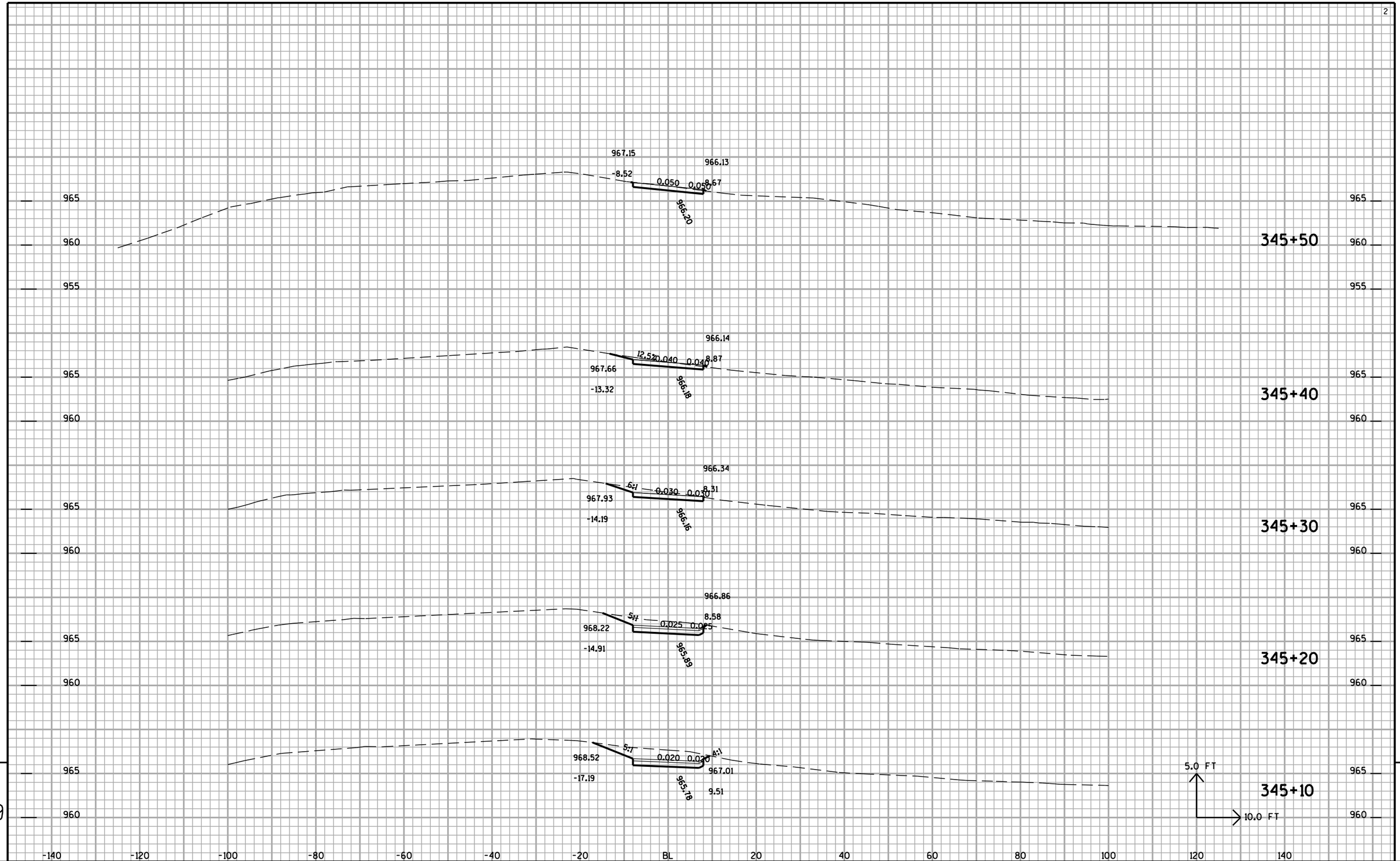


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PROJECT NO: 4060-05-70	HWY: DWY AT STA 344+25 LT	COUNTY: WASHINGTON	CROSS SECTIONS	SHEET NO: 691	E

FILE NAME : J:±projects±D2_40600528±XS_July±090222_xs.DGN PLOT DATE : 22-JUL-2013 10:40 PLOT BY : dotr3h PLOT NAME : PLOT SCALE : 2:1

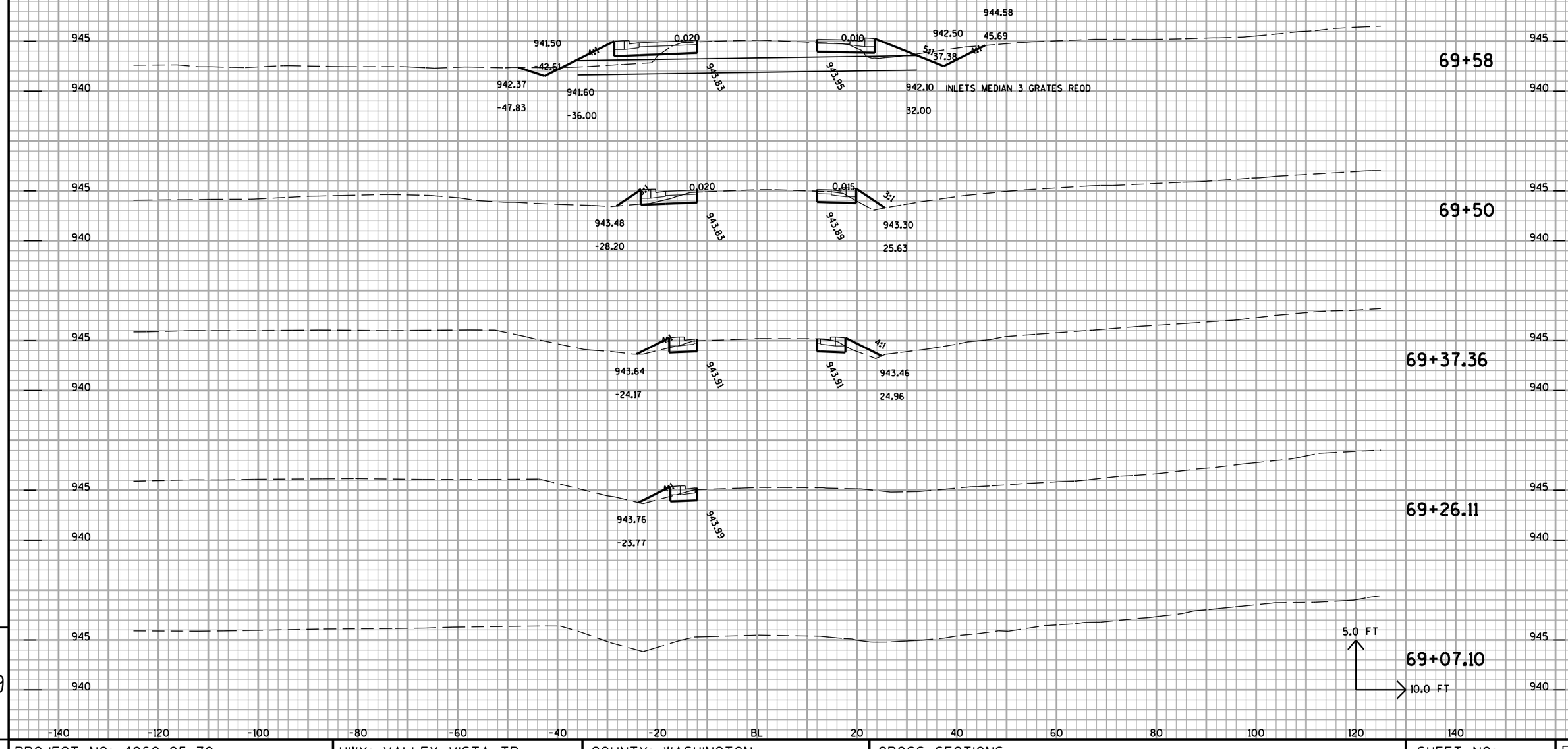


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PROJECT NO: 4060-05-70	HWY: DWY AT STA 344+25 LT	COUNTY: WASHINGTON	CROSS SECTIONS	SHEET NO: 692	E

FILE NAME : J:±projects±D2_40600528±XS_July±090222_xs.DGN PLOT DATE : 22-JUL-2013 10:40 PLOT BY : dotr3h PLOT NAME : PLOT SCALE : 2:1



PROJECT NO: 4060-05-70	HWY: VALLEY VISTA TR.	COUNTY: WASHINGTON	CROSS SECTIONS	SHEET NO: 693	E

FILE NAME : J:±projects±D2_40600528±XS_July±090223_xs.DGN PLOT DATE : 22-JUL-2013 10:40 PLOT BY : dotr3h PLOT NAME : PLOT SCALE : 2:1

Wisconsin Department of Transportation

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WKE

DEC 2013

PROJECT ID: 4060-05-71

WITH: 4060-05-70

ORDER OF SHEETS

SECTION NO.	1	TITLE
SECTION NO.	2	TYPICAL SECTIONS AND DETAILS
SECTION NO.	3	ESTIMATE OF QUANTITIES
SECTION NO.	3	MISCELLANEOUS QUANTITIES
~~SECTION NO.~~	~~4~~	~~RIGHT OF WAY PLAT~~
SECTION NO.	5	PLAN AND PROFILE
~~SECTION NO.~~	~~6~~	~~STANDARD DETAIL DRAWINGS~~
~~SECTION NO.~~	~~7~~	~~SIGN PLATES~~
~~SECTION NO.~~	~~8~~	~~STRUCTURE PLANS~~
~~SECTION NO.~~	~~9~~	~~COMPUTER EARTHWORK DATA~~
~~SECTION NO.~~	~~9~~	~~CROSS SECTIONS~~

TOTAL SHEETS = 38



14

N

COUNTY: WASHINGTON

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

PLAN OF PROPOSED IMPROVEMENT

MAIN STREET, VILLAGE OF KEWASKUM

USH 45 TO STH 144

STH 28

WASHINGTON COUNTY

STATE PROJECT NUMBER

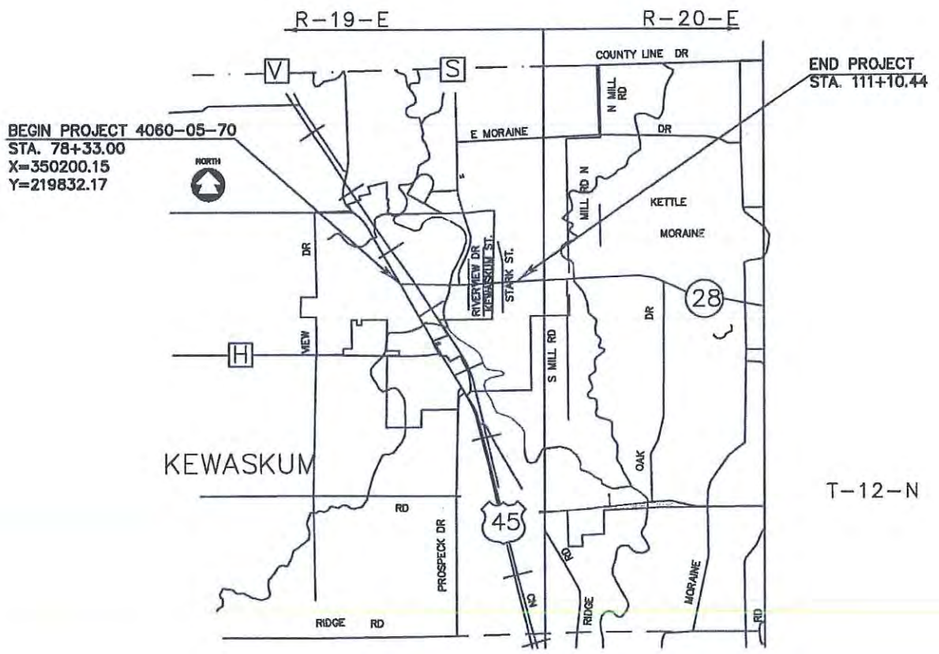
4060-05-71

STATE PROJECT	FEDERAL PROJECT	
	PROJECT	CONTRACT
4060-05-71		

ACCEPTED FOR
VILLAGE of KEWASKUM

8/7/13 DATE — Mark Allen, Village Administrator SIGNATURE & TITLE OF OFFICIAL

8/7/13 DATE — Gary Tollefson, Director P.W. SIGNATURE & TITLE OF OFFICIAL



BEGIN PROJECT 4060-05-70
STA. 78+33.00
X=350200.15
Y=219832.17

END PROJECT
STA. 111+10.44

T-12-N

LAYOUT
SCALE 0 5 MI.

TOTAL NET LENGTH OF CENTERLINE = 0.62 MI.

CONTACT
MICK MAGALSKI, MCMAHON,
WITH UTILITY RELOCATION
QUESTIONS 920-751-4200

COORDINATES ON THIS PLAN ARE REFERENCED TO THE WISCONSIN COUNTY COORDINATE SYSTEM (WCCS), NAD 83 (97) WASHINGTON COUNTY

ELEVATIONS SHOWN ON THIS PLAN ARE REFERENCED TO THE NORTH AMERICAN VERTICAL DATUM OF 1988 NAVD88 (91).

ORIGINAL PLANS PREPARED BY
McMAHON ENGINEERS ARCHITECTS

WISCONSIN
BRAD D. WERNER
E-27972
KAUKAUNA
WIS.
PROFESSIONAL ENGINEER

7-30-13 DATE — SIGNATURE

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

PREPARED BY

Surveyor	
Designer	R.O.W. (McMAHON)
Project Manager	P.M.M. (McMAHON)
Regional Examiner	
Regional Supervisor	
C.O. Examiner	

APPROVED FOR THE DEPARTMENT
DATE: 8/7/13 (Signature)

E

DESIGN DESIGNATION

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

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		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	

FILE NAME : $$....designfile....$$ PLOT DATE : $$...plottingdate...$$ PLOT BY : $$...plotuser...$$ PLOT NAME : _____ PLOT SCALE : $$.....plotscale.....$$

WISDOT/CADDS SHEET 10

2

NORTH

USH 45

RAILROAD ST

PROSPECT ST

S.T.H. 28 / MAIN STREET

PARK VIEW DR

MILWAUKEE RIVER

CTH S

STA. 100+00

RIVERVIEW DR

KEWASKUM ST

STARK ST

CARROLL ST

BEGIN PROJECT 4060-05-71
(SANITARY SEWER AND WATER
MAIN PROJECT)
STA. 78+33

STRUCTURE
B-66-184

END PROJECT 4060-05-71
(SANITARY SEWER AND WATER
MAIN PROJECT)
STA. 111+10.44

VILLAGE OF KEWASKUM

PROJECT NO: 4060-05-71	HWY: STH_28	COUNTY: WASHINGTON	SANITARY_SEWER_&_WATER_MAIN_PROJECT_OVERVIEW	SHEET 2 E

UTILITIES

1 Mr. Dan Sande, Project Manager
We Energies (Electric)
333 W. Everett St - A299
Milwaukee, WI 53203
Phone: (414) 221-4578
Fax: (414) 221-2336
dan.sande@we-energies.com

38 Mr. Jim Burton, Facilities Engineer II/OSP-East
Sprint Communications, L.P.
400 W Grand Avenue
Elmhurst, IL 60126
Phone: (708) 955-6659
Fax: (630) 379-5958
james.burton@ericsson.com

54 Mr. Tom Harycki
Charter Communications
2312 Continental Drive
West Bend, WI 53095
Phone: (262) 306-8756 Ext. 20702
Fax: (262) 306-9021
tharycki@chartercom.com

168 Mr. Kevin Anderson, Area Manager
AT&T Wisconsin
7721 W. Fond du Lac Ave., 1st Fl.
Milwaukee, WI 53218
Phone: (414) 536-2971
Fax: (414) 535-5197
ka8421@att.com

195 Mr. Dan Sande, Project Manager
We Energies (Gas Operations)
333 W. Everett St - A299
Milwaukee, WI 53203
Phone: (414) 221-4578
Fax: (414) 221-2336
dan.sande@we-energies.com

1383 Mr. Ryan Osness, Detailer
Frontier - Wisconsin
118 Division Street
Plymouth, WI 53073
Phone: (920) 893-7455
ryan.d.osness@ftr.com

212 Mr. Larry Huber, Property Rights Sp.
ANR Pipeline Co
W3925 Pipeline Lane
Eden, WI 53019
Phone: (920) 477-2235 Ext. 13
Fax: (920) 477-2240
lawrence_huber@transcanada.com

1059 Mr. Matt Heiser, Administrator
Kewaskum, Village of
204 First Street
Kewaskum, WI 53040
Phone: (262) 626-8484
Fax: (262) 626-4909
mheiser@village.kewaskum.wi.us

1141 Mr. John Haug, Traffic Engineering Supervisor
WisDOT Signals
141 NW Barstow
PO Box 798
Waukesha, WI 53187 0798
Phone: (262) 521-5356
John.haug@dot.wi.gov

1242 Mr. Dennis Newton
WisDOT OH Signing
935 S 60TH
PO Box 798
West Allis, WI 53214 3362
Phone: (414) 266-1165
dennis.newton@dot.wi.gov

1285 Mr. Jim Kostuch
Windstream NTI, Inc.
(f/k/a Norlight)
13935 Bishops Dr.
Brookfield, WI 53005
Phone: (262) 792-7938
james.kostuch@windstream.com

Ms. Denise Rosenthal
SE Region Utility Coordinator
141 NW Barstow Street
PO Box 798
Waukesha, WI 53187 0798
Phone: (262) 548-8733
Denise.rosenthal@dot.wi.gov

CONTACTS

MR. TOM WONDRA, COMMISSIONER
WASHINGTON HWY, COUNTY OF
900 LANG STREET
WEST BEND, WI 53095
PHONE: (262) 335-4437
FAX: (262) 335-4439
EMAIL: jon.edgren@washington.wi.us

MR. PAUL MUELLER, ADMINISTRATOR
WASHINGTON, COUNTY OF (PLANNING/PARKS)
333 W. WASHINGTON STREET
SUITE 2300
WEST BEND, WI 53095-7986
PHONE: (262) 335-4445

MR. MATT HEISER, ADMINISTRATOR
VILLAGE ADMINISTRATOR
KEWASKUM, VILLAGE OF
204 FIRST STREET
P.O. BOX 38
KEWASKUM, WI 53040-0038
PHONE: (262) 626-8484
FAX: (262) 626-4909
EMAIL: mheiser@village.kewaskum.wi.us

MS. NANCY BODEN, TOWN CLERK
KEWASKUM, TOWN OF
9019 KETTLE MORAINE DRIVE
P.O. BOX 484
KEWASKUM, WI 53040-0484
PHONE: (262) 626-2566
EMAIL: townkew@frontier.com

MS. DEBBIE SWANSO, TOWN CLERK
FARMINGTON, TOWN OF
9422 STH 144
KEWASKUM, WI 53040
PHONE: (715) 294-2370
EMAIL: clerktreas@farmingtontown.com

MR. JERRY GILLES
DIRECTOR OF PUBLIC WORK
KEWASKUM, VILLAGE OF
204 FIRST STREET
P.O. BOX 38
KEWASKUM, WI 53040-0038
PHONE: (262) 626-4310
E-MAIL: jgilles@village.kewaskum.wi.us

MS. JULIE WIDHOLM
DNR LIAISON
141 NW BARSTOW RM 180
WAUKESHA, WI 53188
PHONE: (262) 574-2112
FAX: (262) 574-2117
EMAIL: julie.widholm@wisconsin.gov

MR. JASON ZEMKE
WisDOT PROJECT MANAGER SE-REGION
141 N W BARSTOW STREET
PO BOX 798
WAUKESHA, WI 53187-0798
PHONE: (262) 548-8734
FAX: (262) 548-8645
E-MAIL: jason.zemke@dot.wi.gov

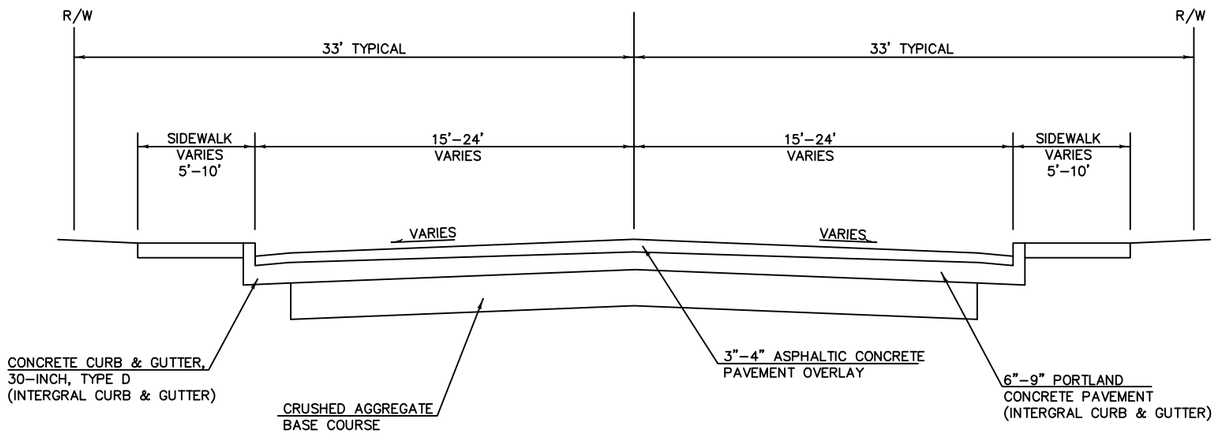
MR. MICK MAGALSKI
McMAHON
1445 McMAHON DRIVE
P.O. BOX 1025
NEENAH, WI 54956-1025
PHONE: (920)-751-4200
FAX: (920) 751-4284
EMAIL: PMagalskin@mcmgrp.com

MR. MIKE MCCARTHY
PROJECT MANAGER
EMCS, INC.
1300 W. CANAL STREET, SUITE 200
PHONE: (414)-347-1607
FAX: (414)-347-1347
E-MAIL: mmccarthy@emcsinc.com

DIGGERS HOTLINE

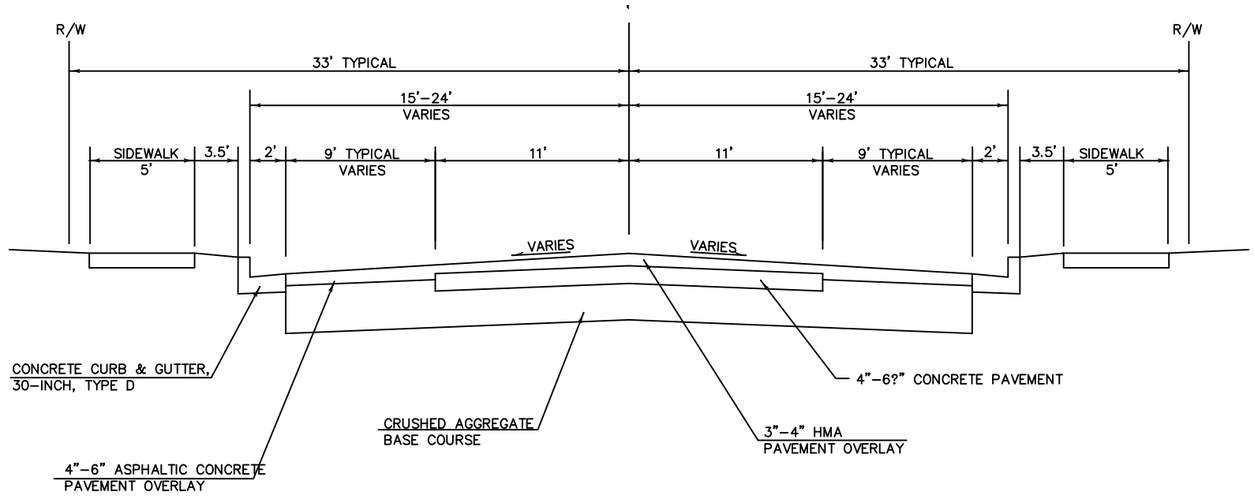
Call 811 3 Work Days Before You Dig
Or Toll Free (800) 242-8511
Hearing Impaired TDD (800) 542-2289
www.DiggersHotline.com

2



STH 28 – TYPICAL EXISTING SECTION

STA. 79+00 – STA. 96+40.66



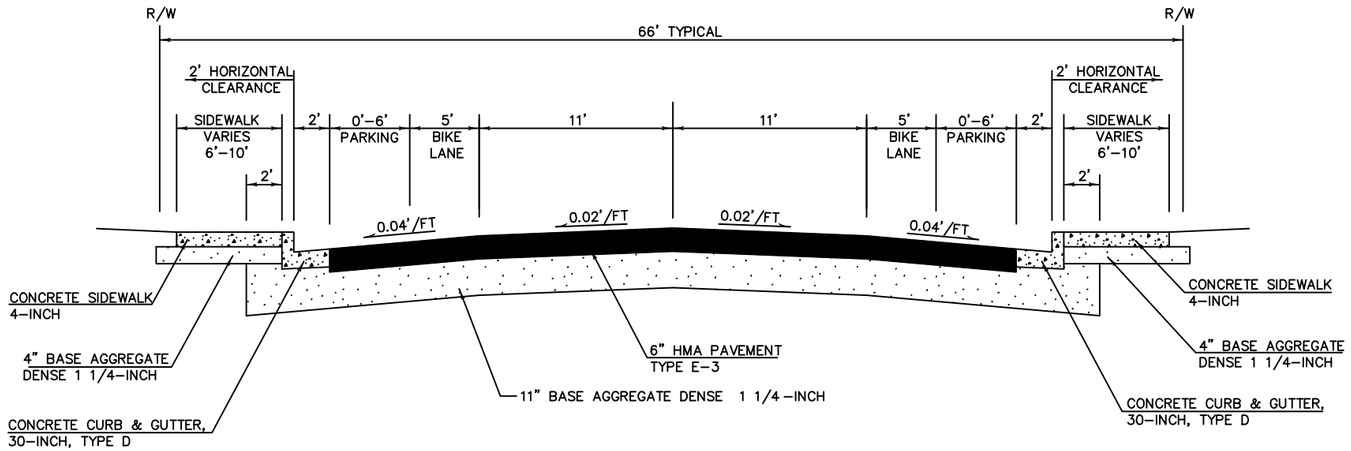
STH 28 – TYPICAL EXISTING SECTION

STA. 97+26.60 – STA. 113+10.18

NOTE: TYPICAL SECTION INFORMATOIN FOR PROJECT ID 4060–05–70 SHOWN FOR INFORMATIONAL PURPOSE ONLY ON THIS UTILITY PLAN. SEE PROJECT 4060–05–70 PLAN FOR ADDITIONAL INFORMATOIN.

