MAD

PROJECT ID: 1003-10-86

WITH:

COUNTY: ROCK

MAY 2013

ORDER OF SHEETS

Section No.	1	Title
Section No.	2	Typical Sections and Details
Section No.	3	Estimate of Quantities
Section No.	3	Miscellaneous Quantities
~~Section No.~~	~~4~~	~~Right of Way 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 = 248

03

N

DESIGN DESIGNATION

A.A.D.T.	=	50,100
D.H.V.	=	4,800
D.D.	=	58/42
T.	=	35%
DESIGN SPEED	=	70 MPH
ESALS	=	5,255,300

CONVENTIONAL SYMBOLS

PLAN

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

PROFILE

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

UTILITIES

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

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

PLAN OF PROPOSED IMPROVEMENT

ILLINOIS STATE LINE - MADISON

STATELINE ROAD TO WOODMAN ROAD

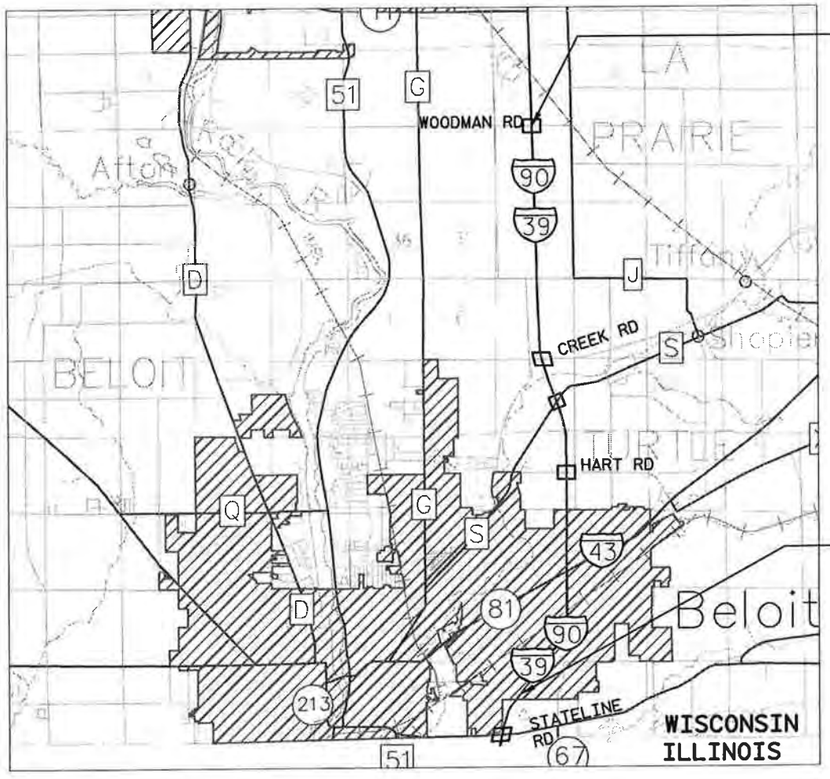
IH 39

ROCK COUNTY

STATE PROJECT	FEDERAL PROJECT	
	PROJECT	CONTRACT
1003-10-86	WISC 2013261	1

STATE PROJECT NUMBER

1003-10-86



END PROJECT 1003-10-86

STA. 542+00

NET EXCEPTIONS TO LENGTH OF CENTERLINE

STA. 145+00.00 - STA. 148+00.00
STA. 160+63.00 - STA. 163+32.00
STA. 201+28.00 - STA. 243+00.00
STA. 367+58.00 - STA. 370+53.00
STA. 436+52.00 - STA. 439+19.00

BEGIN PROJECT 1003-10-86

STA. 135+00.00
Y = 204123.17
X = 502738.38

LAYOUT SCALE 0 2.0 MI

TOTAL NET LENGTH OF CENTERLINE = 6.757 MI

COORDINATES SHOWN ON THIS PLAN ARE REFERENCED TO THE WISCONSIN COUNTY COORDINATE SYSTEM (WCCS) ROCK COUNTY, NAD 83(91)

ORIGINAL PLANS PREPARED BY

AECOM

WISCONSIN
JACK K. BARTMAN
E-38645
MADISON
WI
PROFESSIONAL ENGINEER

1/29/2013

(Date) (Signature)

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

PREPARED BY

Surveyor	AECOM
Designer	AECOM
Project Manager	STEVE MARSHALL
Regional Examiner	
Regional Supervisor	KIMBERLY SCHAUDER
C.O. Examiner	

APPROVED FOR THE DEPARTMENT

DATE: 1/30/2013 (Signature)

E

GENERAL NOTES

THE LOCATION OF EXISTING UTILITY INSTALLATIONS AS SHOWN ON THE PLANS ARE APPROXIMATE.
THERE MAY BE OTHER UTILITY INSTALLATIONS WITHIN THE PROJECT AREA THAT ARE NOT SHOWN.

BE AWARE THAT ALL EXISTING UNDERGROUND AND ABOVE GROUND STRUCTURES AND FACILITIES WITHIN THE SCOPE OF THIS PROJECT MAY NOT BE LOCATED IN THE PLANS. THE CONTRACTOR IS FULLY RESPONSIBLE FOR LOCATING AND AVOIDING ALL UNDERGROUND AND ABOVE GROUND STRUCTURES AND FACILITIES.

CROSS DRAIN PIPES ELEVATIONS, LENGTHS AND LOCATIONS AS SHOWN ON THE PLANS, SHALL BE ADJUSTED TO FIT THE EXISTING FIELD CONDITIONS, AS DIRECTED BY THE ENGINEER.

EXISTING PIPE CULVERT SIZES AND CONCRETE BOX CULVERT SIZES SHOWN ARE APPROXIMATE AND THE CONTRACTOR SHALL BASE THE BID ON THE ACTUAL FIELD CONDITIONS.

RADII, ELEVATIONS, AND DIMENSIONS ARE GIVEN AT THE PAVEMENT EDGES, UNLESS OTHERWISE NOTED IN THE PLANS.

THE CONTRACTOR'S PAVING OPERATIONS SHALL BE CONSISTENT WITH PLAN TYPICAL SECTIONS AND SHALL PREVENT HMA LONGITUDAL JOINTS FROM BEING LOCATED WITHIN A DRIVING LANE.

ADJUST TRAFFIC CONTROL DEVICE LOCATIONS TO FIT FIELD CONDITIONS AS DIRECTED BY THE ENGINEER.

EROSION CONTROL ITEMS SHOWN IN THE MISCELLANEOUS QUANTITIES ARE AT SUGGESTED LOCATIONS.
THE ENGINEER MAY MODIFY LOCATIONS TO FIT FIELD CONDITIONS.

SALVAGED TOPSOIL, SEEDING, MULCHING, AND FERTILIZER HAVE BEEN COMPUTED BY A DIRECT MEASUREMENT ON THE CROSS SECTIONS PLUS FIVE (5) FEET BEYOND THE TOE OF SLOPE.

WETLANDS, WATERWAYS, AND OTHER ENVIRONMENTALLY SENSITIVE AREAS SHALL BE PROTECTED AT ALL TIMES.
DO NOT STORE EQUIPMENT OR MATERIALS NEAR THESE SITES UNLESS APPROVED BY THE ENGINEER.

ROADWAY MILEAGES ON THESE ITS PLANS ARE REFERENCED TO MILEAGE ON THE EXISTING REFERENCE LOCATION (MILEPOST) SIGNS. MILEAGE IS ORDERED NORTH TO SOUTH (OR WEST TO EAST) ON IH 39/90 AND MILEAGE ON IH 43 IS ORDERED SOUTH TO NORTH, TO MATCH EXISTING MILEAGE SIGNS INSTALLED ON THE ROADWAYS.

THE HMA PAVEMENT WEIGHT CALCULATIONS ARE BASED ON A UNIT WEIGHT OF 110 LBS/SY/IN OF DEPTH.

6.5-INCH HMA PAVAEMENT TYPE E-10 SHALL BE CONSTRUCTED IN TWO LAYERS.
THE LOWER LAYER SHALL BE 4-INCHES AND THE UPPER LAYER SHALL BE 2.5-INCHES. 19.0 mm GRADATION SHALL BE USED FOR THE LOWER LAYER AND ASPHALTIC MATERIAL FOR PLANT MIXES SHALL BE PG58-28. 19.0 mm OR 12.5 mm GRADATION SHALL BE USED FOR THE UPPER LAYER AND ASPHALTIC MATERIAL FOR PLANT MIXES SHALL BE PG64-28.

5.75-INCH HMA PAVAEMENT TYPE E-10 SHALL BE CONSTRUCTED IN TWO LAYERS.
THE LOWER LAYER SHALL BE 3.5-INCHES AND THE UPPER LAYER SHALL BE 2.25-INCHES. 19.0 mm GRADATION SHALL BE USED FOR THE LOWER LAYER AND ASPHALTIC MATERIAL FOR PLANT MIXES SHALL BE PG58-28. 19.0 mm OR 12.5 mm GRADATION SHALL BE USED FOR THE UPPER LAYER AND ASPHALTIC MATERIAL FOR PLANT MIXES SHALL BE PG58-28.

4.75-INCH HMA PAVAEMENT TYPE E-10 SHALL BE CONSTRUCTED IN TWO LAYERS.
THE LOWER LAYER SHALL BE 2.75-INCHES AND THE UPPER LAYER SHALL BE 2.0-INCHES. 19.0 mm GRADATION SHALL BE USED FOR THE LOWER LAYER AND ASPHALTIC MATERIAL FOR PLANT MIXES SHALL BE PG58-28. 19.0 mm OR 12.5 mm GRADATION SHALL BE USED FOR THE UPPER LAYER AND ASPHALTIC MATERIAL FOR PLANT MIXES SHALL BE PG58-28.

5.0-INCH HMA PAVAEMENT TYPE E-10 SHALL BE CONSTRUCTED IN TWO LAYERS.
THE LOWER LAYER SHALL BE 3.0-INCHES AND THE UPPER LAYER SHALL BE 2.0-INCHES. 19.0 mm GRADATION SHALL BE USED FOR THE LOWER LAYER AND ASPHALTIC MATERIAL FOR PLANT MIXES SHALL BE PG58-28. 19.0 mm OR 12.5 mm GRADATION SHALL BE USED FOR THE UPPER LAYER AND ASPHALTIC MATERIAL FOR PLANT MIXES SHALL BE PG58-28.

4.0-INCH HMA PAVAEMENT TYPE E-10 SHALL BE CONSTRUCTED IN TWO LAYERS.
THE LOWER LAYER SHALL BE 2.0-INCHES AND THE UPPER LAYER SHALL BE 2.0-INCHES. 19.0 mm GRADATION SHALL BE USED FOR THE LOWER LAYER AND ASPHALTIC MATERIAL FOR PLANT MIXES SHALL BE PG58-28. 19.0 mm OR 12.5 mm GRADATION SHALL BE USED FOR THE UPPER LAYER AND ASPHALTIC MATERIAL FOR PLANT MIXES SHALL BE PG58-28.

2.0-INCH, 3.25-INCH HMA PAVAEMENT TYPE E-10 SHALL BE CONSTRUCTED IN ONE LAYER.
19.0 mm OR 12.5 mm GRADATION SHALL BE USED AND ASPHALTIC MATERIAL FOR PLANT MIXES SHALL BE PG58-28.

EXCAVATION BELOW SUBGRADE (EBS), FOR REMOVAL OF UNSUITABLE MATERIAL, AS SHOWN ON THE PLANS IS MEASURED AND PAID FOR AS EXCAVATION COMMON. EXACT LOCATIONS FOR REMOVING UNSUITABLE MATERIAL WILL BE DETERMINED BY THE ENGINEER.

CONTACTS:

WISDNR

WISCONSIN DEPARTMENT OF NATURAL RESOURCES
(SOUTH CENTRAL REGION)
ROCK COUNTY:
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amanda.cushman@wisconsin.gov

IDOT

ILLINOIS DEPARTMENT OF TRANSPORTATION
NASSIB MOUCHARRAFIE
RESIDENT ENGINEER
(815)525-9991

DAVE VONKAENEL
FIELD ENGINEER FOR WINNEBAGO COUNTY
(815)284-5341

RAILROADS

CANADIAN PACIFIC RAILROAD
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jim_krieger@cpr.ca

UNION PACIFIC RAILROAD
JOHN VENICE
101 N. WACKER DR
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(312)777-2043
jnvenice@up.com

UTILITIES

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dan.sande@we-energies.com

ALLIANT ENERGY - ELECTRICITY
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935 WBR TOWNLINE RD
BELOIT, WI 53511
(608)364-6431
deancopp@alliantenergy.com

BELOIT AIRPORT - AIRPORT FACILITY
STEVE STAUBER
4046 STATE HWY 67
BELOIT, WI 53511
(608)365-1971

CITY OF BELOIT - ROAD FACILITY
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(608)364-6696
FleschM@ci.beloit.wi.us

CITY OF BELOIT - WATER
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CITY OF BELOIT - SEWER
MICHAEL FLESCH
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BELOIT, WI 53511
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FleschM@ci.beloit.wi.us

ANR PIPELINE COMPANY - GAS/PETROLEUM
SCOTT CASHION
6827 CONSOLIDATED SCHOOL ROAD
JANESVILLE, WI 53545
(608)373-6943

CENTURYLINK - COMMUNICATION LINE
DENNIS HAAG
144 N PEARL ST
P.O. BOX 70
BERLIN, WI 54923
(920)361-0040
dennis.haag@centurytel.com

ATC MANAGEMENT, INC. - ELECTRICITY
MIKE OLSEN
801 O'KEEFE RD
P.O. BOX 6113
DE PERE, WI 54115-6113
(920)338-6582
molsen@atcllc.com

CHARTER COMMUNICATIONS - COMMUNICATION LINE
BRANDON STORM
2701 DANIELS ST
MADISON, WI 53718
(608)274-3822
brandon.storm@chartercom.com

AT&T WISCONSIN - COMMUNICATION LINE
ROBERT REESE
411 7TH ST,
FLOOR #1
RACINE, WI
(262)636-0542
rr9124@att.com

AT&T WISCONSIN - COMMUNICATION LINE
SHANE LEVAKE
301 E MILWAUKEE ST
JANESVILLE, WI
(608)755-5586
sl3184@att.com

MCLEOD USA TELECOMMUNICATION SERVICES, INC. - COMMUNICATION LINE
JOHN LOUIS
1858 WRIGHT ST
MADISON, WI 53704
(414)305-0332
john.louis@windstream.com

NORTHERN NATURAL GAS CO. - GAS/PETROLEUM
JIM CARLSON
8101 BIRCHWOOD CT, STE F
JOHNSTON, IA 50131
(515)226-2016
Jim.Carlson@nngco.com

ROCK ENERGY COOPERATIVE - ELECTRICITY
LYNN MAIER
P.O. BOX 1758
JANESVILLE, WI 53547-1758
(608)752-4550
lynnm@rock.coop

ABBREVIATIONS

AP	ACCESS POINT/ DRIVEWAY CONNECTION
AR	ACCESS RIGHTS
AC.	ACRES
ET.AL.	AND OTHERS
℄ OR C/L	CENTERLINE
CMCP	CORRUGATED METAL CULVERT PIPE
CSM	CERTIFIED SURVEY MAP
COR.	CORNER
D	DEGREE OF CURVE
D.D.	DIRECTION DISTRIBUTION
D.H.V.	DESIGN HOUR VOLUME
DOC.	DOCUMENT
E.	EAST
EASE.	EASEMENT
EL OR ELEV	ELEVATION
E.S.A.L.	EQUIVALENT SINGLE AXLE LOAD
EXIST.	EXISTING
H.E.	HIGHWAY EASEMENT
HMA	HOT MIX ASPHALT
IP OR I.P.	IRON PIN
L	LENGTH OF CURVE
LN	LANE
LT. OR LT	LEFT
MAX.	MAXIMUM
MIN.	MINIMUM
MON.	MONUMENT
MP	ROADWAY MILEAGE
N.	NORTH
P.	PAGE
PLE	PERMANENT LIMITED EASEMENT
PL	PROPERTY LINE
RCCP	REINFORCED CONCRETE CULVERT PIPE
RD.	ROAD
(100')	RECORDED AS
R	RADIUS
℟ OR R/L	REFERENCE LINE
ROR	RELEASE OF RIGHTS
REM.	REMAINING
RT OR RT.	RIGHT
R/W	RIGHT-OF-WAY
S.	SOUTH
S.E.	SUPEREVELVATION
SEC.	SECTION
SF	SQUARE FEET
STA.	STATION
T	TANGENT
TLE	TEMPORARY LIMITED EASEMENT
T. %	TRUCK (PERCENT OF)
V.	VOLUME
W.	WEST

DIGGERS HOTLINE

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Hearing Impaired TDD (800) 542-2289
www.DiggersHotline.com

PROJECT NO: 1003-10-86	HWY: IH 39	COUNTY: ROCK	GENERAL NOTES	SHEET E

FILE NAME : L:\WORK\IH-39-SOUTH-SEGMENT\000_CAD\001_DRAWINGS\TEMPORARY WIDENING\020102_GN.DWG PLOT DATE : 1/30/2013 8:58 AM PLOT BY : STEVENSON, SCOTT PLOT NAME : ---------- PLOT SCALE : 1:20_XREF WISDOT/CADDS SHEET 42

2

N

BELOIT

STATE OF WISCONSIN
STATE OF ILLINOIS

STATELINE RD

BEGIN PROJECT 1003-10-86
STA. 135+00.00

EXCEPTION TO NET LENGTH OF CENTERLINE
STA. 145+00.00 - STA. 148+00.00

EXCEPTION TO NET LENGTH OF CENTERLINE
STA. 160+63.00 - STA. 163+32.00

EXCEPTION TO NET LENGTH OF CENTERLINE
STA. 201+28.00 - STA. 243+00.00

EXCEPTION TO NET LENGTH OF CENTERLINE
STA. 367+58.00 - STA. 370+53.00

STA. 209+40.48
STRUCTURES B-53-46, B-53-47

STA. 101+78.02
STRUCTURE B-53-204

STA. 299+46.28
STRUCTURE B-53-45

STA. 161+87.42
STRUCTURES B-53-216, B-53-217

STA. 182+24.35
STRUCTURE B-53-220

STA. 202+84.42
STRUCTURES B-53-48, B-53-51

STA. 349+37.75
STRUCTURE B-53-44

COLLEY RD

CRANSTON RD

STH 81

W HART RD

CTH S

MATCHLINE STA. 369+00

IH 39

CANADIAN PACIFIC RR

I-43

100 110 120 130 140 150 160 170 180 190 200 210 220 230 240 250 260 270 280 290 300 310 320 330 340 350 360

PROJECT NO: 1003-10-86	HWY: IH 39	COUNTY: ROCK	PROJECT OVERVIEW	SHEET 4	E

2

BELOIT

N

JANESVILLE

2

STA. 369+05.39
STRUCTURES B-53-42, B-53-43

STA. 437+81.38
STRUCTURES B-53-39, B-53-40

MATCHLINE STA. 369+00

PATRICK RD

IH 39

WOODMAN RD

END PROJECT 1003-10-86
STA. 542+00.00

STH 11 / AE

AVALON RD

70 380 390 400 410 420 430 440 450 460 470 480 490 500 510 520 530 540 544

CREEK RD

STA. 381+51.54
STRUCTURE B-53-41

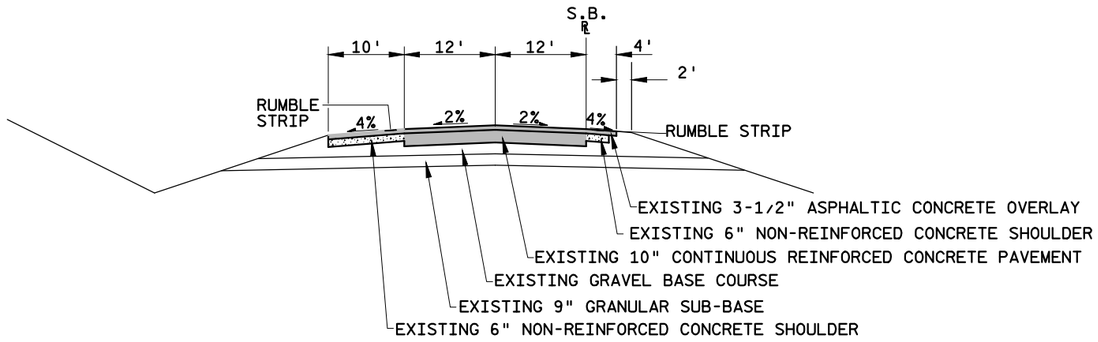
TOWN LINE RD

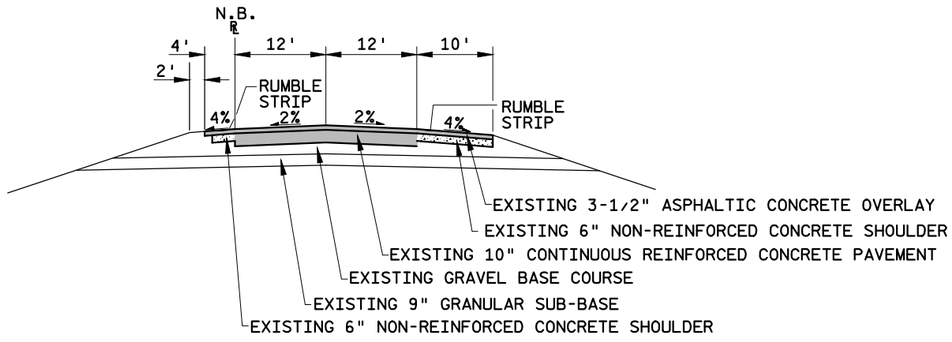
UNION PACIFIC RR

EXCEPTION TO NET LENGTH OF CENTERLINE
STA. 436+52.00 - STA. 439+19.00

EXCEPTION TO NET LENGTH OF CENTERLINE
STA. 367+58.00 - STA. 370+53.00

PROJECT NO: 1003-10-86	HWY: IH 39	COUNTY: ROCK	PROJECT OVERVIEW	SHEET 5	E



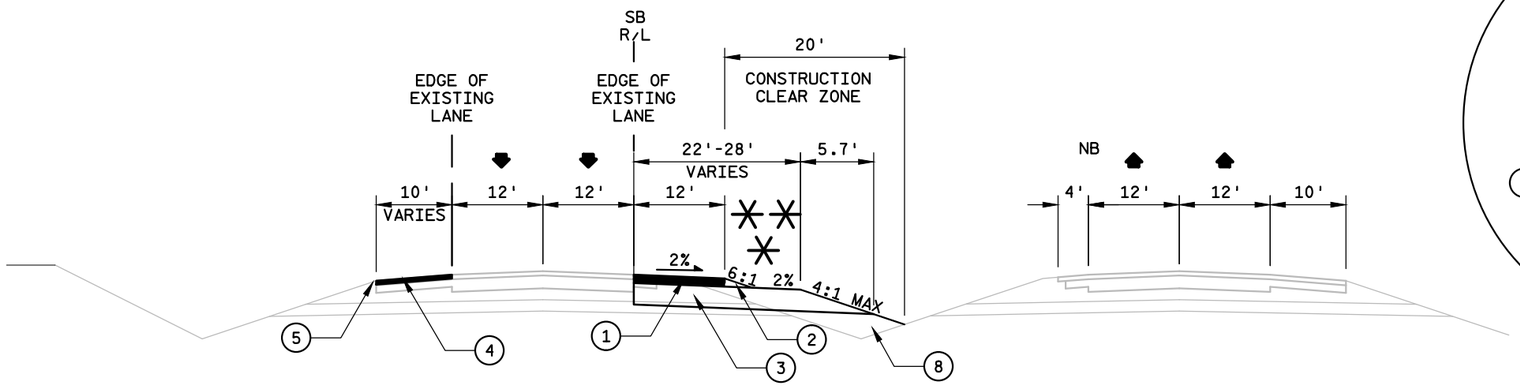


TYPICAL EXISTING SECTION - IH 39/90

STA. 135+00.00 - 542+00.00

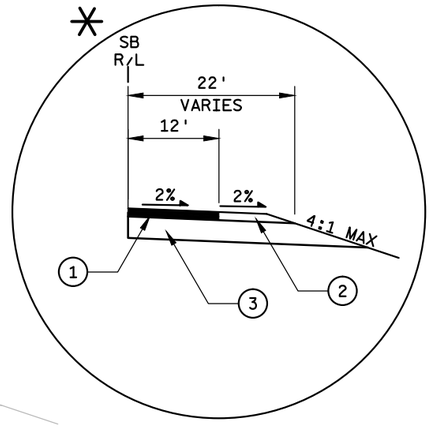
PAVEMENT CORE LOG

BORING NO.	STATION	LOCATION	THICKNESS (INCHES) ASPHALT	CONCRETE	BASE
MP-1	113+02	3' RT	3	4.5	0
MP-3	131+18	29' LT	3	6	8
MP-8	165+19	11' LT	9	0	26.4
MP-11	187+44	29' LT	6	6	8
MP-17	255+27	3' LT	3.25	10.5	0
MP-24	304+27	2' LT	5	5	0
MP-25	313+27	29' LT	4	6	6
MP-31	366+10	2' RT	9.5	0	0
MP-35	392+25	29' LT	4	8	4
MP-38	414+25	2' RT	5	4	0
MP-41	444+25	3' RT	11.5	0	18
MP-44	469+25	30' LT	3	8	4
MP-47	489+25	2' LT	3.5	10	0

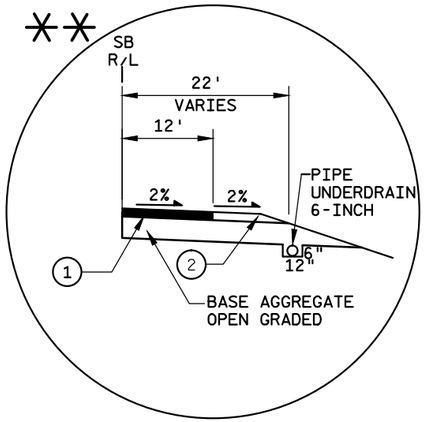


TEMPORARY WIDENING TYPICAL SECTION

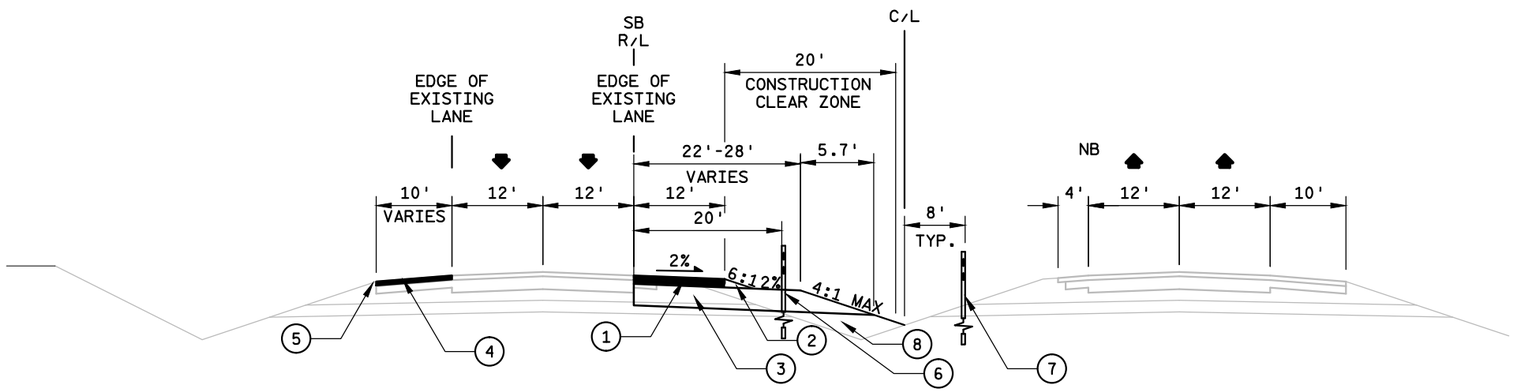
STA. 135+00 - STA. 145+00
STA. 148+00 - STA. 160+63
STA. 163+32 - STA. 201+28
STA. 243+00 - STA. 296+57.81
STA. 302+42.79 - STA. 347+10.95
STA. 353+11.21 - STA. 367+58
STA. 370+53 - STA. 378+53.06
STA. 384+41.36 - STA. 436+52
STA. 439+19 - STA. 457+15
STA. 536+62 - STA. 542+00



STA. 163+32 - STA. 165+00
STA. 175+51 - STA. 190+94
STA. 191+20 - STA. 201+28
STA. 318+30 - STA. 330+86
STA. 331+07 - STA. 343+41
STA. 349+00 - STA. 351+00
STA. 367+00 - STA. 367+58
STA. 370+53 - STA. 372+00
STA. 432+00 - STA. 436+52
STA. 439+19 - STA. 444+00



STA. 142+00 - STA. 145+00
STA. 148+00 - STA. 151+00
STA. 200+00 - STA. 201+28
STA. 297+00 - STA. 301+25
STA. 348+00 - STA. 352+00
STA. 363+46 - STA. 367+58
STA. 370+53 - STA. 373+00
STA. 380+00 - STA. 383+00
STA. 430+00 - STA. 436+52
STA. 439+19 - STA. 445+00



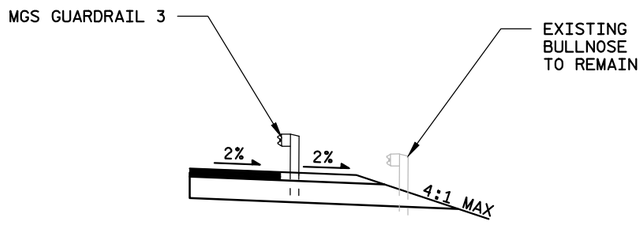
TEMPORARY WIDENING WITH CABLE GUARD TYPICAL SECTION

STA. 457+15 - STA. 536+62

LEGEND

1. 6.5" HMA PAVEMENT TYPE E-10
2. BASE AGGREGATE DENSE 3/4-INCH
3. 17" BASE AGGREGATE DENSE 1 1/4-INCH IN TWO LIFTS
4. SHOULDER REPAIR:
   REMOVING RUMBLE STRIPS
   REMOVING ASPHALTIC SURFACE MILLING
   CONCRETE PAVEMENT REPAIR SHES
   HMA PAVEMENT
   SEE MISC. QUANTITIES SHEET
5. BASE AGGREGATE DENSE 3/4-INCH SEE DETAIL "OUTSIDE SHOULDER BASE AGGREGATE PLACEMENT"
6. SALVAGE AND REINSTALL HIGH-TENSION CABLE GUARD TL-3, SOCKETED, GIBRALTAR SEE MISC. QUANTITIES AND CONSTRUCTION DETAILS
7. HIGH-TENSION CABLE GUARD TL-3, SOCKETED, GIBRALTAR SEE MISC. QUANTITIES AND CONSTRUCTION DETAILS
8. EXCAVATED MATERIAL (INCIDENTAL TO EXCAVATION COMMON)

PROJECT NO: 1003-10-86	HWY: IH 39	COUNTY: ROCK	PLAN: TYPICAL SECTIONS	SHEET 7	E



MIDWEST GUARDRAIL SYSTEM
IN MEDIAN INSTALLATION

STA. 298+48 - STA. 303+16
STA. 380+52 - STA. 384+81

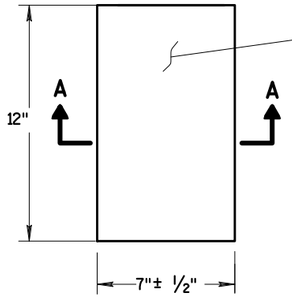
MEDIAN OPENING SECTION

STA. 191+05
STA. 255+50
STA. 331+00
STA. 456+90
STA. 537+00

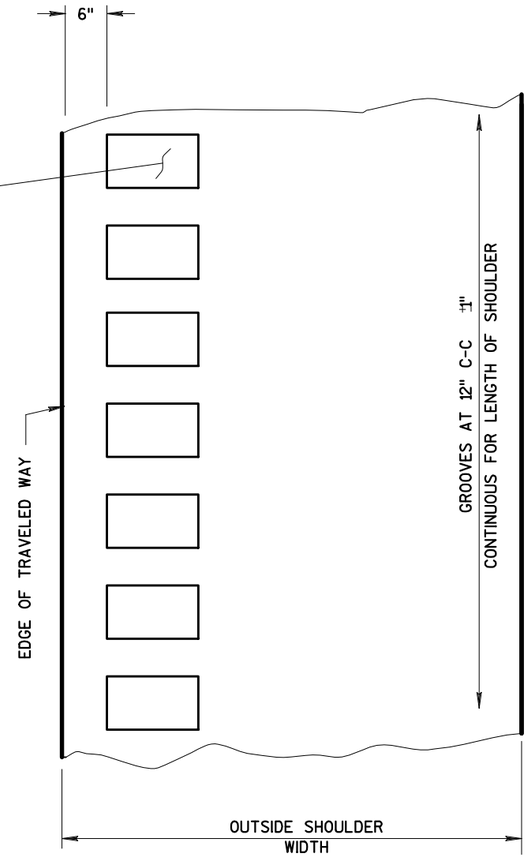
2

GENERAL NOTES

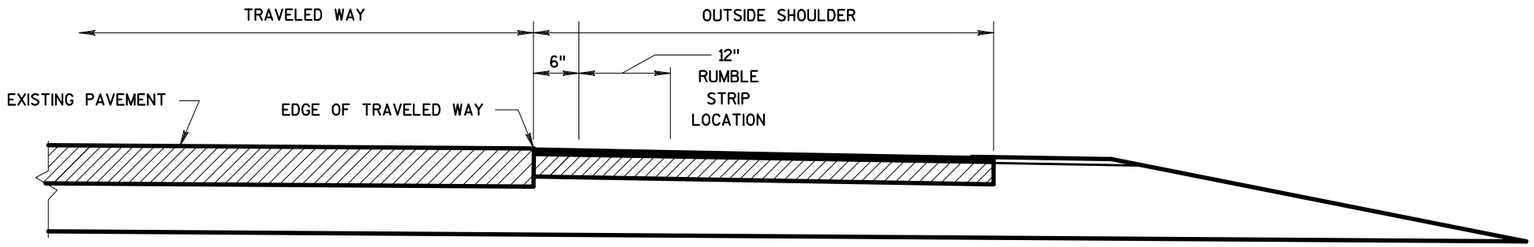
DETAILS OF CONSTRUCTION SHOWN ON THIS DRAWING SHALL CONFORM TO THE PERTINENT REQUIREMENTS OF THE STANDARD SPECIFICATIONS AND APPLICABLE SPECIAL PROVISIONS.



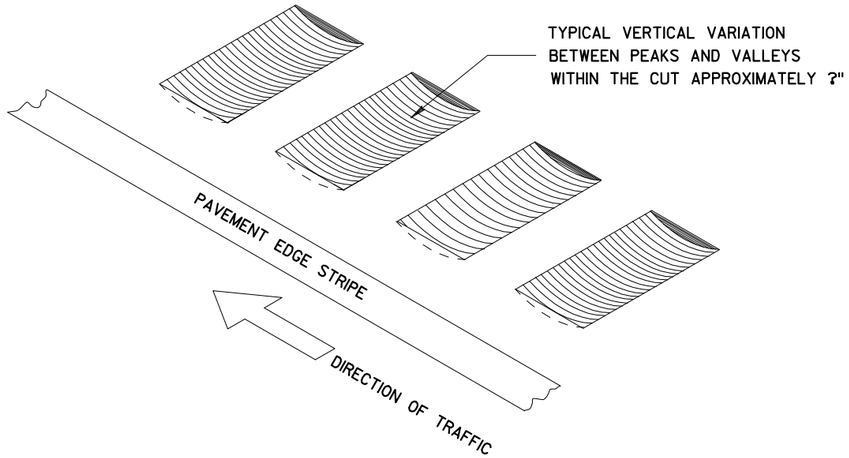
PLAN VIEW
(SINGLE GROOVE)



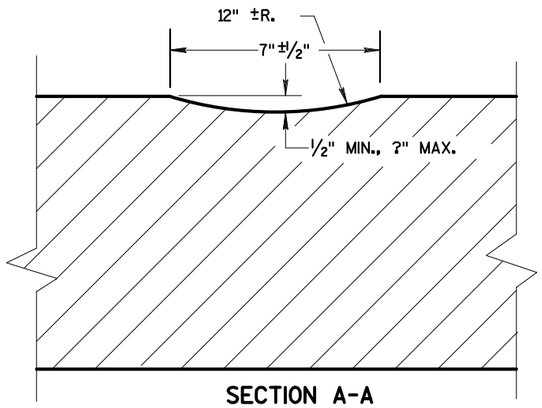
PLAN VIEW
SHOULDER WITH GROOVES



SECTION VIEW



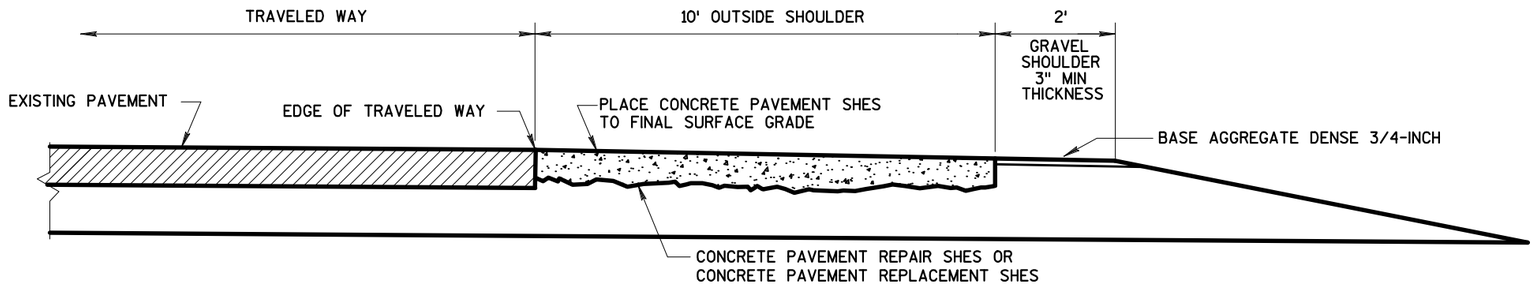
ISOMETRIC



SECTION A-A

RUMBLE STRIP DETAIL

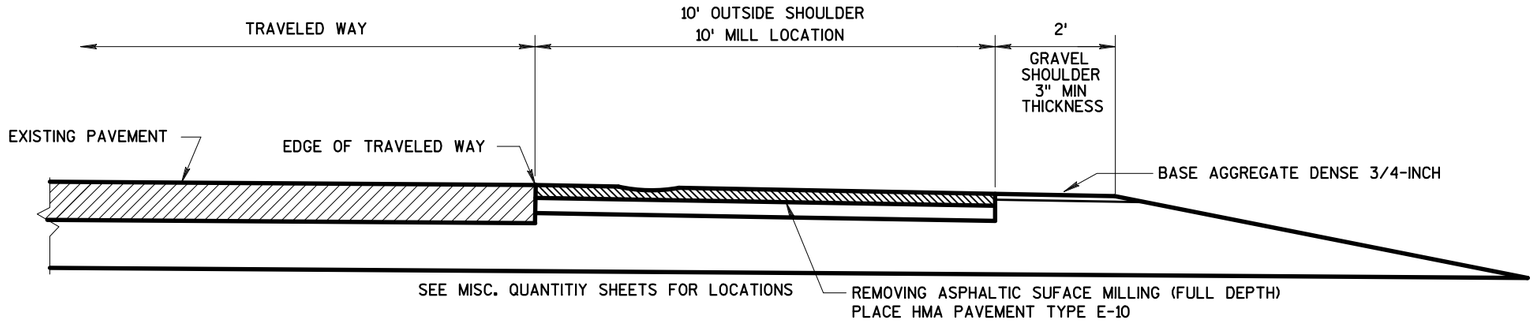
PROJECT NO: 1003-10-86	HWY: IH 39	COUNTY: ROCK	CONSTRUCTION DETAILS	SHEET 9	E



SECTION VIEW

CONCRETE PAVEMENT REPAIR SHES

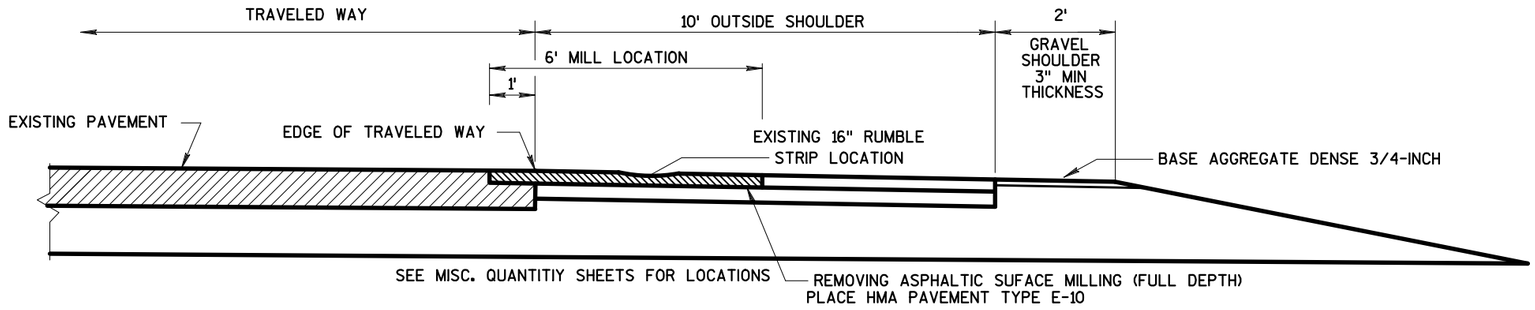
CONCRETE PAVEMENT REPLACEMENT SHES



SECTION VIEW

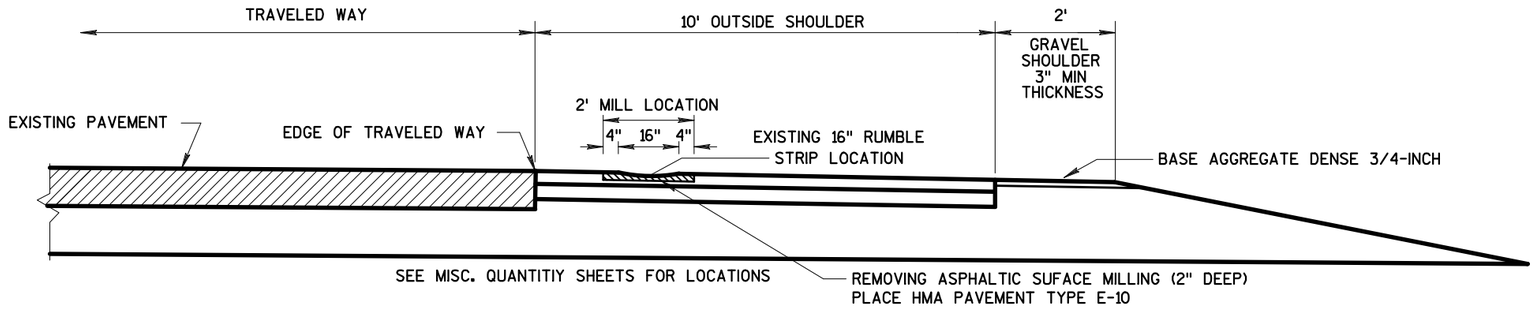
REMOVING ASPHALTIC SURFACE MILLING - 10' WIDTH

OUTSIDE SHOULDER REHABILITATION



SECTION VIEW

REMOVING ASPHALTIC SURFACE MILLING - 6' WIDTH



SECTION VIEW

REMOVING ASPHALTIC SURFACE MILLING - 2' WIDTH

OUTSIDE SHOULDER REHABILITATION

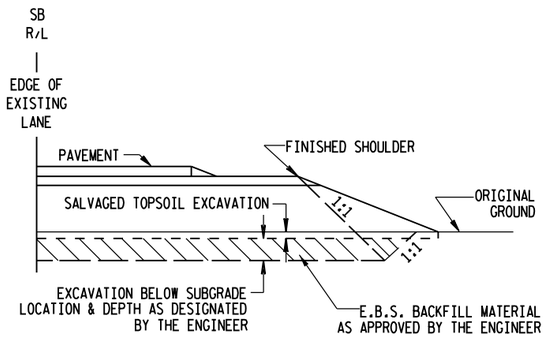
PROJECT NO: 1003-10-86	HWY: IH 39	COUNTY: ROCK	CONSTRUCTION DETAILS	SHEET	E

FILE NAME : L:\WORK\IH-39-SOUTH-SEGMENT\000_CAD\001_DRAWINGS\TEMPORARY WIDENING\021002B_CD.DWG PLOT DATE : 2/27/2013 11:58 AM PLOT BY : MROZ, ZACHARY T. PLOT NAME : PLOT SCALE : 1:20_XREF
WISDOT/CADDS SHEET 42

RUNOFF COEFFICIENT TABLE

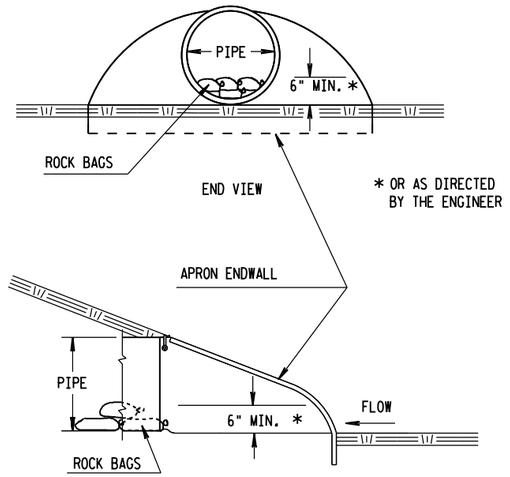
	HYDROLOGIC SOIL GROUP											
	A			B			C			D		
	SLOPE RANGE (PERCENT)			SLOPE RANGE (PERCENT)			SLOPE RANGE (PERCENT)			SLOPE RANGE (PERCENT)		
LAND USE:	0-2	2-6	6 & OVER	0-2	2-6	6 & OVER	0-2	2-6	6 & OVER	0-2	2-6	6 & OVER
ROW CROPS	.08 .22	.16 .30	.22 .38	.12 .26	.20 .34	.27 .44	.15 .30	.24 .37	.33 .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 = 29.606 ACRES
TOTAL AREA EXPECTED TO BE DISTURBED BY CONSTRUCTION ACTIVITIES = 26.420 ACRES



DETAIL FOR EXCAVATION BELOW SUBGRADE

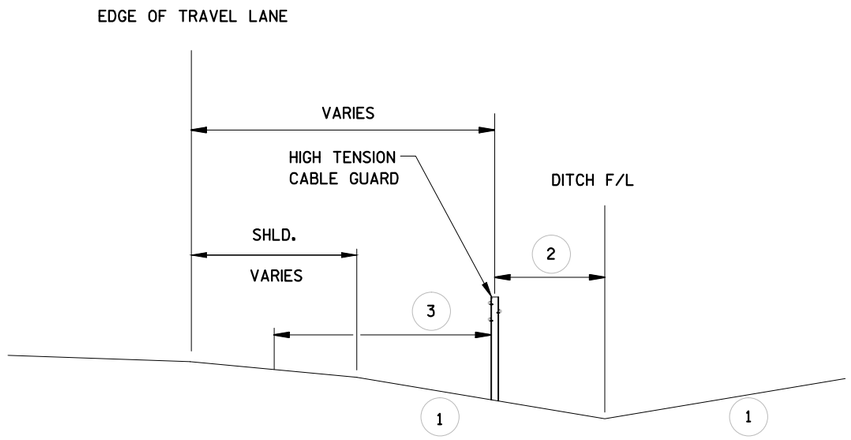
THIS DETAIL TO BE USED FOR REMOVAL OF UNSUITABLE MATERIAL.



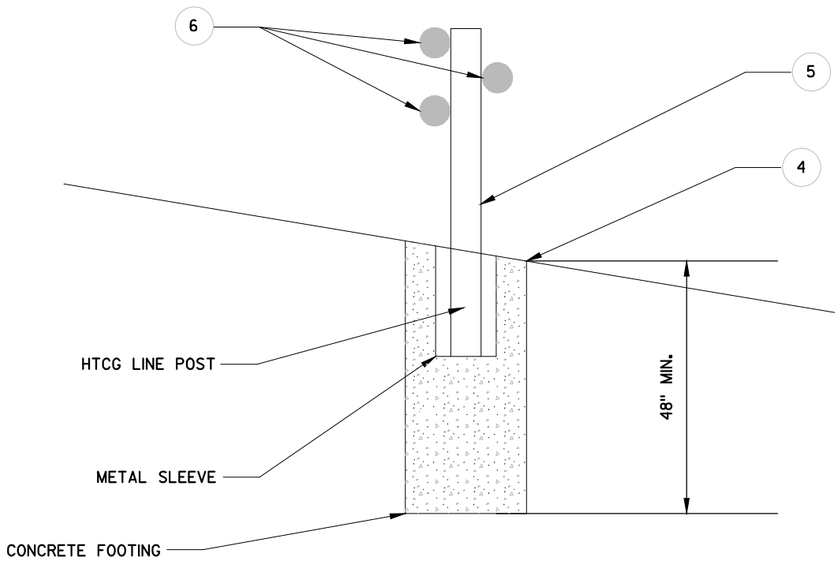
CULVERT PIPE CHECKS

PROJECT NUMBER: 1003-10-86	HWY: IH 39	COUNTY: ROCK	CONSTRUCTION DETAILS	SHEET 12	E

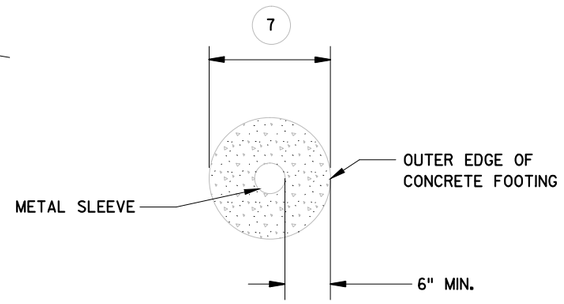
FILE NAME: L:\work\projects\60242867\000_CAD\001_Drawings\Temporary Widening\021003_cd.dgn
BATCH PRINT SHEET 1 OF 1
PRINTER DRIVER: S:\TPN_CADstds\Workspace-Clients\WisDOT\Microstation\Resources\MS_Printing\Printer_Drivers\ET_PDF_11 x 17.plt
PEN TABLE: L:\work\projects\60242867\000_CAD\001_Drawings\Temporary Widening\MS_Printing\Pen_Tables\ET_WisDOT.tbl
PLOT DATE: 1/31/2013
PLOT TIME: 12:04:00 PM
PLOT SCALE: 1:2
WISDOT/CADDS SHEET 42



HIGH-TENSION CABLE GUARD (HTCG) LINE POST PLACEMENT



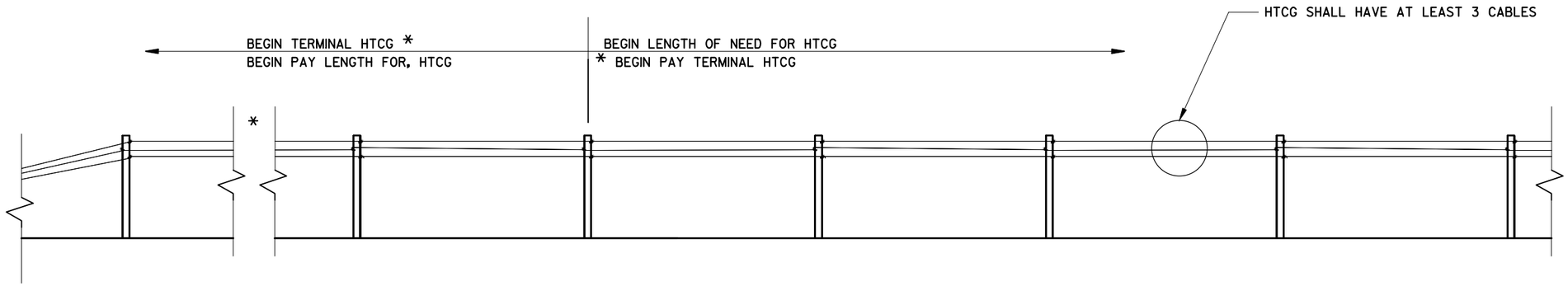
CROSS SECTION VIEW LINE POST DETAIL 7



PLAN VIEW 7 LINE POST DETAIL

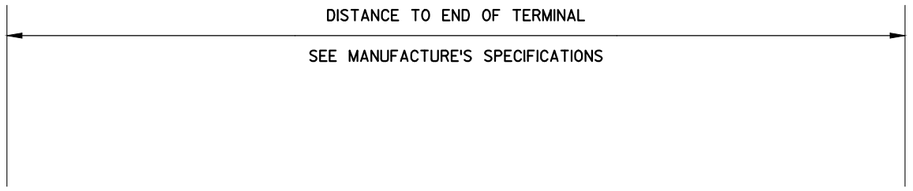
(CABLES OMITTED FOR CLARITY)

1. DO NOT INSTALL HIGH-TENSION CABLE GUARD ON SLOPES STEEPER THAN 6:1
2. OFFSET OF HTCG: SEE TYPICAL SECTIONS
3. DEFLECTION IS MEASURED FROM MIDPOINT OF SHOULDER TO LINE POST. FOR DEFLECTION CRITERIA SEE SPECIAL PROVISIONS
4. CONCRETE FOOTING FOR HTCG LINE POST SHALL BE FLUSH WITH FINISH SURFACE ±3/4" TOLERANCE
5. LINE POST FOR HTCG SHALL BE PLUMB, EASILY REMOVED FROM STEEL SLEEVE, AND MAINTAIN CABLES AT THE CORRECT ELEVATION
6. HTCG SHALL HAVE A MINIMUM OF 3 CABLES. CABLES SHALL HOLD DESIRED TENSION PER MANUFACTURE'S SPECIFICATIONS. SEE MANUFACTURE'S SPECIFICATION FOR CORRECT HEIGHT OF CABLES AND CABLE CONFIGURATION.
7. SEE MANUFACTURE'S DETAILS AND SPECIFICATIONS FOR LINE POST FOOTING DESIGN



HIGH TENSION CABLE GUARD (HTCG), PAY LIMIT DETAIL
AND
TERMINAL, HIGH TENSION CABLE GUARD, PAY LIMIT DETAIL

* AS DETERMINED BY MANUFACTURER

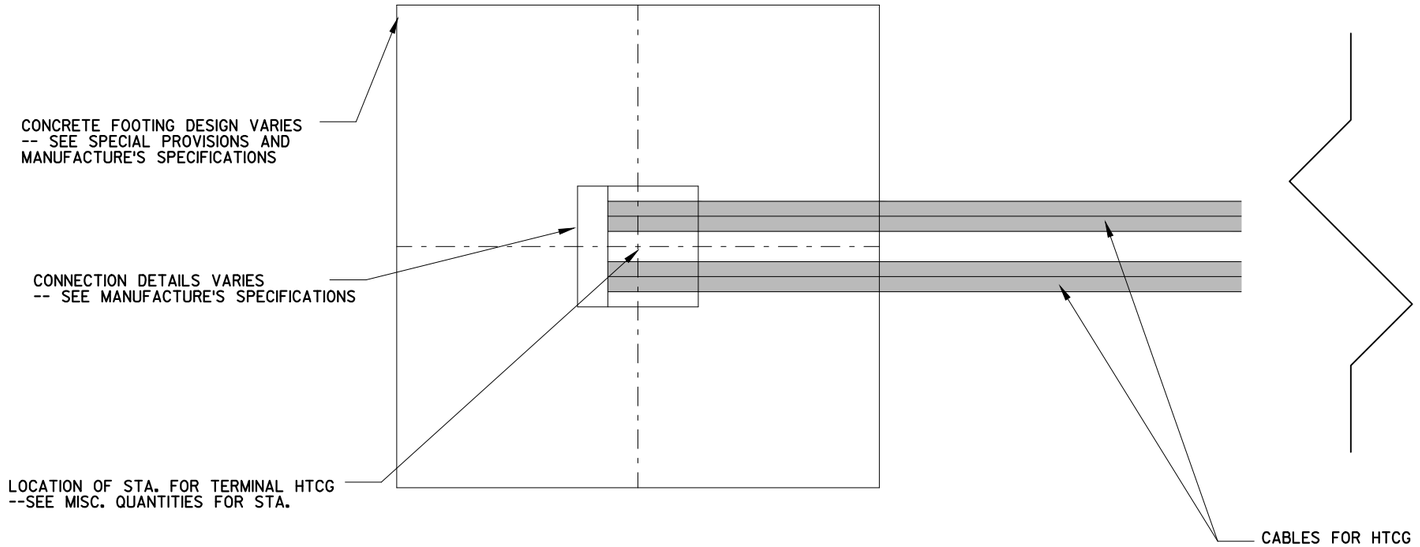


LEGEND

CMC - CROSS MEDIAN CRASHES

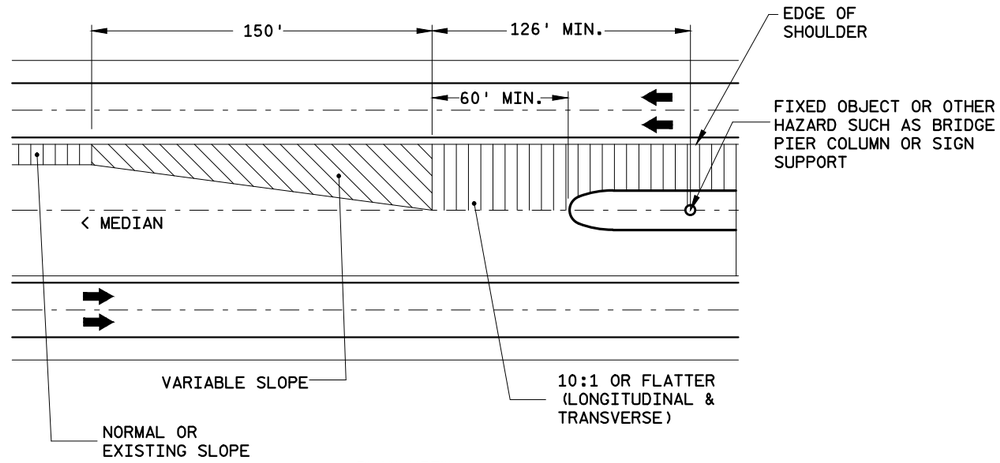
HTCG - HIGH TENSION CABLE GUARD

LON - LENGTH OF NEED



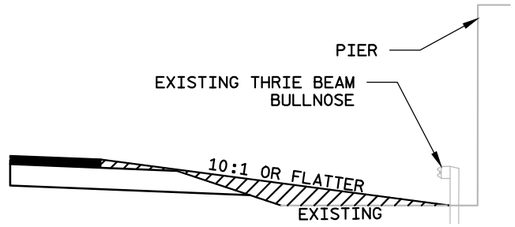
PLAN VIEW OF CONCRETE ANCHOR

CONCRETE ANCHORS FOR TERMINAL FOR HTCG SHALL BE FLUSH WITH FINISHED SURFACE ±3/4" TOLERANCE



PLAN VIEW

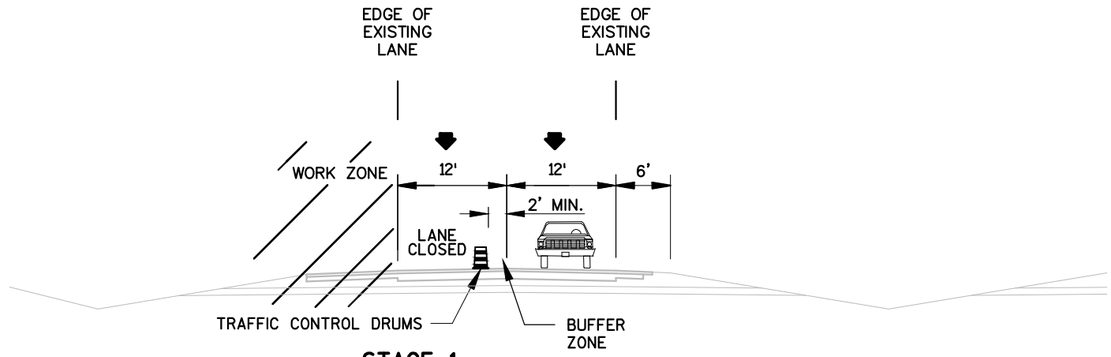
GRADING AT BULLNOSE



MEDIAN GRADING TO BULLNOSE

STA. 347+10.95 - STA. 353+11.21

FILE NAME : L:\WORK\PROJECTS\60242867\000_CAD\001_DRAWINGS\TEMPORARY WIDENING\021011_CD.DWG PLOT DATE : 11/19/2012 10:36 AM PLOT BY : ARBUCKLE, ADRIAN PLOT NAME : ---------- PLOT SCALE : 1 IN: 20 FT WISDOT/CADD ... SHEET 42



STAGE 1

(NIGHT-TIME OPERATION)

TRAFFIC CONTROL

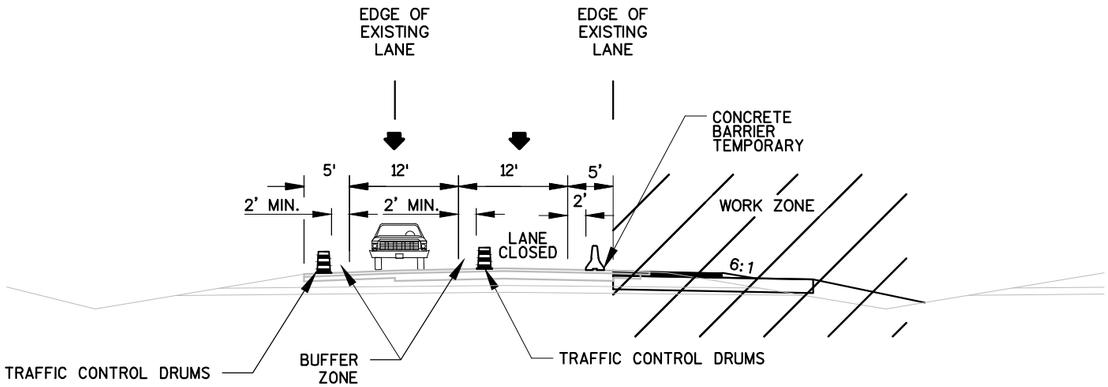
SEE STANDARD DETAIL DRAWING, TRAFFIC CONTROL LANE CLOSURE, SPEEDS GREATER THAN 40 MPH

FOR CTH S INTERCHANGE RAMPS, SEE STANDARD DETAIL DRAWING, TRAFFIC CONTROL, EXIT AND ENTRANCE RAMP WITHIN LANE CLOSURE

CONSTRUCTION

SHOULDER REPAIR:
- REMOVING RUMBLE STRIPS
- REMOVING ASPHALTIC SURFACE MILLING
- BASE PATCHING CONCRETE
- HMA PAVEMENT

OUTSIDE SHOULDER BASE AGGREGATE PLACEMENT
TEMPORARY PAVEMENT MARKING



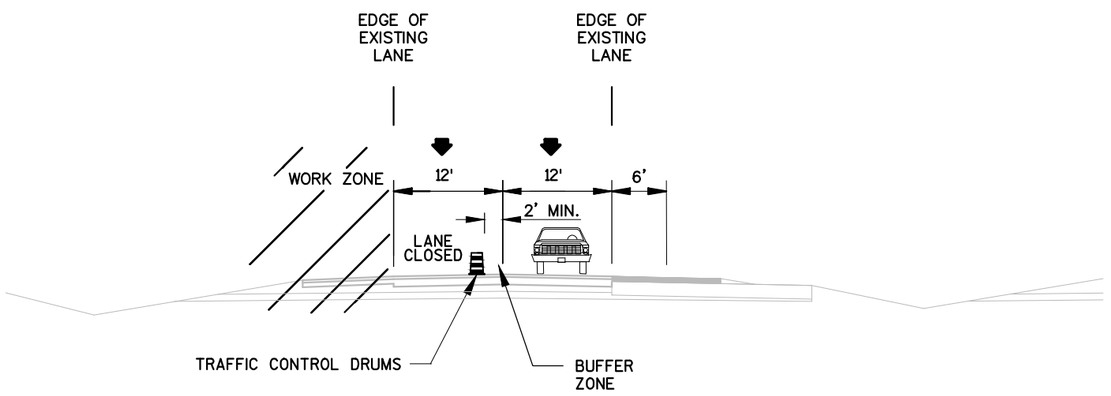
STAGE 2

TRAFFIC CONTROL

SEE FREEWAY LANE CLOSURE FOR MEDIAN WORK (NIGHT-TIME OPERATION), FREEWAY TRAFFIC SHIFT FOR MEDIAN WORK (DAY-TIME OPERATION). NO ACCESS TO WORK ZONE FOR DELIVERY OF EQUIPMENT OR MATERIAL DURING DAY-TIME OPERATION

CONSTRUCTION

PLACE CONCRETE BARRIER TEMPORARY
EXCAVATION
EXCAVATION BELOW SUBGRADE
CULVERT EXTENSION
PLACE BASE AGGREGATE DENSE
PLACE HMA
INSTALL CABLE GUARD
PAVEMENT MARKING



STAGE 3

(NIGHT-TIME OPERATION)

TRAFFIC CONTROL

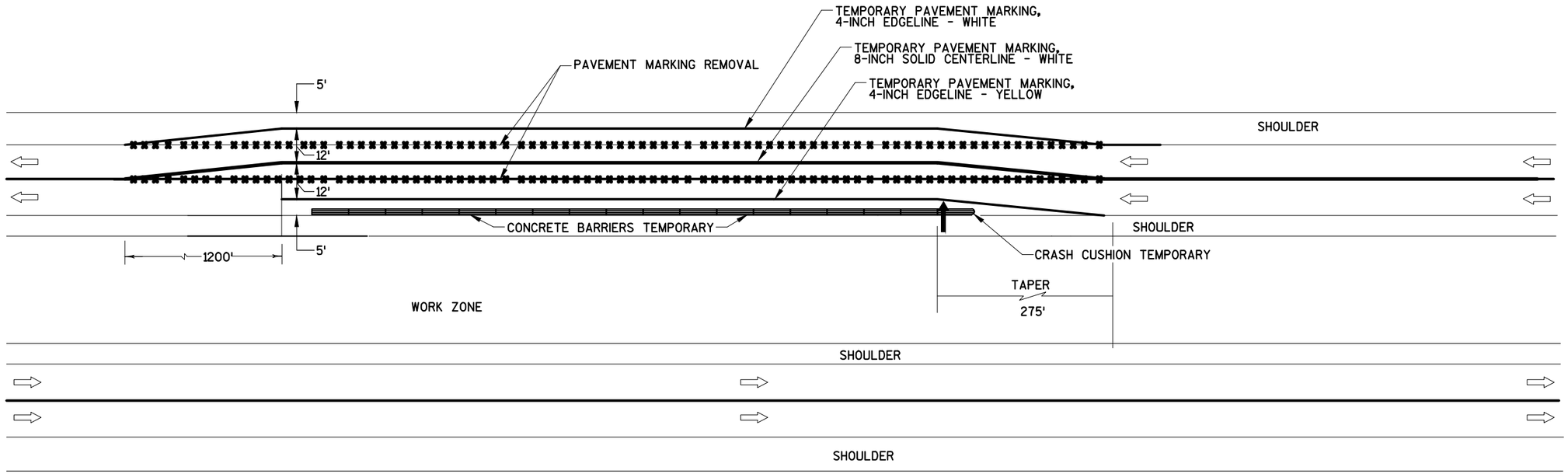
SEE STANDARD DETAIL DRAWING, TRAFFIC CONTROL LANE CLOSURE, SPEEDS GREATER THAN 40 MPH

CONSTRUCTION

PAVEMENT MARKING
ASPHALTIC SHOULDER RUMBLE STRIP

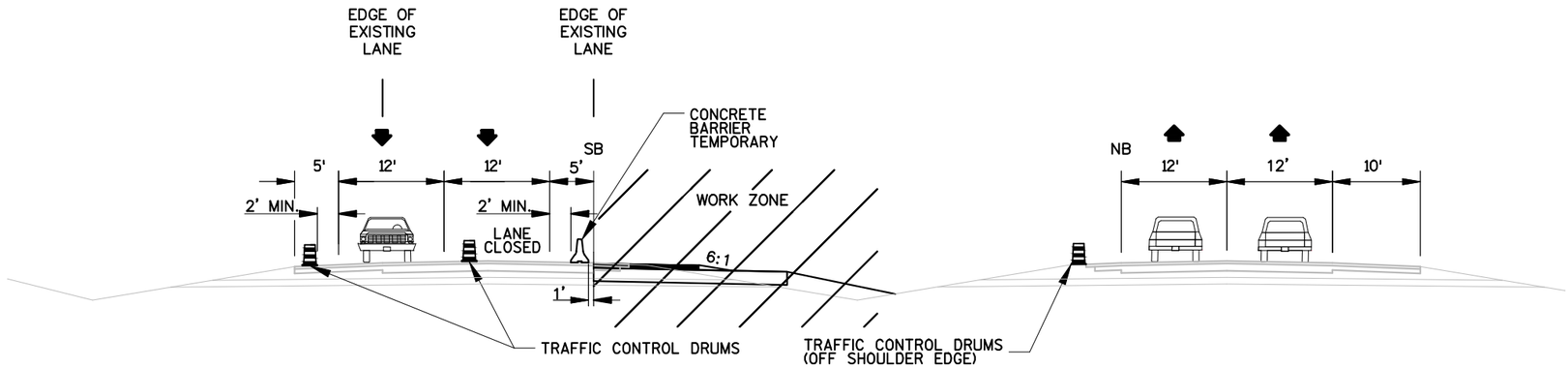
PROJECT NO: 1003-10-86	HWY: IH 39	COUNTY: ROCK	PLAN: TRAFFIC CONTROL - STAGING SEQUENCE	SHEET 16	E

2



PAVEMENT MARKING FOR FREEWAY LANE CLOSURE FOR MEDIAN WORK

PROJECT NO: 1003-10-86	HWY: IH 39	COUNTY: ROCK	PLAN: TRAFFIC CONTROL	SHEET 17	E



TRAFFIC CONTROL TYPICAL SECTION

NIGHT-TIME OPERATION

TRAFFIC CONTROL NOTES

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

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

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

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

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

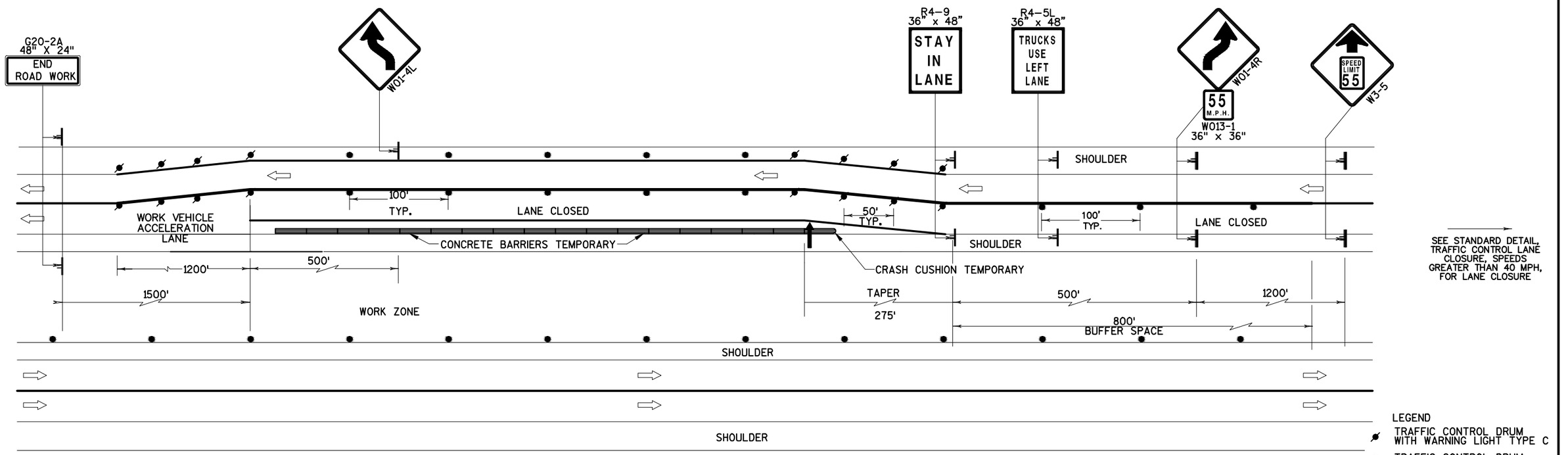
ALL SHORT TERM LANE CLOSURE SIGNS SHALL BE REMOVED OR COVERED AND ALL ARROWBOARDS AND DEVICES REMOVED BEYOND THE SHOULDER WHEN THE WORK IS NOT IN PROGRESS AND THE LANE IS RESTORED TO A SAFE OPERATING CONDITION.

IF LANE CLOSURE IS MORE THAN 1 MILE, PLACE A TYPE III BARRICADE APPROXIMATELY EVERY 1000' ACROSS THE CLOSED LANE TO HELP ENFORCE THE DRUM LINE.

CONSIDER GEOMETRICS WHEN LOCATING SIGNS AND ARROWBOARDS SO THE DRIVER HAS A CLEAR VIEW OF THE ARROWBOARD AND LANE CLOSURE DRUMS FOR A MINIMUM 1500' IN FRONT OF DRUMS.

THE WORK ZONE AND BUFFER SPACE WILL BE A MAXIMUM 2 MILES IN LENGTH.

THE CLOSED TRAFFIC LANE MAY BE USED FOR ACCESS TO AND FROM THE WORK ZONE BUT MAY NOT BE USED FOR WORK VEHICLE STORAGE.



SEE STANDARD DETAIL, TRAFFIC CONTROL LANE CLOSURE, SPEEDS GREATER THAN 40 MPH, FOR LANE CLOSURE

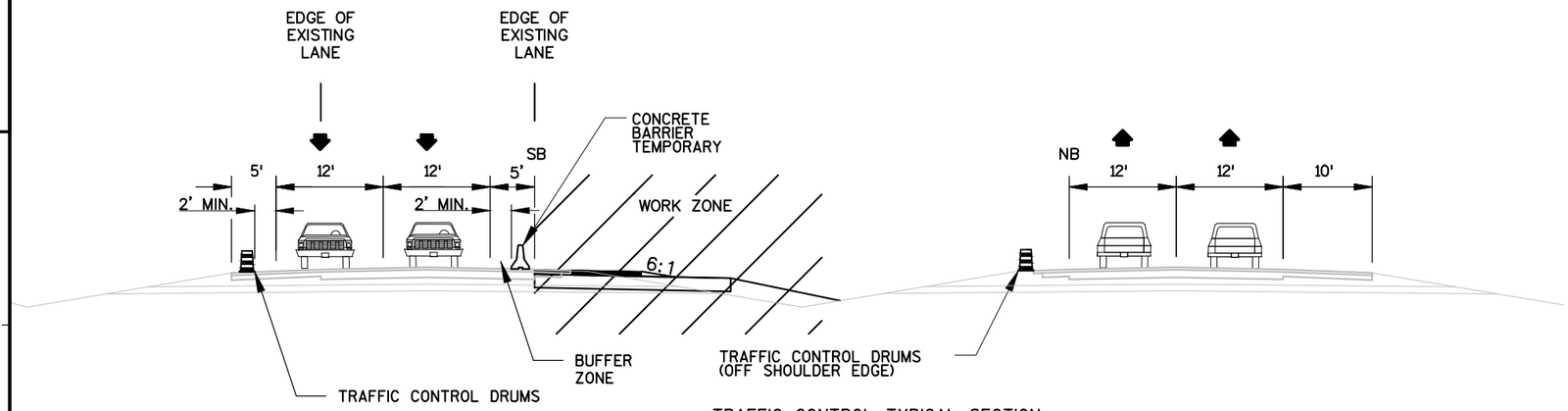
LEGEND

- TRAFFIC CONTROL DRUM WITH WARNING LIGHT TYPE C
- TRAFFIC CONTROL DRUM
- SIGN ON WOOD SUPPORT
- SIGN ON PORTABLE SUPPORT (5' MIN MOUNTING HEIGHT)
- FLASHING ARROW BOARD

FREEWAY LANE CLOSURE FOR MEDIAN WORK (NIGHT-TIME OPERATION)

MAXIMUM OF 2 MILES

PROJECT NO: 1003-10-86	HWY: IH 39	COUNTY: ROCK	PLAN: TRAFFIC CONTROL	SHEET 18	E

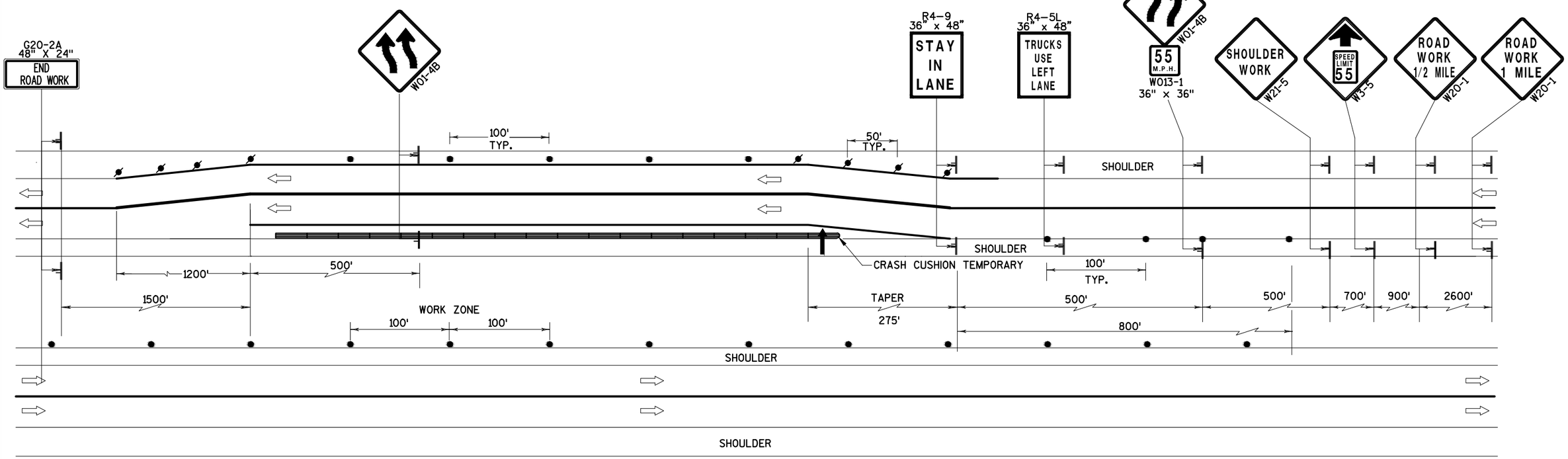


TRAFFIC CONTROL TYPICAL SECTION
DAY-TIME OPERATION

TRAFFIC CONTROL NOTES

(SEE "FREEWAY LANE CLOSURE FOR MEDIAN WORK (NIGHT-TIME OPERATIONS)" FOR ADDITIONAL NOTES)

NO ACCESS TO WORK ZONE FOR DELIVERY OR REMOVAL OF MATERIAL AND EQUIPMENT

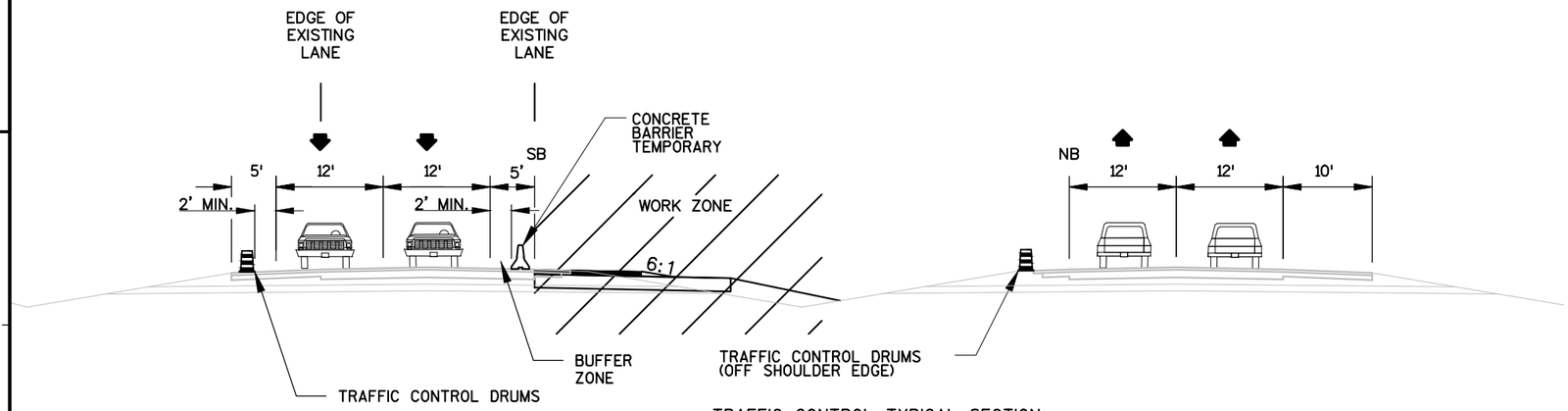


LEGEND
- TRAFFIC CONTROL DRUM WITH WARNING LIGHT TYPE C
- TRAFFIC CONTROL DRUM
- SIGN ON WOOD SUPPORT
- SIGN ON PORTABLE SUPPORT (5' MIN MOUNTING HEIGHT)
- FLASHING ARROW BOARD

FREEWAY TRAFFIC SHIFT FOR MEDIAN WORK (DAY-TIME OPERATION)

THIS DETAIL COMPLEMENTS THE "FREEWAY LANE CLOSURE FOR MEDIAN WORK (NIGHT-TIME OPERATION)" DETAIL

PROJECT NO: 1003-10-86	HWY: IH 39	COUNTY: ROCK	PLAN: TRAFFIC CONTROL	SHEET 19	E

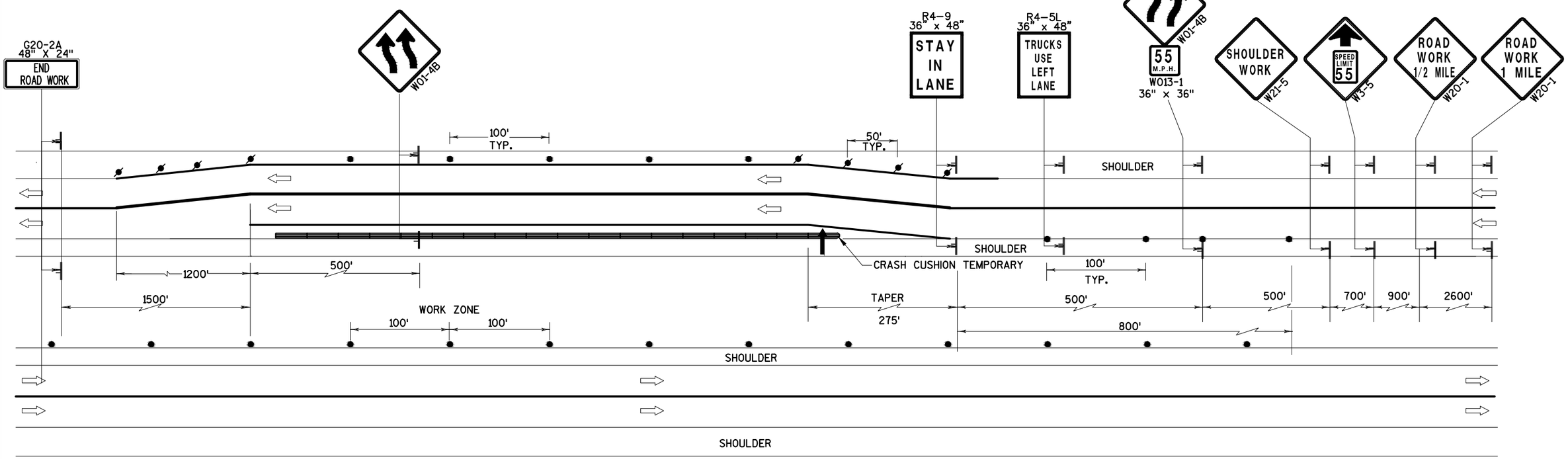


TRAFFIC CONTROL TYPICAL SECTION
DAY-TIME OPERATION

TRAFFIC CONTROL NOTES

(SEE "FREEWAY LANE CLOSURE FOR MEDIAN WORK (NIGHT-TIME OPERATIONS)" FOR ADDITIONAL NOTES)

NO ACCESS TO WORK ZONE FOR DELIVERY OR REMOVAL OF MATERIAL AND EQUIPMENT



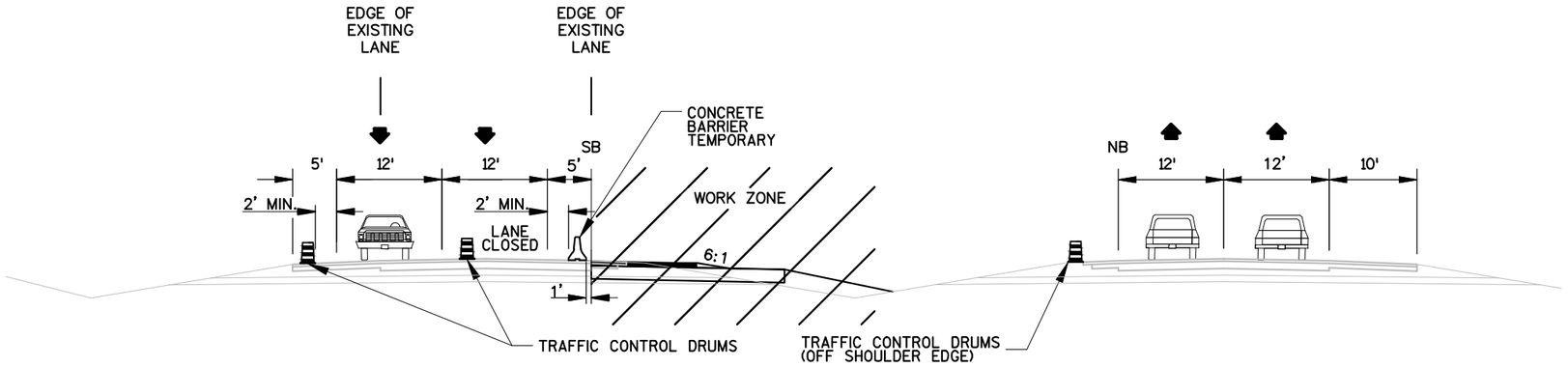
LEGEND
- TRAFFIC CONTROL DRUM WITH WARNING LIGHT TYPE C
- TRAFFIC CONTROL DRUM
- SIGN ON WOOD SUPPORT
- SIGN ON PORTABLE SUPPORT (5' MIN MOUNTING HEIGHT)
- FLASHING ARROW BOARD

FREEWAY TRAFFIC SHIFT FOR MEDIAN WORK (DAY-TIME OPERATION)

THIS DETAIL COMPLEMENTS THE "FREEWAY LANE CLOSURE FOR MEDIAN WORK (NIGHT-TIME OPERATION)" DETAIL

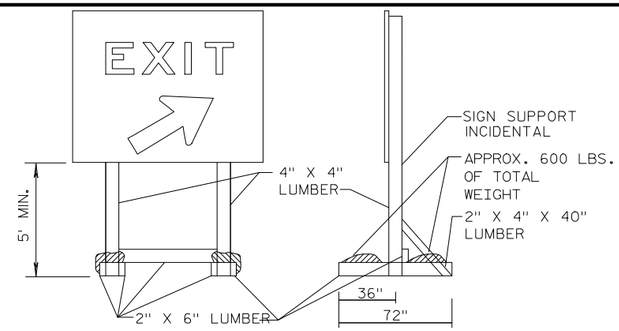
PROJECT NO: 1003-10-86	HWY: IH 39	COUNTY: ROCK	PLAN: TRAFFIC CONTROL	SHEET 20	E

FILE NAME : L:\WORK\PROJECTS\60242867\000_CAD\001_DRAWINGS\TEMPORARY WIDENING\025004_TC.DWG
PLOT DATE : 2/1/2013 11:01 AM
PLOT BY : CZECH, ANDREW
PLOT NAME :
PLOT SCALE : 1 IN:200 FT
WISDOT/CADDS SHEET 42



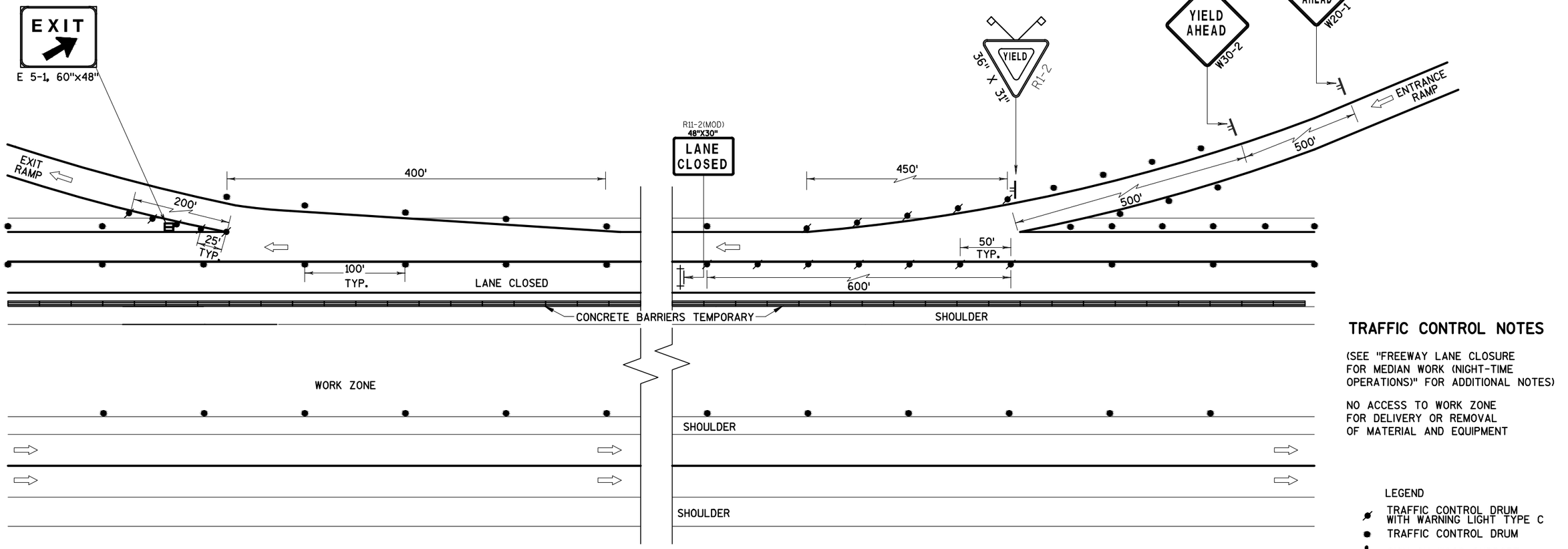
TRAFFIC CONTROL TYPICAL SECTION

NIGHT-TIME OPERATION



NOTE: ALL LUMBER DIMENSIONS ARE NOMINAL

MOUNTING DETAIL FOR MOVABLE EXIT SIGN



FREEWAY LANE CLOSURE FOR MEDIAN WORK AT RAMPS (NIGHT-TIME OPERATION)

THIS DETAIL COMPLEMENTS THE "FREEWAY LANE CLOSURE FOR MEDIAN WORK (NIGHT-TIME OPERATION)" DETAIL

TRAFFIC CONTROL NOTES

(SEE "FREEWAY LANE CLOSURE FOR MEDIAN WORK (NIGHT-TIME OPERATIONS)" FOR ADDITIONAL NOTES)

NO ACCESS TO WORK ZONE FOR DELIVERY OR REMOVAL OF MATERIAL AND EQUIPMENT

LEGEND

- TRAFFIC CONTROL DRUM WITH WARNING LIGHT TYPE C
- TRAFFIC CONTROL DRUM
- SIGN ON WOOD SUPPORT
- SIGN ON PORTABLE SUPPORT (5' MIN MOUNTING HEIGHT)
- FLASHING ARROW BOARD

PROJECT NO: 1003-10-86	HWY: IH 39	COUNTY: ROCK	PLAN: TRAFFIC CONTROL	SHEET 21	E

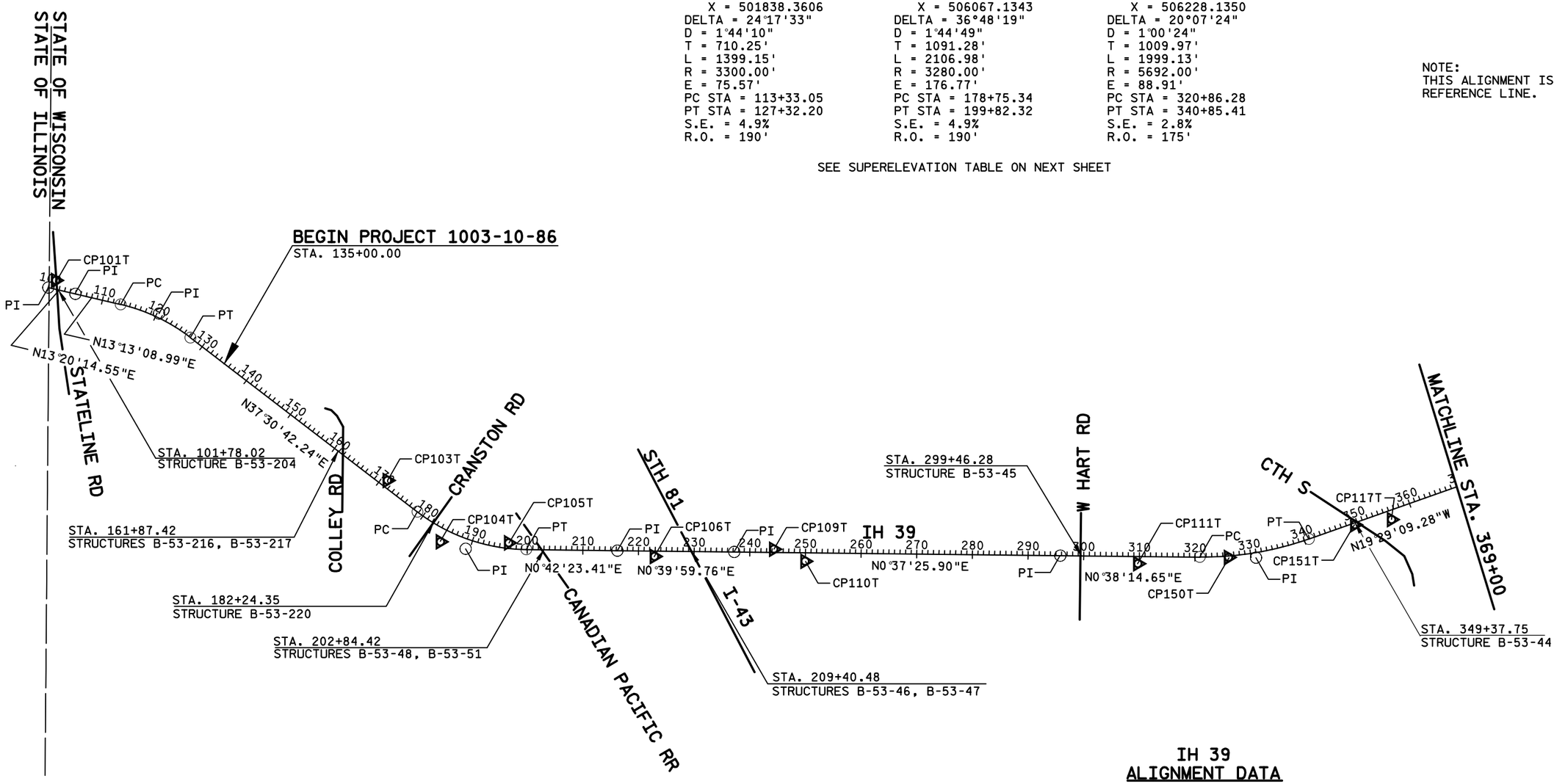
CURVE DATA

PI STA = 120+43.30	PI STA = 189+66.62	PI STA = 330+96.25
Y = 202950.7411	Y = 208459.4504	Y = 222663.7375
X = 501838.3606	X = 506067.1343	X = 506228.1350
DELTA = 24°17'33"	DELTA = 36°48'19"	DELTA = 20°07'24"
D = 1°44'10"	D = 1°44'49"	D = 1°00'24"
T = 710.25'	T = 1091.28'	T = 1009.97'
L = 1399.15'	L = 2106.98'	L = 1999.13'
R = 3300.00'	R = 3280.00'	R = 5692.00'
E = 75.57'	E = 176.77'	E = 88.91'
PC STA = 113+33.05	PC STA = 178+75.34	PC STA = 320+86.28
PT STA = 127+32.20	PT STA = 199+82.32	PT STA = 340+85.41
S.E. = 4.9%	S.E. = 4.9%	S.E. = 2.8%
R.O. = 190'	R.O. = 190'	R.O. = 175'

SEE SUPERELEVATION TABLE ON NEXT SHEET

N

NOTE:
THIS ALIGNMENT IS THE SOUTHBOUND REFERENCE LINE.



IH 39
ALIGNMENT DATA

POINT	STATION	Y	X
P.O.B.	100+00.00	200961.8250	501370.1030
P.I.	105+00.00	201448.3343	501485.4441
P.C.	113+33.05	202259.3134	501675.9437
P.I.	120+43.30	202950.7411	501838.3606
P.T.	127+32.20	203514.1298	502270.8472
P.C.	178+75.34	207593.8181	505402.6296
P.I.	189+66.62	208459.4504	506067.1343
P.T.	199+82.32	209550.6444	506080.5902
P.I.	216+19.60	211187.7928	506100.7786
P.I.	237+17.20	213285.2520	506125.1823
P.I.	295+77.58	219145.2887	506188.9914
P.C.	320+86.28	221653.8298	506216.8995
P.I.	330+96.25	222663.7375	506228.1350
P.T.	340+85.41	223615.8601	505891.2341

PROJECT NO: 1003-10-86	HWY: IH 39	COUNTY: ROCK	PLAN: ALIGNMENT DIAGRAM	SHEET --- 22	E

IH 39
ALIGNMENT DATA

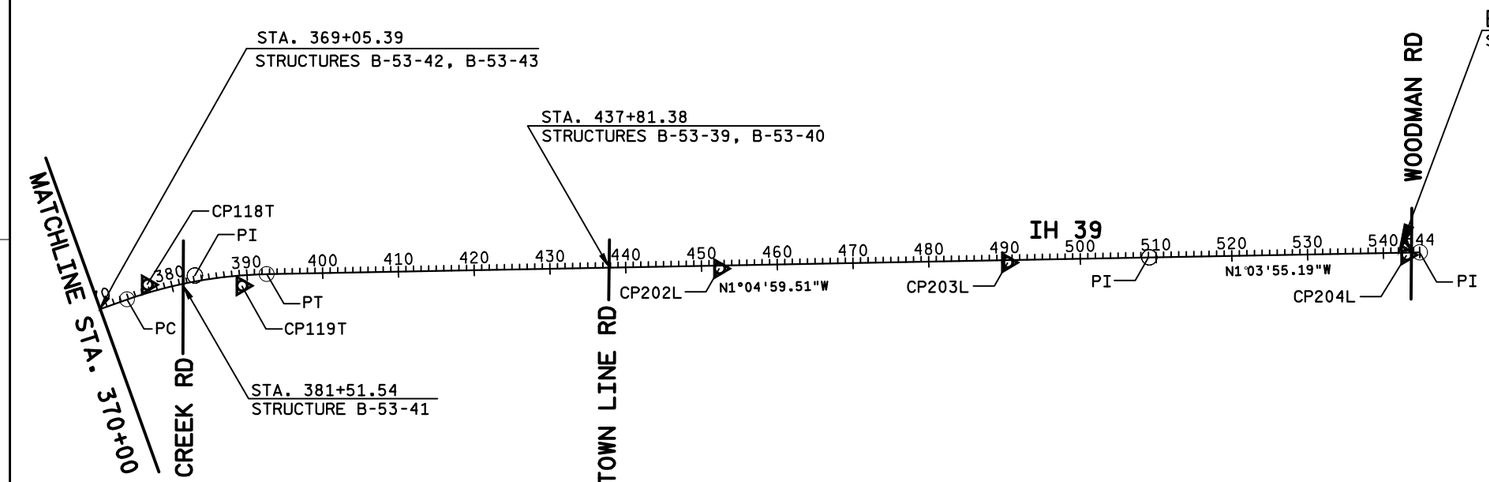
POINT	STATION	Y	X
P.C.	373+77.80	226719.6754	504792.9743
P.I.	383+27.87	227615.3243	504476.0563
P.T.	392+61.57	228565.2197	504458.0960
P.I.	509+07.60	240209.1701	504237.9366
P.O.E.	544+80.21	243781.1600	504171.5130

CURVE DATA

PI STA = 383+27.87
Y = 227615.3243
X = 504476.0563
DELTA = 18°24'10"
D = 0°58'37"
T = 950.07'
L = 1883.77'
R = 5865.00'
E = 76.45'
PC STA = 373+77.80
PT STA = 392+61.57
S.E. = 2.8%
R.O = 190'

N

NOTE:
THIS ALIGNMENT IS THE SOUTHBOUND REFERENCE LINE.



SUPERELEVATION TABLE

PC/PT - STATION	CURVE RADIUS	S.E.	L RUNOFF LENGHT	TANGENT RUNOUT	NORMAL CROWN STATION	FLAT (HIGHSIDE) STATION	REMOVE CROWN -2% STATION	FULL SUPER STATION
PC - 113+33.05	3,300.00	4.9%	190	77.55102	111+28.83	112+06.38	112+83.93	113+96.38
PT - 127+32.20	3,300.00	4.9%	190	77.55102	129+36.42	128+58.87	127+81.32	126+68.87
PC - 178+75.34	3,280.00	4.9%	190	77.55102	176+71.12	177+48.67	178+26.22	179+38.67
PT - 199+82.32	3,280.00	4.9%	190	77.55102	201+86.54	201+08.99	200+31.44	199+18.99
PC - 320+86.28	5,692.00	2.8%	175	125	318+44.61	319+69.61	320+94.61	321+44.61
PT - 340+85.41	5,692.00	2.8%	175	125	343+27.08	342+02.08	340+77.08	340+27.08
PC - 373+77.80	5,865.00	2.8%	190	135.7143	371+15.42	372+51.13	373+86.85	374+41.13
PT - 392+61.57	5,865.00	2.8%	190	135.7143	395+23.95	393+88.24	392+52.52	391+98.24

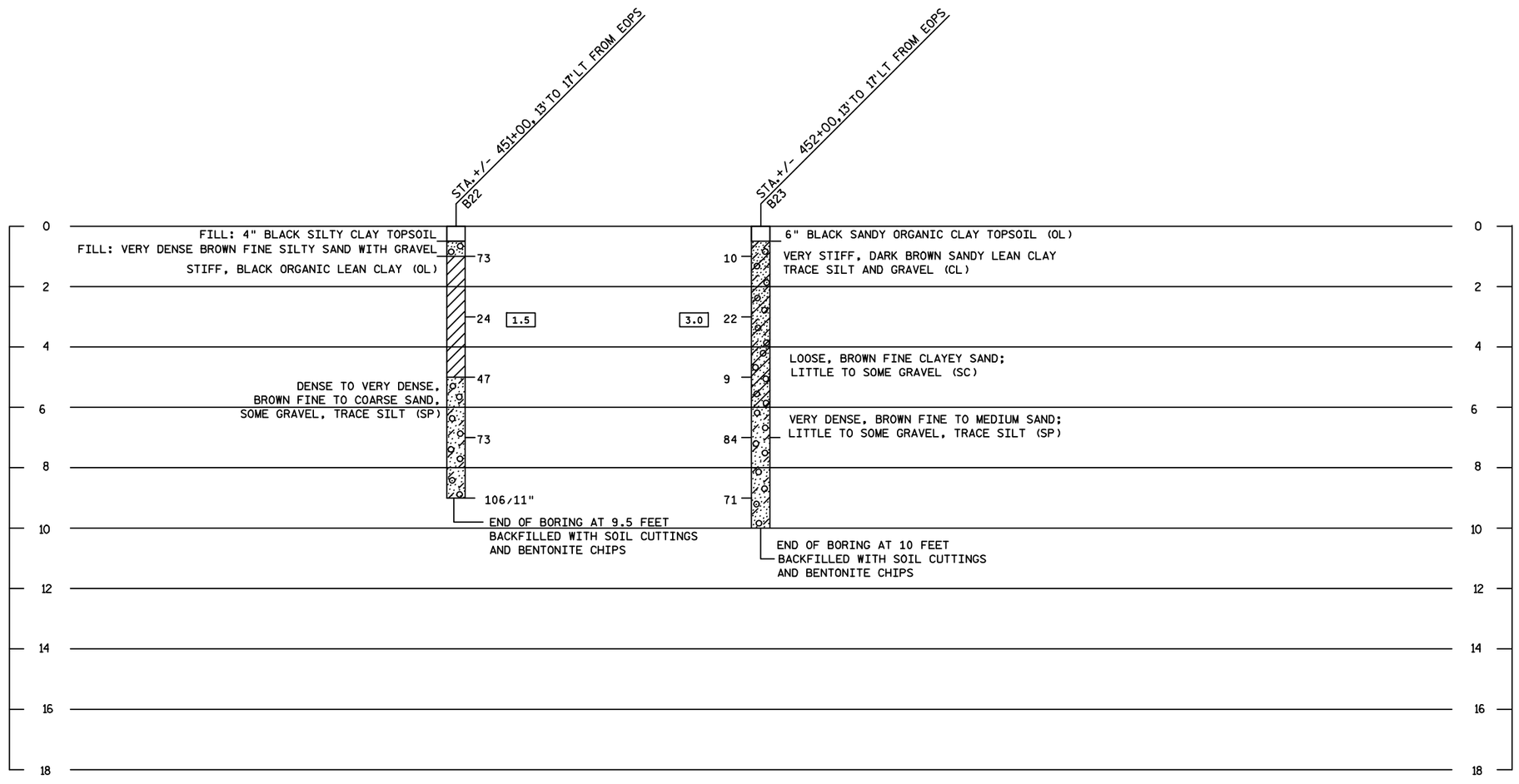
PROJECT NO: 1003-10-86	HWY: IH 39	COUNTY: ROCK	PLAN: ALIGNMENT DIAGRAM	SHEET 23	E

CABLE BARRIER ON IH 39/90
DANE & ROCK COUNTIES

N

450+00 451+00 452+00 453+00 454+00

B22 B23



STATE PROJECT NUMBER

1003-10-86

ABBREVIATIONS

F — FINE M — MEDIUM C — COARSE
WS — WEATHERED SO — SOUND

MATERIAL SYMBOLS

TOPSOIL, SILT, SANDSTONE
SAND, PEAT, LIMESTONE
GRAVEL, CLAY, IGNEOUS ROCK

LEGEND OF PROBING

PROBING NO.
STA.
ELEVATION
7 AVERAGE BLOWS PER FOOT
REFUSAL 95/6

95/6=95 BLOWS FOR 6" PENETRATION
PROBING TAKEN WITH A 350# WT. FALLING 18" ON A 2" O.D. POINT.

LEGEND OF BORING

STA.
BORING NO.
UNCONFINED STRENGTH → 7.7
7
BLOWS PER FT. USING 140# WT. FALLING 30"
WASH SAMPLE
SHELBY TUBE — S.T.
GROUND WATER ELEVATION
NO GROUND WATER OBSERVED ABOVE THIS ELEVATION
SANDY GRAVEL
F. BOULDERS OR COBBLES
SAND
SILTY CLAY
SO LIMESTONE

UNLESS OTHERWISE SPECIFIED, THE BLOWS PER FOOT AT THE LOCATIONS INDICATED ARE BASED ON DRIVING A 2" O.D. X 1.4" I.D. SPLIT SPOON SAMPLER WITH A 140# HAMMER HAVING A FREE FALL OF 30". THE BLOW COUNT IS TAKEN IN UNDISTURBED SOIL IMMEDIATELY BELOW A CASED OR OPEN HOLE ELIMINATING SIDE FRICTION ON THE DRIVE PIPE.

SUBSURFACE EXPLORATION FOR FOUNDATION DESIGN AND BIDDERS INFORMATION

TO OBTAIN RELATIVE DATA CONCERNING THE CHARACTER OF MATERIAL IN AND UPON WHICH THE FOUNDATION MIGHT BE BUILT, BORINGS AND/OR SOUNDINGS WERE MADE AT POINTS APPROXIMATELY AS INDICATED ON THIS DRAWING. THE DATA PRESENTED HEREIN REPRESENTS THE FINDINGS OF THE SUBSURFACE EXPLORATIONS MADE. HOWEVER, BECAUSE THE DEPTHS INVESTIGATED ARE LIMITED AND THE AREA OF THE BORINGS AND/OR SOUNDINGS IS VERY SMALL IN RELATION TO THE ENTIRE AREA, THE WISCONSIN DEPARTMENT OF TRANSPORTATION DOES NOT WARRANT CONDITIONS BELOW THE DEPTHS INVESTIGATED OR THAT THE CLASSIFICATION OF MATERIAL ENCOUNTERED IN THESE INVESTIGATIONS IS NECESSARILY TYPICAL OF THE ENTIRE SITE.

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION
STRUCTURES DESIGN SECTION

STRUCTURE CABLE BARRIER

DRAWN BY L H PLANS CK'D.

SUBSURFACE EXPLORATION

SHEET OF

PROJECT NO: 1003-10-86	HWY: IH 39	COUNTY: ROCK	SUBSURFACE EXPLORTATION	SHEET 24	E

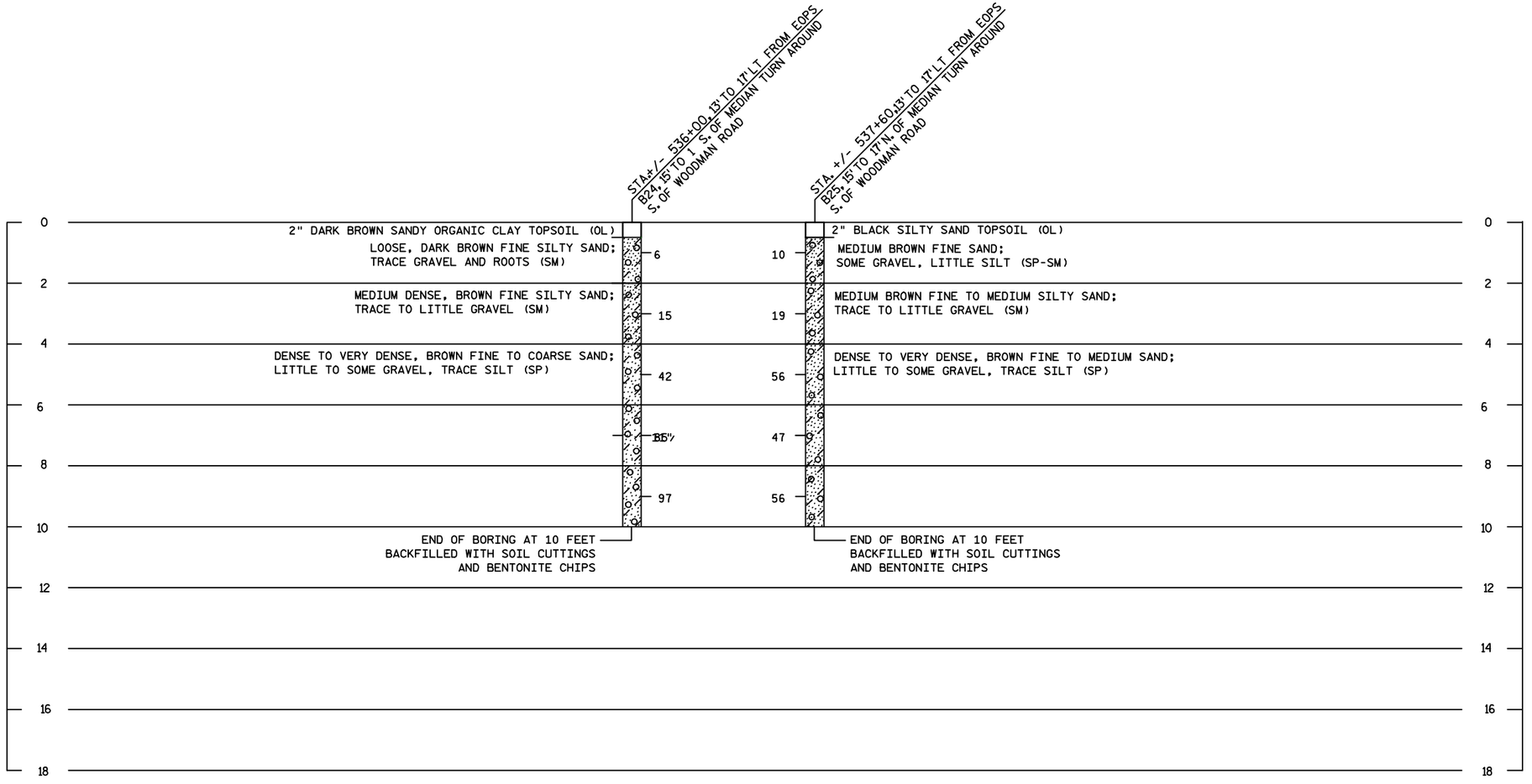
CABLE BARRIER ON IH 39/90
DANE & ROCK COUNTIES

N

535+00 536+00 537+00 538+00 539+00

B25

B24



STATE PROJECT NUMBER

1003-10-86

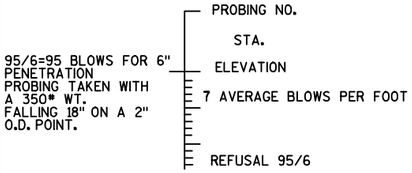
ABBREVIATIONS

F — FINE M — MEDIUM C — COARSE
WS — WEATHERED SO — SOUND

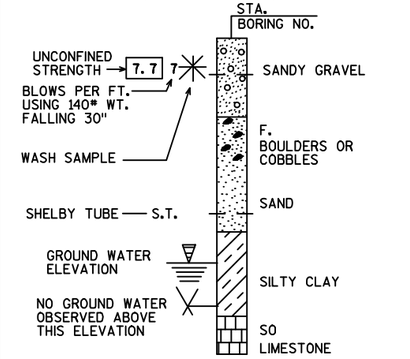
MATERIAL SYMBOLS

TOPSOIL SILT SANDSTONE
SAND PEAT LIMESTONE
GRAVEL CLAY IGNEOUS ROCK

LEGEND OF PROBING



LEGEND OF BORING



UNLESS OTHERWISE SPECIFIED, THE BLOWS PER FOOT AT THE LOCATIONS INDICATED ARE BASED ON DRIVING A 2" O.D. X 1.4" I.D. SPLIT SPOON SAMPLER WITH A 140# HAMMER HAVING A FREE FALL OF 30". THE BLOW COUNT IS TAKEN IN UNDISTURBED SOIL IMMEDIATELY BELOW A CASED OR OPEN HOLE ELIMINATING SIDE FRICTION ON THE DRIVE PIPE.

SUBSURFACE EXPLORATION FOR FOUNDATION DESIGN AND BIDDERS INFORMATION

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NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION
STRUCTURES DESIGN SECTION

STRUCTURE CABLE BARRIER

DRAWN BY L H | PLANS CK'D.

