

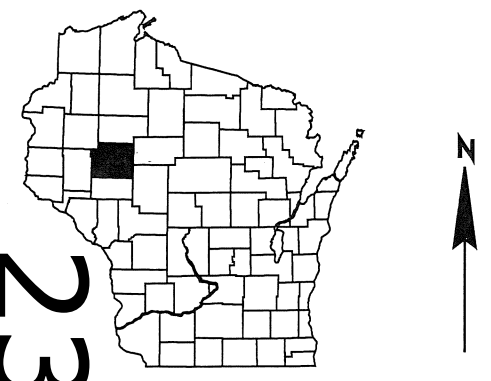
PROJECT ID: 8600-02-72  
WITH: N/A

COUNTY: CHIPPEWA

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 = 242



DESIGN DESIGNATION

|                 |           |
|-----------------|-----------|
| A.A.D.T. (2014) | = 1600    |
| A.A.D.T. (2034) | = 2200    |
| D.H.V.          | = 310     |
| D.D.            | = 62/38   |
| T.              | = 6.2 %   |
| DESIGN SPEED    | = 55 MPH  |
| ESALS           | = 255,500 |

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             |  |
| SWAMP AREA                     |  |
| WOODED OR SHRUB AREA           |  |

| PROFILE                                     |  |
|---------------------------------------------|--|
| GRADE LINE                                  |  |
| ORIGINAL GROUND                             |  |
| MARSH OR ROCK PROFILE (To be noted as such) |  |
| SPECIAL DITCH                               |  |
| GRADE ELEVATION                             |  |
| CULVERT (Profile View)                      |  |
| UTILITIES                                   |  |
| ELECTRIC                                    |  |
| FIBER OPTIC                                 |  |
| GAS                                         |  |
| SANITARY SEWER                              |  |
| STORM SEWER                                 |  |
| TELEPHONE                                   |  |
| WATER                                       |  |
| UTILITY PEDESTAL                            |  |
| POWER POLE                                  |  |
| TELEPHONE POLE                              |  |

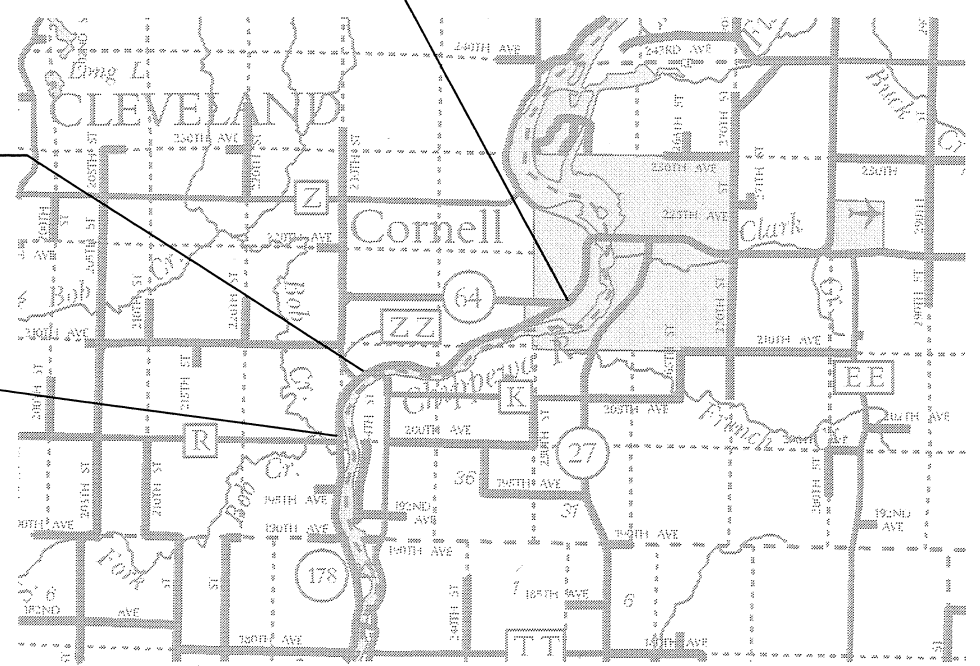
STATE OF WISCONSIN  
DEPARTMENT OF TRANSPORTATION  
PLAN OF PROPOSED IMPROVEMENT  
CHIPPEWA FALLS - CORNELL  
CTH R TO STH 64  
STH 178  
CHIPPEWA COUNTY

STATE PROJECT NUMBER  
8600-02-72

STRUCTURE R-9-12  
STA. 1213+60 TO 1217+90

BEGIN PROJECT  
STA. 1170+50  
N = 201817.73  
E = 217952.91

END PROJECT  
STA. 1335+50



LAYOUT  
SCALE 0 1 MI.

TOTAL NET LENGTH OF CENTERLINE = 3.13 MI.

COORDINATES ON THIS PLAN ARE REFERENCED TO THE WISCONSIN COUNTY COORDINATE SYSTEM (WCCS), CHIPPEWA COUNTY.

| STATE PROJECT | FEDERAL PROJECT |          |
|---------------|-----------------|----------|
|               | PROJECT         | CONTRACT |
| 8600-02-72    | WISC 2014030    | 1        |
|               |                 |          |
|               |                 |          |

STATE OF WISCONSIN  
DEPARTMENT OF TRANSPORTATION

PREPARED BY

|                     |                       |
|---------------------|-----------------------|
| Surveyor            | NW REGION, EAU CLAIRE |
| Designer            | K. KOPACZ             |
| Project Manager     | C. HINES              |
| Regional Examiner   | D. OJBWAY             |
| Regional Supervisor | R. SHERMO             |
| C.O. Examiner       |                       |

APPROVED FOR THE DEPARTMENT

DATE: 7/30/13 (Signature)

E

LIST OF STANDARD ABBREVIATIONS

|                |                                                        |
|----------------|--------------------------------------------------------|
| ABUT.          | ABUTMENT                                               |
| AGG.           | AGGREGATE                                              |
| AH.            | AHEAD                                                  |
| APPROX.        | APPROXIMATE                                            |
| A.E.W.         | APRON ENDWALL                                          |
| ASPH.          | ASPHALTIC                                              |
| A.D.T.         | AVERAGE DAILY TRAFFIC                                  |
| AZ.            | AZIMUTH                                                |
| BK.            | BACK                                                   |
| BEG.           | BEGIN                                                  |
| B.M.           | BENCH MARK                                             |
| C.E.           | COMMERCIAL ENTRANCE                                    |
| C/L            | CENTER LINE                                            |
| CL.            | CLASS                                                  |
| CONC.          | CONCRETE                                               |
| CONST.         | CONSTRUCTION                                           |
| CO.            | COUNTY                                                 |
| C.A.C.P.       | CORRUGATED ALUMINUM CULVERT PIPE                       |
| C.M.P.A.       | CORRUGATED METAL PIPE ARCH                             |
| C.P.C.P.       | CORRUGATED POLYETHYLENE CULVERT PIPE                   |
| C.S.C.P.       | CORRUGATED STEEL CULVERT PIPE                          |
| C.T.H.         | COUNTY TRUNK HIGHWAY                                   |
| X-SEC.         | CROSS SECTION                                          |
| CR.            | CRUSHED                                                |
| CFS            | CUBIC FEET/SECOND                                      |
| C.Y., CU. YD.  | CUBIC YARD                                             |
| CULV.          | CULVERT                                                |
| C.P.           | CULVERT PIPE                                           |
| D.O.T.         | DEPARTMENT OF TRANSPORTATION                           |
| D.H.V.         | DESIGN HOUR VOLUME                                     |
| DIA.           | DIAMETER                                               |
| D.             | DIRECTIONAL DISTRIBUTION                               |
| DISCH. OR DIS. | DISCHARGE                                              |
| EA.            | EACH                                                   |
| ELECT.         | ELECTRIC                                               |
| EL. OR ELEV.   | ELEVATION                                              |
| EMB.           | EMBANKMENT                                             |
| E.B.S.         | EXCAVATION BELOW SUBGRADE                              |
| EXIST.         | EXISTING                                               |
| FERT.          | FERTILIZE                                              |
| F.E.           | FIELD ENTRANCE                                         |
| FIN.           | FINISHED                                               |
| FT.            | FOOT                                                   |
| F.L.           | FLOW LINE                                              |
| GA.            | GAUGE                                                  |
| HORIZ.         | HORIZONTAL                                             |
| CWT.           | HUNDREDWEIGHT                                          |
| INL.           | INLET                                                  |
| L.T.           | LEFT                                                   |
| L.H.F.         | LEFT-HAND FORWARD                                      |
| LIN.           | LINEAR                                                 |
| LIN.FT.        | LINEAR FOOT                                            |
| L.S.           | LUMP SUM                                               |
| MAX.           | MAXIMUM                                                |
| MI.            | MILE                                                   |
| MISC.          | MISCELLANEOUS                                          |
| N.E.           | NORTH EAST                                             |
| N.W.           | NORTH WEST                                             |
| PAV'T          | PAVEMENT                                               |
| P.C.           | POINT OF CURVATURE                                     |
| P.I.           | POINT OF INTERSECTION                                  |
| P.T.           | POINT OF TANGENCY                                      |
| P.O.T.         | POINT ON TANGENT                                       |
| LB.            | POUND                                                  |
| P.E.           | PRIVATE ENTRANCE                                       |
| PROJ.          | PROJECT                                                |
| R.             | RANGE                                                  |
| R.C.C.P.       | REINFORCED CONCRETE CULVERT PIPE                       |
| R.C.H.E.C.P.   | REINFORCED CONCRETE HORIZONTAL ELLIPTICAL CULVERT PIPE |
| R.C.P.S.S.     | REINFORCED CONCRETE PIPE STORM SEWER                   |
| REQ'D          | REQUIRED                                               |
| RT.            | RIGHT                                                  |
| R.H.F.         | RIGHT-HAND FORWARD                                     |
| R/W            | RIGHT OF WAY                                           |
| RD.            | ROAD                                                   |
| SHR.           | SHRINKAGE                                              |
| SL.            | SLOPE                                                  |
| STD.           | STANDARD                                               |
| S.D.D.         | STANDARD DETAIL DRAWINGS                               |
| S.T.H.         | STATE TRUNK HIGHWAY                                    |
| STA.           | STATION                                                |
| S.P.P.A.       | STRUCTURAL PLATE PIPE ARCH                             |
| STRUCT.        | STRUCTURE                                              |
| SURF.          | SURFACE                                                |
| TEL.           | TELEPHONE                                              |
| TN.            | TOWN                                                   |
| T.             | TRUCKS (PERCENT OF)                                    |
| UNCL.          | UNCLASSIFIED                                           |
| U.G.           | UNDERGROUND                                            |
| V.             | VELOCITY OR DESIGN SPEED                               |
| V.C.           | VERTICAL CURVE                                         |

UTILITIES / DNR CONTACTS

CENTURYLINK  
MR. JIM ARQUETTE  
P.O. BOX 13  
SHELDON, WI 54766  
PHONE: 715-452-5168; CELL 715-563-8295  
EMAIL: JIM.ARQUETTE@CENTURYTEL.COM

CHIPPEWA VALLEY ELECTRIC COOPERATIVE  
MR. ROD PATTEN  
317 SOUTH 8TH STREET  
P.O. BOX 575  
CORNELL, WI 54732  
PHONE: 715-239-6800; CELL 715-827-0212  
EMAIL: RPATTEN@CVECOOP.COM

CORNELL MUNICIPAL WATER AND ELECTRIC  
MR. JOHN WESTABY  
P.O. BOX 796  
CORNELL, WI 54732-0796  
PHONE: 715-239-3717; CELL 715-202-0307  
EMAIL: CORNELLUTILITYDEPT@CENTURYTEL.NET

DIGGERSHOTLINE

Dial 811 or (800)242-8511

www.DiggersHotline.com

WISCONSIN DEPT. NATURAL RESOURCES  
MR. NICK SCHAFF  
1300 WEST CLAIREMONT AVENUE  
P.O. BOX 4001  
EAU CLAIRE, WI 54702-4001  
PHONE: 715-839-2786

GENERAL NOTES

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

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

EXACT LOCATION AND WIDTH OF ALL DRIVEWAY ENTRANCES TO BE DETERMINED BY THE ENGINEER.

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

ALL CONCRETE PIPE SHALL HAVE THE APRON ENDWALL AND THE FIRST TWO PIPE JOINTS TIED AT THE JOINTS, (THREE JOINTS TOTAL)

INLET DEPTHS ARE APPROXIMATE AND MUST BE FIELD VERIFIED.

PIPE LENGTHS SHOWN ON STORM SEWER PLANS ARE TO CENTER OF STRUCTURE (S).

ADJUST POST LOCATION/SPACING AT MGS GUARDRAIL INSTALLATIONS AS NEEDED TO AVOID CONFLICTS WITH CULVERT PIPES AND OTHER UNDERGROUND OBSTRUCTIONS.

DISTURBED AREAS WITHIN THE RIGHT-OF-WAY, EXCEPT THE AREAS WITHIN THE FINISHED SHOULDER POINTS, ARE TO BE SEEDED, FERTILIZED AND MULCHED AS DIRECTED BY THE ENGINEER. ALL OTHER DISTURBED AREAS ARE TO BE SEEDED, FERTILIZED AND MULCHED AT THE CONTRACTORS EXPENSE.

EROSION CONTROL FEATURES AS SHOWN ON THE PLANS ARE APPROXIMATE LOCATIONS. EXACT LOCATIONS WILL BE DETERMINED BY THE CONTRACTORS EROSION CONTROL IMPLEMENTATION PLAN AS APPROVED BY THE ENGINEER IN CONSULTATION WITH THE WISCONSIN DEPARTMENT OF NATURAL RESOURCES.

THE DEPT. OF TRANSPORTATION WILL FURNISH A BENCH MARK MONUMENT MARKER TO BE INSTALLED BY THE CONTRACTOR ON EACH STRUCTURE AS DIRECTED BY THE ENGINEER.

PRIOR TO CONSTRUCTION THE CONTRACTOR SHALL CONTACT THE COUNTY SURVEYOR CONCERNING MONUMENT AND PROPERTY CORNER PRESERVATION.

TYPICAL FINISHED SECTIONS SHOW THE GENERAL ROADWAY FEATURES THROUGHOUT THE PROJECT. SLOPES AND DISTANCES MAY VARY WITHIN THE STATION LIMITS.

WHEN THE QUANTITY OF THE ITEMS OF BASE AGGREGATE DENSE OR ASPHALTIC SURFACE IS MEASURED BY THE TON, THE DEPTH OR THICKNESS OF THE COURSE SHOWN ON THE PLANS IS APPROXIMATE, AND THE ACTUAL THICKNESS WILL DEPEND ON THE DISTRIBUTION OF THE MATERIALS AS DIRECTED BY THE ENGINEER.

SHRINKAGE OF EARTHWORK IS 25 PERCENT IN THE YARDAGE SUMMARY.

NO EARTHWORK OVERHAUL HAS BEEN COMPUTED AND NO EARTHWORK OVERHAUL WILL BE PAID.

EXCAVATION BELOW SUBGRADE (EBS) IS NOT USED TO BALANCE YARDAGE AND IS NOT SHOWN ON THE CROSS SECTIONS. EBS WILL BE MEASURED AND PAID FOR AS COMMON EXCAVATION. EXACT LOCATIONS FOR EBS WILL BE DETERMINED BY THE ENGINEER.

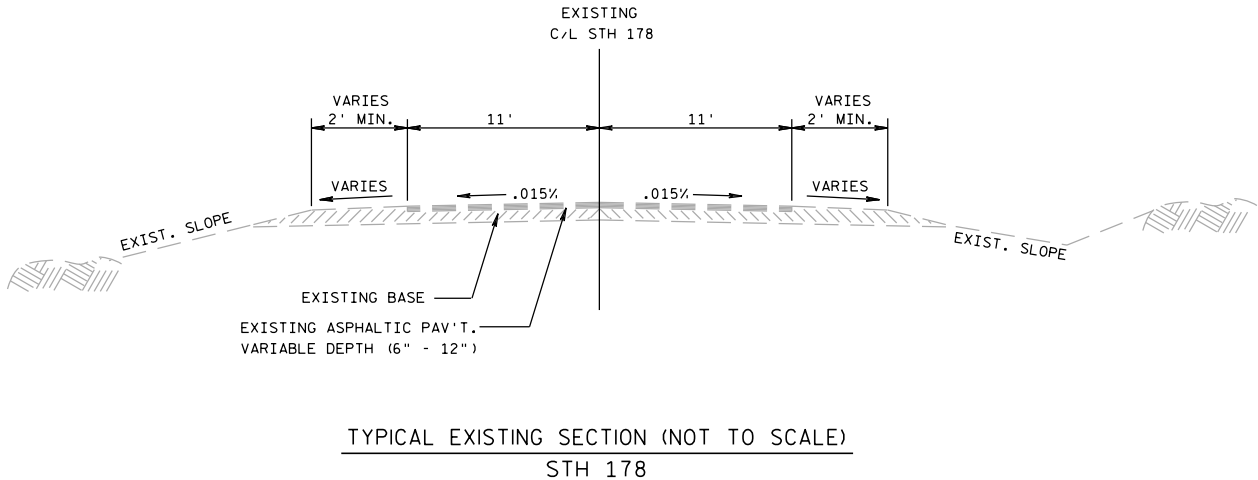
THE 4" HMA PAVEMENT SHALL BE PLACED WITH A 1¾" UPPER LAYER AND A 2¼" LOWER LAYER.

THE 4½" HMA PAVEMENT SHALL BE PLACED WITH A 1¾" UPPER LAYER AND A 2¾" LOWER LAYER.

PAVE ASPHALTIC SHOULDERS ADJACENT TO PERMANENT BEAMGUARD TO A WIDTH FLUSH WITH BEAMGUARD FACE.

LOCATIONS FOR PERMANENT SIGNS SHOWN ON THE PLAN ARE APPROXIMATE. ACTUAL LOCATIONS OF PERMANENT SIGNS ARE TO BE COORDINATED IN THE FIELD BY THE ENGINEER.

PLACE PERMANENT PAVEMENT MARKING ON STH 178 SUCH THAT THE TRAFFIC LANES ARE 11' WIDE.

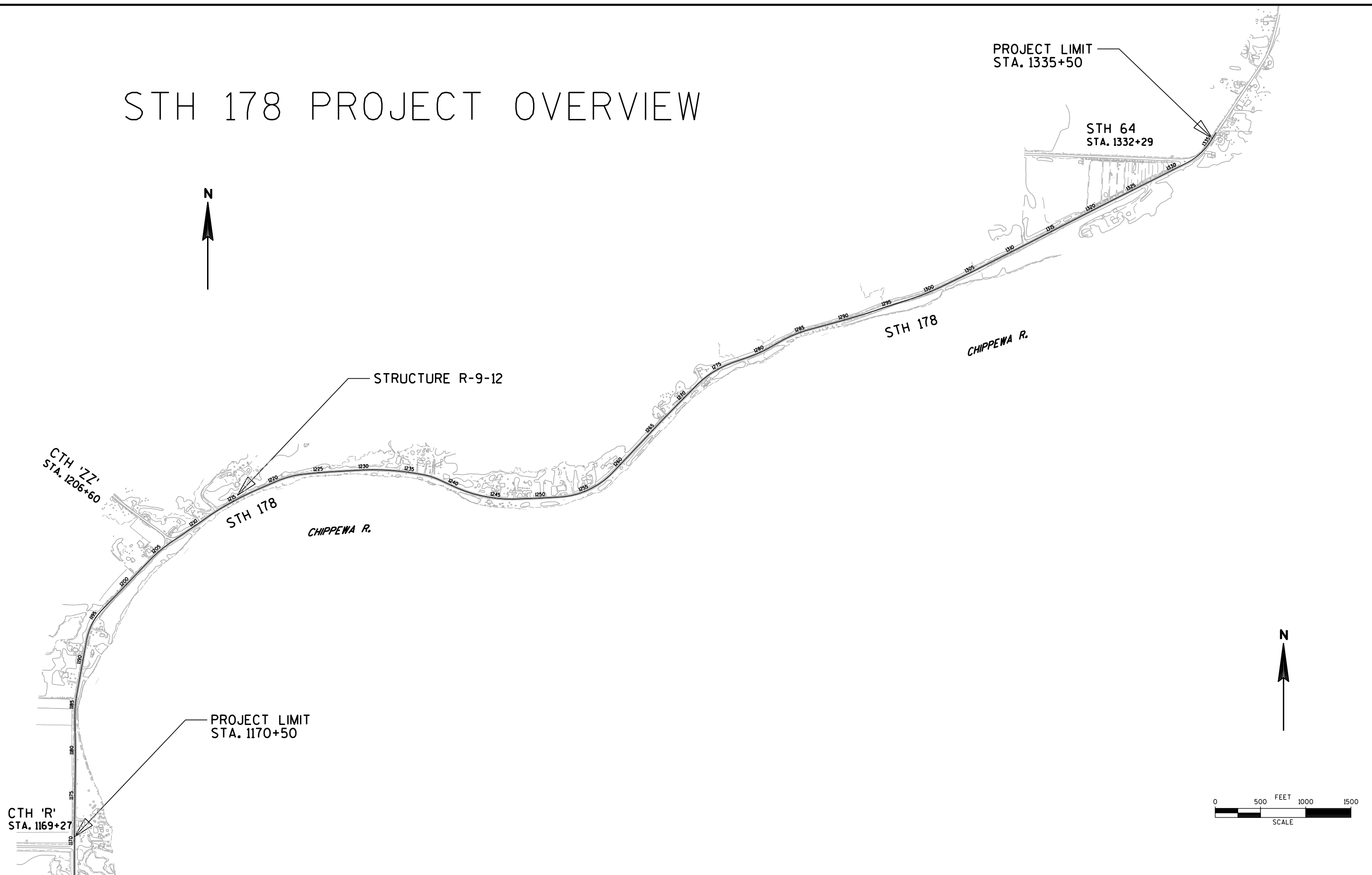


EXISTING PAVEMENT CORES - JUNE, 2010

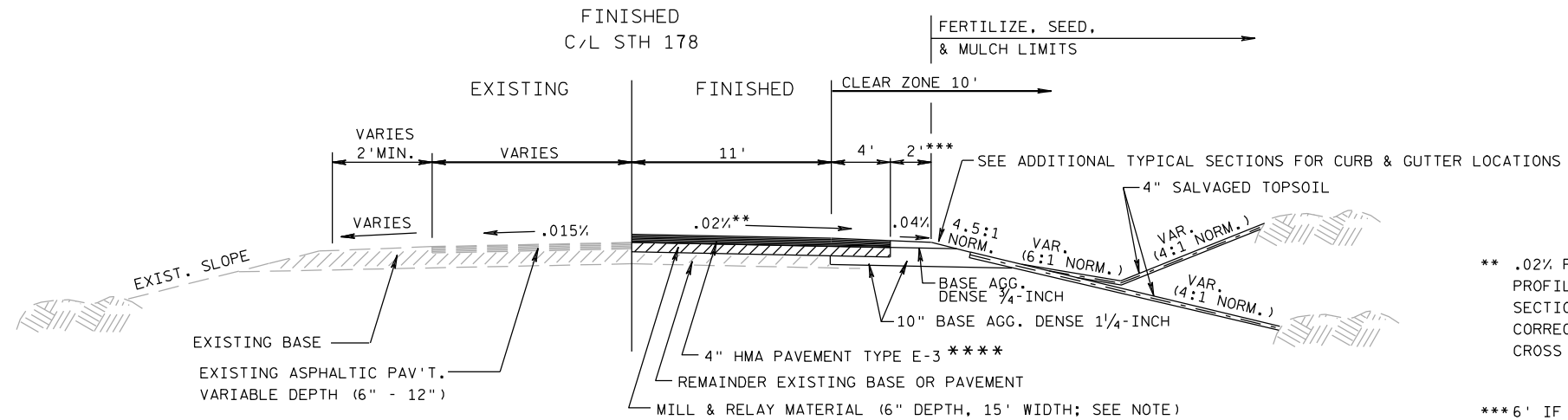
| CORE NO. | ODOMETER | APPROX. STA. | OFFSET | ASPH PAV'T THICKNESS | COMMENTS |
|----------|----------|--------------|--------|----------------------|----------|
|          | (MILE)   |              | (FEET) | (INCHES)             |          |
| 1        | 0.00     | 1169+65      | 6.0 LT | 8.0                  |          |
| 2        | 0.50     | 1196+05      | 6.0 RT | 14.0                 |          |
| -        | 0.70     | 1206+60      | -      | -                    | CTH ZZ   |
| 3        | 1.00     | 1222+45      | 6.0 LT | 6.0                  |          |
| 4        | 1.50     | 1248+85      | 6.0 RT | 12.0                 |          |
| 5        | 2.00     | 1275+25      | 6.0 LT | 8.0                  |          |
| 6        | 2.50     | 1300+05      | 6.0 RT | 8.5                  |          |
| 7        | 3.00     | 1326+45      | 6.0 LT | 9.0                  |          |
| -        | 3.11     | 1332+25      | -      | -                    | STH 64   |

STATION VALUES ARE APPROXIMATE.

# STH 178 PROJECT OVERVIEW



\*\*\*\* HMA TYPE E-3, LOWER (19 mm) LAYER &amp; UPPER (12.5 mm) LAYER



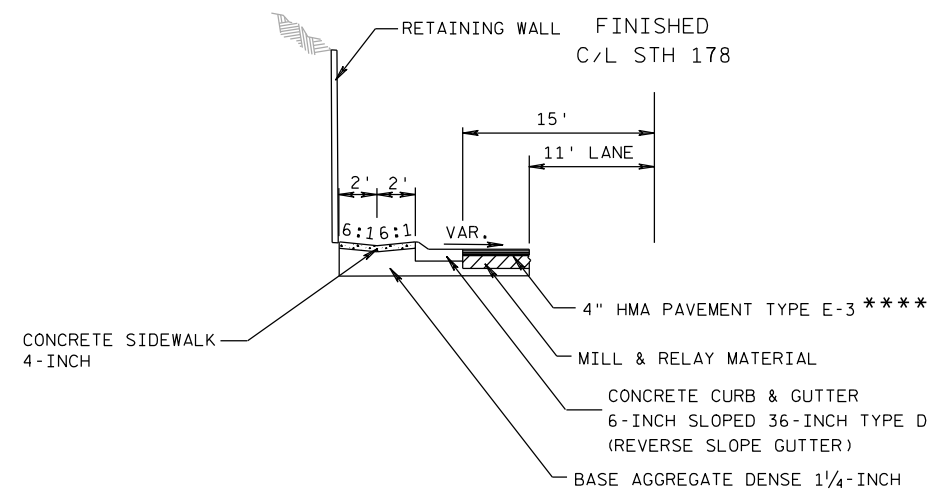
\*\* .02% FOR N.C. SECTIONS. SEE SUPERELEVATION PROFILE DIAGRAM FOR CROSS SLOPE ON SUPERELEVATED SECTIONS. SEE ALSO DETAIL FOR SUPERELEVATION CORRECTIONS WITH HMA PAVEMENT WEDGING WHERE CROSS SLOPE CORRECTIONS ARE REQUIRED.

\*\*\*6' IF GUARDRAIL REQUIRED  
(PAVE ADDITIONAL 2' TO GUARDRAIL FACE)  
(STA. ± 1181+50 - 1186+00, RT.)  
(STA. ± 1200+50 - 1235+50, RT.)  
(STA. ± 1271+00 - 1273+00, RT.)  
(STA. ± 1283+00 - 1289+00, RT.)

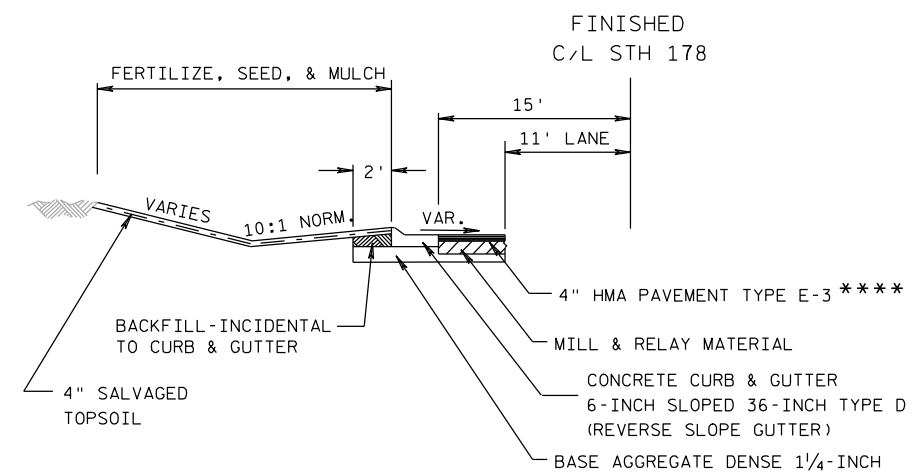
**TYPICAL SECTION FOR RESURFACING/WIDENING (NOT TO SCALE)****STH 178**

NOTE: PRIOR TO MILL & RELAY, WIDEN/EXCAVATE EXISTING SHOULDERS 10" DEEP AND PLACE NEW BASE AGG. DENSE 1 1/4-INCH .

STA. 1170+50 - 1191+50  
STA. 1215+50 - 1219+50  
STA. 1234+00 - 1293+50  
STA. 1298+00 - 1301+50  
STA. 1308+50 - 1316+00  
STA. 1320+00 - 1322+50  
STA. 1324+50 - 1335+00

**TYPICAL SECTION FOR CURB & GUTTER (NOT TO SCALE)****STH 178**

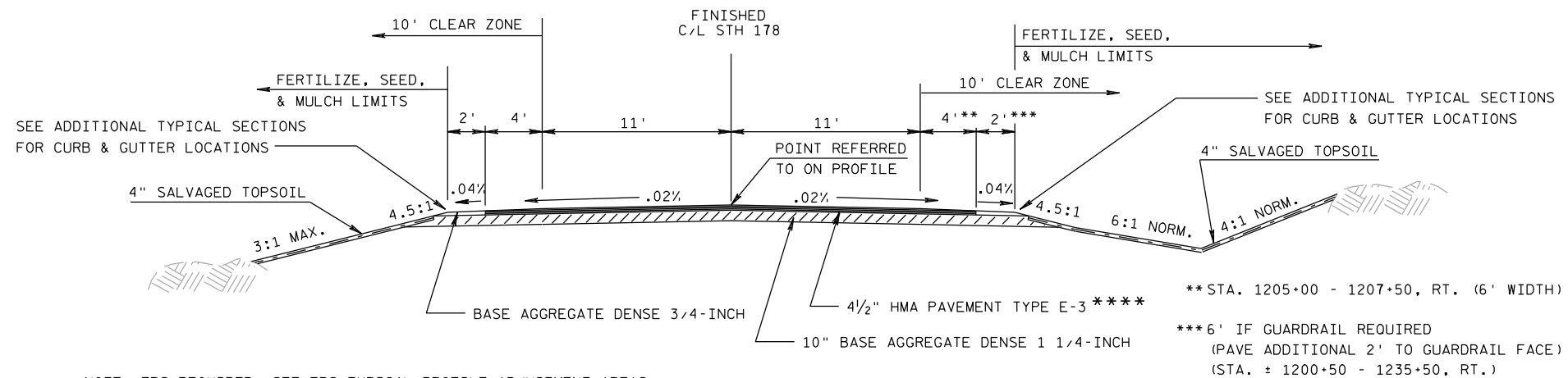
STA. 1215+50 - 1217+50 LT.

**TYPICAL SECTION FOR CURB & GUTTER (NOT TO SCALE)****STH 178**

STA. 1218+00 - 1219+50 LT.

# 2

2 |

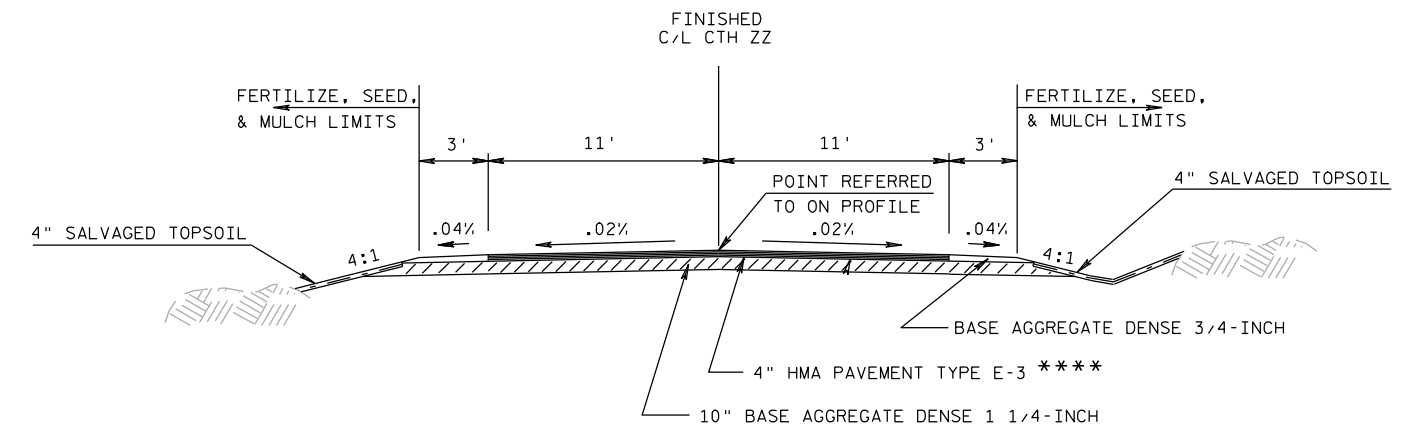


NOTE: EBS REQUIRED. SEE EBS TYPICAL PROFILE ADJUSTMENT AREAS.

TYPICAL SECTION FOR REGRADING (NOT TO SCALE)

STH 178

STA. 1192+00 - 1215+00  
STA. 1220+00 - 1222+00  
STA. 1302+00 - 1308+00  
STA. 1316+50 - 1319+50  
STA. 1323+00 - 1324+00

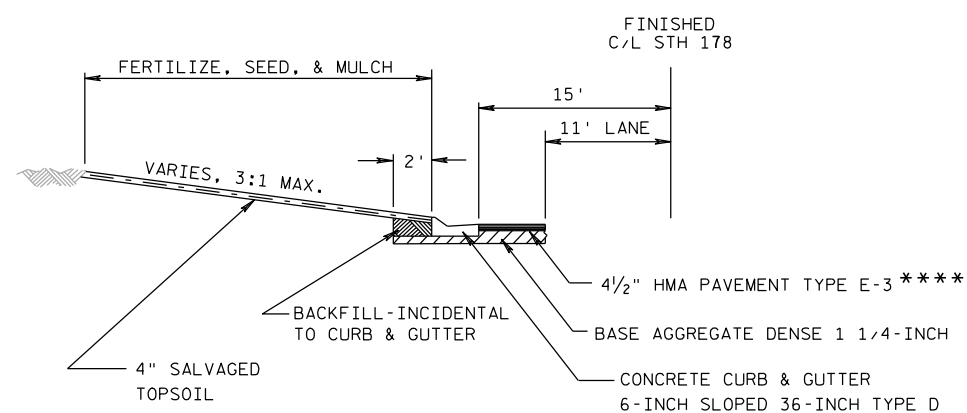


NOTE: EBS REQUIRED. SEE EBS TYPICAL PROFILE ADJUSTMENT AREAS.

TYPICAL FINISHED SECTION FOR CTH ZZ (NOT TO SCALE)

CTH ZZ

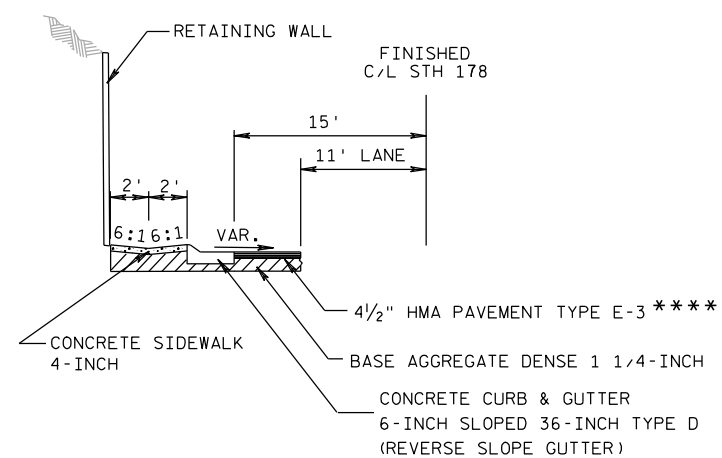
STA. 0+50 - 3+00



TYPICAL SECTION FOR CURB & GUTTER (NOT TO SCALE)

STH 178

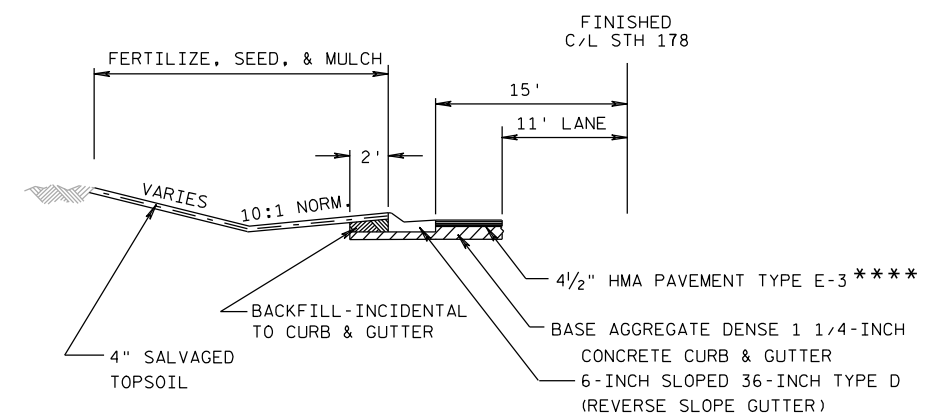
STA. 1195+65 - 1198+40 RT.  
STA. 1208+00 - 1209+60 LT.



TYPICAL SECTION FOR CURB & GUTTER (NOT TO SCALE)

STH 178

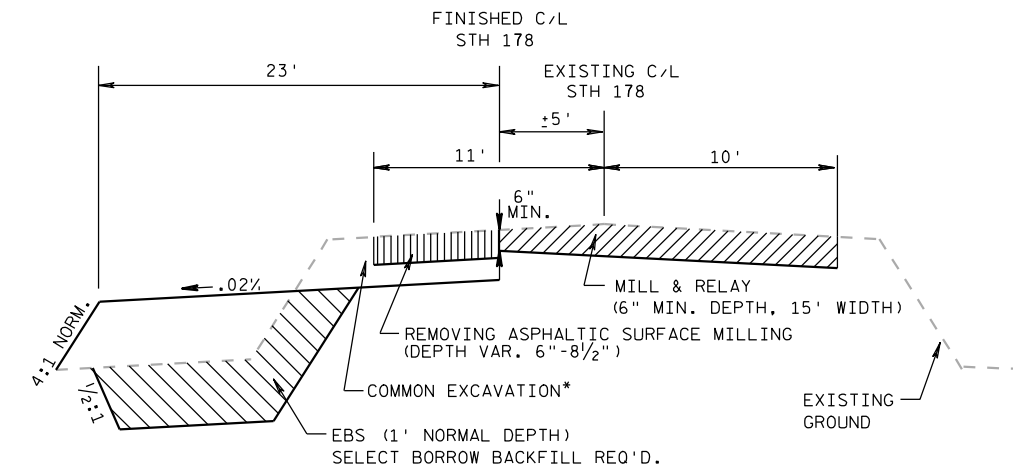
STA. 1213+60 - 1215+00 LT.



TYPICAL SECTION FOR CURB & GUTTER (NOT TO SCALE)

STH 178

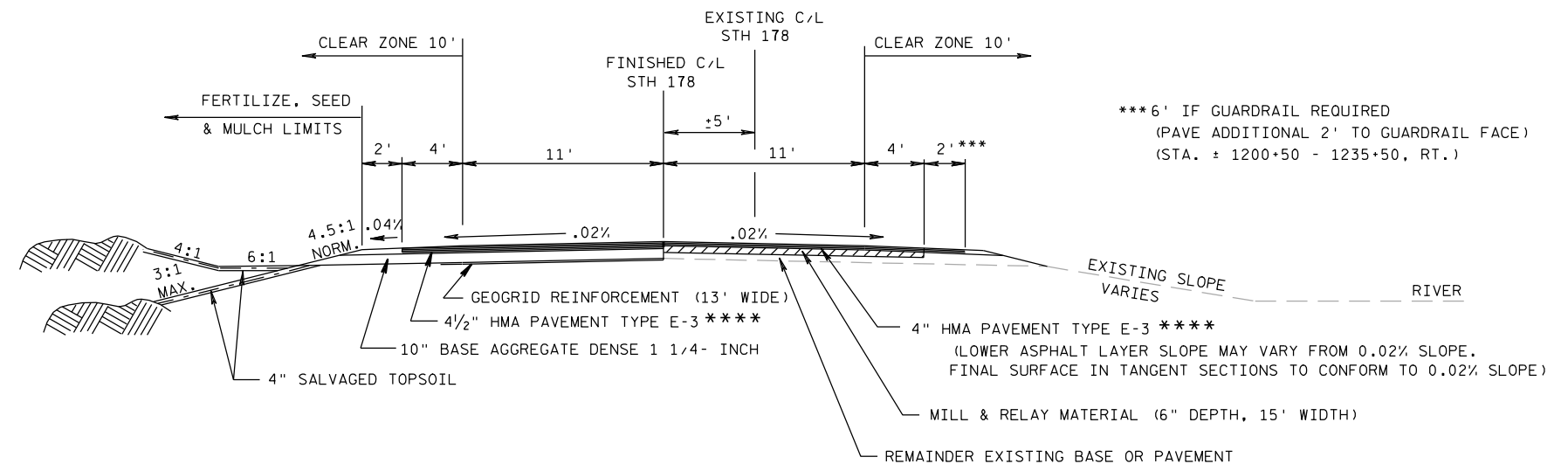
STA. 1207+00 - 1207+50 LT.  
STA. 1220+00 - 1222+00 LT.



\* EXCAVATE TO A DEPTH OF 10 1/2" FROM EXISTING GROUND @ NEW C

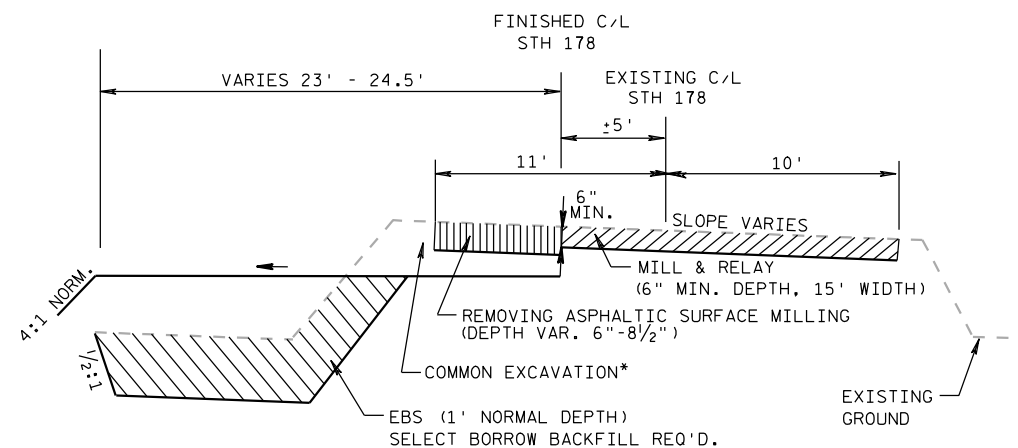
TYPICAL SECTION FOR RESURFACING/ALIGNMENT SHIFT - GRID 1/2 WIDTH  
STH 178

STA. 1222+50 - 1233+50  
STA. 1294+00 - 1297+50 (ALIGNMENT SHIFT IS TO RIGHT OF C/L; MIRROR TYPICAL)



TYPICAL FINISHED SECTION FOR RESURFACING/ALIGNMENT SHIFT - GRID 1/2 WIDTH  
STH 178

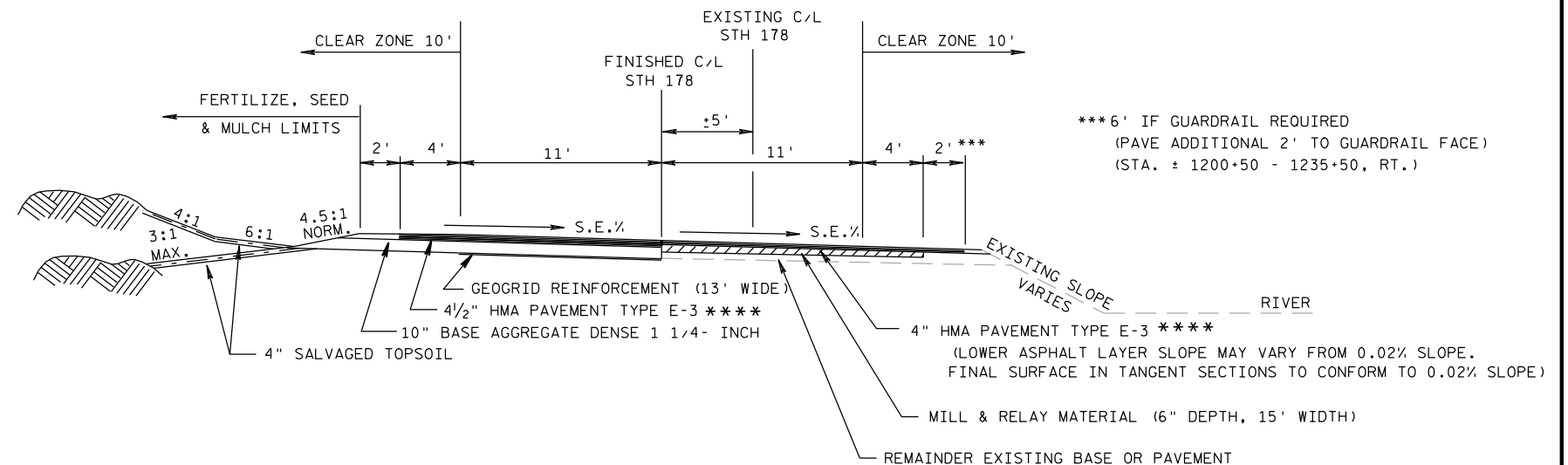
STA. 1222+50 - 1233+50  
STA. 1294+00 - 1297+50 (ALIGNMENT SHIFT IS TO RIGHT OF C/L; MIRROR TYPICAL)



\* EXCAVATE TO A DEPTH OF 10 1/2" FROM EXISTING GROUND @ NEW C

TYPICAL SUPERELEVATED SECTION  
FOR RESURFACING/ALIGNMENT SHIFT - GRID 1/2 WIDTH  
STH 178

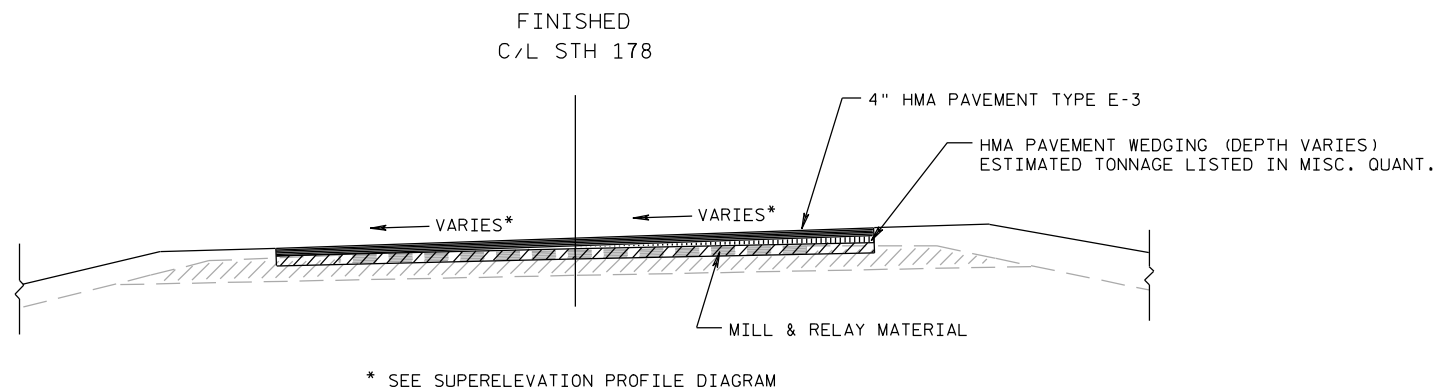
STA. 1222+50 - 1233+50



TYPICAL FINISHED SUPERELEVATED SECTION  
FOR RESURFACING/ALIGNMENT SHIFT - GRID 1/2 WIDTH  
STH 178

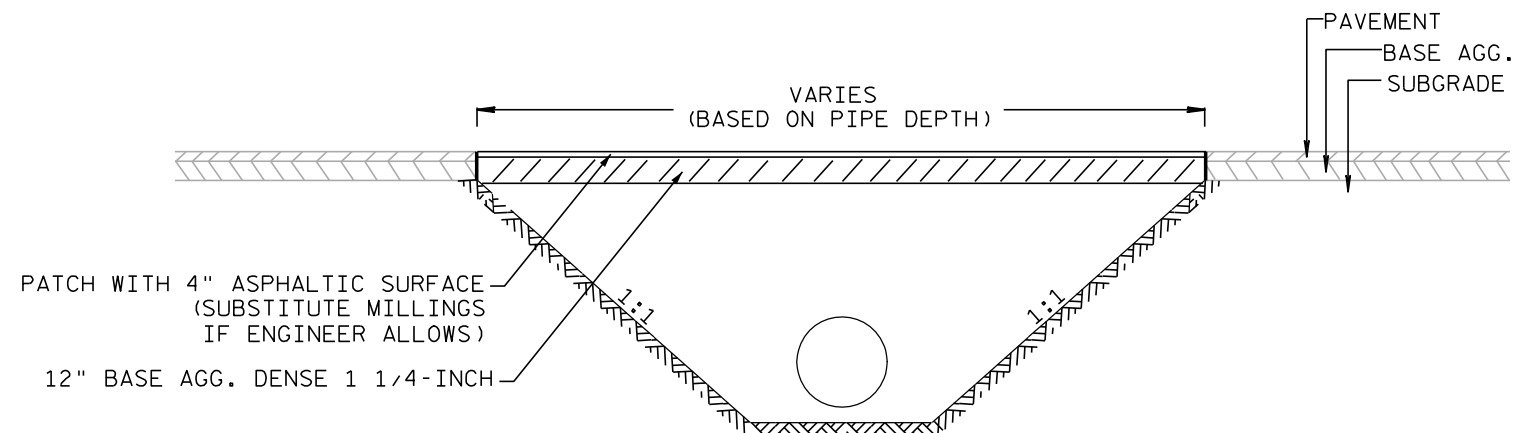
STA. 1222+50 - 1233+50

2



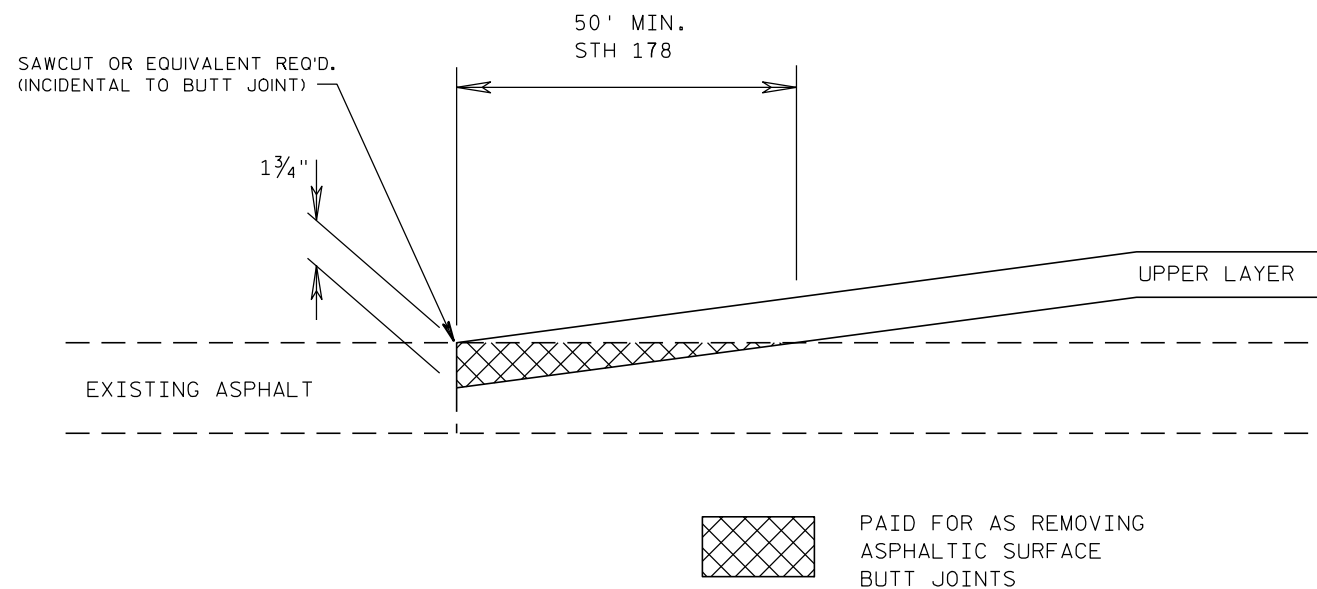
**DETAIL FOR SUPERELEVATION CORRECTIONS WITH HMA PAVEMENT WEDGING  
(AT RESURFACING/WIDENING SECTIONS)**

2



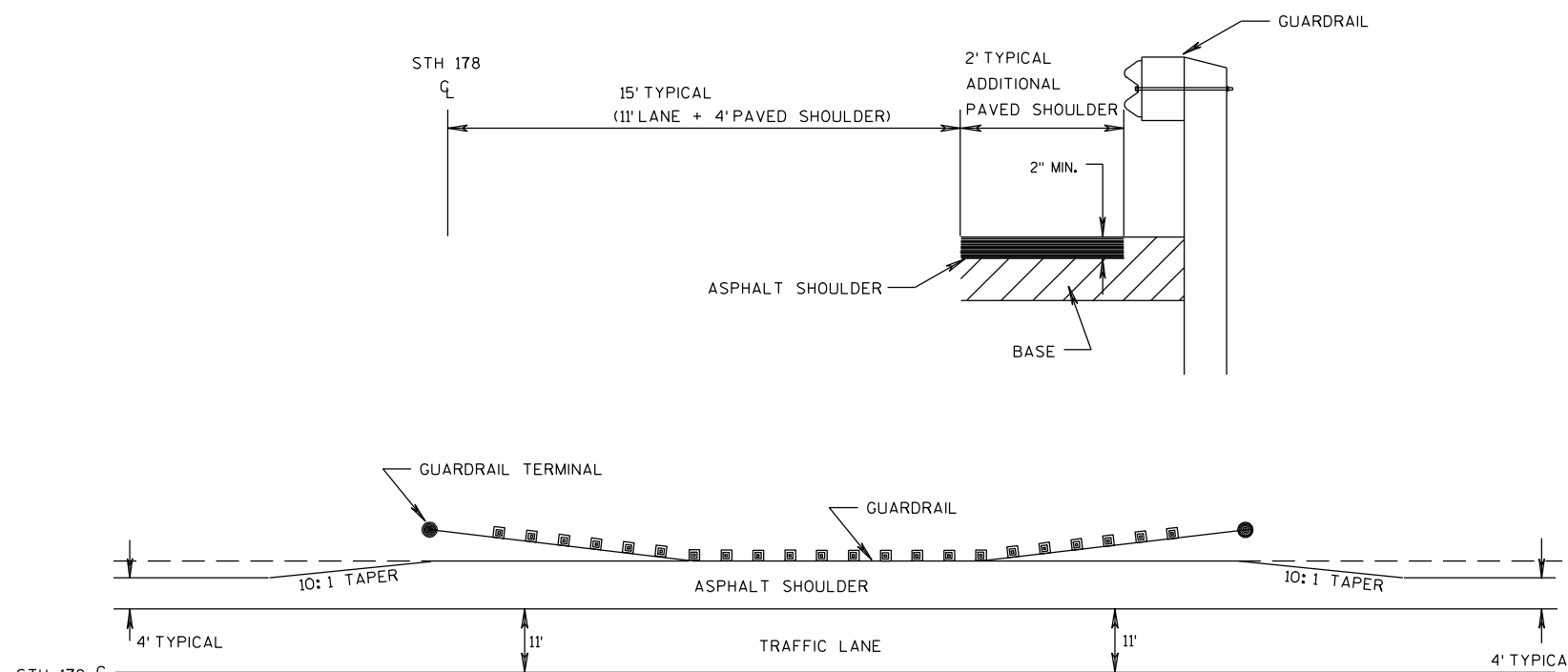
NOTE: DETAIL IS FOR PIPE REMOVAL/INSTALLATION PRIOR TO MILL AND RELAY.

**DETAIL FOR CULVERT OR STORM SEWER PIPE REMOVAL/INSTALLATION  
(AT RESURFACING/WIDENING/ALIGNMENT SHIFT SECTIONS)**

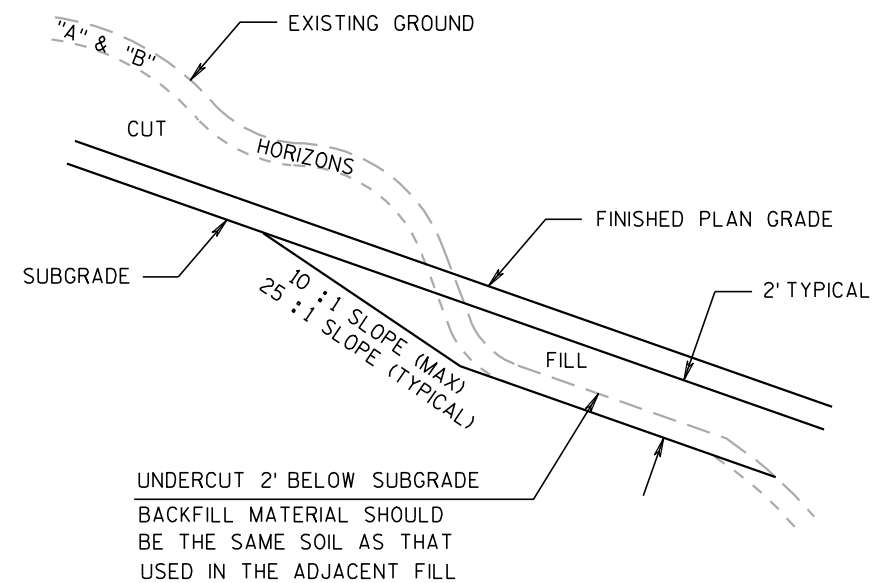


**BUTT JOINT DETAIL**

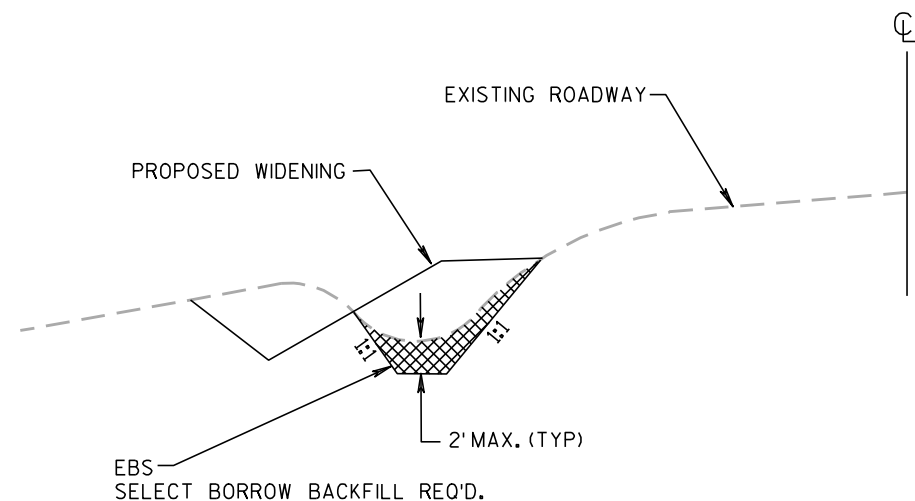
STA. 1170+50, STH 178  
STA. 1335+50, STH 178



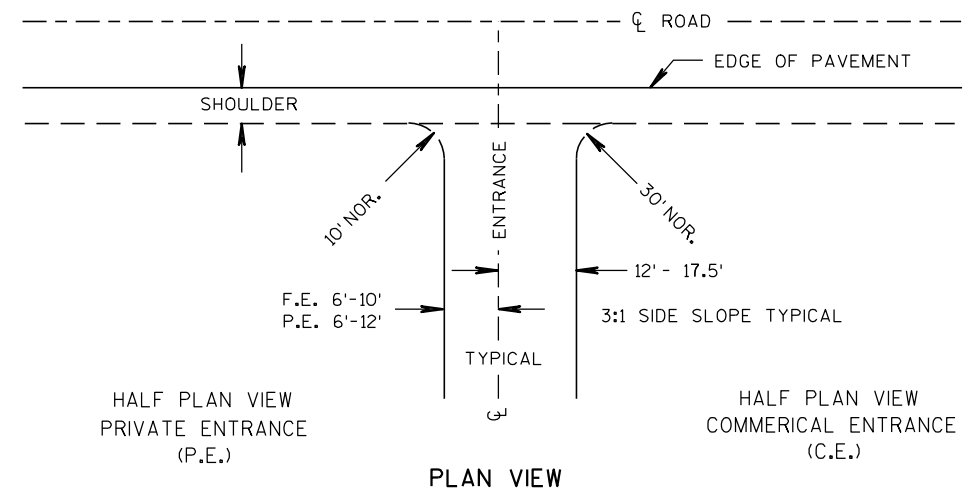
**DETAIL FOR ASPHALT SHOULDER AT GUARDRAIL LOCATIONS**



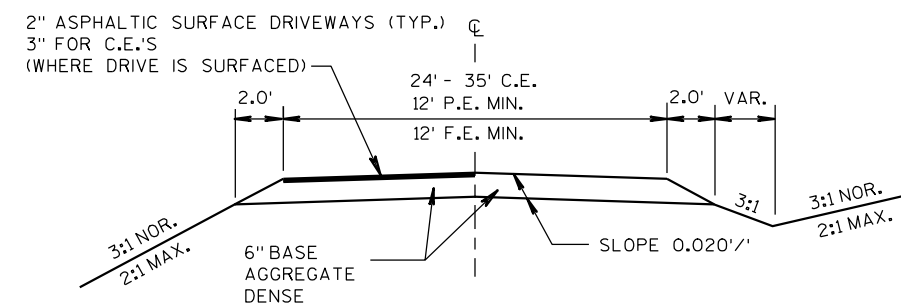
DETAIL FOR SUBGRADE UNDERCUTTING AT CUT-TO-FILL TRANSITIONS



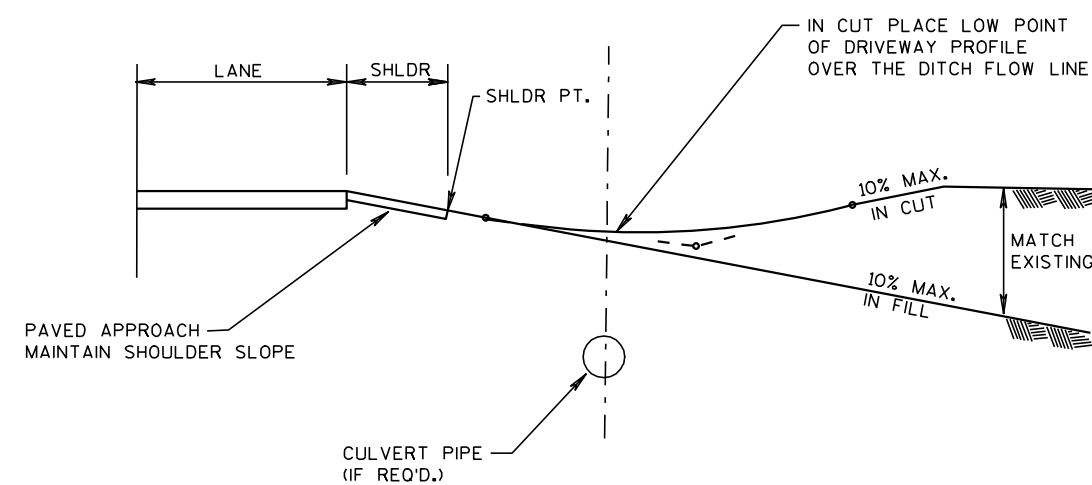
DETAIL FOR EXCAVATION BELOW SUBGRADE (EBS) IN ROADWAY WIDENING AREAS



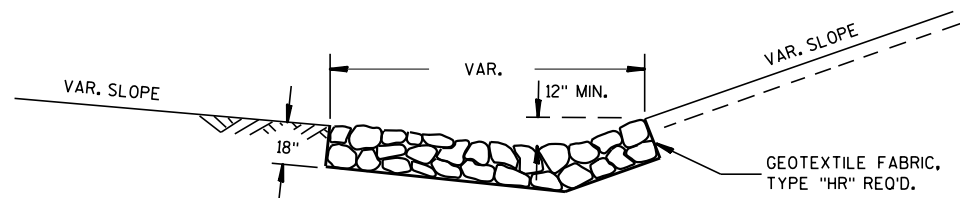
RURAL DRIVEWAY PLAN DETAIL



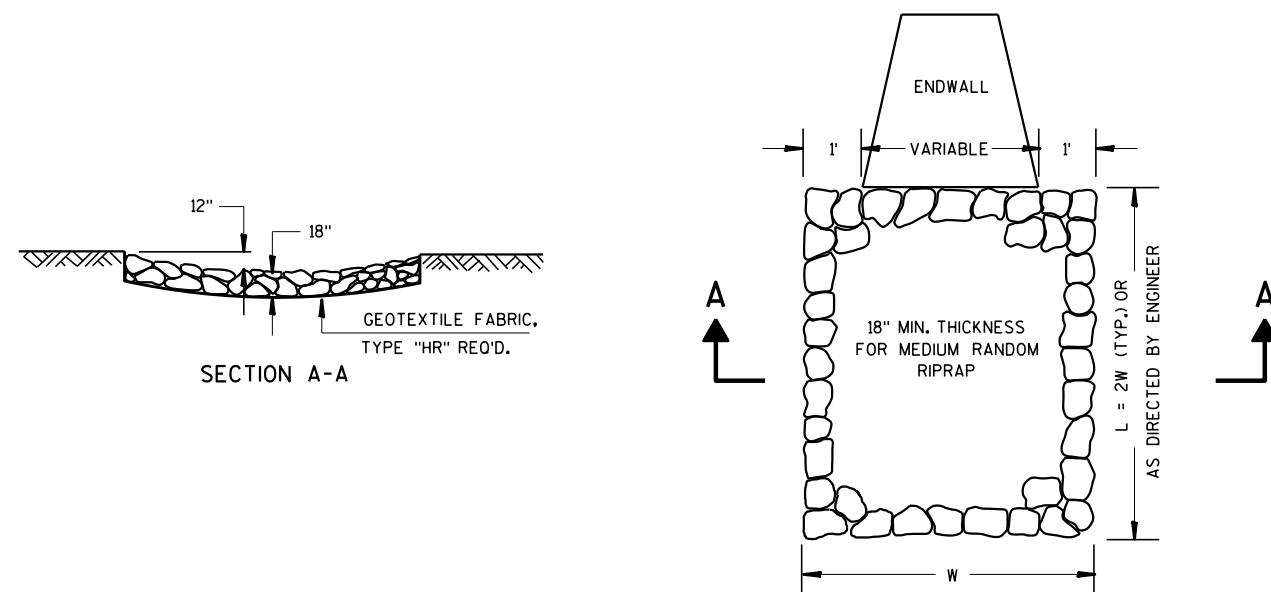
RURAL DRIVEWAY TYPICAL SECTION



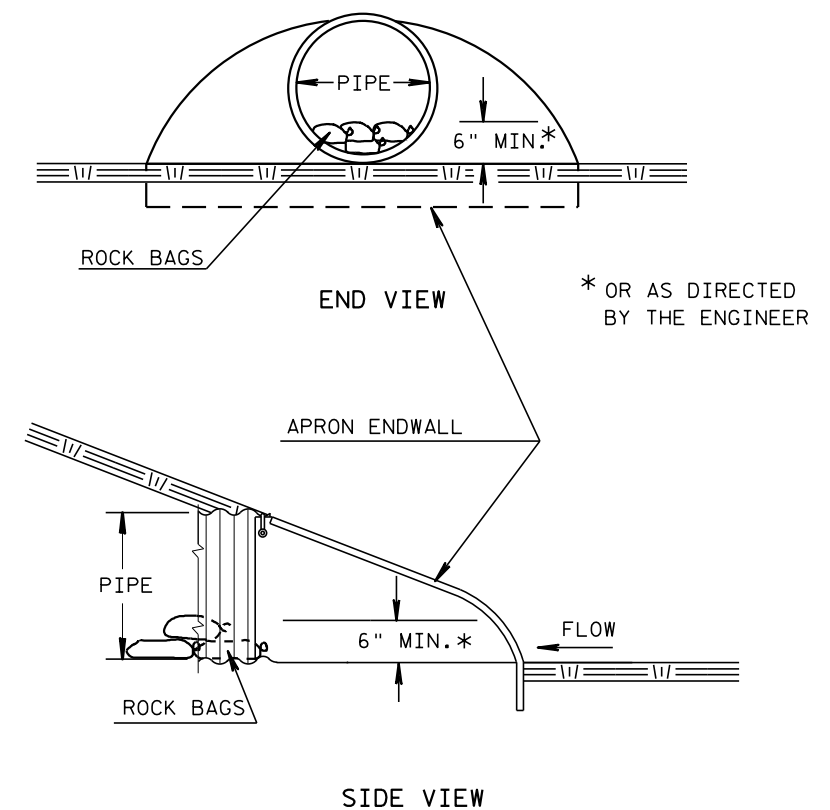
RURAL DRIVEWAY TYPICAL PROFILES



DETAIL FOR RIPRAP MEDIUM IN DITCHES



DETAIL FOR RIPRAP MEDIUM AT CULVERTS

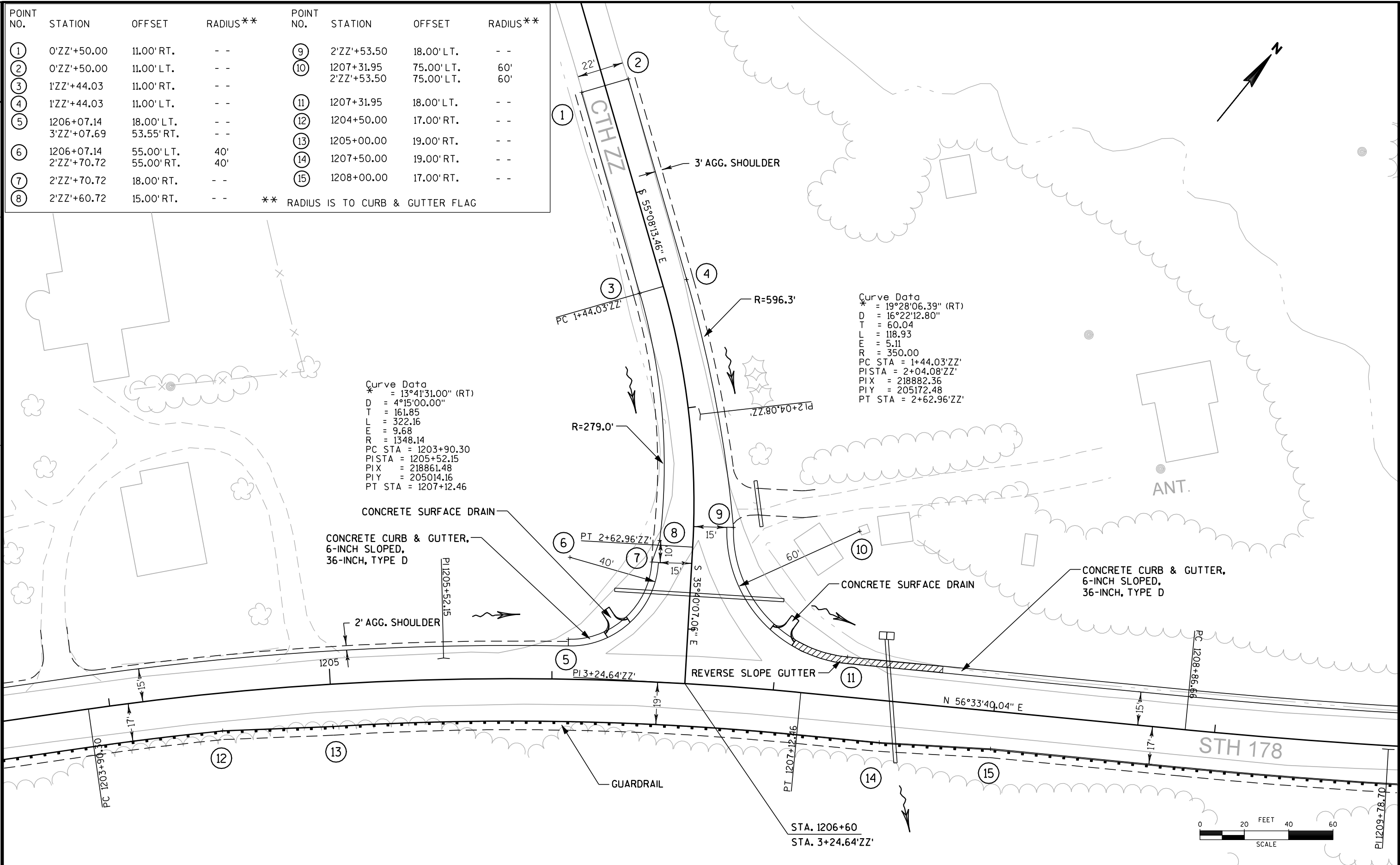


CULVERT PIPE CHECK

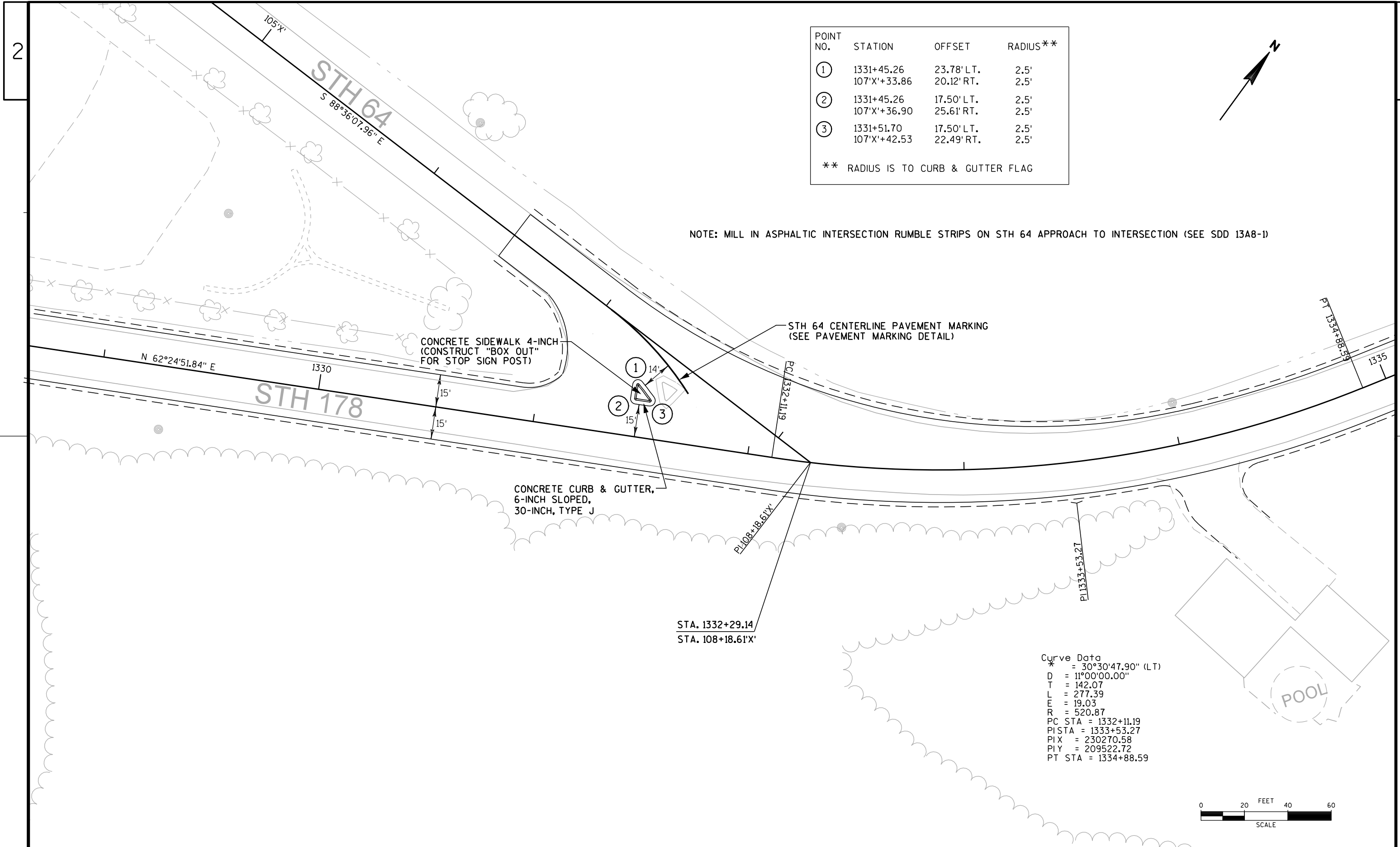
2

| POINT NO. | STATION     | OFFSET     | RADIUS** | POINT NO. | STATION     | OFFSET     | RADIUS** |
|-----------|-------------|------------|----------|-----------|-------------|------------|----------|
| ①         | 0'ZZ'+50.00 | 11.00' RT. | - -      | ⑨         | 2'ZZ'+53.50 | 18.00' LT. | - -      |
| ②         | 0'ZZ'+50.00 | 11.00' LT. | - -      | ⑩         | 1207+31.95  | 75.00' LT. | 60'      |
| ③         | 1'ZZ'+44.03 | 11.00' RT. | - -      |           | 2'ZZ'+53.50 | 75.00' LT. | 60'      |
| ④         | 1'ZZ'+44.03 | 11.00' LT. | - -      | ⑪         | 1207+31.95  | 18.00' LT. | - -      |
| ⑤         | 1206+07.14  | 18.00' LT. | - -      | ⑫         | 1204+50.00  | 17.00' RT. | - -      |
|           | 3'ZZ'+07.69 | 53.55' RT. | - -      | ⑬         | 1205+00.00  | 19.00' RT. | - -      |
| ⑥         | 1206+07.14  | 55.00' LT. | 40'      | ⑭         | 1207+50.00  | 19.00' RT. | - -      |
|           | 2'ZZ'+70.72 | 55.00' RT. | 40'      | ⑮         | 1208+00.00  | 17.00' RT. | - -      |
| ⑦         | 2'ZZ'+70.72 | 18.00' RT. | - -      |           |             |            |          |
| ⑧         | 2'ZZ'+60.72 | 15.00' RT. | - -      |           |             |            |          |

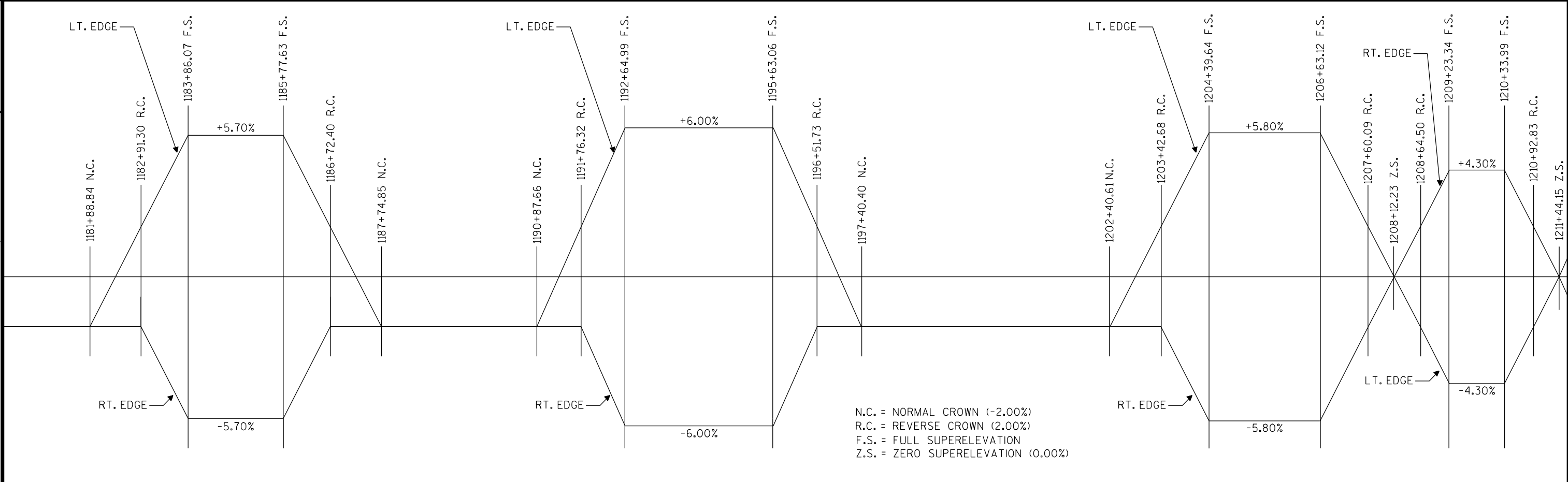
\*\* RADIUS IS TO CURB & GUTTER FLAG



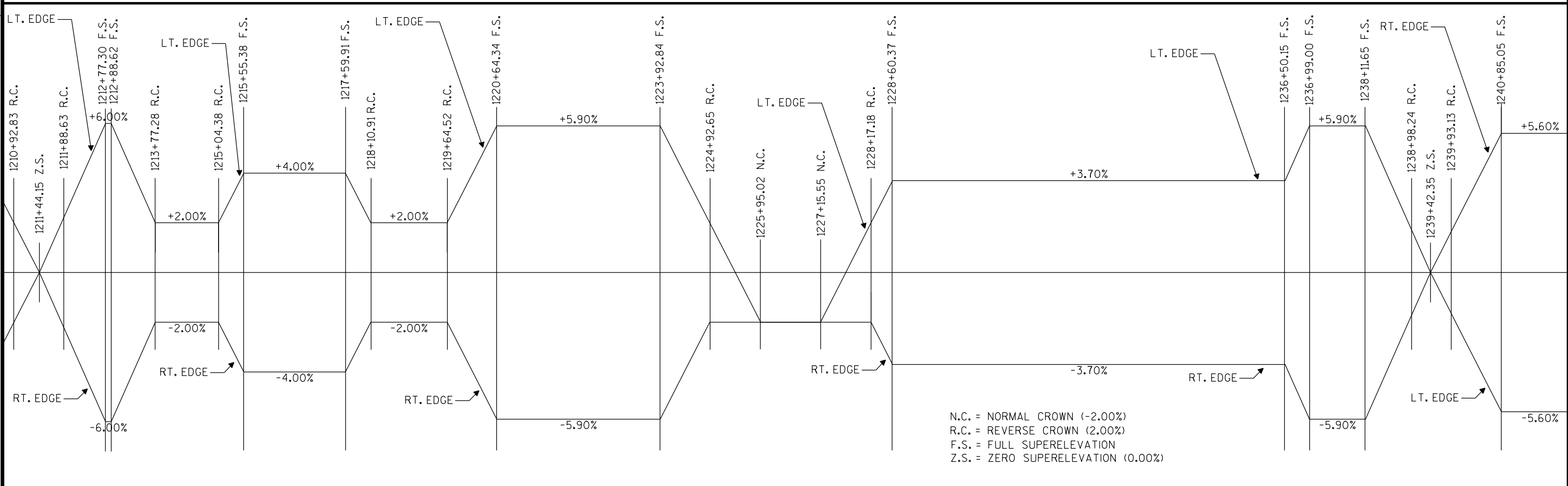
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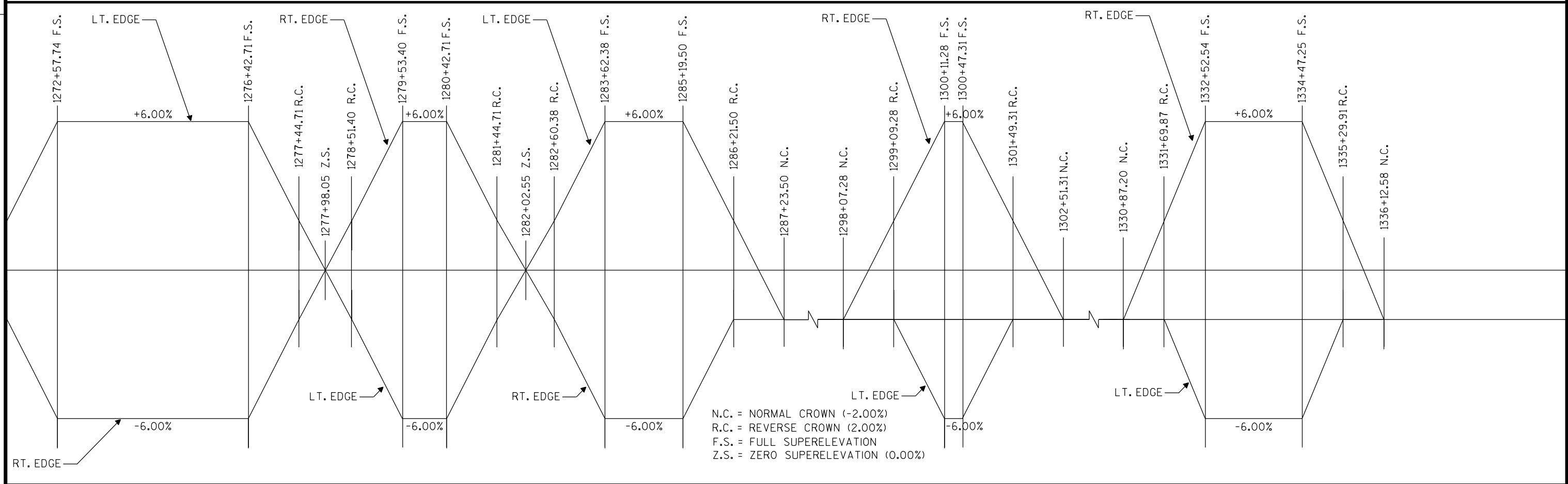
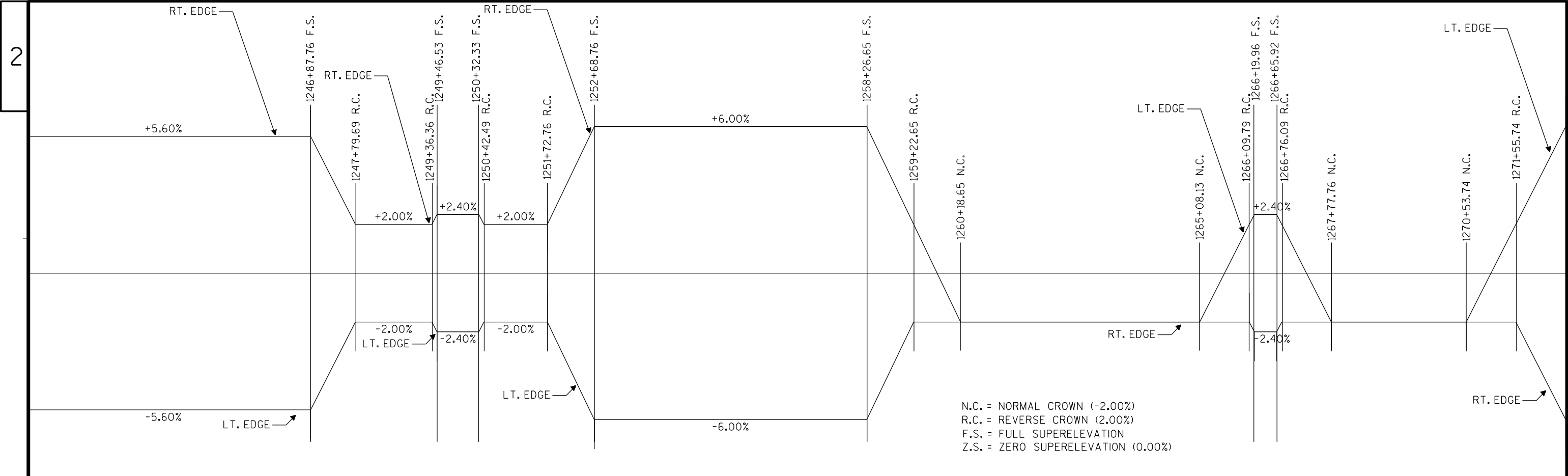


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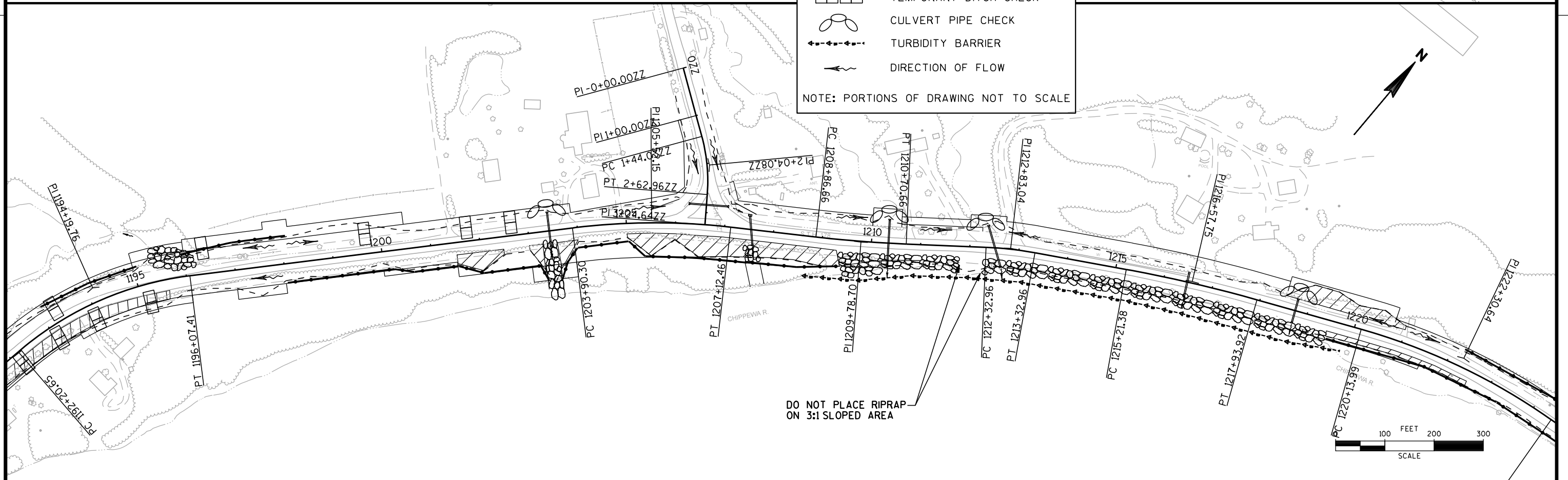
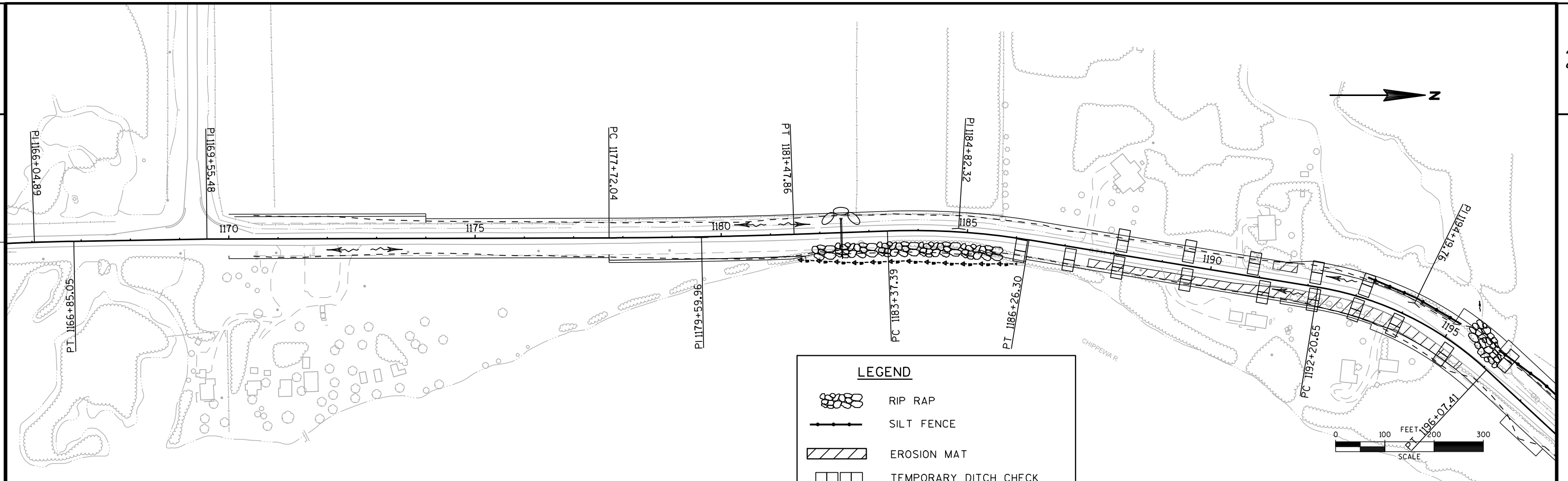


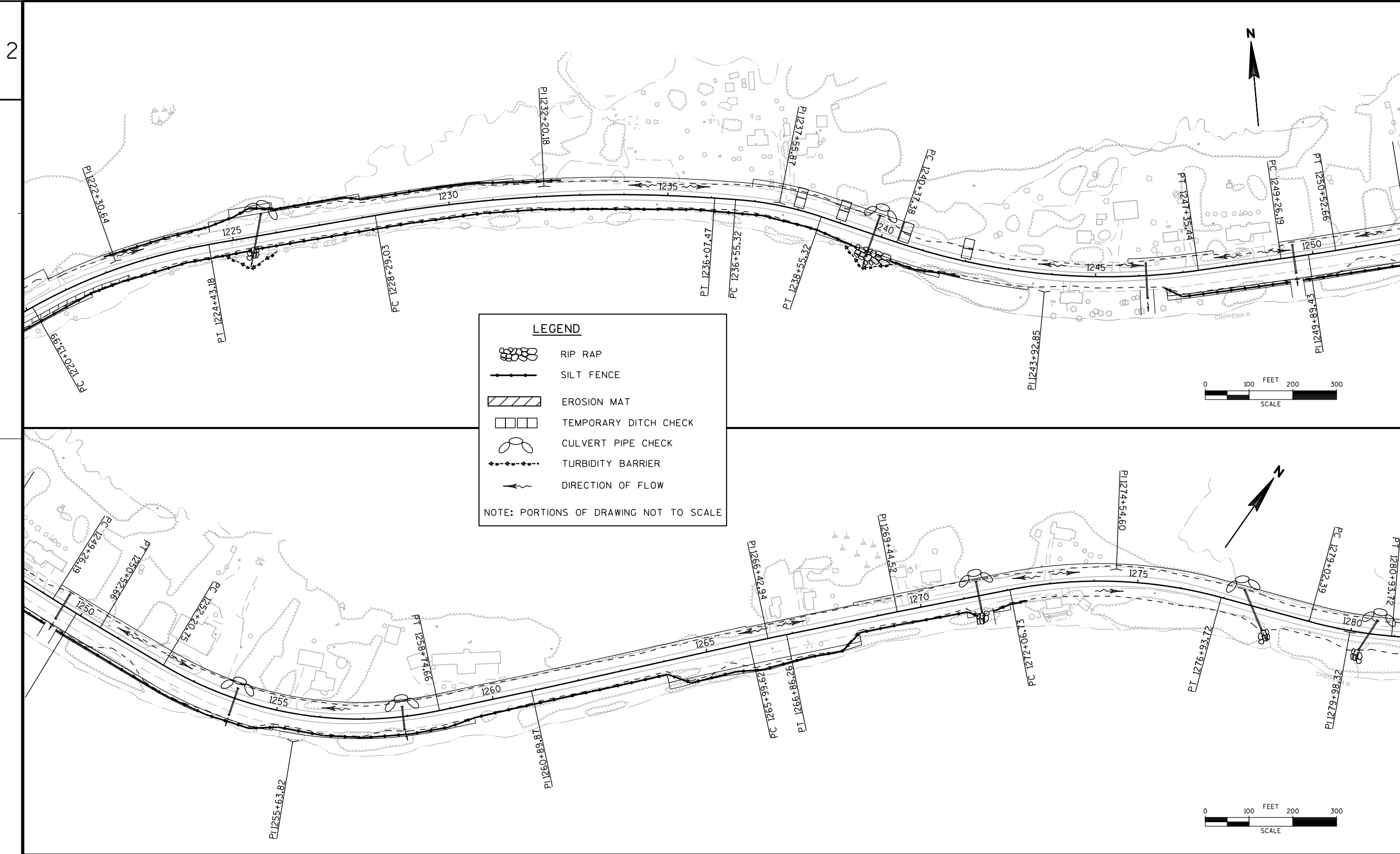
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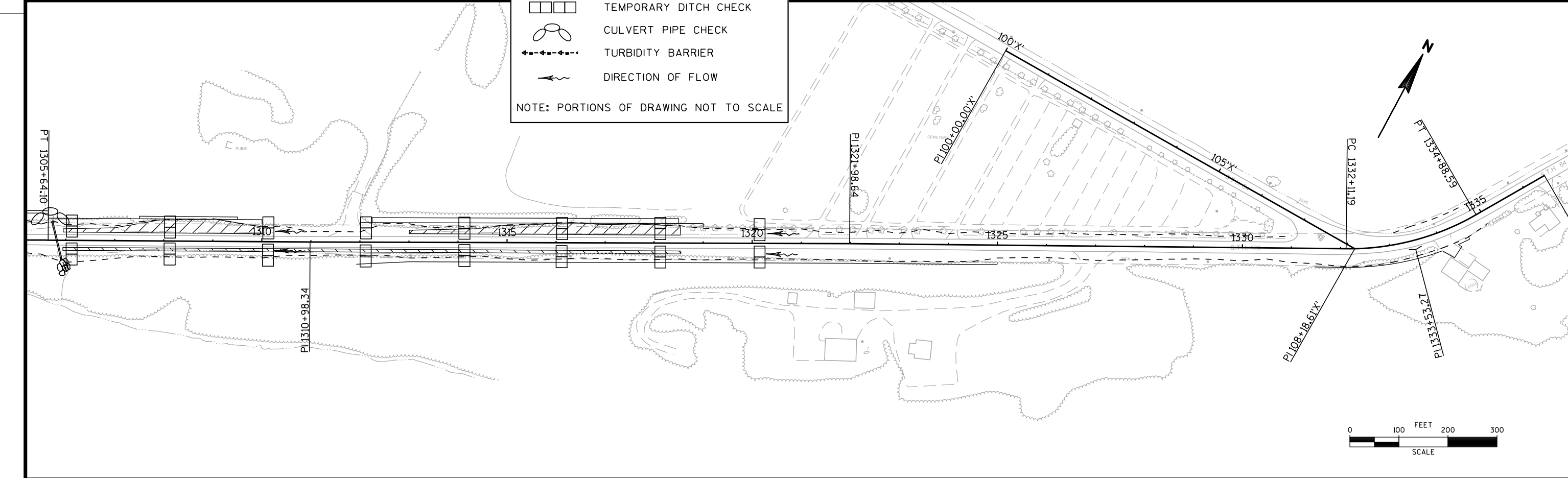
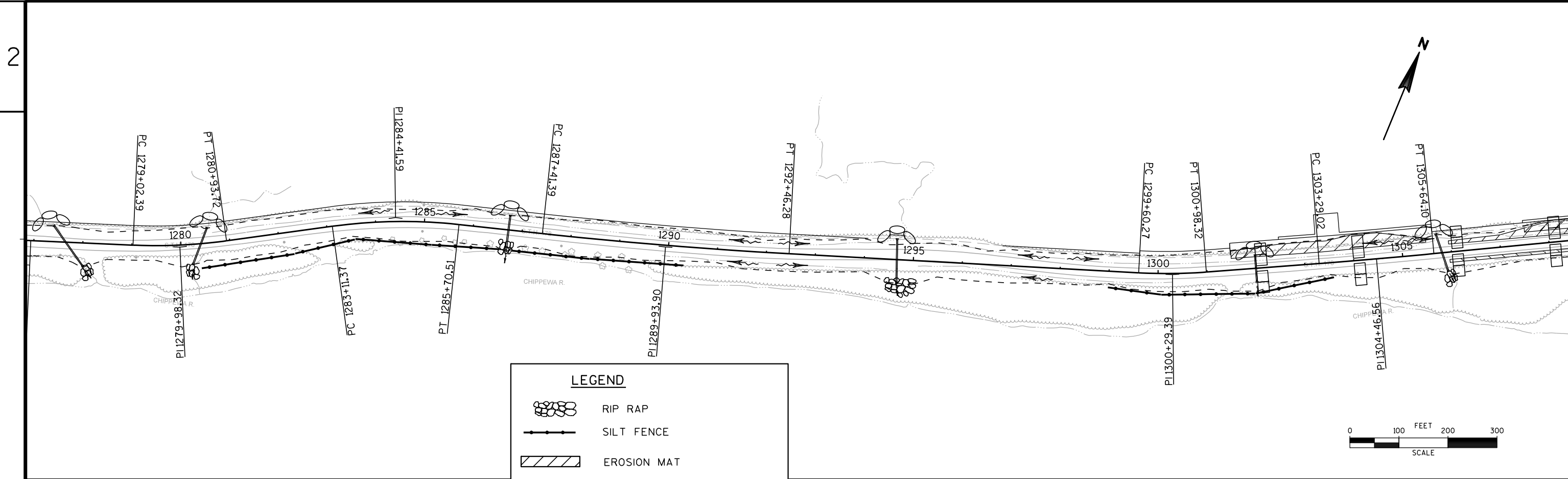


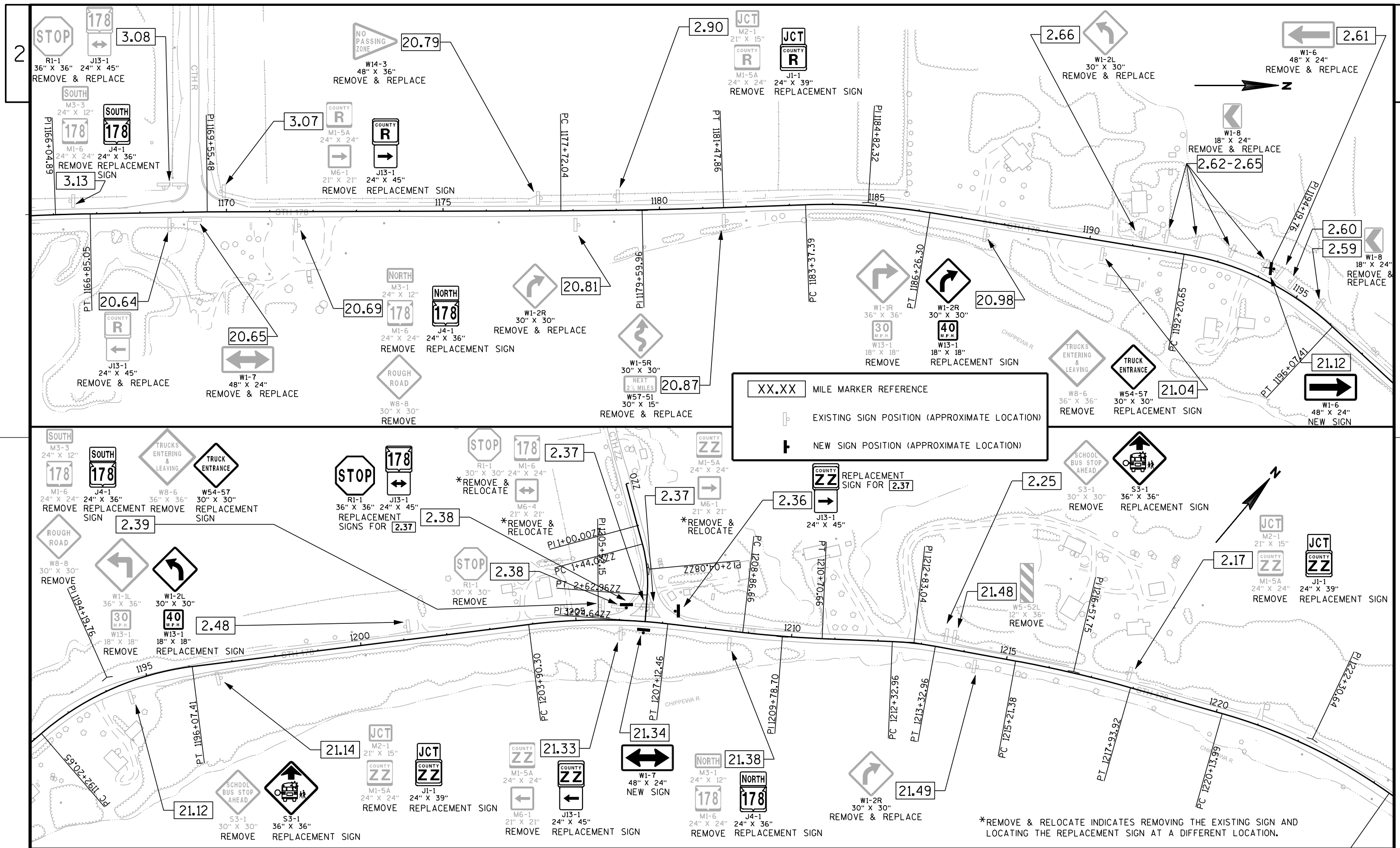


| STORM SEWER DRAINAGE TABLE |                |                  |                    |          |             |                  |              |                       |                 |                        |                          |                   |                   |                                              |
|----------------------------|----------------|------------------|--------------------|----------|-------------|------------------|--------------|-----------------------|-----------------|------------------------|--------------------------|-------------------|-------------------|----------------------------------------------|
| INLET NO.                  | INLET TYPE     | INLET COVER TYPE | STATION            | LOCATION | GRATE ELEV. | TOP OF BOX ELEV. | DISCH. ELEV. | DISCH. TO             | BOX DEPTH (FT.) | DISCH. PIPE DIA. (IN.) | DISCH. PIPE LENGTH (FT.) | DISCH. PIPE CLASS | DISCH. PIPE GRADE | COMMENTS                                     |
| INLET 1                    | MEDIAN 2 GRATE | MS               | 1207+50, 28' LT.   | STH 178  | 984.08      | 984.08           | 981.29       | APRON ENDWALL / SLOPE | 3               | 18                     | 54                       | III               | 2.50%             | SINGLE SLOPE ON INLET COVERS                 |
| INLET 2                    | 2X2-FT.        | B                | 1216+48, 20' LT.   | STH 178  | 966.23      | 965.06           | 963.23       | APRON ENDWALL / SLOPE | 2               | 12                     | 42                       | III               | 3.79%             | GRATE ELEV. IS 1" BELOW PAVED DITCH FLOWLINE |
| INLET 3                    | MEDIAN 1 GRATE | MS               | 1246+15, 28' LT.   | STH 178  | 963.27      | 963.27           | 960.48       | APRON ENDWALL / SLOPE | 3               | 18                     | 78                       | III               | 0.50%             | NO SLOPE ON INLET COVER                      |
| INLET 4                    | MEDIAN 1 GRATE | MS               | 1249+55, 28.7' LT. | STH 178  | 965.24      | 965.24           | 962.45       | APRON ENDWALL / SLOPE | 3               | 18                     | 60                       | III               | 0.50%             | NO SLOPE ON INLET COVER                      |

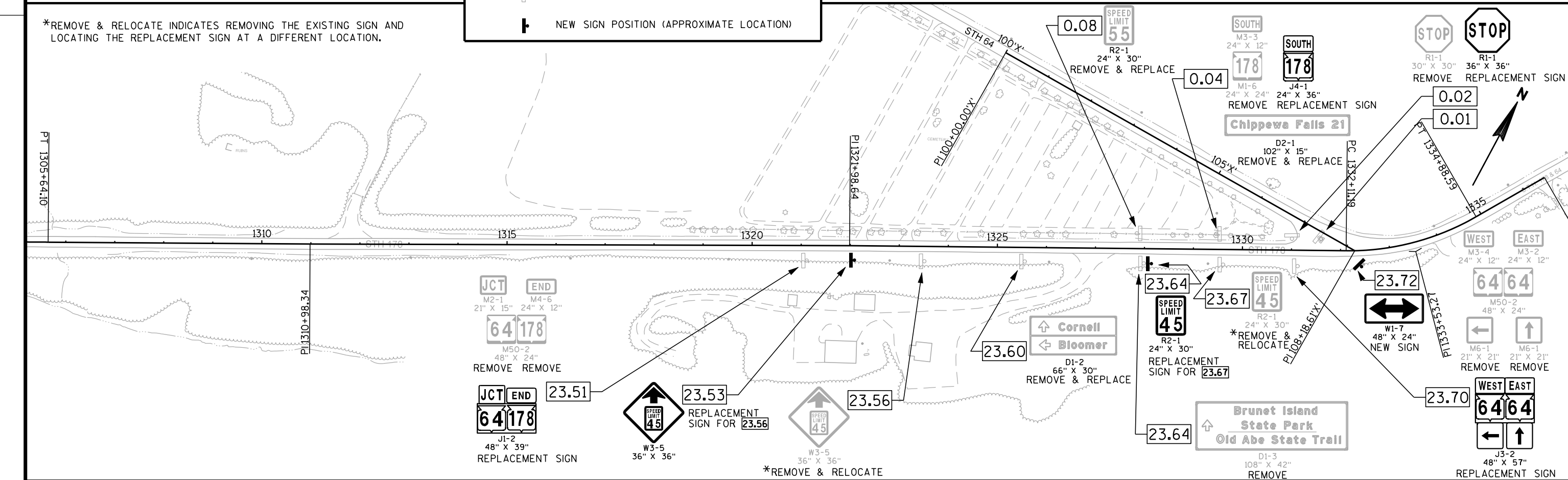
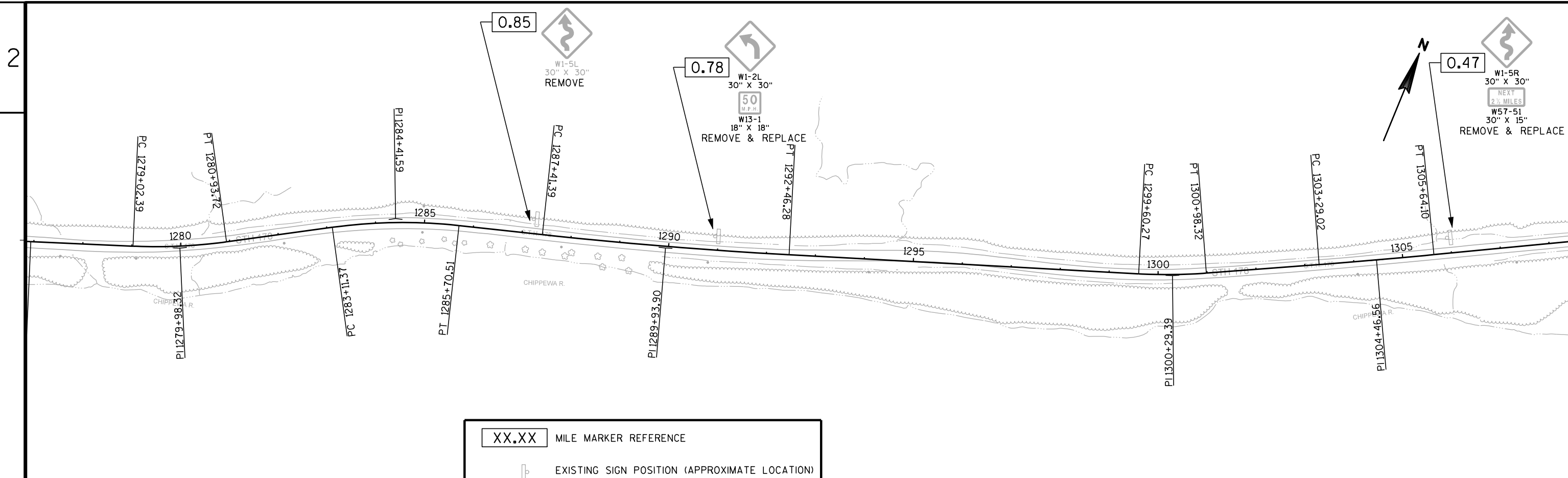












XX.XX MILE MARKER REFERENCE

EXISTING SIGN POSITION (APPROXIMATE LOCATION)

NEW SIGN POSITION (APPROXIMATE LOCATION)

\*REMOVE & RELOCATE INDICATES REMOVING THE EXISTING SIGN AND LOCATING THE REPLACEMENT SIGN AT A DIFFERENT LOCATION.

PROJECT NO: 8600-02-72

HWY: STH 178

COUNTY: CHIPPEWA

PERMANENT SIGNING

SHEET NO:

20

E

FILE NAME : c:\Users\PROJECTS\66\NI78R\NI78R\023205\_ps.DGN

PLOT DATE : 18-JUN-2013 14:41

PLOT BY : dotkyk

PLOT NAME :

PLOT SCALE : 2:1



NOTES

MAINTAIN A 200' SPACING BETWEEN SIGN LOCATIONS WHEREVER CONDITIONS ALLOW.

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

USE A PASSING SIGHT DISTANCE OF .21 MILE FOR THIS DETOUR UNLESS DIRECTED OTHERWISE BY THE PROJECT ENGINEER.

INSTALL NO PASSING ZONE SIGNS AND POSTS PRIOR TO OPENING THE DETOUR ROUTE.

EXISTING SIGNS PERMANENTLY REPLACED ALONG DETOUR ROUTE WILL REMAIN THE PROPERTY OF THE LOCAL MAINTAINING AUTHORITY AND TEMPORARILY STORED AT THE FIELD OFFICE FOR PICKUP.

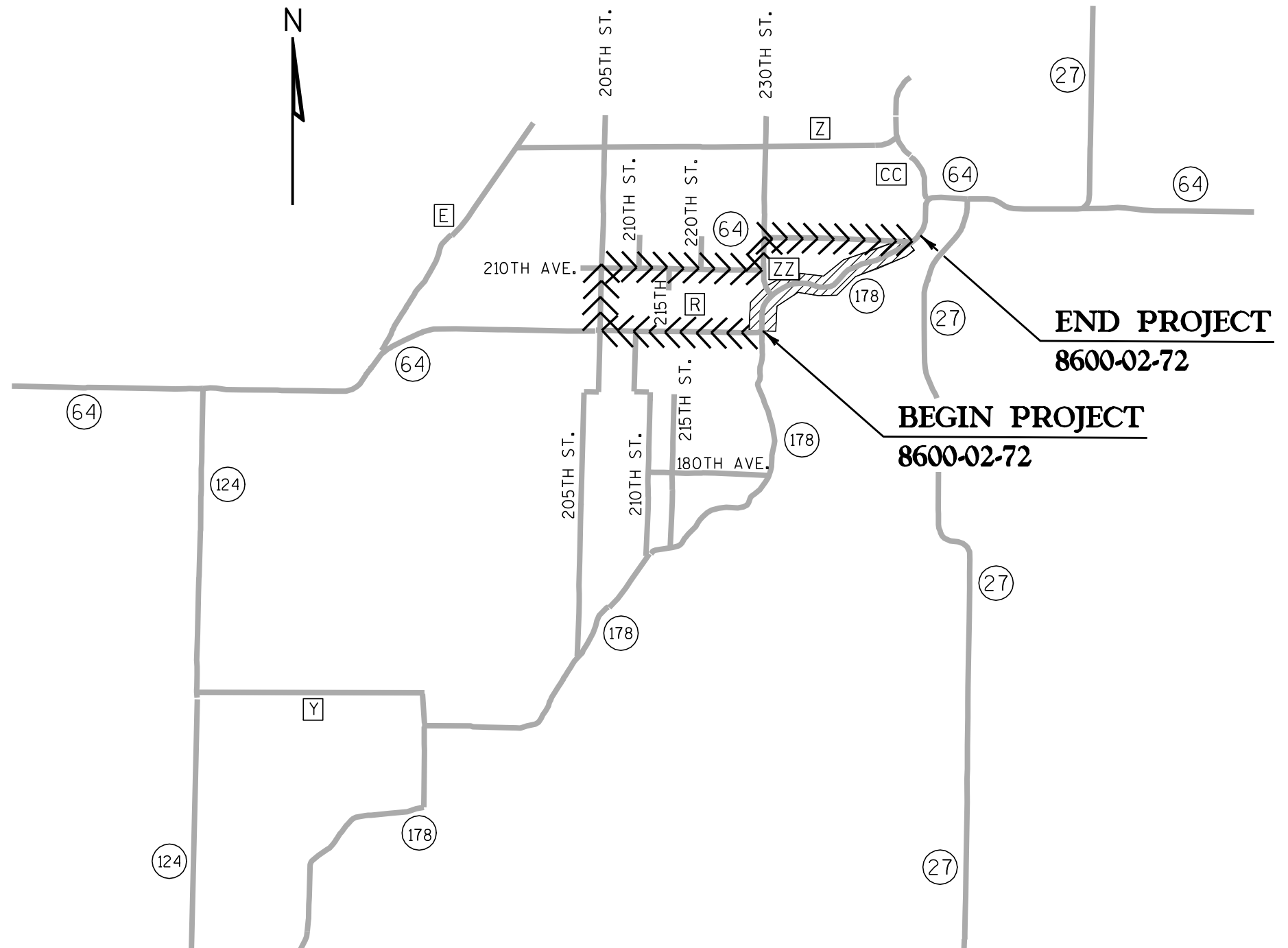
RETURN EXISTING SIGNS TEMPORARILY REPLACED, REMOVED, OR COVERED FOR THE DETOUR TO THEIR ORIGINAL LOCATION(S) UNLESS OTHERWISE DIRECTED BY THE PROJECT ENGINEER.

LEGEND

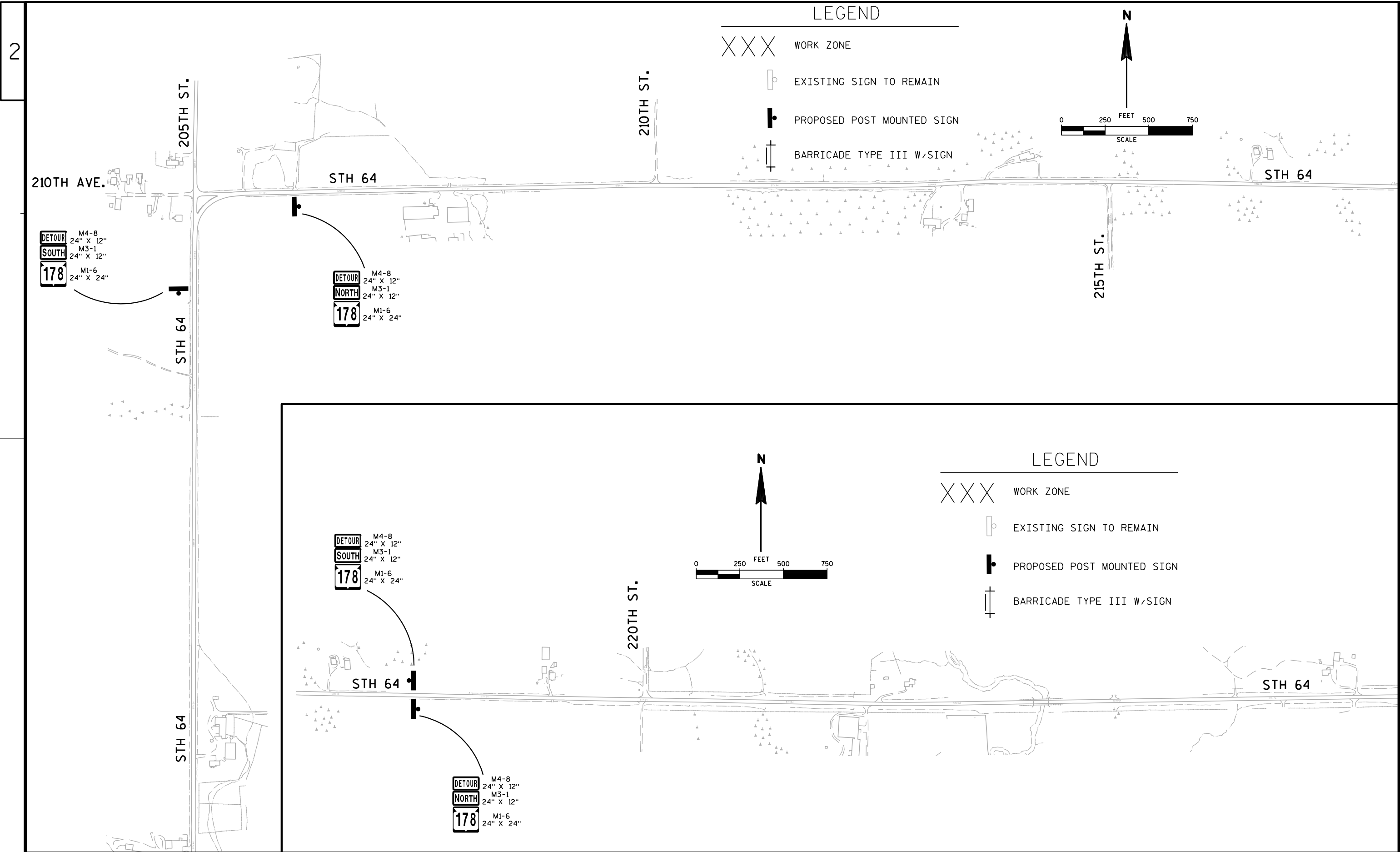
WORK ZONE



DETOUR ROUTE









|                |                                                                    |                         |                         |
|----------------|--------------------------------------------------------------------|-------------------------|-------------------------|
| *****          |                                                                    |                         |                         |
| *              |                                                                    |                         |                         |
| CHAIN PRLA1    |                                                                    |                         |                         |
| List           | PRL17,C ,PRL64080,18,C ,PRL64081,C ,PRL64082,C ,PRLA49,C ,LASTRY1  |                         |                         |
| List           | ,C ,LASTRY2,C ,LASTRY3,C ,PRLA60,C ,PRL64110,C ,PRL64111,C ,PRLA54 |                         |                         |
| List           | ,C ,PRLA55,C ,PRLA61,C ,PRLA56,16,C ,PRLA62,17,C ,DDDD3,C ,DDDD1   |                         |                         |
| List           | ,C ,DDDD2,C ,FFFF1,C ,FFFF2,C ,PRL64108,170-171,C ,PRL64109,173    |                         |                         |
| Layer          | 1                                                                  |                         |                         |
| Feature        | PRL                                                                |                         |                         |
| *****          |                                                                    |                         |                         |
| *              |                                                                    |                         |                         |
| PRL17 N        | 200616.37 E                                                        | 217998.84 Z -99999.900  | STA 1158+47.57          |
| Distance       | 677.13'                                                            | Bearing N 2°59'49.76" W |                         |
| CURVE PRL64080 |                                                                    |                         |                         |
| PC N           | 201292.58 E                                                        | 217963.44               | STA 1165+24.70          |
| CC N           | 201532.24 E                                                        | 222540.83               |                         |
| PI N           | 201372.65 E                                                        | 217959.25               | STA 1166+04.89          |
|                |                                                                    | TAN 80.18'              |                         |
|                |                                                                    | DB N 2°59'49.76" W      |                         |
|                |                                                                    | DA N 0°59'33.96" W      |                         |
|                | LChord                                                             | Distance 160.34'        | Bearing N 1°59'41.86" W |
|                |                                                                    | External Distance 0.70' |                         |
|                |                                                                    | Middle Ordinate 0.70'   |                         |
|                |                                                                    | Radius 4583.66'         |                         |
|                |                                                                    | DEG 1°15'00.00"         |                         |
|                |                                                                    | DELTA 2°00'15.80"       |                         |
|                |                                                                    | LENGTH 160.35'          |                         |
| PT N           | 201452.82 E                                                        | 217957.86               | STA 1166+85.05          |
| CURVE PRL64080 |                                                                    |                         |                         |
| Distance       | 270.43'                                                            | Bearing N 0°59'33.96" W |                         |
| PRL18 N        | 201723.21 E                                                        | 217953.17 Z 0.000       | STA 1169+55.48          |
| Distance       | 816.56'                                                            | Bearing N 0°09'42.26" W |                         |
| CURVE PRL64081 |                                                                    |                         |                         |
| PC N           | 202539.76 E                                                        | 217950.87               | STA 1177+72.04          |
| CC N           | 202507.42 E                                                        | 206491.76               |                         |
| PI N           | 202727.69 E                                                        | 217950.34               | STA 1179+59.96          |
|                |                                                                    | TAN 187.93'             |                         |
|                |                                                                    | DB N 0°09'42.26" W      |                         |
|                |                                                                    | DA N 2°02'27.06" W      |                         |
|                | LChord                                                             | Distance 375.81'        | Bearing N 1°06'04.66" W |
|                |                                                                    | External Distance 1.54' |                         |
|                |                                                                    | Middle Ordinate 1.54'   |                         |
|                |                                                                    | Radius 11459.16'        |                         |
|                |                                                                    | DEG 0°30'00.00"         |                         |
|                |                                                                    | DELTA -1°52'44.80"      |                         |
|                |                                                                    | LENGTH 375.82'          |                         |
| PT N           | 202915.50 E                                                        | 217943.64               | STA 1181+47.86          |
| CURVE PRL64081 |                                                                    |                         |                         |
| Distance       | 189.53'                                                            | Bearing N 2°02'27.06" W |                         |
| CURVE PRL64082 |                                                                    |                         |                         |
| PC N           | 203104.91 E                                                        | 217936.89               | STA 1183+37.39          |
| CC N           | 203156.92 E                                                        | 219396.36               |                         |
| PI N           | 203249.75 E                                                        | 217931.73               | STA 1184+82.32          |
|                |                                                                    | TAN 144.93'             |                         |
|                |                                                                    | DB N 2°02'27.06" W      |                         |
|                |                                                                    | DA N 9°17'38.34" E      |                         |
|                | LChord                                                             | Distance 288.44'        | Bearing N 3°37'35.64" E |
|                |                                                                    | External Distance 7.17' |                         |
|                |                                                                    | Middle Ordinate 7.14'   |                         |
|                |                                                                    | Radius 1460.40'         |                         |
|                |                                                                    | DEG 3°55'23.90"         |                         |
|                |                                                                    | DELTA 11°20'05.40"      |                         |
|                |                                                                    | LENGTH 288.91'          |                         |
| PT N           | 203392.78 E                                                        | 217955.14               | STA 1186+26.30          |
| CURVE PRL64082 |                                                                    |                         |                         |
| Distance       | 594.35'                                                            | Bearing N 9°17'38.34" E |                         |
| CURVE PRLA49   |                                                                    |                         |                         |

|               |             |                          |                          |
|---------------|-------------|--------------------------|--------------------------|
| CURVE PRLA49  |             |                          |                          |
| PC N          | 203979.32 E | 218051.13                | STA 1192+20.65           |
| CC N          | 203872.73 E | 218702.46                |                          |
| PI N          | 204175.81 E | 218083.28                | STA 1194+19.76           |
|               |             | TAN 199.11'              |                          |
|               |             | DB N 9°17'38.34" E       |                          |
|               |             | DA N 42°52'09.04" E      |                          |
|               | LChord      | Distance 381.25'         | Bearing N 26°04'53.69" E |
|               |             | External Distance 29.38' |                          |
|               |             | Middle Ordinate 28.13'   |                          |
|               |             | Radius 660.00'           |                          |
|               |             | DEG 8°40'52.24"          |                          |
|               |             | DELTA 33°34'30.70"       |                          |
|               |             | LENGTH 386.76'           |                          |
| PT N          | 204321.74 E | 218218.74                | STA 1196+07.41           |
| CURVE PRLA49  |             |                          |                          |
| Distance      | 782.90'     | Bearing N 42°52'09.04" E |                          |
| CURVE LASTRY1 |             |                          |                          |
| PC N          | 204895.53 E | 218751.37                | STA 1203+90.30           |
| CC N          | 203978.36 E | 219739.43                |                          |
| PI N          | 205014.16 E | 218861.48                | STA 1205+52.15           |
|               |             | TAN 161.85'              |                          |
|               |             | DB N 42°52'09.04" E      |                          |
|               |             | DA N 56°33'40.04" E      |                          |
|               | LChord      | Distance 321.40'         | Bearing N 49°42'54.54" E |
|               |             | External Distance 9.68'  |                          |
|               |             | Middle Ordinate 9.61'    |                          |
|               |             | Radius 1348.14'          |                          |
|               |             | DEG 4°15'00.00"          |                          |
|               |             | DELTA 13°41'31.00"       |                          |
|               |             | LENGTH 322.16'           |                          |
| PT N          | 205103.35 E | 218996.54                | STA 1207+12.46           |
| CURVE LASTRY1 |             |                          |                          |
| Distance      | 174.20'     | Bearing N 56°33'40.04" E |                          |
| CURVE LASTRY2 |             |                          |                          |
| PC N          | 205199.34 E | 219141.91                | STA 1208+86.66           |
| CC N          | 207305.30 E | 217751.23                |                          |
| PI N          | 205250.06 E | 219218.71                | STA 1209+78.70           |
|               |             | TAN 92.04'               |                          |
|               |             | DB N 56°33'40.04" E      |                          |
|               |             | DA N 52°23'01.49" E      |                          |
|               | LChord      | Distance 183.96'         | Bearing N 54°28'20.77" E |
|               |             | External Distance 1.68'  |                          |
|               |             | Middle Ordinate 1.68'    |                          |
|               |             | Radius 2523.70'          |                          |
|               |             | DEG 2°16'13.12"          |                          |
|               |             | DELTA -4°10'38.55"       |                          |
|               |             | LENGTH 184.00'           |                          |
| PT N          | 205306.24 E | 219291.62                | STA 1210+70.66           |
| CURVE LASTRY2 |             |                          |                          |
| Distance      | 162.29'     | Bearing N 52°23'01.49" E |                          |
| CURVE LASTRY3 |             |                          |                          |
| PC N          | 205405.30 E | 219420.17                | STA 1212+32.96           |
| CC N          | 204836.08 E | 219858.79                |                          |
| PI N          | 205435.86 E | 219459.84                | STA 1212+83.04           |
|               |             | TAN 50.08'               |                          |
|               |             | DB N 52°23'01.49" E      |                          |
|               |             | DA N 60°21'25.22" E      |                          |
|               | LChord      | Distance 99.92'          | Bearing N 56°22'13.36" E |
|               |             | External Distance 1.74'  |                          |
|               |             | Middle Ordinate 1.74'    |                          |
|               |             | Radius 718.60'           |                          |
|               |             | DEG 7°58'23.73"          |                          |
|               |             | DELTA 7°58'23.73"        |                          |
|               |             | LENGTH 100.00'           |                          |
| PT N          | 205460.63 E | 219503.37                | STA 1213+32.96           |
| CURVE LASTRY3 |             |                          |                          |
| Distance      | 188.42'     | Bearing N 60°21'25.22" E |                          |
| CURVE PRLA60  |             |                          |                          |

|                |             |                          |                          |
|----------------|-------------|--------------------------|--------------------------|
| CURVE PRLA60   |             |                          |                          |
| PC N           | 205553.82 E | 219667.13                | STA 1215+21.38           |
| CC N           | 203063.97 E | 221084.04                |                          |
| PI N           | 205621.27 E | 219785.66                | STA 1216+57.75           |
|                |             | TAN 136.38'              |                          |
|                |             | DB N 60°21'25.22" E      |                          |
|                |             | DA N 65°48'28.44" E      |                          |
|                | LChord      | Distance 272.44'         | Bearing N 63°04'56.83" E |
|                |             | External Distance 3.24'  |                          |
|                |             | Middle Ordinate 3.24'    |                          |
|                |             | Radius 2864.79'          |                          |
|                |             | DEG 2°00'00.00"          |                          |
|                |             | DELTA 5°27'03.22"        |                          |
|                |             | LENGTH 272.54'           |                          |
| PT N           | 205677.16 E | 219910.05                | STA 1217+93.92           |
| CURVE PRLA60   |             |                          |                          |
| Distance       | 220.07'     | Bearing N 65°48'28.44" E |                          |
| CURVE PRL64110 |             |                          |                          |
| PC N           | 205767.34 E | 220110.80                | STA 1220+13.99           |
| CC N           | 204604.32 E | 220633.29                |                          |
| PI N           | 205856.12 E | 220308.42                | STA 1222+30.64           |
|                |             | TAN 216.64'              |                          |
|                |             | DB N 65°48'28.44" E      |                          |
|                |             | DA N 85°05'40.55" E      |                          |
|                | LChord      | Distance 427.16'         | Bearing N 75°27'04.49" E |
|                |             | External Distance 18.27' |                          |
|                |             | Middle Ordinate 18.02'   |                          |
|                |             | Radius 1275.00'          |                          |
|                |             | DEG 4°29'37.63"          |                          |
|                |             | DELTA 19°17'12.11"       |                          |
|                |             | LENGTH 429.19'           |                          |
| PT N           | 205874.65 E | 220524.26                | STA 1224+43.18           |
| CURVE PRL64110 |             |                          |                          |
| Distance       | 385.85'     | Bearing N 85°05'40.55" E |                          |
| CURVE PRL64111 |             |                          |                          |
| PC N           | 205907.64 E | 220908.70                | STA 1228+29.03           |
| CC N           | 202719.36 E | 221182.33                |                          |
| PI N           | 205941.09 E | 221298.42                | STA 1232+20.18           |
|                |             | TAN 391.15'              |                          |
|                |             | DB N 85°05'40.55" E      |                          |
|                |             | DA S 80°58'02.86" E      |                          |
|                | LChord      | Distance 776.52'         | Bearing S 87°56'11.16" E |
|                |             | External Distance 23.82' |                          |
|                |             | Middle Ordinate 23.64'   |                          |
|                |             | Radius 3200.00'          |                          |
|                |             | DEG 1°47'25.78"          |                          |
|                |             | DELTA 13°56'16.59"       |                          |
|                |             | LENGTH 778.44'           |                          |
| PT N           | 205879.68 E | 221684.72                | STA 1236+07.47           |
| CURVE PRL64111 |             |                          |                          |
| Distance       | 47.85'      | Bearing S 80°58'02.86" E |                          |
| CURVE PRLA54   |             |                          |                          |
| PC N           | 205872.17 E | 221731.98                | STA 1236+55.32           |
| CC N           | 205098.43 E | 221608.98                |                          |
| PI N           | 205856.38 E | 221831.28                | STA 1237+55.87           |
|                |             | TAN 100.55'              |                          |
|                |             | DB S 80°58'02.86" E      |                          |
|                |             | DA S 66°20'27.46" E      |                          |
|                | LChord      | Distance 199.46'         | Bearing S 73°39'15.16" E |
|                |             | External Distance 6.43'  |                          |
|                |             | Middle Ordinate 6.37'    |                          |
|                |             | Radius 783.45'           |                          |
|                |             | DEG 7°18'47.69"          |                          |
|                |             | DELTA 14°37'35.40"       |                          |
|                |             | LENGTH 200.00'           |                          |
| PT N           | 205816.04 E | 221923.37                | STA 1238+55.32           |
| CURVE PRLA54   |             |                          |                          |
| Distance       | 182.06'     | Bearing S 66°20'27.46" E |                          |
| CURVE PRLA55   |             |                          |                          |

|              |             |                          |                          |
|--------------|-------------|--------------------------|--------------------------|
| CURVE PRLA55 |             |                          |                          |
| PC N         | 205742.98 E | 222090.13                | STA 1240+37.38           |
| CC N         | 207116.90 E | 222692.07                |                          |
| PI N         | 205600.33 E | 222415.72                | STA 1243+92.85           |
|              |             | TAN 355.47'              |                          |
|              |             | DB S 66°20'27.46" E      |                          |
|              |             | DA N 86°59'42.88" E      |                          |
|              | LChord      | Distance 691.77'         | Bearing S 79°40'22.29" E |
|              |             | External Distance 41.54' |                          |
|              |             | Middle Ordinate 40.42'   |                          |
|              |             | Radius 1500.00'          |                          |
|              |             | DEG 3°49'10.99"          |                          |
|              |             | DELTA -                  |                          |
|              |             | 26°39'49.66"             |                          |
|              |             | LENGTH 698.06'           |                          |
| PT N         | 205618.96 E | 222770.70                | STA 1247+35.44           |
| CURVE PRLA55 |             |                          |                          |
| Distance     | 190.75'     | Bearing N 86°59'42.88" E |                          |
| CURVE PRLA61 |             |                          |                          |
| PC N         | 205628.96 E | 222961.19                | STA 1249+26.19           |
| CC N         | 211350.66 E | 222660.85                |                          |
| PI N         | 205632.28 E | 223024.34                | STA 1249+89.43           |
|              |             | TAN 63.24'               |                          |
|              |             | DB N 86°59'42.88" E      |                          |
|              |             | DA N 85°43'49.78" E      |                          |
|              | LChord      | Distance 126.47'         | Bearing N 86°21'46.33" E |
|              |             | External Distance 0.35'  |                          |
|              |             | Middle Ordinate 0.35'    |                          |
|              |             | Radius 5729.58'          |                          |
|              |             | DEG 1°00'00.00"          |                          |
|              |             | DELTA -1°15'53.10"       |                          |
|              |             | LENGTH 126.47'           |                          |
| PT N         | 205636.99 E | 223087.41                | STA 1250+52.66           |
| CURVE PRLA61 |             |                          |                          |
| Distance     | 168.08'     | Bearing N 85°43'49.78" E |                          |
| CURVE PRLA56 |             |                          |                          |
| PC N         | 205649.50 E | 223255.03                | STA 1252+20.75           |
| CC N         | 206522.07 E | 223189.88                |                          |
| PI N         | 205675.04 E | 223597.15                | STA 1255+63.82           |
|              |             | TAN 343.07'              |                          |
|              |             | DB N 85°43'49.78" E      |                          |
|              |             | DA N 42°54'42.48" E      |                          |
|              | LChord      | Distance 638.80'         | Bearing N 64°19'16.13" E |
|              |             | External Distance 64.85' |                          |
|              |             | Middle Ordinate 60.38'   |                          |
|              |             | Radius 875.00'           |                          |
|              |             | DEG 6°32'53.12"          |                          |
|              |             | DELTA -                  |                          |
|              |             | 42°49'07.30"             |                          |
|              |             | LENGTH 653.91'           |                          |
| PT N         | 205926.31 E | 223830.74                | STA 1258+74.66           |
| CURVE PRLA56 |             |                          |                          |
| Distance     | 215.21'     | Bearing N 42°54'42.48" E |                          |
| PRLA16 N     | 206083.93 E | 223977.27 Z 0.000        | STA 1260+89.87           |
| Distance     | 509.75'     | Bearing N 42°29'01.60" E |                          |
| CURVE PRLA62 |             |                          |                          |
| PC N         | 206459.86 E | 224321.54                | STA 1265+99.62           |
| CC N         | 202590.20 E | 228546.93                |                          |
| PI N         | 206491.80 E | 224350.80                | STA 1266+42.94           |
|              |             | TAN 43.32'               |                          |
|              |             | DB N 42°29'01.60" E      |                          |
|              |             | DA N 43°21'00.60" E      |                          |
|              | LChord      | Distance 86.64'          | Bearing N 42°55'01.10" E |
|              |             | External Distance 0.16'  |                          |
|              |             | Middle Ordinate 0.16'    |                          |
|              |             | Radius 5729.58'          |                          |
|              |             | DEG 1°00'00.00"          |                          |
|              |             | DELTA 0°51'59.00"        |                          |
|              |             | LENGTH 86.64'            |                          |
| PT N         | 206523.30 E | 224380.54                | STA 1266+86.26           |
| CURVE PRLA62 |             |                          |                          |

CURVE PRLA62  
Distance 258.26' Bearing N 43°21'00.60" E  
PRLA17 N 206711.10 E 224557.82 Z 0.000 STA 1269+44.52  
Distance 262.21' Bearing N 43°56'10.70" E  
CURVE DDDD3  
PC N 206899.92 E 224739.76 STA 1272+06.73  
CC N 206164.43 E 225503.08  
PI N 207078.42 E 224911.75 STA 1274+54.60  
TAN 247.87'  
DB N 43°56'10.70" E  
DA N 70°15'34.85" E  
LChord Distance 482.72' Bearing N 57°05'52.78" E  
External Distance 28.60'  
Middle Ordinate 27.84'  
Radius 1060.00'  
DEG 5°24'18.94"  
DELTA 26°19'24.15"  
LENGTH 487.00'  
PT N 207162.14 E 225145.05 STA 1276+93.72  
CURVE DDDD3  
Distance 208.67' Bearing N 70°15'34.85" E  
CURVE DDDD1  
PC N 207232.62 E 225341.46 STA 1279+02.39  
CC N 208230.33 E 224983.44  
PI N 207265.02 E 225431.75 STA 1279+98.32  
TAN 95.92'  
DB N 70°15'34.85" E  
DA N 59°55'04.54" E  
LChord Distance 191.07' Bearing N 65°05'19.70" E  
External Distance 4.33'  
Middle Ordinate 4.31'  
Radius 1060.00'  
DEG 5°24'18.94"  
DELTA -10°20'30.31"  
LENGTH 191.33'  
PT N 207313.10 E 225514.75 STA 1280+93.72  
CURVE DDDD1  
Distance 217.65' Bearing N 59°55'04.54" E  
CURVE DDDD2  
PC N 207422.19 E 225703.08 STA 1283+11.37  
CC N 206504.97 E 226234.40  
PI N 207487.47 E 225815.76 STA 1284+41.59  
TAN 130.22'  
DB N 59°55'04.54" E  
DA N 73°55'30.64" E  
LChord Distance 258.50' Bearing N 66°55'17.59" E  
External Distance 7.97'  
Middle Ordinate 7.91'  
Radius 1060.00'  
DEG 5°24'18.94"  
DELTA 14°00'26.10"  
LENGTH 259.14'  
PT N 207523.52 E 225940.89 STA 1285+70.51  
CURVE DDDD2  
Distance 170.88' Bearing N 73°55'30.64" E  
CURVE FFFF1

CURVE FFFF1  
PC N 207570.84 E 226105.09 STA 1287+41.39  
CC N 216612.92 E 223499.53  
PI N 207640.75 E 226347.72 STA 1289+93.90  
TAN 252.51'  
DB N 73°55'30.64" E  
DA N 70°51'03.51" E  
LChord Distance 504.83' Bearing N 72°23'17.07" E  
External Distance 3.39'  
Middle Ordinate 3.39'  
Radius 9410.00'  
DEG 0°36'31.97"  
DELTA -3°04'27.13"  
LENGTH 504.89'  
PT N 207723.58 E 226586.26 STA 1292+46.28  
CURVE FFFF1  
Distance 713.99' Bearing N 70°51'03.51" E  
CURVE FFFF2  
PC N 207957.79 E 227260.74 STA 1299+60.27  
CC N 208959.14 E 226913.03  
PI N 207980.46 E 227326.04 STA 1300+29.39  
TAN 69.12'  
DB N 70°51'03.51" E  
DA N 63°23'21.04" E  
LChord Distance 137.95' Bearing N 67°07'12.27" E  
External Distance 2.25'  
Middle Ordinate 2.25'  
Radius 1060.00'  
DEG 5°24'18.94"  
DELTA -7°27'42.47"  
LENGTH 138.05'  
PT N 208011.43 E 227387.84 STA 1300+98.32  
CURVE FFFF2  
Distance 230.70' Bearing N 63°23'21.04" E  
CURVE PRL64108  
PC N 208114.76 E 227594.10 STA 1303+29.02  
CC N 218360.05 E 222461.22  
PI N 208167.41 E 227699.19 STA 1304+46.56  
TAN 117.55'  
DB N 63°23'21.04" E  
DA N 62°12'49.54" E  
LChord Distance 235.08' Bearing N 62°48'05.29" E  
External Distance 0.60'  
Middle Ordinate 0.60'  
Radius 11459.16'  
DEG 0°30'00.00"  
DELTA -1°10'31.50"  
LENGTH 235.08'  
PT N 208222.21 E 227803.18 STA 1305+64.10  
CURVE PRL64108  
Distance 534.24' Bearing N 62°12'49.54" E  
PRL170 N 208471.26 E 228275.82 Z 0.000 STA 1310+98.34  
Distance 1100.30' Bearing N 61°59'13.34" E  
PRL171 N 208988.04 E 229247.21 Z 0.000 STA 1321+98.64  
Distance 1012.55' Bearing N 62°24'51.84" E  
CURVE PRL64109

CURVE PRL64109  
PC N 209456.93 E 230144.66 STA 1332+11.19  
CC N 209918.58 E 229903.46  
PI N 209522.72 E 230270.58 STA 1333+53.27  
TAN 142.07'  
DB N 62°24'51.84" E  
DA N 31°54'03.94" E  
LChord Distance 274.13' Bearing N 47°09'27.89" E  
External Distance 19.03'  
Middle Ordinate 18.36'  
Radius 520.87'  
DEG 11°00'00.00"  
DELTA -30°30'47.90"  
LENGTH 277.39'  
PT N 209643.33 E 230345.66 STA 1334+88.59  
CURVE PRL64109  
Distance 160.77' Bearing N 31°54'03.94" E  
PRL173 N 209779.81 E 230430.62 Z 0.000 STA 1336+49.36  
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CHAIN LENGTH 17801.79'  
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CHAIN CTHZZ1  
List CTHZZ107,2,C,I,III1,INTER1  
Layer 1  
Feature PRL  
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CTHZZ107 N 205289.13 E 218714.91 Z 9999.990 STA 0+00.00  
Distance 144.300' Bearing S 55°08'13.46" E  
CURVE IIII1  
PC N 205206.80 E 218833.09 STA 1+44.03  
CC N 204919.61 E 218633.03  
PI N 205172.48 E 218882.36 STA 2+04.08  
TAN 60.04'  
DB S 55°08'13.46" E  
DA S 35°40'07.06" E  
LChord Distance 118.35' Bearing S 45°24'10.26" E  
External Distance 5.11'  
Middle Ordinate 5.04'  
Radius 350.00'  
DEG 16°22'12.80"  
DELTA 19°28'06.39"  
LENGTH 118.93'  
PT N 205123.70 E 218917.37 STA 2+62.96  
CURVE IIII1  
Distance 61.68' Bearing S 35°40'07.06" E  
INTER1 N 205073.59 E 218953.33 Z 9999.990 STA 3+24.64  
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CHAIN LENGTH 324.64'  
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CHAIN PRL64  
List PRL100,199  
Layer 1  
Feature PRL  
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PRL100 N 209485.48 E 229342.06 Z 0.000 STA 100+00.00  
Distance 818.61' Bearing S 88°36'07.96" E  
PRL199 N 209465.51 E 230160.42 Z 0.000 STA 108+18.61  
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CHAIN LENGTH 818.61'  
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| DATE 03DEC13 |            | E S T I M A T E O F Q U A N T I T I E S                          |      |             |             |
|--------------|------------|------------------------------------------------------------------|------|-------------|-------------|
| LINE         |            | 8600-02-72                                                       |      |             |             |
| NUMBER       | ITEM       | ITEM DESCRIPTION                                                 | UNIT | TOTAL       | QUANTITY    |
| 0010         | 201.0105   | CLEARING                                                         | STA  | 104.000     | 104.000     |
| 0020         | 201.0205   | GRUBBING                                                         | STA  | 104.000     | 104.000     |
| 0030         | 203.0100   | REMOVING SMALL PIPE CULVERTS                                     | EACH | 20.000      | 20.000      |
| 0040         | 203.0200   | REMOVING OLD STRUCTURE (STATION) 01. 1215+00                     | LS   | 1.000       | 1.000       |
| 0050         | 204.0110   | REMOVING ASPHALTIC SURFACE                                       | SY   | 696.000     | 696.000     |
| 0060         | 204.0115   | REMOVING ASPHALTIC SURFACE BUTT JOINTS                           | SY   | 379.000     | 379.000     |
| 0070         | 204.0120   | REMOVING ASPHALTIC SURFACE MILLING                               | SY   | 1,067.000   | 1,067.000   |
| 0080         | 204.0180   | REMOVING DELINEATORS AND MARKERS                                 | EACH | 23.000      | 23.000      |
| 0090         | 205.0100   | EXCAVATION COMMON                                                | CY   | 40,679.000  | 40,679.000  |
| 0100         | 206.3000   | EXCAVATION FOR STRUCTURES RETAINING WALLS (STRUCTURE) 01. R-9-12 | LS   | 1.000       | 1.000       |
| 0110         | 208.0100   | BORROW                                                           | CY   | 2,674.000   | 2,674.000   |
| 0120         | 208.1100   | SELECT BORROW                                                    | CY   | 7,676.000   | 7,676.000   |
| 0130         | 210.0100   | BACKFILL STRUCTURE                                               | CY   | 315.000     | 315.000     |
| 0140         | 211.0100   | PREPARE FOUNDATION FOR ASPHALTIC PAVING (PROJECT) 01. 8600-02-72 | LS   | 1.000       | 1.000       |
| 0150         | 213.0100   | FINISHING ROADWAY (PROJECT) 01. 8600-02-72                       | EACH | 1.000       | 1.000       |
| 0160         | 305.0110   | BASE AGGREGATE DENSE 3/4-INCH                                    | TON  | 3,832.000   | 3,832.000   |
| 0170         | 305.0120   | BASE AGGREGATE DENSE 1 1/4-INCH                                  | TON  | 26,973.000  | 26,973.000  |
| 0180         | 311.0115   | BREAKER RUN                                                      | CY   | 7,000.000   | 7,000.000   |
| 0190         | 330.0100   | MILL AND RELAY                                                   | SY   | 41,309.000  | 41,309.000  |
| 0200         | 416.1010   | CONCRETE SURFACE DRAINS                                          | CY   | 4.000       | 4.000       |
| 0210         | 440.4410.S | INCENTIVE IRI RIDE                                               | DOL  | 12,500.000  | 12,500.000  |
| 0220         | 455.0135   | ASPHALTIC MATERIAL PG58-34P                                      | TON  | 972.000     | 972.000     |
| 0230         | 455.0605   | TACK COAT                                                        | GAL  | 3,699.000   | 3,699.000   |
| 0240         | 460.1103   | HMA PAVEMENT TYPE E-3                                            | TON  | 17,615.000  | 17,615.000  |
| 0250         | 460.2000   | INCENTIVE DENSITY HMA PAVEMENT                                   | DOL  | 11,270.000  | 11,270.000  |
| 0260         | 465.0105   | ASPHALTIC SURFACE                                                | TON  | 164.000     | 164.000     |
| 0270         | 465.0115   | ASPHALTIC SURFACE DETOURS                                        | TON  | 1,800.000   | 1,800.000   |
| 0280         | 465.0120   | ASPHALTIC SURFACE DRIVEWAYS AND FIELD ENTRANCES                  | TON  | 281.000     | 281.000     |
| 0290         | 465.0315   | ASPHALTIC FLUMES                                                 | SY   | 20.000      | 20.000      |
| 0300         | 465.0450   | ASPHALTIC INTERSECTION RUMBLE STRIP                              | SY   | 100.000     | 100.000     |
| 0310         | 504.0500   | CONCRETE MASONRY RETAINING WALLS                                 | CY   | 215.000     | 215.000     |
| 0320         | 505.0615   | BAR STEEL REINFORCEMENT HS COATED RETAINING WALLS                | LB   | 2,170.000   | 2,170.000   |
| 0330         | 506.0605   | STRUCTURAL STEEL HS                                              | LB   | 110,080.000 | 110,080.000 |
| 0340         | 513.4090   | RAILING TUBULAR SCREENING (STRUCTURE) 01. R-9-12                 | LS   | 1.000       | 1.000       |
| 0350         | 516.0500   | RUBBERIZED MEMBRANE WATERPROOFING                                | SY   | 4.000       | 4.000       |
| 0360         | 517.0600   | PAINTING EPOXY SYSTEM (STRUCTURE) 01. R-9-12                     | LS   | 1.000       | 1.000       |
| 0370         | 517.1010.S | CONCRETE STAINING (STRUCTURE) 01.R-9-12                          | SF   | 4,080.000   | 4,080.000   |
| 0380         | 517.1050.S | ARCHITECTURAL SURFACE TREATMENT (STRUCTURE) 01. R-9-12           | SF   | 3,245.000   | 3,245.000   |
| 0390         | 521.0112   | CULVERT PIPE CORRUGATED STEEL 12-INCH                            | LF   | 450.000     | 450.000     |
| 0400         | 521.0118   | CULVERT PIPE CORRUGATED STEEL 18-INCH                            | LF   | 266.000     | 266.000     |
| 0410         | 521.1012   | APRON ENDWALLS FOR CULVERT PIPE STEEL 12-INCH                    | EACH | 28.000      | 28.000      |
| 0420         | 521.1018   | APRON ENDWALLS FOR CULVERT PIPE STEEL 18-INCH                    | EACH | 14.000      | 14.000      |
| 0430         | 522.0118   | CULVERT PIPE REINFORCED CONCRETE CLASS III 18-INCH               | LF   | 198.000     | 198.000     |

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| DATE 03DEC13 |          | E S T I M A T E O F Q U A N T I T I E S                       |      |            |            |  |
|--------------|----------|---------------------------------------------------------------|------|------------|------------|--|
| LINE         |          |                                                               |      |            | 8600-02-72 |  |
| NUMBER       | ITEM     | ITEM DESCRIPTION                                              | UNIT | TOTAL      | QUANTITY   |  |
| 0440         | 522.0124 | CULVERT PIPE REINFORCED CONCRETE CLASS III 24-INCH            | LF   | 566.000    | 566.000    |  |
| 0450         | 522.0130 | CULVERT PIPE REINFORCED CONCRETE CLASS III 30-INCH            | LF   | 92.000     | 92.000     |  |
| 0460         | 522.0136 | CULVERT PIPE REINFORCED CONCRETE CLASS III 36-INCH            | LF   | 74.000     | 74.000     |  |
| 0470         | 522.0142 | CULVERT PIPE REINFORCED CONCRETE CLASS III 42-INCH            | LF   | 72.000     | 72.000     |  |
| 0480         | 522.0148 | CULVERT PIPE REINFORCED CONCRETE CLASS III 48-INCH            | LF   | 70.000     | 70.000     |  |
| 0490         | 522.1012 | APRON ENDWALLS FOR CULVERT PIPE REINFORCED CONCRETE 12-INCH   | EACH | 1.000      | 1.000      |  |
| 0500         | 522.1018 | APRON ENDWALLS FOR CULVERT PIPE REINFORCED CONCRETE 18-INCH   | EACH | 11.000     | 11.000     |  |
| 0510         | 522.1024 | APRON ENDWALLS FOR CULVERT PIPE REINFORCED CONCRETE 24-INCH   | EACH | 18.000     | 18.000     |  |
| 0520         | 522.1030 | APRON ENDWALLS FOR CULVERT PIPE REINFORCED CONCRETE 30-INCH   | EACH | 2.000      | 2.000      |  |
| 0530         | 522.1036 | APRON ENDWALLS FOR CULVERT PIPE REINFORCED CONCRETE 36-INCH   | EACH | 2.000      | 2.000      |  |
| 0540         | 522.1042 | APRON ENDWALLS FOR CULVERT PIPE REINFORCED CONCRETE 42-INCH   | EACH | 2.000      | 2.000      |  |
| 0550         | 522.1048 | APRON ENDWALLS FOR CULVERT PIPE REINFORCED CONCRETE 48-INCH   | EACH | 2.000      | 2.000      |  |
| 0560         | 601.0415 | CONCRETE CURB & GUTTER 6-INCH SLOPED 30-INCH TYPE J           | LF   | 26.000     | 26.000     |  |
| 0570         | 601.0557 | CONCRETE CURB AND GUTTER 6-INCH SLOPED 36-INCH TYPE D         | LF   | 1,510.000  | 1,510.000  |  |
| 0580         | 602.0405 | CONCRETE SIDEWALK 4-INCH                                      | SF   | 1,752.000  | 1,752.000  |  |
| 0590         | 606.0200 | RIPRAP MEDIUM                                                 | CY   | 270.000    | 270.000    |  |
| 0600         | 608.0312 | STORM SEWER PIPE REINFORCED CONCRETE CLASS III 12-INCH        | LF   | 42.000     | 42.000     |  |
| 0610         | 608.0318 | STORM SEWER PIPE REINFORCED CONCRETE CLASS III 18-INCH        | LF   | 192.000    | 192.000    |  |
| 0620         | 611.0606 | INLET COVERS TYPE B                                           | EACH | 1.000      | 1.000      |  |
| 0630         | 611.0642 | INLET COVERS TYPE MS                                          | EACH | 4.000      | 4.000      |  |
| 0640         | 611.3220 | INLETS 2X2-FT                                                 | EACH | 1.000      | 1.000      |  |
| 0650         | 611.3901 | INLETS MEDIAN 1 GRATE                                         | EACH | 2.000      | 2.000      |  |
| 0660         | 611.3902 | INLETS MEDIAN 2 GRATE                                         | EACH | 1.000      | 1.000      |  |
| 0670         | 612.0112 | PIPE UNDERDRAIN 12-INCH                                       | LF   | 1,250.000  | 1,250.000  |  |
| 0680         | 612.0406 | PIPE UNDERDRAIN WRAPPED 6-INCH                                | LF   | 458.000    | 458.000    |  |
| 0690         | 614.0920 | SALVAGED RAIL                                                 | LF   | 3,164.000  | 3,164.000  |  |
| 0700         | 614.2300 | MGS GUARDRAIL 3                                               | LF   | 4,512.500  | 4,512.500  |  |
| 0710         | 614.2610 | MGS GUARDRAIL TERMINAL EAT                                    | EACH | 8.000      | 8.000      |  |
| 0720         | 618.0100 | MAINTENANCE AND REPAIR OF HAUL ROADS (PROJECT) 01. 8600-02-72 | EACH | 1.000      | 1.000      |  |
| 0730         | 619.1000 | MOBILIZATION                                                  | EACH | 1.000      | 1.000      |  |
| 0740         | 624.0100 | WATER                                                         | MGAL | 200.000    | 200.000    |  |
| 0750         | 625.0100 | TOPSOIL                                                       | SY   | 17,580.000 | 17,580.000 |  |
| 0760         | 625.0500 | SALVAGED TOPSOIL                                              | SY   | 52,740.000 | 52,740.000 |  |
| 0770         | 627.0200 | MULCHING                                                      | SY   | 70,320.000 | 70,320.000 |  |
| 0780         | 628.1104 | EROSION BALES                                                 | EACH | 200.000    | 200.000    |  |
| 0790         | 628.1504 | SILT FENCE                                                    | LF   | 10,350.000 | 10,350.000 |  |
| 0800         | 628.1520 | SILT FENCE MAINTENANCE                                        | LF   | 10,350.000 | 10,350.000 |  |
| 0810         | 628.1905 | MOBILIZATIONS EROSION CONTROL                                 | EACH | 6.000      | 6.000      |  |
| 0820         | 628.1910 | MOBILIZATIONS EMERGENCY EROSION CONTROL                       | EACH | 3.000      | 3.000      |  |