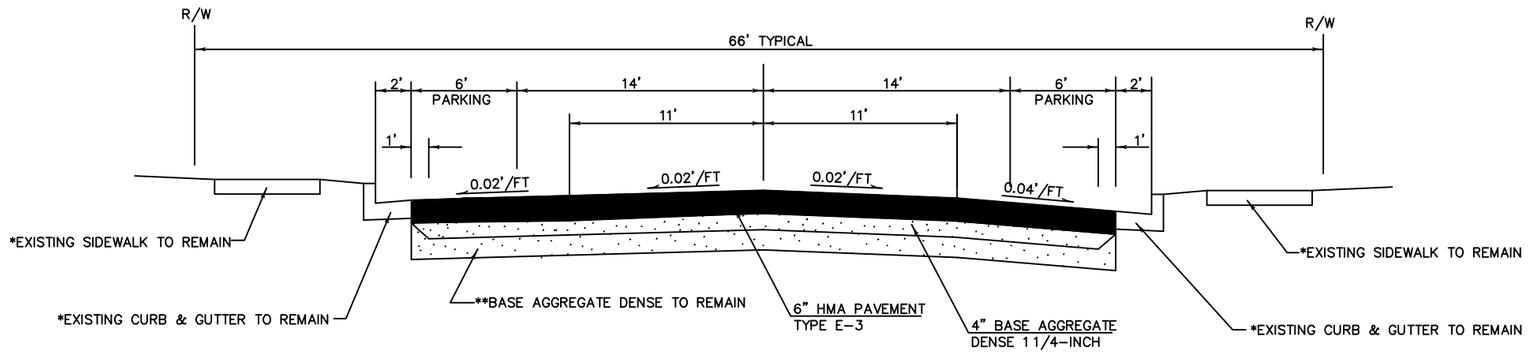
PROJECT NO: 4060–05–71	HWY: STH 28	COUNTY: WASHINGTON	TYPICAL SECTIONS	SHEET: 4	E

pmagalski, W:\PROJECTS\K0014\990681\10\ACAD\PLAN SHEETS\01 TYPICAL SECTIONS.dwg, 01 typical sections, Plot Date: 7/30/2013 12:30 PM, xrefs:none



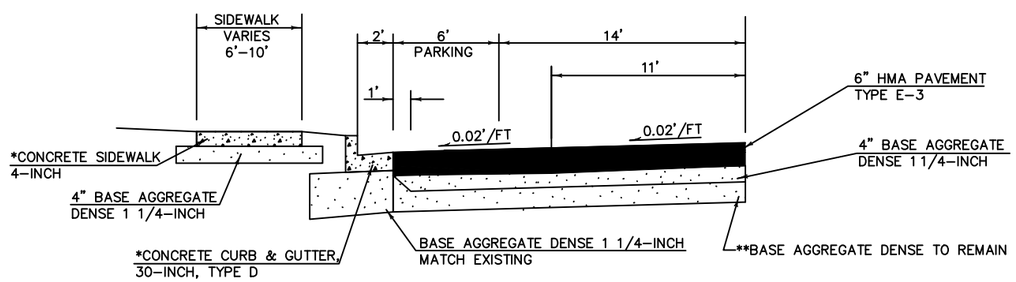
STH 28 – TYPICAL PROPOSED SECTION
RECONSTRUCTION

STA. 79+00 – STA. 96+40.66
STA. 97+26.60 – STA. 99+75



STH 28 – TYPICAL PROPOSED SECTION
PAVEMENT REPLACEMENT

STA. 99+75 – STA. 113+70.59



*REMOVE & REPLACE AS SHOWN ON THE PLANS AND AS DIRECT BY THE ENGINEER

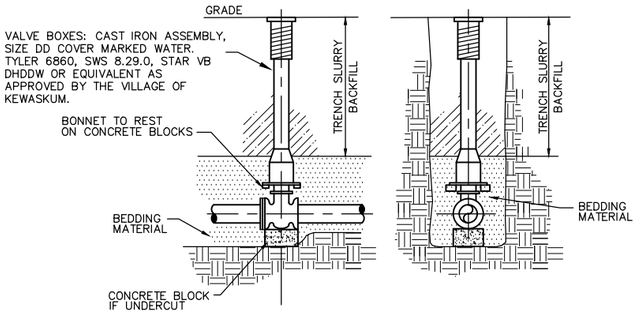
**SEE TRENCH RESTORATION DETAIL FOR ADDITIONAL INFORMATION

NOTE: TYPICAL SECTION INFORMATOIN FOR PROJECT ID 4060–05–70 SHOWN FOR INFORMATIONAL PURPOSE ONLY ON THIS UTILITY PLAN. SEE PROJECT 4060–05–70 PLAN FOR ADDITIONAL INFORMATOIN.

STH 28 – TYPICAL PROPOSED SECTION
LATERAL TRENCH REPLACEMENT

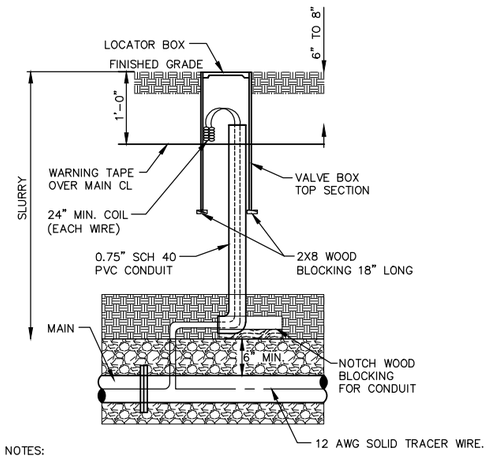
STA. 99+75 – STA. 113+70.59

PROJECT NO: 4060–05–71	HWY: STH 28	COUNTY: WASHINGTON	TYPICAL SECTIONS	SHEET: 5	E



STANDARD VALVE & VALVE BOX SETTING

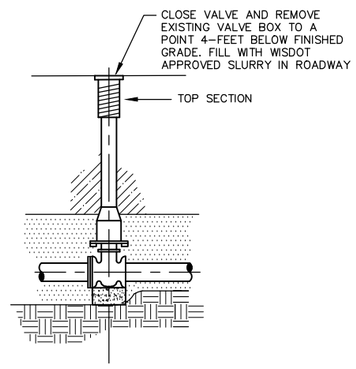
RESILIENT SEATED GATE VALVES – AWWA C-509, MUELLER A-2360. KENNEDY 4571, CLOW F-6100 OR EQUIVALENT AS APPROVED BY THE VILLAGE OF KEWASKUM.



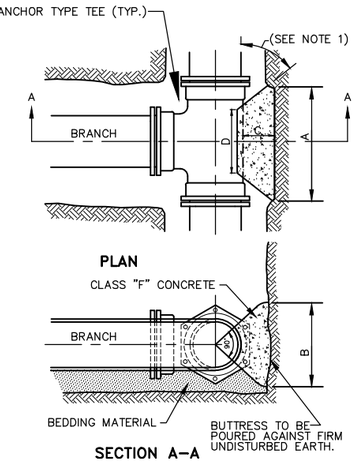
NOTES:

1. WATER MAINS: PROVIDE LOCATOR BOX AT ALL HYDRANTS AND ALL CONNECTIONS TO EXISTING WATER MAINS. 1,000 FT MAXIMUM SPACING
2. FORCE MAINS: PROVIDE LOCATOR BOX AT EACH END, AT EACH AIR RELEASE ASSEMBLY AND AT EACH VALVE. 1,000 FT MAXIMUM SPACING.
3. THIS WORK TO BE CONSIDERED INCIDENTAL TO THE CONTRACT ITEMS OF FIRE HYDRANTS AND FORCE MAIN 1 ½"

DETECTOR WIRE & LOCATION BOX



VALVE ABANDONMENT DETAIL



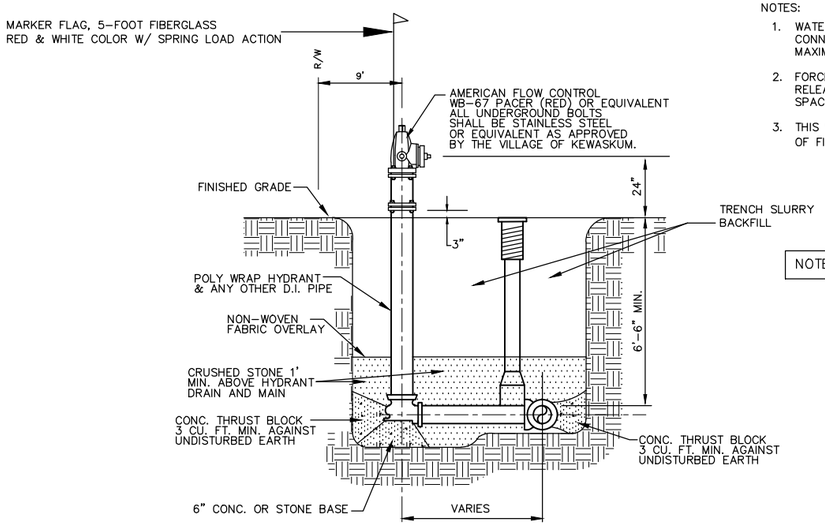
BUTTRESS DIMENSIONS				
B.D.	A	B	C	D
6"	1'-3"	1'-0"	SEE NOTE 1	SEE NOTE 2
8"	1'-6"	1'-4"		
12"	2'-3"	2'-0"		
16"	3'-2"	2'-8"		
20"	4'-0"	3'-0"		
24"	5'-3"	3'-4"		
30"	6'-6"	4'-3"		

B.D. = BRANCH DIAMETER

NOTES:

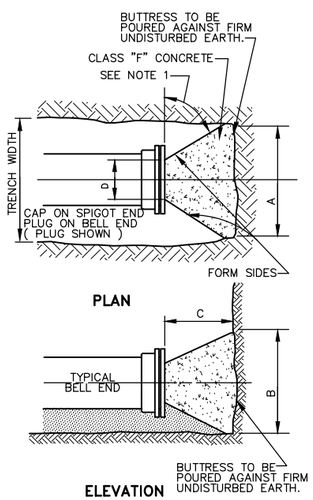
1. DIMENSION "C" SHOULD BE LARGE ENOUGH TO MAKE ANGLE EQUAL TO OR LARGER THAN 45°.
2. DIMENSION "D" EQUALS APPROX. I.D. OF PIPE LESS 2". AN EFFORT SHOULD BE MADE TO PREVENT THE CONCRETE FROM COVERING THE M.J. BOLTS.
3. WHERE BUTTRESES ARE NOT POSSIBLE BECAUSE OF POOR SOIL CONDITIONS OR LACK OF ROOM, STRAPPING SHALL BE PERMITTED.
4. DIMENSIONS IN TABLE ARE BASED ON A WATER PRESSURE OF 150 P.S.I. AND ON EARTH RESISTANCE OF 2 TONS PER SQ. FT.
5. ALL IRON PIPE AND FITTINGS SHALL BE WRAPPED IN POLYETHYLENE.

BLOCKING FOR TEES



HYDRANT DETAIL

NOTE: COR-BLUE TEE BOLTS AND NUTS SHALL BE USED ON FITTINGS.

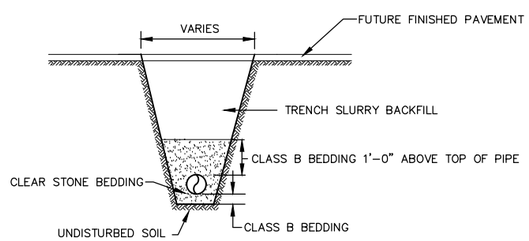


BUTTRESS DIMENSIONS				
DIA.	A	B	C	D
6"	1'-6"	1'-2"	SEE NOTE 2	SEE NOTE 3
8"	2'-0"	1'-4"		
12"	2'-5"	1'-10"		
16"	3'-4"	2'-4"		
20"	4'-3"	2'-10"		
24"	5'-2"	3'-4"		
30"	6'-9"	4'-0"		

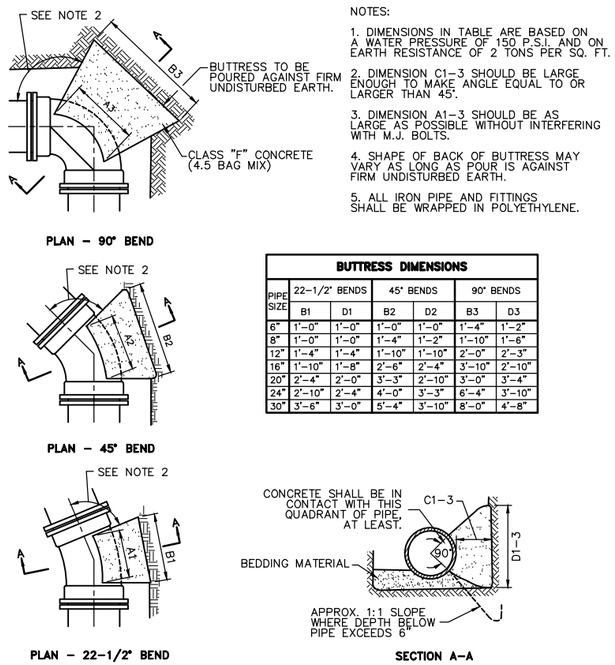
NOTES:

1. DIMENSIONS IN TABLE ARE BASED ON A WATER PRESSURE OF 150 P.S.I. AND ON EARTH RESISTANCE OF 2 TONS PER SQ. FT.
2. DIMENSION C SHOULD BE LARGE ENOUGH TO MAKE ANGLE EQUAL TO OR LARGER THAN 45°.
3. DIMENSION D SHOULD BE AS LARGE AS POSSIBLE WITHOUT INTERFERING WITH M.J. BOLTS.
4. SHAPE OF BACK OF BUTTRESS MAY VARY AS LONG AS POUR IS AGAINST FIRM UNDISTURBED EARTH.
5. ALL IRON PIPE AND FITTINGS SHALL BE WRAPPED IN POLYETHYLENE.

BLOCKING FOR PLUGS



TYPICAL TRENCH DETAIL



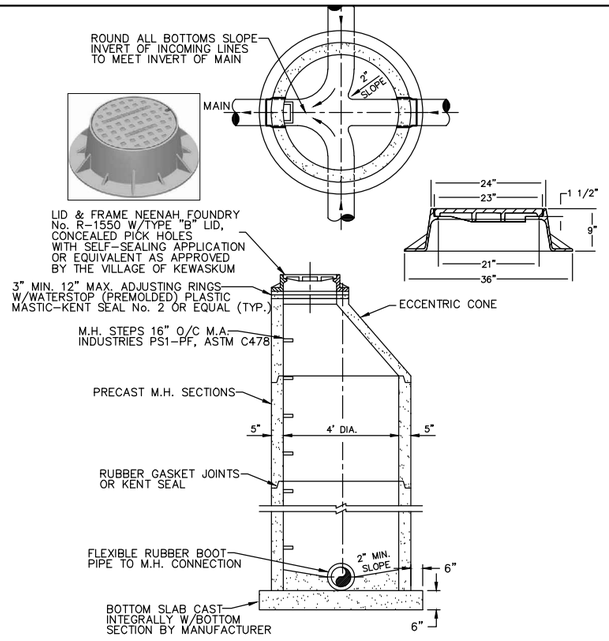
NOTES:

1. DIMENSIONS IN TABLE ARE BASED ON A WATER PRESSURE OF 150 P.S.I. AND ON EARTH RESISTANCE OF 2 TONS PER SQ. FT.
2. DIMENSION C1-3 SHOULD BE LARGE ENOUGH TO MAKE ANGLE EQUAL TO OR LARGER THAN 45°.
3. DIMENSION A1-3 SHOULD BE AS LARGE AS POSSIBLE WITHOUT INTERFERING WITH M.J. BOLTS.
4. SHAPE OF BACK OF BUTTRESS MAY VARY AS LONG AS POUR IS AGAINST FIRM UNDISTURBED EARTH.
5. ALL IRON PIPE AND FITTINGS SHALL BE WRAPPED IN POLYETHYLENE.

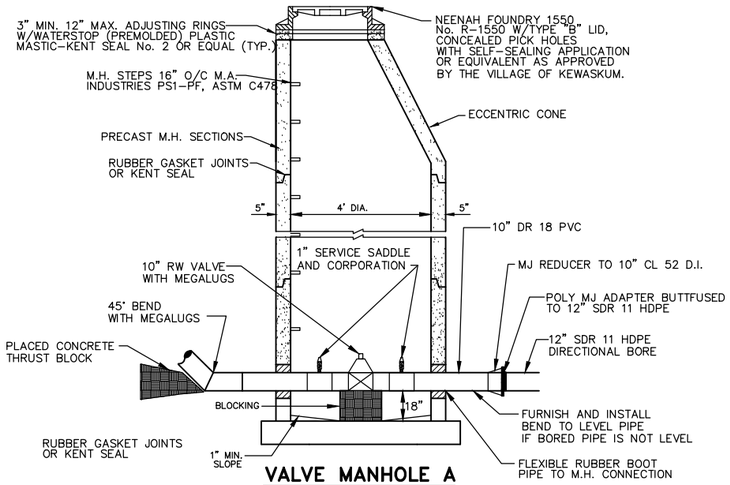
BUTTRESS DIMENSIONS						
PIPE SIZE	22-1/2° BENDS		45° BENDS		90° BENDS	
	B1	D1	B2	D2	B3	D3
6"	1'-0"	1'-0"	1'-0"	1'-0"	1'-4"	1'-2"
8"	1'-0"	1'-0"	1'-4"	1'-2"	1'-10"	1'-6"
12"	1'-4"	1'-4"	1'-10"	1'-10"	2'-0"	2'-3"
16"	1'-10"	1'-8"	2'-6"	2'-4"	3'-10"	2'-10"
20"	2'-4"	2'-0"	3'-3"	2'-10"	3'-0"	3'-4"
24"	2'-10"	2'-4"	4'-0"	3'-3"	6'-4"	3'-10"
30"	3'-6"	3'-0"	5'-4"	3'-10"	8'-0"	4'-8"

BLOCKING FOR BENDS

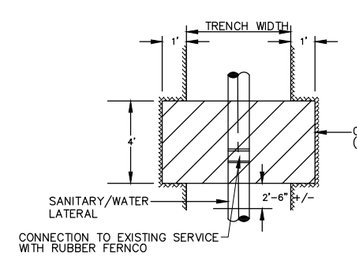
NOTE: INSTALL TRENCH SLURRY BACKFILL FROM THE TOP OF THE BEDDING MATERIAL TO THE ELEVATION OF THE SUBGRADE.



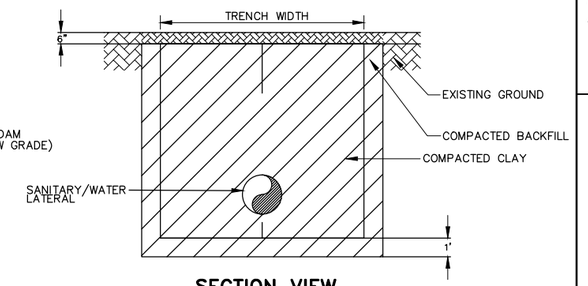
STANDARD PRECAST MANHOLE



VALVE MANHOLE A

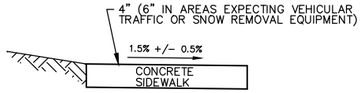


PLAN VIEW

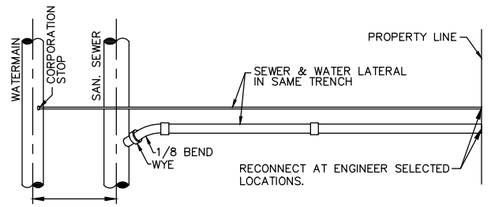


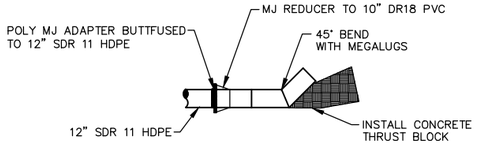
SECTION VIEW

CLAY DAM DETAIL

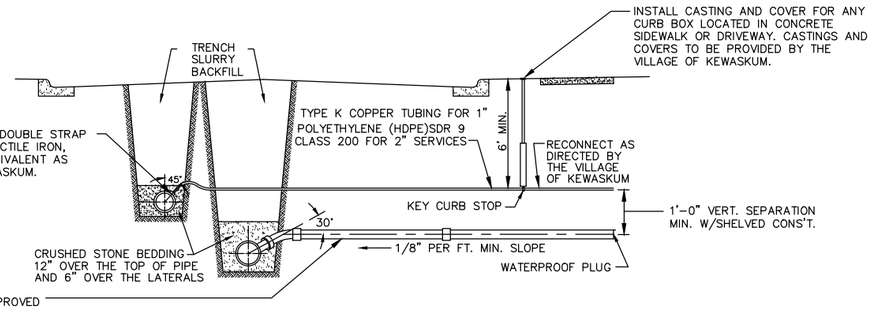


CONCRETE SIDEWALK

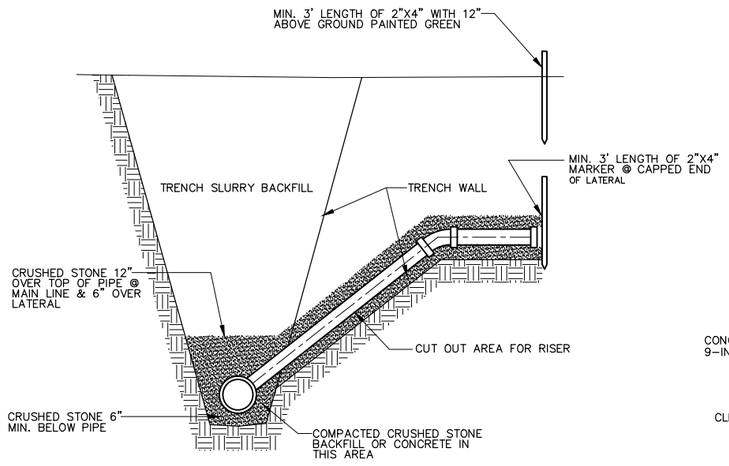




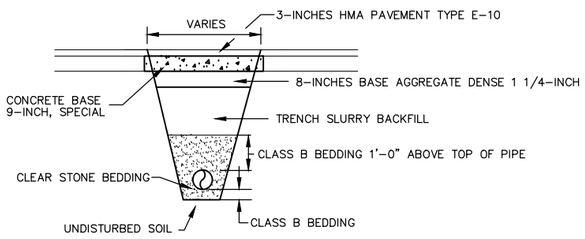
45° BEND (SPECIAL)



TYPICAL CONNECTION SEWER & WATER



SANITARY LATERAL RISER



TRENCH RESTORATION DETAIL IN CONCRETE BASE LOCATIONS

FOR 1" SERVICES PROVIDE TYPE K COPPER TUBING WITH FLARE OR COMPRESSION FITTINGS OR EQUIVALENT.
INSTALL CORPORATION VALVES: MUELLER B-25008, 25000; FORD FB1000-Q, FB600; MCDONALD 4701BQ, 4701B
INSTALL CURB VALVES: MUELLER B-25155, B-25154; FORD B44-MQ, B22-M; McDONALD 6104Q, 6104.
INSTALL CURB BOXES: MUELLER-H-10300, FORD EM 2-70-56, MCDONALD 5614 OR MCDONALD 5615 WITH TEFLON TAPE ON THREADED JOINTS OR EQUIVALENT AS APPROVED BY THE VILLAGE OF KEWASKUM.

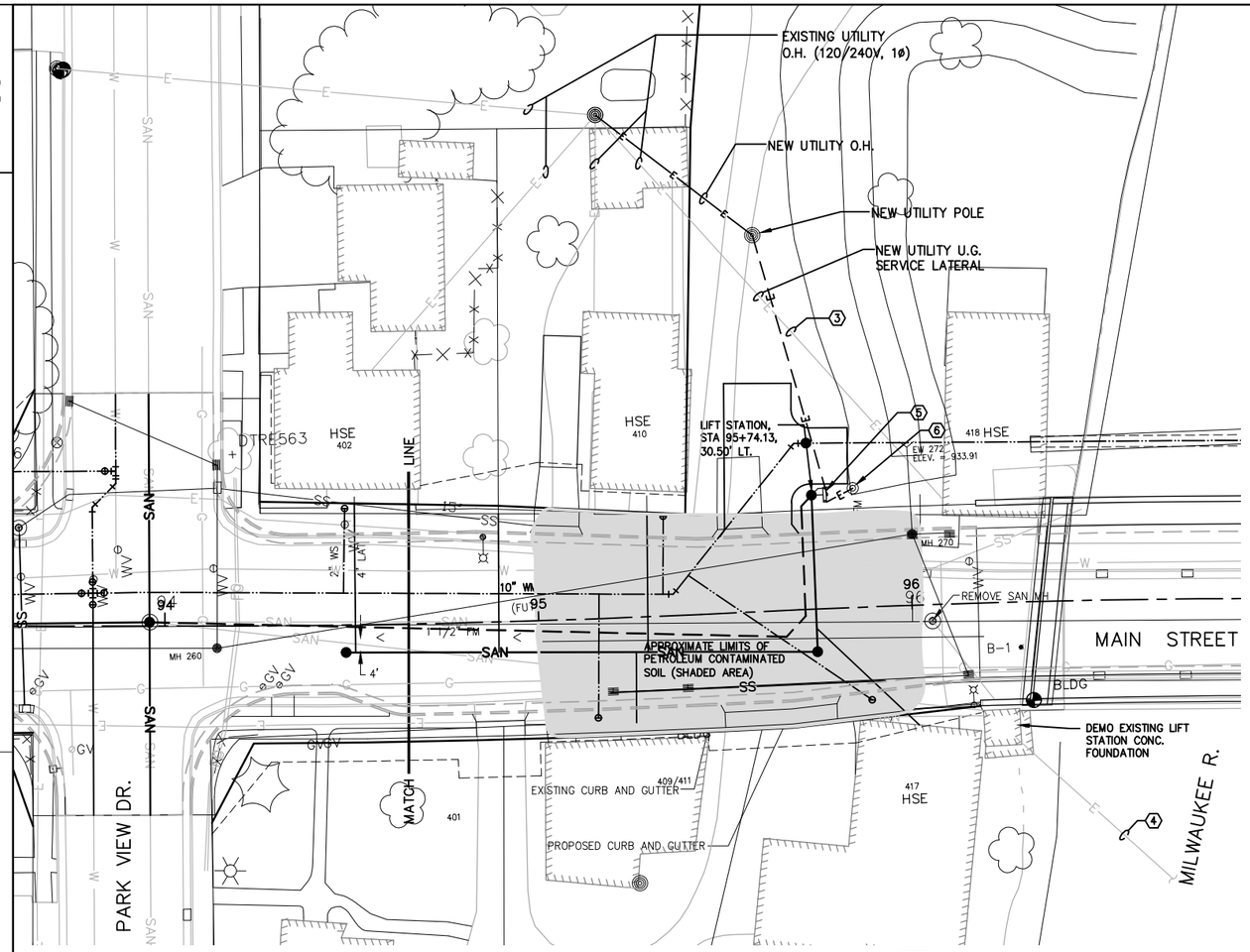
FOR 2" SERVICES PROVIDE POLYETHYLENE(HDPE) ASTM D2737, SDR 9 CLASS 200 PIPE OR EQUIVALENT.
INSTALL MUELLER B-25008, FORD FB1000-Q, MCDONALD 4701B-22 CORPORATION VALVES WITH STAINLESS STEEL STIFFENERS OR EQUIVALENT. CURB VALVES SHALL BE MUELLER E-25155, FORD B44-MQ, A.Y. MCDONALD 6104-22 OR EQUIVALENT. CURB BOXES MUST BE MUELLER-H-10300, FORD EM 2-70-56 OR FORD EM 2-70-57, A.Y. MCDONALD 5614 OR A.Y. MCDONALD 5615 WITH TEFLON TAPE ON THREADED JOINTS OR EQUIVALENT AS APPROVED BY THE VILLAGE OF KEWASKUM.

NOTE: THE SANITARY LATERAL LOCATIONS ARE SHOWN AS PER THE TELEVISION REPORTS SUPPLIED BY THE VILLAGE. NOT ALL LOCATIONS MAY BE ACTIVE. THE CONTRACTOR SHALL DYE TEST THE LATERALS TO VERIFY WHICH ONES ARE ACTIVE AND RECONNECT ONLY THE ACTIVE LATERALS. INVESTIGATION AND DYE TESTING SHALL BE INCIDENTAL TO THE SANITARY SEWER CONSTRUCTION.

NOTE: THE SIZE OF THE EXISTING SANITARY LATERALS IS UNKNOWN IN SOME AREAS. THE CONTRACTOR SHALL HAVE SUFFICIENT AMOUNT OF BOTH 4" AND 6" DIAMETER CONNECTION FITTINGS AND PIPE ON HAND TO MAKE EQUIVALENT SIZE REPLACEMENTS TO A POINT NEAR THE R/W LINE AS DIRECTED BY THE FIELD ENGINEER AND THE VILLAGE OF KEWASKUM.

NOTE: INSTALL WATER MAIN AND WATER SERVICES TO AVOID A CONFLICT WITH THE PROPOSED STORM SEWER TO BE CONSTRUCTED AS PART OF PROJECT 4060-05-70. WATER MAIN AND WATER SERVICES TO BE INSTALLED A MIN. OF 1-FOOT BELOW THE STORM SEWER AT CROSSING LOCATIONS

NOTE: INSTALL TRENCH SLURRY BACKFILL FROM THE TOP OF THE BEDDING MATERIAL TO THE ELEVATION OF THE SUBGRADE.