SUBSURFACE EXPLORATION

SHEET OF

PROJECT NO: 1003-10-86	HWY: IH 39	COUNTY: ROCK	SUBSURFACE EXPLORTATION	SHEET 25	E

DATE 01MAR13 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	1003-10-86 QUANTITY
0010	204.0100	REMOVING PAVEMENT	SY	20,000.000	20,000.000
0020	204.0120	REMOVING ASPHALTIC SURFACE MILLING	SY	12,013.000	12,013.000
0030	204.0190	REMOVING SURFACE DRAINS	EACH	1.000	1.000
0040	204.0245	REMOVING STORM SEWER (SIZE) 001. 24-INCH	LF	12.000	12.000
0050	204.0260	ABANDONING INLETS	EACH	2.000	2.000
0060	204.9060.S	REMOVING (ITEM DESCRIPTION) 001. CULVERT PIPE ENDWALL	EACH	11.000	11.000
0070	205.0100	EXCAVATION COMMON	CY	34,995.000	34,995.000
0080	213.0100	FINISHING ROADWAY (PROJECT) 001. 1003-10-86	EACH	1.000	1.000
0090	305.0110	BASE AGGREGATE DENSE 3/4-INCH	TON	6,000.000	6,000.000
0100	305.0120	BASE AGGREGATE DENSE 1 1/4-INCH	TON	100,000.000	100,000.000
0110	312.0110	SELECT CRUSHED MATERIAL	TON	3,156.000	3,156.000
0120	416.1715	CONCRETE PAVEMENT REPAIR SHES	SY	316.000	316.000
0130	416.1725	CONCRETE PAVEMENT REPLACEMENT SHES	SY	47.000	47.000
0140	455.0105	ASPHALTIC MATERIAL PG58-28	TON	847.000	847.000
0150	455.0120	ASPHALTIC MATERIAL PG64-28	TON	400.000	400.000
0160	455.0605	TACK COAT	GAL	1,735.000	1,735.000
0170	460.1110	HMA PAVEMENT TYPE E-10	TON	19,965.000	19,965.000
0180	460.2000	INCENTIVE DENSITY HMA PAVEMENT	DOL	12,780.000	12,780.000
0190	465.0400	ASPHALTIC SHOULDER RUMBLE STRIP	LF	37,400.000	37,400.000
0200	520.0700.S	CULVERT PIPE LINERS (INCH) 001. 30-INCH	LF	66.000	66.000
0210	520.8000	CONCRETE COLLARS FOR PIPE	EACH	27.000	27.000
0220	521.0115	CULVERT PIPE CORRUGATED STEEL 15-INCH	LF	38.000	38.000
0230	521.0124	CULVERT PIPE CORRUGATED STEEL 24-INCH	LF	60.000	60.000
0240	522.0324	CULVERT PIPE REINFORCED CONCRETE CLASS IV 24-INCH	LF	38.000	38.000
0250	522.0518	CULVERT PIPE REINFORCED CONCRETE CLASS V 18-INCH	LF	54.000	54.000
0260	522.0530	CULVERT PIPE REINFORCED CONCRETE CLASS V 30-INCH	LF	18.000	18.000
0270	522.1018	APRON ENDWALLS FOR CULVERT PIPE REINFORCED CONCRETE 18-INCH	EACH	14.000	14.000
0280	522.1024	APRON ENDWALLS FOR CULVERT PIPE REINFORCED CONCRETE 24-INCH	EACH	4.000	4.000
0290	522.1030	APRON ENDWALLS FOR CULVERT PIPE REINFORCED CONCRETE 30-INCH	EACH	2.000	2.000
0300	603.8000	CONCRETE BARRIER TEMPORARY PRECAST DELIVERED	LF	44,000.000	44,000.000
0310	603.8125	CONCRETE BARRIER TEMPORARY PRECAST INSTALLED	LF	44,000.000	44,000.000
0320	611.0642	INLET COVERS TYPE MS	EACH	14.000	14.000
0330	611.3902	INLETS MEDIAN 2 GRATE	EACH	7.000	7.000
0340	612.0106	PIPE UNDERDRAIN 6-INCH	LF	3,745.000	3,745.000
0350	612.0806	APRON ENDWALLS FOR UNDERDRAIN REINFORCED CONCRETE 6-INCH	EACH	22.000	22.000
0360	614.2300	MGS GUARDRAIL 3	LF	376.000	376.000
0370	614.2610	MGS GUARDRAIL TERMINAL EAT	EACH	1.000	1.000
0380	614.2620	MGS GUARDRAIL TERMINAL TYPE 2	EACH	1.000	1.000
0390	618.0100	MAINTENANCE AND REPAIR OF HAUL ROADS (PROJECT) 001. 1003-10-86	EACH	1.000	1.000
0400	619.1000	MOBILIZATION	EACH	1.000	1.000
0410	624.0100	WATER	MGAL	4.000	4.000
0420	625.0500	SALVAGED TOPSOIL	SY	61,500.000	61,500.000
0430	627.0200	MULCHING	SY	61,500.000	61,500.000

3

DATE 01MAR13 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	1003-10-86 QUANTITY
0440	628.1504	SILT FENCE	LF	500.000	500.000
0450	628.1520	SILT FENCE MAINTENANCE	LF	500.000	500.000
0460	628.1905	MOBILIZATIONS EROSION CONTROL	EACH	8.000	8.000
0470	628.1910	MOBILIZATIONS EMERGENCY EROSION CONTROL	EACH	8.000	8.000
0480	628.2002	EROSION MAT CLASS I TYPE A	SY	5,000.000	5,000.000
0490	628.7005	INLET PROTECTION TYPE A	EACH	14.000	14.000
0500	628.7010	INLET PROTECTION TYPE B	EACH	14.000	14.000
0510	628.7504	TEMPORARY DITCH CHECKS	LF	300.000	300.000
0520	628.7555	CULVERT PIPE CHECKS	EACH	35.000	35.000
0530	629.0205	FERTILIZER TYPE A	CWT	40.000	40.000
0540	630.0110	SEEDING MIXTURE NO. 10	LB	850.000	850.000
0550	630.0200	SEEDING TEMPORARY	LB	400.000	400.000
0560	633.0100	DELINEATOR POSTS STEEL	EACH	200.000	200.000
0570	633.0500	DELINEATOR REFLECTORS	EACH	200.000	200.000
0580	634.0612	POSTS WOOD 4X6-INCH X 12-FT	EACH	21.000	21.000
0590	637.0202	SIGNS REFLECTIVE TYPE II	SF	441.000	441.000
0600	638.2102	MOVING SIGNS TYPE II	EACH	12.000	12.000
0610	638.4000	MOVING SMALL SIGN SUPPORTS	EACH	12.000	12.000
0620	642.5001	FIELD OFFICE TYPE B	EACH	1.000	1.000
0630	643.0100	TRAFFIC CONTROL (PROJECT) 001. 1003-10-86	EACH	1.000	1.000
0640	643.0300	TRAFFIC CONTROL DRUMS	DAY	45,000.000	45,000.000
0650	643.0420	TRAFFIC CONTROL BARRICADES TYPE III	DAY	820.000	820.000
0660	643.0715	TRAFFIC CONTROL WARNING LIGHTS TYPE C	DAY	3,900.000	3,900.000
0670	643.0800	TRAFFIC CONTROL ARROW BOARDS	DAY	180.000	180.000
0680	643.0900	TRAFFIC CONTROL SIGNS	DAY	2,500.000	2,500.000
0690	643.1050	TRAFFIC CONTROL SIGNS PCMS	DAY	230.000	230.000
0700	646.0106	PAVEMENT MARKING EPOXY 4-INCH	LF	89,350.000	89,350.000
0710	646.0873.S	PAVEMENT MARKING WET REFLECTIVE TAPE 8-INCH	LF	700.000	700.000
0720	649.0100	TEMPORARY PAVEMENT MARKING 4-INCH	LF	84,700.000	84,700.000
0730	649.0701	TEMPORARY PAVEMENT MARKING 8-INCH	LF	42,350.000	42,350.000
0740	690.0150	SAWING ASPHALT	LF	210.000	210.000
0750	690.0250	SAWING CONCRETE	LF	36,755.000	36,755.000
0760	ASP.1T0A	ON-THE-JOB TRAINING APPRENTICE AT $5. 00/HR	HRS	500.000	500.000
0770	ASP.1T0G	ON-THE-JOB TRAINING GRADUATE AT $5.00/HR	HRS	1,000.000	1,000.000
0780	SPV.0045	SPECIAL 001. PORTABLE CHANGEABLE MESSAGE SIGN (PCMS) CELLULAR COMMUNICATIONS	DAY	115.000	115.000
0790	SPV.0060	SPECIAL 001. SALVAGE TERMINAL HIGH-TENSION CABLE TL-3, GIBRALTAR	EACH	2.000	2.000
0800	SPV.0060	SPECIAL 002. TERMINAL HIGH-TENSION CABLE TL-3, GIBRALTAR	EACH	2.000	2.000
0810	SPV.0060	SPECIAL 003. REINSTALL TERMINAL HIGH-TENSION CABLE TL-3, GIBRALTAR	EACH	2.000	2.000
0820	SPV.0090	SPECIAL 001. SALVAGE HIGH-TENSION CABLE TL-3, SOCKETED, GIBRALTAR	LF	7,947.000	7,947.000
0830	SPV.0090	SPECIAL 002. HIGH-TENSION CABLE TL-3, SOCKETED, GIBRALTAR	LF	5,735.000	5,735.000
0840	SPV.0090	SPECIAL 003. REINSTALL HIGH-TENSION CABLE TL-3, SOCKETED, GIBRALTAR	LF	7,947.000	7,947.000
0850	SPV.0090	SPECIAL 004. REMOVING PAVEMENT MARKINGS WATER BLASTING	LF	60,300.000	60,300.000
0860	SPV.0105	SPECIAL 001. SURVEY PROJECT 1003-10-86	LS	1.000	1.000

3

3

OUTSIDE SHOULDER REHABILITATION - ASPHALT ITEMS

STATION - STATION	204.0120 REMOVING ASPHALTIC SURFACE MILLING FULL DEPTH MILL LENGTH LF	WIDTH LF	DEPTH IN.	SY	455.0105 ASPHALTIC MATERIAL PG58-28 TON	455.0605 TACK COAT GAL	460.1110 HMA PAVEMENT TYPE E-10 TON
135+00 140+78	578	2	2.00	128	1	7	14
140+78 - 144+10	332	6	3.25	221	3	12	40
144+10 151+52	742	2	2.00	165	1	9	18
151+52 - 160+63	911	6	5.00	607	10	50	167
160+63 190+58	2995	2	2.00	666	4	34	74
190+58 - 194+10	352	6	4.75	235	4	15	61
194+10 200+03	593	2	2.00	132	1	7	14
200+03 - 200+99	96	6	4.75	64	2	3	17
200+99 201+28	29	2	2.00	6	1	1	1
243+00 248+21	521	2	2.00	116	1	7	14
248+21 - 285+10	3689	6	3.25	2,459	26	125	440
285+10 292+64	754	2	2.00	168	1	9	18
292+64 - 309+83	1719	6	3.25	1,146	13	57	250
309+83 - 309+98	15	10	3.25	17	1	1	1
309+98 313+55	357	6	3.25	238	4	12	61
313+55 348+91	3536	2	2.00	786	5	40	86
348+91 - 351+83	292	6	3.25	195	3	10	35
351+83 367+58	1575	2	2.00	350	2	18	39
370+53 372+91	238	2	2.00	53	1	3	16
372+91 - 376+93	402	6	5.75	268	5	15	85
376+93 383+32	639	2	2.00	142	1	7	15
383+32 - 388+80	548	6	5.75	365	7	20	116
388+80 436+52	4772	2	2.00	1060	7	53	117
439+19 456+08	1689	2	2.00	375	3	19	42
456+08 - 456+14	6	10	5.75	7	1	1	3
456+14 465+17	903	2	2.00	201	1	10	22
465+17 - 465+27	10	10	4.00	11	1	1	4
465+27 486+47	2120	2	2.00	471	3	24	52
486+47 - 486+65	118	10	4.00	131	1	7	15
486+65 542+00	5535	2	2.00	1230	9	65	143
				12,013			
TOTALS					122	635	1,965

NOTE: 2-INCH MILL IS NOT FULL DEPTH

ADDITIONAL QUANTITIES SHOWN ELSEWHERE

UNLESS OTHERWISE NOTED
ALL ITEMS IN CATEGORY 1000

3

REMOVING PAVEMENT

STATION - STATION			LOCATION	204.0100 SY
135+00	-	210+00	RT	4,000
243+00	-	542+00	RT	16,000
TOTAL				20,000

BASE AGGREGATE DENSE 3/4-INCH

LOCATION		305.0110 TON
STA. 135+00 - STA. 542+00	RT	4,500
STA. 135+00 - STA. 542+00	LT	1,500
TOTAL		6,000

BASE AGGREGATE DENSE 1 /4-INCH

LOCATION	305.0120 TON
STA. 135+00 - STA. 542+00	100,000
TOTAL	100,000

SELECT CRUSHED MATERIAL

LOCATION	312.0110 TON
PROJECT 1003-10-86	3,156
TOTAL	3,156

REMOVING ENDWALLS

STA	LOCATION	204.9060.S.001 REMOVING CULVERT PIPE ENDWALL (EACH)
135+90	RT	1
186+92	RT	1
281+91	RT	1
290+92	RT	1
296+89	RT	1
335+89	RT	1
420+91	RT	1
425+91	RT	1
440+45	RT	1
454+91	RT	1
504+40	RT	1
	TOTAL	**11**

ABANDONING INLETS, REMOVING SURFACE DRAINS, & REMOVING STORM SEWER

STA	LOCATION	204.0260 ABANDONING INLETS (EACH)	204.0190 REMOVING SURFACE DRAINS (EACH)	204.0245.001 REMOVING STORM SEWER 24-INCH (EACH)
318+89	RT	1	--	4
390+90	RT	--	--	4
467+91	RT	1	--	4
517+91	RT	--	1	--
PROJECT TOTALS		**2**	**1**	**12**

UNLESS OTHERWISE NOTED
ALL ITEMS IN CATEGORY 1000

EARTHWORK

Division	From/To Station	Location	Common Excavation (1) (item # 205.0100)		Salvaged/ Unusable Pavement Material (4)	Available Material (5)	Reduced EBS in Fill (9)	Expanded EBS Backfill (11)	Unexpanded Fill	Expanded Fill (13)	Mass Ordinate +/- (14)	Waste	Borrow
			Cut (2)	EBS Excavation (3)			Factor 0.80	Factor 1.30		Factor 1.25			(item #208.0100)
1	103+40 - 145+00	Stateline Rd to Sign Bridge	612	156	293	318	124	202	471	433	-115		
	148+00 - 160+63	Sign Bridge to Colley Rd	1169	0	370	799	0	0	451	564	235		
	163+32 - 201+28	Colley Rd to CP Railroad	3768	0	1114	2654	0	0	5932	7414	-4760		
	243+00 - 367+58	IH 43 to Turtle Creek	10317	1689	3654	6662	1351	2196	4635	4104	2558		
	370+53 - 436+52	Turtle Creek to Town Line Rd	6877	246	1936	4942	197	320	434	296	4645		
	439+19 - 544+80	Town Line Rd to Woodman Rd	8872	1289	3016	5856	1031	1676	1530	623	5233		
Division 1 Subtotal			31615	3380	10383	21231	2704	4394	13452	13435	7797	7797	0
Grand Total			31615	3380	10383	21231	2704	4394	13452	13435	7797	7797	0
		Total Common Exc		34995									

MEDIAN SHOULDER ASPHALT ITEMS

LOCATION	455.0105 ASPHALTIC MATERIAL PG58-28 TON	455.0120 ASPHALTIC MATERIAL PG64-28 TON	455.0605 TACK COAT GAL	460.1110 HMA PAVEMENT TYPE E-10 TON
STA. 135+00 RT TO STA. 542+00 RT	725	400	1,100	18,000
TOTAL	725	400	1,100	18,000

ADDITIONAL QUANTITIES SHOWN ELSEWHERE

ASPHALTIC SHOULDER RUMBLE STRIP

LOCATION		465.0400 LF
STA. 135+00 - STA. 210+00	LT	7,500
STA. 243+00 - STA. 542+00	LT	29,900
TOTAL		37,400

UNLESS OTHERWISE NOTED
ALL ITEMS IN CATEGORY 1000

CONCRETE PAVEMENT

STATION - STATION	REPAIR SHES 416.1715 LENGTH LF	REPAIR SHES 416.1715 WIDTH LF	REPAIR SHES 416.1715 SY	REPLACEMENT SHES 416.1725 LENGTH LF	REPLACEMENT SHES 416.1725 WIDTH LF	REPLACEMENT SHES 416.1725 SY
142+74	6	10	6.7	--	--	--
144+55	6	10	6.7	--	--	--
146+62	6	10	6.7	--	--	--
150+33	6	10	6.7	--	--	--
152+99	6	10	6.7	--	--	--
155+04	6	10	6.7	--	--	--
160+62 - 160+72	10	10	12.0	--	--	--
160+66	6	10	6.7	--	--	--
163+13 - 163+23	10	10	12.0	--	--	--
163+19	6	10	6.7	--	--	--
171+68	6	10	6.7	--	--	--
175+80	6	10	6.7	--	--	--
181+57	6	10	6.7	--	--	--
184+73	6	10	6.7	--	--	--
185+15	6	10	6.7	--	--	--
186+76	6	10	6.7	--	--	--
188+77	6	10	6.7	--	--	--
189+77	6	10	6.7	--	--	--
190+40	6	10	6.7	--	--	--
193+50	6	10	6.7	--	--	--
195+51	6	10	6.7	--	--	--
197+45	6	10	6.7	--	--	--
201+29	6	10	6.7	--	--	--
219+10	6	10	6.7	--	--	--
221+08	6	10	6.7	--	--	--
221+31	6	10	6.7	--	--	--
249+42	6	10	6.7	--	--	--

CONTINUED ON FOLLOWING PAGE

UNLESS OTHERWISE NOTED
ALL ITEMS IN CATEGORY 1000

CONCRETE PAVEMENT

STATION - STATION	REPAIR SHES 416.1715 LENGTH LF	REPAIR SHES 416.1715 WIDTH LF	REPAIR SHES 416.1715 SY	REPLACEMENT SHES 416.1725 LENGTH LF	REPLACEMENT SHES 416.1725 WIDTH LF	REPLACEMENT SHES 416.1725 SY
249+42 - 249+64	--	--	--	22	10	25
252+26	6	10	6.7	--	--	--
264+57	6	10	6.7	--	--	--
265+64	6	10	6.7	--	--	--
267+81	6	10	6.7	--	--	--
271+41	6	10	6.7	--	--	--
276+91	6	10	6.7	--	--	--
280+47	6	10	6.7	--	--	--
282+43	6	10	6.7	--	--	--
291+94	6	10	6.7	--	--	--
299+15	6	10	6.7	--	--	--
307+78	6	10	6.7	--	--	--
350+26	6	10	6.7	--	--	--
358+63	6	10	6.7	--	--	--
429+70	6	10	6.7	--	--	--
438+59	6	10	6.7	--	--	--
438+55 - 438+65	10	10	12.0	--	--	--
438+64	6	10	6.7	--	--	--
455+37 - 455+57	--	--	--	20	10	22
538+27	6	10	6.7	--	--	--
104+00 RT - 542+00 RT						
TOTAL			316			47

UNLESS OTHERWISE NOTED
ALL ITEMS IN CATEGORY 1000

3

REINFORCED CONCRETE CULVERT PIPE, CULVERT PIPE CORRUGATED STEEL, APRON ENDWALLS, AND CONCRETE COLLARS

STATION	LOCATION	522.0518 CLASS V 18-INCH LF	522.0324 CLASS IV 24-INCH LF	522.0530 CLASS V 30-INCH LF	521.0115 C.P.C.S. 15-INCH LF	521.0124 C.P.C.S. 24-INCH LF	THICKNESS INCHES	APRON ENDWALLS FOR CULVERT PIPE REINFORCED CONCRETE 522.1018 18-INCH EACH	522.1024 24-INCH EACH	522.1030 30-INCH EACH	520.0700.S CULVERT PIPE LINERS 30-INCH LF	520.8000 CONCRETE COLLARS FOR PIPE EACH	COMMENTS
135+90	IH 39	--	--	12	--		--	--	--	1	--	1	CLASS B BEDDING
160+52	IH 39	--	--	6	--		--	--	--	1	--	1	CLASS B BEDDING
186+92	IH 39	--	8	--	--		--	--	1	--	--	1	CLASS B BEDDING
252+89	IH 39	--	--	--	--	14	0.064	--	--	--	--	1	CLASS B BEDDING
256+88	IH 39	--	10	--	--		--	--	1	--	--	1	CLASS B BEDDING
273+90	IH 39	4	--	--	--		--	1	--	--	--	1	CLASS B BEDDING
281+91	IH 39	--	10	--	--		--	--	1	--	--	1	CLASS B BEDDING
290+92	IH 39	4	--	--	--		--	1	--	--	--	1	CLASS B BEDDING
296+89	IH 39	--	6	--	--		--	--	1	--	--	1	CLASS B BEDDING
300+88	IH 39	--	--	--	--		--	--	--	--	66	1	CLASS B BEDDING
308+89	IH 39	4	--	--	--		--	1	--	--	--	1	CLASS B BEDDING
326+85	IH 39	8	--	--	--		--	1	--	--	--	1	CLASS B BEDDING
330+97	RT	--	--	--	38		0.064	--	--	--	--	--	CLASS B BEDDING
335+90	IH 39	6	--	--	--		--	1	--	--	--	1	CLASS B BEDDING
356+86	IH 39	2	--	--	--		--	1	--	--	--	1	CLASS B BEDDING
390+90	IH 39	--	--	--	--	8	0.064	--	--	--	--	1	CLASS B BEDDING
401+91	IH 39	2	--	--	--		--	1	--	--	--	1	CLASS B BEDDING
420+91	IH 39	6	--	--	--		--	1	--	--	--	1	CLASS B BEDDING
425+91	IH 39	2	--	--	--		--	1	--	--	--	1	CLASS B BEDDING
440+45	IH 39	4	--	--	--		--	1	--	--	--	1	CLASS B BEDDING
454+91	IH 39	2	--	--	--		--	1	--	--	--	1	CLASS B BEDDING
475+91	IH 39	--	--	--	--	14	0.064	--	--	--	--	1	CLASS B BEDDING
486+91	IH 39	--	--	--	--	12	0.064	--	--	--	--	1	CLASS B BEDDING
496+91	IH 39	--	--	--	--	12	0.064	--	--	--	--	1	CLASS B BEDDING
504+40	IH 39	4	--	--	--		--	1	--	--	--	1	CLASS B BEDDING
517+91	IH 39	--	4	--	--		--	--	--	--	--	1	CLASS B BEDDING
527+91	IH 39	2	--	--	--		--	1	--	--	--	1	CLASS B BEDDING
536+66	IH 39	4	--	--	--		--	1	--	--	--	1	CLASS B BEDDING
PROJECT TOTALS		54	38	18	38	60	--	14	4	2	66	27	

UNLESS OTHERWISE NOTED
ALL ITEMS IN CATEGORY 1000

MAINLINE MEDIAN INLETS AND INLET COVERS

STATION	LOCATION	611.3902 INLETS MEDIAN 2 GRATE EACH	611.0642 INLET COVERS TYPE MS EACH	GRATE ELEVATION	INVERT ELEVATION	DEPTH
252+89	36.0' RT.	1	2	815.20	812.70	2.50
390+90	33.4' RT.	1	2	813.10	810.20	2.90
467+91	33.6' RT.	1	2	832.22	828.52	3.70
475+91	35.1' RT.	1	2	833.08	830.58	2.50
486+91	36.4' RT.	1	2	831.75	829.25	2.50
496+91	35.2' RT.	1	2	831.90	829.40	2.50
517+91	34.0' RT.	1	2	835.30	831.40	3.90
	TOTALS	**7**	**14**			

GUARD RAIL

LOCATION	MGS GUARDRAIL 614.2300 LF	MGS GUARDRAIL TERMINAL EAT 614.2610 EACH	MGS GUARDRAIL TERMINAL TYPE 2 614.2620 EACH
STA. 380+52 - STA. 384+28	376	-	-
STA. 380+52	-	-	1
STA. 384+81	-	1	-
TOTAL	**376**	**1**	**1**

INLET PROTECTION

STATION	LOCATION	628.7005 INLET PROTECTION TYPE A EACH	628.7010 INLET PROTECTION TYPE B EACH
252+89	36.0' RT.	1	1
390+90	33.4' RT.	1	1
467+91	33.6' RT.	1	1
475+91	35.1' RT.	1	1
486+91	36.4' RT.	1	1
496+91	35.2' RT.	1	1
517+91	34.0' RT.	1	1
UNDISTRIBUTED		7	7
	TOTALS	**14**	**14**

PIPE UNDERDRAIN

STATION - STATION	6-INCH 612.0106 LF	APRON ENDWALLS FOR UNDERDRAIN REINFORCED CONCRETE 6-INCH 612.00806 EACH
142+00 - 145+00	300	2
148+00 - 151+00	300	2
200+00 - 201+28	128	2
297+00 - 301+25	425	2
348+00 - 352+00	400	2
363+46 - 367+58	412	2
370+53 - 373+00	247	2
380+00 - 383+00	300	2
430+00 - 436+52	652	2
439+19 - 440+45	126	2
440+45 - 445+00	455	2
TOTAL	3,745	22

SILT FENCE

LOCATION	628.1504 SILT FENCE LF	628.1520 SILT FENCE MAINTENANCE LF
UNDISTRIBUTED	500	500
TOTALS	**500**	**500**

EROSION CONTROL

LOCATION	628.2002 EROSION MAT CLASS I TYPE A SY	628.7504 TEMPORARY DITCH CHECKS LF	628.7555 CULVERT PIPE CHECKS EACH
UNDISTRIBUTED	5000	300	35
TOTALS	**5,000**	**300**	**35**

UNLESS OTHERWISE NOTED
ALL ITEMS IN CATEGORY 1000

3

3

DELINEATOR

LOCATION	POSTS STEEL 633.0100 EACH	REFLECTORS 633.0500 EACH
UNDISTRIBUTED	200	200
TOTAL	200	200

TRAFFIC CONTROL

	643.0300 TRAFFIC CONTROL DRUMS		643.0420 TRAFFIC CONTROL BARRICADES TYPE III		643.0715 TRAFFIC CONTROL WARNING LIGHTS TYPE C		643.0800 TRAFFIC CONTROL ARROW BOARDS		643.0900 TRAFFIC CONTROL SIGNS		603.8000 CONCRETE BARRIER TEMPORARY PRECASET DELIVERED	603.8125 CONCRETE BARRIER TEMPORARY PRECASET INSTALLED
	DAYS	EACH	DAYS	EACH	DAYS	EACH	DAYS	EACH	DAYS	EACH	DAYS	LF	LF
STAGE 1	20	75	1,500	3	60	10	200	1	20	10	200		
STAGE 2-A	20	300	6,000	5	100	25	500	1	20	15	300	5500	5500
STAGE 2-B	20	300	6,000	5	100	25	500	1	20	15	300	5500	5500
STAGE 2-C	20	300	6,000	5	100	25	500	1	20	15	300	5500	5500
STAGE 2-D	20	300	6,000	5	100	25	500	1	20	15	300	5500	5500
STAGE 2-E	20	300	6,000	5	100	25	500	1	20	15	300	5500	5500
STAGE 2-F	20	300	6,000	5	100	25	500	1	20	15	300	5500	5500
STAGE 2-G	20	300	6,000	5	100	25	500	1	20	15	300	5500	5500
STAGE 3	20	75	1,500	3	60	10	200	1	20	10	200	5500	5500
TOTAL			45,000		820		3,900		180		2,500	44,000	44,000

	643.1050 TRAFFIC CONTROL SIGNS PCMS		SPV.0045.001 PORTABLE CHANGEABLE MESSAGE SIGN (PCMS) CELLULAR COMMUNIATION	
DAYS	EACH	DAYS	EACH	DAYS
115	2	230	1	115
TOTAL		230		115

UNLESS OTHERWISE NOTED
ALL ITEMS IN CATEGORY 1000

3

MOVING

STATION	SIGNS TYPE II 638.2102 EACH	SMALL SIGN SUPPORTS 638.4000 EACH
137+25	1	1
159+25	1	1
180+25	1	1
200+75	1	1
256+00	1	1
274+50	1	1
285+00	1	1
305+75	2	2
331+10	1	1
457+20	1	1
537+20	1	1
TOTAL	**12**	**12**

PAVEMENT MARKING FOR TRAFFIC CONTROL ITEMS

	SPV.0090.004 REMOVING PAVEMENT MARKINGS WATER BLASTING	649.0100 TEMPORARY PAVEMENT MARKING 4-INCH		649.0701 TEMPORARY PAVEMENT MARKING 8-INCH
		WHITE	YELLOW	WHITE
	LF	LF	LF	LF
STAGE 2-A	8500	6050	6050	6050
STAGE 2-B	9300	6050	6050	6050
STAGE 2-C	8500	6050	6050	6050
STAGE 2-D	8500	6050	6050	6050
STAGE 2-E	8500	6050	6050	6050
STAGE 2-F	8500	6050	6050	6050
STAGE 2-G	8500	6050	6050	6050
TOTAL	60,300	42,350	42,350	42,350

SIGNS

MILE MARKER	POST WOOD 4X6 INCH X 12-FT 634.0612 EACH	SIGNS REFLECTIVE TYPE II 637.0202 SF
179.6 - 183.8 (MEDIAN)	21	441
TOTAL	**21**	**441**

PAVEMENT MARKING

LOCATION	646.0873.S WET REFLECTIVE TAPE 8-INCH LF
STA. 336+87 - STA. 340	300
STA. 358+50 - STA. 360	400
TOTAL	**700**

FINISHING ITEMS

LOCATION	WATER 624.01 MGAL	SALVAGE TOPSOIL 625.0500 SY	MULCHING 627.0200 SY	FERTILIZER TYPE A 629.0205 CWT	SEEDING MIXTURE NO. 10 630.0110 LB	SEEDING TEMPORARY 630.0200 LB
STA. 135+00 TO STA. 201+28 & STA. 243+00 TO STA. 542+00	4	61500	61500	40	850	400
TOTALS	**4**	**61500**	**61500**	**40**	**850**	**400**

UNLESS OTHERWISE NOTED
ALL ITEMS IN CATEGORY 1000

3

PERMANENT PAVEMENT MARKING

	646.0106 PAVEMENT MARKING EPOXY 4-INCH		
	WHITE	YELLOW	WHITE LANE LINE 12.5' LINE, 37.5' SKIP
LOCATION	LF	LF	LF
STA. 124+00 - STA. 204+00	8,000	8,000	2,000
STA. 231+00 - STA. 547+55	31,700	31,700	7,950
TOTAL	39,700	39,700	9,950
		89,350	

HIGH TENSION CABLE GUARD

	SALVAGED TERMINAL HIGH-TENSION CABLE GUARD TL-3, GIBRALTAR SPV.0060.001	TERMINAL HIGH-TENSION CABLE GUARD TL-3 GIBRALTAR SPV.0060.002	REINSTALL TERMINAL HIGH-TENSION CABLE GUARD TL-3, GIBRALTAR SPV.0060.003
LOCATION	EACH	EACH	EACH
STA. 457+15	1	-	1
STA. 475+15	-	1	-
STA. 532+50	-	1	-
STA. 536+62	1	-	1
TOTAL	**2**	**2**	**2**

HIGH TENSION CABLE GUARD

	SALVAGED HIGH-TENSION CABLE GUARD TL-3, SOCKETED, GIBRALTAR SPV.0090.001	HIGH-TENSION CABLE GUARD TL-3, SOCKETED, GIBRALTAR SPV.0090.002	REINSTALL HIGH-TENSION CABLE GUARD TL-3, SOCKETED GIBRALTAR SPV.0090.003
LOCATION	LF	LF	LF
STA. 457+15 - STA. 536+62	7947	-	7947
STA. 475+15 - STA. 532+60	-	5735	-
TOTAL	**7947**	**5735**	**7947**

SAWING CONCRETE
690.0250

STATION - STATION	LF
101+87 - 102+02	35
119+10	26
128+51	26
131+15	26
132+76	26
132+96	26
135+80	26
142+74	26
144+55	26
146+62	26
150+33	26
152+99	26
155+04	26
160+62 - 160+72	30
160+66	26
163+13 - 163+23	30
163+19	26
171+68	26
175+80	26
181+57	26
184+73	26
185+15	26
186+76	26
188+77	26
189+77	26
190+40	26
193+50	26
195+51	26
197+45	26
201+29	26
219+10	26
221+08	26
221+31	26
249+42	26

SAWING CONCRETE
690.0250

STATION - STATION	LF
249+42 - 249+64	42
252+26	26
264+57	26
265+64	26
267+81	26
271+41	26
276+91	26
280+47	26
282+43	26
291+94	26
299+15	26
307+78	26
350+26	26
358+63	26
429+70	26
438+59	26
438+55 - 438+65	30
438+64	26
455+37 - 455+57	40
538+27	26
135+00 RT - 542+00 RT	35300
TOTAL	**36755**

SAWING ASPHALT
690.0150

STATION - STATION	LF
111+00 - 111+30	30
190+40 - 190+70	30
255+20 - 255+50	30
330+90 - 331+20	30
379+40 - 379+70	30
456+80 - 457+10	30
536+80 - 537+10	30
TOTAL	**210**

UNLESS OTHERWISE NOTED
ALL ITEMS IN CATEGORY 1000

HO-CHUNK NATION

CITY OF BELOIT

P.L.

N

R/W

/SIGN

130

I 39/90

IH 39/90 SB

135

140

MOVE TYPE II SIGN

A

E

R/L EXISTING IH 39 SB

MATCHLINE STA. 144+50

BEGIN PROJECT
STA. 135+00.00
Y = 204123.17
X = 502738.38

B

C

D

STA. 142+00 - STA. 145+00
INSTALL EDGEDRAIN

IH 39/90 NB

STA. 135+90
REMOVE EXISTING APRON ENDWALL RT
1 - 30" CPRC EXTENSION RT REQ.
1 - APRON ENDWALL RT REQ.
1 - CULVERT PIPE CHECK REQ.

5

5

P.L.

MH

WisDOT

SIGN

WALE

LEGEND

A	LEFT EDGE OF NEW PAVEMENT
B	RIGHT EDGE OF NEW PAVEMENT
C	EDGE OF GRAVEL SHOULDER
D	SLOPE INTERCEPT
E	OUTSIDE SHOULDER REHABILITATION - SEE MISCELLANEOUS QUANTITIES TABLE
→	DRAINAGE FLOW DIRECTION

EARL BOUTELLE

R/W

E. COLLEY RD.

WisDOT

N

ALLIANT ENERGY
GAS

R/W

ALLIANT ENERGY
ELECTRIC

MATCHLINE STA. 144+50

MATCHLINE STA. 159+50

145

I 39/90

150

IH 39/90 SB

155

R/L EXISTING IH 39 SB

MOVE TYPE II SIGN

145+00, 22.0' RT.

148+00, 22.0' RT.

STA. 148+00 - STA. 151+00
INSTALL EDGEDRAIN

154+22, 22.0' RT

157+22, 28.0' RT

AT&T

STA. 142+00 - STA. 145+00
INSTALL EDGEDRAIN

IH 39/90 NB

BENCH MARKS

NO.	DESCRIPTION	ELEV.
101T	FIRE HYD, NW QUAD PARK AVE & RR INT.	751.38
102T	SE QUAD COLLEY RD & RR INT.	787.78

PROJECT NO: 1003-10-86	HWY: IH 39	COUNTY: ROCK	PLAN: IH 39	SHEET	E

FILE NAME : L:\WORK\PROJECTS\60242867\000_CAD\001_DRAWINGS\TEMPORARY WIDENING\050201_PN.DWG PLOT DATE : 2/14/2013 1:39 PM PLOT BY : ARBUCKLE, ADRIAN PLOT NAME : PLOT SCALE : 1 IN:100 FT

PEPSICO FRITO LAY INC.

R/W

WisDOT

R/W

R/W

COLLEY RD.

CITY OF BELOIT WATER

MATCHLINE STA. 159+50

MATCHLINE STA. 174+50

TRUCKS USE LEFT LANE
R4-5L
36"X48"

EXISTING R/L IH 39 SB

IH 39/90 SB

160

165

170

I 39/90

A

B

C

D

E

STRUCTURE B-53-216

160+63, 28.0' RT

163+32, 28.0' RT

172+30, 28.0' RT

STA. 160+52
1 - 30" CPRC EXTENSION RT REQ.
1 - APRON ENDWALL RT REQ.
1 - CULVERT PIPE CHECK REQ.

ALLIANT ENERGY GAS

CAUTION

CHARTER COMM. FIBER OPTIC

IH 39/90 NB

STRUCTURE B-53-217

ALLIANT ENERGY ELECTRIC

LEGEND

A	LEFT EDGE OF NEW PAVEMENT
B	RIGHT EDGE OF NEW PAVEMENT
C	EDGE OF GRAVEL SHOULDER
D	SLOPE INTERCEPT
E	OUTSIDE SHOULDER REHABILITATION - SEE MISCELLANEOUS QUANTITIES TABLE
→	DRAINAGE ARROW

PEPSICO FRITO LAY INC.

R/W

CRANSTON RD.

MATCHLINE STA. 174+50

175

IH 39/90 SB

PC: 178+75.34

175+30, 22.0' RT

180

185

I 39/90

ALLIANT ENERGY ELECTRIC

EXISTING R/L IH 39 SB

MATCHLINE STA. 189+50

MOVE TYPE II SIGN

STRUCTURE B-53-220

IH 39/90 NB

STA. 186+92
REMOVE EXISTING APRON ENDWALL RT
1 - 24" CPRC EXTENSION RT REQ.
1 - APRON ENDWALL RT REQ.
1 - CULVERT PIPE CHECK REQ.

RIPRAP

BENCH MARKS

NO.	DESCRIPTION	ELEV.
103T	FIRE HYD, SW QUAD, WILLOWBROOK RD & RR INT.	796.87
104T	FIRE HYD, SE QUAD, CRANSTON RD & RR INT.	813.37

PROJECT NO: 1003-10-86	HWY: IH 39	COUNTY: ROCK	PLAN: IH 39	SHEET 39	E

PEPSICO FRITO LAY INC.

CITY OF BELOIT

HORMEL FOODS CORP.

CANADIAN PACIFIC RAILROAD

BELOIT ECONOMIC DEVELOPMENT INC.

JACOBSON BELOIT INC.

HORMEL FOODS CORP.

LN REAL ESTATE LLC

KERRY INC.

R/W

P.L.

TRUCKS USE LEFT LANE
R4-5L
36"X48"
PAID FOR AS "TRAFFIC CONTROL SIGNS"

MATCHLINE STA. 189+50

MOVE TYPE II SIGN

R/L EXISTING IH 39 SB

190

MATCH EXISTING PAVEMENT

STA. 191+00 RT.
CP TO REMAIN

A

B

C

D

E

195

195+30, 22.0' RT

IH 39/90 SB

IH 39/90 NB

I 39/90

PT: 199+82.32

200

200+38, 28.0' RT

STA. 200+00 - STA. 201+28
INSTALL EDGEDRAIN

MOVE TYPE II SIGN

201+28, 28.0' RT

STRUCTURE
B-53-48

STRUCTURE
B-53-51

MATCHLINE STA. 204+50

CITY OF BELOIT
WATER MAIN

CITY OF BELOIT
SANITARY SEWER (27")

ATC
ELECTRIC

CAUTION

ABANDONED RAILROAD

CANOPY

WALL

SIGN

POST

PI: 216+19.60

MATCHLINE STA. 204+50

205

210

215

R/L EXISTING IH 39 SB

IH 39/90 SB

IH 39/90 NB

MATCHLINE STA. 219+50

ALLIANT ENERGY
ELECTRIC

N

LEGEND

A	LEFT EDGE OF NEW PAVEMENT
B	RIGHT EDGE OF NEW PAVEMENT
C	EDGE OF GRAVEL SHOULDER
D	SLOPE INTERCEPT
E	OUTSIDE SHOULDER REHABILITATION - SEE MISCELLANEOUS QUANTITIES TABLE
→	DRAINAGE ARROW

BENCH MARKS

NO.	STATION	DESCRIPTION	ELEV.
105T	218+59	CHISELED SQ. SW CORNER OF CONC. SIGN BRIDGE BASE IN MEDIAN AT EXIT 185B	816.52

PROJECT NO: 1003-10-86	HWY: IH 39	COUNTY: ROCK	PLAN: IH 39	SHEET 40	E

FILE NAME : L:\WORK\PROJECTS\60242867\000_CAD\001_DRAWINGS\TEMPORARY WIDENING\050203_PN.DWG PLOT DATE : 2/14/2013 1:49 PM PLOT BY : ARBUCKLE, ADRIAN PLOT NAME : PLOT SCALE : 1 IN:100 FT

WISDOT/CADDS SHEET 44

MATCHLINE STA. 219+50

MATCHLINE STA. 234+50

IH 43 EB

IH 43 WB

STRUCTURE B-53-47

STRUCTURE B-53-46

R/L EXISTING IH 39 SB

220

225

230

IH 39/90 SB

IH 39/90 NB

WALL

WALL

WALL

N

5

5

LEGEND

A	LEFT EDGE OF NEW PAVEMENT
B	RIGHT EDGE OF NEW PAVEMENT
C	EDGE OF GRAVEL SHOULDER
D	SLOPE INTERCEPT
E	OUTSIDE SHOULDER REHABILITATION - SEE MISCELLANEOUS QUANTITIES TABLE
	DRAINAGE ARROW

R/W

SIGN

TURTLE CREEK DEVELOPMENT INC.

PI: 237+17.20

R/L EXISTING IH 39 SB

235

240

245

IH 39/90 SB

243+00, 26.0' RT

IH 39/90 NB

A

B

C

D

E

R/W

SIGN

INGRID SUPPES

MATCHLINE STA. 234+50

MATCHLINE STA. 249+50

N

248+57, 26.0' RT.

CAUTION

ANR

NATURAL GAS PIPELINE (3)

BENCH MARKS

NO.	STATION	DESCRIPTION	ELEV.
106T	238+59	CUT 'X' ON NE SIGN BRIDGE BASE BOLT AT EXIT 185A	822.80

PROJECT NO: 1003-10-86	HWY: IH 39	COUNTY: ROCK	PLAN: IH 39	SHEET	E

FILE NAME : L:\WORK\PROJECTS\60242867\000_CAD\001_DRAWINGS\TEMPORARY WIDENING\050204_PN.DWG PLOT DATE : 2/15/2013 3:12 PM PLOT BY : ARBUCKLE, ADRIAN PLOT NAME : PLOT SCALE : 1 IN:100 FT

WISDOT/CADDS SHEET 44

TURTLE CREEK DEVELOPMENT LLC

INGRID SUPPES

JOHN & PATRICIA DABSON

P.L.

MATCHLINE STA. 249+50

MATCHLINE STA. 264+50

R/W

SIGN

MOVE TYPE II SIGNS

MOVE TYPE II SIGN

R/L EXISTING IH 39 SB

IH 39/90 SB

IH 39/90 NB

250

255

260

249+77, 22.0' RT

STA. 252+89
1 - 24" CPCS EXTENSION RT REQ.
1 - INLETS, 2G-MS REQ.
INLET PROTECTION TYPE A AND B REQ.

MATCH EXISTING PAVEMENT

STA. 256+88
1 - 24" CPRC EXTENSION RT REQ.
1 - APRON ENDWALL RT REQ.
1 - CULVERT PIPE CHECK REQ.

A B C D E

LEGEND

A	LEFT EDGE OF NEW PAVEMENT
B	RIGHT EDGE OF NEW PAVEMENT
C	EDGE OF GRAVEL SHOULDER
D	SLOPE INTERCEPT
E	OUTSIDE SHOULDER REHABILITATION - SEE MISCELLANEOUS QUANTITIES TABLE
	DRAINAGE ARROW

TURTLE CREEK DEVELOPMENT LLC

HENRY KNUEPPEL

JOHN & PATRICIA DABSON

CITY OF BELOIT
SANITARY SEWER (18")

MATCHLINE STA. 264+50

MATCHLINE STA. 279+50

SIGN

R/W

R/L EXISTING IH 39 SB

MOVE TYPE II SIGNS

IH 39/90 SB

IH 39/90 NB

265

270

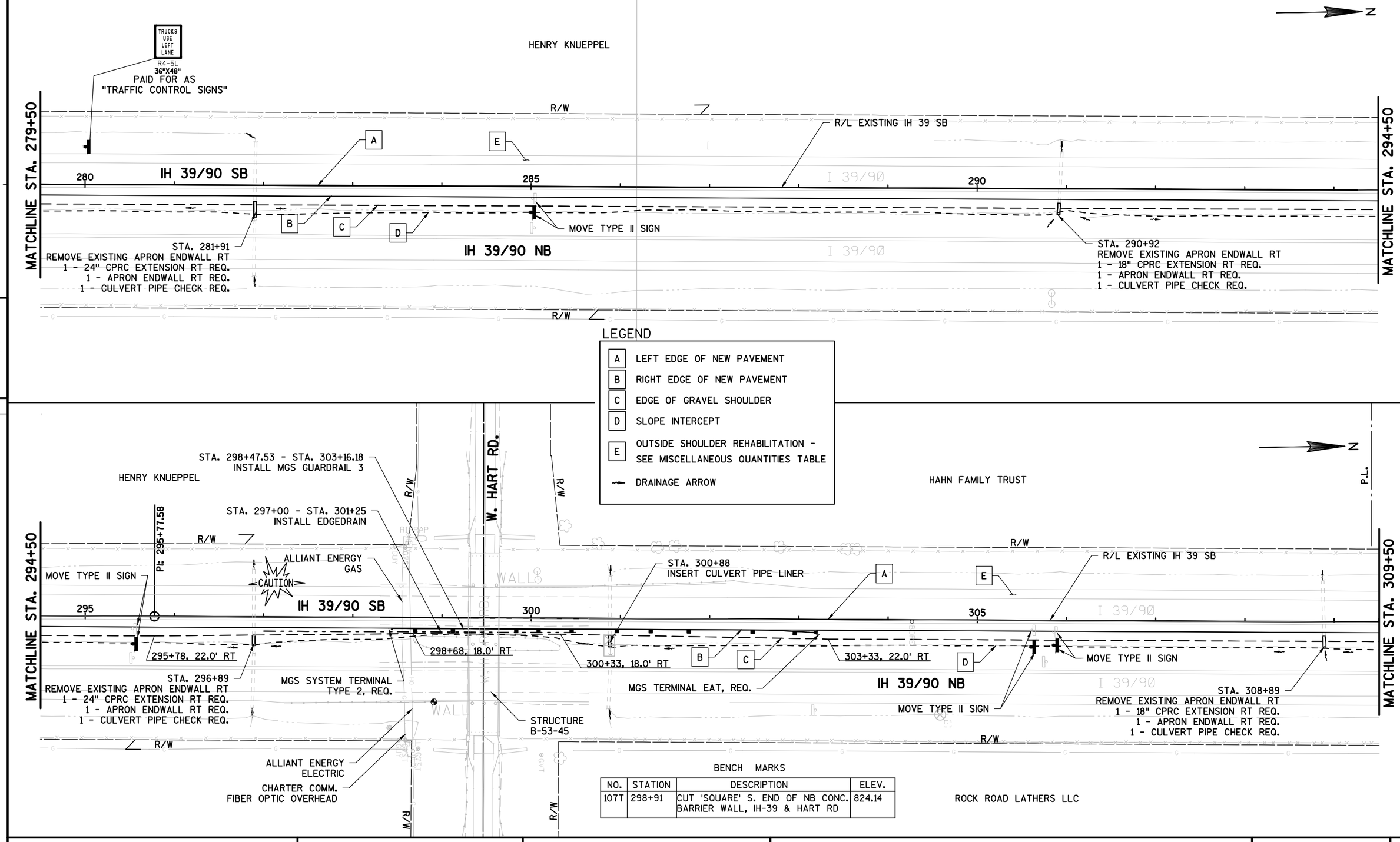
275

STA. 273+89
1 - 18" CPRC EXTENSION RT REQ.
1 - APRON ENDWALL RT REQ.
1 - CULVERT PIPE CHECK REQ.

MH

PROJECT NO: 1003-10-86	HWY: IH 39	COUNTY: ROCK	PLAN: IH 39	SHEET 42	E

FILE NAME : L:\WORK\PROJECTS\60242867\000_CAD\001_DRAWINGS\TEMPORARY WIDENING\050205_PN.DWG PLOT DATE : 2/15/2013 3:18 PM PLOT BY : ARBUCKLE, ADRIAN PLOT NAME : PLOT SCALE : 1 IN:100 FT



BENCH MARKS

NO.	STATION	DESCRIPTION	ELEV.
107T	298+91	CUT 'SQUARE' S. END OF NB CONC. BARRIER WALL, IH-39 & HART RD	824.14

PROJECT NO: 1003-10-86	HWY: IH 39	COUNTY: ROCK	PLAN: IH 39	SHEET 43	E

FILE NAME : L:\WORK\PROJECTS\60242867\000_CAD\001_DRAWINGS\TEMPORARY WIDENING\050206_PN.DWG PLOT DATE : 2/27/2013 2:17 PM PLOT BY : ARBUCKLE, ADRIAN PLOT NAME : PLOT SCALE : 1 IN:100 FT

GARY & MICHELLE HAHN TRUST

P.L.

MARY JANE BUSS TRUST

N

MATCHLINE STA. 309+50

R/W

IH 39/90 SB

310

315

320

PC: 320+86.28

R/W

MATCHLINE STA. 324+50

A

E

R/L EXISTING IH 39 SB

B

C

D

IH 39/90 NB

STA. 318+89
ABANDON EXISTING INLET
1 - INLET MEDIAN 2G-MS REQ.
1 - INLET PROTECTION TYPE A REQ.
1 - INLET PROTECTION TYPE B REQ.

R/W

R/W

ROCK ROAD LATHERS LLC

LEGEND

A	LEFT EDGE OF NEW PAVEMENT
B	RIGHT EDGE OF NEW PAVEMENT
C	EDGE OF GRAVEL SHOULDER
D	SLOPE INTERCEPT
E	OUTSIDE SHOULDER REHABILITATION - SEE MISCELLANEOUS QUANTITIES TABLE
⇝	DRAINAGE ARROW

SIGN

QUARRY

MARY JANE BUSS TRUST

P.L.

N

TRUCKS USE LEFT LANE
R4-5L
36"X48"

PAID FOR AS
"TRAFFIC CONTROL SIGNS"

TURTLE CREEK DEVELOPMENT LLC

SIGN

R/W

MATCHLINE STA. 324+50

325

IH 39/90 SB

E

330

STA. 330+75 - STA. 331+13
REMOVE EXISTING SMALL PIPE CULVERT
1 - 15" C.P.C.S PIPE REQ.
2 - APRON ENDWALLS REQ.
2 - CULVERT PIPE CHECKS REQ.

A

R/L EXISTING IH 39 SB

335

E

MATCHLINE STA. 339+50

IH 39/90 NB

STA. 326+85
1 - 18" CPRC EXTENSION RT REQ.
1 - APRON ENDWALL RT REQ.
1 - CULVERT PIPE CHECK REQ.

MATCH EXISTING PAVEMENT

B

C

D

MOVE TYPE II SIGN

STA. 335+90
REMOVE EXISTING APRON ENDWALL RT
1 - 18" CPRC EXTENSION RT REQ.
1 - APRON ENDWALL RT REQ.
1 - CULVERT PIPE CHECK REQ.

ROCK ROAD LATHERS LLC

R/W

P.L.

R/W

SIGN

HAHN REVOCABLE TRUST

PROJECT NO: 1003-10-86	HWY: IH 39	COUNTY: ROCK	PLAN: IH 39	SHEET 44	E

TURTLE CREEK DEVELOPMENT LLC

R/W

MATCHLINE STA. 339+50

PT: 340+85.41

340

IH 39/90 SB

I 39/90

R/L EXISTING IH 39 SB

A

345

E

STA. 348+00 - STA. 352+00
INSTALL EDGEDRAIN

CTH 'S'/SHOPIERE RD.

AT&T WISCONSIN
TELEPHONE

AT&T WISCONSIN
FIBER OPTIC

350

MATCHLINE STA. 354+50

B

C

D

346+21, 22.0' RT

349+21, 18.0' RT

351+00, 18.0' RT

354+00, 22.0' RT

IH 39/90 NB

I 39/90

STRUCTURE
B-53-44

N

5

5

R/W

HAHN REVOCABLE TRUST

LEGEND

A	LEFT EDGE OF NEW PAVEMENT
B	RIGHT EDGE OF NEW PAVEMENT
C	EDGE OF GRAVEL SHOULDER
D	SLOPE INTERCEPT
E	OUTSIDE SHOULDER REHABILITATION - SEE MISCELLANEOUS QUANTITIES TABLE
→	DRAINAGE ARROW

N

P.L.

TURTLE CR.

COBURN RORABECK TRUST

R/W

R/W

STRUCTURE
B-53-42

MATCHLINE STA. 354+50

E

R/L EXISTING IH 39 SB

A

355

IH 39/90 SB

I 39/90

360

365

E

WETLAND R-5

MATCHLINE STA. 369+50

B

C

D

367+58, 22.0' RT

STA. 363+46 - STA. 367+58
INSTALL EDGEDRAIN

IH 39/90 NB

I 39/90

STA. 356+86
1 - 18" CPRC EXTENSION RT REQ.
1 - APRON ENDWALL RT REQ.
1 - CULVERT PIPE CHECK REQ.

STRUCTURE
B-53-43

R/W

SIGN

R/W

EL VENADO HOLDINGS LLC

R/W

R/W

R/W

PROJECT NO: 1003-10-86	HWY: IH 39	COUNTY: ROCK	PLAN: IH 39	SHEET 45	E

FILE NAME : L:\WORK\PROJECTS\60242867\000_CAD\001_DRAWINGS\TEMPORARY WIDENING\050208_PN.DWG PLOT DATE : 2/14/2013 2:00 PM PLOT BY : ARBUCKLE, ADRIAN PLOT NAME : PLOT SCALE : 1 IN:100 FT

RICHARD LE FEBER

P.L.

TWIN CITY FARMS PARTNERSHIP

ALLIANT ENERGY ELECTRIC

R/W

CREEK RD.

N

STRUCTURE B-53-42

MATCHLINE STA. 369+50

PC: 373+77.80

E

R/L EXISTING IH 39 SB

A

STA. 380+52 - STA. 384+81
INSTALL MGS GUARDRAIL 3

MGS SYSTEM TERMINAL TYPE 2, REQ.

STA. 380+00 - STA. 383+00
INSTALL EDGEDRAIN

MATCHLINE STA. 384+50

IH 39/90 SB

370

375

380

B

D

MATCH EXISTING PAVEMENT

380+63, 18.0' RT

379+63, 21.0' RT

382+32, 18.0' RT

C

370+53, 22.0' RT

IH 39/90 NB

STA. 370+53 - STA. 373+00
INSTALL EDGEDRAIN

STRUCTURE B-52-41

STRUCTURE B-53-43

5

5

LEGEND

A	LEFT EDGE OF NEW PAVEMENT
B	RIGHT EDGE OF NEW PAVEMENT
C	EDGE OF GRAVEL SHOULDER
D	SLOPE INTERCEPT
E	OUTSIDE SHOULDER REHABILITATION - SEE MISCELLANEOUS QUANTITIES TABLE
→	DRAINAGE ARROW

ARNDT ANGUS LLC

ATKINSON FARM INC.

N

TRUCKS USE LEFT LANE
R4-5L
36"X48"
PAID FOR AS "TRAFFIC CONTROL SIGNS"

R/W

PT: 392+61.57

R/L EXISTING IH 39 SB

A

E

MATCHLINE STA. 384+50

IH 39/90 SB

385

390

395

B

C

D

385+33, 22.0' RT

IH 39/90 NB

MGS TERMINAL EAT, REQ.

STA. 390+90
1 - 24" CPCS EXTENSION RT REQ.
1 - INLET MEDIAN 2G-MS REQ.
1 - INLET PROTECTION TYPE A REQ.
1 - INLET PROTECTION TYPE B REQ.

MATCHLINE STA. 399+50

ATKINSON FARM INC.

PROJECT NO: 1003-10-86	HWY: IH 39	COUNTY: ROCK	PLAN: IH 39	SHEET 46	E

PATRICK RD.

N

CAUTION

ALLIANT ENERGY GAS

R/W

R/L EXISTING IH 39 SB

MATCHLINE STA. 399+50

MATCHLINE STA. 414+50

400

IH 39/90 SB

405

410

A

B

C

D

E

STA. 401+91
1 - 18" CPRC EXTENSION RT REQ.
1 - APRON ENDWALL RT REQ.
1 - CULVERT PIPE CHECK REQ.

IH 39/90 NB

R/W

ATKINSON FARM INC.

KUTZ FAMILY TRUST

P.L.

5

5

LEGEND

A	LEFT EDGE OF NEW PAVEMENT
B	RIGHT EDGE OF NEW PAVEMENT
C	EDGE OF GRAVEL SHOULDER
D	SLOPE INTERCEPT
E	OUTSIDE SHOULDER REHABILITATION - SEE MISCELLANEOUS QUANTITIES TABLE
→	DRAINAGE ARROW

PATRICK RD.

N

R/W

R/L EXISTING IH 39 SB

MATCHLINE STA. 414+50

MATCHLINE STA. 429+50

415

IH 39/90 SB

420

425

A

B

C

D

E

IH 39/90 NB

STA. 420+91
REMOVE EXISTING ARPON ENDWALL RT
1 - 18" CPRC EXTENSION RT REQ.
1 - APRON ENDWALL RT REQ.
1 - CULVERT PIPE CHECK REQ.

STA. 425+91
REMOVE EXISTING APRON ENDWALL RT
1 - 18" CPRC EXTENSION RT REQ.
1 - APRON ENDWALL RT REQ.
1 - CULVERT PIPE CHECK REQ.

R/W

KUTZ FAMILY TRUST

PROJECT NO: 1003-10-86	HWY: IH 39	COUNTY: ROCK	PLAN: IH 39	SHEET 47	E

PATRICK RD.

KUTZ FAMILY TRUST

ATKINSON FARMS INC.

ALLIANT ENERGY GAS

CAUTION

TRUCKS USE LEFT LANE
R4-5L
36"X48"
PAID FOR AS "TRAFFIC CONTROL SIGNS"

R/L EXISTING IH 39 SB

B-53-39

B-53-40

TOWN LINE RD.

P.I.

P.I.

MATCHLINE STA. 429+50

MATCHLINE STA. 444+50

R/W

IH 39/90 SB

IH 39/90 NB

430

435

440

445

450

455

429+73, 22.0' RT

433+22, 28.0' RT

436+52, 27.5' RT

439+19, 29.0' RT

439+44, 29.0' RT

441+23, 31.0' RT

445+94, 22.0' RT

STA. 430+00 - STA. 436+52
INSTALL EDGEDRAIN

STA. 439+19 - STA. 445+00
INSTALL EDGEDRAIN

STA. 439+19 - STA. 445+00
INSTALL EDGEDRAIN

STA. 440+45
REMOVE EXISTING APRON ENDWALL RT
1 - 18" CPRC EXTENSION RT REQ.
1 - APRON ENDWALL RT REQ.
1 - CULVERT PIPE CHECK REQ.

ROCK ENERGY CO-OP ELECTRIC (OVERHEAD)

STA. 454+91
REMOVE EXISTING APRON ENDWALL RT.
1 - 18" CPRC EXTENSION RT REQ.
1 - ARPON ENDWALL RT REQ.
1 - CULVERT PIPE CHECK REQ.

STA. 457+15 - STA. 536+62, 20' RT
SALVAGE AND REINSTALL HIGH-TENSION CABLE GUARD TL3, GIBRALTAR

TERMINAL HIGH TENSION CABLE GUARD TL3, GIBRALTAR REQ.

MOVE TYPE II SIGN

MATCH EXISTING PAVEMENT

STA. 457+15 - STA. 532+50
INSTALL HIGH-TENSION CABLE GUARD TL3, GIBRALTAR

LEGEND

A	LEFT EDGE OF NEW PAVEMENT
B	RIGHT EDGE OF NEW PAVEMENT
C	EDGE OF GRAVEL SHOULDER
D	SLOPE INTERCEPT
E	OUTSIDE SHOULDER REHABILITATION - SEE MISCELLANEOUS QUANTITIES TABLE
⇝	DRAINAGE ARROW

PROJECT NO: 1003-10-86	HWY: IH 39	COUNTY: ROCK	PLAN: IH 39	SHEET 48	E

FILE NAME : L:\WORK\PROJECTS\60242867\000_CAD\001_DRAWINGS\TEMPORARY WIDENING\050211_PN.DWG PLOT DATE : 2/14/2013 1:33 PM PLOT BY : ARBUCKLE, ADRIAN PLOT NAME : PLOT SCALE : 1 IN:100 FT

ATKINSON FARM INC.

MATCHLINE STA. 459+50

R/W

STA. 457+15 - STA. 536+62, 20' RT
SALVAGE AND REINSTALL HIGH-TENSION
CABLE GUARD TL3, GIBRALTAR

IH 39/90 SB

460

465

470

A

E

R/L EXISTING IH 39 SB

B

C

D

IH 39/90 NB

STA. 457+15 - STA. 532+50
INSTALL HIGH-TENSION CABLE
GUARD TL3, GIBRALTAR

STA. 467+91
ABANDON EXISTING INLET
1 - INLET MEDIAN 2G-MS REQ.
1 - INLET PROTECTION TYPE A REQ.
1 - INLET PROTECTION TYPE B REQ.

MATCHLINE STA. 474+50

R/W

R/W

R/W

POST

POST

MH

MH

MH

5

5

N

N

N

LEGEND

A	LEFT EDGE OF NEW PAVEMENT
B	RIGHT EDGE OF NEW PAVEMENT
C	EDGE OF GRAVEL SHOULDER
D	SLOPE INTERCEPT
E	OUTSIDE SHOULDER REHABILITATION - SEE MISCELLANEOUS QUANTITIES TABLE
→	DRAINAGE ARROW

ATKINSON FARM INC.

MATCHLINE STA. 474+50

R/W

STA. 457+15 - STA. 536+62, 20' RT
SALVAGE AND REINSTALL HIGH-TENSION
CABLE GUARD TL3, GIBRALTAR

A

E

R/L EXISTING IH 39 SB

IH 39/90 SB

475

480

485

B

C

D

STA. 475+91
1 - 24" CPCS EXTENSION RT REQ.
1 - INLETS, 2G-MS
1 - APRON ENDWALL RT REQ.
1 - CULVERT PIPE CHECK REQ.
1 - INLET PROTECTION TYPE A & C REQ.

IH 39/90 NB

STA. 457+15 - STA. 532+50
INSTALL HIGH-TENSION CABLE
GUARD TL3, GIBRALTAR

STA. 486+91
REMOVE EXISTING APRON ENDWALL RT
1 - 24" CPRC EXTENSION RT REQ.
1 - APRON ENDWALL RT REQ.
1 - CULVERT PIPE CHECK REQ.

MATCHLINE STA. 489+50

R/W

R/W

R/W

ATKINSON FARM INC.

WAYSIDE

POST

POST

MH

MH

MH

N

N

PROJECT NO: 1003-10-86	HWY: IH 39	COUNTY: ROCK	PLAN: IH 39	SHEET 49	E

ATKINSON FARMS INC.

P.L.

CAUTION

ATC
ELECTRIC (OVERHEAD)

TRUCKS USE LEFT LANE
R4-5L
36"X48"
PAID FOR AS
"TRAFFIC CONTROL SIGNS"

ARNDT FARMS INC.

N

R/W

MATCHLINE STA. 489+50

MATCHLINE STA. 504+50

R/L EXISTING IH 39 SB

A

E

B

C

D

490

495

500

IH 39/90 SB

IH 39/90 NB

STA. 457+15 - STA. 536+62, 20' RT
SALVAGE AND REINSTALL HIGH-TENSION
CABLE GUARD TL3, GIBRALTAR

STA. 457+15 - STA. 532+50
INSTALL HIGH-TENSION CABLE
GUARD TL3, GIBRALTAR

STA. 496+91
1 - 24" CPCS EXTENSION RT REQ.
1 - INLET, 2G-MS REQ.
1 - INLET PROTECTION TYPE A & C REQ.

STA. 504+40
REMOVE EXISTING APRON ENDWALL RT
1 - 18" CPRC EXTENSION RT REQ.
1 - APRON ENDWALL RT REQ.
1 - CULVERT PIPE CHECK REQ.

5

5

LEGEND

A	LEFT EDGE OF NEW PAVEMENT
B	RIGHT EDGE OF NEW PAVEMENT
C	EDGE OF GRAVEL SHOULDER
D	SLOPE INTERCEPT
E	OUTSIDE SHOULDER REHABILITATION - SEE MISCELLANEOUS QUANTITIES TABLE
⇝	DRAINAGE ARROW

ARNDT FARMS INC.

N

R/W

MATCHLINE STA. 504+50

MATCHLINE STA. 519+50

R/L EXISTING IH 39 SB

Pt: 509+07.60

A

E

B

C

D

505

510

515

IH 39/90 SB

IH 39/90 NB

STA. 457+15 - STA. 536+62, 20' RT
SALVAGE AND REINSTALL HIGH-TENSION
CABLE GUARD TL3, GIBRALTAR

STA. 457+15 - STA. 532+50
INSTALL HIGH-TENSION CABLE
GUARD TL3, GIBRALTAR

STA. 517+91
REMOVE EXISTING SURFACE DRAIN RT
1 - 24" CPRC EXTENSION RT REQ.
1 - INLET, 2G-MS REQ.
1 - INLET PROTECTION TYPE A & B REQ.

R/W

R/W

P.L.

ATKINSON FARMS INC.

DAVID REID

PROJECT NO: 1003-10-86	HWY: IH 39	COUNTY: ROCK	PLAN: IH 39	SHEET 50	E

BENCH MARKS

NO.	DESCRIPTION	ELEV.
251L	SET RR SPIKE IN UTILITY POLE @ S. READ RD & E. WOODMAN RD INT.	834.98

N

ARNDT FARMS INC.

R/W

MATCHLINE STA. 519+50

520 525 530

IH 39/90 SB

IH 39/90 NB

A B C D E

R/L EXISTING IH 39 SB

STA. 457+15 - STA. 536+62, 20' RT
SALVAGE AND REINSTALL HIGH-TENSION
CABLE GUARD TL3, GIBRALTAR

STA. 457+145 - STA. 532+50
INSTALL HIGH-TENSION CABLE
GUARD TL3, GIBRALTAR

STA. 527+91
REMOVE EXISTING APRON ENDWALL RT
1 - 18" CPRC EXTENSION RT REQ.
1 - APRON ENDWALL RT REQ.
1 - CULVERT PIPE CHECK REQ.

I 39/90

TO BE INSTALLED
BY OTHERS

MATCHLINE STA. 534+50

R/W

DAVID REID

TERMINAL HIGH TENSION CABLE GUARD
TL3, GIBRALTAR REQ.

LEGEND

A	LEFT EDGE OF NEW PAVEMENT
B	RIGHT EDGE OF NEW PAVEMENT
C	EDGE OF GRAVEL SHOULDER
D	SLOPE INTERCEPT
E	OUTSIDE SHOULDER REHABILITATION - SEE MISCELLANEOUS QUANTITIES TABLE
	DRAINAGE ARROW

N

ARNDT FARMS INC.

ROCK ENERGY CO-OP
ELECTRIC (OVERHEAD)

R/W

WOODMAN RD.

EP: 544+80.21

CMCP 24"

MH

TRUCKS USE LEFT LANE
R4-5L
36"X48"

PAID FOR AS
"TRAFFIC CONTROL SIGNS"

MATCHLINE STA. 534+50

STA. 457+15 - STA. 536+62, 20' RT
SALVAGE AND REINSTALL HIGH-TENSION
CABLE GUARD TL3, GIBRALTAR

MOVE TYPE II SIGN

R/L EXISTING IH 39 SB

A E

535 540

IH 39/90 SB

IH 39/90 NB

B C D

MATCH EXISTING
PAVEMENT

22.0' RT

END PROJECT
STA. 542+00.00
Y = 243500.9987
X = 504176.7228

STRUCTURE
B-53-38

TERMINAL HIGH TENSION CABLE GUARD
TL3, GIBRALTAR REQ.

STA. 536+66
1 - 18" CPRC EXTENSION RT REQ.
1 - APRON ENDWALL RT REQ.
1 - CULVERT PIPE CHECK REQ.

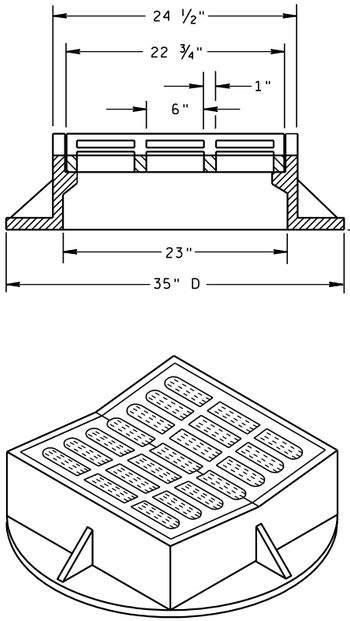
DAVID REID

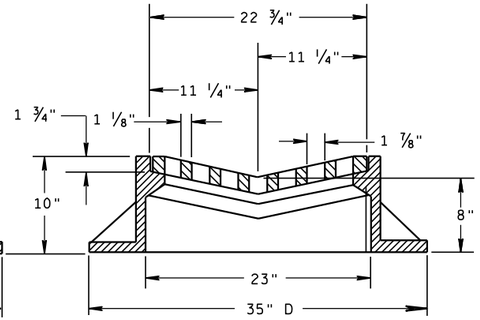
PROJECT NO: 1003-10-86	HWY: IH 39	COUNTY: ROCK	PLAN: IH 39	SHEET 51	E

FILE NAME : L:\WORK\PROJECTS\60242867\000_CAD\001_DRAWINGS\TEMPORARY WIDENING\050214_PN.DWG PLOT DATE : 2/14/2013 3:09 PM PLOT BY : ARBUCKLE, ADRIAN PLOT NAME : PLOT SCALE : 1 IN:100 FT

Standard Detail Drawing List

08A05-16B	INLET COVERS TYPE B, B-A, C, MS, MS-A, & WM
08C08-01	INLETS MEDIAN 1 AND 2 GRATE
08D15-04B	EDGEDRAIN AND BASE AGGREGATE OPEN GRADED
08D15-04C	EDGEDRAIN AND BASE AGGREGATE OPEN GRADED
08E08-03	TYPICAL INSTALLATIONS OF EROSION BALES / TEMPORARY DITCH CHECKS
08E09-06	SILT FENCE
08E10-02	INLET PROTECTION TYPE A, B, C AND D
08F01-11	APRON ENDWALLS FOR CULVERT PIPE
08F04-07	JOINT TIES FOR CONCRETE PIPE AND CONCRETE COLLAR DETAIL
08F05-01	CLASS "B" BEDDING FOR CULVERT PIPE OR STORM SEWER
08F06-04	REINFORCED CONCRETE APRON ENDWALL FOR PIPE UNDERDRAIN
13A05-05A	SHOULDER RUMBLE STRIP, MILLING
13A05-05B	SHOULDER RUMBLE STRIP, MILLING
13C09-09A	CONCRETE PAVEMENT REPAIR AND REPLACEMENT
13C09-09B	CONCRETE PAVEMENT REPAIR AND REPLACEMENT
13C09-09C	CONCRETE PAVEMENT REPAIR AND REPLACEMENT
13C14-04A	BASE PATCHING CONCRETE
13C14-04B	BASE PATCHING CONCRETE
13C14-04C	BASE PATCHING CONCRETE
14B07-13A	CONCRETE BARRIER TEMPORARY PRECAST, 12'-6"
14B07-13B	CONCRETE BARRIER TEMPORARY PRECAST, 12'-6"
14B07-13C	CONCRETE BARRIER TEMPORARY PRECAST, 12'-6"
14B07-13D	CONCRETE BARRIER TEMPORARY PRECAST, 12'-6"
14B07-13E	CONCRETE BARRIER TEMPORARY PRECAST, 12'-6"
14B07-13F	CONCRETE BARRIER TEMPORARY PRECAST, 12'-6"
14B07-13G	CONCRETE BARRIER TEMPORARY PRECAST, 12'-6"
14B07-13H	CONCRETE BARRIER TEMPORARY PRECAST, 12'-6"
14B08-01A	CRASH CUSHION/SAND BARREL ARRAY AND OTHER TEMPORARY BARRIER LAYOUT DETAILS
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)
14B47-01A	MIDWEST GUARDRAIL SYSTEM (MGS) TYPE 2 TERMINAL
14B47-01B	MIDWEST GUARDRAIL SYSTEM (MGS) TYPE 2 TERMINAL
14B47-01C	MIDWEST GUARDRAIL SYSTEM (MGS) TYPE 2 TERMINAL
15A02-07	DELINEATOR POST, DELINEATOR BRACKET AND DELINEATOR
15A06-02	DELINEATOR LAYOUT
15C08-15A	PAVEMENT MARKING (MAINLINE)
15C31-01A	PAVEMENT MARKING (RAMPS AND GORES)
15D03-01	TRAFFIC CONTROL, LANE CLOSURE, SPEEDS GREATER THAN 40 M.P.H. WITH BARRIER
15D12-02	TRAFFIC CONTROL, LANE CLOSURE, SPEEDS GREATER THAN 40 M.P.H.
15D15-01	TRAFFIC CONTROL, EXIT AND ENTRANCE RAMP WITHIN LANE CLOSURE

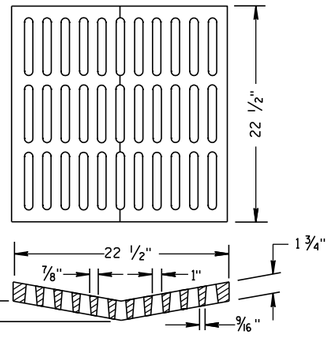




TYPE "B"

(APPROXIMATE WEIGHT 395 LBS.)

FRAME..... 285 LBS.
GRATE..... 110 LBS.

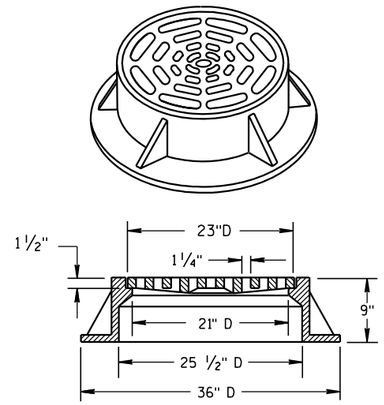


ALTERNATIVE GRATE FOR TYPE "B" COVER

(APPROXIMATE GRATE WEIGHT 125 LBS.)
GRATE.....125 LBS.

USE WHERE PEDESTRIAN OR BICYCLE TRAFFIC IS POSSIBLE.

NOTED AS TYPE B-A ON THE DRAINAGE TABLE



TYPE "C"

(APPROXIMATE WEIGHT 340 LBS.)

FRAME..... 235 LBS.
GRATE..... 105 LBS.

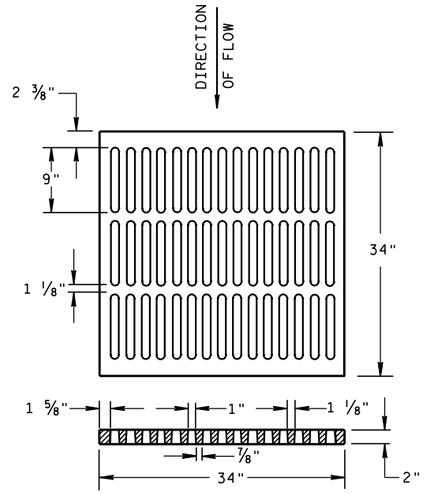
GENERAL NOTES

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.

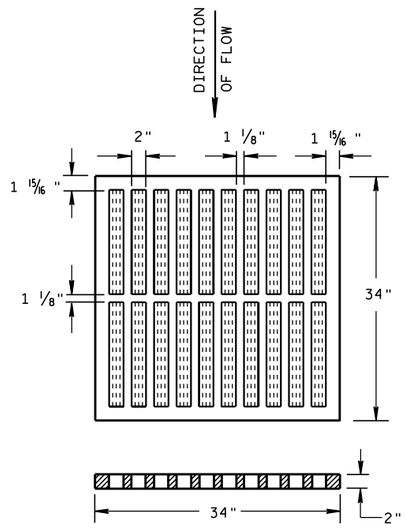


ALTERNATIVE TYPE "MS"

(APPROXIMATE GRATE WEIGHT 365 LBS.)
GRATE.....365 LBS.

USE WHERE PEDESTRIAN OR BICYCLE TRAFFIC IS PERMITTED

NOTED AS TYPE MS-A ON THE DRAINAGE TABLE

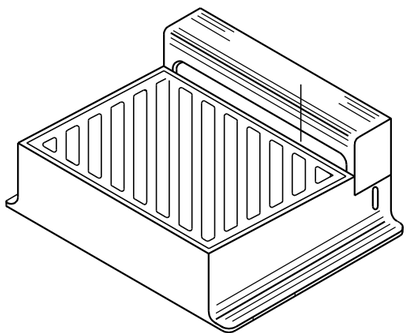


TYPE "MS"

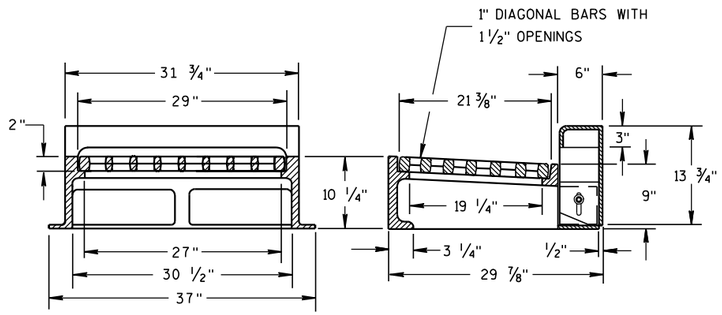
(APPROXIMATE GRATE WEIGHT 270 LBS.)
GRATE.....270 LBS.

USE ON FREEWAYS AND EXPRESSWAYS

NOTED AS TYPE MS ON DRAINAGE TABLE



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



NOTE: CURB BOX HEIGHT ADJUSTABLE 6" TO 9"

TYPE "WM"

(APPROXIMATE WEIGHT 670 LBS.)

FRAME..... 360 LBS.
GRATE..... 160 LBS.
CURB BOX..... 150 LBS.

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

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

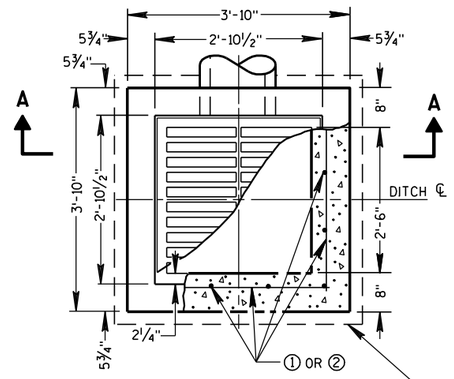
APPROVED

10/4/1999
DATE

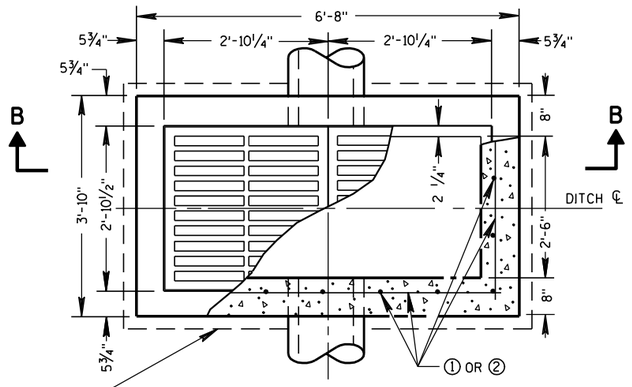
/S/ Rory L. Rhinesmith
CHEIF ROADWAY DEVELOPMENT ENGINEER

FHWA

6
S.D.D. 8 A 5-16b

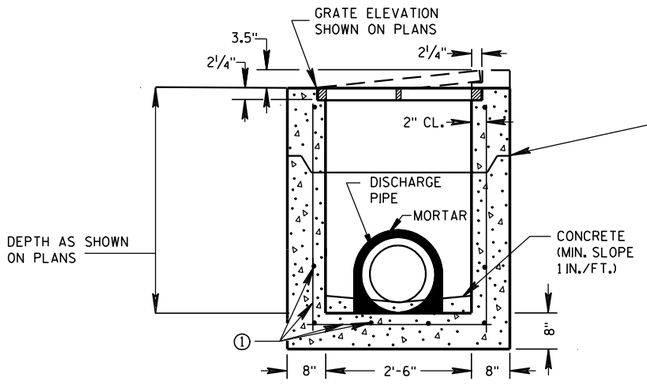


PLAN VIEW

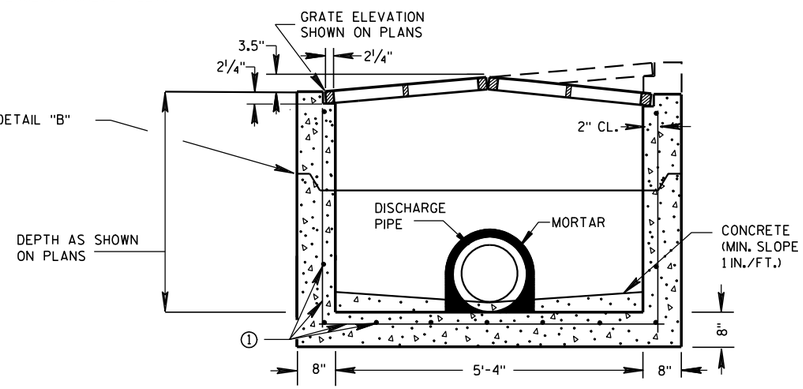


PLAN VIEW

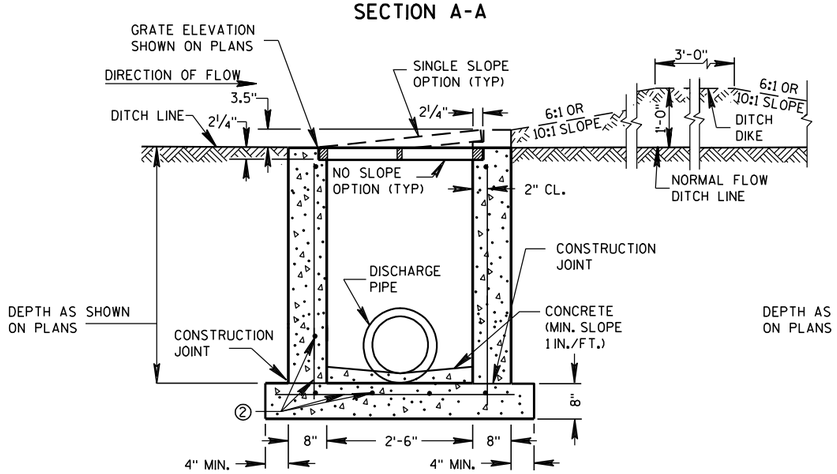
4" OVERHANGING BASE ON REINFORCED CAST-IN-PLACE CONCRETE INLETS



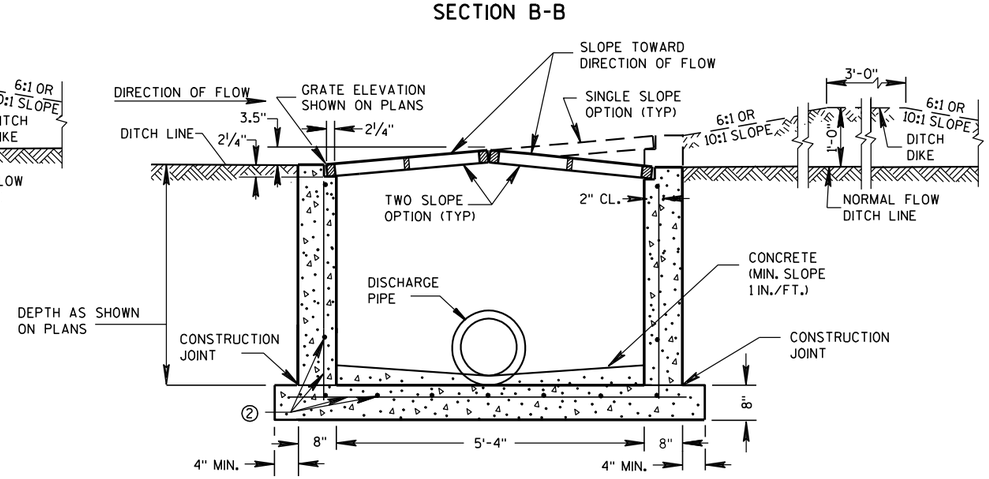
PRECAST REINFORCED CONCRETE SECTION A-A



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.

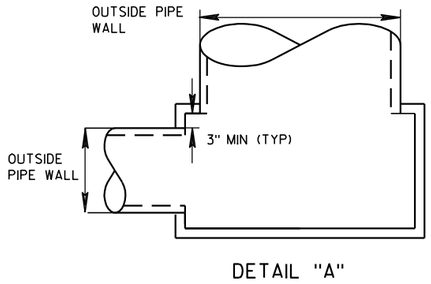
MAXIMUM INSIDE PIPE DIAMETER DETERMINED BY 3" CLEARANCE ON EACH SIDE OF THE OUTSIDE WALL OF THE PIPE. SEE DETAIL "A". ASSUMES PIPE ENTERS PERPENDICULAR TO THE STRUCTURE.

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

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

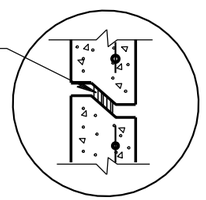
PIPE MATRIX

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



DETAIL "A"

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



DETAIL "B"

INLETS MEDIAN 1 AND 2 GRATE

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED

6/5/2012
DATE

/S/ Jerry H. Zogg
ROADWAY STANDARDS DEVELOPMENT ENGINEER

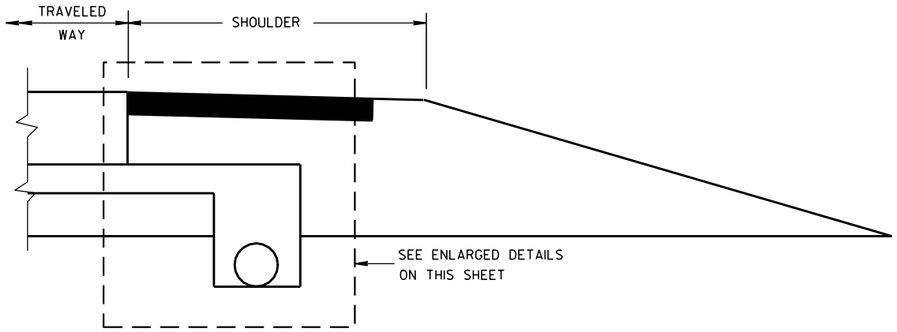
FHWA

S.D.D. 8 C 8-1

6

S.D.D. 8 C 8-1

6



RURAL CROSS SECTION

GENERAL NOTES

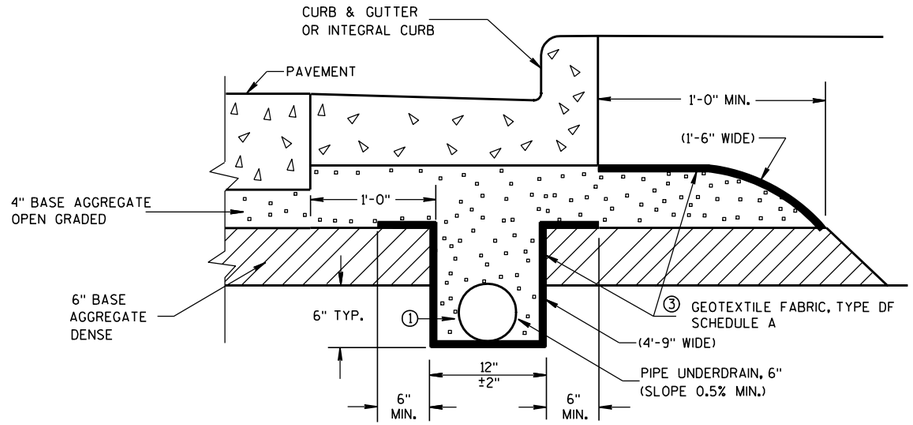
THE DIMENSIONS SHOWN ON THE TYPICAL CROSS SECTIONS WILL GOVERN IN THE EVENT THERE IS A CONFLICT WITH THE DETAILS SHOWN ON THIS DRAWING.

PIPE UNDERDRAIN SHALL BE LAID PARALLEL TO THE GRADE OF THE ROADWAY.

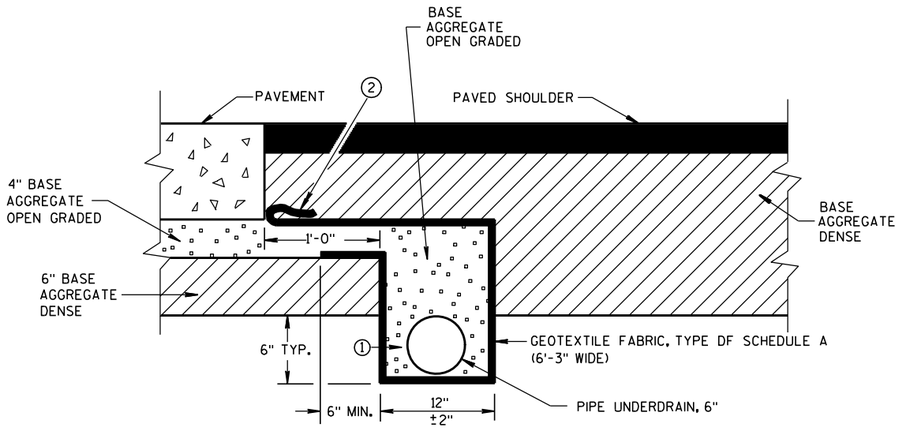
① TRENCH BACKFILL WILL BE PAID FOR AS BASE AGGREGATE OPEN GRADED.

② FOLD OVER EXCESS GEOTEXTILE FABRIC AT THIS LOCATION.

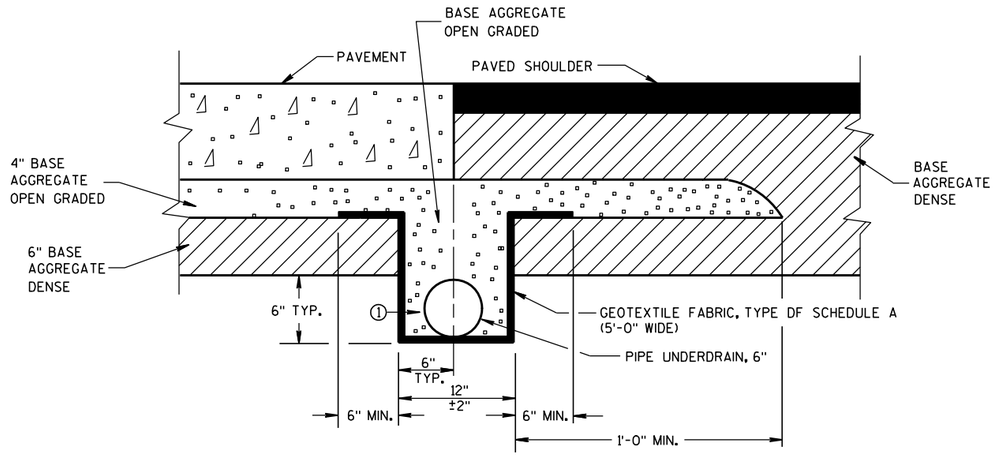
③ TOTAL FABRIC WIDTH IS 6'-3" FOR PAYMENT.



EDGEDRAIN IN URBAN ROADWAY



POST PAVING INSTALLATION
(QUANTITIES ARE BASED ON THIS DETAIL)



PRE-PAVING INSTALLATION ALTERNATE

EDGEDRAIN IN RURAL ROADWAY

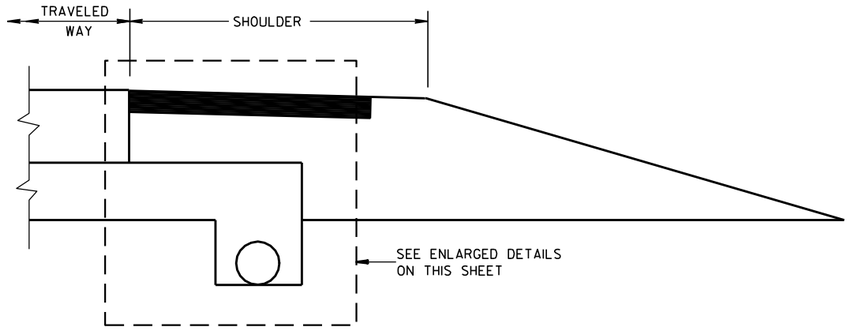
EDGEDRAIN AND BASE AGGREGATE OPEN GRADED

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
3/21/07 DATE — /S/ Steven W. [illegible] CHIEF MATERIALS MANAGER

FHWA

6
S.D.D. 8 D 15-4b



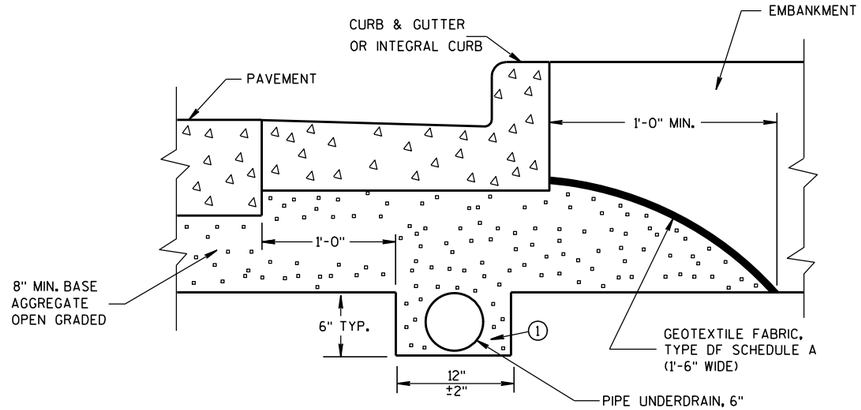
RURAL CROSS SECTION

GENERAL NOTES

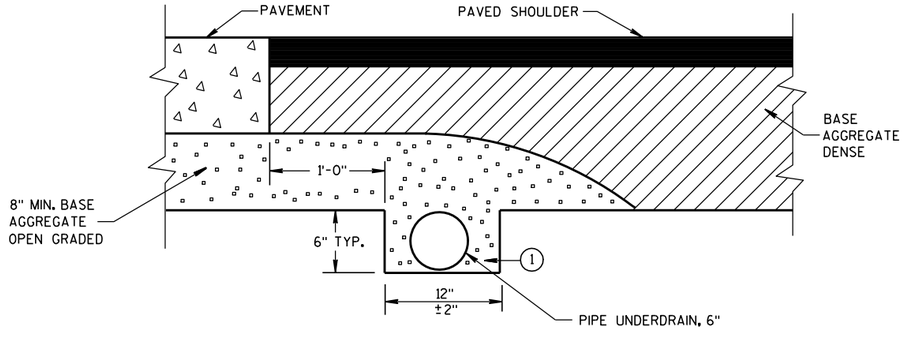
THE DIMENSIONS SHOWN ON THE TYPICAL CROSS SECTIONS WILL GOVERN IN THE EVENT THERE IS A CONFLICT WITH THE DETAILS SHOWN ON THIS DRAWING.

PIPE UNDERDRAIN SHALL BE LAID PARALLEL TO THE GRADE OF THE ROADWAY.

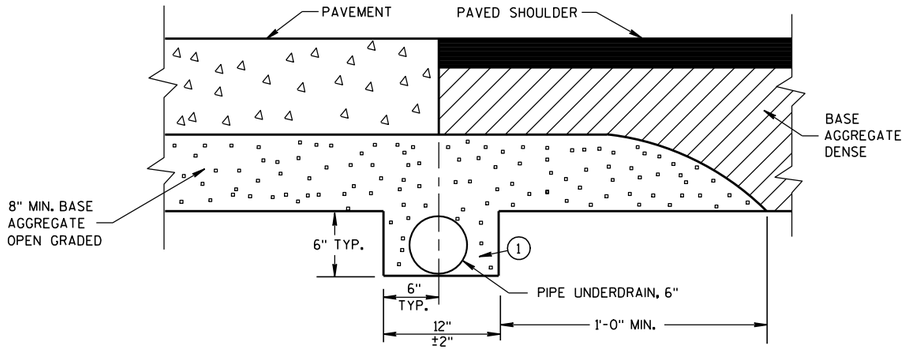
(1) TRENCH BACKFILL WILL BE PAID FOR AS BASE AGGREGATE OPEN GRADED.



EDGEDRAIN IN URBAN ROADWAY



POST PAVING INSTALLATION
(QUANTITIES ARE BASED ON THIS DETAIL)



PRE-PAVING INSTALLATION ALTERNATIVE

EDGEDRAIN IN RURAL ROADWAY

EDGEDRAIN AND BASE AGGREGATE OPEN GRADED

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

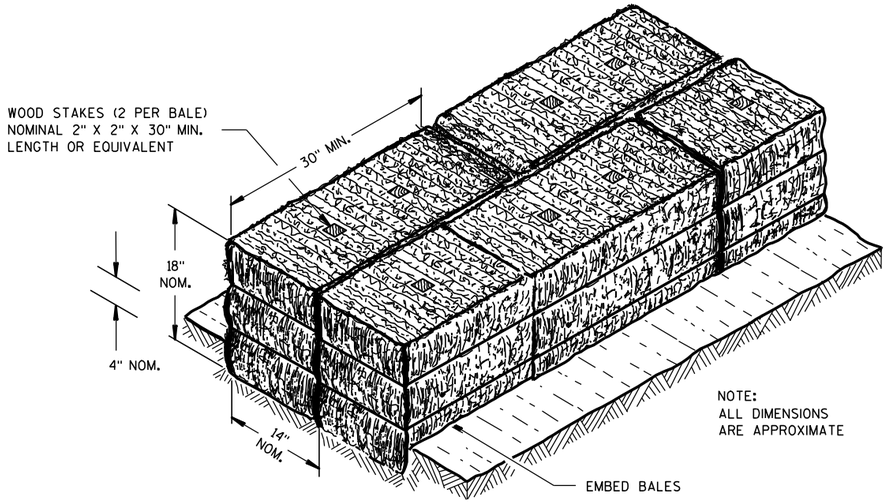
APPROVED
3/21/07 DATE
/S/ Steven W. Krebs
CHIEF MATERIALS MANAGER ENGINEER
FHWA

6

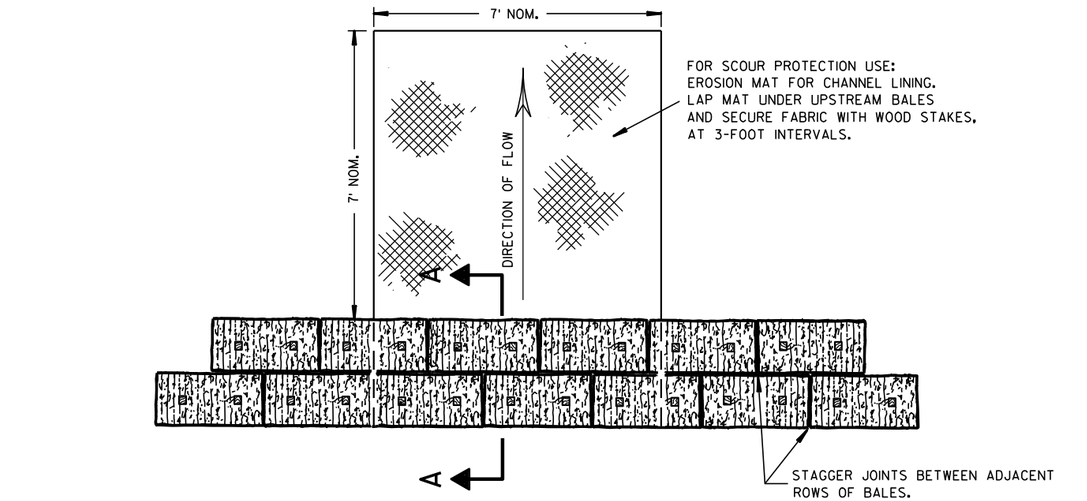
S.D.D. 8 D 15-4c

6

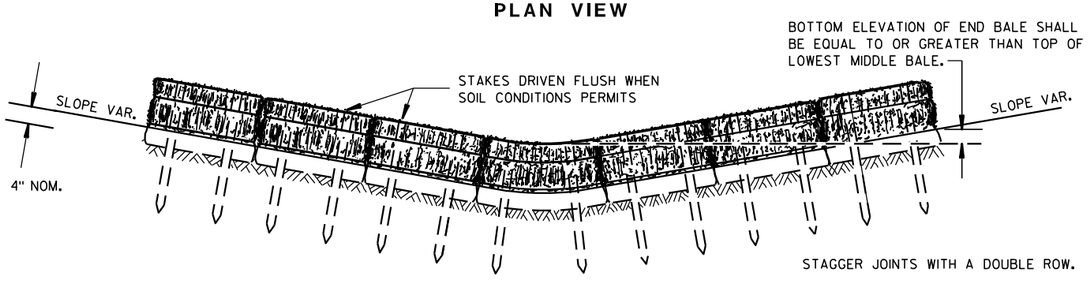
S.D.D. 8 D 15-4c



SECTION A-A



PLAN VIEW



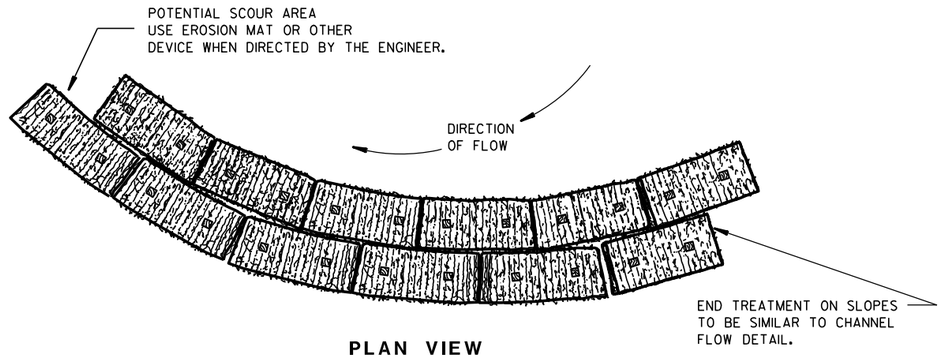
FRONT ELEVATION

TEMPORARY DITCH CHECK USING EROSION BALES (1)

GENERAL NOTES

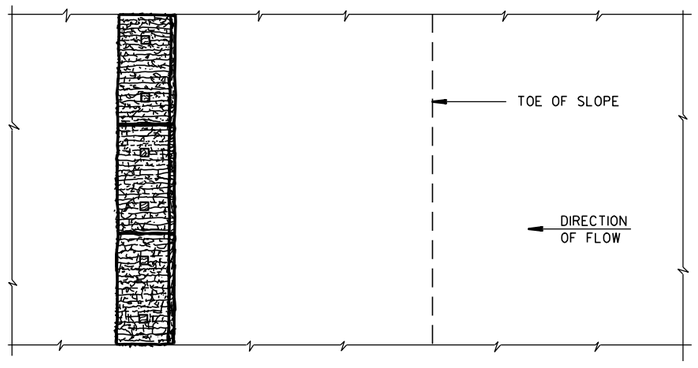
DETAILS OF CONSTRUCTION, MATERIALS AND WORKMANSHIP NOT SHOWN ON THIS DRAWING SHALL CONFORM TO THE PERTINENT REQUIREMENTS OF THE STANDARD SPECIFICATIONS AND THE APPLICABLE SPECIAL PROVISIONS.

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

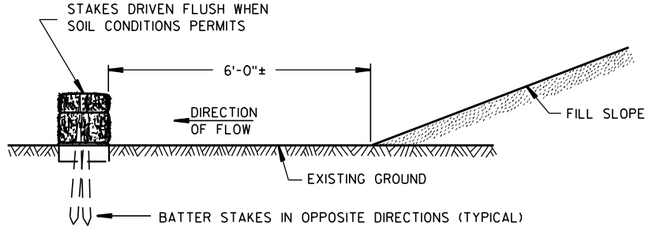


PLAN VIEW

WHEN ALTERING THE DIRECTION OF FLOW



PLAN VIEW



FRONT ELEVATION

WHEN EXISTING GROUND SLOPES AWAY FROM FILL SLOPE

EROSION BALES FOR SHEET FLOW

TYPICAL INSTALLATIONS OF EROSION BALES / TEMPORARY DITCH CHECKS

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

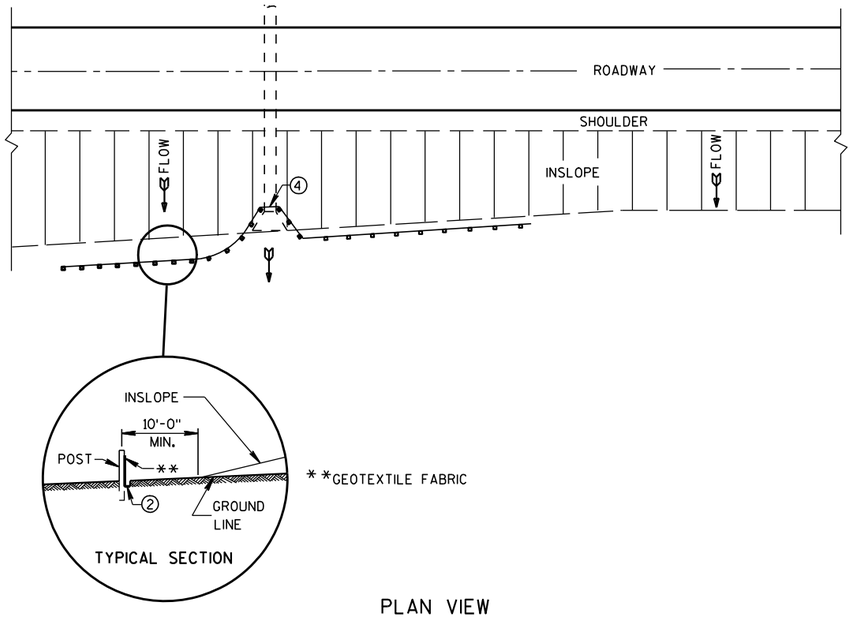
APPROVED
6/04/02 — DATE
/S/ Beth Cannestra — CHIEF ROADWAY DEVELOPMENT ENGINEER
FHWA

6

S.D.D. 8 E 8-3

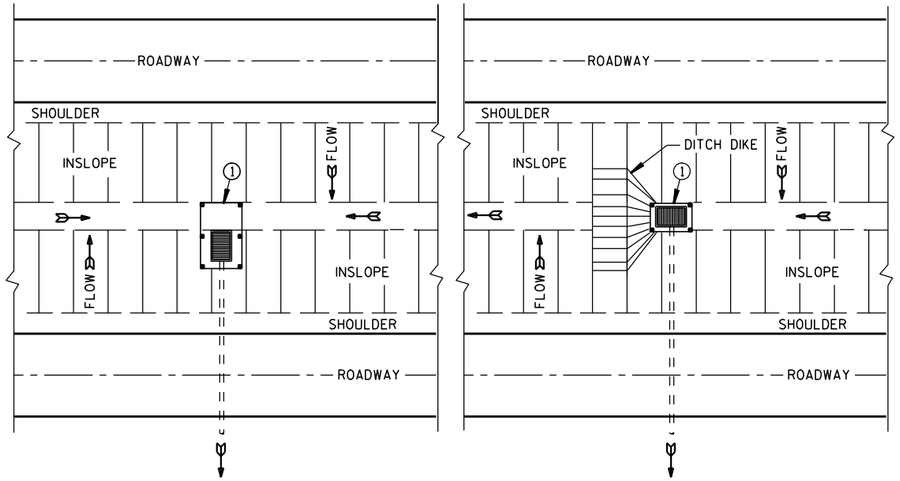
6

S.D.D. 8 E 8-3



PLAN VIEW

TYPICAL APPLICATION OF SILT FENCE



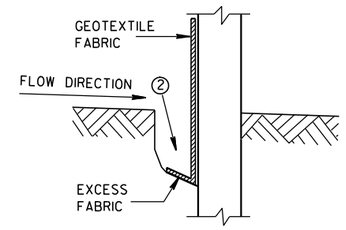
PLAN VIEW

SILT FENCE AT MEDIAN SURFACE DRAINS

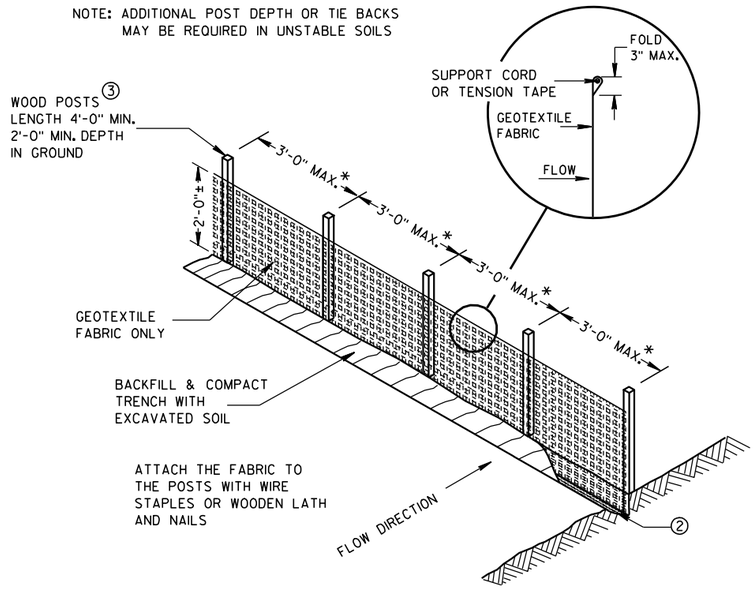
GENERAL NOTES

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

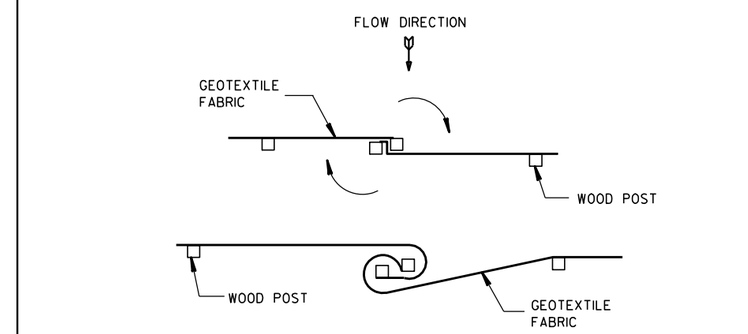
1. HORIZONTAL BRACE REQUIRED WITH 2" X 4" WOODEN FRAME OR EQUIVALENT AT TOP OF POSTS.
2. FOR MANUAL INSTALLATIONS THE TRENCH SHALL BE A MINIMUM OF 4" WIDE & 6" DEEP TO BURY AND ANCHOR THE GEOTEXTILE FABRIC. FOLD MATERIAL TO FIT TRENCH AND BACKFILL & COMPACT TRENCH WITH EXCAVATED SOIL.
3. WOOD POSTS SHALL BE A MINIMUM SIZE OF 1⅛" X 1⅛" OF OAK OR HICKORY.
4. SILT FENCE TO EXTEND ACROSS THE TOP OF THE PIPE.
5. CONSTRUCT SILT FENCE FROM A CONTINUOUS ROLL IF POSSIBLE BY CUTTING LENGTHS TO AVOID JOINTS. IF A JOINT IS NECESSARY USE ONE OF THE FOLLOWING TWO METHODS; A) OVERLAP THE END POSTS AND TWIST, OR ROTATE, AT LEAST 180 DEGREES, B) HOOK THE END OF EACH SILT FENCE LENGTH.



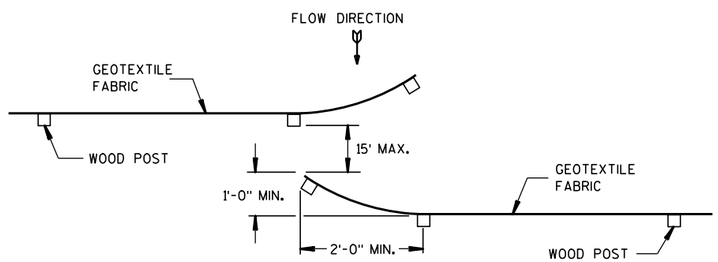
TRENCH DETAIL



SILT FENCE

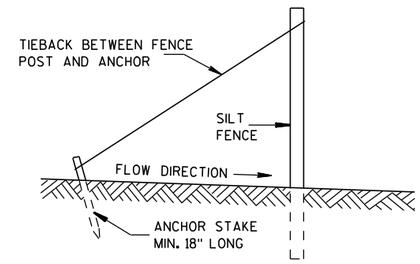


TWIST METHOD



HOOK METHOD

JOINING TWO LENGTHS OF SILT FENCE 5



SILT FENCE TIE BACK

(WHEN REQUIRED BY THE ENGINEER)

SILT FENCE

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

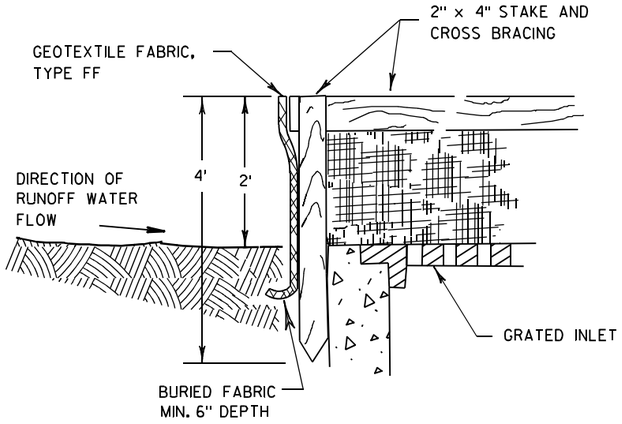
APPROVED
4-29-05 DATE
/S/ Beth Cannestra
CHIEF ROADWAY DEVELOPMENT ENGINEER
FHWA

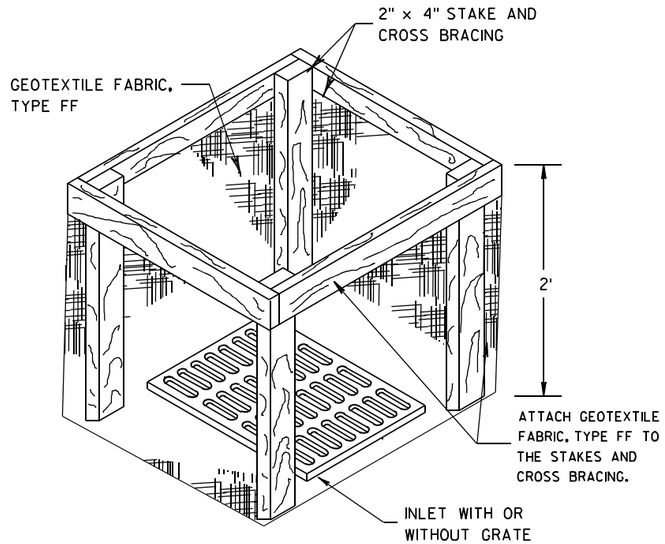
6

S.D.D. 8 E 9-6

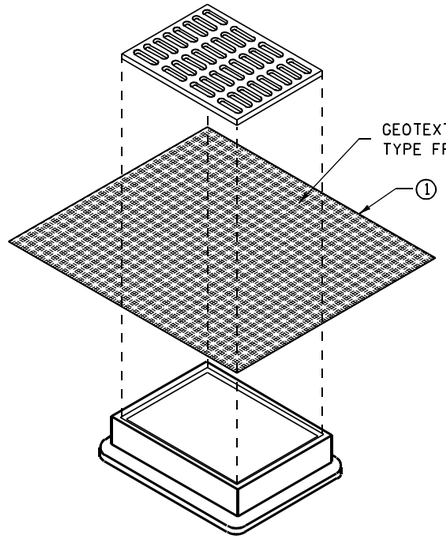
6

S.D.D. 8 E 9-6



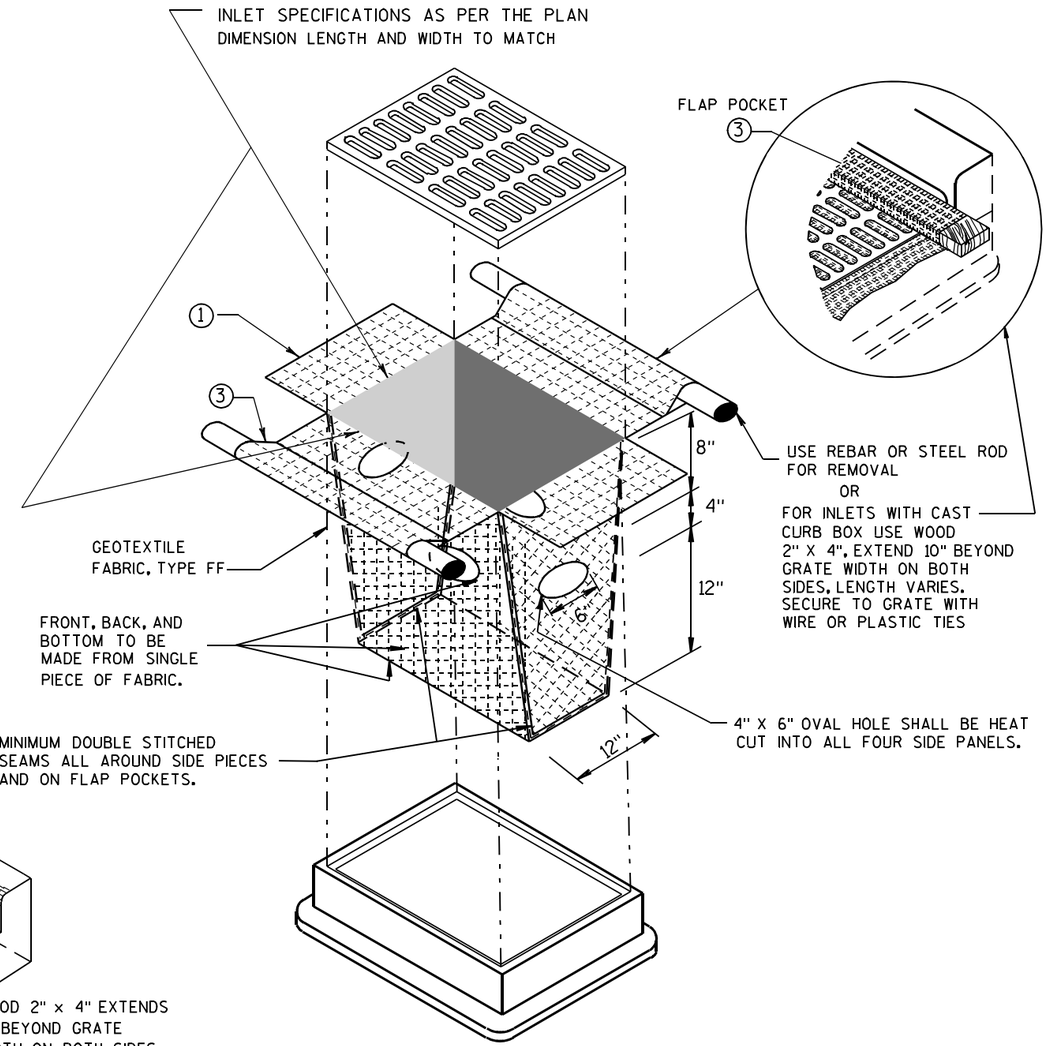


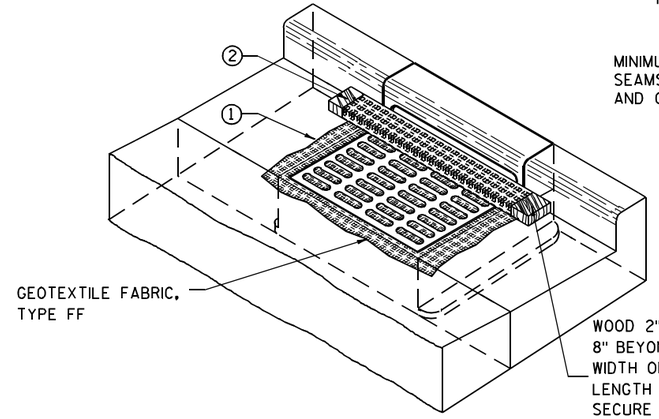
INLET PROTECTION, TYPE A



INLET PROTECTION, TYPE B
(WITHOUT CURB BOX)

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





INLET PROTECTION, TYPE C (WITH CURB BOX)

INLET PROTECTION, TYPE D

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

GENERAL NOTES

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

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

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

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

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

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

INSTALLATION NOTES

TYPE B & C

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

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

TYPE D

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

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

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

INLET PROTECTION
TYPE A, B, C, AND D

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

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

6

S.D.D. 8 E 10-2

6

S.D.D. 8 E 10-2

METAL APRON ENDWALLS

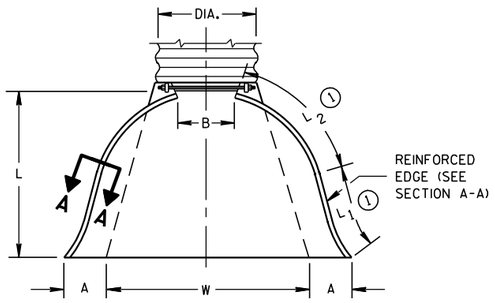
PIPE DIA. (IN.)	MIN. THICK. (Inches) STEEL	MIN. THICK. (Inches) ALUM.	DIMENSIONS (Inches) A (±1")	B (MAX.)	H (±1")	L (±1 1/2")	L1 ①	L2 ①	W (±2")	APPROX. SLOPE	BODY
12	.064	.060	6	6	6	21	12	17 1/2	24	2 1/2 to 1	1 Pc.
15	.064	.060	7	8	6	26	14	21 3/4	30	2 1/2 to 1	1 Pc.
18	.064	.060	8	10	6	31	15	28 1/4	36	2 1/2 to 1	1 Pc.
21	.064	.060	9	12	6	36	18	29 5/8	42	2 1/2 to 1	1 Pc.
24	.064	.075	10	13	6	41	18	37 1/4	48	2 1/2 to 1	1 Pc.
30	.079	.075	12	16	8	51	18	52 1/4	60	2 1/2 to 1	1 Pc.
36	.079	.105	14	19	9	60	24	59 3/4	72	2 1/2 to 1	2 Pc.
42	.109	.105	16	22	11	69	24	75 5/8	84	2 1/2 to 1	2 Pc.
48	.109	.105	18	27	12	78	24	81	90	2 1/4 to 1	3 Pc.
54	.109	.105	18	30	12	84	30	85 1/2	102	2 1/4 to 1	3 Pc.
60	.109×	.105×	18	33	12	87	—	—	114	2 to 1	3 Pc.
66	.109×	.105×	18	36	12	87	—	—	120	2 to 1	3 Pc.
72	.109×	.105×	18	39	12	87	—	—	126	2 to 1	3 Pc.
78	.109×	.105×	18	42	12	87	—	—	132	1 1/2 to 1	3 Pc.
84	.109×	.105×	18	45	12	87	—	—	138	1 1/2 to 1	3 Pc.
90	.109×	.105×	18	37	12	87	—	—	144	1 1/2 to 1	3 Pc.
96	.109×	.105×	18	35	12	87	—	—	150	1 1/2 to 1	3 Pc.

× EXCEPT CENTER PANEL SEE GENERAL NOTES

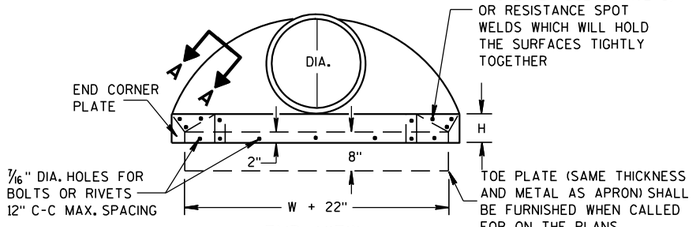
REINFORCED CONCRETE APRON ENDWALLS

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

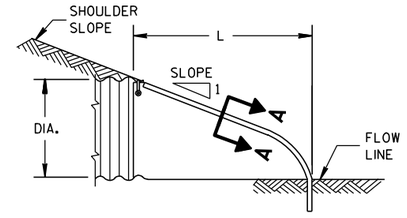
*MINIMUM
**MAXIMUM



PLAN VIEW

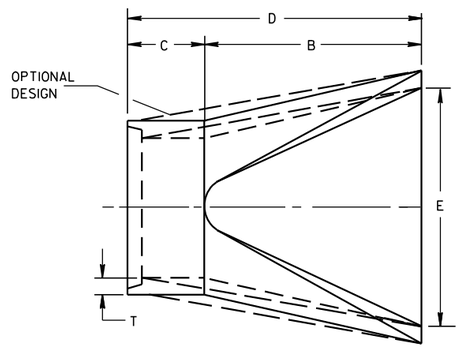


END VIEW

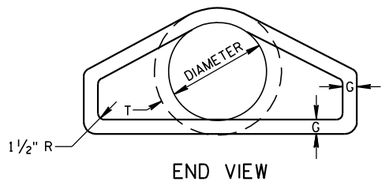


SIDE ELEVATION

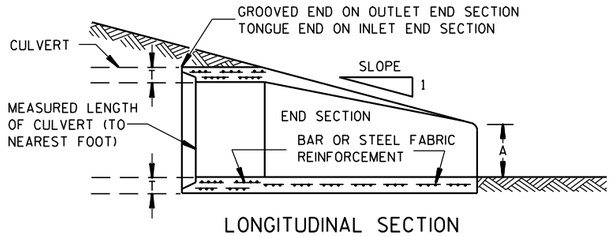
METAL ENDWALLS



PLAN

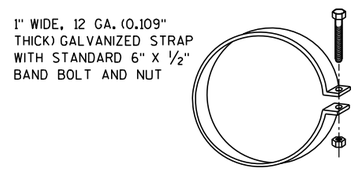


END VIEW



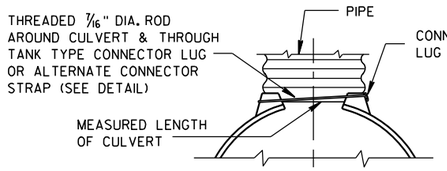
LONGITUDINAL SECTION

CONCRETE ENDWALLS

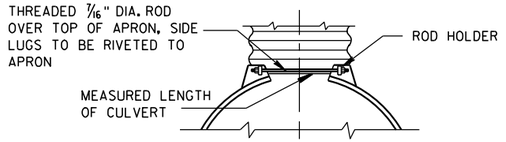


ALTERNATE FOR TYPE 1 CONNECTION

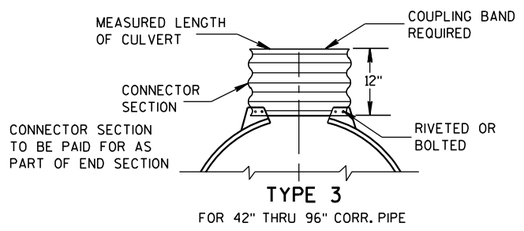
END SECTION CONNECTOR STRAP



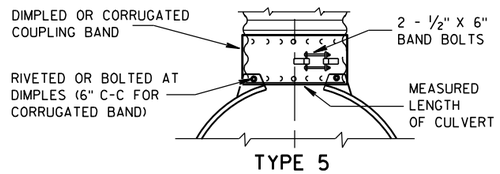
TYPE 1
FOR 12" THRU 24" CORR. PIPE



TYPE 2
FOR 30" THRU 96" CORR. PIPE



TYPE 3
FOR 42" THRU 96" CORR. PIPE



TYPE 5
ALTERNATE FOR:
ALL SIZES CORRUGATED CIRCULAR PIPE

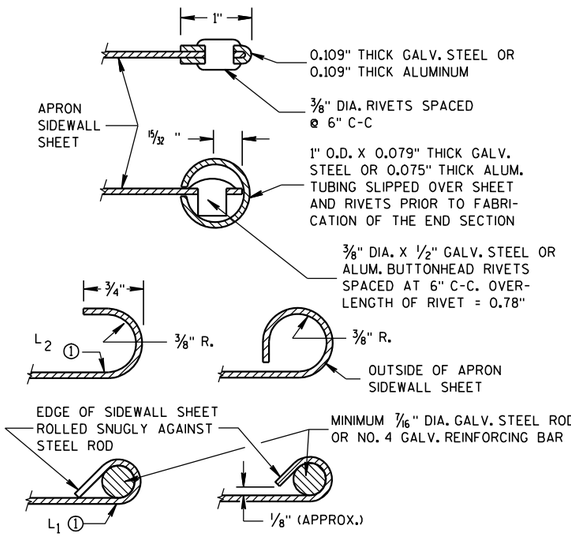
NOTE: DIMPLED BAND FITS OVER OUTSIDE OF ENDWALL. AND CORRUGATED BAND FITS INSIDE ENDWALL. DIMPLED BAND MAY BE USED WITH HELICALLY CORRUGATED PIPE.

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

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

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

CONNECTION DETAILS



SECTION A-A

GENERAL NOTES

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

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

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

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

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

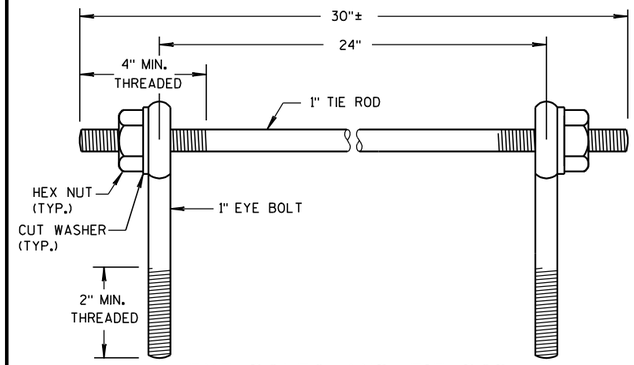
① FOR PIPE SIZES UP TO 60" DIAMETER, A 180° ROLLED EDGE MAY BE USED INSTEAD OF STEEL ROD REINFORCEMENT. SEE SECTION A-A.

APRON ENDWALLS FOR CULVERT PIPE

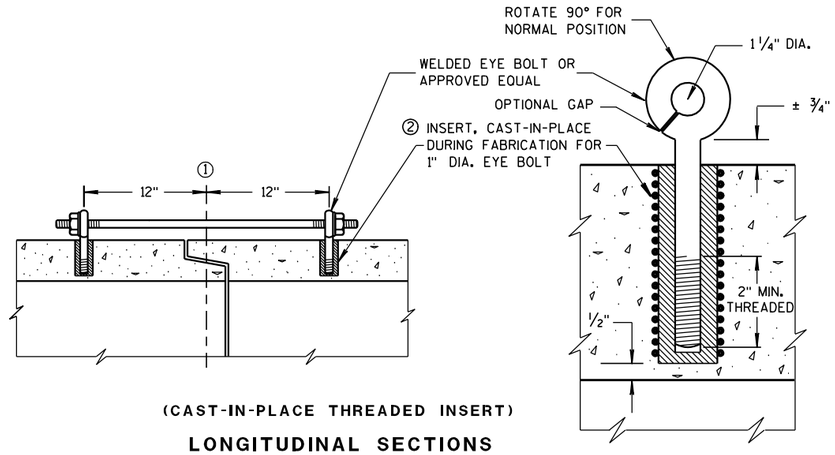
STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

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

6
S.D.D. 8 F 1-11



EYE BOLTS AND TIE ROD



(CAST-IN-PLACE THREADED INSERT)

LONGITUDINAL SECTIONS

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

GENERAL NOTES

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

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

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

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

① ℄ OF TONGUE AND GROOVE OR BELL AND SPIGOT JOINTS.

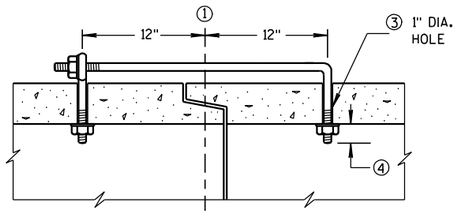
② THE INSIDE OF THE THREADED INSERTS SHALL BE CLEAN TO ALLOW THE INSERTION OF THREADED EYE BOLTS.

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

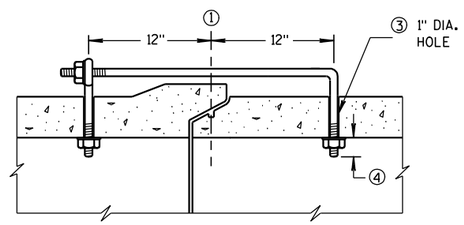
④ BOLT PROJECTION INSIDE OF PIPE SHALL NOT EXCEED 2 INCHES.

⑤ OPENING TO BE ROD DIAMETER PLUS 1 INCH.

⑥ LENGTH ADEQUATE TO EXTEND TO WITHIN 1/2 INCH OF THE INNER SURFACE OF THE PIPE.



(TONGUE & GROOVE PIPE)

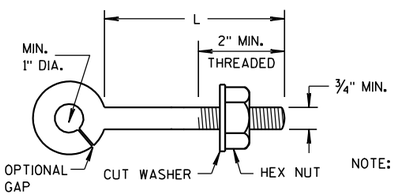


(MODIFIED BELL PIPE)

LONGITUDINAL SECTION

EYE BOLT DIMENSION TABLE

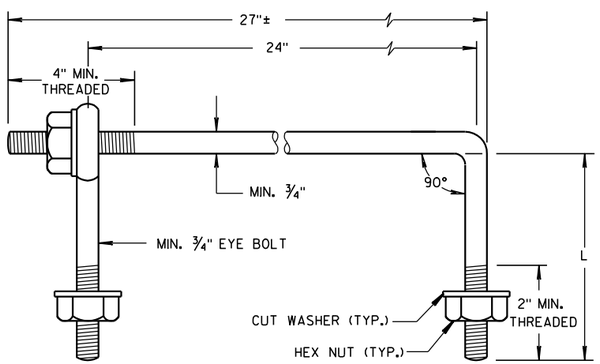
PIPE SIZE	L = LENGTH	
	TONGUE & GROOVE PIPE	MODIFIED BELL PIPE
18" TO 24"	4 1/2"	6 1/4"
30"	5"	7"
36"	5 1/2"	7"
42"	6"	
48"	6 1/2"	
60"	7 1/2"	
66"	8"	



NOTE:

EYE BOLT

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



EYE BOLT AND TIE ROD

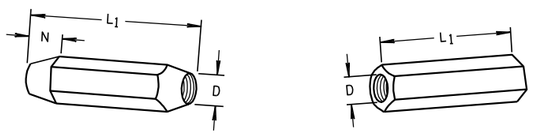
(JOINT TIES FOR 18" TO 66" DIA. CONCRETE PIPE)

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

ADJUSTABLE TIE ROD TABLE

PIPE DIAMETER	TIE ROD DIAMETER	D	L_1	N
12-60	5/8	5/8	5	1/2
66-84	3/4	3/4	5	1/2
90-108	1	1	7	1 1/16

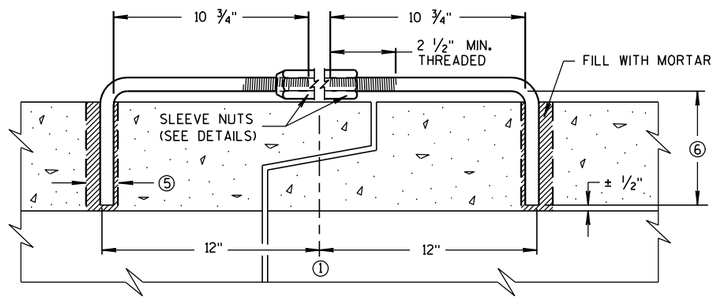
DIMENSIONS SHOWN ARE IN INCHES



TAPERED PLAIN

RIGHT AND LEFT THREADS

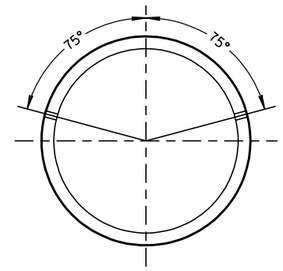
SLEEVE NUTS



LONGITUDINAL SECTION

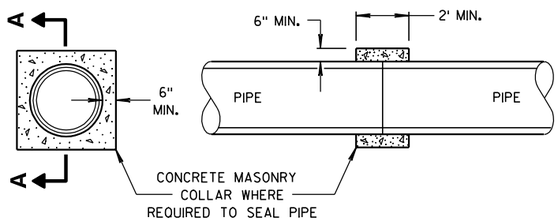
(JOINT TIES FOR 12" TO 108" DIA. CONCRETE PIPE)

ADJUSTABLE TIE ROD (ALTERNATE NO. 3)



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

TRANSVERSE SECTION



SECTION A-A

CONCRETE COLLAR DETAIL

JOINT TIES FOR CONCRETE PIPE AND CONCRETE COLLAR DETAIL

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

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

6

S.D.D. 8 F 4-7

6

S.D.D. 8 F 4-7

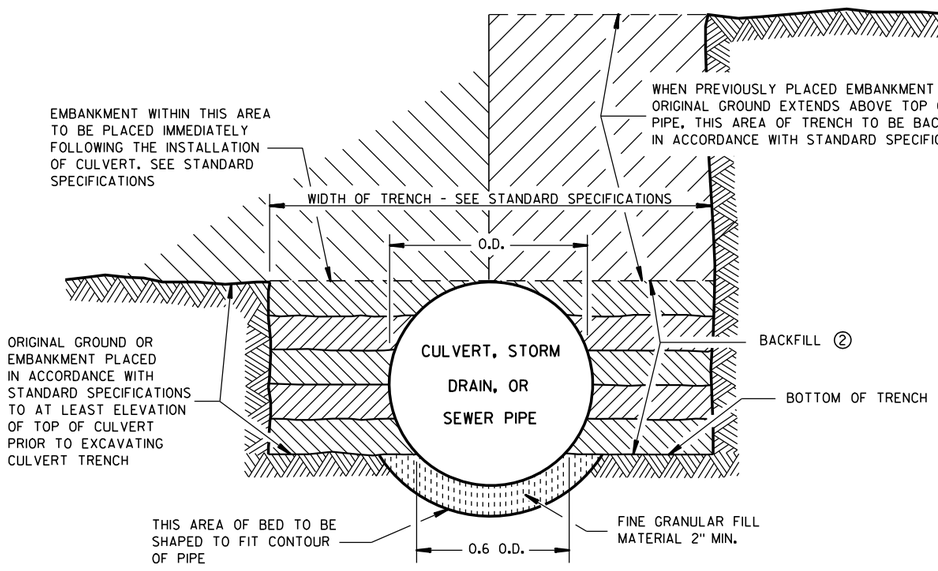
GENERAL NOTES

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

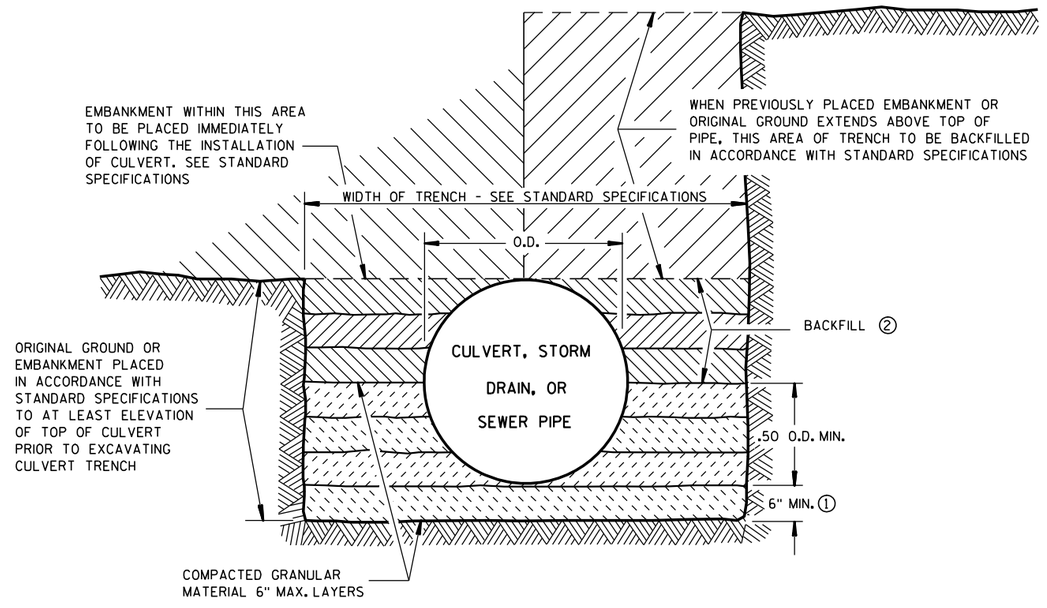
THE SHAPED SUBGRADE WITH GRANULAR FOUNDATION IS AN EQUAL ALTERNATE TO THE GRANULAR FOUNDATION EXCEPT WHERE ROCK IS ENCOUNTERED.

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

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S.D.D. 8 F 5-1

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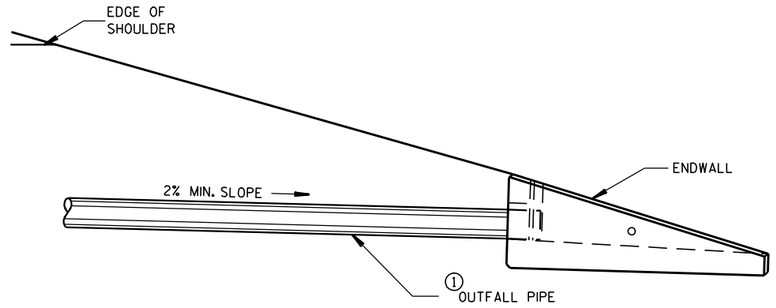
S.D.D. 8 F 5-1

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.

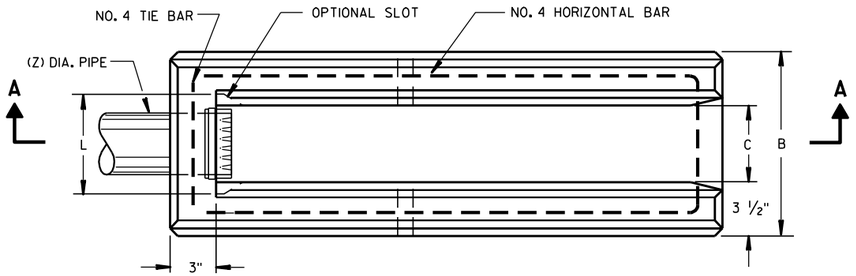
THE UNDERDRAIN PIPE SHALL BE FULLY INSERTED AND SEALED INTO THE ENDWALL WITH CEMENT MORTAR PRIOR TO BACKFILLING AROUND THE STRUCTURE.

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.

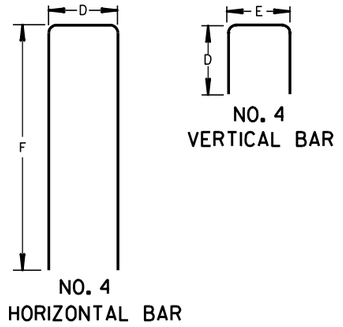
① THE OUTFALL PIPE UNDERDRAIN AND FITTINGS SHALL CONFORM TO THE REQUIREMENTS OF THE SPECIFICATION FOR POLY (VINYL CHORIDE) (PVC) PLASTIC DRAIN, WASTE AND VENT PIPE AND FITTINGS, ASTM DESIGNATION: D 2665, SCHEDULE 40 PVC OR THE STANDARD SPECIFICATION FOR TYPE PSM POLY (VINYL CHORIDE) (PVC) SEWER PIPE 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.

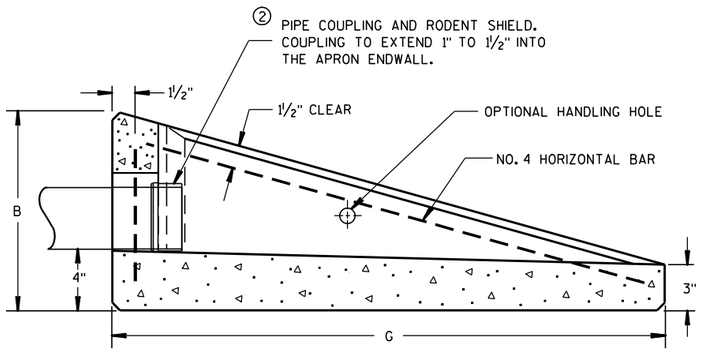
② THE RODENT SHIELD SHALL BE A PVC GRATE SIMILAR TO THIS DETAIL. THE GRATE IS COMMERCIALLY AVAILABLE AS A FLOOR STRAINER. A PIPE COUPLING IS REQUIRED FOR THE ATTACHMENT OF THIS SHIELD TO THE OUTFALL PIPE. THE SHIELD SHALL BE FASTENED TO THE PIPE COUPLING WITH TWO OR MORE NO. 10 X 1-INCH STAINLESS STEEL SHEET METAL SCREWS.



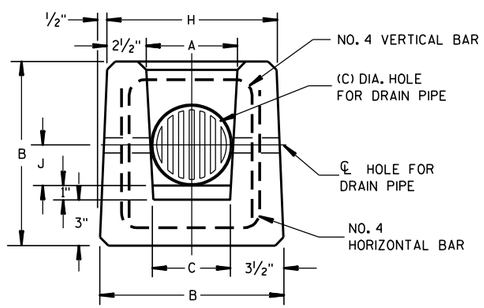
PLAN VIEW



BAR STEEL REINFORCEMENT DETAILS

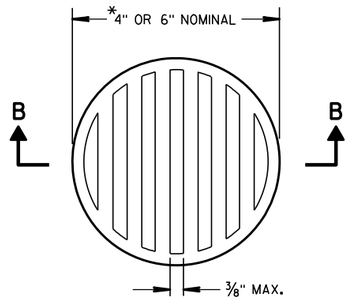


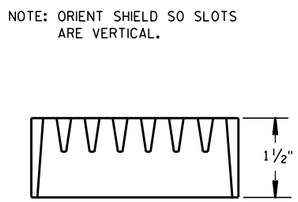
SECTION A-A



END VIEW

CONCRETE APRON ENDWALL FOR UNDERDRAIN





SECTION B-B

② RODENT SHIELD

*NOTE: DIMENSIONS ARE APPROXIMATE. THE GRATE IS SIZED TO FIT INTO A PIPE COUPLING.

