

JAN 2016
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 = 162

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

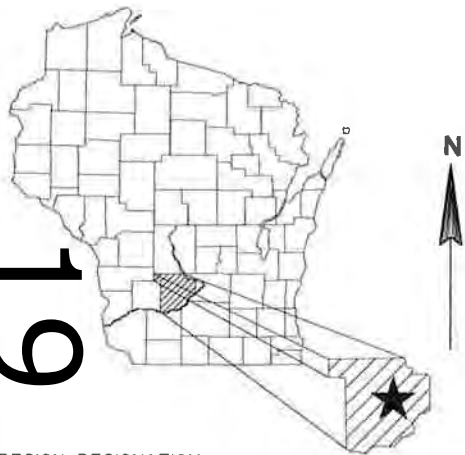
PLAN OF PROPOSED IMPROVEMENT

DEVILS LAKE STATE PARK - BARABOO

CTH DL TO LYNN AVENUE
STH 123
SAUK COUNTY

STATE PROJECT NUMBER
5971-02-72

STATE PROJECT	FEDERAL PROJECT	
	PROJECT	CONTRACT
5971-02-72		



DESIGN DESIGNATION

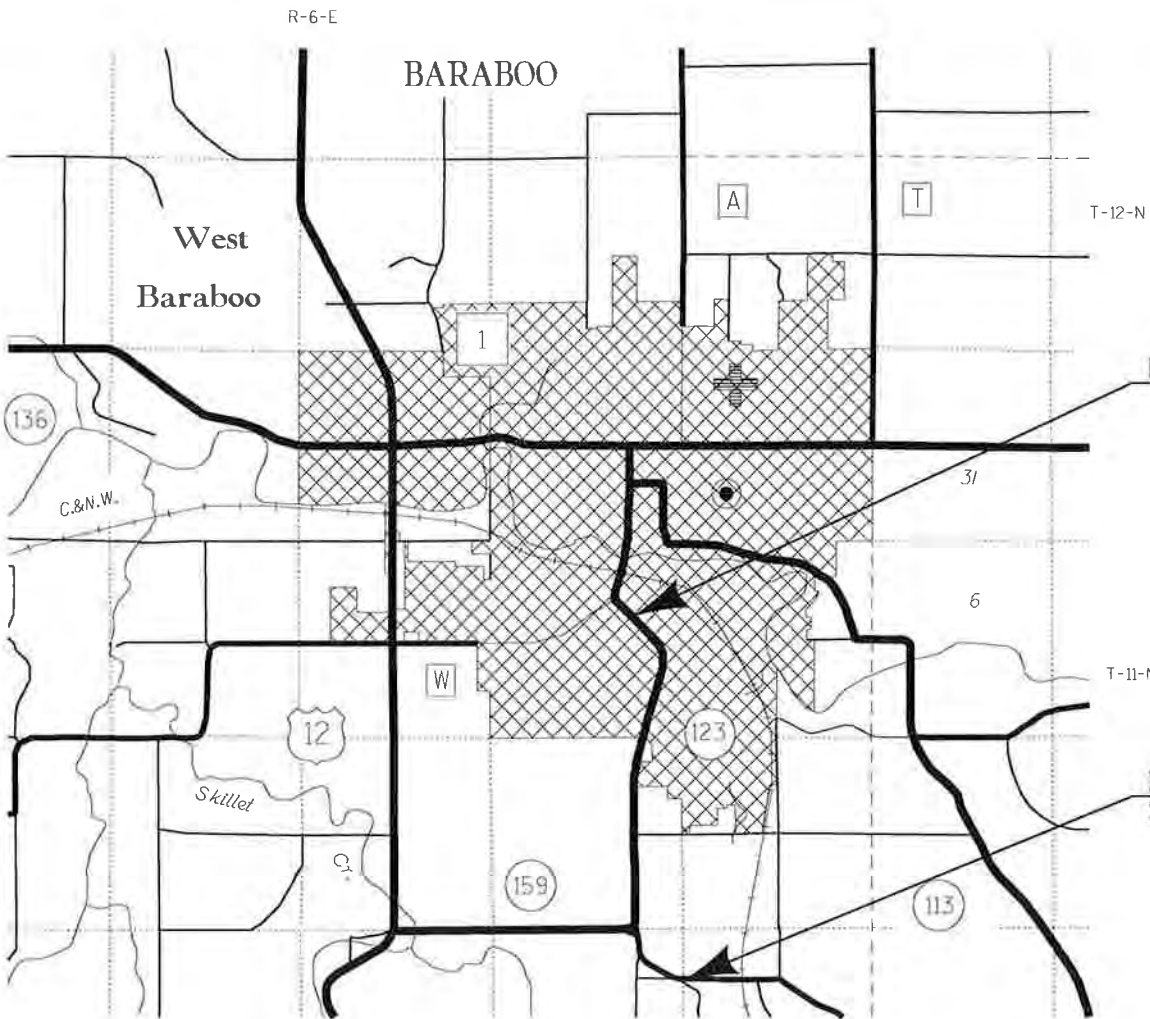
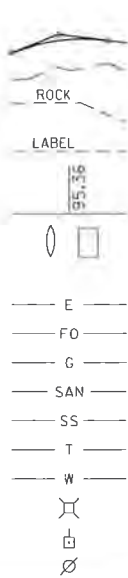
	STH 123 (CTH DL - SILVER DRIVE)	STH 123 (SILVER DRIVE - SOUTH BLVD)
A.A.D.T. (2016)	2,600	5,300
A.A.D.T. (2036)	4,300	7,100
D.H.V.	470	775
D.D.	59/41	59/41
T.	5.8%	5.8%
DESIGN SPEED	45 MPH	25 MPH
ESALS	330,000	600,000

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
MARSH 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



LAYOUT
SCALE 0 1/2 Mi.

TOTAL NET LENGTH OF CENTERLINE = 2.217 MI.

COORDINATES ON THIS PLAN ARE REFERENCED TO THE WISCONSIN COUNTY COORDINATE SYSTEM (WCCS), SAUK COUNTY, NAD83 (2011) IN US SURVEY FEET.
ELEVATIONS SHOWN ON THE PLANS ARE REFERENCED TO THE NORTH AMERICAN VERTICAL DATUM OF 1988, NAVD88 (2012)

ORIGINAL PLANS PREPARED BY

GRAEF



DATE: 7/7/15 Robert L. Warren (Signature)

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

PREPARED BY	
Surveyor	GRAEF
Designer	GRAEF
Project Manager	Jeremy Krachey
Regional Examiner	
Regional Supervisor	Oscar Winger
C.O. Examiner	

APPROVED FOR THE DEPARTMENT
DATE: 7-8-2015 (Signature)

E

GENERAL NOTES

NO TREES OR SHRUBS ARE TO BE REMOVED UNLESS INDICATED FOR REMOVAL BY THE ENGINEER.

THE EXACT LOCATION OF PRIVATE ENTRANCES IS TO BE DETERMINED IN THE FIELD BY THE ENGINEER.

ALL HOLES OR OPENINGS BELOW SUBGRADE RESULTING FROM THE ABANDONMENT OR REMOVAL OF EXISTING STRUCTURES OR FROM GRUBBING OF TREES OR STUMPS SHALL BE BACKFILLED WITH GRANULAR BACKFILL. BACKFILL GRANULAR MATERIAL IS INCIDENTAL TO THE REMOVAL ITEM.

ALL RADIUS DIMENSIONS FOR CURB & GUTTER ARE GIVEN TO THE FLANGE LINE. ALL ELEVATIONS ALONG CURB & GUTTER ARE GIVEN TO THE FLANGE LINE. OFFSETS NOTED ARE TO THE FLANGE OR EDGE OF LANE IF NO CURB, UNLESS OTHERWISE NOTED.

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

USE ASPHALT SURFACE TEMPORARY AT DRIVEWAYS AND CURB RAMPS AFTER MILLING TO PROVIDE SMOOTH ACCESS.

EXCESS ASPHALT MILLINGS MAY BE USED FOR ACCESS PURPOSES.

THE CONTRACTOR SHALL ACCOMMODATE PEDESTRIANS AT ALL TIMES DURING CONSTRUCTION BY PROVIDING TEMPORARY ACCESS AROUND THE WORK SITE. THE TEMPORARY PATHS SHALL BE ADA COMPLIANT.

USE HES CONCRETE CONCRETE CURB AT ALL DRIVEWAYS AND CURB RAMPS.

SILT FENCE SHALL BE INSTALLED IN THE LOCATIONS SHOWN ON THE PLANS, OR AS DIRECTED BY THE ENGINEER.

DISTURBED AREAS WITHIN THE RIGHT OF WAY ARE TO BE TOPSOILED, FERTILIZED, SEEDED AND MULCHED AS DIRECTED BY THE ENGINEER.

STATION AND OFFSETS TO MANHOLES ARE GIVEN TO THE CENTER OF THE STRUCTURE.

STATION AND OFFSETS TO INLETS ARE GIVEN TO THE FACE OF CURB.

INLET RIM/GRATE ELEVATIONS ARE TO THE FLANGE LINE.

DEPTH OF STRUCTURES ARE MEASURED FROM THE LOWEST INVERT OF THE STRUCTURE TO THE RIM/GRATE ELEVATION.

PIPE LENGTHS FOR STRUCTURES ARE SHOWN FROM CENTER OF STRUCTURE TO CENTER OF STRUCTURE.

ALL EROSION CONTROL MEASURES SHALL BE ADJUSTED TO MEET FIELD CONDITIONS AT THE TIME OF CONSTRUCTION AND SHALL BE INSTALLED PRIOR TO ANY GRADING OR DISTURBANCE OF EXISTING SURFACE MATERIAL ON THE SITE.

HMA PAVEMENT OVERLAY, TYPE E-1 WHERE INDICATED ON THE PLANS, SHALL CONSIST OF LAYERS AS FOLLOWS, UNLESS OTHERWISE NOTED ON THE PLANS OR DIRECTED BY THE ENGINEER.

3 1/2" DEPTH: 1 3/4" OF 12.5mm HMA PAVEMENT, TYPE E-1 PERFORMANCE GRADE 58-28, AS THE LOWER LAYER

1 3/4" OF 12.5 mm HMA PAVEMENT, TYPE E-1 PERFORMANCE GRADE 58-28, AS THE UPPER LAYER

ASPHALT AND CONCRETE DRIVEWAYS SHALL BE SAWCUT AT THE MATCH LINE AS SHOWN ON THE PLANS OR AS DIRECTED BY THE ENGINEER.

DRIVEWAY TYPES AND THICKNESSES (PER LOCATION PER PLAN):

ASPHALT DRIVEWAY, 2 1/2-INCHES HMA SHALL CONSIST OF THE FOLLOWING:

6" OF BASE AGGREGATE DENSE 1 1/4-INCH AS THE BASE LAYER

2 1/2" ASPHALTIC SURFACE DRIVEWAYS AND FIELD ENTRANCES

LIMITS OF CURB AND GUTTER REPLACEMENT TO BE DETERMINED BY THE ENGINEER AND SHALL BE REMOVED TO THE NEAREST JOINT, IF THE NEAREST JOINT IS 4- FEET OR LESS. IT SHALL BE REMOVED TO THE LOCATION SHOWN ON THE PLAN (SAWCUT) IF THIS NEAREST JOINT IS GREATER THAN 4- FEET.

HMA PAVEMENT WEIGHT CALCULATIONS ARE BASED ON 112LB/SY/IN.

THE CONTRACTOR'S PAVING OPERATIONS SHALL BE CONSISTENT WITH THE PLAN TYPICAL SECTIONS AND CONSTRUCTED TO PREVENT HMA LONGITUDINAL JOINTS FROM BEING LOCATED WITHIN A DRIVING, TURNING, PASSING OR PARKING LANE.

THE CONTRACTOR SHALL NOTIFY DIGGERS HOTLINE AND AFFECTED UTILITIES PRIOR TO THE START OF WORK. ANY LOCAL MUNICIPAL UTILITY WHICH IS NOT A MEMBER OF THE DIGGERS HOTLINE MUST BE CONTACTED SEPARATELY.

INLET PROTECTION IS REQUIRED AT ALL INLETS AS PER DETAIL OR AS DIRECTED BY THE ENGINEER.

REMOVAL OF EROSION CONTROL DEVICES IS INCLUDED IN THE COST OF THEIR RESPECTIVE BID ITEMS.

TRAFFIC CONTROL DEVICES SHALL BE ADJUSTED TO FIT FIELD CONDITIONS AS DIRECTED BY THE ENGINEER.

AGENCIES

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ABBREVIATIONS

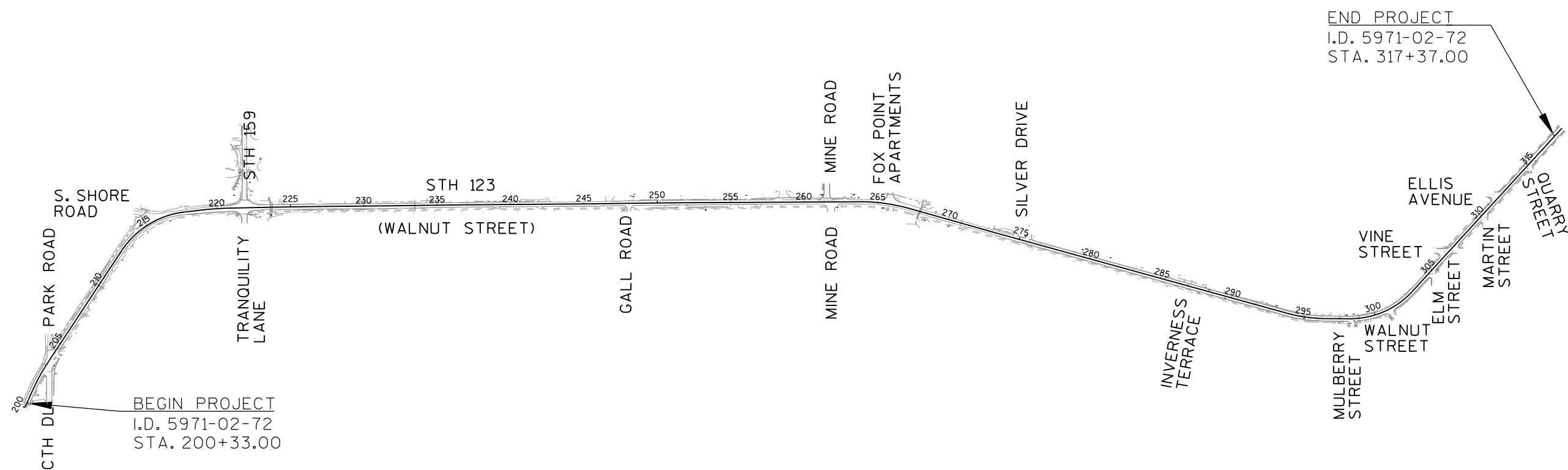
B BARN
B.O.C. BACK OF CURB
BUS BUSINESS
C.A.B.C. CRUSHED AGGREGATE BASE COURSE
CE COMMERCIAL ENTRANCE
CMPA CORRUGATED METAL PIPE ARCH
CMP CORRUGATED METAL PIPE
CTR CENTER
G GARAGE
H HOUSE
HP HIGH POINT
LHE LIMITED HIGHWAY EASEMENT
LOC. LOCATION

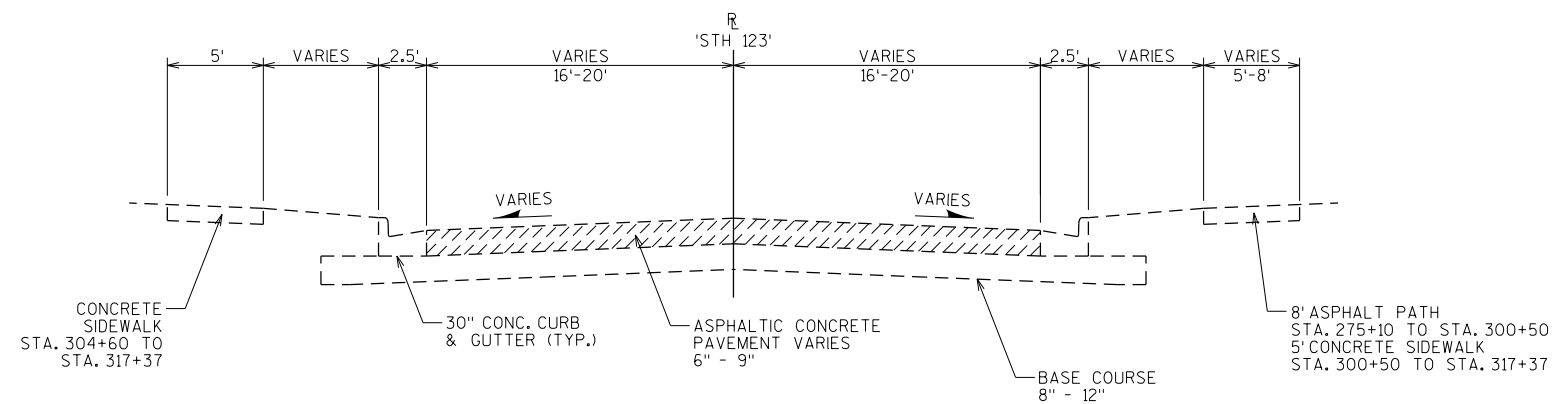
MAX. MAXIMUM
NOR. NORMAL
P.L. PROPERTY LINE
P.O.C. POINT ON CURVE
PP POWER POLE
PVC POINT OF VERTICAL CURVATURE
PVI POINT OF VERTICAL INTERSECTION
PVT POINT OF VERTICAL TANGENCY
RAD. RADIUS
RCSP REINFORCED CONCRETE SEWER PIPE
R.O. RUNOUT
S SOUTH OR SHED
S.S. STORM SEWER
SE SUPERELEVATION NUMBER



Dial 811 or (800) 242-8511

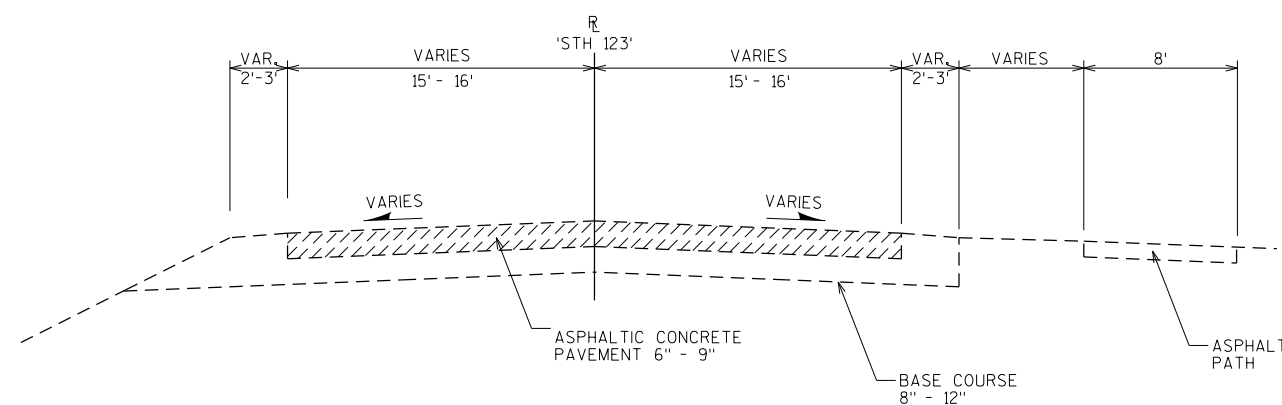
www.DiggersHotline.com





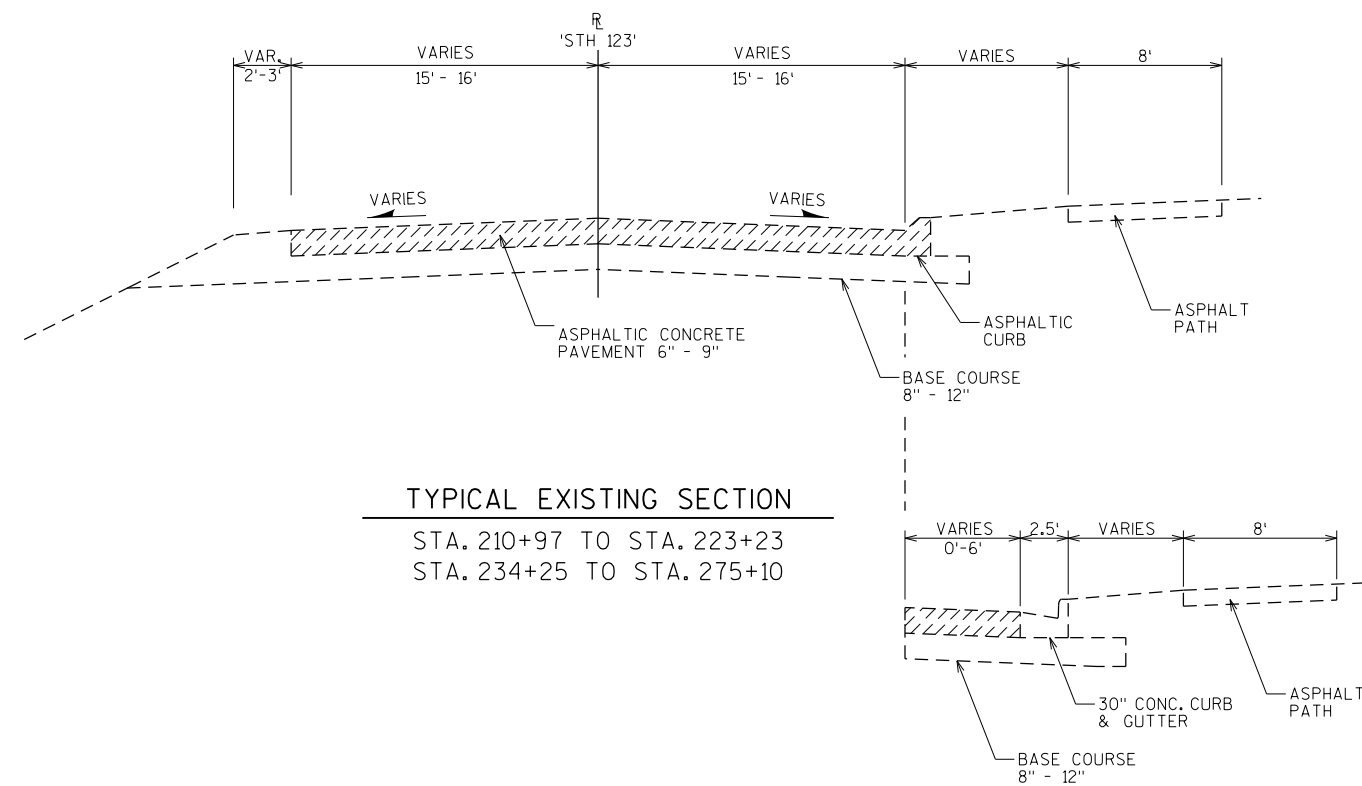
TYPICAL EXISTING SECTION

STA. 200+33 TO STA. 202+50
STA. 275+10 TO STA. 317+37



TYPICAL EXISTING SECTION

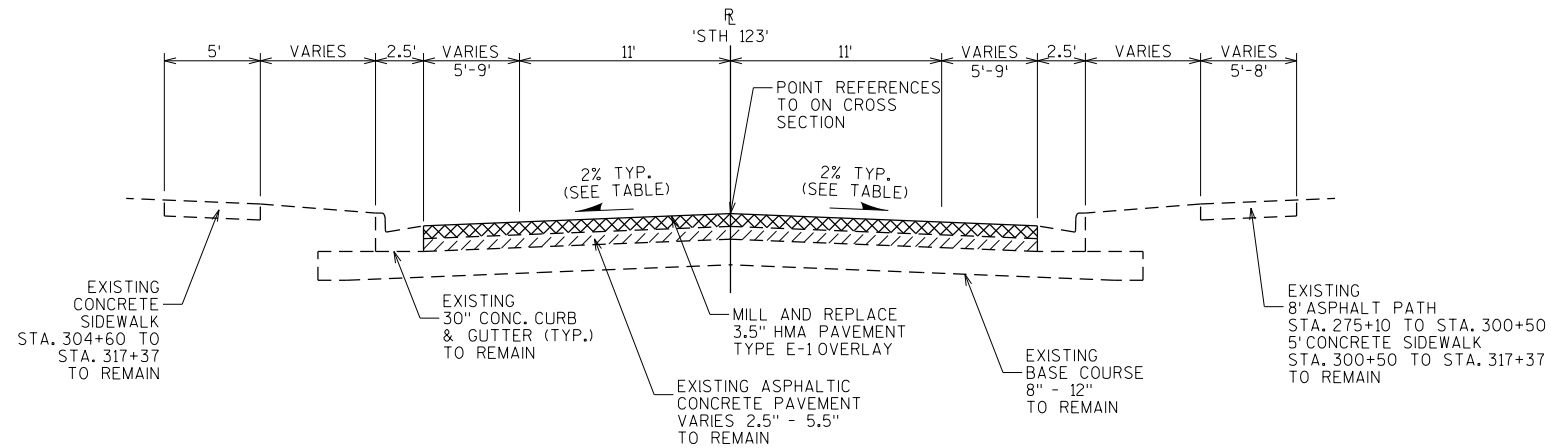
STA. 202+50 TO STA. 210+97
STA. 223+23 TO STA. 234+25



TYPICAL EXISTING SECTION

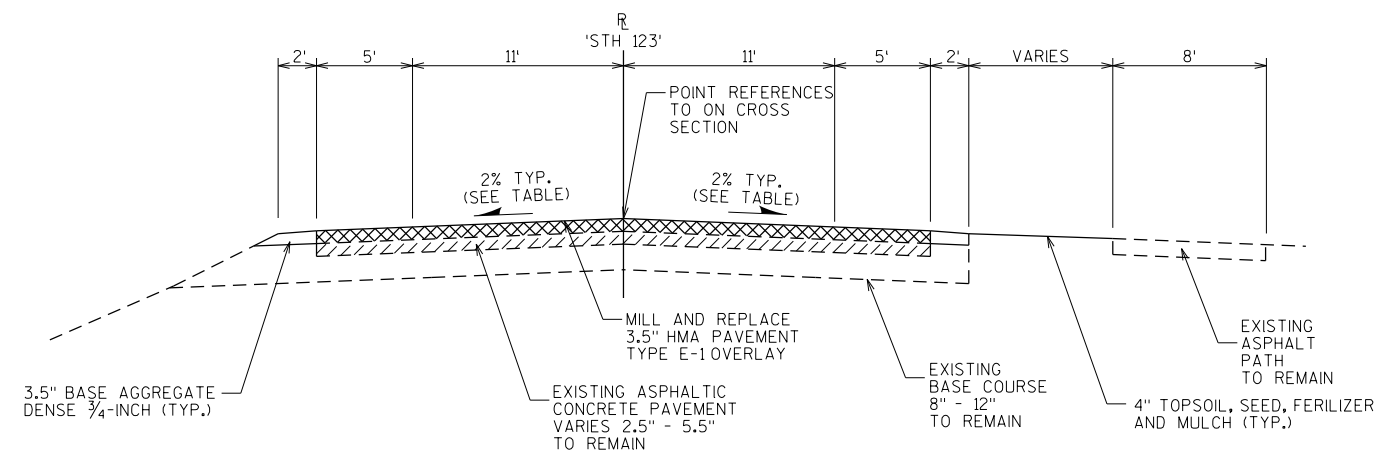
STA. 210+97 TO STA. 223+23
STA. 234+25 TO STA. 275+10

STA. 217+88 TO STA. 223+23 RT



TYPICAL FINISHED SECTION

STA. 200+33 TO STA. 202+50
STA. 275+10 TO STA. 317+37



TYPICAL FINISHED SECTION

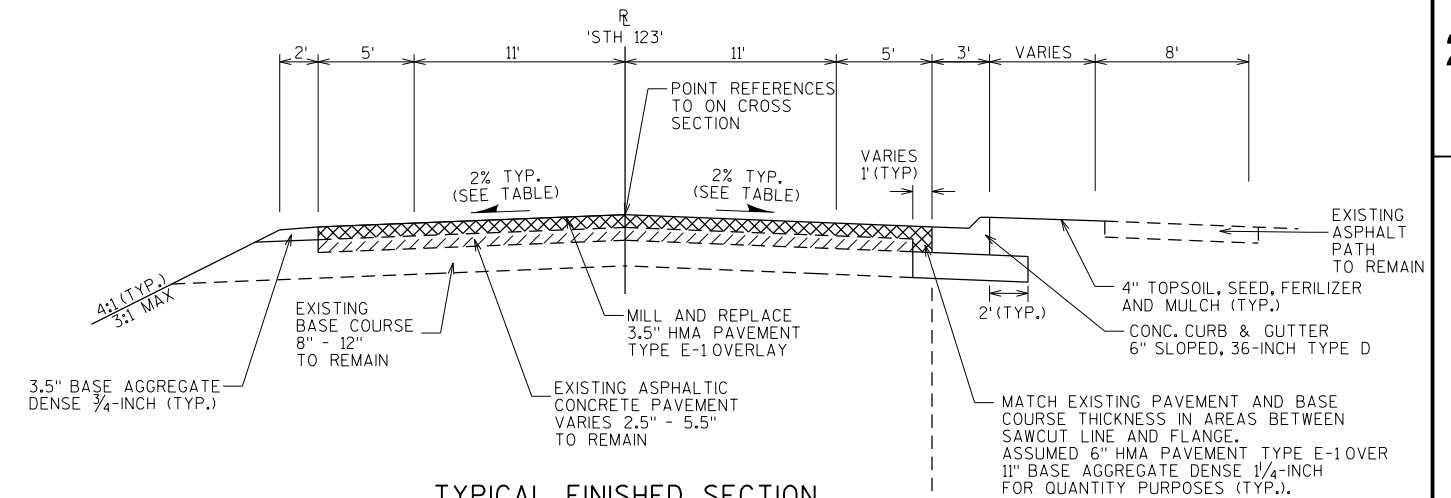
STA. 202+50 TO STA. 211+00
STA. 223+85 TO STA. 234+18

TRANSITION TABLE			
LT		RT	
209+00	-2% NORMAL CROWN	209+50	-2% NORMAL CROWN
210+00	2% REVERSE CROWN	210+00	-3% REVERSE CROWN
211+88	2% REVERSE CROWN	212+10	-3% REVERSE CROWN
213+22	8% FULL SUPERELEVATION	213+22	-8% FULL SUPERELEVATION
217+17	8% FULL SUPERELEVATION	217+17	-8% FULL SUPERELEVATION
218+51	2% REVERSE CROWN	219+75	-2% NORMAL CROWN
221+25	2% REVERSE CROWN	220+00	-2% NORMAL CROWN
223+25	-2% NORMAL CROWN	221+00	-3% REVERSE CROWN
		222+00	-3% REVERSE CROWN
262+00	-2% NORMAL CROWN	222+50	-2% NORMAL CROWN
263+00	2% REVERSE CROWN		
263+58	2% REVERSE CROWN	263+58	-2% NORMAL CROWN
264+06	4% FULL SUPERELEVATION	264+06	-4% FULL SUPERELEVATION
266+93	4% FULL SUPERELEVATION	267+00	-4% FULL SUPERELEVATION
268+60	-3% REVERSE CROWN	268+50	-3% REVERSE CROWN
271+50	-3% REVERSE CROWN	268+90	-2% NORMAL CROWN
272+00	-2% NORMAL CROWN		

NOTE: MILL TO FINISHED SLOPE.

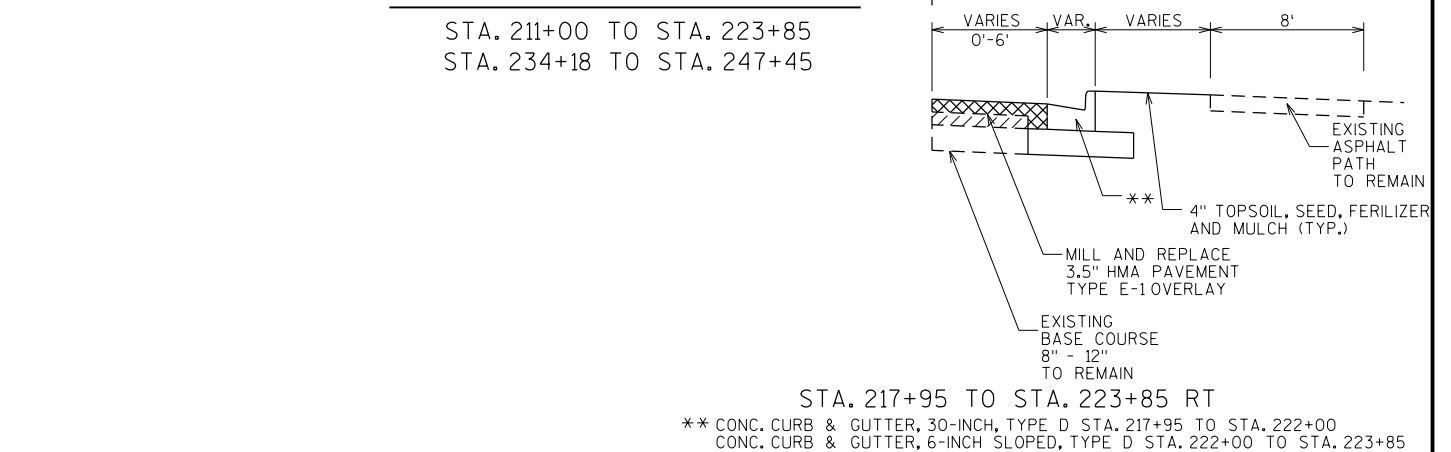
IN AREAS WITH PROPOSED CURB AND GUTTER, MILL 3.5 INCHES AT THE FLANGE LINE AND VARY MILL DEPTH AT THE CENTERLINE TO ACHIEVE FINISHED SLOPE.

ASPHALT CURB REMOVAL IS INCIDENTAL TO MILLING OPERATIONS



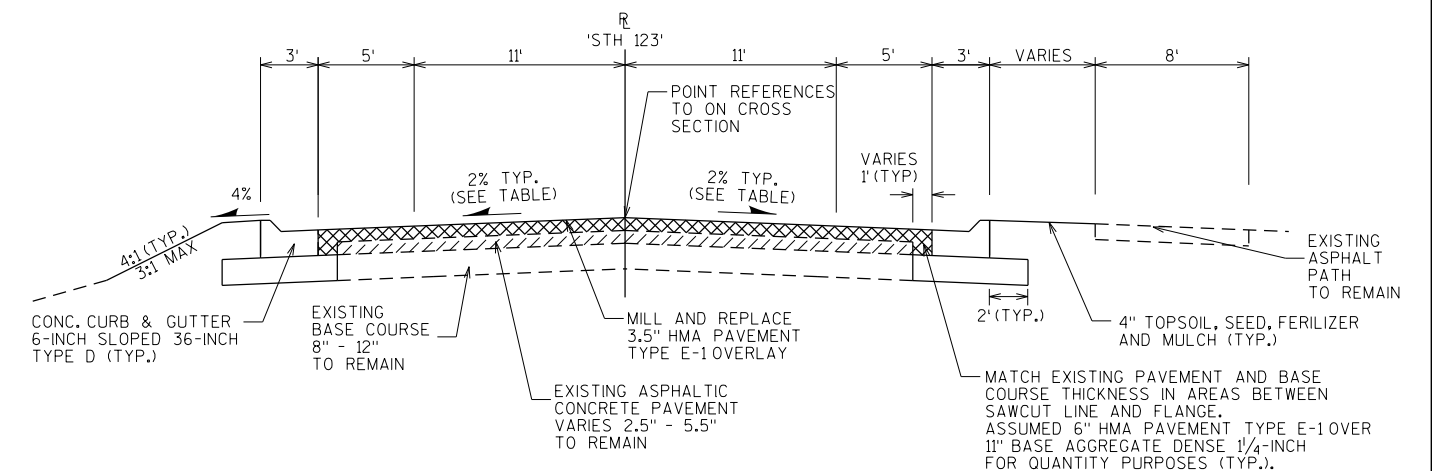
TYPICAL FINISHED SECTION

STA. 211+00 TO STA. 223+85
STA. 234+18 TO STA. 247+45



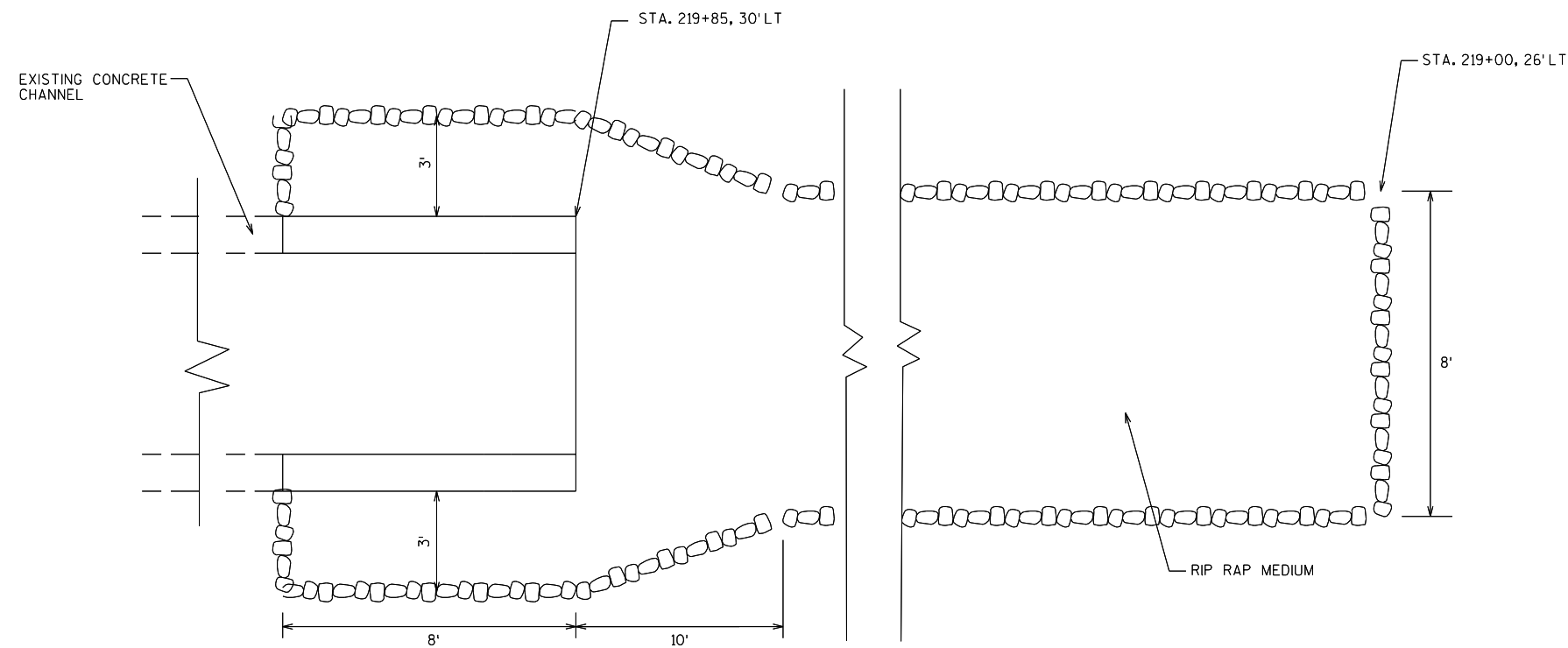
STA. 217+95 TO STA. 223+85 RT

CONC. CURB & GUTTER, 30-INCH, TYPE D STA. 217+95 TO STA. 222+00
CONC. CURB & GUTTER, 6-INCH SLOPED, TYPE D STA. 222+00 TO STA. 223+85

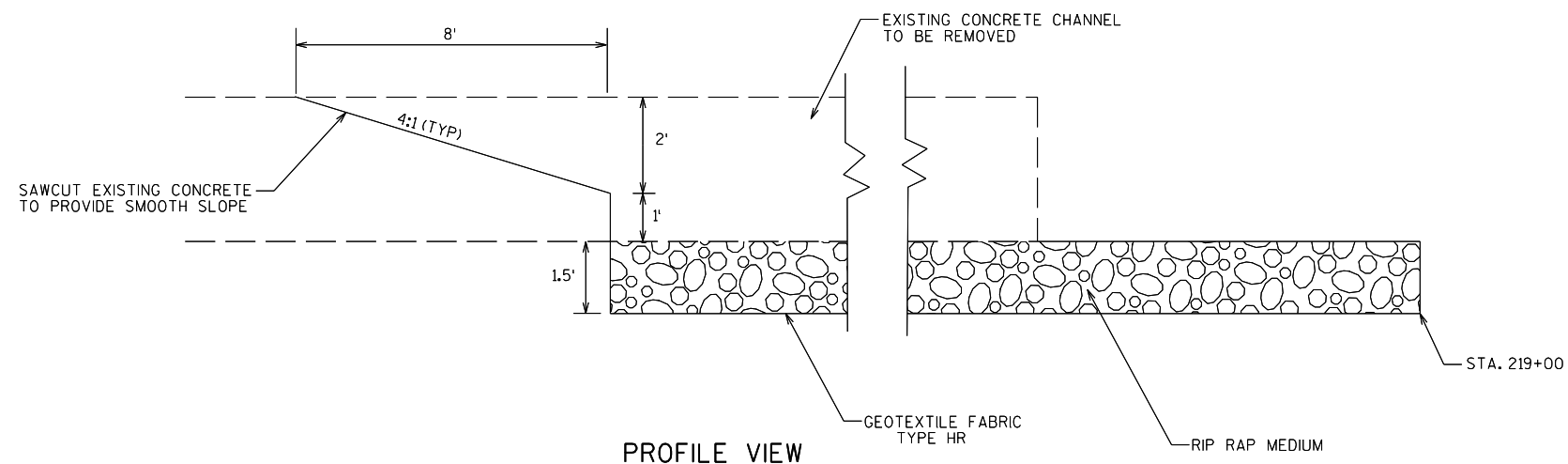


TYPICAL FINISHED SECTION

STA. 247+45 TO STA. 275+10

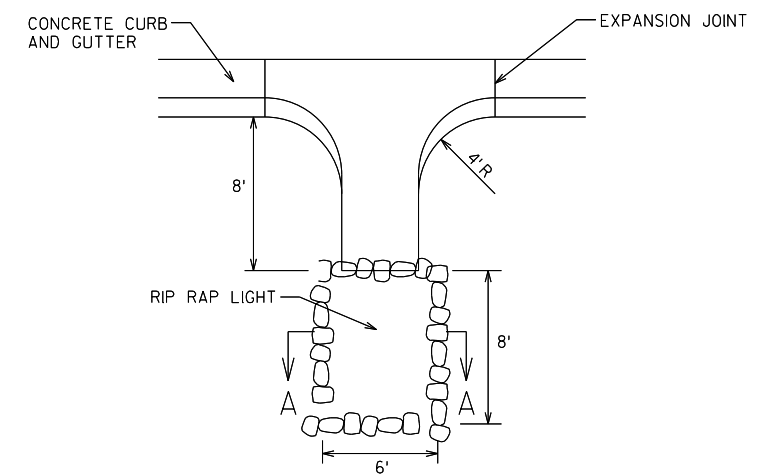


PLAN VIEW

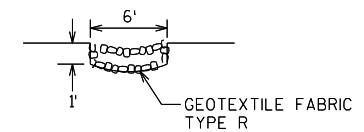


PROFILE VIEW

REMOVING CONCRETE CHANNEL
STA 219+85 LT



PLAN VIEW

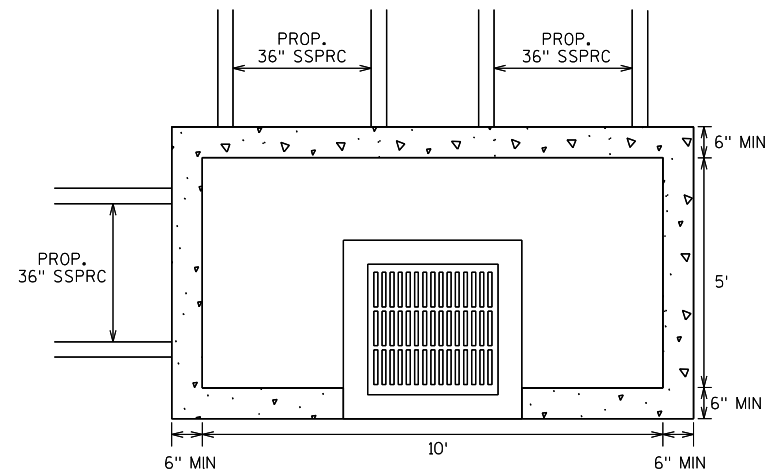


SECTION A-A

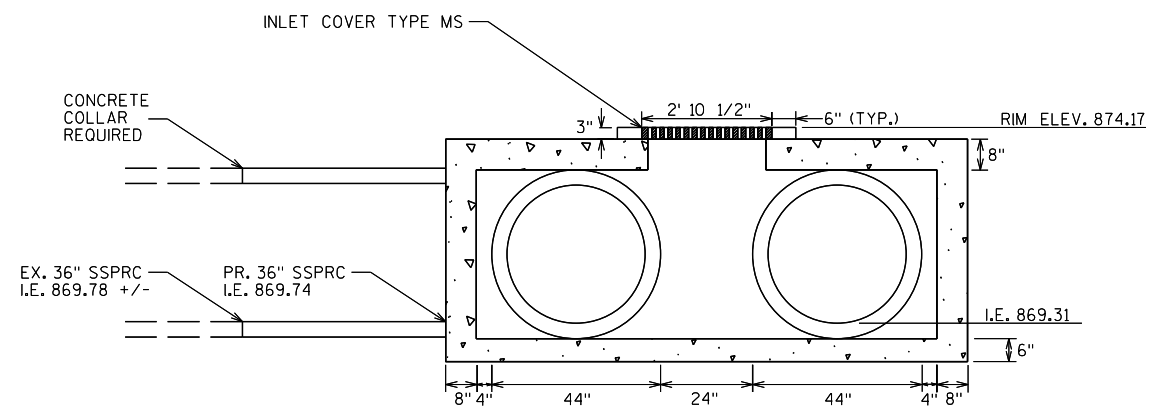
CONCRETE SURFACE DRAINS

STA. 257+15 LT
STA. 268+90 LT
STA. 270+50 LT

NOTES:
CONSTRUCTION SHALL CONFORM TO SDD "CONCRETE SURFACE DRAINS & ASPHALTIC FLUMES"



PLAN VIEW

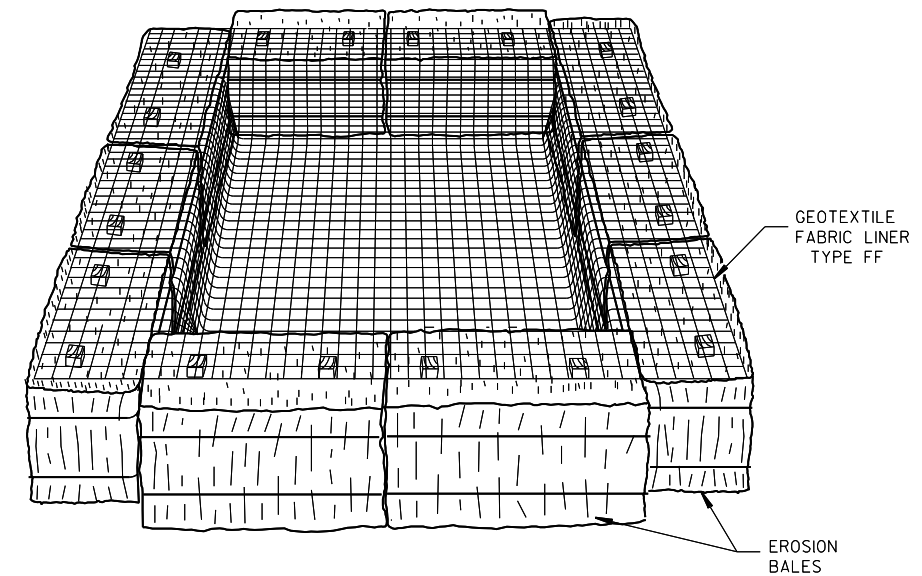


PROFILE VIEW

MANHOLE 5x10-FT
STA 267+90 RT

NOTES:

1. COVER PAID FOR AS INLET COVERS TYPE MS
2. CONSTRUCTION SHALL CONFORM TO SDD "MANHOLES 3x3-FT, 4x4-FT, 5x5-FT, AND 6x6-FT"



TEMPORARY SETTLING BASIN

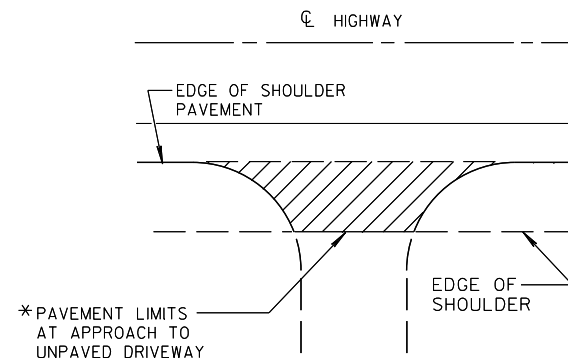
(SIZE TO BE DETERMINED IN FIELD AS INDICATED BELOW:)

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

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

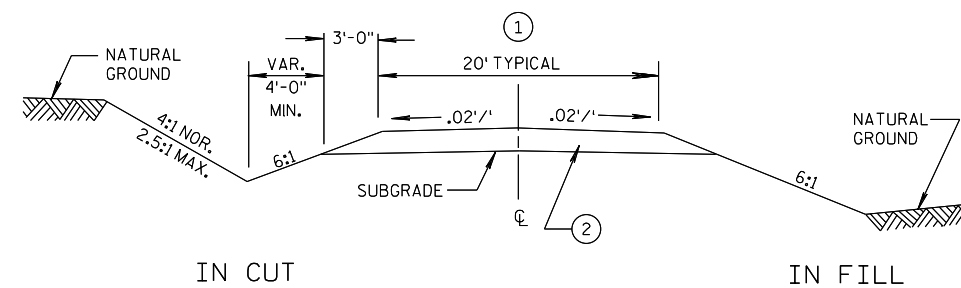
SOLUTION:
SV (C.F.) = 16 X 50
SV = 800 C.F.
 $\frac{800 \text{ C.F.}}{1.5 \text{ FT.}} = 533 \text{ S.F.}$

USE A 20 FT. X 27 FT. BASIN

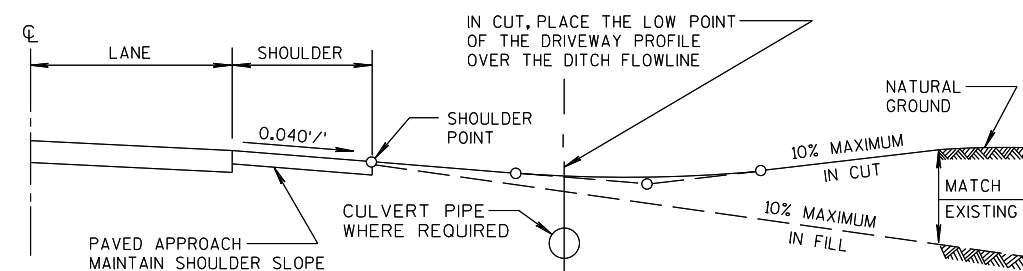


*WHERE DRIVEWAY IS PAVED, APPROACH PAVEMENT SHOULD BE EXTENDED TO MATCH DRIVEWAY PAVEMENT.