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| DATE 03DEC13 |          | E S T I M A T E O F Q U A N T I T I E S                           |      |            |            |
|--------------|----------|-------------------------------------------------------------------|------|------------|------------|
| LINE         |          |                                                                   |      | 8600-02-72 |            |
| NUMBER       | ITEM     | ITEM DESCRIPTION                                                  | UNIT | TOTAL      | QUANTITY   |
| 0830         | 628.2004 | EROSION MAT CLASS I TYPE B                                        | SY   | 3,450.000  | 3,450.000  |
| 0840         | 628.2023 | EROSION MAT CLASS II TYPE B                                       | SY   | 6,598.000  | 6,598.000  |
| 0850         | 628.6005 | TURBIDITY BARRIERS                                                | SY   | 1,155.000  | 1,155.000  |
| 0860         | 628.7005 | INLET PROTECTION TYPE A                                           | EACH | 4.000      | 4.000      |
| 0870         | 628.7015 | INLET PROTECTION TYPE C                                           | EACH | 1.000      | 1.000      |
| 0880         | 628.7504 | TEMPORARY DITCH CHECKS                                            | LF   | 730.000    | 730.000    |
| 0890         | 628.7555 | CULVERT PIPE CHECKS                                               | EACH | 95.000     | 95.000     |
| 0900         | 629.0210 | FERTILIZER TYPE B                                                 | CWT  | 45.000     | 45.000     |
| 0910         | 630.0110 | SEEDING MIXTURE NO. 10                                            | LB   | 950.000    | 950.000    |
| 0920         | 630.0200 | SEEDING TEMPORARY                                                 | LB   | 1,900.000  | 1,900.000  |
| 0930         | 633.5200 | MARKERS CULVERT END                                               | EACH | 38.000     | 38.000     |
| 0940         | 634.0616 | POSTS WOOD 4X6-INCH X 16-FT                                       | EACH | 58.000     | 58.000     |
| 0950         | 637.2210 | SIGNS TYPE II REFLECTIVE H                                        | SF   | 190.720    | 190.720    |
| 0960         | 637.2230 | SIGNS TYPE II REFLECTIVE F                                        | SF   | 248.510    | 248.510    |
| 0970         | 638.2602 | REMOVING SIGNS TYPE II                                            | EACH | 82.000     | 82.000     |
| 0980         | 638.3000 | REMOVING SMALL SIGN SUPPORTS                                      | EACH | 64.000     | 64.000     |
| 0990         | 642.5001 | FIELD OFFICE TYPE B                                               | EACH | 1.000      | 1.000      |
| 1000         | 643.0100 | TRAFFIC CONTROL (PROJECT) 01.8600-02-72                           | EACH | 1.000      | 1.000      |
| 1010         | 643.0300 | TRAFFIC CONTROL DRUMS                                             | DAY  | 4,050.000  | 4,050.000  |
| 1020         | 643.0420 | TRAFFIC CONTROL BARRICADES TYPE III                               | DAY  | 1,080.000  | 1,080.000  |
| 1030         | 643.0705 | TRAFFIC CONTROL WARNING LIGHTS TYPE A                             | DAY  | 2,160.000  | 2,160.000  |
| 1040         | 643.0900 | TRAFFIC CONTROL SIGNS                                             | DAY  | 1,530.000  | 1,530.000  |
| 1050         | 643.0920 | TRAFFIC CONTROL COVERING SIGNS TYPE II                            | EACH | 3.000      | 3.000      |
| 1060         | 643.2000 | TRAFFIC CONTROL DETOUR (PROJECT) 01.8600-02-72                    | EACH | 1.000      | 1.000      |
| 1070         | 643.3000 | TRAFFIC CONTROL DETOUR SIGNS                                      | DAY  | 8,190.000  | 8,190.000  |
| 1080         | 645.0120 | GEOTEXTILE FABRIC TYPE HR                                         | SY   | 5,570.000  | 5,570.000  |
| 1090         | 646.0106 | PAVEMENT MARKING EPOXY 4-INCH                                     | LF   | 65,420.000 | 65,420.000 |
| 1100         | 646.0126 | PAVEMENT MARKING EPOXY 8-INCH                                     | LF   | 225.000    | 225.000    |
| 1110         | 647.0566 | PAVEMENT MARKING STOP LINE EPOXY 18-INCH                          | LF   | 50.000     | 50.000     |
| 1120         | 648.0100 | LOCATING NO-PASSING ZONES                                         | MI   | 3.130      | 3.130      |
| 1130         | 650.4000 | CONSTRUCTION STAKING STORM SEWER                                  | EACH | 8.000      | 8.000      |
| 1140         | 650.4500 | CONSTRUCTION STAKING SUBGRADE                                     | LF   | 3,800.000  | 3,800.000  |
| 1150         | 650.5000 | CONSTRUCTION STAKING BASE                                         | LF   | 3,800.000  | 3,800.000  |
| 1160         | 650.5500 | CONSTRUCTION STAKING CURB GUTTER AND CURB & GUTTER                | LF   | 1,536.000  | 1,536.000  |
| 1170         | 650.6000 | CONSTRUCTION STAKING PIPE CULVERTS                                | EACH | 17.000     | 17.000     |
| 1180         | 650.6500 | CONSTRUCTION STAKING STRUCTURE LAYOUT (STRUCTURE) 01.R-9-12       | LS   | 1.000      | 1.000      |
| 1190         | 650.9910 | CONSTRUCTION STAKING SUPPLEMENTAL CONTROL (PROJECT) 01.8600-02-72 | LS   | 1.000      | 1.000      |
| 1200         | 650.9920 | CONSTRUCTION STAKING SLOPE STAKES                                 | LF   | 16,800.000 | 16,800.000 |
| 1210         | 690.0150 | SAWING ASPHALT                                                    | LF   | 405.000    | 405.000    |
| 1220         | 715.0502 | INCENTIVE STRENGTH CONCRETE STRUCTURES                            | DOL  | 1,290.000  | 1,290.000  |
| 1230         | ASP.1T0A | ON-THE-JOB TRAINING APPRENTICE AT \$5.00/HR                       | HRS  | 2,000.000  | 2,000.000  |
| 1240         | ASP.1T0G | ON-THE-JOB TRAINING GRADUATE AT \$5.00/HR                         | HRS  | 630.000    | 630.000    |
| 1250         | SPV.0035 | SPECIAL 01.FIELD STONE HEAVY RIPRAP                               | CY   | 4,085.000  | 4,085.000  |
| 1260         | SPV.0090 | SPECIAL 01.CONSTRUCTION STAKING RESURFACING REFERENCE SPECIAL     | LF   | 13,000.000 | 13,000.000 |
| 1270         | SPV.0090 | SPECIAL 02.FOUNDATION DRILLING 30-INCH DIAMETER                   | LF   | 1,067.000  | 1,067.000  |
| 1280         | SPV.0090 | SPECIAL 03.CONCRETE CURB AND GUTTER CURE AND SEAL TREATMENT       | LF   | 1,536.000  | 1,536.000  |

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|              |          |                                                               |                                         |            |            |
|--------------|----------|---------------------------------------------------------------|-----------------------------------------|------------|------------|
| DATE 03DEC13 |          |                                                               | E S T I M A T E O F Q U A N T I T I E S |            |            |
| LINE         |          |                                                               | 8600-02-72                              |            |            |
| NUMBER       | ITEM     | ITEM DESCRIPTION                                              | UNIT                                    | TOTAL      | QUANTITY   |
| 1290         | SPV.0165 | SPECIAL 01.CONCRETE SIDEWALK CURE AND SEAL TREATMENT          | SF                                      | 1,752.000  | 1,752.000  |
| 1300         | SPV.0165 | SPECIAL 02.PRECAST PANELS FOR POST AND PANEL WALLS            | SF                                      | 3,640.000  | 3,640.000  |
| 1310         | SPV.0170 | SPECIAL 01.REHEATING HMA PAVEMENT LONGITUDINAL JOINTS SPECIAL | STA                                     | 168.500    | 168.500    |
| 1320         | SPV.0180 | SPECIAL 01.GEOGRID REINFORCEMENT                              | SY                                      | 2,622.000  | 2,622.000  |
| 1330         | SPV.0180 | SPECIAL 02.QMP MILL AND RELAY PAVEMENT COMPACTION             | SY                                      | 41,309.000 | 41,309.000 |

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CLEARING & GRUBBING

| STATION TO |   | STATION | LOCATION           | CLEARING<br>201.0105<br>STA | GRUBBING<br>201.0205<br>STA | REMARKS |
|------------|---|---------|--------------------|-----------------------------|-----------------------------|---------|
| 1182+00    | - | 1186+00 | STH 178, RT.       | 4                           | 4                           |         |
| 1191+50    | - | 1193+50 | STH 178, RT.       | 2                           | 2                           |         |
| 1195+00    | - | 1211+00 | STH 178, RT.       | 16                          | 16                          |         |
| 1195+00    | - | 1197+00 | STH 178, LT.       | 2                           | 2                           |         |
| 1202+00    | - | 1204+00 | STH 178, LT.       | 2                           | 2                           |         |
| 1205+00    | - | 1206+00 | STH 178, LT.       | 1                           | 1                           |         |
| 1208+00    | - | 1211+00 | STH 178, LT.       | 3                           | 3                           |         |
| 1211+50    | - | 1212+50 | STH 178, RT.       | 1                           | 1                           |         |
| 1213+00    | - | 1221+00 | STH 178, LT.       | 8                           | 8                           |         |
| 1226+00    | - | 1232+00 | STH 178, LT.       | 6                           | 6                           |         |
| 1239+50    | - | 1240+50 | STH 178, LT.       | 1                           | 1                           |         |
| 1241+00    | - | 1243+00 | STH 178, RT.       | 2                           | 2                           |         |
| 1248+00    | - | 1251+00 | STH 178, RT.       | 3                           | 3                           |         |
| 1250+00    | - | 1252+00 | STH 178, LT.       | 2                           | 2                           |         |
| 1256+50    | - | 1257+50 | STH 178, RT.       | 1                           | 1                           |         |
| 1265+00    | - | 1267+00 | STH 178, LT.       | 2                           | 2                           |         |
| 1264+00    | - | 1266+00 | STH 178, RT.       | 2                           | 2                           |         |
| 1268+50    | - | 1270+50 | STH 178, LT.       | 2                           | 2                           |         |
| 1271+00    | - | 1272+00 | STH 178, LT. & RT. | 2                           | 2                           |         |
| 1275+00    | - | 1282+00 | STH 178, RT.       | 7                           | 7                           |         |
| 1288+00    | - | 1291+00 | STH 178, LT.       | 3                           | 3                           |         |
| 1285+00    | - | 1289+00 | STH 178, RT.       | 4                           | 4                           |         |
| 1291+50    | - | 1302+50 | STH 178, RT.       | 11                          | 11                          |         |
| 1300+00    | - | 1305+00 | STH 178, LT.       | 5                           | 5                           |         |
| 1304+00    | - | 1307+00 | STH 178, RT.       | 3                           | 3                           |         |
| 1315+00    | - | 1320+00 | STH 178, RT.       | 5                           | 5                           |         |
| 1315+00    | - | 1318+00 | STH 178, LT.       | 3                           | 3                           |         |
| 1332+00    | - | 1333+00 | STH 178, RT.       | 1                           | 1                           |         |
| TOTAL 0010 |   |         |                    | 104                         | 104                         |         |

REMOVING ASPHALTIC SURFACE BUTT JOINTS

| STATION TO | STATION | LOCATION | 204.0115<br>SY | REMARKS |
|------------|---------|----------|----------------|---------|
| 1170+50    |         | STH 178  | 123            |         |
| 1335+50    |         | STH 178  | 123            |         |
| 106'X'+50  |         | STH 64   | 133            |         |
| TOTAL 0010 |         |          | 379            |         |

REMOVING SMALL PIPE CULVERTS

| STATION TO | STATION | LOCATION  | 203.0100<br>EACH | REMARKS               |
|------------|---------|-----------|------------------|-----------------------|
| 1182+44    |         | STH 178   | 1                | 12" - 38'; CSCP       |
| 1203+43    |         | STH 178   | 1                | 18" - 52'; LINED CSCP |
| 1210+32    |         | STH 178   | 1                | 36" - 60'; CSCP       |
| 1212+53    |         | STH 178   | 2                | 30" - 48' X 2; CSCP   |
| 1218+49    |         | STH 178   | 1                | 24" - 42'; CSCP       |
| 1221+06    |         | STH 178   | 1                | 12" - 46'; CSCP       |
| 1225+50    |         | STH 178   | 1                | 30" - 86'; CSCP       |
| 1239+81    |         | STH 178   | 1                | 24" - 74'; CSCP       |
| 1240+01    |         | STH 178   | 1                | 24" - 48'; CSCP       |
| 1257+91    |         | STH 178   | 1                | 18" - 36'; CSCP       |
| 1271+34    |         | STH 178   | 1                | 15" - 46'; CSCP       |
| 1277+65    |         | STH 178   | 1                | 24" - 44'; CSCP       |
| 1280+44    |         | STH 178   | 1                | 24" - 44'; CSCP       |
| 1286+71    |         | STH 178   | 1                | 24" - 48'; CSCP       |
| 1294+66    |         | STH 178   | 1                | 30" - 64'; CSCP       |
| 1302+00    |         | STH 178   | 1                | 15" - 40'; CPCP       |
| 1305+72    |         | STH 178   | 1                | 18" - 48'; CSCP       |
|            |         | DRIVEWAYS | 2                | CSCP                  |
| TOTAL 0010 |         |           | 20               |                       |

REMOVING ASPHALTIC SURFACE

| STATION TO | STATION | LOCATION | 204.0110<br>SY | REMARKS                                     |
|------------|---------|----------|----------------|---------------------------------------------|
| 1182+44    |         | STH 178  | 37             | PIPE REM./INSTALL.                          |
| 1216+50    |         | STH 178  | 24             | PIPE REM./INSTALL.                          |
| 1218+49    |         | STH 178  | 37             | PIPE REM./INSTALL.                          |
| 1218+75    |         | STH 178  | 34             | PIPE REM./INSTALL.                          |
| 1225+50    |         | STH 178  | 73             | PIPE REM./INSTALL.                          |
| 1239+81    |         | STH 178  | 90             | PIPE REM./INSTALL.; INCLUDES PIPE @ 1240+01 |
| 1246+15    |         | STH 178  | 37             | PIPE REM./INSTALL.                          |
| 1249+55    |         | STH 178  | 34             | PIPE REM./INSTALL.                          |
| 1254+00    |         | STH 178  | 34             | PIPE REM./INSTALL.                          |
| 1257+91    |         | STH 178  | 37             | PIPE REM./INSTALL.                          |
| 1271+34    |         | STH 178  | 44             | PIPE REM./INSTALL.                          |
| 1277+65    |         | STH 178  | 39             | PIPE REM./INSTALL.                          |
| 1280+44    |         | STH 178  | 39             | PIPE REM./INSTALL.                          |
| 1286+71    |         | STH 178  | 34             | PIPE REM./INSTALL.                          |
| 1294+66    |         | STH 178  | 66             | PIPE REM./INSTALL.                          |
| 1302+00    |         | STH 178  | 37             | PIPE REM./INSTALL.                          |
| TOTAL 0010 |         |          | 696            |                                             |

ALL ITEMS ON THIS SHEET ARE CATEGORY 0010

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| REMOVING ASPHALTIC SURFACE MILLING |           |          |                |                    |  |
|------------------------------------|-----------|----------|----------------|--------------------|--|
| STATION TO                         | STATION   | LOCATION | 204.0120<br>SY | REMARKS            |  |
| 1222+00                            | - 1234+00 | STH 178  | 800            | 6 FOOT WIDTH LEFT  |  |
| 1294+00                            | - 1298+00 | STH 178  | 267            | 6 FOOT WIDTH RIGHT |  |
| TOTAL 0010                         |           |          | 1067           |                    |  |

| EXCAVATION COMMON |         |          |                |                                   |  |
|-------------------|---------|----------|----------------|-----------------------------------|--|
| STATION TO        | STATION | LOCATION | 205.0100<br>CY | REMARKS                           |  |
| PROJECT           |         | STH 178  | 38460          | SEE EARTHWORK SUMMARY (INCL. EBS) |  |
| PROJECT           |         | CTH ZZ   | 2219           | SEE EARTHWORK SUMMARY (INCL. EBS) |  |
| TOTAL 0010        |         |          | 40679          |                                   |  |

| BASE AGGREGATE DENSE |             |                                |                             |                               |                          |
|----------------------|-------------|--------------------------------|-----------------------------|-------------------------------|--------------------------|
| STATION TO           | STATION     | LOCATION                       | 3/4-INCH<br>305.0110<br>TON | 1 1/4-INCH<br>305.0120<br>TON | REMARKS                  |
| 1170+50              | - 1191+50   | STH 178                        | 311                         | 2672                          |                          |
| 1191+50              | - 1215+50   | STH 178                        | 424                         | 6716                          |                          |
| 1215+50              | - 1220+00   | STH 178                        | 53                          | 659                           |                          |
| 1220+00              | - 1222+50   | STH 178                        | 35                          | 718                           |                          |
| 1222+50              | - 1234+00   | STH 178                        | 251                         | 1493                          |                          |
| 1234+00              | - 1293+50   | STH 178                        | 844                         | 6738                          |                          |
| 1293+50              | - 1298+00   | STH 178                        | 71                          | 584                           |                          |
| 1298+00              | - 1301+50   | STH 178                        | 48                          | 385                           |                          |
| 1301+50              | - 1308+50   | STH 178                        | 111                         | 1817                          |                          |
| 1308+50              | - 1316+00   | STH 178                        | 102                         | 825                           |                          |
| 1316+00              | - 1320+00   | STH 178                        | 63                          | 1038                          |                          |
| 1320+00              | - 1322+50   | STH 178                        | 34                          | 275                           |                          |
| 1322+50              | - 1324+50   | STH 178                        | 32                          | 519                           |                          |
| 1324+50              | - 1335+00   | STH 178                        | 143                         | 1155                          |                          |
| 0+50' ZZ'            | - 3+00' ZZ' | CTH ZZ                         | 45                          | 531                           |                          |
| 1170+50              | - 1335+50   | STH 64 INTERSECT.<br>DRIVEWAYS | 45<br>1220                  | -                             |                          |
| 1170+50              | - 1335+50   | STH 178                        | -                           | 848                           | PIPE REMOVAL/INST. PATCH |
| TOTAL 0010           |             |                                | 3832                        | 26973                         |                          |

| REMOVING DELINEATORS AND MARKERS |           |                    |                  |         |  |
|----------------------------------|-----------|--------------------|------------------|---------|--|
| STATION TO                       | STATION   | LOCATION           | 204.0180<br>EACH | REMARKS |  |
| 1193+00                          | - 1195+00 | STH 178, LT.       | 5                |         |  |
| 1219+00                          | - 1231+00 | STH 178, LT. & RT. | 13               |         |  |
| 1271+00                          | - 1277+00 | STH 178, LT.       | 5                |         |  |
| TOTAL 0010                       |           |                    | 23               |         |  |

| SELECT BORROW |         |          |                |                       |  |
|---------------|---------|----------|----------------|-----------------------|--|
| STATION TO    | STATION | LOCATION | 208.1100<br>CY | REMARKS               |  |
| PROJECT       |         | STH 178  | 7417           | SEE EARTHWORK SUMMARY |  |
| PROJECT       |         | CTH ZZ   | 259            | SEE EARTHWORK SUMMARY |  |
| TOTAL 0010    |         |          | 7676           |                       |  |

| BORROW     |         |          |                |                       |  |
|------------|---------|----------|----------------|-----------------------|--|
| STATION TO | STATION | LOCATION | 208.0100<br>CY | REMARKS               |  |
| PROJECT    |         | STH 178  | 2674           | SEE EARTHWORK SUMMARY |  |
| TOTAL 0010 |         |          | 2674           |                       |  |

| BREAKER RUN                               |         |               |                |                                        |
|-------------------------------------------|---------|---------------|----------------|----------------------------------------|
| STATION TO                                | STATION | LOCATION      | 311.0115<br>CY | REMARKS                                |
|                                           |         | UNDISTRIBUTED | 7000           | POTENTIAL WET BACKSLOPE/SUBGRADE AREAS |
|                                           |         | TOTAL 0010    | 7000           |                                        |
| ALL ITEMS ON THIS SHEET ARE CATEGORY 0010 |         |               |                |                                        |

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| MILL AND RELAY |           |             |                |                    |
|----------------|-----------|-------------|----------------|--------------------|
| STATION TO     | STATION   | LOCATION    | 330.0100<br>SY | REMARKS            |
| 1171+00        | - 1192+00 | STH 178     | 7000           | FULL 30 FT. WIDTH  |
| 1215+00        | - 1220+00 | STH 178     | 1667           | FULL 30 FT. WIDTH  |
| 1222+00        | - 1234+00 | STH 178     | 2000           | 15 FT. WIDTH RIGHT |
| 1234+00        | - 1294+00 | STH 178     | 20000          | FULL 30 FT. WIDTH  |
| 1294+00        | - 1298+00 | STH 178     | 667            | 15 FT. WIDTH LEFT  |
| 1298+00        | - 1302+00 | STH 178     | 1334           | FULL 30 FT. WIDTH  |
| 1308+00        | - 1316+50 | STH 178     | 2834           | FULL 30 FT. WIDTH  |
| 1319+50        | - 1323+00 | STH 178     | 1167           | FULL 30 FT. WIDTH  |
| 1324+00        | - 1335+00 | STH 178     | 3667           | FULL 30 FT. WIDTH  |
|                |           | STH 64 INT. | 973            | INTERSECTION AREA  |
| TOTAL 0010     |           |             | 41309          |                    |

| ASPHALT ITEMS         |                         |             |                                                      |                              |                                                |                                                                                      |                                       |
|-----------------------|-------------------------|-------------|------------------------------------------------------|------------------------------|------------------------------------------------|--------------------------------------------------------------------------------------|---------------------------------------|
| STATION TO            | STATION                 | LOCATION    | ASPHALTIC<br>MATERIAL<br>PG58-34P<br>455.0135<br>TON | TACK COAT<br>455.0605<br>GAL | HMA<br>PAVEMENT<br>TYPE E-3<br>460.1103<br>TON | REHEATING<br>HMA PAVEMENT<br>LONGITUDINAL<br>JOINTS<br>SPECIAL<br>SPV.0170.01<br>STA | REMARKS                               |
| 1170+50 - 1191+50     | 1191+50 - 1215+50       | STH 178     | 111                                                  | 434                          | 2009                                           | 21                                                                                   | INCLUDES WEDGING FOR SUPER. CORRECTS. |
| 1191+50 - 1215+50     | 1215+50 - 1219+50       | STH 178     | 117                                                  | 412                          | 2126                                           | 24                                                                                   |                                       |
| 1215+50 - 1219+50     | 1219+50 - 1222+50       | STH 178     | 30                                                   | 119                          | 557                                            | 4                                                                                    | INCLUDES WEDGING FOR SUPER. CORRECTS. |
| 1219+50 - 1222+50     | 1222+50 - 1234+00       | STH 178     | 15                                                   | 52                           | 267                                            | 3                                                                                    |                                       |
| 1222+50 - 1234+00     | 1234+00 - 1293+50       | STH 178     | 70                                                   | 261                          | 1267                                           | 11.5                                                                                 | INCLUDES WEDGING FOR SUPER. CORRECTS. |
| 1234+00 - 1293+50     | 1293+50 - 1298+00       | STH 178     | 407                                                  | 1585                         | 7385                                           | 59.5                                                                                 | INCLUDES WEDGING FOR SUPER. CORRECTS. |
| 1293+50 - 1298+00     | 1298+00 - 1301+50       | STH 178     | 20                                                   | 75                           | 367                                            | 4.5                                                                                  |                                       |
| 1298+00 - 1301+50     | 1301+50 - 1308+50       | STH 178     | 21                                                   | 83                           | 386                                            | 3.5                                                                                  | INCLUDES WEDGING FOR SUPER. CORRECTS. |
| 1301+50 - 1308+50     | 1308+50 - 1316+00       | STH 178     | 33                                                   | 117                          | 604                                            | 7                                                                                    |                                       |
| 1308+50 - 1316+00     | 1316+00 - 1320+00       | STH 178     | 32                                                   | 125                          | 575                                            | 7.5                                                                                  |                                       |
| 1316+00 - 1320+00     | 1320+00 - 1322+50       | STH 178     | 19                                                   | 67                           | 345                                            | 4                                                                                    |                                       |
| 1320+00 - 1322+50     | 1322+50 - 1324+50       | STH 178     | 11                                                   | 42                           | 192                                            | 2.5                                                                                  |                                       |
| 1322+50 - 1324+50     | 1324+50 - 1335+50       | STH 178     | 10                                                   | 33                           | 173                                            | 2                                                                                    |                                       |
| 1324+50 - 1335+50     | 1335+50 - 0+50' ZZ'     | STH 178     | 61                                                   | 238                          | 1106                                           | 10.5                                                                                 | INCLUDES WEDGING FOR SUPER. CORRECTS. |
| 0+50' ZZ' - 3+00' ZZ' | 3+00' ZZ' - STH 64 INT. | CTH ZZ      | 9                                                    | 34                           | 155                                            | 2.5                                                                                  |                                       |
|                       |                         | STH 64 INT. | 6                                                    | 22                           | 101                                            | 1.5                                                                                  |                                       |
| TOTAL 0010            |                         |             | 972                                                  | 3699                         | 17615                                          | 168.5                                                                                |                                       |

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| CONCRETE SURFACE DRAINS |         |             |                |         |
|-------------------------|---------|-------------|----------------|---------|
| STATION TO              | STATION | LOCATION    | 416.1010<br>CY | REMARKS |
| 3+00' ZZ'               |         | CTH ZZ, LT. | 2              |         |
| 3+00' ZZ'               |         | CTH ZZ, RT. | 2              |         |
| TOTAL 0010              |         |             | 4              |         |

| ASPHALTIC SURFACE DETOURS |         |          |                 |         |
|---------------------------|---------|----------|-----------------|---------|
| STATION TO                | STATION | LOCATION | 465.0115<br>TON | REMARKS |
|                           |         | CTH R    | 1800            |         |
| TOTAL 0010                |         |          | 1800            |         |

| ASPHALTIC SURFACE                         |         |          |                 |                          |
|-------------------------------------------|---------|----------|-----------------|--------------------------|
| STATION TO                                | STATION | LOCATION | 465.0105<br>TON | REMARKS                  |
| 1182+44                                   |         | STH 178  | 9               | PIPE REM./INSTALL. PATCH |
| 1216+50                                   |         | STH 178  | 6               | PIPE REM./INSTALL. PATCH |
| 1218+49                                   |         | STH 178  | 9               | PIPE REM./INSTALL. PATCH |
| 1218+75                                   |         | STH 178  | 8               | PIPE REM./INSTALL. PATCH |
| 1225+50                                   |         | STH 178  | 17              | PIPE REM./INSTALL. PATCH |
| 1239+81                                   |         | STH 178  | 21              | PIPE REM./INSTALL. PATCH |
| 1246+15                                   |         | STH 178  | 9               | PIPE REM./INSTALL. PATCH |
| 1249+55                                   |         | STH 178  | 8               | PIPE REM./INSTALL. PATCH |
| 1254+00                                   |         | STH 178  | 8               | PIPE REM./INSTALL. PATCH |
| 1257+91                                   |         | STH 178  | 9               | PIPE REM./INSTALL. PATCH |
| 1271+34                                   |         | STH 178  | 10              | PIPE REM./INSTALL. PATCH |
| 1277+65                                   |         | STH 178  | 9               | PIPE REM./INSTALL. PATCH |
| 1280+44                                   |         | STH 178  | 9               | PIPE REM./INSTALL. PATCH |
| 1286+71                                   |         | STH 178  | 8               | PIPE REM./INSTALL. PATCH |
| 1294+66                                   |         | STH 178  | 15              | PIPE REM./INSTALL. PATCH |
| 1302+00                                   |         | STH 178  | 9               | PIPE REM./INSTALL. PATCH |
| TOTAL 0010                                |         |          | 164             |                          |
| ALL ITEMS ON THIS SHEET ARE CATEGORY 0010 |         |          |                 |                          |

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| ASPHALTIC SURFACE DRIVEWAYS AND FIELD ENTRANCES |           |          |                 |                            | ASPHALTIC FLUMES |         |              |                |         |
|-------------------------------------------------|-----------|----------|-----------------|----------------------------|------------------|---------|--------------|----------------|---------|
| STATION TO                                      | STATION   | LOCATION | 465.0120<br>TON | REMARKS                    | STATION TO       | STATION | LOCATION     | 465.0315<br>SY | REMARKS |
| 1170+50                                         | - 1335+50 | PROJECT  | 281             | 2" ON P.E.'S; 3" ON C.E.'S | 1195+65          |         | STH 178, RT. | 9              |         |
|                                                 |           |          |                 |                            | 1209+60          |         | STH 178, LT. | 11             |         |
| TOTAL 0010                                      |           |          | 281             |                            | TOTAL 0010       |         |              | 20             |         |

| ASPHALTIC INTERSECTION RUMBLE STRIP |         |                 |                |         |
|-------------------------------------|---------|-----------------|----------------|---------|
| STATION TO                          | STATION | LOCATION        | 465.0450<br>SY | REMARKS |
|                                     |         | STH 64 APPROACH | 100            |         |
| TOTAL 0010                          |         |                 | 100            |         |

| CULVERT PIPE CORRUGATED STEEL |           |          |                                                            |                                                            |                                                                       |
|-------------------------------|-----------|----------|------------------------------------------------------------|------------------------------------------------------------|-----------------------------------------------------------------------|
| STATION TO                    | STATION   | LOCATION | CULVERT PIPE<br>CORRUGATED<br>STEEL<br>12-INCH<br>521.0112 | CULVERT PIPE<br>CORRUGATED<br>STEEL<br>18-INCH<br>521.0118 | APRON ENDWALLS<br>FOR<br>CULVERT PIPE<br>STEEL<br>12-INCH<br>521.1012 |
|                               |           |          | LF                                                         | LF                                                         | APRON ENDWALLS<br>FOR<br>CULVERT PIPE<br>STEEL<br>18-INCH<br>521.1018 |
|                               |           |          |                                                            |                                                            | EACH                                                                  |
|                               |           |          |                                                            |                                                            | EACH                                                                  |
|                               |           |          |                                                            |                                                            |                                                                       |
| 1171+25                       |           | RT.      | 40                                                         | -                                                          | 2                                                                     |
| 1177+10                       |           | LT.      | 30                                                         | -                                                          | 2                                                                     |
| 1187+40                       |           | LT.      | -                                                          | 30                                                         | -                                                                     |
| 1189+15                       |           | RT.      | -                                                          | 30                                                         | -                                                                     |
| 1190+60                       |           | LT.      | -                                                          | 30                                                         | -                                                                     |
| 1193+75                       |           | RT.      | -                                                          | 30                                                         | -                                                                     |
| 1204+90                       |           | LT.      | 30                                                         | -                                                          | 2                                                                     |
| 2'ZZ'+40                      |           | LT.      | 30                                                         | -                                                          | 2                                                                     |
| 1211+90                       |           | LT.      | -                                                          | 40                                                         | -                                                                     |
| 1212+85                       |           | LT.      | -                                                          | 40                                                         | -                                                                     |
| 1237+65                       | - 1237+90 | LT.      | -                                                          | 66                                                         | -                                                                     |
| 1247+15                       |           | LT.      | 30                                                         | -                                                          | 2                                                                     |
| 1248+10                       |           | LT.      | 30                                                         | -                                                          | 2                                                                     |
| 1253+25                       |           | LT.      | 40                                                         | -                                                          | 2                                                                     |
| 1255+30                       |           | LT.      | 30                                                         | -                                                          | 2                                                                     |
| 1259+75                       |           | LT.      | 40                                                         | -                                                          | 2                                                                     |
| 1267+30                       |           | LT.      | 30                                                         | -                                                          | 2                                                                     |
| 1268+30                       |           | LT.      | 30                                                         | -                                                          | 2                                                                     |
| 1269+70                       |           | LT.      | 30                                                         | -                                                          | 2                                                                     |
| 1290+50                       |           | LT.      | 30                                                         | -                                                          | 2                                                                     |
| 1303+50                       |           | LT.      | 30                                                         | -                                                          | 2                                                                     |
| TOTAL 0010                    |           |          | 450                                                        | 266                                                        | 28                                                                    |
|                               |           |          |                                                            |                                                            | 14                                                                    |

ALL ITEMS ON THIS SHEET ARE CATEGORY 0010

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CULVERT PIPE REINFORCED CONCRETE

| STATION    | LOCATION | C.P.       | C.P.       | C.P.       | C.P.       | C.P.       | C.P.       | APRON    | APRON    | APRON    | APRON    | APRON    | APRON    | APRON    | APRON    | MARKERS<br>CULVERT<br>END<br>633.5200 | REMARKS |
|------------|----------|------------|------------|------------|------------|------------|------------|----------|----------|----------|----------|----------|----------|----------|----------|---------------------------------------|---------|
|            |          | REINFORCED | REINFORCED | REINFORCED | REINFORCED | REINFORCED | REINFORCED | ENDWALLS | ENDWALLS | ENDWALLS | ENDWALLS | ENDWALLS | ENDWALLS | ENDWALLS | ENDWALLS |                                       |         |
|            |          | CONCRETE   | CONCRETE   | CONCRETE   | CONCRETE   | CONCRETE   | CONCRETE   | FOR      | FOR      | FOR      | FOR      | FOR      | FOR      | FOR      | FOR      |                                       |         |
|            |          | CLASS III  | CLASS III  | CLASS III  | CLASS III  | CLASS III  | CLASS III  | C.P.     | C.P.     | C.P.     | C.P.     | C.P.     | C.P.     | C.P.     | C.P.     |                                       |         |
|            |          | 18-INCH    | 24-INCH    | 30-INCH    | 36-INCH    | 42-INCH    | 48-INCH    | 12-INCH  | 18-INCH  | 24-INCH  | 30-INCH  | 36-INCH  | 42-INCH  | 48-INCH  |          |                                       |         |
|            |          | 522.0118   | 522.0124   | 522.0130   | 522.0136   | 522.0142   | 522.0148   | 522.1012 | 522.1018 | 522.1024 | 522.1030 | 522.1036 | 522.1042 | 522.1048 |          |                                       |         |
|            |          | LF         | LF         | LF         | LF         | LF         | LF         | EACH     | EACH     | EACH     | EACH     | EACH     | EACH     | EACH     | EACH     |                                       |         |
| 1182+44    | STH 178  | -          | 44         | -          | -          | -          | -          | -        | -        | 2        | -        | -        | -        | -        | 2        |                                       |         |
| 1203+43    | STH 178  | -          | 56         | -          | -          | -          | -          | -        | -        | 2        | -        | -        | -        | -        | 2        |                                       |         |
| 2'ZZ'+85   | CTH ZZ   | 60         | -          | -          | -          | -          | -          | -        | 2        | -        | -        | -        | -        | -        | 2        |                                       |         |
| 1210+32    | STH 178  | -          | -          | -          | -          | 72         | -          | -        | -        | -        | -        | -        | 2        | -        | 2        |                                       |         |
| 1212+53    | STH 178  | -          | -          | -          | -          | -          | 70         | -        | -        | -        | -        | -        | -        | 2        | 2        | SKEW 20 DEG.                          |         |
| 1218+75    | STH 178  | -          | 42         | -          | -          | -          | -          | -        | -        | 2        | -        | -        | -        | -        | 2        |                                       |         |
| 1225+50    | STH 178  | -          | -          | 92         | -          | -          | -          | -        | -        | -        | 2        | -        | -        | -        | 2        | SKEW 22 DEG.                          |         |
| 1239+81    | STH 178  | -          | 84         | -          | -          | -          | -          | -        | -        | 2        | -        | -        | -        | -        | 2        |                                       |         |
| 1254+00    | STH 178  | 48         | -          | -          | -          | -          | -          | -        | 2        | -        | -        | -        | -        | -        | 2        |                                       |         |
| 1257+91    | STH 178  | 50         | -          | -          | -          | -          | -          | -        | 2        | -        | -        | -        | -        | -        | 2        |                                       |         |
| 1271+34    | STH 178  | -          | 68         | -          | -          | -          | -          | -        | -        | 2        | -        | -        | -        | -        | 2        |                                       |         |
| 1277+65    | STH 178  | -          | 90         | -          | -          | -          | -          | -        | -        | 2        | -        | -        | -        | -        | 2        | SKEW 38 DEG.                          |         |
| 1280+44    | STH 178  | -          | 68         | -          | -          | -          | -          | -        | -        | 2        | -        | -        | -        | -        | 2        | SKEW 25 DEG.                          |         |
| 1286+71    | STH 178  | -          | 44         | -          | -          | -          | -          | -        | -        | 2        | -        | -        | -        | -        | 2        |                                       |         |
| 1294+66    | STH 178  | -          | -          | -          | 74         | -          | -          | -        | -        | -        | -        | 2        | -        | -        | 2        |                                       |         |
| 1302+00    | STH 178  | 40         | -          | -          | -          | -          | -          | -        | 2        | -        | -        | -        | -        | -        | 2        |                                       |         |
| 1305+80    | STH 178  | -          | 70         | -          | -          | -          | -          | -        | -        | 2        | -        | -        | -        | -        | 2        | SKEW 13 DEG.                          |         |
|            | STH 178  | -          | -          | -          | -          | -          | -          | 1        | 3        | -        | -        | -        | -        | -        | 4        | S.S. OUTLETS                          |         |
| TOTAL 0010 |          | 198        | 566        | 92         | 74         | 72         | 70         | 1        | 11       | 18       | 2        | 2        | 2        | 2        | 38       |                                       |         |

CONCRETE CURB & GUTTER

| STATION TO | STATION   | LOCATION     | 6-INCH   | 6-INCH   | CURE        | REMARKS                 |
|------------|-----------|--------------|----------|----------|-------------|-------------------------|
|            |           |              | SLOPED   | SLOPED   | AND SEAL    |                         |
|            |           |              | 30-INCH  | 36-INCH  | TREATMENT   |                         |
|            |           |              | TYPE J   | TYPE D   | SPV.0090.03 |                         |
|            |           |              | 601.0415 | 601.0557 | LF          |                         |
| 1195+65    | - 1198+40 | STH 178, RT. | -        | 275      | 275         |                         |
| 1206+05    | - 1209+60 | STH 178, LT. | -        | 395      | 395         | INCL. CTH ZZ INTERSECT. |
| 1213+60    | - 1222+00 | STH 178, LT. | -        | 840      | 840         |                         |
| 1331+45    | - 1331+52 | STH 178, LT. | 26       | -        | 26          | STH 64 INTERSECT.       |
| TOTAL 0010 |           |              | 26       | 1510     | 1536        |                         |

CONCRETE SIDEWALK

| STATION TO | STATION   | LOCATION     | 4-INCH   | CURE AND SEAL | REMARKS           |
|------------|-----------|--------------|----------|---------------|-------------------|
|            |           |              | 602.0405 | TREATMENT     |                   |
|            |           |              | SF       | SPV.0165.01   |                   |
| 1213+60    | - 1217+90 | STH 178, LT. | 1720     | 1720          |                   |
| 1331+48    |           | STH 178, LT. | 32       | 32            | STH 64 INTERSECT. |
| TOTAL 0010 |           |              | 1752     | 1752          |                   |

ALL ITEMS ON THIS SHEET ARE CATEGORY 0010

RIPRAP ITEMS

|            |           | RIPRAP       |     | GEOTEXTILE |  | FIELD STONE  |                                   |  |
|------------|-----------|--------------|-----|------------|--|--------------|-----------------------------------|--|
|            |           | MEDIUM       |     | FABRIC     |  | HEAVY RIPRAP |                                   |  |
|            |           | 606.0200     |     | 645.0120   |  | SPV.0035.01  |                                   |  |
| STATION TO | STATION   | LOCATION     | CY  | SY         |  | CY           | REMARKS                           |  |
| 1182+00    | - 1186+00 | STH 178, RT. | -   | 1555       |  | 1107         | ON RIVERBANK ***                  |  |
| 1195+25    | - 1196+25 | STH 178, LT. | 85  | 170        |  | -            | DITCH                             |  |
| 1203+43    |           | STH 178, RT. | 100 | 200        |  | -            | CULVERT OUTLET END                |  |
| 1207+50    |           | STH 178, RT. | 25  | 45         |  | -            | CULVERT OUTLET END                |  |
| 1209+50    | - 1211+75 | STH 178, RT. | -   | 1000       |  | 857          | ON RIVERBANK ***                  |  |
| 1212+25    | - 1219+50 | STH 178, RT. | -   | 2420       |  | 2046         | ON RIVERBANK ***                  |  |
| 1225+50    |           | STH 178, RT. | -   | 25         |  | 15           | AROUND CULV. ENDWALL ON RIVERBANK |  |
| 1239+81    |           | STH 178, RT. | -   | 30         |  | 38           | AROUND CULV. ENDWALL ON RIVERBANK |  |
| 1271+34    |           | STH 178, RT. | 10  | 15         |  | -            | CULVERT OUTLET END                |  |
| 1277+65    |           | STH 178, RT. | 10  | 15         |  | -            | CULVERT OUTLET END                |  |
| 1280+84    |           | STH 178, RT. | 10  | 15         |  | -            | CULVERT OUTLET END                |  |
| 1286+71    |           | STH 178, RT. | -   | 30         |  | 22           | AROUND CULV. ENDWALL ON RIVERBANK |  |
| 1294+66    |           | STH 178, RT. | 20  | 35         |  | -            | CULVERT OUTLET END                |  |
| 1305+80    |           | STH 178, RT. | 10  | 15         |  | -            | CULVERT OUTLET END                |  |
| TOTAL 0010 |           |              | 270 | 5570       |  | 4085         |                                   |  |

\*\*\* ALSO INCLUDES AROUND CULVERT ENDWALLS ON RIVERBANK

PIPE UNDERDRAIN 12-INCH

|               |  | 612.0112 | REMARKS                                |
|---------------|--|----------|----------------------------------------|
| LOCATION      |  | LF       |                                        |
| UNDISTRIBUTED |  | 1250     | POTENTIAL WET BACKSLOPE/SUBGRADE AREAS |
| TOTAL 0010    |  | 1250     |                                        |

SALVAGED RAIL

|            |         |              |  |          |         |
|------------|---------|--------------|--|----------|---------|
|            |         |              |  | 614.0920 |         |
| STATION TO | STATION | LOCATION     |  | LF       | REMARKS |
| 1182+03 -  | 1185+91 | STH 178, RT. |  | 388      |         |
| 1208+07 -  | 1234+95 | STH 178, RT. |  | 2688     |         |
| 1216+42 -  | 1217+30 | STH 178, LT. |  | 88       |         |
| TOTAL 0010 |         |              |  | 3164     |         |

STORM SEWER

|            |         | PIPE       |            | PIPE     |          |          |          |          |         |         |
|------------|---------|------------|------------|----------|----------|----------|----------|----------|---------|---------|
|            |         | REINFORCED | REINFORCED |          |          |          |          | INLETS   | INLETS  |         |
|            |         | CONCRETE   | CONCRETE   | INLET    | INLET    |          |          | MEDIAN   | MEDIAN  |         |
|            |         | CLASS III  | CLASS III  | COVERS   | COVERS   |          |          | 1 GRATE  | 2 GRATE |         |
|            |         | 12-INCH    | 18-INCH    | TYPE B   | TYPE MS  |          |          |          |         |         |
|            |         | 608.0312   | 608.0318   | 611.0606 | 611.0642 | 611.3220 | 611.3901 | 611.3902 |         |         |
| STATION TO | STATION | LOCATION   | LF         | LF       | EACH     | EACH     | EACH     | EACH     | EACH    | REMARKS |
| 1207+50    |         | STH 178    | -          | 54       | -        | 2        | -        | -        | 1       |         |
| 1216+48    |         | STH 178    | 42         | -        | 1        | -        | 1        | -        | -       |         |
| 1246+15    |         | STH 178    | -          | 78       | -        | 1        | -        | 1        | -       |         |
| 1249+55    |         | STH 178    | -          | 60       | -        | 1        | -        | 1        | -       |         |
| TOTAL 0010 |         |            | 42         | 192      | 1        | 4        | 1        | 2        | 1       |         |

NOTE: APRON ENDWALL AND END MARKER QUANTITIES FOR STORM SEWER OUTLETS ARE LISTED ELSEWHERE.

ALL ITEMS ON THIS SHEET ARE CATEGORY 0010

MGS GUARDRAIL

|            |           |              | MGS       |           |                                                               |  |  |
|------------|-----------|--------------|-----------|-----------|---------------------------------------------------------------|--|--|
|            |           |              | MGS       | GUARDRAIL |                                                               |  |  |
|            |           |              | GUARDRAIL | TERMINAL  |                                                               |  |  |
|            |           |              | 3         | EAT       |                                                               |  |  |
|            |           |              | 614.2300  | 614.2610  |                                                               |  |  |
| STATION TO | STATION   | LOCATION     | LF        | EACH      | REMARKS                                                       |  |  |
| 1181+41.25 | - 1186+35 | STH 178, RT. | 387.5     | 2         | STATIONS GIVEN AT MGS EAT POST 1; STD. 2' OFFSET TO RAIL FACE |  |  |
| 1200+48.75 | - 1235+55 | STH 178, RT. | 3400      | 2         | STATIONS GIVEN AT MGS EAT POST 1; STD. 2' OFFSET TO RAIL FACE |  |  |
| 1270+78.75 | - 1273+35 | STH 178, RT. | 150       | 2         | STATIONS GIVEN AT MGS EAT POST 1; STD. 2' OFFSET TO RAIL FACE |  |  |
| 1282+58.75 | - 1289+40 | STH 178, RT. | 575.0     | 2         | STATIONS GIVEN AT MGS EAT POST 1; STD. 2' OFFSET TO RAIL FACE |  |  |
| TOTAL 0010 |           |              | 4512.5    | 8         |                                                               |  |  |

TURF RESTORATION ITEMS

|            |           |               | TOPSOIL<br>625.0100<br>SY | SALVAGED<br>TOPSOIL<br>625.0500<br>SY | MULCHING<br>627.0200<br>SY | FERTILIZER<br>TYPE B<br>629.0210<br>CWT | SEEDING<br>MIXTURE<br>NO. 10<br>630.0110<br>LB | SEEDING<br>TEMPORARY<br>630.0200<br>LB | REMARKS         |
|------------|-----------|---------------|---------------------------|---------------------------------------|----------------------------|-----------------------------------------|------------------------------------------------|----------------------------------------|-----------------|
| STATION TO | STATION   | LOCATION      |                           |                                       |                            |                                         |                                                |                                        |                 |
| 1170+50    | - 1335+50 | STH 178       | 15286                     | 45861                                 | 61148                      | 39                                      | 825                                            | 1652                                   | INCLUDES CTH ZZ |
|            |           | UNDISTRIBUTED | 2294                      | 6879                                  | 9172                       | 6                                       | 125                                            | 248                                    |                 |
| TOTAL 0010 |           |               | 17580                     | 52740                                 | 70320                      | 45                                      | 950                                            | 1900                                   |                 |

WATER

| STATION TO | STATION   | LOCATION    | 624.0100<br>MGAL | REMARKS |
|------------|-----------|-------------|------------------|---------|
| 1170+50    | - 1335+50 | AS DIRECTED | 200              |         |
| TOTAL 0010 |           |             | 200              |         |

EROSION BALES

| STATION TO | STATION | LOCATION      | 628.1104<br>EACH | REMARKS |
|------------|---------|---------------|------------------|---------|
|            |         | UNDISTRIBUTED | 200              |         |
| TOTAL 0010 |         |               | 200              |         |

SILT FENCE

|            |           |               | SILT FENCE<br>628.1504<br>LF | SILT FENCE<br>MAINTENANCE<br>628.1520<br>LF | REMARKS |
|------------|-----------|---------------|------------------------------|---------------------------------------------|---------|
| STATION TO | STATION   | LOCATION      |                              |                                             |         |
| 1193+00    | - 1198+00 | STH 178, LT.  | 500                          | 500                                         |         |
| 1198+00    | - 1209+50 | STH 178, RT.  | 1150                         | 1150                                        |         |
| 1219+50    | - 1242+00 | STH 178, RT.  | 2250                         | 2250                                        |         |
| 1222+00    | - 1232+50 | STH 178, LT.  | 1050                         | 1050                                        |         |
| 1246+50    | - 1272+50 | STH 178, RT.  | 2600                         | 2600                                        |         |
| 1280+50    | - 1290+50 | STH 178, RT.  | 1000                         | 1000                                        |         |
| 1299+00    | - 1303+50 | STH 178, LT.  | 450                          | 450                                         |         |
|            |           | UNDISTRIBUTED | 1350                         | 1350                                        |         |
| TOTAL 0010 |           |               | 10350                        | 10350                                       |         |

ALL ITEMS ON THIS SHEET ARE CATEGORY 0010

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EROSION MAT

| STATION TO | STATION   | LOCATION     | CLASS I                  | CLASS II                 | REMARKS                         |
|------------|-----------|--------------|--------------------------|--------------------------|---------------------------------|
|            |           |              | TYPE B<br>628.2004<br>SY | TYPE B<br>628.2023<br>SY |                                 |
| 1191+00    | - 1192+00 | STH 178, LT. | 85                       | -                        | 2.5:1 BACKSLOPE CUT             |
| 1187+50    | - 1195+65 | STH 178, RT. | 170                      | 1108                     | 2.5:1 BACKSLOPE CUT & DITCH *** |
| 1201+50    | - 1202+50 | STH 178, RT. | -                        | 225                      | 2:1 FILL SLOPE                  |
| 1203+00    | - 1204+00 | STH 178, RT. | -                        | 300                      | 2:1 FILL SLOPE                  |
| 1205+00    | - 1209+50 | STH 178, RT. | -                        | 2000                     | 2:1 FILL SLOPE                  |
| 1218+00    | - 1221+00 | STH 178, LT. | 1000                     | -                        | 2:1 BACKSLOPE CUT               |
| 1219+50    | - 1222+50 | STH 178, RT. | 335                      | -                        | 2:1 FILL SLOPE                  |
| 1301+50    | - 1305+50 | STH 178, LT. | 1110                     | -                        | 2.5:1 BACKSLOPE CUT             |
| 1306+00    | - 1310+00 | STH 178, LT. | 415                      | 665                      | 2.5:1 BACKSLOPE CUT & DITCH     |
| 1313+00    | - 1318+50 | STH 178, LT. | 335                      | 915                      | 2.5:1 BACKSLOPE CUT & DITCH     |
| 1306+00    | - 1318+50 | STH 178, RT. | -                        | 1385                     | DITCH                           |
| TOTAL 0010 |           |              | 3450                     | 6598                     |                                 |

\*\*\* ALSO INCLUDES SHOULDER AND DITCH FORESLOPES ON INSIDE OF SUPERELEVATED CURVE

INLET PROTECTION

| STATION TO | STATION | LOCATION     | TYPE A           | TYPE C           | REMARKS |
|------------|---------|--------------|------------------|------------------|---------|
|            |         |              | 628.7005<br>EACH | 628.7015<br>EACH |         |
| 1207+50    |         | STH 178, LT. | 1                | -                |         |
| 1216+50    |         | STH 178, LT. | 1                | 1                |         |
| 1246+15    |         | STH 178, LT. | 1                | -                |         |
| 1249+55    |         | STH 178, LT. | 1                | -                |         |
| TOTAL 0010 |         |              | 4                | 1                |         |

TURBIDITY BARRIERS

| STATION TO | STATION   | LOCATION     | 628.6005 | REMARKS             |
|------------|-----------|--------------|----------|---------------------|
|            |           |              | SY       |                     |
| 1181+00    | - 1186+00 | STH 178, RT. | 334      | EST. 6' WATER DEPTH |
| 1209+00    | - 1220+00 | STH 178, RT. | 735      | EST. 6' WATER DEPTH |
| 1225+50    |           | STH 178, RT. | 34       | EST. 6' WATER DEPTH |
| 1239+81    |           | STH 178, RT. | 52       | EST. 6' WATER DEPTH |
| TOTAL 0010 |           |              | 1155     |                     |

TEMPORARY DITCH CHECKS

| STATION TO | STATION   | LOCATION           | 628.7504 | REMARKS |
|------------|-----------|--------------------|----------|---------|
|            |           |                    | LF       |         |
| 1186+00    | 1197+00   | STH 178, LT. & RT. | 225      |         |
| 1199+00    | - 1203+00 | STH 178, LT.       | 45       |         |
| 1237+00    | - 1243+00 | STH 178, LT.       | 60       |         |
| 1301+00    | - 1321+00 | STH 178, LT. & RT. | 300      |         |
|            |           | UNDISTRIBUTED      | 100      |         |
| TOTAL 0010 |           |                    | 730      |         |

CULVERT PIPE CHECKS

| STATION TO | STATION | LOCATION     | 628.7555 | REMARKS |
|------------|---------|--------------|----------|---------|
|            |         |              | EACH     |         |
| 1182+44    |         | STH 178, LT. | 5        |         |
| 1203+43    |         | STH 178, LT. | 5        |         |
| 2'ZZ'+85   |         | CTH ZZ, RT.  | 5        |         |
| 1210+32    |         | STH 178, LT. | 10       |         |
| 1212+53    |         | STH 178, LT. | 10       |         |
| 1218+75    |         | STH 178, LT. | 5        |         |
| 1225+50    |         | STH 178, LT. | 5        |         |
| 1239+81    |         | STH 178, LT. | 5        |         |
| 1254+00    |         | STH 178, LT. | 5        |         |
| 1257+91    |         | STH 178, LT. | 5        |         |
| 1271+34    |         | STH 178, LT. | 5        |         |
| 1277+65    |         | STH 178, LT. | 5        |         |
| 1280+44    |         | STH 178, LT. | 5        |         |
| 1286+71    |         | STH 178, LT. | 5        |         |
| 1294+66    |         | STH 178, LT. | 5        |         |
| 1302+00    |         | STH 178, LT. | 5        |         |
| 1305+80    |         | STH 178, LT. | 5        |         |
| TOTAL 0010 |         |              | 95       |         |

ALL ITEMS ON THIS SHEET ARE CATEGORY 0010

3

3

PERMANENT SIGNS

3

| STH 178    |          |                                        |          | Exist. | Exist. | 638.2602 | 638.3000   |        |                                                    |          | New   | New    | 637.2210     | 637.2230     | 634.0616   |               |               |               |                                  |
|------------|----------|----------------------------------------|----------|--------|--------|----------|------------|--------|----------------------------------------------------|----------|-------|--------|--------------|--------------|------------|---------------|---------------|---------------|----------------------------------|
| Northbound | Existing |                                        | Existing | Sign   | Sign   | Signs    | Small Sign | New    |                                                    | New      | Sign  | Sign   | Signs        | Signs        | Posts Wood |               |               |               |                                  |
| Mile       | Sign     |                                        | Sign     | Size   | Size   | Type II  | Supports   | Sign   |                                                    | Sign     | Size  | Size   | Type II      | Type II      | 4x6 - Inch |               |               |               |                                  |
| Marker     | Code     | Existing Sign Description              | Position | Width  | Height | (Each)   | (Each)     | Code   | New Sign Description                               | Position | Width | Height | Reflective H | Reflective F | x 16 - Ft. | Order -Line 1 | Order -Line 2 | Order -Line 3 | Notes                            |
| 20.64      | J13-1    | Directional without Cardinal (1 Panel) | Right    | 24 in  | 45 in  | 1        | 1          | J13-1  | Directional without Cardinal (1Headed Route Panel) | Right    | 24.00 | 45.00  | 7.50         | -            | 1          | R             | [LA]          |               |                                  |
| 20.65      | W1-7     | Night Arrow ( Double )                 | Right    | 48 in  | 24 in  | 1        | 1          | W1-7   | Night Arrow ( Double )                             | Right    | 48.00 | 24.00  | -            | 8.00         | 1          |               |               |               |                                  |
| 20.69      | M1-6     | State Route Marker                     | Right    | 24 in  | 24 in  | 1        | -          | J4-1   | Reassurance Assembly (1 Headed Route Panel)        | Right    | 24.00 | 36.00  | 6.00         | -            | 1          | North         | 178           |               |                                  |
| 20.69      | M3-1     | NORTH Cardinal Route Marker            | Right    | 24 in  | 12 in  | 1        | 1          | -      | -                                                  | -        | -     | -      | -            | -            | -          |               |               |               |                                  |
| 20.69      | W8-8     | Rough Road                             | Right    | 30 in  | 30 in  | 1        | -          | -      | -                                                  | -        | -     | -      | -            | -            | -          |               |               |               | Do Not Replace                   |
| 20.79      | W14-3    | No Passing Zone                        | Left     | 48 in  | 36 in  | 1        | 1          | W14-3  | No Passing Zone                                    | Left     | 48.00 | 36.00  | -            | 6.00         | 1          |               |               |               |                                  |
| 20.81      | W1-2-R   | Right Curve                            | Right    | 30 in  | 30 in  | 1        | 1          | W1-2-R | Right Curve                                        | Right    | 30.00 | 30.00  | -            | 6.25         | 1          |               |               |               |                                  |
| 20.87      | W1-5-R   | Right Winding Road                     | Right    | 30 in  | 30 in  | 1        | 1          | W1-5-R | Right Winding Road                                 | Right    | 30.00 | 30.00  | -            | 6.25         | 1          |               |               |               |                                  |
| 20.87      | W57-51   | Next _ Miles                           | Right    | 30 in  | 15 in  | 1        | -          | W57-51 | Next _ Miles                                       | Right    | 30.00 | 15.00  | -            | 3.13         | -          | 2 1/2         |               |               |                                  |
| 20.98      | W1-1-R   | Right Turn                             | Right    | 36 in  | 36 in  | 1        | 1          | W1-2-R | Right Turn                                         | Right    | 30.00 | 30.00  | -            | 6.25         | 1          |               |               |               |                                  |
| 20.98      | W13-1    | Advisory Speed Plate (Yellow Back)     | Right    | 18 in  | 18 in  | 1        | -          | W13-1  | Advisory Speed Plate (Yellow Back)                 | Right    | 18.00 | 18.00  | -            | 2.25         | -          | 40            |               |               |                                  |
| 21.04      | W8-6     | Truck Crossing                         | Right    | 36 in  | 36 in  | 1        | 1          | W54-57 | Truck Entrance                                     | Right    | 30.00 | 30.00  | -            | 6.25         | 1          |               |               |               |                                  |
| 21.12      | -        | -                                      | -        | -      | -      | -        | -          | W1-6   | Night Arrow (Single)                               | Left     | 48.00 | 24.00  | -            | 8.00         | 1          |               |               |               | New Sign                         |
| 21.12      | S3-1     | School Bus Stop Ahead                  | Right    | 30 in  | 30 in  | 1        | 1          | S3-1   | School Bus Stop Ahead                              | Right    | 36.00 | 36.00  | -            | 9.00         | 1          |               |               |               | Note Size Increase               |
| 21.14      | M1-5-A   | County Marker                          | Right    | 24 in  | 24 in  | 1        | -          | J1-1   | Junction Assembly                                  | Right    | 24.00 | 39.00  | 6.50         | -            | 1          | ZZ            |               |               |                                  |
| 21.14      | M2-1     | Junction Marker                        | Right    | 21 in  | 15 in  | 1        | 1          | -      | -                                                  | -        | -     | -      | -            | -            | -          |               |               |               |                                  |
| 21.33      | M1-5-A   | County Marker                          | Right    | 24 in  | 24 in  | 1        | 1          | J13-1  | Directional without Cardinal (1Headed Route Panel) | Right    | 24.00 | 45.00  | 7.50         | -            | 1          | ZZ            | [LA]          |               |                                  |
| 21.33      | M6-1     | Arrow - RIGHT, LEFT, OR AHEAD          | Right    | 21 in  | 21 in  | 1        | -          | -      | -                                                  | -        | -     | -      | -            | -            | -          |               |               |               |                                  |
| 21.34      | -        | -                                      | -        | -      | -      | -        | -          | W1-7   | Night Arrow ( Double )                             | Right    | 48.00 | 24.00  | -            | 8.00         | 1          |               |               |               | New Sign                         |
| 21.38      | M1-6     | State Route Marker                     | Right    | 24 in  | 24 in  | 1        | -          | J4-1   | Reassurance Assembly (1 Headed Route Panel)        | Right    | 24.00 | 36.00  | 6.00         | -            | 1          | North         | 178           |               |                                  |
| 21.38      | M3-1     | NORTH Cardinal Route Marker            | Right    | 24 in  | 12 in  | 1        | 1          | -      | -                                                  | -        | -     | -      | -            | -            | -          |               |               |               |                                  |
| 21.48      | W5-52-L  | Clearance Striper Down Right           | Left     | 12 in  | 36 in  | 1        | 1          | -      | -                                                  | -        | -     | -      | -            | -            | -          |               |               |               | Do Not Replace                   |
| 21.49      | W1-2-R   | Right Curve                            | Right    | 30 in  | 30 in  | 1        | 1          | W1-2-R | Right Curve                                        | Right    | 30.00 | 30.00  | -            | 6.25         | 1          |               |               |               |                                  |
| 21.82      | W13-1    | Advisory Speed Plate (Yellow Back)     | Right    | 18 in  | 18 in  | 1        | -          | W13-1  | Advisory Speed Plate (Yellow Back)                 | Right    | 18.00 | 18.00  | -            | 2.25         | -          | 50            |               |               |                                  |
| 21.82      | W1-4-R   | Right Reverse Curve                    | Right    | 30 in  | 30 in  | 1        | 1          | W1-4-R | Right Reverse Curve                                | Right    | 30.00 | 30.00  | -            | 6.25         | 1          |               |               |               |                                  |
| 22.02      | Unknown  | Watch For Turning Vehicles             | Right    | 30 in  | 30 in  | 1        | 1          | -      | -                                                  | -        | -     | -      | -            | -            | -          |               |               |               | Do Not Replace                   |
| 22.09      | S3-1     | School Bus Stop Ahead                  | Right    | 30 in  | 30 in  | 1        | 1          | S3-1   | School Bus Stop Ahead                              | Right    | 36.00 | 36.00  | -            | 9.00         | 1          |               |               |               | Note Size Increase               |
| 22.13      | W1-2-L   | Left Curve                             | Right    | 30 in  | 30 in  | 1        | 1          | W1-2-L | Left Curve                                         | Right    | 30.00 | 30.00  | -            | 6.25         | 1          |               |               |               |                                  |
| 22.13      | W13-1    | Advisory Speed Plate (Yellow Back)     | Right    | 18 in  | 18 in  | 1        | -          | W13-1  | Advisory Speed Plate (Yellow Back)                 | Right    | 18.00 | 18.00  | -            | 2.25         | -          | 45            |               |               |                                  |
| 22.31      | S3-1     | School Bus Stop Ahead                  | Right    | 36 in  | 36 in  | 1        | 1          | S3-1   | School Bus Stop Ahead                              | Right    | 36.00 | 36.00  | -            | 9.00         | 1          |               |               |               |                                  |
| 22.45      | W1-2-R   | Right Curve                            | Right    | 30 in  | 30 in  | 1        | 1          | W1-2-R | Right Curve                                        | Right    | 30.00 | 30.00  | -            | 6.25         | 1          |               |               |               |                                  |
| 22.45      | W13-1    | Advisory Speed Plate (Yellow Back)     | Right    | 18 in  | 18 in  | 1        | -          | W13-1  | Advisory Speed Plate (Yellow Back)                 | Right    | 18.00 | 18.00  | -            | 2.25         | -          | 50            |               |               |                                  |
| 22.51      | W1-5-R   | Right Winding Road                     | Right    | 30 in  | 30 in  | 1        | 1          | W1-5-R | Right Winding Road                                 | Right    | 30.00 | 30.00  | -            | 6.25         | 1          |               |               |               |                                  |
| 23.51      | M2-1     | Junction Marker                        | Right    | 21 in  | 15 in  | 1        | 1          | J1-2   | Junction Assembly (2 Headed Panel)                 | Right    | 48.00 | 39.00  | 13.00        | -            | 1          | JCT End       | 64 178        |               |                                  |
| 23.51      | M4-6     | End                                    | Right    | 24 in  | 12 in  | 1        | -          | -      | -                                                  | -        | -     | -      | -            | -            | -          |               |               |               |                                  |
| 23.51      | M50-2    | Route Marker Panel - (2 Faces)         | Right    | 48 in  | 24 in  | 1        | -          | -      | -                                                  | -        | -     | -      | -            | -            | -          |               |               |               |                                  |
| 23.53      | -        | -                                      | -        | -      | -      | -        | -          | W3-5   | Speed Limit _ Ahead [Arrow]                        | Right    | 36.00 | 36.00  | -            | 9.00         | 1          | 45            |               |               |                                  |
| 23.56      | W3-5     | Speed Limit _ Ahead [Arrow]            | Right    | 36 in  | 36 in  | 1        | 1          | -      | -                                                  | -        | -     | -      | -            | -            | -          |               |               |               | New Location @ Mile Marker 23.53 |
| 23.60      | D1-2     | Two Destinations (Arrows)              | Right    | 66 in  | 30 in  | 1        | 2          | D1-2   | Two Destinations (Arrows)                          | Right    | 66.00 | 30.00  | 13.75        | -            | 2          | [UA] Cornell  | (LA) Bloomer  |               | See Detail                       |
| 23.64      | -        | -                                      | -        | -      | -      | -        | -          | R2-1   | Speed Limit _ MPH                                  | Right    | 24.00 | 30.00  | 5.00         | -            | 1          | 45            |               |               |                                  |
| 23.64      | D1-3     | Triple Destination/Arrow               | Right    | 108 in | 36 in  | 1        | 2          | -      | -                                                  | -        | -     | -      | -            | -            | -          |               |               |               | Do Not Replace                   |
| 23.67      | R2-1     | Speed Limit _ MPH                      | Right    | 24 in  | 30 in  | 1        | 1          | -      | -                                                  | -        | -     | -      | -            | -            | -          |               |               |               | New Location @ Mile Marker 23.64 |
| 23.70      | M3-2     | EAST Cardinal Route Marker             | Right    | 24 in  | 12 in  | 1        | -          | J3-2   | Directional Assembly (2 Headed Route Panel)        | Right    | 48.00 | 57.00  | 19.00        | -            | 1          | WEST EAST     | 64 64         | [LA][UA]      |                                  |
| 23.70      | M3-4     | WEST Cardinal Route Marker             | Right    | 24 in  | 12 in  | 1        | 1          | -      | -                                                  | -        | -     | -      | -            | -            | -          |               |               |               |                                  |
| 23.70      | M50-2    | Route Marker Panel - (2 Faces)         | Right    | 48 in  | 24 in  | 1        | -          | -      | -                                                  | -        | -     | -      | -            | -            | -          |               |               |               |                                  |
| 23.70      | M6-1     | Arrow - RIGHT, LEFT, OR AHEAD          | Right    | 21 in  | 21 in  | 1        | -          | -      | -                                                  | -        | -     | -      | -            | -            | -          |               |               |               |                                  |
| 23.70      | M6-1     | Arrow - RIGHT, LEFT, OR AHEAD          | Right    | 21 in  | 21 in  | 1        | -          | -      | -                                                  | -        | -     | -      | -            | -            | -          |               |               |               |                                  |
| 23.72      | -        | -                                      | -        | -      | -      | -        | -          | W1-7   | Night Arrow ( Double )                             | Right    | 48.00 | 24.00  | -            | 8.00         | 1          |               |               |               | New Sign                         |

ALL ITEMS ON THIS SHEET ARE CATEGORY 0010

(CONTINUED ON NEXT SHEET)

PERMANENT SIGNS

| STH 178<br>Southbound<br>Mile<br>Marker | Existing<br>Sign<br>Code | Existing Sign Description              | Existing<br>Sign<br>Position | Exist.<br>Sign<br>Width | Exist.<br>Sign<br>Height | 638.2602<br>Removing<br>Signs<br>Type II<br>(Each) | 638.3000<br>Removing<br>Small Sign<br>Supports<br>(Each) | New<br>Sign<br>Code | New Sign Description                               | New<br>Sign<br>Position | New<br>Sign<br>Width | New<br>Sign<br>Height | 637.2210<br>Signs<br>Type II<br>Reflective H<br>(SF) | 637.2230<br>Signs<br>Type II<br>Reflective F<br>(SF) | 634.0616<br>Posts Wood<br>4x6 - Inch<br>x 16 - Ft.<br>Each | Order -Line 1     | Order -Line 2 | Order -Line 3 | Notes                           |
|-----------------------------------------|--------------------------|----------------------------------------|------------------------------|-------------------------|--------------------------|----------------------------------------------------|----------------------------------------------------------|---------------------|----------------------------------------------------|-------------------------|----------------------|-----------------------|------------------------------------------------------|------------------------------------------------------|------------------------------------------------------------|-------------------|---------------|---------------|---------------------------------|
| 0.01                                    | R1-1                     | Stop                                   | Crossroad                    | 30 in                   | 30 in                    | 1                                                  | 1                                                        | R1-1                | Stop                                               | Crossroad               | 36.00                | 36.00                 | 7.46                                                 | -                                                    | 1                                                          |                   |               |               | On STH 64; Note Size Increase   |
| 0.02                                    | R1-1                     | Stop                                   | Crossroad                    | 30 in                   | 30 in                    | 1                                                  | 1                                                        | R1-1                | Stop                                               | Crossroad               | 36.00                | 36.00                 | 7.46                                                 | -                                                    | 1                                                          |                   |               |               | On STH 64; Note Size Increase   |
| 0.04                                    | D2-1                     | Destination/Distance (One)             | Right                        | 102 in                  | 15 in                    | 1                                                  | 2                                                        | D2-1                | Destination/Distance (One) with Die Cut Letters    | Right                   | 102.00               | 15.00                 | 10.63                                                | -                                                    | 2                                                          | Chippewa Falls 21 |               |               | See Detail                      |
| 0.04                                    | M1-6                     | State Route Marker                     | Right                        | 24 in                   | 24 in                    | 1                                                  | -                                                        | J4-1                | Reassurance Assembly (1 Headed Route Panel)        | Right                   | 24.00                | 36.00                 | 6.00                                                 | -                                                    | -                                                          | South             | 178           |               | Mount On D2-1 Support           |
| 0.04                                    | M3-3                     | SOUTH Cardinal Route Marker            | Right                        | 24 in                   | 12 in                    | 1                                                  | -                                                        | -                   | -                                                  | -                       | -                    | -                     | -                                                    | -                                                    | -                                                          |                   |               |               |                                 |
| 0.08                                    | R2-1                     | Speed Limit _ MPH                      | Right                        | 24 in                   | 30 in                    | 1                                                  | 1                                                        | R2-1                | Speed Limit _ MPH                                  | Right                   | 24.00                | 30.00                 | 5.00                                                 | -                                                    | 1                                                          | 55                |               |               |                                 |
| 0.47                                    | W1-5-R                   | Right Winding Road                     | Right                        | 30 in                   | 30 in                    | 1                                                  | 1                                                        | W1-5-R              | Right Winding Road                                 | Right                   | 30.00                | 30.00                 | -                                                    | 6.25                                                 | 1                                                          |                   |               |               |                                 |
| 0.47                                    | W57-51                   | Next _ Miles                           | Right                        | 30 in                   | 15 in                    | 1                                                  | -                                                        | W57-51              | Next _ Miles                                       | Right                   | 30.00                | 15.00                 | -                                                    | 3.13                                                 | -                                                          | 2 1/2             |               |               |                                 |
| 0.78                                    | W1-2-L                   | Left Curve                             | Right                        | 30 in                   | 30 in                    | 1                                                  | 1                                                        | W1-2-L              | Left Curve                                         | Right                   | 30.00                | 30.00                 | -                                                    | 6.25                                                 | 1                                                          |                   |               |               |                                 |
| 0.78                                    | W13-1                    | Advisory Speed Plate (Yellow Back)     | Right                        | 18 in                   | 18 in                    | 1                                                  | -                                                        | W13-1               | Advisory Speed Plate (Yellow Back)                 | Right                   | 18.00                | 18.00                 | -                                                    | 2.25                                                 | -                                                          | 50                |               |               |                                 |
| 0.85                                    | W1-5-L                   | Left Winding Road                      | Right                        | 30 in                   | 30 in                    | 1                                                  | 1                                                        | -                   | -                                                  | -                       | -                    | -                     | -                                                    | -                                                    | -                                                          |                   |               |               | Do Not Replace                  |
| 1.09                                    | S3-1                     | School Bus Stop Ahead                  | Right                        | 36 in                   | 36 in                    | 1                                                  | 1                                                        | S3-1                | School Bus Stop Ahead                              | Right                   | 36.00                | 36.00                 | -                                                    | 9.00                                                 | 1                                                          |                   |               |               |                                 |
| 1.28                                    | W1-2-R                   | Right Curve                            | Right                        | 30 in                   | 30 in                    | 1                                                  | 1                                                        | W1-2-R              | Right Curve                                        | Right                   | 30.00                | 30.00                 | -                                                    | 6.25                                                 | 1                                                          |                   |               |               |                                 |
| 1.28                                    | W13-1                    | Advisory Speed Plate (Yellow Back)     | Right                        | 18 in                   | 18 in                    | 1                                                  | -                                                        | W13-1               | Advisory Speed Plate (Yellow Back)                 | Right                   | 18.00                | 18.00                 | -                                                    | 2.25                                                 | -                                                          | 45                |               |               |                                 |
| 1.33                                    | Unknown                  | Watch For Turning Vehicles             | Right                        | 30 in                   | 30 in                    | 1                                                  | 1                                                        | -                   | -                                                  | -                       | -                    | -                     | -                                                    | -                                                    | -                                                          |                   |               |               | Do Not Replace                  |
| 1.54                                    | W13-1                    | Advisory Speed Plate (Yellow Back)     | Right                        | 18 in                   | 18 in                    | 1                                                  | -                                                        | W13-1               | Advisory Speed Plate (Yellow Back)                 | Right                   | 18.00                | 18.00                 | -                                                    | 2.25                                                 | -                                                          | 50                |               |               |                                 |
| 1.54                                    | W1-4-R                   | Right Reverse Curve                    | Right                        | 30 in                   | 30 in                    | 1                                                  | 1                                                        | W1-4-R              | Right Reverse Curve                                | Right                   | 30.00                | 30.00                 | -                                                    | 6.25                                                 | 1                                                          |                   |               |               |                                 |
| 1.95                                    | W1-2-L                   | Left Curve                             | Right                        | 30 in                   | 30 in                    | 1                                                  | 1                                                        | W1-2-L              | Left Curve                                         | Right                   | 30.00                | 30.00                 | -                                                    | 6.25                                                 | 1                                                          |                   |               |               |                                 |
| 2.17                                    | M1-5-A                   | County Marker                          | Right                        | 24 in                   | 24 in                    | 1                                                  | -                                                        | J1-1                | Junction Assembly                                  | Right                   | 24.00                | 39.00                 | 6.50                                                 | -                                                    | 1                                                          | ZZ                |               |               |                                 |
| 2.17                                    | M2-1                     | Junction Marker                        | Right                        | 21 in                   | 15 in                    | 1                                                  | 1                                                        | -                   | -                                                  | -                       | -                    | -                     | -                                                    | -                                                    | -                                                          |                   |               |               |                                 |
| 2.25                                    | S3-1                     | School Bus Stop Ahead                  | Right                        | 30 in                   | 30 in                    | 1                                                  | 1                                                        | S3-1                | School Bus Stop Ahead                              | Right                   | 36.00                | 36.00                 | -                                                    | 9.00                                                 | 1                                                          |                   |               |               | Note Size Increase              |
| 2.36                                    | -                        | -                                      | -                            | -                       | -                        | -                                                  | -                                                        | J13-1               | Directional without Cardinal (1Headed Route Panel) | Right                   | 24.00                | 45.00                 | 7.50                                                 | -                                                    | 1                                                          | ZZ                | [RA]          |               |                                 |
| 2.37                                    | R1-1                     | Stop                                   | Right                        | 30 in                   | 30 in                    | 1                                                  | 1                                                        | -                   | -                                                  | -                       | -                    | -                     | -                                                    | -                                                    | -                                                          |                   |               |               | New Location @ Mile Marker 2.38 |
| 2.37                                    | M1-5-A                   | County Marker                          | Right                        | 24 in                   | 24 in                    | 1                                                  | 1                                                        | -                   | -                                                  | -                       | -                    | -                     | -                                                    | -                                                    | -                                                          |                   |               |               | New Location @ Mile Marker 2.36 |
| 2.37                                    | M6-1                     | Arrow - RIGHT, LEFT, OR AHEAD          | Right                        | 21 in                   | 21 in                    | 1                                                  | -                                                        | -                   | -                                                  | -                       | -                    | -                     | -                                                    | -                                                    | -                                                          |                   |               |               | New Location @ Mile Marker 2.36 |
| 2.37                                    | M1-6                     | State Route Marker                     | Right                        | 24 in                   | 24 in                    | 1                                                  | 1                                                        | -                   | -                                                  | -                       | -                    | -                     | -                                                    | -                                                    | -                                                          |                   |               |               | New Location @ Mile Marker 2.38 |
| 2.37                                    | M6-4                     | Directional Arrows Left - Right        | Right                        | 21 in                   | 21 in                    | 1                                                  | -                                                        | -                   | -                                                  | -                       | -                    | -                     | -                                                    | -                                                    | -                                                          |                   |               |               | New Location @ Mile Marker 2.38 |
| 2.38                                    | R1-1                     | Stop                                   | Right                        | 30 in                   | 30 in                    | 1                                                  | 1                                                        | -                   | -                                                  | -                       | -                    | -                     | -                                                    | -                                                    | -                                                          |                   |               |               | Do Not Replace                  |
| 2.38                                    | -                        | -                                      | -                            | -                       | -                        | -                                                  | -                                                        | R1-1                | Stop                                               | Crossroad               | 36.00                | 36.00                 | 7.46                                                 | -                                                    | 1                                                          |                   |               |               | On CTH ZZ; Note Size Increase   |
| 2.38                                    | -                        | -                                      | -                            | -                       | -                        | -                                                  | -                                                        | J13-1               | Directional without Cardinal (1Headed Route Panel) | Crossroad               | 24.00                | 45.00                 | 7.50                                                 | -                                                    | 1                                                          | 178               | [DBA]         |               | On CTH ZZ                       |
| 2.39                                    | M1-6                     | State Route Marker                     | Right                        | 24 in                   | 24 in                    | 1                                                  | 1                                                        | J4-1                | Reassurance Assembly (1 Headed Route Panel)        | Right                   | 24.00                | 36.00                 | 6.00                                                 | -                                                    | -                                                          | South             | 178           |               |                                 |
| 2.39                                    | M3-3                     | SOUTH Cardinal Route Marker            | Right                        | 24 in                   | 12 in                    | 1                                                  | -                                                        | -                   | -                                                  | -                       | -                    | -                     | -                                                    | -                                                    | -                                                          |                   |               |               |                                 |
| 2.39                                    | W8-8                     | Rough Road                             | Right                        | 30 in                   | 30 in                    | 1                                                  | -                                                        | -                   | -                                                  | -                       | -                    | -                     | -                                                    | -                                                    | -                                                          |                   |               |               | Do Not Replace                  |
| 2.39                                    | W8-6                     | Truck Crossing                         | Right                        | 36 in                   | 36 in                    | 1                                                  | 1                                                        | W54-57              | Truck Entrance                                     | Right                   | 30.00                | 30.00                 | -                                                    | 6.25                                                 | 1                                                          |                   |               |               |                                 |
| 2.48                                    | W1-1-L                   | Left Turn                              | Right                        | 36 in                   | 36 in                    | 1                                                  | 1                                                        | W1-2-L              | Left Curve                                         | Right                   | 30.00                | 30.00                 | -                                                    | 6.25                                                 | 1                                                          |                   |               |               |                                 |
| 2.48                                    | W13-1                    | Advisory Speed Plate (Yellow Back)     | Right                        | 24 in                   | 24 in                    | 1                                                  | -                                                        | W13-1               | Advisory Speed Plate (Yellow Back)                 | Right                   | 18.00                | 18.00                 | -                                                    | 2.25                                                 | -                                                          | 40                |               |               |                                 |
| 2.59                                    | W1-8                     | Chevron                                | Right                        | 18 in                   | 24 in                    | 1                                                  | 1                                                        | W1-8                | Chevron                                            | Right                   | 18.00                | 24.00                 | -                                                    | 3.00                                                 | 1                                                          |                   |               |               |                                 |
| 2.60                                    | W1-8                     | Chevron                                | Right                        | 18 in                   | 24 in                    | 1                                                  | 1                                                        | W1-8                | Chevron                                            | Right                   | 18.00                | 24.00                 | -                                                    | 3.00                                                 | 1                                                          |                   |               |               |                                 |
| 2.61                                    | W1-6                     | Night Arrow ( Single )                 | Right                        | 48 in                   | 24 in                    | 1                                                  | 1                                                        | W1-6                | Night Arrow ( Single )                             | Right                   | 48.00                | 24.00                 | -                                                    | 8.00                                                 | 1                                                          |                   |               |               |                                 |
| 2.62                                    | W1-8                     | Chevron                                | Right                        | 18 in                   | 24 in                    | 1                                                  | 1                                                        | W1-8                | Chevron                                            | Right                   | 18.00                | 24.00                 | -                                                    | 3.00                                                 | 1                                                          |                   |               |               |                                 |
| 2.63                                    | W1-8                     | Chevron                                | Right                        | 18 in                   | 24 in                    | 1                                                  | 1                                                        | W1-8                | Chevron                                            | Right                   | 18.00                | 24.00                 | -                                                    | 3.00                                                 | 1                                                          |                   |               |               |                                 |
| 2.64                                    | W1-8                     | Chevron                                | Right                        | 18 in                   | 24 in                    | 1                                                  | 1                                                        | W1-8                | Chevron                                            | Right                   | 18.00                | 24.00                 | -                                                    | 3.00                                                 | 1                                                          |                   |               |               |                                 |
| 2.65                                    | W1-8                     | Chevron                                | Right                        | 18 in                   | 24 in                    | 1                                                  | 1                                                        | W1-8                | Chevron                                            | Right                   | 18.00                | 24.00                 | -                                                    | 3.00                                                 | 1                                                          |                   |               |               |                                 |
| 2.66                                    | W1-2-L                   | Left Curve                             | Right                        | 30 in                   | 30 in                    | 1                                                  | 1                                                        | W1-2-L              | Left Curve                                         | Right                   | 30.00                | 30.00                 | -                                                    | 6.25                                                 | 1                                                          |                   |               |               |                                 |
| 2.90                                    | M1-5-A                   | County Marker                          | Right                        | 24 in                   | 24 in                    | 1                                                  | -                                                        | J1-1                | Junction Assembly                                  | Right                   | 24.00                | 39.00                 | 6.50                                                 | -                                                    | 1                                                          | R                 |               |               |                                 |
| 2.90                                    | M2-1                     | Junction Marker                        | Right                        | 21 in                   | 15 in                    | 1                                                  | -                                                        | -                   | -                                                  | -                       | -                    | -                     | -                                                    | -                                                    | -                                                          |                   |               |               |                                 |
| 3.07                                    | M1-5-A                   | County Marker                          | Right                        | 24 in                   | 24 in                    | 1                                                  | 1                                                        | J13-1               | Directional without Cardinal (1Headed Route Panel) | Right                   | 24.00                | 45.00                 | 7.50                                                 | -                                                    | 1                                                          | R                 | [RA]          |               |                                 |
| 3.07                                    | M6-1                     | Arrow - RIGHT, LEFT, OR AHEAD          | Right                        | 21 in                   | 21 in                    | 1                                                  | 1                                                        | -                   | -                                                  | -                       | -                    | -                     | -                                                    | -                                                    | -                                                          |                   |               |               |                                 |
| 3.08                                    | R1-1                     | Stop                                   | Crossroad                    | 36 in                   | 36 in                    | 1                                                  | 1                                                        | R1-1                | Stop                                               | Crossroad               | 36.00                | 36.00                 | 7.46                                                 | -                                                    | 1                                                          |                   |               |               | On CTH R                        |
| 3.08                                    | J13-1                    | Directional without Cardinal (1 Panel) | Crossroad                    | 24 in                   | 45 in                    | 1                                                  | 1                                                        | J13-1               | Directional without Cardinal (1Headed Route Panel) | Crossroad               | 24.00                | 45.00                 | 7.50                                                 | -                                                    | 1                                                          | 178               | [DBA]         |               | On CTH R                        |
| 3.13                                    | M1-6                     | State Route Marker                     | Right                        | 24 in                   | 24 in                    | 1                                                  | -                                                        | J4-1                | Reassurance Assembly (1 Headed Route Panel)        | Right                   | 24.00                | 36.00                 | 6.00                                                 | -                                                    | -                                                          | South             | 178           |               |                                 |
| 3.13                                    | M3-3                     | SOUTH Cardinal Route Marker            | Right                        | 24 in                   | 12 in                    | 1                                                  | 1                                                        | -                   | -                                                  | -                       | -                    | -                     | -                                                    | -                                                    | -                                                          |                   |               |               |                                 |
|                                         |                          |                                        |                              | Totals                  | 82                       | 64                                                 |                                                          |                     |                                                    |                         | Totals               | 190.72                | 248.51                                               | 58                                                   |                                                            |                   |               |               |                                 |

ALL ITEMS ON THIS SHEET ARE CATEGORY 0010

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3

TRAFFIC CONTROL

| STATION TO | STATION | LOCATION     | DRUMS    | BARRICADES           | WARNING                      | SIGNS | COVERING            | DETOUR            | REMARKS                 |
|------------|---------|--------------|----------|----------------------|------------------------------|-------|---------------------|-------------------|-------------------------|
|            |         |              | 643.0300 | TYPE III<br>643.0420 | LIGHTS<br>TYPE A<br>643.0705 |       | TYPE II<br>643.0920 | SIGNS<br>643.3000 |                         |
|            |         |              | DAY      | DAY                  | DAY                          | DAY   | EACH                | DAY               |                         |
|            |         | STH 178      | 3600     | 900                  | 1800                         | 900   | -                   | 1170              |                         |
|            |         | DETOUR ROUTE | -        | -                    | -                            | -     | -                   | 7020              |                         |
|            |         | CTH R        | -        | -                    | -                            | 180   | -                   | -                 |                         |
|            |         | CTH ZZ       | -        | 180                  | 360                          | 270   | -                   | -                 |                         |
|            |         | STH 64       | 450      | -                    | -                            | 180   | 3                   | -                 | ONE COVERING SIGN CYCLE |
| TOTAL 0010 |         |              | 4050     | 1080                 | 2160                         | 1530  | 3                   | 8190              |                         |

PAVEMENT MARKING

| STATION TO          | STATION | LOCATION            | EPOXY              | EPOXY              | STOP LINE                    | REMARKS                     |
|---------------------|---------|---------------------|--------------------|--------------------|------------------------------|-----------------------------|
|                     |         |                     | 4-INCH<br>646.0106 | 8-INCH<br>646.0126 | EPOXY<br>18-INCH<br>647.0566 |                             |
|                     |         |                     | LF                 | LF                 | LF                           |                             |
| 1170+50 - 1335+50   |         | STH 178             | 32675              | -                  | -                            | EDGELINES (WHITE)           |
| 1170+50 - 1335+50   |         | STH 178             | 31145              | -                  | -                            | CENTERLINES (YELLOW)        |
| 1170+00 - 1172+00   |         | STH 178             | -                  | 200                | -                            | RT. TURN LANE LINE (WHITE)  |
| 0+50'ZZ' - 3+00'ZZ' |         | CTH ZZ              | 500                | -                  | -                            | EDGELINES (WHITE)           |
| 0+50'ZZ' - 3+00'ZZ' |         | CTH ZZ              | 500                | -                  | -                            | CENTERLINES (YELLOW)        |
|                     |         | STH 64 INTERSECTION | 400                | 25                 | 50                           | EDGELINES/STOPLINES (WHITE) |
|                     |         | STH 64 INTERSECTION | 200                | -                  | -                            | CENTERLINES (YELLOW)        |
| TOTAL 0010          |         |                     | 65420              | 225                | 50                           |                             |

CONSTRUCTION STAKING STORM SEWER

| STATION TO | STATION | LOCATION | 650.4000 | REMARKS             |
|------------|---------|----------|----------|---------------------|
|            |         |          | EACH     |                     |
| 1207+50    |         | STH 178  | 2        | 1 INLET & 1 ENDWALL |
| 1216+50    |         | STH 178  | 2        | 1 INLET & 1 ENDWALL |
| 1246+15    |         | STH 178  | 2        | 1 INLET & 1 ENDWALL |
| 1249+55    |         | STH 178  | 2        | 1 INLET & 1 ENDWALL |
| TOTAL 0010 |         |          | 8        |                     |

CONSTRUCTION STAKING

| STATION TO          | STATION | LOCATION | SUBGRADE | BASE     | SLOPE              | RESURFACING                         | REMARKS |
|---------------------|---------|----------|----------|----------|--------------------|-------------------------------------|---------|
|                     |         |          | 650.4500 | 650.5000 | STAKES<br>650.9920 | REFERENCE<br>SPECIAL<br>SPV.0090.01 |         |
|                     |         |          | LF       | LF       | LF                 | LF                                  |         |
| 1170+50 - 1192+00   |         | STH 178  | -        | -        | 2150               | 2150                                |         |
| 1192+00 - 1215+00   |         | STH 178  | 2300     | 2300     | 2300               | -                                   |         |
| 1215+00 - 1220+00   |         | STH 178  | -        | -        | 500                | 500                                 |         |
| 1220+00 - 1222+00   |         | STH 178  | 200      | 200      | 200                | -                                   |         |
| 1222+00 - 1302+00   |         | STH 178  | -        | -        | 8000               | 8000                                |         |
| 1302+00 - 1308+00   |         | STH 178  | 600      | 600      | 600                | -                                   |         |
| 1308+00 - 1316+50   |         | STH 178  | -        | -        | 850                | 850                                 |         |
| 1316+50 - 1319+50   |         | STH 178  | 300      | 300      | 300                | -                                   |         |
| 1319+50 - 1323+00   |         | STH 178  | -        | -        | 350                | 350                                 |         |
| 1323+00 - 1324+00   |         | STH 178  | 100      | 100      | 100                | -                                   |         |
| 1324+00 - 1335+50   |         | STH 178  | -        | -        | 1150               | 1150                                |         |
| 0+50'ZZ' - 3+50'ZZ' |         | CTH ZZ   | 300      | 300      | 300                | -                                   |         |
| TOTAL 0010          |         |          | 3800     | 3800     | 16800              | 13000                               |         |

ALL ITEMS ON THIS SHEET ARE CATEGORY 0010

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| CONSTRUCTION STAKING CURB GUTTER AND CURB & GUTTER                                                              |           |         |              |                   | CONSTRUCTION STAKING PIPE CULVERTS                     |                                        |                                                |                                    |                                         |                          |                                    |                                    |                          |         |
|-----------------------------------------------------------------------------------------------------------------|-----------|---------|--------------|-------------------|--------------------------------------------------------|----------------------------------------|------------------------------------------------|------------------------------------|-----------------------------------------|--------------------------|------------------------------------|------------------------------------|--------------------------|---------|
| STATION TO                                                                                                      |           | STATION | LOCATION     | 650.5500<br>LF    | REMARKS                                                | STATION TO                             |                                                | STATION                            | LOCATION                                | 650.6000<br>EACH         | REMARKS                            |                                    |                          |         |
| 1195+65 -                                                                                                       |           | 1198+40 | STH 178, RT. | 275               | INCLUDES CTH ZZ INTERSECTION                           | 1182+44                                |                                                |                                    | STH 178                                 | 1                        |                                    |                                    |                          |         |
| 1206+05 -                                                                                                       |           | 1209+60 | STH 178, LT. | 395               |                                                        | 1203+43                                |                                                |                                    | STH 178                                 | 1                        |                                    |                                    |                          |         |
| 1213+60 -                                                                                                       |           | 1222+00 | STH 178, LT. | 840               |                                                        | 2' ZZ'+85                              |                                                |                                    | CTH ZZ                                  | 1                        |                                    |                                    |                          |         |
| 1331+45 -                                                                                                       |           | 1331+52 | STH 178, LT. | 26                | STH 64 INTERSECTION                                    | 1210+32                                |                                                |                                    | STH 178                                 | 1                        |                                    |                                    |                          |         |
| TOTAL 0010                                                                                                      |           |         |              | 1536              |                                                        | 1212+53                                |                                                |                                    | STH 178                                 | 1                        |                                    |                                    |                          |         |
|                                                                                                                 |           |         |              |                   |                                                        | 1218+75                                |                                                |                                    | STH 178                                 | 1                        |                                    |                                    |                          |         |
|                                                                                                                 |           |         |              |                   |                                                        | 1225+50                                |                                                |                                    | STH 178                                 | 1                        |                                    |                                    |                          |         |
|                                                                                                                 |           |         |              |                   |                                                        | 1239+81                                |                                                |                                    | STH 178                                 | 1                        |                                    |                                    |                          |         |
|                                                                                                                 |           |         |              |                   |                                                        | 1254+00                                |                                                |                                    | STH 178                                 | 1                        |                                    |                                    |                          |         |
|                                                                                                                 |           |         |              |                   |                                                        | 1257+91                                |                                                |                                    | STH 178                                 | 1                        |                                    |                                    |                          |         |
|                                                                                                                 |           |         |              |                   |                                                        | 1271+34                                |                                                |                                    | STH 178                                 | 1                        |                                    |                                    |                          |         |
|                                                                                                                 |           |         |              |                   |                                                        | 1277+65                                |                                                |                                    | STH 178                                 | 1                        |                                    |                                    |                          |         |
|                                                                                                                 |           |         |              |                   |                                                        | 1280+44                                |                                                |                                    | STH 178                                 | 1                        |                                    |                                    |                          |         |
|                                                                                                                 |           |         |              |                   |                                                        | 1286+71                                |                                                |                                    | STH 178                                 | 1                        |                                    |                                    |                          |         |
|                                                                                                                 |           |         |              |                   |                                                        | 1294+66                                |                                                |                                    | STH 178                                 | 1                        |                                    |                                    |                          |         |
|                                                                                                                 |           |         |              |                   |                                                        | 1302+00                                |                                                |                                    | STH 178                                 | 1                        |                                    |                                    |                          |         |
|                                                                                                                 |           |         |              |                   |                                                        | 1305+80                                |                                                |                                    | STH 178                                 | 1                        |                                    |                                    |                          |         |
| TOTAL 0010                                                                                                      |           |         |              | 17                |                                                        |                                        |                                                |                                    |                                         |                          |                                    |                                    |                          |         |
| SAWING ASPHALT                                                                                                  |           |         |              |                   |                                                        |                                        |                                                |                                    |                                         |                          |                                    |                                    |                          |         |
| STATION TO                                                                                                      |           | STATION | LOCATION     | 690.0150<br>LF    | REMARKS                                                |                                        |                                                |                                    |                                         |                          |                                    |                                    |                          |         |
| 1170+50                                                                                                         |           |         | STH 178      | 30                |                                                        |                                        |                                                |                                    |                                         |                          |                                    |                                    |                          |         |
| 1335+50                                                                                                         |           |         | STH 178      | 22                |                                                        |                                        |                                                |                                    |                                         |                          |                                    |                                    |                          |         |
| 0' ZZ'+50                                                                                                       |           |         | CTH ZZ       | 22                |                                                        |                                        |                                                |                                    |                                         |                          |                                    |                                    |                          |         |
|                                                                                                                 |           |         | STH 64       | 22                |                                                        |                                        |                                                |                                    |                                         |                          |                                    |                                    |                          |         |
| 1170+50 -                                                                                                       |           | 1335+50 | DRIVEWAYS    | 309               |                                                        |                                        |                                                |                                    |                                         |                          |                                    |                                    |                          |         |
| TOTAL 0010                                                                                                      |           |         |              | 405               |                                                        |                                        |                                                |                                    |                                         |                          |                                    |                                    |                          |         |
|                                                                                                                 |           |         |              |                   | GEOGRID REINFORCEMENT                                  |                                        |                                                |                                    |                                         |                          |                                    |                                    |                          |         |
| STATION TO                                                                                                      |           | STATION | LOCATION     | SPV.0180.01<br>SY | REMARKS                                                |                                        |                                                |                                    |                                         |                          |                                    |                                    |                          |         |
| 1222+00 -                                                                                                       |           | 1234+00 | STH 178, LT. | 1907              |                                                        |                                        |                                                |                                    |                                         |                          |                                    |                                    |                          |         |
| 1293+50 -                                                                                                       |           | 1298+00 | STH 178, RT. | 715               |                                                        |                                        |                                                |                                    |                                         |                          |                                    |                                    |                          |         |
| TOTAL 0010                                                                                                      |           |         |              | 2622              |                                                        |                                        |                                                |                                    |                                         |                          |                                    |                                    |                          |         |
| EARTHWORK SUMMARY                                                                                               |           |         |              |                   |                                                        |                                        |                                                |                                    |                                         |                          |                                    |                                    |                          |         |
| DIVISION<br>(STAGE)                                                                                             | STATION   | TO      | STATION      | LOCATION          | CUT/Common<br>EXCAVATION<br>(NOTE 1)<br>205.0100<br>CY | EXISTING<br>PAVEMENT<br>MATERIAL<br>CY | EXCAVATION<br>BELOW<br>SUBGRADE<br>(EBS)<br>CY | SELECT<br>BORROW<br>208.1100<br>CY | AVAILABLE<br>MATERIAL<br>(NOTE 2)<br>CY | UNEXPANDED<br>FILL<br>CY | EXPANDED<br>FILL<br>(NOTE 3)<br>CY | MASS<br>ORDINATE<br>(NOTE 4)<br>CY | BORROW<br>208.0100<br>CY | REMARKS |
| 1                                                                                                               | 1170+50   | -       | 1335+50      | STH 178           | 36925                                                  | 2132                                   | 5882                                           | 5882                               | 28911                                   | 25203                    | 31504                              | -2593                              | 774                      |         |
| 1                                                                                                               | 0' ZZ'+50 | -       | 3' ZZ'+00    | CTH ZZ            | 2219                                                   | 136                                    | 259                                            | 259                                | 1824                                    | 4                        | 5                                  | 1819                               | -                        |         |
| 1                                                                                                               | PROJECT   |         |              | UNDISTRIBUTED     | 1535                                                   | -                                      | 1535                                           | 1535                               | -                                       | -                        | -                                  | -                                  | 1900                     |         |
| DIVISION/STAGE 1 SUBTOTAL                                                                                       |           |         |              |                   | 40679                                                  | 2268                                   | 7676                                           | 7676                               | 30735                                   | 25207                    | 31509                              | -774                               | 2674                     |         |
| PROJECT TOTAL                                                                                                   |           |         |              |                   | 40679                                                  | 2268                                   | 7676                                           | 7676                               | 30735                                   | 25207                    | 31509                              | -774                               | 2674                     |         |
| NOTE 1: EXISTING PAVEMENT MATERIAL AND EBS IS INCLUDED IN CUT/Common EXCAVATION.                                |           |         |              |                   |                                                        |                                        |                                                |                                    |                                         |                          |                                    |                                    |                          |         |
| NOTE 2: AVAILABLE MATERIAL IS EXISTING PAVEMENT MATERIAL AND EBS SUBTRACTED FROM THE CUT/Common EXCAVATION.     |           |         |              |                   |                                                        |                                        |                                                |                                    |                                         |                          |                                    |                                    |                          |         |
| NOTE 3: EXPANDED FILL FACTOR IS 1.25.                                                                           |           |         |              |                   |                                                        |                                        |                                                |                                    |                                         |                          |                                    |                                    |                          |         |
| NOTE 4: POSITIVE QUANTITY INDICATES AN EXCESS OF MATERIAL AND NEGATIVE QUANTITY INDICATES SHORTAGE OF MATERIAL. |           |         |              |                   |                                                        |                                        |                                                |                                    |                                         |                          |                                    |                                    |                          |         |
| ALL ITEMS ON THIS SHEET ARE CATEGORY 0010                                                                       |           |         |              |                   |                                                        |                                        |                                                |                                    |                                         |                          |                                    |                                    |                          |         |
| PROJECT NO: 8600-02-72                                                                                          |           |         | HWY: STH 178 |                   |                                                        | COUNTY: CHIPPEWA                       |                                                |                                    | MISCELLANEOUS QUANTITIES                |                          |                                    | SHEET: 43                          |                          |         |
| E                                                                                                               |           |         |              |                   |                                                        |                                        |                                                |                                    |                                         |                          |                                    |                                    |                          |         |

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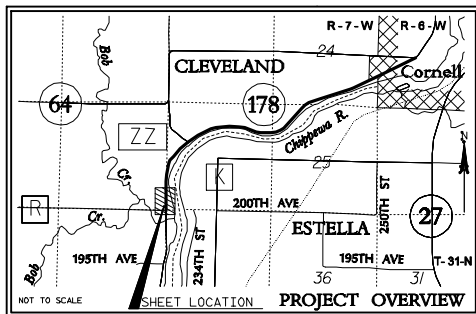
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## CONVENTIONAL SYMBOLS AND ABBREVIATIONS

|                                                  |       |                            |         |
|--------------------------------------------------|-------|----------------------------|---------|
| STATE, COUNTY, & TOWN LINE                       | ----- | ACCESS POINT               | AP      |
| SECTION LINE                                     | ----- | ACCESS RIGHTS              | AR      |
| QUARTER LINE                                     | ----- | ACRES                      | AC.     |
| SIXTEENTH LINE                                   | ----- | AND OTHERS                 | ET. AL. |
| PROPOSED REFERENCE LINE                          | ----- | CENTERLINE                 | C/L     |
| PROPOSED R/W LINE                                | ----- | CERTIFIED SURVEY MAP       | CSM     |
| EXISTING H.E. LINE                               | ----- | DOCUMENT                   | DOC.    |
| PROPERTY LINE                                    | ----- | HIGHWAY EASEMENT           | H.E.    |
| EASEMENT LINE                                    | ----- | LAND CONTRACT              | LC      |
| CORPORATE LIMITS                                 | ----- | MONUMENT                   | MON.    |
| EXISTING CENTERLINE                              | ----- | PAGE                       | P.      |
| LOT & TIE LINES                                  | ----- | PROPERTY LINE              | PL      |
| UTILITIES                                        | ----- | PERMANENT LIMITED EASEMENT | P.L.E.  |
| TELEPHONE, GAS, ELECTRIC, CABLE, TV, FIBER OPTIC | ----- | RECORDED AS                | (DOO)   |
| FIRE HYDRANT                                     | ----- | REFERENCE LINE             | R/L     |
| ACCESS RESTRICTED (BY PREVIOUS PROJECT/CONTROL)  | ----- | REMAINING                  | REM.    |
| NO ACCESS (BY ACQUISITION)                       | ----- | RIGHT-OF-WAY               | R/W     |
| NO ACCESS (BY STATUTORY AUTHORITY)               | ----- | SECTION                    | SEC.    |
| FEE (HATCH VARIES)                               | ----- | SQUARE FEET                | SQ. FT. |
| TEMPORARY LIMITED EASEMENT                       | ----- | STATION                    | STA.    |
| PERMANENT LIMITED EASEMENT                       | ----- | TEMPORARY LIMITED EASEMENT | T.L.E.  |
| R/W BOUNDARY POINT                               | ----- | VOLUME                     | V.      |
| PLE/TLE POINT                                    | ----- |                            |         |
| PARCEL NUMBER                                    | ----- |                            |         |
| SIGN NUMBER (OFF PRONG)                          | ----- |                            |         |
| BUILDING                                         | ----- |                            |         |
| FOUND IRON PIPE/PIN                              | ----- |                            |         |
| R/W MONUMENT                                     | ----- |                            |         |
| R/W STANDARD                                     | ----- |                            |         |
| SIGN                                             | ----- |                            |         |

## CURVE DATA

|                         |       |
|-------------------------|-------|
| LONG CHORD              | LCH   |
| LONG CHORD BEARING      | LCB   |
| RADIUS                  | R     |
| DEGREE OF CURVE         | D     |
| CENTRAL ANGLE OR DELTA  | DELTA |
| LENGTH OF CURVE         | L     |
| TANGENT                 | TAN   |
| POWER POLE              | PP    |
| TELEPHONE POLE          | TP    |
| TELEPHONE PEDESTAL      | TPD   |
| GUY POLE                | GP    |
| SECTION CORNER MONUMENT | SCM   |
| SECTION CORNER          | SC    |

ALIGNMENT DATA  
STH 178

PISTA 1169+55.48  
Y = 201723.21  
X = 217953.17  
PISTA 1179+59.97  
Y = 202727.69  
X = 217950.34  
DELTA = 0°52'49" Left  
D = 0°30'00"  
T = 188.03  
L = 376.03  
R = 11459.16  
LCH = 376.01  
LCB = N 01°06'05" W  
BBK = N 00°09'41" W  
PC STA 1177+71.93  
Y = 202539.66  
X = 217950.87  
PT STA 1181+47.96  
Y = 202915.60  
X = 217943.64  
BAH = N 02°02'30" W  
PISTA 1184+82.32  
Y = 203249.75  
X = 217931.73

## TRANSPORTATION PROJECT PLAT NO: 8600-02-24 - 4.01

THAT PART OF THE SE 1/4 - SE 1/4 OF SECTION 27 AND GOV'T LOT 5 OF SECTION 26,  
ALL IN T-31-N, R-7-W, TOWN OF CLEVELAND, CHIPPEWA COUNTY, WISCONSIN

RELOCATION ORDER STH 178, CHIPPEWA FALLS - CORNELL (CTH R TO STH 64), CHIPPEWA COUNTY

TO PROPERLY ESTABLISH, LAY OUT, WIDEN, ENLARGE, EXTEND, CONSTRUCT, RECONSTRUCT, IMPROVE, OR MAINTAIN A PORTION OF THE HIGHWAY DESIGNATED ABOVE,  
THE STATE OF WISCONSIN DEPARTMENT OF TRANSPORTATION DEEMS IT NECESSARY TO RELOCATE OR CHANGE SAID HIGHWAY AND ACQUIRE CERTAIN LANDS AND  
INTERESTS OR RIGHTS IN LANDS FOR THE ABOVE PROJECT.

TO EFFECT THIS CHANGE, PURSUANT TO AUTHORITY GRANTED UNDER SECTION 84.02 (3) AND 84.09, WISCONSIN STATUTES, THE DEPARTMENT OF TRANSPORTATION  
HEREBY ORDERS THAT:

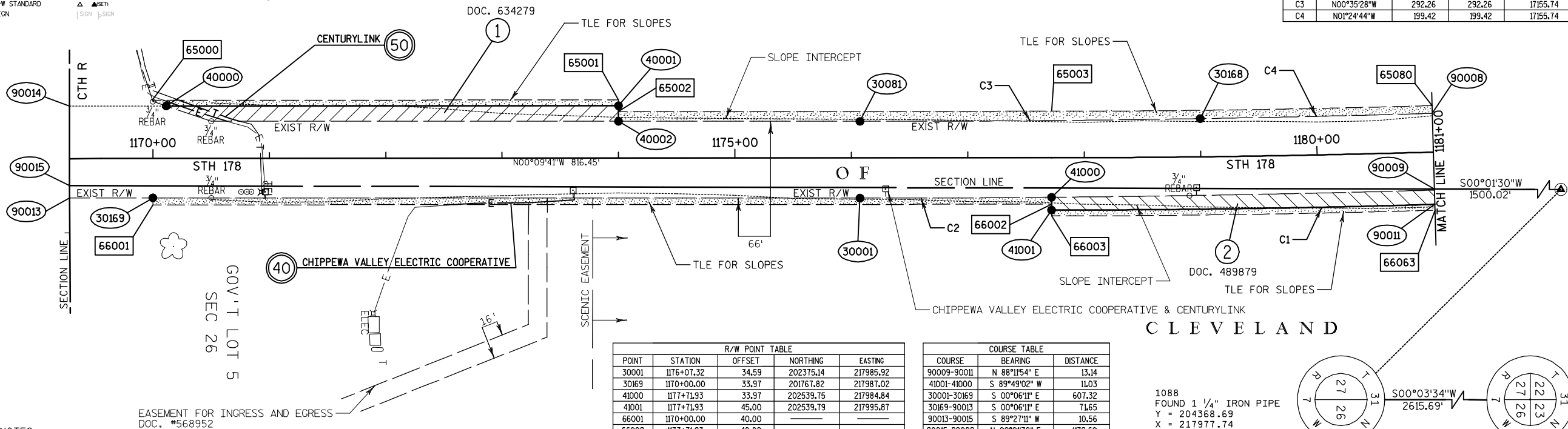
1. THAT PORTION OF SAID HIGHWAY AS SHOWN ON THIS PLAT IS LAY OUT AND ESTABLISHED TO THE LINES AND WIDTHS AS SO SHOWN FOR THE ABOVE PROJECT.  
2. THE LANDS OR INTERESTS OR RIGHTS IN LANDS AS SHOWN ON THIS PLAT ARE REQUIRED BY THE DEPARTMENT FOR THE ABOVE PROJECT AND SHALL BE ACQUIRED IN  
THE NAME OF THE STATE OF WISCONSIN, PURSUANT TO THE PROVISIONS OF SECTION 84.09 (1) OR (2), WISCONSIN STATUTES.

THE STATE OF WISCONSIN HAS DEEMED IT NECESSARY TO MONUMENT RIGHT-OF-WAY INTERESTS PREVIOUSLY ACQUIRED UNDER SECTIONS 82.01, 82.31(1), 82.31(2) AND 84.09  
OF THE WISCONSIN STATE STATUTES AND DOES HEREBY CERTIFY THE DEPARTMENT OF TRANSPORTATION HAS SURVEYED THE HIGHWAY RIGHT-OF-WAY; THAT THIS PLAT IS  
A TRUE AND CORRECT REPRESENTATION OF THE EXTERIOR BOUNDARIES OF THE LAND SURVEYED AND SHOWS ACCURATE MEASUREMENTS THEREOF.

| COURSE      | BEARING       | DISTANCE |
|-------------|---------------|----------|
| 90009-90015 | S 00°01'30" W | 1172.60  |
| 90015-90014 | S 89°53'15" W | 68.33    |
| 90014-40000 | N 00°09'41" W | 83.10    |
| 40000-40001 | N 00°09'41" W | 388.56   |
| 40001-40002 | N 89°50'19" E | 13.38    |
| 40002-30081 | N 00°06'11" W | 207.38   |
| 90008-90009 | N 88°11'54" E | 65.13    |

| POINT | STATION    | OFFSET | NORTHING  | EASTING   |
|-------|------------|--------|-----------|-----------|
| 30081 | 1176+07.38 | -31.41 | 202375.02 | 217919.92 |
| 30168 | 1179+00.00 | -32.89 | 202667.26 | 217916.91 |
| 40000 | 1170+11.44 | -45.00 | 201779.04 | 217908.01 |
| 40001 | 1174+00.00 | -45.00 | 202167.60 | 217906.92 |
| 40002 | 1174+00.00 | -31.62 | 202167.64 | 217920.30 |
| 65000 | 1169+99.58 | -50.00 | -----     | -----     |
| 65001 | 1174+00.00 | -50.00 | -----     | -----     |
| 65002 | 1174+00.00 | -40.00 | -----     | -----     |
| 65003 | 1177+71.93 | -40.00 | -----     | -----     |
| 65080 | 1181+00.00 | -40.00 | -----     | -----     |

| CURVE | LCB         | LCH    | L      | R        |
|-------|-------------|--------|--------|----------|
| C3    | N00°35'28"W | 292.26 | 292.26 | 17155.74 |
| C4    | N01°24'44"W | 199.42 | 199.42 | 17155.74 |



## NOTES:

COORDINATES AND BEARINGS SHOWN ON THIS PLAT ARE REFERENCED TO THE WISCONSIN COUNTY  
COORDINATE SYSTEM, CHIPPEWA COUNTY ZONE, NAD83 (1999) ADJUSTMENT. THE COORDINATES SHOWN ARE GRID  
COORDINATES AND ARE TO BE USED AS GRID OR GROUND VALUES ON THIS PLAT.

RIGHT-OF-WAY MONUMENTS ARE TYPE 2 (TYPICALLY 3/4" X 24" REBAR WITH A WDOT CAP)  
AND WILL BE PLACED PRIOR TO THE COMPLETION OF THE PROJECT.  
RIGHT-OF-WAY BOUNDARIES ARE DEFINED WITH COURSES OF THE PERIMETER OF THE HIGHWAY LANDS  
REFERENCED TO THE U.S. PUBLIC LAND SURVEY SYSTEM OR OTHER "SURVEYS OF PUBLIC RECORD".

THE POINT OF INTERSECTIONS DESIGNATED WITH A 90000 SERIES NUMBER HAVE BEEN CREATED FOR THE  
PURPOSE OF SHOWING A CLOSED TRAVERSE. THE POINTS ARE INTENDED TO BE ON THE RIGHT-OF-WAY LINES  
BUT NOT NECESSARILY ON OR ANY PART OF A BOUNDARY, SIXTEENTH, QUARTER OR SECTION (P.L.S.S.) LINE.  
THESE POINTS WILL NOT BE MONUMENTED IN THE FIELD.

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

EXISTING HIGHWAY RIGHT-OF-WAY SHOWN HEREIN IS BASED ON THE FOLLOWING POINTS OF REFERENCE:  
EXISTING HIGHWAY RIGHT-OF-WAY FOR STH 178 ESTABLISHED FROM PREVIOUS PROJECTS T054(6) AND 8600-01-22  
EXISTING HIGHWAY RIGHT-OF-WAY ESTABLISHED FROM STATUTE 82.31 USING EXISTING ALIGNMENTS.

A TEMPORARY LIMITED EASEMENT (TLE) IS A RIGHT FOR CONSTRUCTION PURPOSES, AS DEFINED HEREIN,  
INCLUDING THE RIGHT TO OPERATE NECESSARY EQUIPMENT THEREON AND THE RIGHT OF INGRESS AND  
EGRESS, AS LONG AS REQUIRED FOR SUCH PUBLIC PURPOSE, INCLUDING THE RIGHT TO PRESERVE, PROTECT,  
REMOVE, OR PLANT THEREON ANY VEGETATION THAT THE HIGHWAY AUTHORITIES MAY DEEM NECESSARY OR  
DESIRABLE. ALL TLES EXPIRE AT THE COMPLETION OF THE CONSTRUCTION PROJECT FOR WHICH THIS  
INSTRUMENT IS GIVEN.

| POINT | STATION    | OFFSET | NORTHING  | EASTING   |
|-------|------------|--------|-----------|-----------|
| 30001 | 1176+07.32 | 34.59  | 202375.14 | 217985.92 |
| 30169 | 1170+00.00 | 33.97  | 201767.82 | 217987.02 |
| 41000 | 1177+71.93 | 33.97  | 202539.75 | 217984.84 |
| 41001 | 1177+71.93 | 45.00  | 202539.79 | 217995.87 |
| 66001 | 1170+00.00 | 40.00  | -----     | -----     |
| 66002 | 1177+71.93 | 40.00  | -----     | -----     |
| 66003 | 1177+71.93 | 50.00  | -----     | -----     |
| 66063 | 1181+00.00 | 50.00  | -----     | -----     |

| CURVE | LCB         | LCH    | L      | R        |
|-------|-------------|--------|--------|----------|
| C1    | S00°58'54"E | 329.34 | 329.35 | 11504.16 |
| C2    | S00°22'37"E | 164.62 | 164.62 | 17221.74 |

| COURSE      | BEARING       | DISTANCE |
|-------------|---------------|----------|
| 90009-90011 | N 88°11'54" E | 13.14    |
| 41001-41000 | S 89°49'02" W | 11.03    |
| 30001-30169 | S 00°06'11" E | 607.32   |
| 30169-90013 | S 00°06'11" E | 71.65    |
| 90013-90015 | S 89°27'11" W | 10.56    |
| 90015-90009 | N 00°01'30" E | 1172.60  |

1088  
FOUND 1 1/4" IRON PIPE  
Y = 204368.69  
X = 217977.74

ALIGNMENT TIE: 1088 TO  
STA 1196+69.57 = 283.29' S089°43'07"E

1037  
FOUND BRASS CAP  
Y = 206984.38  
X = 217980.46

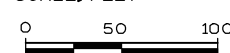
## UTILITY INTERESTS REQUIRED

| UTILITY NUMBER | OWNERS                               | INTEREST REQUIRED |
|----------------|--------------------------------------|-------------------|
| 40             | CHIPPEWA VALLEY ELECTRIC COOPERATIVE | RELEASE OF RIGHTS |
| 50             | CENTURYLINK                          | RELEASE OF RIGHTS |

## SCHEDULE OF LANDS AND INTERESTS REQUIRED

| PARCEL NUMBER | OWNERS                    | INTEREST REQUIRED | NEW  | EXISTING H.E. | TOTAL | TLE ACRES REQUIRED |
|---------------|---------------------------|-------------------|------|---------------|-------|--------------------|
| 1             | KYLE E. & LEEANN R. LEMAY | FEE & TLE         | 0.11 | 0.00          | 0.11  | 0.18               |
| 2             | RICHARD T. & LORIE CROSBY | FEE & TLE         | 0.09 | 0.00          | 0.09  | 0.14               |

## SCALE, FEET



WISCONSIN DEPARTMENT OF TRANSPORTATION  
SCENIC EASEMENT INFORMATION  
PARCEL 2 DOC. 325073, VOL. 304, PG. 511-512

UTILITY EASEMENT INFORMATION  
PARCEL 1 CHIPPEWA VALLEY ELECTRIC COOPERATIVE DOC. 742792  
CENTURYLINK DOC. 586239  
PARCEL 2 CENTURYLINK DOC. 586239

**FAA** Fleming, Andre & Associates, Inc.  
CONSULTING ENGINEERS  
3615 N. Hastings Way • Suite 100  
Eau Claire, WI 54603

I, JOHN T. MUELLER, REGISTERED LAND SURVEYOR, HEREBY CERTIFY THAT IN FULL  
COMPLIANCE WITH THE PROVISIONS OF SECTION 84.095 OF THE WISCONSIN STATUTES  
AND UNDER THE DIRECTION OF THE WISCONSIN DEPARTMENT OF TRANSPORTATION, I  
HAVE SURVEYED TRANSPORTATION PROJECT PLAT 8600-02-24-4.01 AND THAT SUCH  
PLAT CORRECTLY REPRESENTS ALL EXTERIOR BOUNDARIES OF THE SURVEYED LAND.

DATE 8/6/2012



THIS PLAT AND RELOCATION ORDER ARE APPROVED FOR  
THE WISCONSIN DEPARTMENT OF TRANSPORTATION.

DATE 8/6/2012

Michael Piller  
Michael Piller

## CONVENTIONAL SYMBOLS AND ABBREVIATIONS

|                                                 |                            |             |
|-------------------------------------------------|----------------------------|-------------|
| STATE, COUNTY, TOWN LINE                        | ACCESS POINT               | AP          |
| SECTION LINE                                    | ACCESS RIGHTS              | AR          |
| QUARTER LINE                                    | ACRES                      | AC.         |
| SIXTEENTH LINE                                  | AND OTHERS                 | ET. AL.     |
| PROPOSED REFERENCE LINE                         | CENTERLINE                 | C/L         |
| PROPOSED R/W LINE                               | CERTIFIED SURVEY MAP       | CSM         |
| EXISTING H.E. LINE                              | DOCUMENT                   | DOC.        |
| PROPERTY LINE                                   | HIGHWAY EASEMENT           | H.E.        |
| EASEMENT LINE                                   | LAND CONTRACT              | LC          |
| CORPORATE LIMITS                                | MONUMENT                   | MON.        |
| EXISTING CENTERLINE                             | PAGE                       | P.          |
| LOT & TIE LINES                                 | PROPERTY LINE              | PL          |
| UTILITIES                                       | PERMANENT LIMITED EASEMENT | PL.E        |
| FO (TYPE)                                       | RECORDED AS                | (300)       |
| TELEPHONE, GAS, ELECTRIC, CABLE TV, FIBER OPTIC | REFERENCE LINE             | REM.        |
| FIRE HYDRANT                                    | REMAINING                  | R/W         |
| ACCESS RESTRICTED (BY PREVIOUS PROJECT/CONTROL) | RIGHT-OF-WAY               | SEC.        |
| NO ACCESS (BY ACQUISITION)                      | SECTION                    | SO. FT.     |
| NO ACCESS (BY STATUTORY AUTHORITY)              | SQUARE FEET                | STA.        |
| FEE (HATCH VARIES)                              | TEMPORARY LIMITED EASEMENT | TLE         |
| TEMPORARY LIMITED EASEMENT                      | VOLUME                     | V.          |
| PERMANENT LIMITED EASEMENT                      | CURVE DATA                 |             |
| R/W BOUNDARY POINT                              | LONG CHORD                 | LCH         |
| PLE/TLE POINT                                   | LONG CHORD BEARING         | LCB         |
| PARCEL NUMBER                                   | RADIUS                     | R           |
| SIGN NUMBER (OFF PRIMER)                        | DEGREE OF CURVE            | D           |
| BUILDING                                        | CENTRAL ANGLE OR DELTA     | DELTA       |
| FOUND IRON PIPE/PIN                             | LENGTH OF CURVE            | L           |
| R/W MONUMENT                                    | TANGENT                    | TAN         |
| R/W STANDARD SIGN                               | POWER POLE                 | COMPENSABLE |
|                                                 | TELEPHONE POLE             | COMPENSABLE |
|                                                 | TELEPHONE PEDESTAL         |             |
|                                                 | GUY POLE                   | N/A         |
|                                                 | SECTION CORNER MONUMENT    |             |
|                                                 | SECTION CORNER             |             |

| POINT | STATION    | OFFSET | NORTHING  | EASTING   |
|-------|------------|--------|-----------|-----------|
| 30047 | 1185+87.69 | -31.80 | 203358.89 | 217917.90 |
| 30083 | 1181+73.02 | -33.15 | 202939.46 | 217909.62 |
| 30084 | 1183+54.75 | -33.09 | 203121.47 | 217903.30 |
| 30086 | 1185+88.70 | -31.78 | 203359.92 | 217988.06 |
| 30167 | 1184+75.00 | -33.40 | 203244.41 | 217905.13 |
| 40003 | 1192+20.65 | -33.72 | 203984.76 | 218017.85 |
| 40004 | 1192+20.65 | -35.00 | 203984.97 | 218016.58 |
| 65005 | 1181+47.96 | -40.00 |           |           |
| 65006 | 1183+37.38 | -40.00 |           |           |
| 65008 | 1186+26.32 | -40.00 |           |           |
| 65009 | 1191+50.00 | -40.00 |           |           |
| 65010 | 1192+20.65 | -50.00 |           |           |
| 65011 | 1192+20.65 | -50.00 |           |           |
| 65080 | 1181+00.00 | -40.00 |           |           |
| 65081 | 1193+00.00 | -50.00 |           |           |

| COURSE      | BEARING       | DISTANCE |
|-------------|---------------|----------|
| 90028-90030 | S 00°01'30" W | 309.14   |
| 90030-90029 | S 00°01'30" W | 102.13   |
| 90029-90009 | S 00°01'30" W | 27.41    |
| 90009-90011 | N 88°11'54" E | 13.14    |
| 41002-41003 | N 02°02'30" W | 21.54    |
| 41003-41005 | N 12°40'37" W | 17.83    |
| 41005-90030 | N 09°09'37" W | 42.63    |

| PARCEL | V. - P.             |
|--------|---------------------|
| 2      | V. 120 - P. 558-559 |
| 2      | V. 157 - P. 345-354 |
| 5      | V. 157 - P. 345-354 |
| 6      | V. 120 - P. 558-559 |
| 6      | V. 157 - P. 345-354 |
| 7      | V. 120 - P. 564     |

| PARCEL   | UTILITY EASEMENT INFORMATION                                                                                                    |
|----------|---------------------------------------------------------------------------------------------------------------------------------|
| PARCEL 1 | CENTURYLINK DOC. 586239                                                                                                         |
| PARCEL 2 | CHIPPEWA VALLEY ELECTRIC COOPERATIVE DOC. 212878<br>CHIPPEWA VALLEY ELECTRIC COOPERATIVE DOC. 742792<br>CENTURYLINK DOC. 586239 |
| PARCEL 3 | CENTURYLINK DOC. 586239                                                                                                         |
| PARCEL 4 | CENTURYLINK DOC. 586239                                                                                                         |
| PARCEL 5 | CENTURYLINK DOC. 586239                                                                                                         |
| PARCEL 6 | CHIPPEWA VALLEY ELECTRIC COOPERATIVE DOC. 500641<br>CENTURYLINK DOC. 586239                                                     |
| PARCEL 7 | CENTURYLINK DOC. 586239                                                                                                         |

ALIGNMENT DATA  
STH 178

PISTA 1179+59.97  
Y = 202727.69  
X = 217950.34  
PISTA 1184+82.32  
Y = 203249.75  
X = 217931.73  
DELTA = 1°20'08" Right  
D = 03°55'24"  
T = 144.94  
L = 288.93  
R = 1460.40  
LCH = 288.46  
LCB = N 03°37'35" E  
BBK = N 02°02'30" W  
PC STA 1183+37.38  
Y = 203104.90  
X = 217936.89  
PT STA 1186+26.32  
Y = 203392.79  
X = 217955.14  
BAH = N 09°17'39" E

PISTA 1194+19.76  
Y = 204175.81  
X = 218083.28  
DELTA = 33°34'30" Right  
D = 08°40'52"  
T = 199.11  
L = 386.76  
R = 660.00  
LCH = 381.25  
LCB = N 26°04'54" E  
BBK = N 09°17'39" E  
PC STA 1192+20.65  
Y = 203979.32  
X = 218051.12  
PT STA 1196+07.40  
Y = 204321.74  
X = 218218.74  
BAH = N 42°52'09" E

## TRANSPORTATION PROJECT PLAT NO: 8600-02-24 - 4.02

THAT PART OF THE SE 1/4-SE 1/4 AND THE NE 1/4-SE 1/4 OF SECTION 27 AND GOV'T LOT 5 OF SECTION 26, ALL IN T-31-N, R-7-W, TOWN OF CLEVELAND, CHIPPEWA COUNTY, WISCONSIN

RELOCATION ORDER STH 178, CHIPPEWA FALLS - CORNELL (CTH R TO STH 64), CHIPPEWA COUNTY

TO PROPERLY ESTABLISH, LAY OUT, WIDEN, ENLARGE, EXTEND, CONSTRUCT, RECONSTRUCT, IMPROVE, OR MAINTAIN A PORTION OF THE HIGHWAY DESIGNATED ABOVE, THE STATE OF WISCONSIN DEPARTMENT OF TRANSPORTATION DEEMS IT NECESSARY TO RELOCATE OR CHANGE SAID HIGHWAY AND ACQUIRE CERTAIN LANDS AND INTERESTS OR RIGHTS IN LANDS FOR THE ABOVE PROJECT.

TO EFFECT THIS CHANGE, PURSUANT TO AUTHORITY GRANTED UNDER SECTION 84.02 (3) AND 84.09, WISCONSIN STATUTES, THE DEPARTMENT OF TRANSPORTATION HEREBY ORDERS THAT:  
1. THAT PORTION OF SAID HIGHWAY AS SHOWN ON THIS PLAT IS LAID OUT AND ESTABLISHED TO THE LINES AND WIDTHS AS SO SHOWN FOR THE ABOVE PROJECT.  
2. THE LANDS OR INTERESTS OR RIGHTS IN LANDS AS SHOWN ON THIS PLAT ARE REQUIRED BY THE DEPARTMENT FOR THE ABOVE PROJECT AND SHALL BE ACQUIRED IN THE NAME OF THE STATE OF WISCONSIN, PURSUANT TO THE PROVISIONS OF SECTION 84.09 (1) OR (2), WISCONSIN STATUTES.

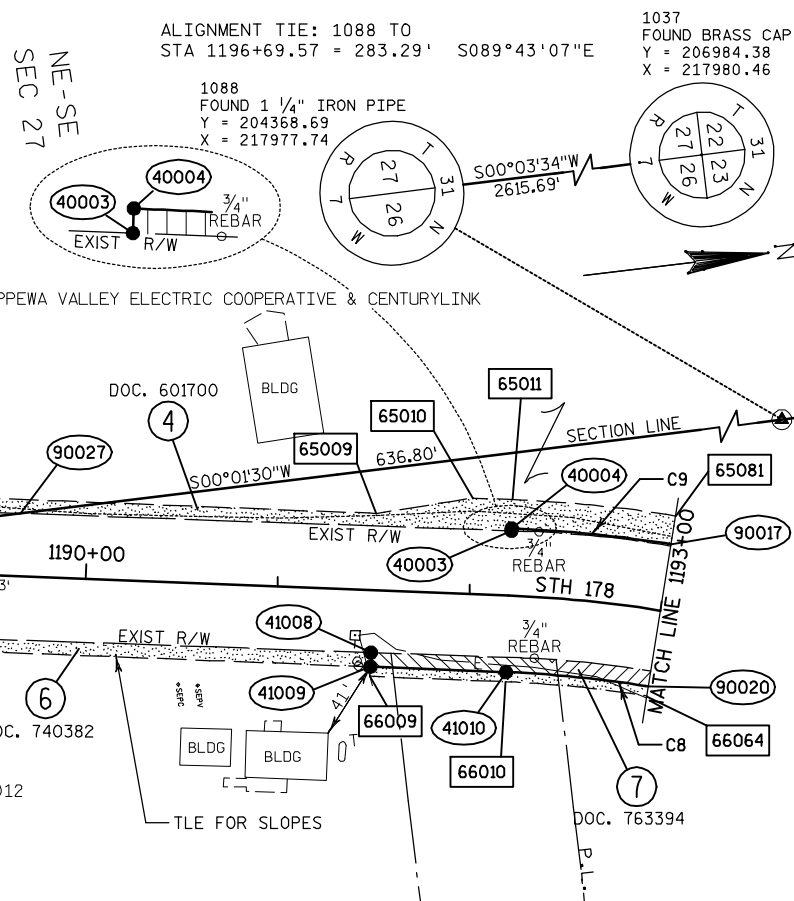
THE STATE OF WISCONSIN HAS DEEMED IT NECESSARY TO MONUMENT RIGHT-OF-WAY INTERESTS PREVIOUSLY ACQUIRED UNDER SECTIONS 82.01, 82.31(1), 82.31(2) AND 84.09 OF THE WISCONSIN STATE STATUTES AND DOES HEREBY CERTIFY THE DEPARTMENT OF TRANSPORTATION HAS SURVEYED THE HIGHWAY RIGHT-OF-WAY; THAT THIS PLAT IS A TRUE AND CORRECT REPRESENTATION OF THE EXTERIOR BOUNDARIES OF THE LAND SURVEYED AND SHOWS ACCURATE MEASUREMENTS THEREOF.

| COURSE      | BEARING       | DISTANCE |
|-------------|---------------|----------|
| 90027-90153 | S 00°01'30" W | 433.38   |
| 90153-30042 | S 16°07'23" W | 6.16     |
| 30004-30176 | S 01°59'19" E | 97.72    |
| 30176-41006 | S 09°09'37" E | 14.73    |
| 41006-90030 | S 09°09'37" E | 13.53    |
| 90030-90029 | S 00°01'30" W | 102.13   |
| 90029-90009 | S 00°01'30" W | 27.41    |
| 90009-90008 | S 88°11'54" W | 65.13    |
| 30083-30084 | N 01°59'19" W | 182.12   |
| 30047-30086 | N 09°03'00" E | 1.04     |
| 30086-90027 | N 09°04'26" E | 376.69   |

ALIGNMENT TIE: 1088 TO  
STA 1196+69.57 = 283.29' S089°43'07"E

1037  
FOUND BRASS CAP  
Y = 206984.38  
X = 217980.46

1088  
FOUND 1 1/4" IRON PIPE  
Y = 204368.69  
X = 217977.74



| PARCEL   | DOC.        | SCENIC EASEMENT |
|----------|-------------|-----------------|
| PARCEL 2 | DOC. 325073 |                 |
| PARCEL 6 | DOC. 324394 | 8325073         |
| PARCEL 7 | DOC. 325073 |                 |

| COURSE      | BEARING       | DISTANCE |
|-------------|---------------|----------|
| 90027-90153 | S 00°01'30" W | 433.38   |
| 90153-41074 | N 16°07'23" E | 48.18    |
| 41074-41073 | N 12°26'47" E | 41.65    |
| 41073-41072 | N 80°42'21" W | 9.80     |
| 41072-41008 | N 09°04'26" E | 523.69   |
| 41008-41009 | S 80°42'21" E | 7.44     |
| 41009-41010 | N 09°17'39" E | 70.65    |
| 90020-90017 | N 73°49'02" W | 75.00    |
| 40004-40003 | S 80°42'21" E | 1.28     |
| 40003-90027 | S 09°04'26" W | 256.07   |

| CURVE | LCB           | LCH    | L      | R        |
|-------|---------------|--------|--------|----------|
| C2    | S 02°08'25" W | 168.95 | 169.10 | 1173.23  |
| C3    | N 01°52'01" W | 72.88  | 72.88  | 17155.74 |
| C4    | N 00°51'18" E | 122.95 | 123.00 | 1239.23  |
| C5    | N 06°21'44" E | 115.19 | 115.23 | 1239.23  |
| C6    | N 01°55'18" W | 48.15  | 48.15  | 11504.16 |
| C8    | N 12°44'18" E | 74.50  | 74.54  | 620.00   |
| C9    | S 12°44'19" W | 83.51  | 83.56  | 695.00   |

SCALE, FEET  
0 50 100

## NOTES:

COORDINATES AND BEARINGS SHOWN ON THIS PLAT ARE REFERENCED TO THE WISCONSIN COUNTY COORDINATE SYSTEM, CHIPPEWA COUNTY ZONE, NAD83 (1999) ADJUSTMENT. THE COORDINATES SHOWN ARE GRID COORDINATES AND ARE TO BE USED AS GRID OR GROUND VALUES ON THIS PLAT.

RIGHT-OF-WAY MONUMENTS ARE TYPE 2 (TYPICALLY 3/4" X 24" REBAR WITH A WDOT CAP) AND WILL BE PLACED PRIOR TO THE COMPLETION OF THE PROJECT.  
RIGHT-OF-WAY BOUNDARIES ARE DEFINED WITH COURSES OF THE PERIMETER OF THE HIGHWAY LANDS REFERENCED TO THE U.S. PUBLIC LAND SURVEY SYSTEM OR OTHER "SURVEYS OF PUBLIC RECORD".

THE POINT OF INTERSECTIONS DESIGNATED WITH A 90000 SERIES NUMBER HAVE BEEN CREATED FOR THE PURPOSE OF SHOWING A CLOSED TRAVERSE. THE POINTS ARE INTENDED TO BE ON THE RIGHT-OF-WAY LINES BUT NOT NECESSARILY ON OR ANY PART OF A BOUNDARY, SIXTEENTH, QUARTER OR SECTION (P.L.S.S.) LINE. THESE POINTS WILL NOT BE MONUMENTED IN THE FIELD.

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

EXISTING HIGHWAY RIGHT-OF-WAY SHOWN HEREIN IS BASED ON THE FOLLOWING POINTS OF REFERENCE:  
EXISTING HIGHWAY RIGHT-OF-WAY FOR STH 178 ESTABLISHED FROM PREVIOUS PROJECTS T054(6) AND 8600-01-22  
EXISTING HIGHWAY RIGHT-OF-WAY ESTABLISHED FROM STATUTE 82.31 USING EXISTING ALIGNMENTS.

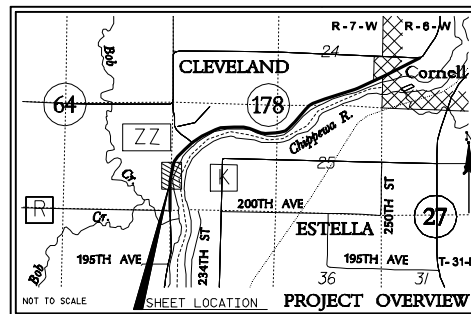
A TEMPORARY LIMITED EASEMENT (TLE) IS A RIGHT FOR CONSTRUCTION PURPOSES, AS DEFINED HEREIN, INCLUDING THE RIGHT TO OPERATE NECESSARY EQUIPMENT THEREON AND THE RIGHT OF INGRESS AND EGRESS, AS LONG AS REQUIRED FOR SUCH PUBLIC PURPOSE, INCLUDING THE RIGHT TO PRESERVE, PROTECT, REMOVE, OR PLANT THEREON ANY VEGETATION THAT THE HIGHWAY AUTHORITIES MAY DEEM NECESSARY OR DESIRABLE. ALL TLES EXPIRE AT THE COMPLETION OF THE CONSTRUCTION PROJECT FOR WHICH THIS INSTRUMENT IS GIVEN.

| POINT | STATION    | OFFSET | NORTHING  | EASTING   |
|-------|------------|--------|-----------|-----------|
| 30004 | 1183+55.49 | 32.91  | 203123.77 | 217969.26 |
| 30006 | 1185+87.22 | 34.20  | 203349.51 | 217983.23 |
| 30042 | 1185+28.45 | 33.14  | 203292.60 | 217975.57 |
| 30048 | 1185+86.12 | 34.18  | 203346.44 | 217983.06 |
| 30176 | 1182+57.37 | 32.92  | 203026.11 | 217972.65 |
| 41002 | 1181+47.96 | 45.00  | 202917.21 | 217988.61 |
| 41003 | 1181+69.50 | 45.00  | 202938.73 | 217987.85 |
| 41005 | 1181+87.02 | 41.71  | 202956.12 | 217983.93 |
| 41006 | 1182+42.75 | 34.75  | 203011.57 | 217974.99 |
| 41008 | 1191+50.00 | 32.56  | 203904.34 | 218071.84 |
| 41009 | 1191+50.00 | 40.00  | 203903.13 | 218079.19 |
| 41010 | 1192+20.65 | 40.00  | 203972.86 | 218090.60 |
| 41072 | 1186+26.32 | 34.57  | 203387.20 | 217989.25 |
| 41073 | 1186+26.32 | 44.37  | 203385.62 | 217998.92 |
| 41074 | 1185+83.45 | 42.19  | 203344.80 | 217990.66 |
| 66005 | 1181+42.93 | 50.00  |           |           |
| 66007 | 1186+26.32 | 34.57  |           |           |
| 66008 | 1186+26.32 | 40.00  |           |           |
| 66009 | 1191+50.00 | 45.00  |           |           |
| 66010 | 1192+20.65 | 45.00  |           |           |
| 66063 | 1181+00.00 | 50.00  |           |           |
| 66064 | 1193+00.00 | 45.00  |           |           |

| PARCEL NUMBER | OWNERS                     | INTEREST REQUIRED | R/W ACRES REQUIRED | EXISTING H.E. | TOTAL | TLE ACRES REQUIRED |
|---------------|----------------------------|-------------------|--------------------|---------------|-------|--------------------|
| 1             | KYLE E. & LEEANN R. LEMAY  | TLE               | 0.00               | 0.00          | 0.00  | 0.08               |
| 2             | RICHARD T. & LORIN CROSBY  | FEE & TLE         | 0.04               | 0.00          | 0.04  | 0.01               |
| 3             | SUSAN M. LOPEZ             | TLE               | 0.00               | 0.00          | 0.00  | 0.06               |
| 4             | CHEERILAND, ETAL           | FEE & TLE         | 79 SF              | 0.00          | 79 SF | 0.09               |
| 5             | ALFRED A. SMITH            | FEE & TLE         | 0.01               | 0.00          | 0.01  | 0.01               |
| 6             | BLAIR D. & LAURA S. KELLEY | FEE & TLE         | 0.02               | 0.00          | 0.02  | 0.08               |
| 7             | MILDRED V. SINGLETON       | FEE & TLE         | 0.01               | 0.00          | 0.01  | 0.01               |

| MEANDER LINE AND OBSERVED EDGE OF WATER SEPARATION | R/W OR TLE POINT | DISTANCE |
|----------------------------------------------------|------------------|----------|
|                                                    | 66005            | 7'       |
|                                                    | 41003            | 7'       |
|                                                    | 41005            | 7'       |
|                                                    | 41006            | 7'       |
|                                                    | 30176            | 7'       |
|                                                    | 30004            | 2'       |
|                                                    | 30042            | 7'       |

DISTANCES ARE PERPENDICULAR TO THE OBSERVED EDGE OF WATER AND ROUNDED TO THE NEAREST FOOT.



**FAA** Fleming, Andre & Associates, Inc.  
CONSULTING ENGINEERS  
3615 N. Hastings Way • Suite 100  
Eau Claire, WI 54603

I, JOHN T. MUELLER, REGISTERED LAND SURVEYOR, HEREBY CERTIFY THAT IN FULL COMPLIANCE WITH THE PROVISIONS OF SECTION 84.095 OF THE WISCONSIN STATUTES AND UNDER THE DIRECTION OF THE WISCONSIN DEPARTMENT OF TRANSPORTATION, I HAVE SURVEYED TRANSPORTATION PROJECT PLAT 8600-02-24-4.02 AND THAT SUCH PLAT CORRECTLY REPRESENTS ALL EXTERIOR BOUNDARIES OF THE SURVEYED LAND.

DATE 8/6/2012  
John T. Mueller  
THIS PLAT AND RELOCATION ORDER ARE APPROVED FOR THE WISCONSIN DEPARTMENT OF TRANSPORTATION.  
DATE 8/6/2012  
Michael Piller

# CONVENTIONAL SYMBOLS AND ABBREVIATIONS

|                                                  |       |                            |         |
|--------------------------------------------------|-------|----------------------------|---------|
| STATE, COUNTY, & TOWN LINE                       | ----- | ACCESS POINT               | AP      |
| SECTION LINE                                     | ----- | ACCESS RIGHTS              | AR      |
| QUARTER LINE                                     | ----- | ACRES                      | AC.     |
| SIXTEENTH LINE                                   | ----- | AND OTHERS                 | ET AL.  |
| PROPOSED REFERENCE LINE                          | ----- | CENTERLINE                 | C/L     |
| PROPOSED R/W LINE                                | ----- | CERTIFIED SURVEY MAP       | CSM     |
| EXISTING H.E. LINE                               | ----- | DOCUMENT                   | DOC.    |
| PROPERTY LINE                                    | ----- | HIGHWAY EASEMENT           | H.E.    |
| EASEMENT LINE                                    | ----- | LAND CONTRACT              | LC      |
| CORPORATE LIMITS                                 | ----- | MONUMENT                   | MON.    |
| EXISTING CENTERLINE                              | ----- | PAGE                       | P.      |
| LOT & TIE LINES                                  | ----- | PROPERTY LINE              | PL      |
| UTILITIES                                        | ----- | PERMANENT LIMITED EASEMENT | P.L.E.  |
| TELEPHONE, GAS, ELECTRIC, CABLE, TV, FIBER OPTIC | ----- | RECORDED AS                | (300)   |
| FIRE HYDRANT                                     | ----- | REFERENCE LINE             | R/L     |
| ACCESS RESTRICTED (BY PREVIOUS PROJECT/CONTROL)  | ----- | REMAINING                  | REM.    |
| NO ACCESS (BY ACQUISITION)                       | ----- | RIGHT-OF-WAY               | R/W     |
|                                                  | ----- | SECTION                    | SEC.    |
|                                                  | ----- | SQUARE FEET                | SO. FT. |
|                                                  | ----- | STATION                    | STA.    |
|                                                  | ----- | TEMPORARY LIMITED EASEMENT | T.L.E.  |
|                                                  | ----- | VOLUME                     | V.      |

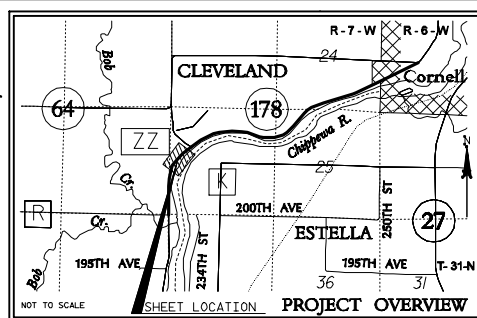
## CURVE DATA

|                        |       |
|------------------------|-------|
| LONG CHORD             | LCH   |
| LONG CHORD BEARING     | LCB   |
| RADIUS                 | R     |
| DEGREE OF CURVE        | D     |
| CENTRAL ANGLE OR DELTA | DELTA |
| LENGTH OF CURVE        | L     |
| TANGENT                | TAN   |

|                         |             |
|-------------------------|-------------|
| POWER POLE              | COMPENSABLE |
| TELEPHONE POLE          | COMPENSABLE |
| TELEPHONE PEDESTAL      |             |
| GUY POLE                |             |
| SECTION CORNER MONUMENT |             |
| SECTION CORNER          |             |

FOUND IRON PIPE/PIPE  
R/W MONUMENT  
R/W STANDARD  
SIGN

TOWN



1037  
FOUND BRASS CAP  
Y = 206984.38  
X = 217980.46



1088  
FOUND 1/4" IRON PIPE  
Y = 204368.69  
X = 217977.74

ALIGNMENT TIE: 1088 TO  
STA 1196+69.57 = 283.29'  
S089°43'07"E

| CURVE | LCB           | LCH    | L      | R      |
|-------|---------------|--------|--------|--------|
| C10   | N 37°53'09" E | 110.50 | 110.61 | 730.00 |
| C11   | S 37°53'09" W | 107.47 | 107.58 | 710.00 |

| COURSE      | BEARING       | DISTANCE |
|-------------|---------------|----------|
| 40006-60000 | N 56°27'17" W | 20.00    |
| 60001-60002 | S 47°46'25" E | 20.00    |

## ALIGNMENT DATA

|                                                                                                                                                                                                                                                                                                                                                                        |                                                                                                                                                                                                                                                                                                                              |
|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| PISTA 1184+82.32<br>Y = 203249.75<br>X = 217931.73<br>PISTA 1194+19.76<br>Y = 204175.81<br>X = 218083.28<br>D = 08°40'52"<br>T = 199.11<br>L = 386.76<br>R = 660.00<br>LCH = 381.25<br>LCB = N 26°04'54" E<br>BBK = N 09°17'39" E<br>PC STA 1192+20.65<br>Y = 203979.32<br>X = 218051.12<br>PT STA 1196+07.40<br>Y = 204321.74<br>X = 218288.74<br>BAH = N 42°52'09" E | PISTA 1205+52.16<br>Y = 205014.16<br>X = 218861.48<br>DELTA = 13°41'30" Right<br>D = 04°15'00"<br>T = 161.85<br>L = 322.16<br>R = 1348.14<br>LCB = N 49°42'54" E<br>BBK = N 42°52'09" E<br>PC STA 1203+90.31<br>Y = 204895.54<br>X = 218751.37<br>PT STA 1207+12.47<br>Y = 205103.35<br>X = 218996.54<br>BAH = N 56°33'39" E |
|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|

## TRANSPORTATION PROJECT PLAT NO: 8600-02-24 - 4.03

THAT PART OF GOV'T LOT 4 AND GOV'T LOT 5 OF SECTION 26,  
ALL IN T-31-N, R-7-W, TOWN OF CLEVELAND, CHIPPEWA COUNTY, WISCONSIN

RELOCATION ORDER STH 178, CHIPPEWA FALLS - CORNELL (CTH R TO STH 64), CHIPPEWA COUNTY

TO PROPERLY ESTABLISH, LAY OUT, WIDEN, ENLARGE, EXTEND, CONSTRUCT, RECONSTRUCT, IMPROVE, OR MAINTAIN A PORTION OF THE HIGHWAY DESIGNATED ABOVE, THE STATE OF WISCONSIN DEPARTMENT OF TRANSPORTATION DEEMS IT NECESSARY TO RELOCATE OR CHANGE SAID HIGHWAY AND ACQUIRE CERTAIN LANDS AND INTERESTS OR RIGHTS IN LANDS FOR THE ABOVE PROJECT.

TO EFFECT THIS CHANGE, PURSUANT TO AUTHORITY GRANTED UNDER SECTION 84.02 (3) AND 84.09, WISCONSIN STATUTES, THE DEPARTMENT OF TRANSPORTATION HEREBY ORDERS THAT:  
1. THAT PORTION OF SAID HIGHWAY AS SHOWN ON THIS PLAT IS LAID OUT AND ESTABLISHED TO THE LINES AND WIDTHS AS SO SHOWN FOR THE ABOVE PROJECT.  
2. THE LANDS OR INTERESTS OR RIGHTS IN LANDS AS SHOWN ON THIS PLAT ARE REQUIRED BY THE DEPARTMENT FOR THE ABOVE PROJECT AND SHALL BE ACQUIRED IN THE NAME OF THE STATE OF WISCONSIN, PURSUANT TO THE PROVISIONS OF SECTION 84.09 (1) OR (2), WISCONSIN STATUTES.

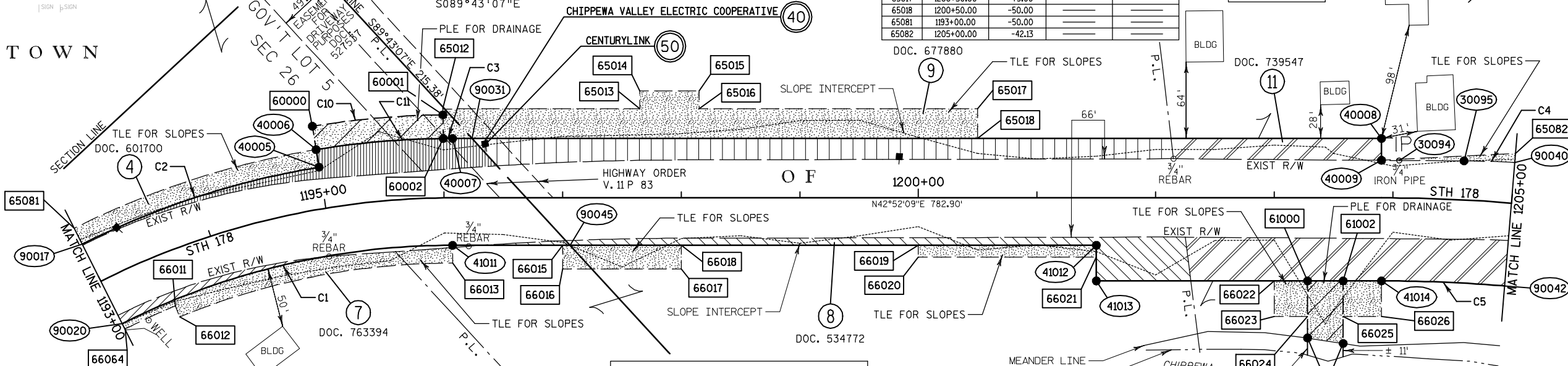
THE STATE OF WISCONSIN HAS DEEMED IT NECESSARY TO MONUMENT RIGHT-OF-WAY INTERESTS PREVIOUSLY ACQUIRED UNDER SECTIONS 82.01, 82.31(1), 82.31(2) AND 84.09 OF THE WISCONSIN STATE STATUTES AND DOES HEREBY CERTIFY THE DEPARTMENT OF TRANSPORTATION HAS SURVEYED THE HIGHWAY RIGHT-OF-WAY; THAT THIS PLAT IS A TRUE AND CORRECT REPRESENTATION OF THE EXTERIOR BOUNDARIES OF THE LAND SURVEYED AND SHOWS ACCURATE MEASUREMENTS THEREOF.

| POINT | STATION    | OFFSET | NORTHING  | EASTING   |
|-------|------------|--------|-----------|-----------|
| 30094 | 1204+04.88 | -31.61 | 204927.92 | 218738.41 |
| 30095 | 1204+58.25 | -32.87 | 204967.70 | 218715.89 |
| 40005 | 1195+00.00 | -35.00 | 204256.78 | 218123.21 |
| 40006 | 1195+00.00 | -50.00 | 204265.07 | 218110.71 |
| 40007 | 1196+07.40 | -50.00 | 204355.75 | 218182.09 |
| 40008 | 1203+90.31 | -50.00 | 204929.56 | 218714.72 |
| 40009 | 1203+90.31 | -31.64 | 204917.07 | 218728.18 |
| 60000 | 1195+00.00 | -70.00 | 204276.12 | 218094.04 |
| 60001 | 1196+00.00 | -70.00 | 204363.33 | 218161.90 |
| 60002 | 1196+00.00 | -50.00 | 204349.89 | 218176.71 |
| 65012 | 1196+00.00 | -75.00 |           |           |
| 65013 | 1197+65.00 | -75.00 |           |           |
| 65014 | 1197+65.00 | -90.00 |           |           |
| 65015 | 1198+15.00 | -90.00 |           |           |
| 65016 | 1198+15.00 | -75.00 |           |           |
| 65017 | 1200+50.00 | -75.00 |           |           |
| 65018 | 1200+50.00 | -50.00 |           |           |
| 65081 | 1193+00.00 | -50.00 |           |           |
| 65082 | 1205+00.00 | -42.13 |           |           |

| COURSE      | BEARING       | DISTANCE |
|-------------|---------------|----------|
| 90031-40008 | N 42°52'09" E | 766.70   |
| 40008-40009 | S 47°07'51" E | 18.36    |
| 40009-30094 | N 43°18'04" E | 14.91    |
| 30094-30095 | N 43°18'04" E | 54.66    |
| 90040-90042 | S 42°52'09" E | 104.31   |
| 41014-41013 | S 42°52'09" W | 240.31   |
| 41013-41012 | N 47°07'51" W | 30.00    |
| 41012-90045 | S 42°52'09" W | 443.67   |
| 90045-90031 | N 89°43'07" W | 122.24   |

| CHIPPewa RIVER<br>FLOWAGE RIGHTS | V. - P.             |
|----------------------------------|---------------------|
| PARCEL 4                         | V. 120 - P. 558-559 |
| 7                                | V. 120 - P. 558-559 |
| 8                                | V. 157 - P. 345-354 |
| 9                                | V. 157 - P. 345-354 |
| 11                               | V. 157 - P. 345-354 |

| SCENIC EASEMENT |             |
|-----------------|-------------|
| PARCEL 4        | DOC. 325073 |
| PARCEL 7        | DOC. 325073 |
| PARCEL 8        | DOC. 324397 |
| PARCEL 11       | DOC. 325213 |



## NOTES:

COORDINATES AND BEARINGS SHOWN ON THIS PLAT ARE REFERENCED TO THE WISCONSIN COUNTY COORDINATE SYSTEM, CHIPPEWA COUNTY ZONE, NAD83 (1991) ADJUSTMENT. THE COORDINATES SHOWN ARE GRID COORDINATES AND ARE TO BE USED AS GRID OR GROUND VALUES ON THIS PLAT.

RIGHT-OF-WAY MONUMENTS ARE TYPE 2 (TYPICALLY 3/4" X 24" REBAR WITH A WOOD CAP) AND WILL BE PLACED PRIOR TO THE COMPLETION OF THE PROJECT.

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

THE POINT OF INTERSECTIONS DESIGNATED WITH A 90000 SERIES NUMBER HAVE BEEN CREATED FOR THE PURPOSE OF SHOWING A CLOSED TRAVERSE. THE POINTS ARE INTENDED TO BE ON THE RIGHT-OF-WAY LINES BUT NOT NECESSARILY ON OR ANY PART OF A BOUNDARY, SIXTEENTH, QUARTER OR SECTION (P.L.S.S.) LINE. THESE POINTS WILL NOT BE MONUMENTED IN THE FIELD.

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

EXISTING HIGHWAY RIGHT-OF-WAY SHOWN HEREIN IS BASED ON THE FOLLOWING POINTS OF REFERENCE:  
EXISTING HIGHWAY RIGHT-OF-WAY FOR STH 178 ESTABLISHED FROM PREVIOUS PROJECTS 1054(6) AND 8600-01-22  
EXISTING HIGHWAY RIGHT-OF-WAY ESTABLISHED FROM STATUTE 82.31 USING EXISTING ALIGNMENTS.