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

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S.D.D. 8 F 6-4

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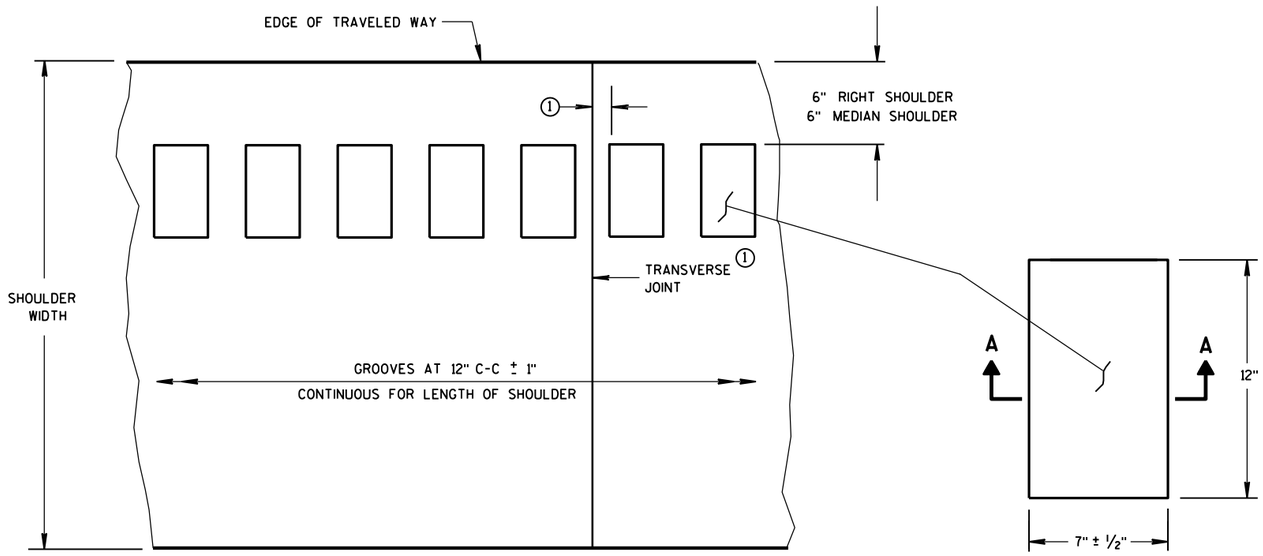
S.D.D. 8 F 6-4



PLAN VIEW
SHOULDER WITH GROOVES

PLAN VIEW
(SINGLE GROOVE)

PLACEMENT DETAIL FOR MILLED RUMBLE STRIP

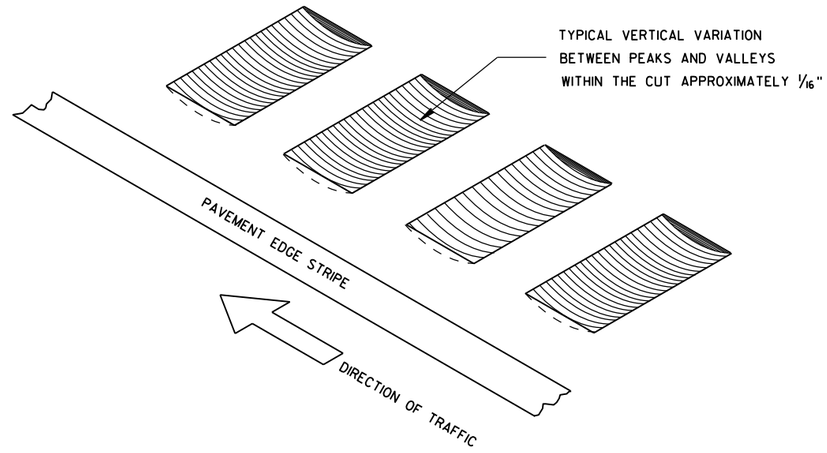
GENERAL NOTES

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

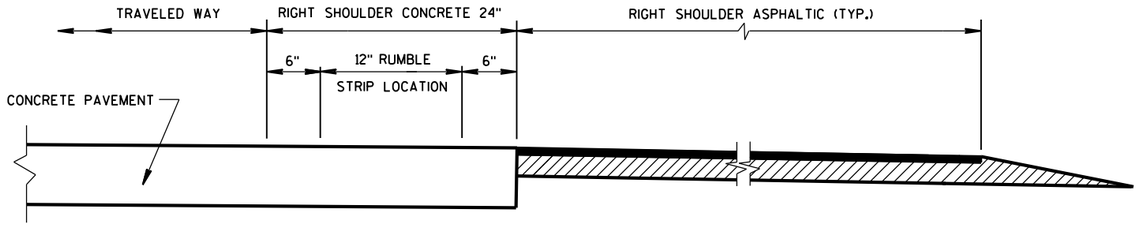
RUMBLE STRIPS ON EXPRESSWAYS

DO NOT INSTALL RUMBLE STRIPS ACROSS SIDE ROAD INTERSECTIONS, COMMERCIAL DRIVEWAYS, PRIVATE DRIVEWAYS OR ADJACENT TO RIGHT TURN LANES, LEFT TURN LANES, TURN LANE TAPERS, BRIDGE DECKS, BRIDGE APPROACHES, OR 100 FEET IN ADVANCE OF RAILROAD CROSSING. THE ATTACHED STANDARD DETAIL DRAWING SHOWS THE LOCATION OF THE RUMBLE STRIPS AT INTERCHANGE AREAS.

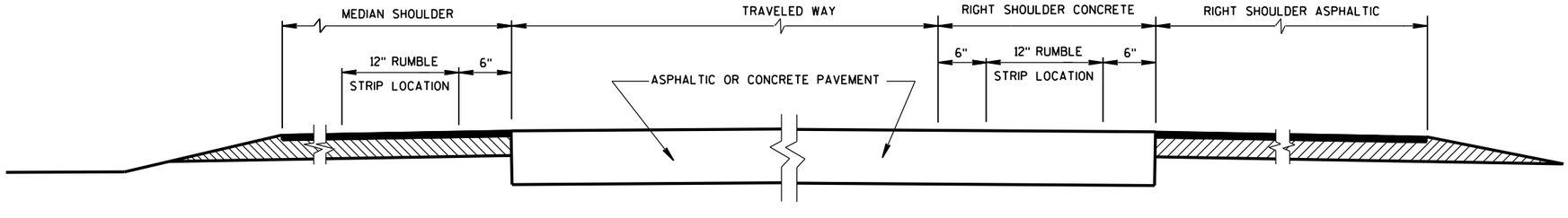
(1) CONCRETE PAVEMENT - RUMBLE STRIPS SHALL BE A MINIMUM OF 6" AWAY FROM TRANSVERSE JOINTS.



ISOMETRIC



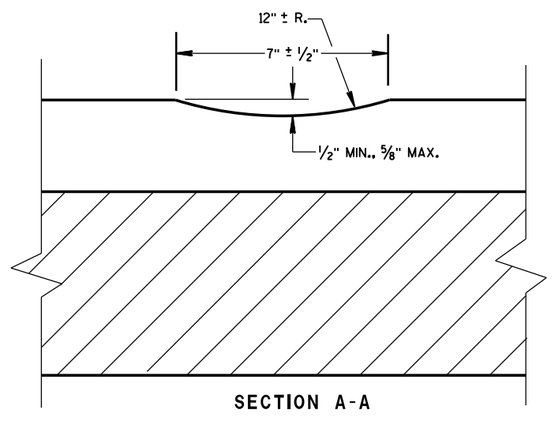
SECTION VIEW
CONCRETE PAVEMENT EXTENDS INTO RIGHT SHOULDER)



SECTION VIEW

TYPICAL LOCATIONS OF SHOULDER RUMBLE STRIPS IN RURAL DIVIDED HIGHWAYS

(ONE ROADWAY IS SHOWN)



SECTION A-A

SHOULDER RUMBLE STRIP, MILLING

STATE OF WISCONSIN
DEPARTMENT OF TRANSPOR

6

S.D.D. 13 A 5-5a

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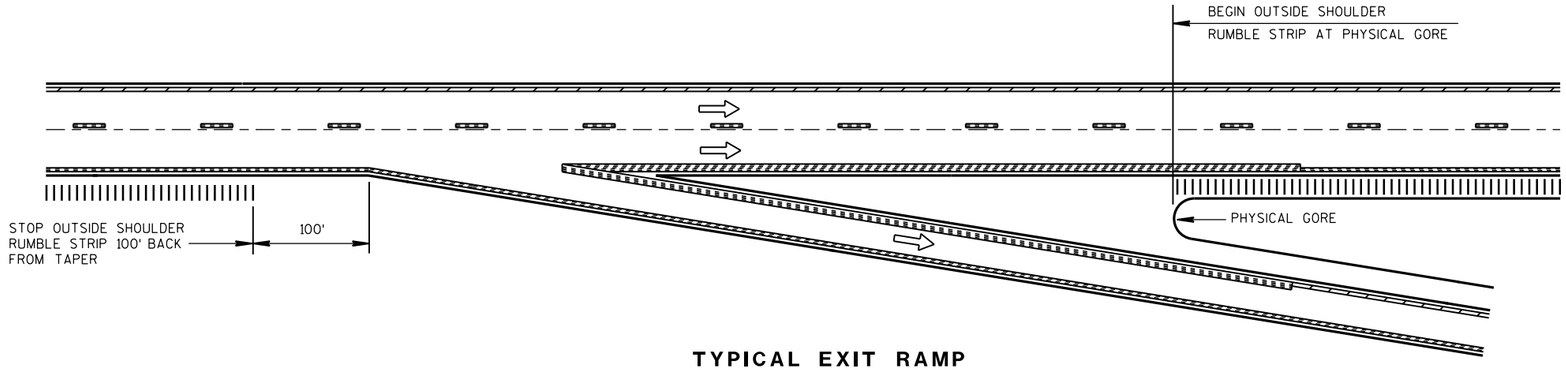
S.D.D. 13 A 5-5a



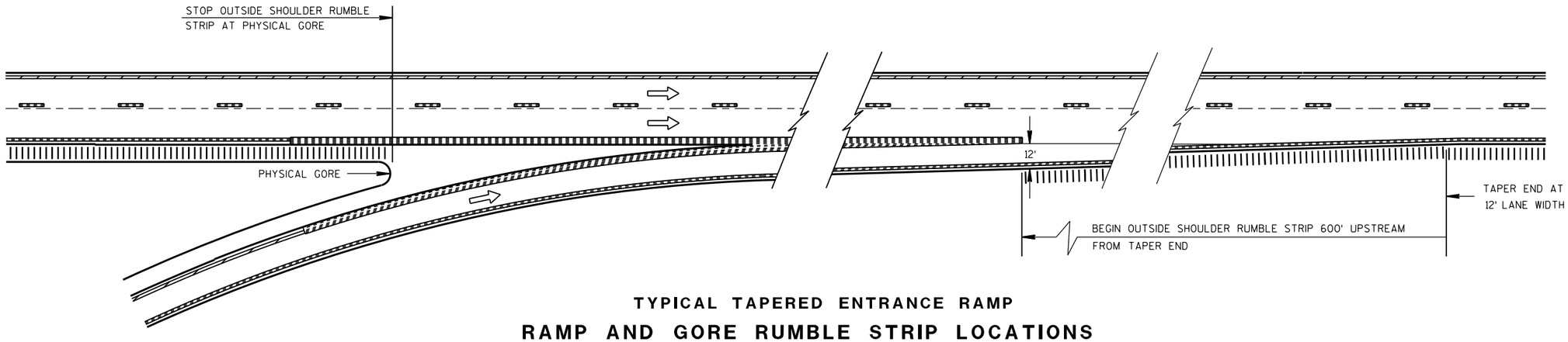
TYPICAL EXIT RAMP

NOTES:

NO RUMBLE STRIP ON EXIT, DIRECTIONAL, OR ENTRANCE RAMPS, EXCEPT NEAR THE ENTRANCE TAPER END AND ALONG THE PARALLEL RAMP AREA AS SHOWN.

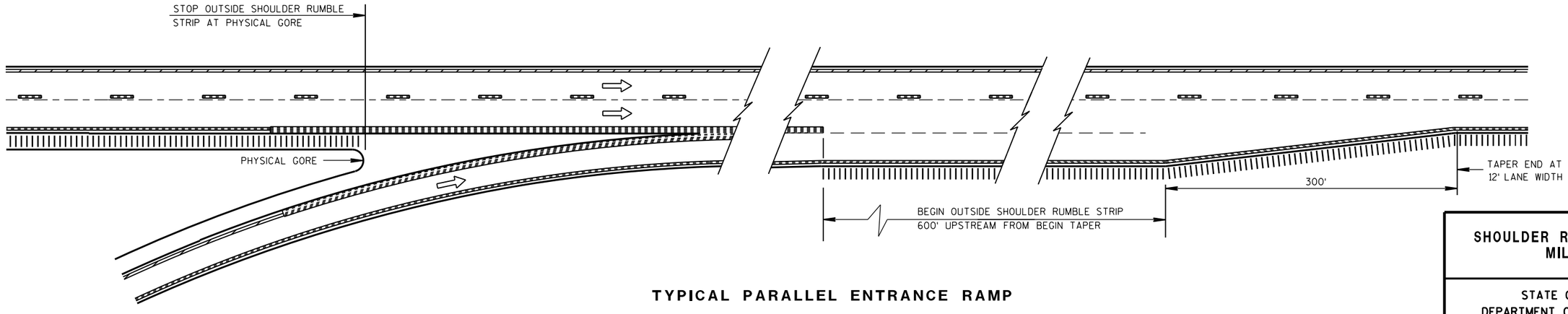
PAVEMENT MARKING DETAILS AND SPECIFICATIONS ARE PROVIDED ELSEWHERE IN THE CONTRACT.

NOTE:
ARROW SYMBOL (⇨)
SHOWS DIRECTION OF TRAVEL



TYPICAL TAPERED ENTRANCE RAMP

RAMP AND GORE RUMBLE STRIP LOCATIONS



TYPICAL PARALLEL ENTRANCE RAMP

RAMP AND GORE RUMBLE STRIP LOCATIONS

SHOULDER RUMBLE STRIP, MILLING

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED

12/17/2012
DATE

/S/ Jerry H. Zoga
ROADWAY STANDARDS ENGINEER

FHWA

6

S.D.D. 13 A 5-5b

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S.D.D. 13 A 5-5b

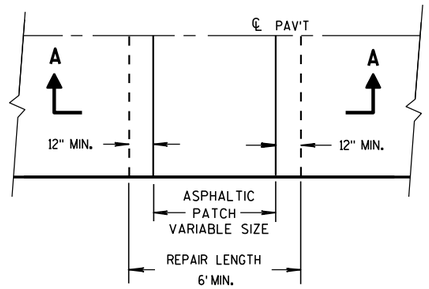
GENERAL NOTES

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

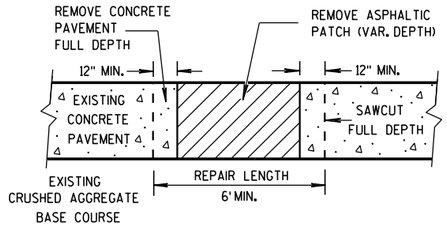
PROVIDE 6-FOOT MINIMUM DISTANCE FROM BOUNDARIES OF CONCRETE REPAIR AREAS TO ADJACENT TRANSVERSE JOINT OR CRACK IN THE SAME LANE.

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

(1) DOWEL BARS MIGHT NOT EXIST.

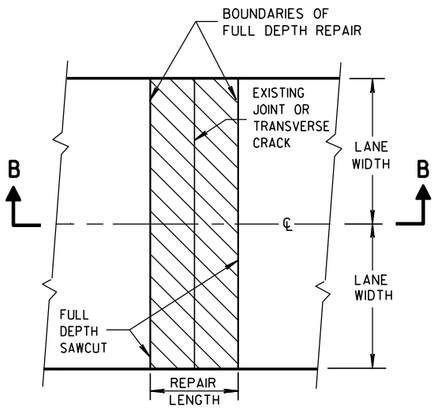


PLAN VIEW

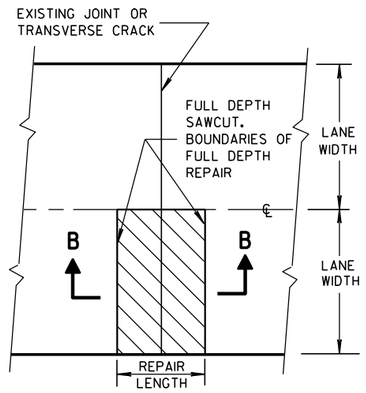


SECTION A-A

HMA PATCH REMOVAL



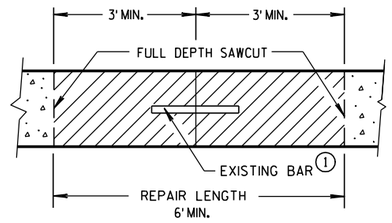
PLAN VIEW
(DOUBLE LANE REPAIR)



PLAN VIEW
(SINGLE LANE REPAIR)

FULL DEPTH CONCRETE PAVEMENT REMOVAL

(SEE NOTE)



SECTION B-B

CONCRETE REMOVAL

6

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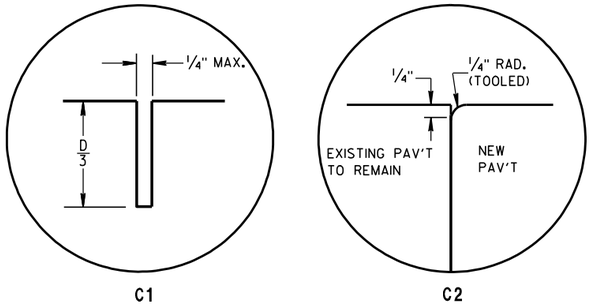
S.D.D. 13 C 9-9a

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

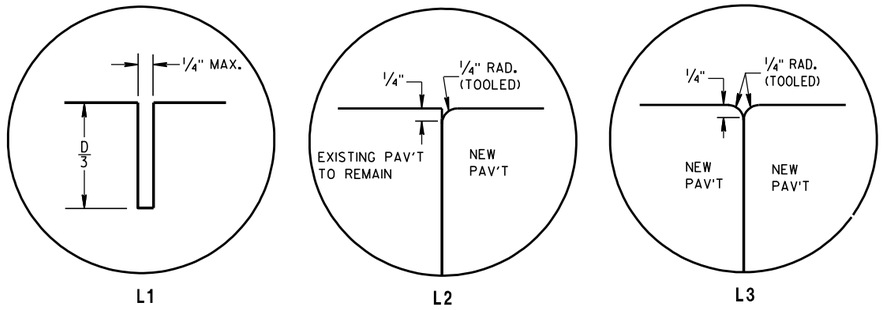
CONCRETE PAVEMENT REPAIR AND REPLACEMENT

STATE OF WISCONSIN
DEPARTMENT OF TRANSPO...



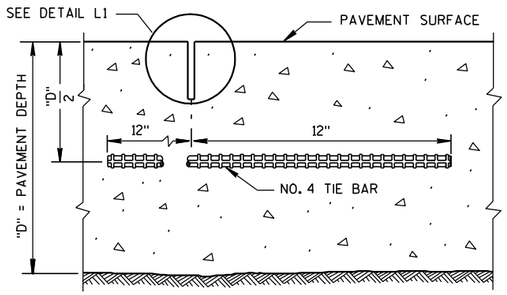
C1 C2

TRANSVERSE JOINTS



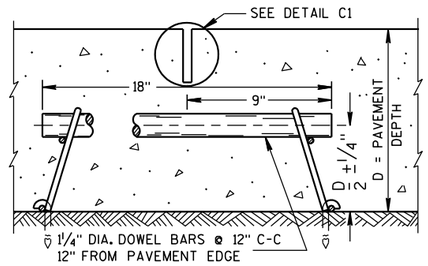
L1 L2 L3

LONGITUDINAL JOINTS



SECTION C-C

SAWED LONGITUDINAL JOINT



SECTION F-F

CONTRACTION JOINT

GENERAL NOTES

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

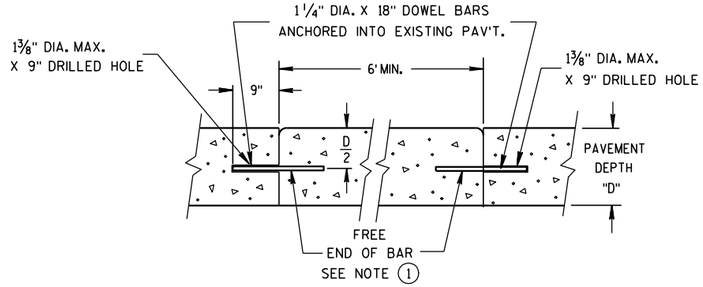
CONCRETE PAVEMENT REPAIRS OF EXISTING NONDOWELED CONCRETE PAVEMENTS DO NOT NEED TO BE DOWELED.

DO NOT SEAL OR FILL JOINTS.

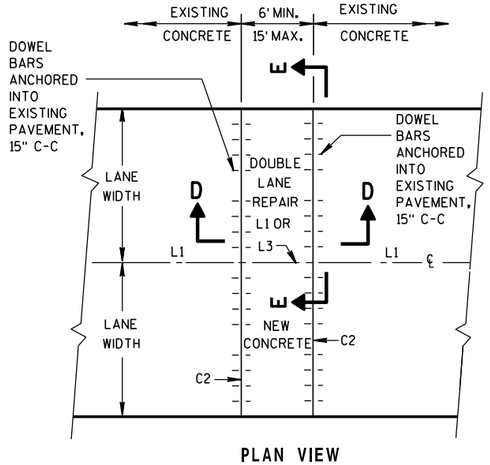
ANCHOR DOWEL BARS AND TIE BARS INTO DRILLED HOLES WITH AN EPOXY.

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

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

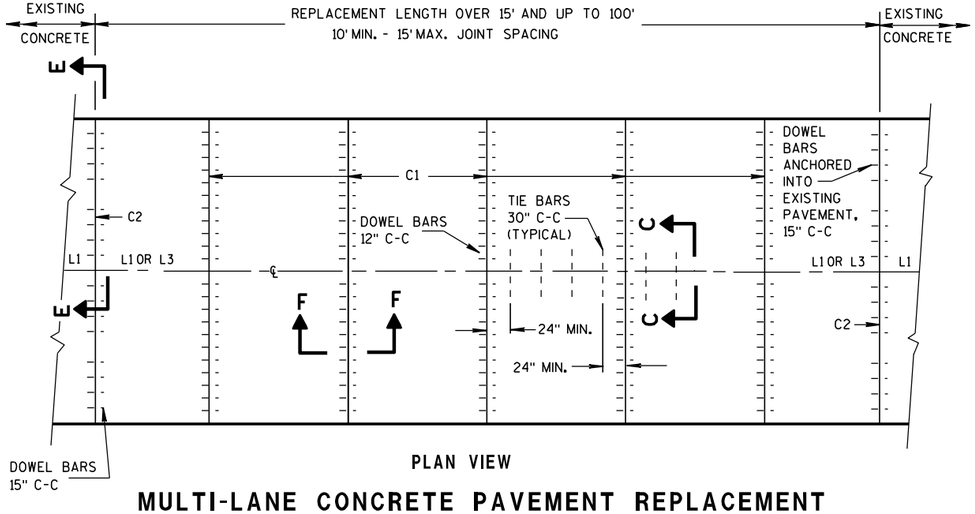


SECTION D-D



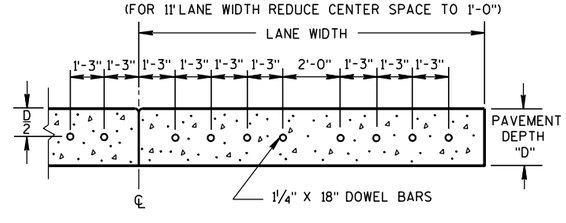
PLAN VIEW

MULTI-LANE CONCRETE PAVEMENT REPAIR



PLAN VIEW

MULTI-LANE CONCRETE PAVEMENT REPLACEMENT



SECTION E-E

SPACING OF DOWEL BARS ANCHORED INTO EXISTING PAVEMENT

CONCRETE PAVEMENT REPAIR AND REPLACEMENT

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

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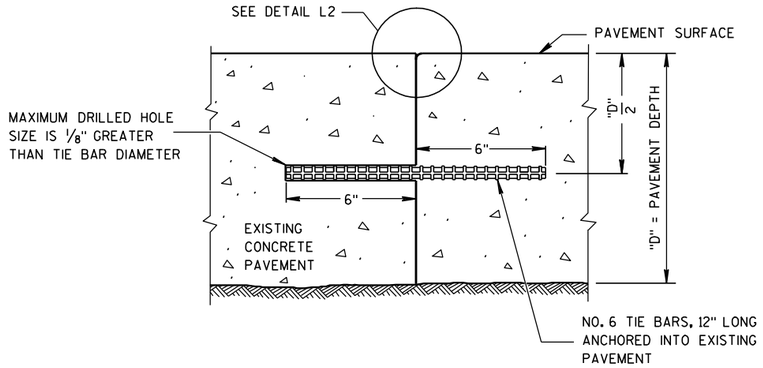
S.D.D. 13 C 9-9b



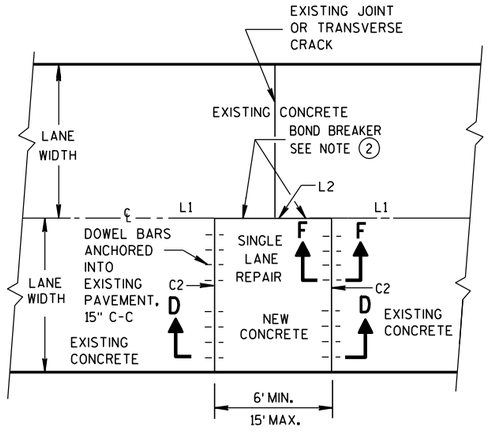
SECTION G-G

TIE BARS ANCHORED INTO EXISTING PAVEMENT

GENERAL NOTES

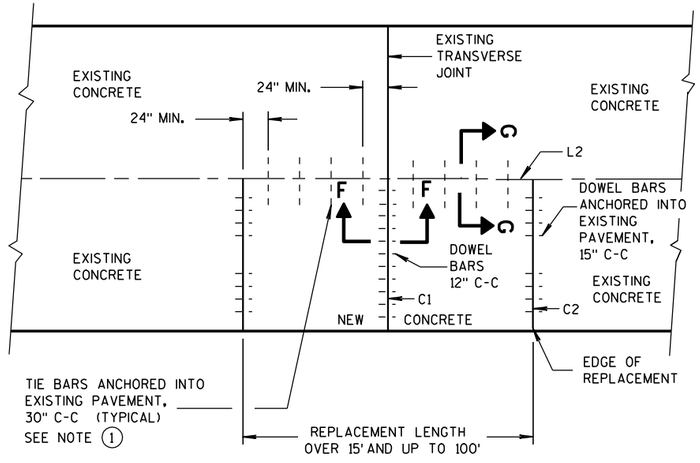
(1) WITH THE APPROVAL OF THE ENGINEER, FOR SINGLE LANE PAVEMENT REPLACEMENTS LESS THAN 30 FEET IN LENGTH, THE CONTRACTOR MAY INSTALL DRILLED TIE BARS ON 6:1 SKEW HORIZONTALLY, DIRECTION OF SKEW ALTERNATING WITH EACH SUCCESSIVE BAR. DRIVE SKEWED TIE BARS TO A DEPTH OF 6 INCHES AND TO SUCH A DIAMETER AS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

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



PLAN VIEW

SINGLE LANE CONCRETE PAVEMENT REPAIR



PLAN VIEW

SINGLE LANE CONCRETE PAVEMENT REPLACEMENT

CONCRETE PAVEMENT REPAIR AND REPLACEMENT

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED

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

FHWA

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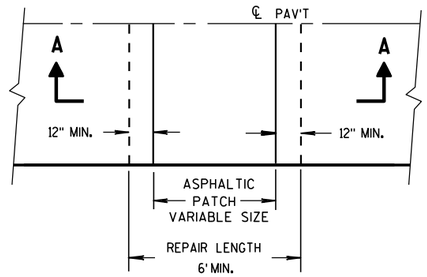
GENERAL NOTES

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

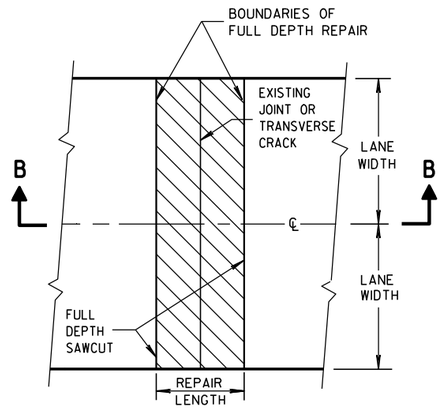
PROVIDE 6-FOOT MINIMUM DISTANCE FROM BOUNDARIES OF CONCRETE REPAIR AREAS TO ADJACENT TRANSVERSE JOINT OR CRACK.

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

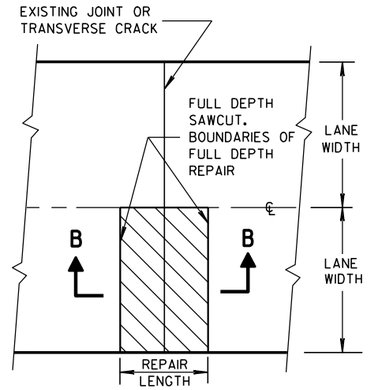
(1) DOWEL BARS MIGHT NOT EXIST.



PLAN VIEW



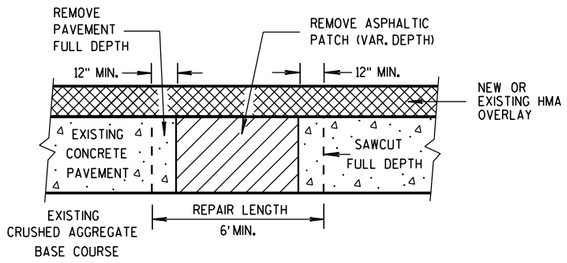
PLAN VIEW
(DOUBLE LANE REPAIR)



PLAN VIEW
(SINGLE LANE REPAIR)

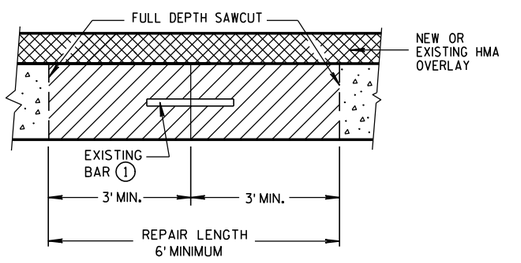
FULL DEPTH CONCRETE PAVEMENT REMOVAL

(SEE NOTE)



SECTION A-A

HMA PATCH REMOVAL



SECTION B-B

CONCRETE REMOVAL

BASE PATCHING CONCRETE

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

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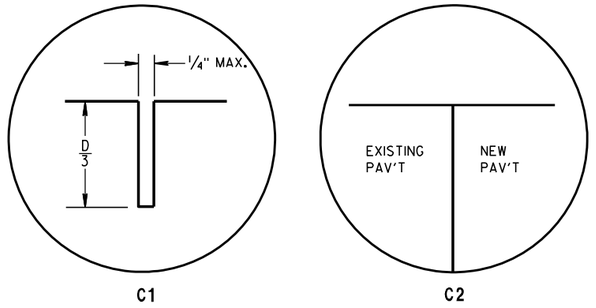
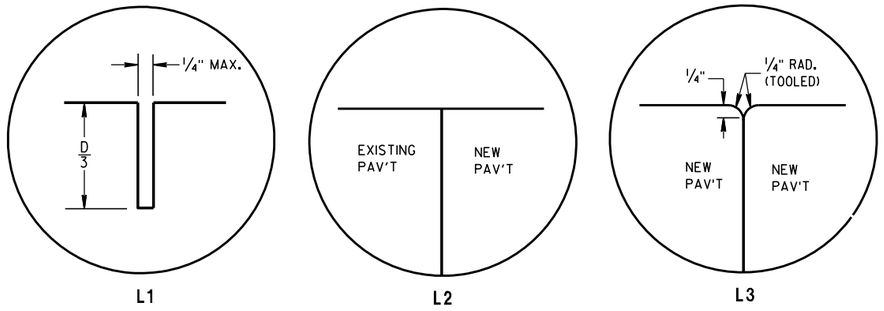
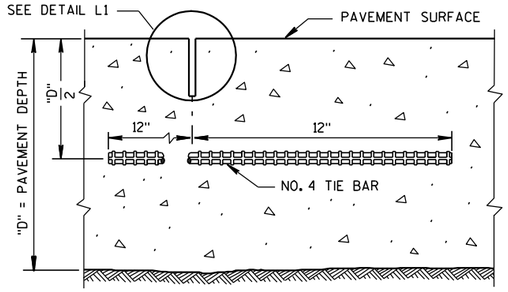


TRANSVERSE JOINTS

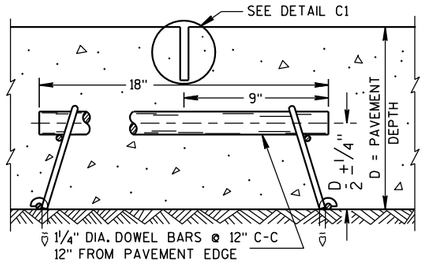


LONGITUDINAL JOINTS



SECTION C-C

SAWED LONGITUDINAL JOINT



SECTION F-F

CONTRACTION JOINT

GENERAL NOTES

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

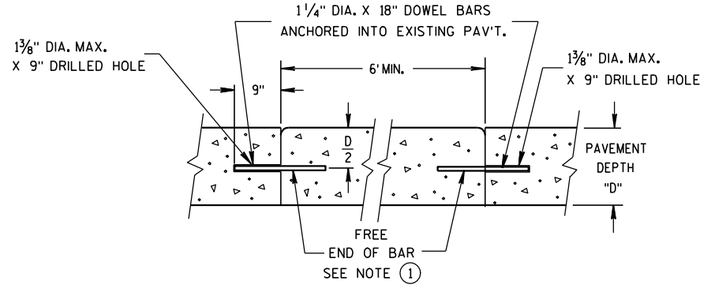
CONCRETE BASE PATCHES OF EXISTING NONDOWELED CONCRETE PAVEMENTS DO NOT NEED TO BE DOWELED.

DO NOT SEAL OR FILL JOINTS.

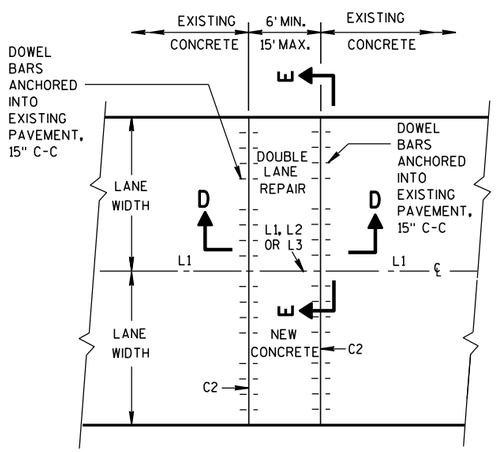
ANCHOR DOWEL BARS AND TIE BARS INTO DRILLED HOLES WITH AN EPOXY.

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

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

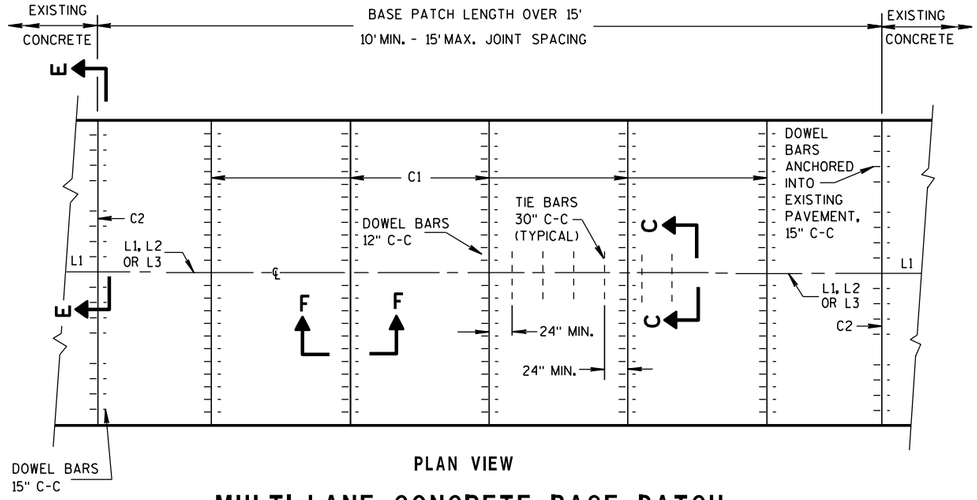


SECTION D-D



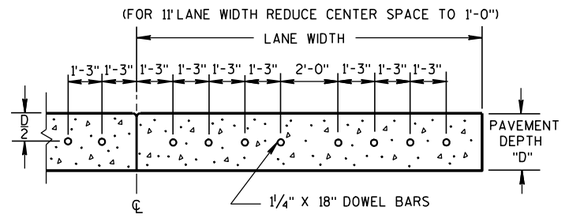
PLAN VIEW

MULTI-LANE CONCRETE BASE PATCH 15' MAXIMUM LENGTH



PLAN VIEW

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



SECTION E-E

SPACING OF DOWEL BARS ANCHORED INTO EXISTING PAVEMENT

BASE PATCHING CONCRETE

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

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S.D.D. 13 C 14-4b

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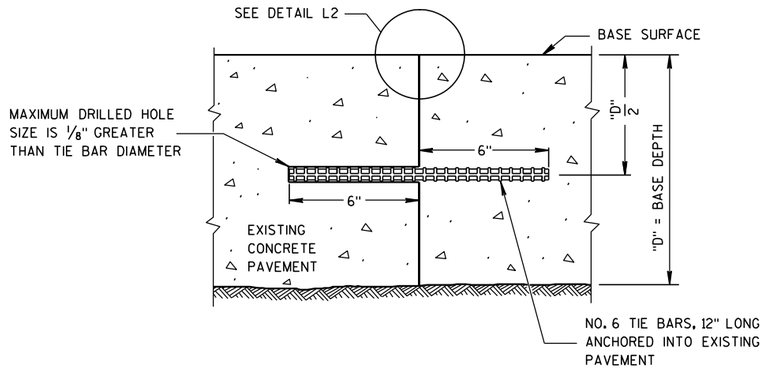


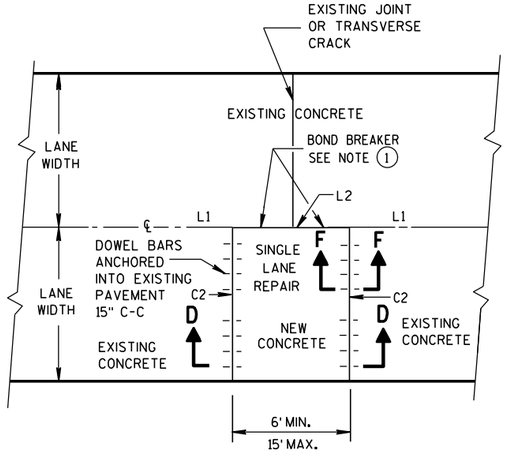
SECTION G-G

TIE BARS ANCHORED INTO EXISTING PAVEMENT

GENERAL NOTES

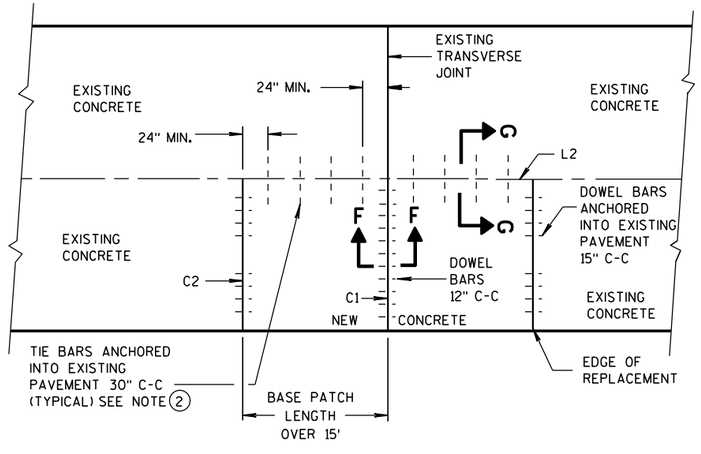
1. USE AN ENGINEER-APPROVED BOND BREAKER FOR SINGLE LANE BASE PATCHES UP TO 15 FEET IN LENGTH.

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



PLAN VIEW

SINGLE LANE CONCRETE BASE PATCH 15' MAXIMUM LENGTH



PLAN VIEW

SINGLE LANE CONCRETE BASE PATCH GREATER THAN 15' IN LENGTH

BASE PATCHING CONCRETE

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED

12-11-2009 DATE

/S/ Deb Bischoff
PAVEMENT POLICY & DE NEER

FHWA

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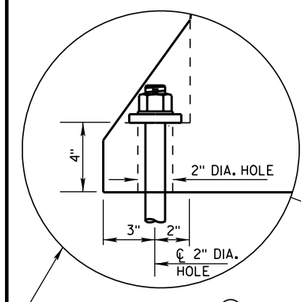
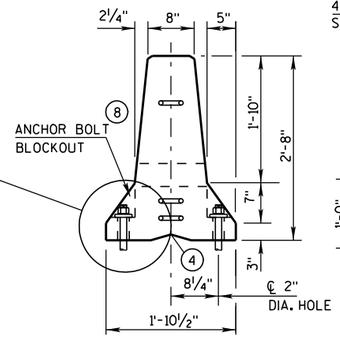
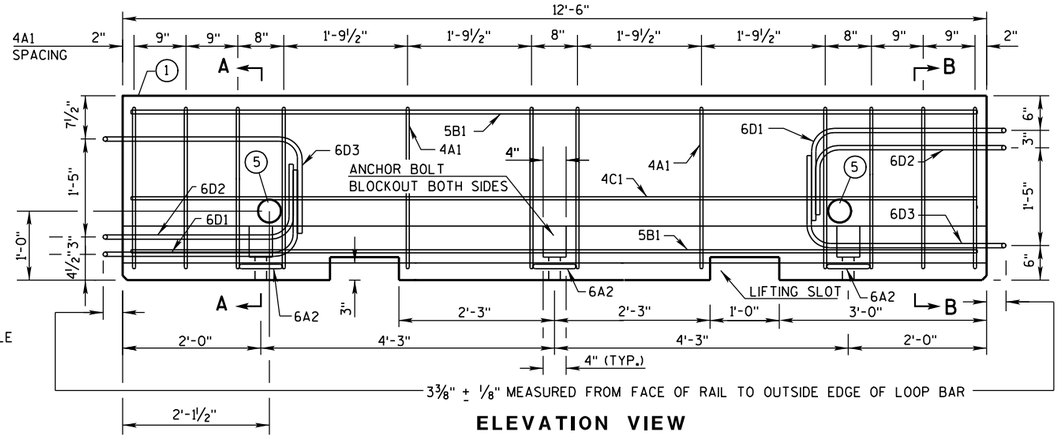


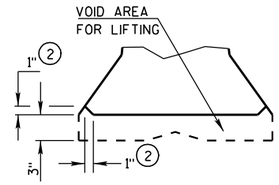
ANCHOR ON TRAFFIC SIDE (8) ONLY WHEN REQUIRED (SEE SHEET D FOR ADDITIONAL ANCHOR DETAIL)



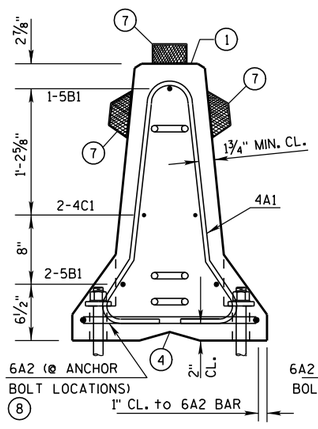
END VIEW



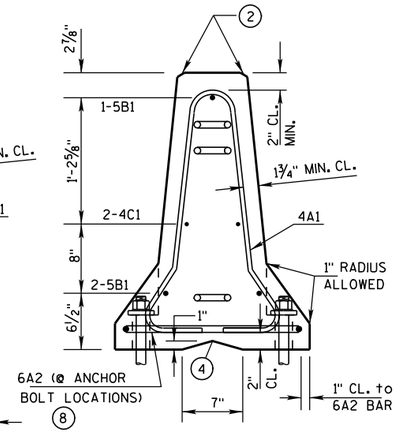
ELEVATION VIEW



DETAIL "B"
LIFTING SLOT DETAIL



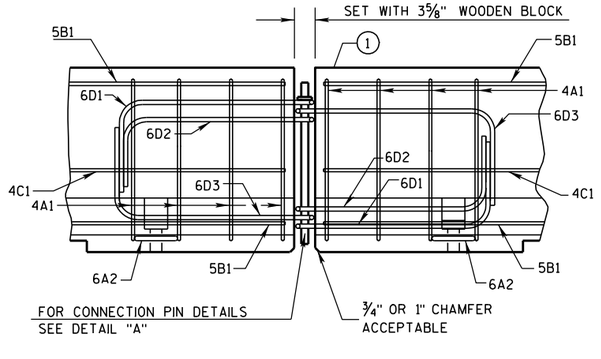
SECTION A-A
(STIRRUP PLACEMENT)



SECTION B-B
(STIRRUP PLACEMENT)

PLAN VIEW

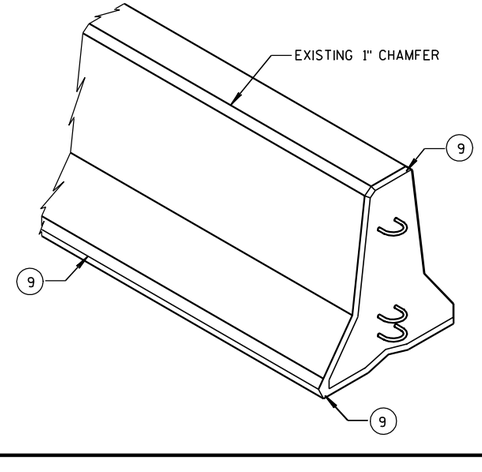
DETAILS OF BARRIER SECTION



DETAILS OF BARRIER CONNECTION

1/2" TOP PLATE DETAIL

DETAIL "A"
CONNECTION PIN
(A36 STEEL (10.9 LB EACH))



GENERAL NOTES

THESE GENERAL NOTES APPLY TO SHEETS 14B7-13(a) THRU 14B7-13(h).

DO NOT INTERMIX CONCRETE BARRIER TEMPORARY PRCAST, 12'-6" (CBTP12.5) WITH OTHER TEMPORARY CONCRETE BARRIERS.

USE ASTM A-615, GRADE 60, DEFORMED STEEL BARS FOR BARS 4A1, 6A2, 5B1 AND 4C1 IN THE BARRIER SECTION AND FOR 4V1, 4V2, 4V3, 4V4, 4V5, 4V6, 4F1, 4F2 AND 5F3 IN THE BARRIER TAPER SECTION.

LOOP BARS 6D1, 6D2 AND 6D3 SHALL BE ¾" SMOOTH STEEL BARS WITH A MINIMUM YIELD STRENGTH OF 60 KSI, A TENSILE STRENGTH OF NOT LESS THAN 1.25 TIMES THE YIELD STRENGTH BUT A MINIMUM OF 80 KSI, A MINIMUM 14% ELONGATION IN 8 INCHES AND PASSING A 180 DEGREE BEND TEST USING A 3-½" PIN BEND DIAMETER FOR BEND TESTS. THE LOOPS SHALL BE INSTALLED WITHIN ⅛" OF THE PLAN DIMENSION.

CONSTRUCT LIFTING SLOTS AS SPECIFIED ON THE PLANS TO FACILITATE THE DRAINAGE OF WATER AFTER INSTALLATION.

PLACE BARRIER ON A PAVED SURFACE. REMOVE ALL LOOSE DIRT AND SAND FROM THE ROADWAY SURFACE PRIOR TO PLACEMENT OF THE BARRIER.

INSTALL MECHANICAL OR EPOXY ANCHORS PER MANUFACTURER'S RECOMMENDATIONS. PROVIDE MANUFACTURER'S INFORMATION TO PROJECT ENGINEER.

(1) MARK ONE END OF EACH BARRIER PERMANENTLY BY FORMING INTO THE BARRIER THE FOLLOWING INFORMATION:
- a. TYPE: WICBTP
- b. MANUFACTURER
- c. DATE MANUFACTURED (MONTH AND YEAR)

(2) 1" CHAMFER TO PREVENT SPALLING.

(3) A ⅜" HOLE IN THE CONNECTION PIN, AT THE LOCATION SHOWN, IS ACCEPTABLE, BUT NOT REQUIRED..

(4) "V" NOTCH IS OPTIONAL.

(5) THE 4" DIAMETER, 11 GAUGE STEEL, ROUND MECHANICAL TUBING SLEEVE FOR LIFTING (OPTIONAL).

(6) NEVER USE LOOP BARS (6D1, 6D2 OR 6D3) TO LIFT, MOVE OR REPOSITION THE BARRIER.

(7) USE DELINEATORS CONFORMING TO SECTION 633 OF THE STANDARD SPECIFICATIONS. CONTRACTOR MAY USE ALTERNATE SHAPES AND HOUSING. INSTALL DELINEATORS ACCORDING TO MANUFACTURES INSTRUCTION. INSTALL YELLOW REFLECTORS WHEN BARRIER IS LOCATED TO THE LEFT OF TRAFFIC AND WHITE REFLECTORS WHEN BARRIER IS LOCATED TO THE RIGHT OF TRAFFIC. SPACE DELINEATORS A MAXIMUM OF 25 FEET APART. PROVIDE TOP MOUNTED DELINEATORS IN ADDITION TO THE SIDE MOUNTED DELINEATORS ON ALL BARRIER INSTALLATIONS LOCATED ON A CURVED ALIGNMENT LONGER THAN 200 FEET AND ON BARRIERS USED TO SEPARATE OPPOSING TRAFFIC.

(8) SEE SHEET D FOR ANCHORING CRITERIA.

(9) 1" CHAMFER OPTIONAL.

CONCRETE BARRIER TEMPORARY PRECAST, 12'-6"

STATE OF WISCONSIN
DEPARTMENT OF TRANSPO.....

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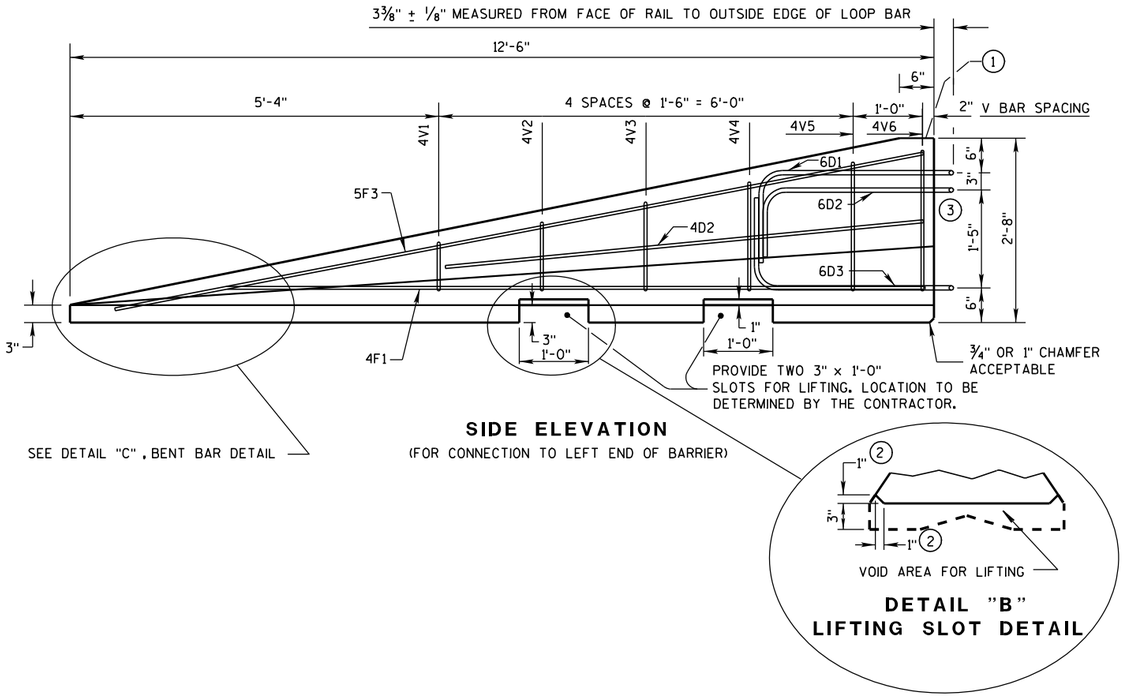
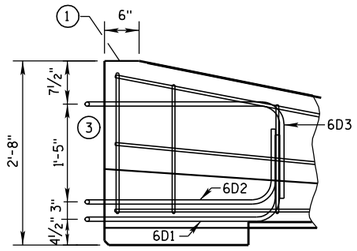


SIDE ELEVATION
(FOR CONNECTION TO LEFT END OF BARRIER)

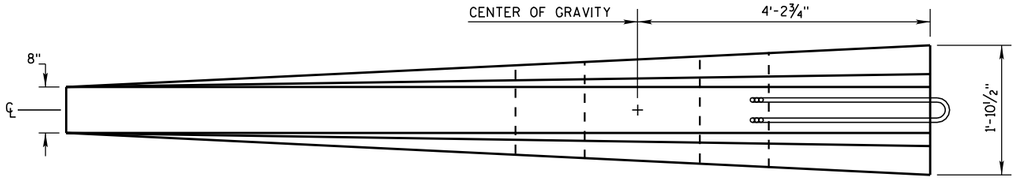
DETAIL "B"
LIFTING SLOT DETAIL



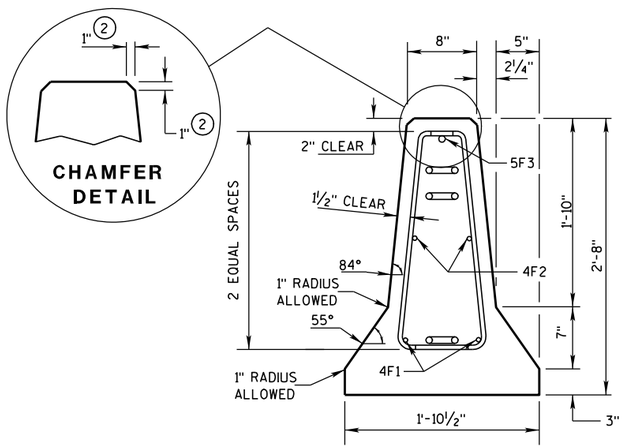
SIDE ELEVATION
LOOP BAR ASSEMBLY INVERTED
FOR OPPOSITE END.
(FOR CONNECTION TO RIGHT END OF BARRIER)

GENERAL NOTES

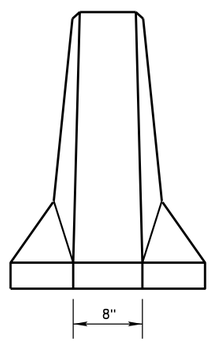
1. MARK ONE END OF EACH BARRIER PERMANENTLY BY FORMING INTO THE BARRIER THE FOLLOWING INFORMATION:
   a. TYPE WICBTP
   b. MANUFACTURER
   c. DATE MANUFACTURED (MONTH AND YEAR)
2. 1" CHAMFER TO PREVENT SPALLING.
3. NEVER USE LOOP BARS (6D1, 6D2 OR 6D3) TO LIFT, MOVE OR REPOSITION THE BARRIER.



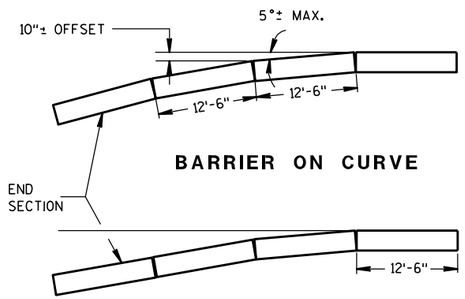
PLAN VIEW



END SECTION



FRONT ELEVATION



BARRIER ON CURVE

FLARE AT BARRIER END

POSTED SPEED, (MPH)	FLARE RATE
40 OR LESS	6:1
45 OR GREATER	8:1

DETAILS OF BARRIER TAPER SECTION

CONCRETE BARRIER
TEMPORARY PRECAST, 12'-6"

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

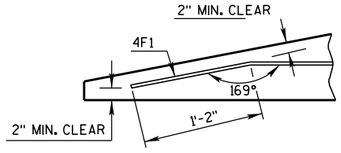
6

S.D.D. 14 B 7-13b

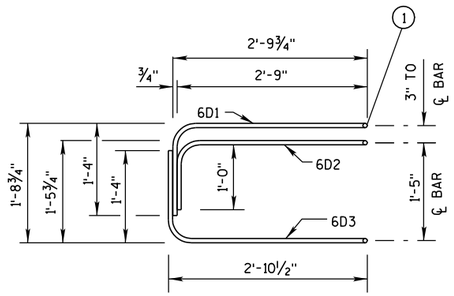
BARRIER TAPER SECTION BILL OF MATERIALS

(PER 12'-6" BARRIER TAPER SECTION)

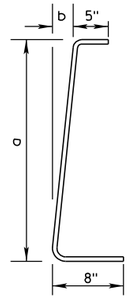
BAR	BAR SIZE	NO. OF BARS	LENGTH FT.
4V1	4	2	1'-11"
4V2	4	2	2'-2"
4V3	4	2	2'-6"
4V4	4	2	2'-9"
4V5	4	2	3'-2"
4V6	4	2	3'-4"
4F1	4	2	12'-0"
4F2	4	2	7'-6"
5F3	5	1	11'-9"
LOOP ASSEMBLY			
6D1	6	1	8'-5"
6D2	6	1	7'-7"
6D3	6	1	8'-6"



DETAIL "C"
BENT BAR DETAIL



ELEVATION
LOOP BAR ASSEMBLY



BAR	a	b
V1	10"	1"
V2	1'-1"	1¼"
V3	1'-5"	1⅝"
V4	1'-8"	1⅞"
V5	2'-0½"	2⅜"
V6	2'-3"	2¾"

4V BARS
2 AT EACH SIZE REQUIRED
FOR STIRRUP ASSEMBLY

TAPER BARRIER SECTION

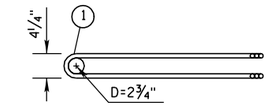
GENERAL NOTES

(1) NEVER USE LOOP BARS (6D1, 6D2 OR 6D3) TO LIFT, MOVE OR REPOSITION THE BARRIER.

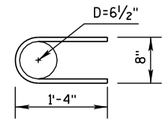
BARRIER SECTION BILL OF MATERIALS

(PER 12'-6" BARRIER SECTION)

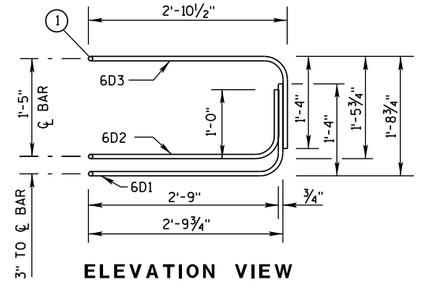
BAR	BAR SIZE	NO. OF BARS	LENGTH FT.
4A1	4	12	6'-0"
6A2	6	6	2'-11"
5B1	5	3	12'-2"
4C1	4	2	12'-2"
LOOP ASSEMBLY			
6D1	6	2	8'-5"
6D2	6	2	7'-7"
6D3	6	2	8'-6"



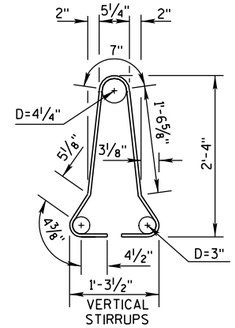
PLAN VIEW
LOOP BAR ASSEMBLY
(MARKED END SHOWN, INVERT FOR OTHER END)



6A2



ELEVATION VIEW



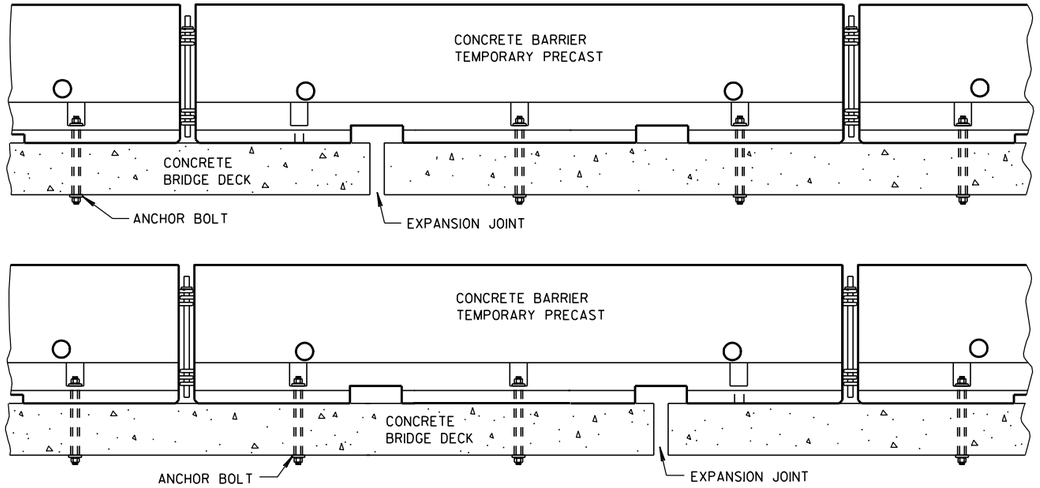
4A1

BARRIER SECTION

CONCRETE BARRIER
TEMPORARY PRECAST, 12'-6"

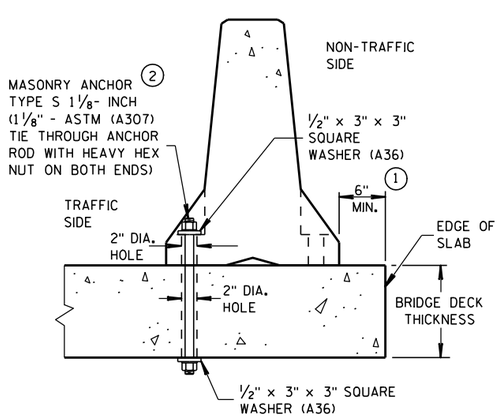
STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

6
S.D.D. 14 B 7-13c



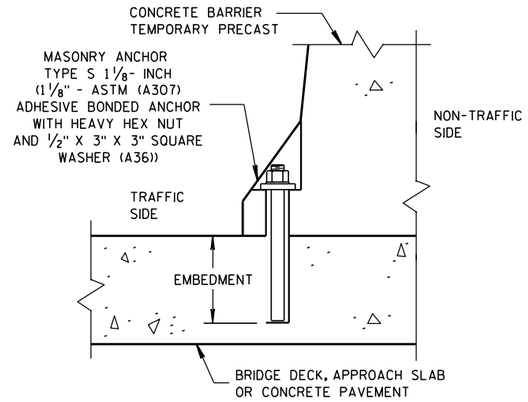
TREATMENT AT BRIDGE DECK EXPANSION JOINTS

(NO SINGLE CONCRETE BARRIER SECTION SHALL BE ANCHORED TO BOTH THE BRIDGE DECK AND THE APPROACH SLAB. ALL ANCHOR BOLT LOCATIONS SHALL BE ANCHORED TO THE DECK IN ACCORDANCE WITH THE DETAIL. NO MORE THAN ONE ANCHOR BOLT SHALL BE ELIMINATED FROM A BARRIER SECTION WHEN SPANNING AN EXPANSION JOINT.)



THROUGH BOLTED ANCHOR INSTALLATION ON BRIDGE DECK

(DO NOTUSE ON CONCRETE BRIDGE DECK WITH ASPHALT OVERLAY)



REMOVABLE ADHESIVE BONDED ANCHOR INSTALLATION ON CONCRETE BRIDGE DECK, CONCRETE APPROACH SLAB, OR CONCRETE PAVEMENT

2

(DO NOT USE ON CONCRETE WITH AN ASPHALTIC OVERLAY)

GENERAL NOTES

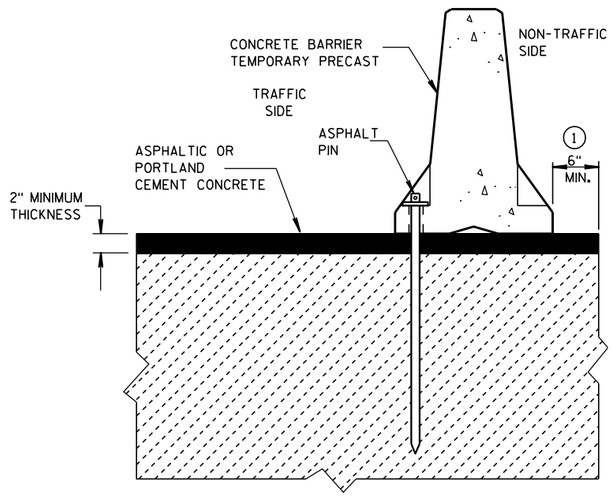
1. CONCRETE BARRIER TEMPORARY PRECAST, 12'-6" SHALL BE ANCHORED IF:
   THE DISTANCE TO A 2 FOOT OR GREATER DROPOFF THAT IS STEEPER THAN 3H : 1V, FOR EXAMPLE THE EDGE OF A BRIDGE DECK OR A DROPOFF AT THE EDGE OF PAVEMENT, IS LESS THAN 4 FEET FROM THE SIDE OF THE BARRIER CLOSEST TO THE DROPOFF AND THE POSTED SPEED IS 45 MPH OR GREATER, OR

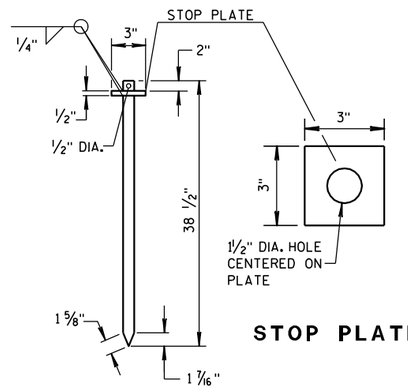
   THE DISTANCE TO A 2 FOOT OR GREATER DROPOFF THAT IS STEEPER THAN 3H : 1V, FOR EXAMPLE THE EDGE OF A BRIDGE DECK OR A DROPOFF AT THE EDGE OF PAVEMENT. IS LESS THAN 2 FEET FROM THE SIDE OF THE BARRIER CLOSEST TO THE DROPOFF AND THE POSTED SPEED IS 40 MPH OR LESS.

2. ANCHORING IS INCIDENTAL TO CONCRETE BARRIER TEMPORARY PRECAST.

   WITH THE APPROVAL OF THE ENGINEER, REMOVABLE ADHESIVE BONDED (EPOXY) ANCHOR BOLT INSTALLATION MAY BE USED IN LIEU OF THROUGH BOLTED ANCHOR INSTALLATION. THE ADHESIVE BONDED ANCHOR BOLT MUST BE REMOVABLE. USE ASTM (A307) MASONRY ANCHORS TYPE S 1⅛-INCH, EMBEDDED TO A DEPTH SUFFICIENT TO DEVELOP THE ULTIMATE CAPACITY OF THE ANCHOR BOLT AND PROVIDE DOCUMENTATION TO CONFIRM THIS.

   UPON REMOVAL OR RELOCATION OF THE BARRIER UNITS, REMOVE ALLANCHOR BOLTS AND COMPLETELY FILL IN THE REMAINING HOLES IN CONCRETE BRIDGE DECKS, CONCRETE APPROACH SLABS AND CONCRETE PAVEMENTS THAT ARE TO REMAIN, WITH A NON-SHRINK COMMERICAL GROUT OR EPOXY MATERIAL IDENTIFIED ON THE CURRENT WISDOT APPROVED PRODUCTS LIST.





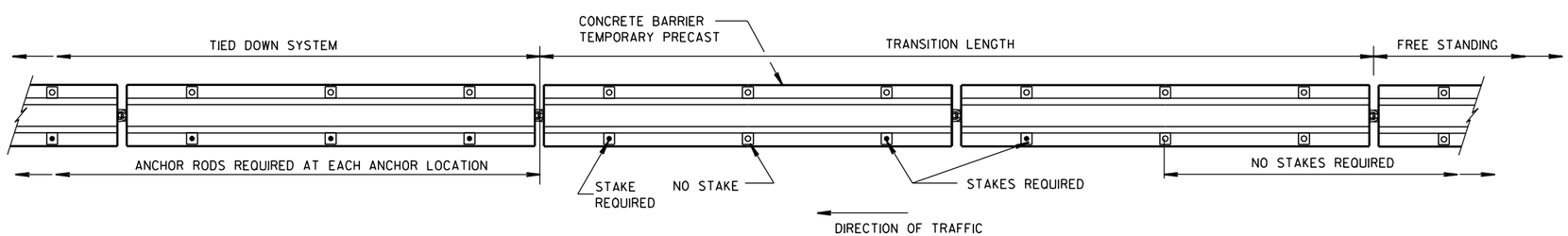
STOP PLATE

ASPHALT PIN

(ASTM A36 STEEL)

STAKE DOWN INSTALLATION FOR ASPHALTIC OR PORTLAND CEMENT CONCRETE SURFACE

(STAKING IS INCIDENTAL TO CONCRETE BARRIER TEMPORARY PRECAST)



PLAN VIEW

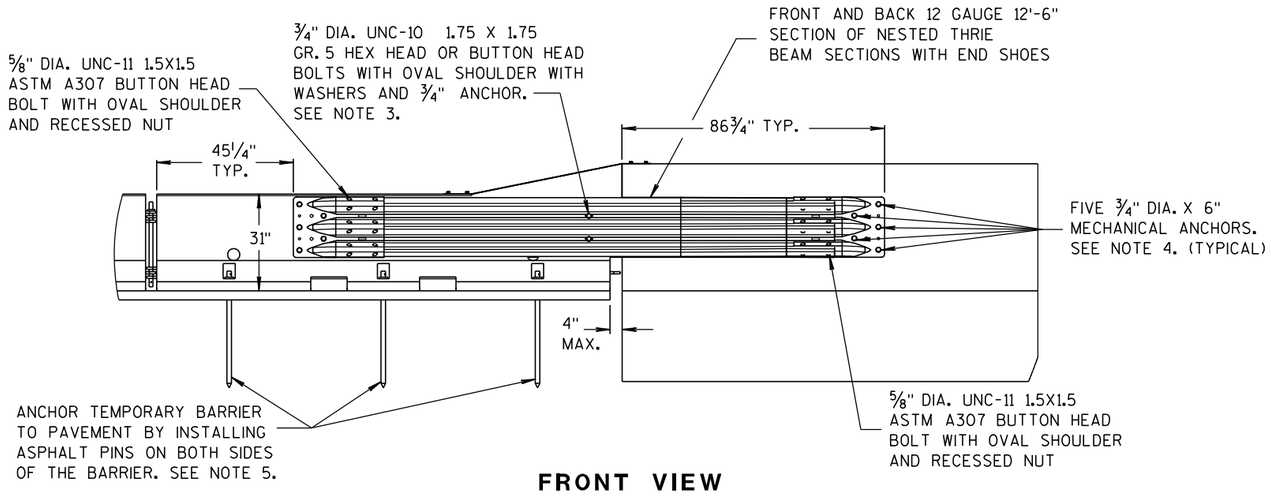
FREE STANDING TRANSITION TO TIED-DOWN SYSTEM

(PLACE TRANSITION IN A TANGENT SECTION OF BARRIER PARALLEL TO THE ROADWAY. IF TRANSITION OCCURS ON STRUCTURAL SLAB, ANCHOR AS SHOWN.)

CONCRETE BARRIER TEMPORARY PRECAST, 12'-6"

STATE OF WISCONSIN
DEPARTMENT OF TRANSPO...

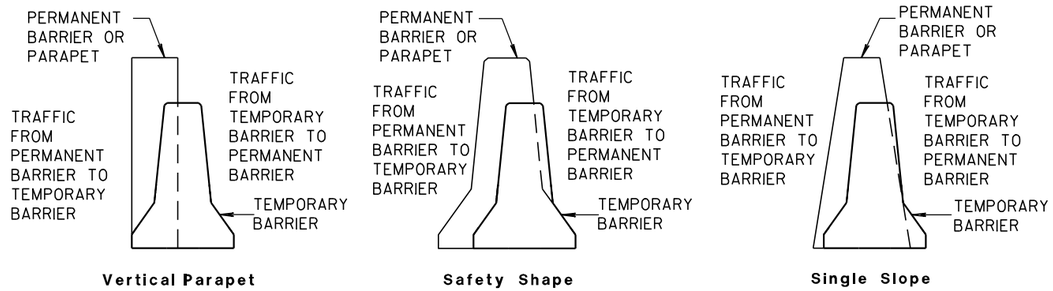
6
S.D.D. 14 B 7-13d



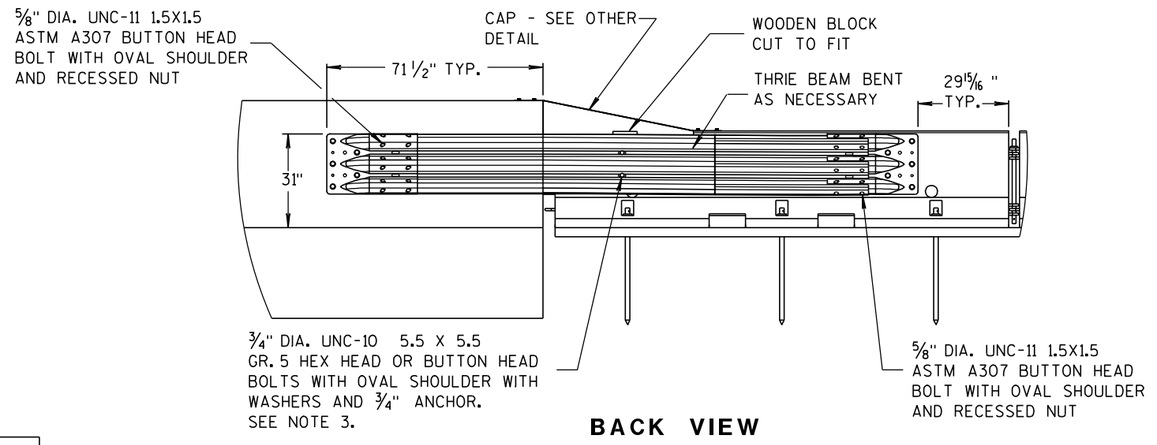
FRONT VIEW

NOTES

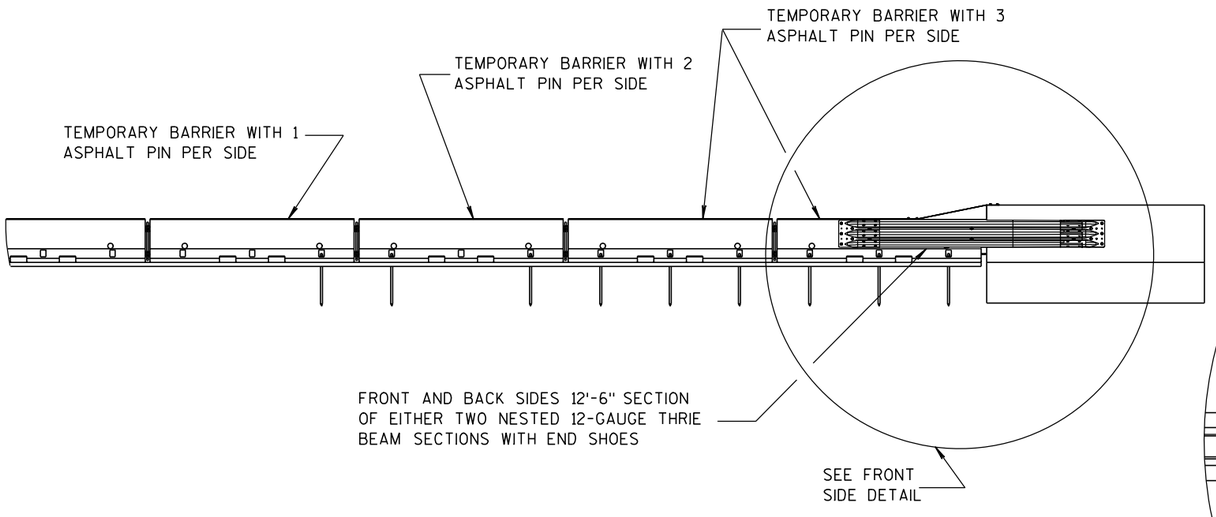
1. CAP END PLATE PLACED FLUSH WITH UPSTREAM END OF PERMANENT BARRIER OR PARAPET.
2. THRIE BEAM PIECES ARE OFFSET 15 1/4" TO PREVENT INTERFERENCE FROM THE ANCHORS ON OPPOSING SIDES.
3. MINIMUM MECHANICAL OR EPOXY ANCHOR STRENGTH REQUIREMENTS: ULTIMATE TENSILE LOAD 9.48 KIPS AND ULTIMATE SHEAR LOAD 10.48 KIPS.
4. MINIMUM MECHANICAL OR EPOXY ANCHOR STRENGTH REQUIREMENTS: ULTIMATE TENSILE LOAD 17.9 KIPS AND ULTIMATE SHEAR LOAD 21.96 KIPS.
5. MAY BE USED ON CONCRETE OR ASPHALT PAVEMENTS. ASPHALT OPTION SHOWN. FOR CONCRETE OPTION SEE OTHER DETAILS.
6. MINIMUM MECHANICAL OR EPOXY ANCHOR STRENGTH REQUIREMENTS: ULTIMATE TENSILE LOAD 12.14 KIPS AND ULTIMATE SHEAR LOAD 17.5 KIPS.



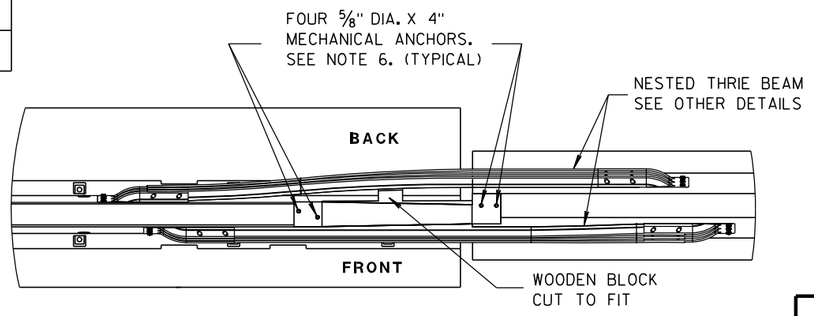
TEMPORARY BARRIER PLACEMENT FOR BI-DIRECTIONAL TRANSITION TO TIED-DOWN SYSTEM



BACK VIEW



FRONT VIEW



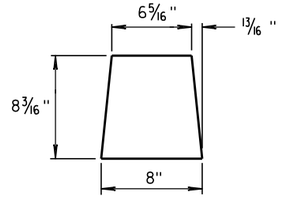
PLAN VIEW

BI-DIRECTIONAL TRANSITION TO TIED-DOWN SYSTEM

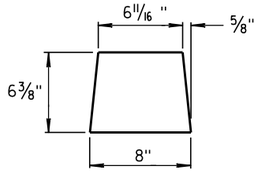
CONCRETE BARRIER TEMPORARY PRECAST, 12'-6"

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

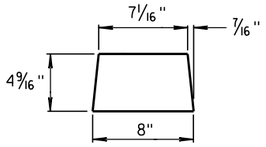
6
S.D.D. 14 B 7-13e



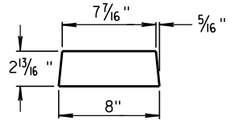
GUSSET 1



GUSSET 2

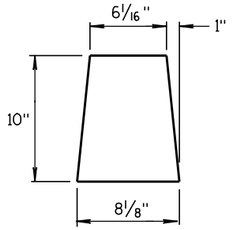


GUSSET 3

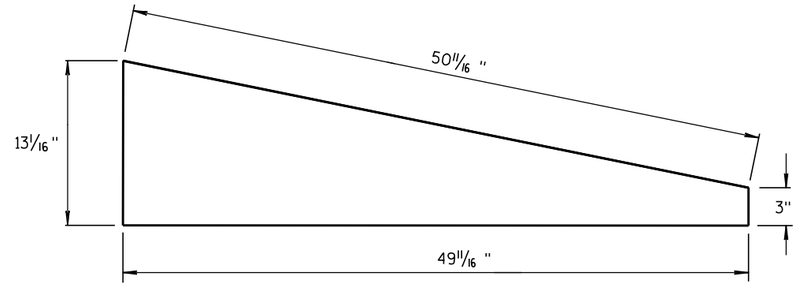


GUSSET 4

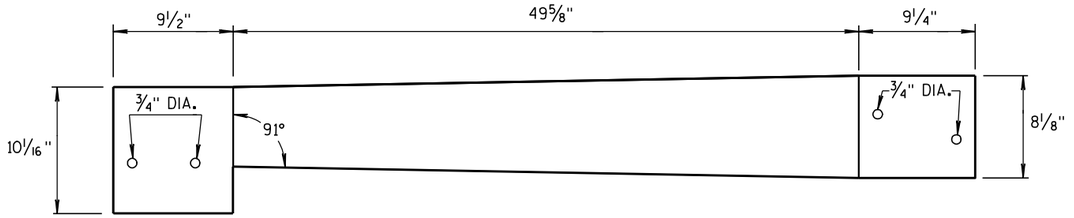
GUSSETS

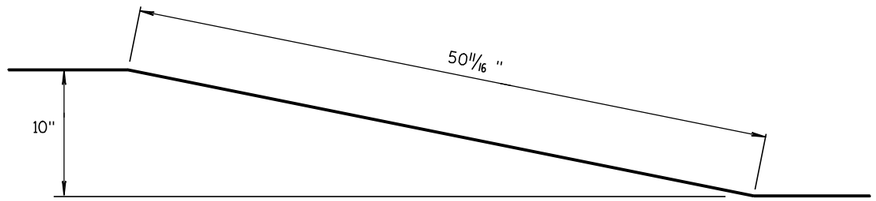


END PLATE

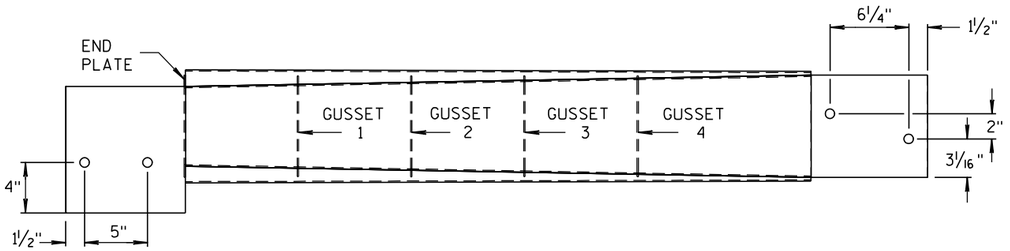


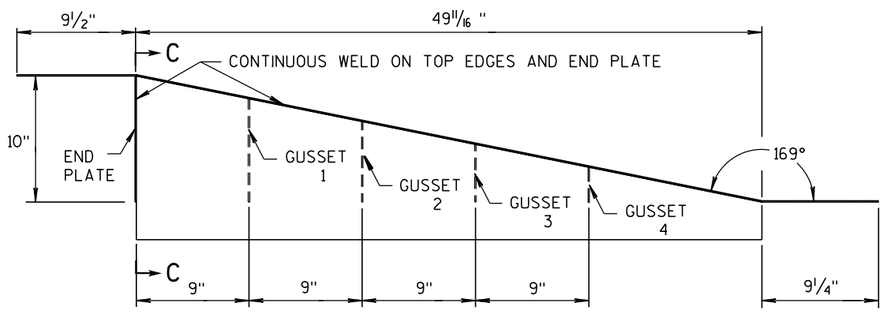
SIDE PLATE

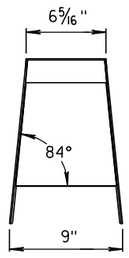




TOP PLATE







SECTION C-C

NOTES

1. FOUR GUSSETS AND END PLATE ARE STITCH WELDED ON THREE SIDES.
2. TWO TRIANGULAR SIDE PLATES ARE STITCH WELDED TO TOP PLATE, END PLATE, AND GUSSETS.

CAP DETAILS FOR TEMPORARY CONCRETE BARRIER TO 42" PERMANENT CONCRETE BARRIER

SIDE, TOP AND END PLATES FOR CAP FROM TEMPORARY CONCRETE BARRIER TO 42" PERMANENT CONCRETE BARRIER

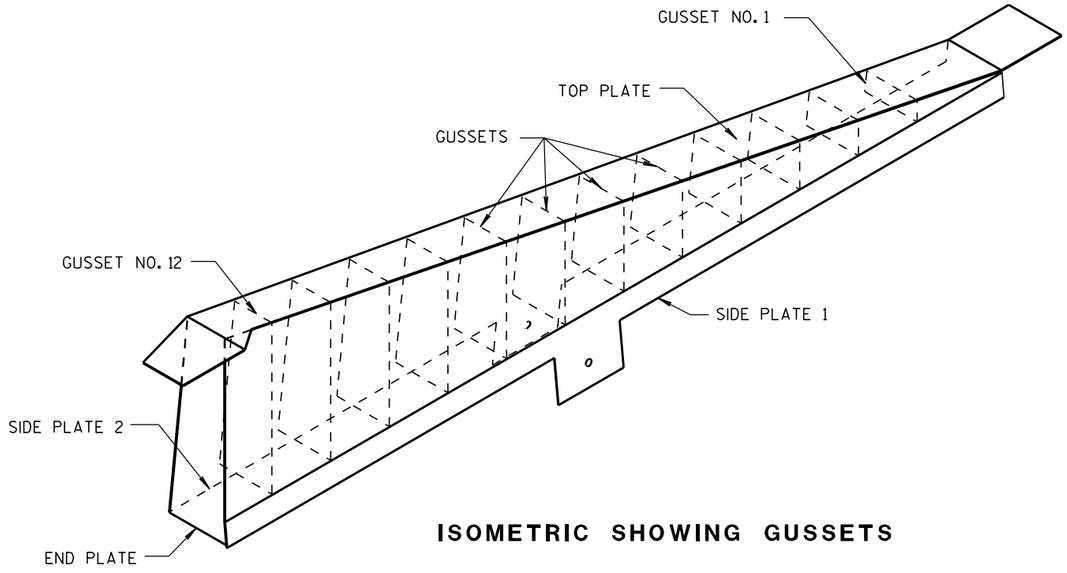
SIDE PLATES, TOP PLATE, END PLATE AND GUSSETS ARE 12 GAUGE ASTM A36 GALVANIZED STEEL.

CONCRETE BARRIER
TEMPORARY PRECAST, 12'-6"

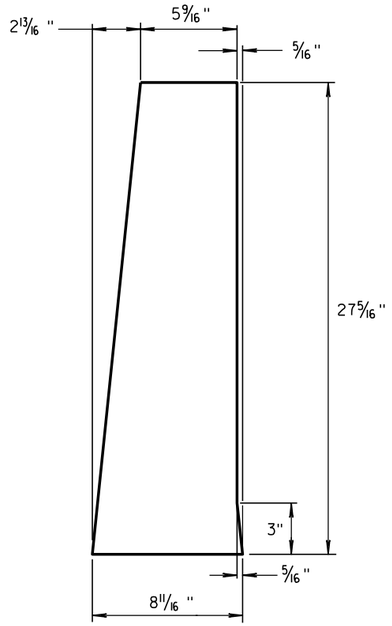
STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

6

S.D.D. 14 B 7-13f

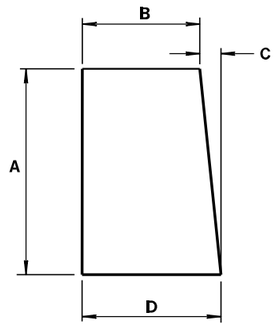


ISOMETRIC SHOWING GUSSETS



END PLATE

1/8" STEEL PLATE



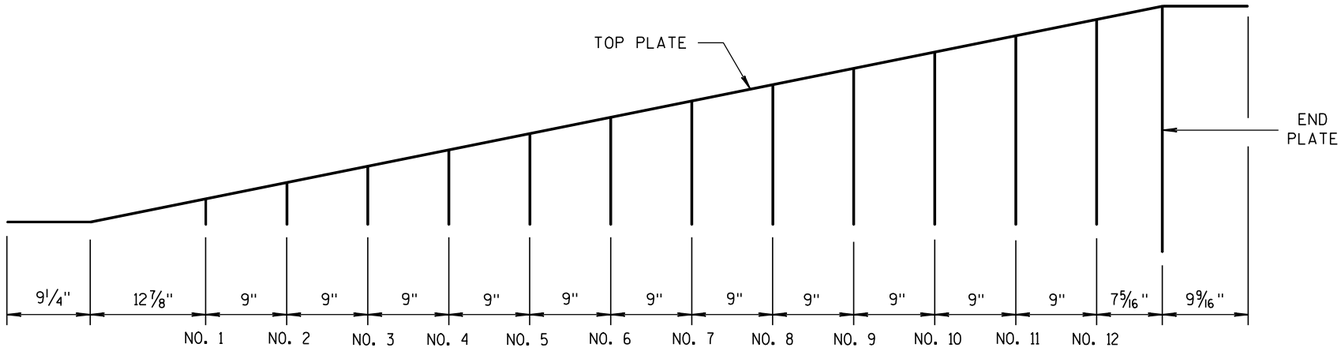
GUSSETS 1 - 12

ALL GUSSETS 1/8" STEEL PLATE

GUSSET DIMENSIONS				
GUSSET NO.	A	B	C	D
1	2 7/8"	7 3/4"	1/4"	8
2	4 11/16 "	7 9/16 "	1/2"	8
3	6 1/2"	7 3/8"	11/16 "	8 1/16 "
4	8 5/16 "	7 3/16 "	7/8"	8 1/16 "
5	10 1/8"	7"	1 1/16 "	8 1/16 "
6	11 15/16 "	6 13/16 "	1 1/4"	8 1/16 "
7	13 3/4"	6 5/8"	1 7/16 "	8 1/16 "
8	15 9/16 "	6 7/16 "	1 9/16 "	8 1/16 "
9	17 3/8"	6 1/4"	1 13/16 "	8 1/16 "
10	19 3/16 "	6 1/16 "	1 15/16 "	8 1/16 "
11	21"	5 7/8"	2 3/16 "	8 1/16 "
12	22 13/16 "	5 11/16 "	2 5/16 "	8 1/16 "

SIDE PLATES, TOP PLATE, END PLATE AND GUSSETS ARE 12 GAUGE ASTM A36 STEEL AND GALVANIZED.

GUSSETS AND END PLATE ARE STITCH WELDED ON 3 SIDES. TWO TRIANGULAR SIDE PLATES ARE STITCH WELDED TO TOP PLATE, END PLATE AND GUSSETS.



GUSSET LOCATION

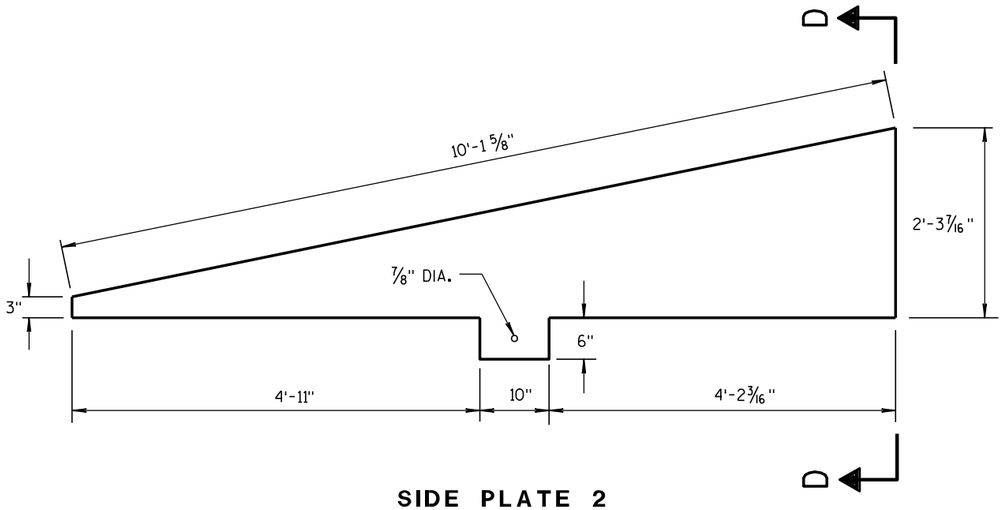
CAP DETAILS FOR TEMPORARY CONCRETE BARRIER TO 56" PERMANENT CONCRETE BARRIER

CONCRETE BARRIER TEMPORARY PRECAST, 12'-6"

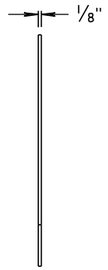
STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

6

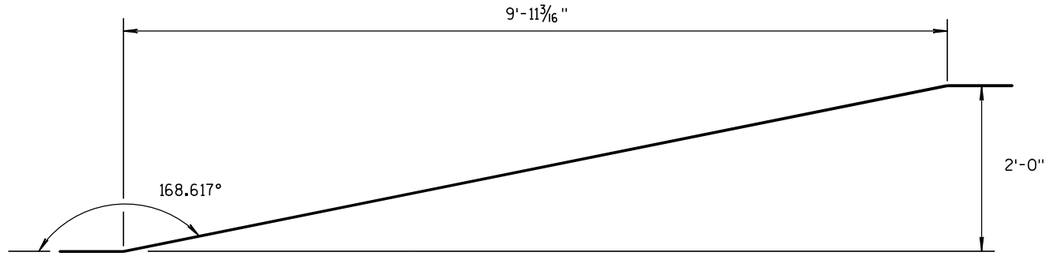
S.D.D. 14 B 7-13g



SIDE PLATE 2

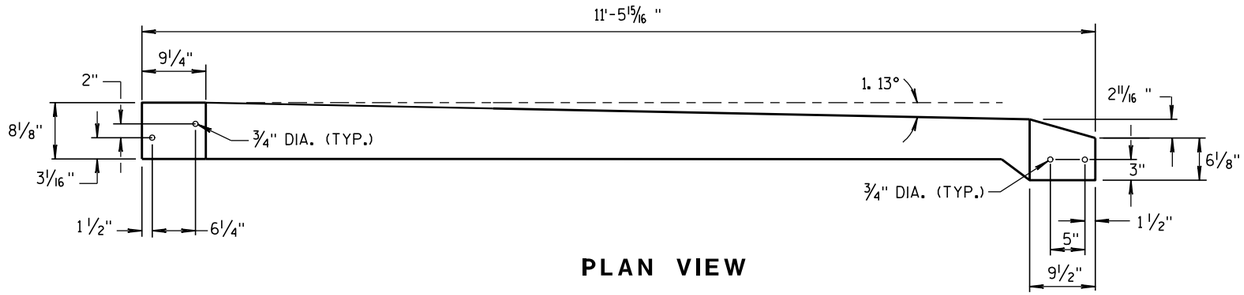


END VIEW



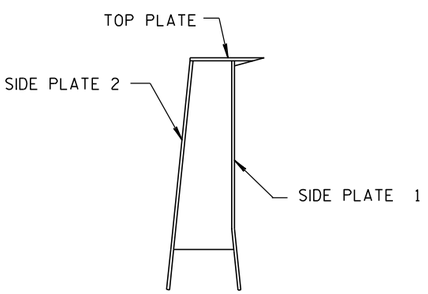
SIDE VIEW

TOP PLATE

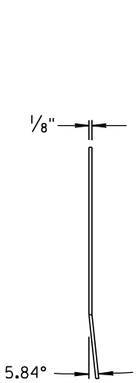


PLAN VIEW

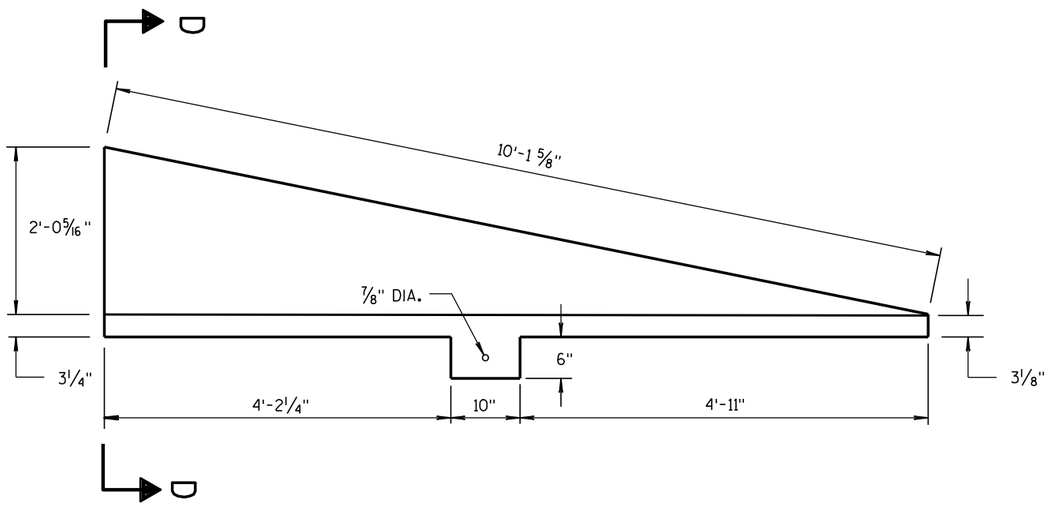
TOP PLATE



SECTION D-D



END VIEW



SIDE PLATE 1

CAP DETAILS FOR TEMPORARY CONCRETE BARRIER TO 56" PERMANENT CONCRETE BARRIER

CONCRETE BARRIER TEMPORARY PRECAST, 12'-6"	
STATE OF WISCONSIN DEPARTMENT OF TRANSPORTATION	
APPROVED	
8/31/2012 DATE	/S/ Jerry H. ENGINEER
FHWA	ROADWAY STANDARD 79 ENT

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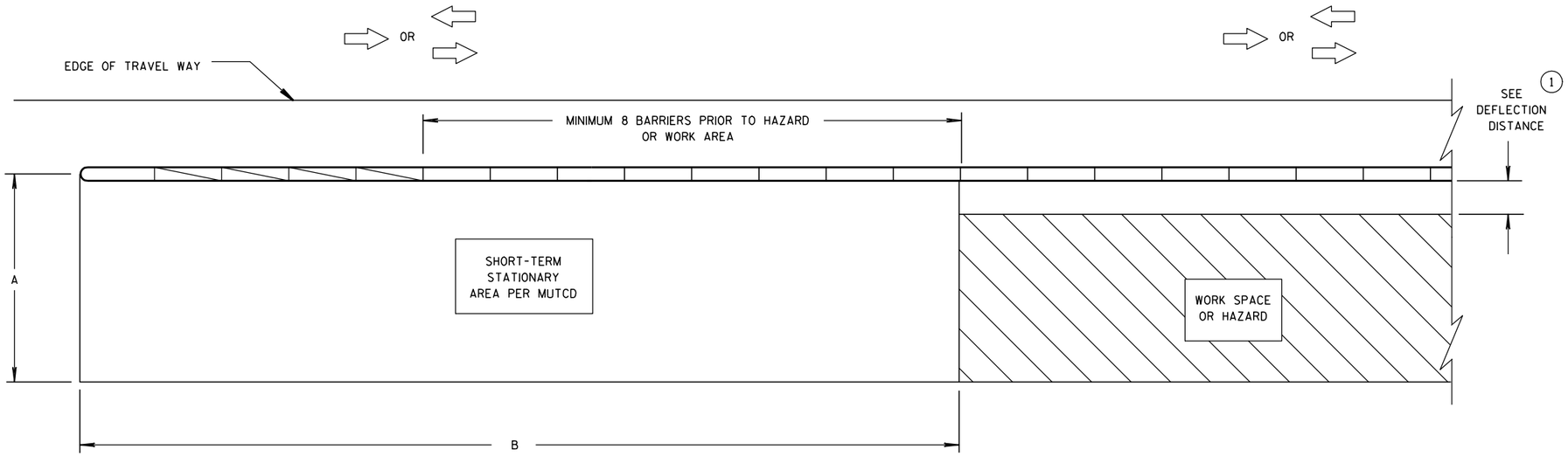
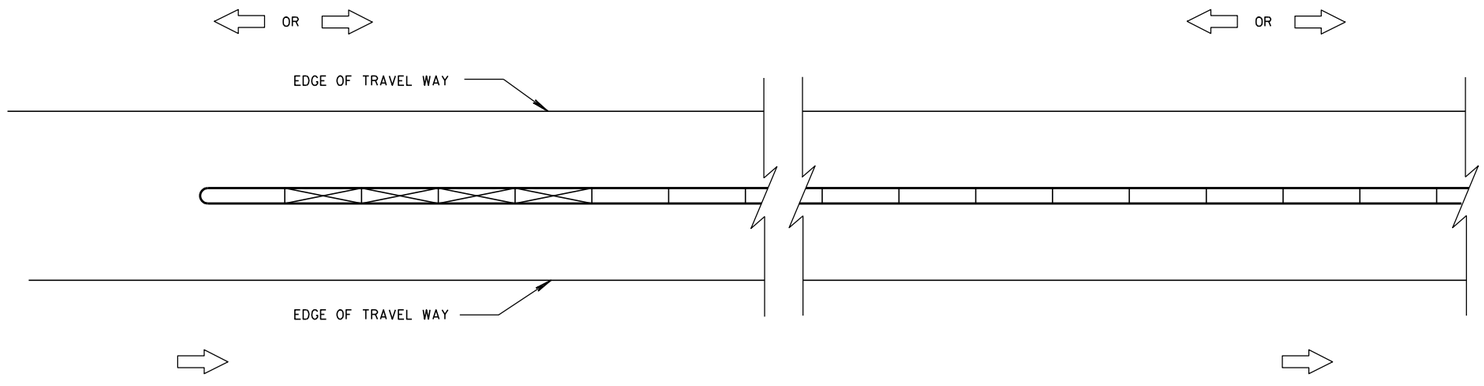
S.D.D. 14 B 7-13h

6

S.D.D. 14 B 7-13h



CRASH CUSHION/SAND BARREL ARRAY AND TEMPORARY BARRIER INSTALLATION FOR TRAFFIC ON ONE SIDE OF BARRIER



CRASH CUSHION/SAND BARREL ARRAY AND TEMPORARY BARRIER INSTALLATION FOR TRAFFIC ON BOTH SIDES OF BARRIER

DIMENSION A TABLE (2)

FACILITY	POSTED SPEED MPH	DIMENSION A	
		MIN. FT	MAX. FT
FREEWAY/EXPRESSWAY	ALL	15	20
NON-FREEWAY/EXPRESSWAY	GREATER THAN OR EQUAL TO 45	10	15
NON-FREEWAY/EXPRESSWAY	LESS THAN 45	8	10
AADT LESS THAN 1,500	ALL	8	10

DIMENSION B TABLE (2)

POSTED SPEEDS MPH	DIMENSION B FT
20	115
25	155
30	200
35	250
40	305
45	360
50	425
55	495
60	570
65	645

LEGEND

DIRECTION OF TRAVEL

CRASH CUSHION OR SAND BARREL ARRAY

SEE FREE STANDING TRANSITION TO TIED-DOWN SYSTEM DETAILS

SEE BI-DIRECTIONAL TRANSITION TO TIED-DOWN SYSTEM DETAILS

3 PINS PLACED ON TRAFFIC SIDE OF BARRIER

PERMANENT CONCRETE BARRIER OR CONCRETE PARAPET

FREE STANDING TEMPORARY BARRIER

GENERAL NOTES

SEE STANDARD DETAIL DRAWING 14B7 FOR MORE INFORMATION.

DETAILS PROVIDE A GENERAL LAYOUT OF TEMPORARY CONCRETE BARRIER, CRASH CUSHIONS, SAND BARREL ARRAYS AND TIE DOWN TRANSITIONS. DETAILS PROVIDED MAY NOT FIT ALL POSSIBLE SITUATIONS OR SITE CONDITIONS. SEE OTHER SECTIONS OF THE CONTRACT OR PROJECT ENGINEER FOR MORE DETAILS.

ADDITIONAL TEMPORARY BARRIER MAY BE REQUIRED TO PROTECT TRAVELING PUBLIC FROM HAZARDS, CONTRACTOR'S OPERATIONS OR TO CONTROL TRAFFIC.

TEMPORARY BARRIER MAY BE REQUIRED TO BE ANCHORED TO PAVEMENT OR BRIDGE DECK.

FOR DETAILS ON CRASH CUSHION OR SAND BARREL ARRAYS SEE OTHER SECTIONS OF THE PLAN AND MANUFACTURE'S DETAILS.

SLOPES LEADING TO TEMPORARY BARRIER, CRASH CUSHION OR SAND BARREL ARRAY ARE 10:1 OR LESS.

(1) FOR DEFLECTION INFORMATION SEE STANDARD DETAIL DRAWING 14B7.

(2) VALUES PROVIDED MAY NOT FIT ALL POSSIBLE SITUATIONS OR SITE CONDITIONS. SEE OTHER SECTIONS OF THE CONTRACT OR PROJECT ENGINEER FOR MORE DETAILS.

CRASH CUSHION/SAND BARREL ARRAY AND OTHER TEMPORARY BARRIER LAYOUT DETAILS

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

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S.D.D. 14 B 8-1a

GENERAL NOTES

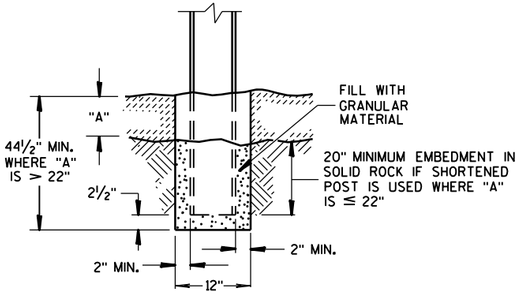
1. WOOD OR STEEL POSTS (w6X9 OR w6X8.5) MAY BE USED. DO NOT INTERMIX WOOD AND STEEL POSTS. INSTALL STEEL POSTS WITH HOLES ON APPROACHING TRAFFIC SIDE.

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.

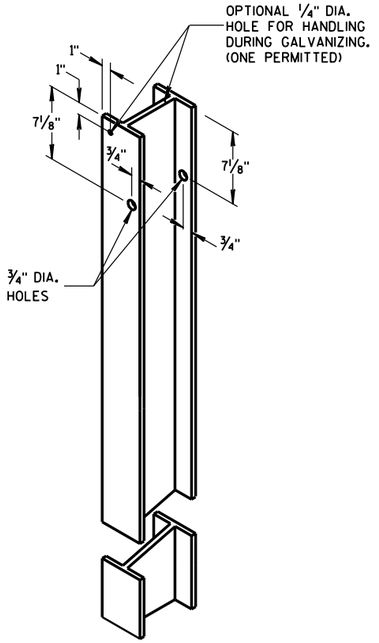
3. IF ROCK IS ENCOUNTERED DURING EXCAVATION, PROVIDE A HOLE 12 INCHES IN DIAMETER EXTENDING 20 INCHES DEEP INTO THE ROCK. PLACE APPROXIMATELY 2½INCHES OF GRANULAR MATERIAL IN THE BOTTOM OF THE HOLE. CUT THE POSTS THE TO LENGTH AMD INSTALL. BACKFILL WITH EXCAVATED MATERIAL AND COMPACT. BACKFILL IS TO 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).

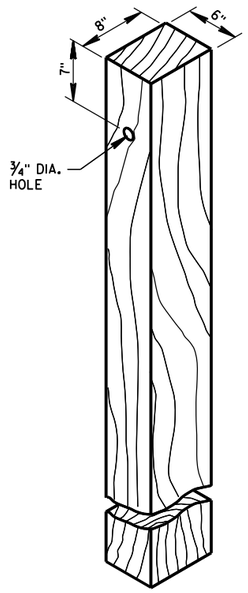
5. FOR NEW MGS INSTALLATION TOP OF W-BEAM RAIL TOLERANCE IS ± 1". FOR EXISTING MGS INSTALLATION TOP OF W-BEAM IS BETWEEN 27¾" TO 32".



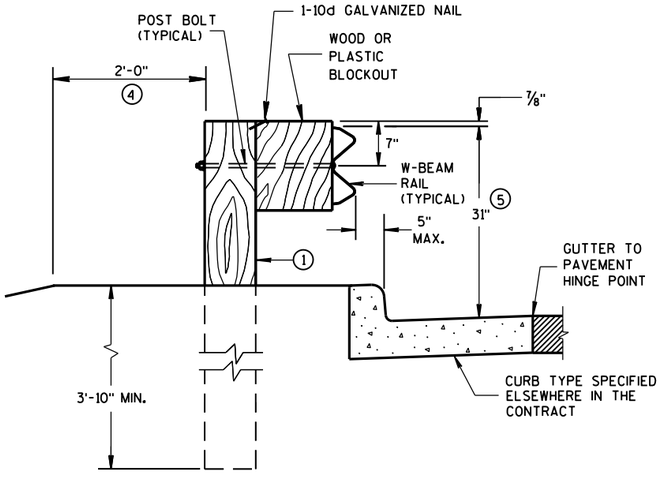
END VIEW
SETTING STEEL OR WOOD POST IN ROCK ③



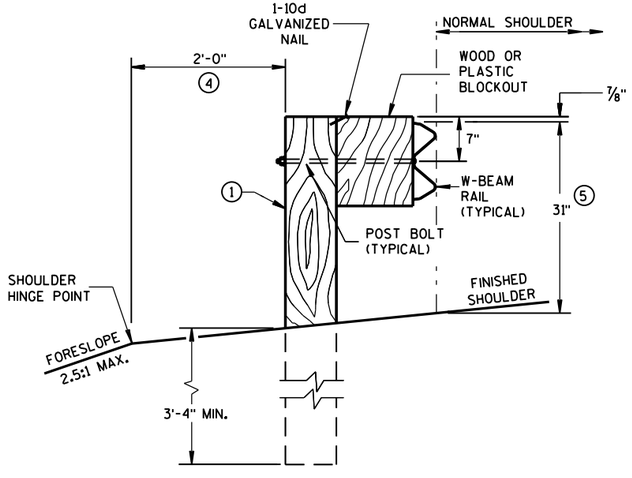
STEEL POST &
HOLE PUNCHING DETAIL
(w6X9) ①



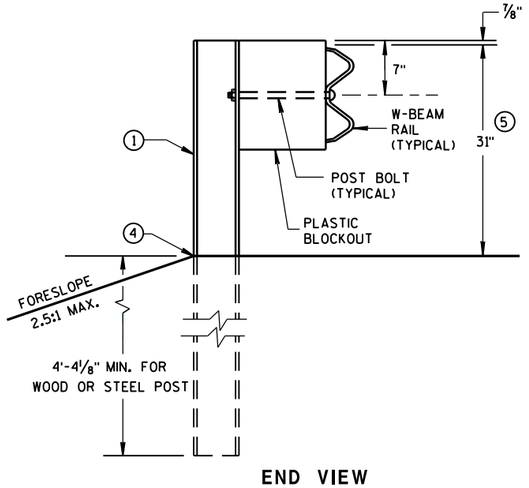
WOOD POST
(6" X 8") NOMINAL ①



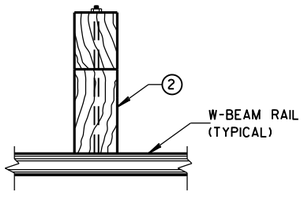
END VIEW
LOCATED ALONG A CURBED ROADWAY



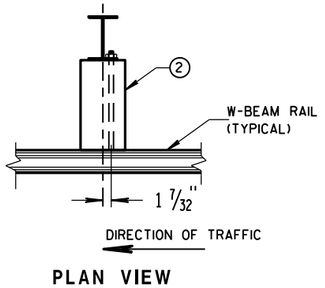
END VIEW
LOCATED ALONG A ROADWAY SHOULDER
STANDARD INSTALLATION



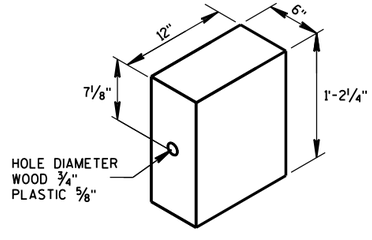
END VIEW
MGS LONGER POST AT HALFPOST SPACING W BEAM (K)



PLAN VIEW
WOOD POST,
BLOCKOUT & BEAM



PLAN VIEW
STEEL POST,
PLASTIC BLOCKOUT & BEAM

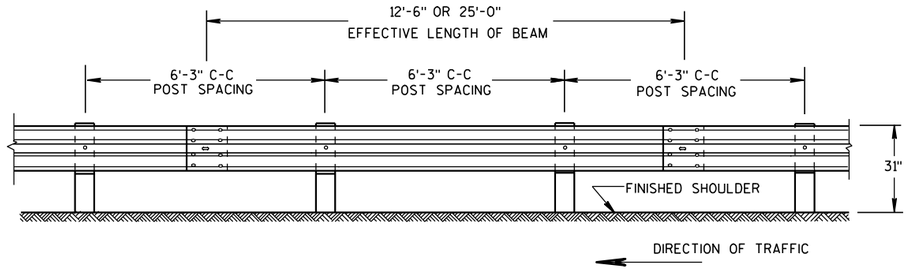


WOOD OR
PLASTIC BLOCKOUT ②

MIDWEST GUARDRAIL SYSTEM
(MGS) GUARDRAIL

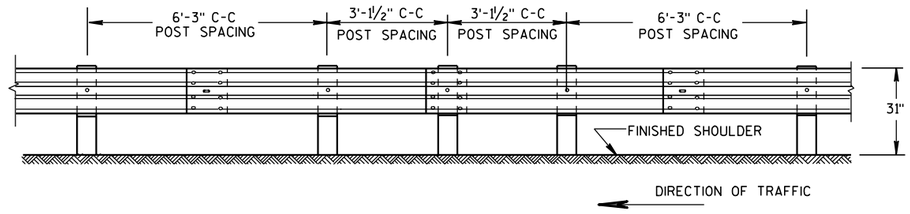
STATE OF WISCONSIN
DEPARTMENT OF TRANSPO

6
S.D.D. 14 B 42-2a



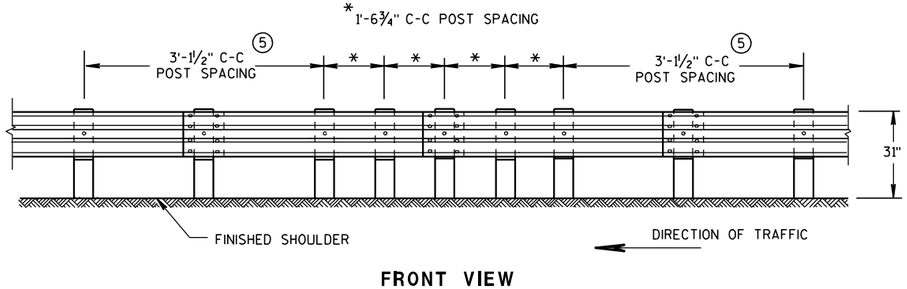
FRONT VIEW

POST SPACING STANDARD INSTALLATION



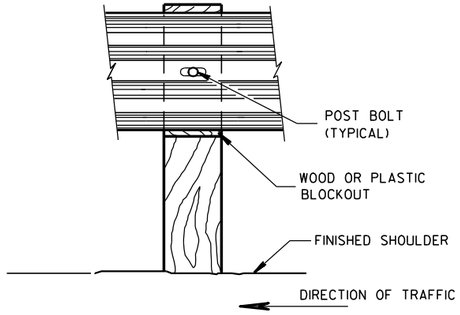
FRONT VIEW

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

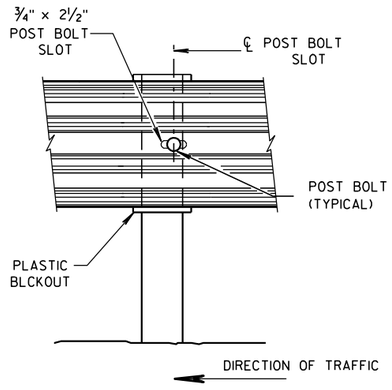


FRONT VIEW

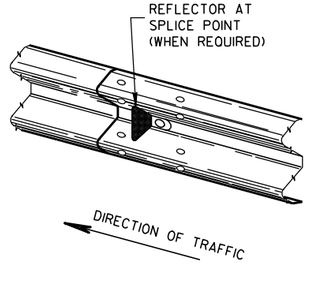
QUARTER POST SPACING (QS)

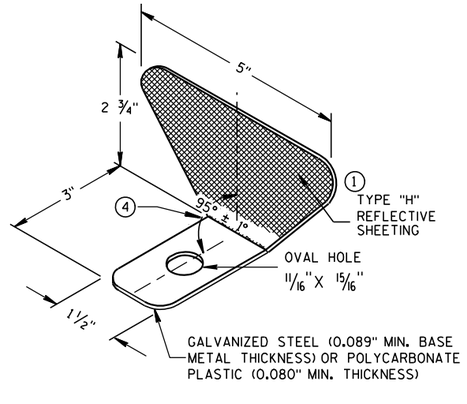


FRONT VIEW AT WOOD POST

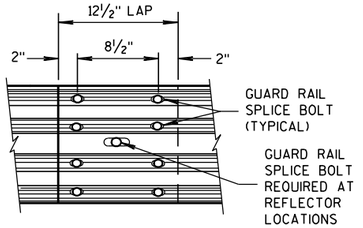


FRONT VIEW AT STEEL POST



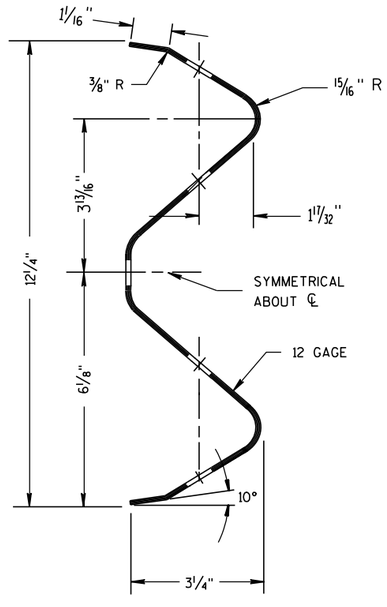


ONE SIDED REFLECTOR DETAIL AND TYPICAL INSTALLATION ①



FRONT VIEW

MID-SPAN BEAM SPLICE



SECTION THRU W-BEAM RAIL

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 ⅝" DIAMETER ASTM A307 GUARDRAIL BOLT. A POST BOLT REQUIRES ⅝" DIAMETER A563A DOUBLE RECESSED (DR) HEAVY HEX NUT AND ⅝" DIAMETER F844 FLAT WASHER. POST BOLTS MAY BE LONGER IF MULTIPLE BLOCKOUTS ARE BEING USED.

GUARD RAIL SPLICE BOLTS ARE A ⅝" DIAMETER ASTM A307 GUARDRAIL HEAD BOLT. A GUARDRAIL SPLICE BOLT REQUIRES ⅝" DIAMETER A563A DOUBLE RECESSED (DR) HEAVY HEX NUT.

REFLECTOR SPACING ②

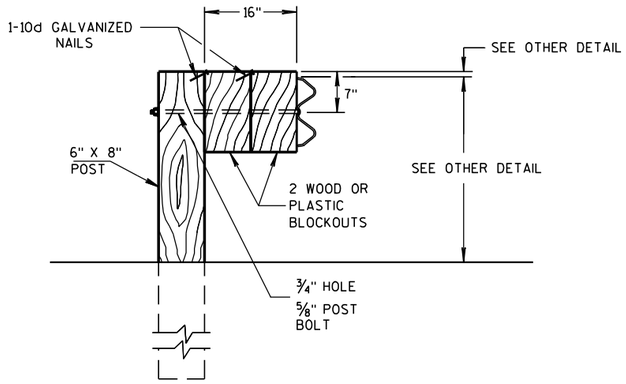
	BEAM GUARD LENGTH	REFLECTOR SPACING	NO. SURFACES REFLECTORIZED	MIN. NO. REFLECTORS
ONE WAY TRAFFIC	< 200' > 200'	50' C-C 100' C-C	1 1	3
TWO WAY TRAFFIC	< 200' > 200'	25' C-C 50' C-C	1 ③ 1	6
TWO WAY TRAFFIC	< 200' > 200'	50' C-C 100' C-C	2 ④ 2	3

MIDWEST GUARDRAIL SYSTEM
(MGS) GUARDRAIL

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

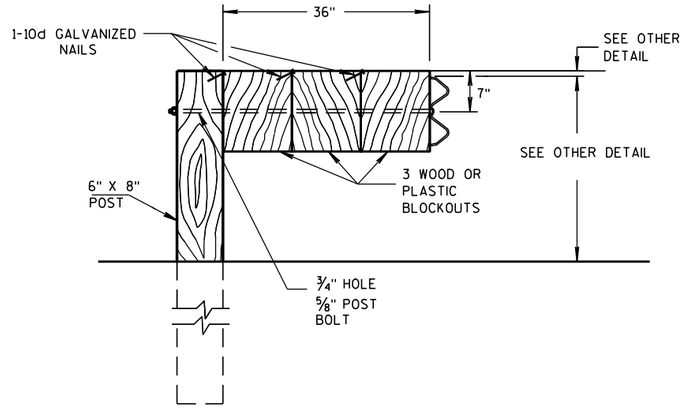
S.D.D. 14 B 42-2b

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.

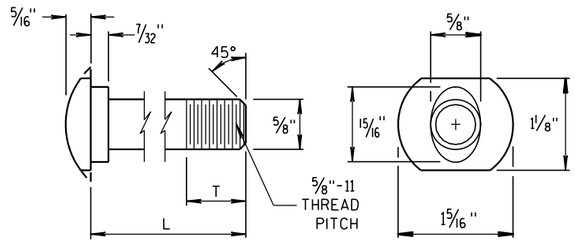


DETAIL FOR 36" BLOCKOUT DEPTH

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.

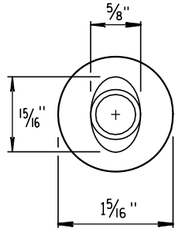
DO NOT USE 16" OR 36" BLOCKOUTS IF IT CAUSES THE POST TO BE DRIVEN BEYOND SHOULDER HINGE POINT OR CAUSES A FIXED OBJECT TO BE WITHIN THE DEFLECTION DISTANCE OF THE BARRIER.

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.

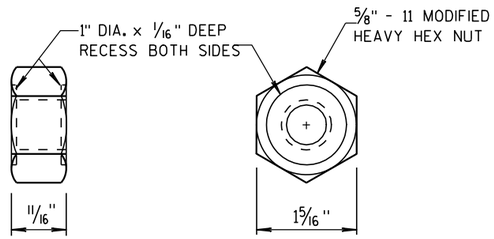


POST BOLT TABLE

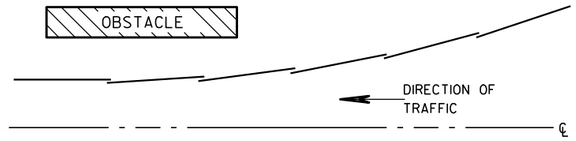
L	T (MIN.)
1 1/4"	1 1/8"
2"	1 3/4"
10"	4"
14"	4 1/16"
18"	4"
21"	4 1/16"
25"	4"



ALTERNATE BOLT HEAD

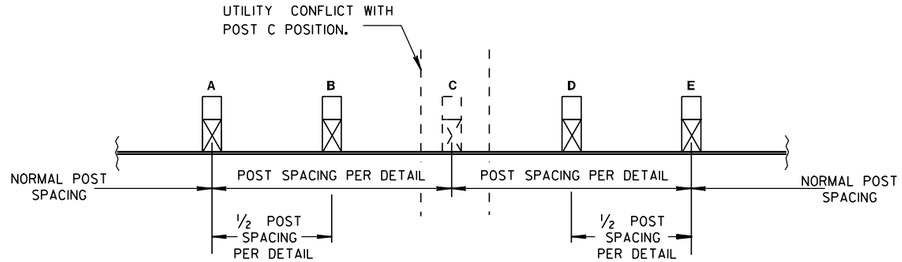


POST BOLT AND RECESS NUT

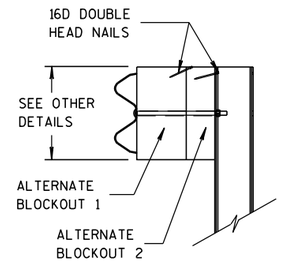


PLAN VIEW

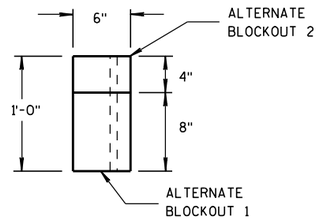
BEAM LAPPING DETAIL



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

ENT

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.

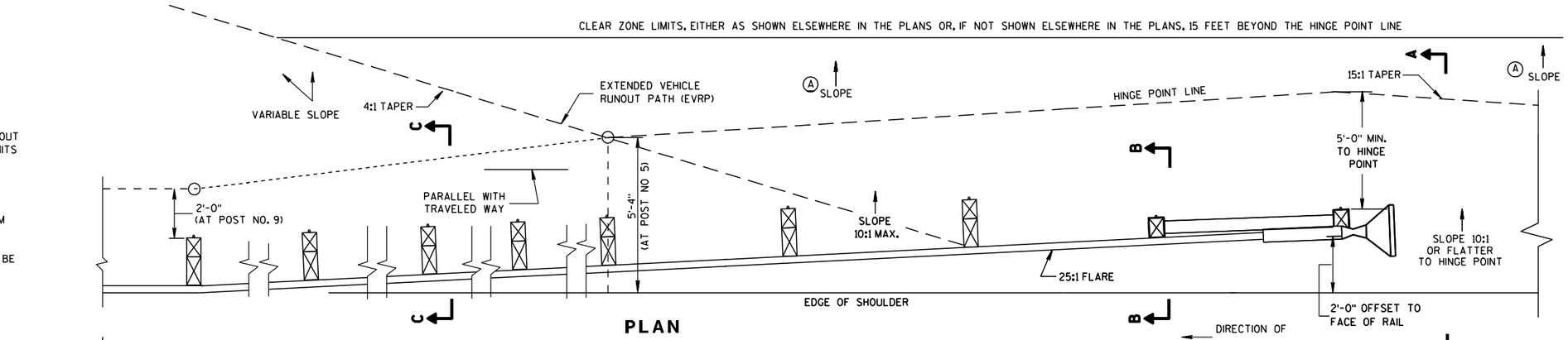
* DO NOT ATTACH BLOCKOUTS TO POSTS 1 AND 2.

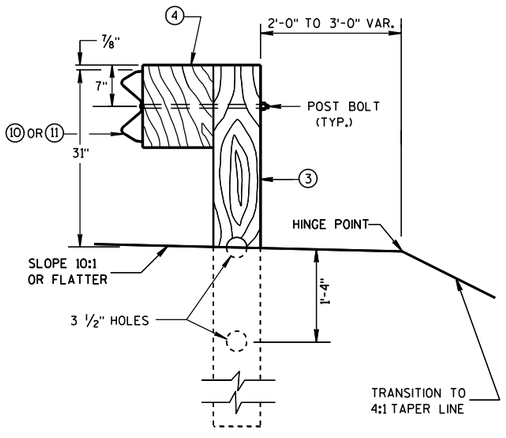
DO NOT INSTALL REFLECTORS ON THE FIRST 50 FEET OF THE APPROACH END OF THE ENERGY ABSORBING TERMINAL.

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.

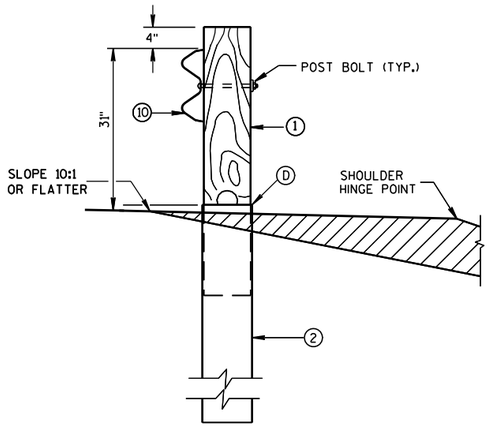
PATTERN AND COLORS ON REFLECTIVE SHEETING TYPE H ARE TO CONFORM TO OM3-L OR OM3-R OF THE MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES.