LIFT STATION SITE

20 10 0 20

SCALE – FEET

NOTES:

1. 1 1/2" F.M. SHALL BE DR11 HDPE. INSTALL FORCEMAIN WITH TRACER WIRE.
2. 8" SANITARY SEWER SHOWN SHALL BE SDR 35 PVC UP TO THE FINAL MANHOLE UPSTREAM OF THE NEW LIFT STATION. PROVIDE SCH. 40 PVC PIPE FROM MANHOLE TO LIFT STATION.

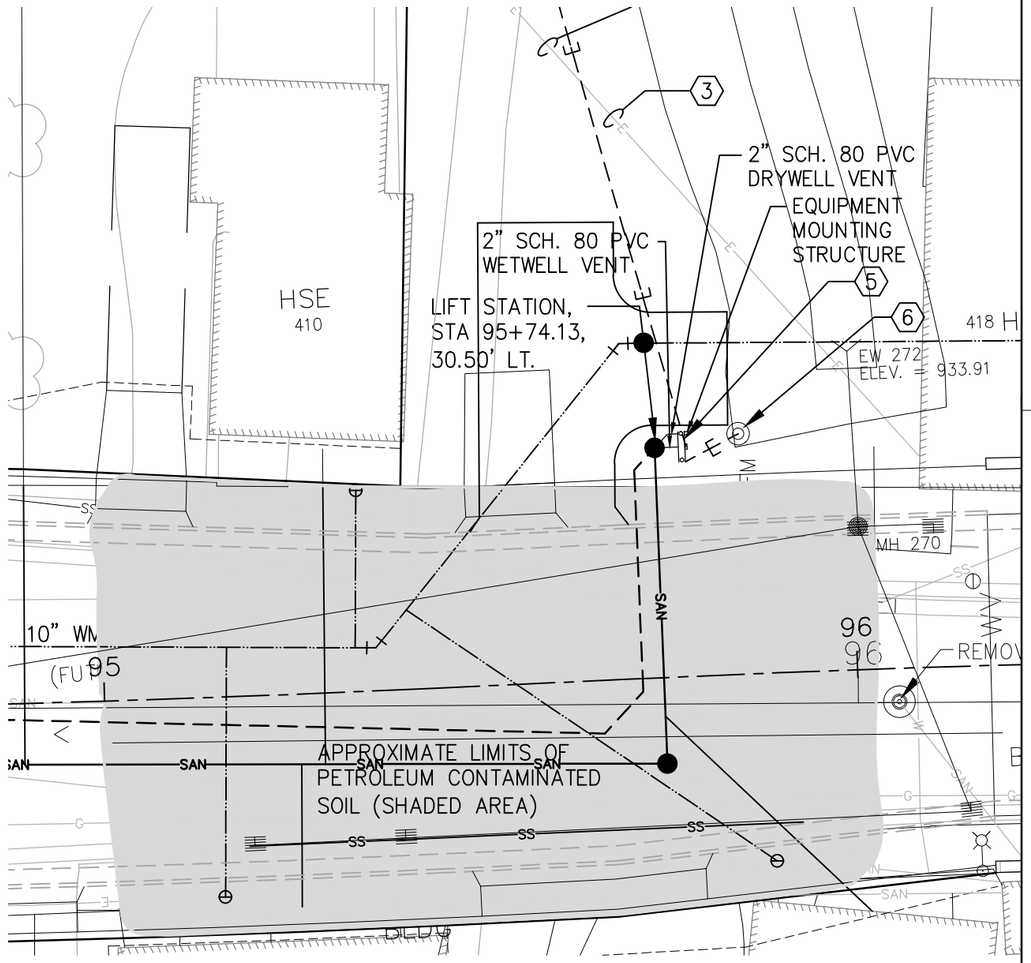
⟨3⟩ MAKE ARRANGEMENTS W/ UTILITY TO DISCONNECT & REMOVE O.H. SERVICE TO HOUSE.

⟨4⟩ DISCONNECT & REMOVE OWNER'S EXISTING O.H. FEEDER TO EXISTING LIFT STATION. FEEDER IS SOURCED FROM THE OWNER'S WELL STATION #2, ON THE EAST SIDE OF THE RIVER. DEMOLISH FEEDER COMPLETE.

⟨5⟩ PROVIDE SST UNISTRUT MOUNTING STRUCTURE FOR:
- UTILITY SERVICE/METERING PEDESTAL
- LIFT STATION CONTROL PANEL
- TELEMETRY CONTROL PANEL

⟨6⟩
- RECEPTACLE (GFI, w/ WP COVER)
- LIFT STATION VENT PIPES SEE DETAIL 3/4

FIBERGLASS LIGHT POLE w/ AREA LIGHT. SEE DETAIL 1/4.



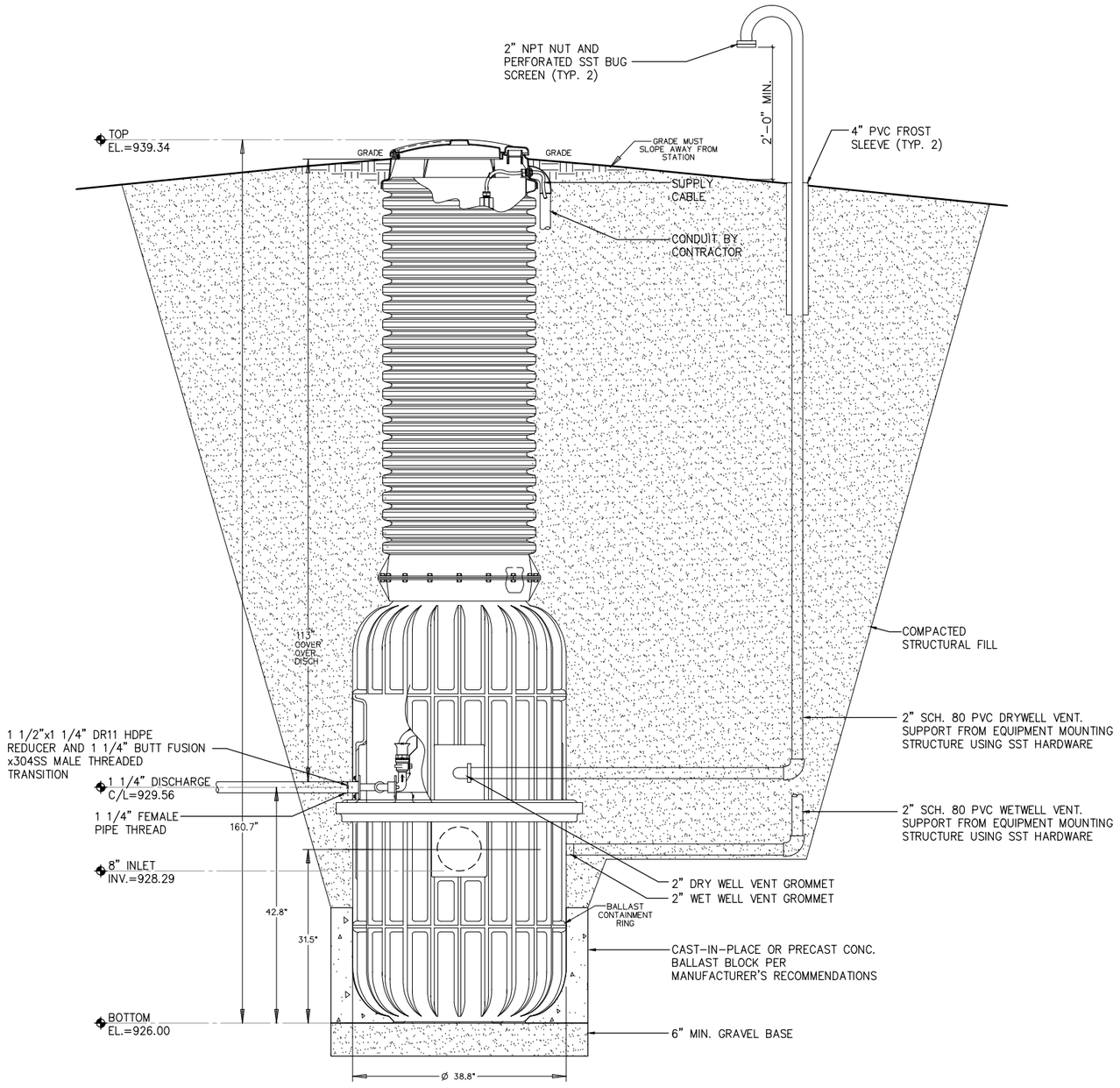
LIFT STATION SITE

10 5 0 10

SCALE – FEET

PROJECT NO: 4060-05-71	HWY: STH 28	COUNTY: WASHINGTON	CONSTRUCTION DETAIL	SHEET: 8	E

2



PUMP STATION ELEVATION

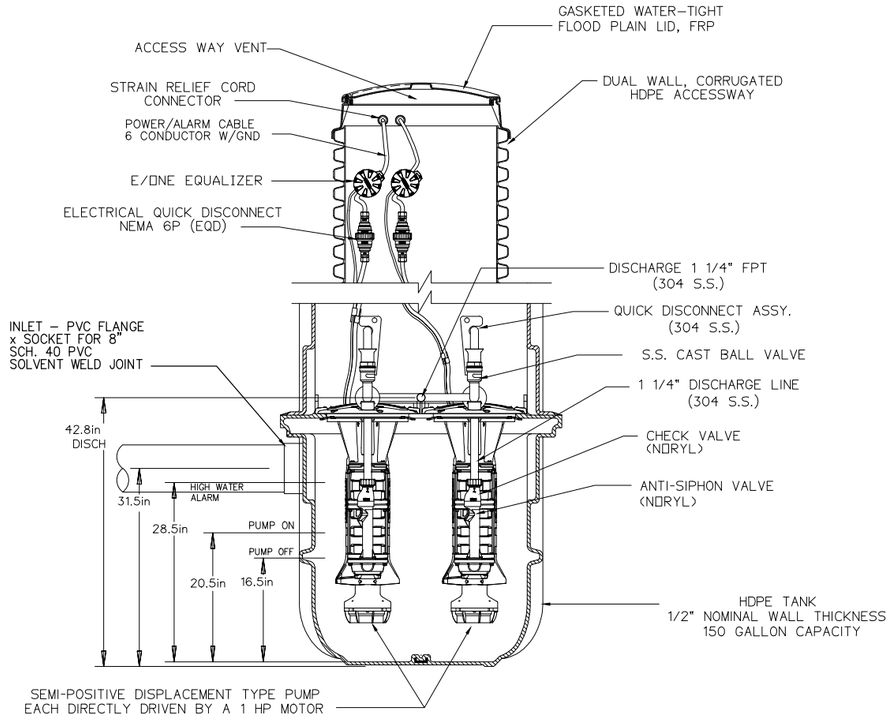
SCALE: 1" = 1'-0"

NOTES:

1. BEDDING MATERIAL SHALL BE NATURALLY ROUNDED, CLEAN, AND FREE FLOWING, WITH PARTICLE SIZE NOT LESS THAN 1/8" OR MORE THAN 3/4".
2. STRUCTURAL FILL:

   TYPE: PREDOMINANTLY WELL GRADED MATERIAL WITH 100% PASSING THRU 3" SIEVE, 70-100% PASSING THRU #4 SIEVE, AND LESS THAN 15" PASSING THRU #200 SIEVE.

   COMPACTION: 95% MODIFIED PROCTOR (ASTM D-1557) PLACED IN LIFTS NOT TO EXCEED 12-INCHES.
3. PROVIDE BRADY, OR EQUAL, FIBERGLASS SIGN READING "CAUTION: DANGEROUS / HAZARDOUS GASES. LEVEL 2 CONFINED SPACE. DO NOT ENTER WITHOUT PROPER EQUIPMENT AND SUPERVISION". MOUNT ABOVE STATION USING SST HARDWARE.
4. FORCEMAIN AND VENT PIPES SHOWN OUT OF SECTION FOR CLARITY. SEE SITE PLAN FOR CORRECT ORIENTATION.

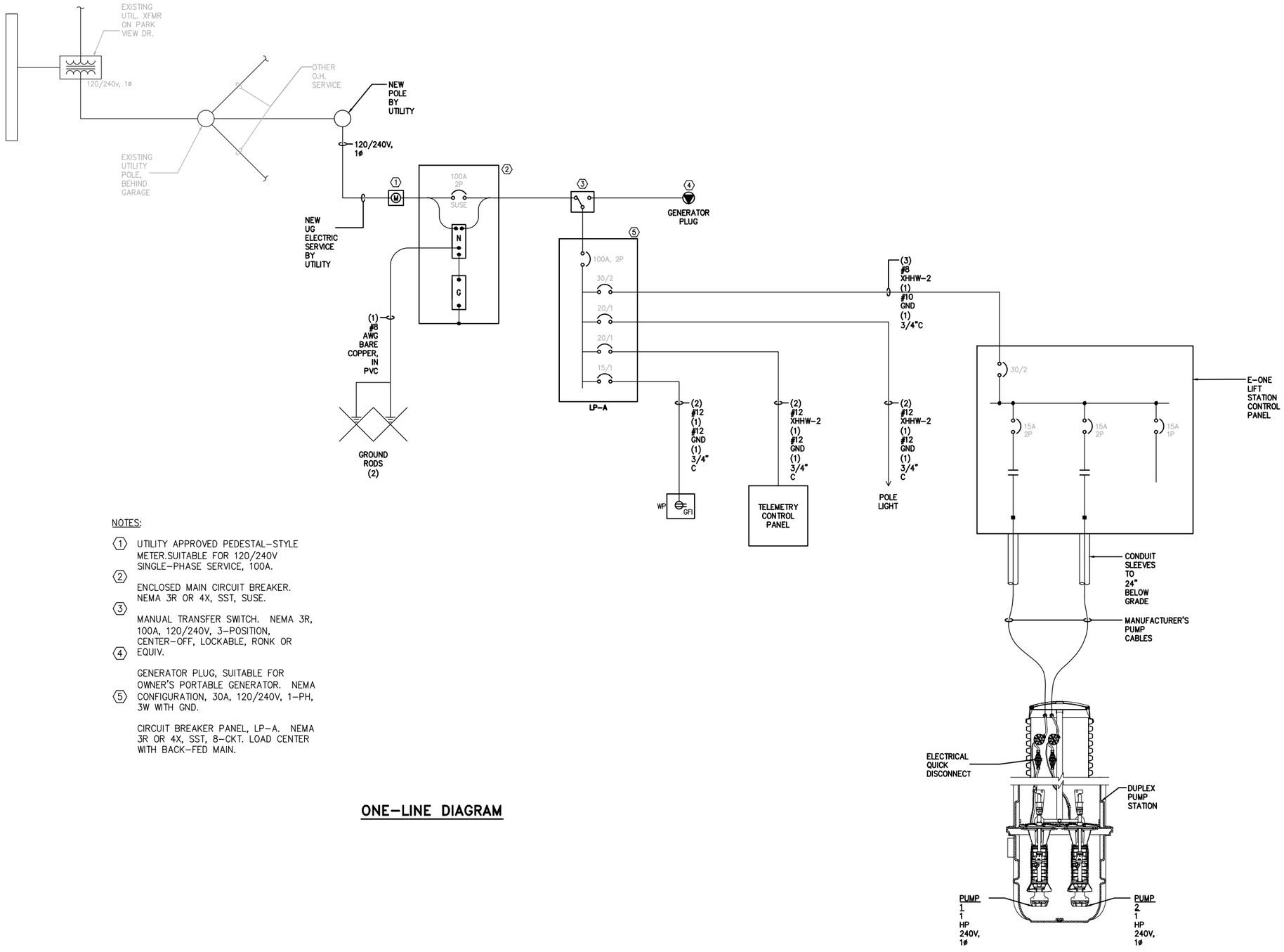


PUMP STATION SECTION

SCALE: 1" = 1'-0"

THIS SHEET SIZED TO 0.4973 TIMES THE INDICATED SCALE.

PROJECT NO: 4060-05-71	HWY: STH 28	COUNTY: WASHINGTON	CONSTRUCTION DETAIL	SHEET: 9 E

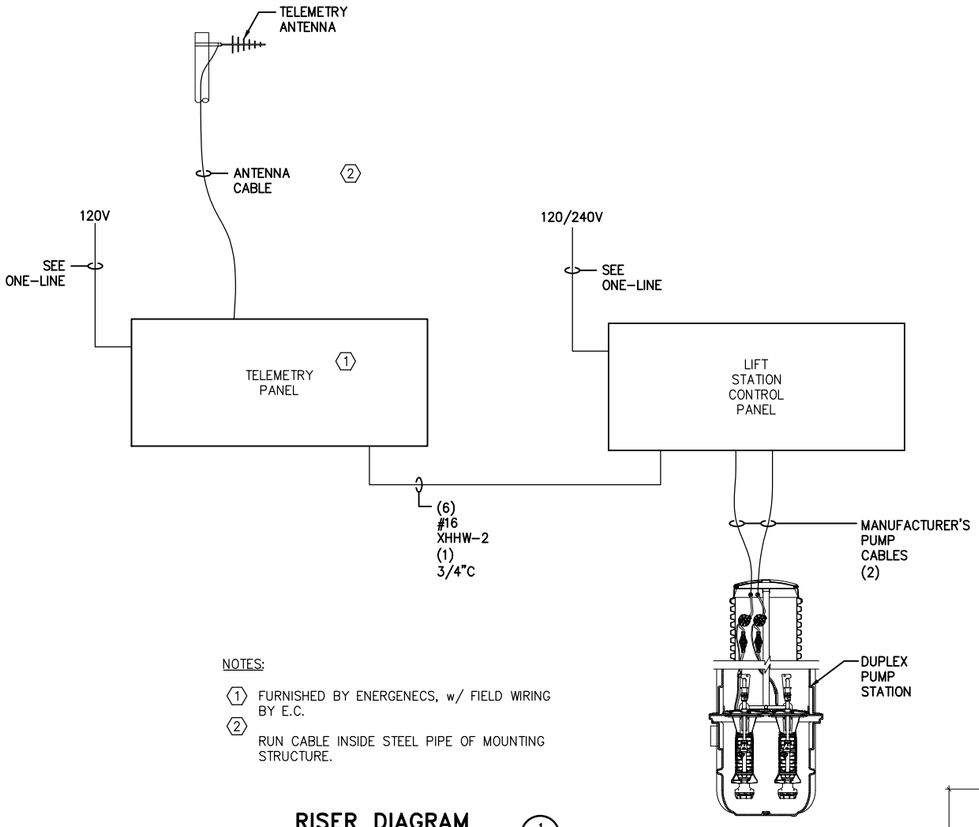


NOTES:

1. UTILITY APPROVED PEDESTAL–STYLE METER.SUITABLE FOR 120/240V SINGLE–PHASE SERVICE, 100A.
2. ENCLOSED MAIN CIRCUIT BREAKER. NEMA 3R OR 4X, SST, SUSE.
3. MANUAL TRANSFER SWITCH. NEMA 3R, 100A, 120/240V, 3–POSITION, CENTER–OFF, LOCKABLE, RONK OR EQUIV.
4. GENERATOR PLUG, SUITABLE FOR OWNER'S PORTABLE GENERATOR. NEMA CONFIGURATION, 30A, 120/240V, 1–PH, 3W WITH GND.
5. CIRCUIT BREAKER PANEL, LP–A. NEMA 3R OR 4X, SST, 8–CKT. LOAD CENTER WITH BACK–FED MAIN.

ONE–LINE DIAGRAM

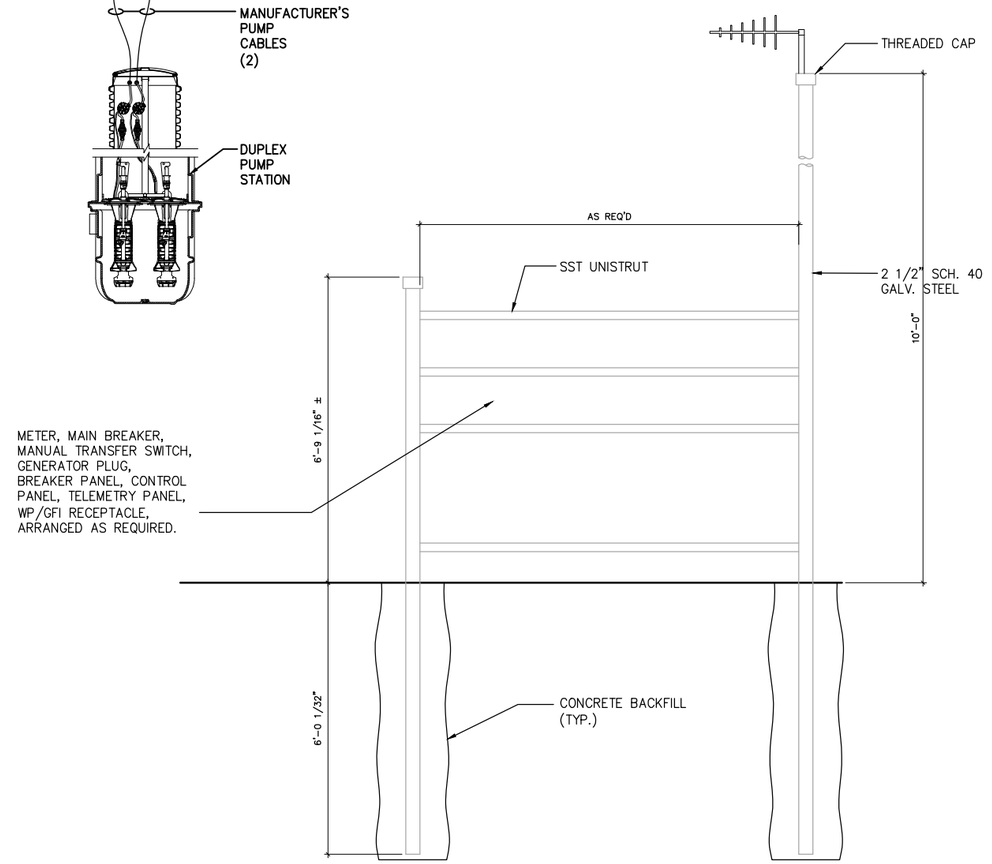
PROJECT NO: 4060–05–71	HWY: STH 28	COUNTY: WASHINGTON	CONSTRUCTION DETAIL	SHEET: 10	E



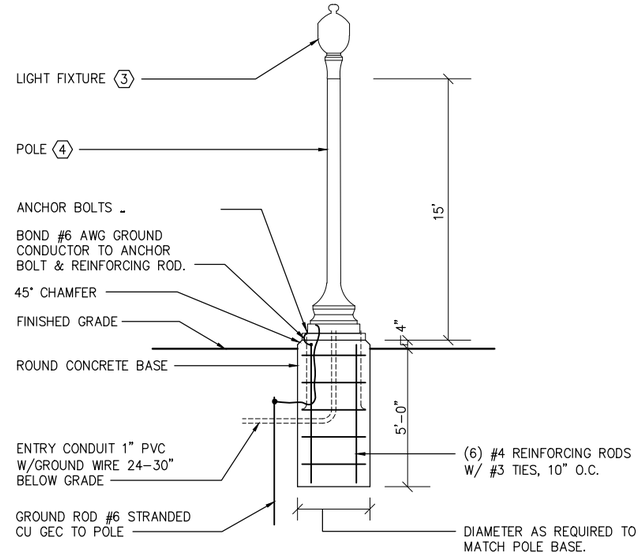
NOTES:

1. FURNISHED BY ENERGENECS, w/ FIELD WIRING BY E.C.
2. RUN CABLE INSIDE STEEL PIPE OF MOUNTING STRUCTURE.

RISER DIAGRAM 1/06
NO SCALE



EQUIPMENT MOUNTING STRUCTURE 3/06
NO SCALE



NOTES:

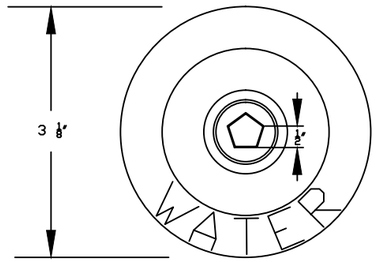
THIS LIGHT POLE FOUNDATION DESIGN IS BASED ON THE FOLLOWING ASSUMPTIONS:

1. SOILS CONSIST OF STIFF CLAY OR INORGANIC SILT WITH SAFE ALLOWABLE SOIL BEARING CAPACITY OF 3,000 PSF.
2. LIGHT FIXTURE WITH 1.2 SF EPA.
3. ACORN FIXTURE TO MATCH OWNER'S STREET LIGHTS. VERIFY MANUFACTURER AND MODEL.
4. LIGHT POLE TO MATCH OWNER'S EXISTING STREET LIGHTS. VERIFY MANUFACTURER AND MODEL. 15-FT. POLE, BLACK, FIBERGLASS. MATCH WE ENERGIES "NIGHT AURA", "WASHINGTON" POLE.
5. LIGHT CONTROL: FURNISH AND INSTALL 120V, 20A PHOTO CELL. MOUNT TO EQUIPMENT MOUNTING STRUCTURE.