A TEMPORARY LIMITED EASEMENT (TLE) IS A RIGHT FOR CONSTRUCTION PURPOSES, AS DEFINED HEREIN, INCLUDING THE RIGHT TO OPERATE NECESSARY EQUIPMENT THEREON AND THE RIGHT OF INGRESS AND EGRESS, AS LONG AS REQUIRED FOR SUCH PUBLIC PURPOSE, INCLUDING THE RIGHT TO PRESERVE, PROTECT, REMOVE, OR PLANT THEREON ANY VEGETATION THAT THE HIGHWAY AUTHORITIES MAY DEEM NECESSARY OR DESIRABLE. ALL TLES EXPIRE AT THE COMPLETION OF THE CONSTRUCTION PROJECT FOR WHICH THIS INSTRUMENT IS GIVEN.

A PERMANENT LIMITED EASEMENT (PLE) IS A RIGHT FOR CONSTRUCTION AND MAINTENANCE PURPOSES, AS DEFINED HEREIN, INCLUDING THE RIGHT TO OPERATE NECESSARY EQUIPMENT THEREON AND THE RIGHT OF INGRESS AND EGRESS, AS LONG AS REQUIRED FOR SUCH PUBLIC PURPOSE, INCLUDING THE RIGHT TO PRESERVE, PROTECT, REMOVE, OR PLANT THEREON ANY VEGETATION THAT THE HIGHWAY AUTHORITIES MAY DEEM NECESSARY OR DESIRABLE. BUT WITHOUT PREJUDICE TO THE OWNER'S RIGHT TO MAKE OR CONSTRUCT IMPROVEMENT ON SAID LANDS OR TO FLATTEN THE SLOPES, PROVIDING SAID ACTIVITIES WILL NOT IMPAIR OR OTHERWISE ADVERSELY AFFECT THE HIGHWAY FACILITIES.

| PARCEL    | UTILITY EASEMENT INFORMATION                     |
|-----------|--------------------------------------------------|
| PARCEL 4  | CENTURYLINK DOC. 586239                          |
| PARCEL 7  | CENTURYLINK DOC. 586239                          |
| PARCEL 8  | CENTURYLINK DOC. 586239                          |
| PARCEL 9  | CHIPPEWA VALLEY ELECTRIC COOPERATIVE DOC. 212765 |
| PARCEL 11 | CENTURYLINK DOC. 586239                          |
|           | CHIPPEWA VALLEY ELECTRIC COOPERATIVE DOC. 212765 |

| COURSE      | BEARING       | DISTANCE |
|-------------|---------------|----------|
| 1088-90031  | S 89°43'07" E | 215.38   |
| 90031-90045 | S 89°43'07" E | 122.24   |
| 90045-41011 | S 42°52'09" W | 98.93    |
| 90020-90017 | N 73°49'02" W | 75.00    |
| 40005-40006 | N 56°27'17" W | 15.00    |
| 40007-90031 | N 42°52'09" E | 16.21    |

| CURVE | LCB           | LCH    | L      | R       |
|-------|---------------|--------|--------|---------|
| C1    | S 29°31'33" W | 286.17 | 288.77 | 620.00  |
| C2    | N 24°51'50" E | 209.80 | 210.61 | 695.00  |
| C3    | N 42°32'51" E | 7.96   | 7.96   | 710.00  |
| C4    | N 44°43'20" E | 42.81  | 42.81  | 863.00  |
| C5    | S 45°12'00" W | 103.97 | 104.00 | 1278.14 |

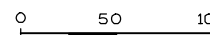
| UTILITY NUMBER | OWNERS                               | INTEREST REQUIRED |
|----------------|--------------------------------------|-------------------|
| 40             | CHIPPEWA VALLEY ELECTRIC COOPERATIVE | RELEASE OF RIGHTS |
| 50             | CENTURYLINK                          | RELEASE OF RIGHTS |

| PARCEL NUMBER | OWNERS                   | INTEREST REQUIRED | NEW  | EXISTING H.E. | TOTAL | TLE ACRES REQUIRED | PLE ACRES REQUIRED |
|---------------|--------------------------|-------------------|------|---------------|-------|--------------------|--------------------|
| 4             | CHERI RULAND, ETAL       | FEE, TLE & PLE    | 0.10 | 0.00          | 0.10  | 0.08               | 0.05               |
| 7             | MILROD V. SINGLETON      | FEE & TLE         | 0.02 | 0.00          | 0.02  | 0.07               | 0.00               |
| 8             | SYKORA ENTERPRISES CORP. | FEE & TLE         | 0.13 | 0.00          | 0.13  | 0.09               | 0.00               |
| 9             | HAAS SONS PROPERTIES LLC | FEE & TLE         | 0.24 | 0.00          | 0.24  | 0.27               | 0.00               |
| 11            | JOLEEN D. MINNICH        | FEE, TLE & PLE    | 0.29 | 0.00          | 0.29  | 0.05               | 0.03               |

| POINT | STATION    | OFFSET | NORTHING  | EASTING   |
|-------|------------|--------|-----------|-----------|
| 41011 | 1196+07.40 | 40.00  | 204294.53 | 218248.06 |
| 41012 | 1201+50.00 | 40.00  | 204692.20 | 218617.20 |
| 41013 | 1201+50.00 | 70.00  | 204671.79 | 218639.18 |
| 41014 | 1203+90.31 | 70.00  | 204847.91 | 218802.67 |
| 61000 | 1203+28.00 | 70.00  | 204802.25 | 218760.28 |
| 61001 | 1203+28.00 | 132.51 | 204769.52 | 218795.54 |
| 61002 | 1203+58.00 | 70.00  | 204824.24 | 218780.69 |
| 61003 | 1203+58.00 | 134.02 | 204788.38 | 218181.32 |
| 66011 | 1193+50.00 | 45.00  |           |           |
| 66012 | 1193+50.00 | 55.00  |           |           |
| 66013 | 1196+07.40 | 55.00  |           |           |
| 66015 | 1197+00.00 | 40.00  |           |           |
| 66016 | 1197+00.00 | 60.00  |           |           |
| 66017 | 1198+00.00 | 60.00  |           |           |
| 66018 | 1198+00.00 | 40.00  |           |           |
| 66019 | 1200+00.00 | 40.00  |           |           |
| 66020 | 1200+00.00 | 50.00  |           |           |
| 66021 | 1201+50.00 | 50.00  |           |           |
| 66022 | 1203+00.00 | 70.00  |           |           |
| 66023 | 1203+00.00 | 100.00 |           |           |
| 66024 | 1203+28.00 | 100.00 |           |           |
| 66025 | 1203+58.00 | 100.00 |           |           |
| 66026 | 1203+90.31 | 100.00 |           |           |
| 66064 | 1193+00.00 | 45.00  |           |           |

| COURSE      | BEARING       | DISTANCE |
|-------------|---------------|----------|
| 41013-61000 | N 42°52'09" E | 178.00   |
| 61000-61002 | N 42°52'09" E | 30.00    |
| 61002-61003 | S 47°07'51" E | 52.70    |
| 61003-61001 | S 51°34'36" W | 30.35    |
| 61001-61000 | N 47°07'51" W | 48.11    |

SCALE, FEET



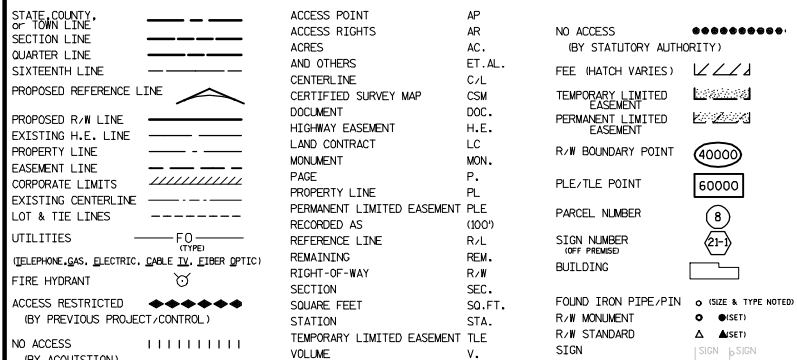
**FAA** Fleming, Andre & Associates, Inc.  
CONSULTING ENGINEERS  
3615 N. Hastings Way • Suite 100  
Eau Claire, WI 54601

I, JOHN T. MUELLER, REGISTERED LAND SURVEYOR, HEREBY CERTIFY THAT IN FULL COMPLIANCE WITH THE PROVISIONS OF SECTION 84.095 OF THE WISCONSIN STATUTES AND UNDER THE DIRECTION OF THE WISCONSIN DEPARTMENT OF TRANSPORTATION, I HAVE SURVEYED TRANSPORTATION PROJECT PLAT 8600-02-24-4.03 AND THAT SUCH PLAT CORRECTLY REPRESENTS ALL EXTERIOR BOUNDARIES OF THE SURVEYED LAND.



DATE 8/6/2012  
John T. Mueller  
THIS PLAT AND RELOCATION ORDER ARE APPROVED FOR THE WISCONSIN DEPARTMENT OF TRANSPORTATION.  
DATE 8/6/2012  
Michael Piller  
Michael Piller

## CONVENTIONAL SYMBOLS AND ABBREVIATIONS



## ALIGNMENT DATA STH 178

|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 |
|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| PISTA 1194+19.76<br>Y = 204175.81<br>X = 218083.28<br>PISTA 1205+52.16<br>Y = 205014.16<br>X = 218861.48<br>DELTA = 13°41'30" Right<br>D = 04°15'00"<br>T = 161.85<br>L = 322.16<br>R = 1348.14<br>LCB = N 49°42'54" E<br>BBK = N 42°52'09" E<br>PC STA 1203+90.31<br>Y = 218751.37<br>X = 204895.54<br>PT STA 1207+12.47<br>Y = 205103.35<br>X = 218896.54<br>BAH = N 56°33'39" E<br>Y = 205250.06<br>X = 219218.71<br>T = 136.36<br>D = 04°10'35" Left<br>D = 02°16'13"<br>T = 92.02<br>L = 183.96<br>R = 2523.70<br>LCB = 183.92<br>LCB = N 54°28'22" E<br>BBK = N 56°33'39" E<br>PC STA 1208+86.69<br>Y = 205199.35<br>X = 219141.92<br>PT STA 1210+70.65<br>Y = 205306.23<br>X = 219291.60<br>BAH = N 52°23'04" E | PISTA 1212+83.04<br>Y = 205435.86<br>X = 219459.84<br>DELTA = 07°58'24" Right<br>D = 07°58'24"<br>T = 50.08<br>L = 100.00<br>R = 718.60<br>LCB = 99.92<br>LCB = N 56°22'16" E<br>BBK = N 52°23'04" E<br>PC STA 1212+32.96<br>Y = 205405.29<br>X = 219420.17<br>PT STA 1213+32.96<br>Y = 205460.63<br>X = 219503.37<br>BAH = N 60°21'28" E<br>PISTA 1216+57.76<br>Y = 205621.27<br>X = 219785.66<br>DELTA = 05°27'01" Right<br>D = 02°00'00"<br>T = 136.36<br>L = 272.52<br>R = 2864.79<br>LCB = 272.41<br>LCB = N 63°04'58" E<br>BBK = N 60°21'28" E<br>PC STA 1215+21.40<br>Y = 205553.83<br>X = 219667.14<br>PT STA 1217+93.91<br>Y = 205677.15<br>X = 219910.05<br>BAH = N 56°48'29" E<br>PISTA 1222+30.64<br>Y = 205856.12<br>X = 220308.42 |
|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|

## ALIGNMENT DATA CTH ZZ

|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |
|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| POB STA 0+00.00<br>X = 205289.13<br>Y = 218714.91<br>PISTA 1+00.00<br>X = 205231.97<br>Y = 218796.96<br>PISTA 2+04.08<br>Y = 205172.48<br>X = 218882.36<br>DELTA = 19°28'23" Right<br>D = 16°22'13"<br>T = 60.06<br>L = 118.95<br>R = 350.00<br>LCB = 118.95<br>LCB = S 45°24'08" E<br>BBK = S 65°08'20" E<br>PC STA 1+44.02<br>Y = 205206.81<br>X = 218833.08<br>PT STA 2+62.97<br>Y = 205123.69<br>X = 218917.37<br>BAH = S 35°39'57" E<br>POE STA 3+24.64<br>Y = 205073.59<br>X = 218953.33 |
|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|

| COURSE      | BEARING       | DISTANCE |
|-------------|---------------|----------|
| 40015-30100 | S 52°28'56" W | 16.71    |
| 60003-60004 | N 36°00'42" W | 36.86    |
| 60005-40016 | S 37°22'26" E | 30.00    |
| 40016-40015 | S 37°22'26" E | 6.37     |

| CURVE | LCB           | LCH   | L     | R       |
|-------|---------------|-------|-------|---------|
| C9    | S 52°57'59" W | 42.50 | 42.50 | 2513.48 |
| C10   | N 53°48'26" E | 58.33 | 58.34 | 2453.70 |

EASEMENT TO DRAW SPRING WATER FROM GROUND LOCATED WITHIN THE BOUNDARY OF PARCEL 13 RECORDED IN V. 198-P. 206

TOWN

GOV'T LOT 4

SEC 26

P.L.

TLE FOR SLOPES

C1

65027

65028

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## TRANSPORTATION PROJECT PLAT NO: 8600-02-24 - 4.04

THAT PART OF GOV'T LOT 3 AND GOV'T LOT 4 OF SECTION 26, ALL IN T-31-N, R-7-W, TOWN OF CLEVELAND, CHIPPEWA COUNTY, WISCONSIN

RELOCATION ORDER STH 178, CHIPPEWA FALLS - CORNELL (CTH R TO STH 64), CHIPPEWA COUNTY

TO PROPERLY ESTABLISH, LAY OUT, WIDEN, ENLARGE, EXTEND, CONSTRUCT, RECONSTRUCT, IMPROVE, OR MAINTAIN A PORTION OF THE HIGHWAY DESIGNATED ABOVE, THE STATE OF WISCONSIN DEPARTMENT OF TRANSPORTATION DEEMS IT NECESSARY TO RELOCATE OR CHANGE SAID HIGHWAY AND ACQUIRE CERTAIN LANDS AND INTERESTS OR RIGHTS IN LANDS FOR THE ABOVE PROJECT.

TO EFFECT THIS CHANGE, PURSUANT TO AUTHORITY GRANTED UNDER SECTION 84.02 (3) AND 84.09, WISCONSIN STATUTES, THE DEPARTMENT OF TRANSPORTATION HEREBY ORDERS THAT:

1. THAT PORTION OF SAID HIGHWAY AS SHOWN ON THIS PLAT IS LAY OUT AND ESTABLISHED TO THE LINES AND WIDTHS AS SO SHOWN FOR THE ABOVE PROJECT.  
2. THE LANDS OR INTERESTS OR RIGHTS IN LANDS AS SHOWN ON THIS PLAT ARE REQUIRED BY THE DEPARTMENT FOR THE ABOVE PROJECT AND SHALL BE ACQUIRED IN THE NAME OF THE STATE OF WISCONSIN, PURSUANT TO THE PROVISIONS OF SECTION 84.09 (1) OR (2), WISCONSIN STATUTES.

THE STATE OF WISCONSIN HAS DEEMED IT NECESSARY TO MONUMENT RIGHT-OF-WAY INTERESTS PREVIOUSLY ACQUIRED UNDER SECTIONS 82.01, 82.31(1), 82.31(2) AND 84.09 OF THE WISCONSIN STATE STATUTES AND DOES HEREBY CERTIFY THE DEPARTMENT OF TRANSPORTATION HAS SURVEYED THE HIGHWAY RIGHT-OF-WAY; THAT THIS PLAT IS A TRUE AND CORRECT REPRESENTATION OF THE EXTERIOR BOUNDARIES OF THE LAND SURVEYED AND SHOWS ACCURATE MEASUREMENTS THEREOF.

| COURSE      | BEARING       | DISTANCE |
|-------------|---------------|----------|
| 40015-30100 | S 52°28'56" W | 16.71    |
| 60003-60004 | N 36°00'42" W | 36.86    |
| 60005-40016 | S 37°22'26" E | 30.00    |
| 40016-40015 | S 37°22'26" E | 6.37     |

| CURVE | LCB           | LCH   | L     | R       |
|-------|---------------|-------|-------|---------|
| C9    | S 52°57'59" W | 42.50 | 42.50 | 2513.48 |
| C10   | N 53°48'26" E | 58.33 | 58.34 | 2453.70 |

EASEMENT TO DRAW SPRING WATER FROM GROUND LOCATED WITHIN THE BOUNDARY OF PARCEL 13 RECORDED IN V. 198-P. 206

TOWN

GOV'T LOT 4

SEC 26

P.L.

TLE FOR SLOPES

C1

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65076

65077

65078

65079

65080

65081

65082

CLEVELAND

MEANDER LINE

EXIST R/W

MATCH LINE 1205+00

MATCH LINE 1217+00

MATCH LINE 1217+00

811706

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3:18 PM

MARGE L. GEISSLER

REGISTER OF DEEDS

FEE EXEMPT:

CHIPPEWA COUNTY, WI

PAGES: 1

RESERVED FOR REGISTER OF DEEDS  
PROJECT NUMBER 8600-02-24-4.04  
AMENDMENT NO:

CHIPPEWA RIVER

FLOWAGE RIGHTS

PARCEL V. - P.

11 V. 157 - P. 345-354

12 V. 157 - P. 345-354

13 V. 157 - P. 345-354

14 V. 157 - P. 345-354

SCENIC EASEMENT

PARCEL 11 DOC. 324397

PARCEL 11 DOC. 325213

PARCEL 12 DOC. 323878

PARCEL 13 DOC. 324398

PARCEL 14 DOC. 324150

PARCEL 14 DOC. 325213

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## CURVE DATA

LONG CHORD

LONG CHORD BEARING

RADIUS

DEGREE OF CURVE

CENTRAL ANGLE OR DELTA

LENGTH OF CURVE

TANGENT

LCH

LCB

R

D

DELTA

L

TAN

POWER POLE

TELEPHONE POLE

TELEPHONE PEDESTAL

GUY POLE

SECTION CORNER

1088

FOUND 1 1/4" IRON PIPE

Y = 204368.69

X = 217977.74

ALIGNMENT TIE: 1088 TO

STA 1196+69.57 = 283.29

S089°43'07"E

P.L.

T



## CONVENTIONAL SYMBOLS AND ABBREVIATIONS

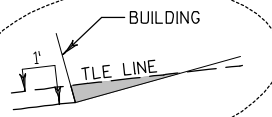
STATE, COUNTY, OR TOWN LINE  
SECTION LINE  
QUARTER LINE  
SIXTEENTH LINE  
PROPOSED REFERENCE LINE  
PROPOSED R/W LINE  
EXISTING H.E. LINE  
PROPERTY LINE  
EASEMENT LINE  
CORPORATE LIMITS  
EXISTING CENTERLINE  
LOT & TIE LINES  
UTILITIES  
(TELEPHONE, GAS, ELECTRIC, CABLE TV, FIBER OPTIC)  
FIRE HYDRANT  
ACCESS RESTRICTED  
(BY PREVIOUS PROJECT/CONTROL)  
NO ACCESS  
(BY ACQUISITION)

ACCESS POINT  
ACCESS RIGHTS  
ACRES  
AND OTHERS  
CENTERLINE  
DOCUMENT  
HIGHWAY EASEMENT  
LAND CONTRACT  
MONUMENT  
PAGE  
PROPERTY LINE  
PERMANENT LIMITED EASEMENT  
RECORDED AS  
REFERENCE LINE  
REMAINING  
RIGHT-OF-WAY  
SECTION  
SQUARE FEET  
STATION  
TEMPORARY LIMITED EASEMENT  
VOLUME

AP  
AC.  
ET AL.  
C/L  
CSM  
DOC.  
H.E.  
LC  
MON.  
P.  
PL  
PLE  
(100')  
R/L  
REM.  
R/W  
SEC.  
SQ. FT.  
STA.  
V.  
NO ACCESS  
(BY STATUTORY AUTHORITY)  
FEE (HATCH VARIES)  
TEMPORARY LIMITED EASEMENT  
PERMANENT LIMITED EASEMENT  
R/W BOUNDARY POINT  
PLE/TLE POINT  
PARCEL NUMBER  
SIGN NUMBER  
(OFF PREMISES)  
BUILDING  
FOUND IRON PIPE/POIN  
R/W MONUMENT  
R/W STANDARD SIGN

## ALIGNMENT DATA STH 178

PISTA 1216+57.76  
Y = 205621.27  
X = 219785.66  
DELTA = 05°27'01" Right  
T = 136.36  
L = 272.52  
R = 2864.79  
LCB = 272.41  
LCB = N 63°04'58" E  
BBK = N 60°21'28" E  
PC STA 1215+21.40  
Y = 205553.83  
X = 219667.14  
PT STA 1217+93.91  
Y = 205617.35  
X = 219910.05  
BAH = N 65°48'29" E  
PISTA 1222+30.64  
Y = 205856.12  
X = 220308.42  
DELTA = 19°17'11" Right  
D = 04°29'38"  
T = 216.64  
L = 429.18  
R = 1275.00  
LCB = 427.16  
LCB = N 75°27'04" E  
BBK = N 65°48'29" E  
PC STA 1220+14.00  
Y = 205767.34  
X = 220110.81  
PT STA 1224+43.18  
Y = 205874.65  
X = 220524.27  
BAH = N 85°05'40" E



## TRANSPORTATION PROJECT PLAT NO: 8600-02-24 - 4.05

THAT PART OF GOV'T LOT 2 AND GOV'T LOT 3 OF SECTION 26,  
ALL IN T-31-N, R-7-W, TOWN OF CLEVELAND, CHIPPEWA COUNTY, WISCONSIN

RELOCATION ORDER STH 178, CHIPPEWA FALLS - CORNELL (CTH R TO STH 64), CHIPPEWA COUNTY

TO PROPERLY ESTABLISH, LAY OUT, WIDEN, ENLARGE, EXTEND, CONSTRUCT, RECONSTRUCT, IMPROVE, OR MAINTAIN A PORTION OF THE HIGHWAY DESIGNATED ABOVE, THE STATE OF WISCONSIN DEPARTMENT OF TRANSPORTATION DEEMS IT NECESSARY TO RELOCATE OR CHANGE SAID HIGHWAY AND ACQUIRE CERTAIN LANDS AND INTERESTS OR RIGHTS IN LANDS FOR THE ABOVE PROJECT.

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811707

RECORDED ON

08/20/2012

3:19 PM

MARGE L. GEISSLER

REGISTER OF DEEDS

FEE EXEMPT:

CHIPPEWA COUNTY, WI

PAGES: 1

RESERVED FOR REGISTER OF DEEDS  
PROJECT NUMBER 8600-02-24-4.05  
AMENDMENT NO:

## CURVE DATA

LONG CHORD  
LONG CHORD BEARING  
RADIUS  
DEGREE OF CURVE  
CENTRAL ANGLE OR DELTA  
LENGTH OF CURVE  
TANGENT

POWER POLE  
TELEPHONE POLE  
TELEPHONE PEDESTAL  
GUY POLE

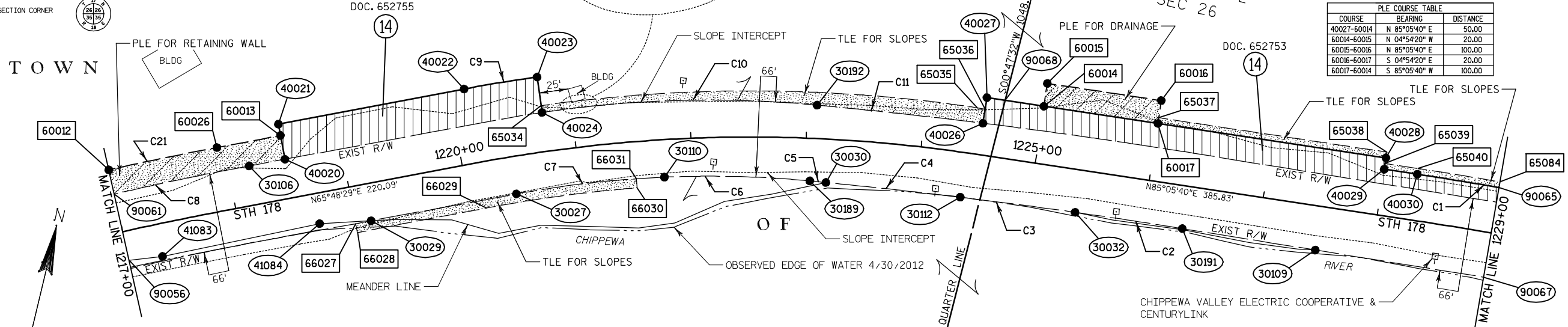


| PLE COURSE TABLE |               |          |
|------------------|---------------|----------|
| COURSE           | BEARING       | DISTANCE |
| 40020-30106      | S 66°02'43" W | 31.59    |
| 90061-60012      | N 26°04'13" W | 21.58    |
| 60026-60013      | N 65°48'29" E | 56.09    |
| 60013-40020      | S 24°11'31" E | 20.99    |

| PLE CURVE TABLE |               |        |        |         |
|-----------------|---------------|--------|--------|---------|
| CURVE           | LCB           | LCH    | L      | R       |
| C8              | S 64°43'05" W | 119.51 | 119.52 | 2579.48 |
| C21             | N 64°52'08" E | 95.71  | 95.71  | 2919.79 |

| CURVE TABLE |               |        |        |         |
|-------------|---------------|--------|--------|---------|
| CURVE       | LCB           | LCH    | L      | R       |
| C1          | N 85°43'48" E | 71.87  | 71.87  | 3240.00 |
| C2          | S 85°08'25" W | 94.06  | 94.06  | 4967.00 |
| C3          | S 84°10'09" W | 100.31 | 100.31 | 4967.00 |
| C4          | S 82°45'50" W | 117.30 | 117.31 | 4967.00 |
| C5          | S 82°00'25" W | 13.97  | 13.97  | 4967.00 |
| C6          | S 78°00'12" W | 126.15 | 126.25 | 921.93  |
| C7          | S 70°03'46" W | 129.18 | 129.29 | 921.93  |
| C8          | N 64°43'05" E | 119.51 | 119.52 | 2579.48 |
| C9          | N 67°10'43" E | 64.10  | 64.11  | 1340.00 |
| C10         | N 74°59'29" E | 238.57 | 239.16 | 987.93  |
| C11         | N 82°45'02" E | 144.83 | 144.83 | 5033.00 |

| PLE COURSE TABLE |               |          |
|------------------|---------------|----------|
| COURSE           | BEARING       | DISTANCE |
| 40021-60014      | N 85°05'40" E | 50.00    |
| 60014-60015      | N 04°54'20" W | 20.00    |
| 60015-60016      | N 85°05'40" E | 100.00   |
| 60016-60017      | S 04°54'20" E | 20.00    |
| 60017-60014      | S 85°05'40" W | 100.00   |



## NOTES:

COORDINATES AND BEARINGS SHOWN ON THIS PLAT ARE REFERENCED TO THE WISCONSIN COUNTY COORDINATE SYSTEM, CHIPPEWA COUNTY ZONE, NAD83 (1999) ADJUSTMENT. THE COORDINATES SHOWN ARE GRID COORDINATES AND ARE TO BE USED AS GRID OR GROUND VALUES ON THIS PLAT.

RIGHT-OF-WAY MONUMENTS ARE TYPE 2 (TYPICALLY 3/4" X 24" REBAR WITH A WOOD CAP) AND WILL BE PLACED PRIOR TO THE COMPLETION OF THE PROJECT.

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

THE POINT OF INTERSECTIONS DESIGNATED WITH A 90000 SERIES NUMBER HAVE BEEN CREATED FOR THE PURPOSE OF SHOWING A CLOSED TRAVERSE. THE POINTS ARE INTENDED TO BE ON THE RIGHT-OF-WAY LINES BUT NOT NECESSARILY ON OR ANY PART OF A BOUNDARY, SIXTEENTH, QUARTER OR SECTION (P.L.S.S.) LINE. THESE POINTS WILL NOT BE MONUMENTED IN THE FIELD.

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

EXISTING HIGHWAY RIGHT-OF-WAY SHOWN HEREIN IS BASED ON THE FOLLOWING POINTS OF REFERENCE:  
EXISTING HIGHWAY RIGHT-OF-WAY FOR STH 178 ESTABLISHED FROM PREVIOUS PROJECTS T054(6) AND 8600-01-22  
EXISTING HIGHWAY RIGHT-OF-WAY ESTABLISHED FROM STATUTE 82.31 USING EXISTING ALIGNMENTS.

A TEMPORARY LIMITED EASEMENT (TLE) IS A RIGHT FOR CONSTRUCTION PURPOSES, AS DEFINED HEREIN, INCLUDING THE RIGHT TO OPERATE NECESSARY EQUIPMENT THEREON AND THE RIGHT OF INGRESS AND EGRESS, AS LONG AS REQUIRED FOR SUCH PUBLIC PURPOSE, INCLUDING THE RIGHT TO PRESERVE, PROTECT, REMOVE, OR PLANT THEREON ANY VEGETATION THAT THE HIGHWAY AUTHORITIES MAY DEEM NECESSARY OR DESIRABLE. ALL TLES EXPIRE AT THE COMPLETION OF THE CONSTRUCTION PROJECT FOR WHICH THIS INSTRUMENT IS GIVEN.

A PERMANENT LIMITED EASEMENT (PLE) IS A RIGHT FOR CONSTRUCTION AND MAINTENANCE PURPOSES, AS DEFINED HEREIN, INCLUDING THE RIGHT TO OPERATE NECESSARY EQUIPMENT THEREON AND THE RIGHT OF INGRESS AND EGRESS, AS LONG AS REQUIRED FOR SUCH PUBLIC PURPOSE, INCLUDING THE RIGHT TO PRESERVE, PROTECT, REMOVE, OR PLANT THEREON ANY VEGETATION THAT THE HIGHWAY AUTHORITIES MAY DEEM NECESSARY OR DESIRABLE. BUT WITHOUT PREJUDICE TO THE OWNER'S RIGHT TO MAKE OR CONSTRUCT IMPROVEMENT ON SAID LANDS OR TO FLATTEN THE SLOPES, PROVIDING SAID ACTIVITIES WILL NOT IMPAIR OR OTHERWISE ADVERSELY AFFECT THE HIGHWAY FACILITIES.

| R/W POINT TABLE |            |        |           |           |
|-----------------|------------|--------|-----------|-----------|
| POINT           | STATION    | OFFSET | NORTHING  | EASTING   |
| 30106           | 1218+18.41 | -34.14 | 205718.33 | 219918.40 |
| 30192           | 1223+08.10 | -28.92 | 205884.39 | 220385.03 |
| 40020           | 1218+50.00 | -34.01 | 205731.16 | 219947.27 |
| 40021           | 1218+50.00 | -65.00 | 205759.43 | 219934.57 |
| 40022           | 1220+14.00 | -65.00 | 205826.63 | 220084.17 |
| 40023           | 1220+75.00 | -65.00 | 205851.50 | 220143.25 |
| 40024           | 1220+75.00 | -33.96 | 205822.61 | 220154.61 |
| 40026           | 1224+50.00 | -27.53 | 205902.66 | 220528.70 |
| 40027           | 1224+50.00 | -50.00 | 205925.05 | 220526.78 |
| 40028           | 1228+00.00 | -50.00 | 205954.98 | 220815.50 |
| 40029           | 1228+00.00 | -40.00 | 205945.01 | 220816.36 |
| 40030           | 1228+29.02 | -40.00 | 205947.49 | 220905.27 |
| 60012           | 1217+00.00 | -55.00 | 205686.67 | 219800.86 |
| 60013           | 1218+50.00 | -55.00 | 205750.30 | 219938.67 |
| 60014           | 1225+00.00 | -50.00 | 205929.32 | 220576.60 |
| 60015           | 1225+00.00 | -70.00 | 205949.25 | 220574.89 |
| 60016           | 1226+00.00 | -70.00 | 205957.80 | 220674.52 |
| 60017           | 1226+00.00 | -50.00 | 205937.87 | 220676.23 |
| 60026           | 1217+93.91 | -55.00 | 205727.32 | 219887.51 |
| 65034           | 1220+75.00 | -40.00 |           |           |
| 65035           | 1224+43.18 | -40.00 |           |           |
| 65036           | 1224+50.00 | -40.00 |           |           |
| 65037           | 1226+00.00 | -55.00 |           |           |
| 65038           | 1228+00.00 | -55.00 |           |           |
| 65039           | 1228+00.00 | -45.00 |           |           |
| 65040           | 1228+29.02 | -45.00 |           |           |
| 65084           | 1229+00.00 | -45.00 |           |           |

| SCHEDULE OF LANDS AND INTERESTS REQUIRED |                      |                   |                    |               |       |
|------------------------------------------|----------------------|-------------------|--------------------|---------------|-------|
| PARCEL NUMBER                            | OWNERS               | INTEREST REQUIRED | R/W ACRES REQUIRED |               |       |
|                                          |                      |                   | NEW                | EXISTING H.E. | TOTAL |
| 14                                       | SANDRA L. THON, ETAL | FEE, TLE & PLE    | 0.36               | 0.00          | 0.36  |

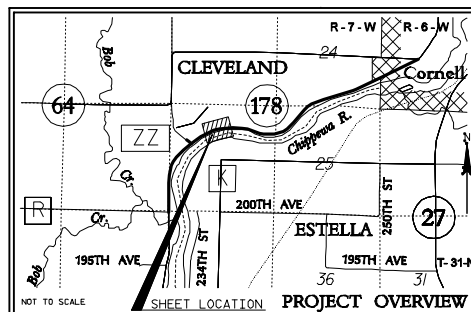
OWNER NAMES ARE SHOWN FOR REFERENCE PURPOSES ONLY AND ARE SUBJECT TO CHANGE PRIOR TO THE TRANSFER OF LAND INTERESTS TO THE DEPARTMENT

| COURSE TABLE |               |          |
|--------------|---------------|----------|
| COURSE       | BEARING       | DISTANCE |
| 90068-40028  | N 85°05'40" E | 333.95   |
| 40028-40029  | S 04°54'20" E | 10.00    |
| 40029-40030  | N 85°05'40" E | 29.02    |
| 90065-90067  | S 03°38'05" E | 78.90    |
| 90067-30109  | S 64°45'33" W | 147.83   |
| 30109-30191  | S 85°40'58" W | 116.87   |
| 30027-30029  | S 76°02'43" W | 128.21   |
| 30029-41084  | S 73°22'03" W | 44.57    |
| 41084-41083  | S 64°45'33" W | 139.24   |
| 41083-90056  | S 69°38'52" W | 29.27    |
| 90056-90061  | N 26°04'13" W | 58.88    |
| 30106-40020  | N 66°02'43" E | 31.59    |
| 40020-40021  | N 24°11'31" W | 30.99    |
| 40021-40022  | N 65°48'29" E | 164.00   |
| 40023-40024  | S 21°27'03" E | 31.04    |
| 40026-40027  | N 04°54'20" E | 22.47    |
| 40027-90068  | N 85°05'40" E | 16.05    |

| R/W POINT TABLE |            |        |           |           |
|-----------------|------------|--------|-----------|-----------|
| POINT           | STATION    | OFFSET | NORTHING  | EASTING   |
| 30027           | 1220+42.38 | 32.48  | 205748.77 | 220149.47 |
| 30029           | 1219+13.45 | 32.25  | 205696.72 | 220032.31 |
| 30030           | 1223+19.03 | 37.67  | 205820.98 | 220408.14 |
| 30032           | 1225+40.39 | 36.88  | 205846.21 | 220624.27 |
| 30109           | 1227+51.31 | 38.16  | 205862.98 | 220834.53 |
| 30180           | 1221+75.00 | 32.48  | 205792.82 | 220270.91 |
| 30112           | 1224+40.00 | 38.76  | 205835.76 | 220524.51 |
| 30189           | 1223+04.66 | 36.99  | 205819.04 | 220394.30 |
| 30191           | 1226+34.45 | 36.96  | 205854.18 | 220717.99 |
| 41083           | 1217+29.41 | 28.22  | 205624.58 | 219863.66 |
| 41084           | 1218+69.27 | 26.39  | 205683.96 | 219989.60 |
| 66027           | 1219+00.00 | 32.20  |           |           |
| 66028           | 1219+00.00 | 40.00  |           |           |
| 66029           | 1220+14.00 | 40.00  |           |           |
| 66030           | 1221+50.00 | 40.00  |           |           |
| 66031           | 1221+50.00 | 32.12  |           |           |

## UTILITY EASEMENT INFORMATION

PARCEL 14 CENTURYLINK DOC. 586239



**FAA** Fleming, Andre & Associates, Inc.  
CONSULTING ENGINEERS  
3615 N. Hastings Way • Suite 100  
Eau Claire, WI 54601

I, JOHN T. MUELLER, REGISTERED LAND SURVEYOR, HEREBY CERTIFY THAT IN FULL COMPLIANCE WITH THE PROVISIONS OF SECTION 84.095 OF THE WISCONSIN STATUTES AND UNDER THE DIRECTION OF THE WISCONSIN DEPARTMENT OF TRANSPORTATION, I HAVE SURVEYED TRANSPORTATION PROJECT PLAT 8600-02-24-4.05 AND THAT SUCH PLAT CORRECTLY REPRESENTS ALL EXTERIOR BOUNDARIES OF THE SURVEYED LAND.

DATE 8/15/2012



THIS PLAT AND RELOCATION ORDER ARE APPROVED FOR THE WISCONSIN DEPARTMENT OF TRANSPORTATION.

DATE 8/15/2012

Michael Piller  
Michael Piller

## 813339

RESERVED FOR REGISTER OF DEEDS  
PROJECT NUMBER 8600-02-24-4.06  
AMENDMENT NO:

RELOCATION ORDER STH 178, CHIPPEWA FALLS - CORNELL (CTH R TO STH 64), CHIPPEWA COUNTY

TO EFFECT THIS CHANGE, PURSUANT TO AUTHORITY GRANTED UNDER SECTION 84.02 (3) AND 84.09, WISCONSIN STATUTES, THE DEPARTMENT OF TRANSPORTATION HEREBY ORDERS THAT:

1. THAT PORTION OF SAID HIGHWAY AS SHOWN ON THIS PLAT IS LAID OUT AND ESTABLISHED TO THE LINES AND WIDTHS AS SO SHOWN FOR THE ABOVE PROJECT.

2. THE LANDS OR INTERESTS OR RIGHTS IN LANDS AS SHOWN ON THIS PLAT ARE REQUIRED BY THE DEPARTMENT FOR THE ABOVE PROJECT AND SHALL BE ACCORDING TO THE NAME OF THE STATE OF WISCONSIN, PURSUANT TO THE PROVISIONS OF SECTION 84.09 (1) OR (2), WISCONSIN STATUTES.

THE STATE OF WISCONSIN HAS DEEMED IT NECESSARY TO MONUMENT RIGHT-OF-WAY INTERESTS PREVIOUSLY ACQUIRED UNDER SECTIONS 82.01, 82.31(1), 82.31(2) AND 84.09 OF THE WISCONSIN STATE STATUTES AND DOES HEREBY CERTIFY THE DEPARTMENT OF TRANSPORTATION HAS SURVEYED THE HIGHWAY RIGHT-OF-WAY; THAT THIS PLAT IS A TRUE AND CORRECT REPRESENTATION OF THE EXTERIOR BOUNDARIES OF THE LAND SURVEYED AND SHOWS ACCURATE MEASUREMENTS THEREOF.

| PLE COURSE TABLE |               |          |
|------------------|---------------|----------|
| COURSE           | BEARING       | DISTANCE |
| 40038-40037      | N 23°39'32" E | 6.05     |
| 40037-60018      | N 23°39'32" E | 10.00    |
| 60018-60019      | S 66°20'28" E | 87.38    |
| 60019-60020      | S 23°39'32" W | 15.21    |
| 60020-40038      | N 66°53'28" W | 87.38    |

| CURVE TABLE |               |        |        |         |
|-------------|---------------|--------|--------|---------|
| CURVE       | LCB           | LCH    | L      | R       |
| C1          | N 88°36'13" E | 253.06 | 253.12 | 3240.00 |
| C2          | S 81°17'00" E | 252.40 | 252.48 | 2933.00 |
| C4          | S 82°25'51" E | 244.24 | 244.31 | 2933.00 |
| C5          | S 79°16'20" E | 23.85  | 23.85  | 884.59  |
| C4          | T 72°23'11" E | 173.44 | 173.46 | 823.45  |
| C5          | S 67°29'57" E | 29.70  | 29.70  | 1399.40 |
| C7          | N 67°32'14" W | 64.29  | 64.29  | 1540.00 |
| C8          | N 73°44'25" W | 17.78  | 18.04  | 818.59  |
| C9          | S 82°25'51" W | 238.90 | 238.97 | 2867.00 |
| C10         | N 86°47'51" W | 197.83 | 197.87 | 2867.00 |
| C11         | S 88°27'15" W | 277.24 | 277.35 | 2867.00 |

|                         |                         |
|-------------------------|-------------------------|
| PISTA 1222+30.64        | PISTA 1237+55.87        |
| Y = 205856.38           | Y = 205856.38           |
| X = 220308.42           | X = 221832.28           |
| DELTA = 19°17'11" Right | DELTA = 14°37'33" Right |
| D = 04°29'38"           | D = 07°18'48"           |
| T = 216.64              | T = 100.54              |
| L = 429.18              | L = 199.99              |
| R = 1275.00             | R = 783.45              |
| LCB = 427.16            | LCB = 199.45            |
| LCB = N 75°27'04" E     | LCB = S 73°39'15" E     |
| BBK = N 65°48'29" E     | BBK = S 80°58'02" E     |
| PT STA 1220+14.00       | PT STA 1236+55.33       |
| X = 205767.34           | Y = 205872.17           |
| X = 220110.81           | X = 221319.98           |
| PT STA 1224+43.18       | PT STA 1238+55.32       |
| Y = 205874.65           | Y = 205861.03           |
| X = 220524.27           | X = 221923.37           |
| BAH = N 85°05'40" E     | BAH = S 66°20'28" E     |
| PISTA 1232+30.09        | PISTA 1243+92.85        |
| Y = 205941.08           | Y = 205600.33           |
| X = 221298.42           | X = 222415.72           |
| DELTA = 13°56'18" Right | DELTA = 26°39'50" Left  |
| D = 01°47'26"           | D = 03°49'11"           |
| T = 391.17              | T = 355.47              |
| L = 778.47              | L = 698.06              |
| R = 3200.00             | R = 1500.00             |
| LCB = 776.55            | LCB = 691.78            |
| LCB = S 87°56'11" E     | LCB = S 79°40'23" E     |
| BBK = N 85°05'40" E     | BBK = S 66°20'28" E     |
| PT STA 1228+29.02       | PT STA 1240+37.38       |
| X = 205907.64           | X = 205742.98           |
| X = 220908.69           | X = 222090.13           |
| PT STA 1236+07.49       | PT STA 1247+35.44       |
| Y = 205879.67           | Y = 205618.96           |
| X = 221684.73           | X = 222770.70           |
| BAH = S 80°58'02" E     | BAH = N 86°59'42" E     |

| UTILITY EASEMENT INFORMATION |                                                  |  |
|------------------------------|--------------------------------------------------|--|
| PARCEL 14                    | CENTURYLINK DOC. 586239                          |  |
| PARCEL 16                    | CHIPPewa VALLEY ELECTRIC COOPERATIVE DOC. 212879 |  |
|                              | CENTURYLINK DOC. 586239                          |  |
| PARCEL 17                    | CHIPPewa VALLEY ELECTRIC COOPERATIVE DOC. 212840 |  |
|                              | CHIPPewa VALLEY ELECTRIC COOPERATIVE DOC. 212879 |  |
| PARCEL 18                    | CHIPPewa VALLEY ELECTRIC COOPERATIVE DOC. 212840 |  |
|                              | CHIPPewa VALLEY ELECTRIC COOPERATIVE DOC. 742034 |  |
|                              | CENTURYLINK DOC. 586239                          |  |

| MEANDER LINE AND OBSERVED<br>EDGE OF WATER SEPERATION |          |
|-------------------------------------------------------|----------|
| R/W OR TLE POINT                                      | DISTANCE |
| 30033                                                 | 4'       |
| 41025                                                 | 5'       |
| 41026                                                 | 4'       |
| 61026                                                 | 7'       |
| 41027                                                 | 12'      |
| 41028                                                 | 3'       |
| 61025                                                 | 4'       |
| 61024                                                 | 4'       |

| CHIPPEWA RIVER<br>FLOWAGE RIGHTS |                     |
|----------------------------------|---------------------|
| PARCEL                           | V. - P.             |
| 14                               | V. 157 - P. 345-354 |
| 16                               | V. 157 - P. 345-354 |
| 17                               | V. 157 - P. 345-354 |
| 18                               | V. 157 - P. 345-354 |

|       |            | R/W POINT TABLE |           |           |
|-------|------------|-----------------|-----------|-----------|
| POINT | STATION    | OFFSET          | NORTHING  | EASTING   |
| 30033 | 1229+19.48 | 38.61           | 205875.55 | 221001.13 |
| 30035 | 1236+41.16 | 34.30           | 205840.52 | 22172.60  |
| 30036 | 1236+66.99 | 34.62           | 205835.14 | 221731.54 |
| 30194 | 1232+00.00 | 34.87           | 205883.03 | 221728.26 |
| 30195 | 1234+00.00 | 33.75           | 20581.98  | 221475.78 |
| 41007 | 1238+55.32 | 33.00           | 205785.81 | 221910.13 |
| 41021 | 1238+55.32 | 40.00           | 205779.40 | 221907.32 |
| 41022 | 1240+37.38 | 40.00           | 205706.34 | 222074.08 |
| 41025 | 1238+86.01 | 40.00           | 205767.08 | 221935.43 |
| 41026 | 1239+50.00 | 40.00           | 205741.40 | 221994.04 |
| 41027 | 1239+70.59 | 40.00           | 205733.14 | 22202.90  |
| 41028 | 1240+01.14 | 40.00           | 205720.88 | 222040.88 |
| 61024 | 1240+37.38 | 42.93           | 205703.65 | 222072.90 |
| 61025 | 1240+06.31 | 51.39           | 205708.37 | 222041.05 |
| 61026 | 1239+66.77 | 43.48           | 205731.48 | 222008.01 |
| 66065 | 1241+00.00 | 50.00           | _____     | _____     |
| 66077 | 1240+66.29 | 50.00           | _____     | _____     |

| COURSE TABLE |               |          |
|--------------|---------------|----------|
| COURSE       | BEARING       | DISTANCE |
| 40031-40032  | S 00°50'30" W | 9.35     |
| 30015-30016  | S 80°02'41" E | 25.32    |
| 40034-40035  | N 1°34'07" E  | 8.62     |
| 40036-40037  | S 66°20'28" E | 94.68    |
| 40037-40038  | S 23°39'32" E | 6.05     |
| 40038-30019  | S 65°53'28" E | 108.86   |
| 90070-90072  | S 21°06'10" W | 74.41    |
| 41022-41028  | N 66°20'28" W | 36.24    |
| 41028-41027  | N 66°20'28" W | 30.55    |
| 41027-41026  | N 66°20'28" W | 20.59    |
| 41026-41025  | N 66°20'28" W | 63.99    |
| 41025-41021  | N 66°20'28" W | 30.69    |
| 41021-40027  | N 23°39'32" E | 7.00     |
| 30036-30035  | N 80°02'41" E | 25.32    |
| 30033-90067  | S 85°40'58" E | 19.24    |
| 90067-90065  | S 83°39'05" W | 78.90    |

| PLE COURSE TABLE |               |          |
|------------------|---------------|----------|
| COURSE           | BEARING       | DISTANCE |
| 41026-41027      | S 66°20'28" E | 20.59    |
| 41027-61026      | S 71°08'46" W | 5.17     |
| 61026-41026      | N 54°37'05" W | 17.13    |

| PLE COURSE TABLE |               |          |
|------------------|---------------|----------|
| COURSE           | BEARING       | DISTANCE |
| 41028-41022      | S 66°20'28" E | 36.24    |
| 41022-61024      | S 23°39'32" W | 2.93     |
| 61024-61025      | N 8°34'32" W  | 32.20    |
| 61025-41028      | N 00°45'20" W | 12.51    |

| SCENIC EASEMENT |      |        |
|-----------------|------|--------|
| PARCEL 14       | DOC. | 324150 |
| PARCEL 14       | DOC. | 325213 |
| PARCEL 16       | DOC. | 324149 |
| PARCEL 16       | DOC. | 324399 |
| PARCEL 17       | DOC. | 324148 |
| PARCEL 17       | DOC. | 325086 |
| PARCEL 18       | DOC. | 325086 |

| UTILITY INTERESTS REQUIRED |             |                   |
|----------------------------|-------------|-------------------|
| UTILITY NUMBER             | OWNERS      | INTEREST REQUIRED |
| 50                         | CENTURYLINK | RELEASE OF RIGHTS |

| FLOWAGE EASEMENT |             |
|------------------|-------------|
| PARCEL 17        | DOC. 491800 |
| PARCEL 18        | DOC. 491800 |

| SCHEDULE OF LANDS AND INTERESTS REQUIRED |                                                          |                   | OWNER NAMES ARE SHOWN FOR REFERENCE PURPOSES ONLY AND ARE SUBJECT TO CHANGE PRIOR TO THE TRANSFER OF LAND INTERESTS TO THE DEPARTMENT |              |       |                    |                    |
|------------------------------------------|----------------------------------------------------------|-------------------|---------------------------------------------------------------------------------------------------------------------------------------|--------------|-------|--------------------|--------------------|
| PARCEL NUMBER                            | OWNERS                                                   | INTEREST REQUIRED | R/W ACRES REQUIRED                                                                                                                    |              | TOTAL | TLE ACRES REQUIRED | PLE ACRES REQUIRED |
|                                          |                                                          |                   | NEW                                                                                                                                   | EXISTING TLE |       |                    |                    |
| 14                                       | SANDRA L. THON, ETAL                                     | FEE & TLE         | 0.06                                                                                                                                  | 0.00         | 0.06  | 0.03               | 0.00               |
| 16                                       | LAWRENCE J. & SALLY ANN JANSSEN L.C. TO BRENDA S. RISLER | TLE               | 0.00                                                                                                                                  | 0.00         | 0.00  | 0.30               | 0.00               |
| 17                                       | LAWRENCE J. & SALLY ANN JANSSEN                          | FEE & TLE         | 0.02                                                                                                                                  | 0.00         | 0.02  | 0.02               | 0.00               |
| 18                                       | LEE H. & SHARON BALCREK                                  | FEE, TLE & PLE    | 0.08                                                                                                                                  | 0.00         | 0.08  | 0.05               | 0.04               |

CURVE DATA  
LONG CHORD  
LONG CHORD BEARING  
RADIUS  
DEGREE OF CURVE  
CENTRAL ANGLE OR DELTA  
LENGTH OF CURVE  
TANGENT

| NON COMPENSABLE                                                                   | COMPENSABLE                                                                       |
|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|
|  |  |
|  |  |
|  |  |
|                                                                                   | N/A                                                                               |

SECTION CORNER

T O W N

ALIGNMENT TIE: 1038 TO  
STA 1224+61.07 = 1098.57'  
S00°47'32"W

1038  
FOUND 2" IRON PIPE  
Y = 206974.64  
X = 220557.27

NOTES:

COORDINATES AND BEARINGS SHOWN ON THIS PLAT ARE REFERENCED TO THE WISCONSIN COUNTY COORDINATE SYSTEM, CHIPPEWA COUNTY ZONE, NAD83 (1993) ADJUSTMENT. THE COORDINATES SHOWN ARE GRID COORDINATES AND ARE TO BE USED AS GRID OR GROUND VALUES ON THIS PLAT.

RIGHT-OF-WAY MONUMENTS ARE TYPE 2 (TYPICALLY 3/4" X 24" REBAR WITH A WDOT CAP) AND WILL BE PLACED PRIOR TO THE COMPLETION OF THE PROJECT.

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

THE POINT OF INTERSECTIONS DESIGNATED WITH A 90000 SERIES NUMBER HAVE BEEN CREATED FOR THE PURPOSE OF SHOWING A CLOSED TRAVERSE. THE POINTS ARE INTENDED TO BE ON THE RIGHT-OF-WAY LINES BUT NOT NECESSARILY ON OR ANY PART OF A BOUNDARY, SIXTEENTH, QUARTER OR SECTION (P.L.S.S.) LINE. THESE POINTS WILL NOT BE MONUMENTED IN THE FIELD.

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

EXISTING HIGHWAY RIGHT-OF-WAY SHOWN HEREIN IS BASED ON THE FOLLOWING POINTS OF REFERENCE:  
EXISTING HIGHWAY RIGHT-OF-WAY FOR STH 178 ESTABLISHED FROM PREVIOUS PROJECTS T054(6) AND 8600-01-22  
EXISTING HIGHWAY RIGHT-OF-WAY ESTABLISHED FROM STATUTE 82.31 USING EXISTING ALIGNMENTS.

A TEMPORARY LIMITED EASEMENT (TLE) IS A RIGHT FOR CONSTRUCTION PURPOSES, AS DEFINED HEREIN, INCLUDING THE RIGHT TO OPERATE NECESSARY EQUIPMENT THEREON AND THE RIGHT OF INGRESS AND EGRESS, AS LONG AS REQUIRED FOR SUCH PUBLIC PURPOSE, INCLUDING THE RIGHT TO PRESERVE, PROTECT, REMOVE, OR PLANT THEREON ANY VEGETATION THAT THE HIGHWAY AUTHORITIES MAY DEEM NECESSARY OR DESIRABLE. ALL TLES EXPIRE AT THE COMPLETION OF THE CONSTRUCTION PROJECT FOR WHICH THIS INSTRUMENT IS GIVEN.

A PERMANENT LIMITED EASEMENT (PLE) IS A RIGHT FOR CONSTRUCTION AND MAINTENANCE PURPOSES, AS DEFINED HEREIN, INCLUDING THE RIGHT TO OPERATE NECESSARY EQUIPMENT THEREON AND THE RIGHT OF INGRESS AND EGRESS, AS LONG AS REQUIRED FOR SUCH PUBLIC PURPOSE, INCLUDING THE RIGHT TO PRESERVE, PROTECT, REMOVE, OR PLANT THEREON ANY VEGETATION THAT THE HIGHWAY AUTHORITIES MAY DEEM NECESSARY OR DESIRABLE, BUT WITHOUT PREJUDICE TO THE OWNER'S RIGHT TO MAKE OR CONSTRUCT IMPROVEMENT ON SAID LANDS OR TO FLATTEN THE SLOPES, PROVIDING SAID ACTIVITIES WILL NOT IMPAIR OR OTHERWISE ADVERSELY AFFECT THE HIGHWAY FACILITIES.

FILE NAME : F:\Drawings\2011-122\0001\86000224\_4.06.dgn  
APPRAISAL PLAT DATE : 9/21/2012

PLOT DATE : 12/8/2010

PLOT BY : \$(\_USTN\_USERNAME\_) PLOT NAME :

PLOT SCALE : 1 in : 100 ft

4.06

|                            |         |                            |                                                                                   |
|----------------------------|---------|----------------------------|-----------------------------------------------------------------------------------|
| ACCESS POINT               | AP      |                            |                                                                                   |
| ACCESS RIGHTS              | AR      | NO ACCESS                  | ●●●●●●●●                                                                          |
| ACRES                      | AC.     | (BY STATUTORY AUTHORITY)   |                                                                                   |
| AND OTHERS                 | ET. AL. |                            |                                                                                   |
| CENTERLINE                 | C/L     | FEE (HATCH VARIES)         | ✓ / / /                                                                           |
| CERTIFIED SURVEY MAP       | CSM     | TEMPORARY LIMITED EASEMENT |  |
| DOCUMENT                   | DOC.    | PERMANENT LIMITED EASEMENT |  |
| HIGHWAY EASEMENT           | H.E.    | R/W BOUNDARY POINT         |  |
| LAND CONTRACT              | L.C.    |                            |                                                                                   |
| MONUMENT                   | MON.    |                            |                                                                                   |
| PAGE                       | P.      | PLE/TLE POINT              |  |
| PROPERTY LINE              | PL      |                            |                                                                                   |
| PERMANENT LIMITED EASEMENT | PLE     | PAREL NUMBER               |  |
| RECORDED AS                | (100')  | SIGN NUMBER                |  |
| REFERENCE LINE             | R/L     | OFF PREMISE                |                                                                                   |
| REMAINING                  | REM.    | BUILDING                   |  |
| RIGHT-OF-WAY               | R/W     |                            |                                                                                   |
| SECTION                    | SEC.    | FOUND IRON PIPE/PIN        | ○ (SIZE & TYPE NOTED)                                                             |
| SQUARE FEET                | SQ. FT. | R/W MONUMENT               | ● (SET)                                                                           |
| STATION                    | STA.    | R/W STANDARD               | ▲ (SET)                                                                           |
| TEMPORARY LIMITED EASEMENT | TLE     | SIGN                       | SIGN # SIGN                                                                       |
| VOLUME                     | V.      |                            |                                                                                   |

PISTA 1255+63.83  
X = 205675.04  
Y = 223597.15  
DELTA = 42°49'09" Left  
D = 06°32'53"  
T = 343.08  
L = 653.92  
R = 875.00  
LCH = 638.81  
LC = N 64°19'17" E  
BBK = N 85°43'51" E  
PC STA 1252+20.75  
Y = 205649.50  
X = 223255.03  
PT STA 1258+74.67  
Y = 205926.31  
X = 223830.74  
BAH = N 42°54'42" E  
PISTA 1260+89.87  
Y = 206083.93  
X = 223977.27

TRANSPORTATION  
THAT PART  
ALL IN T-31-  
RELOCATION OF  
TO PROPERLY ESTABLISH  
THE STATE OF WISCONSIN  
INTERESTS OR RIGHTS IN  
TO EFFECT THIS CHANGE  
HEREBY ORDERS THAT:  
1. THAT PORTION OF SAID  
2. THE LANDS OR INTERESTS  
THE NAME OF THE  
THE STATE OF WISCONSIN  
OF THE WISCONSIN STATE  
A TRUE AND CORRECT RE

OF GOV'T LOT 1  
 R-7-W, TOWN  
 ER STH 178, CHI  
 AY OUT, WIDEN, ENLARGE, E  
 DEPARTMENT OF TRANSPOR  
 ANDS FOR THE ABOVE PRO  
 PURSUANT TO AUTHORITY C  
 HIGHWAY AS SHOWN ON THI  
 6 OR RIGHTS IN LANDS AS  
 STATE OF WISCONSIN, PURSU  
 AS DEEMED IT NECESSARY  
 TATUTES AND DOES HEREBY  
 REPRESENTATION OF THE EXT

PROJECT 1  
OF SECTION 26  
F CLEVELAND, O  
WA FALLS - COR  
END, CONSTRUCT, RECONSTR  
TION DEEMS IT NECESSAR  
CT.  
PLATED UNDER SECTION 84.  
NT IS LAID OUT AND ES  
OWN ON THIS PLAT ARE  
TO THE PROVISIONS OF  
O MONUMENT RIGHT-OF-WA  
CERTIFY THE DEPARTMEN  
ER BOUNDARIES OF THE LA

LAT NO:  
ND GOV'T LOT  
IPPEWA COUNT  
LL (CTH R TO S  
CT, IMPROVE, OR MAINTAIN  
O RELOCATE OR CHANGE  
(3) AND 84.09, WISCONSIN  
BLISHED TO THE LINES AN  
QUIRED BY THE DEPARTME  
TION 84.09 (1) OR (2), WIS  
INTERESTS PREVIOUSLY AN  
F TRANSPORTATION HAS A  
SURVEYED AND SHOWS A

3600-02-  
OF SECTION 2  
WISCONSIN  
64), CHIPPEWA C  
PORTION OF THE HIGHWAY  
D HIGHWAY AND ACQUIRE  
STATUTES, THE DEPARTMENT  
WIDTHS AS SO SHOWN FOR  
FOR THE ABOVE PROJECT  
SIN STATUTES.  
QUIRED UNDER SECTIONS 82  
VEYED THE HIGHWAY RIG  
URATE MEASUREMENTS TH

82.31(1), 82.31(2) AND 84.0  
OF.

81  
RECO  
09/2  
3:  
MARGE  
REGISTE  
FEE  
CHIPPEWA  
PA

RESERVED FOR R  
PROJECT NUMBER  
AMENDMENT NO:

340  
DED ON  
2012  
PM  
GEISSLER  
OF DEEDS  
EMPT:  
COUNTY, WI  
ES: 1

| R/W POINT TABLE |            |        |           |           |
|-----------------|------------|--------|-----------|-----------|
| POINT           | STATION    | OFFSET | NORTHING  | EASTING   |
| 30215           | 1245+00.00 | 33.36  | 205691.91 | 222532.10 |
| 41023           | 1243+50.00 | 40.00  | 205608.99 | 222379.31 |
| 41024           | 1243+50.00 | 33.28  | 205615.57 | 222380.67 |
| 41025           | 1246+60.00 | 32.65  | 205584.26 | 222695.37 |
| 41030           | 1246+60.00 | 50.00  | 205566.91 | 222695.41 |
| 41031           | 1247+35.44 | 50.00  | 205569.03 | 222773.32 |
| 41032           | 1249+22.26 | 50.00  | 205570.49 | 222963.84 |
| 41033           | 1250+52.63 | 50.00  | 205587.12 | 223047.10 |
| 41034           | 1252+20.75 | 50.00  | 205599.64 | 223258.75 |
| 41037           | 1242+00.00 | 40.00  | 205647.75 | 222230.33 |
| 61010           | 1246+00.00 | 33.01  | 205684.99 | 222634.06 |
| 61011           | 1246+00.00 | 89.76  | 205628.28 | 222631.92 |
| 61012           | 1246+30.00 | 32.84  | 205584.30 | 222664.71 |
| 61013           | 1246+30.00 | 88.68  | 205528.48 | 222663.72 |
| 61014           | 1249+00.00 | 50.00  | 205679.78 | 222977.72 |
| 61015           | 1249+40.00 | 91.90  | 205637.94 | 222980.02 |
| 61016           | 1249+70.00 | 50.00  | 205581.52 | 223007.93 |

| POINT | STATION    |
|-------|------------|
| 30121 | 1247+19.51 |
| 30197 | 1249+93.13 |
| 30213 | 1242+75.00 |
| 30214 | 1245+00.00 |
| 65046 | 1245+75.00 |
| 65047 | 1245+75.00 |
| 65048 | 1247+35.44 |
| 65049 | 1247+75.00 |
| 65050 | 1247+75.00 |
| 65051 | 1249+26.22 |
| 65052 | 1249+26.22 |
| 65053 | 1250+52.63 |
| 65054 | 1252+20.75 |
| 65085 | 1253+00.00 |

| R/W POINT | TABLE    |
|-----------|----------|
| OFFSET    | NORTHING |
| -33.82    | 205652.0 |
| -33.07    | 205665.8 |
| -33.02    | 205697.1 |
| -32.64    | 205657.5 |
| -32.88    | _____    |
| -40.00    | _____    |
| -40.00    | _____    |
| -40.00    | _____    |
| -33.81    | _____    |
| -33.57    | _____    |
| -38.00    | _____    |
| -38.00    | _____    |
| -38.00    | _____    |
| -38.00    | _____    |

|  |           |      |
|--|-----------|------|
|  | EASTING   |      |
|  | 222753.38 | PARC |
|  | 223025.89 |      |
|  | 222322.72 | PARC |
|  | 222538.99 |      |
|  | _____     | PARC |
|  | _____     |      |
|  | _____     | PARC |
|  | _____     |      |
|  | _____     | PARC |
|  | _____     |      |
|  | _____     | PARC |
|  | _____     |      |
|  | _____     | PARC |
|  | _____     |      |

|    | UTILITY EASEMENT                                           |
|----|------------------------------------------------------------|
| 18 | CHIPPewa VALLEY F<br>CHIPPewa VALLEY F<br>CENTURYLINK DOC. |
| 19 | CHIPPewa VALLEY F<br>CENTURYLINK DOC.                      |
| 21 | CHIPPewa VALLEY F<br>CENTURYLINK DOC.                      |
| 22 | CHIPPewa VALLEY F<br>CENTURYLINK DOC.                      |
| 23 | CHIPPewa VALLEY F<br>CENTURYLINK DOC.                      |
| 24 | CHIPPewa VALLEY F<br>CENTURYLINK DOC.                      |
| 26 | CHIPPewa VALLEY F<br>CENTURYLINK DOC.                      |

[illegible]

|      |
|------|
| 2840 |
| 2034 |
| 2840 |
| 2840 |
| 2840 |
| 2840 |
| 2840 |
| 2915 |

The diagram shows a circular structure with a central 2x2 grid. The grid contains the numbers 23, 24, 26, and 25. The grid is surrounded by a ring with the numbers 31, 7, 2, and 1. Below the ring is a vertical line with the text 'SECTION LINE' and 'S00°28'54"W'.

|     |                     |
|-----|---------------------|
| CEL | V. 157 - P. 345-354 |
|     | V. 157 - P. 345-354 |
|     | V. 157 - P. 345-354 |
|     | V. 157 - P. 345-354 |
|     | V. 157 - P. 345-354 |
|     | V. 157 - P. 345-354 |

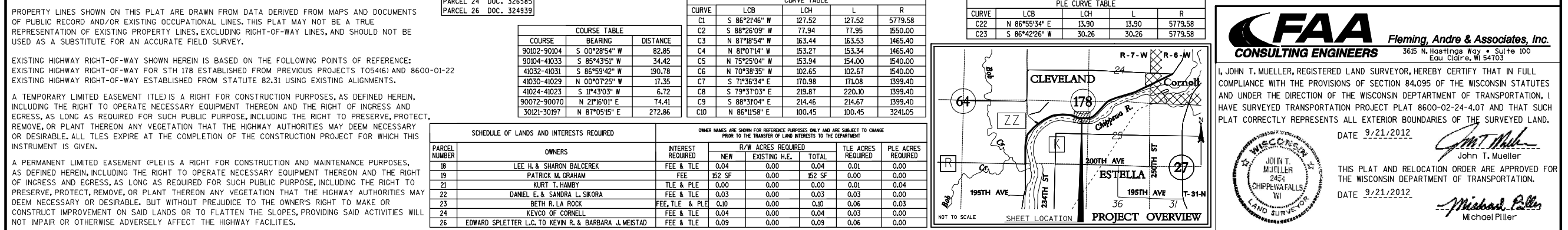
GOV'T L  
SEC

OT 1  
5



|     |          |
|-----|----------|
| BLE |          |
|     | DISTANCE |

4



## CONVENTIONAL SYMBOLS AND ABBREVIATIONS

STATE, COUNTY, OR TOWN LINE  
SECTION LINE  
QUARTER LINE  
SIXTEENTH LINE  
PROPOSED REFERENCE LINE  
PROPOSED R/W LINE  
EXISTING H.E. LINE  
PROPERTY LINE  
EASEMENT LINE  
CORPORATE LIMITS  
EXISTING CENTERLINE  
LOT & TIE LINES  
UTILITIES  
(TELEPHONE, GAS, ELECTRIC, CABLE TV, ETHER OPTIC)  
FIRE HYDRANT  
ACCESS RESTRICTED  
(BY PREVIOUS PROJECT/CONTROL)  
NO ACCESS  
(BY ACQUISITION)

ACCESS POINT  
ACCESS RIGHTS  
ACRES  
AND OTHERS  
CENTERLINE  
CERTIFIED SURVEY MAP  
DOCUMENT  
HIGHWAY EASEMENT  
LAND CONTRACT  
MONUMENT  
PAGE  
PROPERTY LINE  
PERMANENT LIMITED EASEMENT  
RECORDED AS  
REFERENCE LINE  
REMAINING  
RIGHT-OF-WAY  
SECTION  
SQUARE FEET  
STATION  
TEMPORARY LIMITED EASEMENT  
VOLUME

AP  
AR  
AC  
ET AL.  
C/L  
CSM  
DOC  
H.E.  
LC  
MON.  
P.  
PL  
PLE  
(100')  
R/L  
REM.  
R/W  
SEC.  
SQ. FT.  
STA.  
TLE  
V.

NO ACCESS  
(BY STATUTORY AUTHORITY)  
FEE (HATCH VARIES)  
TEMPORARY LIMITED EASEMENT  
PERMANENT LIMITED EASEMENT  
R/W BOUNDARY POINT  
PLE/TLE POINT  
PARCEL NUMBER  
SIGN NUMBER  
(OFF PREMISE)  
BUILDING  
FOUND IRON PIPE/PIN  
R/W MONUMENT  
R/W STANDARD  
SIGN

PISTA 1249+89.43  
Y = 205632.28  
X = 223024.34  
DELTA = 0°15'51" Left  
D = 0°00'00"  
T = 63.21  
L = 126.42  
R = 5129.58  
LCB = 126.41  
LCB = N 86°21'46" E  
BBK = N 86°59'42" E  
PC STA 1249+26.22  
Y = 205628.97  
X = 222961.22  
PT STA 1250+52.63  
Y = 205636.99  
X = 223087.37  
BAH = N 85°43'51" E

PISTA 1255+63.83  
Y = 205675.04  
X = 223597.15  
DELTA = 42°49'09" Left  
D = 06°32'53"  
T = 343.08  
L = 653.92  
R = 875.00  
LCB = 638.81  
LCB = N 64°19'17" E  
BBK = N 85°43'51" E  
PC STA 1252+20.75  
Y = 205649.50  
X = 223255.03  
PT STA 1258+74.67  
Y = 205926.31  
X = 223830.74  
BAH = N 42°54'42" E  
PISTA 1260+89.87  
Y = 206083.93  
X = 223977.27  
PISTA 1266+42.94  
Y = 206491.80  
X = 224350.80

| MEANDER LINE AND OBSERVED<br>EDGE OF WATER SEPARATION                                            |          |
|--------------------------------------------------------------------------------------------------|----------|
| R/W OR TLE POINT                                                                                 | DISTANCE |
| 66059                                                                                            | 5'       |
| 41071                                                                                            | 8'       |
| 41035                                                                                            | 9'       |
| 66044                                                                                            | 6'       |
| 66067                                                                                            | 8'       |
| DISTANCES ARE PERPENDICULAR TO THE<br>OBSERVED EDGE OF WATER AND ROUNDED<br>TO THE NEAREST FOOT. |          |

| CURVE TABLE |               |        |        |         |
|-------------|---------------|--------|--------|---------|
| CURVE       | LCB           | LCH    | L      | R       |
| C1          | N 81°37'48" E | 10.88  | 10.88  | 3241.05 |
| C2          | N 72°51'32" E | 228.44 | 229.31 | 757.29  |
| C3          | N 56°31'48" E | 201.73 | 202.33 | 757.29  |
| C4          | N 45°44'02" E | 205.76 | 205.86 | 1876.86 |
| C5          | S 45°44'02" W | 212.99 | 213.10 | 1942.86 |
| C6          | S 58°20'05" W | 270.59 | 271.82 | 823.29  |
| C7          | S 74°57'17" W | 180.10 | 180.38 | 925.00  |

| COURSE TABLE |               |          |
|--------------|---------------|----------|
| COURSE       | BEARING       | DISTANCE |
| 30207-30045  | N 42°35'30" E | 328.77   |
| 30045-90131  | N 42°35'30" E | 200.00   |
| 90131-90133  | S 47°30'59" E | 82.71    |
| 90133-41039  | S 42°29'01" W | 100.00   |
| 41039-41038  | N 47°30'59" W | 16.90    |
| 41038-30204  | S 42°35'30" W | 428.89   |
| 41038-41035  | S 22°33'13" E | 14.63    |
| 41035-41071  | S 63°26'37" W | 31.11    |
| 90109-90107  | N 09°27'31" W | 86.95    |

| UTILITY EASEMENT INFORMATION |                                                  |
|------------------------------|--------------------------------------------------|
| PARCEL 26                    | CHIPPEWA VALLEY ELECTRIC COOPERATIVE DOC. 212915 |
| PARCEL 27                    | CENTURYLINK DOC. 586239                          |
| PARCEL 28                    | CENTURYLINK DOC. 586239                          |
| PARCEL 28                    | CHIPPEWA VALLEY ELECTRIC COOPERATIVE DOC. 212868 |

| SCHEDULE OF LANDS AND INTERESTS REQUIRED |                                                       | OWNER NAMES ARE SHOWN FOR REFERENCE PURPOSES ONLY AND ARE SUBJECT TO CHANGE<br>PRIOR TO THE TRANSFER OF LAND INTERESTS TO THE DEPARTMENT |                    |      |                    |
|------------------------------------------|-------------------------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------|--------------------|------|--------------------|
| PARCEL NUMBER                            | OWNERS                                                | INTEREST REQUIRED                                                                                                                        | R/W ACRES REQUIRED |      | TLE ACRES REQUIRED |
| 26                                       | EDWARD SPLETTER L.C. TO KEVIN R. & BARBARA J. MEISTAD | FEE & TLE                                                                                                                                | 0.02               | 0.00 | 0.02               |
| 27                                       | RUTH A. RUCKS                                         | TLE                                                                                                                                      | 0.00               | 0.00 | 0.00               |
| 28                                       | JACK S. & MARIE A. RITTER                             | FEE & TLE                                                                                                                                | 0.10               | 0.00 | 0.10               |

## TRANSPORTATION PROJECT PLAT NO: 8600-02-24 - 4.08

THAT PART OF GOV'T LOT 1 OF SECTION 25,  
ALL IN T-31-N, R-7-W, TOWN OF CLEVELAND, CHIPPEWA COUNTY, WISCONSIN

RELOCATION ORDER STH 178, CHIPPEWA FALLS - CORNELL (CTH R TO STH 64), CHIPPEWA COUNTY

TO PROPERLY ESTABLISH, LAY OUT, WIDEN, ENLARGE, EXTEND, CONSTRUCT, RECONSTRUCT, IMPROVE, OR MAINTAIN A PORTION OF THE HIGHWAY DESIGNATED ABOVE,  
THE STATE OF WISCONSIN DEPARTMENT OF TRANSPORTATION DEEMS IT NECESSARY TO RELOCATE OR CHANGE SAID HIGHWAY AND ACQUIRE CERTAIN LANDS AND  
INTERESTS OR RIGHTS IN LANDS FOR THE ABOVE PROJECT.

TO EFFECT THIS CHANGE, PURSUANT TO AUTHORITY GRANTED UNDER SECTION 84.02 (3) AND 84.09, WISCONSIN STATUTES, THE DEPARTMENT OF TRANSPORTATION  
HEREBY ORDERS THAT:  
1. THAT PORTION OF SAID HIGHWAY AS SHOWN ON THIS PLAT IS LAY OUT AND ESTABLISHED TO THE LINES AND WIDTHS AS SO SHOWN FOR THE ABOVE PROJECT.  
2. THE LANDS OR INTERESTS OR RIGHTS IN LANDS AS SHOWN ON THIS PLAT ARE REQUIRED BY THE DEPARTMENT FOR THE ABOVE PROJECT AND SHALL BE ACQUIRED IN  
THE NAME OF THE STATE OF WISCONSIN, PURSUANT TO THE PROVISIONS OF SECTION 84.09 (1) OR (2), WISCONSIN STATUTES.

THE STATE OF WISCONSIN HAS DEEMED IT NECESSARY TO MONUMENT RIGHT-OF-WAY INTERESTS PREVIOUSLY ACQUIRED UNDER SECTIONS 82.01, 82.31(1), 82.31(2) AND 84.09  
OF THE WISCONSIN STATE STATUTES AND DOES HEREBY CERTIFY THE DEPARTMENT OF TRANSPORTATION HAS SURVEYED THE HIGHWAY RIGHT-OF-WAY; THAT THIS PLAT IS  
A TRUE AND CORRECT REPRESENTATION OF THE EXTERIOR BOUNDARIES OF THE LAND SURVEYED AND SHOWS ACCURATE MEASUREMENTS THEREOF.

| R/W POINT TABLE |            |        |           |           |
|-----------------|------------|--------|-----------|-----------|
| POINT           | STATION    | OFFSET | NORTHING  | EASTING   |
| 30044           | 1255+50.00 | -33.16 | 205764.33 | 223556.67 |
| 30045           | 1263+00.00 | -33.08 | 206261.24 | 224094.79 |
| 30199           | 1253+11.36 | -36.67 | 205697.00 | 223338.37 |
| 30205           | 1257+60.49 | -35.81 | 205875.58 | 223724.94 |
| 30207           | 1259+70.99 | -32.82 | 206019.20 | 223872.29 |
| 65055           | 1258+74.67 | -38.00 |           |           |
| 65056           | 1260+90.17 | -38.00 |           |           |
| 65085           | 1253+00.00 | -38.00 |           |           |
| 65086           | 1265+00.00 | -38.00 |           |           |

| R/W POINT TABLE |            |        |           |           |
|-----------------|------------|--------|-----------|-----------|
| POINT           | STATION    | OFFSET | NORTHING  | EASTING   |
| 30202           | 1257+62.18 | 30.16  | 205825.86 | 223768.35 |
| 30204           | 1259+71.35 | 33.18  | 205974.53 | 223920.88 |
| 41035           | 1255+00.00 | 47.31  | 205670.31 | 223543.65 |
| 41036           | 1255+00.00 | 32.68  | 205683.82 | 223538.04 |
| 41038           | 1264+00.00 | 33.10  | 206290.28 | 224211.14 |
| 41039           | 1264+00.00 | 50.00  | 206278.87 | 224223.60 |
| 41071           | 1254+19.63 | 50.00  | 205656.40 | 223515.82 |
| 66044           | 1264+19.04 | 65.00  |           |           |
| 66045           | 1255+00.00 | 45.00  |           |           |
| 66046           | 1258+74.67 | 45.00  |           |           |
| 66047           | 1259+50.00 | 45.00  |           |           |
| 66048           | 1259+50.00 | 33.18  |           |           |
| 66049           | 1264+00.00 | 65.00  |           |           |
| 66059           | 1253+28.92 | 60.00  |           |           |
| 66066           | 1253+00.00 | 60.00  |           |           |
| 66067           | 1265+00.00 | 62.19  |           |           |

813341

RECORDED ON  
09/27/2012  
3:34 PMMARGE L. GEISSLER  
REGISTER OF DEEDS  
FEE EXEMPT:  
CHIPPEWA COUNTY, WI  
PAGES: 1RESERVED FOR REGISTER OF DEEDS  
PROJECT NUMBER 8600-02-24-4.08  
AMENDMENT NO:

| CHIPPEWA RIVER<br>FLOWAGE RIGHTS |                     |
|----------------------------------|---------------------|
| PARCEL                           | V. - P.             |
| 26                               | V. 157 - P. 345-354 |
| 27                               | V. 157 - P. 345-354 |
| 28                               | V. 157 - P. 345-354 |

| SCENIC EASEMENT |             |
|-----------------|-------------|
| PARCEL 26       | DOC. 324939 |
| PARCEL 27       | DOC. 325947 |
| PARCEL 28       | DOC. 324540 |
| PARCEL 28       | DOC. 324674 |
| PARCEL 28       | DOC. 324675 |

CURVE DATA  
LONG CHORD  
LONG CHORD BEARING  
RADIUS  
DEGREE OF CURVE  
CENTRAL ANGLE OR DELTA  
LENGTH OF CURVE  
TANGENT

LOH  
LCB  
R  
D  
DELTA  
L  
TAN

POWER POLE  
TELEPHONE POLE  
TELEPHONE PEDESTAL  
GUY POLE

NON  
COMPENSABLE

COMPENSABLE

SECTION CORNER



1039  
FOUND 2" STEEL PIPE  
Y = 206970.68  
X = 223137.03

ALIGNMENT TIE: 1039 TO  
STA 1250+91.21 = 1330.87'  
S00°28'54"W

1089  
FOUND MAG NAIL  
Y = 204343.46  
X = 223114.95

## NOTES:

COORDINATES AND BEARINGS SHOWN ON THIS PLAT ARE REFERENCED TO THE WISCONSIN COUNTY  
COORDINATE SYSTEM, CHIPPEWA COUNTY ZONE, NAD83 (1993) ADJUSTMENT. THE COORDINATES SHOWN ARE GRID  
COORDINATES AND ARE TO BE USED AS GRID OR GROUND VALUES ON THIS PLAT.

RIGHT-OF-WAY MONUMENTS ARE TYPE 2 (TYPICALLY 3/4" X 24" REBAR WITH A WOOD CAP)  
AND WILL BE PLACED PRIOR TO THE COMPLETION OF THE PROJECT.

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

THE POINT OF INTERSECTIONS DESIGNATED WITH A 90000 SERIES NUMBER HAVE BEEN CREATED FOR THE  
PURPOSE OF SHOWING A CLOSED TRAVERSE. THE POINTS ARE INTENDED TO BE ON THE RIGHT-OF-WAY LINES  
BUT NOT NECESSARILY ON OR ANY PART OF A BOUNDARY, SIXTEENTH, QUARTER OR SECTION (P.L.S.) LINE.  
THESE POINTS WILL NOT BE MONUMENTED IN THE FIELD.

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

EXISTING HIGHWAY RIGHT-OF-WAY SHOWN HEREIN IS BASED ON THE FOLLOWING POINTS OF REFERENCE:

EXISTING HIGHWAY RIGHT-OF-WAY FOR STH 178 ESTABLISHED FROM PREVIOUS PROJECTS 1054(6) AND 8600-01-22

EXISTING HIGHWAY RIGHT-OF-WAY ESTABLISHED FROM STATUTE 82.31 USING EXISTING ALIGNMENTS.

A TEMPORARY LIMITED EASEMENT (TLE) IS A RIGHT FOR CONSTRUCTION PURPOSES, AS DEFINED HEREIN,  
INCLUDING THE RIGHT TO OPERATE NECESSARY EQUIPMENT THEREON AND THE RIGHT OF INGRESS AND  
EGRESS, AS LONG AS REQUIRED FOR SUCH PUBLIC PURPOSE, INCLUDING THE RIGHT TO PRESERVE, PROTECT,  
REMOVE, OR PLANT THEREON ANY VEGETATION THAT THE HIGHWAY AUTHORITIES MAY DEEM NECESSARY  
OR DESIRABLE. ALL TLES EXPIRE AT THE COMPLETION OF THE CONSTRUCTION PROJECT FOR WHICH THIS  
INSTRUMENT IS GIVEN.

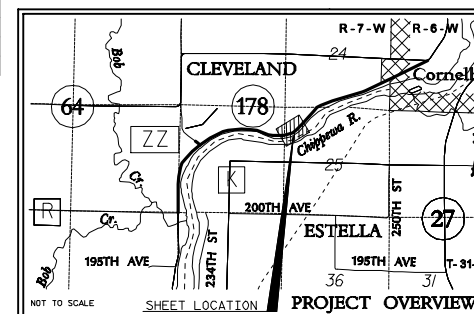
FILE NAME : F:\Drawings\2011-122\0001\86000224-4.08.dgn  
APPRAISAL PLAT DATE : 9/21/2012

PLOT DATE : 12/8/2010

PLOT BY : \$(LUSTN\_USERNAME\_) PLOT NAME :

PLOT SCALE : 1 in : 100 ft

4.08



**FAA**  
CONSULTING ENGINEERS  
Fleming, Andre & Associates, Inc.  
3615 N. Hastings Way • Suite 100  
Eau Claire, WI 54603

I, JOHN T. MUELLER, REGISTERED LAND SURVEYOR, HEREBY CERTIFY THAT IN FULL  
COMPLIANCE WITH THE PROVISIONS OF SECTION 84.095 OF THE WISCONSIN STATUTES  
AND UNDER THE DIRECTION OF THE WISCONSIN DEPARTMENT OF TRANSPORTATION, I  
HAVE SURVEYED TRANSPORTATION PROJECT PLAT 8600-02-24-4.08 AND THAT SUCH  
PLAT CORRECTLY REPRESENTS ALL EXTERIOR BOUNDARIES OF THE SURVEYED LAND.

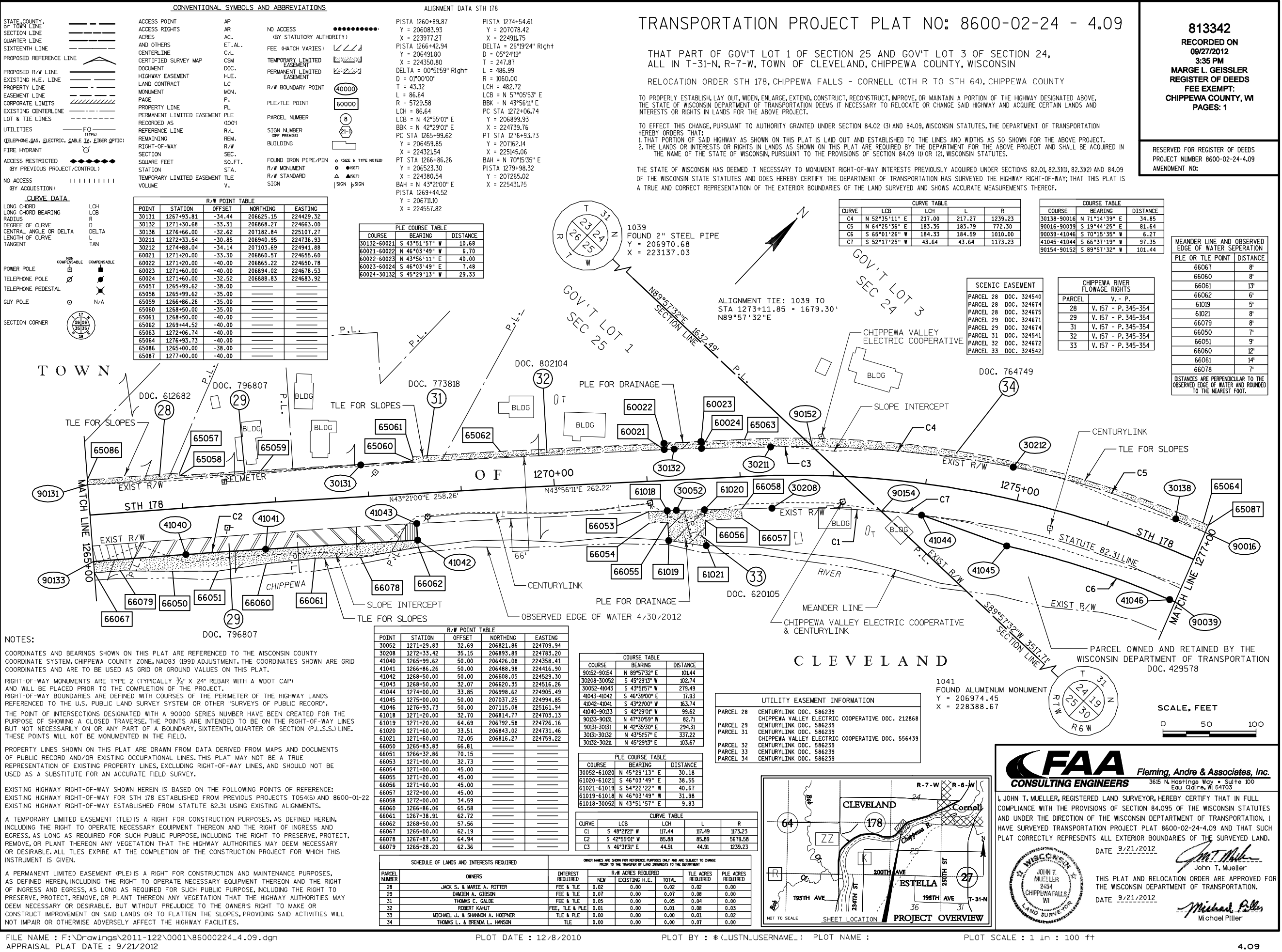
DATE 9/21/2012



THIS PLAT AND RELOCATION ORDER ARE APPROVED FOR  
THE WISCONSIN DEPARTMENT OF TRANSPORTATION.

DATE 9/21/2012

Michael Piller  
Michael Piller



## CONVENTIONAL SYMBOLS AND ABBREVIATIONS

STATE, COUNTY,  
OF TOWN LINE  
SECTION LINE  
QUARTER LINE  
SIXTEENTH LINE  
PROPOSED REFERENCE LINE  
PROPOSED R/W LINE  
EXISTING H.E. LINE  
PROPERTY LINE  
EASEMENT LINE  
CORPORATE LIMITS  
EXISTING CENTERLINE  
LOT & TIE LINES  
UTILITIES  
(TELEPHONE, GAS, ELECTRIC, CABLE TV, FIBER OPTIC)  
FIRE HYDRANT  
ACCESS RESTRICTED  
(BY PREVIOUS PROJECT/CONTROL)  
NO ACCESS  
(BY ACQUISITION)

ACCESS POINT  
ACCESS RIGHTS  
ACRES  
AND OTHERS  
CENTERLINE  
CERTIFIED SURVEY MAP  
DOCUMENT  
HIGHWAY EASEMENT  
LAND CONTRACT  
MONUMENT  
PAGE  
PROPERTY LINE  
PERMANENT LIMITED EASEMENT  
RECORDED AS  
REFERENCE LINE  
REMAINING  
RIGHT-OF-WAY  
SECTION  
SQUARE FEET  
STATION  
TEMPORARY LIMITED EASEMENT  
VOLUME

AP  
AR  
AC  
ET-AL-  
C/L  
CSM  
H.E.  
LC  
MON.  
P.  
PL  
PL  
(100%)  
R/L  
REM.  
R/W  
SEC.  
SQ.FT.  
STA.  
SIGN  
V.

## ALIGNMENT DATA STH 178

PISTA 1274+54.61  
Y = 207018.42  
X = 224911.75  
PISTA 1279+98.32  
Y = 207265.02  
X = 225431.75  
DELTA = 10°20'33" Left  
D = 05°24'19"  
T = 95.93  
L = 191.34  
R = 1060.00  
LCB = N 65°05'18" E  
BBK = N 70°55'34" E  
PC STA 1279+02.39  
Y = 20732.62  
X = 225341.46  
PT STA 1280+93.73  
Y = 207313.11  
X = 225514.76  
BAH = N 59°55'01" E  
PISTA 1284+41.59  
Y = 207487.47  
X = 225815.76  
DELTA = 14°00'32" Right  
D = 05°24'19"  
T = 130.24  
L = 259.17  
R = 1060.00  
LCB = N 66°55'18" E  
BBK = N 59°55'01" E

## TRANSPORTATION PROJECT PLAT NO: 8600-02-24 - 4.10

THAT PART OF GOV'T LOT 2 AND GOV'T LOT 3 OF SECTION 24,  
ALL IN T-31-N, R-7-W, TOWN OF CLEVELAND, CHIPPEWA COUNTY, WISCONSIN

RELOCATION ORDER STH 178, CHIPPEWA FALLS - CORNELL (CTH R TO STH 64), CHIPPEWA COUNTY

TO PROPERLY ESTABLISH, LAY OUT, WIDEN, ENLARGE, EXTEND, CONSTRUCT, RECONSTRUCT, IMPROVE, OR MAINTAIN A PORTION OF THE HIGHWAY DESIGNATED ABOVE,  
THE STATE OF WISCONSIN DEPARTMENT OF TRANSPORTATION DEEMS IT NECESSARY TO RELOCATE OR CHANGE SAID HIGHWAY AND ACQUIRE CERTAIN LANDS AND  
INTERESTS OR RIGHTS IN LANDS FOR THE ABOVE PROJECT.

THE STATE OF WISCONSIN HAS DEEMED IT NECESSARY TO MONUMENT RIGHT-OF-WAY INTERESTS PREVIOUSLY ACQUIRED UNDER SECTIONS 82.01, 82.31(1), 82.31(2) AND 84.09  
OF THE WISCONSIN STATE STATUTES AND DOES HEREBY CERTIFY THE DEPARTMENT OF TRANSPORTATION HAS SURVEYED THE HIGHWAY RIGHT-OF-WAY; THAT THIS PLAT IS  
A TRUE AND CORRECT REPRESENTATION OF THE EXTERIOR BOUNDARIES OF THE LAND SURVEYED AND SHOWS ACCURATE MEASUREMENTS THEREOF.

813343

RECORDED ON  
09/27/2012  
3:44 PMMARGE L GEISSLER  
REGISTER OF DEEDS  
FEE EXEMPT:  
CHIPPEWA COUNTY, WI  
PAGES: 1RESERVED FOR REGISTER OF DEEDS  
PROJECT NUMBER 8600-02-24-4.10  
AMENDMENT NO:

| POINT | STATION    | OFFSET | NORTHING  | EASTING   |
|-------|------------|--------|-----------|-----------|
| 30050 | 1284+50.00 | -31.46 | 207512.70 | 225815.15 |
| 30053 | 1279+75.00 | -35.07 | 207291.58 | 225394.83 |
| 30139 | 1277+74.05 | -30.37 | 207217.86 | 225210.40 |
| 30141 | 1281+70.86 | -33.69 | 207380.92 | 225564.61 |
| 30142 | 1282+47.89 | -34.49 | 207420.23 | 225630.86 |
| 30144 | 1286+19.30 | -33.93 | 207569.64 | 225978.37 |
| 30145 | 1288+71.19 | -32.06 | 207638.32 | 226220.26 |
| 65065 | 1279+02.39 | -40.00 |           |           |
| 65066 | 1280+93.73 | -40.00 |           |           |
| 65067 | 1285+11.35 | -40.00 |           |           |
| 65068 | 1285+70.53 | -40.00 |           |           |
| 65069 | 1287+46.32 | -40.00 |           |           |
| 65087 | 1271+00.00 | -40.00 |           |           |
| 65088 | 1289+00.00 | -40.00 |           |           |

CURVE DATA  
LONG CHORD  
LONG CHORD BEARING  
RADIUS  
DEGREE OF CURVE  
CENTRAL ANGLE OR DELTA  
LENGTH OF CURVE  
TANGENT

LCB  
R  
D  
DELTA  
TAN

POWER POLE  
TELEPHONE POLE  
TELEPHONE PEDESTAL  
GUY POLE

NON COMPENSABLE

COMPENSABLE

N/A

SECTION CORNER



DOC. 764749

34

65087

90016

EXIST R/W

MATCH LINE 1277+00

N70°15'35"E 208.66'

STH 178

1280+00

C1

65065

30139

C2

30053

65066

30141

C3

65067

30142

C4

65068

30144

C5

65069

30145

65088

90157

EXIST R/W

MATCH LINE 1289+00

N73°55'34"E 170.79'

STH 178

1285+00

C6

41053

C7

41051

C8

41052

C9

41049

41048

41047

41050

41075

41051

41052

41053

41054

41055

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41271

## CONVENTIONAL SYMBOLS AND ABBREVIATIONS

STATE COUNTY, OF TOWN LINE  
SECTION LINE  
QUARTER LINE  
SIXTEENTH LINE  
PROPOSED REFERENCE LINE  
PROPOSED R/W LINE  
EXISTING H.E. LINE  
PROPERTY LINE  
EASEMENT LINE  
CORPORATE LIMITS  
EXISTING CENTERLINE  
LOT & TIE LINES  
UTILITIES  
(TELEPHONE, GAS, ELECTRIC, CABLE TV, FIBER OPTIC)  
FIRE HYDRANT  
ACCESS RESTRICTED  
(BY PREVIOUS PROJECT/CONTROL)  
NO ACCESS  
(BY ACQUISITION)

ACCESS POINT  
ACCESS RIGHTS  
ACRES  
AND OTHERS  
CENTERLINE  
CERTIFIED SURVEY MAP  
DOCUMENT  
HIGHWAY EASEMENT  
LAND CONTRACT  
MONUMENT  
PAGE  
PROPERTY LINE  
PERMANENT LIMITED EASEMENT  
RECORDED AS  
REFERENCE LINE  
REMAINING  
RIGHT-OF-WAY  
SECTION  
SQUARE FEET  
STATION  
TEMPORARY LIMITED EASEMENT  
VOLUME

AP  
AR  
AC  
ET-AL.  
C/L  
CSM  
DOC  
H.E.  
LC  
MON.  
P.  
PL  
PL  
R/L  
REM.  
R/W  
SEC.  
SQ.FT.  
STA.  
V.  
NO ACCESS  
(BY STATUTORY AUTHORITY)  
FEE (HATCH VARIES)  
TEMPORARY LIMITED EASEMENT  
PERMANENT LIMITED EASEMENT  
R/W BOUNDARY POINT  
PLE/TLE POINT  
PARCEL NUMBER  
SIGN NUMBER  
(OFF PREMISE)  
BUILDING  
FOUND IRON PIPE/PIN  
R/W MONUMENT  
R/W STANDARD  
SIGN

## ALIGNMENT DATA STH 178

PISTA 1284+41.59  
Y = 207487.47  
X = 225815.76  
PISTA 1289+93.89  
Y = 207640.75  
X = 226347.72  
DELTA = 03°04'30" Left  
D = 00°36'32"  
T = 252.58  
L = 505.03  
R = 9410.00  
LCH = 504.97  
LCB = N 72°23'19" E  
BBK = N 73°55'34" E  
PC STA 1287+41.32  
Y = 207570.82  
X = 226105.02  
PT STA 1292+46.35  
Y = 207723.60  
X = 226586.32  
BAH = N 70°51'04" E  
PISTA 1300+29.39  
Y = 207980.46  
X = 227326.04  
DELTA = 07°27'44" Left  
D = 05°24'19"  
T = 69.12  
L = 138.05  
R = 1060.00  
LCH = 137.96  
LCB = N 67°07'12" E  
BBK = N 70°51'04" E  
PC STA 1299+60.27  
Y = 207957.79  
X = 227260.74  
PT STA 1300+98.32  
Y = 208011.42  
X = 227387.84  
BAH = N 63°23'20" E  
PISTA 1304+46.56  
Y = 208167.41  
X = 227699.19

| PLE CURVE TABLE |               |       |       |         |
|-----------------|---------------|-------|-------|---------|
| CURVE           | LCB           | LCH   | L     | R       |
| C10             | N 67°55'22" E | 8.66  | 8.66  | 1942.86 |
| C11             | S 68°29'36" W | 30.03 | 30.03 | 1942.86 |

| PLE COURSE TABLE |               |          |
|------------------|---------------|----------|
| COURSE           | BEARING       | DISTANCE |
| 60027-60028      | N 19°08'56" W | 7.69     |
| 60028-60029      | N 70°51'04" E | 30.00    |
| 60029-60030      | S 19°08'56" E | 6.45     |

## TRANSPORTATION PROJECT PLAT NO: 8600-02-24 - 4.11

THAT PART OF GOV'T LOT 1 AND GOV'T LOT 2 OF SECTION 24,  
ALL IN T-31-N, R-7-W, TOWN OF CLEVELAND, CHIPPEWA COUNTY, WISCONSIN

RELOCATION ORDER STH 178, CHIPPEWA FALLS - CORNELL (CTH R TO STH 64), CHIPPEWA COUNTY

TO PROPERLY ESTABLISH, LAY OUT, WIDEN, ENLARGE, EXTEND, CONSTRUCT, RECONSTRUCT, IMPROVE, OR MAINTAIN A PORTION OF THE HIGHWAY DESIGNATED ABOVE,  
THE STATE OF WISCONSIN DEPARTMENT OF TRANSPORTATION DEEMS IT NECESSARY TO RELOCATE OR CHANGE SAID HIGHWAY AND ACQUIRE CERTAIN LANDS AND  
INTERESTS OR RIGHTS IN LANDS FOR THE ABOVE PROJECT.

TO EFFECT THIS CHANGE, PURSUANT TO AUTHORITY GRANTED UNDER SECTION 84.02 (3) AND 84.09, WISCONSIN STATUTES, THE DEPARTMENT OF TRANSPORTATION  
HEREBY ORDERS THAT:  
1. THAT PORTION OF SAID HIGHWAY AS SHOWN ON THIS PLAT IS LAID OUT AND ESTABLISHED TO THE LINES AND WIDTHS AS SO SHOWN FOR THE ABOVE PROJECT.  
2. THE LANDS OR INTERESTS OR RIGHTS IN LANDS AS SHOWN ON THIS PLAT ARE REQUIRED BY THE DEPARTMENT FOR THE ABOVE PROJECT AND SHALL BE ACQUIRED IN  
THE NAME OF THE STATE OF WISCONSIN, PURSUANT TO THE PROVISIONS OF SECTION 84.09 (1) OR (2), WISCONSIN STATUTES.

THE STATE OF WISCONSIN HAS DEEMED IT NECESSARY TO MONUMENT RIGHT-OF-WAY INTERESTS PREVIOUSLY ACQUIRED UNDER SECTIONS 82.01, 82.31(1), 82.31(2) AND 84.09  
OF THE WISCONSIN STATE STATUTES AND DOES HEREBY CERTIFY THE DEPARTMENT OF TRANSPORTATION HAS SURVEYED THE HIGHWAY RIGHT-OF-WAY; THAT THIS PLAT IS  
A TRUE AND CORRECT REPRESENTATION OF THE EXTERIOR BOUNDARIES OF THE LAND SURVEYED AND SHOWS ACCURATE MEASUREMENTS THEREOF.

813344

RECORDED ON

09/27/2012

3:45 PM

MARGE L GEISSLER

REGISTER OF DEEDS

FEE EXEMPT:

CHIPPEWA COUNTY, WI

PAGES: 1

RESERVED FOR REGISTER OF DEEDS  
PROJECT NUMBER 8600-02-24-4.11  
AMENDMENT NO:

TOWN

GOV'T LOT 2  
SEC 24

GOV'T LOT 1  
SEC 24

CLEVELAND

SCALE, FEET

0 50 100

## NOTES:

COORDINATES AND BEARINGS SHOWN ON THIS PLAT ARE REFERENCED TO THE WISCONSIN COUNTY  
COORDINATE SYSTEM, CHIPPEWA COUNTY ZONE, NAD83 (1993) ADJUSTMENT. THE COORDINATES SHOWN ARE  
GRID COORDINATES AND ARE TO BE USED AS GRID OR GROUND VALUES ON THIS PLAT.

RIGHT-OF-WAY MONUMENTS ARE TYPE 2 (TYPICALLY 3/4" X 24" REBAR WITH A WDOT CAP)  
AND WILL BE PLACED PRIOR TO THE COMPLETION OF THE PROJECT.

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

THE POINT OF INTERSECTIONS DESIGNATED WITH A 90000 SERIES NUMBER HAVE BEEN CREATED FOR THE  
PURPOSE OF SHOWING A CLOSED TRAVERSE. THE POINTS ARE INTENDED TO BE ON THE RIGHT-OF-WAY LINES  
BUT NOT NECESSARILY ON OR ANY PART OF A BOUNDARY, SIXTEENTH, QUARTER OR SECTION (P.L.S.S.) LINE.  
THESE POINTS WILL NOT BE MONUMENTED IN THE FIELD.

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

EXISTING HIGHWAY RIGHT-OF-WAY SHOWN HEREIN IS BASED ON THE FOLLOWING POINTS OF REFERENCE:  
EXISTING HIGHWAY RIGHT-OF-WAY FOR STH 178 ESTABLISHED FROM PREVIOUS PROJECTS T054(6) AND 8600-01-22  
EXISTING HIGHWAY RIGHT-OF-WAY ESTABLISHED FROM STATUTE 82.31 USING EXISTING ALIGNMENTS.

A TEMPORARY LIMITED EASEMENT (TLE) IS A RIGHT FOR CONSTRUCTION PURPOSES, AS DEFINED HEREIN, INCLUDING THE RIGHT  
TO OPERATE NECESSARY EQUIPMENT THEREON AND THE RIGHT OF INGRESS AND EGRESS, AS LONG AS REQUIRED FOR SUCH  
PUBLIC PURPOSE, INCLUDING THE RIGHT TO PRESERVE, PROTECT, REMOVE, OR PLANT THEREON ANY VEGETATION THAT THE  
HIGHWAY AUTHORITIES MAY DEEM NECESSARY OR DESIRABLE. ALL TLES EXPIRE AT THE COMPLETION OF THE CONSTRUCTION  
PROJECT FOR WHICH THIS  
INSTRUMENT IS GIVEN.

A PERMANENT LIMITED EASEMENT (PLE) IS A RIGHT FOR CONSTRUCTION AND MAINTENANCE PURPOSES,  
AS DEFINED HEREIN, INCLUDING THE RIGHT TO OPERATE NECESSARY EQUIPMENT THEREON AND THE RIGHT  
OF INGRESS AND EGRESS, AS LONG AS REQUIRED FOR SUCH PUBLIC PURPOSE, INCLUDING THE RIGHT TO  
PRESERVE, PROTECT, REMOVE, OR PLANT THEREON ANY VEGETATION THAT THE HIGHWAY AUTHORITIES MAY  
DEEM NECESSARY OR DESIRABLE, BUT WITHOUT PREJUDICE TO THE OWNER'S RIGHT TO MAKE OR  
CONSTRUCT IMPROVEMENT ON SAID LANDS OR TO FLATTEN THE SLOPES, PROVIDING SAID ACTIVITIES WILL  
NOT IMPAIR OR OTHERWISE ADVERSELY AFFECT THE HIGHWAY FACILITIES.

| CHIPPEWA RIVER<br>FLOWAGE RIGHTS |                 |
|----------------------------------|-----------------|
| PARCEL                           | V. - P.         |
| 37                               | V. 142 - P. 433 |

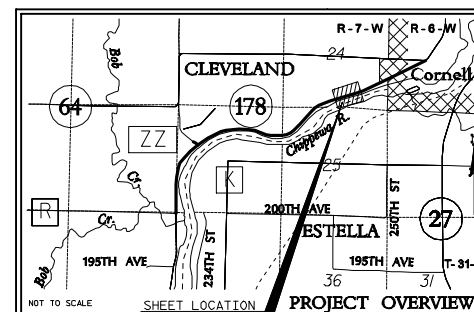
| UTILITY EASEMENT INFORMATION |                         |
|------------------------------|-------------------------|
| PARCEL 37                    | CENTURYLINK DOC. 586239 |

| SCHEDULE OF LANDS AND INTERESTS REQUIRED |                  |                      |                                               |                       |
|------------------------------------------|------------------|----------------------|-----------------------------------------------|-----------------------|
| PARCEL<br>NUMBER                         | OWNERS           | INTEREST<br>REQUIRED | R/W ACRES REQUIRED<br>NEW EXISTING H.E. TOTAL | PLE ACRES<br>REQUIRED |
| 37                                       | MICHAEL BILLIARD | TLE & PLE            | 0.00 0.00 0.00                                | 0.16                  |

OTHER NAMES ARE SHOWN FOR REFERENCE PURPOSES ONLY AND ARE SUBJECT TO CHANGE  
PRIOR TO THE TRANSFER OF LAND INTERESTS TO THE DEPARTMENT

| COURSE TABLE |               |          |
|--------------|---------------|----------|
| COURSE       | BEARING       | DISTANCE |
| 41054-41053  | S 75°30'13" W | 100.63   |
| 41053-90157  | N 17°02'24" W | 76.60    |
| 30147-30148  | N 67°47'43" E | 64.41    |
| 30150-30151  | N 74°17'39" E | 123.14   |
| 90054-90044  | S 26°36'40" E | 81.92    |
| 90044-41059  | S 63°23'20" W | 1.68     |
| 41058-41057  | S 70°51'04" W | 210.27   |
| 41057-41056  | S 70°51'04" W | 250.00   |
| 41056-41055  | S 70°51'04" W | 253.65   |

| CURVE TABLE |               |        |        |         |
|-------------|---------------|--------|--------|---------|
| CURVE       | LCB           | LCH    | L      | R       |
| C1          | S 71°36'04" W | 247.65 | 247.66 | 9460.00 |
| C2          | N 70°47'31" E | 475.79 | 476.01 | 4550.66 |
| C3          | N 71°02'41" E | 220.26 | 220.37 | 1942.86 |
| C4          | N 69°32'30" E | 311.01 | 311.37 | 1876.86 |
| C5          | S 67°07'12" W | 144.46 | 144.57 | 1110.00 |



**FAA** Fleming, Andre & Associates, Inc.  
CONSULTING ENGINEERS  
3615 N. Hastings Way • Suite 100  
Eau Claire, WI 54603

I, JOHN T. MUELLER, REGISTERED LAND SURVEYOR, HEREBY CERTIFY THAT IN FULL  
COMPLIANCE WITH THE PROVISIONS OF SECTION 84.095 OF THE WISCONSIN STATUTES  
AND UNDER THE DIRECTION OF THE WISCONSIN DEPARTMENT OF TRANSPORTATION, I  
HAVE SURVEYED TRANSPORTATION PROJECT PLAT 8600-02-24-4.11 AND THAT SUCH  
PLAT CORRECTLY REPRESENTS ALL EXTERIOR BOUNDARIES OF THE SURVEYED LAND.

DATE 9/21/2012

John T. Mueller  
John T. Mueller

THIS PLAT AND RELOCATION ORDER ARE APPROVED FOR  
THE WISCONSIN DEPARTMENT OF TRANSPORTATION.

DATE 9/21/2012

Michael Piller  
Michael Piller

FILE NAME : F:\Drawings\2011-122\0001\86000224\_4.11.dgn  
APPRAISAL PLAT DATE : 9/21/2012

PLOT DATE : 12/8/2010

PLOT BY : \* (LUSTN.USERNAME...) PLOT NAME :

PLOT SCALE : 1 in : 100 ft

4.11

## CONVENTIONAL SYMBOLS AND ABBREVIATIONS

STATE COUNTY, OF TOWN LINE  
SECTION LINE  
QUARTER LINE  
SIXTEENTH LINE  
PROPOSED REFERENCE LINE  
PROPOSED R/W LINE  
EXISTING H.E. LINE  
PROPERTY LINE  
EASEMENT LINE  
CORPORATE LIMITS  
EXISTING CENTERLINE  
LOT & TIE LINES  
UTILITIES  
(TELEPHONE, GAS, ELECTRIC, CABLE, FIBER, OPTIC)  
FIRE HYDRANT  
ACCESS RESTRICTED  
(BY PREVIOUS PROJECT/CONTROL)  
NO ACCESS  
(BY ACQUISITION)

ACCESS POINT  
ACCESS RIGHTS  
ACRES  
AND OTHERS  
CENTERLINE  
CERTIFIED SURVEY MAP  
DOCUMENT  
HIGHWAY EASEMENT  
LAND CONTRACT  
MONUMENT  
PAGE  
PROPERTY LINE  
PERMANENT LIMITED EASEMENT  
RECORDED AS  
REFERENCE LINE  
REMAINING  
RIGHT-OF-WAY  
SECTION  
SQUARE FEET  
STATION  
TEMPORARY LIMITED EASEMENT  
VOLUME

AP  
AR  
AC  
ET. AL.  
C/L  
CSM  
DOC  
H.E.  
LC  
MON.  
P.  
PL  
PL  
(100)  
R/L  
REM.  
R/W  
SEC.  
SQ. FT.  
STA.  
TLE  
V.

## ALIGNMENT DATA STH 178

PISTA 1300+29.39  
Y = 207980.46  
X = 227326.04  
DELTA = 07°27'44" Left  
D = 05°24'19"  
T = 69.12  
L = 138.05  
R = 1060.00  
LCB = 137.96  
PCB = N 67°07'12" E  
BBK = N 70°51'04" E  
PC STA 1299+60.27  
Y = 207957.79  
X = 227260.74  
PT STA 1300+98.32  
Y = 208011.42  
X = 227387.84  
BAH = N 63°23'20" E

PISTA 1304+46.56  
Y = 208167.41  
X = 227699.19  
DELTA = 01°10'32" Left  
D = 00°30'00"  
T = 117.55  
L = 235.10  
R = 1459.16  
LCB = 235.09  
PCB = N 62°48'04" E  
BBK = N 63°23'20" E  
PC STA 1303+29.01  
Y = 208114.75  
X = 227594.09  
PT STA 1305+64.11  
Y = 208222.21  
X = 227803.19  
BAH = N 62°12'48" E  
PISTA 1310+98.34  
Y = 208471.26  
X = 228275.82  
PISTA 1321+98.64  
Y = 208988.04  
X = 229247.21

## TRANSPORTATION PROJECT PLAT NO: 8600-02-24 - 4.12

THAT PART OF GOV'T LOT 1 OF SECTION 24, T-31-N, R-7-W, TOWN OF CLEVELAND AND GOV'T LOT 4 OF SECTION 19, T-31-N, R-6-W, CITY OF CORNELL, ALL IN CHIPPEWA COUNTY, WISCONSIN

RELOCATION ORDER STH 178, CHIPPEWA FALLS - CORNELL (CTH R TO STH 64), CHIPPEWA COUNTY

TO PROPERLY ESTABLISH, LAY OUT, WIDEN, ENLARGE, EXTEND, CONSTRUCT, RECONSTRUCT, IMPROVE, OR MAINTAIN A PORTION OF THE HIGHWAY DESIGNATED ABOVE, THE STATE OF WISCONSIN DEPARTMENT OF TRANSPORTATION DEEMS IT NECESSARY TO RELOCATE OR CHANGE SAID HIGHWAY AND ACQUIRE CERTAIN LANDS AND INTERESTS OR RIGHTS IN LANDS FOR THE ABOVE PROJECT.

TO EFFECT THIS CHANGE, PURSUANT TO AUTHORITY GRANTED UNDER SECTION 84.02 (3) AND 84.09, WISCONSIN STATUTES, THE DEPARTMENT OF TRANSPORTATION HEREBY ORDERS THAT:

1. THAT PORTION OF SAID HIGHWAY AS SHOWN ON THIS PLAT IS LAY OUT AND ESTABLISHED TO THE LINES AND WIDTHS AS SO SHOWN FOR THE ABOVE PROJECT.  
2. THE LANDS OR INTERESTS OR RIGHTS IN LANDS AS SHOWN ON THIS PLAT ARE REQUIRED BY THE DEPARTMENT FOR THE ABOVE PROJECT AND SHALL BE ACQUIRED IN THE NAME OF THE STATE OF WISCONSIN, PURSUANT TO THE PROVISIONS OF SECTION 84.09 (1) OR (2), WISCONSIN STATUTES.

THE STATE OF WISCONSIN HAS DEEMED IT NECESSARY TO MONUMENT RIGHT-OF-WAY INTERESTS PREVIOUSLY ACQUIRED UNDER SECTIONS 82.01, 82.31(1), 82.31(2) AND 84.09 OF THE WISCONSIN STATE STATUTES AND DOES HEREBY CERTIFY THE DEPARTMENT OF TRANSPORTATION HAS SURVEYED THE HIGHWAY RIGHT-OF-WAY; THAT THIS PLAT IS A TRUE AND CORRECT REPRESENTATION OF THE EXTERIOR BOUNDARIES OF THE LAND SURVEYED AND SHOWS ACCURATE MEASUREMENTS THEREOF.

813345

RECORDED ON  
09/27/2012  
3:45 PMMARGE L. GEISSLER  
REGISTER OF DEEDS  
FEE EXEMPT:  
CHIPPEWA COUNTY, WI  
PAGES: 1RESERVED FOR REGISTER OF DEEDS  
PROJECT NUMBER 8600-02-24-4.12  
AMENDMENT NO:

CURVE DATA  
LONG CHORD  
LONG CHORD BEARING  
RADIUS  
DEGREE OF CURVE  
CENTRAL ANGLE OR DELTA  
LENGTH OF CURVE  
TANGENT

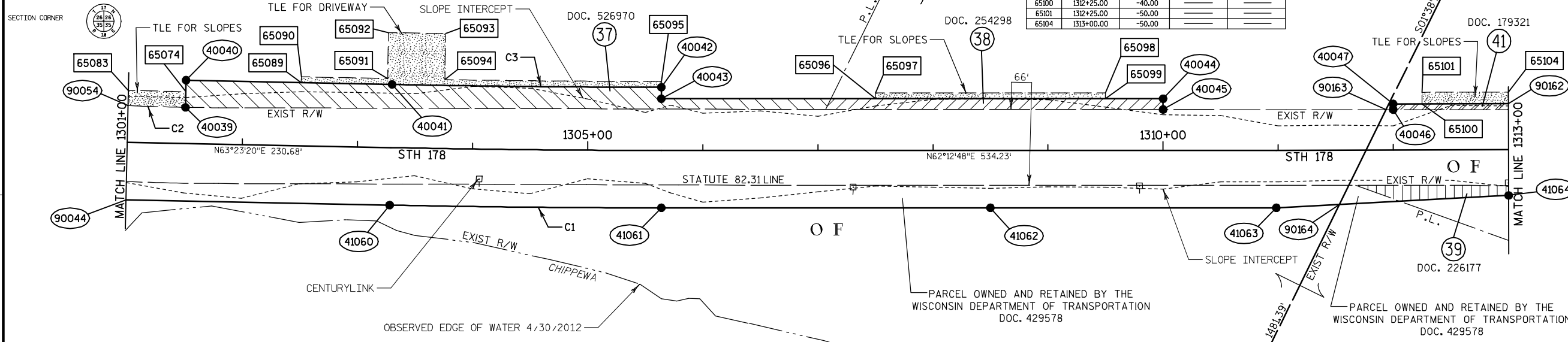
LCB  
LCB  
R  
D  
DELTA  
L  
TAN

POWER POLE  
TELEPHONE POLE  
TELEPHONE PEDESTAL  
GUY POLE

SECTION CORNER

TOWN

CITY



## NOTES:

COORDINATES AND BEARINGS SHOWN ON THIS PLAT ARE REFERENCED TO THE WISCONSIN COUNTY COORDINATE SYSTEM, CHIPPEWA COUNTY ZONE, NAD83 (199) ADJUSTMENT. THE COORDINATES SHOWN ARE GRID COORDINATES AND ARE TO BE USED AS GRID OR GROUND VALUES ON THIS PLAT.

RIGHT-OF-WAY MONUMENTS ARE TYPE 2 (TYPICALLY 3/4" X 24" REBAR WITH A WDOT CAP) AND WILL BE PLACED PRIOR TO THE COMPLETION OF THE PROJECT.  
RIGHT-OF-WAY BOUNDARIES ARE DEFINED WITH COURSES OF THE PERIMETER OF THE HIGHWAY LANDS REFERENCED TO THE U.S. PUBLIC LAND SURVEY SYSTEM OR OTHER "SURVEYS OF PUBLIC RECORD".

THE POINT OF INTERSECTIONS DESIGNATED WITH A 90000 SERIES NUMBER HAVE BEEN CREATED FOR THE PURPOSE OF SHOWING A CLOSED TRAVERSE. THE POINTS ARE INTENDED TO BE ON THE RIGHT-OF-WAY LINES BUT NOT NECESSARILY ON OR ANY PART OF A BOUNDARY, SIXTEENTH, QUARTER OR SECTION (P.L.S.) LINE. THESE POINTS WILL NOT BE MONUMENTED IN THE FIELD.

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

EXISTING HIGHWAY RIGHT-OF-WAY SHOWN HEREIN IS BASED ON THE FOLLOWING POINTS OF REFERENCE:  
EXISTING HIGHWAY RIGHT-OF-WAY FOR STH 178 ESTABLISHED FROM PREVIOUS PROJECTS T054(6) AND 8600-01-22  
EXISTING HIGHWAY RIGHT-OF-WAY ESTABLISHED FROM STATUTE 82.31 USING EXISTING ALIGNMENTS.

A TEMPORARY LIMITED EASEMENT (TLE) IS A RIGHT FOR CONSTRUCTION PURPOSES, AS DEFINED HEREIN, INCLUDING THE RIGHT TO OPERATE NECESSARY EQUIPMENT THEREON AND THE RIGHT OF INGRESS AND EGRESS, AS LONG AS REQUIRED FOR SUCH PUBLIC PURPOSE, INCLUDING THE RIGHT TO PRESERVE, PROTECT, REMOVE, OR PLANT THEREON ANY VEGETATION THAT THE HIGHWAY AUTHORITIES MAY DEEM NECESSARY OR DESIRABLE. ALL TLES EXPIRE AT THE COMPLETION OF THE CONSTRUCTION PROJECT FOR WHICH THIS INSTRUMENT IS GIVEN.

| COURSE TABLE |               |          |
|--------------|---------------|----------|
| COURSE       | BEARING       | DISTANCE |
| 90163-90164  | S 01°38'11" E | 91.95    |
| 90164-41063  | S 59°09'04" W | 55.02    |
| 41063-41062  | S 62°12'48" W | 248.34   |
| 41062-41061  | S 62°12'48" W | 285.89   |
| 41060-90044  | S 63°23'20" W | 229.01   |
| 90044-90054  | N 26°36'40" W | 81.92    |
| 40039-40040  | N 26°36'40" W | 23.64    |
| 40040-40041  | N 63°23'20" E | 179.01   |
| 40042-40043  | S 27°47'12" E | 10.00    |
| 40043-40044  | N 62°12'48" E | 435.89   |
| 40044-40045  | S 27°47'12" E | 9.49     |
| 40045-90163  | N 62°13'24" E | 193.80   |

| CURVE TABLE |               |        |          |
|-------------|---------------|--------|----------|
| CURVE       | LCB           | LCH    | R        |
| C1          | S 62°48'04" W | 236.12 | 11509.16 |
| C2          | N 64°01'32" E | 50.00  | 1876.86  |
| C3          | N 62°48'04" E | 233.97 | 11404.16 |

| CHIPPEWA RIVER FLOWAGE RIGHTS |                 |
|-------------------------------|-----------------|
| PARCEL                        | V. - P.         |
| 37                            | V. 142 - P. 433 |
| 38                            | V. 142 - P. 433 |
| 39                            | V. 142 - P. 433 |
| 41                            | V. 142 - P. 433 |

| SCENIC EASEMENT |             |
|-----------------|-------------|
| PARCEL          | DOC.        |
| 39              | DOC. 325646 |
| 39              | DOC. 327772 |
| 39              | DOC. 380590 |
| 39              | DOC. 394580 |
| 39              | DOC. 448733 |

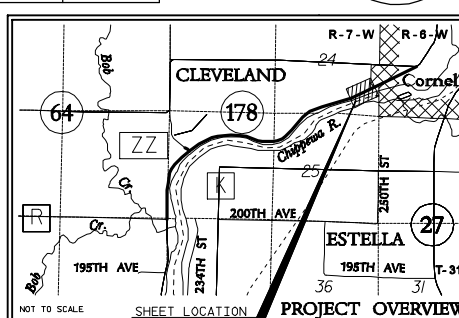
| UTILITY EASEMENT INFORMATION |             |             |      |         |
|------------------------------|-------------|-------------|------|---------|
| PARCEL                       | UTILITY     | DOC.        | DATE | REMARKS |
| 37                           | CENTURYLINK | DOC. 586239 |      |         |
| 38                           | CENTURYLINK | DOC. 586239 |      |         |
| 39                           | CENTURYLINK | DOC. 586239 |      |         |
| 41                           | CENTURYLINK | DOC. 586239 |      |         |

| SCHEDULE OF LANDS AND INTERESTS REQUIRED |                              |                   |                        |
|------------------------------------------|------------------------------|-------------------|------------------------|
| PARCEL NUMBER                            | OWNERS                       | INTEREST REQUIRED | NEW R/W ACRES REQUIRED |
| 37                                       | MICHAEL BILLIARD             | FEE & TLE         | 0.23                   |
| 38                                       | VILLAGE OF CORNELL           | FEE & TLE         | 0.06                   |
| 39                                       | CHIPPEWA COUNTY              | FEE               | 0.03                   |
| 41                                       | CORNELL CEMETERY ASSOCIATION | FEE & TLE         | 0.01                   |

| OWNER NAMES ARE SHOWN FOR REFERENCE PURPOSES ONLY AND ARE SUBJECT TO CHANGE PRIOR TO THE TRANSFER OF LAND INTERESTS TO THE DEPARTMENT |       |                    |                     |  |
|---------------------------------------------------------------------------------------------------------------------------------------|-------|--------------------|---------------------|--|
| NEW R/W ACRES REQUIRED                                                                                                                | TOTAL | TLE ACRES REQUIRED | P.L. ACRES REQUIRED |  |
| 0.23                                                                                                                                  | 0.23  | 0.10               | 0.00                |  |
| 0.06                                                                                                                                  | 0.06  | 0.02               | 0.00                |  |
| 0.03                                                                                                                                  | 0.03  | 0.00               | 0.00                |  |
| 0.01                                                                                                                                  | 0.01  | 0.02               | 0.00                |  |

| COURSE TABLE |               |          |
|--------------|---------------|----------|
| COURSE       | BEARING       | DISTANCE |
| 90163-40046  | N 62°13'24" E | 6.06     |
| 40046-40047  | N 28°00'47" W | 4.92     |
| 40047-90162  | N 61°59'13" E | 100.00   |
| 90162-41064  | S 28°00'47" E | 80.00    |
| 41064-90164  | S 59°09'04" W | 147.09   |
| 90164-90163  | N 01°38'11" W | 91.95    |

| R/W POINT TABLE |            |        |           |           |
|-----------------|------------|--------|-----------|-----------|
| POINT           | STATION    | OFFSET | NORTHING  | EASTING   |
| 41060           | 1303+29.01 | 50.00  | 208070.05 | 227616.49 |
| 41061           | 1305+64.11 | 50.00  | 208177.98 | 227826.50 |
| 41062           | 1308+50.00 | 50.00  | 208311.25 | 228079.42 |
| 41063           | 1310+98.34 | 50.00  | 208427.03 | 228299.13 |
| 41064           | 1313+00.00 | 40.00  | 208530.66 | 228472.64 |



**FAA** Fleming, Andre & Associates, Inc.  
CONSULTING ENGINEERS  
3615 N. Hastings Way • Suite 100  
Eau Claire, WI 54603

I, JOHN T. MUELLER, REGISTERED LAND SURVEYOR, HEREBY CERTIFY THAT IN FULL COMPLIANCE WITH THE PROVISIONS OF SECTION 84.095 OF THE WISCONSIN STATUTES AND UNDER THE DIRECTION OF THE WISCONSIN DEPARTMENT OF TRANSPORTATION, I HAVE SURVEYED TRANSPORTATION PROJECT PLAT 8600-02-24-4.12 AND THAT SUCH PLAT CORRECTLY REPRESENTS ALL EXTERIOR BOUNDARIES OF THE SURVEYED LAND.

DATE 9/21/2012  
John T. Mueller  
Michael Piller  
THIS PLAT AND RELOCATION ORDER ARE APPROVED FOR THE WISCONSIN DEPARTMENT OF TRANSPORTATION.  
DATE 9/21/2012

57







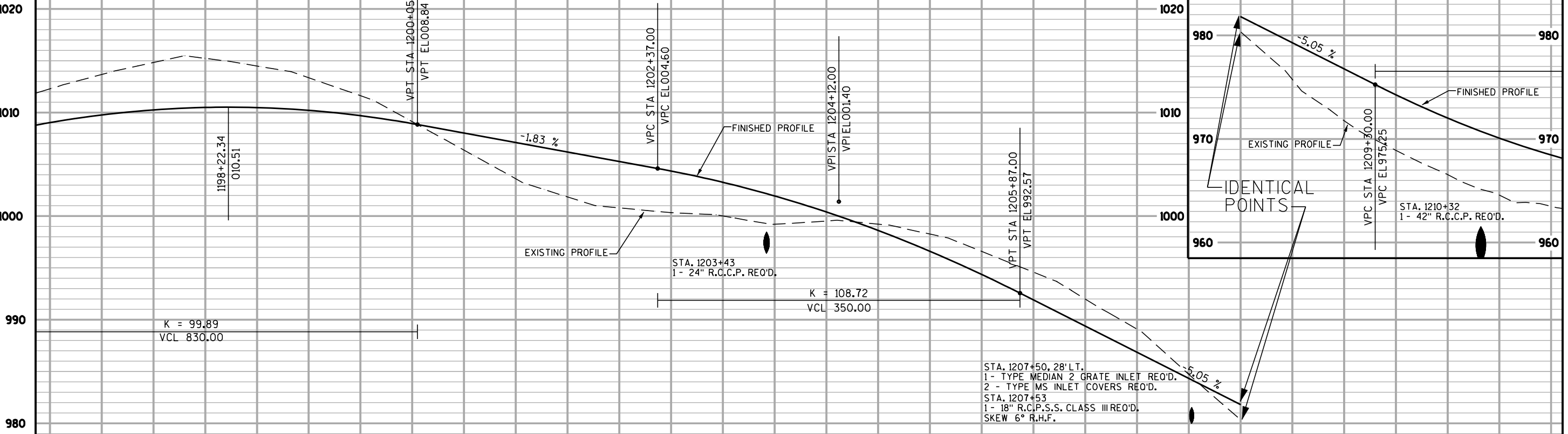
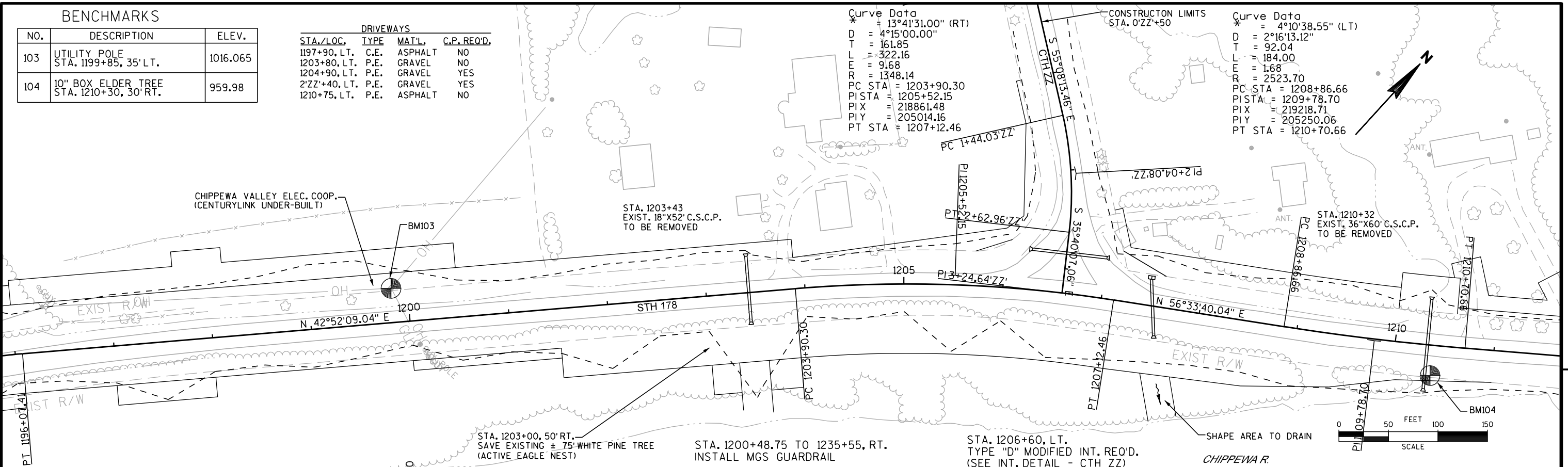
BENCHMARKS

| NO. | DESCRIPTION                                 | ELEV.    |
|-----|---------------------------------------------|----------|
| 103 | UTILITY POLE<br>STA. 1199+85, 35' LT.       | 1016.065 |
| 104 | 10" BOX ELDER TREE<br>STA. 1210+30, 30' RT. | 959.98   |

| DRIVEWAYS     |      |         |             |
|---------------|------|---------|-------------|
| STA./LOC.     | TYPE | MAT'L   | C.P. REQ'D. |
| 1197+90, LT.  | C.E. | ASPHALT | NO          |
| 1203+80, LT.  | P.E. | GRAVEL  | NO          |
| 1204+90, LT.  | P.E. | GRAVEL  | YES         |
| 2'ZZ'+40, LT. | P.E. | GRAVEL  | YES         |
| 1210+75, LT.  | P.E. | ASPHALT | NO          |

Curve Data  
\* = 13°41'31.00" (RT)  
D = 4°15'00.00"  
T = 161.85  
L = 322.16  
E = 9.68  
R = 1348.14  
PC STA = 1203+90.30  
PI STA = 1205+52.15  
PIX = 218861.48  
PIY = 205014.16  
PT STA = 1207+12.46

Curve Data  
\* = 4°10'38.55" (LT)  
D = 2°16'13.12"  
T = 92.04  
L = 184.00  
E = 1.68  
R = 2523.70  
PC STA = 1208+86.66  
PI STA = 1209+78.70  
PIX = 219218.71  
PIY = 205250.06  
PT STA = 1210+70.66

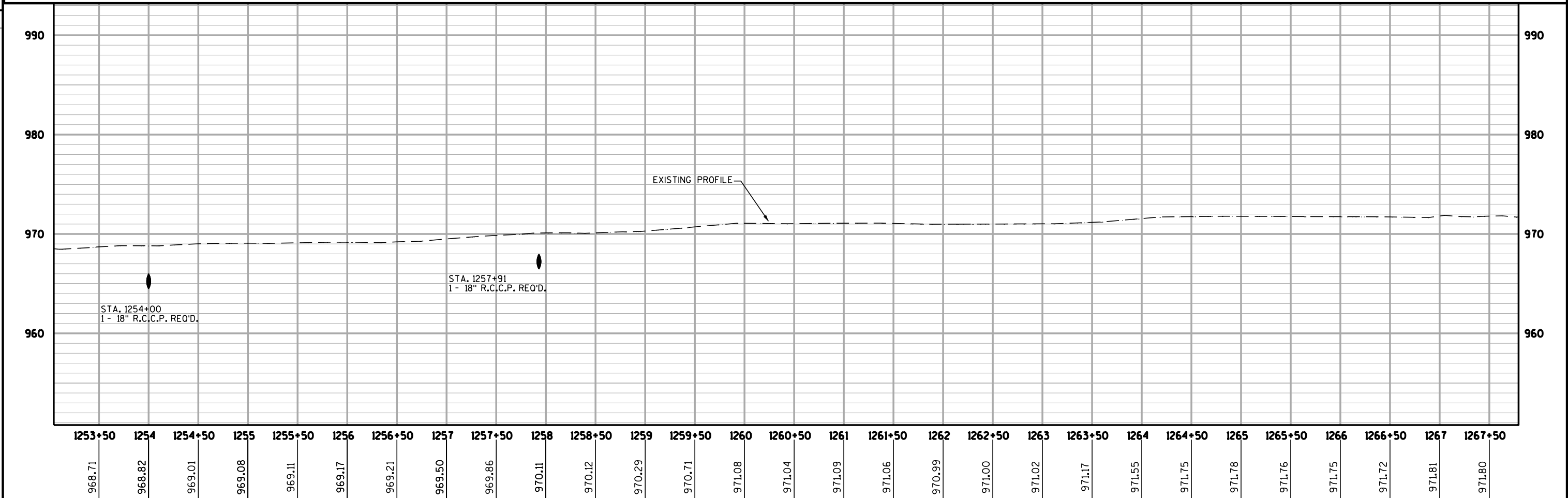
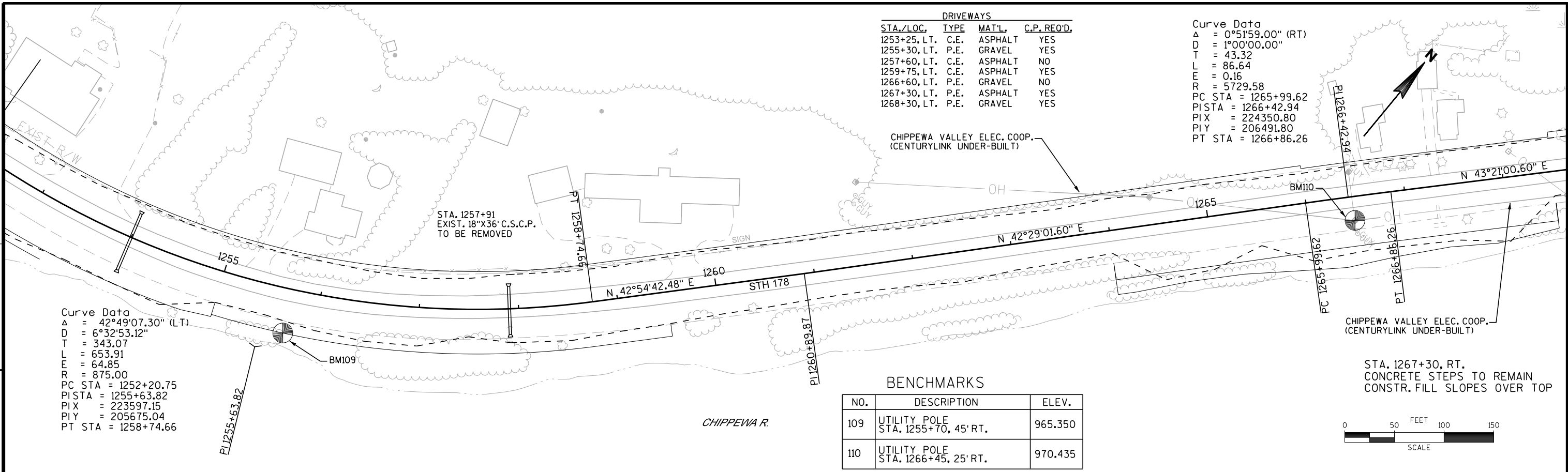


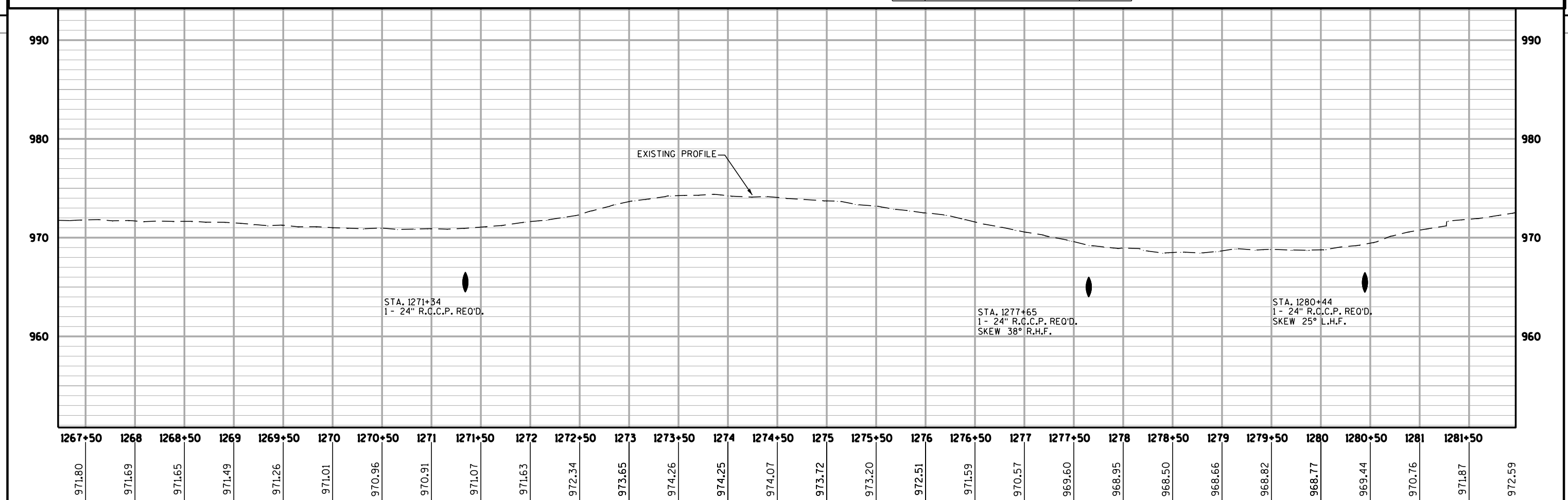
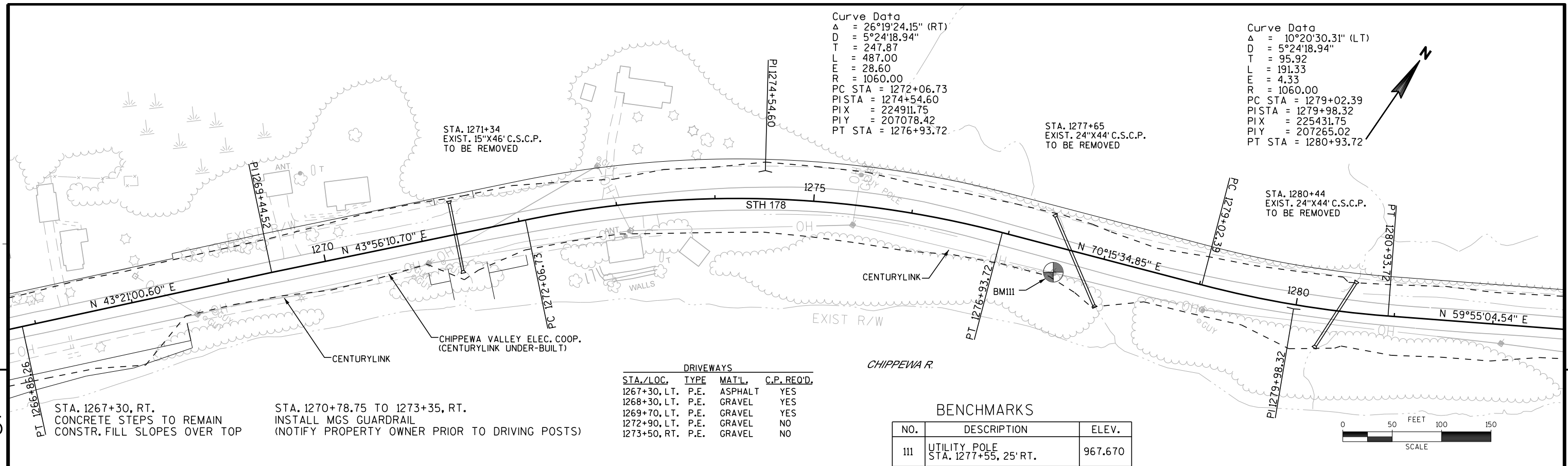
| 1196+50          | 1197             | 1197+50          | 1198             | 1198+50          | 1199             | 1199+50          | 1200             | 1200+50          | 1201             | 1201+50          | 1202             | 1202+50          | 1203             | 1203+50          | 1204             | 1204+50          | 1205             | 1205+50          | 1206             | 1206+50          | 1207             | 1207+50          | 1208             | 1208+50          | 1209             | 1209+50          | 1210             | 1210+50          | 1211             |
|------------------|------------------|------------------|------------------|------------------|------------------|------------------|------------------|------------------|------------------|------------------|------------------|------------------|------------------|------------------|------------------|------------------|------------------|------------------|------------------|------------------|------------------|------------------|------------------|------------------|------------------|------------------|------------------|------------------|------------------|
| 012.29<br>009.03 | 013.68<br>009.76 | 014.84<br>010.25 | 015.24<br>010.49 | 014.50<br>010.47 | 013.36<br>010.21 | 011.63<br>009.70 | 009.13<br>008.93 | 006.37<br>008.02 | 003.61<br>007.11 | 001.86<br>006.19 | 000.80<br>005.28 | 000.34<br>004.35 | 000.02<br>003.27 | 999.22<br>001.95 | 999.55<br>000.40 | 999.23<br>998.62 | 998.28<br>996.61 | 996.59<br>994.37 | 994.59<br>991.91 | 992.00<br>989.39 | 989.10<br>986.86 | 984.75<br>984.34 | 980.35<br>981.81 | 975.75<br>979.29 | 971.76<br>976.77 | 968.90<br>974.27 | 966.56<br>972.02 | 964.58<br>970.08 | 963.49<br>968.45 |









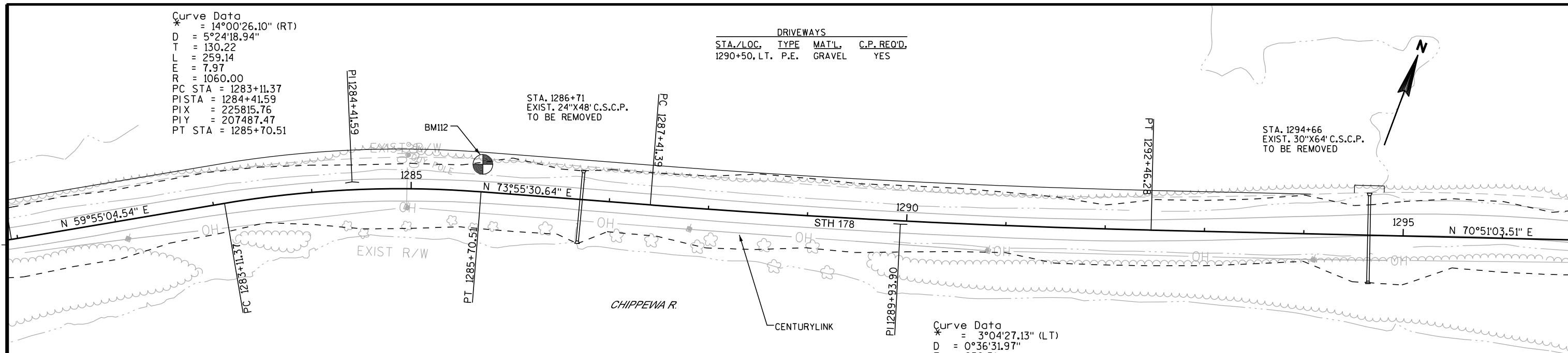


Curve Data  
\* = 14°00'26.10" (RT)  
D = 5°24'18.94"  
T = 130.22  
L = 259.14  
E = 7.97  
R = 1060.00  
PC STA = 1283+11.37  
PISTA = 1284+41.59  
PIX = 225815.76  
PIY = 207487.47  
PT STA = 1285+70.51

| DRIVEWAYS    |      |        |             |
|--------------|------|--------|-------------|
| STA./LOC.    | TYPE | MAT'L. | C.P. REQ'D. |
| 1290+50, LT. | P.E. | GRAVEL | YES         |

STA. 1286+71  
EXIST. 24"x48' C.S.C.P.  
TO BE REMOVED

STA. 1294+66  
EXIST. 30"x64' C.S.C.P.  
TO BE REMOVED

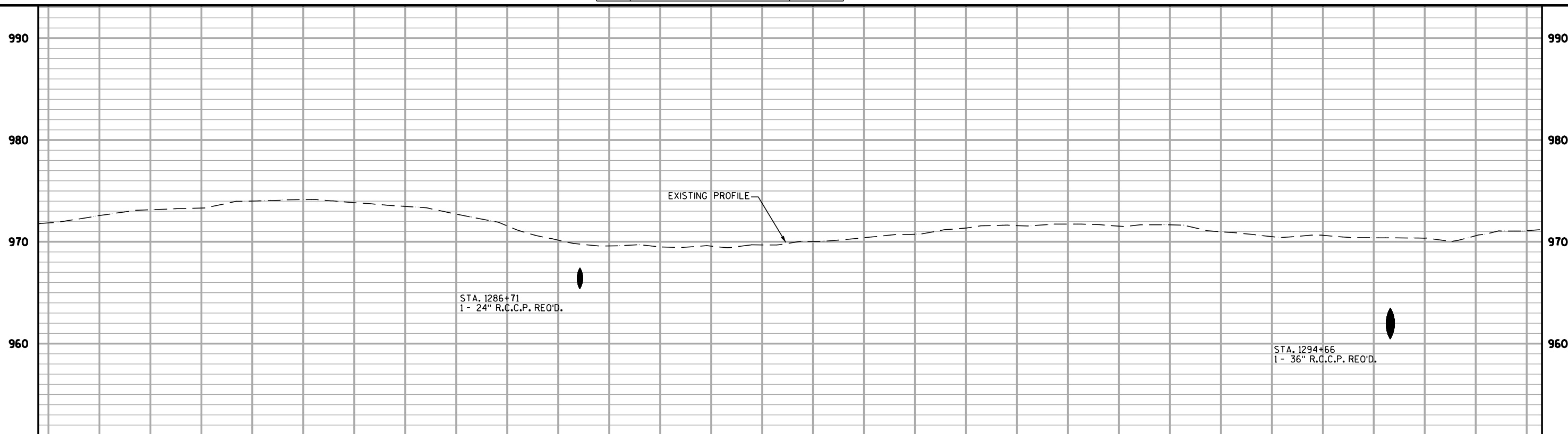
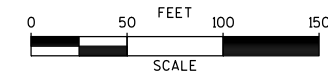


STA. 1282+58.75 TO 1289+40, RT.  
INSTALL MGS GUARDRAIL

#### BENCHMARKS

| NO. | DESCRIPTION                                 | ELEV.   |
|-----|---------------------------------------------|---------|
| 112 | 10" WHITE OAK TREE<br>STA. 1285+70, 30' LT. | 972.960 |

Curve Data  
\* = 3°04'27.13" (LT)  
D = 0°36'31.97"  
T = 252.51  
L = 504.89  
E = 3.39  
R = 9410.00  
PC STA = 1287+41.39  
PISTA = 1289+93.90  
PIX = 226347.72  
PIY = 207640.75  
PT STA = 1292+46.28



|         |        |         |        |         |        |         |        |         |        |         |        |         |        |         |        |         |        |         |        |         |        |         |        |         |        |         |        |         |        |
|---------|--------|---------|--------|---------|--------|---------|--------|---------|--------|---------|--------|---------|--------|---------|--------|---------|--------|---------|--------|---------|--------|---------|--------|---------|--------|---------|--------|---------|--------|
| 1281+50 | 1282   | 1282+50 | 1283   | 1283+50 | 1284   | 1284+50 | 1285   | 1285+50 | 1286   | 1286+50 | 1287   | 1287+50 | 1288   | 1288+50 | 1289   | 1289+50 | 1290   | 1290+50 | 1291   | 1291+50 | 1292   | 1292+50 | 1293   | 1293+50 | 1294   | 1294+50 | 1295   | 1295+50 | 1296   |
|         | 972.59 |         |        | 973.15  |        |         |        |         |        |         |        |         |        |         |        |         |        |         |        |         |        |         |        |         |        |         |        |         |        |
|         |        | 973.15  |        |         | 973.31 |         |        |         |        |         |        |         |        |         |        |         |        |         |        |         |        |         |        |         |        |         |        |         |        |
|         |        |         | 973.31 |         |        | 974.02  |        |         |        |         |        |         |        |         |        |         |        |         |        |         |        |         |        |         |        |         |        |         |        |
|         |        |         |        | 974.02  |        |         | 974.14 |         |        |         |        |         |        |         |        |         |        |         |        |         |        |         |        |         |        |         |        |         |        |
|         |        |         |        |         | 974.14 |         |        |         |        |         |        |         |        |         |        |         |        |         |        |         |        |         |        |         |        |         |        |         |        |
|         |        |         |        |         |        | 973.85  |        |         |        |         |        |         |        |         |        |         |        |         |        |         |        |         |        |         |        |         |        |         |        |
|         |        |         |        |         |        |         | 973.49 |         |        |         |        |         |        |         |        |         |        |         |        |         |        |         |        |         |        |         |        |         |        |
|         |        |         |        |         |        |         |        | 972.75  |        |         |        |         |        |         |        |         |        |         |        |         |        |         |        |         |        |         |        |         |        |
|         |        |         |        |         |        |         |        |         | 971.56 |         |        |         |        |         |        |         |        |         |        |         |        |         |        |         |        |         |        |         |        |
|         |        |         |        |         |        |         |        |         |        | 970.17  |        |         |        |         |        |         |        |         |        |         |        |         |        |         |        |         |        |         |        |
|         |        |         |        |         |        |         |        |         |        |         | 969.60 |         |        |         |        |         |        |         |        |         |        |         |        |         |        |         |        |         |        |
|         |        |         |        |         |        |         |        |         |        |         |        | 969.51  |        |         |        |         |        |         |        |         |        |         |        |         |        |         |        |         |        |
|         |        |         |        |         |        |         |        |         |        |         |        |         | 969.58 |         |        |         |        |         |        |         |        |         |        |         |        |         |        |         |        |
|         |        |         |        |         |        |         |        |         |        |         |        |         |        | 969.69  |        |         |        |         |        |         |        |         |        |         |        |         |        |         |        |
|         |        |         |        |         |        |         |        |         |        |         |        |         |        |         | 970.05 |         |        |         |        |         |        |         |        |         |        |         |        |         |        |
|         |        |         |        |         |        |         |        |         |        |         |        |         |        |         |        | 970.41  |        |         |        |         |        |         |        |         |        |         |        |         |        |
|         |        |         |        |         |        |         |        |         |        |         |        |         |        |         |        |         | 970.76 |         |        |         |        |         |        |         |        |         |        |         |        |
|         |        |         |        |         |        |         |        |         |        |         |        |         |        |         |        |         |        | 971.36  |        |         |        |         |        |         |        |         |        |         |        |
|         |        |         |        |         |        |         |        |         |        |         |        |         |        |         |        |         |        |         | 971.61 |         |        |         |        |         |        |         |        |         |        |
|         |        |         |        |         |        |         |        |         |        |         |        |         |        |         |        |         |        |         |        | 971.75  |        |         |        |         |        |         |        |         |        |
|         |        |         |        |         |        |         |        |         |        |         |        |         |        |         |        |         |        |         |        |         | 971.54 |         |        |         |        |         |        |         |        |
|         |        |         |        |         |        |         |        |         |        |         |        |         |        |         |        |         |        |         |        |         |        | 971.68  |        |         |        |         |        |         |        |
|         |        |         |        |         |        |         |        |         |        |         |        |         |        |         |        |         |        |         |        |         |        |         | 971.00 |         |        |         |        |         |        |
|         |        |         |        |         |        |         |        |         |        |         |        |         |        |         |        |         |        |         |        |         |        |         |        | 970.52  |        |         |        |         |        |
|         |        |         |        |         |        |         |        |         |        |         |        |         |        |         |        |         |        |         |        |         |        |         |        |         | 970.64 |         |        |         |        |
|         |        |         |        |         |        |         |        |         |        |         |        |         |        |         |        |         |        |         |        |         |        |         |        |         |        | 970.40  |        |         |        |
|         |        |         |        |         |        |         |        |         |        |         |        |         |        |         |        |         |        |         |        |         |        |         |        |         |        |         | 970.36 |         |        |
|         |        |         |        |         |        |         |        |         |        |         |        |         |        |         |        |         |        |         |        |         |        |         |        |         |        |         |        | 970.60  |        |
|         |        |         |        |         |        |         |        |         |        |         |        |         |        |         |        |         |        |         |        |         |        |         |        |         |        |         |        |         | 971.09 |

PROJECT NO: 8600-02-72

HWY: STH 178

COUNTY: CHIPPEWA

PLAN & PROFILE

SHEET NO:

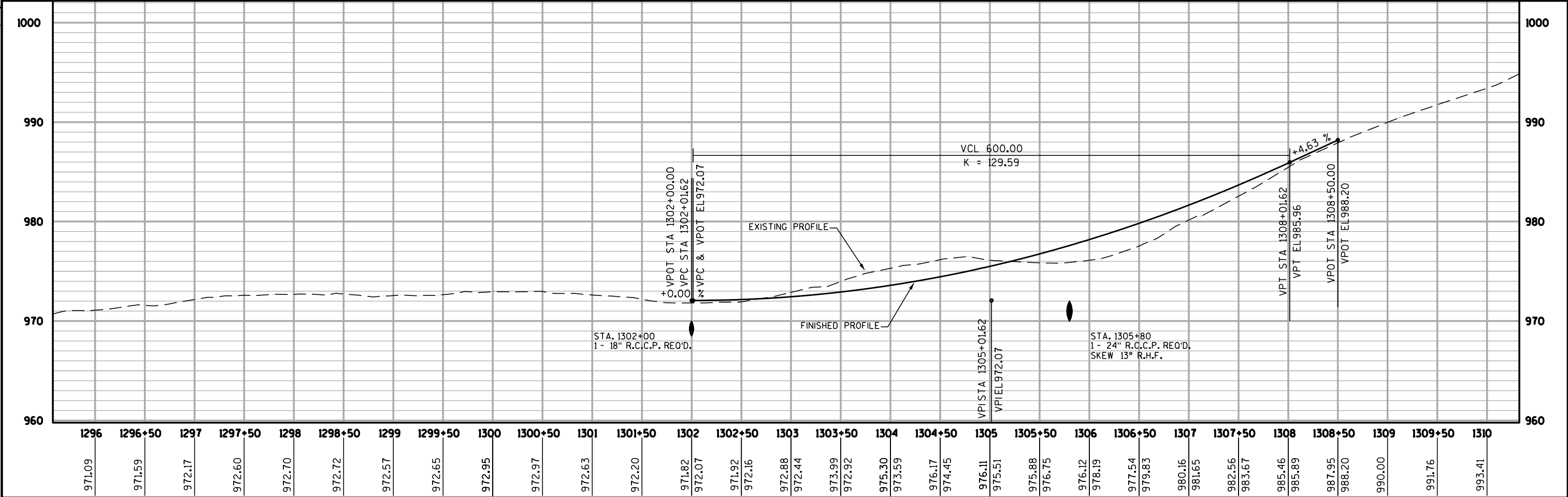
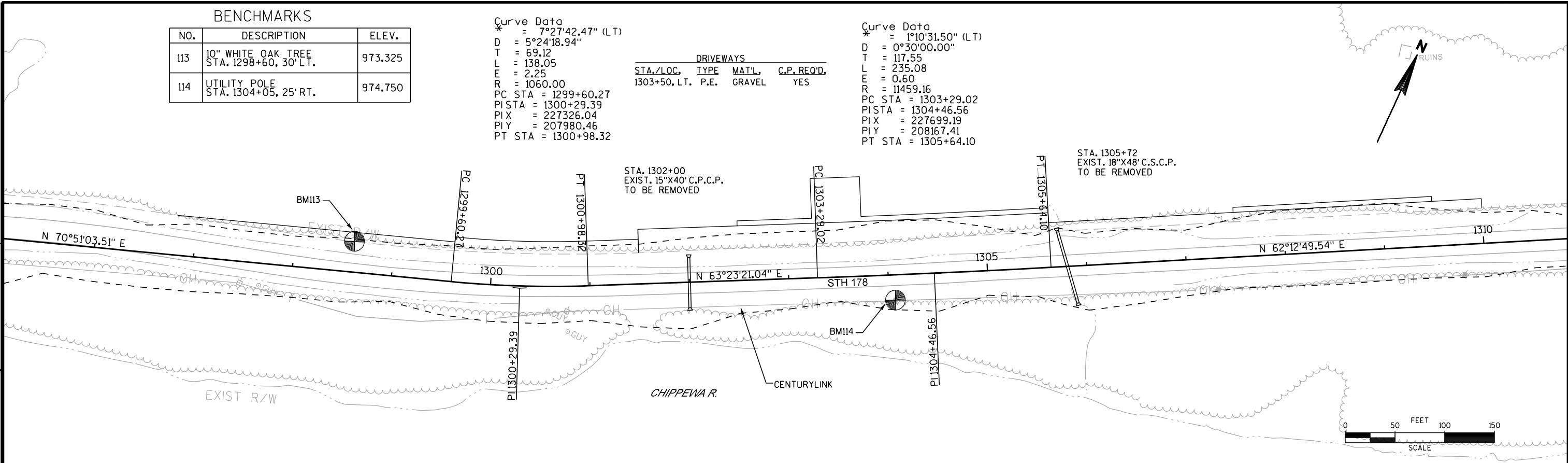
E

| BENCHMARKS |                                             |         |
|------------|---------------------------------------------|---------|
| NO.        | DESCRIPTION                                 | ELEV.   |
| 113        | 10" WHITE OAK TREE<br>STA. 1298+60, 30' LT. | 973.325 |
| 114        | UTILITY POLE<br>STA. 1304+05, 25' RT.       | 974.750 |

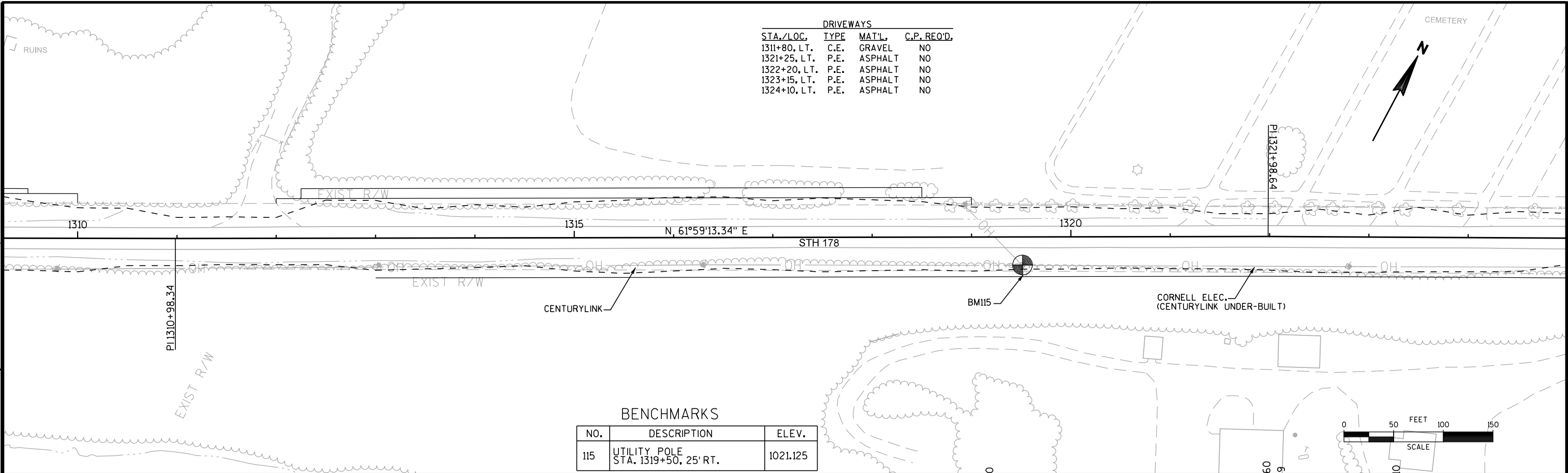
Curve Data  
\* = 7°27'42.47" (LT)  
D = 5°24'18.94"  
T = 69.12  
L = 138.05  
E = 2.25  
R = 1060.00  
PC STA = 1299+60.27  
PI STA = 1300+29.39  
PIX = 227326.04  
PIY = 207980.46  
PT STA = 1300+98.32

| DRIVEWAYS    |      |        |             |
|--------------|------|--------|-------------|
| STA./LOC.    | TYPE | MAT'L. | C.P. REQ'D. |
| 1303+50, LT. | P.E. | GRAVEL | YES         |

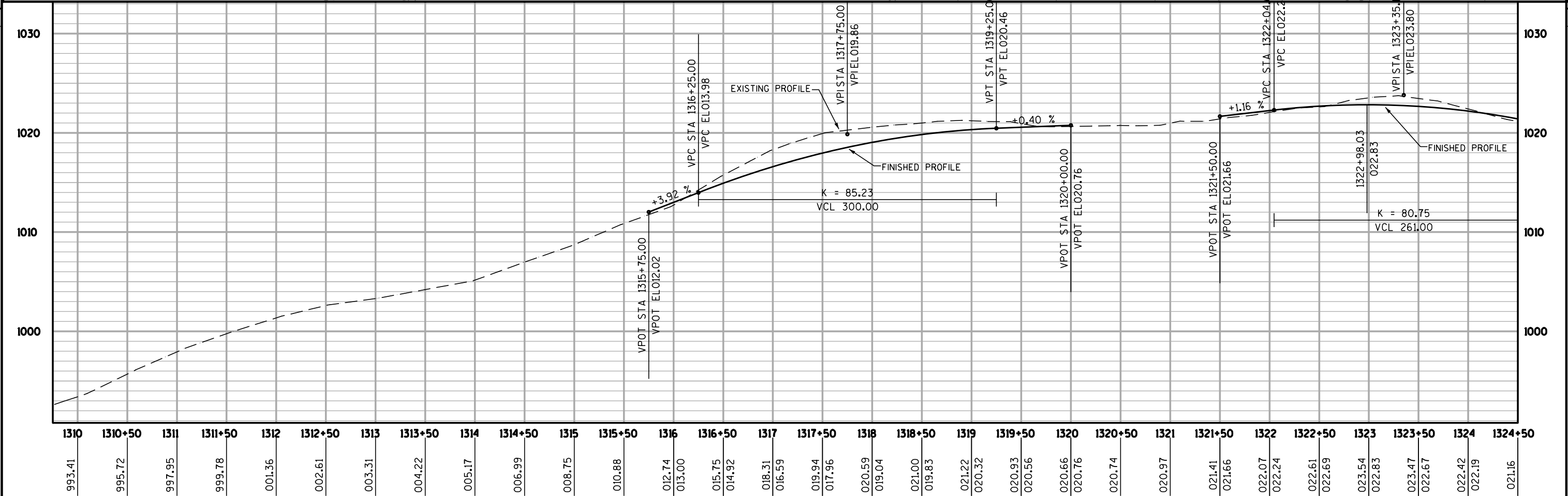
Curve Data  
\* = 1°10'31.50" (LT)  
D = 0°30'00.00"  
T = 117.55  
L = 235.08  
E = 0.60  
R = 11459.16  
PC STA = 1303+29.02  
PI STA = 1304+46.56  
PIX = 227699.19  
PIY = 208167.41  
PT STA = 1305+64.10

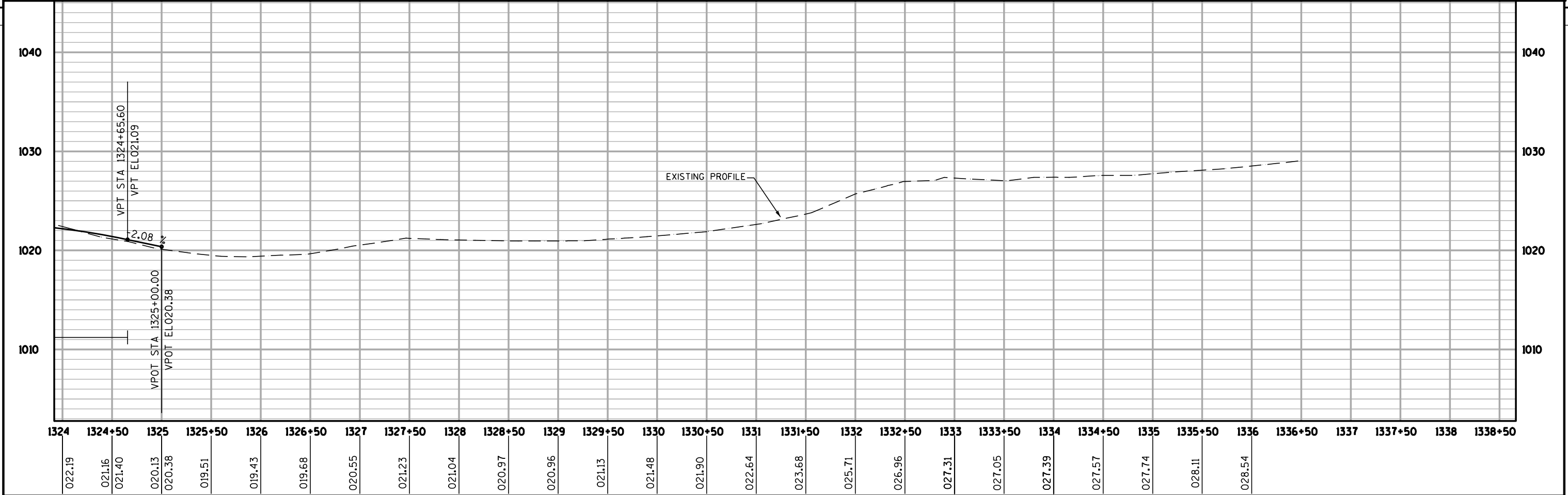
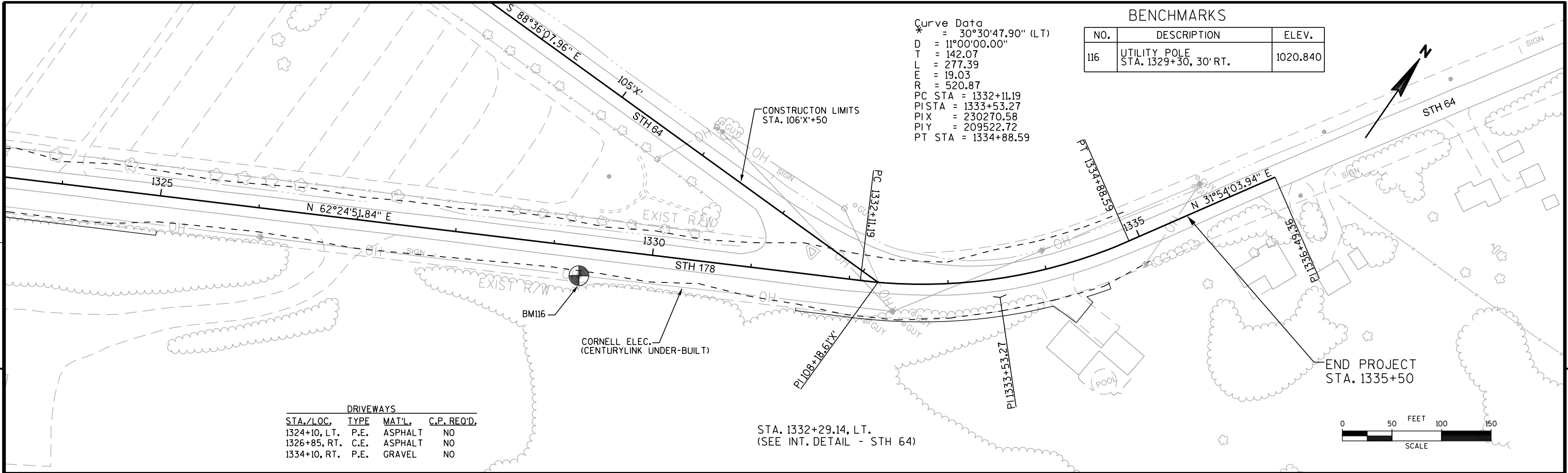


| DRIVEWAYS    |      |         |             |
|--------------|------|---------|-------------|
| STA./LOC.    | TYPE | MAT'L   | C.P. REQ'D. |
| 1311+80, LT. | C.E. | GRAVEL  | NO          |
| 1321+25, LT. | P.E. | ASPHALT | NO          |
| 1322+20, LT. | P.E. | ASPHALT | NO          |
| 1323+15, LT. | P.E. | ASPHALT | NO          |
| 1324+10, LT. | P.E. | ASPHALT | NO          |



| BENCHMARKS |                                       |          |
|------------|---------------------------------------|----------|
| NO.        | DESCRIPTION                           | ELEV.    |
| 115        | UTILITY POLE<br>STA. 1319+50, 25' RT. | 1021.125 |

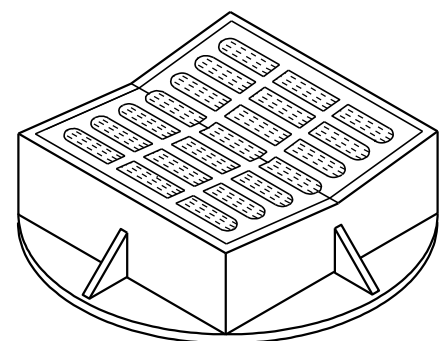
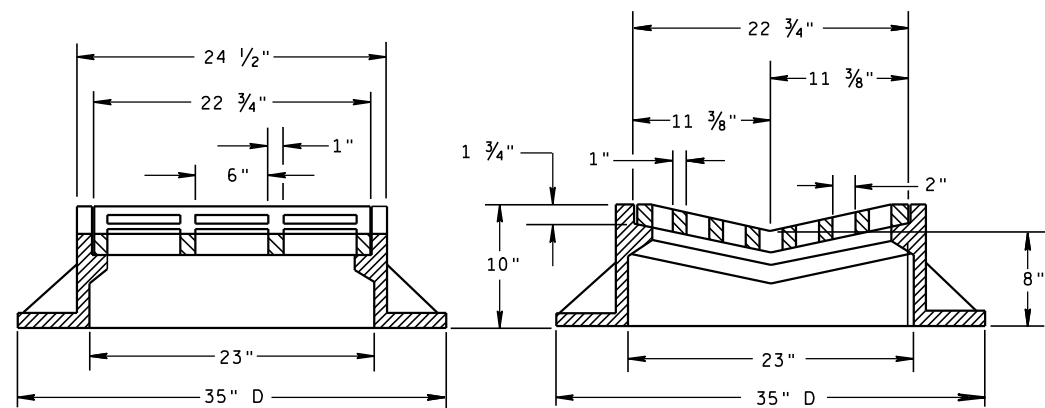




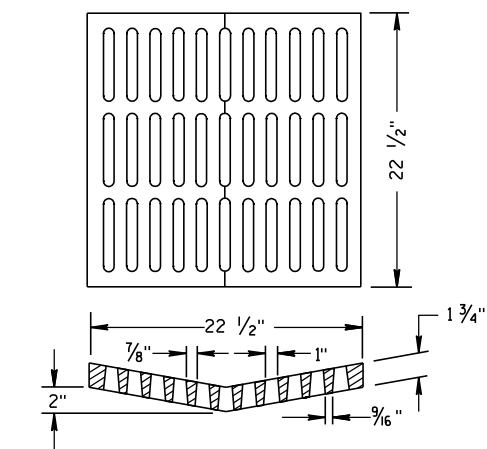


Standard Detail Drawing List

|           |                                                                                                    |
|-----------|----------------------------------------------------------------------------------------------------|
| 08A05-18B | INLET COVERS TYPE B, B-A, C, MS, MS-A, & WM                                                        |
| 08C07-01  | INLETS 2X2-FT, 2X2.5-FT, 2X3-FT AND 2.5X3-FT                                                       |
| 08C08-01  | INLETS MEDIAN 1 AND 2 GRATE                                                                        |
| 08D01-17  | CONCRETE CURB, CONCRETE CURB AND GUTTER AND TIES                                                   |
| 08D04-05  | CONCRETE SURFACE DRAINS & ASPHALTIC FLUMES                                                         |
| 08E08-03  | TYPICAL INSTALLATIONS OF EROSION BALES / TEMPORARY DITCH CHECKS                                    |
| 08E09-06  | SILT FENCE                                                                                         |
| 08E10-02  | INLET PROTECTION TYPE A, B, C AND D                                                                |
| 08E11-02  | TURBIDITY BARRIER                                                                                  |
| 08F01-11  | APRON ENDWALLS FOR CULVERT PIPE                                                                    |
| 08F04-07  | JOINT TIES FOR CONCRETE PIPE AND CONCRETE COLLAR DETAIL                                            |
| 09A01-13A | AT-GRADE SIDE ROAD INTERSECTION, TYPES "B1", "B2", "C" AND D AND TEE INTERSECTION BYPASS LANE      |
| 12A03-10  | NAME PLATE (STRUCTURES)                                                                            |
| 13A08-01  | ASPHALTIC RUMBLE STRIPS AT INTERSECTION                                                            |
| 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)                                           |
| 15A03-02A | FLEXIBLE MARKER POST FOR CULVERT END                                                               |
| 15A03-02B | FLEXIBLE MARKER POST FOR CULVERT END                                                               |
| 15C02-04A | BARRICADES AND SIGNS FOR MAINLINE CLOSURES                                                         |
| 15C02-04B | BARRICADES AND SIGNS FOR MAINLINE CLOSURES                                                         |
| 15C02-04C | DETOUR SIGNING FOR MAINLINE CLOSURES                                                               |
| 15C03-01  | BARRICADES AND SIGNS FOR SIDEROAD CLOSURES                                                         |
| 15C04-01  | TRAFFIC CONTROL, ADVANCE WARNING SIGNS 45 M.P.H. OR GREATER TWO-WAY UNDIVIDED ROAD OPEN TO TRAFFIC |
| 15C08-16A | PAVEMENT MARKING (MAINLINE)                                                                        |
| 15C08-16B | PAVEMENT MARKING (INTERSECTIONS)                                                                   |
| 15C08-16F | PAVEMENT MARKING (ISLANDS)                                                                         |
| 15C12-03  | TRAFFIC CONTROL FOR LANE CLOSURE (SUITABLE FOR MOVING OPERATIONS)                                  |



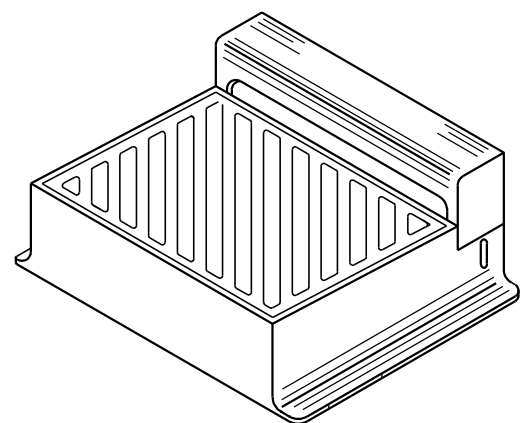
**TYPE "B"**  
(APPROXIMATE WEIGHT 405 LBS.)  
FRAME..... 294 LBS.  
GRATE..... 111 LBS.