THE CENTER OF THE UPPER 3½" DIAMETER HOLE ON POST NUMBER 3 THROUGH POST 9 IS TO BE FLUSH WITH THE GROUND LINE (± ¾")

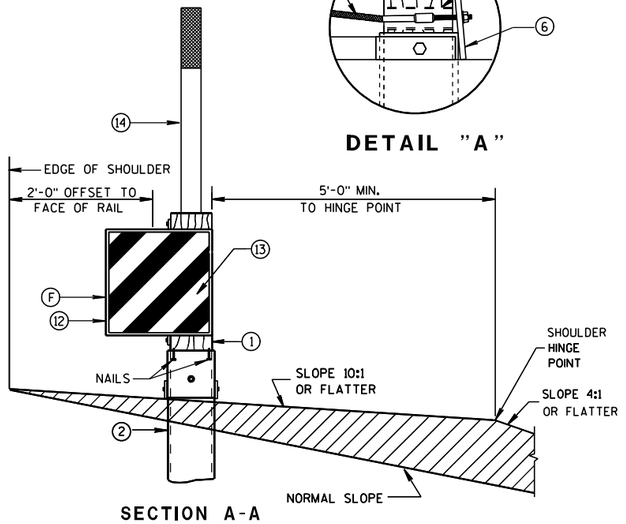




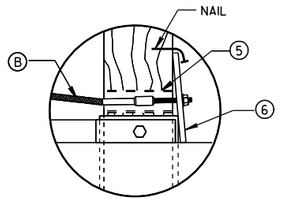
SECTION C-C
TYPICAL AT POST NOS. 3-9



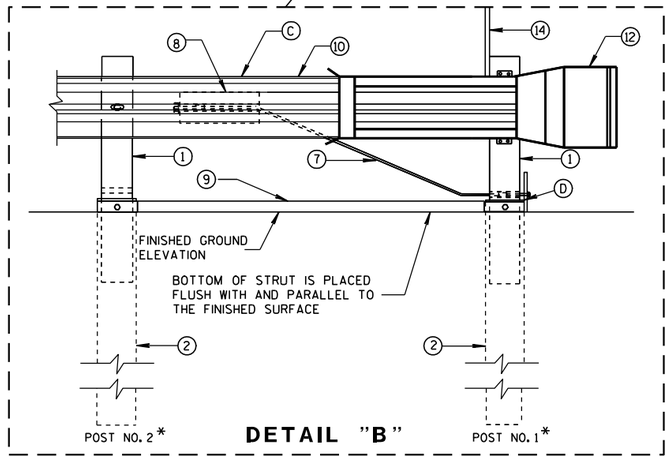
SECTION B-B
TYPICAL AT POST NO. 2*



SECTION A-A
TYPICAL AT POST NO. 1*



DETAIL "A"

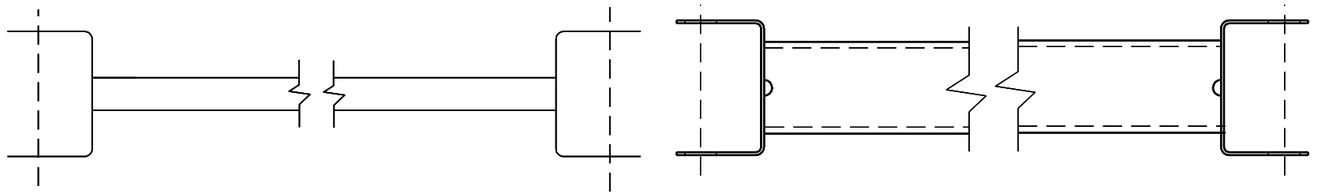


DETAIL "B"

MIDWEST GUARDRAIL SYSTEM
ENERGY ABSORBING TERMINAL (MGS)

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

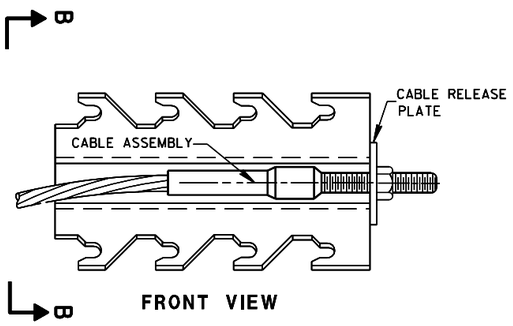
6
S.D.D. 14 B 44-1a



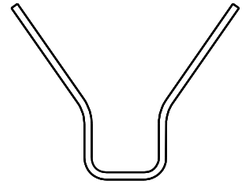
GENERIC GROUND STRUT (9) (H)

BILL OF MATERIALS

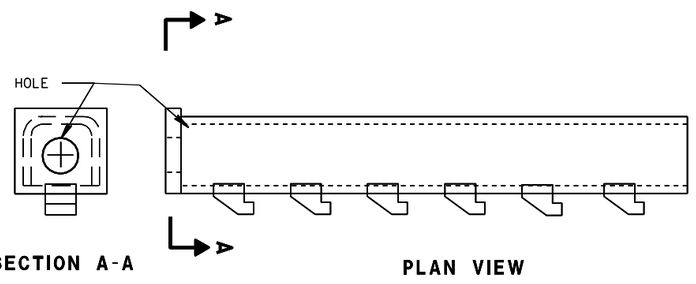
PART NO.	DESCRIPTION MATERIALS PROVIDED BY MGS EAT MANUFACTURER. SEE MANUFACTURER'S DETAILS FOR MORE INFORMATION.
(1)	WOOD BREAKAWAY POST
(2)	6" X 8" X 0.188", 6'-0" LONG FOUNDATION TUBE AT POSTS 1 AND 2
(3)	WOOD CRT
(4)	WOOD BLOCKOUT
(5)	PIPE SLEEVE
(6)	BEARING PLATE
(7)	BCT CABLE ASSEMBLY
(8)	ANCHOR 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



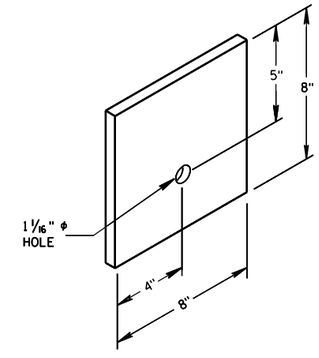
SECTION B-B



SECTION A-A

PLAN VIEW

GENERIC ANCHOR CABLE BOX (8) (H)



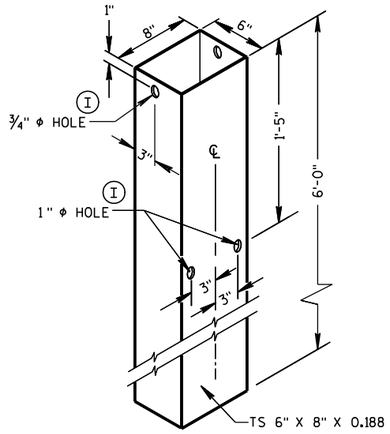
BEARING PLATE (6)

MIDWEST GUARDRAIL SYSTEM
ENERGY ABSORBING TERMINAL
(MGS)

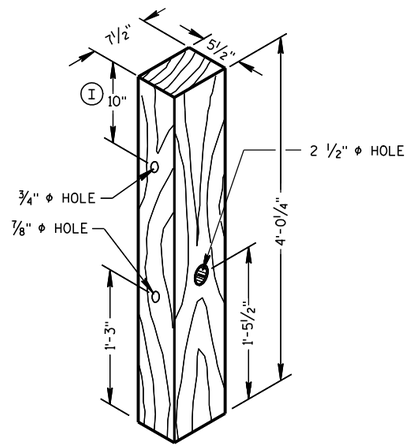
STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

6

S.D.D. 14 B 44-1b

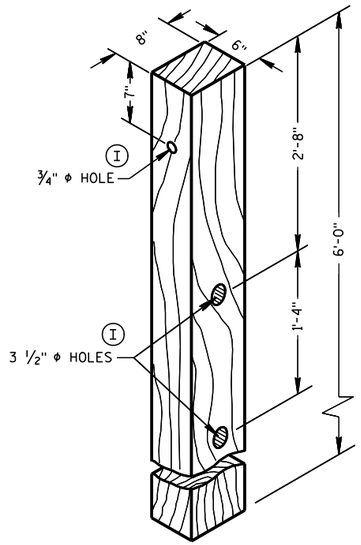


FOUNDATION TUBE (2)



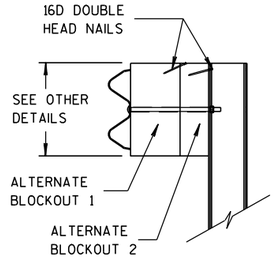
POSTS NUMBER 1 AND 2

WOOD BREAKAWAY POST (1)

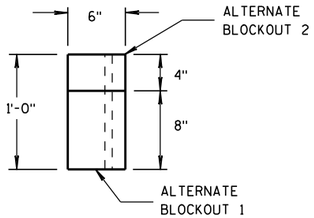


POSTS NUMBER 3-9

WOOD CRT POST (3)

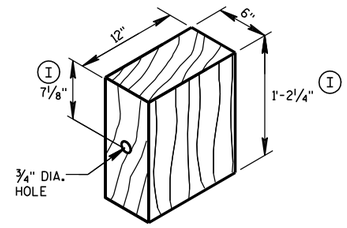


SIDE VIEW



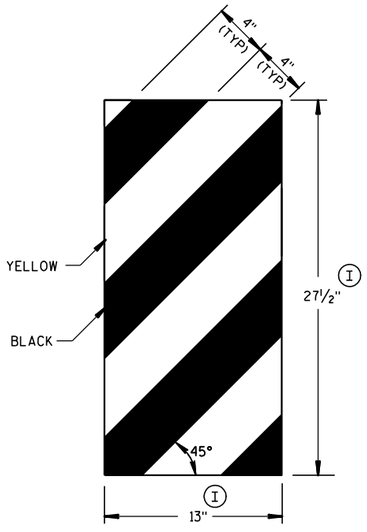
TOP VIEW

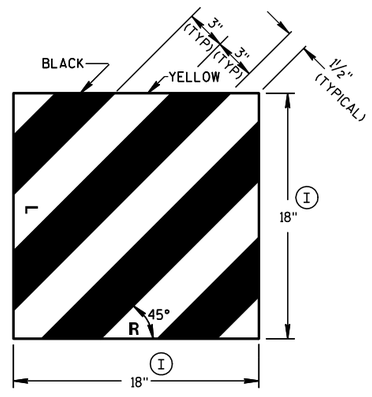
ALTERNATE WOOD BLOCKOUT DETAIL



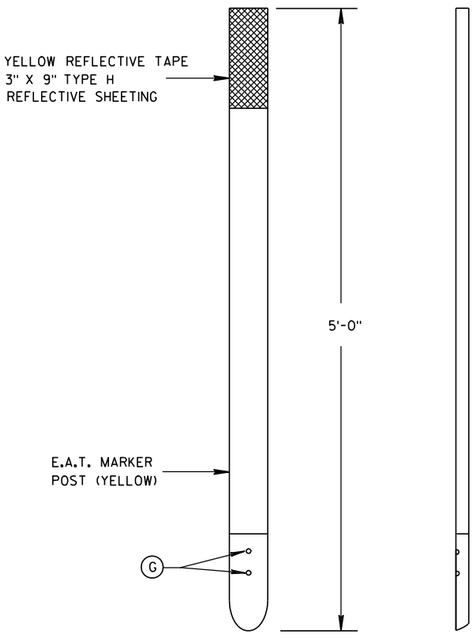
WOOD BLOCKOUT (4)

REQ'D. AT ALL POSTS EXCEPT POST NO'S 1 & 2



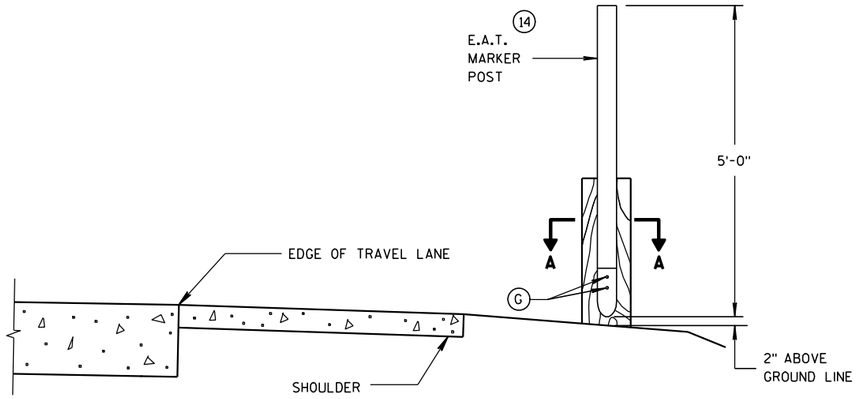


GENERIC REFLECTIVE SHEETING (13) (H)



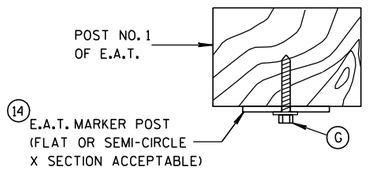
FRONT VIEW **SIDE VIEW**

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

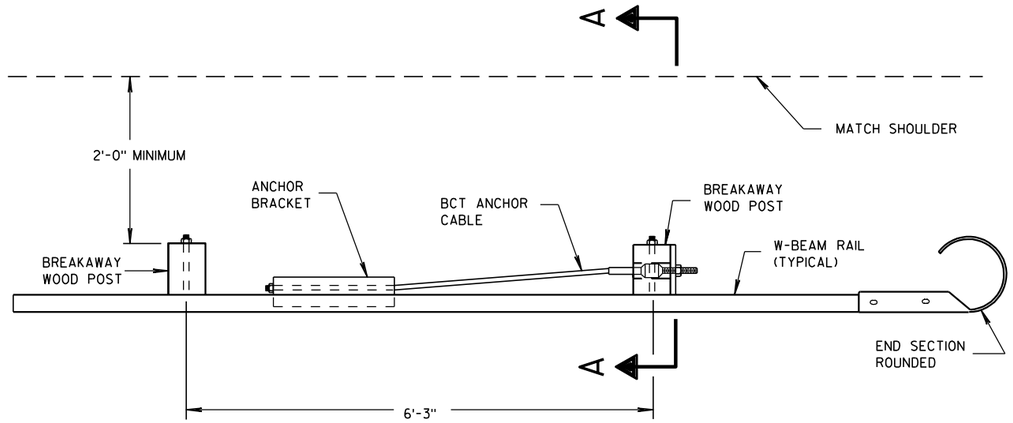
APPROVED
5/23/2011 — DATE
/S/ Jerry H. [illegible] — ROADWAY STANDARDS ENGINEER
86
FHWA

6

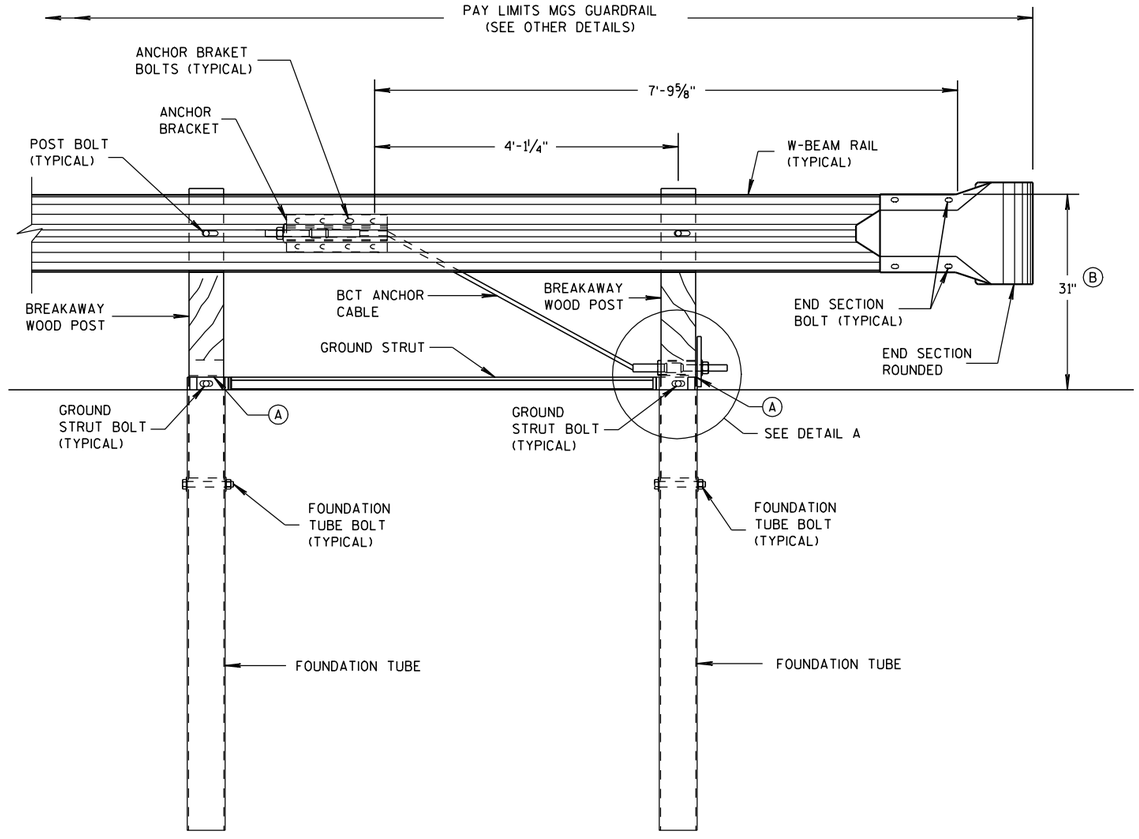
S.D.D. 14 B 44-1c

6

S.D.D. 14 B 44-1c

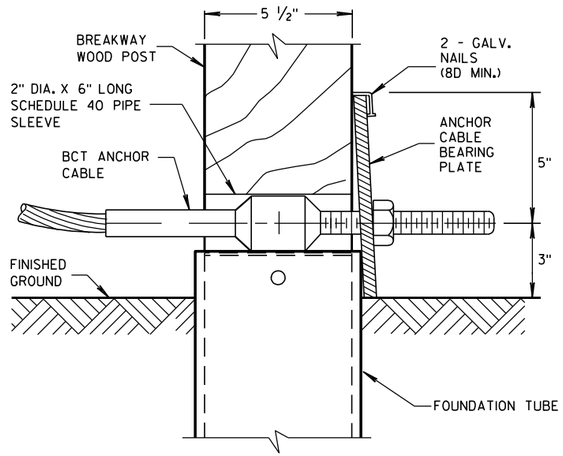


PLAN VIEW



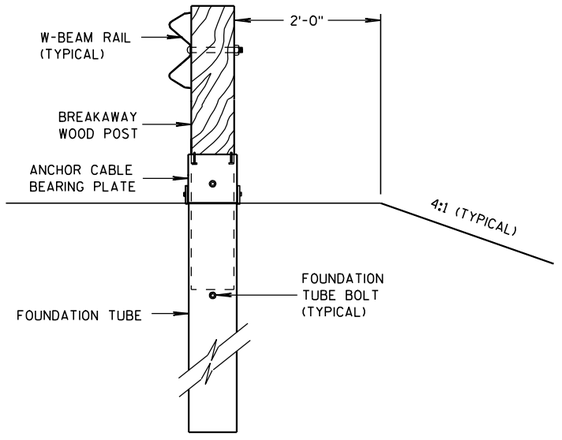
FRONT VIEW

END RAIL DETAIL



DETAIL A

POST NO. 1
GROUNG STRUT NOT SHOWN FOR CLARITY.



SECTION A-A

GENERAL NOTES

SEE SDD 14 B 42 FOR MORE INFORMATION.

POST BOLTS ARE A ⅝" DIAMETER X 10" LONG GUARDRAIL BOLT. A POST BOLT REQUIRES A ⅝" DIAMETER DH MODIFIED (RECESSED) HEAVY HEX NUT AND ⅝" DIAMETER FLAT WASHER.

FOUNDATION TUBE BOLTS ARE A ⅞" DIAMETER X 7½" LONG HEAVY HEX HEAD BOLT. A FOUNDATION TUBE BOLT REQUIRES A ⅞" DIAMETER DH HEAVY HEX NUT AND A ⅝" DIAMETER FLAT WASHER.

GROUND STRUT BOLTS ARE A ⅝" DIAMETER X 10" LONG HEAVY HEX HEAD BOLT. A GROUND STRUT BOLT REQUIRES A ⅝" DIAMETER DH HEAVY HEX NUT AND A ⅝" DIAMETER FLAT WASHER.

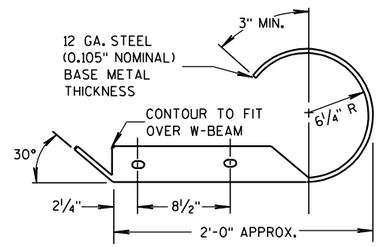
ANCHOR BRAKET BOLTS ARE A ⅝" DIAMETER X 1½" LONG HEAVY HEX HEAD BOLT. AN ANCHOR BRAKET BOLT REQUIRES A ⅝" DIAMETER DH HEAVY HEX NUT AND A FLAT WASHER.

END SECTION BOLTS ARE A ⅝" DIAMETER X 1½" HEAVY HEX HEAD BOLT. AN END SECTION BOLT REQUIRES ⅝" DIAMETER DH HEAVY HEX NUT AND A ⅝" DIAMETER FLAT WASHER.

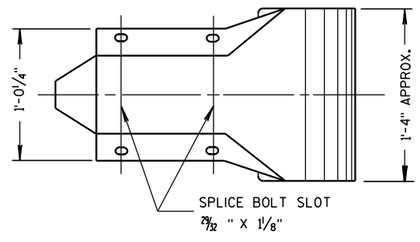
W-BEAM END SECTION ROUNDED HAS THE SAME MATERIAL PROPERTIES AS STANDARD STEEL RAIL.

(A) TOP OF FOUNDATION TUBE SHALL BE NO MORE THAN 3" ABOVE FINISHED GROUND.

(B) FOR NEW CONSTRUCTION TOP OF RAIL IS 31" ± 1".
FOR EXISTING INSTALLATIONS TOP OF RAIL IS BETWEEN 27¾" TO 32" ± 1".



PLAN VIEW



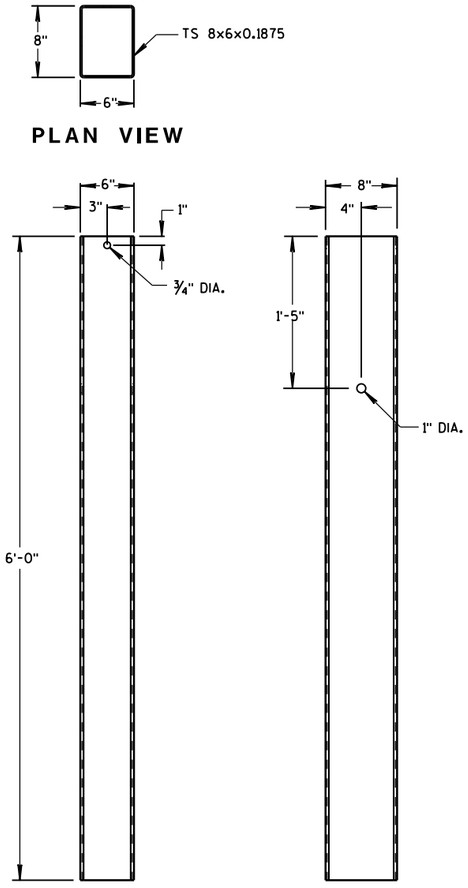
FRONT VIEW

W BEAM END SECTION ROUNDED

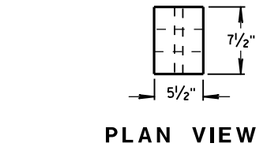
MIDWEST GUARDRAIL SYSTEM (MGS) TYPE 2 TERMINAL

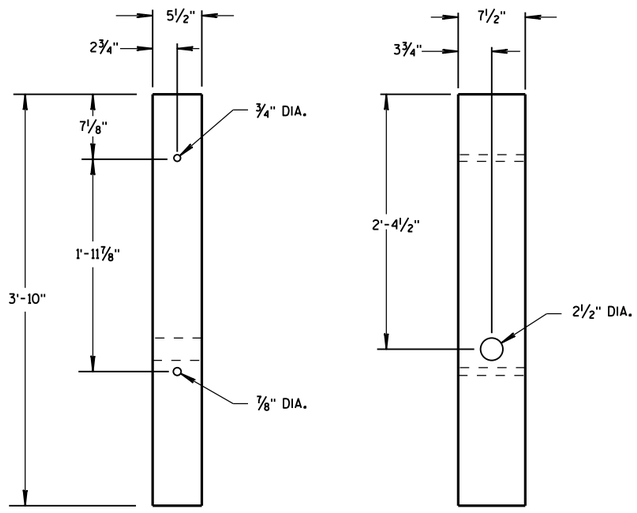
STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

6
S.D.D. 14 B 47-1a



FOUNDATION TUBE



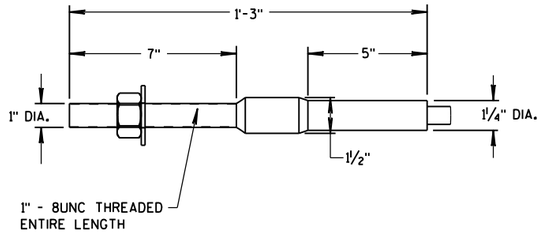


BREAKAWAY WOOD POST

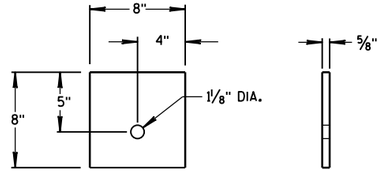
GENERAL NOTES

BCT ANCHOR CABLE IS A ⅜" DIAMETER 6X19 IWRC IPS GALVANIZED WIRE ROPE. THE SWAGED FITTINGS AND STUD ARE REQUIRED. THE END FITTING SHALL BE MACHINED FROM HOT-ROLLED CARBON STEEL CONFORMING TO ASTM A576 GRADE 1035 AND GALVANIZED ACCORDING TO ASTM A123. THE TREADED STUD SHOULD CONFORM TO ASTM A325 OR SAE GRADE 5. MINIMUM BREAKING STRENGTH OF WIRE ROPE IS 43,000 LB. WIRE ROPE IS TO BE TAUT.

BCT ANCHOR CABLE



DETAIL B



ANCHOR CABLE
BEARING PLATE

MIDWEST GUARDRAIL
SYSTEM (MGS) TYPE 2 TERMINAL

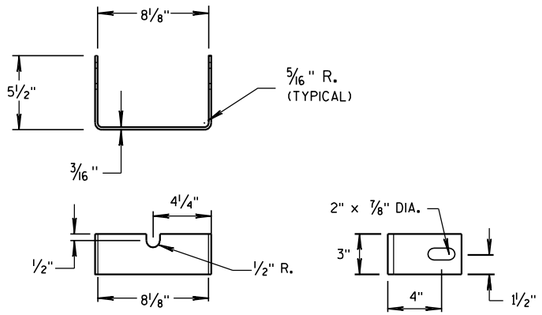
STATE OF WISCONSIN
DEPARTMENT OF TRANSPOI

6

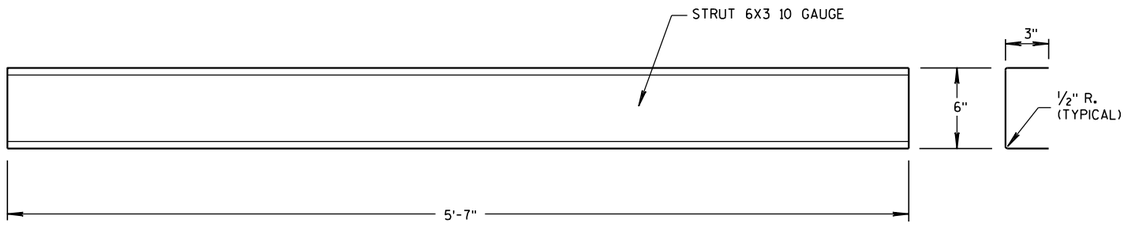
S.D.D. 14 B 47-1b

6

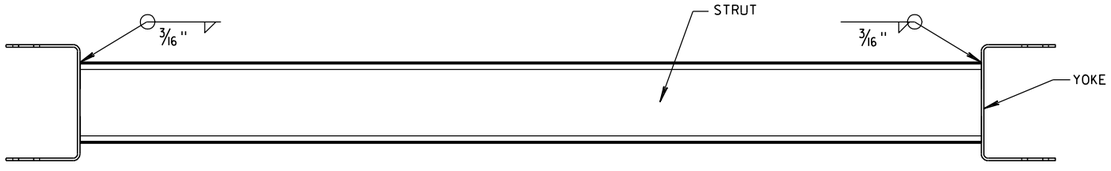
S.D.D. 14 B 47-1b



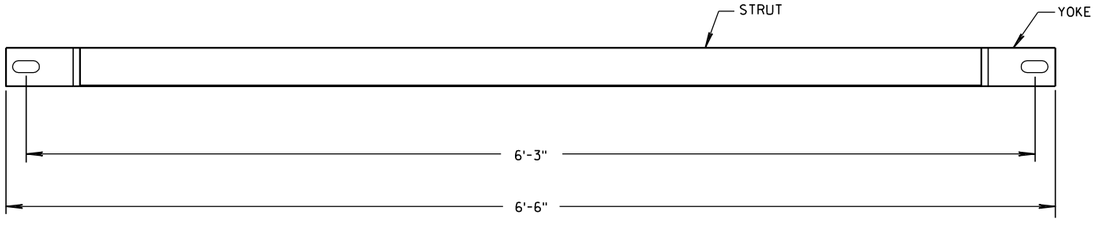
YOKE DETAIL



STRUT DETAIL

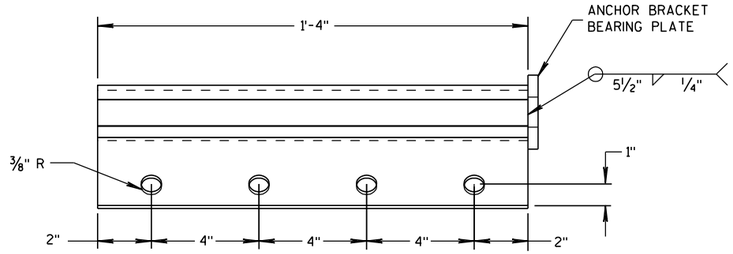


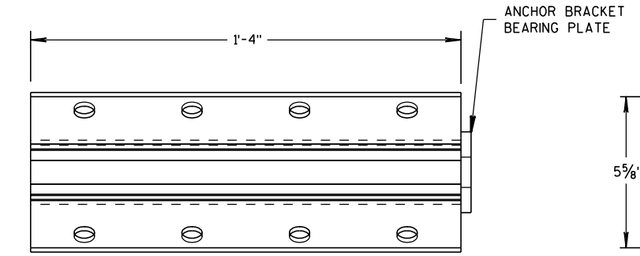
PLAN VIEW

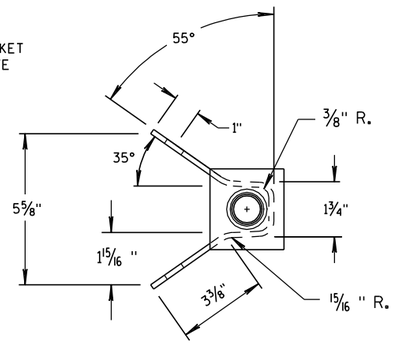


FRONT VIEW

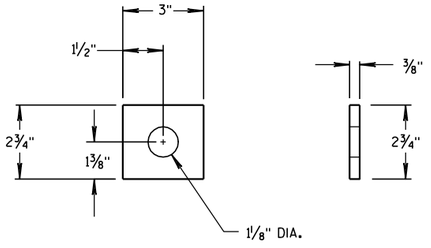
GROUND STRUT DETAIL







ANCHOR BRACKET



ANCHOR BRACKET BEARING PLATE

6

6

S.D.D. 14 B 47-1c

S.D.D. 14 B 47-1c

MIDWEST GUARDRAIL SYSTEM (MGS) TYPE 2 TERMINAL

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

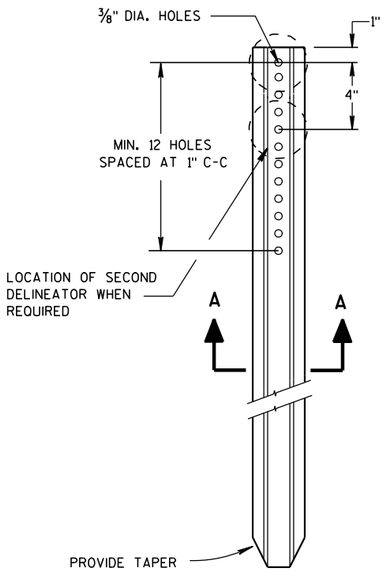
APPROVED

5/23/2011
DATE

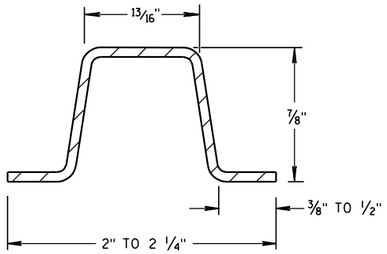
/S/ Jerry H. [illegible]
ROADWAY STANDARDS ENGINEER

[illegible]

FHWA

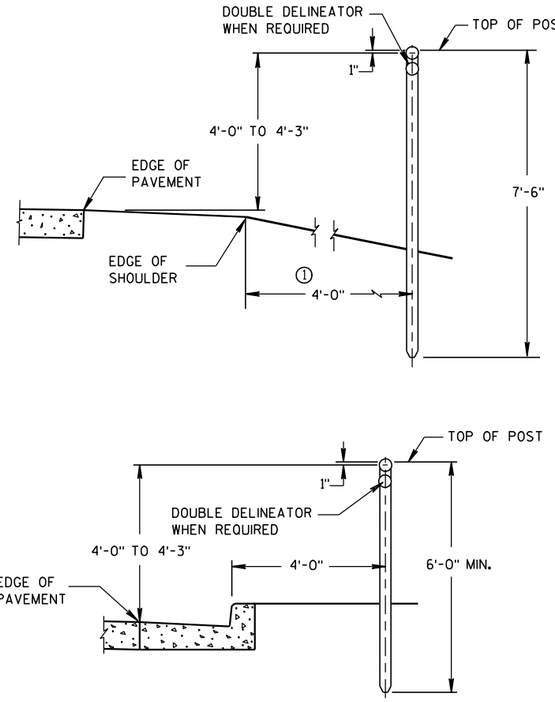


DELINEATOR POST



SECTION A-A

WEIGHT 1.12 LBS PER FT. ± 0.1 LB.

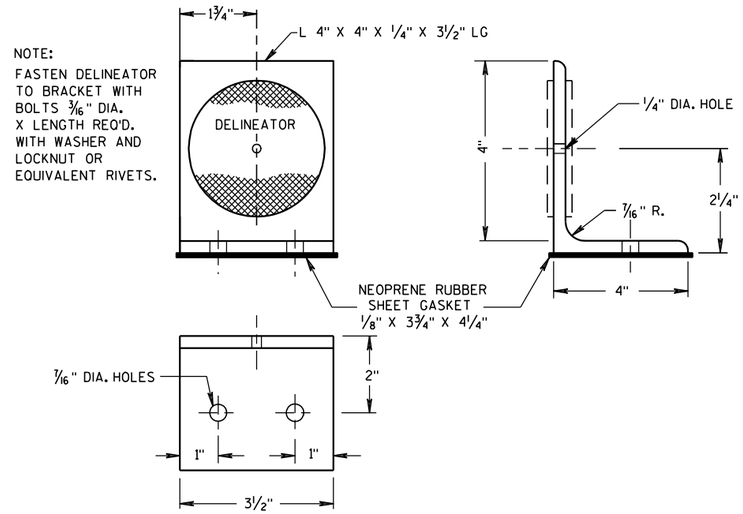


TYPICAL INSTALLATIONS OF DELINEATOR POSTS

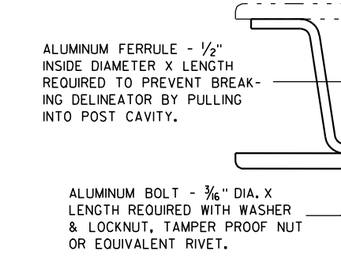
GENERAL NOTES

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

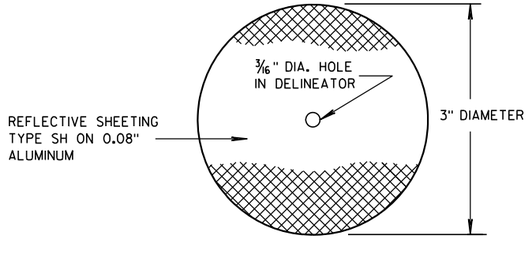
① DELINEATORS SHALL BE PLACED AT A CONSTANT DISTANCE FROM THE EDGE OF THE SHOULDER FOR THE LENGTH OF THE INSTALLATION.



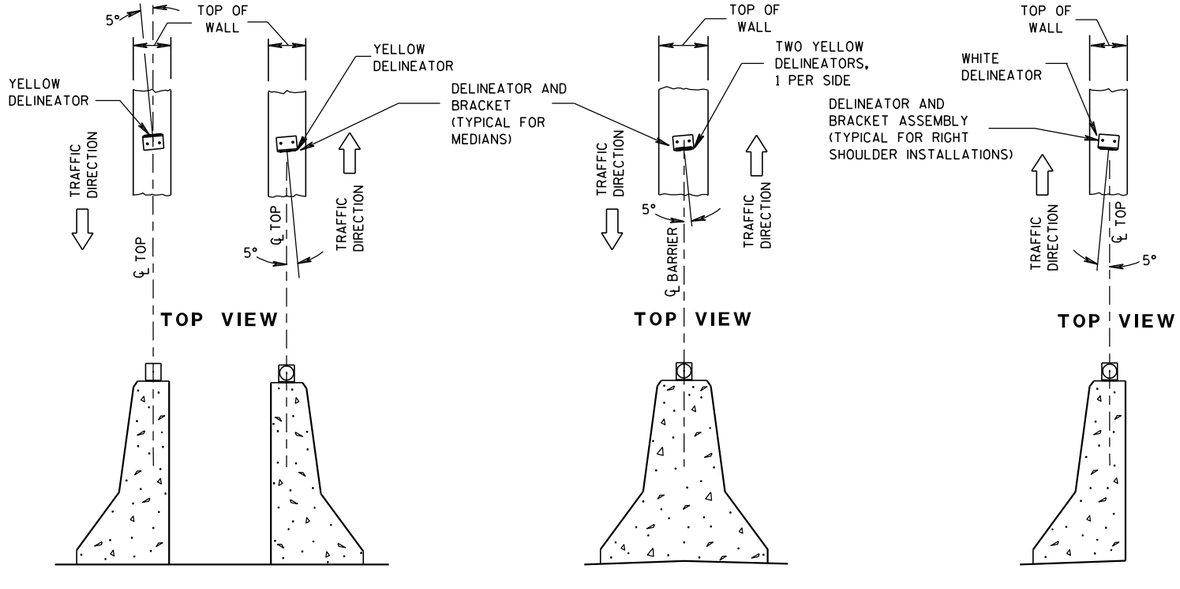
DELINEATOR BRACKET



MOUNTING DETAIL FOR DELINEATOR



DELINEATOR

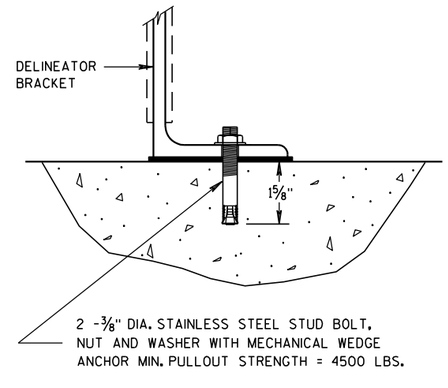


DOUBLE BARRIERS IN MEDIAN

MEDIAN BARRIER

BARRIER LOCATED TO RT. OF TRAFFIC FLOW

LOCATION AND AIMING DETAILS FOR DELINEATORS MOUNTED ON CONCRETE BARRIERS



DELINEATOR BRACKET MOUNTING DETAIL

DELINEATOR POST, DELINEATOR BRACKET AND DELINEATOR

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

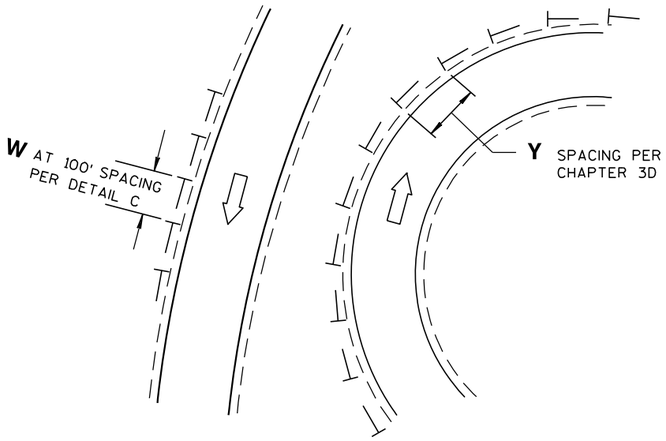
APPROVED
1/25/2011 — DATE
/S/ Thomas N. Nothdurft — STATE TRAFFIC ENGINEER — DESIGN
FHWA

S.D.D. 15 A 2-7

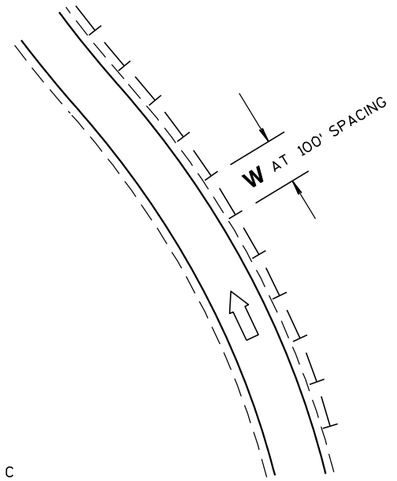
S.D.D. 15 A 2-7

GENERAL NOTES

* USE DOUBLE DELINEATOR ALONG ACCELERATION-DECELERATION LANES AND TAPERS. USE SINGLE DELINEATOR WHEN RAMP PAVEMENT IS FULL WIDTH.



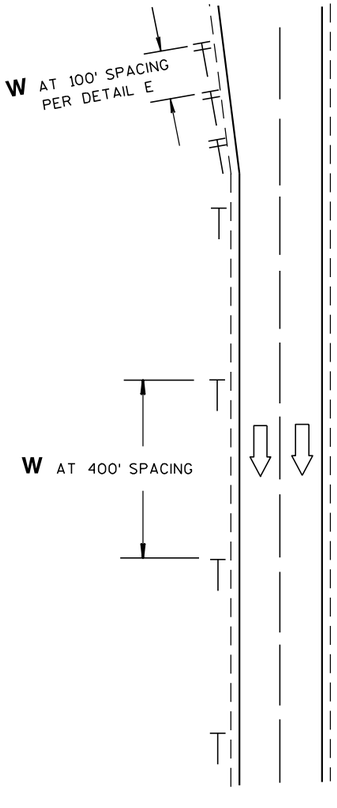
DETAIL A
DELINEATOR LAYOUT AT CURVED RAMP



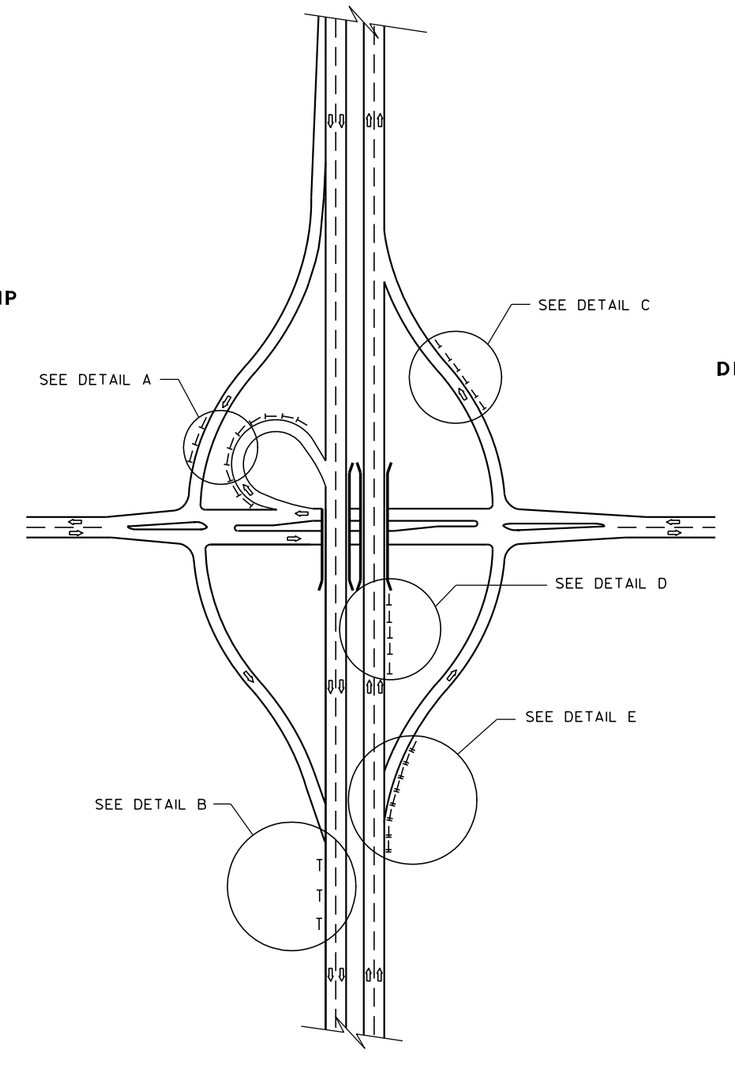
DETAIL C
DELINEATOR LAYOUT ALONG RAMP

LEGEND

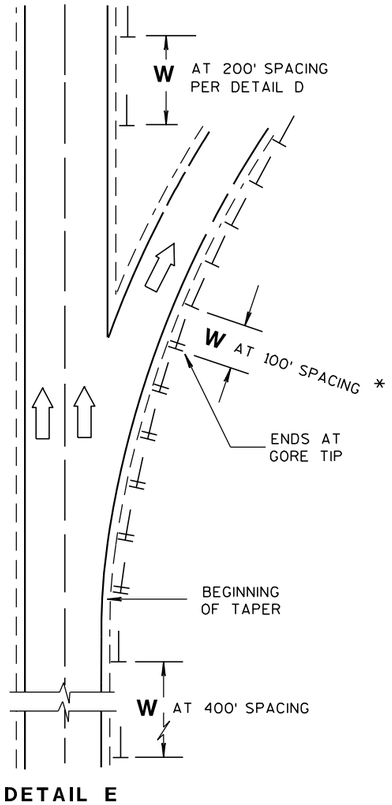
- DIRECTION OF TRAFFIC FLOW
- SINGLE DELINEATOR
- DOUBLE DELINEATOR
- W — WHITE
- Y — YELLOW



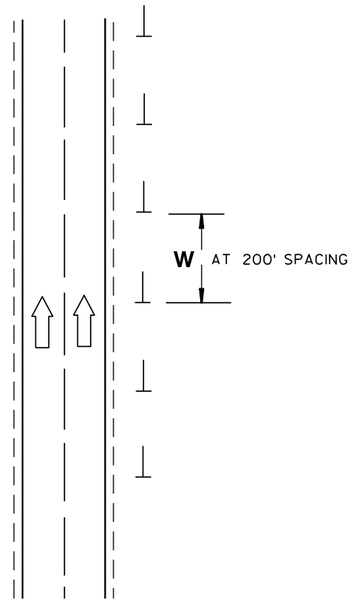
DETAIL B
DELINEATOR LAYOUT ALONG MAINLINE



DELINEATOR LAYOUT



DETAIL E
DELINEATOR LAYOUT FOR ACCELERATION - DECELERATION LANES AND TAPERS AT RAMPS



DETAIL D
DELINEATOR LAYOUT BETWEEN INTERCHANGE RAMPS

DELINEATOR LAYOUT

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

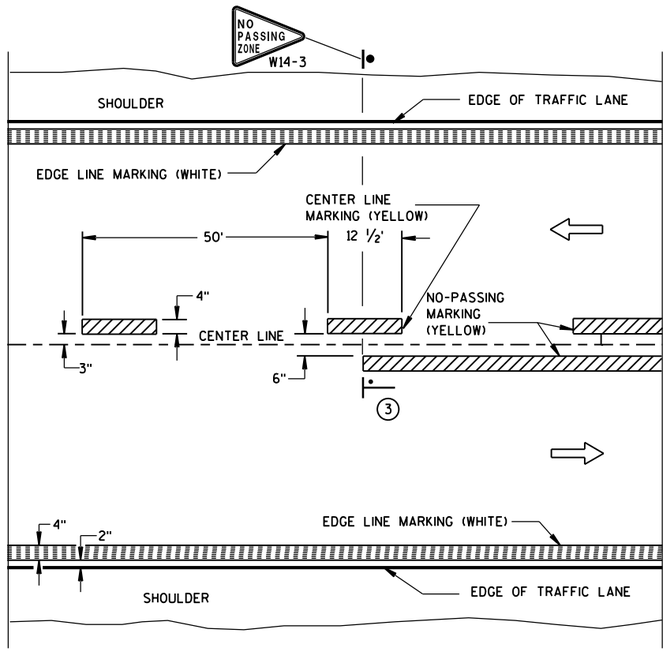
APPROVED
2/5/09 DATE
/S/ Thomas N. Nothdurft
STATE TRAFFIC ENGINEER
FHWA

6

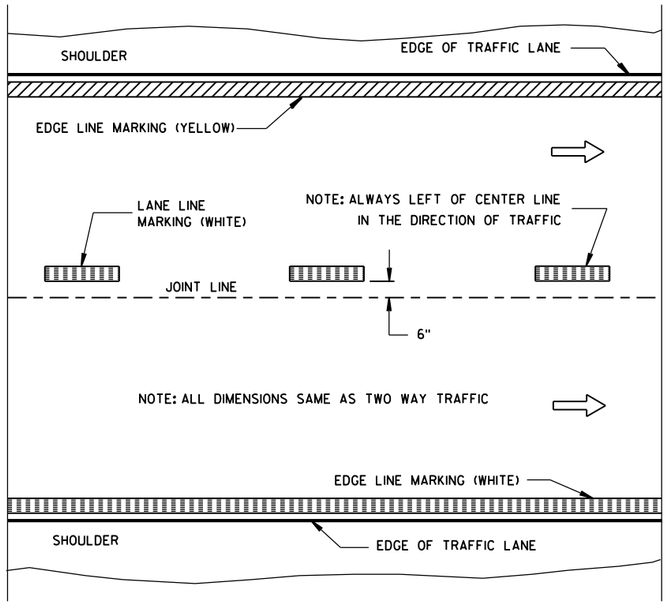
S.D.D. 15 A 6-2

6

S.D.D. 15 A 6-2

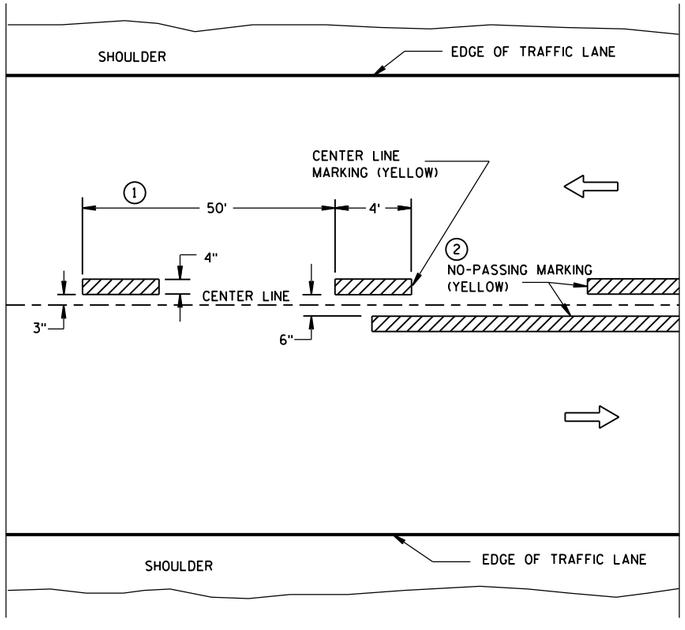


TWO WAY TRAFFIC

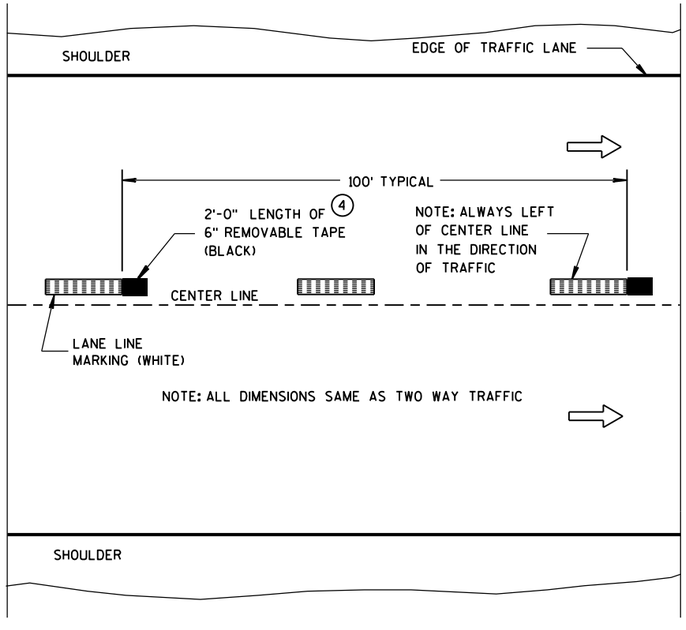


ONE WAY TRAFFIC

PERMANENT PAVEMENT MARKING



TWO WAY TRAFFIC



ONE WAY TRAFFIC

TEMPORARY (INTERMEDIATE) PAVEMENT MARKING

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

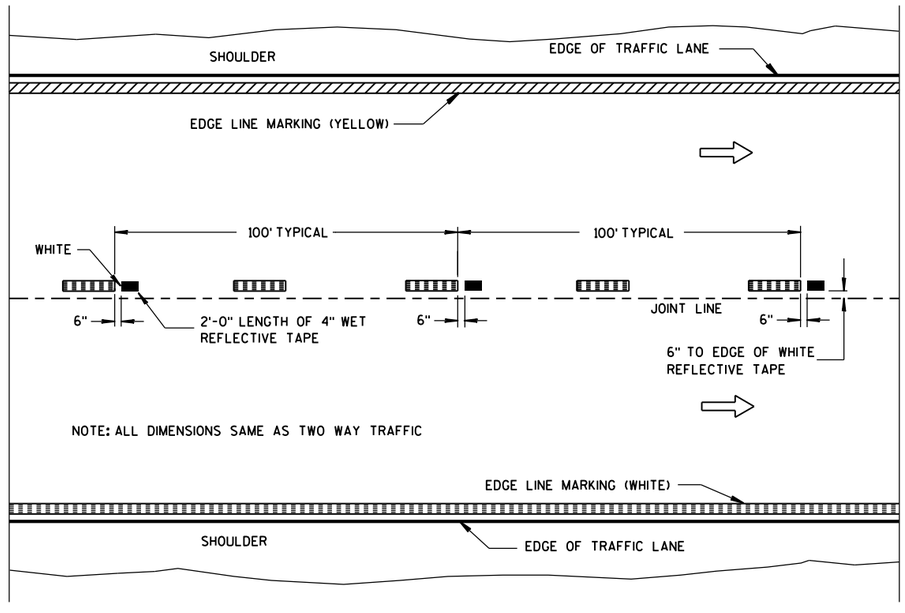
GENERAL NOTES

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

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

NOTE

ARROW SYMBOL (⇨) SHOWS DIRECTION OF TRAVEL



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

LEGEND

"T" MARKING

POST MOUNTED SIGN

PAVEMENT MARKING (MAINLINE)

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

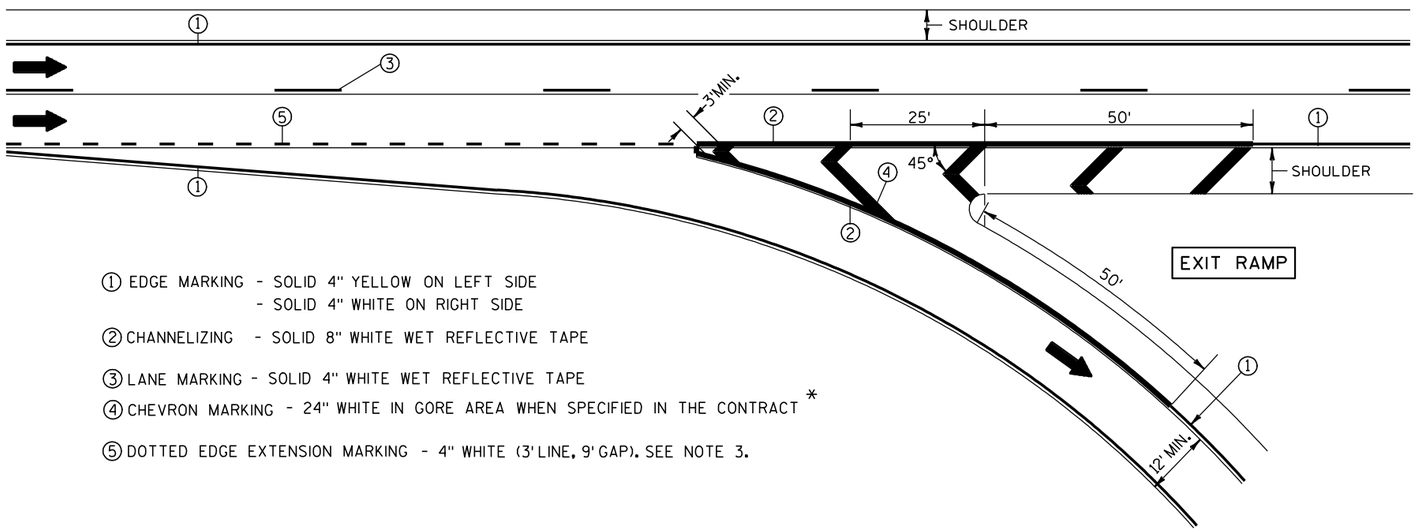
APPROVED
10-1-2012 — DATE
/S/ Travis Feltes — STATE TRAFFIC ENGINEER
FHWA

6

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

6

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



① EDGE MARKING - SOLID 4" YELLOW ON LEFT SIDE
- SOLID 4" WHITE ON RIGHT SIDE

② CHANNELIZING - SOLID 8" WHITE WET REFLECTIVE TAPE

③ LANE MARKING - SOLID 4" WHITE WET REFLECTIVE TAPE

④ CHEVRON MARKING - 24" WHITE IN GORE AREA WHEN SPECIFIED IN THE CONTRACT *

⑤ DOTTED EDGE EXTENSION MARKING - 4" WHITE (3' LINE, 9' GAP). SEE NOTE 3.

NOTES:

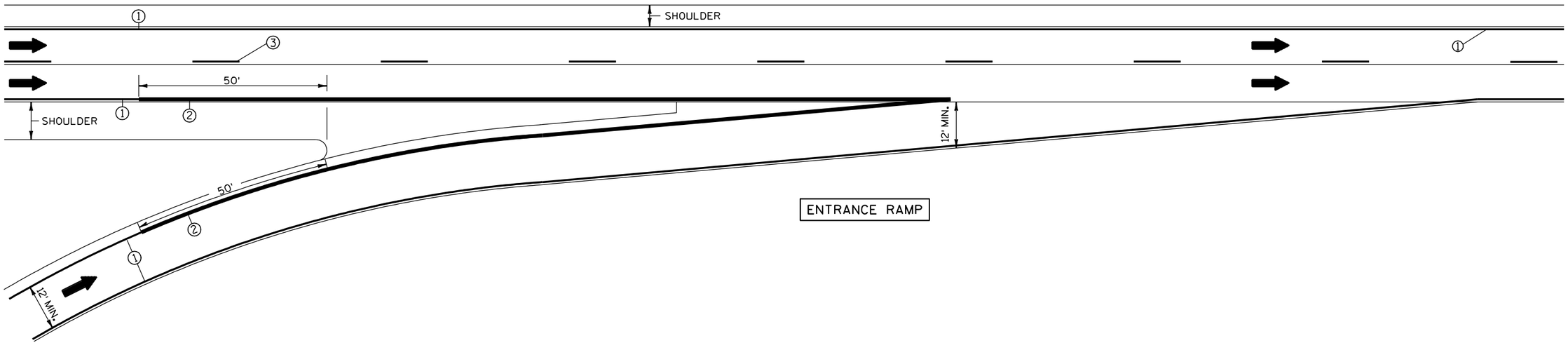
1. ARROWS SHOWN ON THIS MARKING PLAN DESIGNATE TRAFFIC FLOW, AND SHALL NOT BE TAKEN AS PROPOSED PAVEMENT MARKINGS.

2. PLACE WHITE EDGE OF TAPE 6" LEFT FROM JOINT.

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

4. RETRACE EXISTING DIAGONAL MARKINGS.

* REFER TO DESIGN NOTES.



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S.D.D. 15 C 31-1a

PAVEMENT MARKING
(RAMPS AND GORES)

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

6

S.D.D. 15 C 31-1a

LEGEND

- POST WITH ATTACHED SIGN
- DRUM WITH WARNING LIGHT (TYPE C)
- DRUM
- ARROW BOARD
- REMOVING PAVEMENT MARKING
- TEMPORARY PRECAST CONCRETE BARRIER
- DIRECTION OF TRAFFIC
- WORK ZONE

GENERAL NOTES :

THIS LANE CLOSURE IS TYPICAL FOR CLOSING RIGHT LANE - REVERSE FOR CLOSING LEFT LANE.

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

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

ALL SIGNS ARE 48"x48" UNLESS OTHERWISE NOTED.

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

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

(1) CONSIDER ROADWAY GEOMETRICS WHEN LOCATING SIGNS AND ARROW BOARD SO THE DRIVER HAS A CLEAR VIEW OF THE ARROW BOARD AND LANE CLOSURE DRUMS FOR A MINIMUM 1500 FEET IN FRONT OF DRUMS.

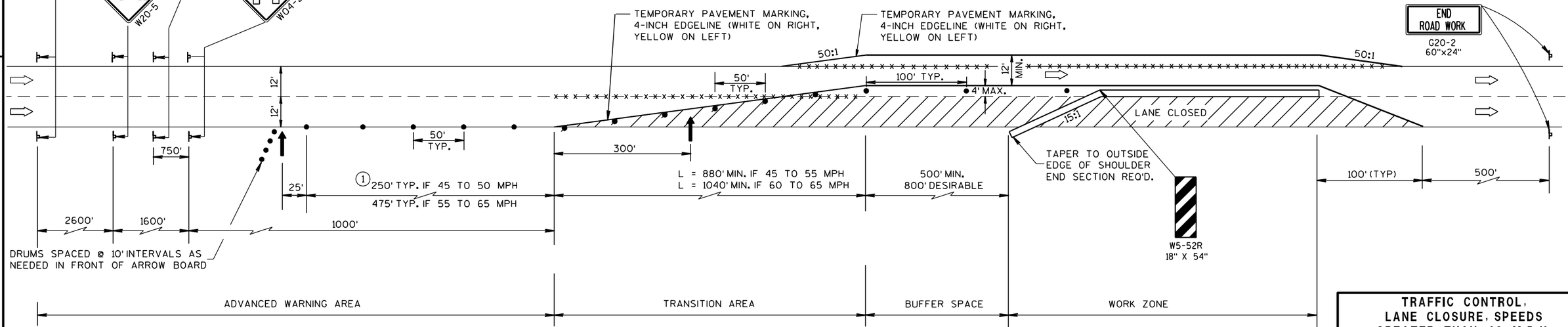
FOR A LANE CLOSURE THAT IS IN PLACE LESS THAN 7 CONTINUOUS DAYS AND NIGHTS, THE ADVANCED WARNING SIGNS MAY BE MOUNTED ON PORTABLE SUPPORTS.

REMOVE PAVEMENT MARKINGS IF LANE CLOSURE IS TO BE IN PLACE FOR LONGER THAN 7 CONTINUOUS DAYS AND NIGHTS.

IF THE HORIZONTAL ALIGNMENT IS SUCH THAT A CURVE MAY REQUIRE ADDITIONAL DELINEATION, THE DEVICE SPACING MAY BE DECREASED TO 50 FEET.

ADJUSTMENTS IN BUFFER SPACE NEED TO BE INCORPORATED WHEN THE LANE CLOSURE OCCURS NEAR AN INTERCHANGE EXIT OR ENTRANCE RAMP OR INTERSECTION. THE LANE CLOSURE MUST TAKE PLACE FAR ENOUGH IN ADVANCE OF AN EXIT OR ENTRANCE RAMP TO STILL ALLOW FOR ADEQUATE BUFFER SPACE. THE MINIMUM LENGTH OF THE BUFFER SPACE BEFORE AN EXIT RAMP SHOULD BE 1/2 THE LENGTH OF THE TRANSITION AREA. THE ENTRANCE RAMP SHOULD BE FOLLOWED BY THE ORIGINAL BUFFER SPACE LENGTH OF 800 FEET DESIRABLE PRIOR TO ANOTHER TRAFFIC CONTROL CHANGE SUCH AS A CROSSOVER MANEUVER.

NO EQUIPMENT OR MATERIAL SHALL BE LOCATED WITHIN THE WORK ZONE OTHER THAN BEHIND THE PRECAST CONCRETE BARRIER.



TRAFFIC CONTROL, LANE CLOSURE, SPEEDS GREATER THAN 40 M.P.H. WITH BARRIER

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED

7-14-94
DATE

/S/ Chester J. [illegible]
DIRECTOR, OFFICE OF [illegible]

FHWA

6

S.D.D. 15 D 3-1

6

S.D.D. 15 D 3-1

LEGEND

- POST WITH ATTACHED SIGN
- POST WITH ATTACHED SIGN IN DRUM
- DRUM WITH WARNING LIGHT (TYPE C)
- DRUM
- ARROW BOARD
- 8' TYPE III BARRICADE
- REMOVING PAVEMENT MARKING
- DIRECTION OF TRAFFIC

GENERAL NOTES :

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

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

THIS LANE CLOSURE IS TYPICAL FOR CLOSING RIGHT LANE - REVERSE FOR CLOSING LEFT LANE.

ALL SIGNS ARE 48"x48" UNLESS OTHERWISE NOTED.

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

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

(1) CONSIDER GEOMETRICS WHEN LOCATING SIGNS AND ARROW BOARD SO THE DRIVER HAS A CLEAR VIEW OF THE ARROW BOARD AND LANE CLOSURE DRUMS FOR A MINIMUM 1500 FEET IN FRONT OF DRUMS.

FOR A LANE CLOSURE THAT IS IN PLACE LESS THAN 7 CONTINUOUS DAYS AND NIGHTS, THE ADVANCED WARNING SIGNS MAY BE MOUNTED ON PORTABLE SUPPORTS.

GENERAL NOTES CONTINUED:

REMOVE PAVEMENT MARKINGS IF LANE CLOSURE IS TO BE IN PLACE FOR LONGER THAN 7 CONTINUOUS DAYS AND NIGHTS.

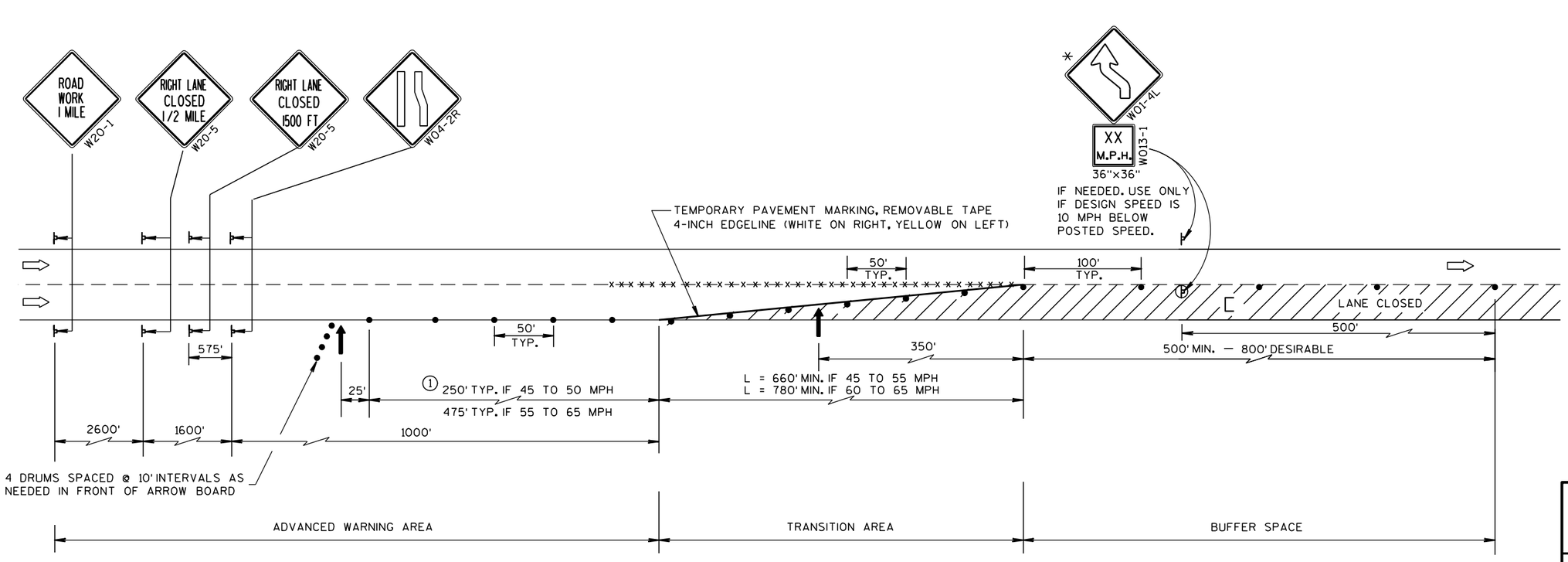
WARNING LIGHTS ARE NOT REQUIRED IF THE LANE CLOSURE IS A DAYTIME ONLY OPERATION.

IF THE HORIZONTAL ALIGNMENT IS SUCH THAT A CURVE MAY REQUIRE ADDITIONAL DELINEATION, THE DEVICE SPACING MAY BE DECREASED TO 50 FEET.

IF LANE CLOSURE IS MORE THAN 1 MILE, PLACE A TYPE III BARRICADE APPROXIMATELY EVERY 1/4 MILE ACROSS THE CLOSED LANE TO HELP ENFORCE THE DRUM LINE.

ADJUSTMENTS IN BUFFER SPACE NEED TO BE INCORPORATED WHEN THE LANE CLOSURE OCCURS NEAR AN INTERCHANGE EXIT OR ENTRANCE RAMP. THE LANE CLOSURE MUST MUST TAKE PLACE FAR ENOUGH IN ADVANCE OF AN EXIT OR ENTRANCE RAMP TO STILL ALLOW FOR ADEQUATE BUFFER SPACE. THE MINIMUM LENGTH OF THE BUFFER SPACE BEFORE AN EXIT RAMP SHOULD BE 1/2 THE LENGTH OF THE TRANSITION AREA. THE ENTRANCE RAMP SHOULD BE FOLLOWED BY THE ORIGINAL BUFFER SPACE LENGTH OF 800 FEET DESIRABLE PRIOR TO ANOTHER TRAFFIC CONTROL CHANGE SUCH AS A CROSSOVER MANEUVER.

* THE LEFT REVERSE CURVE SIGN (WO1-4L) IS ONLY REQUIRED WHEN THIS DETAIL IS USED IN COMBINATION WITH "SINGLE LANE CROSSOVER" DETAIL.



TRAFFIC CONTROL, LANE CLOSURE, SPEEDS GREATER THAN 40 M.P.H.

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

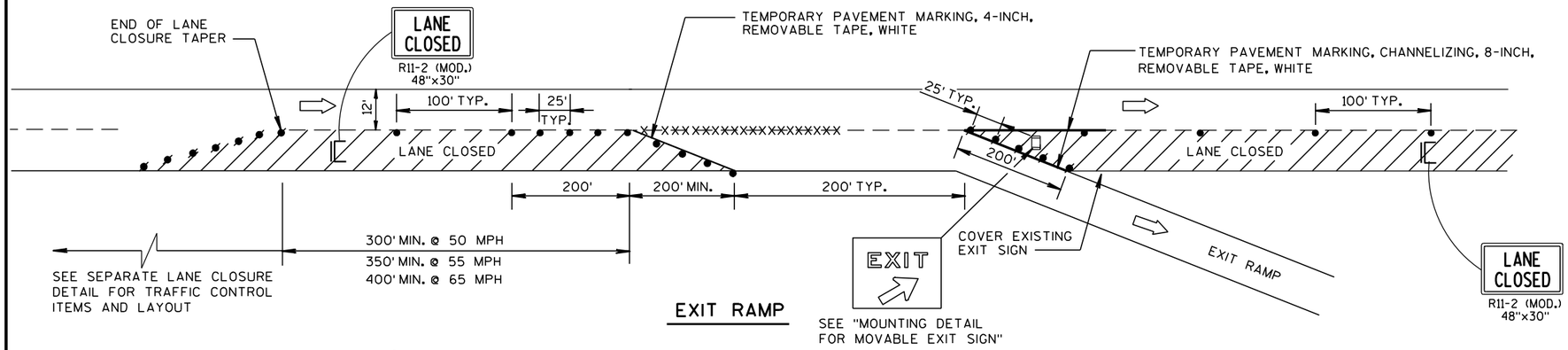
APPROVED
8-7-95 DATE
/S/ Chester J. [illegible] 95
DIRECTOR, OFFICE OF C
FHWA

6

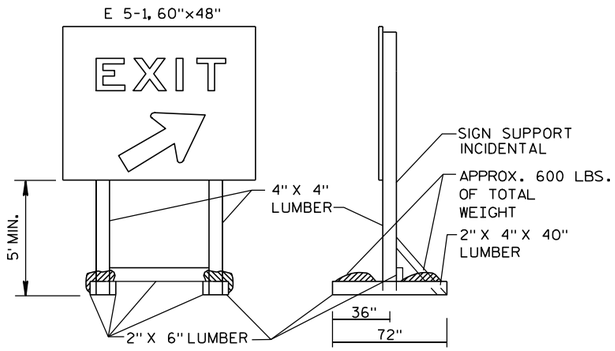
S.D.D. 15 D 12-2

6

S.D.D. 15 D 12-2

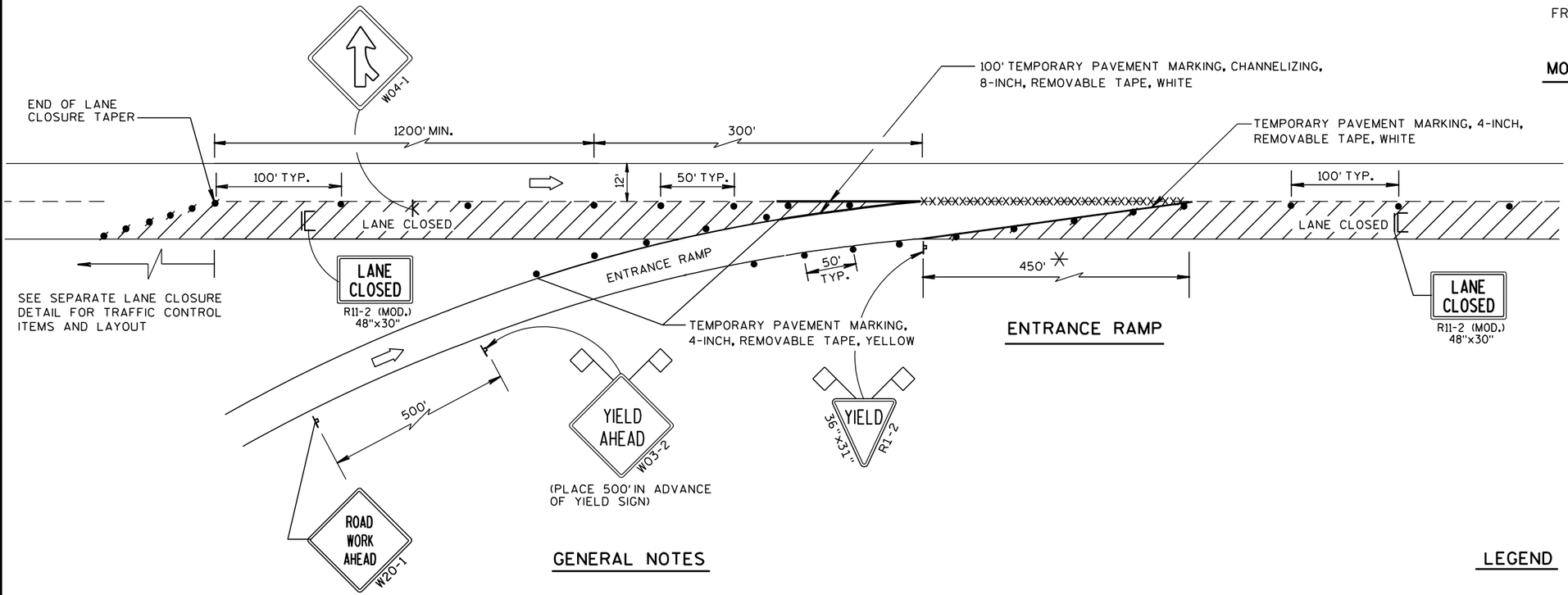


EXIT RAMP



NOTE: ALL LUMBER DIMENSIONS ARE NOMINAL

MOUNTING DETAIL FOR MOVABLE EXIT SIGN



ENTRANCE RAMP

GENERAL NOTES

THE INSTALLATIONS SHOWN ON THIS SHEET ARE TYPICAL EXAMPLES AND ARE NOT INTENDED TO REPRESENT ANY PARTICULAR RAMP. AT SPECIFIC FIELD LOCATIONS, SIMILAR INSTALLATIONS SHALL BE USED AND ADJUSTED TO THE GEOMETRICS OF THE RAMP AS COORDINATED WITH THE ENGINEER.

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

THE SPACING BETWEEN TRAFFIC CONTROL SIGNS SHOULD BE ADJUSTED TO NOT CONFLICT WITH AND SHOULD PROVIDE A 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.

SEE SEPARATE LANE CLOSURE DETAIL FOR TYPICAL SPACING OF TYPE III BARRICADES AND R11-2 (MOD.) "LANE CLOSED" SIGNS.

YIELD SIGN AND WARNING SIGNS ON ENTRANCE RAMP ARE ALSO APPROPRIATE FOR CLOSURE OF THE MAINLINE LEFT LANE. OMIT THE YIELD SIGN IF MORE THAN ONE LANE REMAINS OPEN ON THE MAINLINE AND THE RAMP TAPER IS AT LEAST AS LONG AS THE NORMAL ENTRANCE RAMP TAPER AT THE SITE.

SIGNS THAT WILL BE IN PLACE LESS THAN 7 CONTINUOUS DAYS AND NIGHTS, OR THAT WILL BE PLACED IN A CLOSED LANE, MAY BE MOUNTED ON PORTABLE SUPPORTS.

IF INDICATED IN MISCELLANEOUS QUANTITIES, SUBSTITUTE FLEXIBLE TUBULAR MARKERS FOR DRUMS IN THE GORE BETWEEN THE ENTRANCE RAMP AND MAINLINE TRAFFIC.

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

REMOVE PAVEMENT MARKINGS AND PLACE TEMPORARY PAVEMENT MARKING, REMOVABLE TAPE IF LANE CLOSURE IS TO BE IN PLACE FOR 7 OR MORE CONTINUOUS DAYS AND NIGHTS.

WARNING LIGHTS ARE NOT REQUIRED IF THE LANE CLOSURE IS A DAYTIME ONLY OPERATION.

✳ LENGTH OF OPENING MAY BE REDUCED TO 150 FEET DURING STAGING OF WORK IN IMMEDIATE AREA OF RAMP TAPER.

LEGEND

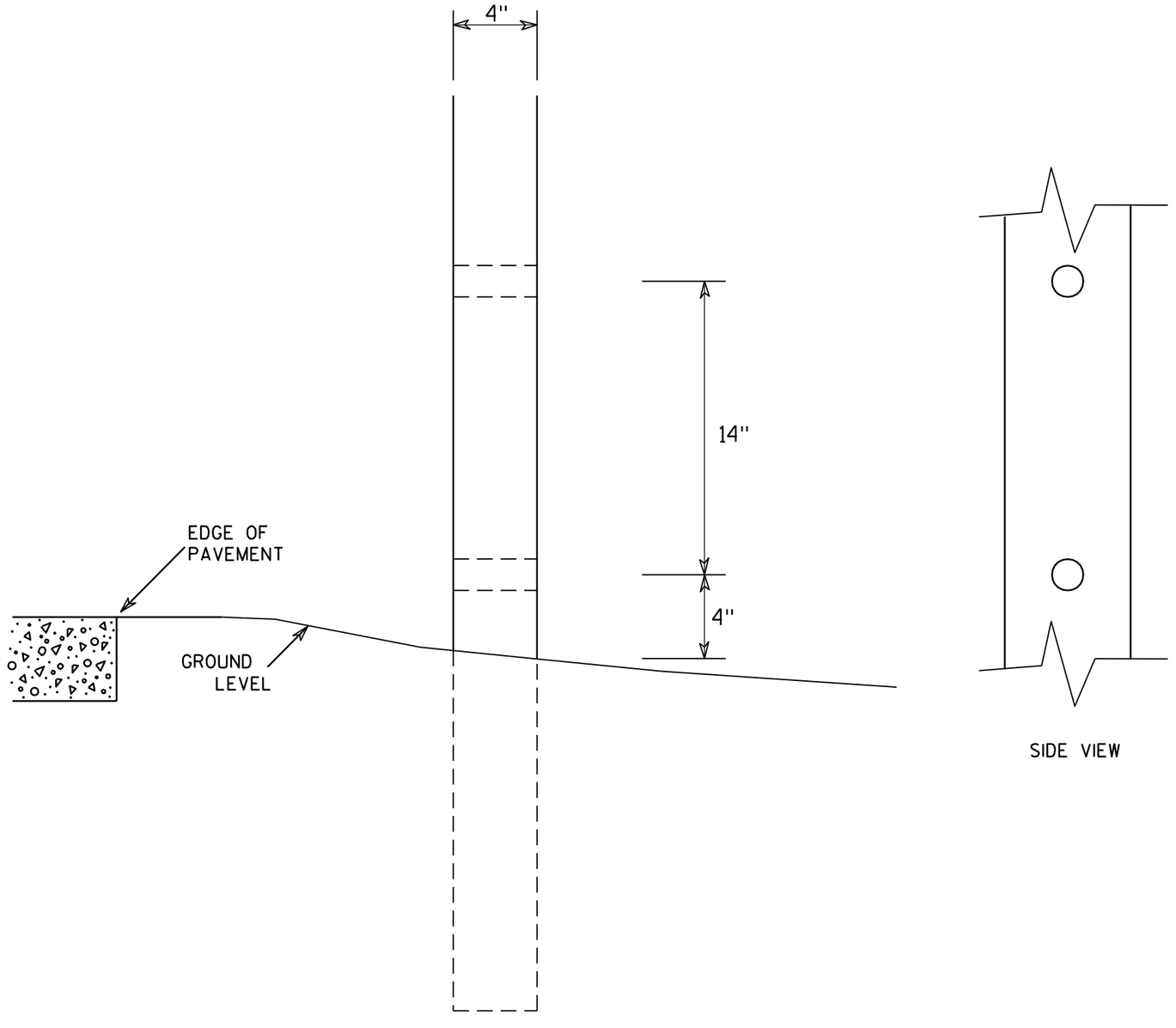
- POST MOUNTED SIGN
- SIGN ON PORTABLE SUPPORT
- TRAFFIC CONTROL, DRUM
- TRAFFIC CONTROL, DRUM WITH WARNING LIGHT, TYPE C (STEADY-BURN)
- REMOVING PAVEMENT MARKING (SEE GENERAL NOTES)
- TYPE III BARRICADE (8' EQUIVALENT) WITH SIGN
- FLAGS, 16"x16" MIN., ORANGE
- DIRECTION OF TRAFFIC FLOW

TRAFFIC CONTROL, EXIT AND ENTRANCE RAMP WITHIN LANE CLOSURE

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
5/24/2000 DATE
/S/ Chester J. [illegible] CHIEF SIGNS AND MARKINGS ENGINEER
FHWA

6
S.D.D. 15 D 15-1



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.

4 X 6 WOOD POST MODIFICATIONS

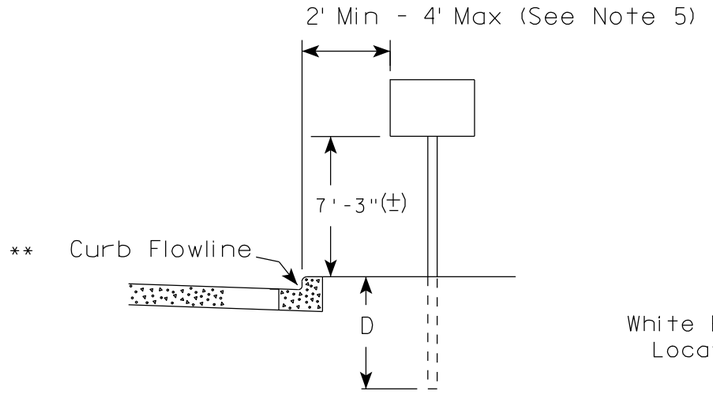
WISCONSIN DEPT OF TRANSPORTATION

APPROVED Chester J Spang for State Traffic Engineer

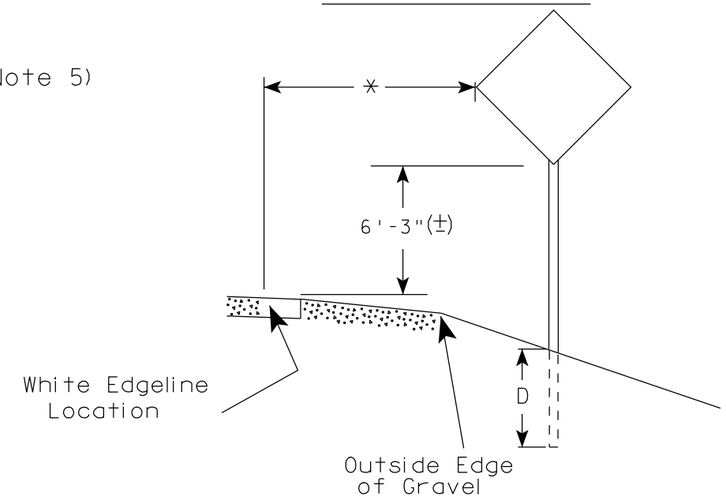
DATE 3/27/97 PLATE NO. A4-11.2

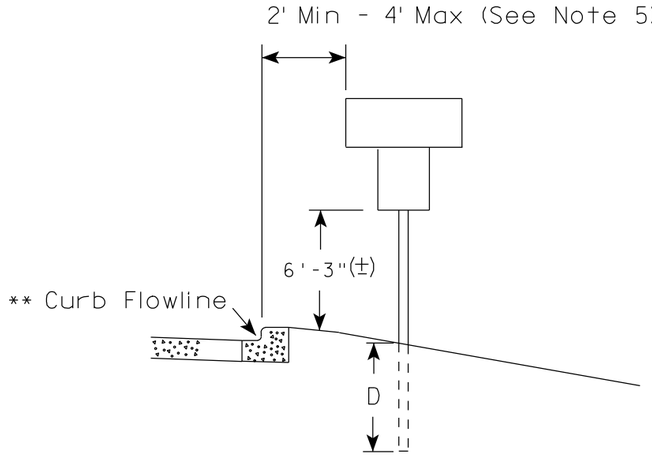
PROJECT NO:	HWY:	COUNTY:		SHEET NO: 97	E

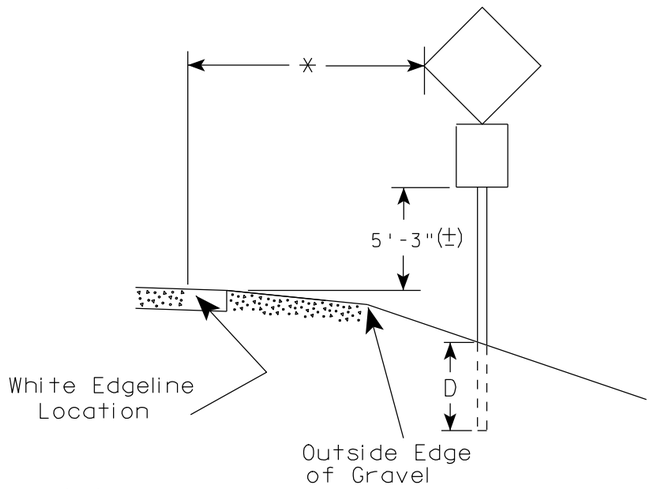
URBAN AREA



RURAL AREA (See Note 2)







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

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

GENERAL NOTES

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

POST EMBEDMENT DEPTH

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

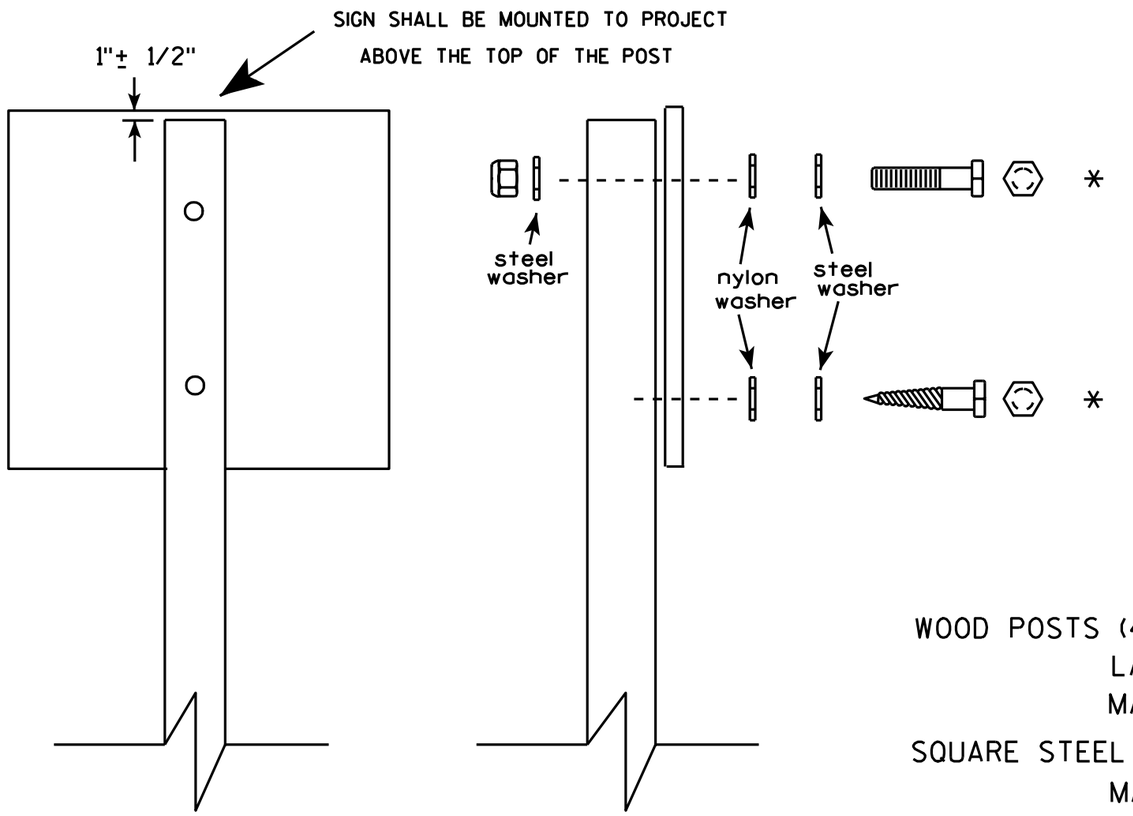
TYPICAL INSTALLATION OF PERMANENT TYPE II SIGNS ON SINGLE POSTS

WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

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

PROJECT NO:	HWY:	COUNTY:		SHEET NO: 98	E



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

a. Hot dip galvanized in accordance with ASTM Designation: A 153, Class D, or SC 3

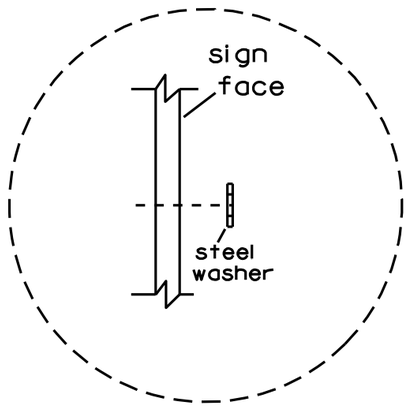
b. Electro-galvanized in accordance with ASTM Designation : B 633, TYPE III, SC 3.

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

WOOD POSTS (4" x 4" or 4" x 6")
LAG SCREWS - 3/8" X 3"
MACHINE BOLTS - 5/16" X 6-1/2" or 7" Length w/ nuts

SQUARE STEEL POSTS (2" x 2")
MACHINE BOLTS - 3/8" X 3-1/4" Length w/ nuts
RIVETS - 9/32 " (6605-9-6) BULB-TITE, TRI-FOLD, ALUMINUM BODY/MANDREL
O.D. FLANGE .720-.765 INCH, GRIP RANGE .042-.375 INCH

WASHERS (ALL POSTS) -
1-1/4" O.D. X 3/8" I.D. X 1/16" STEEL
1-1/4" O.D. X 3/8" I.D. X .080 NYLON for all Type H signs.



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

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

ATTACHMENT OF SIGNS TO POSTS

WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

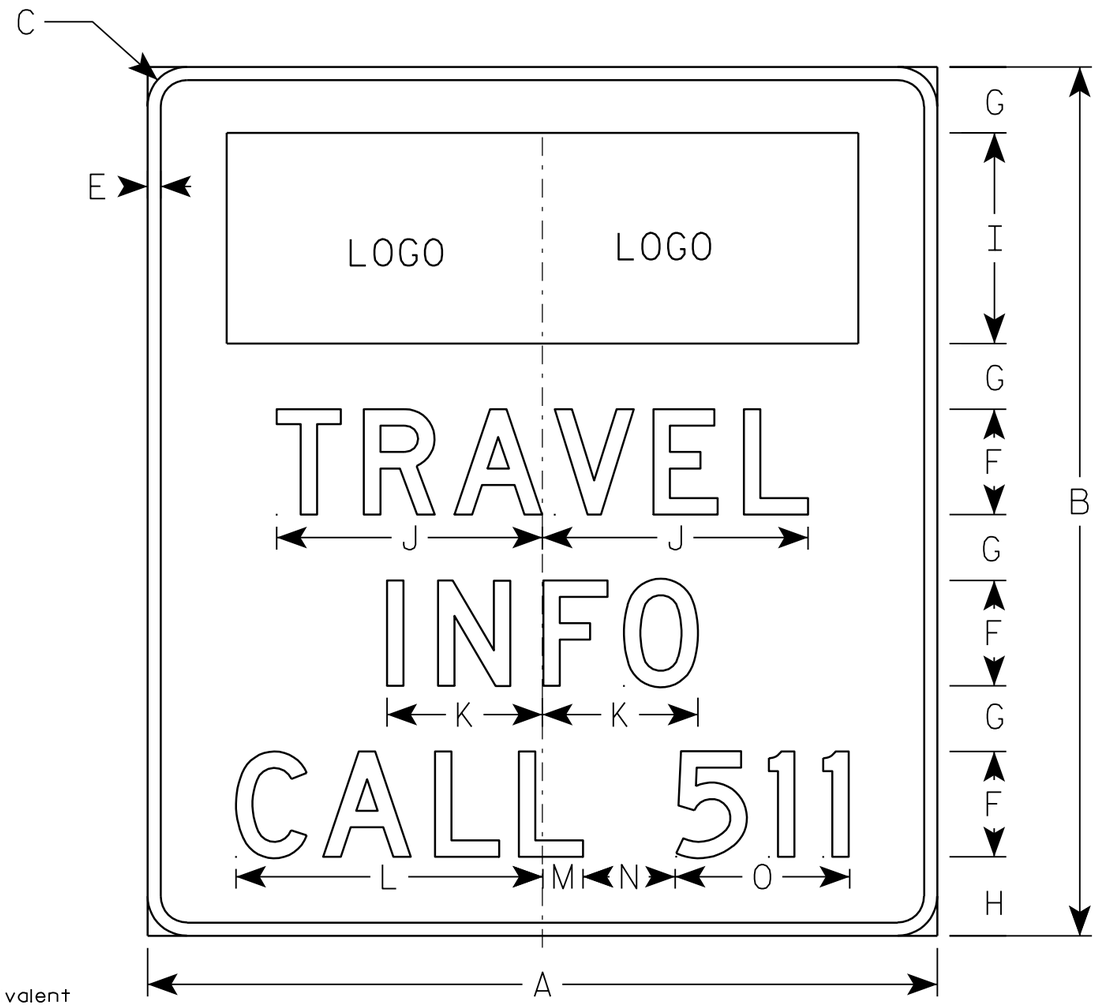
DATE 3/23/10 PLATE NO. A4-8.7

7

7

PROJECT NO:

SHEET NO: 99 E



D12-5

NOTES

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

Metric equivalent for this sign is:

SIZE	
1	
2	1500 mm X 1650 mm
3	
4	
5	

SIZE	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	Area sq. ft.	Area m2
1																												
2	60	66	2 1/4		1	8	5	6	16	20 1/4	11 7/8	23 3/8	3 1/8	7	13 1/4												27.5	2.48
3																												
4																												
5																												

STANDARD SIGN
D12-5

WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 12/5/08 PLATE NO. D12-5.2

PROJECT NO:

SHEET NO: 100 E

STATELINE RD TO SIGN BRIDGE

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
135+00.000		16.14	7.92	10.05	12	0	0	0	0	0	0	0	0	0
135+89.916	90	15.87	7.92	52.48	12	53	26	104	40	53	90	52	32	-63
136+00.000	10	15.50	7.92	35.39	12	6	3	16	4	59	106	58	36	-76
137+00.000	100	15.07	7.92	24.14	12	57	29	110	44	116	200	116	71	-142
138+00.000	100	17.23	7.92	9.73	12	60	29	63	44	176	234	173	107	-146
139+00.000	100	15.75	7.92	9.37	0	61	29	35	22	237	256	202	124	-136
140+00.000	100	16.52	7.92	11.48	0	60	29	39	0	296	304	202	124	-154
141+00.000	100	17.38	7.92	12.21	0	63	29	44	0	359	359	202	124	-175
142+00.000	100	17.24	7.92	5.58	0	64	29	33	0	423	400	202	124	-182
143+00.000	100	17.60	7.92	1.93	0	65	29	14	0	488	417	202	124	-164
144+00.000	100	16.37	7.92	1.30	0	63	29	6	0	551	425	202	124	-138
145+00.000	100	16.57	7.92	2.38	0	61	29	7	0	612	433	202	124	-115
				Column totals		612	293	471	156					

Notes: 1 - MASS ORDINATE = CUT - SALVAGED/UNUSABLE PAVEMENT MATERIAL - (FILL - REDUCED FILL IN EBS) x FILL FACTOR

9

9

PROJECT NO: 1003-10-86	HWY: IH 39	COUNTY: ROCK	EARTHWORK	SHEET NO: 101	E

SIGN BRIDGE TO COLLEY RD

STATION	Distance	AREA (SF) Cut	AREA (SF) Salvaged / Unusable Pavement Material	AREA (SF) Fill	AREA (SF) EBS	Incremental Vol (CY) (Unadjusted) Cut	Incremental Vol (CY) (Unadjusted) Salvaged / Unusable Pavement Material	Incremental Vol (CY) (Unadjusted) Fill	Incremental Vol (CY) (Unadjusted) EBS	Cumulative Vol (CY) Cut 1.00	Cumulative Vol (CY) Expanded Fill 1.25	Cumulative Vol (CY) Expanded EBS Backfill 1.30	Cumulative Vol (CY) Reduced EBS In Fill 0.80	Mass Ordinate Note 1
148+00.000		20.41	7.92	1.36	0	0	0	0	0	0	0	0	0	0
149+00.000	100	21.28	7.92	0.61	0	77	29	4	0	77	5	0	0	43
150+00.000	100	24.29	7.92	0.13	0	84	29	1	0	162	6	0	0	97
151+00.000	100	24.03	7.92	1.16	0	89	29	2	0	251	9	0	0	154
152+00.000	100	28.40	7.92	0.60	0	97	29	3	0	348	13	0	0	218
153+00.000	100	25.40	7.92	0.91	0	100	29	3	0	448	17	0	0	284
154+00.000	100	21.14	7.92	1.94	0	86	29	5	0	534	23	0	0	335
155+00.000	100	22.59	7.92	1.65	0	81	29	7	0	615	32	0	0	378
156+00.000	100	27.29	7.92	1.71	0	92	29	6	0	707	40	0	0	433
157+00.000	100	23.46	7.92	3.58	0	94	29	10	0	801	52	0	0	486
158+00.000	100	22.17	7.92	9.89	0	85	29	25	0	886	83	0	0	510
159+00.000	100	20.30	7.92	29.51	0	79	29	73	0	964	174	0	0	468
160+00.000	100	26.27	7.92	59.30	0	86	29	164	0	1051	380	0	0	319
160+52.311	52	38.20	7.92	72.23	0	62	15	127	0	1113	539	0	0	207
160+62.990	11	43.21	7.92	28.11	0	16	3	20	0	1129	564	0	0	195
				Column totals		1129	370	451	0					

Notes: 1 - MASS ORDINATE = CUT - SALVAGED/UNUSABLE PAVEMENT MATERIAL - (FILL - REDUCED FILL IN EBS) x FILL FACTOR

COLLEY RD TO CP RAILROAD

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
163+31.960		58.26	7.92	0	0	0	0	0	0	0	0	0	0	0
164+00.000	68	68.59	7.92	0	0	160	20	0	0	160	0	0	0	140
165+00.000	100	64.49	7.92	0	0	246	29	0	0	406	0	0	0	357
166+00.000	100	50.74	7.92	55.83	0	213	29	103	0	620	129	0	0	412
167+00.000	100	37.89	7.92	44.05	0	164	29	185	0	784	360	0	0	315
168+00.000	100	28.15	7.92	220.16	0	122	29	489	0	906	972	0	0	-203
169+00.000	100	24.96	7.92	226.59	0	98	29	827	0	1004	2006	0	0	-1168
170+00.000	100	21.48	7.92	140.56	0	86	29	680	0	1090	2856	0	0	-1962
171+00.000	100	22.35	7.92	84.77	0	81	29	417	0	1172	3378	0	0	-2431
172+00.000	100	22.05	7.92	50.46	0	82	29	250	0	1254	3691	0	0	-2691
173+00.000	100	19.78	7.92	32.89	0	77	29	154	0	1331	3884	0	0	-2836
174+00.000	100	18.67	7.92	16.57	0	71	29	92	0	1402	3998	0	0	-2909
175+00.000	100	19.63	7.92	7.83	0	71	29	45	0	1473	4055	0	0	-2924
176+00.000	100	23.11	7.92	1.47	0	79	29	17	0	1553	4076	0	0	-2896
177+00.000	100	21.86	7.92	2.20	0	83	29	7	0	1636	4085	0	0	-2850
178+00.000	100	18.61	7.92	13.18	0	75	29	28	0	1711	4120	0	0	-2840
179+00.000	100	17.17	7.92	22.66	0	66	29	66	0	1777	4203	0	0	-2886
180+00.000	100	17.69	7.92	17.13	0	65	29	74	0	1842	4295	0	0	-2943
181+00.000	100	19.77	7.92	18.95	0	69	29	67	0	1911	4379	0	0	-2986
182+00.000	100	19.67	7.92	23.45	0	73	29	79	0	1984	4477	0	0	-3041
183+00.000	100	23.14	7.92	26.29	0	79	29	92	0	2063	4592	0	0	-3106
184+00.000	100	21.22	7.92	32.94	0	82	29	110	0	2145	4729	0	0	-3190
185+00.000	100	19.44	7.92	40.13	0	75	29	135	0	2221	4898	0	0	-3314
186+00.000	100	20.79	7.92	41.89	0	75	29	152	0	2295	5088	0	0	-3458
186+91.518	92	19.08	7.92	68.15	0	68	27	186	0	2363	5321	0	0	-3651
187+00.000	8	19.14	7.92	62.27	0	6	2	20	0	2369	5347	0	0	-3673
188+00.000	100	20.62	7.92	41.22	0	74	29	192	0	2442	5587	0	0	-3868
188+90.000	90	23.49	7.92	32.05	0	74	26	122	0	2516	5739	0	0	-3974
189+00.000	10	23.13	7.92	31.39	0	9	3	12	0	2525	5754	0	0	-3983
190+00.000	100	20.84	7.92	27.32	0	81	29	109	0	2606	5890	0	0	-4066
191+00.000	100	95.31	7.92	0	0	215	29	51	0	2821	5953	0	0	-3944
191+09.585	10	91.88	7.92	0	0	33	3	0	0	2854	5953	0	0	-3913
192+00.000	90	20.15	7.92	29.65	0	188	27	50	0	3042	6015	0	0	-3814
193+00.000	100	17.47	7.92	42.08	0	70	29	133	0	3112	6181	0	0	-3940
194+00.000	100	21.56	7.92	33.90	0	72	29	141	0	3184	6357	0	0	-4073
195+00.000	100	23.15	7.92	32.61	0	83	29	123	0	3267	6511	0	0	-4174
196+00.000	100	19.40	7.92	41.40	0	79	29	137	0	3345	6682	0	0	-4295
197+00.000	100	21.36	7.92	37.85	0	75	29	147	0	3421	6866	0	0	-4433
198+00.000	100	17.44	7.92	43.11	0	72	29	150	0	3493	7053	0	0	-4578
199+00.000	100	17.46	7.92	41.77	0	65	29	157	0	3557	7250	0	0	-4739

COLLEY RD TO CP RAILROAD

STATION	Distance	AREA (SF) Cut	AREA (SF) Salvaged / Unusable Pavement Material	AREA (SF) Fill	AREA (SF) EBS	Incremental Vol (CY) (Unadjusted) Cut	Incremental Vol (CY) (Unadjusted) Salvaged / Unusable Pavement Material	Incremental Vol (CY) (Unadjusted) Fill	Incremental Vol (CY) (Unadjusted) EBS	Cumulative Vol (CY) Cut 1.00	Cumulative Vol (CY) Expanded Fill 1.25	Cumulative Vol (CY) Expanded EBS Backfill 1.30	Cumulative Vol (CY) Reduced EBS In Fill 0.80	Mass Ordinate Note 1
200+00.000	100	17.44	7.92	14.74	0	65	29	105	0	3622	7380	0	0	-4834
201+00.000	100	38.43	7.92	0	0	103	29	27	0	3726	7414	0	0	-4794
201+27.990	28	43.08	7.92	0	0	42	8	0	0	3768	7414	0	0	-4760
				Column totals		3768	1114	5932	0					

Notes: 1 - MASS ORDINATE = CUT - SALVAGED/UNUSABLE PAVEMENT MATERIAL - (FILL - REDUCED FILL IN EBS) x FILL FACTOR

9

9

PROJECT NO: 1003-10-86	HWY: IH 39	COUNTY: ROCK	EARTHWORK	SHEET NO: 104	E

IH 43 TO TURTLE CREEK

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
243+00.000		20.02	7.92	4.87	0	0	0	0	0	0	0	0	0	0
244+00.000	100	20.65	7.92	6.02	0	75	29	20	0	75	25	0	0	21
245+00.000	100	18.59	7.92	8.42	0	73	29	27	0	148	59	0	0	31
246+00.000	100	18.11	7.92	11.49	0	68	29	37	0	216	105	0	0	23
247+00.000	100	17.46	7.92	13.28	0	66	29	46	0	282	162	0	0	2
248+00.000	100	19.49	7.92	12.29	12	68	29	47	22	350	199	29	18	5
249+00.000	100	18.75	7.92	12.70	12	71	29	46	44	421	212	87	53	33
250+00.000	100	18.63	7.92	8.89	12	69	29	40	44	490	218	144	89	67
251+00.000	100	17.41	7.92	13.72	0	67	29	42	22	557	248	173	107	74
252+00.000	100	20.04	7.92	12.95	0	69	29	49	0	626	310	173	107	53
252+89.202	89	17.14	7.92	52.70	0	61	26	108	0	688	445	173	107	-48
253+00.000	11	17.06	7.92	32.15	0	7	3	17	0	695	467	173	107	-65
254+00.000	100	15.38	7.92	15.69	0	60	29	89	0	755	577	173	107	-145
255+00.000	100	14.46	7.92	14.29	0	55	29	56	0	810	647	173	107	-189
255+50.000	50	67.29	7.92	0	0	76	15	13	0	886	663	173	107	-144
256+00.000	50	14.56	7.92	12.64	0	76	15	12	0	961	678	173	107	-98
256+87.989	88	14.95	7.92	33.50	0	48	26	75	0	1010	772	173	107	-169
257+00.000	12	15.92	7.92	21.56	0	7	4	12	0	1016	787	173	107	-181
258+00.000	100	19.46	7.92	8.78	0	66	29	56	0	1082	857	173	107	-215
259+00.000	100	19.45	7.92	7.45	0	72	29	30	0	1154	895	173	107	-210
260+00.000	100	17.95	7.92	6.91	0	69	29	27	0	1223	928	173	107	-204
261+00.000	100	19.03	7.92	4.79	0	68	29	22	0	1292	955	173	107	-192
262+00.000	100	18.64	7.92	8.98	0	70	29	26	0	1361	987	173	107	-183
263+00.000	100	19.39	7.92	8.91	0	70	29	33	0	1432	1029	173	107	-183
264+00.000	100	17.89	7.92	6.66	0	69	29	29	0	1501	1065	173	107	-180
265+00.000	100	16.09	7.92	4.91	0	63	29	21	0	1564	1091	173	107	-173
266+00.000	100	17.76	7.92	1.92	12	63	29	13	22	1627	1085	202	124	-133
267+00.000	100	17.72	7.92	4.25	12	66	29	11	44	1692	1055	260	160	-67
268+00.000	100	18.29	7.92	7.02	12	67	29	21	44	1759	1036	318	196	-11
269+00.000	100	21.83	7.92	2.77	12	74	29	18	44	1833	1015	376	231	56
270+00.000	100	23.46	7.92	2.29	12	84	29	9	44	1917	982	433	267	143
271+00.000	100	20.43	7.92	2.46	12	81	29	9	44	1998	949	491	302	229
272+00.000	100	20.47	7.92	2.00	12	76	29	8	44	2074	914	549	338	309
273+00.000	100	20.85	7.92	5.22	0	77	29	13	22	2151	909	578	356	362
273+89.325	89	18.29	7.92	12.48	0	65	26	29	0	2215	945	578	356	364
274+00.000	11	18.77	7.92	12.08	0	7	3	5	0	2223	952	578	356	362
275+00.000	100	19.74	7.92	7.97	0	71	29	37	0	2294	998	578	356	357
276+00.000	100	22.64	7.92	6.92	0	78	29	28	0	2372	1032	578	356	372
277+00.000	100	21.71	7.92	5.28	0	82	29	23	0	2455	1061	578	356	397
278+00.000	100	21.75	7.92	4.03	0	80	29	17	0	2535	1082	578	356	426

IH 43 TO TURTLE CREEK

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
279+00.000	100	22.48	7.92	3.70	0	82	29	14	0	2617	1100	578	356	461
280+00.000	100	24.55	7.92	3.36	0	87	29	13	0	2704	1116	578	356	502
281+00.000	100	22.01	7.92	3.74	0	86	29	13	0	2790	1133	578	356	543
281+90.636	91	19.66	7.92	26.67	0	70	27	51	0	2860	1197	578	356	522
282+00.000	9	19.57	7.92	18.26	0	7	3	8	0	2867	1206	578	356	517
283+00.000	100	22.63	7.92	8.23	0	78	29	49	0	2945	1268	578	356	504
284+00.000	100	21.53	7.92	3.09	0	82	29	21	0	3027	1294	578	356	530
285+00.000	100	24.02	7.92	1.26	0	84	29	8	0	3111	1304	578	356	575
286+00.000	100	30.73	7.92	0	0	101	29	2	0	3213	1307	578	356	644
287+00.000	100	38.12	7.92	0	0	128	29	0	0	3340	1307	578	356	743
288+00.000	100	38.81	7.92	0	0	142	29	0	0	3483	1307	578	356	856
289+00.000	100	36.61	7.92	0	0	140	29	0	0	3622	1307	578	356	966
290+00.000	100	27.38	7.92	0.76	0	119	29	1	0	3741	1309	578	356	1053
290+92.123	92	26.15	7.92	0.80	0	91	27	3	0	3832	1312	578	356	1114
291+00.000	8	36.45	7.92	0	0	9	2	0	0	3841	1312	578	356	1121
292+00.000	100	28.37	7.92	2.36	12	120	29	4	22	3961	1295	607	373	1229
293+00.000	100	24.46	7.92	3.00	12	98	29	10	44	4059	1263	664	409	1329
294+00.000	100	24.02	7.92	3.38	12	90	29	12	44	4149	1234	722	444	1419
295+00.000	100	23.11	7.92	2.79	12	87	29	11	44	4236	1204	780	480	1507
296+00.000	100	23.62	7.92	3.04	12	87	29	11	44	4323	1173	838	516	1596
296+88.929	89	22.22	7.92	13.66	12	75	26	28	40	4398	1167	889	547	1650
297+00.000	11	22.33	7.92	6.28	12	9	3	4	5	4407	1168	896	551	1656
298+00.000	100	24.68	7.92	0	12	87	29	12	44	4494	1138	953	587	1743
299+00.000	100	27.61	7.92	0	0	97	29	0	22	4591	1116	982	604	1833
300+00.000	100	29.00	7.92	0	0	105	29	0	0	4696	1116	982	604	1909
300+88.315	88	20.72	7.92	21.99	0	81	26	36	0	4777	1160	982	604	1919
301+00.000	12	21.11	7.92	12.49	0	9	3	7	0	4787	1170	982	604	1915
302+00.000	100	19.95	7.92	10.12	0	76	29	42	0	4863	1222	982	604	1910
303+00.000	100	22.25	7.92	3.76	0	78	29	26	0	4941	1254	982	604	1926
304+00.000	100	22.97	7.92	0.50	0	84	29	8	0	5024	1264	982	604	1971
305+00.000	100	22.81	7.92	0.67	0	85	29	2	0	5109	1267	982	604	2024
306+00.000	100	23.03	7.92	1.92	0	85	29	5	0	5194	1273	982	604	2073
307+00.000	100	22.08	7.92	3.74	0	84	29	10	0	5278	1286	982	604	2114
308+00.000	100	22.25	7.92	3.80	0	82	29	14	0	5360	1303	982	604	2150
308+88.855	89	23.81	7.92	5.29	0	76	26	15	0	5436	1322	982	604	2181
309+00.000	11	23.39	7.92	4.30	0	10	3	2	0	5445	1325	982	604	2185
310+00.000	100	20.63	7.92	6.67	0	82	29	20	0	5527	1350	982	604	2211
311+00.000	100	17.12	7.92	8.36	0	70	29	28	0	5597	1385	982	604	2217
312+00.000	100	18.87	7.92	4.89	0	67	29	25	0	5663	1415	982	604	2224
313+00.000	100	20.61	7.92	1.87	0	73	29	13	0	5736	1431	982	604	2252

IH 43 TO TURTLE CREEK

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
314+00.000	100	19.79	7.92	2.52	0	75	29	8	0	5811	1441	982	604	2287
315+00.000	100	22.08	7.92	1.84	0	78	29	8	0	5889	1451	982	604	2325
316+00.000	100	20.28	7.92	1.54	0	78	29	6	0	5967	1459	982	604	2367
317+00.000	100	19.68	7.92	4.67	0	74	29	12	0	6041	1474	982	604	2397
318+00.000	100	19.03	7.92	9.79	0	72	29	27	0	6113	1507	982	604	2406
318+89.324	89	18.80	7.92	23.84	0	63	26	56	0	6175	1577	982	604	2373
319+00.000	11	18.20	7.92	23.77	0	7	3	9	0	6183	1588	982	604	2365
320+00.000	100	13.80	7.92	29.76	0	59	29	99	0	6242	1712	982	604	2271
321+00.000	100	14.75	7.92	31.57	0	53	29	114	0	6295	1854	982	604	2153
322+00.000	100	14.94	7.92	32.03	0	55	29	118	0	6350	2001	982	604	2031
323+00.000	100	15.45	7.92	31.14	0	56	29	117	0	6406	2148	982	604	1912
324+00.000	100	14.59	7.92	34.45	0	56	29	121	0	6462	2299	982	604	1786
324+89.234	89	15.82	7.92	34.53	0	50	26	114	0	6512	2442	982	604	1668
325+00.000	11	16.15	7.92	34.32	0	6	3	14	0	6518	2459	982	604	1654
326+00.000	100	14.97	7.92	39.57	0	58	29	137	0	6576	2630	982	604	1511
326+84.672	85	17.76	7.92	41.72	0	51	25	127	0	6627	2789	982	604	1378
327+00.000	15	16.93	7.92	37.95	0	10	4	23	0	6637	2818	982	604	1356
328+00.000	100	15.73	7.92	39.37	0	60	29	143	0	6698	2997	982	604	1208
329+00.000	100	14.82	7.92	38.04	0	57	29	143	0	6754	3176	982	604	1056
330+00.000	100	15.16	7.92	30.20	0	56	29	126	0	6810	3334	982	604	924
331+00.000	100	70.16	7.92	0	0	158	29	56	0	6968	3404	982	604	983
332+00.000	100	16.86	7.92	26.83	0	161	29	50	0	7129	3466	982	604	1052
333+00.000	100	14.87	7.92	31.07	0	59	29	107	0	7188	3600	982	604	948
334+00.000	100	15.50	7.92	36.18	0	56	29	125	0	7244	3756	982	604	819
335+00.000	100	15.10	7.92	37.37	0	57	29	136	0	7301	3926	982	604	676
335+89.523	90	16.34	7.92	41.08	0	52	26	130	0	7353	4088	982	604	539
336+00.000	10	16.19	7.92	38.05	0	6	3	15	0	7359	4108	982	604	523
337+00.000	100	19.58	7.92	27.71	0	66	29	122	0	7425	4260	982	604	408
338+00.000	100	15.34	7.92	31.34	0	65	29	109	0	7490	4396	982	604	307
339+00.000	100	15.28	7.92	27.31	0	57	29	109	0	7547	4532	982	604	198
340+00.000	100	16.69	7.92	22.78	0	59	29	93	0	7606	4648	982	604	112
341+00.000	100	16.44	7.92	13.93	0	61	29	68	0	7667	4733	982	604	59
342+00.000	100	17.33	7.92	10.14	0	63	29	45	0	7730	4789	982	604	37
343+00.000	100	18.95	7.92	5.66	12	67	29	29	22	7797	4803	1011	622	60
344+00.000	100	20.66	7.92	2.94	12	73	29	16	44	7870	4779	1069	658	129
345+00.000	100	21.11	7.92	2.30	12	77	29	10	44	7948	4746	1127	693	209
346+00.000	100	20.41	7.92	2.29	12	77	29	9	44	8025	4713	1184	729	291
347+00.000	100	23.66	7.92	1.82	12	82	29	8	44	8106	4678	1242	764	378
348+00.000	100	21.39	7.92	1.06	12	83	29	5	44	8190	4640	1300	800	470
348+90.033	90	34.74	7.92	0	12	94	26	2	40	8283	4602	1352	832	575

IH 43 TO TURTLE CREEK

STATION	Distance	AREA (SF) Cut	AREA (SF) Salvaged / Unusable Pavement Material	AREA (SF) Fill	AREA (SF) EBS	Incremental Vol (CY) (Unadjusted) Cut	Incremental Vol (CY) (Unadjusted) Salvaged / Unusable Pavement Material	Incremental Vol (CY) (Unadjusted) Fill	Incremental Vol (CY) (Unadjusted) EBS	Cumulative Vol (CY) Cut 1.00	Cumulative Vol (CY) Expanded Fill 1.25	Cumulative Vol (CY) Expanded EBS Backfill 1.30	Cumulative Vol (CY) Reduced EBS In Fill 0.80	Mass Ordinate Note 1
349+00.000	10	34.01	7.92	0	12	13	3	0	4	8296	4598	1358	836	589
350+00.000	100	30.63	7.92	0	12	120	29	0	44	8416	4553	1416	871	724
351+00.000	100	31.44	7.92	0	12	115	29	0	44	8531	4509	1473	907	854
352+00.000	100	20.43	7.92	2.79	12	96	29	5	44	8627	4471	1531	942	958
353+00.000	100	20.34	7.92	4.30	12	76	29	13	44	8702	4443	1589	978	1033
354+00.000	100	19.05	7.92	5.98	12	73	29	19	44	8775	4422	1647	1013	1097
355+00.000	100	21.66	7.92	4.97	12	75	29	20	44	8850	4403	1704	1049	1162
356+00.000	100	23.26	7.92	5.61	12	83	29	20	44	8934	4383	1762	1084	1236
356+85.571	86	18.35	7.92	10.96	0	66	25	26	19	9000	4397	1787	1100	1263
357+00.000	14	21.32	7.92	0	0	11	4	3	0	9010	4401	1787	1100	1266
358+00.000	100	24.90	7.92	1.65	0	86	29	3	0	9096	4404	1787	1100	1318
359+00.000	100	26.00	7.92	0.75	0	94	29	4	0	9190	4410	1787	1100	1377
360+00.000	100	31.11	7.92	0.15	0	106	29	2	0	9296	4412	1787	1100	1452
361+00.000	100	39.28	7.92	0	12	130	29	0	22	9426	4390	1816	1117	1575
362+00.000	100	35.77	7.92	0	12	139	29	0	44	9565	4346	1874	1153	1729
363+00.000	100	29.38	7.92	1.39	12	121	29	3	44	9686	4304	1931	1189	1861
363+46.395	46	32.12	7.92	0.58	12	53	14	2	21	9739	4286	1958	1205	1919
364+00.000	54	33.40	7.92	0.07	12	65	16	1	24	9804	4263	1989	1224	1991
365+00.000	100	34.68	7.92	0	12	126	29	0	44	9930	4219	2047	1260	2132
366+00.000	100	38.63	7.92	0	12	136	29	0	44	10065	4174	2105	1295	2283
367+00.000	100	43.67	7.92	0	12	152	29	0	44	10218	4130	2162	1331	2451
367+58.060	58	48.14	7.92	0	12	99	17	0	26	10317	4104	2196	1351	2558
					Column totals	10317	3654	4635	1689					

Notes: 1 - MASS ORDINATE = CUT - SALVAGED/UNUSABLE PAVEMENT MATERIAL - (FILL - REDUCED FILL IN EBS) x FILL FACTOR

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TURTLE CREEK TO TOWN LINE RD

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
370+53.190		46.61	7.92	0	0	0	0	0	0	0	0	0	0	0
371+00.000	47	48.67	7.92	0	0	83	14	0	0	83	0	0	0	69
372+00.000	100	47.11	7.92	0	0	177	29	0	0	260	0	0	0	217
373+00.000	100	48.03	7.92	0	0	176	29	0	0	436	0	0	0	364
374+00.000	100	41.29	7.92	0	0	165	29	0	0	602	0	0	0	500
375+00.000	100	43.15	7.92	0	0	156	29	0	0	758	0	0	0	627
376+00.000	100	46.55	7.92	0	0	166	29	0	0	924	0	0	0	764
377+00.000	100	44.92	7.92	0	0	169	29	0	0	1093	0	0	0	904
378+00.000	100	40.51	7.92	0	0	158	29	0	0	1252	0	0	0	1033
379+00.000	100	41.11	7.92	0	0	151	29	0	0	1403	0	0	0	1154
379+50.000	50	102.18	7.92	0	0	133	15	0	0	1535	0	0	0	1272
379+79.734	30	43.23	7.92	0	0	80	9	0	0	1616	0	0	0	1344
380+00.000	20	29.56	7.92	0	0	27	6	0	0	1643	0	0	0	1365
381+00.000	100	31.48	7.92	0	0	113	29	0	0	1756	0	0	0	1449
382+00.000	100	29.82	7.92	0	0	114	29	0	0	1869	0	0	0	1533
382+98.645	99	31.62	7.92	0	0	112	29	0	0	1982	0	0	0	1616
383+00.000	1	31.89	7.92	0	0	2	0	0	0	1983	0	0	0	1617
384+00.000	100	23.53	7.92	0	0	103	29	0	0	2086	0	0	0	1691
385+00.000	100	19.26	7.92	0.71	0	79	29	1	0	2165	2	0	0	1739
386+00.000	100	18.75	7.92	3.40	0	70	29	8	0	2235	11	0	0	1771
387+00.000	100	19.52	7.92	1.98	0	71	29	10	0	2306	24	0	0	1800
388+00.000	100	19.58	7.92	2.09	0	72	29	8	0	2379	33	0	0	1833
389+00.000	100	18.65	7.92	2.12	0	71	29	8	0	2450	43	0	0	1865
390+00.000	100	18.71	7.92	5.19	0	69	29	14	0	2519	60	0	0	1888
390+90.500	91	19.20	7.92	27.22	0	64	27	54	0	2582	128	0	0	1857
391+00.000	10	19.20	7.92	15.54	0	7	3	8	0	2589	137	0	0	1852
392+00.000	100	22.47	7.92	4.08	0	77	29	36	0	2666	182	0	0	1854
393+00.000	100	23.06	7.92	3.83	0	84	29	15	0	2751	201	0	0	1891
394+00.000	100	24.60	7.92	3.15	0	88	29	13	0	2839	217	0	0	1933
395+00.000	100	27.80	7.92	0.61	0	97	29	7	0	2936	226	0	0	1992
396+00.000	100	24.58	7.92	0.40	0	97	29	2	0	3033	228	0	0	2058
397+00.000	100	27.73	7.92	0.16	0	97	29	1	0	3130	229	0	0	2124
398+00.000	100	24.27	7.92	0.20	0	96	29	1	0	3226	230	0	0	2190
399+00.000	100	24.79	7.92	0	0	91	29	0	0	3317	231	0	0	2251
400+00.000	100	23.09	7.92	0.68	0	89	29	1	0	3405	232	0	0	2309
401+00.000	100	23.12	7.92	1.05	0	86	29	3	0	3491	236	0	0	2361
401+90.888	91	22.90	7.92	8.65	0	77	27	16	0	3569	257	0	0	2392
402+00.000	9	22.29	7.92	6.43	0	8	3	3	0	3576	260	0	0	2393
403+00.000	100	20.30	7.92	6.26	0	79	29	24	0	3655	289	0	0	2414
404+00.000	100	19.99	7.92	3.60	0	75	29	18	0	3730	312	0	0	2436

TURTLE CREEK TO TOWN LINE RD

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
405+00.000	100	21.28	7.92	2.45	0	76	29	11	0	3806	326	0	0	2469
406+00.000	100	21.03	7.92	3.13	0	78	29	10	0	3884	339	0	0	2505
407+00.000	100	20.51	7.92	3.29	0	77	29	12	0	3961	354	0	0	2538
408+00.000	100	21.23	7.92	2.76	0	77	29	11	0	4039	368	0	0	2572
409+00.000	100	20.43	7.92	3.36	0	77	29	11	0	4116	382	0	0	2606
409+91.500	92	21.26	7.92	2.32	0	71	27	10	0	4186	394	0	0	2637
410+00.000	9	21.35	7.92	0.77	0	7	2	0	0	4193	394	0	0	2641
411+00.000	100	19.45	7.92	0.56	0	76	29	2	0	4269	398	0	0	2684
412+00.000	100	21.55	7.92	0.18	0	76	29	1	0	4345	399	0	0	2729
413+00.000	100	20.33	7.92	0	0	78	29	0	0	4422	400	0	0	2777
414+00.000	100	19.45	7.92	1.08	0	74	29	2	0	4496	402	0	0	2819
415+00.000	100	18.48	7.92	3.29	0	70	29	8	0	4566	412	0	0	2849
416+00.000	100	18.21	7.92	4.49	0	68	29	14	0	4634	430	0	0	2870
417+00.000	100	19.63	7.92	1.74	0	70	29	12	0	4704	445	0	0	2896
418+00.000	100	18.39	7.92	2.13	0	70	29	7	0	4775	454	0	0	2928
419+00.000	100	18.17	7.92	1.20	0	68	29	6	0	4842	461	0	0	2959
420+00.000	100	18.11	7.92	2.03	0	67	29	6	0	4909	469	0	0	2989
420+91.000	91	16.67	7.92	6.91	0	59	27	15	0	4968	488	0	0	3003
421+00.000	9	16.20	7.92	3.22	0	5	3	2	0	4973	490	0	0	3003
422+00.000	100	18.01	7.92	0.34	0	63	29	7	0	5037	498	0	0	3029
423+00.000	100	16.42	7.92	0.66	0	64	29	2	0	5101	500	0	0	3061
424+00.000	100	20.03	7.92	0.09	0	68	29	1	0	5168	502	0	0	3098
425+00.000	100	21.11	7.92	0.08	0	76	29	0	0	5244	503	0	0	3144
425+91.034	91	20.36	7.92	5.02	0	70	27	9	0	5314	513	0	0	3177
426+00.000	9	21.02	7.92	2.10	12	7	3	1	2	5321	513	3	2	3181
426+87.276	87	21.22	7.92	1.73	12	68	26	6	39	5389	482	53	33	3255
427+00.000	13	22.60	7.92	1.17	12	10	4	1	6	5400	477	60	37	3266
428+00.000	100	22.94	7.92	1.02	12	84	29	4	44	5484	438	118	73	3361
429+00.000	100	22.26	7.92	0.88	12	84	29	4	44	5568	397	176	108	3455
430+00.000	100	24.71	7.92	1.72	12	87	29	5	44	5655	359	234	144	3551
431+00.000	100	34.14	7.92	0	12	109	29	3	44	5764	319	291	179	3671
432+00.000	100	49.49	7.92	0	0	155	29	0	22	5919	296	320	197	3819
433+00.000	100	50.13	7.92	0	0	184	29	0	0	6103	296	320	197	3974
434+00.000	100	55.73	7.92	0	0	196	29	0	0	6299	296	320	197	4141
435+00.000	100	67.88	7.92	0	0	229	29	0	0	6528	296	320	197	4341
436+00.000	100	60.05	7.92	0	0	237	29	0	0	6765	296	320	197	4548
436+52.160	52	56.30	7.92	0	0	112	15	0	0	6877	296	320	197	4645
				Column totals		6877	1936	434	246					

Notes: 1 - MASS ORDINATE = CUT - SALVAGED/UNUSABLE PAVEMENT MATERIAL - (FILL - REDUCED FILL IN EBS) x FILL FACTOR

TOWN LINE RD TO WOODMAN RD

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
439+18.550		61.94	7.92	0	0	0	0	0	0	0	0	0	0	0
440+00.000	81	71.39	7.92	0	0	201	24	0	0	201	0	0	0	177
440+44.599	45	74.01	7.92	2.13	0	120	13	2	0	321	2	0	0	282
441+00.000	55	62.58	7.92	0	0	140	16	2	0	461	5	0	0	403
442+00.000	100	54.65	7.92	0	0	217	29	0	0	678	5	0	0	591
443+00.000	100	46.69	7.92	0	0	188	29	0	0	866	5	0	0	749
443+90.723	91	48.23	7.92	0	0	159	27	0	0	1026	5	0	0	882
444+00.000	9	44.98	7.92	0	0	16	3	0	0	1042	5	0	0	895
445+00.000	100	27.27	7.92	3.52	0	134	29	7	0	1175	13	0	0	992
446+00.000	100	30.35	7.92	0.04	0	107	29	7	0	1282	21	0	0	1061
447+00.000	100	26.44	7.92	0.24	0	105	29	1	0	1387	22	0	0	1136
448+00.000	100	28.42	7.92	0	0	102	29	0	0	1489	23	0	0	1208
449+00.000	100	28.52	7.92	0	0	105	29	0	0	1594	23	0	0	1284
450+00.000	100	31.36	7.92	0	0	111	29	0	0	1705	23	0	0	1365
451+00.000	100	27.28	7.92	0	0	109	29	0	0	1814	23	0	0	1445
452+00.000	100	19.47	7.92	0.96	0	87	29	2	0	1900	25	0	0	1500
453+00.000	100	20.82	7.92	3.17	0	75	29	8	0	1975	34	0	0	1535
454+00.000	100	20.72	7.92	6.23	0	77	29	17	0	2052	56	0	0	1561
454+90.845	91	20.43	7.92	13.44	0	69	27	33	0	2121	97	0	0	1562
455+00.000	9	20.06	7.92	10.75	0	7	3	4	0	2128	103	0	0	1562
456+00.000	100	18.39	7.92	11.64	0	71	29	41	0	2199	154	0	0	1552
457+00.000	100	26.55	7.92	16.91	0	83	29	53	0	2282	220	0	0	1539
458+00.000	100	18.54	7.92	9.43	0	84	29	49	0	2366	281	0	0	1533
459+00.000	100	20.86	7.92	5.04	0	73	29	27	0	2439	315	0	0	1543
460+00.000	100	22.94	7.92	1.62	0	81	29	12	0	2520	330	0	0	1579
461+00.000	100	22.75	7.92	0.74	0	85	29	4	0	2605	336	0	0	1629
462+00.000	100	19.48	7.92	1.28	0	78	29	4	0	2683	340	0	0	1673
463+00.000	100	21.39	7.92	0.98	0	76	29	4	0	2758	346	0	0	1714
464+00.000	100	22.14	7.92	0.83	0	81	29	3	0	2839	350	0	0	1761
465+00.000	100	18.37	7.92	4.52	0	75	29	10	0	2914	362	0	0	1795
466+00.000	100	18.06	7.92	7.23	0	67	29	22	0	2982	389	0	0	1805
467+00.000	100	18.67	7.92	9.72	0	68	29	31	0	3050	429	0	0	1805
467+91.494	91	18.00	7.92	18.90	0	62	27	48	0	3112	489	0	0	1780
468+00.000	9	18.01	7.92	13.52	0	6	2	5	0	3117	496	0	0	1776
469+00.000	100	18.25	7.92	5.84	0	67	29	36	0	3185	541	0	0	1769
470+00.000	100	19.60	7.92	3.15	0	70	29	17	0	3255	561	0	0	1789
471+00.000	100	22.38	7.92	0.38	0	78	29	7	0	3332	570	0	0	1830
472+00.000	100	22.54	7.92	0	0	83	29	1	0	3416	570	0	0	1883
473+00.000	100	27.17	7.92	0	0	92	29	0	0	3508	570	0	0	1945
474+00.000	100	23.06	7.92	0.44	0	93	29	1	0	3601	571	0	0	2008