PLAN VIEW



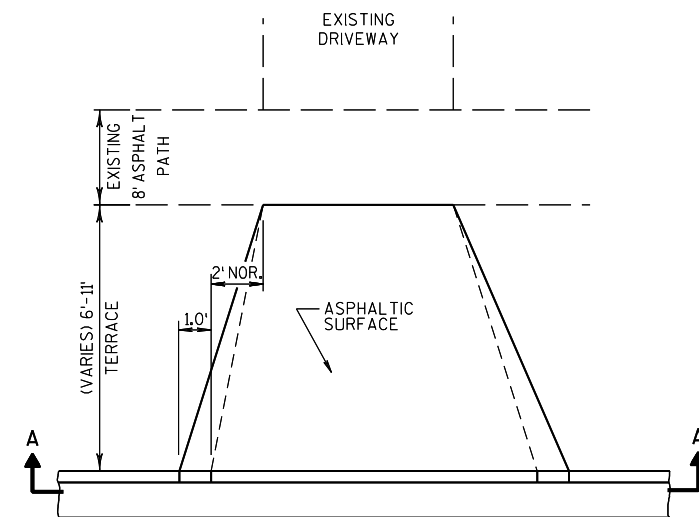
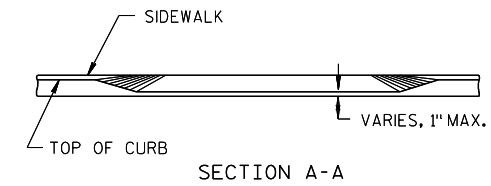
TYPICAL CROSS SECTION



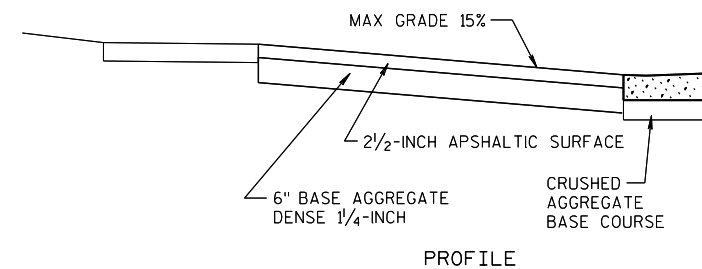
TYPICAL PROFILE

RURAL DRIVEWAY DETAIL

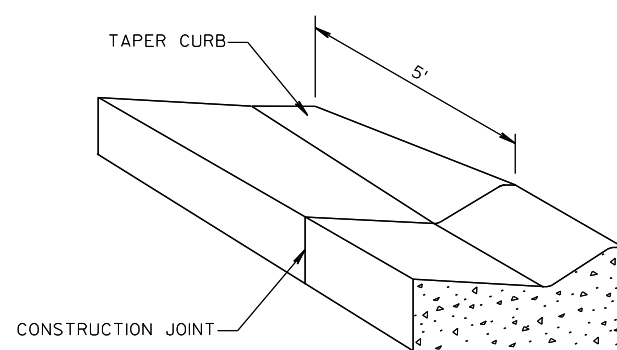
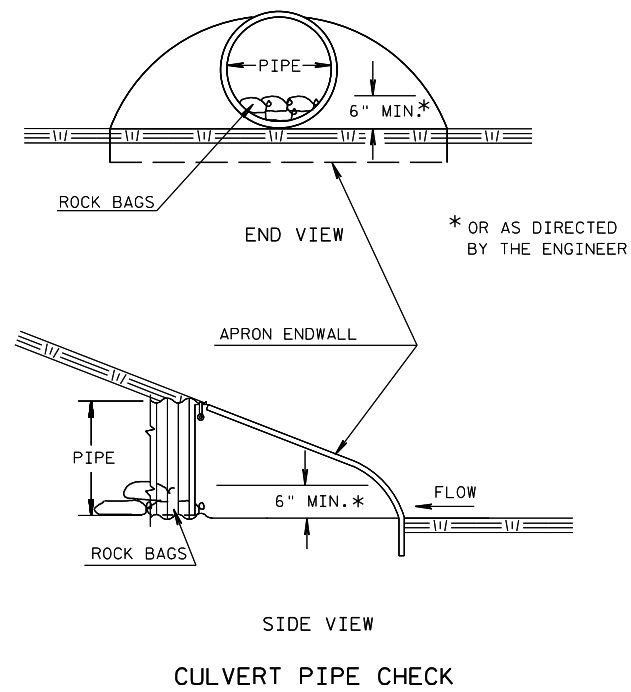
- ① DRIVEWAY WIDTHS:
COMMERCIAL, 35' MAX, 12' MIN
NON-COMMERCIAL, 24' MAX, 12' MIN
SEE PAVING DETAIL SHEETS FOR WIDTH REQUIRED
- ② DRIVEWAY SURFACE SHALL BE REPLACED IN-KIND WITH MINIMUM SECTION OF:
ASPHALT - 2 1/2" ASPHALTIC SURFACE DRIVEWAYS OVER 6"
BASE AGGREGATE DENSE 1 1/4-INCH CONCRETE - 6" CONCRETE
ON 6" BASE AGGREGATE DENSE 1 1/4-INCH



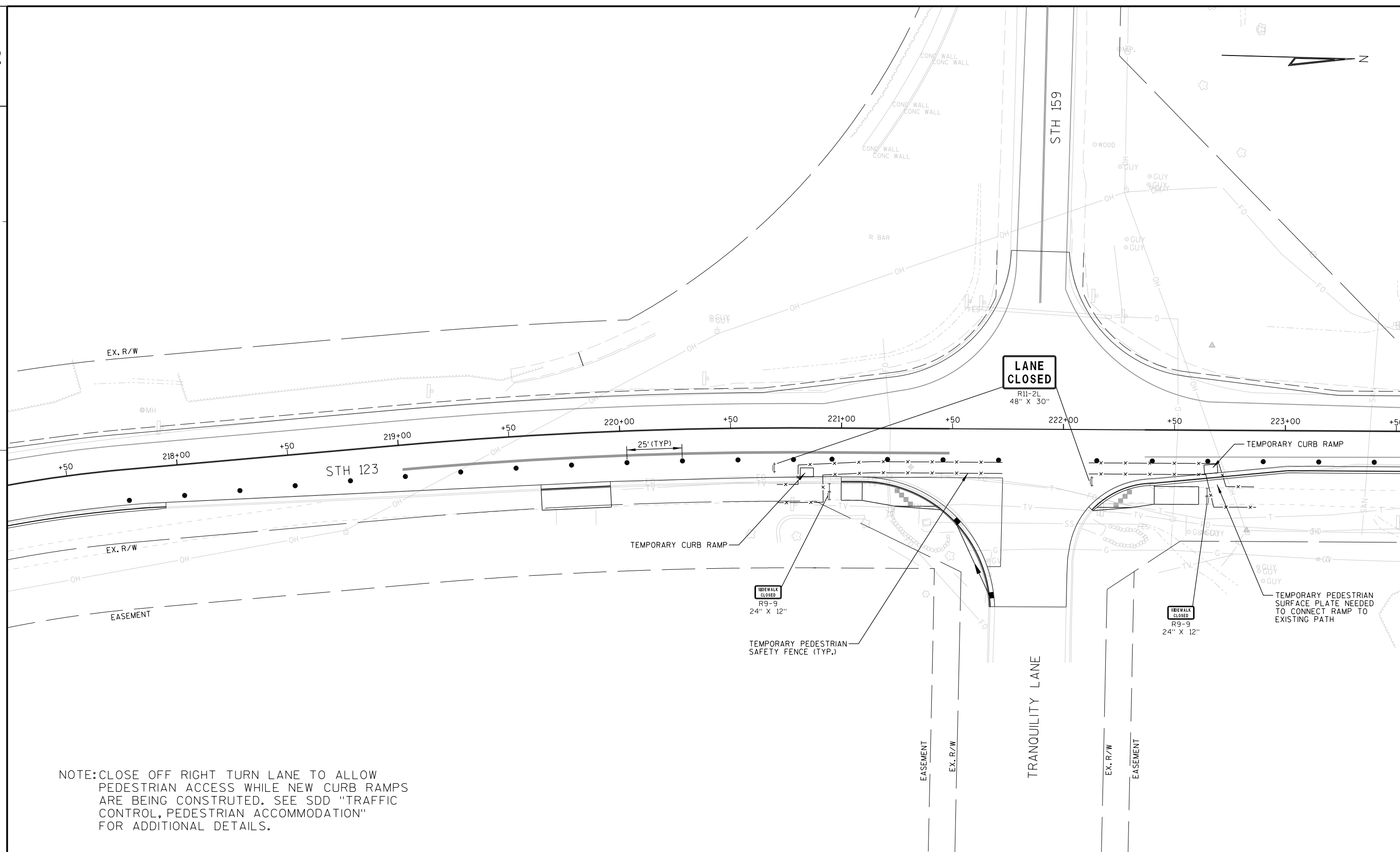
PLAN



URBAN DRIVEWAY DETAIL



DETAIL OF CURB & GUTTER TERMINI



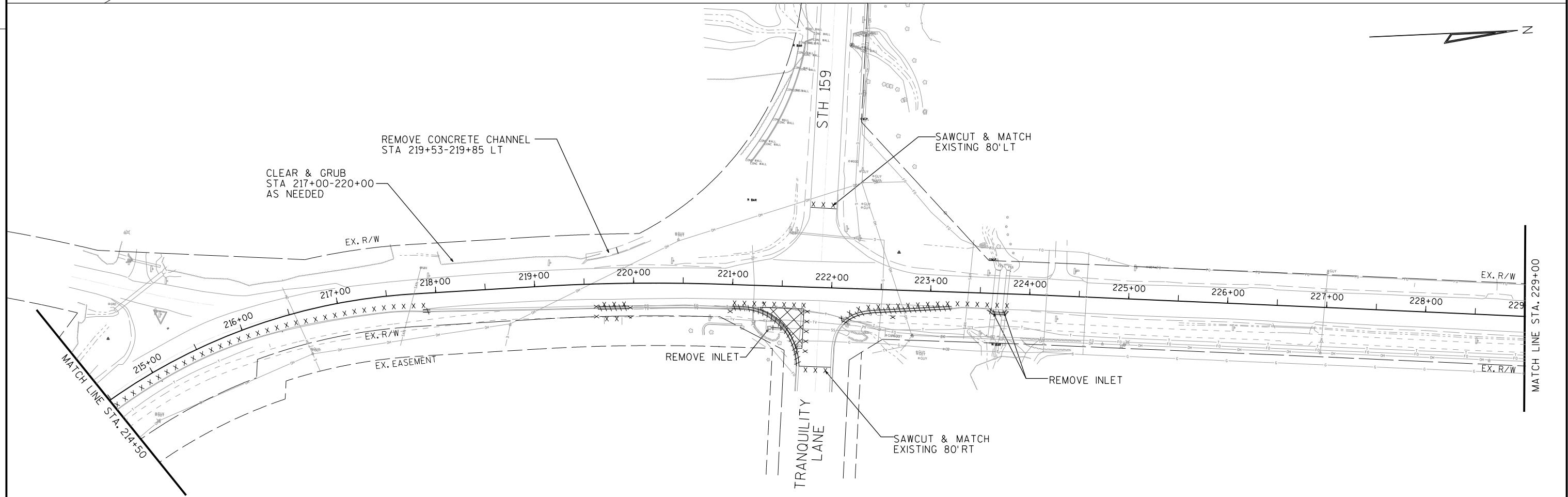
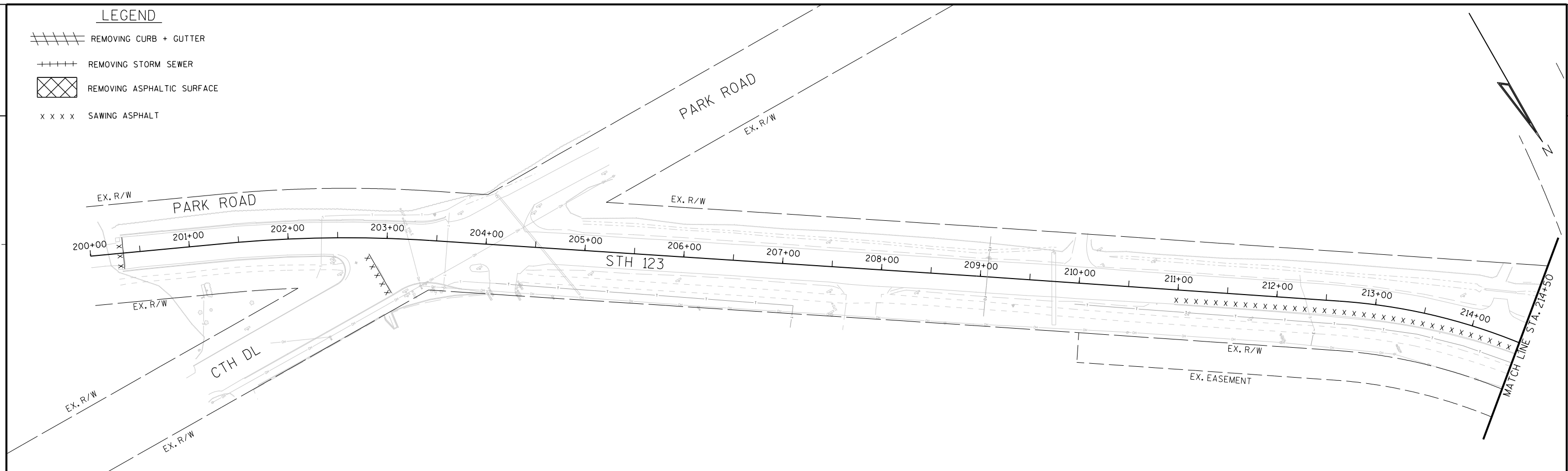
NOTE: CLOSE OFF RIGHT TURN LANE TO ALLOW
PEDESTRIAN ACCESS WHILE NEW CURB RAMPS
ARE BEING CONSTRUCTED. SEE SDD "TRAFFIC
CONTROL, PEDESTRIAN ACCOMMODATION"
FOR ADDITIONAL DETAILS.

2

2

LEGEND

- REMOVING CURB + GUTTER
- REMOVING STORM SEWER
- REMOVING ASPHALTIC SURFACE
- SAWING ASPHALT



PROJECT NO: 5971-02-72

HWY: STH 123

COUNTY: SAUK

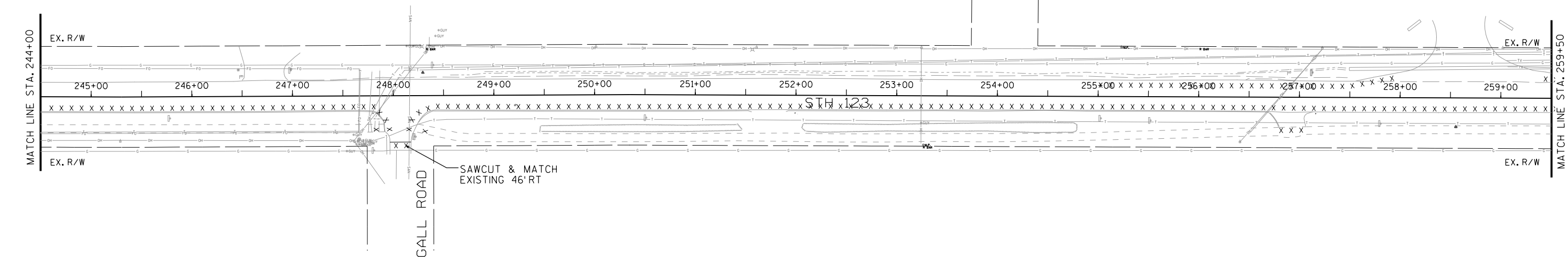
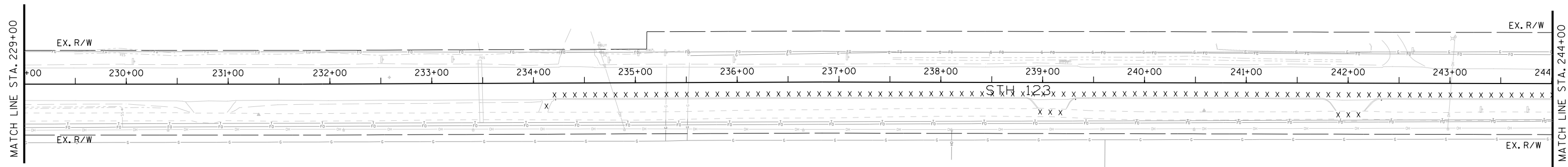
REMOVAL PLAN

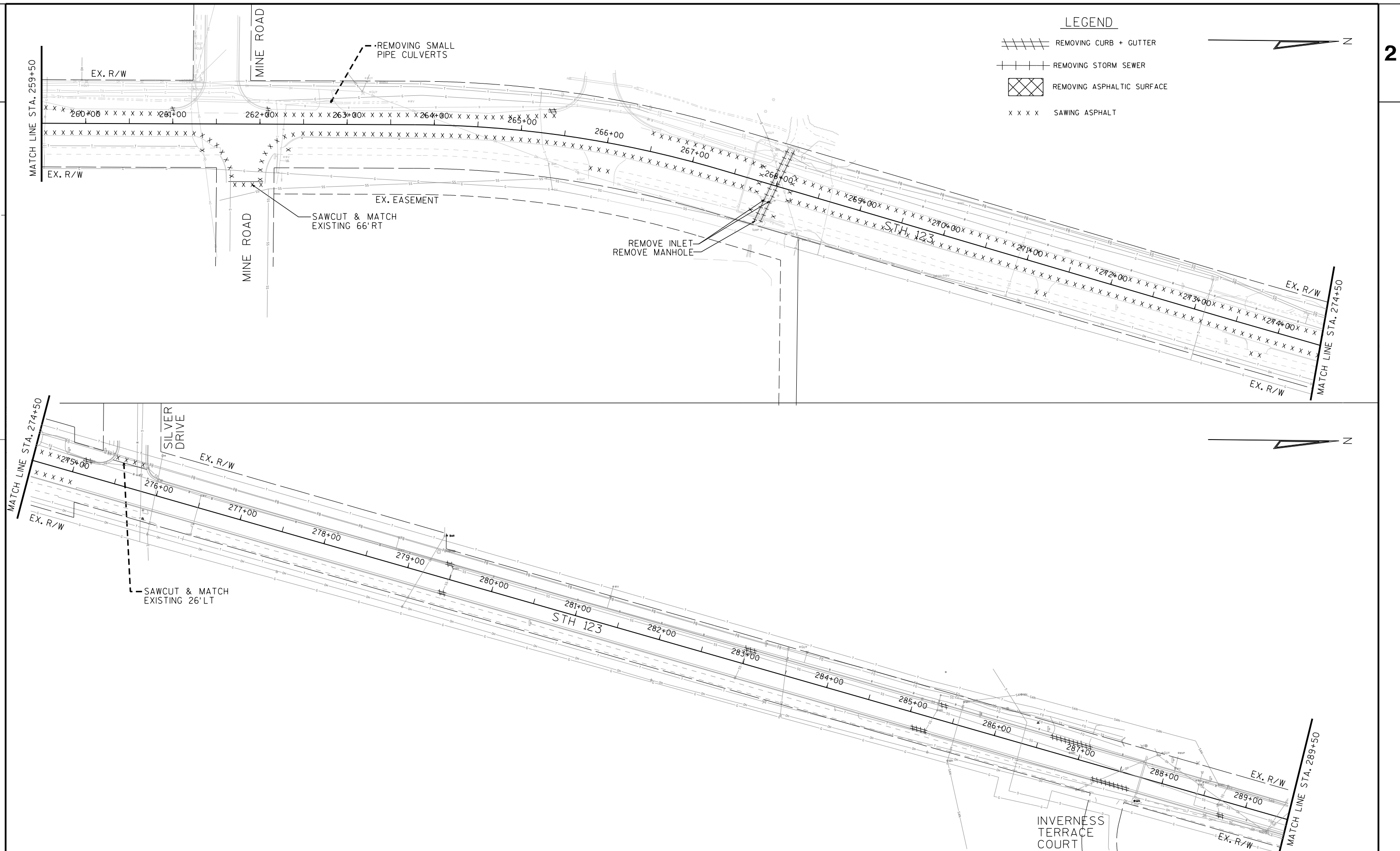
SHEET

E

LEGEND

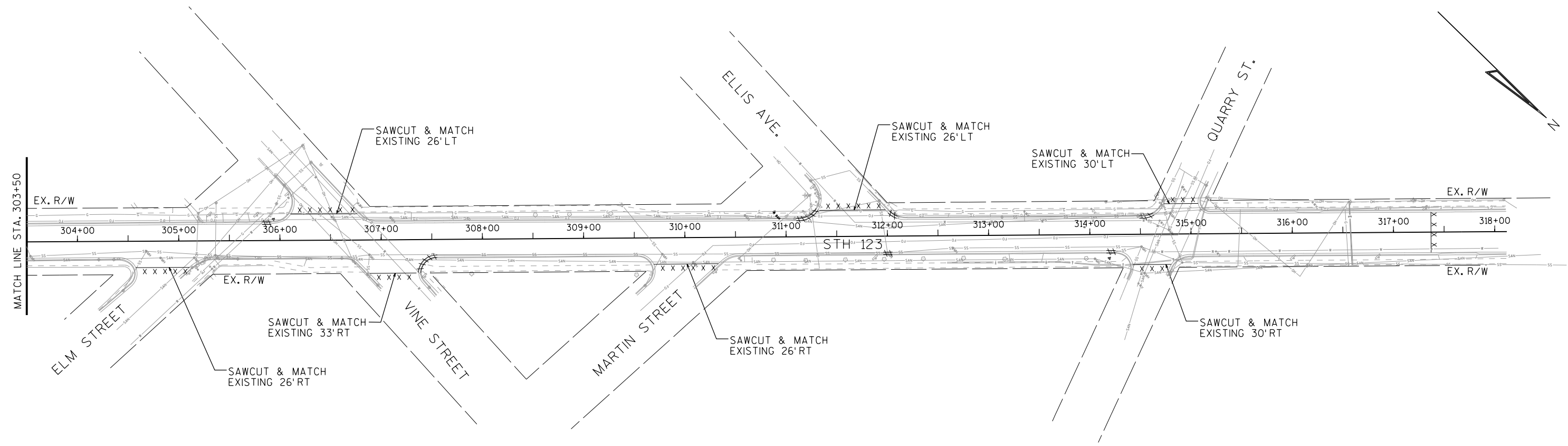
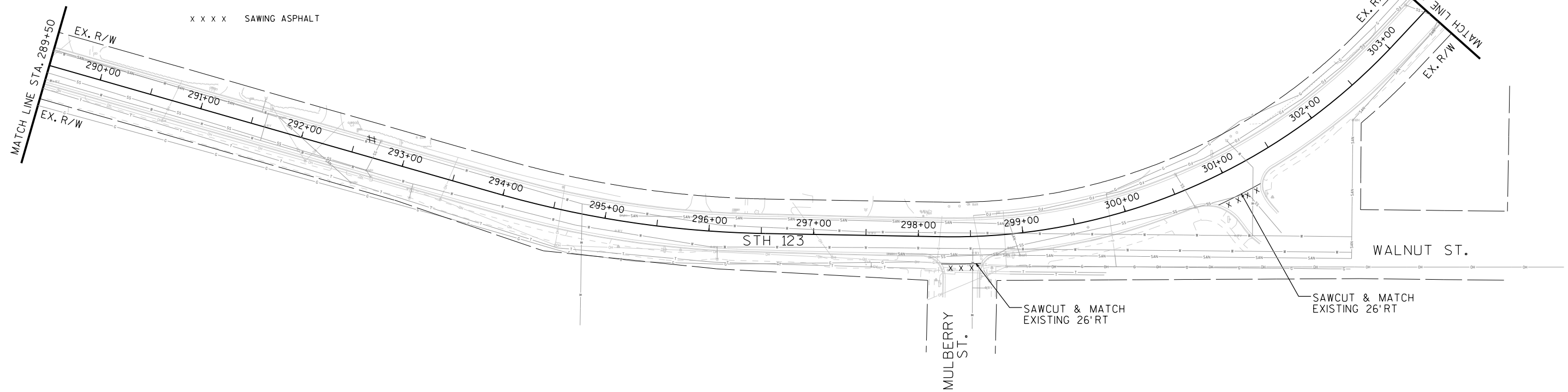
- REMOVING CURB + GUTTER
- REMOVING STORM SEWER
- REMOVING ASPHALTIC SURFACE
- SAWING ASPHALT





LEGEND

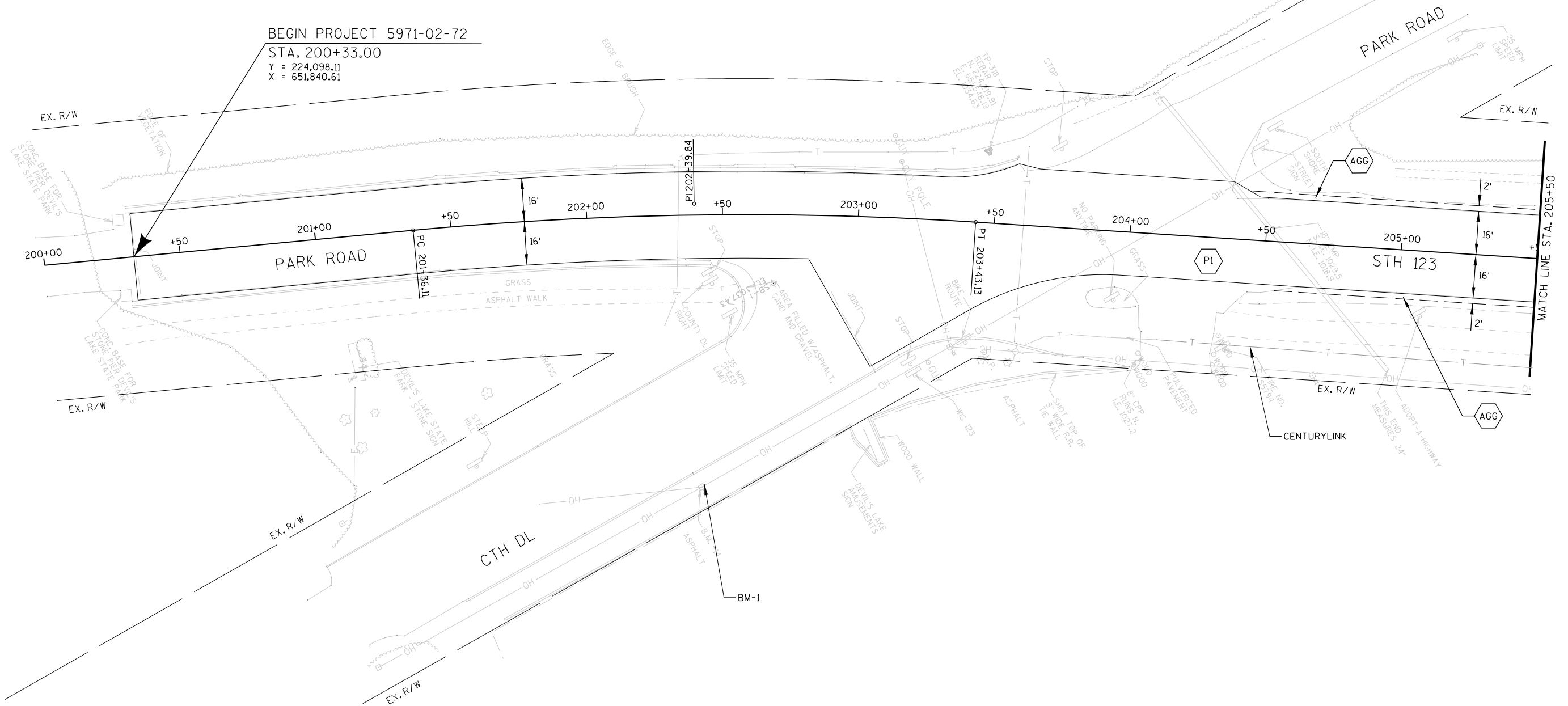
- REMOVING CURB + GUTTER
- REMOVING STORM SEWER
- REMOVING ASPHALTIC SURFACE
- SAWING ASPHALT



LEGEND

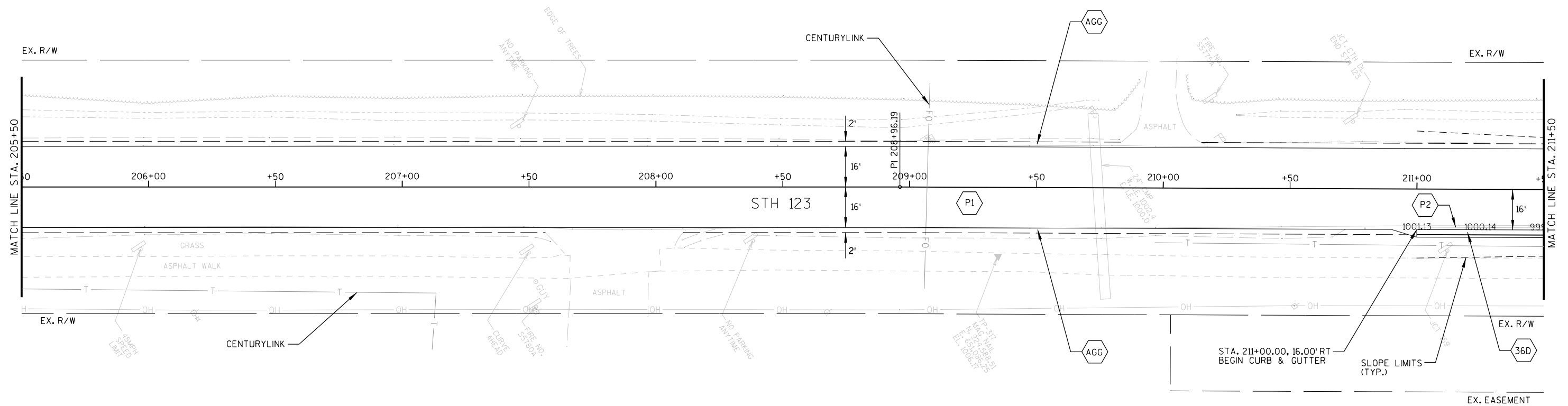
30D	CONCRETE CURB & GUTTER 30-INCH TYPE D	P1	3.5" MILL & 3.5" HMA PAVEMENT TYPE E-1
36D	CONCRETE CURB & GUTTER 6-INCH SLOPED 36-INCH TYPE D	P2	6" HMA PAVEMENT TYPE E-1 OVER 11" BASE AGGREGATE DENSE 1 1/4-INCH
SW5	CONCRETE SIDEWALK 5-INCH	AGG	3.5" BASE AGGREGATE DENSE 3/4-INCH
AS4	ASPHALTIC SURFACE 4" OVER 4" BASE AGGREGATE DENSE 1 1/4-INCH	AD	3 1/2" ASPHALT SURFACE DRIVEWAYS AND FIELD ENTRANCES OVER 6" BASE AGGREGATE DENSE 1 1/4-INCH
CR	CURB RAMP TYPE OF CURB RAMP	GD	AGGREGATE DRIVEWAY - 6" BASE AGGREGATE DENSE 1 1/4-INCH
A	ADJUST INLET/MANHOLE COVER		

BENCH MARKS			
NO.	STATION	DESCRIPTION	ELEV.
1	202+41.100' RT	GEAR SPIKE IN ROADSIDE FACE OF POWER POLE	1037.77



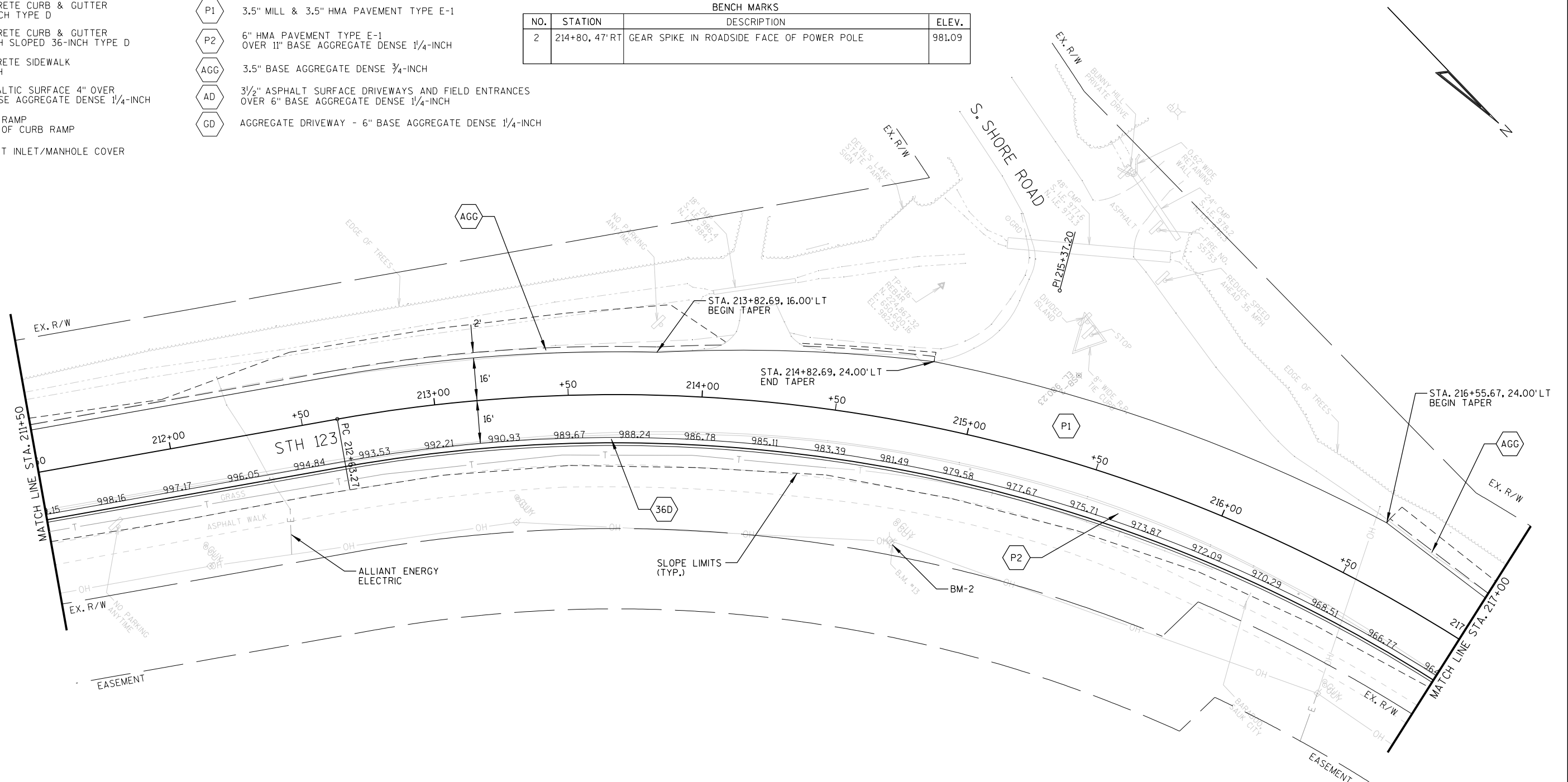
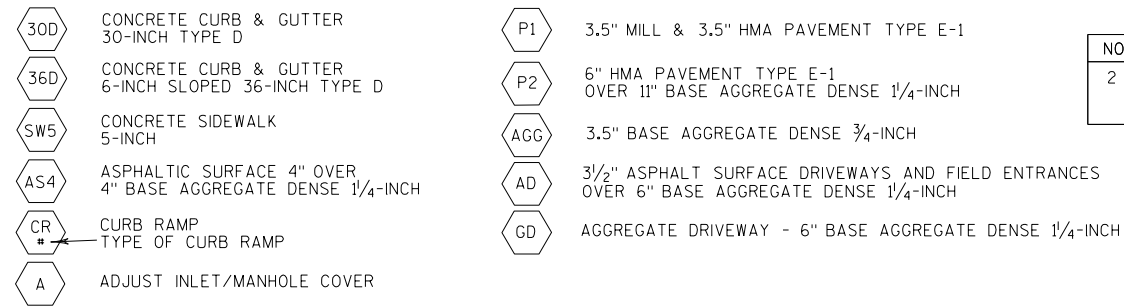
LEGEND

30D	CONCRETE CURB & GUTTER 30-INCH TYPE D	P1	3.5" MILL & 3.5" HMA PAVEMENT TYPE E-1
36D	CONCRETE CURB & GUTTER 6-INCH SLOPED 36-INCH TYPE D	P2	6" HMA PAVEMENT TYPE E-1 OVER 1" BASE AGGREGATE DENSE 1 1/4-INCH
SW5	CONCRETE SIDEWALK 5-INCH	AGG	3.5" BASE AGGREGATE DENSE 3/4-INCH
AS4	ASPHALTIC SURFACE 4" OVER 4" BASE AGGREGATE DENSE 1 1/4-INCH	AD	3 1/2" ASPHALT SURFACE DRIVEWAYS AND FIELD ENTRANCES OVER 6" BASE AGGREGATE DENSE 1 1/4-INCH
CR	CURB RAMP TYPE OF CURB RAMP	GD	AGGREGATE DRIVEWAY - 6" BASE AGGREGATE DENSE 1 1/4-INCH
A	ADJUST INLET/MANHOLE COVER		