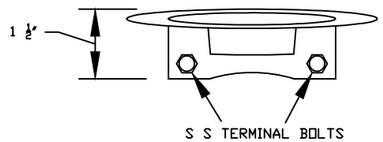
PARKING LOT LIGHT FIXTURE BASE 2/06
NO SCALE

2

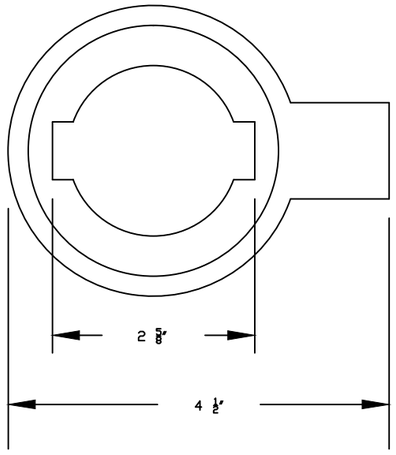
LID TOP VIEW



LID SIDE VIEW



COLLAR TOP VIEW



COMPLETE BOX SIDE VIEW

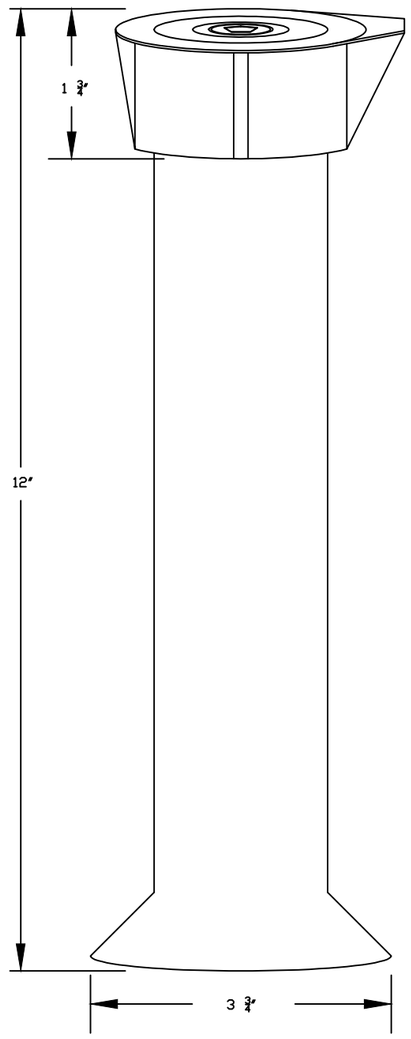


FIGURE # TWAB
TRACER WIRE ACCESS BOX

CASTING CONFORMS TO:
ASTM SPECIFICATION A-48 CLASS 30
COUNTRY OF ORIGIN: USA

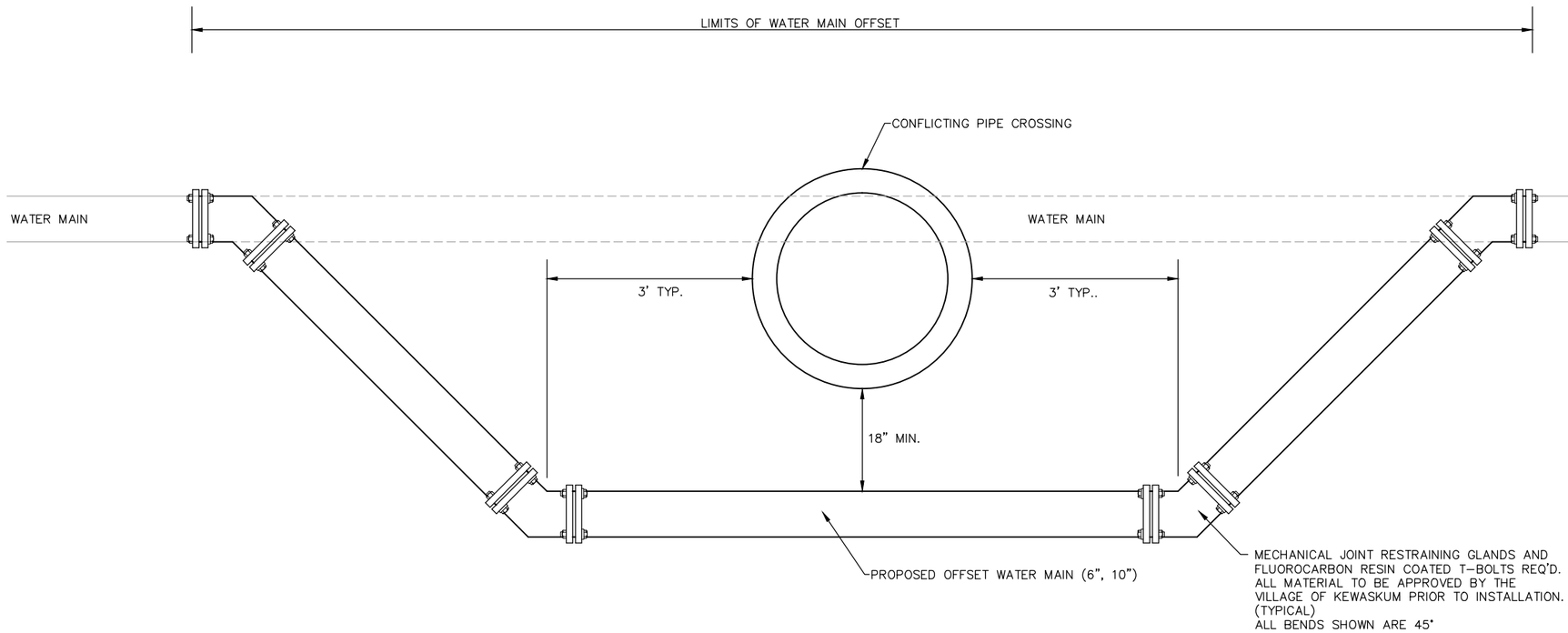
ABS SHAFT CONFORMS TO:
ASTM SPECIFICATION D-1788
COUNTY OF ORIGIN: USA

DRAINAGE & WATER SOLUTIONS, INC. OR
APPROVED EQUAL

PROJECT NO: 4060-05-71	HWY: STH 28	COUNTY: WASHINGTON	CONSTRUCTION DETAIL	SHEET: 12	E

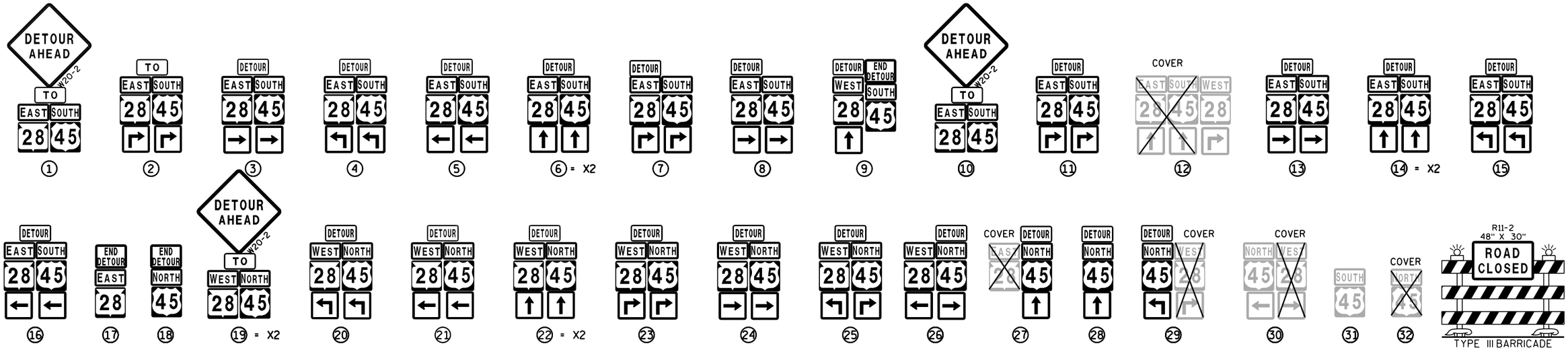
pmagalski, W:\PROJECTS\K0014\990681\10\ACAD\PLAN SHEETS\08 CONSTRUCTION DETAILS.dwg, 08 construction details, Plot Date: 7/30/2013 12:41 PM, xrefs:none

2



DETAIL FOR WATER MAIN OFFSET

PROJECT NO: 4060-05-71	HWY: STH 28	COUNTY: WASHINGTON	CONSTRUCTION DETAIL	SHEET: 13 E



LEGEND

- DETOUR ROUTE
- WORK ZONE
- EXISTING SIGN MOUNTED ON POST(S)
- PROPOSED SIGN MOUNTED ON POST(S)
- EAST — EXISTING SIGN MOUNTED ON POST(S)
- EAST — PROPOSED SIGN MOUNTED ON POST(S)
- (10) DETOUR SIGN NUMBER
- MB PORTABLE CHANGEABLE MESSAGE
- DRUMS
- TYPE III BARRICADE
- TYPE III BARRICADE WITH ATTACHED SIGN

SIGNING LEGEND - NON EXPRESSWAY SIGNS

EAST	WEST	NORTH	SOUTH	TO	DETOUR	END DETOUR
M3-2 24" X 12"	M3-4 24" X 12"	M3-1 24" X 12"	M3-3 24" X 12"	M4-5 24" X 12"	M4-8 24" X 12"	M4-8A 24" X 18"

M05-1R	M06-1	M05-1L	M06-1	M06-1	28	45
21" X 21"	21" X 21"	21" X 21"	21" X 21"	21" X 21"	M1-6 24" X 24"	M1-4 24" X 24"

NOTES:

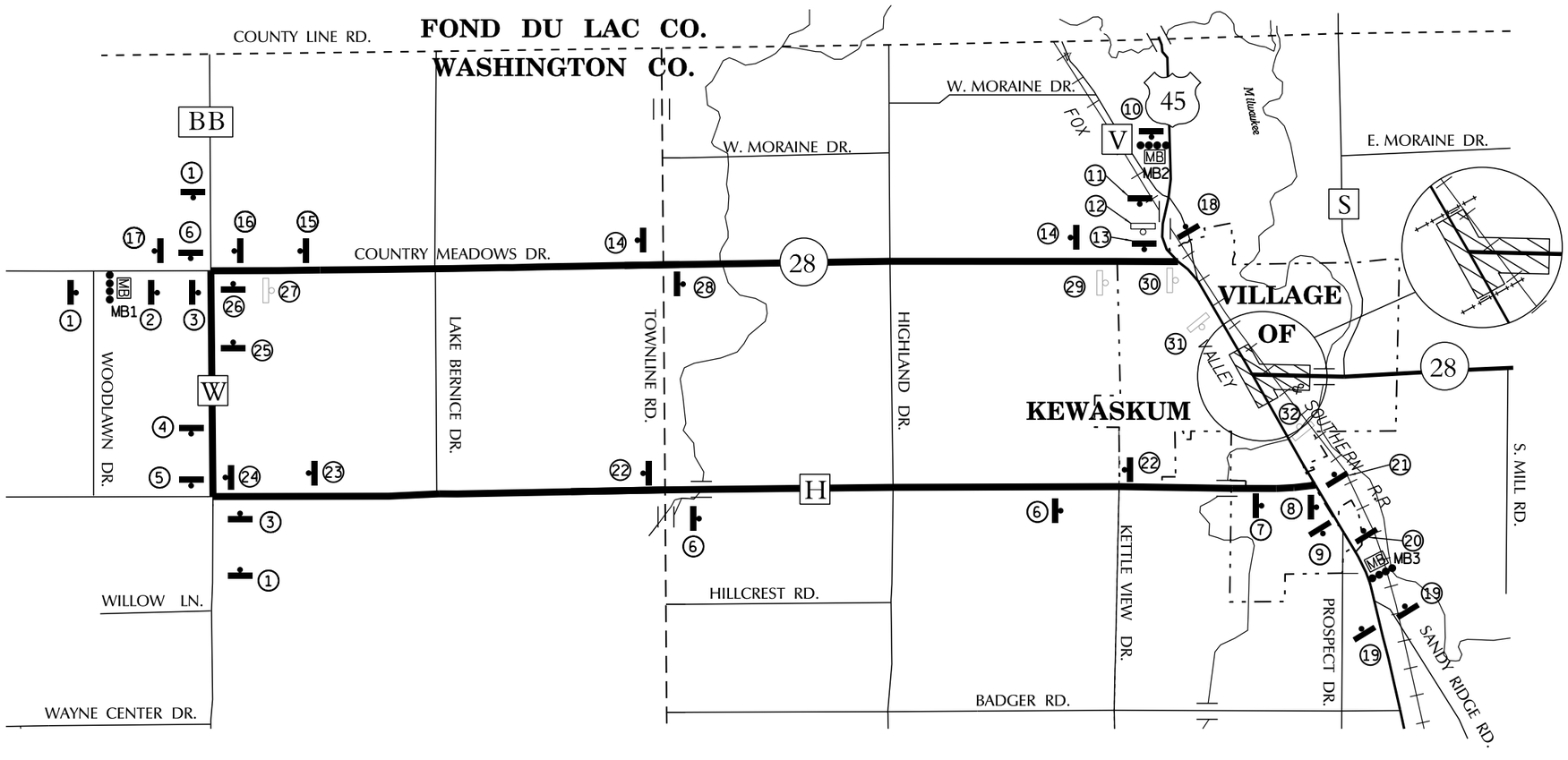
ALL SIGNS ARE STANDARD SIZE UNLESS NOTED AS FREEWAY SIZE.

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

EXISTING SIGNS THAT CONFLICT WITH DETOUR SIGNING SHALL BE COVERED.

LOCATIONS OF TRAFFIC CONTROL DEVICES ARE APPROXIMATE. THE EXACT LOCATION OF ALL DEVICES SHALL BE ADJUSTED TO FIT FIELD CONDITIONS AS APPROVED BY THE ENGINEER.

ALL SIGNS ON THIS SHEET TO BE PAID FOR AS "TRAFFIC CONTROL DETOUR SIGNS" EXCEPT FOR "TRAFFIC CONTROL SIGNS FIXED MESSAGE".



PROJECT NO: 4060-05-71	HWY: STH 28 - MAINT ST.	COUNTY: WASHINGTON	DETOUR ROUTE	SHEET 14	E

DATE 29OCT13 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	4060-05-71 QUANTITY
0010	201.0105	CLEARING	STA	1.000	1.000
0020	201.0205	GRUBBING	STA	1.000	1.000
0090	204.0100	REMOVING PAVEMENT	SY	79.000	79.000
0130	204.0150	REMOVING CURB & GUTTER	LF	206.000	206.000
0140	204.0155	REMOVING CONCRETE SIDEWALK	SY	110.000	110.000
0280	204.9105.S	REMOVING (ITEM DESCRIPTION) 100. LIFT STATION CONCRETE FOUNDATION	LS	1.000	1.000
0310	205.0501.S	EXCAVATION, HAULING, AND DISPOSAL OF PETROLEUM CONTAMINATED SOIL	TON	1,360.000	1,360.000
0410	213.0100	FINISHING ROADWAY (PROJECT) 002. 4060-05-71	EACH	1.000	1.000
0430	305.0120	BASE AGGREGATE DENSE 1 1/4-INCH	TON	820.000	820.000
0520	455.0115	ASPHALTIC MATERIAL PG64-22	TON	1.000	1.000
0570	460.1110	HMA PAVEMENT TYPE E-10	TON	15.000	15.000
0590	465.0120	ASPHALTIC SURFACE DRIVEWAYS AND FIELD ENTRANCES	TON	25.000	25.000
0600	465.0125	ASPHALTIC SURFACE TEMPORARY	TON	25.000	25.000
1030	601.0409	CONCRETE CURB & GUTTER 30-INCH TYPE A	LF	12.000	12.000
1040	601.0411	CONCRETE CURB & GUTTER 30-INCH TYPE D	LF	194.000	194.000
1080	602.0405	CONCRETE SIDEWALK 4-INCH	SF	987.000	987.000
1100	602.0415	CONCRETE SIDEWALK 6-INCH	SF	53.000	53.000
1450	611.8110	ADJUSTING MANHOLE COVERS	EACH	1.000	1.000
1540	616.0700.S	FENCE SAFETY	LF	200.000	200.000
1990	643.0100	TRAFFIC CONTROL (PROJECT) 002. 4060-05-71	EACH	1.000	1.000
2000	643.0300	TRAFFIC CONTROL DRUMS	DAY	180.000	180.000
2020	643.0420	TRAFFIC CONTROL BARRICADES TYPE III	DAY	64.000	64.000
2030	643.0705	TRAFFIC CONTROL WARNING LIGHTS TYPE A	DAY	128.000	128.000
2070	643.0920	TRAFFIC CONTROL COVERING SIGNS TYPE II	EACH	16.000	16.000
2090	643.1050	TRAFFIC CONTROL SIGNS PCMS	DAY	45.000	45.000
2110	643.2000	TRAFFIC CONTROL DETOUR (PROJECT) 002. 4060-05-71	EACH	1.000	1.000
2120	643.3000	TRAFFIC CONTROL DETOUR SIGNS	DAY	1,888.000	1,888.000
2790	690.0250	SAWING CONCRETE	LF	546.000	546.000
2820	999.1000.S	SEISMOGRAPH 002. 4060-05-71	LS	1.000	1.000
2840	999.1500.S	CRACK AND DAMAGE SURVEY 002. 4060-05-71	LS	1.000	1.000
2890	SPV.0035	SPECIAL 100. SLURRY BACKFILL	CY	25.000	25.000
2970	SPV.0060	SPECIAL 100. WATER VALVE AND BOX 6-INCH	EACH	17.000	17.000
2980	SPV.0060	SPECIAL 101. WATER VALVE AND BOX 10-INCH	EACH	15.000	15.000
2990	SPV.0060	SPECIAL 102. FIRE HYDRANT	EACH	9.000	9.000
3000	SPV.0060	SPECIAL 103. WATER MAIN TEE 10" X 6"	EACH	8.000	8.000
3010	SPV.0060	SPECIAL 104. WATER MAIN TEE 8" X 8"	EACH	1.000	1.000
3020	SPV.0060	SPECIAL 105. WATER MAIN TEE 10" X 10"	EACH	1.000	1.000
3030	SPV.0060	SPECIAL 106. WATER MAIN CROSS 10" X 6"	EACH	3.000	3.000
3040	SPV.0060	SPECIAL 107. WATER MAIN CROSS 10" X 10"	EACH	1.000	1.000
3050	SPV.0060	SPECIAL 108. REDUCER 10" X 6"	EACH	2.000	2.000
3060	SPV.0060	SPECIAL 109. CONNECT WATER MAIN TO EXISTING	EACH	11.000	11.000
3070	SPV.0060	SPECIAL 110. BEND 22.5 DEGREE 6"	EACH	4.000	4.000
3080	SPV.0060	SPECIAL 111. BEND 45 DEGREE 6"	EACH	4.000	4.000
3090	SPV.0060	SPECIAL 112. BEND 22.5 DEGREE 10"	EACH	2.000	2.000
3100	SPV.0060	SPECIAL 113. BEND 45 DEGREE 10"	EACH	8.000	8.000
3110	SPV.0060	SPECIAL 114. 1" CORPORATION, CURB STOP & BOX SET	EACH	53.000	53.000

3

DATE 29OCT13 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	4060-05-71 QUANTITY
3120	SPV.0060	SPECIAL 115. 2" CORPORATION, CURB STOP & BOX SET	EACH	5.000	5.000
3130	SPV.0060	SPECIAL 116. REMOVE FIRE HYDRANT	EACH	6.000	6.000
3140	SPV.0060	SPECIAL 117. REMOVE WATER VALVE	EACH	9.000	9.000
3150	SPV.0060	SPECIAL 118. REMOVE TEE STA. 79+02, 67. 50' RT	EACH	1.000	1.000
3160	SPV.0060	SPECIAL 119. REMOVING SANITARY MANHOLE	EACH	13.000	13.000
3170	SPV.0060	SPECIAL 120. ABANDON WATER VALVE	EACH	18.000	18.000
3180	SPV.0060	SPECIAL 122. RECONSTRUCT SANITARY MANHOLE	EACH	1.000	1.000
3190	SPV.0060	SPECIAL 123. WATER MAIN TEE 6" X 6"	EACH	1.000	1.000
3200	SPV.0060	SPECIAL 124. BEND 45 DEGREE 8"	EACH	1.000	1.000
3210	SPV.0060	SPECIAL 125. REDUCER 10" X 8"	EACH	1.000	1.000
3220	SPV.0060	SPECIAL 126. FLOUROCARBON GASKET 10-INCH	EACH	26.000	26.000
3230	SPV.0060	SPECIAL 127. WATER MAIN OFFSET 6-INCH	EACH	7.000	7.000
3240	SPV.0060	SPECIAL 128. WATER MAIN OFFSET 10-INCH	EACH	8.000	8.000
3250	SPV.0060	SPECIAL 129. ABANDON FIRE HYDRANT	EACH	2.000	2.000
3260	SPV.0060	SPECIAL 130. ADJUSTING WATER VALVE BOXES	EACH	3.000	3.000
3350	SPV.0090	SPECIAL 100. WATER MAIN 6-INCH	LF	576.000	576.000
3360	SPV.0090	SPECIAL 101. WATER MAIN 10-INCH PVC	LF	2,948.000	2,948.000
3370	SPV.0090	SPECIAL 102. WATER SERVICE 1-INCH	LF	1,576.000	1,576.000
3380	SPV.0090	SPECIAL 103. WATER SERVICE 2-INCH	LF	150.000	150.000
3390	SPV.0090	SPECIAL 104. SANITARY SEWER PIPE 8-INCH	LF	2,375.000	2,375.000
3400	SPV.0090	SPECIAL 105. SANITARY SEWER PIPE 12-INCH	LF	623.000	623.000
3410	SPV.0090	SPECIAL 107. SANITARY LATERAL 6-INCH	LF	2,122.000	2,122.000
3420	SPV.0090	SPECIAL 108. SANITARY FORCEMAIN 1.5-INCH	LF	212.000	212.000
3430	SPV.0090	SPECIAL 109. SANITARY SEWER PIPE 10-INCH	LF	52.000	52.000
3440	SPV.0090	SPECIAL 110. SANITARY SEWER PIPE 15-INCH	LF	47.000	47.000
3450	SPV.0090	SPECIAL 111. WATER MAIN 10-INCH DUCTILE IRON	LF	340.000	340.000
3460	SPV.0090	SPECIAL 112. ABANDON SANITARY SEWER	LF	535.000	535.000
3470	SPV.0090	SPECIAL 113. SLURRY BACKFILL TRENCH	LF	10,758.000	10,758.000
3480	SPV.0090	SPECIAL 114. REMOVING EXISTING WATER MAIN B-66-950	LF	110.000	110.000
3570	SPV.0105	SPECIAL 100. DIRECTIONAL BORE SDR 11 HDPE WATER MAIN PROJECT 4060-05-71	LS	1.000	1.000
3580	SPV.0105	SPECIAL 101. DUPLEX GRINDER PUMP STATION	LS	1.000	1.000
3590	SPV.0105	SPECIAL 102. CONSTRUCTION STAKING MISCELLANEOUS VILLAGE UTILITIES	LS	1.000	1.000
3610	SPV.0165	SPECIAL 100. WATER MAIN INSULATION	SF	65.000	65.000
3620	SPV.0180	SPECIAL 100. CONCRETE BASE 9-INCH, SPECIAL	SY	76.000	76.000
3640	SPV.0200	SPECIAL 100. SANITARY SEWER MANHOLES	VF	134.000	134.000
3650	SPV.0200	SPECIAL 101. WATER VALVE MANHOLE A	VF	8.000	8.000

3

CLEARING AND GRUBBING

CATEGORY	STATION	DESCRIPTION	201.0105 CLEARING STA.	201.0205 GRUBBING STA.
0010	STA. 97+00 TO 98+00 LT.	STH 28	1	1
		PROJECT TOTAL	1	1

REMOVING CURB AND GUTTER
204.0150

CATEGORY	STATION	DESCRIPTION	L.F.
0010	79+00, RT.	W.M. TRENCH	12
	100+65, LT.	SAN. AND W.M. TEE	10
	100+78, RT.	SAN. TRENCH	5
	101+18, RT.	SAN. AND W.M. TRENCH	8
	101+30, RT.	SAN. TRENCH	5
	101+90, RT.	SAN. AND W.M. TRENCH	12
	102+66, RT.	SAN. AND W.M. TRENCH	5
	103+73, RT.	SAN. AND W.M. TRENCH	12
	104+15, LT.	W.M. TRENCH	5
	104+44, LT.	SAN. TRENCH	5
	104+56, RT.	W.M. TRENCH	5
	104+72, RT.	SAN. TRENCH	5
	105+14, RT.	SAN. TRENCH	5
	105+25, RT.	SAN. AND W.M. TRENCH	10
	105+32, LT.	W.M. TRENCH	5
	105+77, LT.	SAN. AND W.M. TRENCH	8
	106+20, LT.	SAN. AND W.M. TRENCH	10
	106+32, RT.	SAN. AND W.M. TRENCH	13
	107+57, RT.	SAN. TRENCH	5
	107+61, LT.	SAN. TRENCH	5
	107+89, RT.	SAN. AND W.M. TRENCH	8
	108+33, LT.	SAN. TRENCH	5
	108+65, RT.	SAN. AND W.M. TRENCH	11
	109+33, RT.	SAN. AND W.M. TRENCH	8
	109+87, RT.	SAN. AND W.M. TRENCH	10
	110+41, RT.	SAN. AND W.M. TRENCH	9
	110+94, RT.	SAN. AND W.M. TRENCH	5
		PROJECT TOTAL	206

REMOVING CONCRETE SIDEWALK
204.0155

CATEGORY	STATION	DESCRIPTION	S.Y.
0010	100+65, LT.	SAN. AND W.M. TEE	4.2
	100+78, RT.	SAN. TRENCH	2.4
	101+18, RT.	SAN. AND W.M. TRENCH	3.4
	101+30, RT.	SAN. TRENCH	2.3
	101+90, RT.	SAN. AND W.M. TRENCH	6.2
	102+66, RT.	SAN. AND W.M. TRENCH	2.8
	103+68, RT.	W.M. TRENCH	2.4
	103+73, RT.	SAN. AND W.M. TRENCH	5.9
	103+79, LT.	SAN. TRENCH	2.6
	104+15, LT.	W.M. TRENCH	2.7
	104+44, LT.	SAN. TRENCH	2.9
	104+56, RT.	W.M. TRENCH	3.6
	104+72, RT.	SAN. TRENCH	2.8
	105+14, LT.	SAN. TRENCH	2.6
	105+25, RT.	SAN. AND W.M. TRENCH	4.7
	105+32, LT.	W.M. TRENCH	2.7
	105+77, LT.	SAN. AND W.M. TRENCH	3.8
	106+20, LT.	SAN. AND W.M. TRENCH	5.4
	106+32, RT.	SAN. AND W.M. TRENCH	6.4
	107+57, RT.	SAN. TRENCH	2.7
	107+61, LT.	SAN. TRENCH	2.3
	107+89, RT.	SAN. AND W.M. TRENCH	4.6
	108+65, RT.	SAN. AND W.M. TRENCH	6.1
	109+33, RT.	SAN. AND W.M. TRENCH	4.4
	109+87, RT.	SAN. AND W.M. TRENCH	5.4
	110+41, RT.	SAN. AND W.M. TRENCH	5.5
	110+94, RT.	SAN. AND W.M. TRENCH	3.5
		PROJECT TOTAL	110

REMOVING PAVEMENT
204.0100

CATEGORY	STATION	DESCRIPTION	S.Y.
0010	78+50, LT.	SAN. AND W.M. TRENCH	56
	79+02, RT.	W.M. TRENCH	23
		PROJECT TOTAL	79

REMOVING LIFT STATION CONCRETE FOUNDATION
204.9105.S.100

CATEGORY	STATION	DESCRIPTION	LS
0010	96+25, RT.	STH 28	1
		PROJECT TOTAL	1

EXCAVATION, HAULING, AND DISPOSAL OF PETROLUEM CONTAMINATED SOIL
205.0501.S

CATEGORY	STATION	DESCRIPTION	TONS
0010	91+25 – 92+26	SAN. TRENCH	270
	91+25 – 92+26	W.M. TRENCH	130
	91+25 – 92+26	SAN. AND W.M. LATERALS TRENCH	145
	95+00 – 96+03	SAN. TRENCH	310
	95+00 – 96+03	SAN. FORCEMAIN TRENCH	170
	95+00 – 96+03	W.M. TRENCH	85
	95+00 – 96+03	SAN. AND W.M. LATERALS TRENCH	250
		PROJECT TOTAL	1360

BASE AGGREGATE DENSE 1 1/4– INCH
305.0120

CATEGORY	STATION	DESCRIPTION	TONS
0010	–	SAN. AND W.M. TRENCHES	500
	95+50, LT.	DRIVEWAY FOR LIFT STATION	70
	–	TEMPORARY FOR DRIVEWAY ACCESS	250
		PROJECT TOTAL	820

ASPHALTIC MATERIAL PG64–22
455.0115

CATEGORY	STATION	LOCATION	TONS
0010	–	PROJECT 4060–05–71	1
		PROJECT TOTAL	1

HMA PAVEMENT E–10
460.1110

CATEGORY	STATION	LOCATION	TONS
0010	78+50, LT.	SAN AND W.M. TRENCH	11
	79+00, RT.	W.M. TRENCH	4
		PROJECT TOTAL	15

ASPHALTIC SURFACE DRIVEWAY AND FIELD ENTRANCES
465.0120

CATEGORY	STATION	LOCATION	TONS
0010	95+50, LT.	DRIVEWAY FOR LIFT STATION	25
		PROJECT TOTAL	25

ASPHALTIC SURFACE TEMPORARY
465.0125

CATEGORY	LOCATION	TONS
0010	SIDEWALK REMOVAL AREAS FOR LATERALS	25
	PROJECT TOTAL	25

CONCRETE CURB AND GUTTER

CATEGORY	STATION	DESCRIPTION	601.0409 30-INCH TYPE A L.F.	601.0411 30-INCH TYPE D L.F.
0010	79+00, RT.	W.M. TRENCH	12	–
	100+65, LT.	SAN. AND W.M. TEE	–	10
	100+78, RT.	SAN. TRENCH	–	5
	101+18, RT.	SAN. AND W.M. TRENCH	–	8
	101+30, RT.	SAN. TRENCH	–	5
	101+90, RT.	SAN. AND W.M. TRENCH	–	12
	102+66, RT.	SAN. AND W.M. TRENCH	–	5
	103+73, RT.	SAN. AND W.M. TRENCH	–	12
	104+15, LT.	W.M. TRENCH	–	5
	104+44, LT.	SAN. TRENCH	–	5
	104+56, RT.	W.M. TRENCH	–	5
	104+72, RT.	SAN. TRENCH	–	5
	105+14, LT.	SAN. TRENCH	–	5
	105+25, RT.	SAN. AND W.M. TRENCH	–	10
	105+32, LT.	W.M. TRENCH	–	5
	105+77, LT.	SAN. AND W.M. TRENCH	–	8
	106+20, LT.	SAN. AND W.M. TRENCH	–	10
	106+32, RT.	SAN. AND W.M. TRENCH	–	13
	107+57, RT.	SAN. TRENCH	–	5
	107+61, LT.	SAN. TRENCH	–	5
	107+89, RT.	SAN. AND W.M. TRENCH	–	8
	108+33, LT.	SAN. TRENCH	–	5
	108+65, RT.	SAN. AND W.M. TRENCH	–	11
	109+33, RT.	SAN. AND W.M. TRENCH	–	8
	109+87, RT.	SAN. AND W.M. TRENCH	–	10
	110+41, RT.	SAN. AND W.M. TRENCH	–	9
	110+94, RT.	SAN. AND W.M. TRENCH	–	5
		PROJECT TOTAL	12	194