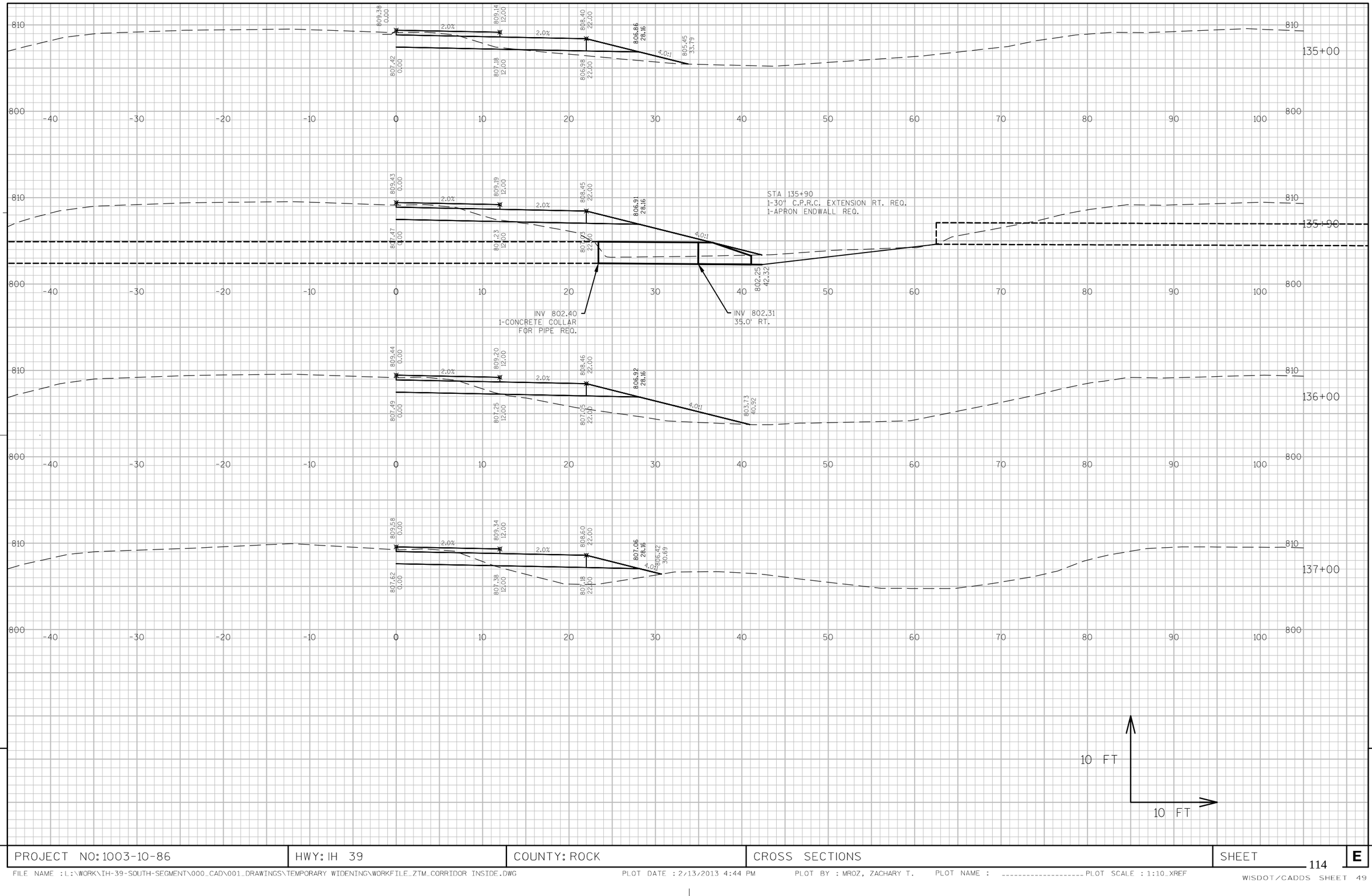
TOWN LINE RD TO WOODMAN RD

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
475+00.000	100	22.03	7.92	3.55	0	84	29	7	0	3684	581	0	0	2053
475+90.767	91	19.25	7.92	44.49	0	69	27	81	0	3753	682	0	0	1995
476+00.000	9	19.60	7.92	25.84	0	7	3	12	0	3760	697	0	0	1984
477+00.000	100	20.62	7.92	2.87	0	74	29	53	0	3835	763	0	0	1962
478+00.000	100	21.62	7.92	2.63	0	78	29	10	0	3913	776	0	0	1998
479+00.000	100	19.99	7.92	0.42	0	77	29	6	0	3990	783	0	0	2039
480+00.000	100	20.33	7.92	0	0	75	29	1	0	4065	784	0	0	2083
481+00.000	100	23.19	7.92	0	0	81	29	0	0	4145	784	0	0	2135
482+00.000	100	19.48	7.92	1.15	0	79	29	2	0	4224	787	0	0	2182
483+00.000	100	19.45	7.92	3.28	0	72	29	8	0	4296	797	0	0	2214
484+00.000	100	17.81	7.92	4.42	0	69	29	14	0	4365	815	0	0	2236
485+00.000	100	16.61	7.92	7.19	0	64	29	22	0	4429	841	0	0	2244
486+00.000	100	15.11	7.92	14.60	0	59	29	40	0	4488	892	0	0	2223
486+90.924	91	14.35	7.92	60.91	0	50	27	127	0	4537	1051	0	0	2087
487+00.000	9	14.70	7.92	30.88	0	5	3	15	0	4542	1070	0	0	2070
488+00.000	100	16.17	7.92	8.89	0	57	29	74	0	4599	1162	0	0	2005
489+00.000	100	17.49	7.92	5.30	0	62	29	26	0	4662	1195	0	0	2005
490+00.000	100	16.96	7.92	2.96	0	64	29	15	0	4726	1214	0	0	2021
491+00.000	100	59.32	7.92	0	0	141	29	5	0	4867	1221	0	0	2126
492+00.000	100	17.61	7.92	2.19	0	142	29	4	0	5009	1226	0	0	2234
493+00.000	100	18.91	7.92	2.26	0	68	29	8	0	5077	1236	0	0	2262
494+00.000	100	18.63	7.92	2.41	0	70	29	9	0	5146	1247	0	0	2291
495+00.000	100	17.16	7.92	5.64	0	66	29	15	0	5213	1266	0	0	2310
496+00.000	100	15.83	7.92	9.91	0	61	29	29	0	5274	1302	0	0	2305
496+91.441	91	14.92	7.92	44.18	0	52	27	92	0	5326	1416	0	0	2216
497+00.000	9	14.93	7.92	28.65	0	5	3	12	0	5331	1431	0	0	2204
498+00.000	100	16.99	7.92	8.88	0	59	29	70	0	5390	1518	0	0	2147
499+00.000	100	17.29	7.92	6.36	0	63	29	28	0	5453	1553	0	0	2146
500+00.000	100	18.34	7.92	4.71	0	66	29	21	0	5519	1579	0	0	2157
501+00.000	100	21.45	7.92	1.99	12	74	29	12	22	5593	1572	29	18	2208
502+00.000	100	22.34	7.92	1.46	12	81	29	6	44	5674	1535	87	53	2296
503+00.000	100	21.95	7.92	1.83	12	82	29	6	44	5756	1499	144	89	2386
504+00.000	100	22.58	7.92	2.02	12	82	29	7	44	5838	1463	202	124	2474
504+40.400	40	21.51	7.92	5.85	12	33	12	6	18	5871	1452	226	139	2506
505+00.000	60	22.29	7.92	1.39	12	48	17	8	26	5920	1436	260	160	2553
506+00.000	100	21.83	7.92	1.65	12	82	29	6	44	6001	1398	318	196	2643
507+00.000	100	19.66	7.92	2.41	12	77	29	8	44	6078	1363	376	231	2726
508+00.000	100	19.88	7.92	2.83	12	73	29	10	44	6151	1331	433	267	2802
509+00.000	100	20.35	7.92	1.42	12	75	29	8	44	6226	1297	491	302	2882
510+00.000	100	19.85	7.92	0.04	12	74	29	3	44	6300	1255	549	338	2968

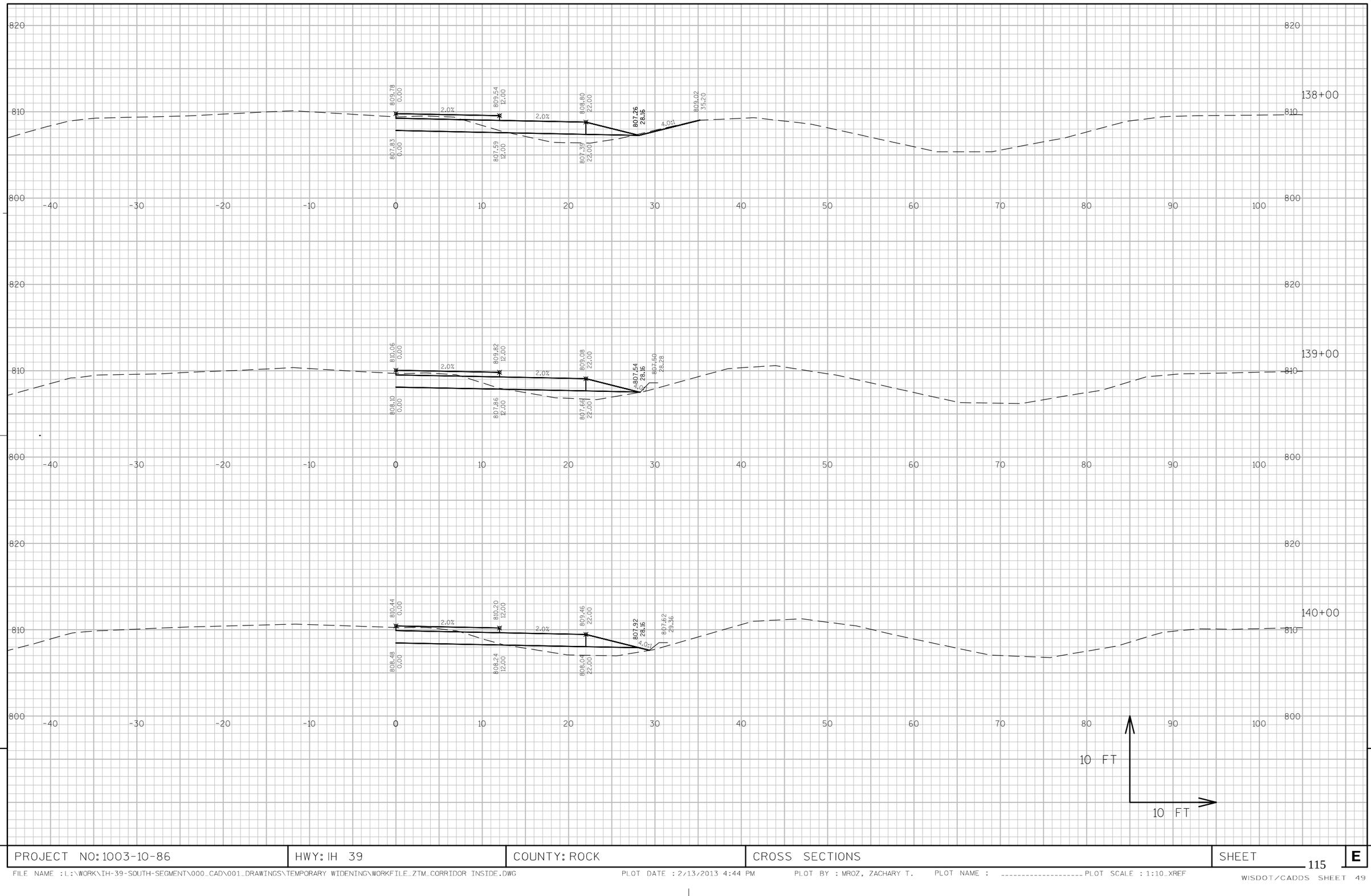
TOWN LINE RD TO WOODMAN RD

STATION	Distance	AREA (SF) Cut	AREA (SF) Salvaged / Unusable Pavement Material	AREA (SF) Fill	AREA (SF) EBS	Incremental Vol (CY) (Unadjusted) Cut	Incremental Vol (CY) (Unadjusted) Salvaged / Unusable Pavement Material	Incremental Vol (CY) (Unadjusted) Fill	Incremental Vol (CY) (Unadjusted) EBS	Cumulative Vol (CY) Cut 1.00	Cumulative Vol (CY) Expanded Fill 1.25	Cumulative Vol (CY) Expanded EBS Backfill 1.30	Cumulative Vol (CY) Reduced EBS In Fill 0.80	Mass Ordinate Note 1
511+00.000	100	20.60	7.92	0.33	12	75	29	1	44	6375	1212	607	373	3057
512+00.000	100	23.07	7.92	0	12	81	29	1	44	6456	1168	664	409	3152
513+00.000	100	24.17	7.92	0	12	87	29	0	44	6544	1124	722	444	3255
514+00.000	100	22.52	7.92	0	12	86	29	0	44	6630	1079	780	480	3356
515+00.000	100	19.48	7.92	0.09	12	78	29	0	44	6708	1035	838	516	3449
516+00.000	100	19.23	7.92	0.69	12	72	29	1	44	6780	992	896	551	3534
517+00.000	100	19.52	7.92	2.24	12	72	29	5	44	6851	955	953	587	3614
517+91.330	91	20.72	7.92	9.56	12	68	27	20	41	6919	939	1006	619	3671
518+00.000	9	20.66	7.92	5.73	12	7	3	2	4	6926	938	1011	622	3676
519+00.000	100	17.53	7.92	3.27	12	71	29	17	44	6997	915	1069	658	3741
520+00.000	100	22.99	7.92	0	12	75	29	6	44	7072	878	1127	693	3823
521+00.000	100	21.45	7.92	0	12	82	29	0	44	7154	833	1184	729	3921
522+00.000	100	20.27	7.92	0	12	77	29	0	44	7231	789	1242	764	4013
523+00.000	100	22.93	7.92	0.26	0	80	29	0	22	7311	767	1271	782	4086
524+00.000	100	22.91	7.92	0.04	0	85	29	1	0	7396	768	1271	782	4140
525+00.000	100	25.18	7.92	0	0	89	29	0	0	7485	768	1271	782	4200
526+00.000	100	22.86	7.92	0.21	0	89	29	0	0	7574	769	1271	782	4259
527+00.000	100	19.87	7.92	0.50	0	79	29	1	0	7653	770	1271	782	4307
527+91.457	91	18.55	7.92	7.87	0	65	27	14	0	7719	788	1271	782	4328
528+00.000	9	18.56	7.92	3.70	0	6	3	2	0	7724	790	1271	782	4329
529+00.000	100	24.28	7.92	0	12	79	29	7	22	7804	777	1300	800	4393
530+00.000	100	23.67	7.92	0	12	89	29	0	44	7893	732	1358	836	4496
531+00.000	100	22.08	7.92	0.22	12	85	29	0	44	7977	688	1416	871	4596
532+00.000	100	20.69	7.92	0.79	12	79	29	2	44	8056	646	1473	907	4688
533+00.000	100	22.62	7.92	1.40	12	80	29	4	44	8137	607	1531	942	4778
534+00.000	100	20.89	7.92	2.26	12	81	29	7	44	8217	571	1589	978	4865
535+00.000	100	18.92	7.92	4.41	12	74	29	12	44	8291	542	1647	1013	4939
536+00.000	100	18.77	7.92	6.63	0	70	29	20	22	8361	545	1676	1031	4976
536+66.260	66	17.26	7.92	11.74	0	44	19	23	0	8405	573	1676	1031	4972
537+00.000	34	28.36	7.92	6.38	0	29	10	11	0	8433	587	1676	1031	4977
537+05.475	5	28.56	7.92	6.31	0	6	2	1	0	8439	589	1676	1031	4979
538+00.000	95	20.78	7.92	2.81	0	86	28	16	0	8526	609	1676	1031	5018
539+00.000	100	21.64	7.92	1.00	0	79	29	7	0	8604	618	1676	1031	5058
540+00.000	100	22.85	7.92	0.38	0	82	29	3	0	8687	621	1676	1031	5108
541+00.000	100	25.35	7.92	0.25	0	89	29	1	0	8776	622	1676	1031	5167
542+00.000	100	26.78	7.92	0	0	97	29	0	0	8872	623	1676	1031	5233
				Column totals		8872	3016	1530	1289					

Notes: 1 - MASS ORDINATE = CUT - SALVAGED/UNUSABLE PAVEMENT MATERIAL - (FILL - REDUCED FILL IN EBS) x FILL FACTOR



PROJECT NO: 1003-10-86	HWY: IH 39	COUNTY: ROCK	CROSS SECTIONS	SHEET 114 E



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PROJECT NO: 1003-10-86	HWY: IH 39	COUNTY: ROCK	CROSS SECTIONS	SHEET	E

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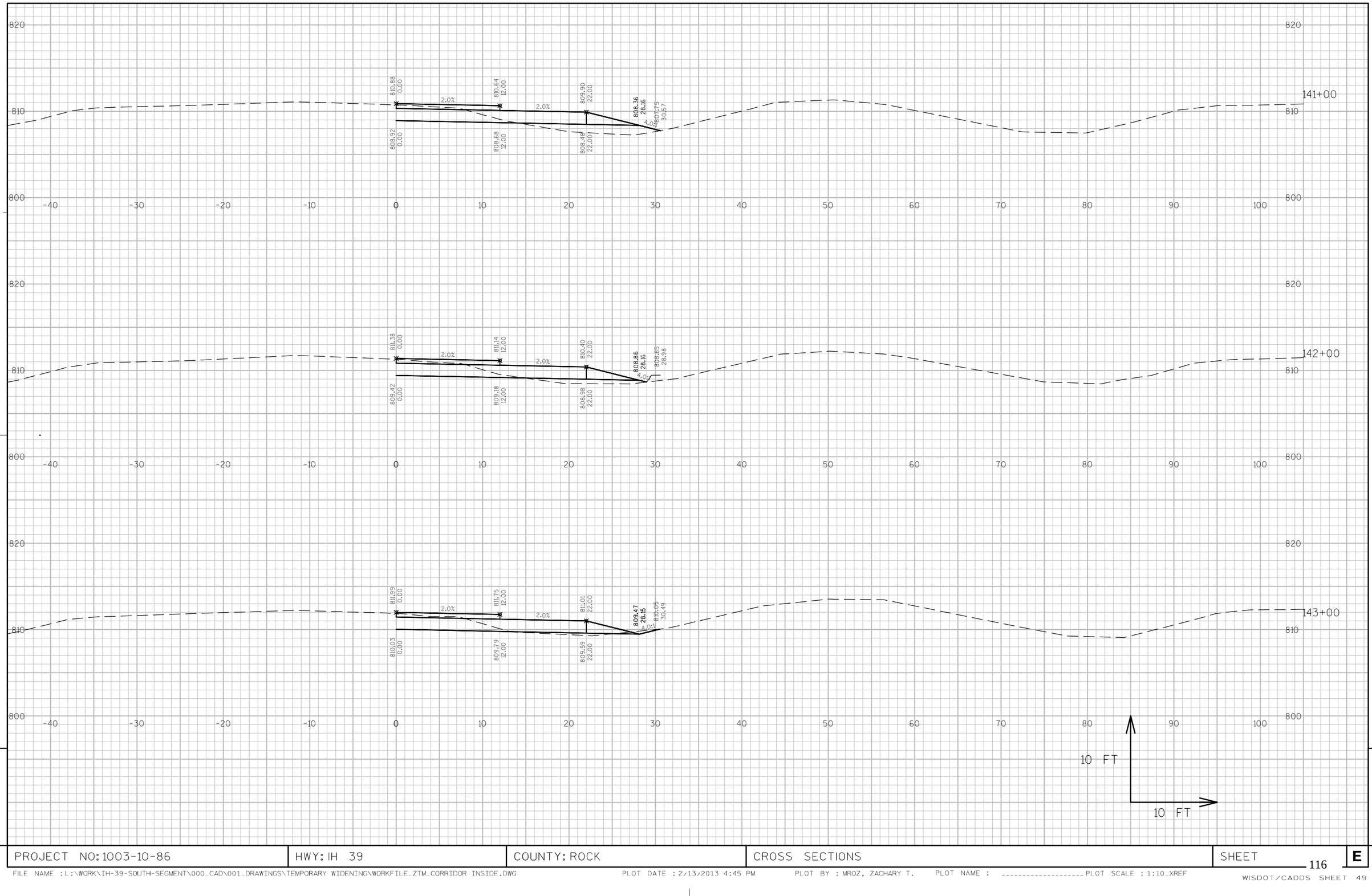

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PROJECT NO: 1003-10-86	HWY: IH 39	COUNTY: ROCK	CROSS SECTIONS	SHEET	E

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WISDOT/CADDS SHEET 49

9

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PROJECT NO: 1003-10-86	HWY: IH 39	COUNTY: ROCK	CROSS SECTIONS	SHEET 117	E

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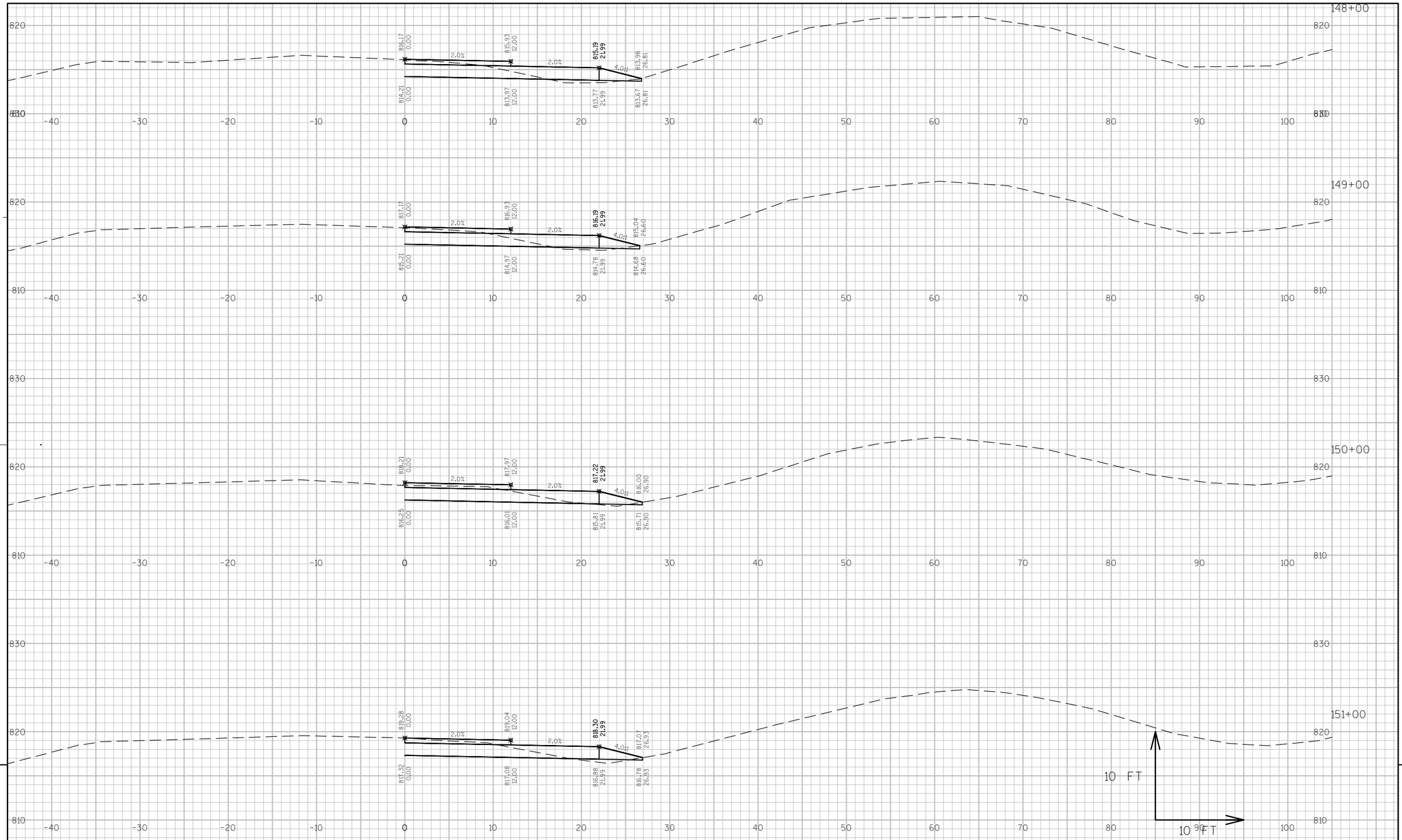

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PROJECT NO: 1003-10-86	HWY: IH 39	COUNTY: ROCK	CROSS SECTIONS	SHEET	E

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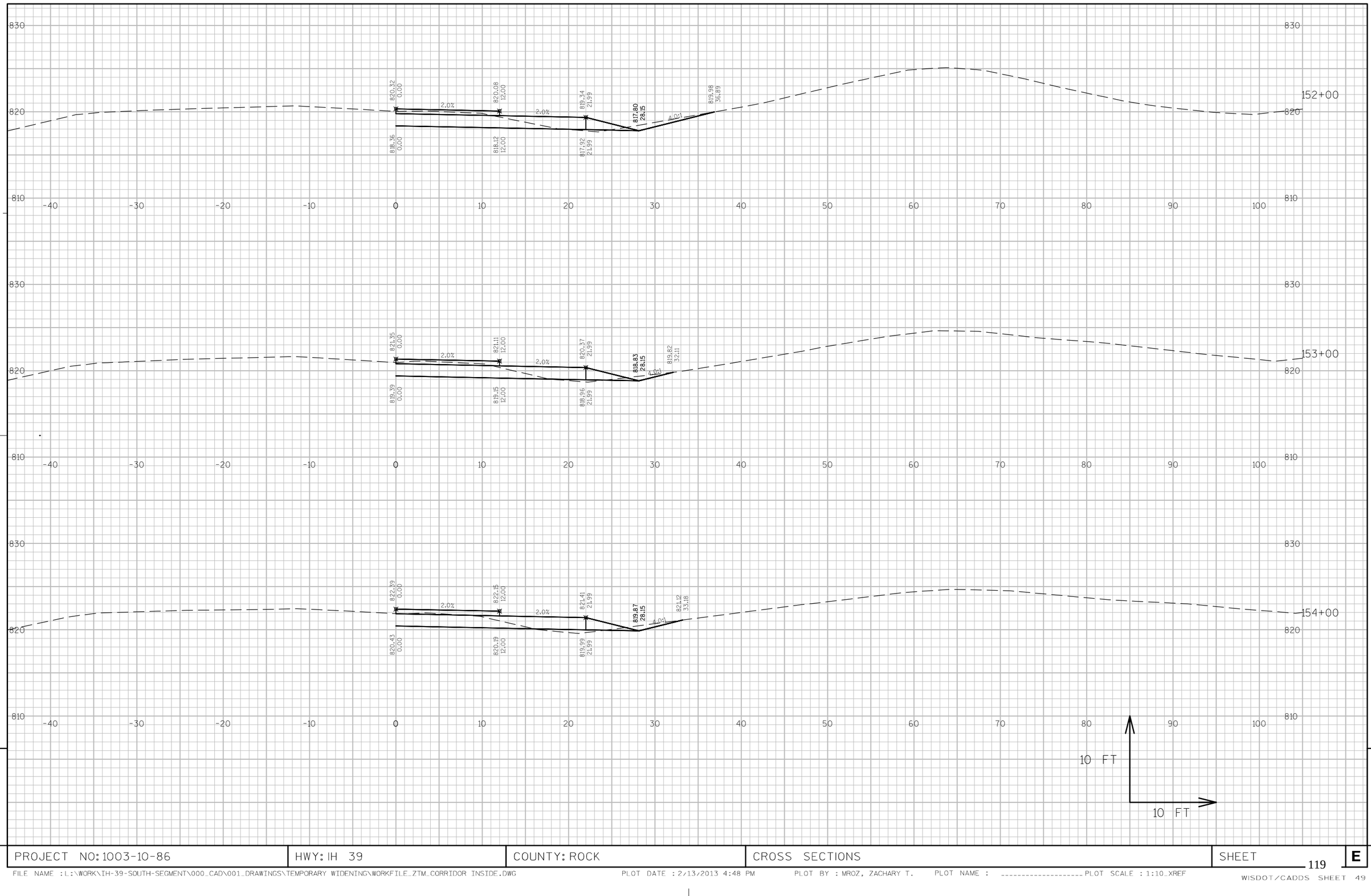

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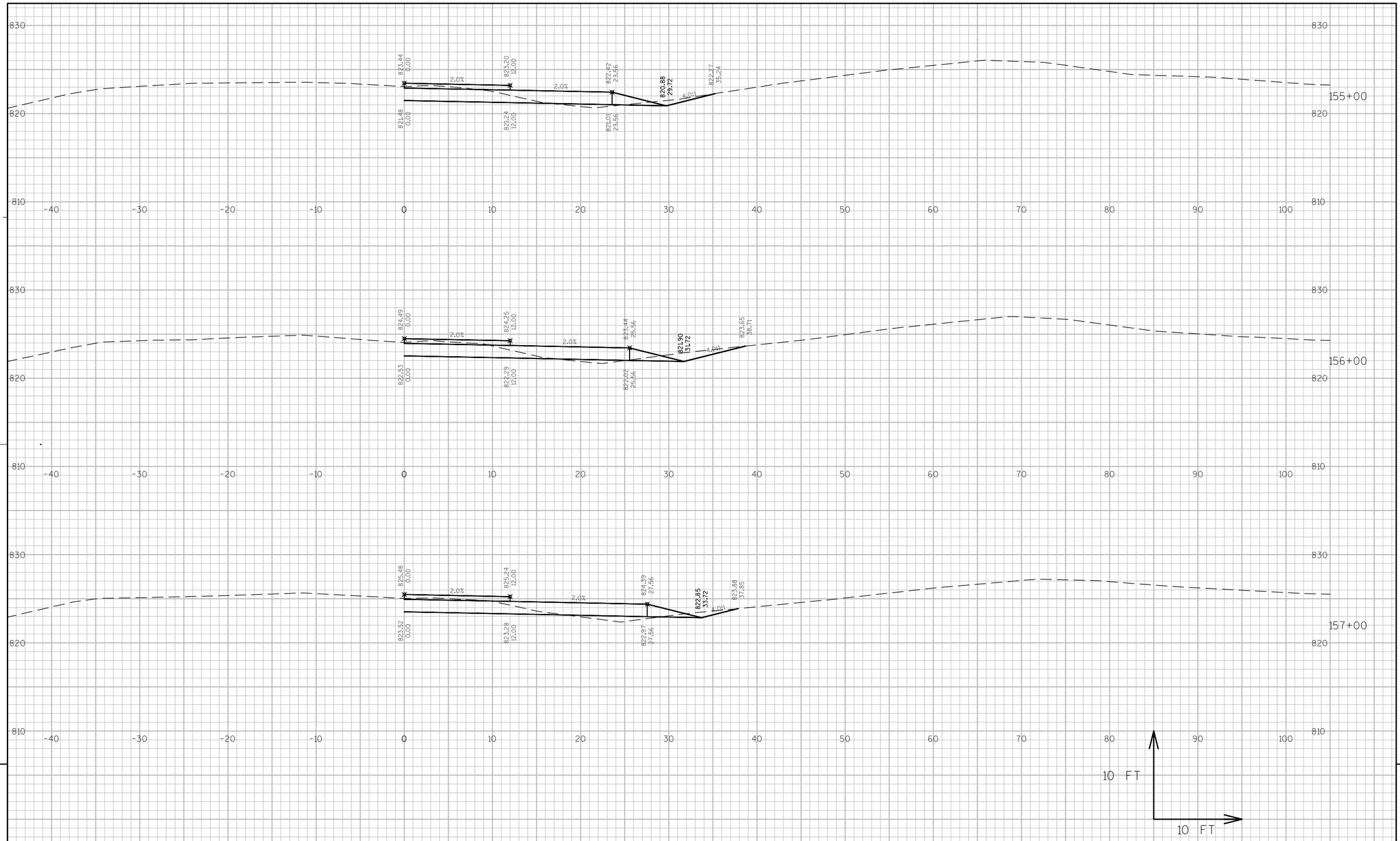
PROJECT NO: 1003-10-86	HWY: IH 39	COUNTY: ROCK	CROSS SECTIONS	SHEET 119	E



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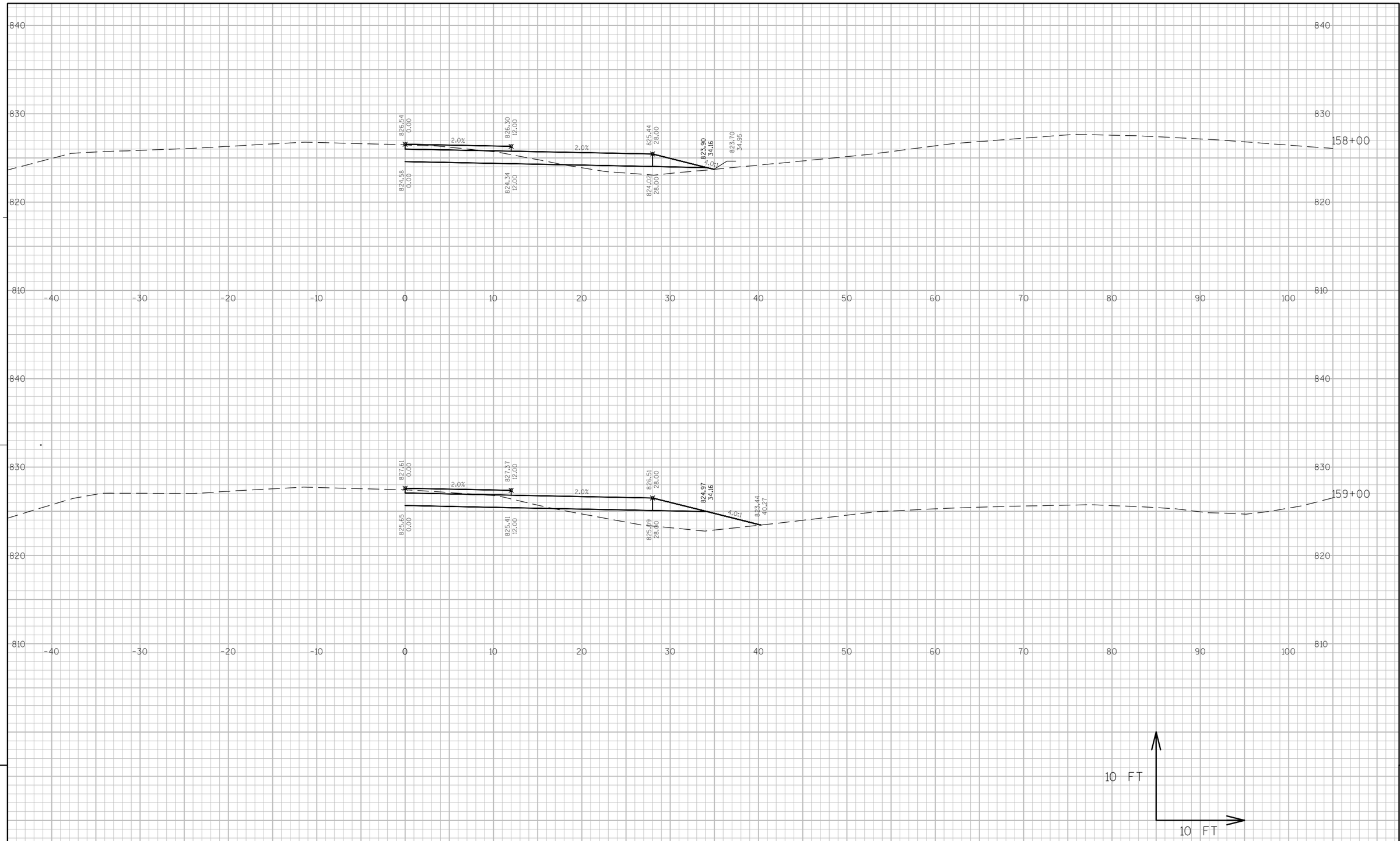
PROJECT NO: 1003-10-86	HWY: IH 39	COUNTY: ROCK	CROSS SECTIONS	SHEET 120	E



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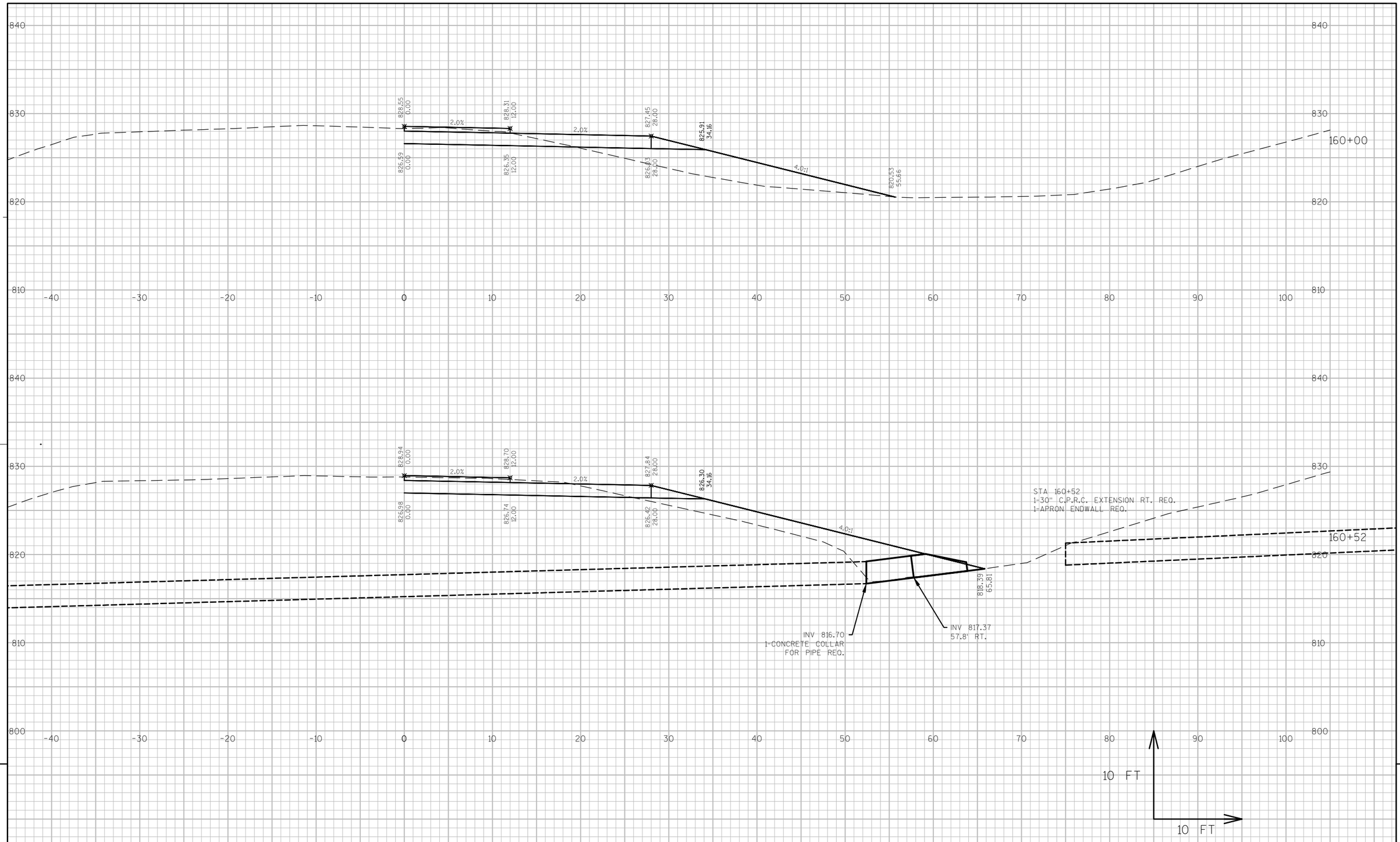
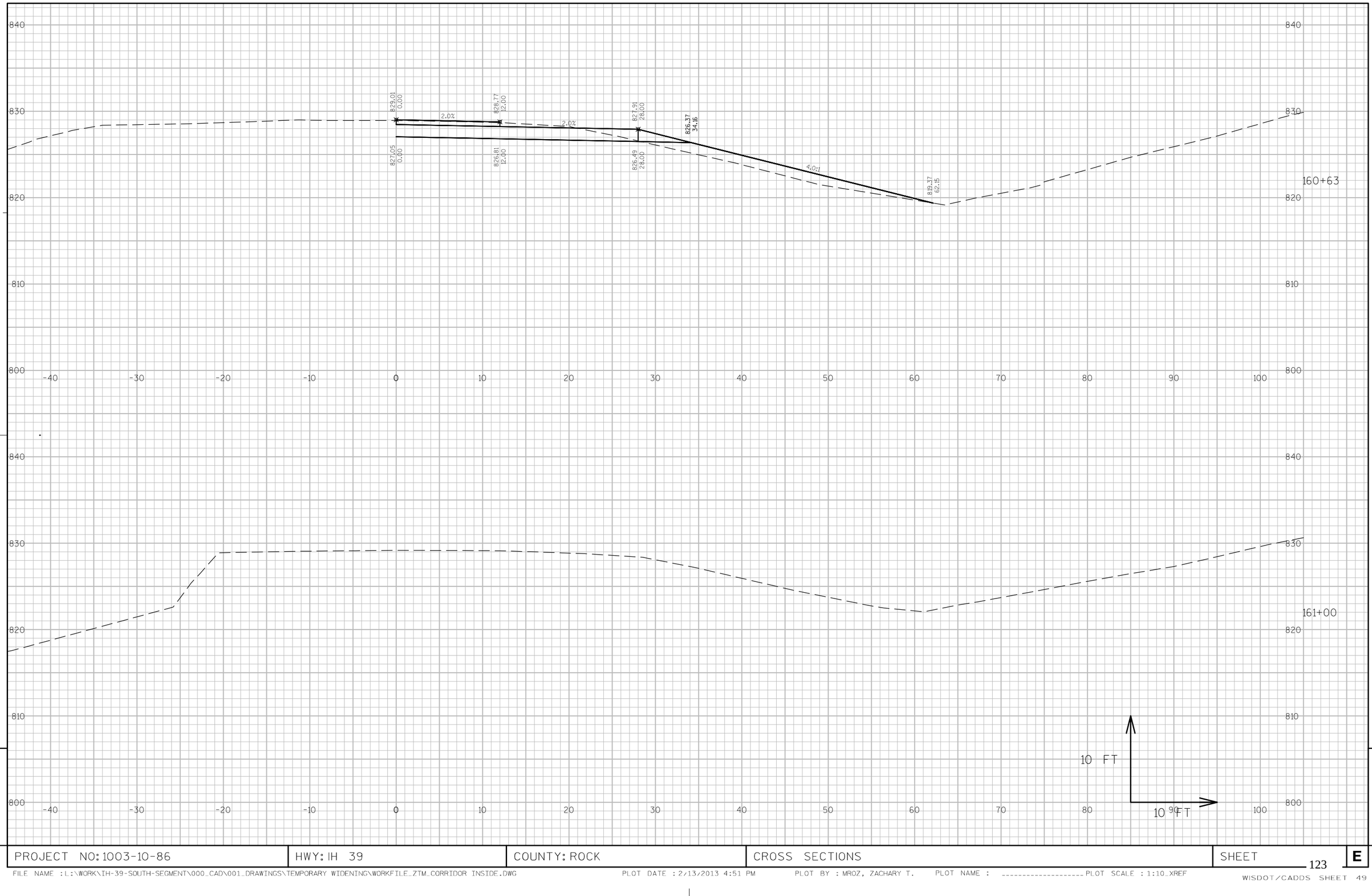
PROJECT NO: 1003-10-86	HWY: IH 39	COUNTY: ROCK	CROSS SECTIONS	SHEET 121	E



PROJECT NO: 1003-10-86	HWY: IH 39	COUNTY: ROCK	CROSS SECTIONS	SHEET	E

FILE NAME : L:\WORK\IH-39-SOUTH-SEGMENT\000_CAD\001_DRAWINGS\TEMPORARY WIDENING\WORKFILE_ZTM_CORRIDOR INSIDE.DWG PLOT DATE : 2/13/2013 4:50 PM PLOT BY : MROZ, ZACHARY T. PLOT NAME : _____ PLOT SCALE : 1:10_XREF



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PROJECT NO: 1003-10-86	HWY: IH 39	COUNTY: ROCK	CROSS SECTIONS	SHEET 123	E

840
830
820
810
800
-40 -30 -20 -10 0 10 20 30 40 50 60 70 80 90 100
162+00
840
830
820
810
800

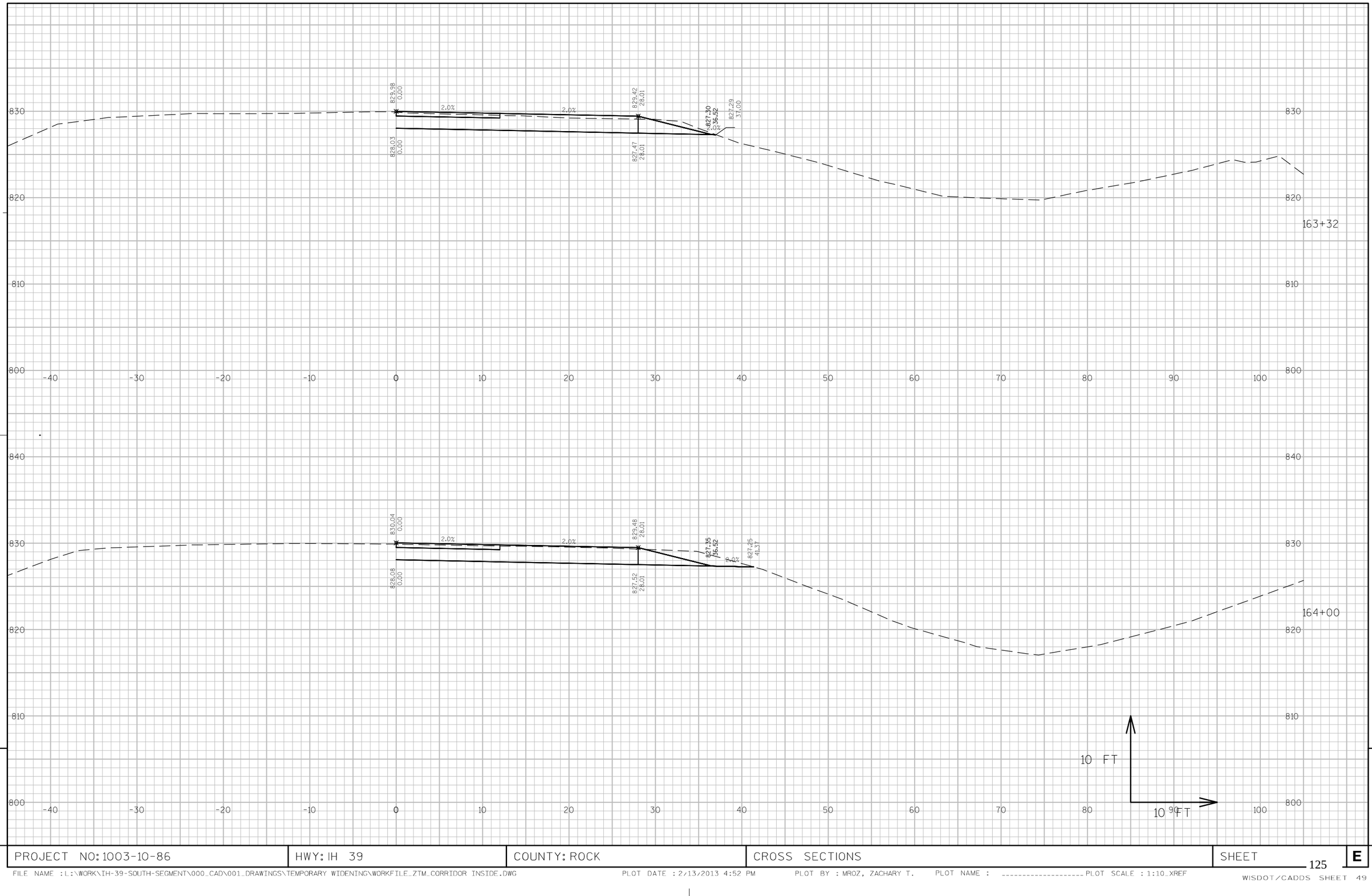
830
820
810
800
-40 -30 -20 -10 0 10 20 30 40 50 60 70 80 90 100
163+00
830
820
810
800
10 FT
10 FT

9

9

PROJECT NO: 1003-10-86	HWY: IH 39	COUNTY: ROCK	CROSS SECTIONS	SHEET	E

FILE NAME : L:\WORK\IH-39-SOUTH-SEGMENT\000_CAD\001_DRAWINGS\TEMPORARY WIDENING\WORKFILE_ZTM_CORRIDOR INSIDE.DWG PLOT DATE : 2/13/2013 4:52 PM PLOT BY : MROZ, ZACHARY T. PLOT NAME : _____ PLOT SCALE : 1:10_XREF
WISDOT/CADDS SHEET 49



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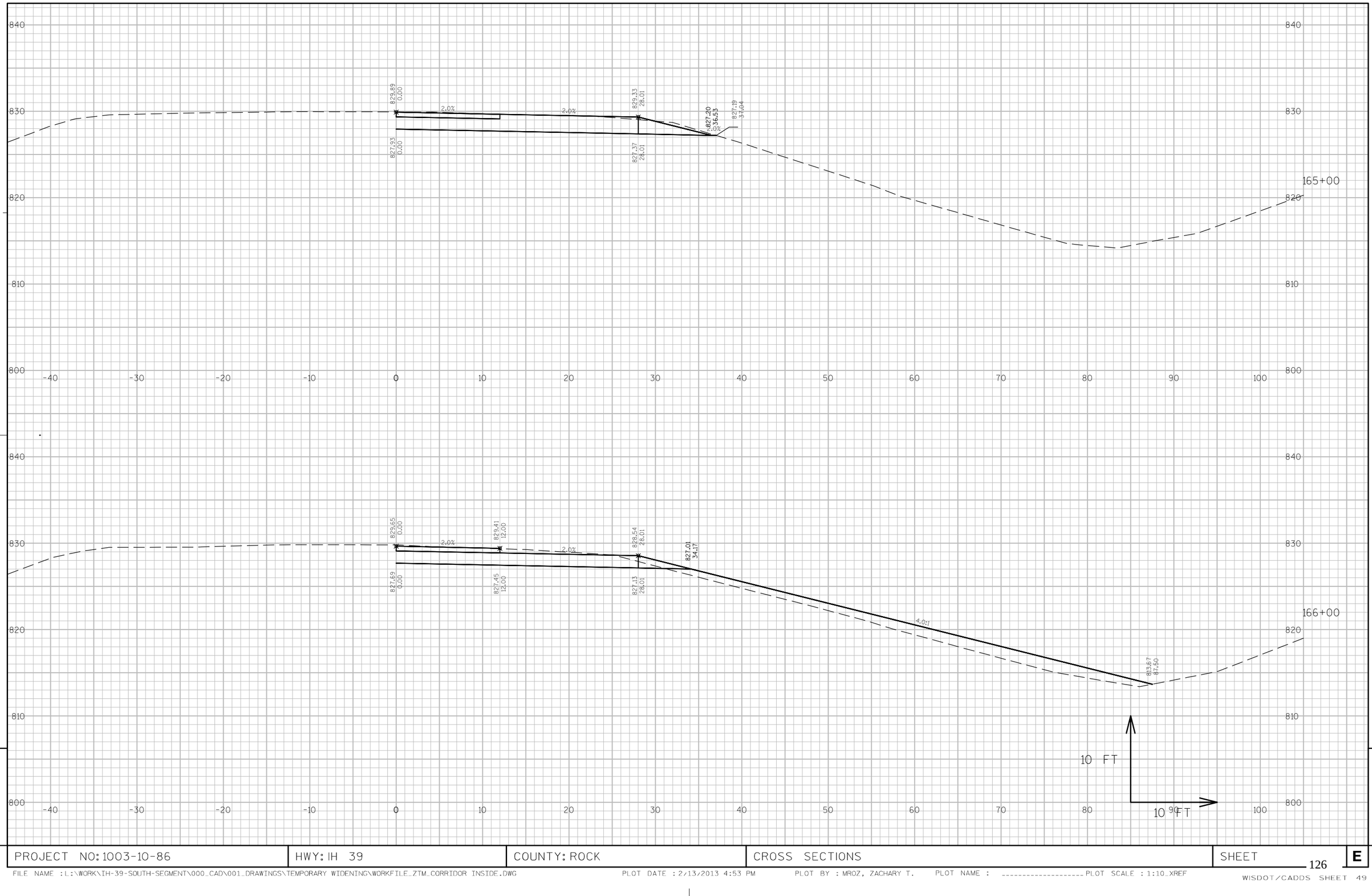
PROJECT NO: 1003-10-86	HWY: IH 39	COUNTY: ROCK	CROSS SECTIONS	SHEET 125	E



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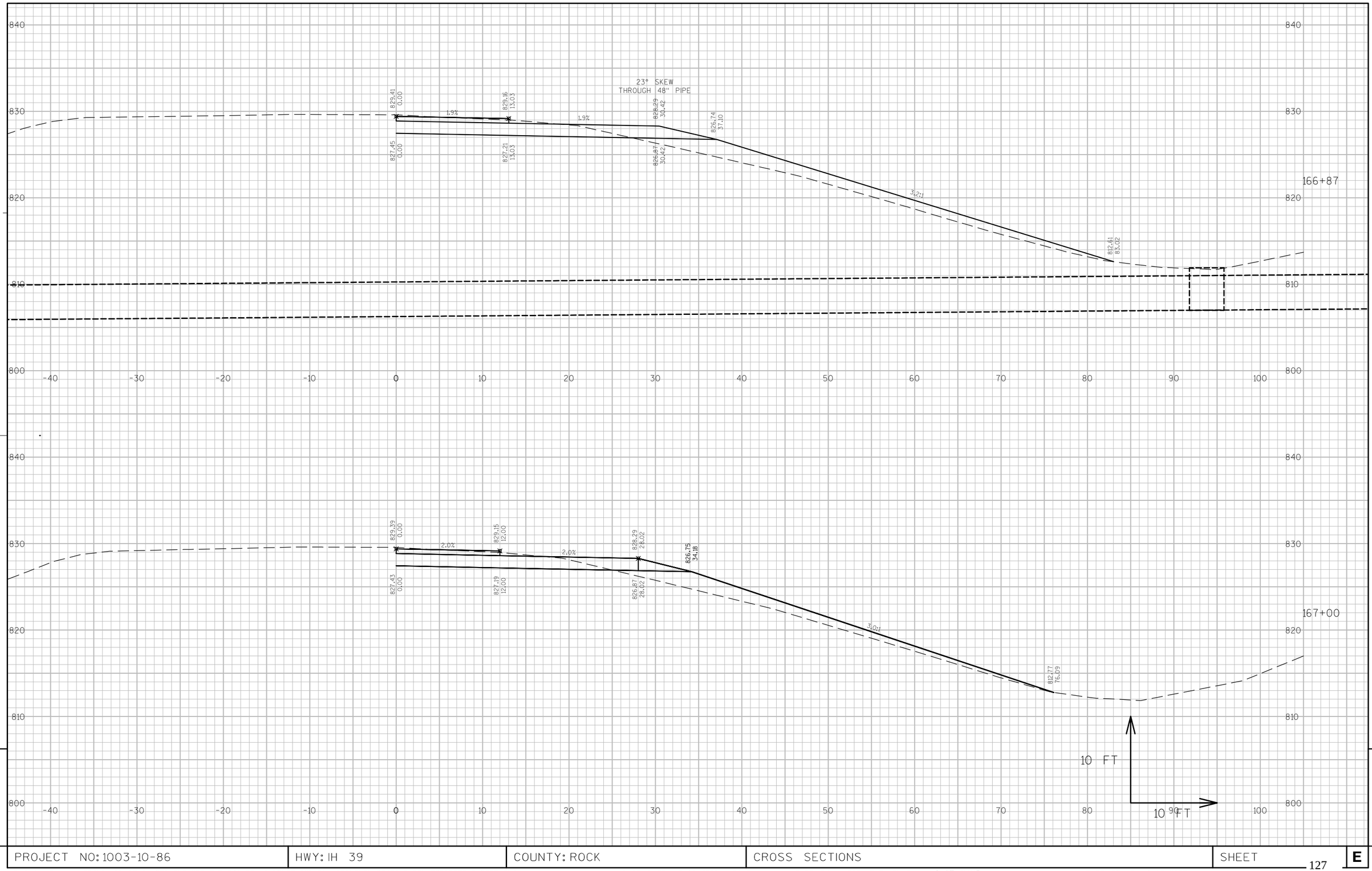
PROJECT NO: 1003-10-86	HWY: IH 39	COUNTY: ROCK	CROSS SECTIONS	SHEET 126	E

FILE NAME : L:\WORK\IH-39-SOUTH-SEGMENT\000_CAD\001_DRAWINGS\TEMPORARY WIDENING\WORKFILE_ZTM_CORRIDOR INSIDE.DWG PLOT DATE : 2/13/2013 4:53 PM PLOT BY : MROZ, ZACHARY T. PLOT NAME : _____ PLOT SCALE : 1:10_XREF

WISDOT/CADDS SHEET 49



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PROJECT NO: 1003-10-86	HWY: IH 39	COUNTY: ROCK	CROSS SECTIONS	SHEET 127	E

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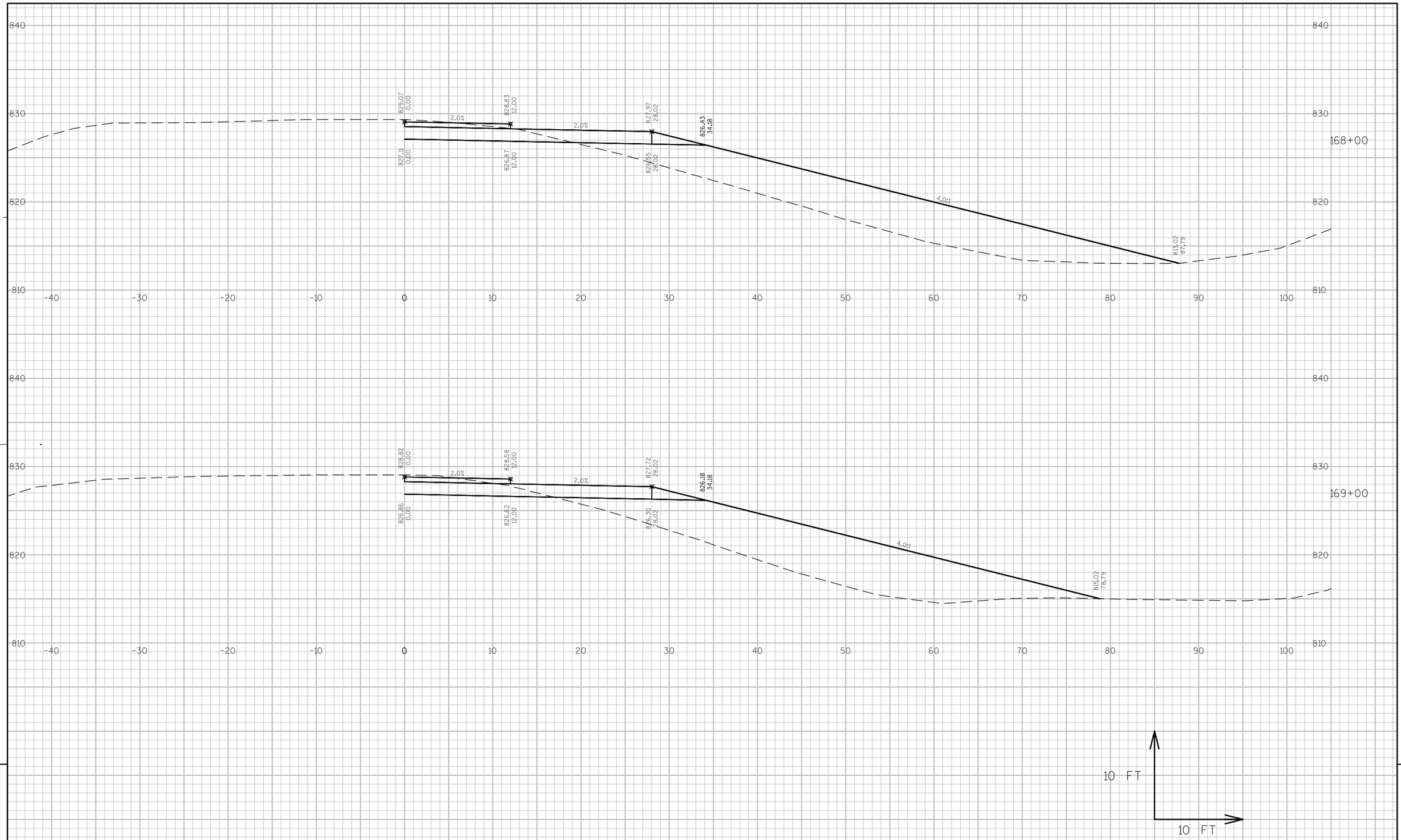
FILE NAME : L:\WORK\IH-39-SOUTH-SEGMENT\000_CAD\001_DRAWINGS\TEMPORARY WIDENING\WORKFILE_ZTM_CORRIDOR INSIDE.DWG PLOT DATE : 2/13/2013 4:54 PM PLOT BY : MROZ, ZACHARY T. PLOT NAME : _____ PLOT SCALE : 1:10_XREF

WISDOT/CADDS SHEET 49



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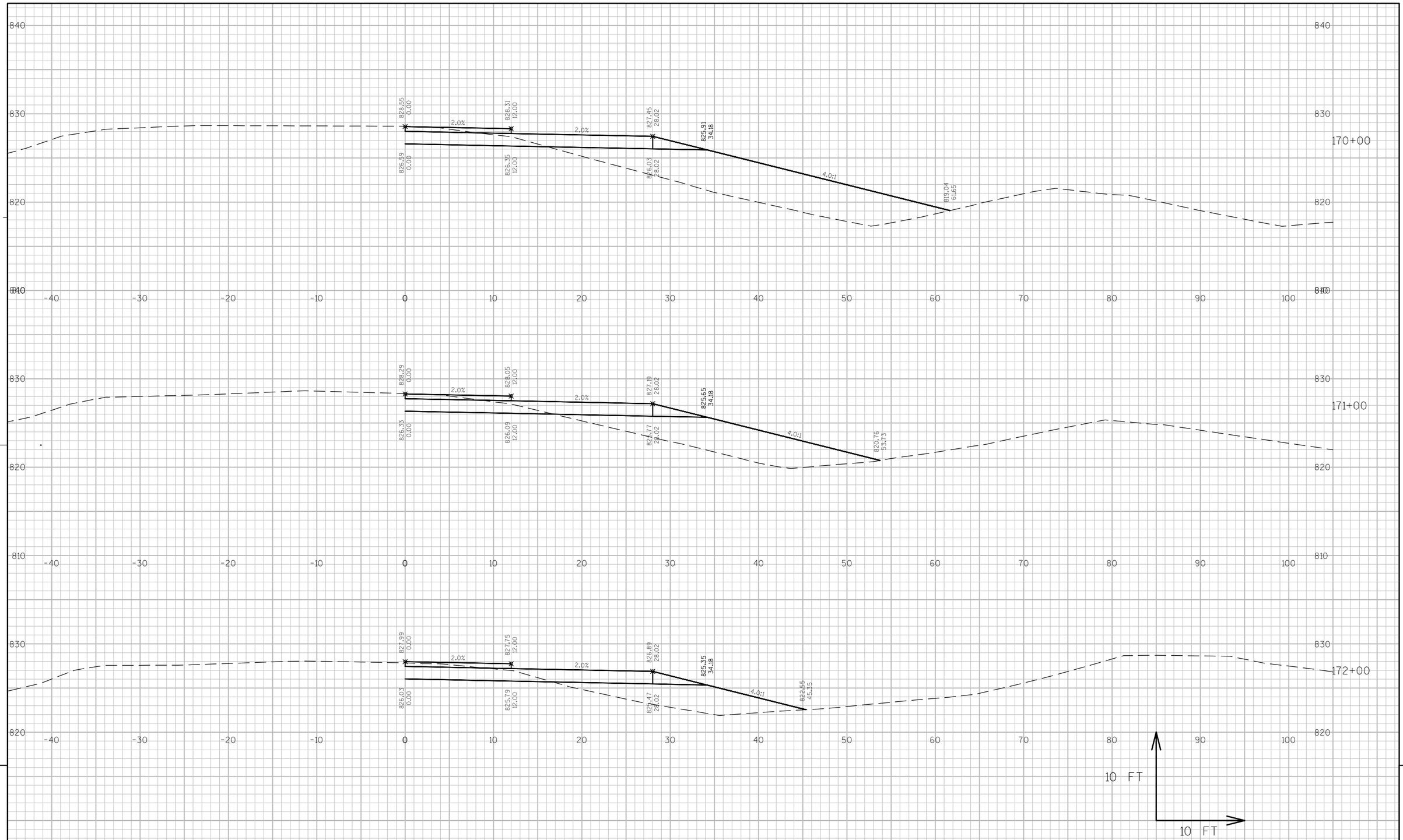
PROJECT NO: 1003-10-86	HWY: IH 39	COUNTY: ROCK	CROSS SECTIONS	SHEET	E

FILE NAME : L:\WORK\IH-39-SOUTH-SEGMENT\000_CAD\001_DRAWINGS\TEMPORARY WIDENING\WORKFILE_ZTM_CORRIDOR INSIDE.DWG PLOT DATE : 2/13/2013 4:55 PM PLOT BY : MROZ, ZACHARY T. PLOT NAME : _____ PLOT SCALE : 1:10_XREF



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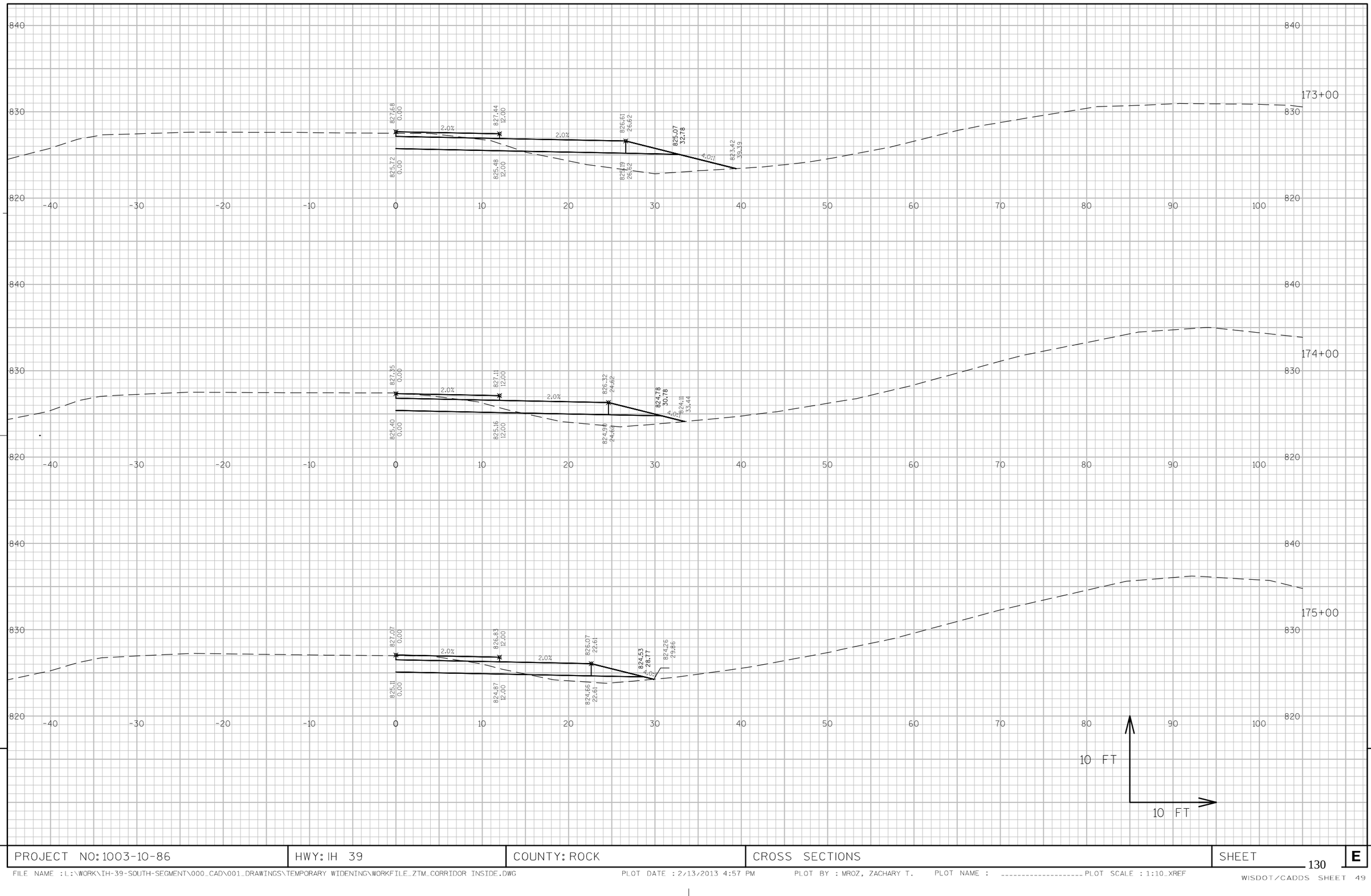
PROJECT NO: 1003-10-86	HWY: IH 39	COUNTY: ROCK	CROSS SECTIONS	SHEET 129	E



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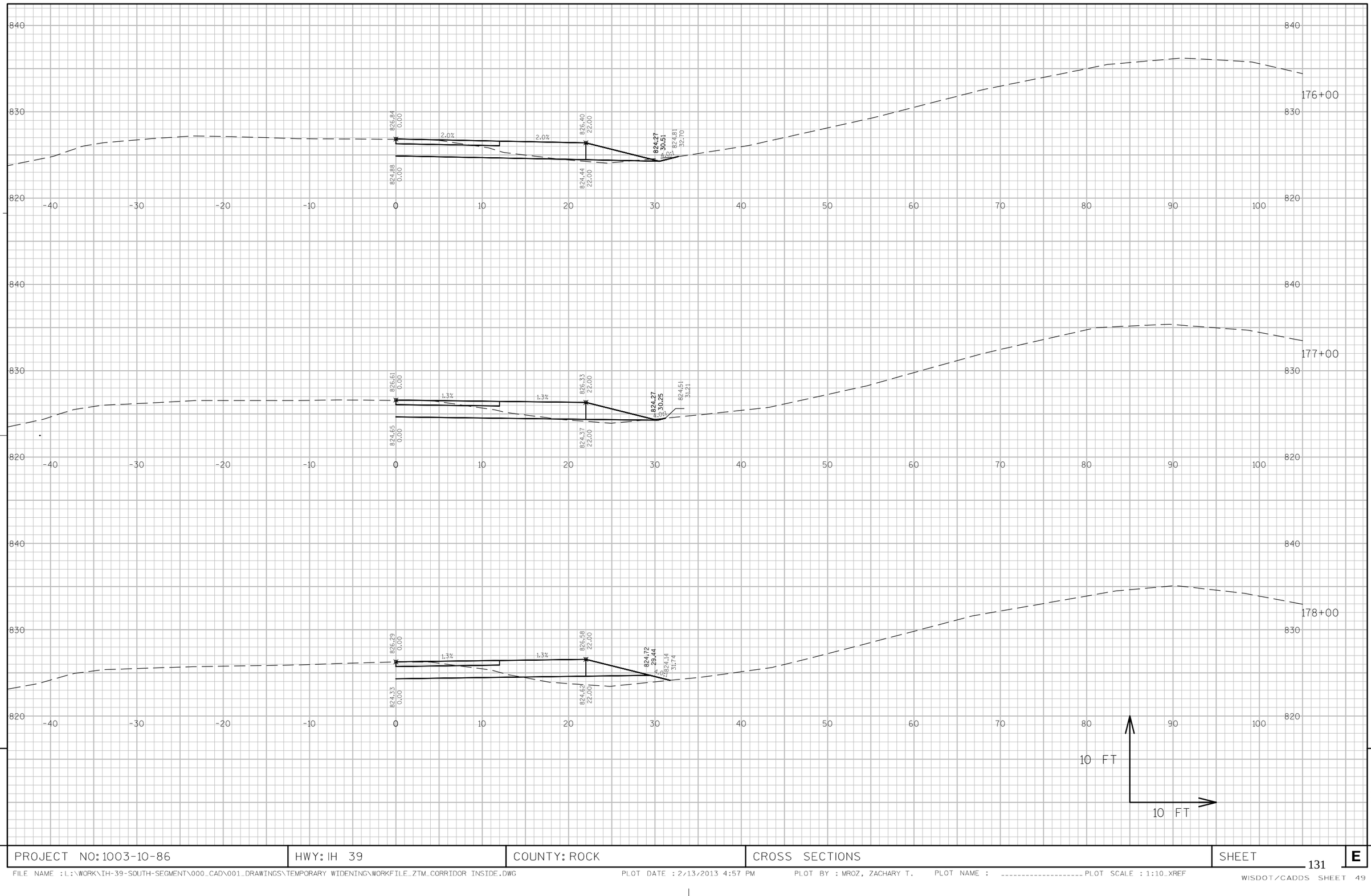
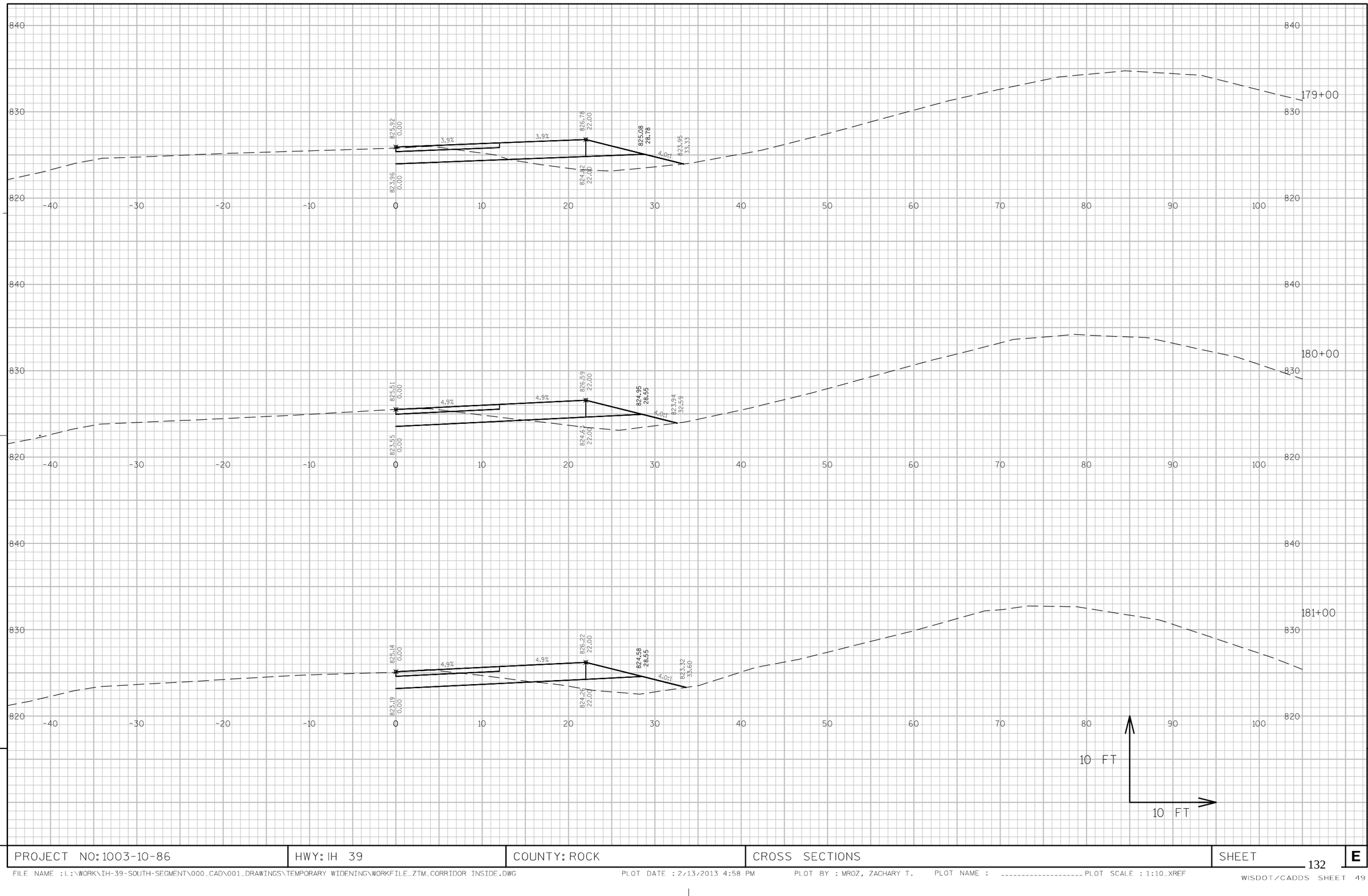
PROJECT NO: 1003-10-86	HWY: IH 39	COUNTY: ROCK	CROSS SECTIONS	SHEET 130	E



PROJECT NO: 1003-10-86	HWY: IH 39	COUNTY: ROCK	CROSS SECTIONS	SHEET 131 E



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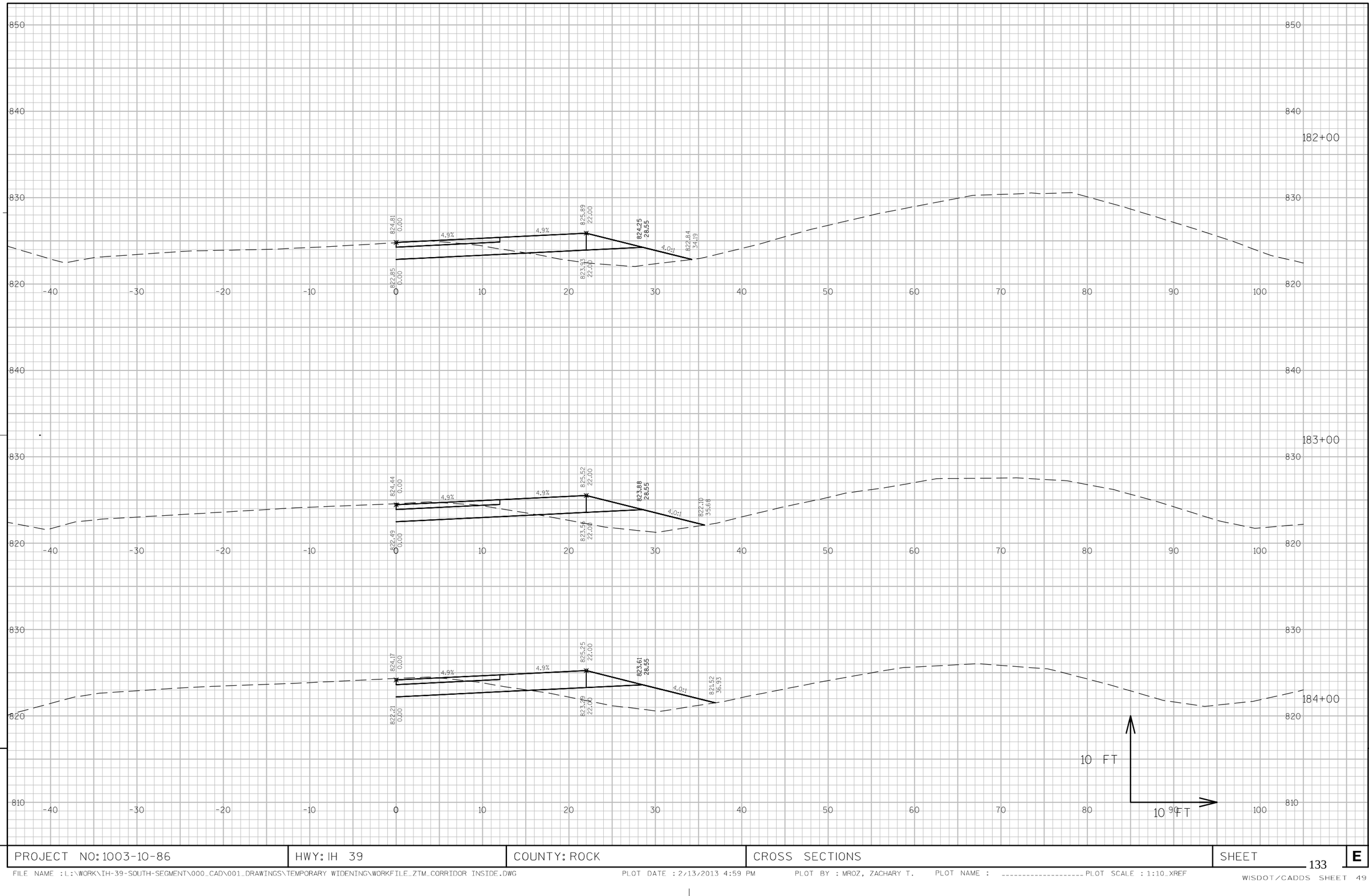
PROJECT NO: 1003-10-86	HWY: IH 39	COUNTY: ROCK	CROSS SECTIONS	SHEET	E

FILE NAME : L:\WORK\IH-39-SOUTH-SEGMENT\000_CAD\001_DRAWINGS\TEMPORARY WIDENING\WORKFILE_ZTM_CORRIDOR INSIDE.DWG PLOT DATE : 2/13/2013 4:58 PM PLOT BY : MROZ, ZACHARY T. PLOT NAME : _____ PLOT SCALE : 1:10_XREF

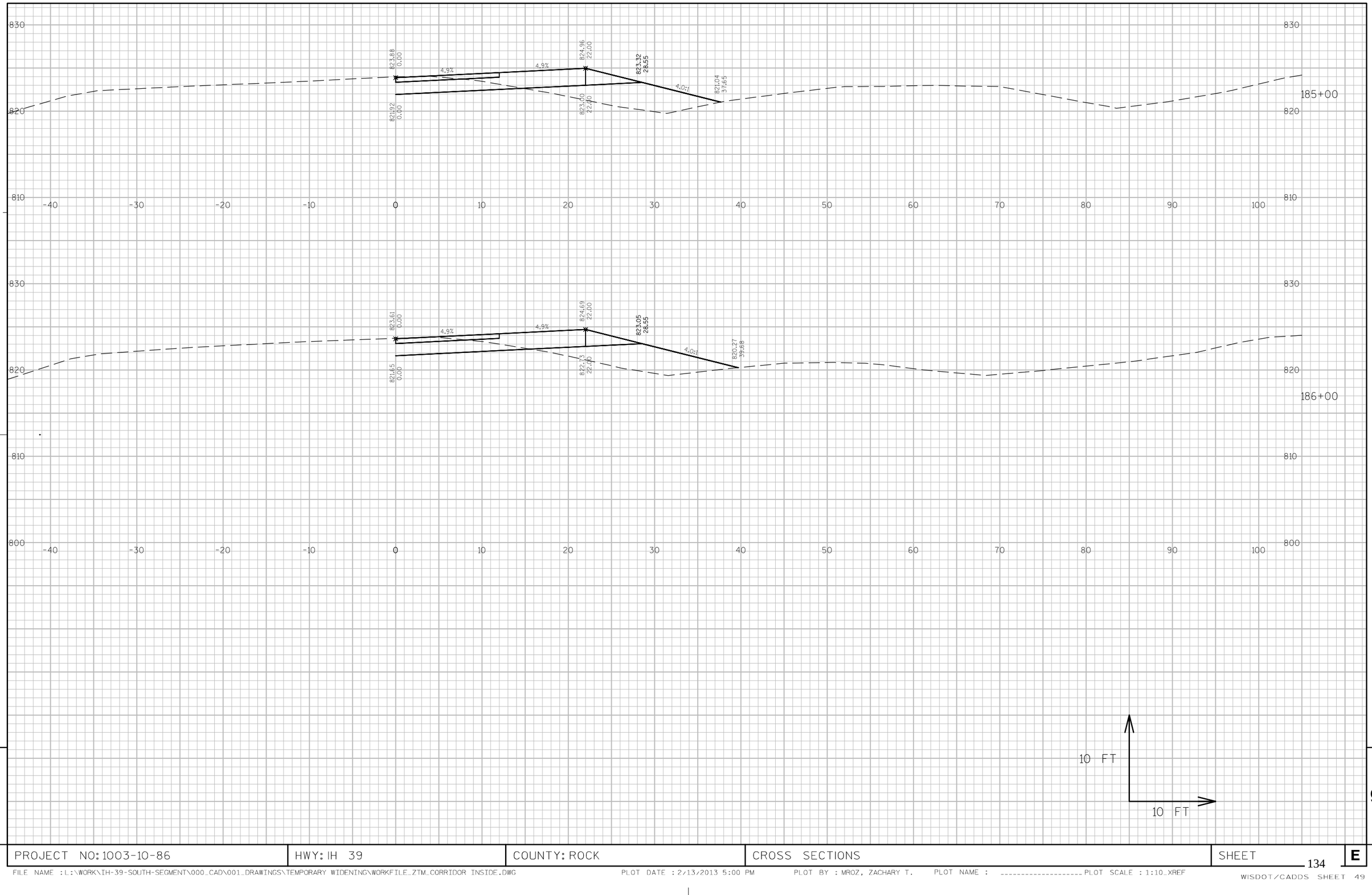
WISDOT/CADDS SHEET 49



PROJECT NO: 1003-10-86	HWY: IH 39	COUNTY: ROCK	CROSS SECTIONS	SHEET 133	E

FILE NAME : L:\WORK\IH-39-SOUTH-SEGMENT\000_CAD\001_DRAWINGS\TEMPORARY WIDENING\WORKFILE_ZTM_CORRIDOR INSIDE.DWG PLOT DATE : 2/13/2013 4:59 PM PLOT BY : MROZ, ZACHARY T. PLOT NAME : _____ PLOT SCALE : 1:10_XREF

WISDOT/CADDS SHEET 49



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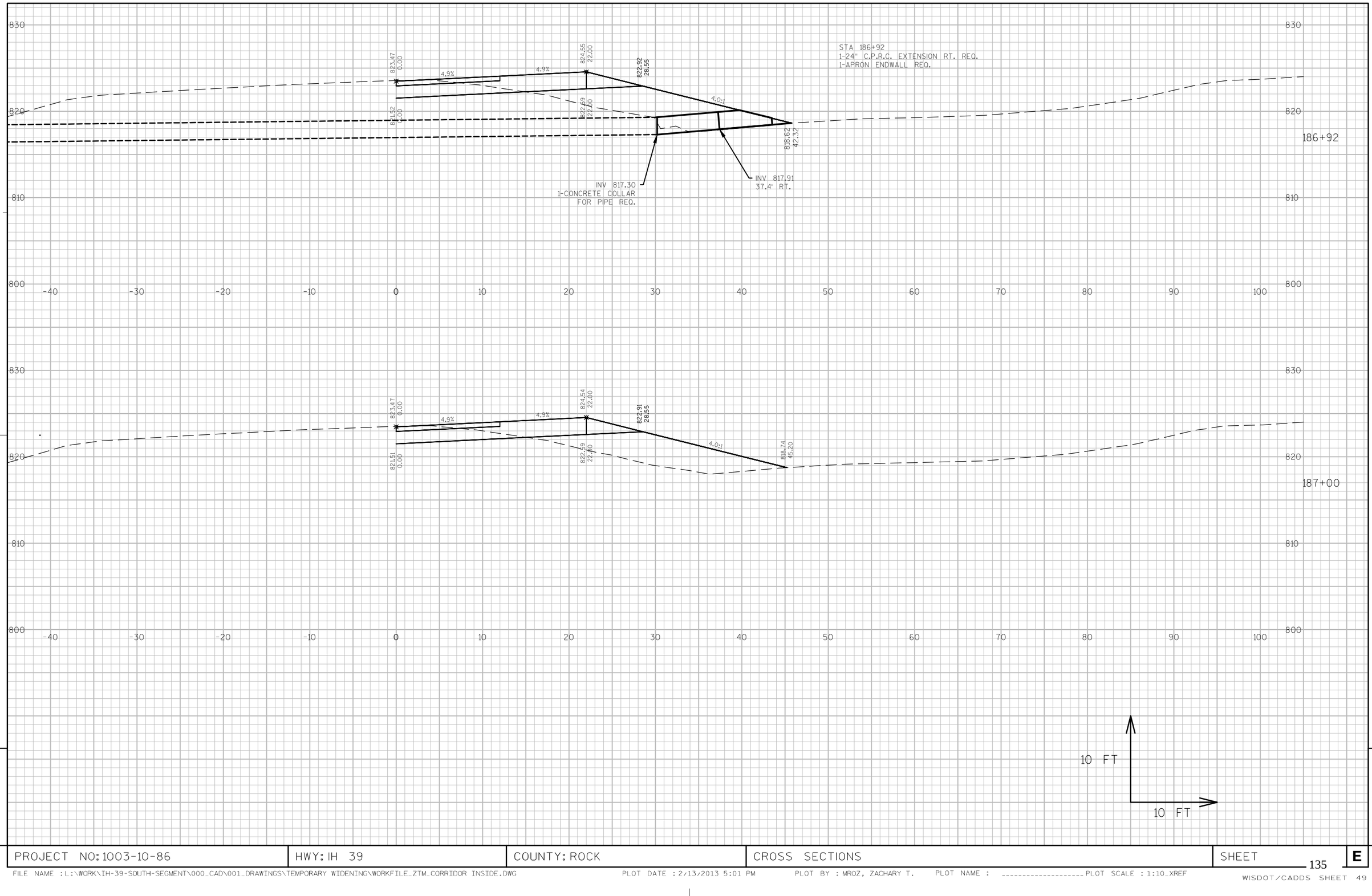
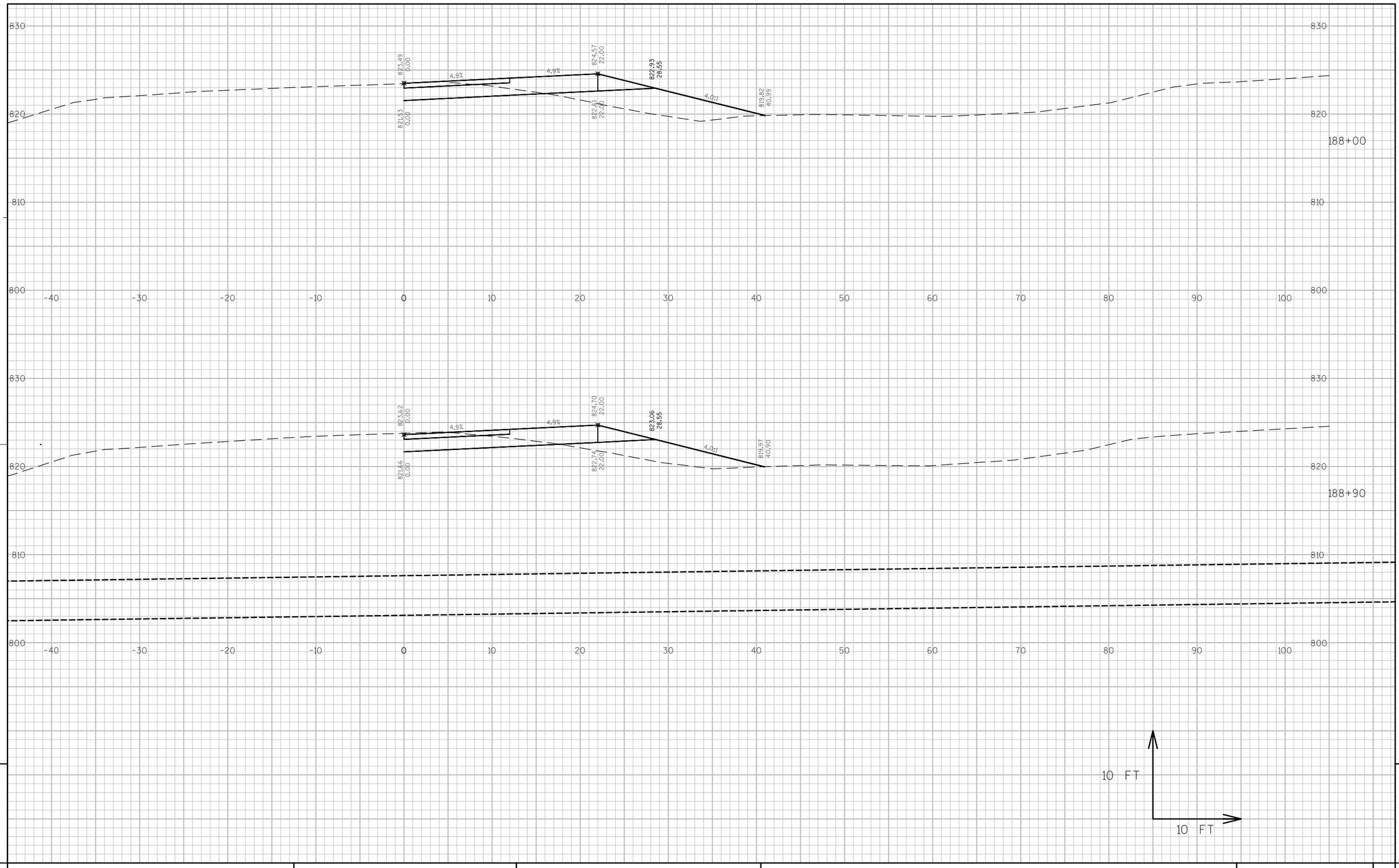
PROJECT NO: 1003-10-86	HWY: IH 39	COUNTY: ROCK	CROSS SECTIONS	SHEET 134	E



PROJECT NO: 1003-10-86	HWY: IH 39	COUNTY: ROCK	CROSS SECTIONS	SHEET 135	E



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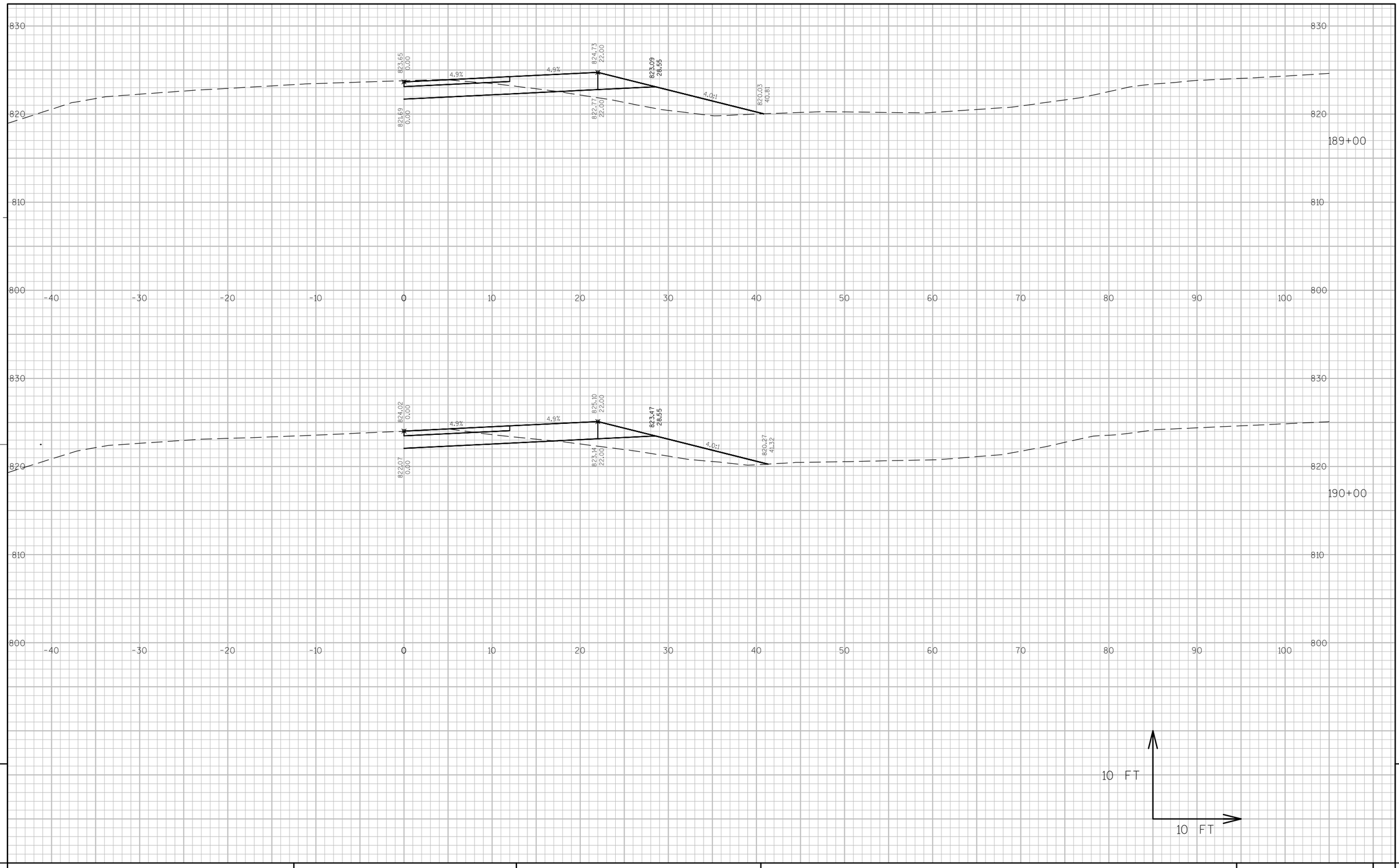
PROJECT NO: 1003-10-86	HWY: IH 39	COUNTY: ROCK	CROSS SECTIONS	SHEET 136	E



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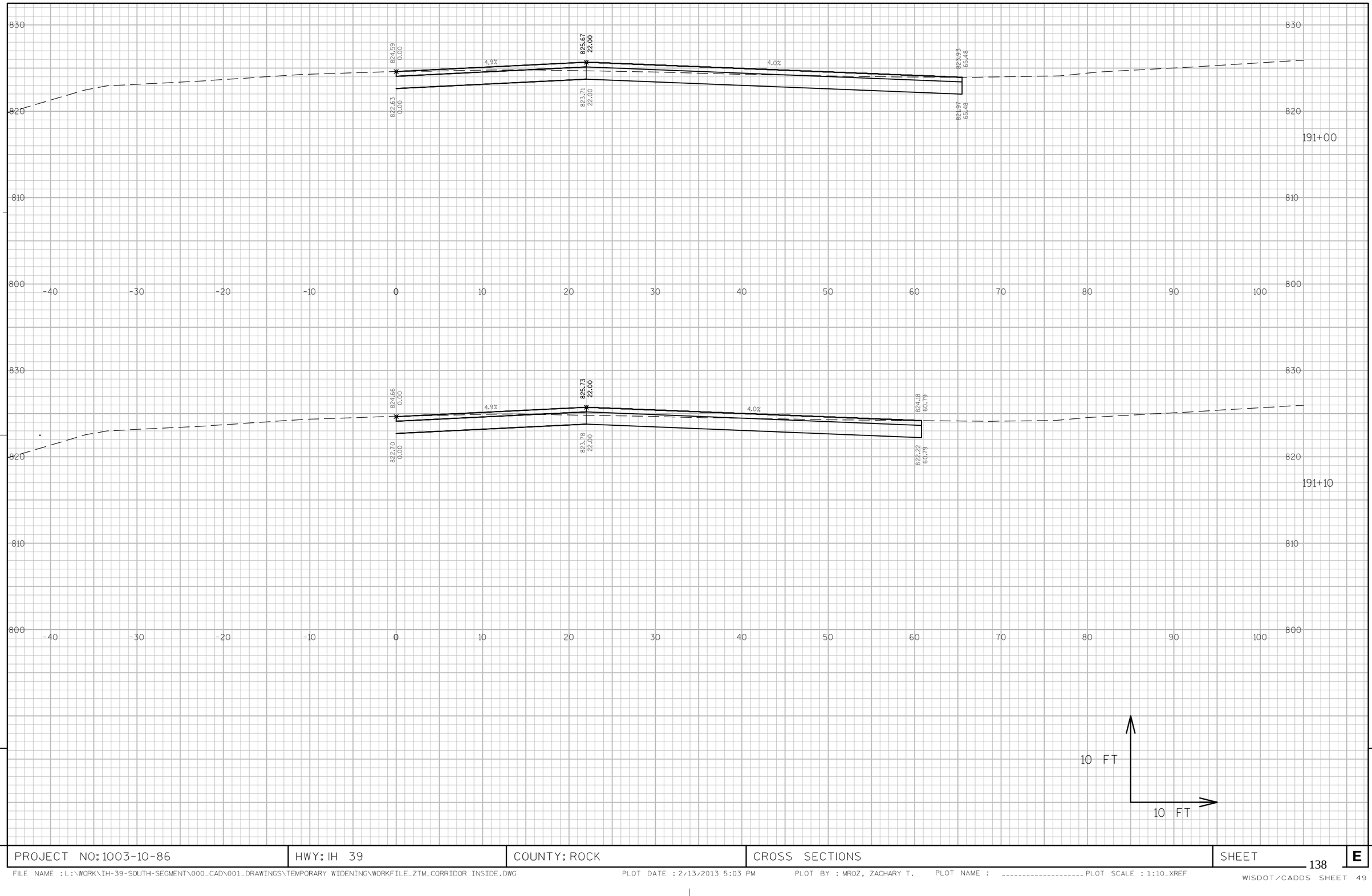
PROJECT NO: 1003-10-86	HWY: IH 39	COUNTY: ROCK	CROSS SECTIONS	SHEET 137	E



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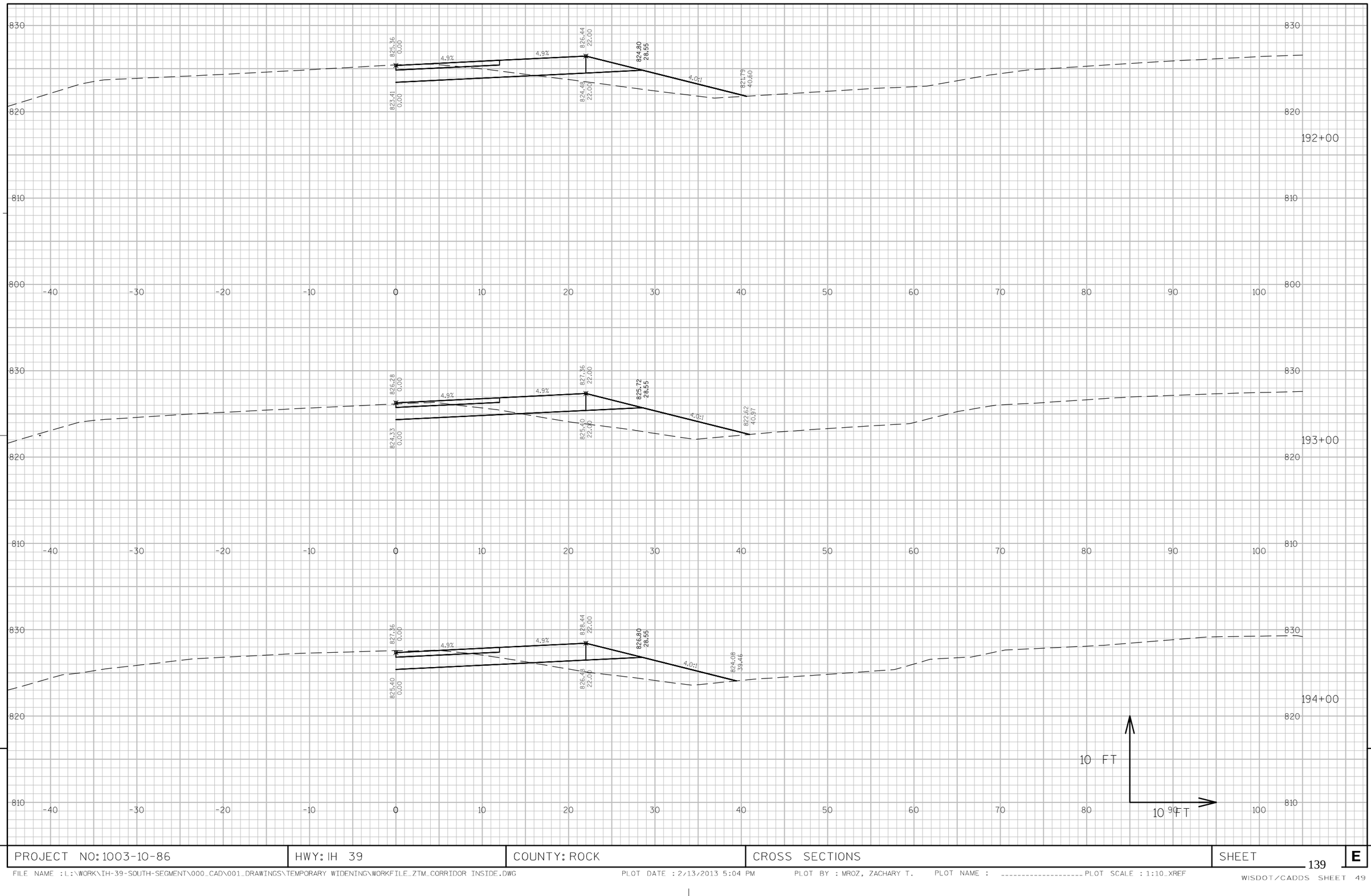
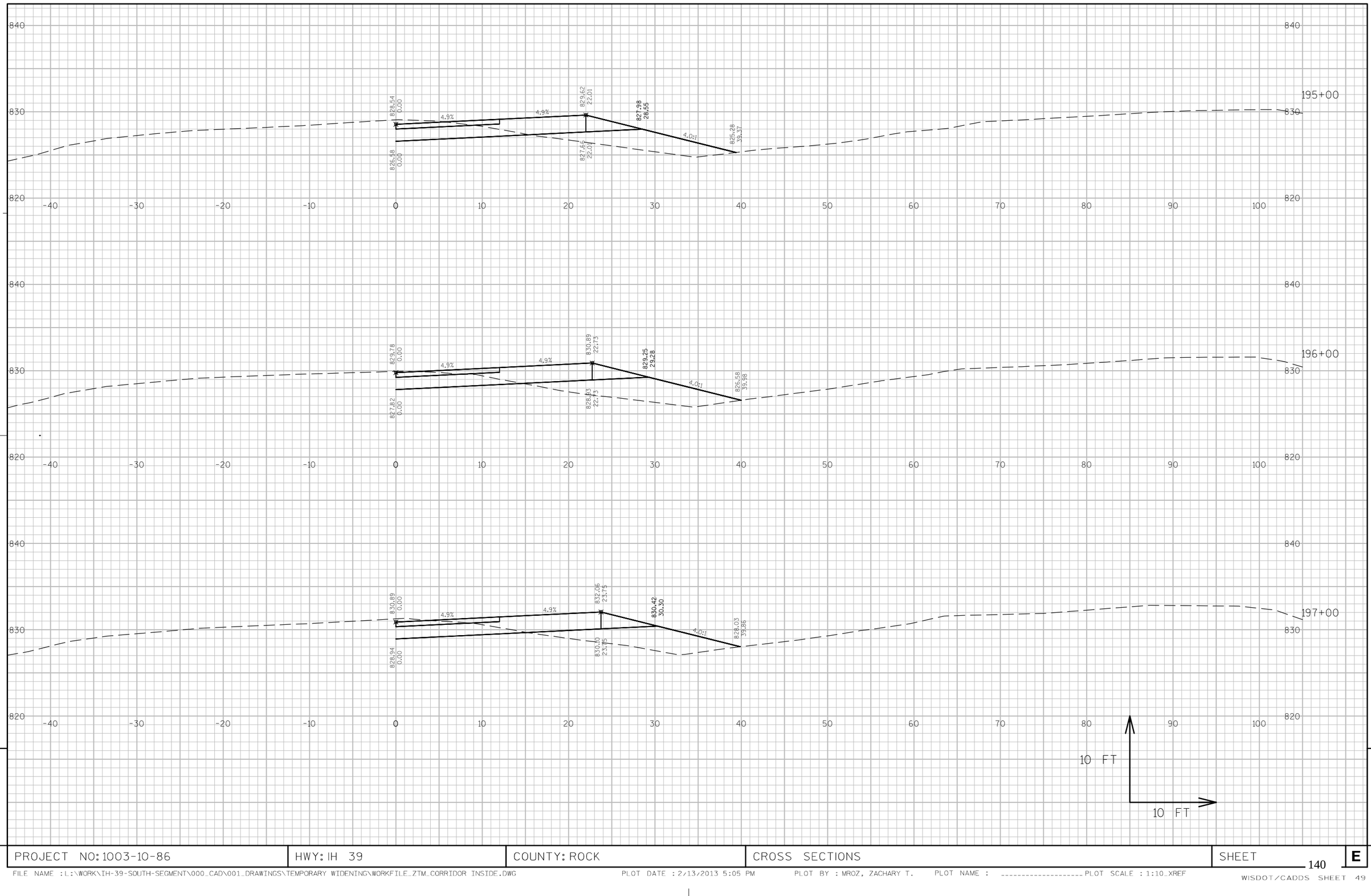
PROJECT NO: 1003-10-86	HWY: IH 39	COUNTY: ROCK	CROSS SECTIONS	SHEET 138	E



PROJECT NO: 1003-10-86	HWY: IH 39	COUNTY: ROCK	CROSS SECTIONS	SHEET 139	E

FILE NAME : L:\WORK\IH-39-SOUTH-SEGMENT\000_CAD\001_DRAWINGS\TEMPORARY WIDENING\WORKFILE_ZTM_CORRIDOR INSIDE.DWG PLOT DATE : 2/13/2013 5:04 PM PLOT BY : MROZ, ZACHARY T. PLOT NAME : _____ PLOT SCALE : 1:10_XREF

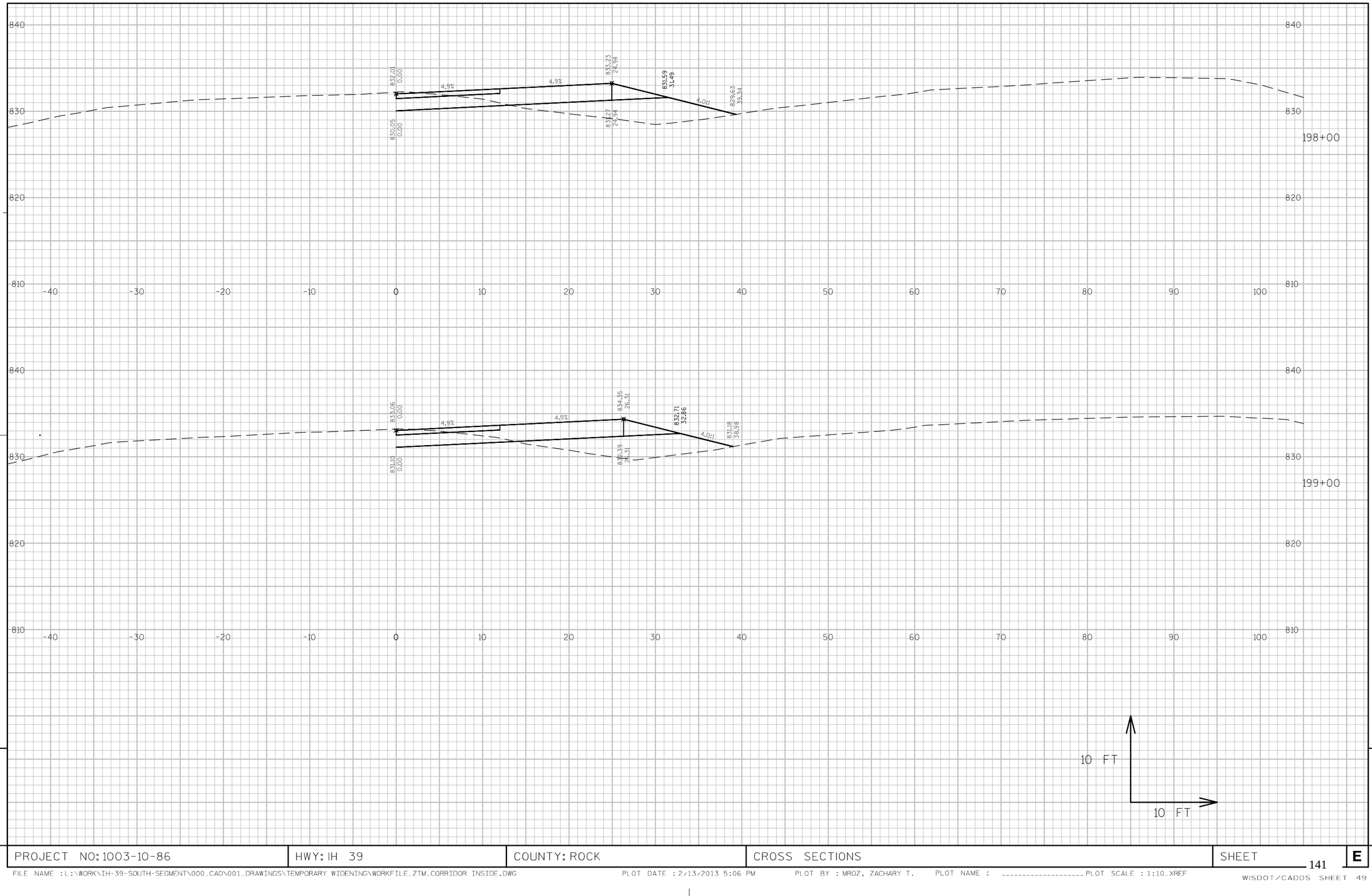
WISDOT/CADDS SHEET 49



PROJECT NO: 1003-10-86	HWY: IH 39	COUNTY: ROCK	CROSS SECTIONS	SHEET 140	E

FILE NAME : L:\WORK\IH-39-SOUTH-SEGMENT\000_CAD\001_DRAWINGS\TEMPORARY WIDENING\WORKFILE_ZTM_CORRIDOR INSIDE.DWG PLOT DATE : 2/13/2013 5:05 PM PLOT BY : MROZ, ZACHARY T. PLOT NAME : _____ PLOT SCALE : 1:10_XREF

WISDOT/CADDS SHEET 49



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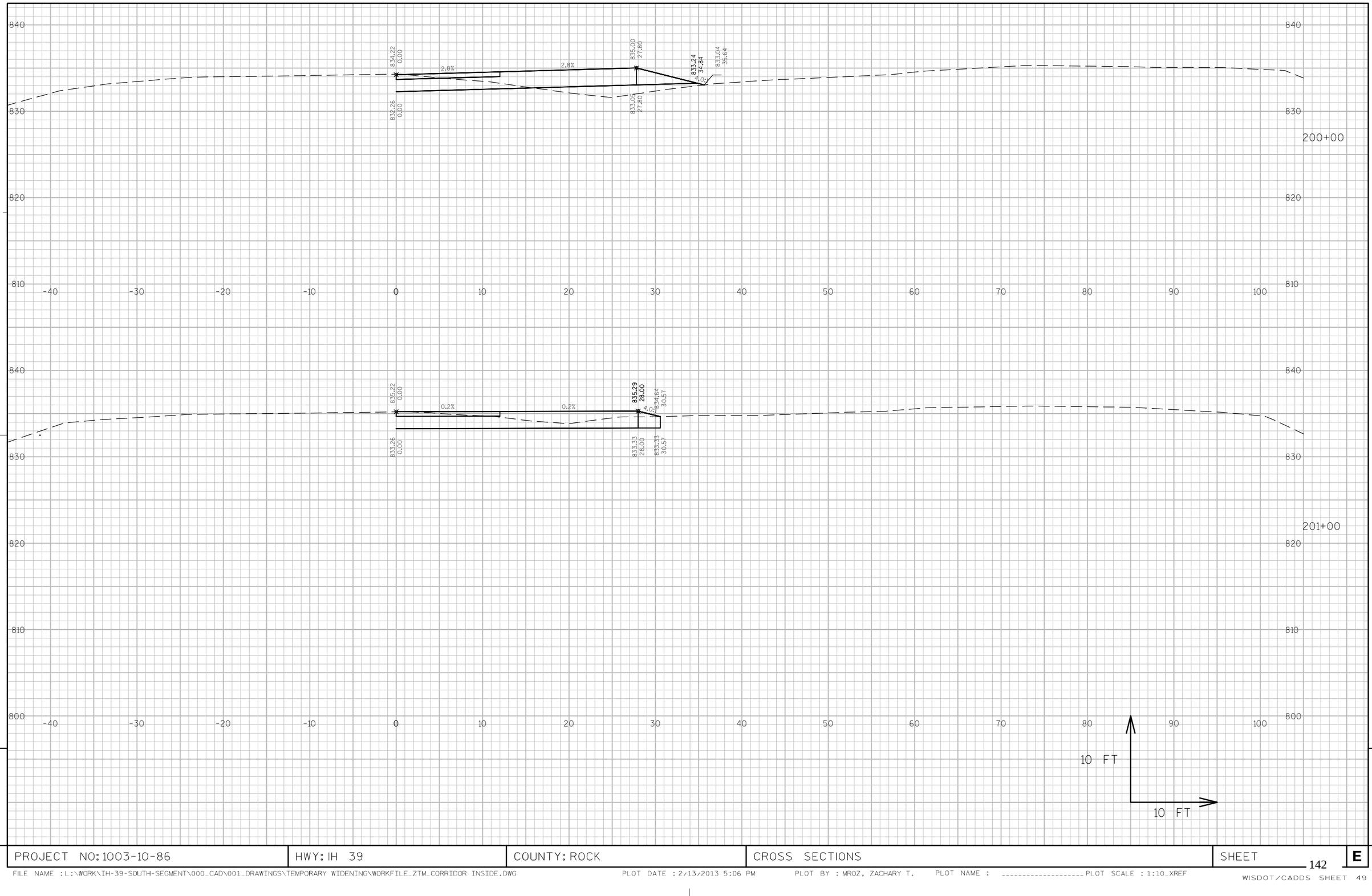
PROJECT NO: 1003-10-86	HWY: IH 39	COUNTY: ROCK	CROSS SECTIONS	SHEET 141	E



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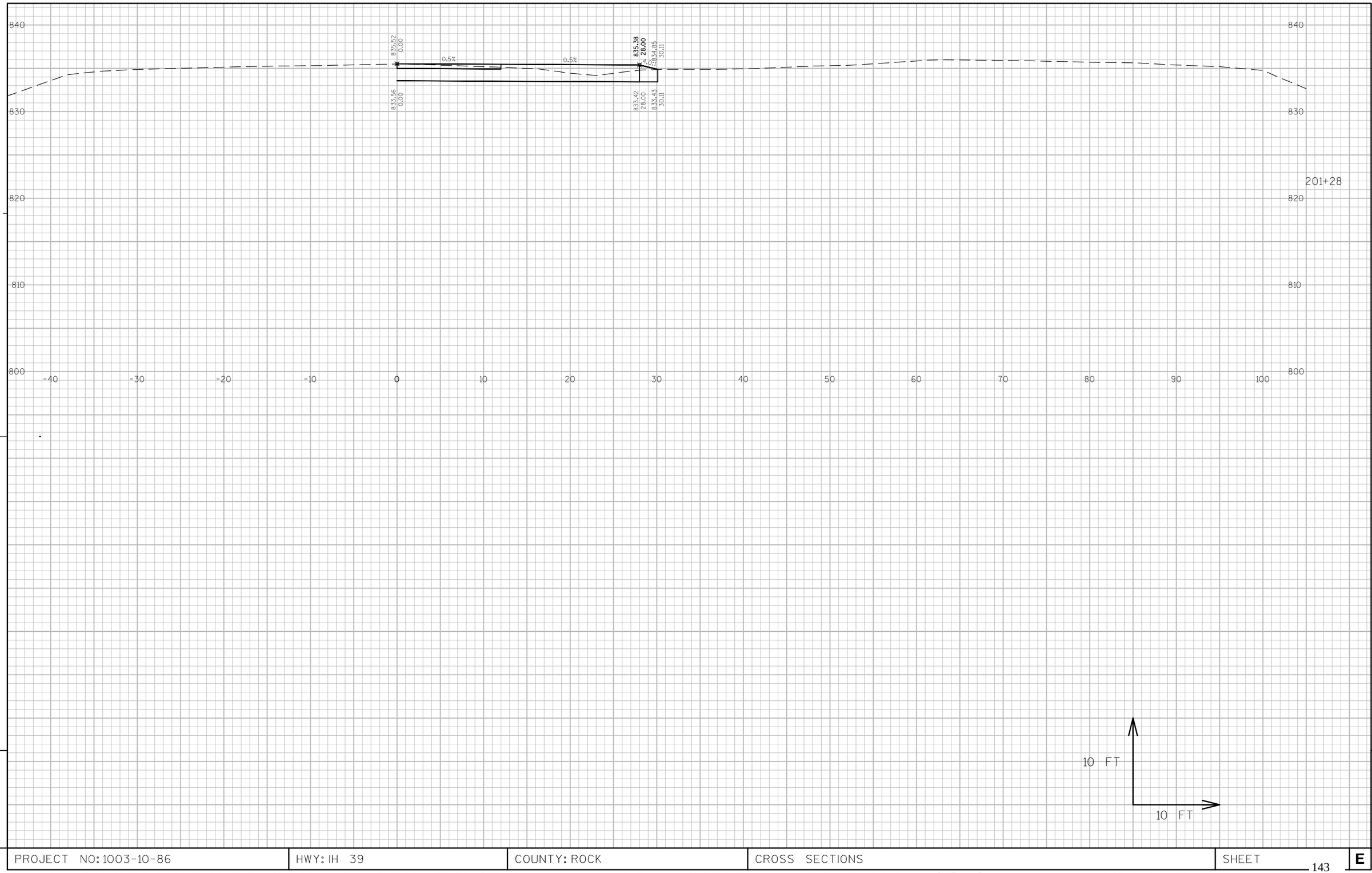
PROJECT NO: 1003-10-86	HWY: IH 39	COUNTY: ROCK	CROSS SECTIONS	SHEET 142	E



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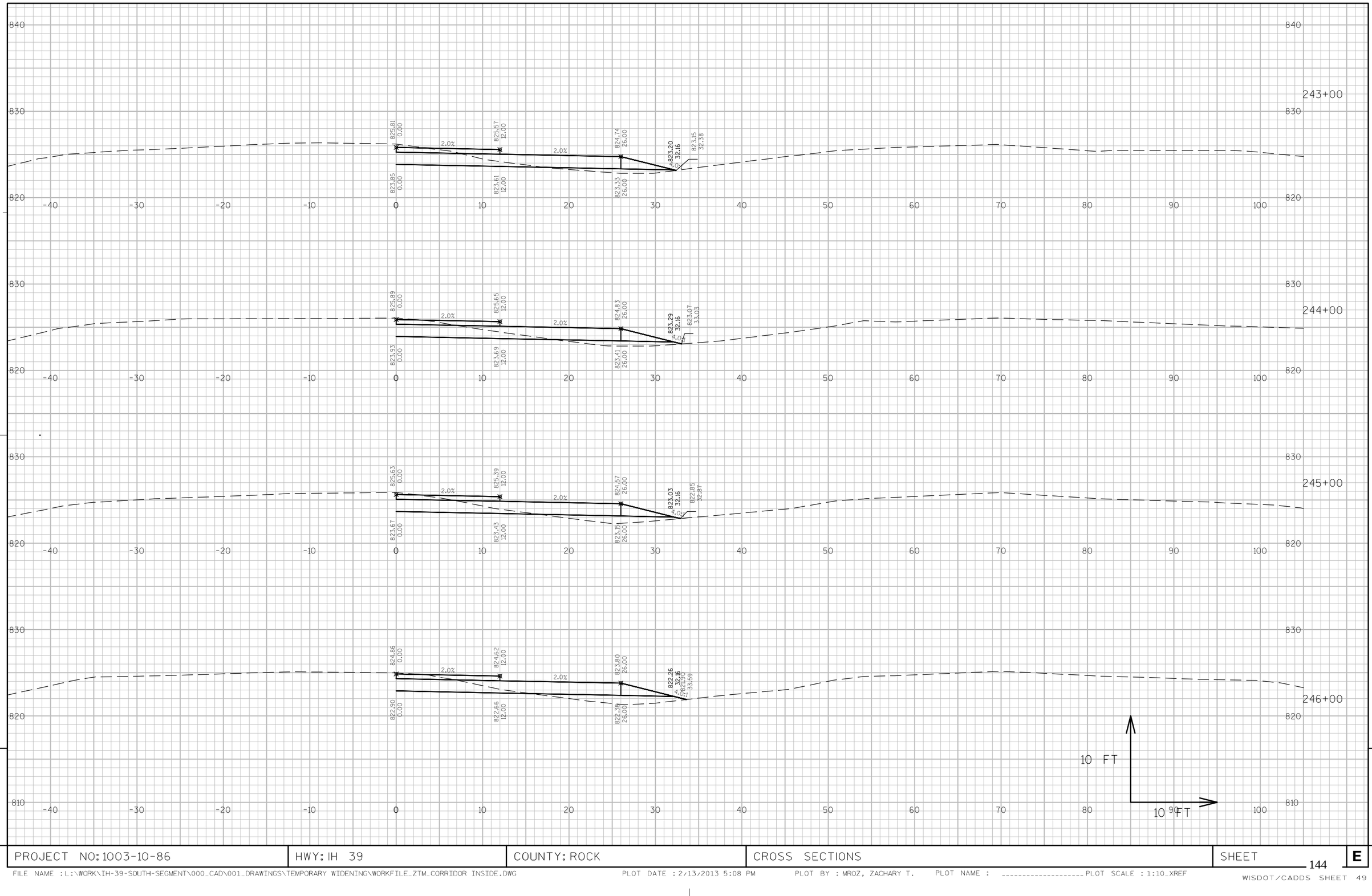
PROJECT NO: 1003-10-86	HWY: IH 39	COUNTY: ROCK	CROSS SECTIONS	SHEET 143	E



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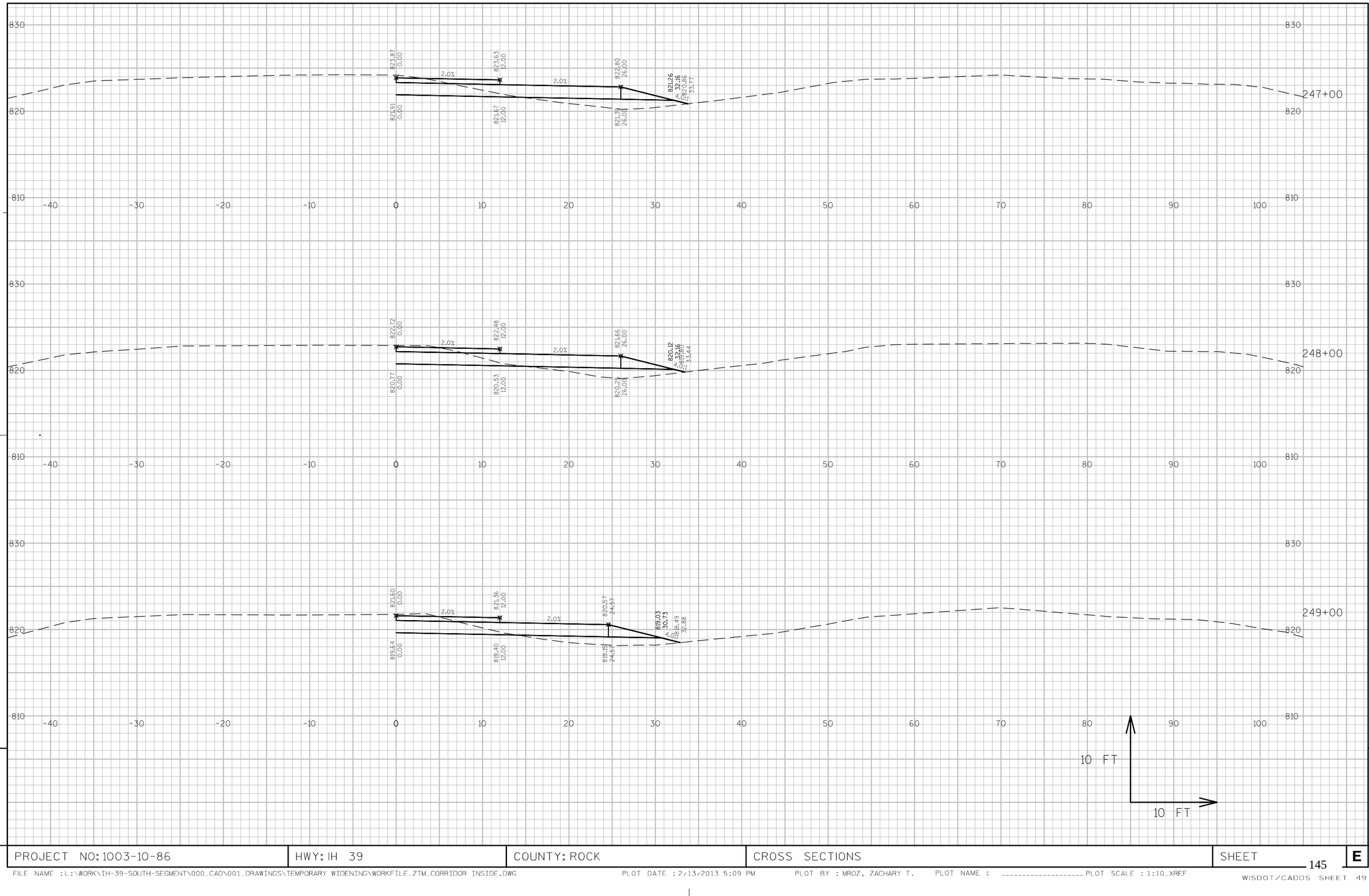
PROJECT NO: 1003-10-86	HWY: IH 39	COUNTY: ROCK	CROSS SECTIONS	SHEET 144	E



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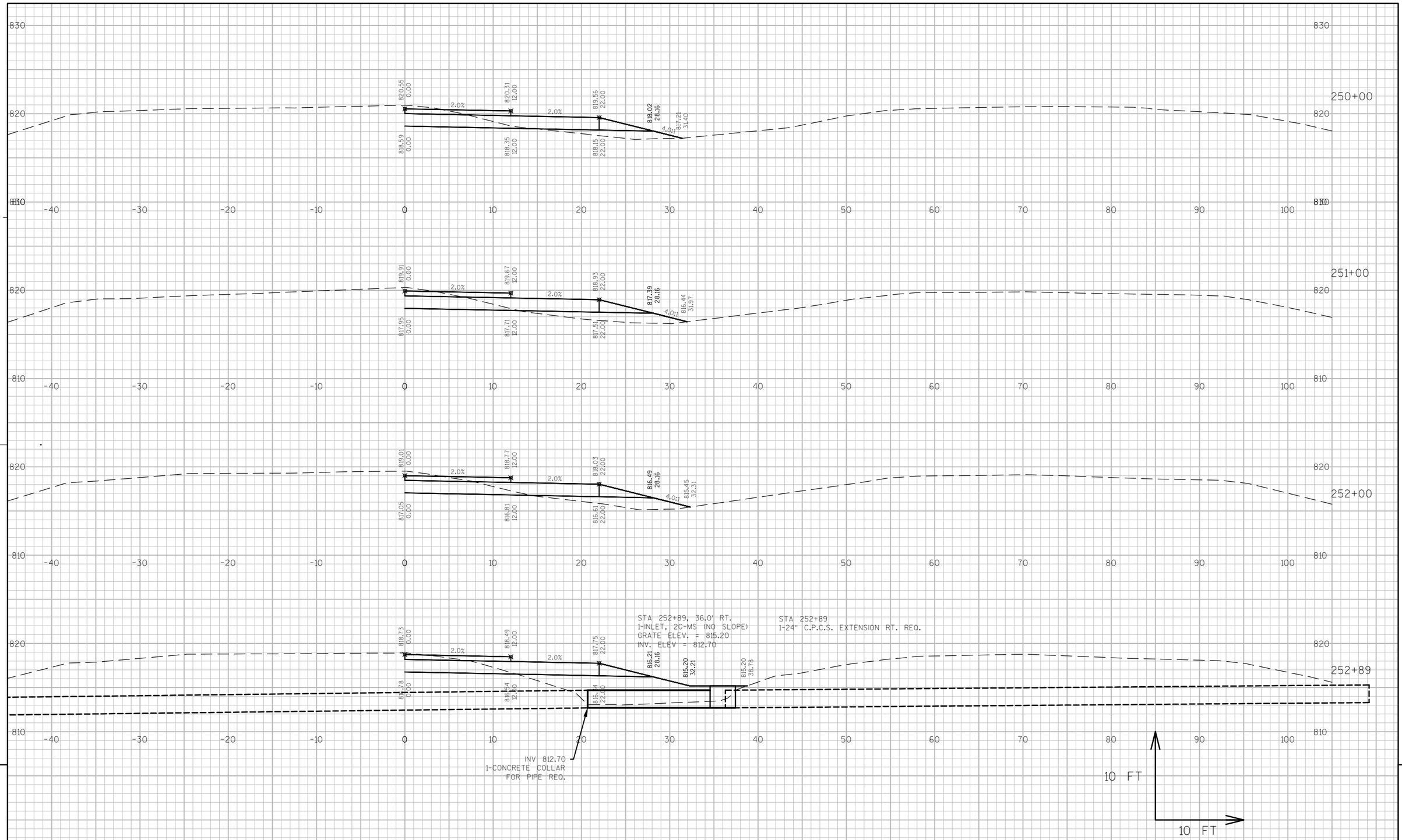
PROJECT NO: 1003-10-86	HWY: IH 39	COUNTY: ROCK	CROSS SECTIONS	SHEET	E

FILE NAME : L:\WORK\IH-39-SOUTH-SEGMENT\000_CAD\001_DRAWINGS\TEMPORARY WIDENING\WORKFILE_ZTM_CORRIDOR INSIDE.DWG PLOT DATE : 2/13/2013 5:09 PM PLOT BY : MROZ, ZACHARY T. PLOT NAME : _____ PLOT SCALE : 1:10_XREF