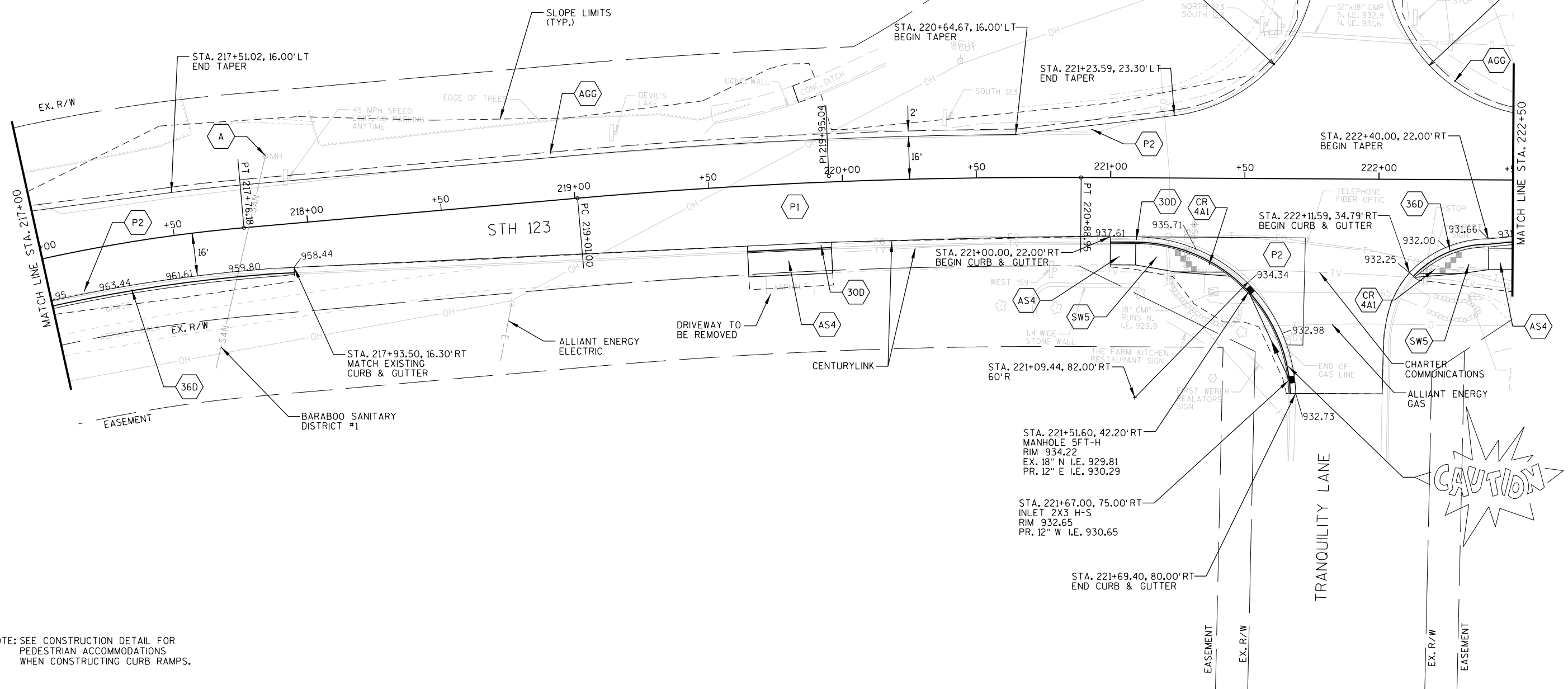
BENCH MARKS

NO.	STATION	DESCRIPTION	ELEV.
2	214+80, 47' RT	GEAR SPIKE IN ROADSIDE FACE OF POWER POLE	981.09



LEGEND

30D	CONCRETE CURB & GUTTER 30-INCH TYPE D	P1	3.5" MILL & 3.5" HMA PAVEMENT TYPE E-1
36D	CONCRETE CURB & GUTTER 6-INCH SLOPED 36-INCH TYPE D	P2	6" HMA PAVEMENT TYPE E-1 OVER 11" BASE AGGREGATE DENSE 1 1/4-INCH
SW5	CONCRETE SIDEWALK 5-INCH	AGG	3.5" BASE AGGREGATE DENSE 3/4-INCH
AS4	ASPHALTIC SURFACE 4" OVER 4" BASE AGGREGATE DENSE 1 1/4-INCH	AD	3 1/2" ASPHALT SURFACE DRIVEWAYS AND FIELD ENTRANCES OVER 6" BASE AGGREGATE DENSE 1 1/4-INCH
CR	CURB RAMP TYPE OF CURB RAMP	GD	AGGREGATE DRIVEWAY - 6" BASE AGGREGATE DENSE 1 1/4-INCH
A	ADJUST INLET/MANHOLE COVER		



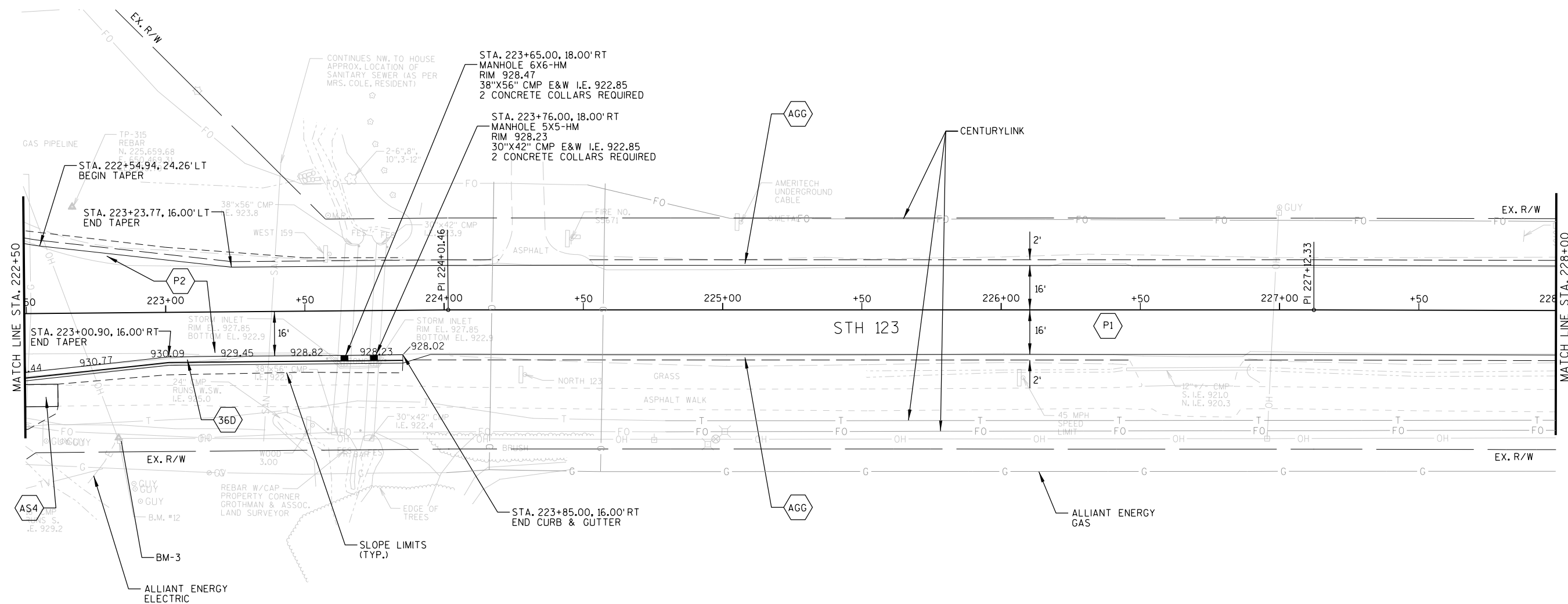
NOTE: SEE CONSTRUCTION DETAIL FOR
PEDESTRIAN ACCOMMODATIONS
WHEN CONSTRUCTING CURB RAMPS.

LEGEND

- 30D CONCRETE CURB & GUTTER
30-INCH TYPE D
- 36D CONCRETE CURB & GUTTER
6-INCH SLOPED 36-INCH TYPE D
- SW5 CONCRETE SIDEWALK
5-INCH
- AS4 ASPHALTIC SURFACE 4" OVER
4" BASE AGGREGATE DENSE 1 1/4-INCH
- CR CURB RAMP
TYPE OF CURB RAMP
- A ADJUST INLET/MANHOLE COVER

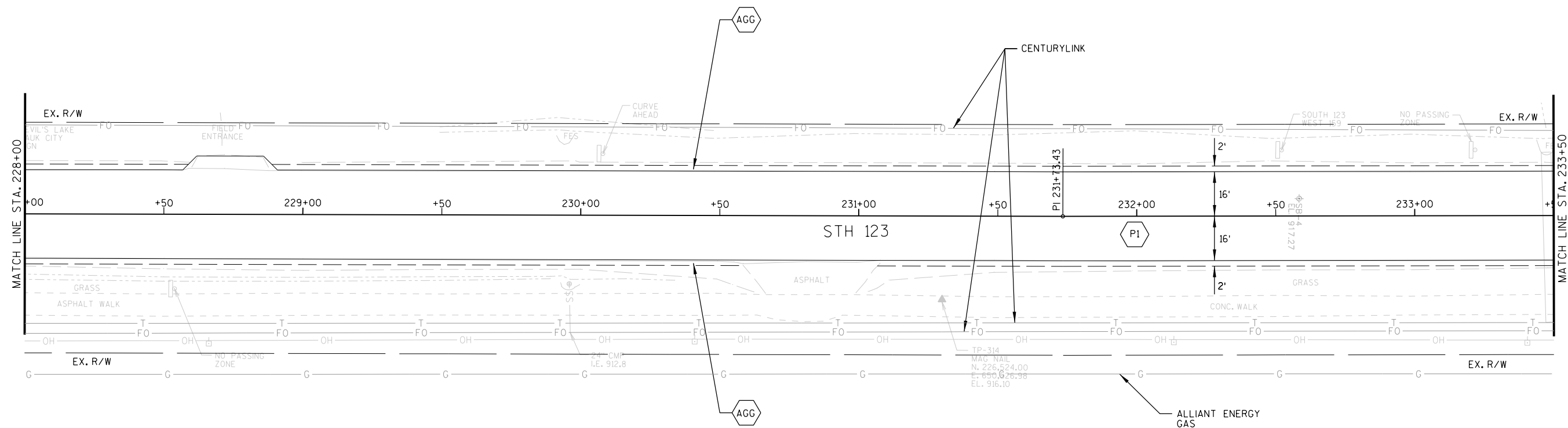
- P1 3.5" MILL & 3.5" HMA PAVEMENT TYPE E-1
- P2 6" HMA PAVEMENT TYPE E-1
OVER 1" BASE AGGREGATE DENSE 1 1/4-INCH
- AGG 3.5" BASE AGGREGATE DENSE 3/4-INCH
- AD 3 1/2" ASPHALT SURFACE DRIVEWAYS AND FIELD ENTRANCES
OVER 6" BASE AGGREGATE DENSE 1 1/4-INCH
- GD AGGREGATE DRIVEWAY - 6" BASE AGGREGATE DENSE 1 1/4-INCH

BENCH MARKS			
NO.	STATION	DESCRIPTION	ELEV.
3	222+84, 46' RT	GEAR SPIKE IN ROADSIDE FACE OF POWER POLE	929.99



LEGEND

30D	CONCRETE CURB & GUTTER 30-INCH TYPE D	P1	3.5" MILL & 3.5" HMA PAVEMENT TYPE E-1
36D	CONCRETE CURB & GUTTER 6-INCH SLOPED 36-INCH TYPE D	P2	6" HMA PAVEMENT TYPE E-1 OVER 11" BASE AGGREGATE DENSE 1 1/4-INCH
SW5	CONCRETE SIDEWALK 5-INCH	AGG	3.5" BASE AGGREGATE DENSE 3/4-INCH
AS4	ASPHALTIC SURFACE 4" OVER 4" BASE AGGREGATE DENSE 1 1/4-INCH	AD	3 1/2" ASPHALT SURFACE DRIVEWAYS AND FIELD ENTRANCES OVER 6" BASE AGGREGATE DENSE 1 1/4-INCH
CR	CURB RAMP TYPE OF CURB RAMP	GD	AGGREGATE DRIVEWAY - 6" BASE AGGREGATE DENSE 1 1/4-INCH
A	ADJUST INLET/MANHOLE COVER		

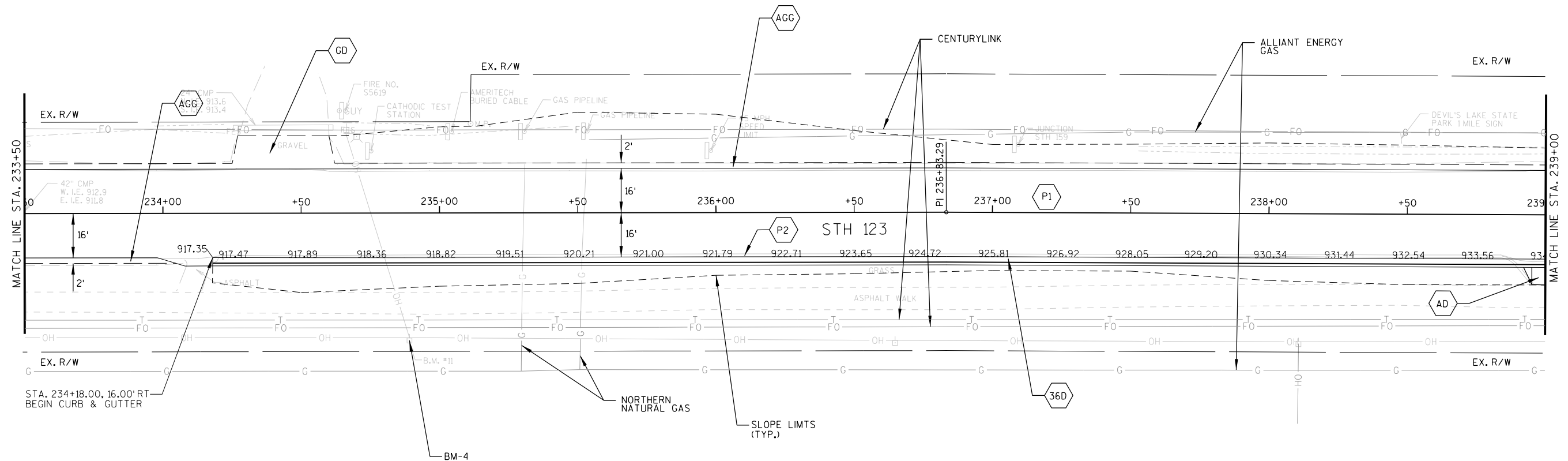


LEGEND

(30D)	CONCRETE CURB & GUTTER 30-INCH TYPE D	(P1)	3.5" MILL & 3.5" HMA PAVEMENT TYPE E-1
(36D)	CONCRETE CURB & GUTTER 6-INCH SLOPED 36-INCH TYPE D	(P2)	6" HMA PAVEMENT TYPE E-1 OVER 11" BASE AGGREGATE DENSE 1 1/4-INCH
(SW5)	CONCRETE SIDEWALK 5-INCH	(AGG)	3.5" BASE AGGREGATE DENSE 3/4-INCH
(AS4)	ASPHALTIC SURFACE 4" OVER 4" BASE AGGREGATE DENSE 1 1/4-INCH	(AD)	3 1/2" ASPHALT SURFACE DRIVEWAYS AND FIELD ENTRANCES OVER 6" BASE AGGREGATE DENSE 1 1/4-INCH
(CR #)	CURB RAMP TYPE OF CURB RAMP	(GD)	AGGREGATE DRIVEWAY - 6" BASE AGGREGATE DENSE 1 1/4-INCH
(A)	ADJUST INLET/MANHOLE COVER		

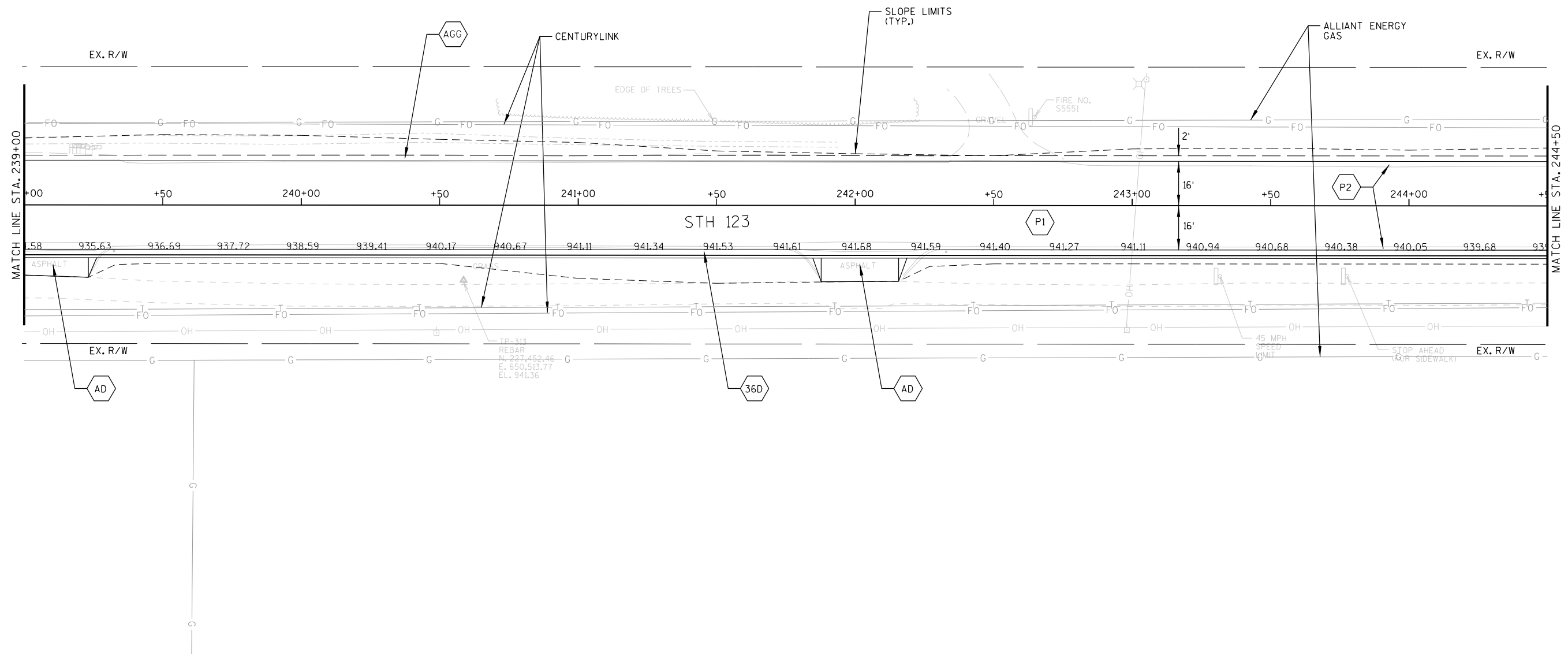
BENCH MARKS

NO.	STATION	DESCRIPTION	ELEV.
4	234+90, 46' RT	GEAR SPIKE IN ROADSIDE FACE OF POWER POLE	917.82



LEGEND

30D	CONCRETE CURB & GUTTER 30-INCH TYPE D	P1	3.5" MILL & 3.5" HMA PAVEMENT TYPE E-1
36D	CONCRETE CURB & GUTTER 6-INCH SLOPED 36-INCH TYPE D	P2	6" HMA PAVEMENT TYPE E-1 OVER 11" BASE AGGREGATE DENSE 1 1/4-INCH
SW5	CONCRETE SIDEWALK 5-INCH	AGG	3.5" BASE AGGREGATE DENSE 3/4-INCH
AS4	ASPHALTIC SURFACE 4" OVER 4" BASE AGGREGATE DENSE 1 1/4-INCH	AD	3 1/2" ASPHALT SURFACE DRIVEWAYS AND FIELD ENTRANCES OVER 6" BASE AGGREGATE DENSE 1 1/4-INCH
CR	CURB RAMP TYPE OF CURB RAMP	GD	AGGREGATE DRIVEWAY - 6" BASE AGGREGATE DENSE 1 1/4-INCH
A	ADJUST INLET/MANHOLE COVER		

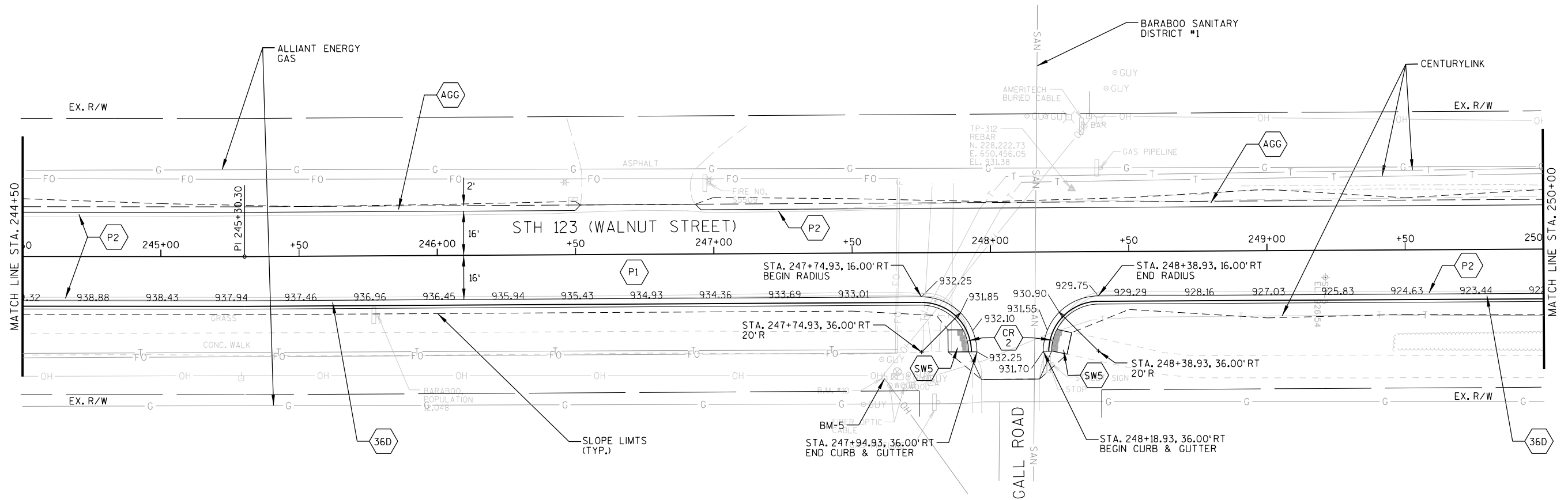


LEGEND

- 30D CONCRETE CURB & GUTTER
30-INCH TYPE D
- 36D CONCRETE CURB & GUTTER
6-INCH SLOPED 36-INCH TYPE D
- SW5 CONCRETE SIDEWALK
5-INCH
- AS4 ASPHALTIC SURFACE 4" OVER
4" BASE AGGREGATE DENSE 1 1/4-INCH
- CR CURB RAMP
TYPE OF CURB RAMP
- A ADJUST INLET/MANHOLE COVER

- P1 3.5" MILL & 3.5" HMA PAVEMENT TYPE E-1
- P2 6" HMA PAVEMENT TYPE E-1
OVER 1" BASE AGGREGATE DENSE 1 1/4-INCH
- AGG 3.5" BASE AGGREGATE DENSE 3/4-INCH
- AD 3 1/2" ASPHALT SURFACE DRIVEWAYS AND FIELD ENTRANCES
OVER 6" BASE AGGREGATE DENSE 1 1/4-INCH
- GD AGGREGATE DRIVEWAY - 6" BASE AGGREGATE DENSE 1 1/4-INCH

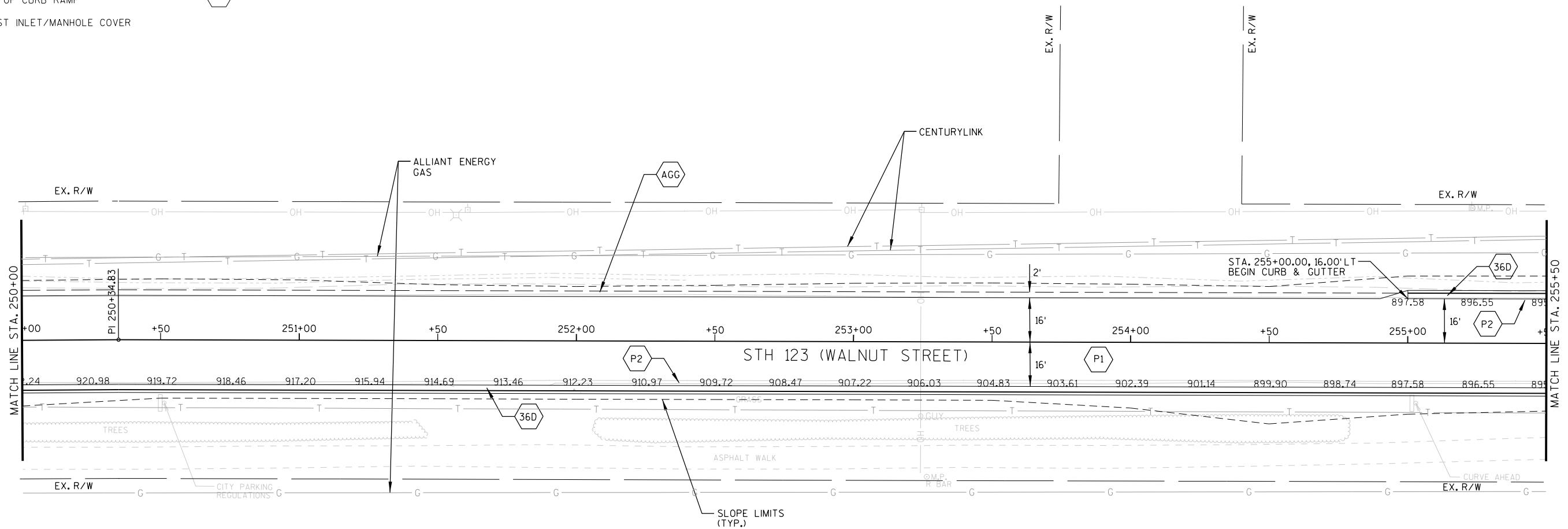
BENCH MARKS			
NO.	STATION	DESCRIPTION	ELEV.
5	247+63, 46' RT	GEAR SPIKE IN ROADSIDE FACE OF POWER POLE	934.45



NOTE: ACCOMMODATE PEDESTRIANS AT ALL TIMES USING
SDD "TRAFFIC CONTROL, PEDESTRIAN ACCOMMODATION"
WHEN CONSTRUCTING NEW CURB RAMPS.

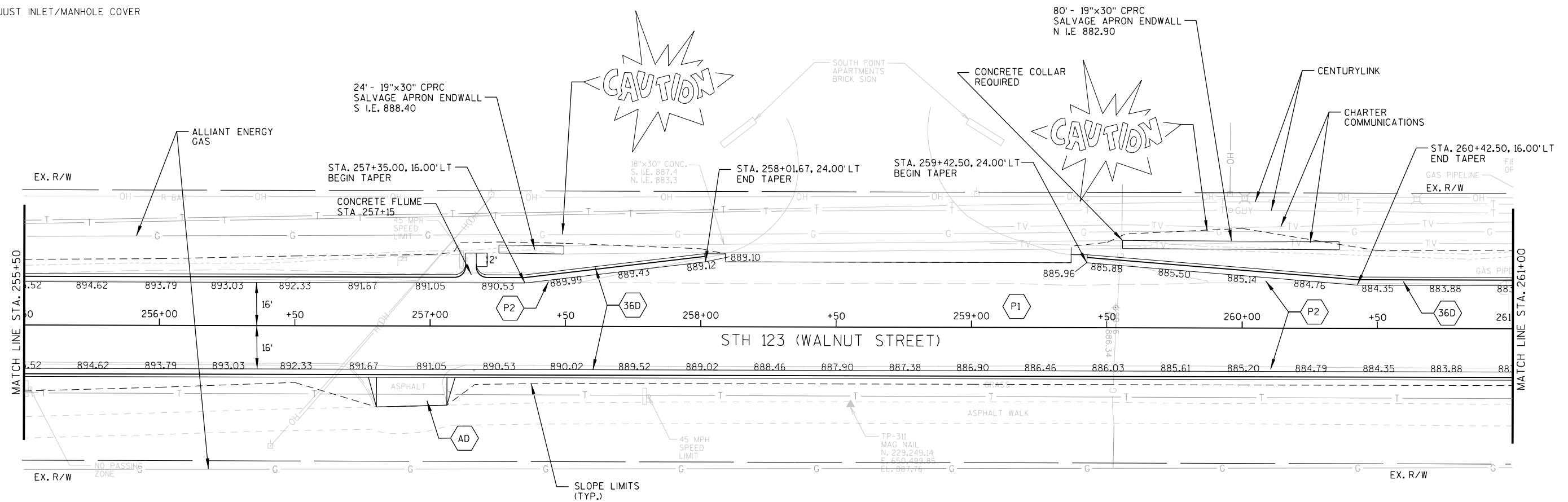
LEGEND

30D	CONCRETE CURB & GUTTER 30-INCH TYPE D	P1	3.5" MILL & 3.5" HMA PAVEMENT TYPE E-1
36D	CONCRETE CURB & GUTTER 6-INCH SLOPED 36-INCH TYPE D	P2	6" HMA PAVEMENT TYPE E-1 OVER 1" BASE AGGREGATE DENSE 1 1/4-INCH
SW5	CONCRETE SIDEWALK 5-INCH	AGG	3.5" BASE AGGREGATE DENSE 3/4-INCH
AS4	ASPHALTIC SURFACE 4" OVER 4" BASE AGGREGATE DENSE 1 1/4-INCH	AD	3 1/2" ASPHALT SURFACE DRIVEWAYS AND FIELD ENTRANCES OVER 6" BASE AGGREGATE DENSE 1 1/4-INCH
CR	CURB RAMP TYPE OF CURB RAMP	GD	AGGREGATE DRIVEWAY - 6" BASE AGGREGATE DENSE 1 1/4-INCH
A	ADJUST INLET/MANHOLE COVER		



LEGEND

30D	CONCRETE CURB & GUTTER 30-INCH TYPE D	P1	3.5" MILL & 3.5" HMA PAVEMENT TYPE E-1
36D	CONCRETE CURB & GUTTER 6-INCH SLOPED 36-INCH TYPE D	P2	6" HMA PAVEMENT TYPE E-1 OVER 11" BASE AGGREGATE DENSE 1 1/4-INCH
SW5	CONCRETE SIDEWALK 5-INCH	AGG	3.5" BASE AGGREGATE DENSE 3/4-INCH
AS4	ASPHALTIC SURFACE 4" OVER 4" BASE AGGREGATE DENSE 1 1/4-INCH	AD	3 1/2" ASPHALT SURFACE DRIVEWAYS AND FIELD ENTRANCES OVER 6" BASE AGGREGATE DENSE 1 1/4-INCH
CR	CURB RAMP TYPE OF CURB RAMP	GD	AGGREGATE DRIVEWAY - 6" BASE AGGREGATE DENSE 1 1/4-INCH
A	ADJUST INLET/MANHOLE COVER		



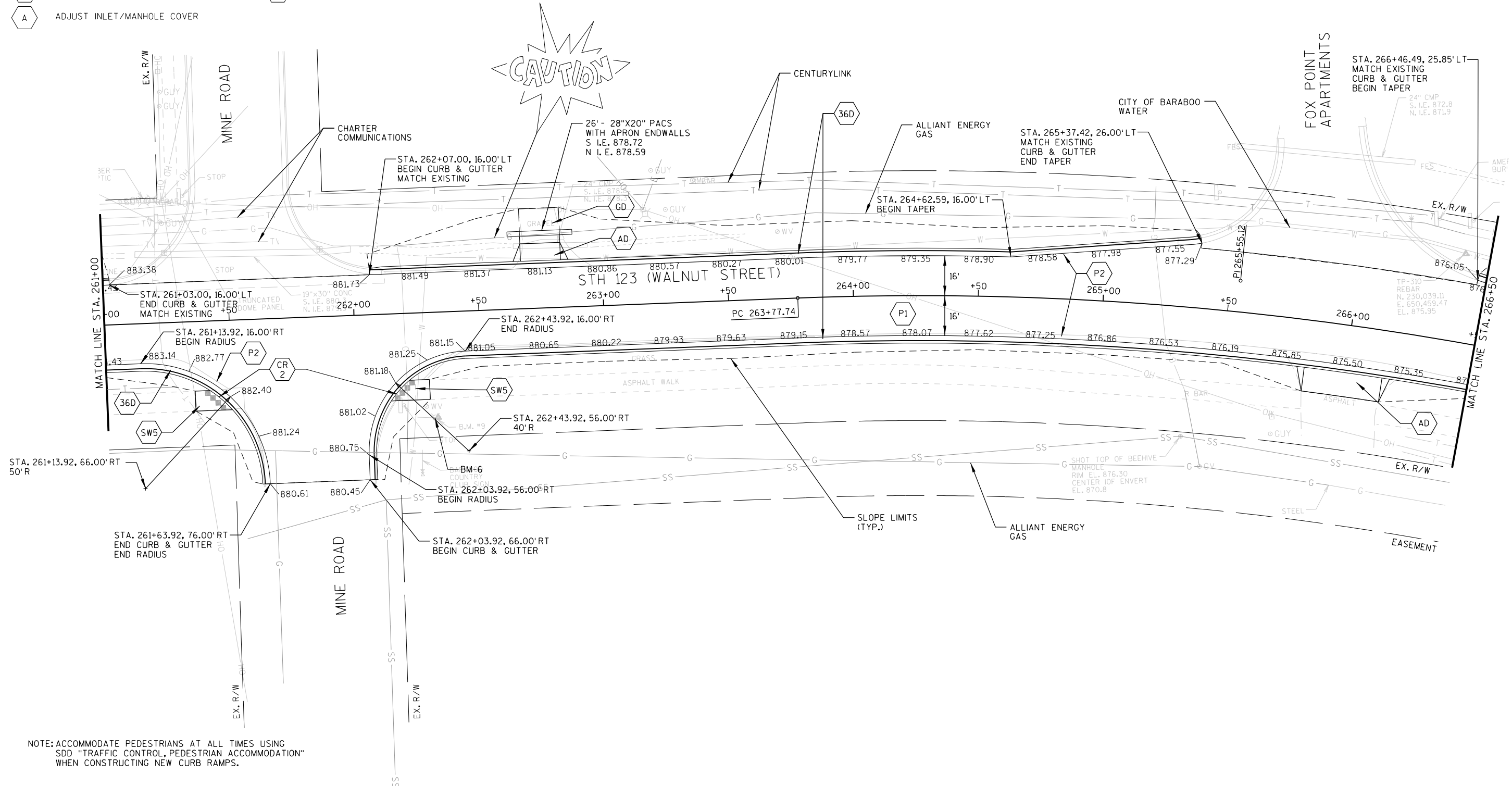
LEGEND

- 30D CONCRETE CURB & GUTTER
30-INCH TYPE D
- 36D CONCRETE CURB & GUTTER
6-INCH SLOPED 36-INCH TYPE D
- SW5 CONCRETE SIDEWALK
5-INCH
- AS4 ASPHALTIC SURFACE 4" OVER
4" BASE AGGREGATE DENSE 1 1/4-INCH
- CR CURB RAMP
TYPE OF CURB RAMP
- A ADJUST INLET/MANHOLE COVER

- P1 3.5" MILL & 3.5" HMA PAVEMENT TYPE E-1
- P2 6" HMA PAVEMENT TYPE E-1
OVER 1" BASE AGGREGATE DENSE 1 1/4-INCH
- AGG 3.5" BASE AGGREGATE DENSE 3/4-INCH
- AD 3 1/2" ASPHALT SURFACE DRIVEWAYS AND FIELD ENTRANCES
OVER 6" BASE AGGREGATE DENSE 1 1/4-INCH
- GD AGGREGATE DRIVEWAY - 6" BASE AGGREGATE DENSE 1 1/4-INCH

BENCH MARKS

NO.	STATION	DESCRIPTION	ELEV.
6	262+32, 43' RT	CHISELED CROSS TOP NORTH FLANGE BOLT OF HYDRANT	882.52

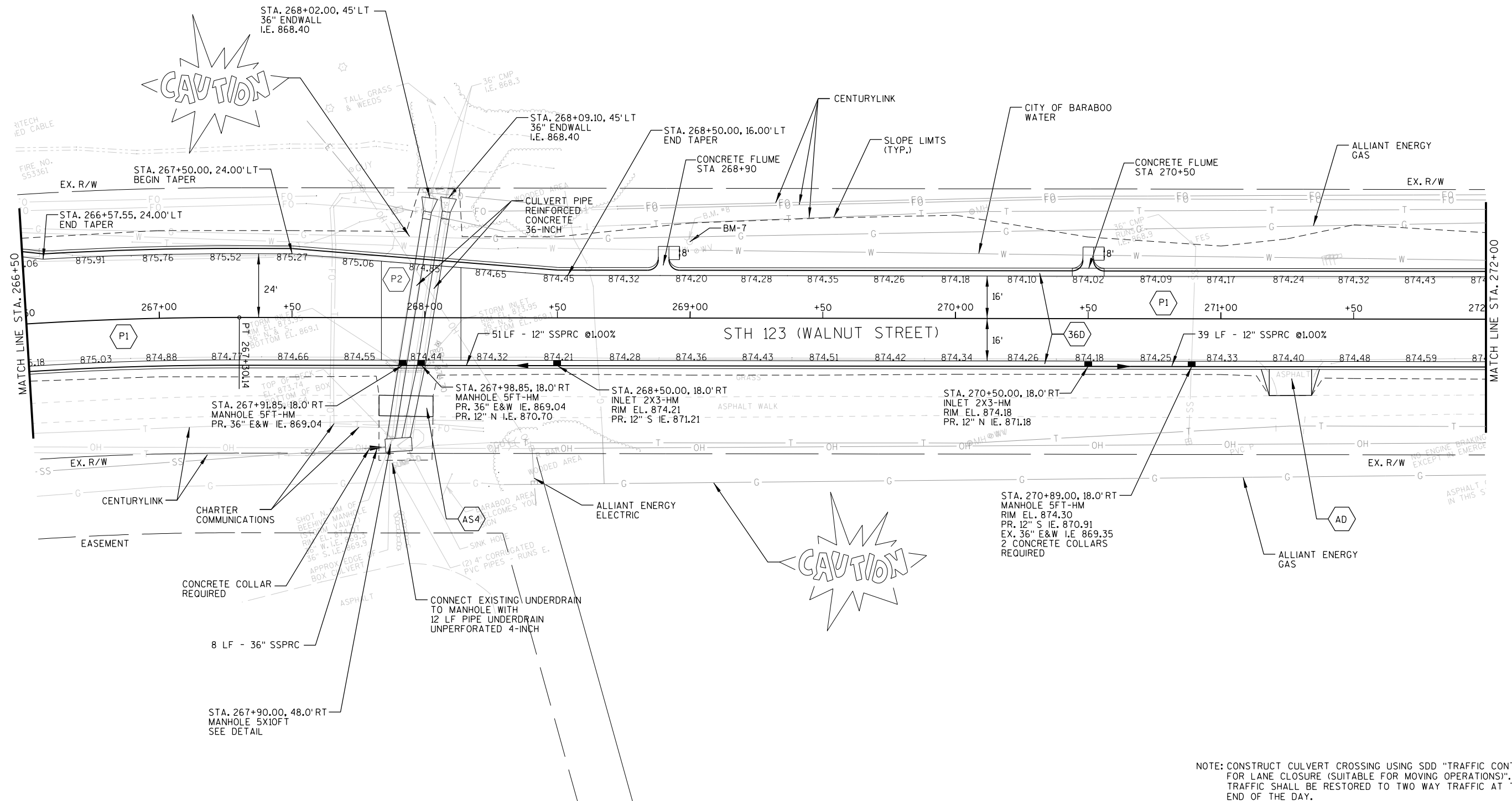


LEGEND

30D	CONCRETE CURB & GUTTER 30-INCH TYPE D	P1	3.5" MILL & 3.5" HMA PAVEMENT TYPE E-1
36D	CONCRETE CURB & GUTTER 6-INCH SLOPED 36-INCH TYPE D	P2	6" HMA PAVEMENT TYPE E-1 OVER 1" BASE AGGREGATE DENSE 1 1/4-INCH
SW5	CONCRETE SIDEWALK 5-INCH	AGG	3.5" BASE AGGREGATE DENSE 3/4-INCH
AS4	ASPHALTIC SURFACE 4" OVER 4" BASE AGGREGATE DENSE 1 1/4-INCH	AD	3 1/2" ASPHALT SURFACE DRIVEWAYS AND FIELD ENTRANCES OVER 6" BASE AGGREGATE DENSE 1 1/4-INCH
CR	CURB RAMP TYPE OF CURB RAMP	GD	AGGREGATE DRIVEWAY - 6" BASE AGGREGATE DENSE 1 1/4-INCH
A	ADJUST INLET/MANHOLE COVER		

BENCH MARKS

NO.	STATION	DESCRIPTION	ELEV.
7	269+01, 28' LT	CHISELED CROSS TOP NORTH FLANGE BOLT OF HYDRANT	874.35

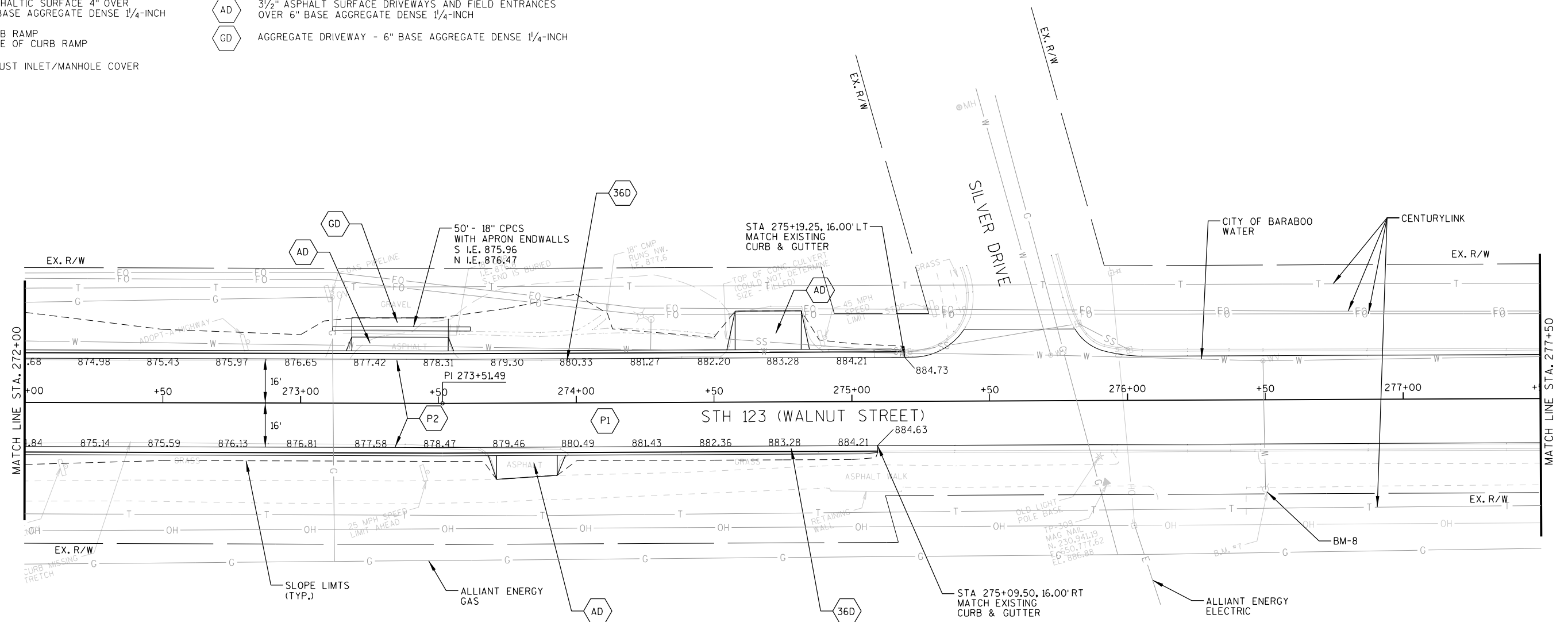
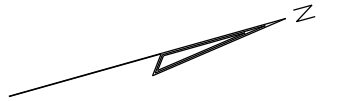


LEGEND

- 30D CONCRETE CURB & GUTTER
30-INCH TYPE D
- 36D CONCRETE CURB & GUTTER
6-INCH SLOPED 36-INCH TYPE D
- SW5 CONCRETE SIDEWALK
5-INCH
- AS4 ASPHALTIC SURFACE 4" OVER
4" BASE AGGREGATE DENSE 1 1/4-INCH
- CR CURB RAMP
TYPE OF CURB RAMP
- A ADJUST INLET/MANHOLE COVER