**ALTERNATIVE GRATE FOR  
TYPE "B" COVER**

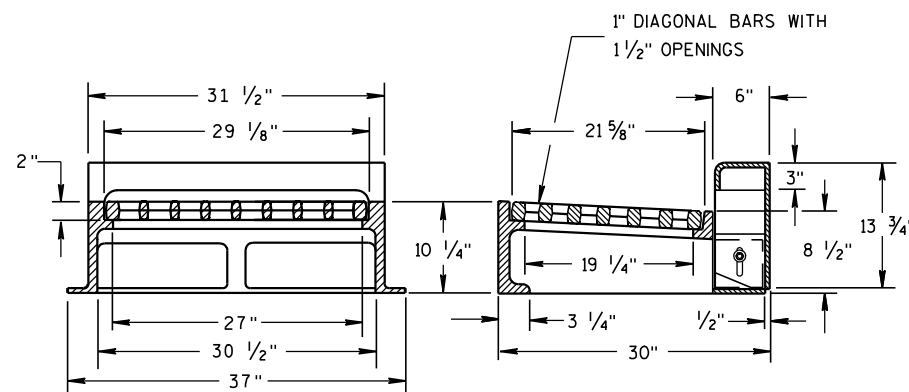
(APPROXIMATE GRATE WEIGHT 134 LBS.)

USE WHERE PEDESTRIAN OR BICYCLE TRAFFIC IS POSSIBLE.  
**NOTED AS TYPE B-A ON THE DRAINAGE TABLE**



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

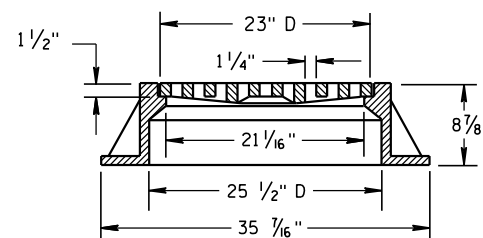
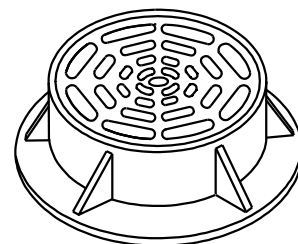
DIRECTION  
OF FLOW



NOTE: CURB BOX HEIGHT ADJUSTABLE 6" TO 9"

**TYPE "WM"**  
(APPROXIMATE WEIGHT 648 LBS.)

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



**TYPE "C"**  
(APPROXIMATE WEIGHT 259 LBS.)

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

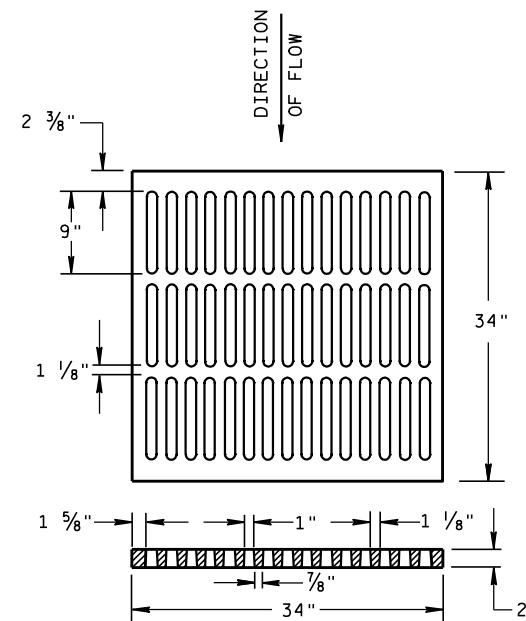
## GENERAL NOTES

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

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

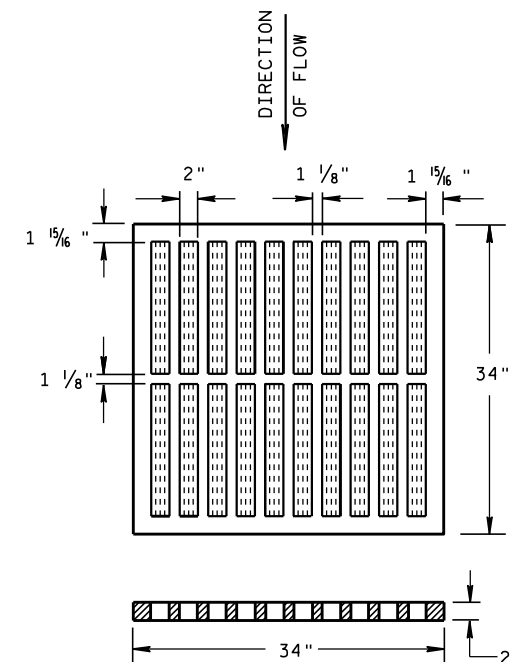
ROUND FRAMES AND COVERS SHALL HAVE CONTINUOUSLY MACHINED BEARING SURFACES TO PREVENT ROCKING AND RATTLING.

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



**ALTERNATIVE TYPE "MS"**  
(APPROXIMATE GRATE WEIGHT 329 LBS.)

USE WHERE PEDESTRIAN OR BICYCLE TRAFFIC IS PERMITTED  
**NOTED AS TYPE MS-A ON THE DRAINAGE TABLE**



**TYPE "MS"**  
(APPROXIMATE GRATE WEIGHT 268 LBS.)

USE ON FREEWAYS AND EXPRESSWAYS  
**NOTED AS TYPE MS ON DRAINAGE TABLE**

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

STATE OF WISCONSIN  
DEPARTMENT OF TRANSPORTATION

APPROVED

6/5/2012

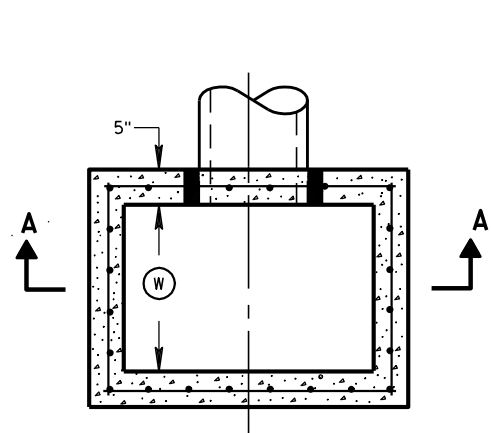
DATE

FHWA

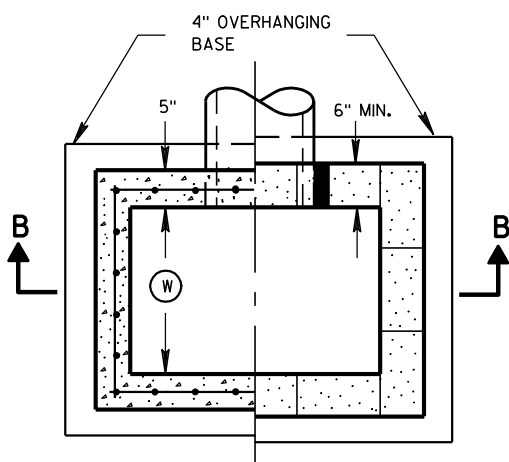
/S/ Jerry H. Zopp

ROADWAY STANDARDS 73 ENT

ENGINEER

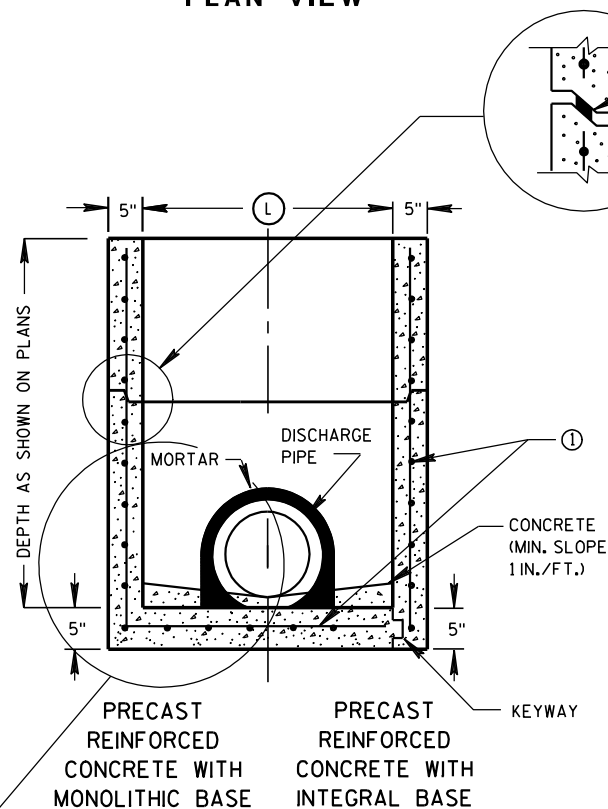


PLAN VIEW

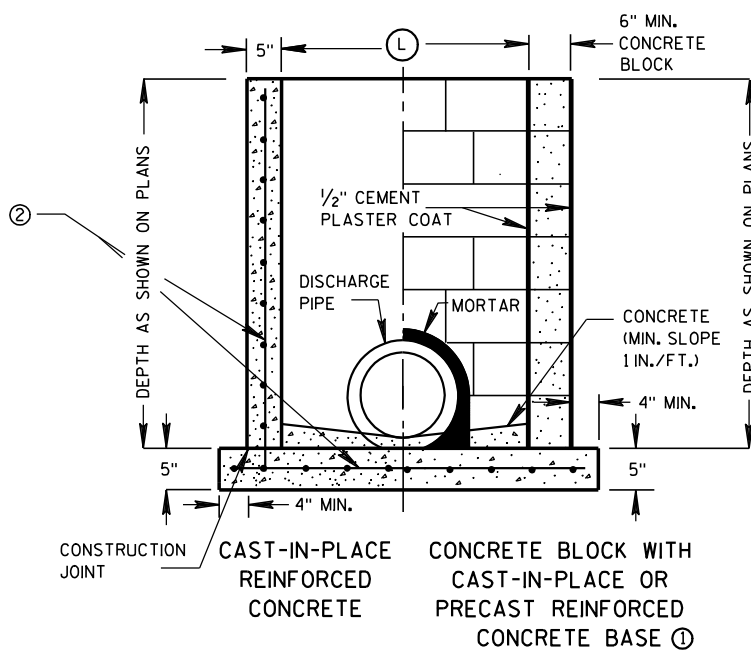


PLAN VIEW

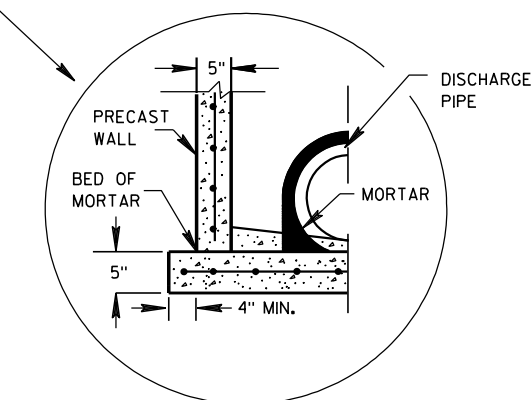
RISER JOINTS TO BE SEALED WITH A BUTYL RUBBER SEAL PER SEALANT MANUFACTURERS RECOMMENDATIONS CONFORMING TO ASTM C 990 (TYP)



SECTION A-A



SECTION B-B



SEPERATE PRECAST REINFORCED CONCRETE BASE OPTION

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

## GENERAL NOTES

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

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

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

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

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

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

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

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

4" OVERHANGING BASES ARE REQUIRED FOR CAST-IN-PLACE REINFORCED CONCRETE AND CONCRETE BLOCK INSTALLATIONS. 4" OVERHANG IS REQUIRED WHEN SEPERATE PRECAST BASE IS PROVIDED. OVERHANG IS NOT REQUIRED ON PRECAST STRUCTURES WITH AN INTEGRAL OR MONOLITHIC BASE.

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

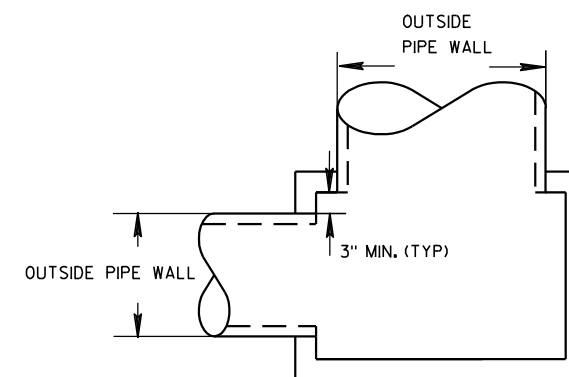
- FOR PRECAST INLETS PROVIDE REINFORCING STEEL IN ACCORDANCE TO ASTM C 913.
- CONTRACTOR TO PROVIDE DRAWING(S) STAMPED BY A PROFESSIONAL ENGINEER FOR STEEL REINFORCING DESIGN FOR CAST-IN-PLACE STRUCTURES.

## INLET COVER MATRIX

| INLET SIZE |            | INLET COVER TYPE | ALL A'S | ALL B'S | BW | F | ALL H'S | S | T | V | WM |
|------------|------------|------------------|---------|---------|----|---|---------|---|---|---|----|
|            | WIDTH (FT) | LENGTH (FT)      |         |         |    |   |         |   |   |   |    |
| 2X2-FT     | 2          | 2                | X       | X       |    |   |         | X |   | X |    |
| 2X2.5-FT   | 2          | 2.5              |         |         | X  |   |         | X | X | X | X  |
| 2X3-FT     | 2          | 3                |         |         |    |   | X       |   |   |   |    |
| 2.5X3-FT   | 2.5        | 3                |         |         |    | X |         |   |   |   |    |

## PIPE MATRIX

| INLET SIZE | MAXIMUM INSIDE PIPE DIAMETER |             |
|------------|------------------------------|-------------|
|            | WIDTH (IN)                   | LENGTH (IN) |
| 2X2-FT     | 12                           | 12          |
| 2X2.5-FT   | 12                           | 18          |
| 2X3-FT     | 12                           | 24          |
| 2.5X3-FT   | 18                           | 24          |

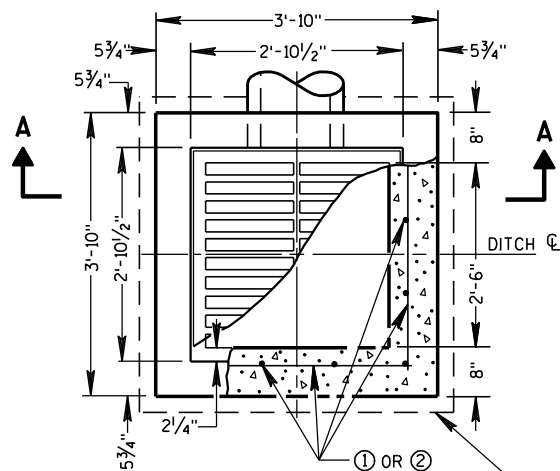


DETAIL "A"

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

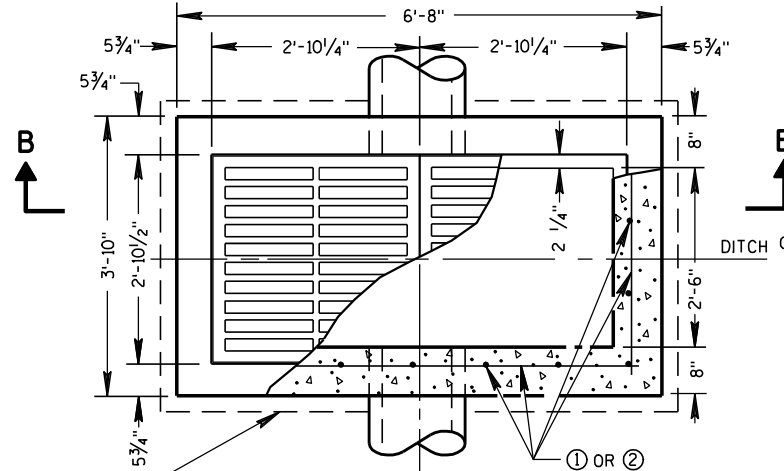
STATE OF WISCONSIN  
DEPARTMENT OF TRANSPORTATION

APPROVED  
6/5/2012 /S/ Jerry H. Zoaa  
DATE ROADWAY STANDARDS D 74 IT  
FHWA ENGINEER

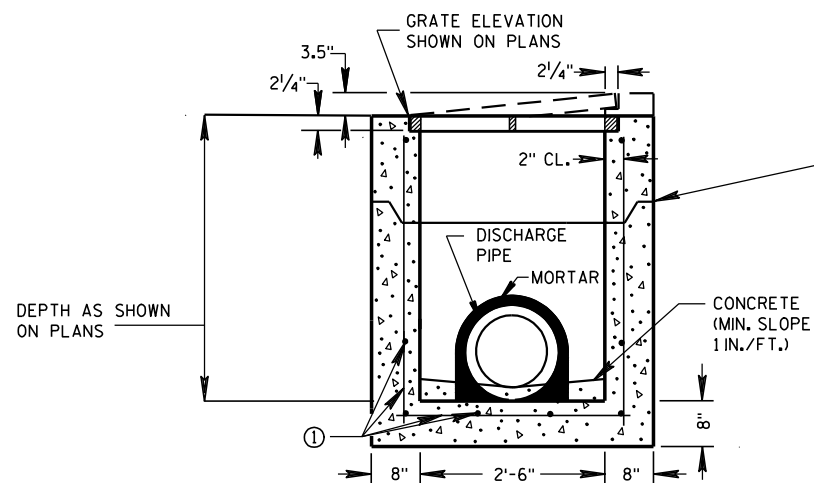


PLAN VIEW

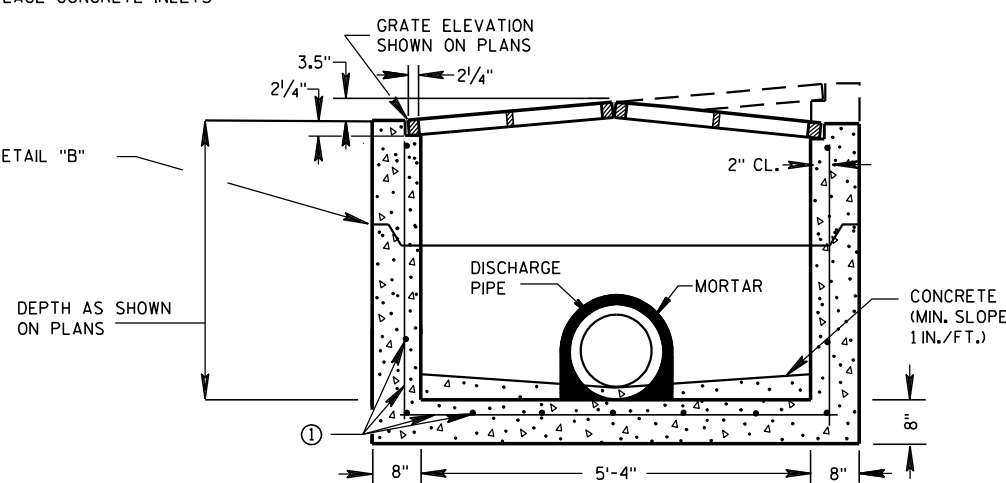
4" OVERHANGING BASE ON REINFORCED CAST-IN-PLACE CONCRETE INLETS



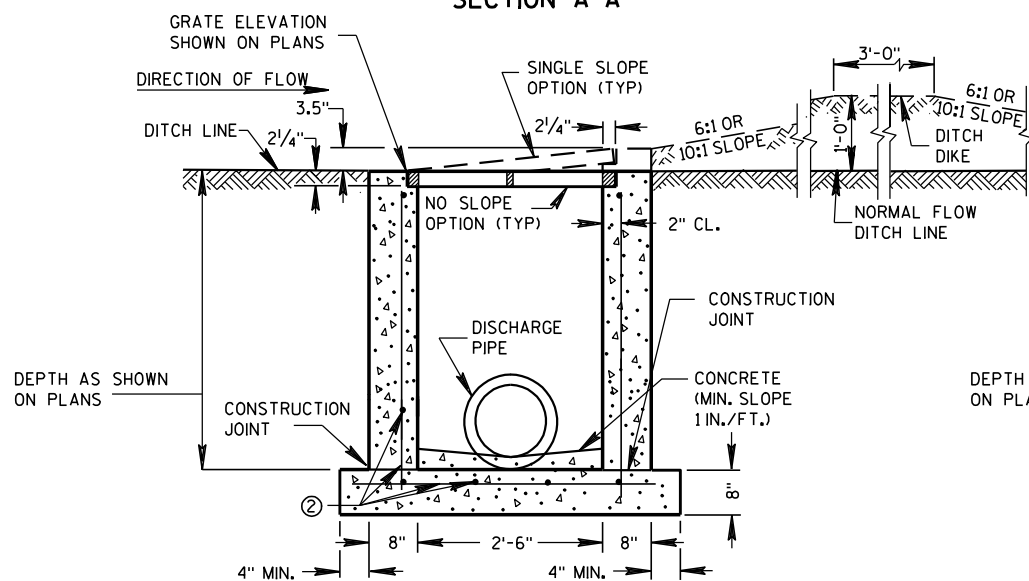
PLAN VIEW



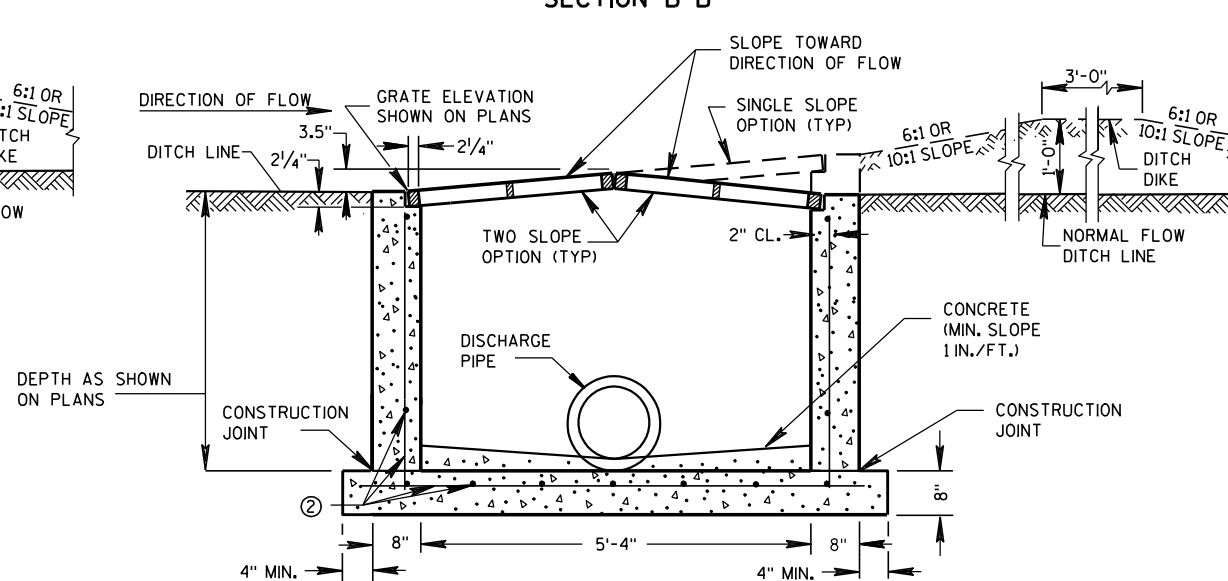
PRECAST REINFORCED CONCRETE SECTION A-A



PRECAST REINFORCED CONCRETE SECTION B-B



REINFORCED CAST-IN-PLACE CONCRETE SECTION A-A



REINFORCED CAST-IN-PLACE CONCRETE SECTION B-B

## GENERAL NOTES

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

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

DETAILED DRAWINGS FOR PROPOSED ALTERNATE DESIGNS FOR INLETS WHICH MAY INCLUDE PRECAST REINFORCED CONCRETE INLETS, SHALL BE SUBMITTED TO THE ENGINEER FOR APPROVAL PROVIDING THAT SUCH ALTERNATE DESIGNS MAKE PROVISION FOR EQUIVALENT CAPACITY AND STRENGTH.

ALL MEDIAN INLETS ARE DESIGNATED ON THE PLANS AS "INLETS, IG-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.

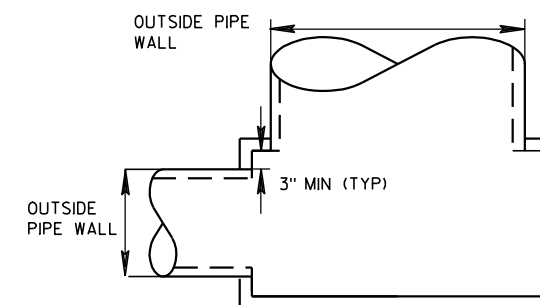
ALL PRECAST INLET UNITS SHALL CONFORM TO THE PERTINENT REQUIREMENTS OF ASTM C 913.

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.

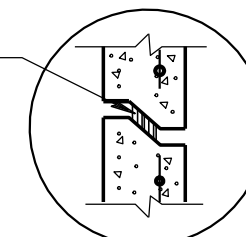
## PIPE MATRIX

| INLET SIZE | MAXIMUM INSIDE PIPE DIAMETER |             |
|------------|------------------------------|-------------|
|            | 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

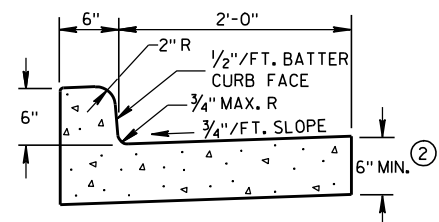
DATE

FHWA

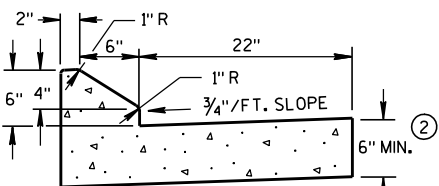
/s/ Jerry H. Zoon

ROADWAY STANDARDS ENGINEER

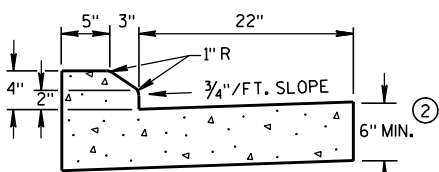
INT



TYPES A &amp; D ①



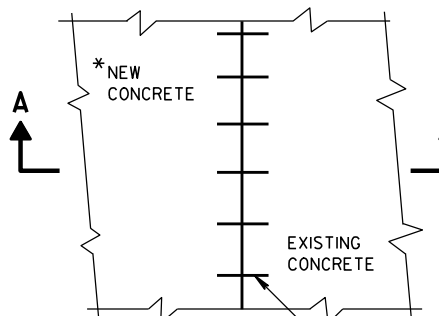
6" SLOPED CURB TYPES G &amp; J ①



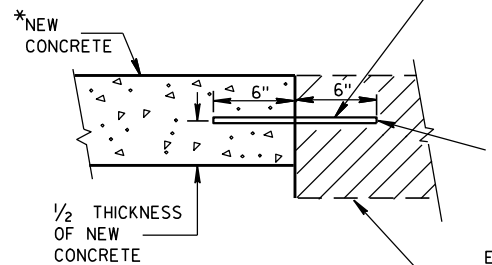
4" SLOPED CURB TYPES G &amp; J ①

CONCRETE CURB &amp; GUTTER 30"

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



PLAN VIEW

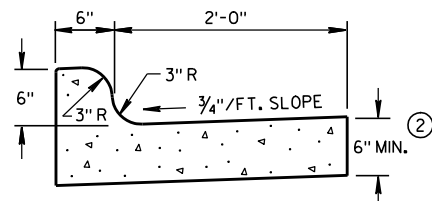


SECTION A-A  
TIE BARS DRILLED  
INTO EXISTING PAVEMENT

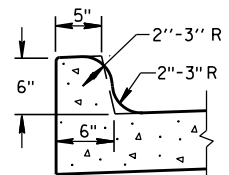
NO. 6 TIE BARS SPACED 2'-6" C-C,  
INSTALLED PERPENDICULAR  
TO THE LONGITUDINAL JOINT.

MAXIMUM DRILL HOLE  
SIZE IS 1/8" GREATER  
THAN TIE BAR DIAMETER

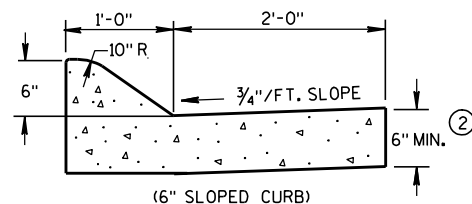
EXISTING  
CONCRETE



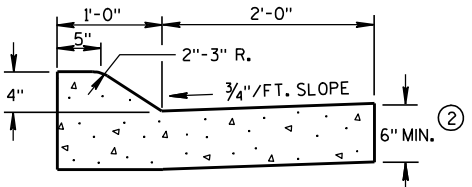
TYPES K &amp; L ①



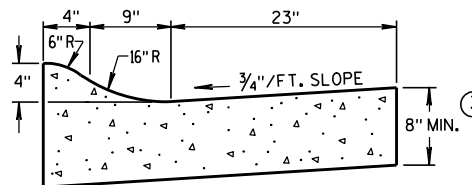
OPTIONAL CURB SHAPE  
FOR TYPES K & L ①



(6" SLOPED CURB)

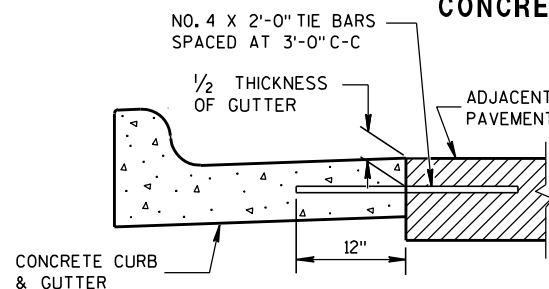


TYPES A &amp; D ①

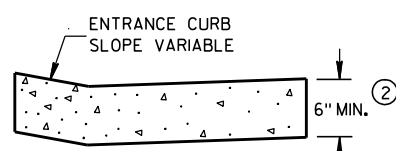


4" SLOPED CURB TYPES R &amp; T ① ④

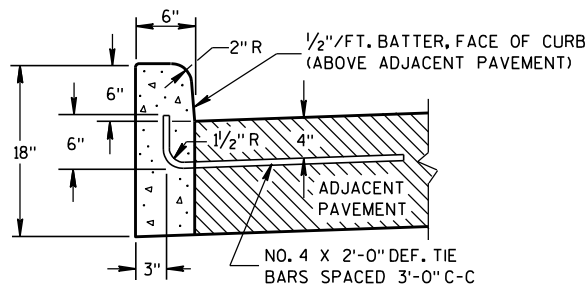
CONCRETE CURB &amp; GUTTER 36"



TYPICAL TIE BAR LOCATION ①

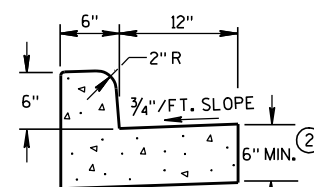


DRIVEWAY ENTRANCE CURB  
(WHEN DIRECTED BY THE ENGINEER)

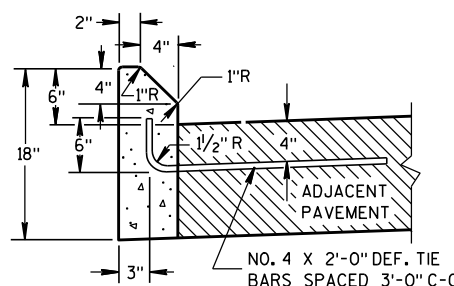


TYPES A &amp; D ①

CONCRETE CURB



TYPES A & D  
CONCRETE CURB & GUTTER 18"



TYPES G &amp; J ①

## GENERAL NOTES

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

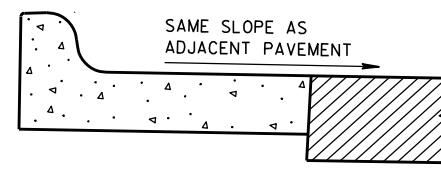
PAVEMENT TIES AND TIE BARS SHALL BE EPOXY COATED IN CONFORMANCE WITH SUBSECTION 505.2.6.2 OF THE STANDARD SPECIFICATIONS.

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

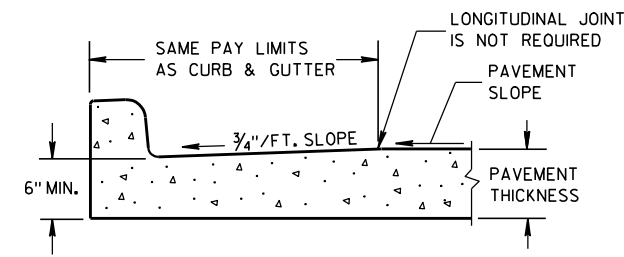
WHERE THE TRANSVERSE JOINTS IN THE PAVEMENT ARE REQUIRED TO BE SEALED, THE JOINTS IN THE INTEGRAL CURB AND GUTTER SHALL BE SEALED TO THE FACE OF CURB WITH THE SAME TYPE OF SEALANT. THE COST OF FURNISHING AND INSTALLING THIS SEALANT SHALL BE INCIDENTAL TO THE ITEM CONCRETE CURB AND GUTTER.

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

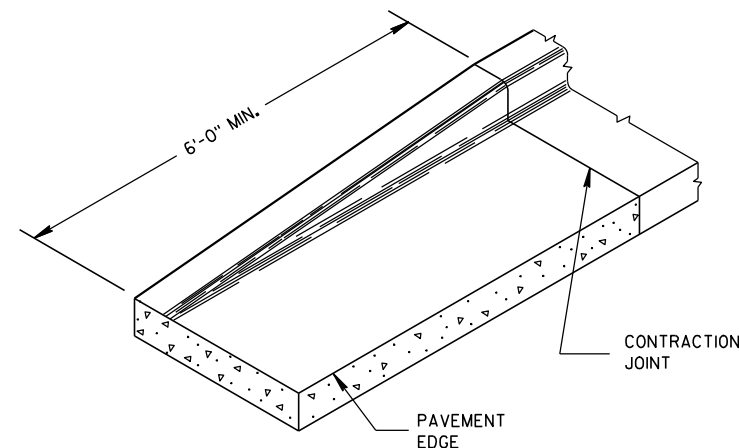
- ① TIE BARS ARE REQUIRED FOR CURB AND GUTTER TYPES A, G, K AND R.
- ② THE BOTTOM OF CURB AND GUTTER MAY BE CONSTRUCTED EITHER LEVEL OR PARALLEL TO THE SLOPE OF THE SUBGRADE OR BASE AGGREGATE PROVIDED A 6" MINIMUM GUTTER THICKNESS IS MAINTAINED.
- ③ THE BOTTOM OF CURB AND GUTTER MAY BE CONSTRUCTED EITHER LEVEL OR PARALLEL TO THE SLOPE OF THE SUBGRADE OR BASE AGGREGATE PROVIDED A 8" MINIMUM GUTTER THICKNESS IS MAINTAINED.
- ④ THE FACE OF CURB IS 6" FROM THE BACK OF CURB.
- ⑤ WHEN REVERSE SLOPE GUTTER IS REQUIRED, THE LOCATION(S) WILL BE SHOWN ELSEWHERE IN THE PLAN.



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



PARTIAL SECTION OF PAVEMENT  
WITH INTEGRAL CURB & GUTTER



END SECTION CURB &amp; GUTTER

CONCRETE CURB, CONCRETE  
CURB & GUTTER AND TIES

STATE OF WISCONSIN  
DEPARTMENT OF TRANSPORTATION

APPROVED

9/4/08

DATE

FHWA

/S/ Jerry H. 76

ROADWAY STANDARDS 76

ENGINEER

ENT

## 6



PLAN VIEW  
FLUME AT CURB END



## 6

S.D.D. 8 D 4-5

- ① JOINTS SHALL BE  $\frac{1}{8}$  TO  $\frac{1}{4}$  INCH WIDE BY  $1\frac{1}{2}$  INCHES DEEP AND SPACED AT UNIFORM INTERVALS OF APPROXIMATELY 4 FEET.
- ② GEOTEXTILE FABRIC TYPE "R" SHALL UNDERLAY THE FULL LENGTH AND WIDTH OF THE CONCRETE SURFACE DRAIN AND RIPRAP.
- ③ CONCRETE SURFACE DRAIN WITHOUT CURB AND GUTTER MAY BE USED ON BACKSLOPES WHEN SPECIFIED

EXPANSION JOINT

CONCRETE CURB AND GUTTER

8'-0"

4'-0"

EDGE OF PAVEMENT

2" MIN. CURB HEIGHT

4" R

3'-0" MIN.

SURFACE DRAIN IS SYMETRICAL WHEN CURB AND GUTTER IS CONTINUED

TAPER CURB TO FLOW LINE

JOINTS

SHOULDER OR BERM HINGE POINT

W3 WIRE MESH (SEE SECTION D-D)

RIPRAP

6'-0"

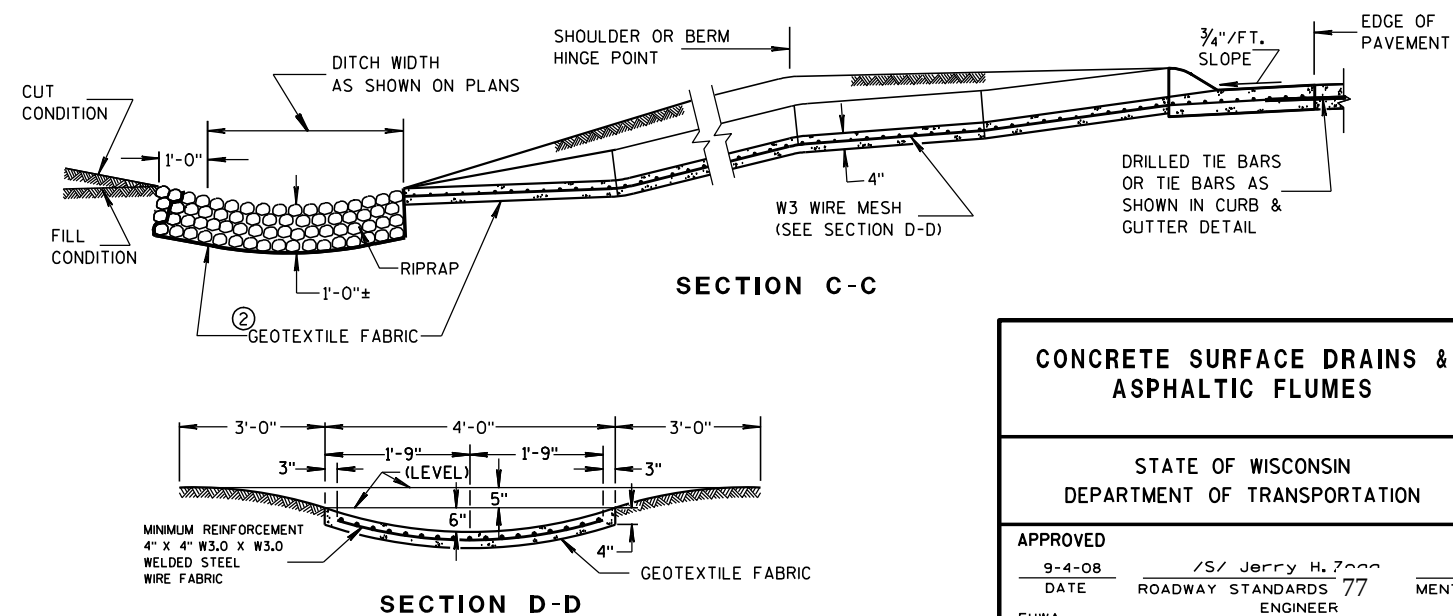
OR AS REQUIRED

1'-0" ON CUT SLOPE

DITCH

PLAN VIEW

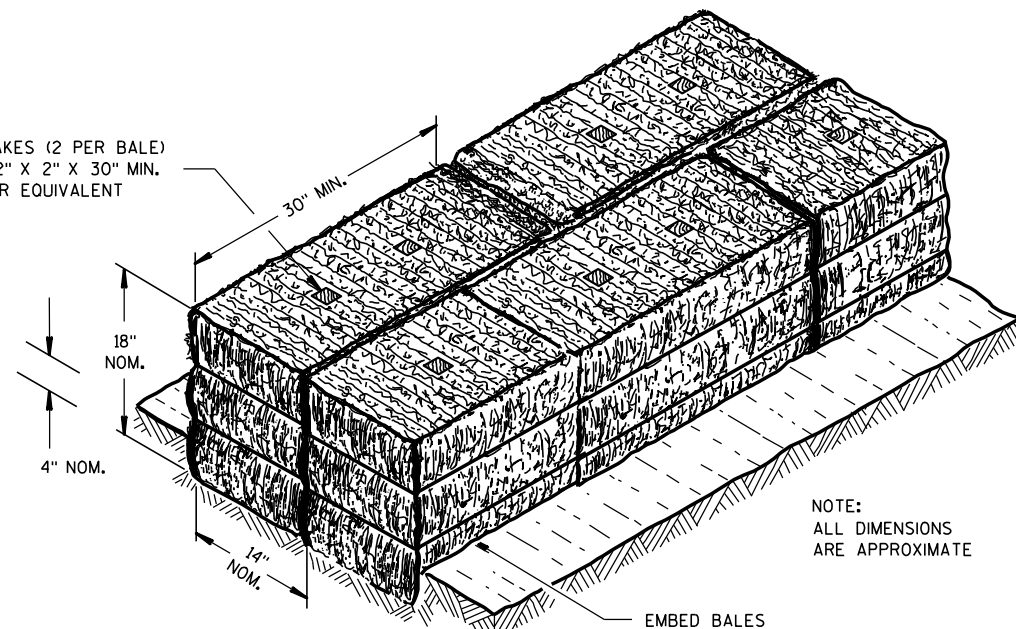
### PLAN VIEW



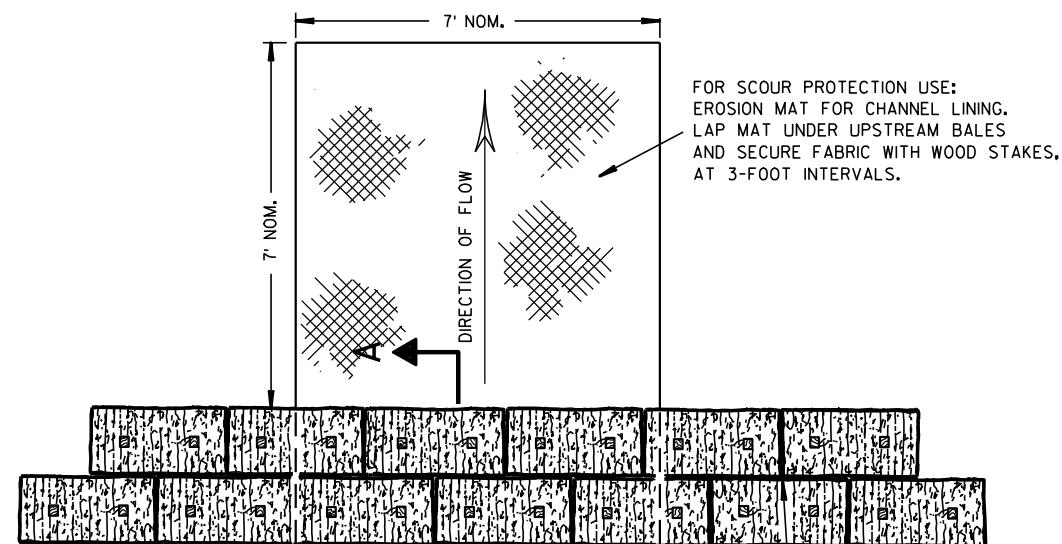
STATE OF WISCONSIN  
DEPARTMENT OF TRANSPORTATION

APPROVED  
9-4-08 /S/ Jerry H. Zogg  
DATE ROADWAY STANDARDS 77 MENT  
FHWA ENGINEER

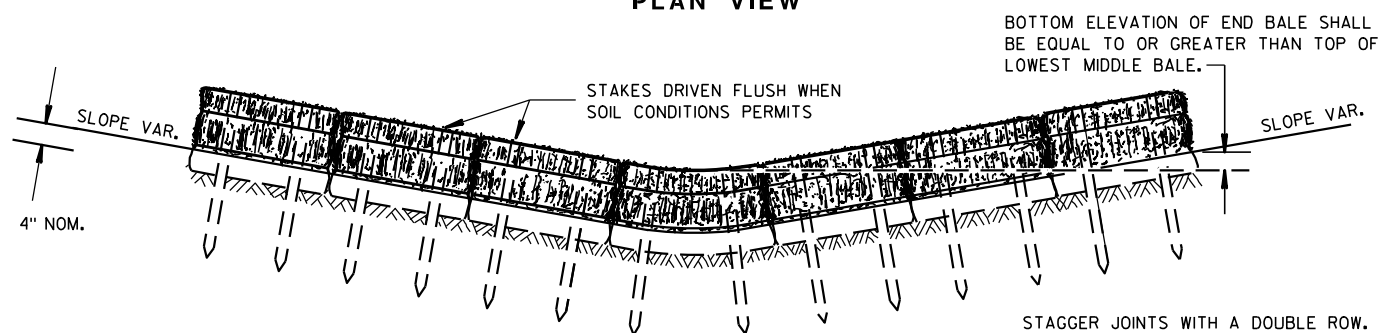
WOOD STAKES (2 PER BALE)  
NOMINAL 2" X 2" X 30" MIN.  
LENGTH OR EQUIVALENT



SECTION A-A



PLAN VIEW



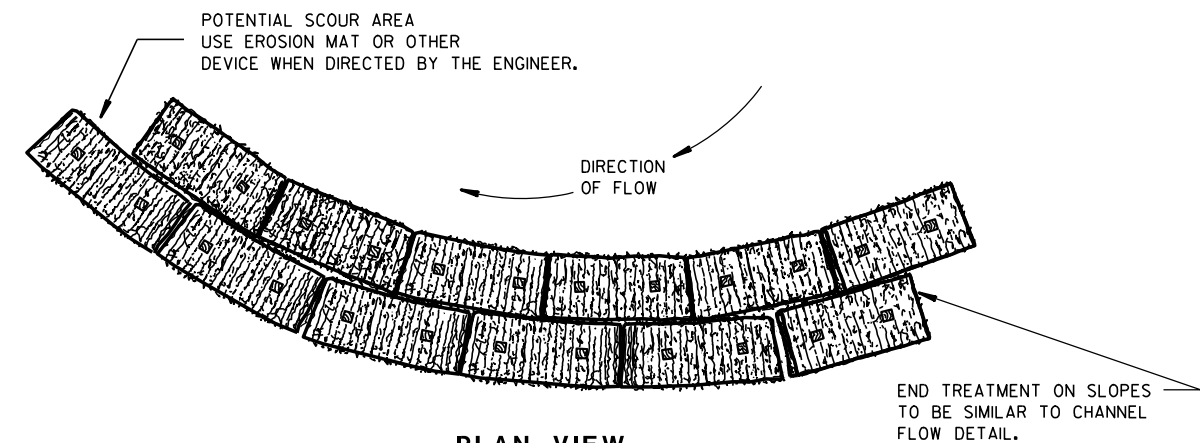
FRONT ELEVATION

TEMPORARY DITCH CHECK USING EROSION BALES ①

## GENERAL NOTES

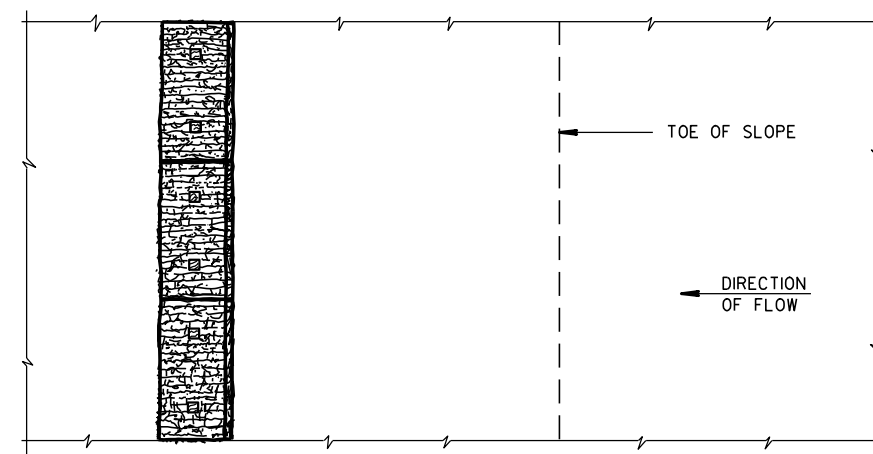
DETAILS OF CONSTRUCTION, MATERIALS AND WORKMANSHIP NOT SHOWN ON THIS DRAWING SHALL CONFORM TO THE PERTINENT REQUIREMENTS OF THE STANDARD SPECIFICATIONS AND THE APPLICABLE SPECIAL PROVISIONS.

- 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.

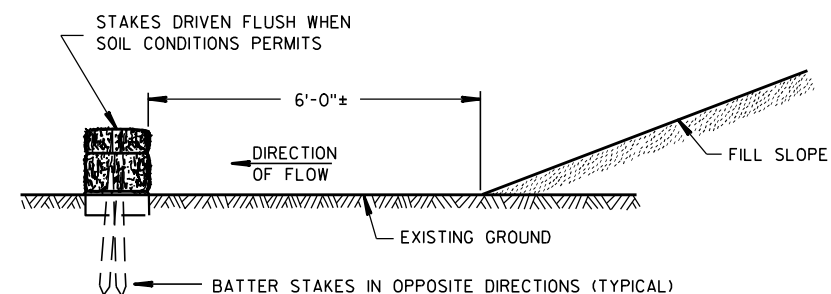


PLAN VIEW

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 Conn-----  
CHIEF ROADWAY DEVELOPER 78 ENGINEER

FHWA



- 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 1½" X 1½" 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.

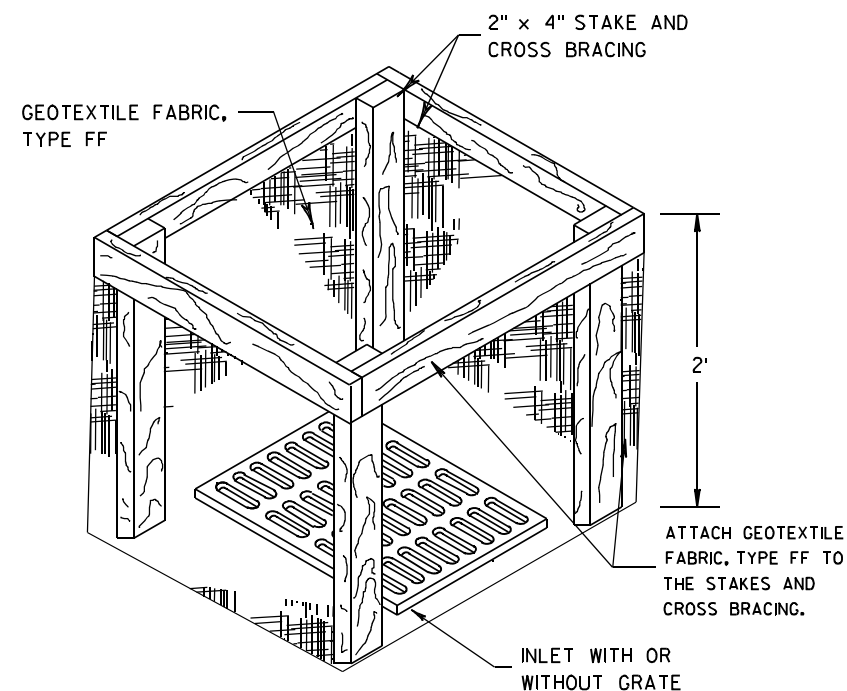
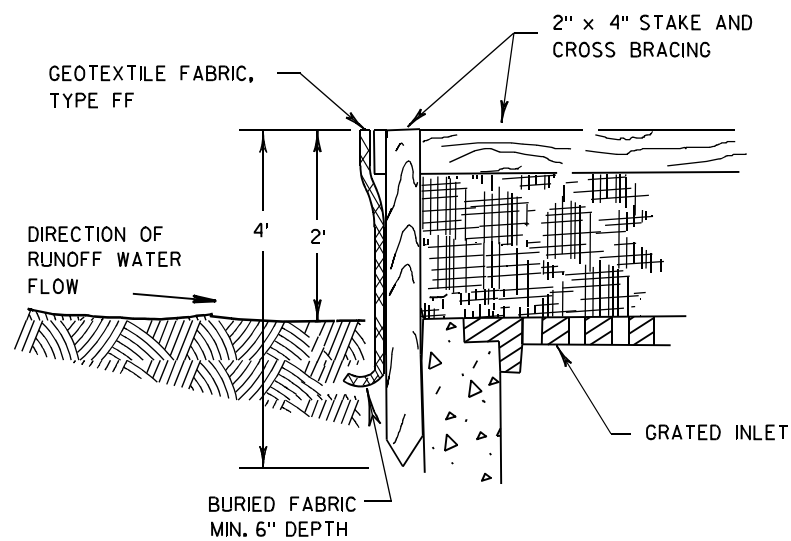


**SILT FENCE**

STATE OF WISCONSIN  
DEPARTMENT OF TRANSPORTATION

APPROVED  
4-29-05  
DATE                      /S/ Beth Cannata                       
CHIEF ROADWAY DEVELOPMENT **79** INCHES

FHWA



**INLET PROTECTION, TYPE A**

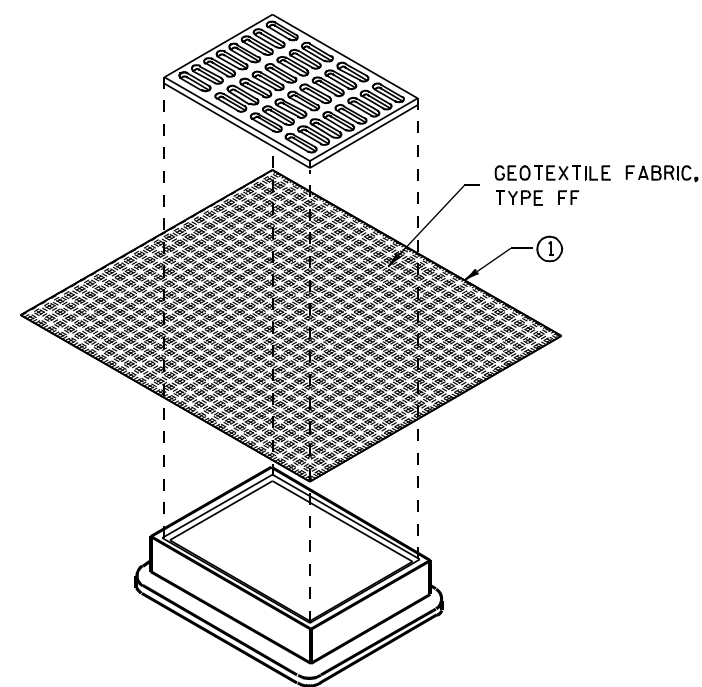
**GENERAL NOTES**

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.

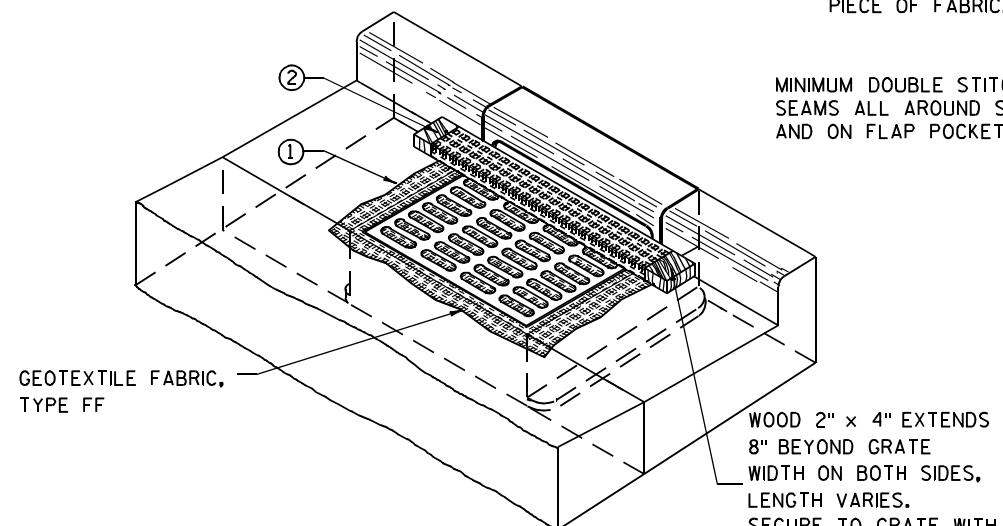
WHEN REMOVING OR MAINTAINING INLET PROTECTION, CARE SHALL BE TAKEN SO THAT THE SEDIMENT TRAPPED ON THE GEOTEXTILE FABRIC DOES NOT FALL INTO THE INLET. ANY MATERIAL FALLING INTO THE INLET SHALL BE REMOVED IMMEDIATELY.

- 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.



**INLET PROTECTION, TYPE B  
(WITHOUT CURB BOX)**

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



**INLET PROTECTION, TYPE C (WITH CURB BOX)**

**INSTALLATION NOTES**

**TYPE B & C**

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

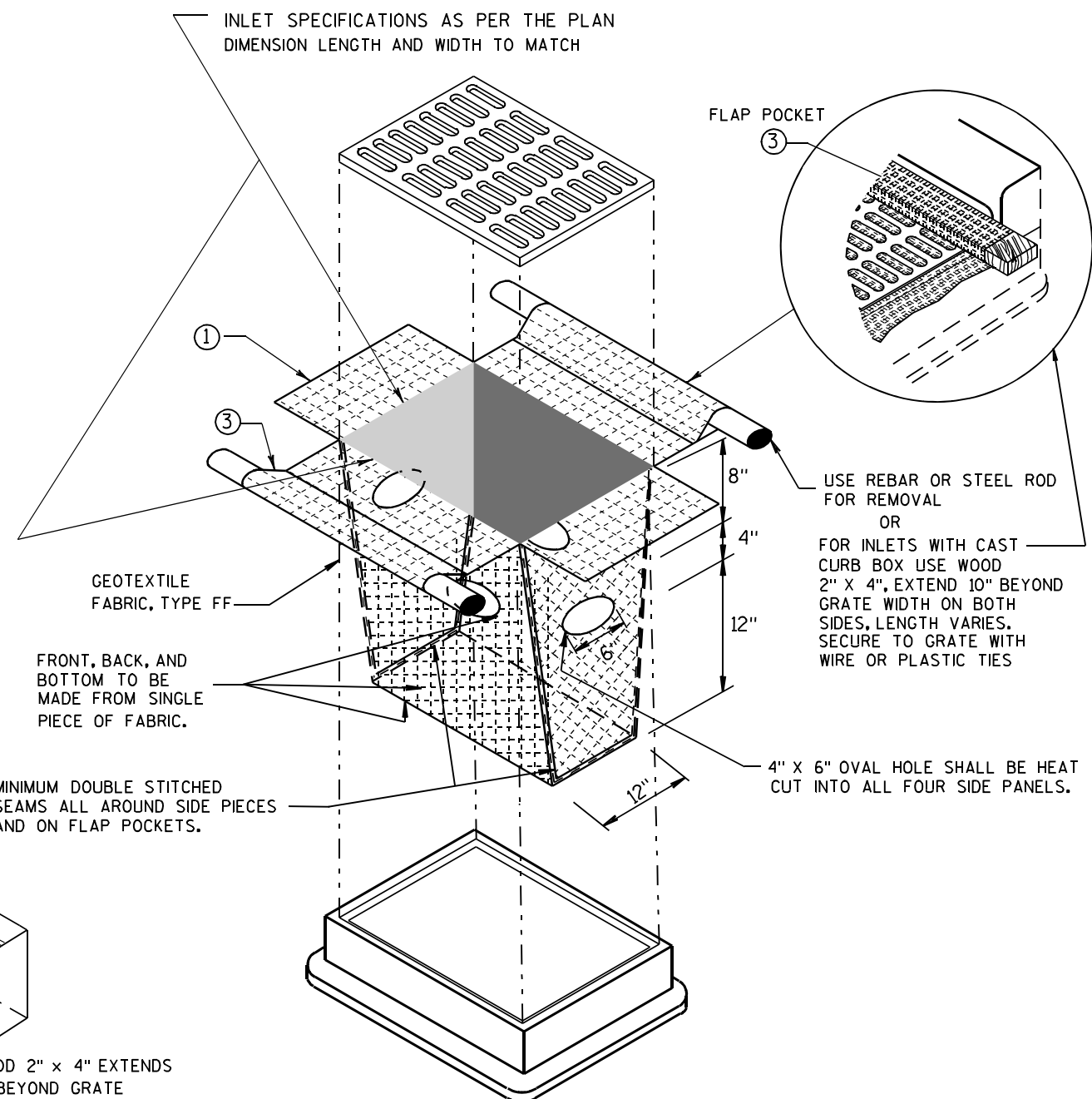
THE CONTRACTOR SHALL DEMONSTRATE A METHOD OF MAINTENANCE, USING A SEWN FLAP, HAND HOLDS OR OTHER METHOD TO PREVENT ACCUMULATED SEDIMENT FROM ENTERING THE INLET.

**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.



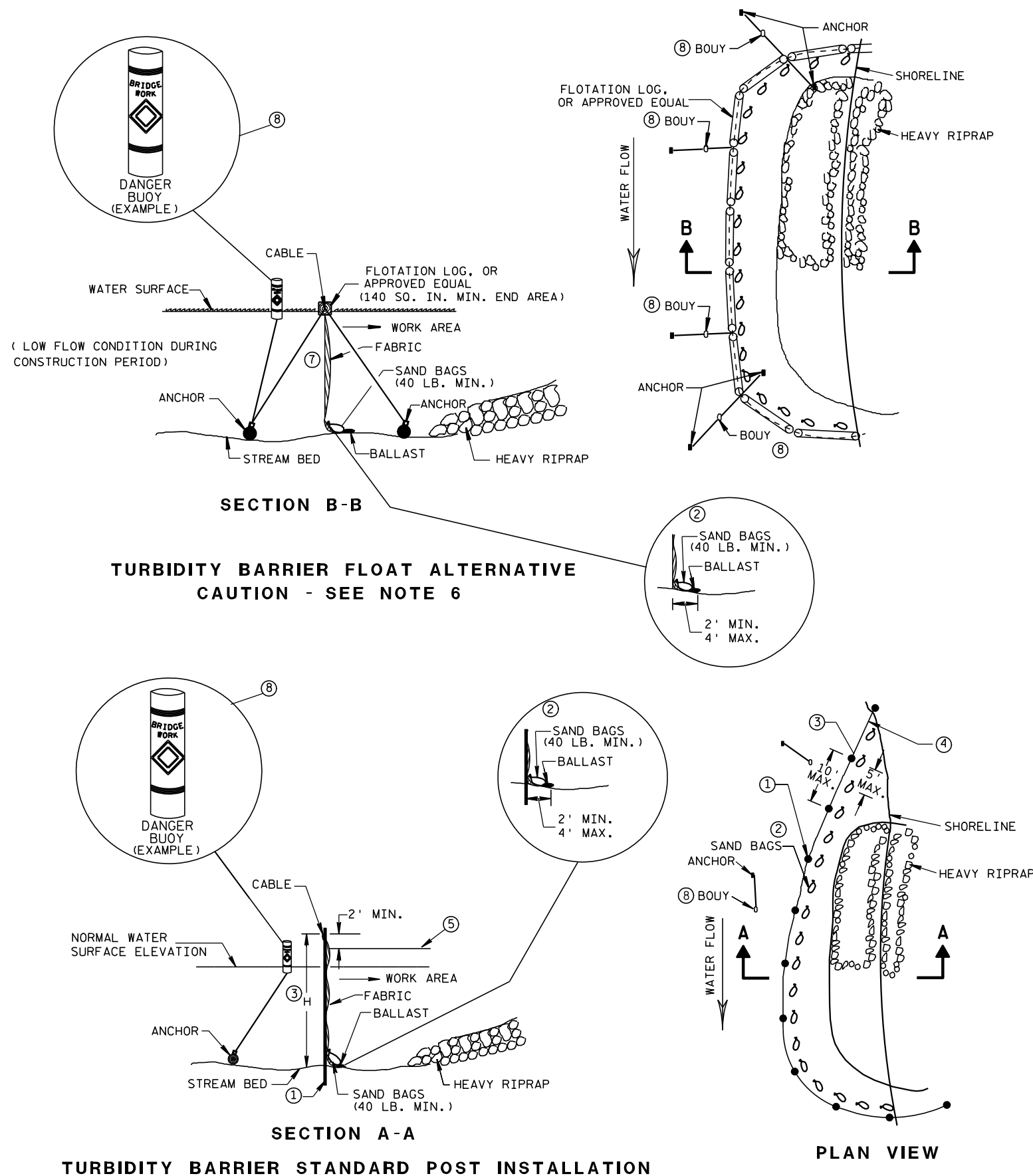
**INLET PROTECTION, TYPE D**

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

**INLET PROTECTION  
TYPE A, B, C, AND D**

STATE OF WISCONSIN  
DEPARTMENT OF TRANSPORTATION

APPROVED  
10/16/02 /S/ Beth Connolly  
DATE 80  
FHWA CHIEF ROADWAY DEVELOPMENT ENGINEER

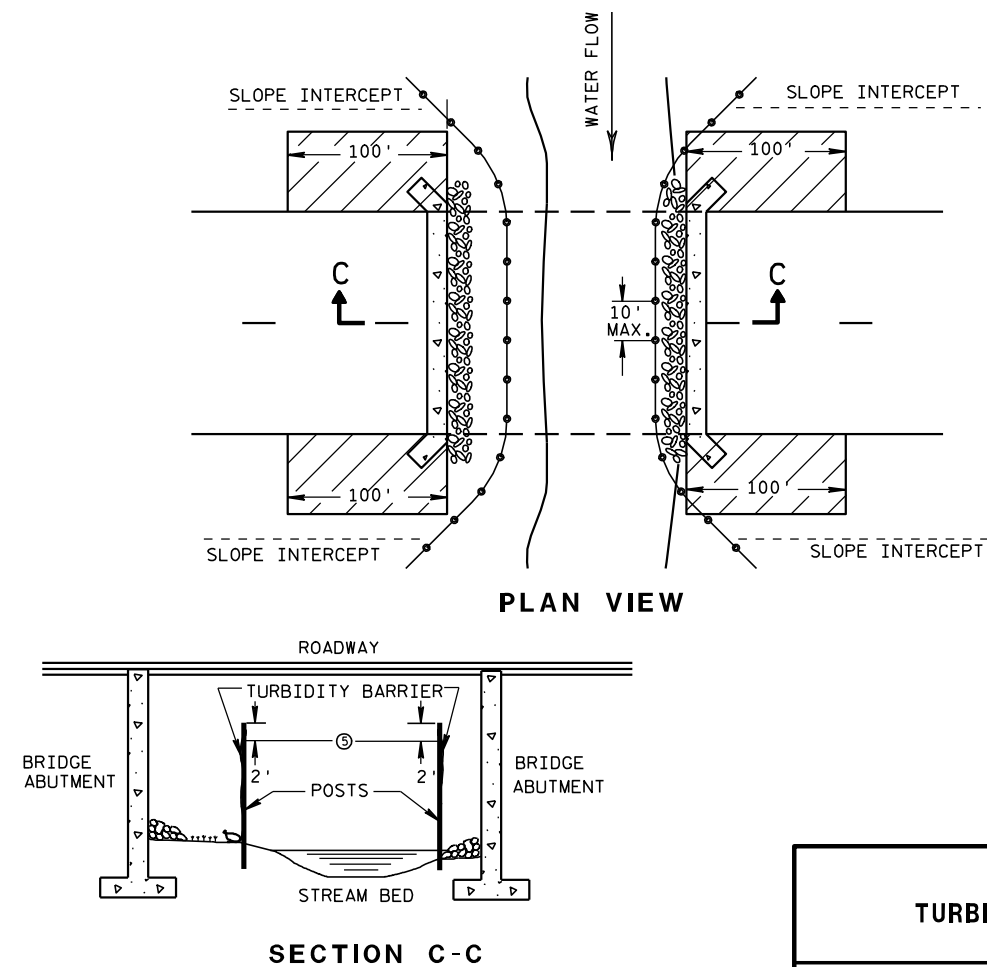


## GENERAL NOTES

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.

TURBIDITY BARRIER MAY BE REMOVED AT THE ENGINEERS DISCRETION, WHEN PERMANENT EROSION CONTROL MEASURES HAVE BEEN ESTABLISHED.

- ① DRIVEN STEEL POSTS, PIPES, OR CHANNELS. LENGTH SHALL BE SUFFICIENT TO SECURELY SUPPORT BARRIER AT HIGH WATER ELEVATIONS.
- ② SANDBAGS TO BE USED AS ADDITIONAL BALLAST WHEN ORDERED BY THE ENGINEER TO MEET ADVERSE FIELD CONDITIONS. SPACE AS APPROPRIATE FOR SITE CONDITIONS.
- ③ WHEN BARRIER HEIGHT, H, EXCEEDS 8 FT., POST SPACING MAY NEED TO BE DECREASED.
- ④ IN WATERWAYS SUBJECT TO FLUCTUATING WATER ELEVATIONS, PROVISIONS SHOULD BE MADE TO ALLOW THE WATER TO EQUALIZE ON EACH SIDE OF THE BARRIER. THIS MAY BE ACCOMPLISHED BY LEAVING A PORTION OF THE BARRIER OPEN ON THE UPSTREAM END.
- ⑤ ESTIMATED HIGH WATER ELEVATION DURING CONSTRUCTION PERIOD. MINIMUM BARRIER HEIGHT SHALL BE 2' GREATER THAN EITHER THE 02 ELEVATION OR THE ESTIMATED HIGH WATER ELEVATION DURING CONSTRUCTION, WHICHEVER IS GREATER.
- ⑥ FLOAT ALTERNATIVE WILL ONLY BE ALLOWED WITH WRITTEN APPROVAL OF THE ENGINEER, AND IS MEANT FOR LOCATIONS WHERE BED ROCK PREVENTS THE INSTALLATION OF POSTS.
- ⑦ ALLOW SUFFICIENT SLACK VERTICALLY AND HORIZONTALLY SO THAT SEDIMENT BUILD UP WILL NOT SEPARATE OR LOWER THE TURBIDITY BARRIER.
- ⑧ USE AS DIRECTED BY COAST GUARD OR DNR PERMIT WHEN WORKING IN NAVIGABLE WATERWAYS.



## TURBIDITY BARRIER DETAIL SHOWING TYPICAL PLACEMENT AT STRUCTURES

### TURBIDITY BARRIER

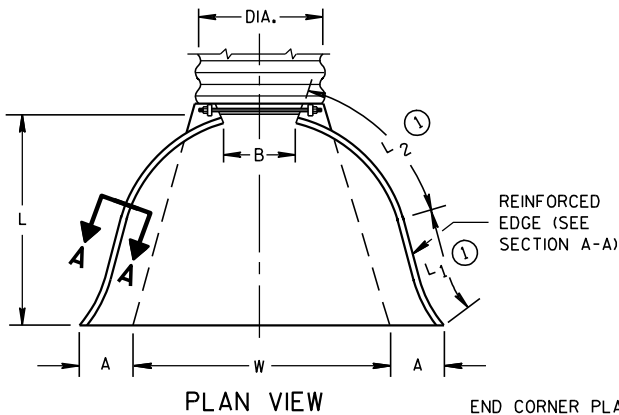
STATE OF WISCONSIN  
DEPARTMENT OF TRANSPORTATION

APPROVED

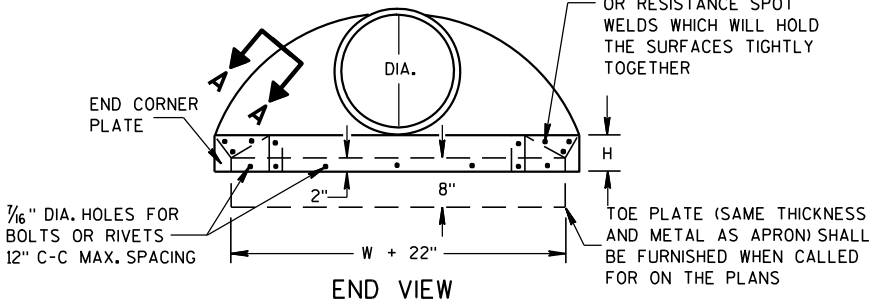
6/04/02 DATE /S/ Beth Conn-----  
CHIEF ROADWAY DEVELOPER  
FHWA INEER

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

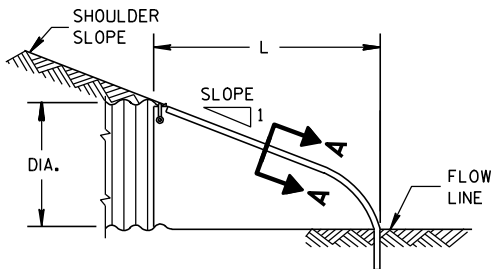
\* EXCEPT CENTER PANEL  
SEE GENERAL NOTES



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



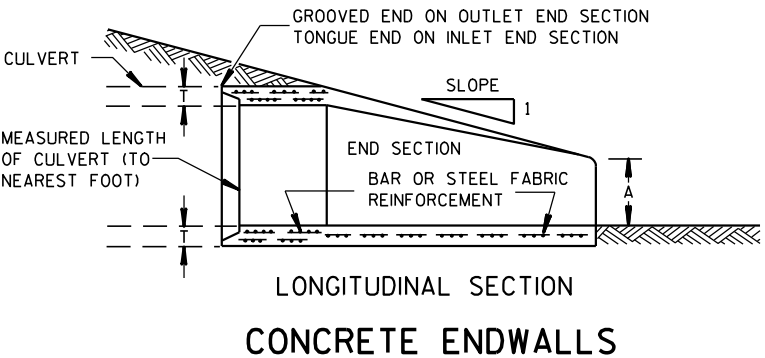
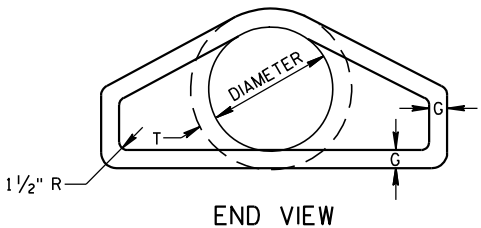
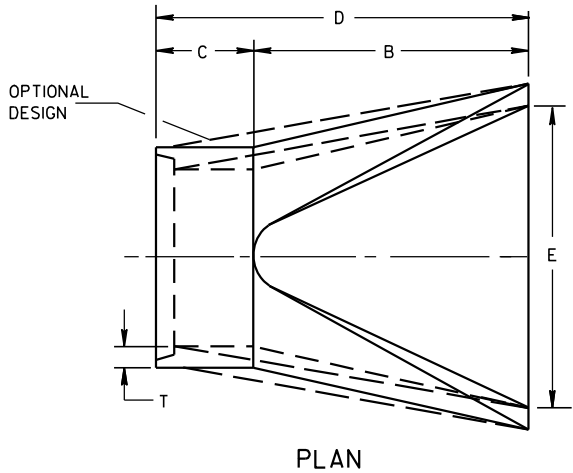
TOE PLATE (SAME THICKNESS  
AND METAL AS APRON) SHALL  
BE FURNISHED WHEN CALLED  
FOR ON THE PLANS



SIDE ELEVATION  
METAL ENDWALLS

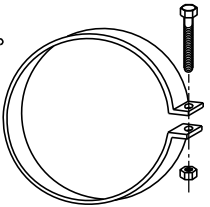
| REINFORCED CONCRETE APRON ENDWALLS |                     |        |        |           |            |     |       |                  |  |  |  |  |
|------------------------------------|---------------------|--------|--------|-----------|------------|-----|-------|------------------|--|--|--|--|
| PIPE DIA.<br>(IN.)                 | DIMENSIONS (Inches) |        |        |           |            |     |       | APPROX.<br>SLOPE |  |  |  |  |
|                                    | T                   | A      | B      | C         | D          | E   | G     |                  |  |  |  |  |
| 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 1/2 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

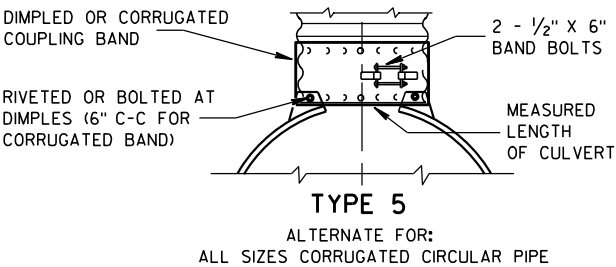
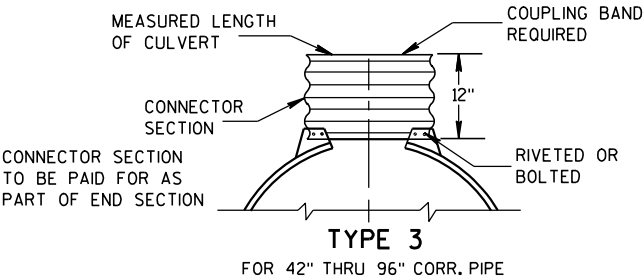
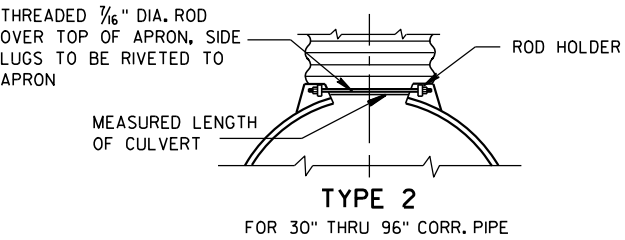
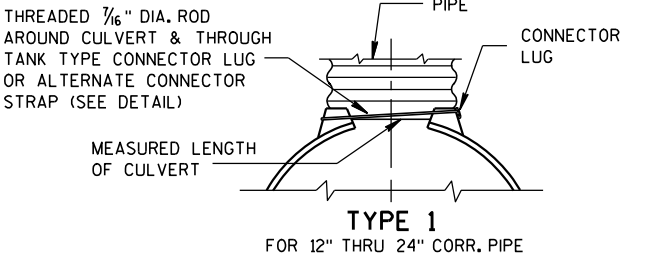


LONGITUDINAL SECTION  
CONCRETE ENDWALLS

1" WIDE, 12 GA. (0.109"  
THICK) GALVANIZED STRAP  
WITH STANDARD 6" X 1/2"  
BAND BOLT AND NUT



ALTERNATE FOR TYPE 1 CONNECTION  
END SECTION CONNECTOR STRAP



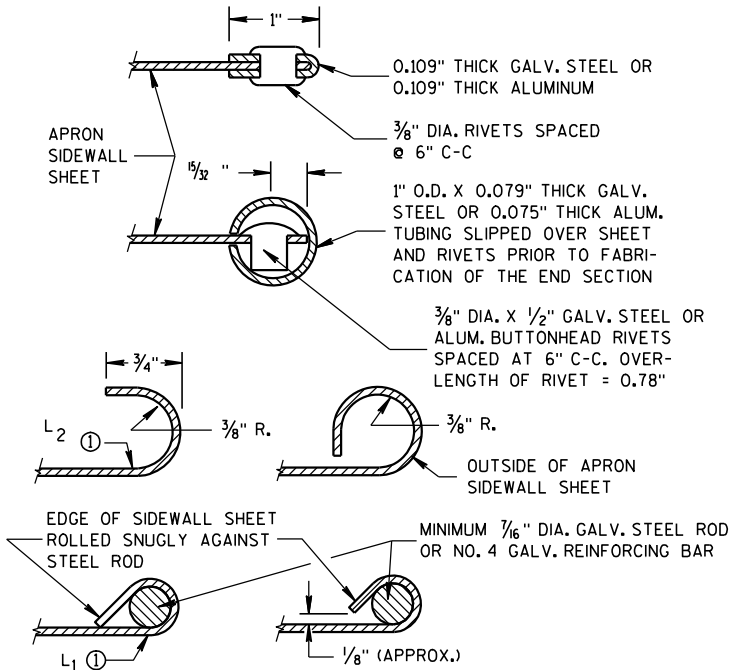
NOTE: DIMPLED BAND FITS OVER OUTSIDE OF ENDWALL,  
AND CORRUGATED BAND FITS INSIDE ENDWALL.  
DIMPLED BAND MAY BE USED WITH HELICALLY  
CORRUGATED PIPE.

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.

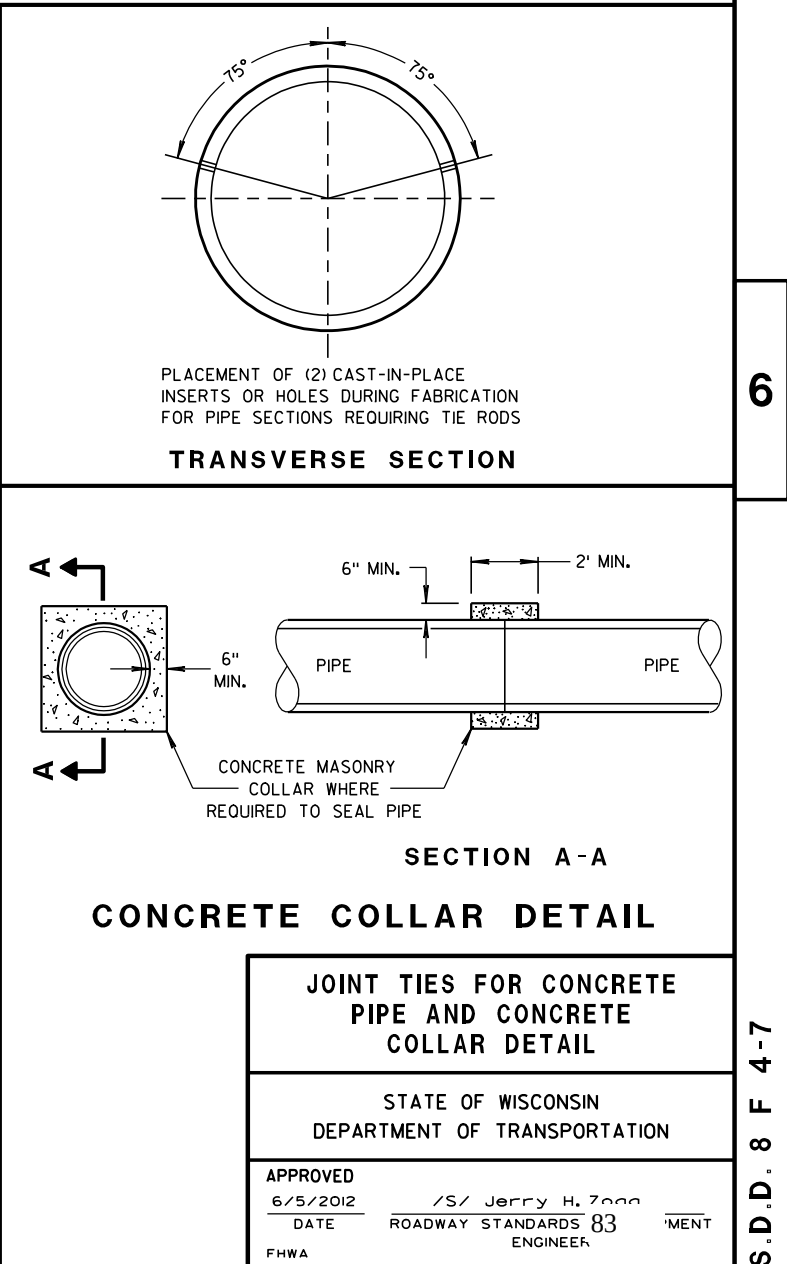
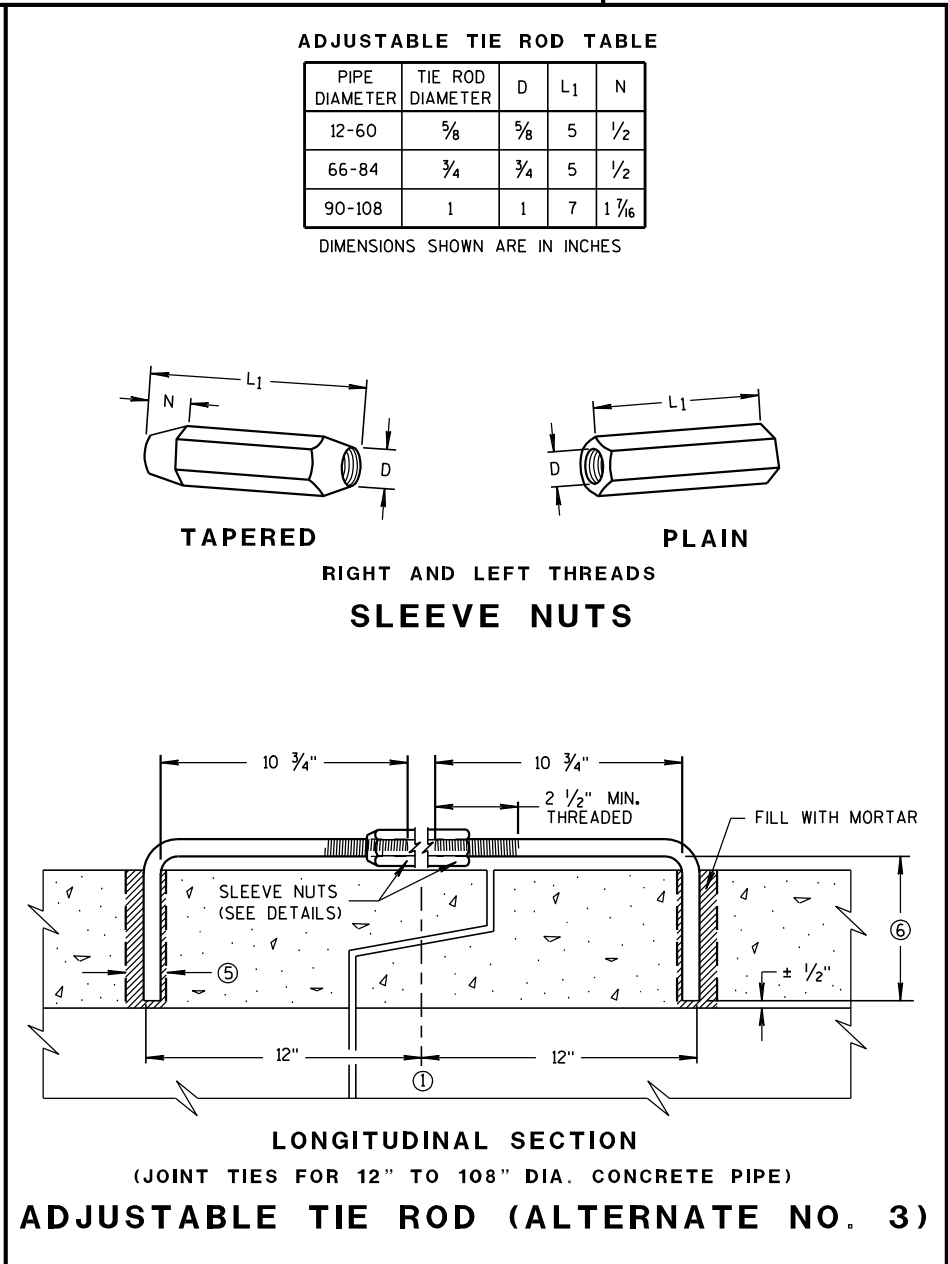
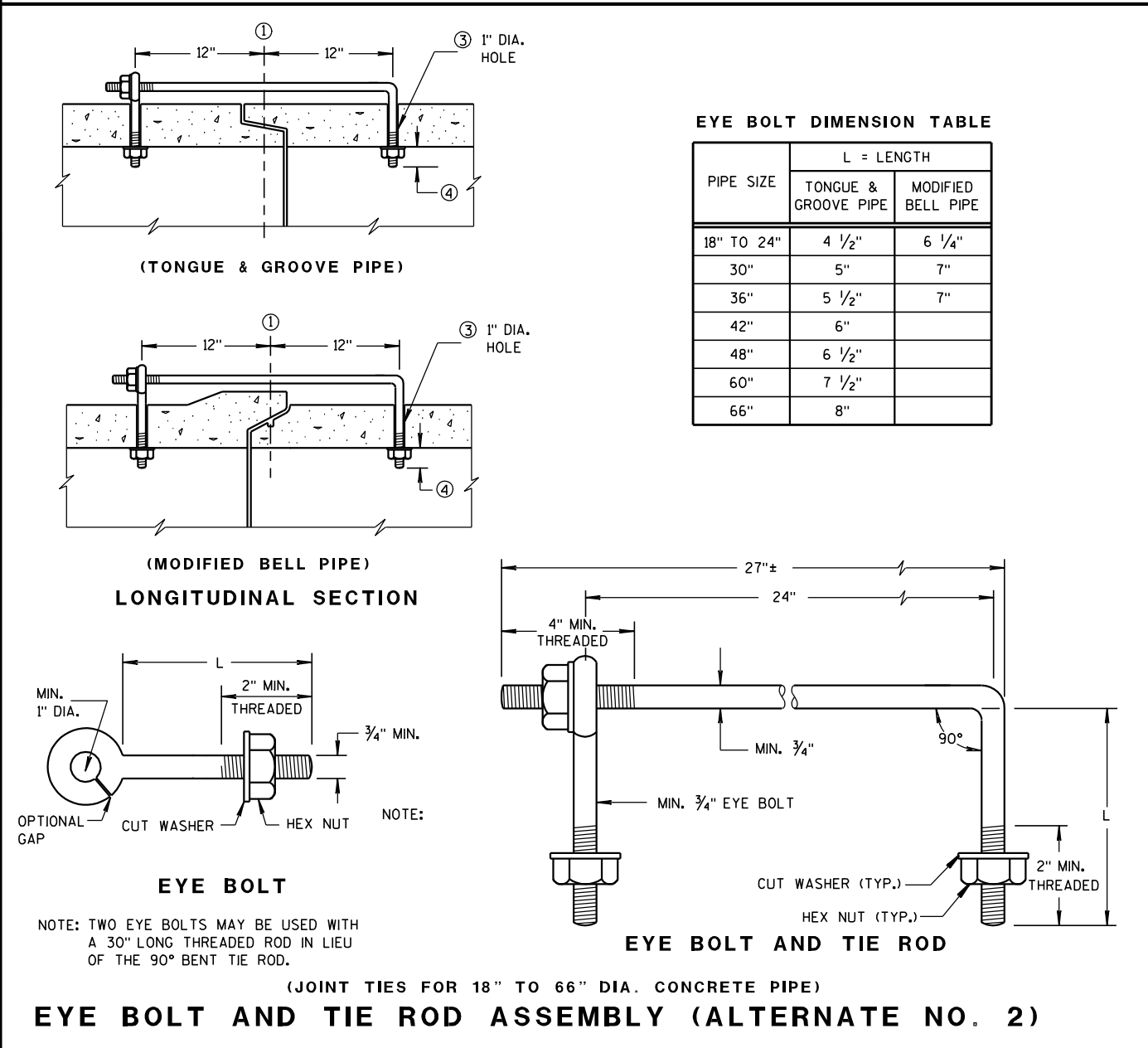
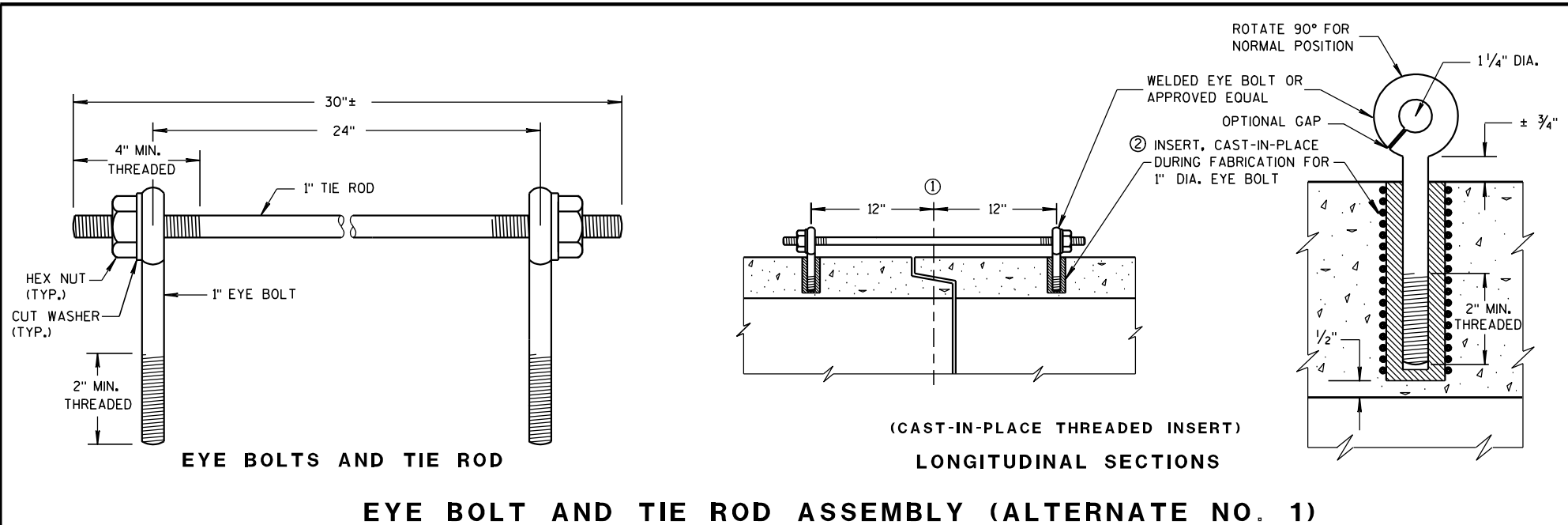
WHERE TWO OR MORE PIPES WITH APRON ENDWALLS ARE LAID ADJACENT TO EACH OTHER, THEY SHALL BE SEPARATED BY A DISTANCE SUFFICIENT TO PROVIDE A MINIMUM CLEARANCE OF 6 INCHES BETWEEN APRON ENDWALLS.

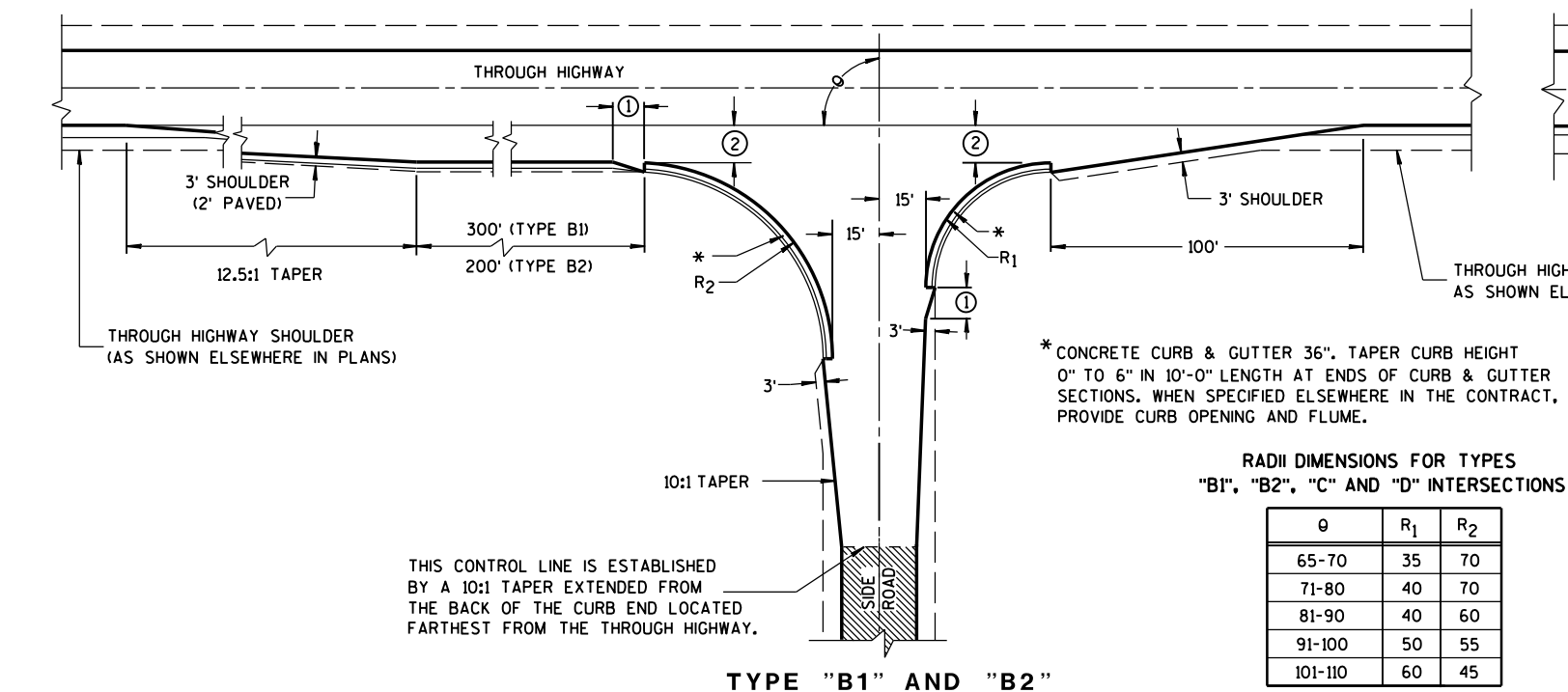
① FOR PIPE SIZES UP TO 60" DIAMETER, A 180° ROLLED EDGE MAY BE USED INSTEAD OF STEEL ROD REINFORCEMENT. SEE SECTION A-A.

### APRON ENDWALLS FOR CULVERT PIPE

STATE OF WISCONSIN  
DEPARTMENT OF TRANSPORTATION

APPROVED  
11/30/94  
DATE  
/S/ Rory L. Rhinehart  
CHIEF ROADWAY DEVELOPER  
NEER  
FHWA





## GENERAL NOTES

DESIGNS MAY BE USED INTERCHANGEABLY IN COMBINATION OR SEPARATELY FOR ANY ONE COMPLETE INTERSECTION DEPENDING UPON INTERSECTION ANGLE AND SURFACING OF EACH APPROACH ROADWAY.

### SIDE ROAD SURFACING NOTE

WHEN THE SIDE ROAD IS NOT PRESENTLY PAVED, PAVEMENT SHALL BE PLACED TO THE LIMITS SHOWN UNLESS OTHERWISE PROVIDED IN THE CONTRACT. WHERE THE CONSTRUCTION LIMITS ARE BEYOND THE PAVING LIMITS, CRUSHED AGGREGATE SURFACING SHALL BE PLACED BETWEEN THE PAVING LIMITS AND CONSTRUCTION LIMITS.

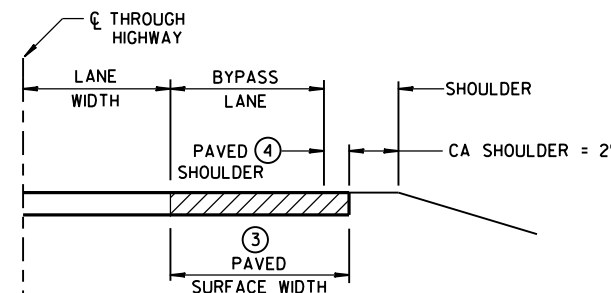
WHEN THE SIDE ROAD IS PRESENTLY PAVED, NEW PAVEMENT SHALL BE PLACED TO THE LIMITS OF DESIGN AS SHOWN AND BEYOND, IF NECESSARY, TO MEET EXISTING PAVEMENT.

WHEN THE SIDE ROAD IS THE CONSTRUCTION PROJECT, THE INTERSECTION SURFACING SHALL BE THE SAME AS FOR THE PROJECT.

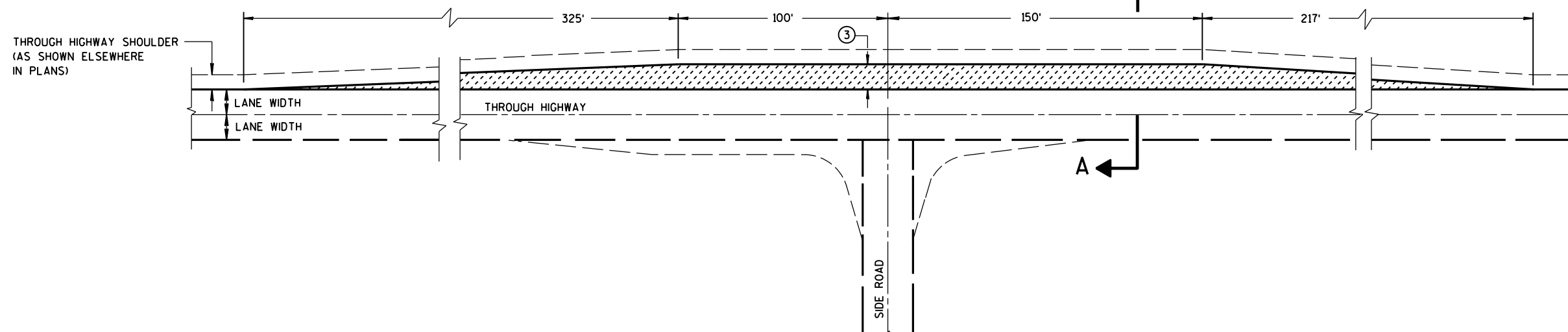
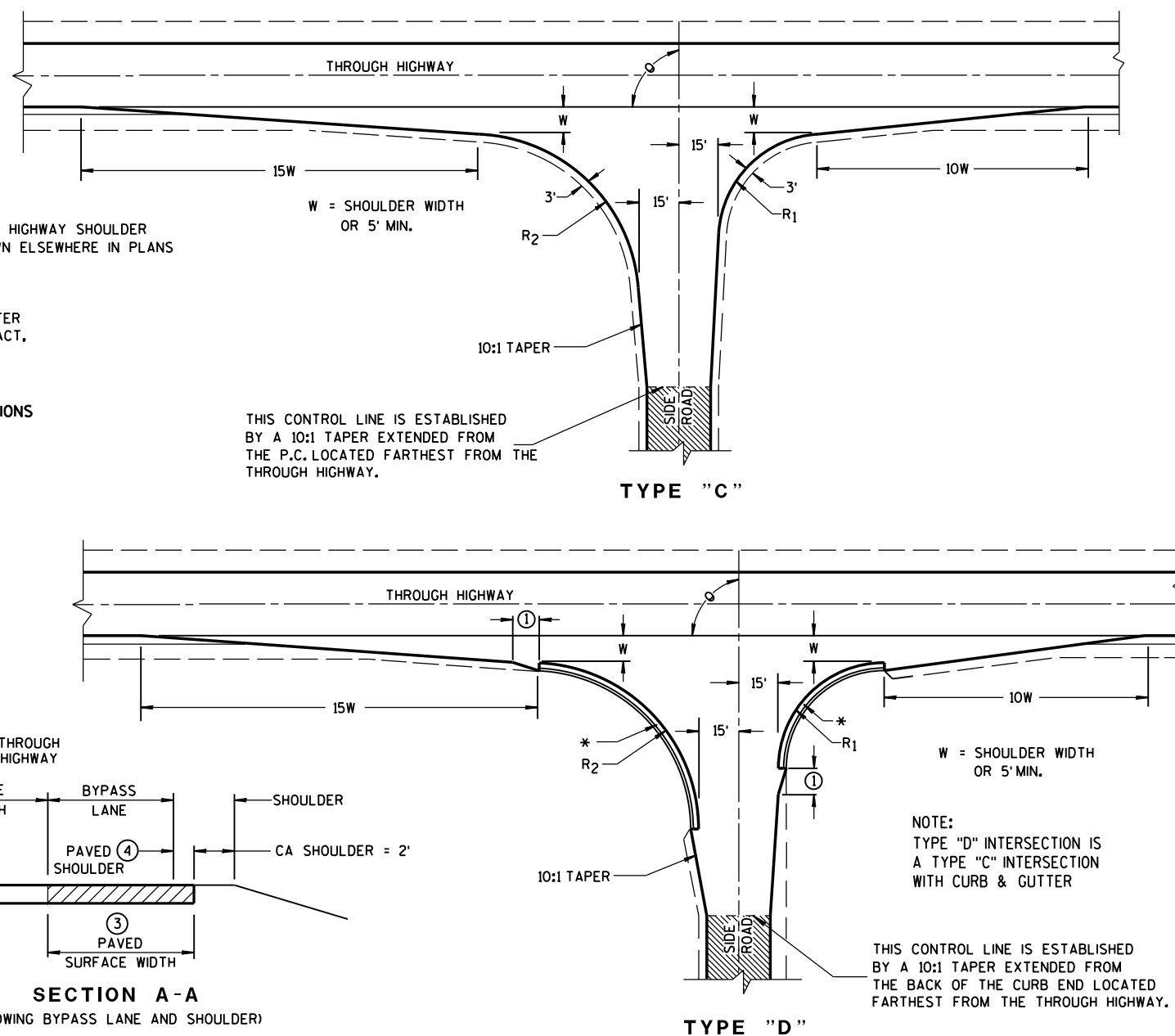
EXISTING PAVED SURFACE

BYPASS LANE

- ① 10-FT TYPICAL.
- ② 12-FT\*\* PLUS ADDITIONAL WIDTH FOR BIKE LANE IF SHOWN ELSEWHERE IN THE PLAN.
- \*\*10-FT MAY BE USED ON TYPE B2 ON RESURFACING PROJECTS IF SPECIFIED IN THE CONTRACT.
- ③ BYPASS LANE PAVED SURFACE WIDTH OUTSIDE OF TRAVEL LANE  
-ASPHALT = 12-FT PLUS PAVED SHOULDER WIDTH.  
-PC CONCRETE = 13-FT PLUS PAVED SHOULDER WIDTH.
- ④ BYPASS LANE PAVED SHOULDER WIDTH = THE GREATER OF 1-FT OR THE PAVED SHOULDER WIDTH OF THE THROUGH HIGHWAY.



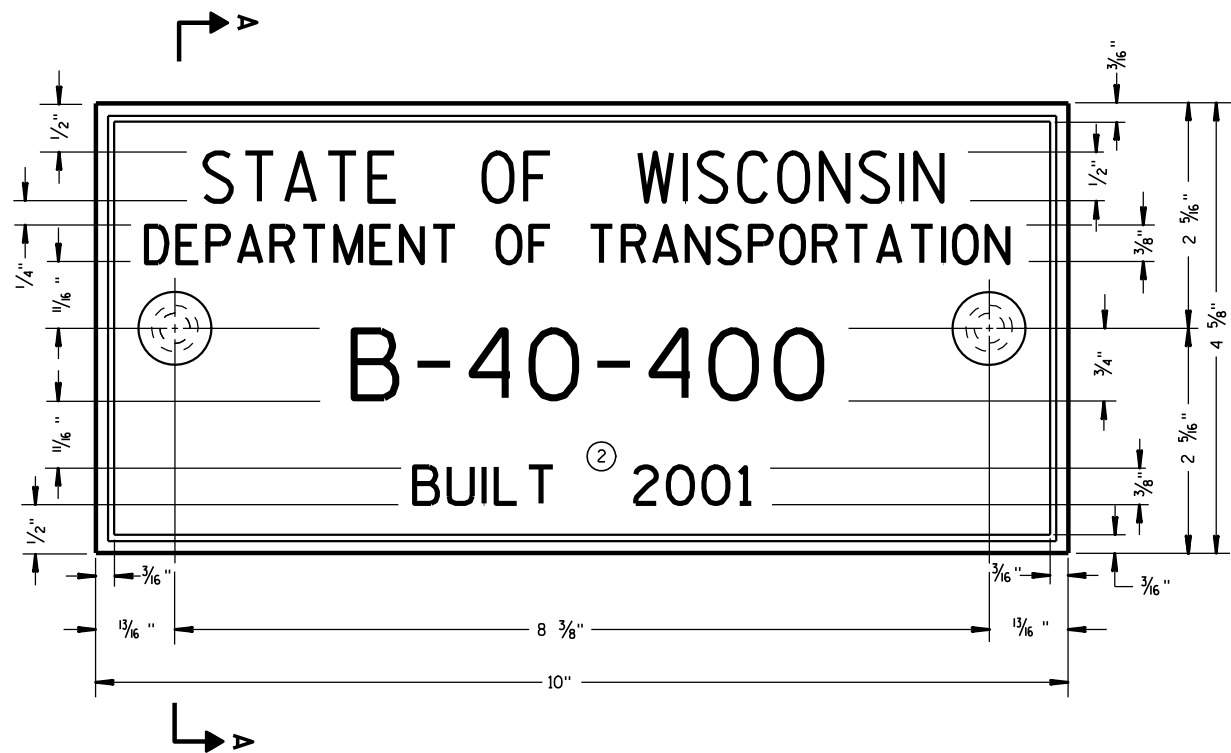
SECTION A-A  
(SHOWING BYPASS LANE AND SHOULDER)



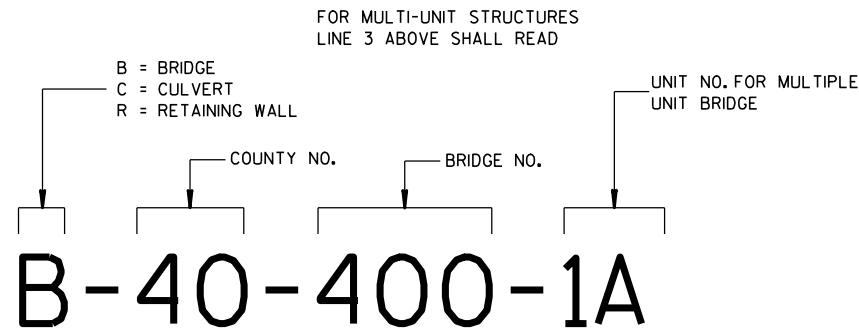
TEE INTERSECTION BYPASS LANE DETAIL

AT-GRADE SIDE ROAD  
INTERSECTION, TYPES "B1", "B2",  
"C" AND "D" AND TEE  
INTERSECTION BYPASS LANE

STATE OF WISCONSIN  
DEPARTMENT OF TRANSPORTATION



TYPICAL NAME PLATE  
(BRIDGES, CULVERTS, AND RETAINING WALLS)



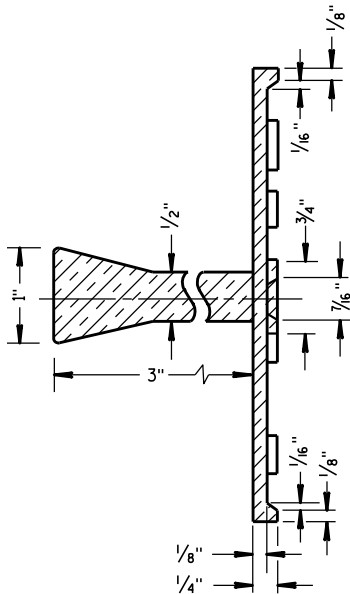
NUMBERING DESIGNATION  
MULTI-UNIT STRUCTURES

GENERAL NOTES

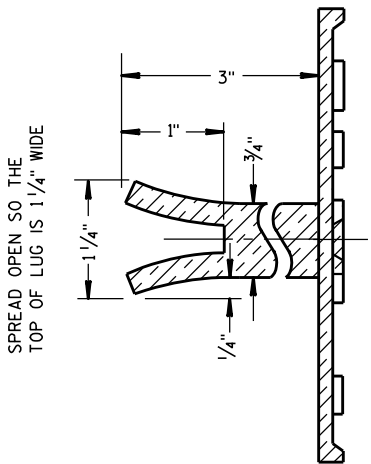
NAME PLATES TO BE INSTALLED ON BRIDGES, CULVERTS, AND RETAINING WALLS SHALL CONFORM TO THE REQUIREMENTS OF SECTION 502.3.11 OF THE STANDARD SPECIFICATIONS.

THE BRIDGE NUMBER AND YEAR BUILT SHOWN ON THIS DRAWING ARE EXAMPLES ONLY. SEE CONSTRUCTION PLANS FOR INDIVIDUAL NUMBERING AND YEAR BUILT.

- ① EPOXY RESIN SHALL BE FROM AN APPROVED MANUFACTURER AND USED IN ACCORDANCE WITH MANUFACTURER'S RECOMMENDATIONS.
- ② REHABILITATION OF AN EXISTING STRUCTURE SHOULD USE THE DATE OF ORIGINAL STRUCTURE CONSTRUCTION.

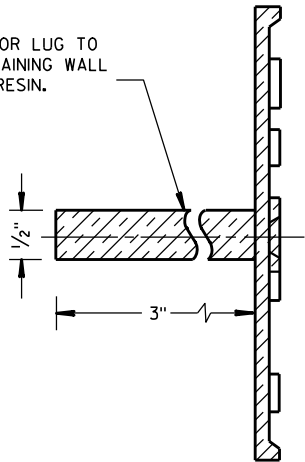


SECTION A-A



ALTERNATE LUG

- ① ADHERE ANCHOR LUG TO PRECAST RETAINING WALL WITH EPOXY RESIN.

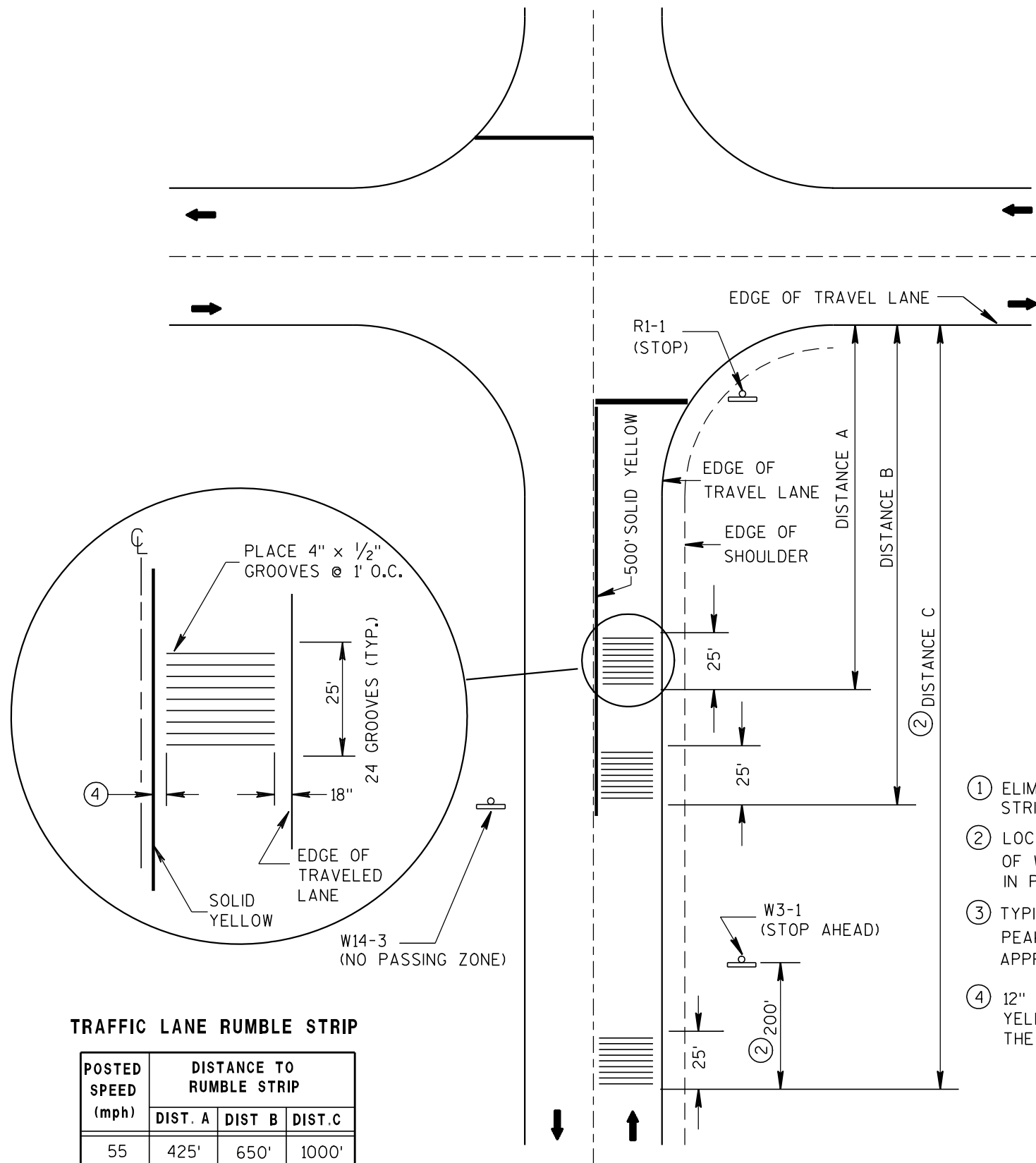


ALTERNATE LUG  
(FOR ATTACHMENT TO PRECAST STRUCTURES)

NAME PLATE  
(STRUCTURES)

STATE OF WISCONSIN  
DEPARTMENT OF TRANSPORTATION

APPROVED  
DATE 3/26/10  
/S/ Scot Beck  
CHIEF STRUCTURAL DEVELOPER  
85  
JEER  
FHWA



### TRAFFIC LANE RUMBLE STRIP

| POSTED SPEED<br>(mph) | DISTANCE TO RUMBLE STRIP |         |         |
|-----------------------|--------------------------|---------|---------|
|                       | DIST. A                  | DIST. B | DIST. C |
| 55                    | 425'                     | 650'    | 1000'   |
| 50                    | 325'                     | 450'    | 800'    |
| 45                    | 275'                     | 400'    | 650'    |
| 40                    | 225'                     | ①       | 550'    |
| 35                    | 175'                     | ①       | 475'    |
| ≤ 30                  | 125'                     | ①       | 425'    |

ARROW SYMBOL (➡) SHOWS DIRECTION OF TRAVEL

### PLAN VIEW RUMBLE STRIP LOCATION

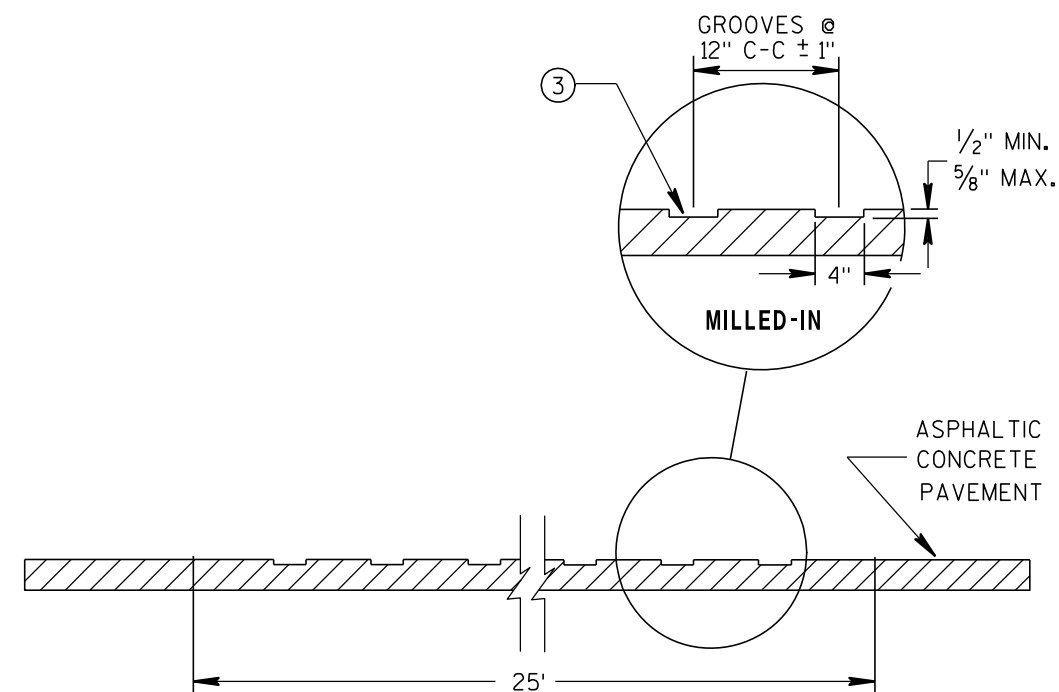
- ① ELIMINATE THE MIDDLE SET OF RUMBLE STRIPS.
- ② LOCATE RUMBLE STRIP 200' IN ADVANCE OF W3-1 SIGN AS SHOWN. IF W3-1 IS NOT IN PLACE, USE DISTANCE C.
- ③ TYPICAL VERTICAL VARIATION BETWEEN PEAKS AND VALLEYS WITHIN THE CUT APPROXIMATELY  $\frac{1}{16}$ "
- ④ 12" CLEAR BETWEEN THE SOLID YELLOW LINE AND THE EDGE OF THE RUMBLE.

### GENERAL NOTES

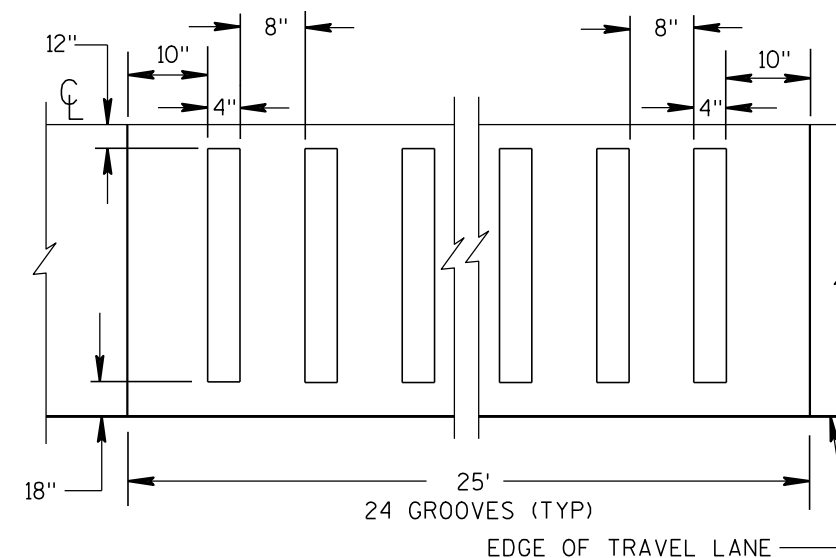
CONTRACTOR SHALL CONFIRM RUMBLE STRIP LOCATION WITH THE ENGINEER PRIOR TO INSTALLATION. THE ENGINEER MAY MODIFY THE RUMBLE STRIP LOCATION AS FIELD CONDITIONS DICTATE.

WHEN ASPHALTIC PAVEMENT IS NEW IN THE RUMBLE AREA THE CONTRACTOR SHALL ALLOW THE PAVEMENT TO CURE A MINIMUM OF 7 DAYS PRIOR TO RUMBLE INSTALLATION.

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



ELEVATION VIEW



PLAN VIEW  
ASPHALTIC PAVEMENT  
MILLED-IN

### ASPHALTIC RUMBLE STRIPS AT INTERSECTION

STATE OF WISCONSIN  
DEPARTMENT OF TRANSPORTATION

APPROVED

8/17/2011

DATE

FHWA

/s/ Jerry H. Zogg

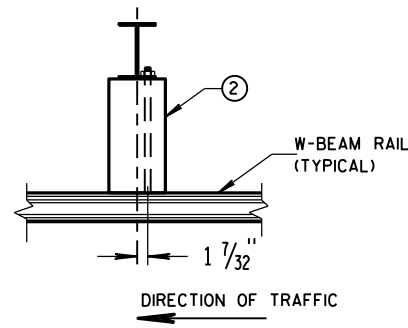
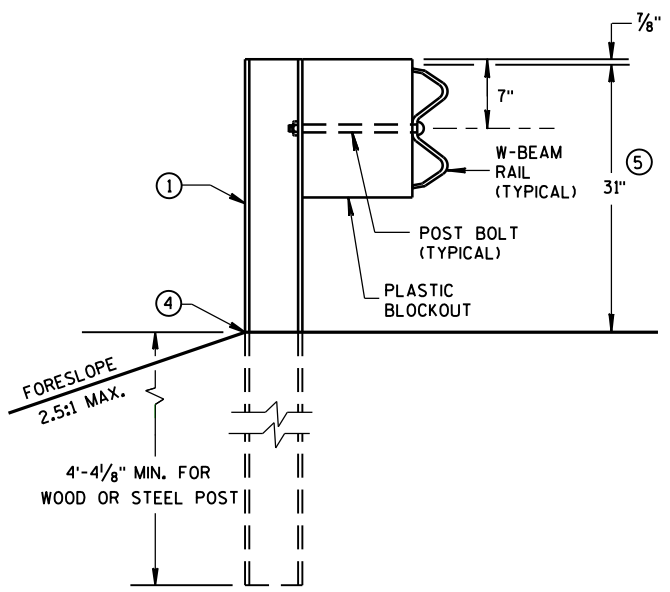
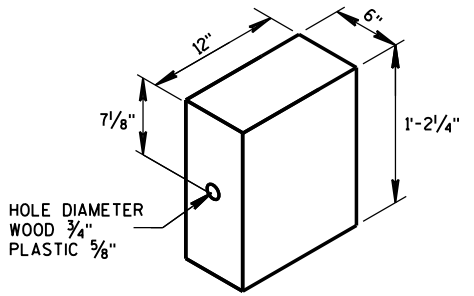
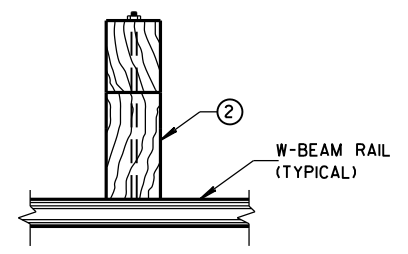
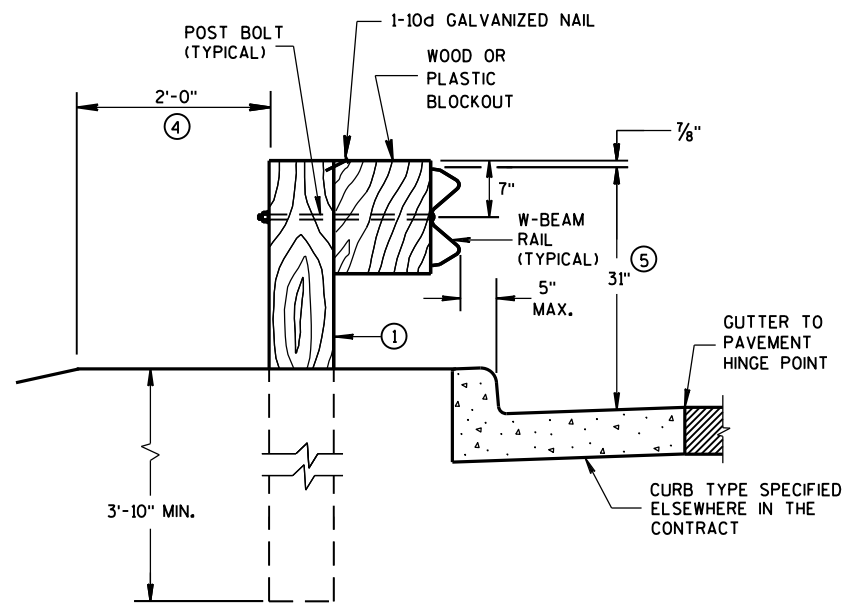
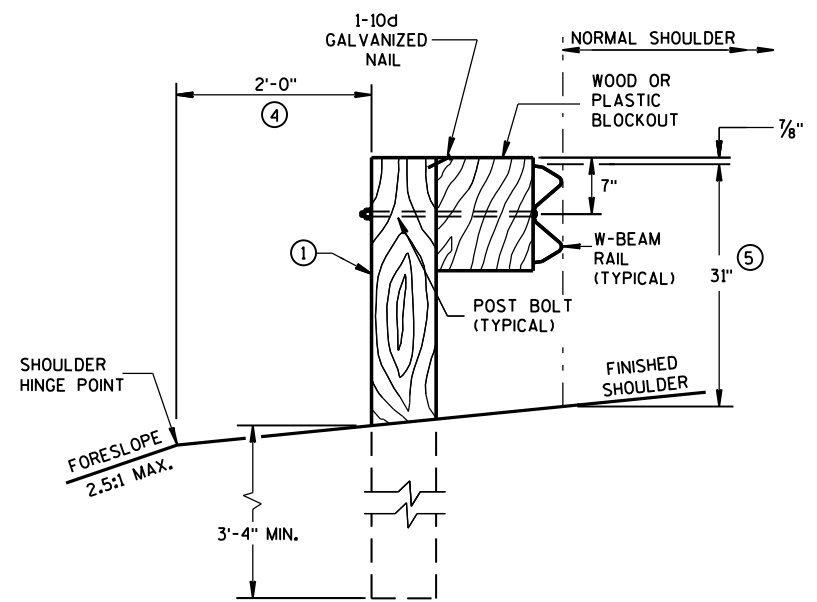
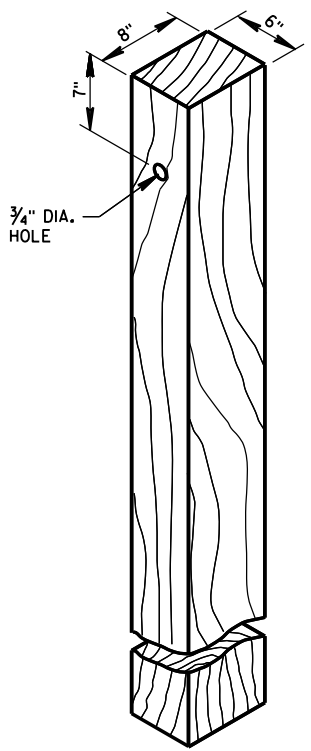
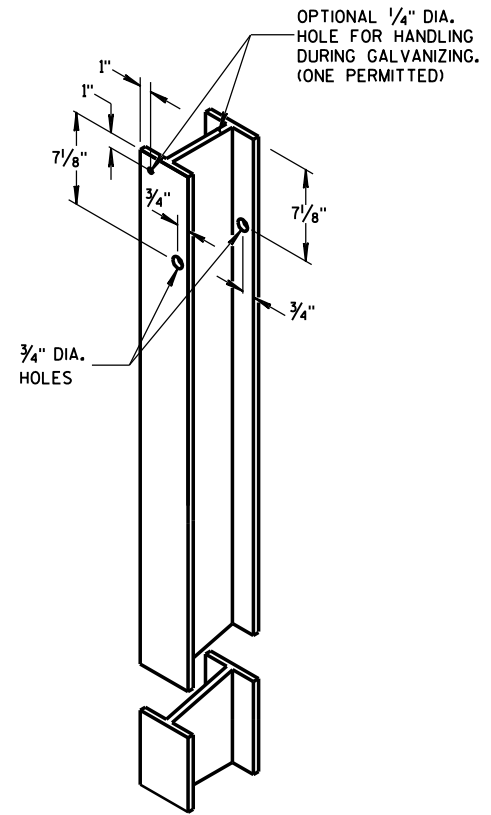
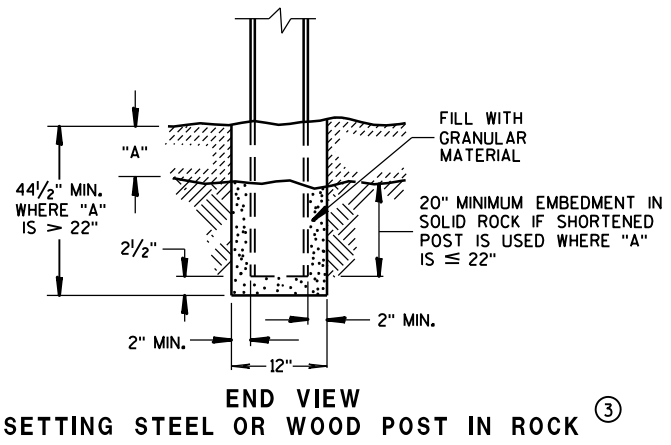
ROADWAY STANDARDS 186

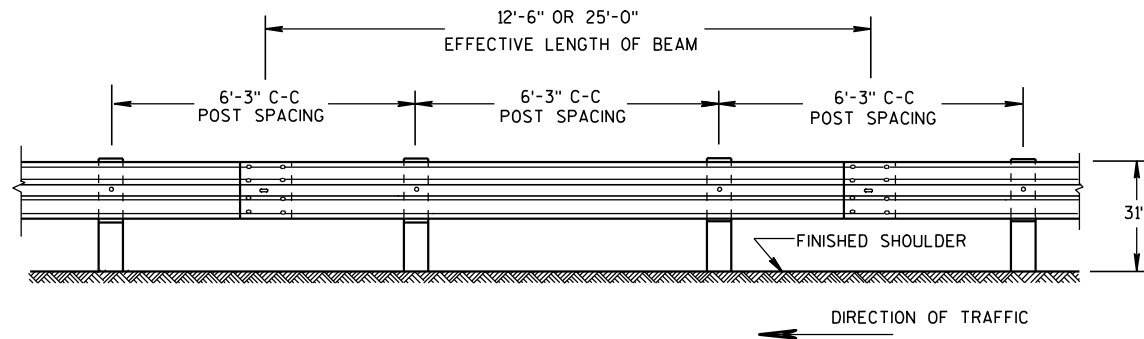
ENGINEER

ENT

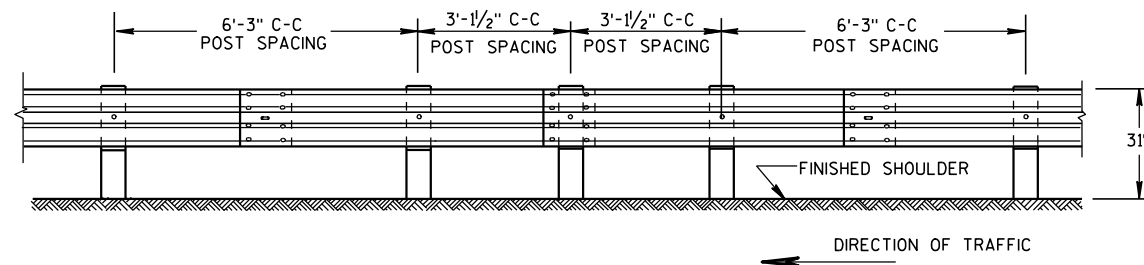
GENERAL NOTES

- 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 2 1/2 INCHES OF GRANULAR MATERIAL IN THE BOTTOM OF THE HOLE. CUT THE POSTS THE TO LENGTH AND 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 27 3/4" TO 32".