WISDOT/CADDS SHEET 49



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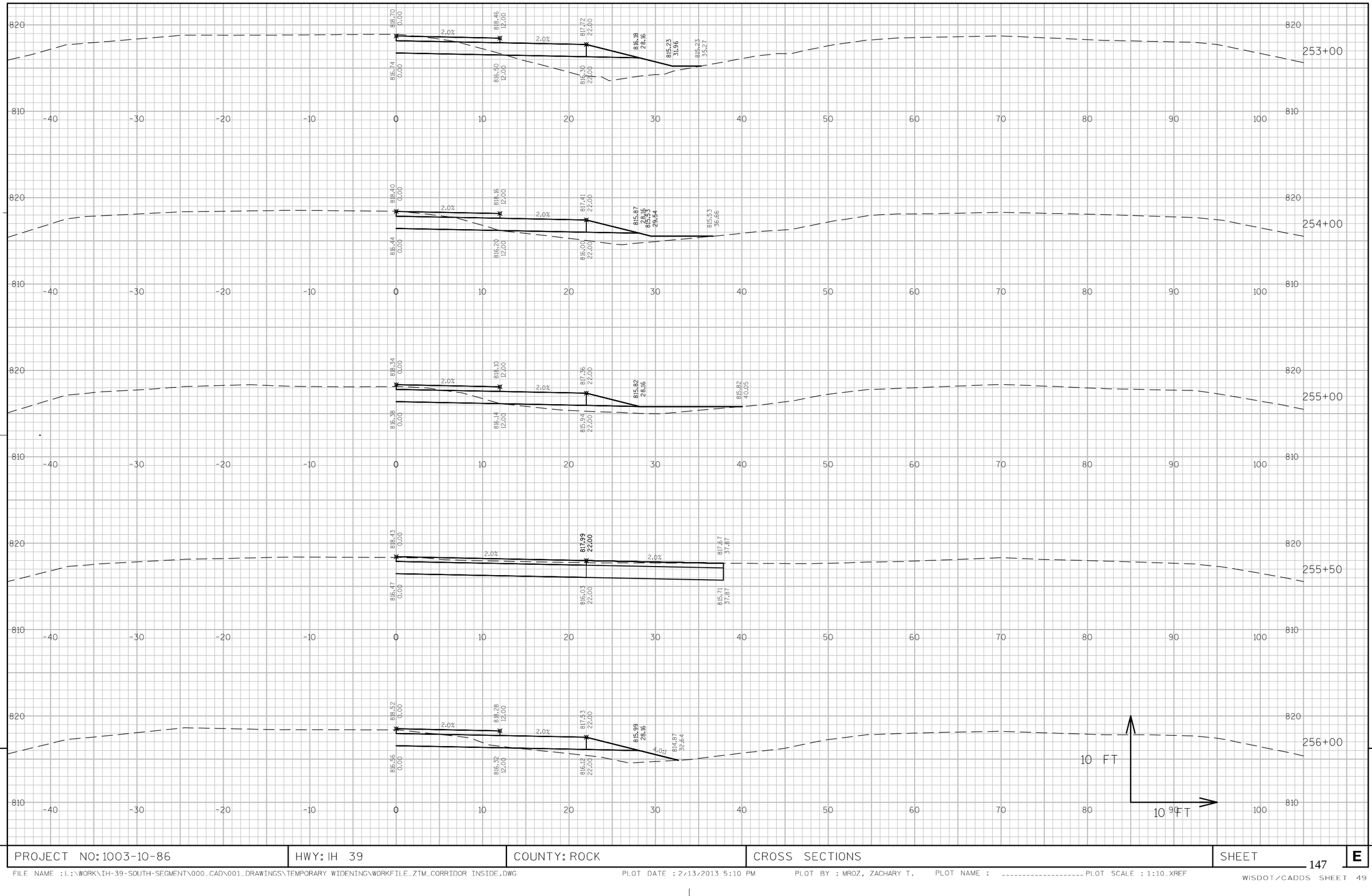
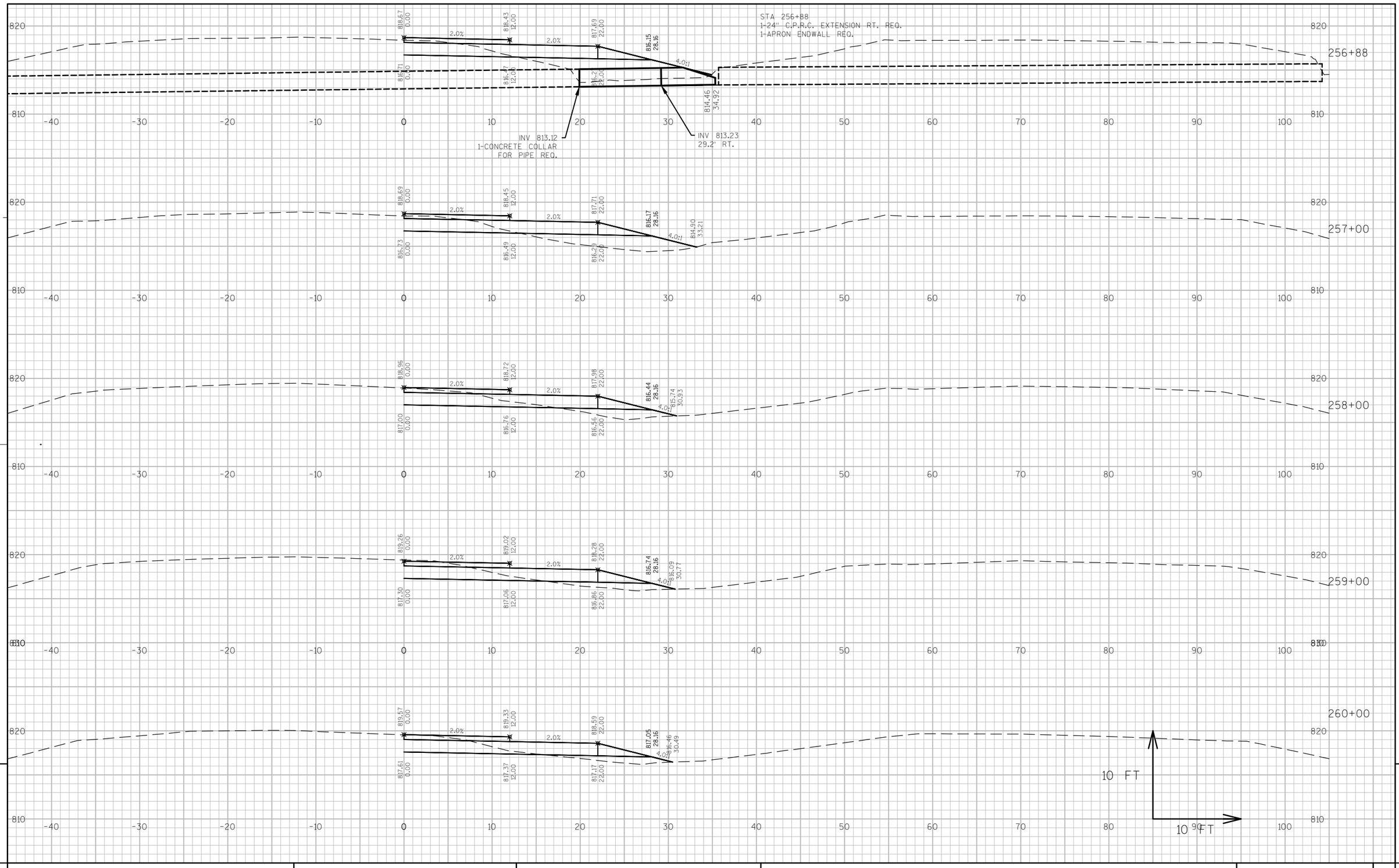
PROJECT NO: 1003-10-86	HWY: IH 39	COUNTY: ROCK	CROSS SECTIONS	SHEET	E

FILE NAME : L:\WORK\IH-39-SOUTH-SEGMENT\000_CAD\001_DRAWINGS\TEMPORARY WIDENING\WORKFILE_ZTM_CORRIDOR INSIDE.DWG PLOT DATE : 2/13/2013 5:10 PM PLOT BY : MROZ, ZACHARY T. PLOT NAME : _____ PLOT SCALE : 1:10_XREF

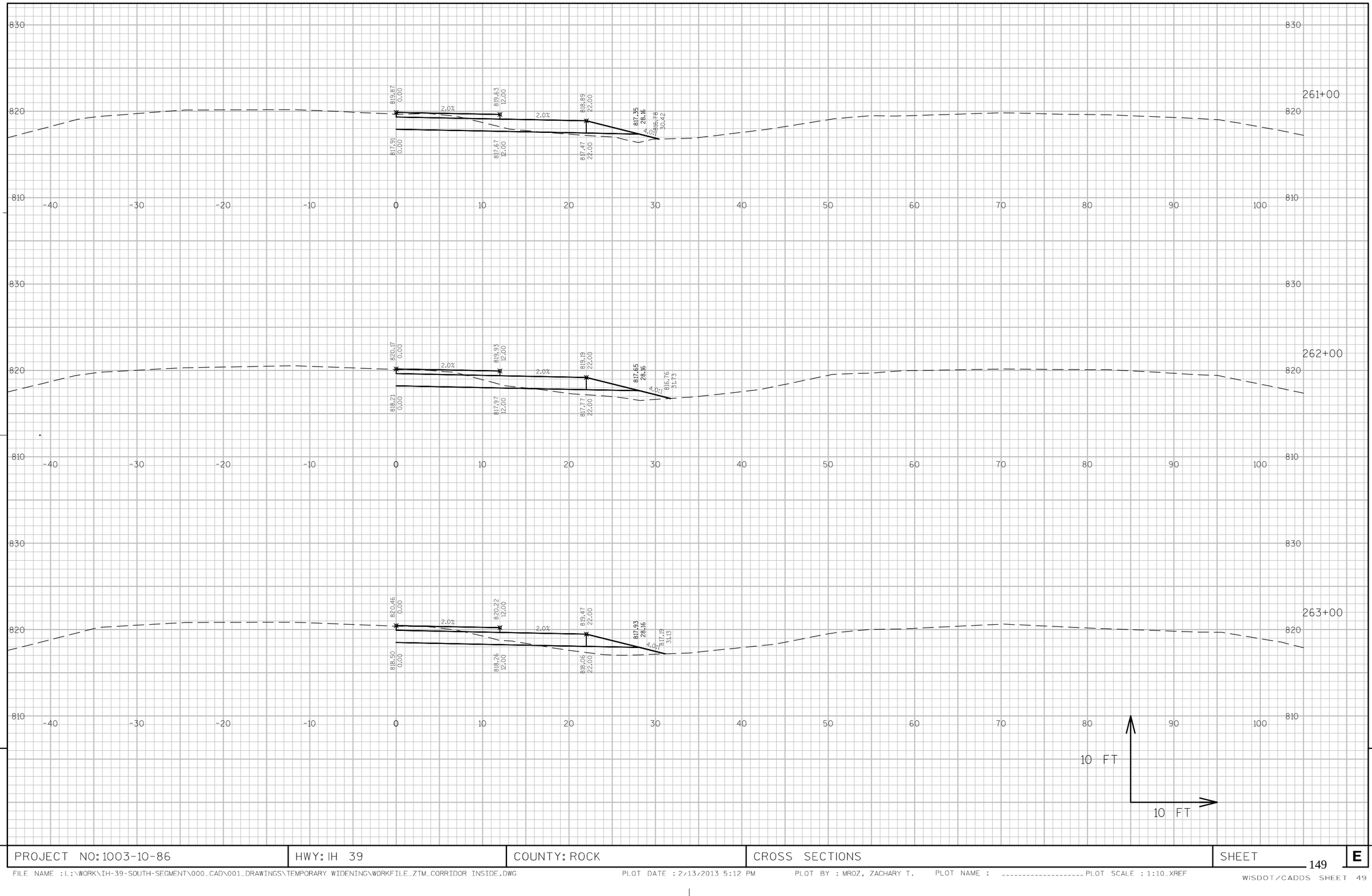


PROJECT NO: 1003-10-86	HWY: IH 39	COUNTY: ROCK	CROSS SECTIONS	SHEET 147	E

FILE NAME : L:\WORK\IH-39-SOUTH-SEGMENT\000_CAD\001_DRAWINGS\TEMPORARY WIDENING\WORKFILE_ZTM_CORRIDOR INSIDE.DWG PLOT DATE : 2/13/2013 5:10 PM PLOT BY : MROZ, ZACHARY T. PLOT NAME : _____ PLOT SCALE : 1:10_XREF
WISDOT/CADDS SHEET 49



PROJECT NO: 1003-10-86	HWY: IH 39	COUNTY: ROCK	CROSS SECTIONS	SHEET 148	E



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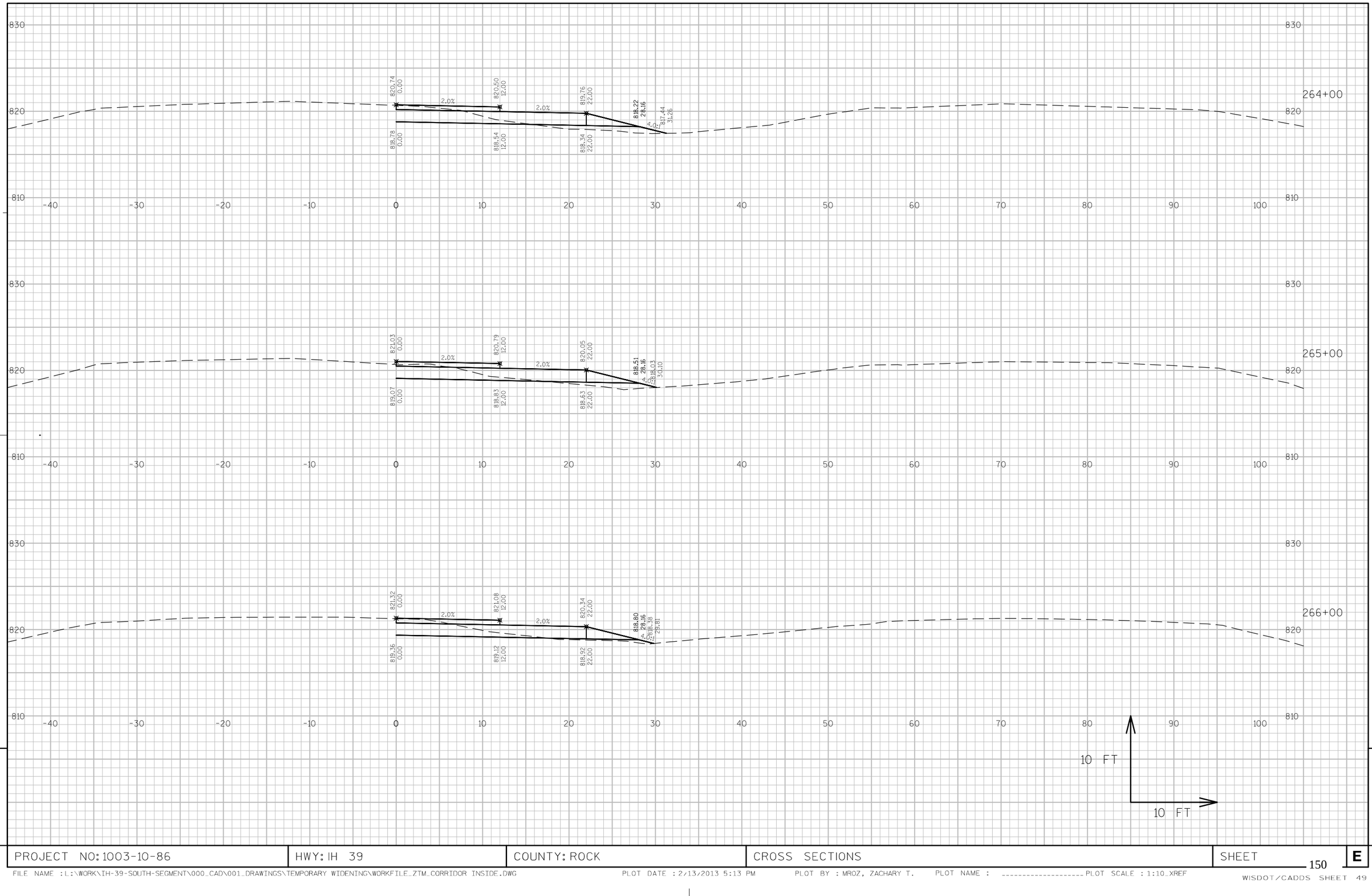
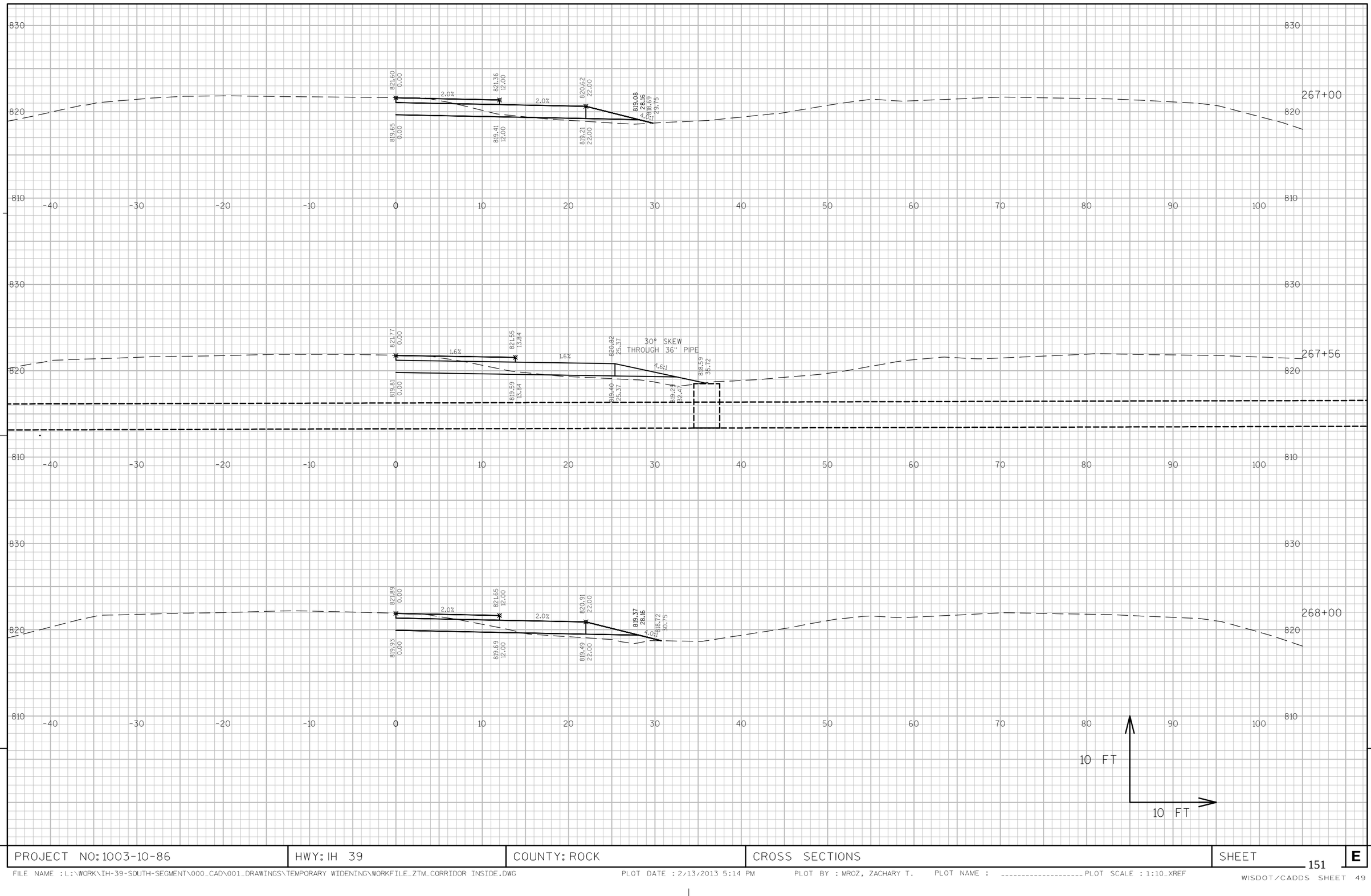
PROJECT NO: 1003-10-86	HWY: IH 39	COUNTY: ROCK	CROSS SECTIONS	SHEET 149 E



PROJECT NO: 1003-10-86	HWY: IH 39	COUNTY: ROCK	CROSS SECTIONS	SHEET 150	E

FILE NAME : L:\WORK\IH-39-SOUTH-SEGMENT\000_CAD\001_DRAWINGS\TEMPORARY WIDENING\WORKFILE_ZTM_CORRIDOR INSIDE.DWG PLOT DATE : 2/13/2013 5:13 PM PLOT BY : MROZ, ZACHARY T. PLOT NAME : _____ PLOT SCALE : 1:10_XREF

WISDOT/CADDS SHEET 49



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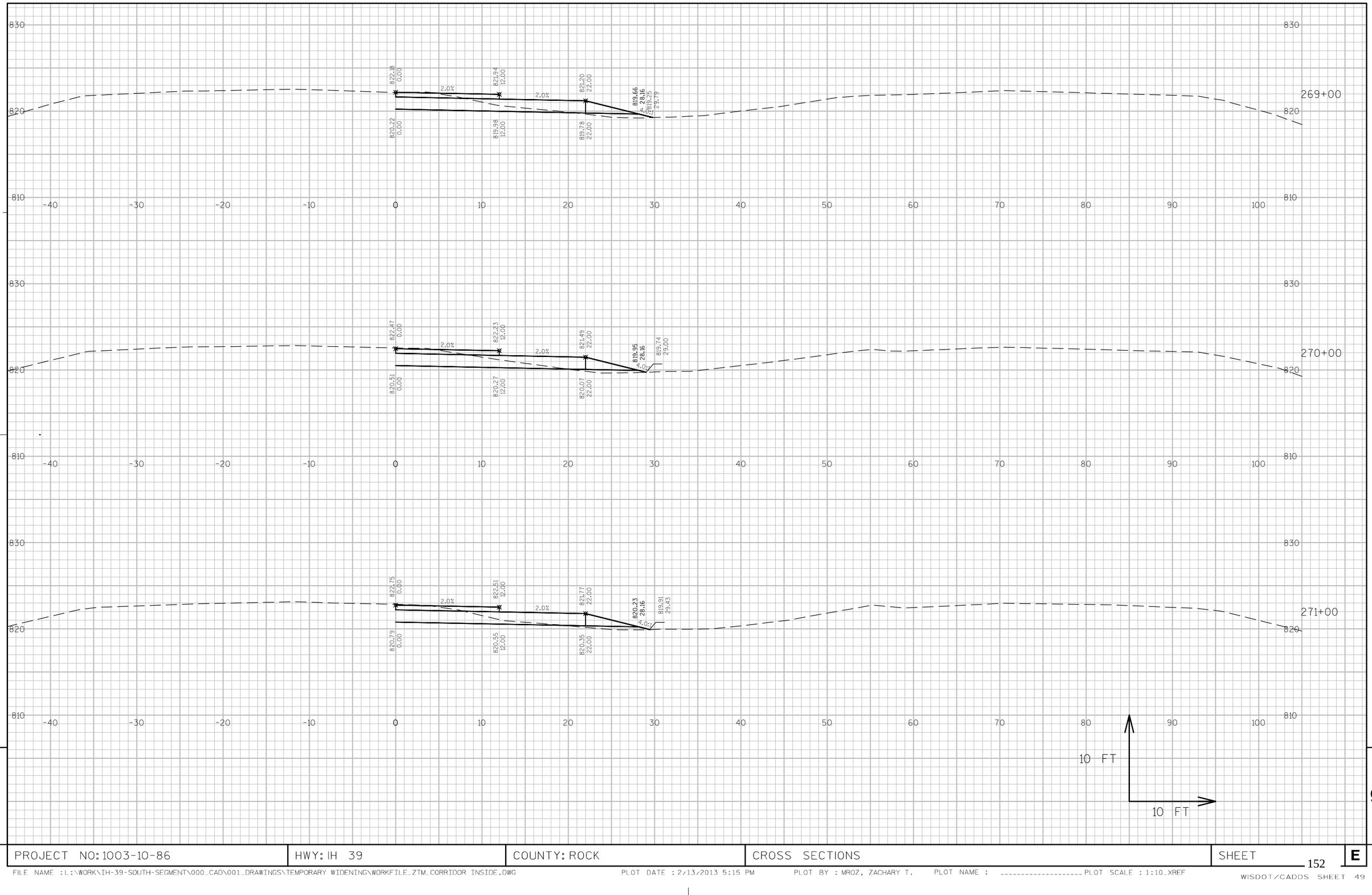
PROJECT NO: 1003-10-86	HWY: IH 39	COUNTY: ROCK	CROSS SECTIONS	SHEET 151	E



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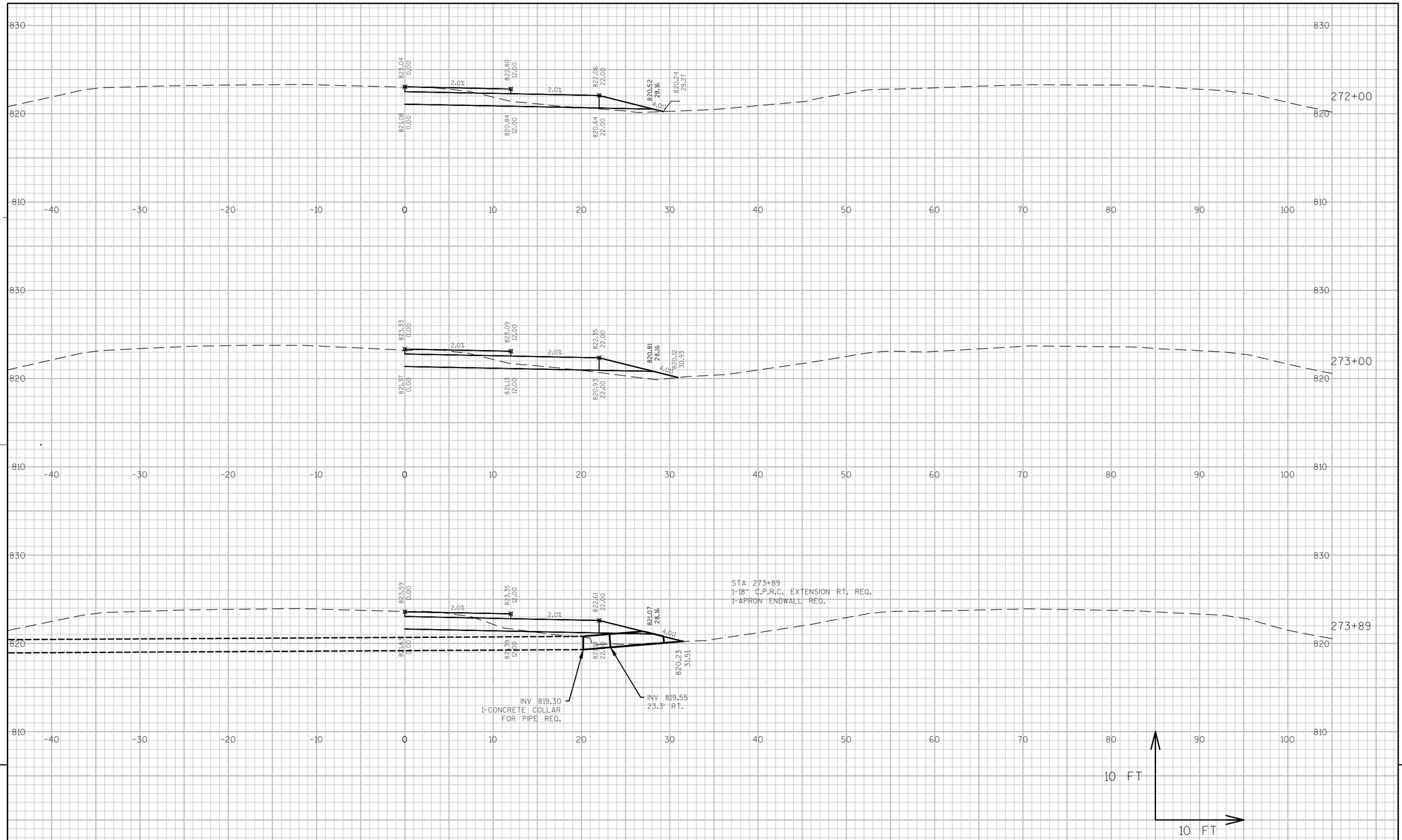
PROJECT NO: 1003-10-86	HWY: IH 39	COUNTY: ROCK	CROSS SECTIONS	SHEET	E

FILE NAME : L:\WORK\IH-39-SOUTH-SEGMENT\000_CAD\001_DRAWINGS\TEMPORARY WIDENING\WORKFILE_ZTM_CORRIDOR INSIDE.DWG PLOT DATE : 2/13/2013 5:15 PM PLOT BY : MROZ, ZACHARY T. PLOT NAME : ---------- PLOT SCALE : 1:10_XREF
WISDOT/CADDS SHEET 49



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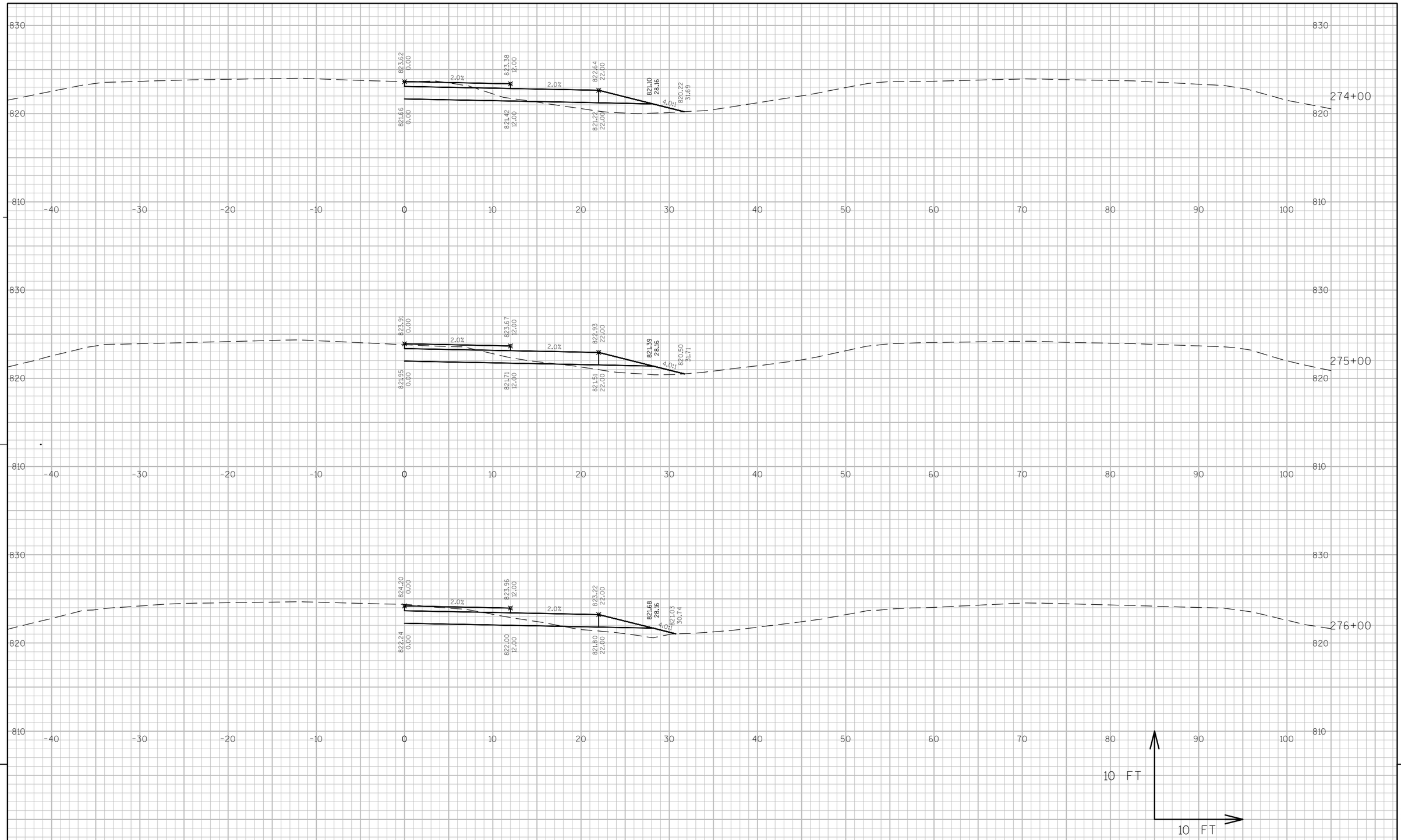
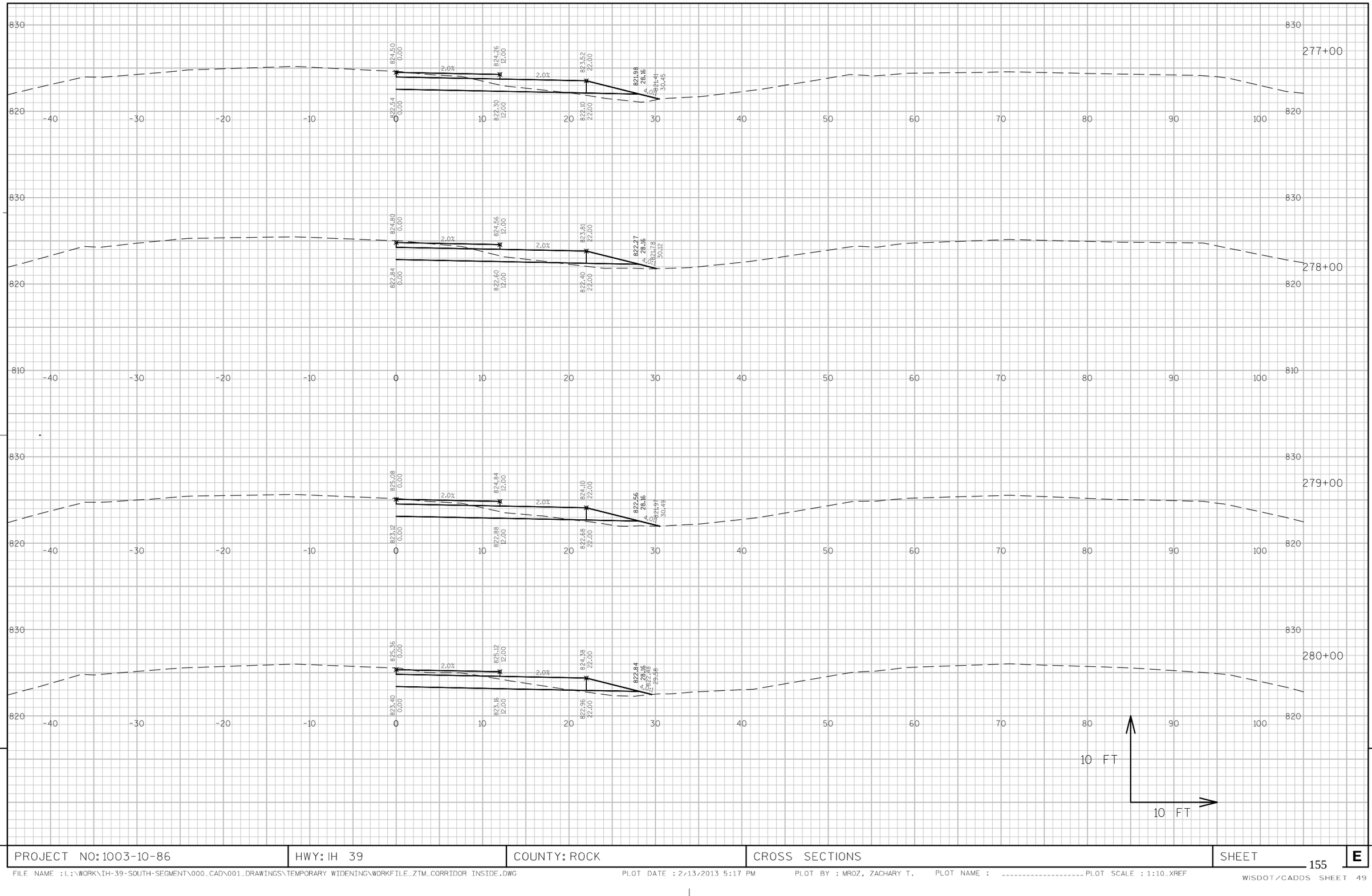
PROJECT NO: 1003-10-86	HWY: IH 39	COUNTY: ROCK	CROSS SECTIONS	SHEET	E

FILE NAME : L:\WORK\IH-39-SOUTH-SEGMENT\000_CAD\001_DRAWINGS\TEMPORARY WIDENING\WORKFILE_ZTM_CORRIDOR INSIDE.DWG PLOT DATE : 2/13/2013 5:15 PM PLOT BY : MROZ, ZACHARY T. PLOT NAME : _____ PLOT SCALE : 1:10_XREF



PROJECT NO: 1003-10-86	HWY: IH 39	COUNTY: ROCK	CROSS SECTIONS	SHEET 154	E

FILE NAME : L:\WORK\IH-39-SOUTH-SEGMENT\000_CAD\001_DRAWINGS\TEMPORARY WIDENING\WORKFILE_ZTM_CORRIDOR INSIDE.DWG PLOT DATE : 2/13/2013 5:16 PM PLOT BY : MROZ, ZACHARY T. PLOT NAME : ---------- PLOT SCALE : 1:10_XREF



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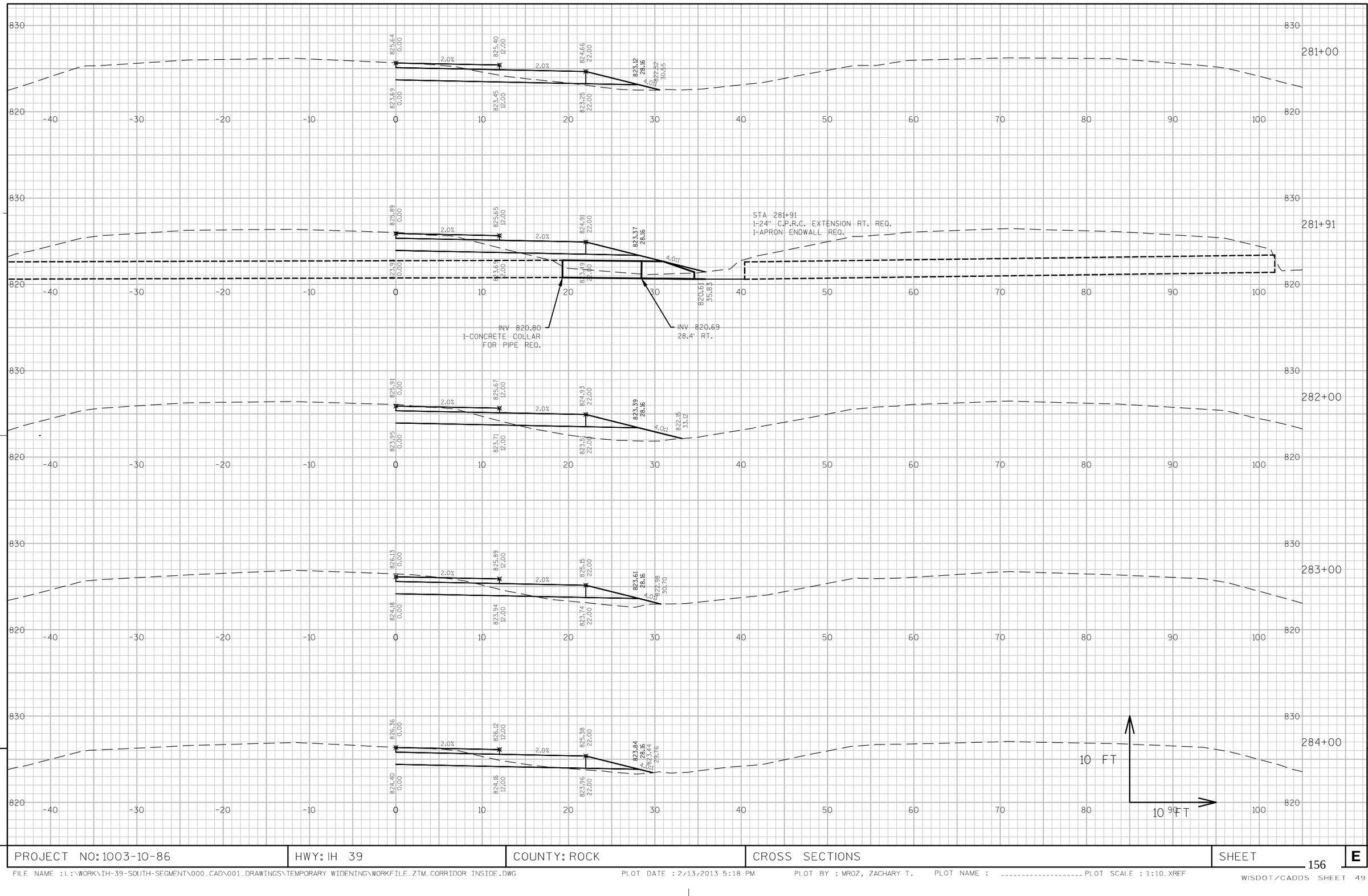
PROJECT NO: 1003-10-86	HWY: IH 39	COUNTY: ROCK	CROSS SECTIONS	SHEET 155	E



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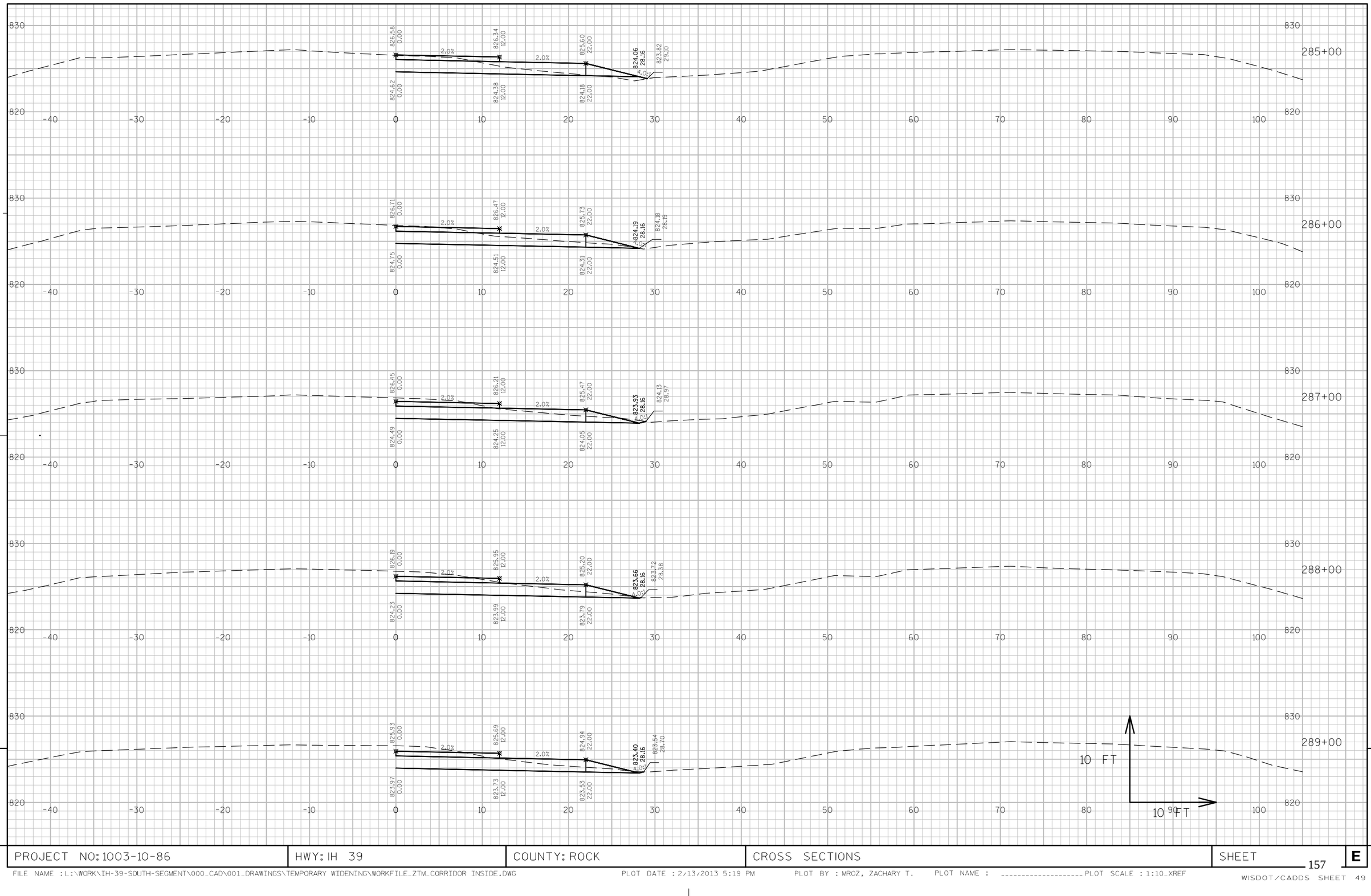
PROJECT NO: 1003-10-86	HWY: IH 39	COUNTY: ROCK	CROSS SECTIONS	SHEET 156	E



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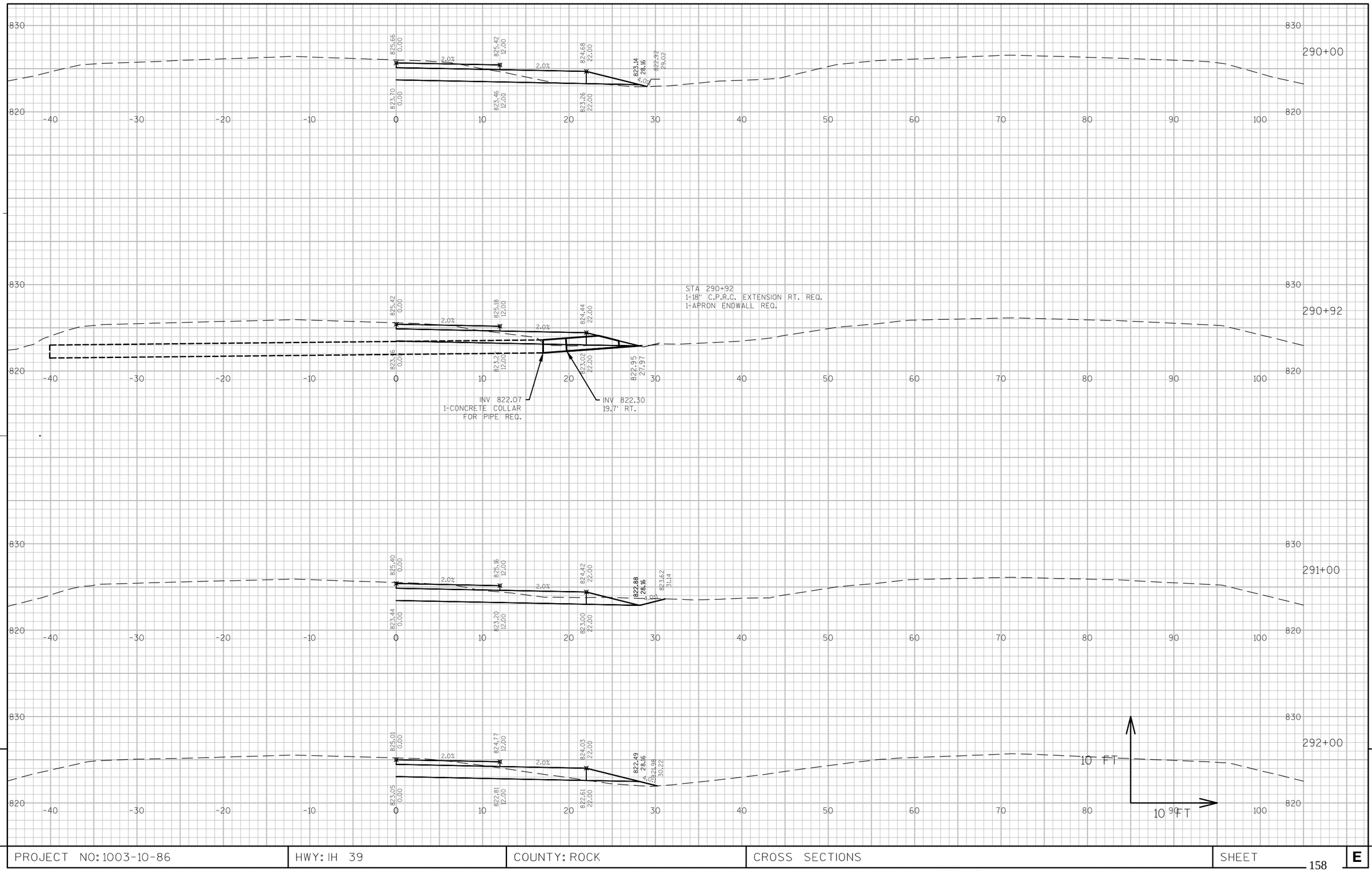
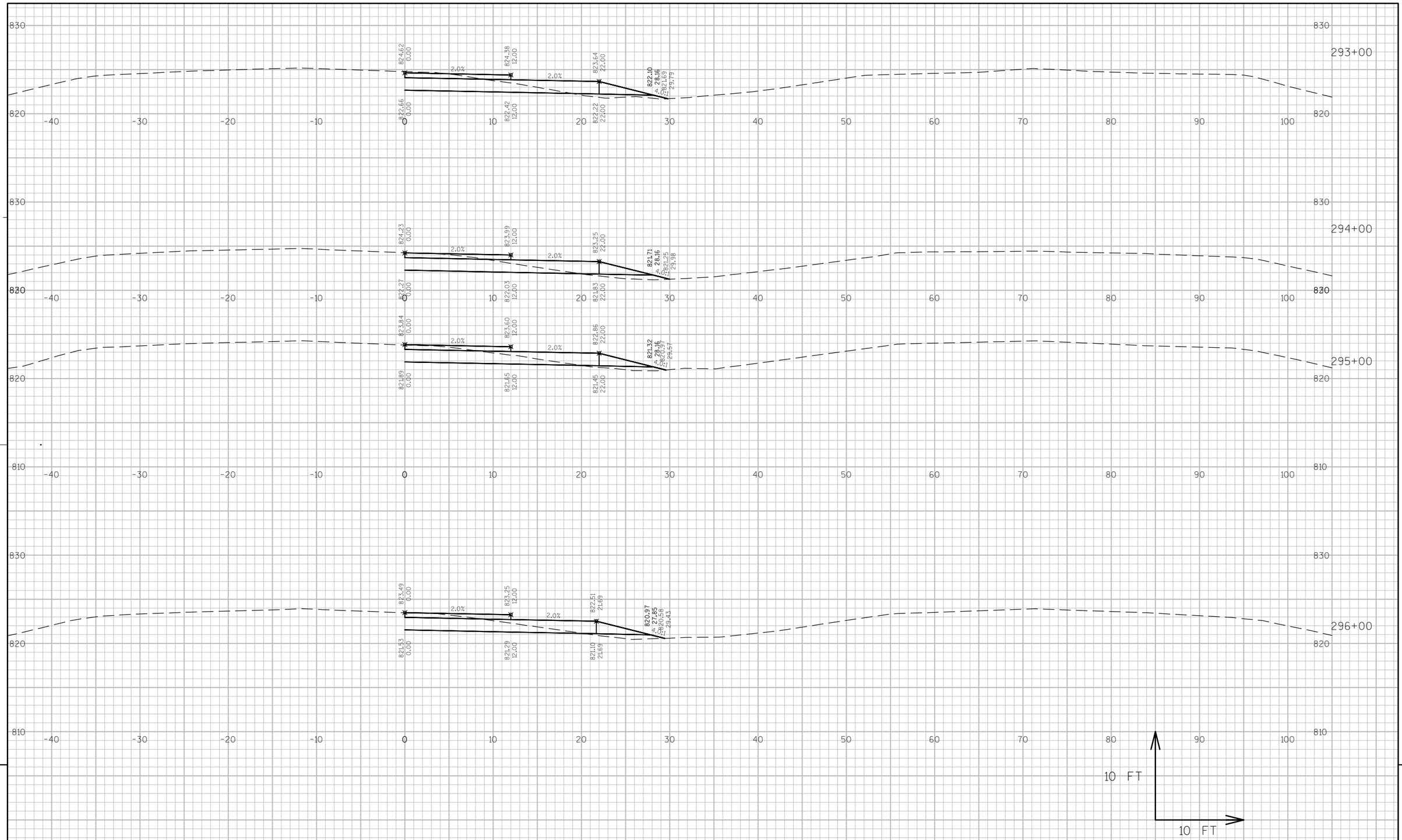
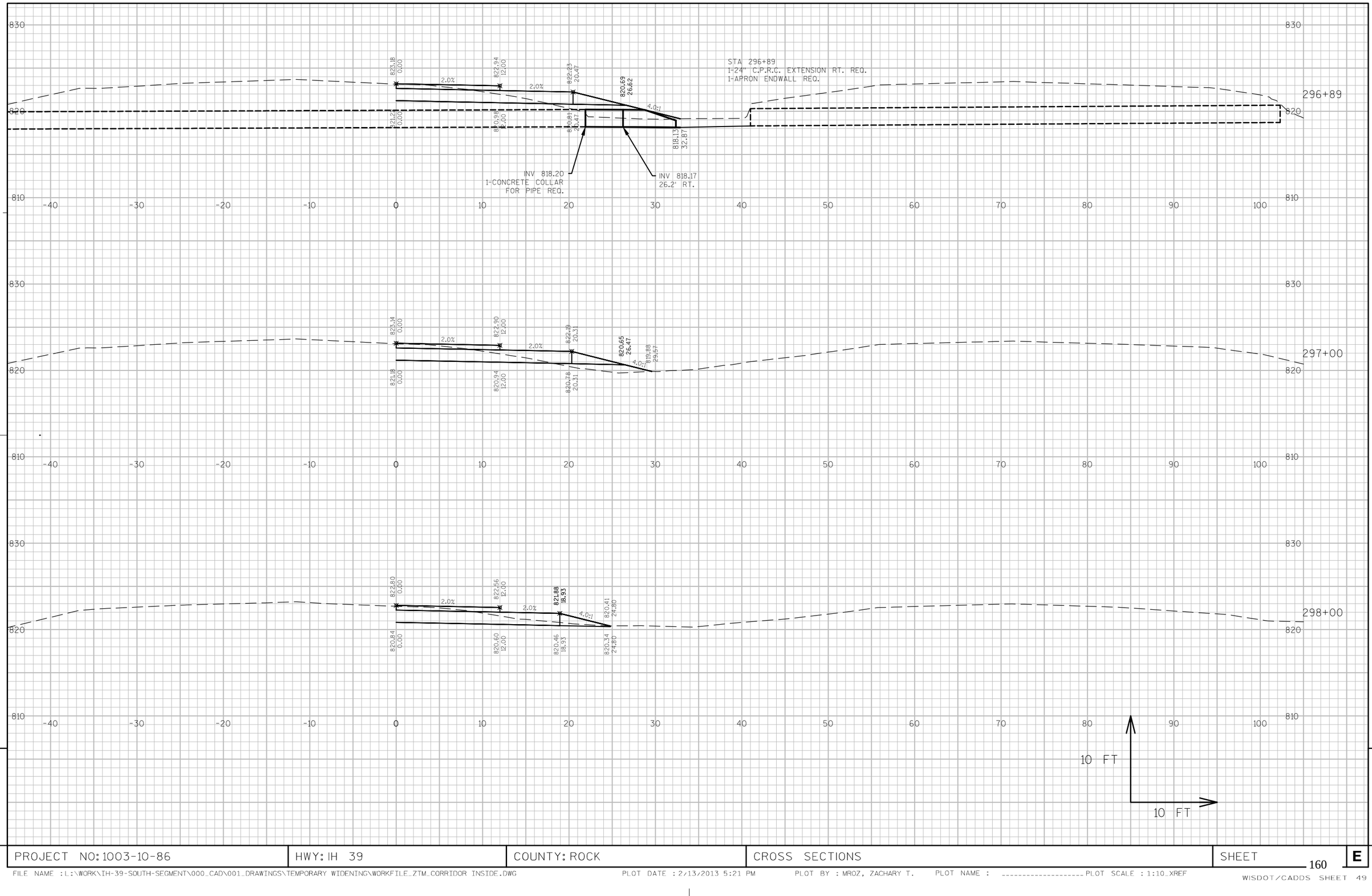
PROJECT NO: 1003-10-86	HWY: IH 39	COUNTY: ROCK	CROSS SECTIONS	SHEET 157	E



PROJECT NO: 1003-10-86	HWY: IH 39	COUNTY: ROCK	CROSS SECTIONS	SHEET 158 E

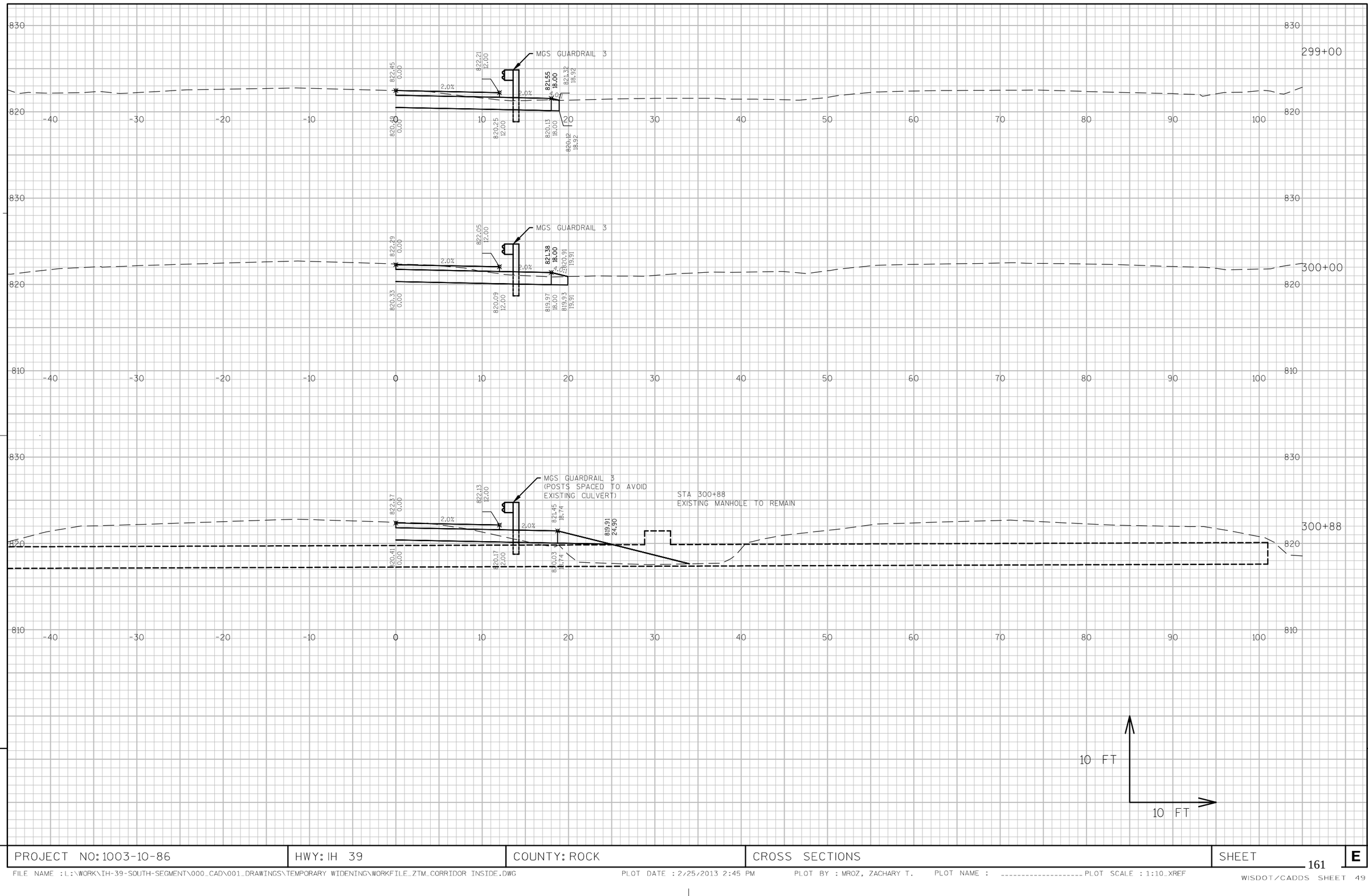


PROJECT NO: 1003-10-86	HWY: IH 39	COUNTY: ROCK	CROSS SECTIONS	SHEET 159 E



PROJECT NO: 1003-10-86	HWY: IH 39	COUNTY: ROCK	CROSS SECTIONS	SHEET	E

FILE NAME : L:\WORK\IH-39-SOUTH-SEGMENT\000_CAD\001_DRAWINGS\TEMPORARY WIDENING\WORKFILE_ZTM_CORRIDOR INSIDE.DWG PLOT DATE : 2/13/2013 5:21 PM PLOT BY : MROZ, ZACHARY T. PLOT NAME : _____ PLOT SCALE : 1:10_XREF



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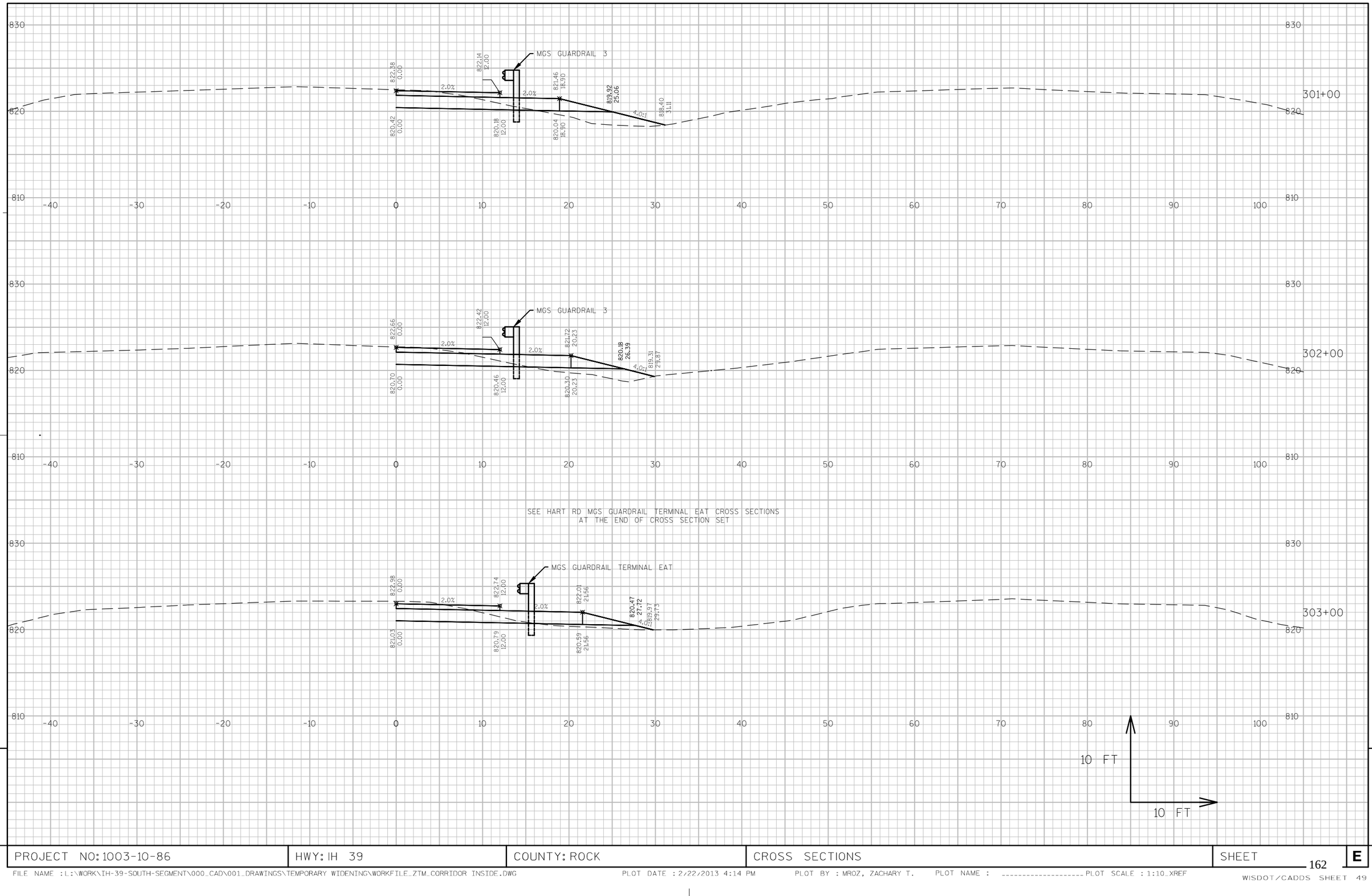
PROJECT NO: 1003-10-86	HWY: IH 39	COUNTY: ROCK	CROSS SECTIONS	SHEET 161	E



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PROJECT NO: 1003-10-86	HWY: IH 39	COUNTY: ROCK	CROSS SECTIONS	SHEET	E

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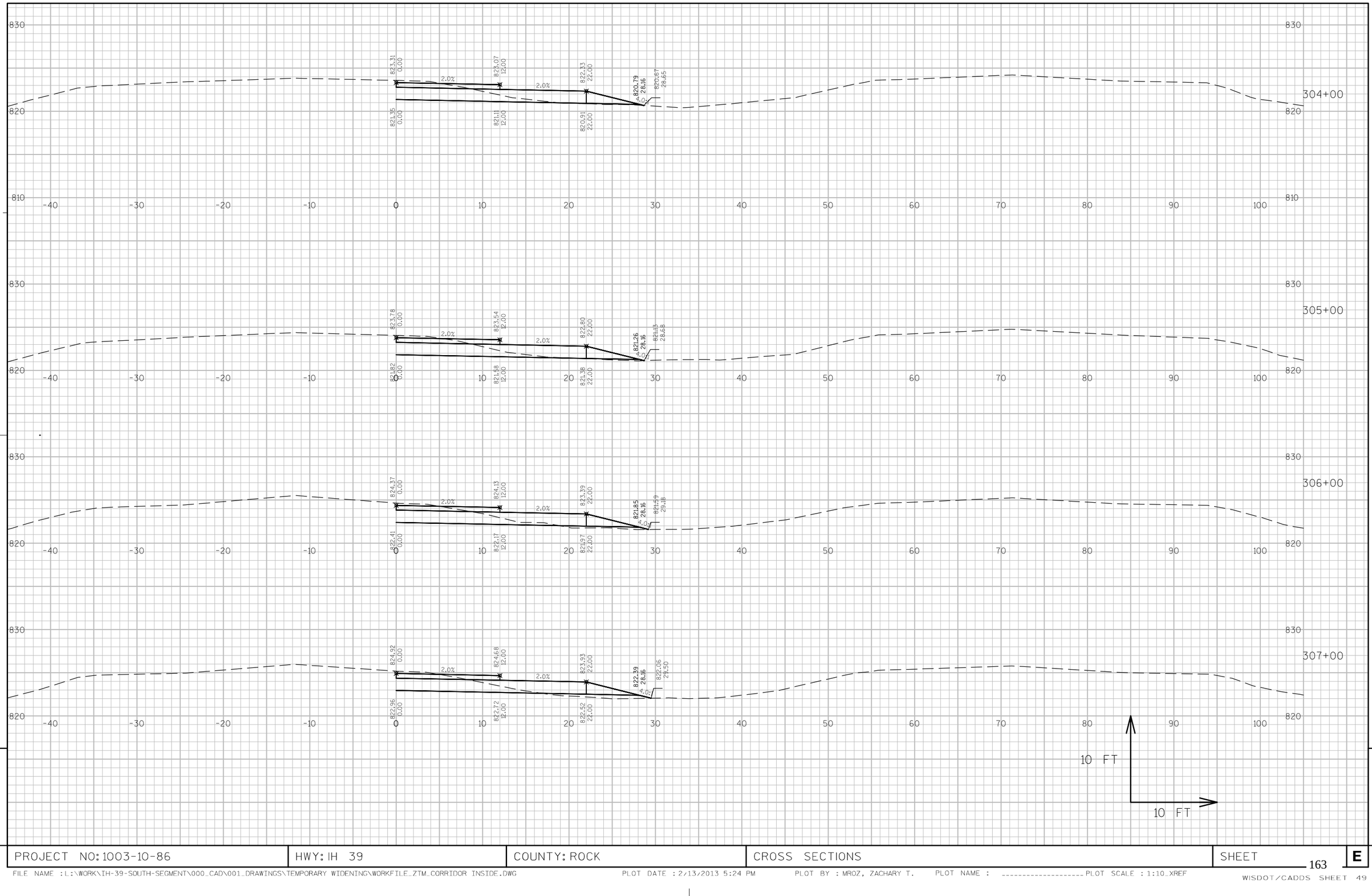
WISDOT/CADDS SHEET 49



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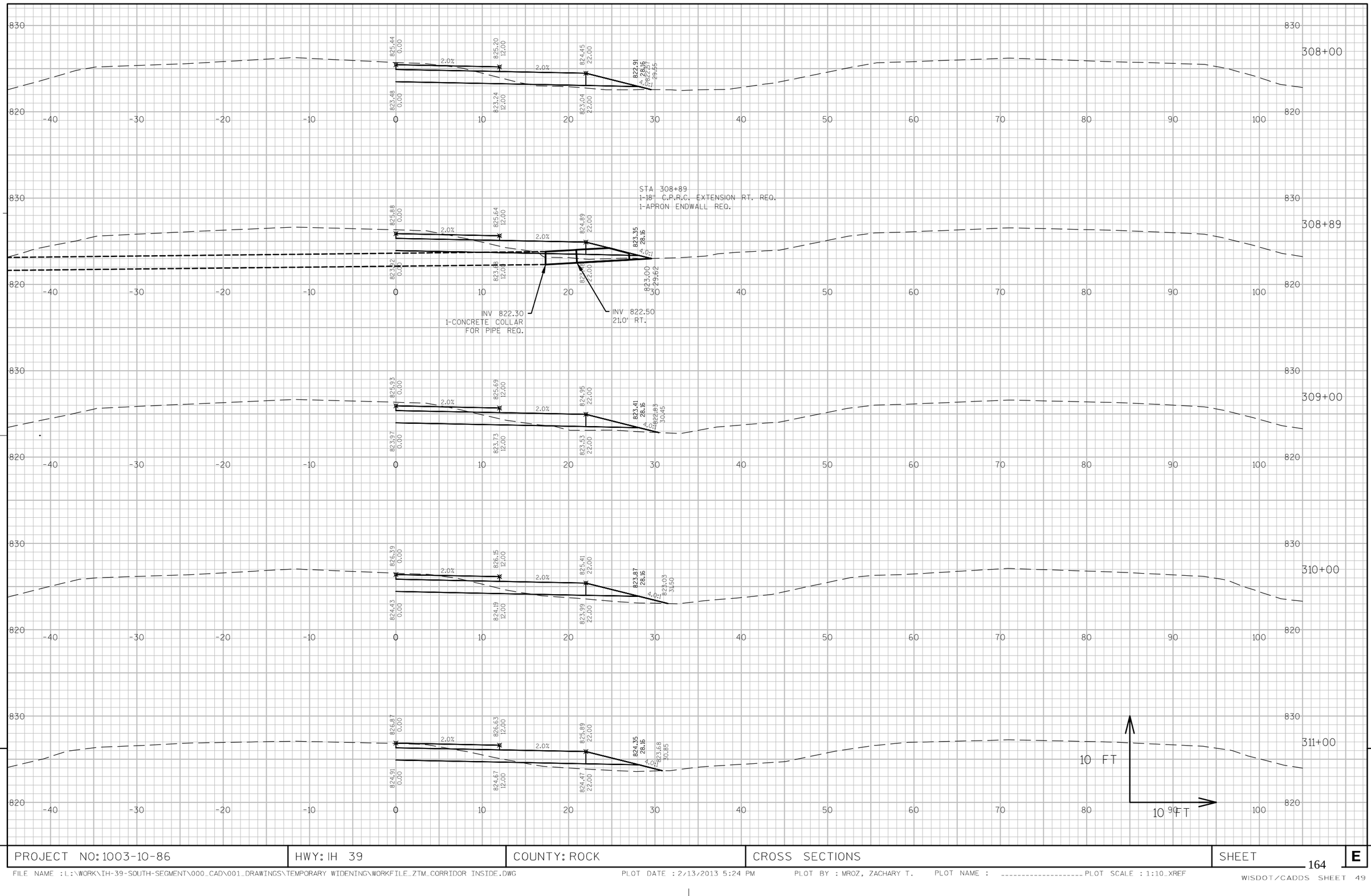
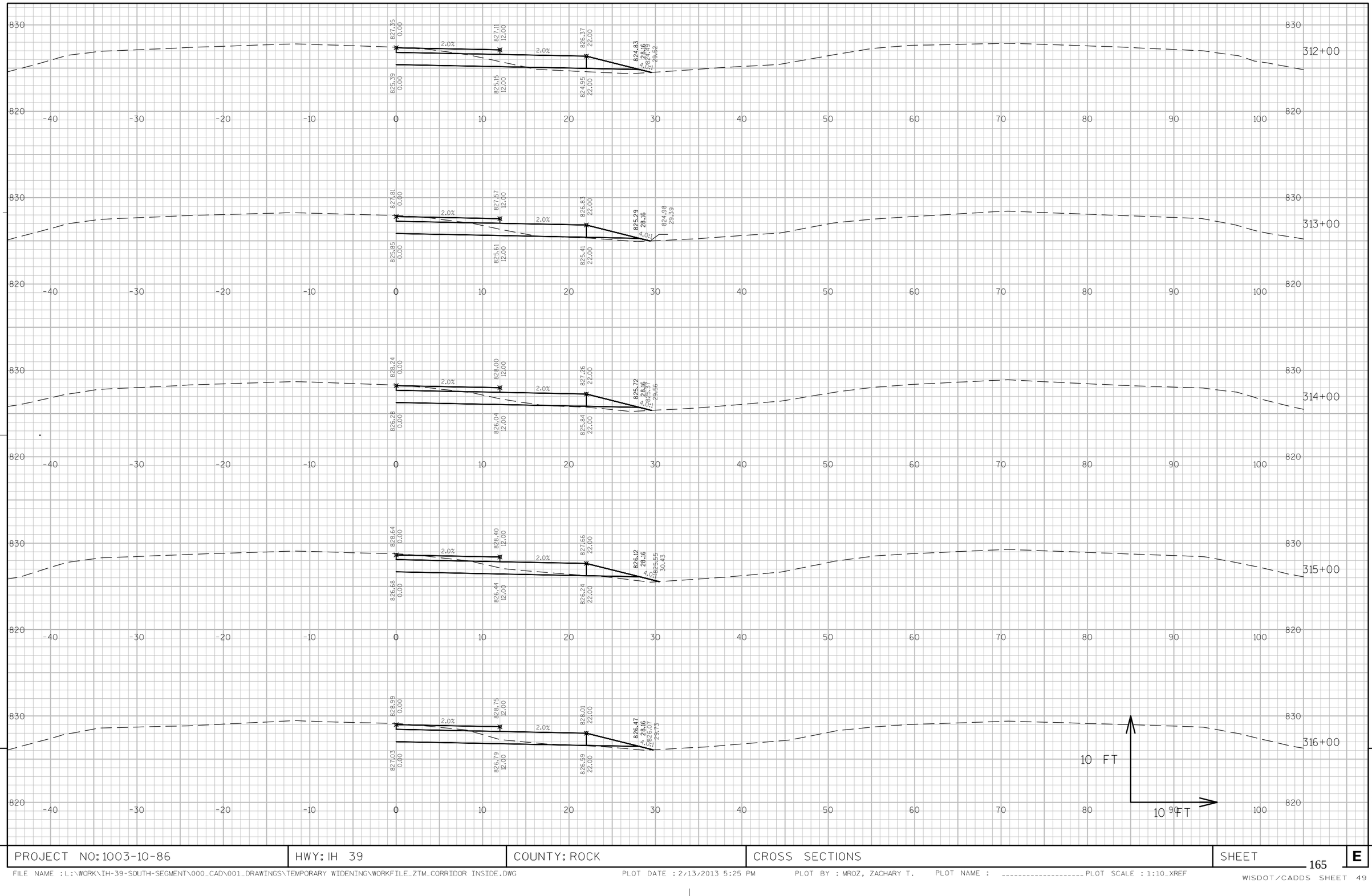
PROJECT NO: 1003-10-86	HWY: IH 39	COUNTY: ROCK	CROSS SECTIONS	SHEET 163	E



PROJECT NO: 1003-10-86	HWY: IH 39	COUNTY: ROCK	CROSS SECTIONS	SHEET 164 E

FILE NAME : L:\WORK\IH-39-SOUTH-SEGMENT\000_CAD\001_DRAWINGS\TEMPORARY WIDENING\WORKFILE_ZTM_CORRIDOR INSIDE.DWG PLOT DATE : 2/13/2013 5:24 PM PLOT BY : MROZ, ZACHARY T. PLOT NAME : _____ PLOT SCALE : 1:10_XREF
WISDOT/CADDS SHEET 49



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PROJECT NO: 1003-10-86	HWY: IH 39	COUNTY: ROCK	CROSS SECTIONS	SHEET 165	E

317+00

318+00

STA 318+89, 29.6' RT.
ABANDON EXISTING INLET
REDUCE INLET TO A MINIMUM OF 2' BELOW THE NEW GROUND SURFACE
COVER INLET WITH SOLID FLAT CONCRETE SLAB

STA 318+89, 36.4' RT.
1-INLETS, 2G-MS (NO SLOPE)
GRATE ELEV. = 825.83
INV. ELEV = 822.42

CONNECT EXISTING CULVERT TO INLET

318+89

319+00

320+00

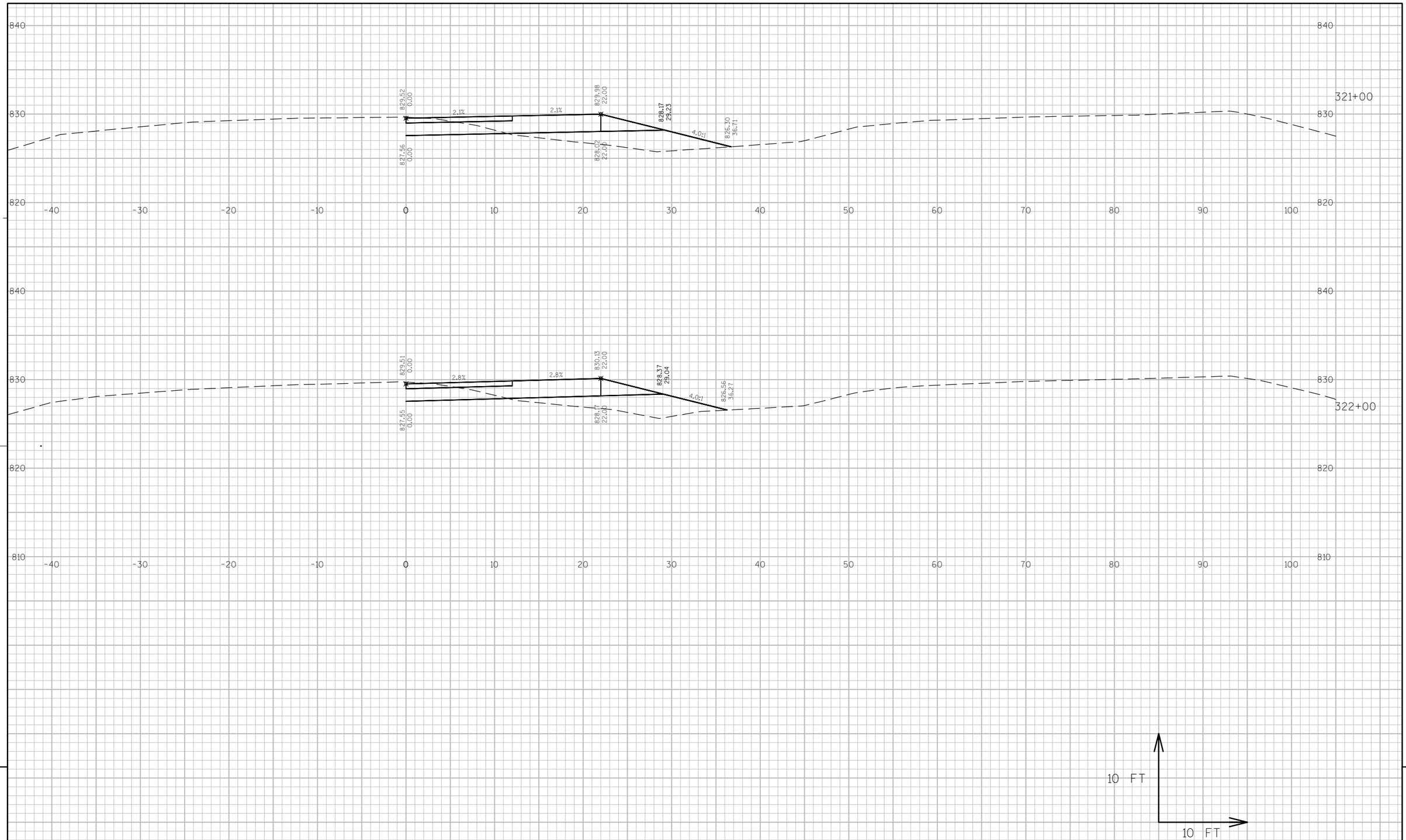
10 FT

10 FT

9

9

PROJECT NO: 1003-10-86	HWY: IH 39	COUNTY: ROCK	CROSS SECTIONS	SHEET 166	E



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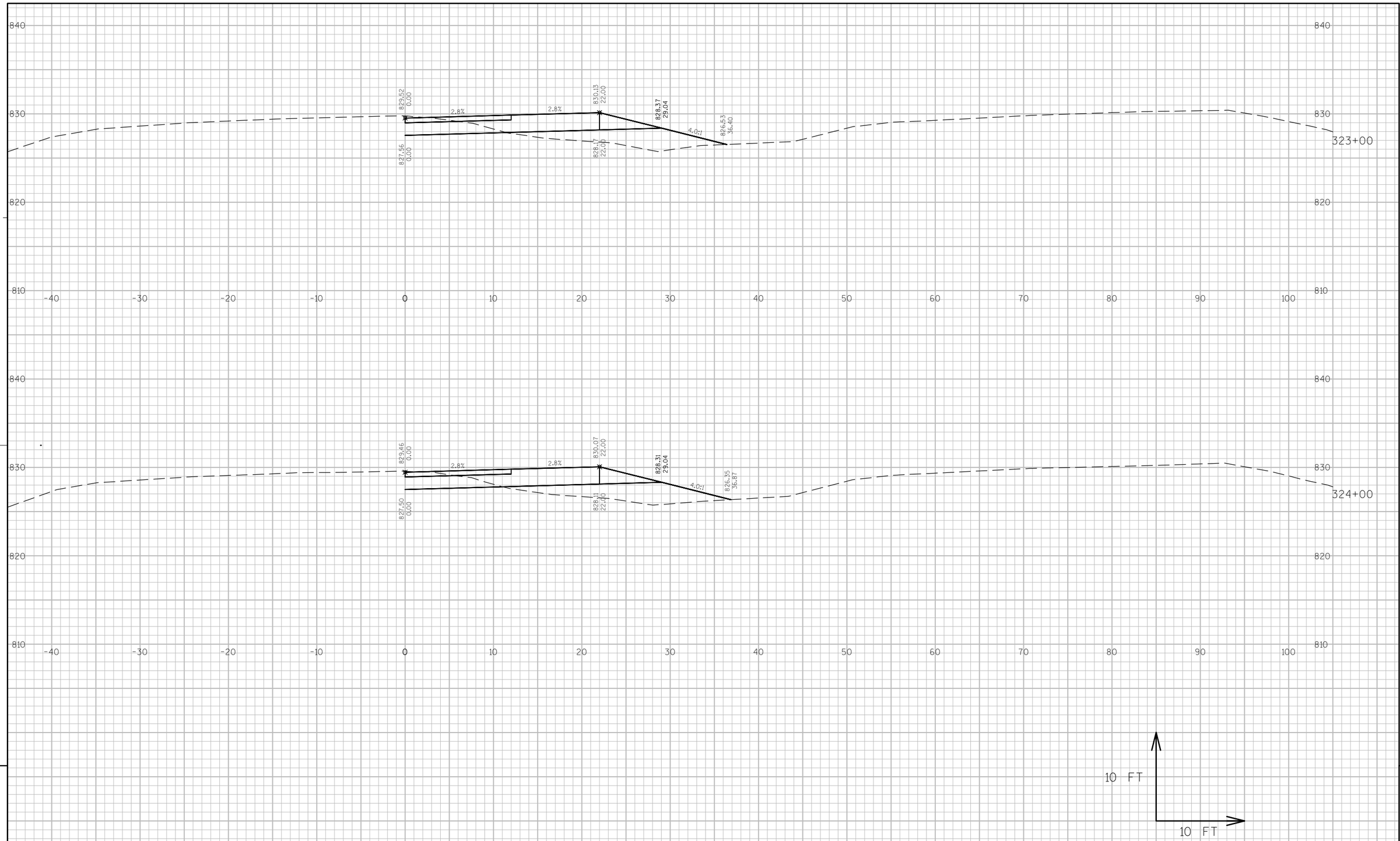
PROJECT NO: 1003-10-86	HWY: IH 39	COUNTY: ROCK	CROSS SECTIONS	SHEET 167	E



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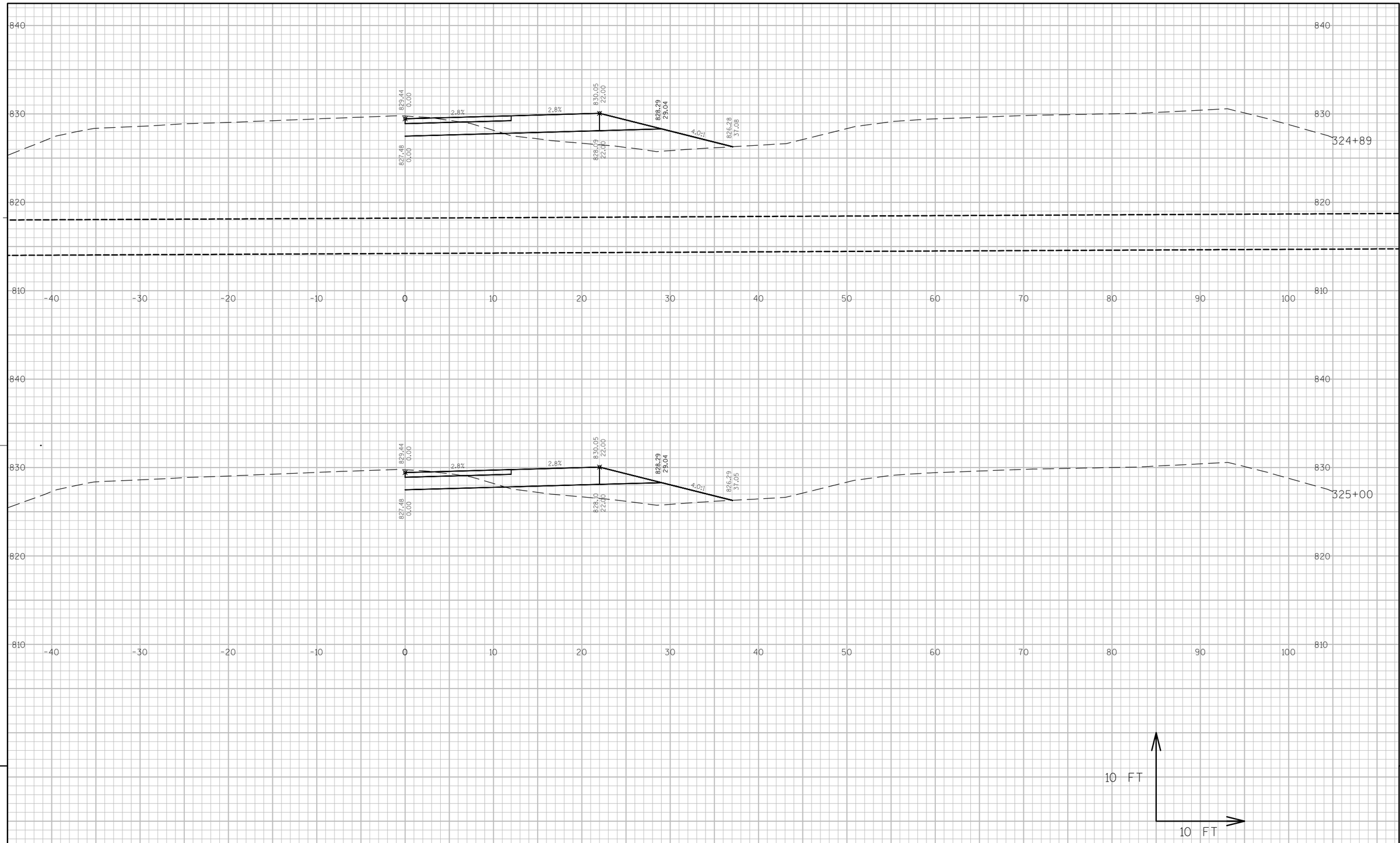
PROJECT NO: 1003-10-86	HWY: IH 39	COUNTY: ROCK	CROSS SECTIONS	SHEET	E

FILE NAME : L:\WORK\IH-39-SOUTH-SEGMENT\000_CAD\001_DRAWINGS\TEMPORARY WIDENING\WORKFILE_ZTM_CORRIDOR INSIDE.DWG PLOT DATE : 2/13/2013 5:28 PM PLOT BY : MROZ, ZACHARY T. PLOT NAME : _____ PLOT SCALE : 1:10_XREF



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PROJECT NO: 1003-10-86	HWY: IH 39	COUNTY: ROCK	CROSS SECTIONS	SHEET	E

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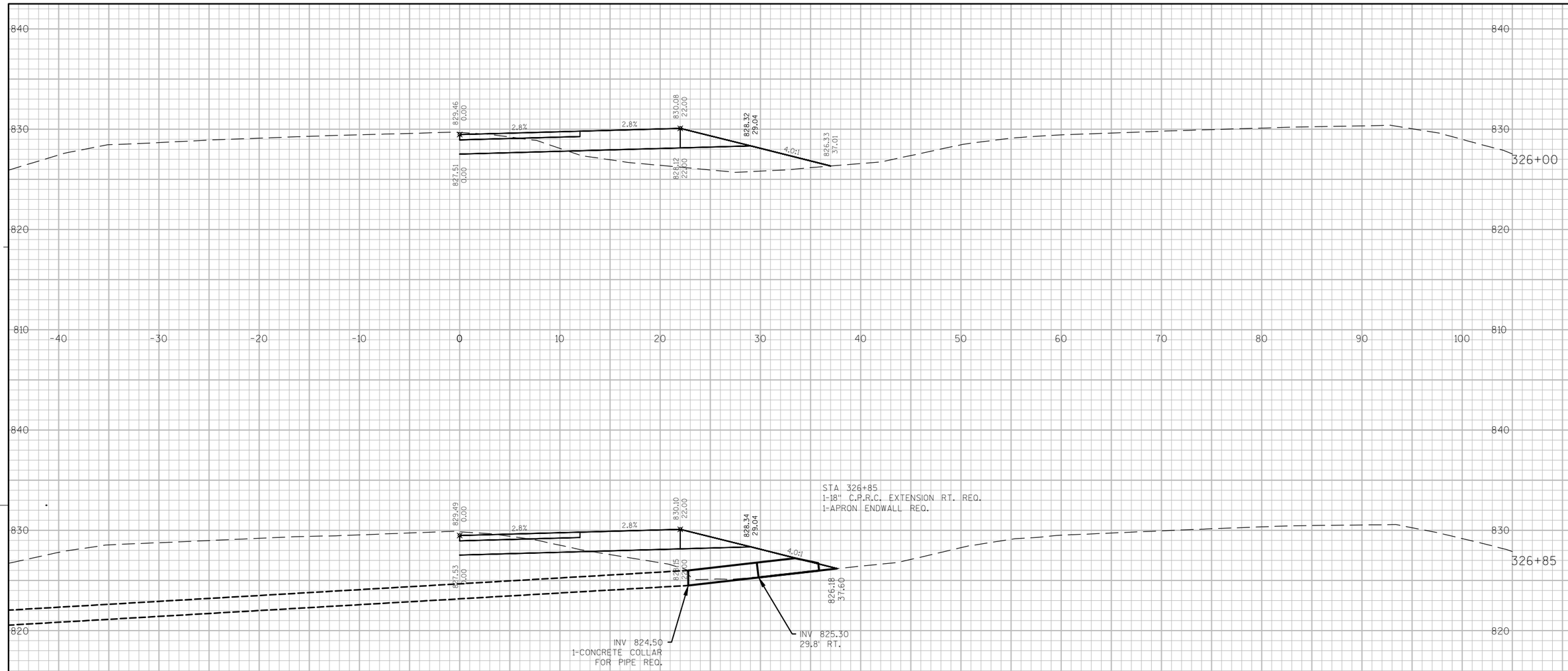

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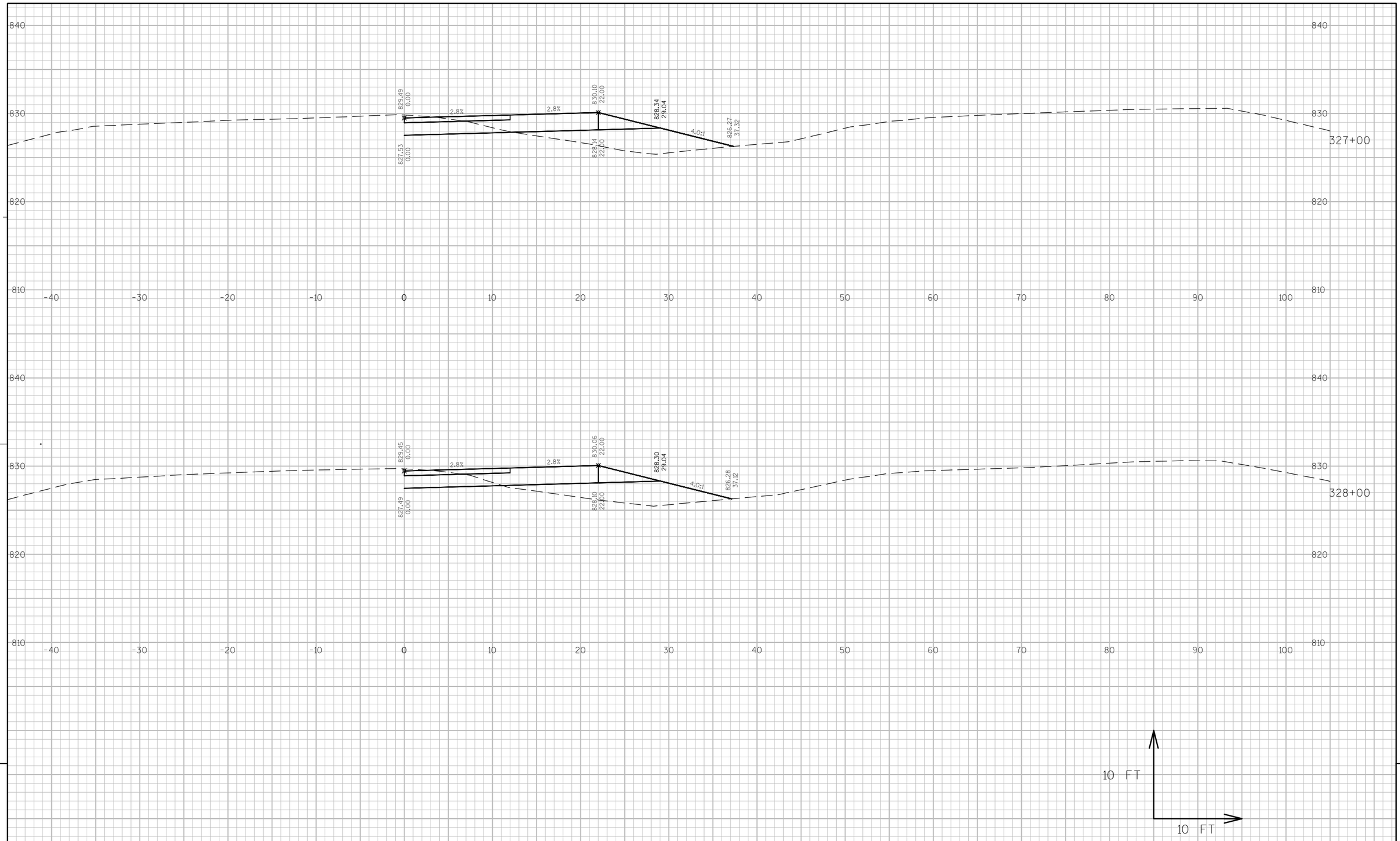
PROJECT NO: 1003-10-86	HWY: IH 39	COUNTY: ROCK	CROSS SECTIONS	SHEET 170	E



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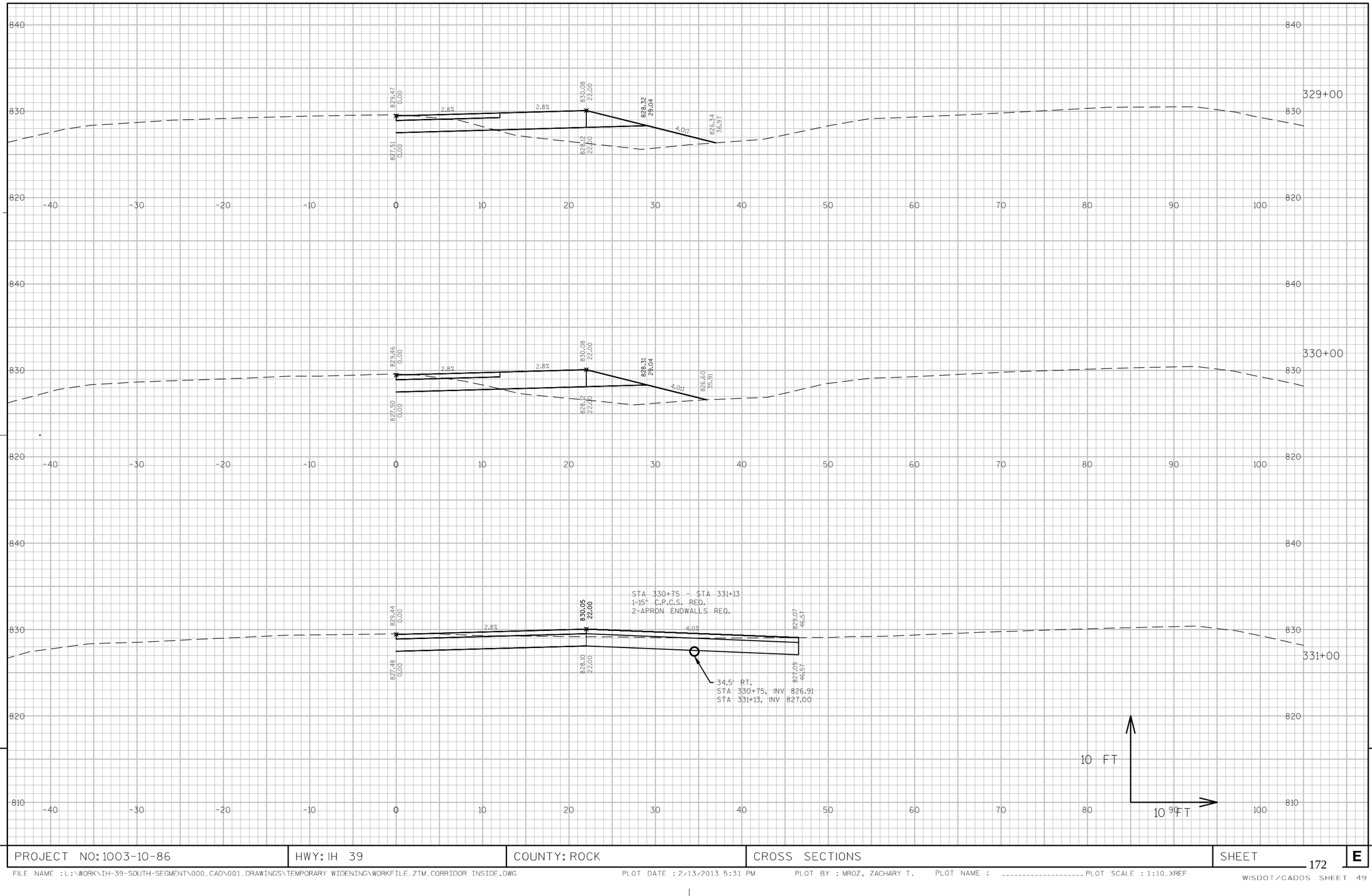
PROJECT NO: 1003-10-86	HWY: IH 39	COUNTY: ROCK	CROSS SECTIONS	SHEET 171	E

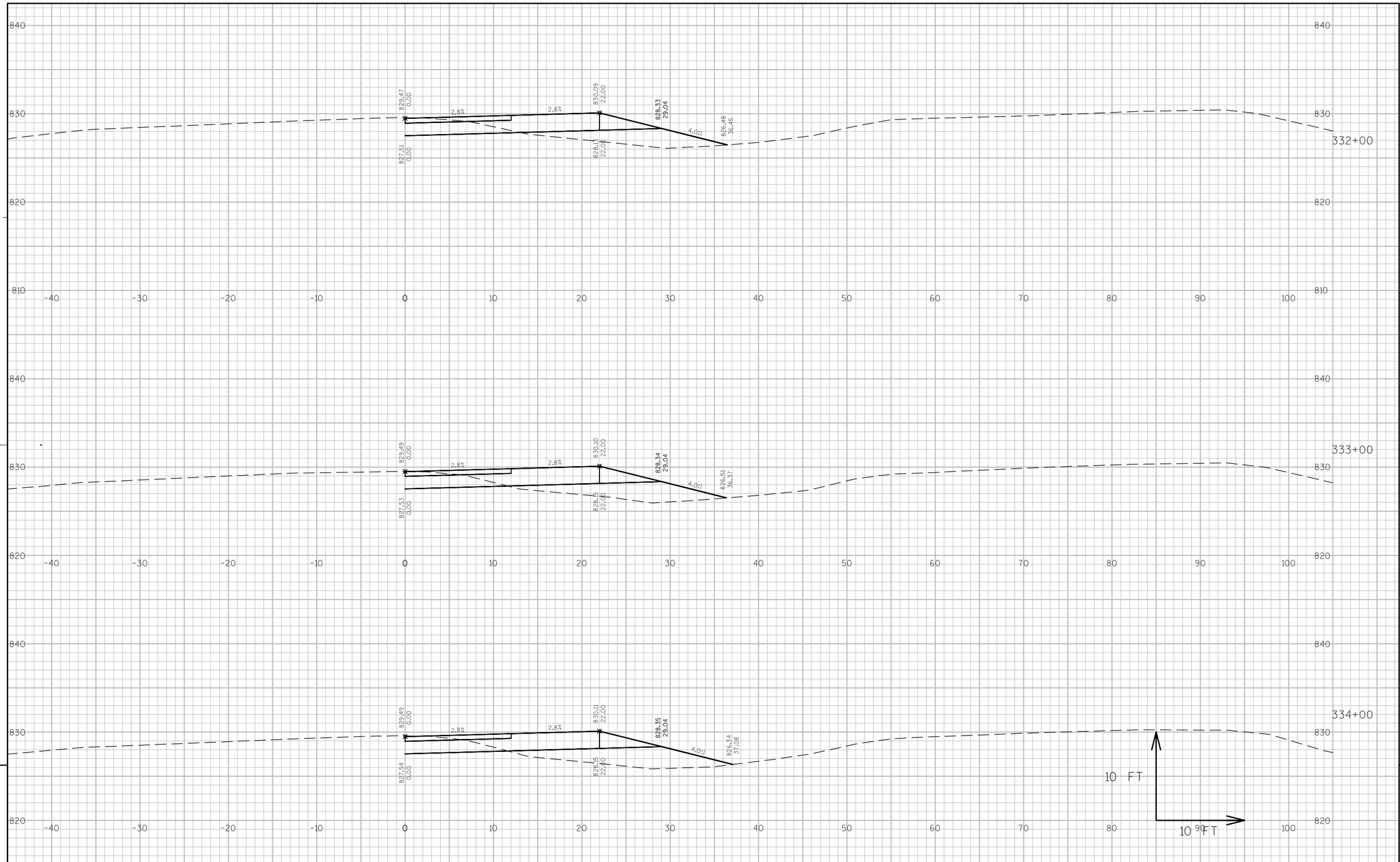
FILE NAME : L:\WORK\IH-39-SOUTH-SEGMENT\000_CAD\001_DRAWINGS\TEMPORARY WIDENING\WORKFILE_ZTM_CORRIDOR INSIDE.DWG PLOT DATE : 2/13/2013 5:30 PM PLOT BY : MROZ, ZACHARY T. PLOT NAME : _____ PLOT SCALE : 1:10_XREF

WISDOT/CADDS SHEET 49



PROJECT NO: 1003-10-86	HWY: IH 39	COUNTY: ROCK	CROSS SECTIONS	SHEET 172	E

FILE NAME : L:\WORK\IH-39-SOUTH-SEGMENT\000_CAD\001_DRAWINGS\TEMPORARY WIDENING\WORKFILE_ZTM_CORRIDOR INSIDE.DWG PLOT DATE : 2/13/2013 5:31 PM PLOT BY : MROZ, ZACHARY T. PLOT NAME : _____ PLOT SCALE : 1:10_XREF
WISDOT/CADDS SHEET 49



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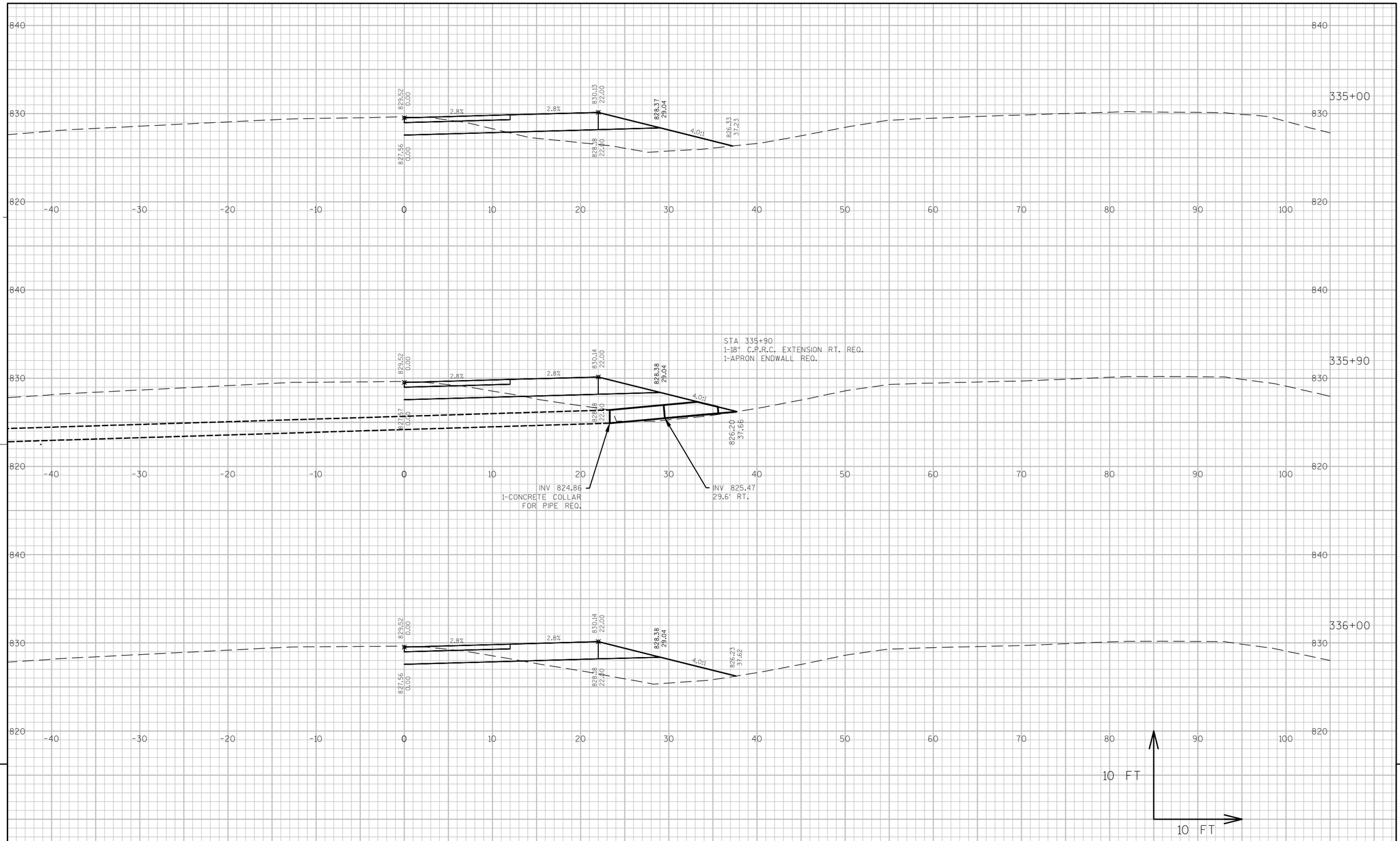
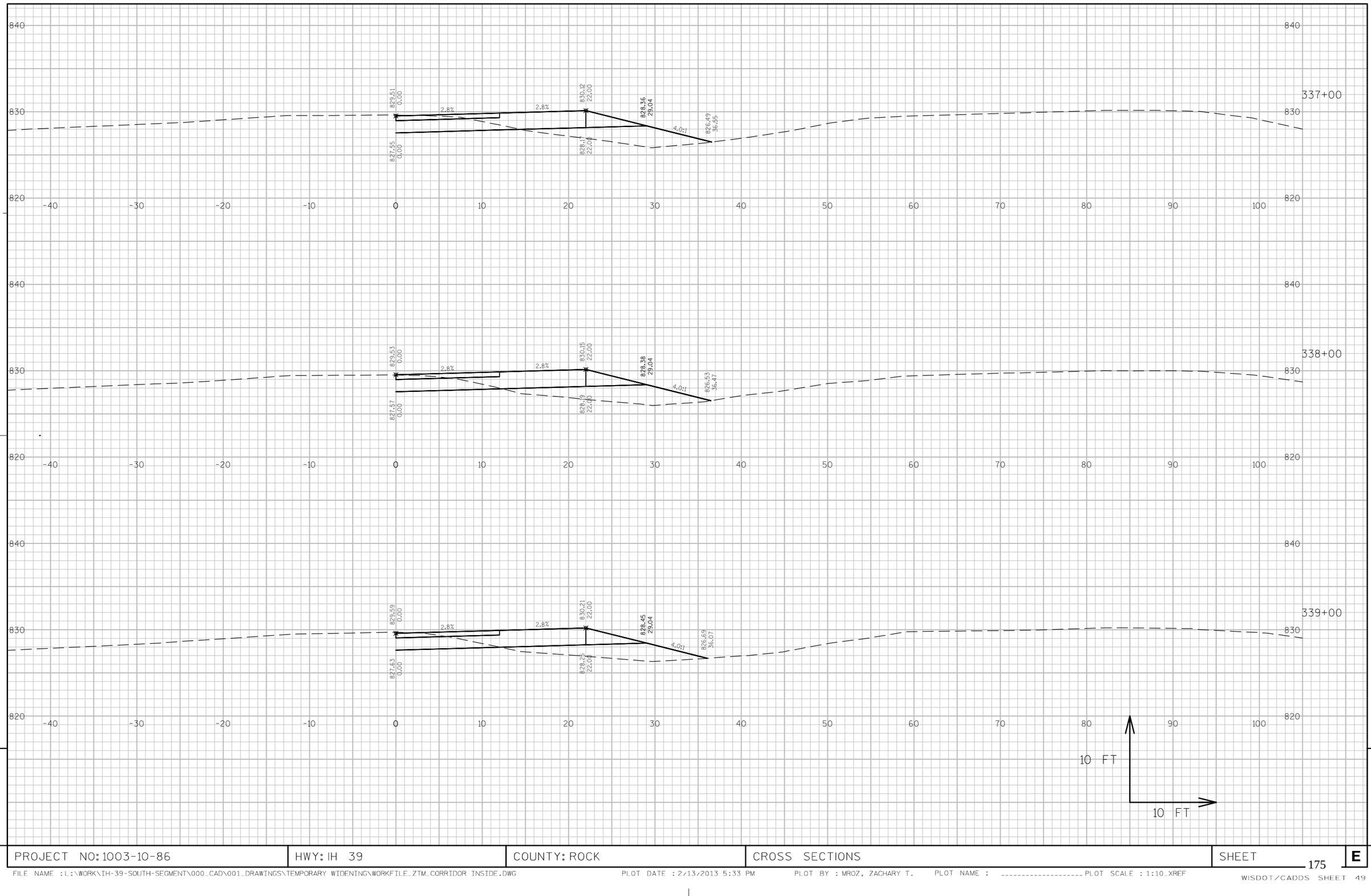
PROJECT NO: 1003-10-86	HWY: IH 39	COUNTY: ROCK	CROSS SECTIONS	SHEET 173	E



PROJECT NO: 1003-10-86	HWY: IH 39	COUNTY: ROCK	CROSS SECTIONS	SHEET 174 E



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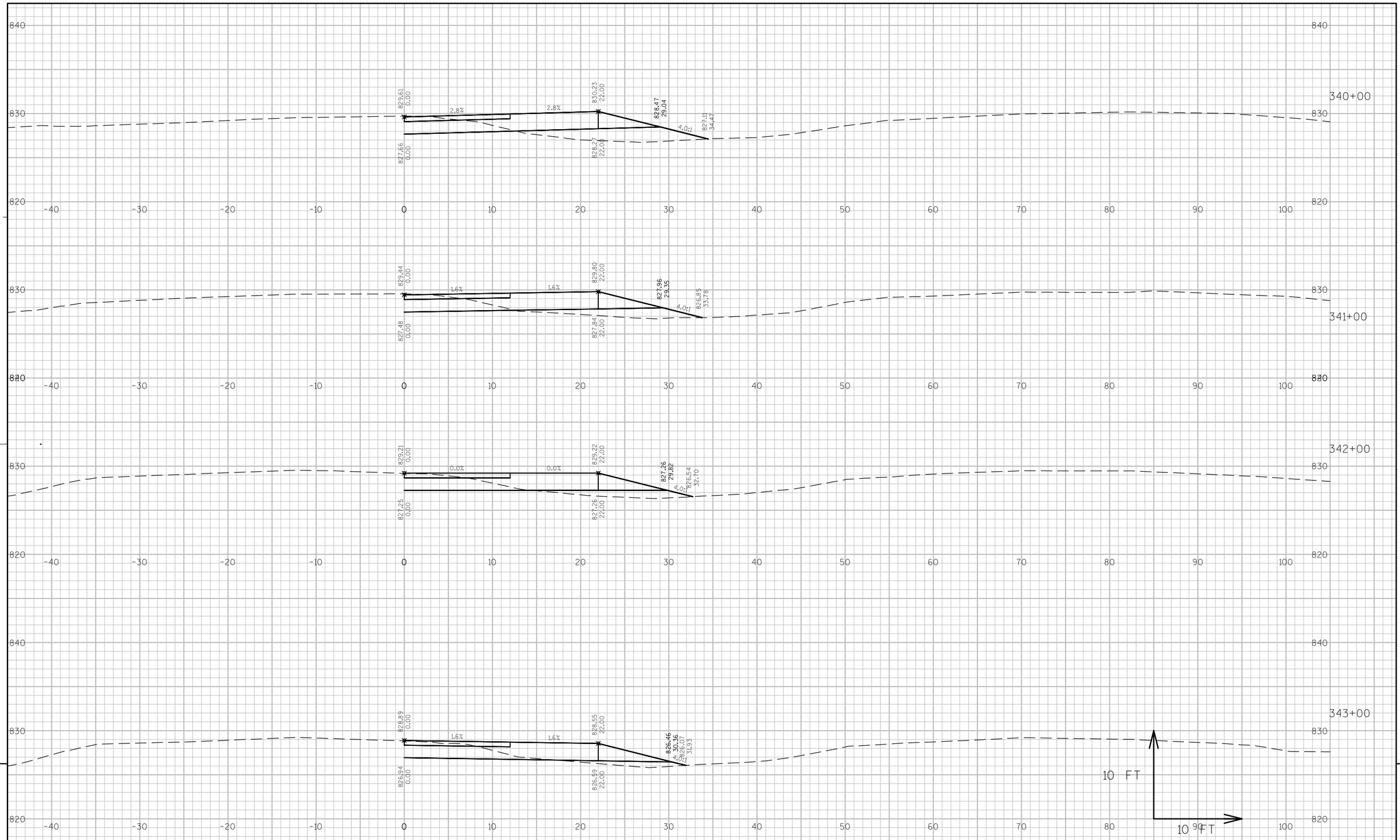
PROJECT NO: 1003-10-86	HWY: IH 39	COUNTY: ROCK	CROSS SECTIONS	SHEET 175	E



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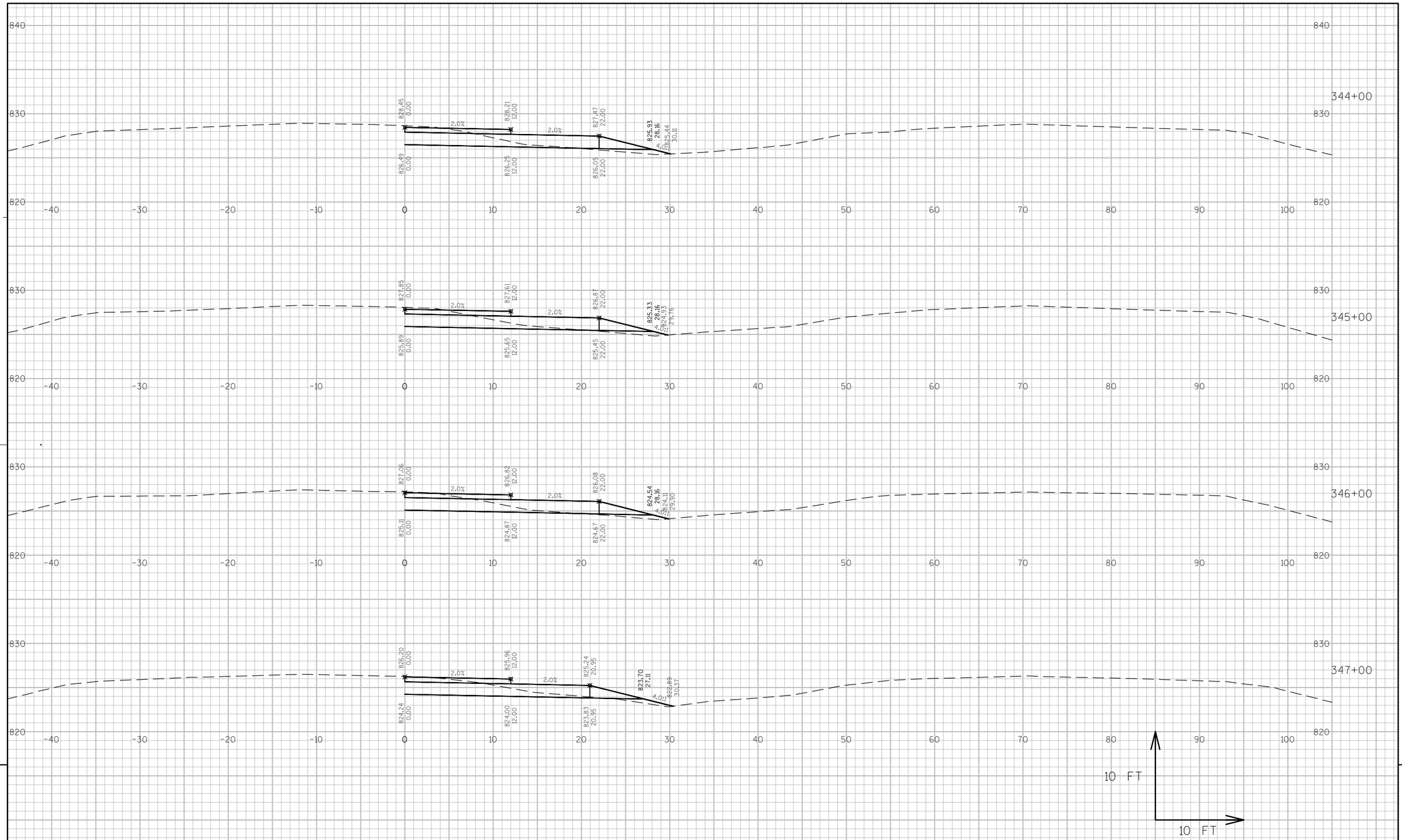
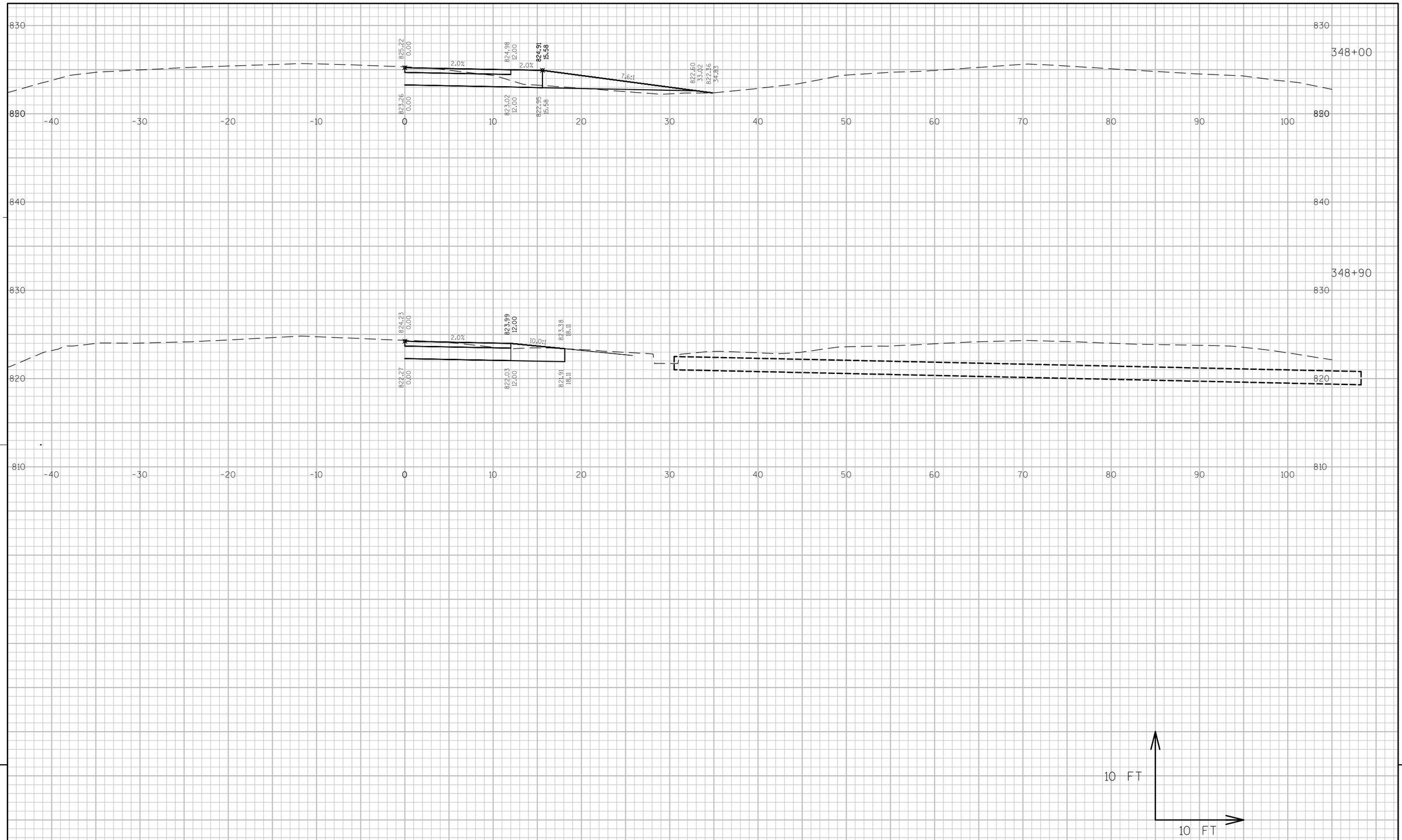
PROJECT NO: 1003-10-86	HWY: IH 39	COUNTY: ROCK	CROSS SECTIONS	SHEET 176	E



PROJECT NO: 1003-10-86	HWY: IH 39	COUNTY: ROCK	CROSS SECTIONS	SHEET 177	E



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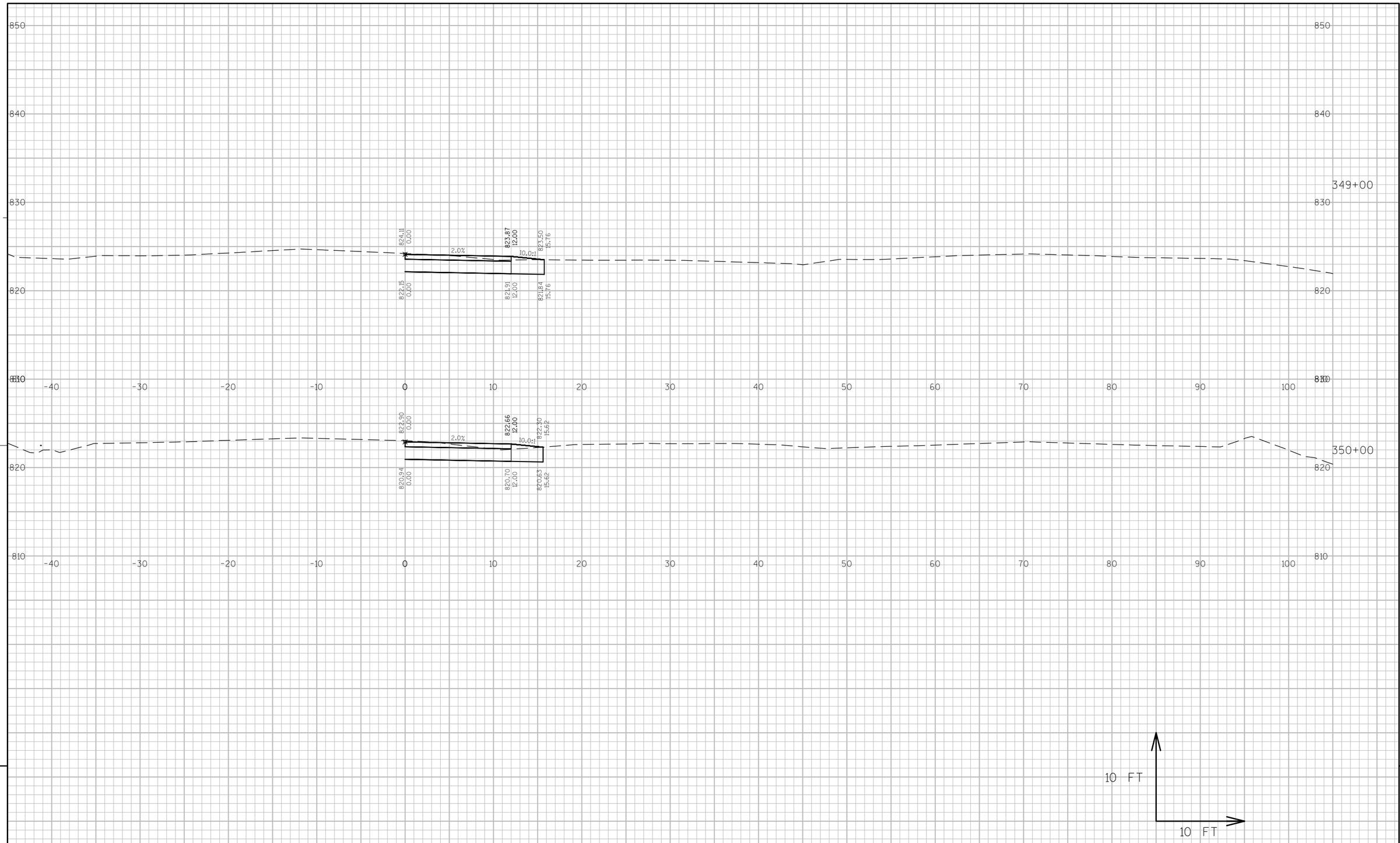
PROJECT NO: 1003-10-86	HWY: IH 39	COUNTY: ROCK	CROSS SECTIONS	SHEET 178	E

FILE NAME : L:\WORK\IH-39-SOUTH-SEGMENT\000_CAD\001_DRAWINGS\TEMPORARY WIDENING\WORKFILE_ZTM_CORRIDOR INSIDE.DWG PLOT DATE : 2/22/2013 4:15 PM PLOT BY : MROZ, ZACHARY T. PLOT NAME : ---------- PLOT SCALE : 1:10_XREF



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PROJECT NO: 1003-10-86	HWY: IH 39	COUNTY: ROCK	CROSS SECTIONS	SHEET 179	E

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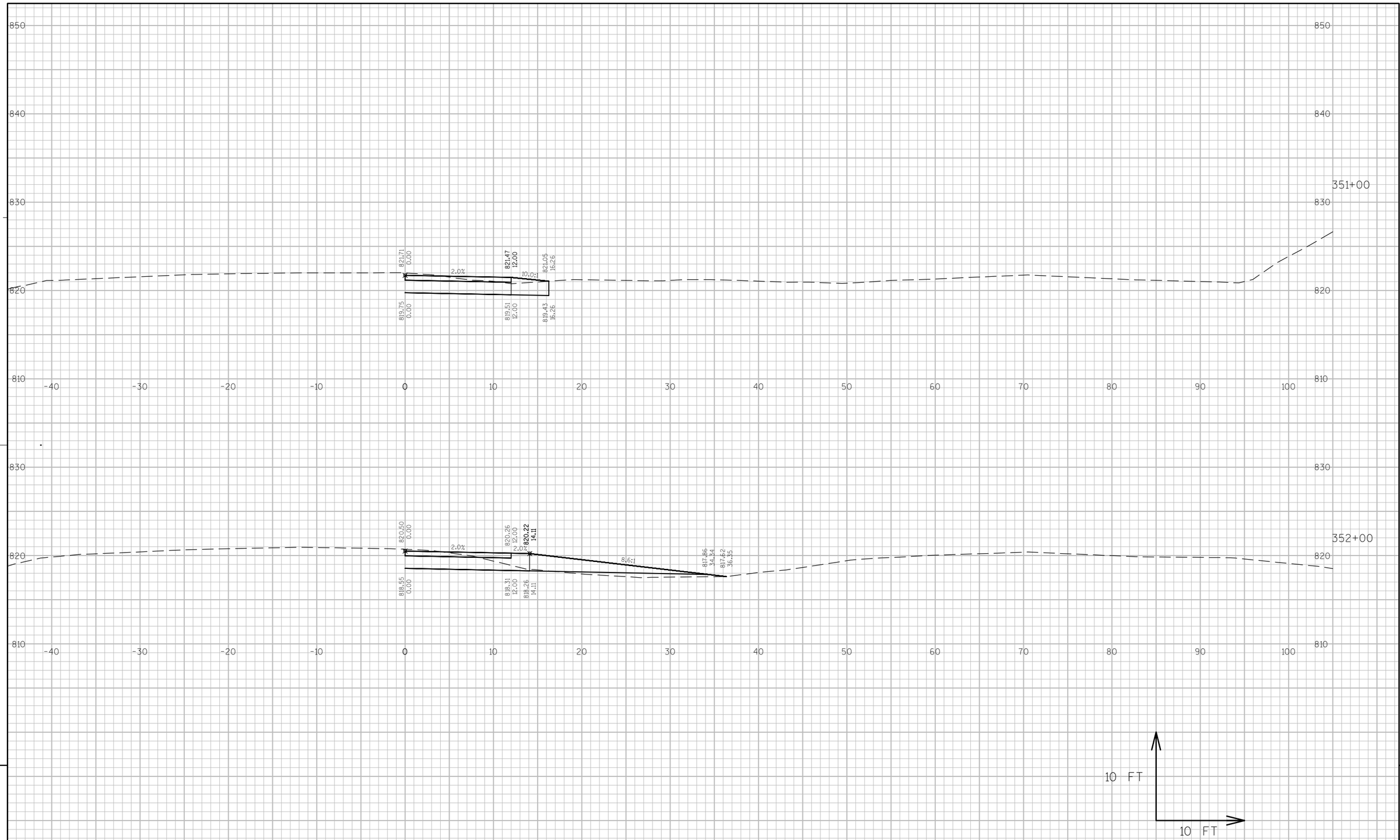