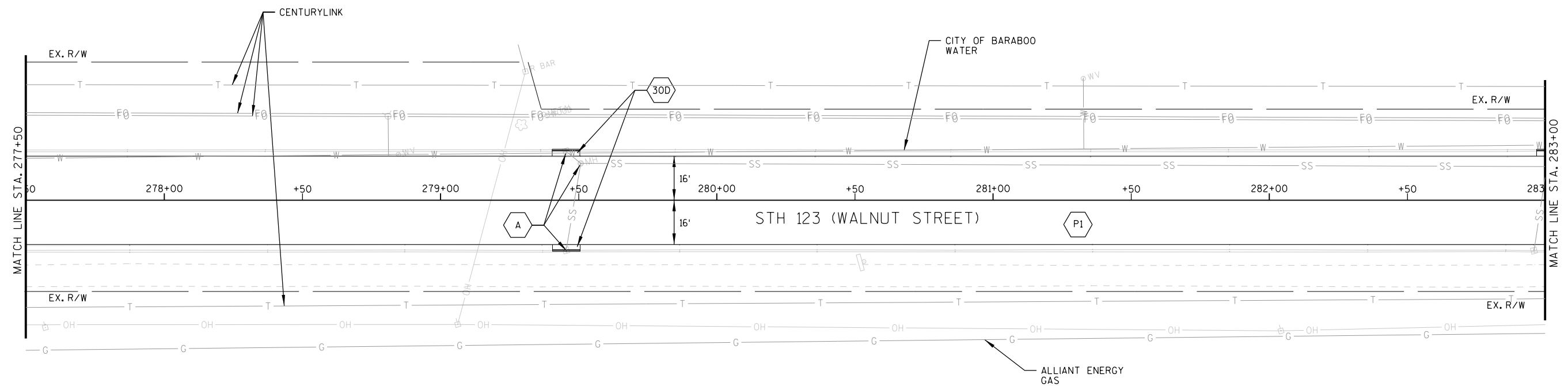
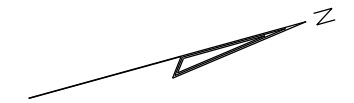
- P1 3.5" MILL & 3.5" HMA PAVEMENT TYPE E-1
- P2 6" HMA PAVEMENT TYPE E-1
OVER 11" BASE AGGREGATE DENSE 1 1/4-INCH
- AGG 3.5" BASE AGGREGATE DENSE 3/4-INCH
- AD 3 1/2" ASPHALT SURFACE DRIVEWAYS AND FIELD ENTRANCES
OVER 6" BASE AGGREGATE DENSE 1 1/4-INCH
- GD AGGREGATE DRIVEWAY - 6" BASE AGGREGATE DENSE 1 1/4-INCH

BENCH MARKS			
NO.	STATION	DESCRIPTION	ELEV.
8	276+50, 32' RT	CHISELED CROSS TOP NORTH FLANGE BOLT OF HYDRANT	889.30



LEGEND

30D	CONCRETE CURB & GUTTER 30-INCH TYPE D	P1	3.5" MILL & 3.5" HMA PAVEMENT TYPE E-1
36D	CONCRETE CURB & GUTTER 6-INCH SLOPED 36-INCH TYPE D	P2	6" HMA PAVEMENT TYPE E-1 OVER 11" BASE AGGREGATE DENSE 1 1/4-INCH
SW5	CONCRETE SIDEWALK 5-INCH	AGG	3.5" BASE AGGREGATE DENSE 3/4-INCH
AS4	ASPHALTIC SURFACE 4" OVER 4" BASE AGGREGATE DENSE 1 1/4-INCH	AD	3 1/2" ASPHALT SURFACE DRIVEWAYS AND FIELD ENTRANCES OVER 6" BASE AGGREGATE DENSE 1 1/4-INCH
CR	CURB RAMP TYPE OF CURB RAMP	GD	AGGREGATE DRIVEWAY - 6" BASE AGGREGATE DENSE 1 1/4-INCH
A	ADJUST INLET/MANHOLE COVER		

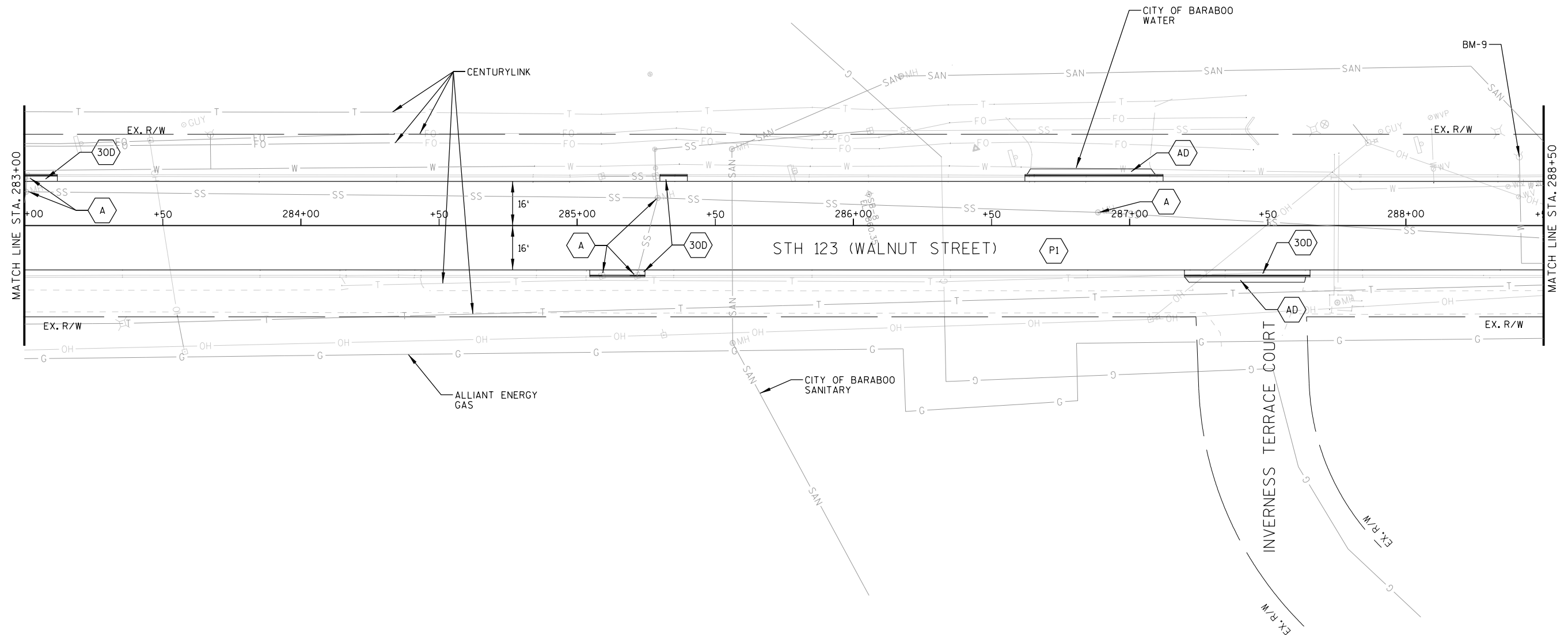


LEGEND

30D	CONCRETE CURB & GUTTER 30-INCH TYPE D
36D	CONCRETE CURB & GUTTER 6-INCH SLOPED 36-INCH TYPE D
SW5	CONCRETE SIDEWALK 5-INCH
AS4	ASPHALTIC SURFACE 4" OVER 4" BASE AGGREGATE DENSE 1 1/4-INCH
CR #	CURB RAMP TYPE OF CURB RAMP
A	ADJUST INLET/MANHOLE COVER

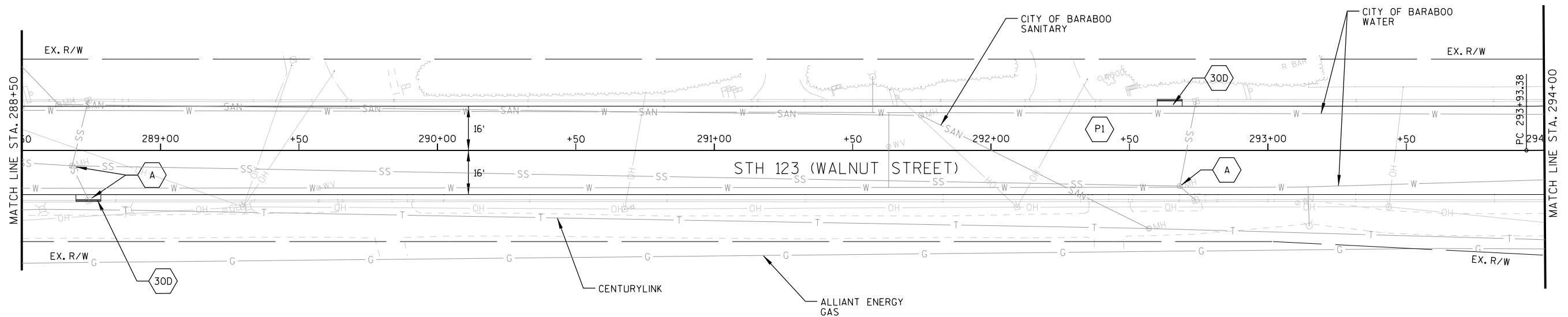
P1	3.5" MILL & 3.5" HMA PAVEMENT TYPE E-1
P2	6" HMA PAVEMENT TYPE E-1 OVER 11" BASE AGGREGATE DENSE 1 1/4-INCH
AGG	3.5" BASE AGGREGATE DENSE 3/4-INCH
AD	3 1/2" ASPHALT SURFACE DRIVEWAYS AND FIELD ENTRANCES OVER 6" BASE AGGREGATE DENSE 1 1/4-INCH
GD	AGGREGATE DRIVEWAY - 6" BASE AGGREGATE DENSE 1 1/4-INCH

BENCH MARKS			
NO.	STATION	DESCRIPTION	ELEV.
9	288+43, 25' LT	CHISELED CROSS TOP NORTH FLANGE BOLT OF HYDRANT	872.68



LEGEND

30D	CONCRETE CURB & GUTTER 30-INCH TYPE D	P1	3.5" MILL & 3.5" HMA PAVEMENT TYPE E-1
36D	CONCRETE CURB & GUTTER 6-INCH SLOPED 36-INCH TYPE D	P2	6" HMA PAVEMENT TYPE E-1 OVER 11" BASE AGGREGATE DENSE 1 1/4-INCH
SW5	CONCRETE SIDEWALK 5-INCH	AGG	3.5" BASE AGGREGATE DENSE 3/4-INCH
AS4	ASPHALTIC SURFACE 4" OVER 4" BASE AGGREGATE DENSE 1 1/4-INCH	AD	3 1/2" ASPHALT SURFACE DRIVEWAYS AND FIELD ENTRANCES OVER 6" BASE AGGREGATE DENSE 1 1/4-INCH
CR	CURB RAMP TYPE OF CURB RAMP	GD	AGGREGATE DRIVEWAY - 6" BASE AGGREGATE DENSE 1 1/4-INCH
A	ADJUST INLET/MANHOLE COVER		

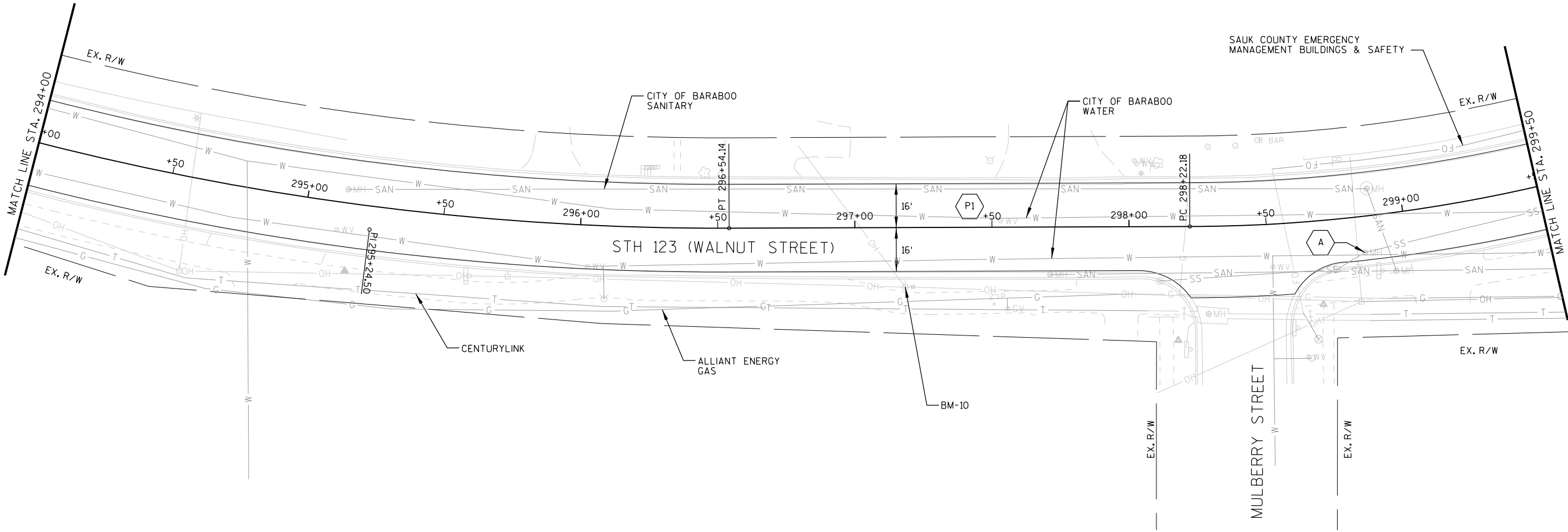


LEGEND

- 30D CONCRETE CURB & GUTTER 30-INCH TYPE D
- 36D CONCRETE CURB & GUTTER 6-INCH SLOPED 36-INCH TYPE D
- SW5 CONCRETE SIDEWALK 5-INCH
- AS4 ASPHALTIC SURFACE 4" OVER 4" BASE AGGREGATE DENSE 1 1/4-INCH
- CR CURB RAMP TYPE OF CURB RAMP
- A ADJUST INLET/MANHOLE COVER

- P1 3.5" MILL & 3.5" HMA PAVEMENT TYPE E-1
- P2 6" HMA PAVEMENT TYPE E-1 OVER 1" BASE AGGREGATE DENSE 1 1/4-INCH
- AGG 3.5" BASE AGGREGATE DENSE 3/4-INCH
- AD 3 1/2" ASPHALT SURFACE DRIVEWAYS AND FIELD ENTRANCES OVER 6" BASE AGGREGATE DENSE 1 1/4-INCH
- GD AGGREGATE DRIVEWAY - 6" BASE AGGREGATE DENSE 1 1/4-INCH

BENCH MARKS			
NO.	STATION	DESCRIPTION	ELEV.
10	297+20, 22' RT	GEAR SPIKE IN ROADSIDE FACE OF POWER POLE	917.29

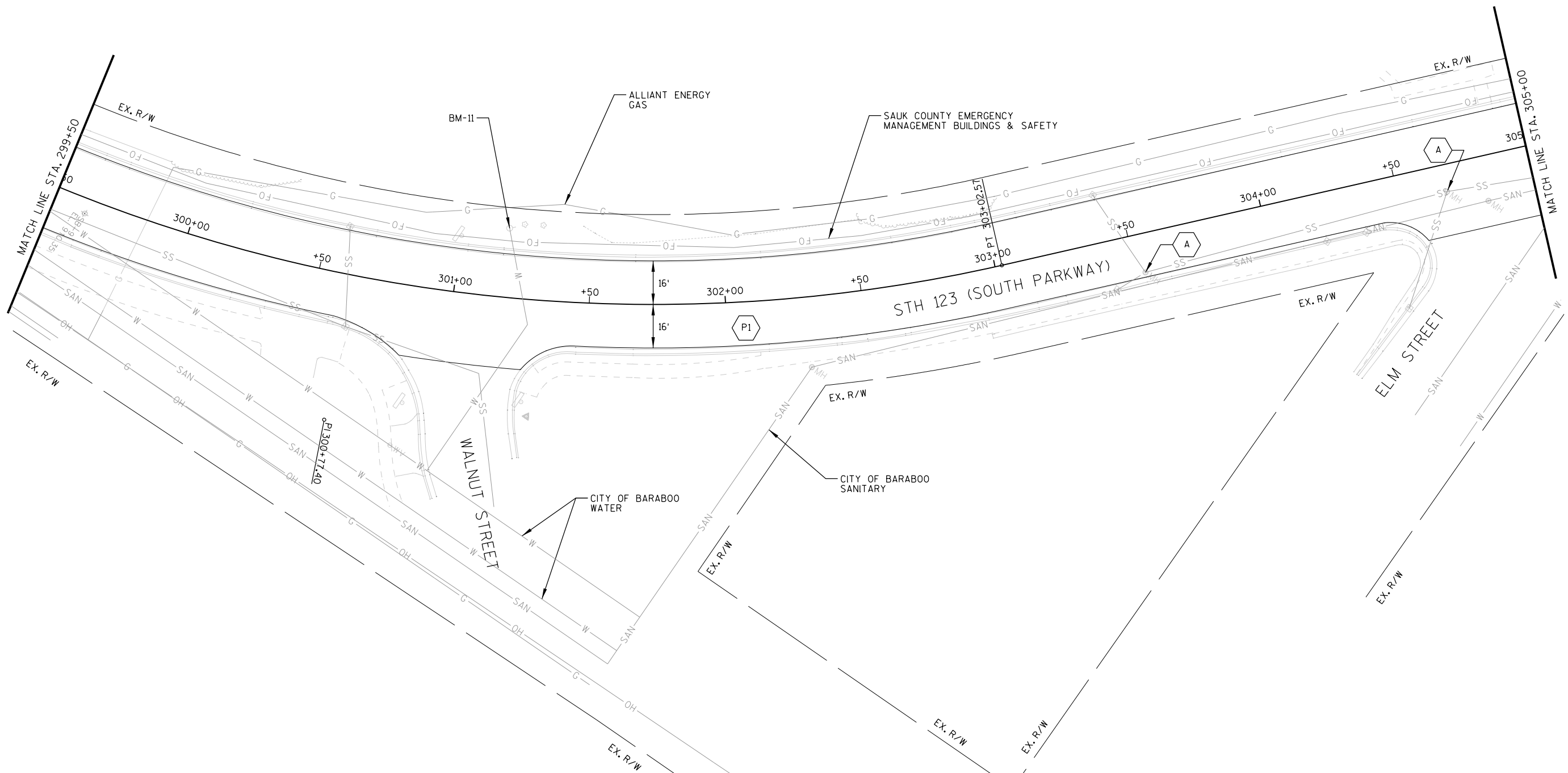


LEGEND

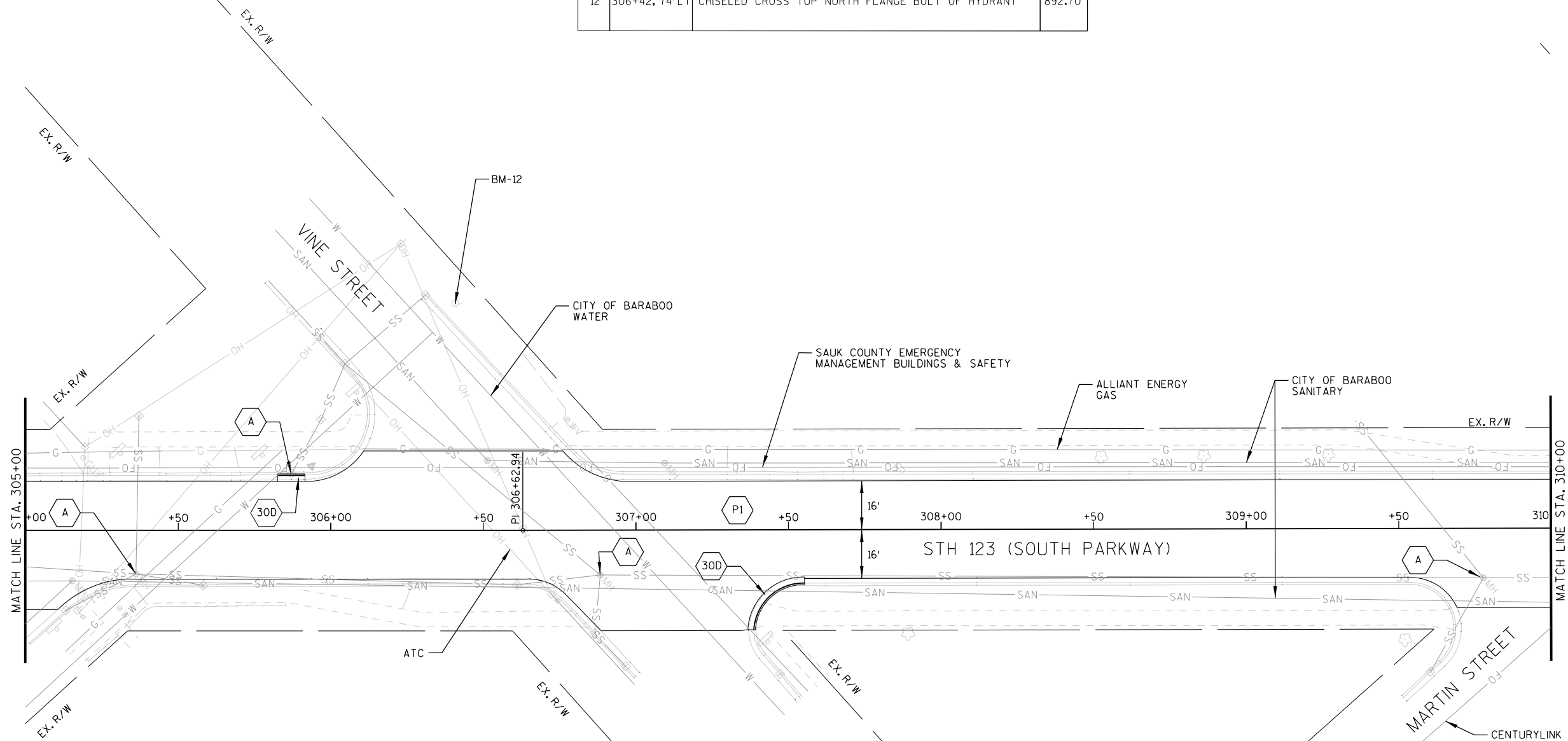
- 30D CONCRETE CURB & GUTTER
30-INCH TYPE D
- 36D CONCRETE CURB & GUTTER
6-INCH SLOPED 36-INCH TYPE D
- SW5 CONCRETE SIDEWALK
5-INCH
- AS4 ASPHALTIC SURFACE 4" OVER
4" BASE AGGREGATE DENSE 1 1/4-INCH
- CR CURB RAMP
TYPE OF CURB RAMP
- A ADJUST INLET/MANHOLE COVER

- P1 3.5" MILL & 3.5" HMA PAVEMENT TYPE E-1
- P2 6" HMA PAVEMENT TYPE E-1
OVER 11" BASE AGGREGATE DENSE 1 1/4-INCH
- AGG 3.5" BASE AGGREGATE DENSE 3/4-INCH
- AD 3 1/2" ASPHALT SURFACE DRIVEWAYS AND FIELD ENTRANCES
OVER 6" BASE AGGREGATE DENSE 1 1/4-INCH
- GD AGGREGATE DRIVEWAY - 6" BASE AGGREGATE DENSE 1 1/4-INCH

BENCH MARKS			
NO.	STATION	DESCRIPTION	ELEV.
11	301+20, 25' LT	CHISELED CROSS TOP NORTH FLANGE BOLT OF HYDRANT	908.74



BENCH MARKS			
NO.	STATION	DESCRIPTION	ELEV.
12	306+42, 74' LT	CHISELED CROSS TOP NORTH FLANGE BOLT OF HYDRANT	892.70



LEGEND

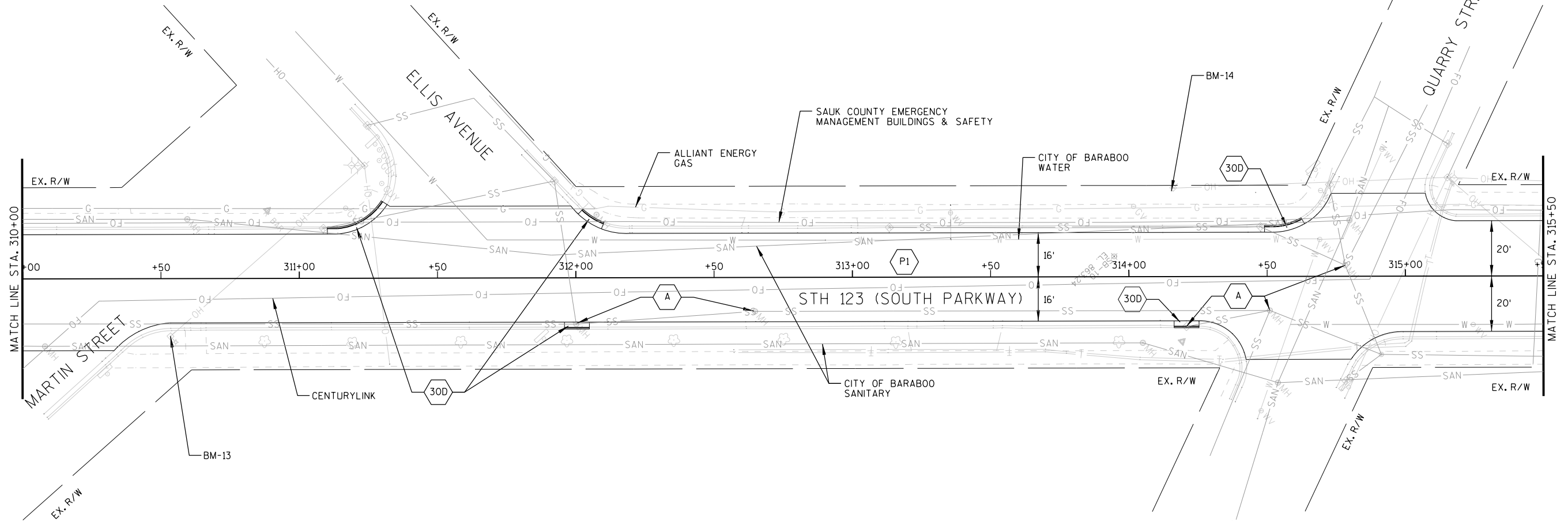
30D	CONCRETE CURB & GUTTER 30-INCH TYPE D	P1	3.5" MILL & 3.5" HMA PAVEMENT TYPE E-1
36D	CONCRETE CURB & GUTTER 6-INCH SLOPED 36-INCH TYPE D	P2	6" HMA PAVEMENT TYPE E-1 OVER 11" BASE AGGREGATE DENSE 1 1/4-INCH
SW5	CONCRETE SIDEWALK 5-INCH	AGG	3.5" BASE AGGREGATE DENSE 3/4-INCH
AS4	ASPHALTIC SURFACE 4" OVER 4" BASE AGGREGATE DENSE 1 1/4-INCH	AD	3 1/2" ASPHALT SURFACE DRIVEWAYS AND FIELD ENTRANCES OVER 6" BASE AGGREGATE DENSE 1 1/4-INCH
CR	CURB RAMP TYPE OF CURB RAMP	GD	AGGREGATE DRIVEWAY - 6" BASE AGGREGATE DENSE 1 1/4-INCH
A	ADJUST INLET/MANHOLE COVER		

LEGEND

- 30D CONCRETE CURB & GUTTER
30-INCH TYPE D
- 36D CONCRETE CURB & GUTTER
6-INCH SLOPED 36-INCH TYPE D
- SW5 CONCRETE SIDEWALK
5-INCH
- AS4 ASPHALTIC SURFACE 4" OVER
4" BASE AGGREGATE DENSE 1 1/4-INCH
- CR CURB RAMP
TYPE OF CURB RAMP
- A ADJUST INLET/MANHOLE COVER

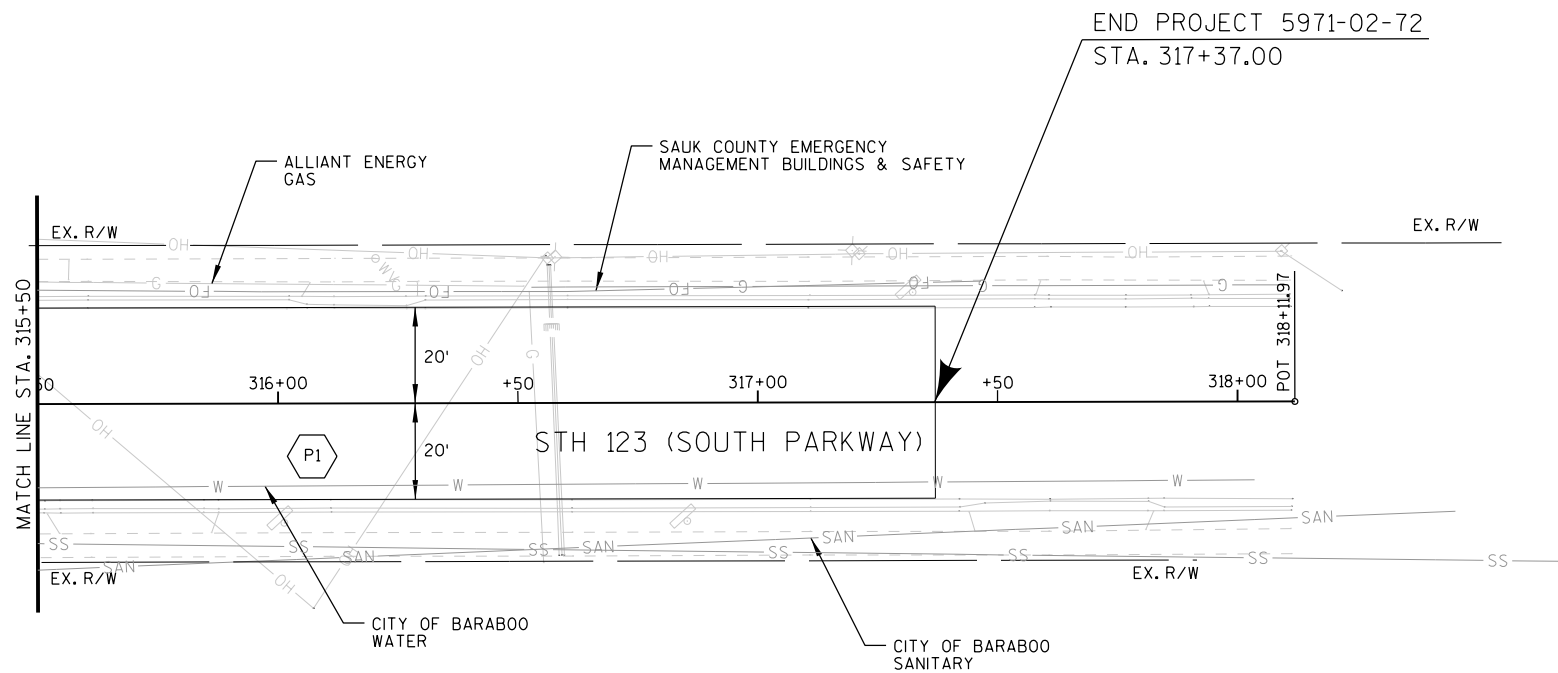
- P1 3.5" MILL & 3.5" HMA PAVEMENT TYPE E-1
- P2 6" HMA PAVEMENT TYPE E-1
OVER 11" BASE AGGREGATE DENSE 1 1/4-INCH
- AGG 3.5" BASE AGGREGATE DENSE 3/4-INCH
- AD 3 1/2" ASPHALT SURFACE DRIVEWAYS AND FIELD ENTRANCES
OVER 6" BASE AGGREGATE DENSE 1 1/4-INCH
- GD AGGREGATE DRIVEWAY - 6" BASE AGGREGATE DENSE 1 1/4-INCH

BENCH MARKS			
NO.	STATION	DESCRIPTION	ELEV.
13	310+55, 21' RT	GEAR SPIKE IN ROADSIDE FACE OF POWER POLE	877.46
14	314+18, 32' LT	GEAR SPIKE IN ROADSIDE FACE OF POWER POLE	863.57



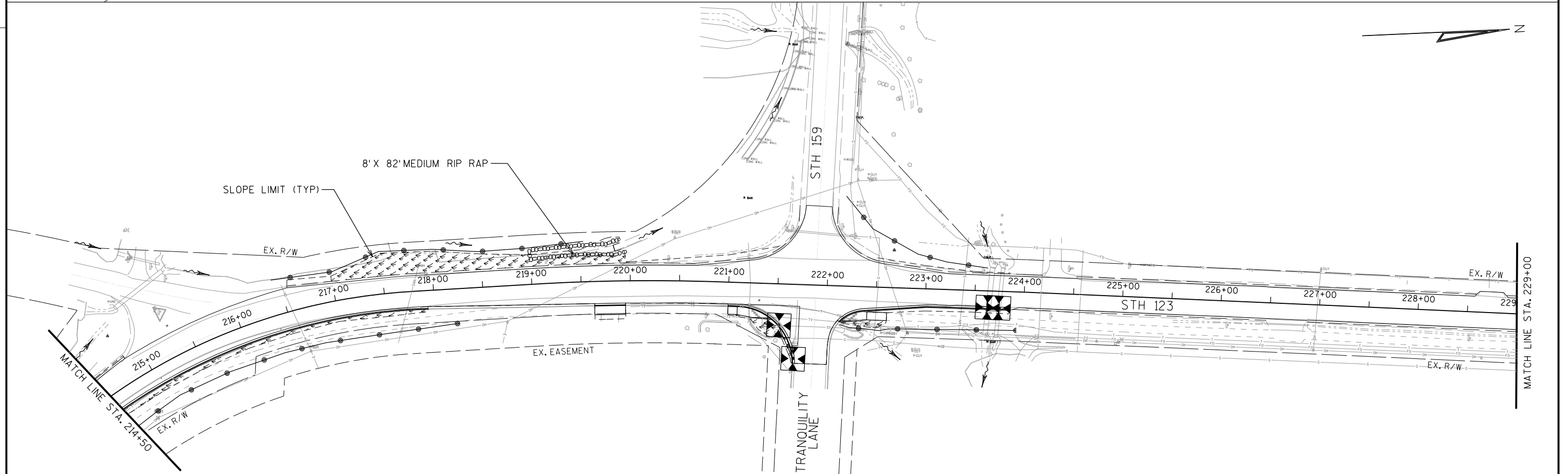
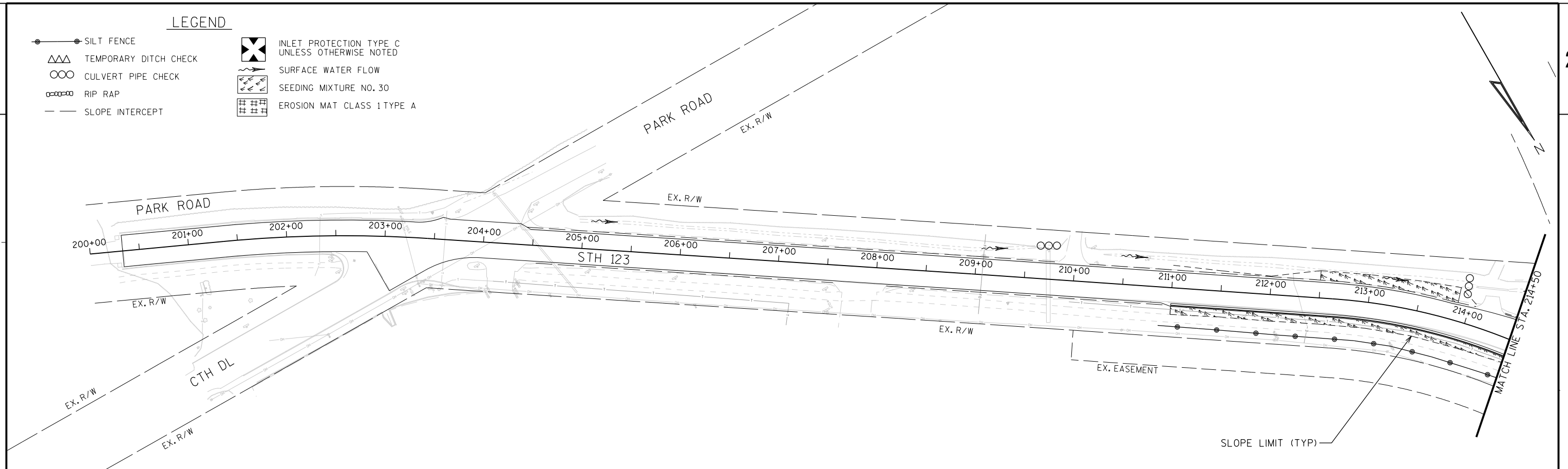
LEGEND

30D	CONCRETE CURB & GUTTER 30-INCH TYPE D	P1	3.5" MILL & 3.5" HMA PAVEMENT TYPE E-1
36D	CONCRETE CURB & GUTTER 6-INCH SLOPED 36-INCH TYPE D	P2	6" HMA PAVEMENT TYPE E-1 OVER 11" BASE AGGREGATE DENSE 1 1/4-INCH
SW5	CONCRETE SIDEWALK 5-INCH	AGG	3.5" BASE AGGREGATE DENSE 3/4-INCH
AS4	ASPHALTIC SURFACE 4" OVER 4" BASE AGGREGATE DENSE 1 1/4-INCH	AD	3 1/2" ASPHALT SURFACE DRIVEWAYS AND FIELD ENTRANCES OVER 6" BASE AGGREGATE DENSE 1 1/4-INCH
CR	CURB RAMP TYPE OF CURB RAMP	GD	AGGREGATE DRIVEWAY - 6" BASE AGGREGATE DENSE 1 1/4-INCH
A	ADJUST INLET/MANHOLE COVER		



LEGEND

- SILT FENCE
△△△ TEMPORARY DITCH CHECK
○○○ CULVERT PIPE CHECK
□—□ RIP RAP
— SLOPE INTERCEPT
- ✕ INLET PROTECTION TYPE C
UNLESS OTHERWISE NOTED
→ SURFACE WATER FLOW
▨ SEEDING MIXTURE NO. 30
▩ EROSION MAT CLASS 1 TYPE A



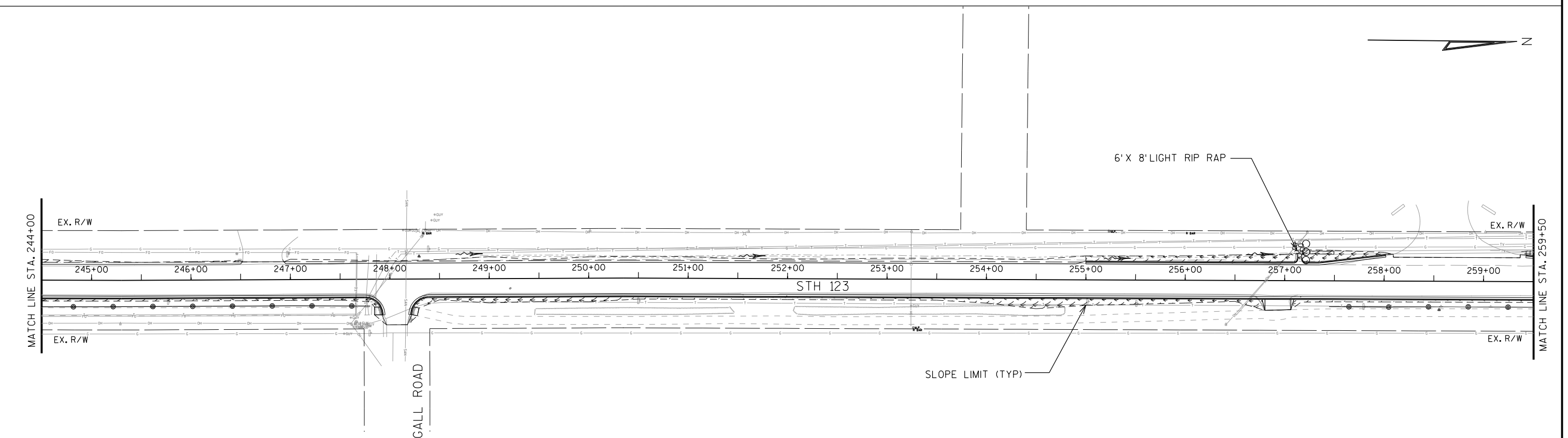
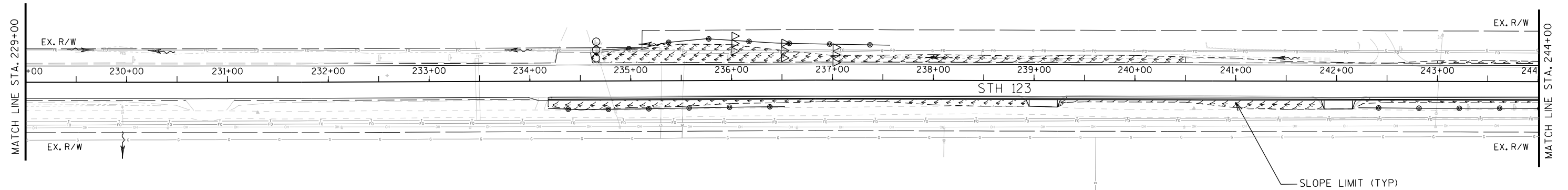
2

LEGEND

- | | | | |
|--------|-----------------------|-----|---|
| ●—● | SILT FENCE | ✕ | INLET PROTECTION TYPE C
UNLESS OTHERWISE NOTED |
| △△△ | TEMPORARY DITCH CHECK | → | SURFACE WATER FLOW |
| ○○ | CULVERT PIPE CHECK | ▨ | SEEDING MIXTURE NO. 30 |
| —○—○—○ | RIP RAP | ▨▨▨ | EROSION MAT CLASS 1 TYPE A |
| — | SLOPE INTERCEPT | | |



2



PROJECT NO: 5971-02-72

HWY: STH 123

COUNTY: SAUK

EROSION CONTROL PLAN

SHEET

E

FILE NAME : L:\Jobs\2013\20130414\CAD\Site\dgn\00\022002_ec.dgn

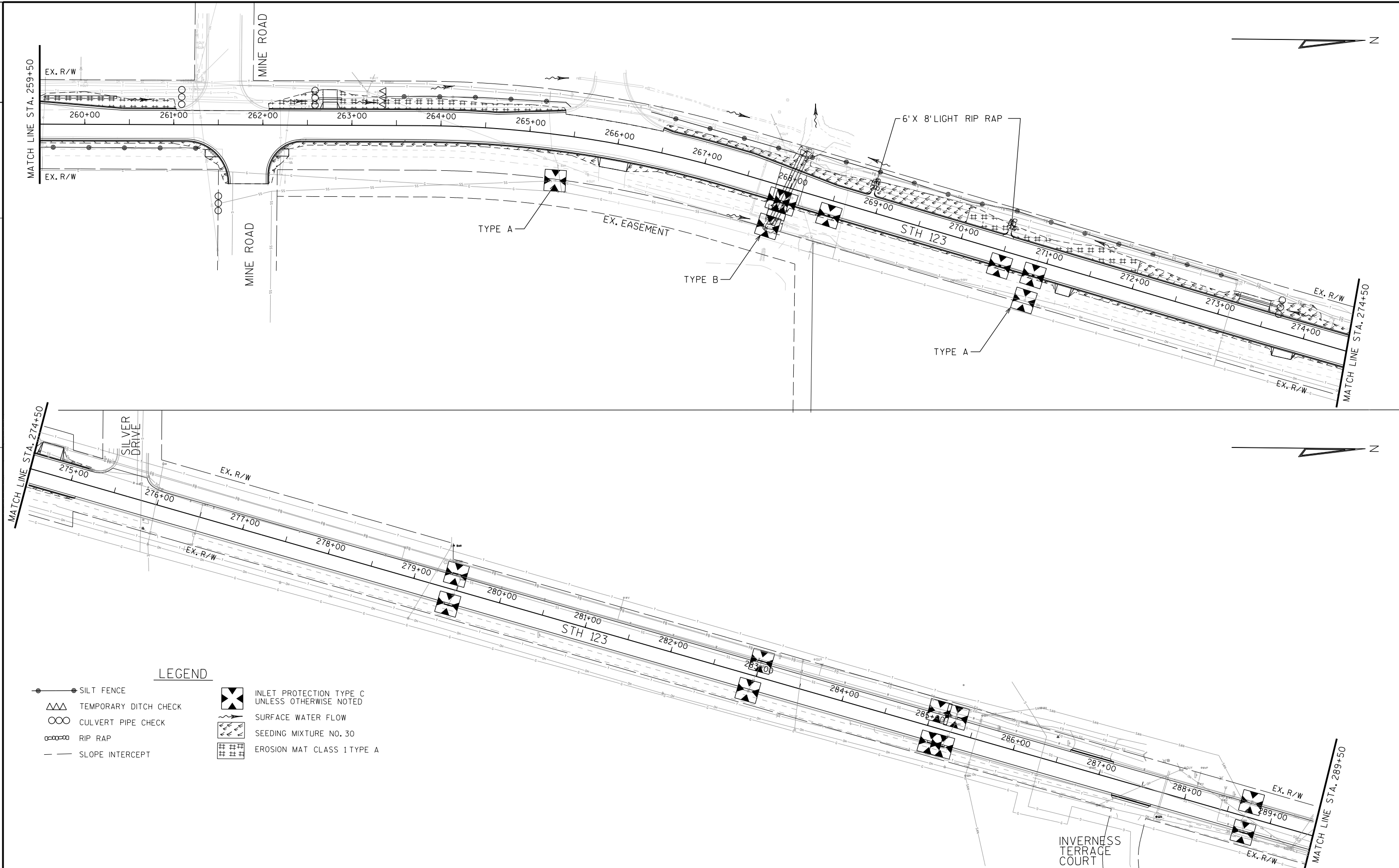
PLOT DATE : 7/16/2015

PLOT BY : GRAEF

PLOT NAME :

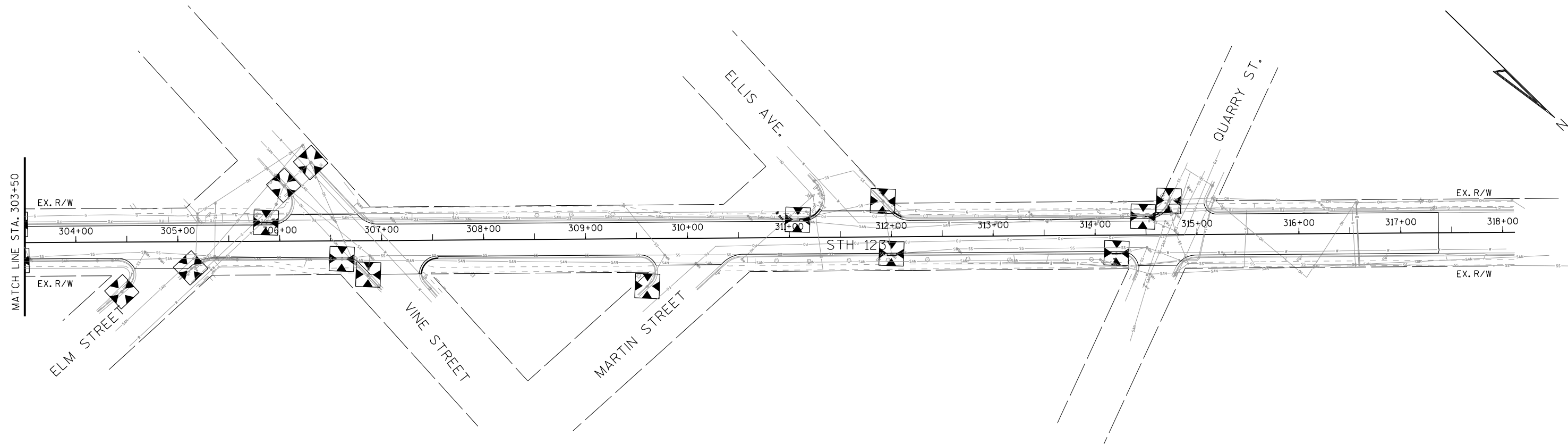
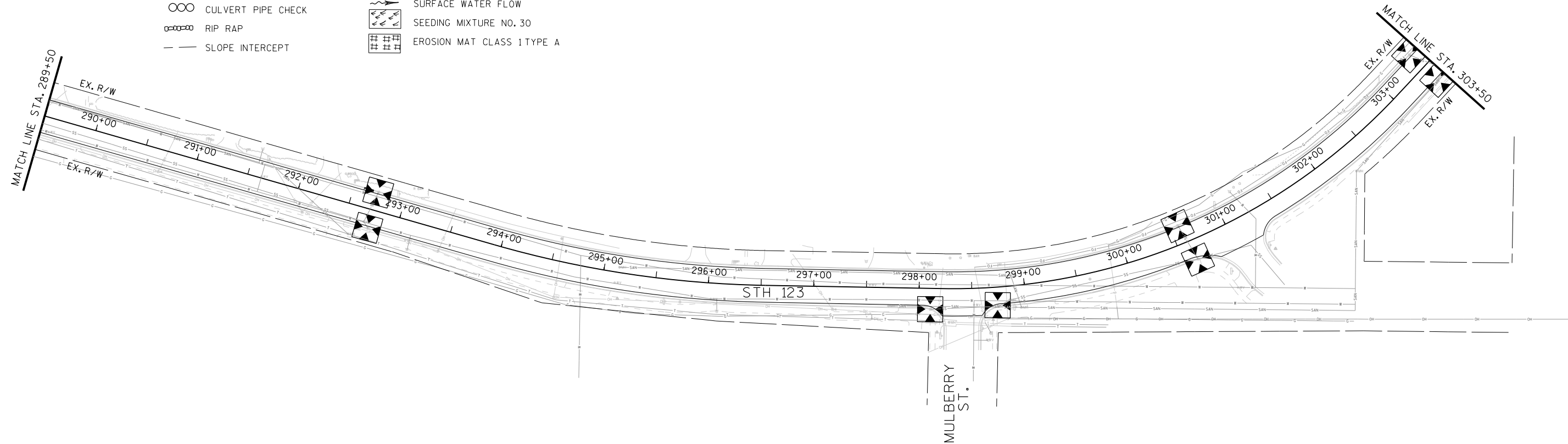
PLOT SCALE : 100.0000 sf / in.