CONCRETE SIDEWALK

CATEGORY	STATION	DESCRIPTION	602.0405 4-INCH S.F.	602.0415 6-INCH S.F.
0010	100+65, LT.	SAN. AND W.M. TEE	38.0	–
	100+78, RT.	SAN. TRENCH	22.0	–
	101+18, RT.	SAN. AND W.M. TRENCH	31.0	–
	101+30, RT.	SAN. TRENCH	21.0	–
	101+90, RT.	SAN. AND W.M. TRENCH	56.0	–
	102+66, RT.	SAN. AND W.M. TRENCH	25.0	–
	103+68, LT.	W.M. TRENCH	22.0	–
	103+73, RT.	SAN. AND W.M. TRENCH	53.0	–
	103+79, LT.	SAN. TRENCH	23.0	–
	104+15, LT.	W.M. TRENCH	24.0	–
	104+44, LT.	SAN. TRENCH	26.0	–
	104+56, RT.	W.M. TRENCH	–	33.0
	104+72, RT.	SAN. TRENCH	26.0	–
	105+14, LT.	SAN. TRENCH	24.0	–
	105+25, RT.	SAN. AND W.M. TRENCH	43.0	–
	105+32, LT.	W.M. TRENCH	24.0	–
	105+77, LT.	SAN. AND W.M. TRENCH	35.0	–
	106+20, LT.	SAN. AND W.M. TRENCH	49.0	–
	106+32, RT.	SAN. AND W.M. TRENCH	58.0	–
	107+57, RT.	SAN. TRENCH	24.0	–
	107+61, RT.	SAN. TRENCH	21.0	–
	107+89, RT.	SAN. AND W.M. TRENCH	41.0	–
	108+65, RT.	SAN. AND W.M. TRENCH	55.0	–
	109+33, RT.	SAN. AND W.M. TRENCH	40.0	–
	109+87, RT.	SAN. AND W.M. TRENCH	49.0	–
	110+41, RT.	SAN. AND W.M. TRENCH	50.0	–
	110+94, RT.	SAN. AND W.M. TRENCH	32.0	–
	–	UNDISTRIBUTED	75.0	20.0
		PROJECT TOTAL	987	53

ADJUSTING MANHOLE COVERS
611.8110

CATEGORY	STATION	DESCRIPTION	EXISTING RIM ELEVATION	PROPOSED RIM ELEVATION	EACH
0010	98+42.62, 5.70' RT.	STH 28	937.27	937.07	1
				PROJECT TOTAL	1

FENCE SAFETY
616.0700.S

CATEGORY	LOCATION	LF
0010	SIDEWALK REMOVAL AREAS FOR LATERALS	200
	PROJECT TOTAL	200

SAWING CONCRETE
690.0250

CATEGORY	STATION	LOCATION	L.F.
0010	78+50, LT.	SAN. AND W.M. TRENCH	86
	79+00, RT.	W.M. TRENCH	50
	100+65, LT.	SAN. AND W.M. TEE	15
	100+78, RT.	SAN. TRENCH	15
	101+18, RT.	SAN. AND W.M. TRENCH	15
	101+30, RT.	SAN. TRENCH	15
	101+90, RT.	SAN. AND W.M. TRENCH	15
	102+66, RT.	SAN. AND W.M. TRENCH	15
	103+68, LT.	W.M. TRENCH	10
	103+73, RT.	SAN. AND W.M. TRENCH	15
	103+79, LT.	SAN. TRENCH	10
	104+15, LT.	W.M. TRENCH	15
	104+44, LT.	SAN. TRENCH	15
	104+56, RT.	W.M. TRENCH	15
	104+72, RT.	SAN. TRENCH	15
	105+14, LT.	SAN. TRENCH	15
	105+25, RT.	SAN. AND W.M. TRENCH	15
	105+32, LT.	W.M. TRENCH	15
	105+77, LT.	SAN. AND W.M. TRENCH	15
	106+20, LT.	SAN. AND W.M. TRENCH	15
	106+32, RT.	SAN. AND W.M. TRENCH	15
	107+57, RT.	SAN. TRENCH	15
	107+61, LT.	SAN. TRENCH	15
	107+89, RT.	SAN. AND W.M. TRENCH	15
	108+33, LT.	SAN. TRENCH	15
	108+65, RT.	SAN. AND W.M. TRENCH	15
	109+33, RT.	SAN. AND W.M. TRENCH	15
	109+87, RT.	SAN. AND W.M. TRENCH	15
	110+41, RT.	SAN. AND W.M. TRENCH	15
	110+94, RT.	SAN. AND W.M. TRENCH	15
		PROJECT TOTAL	546

SEISMOGRAPH
999.1000.S

CATEGORY	STATION	DESCRIPTION	LS
0010	78+33 – 111+10.44	PROJECT 4060-05-71	1
		PROJECT TOTAL	1

CRACK AND DAMAGE SURVEY
999.1500.S

CATEGORY	STATION	DESCRIPTION	LS
0010	78+33 – 111+10.44	PROJECT 4060-05-71	1
		PROJECT TOTAL	1

SANITARY SEWER MANHOLES
SPV.0200.100

CATEGORY	LOCATION	V.F.
0010	MH 162	11.73
	MH 162A	10.97
	MH 159	9.28
	MH 161	11.17
	MH 282	9.30
	MH 282A	9.62
	MH 281	9.90
	MH 277	9.37
	MH 277A	11.44
	MH 280	10.64
	MH 306	7.64
	MH 314	8.30
	MH 316	8.53
	MH 315	6.02
	PROJECT TOTAL	134

WATER VALVE MANHOLE A
SPV.0200.101

CATEGORY	STATION	V.F.
0010	95+73.69, 44.49' LT.	8.00
	PROJECT TOTAL	8

SLURRY BACKFILL AND TRENCH SLURRY BACKFILL

CATEGORY	LOCATION	SPV.0035.100 SLURRY BACKFILL C.Y.	SPV.0090.113 SLURRY BACKFILL TRENCH L.F.
0010	SANITARY TRENCHES PROJECT LIMITS	–	3309
	WATER MAIN TRENCHES PROJECT LIMITS	–	3729
	WM AND SAN. LATERALS PROJECT LIMITS	–	3720
	PAVEMENT , SIDEWALK AND CURB REPLACEMENT	25	–
	PROJECT TOTAL	25	10758

WATER VALVE AND BOX 6-INCH
SPV.0060.100

CATEGORY	STATION	DESCRIPTION	EACH
0010	79+17, 9.60' LT.	STH 28	1
	82+78, 10.08' LT.	STH 28	1
	84+75, 11.07' LT.	STH 28	1
	89+13, 10.44' LT.	STH 28	1
	93+81, 11.75' LT.	STH 28	1
	93+83, 8.84' LT	STH 28	1
	93+81, 5.70' LT.	STH 28	1
	93+84, 41.42' LT.	STH 28	1
	99+66, 13.06' LT.	STH 28	1
	99+92, 9.42' LT.	STH 28	1
	103+09, 16.60' LT.	STH 28	1
	103+09, 9.00' LT.	STH 28	1
	103+53, 15.48' LT.	STH 28	1
	106+72, 16.00' LT.	STH 28	1
	106+86, 16.00' LT	STH 28	1
	106+86, 10.00' LT.	STH 28	1
	111+02.31, 9.55' RT.	STH 28	1
	PROJECT TOTAL		17

WATER VALVE AND BOX 10-INCH
SPV.0060.101

CATEGORY	STATION	DESCRIPTION	EACH
0010	78+66, 7.52' LT.	STH 28	1
	82+81, 7.77' LT.	STH 28	1
	84+52, 11.02' LT.	STH 28	1
	84+55, 8.03' LT.	STH 28	1
	89+10, 7.43' LT.	STH 28	1
	93+78, 8.75' LT.	STH 28	1
	93+83.79, 8.84' LT.	STH 28	1
	98+12, 32.70' LT.	STH 28	1
	99+86, 9.49' LT.	STH 28	1
	99+92, 9.42' LT.	STH 28	1
	103+06, 13.00' LT.	STH 28	1
	103+55, 13.00' LT.	STH 28	1
	106+83, 13.00' LT.	STH 28	1
	106+89, 13.00' LT.	STH 28	1
	111+07, 6.53' LT.	STH 28	1
	PROJECT TOTAL		15

FIRE HYDRANT
SPV.0060.102

CATEGORY	STATION	DESCRIPTION	EACH
0010	79+17, LT.	STH 28	1
	82+77, LT.	STH 28	1
	84+75, LT.	STH 28	1
	89+13, LT.	STH 28	1
	93+57, LT.	STH 28	1
	99+66, LT.	STH 28	1
	103+53, LT.	STH 28	1
	106+72, LT.	STH 28	1
	111+02, LT.	STH 28	1
	PROJECT TOTAL		9

3

PROJECT ID 4060-05-71 DETOUR ROUTE TRAFFIC CONTROL ITEMS

		TRAFFIC CONTROL							
		DRUMS	BARRICADES TYPE III	WARNING LIGHTS TYPE A	COVERING SIGNS TYPE II	SIGNS PCMS	DETOUR PROJECT 4060-05-71	DETOUR SIGNS	
		643.0300	643.0420	643.0705	643.0920	643.1050	643.2000	643.3000	
CATEGORY	LOCATION	DAY	DAY	DAY	EACH	DAY	EACH	DAY	REMARKS
0010	PROJECT LIMITS	--	--	--	--	--	1	--	
0010	USH 45 NB	60	32	64	2	15	--	248	4 DRUMS AT EACH PCMS
0010	USH 45 SB	60	32	64	6	15	--	256	4 DRUMS AT EACH PCMS
0010	STH 28 EB	60	--	--	8	15	--	256	4 DRUMS AT EACH PCMS
0010	STH 28 WB	--	--	--	--	--	--	248	
0010	CTH 'BB' SB	--	--	--	--	--	--	104	
0010	CTH 'W' NB	--	--	--	--	--	--	216	
0010	CTH 'W' SB	--	--	--	--	--	--	112	
0010	CTH 'H' EB	--	--	--	--	--	--	224	
0010	CTH 'H' WB	--	--	--	--	--	--	224	
	TOTAL	180	64	128	16	45	1	1888	

WATER MAIN TEE 10" x 6"
SPV.0060.103

CATEGORY	STATION	DESCRIPTION	EACH
0010	79+17.58, 7.27' LT.	STH 28	1
	82+78.08, 7.75' LT.	STH 28	1
	84+75.10, 8.07' LT.	STH 28	1
	89+13.11, 7.43' LT.	STH 28	1
	99+66.37, 10.06' LT.	STH 28	1
	103+52.50, 13.00' LT.	STH 28	1
	106+71.60, 13.00' LT.	STH 28	1
	111+02.30, 6.56' RT.	STH 28	1
		PROJECT TOTAL	8

WATER MAIN TEE 8" x 8"
SPV.0060.104

CATEGORY	STATION	DESCRIPTION	EACH
0010	78+59.38, 5.78' LT.	STH 28	1
		PROJECT TOTAL	1

WATER MAIN TEE 10" x 10"
SPV.0060.105

CATEGORY	STATION	DESCRIPTION	EACH
0010	84+52.44, 8.02' LT	STH 28	1
		PROJECT TOTAL	1

WATER MAIN CROSS 10" x 6"
SPV.0060.106

CATEGORY	STATION	DESCRIPTION	EACH
0010	93+80.76, 8.79' LT.	STH 28	1
	103+08.67, 13.00' LT	STH 28	1
	106+86.47, 13.00' LT.	STH 28	1
		PROJECT TOTAL	3

WATER MAIN CROSS 10" x 10"
SPV.0060.107

CATEGORY	STATION	DESCRIPTION	EACH
0010	99+89.31, 9.39' LT.	STH 28	1
		PROJECT TOTAL	1

REDUCER 10" x 6"
SPV.0060.108

CATEGORY	STATION	DESCRIPTION	EACH
0010	UNDISTRIBUTED	STH 28	2
		PROJECT TOTAL	2

CONNECT WATER MAIN TO EXISTING
SPV.0060.109

CATEGORY	STATION	DESCRIPTION	EACH
0010	78+59.38, 5.78' LT.	STH 28	1
	84+20.52, 62.23' LT.	STH 28	1
	93+80.95, 50.66' RT.	STH 28	1
	93+86.82, 62.33' LT.	STH 28	1
	99+89.31, 9.39' LT.	STH 28	2
	103+16.99, 39.83' LT.	STH 28	1
	103+08.41, 43.99' RT.	STH 28	1
	106+83.36, 30.80' LT.	STH 28	1
	106+89.91, 42.36' RT.	STH 28	1
	111+89.91, 5.63' RT.	STH 28	1
		PROJECT TOTAL	11

BEND 22.5 DEGREE 6"
SPV.0060.110

CATEGORY	STATION	DESCRIPTION	EACH
0010	106+86.24, 22.13' LT.	STH 28	1
	106+83.33, 29.61' LT.	STH 28	1
	106+86.44, 32.91' RT.	STH 28	1
	106+89.83, 41.16' RT.	STH 28	1
		PROJECT TOTAL	4

BEND 45 DEGREE 6"
SPV.0060.111

CATEGORY	STATION	DESCRIPTION	EACH
0010	93+80.61, 31.77' LT.	STH 28	1
	93+86.10, 38.13' LT.	STH 28	1
	103+88.71, 21.34' LT.	STH 28	1
	103+25.83, 38.33' LT.	STH 28	1
		PROJECT TOTAL	4

BEND 22.5 DEGREE 10"
SPV.0060.112

CATEGORY	STATION	DESCRIPTION	EACH
0010	–	UNDISTRIBUTED	2
		PROJECT TOTAL	2

BEND 45 DEGREE 10"
SPV.0060.113

CATEGORY	STATION	DESCRIPTION	EACH
0010	84+52.06, 20.58' LT.	STH 28	1
	95+36.28, 5.71' LT.	STH 28	1
	98+37.50, 10.42' LT.	STH 28	1
	100+24.05, 8.67' LT.	STH 28	1
	100+28.55, 13.00' LT	STH 28	1
	107+05.38, 13.00' LT.	STH 28	1
	107+34.61, 7.78' RT.	STH 28	1
	11+09.63, 6.52' RT.	STH 28	1
		PROJECT TOTAL	8

REMOVE FIRE HYDRANT
SPV.0060.116

CATEGORY	STATION	DESCRIPTION	EACH
0010	82+77, LT.	STH 28	1
	89+13, LT.	STH 28	1
	93+57, LT	STH 28	1
	100+39, LT.	STH 28	1
	106+46, LT.	STH 28	1
	110+86, RT.	STH 28	1
		PROJECT TOTAL	6

REMOVE WATER VALVE
SPV.0060.117

CATEGORY	STATION	DESCRIPTION	EACH
0010	82+62, LT.	STH 28	1
	82+79, LT.	STH 28	1
	84+49 LT.	STH 28	1
	93+81, LT.	STH 28	1
	100+00 – 111+00	STH 28	5
		PROJECT TOTAL	9

REMOVE TEE STA. 79+02, 67.50' RT.
SPV.0060.118

CATEGORY	LOCATION	DESCRIPTION	EACH
0010	STA. 79+02, 67.50' RT.	STH 28	1
		PROJECT TOTAL	1

REMOVE SANITARY MANHOLE
SPV.0060.119

CATEGORY	STATION	DESCRIPTION	EACH
0010	78+43, LT.	SAN. MH 162	1
	80+63, LT.	SAN. MH159	1
	82+79, LT.	SAN. MH 160A	1
	83+23, LT.	SAN. MH 160	1
	84+12, RT.	SAN. MH 161	1
	84+57, RT.	SAN. MH 282	1
	89+46, RT.	SAN. MH 281	1
	93+96, LT.	SAN. MH 277	1
	96+06, C/L	SAN. MH 280	1
	103+15, RT.	SAN .MH 306	1
	106+97, RT.	SAN. MH 316	1
	106+97, RT.	SAN. MH 314	1
	110+94, RT.	SAN. MH 315	1
		PROJECT TOTAL	13

ABANDON WATER VALVE
SPV.0060.120

CATEGORY	STATION	DESCRIPTION	EACH
0010	78+76, LT.	STH 28	1
	84+61, LT.	STH 28	1
	89+31, LT.	STH 28	1
	93+62, LT.	STH 28	1
	93+87, LT	STH 28	1
	94+13, LT.	STH 28	1
	96+15, LT.	STH 28	1
	98+13, LT.	STH 28	1
	98+15, LT.	STH 28	1
	100+05, LT.	STH 28	1
	100+00 – 111+00	STH 28	8
		PROJECT TOTAL	18

RECONSTRUCT SANITARY MANHOLE
SPV.0060.122

CATEGORY	STATION	DESCRIPTION	EXISTING RIM ELEVATION	PROPOSED RIM ELEVATION	EACH
0010	100+00, 0.0' RT.	STH 28	937.45	937.12	1
				PROJECT TOTAL	1

WATER MAIN TEE 6" x 6"
SPV.0060.123

CATEGORY	STATION	DESCRIPTION	EACH
0010	93+86.89, 41.43' LT.	STH 28	1
		PROJECT TOTAL	1

45 DEGREE 8"
SPV.0060.124

CATEGORY	STATION	DESCRIPTION	EACH
0010	78+62.36, 7.54' LT.	STH 28	1
		PROJECT TOTAL	1

REDUCER 10" x 8"
SPV.0060.125

CATEGORY	STATION	DESCRIPTION	EACH
0010	78+62.36, LT.	STH 28	1
		PROJECT TOTAL	1

FLUOROCARBON GASKET 10-INCH
SPV.0060.126

CATEGORY	STATION	DESCRIPTION	EACH
0010	78+62.36, LT.	STH 28 *	26
		PROJECT TOTAL	26

* TO BE INSTALLED IN CONTAMINATED SOIL AREAS ONLY

WATER MAIN OFFSET

CATEGORY	STATION	SPV.0060.127 6-Inch EACH	SPV.0060.128 10-Inch EACH
0010	93+09, LT.	–	1
	94+14, LT.	–	1
	106+86, RT.	1	–
	103+16, LT.	–	1
	103+16, LT.	1	–
	UNDISTRIBUTED	5	5
	PROJECT TOTAL	7	8

ABANDON FIRE HYDRANT
SPV.0060.129

CATEGORY	STATION	ABANDON FIRE HYDRANT EACH
0010	79+14, 60.27' RT.	1
	84+54, RT.	1
	PROJECT TOTAL	2

ADJUSTING WATER VALVE BOXES
SPV.0060.130

CATEGORY	STATION	DESCRIPTION	EACH
0010	99+84, RT.	STH 28	1
	99+89, RT.	STH 28	1
	100+03, LT.	STH 28	1
		PROJECT TOTAL	3

WATER MAIN 6-INCH
SPV.0090.100

CATEGORY	STATION	DESCRIPTION	L.F.
0010	79+17, LT.	HYDRANT LEAD	25
	82+77, LT.	HYDRANT LEAD	25
	84+75, LT.	HYDRANT LEAD	25
	89+13, LT.	HYDRANT LEAD	24
	90+81, LT.	CONNECTION N. SIDE PARK VIEW DR.	56
	–	HYDRANT LEAD ON N. SIDE PARK VIEW DR.	31
	90+81, LT.	CONNECTION S. SIDE PARK VIEW DR.	60
	93+57, LT.	HYDRANT LEAD	30
	99+66, LT.	HYDRANT LEAD	23
	99+89, LT.	CONNECTION SOUTH SIDE RIVER VIEW DR.	63
	103+08	CONNECTION N. SIDE KEWASKUM ST.	34
	103+08	CONNECTION S. SIDE KEWASKUM ST.	57
	103+52, LT.	HYDRANT LEAD	9
	106+72, LT.	HYDRANT LEAD	19
	106+86, LT.	CONNECTION N. SIDE OF STARK ST.	20
	106+86, LT.	CONNECTION S. SIDE OF STARK ST.	55
	111+08, RT.	HYDRANT LEAD	20
		PROJECT TOTAL	576

WATER MAIN 10-INCH PVC
SPV.0090.101

CATEGORY	STATION	DESCRIPTION	L.F.
0010	78+59 – 84+52, LT		594
	84+52, LT.	CONNECTION ON RAILROAD ST.	65
	84+52 – 93+81, LT.		827
	93+81 – 99+89, LT.		300
	99+89, LT.	NORTH CONNECTION ON RIVER VIEW DR.	33
	99+89 – 103+09, LT.		322
	103+09 – 106+86, LT.		378
	106+86 – 111+10, LT.		429
		PROJECT TOTAL	2948

1-INCH WATER SERVICE AND CURB BOX SETS

CATEGORY	STATION	WATER SERVICE 1-INCH SPV.0090.102 L.F.	1" CORP, CURB STOP & BOX SET SPV.0060.114 EACH
0010	79+52, LT.	25	1
	79+94, LT.	25	1
	80+37, RT.	33	1
	80+80, RT.	33	1
	81+51, RT.	33	1
	81+80, RT.	27	1
	82+25, RT.	39	1
	83+12, RT.	40	1
	84+35, LT.	15	1
	84+74, RT.	39	1
	85+39, LT.	24	1
	85+61, RT.	35	1
	86+12, LT.	19	1
	86+20, RT.	35	1
	86+49, LT.	24	1
	86+81, RT.	39	1
	86+83, LT.	24	1
	87+03, LT.	24	1
	87+24, LT.	19	1
	87+49, LT.	24	1
	88+23, LT.	24	1
	89+41, RT.	38	1
	90+35, LT.	24	1
	90+59, RT.	38	1
	91+09, LT.	20	1
	91+27, RT.	38	1
	91+78, LT.	23	1
	92+20, RT.	37	1
	93+05, RT.	37	1
	94+48, LT.	23	1
	95+16, RT.	33	1
	95+33, LT.	21	1
	95+91, RT.	60	1
	98+60, RT.	44	1
	100+64, LT.	16	1
	101+18, RT.	45	1
	101+68, LT.	16	1
	101+86, RT.	46	1
	103+68, LT.	16	1
	103+69, RT.	45	1
	104+15, LT.	16	1
	104+57, RT.	41	1
	105+21, RT.	45	1
	105+32, LT.	15	1
	105+81, LT.	15	1
	106+25, LT.	15	1
	106+28, RT.	45	1
	107+90, RT.	27	1
	108+62, RT.	27	1
	109+34, RT.	27	1
	109+89, RT.	27	1
	110+39, RT.	27	1
	110+87, RT.	29	1
	PROJECT TOTAL	1576	53

2-INCH WATER SERVICE AND CURB BOX SETS

CATEGORY	STATION	WATER SERVICE 2-INCH SPV.0090.103 L.F.	2" CORP, CURB STOP & BOX SET SPV.0060.115 EACH
0010	UNDISTRIBUTED	150	5
	PROJECT TOTAL	150	5

SANITARY SEWER PIPE 8–INCH
SPV.0090.104

CATEGORY	LOCATION	L.F.
0010	MH 277 TO NORTH CONNECTION POINT	61
	MH 277 TO SOUTH CONNECTION POINT	3
	MH 277A TO MH 280	126
	MH 280 TO LIFT STATION	42
	MH 282 TO MH 282A	300
	MH 282A TO MH 281	300
	MH 281 TO MH 277	321
	MH 305 TO MH 306	316
	MH 306 TO NORTH CONNECTION POINT	42
	MH 306 TO SOUTH CONNECTION POINT	43
	MH 306 TO MH 316	382
	MH 316 TO MH 314	15
	MH 314 TO SOUTH CONNECTION POINT	27
	MH 314 TO MH 315	397
	PROJECT TOTAL	2375

SANITARY SEWER PIPE 12–INCH
SPV.0090.105

CATERGORY	LOCATION	L.F.
0010	MH 162 TO MH 162A	35
	MH 162A TO MH 159	231
	MH 159 TO MH 161	305
	MH 277 TO SOUTH CONNECTION POINT	52
	PROJECT TOTAL	623

SANITARY FORCEMAIN 1.5–INCH
SPV.0090.108

CATEGORY	LOCATION	L.F.
0010	FROM LIFT STATION TO MANHOLE 277A	212
	PROJECT TOTAL	212

SANITARY SEWER PIPE 10–INCH
SPV.0090.109

CATEGORY	LOCATION	L.F.
0010	MH 161 TO NORTH CONNECTION POINT	52
	PROJECT TOTAL	52

SANITARY SEWER PIPE 15–INCH
SPV.0090.110

CATEGORY	LOCATION	L.F.
0010	MH 161 TO SOUTH CONNECTION POINT	47
	PROJECT TOTAL	47

SANITARY LATERAL 6–INCH
SPV.0090.107

CATEGORY	STATION	L.F.
0010	78+92, LT.	31
	79+67, RT.	32
	80+07, LT.	33
	80+26, RT.	29
	80+68, RT.	29
	81+33, RT.	30
	81+66, RT.	30
	81+93, RT.	30
	82+32, RT.	30
	82+65, RT.	31
	82+67, LT.	29
	83+17, RT.	31
	84+79, RT.	32
	84+86, LT.	34
	85+05, RT.	31
	85+37, LT.	34
	85+73, RT.	31
	86+00, LT.	34
	86+22, RT.	31
	86+43, LT.	34
	86+59, RT.	31
	86+70, LT.	34
	86+87, LT.	34
	87+04, LT.	33
	87+29, LT.	33
	87+54, LT.	33
	87+61, RT.	31
	88+22, LT.	33
	88+40, LT.	33
	88+82, LT.	33
	89+39, RT.	30
	89+83, LT.	33
	90+04, RT.	30
	90+35, LT.	33
	90+60, RT.	30
	90+66, RT.	30
	91+10, LT.	32
	91+27, RT.	30
	91+77, LT.	32
	92+19, RT.	31
	92+36, LT.	31
	93+02, RT.	31
	94+51, LT.	40
	94+89, LT.	37
	95+26, RT.	20
	95+29, LT.	37
	100+68, LT.	29
	100+78, RT.	32
	101+15, RT.	32
	101+30, RT.	32
	101+93, RT.	32
	102+64, LT.	29
	102+66, RT.	27
	103+75, LT.	31
	103+79, LT.	28
	104+44, LT.	28
	104+72, RT.	31
	105+13, LT.	28
	105+26, RT.	31
	105+77, LT.	27
	106+20, LT.	26
	106+36, RT.	31
	107+57, RT.	17
	107+61, LT.	41
	107+87, RT.	17
	108+32, LT.	40
	108+68, RT.	18
	109+31, RT.	18
	109+86, RT.	18
	110+43, RT.	18
	PROJECT TOTAL	2122

WATER MAIN 10–INCH DUCTILE IRON
SPV.0090.111

CATEGORY	* STATION	L.F.
0010	90+75 – 92+75, LT.	200
	94+50 – 95+70.37, LT.	140
	PROJECT TOTAL	340

* TO BE INSTALLED IN CONTAMINATED SOIL AREAS ONLY

ABANDON SANITARY SEWER
SPV.0090.112

CATEGORY	STATION	L.F.
0010	78+43 – 84+12	535
	PROJECT TOTAL	535

REMOVING EXISTING WATER MAIN (B–66–950)
SPV.0090.114

CATEGORY	STATION	L.F.
0010	STA. 96+30 – STA. 97+40 (ATTACHED TO B–66–950)	110
	PROJECT TOTAL	110

DIRECTIONAL BORE SDR 11 HDPE WATER MAIN
SPV.0105.100

CATEGORY	STATION	DESCRIPTION	LS
0010	*95+70.37 – 98+12.16	MAIN STREET (STH 28) LT.	1
		PROJECT TOTAL	1

*NOTE: APPROXIMATE LIMITS OF DIRECTIONAL BORE.