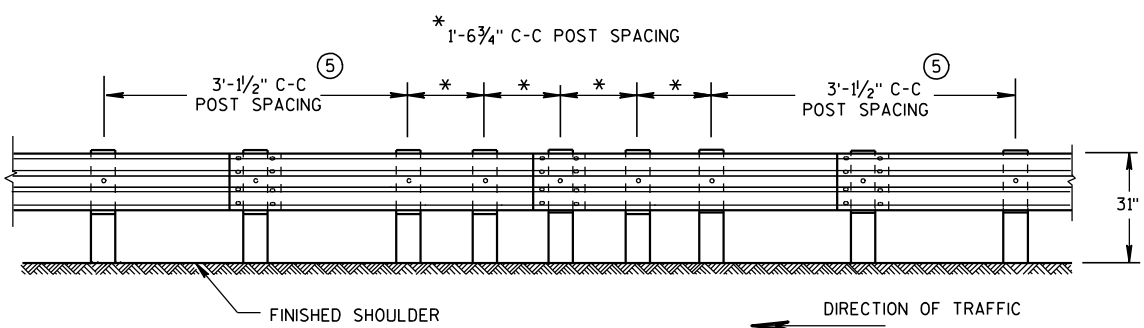




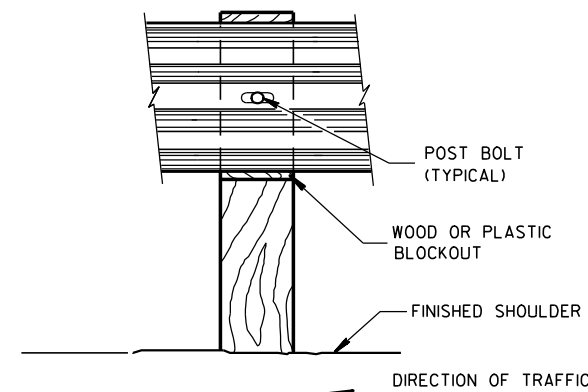
**FRONT VIEW**  
**POST SPACING STANDARD INSTALLATION**



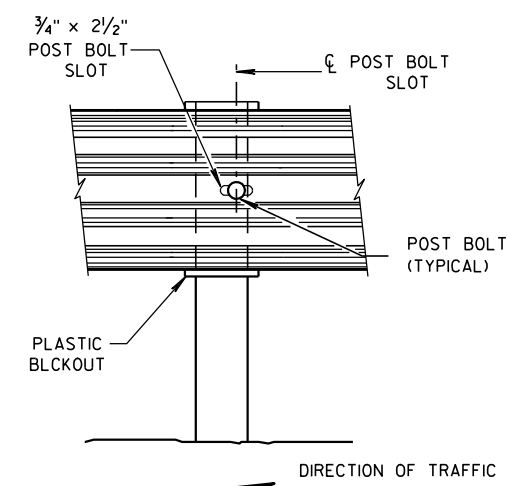
**FRONT VIEW**  
**HALF POST SPACING (HS) AND  
HALF POST SPACING WITH LONGER POSTS (K)**



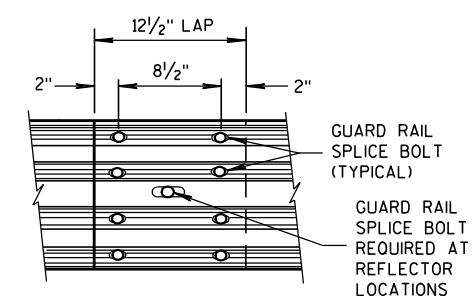
**FRONT VIEW**  
**QUARTER POST SPACING (QS)**



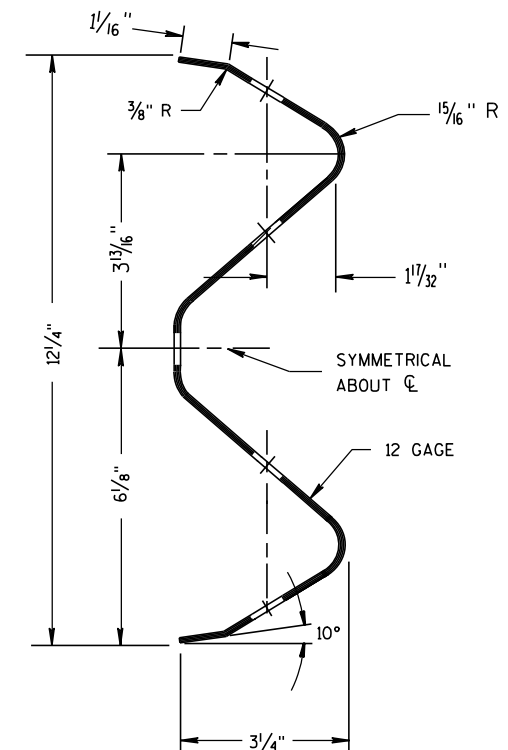
**FRONT VIEW AT WOOD POST**



**FRONT VIEW AT STEEL POST**



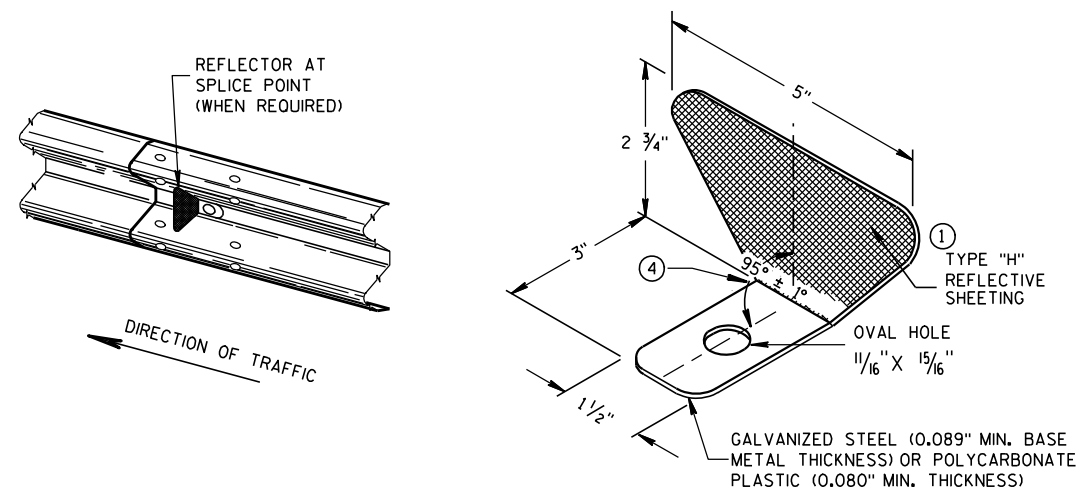
**FRONT VIEW  
MID-SPAN BEAM SPLICE**



**SECTION THRU W-BEAM RAIL**

**REFLECTOR SPACING**

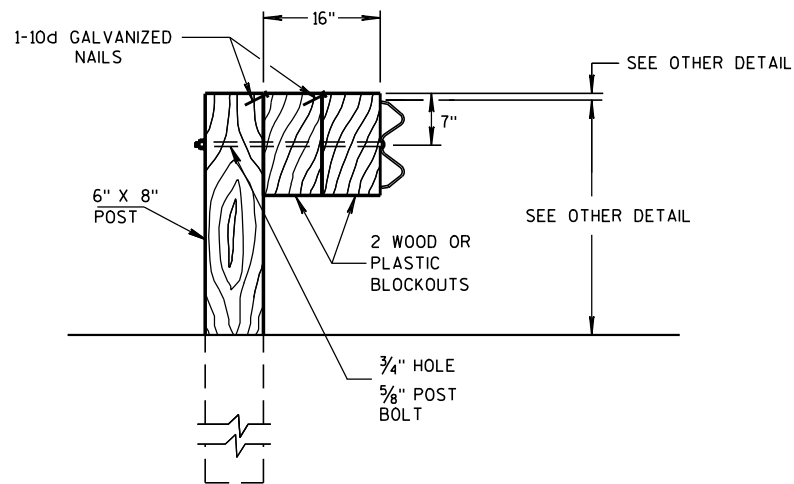
|                 | BEAM GUARD LENGTH | REFLECTOR SPACING | NO. SURFACES REFLECTORIZED | MIN. NO. REFLECTORS |
|-----------------|-------------------|-------------------|----------------------------|---------------------|
| ONE WAY TRAFFIC | < 200'            | 50' C-C           | 1                 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



**ONE SIDED REFLECTOR DETAIL AND TYPICAL INSTALLATION**

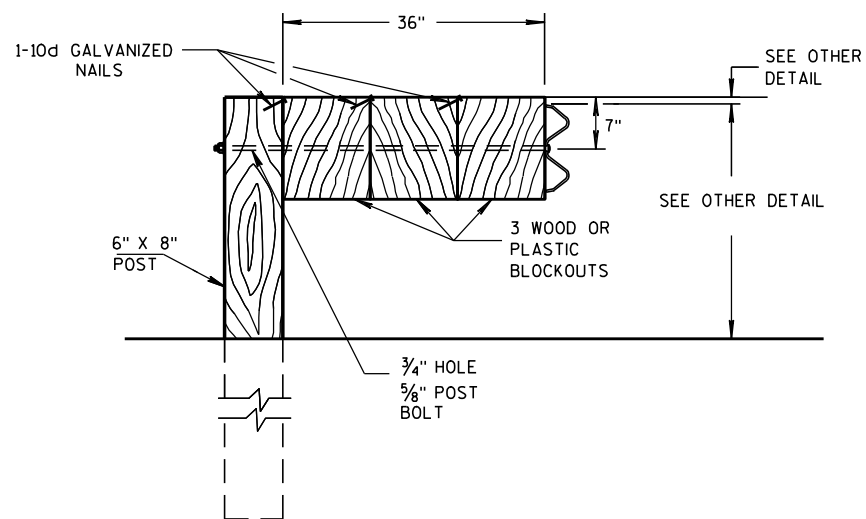
**GENERAL NOTES**

- 1 PROVIDE TYPE "H" SILVER REFLECTIVE SHEETING ON ALL REFLECTORS EXCEPT THOSE LOCATED ALONG THE LEFT EDGE OF ONE-WAY ROADWAYS, WHICH SHALL BE PROVIDED WITH TYPE "H" YELLOW REFLECTIVE SHEETING.
  - 2 DO NOT INSTALL REFLECTORS ON THE FIRST 50 FEET OF THE APPROACH END OF THE ENERGY ABSORBING TERMINAL. RAIL SPLICE LOCATIONS ARE THE ONLY ACCEPTABLE LOCATIONS FOR REFLECTORS.
  - 3 REVERSE EVERY OTHER REFLECTOR FOR 2-WAY VISIBILITY. THE CONTRACTOR MAY FURNISH TWO-SIDED REFLECTORS IN LIEU OF ONE-SIDED REFLECTORS.
  - 4 PROVIDE AN ANGLE OF BEND OF 90° ± 1° FOR TWO-SIDED REFLECTORS.
  - 5 25 FEET OF HALF POST SPACING IS REQUIRED ON APPROACH AND DEPARTURE ENDS OF QUARTER POST SPACING.
- POST BOLTS ARE A 5/8" DIAMETER ASTM A307 GUARDRAIL BOLT. A POST BOLT REQUIRES 5/8" DIAMETER A563A DOUBLE RECESSED (DR) HEAVY HEX NUT AND 5/8" DIAMETER F844 FLAT WASHER. POST BOLTS MAY BE LONGER IF MULTIPLE BLOCKOUTS ARE BEING USED.
- GUARD RAIL SPLICE BOLTS ARE A 5/8" DIAMETER ASTM A307 GUARDRAIL HEAD BOLT. A GUARDRAIL SPLICE BOLT REQUIRES 5/8" DIAMETER A563A DOUBLE RECESSED (DR) HEAVY HEX NUT.



### DETAIL FOR 16" BLOCKOUT DEPTH

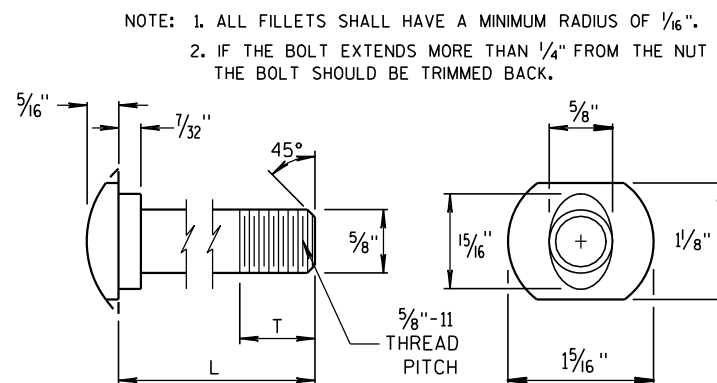
IT IS ACCEPTABLE TO USE BLOCKOUTS UP TO 16" DEEP TO INCREASE THE POST OFFSET TO AVOID UNDERGROUND OBSTACLES. THERE IS NO LIMIT TO THE NUMBER OF POSTS THAT CAN HAVE ADDITIONAL BLOCKOUTS UP TO 16" DEEP.



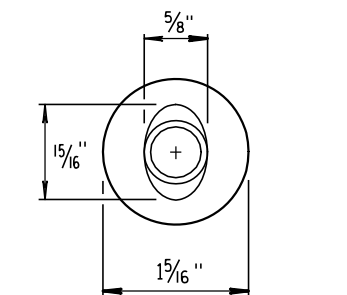
### DETAIL FOR 36" BLOCKOUT DEPTH

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.

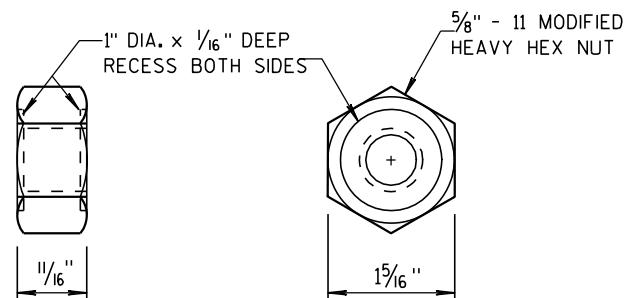
DO NOT USE 16" OR 36" BLOCKOUTS IF IT CAUSES THE POST TO BE DRIVEN BEYOND SHOULDER HINGE POINT OR CAUSES A FIXED OBJECT TO BE WITHIN THE DEFLECTION DISTANCE OF THE BARRIER.



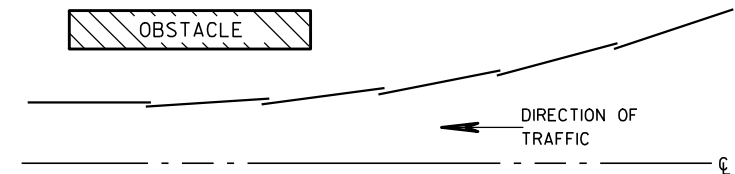
POST BOLT TABLE



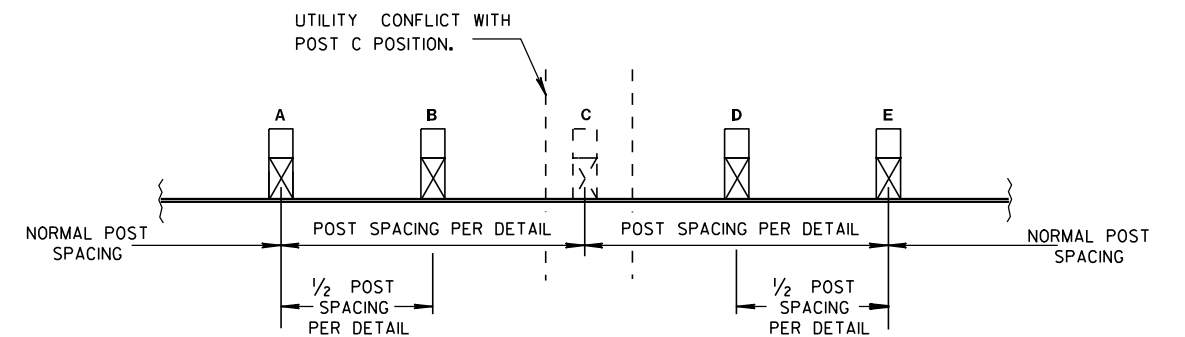
ALTERNATE BOLT HEAD



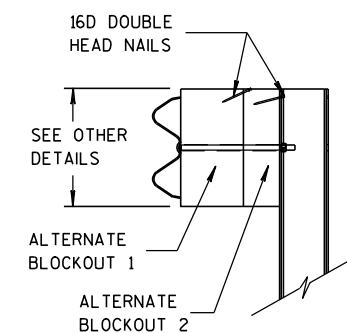
POST BOLT AND RECESS NUT



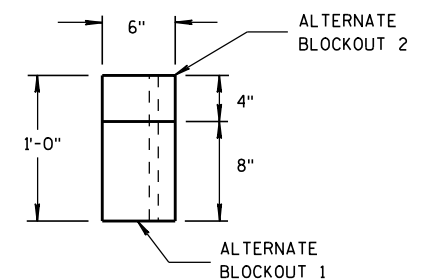
PLAN VIEW  
BEAM LAPPING DETAIL



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

FHWA

/S/ Jerry H. 3000

ROADWAY STANDARDS

ENGINEER

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.
- (E) 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.
- (F) 1/2" DIAMETER X 3" LONG LAG BOLT AND WASHER.
- (G) HARDWARE VARIES BETWEEN DIFFERENT MANUFACTURES. SEE MANUFACTURE'S DRAWING FOR INFORMATION.
- (H) DIMENSIONS MAY VARY. SEE MANUFACTURE'S INFORMATION.

SEE SDD 14B42 FOR MORE INFORMATION.

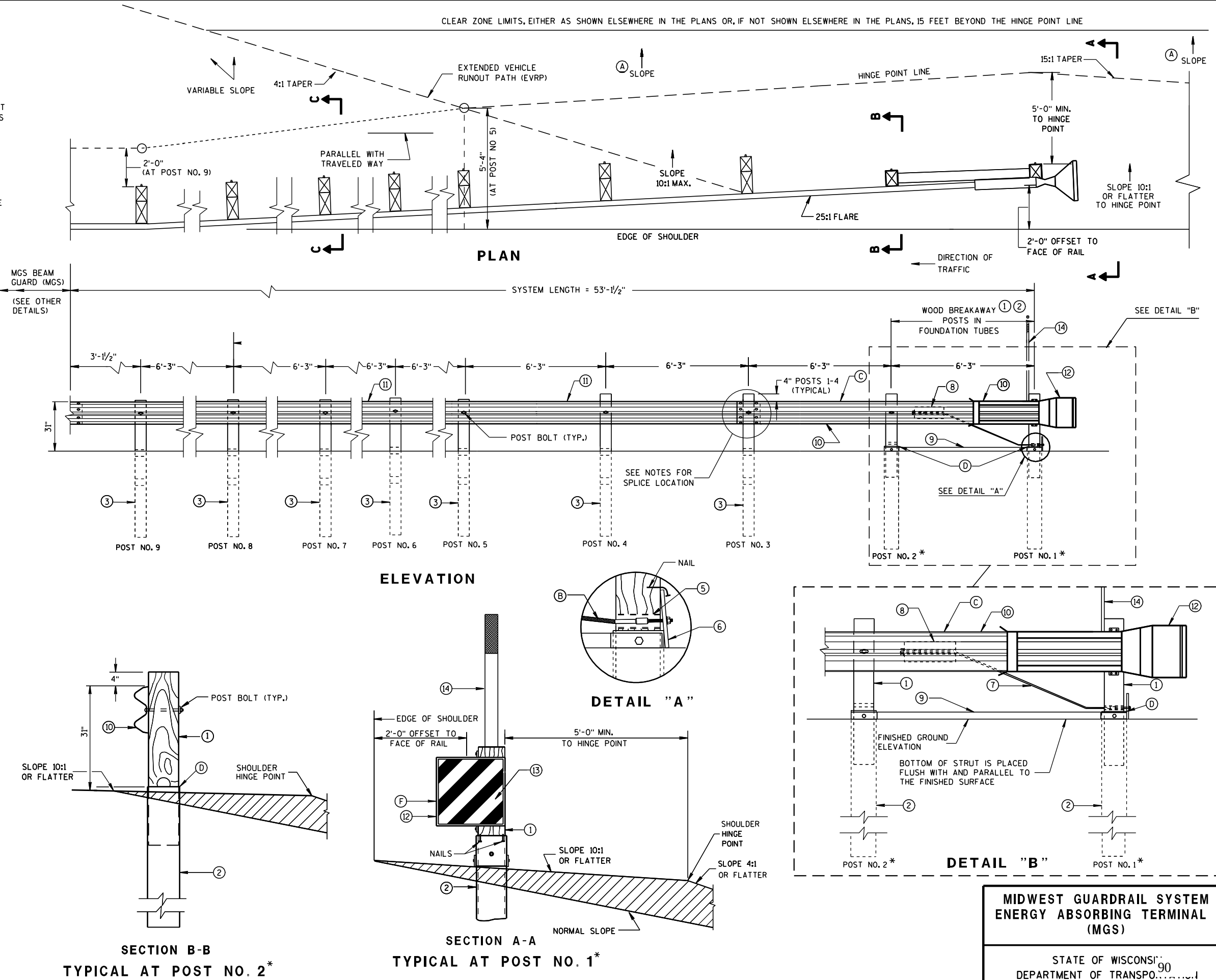
\* DO NOT ATTACH BLOCKOUTS TO POSTS 1 AND 2.

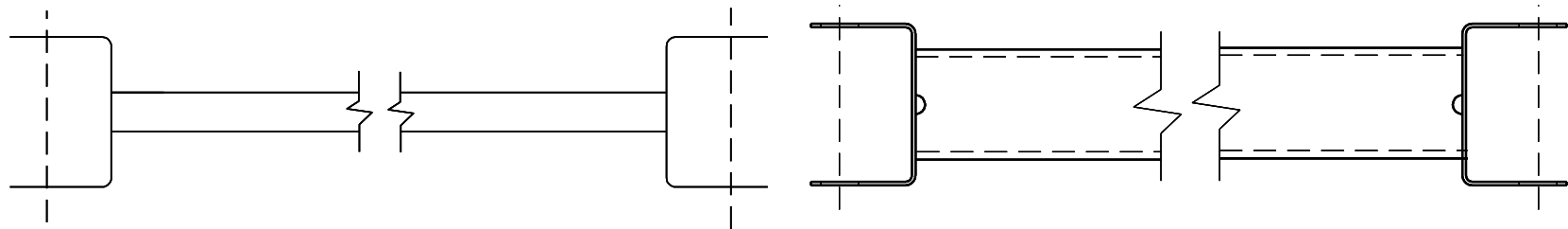
DO NOT INSTALL REFLECTORS ON THE FIRST 50 FEET OF THE APPROACH END OF THE ENERGY ABSORBING TERMINAL.

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.

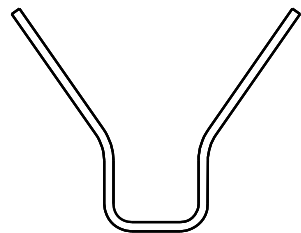
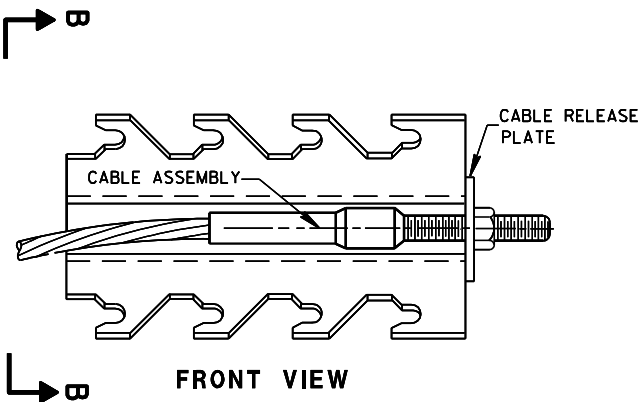
PATTERN AND COLORS ON REFLECTIVE SHEETING TYPE H ARE TO CONFORM TO OM3-L OR OM3-R OF THE MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES.

THE CENTER OF THE UPPER 3/2" DIAMETER HOLE ON POST NUMBER 3 THROUGH POST 9 IS TO BE FLUSH WITH THE GROUND LINE ( $\pm \frac{3}{4}$ ")

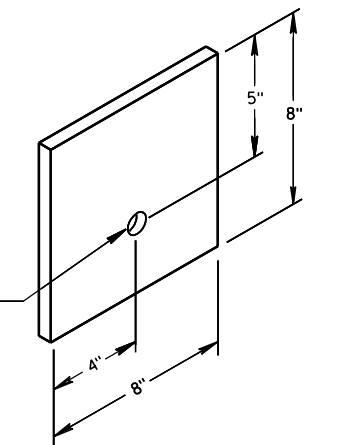
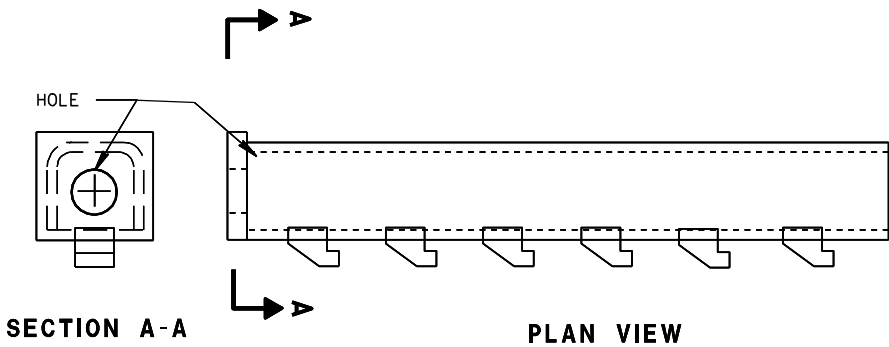




9 H  
GENERIC GROUND STRUT

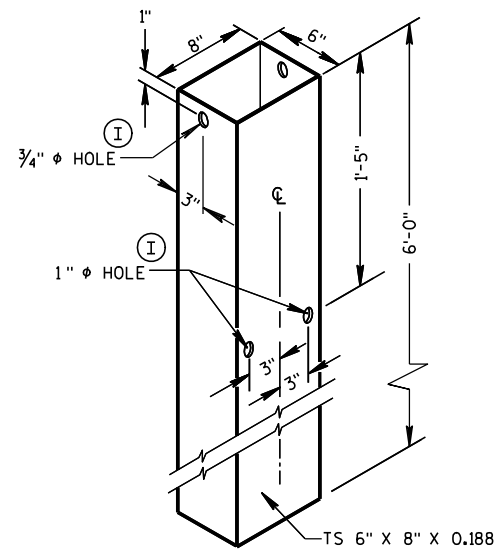


SECTION B-B  
8 H  
GENERIC ANCHOR CABLE BOX

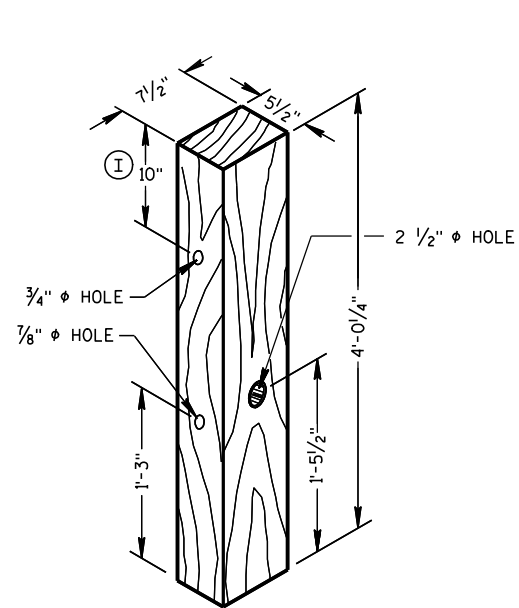


6  
BEARING PLATE

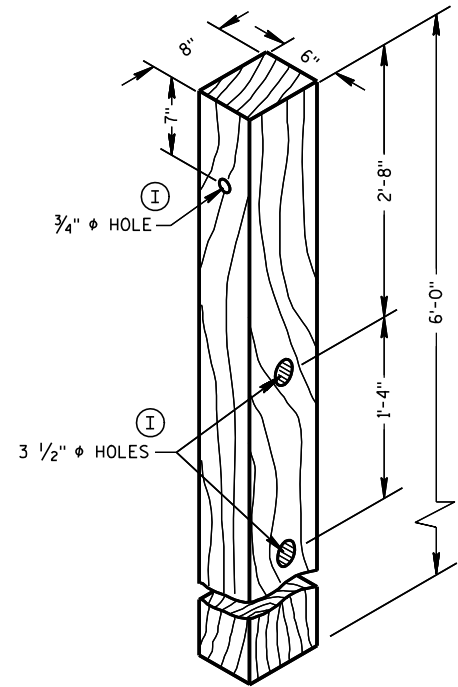
| BILL OF MATERIALS                                                                            |                                                                                                           |
|----------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------|
| 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)                                                     |



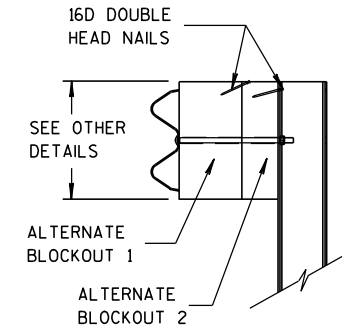
FOUNDATION TUBE ②



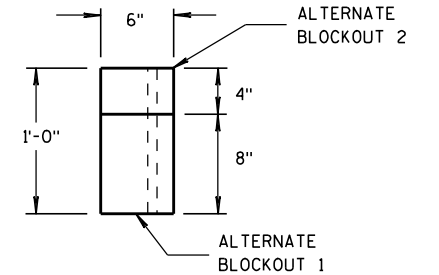
WOOD BREAKAWAY POST ①



WOOD CRT POST ③

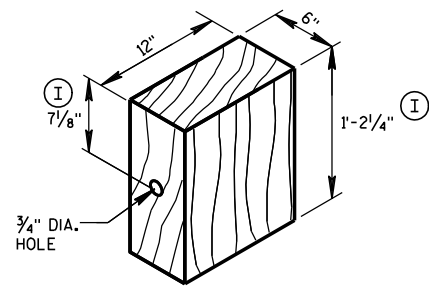


SIDE VIEW



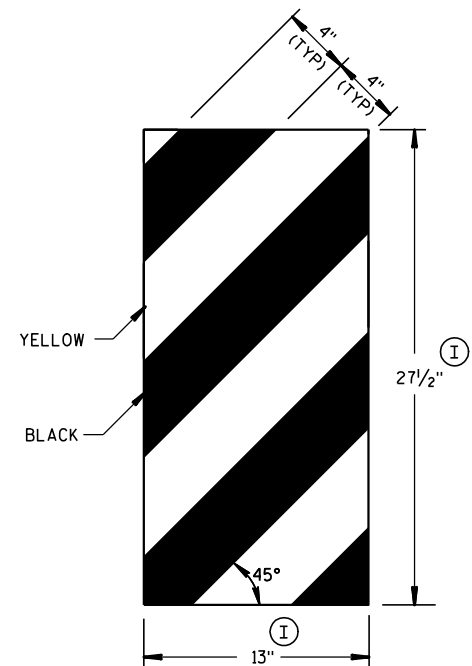
TOP VIEW

ALTERNATE WOOD  
BLOCKOUT DETAIL

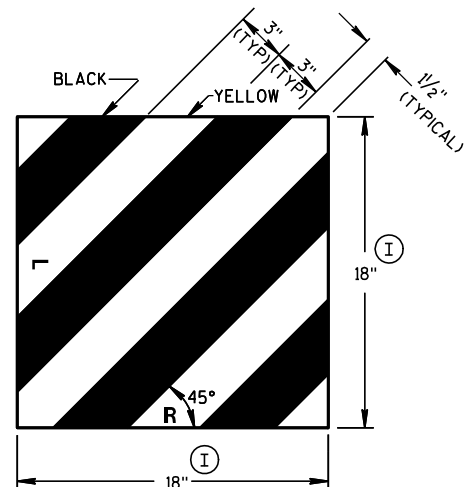


WOOD BLOCKOUT ④

YELLOW REFLECTIVE TAPE  
3" X 9" TYPE H  
REFLECTIVE SHEETING



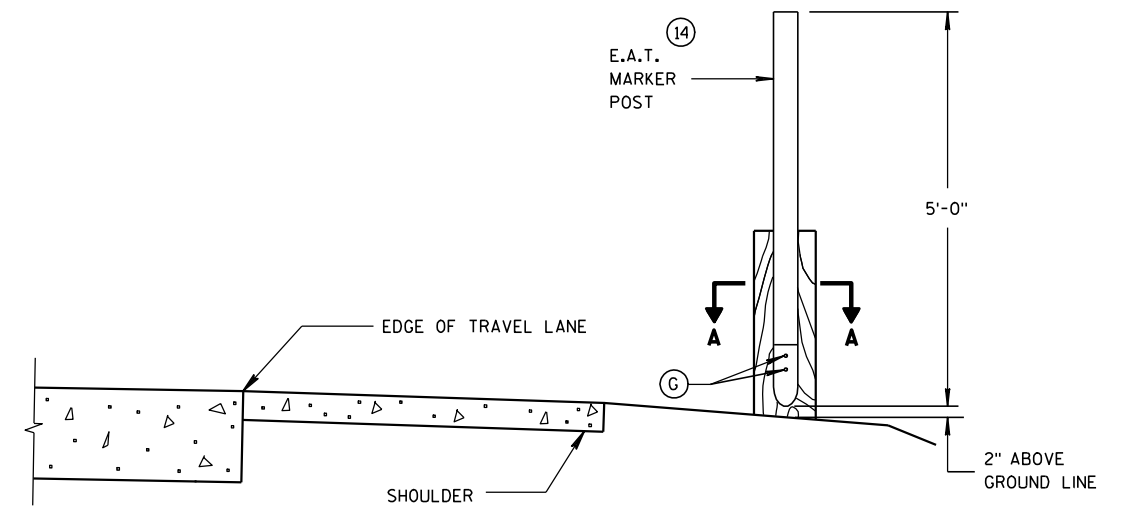
GENERIC REFLECTIVE SHEETING ⑬ ④



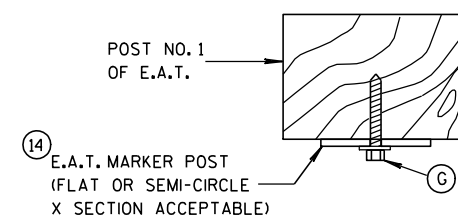
FRONT VIEW

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)



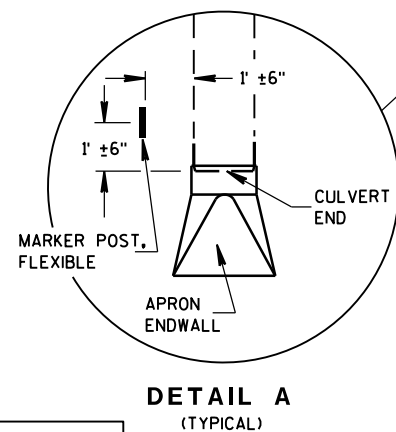
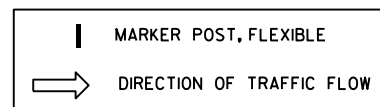
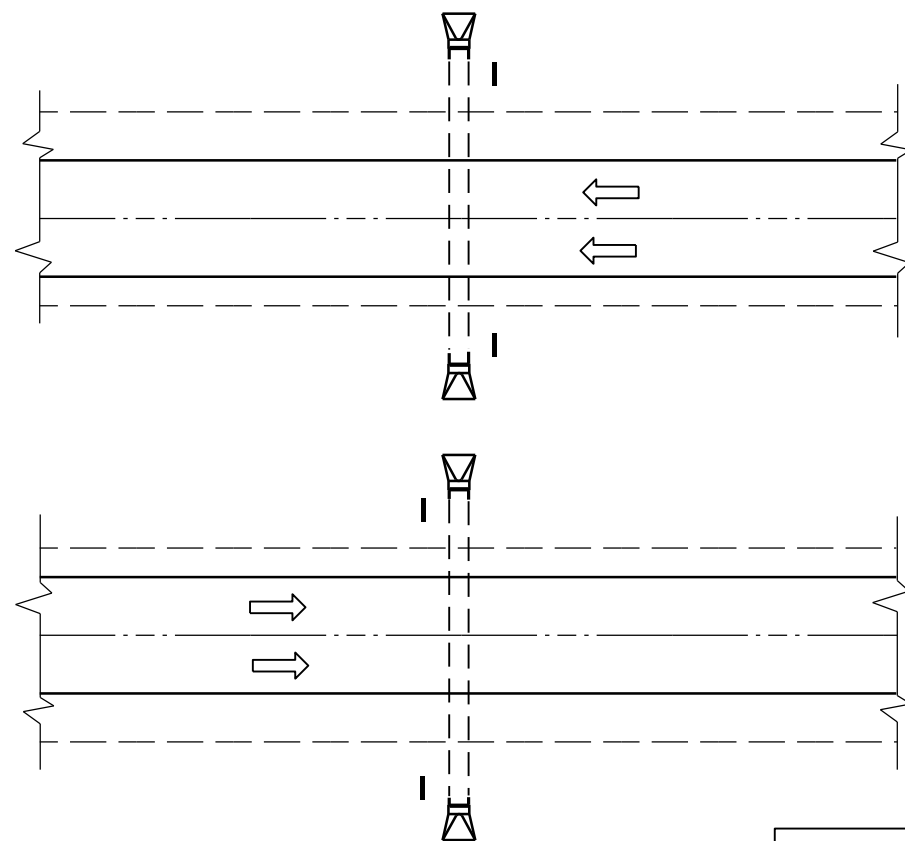
SECTION A-A

MIDWEST GUARDRAIL SYSTEM  
ENERGY ABSORBING TERMINAL  
(MGS)

STATE OF WISCONSIN  
DEPARTMENT OF TRANSPORTATION

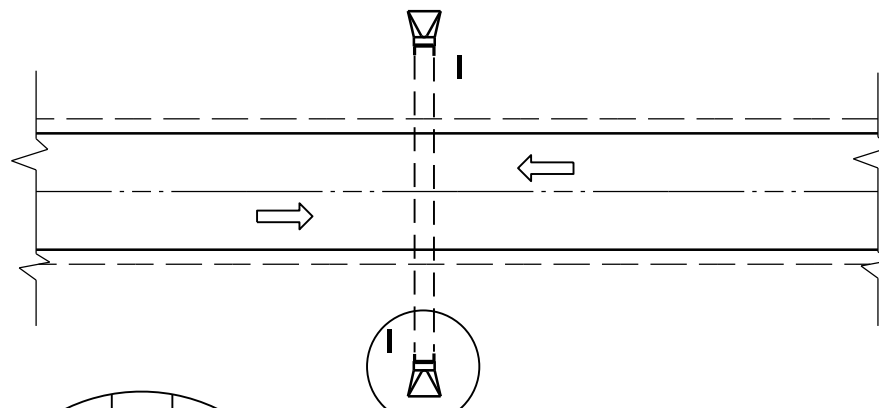
APPROVED  
5/23/2011 DATE /S/ Jerry H. 3000  
DATE ROADWAY STANDARDS 92 CENT  
FHWA ENGINEER

PLAN VIEW  
DIVIDED HIGHWAY



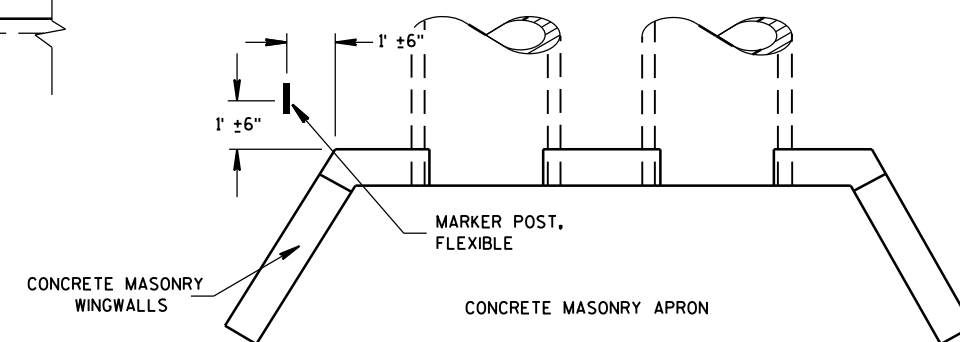
DETAIL A  
(TYPICAL)

PLAN VIEW  
UNDIVIDED HIGHWAY



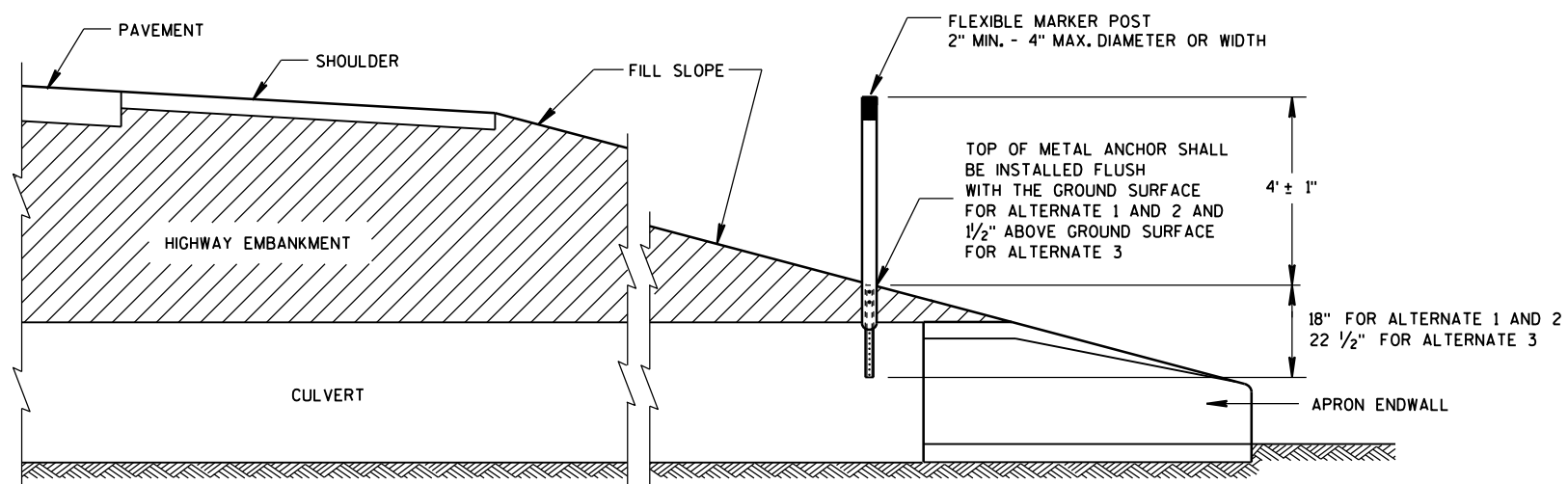
## GENERAL NOTES

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



PLAN VIEW  
CONCRETE MASONRY ENDWALLS FOR  
CULVERT PIPE AND PIPE ARCH

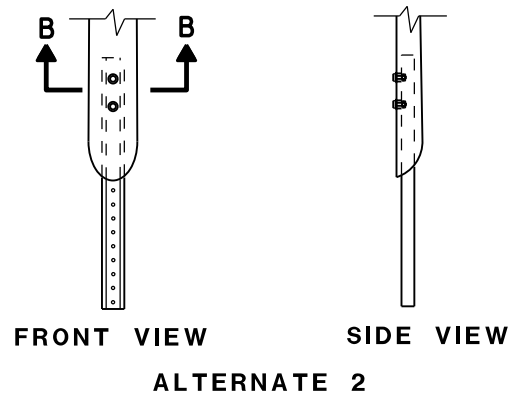
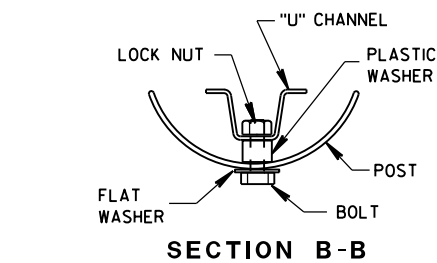
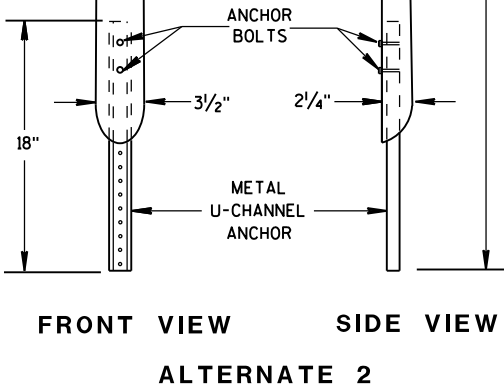
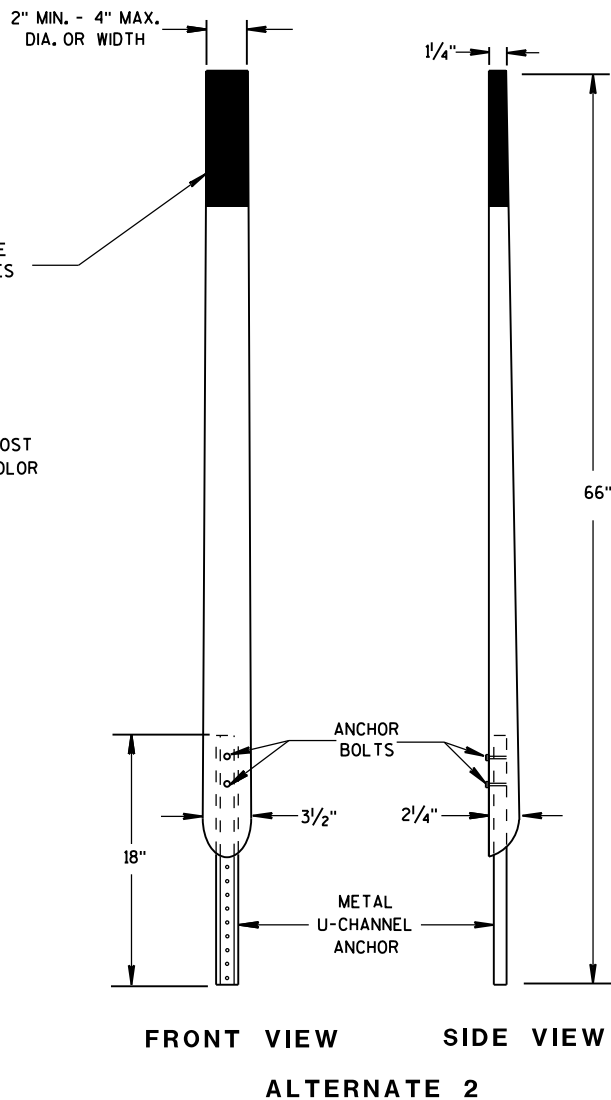
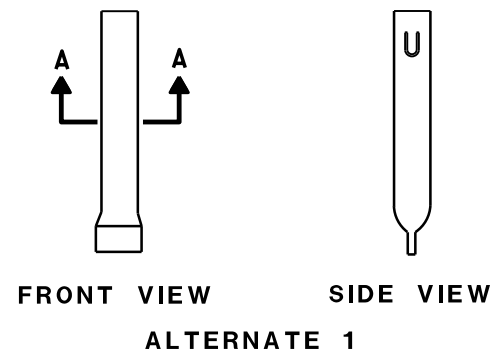
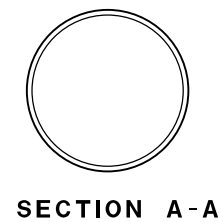
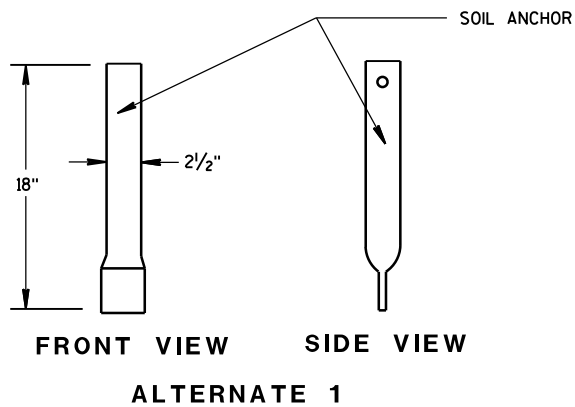
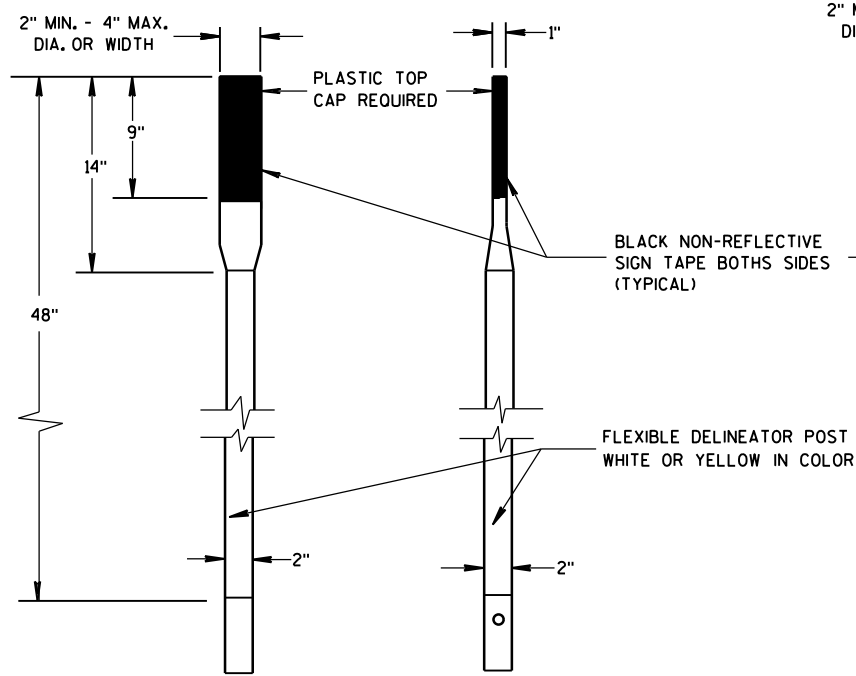
## FLEXIBLE MARKER POST LOCATION



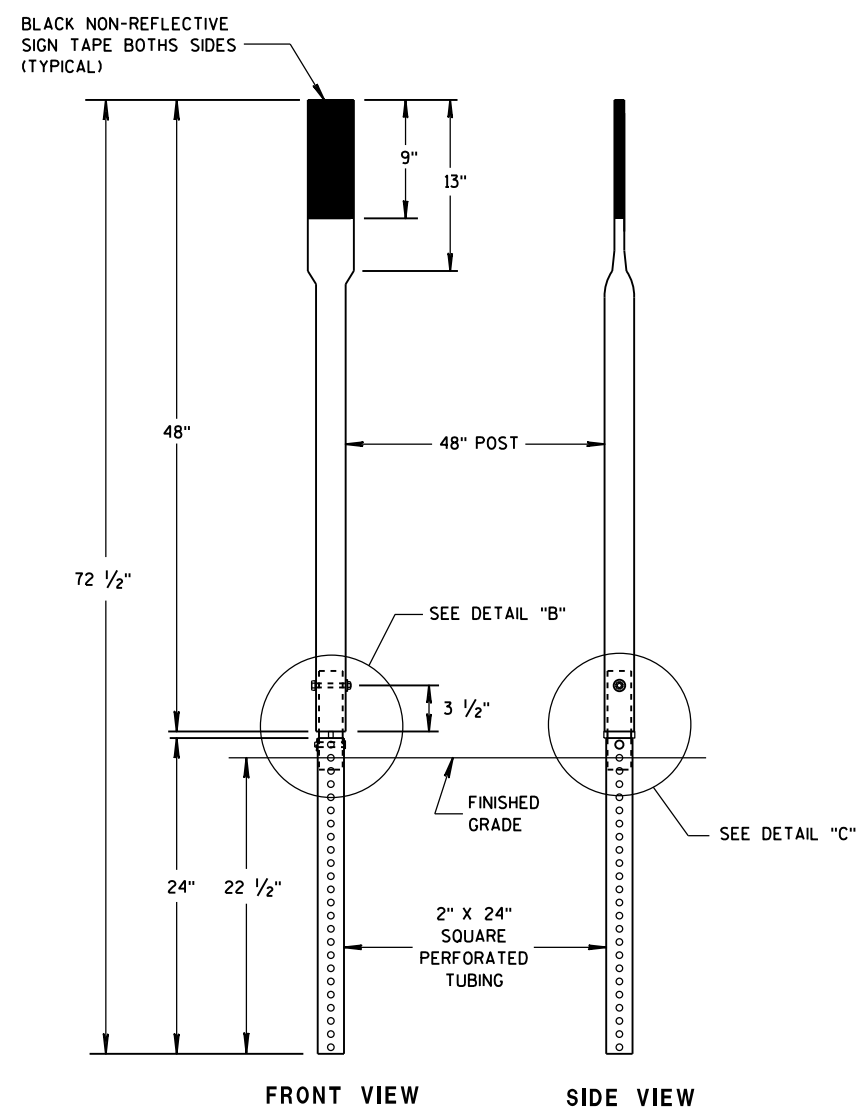
CROSS SECTION  
FLEXIBLE MARKER POST

FLEXIBLE MARKER POST  
FOR CULVERT END

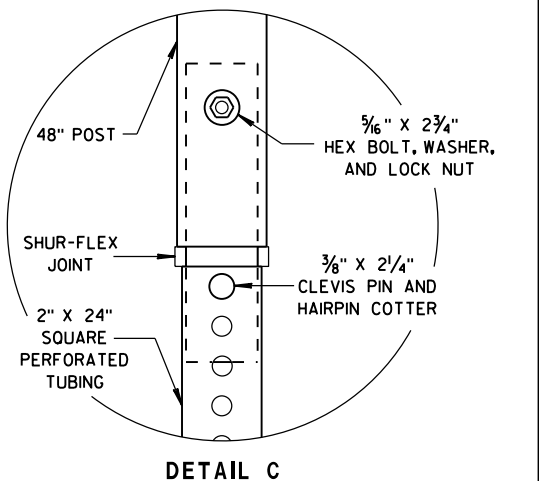
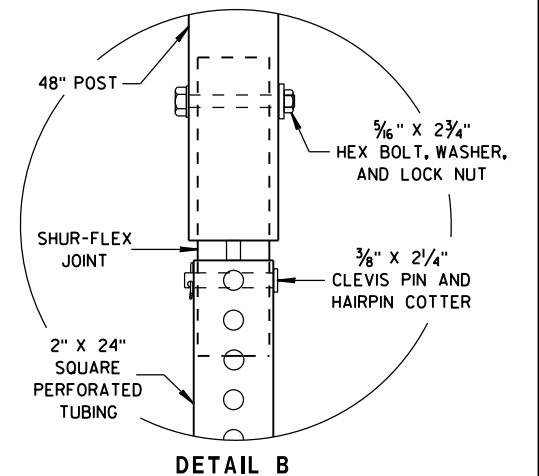
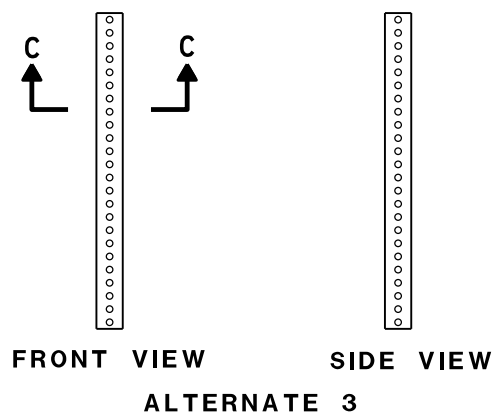
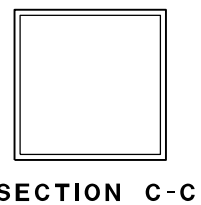
STATE OF WISCONSIN  
DEPARTMENT OF TRANSPORTATION



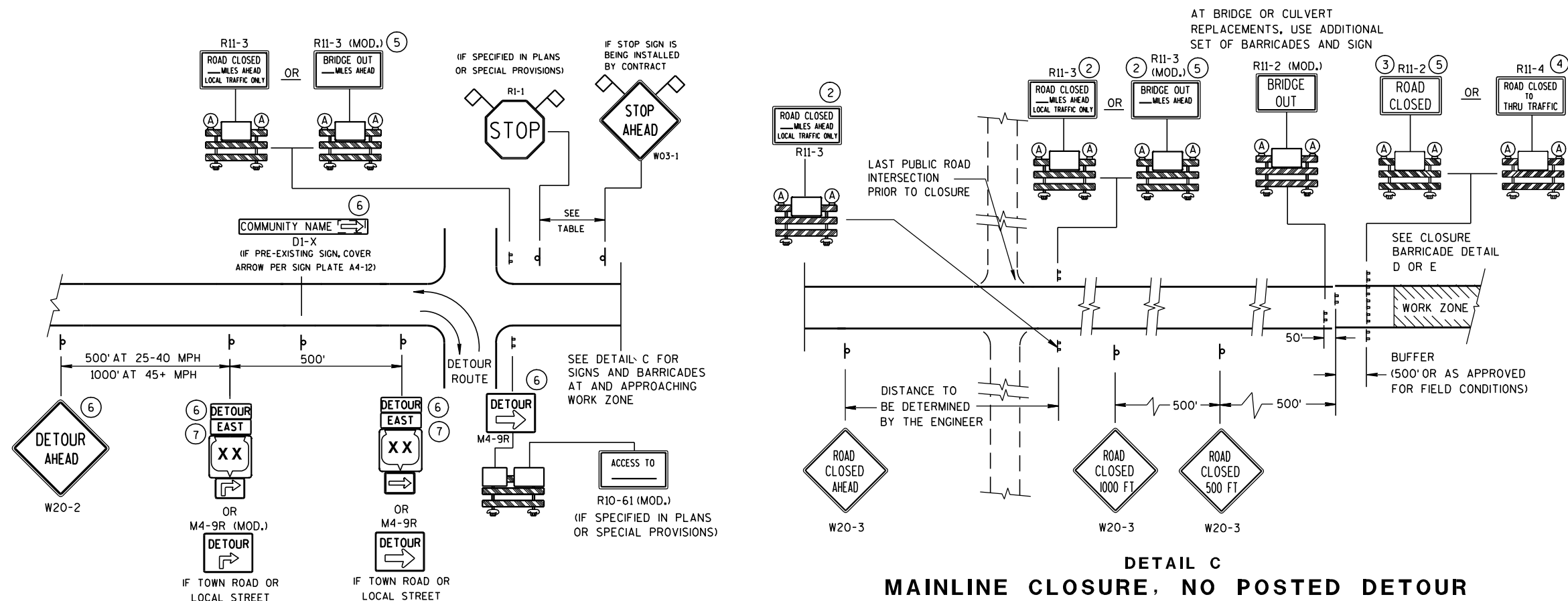
FLEXIBLE MARKER POST ANCHORS



FRONT VIEW SIDE VIEW  
ALTERNATE 3



|                                                    |                                                    |
|----------------------------------------------------|----------------------------------------------------|
| FLEXIBLE MARKER POST<br>FOR CULVERT END            |                                                    |
| STATE OF WISCONSIN<br>DEPARTMENT OF TRANSPORTATION |                                                    |
| APPROVED<br>10/1/2012<br>DATE                      | /S/ Travis Feltes<br>STATE TRAFFIC ENGINEER g4 IGN |
| FHWA                                               |                                                    |



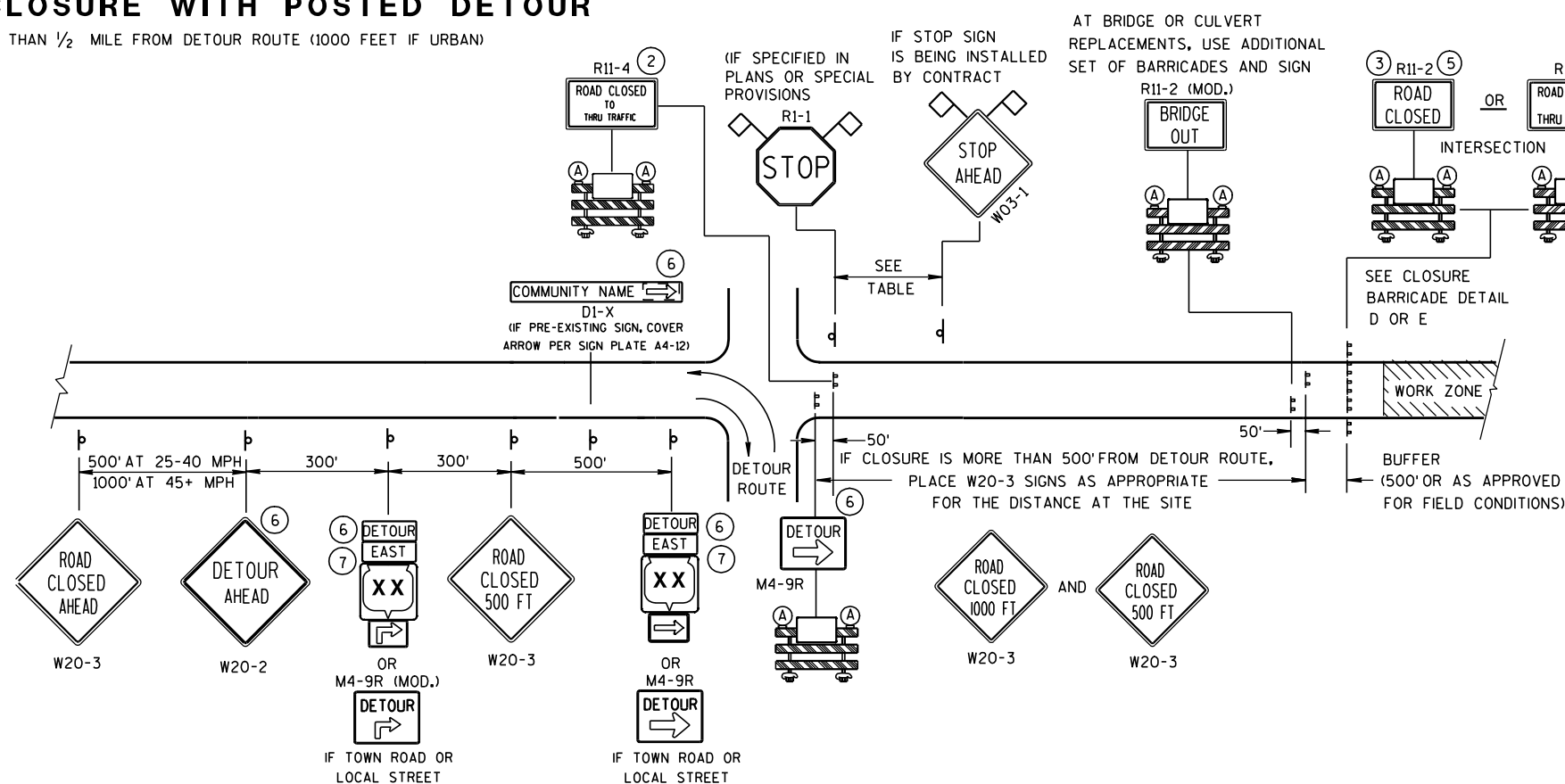
| SPEED<br>LIMIT<br>(MPH) | "STOP<br>ADVANCE<br>WARNING<br>DISTANCE"<br>(FT) |
|-------------------------|--------------------------------------------------|
| 25                      | 200                                              |
| 30                      | 200                                              |
| 35                      | 350                                              |
| 40                      | 350                                              |
| 45                      | 500                                              |
| 50                      | 550                                              |
| 55                      | 750                                              |

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

## DETAIL A

### MAINLINE CLOSURE WITH POSTED DETOUR

WORK ZONE GREATER THAN 1/2 MILE FROM DETOUR ROUTE (1000 FEET IF URBAN)



LOCAL STREET LOCAL STREET

DETAIL B

MAINLINE CLOSURE WITH POSTED DETOUR

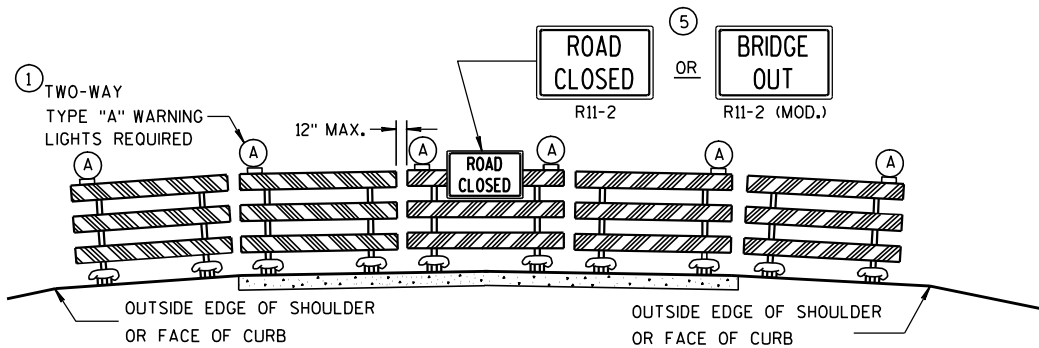
WORK ZONE LESS THAN 1/2 MILE FROM DETOUR ROUTE (1000 FEET IF URBAN)

### LEGEND

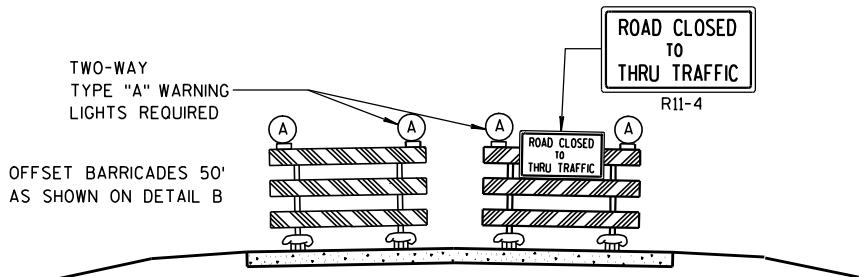
-  POST MOUNTED SIGN  
 TYPE III BARRICADES  
 (A) TYPE "A" LOW INTENSITY FLASHING WARNING LIGHT (FOR NIGHT USE)  
 WORK ZONE  
 M4-8  
 M3-X  
 OR  OR   
 M1-4 M1-5A M1-6  
 OR   
 M05-1 M06-1  
 FLAGS, 16" X 16" MIN., (ORANGE)

## BARRICADES AND SIGNS FOR MAINLINE CLOSURES

STATE OF WISCONSIN  
DEPARTMENT OF TRANSPORTATION



**DETAIL D**  
**ROAD CLOSURE BARRICADE DETAIL**  
APPROACH VIEW



**DETAIL E**  
**LANE CLOSURE BARRICADE DETAIL**  
APPROACH VIEW

SEE SDD 15C2-4a FOR LEGEND

**GENERAL NOTES**

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

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

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

BARRICADES THAT MUST BE MOVED FOR A WORK OPERATION SHALL BE IMMEDIATELY RE-ESTABLISHED UPON COMPLETION OF THE OPERATION OR, FOR CONTINUING OPERATIONS, AT THE END OF EACH WORKING DAY.

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

ALL TYPE III BARRICADES SHALL HAVE RAILS REFLECTORIZED ON BOTH FACES. STRIPES SHALL BE PROPERLY SLOPED DOWN TOWARD THE TRAFFIC SIDE OR AS SHOWN IN THE ROAD CLOSURE BARRICADE DETAIL D FOR FULL ROAD CLOSURES.

TYPE "A" LOW-INTENSITY FLASHING WARNING LIGHTS SHALL BE VISIBLE ON BOTH SIDES OF THE BARRICADE.

THE R11-2, R11-3, M4-9, R11-4 AND R10-61 SIGNS PLACED ON BARRICADES SHALL COVER NO MORE THAN THE TOP RAIL. THE SIGNS SHALL NOT COVER ANY PORTION OF THE MIDDLE OR BOTTOM RAILS.

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

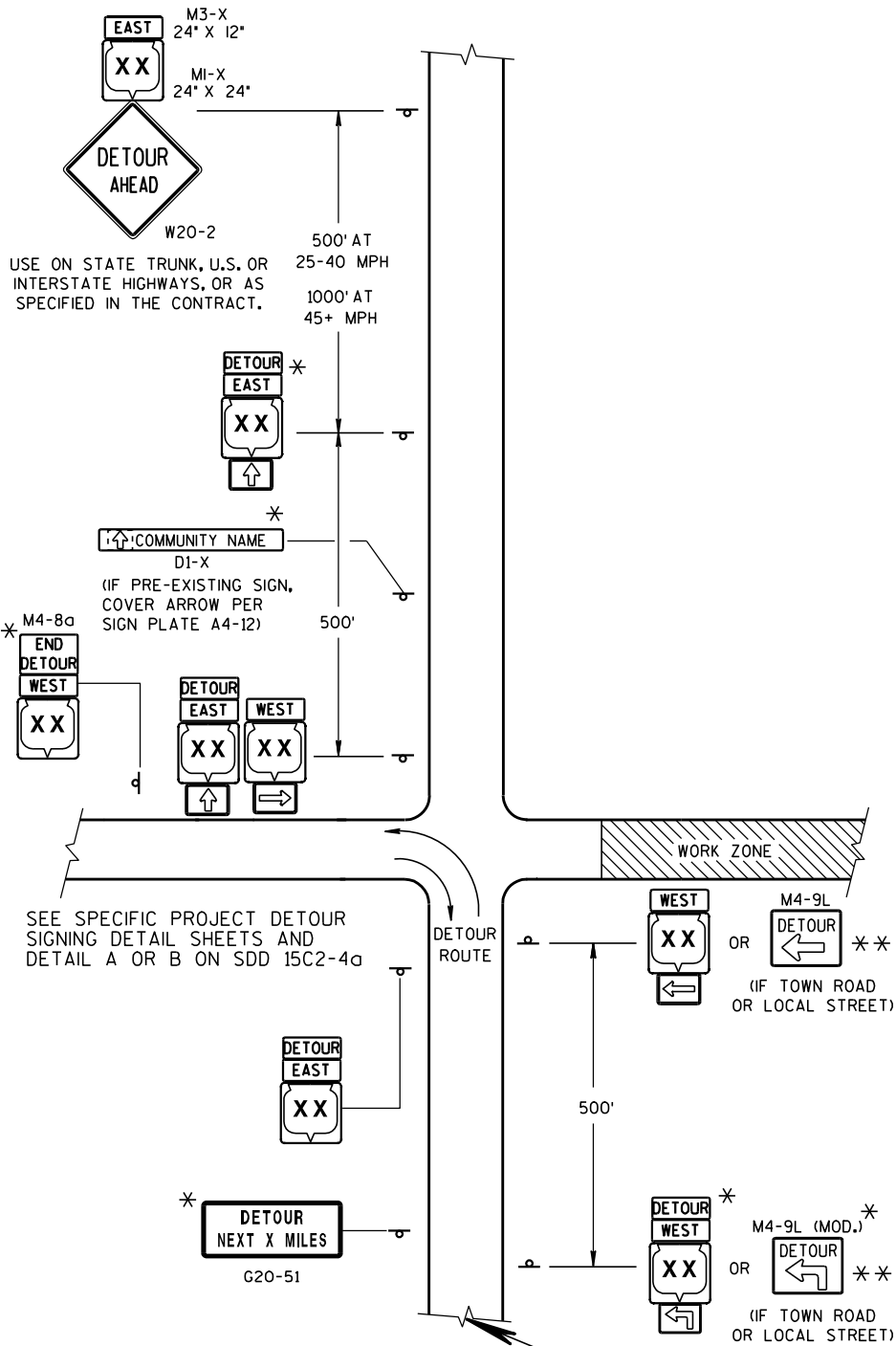
"WO AND "MO" SIGNS ARE THE SAME AS "W" AND "M" SIGNS EXCEPT THE BACKGROUND IS ORANGE.

ALL SIGNS SHALL BE 48" X 48" UNLESS OTHERWISE NOTED BELOW:

- R11-2 SHALL BE 48" X 30".
- R11-3, R11-4 AND R10-61 SHALL BE 60" X 30".
- M4-9 SHALL BE 30" X 24".
- M3-X AND M4-8 SHALL BE 24" X 12". (30" X 15" IF NEEDED TO MATCH EXISTING SIGNS.)
- M1-4, M1-5A, AND M1-6 SHALL BE 24" X 24". (36" X 36" IF NEEDED TO MATCH EXISTING SIGNS.)
- M05-1 AND M06-1 SHALL BE 21" X 21". (30" X 30" IF NEEDED TO MATCH EXISTING SIGNS.)
- D1-X SHALL BE AS SHOWN ON SPECIFIC PROJECT SIGNING DETAIL SHEETS.
- R1-1 SHALL BE 36" X 36".

- 1 TWO WARNING LIGHTS SHALL BE PROVIDED ON THE CENTER BARRICADE AND A MINIMUM OF ONE WARNING LIGHT SHALL BE PROVIDED ON EACH OF THE OTHER BARRICADES WITHIN THE ROADWAY LIMITS. SPACING OF THE WARNING LIGHTS SHALL BE UNIFORM TO THE EDGE OF ROADWAY AS SHOWN (APPROX. 8-FOOT LIGHT SPACING).
- 2 THESE SIGNS AND BARRICADES ARE NOT REQUIRED IF ROAD CLOSURE BEGINS AT INTERSECTION.
- 3 FOR ROAD CLOSURE WITHOUT LOCAL ACCESS TO PROJECT, SEE ROAD CLOSURE BARRICADE DETAIL D.
- 4 FOR ROAD CLOSURE WITH LOCAL ACCESS TO PROJECT, SEE LANE CLOSURE BARRICADE DETAIL E.
- 5 FOR BRIDGE OR CULVERT REPLACEMENTS, SUBSTITUTE "BRIDGE OUT" INSTEAD OF "ROAD CLOSED" ON R11-2 AND R11-3 SIGNS.
- 6 INSTALL DETOUR AND COMMUNITY GUIDE SIGNS AND ARROWS ONLY IF SPECIFIED IN THE CONTRACT. IF THERE ARE EXISTING ROUTE MARKER ASSEMBLIES THAT WILL REMAIN IN PLACE, ADJUST THE LOCATION OF THE DETOUR ROUTE SIGNS TO CORRESPOND WITH THE EXISTING ASSEMBLIES. MODIFY EXISTING SIGNS WHERE POSSIBLE. SEE SPECIFIC PROJECT DETOUR SIGNING DETAIL SHEETS. IF DETOUR SIGNS ARE BEING INSTALLED BY OTHERS, PLACE THE CONTRACTED TRAFFIC CONTROL SIGNS TO ALLOW FOR PLACEMENT OF ALL WARNING, DETOUR AND GUIDE SIGNS AS SHOWN.
- 7 "EAST" CARDINAL DIRECTION MARKERS AND RIGHT TURN ARROWS ARE SHOWN. USE OTHER CARDINAL DIRECTIONS AND ARROWS AS APPROPRIATE.

|                                                    |                                           |       |
|----------------------------------------------------|-------------------------------------------|-------|
| BARRICADES AND SIGNS<br>FOR<br>MAINLINE CLOSURES   |                                           |       |
| STATE OF WISCONSIN<br>DEPARTMENT OF TRANSPORTATION |                                           |       |
| APPROVED                                           |                                           |       |
| 9/16/03<br>DATE                                    | /S/ Thomas N. N<br>CHIEF SIGNS AND MAR 96 | INEER |
| FHWA                                               |                                           |       |



SEE SPECIFIC PROJECT DETOUR SIGNING DETAIL SHEETS AND DETAIL A OR B ON SDD 15C2-4a

**LEGEND**

POST MOUNTED SIGN

WORK ZONE

DETOUR EAST M4-8 M3-X

M1-4 OR COUNTY M1-5A OR M1-6

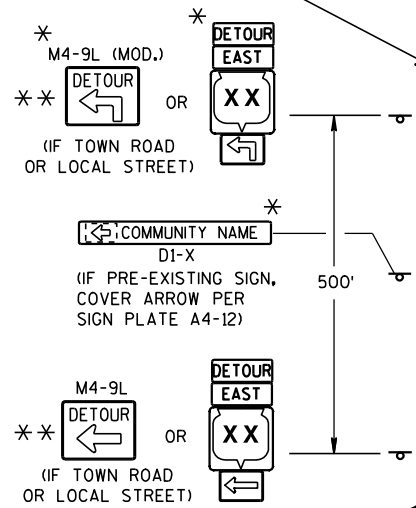
M05-1 OR M06-1 OR M06-1

**THIS DRAWING PROVIDES GENERAL GUIDANCE ON TYPICAL DETOUR SIGN LAYOUT AND SPACING. SEE PROJECT DETOUR SIGNING SHEETS FOR SPECIFIC DETAILS FOR EACH PROJECT.**

**MATCH POINT**

**DETAIL F  
DETOUR SIGNING**

USE ON STATE TRUNK, U.S. OR INTERSTATE HIGHWAYS, OR AS SPECIFIED IN THE CONTRACT.



**GENERAL NOTES**

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

IF THERE ARE EXISTING ROUTE MARKER ASSEMBLIES THAT WILL REMAIN IN PLACE, ADJUST THE LOCATION OF THE DETOUR ROUTE SIGNS TO CORRESPOND WITH THE EXISTING ASSEMBLIES. SEE SPECIFIC PROJECT DETOUR SIGNING DETAIL SHEETS. MODIFY EXISTING SIGNS WHERE POSSIBLE.

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

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

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

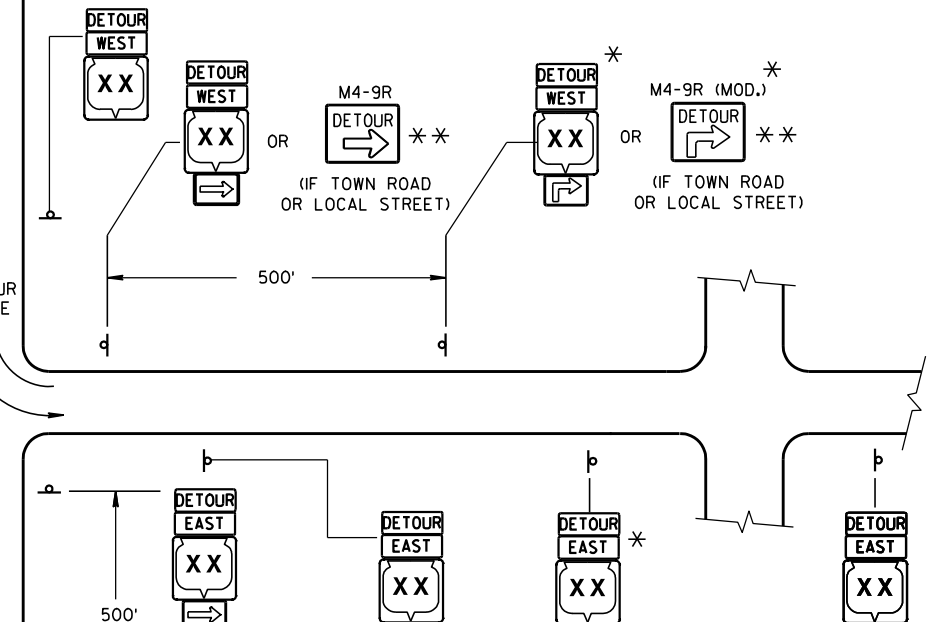
"MO" SIGNS ARE THE SAME AS "M" SIGNS EXCEPT THE BACKGROUND IS ORANGE.

SIGN SIZES SHALL BE AS FOLLOWS:

- M3-X AND M4-8 SHALL BE 24" X 12". (30" X 15" IF NEEDED TO MATCH EXISTING SIGNS.)
- M1-4, M1-5A, AND M1-6 SHALL BE 24" X 24". (36" X 36" IF NEEDED TO MATCH EXISTING SIGNS.)
- M05-1 AND M06-1 SHALL BE 21" X 21". (30" X 30" IF NEEDED TO MATCH EXISTING SIGNS.)
- M4-9 SHALL BE 30" X 24".
- M4-8a SHALL BE 24" X 18".
- G20-51 SHALL BE 60" X 24".
- W20-2 SHALL BE 48" X 48".
- D1-X SHALL BE AS SHOWN ON SPECIFIC PROJECT SIGNING DETAIL SHEETS.

\* OPTIONAL SIGNS. SEE SPECIFIC PROJECT DETOUR SIGNING DETAIL SHEETS.

\*\* FOR A TOWN ROAD OR LOCAL STREET DETOURED ONTO A STATE TRUNK HIGHWAY, PLACE A ROAD NAME PLAQUE ABOVE THE M4-9 SIGN AS SPECIFIED IN THE CONTRACT.

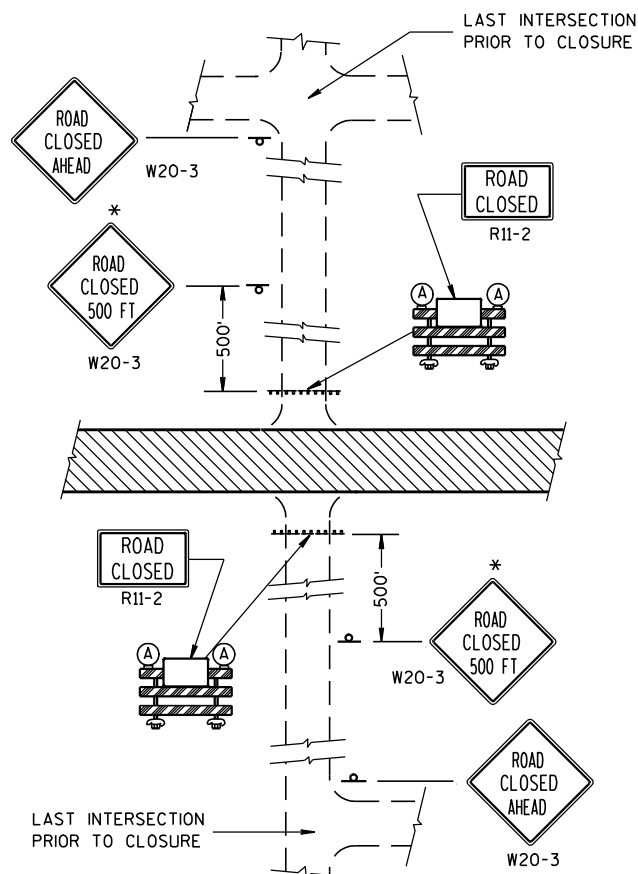


PLACE SIGNS BEYOND INTERSECTIONS WITH STATE OR COUNTY TRUNK HIGHWAYS OR AT 4 MILE MAXIMUM SPACING (4 BLOCKS IF URBAN AREA.)

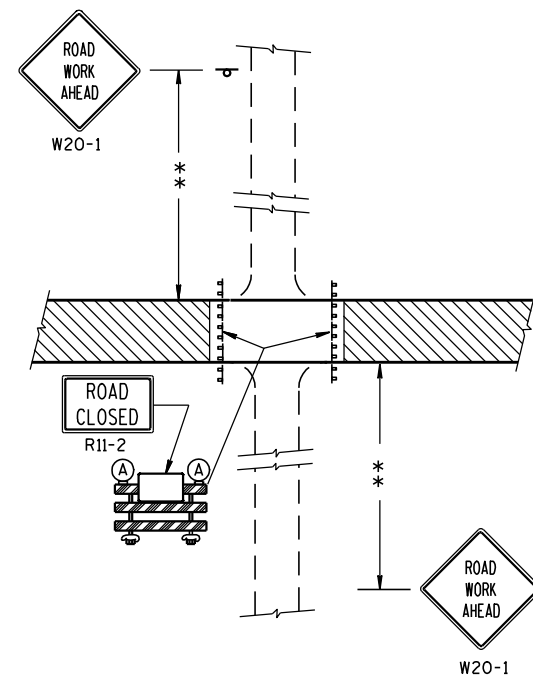
**DETOUR SIGNING FOR  
MAINLINE CLOSURES**

STATE OF WISCONSIN  
DEPARTMENT OF TRANSPORTATION

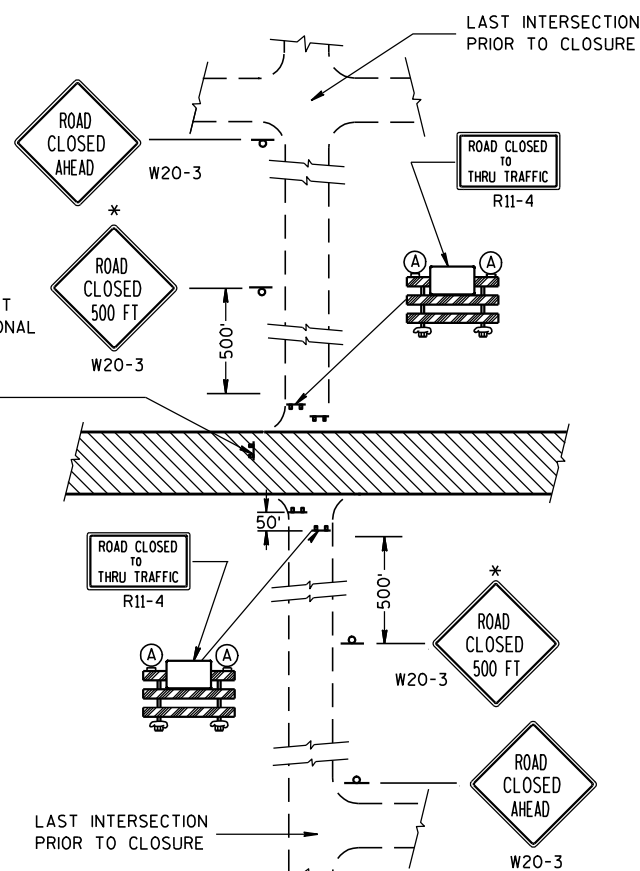
APPROVED  
9-16-03 DATE /S/ Thomas N. N... CHIEF SIGNS AND MAR 97 INEER  
FHWA



**DETAIL 1**  
(NO ACCESS TO PROJECT)



**DETAIL 2**  
(PUBLIC CROSS-TRAFFIC MAINTAINED.  
NO ACCESS TO PROJECT).



**DETAIL 3**  
(PUBLIC CROSS-TRAFFIC MAINTAINED. CONTRACTOR,  
LOCAL BUSINESS AND RESIDENT ACCESS).

**DETAIL 4**  
(CONTRACTOR, LOCAL BUSINESS AND  
RESIDENT ACCESS TO PROJECT)

## GENERAL NOTES

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

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

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

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

BARRICADES THAT MUST BE MOVED FOR A WORK OPERATION SHALL BE IMMEDIATELY RE-ESTABLISHED UPON COMPLETION OF THE OPERATION OR, FOR CONTINUING OPERATIONS, AT THE END OF EACH WORKING DAY.

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

ALL TYPE III BARRICADES SHALL HAVE RAILS REFLECTORIZED ON BOTH FACES. STRIPES SHALL BE PROPERLY SLOPED DOWN TOWARD THE TRAFFIC SIDE OR AS SHOWN IN THE ROAD CLOSURE BARRICADE DETAIL D FOR FULL ROAD CLOSURES.

TYPE "A" LOW-INTENSITY FLASHING WARNING LIGHTS SHALL BE VISIBLE ON BOTH SIDES OF THE BARRICADE.

THE R11-2, R11-3 AND R11-4 SIGNS PLACED ON BARRICADES SHALL COVER NO MORE THAN THE TOP RAIL. THE SIGNS SHALL NOT COVER ANY PORTION OF THE MIDDLE OR BOTTOM RAILS.

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

ALL SIGNS SHALL BE 48" X 48" UNLESS OTHERWISE NOTED BELOW:

R11-2 SHALL BE 48" X 30".

R11-4 AND R11-3 SHALL BE 60" X 30".

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

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

## LEGEND

⌋ POST MOUNTED WARNING SIGN

⌋ TYPE III BARRICADES

Ⓐ TYPE "A" LOW INTENSITY FLASHING WARNING LIGHT (FOR NIGHT USE)

▨ WORK AREA

## BARRICADES AND SIGNS FOR SIDEROAD CLOSURES

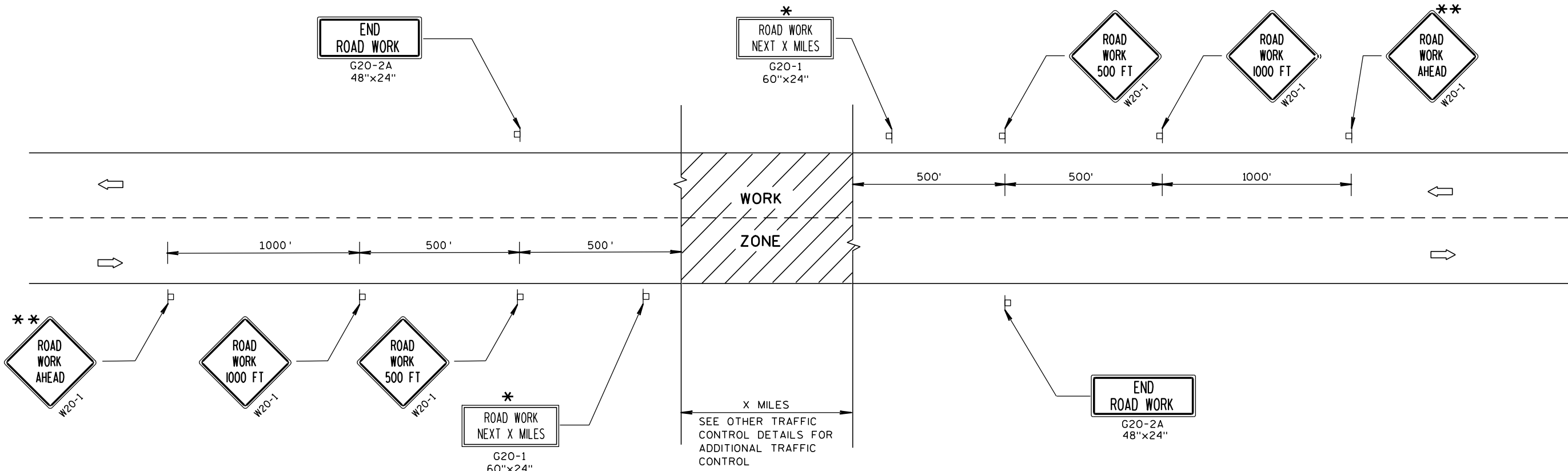
STATE OF WISCONSIN  
DEPARTMENT OF TRANSPORTATION

APPROVED

9-16-03  
DATE

FHWA

/S/ Thomas N. N...  
CHIEF SIGNS AND MAR 98 INEER



TYPICAL SIDEROAD APPROACH WARNING SIGN DETAIL

GENERAL NOTES

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

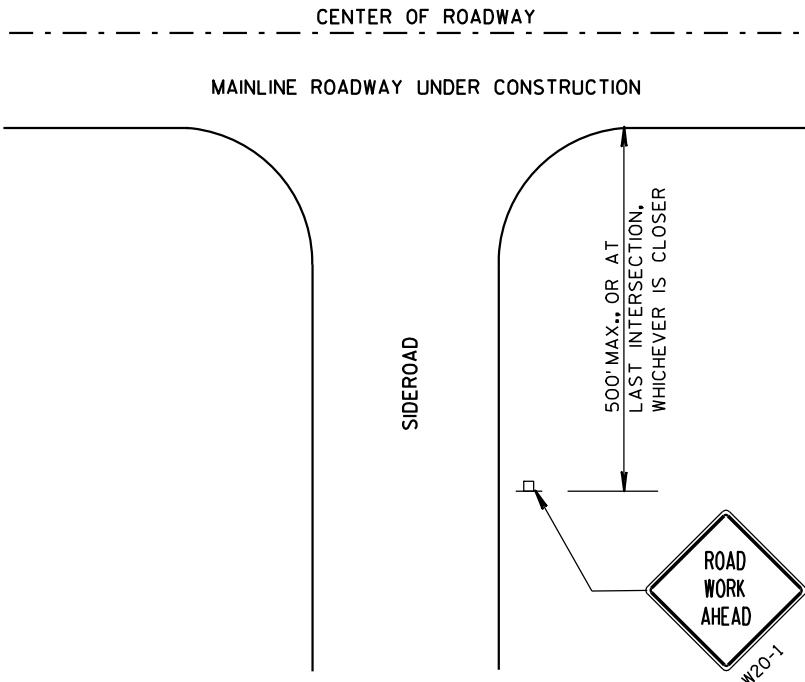
THE SPACING BETWEEN TRAFFIC CONTROL SIGNS SHOULD BE ADJUSTED TO NOT CONFLICT WITH AND SHOULD PROVIDE A MINIMUM OF 200 FEET (500 FEET DESIRABLE) CLEARANCE TO EXISTING SIGNS THAT WILL REMAIN IN PLACE.

ALL SIGNS ARE 48"x48" UNLESS OTHERWISE NOTED.

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

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

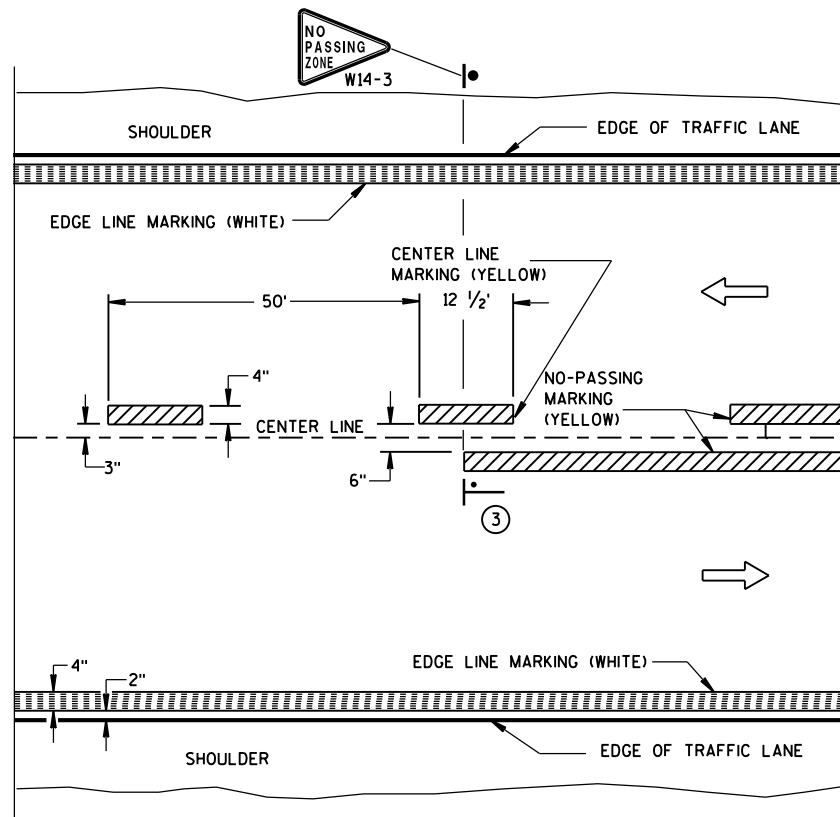
- \* OMIT G20-1 SIGNS IF LENGTH OF WORK AREA IS 2 MILES OR LESS.
- \*\* PLACE ADDITIONAL W20-1 "ROAD WORK AHEAD" SIGN IF WORK AREA WITHIN THE PROJECT IS SEPARATED BY MORE THAN 2 MILES FROM PREVIOUS WORK AREA OR SIGNING.



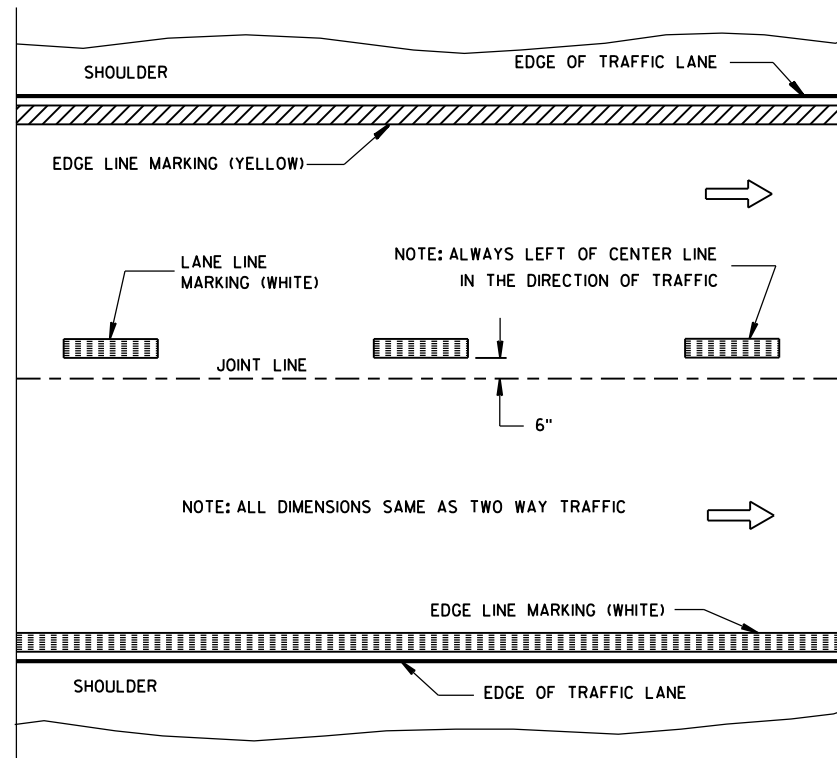
LEGEND

- POST MOUNTED SIGN
- DIRECTION OF TRAFFIC FLOW

|                                                                                                             |         |                          |      |
|-------------------------------------------------------------------------------------------------------------|---------|--------------------------|------|
| TRAFFIC CONTROL, ADVANCE<br>WARNING SIGNS 45 M.P.H.<br>OR GREATER TWO-WAY<br>UNDIVIDED ROAD OPEN TO TRAFFIC |         |                          |      |
| STATE OF WISCONSIN<br>DEPARTMENT OF TRANSPORTATION                                                          |         |                          |      |
| APPROVED                                                                                                    | 5/23/00 | /S/ Chester J. Neer      |      |
| DATE                                                                                                        |         | CHIEF SIGNS AND MARKINGS | NEER |
| FHWA                                                                                                        |         |                          |      |

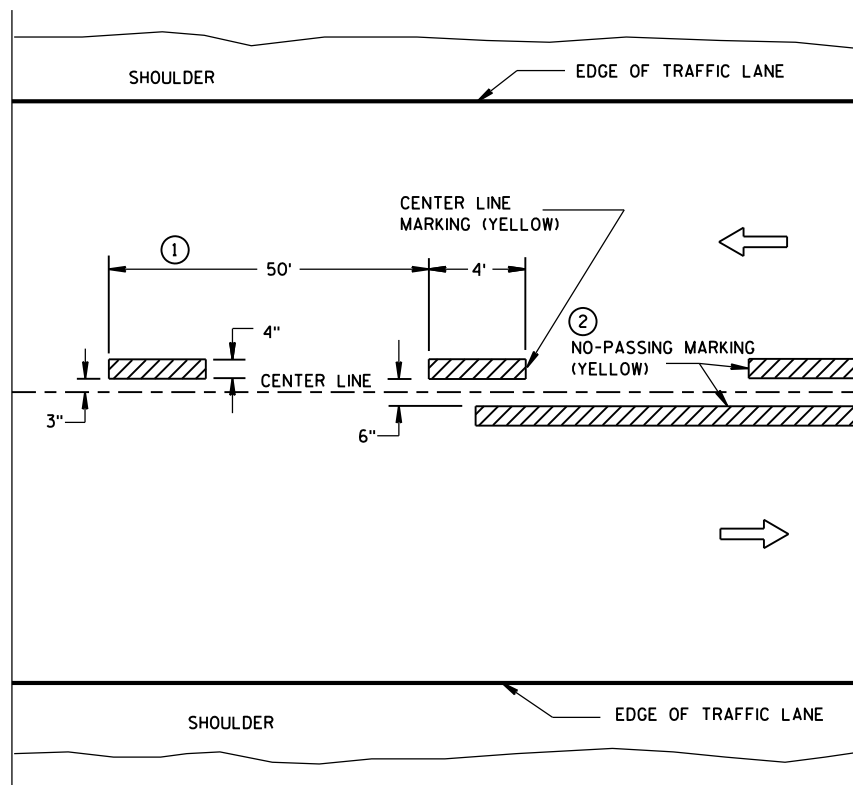


TWO WAY TRAFFIC

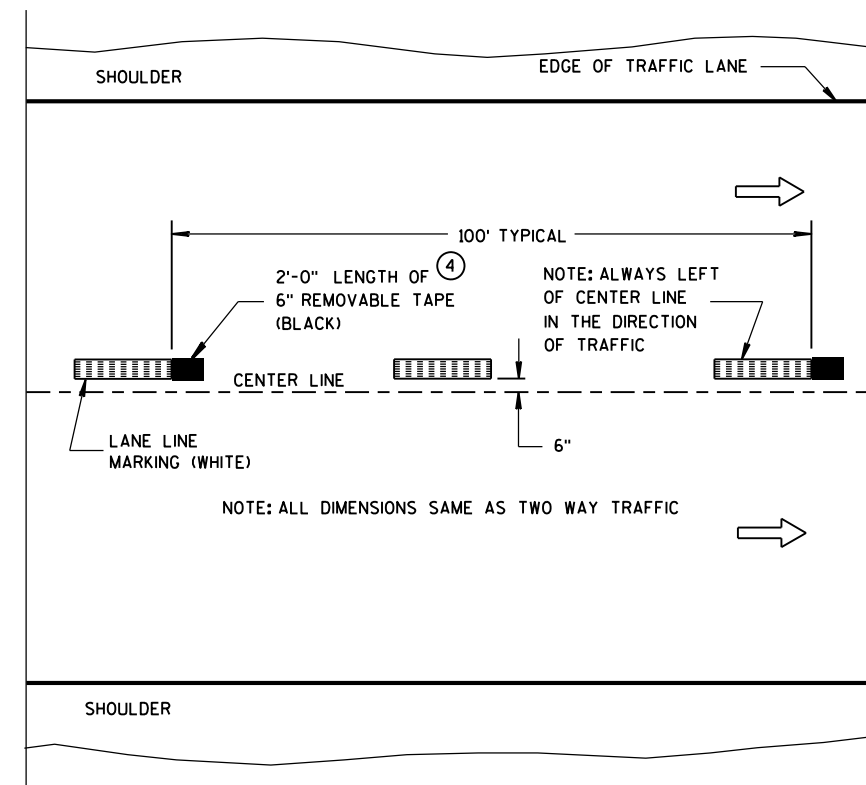


ONE WAY TRAFFIC

## PERMANENT PAVEMENT MARKING



TWO WAY TRAFFIC



ONE WAY TRAFFIC

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

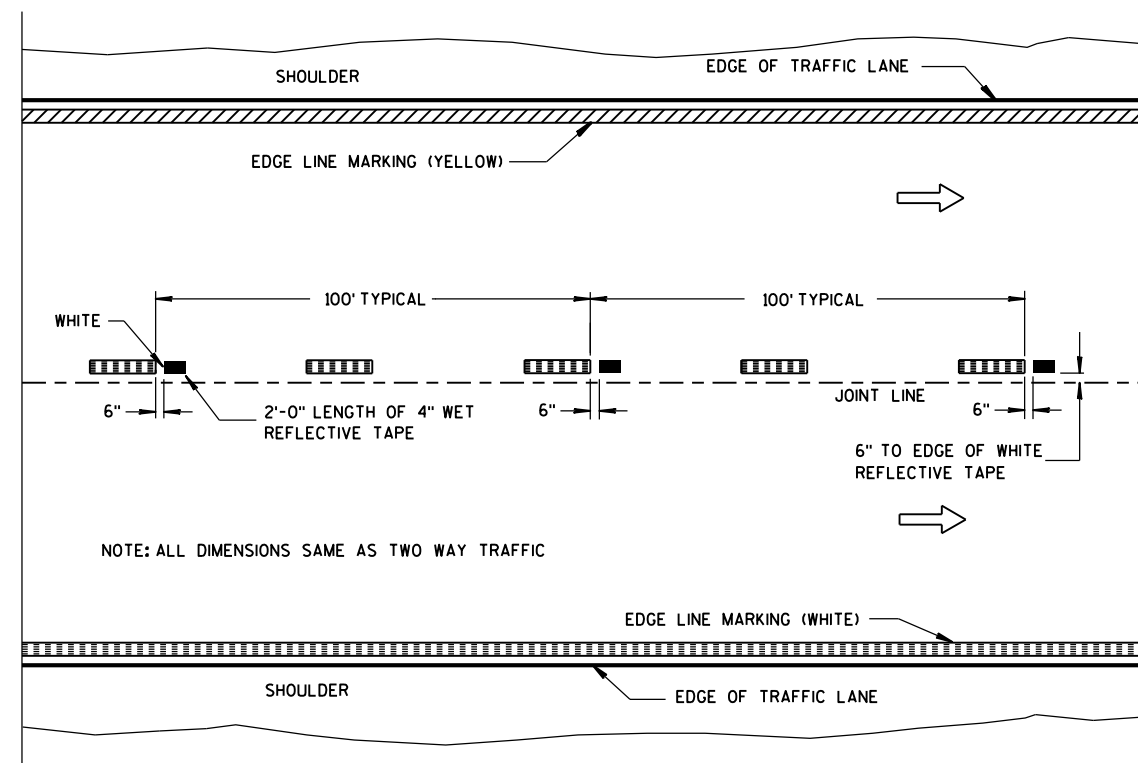
## GENERAL NOTES

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

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

## NOTE

ARROW SYMBOL (→) SHOWS DIRECTION OF TRAVEL



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

## LEGEND

- "T" MARKING
- POST MOUNTED SIGN

PAVEMENT MARKING  
(MAINLINE)

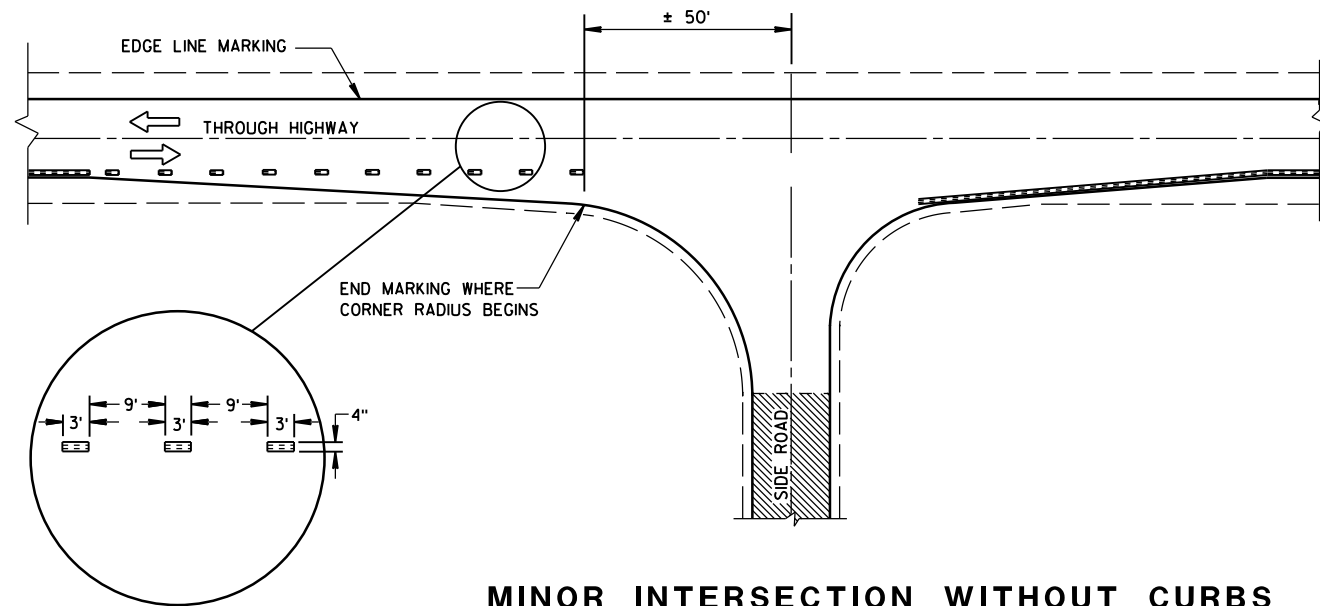
STATE OF WISCONSIN  
DEPARTMENT OF TRANSPORTATION

APPROVED

5-13-2013  
DATE

FHWA

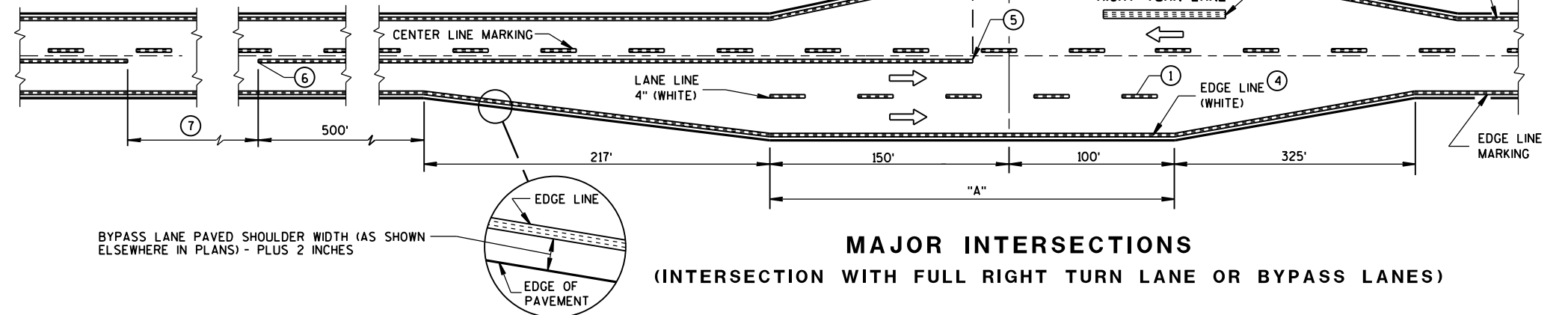
/S/ Travis Feltes  
STATE TRAFFIC E 100



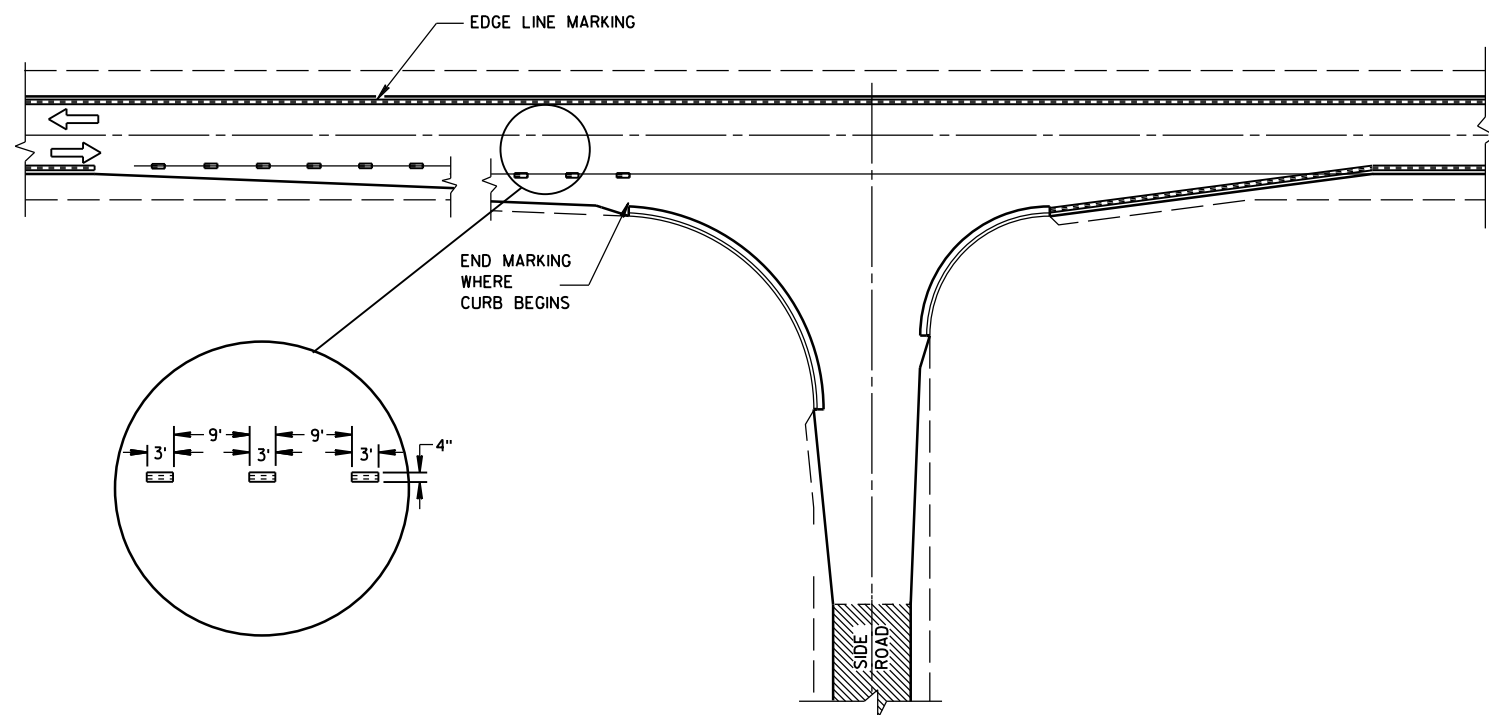
**MINOR INTERSECTION WITHOUT CURBS**

⑦

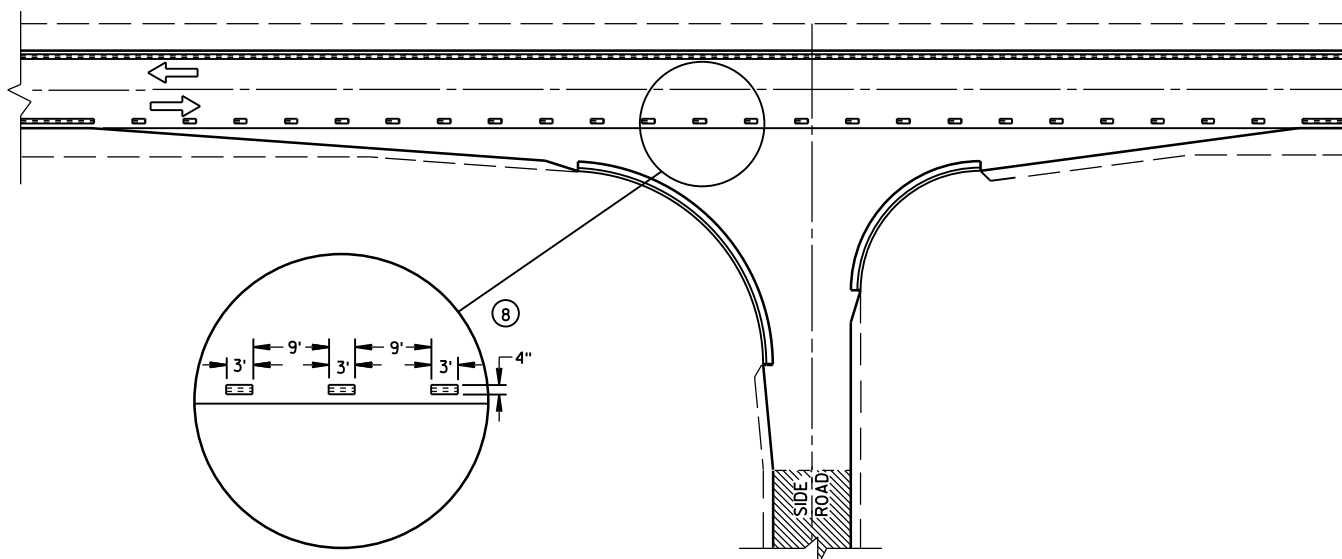
| POSTED SPEED (MPH) | MINIMUM DISTANCE BETWEEN ZONES (FEET) |
|--------------------|---------------------------------------|
| 25 - 30            | 528                                   |
| 35 - 40            | 528                                   |
| 45 - 50            | 686                      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



**MAJOR INTERSECTIONS**  
(INTERSECTION WITH FULL RIGHT TURN LANE OR BYPASS LANES)



**MINOR INTERSECTION WITH CURBS**  
(TYPICAL MARKING)



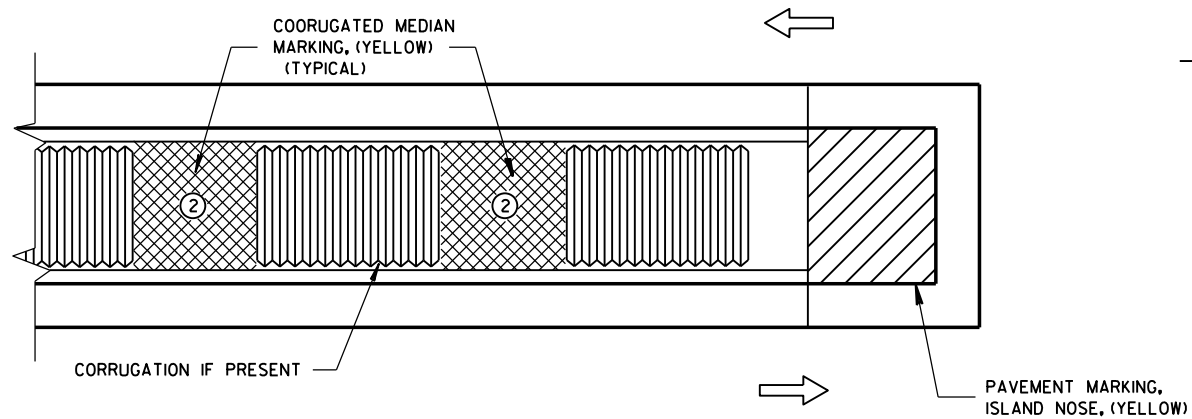
**MINOR INTERSECTION WITH CURBS**  
③ (FOR SPECIAL CONDITIONS AS SPECIFIED)

## GENERAL NOTES

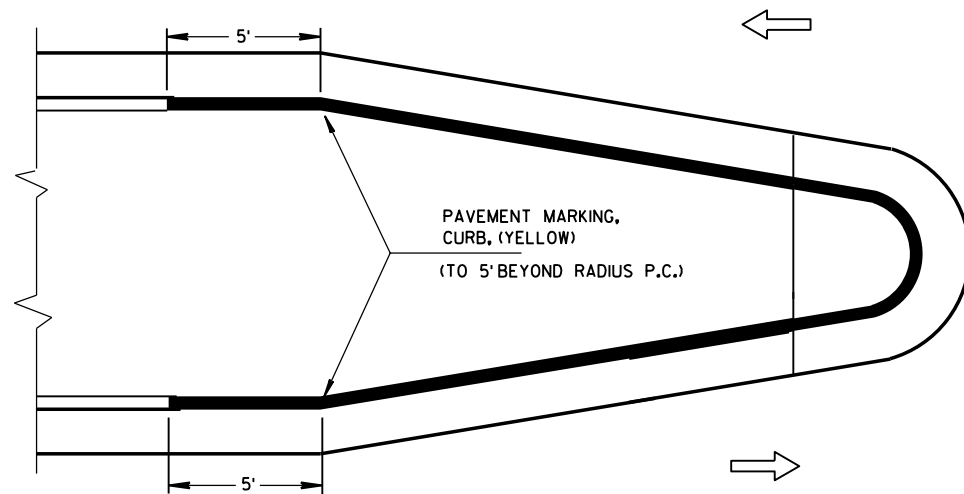
- EDGE LINES SHALL BE OMITTED THROUGH INTERSECTIONS. EDGE LINES SHALL BE CONTINUED THROUGH DRIVEWAYS.
- ① WHEN DISTANCE "A" IS LESS THAN 250 FEET, OMIT LANE LINE.
  - ② WHEN DISTANCE "B" IS LESS THAN 100 FEET, OMIT CHANNELIZING LANE LINE.
  - ③ ALTERNATIVE MARKING SHALL BE PROVIDED WHEN SPECIFIED IN THE CONTRACT. TYPICAL SITUATIONS WHERE THIS MARKING MAY BE REQUIRED ARE WHERE THE INTERSECTION IS ON A SHARP HORIZONTAL CURVE OR CREST VERTICAL CURVE IN AN UNLIGHTED AREA SUCH THAT THE EDGE LINE MAY BE MISLEADING TO THE MOTORIST OR DISAPPEAR FROM SIGHT.
  - ④ THE EDGE LINE IN THE TAPER AREAS OF THE BYPASS LANE AND THE BYPASS LANE SHALL BE LOCATED 1-FOOT FROM EDGE OF PAVEMENT TO THE OUTSIDE EDGE OF EDGE LINE.
  - ⑤ BARRIER LINE ENDS AT SIDE ROAD PAVEMENT/SURFACE EDGE EXTENSION.
  - ⑥ BARRIER LINE STARTS 500 FEET PRIOR TO THE BYPASS TAPER.
  - ⑦ IF THE DISTANCE BETWEEN 2 SUCCESSIVE NO-PASSING ZONES IS LESS THAN THE MINIMUM DISTANCE BETWEEN ZONES, CONNECT THE 2 ZONES.
  - ⑧ 3' LINE 9' GAP, EXCEPT RETRACE THE EXISTING LINE - GAP PATTERN WHERE EXISTING MARKINGS ARE IN PLACE.
- ARROW SYMBOL ( → ) SHOWS DIRECTION OF TRAVEL

PAVEMENT MARKING  
(INTERSECTIONS)

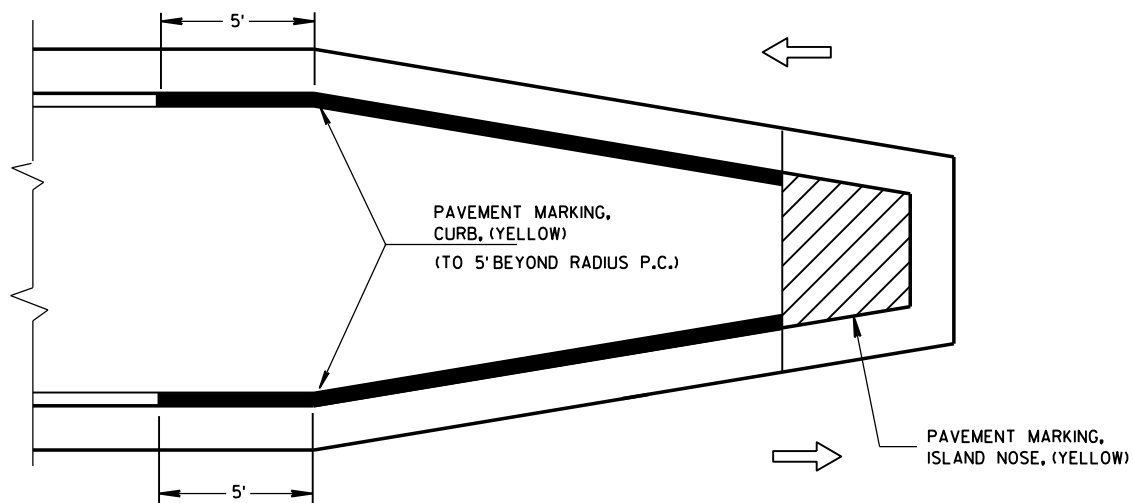
STATE OF WISCONSIN  
DEPARTMENT OF TRANSPORTATION 101



MEDIAN ISLAND WITH SQUARE BLUNT NOSE

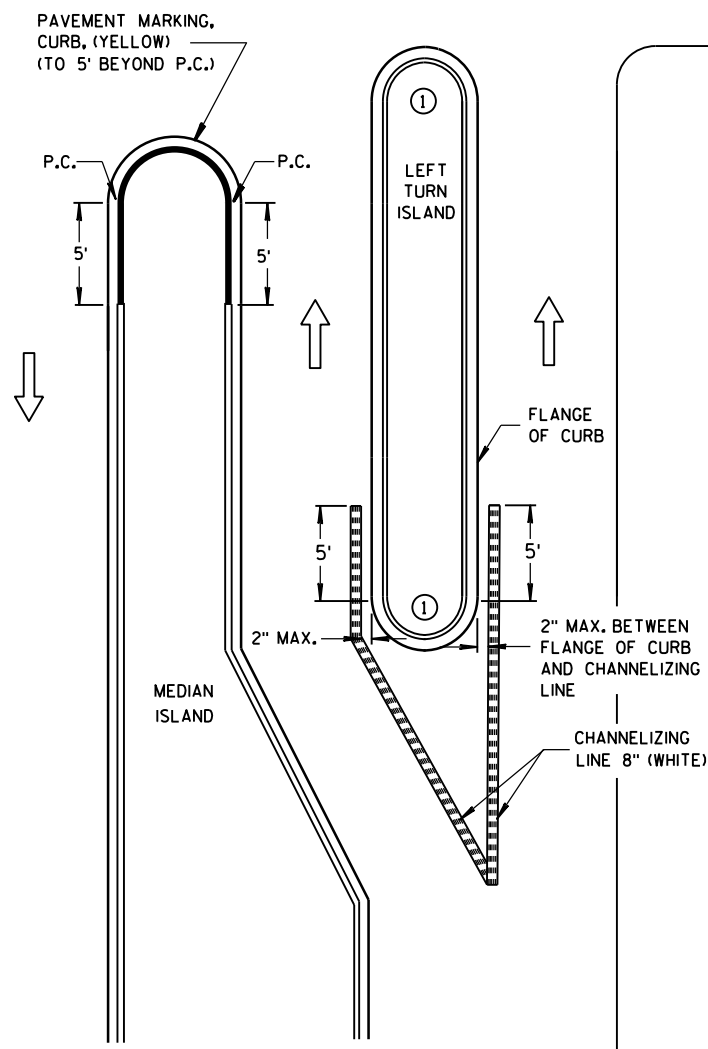


MEDIAN ISLAND WITH ROUND BLUNT NOSE



MEDIAN ISLAND WITH SLOPED NOSE

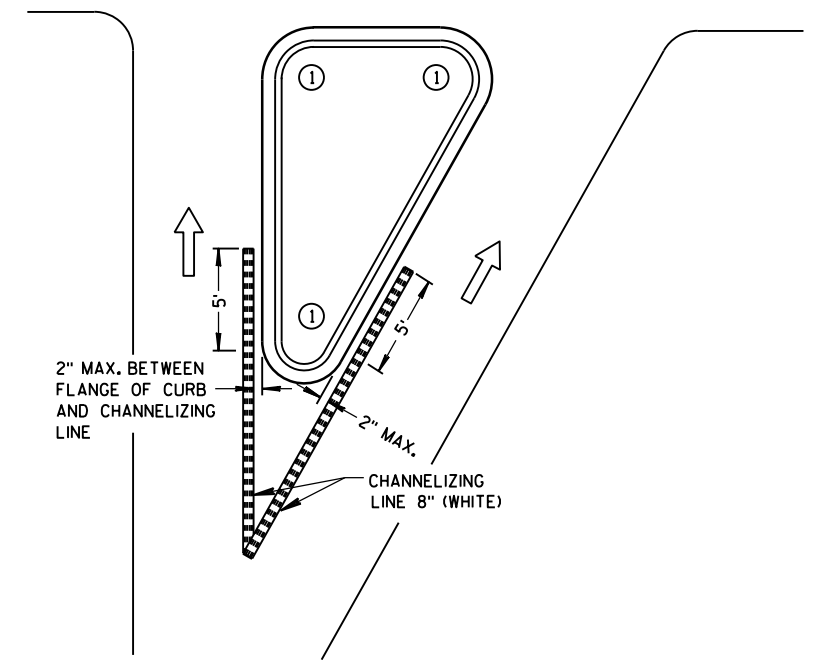
TYPICAL PLACEMENT OF PAVEMENT MARKING ON MEDIAN ISLANDS



LEFT TURN & MEDIAN ISLAND

GENERAL NOTES

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



RIGHT TURN ISLAND

LEGEND

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

PAVEMENT MARKING (ISLANDS)

STATE OF WISCONSIN  
DEPARTMENT OF TRANSPORTATION 102

TWO-LANE ROADWAY

SYMBOLS

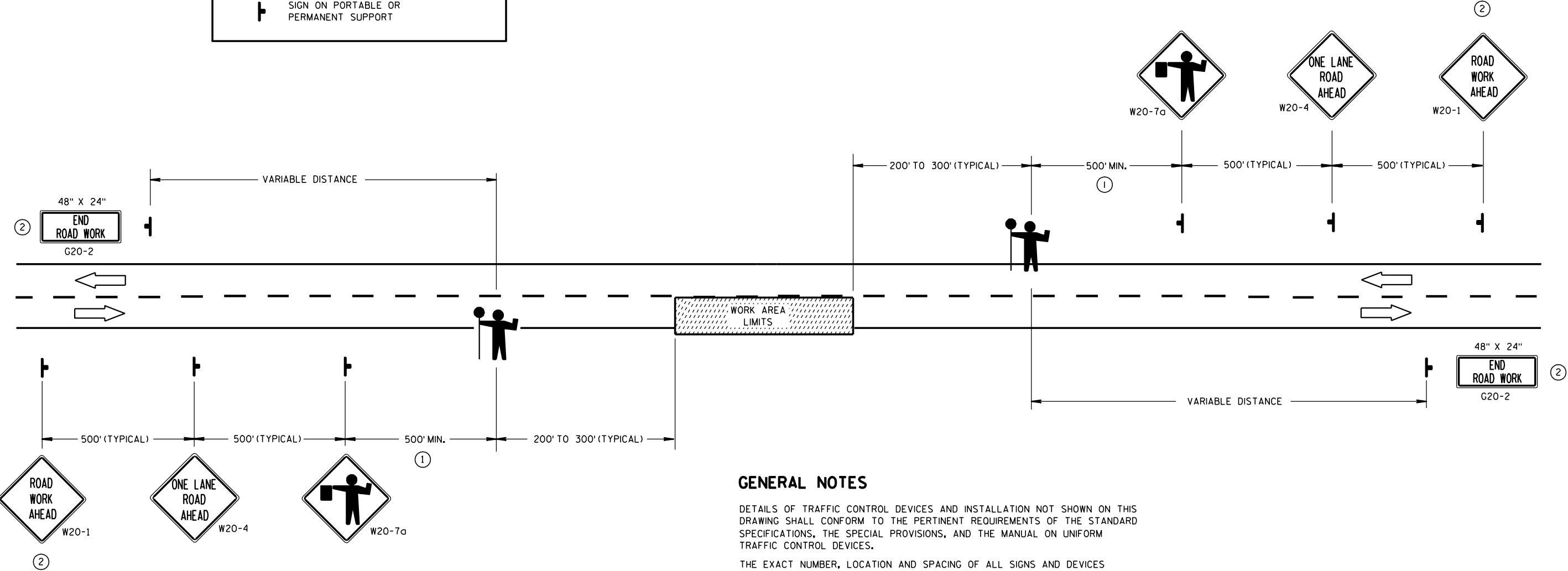
WORK AREA

FLAGGER, EQUIPPED WITH STOP/SLOW PADDLE FASTENED ON SUPPORT STAFF

SIGN ON PORTABLE OR PERMANENT SUPPORT



USE OF THE "BE PREPARED TO STOP" SIGN IS OPTIONAL. WHEN USED, THIS SIGN SHALL BE LOCATED BETWEEN THE W20-7a AND W20-4 SIGNS. A 500' TYPICAL SPACING SHALL BE PROVIDED BETWEEN THE SIGNS.



GENERAL NOTES

- DETAILS OF TRAFFIC CONTROL DEVICES AND INSTALLATION NOT SHOWN ON THIS DRAWING SHALL CONFORM TO THE PERTINENT REQUIREMENTS OF THE STANDARD SPECIFICATIONS, THE SPECIAL PROVISIONS, AND THE MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES.
- THE EXACT NUMBER, LOCATION AND SPACING OF ALL SIGNS AND DEVICES (AND THE LOCATION OF ALL FLAGGERS) SHALL BE ADJUSTED TO FIT FIELD CONDITIONS AS APPROVED BY THE ENGINEER.
- THE FIRST ADVANCE WARNING SIGN SHOULD TYPICALLY BE LOCATED IN ADVANCE OF THE ANTICIPATED TRAFFIC BACKUP OR QUEUE.
- WHEN A SIDE ROAD OR RAMP INTERSECTS THE FACILITY ON WHICH THE WORK IS BEING PERFORMED, ADDITIONAL TRAFFIC CONTROLS SHALL BE PROVIDED AS SPECIFIED IN THE PLANS AND/OR THE SPECIAL PROVISIONS OR AS APPROVED BY THE ENGINEER.
- FLAGGERS SHALL BE IN SIGHT OF EACH OTHER OR IN DIRECT COMMUNICATION AT ALL TIMES. THEY SHALL BE EQUIPPED WITH STOP/SLOW PADDLES FASTENED ON SUPPORT STAFFS. WHEN THE FLAGGING OPERATION IS NOT IN EFFECT, THE "FLAGGER AHEAD", THE "ROAD WORK AHEAD" AND THE ONE LANE ROAD AHEAD" SIGNS SHALL BE COVERED OR REMOVED AND THE HIGHWAY RESTORED TO NORMAL OPERATION.
- ALL SIGNS ARE 48" X 48" UNLESS OTHERWISE NOTED.

- ① FOR A MOVING WORK OPERATION, SIGNING FOR BOTH DIRECTIONS SHALL BE REESTABLISHED (AS SIMULTANEOUSLY AS PRACTICAL) AT APPROXIMATELY 3500 FOOT INTERVALS IN THE MOVING WORK OPERATION OR AS APPROVED BY THE ENGINEER.
- ② SIGN NOT REQUIRED IF FLAGGING OPERATION OCCURS WITHIN A SIGNED ROAD WORK ZONE AREA.

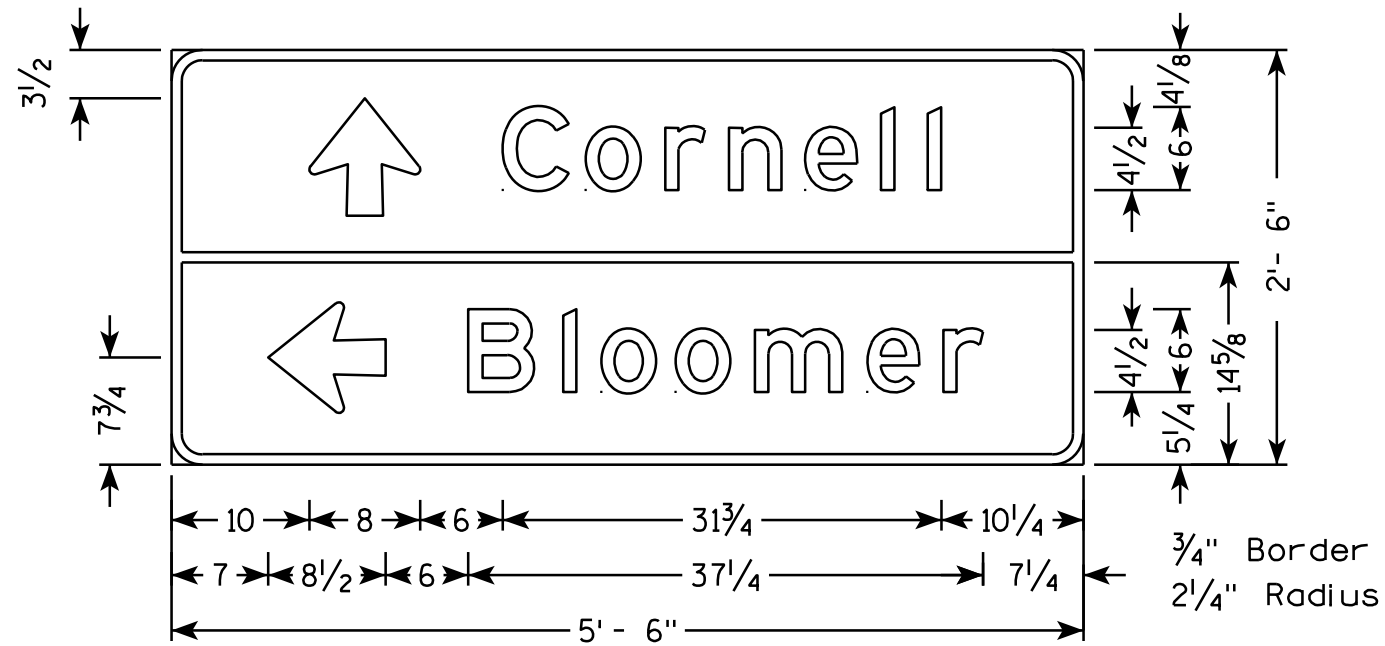
TRAFFIC CONTROL FOR LANE CLOSURE (SUITABLE FOR MOVING OPERATIONS)

STATE OF WISCONSIN  
DEPARTMENT OF TRANSPORTATION

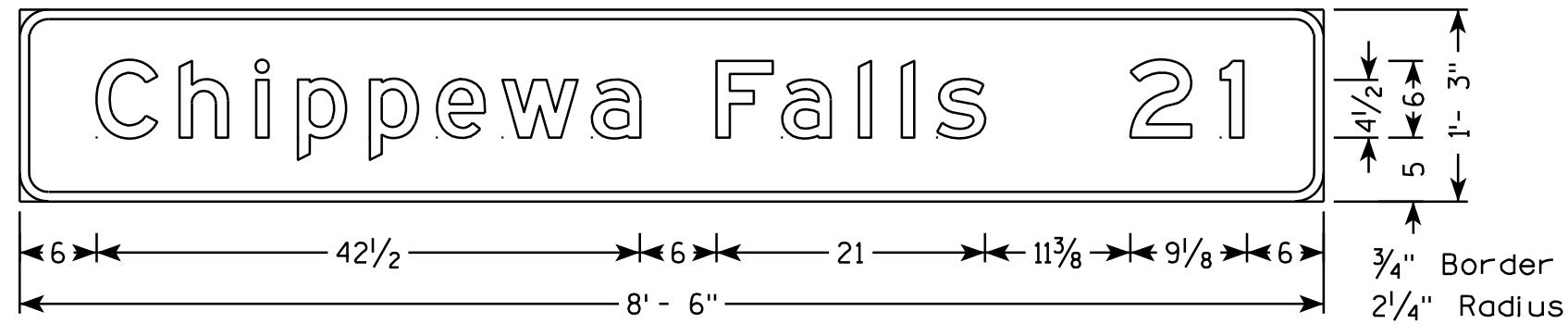
APPROVED  
9/5/06 /S/ Thomas N. Nethehm  
DATE STATE TRAFFIC ENGINE 103 DESIGN  
FHWA

# NOTES

1. All Signs Type II - Type H Reflective - reference WIS DOT Standard Specification for HIGHWAY and STRUCTURE CONSTRUCTION latest edition.
2. Color:  
Background - GREEN  
Message - WHITE
3. Message Series - E

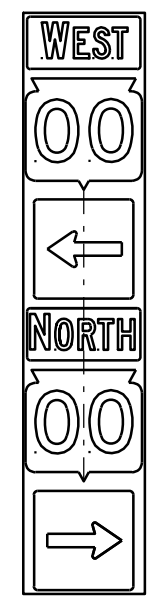
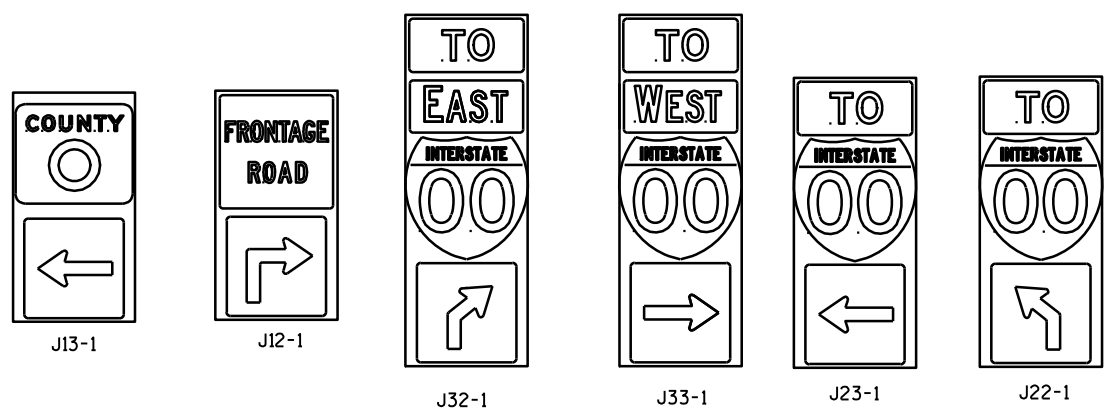
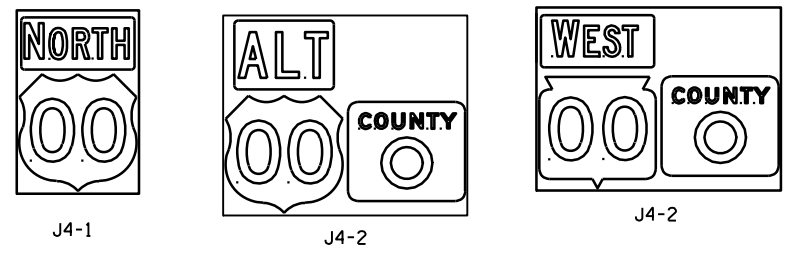
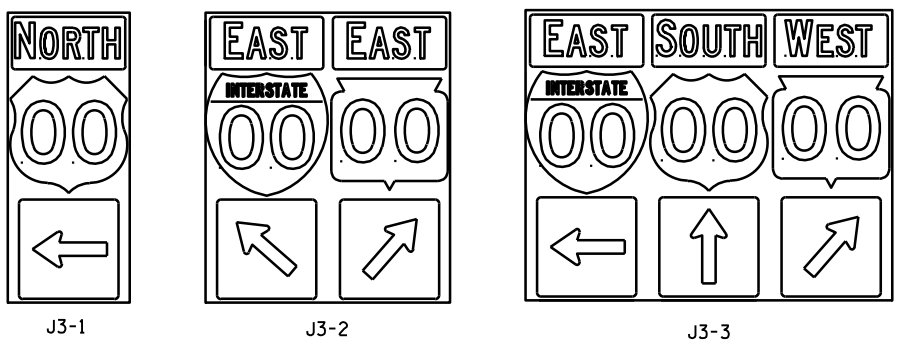
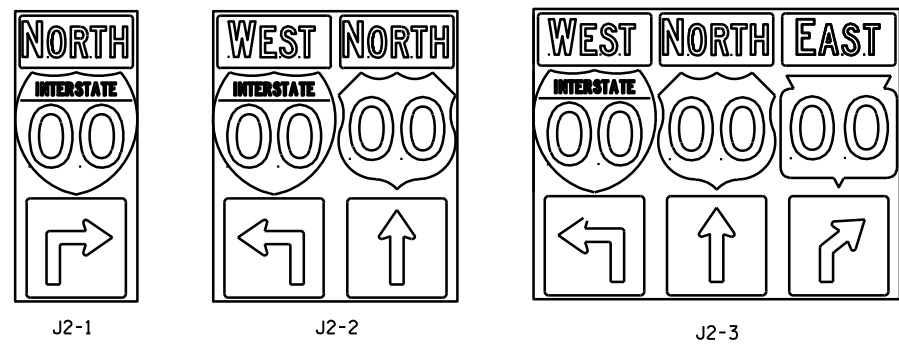
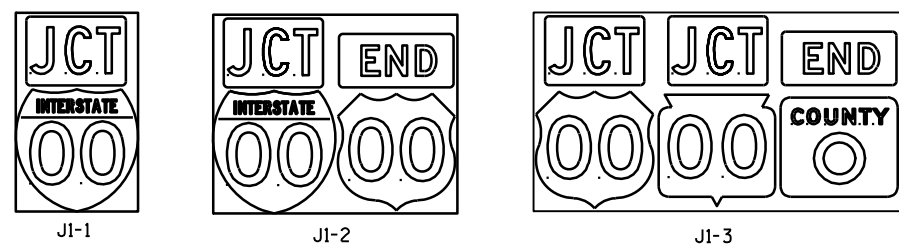


D1-2



D2-1

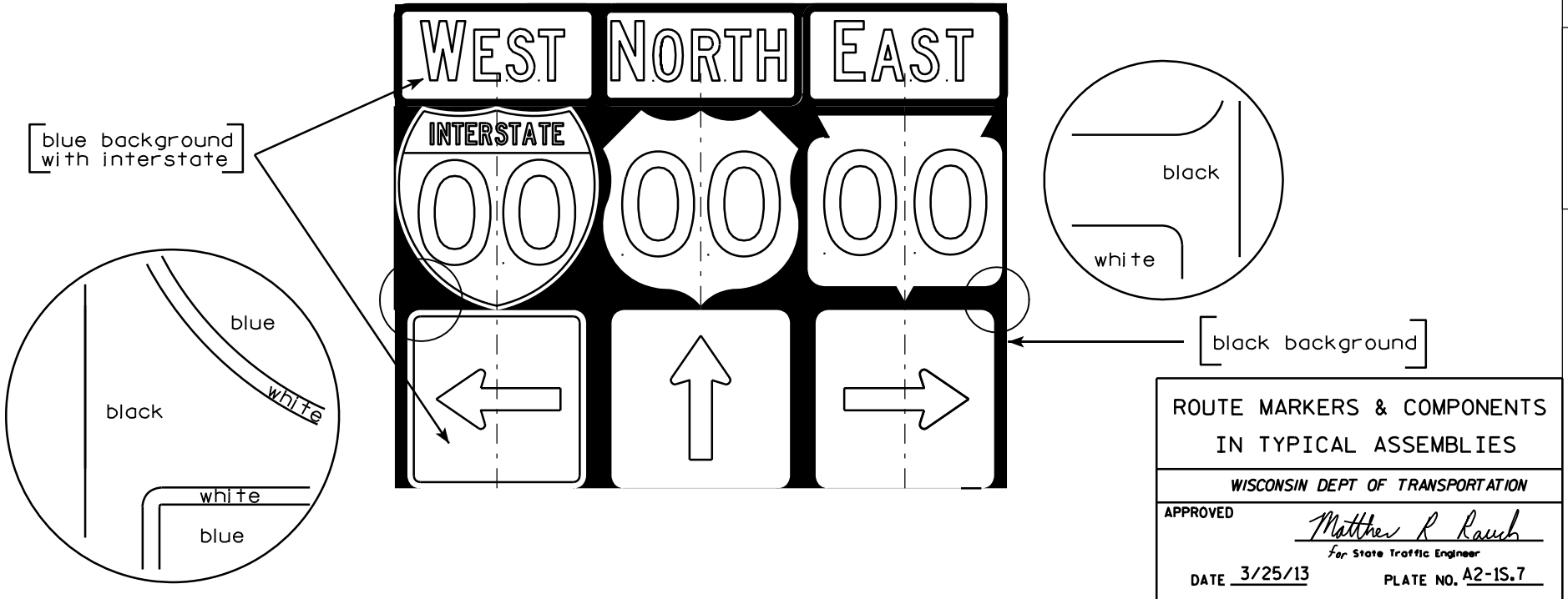
TYPICAL ASSEMBLIES



JV  
(Typical Vertical J-Assembly  
See Note 10 and 11)

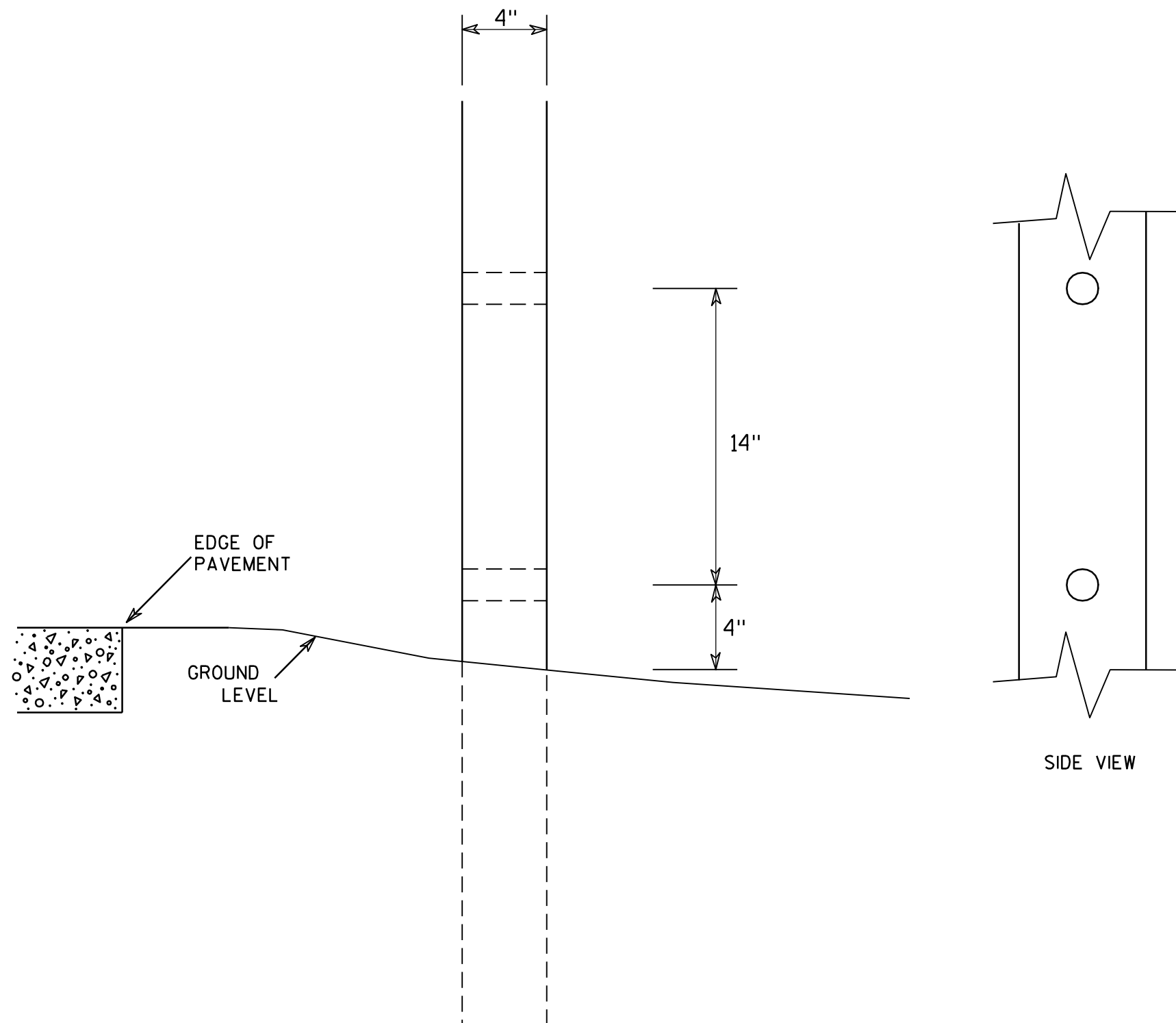
NOTES

1. Signs are Type II - Type H Reflective - reference WIS DOT Standard Specification for HIGHWAY and STRUCTURE CONSTRUCTION latest edition.
2. Color:  
Background - Black Non-reflective  
Message - see Note 5
3. Message Series - See Note 5
4. Corners shall be square or rounded if base material is plywood. If base material is metal the corners shall be rounded.
5. The colors and message spacing on each marker shall be according to the applicable route marker panel specifications.
6. Certain marker heads require the component pieces to be the same color. As an example, all the components used with an M1-1 Interstate marker shall be blue.
7. Single panel j-assemblies shall only be used with route marker shields that are same size. If the route marker shields are different size use multiple piece component.
8. Route assemblies that have 24 inch route shields and have dimensions greater than 48 inches (both vertical and horizontal) shall have one horizontal splice between the arrows and route shields. Vertical splices shall not be used on route assemblies with a horizontal dimension of 144 inches or less. The contractor shall not use more than one vertical joint per sign and the joint shall be between route shields.
9. Route assemblies that have 36 inch shields and have dimensions greater than 48 inches (both vertical and horizontal) shall have two horizontal splices. One horizontal splice shall be between the cardinal direction and route shields and the other horizontal splice shall be between the arrows and route shields. Vertical splices shall not be used on route assemblies with a horizontal dimension of 144 or less. The contractor shall not use more than one vertical joint per sign and the joint shall be between route shields.
10. All Vertical J Assemblies are given a Sign Code of JV
11. For JV Assemblies that have a mixture of Interstate and non Interstate shields, arrows and cardinals shall be white on blue.



| ROUTE MARKERS & COMPONENTS<br>IN TYPICAL ASSEMBLIES |                                                       |
|-----------------------------------------------------|-------------------------------------------------------|
| WISCONSIN DEPT OF TRANSPORTATION                    |                                                       |
| APPROVED                                            | <i>Matthew R. Rauch</i><br>For State Traffic Engineer |
| DATE 3/25/13                                        | PLATE NO. A2-1S.7                                     |

7



### GENERAL NOTES

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

7

## 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:

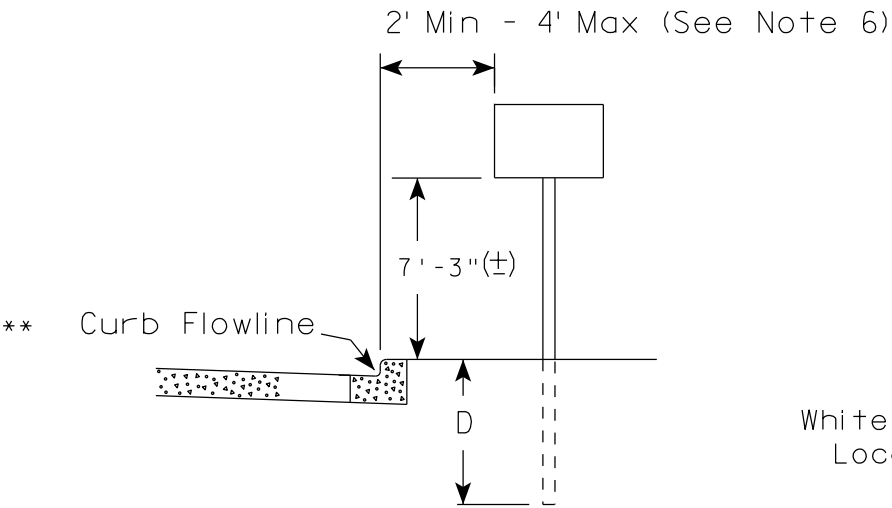
HWY:

COUNTY:

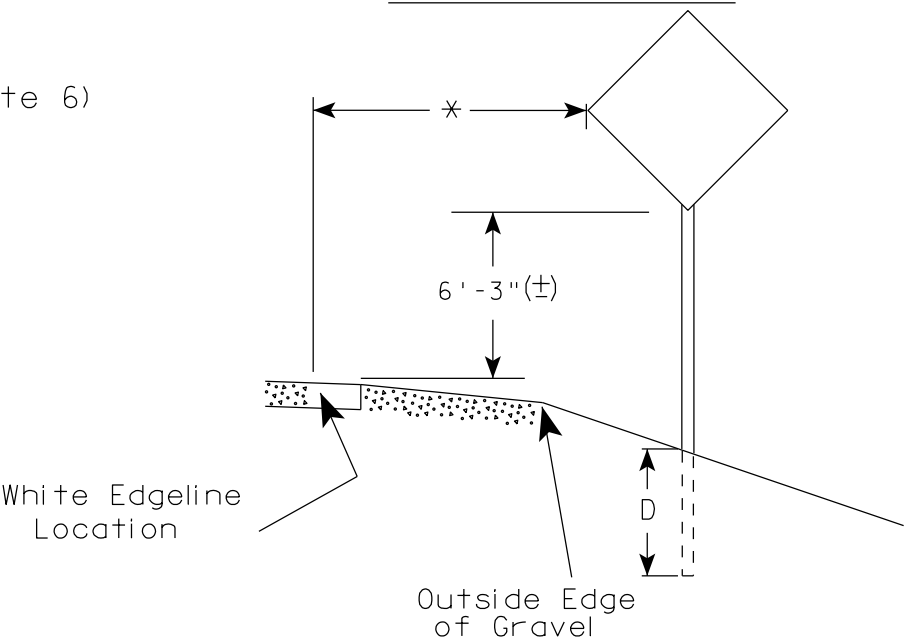
SHEET NO: 106

E

URBAN AREA



RURAL AREA (See Note 2)



GENERAL NOTES

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

POST EMBEDMENT DEPTH

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

×× 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.

TYPICAL INSTALLATION  
OF PERMANENT TYPE II  
SIGNS ON SINGLE POSTS

WISCONSIN DEPT OF TRANSPORTATION

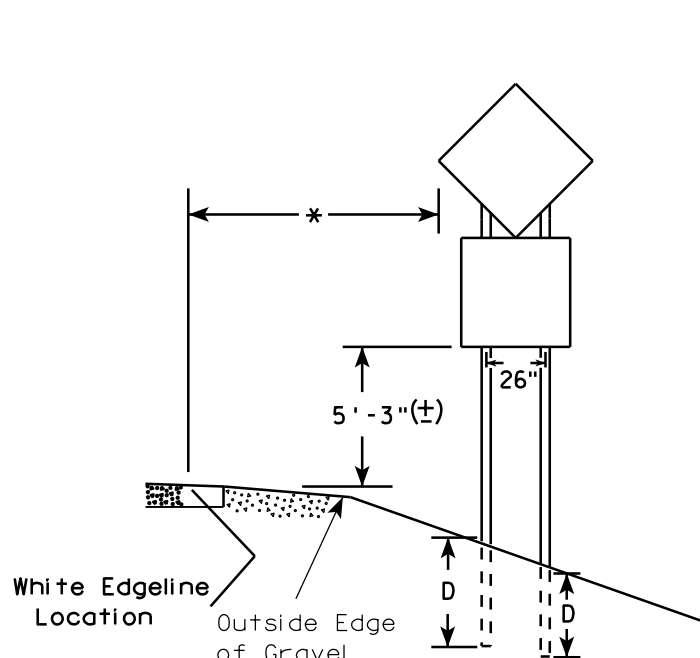
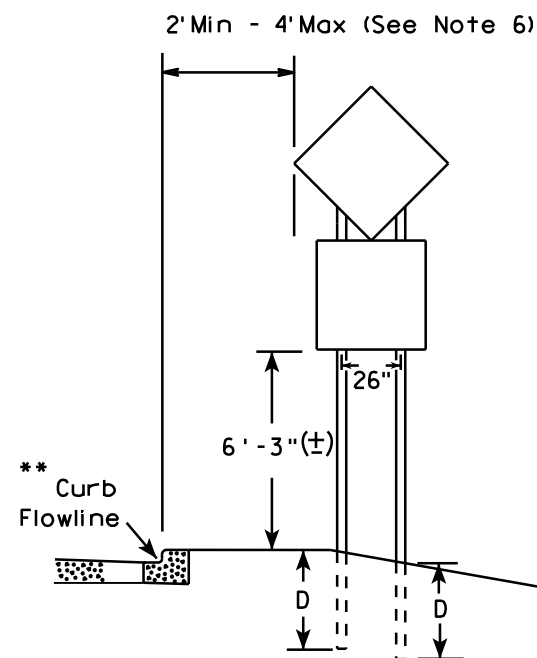
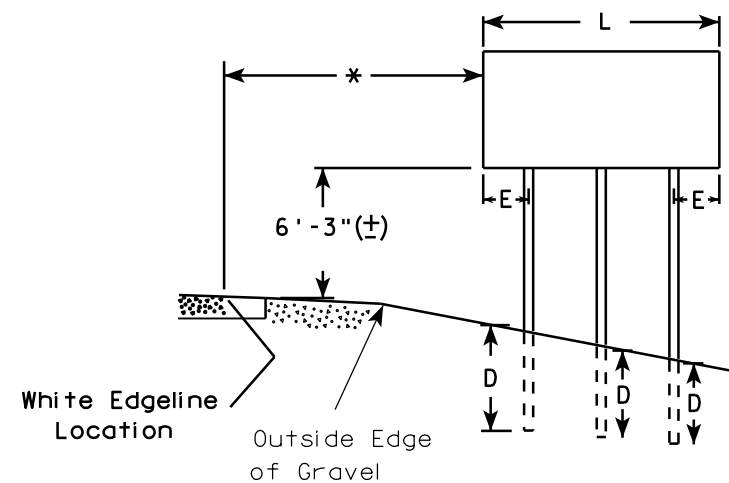
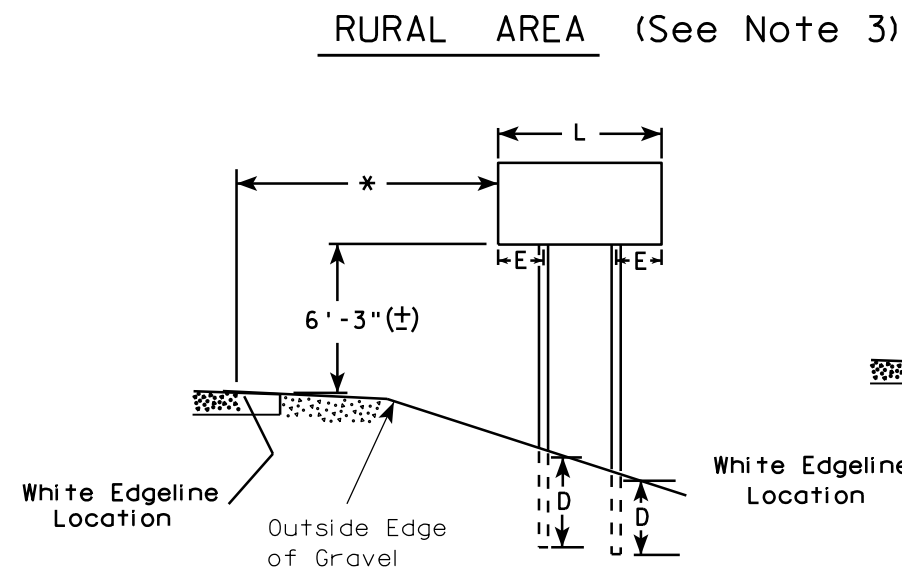
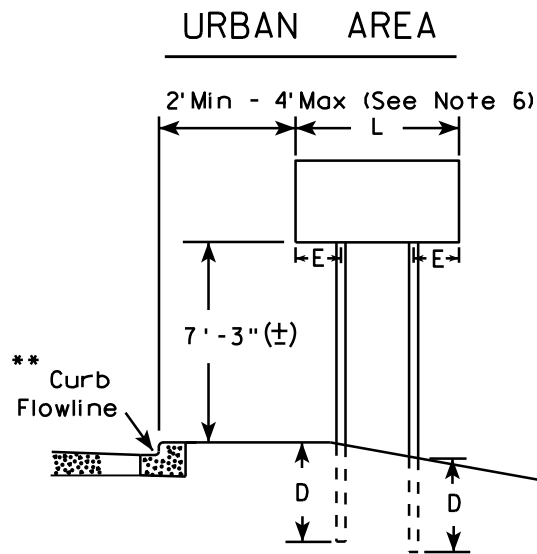
APPROVED

*Matthew R. Rauch*  
For State Traffic Engineer

DATE 9/30/13

PLATE NO. A4-3.18

107



GENERAL NOTES

1. For 3 or 4 post installations, individual post spacing shall be greater than 3'-6".
2. See tables below for required number of posts.
3. For expressways and freeways, mounting height is 7'-3" (±) or 6'-3" (±) depending upon existence of sub-sign.
4. The (±) tolerance for mounting height is 3 inches.
5. Minimum mounting height for J assemblies (A4-5) is 7'-3" (±) or 6'-3" (±) per urban or rural detail respectively.
6. Offset distance shall be consistent with existing signs or consistent throughout length of project.
7. Folding stop signs (R1-1F) shall be mounted at a height of 5'-3" (±) or as directed by the engineer.
8. The Double Arrow sign (W12-1) shall be mounted at a height of 2'-3" (±). The Chevron sign (W1-8), Roundabout Chevron panel (R6-4B), Clearance Markers (W5-52), Mile Markers (D10 series) & End of Road Markers (W5-56 & W5-56A) shall be mounted at a height of 4'-3" (±).