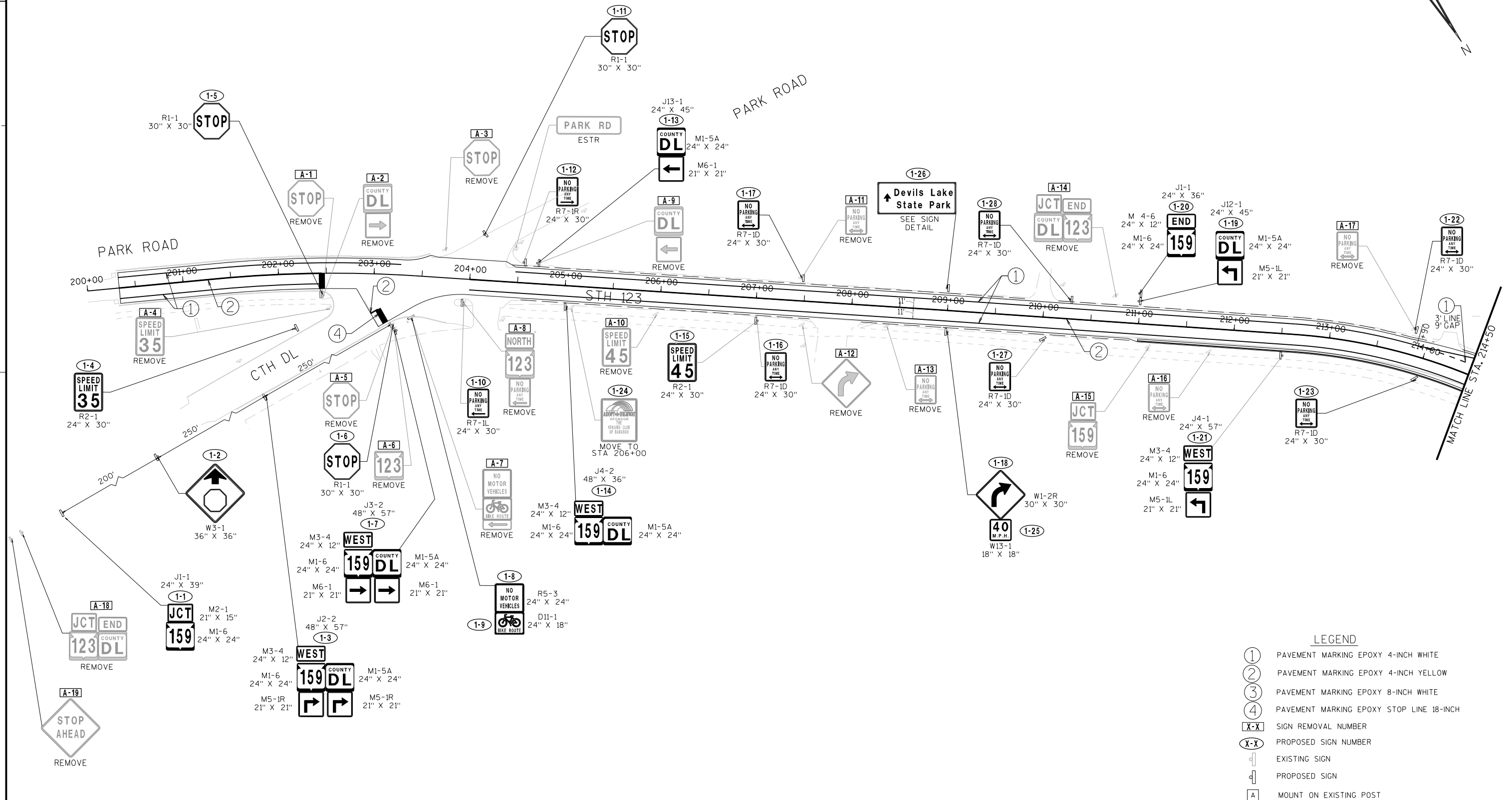
WISDOT/CADDs SHEET 42



LEGEND

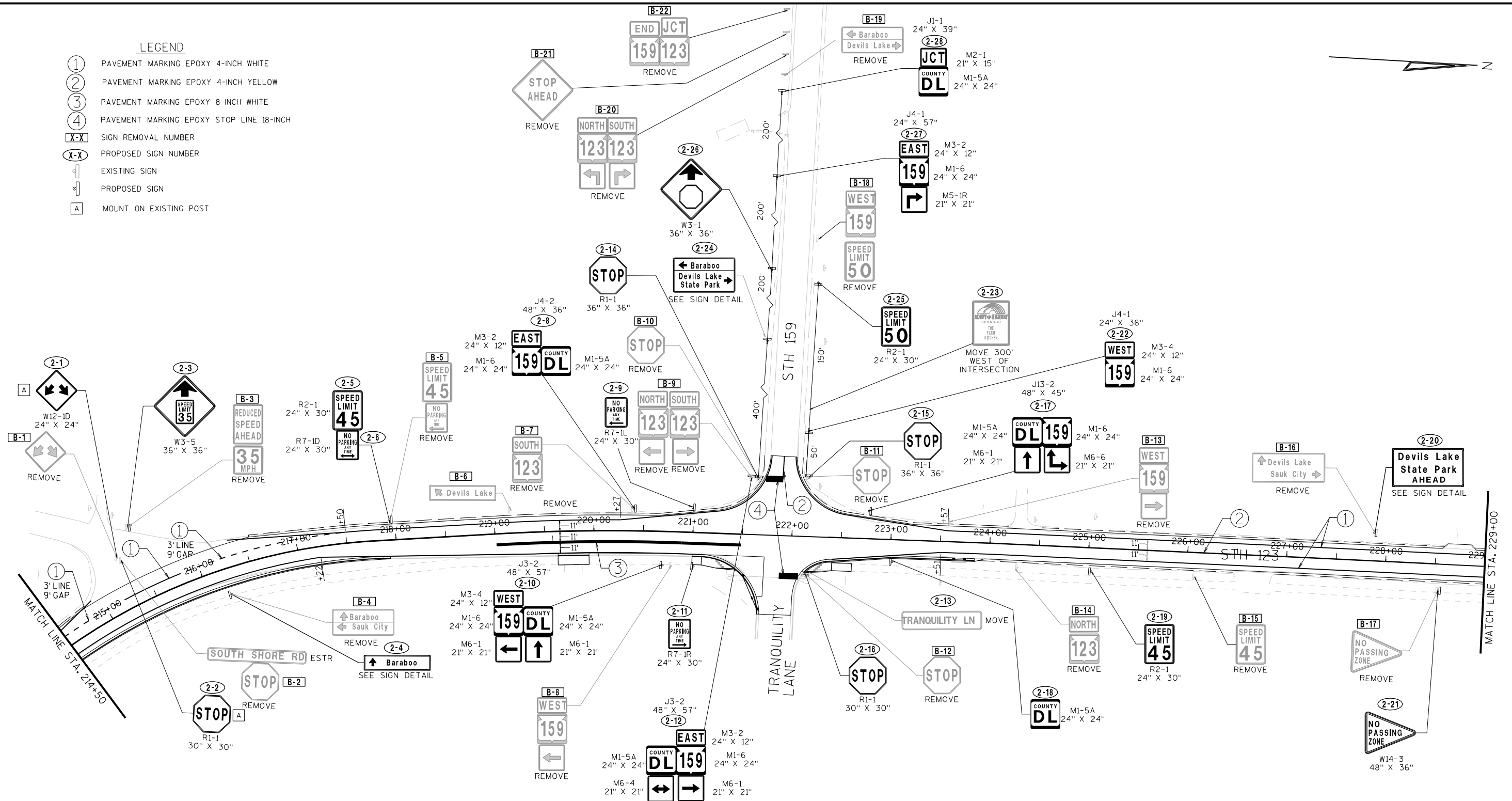
- | | | | |
|--------|-----------------------|----------------------------|---|
| ●—● | SILT FENCE | ⊗ | INLET PROTECTION TYPE C
UNLESS OTHERWISE NOTED |
| △△△ | TEMPORARY DITCH CHECK | → | SURFACE WATER FLOW |
| ○○○ | CULVERT PIPE CHECK | SEEDING MIXTURE NO. 30 | |
| —○—○—○ | RIP RAP | EROSION MAT CLASS 1 TYPE A | |
| — | SLOPE INTERCEPT | | |

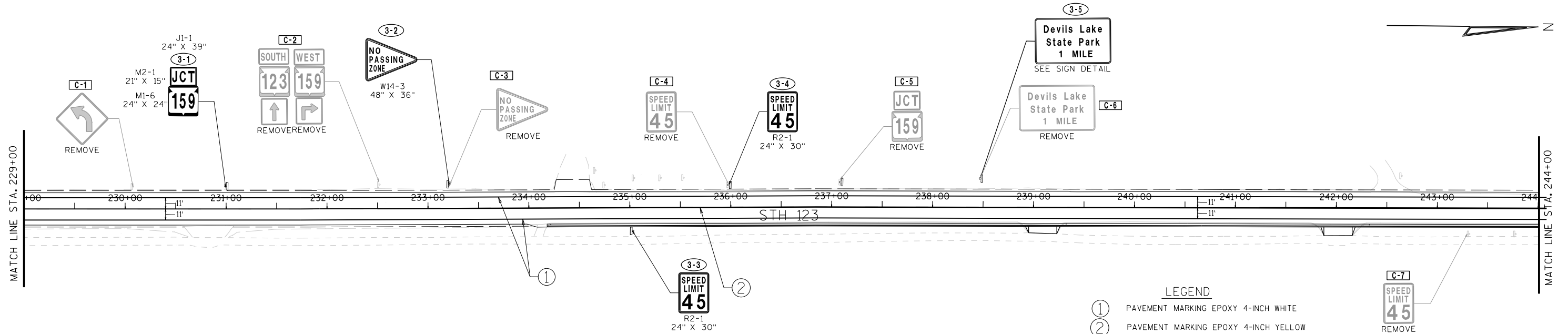




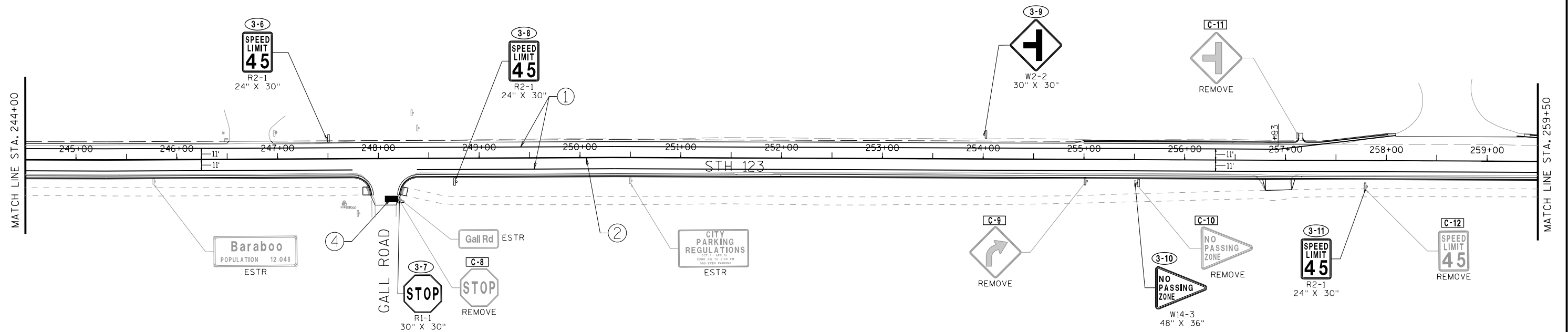
LEGEND

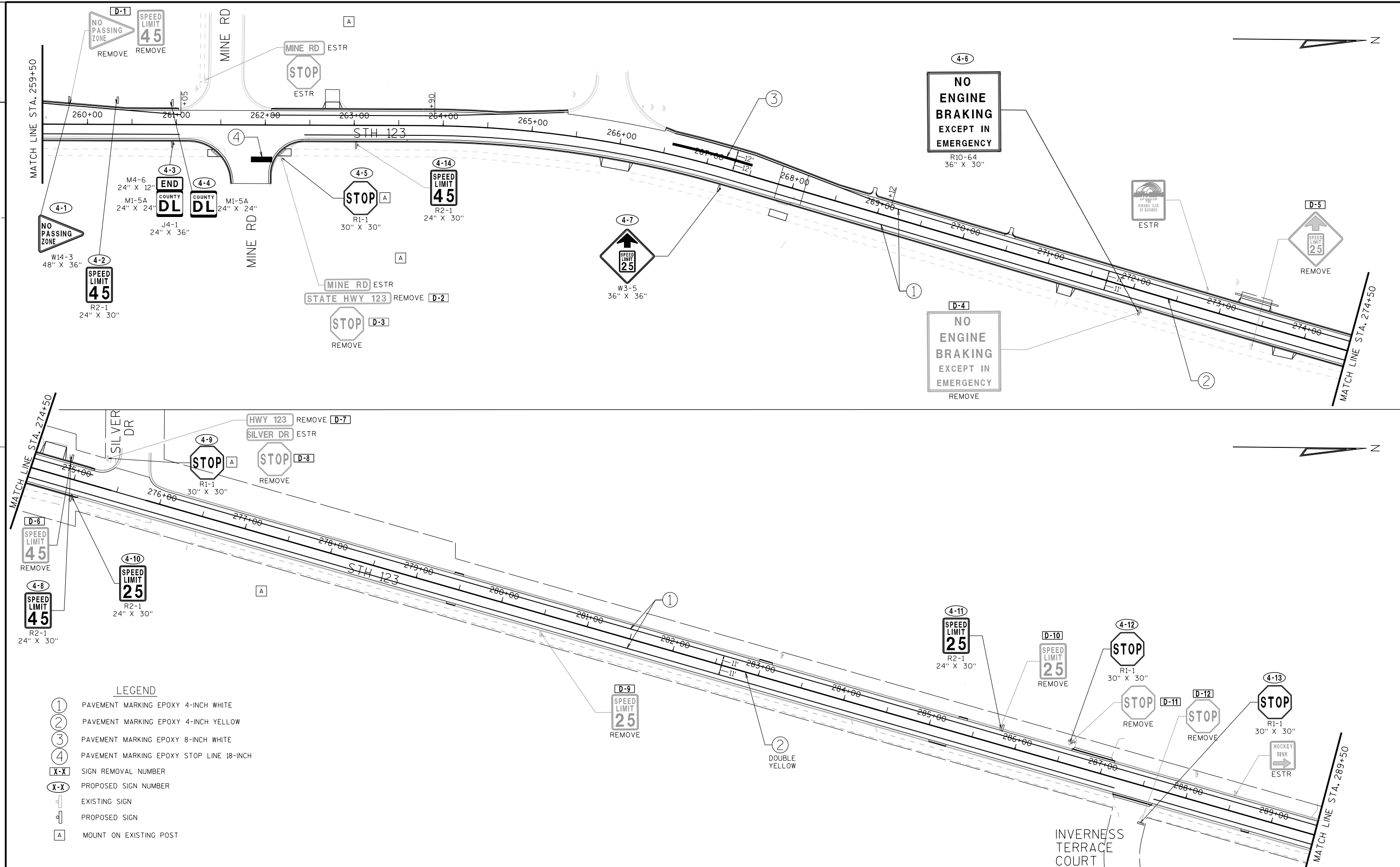
- ① PAVEMENT MARKING EPOXY 4-INCH WHITE
 ② PAVEMENT MARKING EPOXY 4-INCH YELLOW
 ③ PAVEMENT MARKING EPOXY 8-INCH WHITE
 ④ PAVEMENT MARKING EPOXY STOP LINE 18-INCH
 X-X SIGN REMOVAL NUMBER
 X-X PROPOSED SIGN NUMBER
 EXISTING SIGN
 PROPOSED SIGN
 A MOUNT ON EXISTING POST

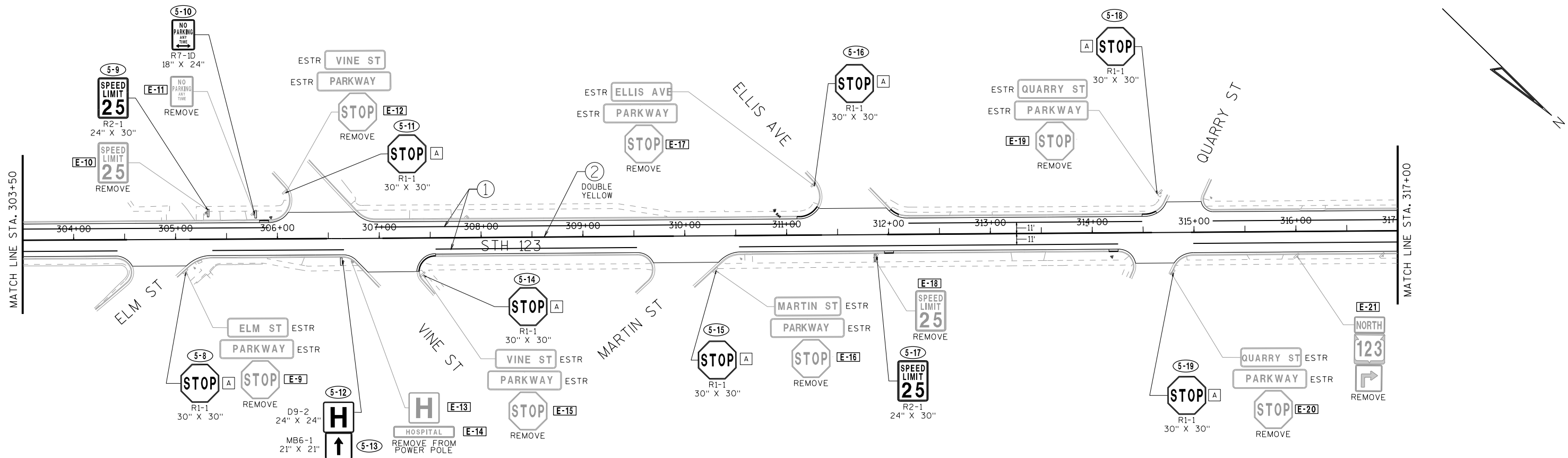
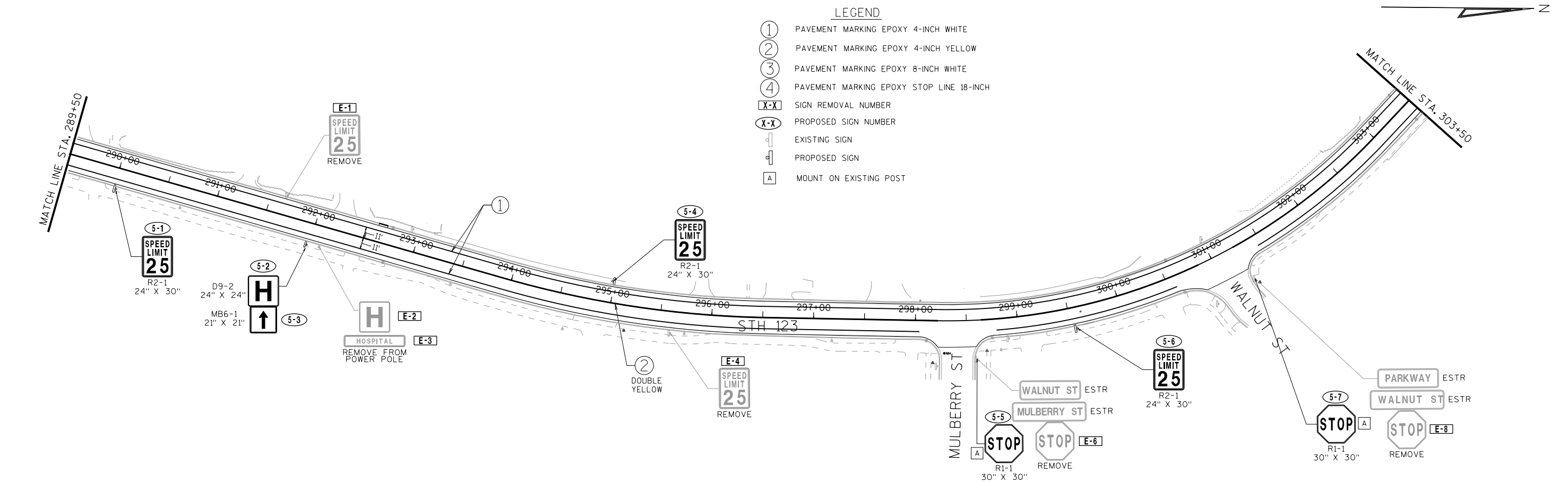




- LEGEND
- ① PAVEMENT MARKING EPOXY 4-INCH WHITE
 - ② PAVEMENT MARKING EPOXY 4-INCH YELLOW
 - ③ PAVEMENT MARKING EPOXY 8-INCH WHITE
 - ④ PAVEMENT MARKING EPOXY STOP LINE 18-INCH
 - X-X SIGN REMOVAL NUMBER
 - X-X PROPOSED SIGN NUMBER
 - EXISTING SIGN
 - PROPOSED SIGN
 - A MOUNT ON EXISTING POST

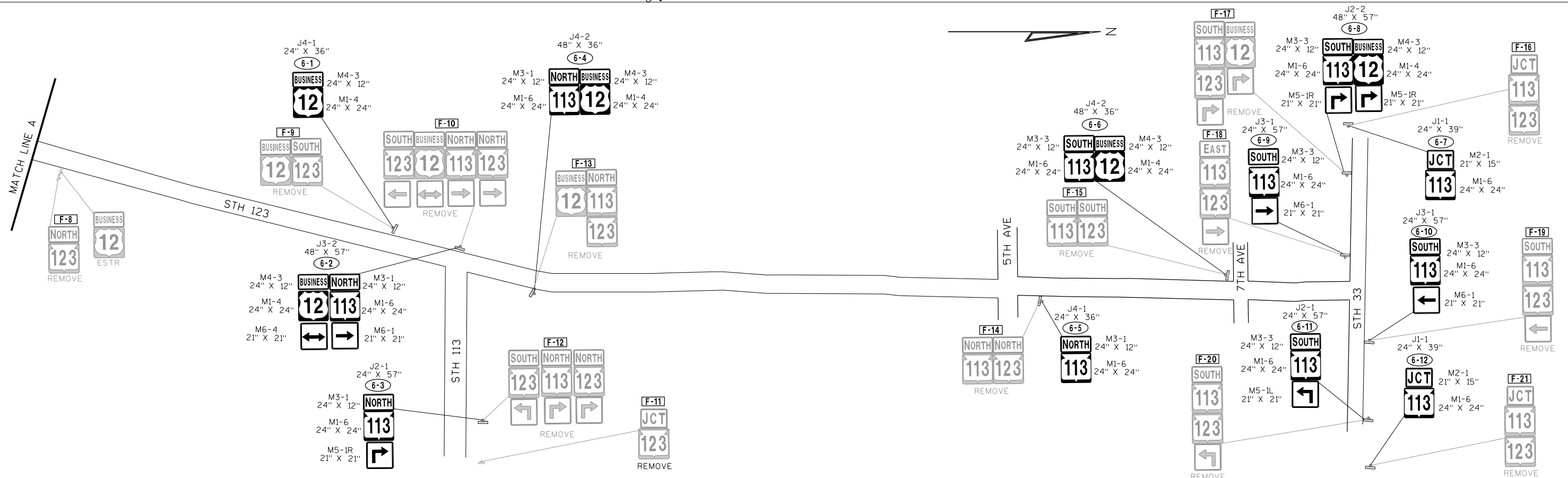
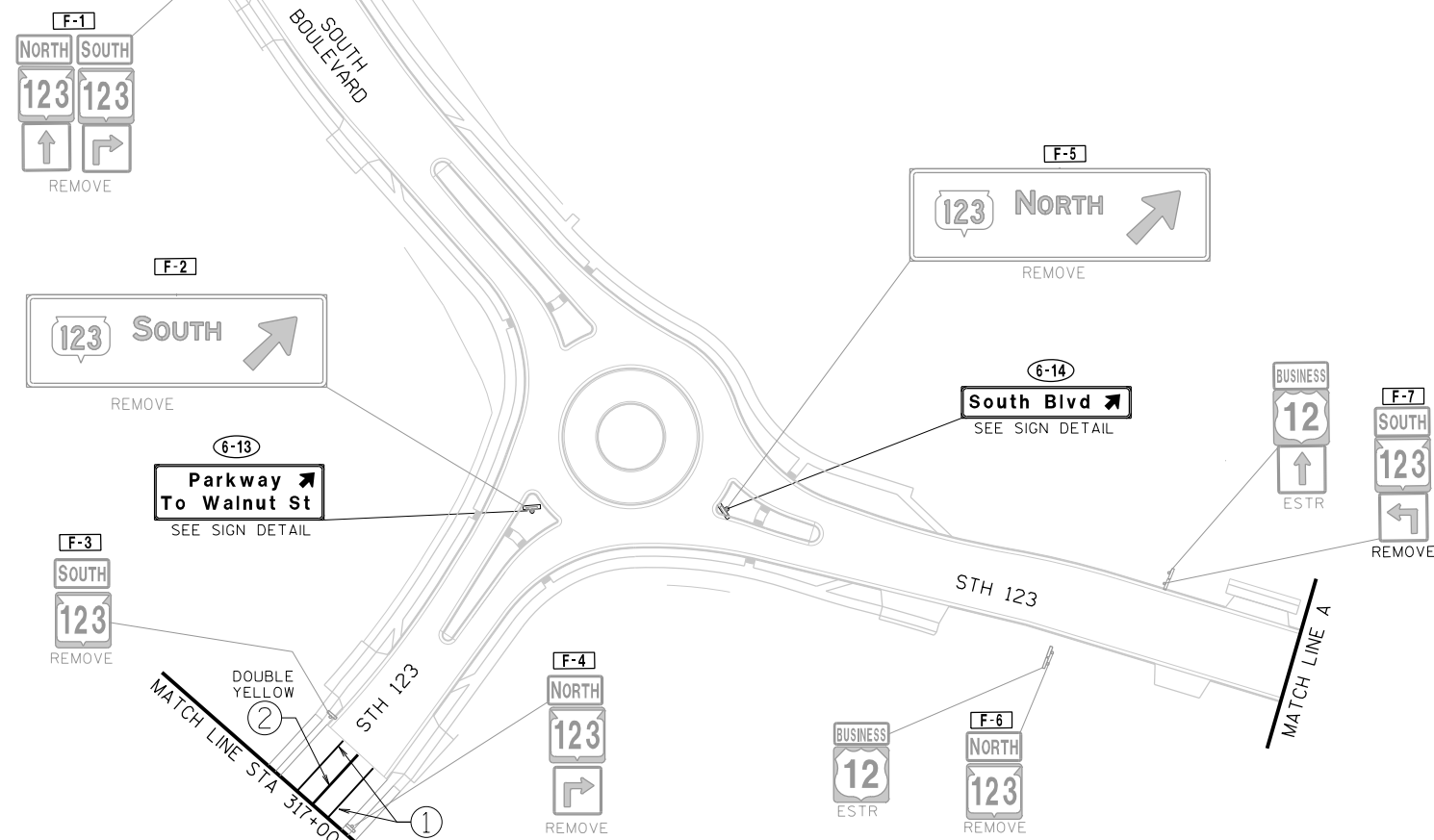




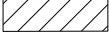


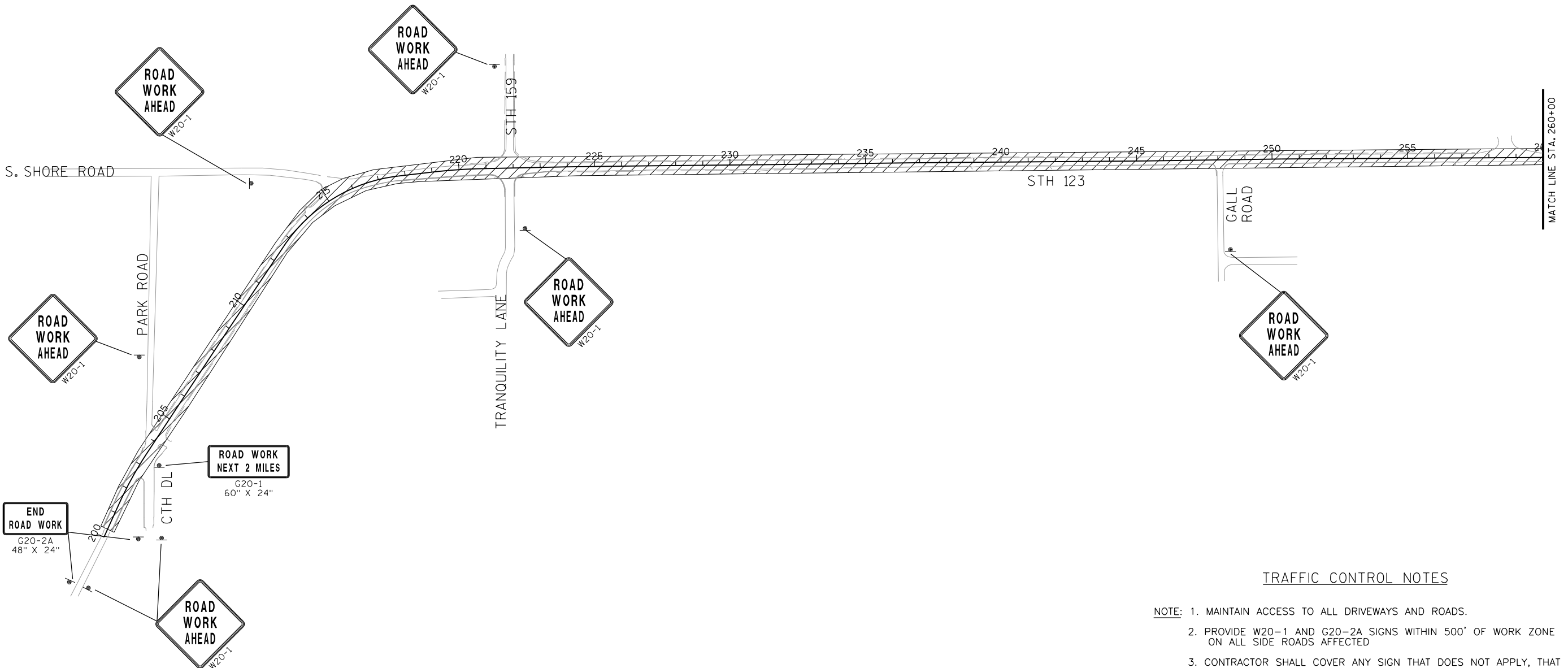
LEGEND

- ① PAVEMENT MARKING EPOXY 4-INCH WHITE
② PAVEMENT MARKING EPOXY 4-INCH YELLOW
③ PAVEMENT MARKING EPOXY 8-INCH WHITE
④ PAVEMENT MARKING EPOXY STOP LINE 18-INCH
X-X SIGN REMOVAL NUMBER
X-X PROPOSED SIGN NUMBER
EXISTING SIGN
PROPOSED SIGN
A MOUNT ON EXISTING POST



LEGEND

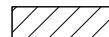
-  WORK ZONE AREA
-  TEMPORARY TRAFFIC CONTROL SIGN POST

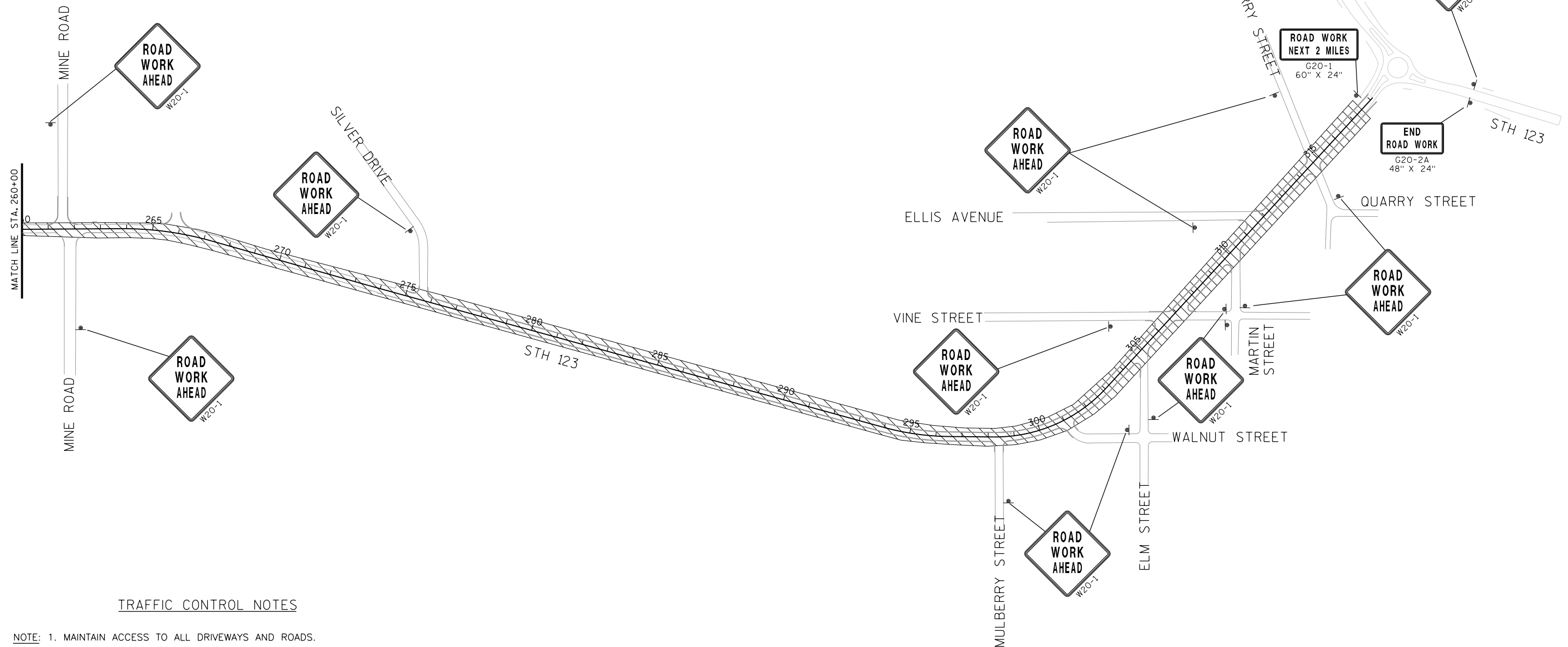


TRAFFIC CONTROL NOTES

- NOTE: 1. MAINTAIN ACCESS TO ALL DRIVEWAYS AND ROADS.
2. PROVIDE W20-1 AND G20-2A SIGNS WITHIN 500' OF WORK ZONE ON ALL SIDE ROADS AFFECTED
3. CONTRACTOR SHALL COVER ANY SIGN THAT DOES NOT APPLY, THAT CONTRADICTS INTENDED SIGNING MESSAGE, OR AS DIRECTED BY ENGINEER.
4. "WO" SIGNS ARE THE SAME AS "W" SIGNS EXCEPT THE BACKGROUND IS ORANGE.
5. ALL SIGNS ARE 48"x48" EXCEPT OTHERWISE NOTED.
6. ALL SIGNS SHALL BE FURNISHED WITH BRIGHT FLUORESCENT SHEETING.
7. S.D.D. "TRAFFIC CONTROL FOR LANE CLOSURE (SUITABLE FOR MOVING OPERATION)" SHALL BE USED FOR LANE CLOSURES ON STH 123.

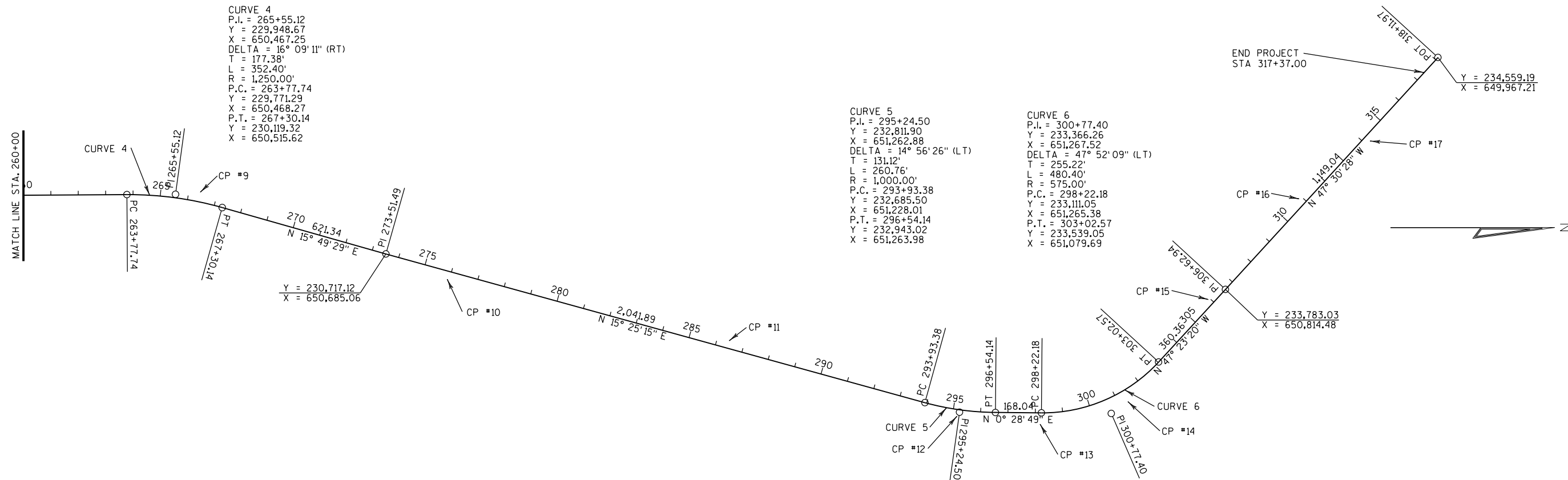
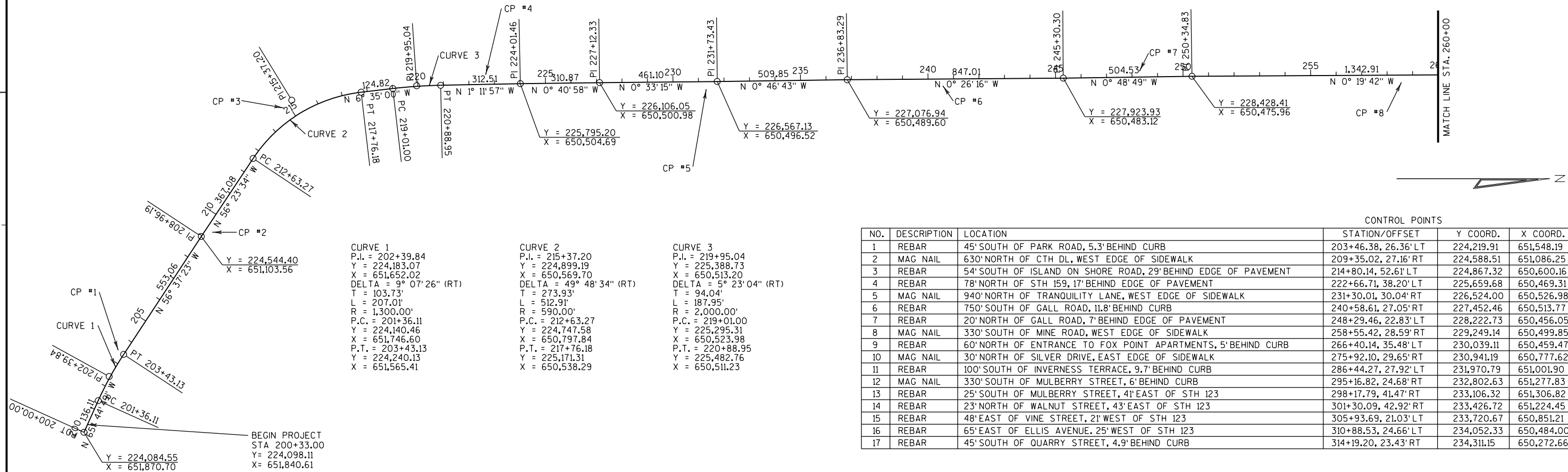
LEGEND

-  WORK ZONE AREA
-  TEMPORARY TRAFFIC CONTROL SIGN POST



TRAFFIC CONTROL NOTES

- NOTE: 1. MAINTAIN ACCESS TO ALL DRIVEWAYS AND ROADS.
2. PROVIDE W20-1 AND G20-2A SIGNS WITHIN 500' OF WORK ZONE ON ALL SIDE ROADS AFFECTED
3. CONTRACTOR SHALL COVER ANY SIGN THAT DOES NOT APPLY, THAT CONTRADICTS INTENDED SIGNING MESSAGE, OR AS DIRECTED BY ENGINEER.
4. "W" SIGNS ARE THE SAME AS "W" SIGNS EXCEPT THE BACKGROUND IS ORANGE.
5. ALL SIGNS ARE 48"x48" EXCEPT OTHERWISE NOTED.
6. ALL SIGNS SHALL BE FURNISHED WITH BRIGHT FLUORESCENT SHEETING.
7. S.D.D. "TRAFFIC CONTROL FOR LANE CLOSURE (SUITABLE FOR MOVING OPERATION)" SHALL BE USED FOR LANE CLOSURES ON STH 123.