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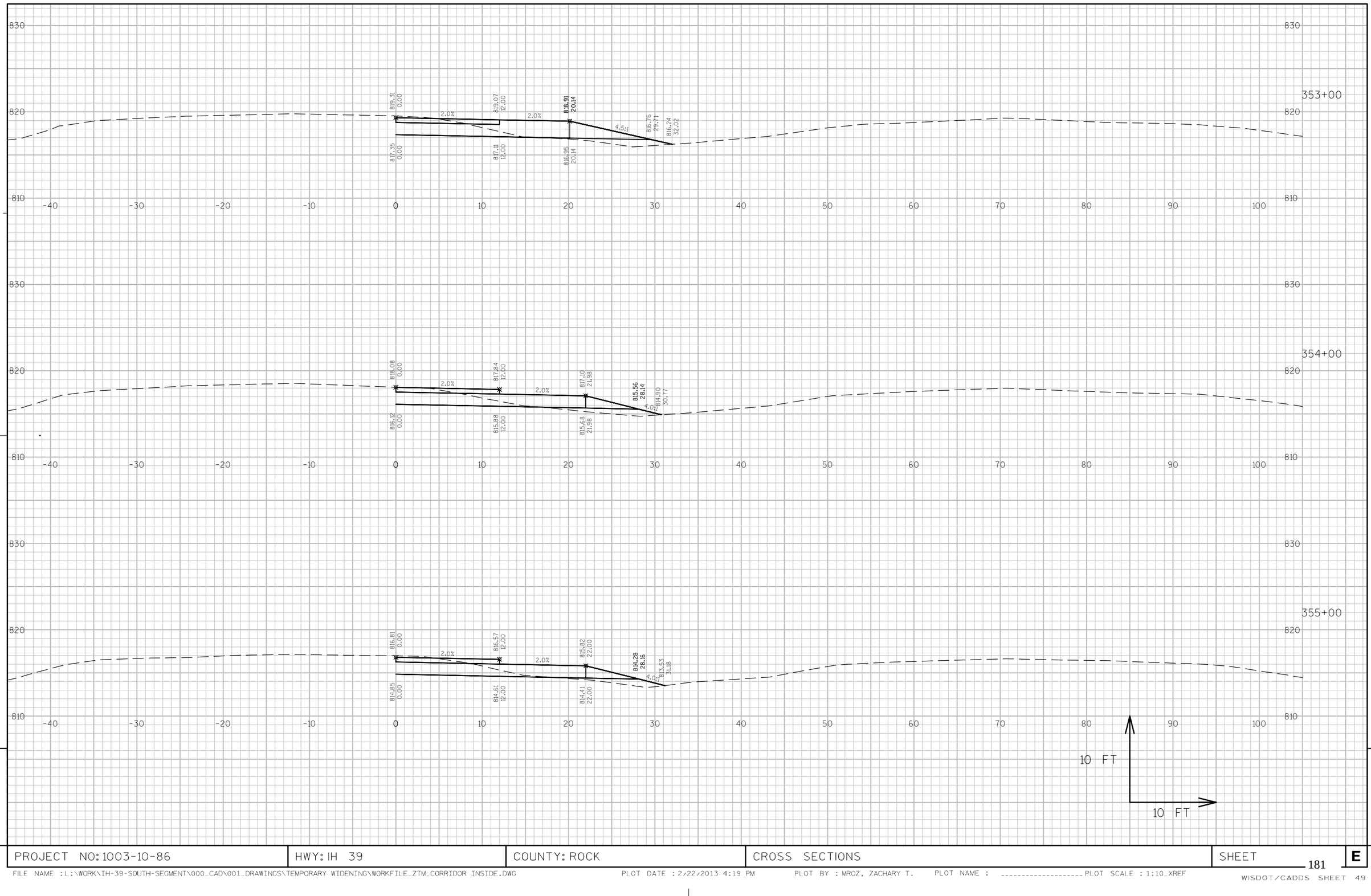
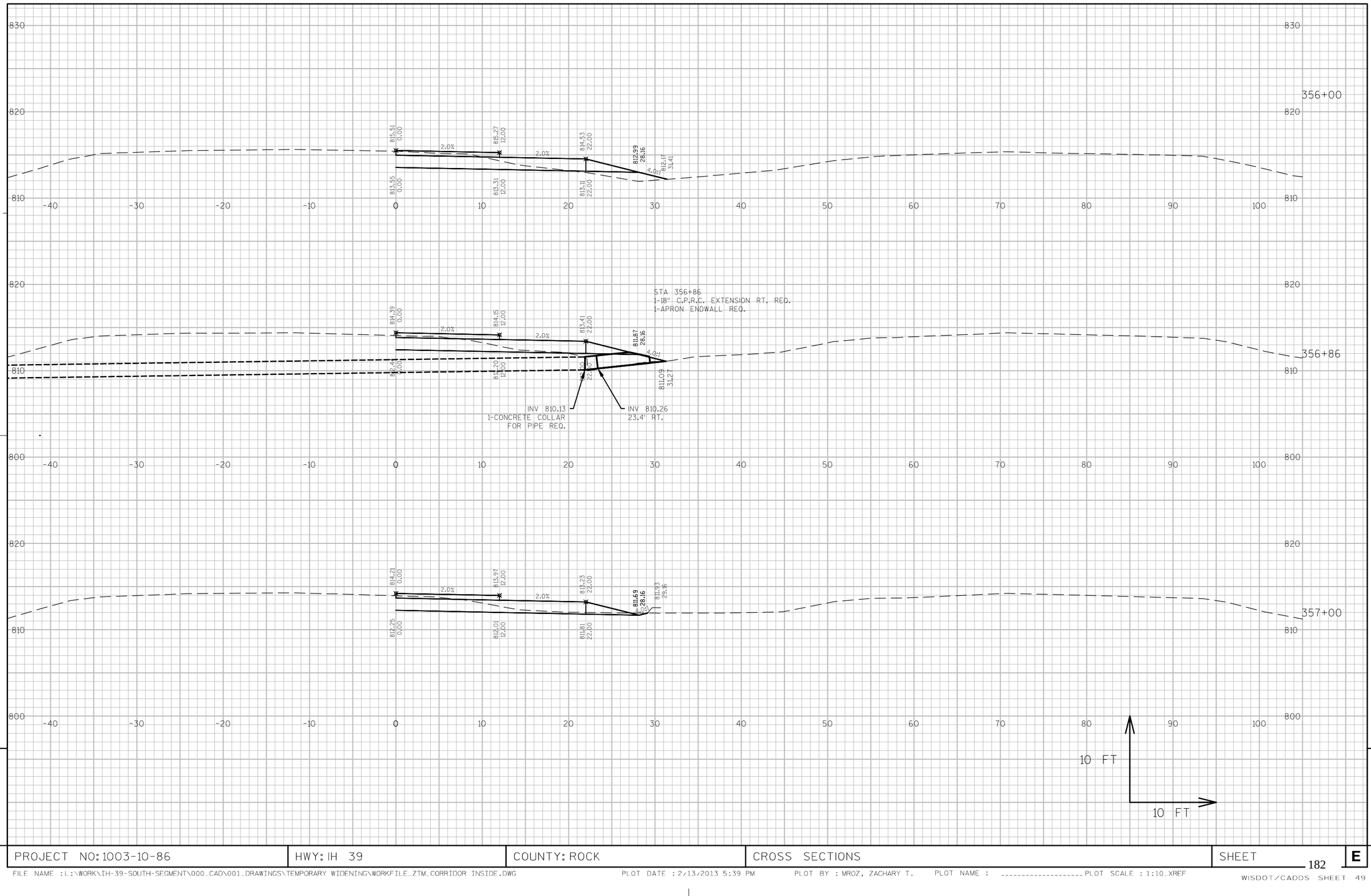
PROJECT NO: 1003-10-86	HWY: IH 39	COUNTY: ROCK	CROSS SECTIONS	SHEET 180	E

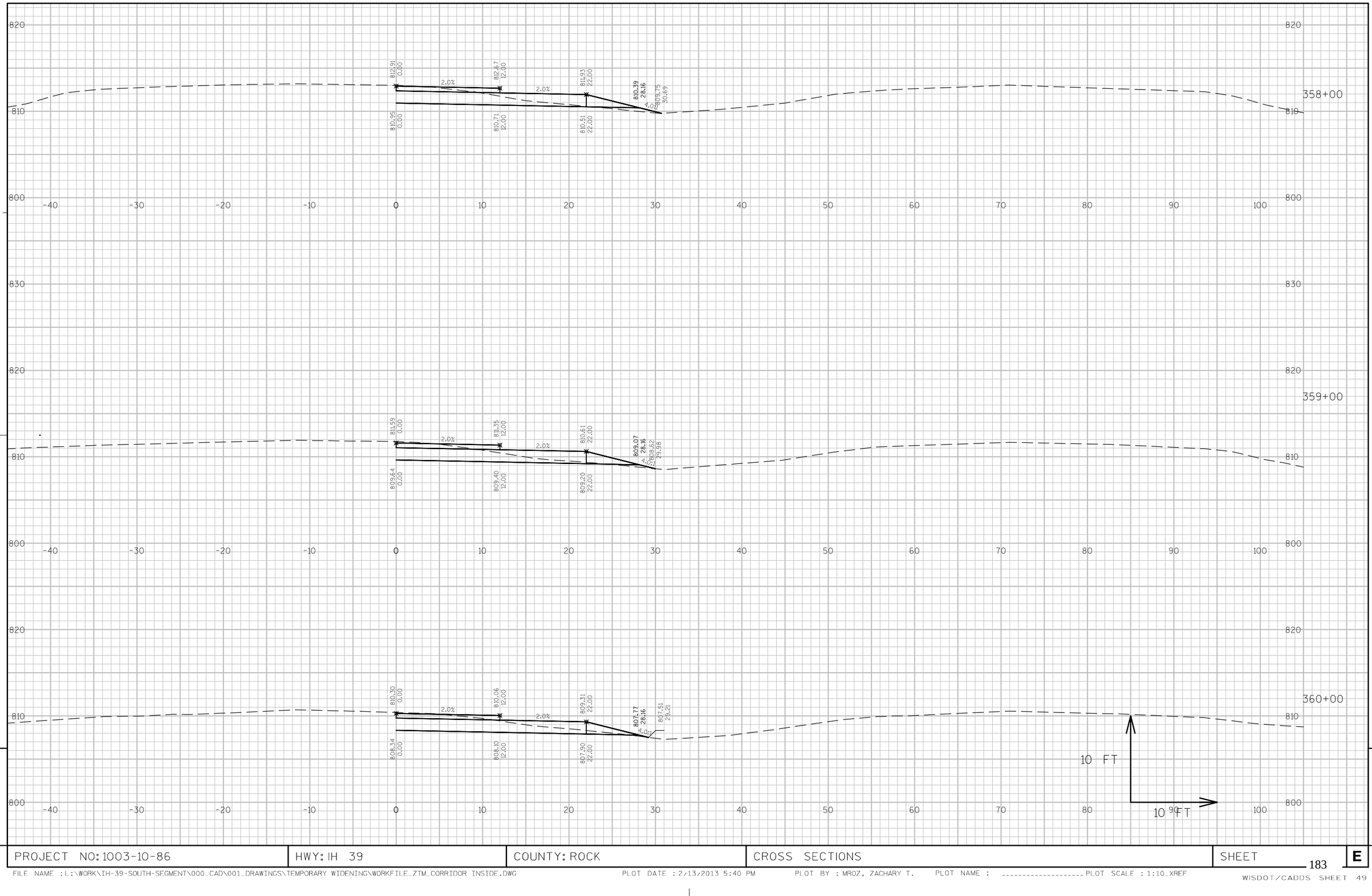


PROJECT NO: 1003-10-86	HWY: IH 39	COUNTY: ROCK	CROSS SECTIONS	SHEET 181 E



PROJECT NO: 1003-10-86	HWY: IH 39	COUNTY: ROCK	CROSS SECTIONS	SHEET 182 E

FILE NAME : L:\WORK\IH-39-SOUTH-SEGMENT\000_CAD\001_DRAWINGS\TEMPORARY WIDENING\WORKFILE_ZTM_CORRIDOR INSIDE.DWG PLOT DATE : 2/13/2013 5:39 PM PLOT BY : MROZ, ZACHARY T. PLOT NAME : _____ PLOT SCALE : 1:10_XREF
WISDOT/CADDS SHEET 49



9

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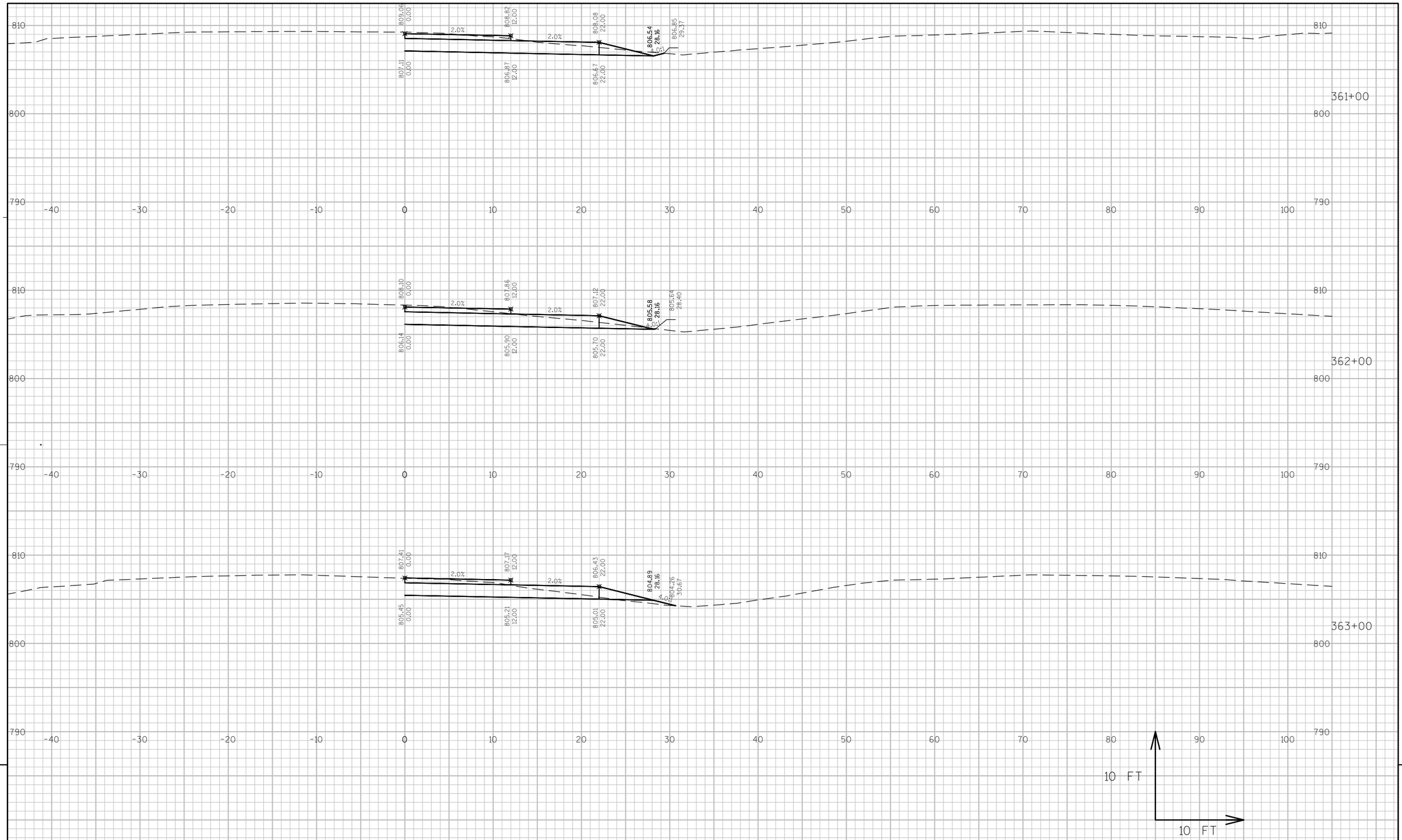
PROJECT NO: 1003-10-86	HWY: IH 39	COUNTY: ROCK	CROSS SECTIONS	SHEET	E

FILE NAME : L:\WORK\IH-39-SOUTH-SEGMENT\000_CAD\001_DRAWINGS\TEMPORARY WIDENING\WORKFILE_ZTM_CORRIDOR INSIDE.DWG PLOT DATE : 2/13/2013 5:40 PM PLOT BY : MROZ, ZACHARY T. PLOT NAME : _____ PLOT SCALE : 1:10_XREF

WISDOT/CADDS SHEET 49



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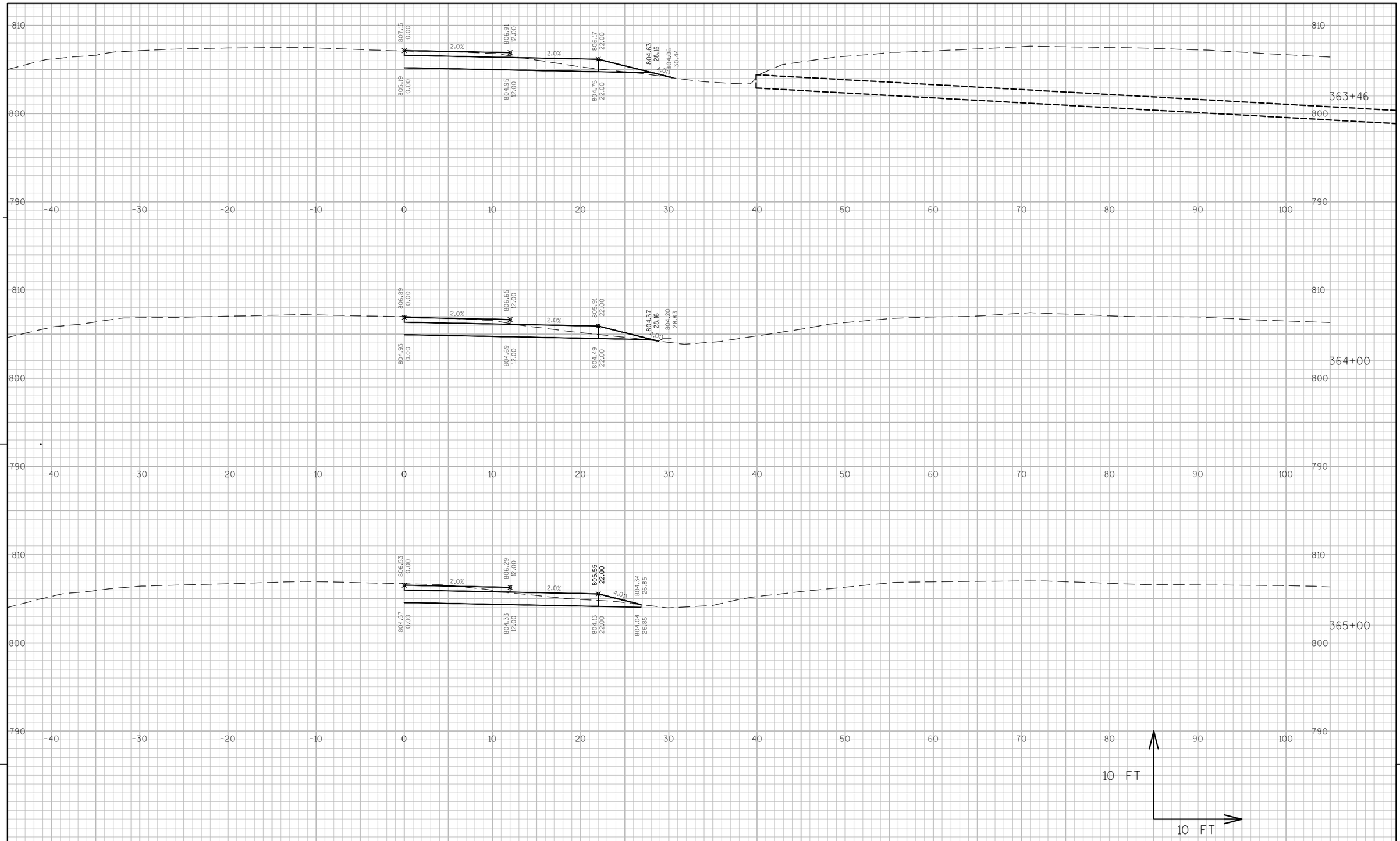
PROJECT NO: 1003-10-86	HWY: IH 39	COUNTY: ROCK	CROSS SECTIONS	SHEET 184	E



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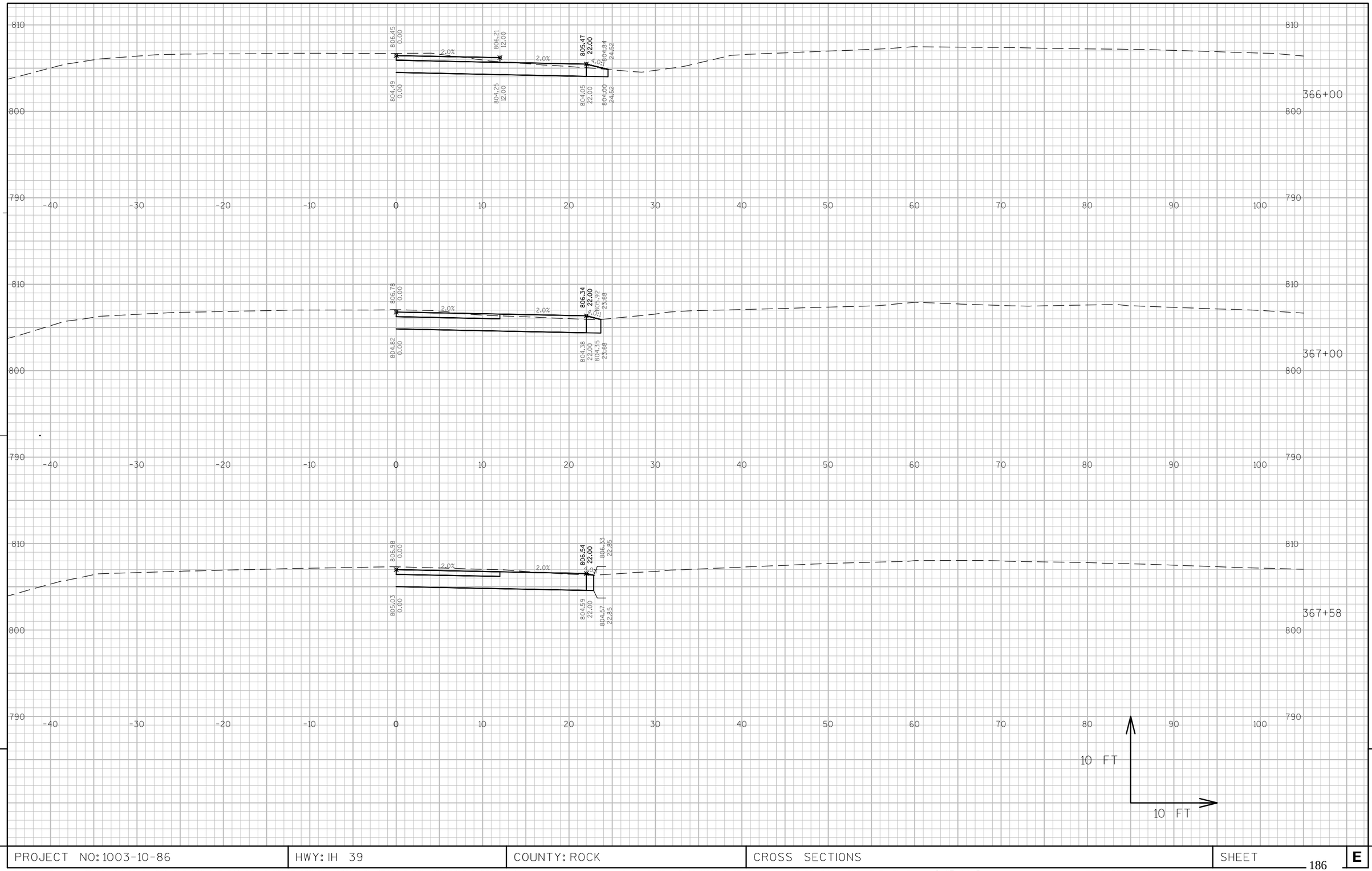
PROJECT NO: 1003-10-86	HWY: IH 39	COUNTY: ROCK	CROSS SECTIONS	SHEET 185	E



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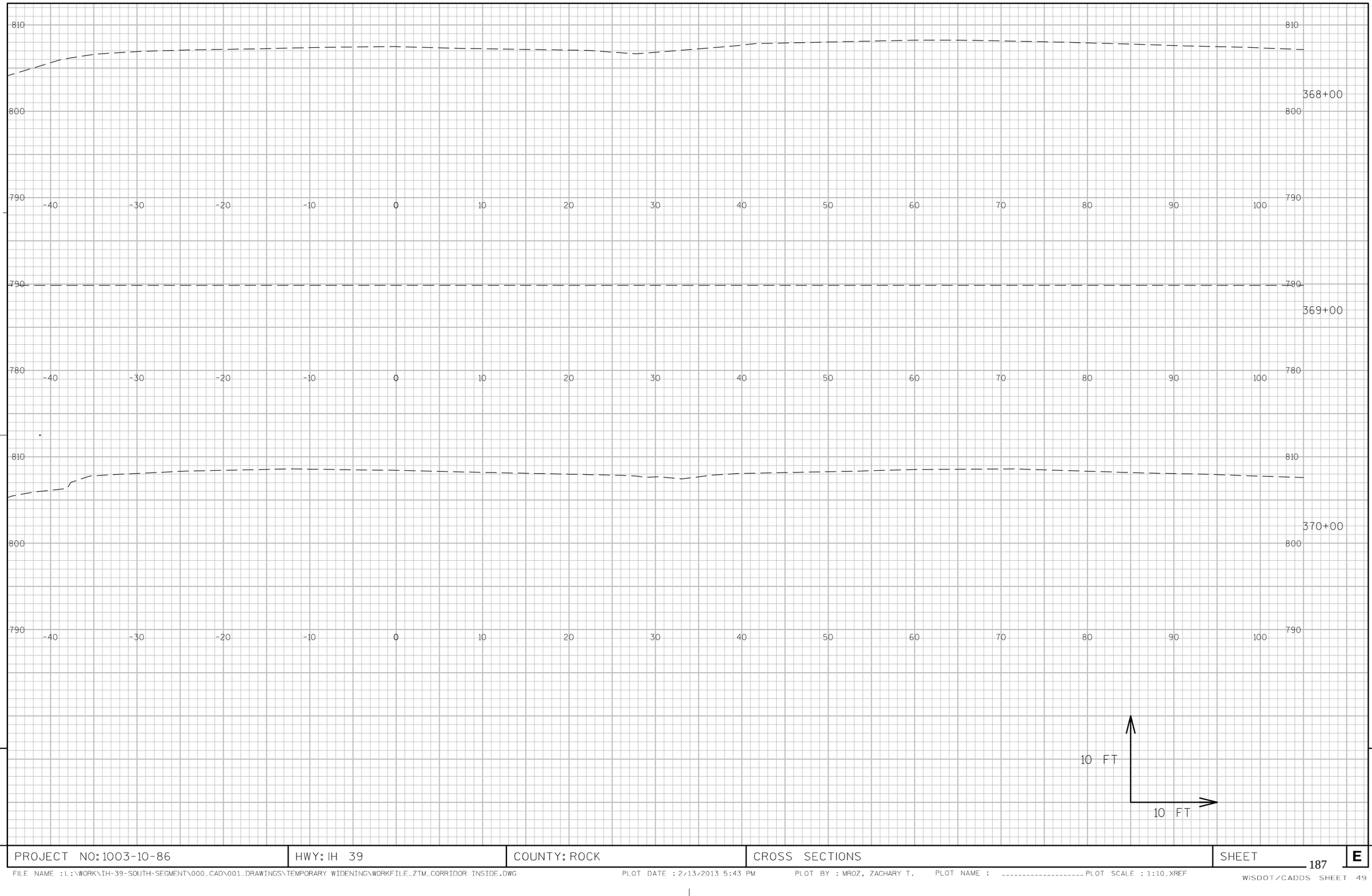
PROJECT NO: 1003-10-86	HWY: IH 39	COUNTY: ROCK	CROSS SECTIONS	SHEET 186	E

FILE NAME : L:\WORK\IH-39-SOUTH-SEGMENT\000_CAD\001_DRAWINGS\TEMPORARY WIDENING\WORKFILE_ZTM_CORRIDOR INSIDE.DWG PLOT DATE : 2/13/2013 5:42 PM PLOT BY : MROZ, ZACHARY T. PLOT NAME : _____ PLOT SCALE : 1:10_XREF

WISDOT/CADDS SHEET 49



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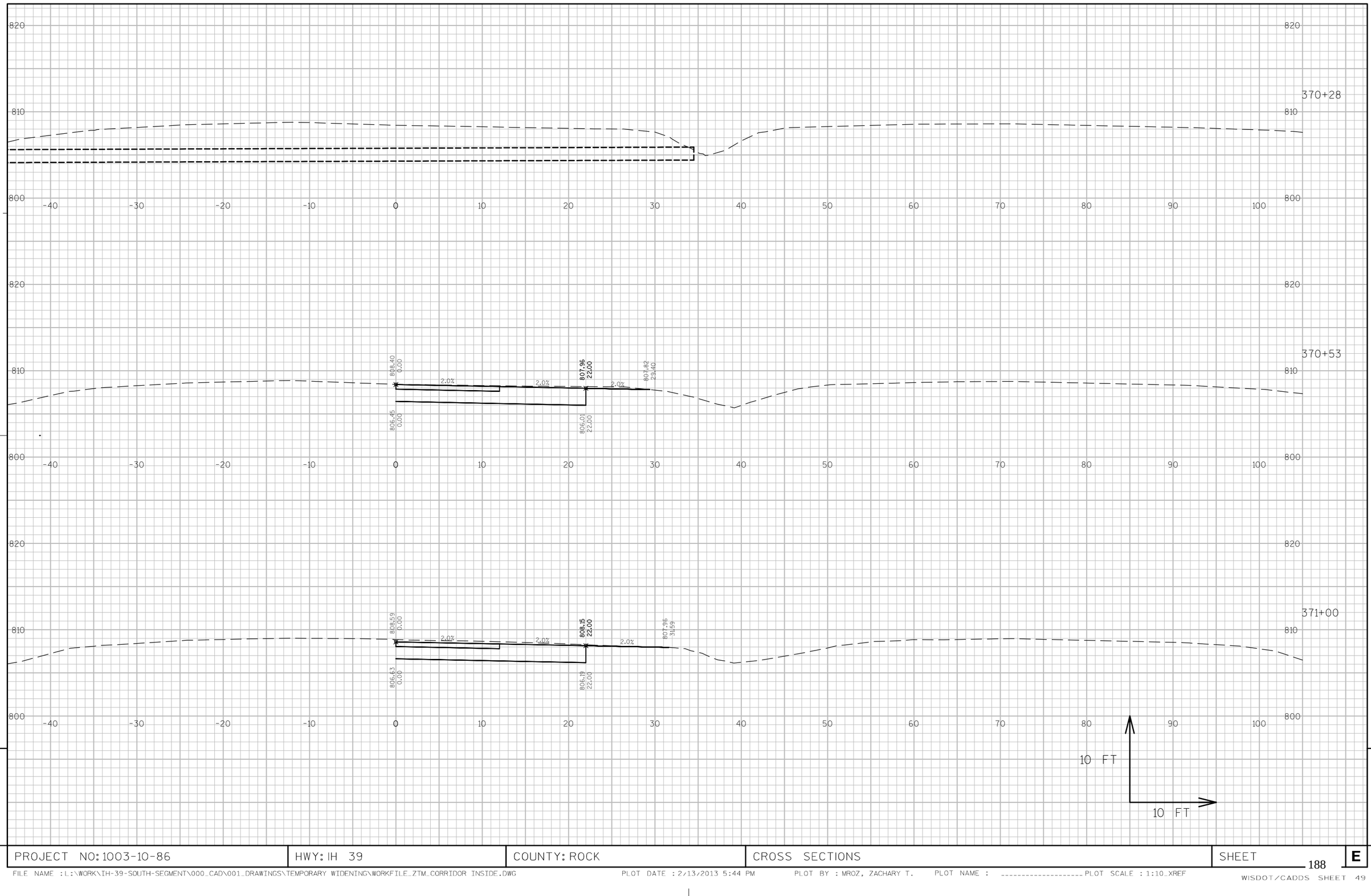
PROJECT NO: 1003-10-86	HWY: IH 39	COUNTY: ROCK	CROSS SECTIONS	SHEET 187	E



9

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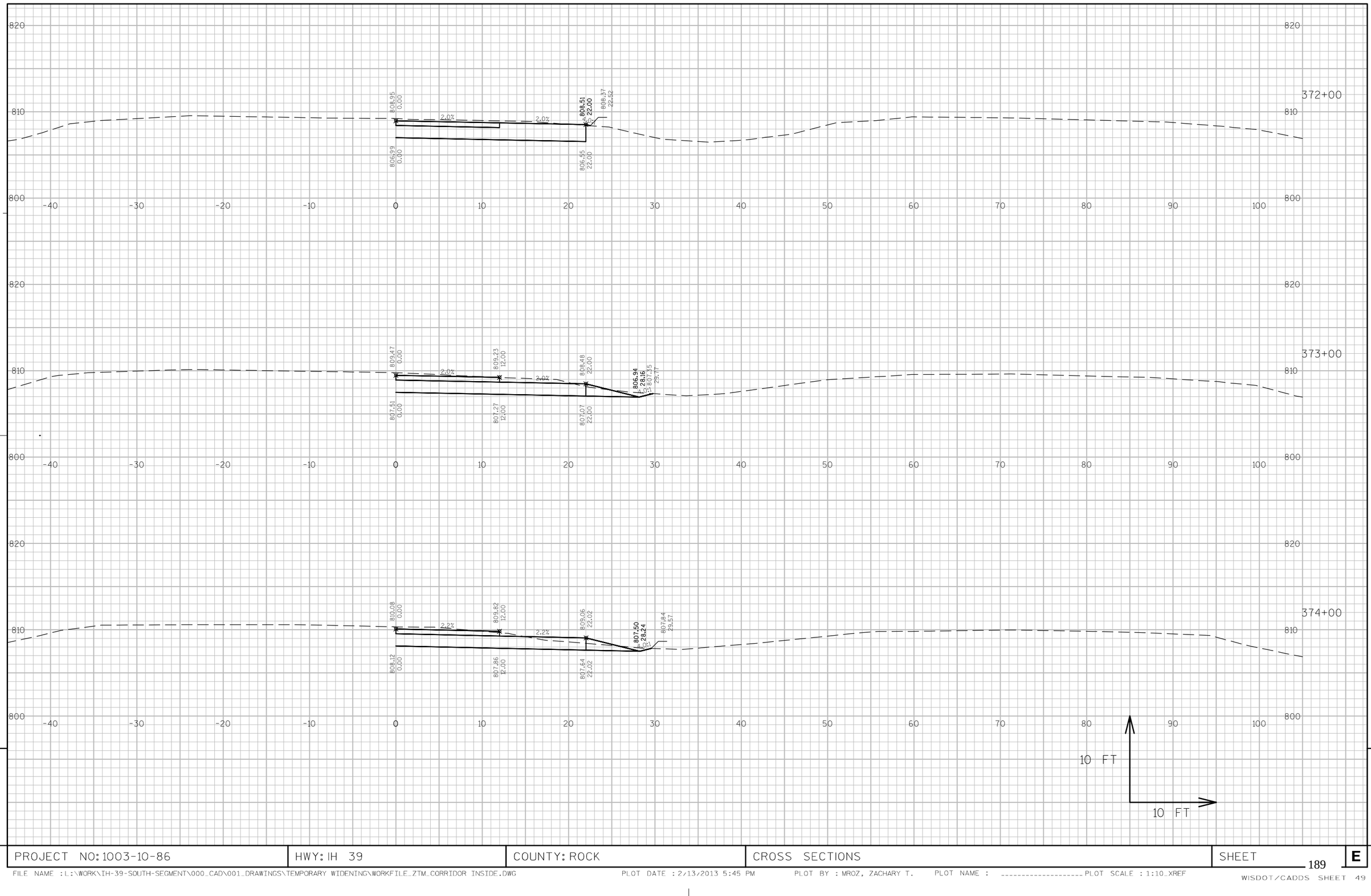
PROJECT NO: 1003-10-86	HWY: IH 39	COUNTY: ROCK	CROSS SECTIONS	SHEET	E

FILE NAME : L:\WORK\IH-39-SOUTH-SEGMENT\000_CAD\001_DRAWINGS\TEMPORARY WIDENING\WORKFILE_ZTM_CORRIDOR INSIDE.DWG PLOT DATE : 2/13/2013 5:44 PM PLOT BY : MROZ, ZACHARY T. PLOT NAME : _____ PLOT SCALE : 1:10_XREF

WISDOT/CADDS SHEET 49



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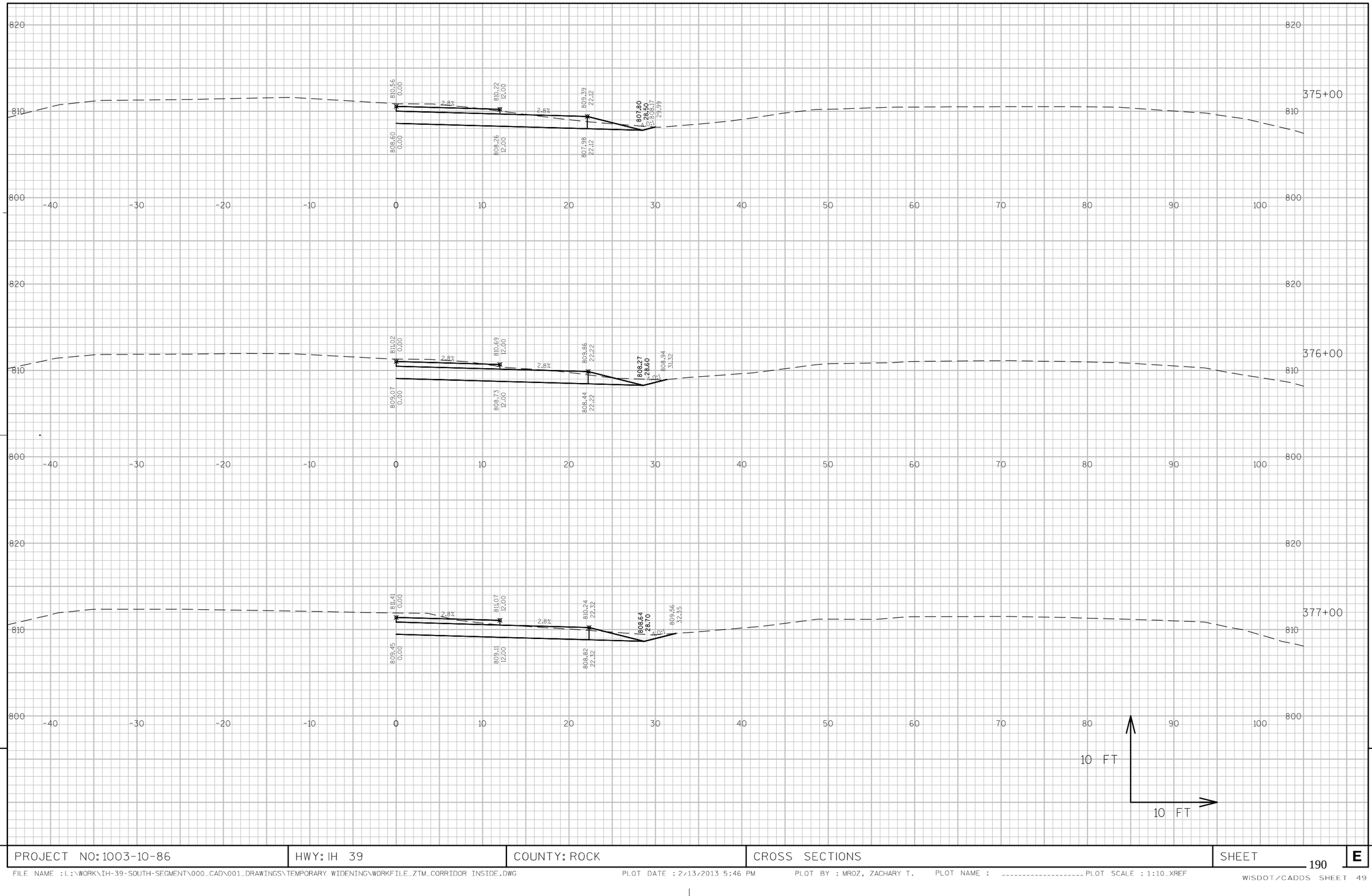
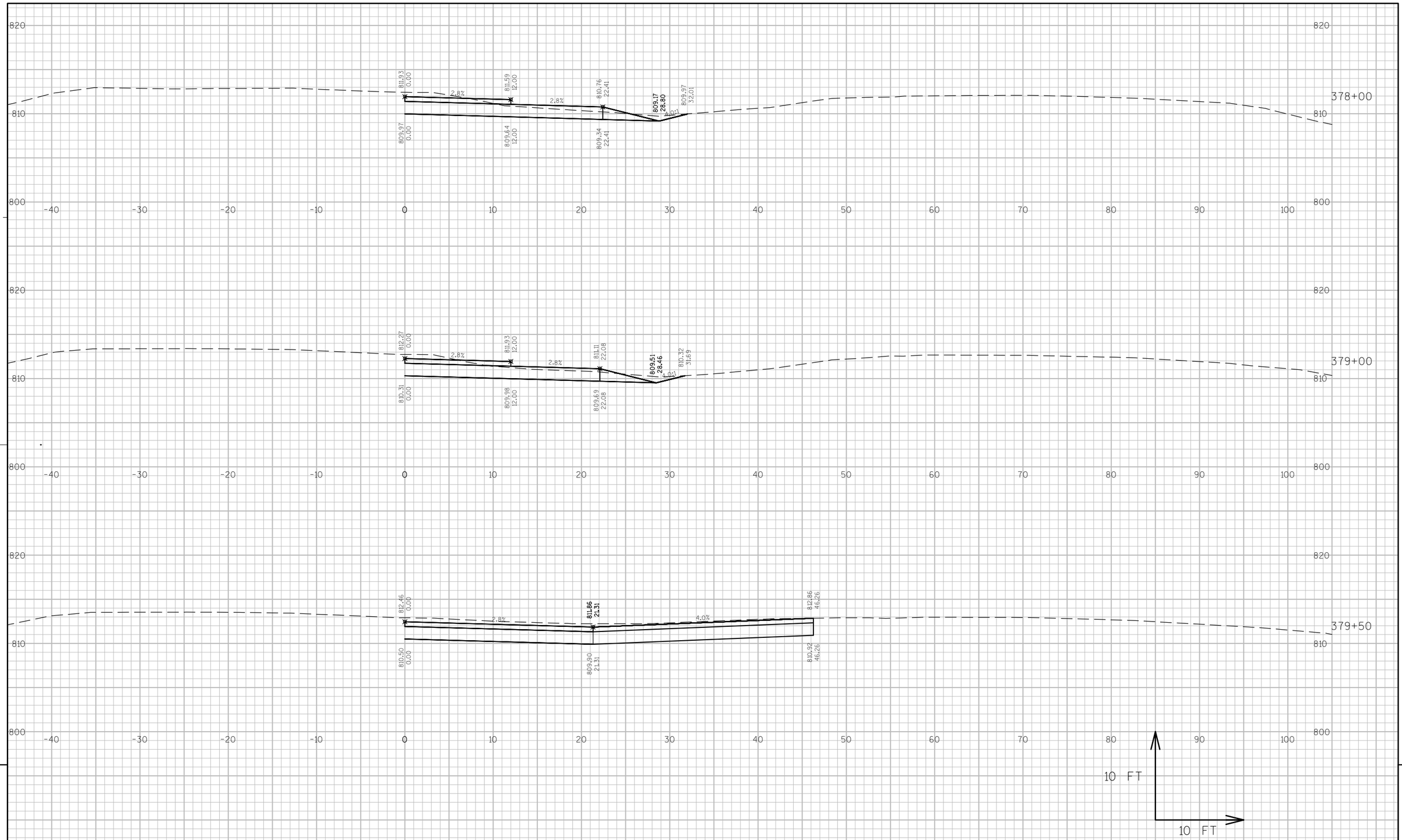
PROJECT NO: 1003-10-86	HWY: IH 39	COUNTY: ROCK	CROSS SECTIONS	SHEET 189	E



PROJECT NO: 1003-10-86	HWY: IH 39	COUNTY: ROCK	CROSS SECTIONS	SHEET 190 E

FILE NAME : L:\WORK\IH-39-SOUTH-SEGMENT\000_CAD\001_DRAWINGS\TEMPORARY WIDENING\WORKFILE_ZTM_CORRIDOR INSIDE.DWG PLOT DATE : 2/13/2013 5:46 PM PLOT BY : MROZ, ZACHARY T. PLOT NAME : _____ PLOT SCALE : 1:10_XREF

WISDOT/CADDS SHEET 49



9

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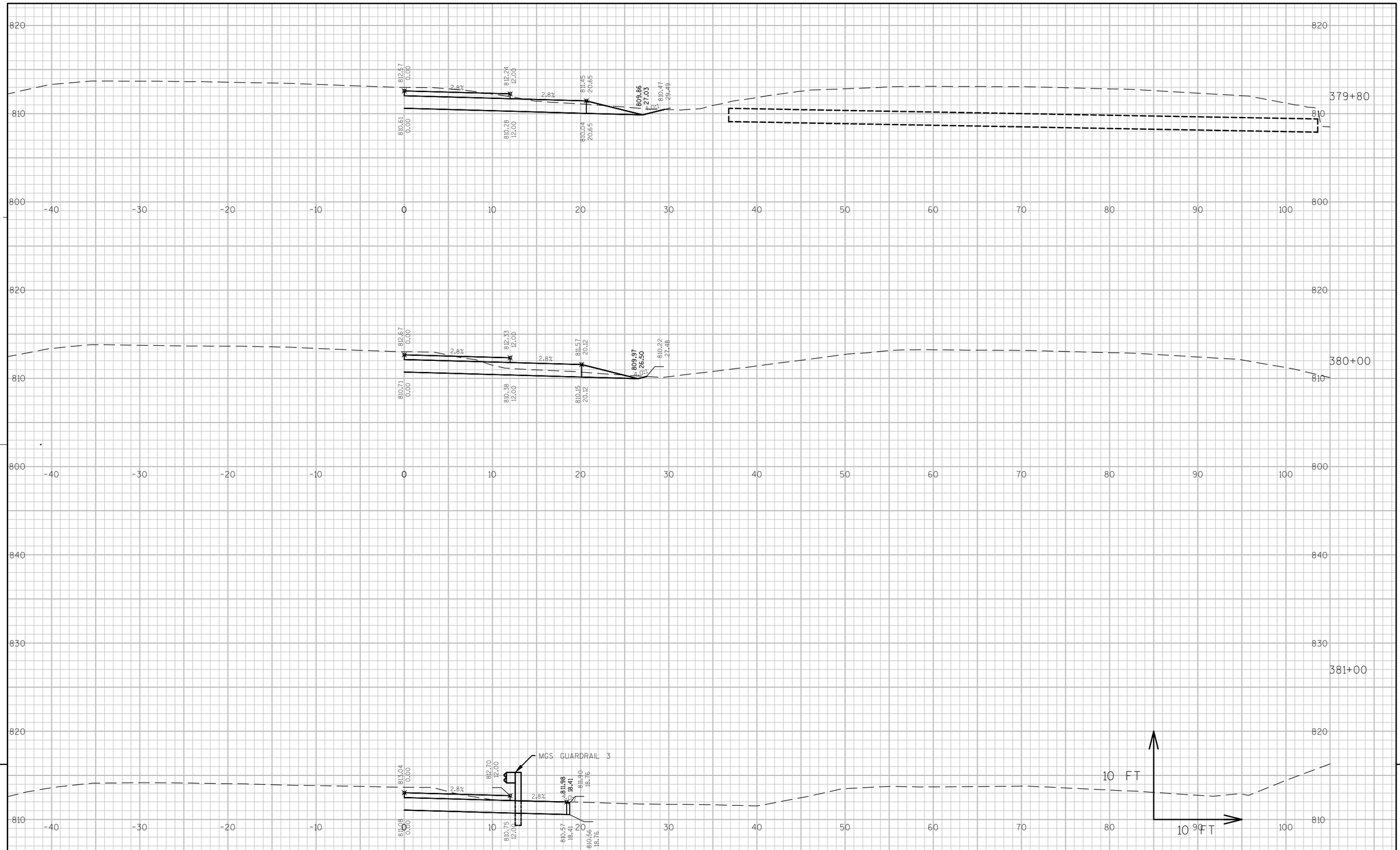
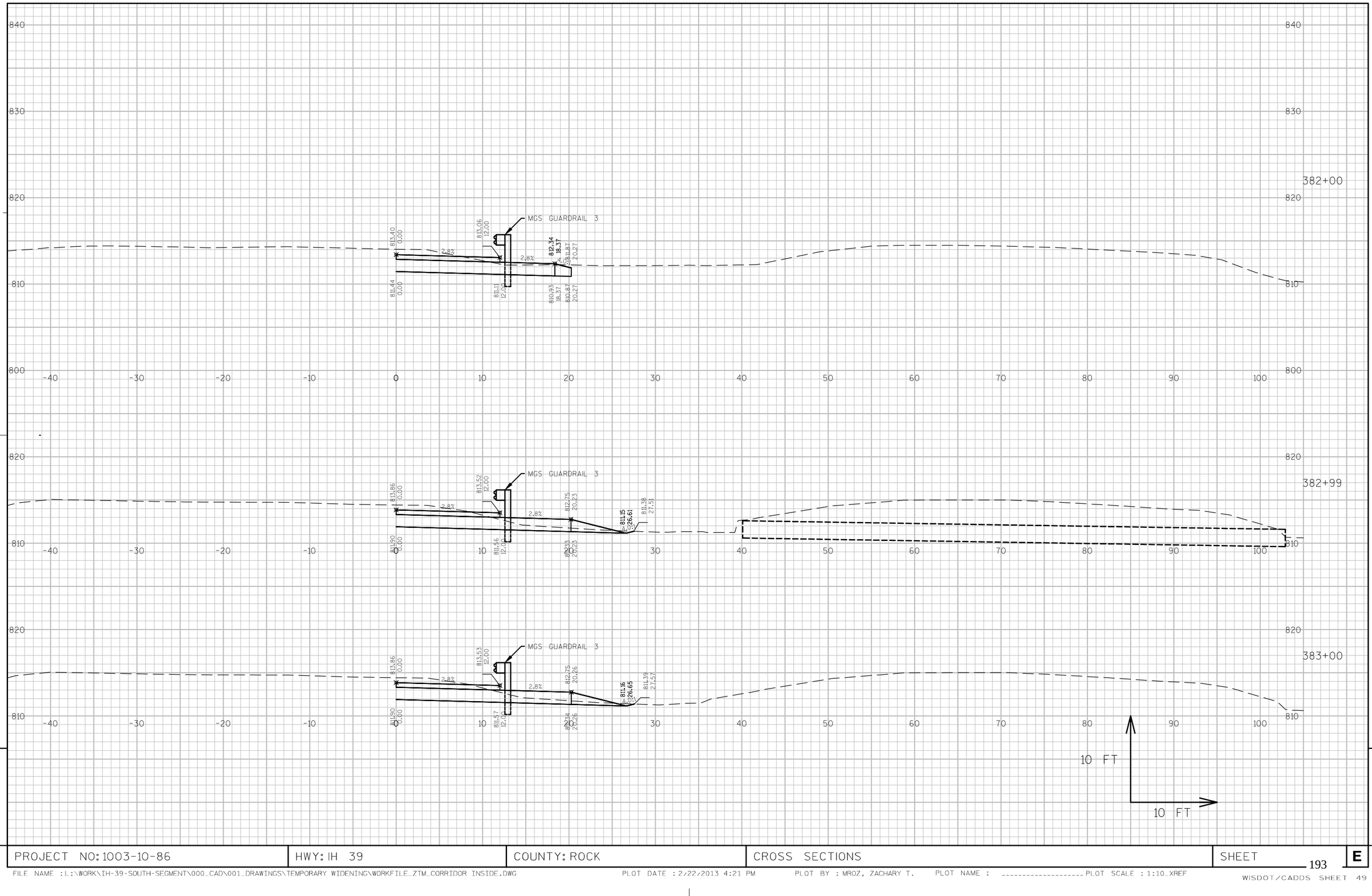
PROJECT NO: 1003-10-86	HWY: IH 39	COUNTY: ROCK	CROSS SECTIONS	SHEET 191	E

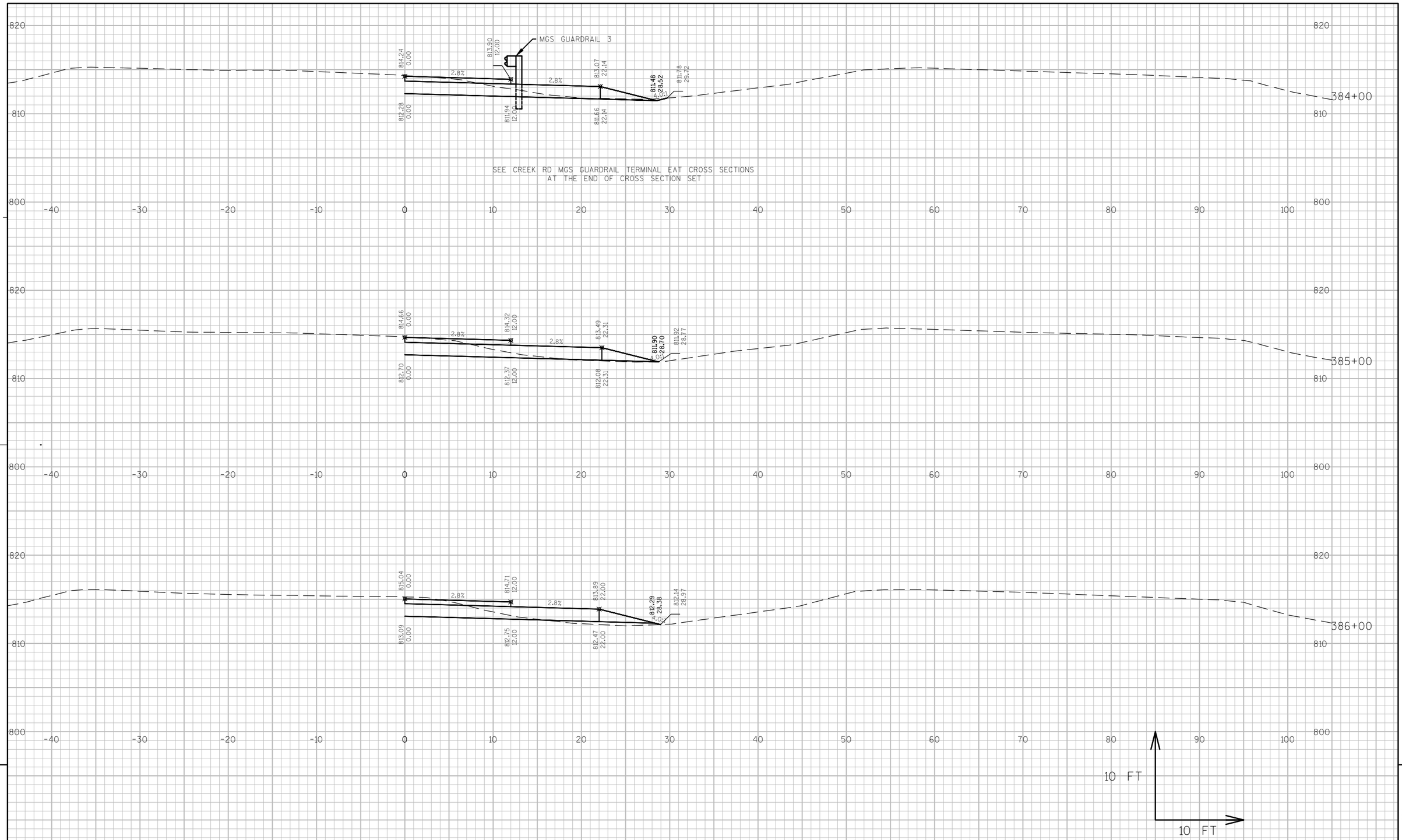


PROJECT NO: 1003-10-86	HWY: IH 39	COUNTY: ROCK	CROSS SECTIONS	SHEET	E

FILE NAME : L:\WORK\IH-39-SOUTH-SEGMENT\000_CAD\001_DRAWINGS\TEMPORARY WIDENING\WORKFILE_ZTM_CORRIDOR INSIDE.DWG PLOT DATE : 2/22/2013 4:20 PM PLOT BY : MROZ, ZACHARY T. PLOT NAME : _____ PLOT SCALE : 1:10_XREF
WISDOT/CADDS SHEET 49



PROJECT NO: 1003-10-86	HWY: IH 39	COUNTY: ROCK	CROSS SECTIONS	SHEET 193	E



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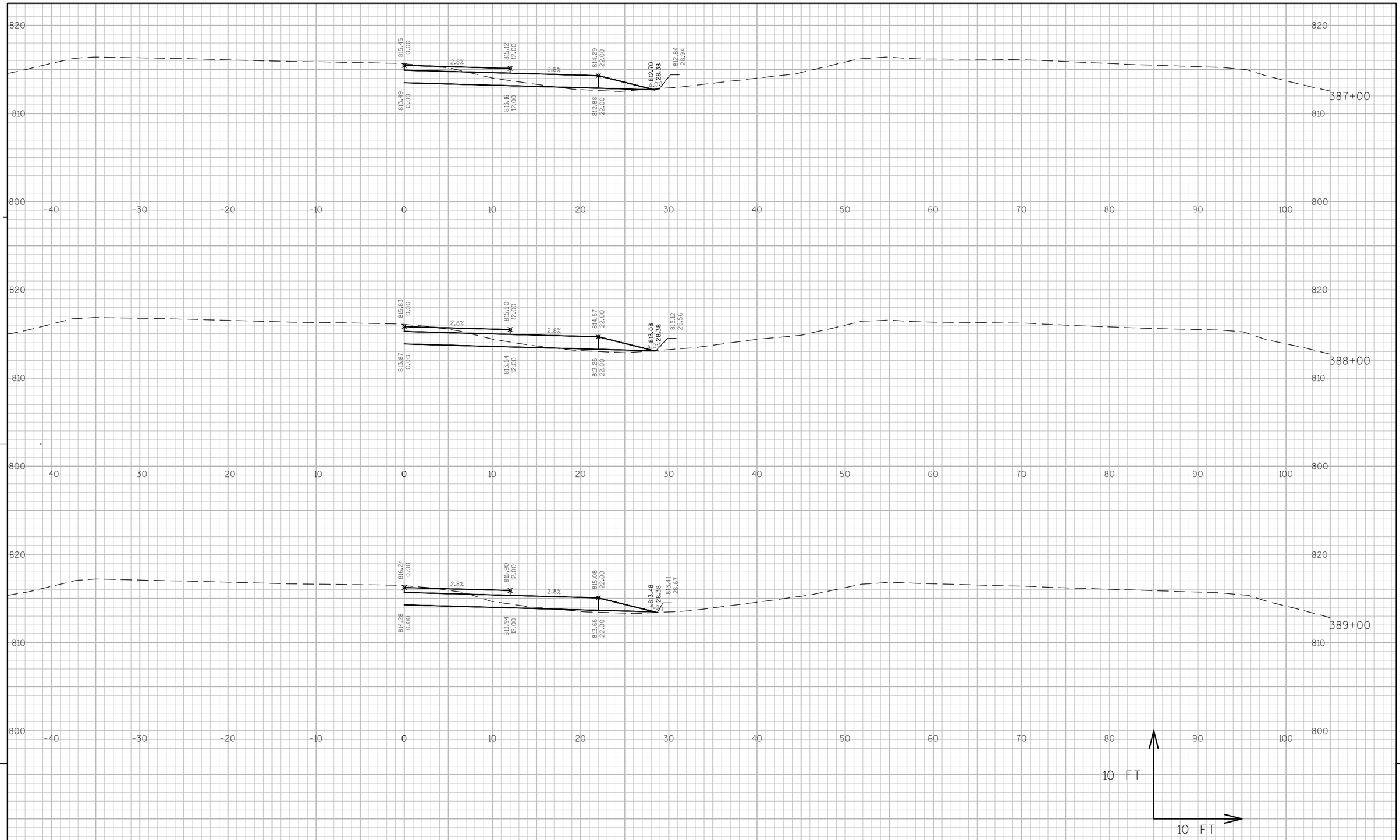
PROJECT NO: 1003-10-86	HWY: IH 39	COUNTY: ROCK	CROSS SECTIONS	SHEET	E

FILE NAME : L:\WORK\IH-39-SOUTH-SEGMENT\000_CAD\001_DRAWINGS\TEMPORARY WIDENING\WORKFILE_ZTM_CORRIDOR INSIDE.DWG PLOT DATE : 2/22/2013 4:23 PM PLOT BY : MROZ, ZACHARY T. PLOT NAME : ---------- PLOT SCALE : 1:10_XREF



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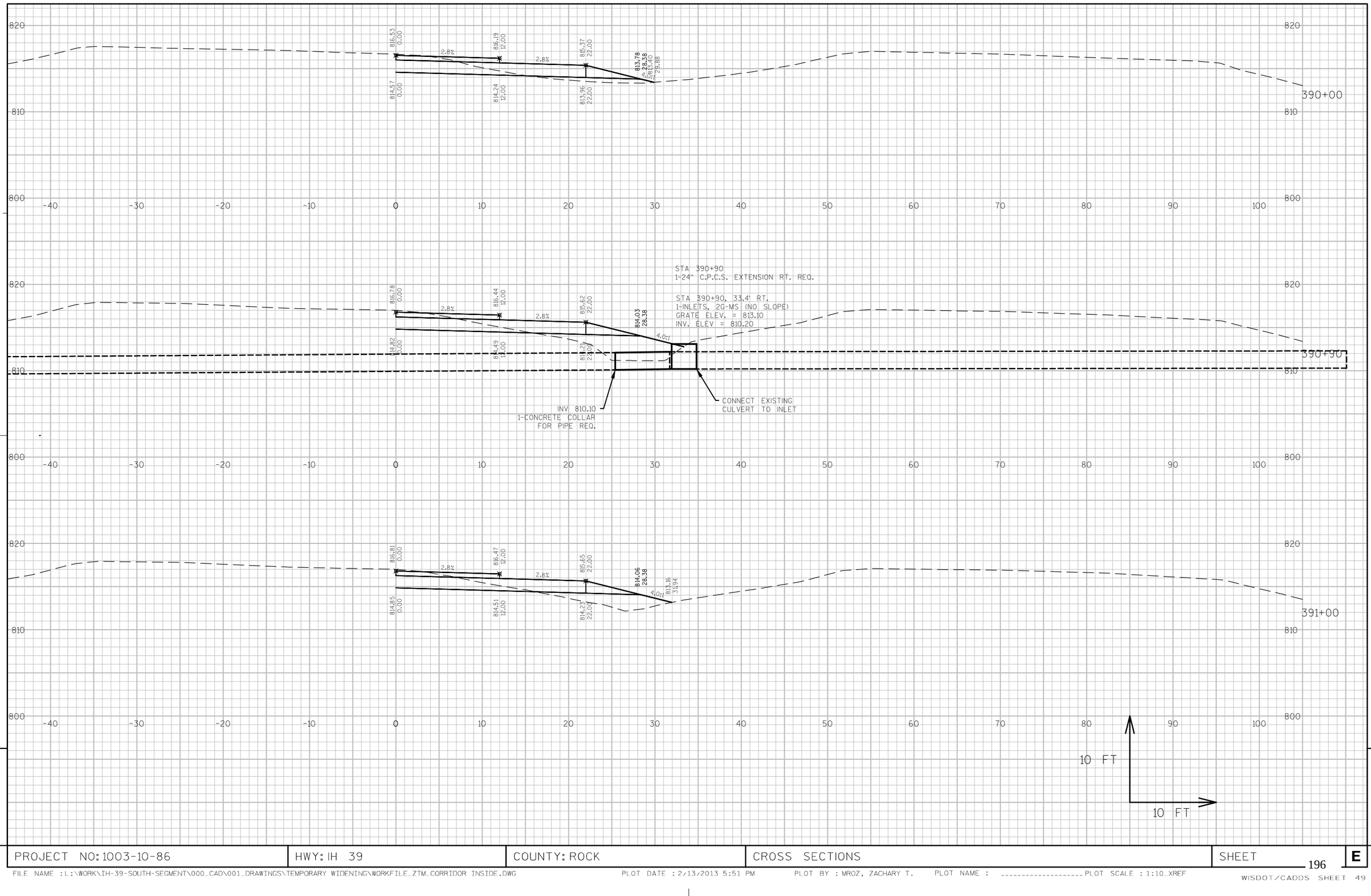
PROJECT NO: 1003-10-86	HWY: IH 39	COUNTY: ROCK	CROSS SECTIONS	SHEET 195	E



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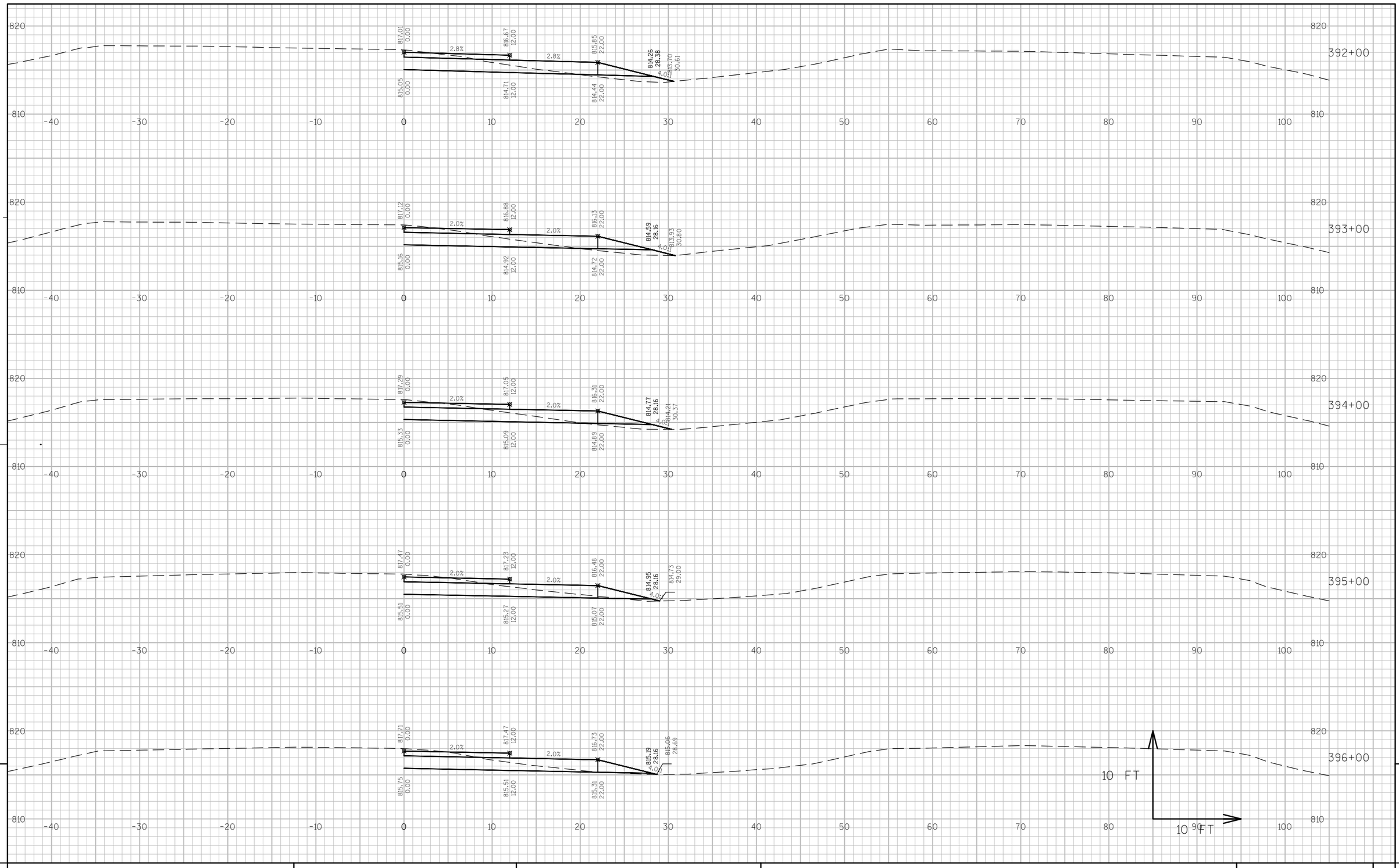
PROJECT NO: 1003-10-86	HWY: IH 39	COUNTY: ROCK	CROSS SECTIONS	SHEET 196	E



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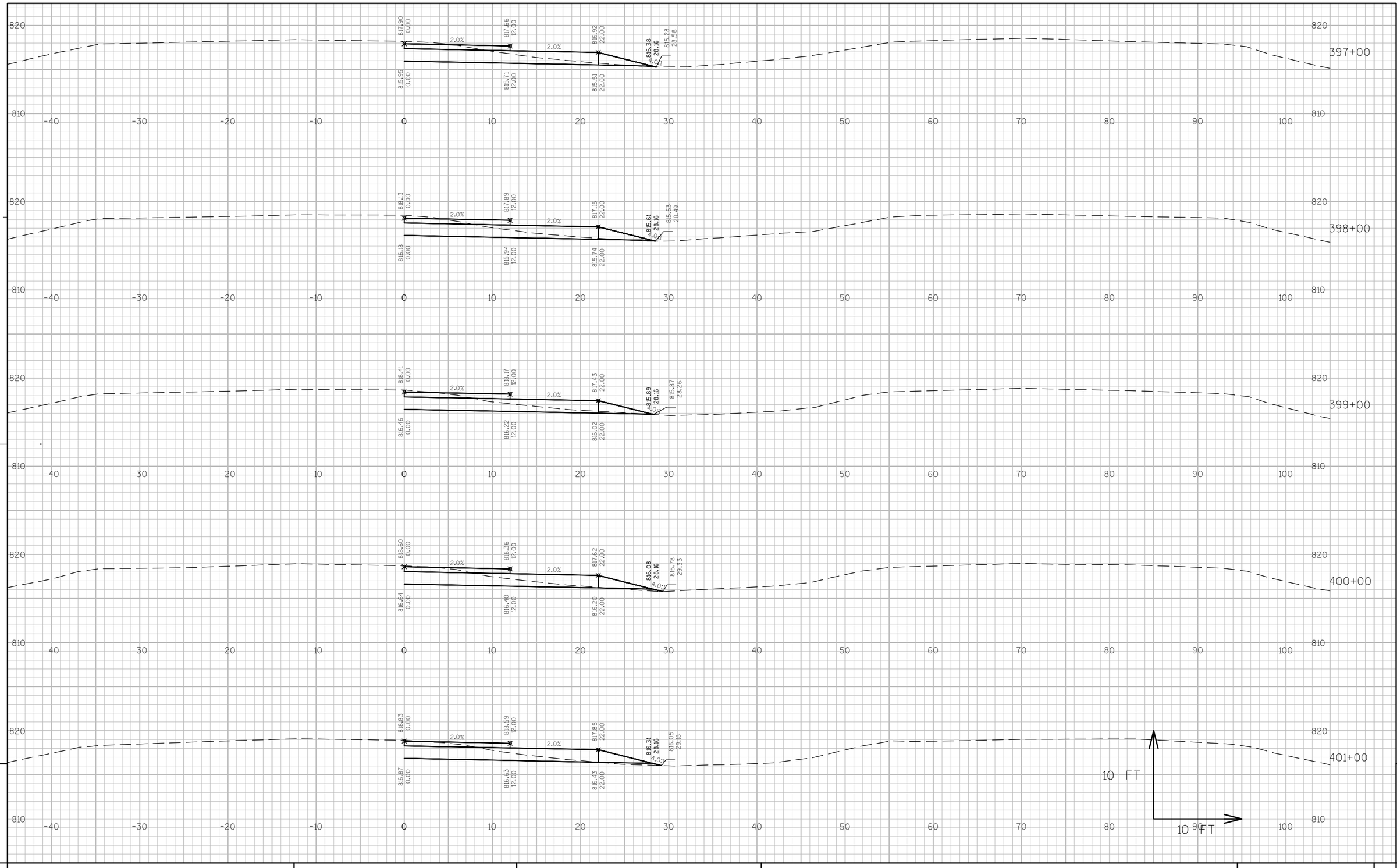
PROJECT NO: 1003-10-86	HWY: IH 39	COUNTY: ROCK	CROSS SECTIONS	SHEET 197	E



PROJECT NO: 1003-10-86	HWY: IH 39	COUNTY: ROCK	CROSS SECTIONS	SHEET 198	E

STA 401+91
1-18" C.P.R.C. EXTENSION RT. REQ.
1-APRON ENDWALL REQ.

INV 814.96
1-CONCRETE COLLAR
FOR PIPE REQ.

INV 815.09
23.3' RT.

401+91

402+00

403+00

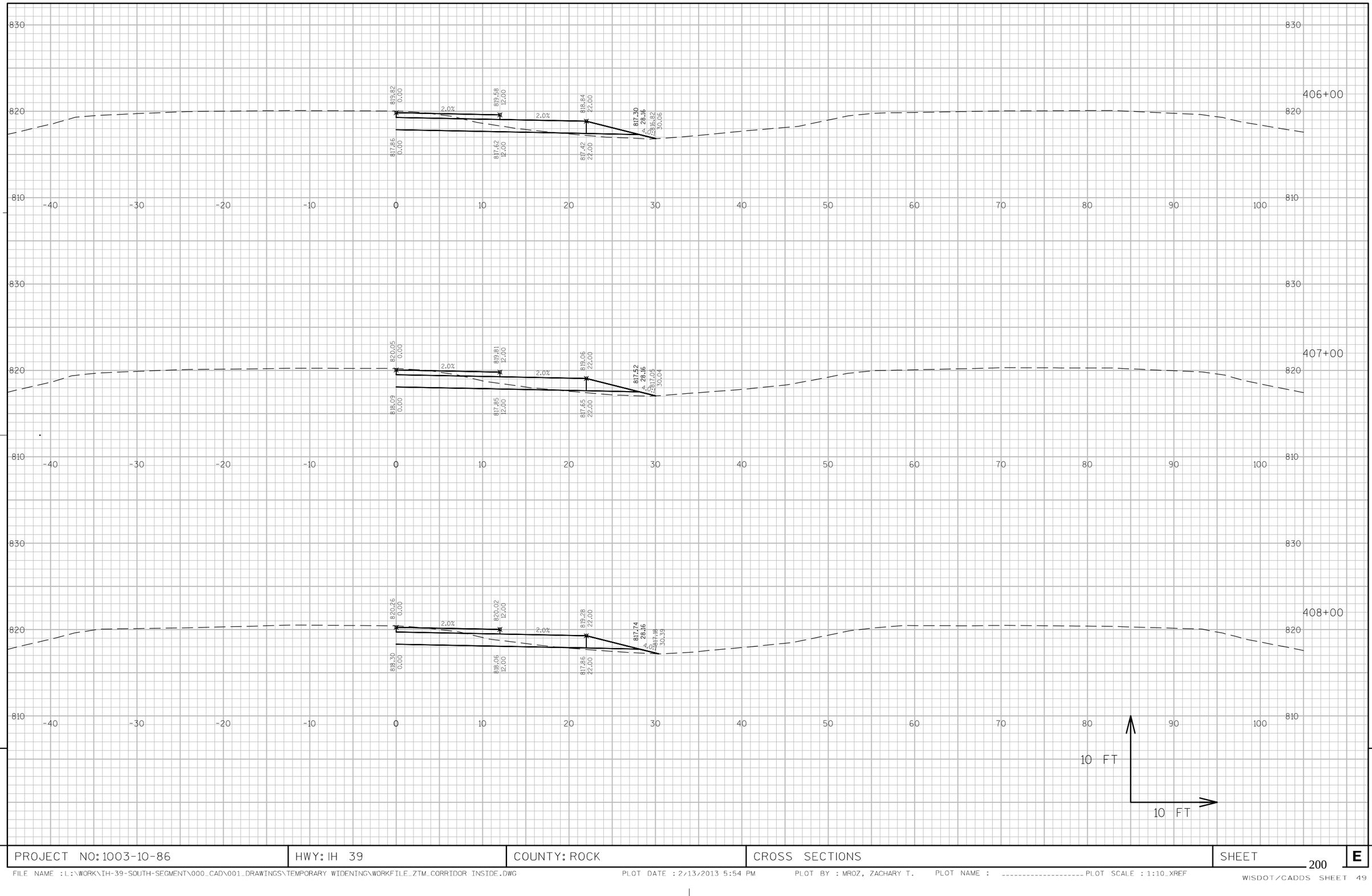
404+00

405+00

10 FT

10 FT

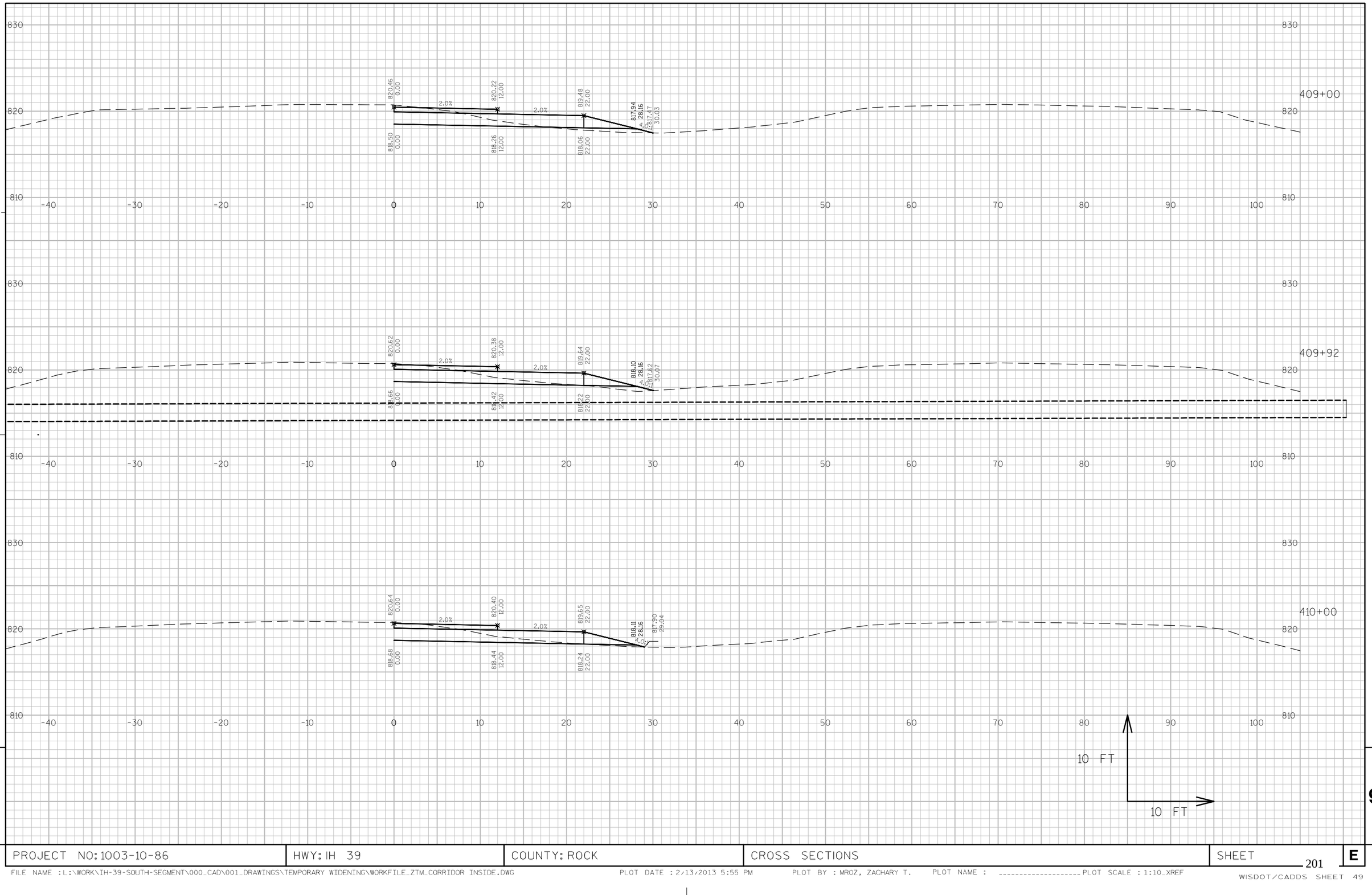
PROJECT NO: 1003-10-86	HWY: IH 39	COUNTY: ROCK	CROSS SECTIONS	SHEET 199	E



PROJECT NO: 1003-10-86	HWY: IH 39	COUNTY: ROCK	CROSS SECTIONS	SHEET 200	E

FILE NAME : L:\WORK\IH-39-SOUTH-SEGMENT\000_CAD\001_DRAWINGS\TEMPORARY WIDENING\WORKFILE_ZTM_CORRIDOR INSIDE.DWG PLOT DATE : 2/13/2013 5:54 PM PLOT BY : MROZ, ZACHARY T. PLOT NAME : _____ PLOT SCALE : 1:10_XREF

WISDOT/CADDS SHEET 49



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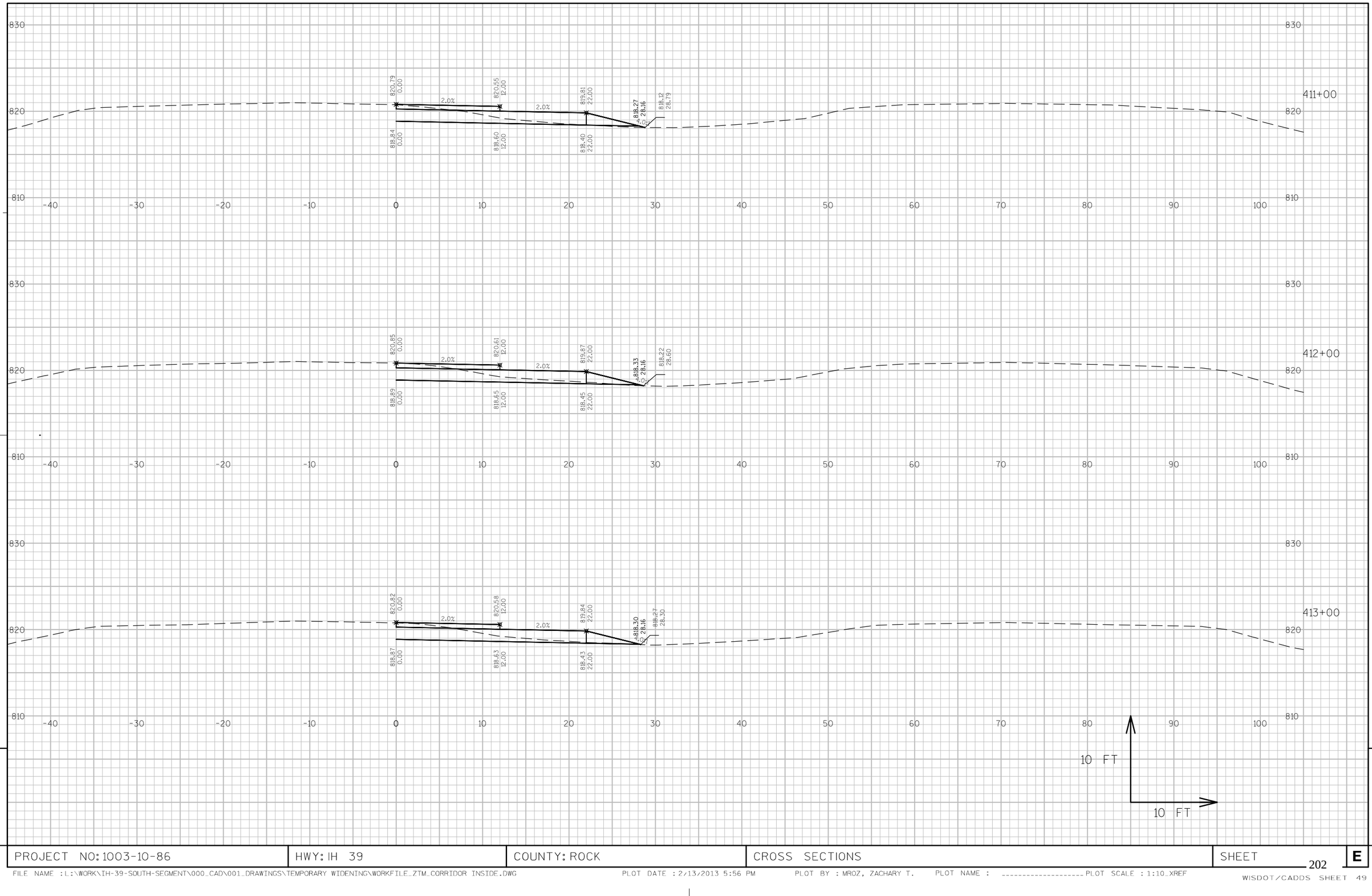
PROJECT NO: 1003-10-86	HWY: IH 39	COUNTY: ROCK	CROSS SECTIONS	SHEET 201	E



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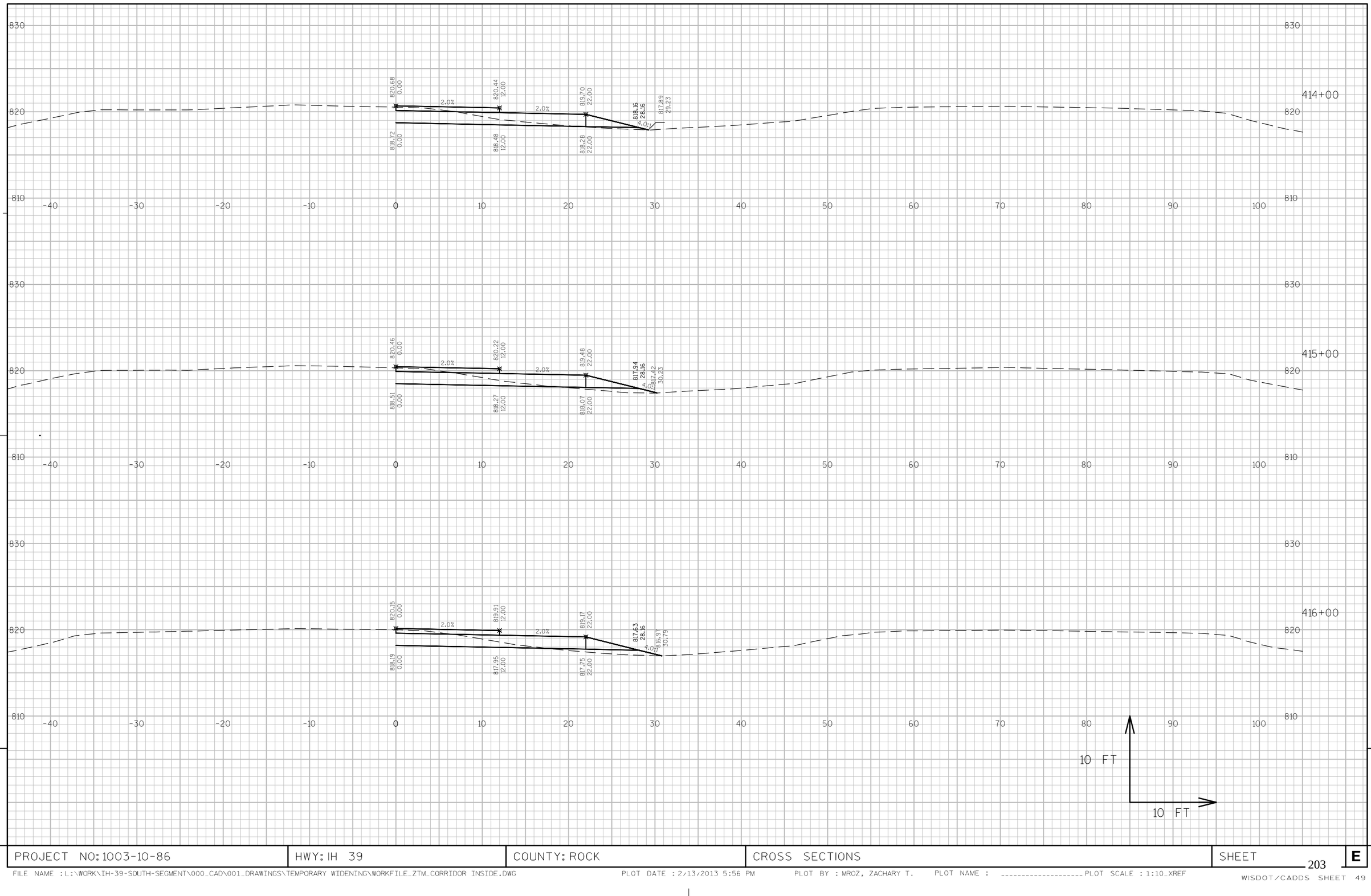
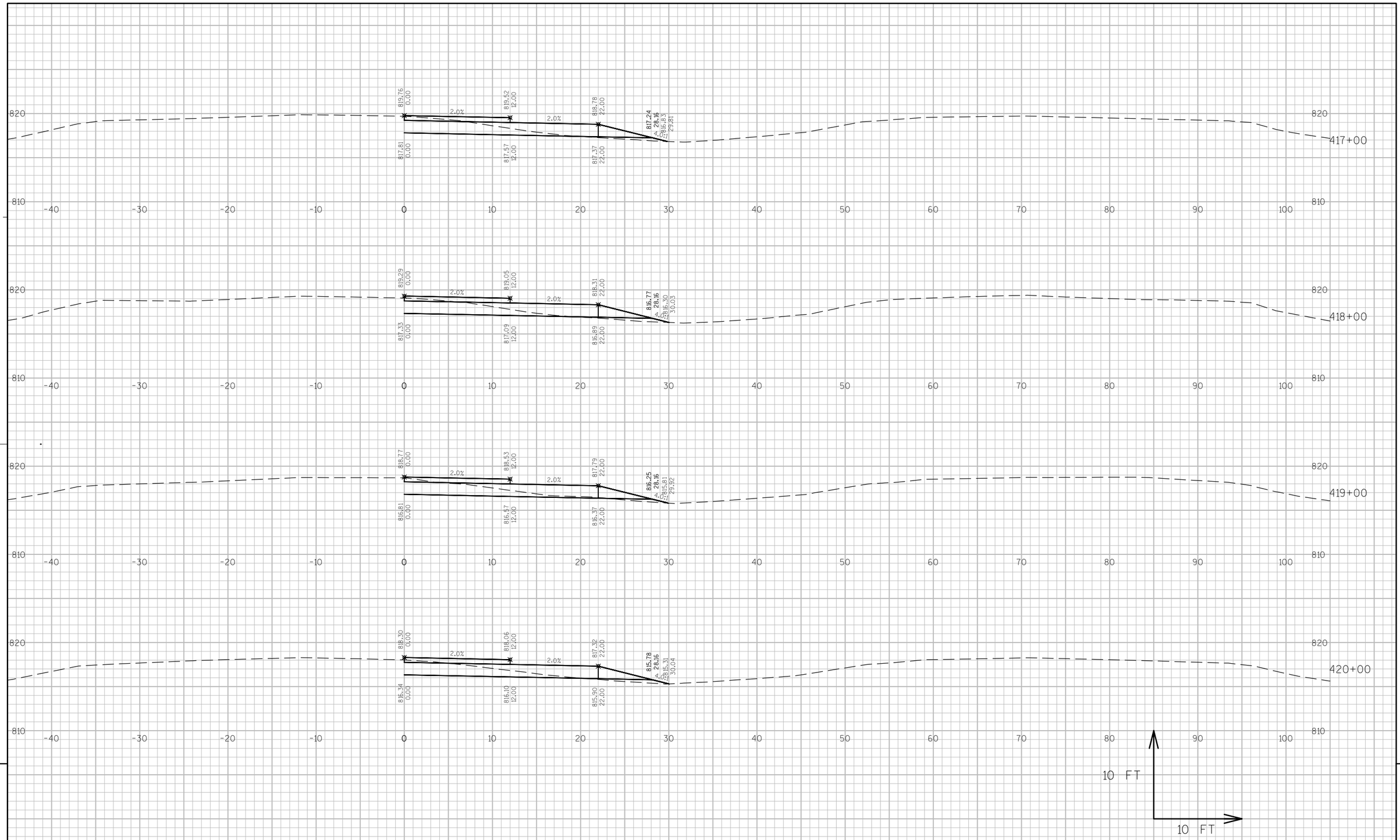
PROJECT NO: 1003-10-86	HWY: IH 39	COUNTY: ROCK	CROSS SECTIONS	SHEET 202	E



PROJECT NO: 1003-10-86	HWY: IH 39	COUNTY: ROCK	CROSS SECTIONS	SHEET 203 E



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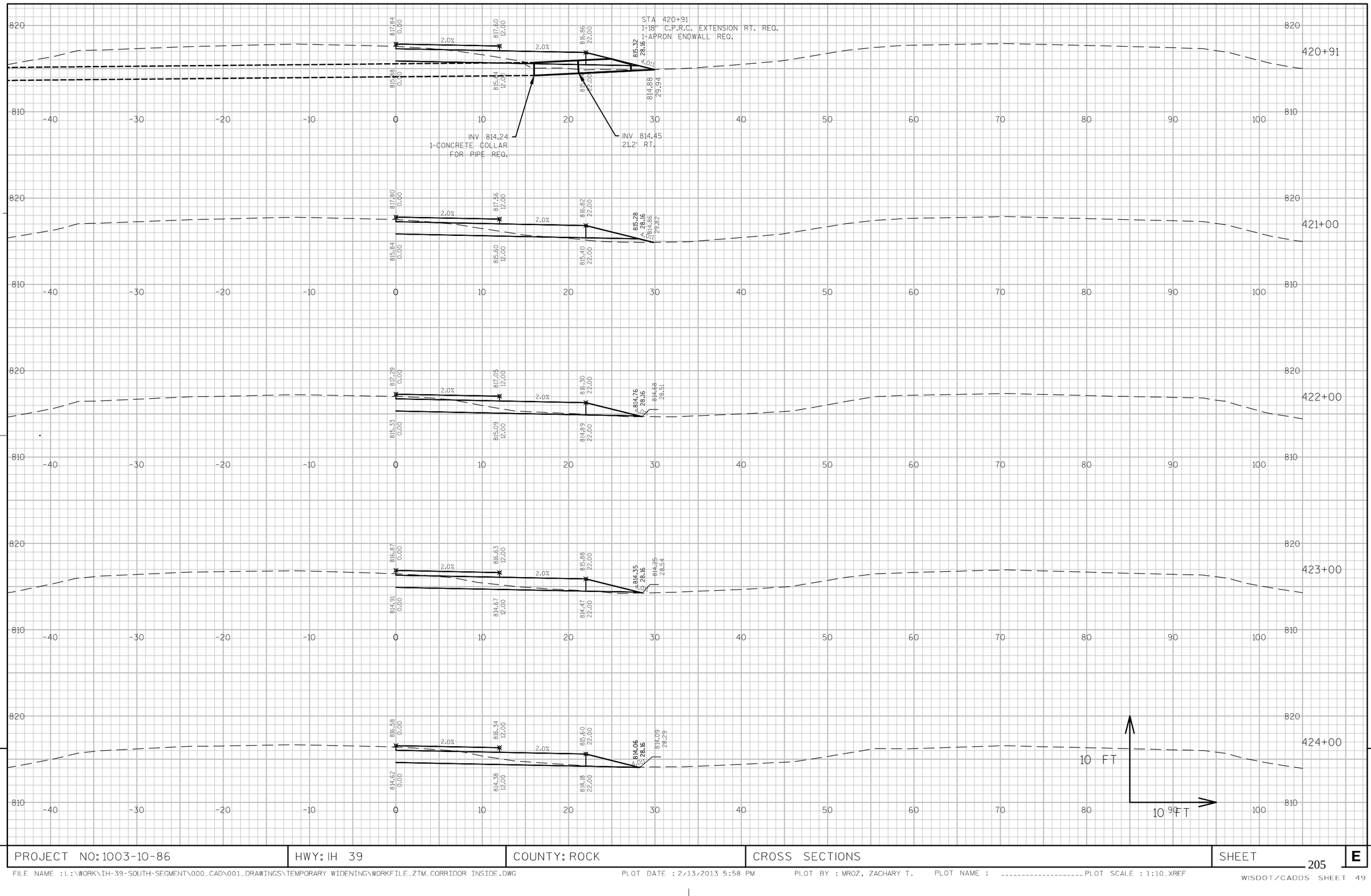
PROJECT NO: 1003-10-86	HWY: IH 39	COUNTY: ROCK	CROSS SECTIONS	SHEET	E

FILE NAME : L:\WORK\IH-39-SOUTH-SEGMENT\000_CAD\001_DRAWINGS\TEMPORARY WIDENING\WORKFILE_ZTM_CORRIDOR INSIDE.DWG PLOT DATE : 2/13/2013 5:57 PM PLOT BY : MROZ, ZACHARY T. PLOT NAME : _____ PLOT SCALE : 1:10_XREF

WISDOT/CADDS SHEET 49



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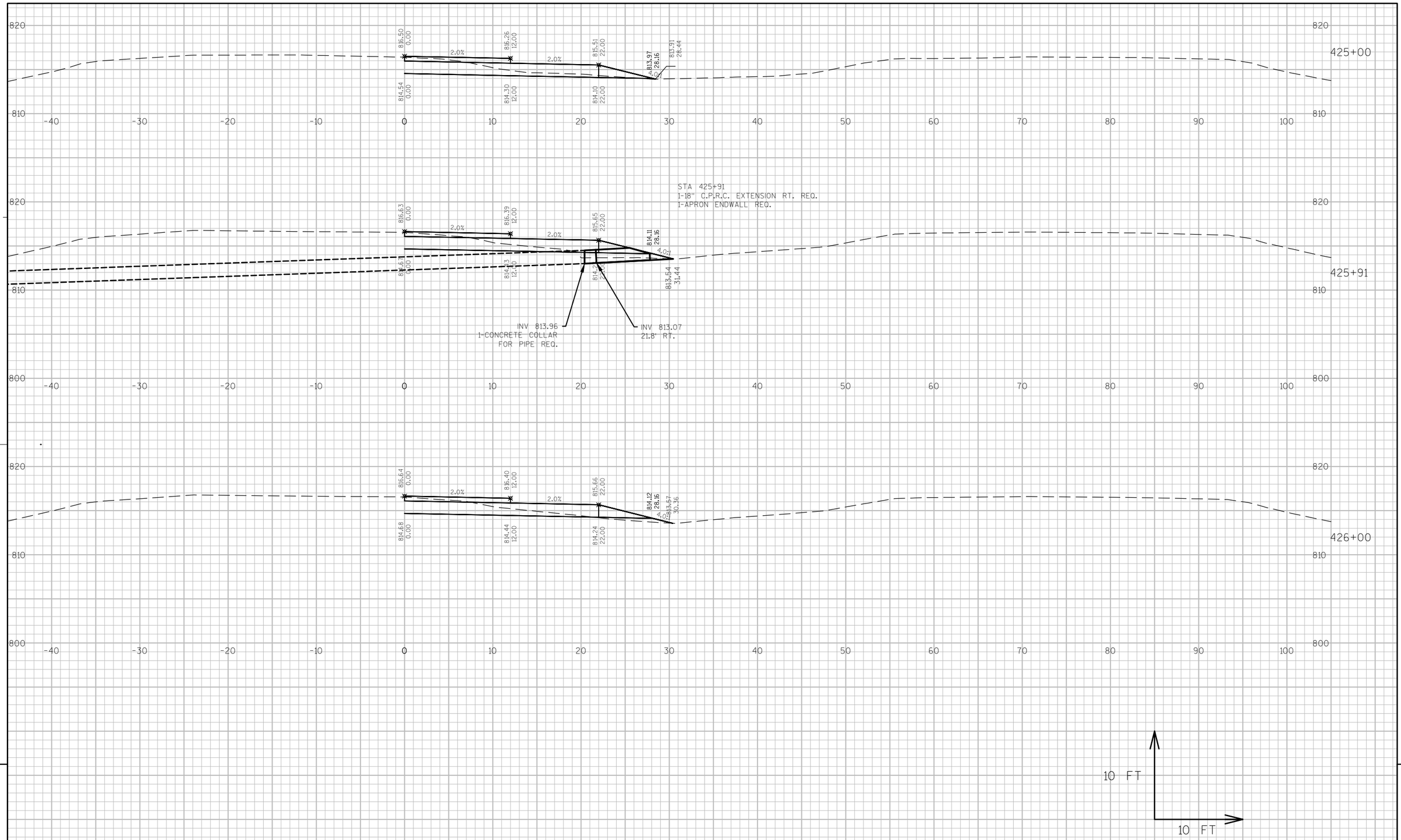
PROJECT NO: 1003-10-86	HWY: IH 39	COUNTY: ROCK	CROSS SECTIONS	SHEET 205	E



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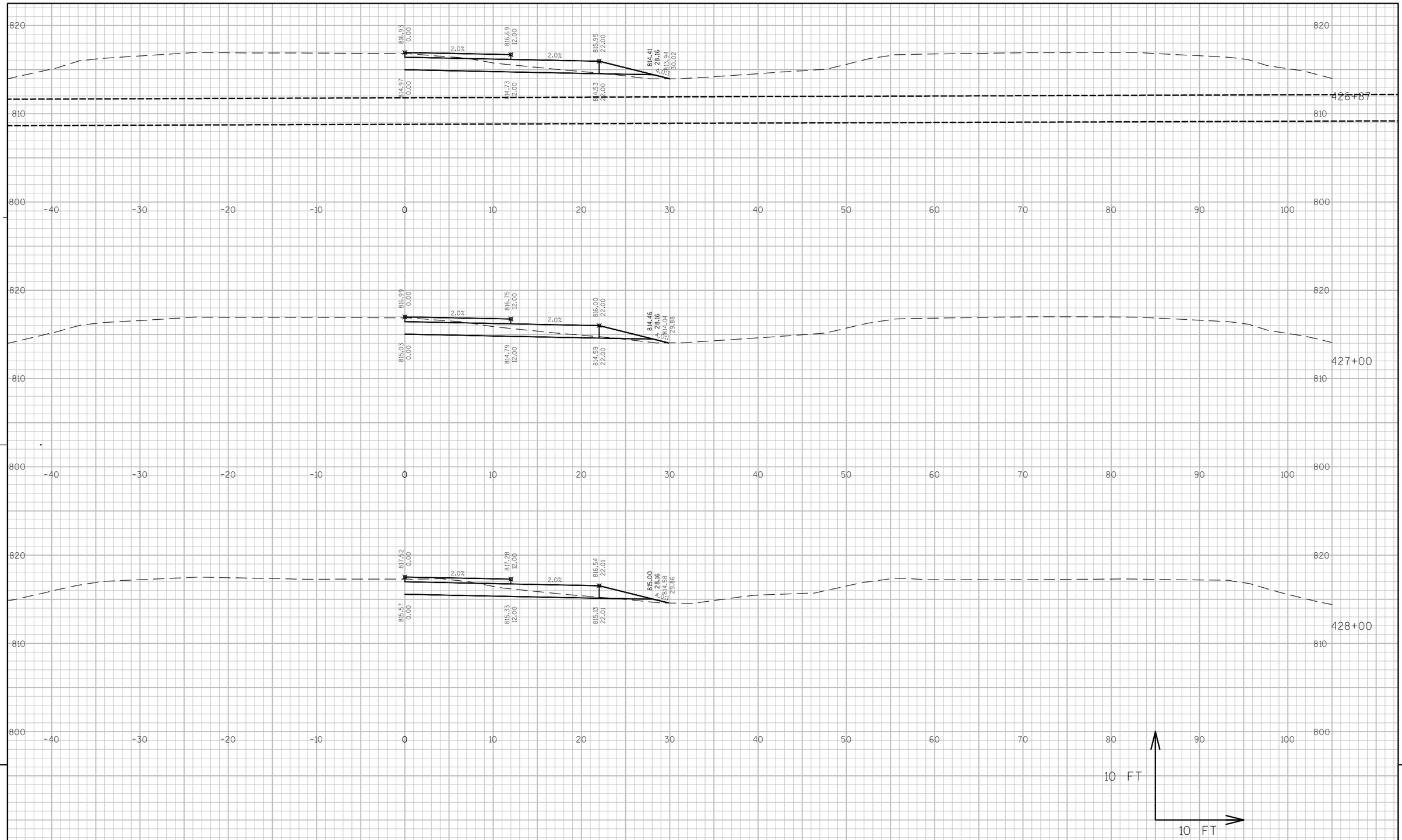
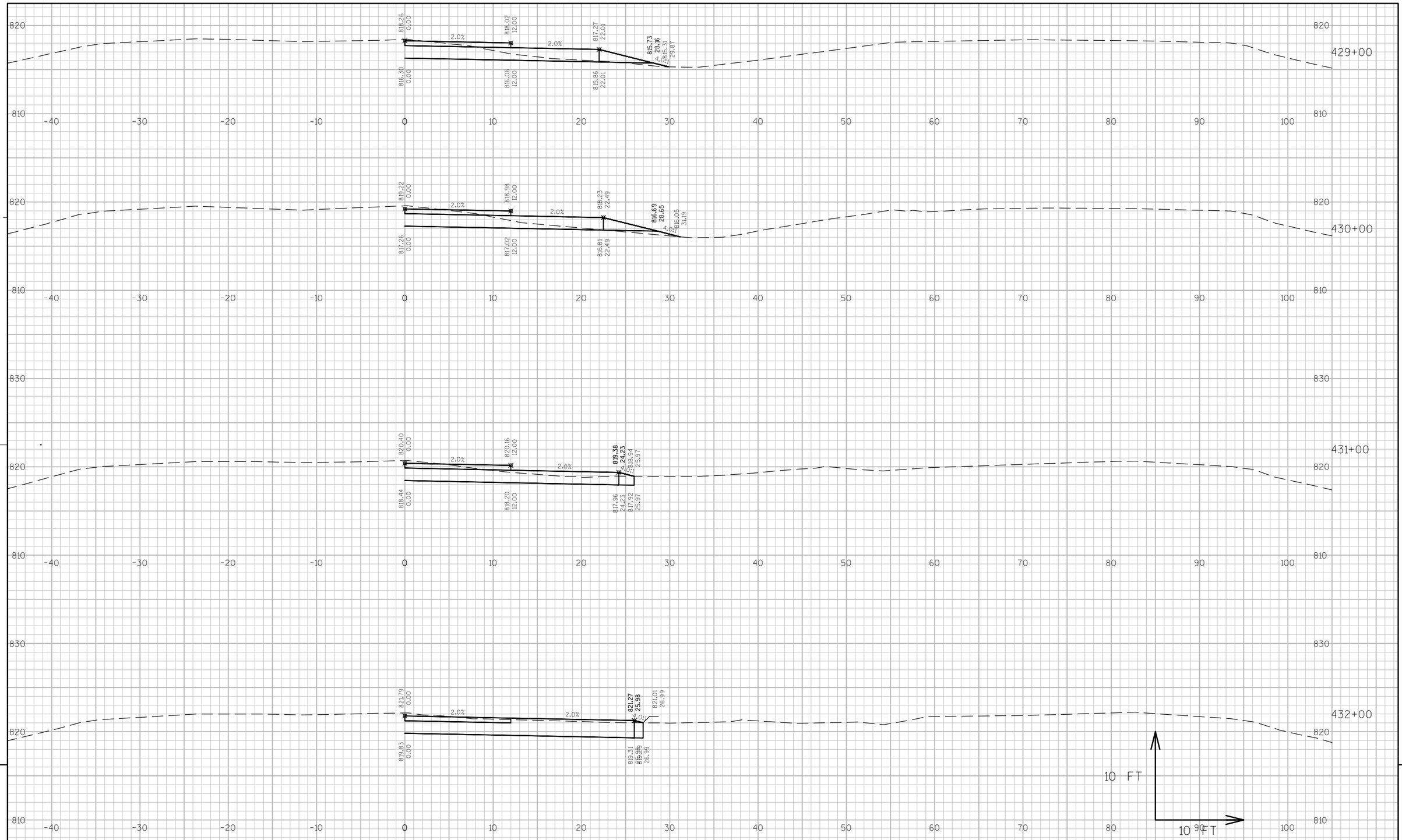
PROJECT NO: 1003-10-86	HWY: IH 39	COUNTY: ROCK	CROSS SECTIONS	SHEET 206	E



PROJECT NO: 1003-10-86	HWY: IH 39	COUNTY: ROCK	CROSS SECTIONS	SHEET 207	E



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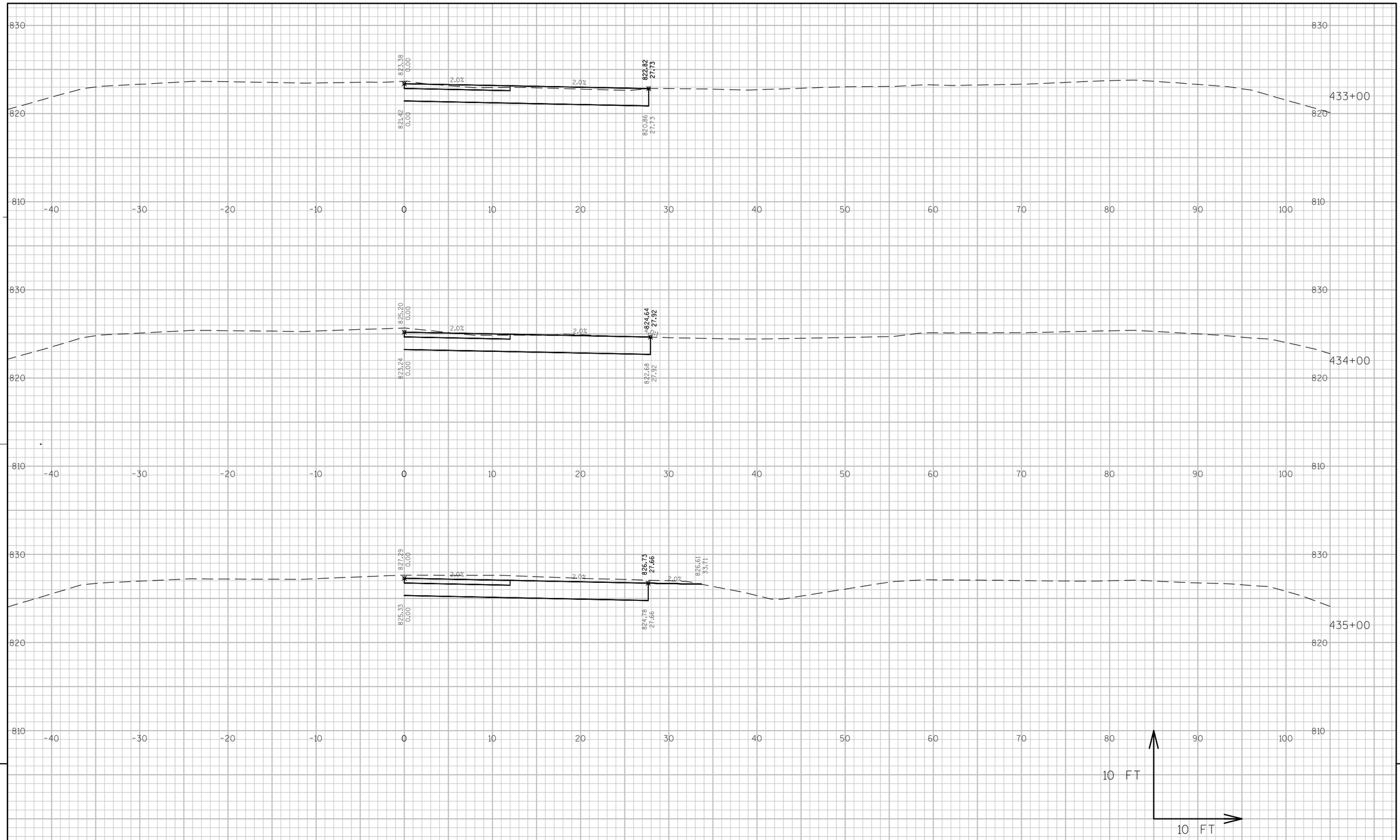
PROJECT NO: 1003-10-86	HWY: IH 39	COUNTY: ROCK	CROSS SECTIONS	SHEET	E

FILE NAME : L:\WORK\IH-39-SOUTH-SEGMENT\000_CAD\001_DRAWINGS\TEMPORARY WIDENING\WORKFILE_ZTM_CORRIDOR INSIDE.DWG PLOT DATE : 2/13/2013 6:01 PM PLOT BY : MROZ, ZACHARY T. PLOT NAME : _____ PLOT SCALE : 1:10_XREF



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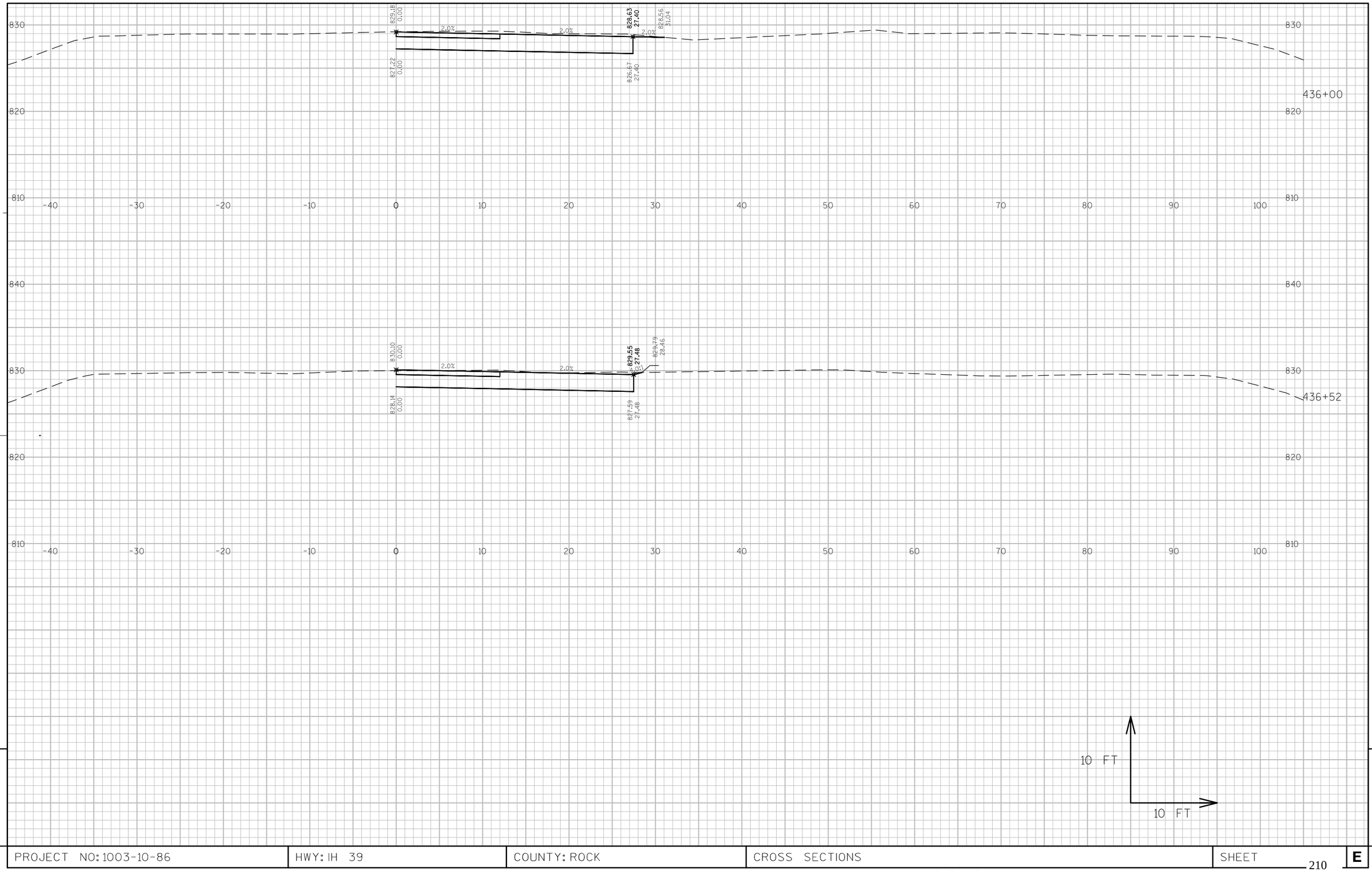
PROJECT NO: 1003-10-86	HWY: IH 39	COUNTY: ROCK	CROSS SECTIONS	SHEET 209	E

FILE NAME : L:\WORK\IH-39-SOUTH-SEGMENT\000_CAD\001_DRAWINGS\TEMPORARY WIDENING\WORKFILE_ZTM_CORRIDOR INSIDE.DWG PLOT DATE : 2/13/2013 6:01 PM PLOT BY : MROZ, ZACHARY T. PLOT NAME : _____ PLOT SCALE : 1:10_XREF

WISDOT/CADDS SHEET 49



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PROJECT NO: 1003-10-86	HWY: IH 39	COUNTY: ROCK	CROSS SECTIONS	SHEET 210	E

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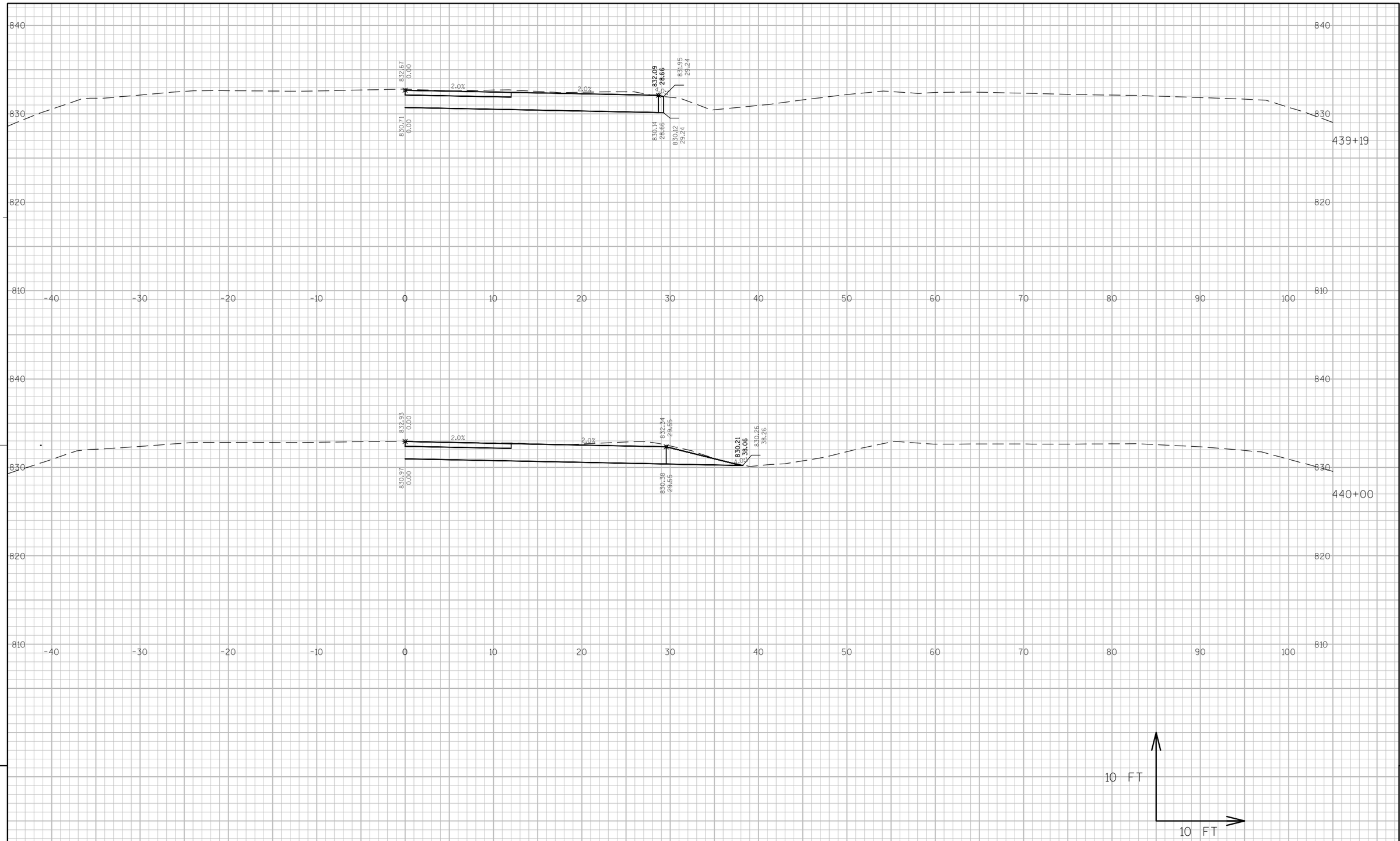
PROJECT NO: 1003-10-86	HWY: IH 39	COUNTY: ROCK	CROSS SECTIONS	SHEET 211	E

FILE NAME : L:\WORK\IH-39-SOUTH-SEGMENT\000_CAD\001_DRAWINGS\TEMPORARY WIDENING\WORKFILE_ZTM_CORRIDOR INSIDE.DWG PLOT DATE : 2/13/2013 6:03 PM PLOT BY : MROZ, ZACHARY T. PLOT NAME : _____ PLOT SCALE : 1:10_XREF



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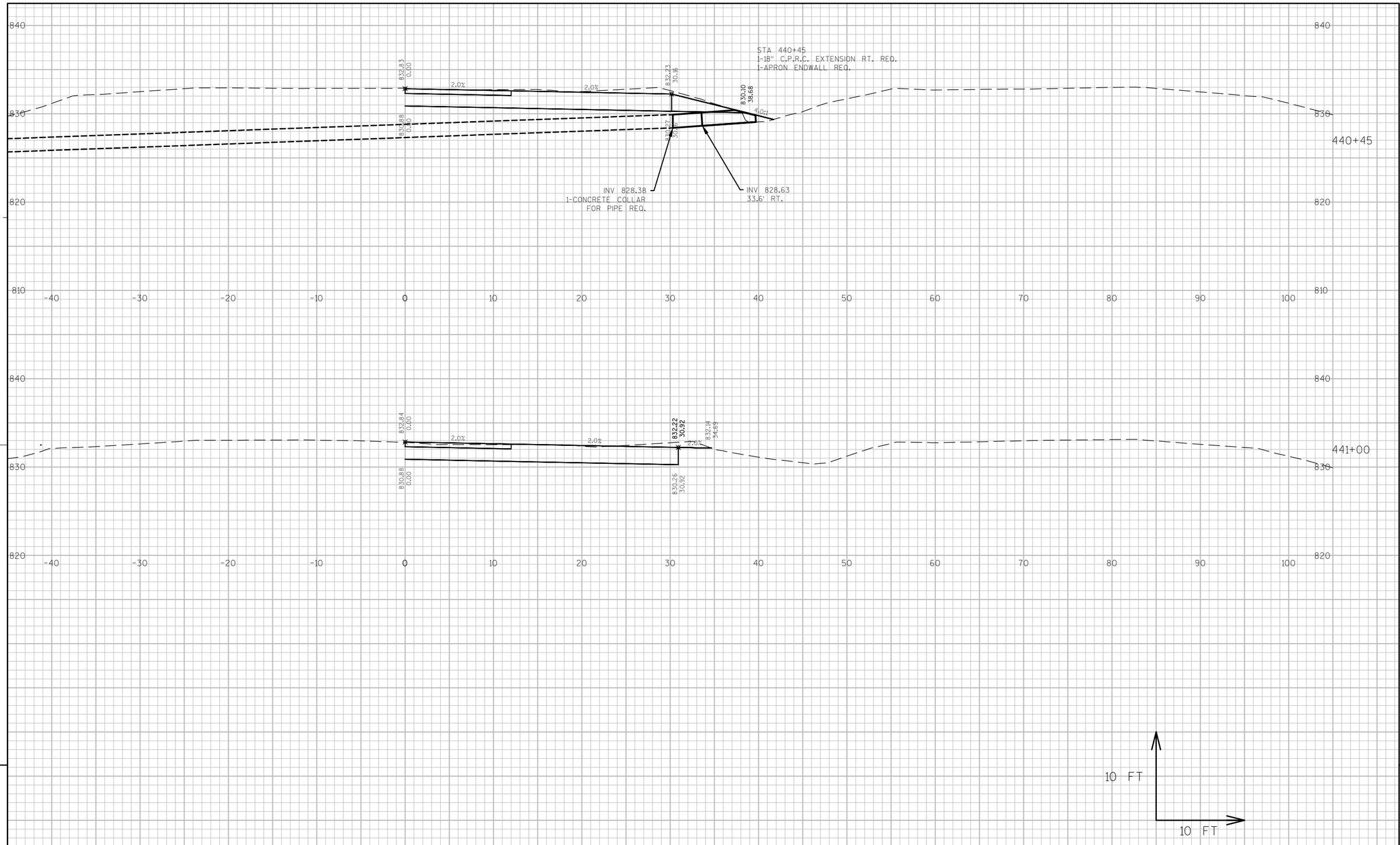
PROJECT NO: 1003-10-86	HWY: IH 39	COUNTY: ROCK	CROSS SECTIONS	SHEET 212	E

FILE NAME : L:\WORK\IH-39-SOUTH-SEGMENT\000_CAD\001_DRAWINGS\TEMPORARY WIDENING\WORKFILE_ZTM_CORRIDOR INSIDE.DWG PLOT DATE : 2/13/2013 6:04 PM PLOT BY : MROZ, ZACHARY T. PLOT NAME : _____ PLOT SCALE : 1:10_XREF

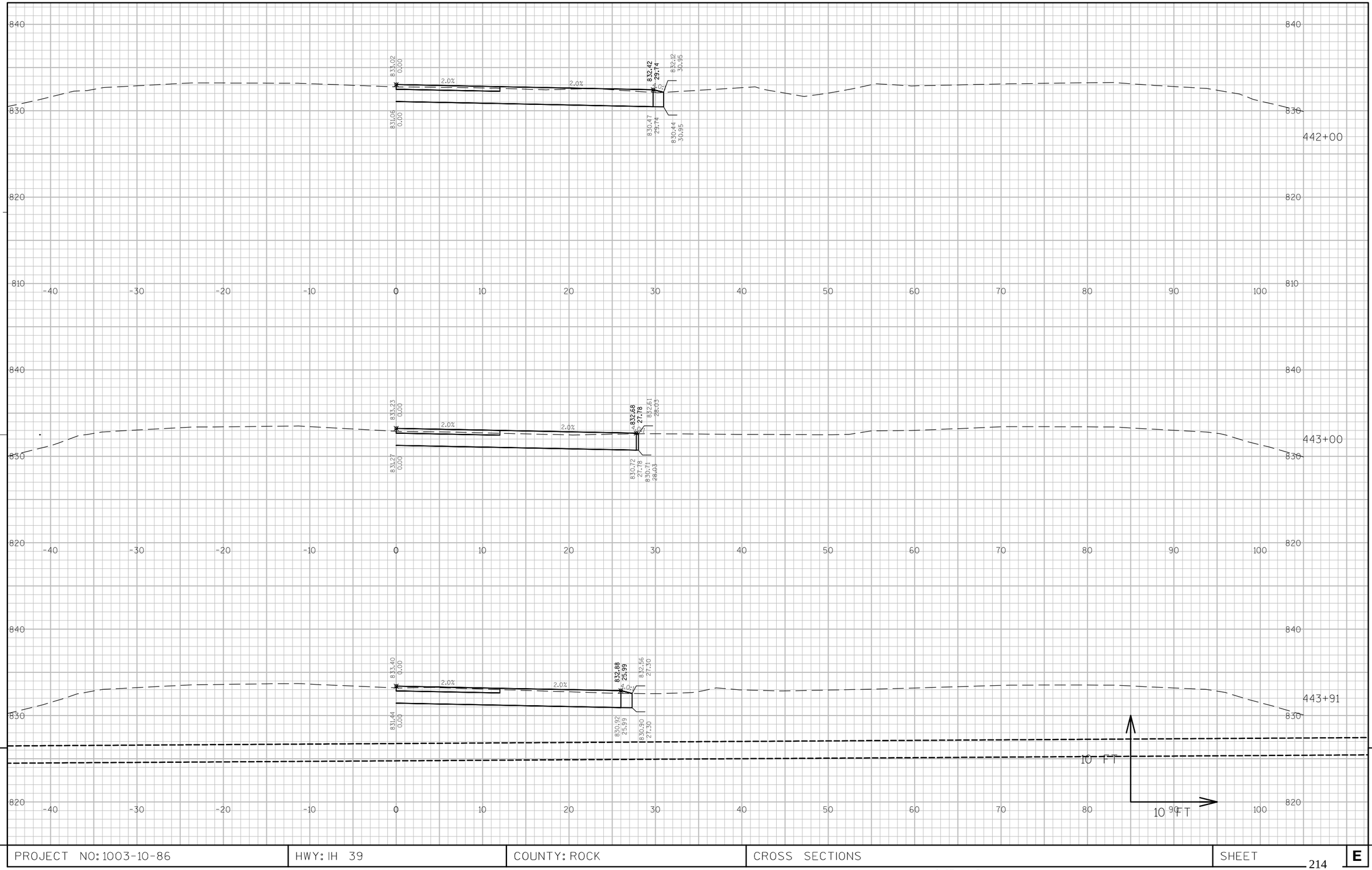
WISDOT/CADDS SHEET 49



PROJECT NO: 1003-10-86	HWY: IH 39	COUNTY: ROCK	CROSS SECTIONS	SHEET 213	E

FILE NAME : L:\WORK\IH-39-SOUTH-SEGMENT\000_CAD\001_DRAWINGS\TEMPORARY WIDENING\WORKFILE_ZTM_CORRIDOR INSIDE.DWG PLOT DATE : 2/13/2013 6:05 PM PLOT BY : MROZ, ZACHARY T. PLOT NAME : _____ PLOT SCALE : 1:10_XREF