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

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

\*\*\* See A4-3 sign plate for signs 4' or less in width or 20 S.F. or less in area.

\*\*\*

| SIGN SHAPE OTHER THAN DIAMOND<br>(TWO POSTS REQUIRED) |     |
|-------------------------------------------------------|-----|
| L                                                     | E   |
| Greater than 48"<br>Less than 60"                     | 12" |
| 60" to 120"                                           | L/5 |

| SIGN SHAPE OTHER THAN DIAMOND<br>(THREE POSTS REQUIRED) |     |
|---------------------------------------------------------|-----|
| L                                                       | E   |
| Greater than 120"<br>less than 168"                     | 12" |

| SIGN SHAPE OTHER THAN DIAMOND<br>(FOUR POSTS REQUIRED) |     |
|--------------------------------------------------------|-----|
| L                                                      | E   |
| 168" and greater                                       | 12" |

POST EMBEDMENT DEPTH

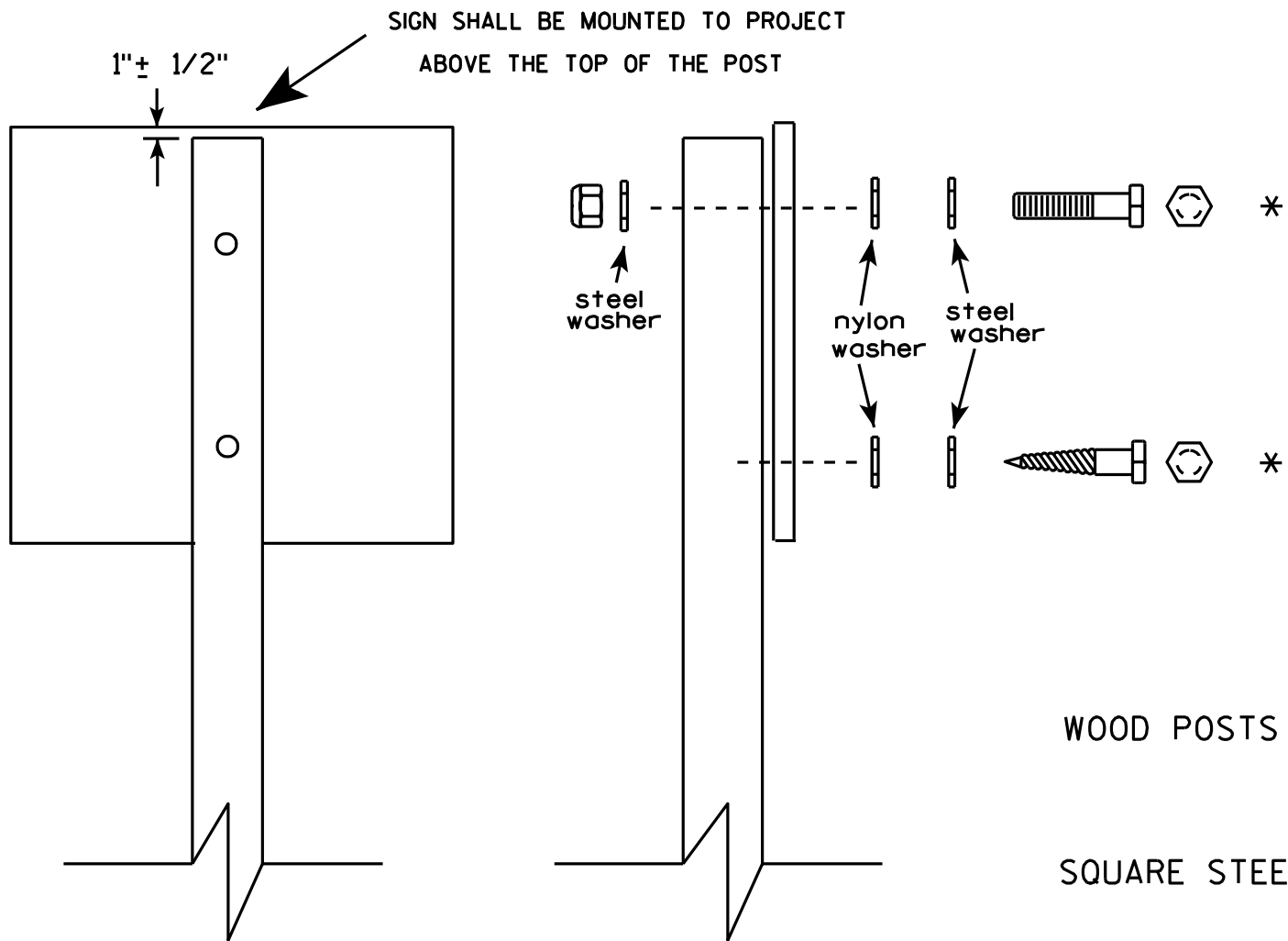
| Area of Sign<br>Installation<br>( Sq. Ft. ) | D<br>( Min ) |
|---------------------------------------------|--------------|
| 20 or Less                                  | 4'           |
| Greater than 20                             | 5'           |

TYPICAL INSTALLATION  
OF TYPE II SIGNS  
ON MULTIPLE POSTS

WISCONSIN DEPT OF TRANSPORTATION

APPROVED *Matthew R. Rauch*  
for State Traffic Engineer

DATE 9/30/13 PLATE NO. 108 12

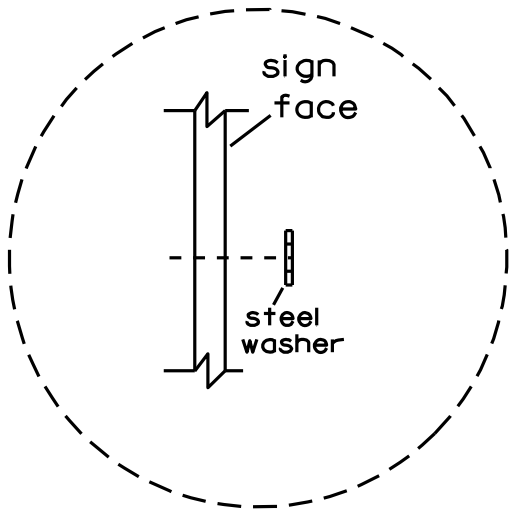


Nuts, bolts and lags used for mounting signs shall have hexagonal heads and shall be either :

- 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.

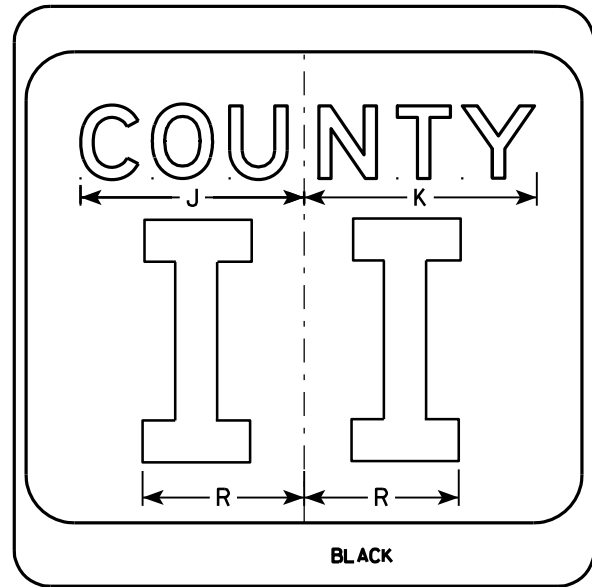
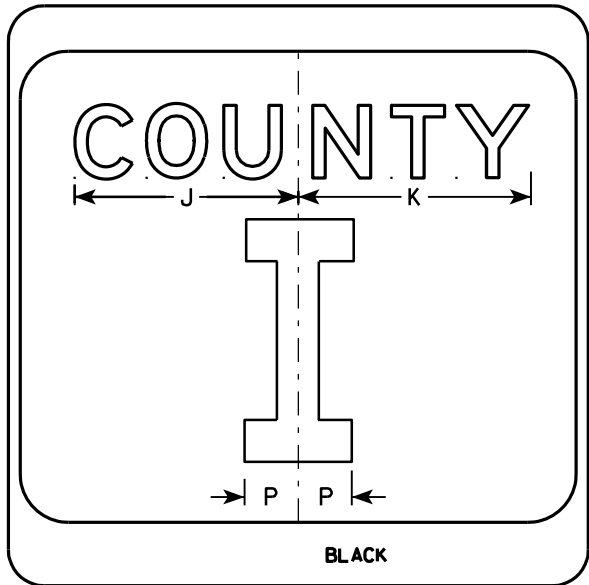
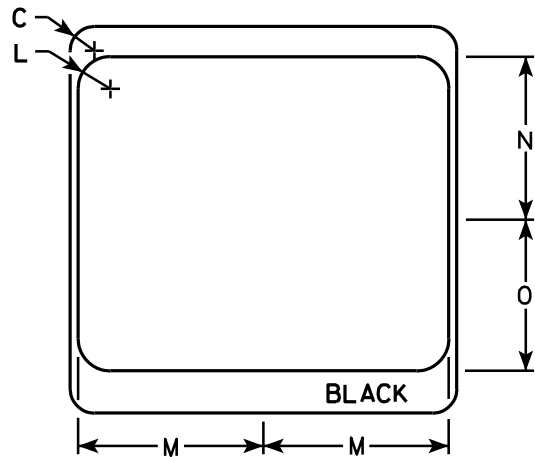
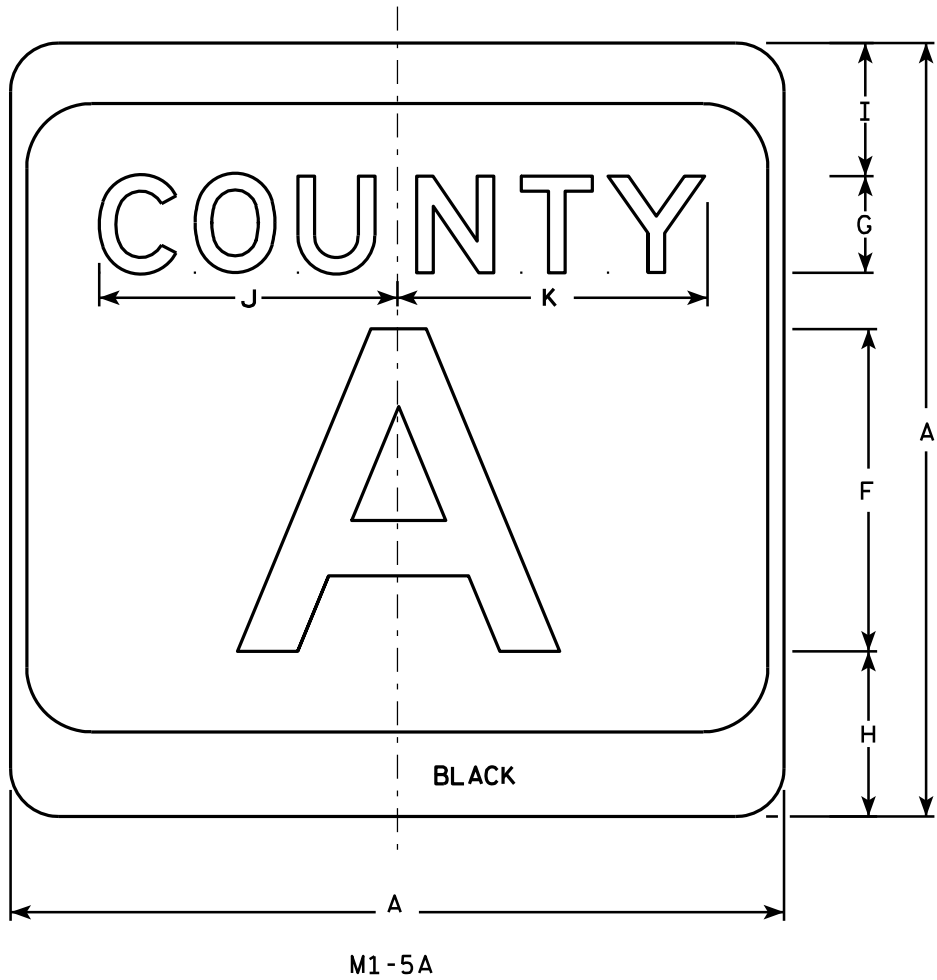


Washer Placement when Sign Has Other Than Type H or Type F Face

\* 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<br>TO POSTS  |                                                       |
| WISCONSIN DEPT OF TRANSPORTATION |                                                       |
| APPROVED                         | <i>Matthew R. Rauch</i><br>For State Traffic Engineer |
| DATE 3/23/10                     | PLATE NO. A4-8.7                                      |

7



NOTES

1. Sign is Type II - see Note 7 - reference WIS DOT Standard Specification for HIGHWAY and STRUCTURE CONSTRUCTION latest edition.
2. Color:  
Background - White & Black - See Note 7  
Message - Black
3. Message Series - see Note 5
4. Corners may be square or rounded when base material is plywood but borders shall be rounded as shown. When base material is metal, the corners and borders shall be rounded.
5. Message Series E for 1 letter.  
Message Series D for 2 letters unless message is too big then Series C.  
Message Series C for 3 letters unless message is too big then Series B.
6. Substitute appropriate letters & optically center to achieve proper balance.
7. Permanent Signs  
Background - Type H Reflective  
Detour or temporary Signs  
Background - Reflective

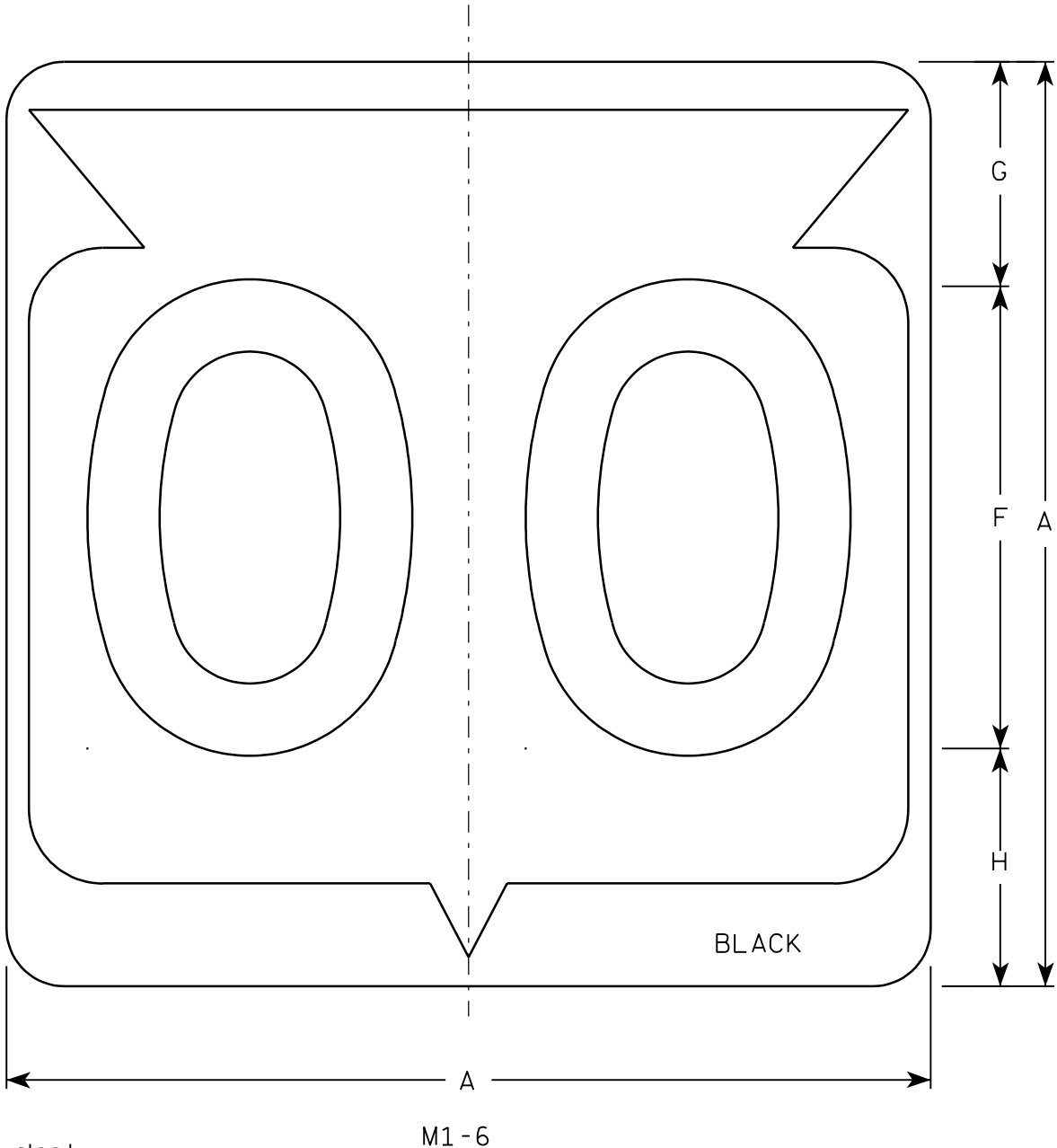
| SIZE | A  | B | C     | D | E | F  | G | H     | I     | J      | K      | L | M      | N      | O     | P     | Q | R     | S | T | U | V | W | X | Y | Z | Area<br>sq. ft. |
|------|----|---|-------|---|---|----|---|-------|-------|--------|--------|---|--------|--------|-------|-------|---|-------|---|---|---|---|---|---|---|---|-----------------|
| 1    |    |   |       |   |   |    |   |       |       |        |        |   |        |        |       |       |   |       |   |   |   |   |   |   |   |   |                 |
| 2    | 24 |   | 1 1/2 |   |   | 10 | 3 | 5 1/8 | 4 1/8 | 9 1/4  | 9 5/8  | 2 | 11 1/2 | 10 1/8 | 9 3/8 | 2 1/4 |   | 6 5/8 |   |   |   |   |   |   |   |   | 4.0             |
| 3    | 36 |   | 2 1/4 |   |   | 16 | 4 | 7 5/8 | 5 5/8 | 12 1/4 | 12 7/8 | 3 | 17 1/8 | 15 1/4 | 14    | 3 3/8 |   | 10    |   |   |   |   |   |   |   |   | 9.0             |
| 4    | 36 |   | 2 1/4 |   |   | 16 | 4 | 7 5/8 | 5 5/8 | 12 1/4 | 12 7/8 | 3 | 17 1/8 | 15 1/4 | 14    | 3 3/8 |   | 10    |   |   |   |   |   |   |   |   | 9.0             |
| 5    | 36 |   | 2 1/4 |   |   | 16 | 4 | 7 5/8 | 5 5/8 | 12 1/4 | 12 7/8 | 3 | 17 1/8 | 15 1/4 | 14    | 3 3/8 |   | 10    |   |   |   |   |   |   |   |   | 9.0             |

|                                  |                                                       |
|----------------------------------|-------------------------------------------------------|
| CTH MARKER                       |                                                       |
| M1-5A FOR ASSEMBLIES             |                                                       |
| WISCONSIN DEPT OF TRANSPORTATION |                                                       |
| APPROVED                         | <i>Matthew R. Rauch</i><br>For State Traffic Engineer |
| DATE 9/27/11                     | PLATE NO. M1-5A.8                                     |

|             |      |         |               |   |
|-------------|------|---------|---------------|---|
| PROJECT NO: | HWY: | COUNTY: | SHEET NO: 110 | E |
|-------------|------|---------|---------------|---|

7

7



Metric equivalent  
for this sign is:

| SIZE |                 |
|------|-----------------|
| 1    |                 |
| 2    | 600 mm X 600 mm |
| 3    | 900 mm X 900 mm |
| 4    | 900 mm X 900 mm |
| 5    | 900 mm X 900 mm |

| SIZE | A  | B | C     | D | E | F  | G     | H     | I      | J     | K      | L      | M     | N     | O      | P      | Q | R | S | T | U | V | W | X | Y | Z | Area<br>sq. ft. | Area<br>m <sup>2</sup> |
|------|----|---|-------|---|---|----|-------|-------|--------|-------|--------|--------|-------|-------|--------|--------|---|---|---|---|---|---|---|---|---|---|-----------------|------------------------|
| 1    |    |   |       |   |   |    |       |       |        |       |        |        |       |       |        |        |   |   |   |   |   |   |   |   |   |   |                 |                        |
| 2    | 24 |   | 1 1/2 |   |   | 12 | 5 1/2 | 6 1/2 | 10 1/4 | 2 1/2 | 8 7/8  | 11 1/2 | 1     | 1 7/8 | 11 1/4 | 21 7/8 |   |   |   |   |   |   |   |   |   |   | 4.0             | .36                    |
| 3    | 36 |   | 2 1/4 |   |   | 18 | 8 3/4 | 9 1/4 | 15 3/8 | 5 3/8 | 12 5/8 | 17 1/8 | 1 1/2 | 2 7/8 | 16 7/8 | 33     |   |   |   |   |   |   |   |   |   |   | 9.0             | .81                    |
| 4    | 36 |   | 2 1/4 |   |   | 18 | 8 3/4 | 9 1/4 | 15 3/8 | 5 3/8 | 12 5/8 | 17 1/8 | 1 1/2 | 2 7/8 | 16 7/8 | 33     |   |   |   |   |   |   |   |   |   |   | 9.0             | .81                    |
| 5    | 36 |   | 2 1/4 |   |   | 18 | 8 3/4 | 9 1/4 | 15 3/8 | 5 3/8 | 12 5/8 | 17 1/8 | 1 1/2 | 2 7/8 | 16 7/8 | 33     |   |   |   |   |   |   |   |   |   |   | 9.0             | .81                    |

PROJECT NO:

HWY:

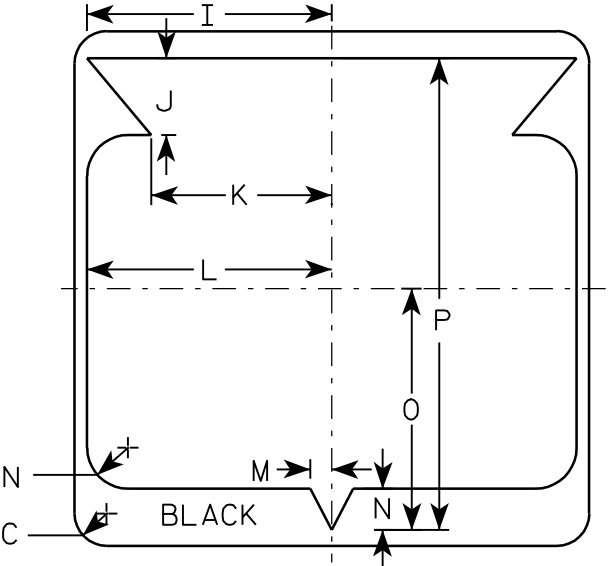
COUNTY:

SHEET NO: 111

E

NOTES

1. Sign is Type II - See Note 6 - reference WIS DOT Standard Specification for HIGHWAY and STRUCTURE CONSTRUCTION latest edition.
2. Color:  
Background - White & Black - See Note 6  
Message - Black
3. Message Series - See note 5
4. Corners may be square or rounded when base material is plywood but borders shall be rounded as shown. When base material is metal, the corners and borders shall be rounded.
5. Substitute appropriate Series numerals and adjust spacing as per plate A10-1.
6. Permanent Signs  
Background - Type H Reflective  
Detour or temporary Signs  
Background - Reflective



STATE ROUTE MARKER  
M1-6 FOR ASSEMBLIES

WISCONSIN DEPT OF TRANSPORTATION

APPROVED

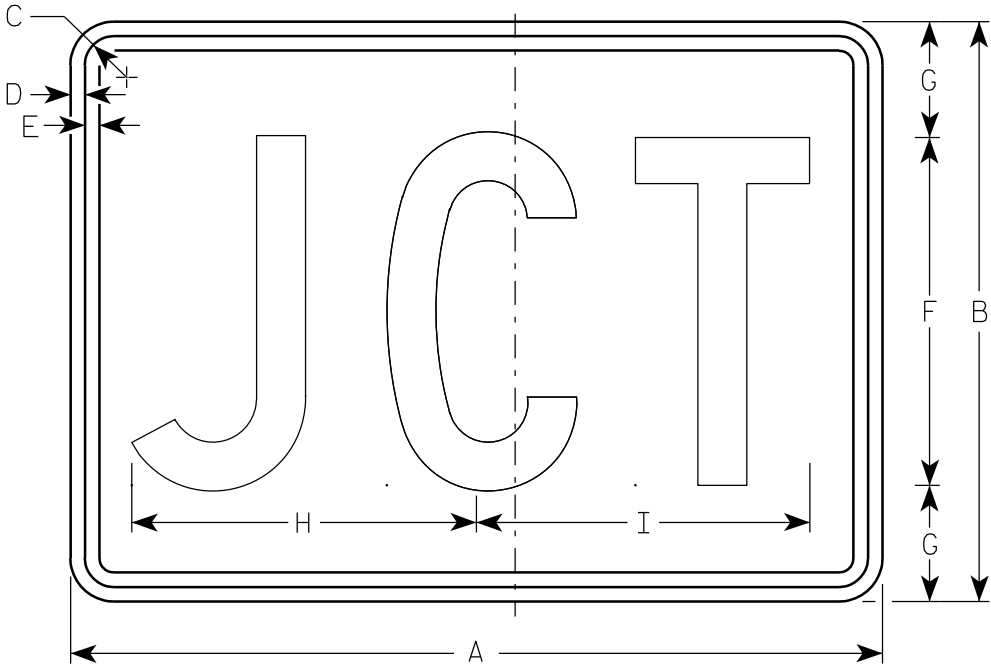
*Chester J. Spang*  
for State Traffic Engineer

DATE 3/20/02

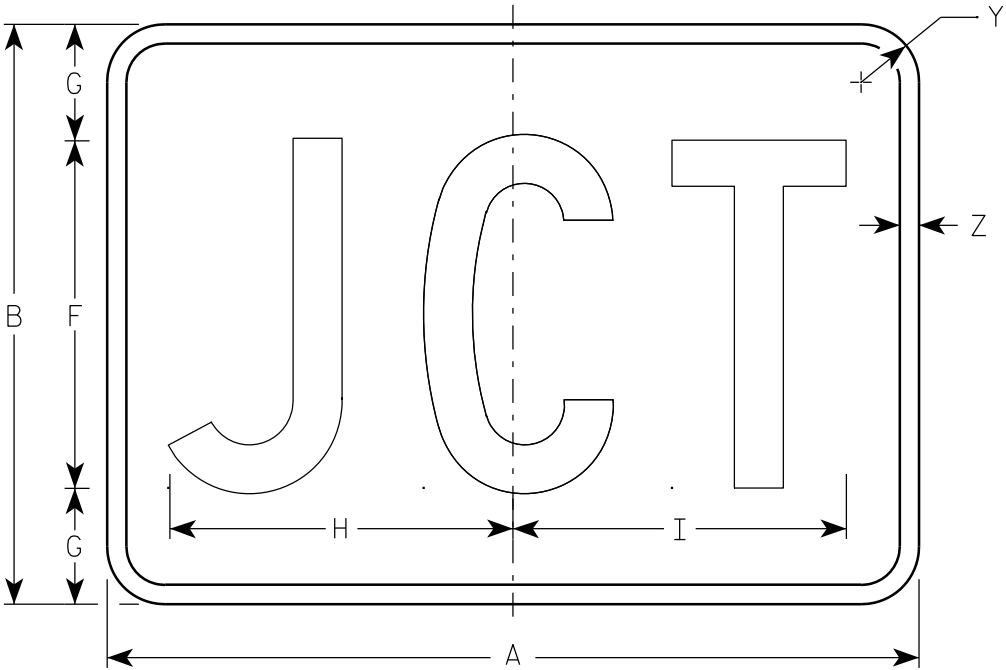
PLATE NO. M1-6.9

NOTES

1. Sign is Type II - See Note 5 - reference  
WIS DOT Standard Specification for HIGHWAY  
and STRUCTURE CONSTRUCTION latest edition.
2. Color:  
Background - See note 5  
Message - See note 5
3. Message Series - C
4. Corners may be square or rounded when base  
material is plywood but borders shall be rounded  
as shown. When base material is metal, the  
corners and borders shall be rounded.
5. M2-1 Background - White - Type H Reflective  
(Detour or temporary Signs - Reflective)  
Message - Black  
MB2-1 Background - Blue  
Message - White - Type H Reflective  
(Detour or temporary Signs - Reflective)  
MG2-1 Background - Green  
Message - White - Type H Reflective  
MK2-1 Background - Green  
Message - White - Type H Reflective  
MM2-1 Background - White - Type H Reflective  
Message - Green  
MN2-1 Background - Brown  
Message - White - Type H Reflective  
MR2-1 Background - Brown  
Message - Yellow - Type H Reflective



M2-1  
MK2-1  
MM2-1  
MR2-1



MB2-1  
MG2-1  
MN2-1

Metric equivalent  
for this sign is:

| SIZE |                 |
|------|-----------------|
| 1    |                 |
| 2    | 525 mm X 375 mm |
| 3    | 750 mm X 525 mm |
| 4    | 750 mm X 525 mm |
| 5    | 750 mm X 525 mm |

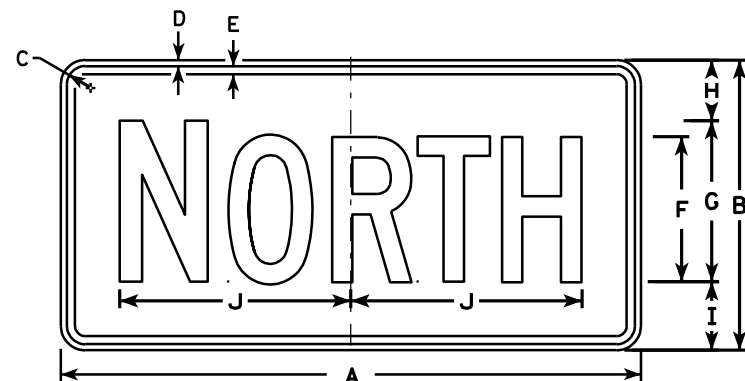
| SIZE | A  | B  | C     | D   | E   | F  | G | H      | I      | J | K | L | M | N | O | P | Q | R | S | T | U | V | W | X | Y     | Z   | Area<br>sq. ft. | Area<br>m <sup>2</sup> |
|------|----|----|-------|-----|-----|----|---|--------|--------|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|-------|-----|-----------------|------------------------|
| 1    |    |    |       |     |     |    |   |        |        |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |       |     |                 |                        |
| 2    | 21 | 15 | 1 1/8 | 3/8 | 3/8 | 9  | 3 | 8 7/8  | 8 5/8  |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   | 1 1/2 | 1/2 | 2.20            | 0.20                   |
| 3    | 30 | 21 | 1 1/8 | 3/8 | 3/8 | 13 | 4 | 12 7/8 | 12 3/8 |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   | 1 1/2 | 1/2 | 4.40            | 0.20                   |
| 4    | 30 | 21 | 1 1/8 | 3/8 | 3/8 | 13 | 4 | 12 7/8 | 12 3/8 |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   | 1 1/2 | 1/2 | 4.40            | 0.20                   |
| 5    | 30 | 21 | 1 1/8 | 3/8 | 3/8 | 13 | 4 | 12 7/8 | 12 3/8 |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   | 1 1/2 | 1/2 | 4.40            | 0.20                   |

STANDARD SIGN  
M2 - 1

WISCONSIN DEPT OF TRANSPORTATION

APPROVED  
*Matthew R. Rauch*  
for State Traffic Engineer

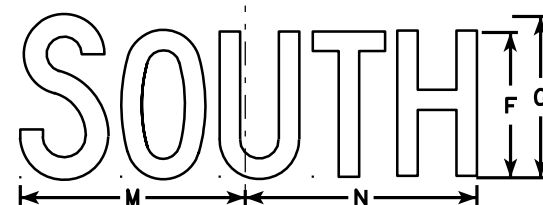
DATE 3/16/10 PLATE NO. M2-1.10



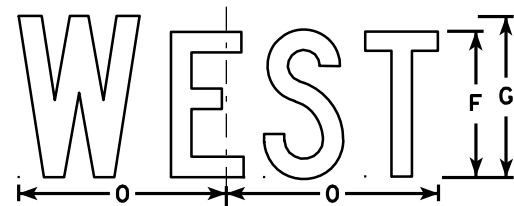
M3-1  
MK3-1  
M03-1



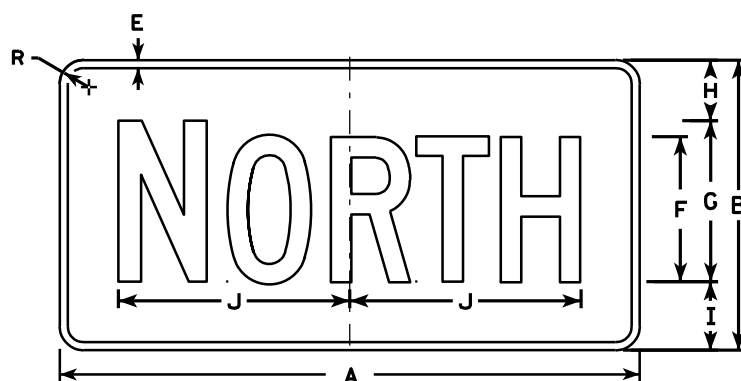
M3-2  
MK3-2  
M03-2



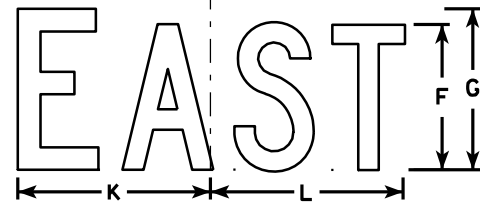
M3-3  
MK3-3  
M03-3



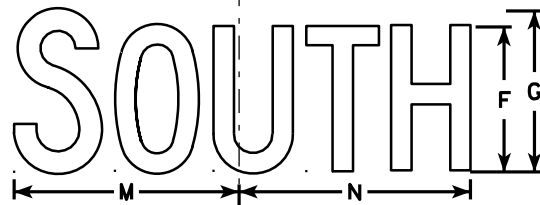
M3-4  
MK3-4  
M03-4



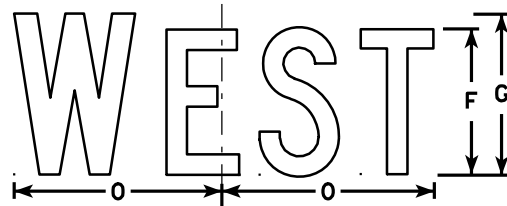
MB3-1  
MG3-1  
MM3-1  
MN3-1



MB3-2  
MG3-2  
MM3-2  
MN3-2



MB3-3  
MG3-3  
MM3-3  
MN3-3



MB3-4  
MG3-4  
MM3-4  
MN3-4

## NOTES

1. All Signs Type II - See Note 5 - reference WIS DOT Standard Specification for HIGHWAY and STRUCTURE CONSTRUCTION latest edition.
2. Color:  
Background - See note 5  
Message - See note 5
3. Message Series - C
4. Corners may be square or rounded when base material is plywood but borders shall be rounded as shown. When base material is metal, the corners and borders shall be rounded.
5. M3-1 thru M3-4 Background - White - Type H Reflective (Detour or temporary signs - Reflective)  
Message - Black  
MB3-1 thru MB3-4 Background - Blue  
Message - White - Type H Reflective (Detour or temporary signs - Reflective)  
MG3-1 thru MG3-4 Background - Green  
Message - White - Type H Reflective  
MK3-1 thru MK3-4 Background - Green  
Message - White - Type H Reflective  
MM3-1 thru MM3-4 Background - White - Type H Reflective  
Message - Green  
MN3-1 thru MN3-4 Background - Brown  
Message - White - Type H Reflective  
M03-1 thru M03-4 Background - Orange - Reflective  
Message - Black
6. Note the first letter of each direction is larger than the remainder of the message.

| SIZE | A  | B  | C     | D   | E   | F | G  | H     | I     | J      | K     | L      | M      | N      | O     | P | Q | R     | S | T | U | V | W | X | Y | Z | Area<br>sq. ft. |
|------|----|----|-------|-----|-----|---|----|-------|-------|--------|-------|--------|--------|--------|-------|---|---|-------|---|---|---|---|---|---|---|---|-----------------|
| 1    |    |    |       |     |     |   |    |       |       |        |       |        |        |        |       |   |   |       |   |   |   |   |   |   |   |   |                 |
| 2    | 24 | 12 | 1 1/8 | 3/8 | 3/8 | 6 | 7  | 2 1/4 | 2 3/4 | 10 1/4 | 7 7/8 | 8 3/8  | 10 1/4 | 9 3/4  | 8 3/4 |   |   | 1 1/2 |   |   |   |   |   |   |   |   | 2.00            |
| 3    | 36 | 18 | 1 1/8 | 3/8 | 1/2 | 9 | 10 | 3 3/4 | 4 1/4 | 14 3/8 | 12    | 12 1/8 | 14     | 14 1/8 | 13    |   |   | 1 1/2 |   |   |   |   |   |   |   |   | 4.5             |
| 4    | 36 | 18 | 1 1/8 | 3/8 | 1/2 | 9 | 10 | 3 3/4 | 4 1/4 | 14 3/8 | 12    | 12 1/8 | 14     | 14 1/8 | 13    |   |   | 1 1/2 |   |   |   |   |   |   |   |   | 4.5             |
| 5    | 36 | 18 | 1 1/8 | 3/8 | 1/2 | 9 | 10 | 3 3/4 | 4 1/4 | 14 3/8 | 12    | 12 1/8 | 14     | 14 1/8 | 13    |   |   | 1 1/2 |   |   |   |   |   |   |   |   | 4.5             |

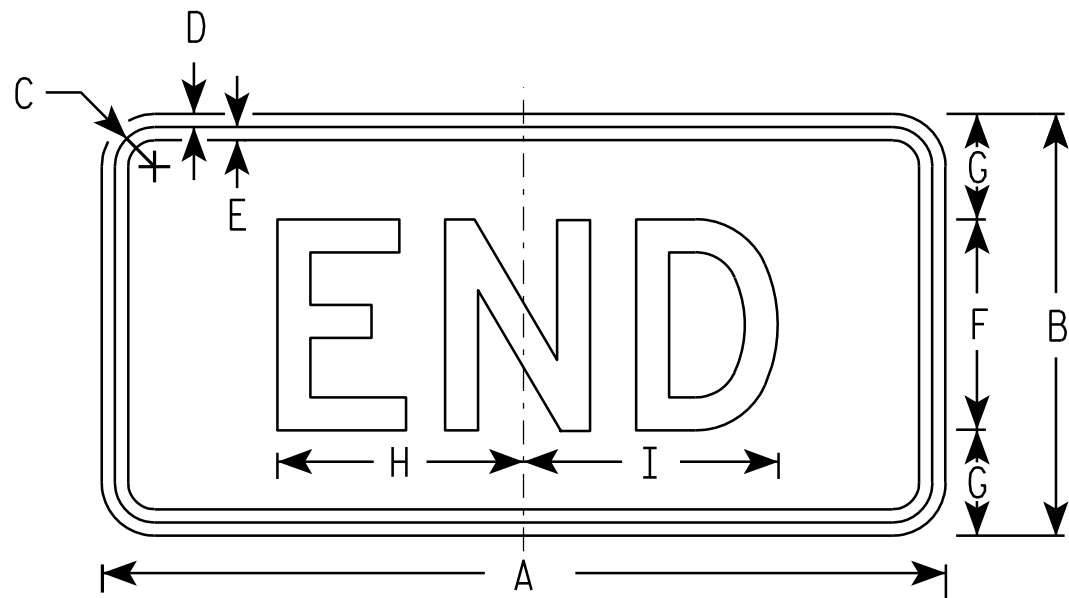
PROJECT NO: HWY: COUNTY: SHEET NO: 113 E

## STANDARD SIGNS M3-1 thru M3-4 SERIES

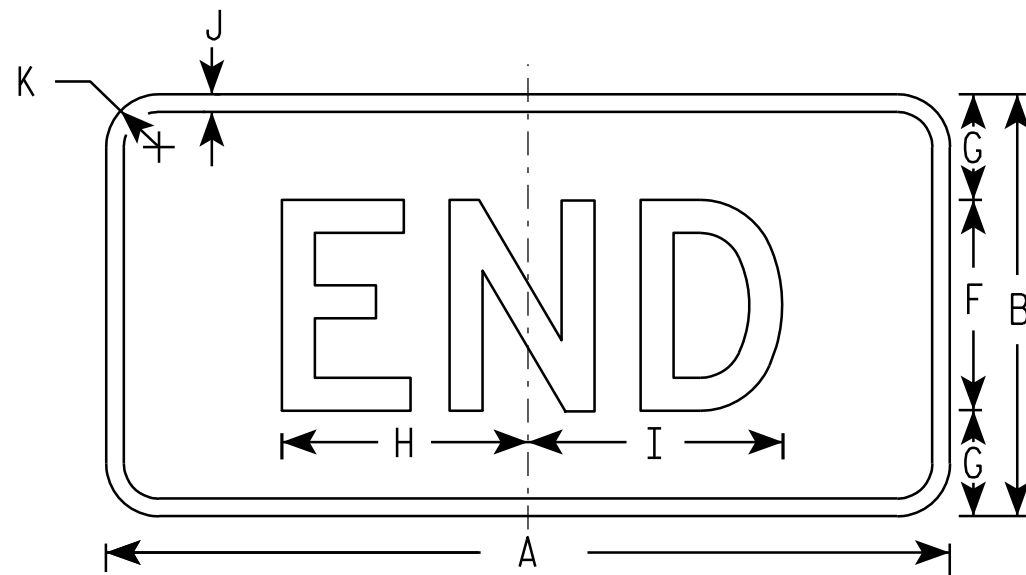
WISCONSIN DEPT OF TRANSPORTATION

APPROVED *Matthew R. Rauch*  
for State Traffic Engineer

DATE 11/10/10 PLATE NO. M3-1.12



M4-6  
MK4-6  
MM4-6  
MR4-6



MB4-6  
MG4-6  
MN4-6

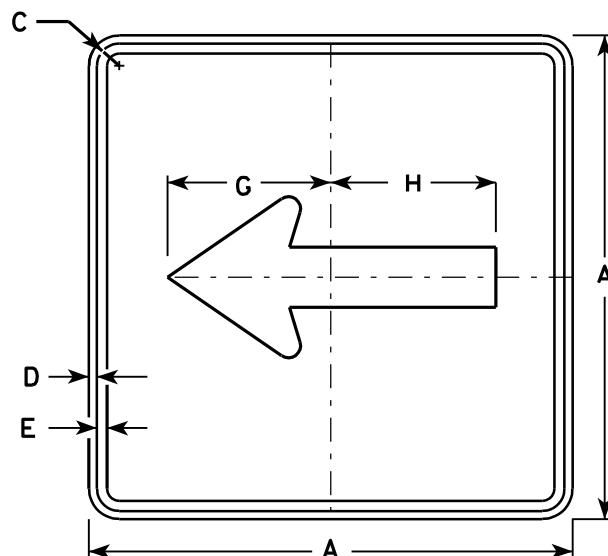
### NOTES

- Sign is Type II - See Note 5 - reference WIS DOT Standard Specification for HIGHWAY and STRUCTURE CONSTRUCTION latest edition.
- Color:  
Background - See note 5  
Message - See note 5
- Message Series - D
- 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.
- M4-6 Background - White - Type H Reflective  
(Detour or temporary Signs - Reflective)  
Message - Black  
MB4-6 Background - Blue  
Message - White - Type H Reflective  
(Detour or temporary Signs - Reflective)  
MG4-6 Background - Green  
Message - White - Type H Reflective  
MK4-6 Background - Green  
Message - White - Type H Reflective  
MM4-6 Background - White - Type H Reflective  
Message - Green  
MN4-6 Background - Brown  
Message - White - Type H Reflective  
MR4-6 Background - Brown  
Message - Yellow - Type H Reflective

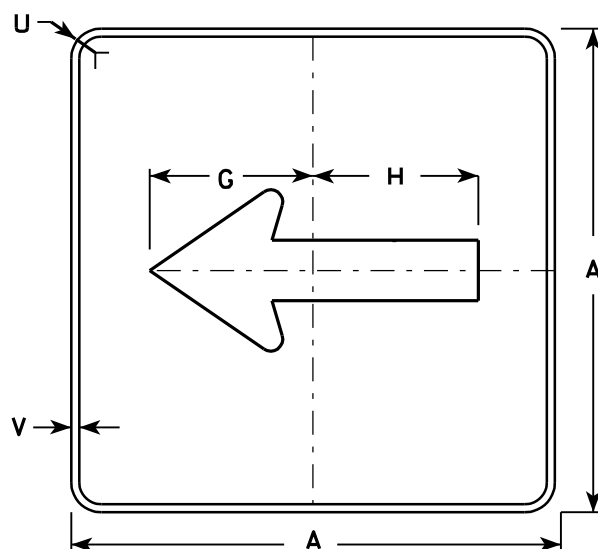
| SIZE | A  | B  | C     | D   | E   | F | G     | H  | I      | J   | K     | L | M | N | O | P | Q | R | S | T | U | V | W | X | Y | Z | Area<br>sq. ft. |
|------|----|----|-------|-----|-----|---|-------|----|--------|-----|-------|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|-----------------|
| 1    |    |    |       |     |     |   |       |    |        |     |       |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |                 |
| 2    | 24 | 12 | 1 1/8 | 3/8 | 3/8 | 6 | 3     | 7  | 7 1/4  | 1/2 | 1 1/2 |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   | 2.00            |
| 3    | 36 | 18 | 1 1/8 | 3/8 | 1/2 | 9 | 4 1/2 | 12 | 11 7/8 | 1/2 | 1 1/2 |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   | 4.5             |
| 4    | 36 | 18 | 1 1/8 | 3/8 | 1/2 | 9 | 4 1/2 | 12 | 11 7/8 | 1/2 | 1 1/2 |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   | 4.5             |
| 5    | 36 | 18 | 1 1/8 | 3/8 | 1/2 | 9 | 4 1/2 | 12 | 11 7/8 | 1/2 | 1 1/2 |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   | 4.5             |

PROJECT NO: \_\_\_\_\_ HWY: \_\_\_\_\_ COUNTY: \_\_\_\_\_ SHEET NO: 114 **E**

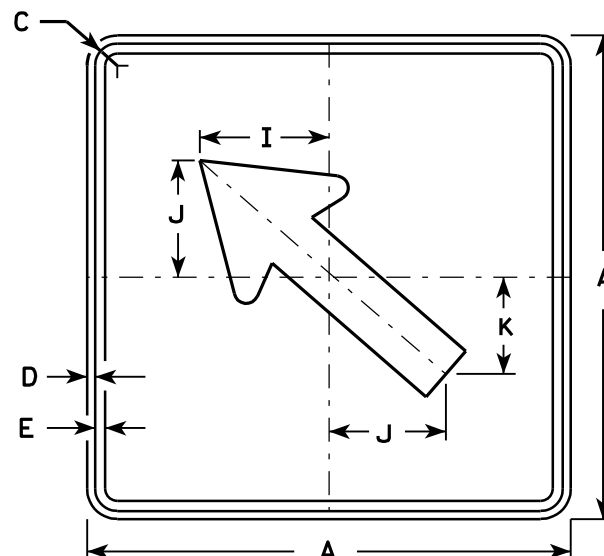
|                                  |                                                       |
|----------------------------------|-------------------------------------------------------|
| STANDARD SIGN<br>M4 - 6          |                                                       |
| WISCONSIN DEPT OF TRANSPORTATION |                                                       |
| APPROVED                         | <i>Matthew R. Rauch</i><br>For State Traffic Engineer |
| DATE 11/10/10                    | PLATE NO. M4-6.7                                      |



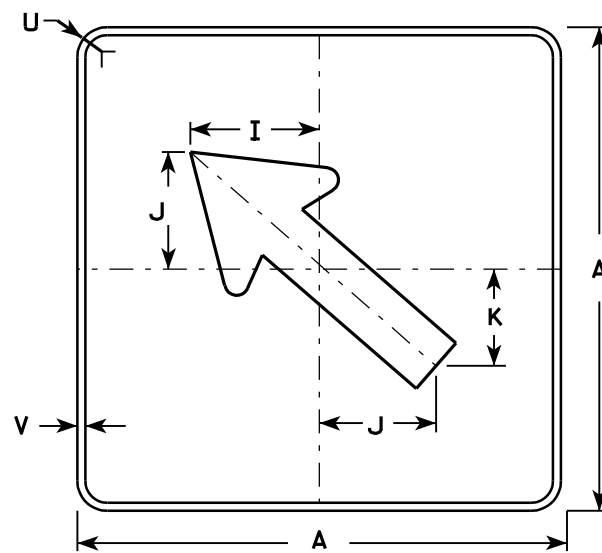
M6-1  
MK6-1  
MM6-1  
MO6-1  
MP6-1  
MR6-1



MB6-1  
MG6-1  
MN6-1



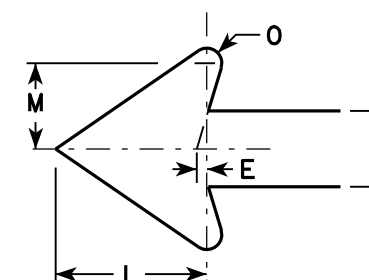
M6-2  
MK6-2  
MM6-2  
MO6-2  
MP6-2  
MR6-2



MB6-2  
MG6-2  
MN6-2

# NOTES

- Signs are Type II - See Note 4 - reference WIS DOT Standard Specification for HIGHWAY and STRUCTURE CONSTRUCTION latest edition.
- Color:  
Background - See note 4  
Message - See note 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.
- M6-1 and M6-2 Background - White - Type H Reflective  
Message - Black  
MB6-1 and MB6-2 Background - Blue  
Message - White - Type H Reflective  
MG6-1 and MG6-2 Background - Green  
Message - White - Type H Reflective  
MK6-1 and MK6-2 Background - Green  
Message - White - Type H Reflective  
MM6-1 and MM6-2 Background - White - Type H Reflective  
Message - Green  
MN6-1 and MN6-2 Background - Brown  
Message - White - Type H Reflective  
MO6-1 and MO6-2 Background - Orange - Type F Reflective  
Message - Black  
MP6-1 and MP6-2 Background - White - Type H Reflective  
Message - Blue  
MR6-1 and MR6-2 Background - Brown  
Message - Yellow - Type H Reflective



| SIZE | A  | B | C     | D   | E   | F | G      | H      | I     | J     | K     | L     | M     | N     | O   | P | Q | R | S | T | U     | V   | W | X | Y | Z | Area<br>sq. ft. |
|------|----|---|-------|-----|-----|---|--------|--------|-------|-------|-------|-------|-------|-------|-----|---|---|---|---|---|-------|-----|---|---|---|---|-----------------|
| 1    |    |   |       |     |     |   |        |        |       |       |       |       |       |       |     |   |   |   |   |   |       |     |   |   |   |   |                 |
| 2    | 21 |   | 1 1/8 | 3/8 | 3/8 |   | 7 1/2  | 7 1/8  | 5 5/8 | 5     | 4 1/4 | 5 1/4 | 3     | 2 5/8 | 1/2 |   |   |   |   |   | 1 1/2 | 1/2 |   |   |   |   | 3.06            |
| 3    | 30 |   | 1 3/8 | 1/2 | 5/8 |   | 10 3/4 | 10 1/4 | 8     | 7 1/4 | 6     | 7 1/2 | 4 1/4 | 3 3/4 | 3/4 |   |   |   |   |   | 1 7/8 | 1/2 |   |   |   |   | 6.25            |
| 4    | 30 |   | 1 3/8 | 1/2 | 5/8 |   | 10 3/4 | 10 1/4 | 8     | 7 1/4 | 6     | 7 1/2 | 4 1/4 | 3 3/4 | 3/4 |   |   |   |   |   | 1 7/8 | 1/2 |   |   |   |   | 6.25            |
| 5    | 30 |   | 1 3/8 | 1/2 | 5/8 |   | 10 3/4 | 10 1/4 | 8     | 7 1/4 | 6     | 7 1/2 | 4 1/4 | 3 3/4 | 3/4 |   |   |   |   |   | 1 7/8 | 1/2 |   |   |   |   | 6.25            |

## STANDARD SIGN M6-1 & M6-2 SERIES

WISCONSIN DEPT OF TRANSPORTATION

APPROVED *Matthew R. Rauch*  
for State Traffic Engineer

DATE 7/29/13 PLATE NO. M6-1.13

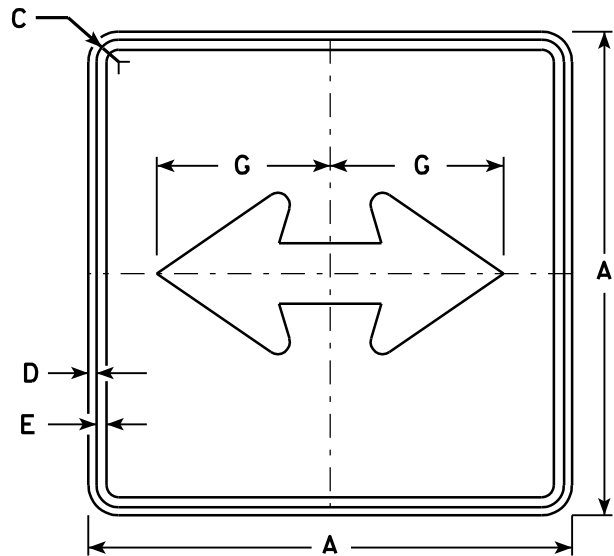
PROJECT NO:

HWY:

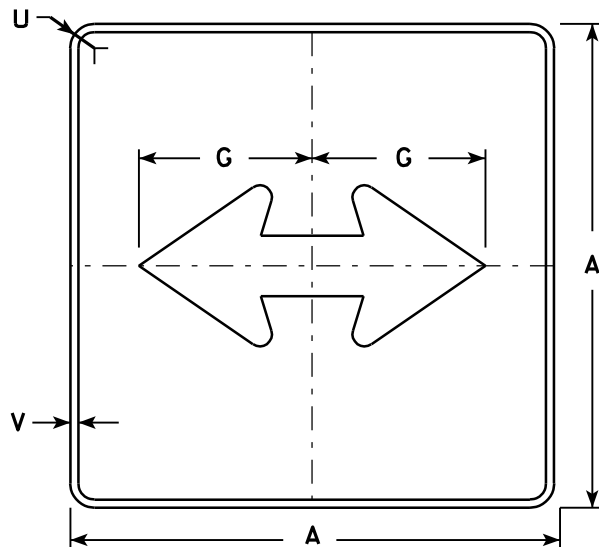
COUNTY:

SHEET NO: 115

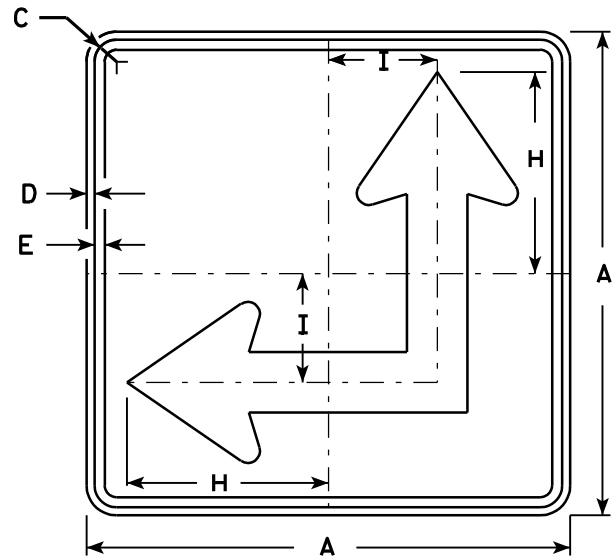
E



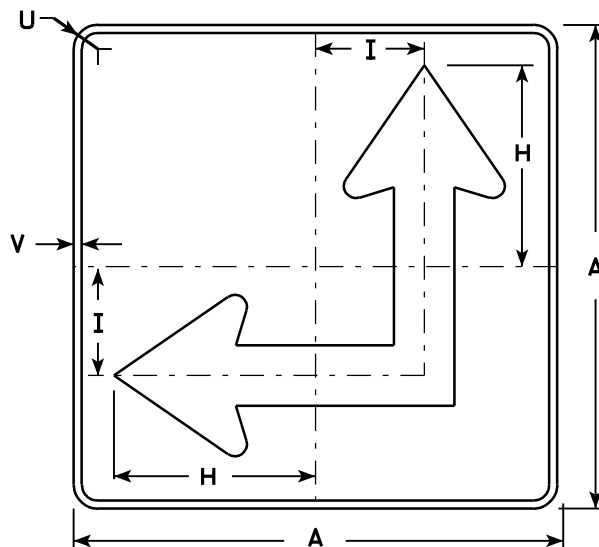
M6 - 4  
MK6 - 4  
MM6 - 4  
MO6 - 4  
MP6 - 4  
MR6 - 4



MB6 - 4  
MG6 - 4  
MN6 - 4



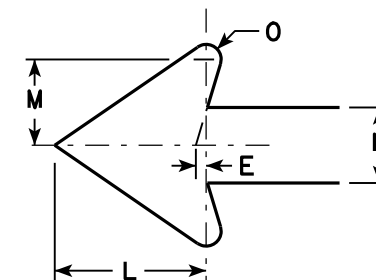
M6 - 6  
MK6 - 6  
MM6 - 6  
MO6 - 6  
MP6 - 6  
MR6 - 6



MB6 - 6  
MG6 - 6  
MN6 - 6

NOTES

- Signs are Type II - See Note 4 - reference WIS DOT Standard Specification for HIGHWAY and STRUCTURE CONSTRUCTION latest edition.
- Color:  
Background - See Note 4  
Message - See Note 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.
- M6-4 and M6-6 Background - White - Type H Reflective  
Message - Black  
MB6-4 and MB6-6 Background - Blue  
Message - White - Type H Reflective  
MG6-4 and MG6-6 Background - Green  
Message - White - Type H Reflective  
MK6-4 and MK6-6 Background - Green  
Message - White - Type H Reflective  
MM6-4 and MM6-6 Background - White - Type H Reflective  
Message - Green  
MN6-4 and MN6-6 Background - Brown  
Message - White - Type H Reflective  
MO6-4 and MO6-6 Background - Orange - Type F Reflective  
Message - Black  
MP6-4 and MP6-6 Background - White - Type H Reflective  
Message - Blue  
MR6-4 and MR6-6 Background - Brown  
Message - Yellow - Type H Reflective
- M6-6R same as M6-6L except arrow points ahead and right.



| SIZE | A  | B | C     | D   | E   | F | G      | H      | I     | J | K | L     | M     | N     | O   | P | Q | R | S | T | U     | V   | W | X | Y | Z | Area<br>sq. ft. |
|------|----|---|-------|-----|-----|---|--------|--------|-------|---|---|-------|-------|-------|-----|---|---|---|---|---|-------|-----|---|---|---|---|-----------------|
| 1    |    |   |       |     |     |   |        |        |       |   |   |       |       |       |     |   |   |   |   |   |       |     |   |   |   |   |                 |
| 2    | 21 |   | 1 1/8 | 3/8 | 3/8 |   | 7 1/2  | 8 3/4  | 4 1/4 |   |   | 5 1/4 | 3     | 2 5/8 | 1/2 |   |   |   |   |   | 1 1/2 | 1/2 |   |   |   |   | 3.06            |
| 3    | 30 |   | 1 3/8 | 1/2 | 5/8 |   | 10 3/4 | 12 1/2 | 6 3/4 |   |   | 7 1/2 | 4 1/4 | 3 3/4 | 3/4 |   |   |   |   |   | 1 7/8 | 1/2 |   |   |   |   | 6.25            |
| 4    | 30 |   | 1 3/8 | 1/2 | 5/8 |   | 10 3/4 | 12 1/2 | 6 3/4 |   |   | 7 1/2 | 4 1/4 | 3 3/4 | 3/4 |   |   |   |   |   | 1 7/8 | 1/2 |   |   |   |   | 6.25            |
| 5    | 30 |   | 1 3/8 | 1/2 | 5/8 |   | 10 3/4 | 12 1/2 | 6 3/4 |   |   | 7 1/2 | 4 1/4 | 3 3/4 | 3/4 |   |   |   |   |   | 1 7/8 | 1/2 |   |   |   |   | 6.25            |

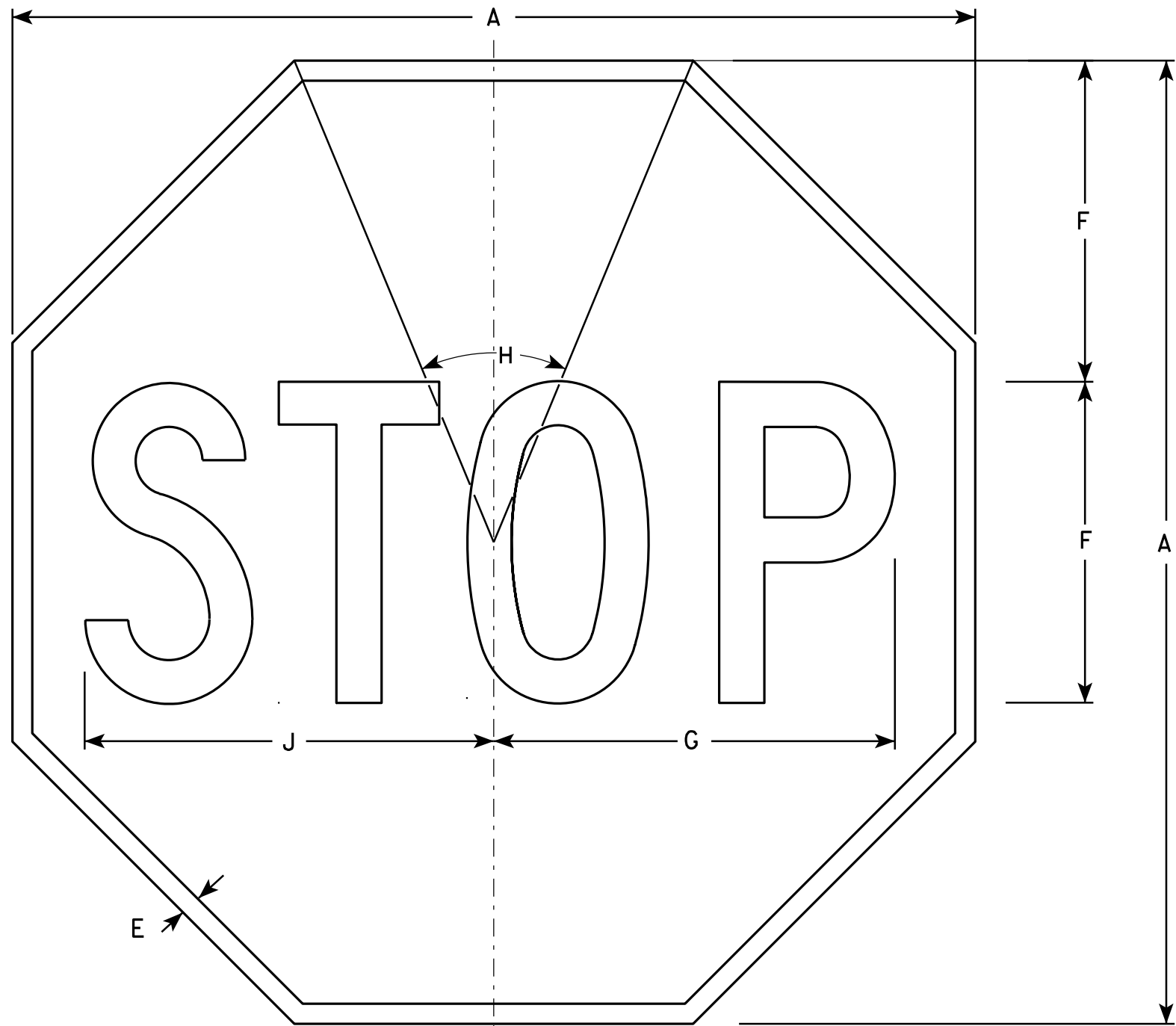
|             |      |         |  |               |   |
|-------------|------|---------|--|---------------|---|
| PROJECT NO: | HWY: | COUNTY: |  | SHEET NO: 116 | E |
|-------------|------|---------|--|---------------|---|

STANDARD SIGN  
M6 - 4 & M6 - 6  
SERIES

WISCONSIN DEPT OF TRANSPORTATION

APPROVED *Matthew R. Rauch*  
for State Traffic Engineer

DATE 7/29/13 PLATE NO. M6-4.8



**NOTES**

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

R1-1

| 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<br>sq. ft. |
|------|----|---|---|---|-----|----|--------|-----|---|--------|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|-----------------|
| 1    | 24 |   |   |   | 3/8 | 8  | 10     | 45° |   | 10 1/4 |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   | 3.31            |
| 2S   | 30 |   |   |   | 5/8 | 10 | 12 1/2 | 45° |   | 12 3/4 |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   | 5.18            |
| 2M   | 36 |   |   |   | 3/4 | 12 | 15     | 45° |   | 15 3/8 |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   | 7.46            |
| 3    | 36 |   |   |   | 3/4 | 12 | 15     | 45° |   | 15 3/8 |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   | 7.46            |
| 4    | 48 |   |   |   | 1   | 16 | 20     | 45° |   | 20 1/2 |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   | 13.25           |
| 5    | 48 |   |   |   | 1   | 16 | 20     | 45° |   | 20 1/2 |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   | 13.25           |
| 6    | 18 |   |   |   | 3/8 | 6  | 7 3/4  | 45° |   | 7 3/4  |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   | 1.86            |
| 7    | 12 |   |   |   | 1/4 | 4  | 5      | 45° |   | 5 1/8  |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   | 0.78            |

STANDARD SIGN  
R1 - 1

WISCONSIN DEPT OF TRANSPORTATION

APPROVED *Matthew R. Rauch*  
for State Traffic Engineer

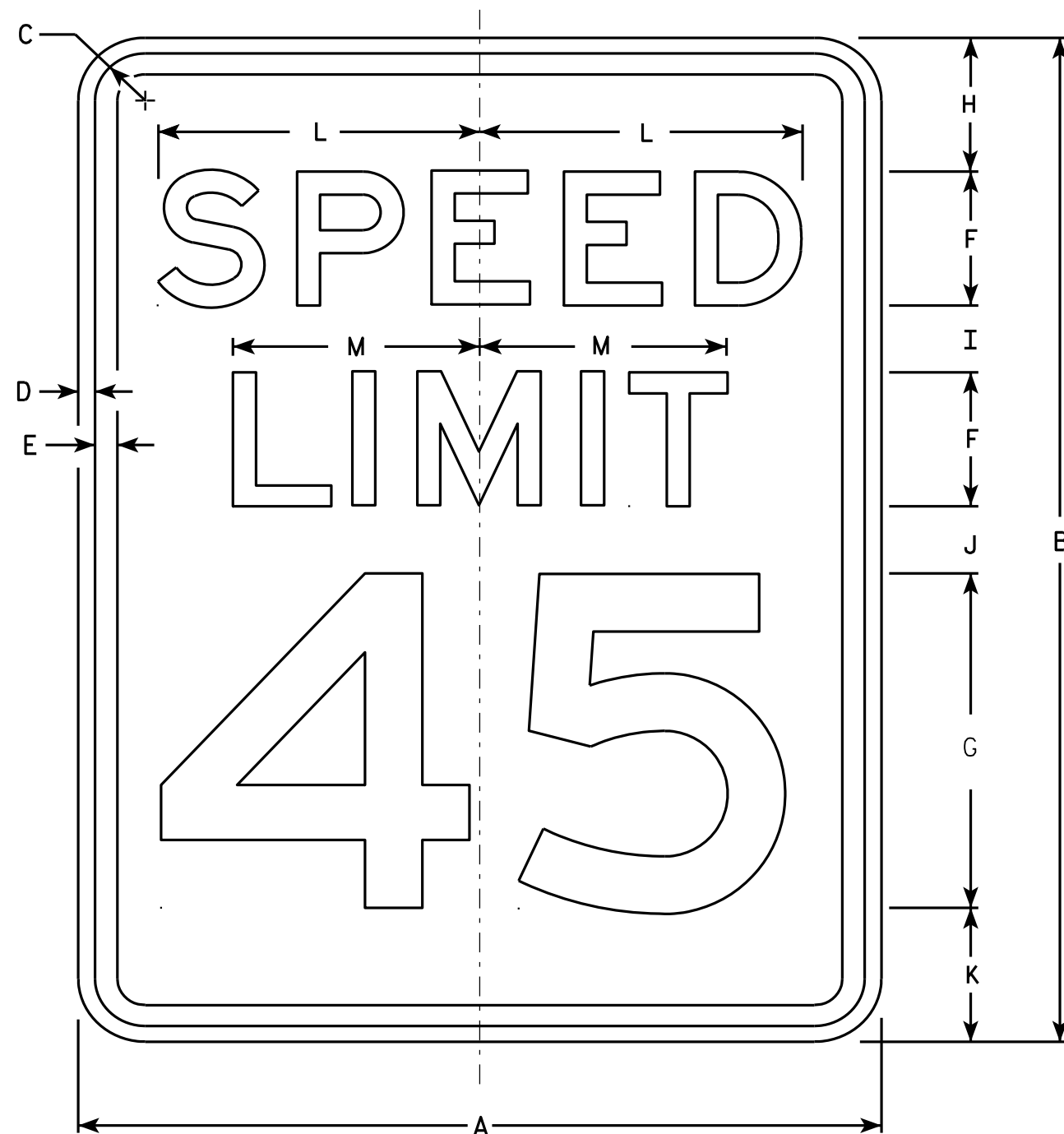
DATE 12/03/10 PLATE NO. R1-1.12

PROJECT NO:

HWY:

COUNTY:

SHEET NO: 117



R2-1

### NOTES

1. Sign is Type II - Type H Reflective - reference WIS DOT Standard Specification for HIGHWAY and STRUCTURE CONSTRUCTION latest edition.
2. Color:  
Background - White  
Message - Black
3. Message Series - E
4. Corners may be square or rounded when base material is plywood but borders shall be rounded as shown. When base material is metal, the corners and borders shall be rounded.
5. Substitute appropriate numerals and optically adjust spacing to achieve proper balance.

| SIZE | A  | B  | C     | D   | E   | F | G  | H | I     | J     | K     | L      | M      | N | O | P | Q | R | S | T | U | V | W | X | Y | Z | Area<br>sq. ft. |
|------|----|----|-------|-----|-----|---|----|---|-------|-------|-------|--------|--------|---|---|---|---|---|---|---|---|---|---|---|---|---|-----------------|
| 1    | 18 | 24 | 1 1/8 | 3/8 | 1/2 | 3 | 8  | 3 | 2     | 2     | 3     | 7 1/4  | 5 1/2  |   |   |   |   |   |   |   |   |   |   |   |   |   | 3.0             |
| 2S   | 24 | 30 | 1 1/8 | 3/8 | 1/2 | 4 | 10 | 3 | 2 1/4 | 3 3/8 | 3 3/8 | 9 5/8  | 7 3/8  |   |   |   |   |   |   |   |   |   |   |   |   |   | 5.0             |
| 2M   | 30 | 36 | 1 3/8 | 1/2 | 5/8 | 5 | 12 | 5 | 2 1/2 | 2 1/2 | 4     | 12     | 9 1/4  |   |   |   |   |   |   |   |   |   |   |   |   |   | 7.5             |
| 3    | 36 | 48 | 1 3/8 | 1/2 | 5/8 | 6 | 14 | 6 | 5     | 5     | 6     | 14 3/8 | 11     |   |   |   |   |   |   |   |   |   |   |   |   |   | 12.0            |
| 4    | 36 | 48 | 1 3/8 | 1/2 | 5/8 | 6 | 14 | 6 | 5     | 5     | 6     | 14 3/8 | 11     |   |   |   |   |   |   |   |   |   |   |   |   |   | 12.0            |
| 5    | 48 | 60 | 2 1/4 | 3/4 | 1   | 8 | 20 | 6 | 4 1/2 | 6 3/4 | 6 3/4 | 19 1/4 | 14 5/8 |   |   |   |   |   |   |   |   |   |   |   |   |   | 20.0            |

### STANDARD SIGN R2-1

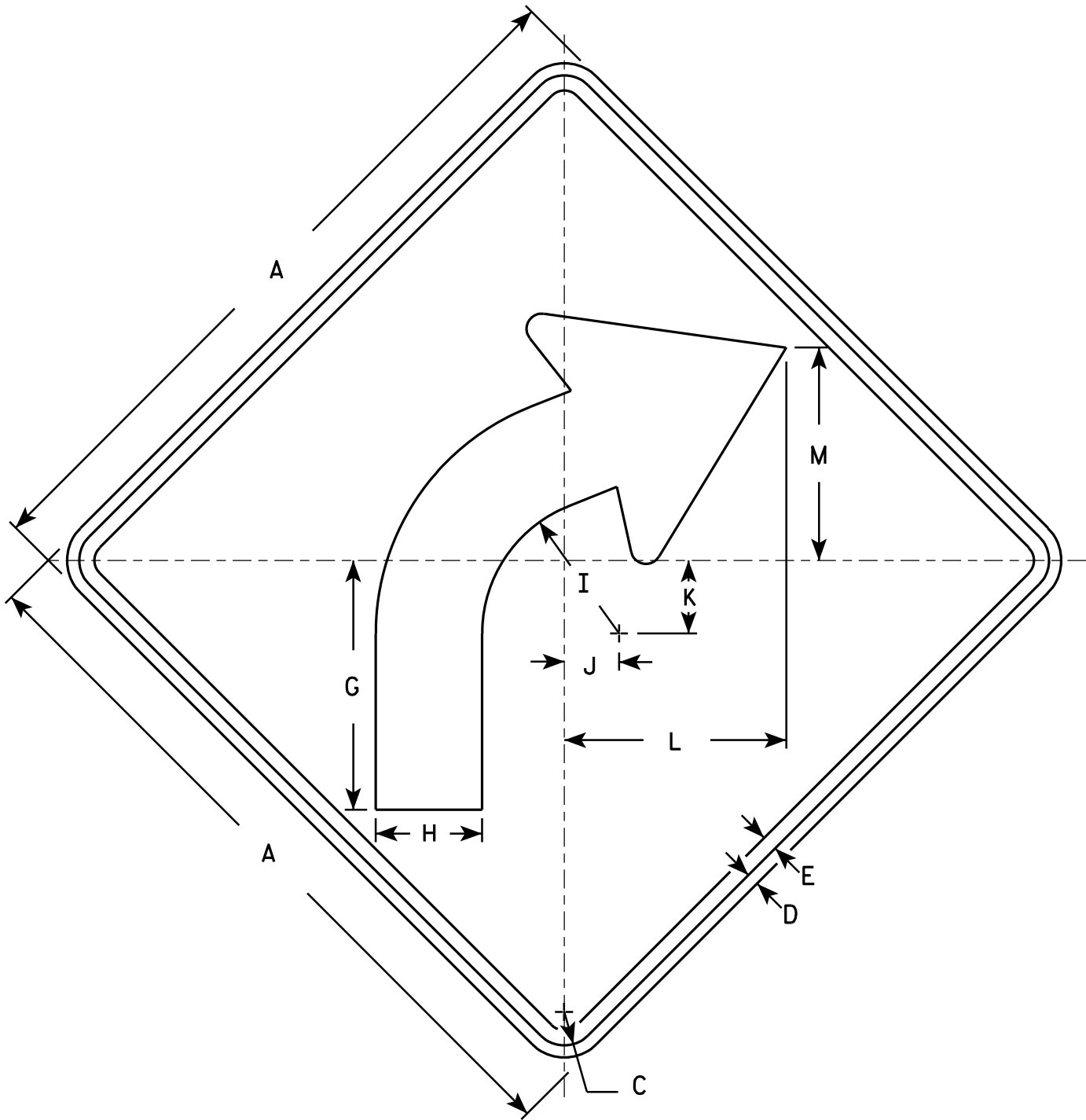
WISCONSIN DEPT OF TRANSPORTATION  
APPROVED *Matthew R. Rauch*  
For State Traffic Engineer  
DATE 5/26/10 PLATE NO. R2-1.13

PROJECT NO: HWY: COUNTY: SHEET NO: 118 E

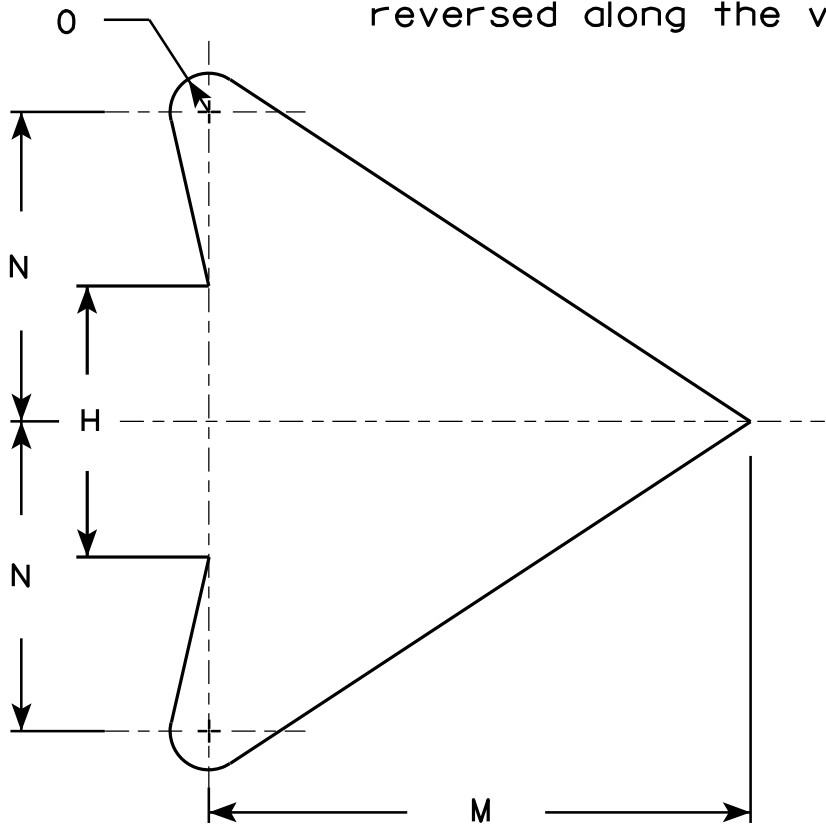


NOTES

1. Sign is Type II - Type F Reflective - reference  
WIS DOT Standard Specification for HIGHWAY  
and STRUCTURE CONSTRUCTION latest edition.
2. Color:  
Background - Yellow  
Message - Black
3. Corners may be square or rounded when base  
material is plywood but borders shall be rounded  
as shown. When base material is metal, the  
corners and borders shall be rounded.
4. W1-2L is the same as W1-2R except the arrow is  
reversed along the vertical centerline.



W1-2R



ARROW DETAIL

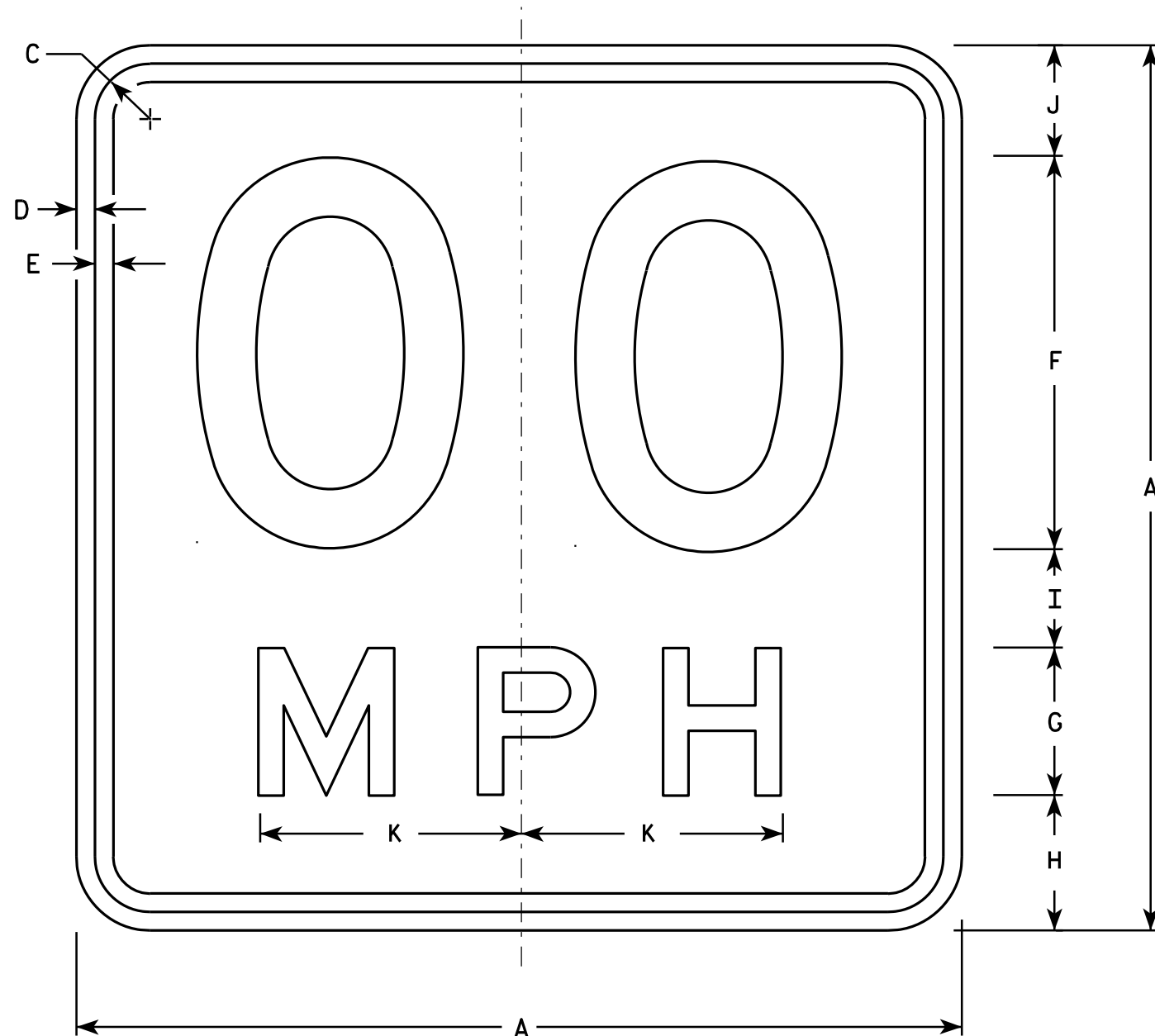
| SIZE | A  | B | C     | D   | E   | F | G      | H     | I     | J     | K     | L      | M      | N | O   | P | Q | R | S | T | U | V | W | X | Y | Z | Area<br>sq. ft. |
|------|----|---|-------|-----|-----|---|--------|-------|-------|-------|-------|--------|--------|---|-----|---|---|---|---|---|---|---|---|---|---|---|-----------------|
| 1    | 24 |   | 1 1/8 | 3/8 | 1/2 |   | 8 1/4  | 3 1/2 | 4 1/2 | 1 3/4 | 2 3/8 | 7 1/4  | 7      | 4 | 1/2 |   |   |   |   |   |   |   |   |   |   |   | 4.0             |
| 2S   | 30 |   | 1 3/8 | 1/2 | 5/8 |   | 10 1/4 | 4 3/8 | 5 5/8 | 2 1/4 | 3     | 9 1/8  | 8 3/4  | 5 | 5/8 |   |   |   |   |   |   |   |   |   |   |   | 6.25            |
| 2M   | 36 |   | 1 5/8 | 5/8 | 3/4 |   | 12 3/8 | 5 1/4 | 6 3/4 | 2 5/8 | 3 1/2 | 10 7/8 | 10 1/2 | 6 | 3/4 |   |   |   |   |   |   |   |   |   |   |   | 9.0             |
| 3    | 36 |   | 1 5/8 | 5/8 | 3/4 |   | 12 3/8 | 5 1/4 | 6 3/4 | 2 5/8 | 3 1/2 | 10 7/8 | 10 1/2 | 6 | 3/4 |   |   |   |   |   |   |   |   |   |   |   | 9.0             |
| 4    | 36 |   | 1 5/8 | 5/8 | 3/4 |   | 12 3/8 | 5 1/4 | 6 3/4 | 2 5/8 | 3 1/2 | 10 7/8 | 10 1/2 | 6 | 3/4 |   |   |   |   |   |   |   |   |   |   |   | 9.0             |
| 5    | 48 |   | 2 1/4 | 3/4 | 1   |   | 16 1/2 | 7     | 9     | 3 1/2 | 4 5/8 | 14 1/2 | 14     | 8 | 1   |   |   |   |   |   |   |   |   |   |   |   | 16.0            |

STANDARD SIGN  
W1-2

WISCONSIN DEPT OF TRANSPORTATION

APPROVED  
*Matthew R. Rauch*  
for State Traffic Engineer

DATE 5/15/12 PLATE NO. W1-2.10



### NOTES

1. Sign is Type II - Type F Reflective - reference WIS DOT Standard Specification for HIGHWAY and STRUCTURE CONSTRUCTION latest edition.
2. Color:  
Background - Yellow  
Message - Black
3. Message Series - See Note 6
4. Corners may be square or rounded when base material is plywood but borders shall be rounded as shown. When base material is metal, the corners and borders shall be rounded.
5. Substitute appropriate numerals and optically space about centerline to achieve proper balance.
6. Line 1 is Series D  
Line 2 is Series E

W13-1

- \* For 30" x 30" Warning Signs, use 18" x 18" W13-1 signs.  
For 36" x 36" Warning Signs, use 24" x 24" W13-1 signs.

| 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<br>sq. ft. |
|------|----|---|-------|-----|-----|----|---|-------|-------|-------|--------|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|-----------------|
| 1    | 18 |   | 1 1/8 | 3/8 | 3/8 | 8  | 3 | 2 3/4 | 2     | 2 1/4 | 5 3/8  |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   | 2.25            |
| * 2S | 18 |   | 1 1/8 | 3/8 | 3/8 | 8  | 3 | 2 3/4 | 2     | 2 1/4 | 5 3/8  |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   | 2.25            |
| * 2M | 18 |   | 1 1/8 | 3/8 | 3/8 | 8  | 3 | 2 3/4 | 2     | 2 1/4 | 5 3/8  |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   | 2.25            |
| 3    | 24 |   | 1 1/8 | 3/8 | 1/2 | 10 | 4 | 4     | 2 3/4 | 3 1/4 | 6 5/8  |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   | 4.00            |
| 4    | 36 |   | 1 5/8 | 5/8 | 3/4 | 16 | 6 | 5 1/2 | 4     | 4 1/2 | 10 5/8 |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   | 9.00            |
| 5    | 36 |   | 1 5/8 | 5/8 | 3/4 | 16 | 6 | 5 1/2 | 4     | 4 1/2 | 10 5/8 |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   | 9.00            |

### STANDARD SIGN

W13-1

WISCONSIN DEPT OF TRANSPORTATION

APPROVED *Matthew R. Rauch*  
For State Traffic Engineer

DATE 5/31/12 PLATE NO. W13-1.16

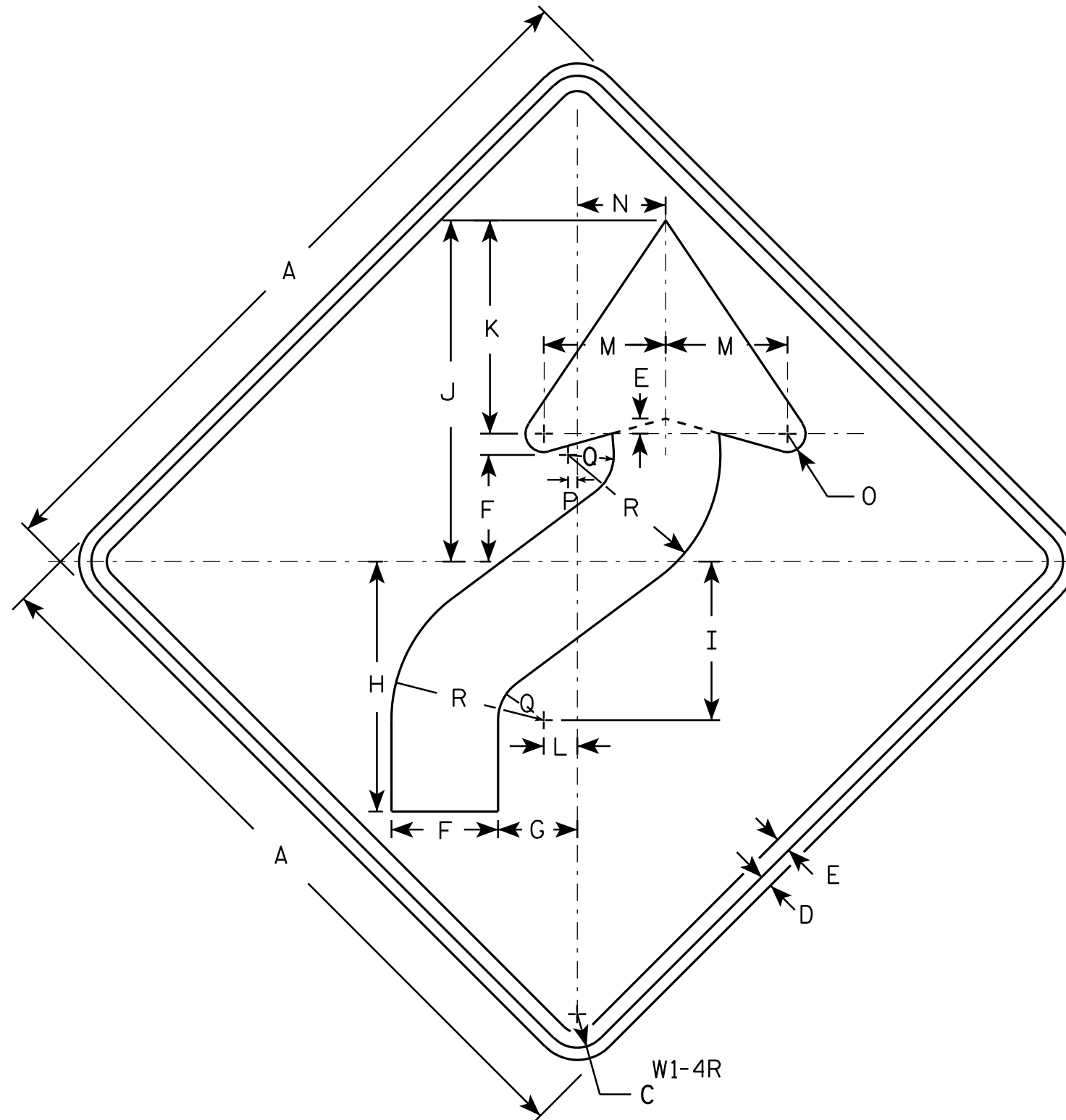
PROJECT NO:

HWY:

COUNTY:

SHEET NO: 121

E



# NOTES

- Sign is Type II - Type F Reflective - reference WIS DOT Standard Specification for HIGHWAY and STRUCTURE CONSTRUCTION latest edition.
- Color:  
Background - Yellow  
Message - Black
- 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.
- W1-4L is the same as W1-4R except the arrow is reversed along the vertical centerline.

| SIZE | A  | B | C     | D   | E   | F     | G     | H      | I      | J      | K      | L     | M | N     | O     | P   | Q     | R     | S | T | U | V | W | X | Y | Z | Area<br>sq. ft. |
|------|----|---|-------|-----|-----|-------|-------|--------|--------|--------|--------|-------|---|-------|-------|-----|-------|-------|---|---|---|---|---|---|---|---|-----------------|
| 1    | 24 |   | 1 1/8 | 3/8 | 1/2 | 3 1/2 | 2 5/8 | 8 1/4  | 5 1/4  | 11 1/4 | 7      | 1 1/8 | 4 | 3     | 5/8   | 1/4 | 1 1/2 | 5     |   |   |   |   |   |   |   |   | 4.0             |
| 2S   | 30 |   | 1 3/8 | 1/2 | 5/8 | 4 3/8 | 3 1/4 | 10 1/4 | 6 1/2  | 14     | 8 3/4  | 1 3/8 | 5 | 3 5/8 | 3/4   | 3/8 | 1 7/8 | 6 1/4 |   |   |   |   |   |   |   |   | 6.25            |
| 2M   | 36 |   | 1 5/8 | 5/8 | 3/4 | 5 1/4 | 4     | 12 3/8 | 7 7/8  | 16 7/8 | 10 1/2 | 1 5/8 | 6 | 4 1/2 | 1     | 1/2 | 2 1/4 | 7 1/2 |   |   |   |   |   |   |   |   | 9.0             |
| 3    | 36 |   | 1 5/8 | 5/8 | 3/4 | 5 1/4 | 4     | 12 3/8 | 7 7/8  | 16 7/8 | 10 1/2 | 1 5/8 | 6 | 4 1/2 | 1     | 1/2 | 2 1/4 | 7 1/2 |   |   |   |   |   |   |   |   | 9.0             |
| 4    | 36 |   | 1 5/8 | 5/8 | 3/4 | 5 1/4 | 4     | 12 3/8 | 7 7/8  | 16 7/8 | 10 1/2 | 1 5/8 | 6 | 4 1/2 | 1     | 1/2 | 2 1/4 | 7 1/2 |   |   |   |   |   |   |   |   | 9.0             |
| 5    | 48 |   | 2 1/4 | 3/4 | 1   | 7     | 5 1/4 | 16 1/2 | 10 1/2 | 22 1/2 | 14     | 2 1/4 | 8 | 6     | 1 1/4 | 5/8 | 3     | 10    |   |   |   |   |   |   |   |   | 16.0            |

## STANDARD SIGN

W1 - 4

WISCONSIN DEPT OF TRANSPORTATION

APPROVED *Matthew R. Rauch*  
for State Traffic Engineer

DATE 5/17/12 PLATE NO. W1-4.11

PROJECT NO:

HWY:

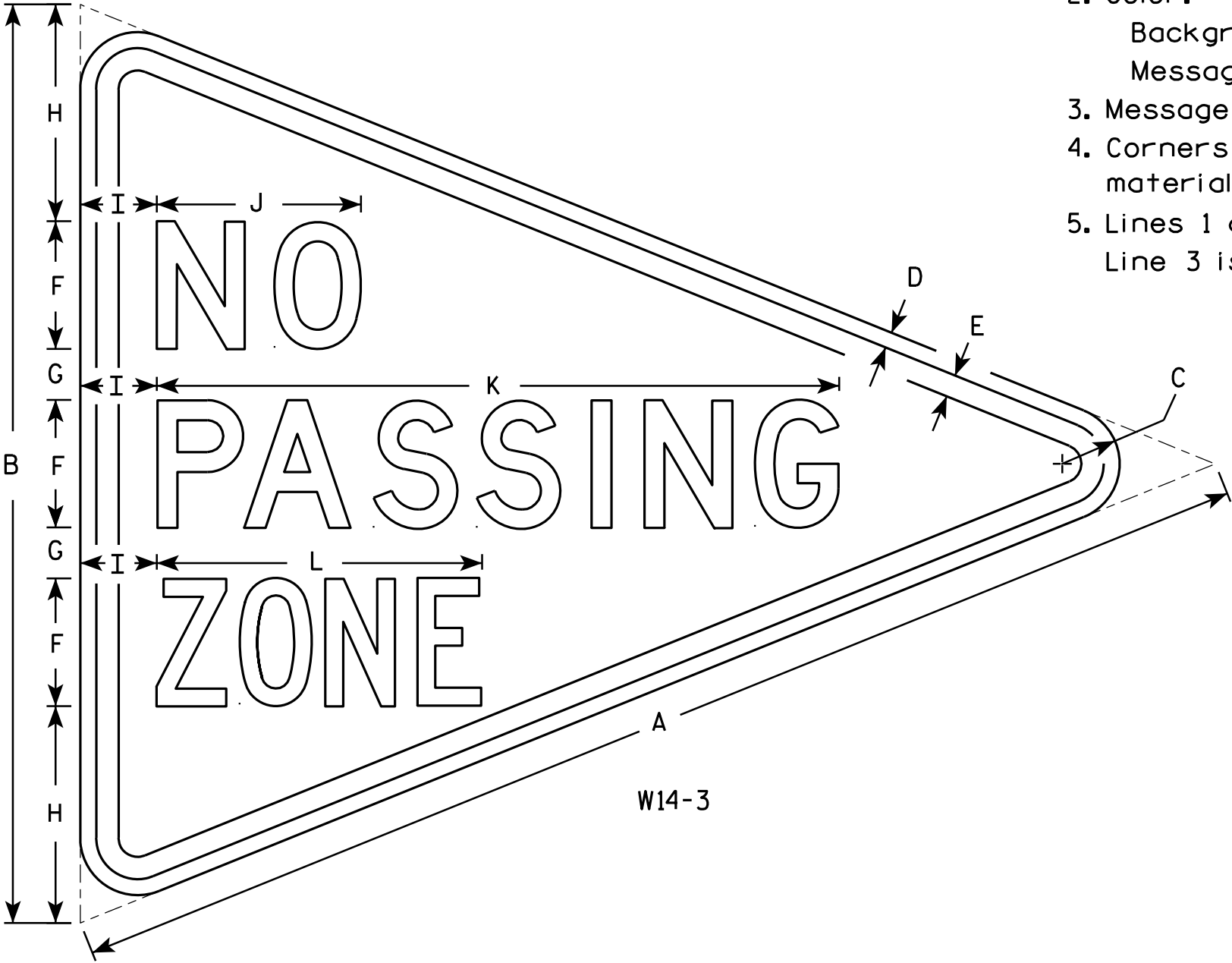
COUNTY:

SHEET NO: 122

E

NOTES

- 1. Sign is Type II - Type F Reflective - reference WIS DOT Standard Specification for HIGHWAY and STRUCTURE CONSTRUCTION latest edition.
- 2. Color:  
Background - Yellow  
Message - Black
- 3. Message Series - See note 5
- 4. Corners and borders shall be rounded on all base materials for this sign.
- 5. Lines 1 and 2 are Series D.  
Line 3 is series C.



W14-3

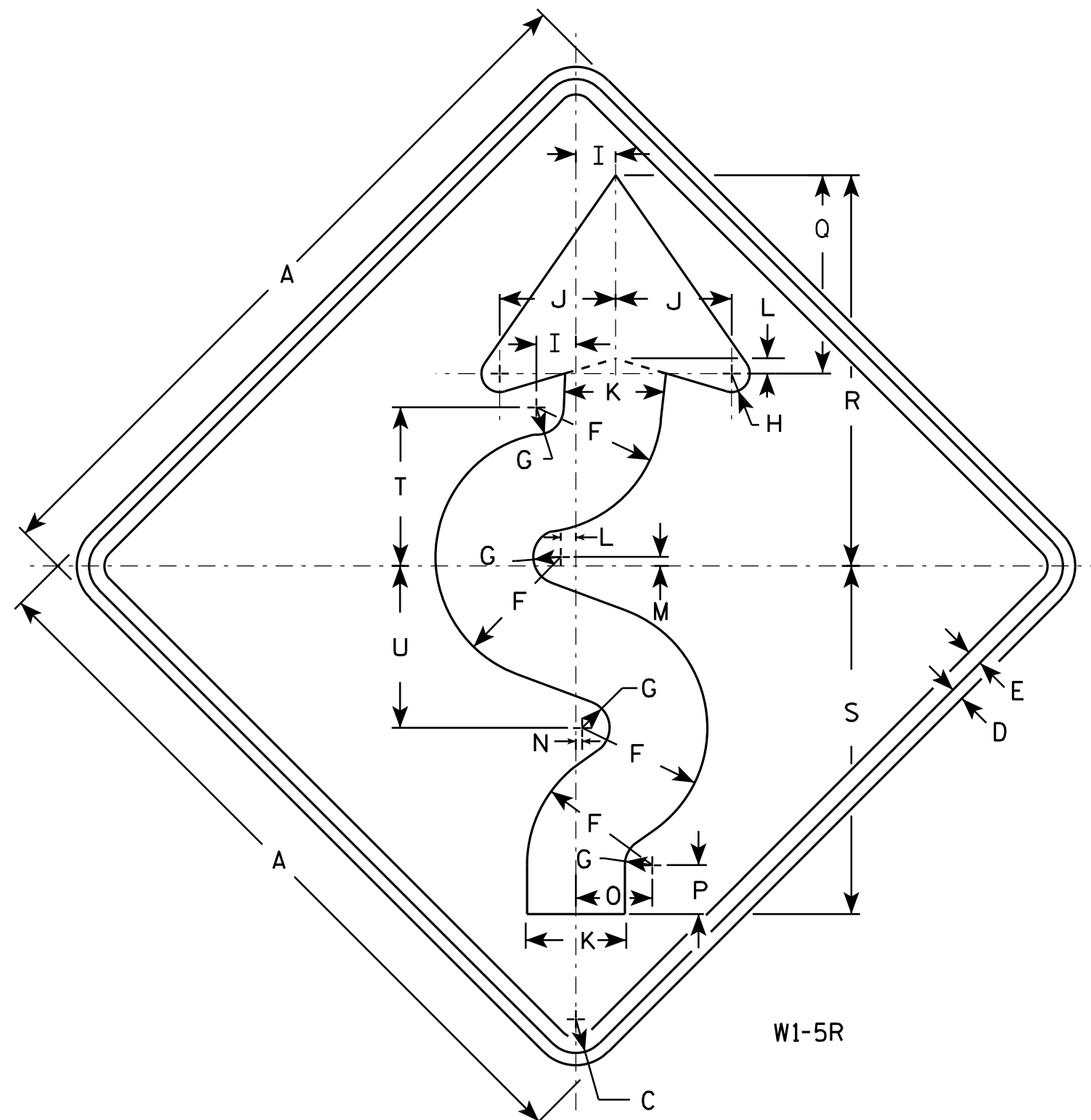
| SIZE | A  | B  | C     | D   | E     | F | G | H     | I | J      | K      | L      | M | N | O | P | Q | R | S | T | U | V | W | X | Y | Z | Area<br>sq. ft. |
|------|----|----|-------|-----|-------|---|---|-------|---|--------|--------|--------|---|---|---|---|---|---|---|---|---|---|---|---|---|---|-----------------|
| 1    |    |    |       |     |       |   |   |       |   |        |        |        |   |   |   |   |   |   |   |   |   |   |   |   |   |   |                 |
| 2S   | 48 | 36 | 2 1/4 | 5/8 | 7/8   | 5 | 2 | 8 1/2 | 3 | 8      | 26 3/4 | 12 3/4 |   |   |   |   |   |   |   |   |   |   |   |   |   |   | 6.0             |
| 2M   | 48 | 36 | 2 1/4 | 5/8 | 7/8   | 5 | 2 | 8 1/2 | 3 | 8      | 26 3/4 | 12 3/4 |   |   |   |   |   |   |   |   |   |   |   |   |   |   | 6.0             |
| 3    | 64 | 48 | 3     | 3/4 | 1 1/4 | 6 | 3 | 12    | 4 | 10 3/4 | 33 5/8 | 16 1/2 |   |   |   |   |   |   |   |   |   |   |   |   |   |   | 10.7            |
| 4    |    |    |       |     |       |   |   |       |   |        |        |        |   |   |   |   |   |   |   |   |   |   |   |   |   |   |                 |
| 5    |    |    |       |     |       |   |   |       |   |        |        |        |   |   |   |   |   |   |   |   |   |   |   |   |   |   |                 |

STANDARD SIGN  
W14-3

WISCONSIN DEPT OF TRANSPORTATION

APPROVED *Matthew R. Rauch*  
For State Traffic Engineer

DATE 6/7/10 PLATE NO. W14-3.9



# NOTES

- Sign is Type II - Type F Reflective - reference WIS DOT Standard Specification for HIGHWAY and STRUCTURE CONSTRUCTION latest edition.
- Color:  
Background - Yellow  
Message - Black
- 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.
- W1-5L is the same as W1-5R except the arrow is reversed along the vertical centerline.

W1-5R

| SIZE | A  | B | C     | D   | E   | F     | G     | H     | I     | J     | K     | L   | M   | N   | O     | P     | O     | R      | S      | T      | U      | V | W | X | Y | Z | Area<br>sq. ft. |
|------|----|---|-------|-----|-----|-------|-------|-------|-------|-------|-------|-----|-----|-----|-------|-------|-------|--------|--------|--------|--------|---|---|---|---|---|-----------------|
| 1    | 24 |   | 1 1/8 | 3/8 | 1/2 | 4 1/8 | 7/8   | 5/8   | 1 1/4 | 3 3/4 | 3 1/4 | 1/2 | 1/4 | 1/8 | 2 1/2 | 1 5/8 | 6 1/2 | 12 3/4 | 11 3/8 | 5 1/4  | 5 1/4  |   |   |   |   |   | 4.0             |
| 2S   | 30 |   | 1 3/8 | 1/2 | 5/8 | 5 1/8 | 1 1/8 | 3/4   | 1 5/8 | 4 3/4 | 4 1/8 | 5/8 | 3/8 | 1/4 | 3 1/8 | 2     | 8 1/8 | 16     | 14 1/4 | 6 1/2  | 6 5/8  |   |   |   |   |   | 6.25            |
| 2M   | 36 |   | 1 5/8 | 5/8 | 3/4 | 6 1/4 | 1 3/8 | 1     | 1 7/8 | 5 5/8 | 4 7/8 | 3/4 | 3/8 | 1/4 | 3 3/4 | 2 7/8 | 9 3/4 | 19 1/8 | 17 1/8 | 7 3/4  | 7 7/8  |   |   |   |   |   | 9.0             |
| 3    | 36 |   | 1 5/8 | 5/8 | 3/4 | 6 1/4 | 1 3/8 | 1     | 1 7/8 | 5 5/8 | 4 7/8 | 3/4 | 3/8 | 1/4 | 3 3/4 | 2 7/8 | 9 3/4 | 19 1/8 | 17 1/8 | 7 3/4  | 7 7/8  |   |   |   |   |   | 9.0             |
| 4    | 36 |   | 1 5/8 | 5/8 | 3/4 | 6 1/4 | 1 3/8 | 1     | 1 7/8 | 5 5/8 | 4 7/8 | 3/4 | 3/8 | 1/4 | 3 3/4 | 2 7/8 | 9 3/4 | 19 1/8 | 17 1/8 | 7 3/4  | 7 7/8  |   |   |   |   |   | 9.0             |
| 5    | 48 |   | 2 1/4 | 3/4 | 1   | 8 1/4 | 1 3/4 | 1 1/4 | 2 1/2 | 7 1/2 | 6 1/2 | 1   | 1/2 | 3/8 | 5     | 3 1/4 | 13    | 25 1/2 | 22 3/4 | 10 3/8 | 10 1/2 |   |   |   |   |   | 16.0            |

## STANDARD SIGN W1-5

WISCONSIN DEPT OF TRANSPORTATION

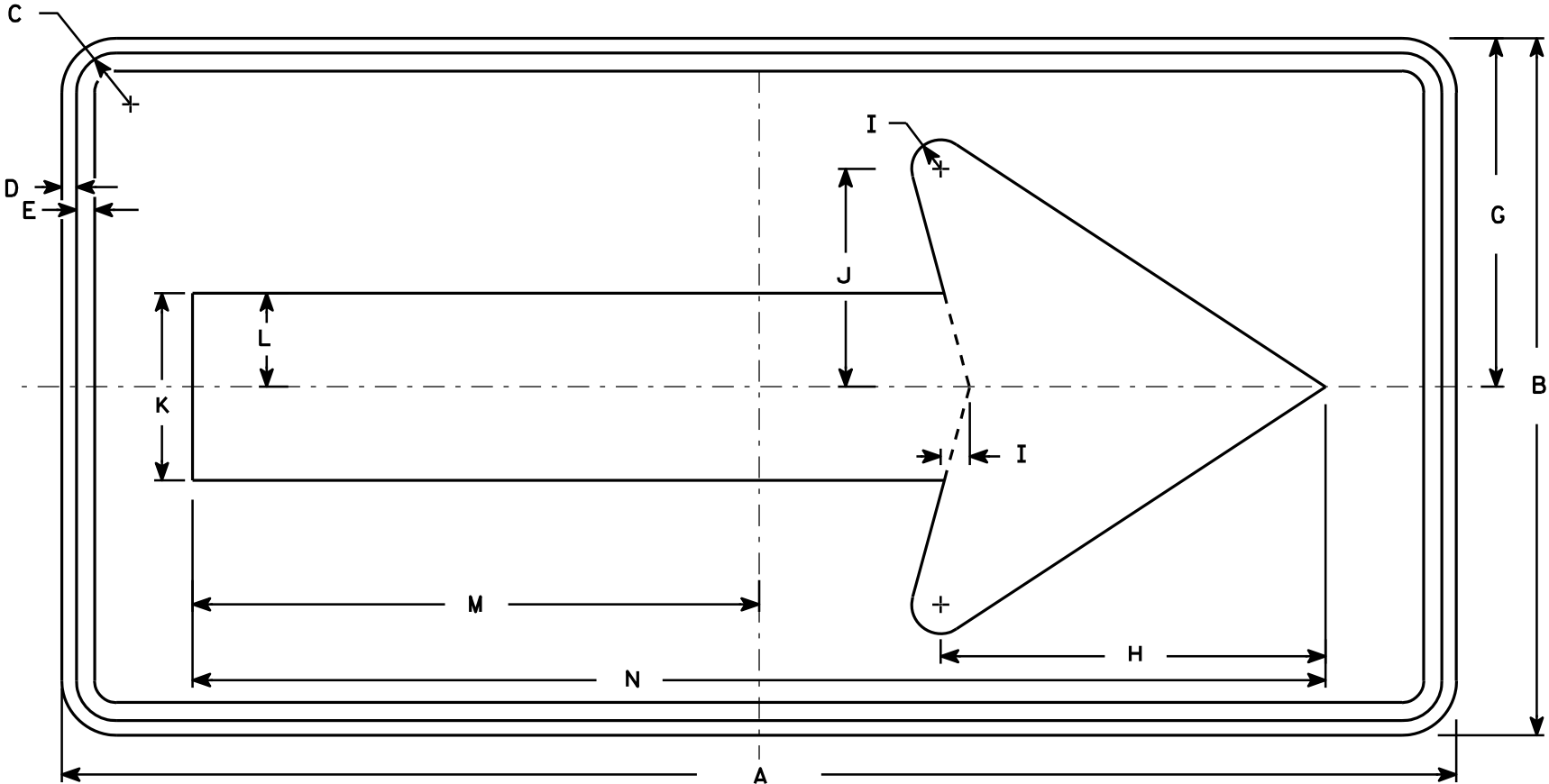
APPROVED  
*Matthew R. Rauch*  
for State Traffic Engineer

DATE 5/18/12 PLATE NO. W1-5.8

PROJECT NO: HWY: COUNTY: SHEET NO: 124 E

NOTES

- 1. Sign is Type II - Type F Reflective - reference WIS DOT Standard Specification for HIGHWAY and STRUCTURE CONSTRUCTION latest edition.
- 2. Color:  
Background - Yellow  
Message - Black
- 3. Corners may be square or rounded when base material is plywood but borders shall be rounded as shown. When base material is metal, the corners and borders shall be rounded.



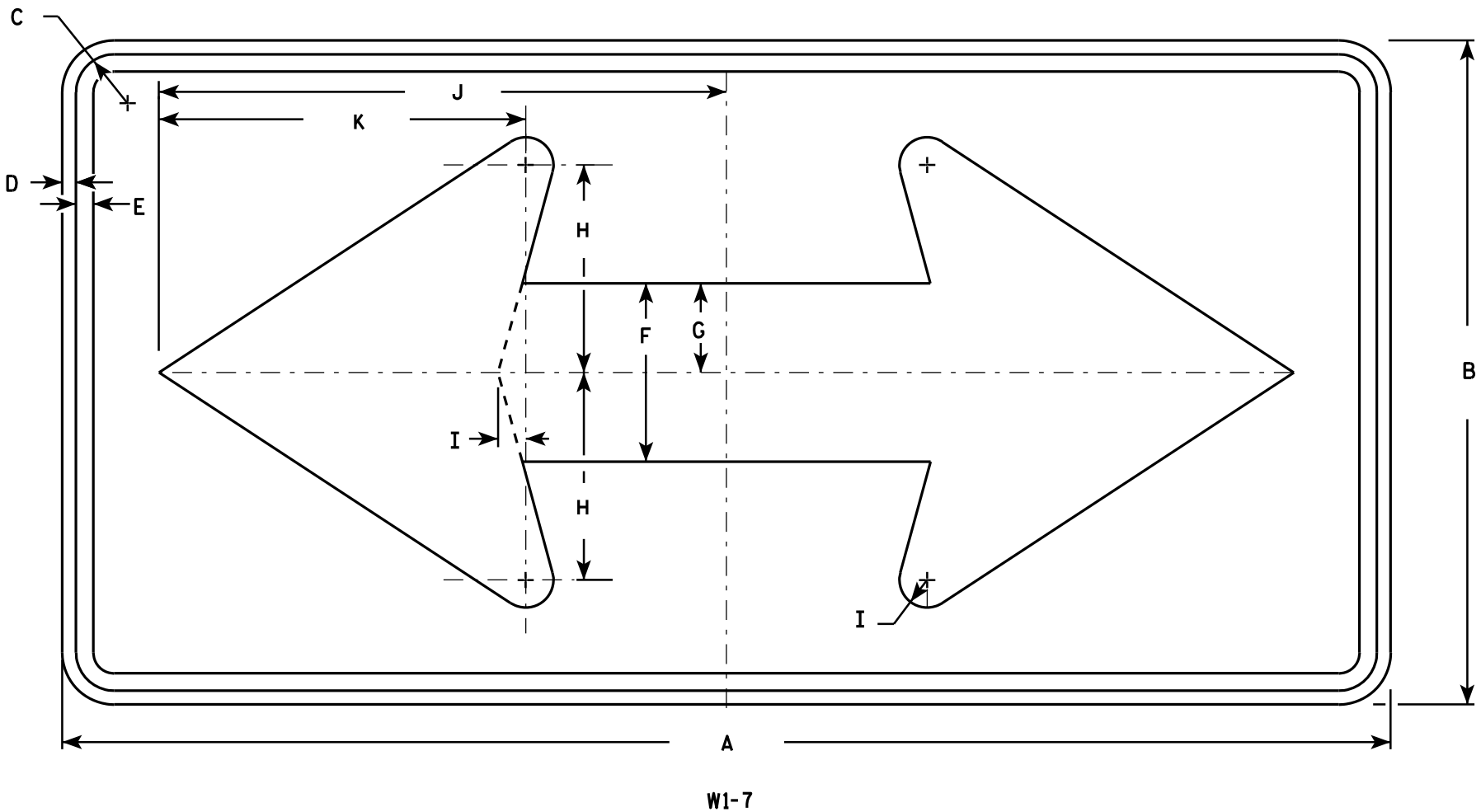
W1-6

| 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<br>sq. ft. |
|------|----|----|-------|-----|-----|---|----|--------|-------|-------|-------|-------|--------|--------|---|---|---|---|---|---|---|---|---|---|---|---|-----------------|
| 1    | 36 | 18 | 1 1/8 | 3/8 | 3/8 |   | 9  | 10     | 3/4   | 5 5/8 | 4 3/4 | 2 3/8 | 14 5/8 | 29 1/4 |   |   |   |   |   |   |   |   |   |   |   |   | 4.5             |
| 2S   | 48 | 24 | 1 3/8 | 1/2 | 5/8 |   | 12 | 13 1/4 | 1     | 7 1/2 | 6 1/2 | 3 1/4 | 19 1/2 | 39     |   |   |   |   |   |   |   |   |   |   |   |   | 8.0             |
| 2M   | 48 | 24 | 1 3/8 | 1/2 | 5/8 |   | 12 | 13 1/4 | 1     | 7 1/2 | 6 1/2 | 3 1/4 | 19 1/2 | 39     |   |   |   |   |   |   |   |   |   |   |   |   | 8.0             |
| 3    | 60 | 30 | 1 3/8 | 1/2 | 5/8 |   | 15 | 16 1/4 | 1 1/4 | 9 1/4 | 8     | 4     | 24 3/8 | 48 3/4 |   |   |   |   |   |   |   |   |   |   |   |   | 12.5            |
| 4    | 60 | 30 | 1 3/8 | 1/2 | 5/8 |   | 15 | 16 1/4 | 1 1/4 | 9 1/4 | 8     | 4     | 24 3/8 | 48 3/4 |   |   |   |   |   |   |   |   |   |   |   |   | 12.5            |
| 5    | 96 | 48 | 2 1/4 | 3/4 | 1   |   | 24 | 26 1/2 | 2     | 15    | 13    | 6 1/2 | 39     | 78     |   |   |   |   |   |   |   |   |   |   |   |   | 32.0            |

STANDARD SIGN  
W1-6

WISCONSIN DEPT OF TRANSPORTATION

APPROVED *Matthew R. Rauch*  
for State Traffic Engineer  
DATE 6/7/10 PLATE NO. W1-6.8



NOTES

- 1. Sign is Type II - Type F Reflective - reference WIS DOT Standard Specification for HIGHWAY and STRUCTURE CONSTRUCTION latest edition.
- 2. Color:  
Background - Yellow  
Message - Black
- 3. Corners may be square or rounded when base material is plywood but borders shall be rounded as shown. When base material is metal, the corners and borders shall be rounded.

| SIZE | A  | B  | C     | D   | E   | F     | G     | H     | I     | J      | K      | L | M | N | O | P | Q | R | S | T | U | V | W | X | Y | Z | Area<br>sq. ft. |
|------|----|----|-------|-----|-----|-------|-------|-------|-------|--------|--------|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|-----------------|
| 1    | 36 | 18 | 1 1/8 | 3/8 | 1/2 | 5     | 2 1/2 | 5 3/4 | 3/4   | 15 5/8 | 10 1/8 |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   | 4.5             |
| 2S   | 48 | 24 | 1 3/8 | 1/2 | 5/8 | 6 1/2 | 3 1/4 | 7 1/2 | 1     | 20 1/2 | 13 1/4 |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   | 8.0             |
| 2M   | 48 | 24 | 1 3/8 | 1/2 | 5/8 | 6 1/2 | 3 1/4 | 7 1/2 | 1     | 20 1/2 | 13 1/4 |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   | 8.0             |
| 3    | 60 | 30 | 1 3/8 | 1/2 | 5/8 | 8     | 4     | 9 1/4 | 1 1/4 | 25 3/8 | 16 1/4 |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   | 12.5            |
| 4    | 60 | 30 | 1 3/8 | 1/2 | 5/8 | 8     | 4     | 9 1/4 | 1 1/4 | 25 3/8 | 16 1/4 |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   | 12.5            |
| 5    | 96 | 48 | 2 1/4 | 3/4 | 1   | 13    | 6 1/2 | 15    | 2     | 41     | 26 1/2 |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   | 32.0            |

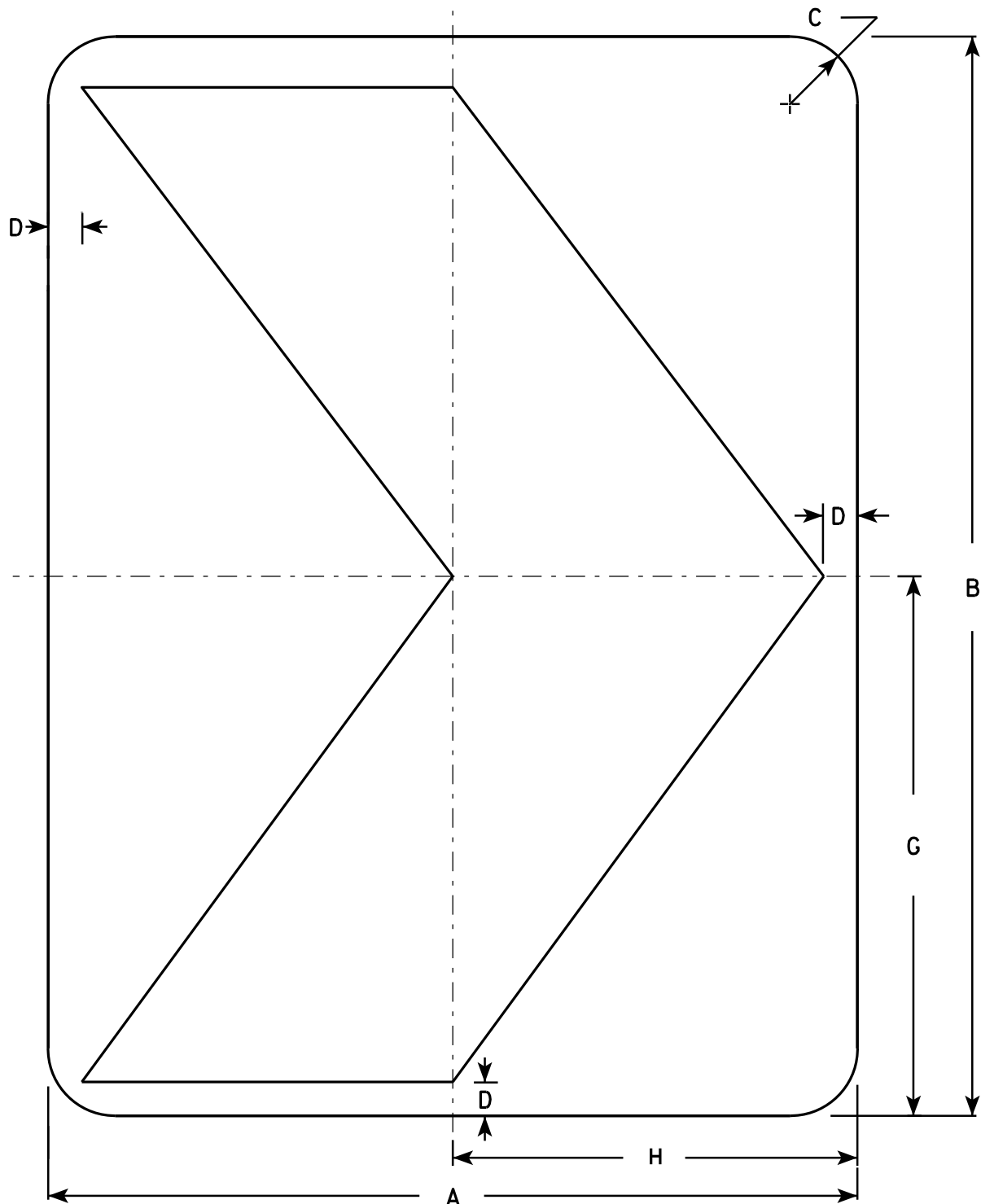
STANDARD SIGN

W1 - 7

WISCONSIN DEPT OF TRANSPORTATION

APPROVED *Matthew R. Rauch*  
for State Traffic Engineer

DATE 6/7/10 PLATE NO. W1-7.7



W1-8

### NOTES

1. Sign is Type II - Type F Reflective - reference WIS DOT Standard Specification for HIGHWAY and STRUCTURE CONSTRUCTION latest edition.
2. Color:  
Background - Yellow  
Message - Black
3. Corners may be square or rounded when base material is plywood but borders shall be rounded as shown. When base material is metal, the corners and borders shall be rounded.

| SIZE | A  | B  | C     | D     | E | F | G  | H  | I | J | K | L | M | N | O | P | Q | R | S | T | U | V | W | X | Y | Z | Area<br>sq. ft. |
|------|----|----|-------|-------|---|---|----|----|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|-----------------|
| 1    | 12 | 18 | 1 1/2 | 1/2   |   |   | 9  | 6  |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   | 1.5             |
| 2S   | 18 | 24 | 1 1/2 | 3/4   |   |   | 12 | 9  |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   | 3.0             |
| 2M   | 18 | 24 | 1 1/2 | 3/4   |   |   | 12 | 9  |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   | 3.0             |
| 3    | 24 | 30 | 1 1/2 | 1     |   |   | 15 | 12 |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   | 5.0             |
| 4    | 30 | 36 | 1 7/8 | 1 1/4 |   |   | 18 | 15 |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   | 7.5             |
| 5    | 36 | 48 | 2 1/4 | 1 1/2 |   |   | 24 | 18 |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   | 12.0            |

### STANDARD SIGN

W1-8

WISCONSIN DEPT OF TRANSPORTATION

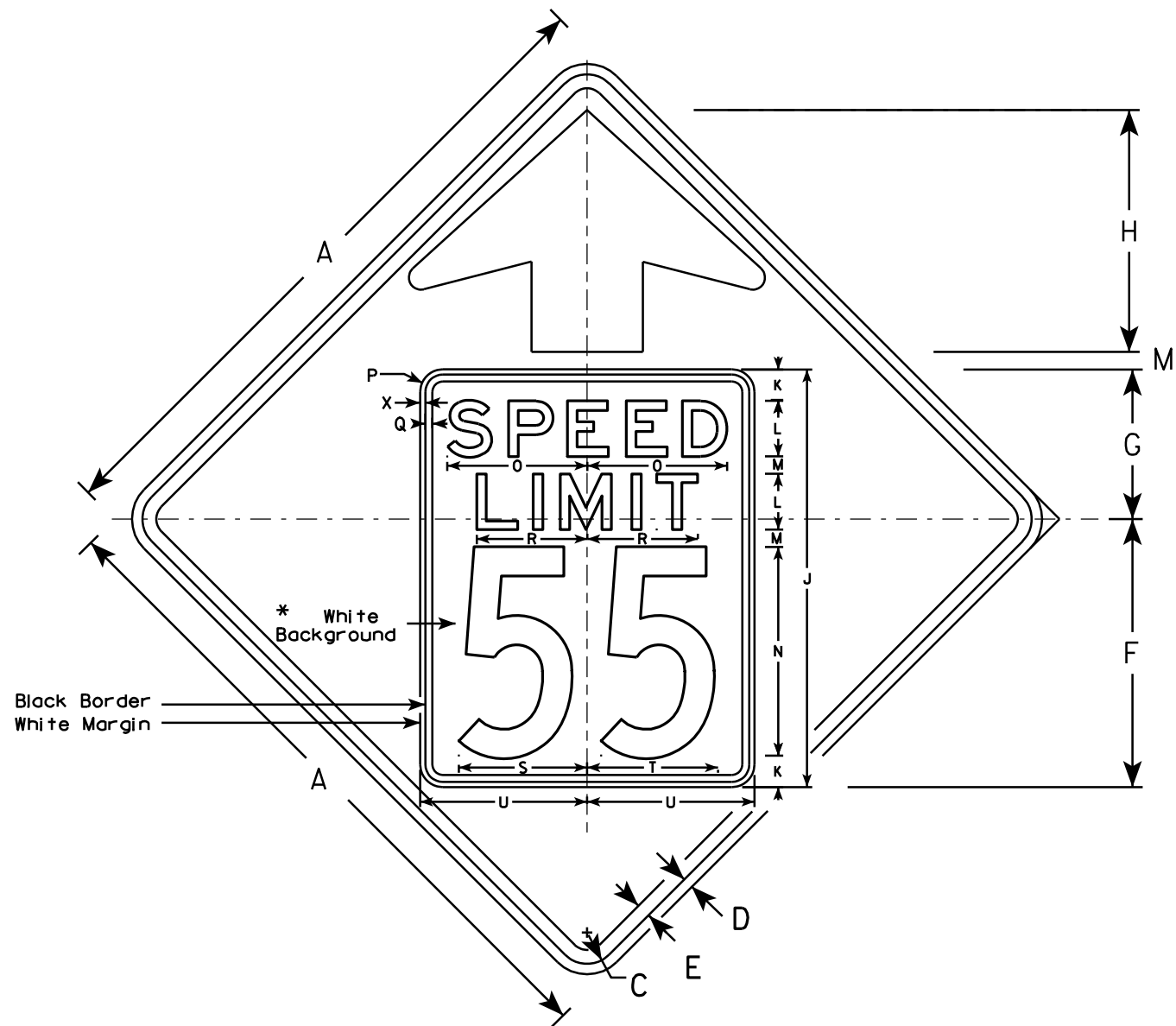
APPROVED *Matthew R. Rauch*  
for State Traffic Engineer

DATE 6/7/10 PLATE NO. W1-8.6

PROJECT NO:

SHEET NO: 127

E

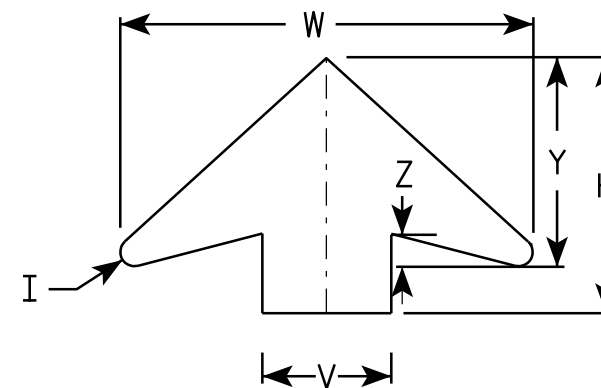


W3-5

### NOTES

1. Sign is Type II - Type F Reflective - reference WIS DOT Standard Specification for HIGHWAY and STRUCTURE CONSTRUCTION latest edition.
2. Color: \*  
Background - YELLOW\*  
Message - BLACK
3. Message Series - C for numbers Series E for wording
4. Substitute appropriate numerals and optically adjust spacing to achieve proper balance

\*Speed Limit Sign shall have a White Background



ARROW DETAIL

| SIZE | A  | B | C     | D   | E   | F      | G      | H      | I   | J  | K     | L | M     | N  | O     | P     | Q   | R     | S     | T     | U  | V | W      | X   | Y     | Z     | Area<br>sq. ft. |
|------|----|---|-------|-----|-----|--------|--------|--------|-----|----|-------|---|-------|----|-------|-------|-----|-------|-------|-------|----|---|--------|-----|-------|-------|-----------------|
| 1    |    |   |       |     |     |        |        |        |     |    |       |   |       |    |       |       |     |       |       |       |    |   |        |     |       |       |                 |
| 2S   | 36 |   | 1 5⁄8 | 5⁄8 | 3⁄4 | 14 1⁄2 | 9 1⁄2  | 11 1⁄2 | 5⁄8 | 24 | 2     | 3 | 1     | 12 | 7 1⁄8 | 1 1⁄2 | 3⁄8 | 5 3⁄4 | 7 1⁄4 | 7 1⁄8 | 9  | 6 | 19 1⁄4 | 3⁄8 | 9 3⁄4 | 1 5⁄8 | 9.0             |
| 2M   | 36 |   | 1 5⁄8 | 5⁄8 | 3⁄4 | 14 1⁄2 | 9 1⁄2  | 11 1⁄2 | 5⁄8 | 24 | 2     | 3 | 1     | 12 | 7 1⁄8 | 1 1⁄2 | 3⁄8 | 5 3⁄4 | 7 1⁄4 | 7 1⁄8 | 9  | 6 | 19 1⁄4 | 3⁄8 | 9 3⁄4 | 1 5⁄8 | 9.0             |
| 3    | 36 |   | 1 5⁄8 | 5⁄8 | 3⁄4 | 14 1⁄2 | 9 1⁄2  | 11 1⁄2 | 5⁄8 | 24 | 2     | 3 | 1     | 12 | 7 1⁄8 | 1 1⁄2 | 3⁄8 | 5 3⁄4 | 7 1⁄4 | 7 1⁄8 | 9  | 6 | 19 1⁄4 | 3⁄8 | 9 3⁄4 | 1 5⁄8 | 9.0             |
| 4    | 48 |   | 2 1⁄4 | 3⁄4 | 1   | 19 1⁄4 | 10 3⁄4 | 17 3⁄8 | 7⁄8 | 30 | 2 1⁄4 | 4 | 1 1⁄4 | 15 | 10    | 1 5⁄8 | 1⁄2 | 8     | 9 1⁄4 | 9 3⁄8 | 12 | 8 | 25 5⁄8 | 3⁄8 | 13    | 2     | 16.0            |
| 5    | 48 |   | 2 1⁄4 | 3⁄4 | 1   | 19 1⁄4 | 10 3⁄4 | 17 3⁄8 | 7⁄8 | 30 | 2 1⁄4 | 4 | 1 1⁄4 | 15 | 10    | 1 5⁄8 | 1⁄2 | 8     | 9 1⁄4 | 9 3⁄8 | 12 | 8 | 25 5⁄8 | 3⁄8 | 13    | 2     | 16.0            |

### STANDARD SIGN

W3-5

WISCONSIN DEPT OF TRANSPORTATION

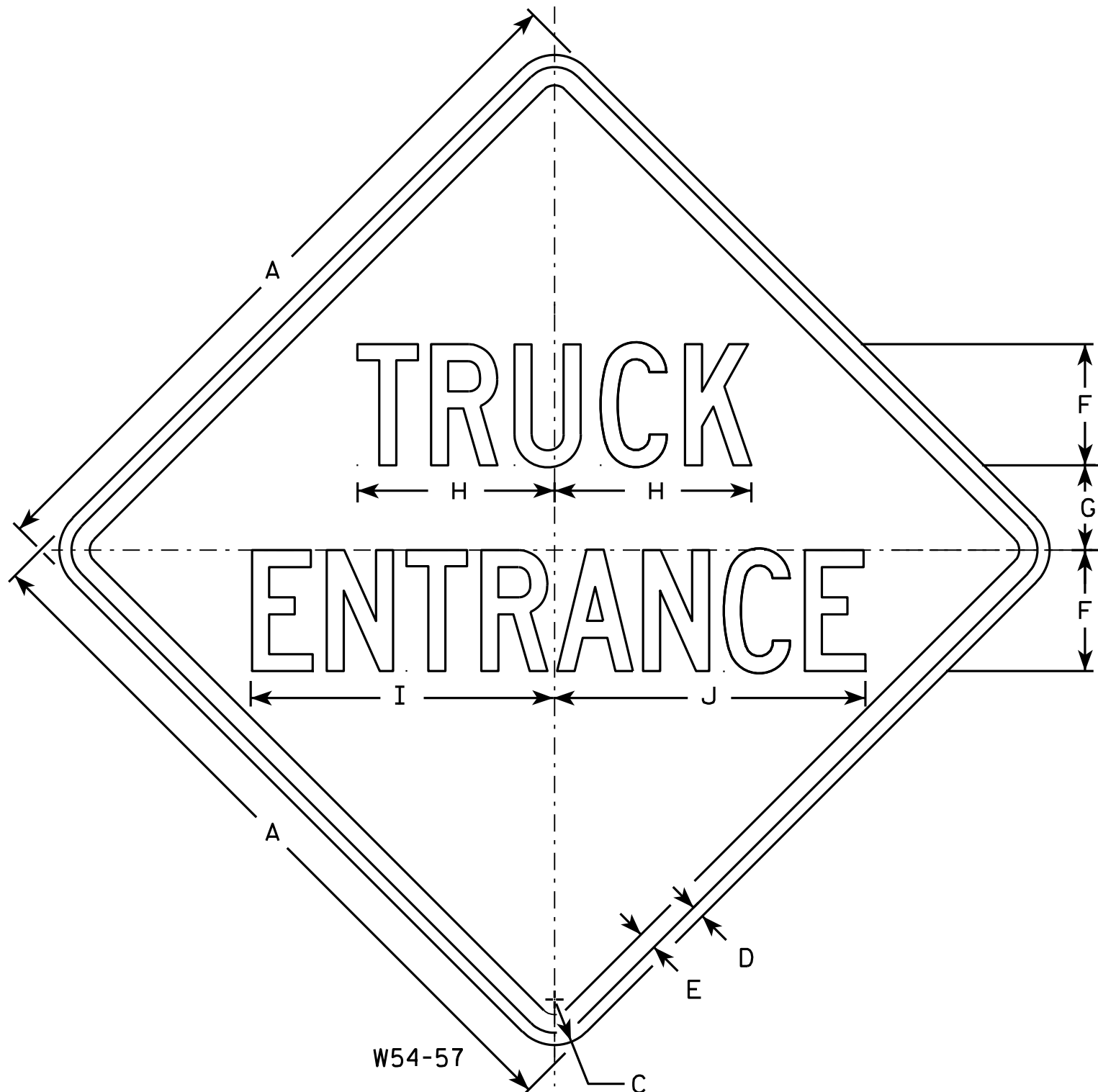
APPROVED *Matthew R. Rauch*  
for State Traffic Engineer

DATE 5/29/12 PLATE NO. W3-5.5

PROJECT NO:

SHEET NO: 128

E



# NOTES

1. Sign is Type II - Type F Reflective - reference WIS DOT Standard Specification for HIGHWAY and STRUCTURE CONSTRUCTION latest edition.
2. Color:  
Background - Yellow  
Message - Black
3. Message Series - C
4. Corners may be square or rounded when base material is plywood but borders shall be rounded as shown. When base material is metal, the corners and borders shall be rounded.

| SIZE | A  | B | C     | D   | E   | F | G     | H     | I      | J      | K | L | M | N | O | P | Q | R | S | T | U | V | W | X | Y | Z | Area<br>sq. ft. |
|------|----|---|-------|-----|-----|---|-------|-------|--------|--------|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|-----------------|
| 1    |    |   |       |     |     |   |       |       |        |        |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |                 |
| 2S   | 30 |   | 1 3/8 | 1/2 | 5/8 | 5 | 3 1/2 | 8 1/8 | 12 1/2 | 12 7/8 |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   | 6.25            |
| 2M   | 36 |   | 1 5/8 | 5/8 | 3/4 | 6 | 4 1/4 | 9 5/8 | 15     | 15 3/8 |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   | 9.00            |
| 3    | 36 |   | 1 5/8 | 5/8 | 3/4 | 6 | 4 1/4 | 9 5/8 | 15     | 15 3/8 |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   | 9.00            |
| 4    |    |   |       |     |     |   |       |       |        |        |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |                 |
| 5    |    |   |       |     |     |   |       |       |        |        |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |                 |

## STANDARD SIGN W54-57

WISCONSIN DEPT OF TRANSPORTATION

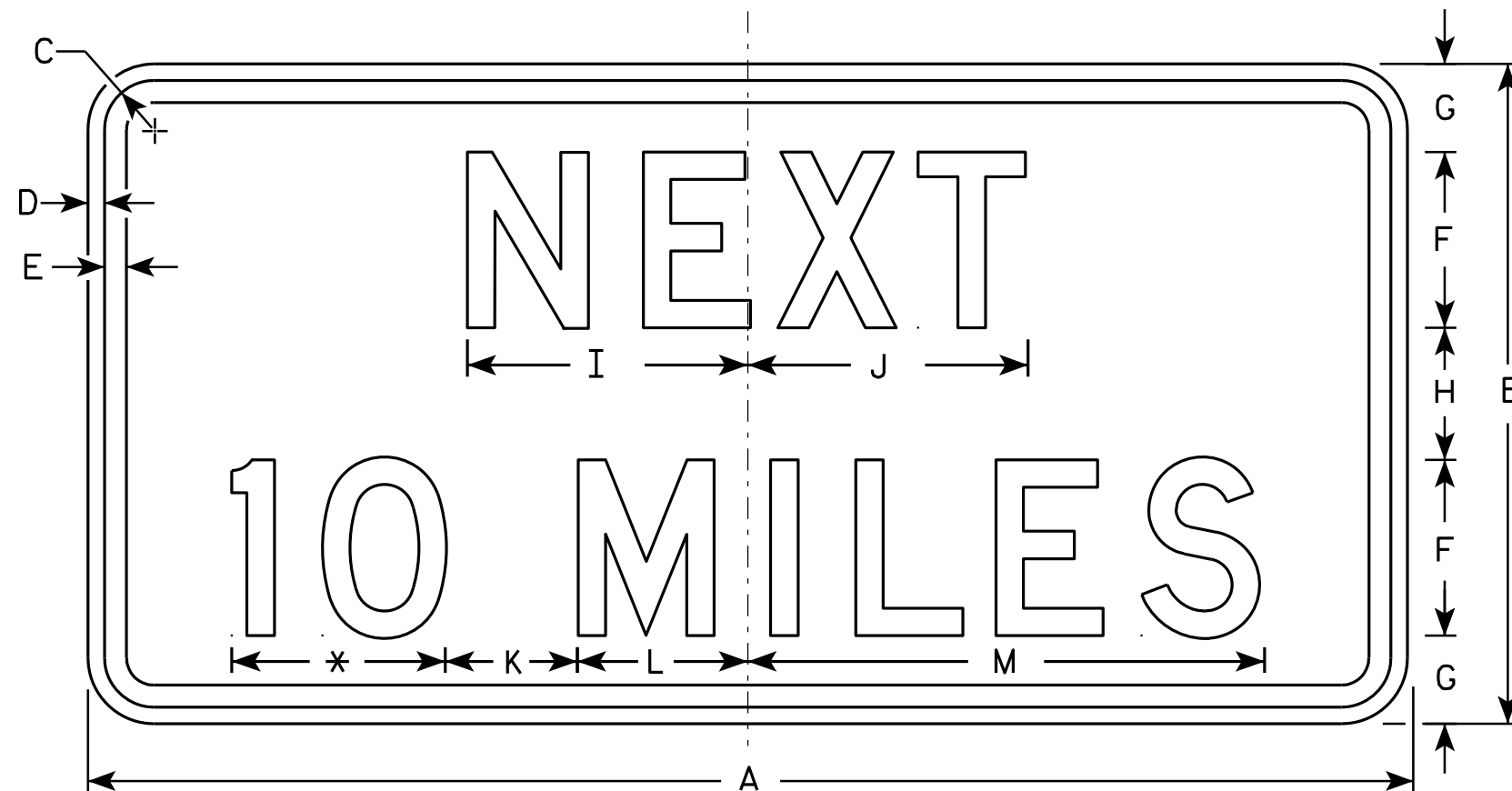
APPROVED *Matthew R. Rauch*  
for State Traffic Engineer  
DATE 3/13/13 PLATE NO. W54-57.9

PROJECT NO: HWY: COUNTY: SHEET NO: 129 E

NOTES

1. Sign is Type II - Type F Reflective - reference WIS DOT Standard Specification for HIGHWAY and STRUCTURE CONSTRUCTION latest edition.
2. Color:  
Background - Yellow  
Message - Black
3. Message Series - D
4. Corners may be square or rounded when base material is plywood but borders shall be rounded as shown. When base material is metal, the corners and borders shall be rounded.
5. Substitute appropriate numerals and optically adjust spacing to achieve proper balance.

\* See note 5



W57-51

| 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<br>sq. ft. |
|------|----|----|-------|-----|-----|---|-------|-------|-------|--------|---|-------|--------|---|---|---|---|---|---|---|---|---|---|---|---|---|-----------------|
| 1    | 24 | 12 | 1 1/8 | 3/8 | 3/8 | 3 | 1 3/4 | 2 1/2 | 5     | 5 1/8  | 3 | 2 3/4 | 9 5/8  |   |   |   |   |   |   |   |   |   |   |   |   |   | 2.0             |
| 2S   | 30 | 15 | 1 1/8 | 3/8 | 1/2 | 4 | 2     | 3     | 6 3/8 | 6 3/8  | 3 | 3 7/8 | 11 3/4 |   |   |   |   |   |   |   |   |   |   |   |   |   | 3.13            |
| 2M   | 36 | 18 | 1 1/8 | 3/8 | 1/2 | 5 | 2 5/8 | 2 3/4 | 7 7/8 | 8      | 5 | 4 1/8 | 15 3/8 |   |   |   |   |   |   |   |   |   |   |   |   |   | 4.5             |
| 3    | 36 | 18 | 1 1/8 | 3/8 | 1/2 | 5 | 2 5/8 | 2 3/4 | 7 7/8 | 8      | 5 | 4 1/8 | 15 3/8 |   |   |   |   |   |   |   |   |   |   |   |   |   | 4.5             |
| 4    | 48 | 24 | 1 3/8 | 1/2 | 5/8 | 6 | 3 1/2 | 5     | 10    | 10 1/8 | 6 | 5 5/8 | 19     |   |   |   |   |   |   |   |   |   |   |   |   |   | 8.0             |
| 5    | 48 | 24 | 1 3/8 | 1/2 | 5/8 | 6 | 3 1/2 | 5     | 10    | 10 1/8 | 6 | 5 5/8 | 19     |   |   |   |   |   |   |   |   |   |   |   |   |   | 8.0             |

STANDARD SIGN

W57-51

WISCONSIN DEPT OF TRANSPORTATION

APPROVED *Matthew R. Rauch*  
for State Traffic Engineer

DATE 3/13/13 PLATE NO. W57-51.9

PROJECT NO:

HWY:

COUNTY:

SHEET NO: 130

E

## DESIGN DATA

## ULTIMATE DESIGN STRESSES

|                                   |                             |
|-----------------------------------|-----------------------------|
| CONCRETE MASONRY-PRECAST PANELS   | f'c = 4,000 psi             |
| CONCRETE MASONRY-ALL OTHERS       | f'c = 3,500 psi             |
| BAR STEEL REINFORCEMENT, GRADE 60 | f <sub>y</sub> = 60,000 psi |
| HIGH STRENGTH STRUCTURAL STEEL    | f <sub>y</sub> = 50,000 psi |

## GENERAL NOTES

DRAWINGS SHALL NOT BE SCALED

BAR STEEL REINF. SHALL BE EMBEDDED 2" CLEAR UNLESS SHOWN OR NOTED OTHERWISE

AT THE BACKFACE OF WALL, ALL VOLUME WHICH CANNOT BE IN PLACE BEFORE WALL CONSTRUCTION AND NOT OCCUPIED BY THE NEW STRUCTURE SHALL BE BACKFILLED WITH STRUCTURE BACKFILL.

RETAINING WALL CONSTRUCTION SHALL BE DONE IN 24'-48' INTERVALS.

THE COLOR OF THE FINISH EPOXY TOP COAT OF THE STEEL POSTS SHALL BE BROWN (FEDERAL COLOR NO. 20080 OR A SIMILAR COLOR AS APPROVED BY THE ENGINEER). THE TOP COAT SHALL EXTEND FROM THE TOP OF POST TO 1'-0" BELOW THE TOP OF FOOTING. PAINTING IS TO BE COMPLETED PRIOR TO SETTING POSTS.

CONCRETE PANELS TO BE STAINED BROWN (FEDERAL COLOR 20080) AND COPING SHALL BE STAINED LIGHT BROWN (FEDERAL COLOR 20122). SEE "WALL DETAILS" SHEET FOR DETAILS.

## TOTAL ESTIMATED QUANTITIES

| BID ITEM NUMBER | BID ITEMS                                         | UNIT | TOTALS  |
|-----------------|---------------------------------------------------|------|---------|
| 203.0200        | REMOVING OLD STRUCTURE STA. 1215+00               | LS   | 1       |
| 206.3000        | EXCAVATION FOR STRUCTURES RETAINING WALLS R-9-12  | LS   | 1       |
| 210.0100        | BACKFILL STRUCTURE                                | CY   | 315     |
| 504.0500        | CONCRETE MASONRY RETAINING WALLS                  | CY   | 215     |
| 505.0615        | BAR STEEL REINFORCEMENT HS COATED RETAINING WALLS | LB   | 2,170   |
| 506.0605        | STRUCTURAL STEEL HS                               | LB   | 110,080 |
| 513.4090        | RAILING TUBULAR SCREENING R-9-12                  | LS   | 1       |
| 516.0500        | RUBBERIZED MEMBRANE WATERPROOFING                 | SY   | 4       |
| 517.0600        | PAINTING EPOXY SYSTEM R-9-12                      | LS   | 1       |
| 517.1010.S      | CONCRETE STAINING R-9-12                          | SF   | 4,080   |
| 517.1050.S      | ARCHITECTURAL SURFACE TREATMENT R-9-12            | SF   | 3,245   |
| 612.0406        | PIPE UNDERDRAIN WRAPPED 6-INCH                    | LF   | 458     |
| SPV.0090        | FOUNDATION DRILLING 30-INCH DIAMETER              | LF   | 1,067   |
| SPV.0165        | PRECAST PANELS FOR POST AND PANEL WALLS           | SF   | 3,640   |
|                 | NON-BID ITEMS                                     |      |         |
|                 | EXPANDED POLYSTYRENE                              | SIZE | 1"      |
|                 | FILLER                                            | SIZE | ¾"      |

## LIST OF DRAWINGS

1. PLAN & ELEVATION
2. WALL DETAILS
3. WALL DATA TABLE
4. ORNAMENTAL PROTECTIVE SCREENING
5. SUBSURFACE EXPLORATION

## STRUCTURE DESIGN CONTACTS:

JONATHON RESHESKE (608) 266-8491  
LAURA SHADEWALD (608) 267-9592

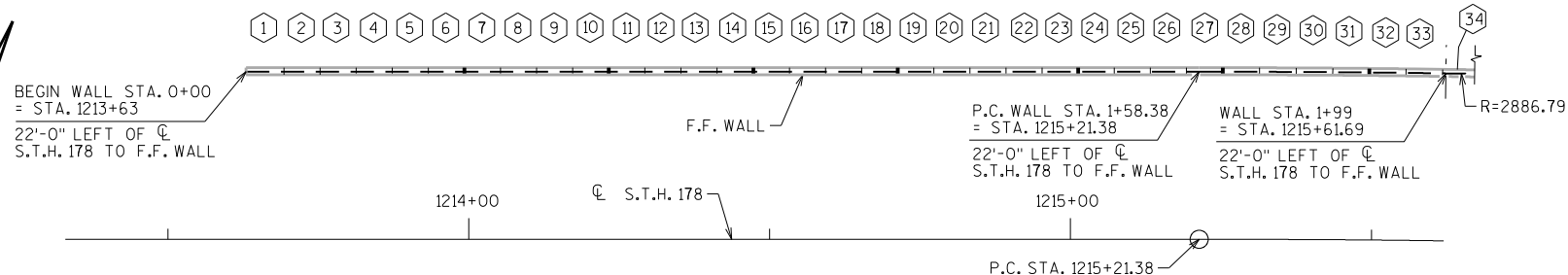
## CURVE DATA

P.I. = STA. 1216+57.75  
Δ = 5° 27' 03.22" RT.  
D = 2° 00' 00.00"  
T = 136.38  
L = 272.54  
R = 2864.79  
P.C. = STA. 1215+21.38  
P.T. = STA. 1217+93.92

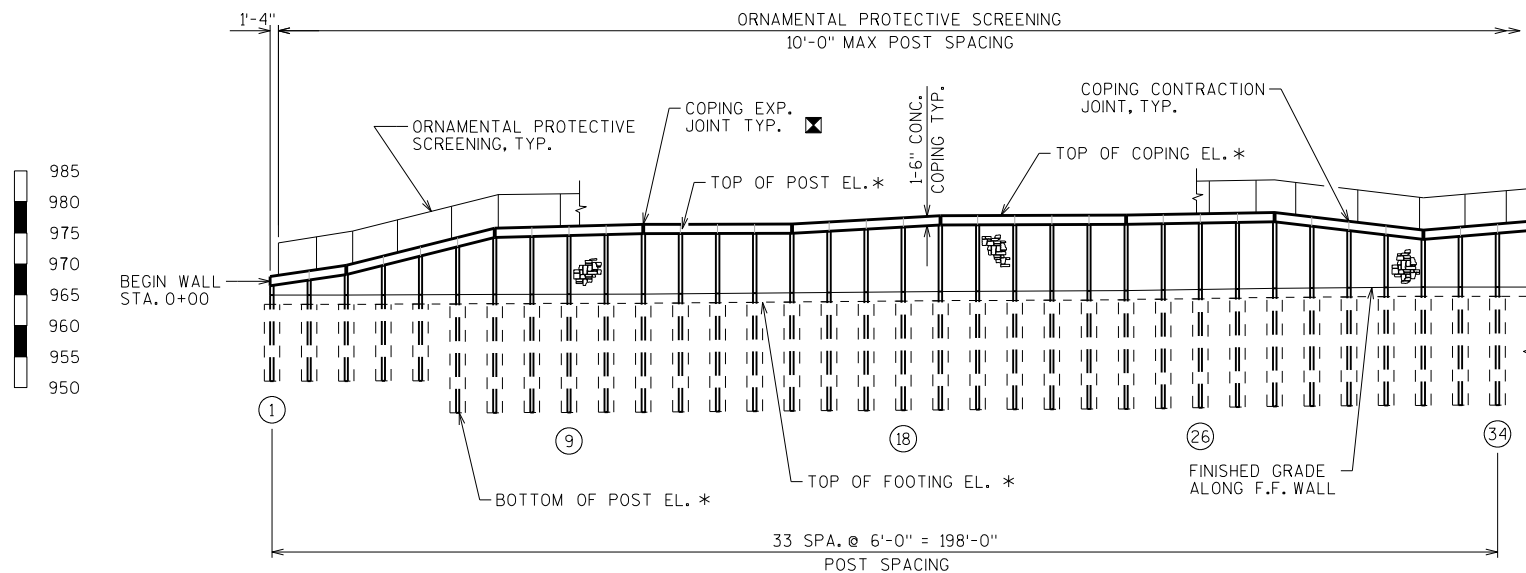
## LEGEND

- ⬡ INDICATES PANEL NO.  
○ INDICATES POST NO.

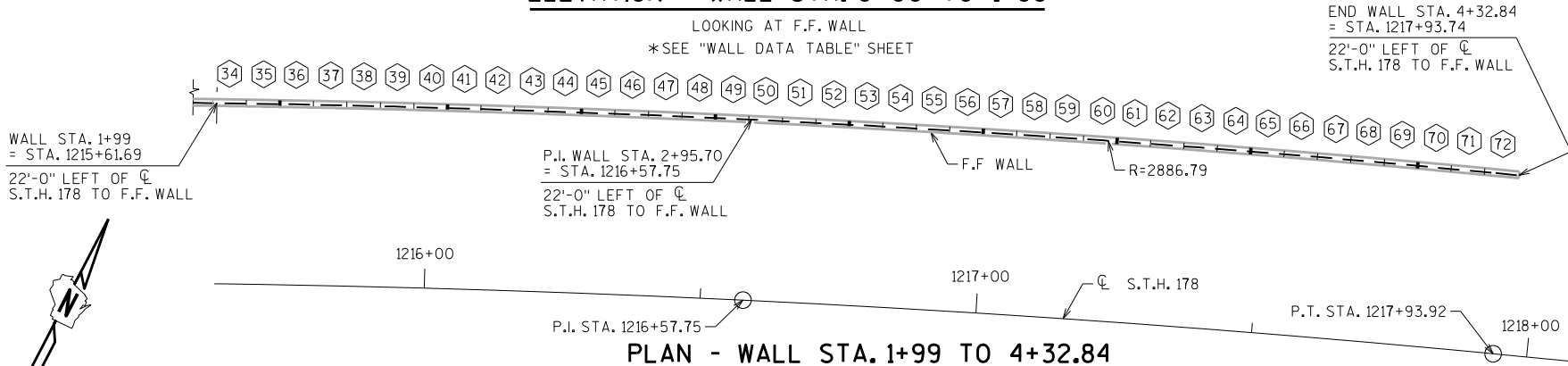
⬡ ORNAMENTAL PROTECTIVE SCREENING  
EXPANSION JOINT TO CORRESPOND WITH  
COPING EXPANSION JOINT. SEE "ORNAMENTAL  
PROTECTIVE SCREENING" SHEET FOR DETAILS.