DATE 17NOV15		E S T I M A T E O F Q U A N T I T I E S			
LINE		5971-02-72			
NUMBER	ITEM	ITEM DESCRIPTION	UNIT	TOTAL	QUANTITY
0010	201.0105	Clearing	STA	3.000	3.000
0020	201.0205	Grubbing	STA	3.000	3.000
0030	203.0100	Removing Small Pipe Culverts	EACH	2.000	2.000
0040	204.0110	Removing Asphaltic Surface	SY	91.000	91.000
0050	204.0120	Removing Asphaltic Surface Milling	SY	44,259.000	44,259.000
0060	204.0150	Removing Curb & Gutter	LF	690.000	690.000
0070	204.0210	Removing Manholes	EACH	1.000	1.000
0080	204.0220	Removing Inlets	EACH	5.000	5.000
0090	204.0245	Removing Storm Sewer (size) 01. 18-Inch	LF	15.000	15.000
0100	204.0245	Removing Storm Sewer (size) 02. 36-Inch	LF	180.000	180.000
0110	205.0100	Excavation Common	CY	2,615.000	2,615.000
0120	213.0100	Finishing Roadway (project) 01. 5971-02-72	EACH	1.000	1.000
0130	305.0110	Base Aggregate Dense 3/4-Inch	TON	387.000	387.000
0140	305.0120	Base Aggregate Dense 1 1/4-Inch	TON	3,592.000	3,592.000
0150	305.0500	Shaping Shoulders	STA	72.000	72.000
0160	416.1010	Concrete Surface Drains	CY	1.500	1.500
0170	440.4410	Incentive IRI Ride	DOL	8,800.000	8,800.000
0180	455.0105	Asphaltic Material PG58-28	TON	500.000	500.000
0190	455.0605	Tack Coat	GAL	5,412.000	5,412.000
0200	460.1101	HMA Pavement Type E-1	TON	9,096.000	9,096.000
0210	460.2000	Incentive Density HMA Pavement	DOL	5,830.000	5,830.000
0220	465.0120	Asphaltic Surface Driveways and Field Entrances	TON	78.000	78.000
0230	465.0125	Asphaltic Surface Temporary	TON	18.000	18.000
0240	520.8000	Concrete Collars for Pipe	EACH	9.000	9.000
0250	521.0118	Culvert Pipe Corrugated Steel 18-Inch	LF	50.000	50.000
0260	521.0728	Pipe Arch Corrugated Steel 28x20-Inch	LF	26.000	26.000
0270	521.1018	Apron Endwalls for Culvert Pipe Steel 18-Inch	EACH	2.000	2.000
0280	521.1228	Apron Endwalls for Pipe Arch Steel 28x20-Inch	EACH	2.000	2.000
0290	522.1036	Apron Endwalls for Culvert Pipe Reinforced Concrete 36-Inch	EACH	2.000	2.000
0300	601.0411	Concrete Curb & Gutter 30-Inch Type D	LF	397.000	397.000
0310	601.0557	Concrete Curb & Gutter 6-Inch Sloped 36-Inch Type D	LF	6,368.000	6,368.000
0320	602.0410	Concrete Sidewalk 5-Inch	SF	694.000	694.000
0330	602.0505	Curb Ramp Detectable Warning Field Yellow	SF	96.000	96.000
0340	606.0100	Riprap Light	CY	6.000	6.000
0350	606.0200	Riprap Medium	CY	41.000	41.000
0360	608.0312	Storm Sewer Pipe Reinforced Concrete Class III 12-Inch	LF	90.000	90.000
0370	608.0336	Storm Sewer Pipe Reinforced Concrete Class III 36-Inch	LF	182.000	182.000
0380	610.0119	Storm Sewer Pipe Reinforced Concrete Horizontal Elliptical Class HE-III 19x30-Inch	LF	104.000	104.000
0390	611.0624	Inlet Covers Type H	EACH	1.000	1.000
0400	611.0627	Inlet Covers Type HM	EACH	7.000	7.000
0410	611.0639	Inlet Covers Type H-S	EACH	1.000	1.000
0420	611.0642	Inlet Covers Type MS	EACH	1.000	1.000
0430	611.2005	Manholes 5-FT Diameter	EACH	4.000	4.000
0440	611.2055	Manholes 5x5-FT	EACH	1.000	1.000
0450	611.2066	Manholes 6x6-FT	EACH	1.000	1.000

DATE 17NOV15		E S T I M A T E O F Q U A N T I T I E S			
LINE				5971-02-72	
NUMBER	ITEM	ITEM DESCRIPTION	UNIT	TOTAL	QUANTITY
0460	611.3230	Inlets 2x3-FT	EACH	3.000	3.000
0470	611.8110	Adjusting Manhole Covers	EACH	16.000	16.000
0480	611.8115	Adjusting Inlet Covers	EACH	8.000	8.000
0490	611.8120.S	Cover Plates Temporary	EACH	16.000	16.000
0500	612.0204	Pipe Underdrain Unperforated 4-Inch	LF	12.000	12.000
0510	618.0100	Maintenance And Repair of Haul Roads (project) 01. 5971-02-72	EACH	1.000	1.000
0520	619.1000	Mobilization	EACH	1.000	1.000
0530	624.0100	Water	MGAL	38.000	38.000
0540	625.0100	Topsoil	SY	5,890.000	5,890.000
0550	627.0200	Mulching	SY	4,920.000	4,920.000
0560	628.1104	Erosion Bales	EACH	30.000	30.000
0570	628.1504	Silt Fence	LF	4,120.000	4,120.000
0580	628.1520	Silt Fence Maintenance	LF	4,120.000	4,120.000
0590	628.1905	Mobilizations Erosion Control	EACH	3.000	3.000
0600	628.1910	Mobilizations Emergency Erosion Control	EACH	2.000	2.000
0610	628.2002	Erosion Mat Class I Type A	SY	1,005.000	1,005.000
0620	628.7005	Inlet Protection Type A	EACH	3.000	3.000
0630	628.7010	Inlet Protection Type B	EACH	2.000	2.000
0640	628.7015	Inlet Protection Type C	EACH	46.000	46.000
0650	628.7504	Temporary Ditch Checks	LF	60.000	60.000
0660	628.7555	Culvert Pipe Checks	EACH	9.000	9.000
0670	629.0210	Fertilizer Type B	CWT	4.000	4.000
0680	630.0130	Seeding Mixture No. 30	LB	107.000	107.000
0690	634.0414	Posts Wood 4x4-Inch X 14-FT	EACH	53.000	53.000
0700	634.0416	Posts Wood 4x4-Inch X 16-FT	EACH	47.000	47.000
0710	637.2210	Signs Type II Reflective H	SF	717.470	717.470
0720	637.2230	Signs Type II Reflective F	SF	69.750	69.750
0730	638.2102	Moving Signs Type II	EACH	3.000	3.000
0740	638.2602	Removing Signs Type II	EACH	105.000	105.000
0750	638.3000	Removing Small Sign Supports	EACH	97.000	97.000
0760	642.5001	Field Office Type B	EACH	1.000	1.000
0770	643.0100	Traffic Control (project) 01. 5971-02-72	EACH	1.000	1.000
0780	643.0300	Traffic Control Drums	DAY	200.000	200.000
0790	643.0410	Traffic Control Barricades Type II	DAY	18.000	18.000
0800	643.0420	Traffic Control Barricades Type III	DAY	6.000	6.000
0810	643.0900	Traffic Control Signs	DAY	2,025.000	2,025.000
0820	644.1430.S	Temporary Pedestrian Surface Plate	SF	404.000	404.000
0830	644.1601.S	Temporary Curb Ramp	EACH	6.000	6.000
0840	644.1616.S	Temporary Pedestrian Safety Fence	LF	400.000	400.000
0850	645.0120	Geotextile Fabric Type HR	SY	119.000	119.000
0860	645.0130	Geotextile Fabric Type R	SY	30.000	30.000
0870	646.0106	Pavement Marking Epoxy 4-Inch	LF	20,380.000	20,380.000
0880	646.0126	Pavement Marking Epoxy 8-Inch	LF	345.000	345.000
0890	646.0406	Pavement Marking Same Day Epoxy 4-Inch	LF	18,498.000	18,498.000
0900	647.0566	Pavement Marking Stop Line Epoxy 18-Inch	LF	108.000	108.000
0910	648.0100	Locating No-Passing Zones	MI	1.420	1.420
0920	649.0402	Temporary Pavement Marking Paint 4-Inch	LF	18,498.000	18,498.000
0930	650.4000	Construction Staking Storm Sewer	EACH	10.000	10.000
0940	650.5500	Construction Staking Curb Gutter and Curb & Gutter	LF	7,125.000	7,125.000
0950	650.6000	Construction Staking Pipe Culverts	EACH	4.000	4.000

DATE 17NOV15		E S T I M A T E O F Q U A N T I T I E S			
LINE					5971-02-72
NUMBER	ITEM	ITEM DESCRIPTION	UNIT	TOTAL	QUANTITY
0960	650.8000	Construction Staking Resurfacing Reference	LF	11,704.000	11,704.000
0970	650.9910	Construction Staking Supplemental Control (project) 01. 5971-02-72	LS	1.000	1.000
0980	650.9920	Construction Staking Slope Stakes	LF	5,243.000	5,243.000
0990	690.0150	Sawing Asphalt	LF	7,902.000	7,902.000
1000	SPV.0060	Special 01. Apron Endwalls for Culvert Pipe Salvaged 19x30-Inch	EACH	2.000	2.000
1010	SPV.0060	Special 02. Manholes 5x10-FT	EACH	1.000	1.000
1020	SPV.0060	Special 03. Adjusting Sanitary Manholes	EACH	1.000	1.000
1030	SPV.0060	Special 04. Utility Line Opening (ULO)	EACH	6.000	6.000
1040	SPV.0060	Special 05. Concrete Curb Gaps	EACH	5.000	5.000
1050	SPV.0090	Special 01. Concrete Curb & Gutter HES 30-Inch Type D	LF	110.000	110.000
1060	SPV.0090	Special 02. Concrete Curb & Gutter HES 6-Inch Sloped 36-Inch Type D	LF	250.000	250.000
1070	SPV.0090	Special 03. Removing HMA Pavement Notched Wedge Longitudinal Joint Milling	LF	11,737.000	11,737.000
1080	SPV.0105	Special 01. Removing Concrete Channel	LS	1.000	1.000
1090	SPV.0180	Special 01. Geotextile Fabric Type FF	SY	50.000	50.000

3

CLEARING AND GRUBBING					
STREET	STATION	TO	STATION	CLEARING 201.0105 STA	GRUBBING 201.0205 STA
STH 123	217+00	-	220+00	3	3
PROJECT TOTAL				3	3

REMOVING SMALL PIPE CULVERTS						
STREET	STATION	OFFSET	TYPE	SIZE (IN)	LENGTH (FT)	CATEGORY 0020 203.0100 EACH
STH 123	262+75	LT	CMP	24	30	1
STH 123	273+35	LT	CMP	18	40	1
PROJECT TOTAL						2

REMOVING ASPHALTIC SURFACE				
STATION	TO	STATION	OFFSET	204.0110 SY
221+25	-	221+73	RT	91
PROJECT TOTAL				91

REMOVING ASPHALTIC SURFACE MILLING			
STATION	TO	STATION	204.0120 SY
200+33	-	222+00	8854
222+00	-	248+00	9224
248+00	-	275+50	10330
275+50	-	317+37	15852
PROJECT TOTAL			44259

REMOVING CURB & GUTTER				
STREET	FROM STATION	TO STATION	204.0150 LF	
STH 123	200+33	- 222+00	137	
STH 123	222+00	- 248+00	132	
STH 123	248+00	- 275+50	41	
STH 123	275+50	- 317+37	280	
UNDISTRIBUTED				100
PROJECT TOTAL				690

REMOVING MANHOLES			
STREET	STATION	OFFSET	204.0210 EACH
STH 123	267+90	RT	1
TOTAL			1

REMOVING INLETS			
STREET	STATION	OFFSET	204.0220 EACH
STH 123	221+39	RT	1
STH 123	223+64	RT	1
STH 123	223+74	RT	1
STH 123	267+91	RT	1
STH 123	267+97	RT	1
TOTAL			5

REMOVING STORM SEWER						
STREET	STATION	LOCATION TO STATION	LOCATION	204.0245.01 18-INCH	204.0245.02 36-INCH	
STH 123	221+39	RT - 221+54.00	RT	15	-	
STH 123	267+95			-	90	
STH 123	268+01			-	90	
PROJECT TOTAL				15	180	

EARTHWORK SUMMARY

Division	From/To Station	Location	Common Excavation (item # 205.0100)		Salvaged/Unusable Pavement Material (4)	Available Material (5)	Unexpanded Fill	Expanded Fill (13)	Mass Ordinate +/- (14)	Waste	Borrow (15)	Comment:
			Cut (2)	EBS Excavation (3)								
STH 123	211+00 to 275+00	LT & RT	2186	0	0	2186	435	522	1664		(item #208.0100)	
CATEGORY 0010 SUBTOTAL			2186	0								
			Total Common Exc	2186	0	2186	435	522	1664	1664	0	
STH 123	255+00 to 275+00	LT	429	0	0	429	380	455	-26			
CATEGORY 0020 SUBTOTAL			429	0								
			Total Common Exc	429	0	429	380	455	-26	0	-26	
PROJECT TOTAL			2615	0								
			Total Common Exc	2615	0	2615	814	977	1638	1638	0	

- 1) Common Excavation is the sum of the Cut and EBS Excavation columns. Item number 205.0100
- 2) Salvaged/Unsuable Pavement Material is included in Cut.
- 3) EBS Excavation to be backfilled with Select Borrow material. Note: this is designers choice, can be backfilled with Borrow, or Cut as well.
- 4) Salvaged/Unusable Pavement Material
- 5) Available Material = Cut - Salvaged/Unusuable Pavement Material
- 13) Expanded Fill. Factor = 1.20
- 14) The Mass Ordinate + or - Qty calculated for the Division. Plus quantity indicates an excess of material within the Division. Minus indicates a shortage of material within the Division.
- 15) Borrow Excavation item number 208.0100

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BASE AGGREGATE DENSE 3/4-INCH				
STREET	STATION	TO	STATION	305.0110 TON
STH 123	200+33	-	222+00	124
STH 123	222+00	-	248+00	205
STH 123	248+00	-	275+50	38
STH 123	UNDISTRIBUTED			20
PROJECT TOTAL				387

BASE AGGREGATE DENSE 1 1/4-INCH				CATEGORY 0010	CATEGORY 0020
STREET	STATION	TO	STATION	305.0120 TON	305.0120 TON
STH 123	200+33	-	222+00	539	0
STH 123	222+00	-	248+00	815	0
STH 123	248+00	-	275+50	1371	692
STH 123	UNDISTRIBUTED			140	35
SUBTOTAL				2865	727
PROJECT TOTAL				3592	

SHAPING SHOULDERS					
STREET	FROM STATION	TO STATION	OFFSET	305.0500 STA	
STH 123	204+50	-	211+00	RT	7
STH 123	200+33	-	222+00	LT	22
STH 123	223+85	-	234+18	RT	10
STH 123	222+00	-	248+00	LT	26
STH 123	248+00	-	255+00	LT	7
PROJECT TOTAL					72

CONCRETE SURFACE DRAINS			
STREET	STATION	OFFSET	CATEGORY 0020 416.1010 CY
STH 123	257+14	LT	0.5
STH 123	268+90	LT	0.5
STH 123	270+50	LT	0.5
TOTAL			1.5

ASPHALTIC PAVEMENT							
STATION	TO	STATION	ROADWAY	LOCATION	455.0105 ASPHALTIC MATERIAL PG58-28 (TON)	455.0605 TACK COAT (GAL)	460.1101 HMA PAVEMENT TYPE E-1 (TON)
200+33	-	222+00	STH 123	MAINLINE	100	1083	1816
222+00	-	248+00	STH 123	MAINLINE	106	1148	1926
248+00	-	275+50	STH 123	MAINLINE	119	1280	2165
275+50	-	317+37	STH 123	MAINLINE	175	1901	3189
PROJECT TOTALS					500	5412	9096

ASPHALTIC SURFACE DRIVEWAYS AND FIELD ENTRANCES				
LOCATION	STATION	OFFSET	CATEGORY 0010 465.0120 TON	CATEGORY 0020 465.0120 TON
STH 123	219+79.00	RT	7	-
STH 123	221+04.00	RT	2	-
STH 123	222+51.00	RT	4	-
STH 123	239+09.00	RT	5	-
STH 123	242+02.00	RT	6	-
STH 123	256+93.00	RT	7	-
STH 123	262+75.00	LT	-	6
STH 123	265+99.00	RT	8	-
STH 123	267+93.00	RT	4	-
STH 123	271+26.00	RT	4	-
STH 123	273+36.00	LT	-	11
STH 123	273+82.00	RT	5	-
STH 123	274+70.00	LT	-	9
PROJECT TOTAL			52	26

ASPHALTIC SURFACE TEMPORARY			
LOCATION	STATION	OFFSET	465.0125 TON
DRIVEWAYS	UNDISTRIBUTED	LT & RT	14
CURB RAMPS	UNDISTRIBUTED	RT	4
PROJECT TOTAL			18

CONCRETE COLLARS FOR PIPE				
STREET	STATION	OFFSET	CATEGORY 0010 520.8000 EACH	CATEGORY 0020 520.8000 EACH
STH 123	223+65	RT	2	-
STH 123	223+76	RT	2	-
STH 123	257+49	LT	-	1
STH 123	259+56	LT	-	1
STH 123	267+78	RT	1	-
STH 123	270+89	RT	2	-
TOTAL			7	2

CULVERT PIPE						
STREET	STATION	OFFSET	CATEGORY 0020 521.0118 CULVERT PIPE CORRUGATED STEEL 18-INCH LF	CATEGORY 0020 521.0728 PIPE ARCH CORRUGATED STEEL 28X20-INCH LF	CATEGORY 0020 521.1018 APRON ENDWALL FOR CULVERT PIPE STEEL 18-INCH EACH	CATEGORY 0020 521.1228 APRON ENDWALL FOR PIPE ARCH STEEL 28X20-INCH EACH
STH 123	262+75	LT	-	26	-	2
STH 123	273+36	LT	50	-	2	-
TOTAL			50	26	2	2

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CONCRETE CURB & GUTTER

					CATEGORY 0010	CATEGORY 0010	CATEGORY 0020	CATEGORY 0010	CATEGORY 0010	CATEGORY 0020
					601.0411	601.0557	601.0557	SPV.0090.01	SPV.0090.02	SPV.0090.02
						6-INCH SLOPED	6-INCH SLOPED	HES	6-INCH SLOPED	6-INCH SLOPED
					30-INCH	36-INCH	36-INCH	30-INCH	36-INCH	36-INCH
					TYPE D	TYPE D	TYPE D	TYPE D	TYPE D	TYPE D
STREET	STATION	TO	STATION	LOCATION	LF	LF	LF	LF	LF	LF
STH 123	211+00	-	217+93	RT	-	678	-	-	-	-
STH 123	219+63	-	222+00	RT	130	-	-	-	-	-
STH 123	222+00	-	248+00	RT	-	1491	-	-	70	-
STH 123	248+00	-	275+50	RT	-	2589	-	-	120	-
STH 123	255+00	-	275+50	LT	-	-	1610	-	-	60
STH 123	275+50	-	317+37	LT & RT	167	-	-	110	-	-
UNDISTRIBUTED					100	-	-	-	-	-
PROJECT TOTAL					397	4758	1610	110	190	60

CONCRETE SIDEWALK 5-INCH

					602.0410
					SF
STREET	STATION	TO	STATION	OFFSET	
STH 123	221+09	-	221+42	RT	232
STH 123	222+15	-	222+41	RT	179
STH 123	247+85	-	247+92	RT	54
STH 123	248+22	-	248+29	RT	47
STH 123	261+35	-	261+50	RT	85
STH 123	262+13	-	262+29	RT	97
PROJECT TOTAL					694

CURB RAMP DETECTABLE WARNING FIELD YELLOW

					602.0505
					SF
INTERSECTION	STATION	OFFSET	EACH		
TRANQUILITY LANE	221+28.00	RT	4		16
	222+27.00	RT	4		16
GALL ROAD	247+90.00	RT	4		16
	248+23.00	RT	4		16
MINE STREET	261+43.00	RT	4		16
	262+19.00	RT	4		16
PROJECT TOTAL			24		96

RIPRAP & GEOTEXTILE FABRIC

					CATEGORY 0020	CATEGORY 0010	CATEGORY 0010	CATEGORY 0020
					606.0100	606.0200	645.0120	645.0130
					RIPRAP	RIPRAP	GEOTEXTILE	GEOTEXTILE
					LIGHT	MEDIUM	FABRIC	FABRIC
							TYPE HR	TYPE R
STREET	STATION	TO	STATION	LOCATION	CY	CY	SY	SY
STH 123	219+00	-	219+82	LT	-	36	103	-
STH 123	219+82	-	219+93	LT	-	5	16	-
STH 123	257+14			LT	2	-	-	10
STH 123	268+90			LT	2	-	-	10
STH 123	270+50			LT	2	-	-	10
PROJECT TOTALS					6	41	119	30

STORM SEWER PIPE REINFORCED CONCRETE

					CATEGORY 0010	CATEGORY 0010	CATEGORY 0010	CATEGORY 0020	CATEGORY 0020	CATEGORY 0010
					522.1036			610.0119	SPV.0060.01	612.0204
					APRON ENDWALLS			HORIZONTAL	APRON ENDWALLS	PIPE
					FOR CULVERT			ELLIPTICAL	FOR CULVERT	UNDERDRAIN
					PIPE REINFORCED		608.0312	CLASS III	PIPE SALVAGED	UNPERFORATED
					CONCRETE		12-INCH	36-INCH	19x30-INCH	4-INCH
					36-INCH				19x30-INCH	
STREET	STATION	TO	STATION	OFFSET	LF	LF	LF	LF	EACH	LF
STH 123	257+25	-	260+36	LT	-	-	-	104	2	-
STH 123	268+00			LT & RT	2	-	174	-	-	12
STH 123	267+78	-	267+86	RT	-	-	8	-	-	-
STH 123	267+99	-	268+50	RT	-	51	-	-	-	-
STH 123	270+50	-	270+89	RT	-	39	-	-	-	-
TOTAL					2	90	182	104	2	12

ADJUSTING STORM STRUCTURES

				COVER
		MANHOLE	INLET	PLATES
		COVERS	COVERS	TEMPORARY
		611.8110	611.8115	611.8120.S
STATION	OFFSET	EACH	EACH	EACH
279+45	18' LT	-	1	-
279+45	18' RT	-	1	-
279+51	13' LT	1	-	1
283+00	12' LT	1	-	1
283+01	18' LT	-	1	-
285+09	18' RT	-	1	-
285+22	18' RT	-	1	-
285+29	10' LT	1	-	1
286+89	5' LT	1	-	1
288+68	6' RT	1	-	1
288+74	18' RT	-	1	-
292+68	13' RT	1	-	1
298+85	13' RT	1	-	1
303+54	14' RT	1	-	1
304+68	10' RT	1	-	1
305+36	14' RT	1	-	1
305+87	18' LT	-	1	-
306+88	15' RT	1	-	1
309+78	16' RT	1	-	1
312+00	17' RT	1	-	1
312+65	12' RT	1	-	1
314+21	18' RT	-	1	-
314+51	12' RT	1	-	1
314+78	4' LT	1	-	1
PROJECT TOTAL		16	8	16

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STORM SEWER STRUCTURES

STREET	STATION	OFFSET	611.0624	611.0627	611.0639	611.0642	611.2005	611.2055	611.2066	611.3230	SPV.0060.02
			INLET COVERS	INLET COVERS	INLET COVERS	INLET COVERS	MANHOLES	MANHOLES	MANHOLES	INLETS	MANHOLES
			TYPE H EACH	TYPE HM EACH	TYPE H-S EACH	TYPE MS EACH	5-FT DIAMETER EACH	5x5-FT EACH	6x6-FT EACH	2x3-FT EACH	5x10-FT EACH
STH 123	221+51.60	42.2' RT	1	-	-	-	1	-	-	-	-
STH 123	221+67.00	75.0' RT	-	-	1	-	-	-	-	1	-
STH 123	223+65.00	18.0' RT	-	1	-	-	-	-	1	-	-
STH 123	223+76.00	18.0' RT	-	1	-	-	-	1	-	-	-
STH 123	267+90.00	48.0' RT	-	-	-	1	-	-	-	-	1
STH 123	267+91.85	18.0' RT	-	1	-	-	1	-	-	-	-
STH 123	267+98.85	18.0' RT	-	1	-	-	1	-	-	-	-
STH 123	268+50.00	18.0' RT	-	1	-	-	-	-	-	1	-
STH 123	270+50.00	18.0' RT	-	1	-	-	-	-	-	1	-
STH 123	270+89.00	18.0' RT	-	1	-	-	1	-	-	-	-
TOTAL			1	7	1	1	4	1	1	3	1

INLET PROTECTION

STREET	FROM	TO	628.7005	628.7010	628.7015
			INLET PROTECTION	INLET PROTECTION	INLET PROTECTION
			TYPE A EACH	TYPE B EACH	TYPE C EACH
STH 123	200+00	222+00	-	-	2
STH 123	222+00	248+00	-	-	2
STH 123	248+00	275+50	2	1	5
STH 123	275+50	317+37	-	-	32
UNDISTRIBUTED			1	1	5
PROJECT TOTALS			3	2	46

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WATER

STREET	FROM	TO	CAT 0010 624.0100	CAT 0020 624.0100
			MGAL	MGAL
STH 123	200+00	222+00	7	0
STH 123	222+00	248+00	10	0
STH 123	248+00	275+50	14	7
TOTAL			31	7

TEMPORARY SETTLING BASINS

			628.1104	SPV.0180.01
			EROSION BALES	GEOTEXTILE FABRIC
STREET	FROM	TO	EACH	TYPE FF SY
UNDISTRIBUTED			30	50
PROJECT TOTALS			30	50

SILT FENCE

STREET	FROM	TO	628.1504	628.1520
			SILT FENCE LF	SILT FENCE MAINTENANCE LF
STH 123	200+00	222+00	1,025	1,025
STH 123	222+00	248+00	1,435	1,435
STH 123	248+00	275+50	1,285	1,285
STH 123	275+50	317+37	-	-
UNDISTRIBUTED			375	375
PROJECT TOTALS			4,120	4,120

LANDSCAPING

STREET	FROM	TO	CAT. 0010 625.0100	CAT. 0020 625.0100	CAT. 0010 627.0200	CAT. 0020 627.0200	CAT. 0010 628.2002	CAT. 0020 628.2002	CAT. 0010 629.0210	CAT. 0020 629.0210	CAT. 0010 630.0130	CAT. 0020 630.0130
			TOPSOIL	TOPSOIL	MULCHING	MULCHING	EROSION MAT CLASS I TYPE A	EROSION MAT CLASS I TYPE A	FERTILIZER TYPE B	FERTILIZER TYPE B	SEEDING MIXTURE NO. 30	SEEDING MIXTURE NO. 30
			SY	SY	SY	SY	SY	SY	CWT	CWT	LB	LB
STH 123	200+00	222+00	1170	-	1170	-	-	-	1	-	21	-
STH 123	222+00	248+00	1085	-	1085	-	-	-	1	-	20	-
STH 123	248+00	275+50	1140	1930	1140	1060	-	870	1	1	21	35
STH 123	275+50	317+37	65	-	65	-	-	-	-	-	1	-
UNDISTRIBUTED			300	200	300	100	50	85			6	3
PROJECT TOTALS			3760	2130	3760	1160	50	955	3	1	69	38

EROSION CONTROL MOBILIZATIONS

LOCATION	628.1905	628.1910
	MOBILIZATIONS EROSION CONTROL	MOBILIZATIONS EMERGENCY EROSION CONTROL
PROJECT 5971-02-72	3	2
PROJECT TOTAL	3	2

DITCH CHECKS

STREET	FROM	TO	628.7504	628.7555
			TEMPORARY DITCH CHECKS LF	CULVERT PIPE CHECKS EACH
STH 123	200+00	222+00	-	2
STH 123	222+00	248+00	30	1
STH 123	248+00	275+50	10	4
UNDISTRIBUTED			20	2
PROJECT TOTALS			60	9

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638.2602 REMOVING SIGNS TYPE II						638.3000 REMOVING SMALL SIGN SUPPORTS					
REMOVAL NO.	LOCATION	STATION	OFFSET	EACH	EACH						
A-1	STH 123	202+46	RT	1	1						
A-2	STH 123	202+46	RT	1	1						
A-3	STH 123	203+73	LT	1	1						
A-4	STH 123	202+53	RT	1	1						
A-5	STH 123	203+22	RT	1	1						
A-6	STH 123	203+24	RT	1	1						
A-7	STH 123	203+42	RT	1	1						
A-8	STH 123	203+96	RT	1	1						
A-9	STH 123	204+70	LT	1	1						
-	STH 123	205+00	RT	-	1						
A-10	STH 123	205+97	RT	1	1						
A-11	STH 123	207+46	LT	1	1						
A-12	STH 123	207+50	RT	1	1						
A-13	STH 123	208+38	RT	1	1						
A-14	STH 123	210+75	LT	1	1						
A-15	STH 123	211+12	RT	1	1						
A-16	STH 123	211+76	RT	1	1						
A-17	STH 123	213+84	LT	1	1						
A-18	CTH DL	--	LT	1	1						
A-19	CTH DL	--	LT	1	1						
B-1	STH 123	215+32	LT	1	--						
B-2	STH 123	215+34	LT	1	--						
B-3	STH 123	215+53	LT	1	1						
B-4	STH 123	216+22	RT	1	2						
B-5	STH 123	217+95	LT	1	1						
B-6	STH 123	219+17	LT	1	1						
B-7	STH 123	220+40	LT	1	1						
B-8	STH 123	220+79	RT	1	1						
B-9	STH 123	221+57	LT	1	1						
B-10	STH 123	221+64	LT	1	1						
B-11	STH 123	222+15	LT	1	1						
B-12	STH 123	222+18	RT	1	1						
B-13	STH 123	223+59	LT	1	1						
B-14	STH 123	224+29	RT	1	1						
B-15	STH 123	226+08	RT	1	1						
B-16	STH 123	227+88	LT	1	2						
B-17	STH 123	228+54	RT	1	1						
-	STH 159	--	LT	-	1						
B-18	STH 159	--	LT	1	1						
B-19	STH 159	--	RT	1	2						
B-20	STH 159	--	RT	1	1						
B-21	STH 159	--	RT	1	1						
B-22	STH 159	--	RT	1	1						
C-1	STH 123	230+08	LT	1	1						
C-2	STH 123	232+52	LT	1	1						
C-3	STH 123	233+22	LT	1	1						
C-4	STH 123	235+98	LT	1	1						
C-5	STH 123	237+09	LT	1	1						
C-6	STH 123	238+48	LT	1	2						
C-7	STH 123	243+32	RT	1	1						
C-8	STH 123	248+21	RT	1	1						
C-9	STH 123	255+02	RT	1	1						
C-10	STH 123	255+52	RT	1	1						
C-11	STH 123	257+13	LT	1	1						
C-12	STH 123	257+81	RT	1	1						
D-1	STH 123	259+81	LT	1	1						
D-2	STH 123	262+19	RT	1	--						
D-3	STH 123	262+19	RT	1	--						
D-4	STH 123	272+15	RT	1	1						
D-5	STH 123	273+46	RT	1	1						

638.2602 REMOVING SIGNS TYPE II						638.3000 REMOVING SMALL SIGN SUPPORTS					
REMOVAL NO.	LOCATION	STATION	OFFSET	EACH	EACH						
D-6	STH 123	274+90	LT	1	1						
D-7	STH 123	275+31	LT	1	--						
D-8	STH 123	275+31	LT	1	--						
D-9	STH 123	280+53	RT	1	1						
D-10	STH 123	285+79	LT	1	1						
D-11	STH 123	286+59	LT	1	1						
D-12	STH 123	287+59	RT	1	1						
E-1	STH 123	291+66	LT	1	1						
E-2	STH 123	292+10	RT	1	--						
E-3	STH 123	292+10	RT	1	--						
E-4	STH 123	295+61	RT	1	1						
E-6	STH 123	298+59	RT	1	--						
E-8	STH 123	301+28	RT	1	--						
E-9	STH 123	305+10	RT	1	--						
E-10	STH 123	305+31	LT	1	1						
E-11	STH 123	305+78	LT	1	1						
E-12	STH 123	306+08	LT	1	--						
E-13	STH 123	306+72	RT	1	--						
E-14	STH 123	306+72	RT	1	--						
E-15	STH 123	307+43	RT	1	--						
E-16	STH 123	310+31	RT	1	--						
E-17	STH 123	311+27	LT	1	--						
E-18	STH 123	311+89	RT	1	1						
E-19	STH 123	314+67	LT	1	--						
E-20	STH 123	314+79	RT	1	--						
E-21	STH 123	316+01	RT	1	1						
F-1	SOUTH BOULEVARD	--	RT	1	1						
F-2		STH 123	--	LT	1	2					
F-3	STH 123	--	LT	1	1						
F-4	STH 123	--	RT	1	1						
F-5	STH 123	--	RT	1	2						
F-6	STH 123	--	RT	1	1						
F-7	STH 123	--	LT	1	1						
F-8	STH 123	--	RT	1	1						
F-9	STH 123	--	LT	1	1						
F-10	STH 123	--	LT	1	2						
F-11	STH 113	--	LT	1	1						
F-12	STH 113	--	LT	1	2						
F-13	STH 123	--	RT	1	2						
F-14	STH 123	--	RT	1	1						
F-15	STH 123	--	LT	1	1						
F-16	STH 33	--	RT	1	1						
F-17	STH 33	--	RT	1	1						
F-18	STH 33	--	RT	1	1						
F-19	STH 33	--	LT	1	1						
F-20	STH 33	--	LT	1	1						
F-21	STH 33	--	LT	1	1						
PROJECT TOTALS				105	97						

ALL ITEMS ARE CATEGORY 0010
UNLESS OTHERWISE NOTED

SIGN NO.	LOCATION	STATION	OFFSET	SIGN CODE	MESSAGE	SIZE	634.0614	634.0616	637.2210	637.2230	638.2102	REMARKS
							POSTS WOOD 4X6-INCH X 14-FT EACH	POSTS WOOD 4X6-INCH X 16-FT EACH	SIGNS TYPE II REFLECTIVE H SF	SIGNS TYPE II REFLECTIVE F SF	MOVING SIGNS TYPE II EACH	
1-1	CTH DL	-	LT	J1-1 M2-1 M1-6	STH 159	24 X 39	-	1	6.50	-	-	ON POST WITH SIGN 1-1 ON POST WITH SIGN 1-1
1-2	CTH DL	-	LT	W3-1		36 X 36	-	1	9.00	-	-	
1-3	CTH DL	-	LT	J2-2 M3-4 M1-6 M5-1R M1-5A M5-1R		48 X 57	-	1	19.00	-	-	ON POST WITH SIGN 1-3 ON POST WITH SIGN 1-3 ON POST WITH SIGN 1-3 ON POST WITH SIGN 1-3 ON POST WITH SIGN 1-3 ON POST WITH SIGN 1-3
1-4	CTH DL	-	RT	R2-1	35 MPH	24 X 30	1	-	5.00	-	-	
1-5	STH 123	202+45	RT	R1-1		30 X 30	1	-	5.18	-	-	
1-6	STH 123	203+22	RT	R1-1		30 X 30	1	-	5.18	-	-	
1-7	CTH DL	-	LT	J3-2 M3-4 M1-6 M6-1 M1-5A M6-1	STH 159 CTH DL	48 X 57	-	1	19.00	-	-	ON POST WITH SIGN 1-7 ON POST WITH SIGN 1-7 ON POST WITH SIGN 1-7 ON POST WITH SIGN 1-7 ON POST WITH SIGN 1-7 ON POST WITH SIGN 1-7
1-8	STH 123	203+42	RT	R5-3		24 X 24	1	-	4.00	-	-	
1-9	STH 123			D11-1		24 X 18	-	-	3.00	-	-	ON POST WITH SIGN 1-8
1-10	STH 123	203+95	RT	R7-1L		24 X 30	1	-	5.00	-	-	
1-11	STH 123	204+10	LT	R1-1		30 X 30	1	-	5.18	-	-	
1-12	STH 123	204+55	LT	R7-1R		24 X 30	1	-	5.00	-	-	
1-13	STH 123	204+75	LT	J13-1 M1-5A M6-1	CTH DL	24 X 45	-	1	7.50	-	-	ON POST WITH SIGN 1-13 ON POST WITH SIGN 1-13
1-14	STH 123	205+00	RT	J4-2 M3-4 M1-6 M1-5A		48 X 36	-	1	12.00	-	-	ON POST WITH SIGN 1-14 ON POST WITH SIGN 1-14 ON POST WITH SIGN 1-14
1-15	STH 123	207+00	RT	R2-1		24 X 30	1	-	5.00	-	-	
1-16	STH 123	207+00	RT	R7-1D	45 MPH	24 X 30	-	-	5.00	-	-	ON POST WITH SIGN 1-15
1-17	STH 123	207+50	LT	R7-1D		24 X 30	1	-	5.00	-	-	
1-18	STH 123	209+00	RT	W1-2R		30 X 30	1	-	-	6.25	-	
1-19	STH 123	211+00	LT	J12-1 M1-5A M5-1L	CTH DL	24 X 45	-	1	7.50	-	-	ON POST WITH SIGN 1-19 ON POST WITH SIGN 1-19
1-20	STH 123	211+00	LT	J1-1 M4-6 M1-6		24 X 36	-	1	6.00	-	-	ON POST WITH SIGN 1-20 ON POST WITH SIGN 1-20
1-21	STH 123	212+50	RT	J4-1 M3-4 M1-6 M5-1L		24 X 57	-	1	9.50	-	-	ON POST WITH SIGN 1-21 ON POST WITH SIGN 1-21 ON POST WITH SIGN 1-21 ON POST WITH SIGN 1-21
1-22	STH 123	213+85	LT	R7-1D		24 X 30	1	-	5.00	-	-	
1-23	STH 123	214+00	RT	R7-1D		24 X 30	1	-	5.00	-	-	
1-24	STH 123	206+00	RT	-		-	1	-	-	-	1	
1-25	STH 123	209+00	RT	W13-1	40 MPH	18 X 18	-	-	-	2.25	-	ON POST WITH SIGN 1-18
1-26	STH 123	209+00	LT	-	DEVILS LAKE	72 X 24	2	-	12.00	-	-	
1-27	STH 123	210+00	RT	R7-1D		24 X 30	1	-	5.00	-	-	
1-28	STH 123	210+25	LT	R7-1D		24 X 30	1	-	5.00	-	-	
2-1	STH 123	215+31	LT	W12-1D		24 X 24	-	-	-	4.00	-	MOUNT ON EXISTING POST
2-2	STH 123	215+34	LT	R1-1		30 X 30	-	-	5.18	-	-	MOUNT ON EXISTING POST
2-3	STH 123	215+53	LT	W3-5	REDUCE SPEED 35 MPH	36 X 36	-	1	-	9.00	-	
2-4	STH 123	216+25	RT	-	BARABOO	66 X 15	2	-	6.88	-	-	
2-5	STH 123	217+95	LT	R2-1	45 MPH	24 X 30	1	-	5.00	-	-	
2-6	STH 123	217+95	LT	R7-1D		24 X 30	-	-	5.00	-	-	ON POST WITH SIGN 2-5
2-8	STH 123	220+40	LT	J4-2 M3-2 M1-6 M1-5A	STH 159 CTH DL	48 X 36	-	1	12.00	-	-	ON POST WITH SIGN 2-8 ON POST WITH SIGN 2-8 ON POST WITH SIGN 2-8
2-9	STH 123	221+00	LT	R7-1L		24 X 30	1	-	5.00	-	-	
2-10	STH 123	220+70	RT	J3-2 M3-4 M1-6 M6-1 M1-5A M6-1		48 X 57	-	1	19.00	-	-	ON POST WITH SIGN 2-10 ON POST WITH SIGN 2-10 ON POST WITH SIGN 2-10 ON POST WITH SIGN 2-10 ON POST WITH SIGN 2-10 ON POST WITH SIGN 2-10

ALL ITEMS ARE CATEGORY 0010
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SIGN NO.	LOCATION	STATION	OFFSET	SIGN CODE	MESSAGE	SIZE	634.0614	634.0616	637.2210	637.2230	638.2102	REMARKS
							POSTS WOOD 4X6-INCH X 14-FT EACH	POSTS WOOD 4X6-INCH X 16-FT EACH	SIGNS TYPE II REFLECTIVE H SF	SIGNS TYPE II REFLECTIVE F SF	MOVING SIGNS TYPE II EACH	
2-11	STH 123	221+00	RT	R7-1R		24 X 30	1	-	5.00	-	-	
2-12	STH 123	221+55	LT	J3-2		48 X 57	-	1	19.00	-	-	
				M1-5A	CTH DL							ON POST WITH SIGN 2-12
				M6-4								ON POST WITH SIGN 2-12
				M3-2			-	-		-	-	ON POST WITH SIGN 2-12
				M1-6	STH 159							ON POST WITH SIGN 2-12
				M6-1			-	-		-	-	ON POST WITH SIGN 2-12
2-13	STH 123	222+20	RT	-			-	-	-	-	1	
2-14	STH 123	221+64	LT	R1-1		36 X 36	-	1	7.46	-	-	
2-15	STH 123	222+15	LT	R1-1		36 X 36	-	1	7.46	-	-	
2-16	STH 123	222+15	RT	R1-1		30 X 30	1	-	5.18	-	-	
2-17	STH 123	222+75	LT	J13-2		48 X 45	-	1	15.00	-	-	
				M1-5A	CTH DL							ON POST WITH SIGN 2-17
				M6-1								ON POST WITH SIGN 2-17
				M1-6	STH 159							ON POST WITH SIGN 2-17
				M1-6								ON POST WITH SIGN 2-17
2-18	STH 123	223+00	RT	M1-5A	CTH DL	24 X 24	1	-	4.00	-	-	
2-19	STH 123	225+00	RT	R2-1		24 X 30	1	-	5.00	-	-	
2-20	STH 123	227+90	LT	-	DEVILS LAKE	60 X 36	-	2	15.00	-	-	
2-21	STH 123	228+50	RT	W14-3		48 X 36	-	1	-	6.00	-	
2-22	STH 159	-	LT	J4-1		24 X 36	-	1	6.00	-	-	
				M3-4								ON POST WITH SIGN 2-22
				M1-6	STH 159							ON POST WITH SIGN 2-22
2-23	STH 159	-	LT	-			1	-	-	-	1	
2-24	STH 159	-	RT	-	BARABOO/DEVILS LAKE	72 X 36	-	2	18.00	-	-	
2-25	STH 159	-	LT	R2-1	50 MPH	24 X 30	1	-	5.00	-	-	
2-26	STH 159	-	RT	W3-1		36 X 36	-	1	-	9.00	-	
2-27	STH 159	-	RT	J4-1		24 X 57	-	1	9.50	-	-	
				M3-2								ON POST WITH SIGN 2-27
				M1-6	STH 159							ON POST WITH SIGN 2-27
				M5-1R								ON POST WITH SIGN 2-27
2-28	STH 159	-	RT	J1-1		24 X 39	-	1	6.50	-	-	
				M2-1								ON POST WITH SIGN 2-28
				M1-5A	CTH DL							ON POST WITH SIGN 2-28
3-1	STH 123	231+00	LT	J1-1		24 X 39	-	1	6.50	-	-	
				M2-1								ON POST WITH SIGN 3-1
				M1-6	STH 159							ON POST WITH SIGN 3-1
3-2	STH 123	233+20	LT	W14-3		48 X 36	-	1	-	6.00	-	
3-3	STH 123	235+00	RT	R2-1	45 MPH	24 X 30	1	-	5.00	-	-	
3-4	STH 123	236+00	LT	R2-1	45 MPH	24 X 30	1	-	5.00	-	-	
3-5	STH 123	238+50	LT	-	DEVILS LAKE	60 X 36	-	2	15.00	-	-	
3-6	STH 123	247+50	RT	R2-1	45 MPH	24 X 30	1	-	5.00	-	-	
3-7	STH 123	248+23	RT	R1-1		30 X 30	1	-	5.18	-	-	
3-8	STH 123	248+75	RT	R2-1	45 MPH	24 X 30	1	-	5.00	-	-	
3-9	STH 123	254+00	LT	W2-2		30 X 30	1	-	-	6.25	-	
3-10	STH 123	255+50	RT	W14-3		48 X 36	-	1	-	6.00	-	
3-11	STH 123	257+75	RT	R2-1	45 MPH	24 X 30	1	-	5.00	-	-	
4-1	STH 123	259+80	LT	W14-3		48 X 36	-	1	-	6.00	-	
4-2	STH 123	260+35	LT	R2-1	45 MPH	24 X 30	1	-	5.00	-	-	
4-3	STH 123	261+00	RT	J4-1		24 X 36	-	1	6.00	-	-	
				M4-6								ON POST WITH SIGN 4-3
				M1-5A	CTH DL							ON POST WITH SIGN 4-3
4-4	STH 123	261+00	LT	M1-5A	CTH DL	24 X 24	1	-	4.00	-	-	
4-5	STH 123	262+15	RT	R1-1		30 X 30	-	-	5.18	-	-	MOUNT ON EXISTING POST
4-6	STH 123	272+15	RT	R10-64		36 X 30	1	-	7.50	-	-	
4-7	STH 123	267+25	RT	W3-5		36 X 36	-	1	-	9.00	-	
4-8	STH 123	275+00	LT	R2-1	45 MPH	24 X 30	1	-	5.00	-	-	
4-9	STH 123	275+30	LT	R1-1		30 X 30	-	-	5.18	-	-	MOUNT ON EXISTING POST
4-10	STH 123	275+00	RT	R2-1	25 MPH	24 X 30	1	-	5.00	-	-	
4-11	STH 123	285+75	LT	R2-1	25 MPH	24 X 30	1	-	5.00	-	-	
4-12	STH 123	286+60	LT	R1-1		30 X 30	1	-	5.18	-	-	
4-13	STH 123	287+60	RT	R1-1		30 X 30	1	-	5.18	-	-	
4-14	STH 123	263+00	RT	R2-1	45 MPH	24 X 30	1	-	5.00	-	-	
5-1	STH 123	290+00	RT	R2-1	25 MPH	24 X 30	1	-	5.00	-	-	
5-2	STH 123	292+00	RT	D9-2		24 X 24	-	1	4.00	-	-	
5-3	STH 123	292+00	RT	MB6-1		21 X 21	-	-	3.06	-	-	ON POST WITH SIGN 5-2
5-4	STH 123	295+00	LT	R2-1	25 MPH	24 X 30	1	-	5.00	-	-	
5-5	STH 123	298+60	RT	R1-1		30 X 30	-	-	5.18	-	-	MOUNT ON EXISTING POST