DUPLEX GRINDER PUMP STATION
SPV.0105.101

CATEGORY	STATION	L.S.
0010	95+74.13, 30.50' LT	1
	PROJECT TOTAL	1

CONSTRUCTION STAKING MISCELLANEOUS VILLAGE UTILITIES
SPV.0105.102

CATEGORY	LOCATION	L.S.
0010	STH 28	1
	PROJECT TOTAL	1

WATER MAIN INSULATION
SPV.0165.100

CATEGORY	STATION	DESCRIPTION	S.F.
0010	93+96, LT	10" WATER MAIN CROSSING	15
	–	UNDISTRIBUTED LOCATIONS	50
		PROJECT TOTAL	65

NOTE: INSTALL AT WATER MAIN LOCATIONS WITH LESS THAN 6–FEET OF COVER

CONCRETE BASE 9–INCH, SPECIAL
SPV.0180.100

CATEGORY	STATION	DESCRIPTION	S.Y.
0010	78+50, LT.	SAN. AND W.M. TRENCH	56
	79+00, RT.	W.M. TRENCH	20
		PROJECT TOTAL	76

BENCH MARKS		
LOCATION	DESCRIPTION	ELEVATION
80+11.96, 37.63' LT.	#2 SQUARE END OF STEP	950.34

NOTE: COMPLETELY REMOVE ALL EXISTING SANITARY SEWER AND WATER FACILITIES AS SHOWN ON THE PLAN THAT ARE IN CONFLICT WITH THE NEW FACILITIES AND / OR ARE LOCATED WITHIN THE TRENCH AND EXCAVATION LIMITS OF THE NEW FACILITIES. BULKHEAD EACH END OF THE PIPES TO BE ABANDONED IN ACCORDANCE WITH THE VILLAGE OF KEWASKUM SPECIFICATIONS AND ACCORDING TO THE STANDARD SPECIFICATIONS FOR SEWER AND WATER CONSTRUCTION IN WISCONSIN.

CONTROL POINTS		
LOCATION	DESCRIPTION	ELEVATION
82+45.06, 92.92' LT.	BERNTSEN FENO MON. N=219912.829 E=350614.784	949.09

NORTH

SCALE – FEET 0 20

USH 45/STH 28

FOND DU LAC AVE.

STH "28"

① STA. 78+59.38, 5.78' LT.
INSTALL 8"X8" TEE
STA. 78+62.36, 7.54' LT.
INSTALL 8"–45° BEND W/
10" X 8" REDUCER

② STA. 78+66.27, 7.52' LT.
INSTALL 10" WATER VALVE

③ STA. 79+17.58, 7.27' LT.
INSTALL 10"X6" TEE
STA. 79+17.51, 9.60' LT.
INSTALL 6" WATER VALVE

④ STA. 82+78.08, 7.75' LT.
INSTALL 10"X6" TEE
STA. 82+81.14, 7.77' LT.
INSTALL 10" WATER VALVE

⑤ STA. 82+78.01, 10.08' LT.
INSTALL 6" WATER VALVE

STA. 79+16.81, 31.83' LT.
INSTALL HYDRANT
BREAK AWAY FLANGE = 950.58

STA. 82+77.34, 32.61' LT.
INSTALL HYDRANT
BREAK AWAY FLANGE = 948.95

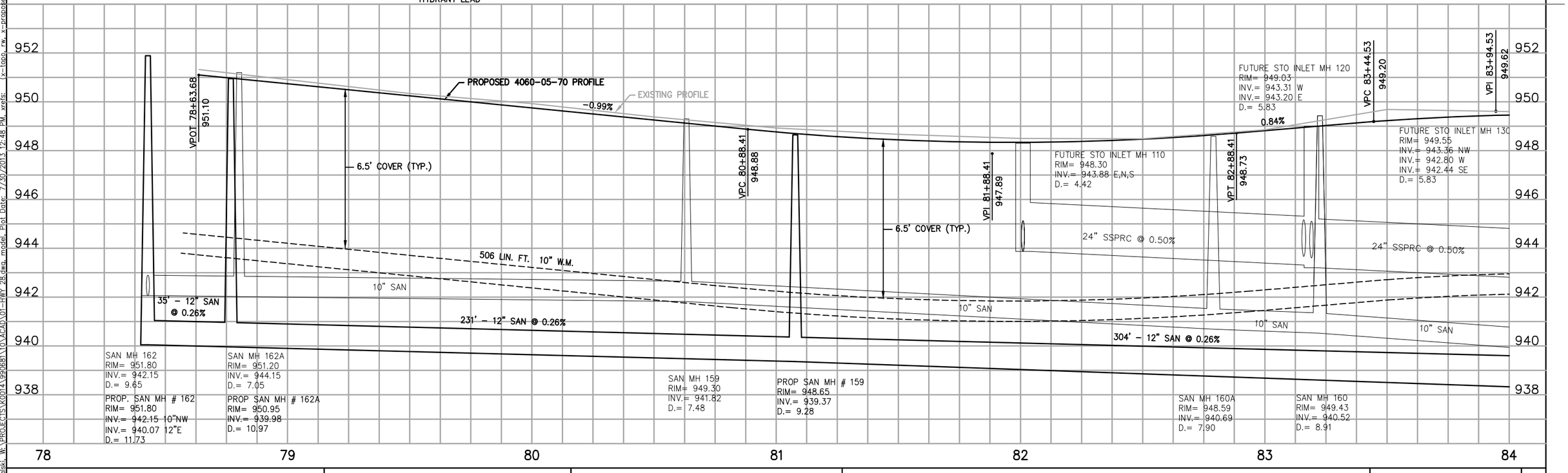
159 SANITARY MANHOLE
STA 81+07.52, 1.69' RT.

162 SANITARY MANHOLE
STA 78+42.88, 6.24' LT.

162A SANITARY MANHOLE
STA 78+76.83, 0.62' RT.

SAWING CONCRETE
REMOVE SAN. MH
ABANDON VALVE
ABANDON WATER MAIN
ABANDON SANITARY SEWER
ABANDON EXISTING HYDRANT
REMOVE EXISTING TEE. PROVIDE 8" D.I. WATER MAIN PIPE AND INSTALL A STAINLESS STEEL REPAIR SLEEVE. BULKHEAD EXIST. HYDRANT LEAD
EXISTING CURB AND GUTTER
PROPOSED CURB AND GUTTER
ASPH. PARKING LOT
1" WS TO FOUNTAIN
4" LAT. TO FOUNTAIN
REMOVE VALVE
REMOVE HYDRANT
REMOVE SAN. MH
FUTURE STO. SEWER
MATCH LINE
ABANDON EXIST 2" WS RECONNECT EXIST 1" WS

10" W.M.
8' MIN.
12" SAN
6" SAN
1" WS
CONC. SIDEWALK
ASPH.
BLDG
MH
SIGN
GV



PROJECT NO: 4060–05–71	HWY: STH 28	COUNTY: WASHINGTON	SANITARY SEWER AND WATERMAIN	SHEET 23 E

FILE NAME : PLOT DATE : PLOT BY : PLOT NAME : PLOT SCALE :

WISDOT/CADDS SHEET 30

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NOTE: COMPLETELY REMOVE ALL EXISTING SANITARY SEWER AND WATER FACILITIES AS SHOWN ON THE PLAN THAT ARE IN CONFLICT WITH THE NEW FACILITIES AND / OR ARE LOCATED WITHIN THE TRENCH AND EXCAVATION LIMITS OF THE NEW FACILITIES. BULKHEAD EACH END OF THE PIPES TO BE ABANDONED IN ACCORDANCE WITH THE VILLAGE OF KEWASKUM SPECIFICATIONS AND ACCORDING TO THE STANDARD SPECIFICATIONS FOR SEWER AND WATER CONSTRUCTION IN WISCONSIN.

STA. 84+20.52, 62.23' LT.
CONNECT TO EXISTING 10" W.M.

STA. 83+99.32, 48.26' LT.
CONNECT TO EXISTING 10" SAN.

RAILROAD ST.

② STA. 84+46.5, 11' LT.
INSTALL 10" WATER VALVE
STA. 84+46, 25.9' LT.
INSTALL 10"-45° BEND

③ STA. 84+75.10, 8.07' LT.
INSTALL 10"X6" TEE
STA. 84+75.13, 11.07' LT.
INSTALL 6" WATER VALVE

④ STA. 84+75.28, 32.82' LT.
INSTALL HYDRANT
BREAK AWAY FLANGE = 949.86

⑥ STA. 89+13.11, 10.44' LT.
INSTALL 6" WATER VALVE
STA. 89+13.13, 31.25' LT.
INSTALL HYDRANT
BREAK AWAY FLANGE = 946.22

⑤ STA. 89+10.19, 7.43' LT.
INSTALL 10" WATER VALVE
STA. 89+13.11, 7.43' LT.
INSTALL 10"X6" TEE

ABANDON VALVE
REMOVE VALVE
REMOVE TEE
REM. SAN. MH
REMOVE SAN. MH
ABANDON WATER MAIN
ABANDON HYDRANT
REMOVE HYDRANT

282 SANITARY MANHOLE
STA 84+75.12, 0.26' RT.

282A SANITARY MANHOLE
STA 87+75.12, 0.67' RT.

161 SANITARY MANHOLE
STA 84+11.84, 0.87' LT.

MAIN STREET (STH 28)

FUTURE 24" STO. SEWER

PROPOSED CURB AND GUTTER

EXISTING CURB AND GUTTER

STA. 84+38.97, 37.87' RT.
CONNECT TO EXISTING 15" SAN.

① STA. 84+46.5, 8' LT.
INSTALL 10"X10" TEE
STA. 84+49.5, 8' LT.
INSTALL 10" WATER VALVE

BENCH MARKS		
LOCATION	DESCRIPTION	ELEVATION
85+39.13, 0.39' LT.	#201 CONTROL POINT T6T201	949.41
89+13.43, 25.15' LT.	BOLT ON HYDRANT	949.62

NORTH

SCALE – FEET 0 20

*NOTE: INSTALL WATER SERVICES BELOW ELEVATION OF FUTURE STORM SEWER

VPC 83+44.20 949.20
VPI 83+93.6 949.6
VPT 84+44.47 949.47

FUTURE STO INLET MH 210
RIM= 948.96
INV.= 944.96 E,SW
INV.= 944.21 E
D.= 4.75

EXISTING PROFILE
PROPOSED 4060-05-70 PROFILE
-0.30%

FUTURE STO INLET MH 130
RIM= 949.55
INV.= 943.36 NW
INV.= 942.80 W
INV.= 942.44 SE
D.= 5.83

FUTURE STO INLET MH 220
RIM= 948.32
INV.= 944.36 S
INV.= 943.50 N
INV.= 942.10 E,W
D.= 6.22

FUTURE STO INLET MH 230
RIM= 948.16
INV.= 943.29 N
INV.= 941.88 E,W
D.= 6.28

6.5' COVER (TYP.)

24" SSPRC @ 0.50%

24" SSPRC @ 0.66%

550 LIN. FT. 10" W.M.

10" SAN

304' – 12" SAN @ 0.26%

EX SAN MH 161
RIM= 949.72
INV.= 939.82 W
INV.= 938.84 N
INV.= 938.29 S
D.= 11.43

PROP SAN MH # 161
RIM= 949.46
INV.= 938.84 N
INV.= 938.29 W,S
D.= 11.17

EX SAN MH 282
RIM= 949.64
INV.= 940.54
D.= 9.10

PROP SAN MH # 282
RIM= 949.30
INV.= 940.00
D.= 9.30

300' – 8" SAN @ 0.40%

PROP SAN MH # 282A
RIM= 948.42
INV.= 938.80
D.= 9.62

950 948 946 944 942 940 938 936 934

84 85 86 87 88 89

PROJECT NO: 4060-05-71	HWY: STH 28	COUNTY: WASHINGTON	SANITARY SEWER AND WATERMAIN	SHEET 24 E

FILE NAME : PLOT DATE : PLOT BY : PLOT NAME : PLOT SCALE :

WISDOT/CADDS SHEET 30

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NORTH

SCALE – FEET 2 20

NOTE: COMPLETELY REMOVE ALL EXISTING SANITARY SEWER AND WATER FACILITIES AS SHOWN ON THE PLAN THAT ARE IN CONFLICT WITH THE NEW FACILITIES AND / OR ARE LOCATED WITHIN THE TRENCH AND EXCAVATION LIMITS OF THE NEW FACILITIES. BULKHEAD EACH END OF THE PIPES TO BE ABANDONED IN ACCORDANCE WITH THE VILLAGE OF KEWASKUM SPECIFICATIONS AND ACCORDING TO THE STANDARD SPECIFICATIONS FOR SEWER AND WATER CONSTRUCTION IN WISCONSIN.

START AND END 10" DUCTILE IRON WATER MAIN W/ FITTINGS AND FLOUROCARBON GASKETS AT 50' FROM LIMITS OF CONTAMINATED SOIL AS DETERMINED BY THE ENGINEER IN THE FIELD AT THE TIME OF CONSTRUCTION

APPROX. LIMITS OF CONTAMINATED SOIL

STA. 93+80.61, 31.77' LT. ⑤
INSTALL 6"–45° BEND

STA. 93+56.65, 41.33' LT. ⑥
INSTALL HYDRANT
STA. 93+84.03, 41.42' LT.
INSTALL 6" WATER VALVE
BREAK AWAY FLANGE = 946.00

CONNECT TO EXIST. 8" SANITARY
STA 93+95.71, 62.38' LT.

STA. 93+86.82, 62.33' LT.
CONNECT TO EXISTING 6" W.M.

④ STA. 93+86.89, 41.43' LT.
INSTALL 6"X6" TEE
STA. 93+86.90, 38.13' LT.
INSTALL 6"–45° BEND

③ STA. 93+80.74, 11.75' LT.
INSTALL 6" WATER VALVE
STA. 93+83.79, 8.84' LT.
INSTALL 6" WATER VALVE

REMOVE HYDRANT

ABANDON VALVE

ABANDON VALVE REM. VALVE

ABANDON WATER MAIN

REMOVE SAN. MH

(FUTURE) STO.

1.5" FM

PROPOSED CURB AND GUTTER

EXISTING CURB AND GUTTER

STA. 93+77.77, 8.75' LT. ①
INSTALL 10" WATER VALVE
STA. 93+80.76, 8.79' LT.
INSTALL 10"X6" CROSS

STA. 93+80.77, 5.70' LT. ②
INSTALL 6" WATER VALVE

OFFSET 6" WATER MAIN BELOW 27" STO. SEWER. MAINTAIN A MIN. OF 18" SEPARATION. TOP OF WATER MAIN = 936.13. (SEE CONST. DETAIL)

RELAY 52' – 12" SAN

STA. 93+80.95, 50.66' RT.
CONNECT TO EXISTING 6" W.M.

CONNECT TO EXIST. 12" SANITARY
STA 93+96.07, 50.59' RT.

CONST. 6" WATER MAIN ABOVE 8" SAN. SEWER. MAINTAIN A MIN. OF 6" SEPARATION. TOP OF WATER MAIN = 938.50

⑧ 281 SANITARY MANHOLE
STA 90+75.12, 1.24' RT.

⑦ 277 SANITARY MANHOLE
STA 93+95.93, 1.00' LT.

277A SANITARY MANHOLE
STA 94+48.47, 7.33' RT.

MAIN STREET (STH 28)

FUTURE 24" STO. SEWER

PARK VIEW DR.

CONTROL POINTS		
LOCATION	DESCRIPTION	ELEVATION
90+40.46, 33.08' RT.	RR COMM. WATER& POWER N=219763.304 E=351406.097	947.63

PROPOSED 4060-05-70 PROFILE

*NOTE: INSTALL WATER SERVICES BELOW ELEVATION OF FUTURE STORM SEWER

6.5' COVER (TYP.)

24" SSPRC @ 0.50%

550 LIN. FT. 10" W.M.

10" SAN

300' – 8" SAN @ 0.40%

EX SAN MH 281
RIM= 948.10
INV.= 938.62
D.= 9.48

FUTURE STO INLET MH 240
RIM= 947.58
INV.= 941.37 S
INV.= 941.12 N
INV.= 940.62 W
INV.= 940.12 E
D.= 7.46

-0.30%

30" SSPRC @ 0.59%

PROP. SAN MH 281
RIM= 947.50
INV.= 937.60
D.= 9.90

VPC 92+60
946.98

EXISTING PROFILE

VPI 93+35
946.76

EX SAN MH 277
RIM= 944.53
INV.= 937.03 N
INV.= 936.83 W
INV.= 936.33 E
INV.= 935.03 S,E
D.= 9.50

FUTURE STO MH 260
RIM= 943.26
INV.= 938.11 N
INV.= 937.56 W
INV.= 936.11 E
D.= 7.15

FUTURE STO INLET MH 250
RIM= 946.77
INV.= 939.63 S
INV.= 939.38 N
INV.= 938.89 W
INV.= 938.77 E
D.= 8.00

VPT 94+10
943.85

VPC 94+46.10
942.45

-3.87%

CONST. WATER MAIN OVER 8" SAN. SEWER N. OF MH 277. MAINTAIN A MIN. OF 6" SEPARATION. TOP OF WATER MAIN = 939.00. WATER MAIN INSULATION REQUIRED.

27" SSPRC @ 1.22%

OFFSET WATER MAIN BELOW 18" STORM SEWER INLET LEAD. MAINTAIN A MIN. OF 18" SEPARATION. TOP OF WATER MAIN = 936.36 (SEE CONST. DETAIL)

OFFSET WATER MAIN BELOW 18" STORM SEWER INLET LEAD. MAINTAIN A MIN. OF 18" SEPARATION. TOP OF WATER MAIN = 937.63 (SEE CONST. DETAIL)

PROP. SAN MH 277
RIM= 944.40
INV.= 937.00 N
INV.= 936.33 W
INV.= 936.52 E 1.5" FM
INV.= 935.03 S
D.= 9.37

948 946 944 942 940 938 936 934

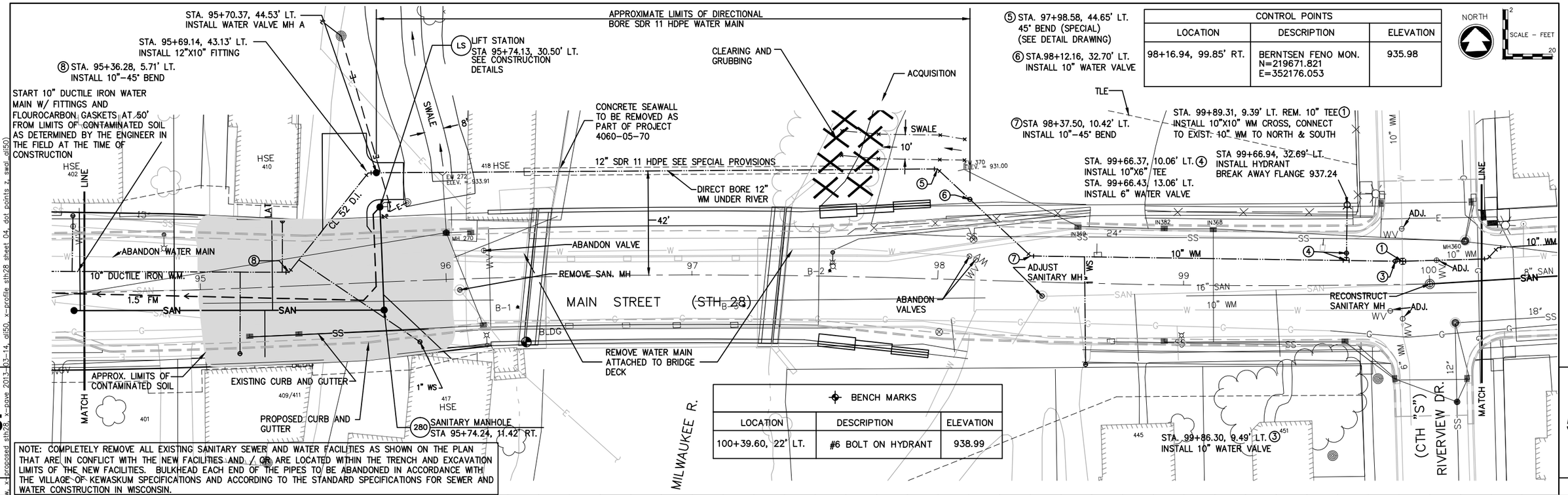
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PROJECT NO: 4060-05-71	HWY: STH 28	COUNTY: WASHINGTON	SANITARY SEWER AND WATERMAIN	SHEET 25 E

FILE NAME : PLOT DATE : PLOT BY : PLOT NAME : PLOT SCALE :

WISDOT/CADDS SHEET 30

mnoolski, W:\PROJECTS\K0014\990681\10\ACAD\03-HWY 28.dwg, model, Plot Date: 7/30/2013 12:50 PM, xrefs: (x-topo, rw, x-proposed 4th28, x-pave 2013-03-14, all50, x-profile sth28, swol all50)

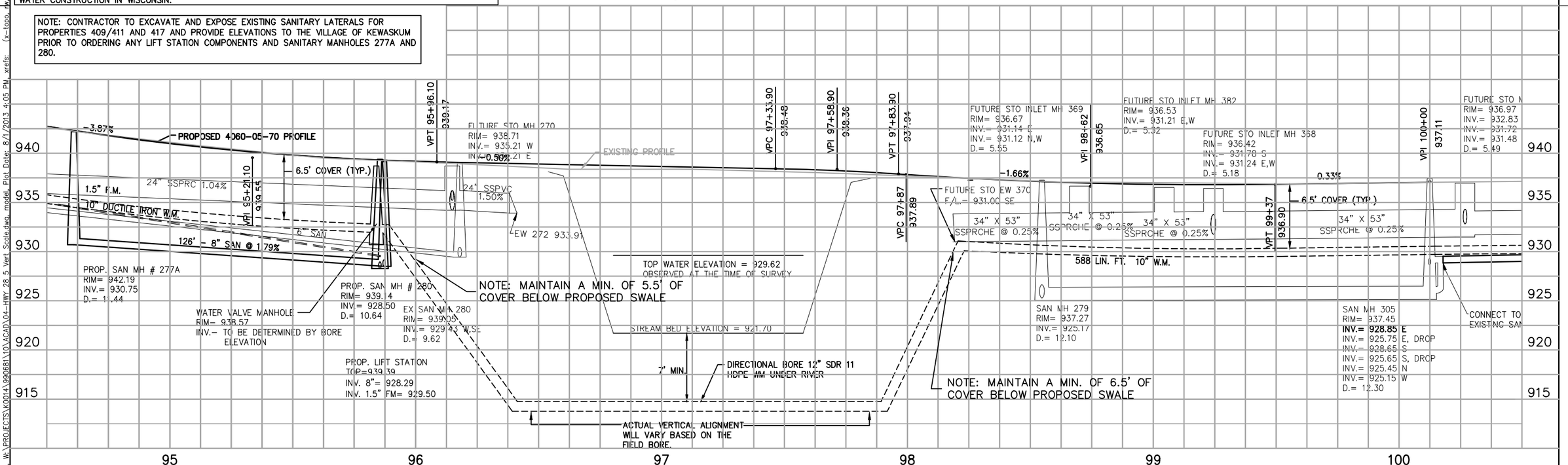


CONTROL POINTS		
LOCATION	DESCRIPTION	ELEVATION
98+16.94, 99.85' RT.	BERNTSEN FENO MON. N=219671.821 E=352176.053	935.98

BENCH MARKS		
LOCATION	DESCRIPTION	ELEVATION
100+39.60, 22' LT.	#6 BOLT ON HYDRANT	938.99

NOTE: COMPLETELY REMOVE ALL EXISTING SANITARY SEWER AND WATER FACILITIES AS SHOWN ON THE PLAN THAT ARE IN CONFLICT WITH THE NEW FACILITIES AND / OR ARE LOCATED WITHIN THE TRENCH AND EXCAVATION LIMITS OF THE NEW FACILITIES. BULKHEAD EACH END OF THE PIPES TO BE ABANDONED IN ACCORDANCE WITH THE VILLAGE OF KEWASKUM SPECIFICATIONS AND ACCORDING TO THE STANDARD SPECIFICATIONS FOR SEWER AND WATER CONSTRUCTION IN WISCONSIN.

NOTE: CONTRACTOR TO EXCAVATE AND EXPOSE EXISTING SANITARY LATERALS FOR PROPERTIES 409/411 AND 417 AND PROVIDE ELEVATIONS TO THE VILLAGE OF KEWASKUM PRIOR TO ORDERING ANY LIFT STATION COMPONENTS AND SANITARY MANHOLES 277A AND 280.



PROJECT NO: 4060-05-71	HWY: STH28	COUNTY: WASHINGTON	SANITARY SEWER AND WATERMAIN	SHEET E

FILE NAME : PLOT DATE : PLOT BY : PLOT NAME : PLOT SCALE :

pmgaidski, W:\PROJECTS\K0014\990681\10\ACAD\04-HWY 28 5 Vert Scale.dwg, model, Plot Date: 8/1/2013 4:05 PM, xrefs: (x-topo, pw, x-proposed sth28, x-pave 2013-03-14, al50, x-profile sth28 sheet 04, dot points z, swal, al50)

NOTE: COMPLETELY REMOVE ALL EXISTING SANITARY SEWER AND WATER FACILITIES AS SHOWN ON THE PLAN THAT ARE IN CONFLICT WITH THE NEW FACILITIES AND / OR ARE LOCATED WITHIN THE TRENCH AND EXCAVATION LIMITS OF THE NEW FACILITIES. BULKHEAD EACH END OF THE PIPES TO BE ABANDONED IN ACCORDANCE WITH THE VILLAGE OF KEWASKUM SPECIFICATIONS AND ACCORDING TO THE STANDARD SPECIFICATIONS FOR SEWER AND WATER CONSTRUCTION IN WISCONSIN.

① STA. 103+05.83, 13.00' LT.
INSTALL 10" WATER VALVE
STA. 103+08.71, 21.34' LT
INSTALL 6"-45° BEND

②STA. 103+08.69, 16.60' LT.
INSTALL 6" WATER VALVE

CONNECT TO EXIST. 8" SANITARY
STA 103+16.99, 39.83' RT.

STA 103+25.83, 38.33' LT.
INSTALL 6"-45° BEND AT
EXISTING 6" WATER MAIN

④ STA. 103+52.50, 13.00' LT.
INSTALL 10"X6" TEE
STA. 103+55.34, 13.00' LT.
INSTALL 10" WATER VALVE

⑤ STA. 103+52.68, 21.05' LT.
INSTALL HYDRANT
STA. 103+52.56, 15.48' LT.
INSTALL 6" WATER VALVE
BEAK AWAY FLANGE = 938.09

OFFSET 6" WATER MAIN ABOVE 8" SAN. SEWER. MAINTAIN A MIN. OF 6" SEPARATION. TOP OF 6" WM= 931.98. INSULATION REQ'D. AT CROSSING. CONTRACTOR TO VERIFY THAT A MIN. OF 5-FEET OF COVER IS PROVIDED.

OFFSET 10" WATER MAIN ABOVE 8" SAN. SEWER NORTH OF SAN. MH 306. MAINTAIN A MIN. OF 6" SEPARATION. TOP OF 10" WM= 932.30. INSULATION REQ'D. AT CROSSING. CONTRACTOR TO VERIFY THAT A MIN. OF 5-FEET OF COVER IS PROVIDED.