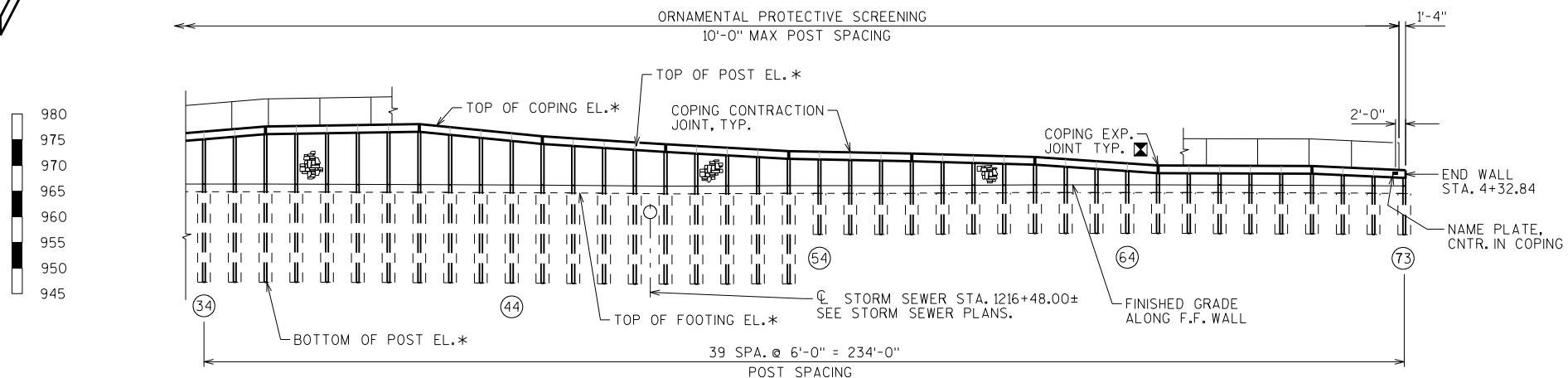
## PLAN - WALL STA. 0+00 TO 1+99



## ELEVATION - WALL STA. 0+00 TO 1+99



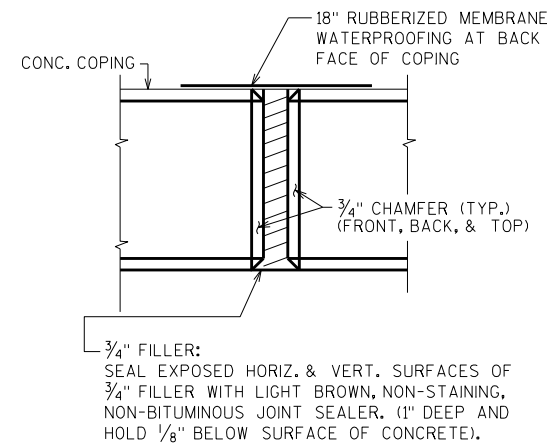
## PLAN - WALL STA. 1+99 TO 4+32.84



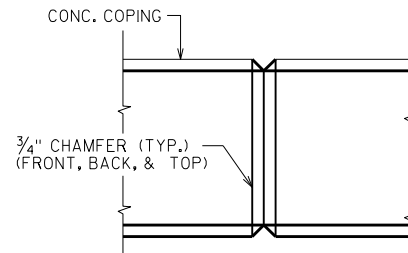
## ELEVATION - WALL STA. 1+99 TO 4+32.84

LOOKING AT F.F. WALL  
\*SEE "WALL DATA TABLE" SHEET

|                                                                                                                                                      |          |                   |               |
|------------------------------------------------------------------------------------------------------------------------------------------------------|----------|-------------------|---------------|
| NO.                                                                                                                                                  | DATE     | REVISION          | BY            |
|                                                                                                                                                      |          |                   |               |
|  Plans Prepared By <b>WISDOT</b><br><b>BUREAU OF STRUCTURES</b> |          |                   |               |
| ACCEPTED <i>William C. Diehl</i> <b>11/14/13</b><br>CHIEF STRUCTURES DESIGN ENGINEER DATE                                                            |          |                   |               |
| <b>STRUCTURE R-9-12</b>                                                                                                                              |          |                   |               |
| POST & PANEL WALL ALONG S.T.H. 178                                                                                                                   |          |                   |               |
| COUNTY                                                                                                                                               | CHIPPEWA | TOWN/CITY/VILLAGE | CLEVELAND     |
| DESIGN SPEC. AASHTO LRFD BRIDGE DESIGN SPECIFICATIONS                                                                                                |          |                   |               |
| DESIGNED BY                                                                                                                                          | JLR      | DESIGN CKD. BY    | ARC           |
| DRAWN BY                                                                                                                                             |          |                   | PLANS CKD. BY |
| JLR                                                                                                                                                  |          |                   | ARC           |
| <b>PLAN &amp; ELEVATION</b>                                                                                                                          |          |                   | SHEET 1 OF 5  |
|                                                                                                                                                      |          |                   | 131           |

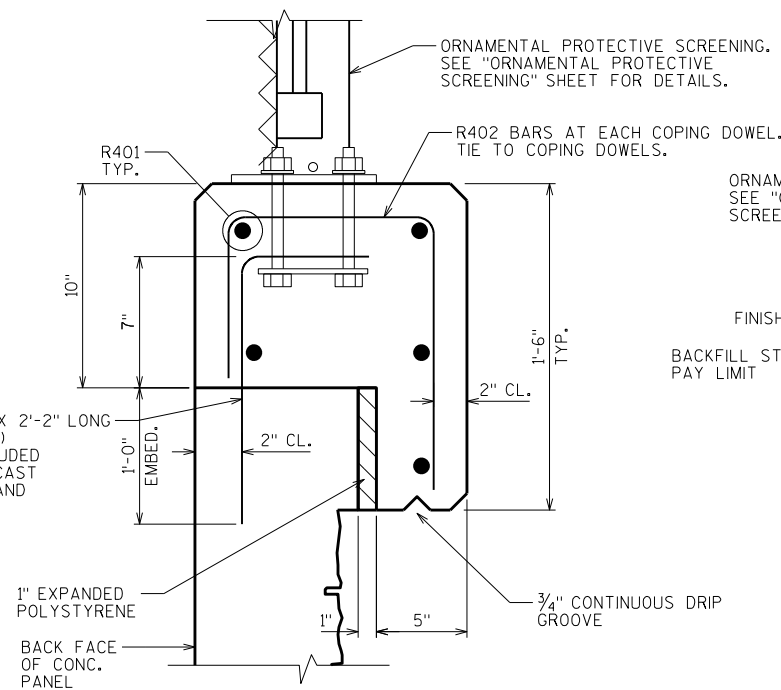
**COPING EXPANSION JOINT**

DO NOT RUN ANY BAR STEEL THRU JOINTS  
CENTER FILLER AND JOINT AT CL OF POST  
PLACE JOINTS VERTICAL FOR COPING  
EXPANSION JOINT LOCATIONS SEE "WALL  
DATA TABLE" SHEET.

**COPING CONTRACTION JOINT**

DO NOT RUN ANY BAR STEEL THRU JOINTS  
MAXIMUM SPACING OF JOINT = 6'-0"  
CENTER JOINTS AT CL OF POST  
PLACE JOINTS VERTICAL

#4 COPING DOWELS X 2'-2" LONG  
(7 REQ'D PER PANEL)  
DOWELS TO BE INCLUDED  
WITH BID ITEM "PRECAST  
PANELS FOR POST AND  
PANEL WALLS"

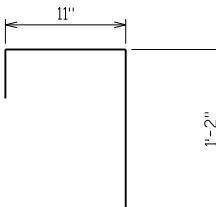
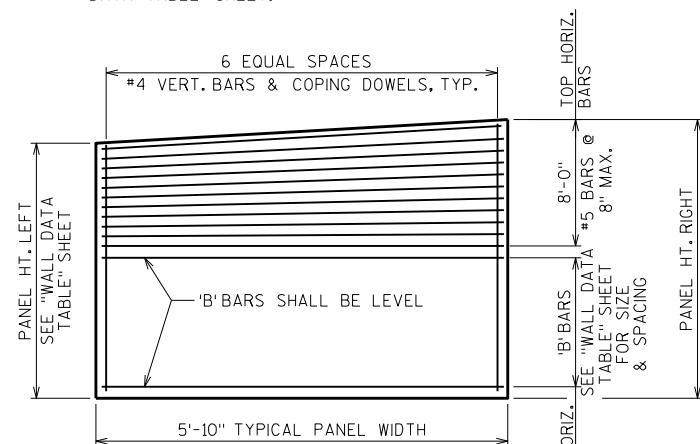
**CAST-IN-PLACE CONCRETE COPING DETAIL**

ALL BAR STEEL REINFORCEMENT SHALL BE EPOXY COATED

**COPING BILL OF BARS**

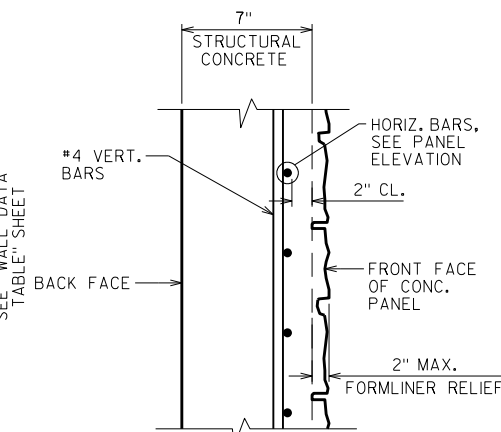
NOTE: THE FIRST DIGIT OF THE BAR MARK  
SIGNIFIES THE BAR SIZE.

| BAR MARK | COAT | NO. REQ'D. | LENGTH | BENT | BAR SERIES | LOCATION          |
|----------|------|------------|--------|------|------------|-------------------|
| R401     | X    | 360        | 5'-6"  |      |            | COPING HORIZONTAL |
| R402     | X    | 504        | 2'-6"  | X    |            | COPING VERTICAL   |

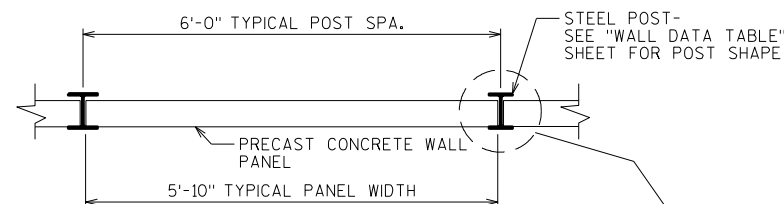
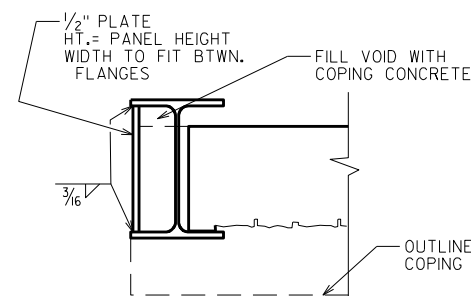
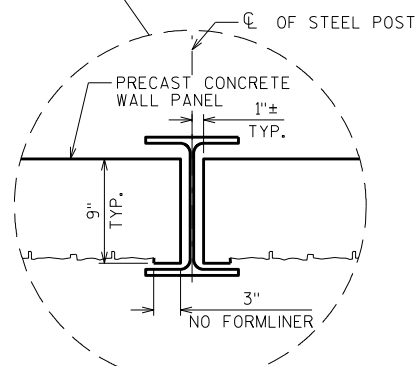
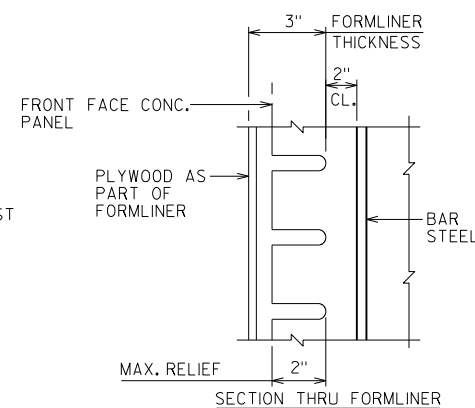
**R402****TYPICAL PANEL ELEVATION**

(LOOKING AT FRONT FACE)

ALL BAR STEEL REINFORCEMENT SHALL BE EPOXY COATED

**TYPICAL SECTION THRU PANEL**

ALL BAR STEEL REINFORCEMENT SHALL BE EPOXY COATED

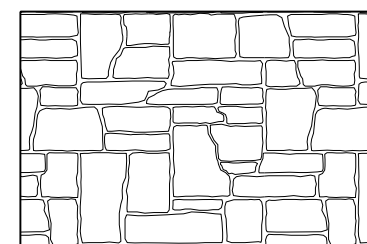
**PLAN OF PANEL****POST DETAIL AT  
BEGIN/END OF WALL****PANEL DETAIL AT POST****FORMLINER DETAILS**

NOTES:

FORMLINER COURSING ON WALL SHALL BE LEVEL

THE FORMLINER COURSING SHALL BE VERTICALLY ALIGNED.

THE FORMLINER PATTERN SHALL BE CONTINUOUS ACROSS WALL  
CONSTRUCTION JOINTS.



RUSTIC ASHLAR  
SIZE = 8" TO 32"  
RELIEF = 2" MAX.

**NOTES**

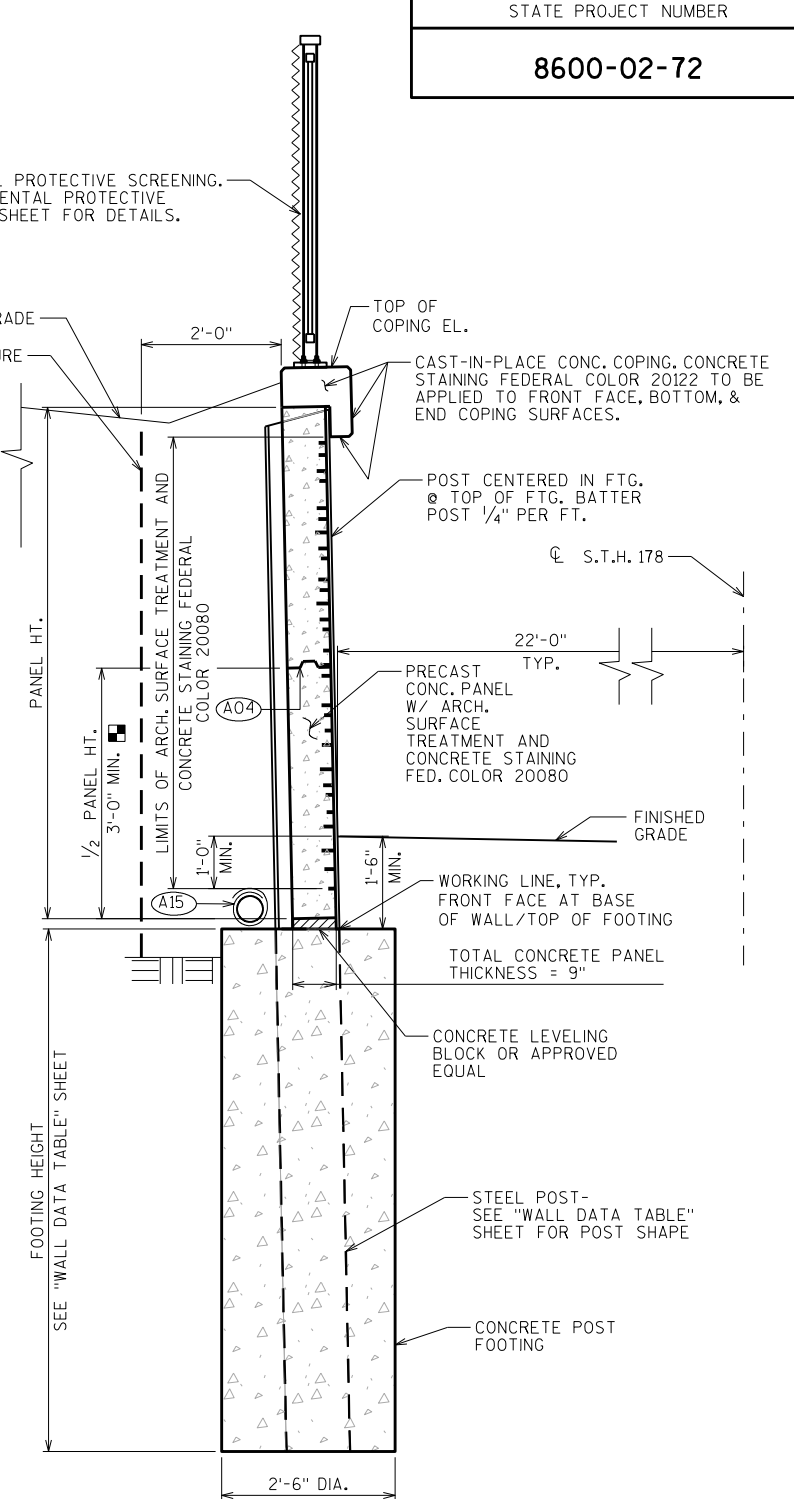
- PANEL HEIGHTS OF 6'-0" OR GREATER  
MAY BE FABRICATED FULL PANEL  
HEIGHT OR HALF PANEL HEIGHT.  
PANELS SHALL BE CLEARLY LABELED FOR  
CORRECT LOCATION AND ORIENTATION.

- (A04) OPTIONAL HORIZ. CONSTRUCTION JOINT:  
FORMED BY BEVELED 2 x 4.  
JOINT SHALL BE LEVEL.  
FORMLINER PATTERN SHALL BE  
CONTINUOUS ACROSS THE JOINT.

- (A15) PIPE UNDERDRAIN WRAPPED (6-INCH). SLOPE  
0.5% MIN. TO SUITABLE DRAINAGE. RODENT  
SHIELD REQUIRED. SEE "WALL DATA TABLE"  
SHEET FOR RODENT SHIELD DETAIL.

ORNAMENTAL PROTECTIVE SCREENING.  
SEE "ORNAMENTAL PROTECTIVE  
SCREENING" SHEET FOR DETAILS.

FINISHED GRADE  
BACKFILL STRUCTURE  
PAY LIMIT

**SECTION THRU WALL**

| NO.                                                                             | DATE | REVISION        | BY      |
|---------------------------------------------------------------------------------|------|-----------------|---------|
|                                                                                 |      |                 |         |
| STATE OF WISCONSIN<br>DEPARTMENT OF TRANSPORTATION<br>STRUCTURES DESIGN SECTION |      |                 |         |
| STRUCTURE R-9-12                                                                |      |                 |         |
| DRAWN BY JLR                                                                    |      | PLANS CK'D. ARC |         |
| WALL DETAILS                                                                    |      |                 | SHEET 2 |
|                                                                                 |      |                 | 132     |

| POST NUMBER | POST C S.T.H 178 STATION | POST WALL STATION | POST SHAPE | POST LENGTH | TOP OF POST EL. | BOTTOM OF POST EL. | TOP OF FOOTING EL. | FOOTING HEIGHT | TOP OF COPING EL. |
|-------------|--------------------------|-------------------|------------|-------------|-----------------|--------------------|--------------------|----------------|-------------------|
| 1           | 1213+63.42               | 0+00.42           | W12X53     | 14.66       | 966.46          | 951.80             | 964.20             | 12.40          | 967.29            |
| 2           | 1213+69.42               | 0+06.42           | W12X53     | 15.91       | 967.71          | 951.80             | 964.20             | 12.40          | 968.54            |
| ▲ 3         | 1213+75.42               | 0+12.42           | W12X53     | 17.17       | 968.97          | 951.80             | 964.20             | 12.40          | 969.80            |
| 4           | 1213+81.42               | 0+18.42           | W12X53     | 18.61       | 970.43          | 951.83             | 964.23             | 12.40          | 971.27            |
| 5           | 1213+87.42               | 0+24.42           | W12X53     | 20.05       | 971.90          | 951.85             | 964.25             | 12.40          | 972.73            |
| 6           | 1213+93.42               | 0+30.42           | W14X68     | 26.69       | 973.36          | 946.67             | 964.27             | 17.60          | 974.19            |
| ▲ 7         | 1213+99.42               | 0+36.42           | W14X68     | 28.13       | 974.83          | 946.70             | 964.30             | 17.60          | 975.66            |
| 8           | 1214+05.42               | 0+42.42           | W14X68     | 28.38       | 975.10          | 946.72             | 964.32             | 17.60          | 975.93            |
| 9           | 1214+11.42               | 0+48.42           | W14X68     | 28.50       | 975.24          | 946.75             | 964.35             | 17.60          | 976.07            |
| 10          | 1214+17.42               | 0+54.42           | W14X68     | 28.62       | 975.38          | 946.77             | 964.37             | 17.60          | 976.22            |
| ▲ 11        | 1214+23.42               | 0+60.42           | W14X68     | 28.74       | 975.53          | 946.79             | 964.39             | 17.60          | 976.36            |
| 12          | 1214+29.42               | 0+66.42           | W14X68     | 28.77       | 975.60          | 946.84             | 964.44             | 17.60          | 976.44            |
| 13          | 1214+35.42               | 0+72.42           | W14X68     | 28.77       | 975.65          | 946.88             | 964.48             | 17.60          | 976.48            |
| 14          | 1214+41.42               | 0+78.42           | W14X68     | 28.77       | 975.70          | 946.93             | 964.53             | 17.60          | 976.53            |
| ▲ 15        | 1214+47.42               | 0+84.42           | W14X68     | 28.77       | 975.75          | 946.98             | 964.58             | 17.60          | 976.58            |
| 16          | 1214+53.42               | 0+90.42           | W14X68     | 28.90       | 975.93          | 947.03             | 964.63             | 17.60          | 976.76            |
| 17          | 1214+59.42               | 0+96.42           | W14X68     | 29.14       | 976.22          | 947.08             | 964.68             | 17.60          | 977.05            |
| 18          | 1214+65.42               | 1+02.42           | W14X68     | 29.38       | 976.51          | 947.12             | 964.72             | 17.60          | 977.34            |
| ▲ 19        | 1214+71.42               | 1+08.42           | W14X68     | 29.62       | 976.79          | 947.17             | 964.77             | 17.60          | 977.63            |
| 20          | 1214+77.42               | 1+14.42           | W14X68     | 29.77       | 976.98          | 947.21             | 964.81             | 17.60          | 977.81            |
| 21          | 1214+83.42               | 1+20.42           | W14X68     | 29.77       | 977.00          | 947.23             | 964.83             | 17.60          | 977.83            |
| 22          | 1214+89.42               | 1+26.42           | W14X68     | 29.77       | 977.02          | 947.26             | 964.86             | 17.60          | 977.86            |
| 23          | 1214+95.42               | 1+32.42           | W14X68     | 29.77       | 977.05          | 947.28             | 964.88             | 17.60          | 977.88            |
| ▲ 24        | 1215+01.42               | 1+38.42           | W14X68     | 29.77       | 977.09          | 947.32             | 964.92             | 17.60          | 977.92            |
| 25          | 1215+07.42               | 1+44.42           | W14X68     | 29.77       | 977.19          | 947.42             | 965.02             | 17.60          | 978.02            |
| 26          | 1215+13.42               | 1+50.42           | W14X68     | 29.77       | 977.28          | 947.51             | 965.11             | 17.60          | 978.11            |
| 27          | 1215+19.42               | 1+56.42           | W14X68     | 29.77       | 977.38          | 947.61             | 965.21             | 17.60          | 978.21            |
| ▲ 28        | 1215+25.39               | 1+62.42           | W14X68     | 29.72       | 977.42          | 947.70             | 965.30             | 17.60          | 978.26            |
| 29          | 1215+31.34               | 1+68.42           | W14X68     | 29.01       | 976.76          | 947.75             | 965.35             | 17.60          | 977.59            |
| 30          | 1215+37.29               | 1+74.42           | W14X68     | 28.29       | 976.09          | 947.80             | 965.40             | 17.60          | 976.92            |
| 31          | 1215+43.25               | 1+80.42           | W14X68     | 27.58       | 975.42          | 947.85             | 965.45             | 17.60          | 976.26            |
| ▲ 32        | 1215+49.20               | 1+86.42           | W14X68     | 26.86       | 974.76          | 947.89             | 965.49             | 17.60          | 975.59            |
| 33          | 1215+55.16               | 1+92.42           | W14X68     | 27.18       | 975.08          | 947.90             | 965.50             | 17.60          | 975.91            |
| 34          | 1215+61.11               | 1+98.42           | W14X68     | 27.66       | 975.56          | 947.90             | 965.50             | 17.60          | 976.39            |
| 35          | 1215+67.07               | 2+04.42           | W14X68     | 28.13       | 976.03          | 947.90             | 965.50             | 17.60          | 976.87            |
| ▲ 36        | 1215+73.02               | 2+10.42           | W14X68     | 28.61       | 976.51          | 947.90             | 965.50             | 17.60          | 977.34            |
| 37          | 1215+78.97               | 2+16.42           | W14X68     | 28.85       | 976.73          | 947.88             | 965.48             | 17.60          | 977.56            |
| 38          | 1215+84.93               | 2+22.42           | W14X68     | 28.97       | 976.83          | 947.86             | 965.46             | 17.60          | 977.66            |
| 39          | 1215+90.88               | 2+28.42           | W14X68     | 29.08       | 976.92          | 947.84             | 965.44             | 17.60          | 977.75            |
| 40          | 1215+96.84               | 2+34.42           | W14X68     | 29.20       | 977.02          | 947.81             | 965.41             | 17.60          | 977.85            |
| ▲ 41        | 1216+02.79               | 2+40.42           | W14X68     | 29.04       | 976.83          | 947.79             | 965.39             | 17.60          | 977.67            |
| 42          | 1216+08.75               | 2+46.42           | W14X68     | 28.57       | 976.33          | 947.77             | 965.37             | 17.60          | 977.17            |
| 43          | 1216+14.70               | 2+52.42           | W14X68     | 28.09       | 975.83          | 947.74             | 965.34             | 17.60          | 976.67            |
| 44          | 1216+20.65               | 2+58.42           | W14X68     | 27.61       | 975.33          | 947.72             | 965.32             | 17.60          | 976.17            |
| ▲ 45        | 1216+26.61               | 2+64.42           | W14X68     | 27.17       | 974.86          | 947.69             | 965.29             | 17.60          | 975.69            |
| 46          | 1216+32.56               | 2+70.42           | W14X68     | 26.81       | 974.45          | 947.64             | 965.24             | 17.60          | 975.29            |
| 47          | 1216+38.52               | 2+76.42           | W14X68     | 26.46       | 974.05          | 947.59             | 965.19             | 17.60          | 974.88            |
| 48          | 1216+44.47               | 2+82.42           | W14X68     | 26.10       | 973.64          | 947.54             | 965.14             | 17.60          | 974.48            |
| ▲ 49        | 1216+50.43               | 2+88.42           | W14X68     | 25.74       | 973.24          | 947.50             | 965.10             | 17.60          | 974.08            |
| 50          | 1216+56.38               | 2+94.42           | W14X68     | 25.38       | 972.91          | 947.53             | 965.13             | 17.60          | 973.74            |
| 51          | 1216+62.33               | 3+00.42           | W14X68     | 25.03       | 972.58          | 947.55             | 965.15             | 17.60          | 973.41            |
| 52          | 1216+68.29               | 3+06.42           | W14X68     | 24.67       | 972.24          | 947.57             | 965.17             | 17.60          | 973.08            |
| ▲ 53        | 1216+74.24               | 3+12.42           | W14X68     | 24.31       | 971.91          | 947.60             | 965.20             | 17.60          | 972.74            |
| 54          | 1216+80.20               | 3+18.42           | W12X53     | 14.56       | 971.76          | 957.20             | 965.20             | 8.00           | 972.60            |
| 55          | 1216+86.15               | 3+24.42           | W12X53     | 14.44       | 971.64          | 957.20             | 965.20             | 8.00           | 972.48            |
| 56          | 1216+92.11               | 3+30.42           | W12X53     | 14.32       | 971.52          | 957.20             | 965.20             | 8.00           | 972.36            |
| ▲ 57        | 1216+98.06               | 3+36.42           | W12X53     | 14.21       | 971.41          | 957.20             | 965.20             | 8.00           | 972.24            |
| 58          | 1217+04.01               | 3+42.42           | W12X53     | 14.01       | 971.24          | 957.23             | 965.23             | 8.00           | 972.07            |
| 59          | 1217+09.97               | 3+48.42           | W12X53     | 13.77       | 971.05          | 957.28             | 965.28             | 8.00           | 971.88            |
| 60          | 1217+15.93               | 3+54.42           | W12X53     | 13.53       | 970.86          | 957.33             | 965.33             | 8.00           | 971.69            |
| ▲ 61        | 1217+21.88               | 3+60.42           | W12X53     | 13.29       | 970.67          | 957.38             | 965.38             | 8.00           | 971.50            |
| 62          | 1217+27.83               | 3+66.42           | W12X53     | 13.00       | 970.40          | 957.40             | 965.40             | 8.00           | 971.23            |
| 63          | 1217+33.79               | 3+72.42           | W12X53     | 12.64       | 970.04          | 957.40             | 965.40             | 8.00           | 970.87            |
| 64          | 1217+39.74               | 3+78.42           | W12X53     | 12.28       | 969.68          | 957.40             | 965.40             | 8.00           | 970.52            |
| ▲ 65        | 1217+45.69               | 3+84.42           | W12X53     | 11.93       | 969.33          | 957.40             | 965.40             | 8.00           | 970.16            |
| 66          | 1217+51.65               | 3+90.42           | W12X53     | 11.67       | 969.06          | 957.39             | 965.39             | 8.00           | 969.89            |
| 67          | 1217+57.60               | 3+96.42           | W12X53     | 11.67       | 969.04          | 957.37             | 965.37             | 8.00           | 969.87            |
| 68          | 1217+63.56               | 4+02.42           | W12X53     | 11.67       | 969.01          | 957.35             | 965.35             | 8.00           | 969.85            |
| 69          | 1217+69.51               | 4+08.42           | W12X53     | 11.67       | 968.99          | 957.32             | 965.32             | 8.00           | 969.82            |
| ▲ 70        | 1217+75.47               | 4+14.42           | W12X53     | 11.65       | 968.95          | 957.30             | 965.30             | 8.00           | 969.78            |
| 71          | 1217+81.42               | 4+20.42           | W12X53     | 11.45       | 968.71          | 957.26             | 965.26             | 8.00           | 969.54            |
| 72          | 1217+87.37               | 4+26.42           | W12X53     | 11.25       | 968.47          | 957.22             | 965.22             | 8.00           | 969.31            |
| 73          | 1217+93.33               | 4+32.42           | W12X53     | 11.06       | 968.23          | 957.18             | 965.18             | 8.00           | 969.07            |

WALL DATA TABLE

ALL GIVEN DIMENSIONS AND ELEVATIONS ARE IN FEET.  
POSTS LENGTHS AND PANELS HEIGHTS MAY BE FABRICATED TO THE NEAREST WHOLE INCH VALUE AT CONTRACTORS OPTION.  
▲ LOCATIONS OF COPING EXPANSION JOINTS

| PANEL NUMBER | PANEL BOTTOM EL. | PANEL TOP EL. LEFT | PANEL TOP EL. RIGHT | PANEL HEIGHT LEFT | PANEL HEIGHT RIGHT | 'B' BARS          |
|--------------|------------------|--------------------|---------------------|-------------------|--------------------|-------------------|
| 1            | 964.20           | 966.46             | 967.71              | 2.26              | 3.51               | N/A               |
| 2            | 964.20           | 967.71             | 968.97              | 3.51              | 4.77               | N/A               |
| 3            | 964.23           | 968.97             | 970.43              | 4.74              | 6.21               | N/A               |
| 4            | 964.25           | 970.43             | 971.90              | 6.18              | 7.65               | *5'S @ 6 IN. MAX. |
| 5            | 964.27           | 971.90             | 973.36              | 7.62              | 9.09               | *5'S @ 6 IN. MAX. |
| 6            | 964.30           | 973.36             | 974.83              | 9.06              | 10.53              | *5'S @ 6 IN. MAX. |
| 7            | 964.32           | 974.83             | 975.10              | 10.50             | 10.78              | *5'S @ 6 IN. MAX. |
| 8            | 964.35           | 975.10             | 975.24              | 10.75             | 10.90              | *5'S @ 6 IN. MAX. |
| 9            | 964.37           | 975.24             | 975.38              | 10.87             | 11.02              | *5'S @ 6 IN. MAX. |
| 10           | 964.39           | 975.38             | 975.53              | 10.99             | 11.14              | *5'S @ 6 IN. MAX. |
| 11           | 964.44           | 975.53             | 975.60              | 11.09             | 11.17              | *5'S @ 6 IN. MAX. |
| 12           | 964.48           | 975.60             | 975.65              | 11.12             | 11.17              | *5'S @ 6 IN. MAX. |
| 13           | 964.53           | 975.65             | 975.70              | 11.12             | 11.17              | *5'S @ 6 IN. MAX. |
| 14           | 964.58           | 975.70             | 975.75              | 11.12             | 11.17              | *5'S @ 6 IN. MAX. |
| 15           | 964.63           | 975.75             | 975.93              | 11.12             | 11.30              | *5'S @ 6 IN. MAX. |
| 16           | 964.68           | 975.93             | 976.22              | 11.26             | 11.54              | *5'S @ 6 IN. MAX. |
| 17           | 964.72           | 976.22             | 976.51              | 11.50             | 11.78              | *5'S @ 6 IN. MAX. |
| 18           | 964.77           | 976.51             | 976.79              | 11.74             | 12.02              | *5'S @ 6 IN. MAX. |
| 19           | 964.81           | 976.79             | 976.98              | 11.99             | 12.17              | *5'S @ 6 IN. MAX. |
| 20           | 964.83           | 976.98             | 977.00              | 12.14             | 12.17              | *5'S @ 6 IN. MAX. |
| 21           | 964.86           | 977.00             | 977.02              | 12.14             | 12.17              | *5'S @ 6 IN. MAX. |
| 22           | 964.88           | 977.02             | 977.05              | 12.14             | 12.17              | *5'S @ 6 IN. MAX. |
| 23           | 964.92           | 977.05             | 977.09              | 12.13             | 12.17              | *5'S @ 6 IN. MAX. |
| 24           | 965.02           | 977.09             | 977.19              | 12.07             | 12.17              | *5'S @ 6 IN. MAX. |
| 25           | 965.11           | 977.19             | 977.28              | 12.07             | 12.17              | *5'S @ 6 IN. MAX. |
| 26           | 965.21           | 977.28             | 977.38              | 12.07             | 12.17              | *5'S @ 6 IN. MAX. |
| 27           | 965.30           | 977.38             | 977.42              | 12.07             | 12.12              | *5'S @ 6 IN. MAX. |
| 28           | 965.35           | 977.42             | 976.76              | 12.07             | 11.41              | *5'S @ 6 IN. MAX. |
| 29           | 965.40           | 976.76             | 976.09              | 11.36             | 10.69              | *5'S @ 6 IN. MAX. |
| 30           | 965.45           | 976.09             | 975.42              | 10.64             | 9.98               | *5'S @ 6 IN. MAX. |
| 31           | 965.49           | 975.42             | 974.76              | 9.93              | 9.26               | *5'S @ 6 IN. MAX. |
| 32           | 965.50           | 974.76             | 975.08              | 9.26              | 9.58               | *5'S @ 6 IN. MAX. |
| 33           | 965.50           | 975.08             | 975.56              | 9.58              | 10.06              | *5'S @ 6 IN. MAX. |
| 34           | 965.50           | 975.56             | 976.03              | 10.06             | 10.53              | *5'S @ 6 IN. MAX. |
| 35           | 965.50           | 976.03             | 976.51              | 10.53             | 11.01              | *5'S @ 6 IN. MAX. |
| 36           | 965.50           | 976.51             | 976.73              | 11.01             | 11.23              | *5'S @ 6 IN. MAX. |
| 37           | 965.48           | 976.73             | 976.83              | 11.25             | 11.34              | *5'S @ 6 IN. MAX. |
| 38           | 965.46           | 976.83             | 976.92              | 11.37             | 11.46              | *5'S @ 6 IN. MAX. |
| 39           | 965.44           | 976.92             | 977.02              | 11.48             | 11.58              | *5'S @ 6 IN. MAX. |
| 40           | 965.41           | 977.02             | 976.83              | 11.60             | 11.42              | *5'S @ 6 IN. MAX. |
| 41           | 965.39           | 976.83             | 976.33              | 11.44             | 10.94              | *5'S @ 6 IN. MAX. |
| 42           | 965.37           | 976.33             | 975.83              | 10.97             | 10.47              | *5'S @ 6 IN. MAX. |
| 43           | 965.34           | 975.83             | 975.33              | 10.49             | 9.99               | *5'S @ 6 IN. MAX. |
| 44           | 965.32           | 975.33             | 974.86              | 10.01             | 9.54               | *5'S @ 6 IN. MAX. |
| 45           | 965.29           | 974.86             | 974.45              | 9.57              | 9.17               | *5'S @ 6 IN. MAX. |
| 46           | 965.24           | 974.45             | 974.05              | 9.21              | 8.81               | *5'S @ 6 IN. MAX. |
| 47           | 965.19           | 974.05             | 973.64              | 8.86              | 8.45               | *5'S @ 6 IN. MAX. |
| 48           | 965.14           | 973.64             | 973.24              | 8.50              | 8.10               | *5'S @ 6 IN. MAX. |
| 49           | 965.13           | 973.24             | 972.91              | 8.12              | 7.78               | *5'S @ 6 IN. MAX. |
| 50           | 965.15           | 972.91             | 972.58              | 7.76              | 7.43               | *5'S @ 6 IN. MAX. |
| 51           | 965.17           | 972.58             | 972.24              | 7.40              | 7.07               | *5'S @ 6 IN. MAX. |
| 52           | 965.20           | 972.24             | 971.91              | 7.05              | 6.71               | N/A               |
| 53           | 965.20           | 971.91             | 971.76              | 6.71              | 6.56               | N/A               |
| 54           | 965.20           | 971.76             | 971.64              | 6.56              | 6.44               | N/A               |
| 55           | 965.20           | 971.64             | 971.52              | 6.44              | 6.32               | N/A               |
| 56           | 965.20           | 971.52             | 971.41              | 6.32              | 6.21               | N/A               |
| 57           | 965.23           | 971.41             | 971.24              | 6.17              | 6.01               | N/A               |
| 58           | 965.28           | 971.24             | 971.05              | 5.96              | 5.77               | N/A               |
| 59           | 965.33           | 971.05             | 970.86              | 5.72              | 5.53               | N/A               |
| 60           | 965.38           | 970.86             | 970.67              | 5.48              | 5.29               | N/A               |
| 61           | 965.40           | 970.67             | 970.40              | 5.27              | 5.00               | N/A               |
| 62           | 965.40           | 970.40             | 970.04              | 5.00              | 4.64               | N/A               |
| 63           | 965.40           | 970.04             | 969.68              | 4.64              | 4.28               | N/A               |
| 64           | 965.40           | 969.68             | 969.33              | 4.28              | 3.93               | N/A               |
| 65           | 965.40           | 969.33             | 969.06              | 3.93              | 3.66               | N/A               |
| 66           | 965.39           | 969.06             | 969.04              | 3.67              | 3.64               | N/A               |
| 67           | 965.37           | 969.04             | 969.01              | 3.67              | 3.64               | N/A               |
| 68           | 965.35           | 969.01             | 968.99              | 3.67              | 3.64               | N/A               |
| 69           | 965.32           | 968.99             | 968.95              | 3.67              | 3.63               | N/A               |
| 70           | 965.30           | 968.95             | 968.71              | 3.65              | 3.41               | N/A               |
| 71           | 965.26           | 968.71             | 968.47              | 3.45              | 3.21               | N/A               |
| 72           | 965.22           | 968.47             | 968.23              | 3.25              | 3.02               | N/A               |

NOTES

BID ITEM SHALL BE "RAILING TUBULAR SCREENING R-9-12" WHICH SHALL INCLUDE ALL ITEMS SHOWN.

POST BASE PLATES SHALL BE FLAT WITH ALL SURFACES SMOOTH AND FREE FROM WARP AND ALL EDGES SMOOTH, STRAIGHT AND VERTICAL. ALL PLATE CUTS SHALL BE MACHINE OR MACHINE FLAME CUT.

RAILS AND POSTS TO BE ASTM A500, GRADE B. BASE PLATES AND SHIMS TO BE ASTM A709, GRADE 36. ALL GALVANIZED AFTER FABRICATION.

ANCHORAGES SHALL BE ACCURATELY PLACED TO PROVIDE CORRECT ALIGNMENT OF RAILING. SET POSTS NORMAL TO GRADE.

ALL POST SPA. ARE TAKEN HORIZ. ALONG CENTER LINE OF RAILING AT BASE OF POST.

SHIMS SHALL BE USED UNDER BASE PLATES WHERE REQUIRED FOR ALIGNMENT.

CAULK AROUND PERIMETER OF BASE PLATES AND FILL PORTION OF SLOTTED HOLES AROUND ANCHOR BOLTS WITH NON-STAINING GRAY NON-BITUMINOUS JOINT SEALER.

CUT BOTTOM OF POST TO MAKE VERTICAL IN TRANSVERSE DIRECTION.

ANCHOR BOLTS, NUTS AND WASHERS SHALL BE EITHER STAINLESS STEEL OR ASTM 307. IF 307 IS USED, ANCHOR BOLTS, NUTS, AND WASHERS SHALL BE GALVANIZED.

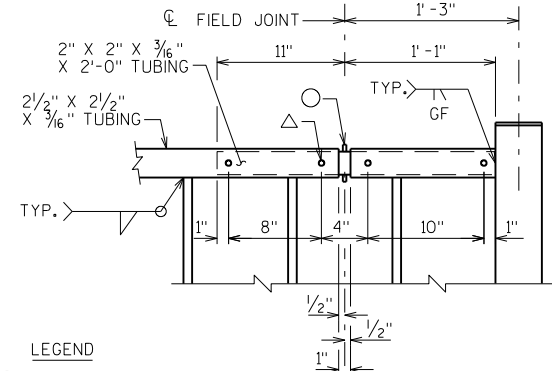
RAILING TO BE PAINTED AND FENCE FABRIC AND TIES TO BE VINYL COATED, FEDERAL COLOR NO. 24066, "GREEN".

RAILING SHALL BE FABRICATED IN LENGTHS THAT INCLUDE NOT MORE THAN 3 POSTS.

THE END OF THE FABRIC SHALL BE ATTACHED TO THE POST BY MEANS OF A TENSION BAR THREADED THROUGH THE END LOOPS OF THE FABRIC AND SECURED TO THE POST WITH CLAMPS & BOLT. THE FABRIC SHALL BE STRETCHED TO REMOVE ALL SLACK.

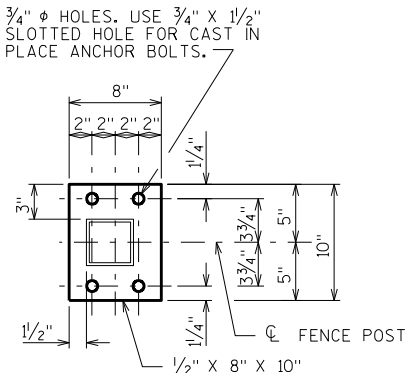
VENT HOLES SHALL BE DRILLED IN MEMBERS AS REQUIRED TO FACILITATE GALVANIZING.

ALL MATERIAL SHALL BE GALVANIZED AFTER FABRICATION. PRIOR TO GALVANIZING ALL STEEL RAILING POSTS AND STEEL TUBING SHALL BE GIVEN A #6 BLAST CLEANING BY SSPC SPECIFICATIONS. PAINT OVER GALVANIZING WITH APPROVED TIE COAT AND TOPCOAT.

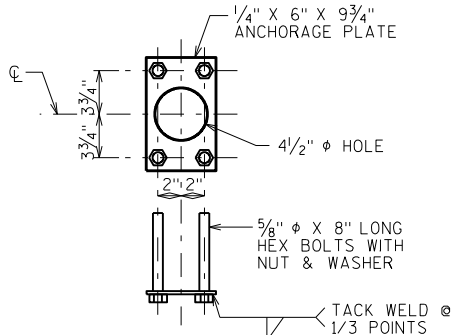


- LEGEND
- 5/16" x 3/8" WELDED STUDS
  - △ WELD BEAD ON EACH SIDE OF TUBE. GRIND BEADS SO THAT SLEEVE FITS FREELY INSIDE THE 2 1/2" x 2 1/2" TUBE.

RAILING EXPANSION JOINT DETAIL

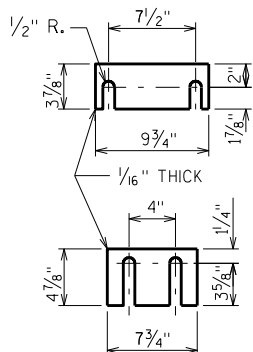


BASE PLATE



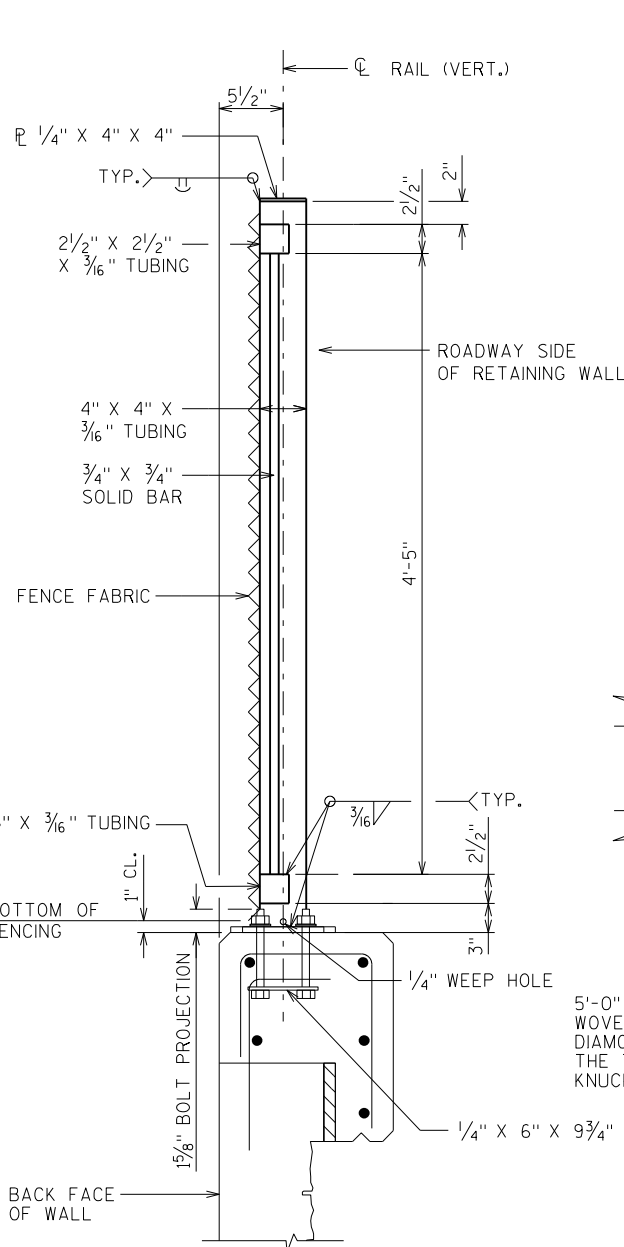
ANCHORAGE DETAIL

5/8"  $\phi$  CONCRETE MASONRY ANCHOR, TYPE S EPOXY, 7" MINIMUM EMBEDMENT WITH A MINIMUM PULLOUT OF 20 KIPS MAY BE SUBSTITUTED FOR 5/8" CAST IN PLACE ANCHOR BOLTS. ANCHORAGE PLATE NOT REQUIRED WHEN TYPE S ANCHORS ARE USED.

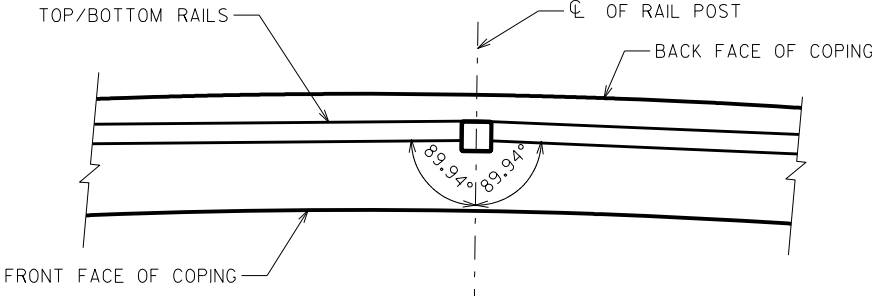


SHIM PLATE DETAILS

TWO SHIMS OF EACH SIZE REQUIRED PER POST

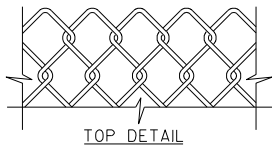


SECTION THRU RAILING

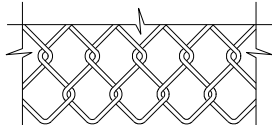


PLAN OF RAILING AT CURVED PORTION OF WALL

(WALL STA. 1+46.38 TO STA. 4+20.84)



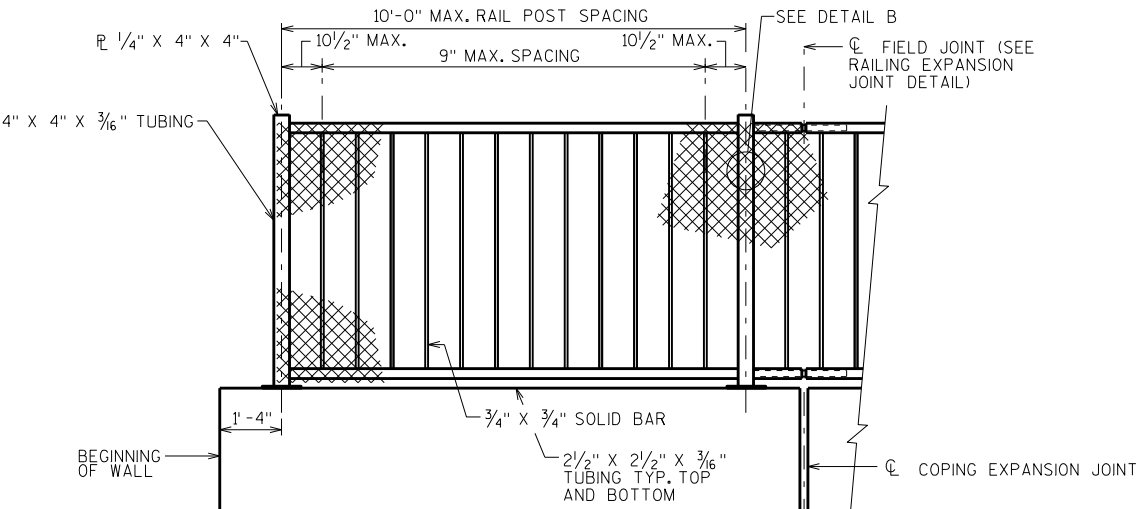
TOP DETAIL



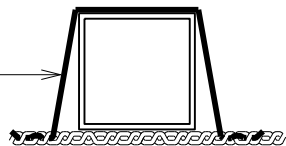
BOTTOM DETAIL

FENCE FABRIC

5'-0" VINYL COATED FENCE FABRIC WOVEN OF 9-GAUGE WIRE IN 2" DIAMOND PATTERN MESH WITH BOTH THE TOP AND BOTTOM SELVAGES KNUCKLED.

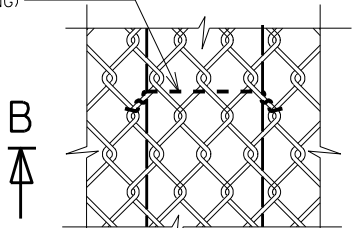


PARTIAL ELEVATION OF RAILING



SECTION B-B

FABRIC TIE @ 1'-0" MAX. SPA. (TYP. RAIL POSTS & HORIZ. TUBING)



DETAIL B

| NO.                                                                             | DATE | REVISION        | BY |
|---------------------------------------------------------------------------------|------|-----------------|----|
|                                                                                 |      |                 |    |
| STATE OF WISCONSIN<br>DEPARTMENT OF TRANSPORTATION<br>STRUCTURES DESIGN SECTION |      |                 |    |
| STRUCTURE R-9-12                                                                |      |                 |    |
| DRAWN BY JLR                                                                    |      | PLANS CK'D. ARC |    |
| ORNAMENTAL PROTECTIVE SCREENING                                                 |      | SHEET 4         |    |
|                                                                                 |      | 134             |    |

STATE PROJECT NUMBER

8600-02-02

ABBREVIATIONS

F — FINE  
WS — WEATHERED

M — MEDIUM  
SO — SOUND

C — COARSE

MATERIAL SYMBOLS

TOPSOIL

SAND

GRAVEL

SILT

PEAT

CLAY

SANDSTONE

LIMESTONE

IGNEOUS ROCK

LEGEND OF PROBING

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

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

LEGEND OF BORING

UNCONFINED STRENGTH  
BLOWS PER FT. USING 140# WT. FALLING 30"

WASH SAMPLE

SHELBY TUBE — S.T.

GROUND WATER ELEVATION

NO GROUND WATER OBSERVED ABOVE THIS ELEVATION

ELEV.

BORING NO.  
STA.

SANDY GRAVEL

F. BOULDERS OR COBBLES

SAND

SILTY CLAY

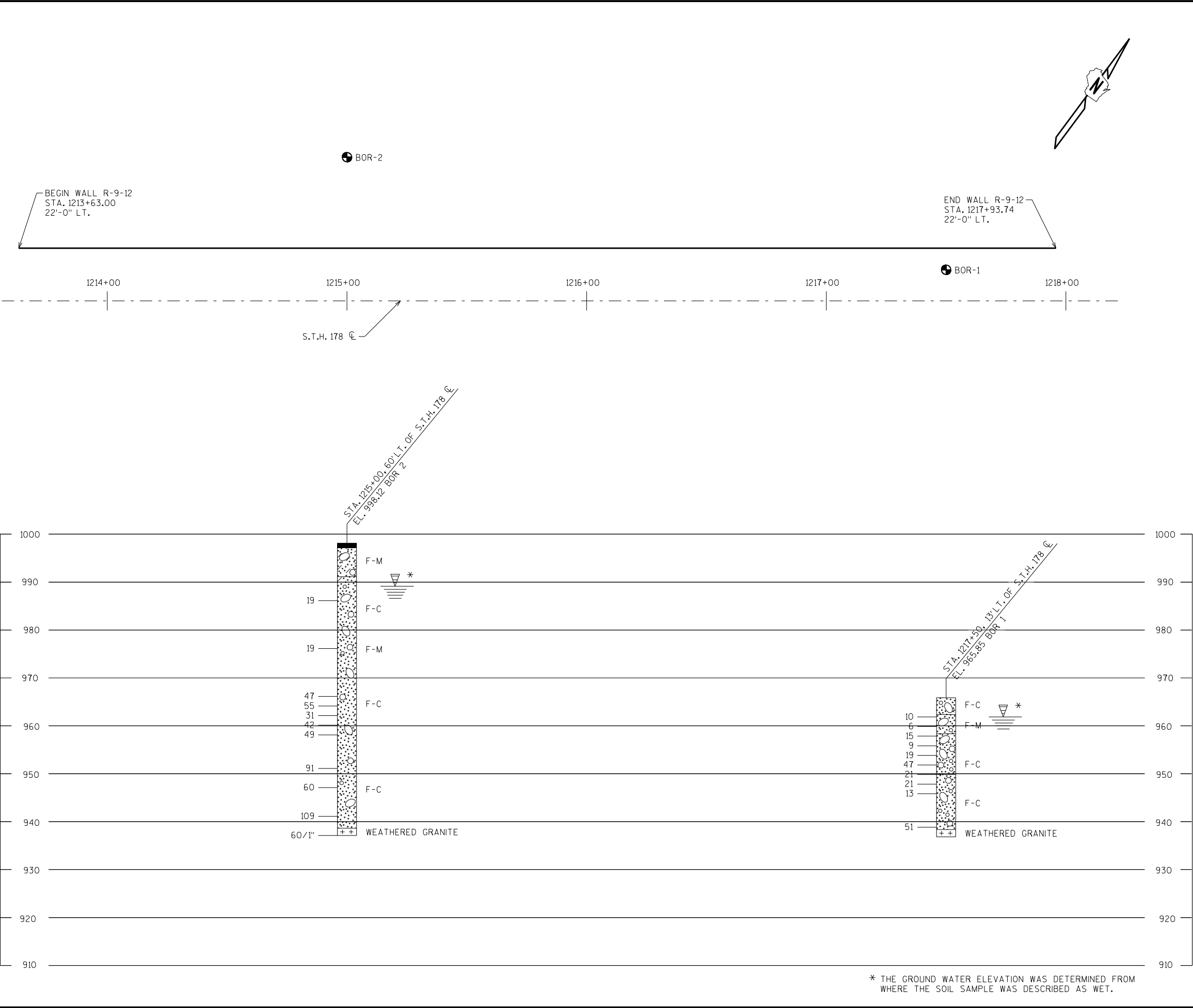
SO  
LIMESTONE

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<br>DEPARTMENT OF TRANSPORTATION<br>STRUCTURES DESIGN SECTION |      |                |    |
| STRUCTURE R-9-12                                                                |      |                |    |
| DRAWN BY PR/JLR                                                                 |      | PLANS CKD. ARC |    |
| SUBSURFACE EXPLORATION                                                          |      | SHEET 5        |    |
|                                                                                 |      | 135            |    |



| STH 178<br>STATION | REAL<br>STATION | DISTANCE | END AREA, (SF) |          |        | UNADJUSTED VOLUMES, (CY) |          |        | CUMULATIVE VOLUMES, (CY) |          |             | MASS HAUL, (CY) | EBS (CY) |
|--------------------|-----------------|----------|----------------|----------|--------|--------------------------|----------|--------|--------------------------|----------|-------------|-----------------|----------|
|                    |                 |          | CUT            | UNUSABLE | FILL   | CUT                      | UNUSABLE | FILL   | CUT (1.00)               | UNUSABLE | FILL (1.25) |                 |          |
| 1170+00.00         | 117000          |          | 0.00           | 0.00     | 0.00   |                          |          |        |                          |          |             |                 |          |
| 1170+50.00         | 117050          | 50.0     | 41.95          | 0.00     | 9.92   | 38.85                    | 0.00     | 9.18   | 38.85                    | 0.00     | 11.48       | 27.37           | 18.50    |
| 1171+00.00         | 117100          | 50.0     | 49.90          | 0.00     | 2.87   | 85.05                    | 0.00     | 11.84  | 123.89                   | 0.00     | 26.28       | 97.61           | 18.50    |
| 1171+50.00         | 117150          | 50.0     | 62.99          | 0.00     | 4.48   | 104.53                   | 0.00     | 6.80   | 228.42                   | 0.00     | 34.79       | 193.63          | 18.50    |
| 1172+00.00         | 117200          | 50.0     | 53.02          | 0.00     | 2.81   | 107.42                   | 0.00     | 6.74   | 335.84                   | 0.00     | 43.22       | 292.62          | 18.50    |
| 1172+50.00         | 117250          | 50.0     | 54.77          | 0.00     | 2.78   | 99.81                    | 0.00     | 5.17   | 435.65                   | 0.00     | 49.67       | 385.97          | 18.50    |
| 1173+00.00         | 117300          | 50.0     | 43.49          | 0.00     | 1.79   | 90.98                    | 0.00     | 4.23   | 526.63                   | 0.00     | 54.96       | 471.66          | 37.00    |
| 1173+50.00         | 117350          | 50.0     | 39.01          | 0.00     | 1.10   | 76.39                    | 0.00     | 2.68   | 603.01                   | 0.00     | 58.31       | 544.70          | 37.00    |
| 1174+00.00         | 117400          | 50.0     | 35.48          | 0.00     | 0.93   | 68.97                    | 0.00     | 1.88   | 671.98                   | 0.00     | 60.67       | 611.31          | 37.00    |
| 1174+50.00         | 117450          | 50.0     | 32.86          | 0.00     | 1.15   | 63.27                    | 0.00     | 1.93   | 735.25                   | 0.00     | 63.08       | 672.17          | 37.00    |
| 1175+00.00         | 117500          | 50.0     | 34.03          | 0.00     | 0.68   | 61.93                    | 0.00     | 1.70   | 797.18                   | 0.00     | 65.20       | 731.98          | 37.00    |
| 1175+50.00         | 117550          | 50.0     | 33.25          | 0.00     | 0.31   | 62.29                    | 0.00     | 0.92   | 859.47                   | 0.00     | 66.34       | 793.12          | 37.00    |
| 1176+00.00         | 117600          | 50.0     | 32.94          | 0.00     | 0.17   | 61.28                    | 0.00     | 0.44   | 920.75                   | 0.00     | 66.90       | 853.85          | 37.00    |
| 1176+50.00         | 117650          | 50.0     | 32.63          | 0.00     | 0.82   | 60.71                    | 0.00     | 0.92   | 981.45                   | 0.00     | 68.05       | 913.41          | 37.00    |
| 1177+00.00         | 117700          | 50.0     | 42.08          | 0.00     | 0.36   | 69.17                    | 0.00     | 1.09   | 1,050.62                 | 0.00     | 69.41       | 981.21          | 37.00    |
| 1177+50.00         | 117750          | 50.0     | 41.43          | 0.00     | 0.00   | 77.32                    | 0.00     | 0.33   | 1,127.94                 | 0.00     | 69.83       | 1,058.11        | 37.00    |
| 1178+00.00         | 117800          | 50.0     | 39.70          | 0.00     | 0.56   | 75.12                    | 0.00     | 0.52   | 1,203.06                 | 0.00     | 70.48       | 1,132.58        | 37.00    |
| 1178+50.00         | 117850          | 50.0     | 44.22          | 0.00     | 0.08   | 77.70                    | 0.00     | 0.59   | 1,280.76                 | 0.00     | 71.22       | 1,209.54        | 37.00    |
| 1179+00.00         | 117900          | 50.0     | 45.02          | 0.00     | 1.27   | 82.63                    | 0.00     | 1.25   | 1,363.38                 | 0.00     | 72.78       | 1,290.60        | 37.00    |
| 1179+50.00         | 117950          | 50.0     | 47.30          | 0.00     | 2.74   | 85.48                    | 0.00     | 3.72   | 1,448.86                 | 0.00     | 77.43       | 1,371.43        | 37.00    |
| 1180+00.00         | 118000          | 50.0     | 52.33          | 0.00     | 1.38   | 92.25                    | 0.00     | 3.82   | 1,541.11                 | 0.00     | 82.20       | 1,458.90        | 37.00    |
| 1180+50.00         | 118050          | 50.0     | 61.51          | 0.00     | 2.55   | 105.41                   | 0.00     | 3.64   | 1,646.52                 | 0.00     | 86.76       | 1,559.76        | 37.00    |
| 1181+00.00         | 118100          | 50.0     | 59.17          | 0.00     | 3.42   | 111.74                   | 0.00     | 5.53   | 1,758.26                 | 0.00     | 93.67       | 1,664.59        | 37.00    |
| 1181+50.00         | 118150          | 50.0     | 55.47          | 0.00     | 3.13   | 106.15                   | 0.00     | 6.06   | 1,864.41                 | 0.00     | 101.24      | 1,763.17        | 37.00    |
| 1182+00.00         | 118200          | 50.0     | 37.66          | 0.00     | 3.52   | 86.23                    | 0.00     | 6.15   | 1,950.64                 | 0.00     | 108.93      | 1,841.71        | 37.00    |
| 1182+44.00         | 118244          | 44.0     | 16.02          | 0.00     | 43.47  | 43.74                    | 0.00     | 38.29  | 1,994.38                 | 0.00     | 156.79      | 1,837.60        | 16.28    |
| 1182+50.00         | 118250          | 6.0      | 19.50          | 0.00     | 20.02  | 3.95                     | 0.00     | 7.05   | 1,998.33                 | 0.00     | 165.60      | 1,832.72        | 2.22     |
| 1183+00.00         | 118300          | 50.0     | 15.87          | 0.00     | 50.12  | 32.76                    | 0.00     | 64.94  | 2,031.08                 | 0.00     | 246.78      | 1,784.31        | 18.50    |
| 1183+50.00         | 118350          | 50.0     | 9.93           | 0.00     | 92.73  | 23.89                    | 0.00     | 132.27 | 2,054.98                 | 0.00     | 412.11      | 1,642.87        | 18.50    |
| 1184+00.00         | 118400          | 50.0     | 11.65          | 0.00     | 112.43 | 19.99                    | 0.00     | 189.97 | 2,074.96                 | 0.00     | 649.57      | 1,425.40        | 18.50    |
| 1184+50.00         | 118450          | 50.0     | 4.81           | 0.00     | 135.96 | 15.24                    | 0.00     | 229.99 | 2,090.21                 | 0.00     | 937.06      | 1,153.15        | 18.50    |
| 1185+00.00         | 118500          | 50.0     | 5.61           | 0.00     | 95.02  | 9.65                     | 0.00     | 213.87 | 2,099.85                 | 0.00     | 1,204.40    | 895.45          | 18.50    |
| 1185+50.00         | 118550          | 50.0     | 14.92          | 0.00     | 24.33  | 19.01                    | 0.00     | 110.51 | 2,118.87                 | 0.00     | 1,342.54    | 776.32          | 18.50    |
| 1186+00.00         | 118600          | 50.0     | 22.15          | 0.00     | 18.37  | 34.33                    | 0.00     | 39.54  | 2,153.19                 | 0.00     | 1,391.97    | 761.22          | 18.50    |
| 1186+50.00         | 118650          | 50.0     | 14.67          | 0.00     | 13.39  | 34.10                    | 0.00     | 29.41  | 2,187.29                 | 0.00     | 1,428.74    | 758.56          | 18.50    |
| 1187+00.00         | 118700          | 50.0     | 18.10          | 0.00     | 4.81   | 30.35                    | 0.00     | 16.86  | 2,217.64                 | 0.00     | 1,449.81    | 767.83          | 18.50    |
| 1187+50.00         | 118750          | 50.0     | 34.28          | 0.00     | 0.75   | 48.50                    | 0.00     | 5.15   | 2,266.14                 | 0.00     | 1,456.24    | 809.90          | 18.50    |
| 1188+00.00         | 118800          | 50.0     | 34.98          | 0.00     | 2.61   | 64.12                    | 0.00     | 3.11   | 2,330.26                 | 0.00     | 1,460.13    | 870.13          | 18.50    |
| 1188+50.00         | 118850          | 50.0     | 35.51          | 0.00     | 2.11   | 65.26                    | 0.00     | 4.38   | 2,395.52                 | 0.00     | 1,465.60    | 929.93          | 18.50    |
| 1189+00.00         | 118900          | 50.0     | 44.65          | 0.00     | 0.61   | 74.22                    | 0.00     | 2.52   | 2,469.74                 | 0.00     | 1,468.75    | 1,000.99        | 18.50    |
| 1189+50.00         | 118950          | 50.0     | 66.95          | 0.00     | 0.00   | 103.33                   | 0.00     | 0.57   | 2,573.07                 | 0.00     | 1,469.46    | 1,103.61        | 18.50    |
| 1190+00.00         | 119000          | 50.0     | 44.03          | 0.00     | 0.16   | 102.76                   | 0.00     | 0.15   | 2,675.83                 | 0.00     | 1,469.64    | 1,206.19        | 18.50    |
| 1190+50.00         | 119050          | 50.0     | 44.76          | 0.00     | 0.77   | 82.21                    | 0.00     | 0.86   | 2,758.04                 | 0.00     | 1,470.72    | 1,287.32        | 0.00     |
| 1191+00.00         | 119100          | 50.0     | 29.14          | 0.00     | 4.17   | 68.42                    | 0.00     | 4.58   | 2,826.46                 | 0.00     | 1,476.44    | 1,350.02        | 0.00     |
| 1191+50.00         | 119150          | 50.0     | 63.98          | 0.00     | 0.20   | 86.22                    | 0.00     | 4.05   | 2,912.68                 | 0.00     | 1,481.51    | 1,431.17        | 0.00     |
| 1192+00.00         | 119200          | 50.0     | 176.08         | 25.67    | 0.00   | 222.28                   | 23.77    | 0.19   | 3,134.96                 | 23.77    | 1,481.75    | 1,629.45        | 0.00     |
| 1192+50.00         | 119250          | 50.0     | 252.93         | 25.67    | 0.00   | 397.24                   | 47.54    | 0.00   | 3,532.20                 | 71.31    | 1,481.75    | 1,979.15        | 0.00     |
| 1193+00.00         | 119300          | 50.0     | 284.77         | 25.67    | 0.00   | 497.87                   | 47.54    | 0.00   | 4,030.07                 | 118.84   | 1,481.75    | 2,429.48        | 0.00     |
| 1193+50.00         | 119350          | 50.0     | 339.01         | 25.67    | 0.00   | 577.57                   | 47.54    | 0.00   | 4,607.63                 | 166.38   | 1,481.75    | 2,959.51        | 0.00     |
| 1194+00.00         | 119400          | 50.0     | 361.44         | 25.67    | 0.00   | 648.56                   | 47.54    | 0.00   | 5,256.19                 | 213.92   | 1,481.75    | 3,560.53        | 0.00     |
| 1194+50.00         | 119450          | 50.0     | 341.27         | 25.67    | 0.00   | 650.65                   | 47.54    | 0.00   | 5,906.84                 | 261.45   | 1,481.75    | 4,163.64        | 0.00     |
| 1195+00.00         | 119500          | 50.0     | 305.55         | 25.67    | 0.00   | 598.90                   | 47.54    | 0.00   | 6,505.74                 | 308.99   | 1,481.75    | 4,715.01        | 0.00     |
| 1195+50.00         | 119550          | 50.0     | 197.68         | 25.67    | 220.59 | 465.95                   | 47.54    | 204.25 | 6,971.69                 | 356.53   | 1,737.06    | 4,878.10        | 0.00     |
| 1196+00.00         | 119600          | 50.0     | 129.80         | 25.67    | 53.68  | 303.22                   | 47.54    | 253.96 | 7,274.91                 | 404.06   | 2,054.51    | 4,816.33        | 0.00     |
| 1196+50.00         | 119650          | 50.0     | 275.29         | 25.67    | 0.01   | 375.09                   | 47.54    | 49.71  | 7,650.00                 | 451.60   | 2,116.65    | 5,081.75        | 0.00     |
| 1197+00.00         | 119700          | 50.0     | 383.90         | 25.67    | 0.00   | 610.36                   | 47.54    | 0.00   | 8,260.36                 | 499.14   | 2,116.65    | 5,644.57        | 0.00     |
| 1197+50.00         | 119750          | 50.0     | 535.95         | 25.67    | 0.00   | 851.71                   | 47.54    | 0.00   | 9,112.07                 | 546.68   | 2,116.65    | 6,448.74        | 0.00     |
| 1198+00.00         | 119800          | 50.0     | 442.45         | 25.67    | 0.00   | 905.92                   | 47.54    | 0.00   | 10,017.99                | 594.21   | 2,116.65    | 7,307.12        | 0.00     |
| 1198+50.00         | 119850          | 50.0     | 430.37         | 25.67    | 0.00   | 808.16                   | 47.54    | 0.00   | 10,826.16                | 641.75   | 2,116.65    | 8,067.75        | 0.00     |
| 1199+00.00         | 119900          | 50.0     | 483.78         | 25.67    | 0.00   | 846.43                   | 47.54    | 0.00   | 11,672.59                | 689.29   | 2,116.65    | 8,866.65        | 0.00     |
| 1199+50.00         | 119950          | 50.0     | 409.36         | 25.67    | 0.00   | 826.98                   | 47.54    | 0.00   | 12,499.57                | 736.82   | 2,116.65    | 9,646.09        | 0.00     |
| 1200+00.00         | 120000          | 50.0     | 196.79         | 25.67    | 0.00   | 561.24                   | 47.54    | 0.00   | 13,060.81                | 784.36   | 2,116.65    | 10,159.79       | 18.50    |
| 1200+50.00         | 120050          | 50.0     | 33.58          | 0.00     | 120.84 | 213.30                   | 23.77    | 111.89 | 13,274.11                | 808.13   | 2,256.52    | 10,209.47       | 18.50    |
| 1201+00.00         | 120100          | 50.0     | 0.99           | 0.00     | 156.62 | 32.01                    | 0.00     | 256.91 | 13,306.13                | 808.13   | 2,577.66    | 9,920.34        | 18.50    |
| 1201+50.00         | 120150          | 50.0     | 0.00           | 0.00     | 209.48 | 0.92                     | 0.00     | 338.99 | 13,307.05                | 808.13   | 3,001.39    | 9,497.53        | 18.50    |
| 1202+00.00         | 120200          | 50.0     | 5.05           | 0.00     | 351.67 | 4.68                     | 0.00     | 519.58 | 13,311.73                | 808.13   | 3,650.87    | 8,852.73        | 18.50    |
| 1202+50.00         | 120250          | 50.0     | 18.67          | 0.00     | 136.46 | 21.97                    | 0.00     | 451.96 | 13,333.69                | 808.13   | 4,215.82    | 8,309.75        | 18.50    |
| 1203+00.00         | 120300          | 50.0     | 8.54           | 0.00     | 117.48 | 25.20                    | 0.00     | 235.13 | 13,358.89                | 808.13   | 4,509.73    | 8,041.04        | 18.50    |

(CONTINUED ON NEXT SHEET)

- NOTES:
- 1. CUT INCLUDES UNUSABLE/PAVEMENT MATERIAL.
  - 2. UNUSABLE/PAVEMENT MATERIAL NOT DEPICTED ON THE CROSS SECTIONS.
  - 3. EXPANDED FILL FACTOR IS 1.25.

| STH 178<br>STATION | REAL<br>STATION | DISTANCE | END AREA, (SF) |          |        | UNADJUSTED VOLUMES, (CY) |          |        | CUMULATIVE VOLUMES, (CY) |          |             | MASS HAUL, (CY) |          |
|--------------------|-----------------|----------|----------------|----------|--------|--------------------------|----------|--------|--------------------------|----------|-------------|-----------------|----------|
|                    |                 |          | CUT            | UNUSABLE | FILL   | CUT                      | UNUSABLE | FILL   | CUT (1.00)               | UNUSABLE | FILL (1.25) |                 | EBS (CY) |
| 1203+43.00         | 120343          | 43.0     | 1.41           | 0.00     | 459.33 | 7.92                     | 0.00     | 459.31 | 13,366.82                | 808.13   | 5,083.86    | 7,474.82        | 15.91    |
| 1203+50.00         | 120350          | 7.0      | 0.00           | 0.00     | 241.93 | 0.18                     | 0.00     | 90.90  | 13,367.00                | 808.13   | 5,197.49    | 7,361.38        | 2.59     |
| 1204+00.00         | 120400          | 50.0     | 34.07          | 0.00     | 5.76   | 31.55                    | 0.00     | 229.34 | 13,398.55                | 808.13   | 5,484.17    | 7,106.25        | 18.50    |
| 1204+50.00         | 120450          | 50.0     | 78.40          | 25.67    | 2.34   | 104.14                   | 23.77    | 7.50   | 13,502.69                | 831.90   | 5,493.55    | 7,177.25        | 18.50    |
| 1205+00.00         | 120500          | 50.0     | 131.58         | 25.67    | 0.06   | 194.43                   | 47.54    | 2.22   | 13,697.12                | 879.44   | 5,496.32    | 7,321.36        | 18.50    |
| 1205+50.00         | 120550          | 50.0     | 180.75         | 25.67    | 55.96  | 289.20                   | 47.54    | 51.87  | 13,986.32                | 926.97   | 5,561.16    | 7,498.19        | 0.00     |
| 1206+00.00         | 120600          | 50.0     | 299.37         | 25.67    | 0.01   | 444.56                   | 47.54    | 51.81  | 14,430.88                | 974.51   | 5,625.93    | 7,830.44        | 0.00     |
| 1206+50.00         | 120650          | 50.0     | 211.44         | 25.67    | 100.15 | 472.97                   | 47.54    | 92.74  | 14,903.85                | 1,022.05 | 5,741.85    | 8,139.96        | 0.00     |
| 1207+00.00         | 120700          | 50.0     | 186.63         | 25.67    | 127.35 | 368.58                   | 47.54    | 210.65 | 15,272.43                | 1,069.58 | 6,005.16    | 8,197.69        | 0.00     |
| 1207+50.00         | 120750          | 50.0     | 147.10         | 25.67    | 148.37 | 309.02                   | 47.54    | 255.30 | 15,581.45                | 1,117.12 | 6,324.28    | 8,140.05        | 0.00     |
| 1208+00.00         | 120800          | 50.0     | 46.07          | 0.00     | 141.94 | 178.87                   | 23.77    | 268.81 | 15,760.32                | 1,140.89 | 6,660.30    | 7,959.13        | 0.00     |
| 1208+50.00         | 120850          | 50.0     | 55.22          | 0.00     | 257.08 | 93.79                    | 0.00     | 369.47 | 15,854.10                | 1,140.89 | 7,122.13    | 7,591.08        | 0.00     |
| 1209+00.00         | 120900          | 50.0     | 89.68          | 0.00     | 385.70 | 134.17                   | 0.00     | 595.17 | 15,988.27                | 1,140.89 | 7,866.09    | 6,981.29        | 0.00     |
| 1209+50.00         | 120950          | 50.0     | 22.58          | 0.00     | 397.99 | 103.95                   | 0.00     | 725.63 | 16,092.22                | 1,140.89 | 8,773.13    | 6,178.20        | 0.00     |
| 1210+00.00         | 121000          | 50.0     | 0.00           | 0.00     | 416.79 | 20.91                    | 0.00     | 754.42 | 16,113.13                | 1,140.89 | 9,716.16    | 5,256.08        | 0.00     |
| 1210+32.00         | 121032          | 32.0     | 0.02           | 0.00     | 530.92 | 0.01                     | 0.00     | 561.60 | 16,113.14                | 1,140.89 | 10,418.16   | 4,554.09        | 0.00     |
| 1210+50.00         | 121050          | 18.0     | 0.00           | 0.00     | 380.53 | 0.01                     | 0.00     | 303.82 | 16,113.15                | 1,140.89 | 10,797.93   | 4,174.33        | 0.00     |
| 1211+00.00         | 121100          | 50.0     | 0.00           | 0.00     | 257.87 | 0.00                     | 0.00     | 591.11 | 16,113.15                | 1,140.89 | 11,536.82   | 3,435.44        | 0.00     |
| 1211+50.00         | 121150          | 50.0     | 0.00           | 0.00     | 245.13 | 0.00                     | 0.00     | 465.73 | 16,113.15                | 1,140.89 | 12,118.99   | 2,853.27        | 0.00     |
| 1212+00.00         | 121200          | 50.0     | 0.00           | 0.00     | 264.11 | 0.00                     | 0.00     | 471.51 | 16,113.15                | 1,140.89 | 12,708.37   | 2,263.89        | 0.00     |
| 1212+50.00         | 121250          | 50.0     | 5.91           | 0.00     | 290.23 | 5.47                     | 0.00     | 513.27 | 16,118.61                | 1,140.89 | 13,349.96   | 1,627.77        | 0.00     |
| 1213+00.00         | 121300          | 50.0     | 0.01           | 0.00     | 130.03 | 5.47                     | 0.00     | 389.13 | 16,124.09                | 1,140.89 | 13,836.37   | 1,146.83        | 0.00     |
| 1213+50.00         | 121350          | 50.0     | 0.00           | 0.00     | 95.83  | 0.00                     | 0.00     | 209.14 | 16,124.09                | 1,140.89 | 14,097.79   | 885.41          | 0.00     |
| 1214+00.00         | 121400          | 50.0     | 98.27          | 25.67    | 46.36  | 90.99                    | 23.77    | 131.66 | 16,215.08                | 1,164.66 | 14,262.36   | 788.06          | 0.00     |
| 1214+50.00         | 121450          | 50.0     | 121.04         | 25.67    | 121.45 | 203.07                   | 47.54    | 114.95 | 16,418.15                | 1,212.19 | 14,406.05   | 799.91          | 0.00     |
| 1215+00.00         | 121500          | 50.0     | 114.40         | 25.67    | 77.93  | 218.00                   | 47.54    | 144.18 | 16,636.15                | 1,259.73 | 14,586.27   | 790.15          | 0.00     |
| 1215+50.00         | 121550          | 50.0     | 71.46          | 0.00     | 85.11  | 172.10                   | 23.77    | 150.97 | 16,808.25                | 1,283.50 | 14,774.98   | 749.77          | 0.00     |
| 1216+00.00         | 121600          | 50.0     | 78.11          | 0.00     | 98.65  | 138.49                   | 0.00     | 170.15 | 16,946.74                | 1,283.50 | 14,987.67   | 675.57          | 0.00     |
| 1216+48.00         | 121648          | 48.0     | 50.00          | 0.00     | 70.84  | 113.88                   | 0.00     | 150.66 | 17,060.62                | 1,283.50 | 15,175.99   | 601.13          | 0.00     |
| 1216+50.00         | 121650          | 2.0      | 48.12          | 0.00     | 76.38  | 3.63                     | 0.00     | 5.45   | 17,064.25                | 1,283.50 | 15,182.81   | 597.95          | 0.00     |
| 1217+00.00         | 121700          | 50.0     | 36.86          | 0.00     | 91.98  | 78.69                    | 0.00     | 155.89 | 17,142.94                | 1,283.50 | 15,377.66   | 481.77          | 0.00     |
| 1217+50.00         | 121750          | 50.0     | 18.23          | 0.00     | 58.69  | 51.00                    | 0.00     | 139.51 | 17,193.94                | 1,283.50 | 15,552.05   | 358.39          | 0.00     |
| 1218+00.00         | 121800          | 50.0     | 16.27          | 0.00     | 78.68  | 31.94                    | 0.00     | 127.20 | 17,225.88                | 1,283.50 | 15,711.05   | 231.33          | 18.50    |
| 1218+50.00         | 121850          | 50.0     | 6.93           | 0.00     | 71.11  | 21.49                    | 0.00     | 138.70 | 17,247.37                | 1,283.50 | 15,884.42   | 79.45           | 18.50    |
| 1218+75.00         | 121875          | 25.0     | 50.07          | 0.00     | 49.07  | 26.39                    | 0.00     | 55.64  | 17,273.76                | 1,283.50 | 15,953.97   | 36.29           | 9.25     |
| 1219+00.00         | 121900          | 25.0     | 125.73         | 0.00     | 37.68  | 81.39                    | 0.00     | 40.16  | 17,355.15                | 1,283.50 | 16,004.17   | 67.48           | 9.25     |
| 1219+50.00         | 121950          | 50.0     | 277.80         | 0.00     | 34.32  | 373.64                   | 0.00     | 66.67  | 17,728.79                | 1,283.50 | 16,087.50   | 357.79          | 18.50    |
| 1220+00.00         | 122000          | 50.0     | 88.85          | 11.00    | 21.54  | 339.50                   | 10.19    | 51.71  | 18,068.29                | 1,293.69 | 16,152.15   | 622.46          | 18.50    |
| 1220+50.00         | 122050          | 50.0     | 123.41         | 11.00    | 16.36  | 196.54                   | 20.37    | 35.09  | 18,264.83                | 1,314.06 | 16,196.01   | 754.76          | 0.00     |
| 1221+00.00         | 122100          | 50.0     | 89.58          | 11.00    | 8.01   | 197.22                   | 20.37    | 22.57  | 18,462.05                | 1,334.43 | 16,224.22   | 903.40          | 0.00     |
| 1221+50.00         | 122150          | 50.0     | 100.94         | 11.00    | 14.05  | 176.41                   | 20.37    | 20.43  | 18,638.46                | 1,354.80 | 16,249.76   | 1,033.90        | 0.00     |
| 1222+00.00         | 122200          | 50.0     | 68.53          | 11.00    | 6.74   | 156.92                   | 20.37    | 19.25  | 18,795.38                | 1,375.17 | 16,273.83   | 1,146.38        | 0.00     |
| 1222+50.00         | 122250          | 50.0     | 17.62          | 3.00     | 6.94   | 79.77                    | 12.96    | 12.67  | 18,875.15                | 1,388.13 | 16,289.66   | 1,197.35        | 46.50    |
| 1223+00.00         | 122300          | 50.0     | 10.28          | 3.00     | 13.24  | 25.83                    | 5.56     | 18.69  | 18,900.98                | 1,393.69 | 16,313.02   | 1,194.27        | 46.50    |
| 1223+50.00         | 122350          | 50.0     | 15.25          | 3.00     | 13.24  | 23.64                    | 5.56     | 24.52  | 18,924.62                | 1,399.24 | 16,343.68   | 1,181.71        | 46.50    |
| 1224+00.00         | 122400          | 50.0     | 14.59          | 3.00     | 52.82  | 27.63                    | 5.56     | 61.16  | 18,952.26                | 1,404.80 | 16,420.13   | 1,127.33        | 46.50    |
| 1224+50.00         | 122450          | 50.0     | 9.13           | 3.00     | 87.76  | 21.97                    | 5.56     | 130.16 | 18,974.23                | 1,410.35 | 16,582.84   | 981.04          | 46.50    |
| 1225+00.00         | 122500          | 50.0     | 8.09           | 3.00     | 87.55  | 15.95                    | 5.56     | 162.33 | 18,990.17                | 1,415.91 | 16,785.75   | 788.52          | 46.50    |
| 1225+50.00         | 122550          | 50.0     | 22.69          | 3.00     | 102.43 | 28.50                    | 5.56     | 175.91 | 19,018.68                | 1,421.46 | 17,005.63   | 591.58          | 46.50    |
| 1226+00.00         | 122600          | 50.0     | 14.46          | 3.00     | 81.42  | 34.40                    | 5.56     | 170.24 | 19,053.08                | 1,427.02 | 17,218.43   | 407.63          | 46.50    |
| 1226+50.00         | 122650          | 50.0     | 12.83          | 3.00     | 83.65  | 25.27                    | 5.56     | 152.85 | 19,078.35                | 1,432.57 | 17,409.49   | 236.29          | 46.50    |
| 1227+00.00         | 122700          | 50.0     | 11.88          | 3.00     | 47.05  | 22.88                    | 5.56     | 121.02 | 19,101.24                | 1,438.13 | 17,560.76   | 102.34          | 46.50    |
| 1227+50.00         | 122750          | 50.0     | 10.07          | 3.00     | 68.50  | 20.33                    | 5.56     | 106.99 | 19,121.56                | 1,443.69 | 17,694.50   | (16.62)         | 46.50    |
| 1228+00.00         | 122800          | 50.0     | 7.70           | 3.00     | 22.90  | 16.46                    | 5.56     | 84.63  | 19,138.02                | 1,449.24 | 17,800.29   | (111.51)        | 46.50    |
| 1228+50.00         | 122850          | 50.0     | 8.00           | 3.00     | 37.05  | 14.54                    | 5.56     | 55.50  | 19,152.56                | 1,454.80 | 17,869.67   | (171.90)        | 46.50    |
| 1229+00.00         | 122900          | 50.0     | 9.19           | 3.00     | 41.59  | 15.92                    | 5.56     | 72.81  | 19,168.48                | 1,460.35 | 17,960.68   | -252.55         | 46.50    |
| 1229+50.00         | 122950          | 50.0     | 11.47          | 3.00     | 46.11  | 19.13                    | 5.56     | 81.20  | 19,187.61                | 1,465.91 | 18,062.18   | -340.47         | 46.50    |
| 1230+00.00         | 123000          | 50.0     | 11.44          | 3.00     | 31.91  | 21.22                    | 5.56     | 72.24  | 19,208.83                | 1,471.46 | 18,152.47   | -415.10         | 46.50    |
| 1230+50.00         | 123050          | 50.0     | 11.60          | 3.00     | 35.67  | 21.34                    | 5.56     | 62.57  | 19,230.17                | 1,477.02 | 18,230.68   | -477.53         | 46.50    |
| 1231+00.00         | 123100          | 50.0     | 12.05          | 3.00     | 19.67  | 21.90                    | 5.56     | 51.23  | 19,252.07                | 1,482.57 | 18,294.72   | -525.23         | 46.50    |
| 1231+50.00         | 123150          | 50.0     | 11.96          | 3.00     | 18.27  | 22.24                    | 5.56     | 35.13  | 19,274.30                | 1,488.13 | 18,338.63   | -552.46         | 46.50    |
| 1232+00.00         | 123200          | 50.0     | 12.77          | 3.00     | 24.63  | 22.90                    | 5.56     | 39.73  | 19,297.21                | 1,493.69 | 18,388.29   | -584.77         | 46.50    |
| 1232+50.00         | 123250          | 50.0     | 21.75          | 3.00     | 8.43   | 31.97                    | 5.56     | 30.62  | 19,329.17                | 1,499.24 | 18,426.56   | -596.63         | 46.50    |
| 1233+00.00         | 123300          | 50.0     | 15.99          | 3.00     | 14.75  | 34.95                    | 5.56     | 21.47  | 19,364.12                | 1,504.80 | 18,453.40   | -594.07         | 46.50    |
| 1233+50.00         | 123350          | 50.0     | 21.88          | 3.00     | 7.61   | 35.07                    | 5.56     | 20.71  | 19,399.19                | 1,510.35 | 18,479.28   | -590.44         | 46.50    |
| 1234+00.00         | 123400          | 50.0     | 10.06          | 0.00     | 2.73   | 29.58                    | 2.78     | 9.58   | 19,428.78                | 1,513.13 | 18,491.25   | -575.61         | 0.00     |
| 1234+50.00         | 123450          | 50.0     | 6.13           | 0.00     | 18.10  | 14.99                    | 0.00     | 19.29  | 19,443.77                | 1,513.13 | 18,515.36   | -584.72         | 0.00     |
| 1235+00.00         | 123500          | 50.0     | 4.78           | 0.00     | 13.30  | 10.10                    | 0.00     | 29.08  | 19,453.87                | 1,513.13 | 18,551.71   | -610.97         | 18.50    |
| 1235+50.00         | 123550          | 50.0     | 14.92          | 0.00     | 8.46   | 18.24                    | 0.00     | 20.15  | 19,472.12                | 1,513.13 | 18,576.90   | -617.91         | 18.50    |
| 1236+00.00         | 123600          | 50.0     | 6.22           | 0.00     | 11.67  | 19.58                    | 0.00     | 18.64  | 19,491.69                | 1,513.13 | 18,600.20   | -621.64         | 18.50    |

(CONTINUED ON NEXT SHEET)

- NOTES:
- 1. CUT INCLUDES UNUSABLE/PAVEMENT MATERIAL.
  - 2. UNUSABLE/PAVEMENT MATERIAL NOT DEPICTED ON THE CROSS SECTIONS.
  - 3. EXPANDED FILL FACTOR IS 1.25.

| STH 178<br>STATION | REAL<br>STATION | DISTANCE | END AREA, (SF) |          |        | UNADJUSTED VOLUMES, (CY) |          |        | CUMULATIVE VOLUMES, (CY) |          |             | MASS HAUL, (CY) | EBS (CY) |
|--------------------|-----------------|----------|----------------|----------|--------|--------------------------|----------|--------|--------------------------|----------|-------------|-----------------|----------|
|                    |                 |          | CUT            | UNUSABLE | FILL   | CUT                      | UNUSABLE | FILL   | CUT (1.00)               | UNUSABLE | FILL (1.25) |                 |          |
| 1236+50.00         | 123650          | 50.0     | 10.53          | 0.00     | 5.67   | 19.50                    | 0.00     | 10.50  | 19,511.20                | 1,513.13 | 18,613.33   | -615.27         | 18.50    |
| 1237+00.00         | 123700          | 50.0     | 15.75          | 0.00     | 22.08  | 24.34                    | 0.00     | 25.70  | 19,535.53                | 1,513.13 | 18,645.46   | -623.05         | 18.50    |
| 1237+50.00         | 123750          | 50.0     | 20.45          | 0.00     | 16.66  | 33.52                    | 0.00     | 35.88  | 19,569.06                | 1,513.13 | 18,690.30   | -634.37         | 18.50    |
| 1238+00.00         | 123800          | 50.0     | 12.32          | 0.00     | 21.95  | 30.35                    | 0.00     | 35.76  | 19,599.40                | 1,513.13 | 18,734.99   | -648.72         | 37.00    |
| 1238+50.00         | 123850          | 50.0     | 17.26          | 0.00     | 26.48  | 27.39                    | 0.00     | 44.85  | 19,626.80                | 1,513.13 | 18,791.06   | -677.39         | 37.00    |
| 1239+00.00         | 123900          | 50.0     | 5.95           | 0.00     | 50.94  | 21.50                    | 0.00     | 71.69  | 19,648.29                | 1,513.13 | 18,880.66   | -745.50         | 37.00    |
| 1239+50.00         | 123950          | 50.0     | 4.24           | 0.00     | 105.00 | 9.44                     | 0.00     | 144.39 | 19,657.73                | 1,513.13 | 19,061.15   | -916.55         | 37.00    |
| 1239+81.00         | 123981          | 31.0     | 5.98           | 0.00     | 175.64 | 5.86                     | 0.00     | 161.11 | 19,663.59                | 1,513.13 | 19,262.53   | -1112.07        | 22.94    |
| 1240+00.00         | 124000          | 19.0     | 3.87           | 0.00     | 166.82 | 3.47                     | 0.00     | 120.50 | 19,667.06                | 1,513.13 | 19,413.16   | -1259.23        | 14.06    |
| 1240+50.00         | 124050          | 50.0     | 9.17           | 0.00     | 83.26  | 12.08                    | 0.00     | 231.56 | 19,679.14                | 1,513.13 | 19,702.60   | -1536.60        | 18.50    |
| 1241+00.00         | 124100          | 50.0     | 14.56          | 0.00     | 101.02 | 21.98                    | 0.00     | 170.63 | 19,701.11                | 1,513.13 | 19,915.89   | -1727.91        | 18.50    |
| 1241+50.00         | 124150          | 50.0     | 13.22          | 0.00     | 67.73  | 25.73                    | 0.00     | 156.25 | 19,726.84                | 1,513.13 | 20,111.21   | -1897.50        | 18.50    |
| 1242+00.00         | 124200          | 50.0     | 12.36          | 0.00     | 62.14  | 23.69                    | 0.00     | 120.25 | 19,750.53                | 1,513.13 | 20,261.53   | -2024.13        | 18.50    |
| 1242+50.00         | 124250          | 50.0     | 9.01           | 0.00     | 40.76  | 19.79                    | 0.00     | 95.28  | 19,770.32                | 1,513.13 | 20,380.63   | -2123.44        | 18.50    |
| 1243+00.00         | 124300          | 50.0     | 11.77          | 0.00     | 39.79  | 19.24                    | 0.00     | 74.58  | 19,789.56                | 1,513.13 | 20,473.85   | -2197.42        | 18.50    |
| 1243+50.00         | 124350          | 50.0     | 17.88          | 0.00     | 30.07  | 27.46                    | 0.00     | 64.68  | 19,817.02                | 1,513.13 | 20,554.70   | -2250.81        | 0.00     |
| 1244+00.00         | 124400          | 50.0     | 33.93          | 0.00     | 9.46   | 47.97                    | 0.00     | 36.60  | 19,864.99                | 1,513.13 | 20,600.45   | -2248.59        | 0.00     |
| 1244+50.00         | 124450          | 50.0     | 21.28          | 0.00     | 1.51   | 51.11                    | 0.00     | 10.16  | 19,916.10                | 1,513.13 | 20,613.16   | -2210.18        | 0.00     |
| 1245+00.00         | 124500          | 50.0     | 14.76          | 0.00     | 9.49   | 33.37                    | 0.00     | 10.19  | 19,949.47                | 1,513.13 | 20,625.89   | -2189.55        | 18.50    |
| 1245+50.00         | 124550          | 50.0     | 23.55          | 0.00     | 2.39   | 35.48                    | 0.00     | 11.00  | 19,984.95                | 1,513.13 | 20,639.64   | -2167.82        | 18.50    |
| 1246+00.00         | 124600          | 50.0     | 20.30          | 0.00     | 6.84   | 40.61                    | 0.00     | 8.55   | 20,025.56                | 1,513.13 | 20,650.32   | -2137.90        | 18.50    |
| 1246+15.00         | 124615          | 15.0     | 22.56          | 0.00     | 9.42   | 11.91                    | 0.00     | 4.52   | 20,037.46                | 1,513.13 | 20,655.97   | -2131.63        | 5.55     |
| 1246+50.00         | 124650          | 35.0     | 35.75          | 0.00     | 12.15  | 37.80                    | 0.00     | 13.98  | 20,075.26                | 1,513.13 | 20,673.45   | -2111.32        | 12.95    |
| 1247+00.00         | 124700          | 50.0     | 35.14          | 0.00     | 51.22  | 65.64                    | 0.00     | 58.67  | 20,140.90                | 1,513.13 | 20,746.79   | -2119.02        | 18.50    |
| 1247+50.00         | 124750          | 50.0     | 29.48          | 0.00     | 56.44  | 59.83                    | 0.00     | 99.68  | 20,200.73                | 1,513.13 | 20,871.39   | -2183.80        | 0.00     |
| 1248+00.00         | 124800          | 50.0     | 13.20          | 0.00     | 66.12  | 39.52                    | 0.00     | 113.48 | 20,240.24                | 1,513.13 | 21,013.25   | -2286.13        | 0.00     |
| 1248+50.00         | 124850          | 50.0     | 5.47           | 0.00     | 101.69 | 17.29                    | 0.00     | 155.38 | 20,257.54                | 1,513.13 | 21,207.47   | -2463.07        | 0.00     |
| 1249+00.00         | 124900          | 50.0     | 5.62           | 0.00     | 74.88  | 10.27                    | 0.00     | 163.49 | 20,267.81                | 1,513.13 | 21,411.84   | -2657.16        | 0.00     |
| 1249+50.00         | 124950          | 50.0     | 19.87          | 0.00     | 92.04  | 23.60                    | 0.00     | 154.56 | 20,291.41                | 1,513.13 | 21,605.04   | -2826.76        | 0.00     |
| 1249+55.00         | 124955          | 5.0      | 65.34          | 0.00     | 84.25  | 7.89                     | 0.00     | 16.32  | 20,299.30                | 1,513.13 | 21,625.44   | -2839.27        | 0.00     |
| 1250+00.00         | 125000          | 45.0     | 20.73          | 0.00     | 74.18  | 71.72                    | 0.00     | 132.03 | 20,371.02                | 1,513.13 | 21,790.48   | -2932.59        | 0.00     |
| 1250+50.00         | 125050          | 50.0     | 10.67          | 0.00     | 43.69  | 29.07                    | 0.00     | 109.14 | 20,400.10                | 1,513.13 | 21,926.91   | -3039.94        | 0.00     |
| 1251+00.00         | 125100          | 50.0     | 8.28           | 0.00     | 13.34  | 17.55                    | 0.00     | 52.80  | 20,417.65                | 1,513.13 | 21,992.91   | -3088.39        | 0.00     |
| 1251+50.00         | 125150          | 50.0     | 7.64           | 0.00     | 15.19  | 14.74                    | 0.00     | 26.41  | 20,432.39                | 1,513.13 | 22,025.93   | -3106.66        | 0.00     |
| 1252+00.00         | 125200          | 50.0     | 12.19          | 0.00     | 61.98  | 18.36                    | 0.00     | 71.45  | 20,450.76                | 1,513.13 | 22,115.24   | -3177.62        | 0.00     |
| 1252+50.00         | 125250          | 50.0     | 27.16          | 0.00     | 112.49 | 36.44                    | 0.00     | 161.55 | 20,487.20                | 1,513.13 | 22,317.17   | -3343.11        | 0.00     |
| 1253+00.00         | 125300          | 50.0     | 40.62          | 0.00     | 89.64  | 62.76                    | 0.00     | 187.16 | 20,549.96                | 1,513.13 | 22,551.13   | -3514.30        | 0.00     |
| 1253+50.00         | 125350          | 50.0     | 37.74          | 0.00     | 65.21  | 72.55                    | 0.00     | 143.38 | 20,622.50                | 1,513.13 | 22,730.35   | -3620.98        | 0.00     |
| 1254+00.00         | 125400          | 50.0     | 38.51          | 0.00     | 47.78  | 70.60                    | 0.00     | 104.62 | 20,693.10                | 1,513.13 | 22,861.13   | -3681.16        | 0.00     |
| 1254+50.00         | 125450          | 50.0     | 27.36          | 0.00     | 50.71  | 60.98                    | 0.00     | 91.19  | 20,754.08                | 1,513.13 | 22,975.13   | -3734.17        | 0.00     |
| 1255+00.00         | 125500          | 50.0     | 31.03          | 0.00     | 15.82  | 54.06                    | 0.00     | 61.60  | 20,808.14                | 1,513.13 | 23,052.12   | -3757.11        | 0.00     |
| 1255+50.00         | 125550          | 50.0     | 33.05          | 0.00     | 12.76  | 59.33                    | 0.00     | 26.46  | 20,867.47                | 1,513.13 | 23,085.20   | -3730.86        | 0.00     |
| 1256+00.00         | 125600          | 50.0     | 36.21          | 0.00     | 21.45  | 64.12                    | 0.00     | 31.68  | 20,931.59                | 1,513.13 | 23,124.80   | -3706.34        | 0.00     |
| 1256+50.00         | 125650          | 50.0     | 20.91          | 0.00     | 49.81  | 52.88                    | 0.00     | 65.98  | 20,984.47                | 1,513.13 | 23,207.28   | -3735.94        | 0.00     |
| 1257+00.00         | 125700          | 50.0     | 15.17          | 0.00     | 30.49  | 33.41                    | 0.00     | 74.35  | 21,017.87                | 1,513.13 | 23,300.21   | -3795.46        | 0.00     |
| 1257+50.00         | 125750          | 50.0     | 16.42          | 0.00     | 13.68  | 29.26                    | 0.00     | 40.90  | 21,047.13                | 1,513.13 | 23,351.33   | -3817.33        | 0.00     |
| 1257+91.00         | 125791          | 41.0     | 13.41          | 0.00     | 48.92  | 22.65                    | 0.00     | 47.53  | 21,069.78                | 1,513.13 | 23,410.74   | -3854.09        | 0.00     |
| 1258+00.00         | 125800          | 9.0      | 15.11          | 0.00     | 35.05  | 4.75                     | 0.00     | 13.99  | 21,074.54                | 1,513.13 | 23,428.24   | -3866.83        | 0.00     |
| 1258+50.00         | 125850          | 50.0     | 17.60          | 0.00     | 40.18  | 30.29                    | 0.00     | 69.66  | 21,104.83                | 1,513.13 | 23,515.31   | -3923.61        | 0.00     |
| 1259+00.00         | 125900          | 50.0     | 13.39          | 0.00     | 29.03  | 28.70                    | 0.00     | 64.08  | 21,133.53                | 1,513.13 | 23,595.40   | -3975.00        | 0.00     |
| 1259+50.00         | 125950          | 50.0     | 21.23          | 0.00     | 12.32  | 32.06                    | 0.00     | 38.29  | 21,165.59                | 1,513.13 | 23,643.26   | -3990.80        | 0.00     |
| 1260+00.00         | 126000          | 50.0     | 26.63          | 0.00     | 6.22   | 44.32                    | 0.00     | 17.17  | 21,209.91                | 1,513.13 | 23,664.73   | -3967.94        | 18.50    |
| 1260+50.00         | 126050          | 50.0     | 23.63          | 0.00     | 5.28   | 46.54                    | 0.00     | 10.65  | 21,256.45                | 1,513.13 | 23,678.04   | -3934.72        | 18.50    |
| 1261+00.00         | 126100          | 50.0     | 18.32          | 0.00     | 4.82   | 38.84                    | 0.00     | 9.35   | 21,295.29                | 1,513.13 | 23,689.73   | -3907.57        | 18.50    |
| 1261+50.00         | 126150          | 50.0     | 12.23          | 0.00     | 6.67   | 28.29                    | 0.00     | 10.64  | 21,323.58                | 1,513.13 | 23,703.03   | -3892.57        | 18.50    |
| 1262+00.00         | 126200          | 50.0     | 6.89           | 0.00     | 6.40   | 17.71                    | 0.00     | 12.10  | 21,341.29                | 1,513.13 | 23,718.16   | -3889.99        | 37.00    |
| 1262+50.00         | 126250          | 50.0     | 15.72          | 0.00     | 4.56   | 20.94                    | 0.00     | 10.15  | 21,362.23                | 1,513.13 | 23,730.85   | -3881.74        | 37.00    |
| 1263+00.00         | 126300          | 50.0     | 11.94          | 0.00     | 2.59   | 25.62                    | 0.00     | 6.62   | 21,387.85                | 1,513.13 | 23,739.12   | -3864.40        | 37.00    |
| 1263+50.00         | 126350          | 50.0     | 8.18           | 0.00     | 3.29   | 18.63                    | 0.00     | 5.44   | 21,406.48                | 1,513.13 | 23,745.91   | -3852.56        | 37.00    |
| 1264+00.00         | 126400          | 50.0     | 15.53          | 0.00     | 1.53   | 21.96                    | 0.00     | 4.46   | 21,428.44                | 1,513.13 | 23,751.49   | -3836.18        | 37.00    |
| 1264+50.00         | 126450          | 50.0     | 7.43           | 0.00     | 51.09  | 21.26                    | 0.00     | 48.72  | 21,449.70                | 1,513.13 | 23,812.39   | -3875.82        | 37.00    |
| 1265+00.00         | 126500          | 50.0     | 24.79          | 0.00     | 16.28  | 29.84                    | 0.00     | 62.37  | 21,479.54                | 1,513.13 | 23,890.36   | -3923.95        | 37.00    |
| 1265+50.00         | 126550          | 50.0     | 16.06          | 0.00     | 1.08   | 37.83                    | 0.00     | 16.07  | 21,517.37                | 1,513.13 | 23,910.45   | -3906.21        | 18.50    |
| 1266+00.00         | 126600          | 50.0     | 3.20           | 0.00     | 49.49  | 17.84                    | 0.00     | 46.82  | 21,535.21                | 1,513.13 | 23,968.97   | -3946.89        | 18.50    |
| 1266+50.00         | 126650          | 50.0     | 7.18           | 0.00     | 52.16  | 9.61                     | 0.00     | 94.11  | 21,544.82                | 1,513.13 | 24,086.62   | -4054.92        | 0.00     |
| 1267+00.00         | 126700          | 50.0     | 5.79           | 0.00     | 73.38  | 12.01                    | 0.00     | 116.24 | 21,556.83                | 1,513.13 | 24,231.92   | -4188.22        | 0.00     |
| 1267+50.00         | 126750          | 50.0     | 15.07          | 0.00     | 50.51  | 19.32                    | 0.00     | 114.71 | 21,576.15                | 1,513.13 | 24,375.31   | -4312.29        | 0.00     |
| 1268+00.00         | 126800          | 50.0     | 20.09          | 0.00     | 51.44  | 32.56                    | 0.00     | 94.40  | 21,608.71                | 1,513.13 | 24,493.31   | -4397.73        | 0.00     |
| 1268+50.00         | 126850          | 50.0     | 23.26          | 0.00     | 3.33   | 40.15                    | 0.00     | 50.71  | 21,648.85                | 1,513.13 | 24,556.69   | -4420.97        | 0.00     |
| 1269+00.00         | 126900          | 50.0     | 16.31          | 0.00     | 2.82   | 36.65                    | 0.00     | 5.69   | 21,685.50                | 1,513.13 | 24,563.80   | -4391.43        | 0.00     |
| 1269+50.00         | 126950          | 50.0     | 19.94          | 0.00     | 7.41   | 33.57                    | 0.00     | 9.47   | 21,719.07                | 1,513.13 | 24,575.63   | -4369.69        | 0.00     |

(CONTINUED ON NEXT SHEET)

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- 1. CUT INCLUDES UNUSABLE/PAVEMENT MATERIAL.
  - 2. UNUSABLE/PAVEMENT MATERIAL NOT DEPICTED ON THE CROSS SECTIONS.
  - 3. EXPANDED FILL FACTOR IS 1.25.

| STH 178<br>STATION | REAL<br>STATION | DISTANCE | END AREA, (SF) |          |        | UNADJUSTED VOLUMES, (CY) |          |        | CUMULATIVE VOLUMES, (CY) |          |             | MASS HAUL, (CY) | EBS (CY) |
|--------------------|-----------------|----------|----------------|----------|--------|--------------------------|----------|--------|--------------------------|----------|-------------|-----------------|----------|
|                    |                 |          | CUT            | UNUSABLE | FILL   | CUT                      | UNUSABLE | FILL   | CUT (1.00)               | UNUSABLE | FILL (1.25) |                 |          |
| 1270+00.00         | 127000          | 50.0     | 28.57          | 0.00     | 14.30  | 44.92                    | 0.00     | 20.10  | 21,763.99                | 1,513.13 | 24,600.76   | -4349.90        | 18.50    |
| 1270+50.00         | 127050          | 50.0     | 37.50          | 0.00     | 13.29  | 61.18                    | 0.00     | 25.55  | 21,825.17                | 1,513.13 | 24,632.70   | -4320.66        | 18.50    |
| 1271+00.00         | 127100          | 50.0     | 29.13          | 0.00     | 6.77   | 61.69                    | 0.00     | 18.58  | 21,886.86                | 1,513.13 | 24,655.92   | -4282.20        | 18.50    |
| 1271+34.00         | 127134          | 34.0     | 1.93           | 0.00     | 181.29 | 19.56                    | 0.00     | 118.41 | 21,906.41                | 1,513.13 | 24,803.94   | -4410.65        | 12.58    |
| 1271+50.00         | 127150          | 16.0     | 2.43           | 0.00     | 124.21 | 1.29                     | 0.00     | 90.52  | 21,907.71                | 1,513.13 | 24,917.08   | -4522.51        | 5.92     |
| 1272+00.00         | 127200          | 50.0     | 9.11           | 0.00     | 60.11  | 10.69                    | 0.00     | 170.67 | 21,918.39                | 1,513.13 | 25,130.42   | -4725.16        | 18.50    |
| 1272+50.00         | 127250          | 50.0     | 24.09          | 0.00     | 9.99   | 30.74                    | 0.00     | 64.91  | 21,949.14                | 1,513.13 | 25,211.55   | -4775.54        | 18.50    |
| 1273+00.00         | 127300          | 50.0     | 24.50          | 0.00     | 11.72  | 45.00                    | 0.00     | 20.10  | 21,994.13                | 1,513.13 | 25,236.67   | -4755.67        | 18.50    |
| 1273+50.00         | 127350          | 50.0     | 27.21          | 0.00     | 18.28  | 47.88                    | 0.00     | 27.78  | 22,042.01                | 1,513.13 | 25,271.40   | -4742.52        | 18.50    |
| 1274+00.00         | 127400          | 50.0     | 21.21          | 0.00     | 16.33  | 44.83                    | 0.00     | 32.05  | 22,086.84                | 1,513.13 | 25,311.47   | -4737.75        | 37.00    |
| 1274+50.00         | 127450          | 50.0     | 25.87          | 0.00     | 4.51   | 43.60                    | 0.00     | 19.30  | 22,130.44                | 1,513.13 | 25,335.59   | -4718.28        | 37.00    |
| 1275+00.00         | 127500          | 50.0     | 38.49          | 0.00     | 4.10   | 59.59                    | 0.00     | 7.97   | 22,190.04                | 1,513.13 | 25,345.56   | -4668.65        | 37.00    |
| 1275+50.00         | 127550          | 50.0     | 49.93          | 0.00     | 3.13   | 81.86                    | 0.00     | 6.69   | 22,271.90                | 1,513.13 | 25,353.92   | -4595.15        | 37.00    |
| 1276+00.00         | 127600          | 50.0     | 50.05          | 0.00     | 8.05   | 92.57                    | 0.00     | 10.35  | 22,364.47                | 1,513.13 | 25,366.85   | -4515.51        | 37.00    |
| 1276+50.00         | 127650          | 50.0     | 26.68          | 0.00     | 18.06  | 71.04                    | 0.00     | 24.18  | 22,435.52                | 1,513.13 | 25,397.08   | -4474.69        | 37.00    |
| 1277+00.00         | 127700          | 50.0     | 20.08          | 0.00     | 23.76  | 43.30                    | 0.00     | 38.73  | 22,478.81                | 1,513.13 | 25,445.49   | -4479.80        | 37.00    |
| 1277+50.00         | 127750          | 50.0     | 7.26           | 0.00     | 58.36  | 25.32                    | 0.00     | 76.04  | 22,504.13                | 1,513.13 | 25,540.54   | -4549.53        | 18.50    |
| 1278+00.00         | 127800          | 50.0     | 3.83           | 0.00     | 133.22 | 10.27                    | 0.00     | 177.39 | 22,514.41                | 1,513.13 | 25,762.27   | -4760.99        | 18.50    |
| 1278+50.00         | 127850          | 50.0     | 6.11           | 0.00     | 18.46  | 9.20                     | 0.00     | 140.45 | 22,523.61                | 1,513.13 | 25,937.83   | -4927.35        | 18.50    |
| 1279+00.00         | 127900          | 50.0     | 11.24          | 0.00     | 15.93  | 16.07                    | 0.00     | 31.85  | 22,539.68                | 1,513.13 | 25,977.64   | -4951.09        | 18.50    |
| 1279+50.00         | 127950          | 50.0     | 25.39          | 0.00     | 21.02  | 33.92                    | 0.00     | 34.22  | 22,573.60                | 1,513.13 | 26,020.41   | -4959.94        | 18.50    |
| 1280+00.00         | 128000          | 50.0     | 30.71          | 0.00     | 64.33  | 51.94                    | 0.00     | 79.03  | 22,625.54                | 1,513.13 | 26,119.20   | -5006.79        | 18.50    |
| 1280+50.00         | 128050          | 50.0     | 8.90           | 0.00     | 72.91  | 36.68                    | 0.00     | 127.07 | 22,662.22                | 1,513.13 | 26,278.04   | -5128.95        | 18.50    |
| 1281+00.00         | 128100          | 50.0     | 10.11          | 0.00     | 46.45  | 17.61                    | 0.00     | 110.52 | 22,679.82                | 1,513.13 | 26,416.19   | -5249.50        | 18.50    |
| 1281+50.00         | 128150          | 50.0     | 18.62          | 0.00     | 43.28  | 26.61                    | 0.00     | 83.08  | 22,706.43                | 1,513.13 | 26,520.04   | -5326.74        | 18.50    |
| 1282+00.00         | 128200          | 50.0     | 10.00          | 0.00     | 32.21  | 26.51                    | 0.00     | 69.89  | 22,732.93                | 1,513.13 | 26,607.41   | -5387.60        | 18.50    |
| 1282+50.00         | 128250          | 50.0     | 13.14          | 0.00     | 32.19  | 21.43                    | 0.00     | 59.62  | 22,754.37                | 1,513.13 | 26,681.94   | -5440.70        | 18.50    |
| 1283+00.00         | 128300          | 50.0     | 20.03          | 0.00     | 5.42   | 30.72                    | 0.00     | 34.82  | 22,785.08                | 1,513.13 | 26,725.47   | -5453.51        | 18.50    |
| 1283+50.00         | 128350          | 50.0     | 8.11           | 0.00     | 16.43  | 26.06                    | 0.00     | 20.24  | 22,811.14                | 1,513.13 | 26,750.76   | -5452.75        | 18.50    |
| 1284+00.00         | 128400          | 50.0     | 9.89           | 0.00     | 18.73  | 16.67                    | 0.00     | 32.56  | 22,827.82                | 1,513.13 | 26,791.46   | -5476.78        | 18.50    |
| 1284+50.00         | 128450          | 50.0     | 7.18           | 0.00     | 38.09  | 15.81                    | 0.00     | 52.61  | 22,843.62                | 1,513.13 | 26,857.22   | -5526.73        | 18.50    |
| 1285+00.00         | 128500          | 50.0     | 7.64           | 0.00     | 33.28  | 13.72                    | 0.00     | 66.08  | 22,857.35                | 1,513.13 | 26,939.82   | -5595.60        | 18.50    |
| 1285+50.00         | 128550          | 50.0     | 5.22           | 0.00     | 20.32  | 11.91                    | 0.00     | 49.62  | 22,869.26                | 1,513.13 | 27,001.85   | -5645.72        | 18.50    |
| 1286+00.00         | 128600          | 50.0     | 22.88          | 0.00     | 11.76  | 26.02                    | 0.00     | 29.70  | 22,895.28                | 1,513.13 | 27,038.97   | -5656.83        | 18.50    |
| 1286+50.00         | 128650          | 50.0     | 5.37           | 0.00     | 40.98  | 26.16                    | 0.00     | 48.83  | 22,921.44                | 1,513.13 | 27,100.01   | -5691.70        | 18.50    |
| 1286+71.00         | 128671          | 21.0     | 6.18           | 0.00     | 107.36 | 4.49                     | 0.00     | 57.68  | 22,925.94                | 1,513.13 | 27,172.12   | -5759.31        | 7.77     |
| 1287+00.00         | 128700          | 29.0     | 11.65          | 0.00     | 24.05  | 9.58                     | 0.00     | 70.57  | 22,935.51                | 1,513.13 | 27,260.33   | -5837.95        | 10.73    |
| 1287+50.00         | 128750          | 50.0     | 20.44          | 0.00     | 25.02  | 29.71                    | 0.00     | 45.44  | 22,965.23                | 1,513.13 | 27,317.12   | -5865.03        | 18.50    |
| 1288+00.00         | 128800          | 50.0     | 25.55          | 0.00     | 23.02  | 42.59                    | 0.00     | 44.49  | 23,007.82                | 1,513.13 | 27,372.74   | -5878.05        | 18.50    |
| 1288+50.00         | 128850          | 50.0     | 44.42          | 0.00     | 14.81  | 64.79                    | 0.00     | 35.03  | 23,072.61                | 1,513.13 | 27,416.53   | -5857.05        | 18.50    |
| 1289+00.00         | 128900          | 50.0     | 43.09          | 0.00     | 27.23  | 81.02                    | 0.00     | 38.93  | 23,153.63                | 1,513.13 | 27,465.19   | -5824.70        | 18.50    |
| 1289+50.00         | 128950          | 50.0     | 26.48          | 0.00     | 38.31  | 64.41                    | 0.00     | 60.69  | 23,218.04                | 1,513.13 | 27,541.05   | -5836.14        | 18.50    |
| 1290+00.00         | 129000          | 50.0     | 39.24          | 0.00     | 20.06  | 60.84                    | 0.00     | 54.04  | 23,278.88                | 1,513.13 | 27,608.60   | -5842.84        | 37.00    |
| 1290+50.00         | 129050          | 50.0     | 24.76          | 0.00     | 10.38  | 59.25                    | 0.00     | 28.18  | 23,338.13                | 1,513.13 | 27,643.83   | -5818.82        | 37.00    |
| 1291+00.00         | 129100          | 50.0     | 17.82          | 0.00     | 12.11  | 39.43                    | 0.00     | 20.83  | 23,377.56                | 1,513.13 | 27,669.86   | -5805.43        | 37.00    |
| 1291+50.00         | 129150          | 50.0     | 29.22          | 0.00     | 5.52   | 43.56                    | 0.00     | 16.33  | 23,421.12                | 1,513.13 | 27,690.27   | -5782.28        | 37.00    |
| 1292+00.00         | 129200          | 50.0     | 26.46          | 0.00     | 3.35   | 51.55                    | 0.00     | 8.21   | 23,472.68                | 1,513.13 | 27,700.54   | -5740.99        | 37.00    |
| 1292+50.00         | 129250          | 50.0     | 27.48          | 0.00     | 4.13   | 49.94                    | 0.00     | 6.92   | 23,522.61                | 1,513.13 | 27,709.19   | -5699.71        | 37.00    |
| 1293+00.00         | 129300          | 50.0     | 18.35          | 0.00     | 7.59   | 42.43                    | 0.00     | 10.85  | 23,565.05                | 1,513.13 | 27,722.75   | -5670.83        | 37.00    |
| 1293+50.00         | 129350          | 50.0     | 7.37           | 4.00     | 10.54  | 23.82                    | 3.70     | 16.79  | 23,588.87                | 1,516.83 | 27,743.74   | -5671.70        | 37.00    |
| 1294+00.00         | 129400          | 50.0     | 17.85          | 4.00     | 24.15  | 23.36                    | 7.41     | 32.13  | 23,612.22                | 1,524.24 | 27,783.89   | -5695.91        | 83.50    |
| 1294+50.00         | 129450          | 50.0     | 20.25          | 4.00     | 149.54 | 35.28                    | 7.41     | 160.83 | 23,647.51                | 1,531.65 | 27,984.93   | -5869.07        | 46.50    |
| 1294+66.00         | 129466          | 16.0     | 23.66          | 4.00     | 195.18 | 13.01                    | 2.37     | 102.14 | 23,660.52                | 1,534.02 | 28,112.61   | -5986.11        | 14.88    |
| 1295+00.00         | 129500          | 34.0     | 30.44          | 4.00     | 192.36 | 34.07                    | 5.04     | 244.01 | 23,694.58                | 1,539.06 | 28,417.62   | -6262.09        | 31.62    |
| 1295+50.00         | 129550          | 50.0     | 38.68          | 4.00     | 2.93   | 64.00                    | 7.41     | 180.83 | 23,758.58                | 1,546.46 | 28,643.65   | -6431.53        | 46.50    |
| 1296+00.00         | 129600          | 50.0     | 51.73          | 4.00     | 0.74   | 83.71                    | 7.41     | 3.40   | 23,842.29                | 1,553.87 | 28,647.90   | -6359.49        | 46.50    |
| 1296+50.00         | 129650          | 50.0     | 43.23          | 4.00     | 1.24   | 87.92                    | 7.41     | 1.84   | 23,930.21                | 1,561.28 | 28,650.20   | -6281.27        | 46.50    |
| 1297+00.00         | 129700          | 50.0     | 28.81          | 4.00     | 2.02   | 66.70                    | 7.41     | 3.02   | 23,996.91                | 1,568.69 | 28,653.98   | -6225.75        | 46.50    |
| 1297+50.00         | 129750          | 50.0     | 17.99          | 4.00     | 8.09   | 43.33                    | 7.41     | 9.36   | 24,040.25                | 1,576.09 | 28,665.68   | -6201.53        | 46.50    |
| 1298+00.00         | 129800          | 50.0     | 11.86          | 0.00     | 6.99   | 27.65                    | 3.70     | 13.96  | 24,067.89                | 1,579.80 | 28,683.14   | -6195.04        | 37.00    |
| 1298+50.00         | 129850          | 50.0     | 10.35          | 0.00     | 12.66  | 20.57                    | 0.00     | 18.20  | 24,088.46                | 1,579.80 | 28,705.88   | -6197.22        | 37.00    |
| 1299+00.00         | 129900          | 50.0     | 12.21          | 0.00     | 14.74  | 20.89                    | 0.00     | 25.37  | 24,109.35                | 1,579.80 | 28,737.60   | -6208.04        | 37.00    |
| 1299+50.00         | 129950          | 50.0     | 16.12          | 0.00     | 30.87  | 26.24                    | 0.00     | 42.24  | 24,135.59                | 1,579.80 | 28,790.40   | -6234.60        | 37.00    |
| 1300+00.00         | 130000          | 50.0     | 22.42          | 0.00     | 50.13  | 35.69                    | 0.00     | 75.00  | 24,171.28                | 1,579.80 | 28,884.15   | -6292.66        | 37.00    |
| 1300+50.00         | 130050          | 50.0     | 32.69          | 0.00     | 48.22  | 51.03                    | 0.00     | 91.06  | 24,222.31                | 1,579.80 | 28,997.97   | -6355.46        | 37.00    |
| 1301+00.00         | 130100          | 50.0     | 39.02          | 0.00     | 17.35  | 66.39                    | 0.00     | 60.71  | 24,288.70                | 1,579.80 | 29,073.86   | -6364.96        | 37.00    |
| 1301+50.00         | 130150          | 50.0     | 24.04          | 0.00     | 37.49  | 58.38                    | 0.00     | 50.77  | 24,347.08                | 1,579.80 | 29,137.32   | -6370.04        | 37.00    |
| 1302+00.00         | 130200          | 50.0     | 97.56          | 16.00    | 17.27  | 112.59                   | 14.81    | 50.69  | 24,459.67                | 1,594.61 | 29,200.69   | -6335.63        | 37.00    |
| 1302+50.00         | 130250          | 50.0     | 130.27         | 16.00    | 0.93   | 210.96                   | 29.63    | 16.85  | 24,670.63                | 1,624.24 | 29,221.75   | -6175.36        | 37.00    |
| 1303+00.00         | 130300          | 50.0     | 129.06         | 16.00    | 0.00   | 240.12                   | 29.63    | 0.86   | 24,910.75                | 1,653.87 | 29,222.83   | -5965.95        | 37.00    |

(CONTINUED ON NEXT SHEET)

- NOTES:
- 1. CUT INCLUDES UNUSABLE/PAVEMENT MATERIAL.
  - 2. UNUSABLE/PAVEMENT MATERIAL NOT DEPICTED ON THE CROSS SECTIONS.
  - 3. EXPANDED FILL FACTOR IS 1.25.

| STH 178<br>STATION | REAL<br>STATION | DISTANCE | END AREA, (SF) |          |        | UNADJUSTED VOLUMES, (CY) |          |        | CUMULATIVE VOLUMES, (CY) |          |             | MASS HAUL, (CY) | EBS (CY) |
|--------------------|-----------------|----------|----------------|----------|--------|--------------------------|----------|--------|--------------------------|----------|-------------|-----------------|----------|
|                    |                 |          | CUT            | UNUSABLE | FILL   | CUT                      | UNUSABLE | FILL   | CUT (1.00)               | UNUSABLE | FILL (1.25) |                 |          |
| 1303+50.00         | 130350          | 50.0     | 156.82         | 16.00    | 0.00   | 290.41                   | 29.63    | 0.00   | 25,201.17                | 1,683.50 | 29,222.83   | -5705.16        | 37.00    |
| 1304+00.00         | 130400          | 50.0     | 343.06         | 16.00    | 0.00   | 462.85                   | 29.63    | 0.00   | 25,664.02                | 1,713.13 | 29,222.83   | -5271.94        | 37.00    |
| 1304+50.00         | 130450          | 50.0     | 247.87         | 16.00    | 23.63  | 547.15                   | 29.63    | 21.88  | 26,211.16                | 1,742.76 | 29,250.18   | -4781.78        | 37.00    |
| 1305+00.00         | 130500          | 50.0     | 176.00         | 16.00    | 0.00   | 392.47                   | 29.63    | 21.88  | 26,603.63                | 1,772.39 | 29,277.54   | -4446.29        | 37.00    |
| 1305+50.00         | 130550          | 50.0     | 8.95           | 16.00    | 38.66  | 171.26                   | 29.63    | 35.80  | 26,774.89                | 1,802.02 | 29,322.29   | -4349.41        | 37.00    |
| 1306+00.00         | 130600          | 50.0     | 0.01           | 0.00     | 180.38 | 8.30                     | 14.81    | 202.82 | 26,783.19                | 1,816.83 | 29,575.81   | -4609.46        | 37.00    |
| 1306+50.00         | 130650          | 50.0     | 0.00           | 0.00     | 164.49 | 0.01                     | 0.00     | 319.33 | 26,783.19                | 1,816.83 | 29,974.97   | -5008.61        | 37.00    |
| 1307+00.00         | 130700          | 50.0     | 0.00           | 0.00     | 76.49  | 0.00                     | 0.00     | 223.13 | 26,783.19                | 1,816.83 | 30,253.89   | -5287.53        | 37.00    |
| 1307+50.00         | 130750          | 50.0     | 33.07          | 0.00     | 3.88   | 30.62                    | 0.00     | 74.42  | 26,813.82                | 1,816.83 | 30,346.91   | -5349.93        | 37.00    |
| 1308+00.00         | 130800          | 50.0     | 89.70          | 0.00     | 2.90   | 113.68                   | 0.00     | 6.27   | 26,927.50                | 1,816.83 | 30,354.75   | -5244.08        | 37.00    |
| 1308+50.00         | 130850          | 50.0     | 92.75          | 0.00     | 3.34   | 168.94                   | 0.00     | 5.77   | 27,096.43                | 1,816.83 | 30,361.96   | -5082.36        | 0.00     |
| 1309+00.00         | 130900          | 50.0     | 106.37         | 0.00     | 4.01   | 184.37                   | 0.00     | 6.80   | 27,280.81                | 1,816.83 | 30,370.46   | -4906.48        | 0.00     |
| 1309+50.00         | 130950          | 50.0     | 51.61          | 0.00     | 11.66  | 146.28                   | 0.00     | 14.51  | 27,427.09                | 1,816.83 | 30,388.59   | -4778.33        | 0.00     |
| 1310+00.00         | 131000          | 50.0     | 16.29          | 0.00     | 14.75  | 62.87                    | 0.00     | 24.46  | 27,489.96                | 1,816.83 | 30,419.16   | -4746.04        | 18.50    |
| 1310+50.00         | 131050          | 50.0     | 5.04           | 0.00     | 23.57  | 19.75                    | 0.00     | 35.49  | 27,509.71                | 1,816.83 | 30,463.52   | -4770.65        | 18.50    |
| 1311+00.00         | 131100          | 50.0     | 11.80          | 0.00     | 10.79  | 15.60                    | 0.00     | 31.82  | 27,525.30                | 1,816.83 | 30,503.29   | -4794.83        | 18.50    |
| 1311+50.00         | 131150          | 50.0     | 12.65          | 0.00     | 5.24   | 22.64                    | 0.00     | 14.85  | 27,547.94                | 1,816.83 | 30,521.85   | -4790.74        | 18.50    |
| 1312+00.00         | 131200          | 50.0     | 11.97          | 0.00     | 8.44   | 22.80                    | 0.00     | 12.67  | 27,570.74                | 1,816.83 | 30,537.69   | -4783.78        | 18.50    |
| 1312+50.00         | 131250          | 50.0     | 3.59           | 0.00     | 39.12  | 14.41                    | 0.00     | 44.04  | 27,585.15                | 1,816.83 | 30,592.74   | -4824.42        | 18.50    |
| 1313+00.00         | 131300          | 50.0     | 5.14           | 0.00     | 58.41  | 8.08                     | 0.00     | 90.31  | 27,593.24                | 1,816.83 | 30,705.62   | -4929.22        | 18.50    |
| 1313+50.00         | 131350          | 50.0     | 7.91           | 0.00     | 28.55  | 12.08                    | 0.00     | 80.52  | 27,605.32                | 1,816.83 | 30,806.27   | -5017.78        | 18.50    |
| 1314+00.00         | 131400          | 50.0     | 16.87          | 0.00     | 14.62  | 22.95                    | 0.00     | 39.97  | 27,628.27                | 1,816.83 | 30,856.24   | -5044.80        | 18.50    |
| 1314+50.00         | 131450          | 50.0     | 9.51           | 0.00     | 9.76   | 24.43                    | 0.00     | 22.58  | 27,652.70                | 1,816.83 | 30,884.46   | -5048.60        | 18.50    |
| 1315+00.00         | 131500          | 50.0     | 25.84          | 0.00     | 5.46   | 32.74                    | 0.00     | 14.10  | 27,685.43                | 1,816.83 | 30,902.08   | -5033.48        | 18.50    |
| 1315+50.00         | 131550          | 50.0     | 31.89          | 0.00     | 3.45   | 53.45                    | 0.00     | 8.25   | 27,738.88                | 1,816.83 | 30,912.39   | -4990.34        | 0.00     |
| 1316+00.00         | 131600          | 50.0     | 67.71          | 0.00     | 0.39   | 92.22                    | 0.00     | 3.56   | 27,831.10                | 1,816.83 | 30,916.84   | -4902.57        | 0.00     |
| 1316+50.00         | 131650          | 50.0     | 131.36         | 17.00    | 0.00   | 184.33                   | 15.74    | 0.36   | 28,015.43                | 1,832.57 | 30,917.29   | -4734.44        | 0.00     |
| 1317+00.00         | 131700          | 50.0     | 167.67         | 17.00    | 0.00   | 276.88                   | 31.48    | 0.00   | 28,292.31                | 1,864.06 | 30,917.29   | -4489.04        | 0.00     |
| 1317+50.00         | 131750          | 50.0     | 196.64         | 17.00    | 0.00   | 337.33                   | 31.48    | 0.00   | 28,629.64                | 1,895.54 | 30,917.29   | -4183.19        | 0.00     |
| 1318+00.00         | 131800          | 50.0     | 157.53         | 17.00    | 0.00   | 327.94                   | 31.48    | 0.00   | 28,957.58                | 1,927.02 | 30,917.29   | -3886.73        | 0.00     |
| 1318+50.00         | 131850          | 50.0     | 128.48         | 17.00    | 0.00   | 264.83                   | 31.48    | 0.00   | 29,222.41                | 1,958.50 | 30,917.29   | -3653.38        | 0.00     |
| 1319+00.00         | 131900          | 50.0     | 111.72         | 17.00    | 0.00   | 222.41                   | 31.48    | 0.00   | 29,444.82                | 1,989.98 | 30,917.29   | -3462.45        | 0.00     |
| 1319+50.00         | 131950          | 50.0     | 81.90          | 17.00    | 0.00   | 179.28                   | 31.48    | 0.00   | 29,624.10                | 2,021.46 | 30,917.29   | -3314.65        | 0.00     |
| 1320+00.00         | 132000          | 50.0     | 18.07          | 0.00     | 4.07   | 92.57                    | 15.74    | 3.77   | 29,716.67                | 2,037.20 | 30,922.01   | -3242.54        | 0.00     |
| 1320+50.00         | 132050          | 50.0     | 12.03          | 0.00     | 6.35   | 27.87                    | 0.00     | 9.65   | 29,744.54                | 2,037.20 | 30,934.07   | -3226.73        | 0.00     |
| 1321+00.00         | 132100          | 50.0     | 15.67          | 0.00     | 3.76   | 25.65                    | 0.00     | 9.36   | 29,770.19                | 2,037.20 | 30,945.77   | -3212.78        | 0.00     |
| 1321+50.00         | 132150          | 50.0     | 15.48          | 0.00     | 2.32   | 28.85                    | 0.00     | 5.62   | 29,799.04                | 2,037.20 | 30,952.80   | -3190.96        | 0.00     |
| 1322+00.00         | 132200          | 50.0     | 20.45          | 0.00     | 1.86   | 33.27                    | 0.00     | 3.87   | 29,832.32                | 2,037.20 | 30,957.63   | -3162.52        | 0.00     |
| 1322+50.00         | 132250          | 50.0     | 37.88          | 0.00     | 0.03   | 54.01                    | 0.00     | 1.75   | 29,886.32                | 2,037.20 | 30,959.83   | -3110.71        | 0.00     |
| 1323+00.00         | 132300          | 50.0     | 94.97          | 17.00    | 0.00   | 123.01                   | 15.74    | 0.03   | 30,009.33                | 2,052.94 | 30,959.86   | -3003.48        | 0.00     |
| 1323+50.00         | 132350          | 50.0     | 103.46         | 17.00    | 0.00   | 183.73                   | 31.48    | 0.00   | 30,193.06                | 2,084.43 | 30,959.86   | -2851.22        | 0.00     |
| 1324+00.00         | 132400          | 50.0     | 76.24          | 17.00    | 0.00   | 166.39                   | 31.48    | 0.00   | 30,359.46                | 2,115.91 | 30,959.86   | -2716.31        | 0.00     |
| 1324+50.00         | 132450          | 50.0     | 23.08          | 0.00     | 9.08   | 91.96                    | 15.74    | 8.41   | 30,451.42                | 2,131.65 | 30,970.37   | -2650.60        | 0.00     |
| 1325+00.00         | 132500          | 50.0     | 2.41           | 0.00     | 17.35  | 23.60                    | 0.00     | 24.47  | 30,475.02                | 2,131.65 | 31,000.96   | -2657.58        | 0.00     |
| 1325+50.00         | 132550          | 50.0     | 2.21           | 0.00     | 9.37   | 4.28                     | 0.00     | 24.74  | 30,479.31                | 2,131.65 | 31,031.89   | -2684.23        | 0.00     |
| 1326+00.00         | 132600          | 50.0     | 4.94           | 0.00     | 6.66   | 6.62                     | 0.00     | 14.85  | 30,485.93                | 2,131.65 | 31,050.45   | -2696.17        | 0.00     |
| 1326+50.00         | 132650          | 50.0     | 9.97           | 0.00     | 1.79   | 13.80                    | 0.00     | 7.82   | 30,499.73                | 2,131.65 | 31,060.22   | -2692.14        | 0.00     |
| 1327+00.00         | 132700          | 50.0     | 9.17           | 0.00     | 2.07   | 17.73                    | 0.00     | 3.57   | 30,517.45                | 2,131.65 | 31,064.69   | -2678.89        | 0.00     |
| 1327+50.00         | 132750          | 50.0     | 24.46          | 0.00     | 0.03   | 31.14                    | 0.00     | 1.95   | 30,548.60                | 2,131.65 | 31,067.13   | -2650.18        | 0.00     |
| 1328+00.00         | 132800          | 50.0     | 19.72          | 0.00     | 0.00   | 40.91                    | 0.00     | 0.03   | 30,589.51                | 2,131.65 | 31,067.16   | -2609.30        | 0.00     |
| 1328+50.00         | 132850          | 50.0     | 15.81          | 0.00     | 0.12   | 32.90                    | 0.00     | 0.11   | 30,622.42                | 2,131.65 | 31,067.30   | -2576.53        | 0.00     |
| 1329+00.00         | 132900          | 50.0     | 13.19          | 0.00     | 0.22   | 26.86                    | 0.00     | 0.31   | 30,649.27                | 2,131.65 | 31,067.69   | -2550.07        | 0.00     |
| 1329+50.00         | 132950          | 50.0     | 9.92           | 0.00     | 2.27   | 21.40                    | 0.00     | 2.31   | 30,670.68                | 2,131.65 | 31,070.58   | -2531.55        | 0.00     |
| 1330+00.00         | 133000          | 50.0     | 13.00          | 0.00     | 0.34   | 21.23                    | 0.00     | 2.42   | 30,691.90                | 2,131.65 | 31,073.60   | -2513.35        | 0.00     |
| 1330+50.00         | 133050          | 50.0     | 15.33          | 0.00     | 0.00   | 26.24                    | 0.00     | 0.32   | 30,718.14                | 2,131.65 | 31,074.00   | -2487.51        | 0.00     |
| 1331+00.00         | 133100          | 50.0     | 19.07          | 0.00     | 3.71   | 31.86                    | 0.00     | 3.44   | 30,750.00                | 2,131.65 | 31,078.30   | -2459.95        | 0.00     |
| 1331+50.00         | 133150          | 50.0     | 37.96          | 0.00     | 13.34  | 52.80                    | 0.00     | 15.79  | 30,802.80                | 2,131.65 | 31,098.04   | -2426.89        | 0.00     |
| 1332+00.00         | 133200          | 50.0     | 31.92          | 0.00     | 37.78  | 64.70                    | 0.00     | 47.33  | 30,867.49                | 2,131.65 | 31,157.20   | -2421.35        | 0.00     |
| 1332+50.00         | 133250          | 50.0     | 17.24          | 0.00     | 40.44  | 45.52                    | 0.00     | 72.42  | 30,913.01                | 2,131.65 | 31,247.72   | -2466.36        | 0.00     |
| 1333+00.00         | 133300          | 50.0     | 11.94          | 0.00     | 21.48  | 27.03                    | 0.00     | 57.33  | 30,940.04                | 2,131.65 | 31,319.38   | -2510.99        | 0.00     |
| 1333+50.00         | 133350          | 50.0     | 9.75           | 0.00     | 16.37  | 20.09                    | 0.00     | 35.05  | 30,960.13                | 2,131.65 | 31,363.19   | -2534.71        | 0.00     |
| 1334+00.00         | 133400          | 50.0     | 10.55          | 0.00     | 21.29  | 18.80                    | 0.00     | 34.88  | 30,978.93                | 2,131.65 | 31,406.78   | -2559.50        | 0.00     |
| 1334+50.00         | 133450          | 50.0     | 16.30          | 0.00     | 25.37  | 24.86                    | 0.00     | 43.21  | 31,003.79                | 2,131.65 | 31,460.79   | -2588.65        | 0.00     |
| 1335+00.00         | 133500          | 50.0     | 12.92          | 0.00     | 5.93   | 27.06                    | 0.00     | 28.99  | 31,030.85                | 2,131.65 | 31,497.03   | -2597.83        | 0.00     |
| 1335+50.00         | 133550          | 50.0     | 0.00           | 0.00     | 0.01   | 11.97                    | 0.00     | 5.50   | 31,042.82                | 2,131.65 | 31,503.90   | -2592.73        | 0.00     |
| 1336+00.00         | 133600          | 50.0     | 0.00           | 0.00     | 0.00   | 0.00                     | 0.00     | 0.00   | 31,042.82                | 2,131.65 | 31,503.91   | -2592.74        | 0.00     |

COLUMN TOTALS

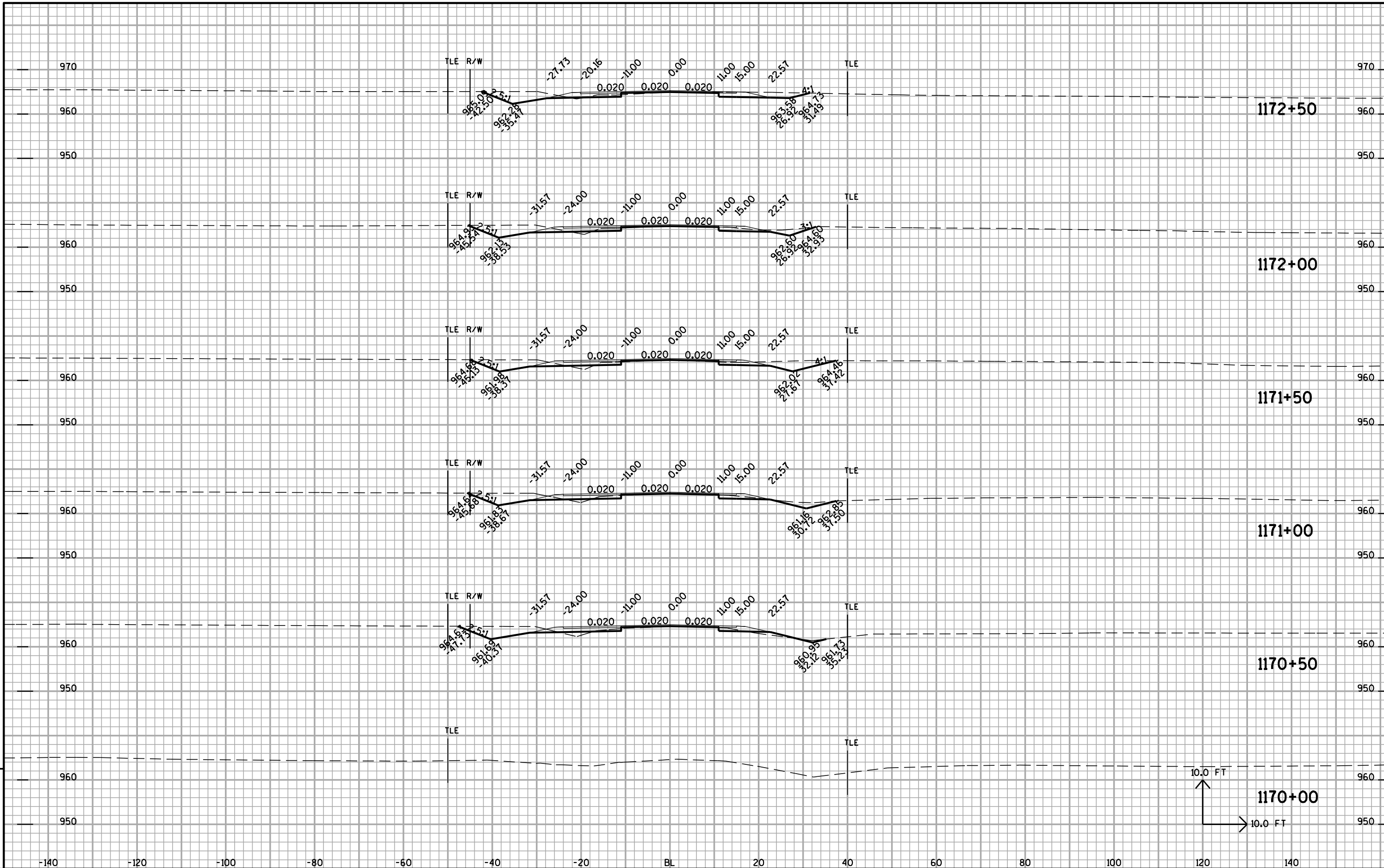
31,042.822,131.6525203.13

5881.50

- NOTES:
1. CUT INCLUDES UNUSABLE/PAVEMENT MATERIAL.
2. UNUSABLE/PAVEMENT MATERIAL NOT DEPICTED ON THE CROSS SECTIONS.
3. EXPANDED FILL FACTOR IS 1.25.

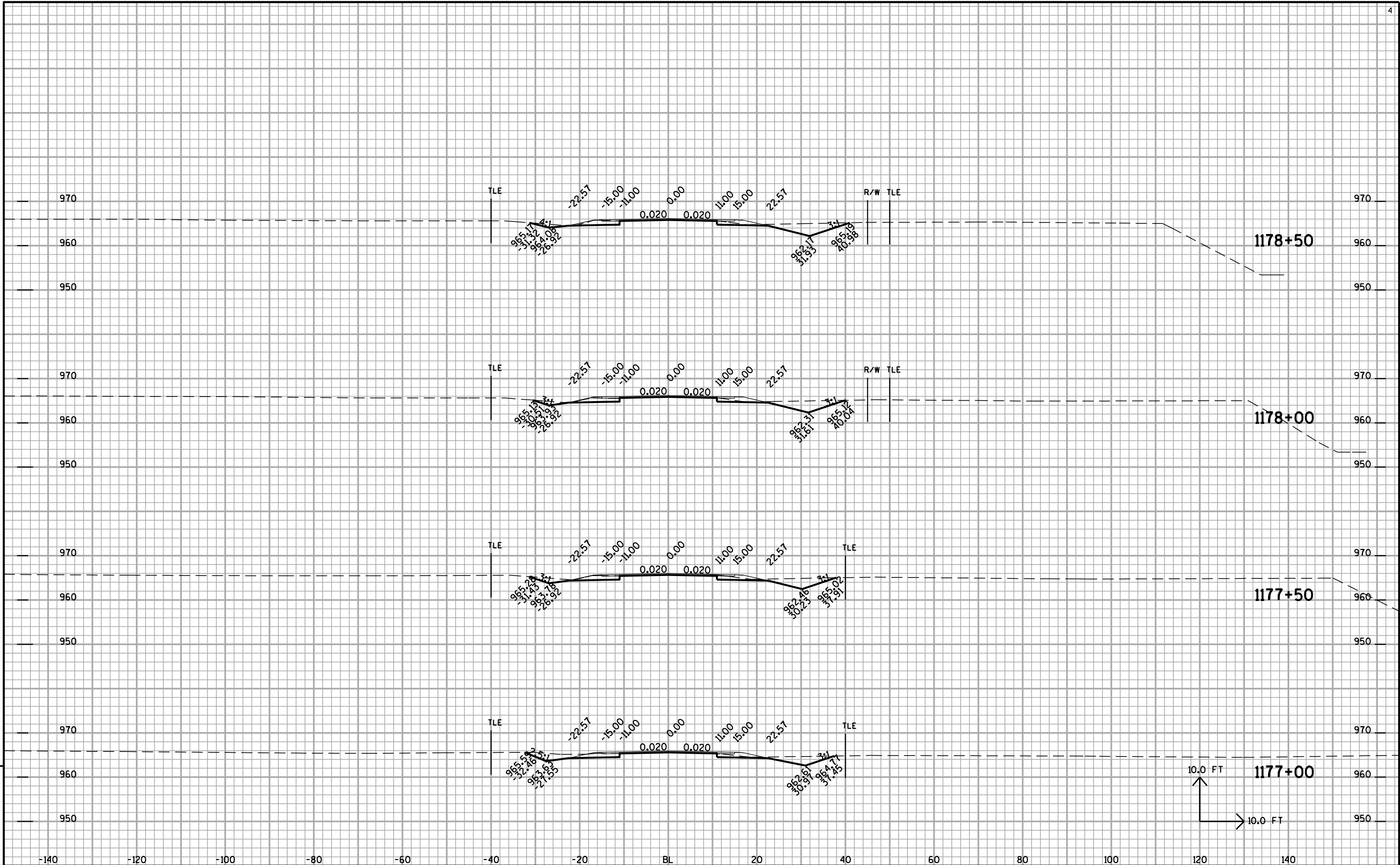
| CTH ZZ<br>STATION | REAL<br>STATION | DISTANCE | END AREA, (SF) |          |      | UNADJUSTED VOLUMES, (CY) |          |      | CUMULATIVE VOLUMES, (CY) |          |             | MASS HAUL, (CY) | EBS (CY) |
|-------------------|-----------------|----------|----------------|----------|------|--------------------------|----------|------|--------------------------|----------|-------------|-----------------|----------|
|                   |                 |          | CUT            | UNUSABLE | FILL | CUT                      | UNUSABLE | FILL | CUT (1.00)               | UNUSABLE | FILL (1.25) |                 |          |
| 0+50.00           | 50              |          | 60.64          | 14.67    | 4.3  |                          |          |      |                          |          |             |                 |          |
| 1+00.00           | 100             | 50.0     | 93.83          | 14.67    | 0.0  | 143.03                   | 27.17    | 3.95 | 143.03                   | 27.17    | 4.93        | 110.93          | 37.00    |
| 1+50.00           | 150             | 50.0     | 137.81         | 14.67    | 0.0  | 214.48                   | 27.17    | 0.00 | 357.51                   | 54.33    | 4.94        | 298.24          | 37.00    |
| 2+00.00           | 200             | 50.0     | 222.98         | 14.67    | 0.0  | 334.07                   | 27.17    | 0.00 | 691.58                   | 81.50    | 4.94        | 605.14          | 37.00    |
| 2+05.00           | 205             | 5.0      | 238.48         | 14.67    | 0.0  | 42.73                    | 2.72     | 0.00 | 734.31                   | 84.22    | 4.94        | 645.16          | 37.00    |
| 2+50.00           | 250             | 45.0     | 364.91         | 14.67    | 0.0  | 502.82                   | 24.45    | 0.00 | 1,237.14                 | 108.67   | 4.94        | 1,123.53        | 37.00    |
| 2+85.00           | 285             | 35.0     | 431.80         | 14.67    | 0.0  | 516.38                   | 19.02    | 0.00 | 1,753.51                 | 127.68   | 4.94        | 1,620.89        | 37.00    |
| 3+00.00           | 300             | 15.0     | 312.10         | 14.67    | 0.0  | 206.64                   | 8.15     | 0.00 | 1,960.15                 | 135.83   | 4.94        | 1,819.38        | 37.00    |
| COLUMN TOTALS     |                 |          |                |          |      | 1,960.15                 | 135.83   | 3.95 |                          |          |             |                 | 259.00   |

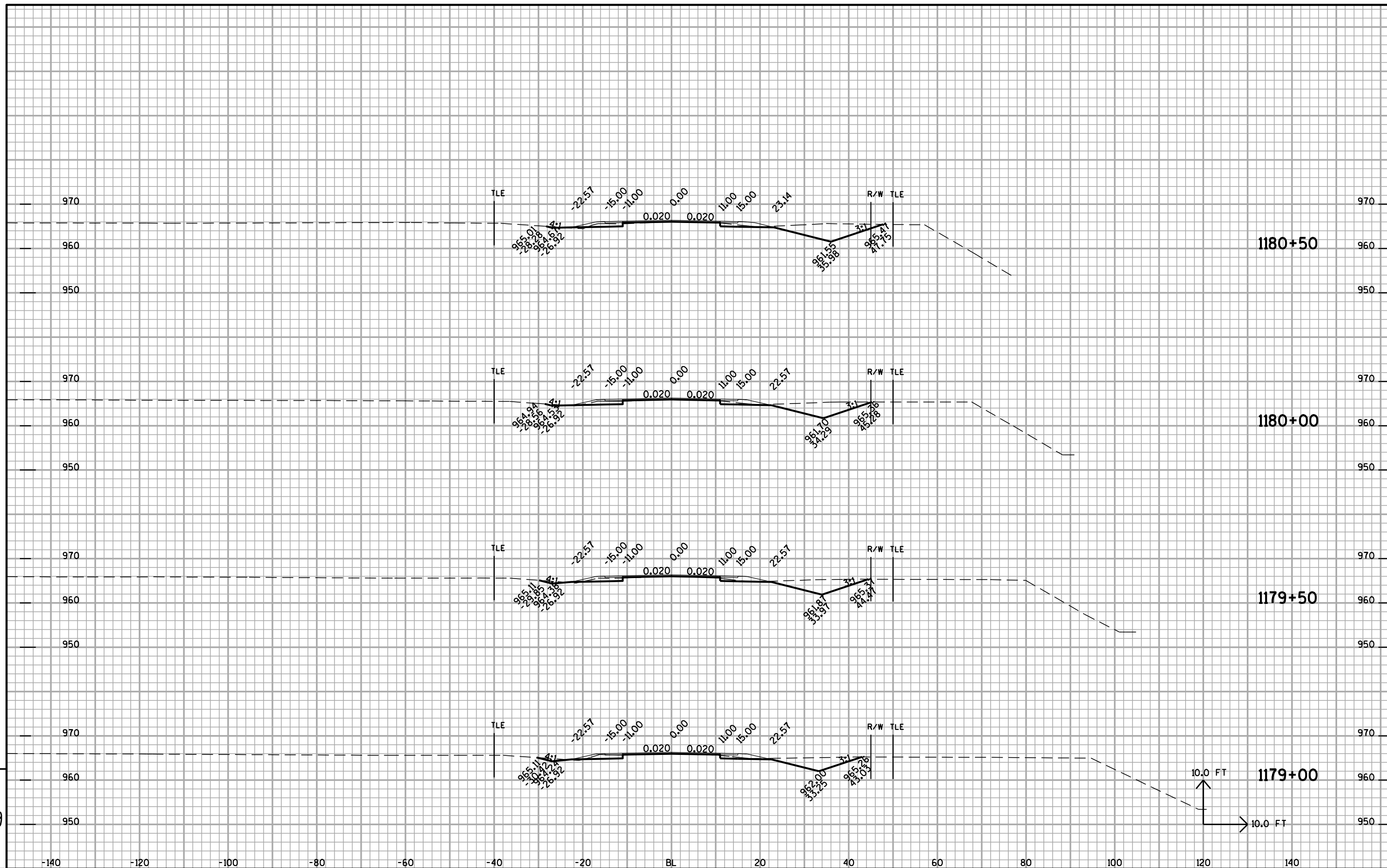
NOTES:  
1. CUT INCLUDES UNUSABLE/PAVEMENT MATERIAL.  
2. UNUSABLE/PAVEMENT MATERIAL NOT DEPICTED ON THE CROSS SECTIONS.  
3. EXPANDED FILL FACTOR IS 1.25.