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SIGN NO.	LOCATION	STATION	OFFSET	SIGN CODE	MESSAGE	SIZE	634.0614	634.0616	637.2210	637.2230	638.2102	REMARKS
							POSTS WOOD 4X6-INCH X 14-FT EACH	POSTS WOOD 4X6-INCH X 16-FT EACH	SIGNS TYPE II REFLECTIVE H SF	SIGNS TYPE II REFLECTIVE F SF	MOVING SIGNS TYPE II EACH	
5-6	STH 123	299+50	RT	R2-1	25 MPH	24 X 30	1	-	5.00	-	-	
5-7	STH 123	301+28	RT	R1-1		30 X 30	-	-	5.18	-	-	MOUNT ON EXISTING POST
5-8	STH 123	305+10	RT	R1-1		30 X 30	-	-	5.18	-	-	MOUNT ON EXISTING POST
5-9	STH 123	305+30	LT	R2-1	25 MPH	24 X 30	1	-	5.00	-	-	
5-10	STH 123	305+75	LT	R7-1D		18 X 24	1	-	3.00	-	-	
5-11	STH 123	306+08	LT	R1-1		30 X 30	-	-	5.18	-	-	MOUNT ON EXISTING POST
5-12	STH 123	306+65	RT	D9-2		24 X 24	-	1	4.00	-	-	
5-13	STH 123	306+65	RT	MB6-1		21 X 21	-	-	3.06	-	-	ON POST WITH SIGN 5-12
5-14	STH 123	307+43	RT	R1-1		30 X 30	-	-	5.18	-	-	MOUNT ON EXISTING POST
5-15	STH 123	310+30	RT	R1-1		30 X 30	-	-	5.18	-	-	MOUNT ON EXISTING POST
5-16	STH 123	311+27	LT	R1-1		30 X 30	-	-	5.18	-	-	MOUNT ON EXISTING POST
5-17	STH 123	311+90	RT	R2-1	25 MPH	24 X 30	1	-	5.00	-	-	
5-18	STH 123	314+64	LT	R1-1		30 X 30	-	-	5.18	-	-	MOUNT ON EXISTING POST
5-19	STH 123	314+79	RT	R1-1		30 X 30	-	-	5.18	-	-	MOUNT ON EXISTING POST
6-1	STH 123	-	LT	J4-1 M4-3 M1-4	USH 12	24 X 36	-	1	6.00	-	-	ON POST WITH SIGN 6-1 ON POST WITH SIGN 6-1
6-2	STH 123	-	LT	J3-2 M4-3 M1-4 M6-4 M3-1 M1-6 M6-1	USH 12 STH 113	48 X 57	-	1	19.00	-	-	ON POST WITH SIGN 6-2 ON POST WITH SIGN 6-2 ON POST WITH SIGN 6-2 ON POST WITH SIGN 6-2 ON POST WITH SIGN 6-2 ON POST WITH SIGN 6-2
6-3	STH 113	-	LT	J2-1 M3-1 M1-6 M5-1R	STH 113	24 X 57	-	1	9.50	-	-	ON POST WITH SIGN 6-3 ON POST WITH SIGN 6-3 ON POST WITH SIGN 6-3
6-4	STH 123	-	RT	J4-2 M3-1 M1-6 M4-3 M1-4	STH 113 USH 12	48 X 36	-	1	12.00	-	-	ON POST WITH SIGN 6-4 ON POST WITH SIGN 6-4 ON POST WITH SIGN 6-4 ON POST WITH SIGN 6-4
6-5	STH 123	-	RT	J4-1 M3-1 M1-6	STH 113	24 X 36	-	1	6.00	-	-	ON POST WITH SIGN 6-5 ON POST WITH SIGN 6-5
6-6	STH 123	-	LT	J4-2 M3-3 M1-6 M4-3 M1-4	STH 113 USH 12	48 X 36	-	1	12.00	-	-	ON POST WITH SIGN 6-6 ON POST WITH SIGN 6-6 ON POST WITH SIGN 6-6 ON POST WITH SIGN 6-6
6-7	STH 33	-	RT	J1-1 M2-1 M1-6	STH 113	24 X 39	-	1	6.50	-	-	ON POST WITH SIGN 6-7 ON POST WITH SIGN 6-7
6-8	STH 33	-	RT	J2-2 M3-3 M1-6 M5-1R M4-3 M1-4 M5-1R	STH 113 USH 12	48 X 57	-	1	19.00	-	-	ON POST WITH SIGN 6-8 ON POST WITH SIGN 6-8 ON POST WITH SIGN 6-8 ON POST WITH SIGN 6-8 ON POST WITH SIGN 6-8 ON POST WITH SIGN 6-8
6-9	STH 33	-	RT	J3-1 M3-3 M1-6 M6-1	STH 113	24 X 57	-	1	9.50	-	-	ON POST WITH SIGN 6-9 ON POST WITH SIGN 6-9 ON POST WITH SIGN 6-9
6-10	STH 33	-	LT	J3-1 M3-3 M1-6 M6-1	STH 113	24 X 57	-	1	9.50	-	-	ON POST WITH SIGN 6-10 ON POST WITH SIGN 6-10 ON POST WITH SIGN 6-10
6-11	STH 33	-	LT	J2-1 M3-3 M1-6 M5-1L	STH 113	24 X 57	-	1	9.50	-	-	ON POST WITH SIGN 6-11 ON POST WITH SIGN 6-11 ON POST WITH SIGN 6-11
6-12	STH 33	-	LT	J1-1 M2-1 M1-6	STH 113	24 X 39	-	1	6.50	-	-	
6-13	STH 123	-	LT	-	PARKWAY/TO WALNUT	84 X 24	2	-	14.00	-	-	
6-14	STH 123	-	LT	-	SOUTH BOULEVARD	78 X 15	2	-	8.13	-	-	
PROJECT TOTALS							53	47	717.47	69.75	3	

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TRAFFIC CONTROL				
	643.0300 DRUMS	643.0410 BARRICADES TYPE II	643.0420 BARRICADES TYPE III	643.0900 SIGNS
LOCATION	DAYS			DAYS
UNDISTRUBUTED	200	18	6	2025
PROJECT TOTAL	200	18	6	2025

TEMPORARY PEDESTRIAN ACCOMMODATIONS					
			644.1430.S TEMPORARY PEDESTRIAN SURFACE PLATE	644.1601.S TEMPORARY CURB RAMP	644.1616.S TEMPORARY PEDESTRIAN SAFETY FENCE
STREET	STATION		SF	EACH	LF
STH 123	220+85	RT	-	1	225
STH 123	222+65	RT	16	1	175
STH 123	247+85	RT	80	1	-
STH 123	248+25	RT	60	1	-
STH 123	261+45	RT	128	1	-
STH 123	262+25	RT	120	1	-
			404	6	400

PAVEMENT MARKING									
				646.0106 EPOXY 4-INCH	646.0406 SAME DAY EPOXY 4-INCH	646.0126 EPOXY 8-INCH	647.0566 STOP LINE EPOXY 18-INCH	649.0402 TEMPORARY PAVEMENT MARKING PAINT 4-INCH	
LOCATION	STATION	TO	STATION	WHITE LF	YELLOW LF	LF	LF	YELLOW LF	
STH 123	200+00	-	222+00	3968	3975	250	70	3975	
STH 123	222+00	-	248+00	5166	3238	-	-	3238	
STH 123	248+00	-	275+50	4948	3695	95	38	3695	
STH 123	275+50	-	317+37	6298	7590	-	-	7590	
PROJECT TOTAL				20380	18498	345	108	18498	

LOCATING NO-PASSING ZONES				
STREET	STATION	TO	STATION	648.0100 MI
STH 123	200+33	-	275+50	1.42
PROJECT TOTAL				1.42

CONSTRUCTION STAKING MAINLINE ITEMS				
ITEM	QUANTITY	UNIT	DESCRIPTION	CATEGORY
650.4000	10	EACH	CONSTRUCTION STAKING STORM SEWER	0010
650.5500	5,455	LF	CONSTRUCTION STAKING CURB GUTTER AND CURB & GUTTER	0010
650.5500	1,670	LF	CONSTRUCTION STAKING CURB GUTTER AND CURB & GUTTER	0020
650.6000	4	EACH	CONSTRUCTION STAKING PIPE CULVERTS	0020
650.8000	11,704	LF	CONSTRUCTION STAKING RESURFACING REFERENCE	0010
650.9910	1	LS	CONSTRUCTION STAKING SUPPLEMENTAL CONTROL (5971-02-72)	0010
650.9920	5,243	LF	CONSTRUCTION STAKING SLOPE STAKES	0010

SAWING ASPHALT				CATEGORY 0010 690.0150	CATEGORY 0020 690.0150
STREET	STATION	TO	STATION	L.F.	L.F.
STH 123	200+00	-	222+00	1040	-
STH 123	222+00	-	248+00	1671	-
STH 123	248+00	-	275+50	2935	1641
STH 123	275+50	-	317+37	615	-
PROJECT TOTAL				6261	1641

ADJUSTING SANITARY MANHOLES				
			SPV.0060.03	
STATION	OFFSET	EACH	EXIST. RIM ELEV.	PROP. RIM ELEV.
217+87.00	26.0' LT	1	958.64	958.97
PROJECT TOTAL		1		

UTILITY LINE OPENING		
		SPV.0060.04
STREET	STATION	EACH
STH 123	212+00	1
STH 123	215+00	1
STH 123	222+20	1
STH 123	247+75	1
STH 123	261+23	1
STH 123	268+00	1
		6

CONCRETE CURB GAPS	
	SPV.0060.05
LOCATION	EACH
UNDISTRUBUTED	5
PROJECT TOTAL	5

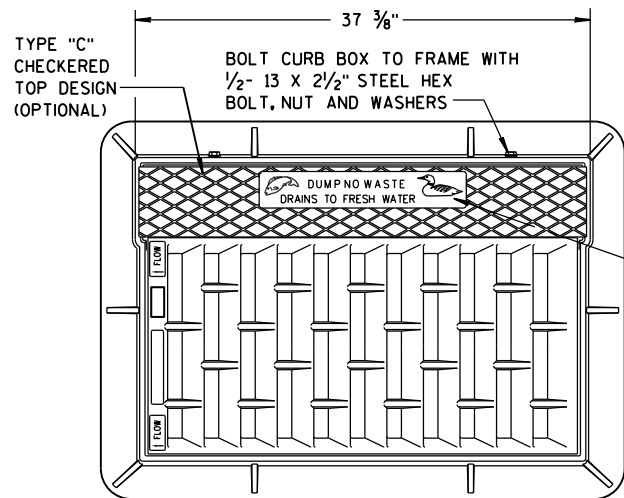
REMOVING HMA PAVEMENT NOTCHED WEDGE LONGITUDINAL JOINT MILLING				
STREET	STATION	TO	STATION	SPV.0090.03 L.F.
STH 123	200+00	-	222+00	2200
STH 123	222+00	-	248+00	2600
STH 123	248+00	-	275+50	2750
STH 123	275+50	-	317+37	4187
PROJECT TOTAL				11737

REMOVING CONCRETE CHANNEL				
STREET	FROM STATION	TO STATION	OFFSET	SPV.0105.01 LS
STH 123	219+50	-	219+85	LT 1
PROJECT TOTAL				1

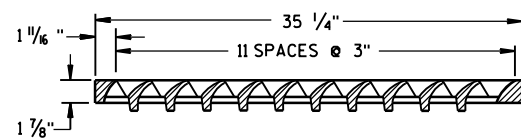
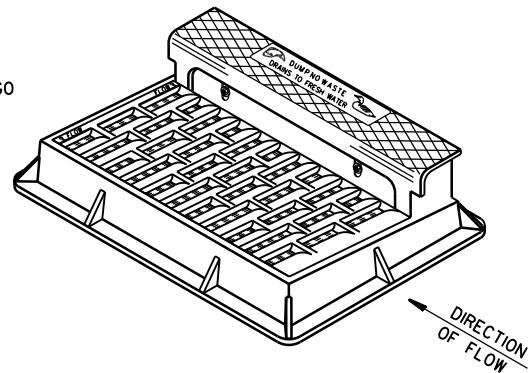
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UNLESS OTHERWISE NOTED

Standard Detail Drawing List

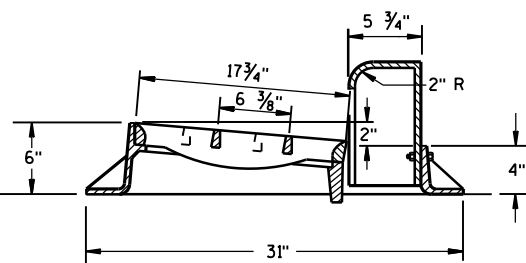
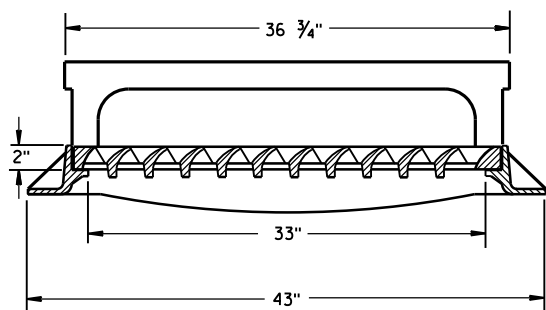
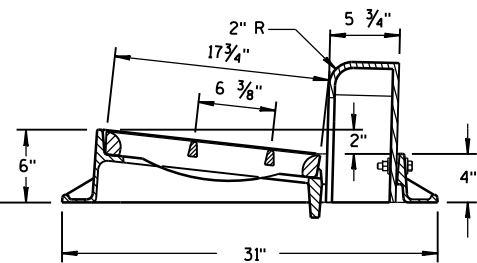
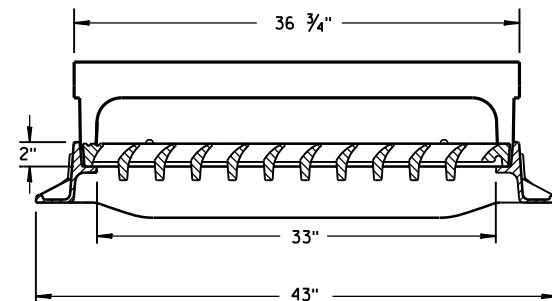
08A05-19A	INLET COVERS TYPE A, H, A-S, H-S & Z
08A05-19B	INLET COVERS TYPE B, B-A, C, MS, MS-A, & WM
08A05-19C	INLET COVERS TYPE F, HM, HM-S, S, T, V, HM-GJ, & HM-GJ-S
08B09-01	MANHOLES 3-FT, 4-FT, 5-FT, 6-FT, 7-FT AND 8-FT DIAMETER
08B10-01	MANHOLES 3X3-FT, 4X4-FT, 5X5-FT AND 6X6-FT
08C07-01	INLETS 2X2-FT, 2X2.5-FT, 2X3-FT AND 2.5X3-FT
08D01-17	CONCRETE CURB, CONCRETE CURB AND GUTTER AND TIES
08D04-05	CONCRETE SURFACE DRAINS & ASPHALTIC FLUMES
08D05-16A	CURB RAMPS TYPES 1 AND 1-A
08D05-16B	CURB RAMPS TYPES 2 AND 3
08D05-16C	CURB RAMPS TYPES 4A AND 4A1
08D05-16D	CURB RAMPS TYPE 4B AND 4B1
08D05-16E	CURB RAMPS TYPES 5, 6, 7A, 7B & 8
08E08-03	TYPICAL INSTALLATIONS OF EROSION BALES / TEMPORARY DITCH CHECKS
08E09-06	SILT FENCE
08E10-02	INLET PROTECTION TYPE A, B, C AND D
08F01-11	APRON ENDWALLS FOR CULVERT PIPE
08F02-01	APRON ENDWALLS FOR PIPE ARCH AND ELLIPTICAL PIPE
08F04-07	JOINT TIES FOR CONCRETE PIPE AND CONCRETE COLLAR DETAIL
15C04-02	TRAFFIC CONTROL, ADVANCE WARNING SIGNS 45 M.P.H. OR GREATER TWO-WAY UNDIVIDED ROAD OPEN TO TRAFFIC
15C05-02	TRAFFIC CONTROL, ADVANCE WARNING SIGNS 40 M.P.H. OR LESS
15C08-16A	PAVEMENT MARKING (MAINLINE)
15C08-16B	PAVEMENT MARKING (INTERSECTIONS)
15C12-04	TRAFFIC CONTROL FOR LANE CLOSURE (SUITABLE FOR MOVING OPERATIONS)
15C33-01	STOP LINE AND CROSSWALK PAVEMENT MARKING
15D30-02A	TRAFFIC CONTROL, PEDESTRIAN ACCOMMODATION
15D30-02B	TRAFFIC CONTROL, TEMPORARY ADA COMPLIANT PEDESTRIAN ACCOMMODATION
15D30-02C	TRAFFIC CONTROL, PEDESTRIAN ACCOMMODATION
16A01-06	LANDMARK REFERENCE MONUMENTS AND COVERS



NOTE:
GRATE IS REVERSIBLE.

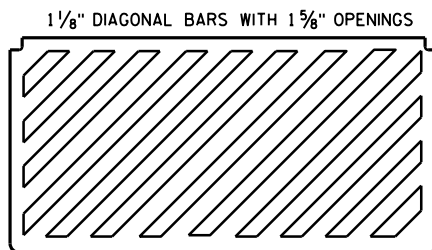


NOTE: CURB BOX HEIGHT ADJUSTABLE 6" TO 9"



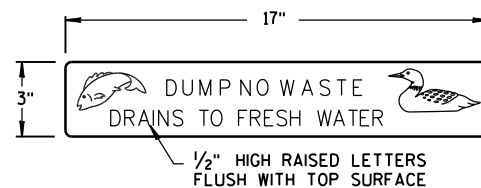
TYPE "H"

NOTE: EITHER CASTING IS ACCEPTABLE

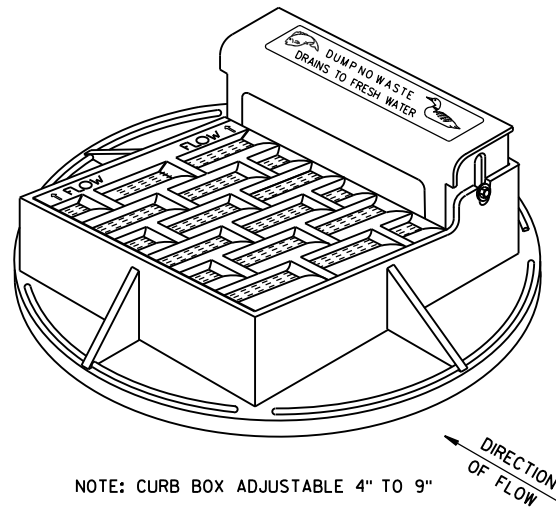


SPECIAL GRATE FOR
TYPE "H" COVER

(MEASURES 35 1/4" X 17 3/4" X 2")
(NOTED AS TYPE H-S ON DRAINAGE TABLE)

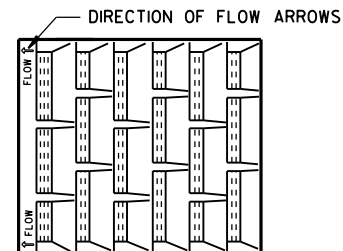


LOGO DETAIL

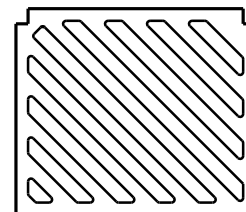


NOTE: CURB BOX ADJUSTABLE 4" TO 9"

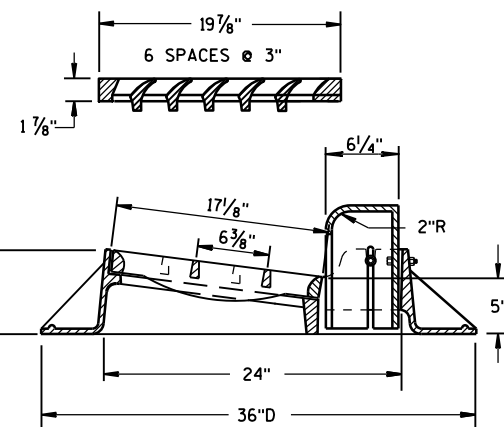
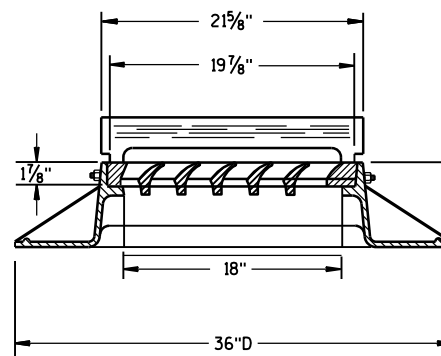
NOTE:
GRATE IS REVERSIBLE.



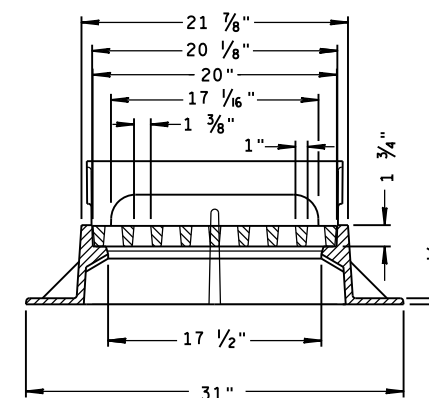
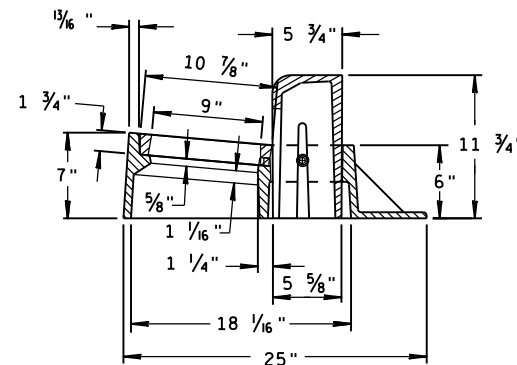
1" DIAGONAL BARS
WITH 1 1/2" OPENINGS



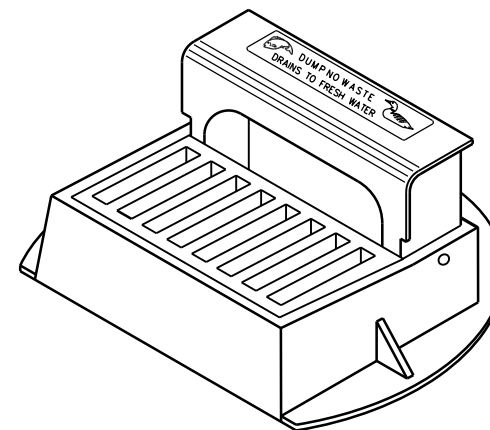
SPECIAL GRATE FOR
TYPE "A" COVER
(MEASURES 19 3/4" X 17" X 1 1/8")
(NOTED AS TYPE A-S ON DRAINAGE TABLE)



TYPE "A"



TYPE "Z"

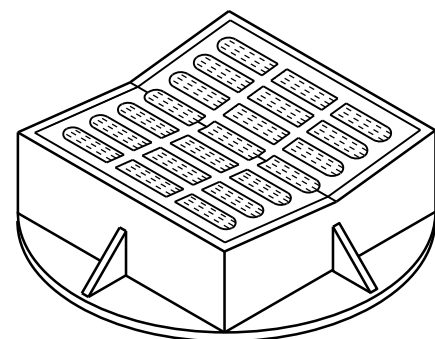
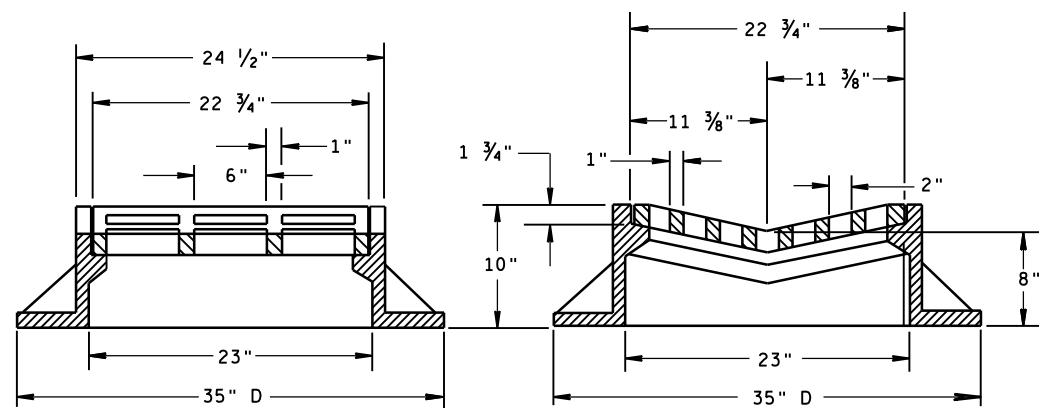


INLET COVERS
TYPE A, H, A-S, H-S & Z

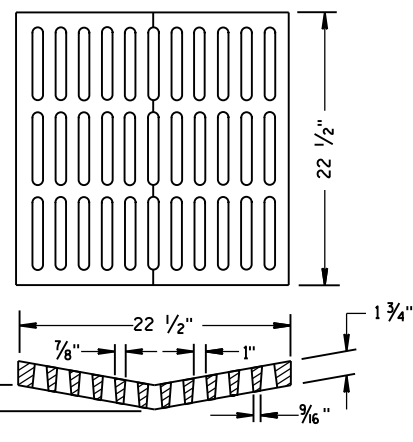
STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
11-27-13
DATE
FHWA

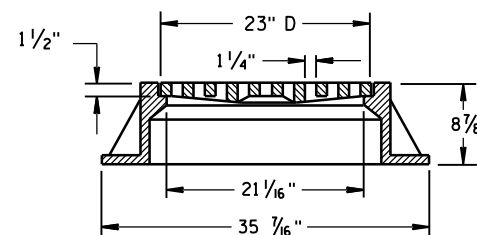
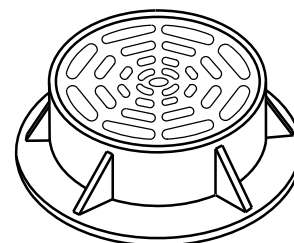
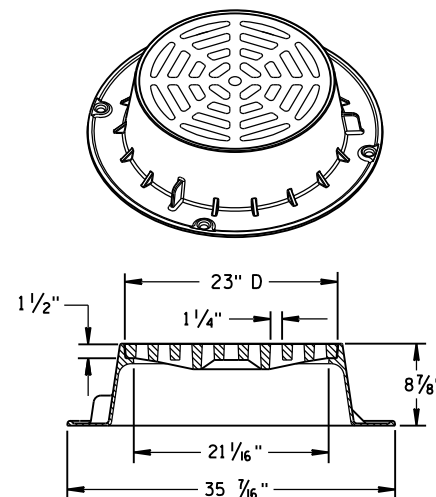
/S/ Jerry H. Zogg
ROADWAY STANDARDS DEVELOPMENT
ENGINEER



TYPE "B"

ALTERNATIVE GRATE FOR
TYPE "B" COVER

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



TYPE "C"

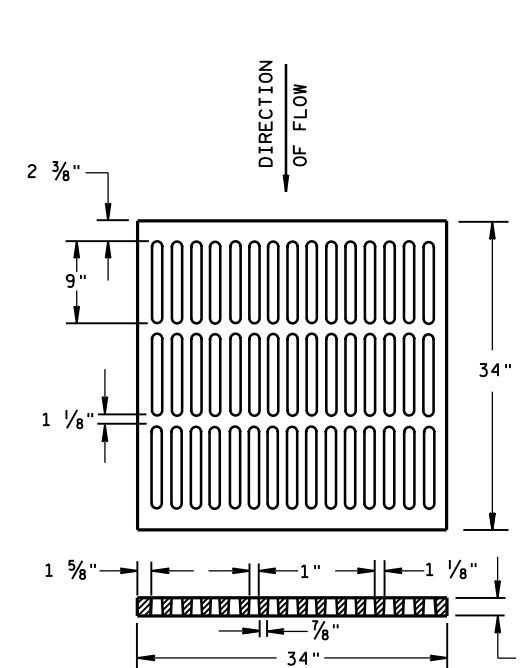
NOTE: EITHER CASTING IS ACCEPTABLE

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.

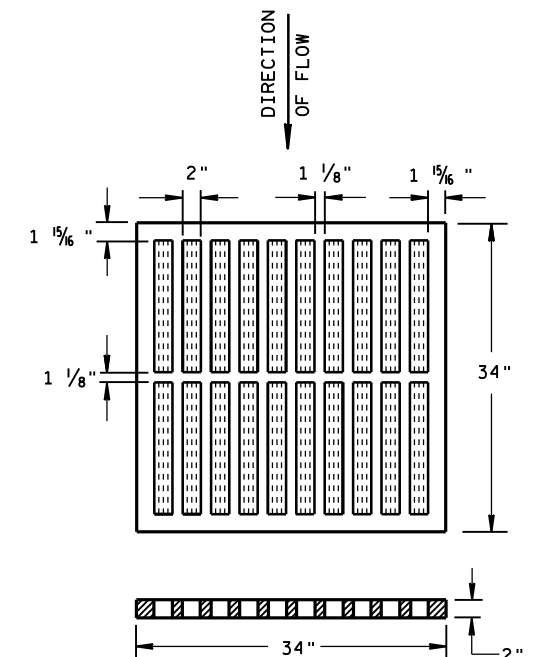
DETAIL DRAWINGS FOR PROPOSED ALTERNATE DESIGNS FOR CATCH BASIN, MANHOLE AND INLET COVERS SHALL BE SUBMITTED TO THE ENGINEER FOR APPROVAL PROVIDING THAT SUCH ALTERNATE DESIGNS MAKE PROVISION FOR EQUIVALENT CAPACITY AND STRENGTH.

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



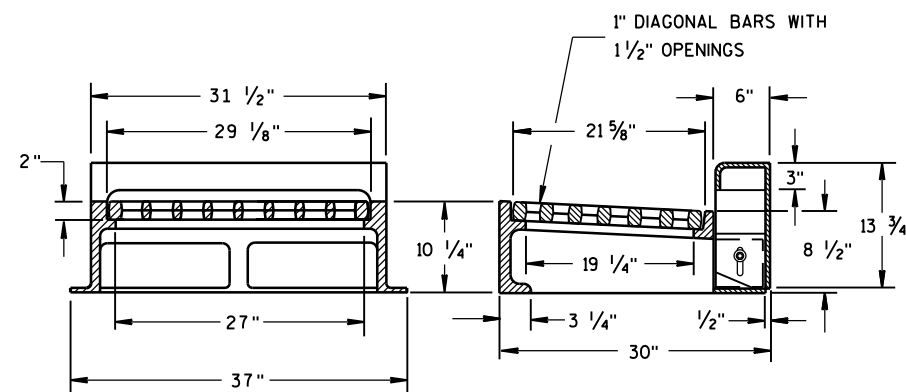
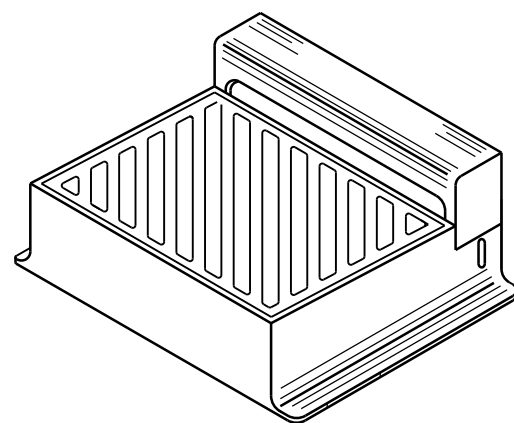
ALTERNATIVE TYPE "MS"

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



TYPE "MS"

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



NOTE: CURB BOX HEIGHT ADJUSTABLE 6" TO 9"

TYPE "WM"

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

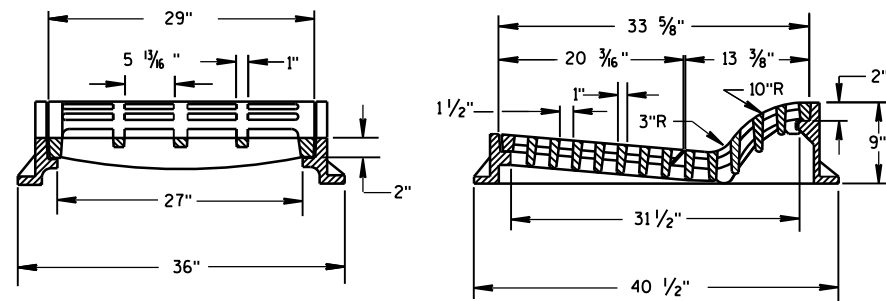
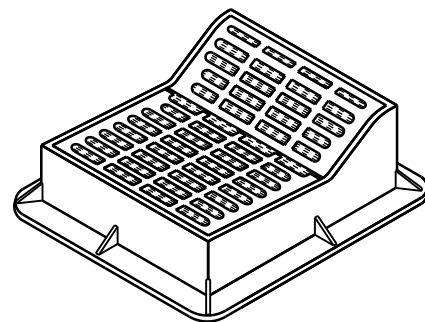
DIRECTION
OF FLOW

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

STATE OF WISCONSIN
 DEPARTMENT OF TRANSPORTATION

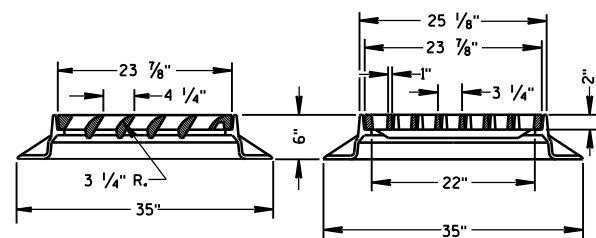
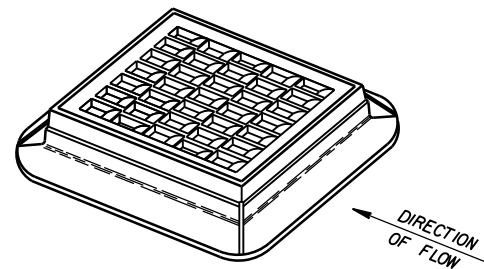
APPROVED
 11/27/2013
 DATE
 FHWA

/S/ Jerry H. Zogg
 ROADWAY STANDARDS DEVELOPMENT
 ENGINEER

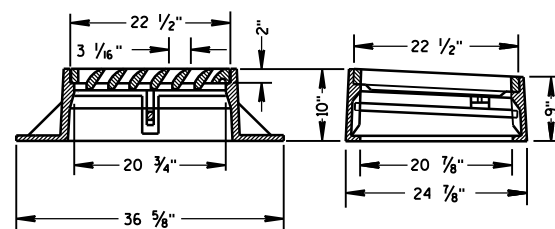
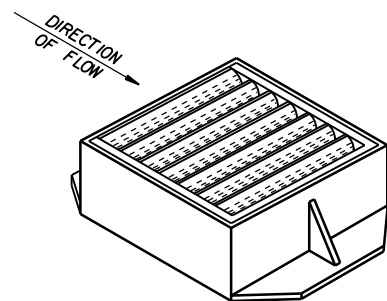


TYPE "F"

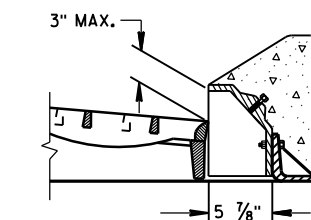
USE WITH TYPES A & D CONCRETE CURB & GUTTER, 36 INCH.



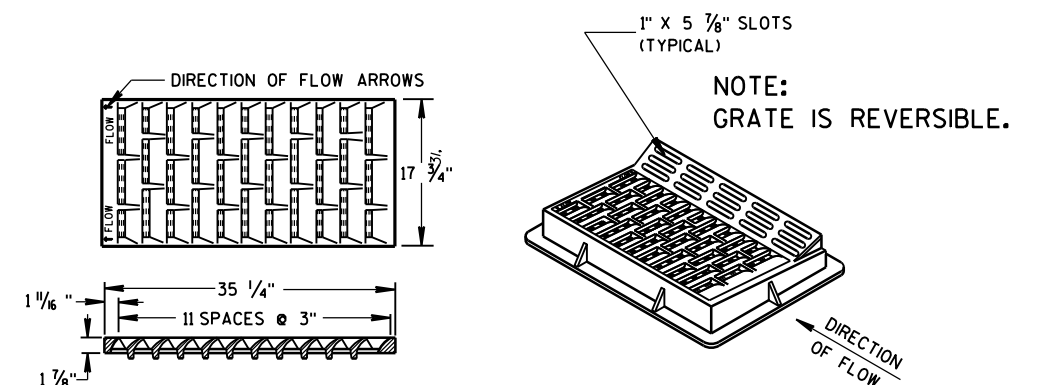
TYPE "S"



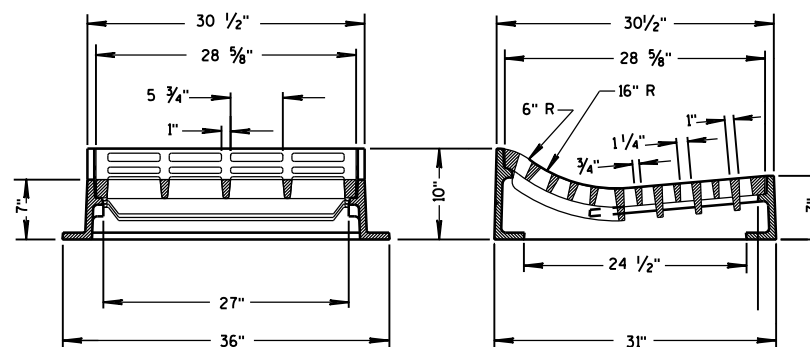
TYPE "V"

ALTERNATIVE CURB BOX
FOR TYPE "HM" COVERUSE WITH TYPES G & J CONCRETE CURB & GUTTER, 30 INCH
NOTED AS TYPE HM-GJ ON DRAINAGE TABLENOTE:
SPECIAL GRATE FOR THE
TYPE "H" COVER MAY ALSO BE
USED FOR THE TYPE "HM-GJ" COVER
NOTED AS TYPE HM-GJ-S ON DRAINAGE TABLE

GENERAL NOTES

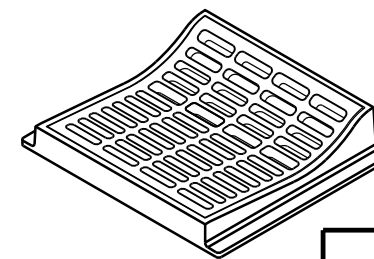
DETAILS OF CONSTRUCTION, MATERIALS AND WORKMANSHIP NOT SHOWN ON THIS DRAWING
SHALL CONFORM TO THE PERTINENT REQUIREMENTS OF THE STANDARD SPECIFICATIONS AND
THE APPLICABLE SPECIAL PROVISIONS.DETAIL DRAWINGS FOR PROPOSED ALTERNATE DESIGNS FOR INLET COVERS SHALL BE SUBMITTED
TO THE ENGINEER FOR APPROVAL PROVIDING THAT SUCH ALTERNATE DESIGNS MAKE PROVISION
FOR EQUIVALENT CAPACITY AND STRENGTH.