REM. HYDRANT

EXISTING CURB AND GUTTER

RELAY 42' – 8" SAN

REMOVE SAN. MH

RELAY 43' – 8" SAN

306 SANITARY MANHOLE
STA 103+15.65, 0.00' RT.

ABANDON WATER MAIN

MAIN STREET (STH 28)

(CTH "S")
RIVERVIEW DR.

KEWASKUM ST.

STA. 100+24.05, 8.67' LT.
INSTALL 10"-45° BEND
STA. 100+28.55, 13.00' LT.
INSTALL 10"-45° BEND

CONST. 6" WATER MAIN ABOVE 8" SAN. SEWER. MAINTAIN A MIN. OF 6" SEPARATION. TOP OF 6" WATER MAIN = 931.74
CONST. 6" WATER MAIN BELOW 24" SEWER. MAINTAIN A MIN. OF 6" SEPARATION. TOP OF 6" WATER MAIN = 931.74

③ STA. 103+08.67, 13.00' LT.
INSTALL 10"X6" CROSS
STA. 103+08.61, 9.00' LT.
INSTALL 6" WATER VALVE
STA 103+08.41, 43.99' RT. CONNECT TO EXISTING 6" WATER MAIN

CONNECT TO EXIST. 8" SANITARY
STA 103+14.37, 43.99' RT.

**– SAWING CONCRETE
NOTE: THE EXACT LOCATIONS OF SAWCUTS SHALL BE DETERMINED BY THE ENGINEER. THE SAWCUTS SHOULD BE MARKED OUT TO THE NEAREST JOINT WITH THE INTENT OF REMOVING FULL PANELS OF SIDEWALK.

BENCH MARKS		
LOCATION	DESCRIPTION	ELEVATION
100+39.60, 22' LT.	#6 BOLT ON HYDRANT	938.99
103+38.30, 21.7' RT.	#9775 CONTROL POINT 9402	937.52

NOTE: PROPOSED RIM ELEVATIONS SHOWN FOR SANITARY MANHOLES IN THE PAVEMENT REPLACEMENT SECTION OF THE PROJECT (STA. 99+75 – 113+70.59) ARE APPROXIMATE. CONTRACTOR TO SET FINISHED RIM ELEVATIONS TO MATCH THE FINAL PAVEMENT ELEVATIONS.

*NOTE: INSTALL WATER SERVICES ABOVE ELEVATION OF FUTURE SAN. SEWER. PROVIDE MIN. 6" CLEARANCE. INSULATE WATER SERVICES IF LESS THAN 5.5' OF COVER REMAINS.

EXISTING PROFILE

FUTURE STO MH 360
RIM= 936.97
INV.= 932.83 N
INV.= 931.72 E
INV.= 931.48 W
D.= 5.49

FUTURE STO MH 340
RIM= 936.28
INV.= 932.45 S
INV.= 932.04 W,E
D.= 4.24

FUTURE STO MH 330
RIM= 937.01
INV.= 933.29 N
INV.= 932.27 W,E
D.= 4.74

FUTURE STO MH 325
RIM= 937.13
INV.= 933.41 N,S
INV.= 932.87 E
INV.= 932.45 W
D.= 4.68

FUTURE STO MH 320
RIM= 937.44
INV.= 933.12 N,S,E,W
D.= 4.32

FUTURE STO MH 312
RIM= 938.74
INV.= 934.59 S
INV.= 933.48 E
INV.= 933.46 W
D.= 5.28

6.5' COVER (TYP.)

29" X 45" SSPRCHE @ 0.25%

29" X 45" SSPRCHE @ 0.35%

29" X 45" SSPRCHE @ 0.25%

24" SSPRC @ 0.62%

24" SSPRC @ 0.50%

24" SSPRC @ 1.17%

552 LIN. FT. 10" W.M.

316' – 8" SAN @ 0.40%

382' – 8" SAN @ 1.00%

8" SAN

SAN MH 305
RIM= 937.45
INV.= 928.85 E
INV.= 925.75 E, DROP
INV.= 928.65 S
INV.= 925.65 S, DROP
INV.= 925.45 N
INV.= 925.15 W
D.= 12.30

OFFSET 10" WATER MAIN ABOVE 8" SAN. SEWER NORTH OF SAN. MH 306. MAINTAIN A MIN. OF 6" SEPARATION. TOP OF 10" WM= 932.30. INSULATION REQ'D. AT CROSSING. CONTRACTOR TO VERIFY THAT A MIN. OF 5-FEET OF COVER IS PROVIDED.

SAN MH 306
RIM= 937.74
INV.= 930.64 S
INV.= 930.24 N
INV.= 930.18 E,W
D.= 7.56

PROP SAN MH 306
RIM= 937.74
INV.= 930.56 S
INV.= 930.16 N
INV.= 930.10 E,W
D.= 7.64

100 101 102 103 104 105 106

① STA. 106+71.60, 13.00' LT.
INSTALL 10"X6" TEE
STA. 106+83.42, 13.00' LT.
INSTALL 10" WATER VALVE

② STA. 106+72, 30.31' LT.
INSTALL HYDRANT
STA. 106+71.66, 16.00' LT.
INSTALL 6" WATER VALVE
BREAK AWAY FLANGE = 942.03

③ STA. 106+86.37, 16.00' LT.
INSTALL 6" WATER VALVE
STA. 106+86.47 10.00' LT.
INSTALL 6" WATER VALVE

④ STA. 106+86.24, 22.13' LT.
INSTALL 6"–22.5° BEND
STA. 106+83.33, 29.61' LT.
INSTALL 6"–22.5° BEND AT CONNECTION

⑤ STA. 106+86.47, 13.00' LT.
INSTALL 10"X6" CROSS
STA. 106+89.47 13.00' LT.
INSTALL 10" WATER VALVE

⑥ STA 107+05.38, 13.0' LT.
INSTALL 10"–45° BEND

⑨ CONNECT EXISTING 4" SAN. F.M. TO MH

NOTE: COMPLETELY REMOVE ALL EXISTING SANITARY SEWER AND WATER FACILITIES AS SHOWN ON THE PLAN THAT ARE IN CONFLICT WITH THE NEW FACILITIES AND / OR ARE LOCATED WITHIN THE TRENCH AND EXCAVATION LIMITS OF THE NEW FACILITIES. BULKHEAD EACH END OF THE PIPES TO BE ABANDONED IN ACCORDANCE WITH THE VILLAGE OF KEWASKUM SPECIFICATIONS AND ACCORDING TO THE STANDARD SPECIFICATIONS FOR SEWER AND WATER CONSTRUCTION IN WISCONSIN.

** – SAWING CONCRETE
NOTE: THE EXACT LOCATIONS OF SAWCUTS SHALL BE DETERMINED BY THE ENGINEER. THE SAWCUTS SHOULD BE MARKED OUT TO THE NEAREST JOINT WITH THE INTENT OF REMOVING FULL PANELS OF SIDEWALK.

SCALE – FEET 2 20

NORTH

BENCH MARKS		
LOCATION	DESCRIPTION	ELEVATION
106+65.6, 22.2' RT.	#9316 CONTROL POINT 941.37	941.73

⑩ STA. 111+02.30, 6.56' RT.
INSTALL 10"X 6" TEE
STA. 111+02.31, 9.55' LT.
INSTALL 6" WATER VALVE

STARK ST.

REMOVE HYDRANT

ABANDON WATER MAIN

316 SANITARY MANHOLE
STA 106+97.72, 1.60' RT.

RELAY 15' OF 8" SAN

CONST. 10" WATER MAIN BELOW 4" FORCE MAIN. MAINTAIN A MIN. OF 18" SEPARATION. TOP OF 10" WM= 934.44

REMOVE SAN. MH

314 SANITARY MANHOLE
STA 106+97.40, 15.91' RT.

⑦ STA 107+34.61, 7.78' RT.
INSTALL 10"–45° BEND

RELAY 27' OF 8" SAN

STA. 106+86.44, 32.91' RT.
INSTALL 6"–22.5° BEND
STA. 106+89.82, 41.16' RT.
INSTALL 6"–22.5° BEND AT CONNECTION

CONNECT TO EXIST. 8" SANITARY
STA 106+96.87, 42.48' RT.

MAIN STREET (STH "28")

CONCRETE SIDEWALK 4" (TYP.)

EXISTING CURB AND GUTTER

315 SANITARY MANHOLE
STA 110+94.34, 14.57' RT.

REMOVE SAN. MH

CONNECT TO EXISTING 10" W.M.

STA. 111+09.63 6.52' RT.
INSTALL 10" 45° BEND AT CONNECTION

REMOVE HYD.

STA. 111+02.37, 26.12' RT.
INSTALL HYDRANT

STA. 111+06.63 6.53' RT.
INSTALL 10" WATER VALVE

CONTROL POINTS		
LOCATION	DESCRIPTION	ELEVATION
112+54.46, 36.35' LT.	BERNTSEN FENO MON. N=219825.636 E=353619.422	941.22

PROP SAN MH 316
RIM= 942.44
INV.= 935.94 4"F.M. NE
INV.= 933.90 S,W
INV.= 935.39 4"E
D.= 8.53

SAN MH 316
RIM= 942.44
INV.= 935.94 4" F.M. NE
INV.= 935.39 S,W
INV.= 935.39 4"E
D.= 7.05

FUTURE STO MH 310
RIM= 942.47
INV.= 937.56 N,S
INV.= 936.90 W
D.= 5.57

*NOTE: INSTALL WATER SERVICES ABOVE ELEVATION OF FUTURE SAN. SEWER. PROVIDE MIN. 6" CLEARANCE. INSULATE WATER SERVICES IF LESS THAN 5.5' OF COVER REMAINS.

OFFSET 6" WATER MAIN BELOW 24" STO. SEWER. MAINTAIN A MIN. OF 18" SEPARATION. TOP OF 6" WM= 934.93

6.5' COVER (TYP.)

24" SSPRC @ 1.17%

8" SAN

382' – 8" SAN @ 1.36%

CONST. 6" WATER MAIN ABOVE 8" SAN. SEWER. MAINTAIN A MIN. OF 6" SEPARATION. TOP OF 6" WM= 935.42

SAN MH 314
RIM= 942.40
INV.= 935.80 E
INV.= 935.60 N,S
D.= 6.80

PROP SAN MH 314
RIM= 942.40
INV.= 935.40 S
INV.= 934.10 N,E
D.= 8.30

CONST. 10" WATER MAIN BELOW 18" STO. SEWER. MAINTAIN A MIN. OF 18" SEPARATION. TOP OF 10" WM= 935.00

545 LIN. FT. 10" W.M.

397' – 8" SAN @ 0.40%

6.5' COVER (TYP.)

SAN MH 315
RIM= 941.70
INV.= 937.50
D.= 4.20

PROP SAN MH 315
RIM= 941.70
INV.= 935.68
D.= 6.02

NOTE: PROPOSED RIM ELEVATIONS SHOWN FOR SANITARY MANHOLES IN THE PAVEMENT REPLACEMENT SECTION OF THE PROJECT (STA. 99+75 – 113+70.59) ARE APPROXIMATE. CONTRACTOR TO SET FINISHED RIM ELEVATIONS TO MATCH THE FINAL PAVEMENT ELEVATIONS.

PROJECT NO: 4060–05–71	HWY: STH 28	COUNTY: WASHINGTON	SANITARY SEWER AND WATERMAIN	SHEET 28 E

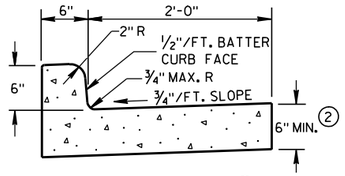
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WISDOT/CADDS SHEET 30

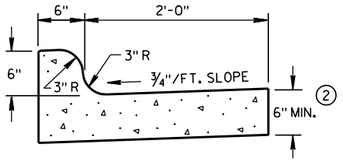
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Standard Detail Drawing List

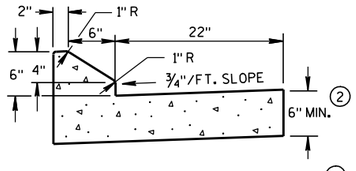
08D01-17	CONCRETE CURB, CONCRETE CURB AND GUTTER AND TIES
13C15-05A	CONCRETE BASE
13C15-05B	CONCRETE BASE
15C02-04A	BARRICADES AND SIGNS FOR MAINLINE CLOSURES
15C02-04B	BARRICADES AND SIGNS FOR MAINLINE CLOSURES
15C02-04C	DETOUR SIGNING FOR MAINLINE CLOSURES
15C05-01	TRAFFIC CONTROL, ADVANCE WARNING SIGNS 40 M.P.H. OR LESS
15D30-01	TRAFFIC CONTROL, SIDEWALK CLOSURE



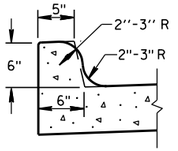
TYPES A & D (1)



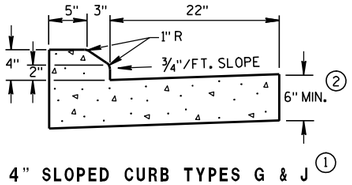
TYPES K & L (1)



6" SLOPED CURB TYPES G & J (1)

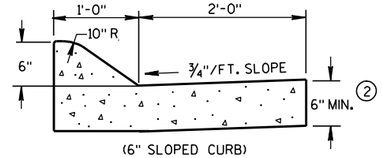


OPTIONAL CURB SHAPE FOR TYPES K & L (1)

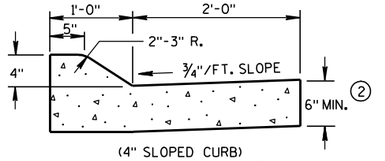


4" SLOPED CURB TYPES G & J (1)

CONCRETE CURB & GUTTER 30"

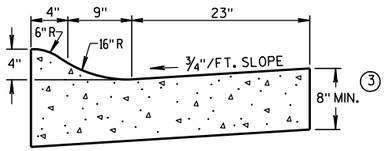


(6" SLOPED CURB)



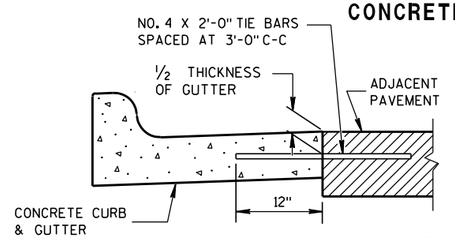
(4" SLOPED CURB)

TYPES A & D (1)

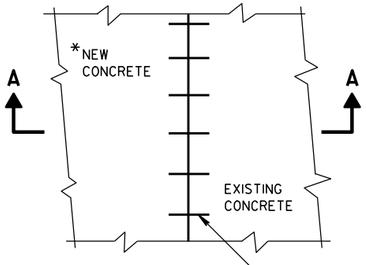


4" SLOPED CURB TYPES R & T (1) (4)

CONCRETE CURB & GUTTER 36"

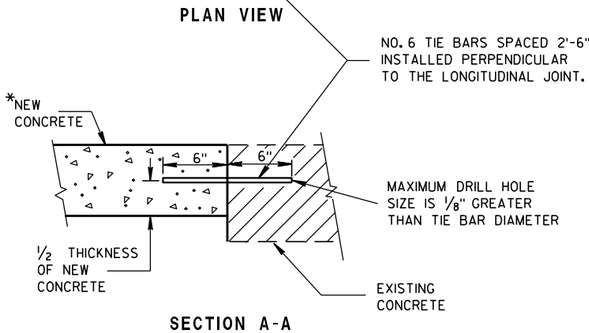


TYPICAL TIE BAR LOCATION (1)



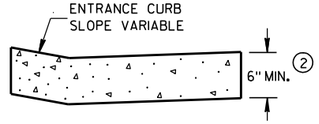
*NEW CURB & GUTTER, SURFACE DRAINS, CONCRETE PAVEMENT OR OTHER NEW CONCRETE.

PLAN VIEW

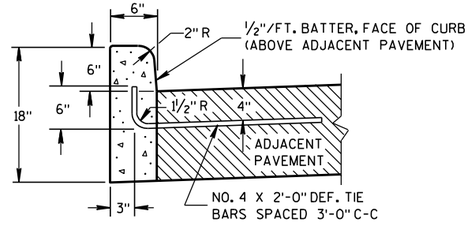


SECTION A-A

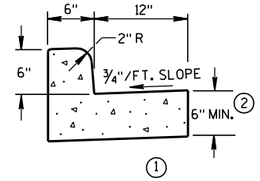
TIE BARS DRILLED INTO EXISTING PAVEMENT



DRIVEWAY ENTRANCE CURB
(WHEN DIRECTED BY THE ENGINEER)

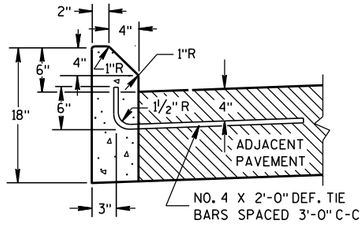


(1)
TYPES A & D



(1)
TYPES A & D

CONCRETE CURB & GUTTER 18"



(1)
TYPES G & J

CONCRETE CURB

GENERAL NOTES

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

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

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

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

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

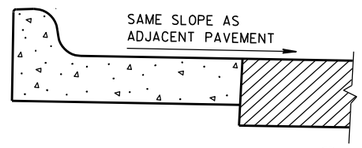
(1) TIE BARS ARE REQUIRED FOR CURB AND GUTTER TYPES A, G, K AND R.

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

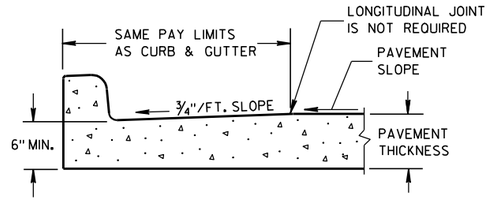
(3) THE BOTTOM OF CURB AND GUTTER MAY BE CONSTRUCTED EITHER LEVEL OR PARALLEL TO THE SLOPE OF THE SUBGRADE OR BASE AGGREGATE PROVIDED A 8" MINIMUM GUTTER THICKNESS IS MAINTAINED.

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

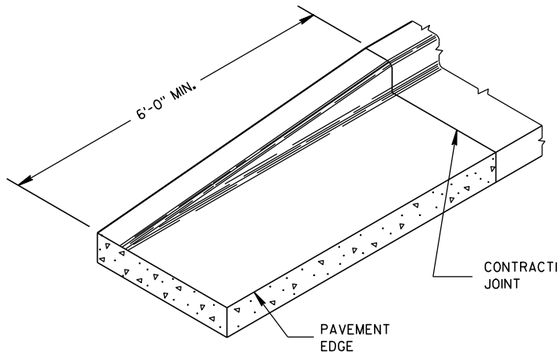
(5) WHEN REVERSE SLOPE GUTTER IS REQUIRED, THE LOCATION(S) WILL BE SHOWN ELSEWHERE IN THE PLAN.



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



PARTIAL SECTION OF PAVEMENT WITH INTEGRAL CURB & GUTTER



END SECTION CURB & GUTTER

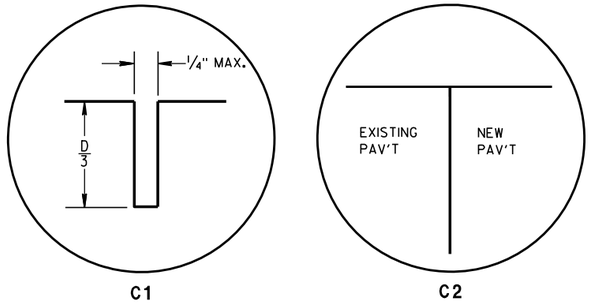
CONCRETE CURB, CONCRETE CURB & GUTTER AND TIES

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

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

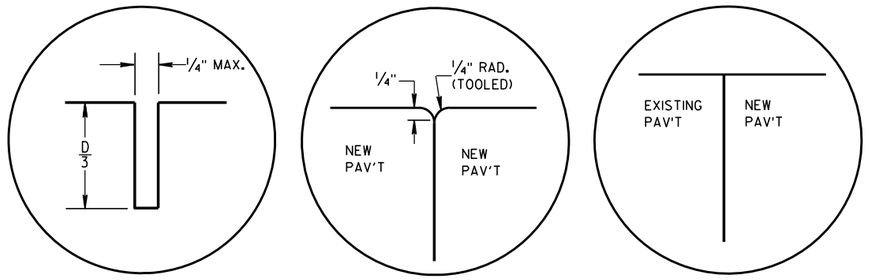
6

S.D.D. 8 D 1-17



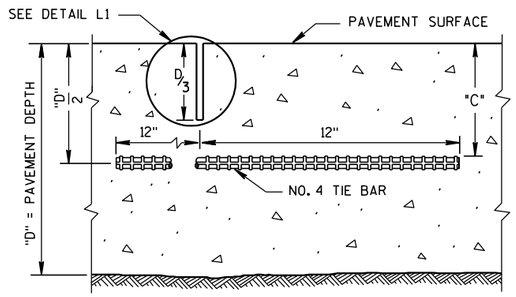
C1 C2

TRANSVERSE JOINTS



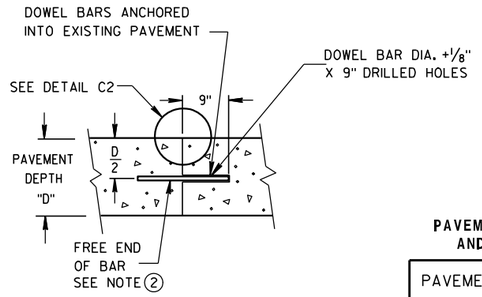
L1 L2 L3

LONGITUDINAL JOINTS



SECTION C-C

SAWED JOINT



SECTION D-D

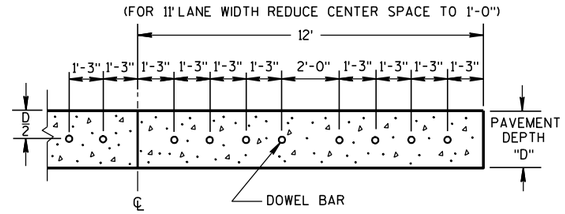
GENERAL NOTES

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

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

(1) INSTALL DOWEL BARS PARALLEL TO THE PAVEMENT CENTERLINE AND PAVEMENT SURFACE.

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



SECTION E-E

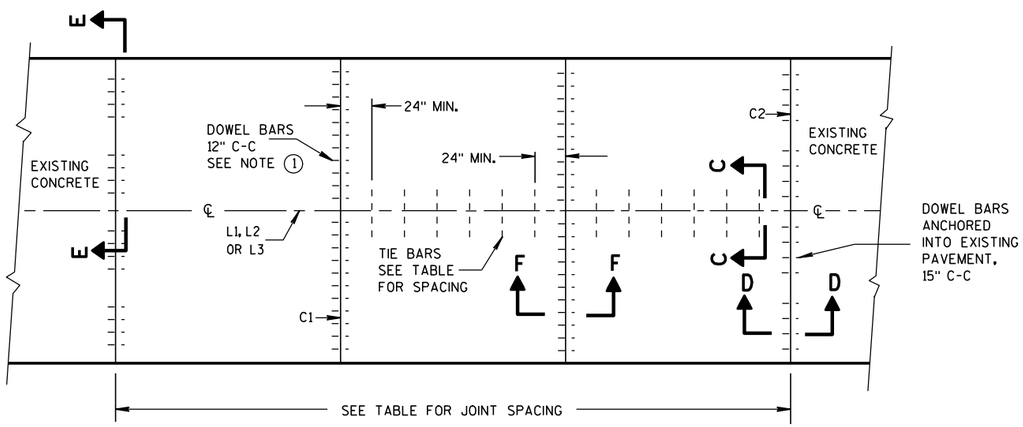
SPACING OF DOWEL BARS ANCHORED INTO EXISTING PAVEMENT

PAVEMENT DEPTH, DOWEL BAR SIZE AND JOINT SPACING TABLE

PAVEMENT DEPTH "D"	DOWEL BAR DIAMETER	CONTRACTION JOINT SPACING
5½", 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'

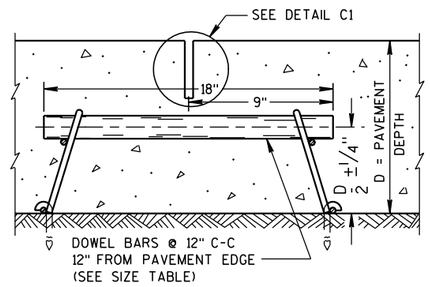
TIE BAR LOCATION TABLE

PAVEMENT DEPTH "D"	CLEAR COVER "C"	MAXIMUM TIE BAR SPACING C-C	
		PAVEMENT WIDTH	
		24' OR 26'	≥ 30'
6, 6 ½"	3"±½"	48"	42"
7, 7 ½"	3 ¼"±1"	45"	36"
8, 8 ½"	3 ¾"±1"	39"	30"
9, 9 ½"	4 ¼"±1"	33"	27"
10, 10 ½"	4 ¾"±1"	30"	24"
11, 11 ½"	5 ¼"±1"	27"	21"
12"	5 ¾"±1"	24"	21"



PLAN VIEW

CONCRETE BASE CONTRACTION JOINT LOCATIONS



SECTION F-F

CONTRACTION JOINT

CONCRETE BASE

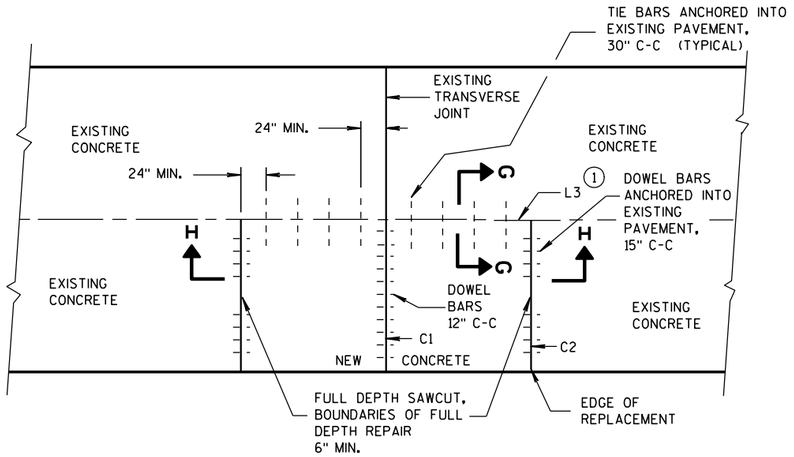
STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

6

S.D.D. 13 C 15-5a

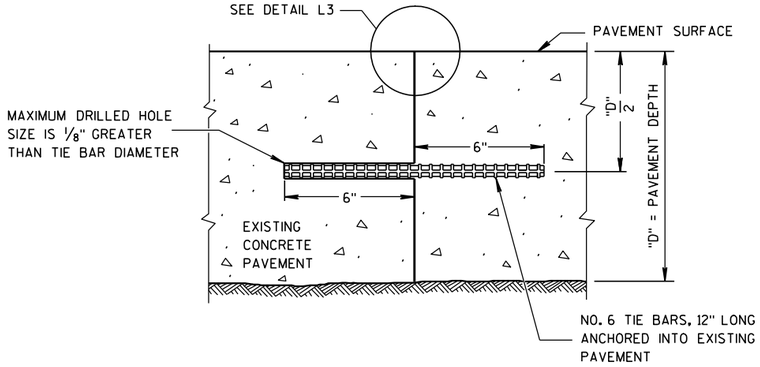
GENERAL NOTES

(1) USE AN ENGINEER-APPROVED BOND BREAKER AT THE LONGITUDINAL JOINT IN LIEU OF TIE BARS FOR SINGLE LANE CONCRETE BASE REPAIRS UP TO 15 FEET IN LENGTH.