WISDOT/CADDS SHEET 49



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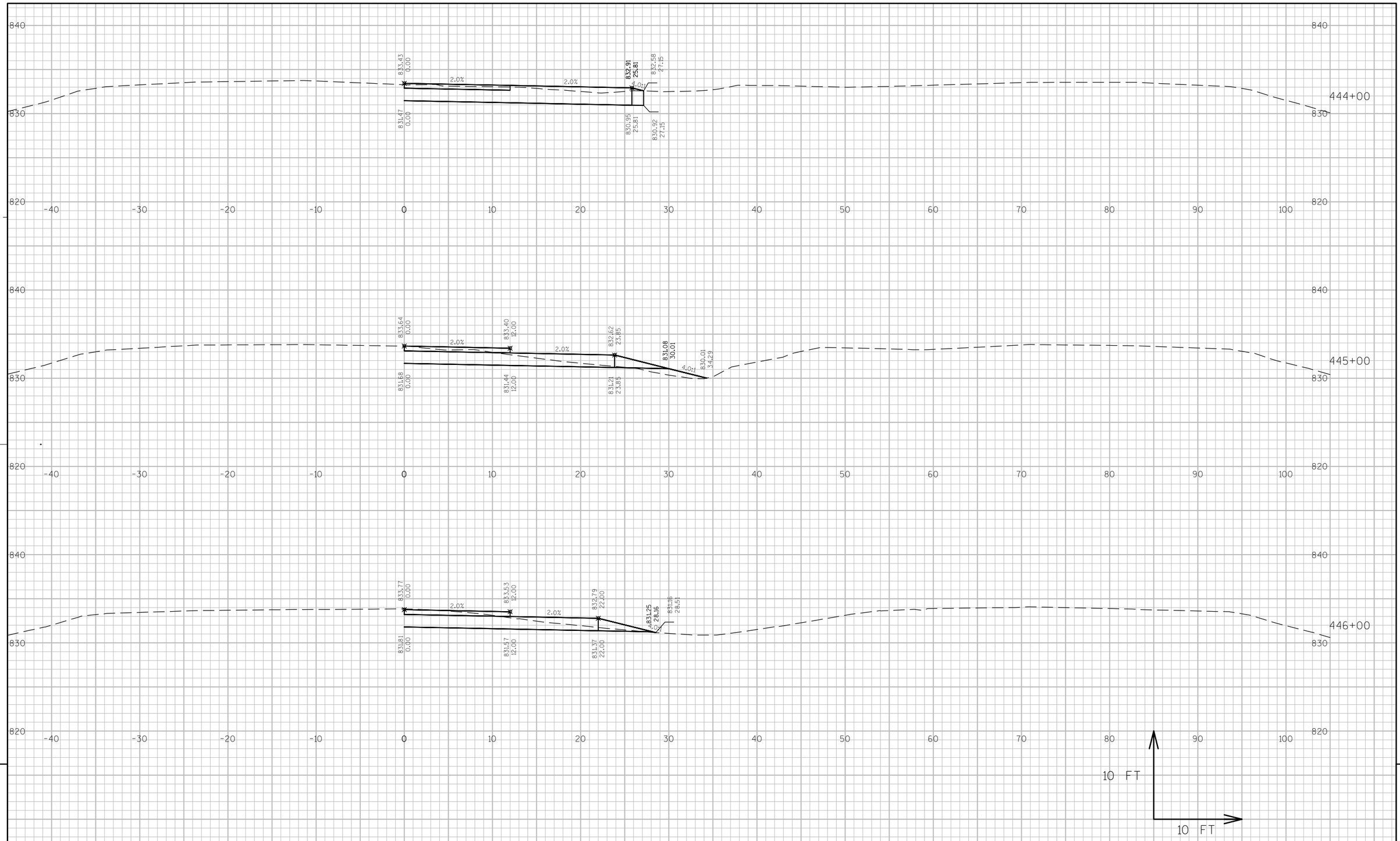
PROJECT NO: 1003-10-86	HWY: IH 39	COUNTY: ROCK	CROSS SECTIONS	SHEET 214	E



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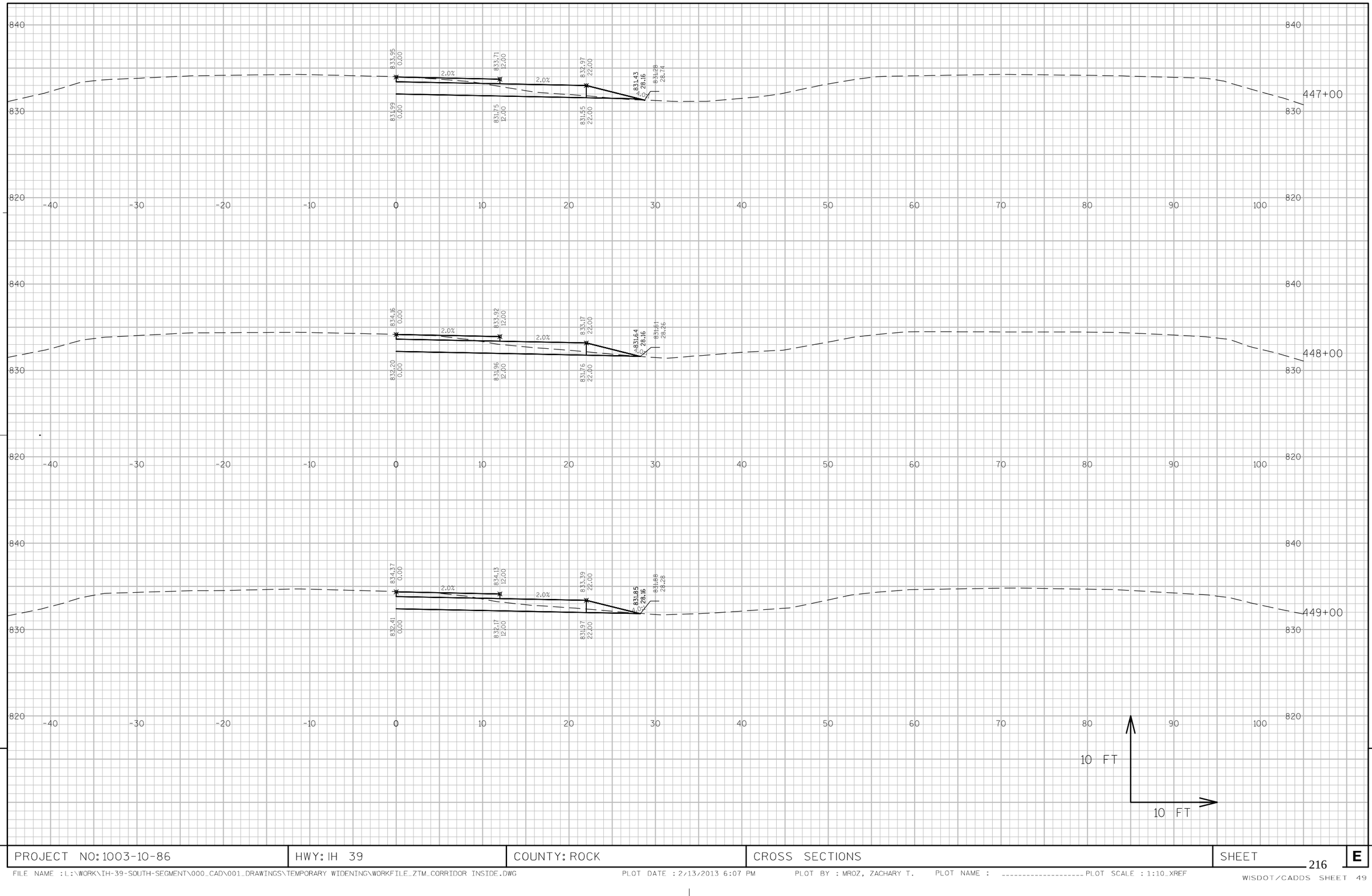
PROJECT NO: 1003-10-86	HWY: IH 39	COUNTY: ROCK	CROSS SECTIONS	SHEET 215	E



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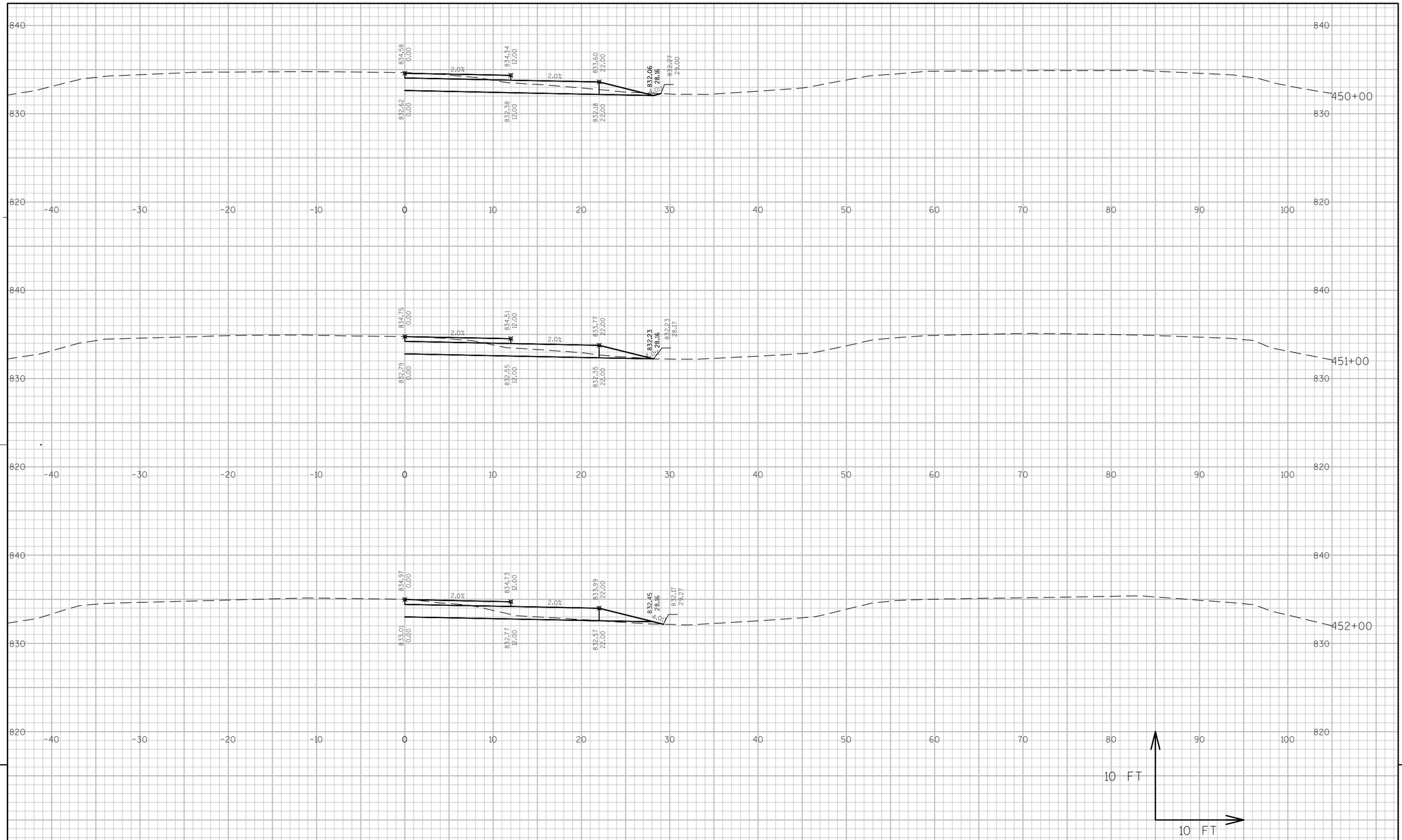
PROJECT NO: 1003-10-86	HWY: IH 39	COUNTY: ROCK	CROSS SECTIONS	SHEET	E

FILE NAME : L:\WORK\IH-39-SOUTH-SEGMENT\000_CAD\001_DRAWINGS\TEMPORARY WIDENING\WORKFILE_ZTM_CORRIDOR INSIDE.DWG PLOT DATE : 2/13/2013 6:07 PM PLOT BY : MROZ, ZACHARY T. PLOT NAME : _____ PLOT SCALE : 1:10_XREF

WISDOT/CADDS SHEET 49



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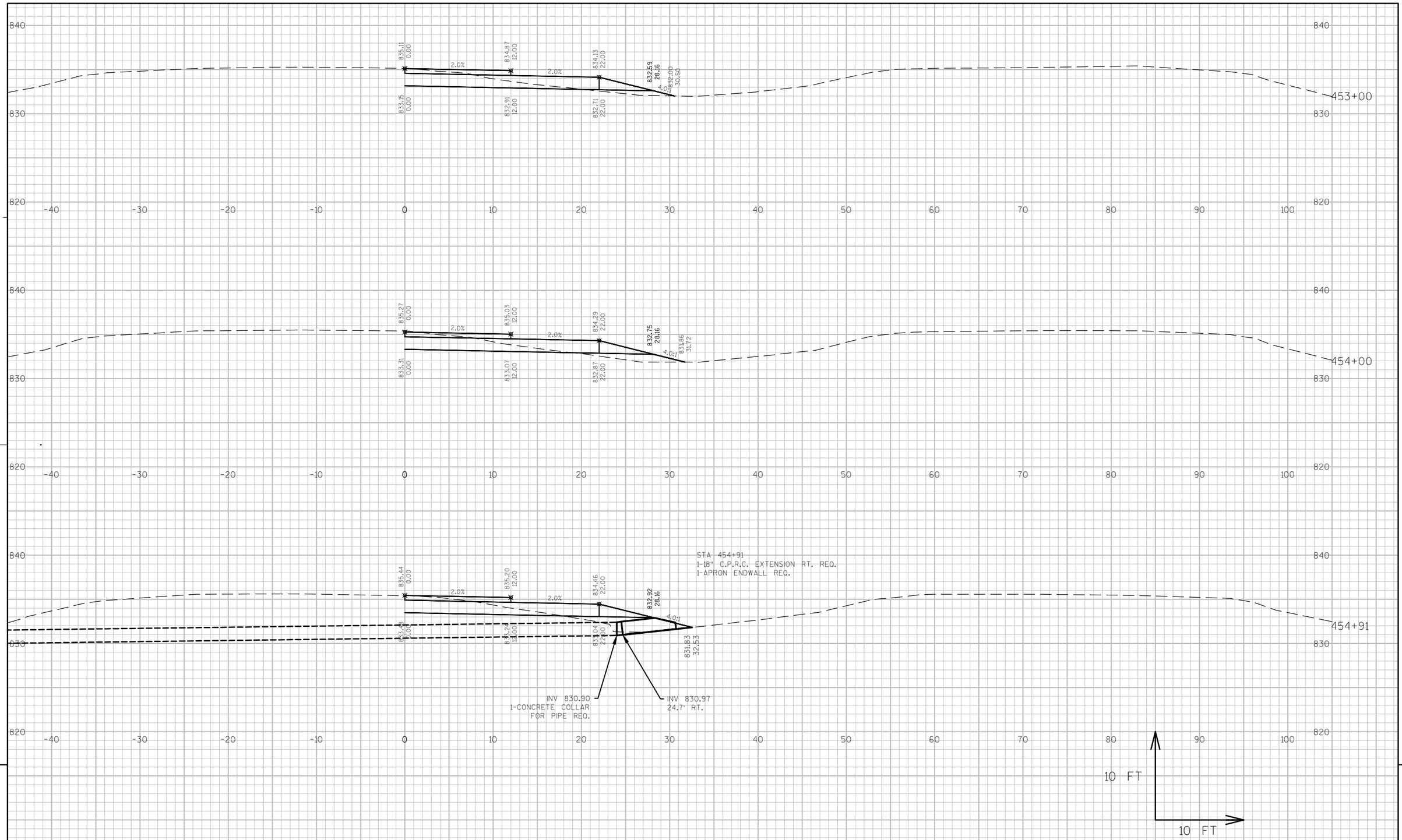
PROJECT NO: 1003-10-86	HWY: IH 39	COUNTY: ROCK	CROSS SECTIONS	SHEET 217	E



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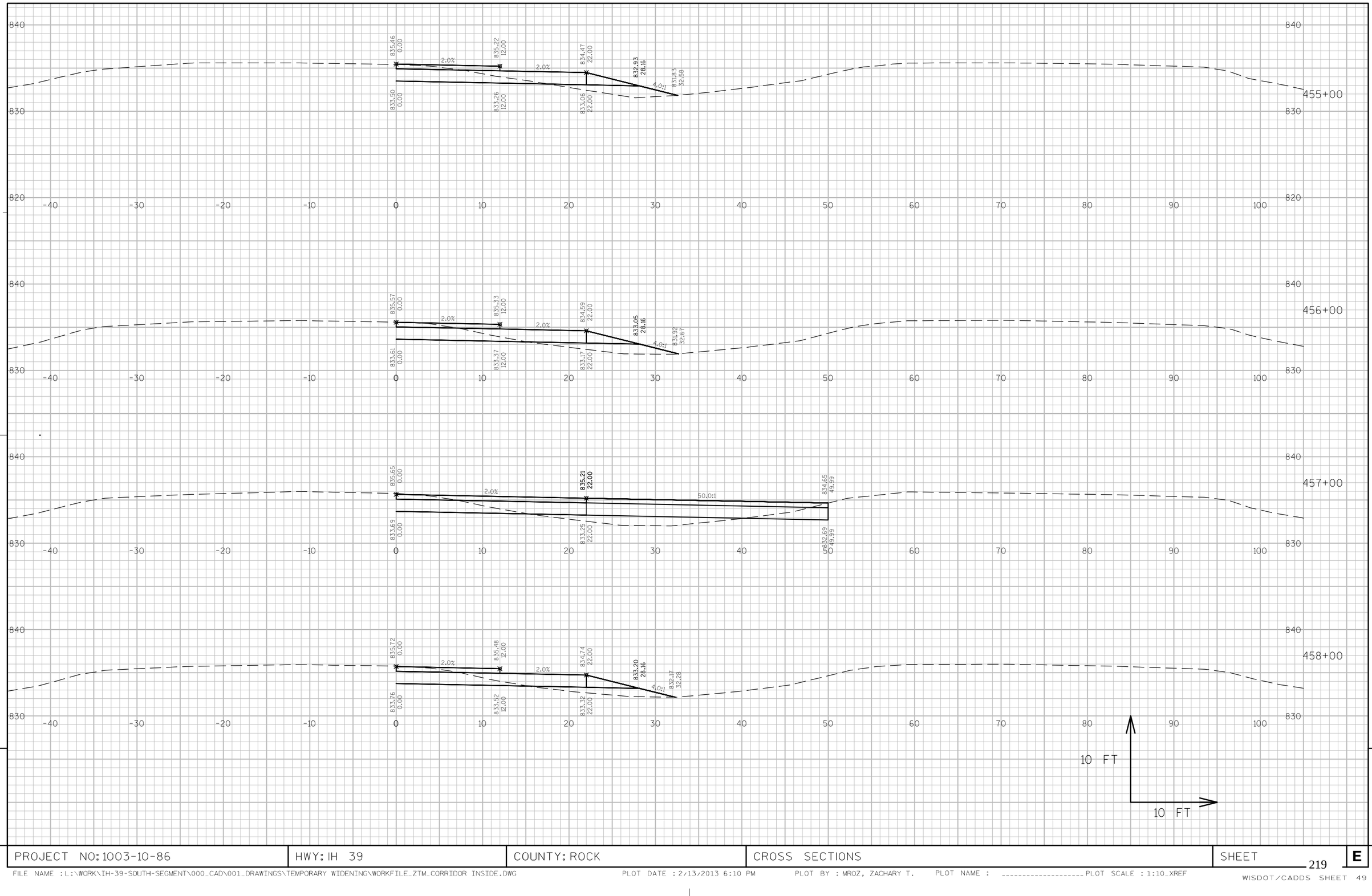
PROJECT NO: 1003-10-86	HWY: IH 39	COUNTY: ROCK	CROSS SECTIONS	SHEET 218	E



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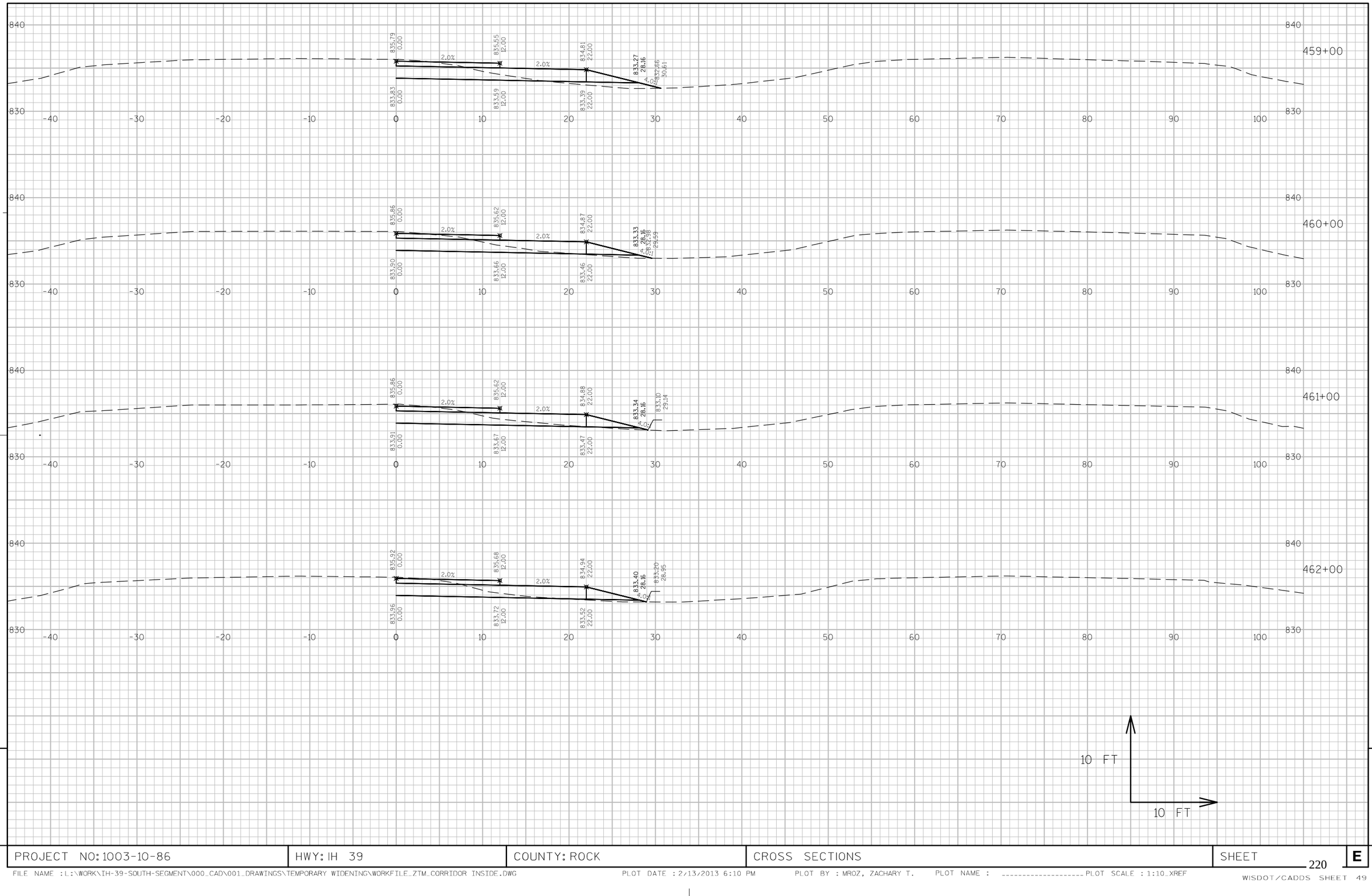
PROJECT NO: 1003-10-86	HWY: IH 39	COUNTY: ROCK	CROSS SECTIONS	SHEET 219	E

FILE NAME : L:\WORK\IH-39-SOUTH-SEGMENT\000_CAD\001_DRAWINGS\TEMPORARY WIDENING\WORKFILE_ZTM_CORRIDOR INSIDE.DWG PLOT DATE : 2/13/2013 6:10 PM PLOT BY : MROZ, ZACHARY T. PLOT NAME : _____ PLOT SCALE : 1:10_XREF



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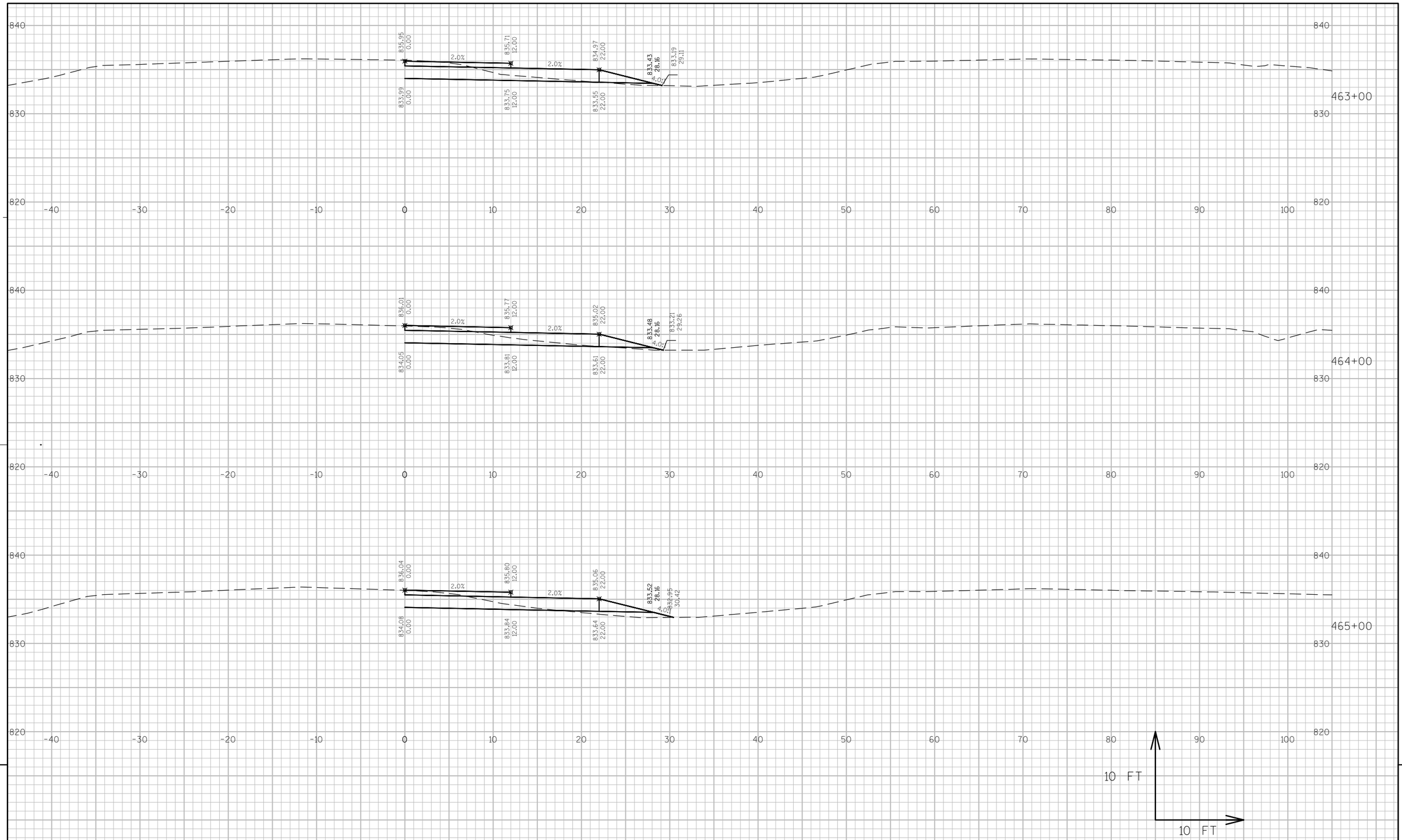
PROJECT NO: 1003-10-86	HWY: IH 39	COUNTY: ROCK	CROSS SECTIONS	SHEET 220	E



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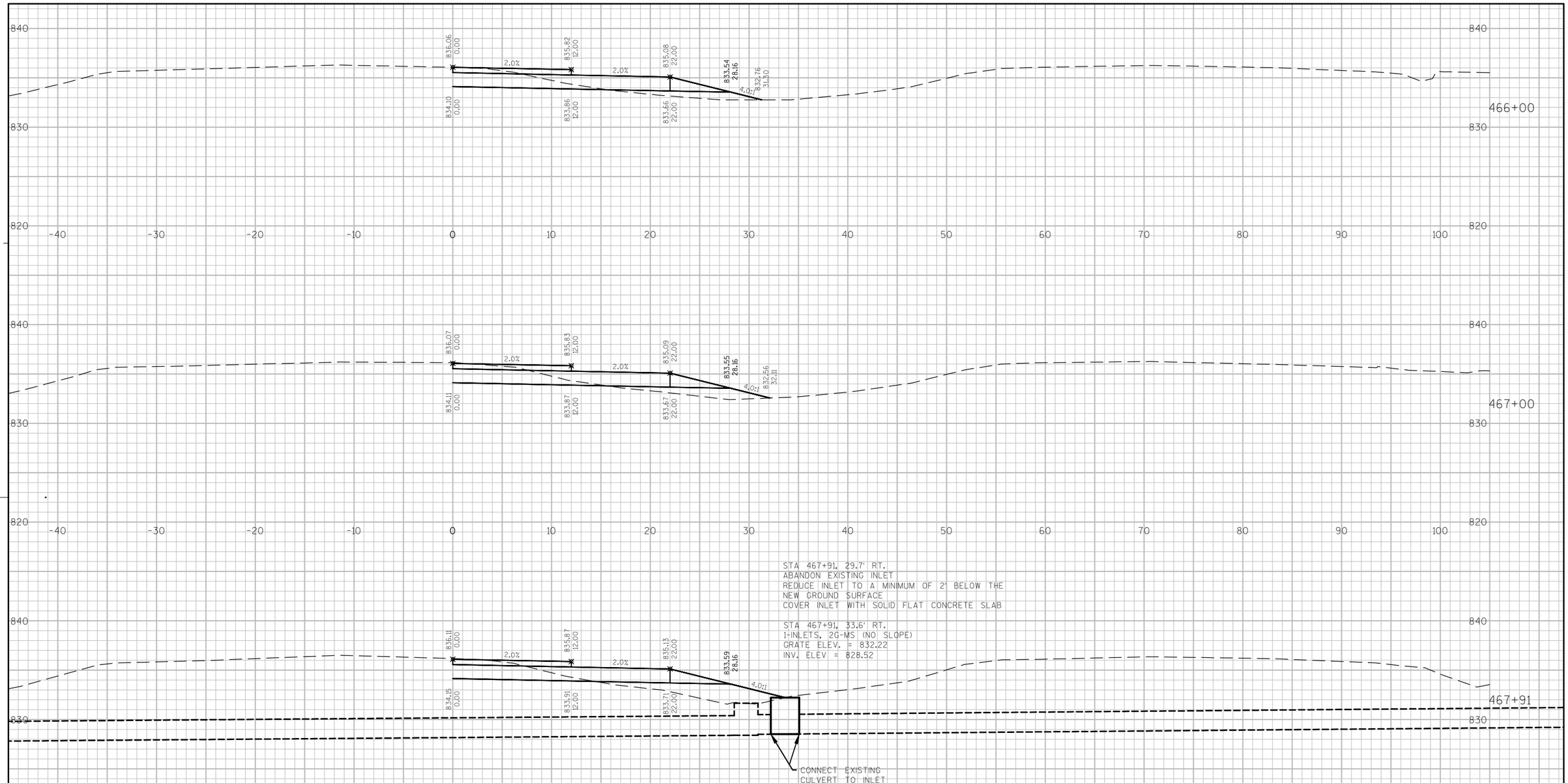
PROJECT NO: 1003-10-86	HWY: IH 39	COUNTY: ROCK	CROSS SECTIONS	SHEET	E

FILE NAME : L:\WORK\IH-39-SOUTH-SEGMENT\000_CAD\001_DRAWINGS\TEMPORARY WIDENING\WORKFILE_ZTM_CORRIDOR INSIDE.DWG PLOT DATE : 2/13/2013 6:11 PM PLOT BY : MROZ, ZACHARY T. PLOT NAME : ---------- PLOT SCALE : 1:10_XREF

WISDOT/CADDS SHEET 49



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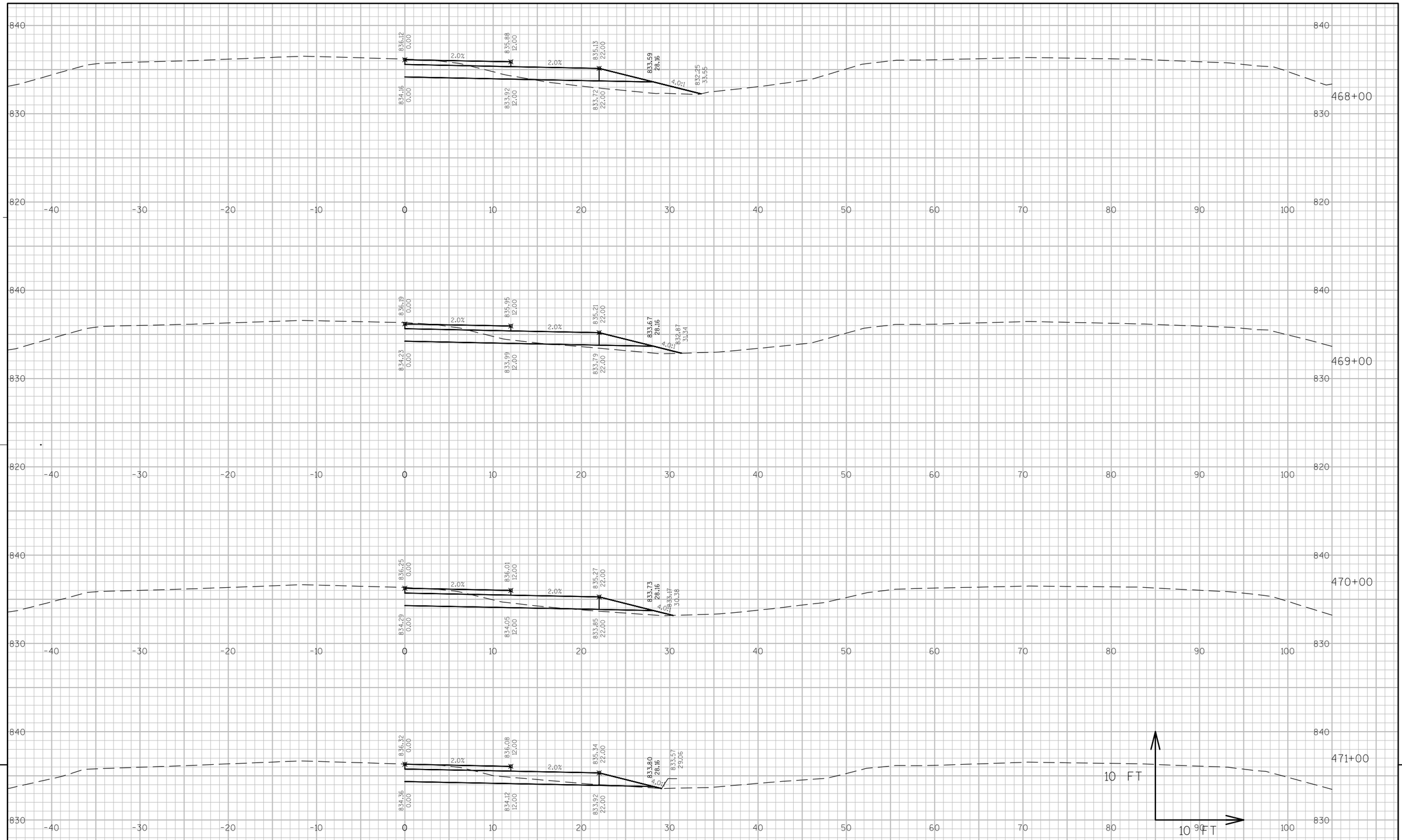
PROJECT NO: 1003-10-86	HWY: IH 39	COUNTY: ROCK	CROSS SECTIONS	SHEET	E

FILE NAME : L:\WORK\IH-39-SOUTH-SEGMENT\000_CAD\001_DRAWINGS\TEMPORARY WIDENING\WORKFILE_ZTM_CORRIDOR INSIDE.DWG PLOT DATE : 2/13/2013 6:12 PM PLOT BY : MROZ, ZACHARY T. PLOT NAME : _____ PLOT SCALE : 1:10_XREF

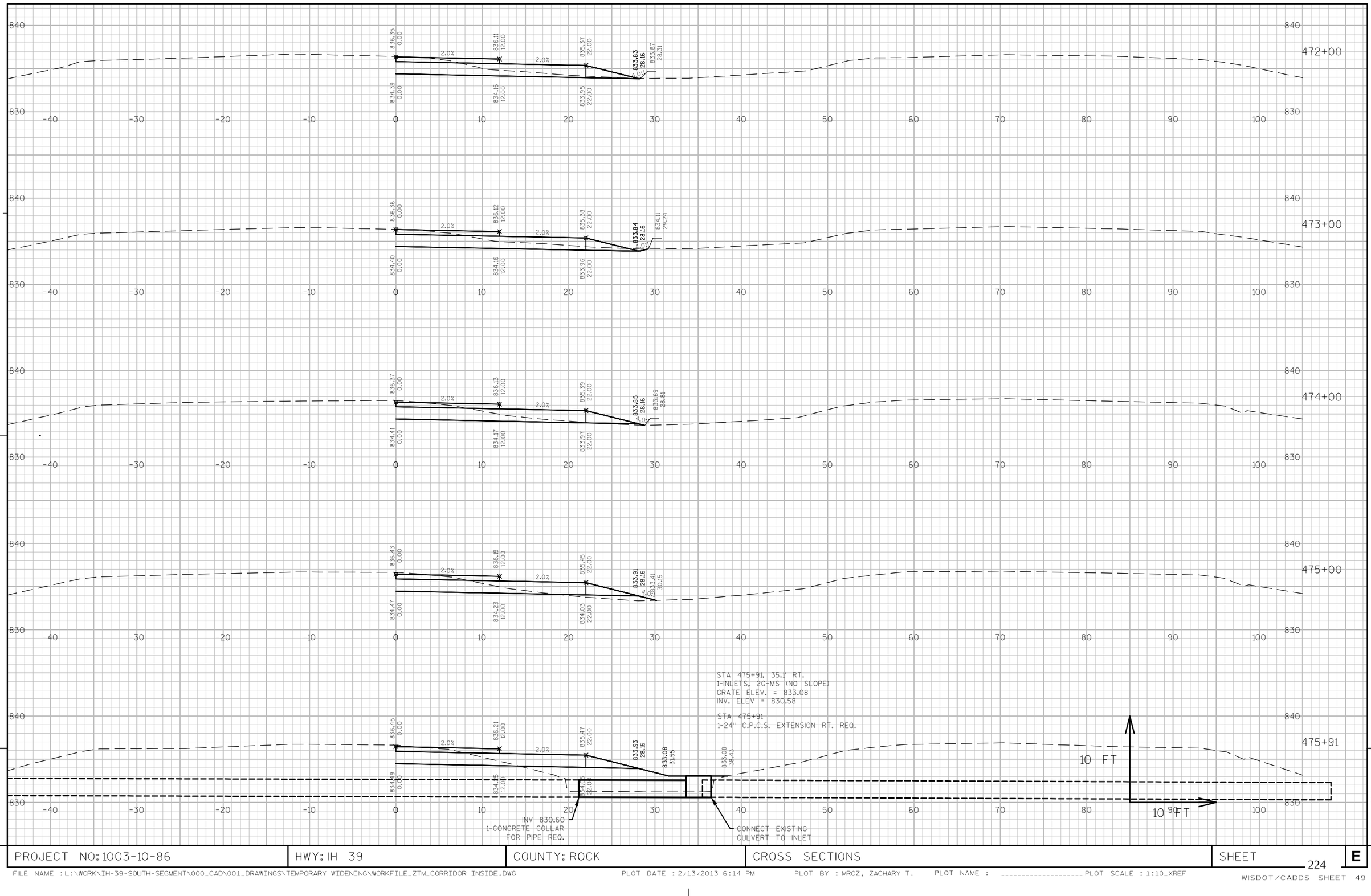
WISDOT/CADDS SHEET 49



PROJECT NO: 1003-10-86	HWY: IH 39	COUNTY: ROCK	CROSS SECTIONS	SHEET 223	E

FILE NAME : L:\WORK\IH-39-SOUTH-SEGMENT\000_CAD\001_DRAWINGS\TEMPORARY WIDENING\WORKFILE_ZTM_CORRIDOR INSIDE.DWG PLOT DATE : 2/13/2013 6:13 PM PLOT BY : MROZ, ZACHARY T. PLOT NAME : _____ PLOT SCALE : 1:10_XREF

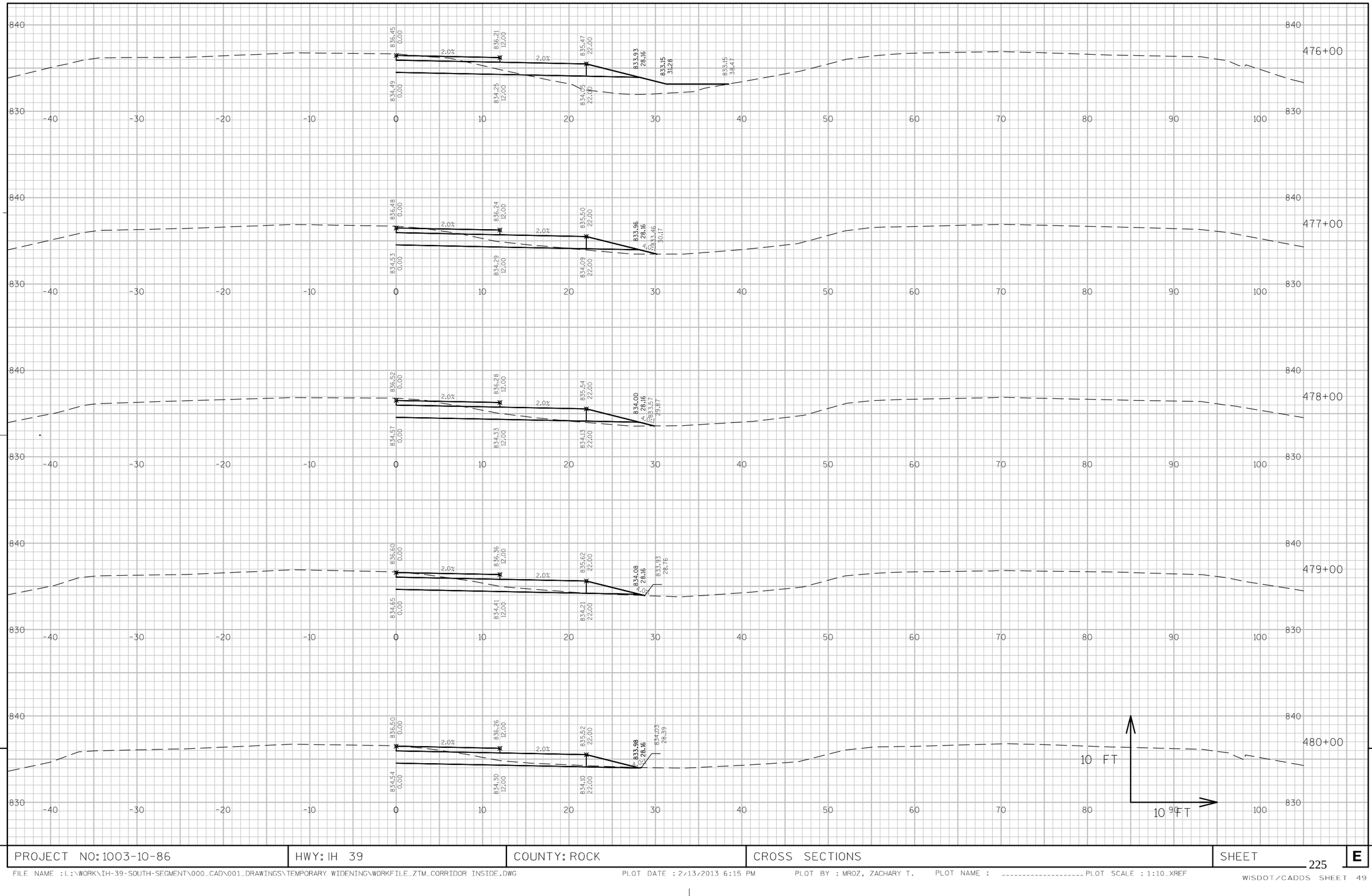
WISDOT/CADDS SHEET 49



PROJECT NO: 1003-10-86	HWY: IH 39	COUNTY: ROCK	CROSS SECTIONS	SHEET 224	E

FILE NAME : L:\WORK\IH-39-SOUTH-SEGMENT\000_CAD\001_DRAWINGS\TEMPORARY WIDENING\WORKFILE_ZTM_CORRIDOR INSIDE.DWG PLOT DATE : 2/13/2013 6:14 PM PLOT BY : MROZ, ZACHARY T. PLOT NAME : _____ PLOT SCALE : 1:10_XREF

WISDOT/CADDS SHEET 49



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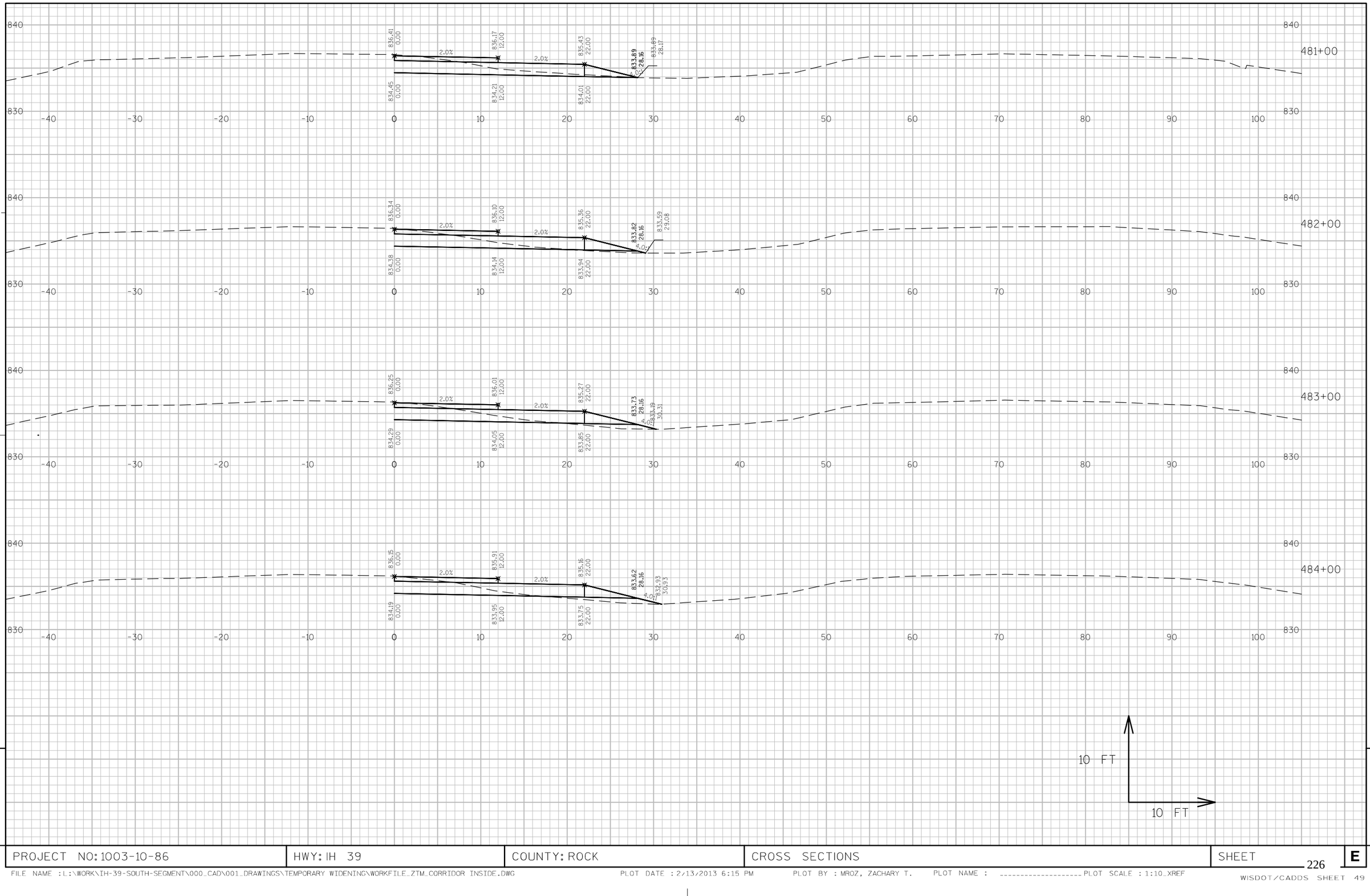
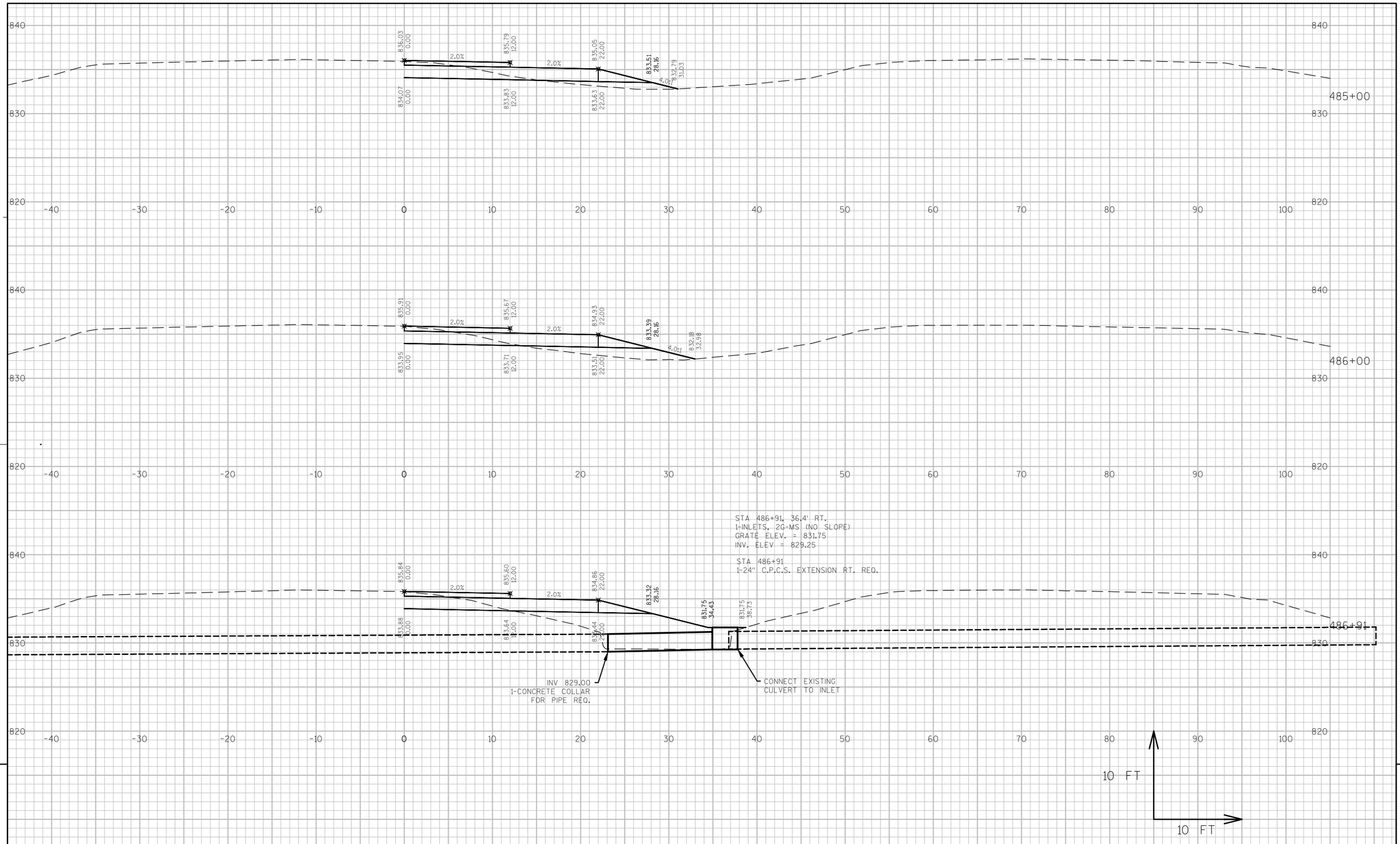
PROJECT NO: 1003-10-86	HWY: IH 39	COUNTY: ROCK	CROSS SECTIONS	SHEET 225	E



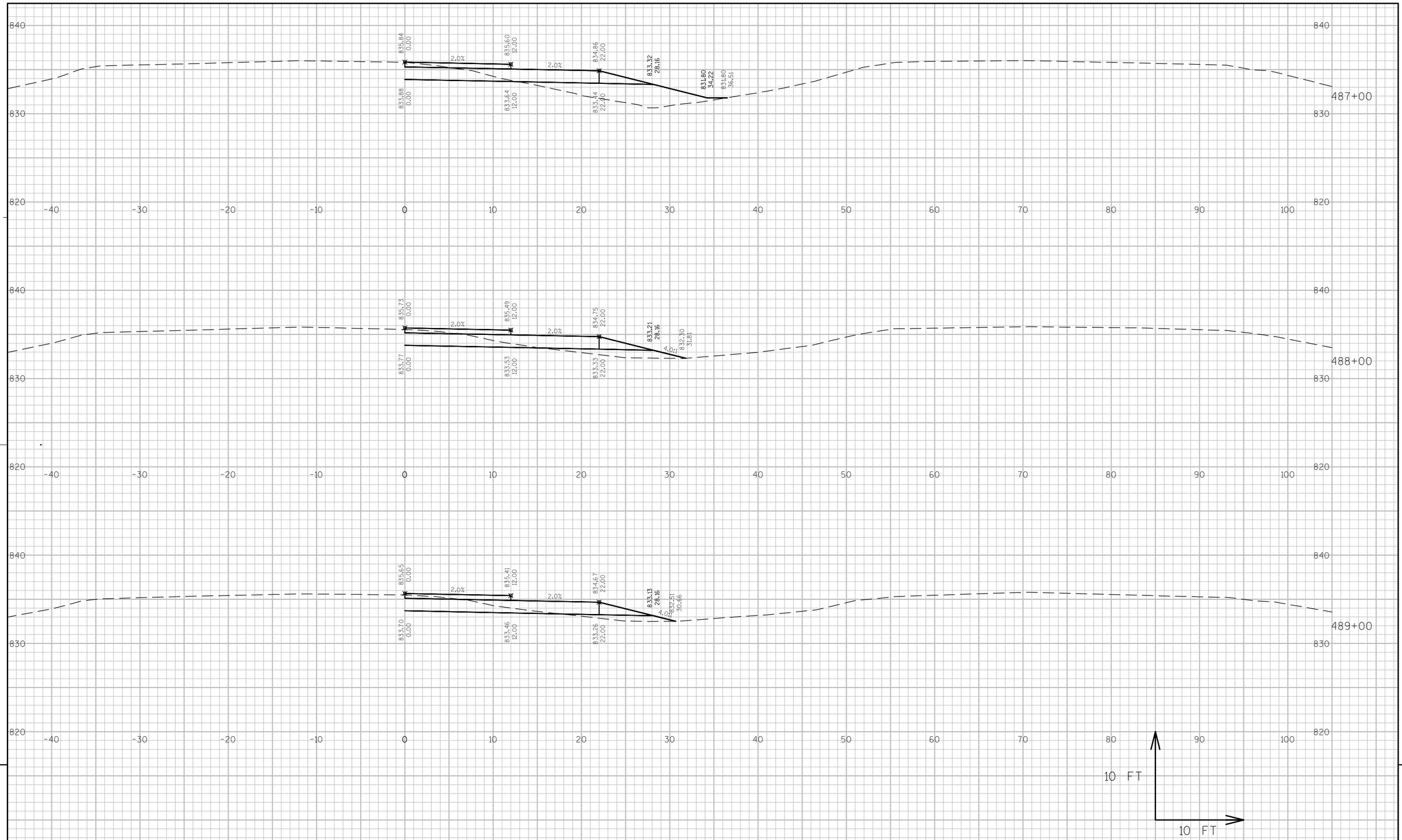
PROJECT NO: 1003-10-86	HWY: IH 39	COUNTY: ROCK	CROSS SECTIONS	SHEET 226	E



PROJECT NO: 1003-10-86	HWY: IH 39	COUNTY: ROCK	CROSS SECTIONS	SHEET 227	E

FILE NAME : L:\WORK\IH-39-SOUTH-SEGMENT\000_CAD\001_DRAWINGS\TEMPORARY WIDENING\WORKFILE_ZTM_CORRIDOR INSIDE.DWG PLOT DATE : 2/13/2013 6:16 PM PLOT BY : MROZ, ZACHARY T. PLOT NAME : _____ PLOT SCALE : 1:10_XREF

WISDOT/CADDS SHEET 49



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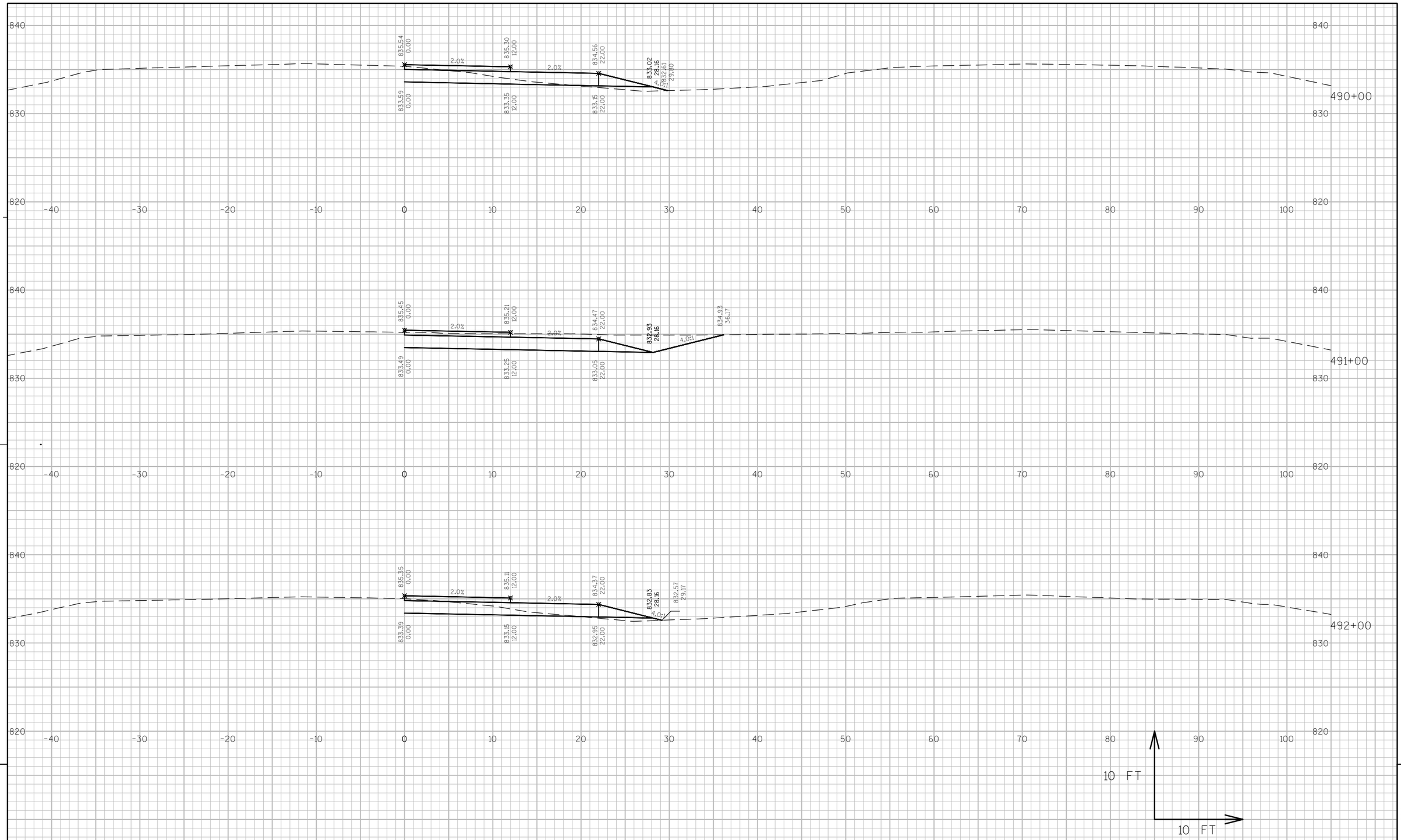
PROJECT NO: 1003-10-86	HWY: IH 39	COUNTY: ROCK	CROSS SECTIONS	SHEET	E

FILE NAME : L:\WORK\IH-39-SOUTH-SEGMENT\000_CAD\001_DRAWINGS\TEMPORARY WIDENING\WORKFILE_ZTM_CORRIDOR INSIDE.DWG PLOT DATE : 2/13/2013 6:17 PM PLOT BY : MROZ, ZACHARY T. PLOT NAME : _____ PLOT SCALE : 1:10_XREF

WISDOT/CADDS SHEET 49



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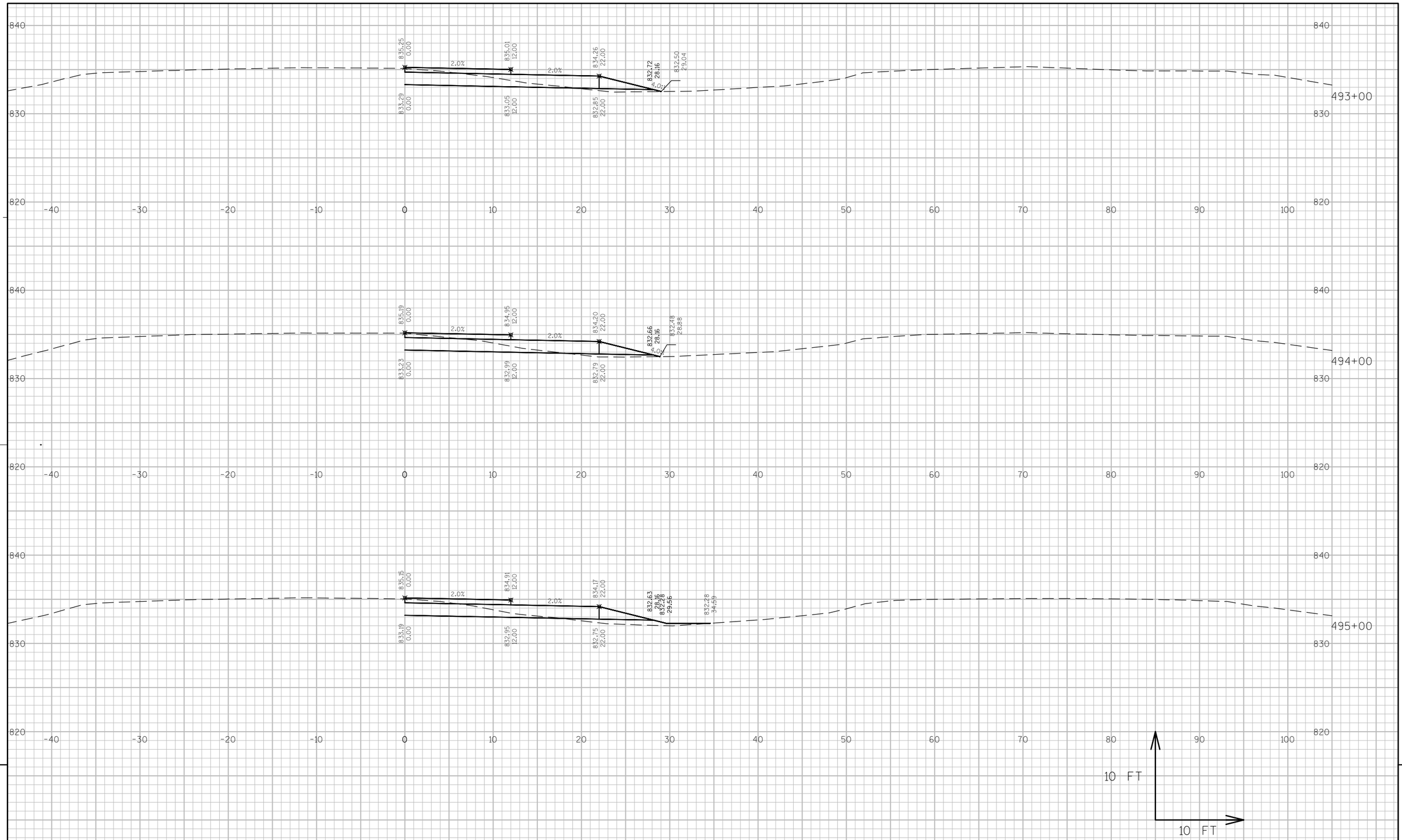
PROJECT NO: 1003-10-86	HWY: IH 39	COUNTY: ROCK	CROSS SECTIONS	SHEET	E

FILE NAME : L:\WORK\IH-39-SOUTH-SEGMENT\000_CAD\001_DRAWINGS\TEMPORARY WIDENING\WORKFILE_ZTM_CORRIDOR INSIDE.DWG PLOT DATE : 2/13/2013 6:18 PM PLOT BY : MROZ, ZACHARY T. PLOT NAME : _____ PLOT SCALE : 1:10_XREF



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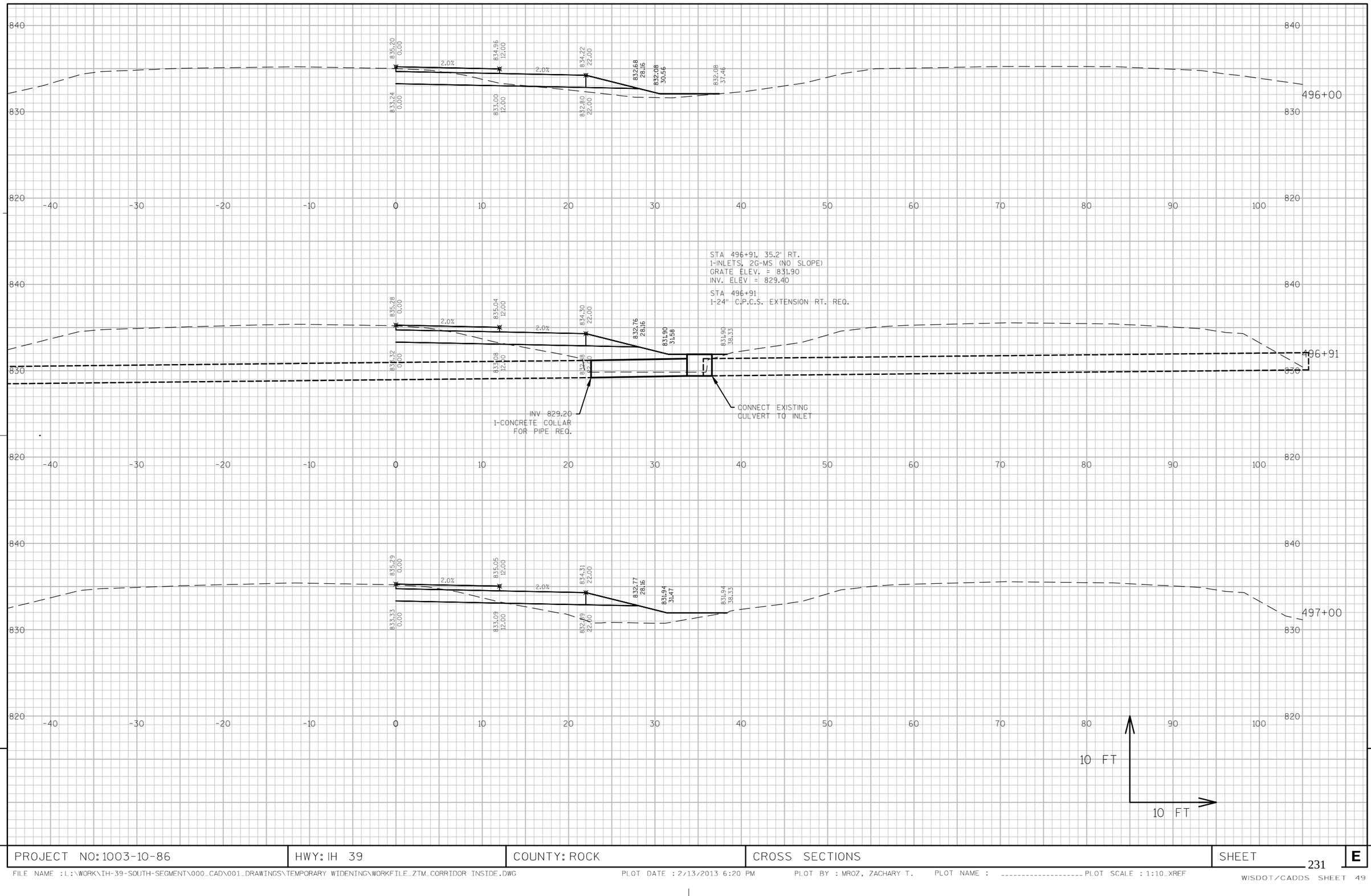
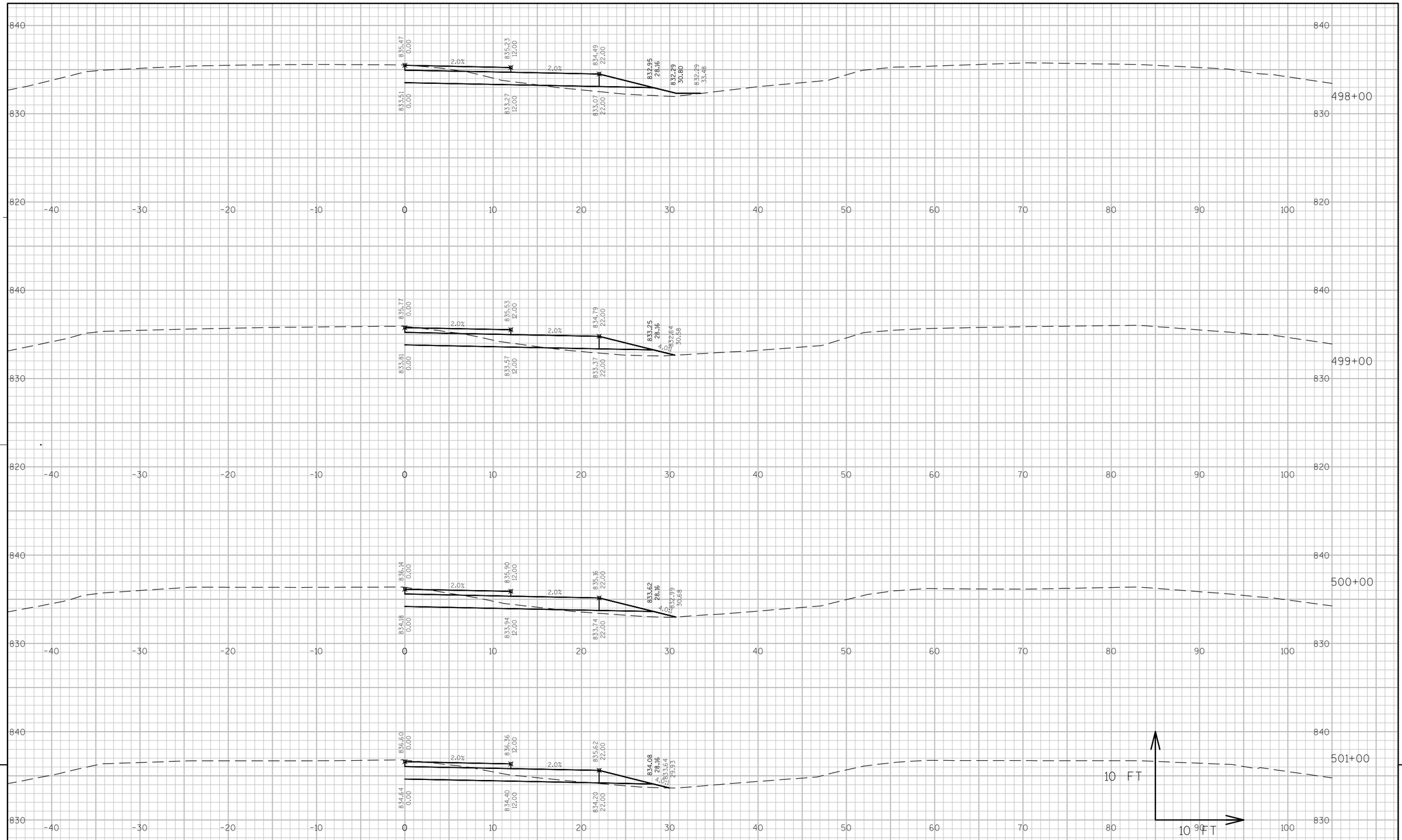
PROJECT NO: 1003-10-86	HWY: IH 39	COUNTY: ROCK	CROSS SECTIONS	SHEET 230	E



PROJECT NO: 1003-10-86	HWY: IH 39	COUNTY: ROCK	CROSS SECTIONS	SHEET 231 E

FILE NAME : L:\WORK\IH-39-SOUTH-SEGMENT\000_CAD\001_DRAWINGS\TEMPORARY WIDENING\WORKFILE_ZTM_CORRIDOR INSIDE.DWG PLOT DATE : 2/13/2013 6:20 PM PLOT BY : MROZ, ZACHARY T. PLOT NAME : _____ PLOT SCALE : 1:10_XREF
WISDOT/CADDS SHEET 49



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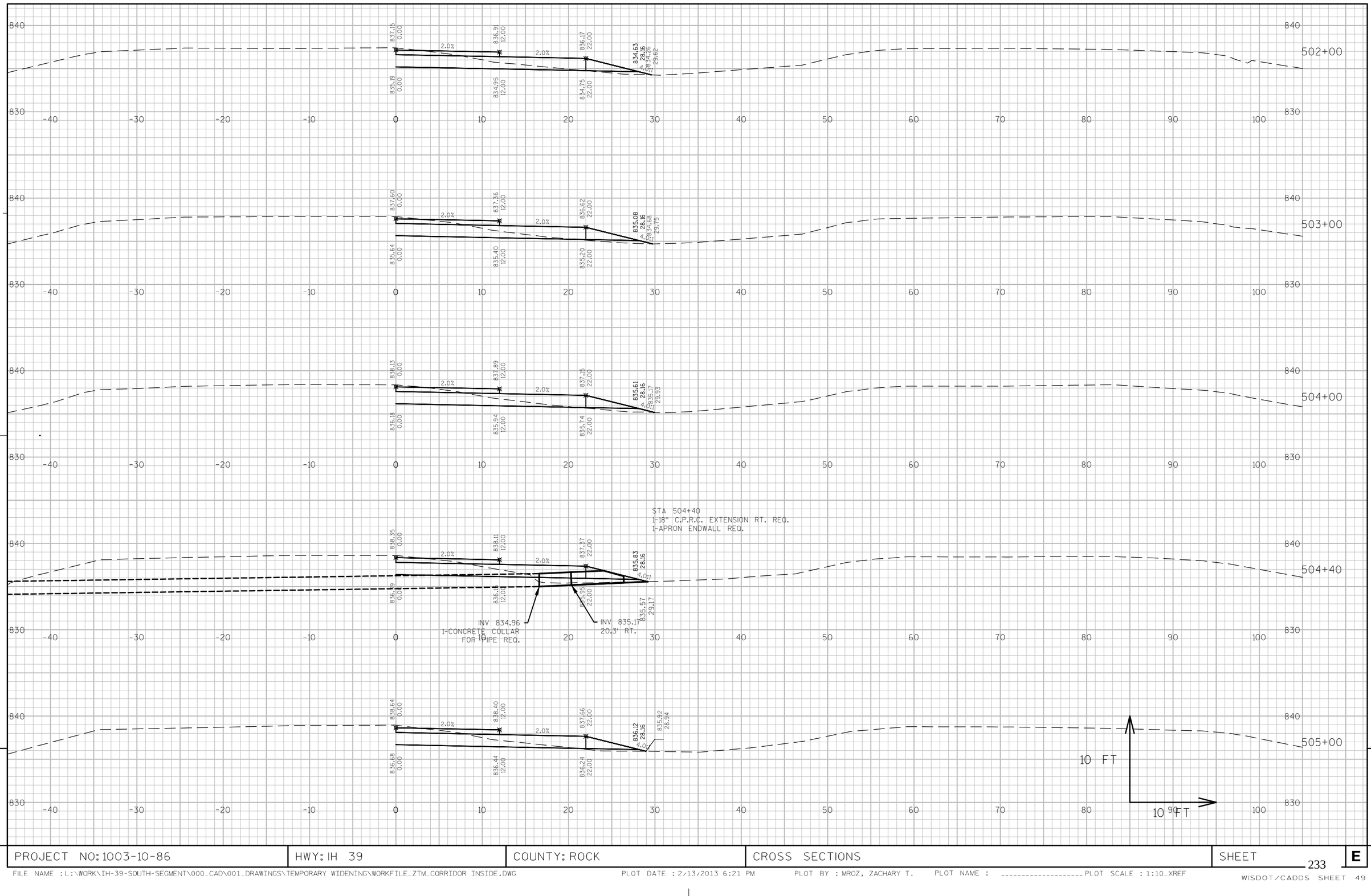
PROJECT NO: 1003-10-86	HWY: IH 39	COUNTY: ROCK	CROSS SECTIONS	SHEET	E

FILE NAME : L:\WORK\IH-39-SOUTH-SEGMENT\000_CAD\001_DRAWINGS\TEMPORARY WIDENING\WORKFILE_ZTM_CORRIDOR INSIDE.DWG PLOT DATE : 2/13/2013 6:20 PM PLOT BY : MROZ, ZACHARY T. PLOT NAME : _____ PLOT SCALE : 1:10_XREF

WISDOT/CADDS SHEET 49



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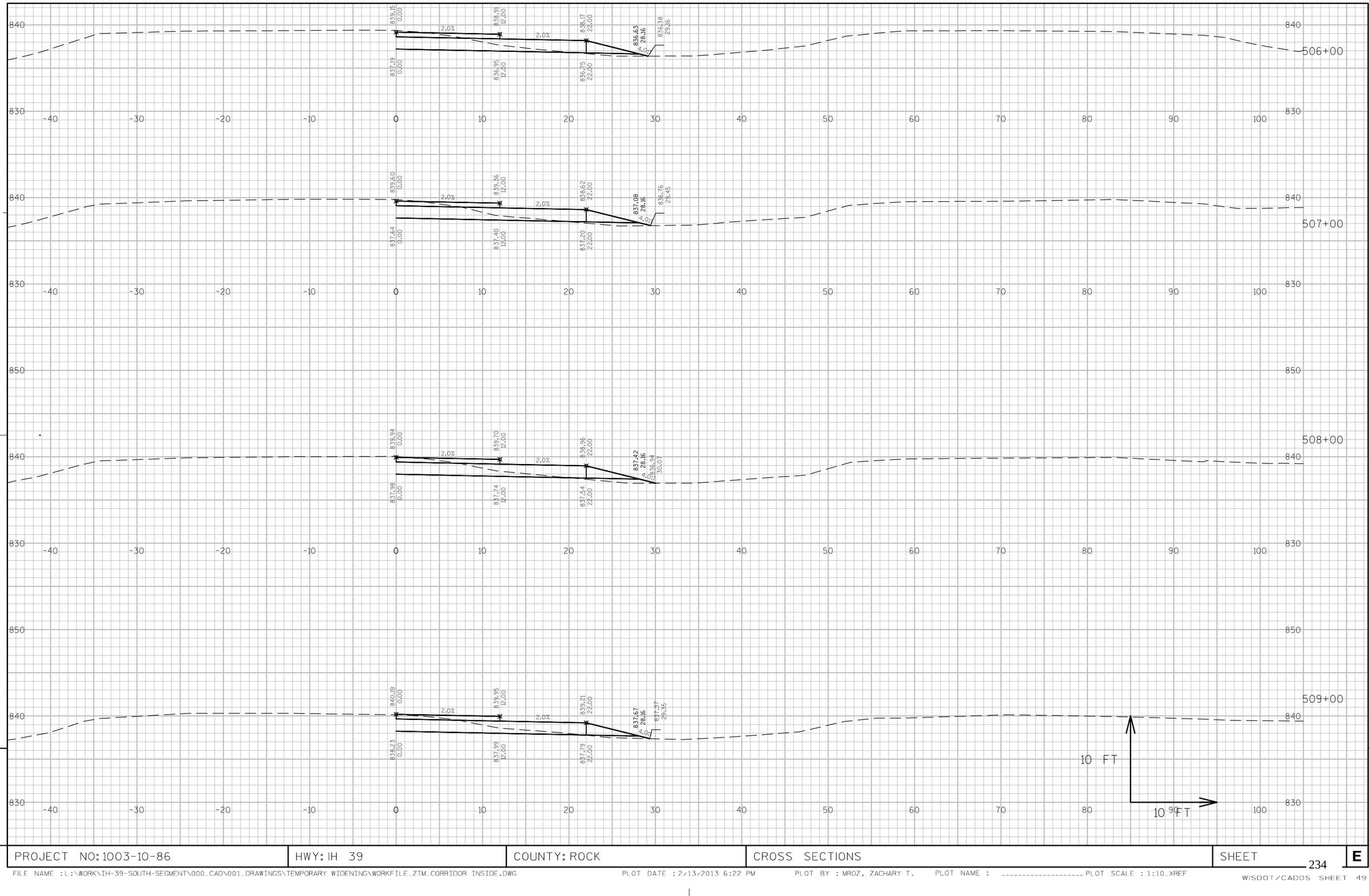
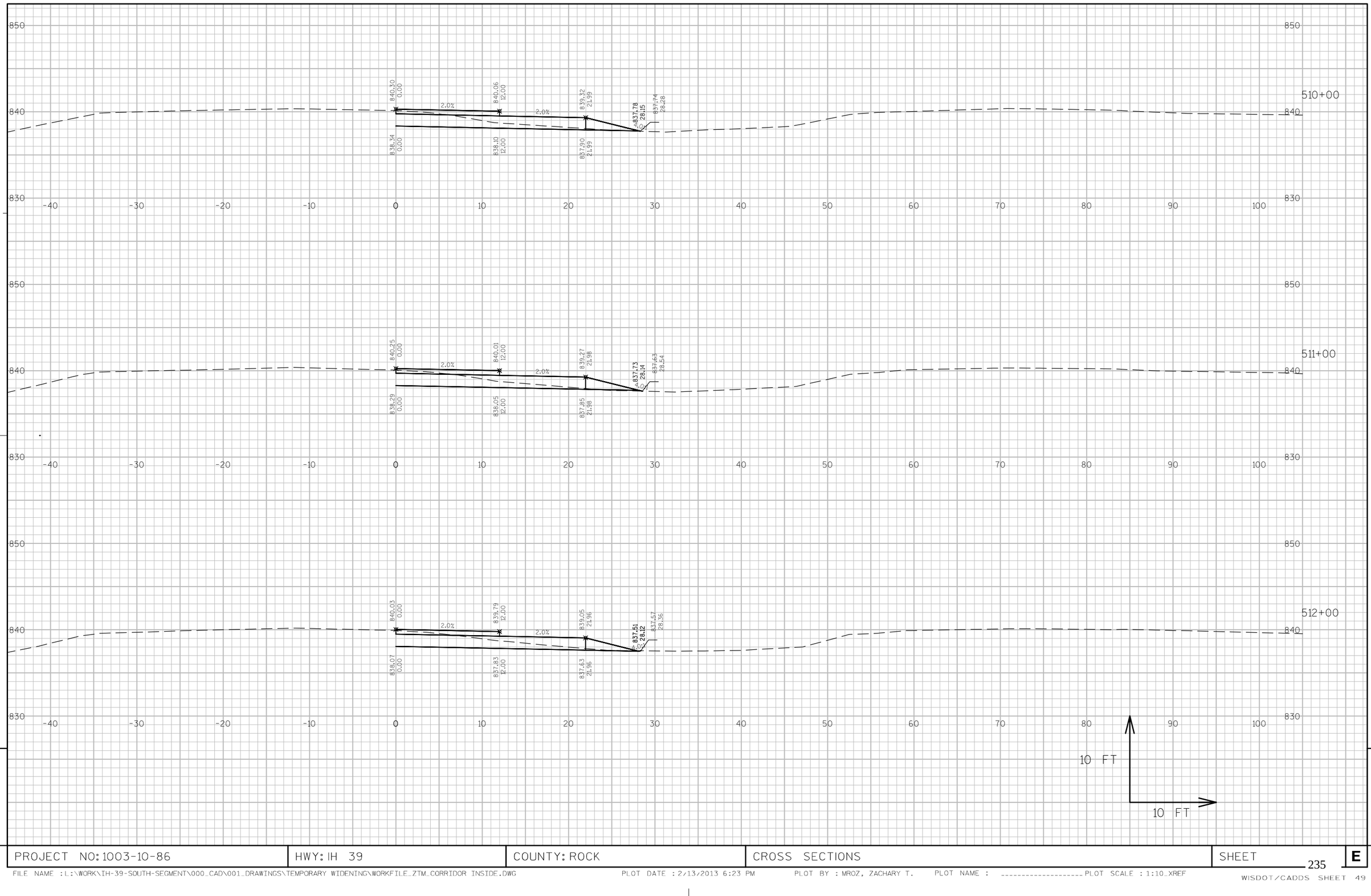
PROJECT NO: 1003-10-86	HWY: IH 39	COUNTY: ROCK	CROSS SECTIONS	SHEET 233	E



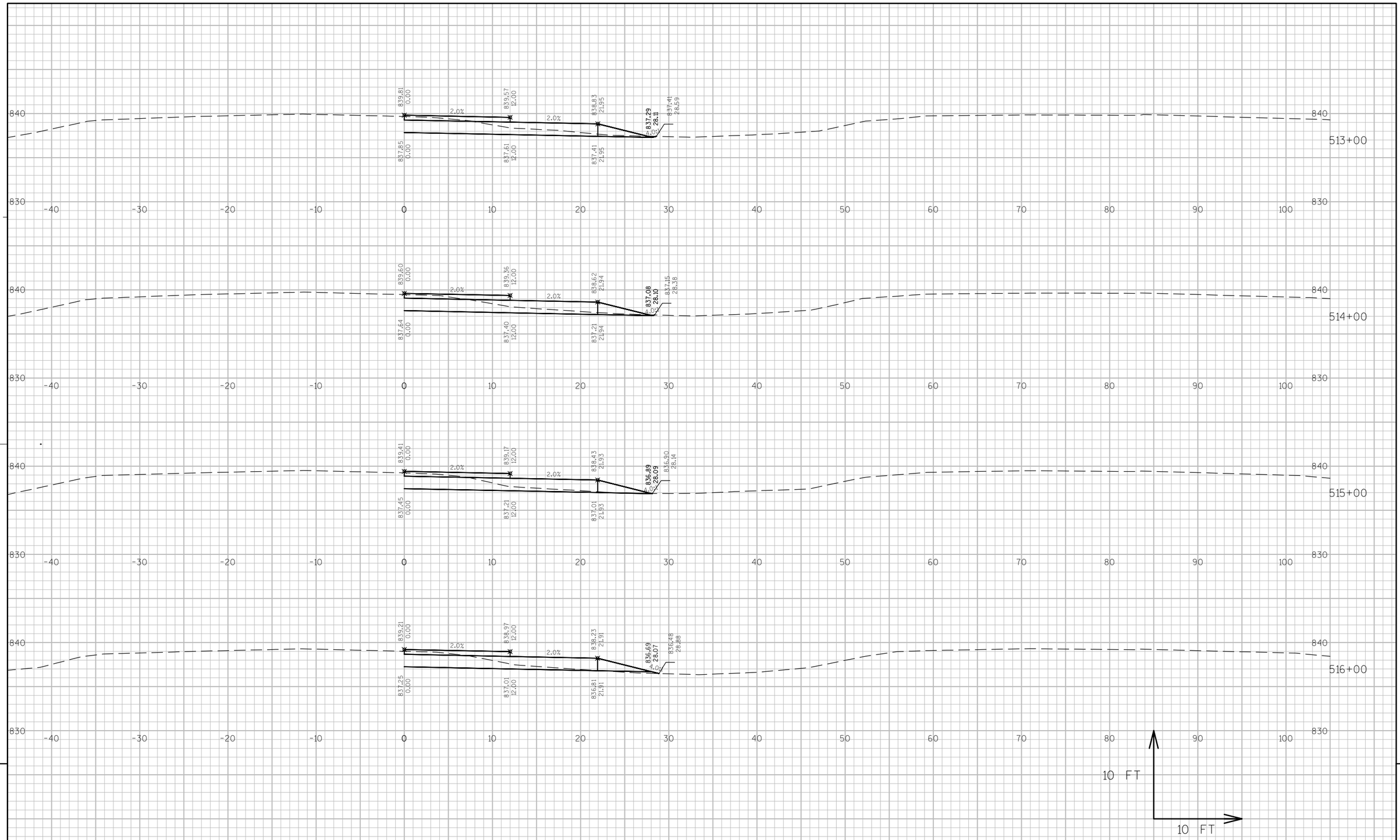
PROJECT NO: 1003-10-86	HWY: IH 39	COUNTY: ROCK	CROSS SECTIONS	SHEET 234	E

FILE NAME : L:\WORK\IH-39-SOUTH-SEGMENT\000_CAD\001_DRAWINGS\TEMPORARY WIDENING\WORKFILE_ZTM_CORRIDOR INSIDE.DWG PLOT DATE : 2/13/2013 6:22 PM PLOT BY : MROZ, ZACHARY T. PLOT NAME : _____ PLOT SCALE : 1:10_XREF

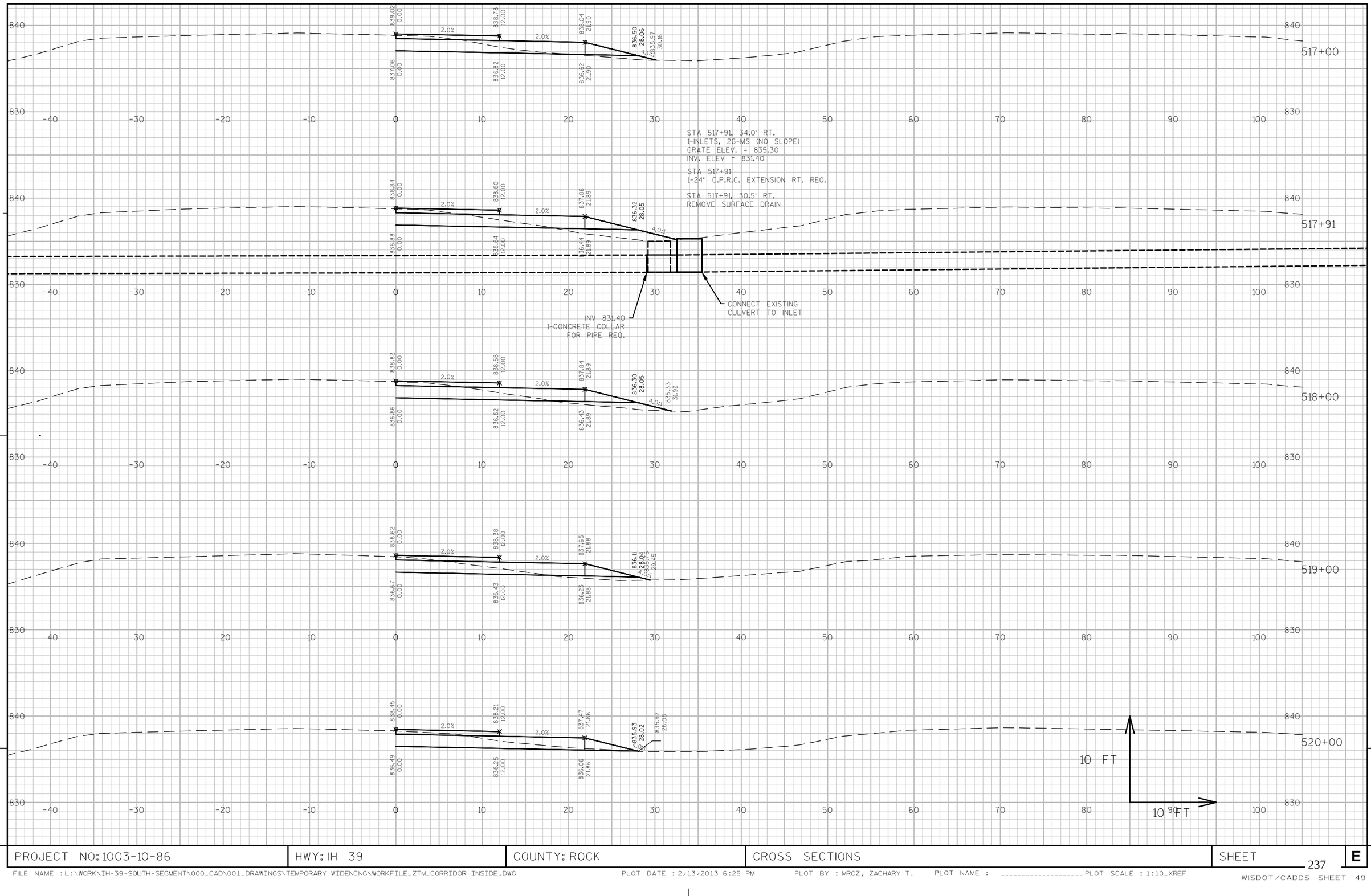
WISDOT/CADDS SHEET 49



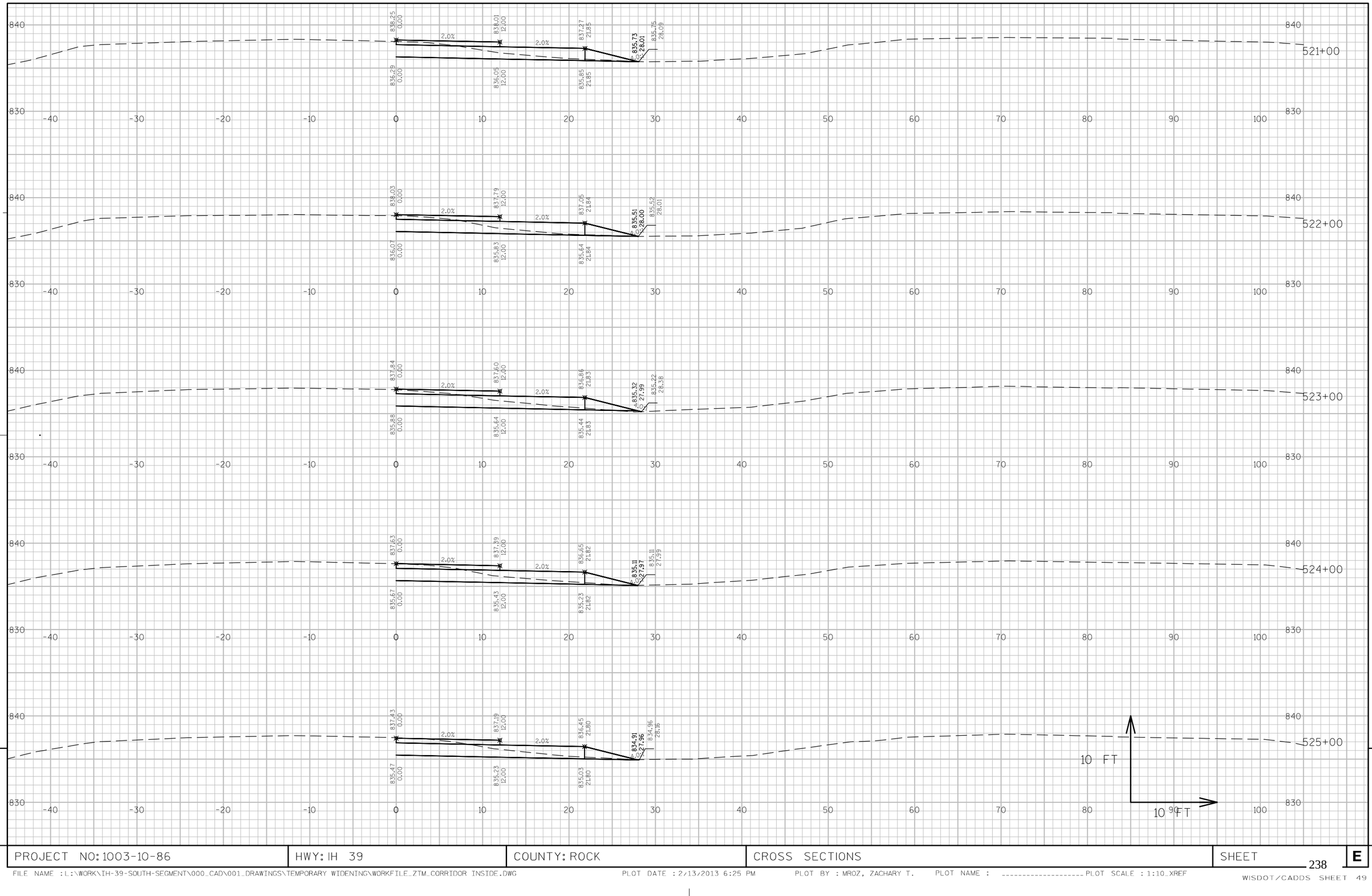
PROJECT NO: 1003-10-86	HWY: IH 39	COUNTY: ROCK	CROSS SECTIONS	SHEET 235	E



PROJECT NO: 1003-10-86	HWY: IH 39	COUNTY: ROCK	CROSS SECTIONS	SHEET 236	E



PROJECT NO: 1003-10-86	HWY: IH 39	COUNTY: ROCK	CROSS SECTIONS	SHEET 237	E



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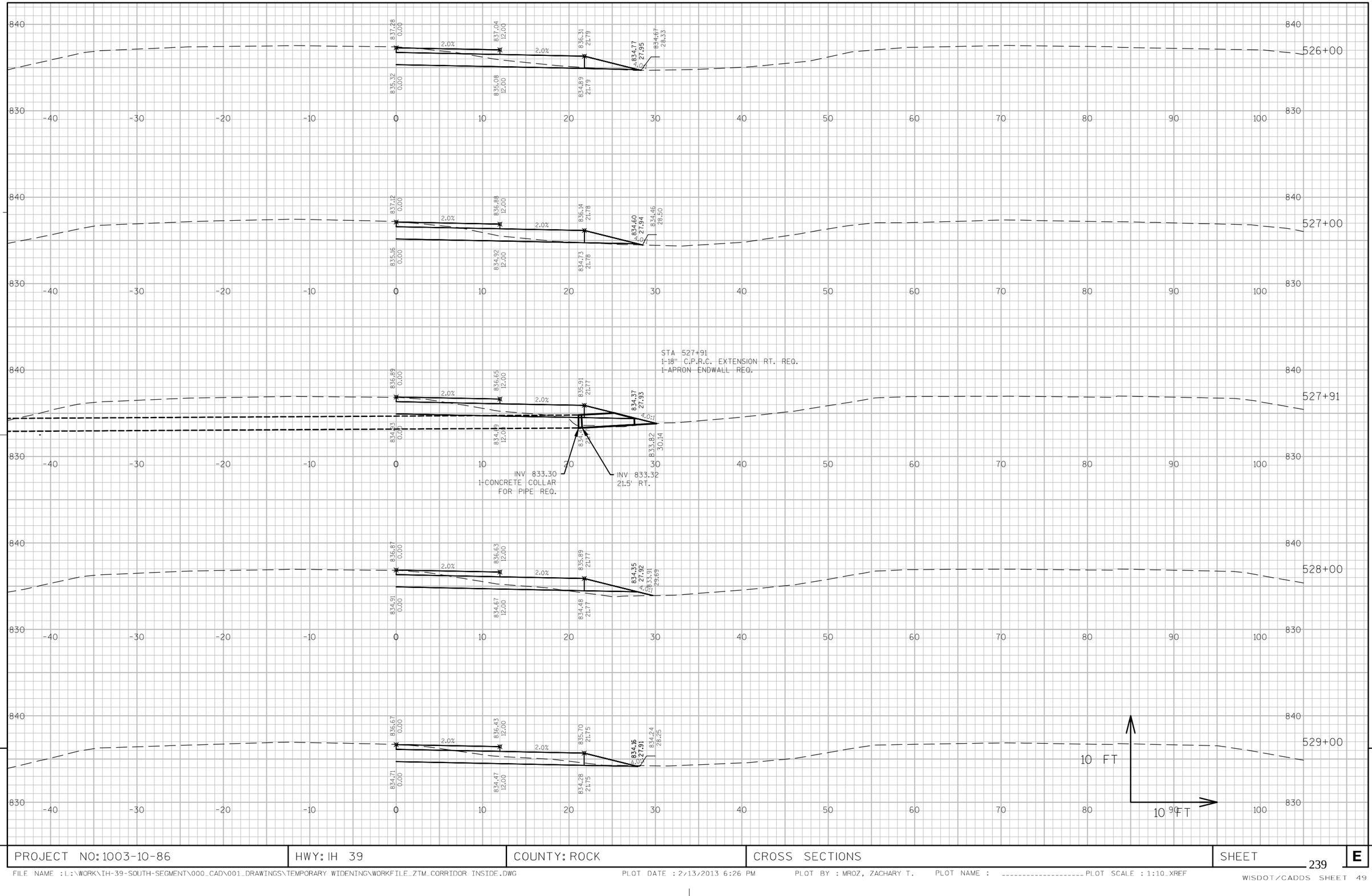
PROJECT NO: 1003-10-86	HWY: IH 39	COUNTY: ROCK	CROSS SECTIONS	SHEET 238	E



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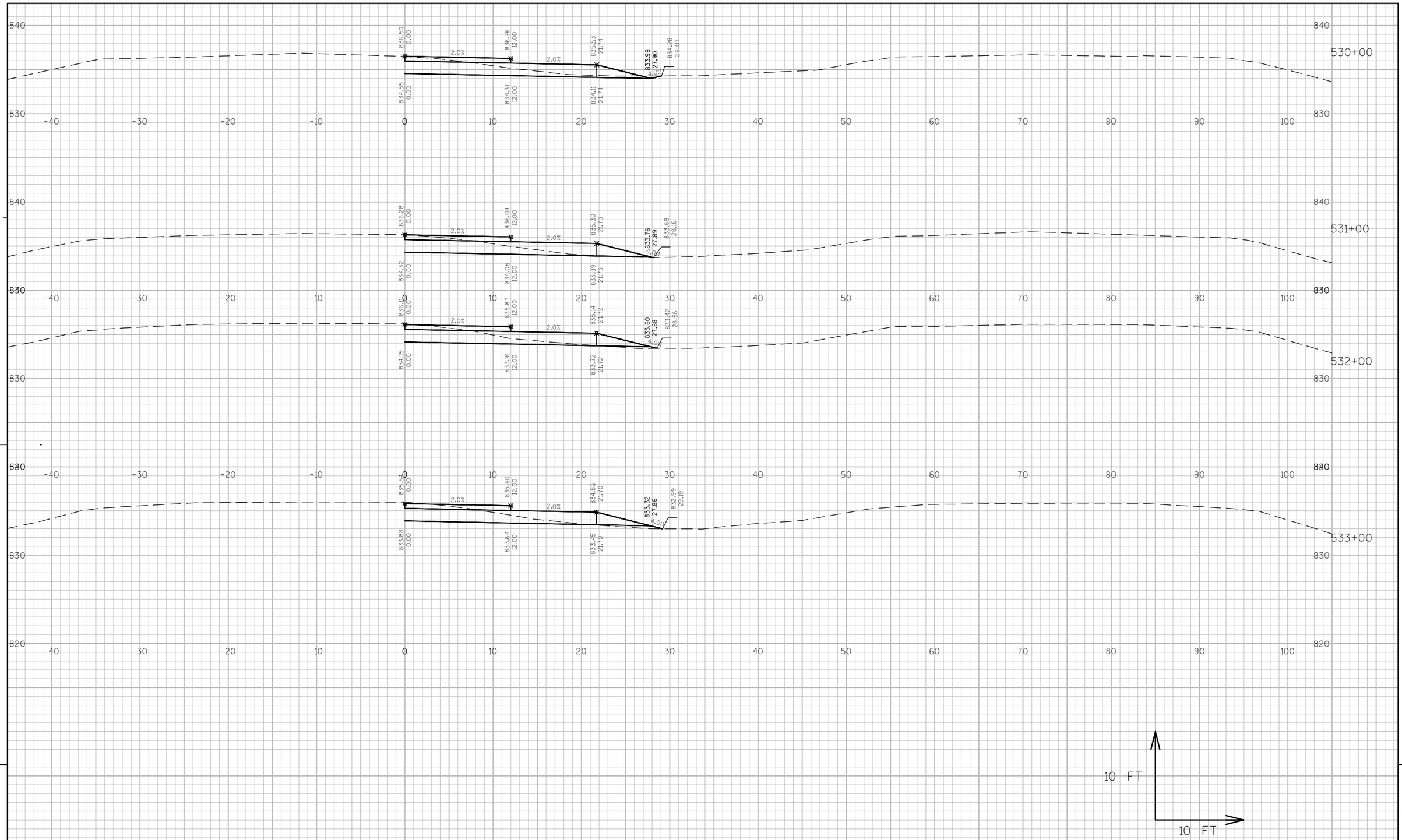
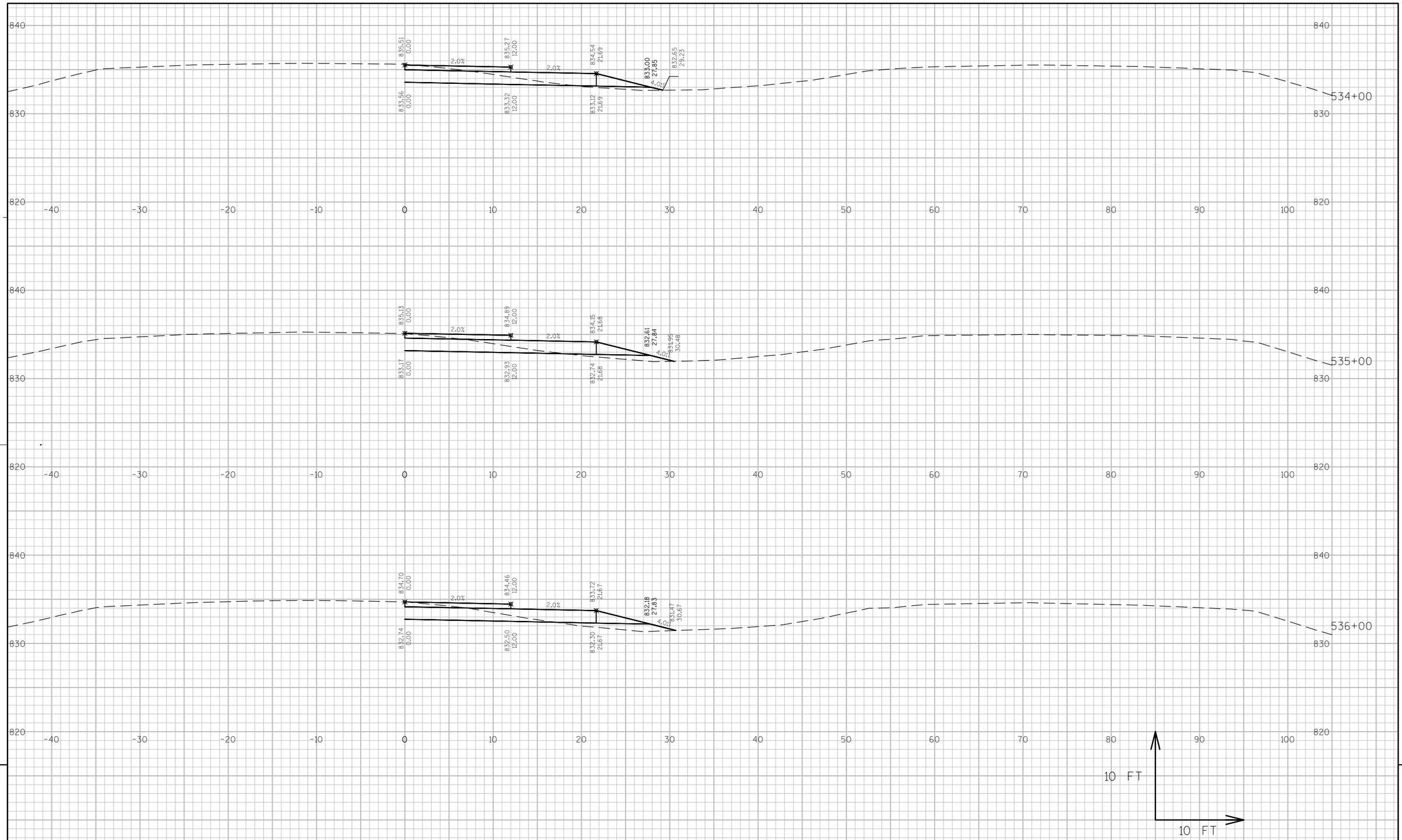
PROJECT NO: 1003-10-86	HWY: IH 39	COUNTY: ROCK	CROSS SECTIONS	SHEET 239	E



PROJECT NO: 1003-10-86	HWY: IH 39	COUNTY: ROCK	CROSS SECTIONS	SHEET 240	E

FILE NAME : L:\WORK\IH-39-SOUTH-SEGMENT\000_CAD\001_DRAWINGS\TEMPORARY WIDENING\WORKFILE_ZTM_CORRIDOR INSIDE.DWG PLOT DATE : 2/13/2013 6:27 PM PLOT BY : MROZ, ZACHARY T. PLOT NAME : _____ PLOT SCALE : 1:10_XREF



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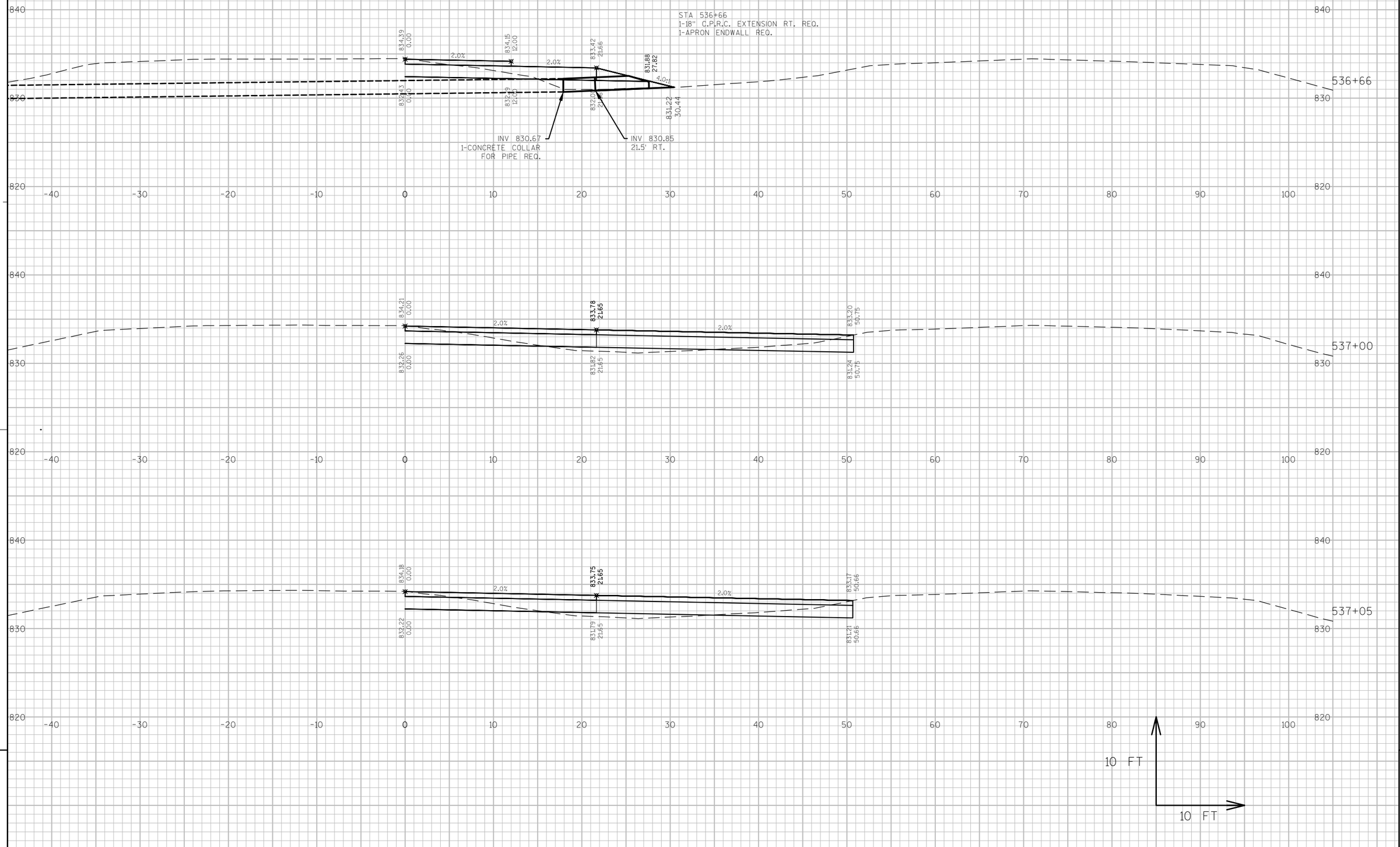
PROJECT NO: 1003-10-86	HWY: IH 39	COUNTY: ROCK	CROSS SECTIONS	SHEET	E

FILE NAME : L:\WORK\IH-39-SOUTH-SEGMENT\000_CAD\001_DRAWINGS\TEMPORARY WIDENING\WORKFILE_ZTM_CORRIDOR INSIDE.DWG PLOT DATE : 2/13/2013 6:28 PM PLOT BY : MROZ, ZACHARY T. PLOT NAME : _____ PLOT SCALE : 1:10_XREF

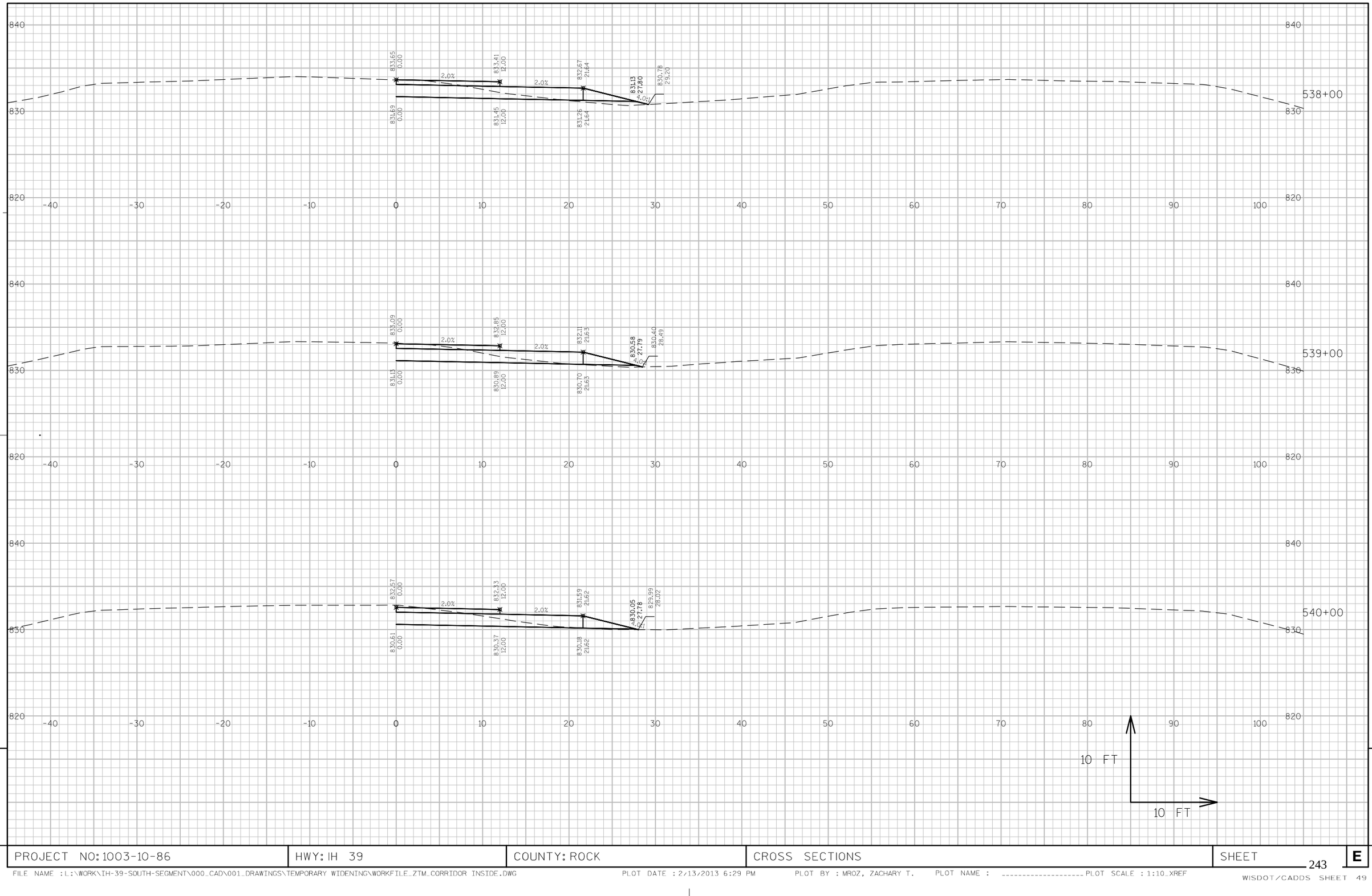
WISDOT/CADDS SHEET 49

STA 536+66
1-18" C.P.R.C. EXTENSION RT. REQ.
1-APRON ENDWALL REQ.



PROJECT NO: 1003-10-86	HWY: IH 39	COUNTY: ROCK	CROSS SECTIONS	SHEET	E

FILE NAME : L:\WORK\IH-39-SOUTH-SEGMENT\000_CAD\001_DRAWINGS\TEMPORARY WIDENING\WORKFILE_ZTM_CORRIDOR INSIDE.DWG PLOT DATE : 2/13/2013 6:29 PM PLOT BY : MROZ, ZACHARY T. PLOT NAME : _____ PLOT SCALE : 1:10_XREF
WISDOT/CADDS SHEET 49



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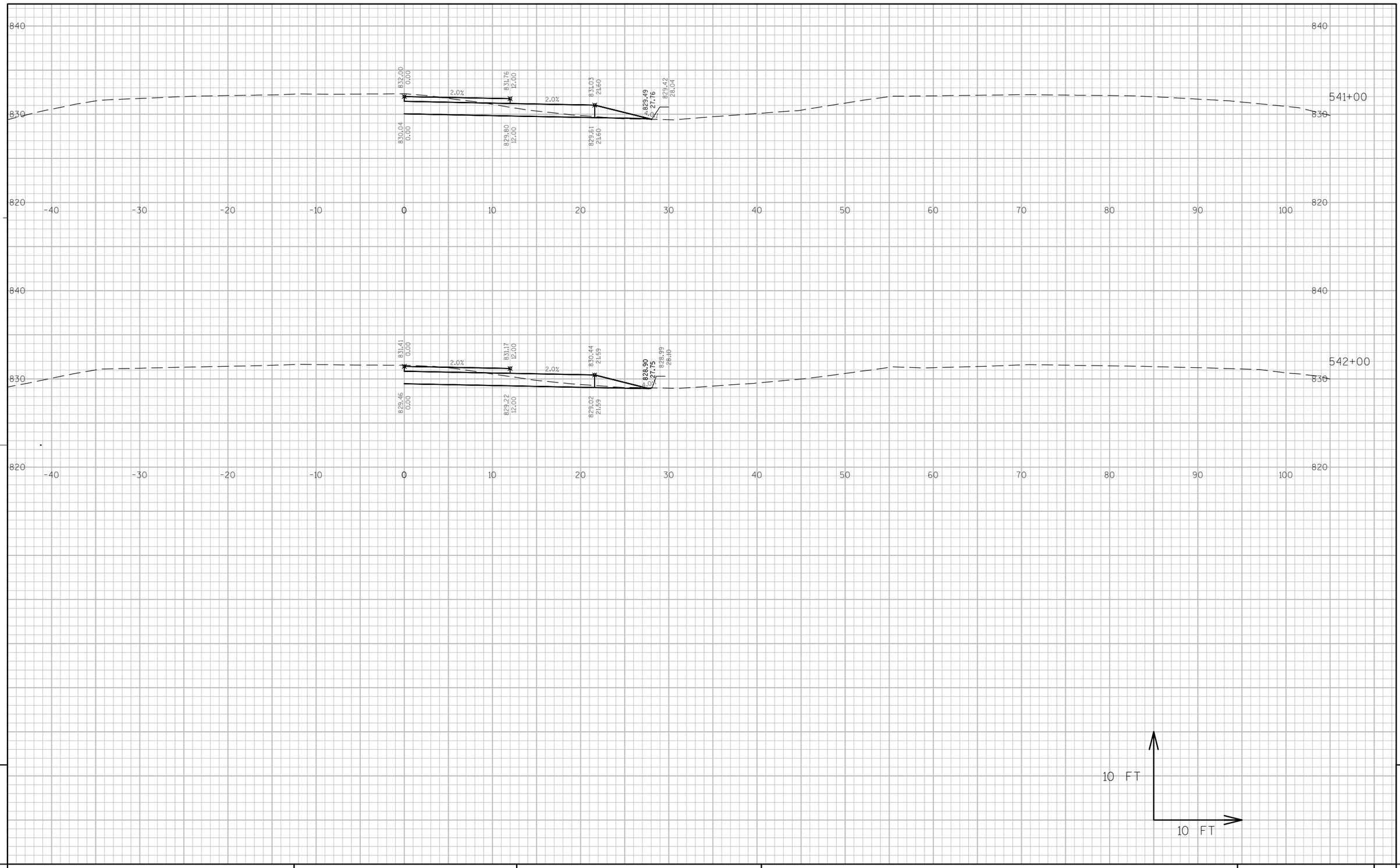
PROJECT NO: 1003-10-86	HWY: IH 39	COUNTY: ROCK	CROSS SECTIONS	SHEET	E

FILE NAME : L:\WORK\IH-39-SOUTH-SEGMENT\000_CAD\001_DRAWINGS\TEMPORARY WIDENING\WORKFILE_ZTM_CORRIDOR INSIDE.DWG PLOT DATE : 2/13/2013 6:29 PM PLOT BY : MROZ, ZACHARY T. PLOT NAME : _____ PLOT SCALE : 1:10_XREF

WISDOT/CADDS SHEET 49



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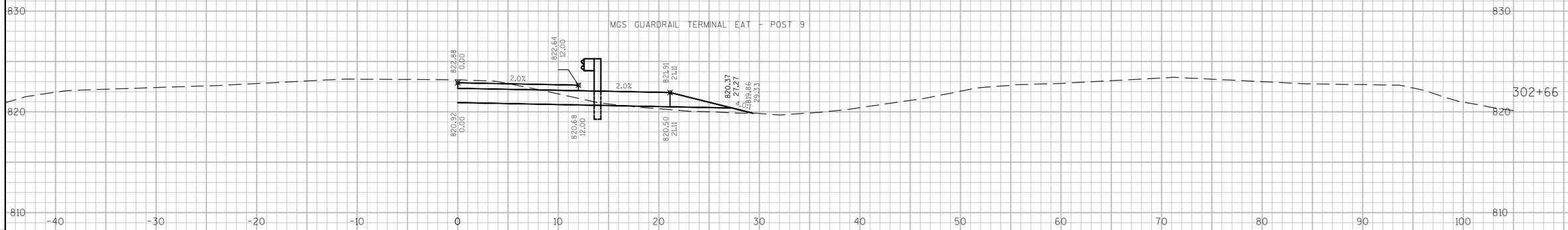
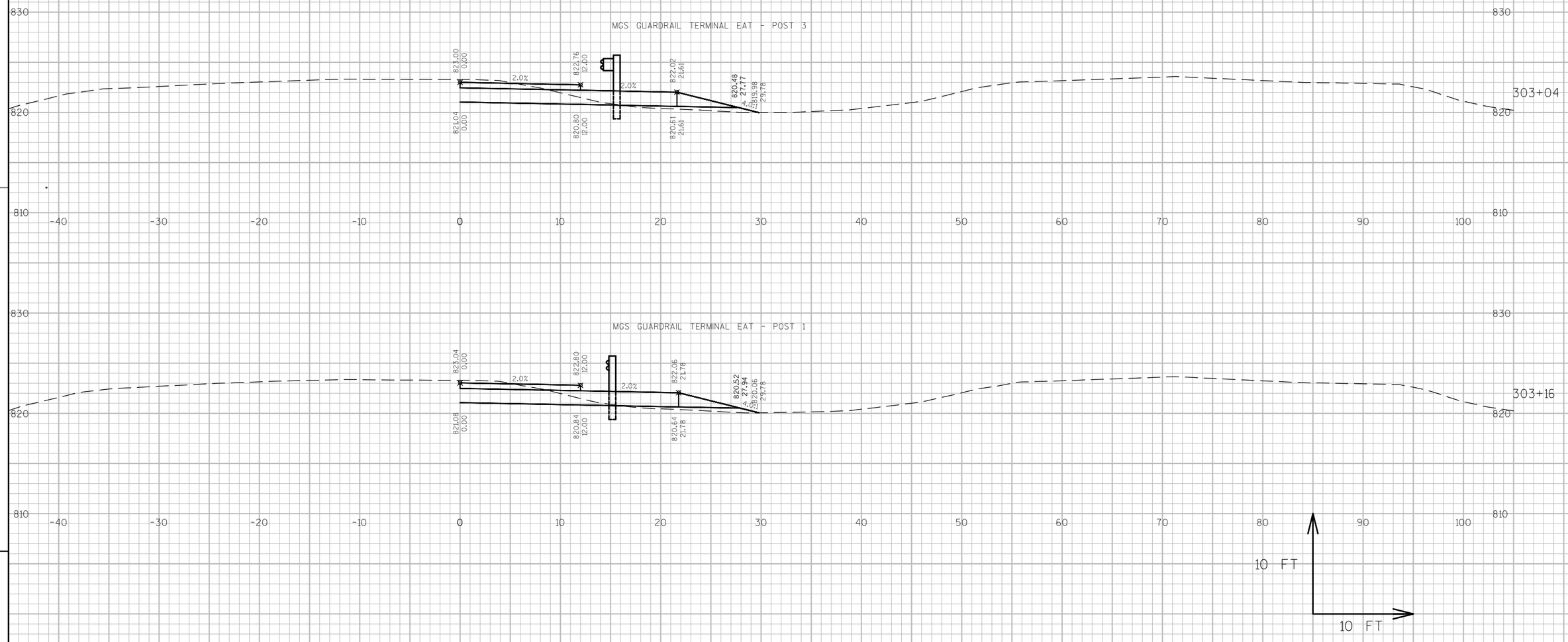
PROJECT NO: 1003-10-86	HWY: IH 39	COUNTY: ROCK	CROSS SECTIONS	SHEET 244	E

MGS GUARDRAIL TERMINAL EAT - POST 9



MGS GUARDRAIL TERMINAL EAT - POST 3



MGS GUARDRAIL TERMINAL EAT - POST 1

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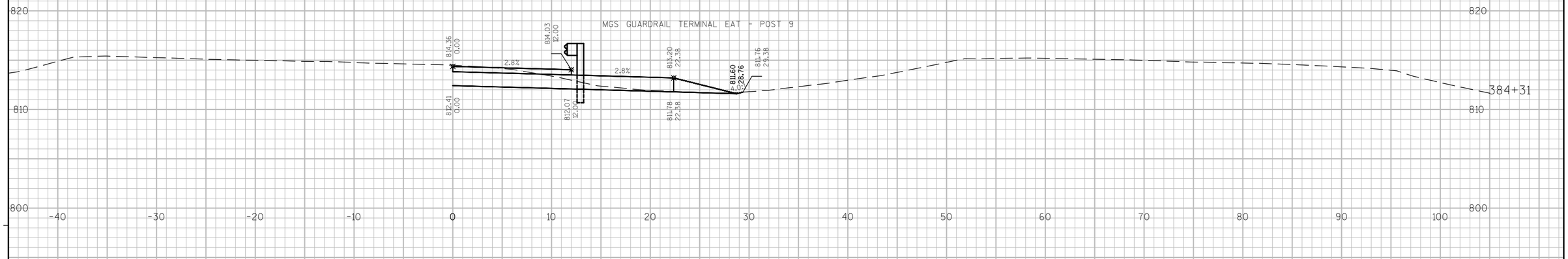
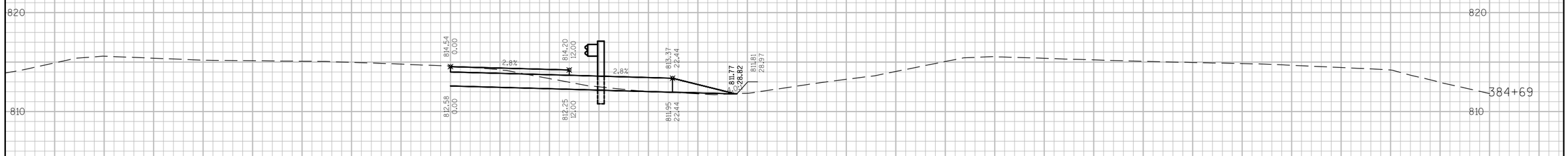
PROJECT NO: 1003-10-86	HWY: IH 39	COUNTY: ROCK	CROSS SECTIONS - HART RD MGS TERMINAL EAT POSTS	SHEET	E

FILE NAME : L:\WORK\IH-39-SOUTH-SEGMENT\000_CAD\001_DRAWINGS\TEMPORARY WIDENING\WORKFILE_ZTM_CORRIDOR INSIDE.DWG PLOT DATE : 2/22/2013 4:24 PM PLOT BY : MROZ, ZACHARY T. PLOT NAME : ---------- PLOT SCALE : 1:10_XREF

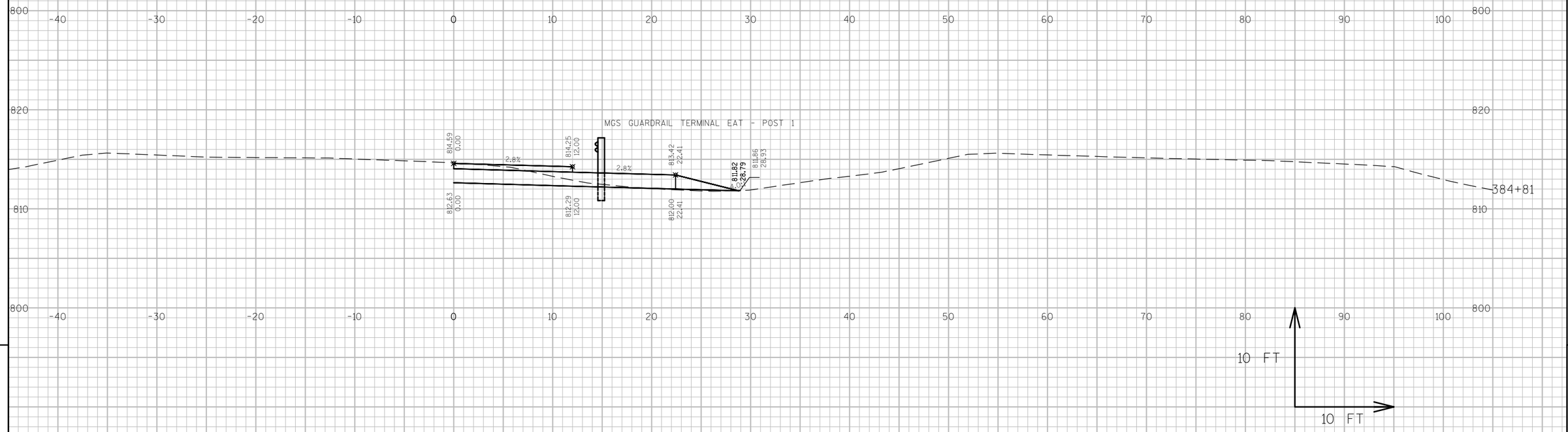
MGS GUARDRAIL TERMINAL EAT - POST 9



MGS GUARDRAIL TERMINAL EAT - POST 3



MGS GUARDRAIL TERMINAL EAT - POST 1



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PROJECT NO: 1003-10-86	HWY: IH 39	COUNTY: ROCK	CROSS SECTIONS - CREEK RD MGS TERMINAL EAT POSTS	SHEET	E

FILE NAME : L:\WORK\IH-39-SOUTH-SEGMENT\000_CAD\001_DRAWINGS\TEMPORARY WIDENING\WORKFILE_ZTM_CORRIDOR INSIDE.DWG PLOT DATE : 2/22/2013 4:25 PM PLOT BY : MROZ, ZACHARY T. PLOT NAME : ---------- PLOT SCALE : 1:10_XREF

WISDOT/CADDS SHEET 49

Notes

Wisconsin Department of Transportation

Dedicated people creating transportation solutions
through innovation and exceptional service.

http://www.dot.wisconsin.gov