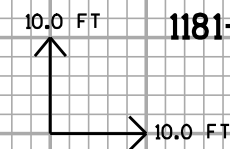
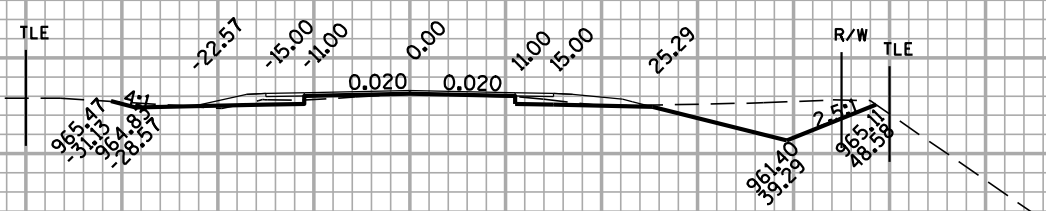
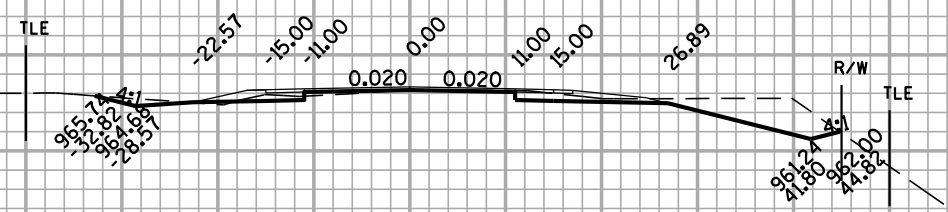
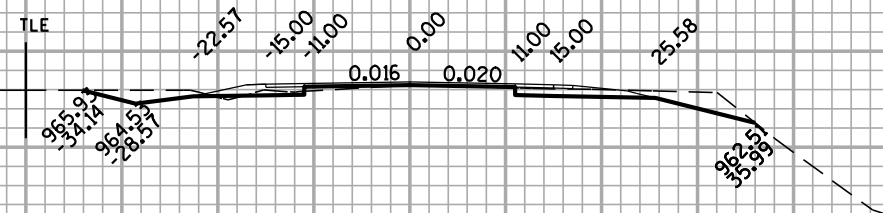
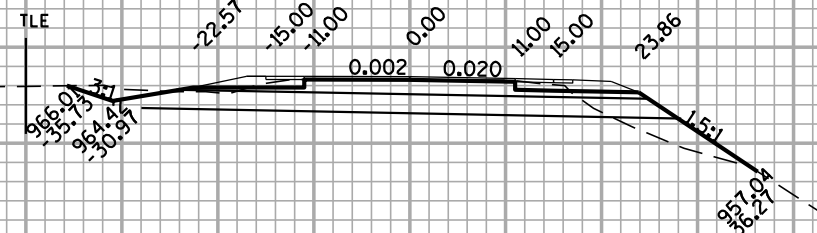


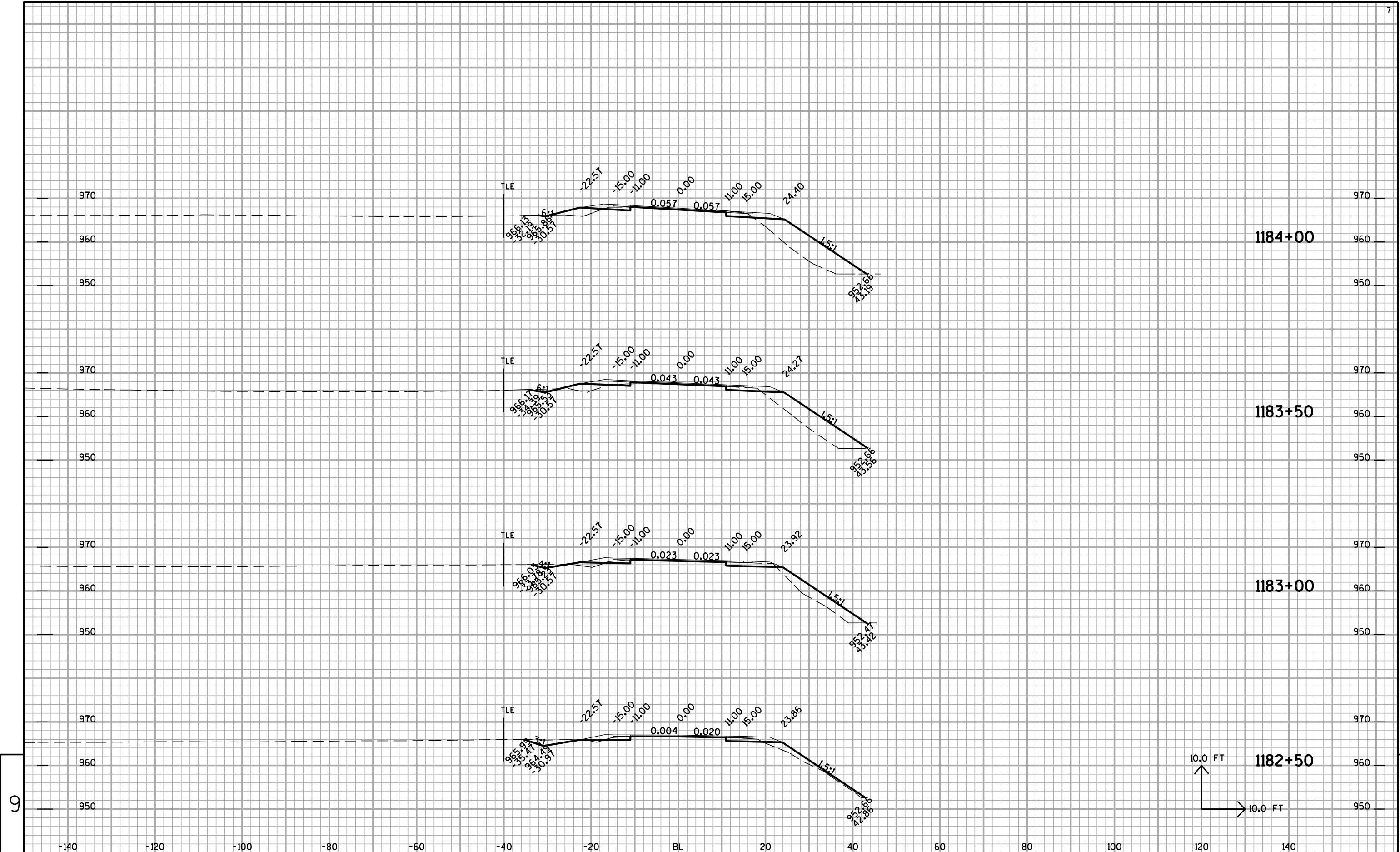


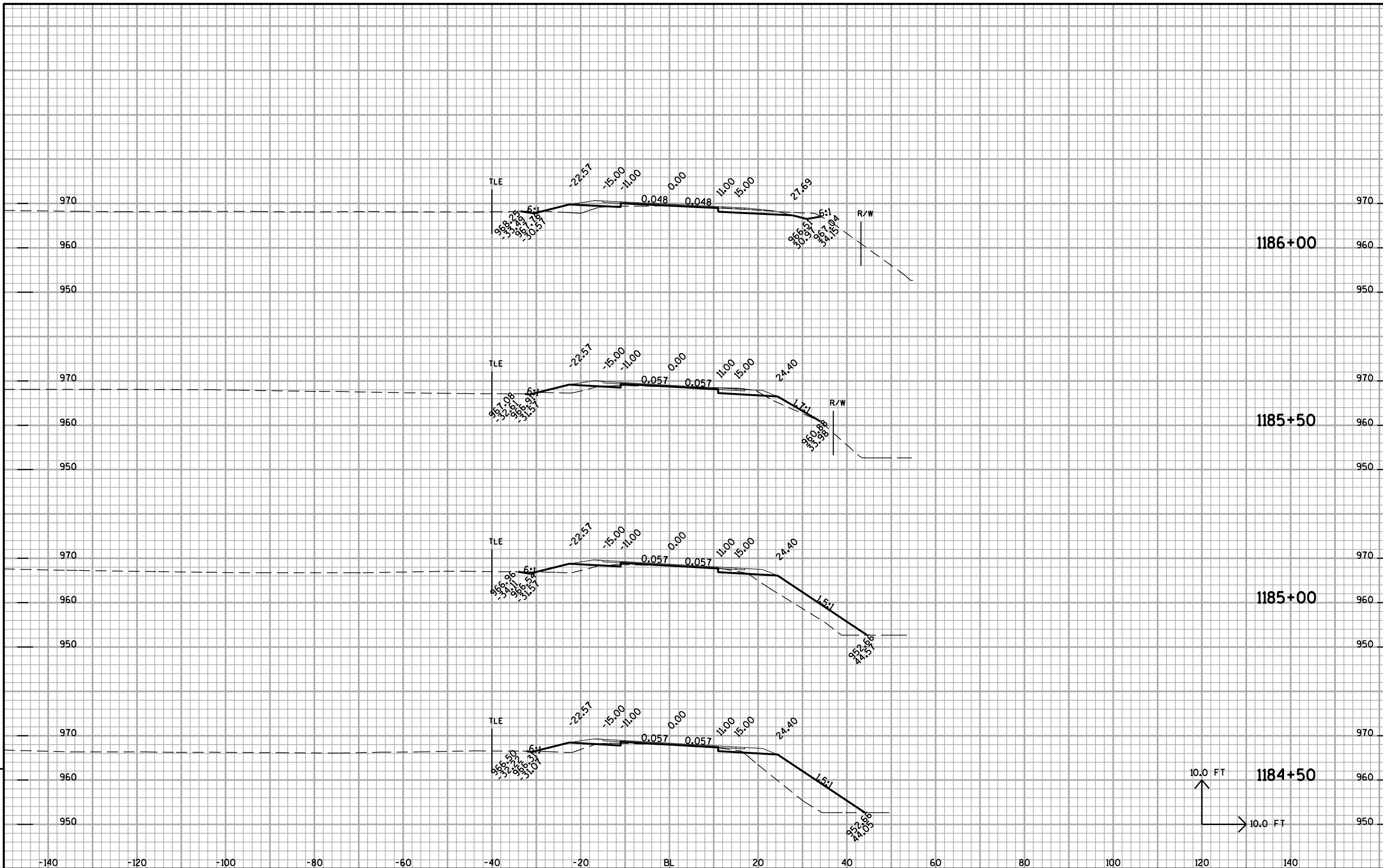


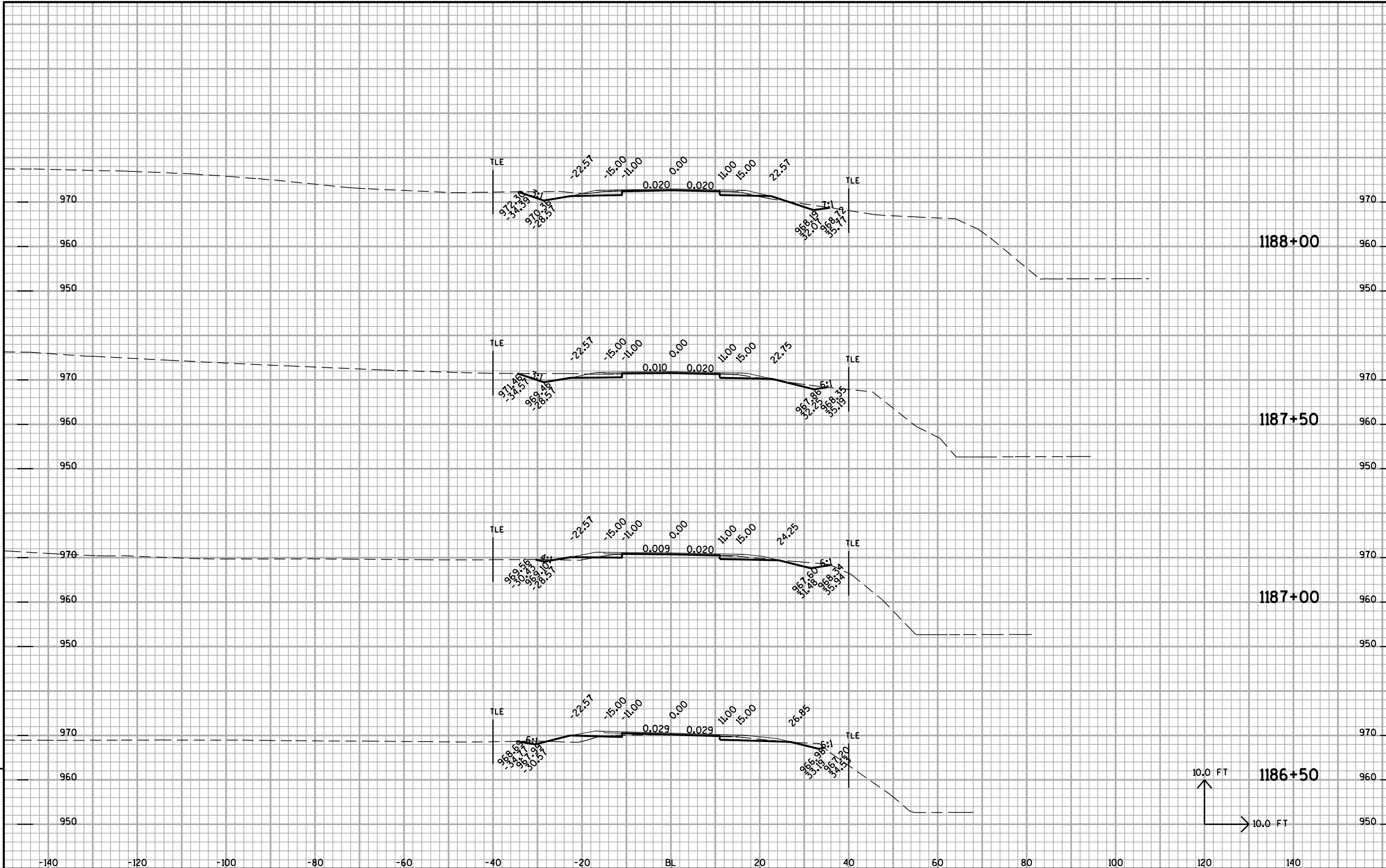


STA. 1182+44  
1 - 24" R.C.C.P. REO'D.  
2 - APRON ENDWALLS (A.E.W.) REO'D.  
A.E.W. EL. 963.66; 27.95' LT.  
A.E.W. EL. 962.58; 28.30' RT.  
SLOPE = 1.92%



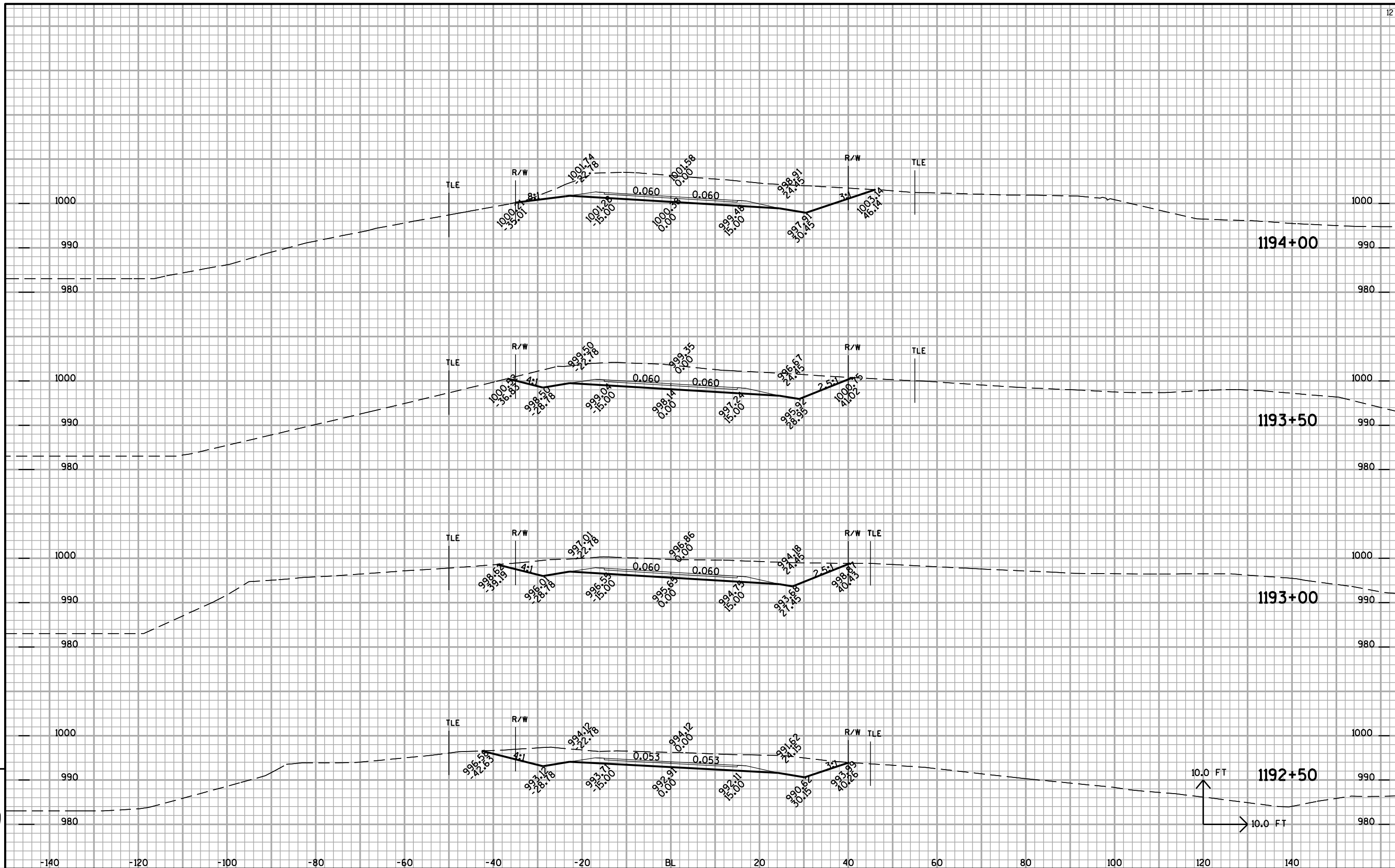


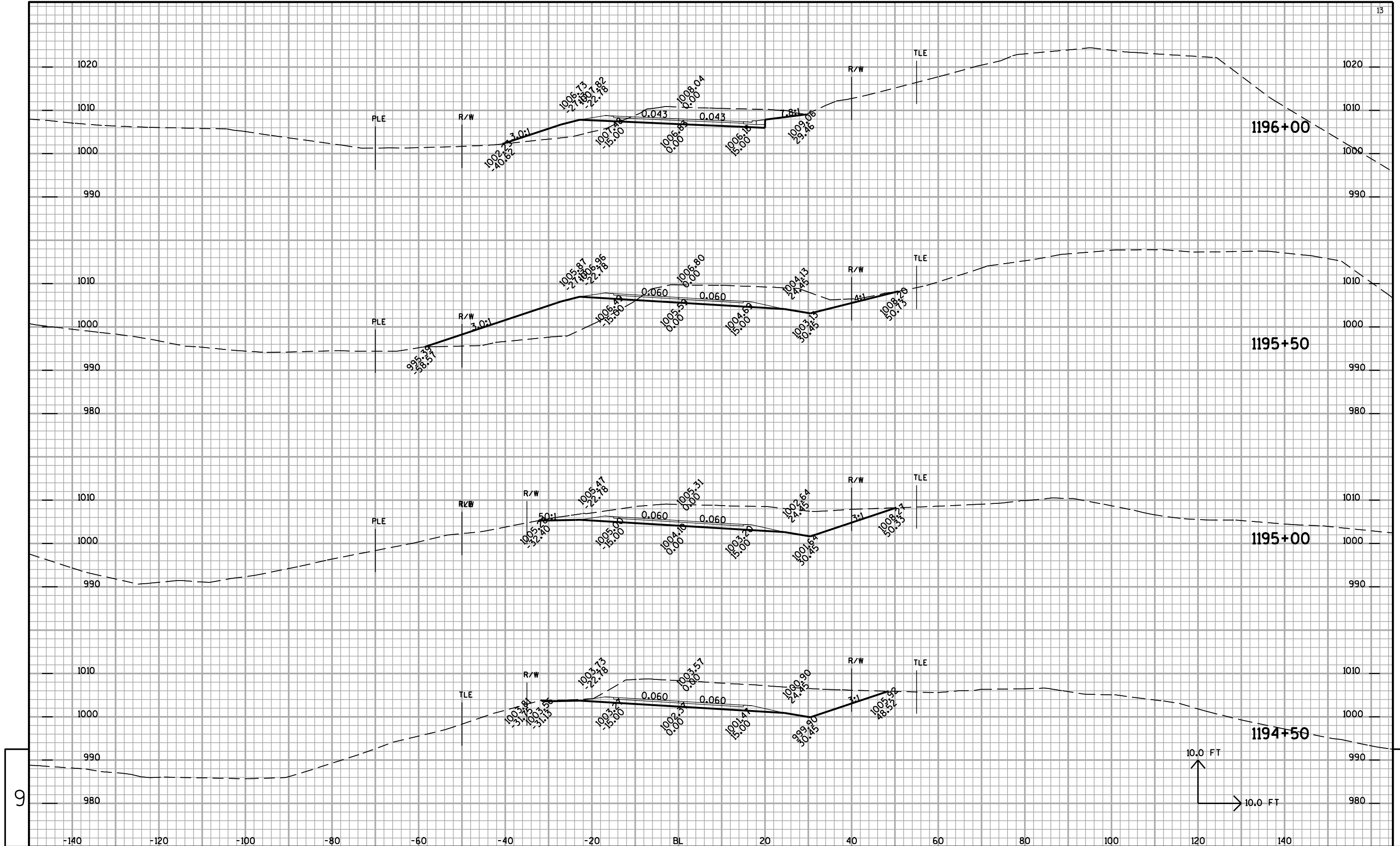




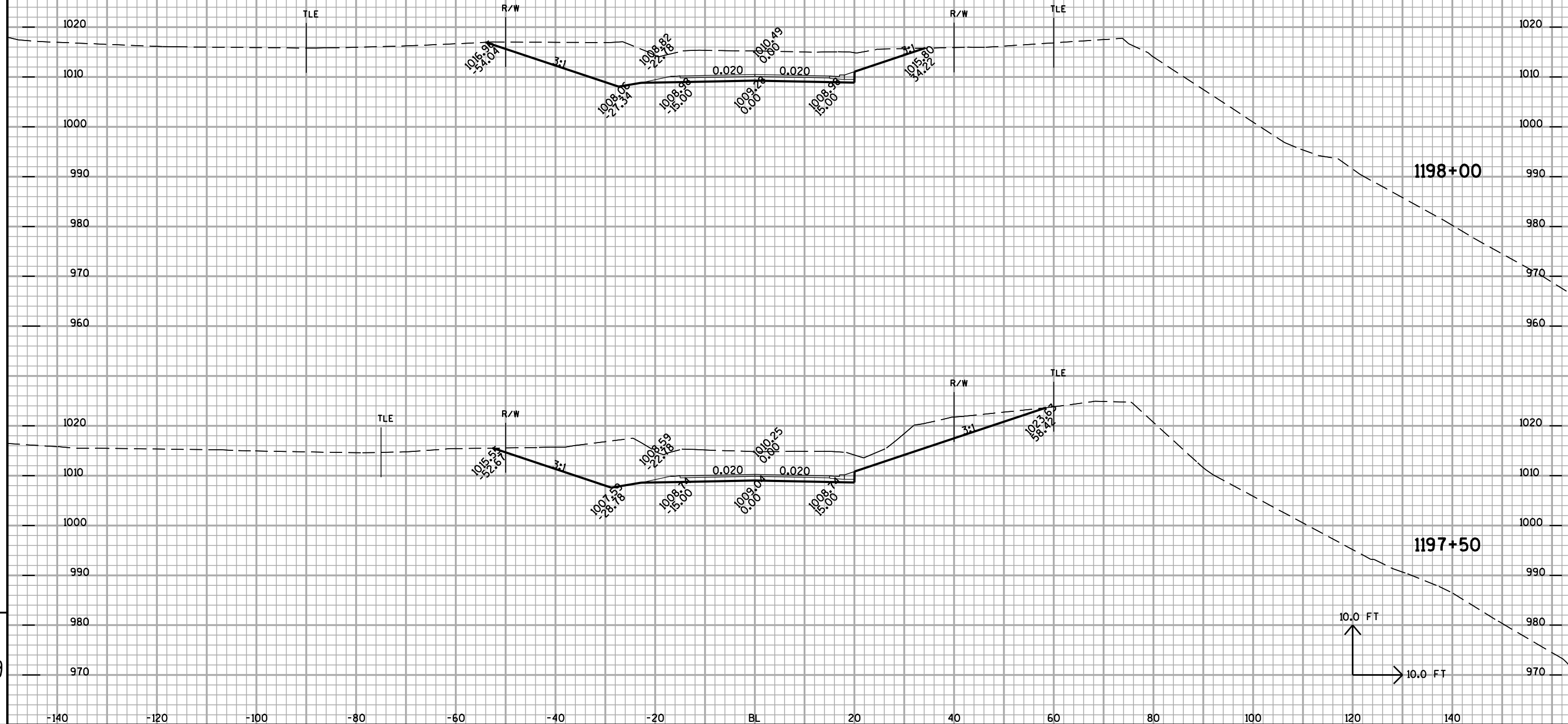








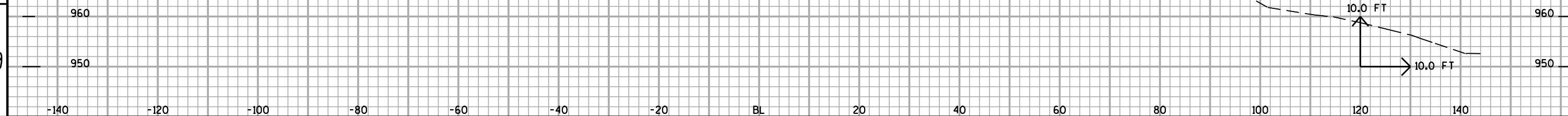


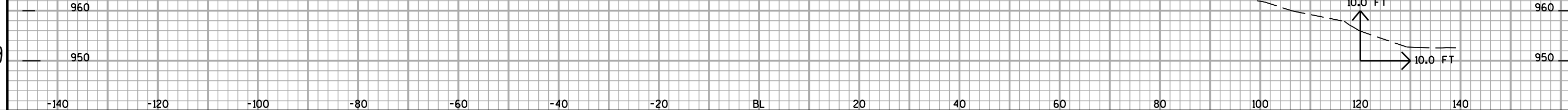


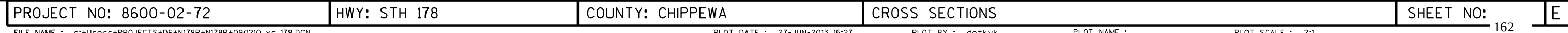


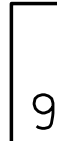










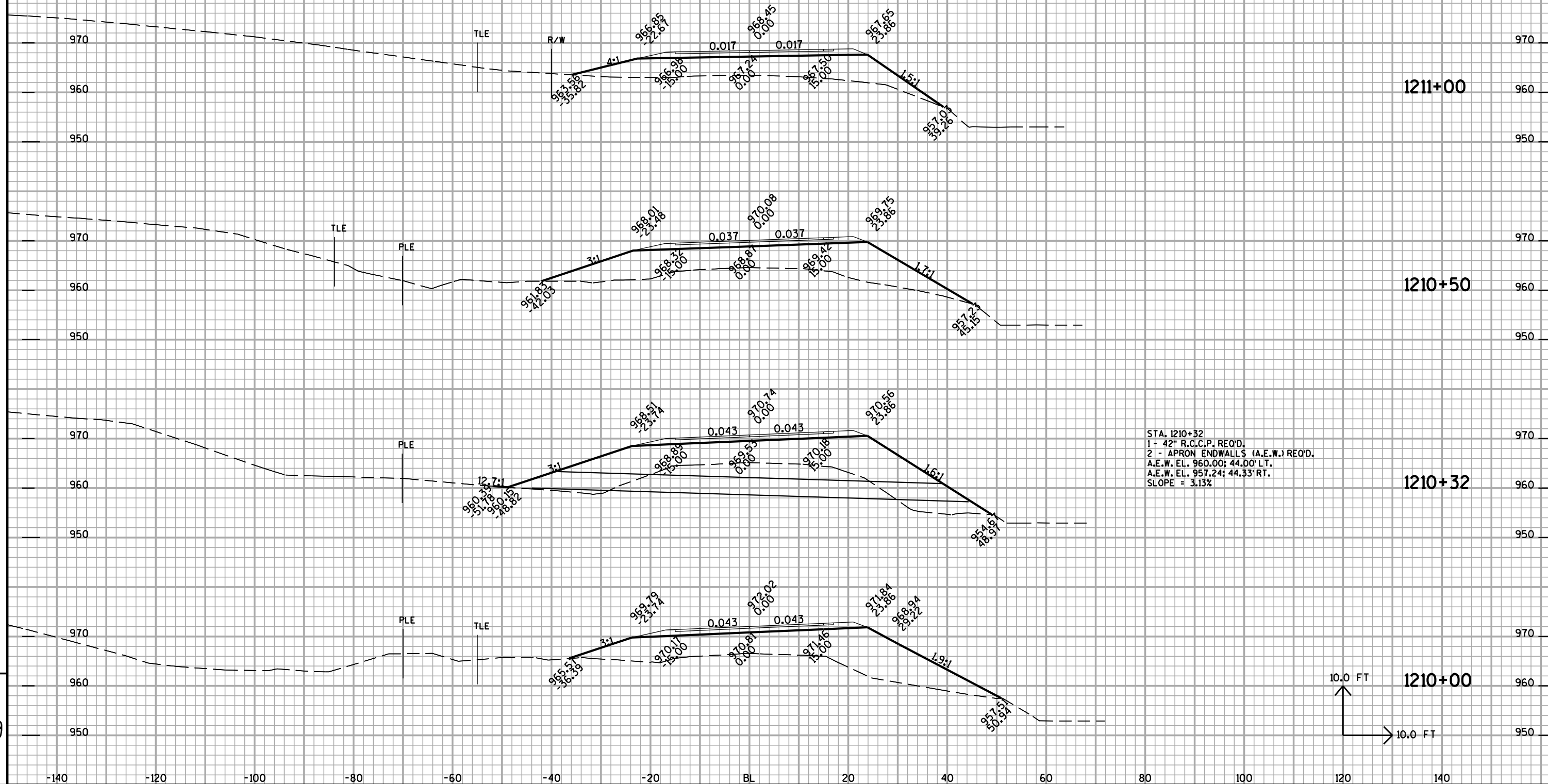






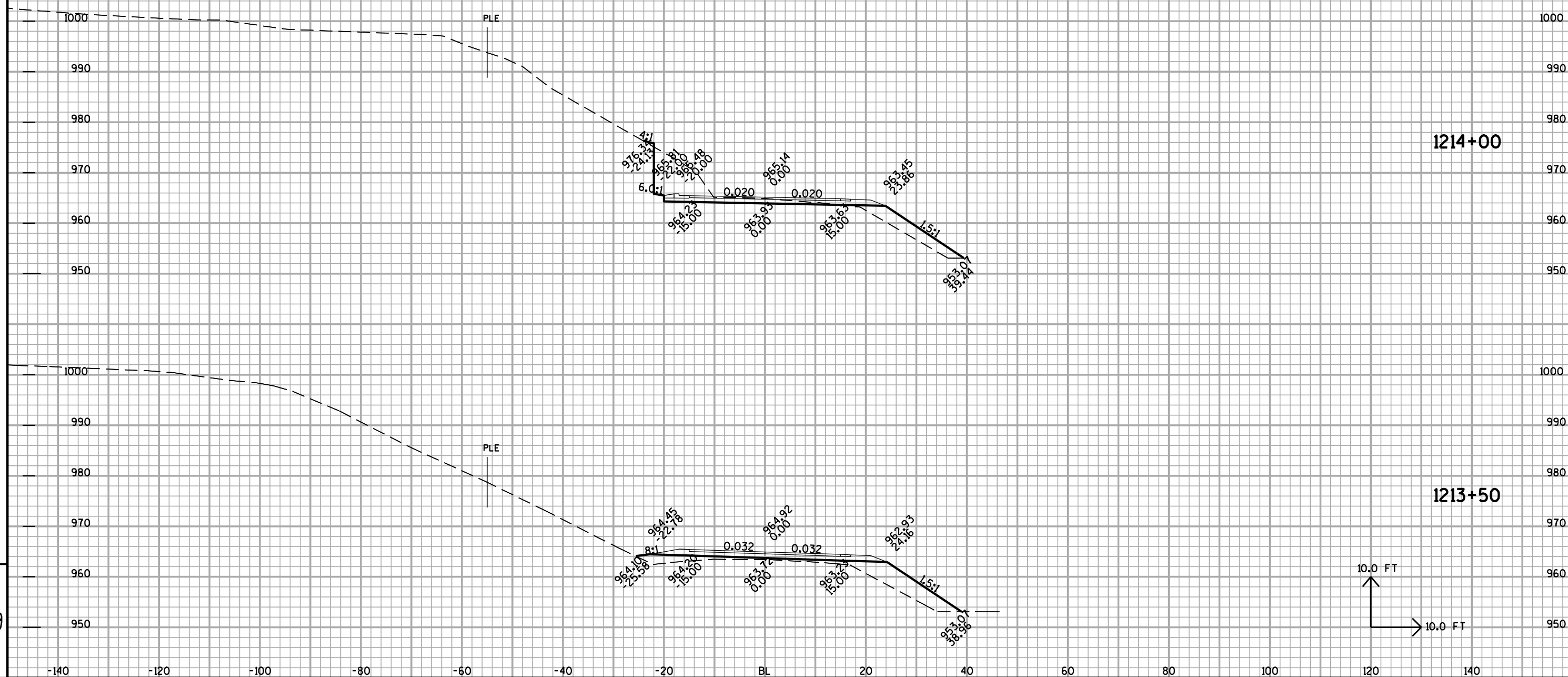






STA. 1210+32  
1 - 42" R.C.C.P. REQ'D.  
2 - APRON ENDWALLS (A.E.W.) REQ'D.  
A.E.W. EL. 960.00; 44.00' LT.  
A.E.W. EL. 957.24; 44.33' RT.  
SLOPE = 3.13%





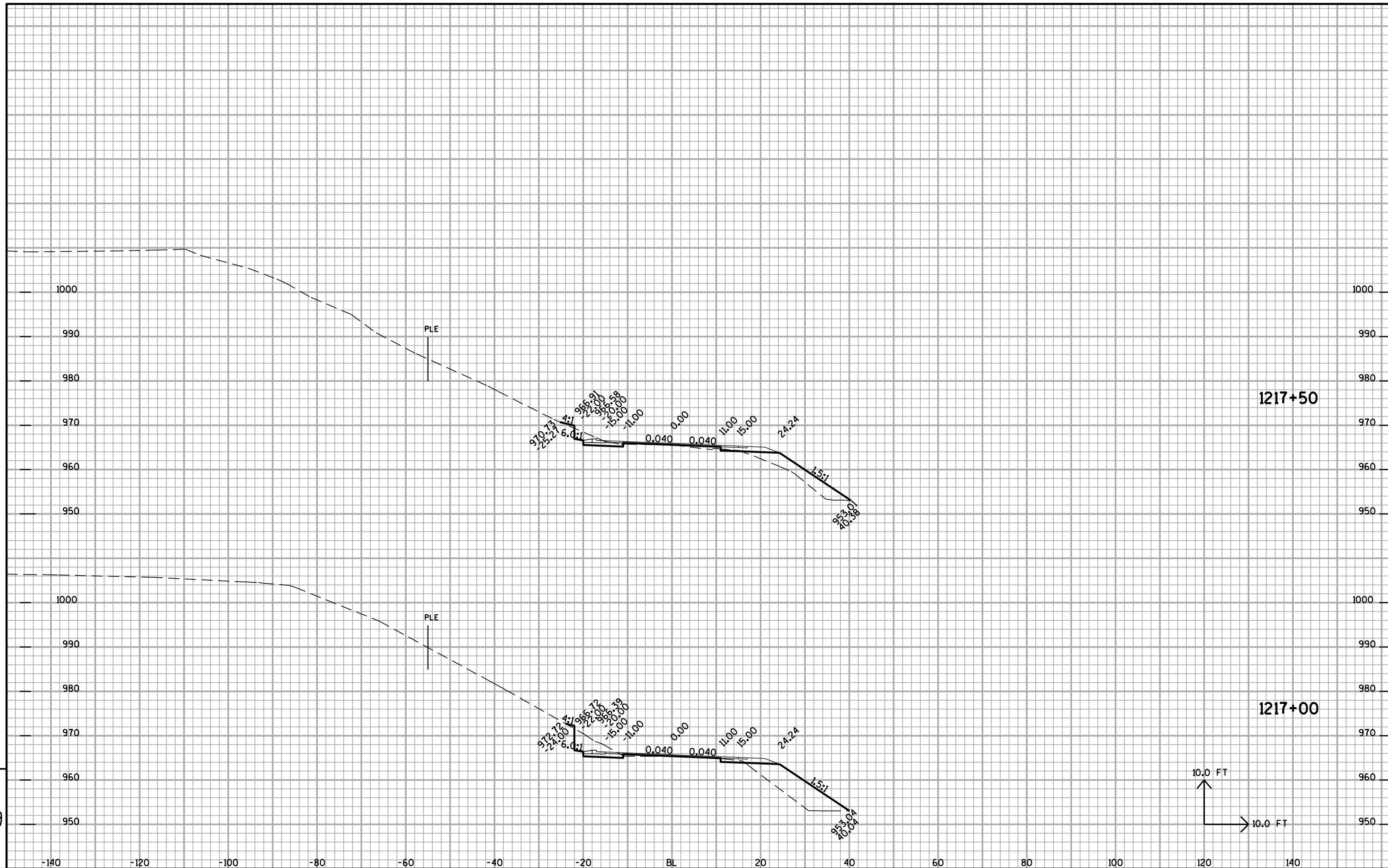
|  |   |
|--|---|
|  | E |
|--|---|

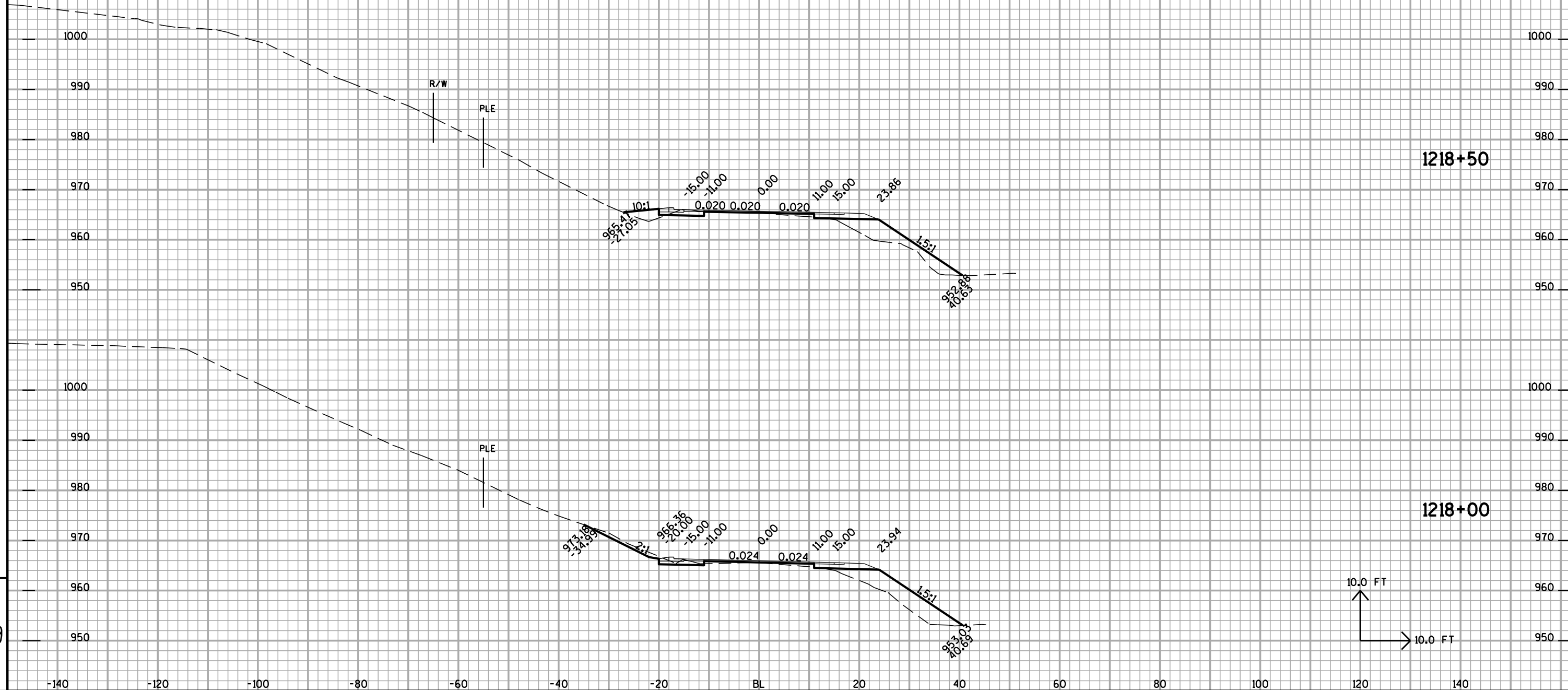
170

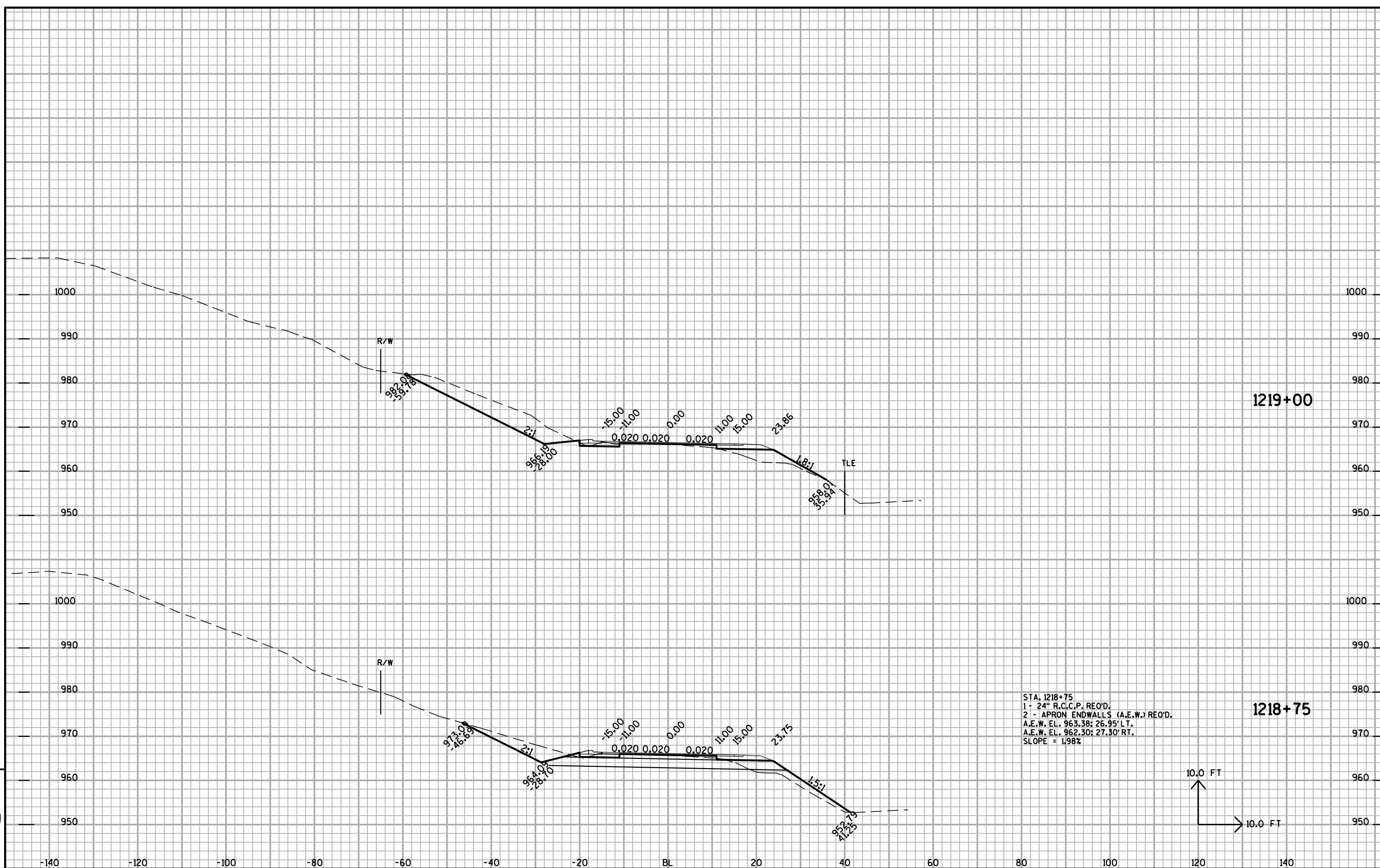


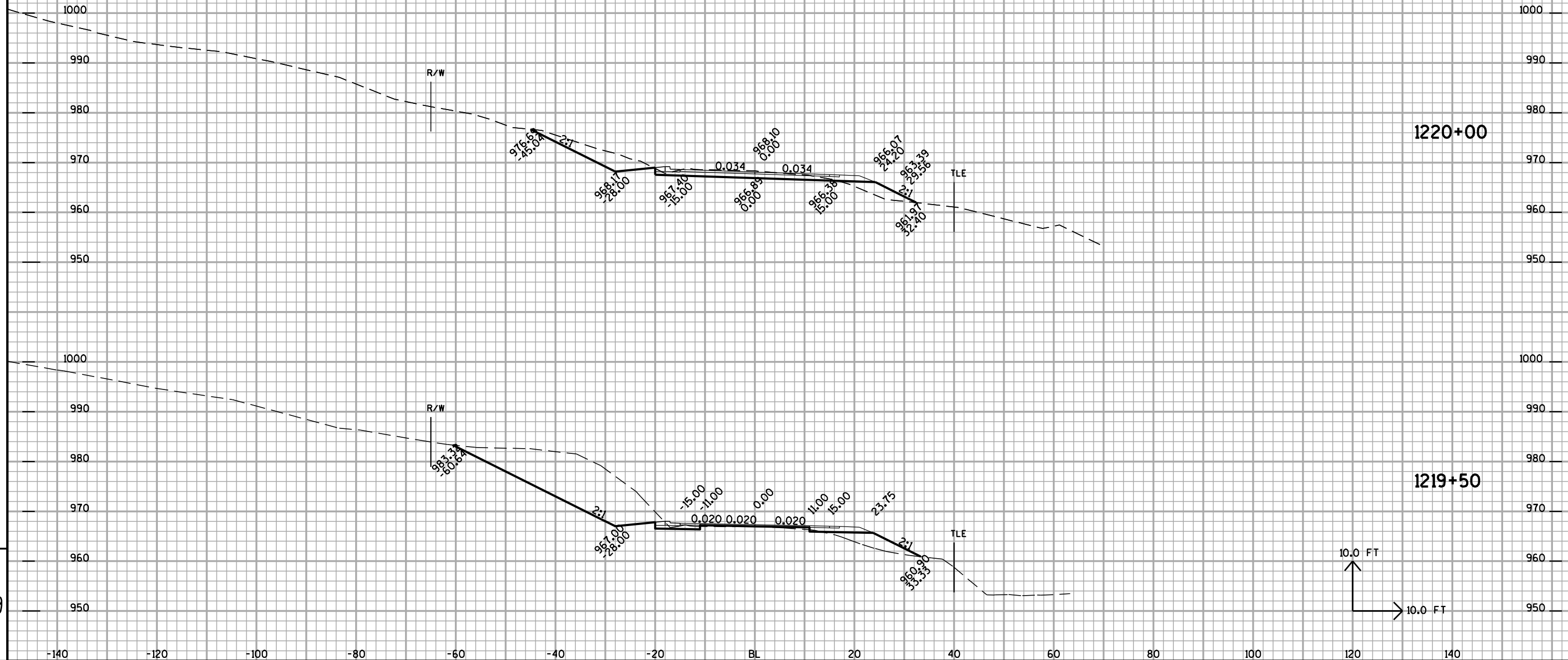


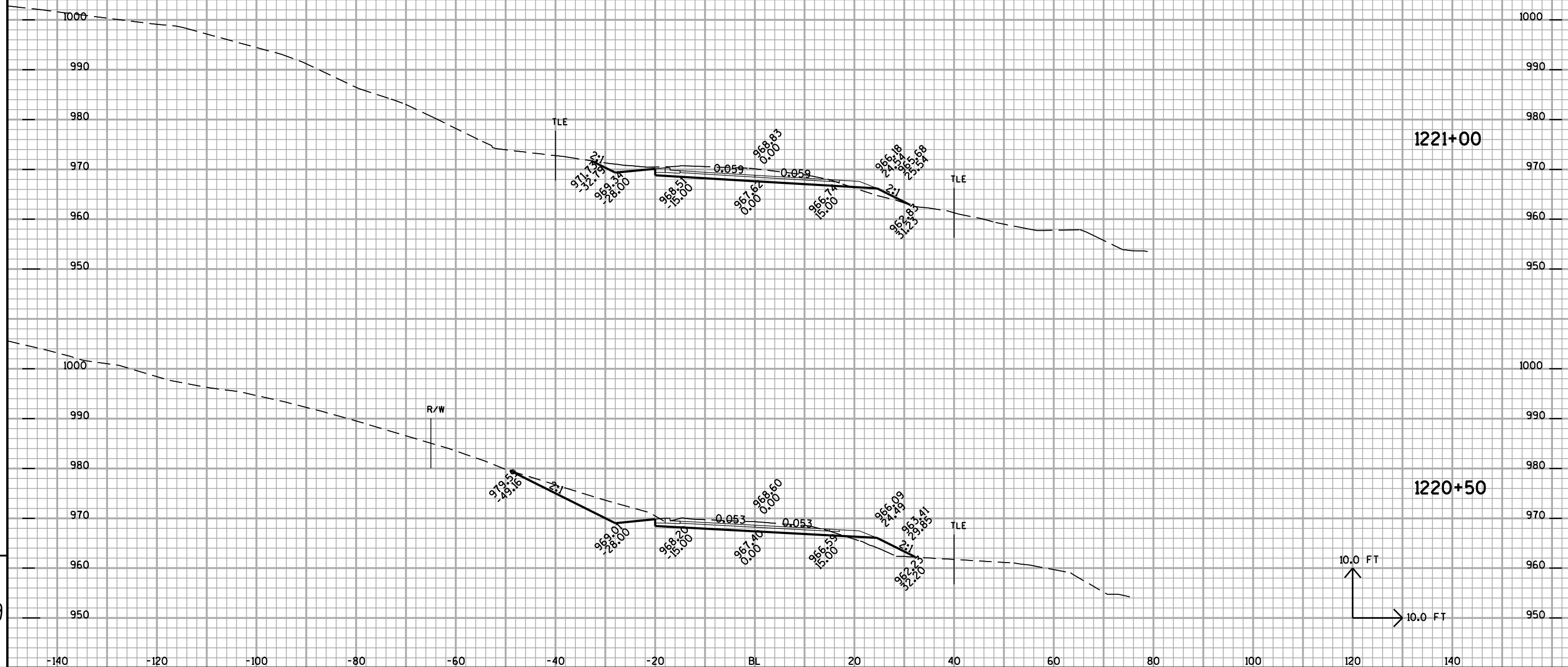
















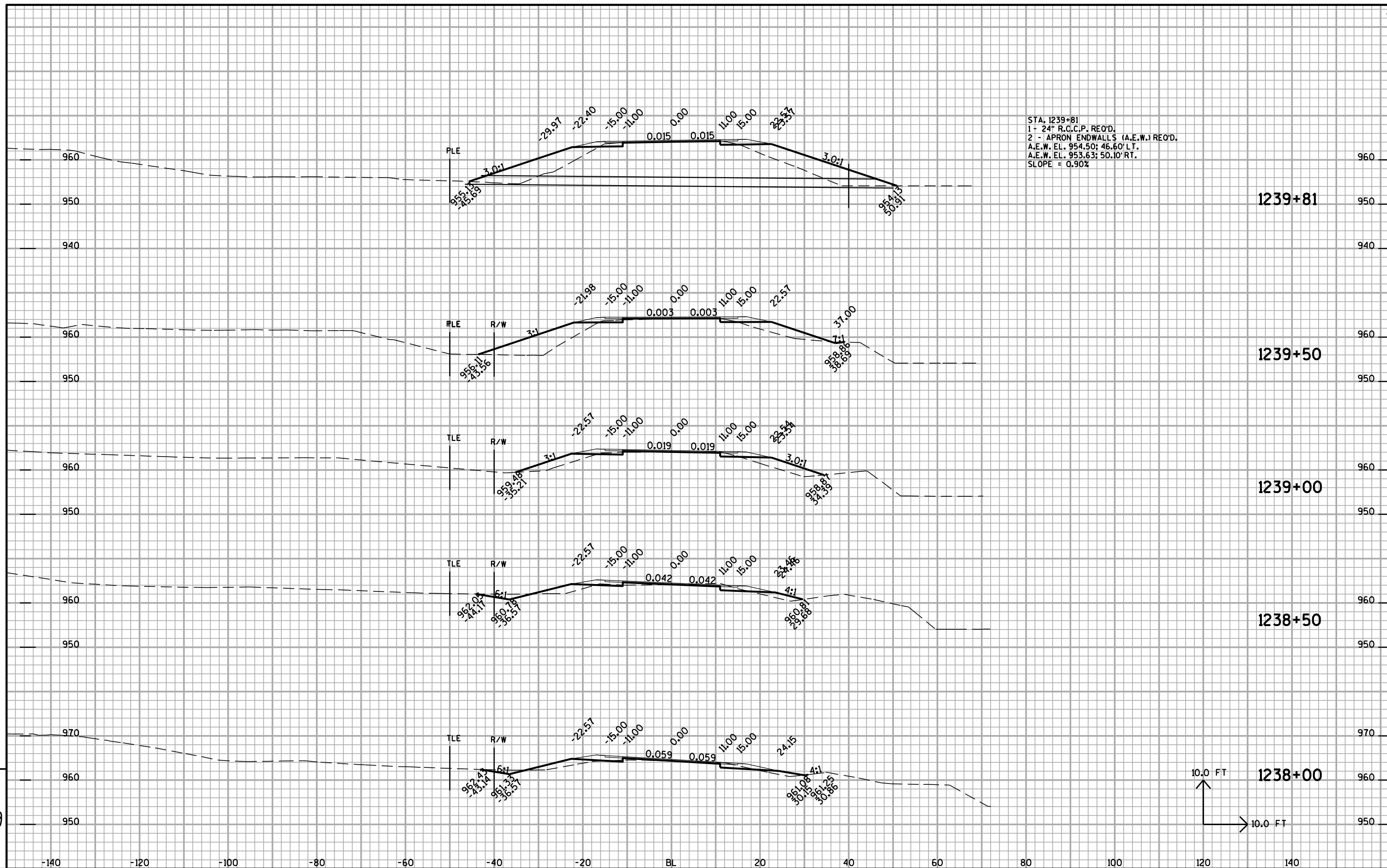




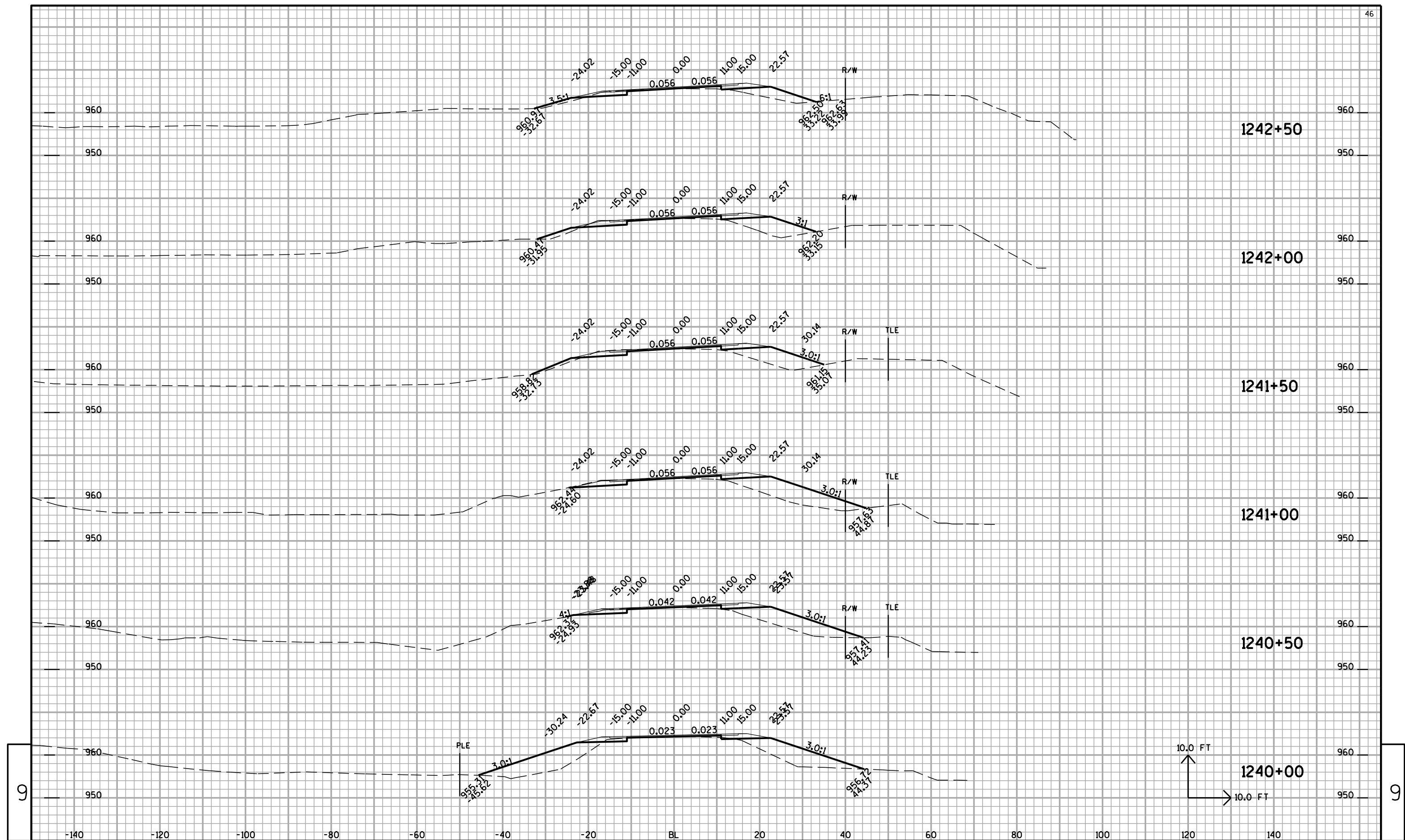


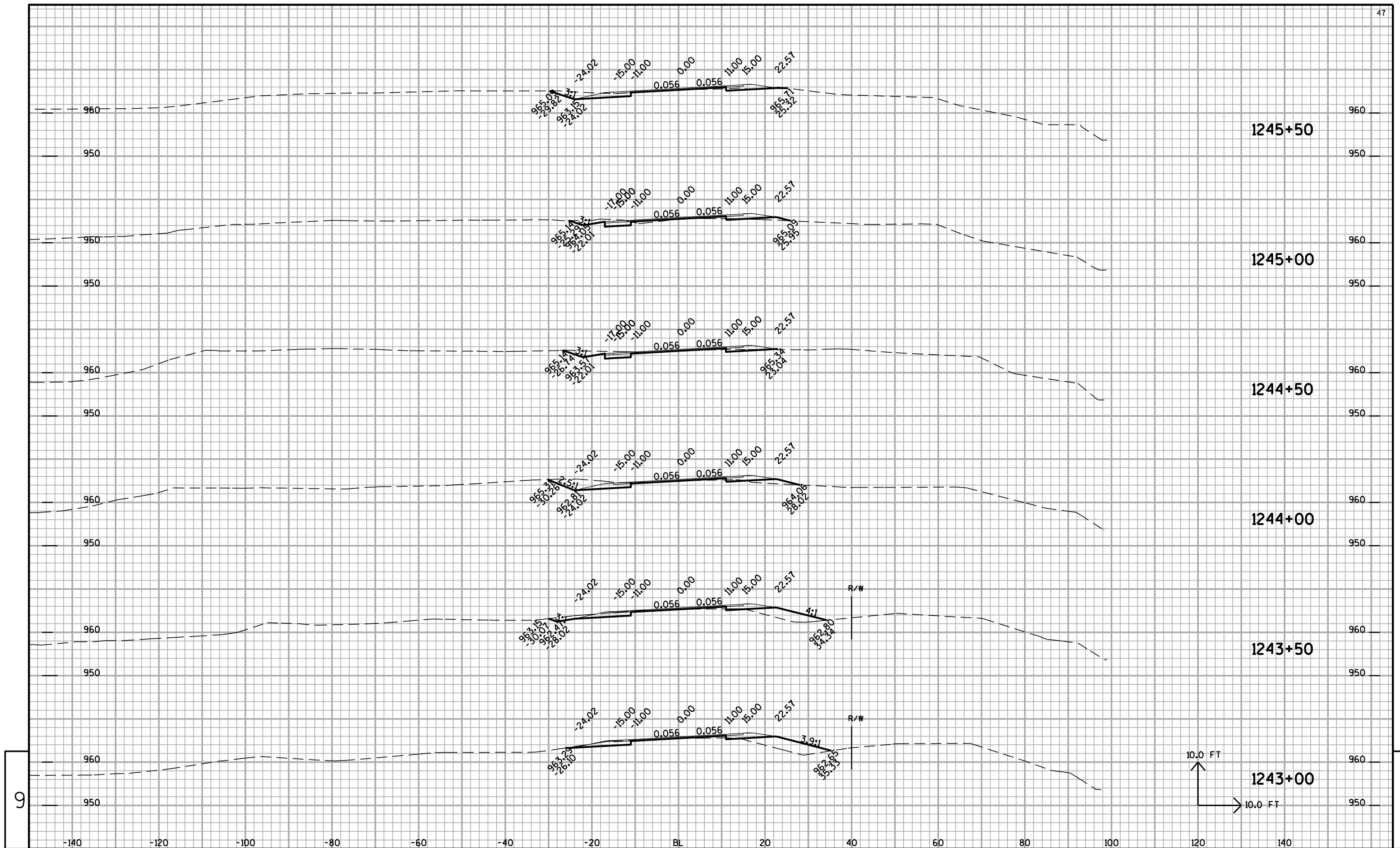






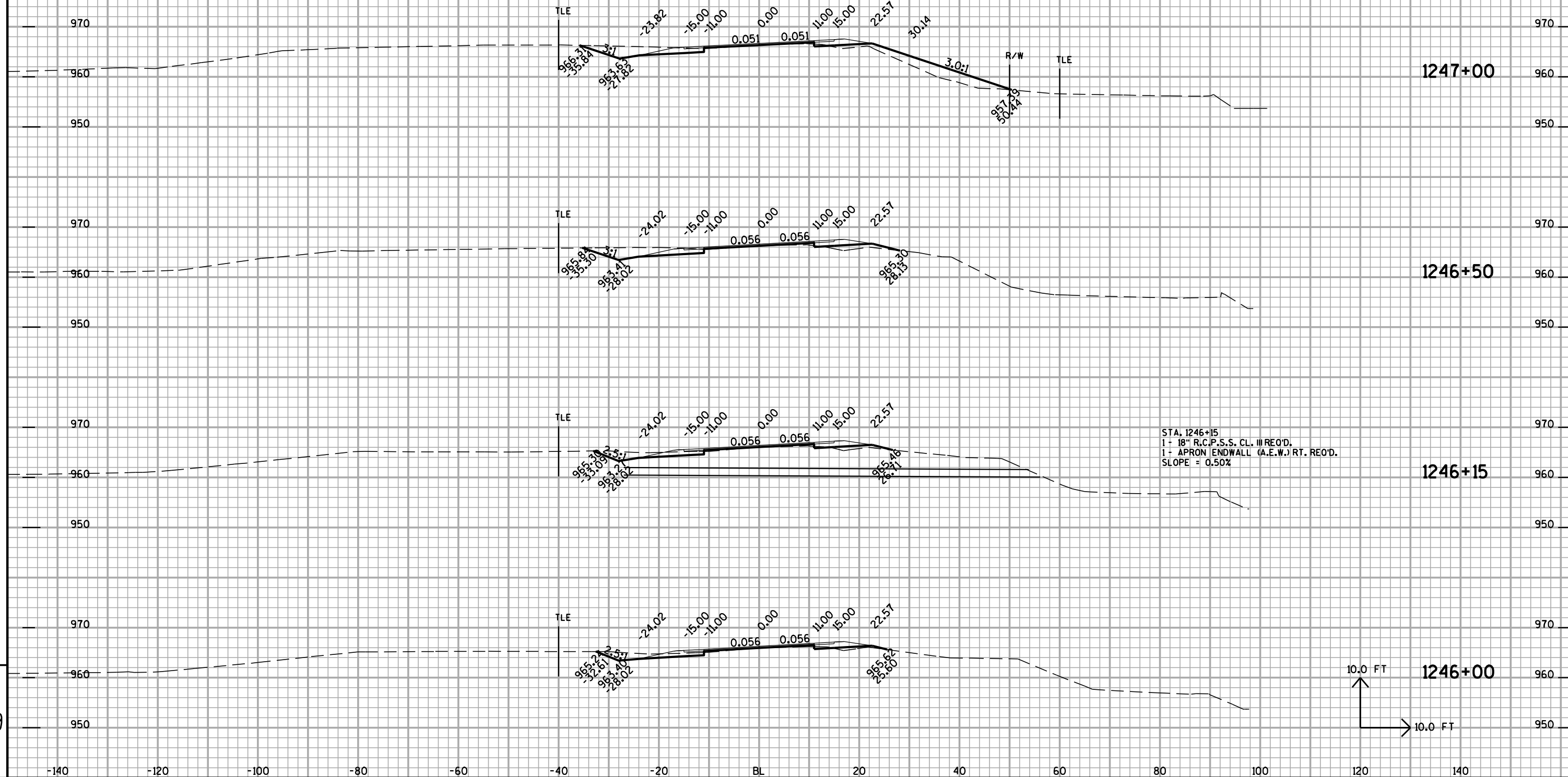
STA. 1239+81  
1 - 24" R.C.C.P. REQ'D.  
2 - APRON ENDWALLS (A.E.W.) REQ'D.  
A.E.W. EL. 954.50; 46.60' LT.  
A.E.W. EL. 953.63; 50.10' RT.  
SLOPE = 0.90%

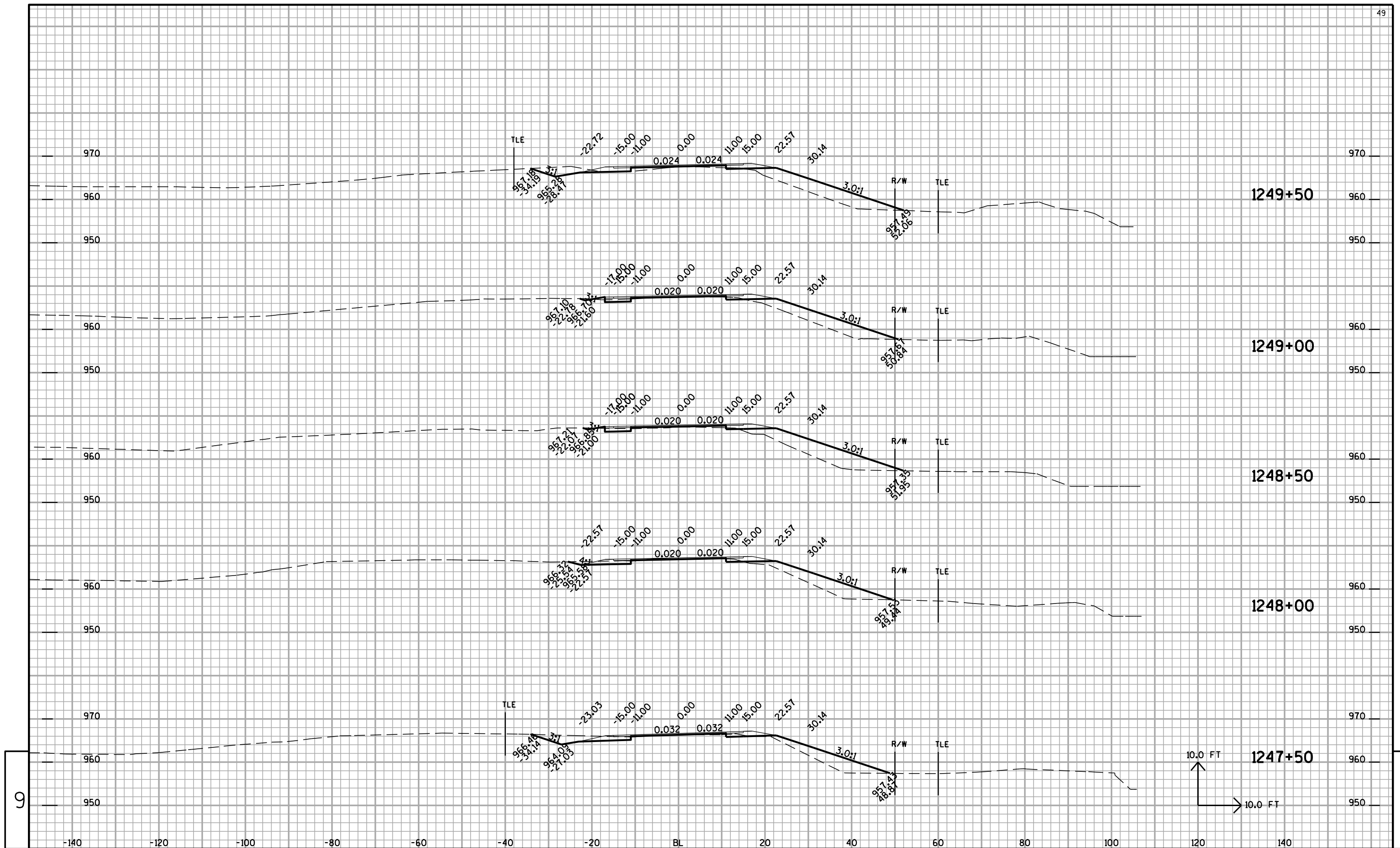




9

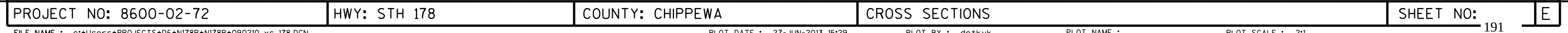
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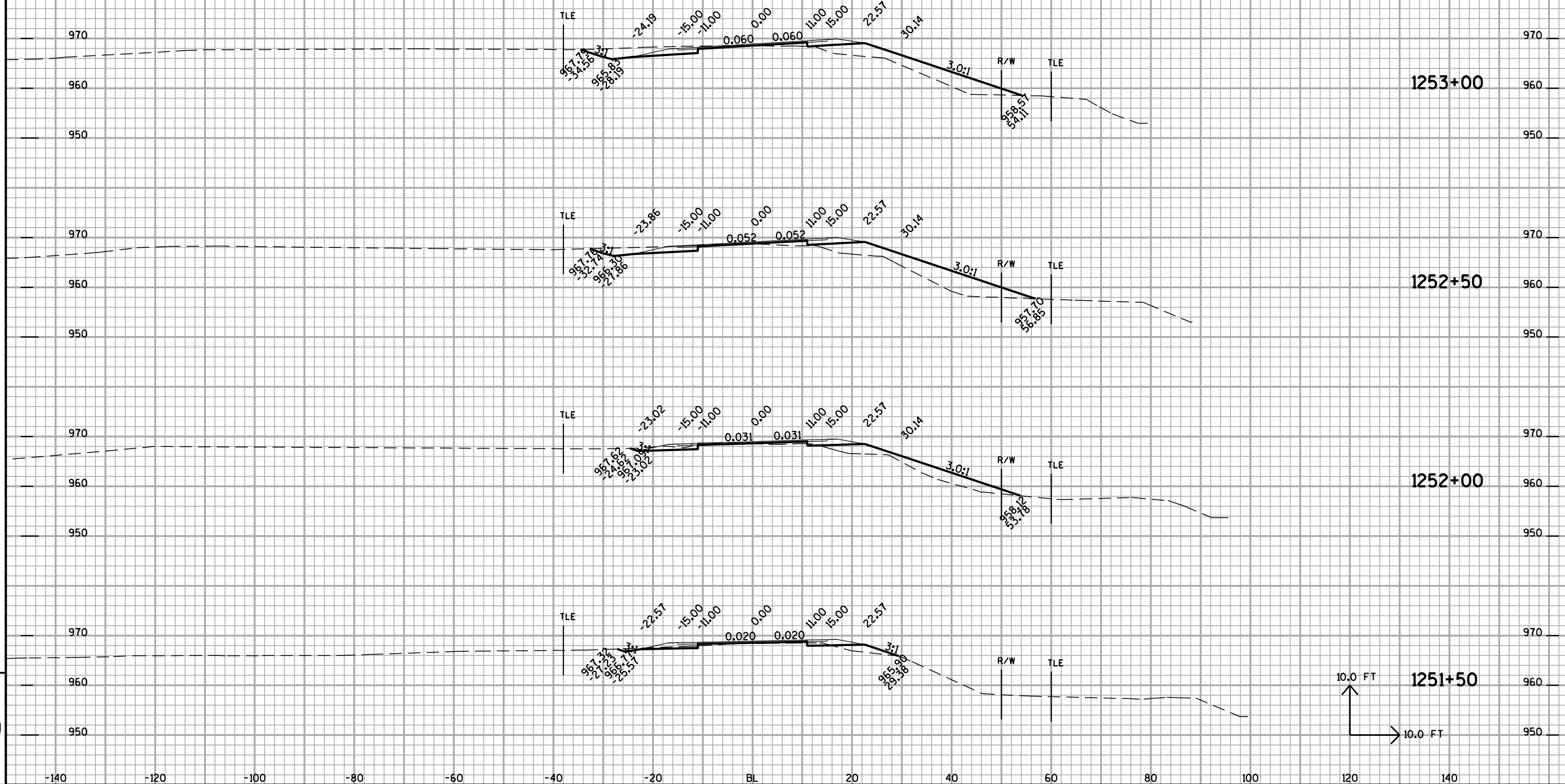


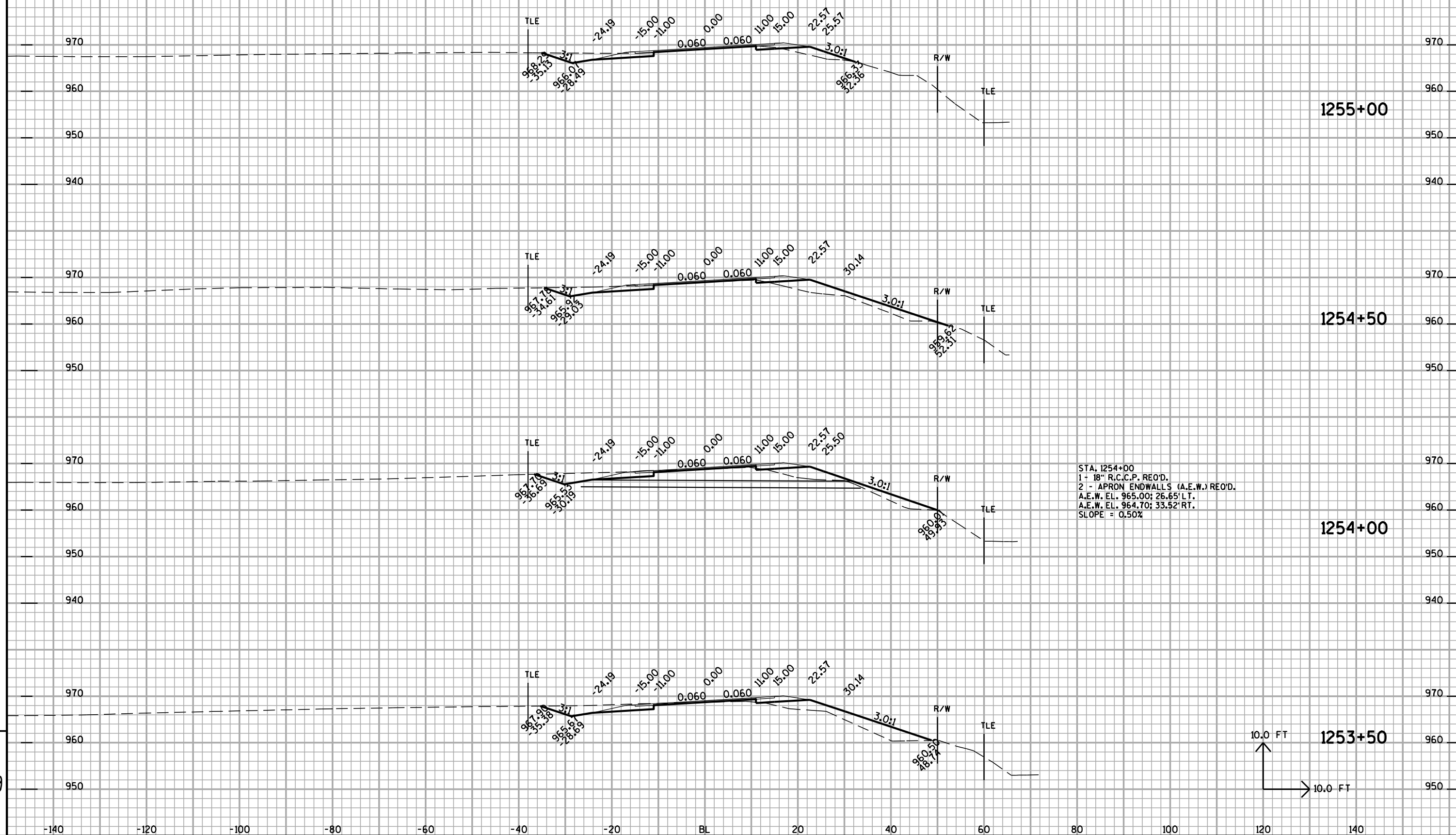


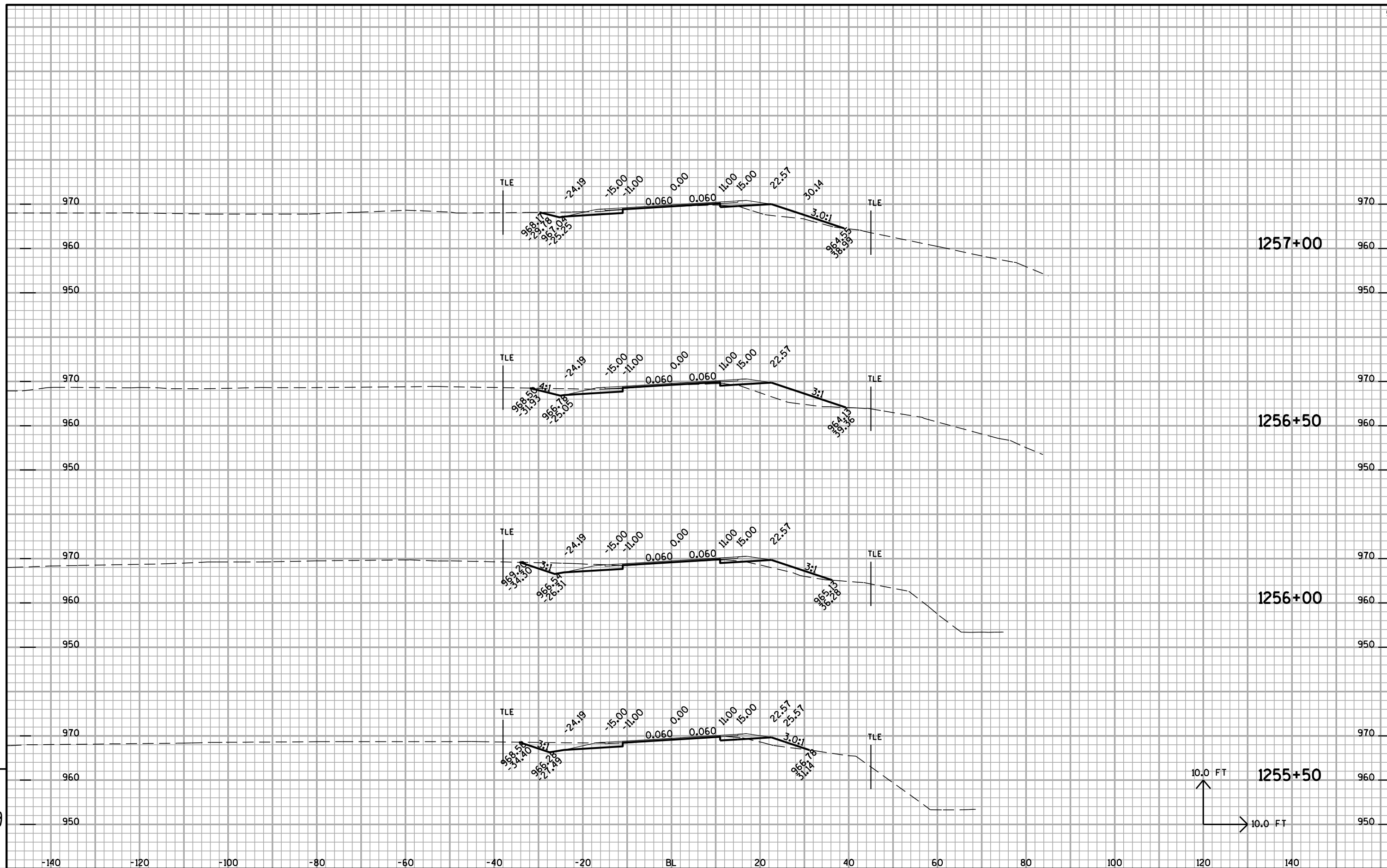
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9



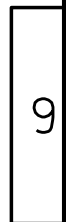




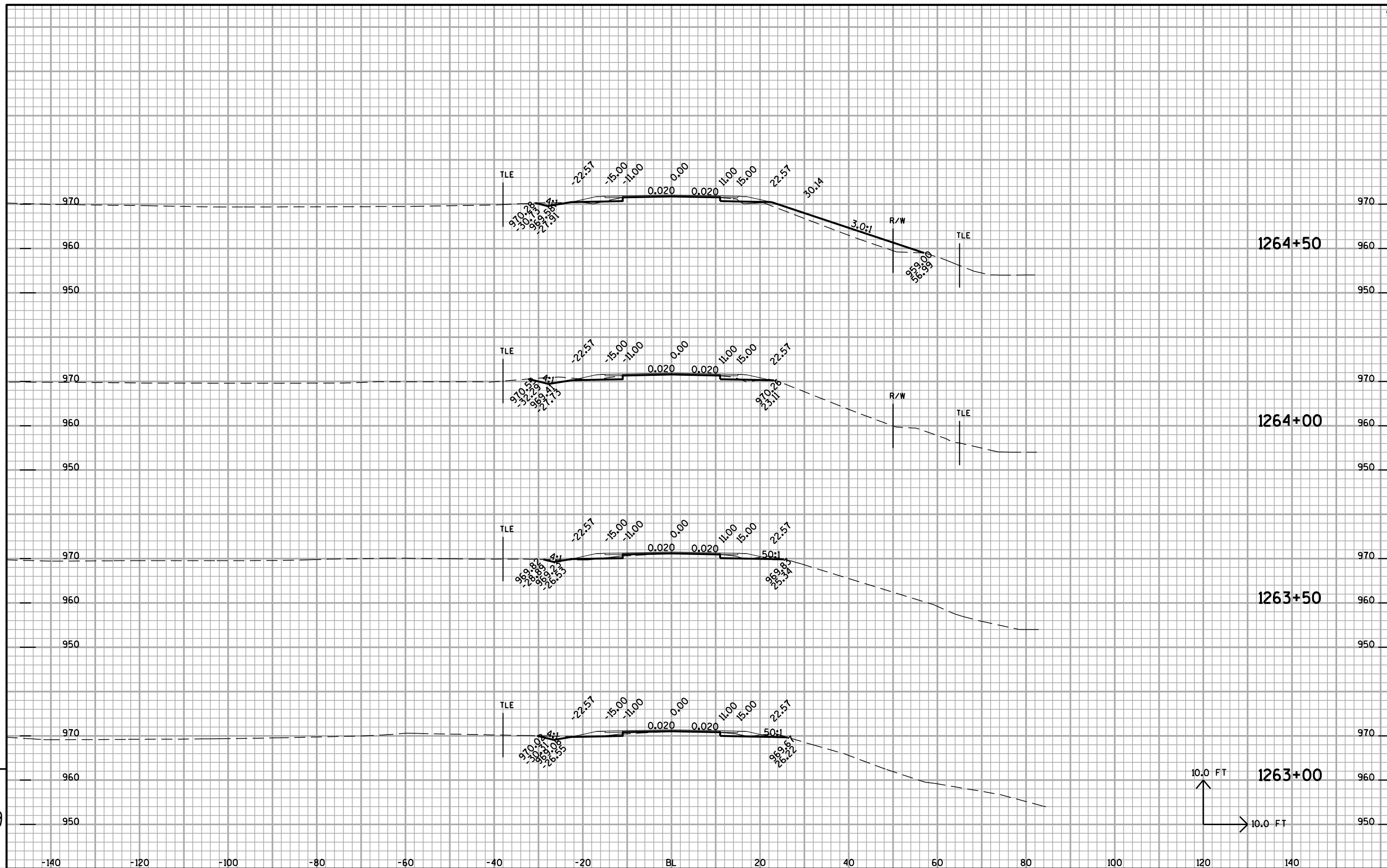


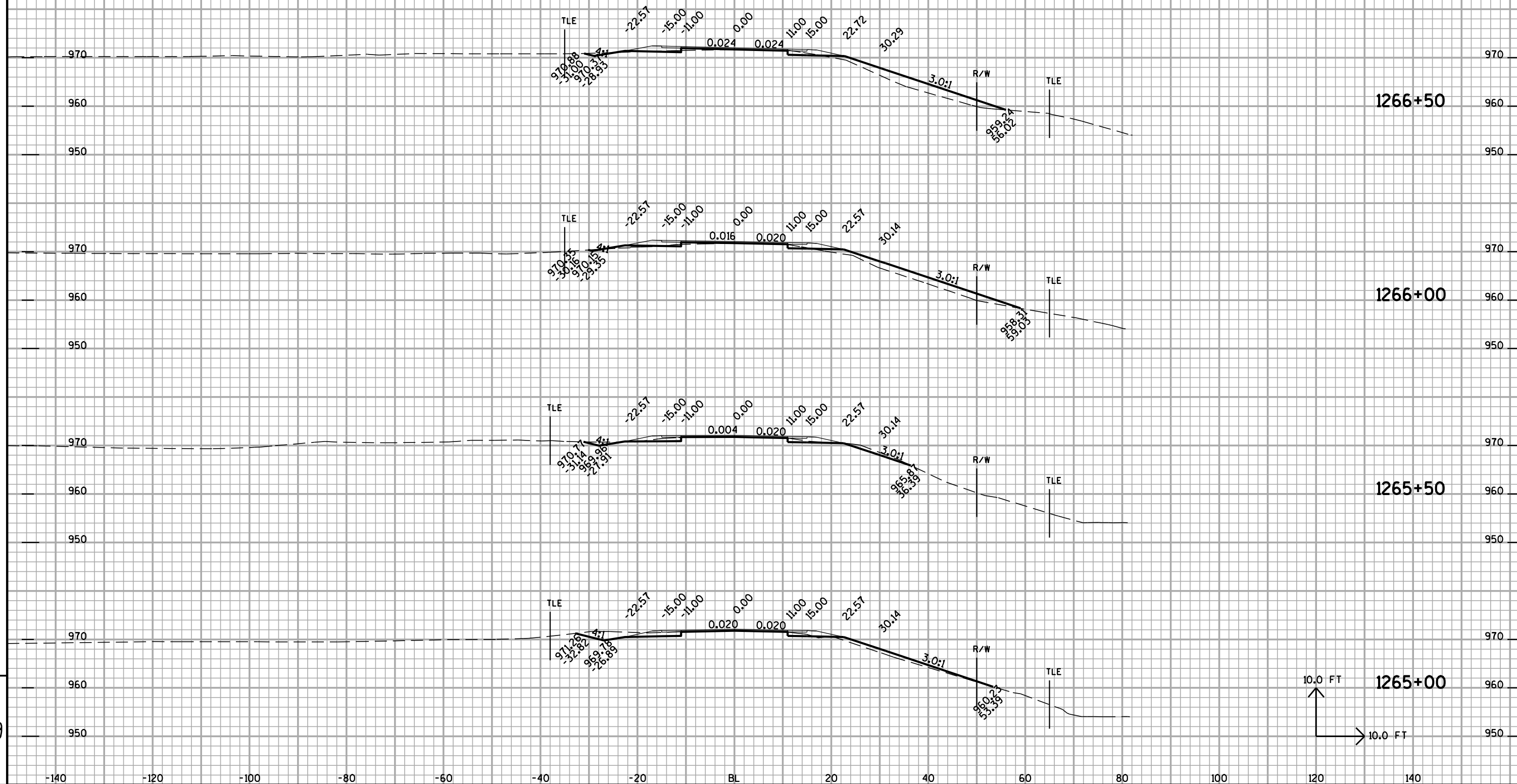


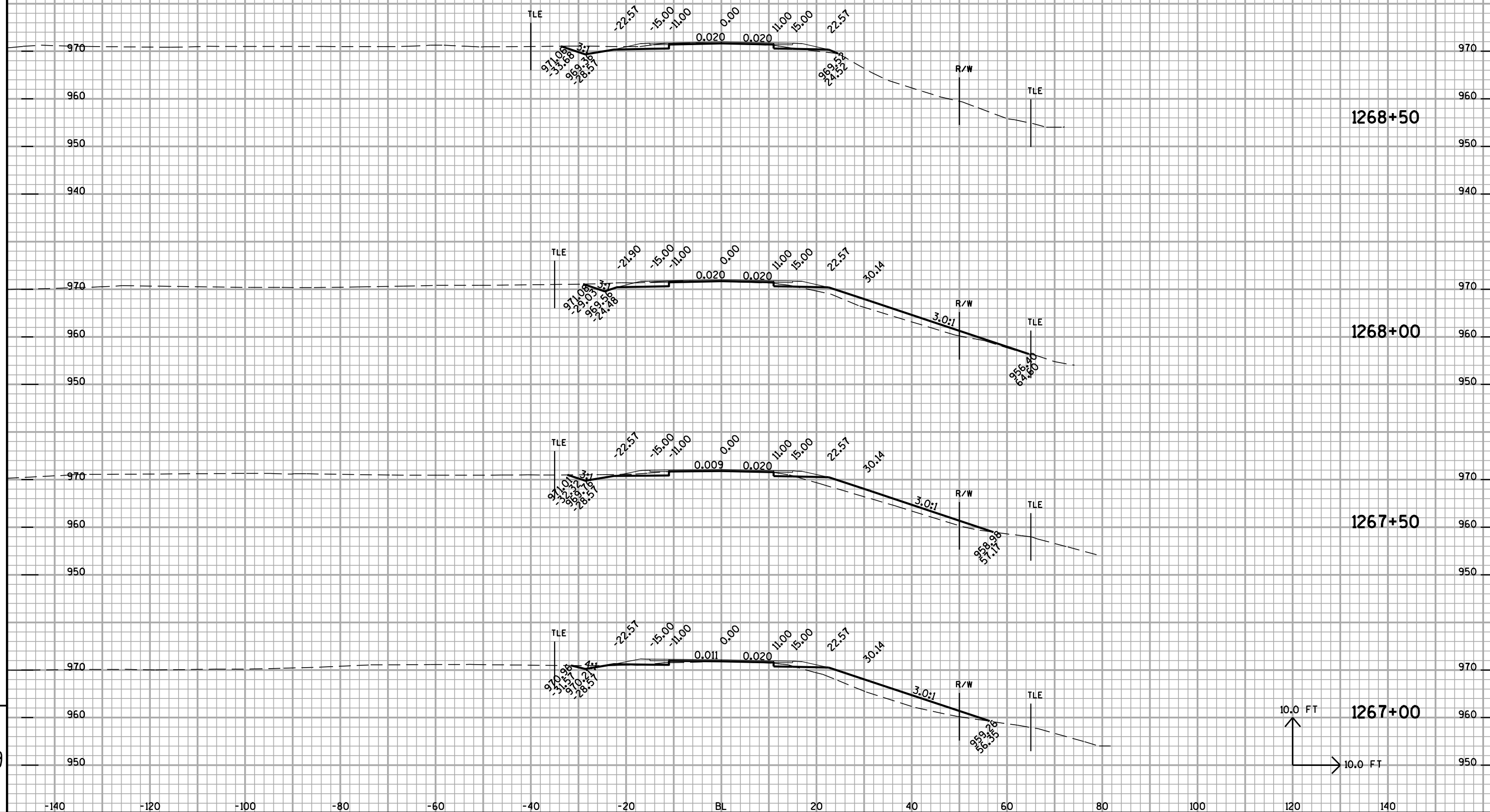


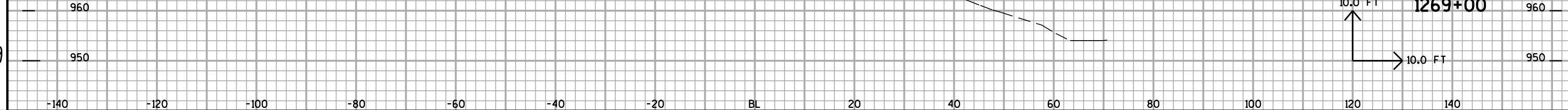


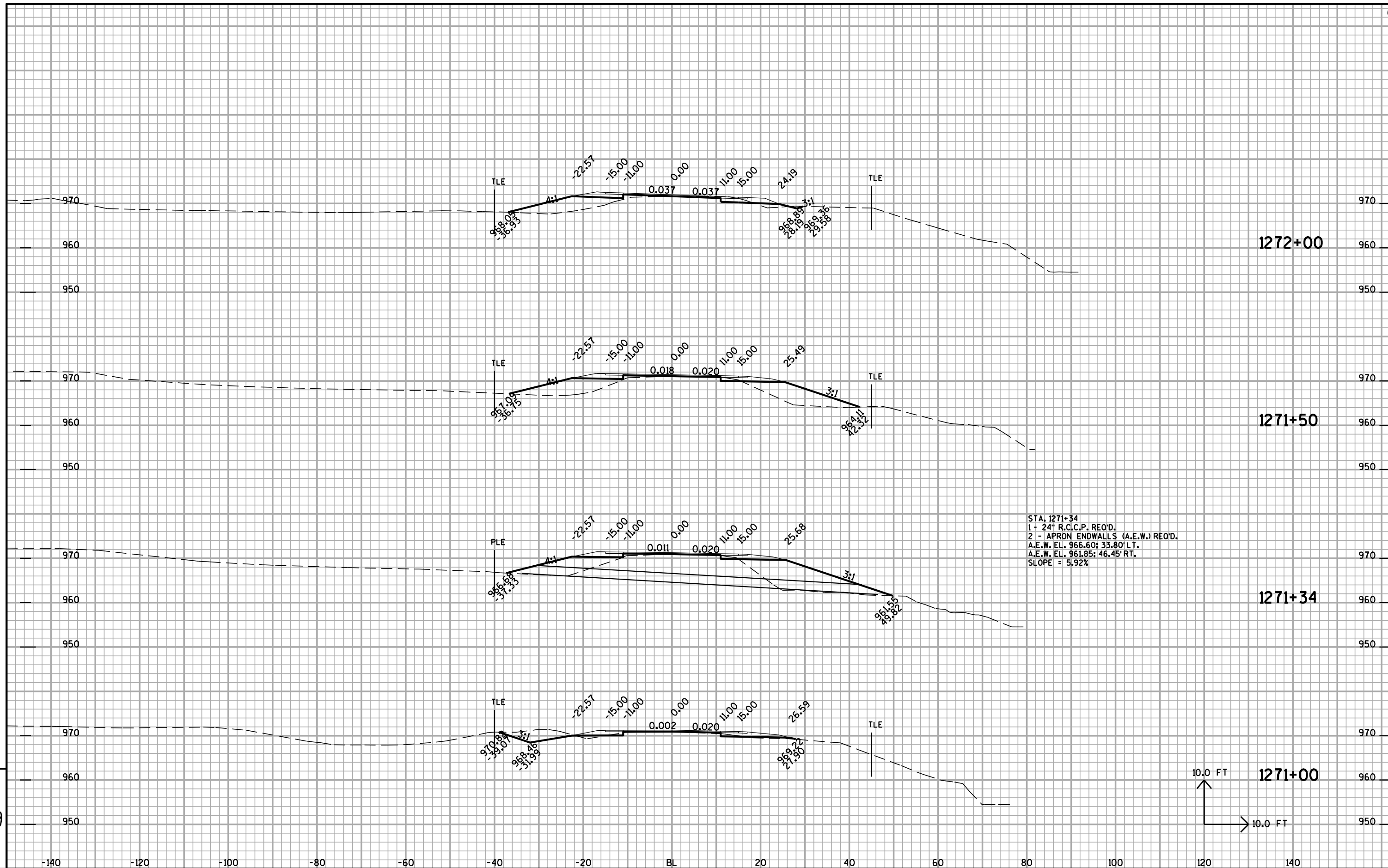
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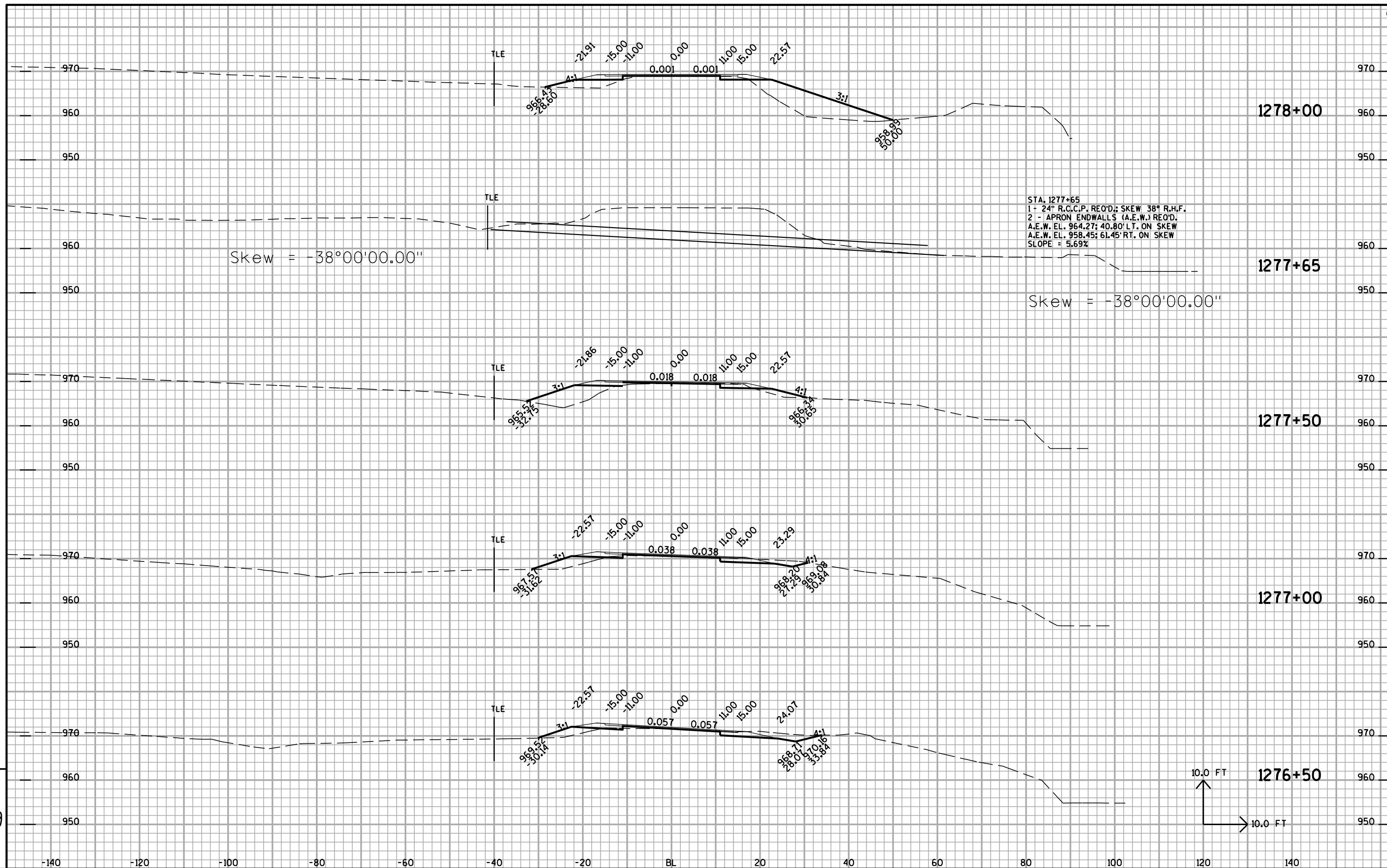


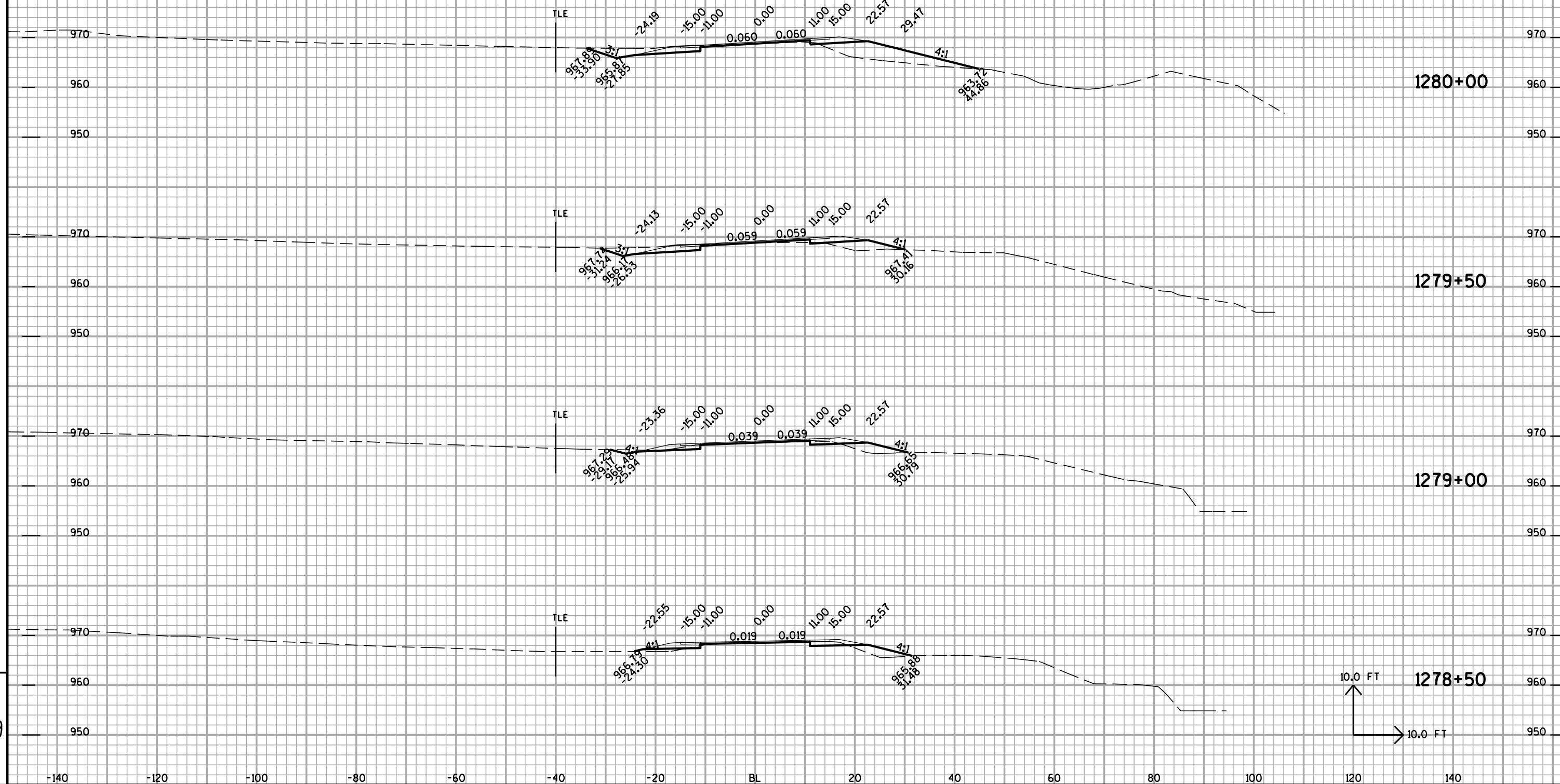


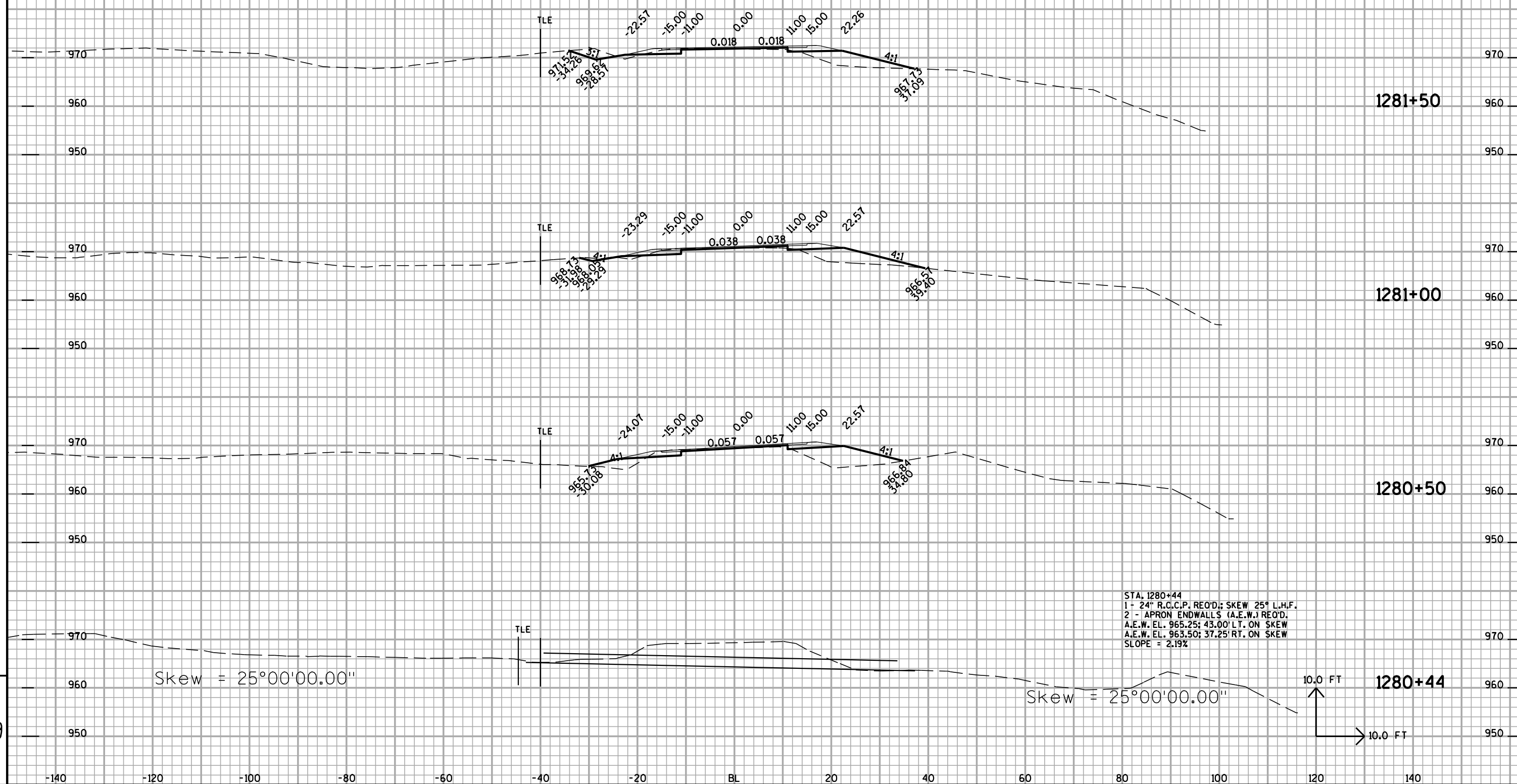


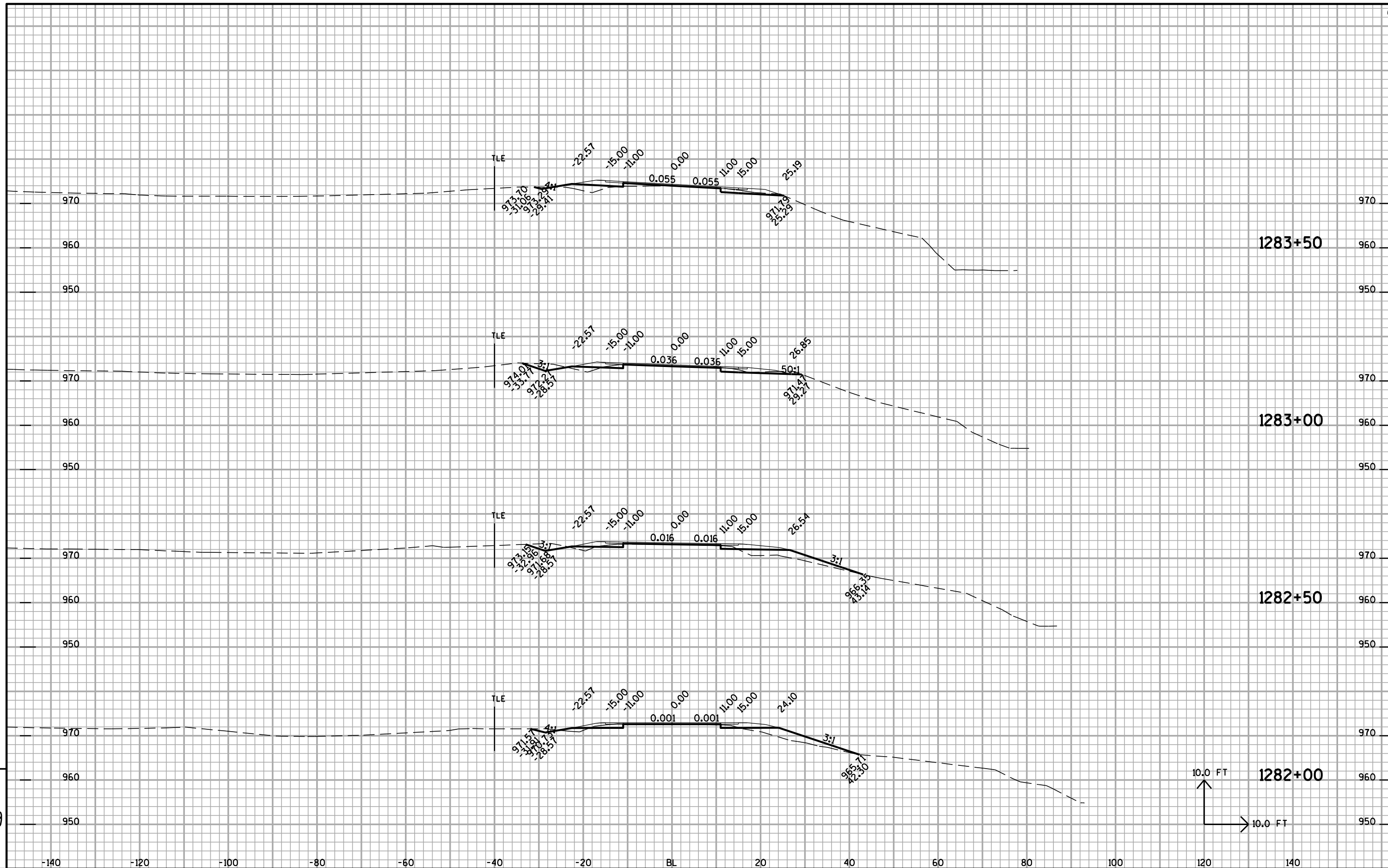


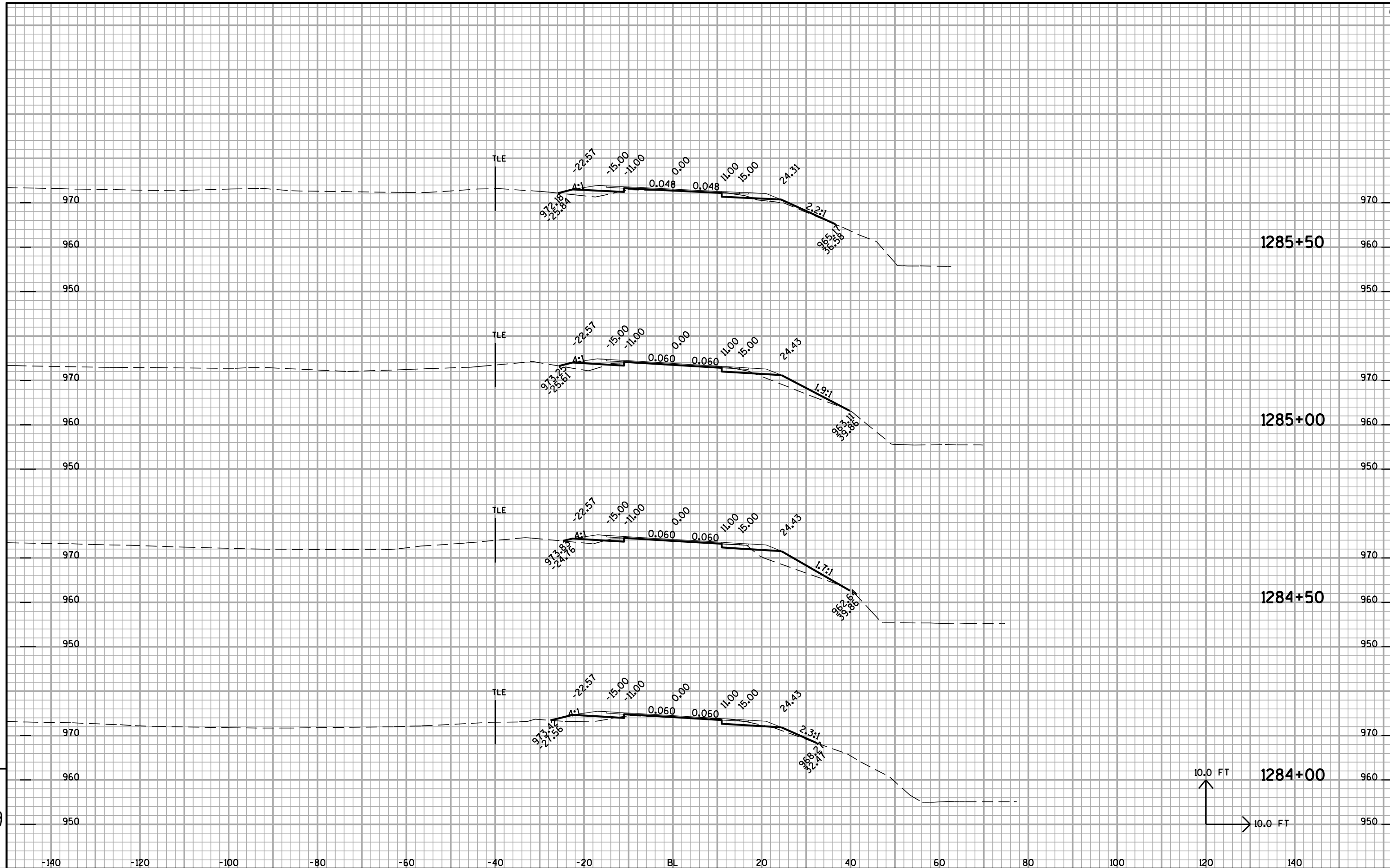




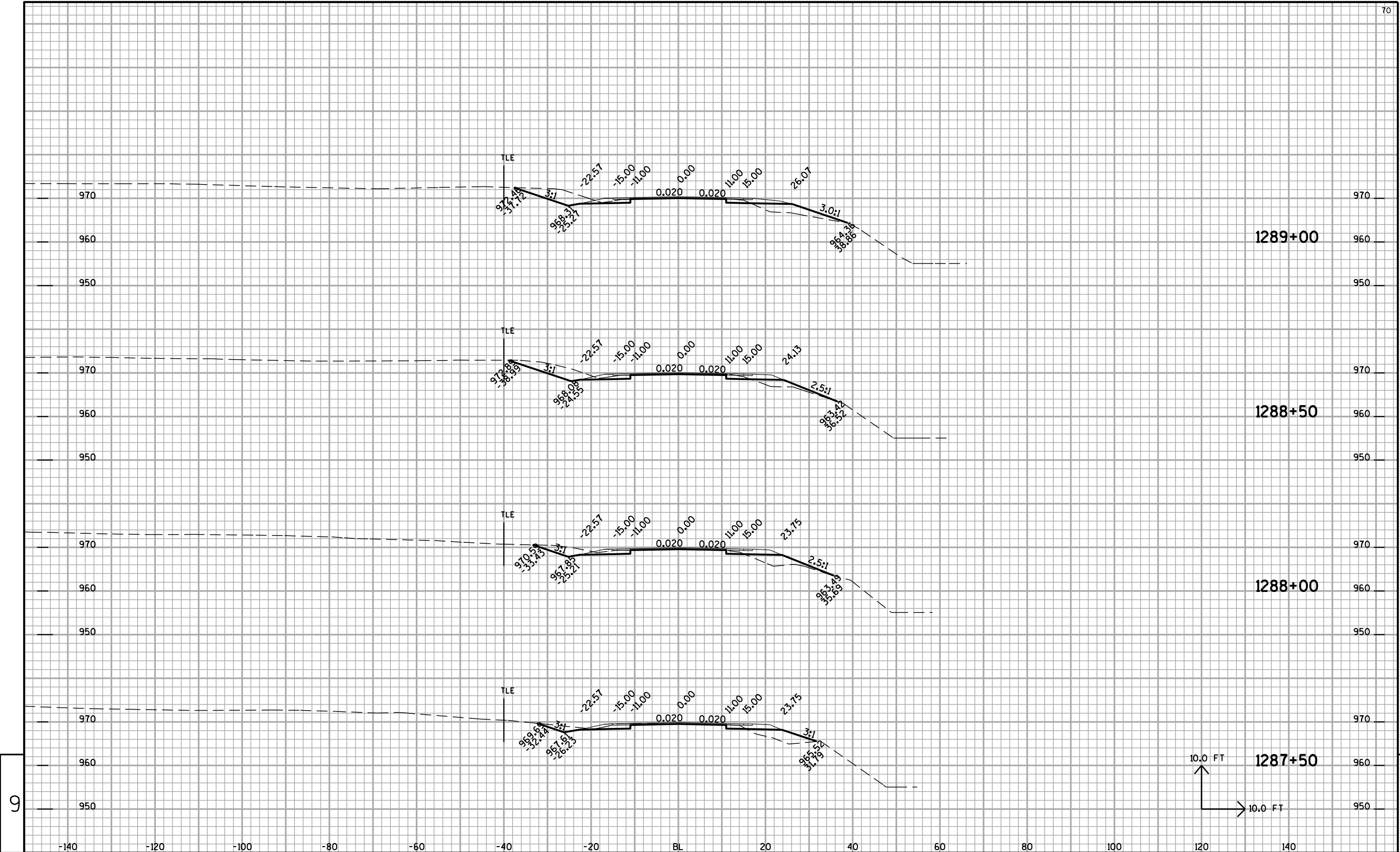




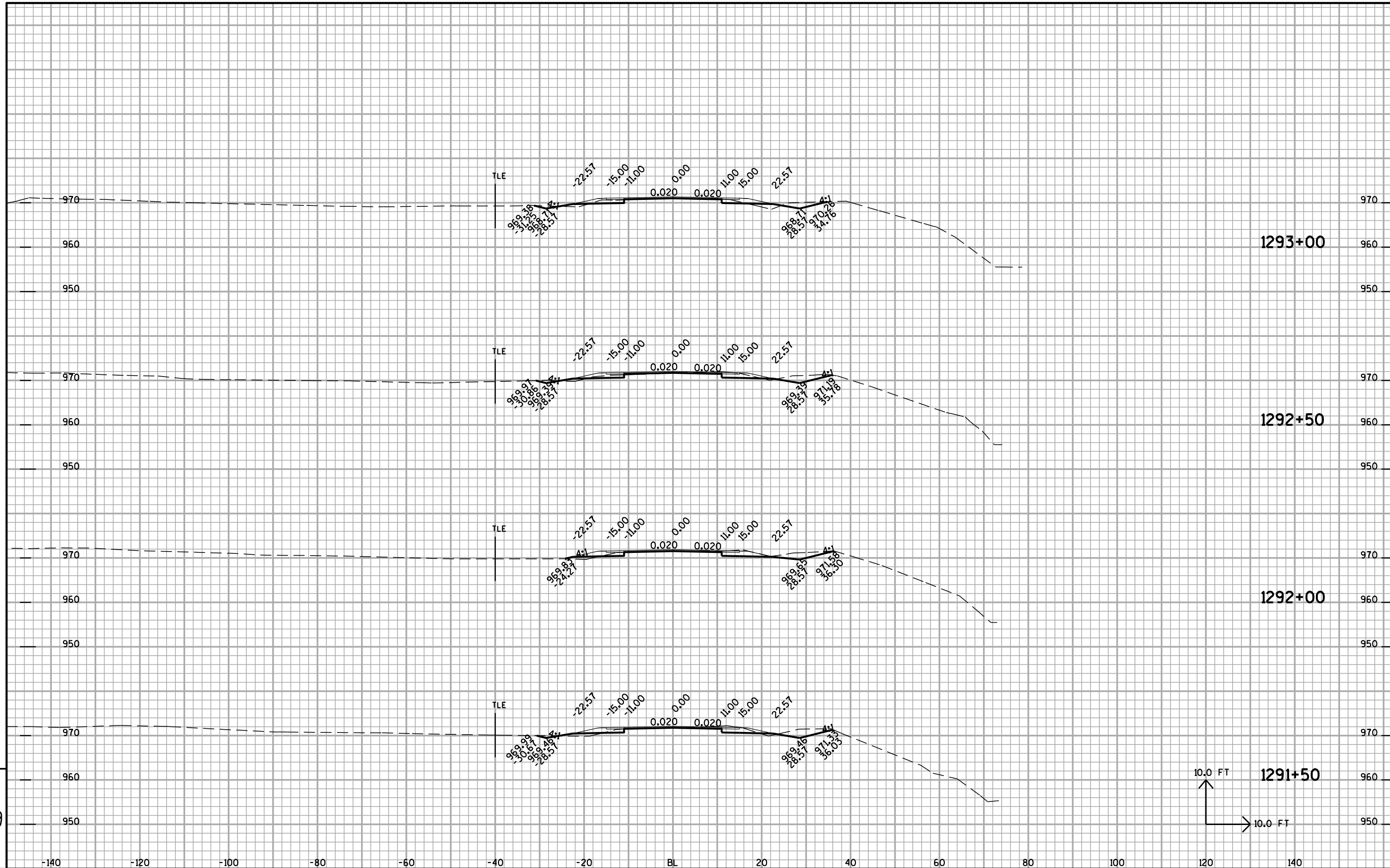




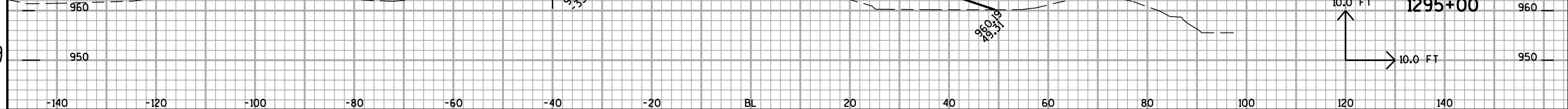


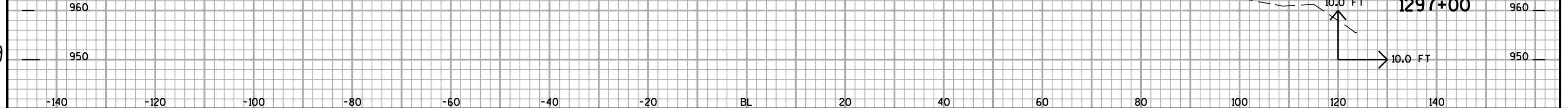






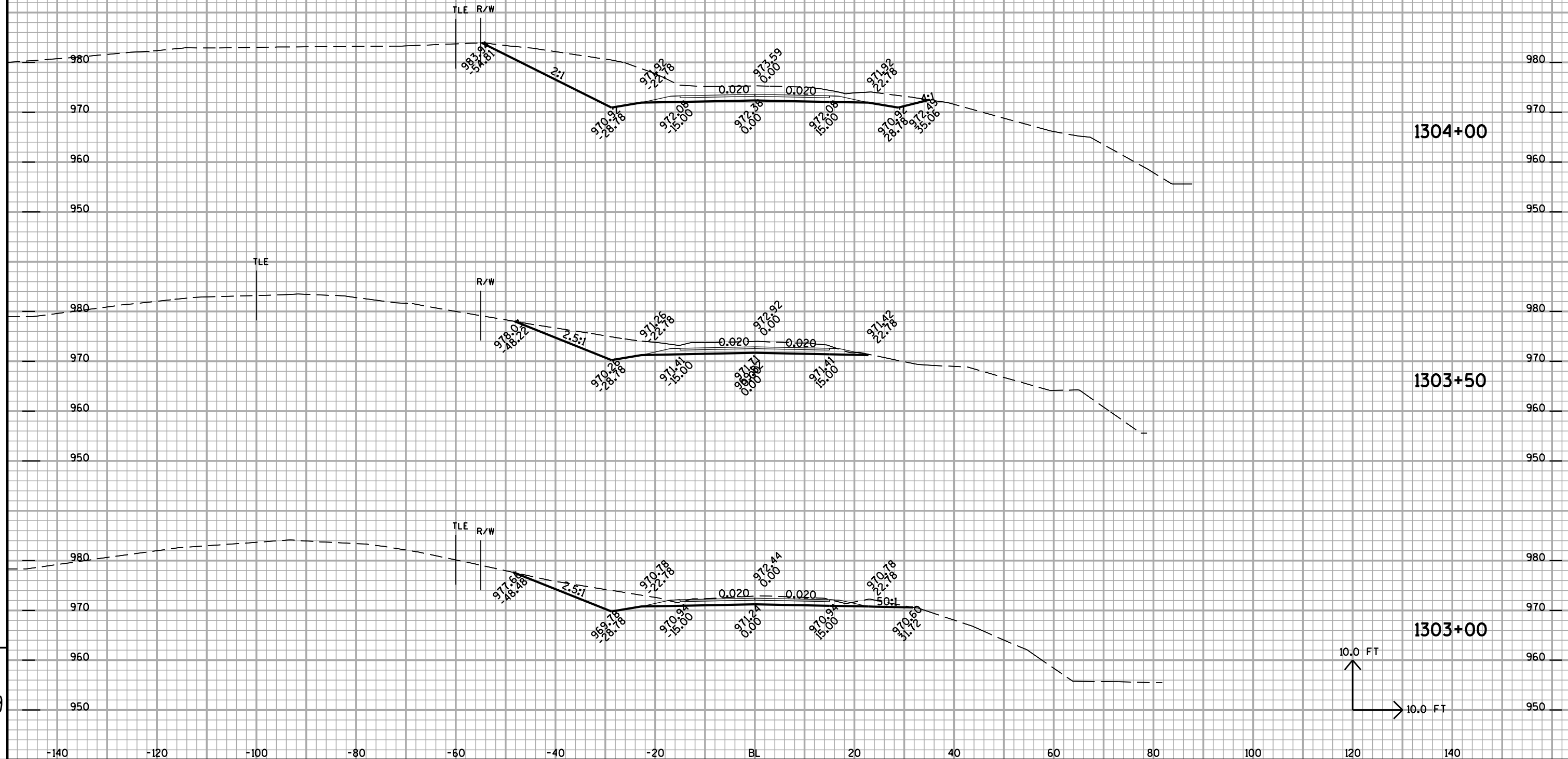


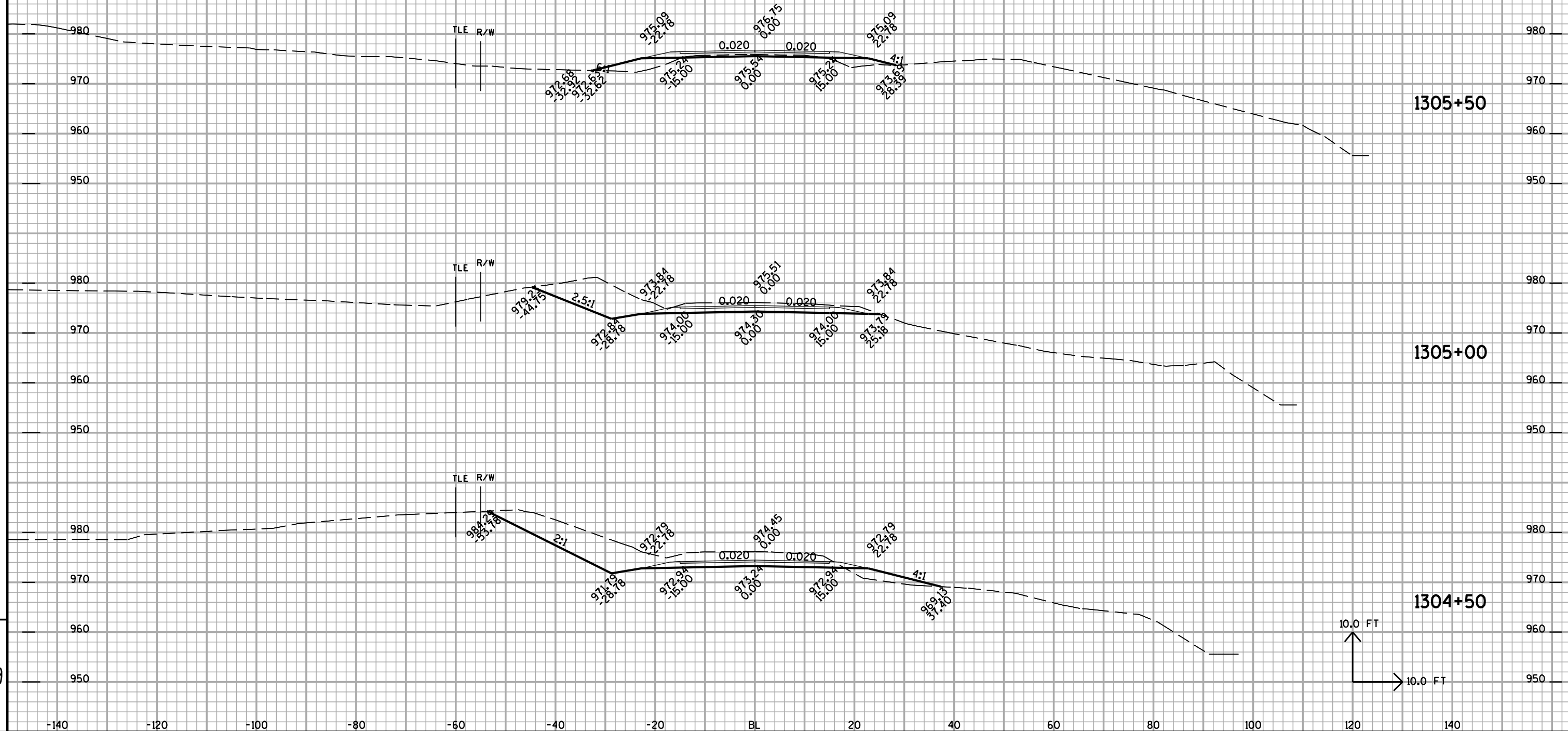


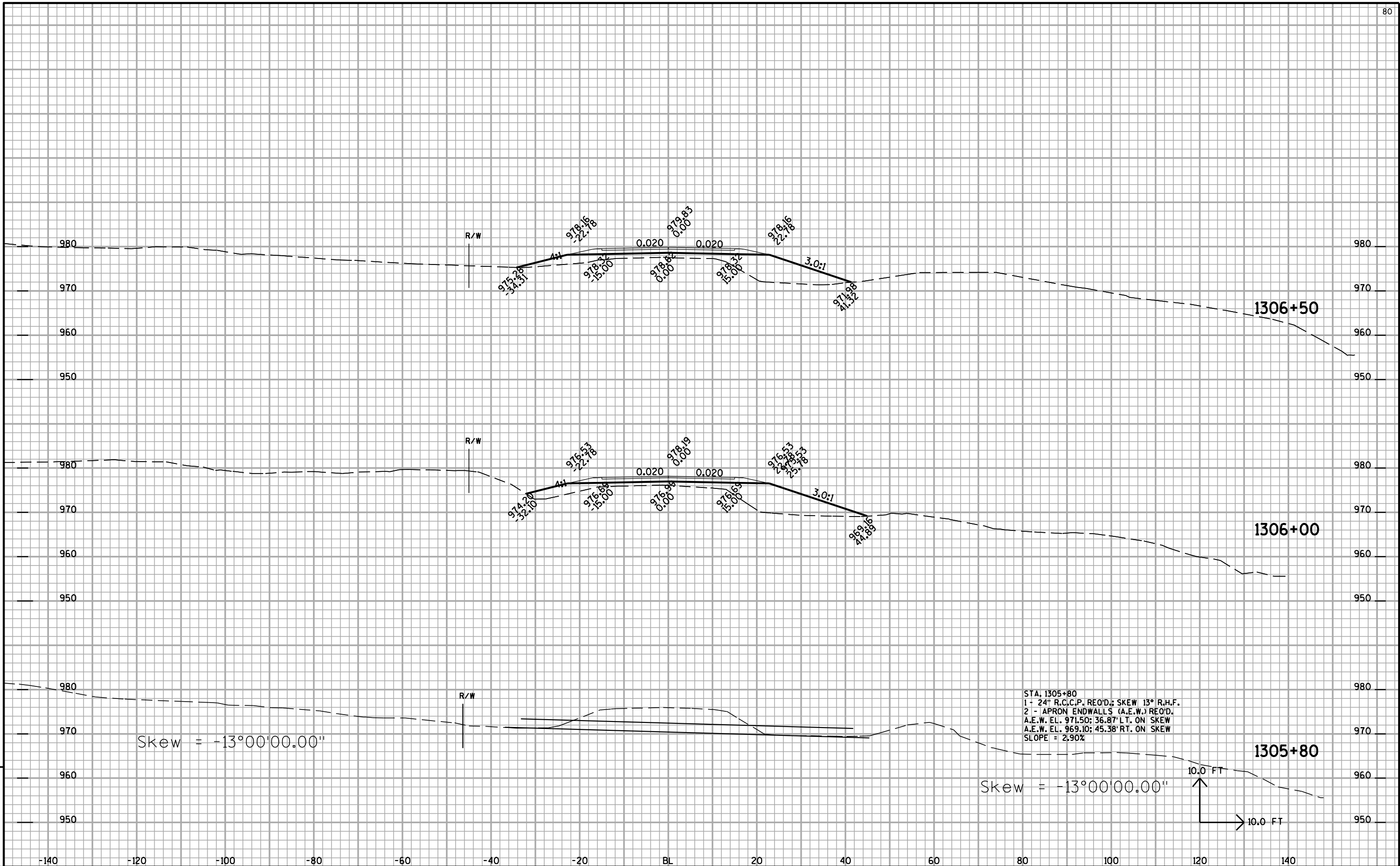


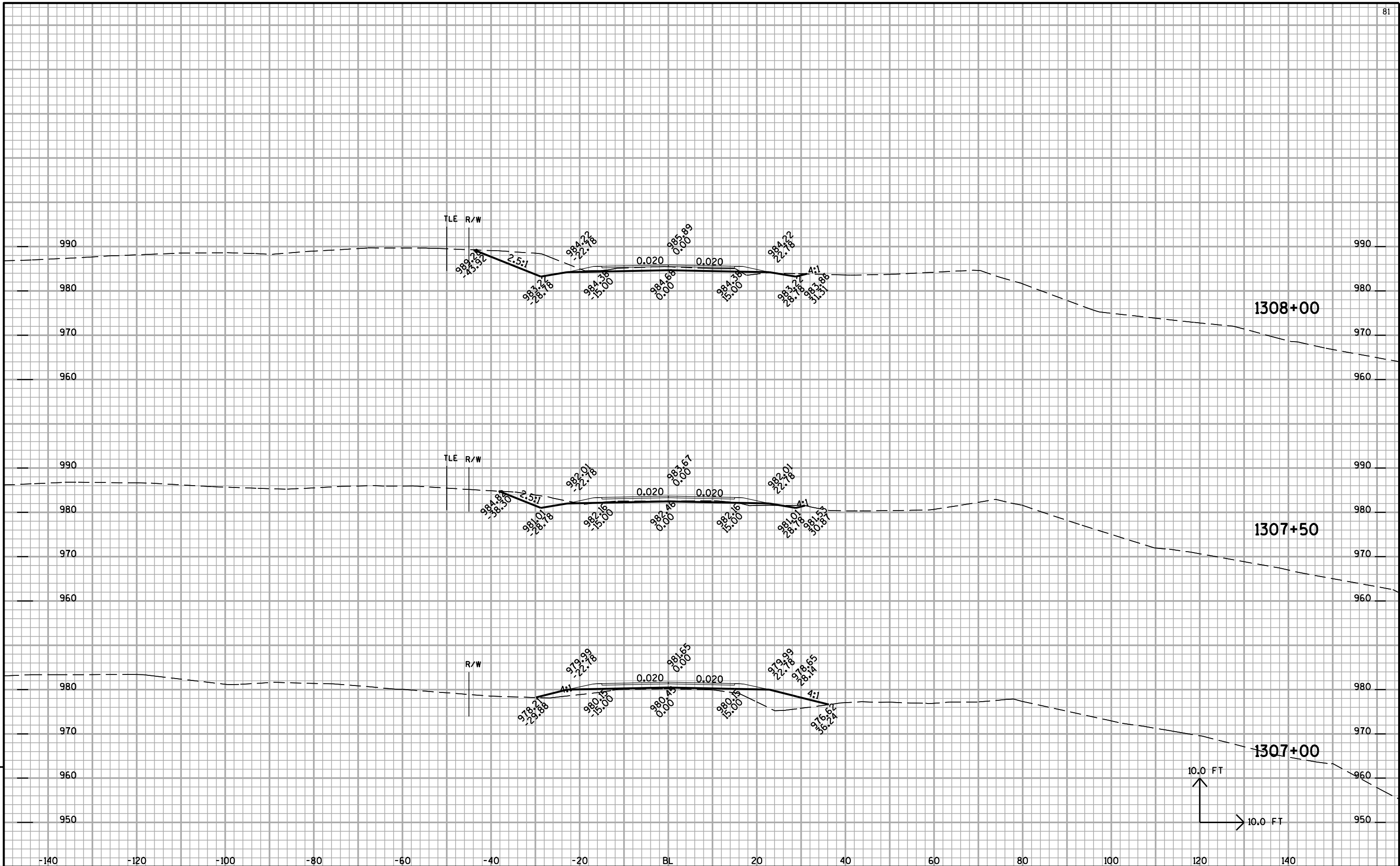


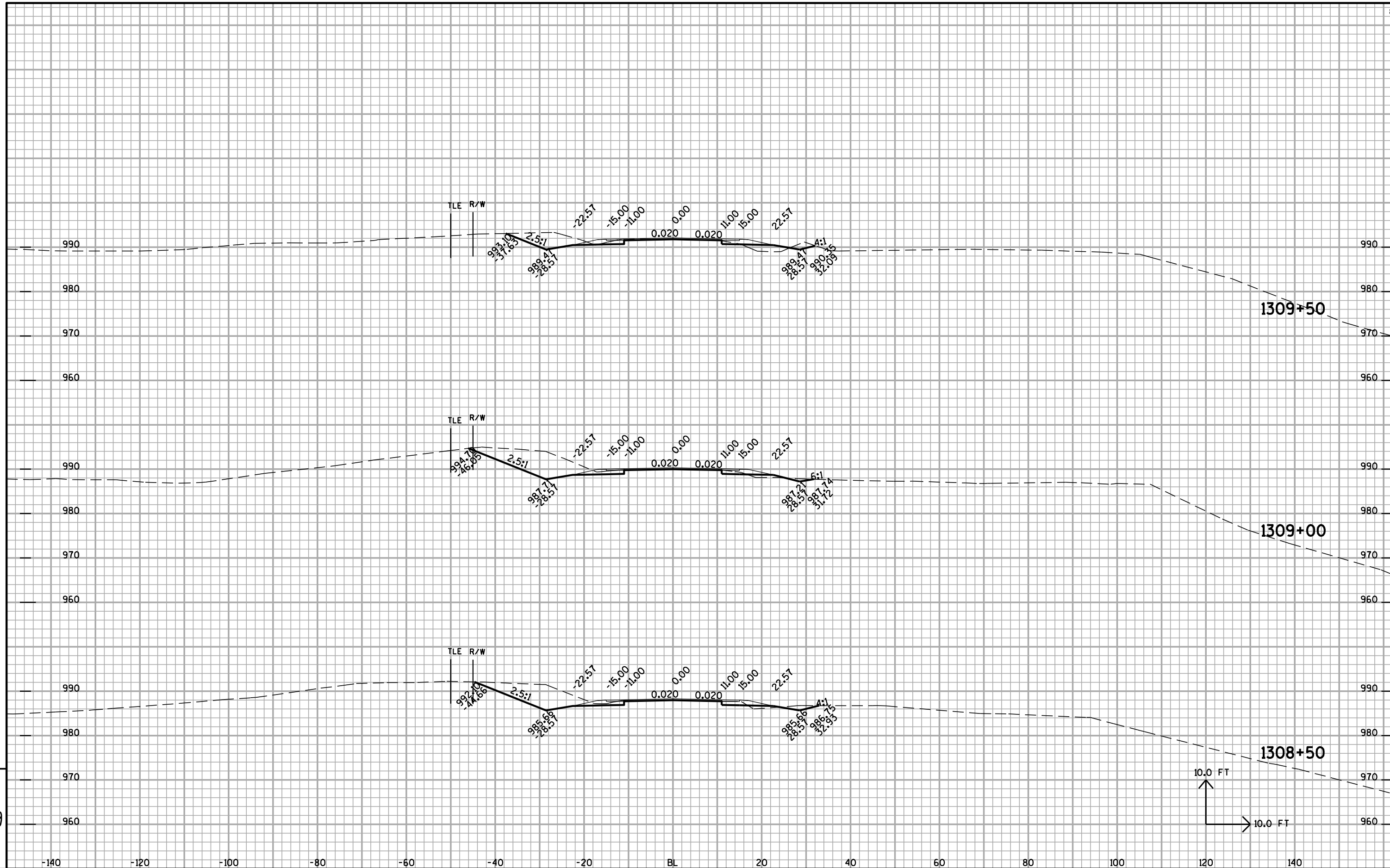




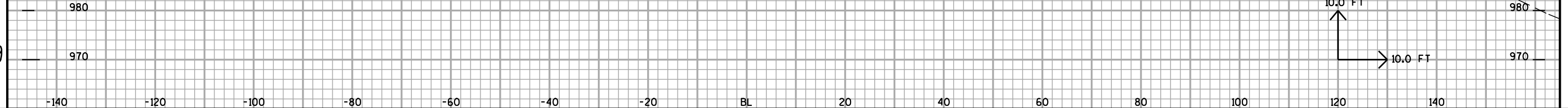








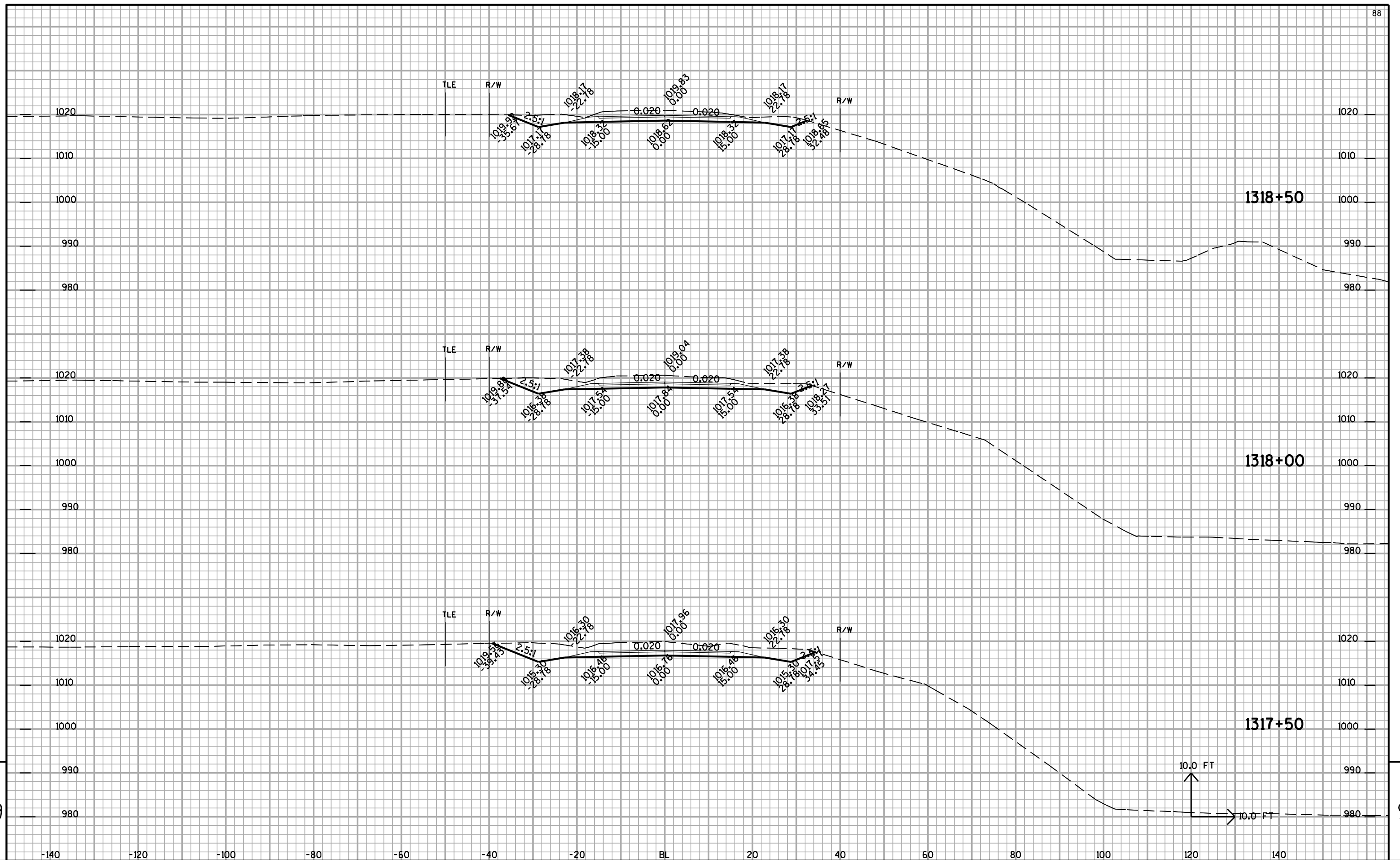






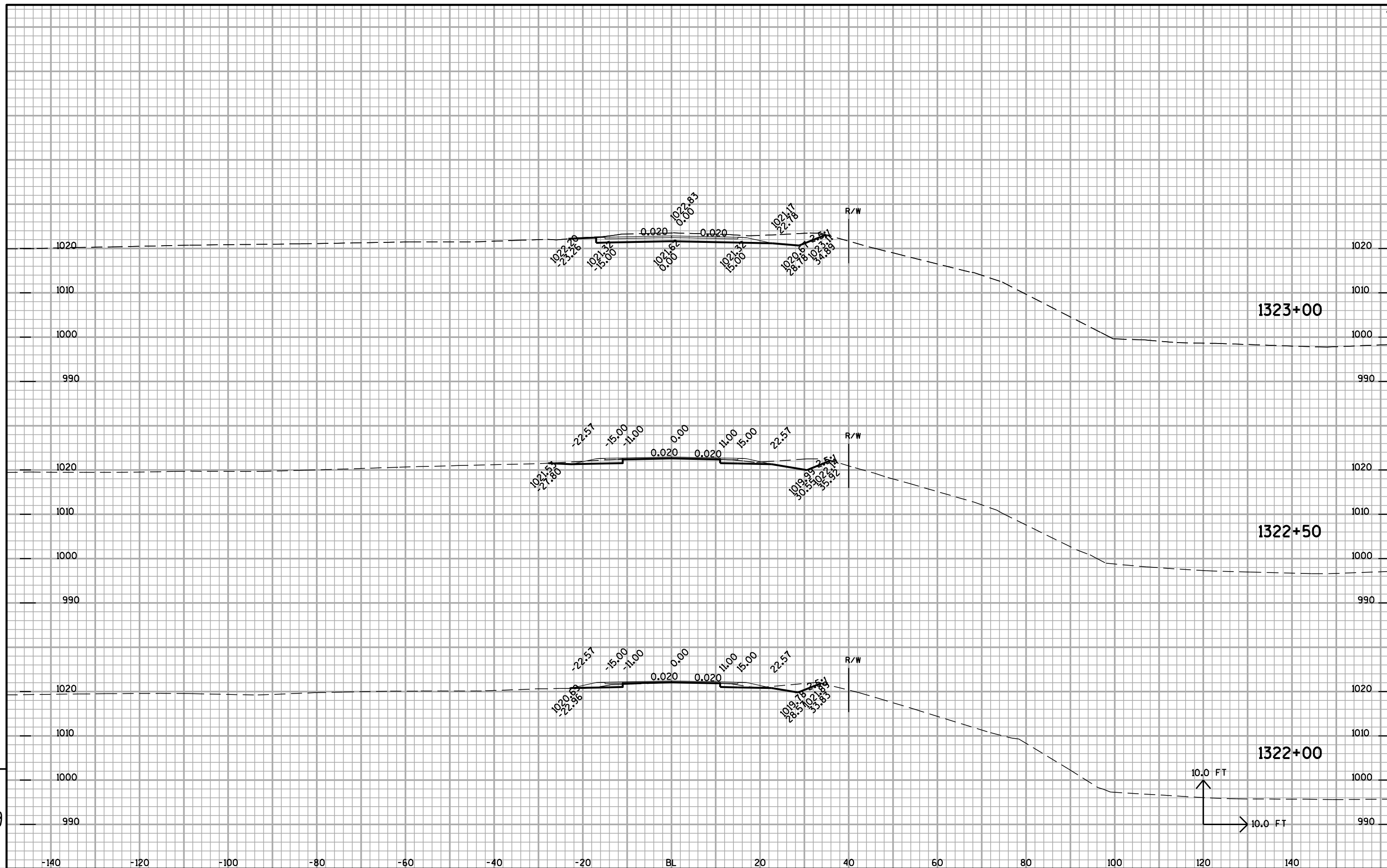






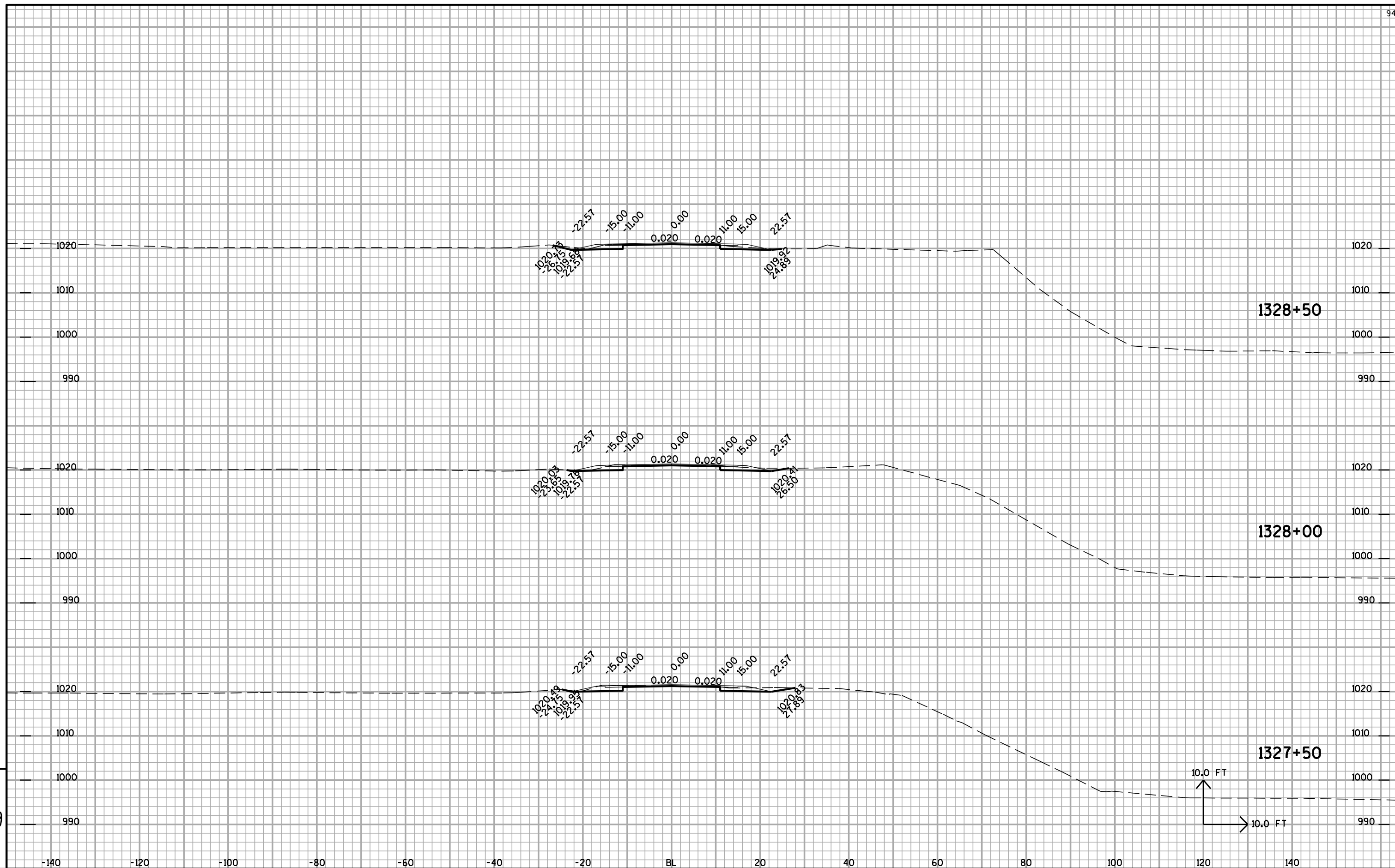












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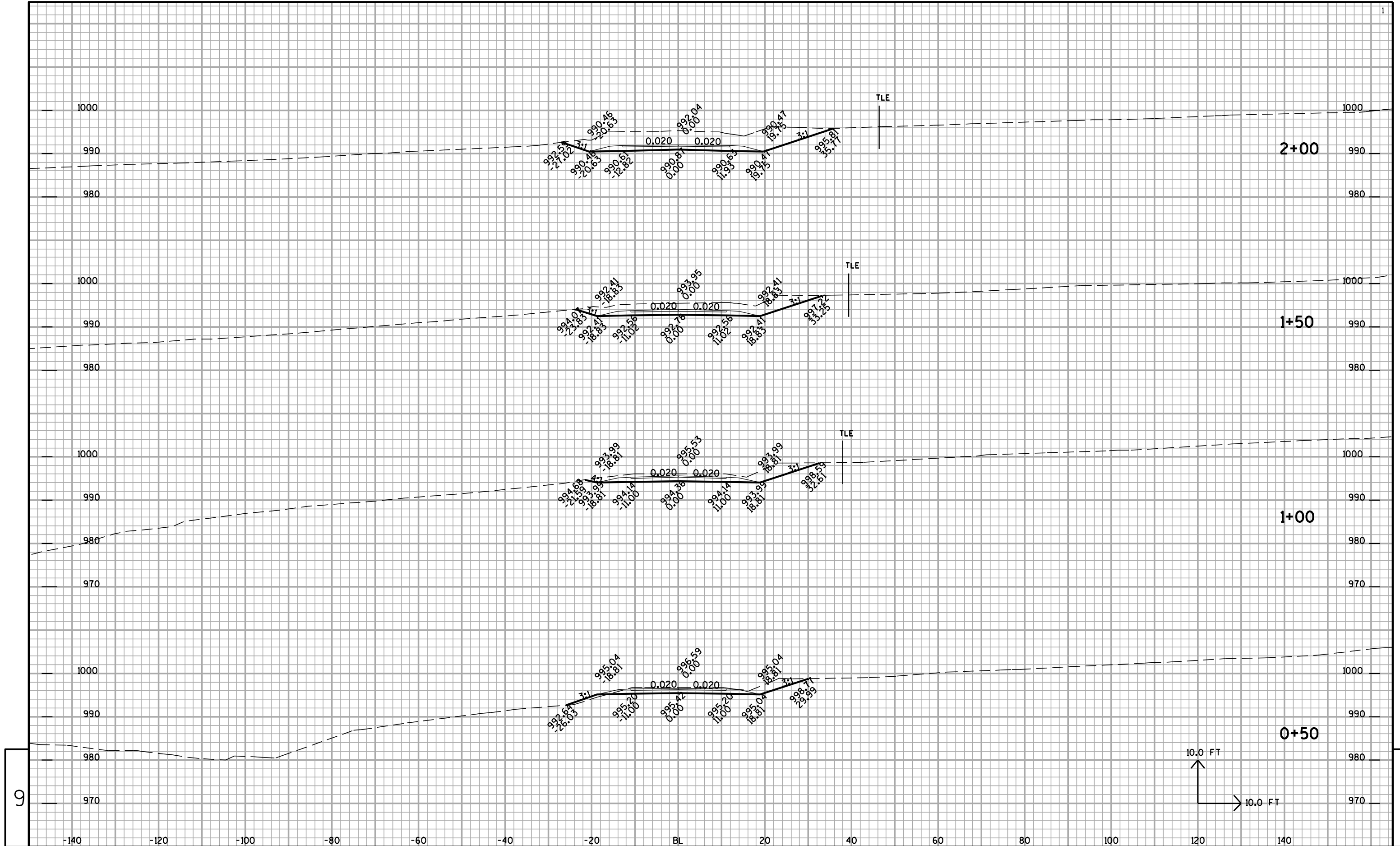






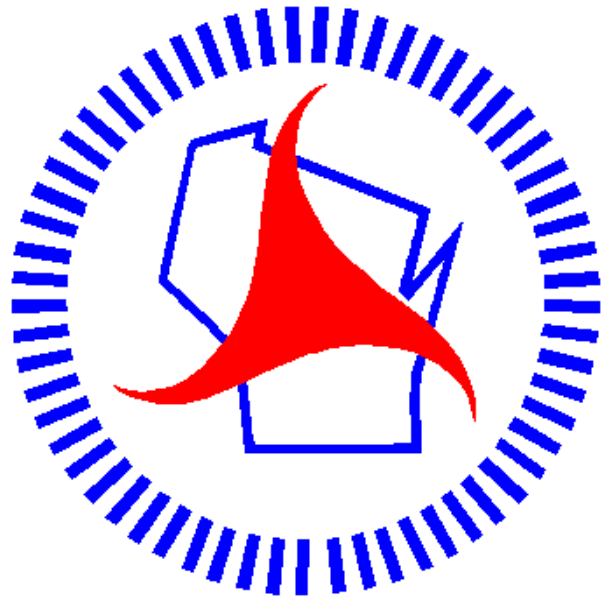
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## Notes



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