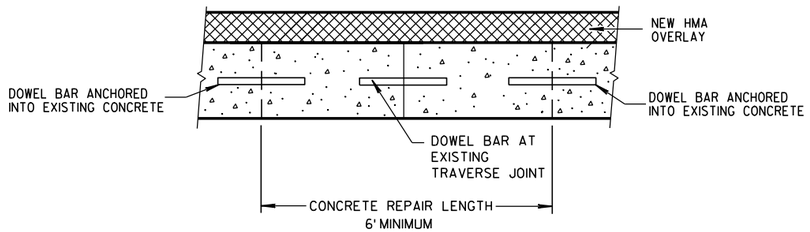
PLAN VIEW

SINGLE LANE CONCRETE BASE REPAIR



SECTION G-G

TIE BARS ANCHORED INTO EXISTING PAVEMENT



SECTION H-H

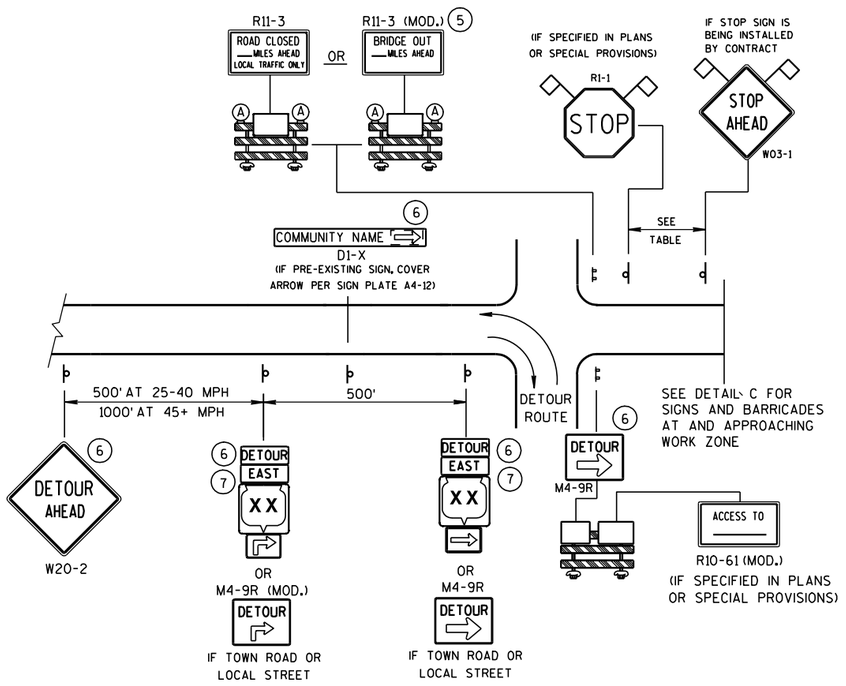
CONCRETE BASE

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
12-11-2009 DATE
/S/ Deb Bischoff PAVEMENT POLICY & D ENGINEER
FHWA

6

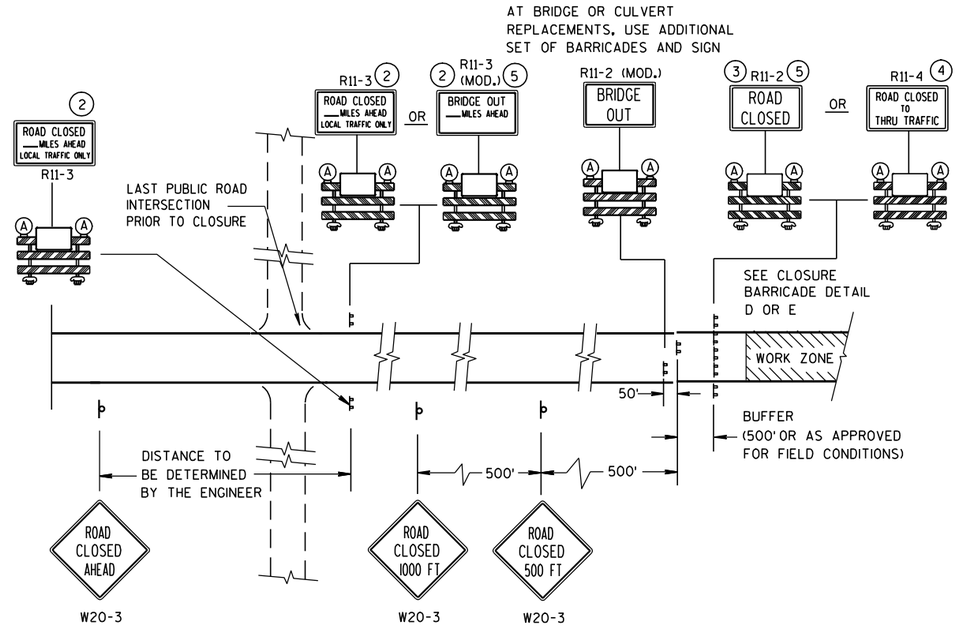
S.D.D. 13 C 15-5b



DETAIL A

MAINLINE CLOSURE WITH POSTED DETOUR

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

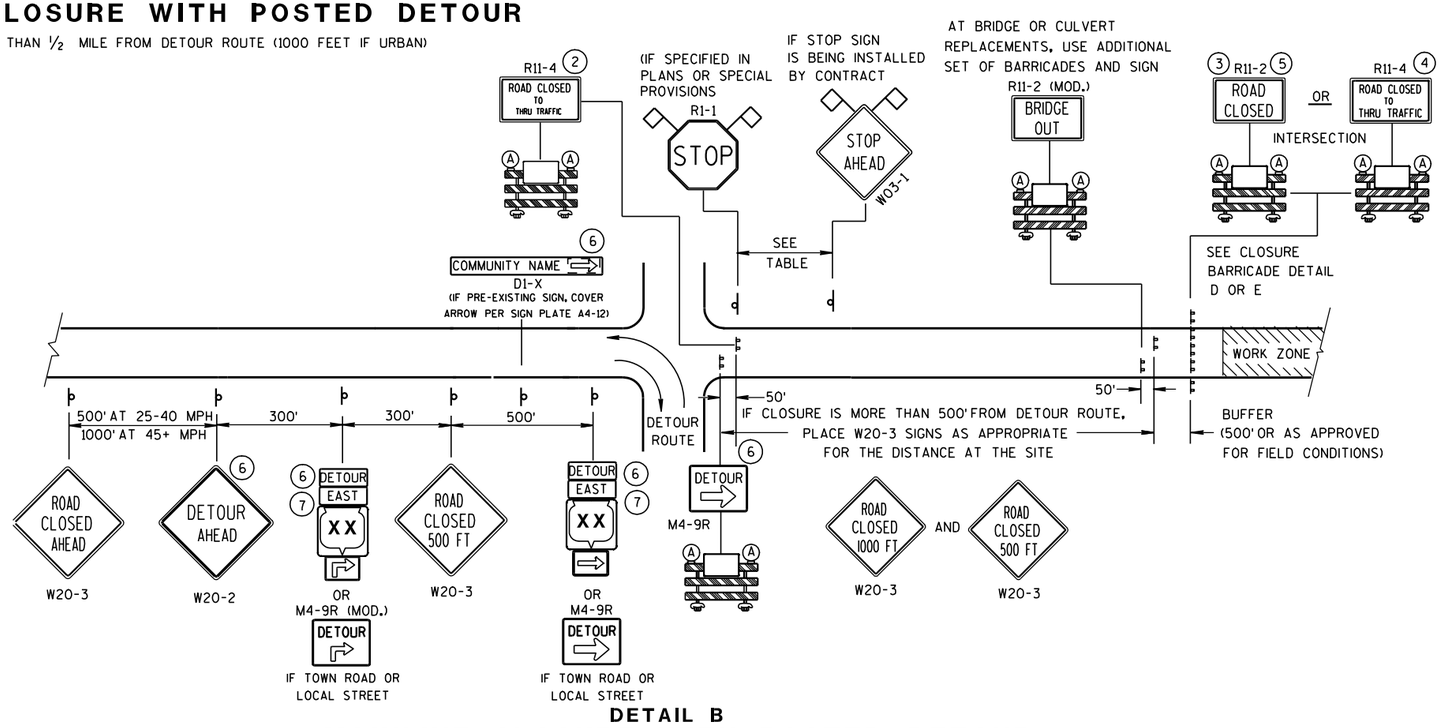


DETAIL C

MAINLINE CLOSURE, NO POSTED DETOUR

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

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



DETAIL B

MAINLINE CLOSURE WITH POSTED DETOUR

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

LEGEND

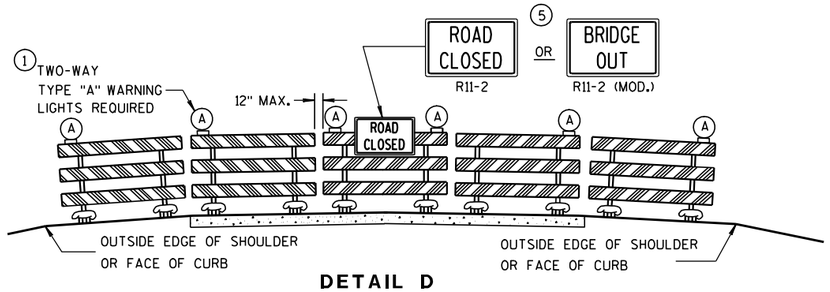
- POST MOUNTED SIGN
- TYPE III BARRICADES
- (A) TYPE "A" LOW INTENSITY FLASHING WARNING LIGHT (FOR NIGHT USE)
- WORK ZONE
- DETOUR / EAST — M4-8 / M3-X
- XX — M1-4
- COUNTY XX — M1-5A
- XX — M1-6
- M05-1 OR M06-1
- FLAGS, 16" X 16" MIN., (ORANGE)

BARRICADES AND SIGNS FOR MAINLINE CLOSURES

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

6

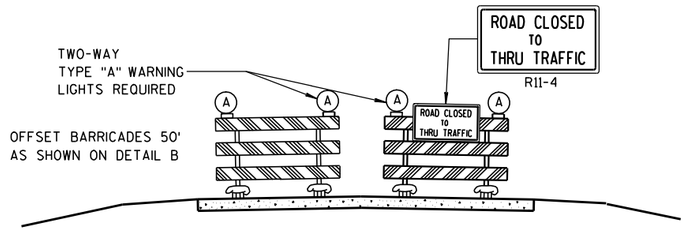
S.D.D. 15 C 2-4a



DETAIL D

ROAD CLOSURE BARRICADE DETAIL

APPROACH VIEW



DETAIL E

LANE CLOSURE BARRICADE DETAIL

APPROACH VIEW

SEE SDD 15C2-4a FOR LEGEND

GENERAL NOTES

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

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

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

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

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

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

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

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

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

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

ALL SIGNS SHALL BE 48" X 48" UNLESS OTHERWISE NOTED BELOW:
- R11-2 SHALL BE 48" X 30".
- R11-3, R11-4 AND R10-61 SHALL BE 60" X 30".
- M4-9 SHALL BE 30" X 24".
- M3-X AND M4-8 SHALL BE 24" X 12". (30" X 15" IF NEEDED TO MATCH EXISTING SIGNS.)
- M1-4, M1-5A, AND M1-6 SHALL BE 24" X 24". (36" X 36" IF NEEDED TO MATCH EXISTING SIGNS.)
- M05-1 AND M06-1 SHALL BE 21" X 21". (30" X 30" IF NEEDED TO MATCH EXISTING SIGNS.)
- D1-X SHALL BE AS SHOWN ON SPECIFIC PROJECT SIGNING DETAIL SHEETS.
- R1-1 SHALL BE 36" X 36".

(1) TWO WARNING LIGHTS SHALL BE PROVIDED ON THE CENTER BARRICADE AND A MINIMUM OF ONE WARNING LIGHT SHALL BE PROVIDED ON EACH OF THE OTHER BARRICADES WITHIN THE ROADWAY LIMITS. SPACING OF THE WARNING LIGHTS SHALL BE UNIFORM TO THE EDGE OF ROADWAY AS SHOWN (APPROX. 8-FOOT LIGHT SPACING).

(2) THESE SIGNS AND BARRICADES ARE NOT REQUIRED IF ROAD CLOSURE BEGINS AT INTERSECTION.

(3) FOR ROAD CLOSURE WITHOUT LOCAL ACCESS TO PROJECT, SEE ROAD CLOSURE BARRICADE DETAIL D.

(4) FOR ROAD CLOSURE WITH LOCAL ACCESS TO PROJECT, SEE LANE CLOSURE BARRICADE DETAIL E.

(5) FOR BRIDGE OR CULVERT REPLACEMENTS, SUBSTITUTE "BRIDGE OUT" INSTEAD OF "ROAD CLOSED" ON R11-2 AND R11-3 SIGNS.

(6) INSTALL DETOUR AND COMMUNITY GUIDE SIGNS AND ARROWS ONLY IF SPECIFIED IN THE CONTRACT. IF THERE ARE EXISTING ROUTE MARKER ASSEMBLIES THAT WILL REMAIN IN PLACE, ADJUST THE LOCATION OF THE DETOUR ROUTE SIGNS TO CORRESPOND WITH THE EXISTING ASSEMBLIES. MODIFY EXISTING SIGNS WHERE POSSIBLE. SEE SPECIFIC PROJECT DETOUR SIGNING DETAIL SHEETS. IF DETOUR SIGNS ARE BEING INSTALLED BY OTHERS, PLACE THE CONTRACTED TRAFFIC CONTROL SIGNS TO ALLOW FOR PLACEMENT OF ALL WARNING, DETOUR AND GUIDE SIGNS AS SHOWN.

(7) "EAST" CARDINAL DIRECTION MARKERS AND RIGHT TURN ARROWS ARE SHOWN. USE OTHER CARDINAL DIRECTIONS AND ARROWS AS APPROPRIATE.

BARRICADES AND SIGNS FOR MAINLINE CLOSURES

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED

9/16/03
DATE

/S/ Thomas N. N[illegible]
CHIEF SIGNS AND MARKINGS ENGINEER

FHWA

6

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

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

GENERAL NOTES

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

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

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

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

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

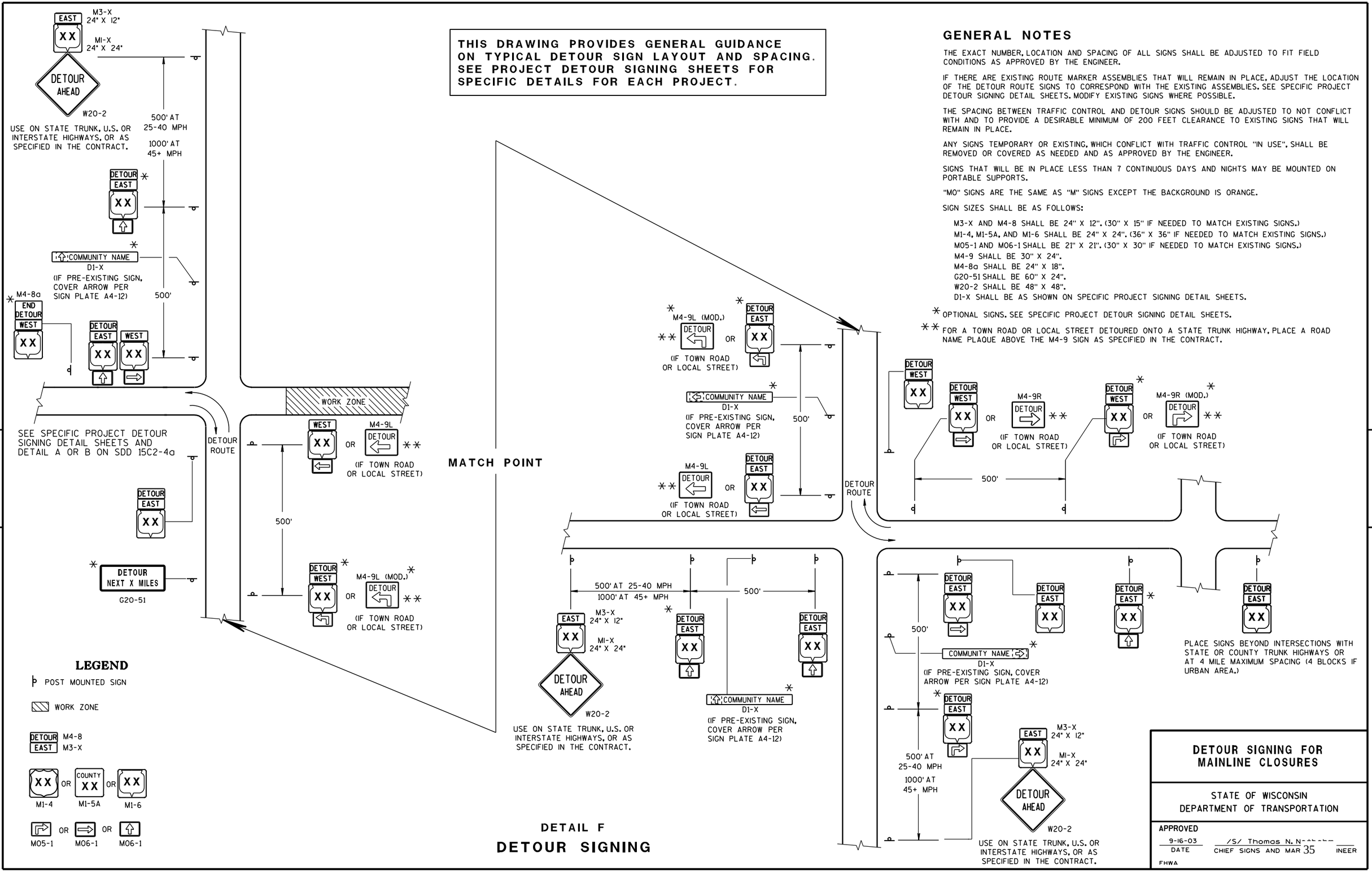
"MO" SIGNS ARE THE SAME AS "M" SIGNS EXCEPT THE BACKGROUND IS ORANGE.

SIGN SIZES SHALL BE AS FOLLOWS:

M3-X AND M4-8 SHALL BE 24" X 12". (30" X 15" IF NEEDED TO MATCH EXISTING SIGNS.)
M1-4, M1-5A, AND M1-6 SHALL BE 24" X 24". (36" X 36" IF NEEDED TO MATCH EXISTING SIGNS.)
M05-1 AND M06-1 SHALL BE 21" X 21". (30" X 30" IF NEEDED TO MATCH EXISTING SIGNS.)
M4-9 SHALL BE 30" X 24".
M4-8a SHALL BE 24" X 18".
G20-51 SHALL BE 60" X 24".
W20-2 SHALL BE 48" X 48".
D1-X SHALL BE AS SHOWN ON SPECIFIC PROJECT SIGNING DETAIL SHEETS.

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

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



DETAIL F

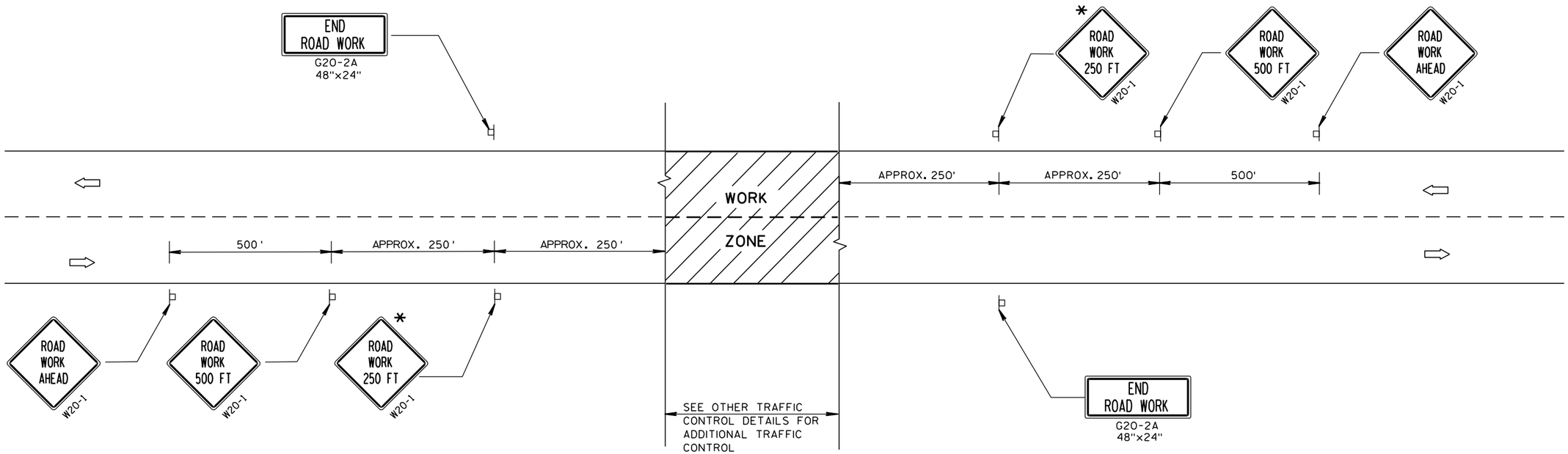
DETOUR SIGNING

DETOUR SIGNING FOR MAINLINE CLOSURES

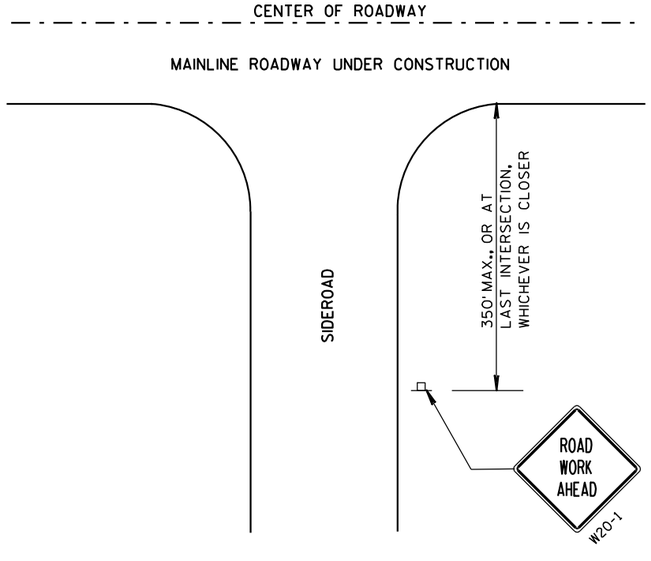
STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
9-16-03 DATE
/S/ Thomas N. [illegible] CHIEF SIGNS AND MARKING ENGINEER
FHWA

6 S.D.D. 15 C 2-4c



TYPICAL SIDEROAD APPROACH WARNING SIGN DETAIL



GENERAL NOTES

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

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

ALL SIGNS ARE 48"x48" UNLESS OTHERWISE NOTED. IF NECESSARY DUE TO SPACE CONSTRAINTS, 36"x36" SIGNS MAY BE USED INSTEAD OF 48"x48" SIGNS, IF APPROVED BY DISTRICT TRAFFIC UNIT.

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

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

* THE THIRD W20-1 SIGN IS REQUIRED ONLY IF THERE IS AN INTERSECTION BETWEEN THE "ROAD WORK 500 FT" SIGN AND THE WORK ZONE. ADJUST THE PLACEMENT OF THIS SIGN BASED ON INTERSECTION LOCATION AND OTHER FIELD CONDITIONS.

LEGEND

POST MOUNTED SIGN

DIRECTION OF TRAFFIC FLOW

TRAFFIC CONTROL, ADVANCE WARNING SIGNS 40 M.P.H. OR LESS TWO-WAY UNDIVIDED ROAD OPEN TO TRAFFIC

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED

5/23/00
DATE

/S/ Chester J. [illegible]
CHIEF SIGNS AND MARKING ENGINEER

FHWA

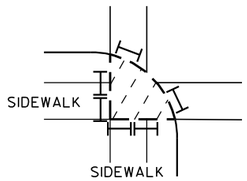
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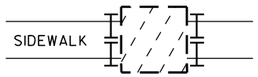
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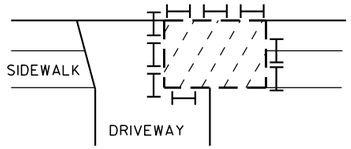
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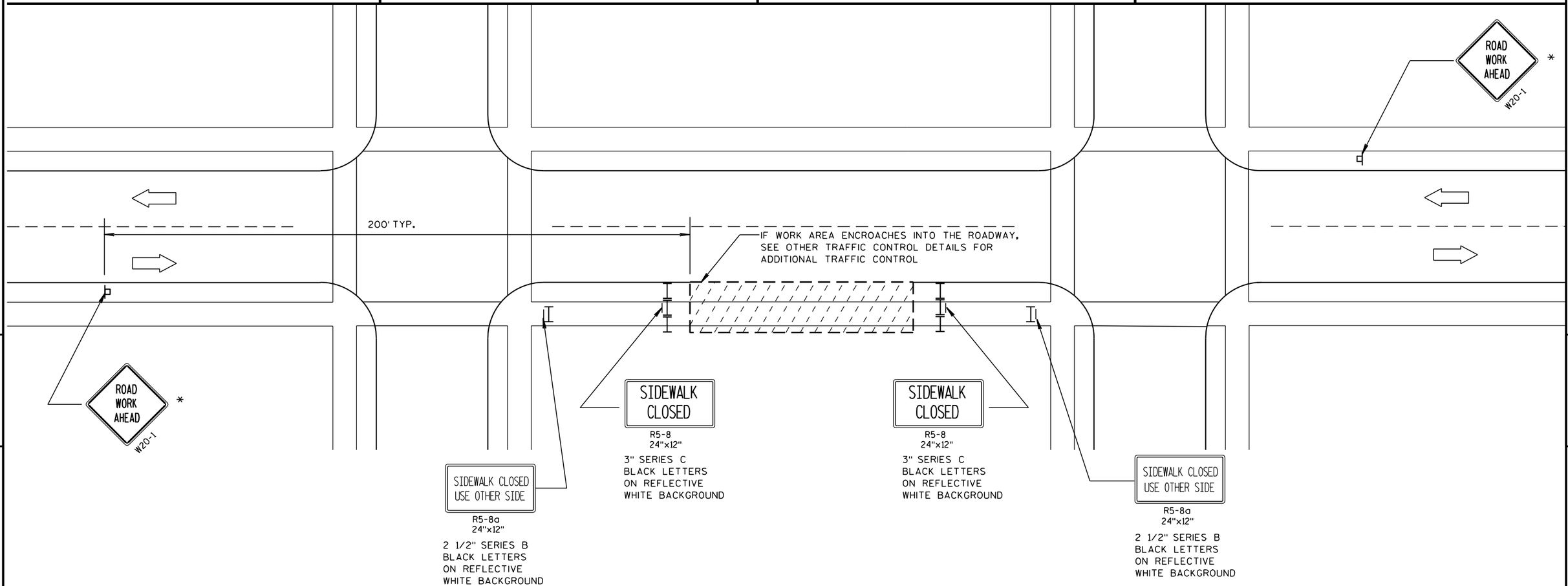
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WARNING OF LOCALIZED SIDEWALK WORK AREAS









LEGEND

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

GENERAL NOTES :

ALL SIGNS ARE 48"x48" UNLESS OTHERWISE NOTED. IF NECESSARY DUE TO SPACE CONSTRAINTS, 36"x36" SIGNS MAY BE USED INSTEAD OF 48"x48" SIGNS, IF APPROVED BY DISTRICT TRAFFIC UNIT.

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

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

* "ROAD WORK AHEAD" SIGNS ARE NOT REQUIRED IF THE SIDEWALK CLOSURE OCCURS WITHIN A LARGER WORK ZONE WHERE ADVANCE WARNING SIGNS ARE ALREADY PRESENT, OR IF THE WORK AREA AND EQUIPMENT ARE MORE THAN 2 FEET BEHIND THE CURB.

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

TRAFFIC CONTROL, SIDEWALK CLOSURE

TRAFFIC CONTROL, SIDEWALK CLOSURE

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
5/23/2000 DATE
/S/ Chester J. [illegible]
CHIEF SIGNS AND MARK[illegible] [illegible]NEER
FHWA

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Wisconsin Department of Transportation

Dedicated people creating transportation solutions
through innovation and exceptional service.

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