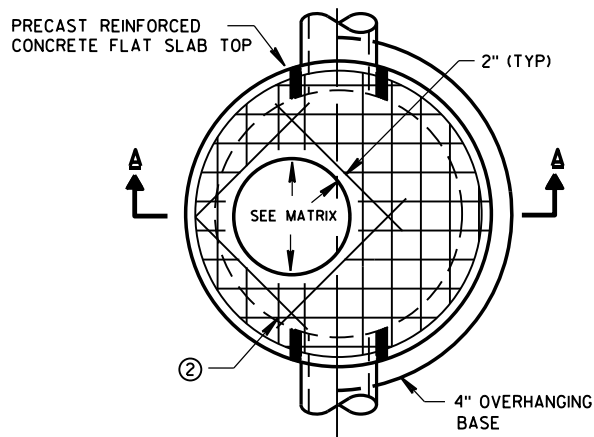
TYPE "HM"

USE WITH TYPES A & D CONCRETE
CURB & GUTTER, 36 INCH.NOTE:
SPECIAL GRATE FOR THE
TYPE "H" COVER MAY ALSO BE
USED FOR THE TYPE "HM" COVER
NOTED AS TYPE HM-S ON DRAINAGE TABLE

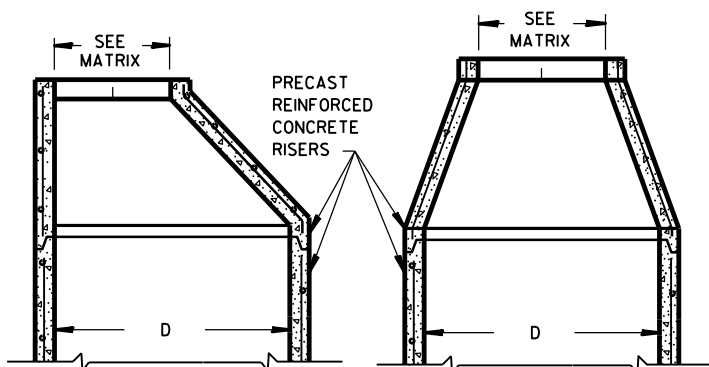
TYPE "T"

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

INLET COVERS
TYPE F, HM, HM-S, S, T, V,
HM-GJ, & HM-GJ-SSTATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATIONAPPROVED
11/27/2013
DATE
/S/ Jerry H. Zogg
ROADWAY STANDARDS DEVELOPMENT
ENGINEER
FHWA

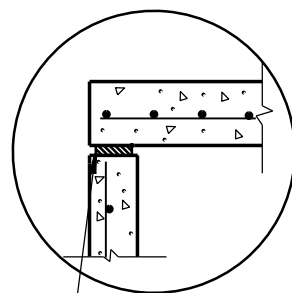


PLAN VIEW CIRCULAR OPENING

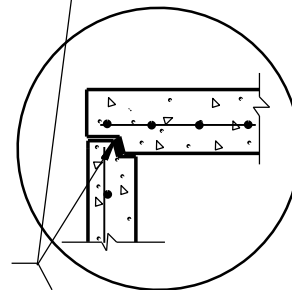


OPTIONAL PRECAST REINFORCED CONCRETE ECCENTRIC TOP

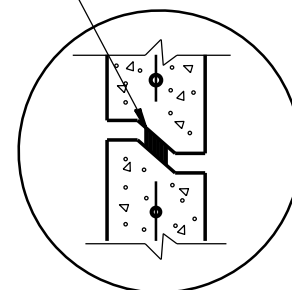
OPTIONAL PRECAST REINFORCED CONCRETE CONCENTRIC TOP



TOP WITH PLAIN END JOINT



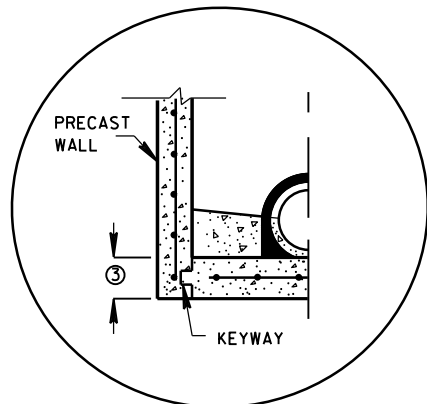
TOP WITH TONGUE AND GROOVE JOINT



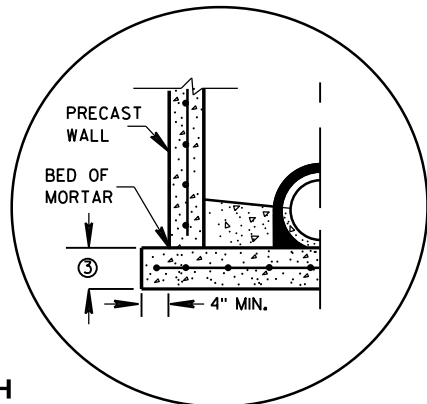
RISER WITH TONGUE AND GROOVE JOINT

DETAIL "B"

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

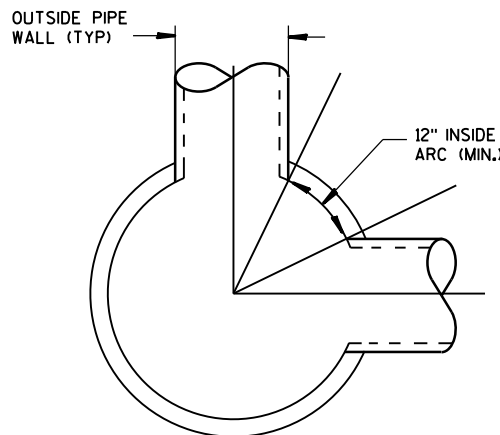


PRECAST REINFORCED CONCRETE WITH INTEGRAL BASE OPTION

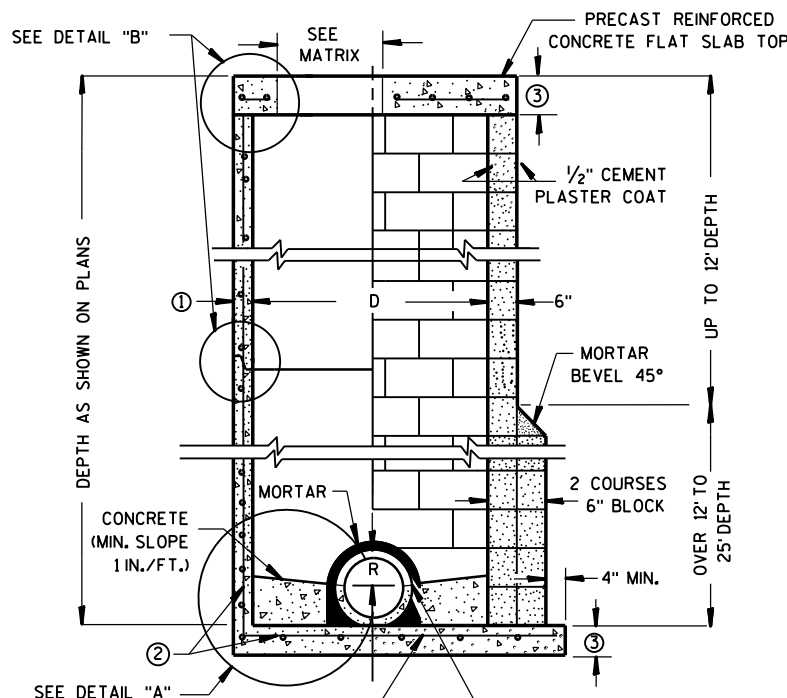


SEPARATE PRECAST REINFORCED CONCRETE BASE OPTION

DETAIL "A"



DETAIL "C"



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

SPLIT PIPE OR FORM CONCRETE TO FIT

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

MANHOLES 3-FT, 4-FT, 5-FT, 6-FT, 7-FT AND 8-FT DIAMETER

GENERAL NOTES

DETAILS OF CONSTRUCTION, MATERIALS AND WORKMANSHIP NOT SHOWN ON THIS DRAWING SHALL CONFORM TO THE PERTINENT REQUIREMENTS OF THE STANDARD SPECIFICATIONS AND THE APPLICABLE SPECIAL PROVISIONS. UNLESS OTHERWISE AUTHORIZED IN WRITING BY THE ENGINEER, THE CONTRACTOR SHALL NOT ORDER AND DELIVER PRECAST MANHOLE UNITS REQUIRED FOR THE PROJECT UNTIL A LIST OF SIZES IS FURNISHED BY THE ENGINEER.

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

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

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

PRECAST REINFORCED CONE TOPS (ECCENTRIC OR CONCENTRIC) OR PRECAST REINFORCED FLAT SLAB TOPS MAY BE USED ON CONCRETE BLOCK STRUCTURES. THE CONE TOPS SHALL BE INSTALLED ON A BED OF MORTAR.

ECCENTRIC CONE TOPS MAY BE USED ON ALL STRUCTURES, AND CONCENTRIC CONE TOPS SHALL BE USED ONLY ON STRUCTURES 5 FEET OR LESS IN DEPTH, UNLESS OTHERWISE DIRECTED BY THE ENGINEER.

STEPS MEETING AASHTO M199 AND THE FOLLOWING REQUIREMENTS SHALL BE INSTALLED IN ALL STRUCTURES OVER 5 FEET IN DEPTH: 16 INCH C-C MAXIMUM SPACING; PROJECT A MINIMUM CLEAR DISTANCE OF 4 INCHES FROM THE WALL AT THE POINT OF EMBEDMENT; MINIMUM LENGTH OF 10 INCHES; MINIMUM WALL EMBEDMENT OF 3 INCHES. FERROUS METAL STEPS NOT PAINTED OR TREATED TO RESIST CORROSION SHALL HAVE A MINIMUM CROSS SECTIONAL DIMENSION OF 1 INCH.

STEPS OF APPROVED POLYPROPYLENE PLASTIC COATED REINFORCEMENT BAR ARE ACCEPTABLE. REINFORCING BAR MUST BE A MINIMUM OF 1/2" AND MEET THE REQUIREMENTS OF ASTM A615.

CERTIFICATION SHALL BE PROVIDED THAT INSTALLED STEPS WHEN TESTED IN ACCORDANCE WITH SECTION 10 OF AASHTO T280 CAN WITHSTAND A VERTICAL LOAD OF 800 LBS. AND A HORIZONTAL LOAD OF 400 LBS.

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

CONCRETE BLOCK WILL NOT BE PERMITTED FOR STRUCTURES GREATER THAN 4 FEET IN DIAMETER.

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

ALL PRECAST MANHOLE UNITS SHALL CONFORM TO THE PERTINENT REQUIREMENTS OF AASHTO DESIGNATION M 199.

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

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

① MINIMUM WALL THICKNESS SHALL BE 4 INCHES FOR 3-FT, 5 INCHES FOR 4-FT, 6 INCHES FOR 5-FT, 7 INCHES FOR 6-FT, 8 INCHES FOR 7-FT AND 9 INCHES FOR 8-FT DIAMETER PRECAST MANHOLES.

② FOR PRECAST MANHOLES PROVIDE REINFORCING STEEL IN ACCORDANCE TO AASHTO M199.

③ PRECAST FLAT SLAB TOPS AND BASES WITH A DIAMETER OF 48" AND LESS SHALL HAVE A MINIMUM THICKNESS OF 6". PRECAST FLAT SLAB TOPS AND BASES WITH A DIAMETER LARGER THAN 48" SHALL HAVE A MINIMUM THICKNESS OF 8".

MANHOLE COVER OPENING MATRIX

MANHOLE COVER TYPE	C	ALL J'S	K	L	M
OPENING SIZE (FT)					
2 DIA.	X	X		X	
3 DIA.			X		X

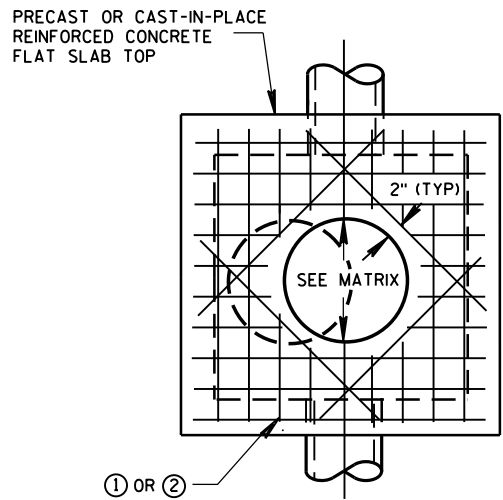
PIPE MATRIX

MANHOLE SIZE	MAXIMUM INSIDE PIPE DIAMETER FOR TWO PIPES	
	180° SEPARATION (IN)	90° SEPARATION (IN)
3-FT	15	12
4-FT	24	18
5-FT	36	24
6-FT	42	36
7-FT	48	36
8-FT	60	42

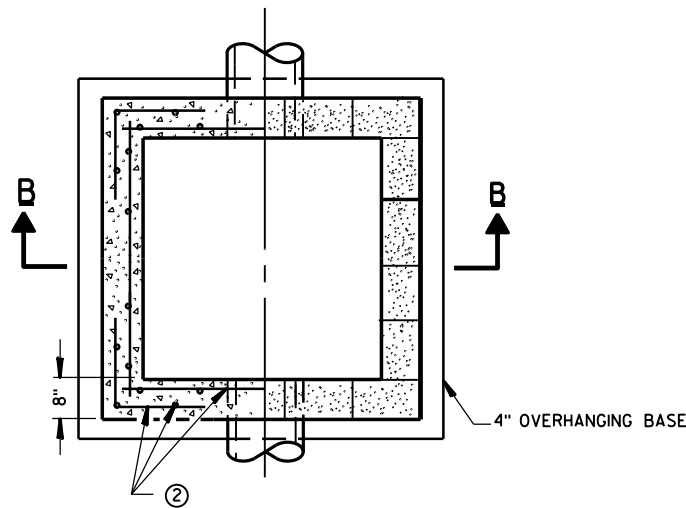
MANHOLES 3-FT, 4-FT, 5-FT, 6-FT, 7-FT AND 8-FT DIAMETER

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

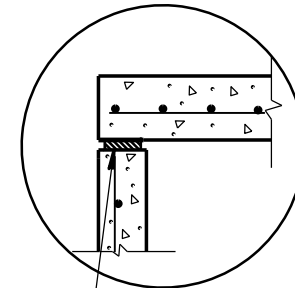
APPROVED
6/5/2012 /S/ Jerry H. Zogg
DATE ROADWAY STANDARDS DEVELOPMENT
FHWA ENGINEER



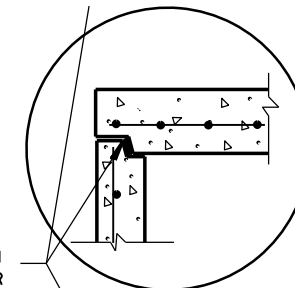
PLAN VIEW
CIRCULAR OPENING



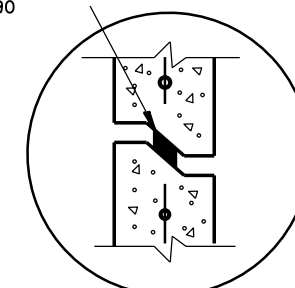
SECTION A-A
PLAN VIEW



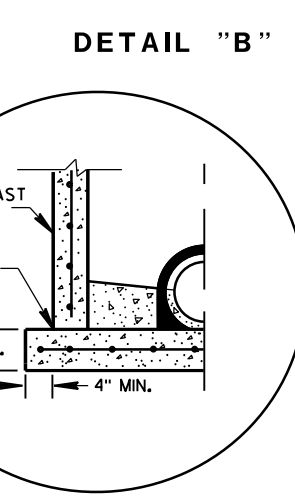
TOP WITH PLAIN END JOINT



TOP WITH TONGUE AND GROOVE JOINT



DETAIL "B"



SEPARATE PRECAST REINFORCED
CONCRETE BASE OPTION

DETAIL "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.

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

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

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

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

PRECAST REINFORCED FLAT SLAB TOPS MAY BE USED ON CONCRETE BLOCK STRUCTURES. THE TOPS SHALL BE INSTALLED ON A BED OF MORTAR.

STEPS MEETING AASHTO M199 AND THE FOLLOWING REQUIREMENTS SHALL BE INSTALLED IN ALL STRUCTURES OVER 5 FEET IN DEPTH: 16 INCH C-C MAXIMUM SPACING; PROJECT A MINIMUM CLEAR DISTANCE OF 4 INCHES FROM THE WALL AT THE POINT OF EMBEDMENT; MINIMUM LENGTH OF 10 INCHES; MINIMUM WALL EMBEDMENT OF 3 INCHES. FERROUS METAL STEPS NOT PAINTED OR TREATED TO RESIST CORROSION SHALL HAVE A MINIMUM CROSS SECTIONAL DIMENSION OF 1 INCH.

STEPS OF APPROVED POLYPROPYLENE PLASTIC COATED REINFORCEMENT BAR ARE ACCEPTABLE. REINFORCING BAR MUST BE A MINIMUM OF 1/2 INCH AND MEET THE REQUIREMENTS OF ASTM A615.

CERTIFICATION SHALL BE PROVIDED THAT INSTALLED STEPS WHEN TESTED IN ACCORDANCE WITH SECTION 10 OF AASHTO T280 CAN WITHSTAND A VERTICAL LOAD OF 800 LBS. AND A HORIZONTAL LOAD OF 400 LBS.

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

CONCRETE BLOCK WILL NOT BE PERMITTED FOR STRUCTURES GREATER THAN 4 FEET IN WIDTH.

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

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

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

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

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

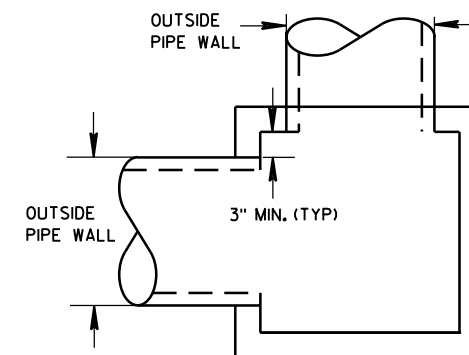
② CONTRACTOR TO PROVIDE DRAWING(S) STAMPED BY A PROFESSIONAL ENGINEER FOR STEEL REINFORCING DESIGN FOR CAST-IN-PLACE STRUCTURES.

MANHOLE COVER OPENING MATRIX

MANHOLE COVER TYPE	C	ALL J'S	K	L	M
OPENING SIZE (FT)					
2 DIA.	X	X		X	
3 DIA.			X		X

PIPE MATRIX

MANHOLE SIZE	MAXIMUM INSIDE PIPE DIAMETER	
	WIDTH (W) (IN)	LENGTH (L) (IN)
3X3-FT	24	24
4X4-FT	30	30
5X5-FT	42	42
6X6-FT	54	54



DETAIL "C"

PRECAST REINFORCED
CONCRETE WITH
MONOLITHIC BASE

PRECAST REINFORCED
CONCRETE WITH
INTEGRAL BASE

CAST-IN-PLACE
REINFORCED
CONCRETE

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

SQUARE MANHOLES W/ FLAT TOP

MANHOLES 3X3-FT, 4X4-FT, 5X5-FT AND 6X6-FT

MANHOLES 3X3-FT, 4X4-FT
5X5-FT AND 6X6-FT

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

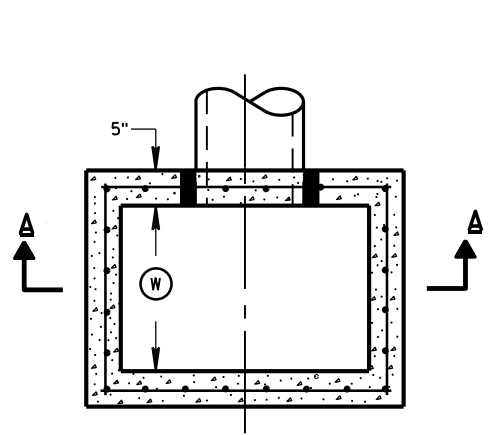
APPROVED

6/5/2012

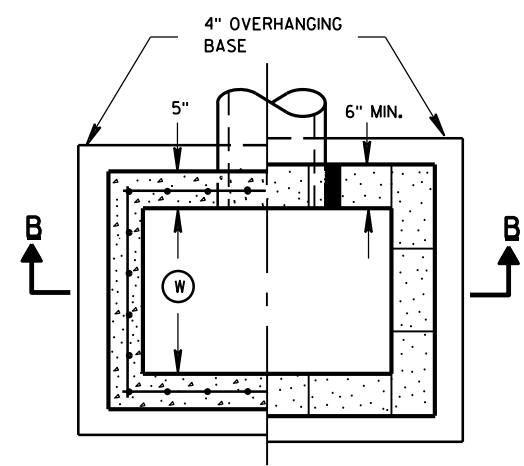
DATE

FHWA

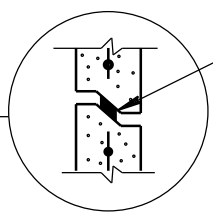
/S/ Jerry H. Zogg
ROADWAY STANDARDS DEVELOPMENT
ENGINEER



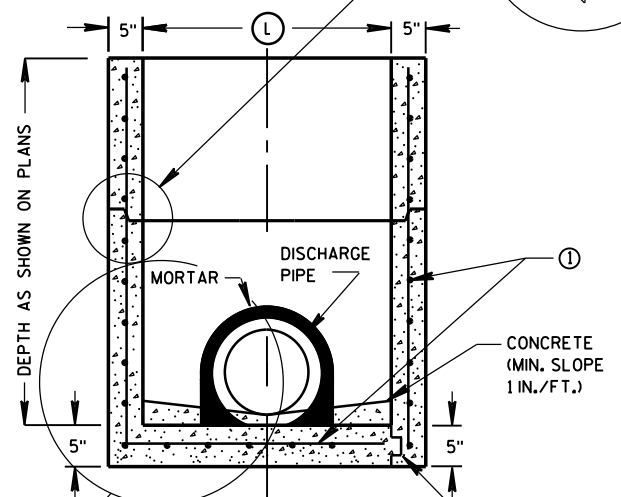
PLAN VIEW



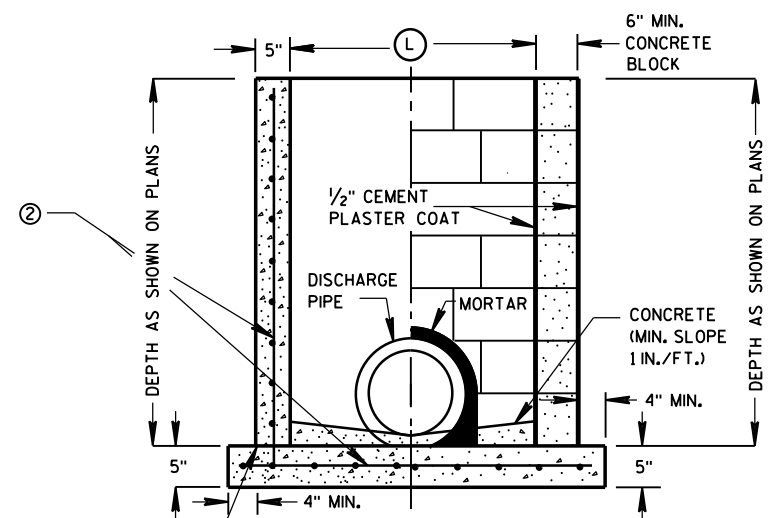
PLAN VIEW



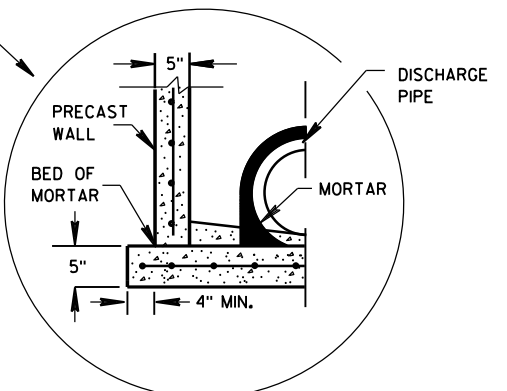
RISER JOINTS TO BE SEALED WITH A BUTYL RUBBER SEAL PER SEALANT MANUFACTURERS RECOMMENDATIONS CONFORMING TO ASTM C 990 (TYP)



SECTION A-A



SECTION B-B



SEPARATE 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.

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

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

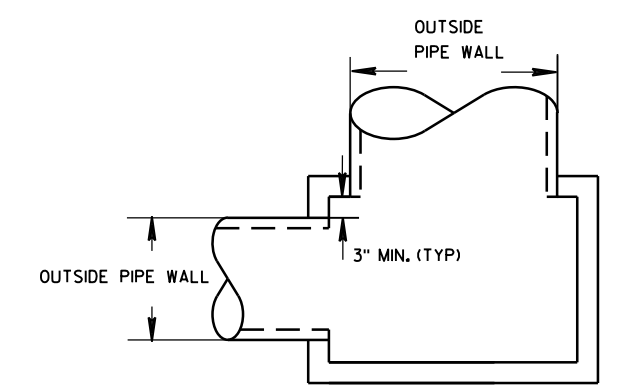
- ① FOR PRECAST INLETS PROVIDE REINFORCING STEEL IN ACCORDANCE TO ASTM C 913.
- ② CONTRACTOR TO PROVIDE DRAWING(S) STAMPED BY A PROFESSIONAL ENGINEER FOR STEEL REINFORCING DESIGN FOR CAST-IN-PLACE STRUCTURES.

INLET COVER MATRIX

INLET SIZE	WIDTH ① (FT)	LENGTH ② (FT)	ALL A'S	ALL B'S	BW	F	ALL H'S	S	T	V	WM
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

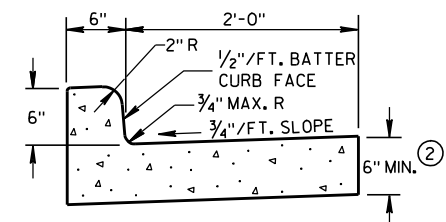


DETAIL "A"

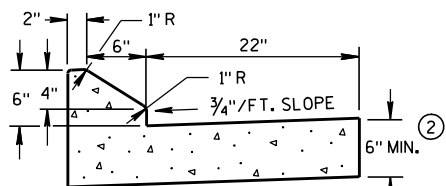
INLETS 2X2-FT, 2X2.5-FT,
2X3-FT AND 2.5X3-FT

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

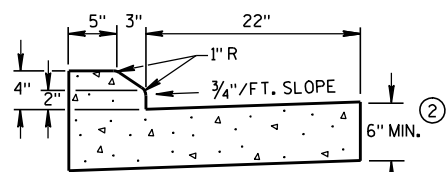
APPROVED
6/5/2012 /S/ Jerry H. Zogg
DATE ROADWAY STANDARDS DEVELOPMENT
FHWA ENGINEER



TYPES A & D ①

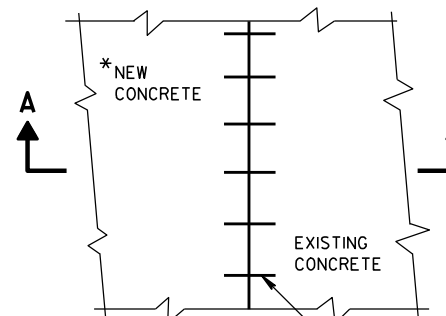


6" SLOPED CURB TYPES G & J ①



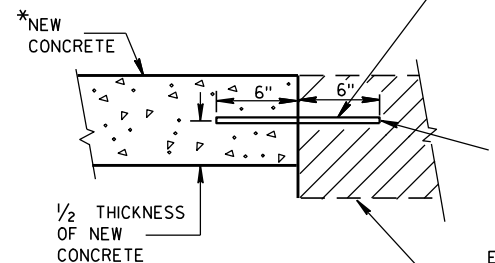
4" SLOPED CURB TYPES G & J ①

CONCRETE CURB & GUTTER 30"



PLAN VIEW

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

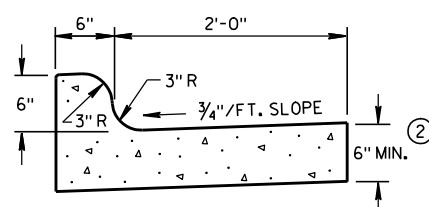


SECTION A-A
TIE BARS DRILLED
INTO EXISTING PAVEMENT

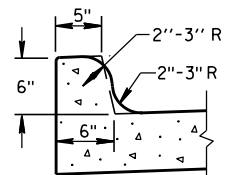
NO. 6 TIE BARS SPACED 2'-6" C-C,
INSTALLED PERPENDICULAR
TO THE LONGITUDINAL JOINT.

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

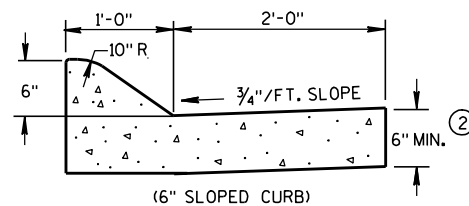
EXISTING
CONCRETE



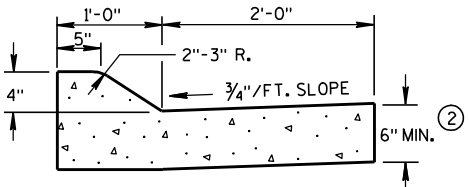
TYPES K & L ①



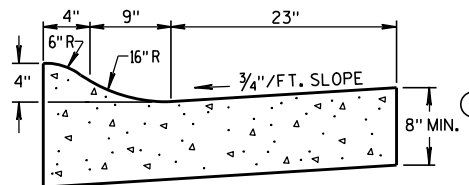
OPTIONAL CURB SHAPE
FOR TYPES K & L ①



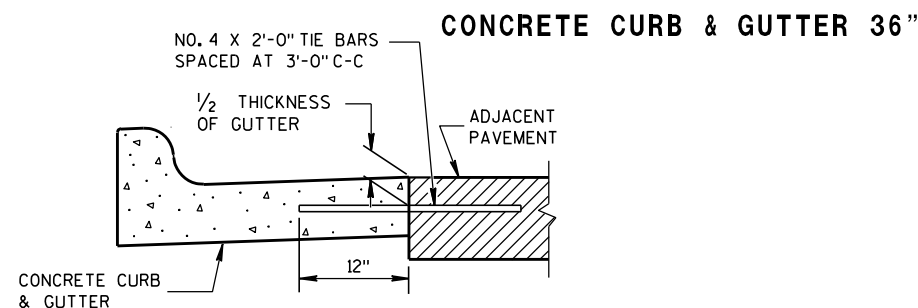
(6" SLOPED CURB)



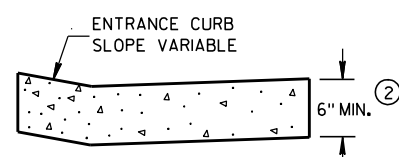
TYPES A & D ①



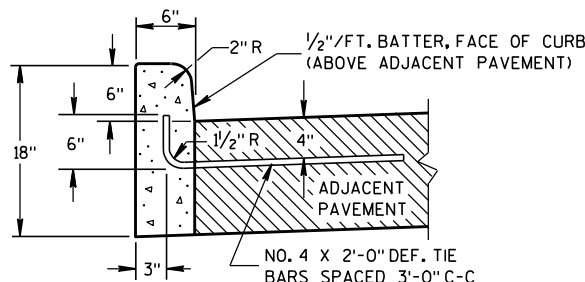
4" SLOPED CURB TYPES R & T ① ④



TYPICAL TIE BAR LOCATION ①

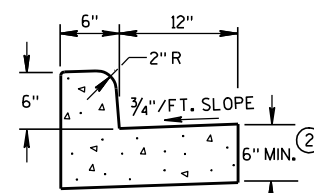


DRIVEWAY ENTRANCE CURB
(WHEN DIRECTED BY THE ENGINEER)

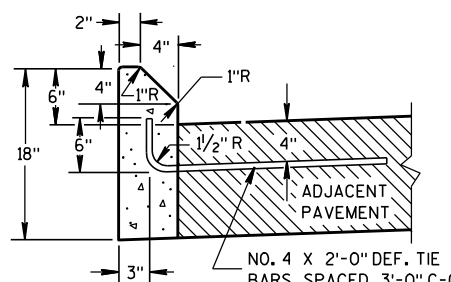


TYPES A & D ①

CONCRETE CURB



TYPES A & D
CONCRETE CURB & GUTTER 18"



TYPES G & J ①

GENERAL NOTES

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

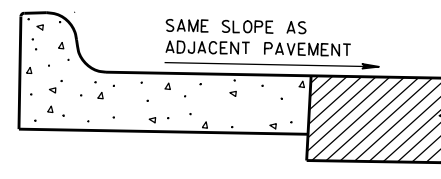
PAVEMENT TIES AND TIE BARS SHALL BE EPOXY COATED IN CONFORMANCE WITH SUBSECTION 505.2.6.2 OF THE STANDARD SPECIFICATIONS.

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.

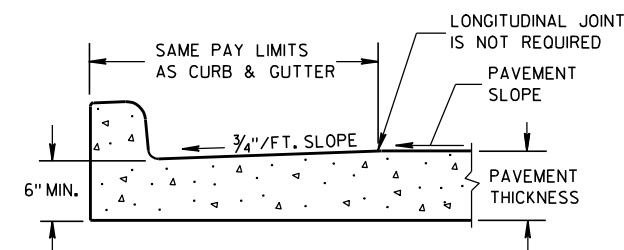
WHERE THE TRANSVERSE JOINTS IN THE PAVEMENT ARE REQUIRED TO BE SEALED, THE JOINTS IN THE INTEGRAL CURB AND GUTTER SHALL BE SEALED TO THE FACE OF CURB WITH THE SAME TYPE OF SEALANT. THE COST OF FURNISHING AND INSTALLING THIS SEALANT SHALL BE INCIDENTAL TO THE ITEM CONCRETE CURB AND GUTTER.

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

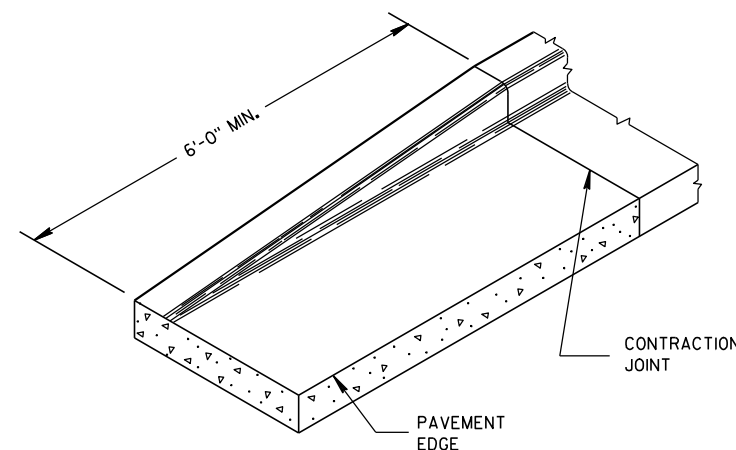
- ① TIE BARS ARE REQUIRED FOR CURB AND GUTTER TYPES A, G, K AND R.
- ② THE BOTTOM OF CURB AND GUTTER MAY BE CONSTRUCTED EITHER LEVEL OR PARALLEL TO THE SLOPE OF THE SUBGRADE OR BASE AGGREGATE PROVIDED A 6" MINIMUM GUTTER THICKNESS IS MAINTAINED.
- ③ THE BOTTOM OF CURB AND GUTTER MAY BE CONSTRUCTED EITHER 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 & GUTTER

CONCRETE CURB, CONCRETE
CURB & GUTTER AND TIES

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED

9/4/08

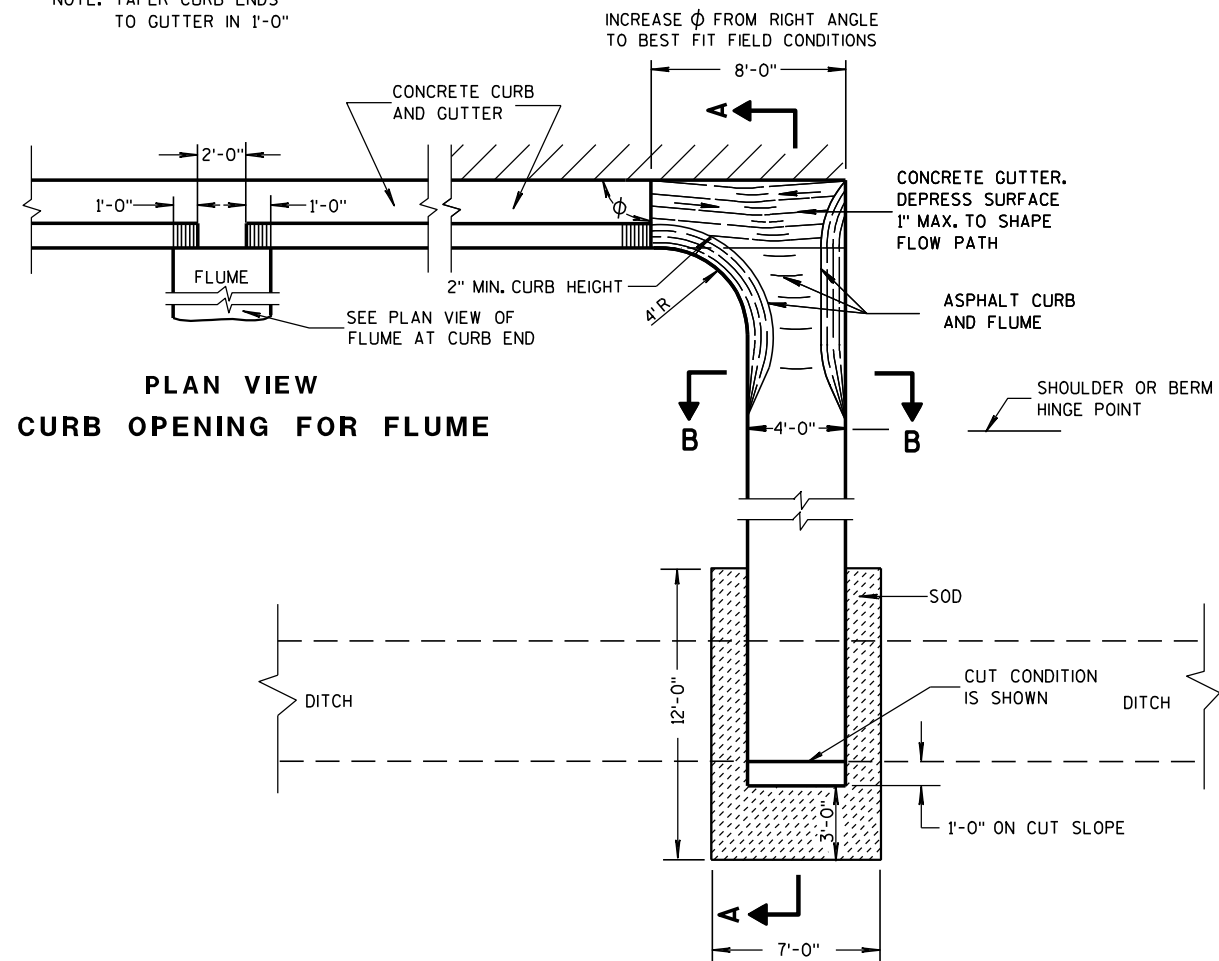
DATE

FHWA

/S/ Jerry H. Zogg
ROADWAY STANDARDS DEVELOPMENT
ENGINEER

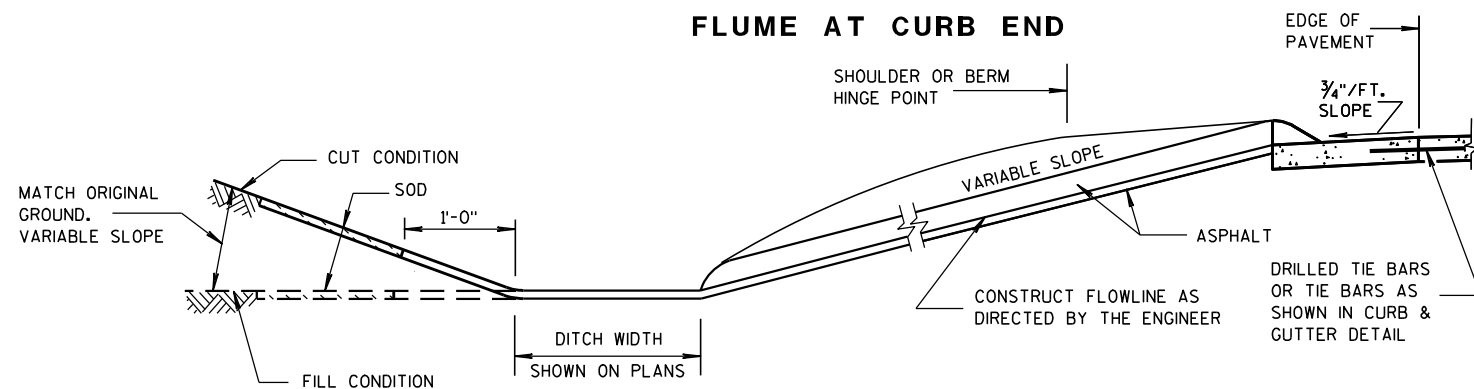
ASPHALTIC FLUME

NOTE: TAPER CURB ENDS
TO GUTTER IN 1'-0"

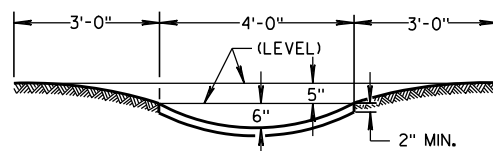


PLAN VIEW
CURB OPENING FOR FLUME

PLAN VIEW
FLUME AT CURB END



SECTION A-A



SECTION B-B

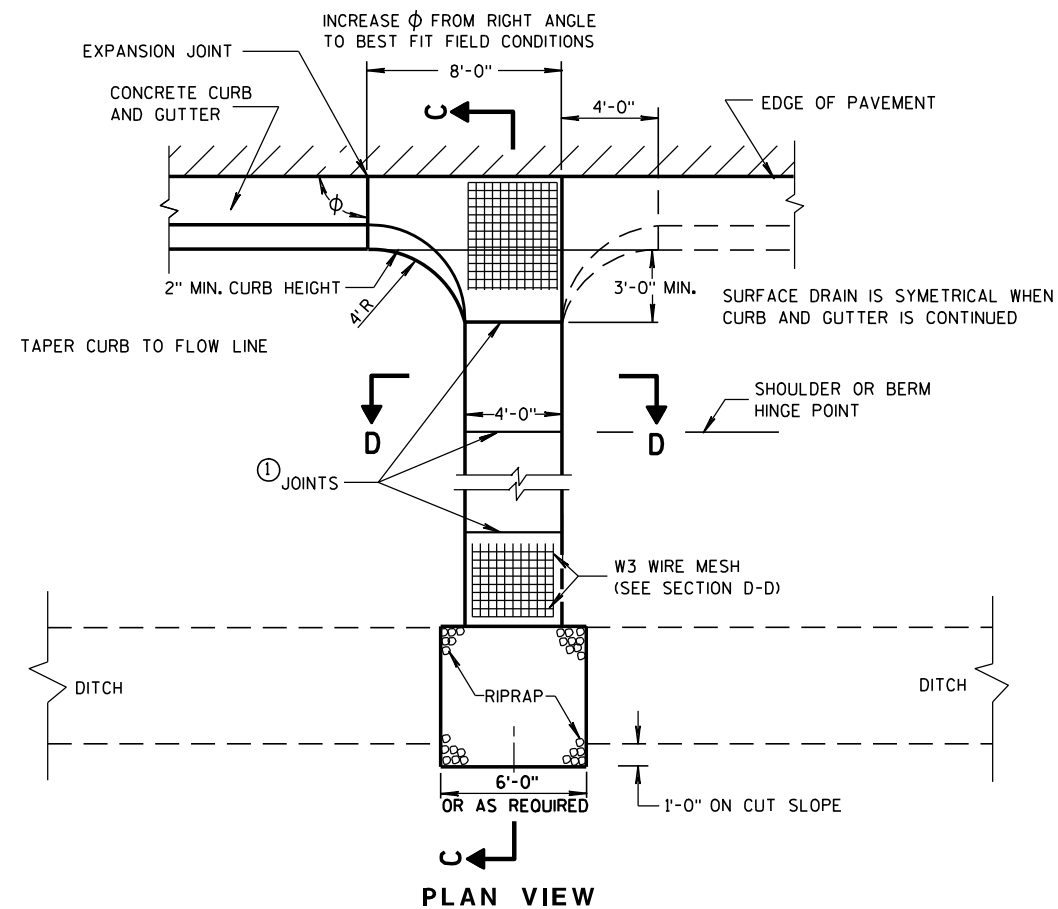
GENERAL NOTES

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

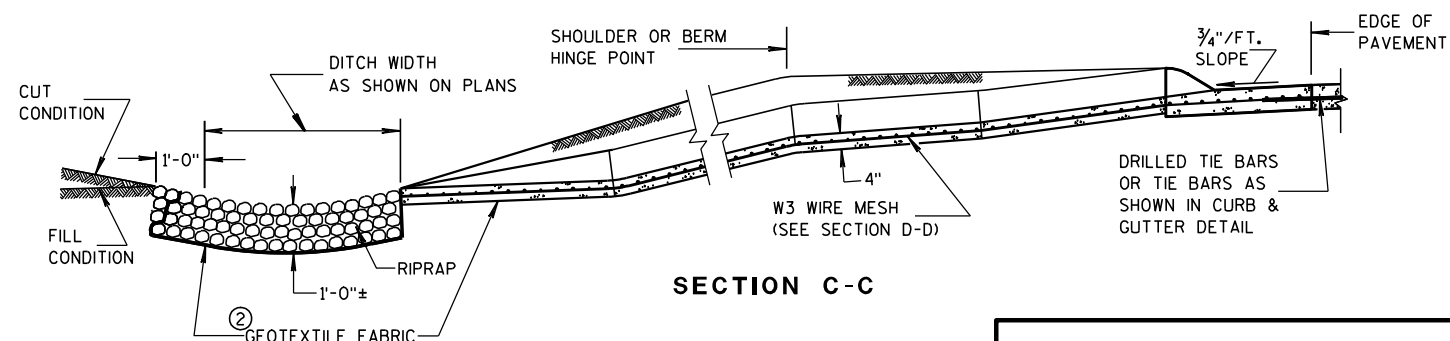
WELDED STEEL WIRE FABRIC SHALL BE IN ACCORDANCE WITH AASHTO SPECIFICATION M55.

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

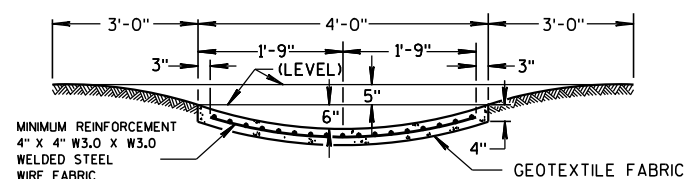
③ CONCRETE SURFACE DRAIN



PLAN VIEW



SECTION C-C



SECTION D-D

CONCRETE SURFACE DRAINS & ASPHALTIC FLUMES

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

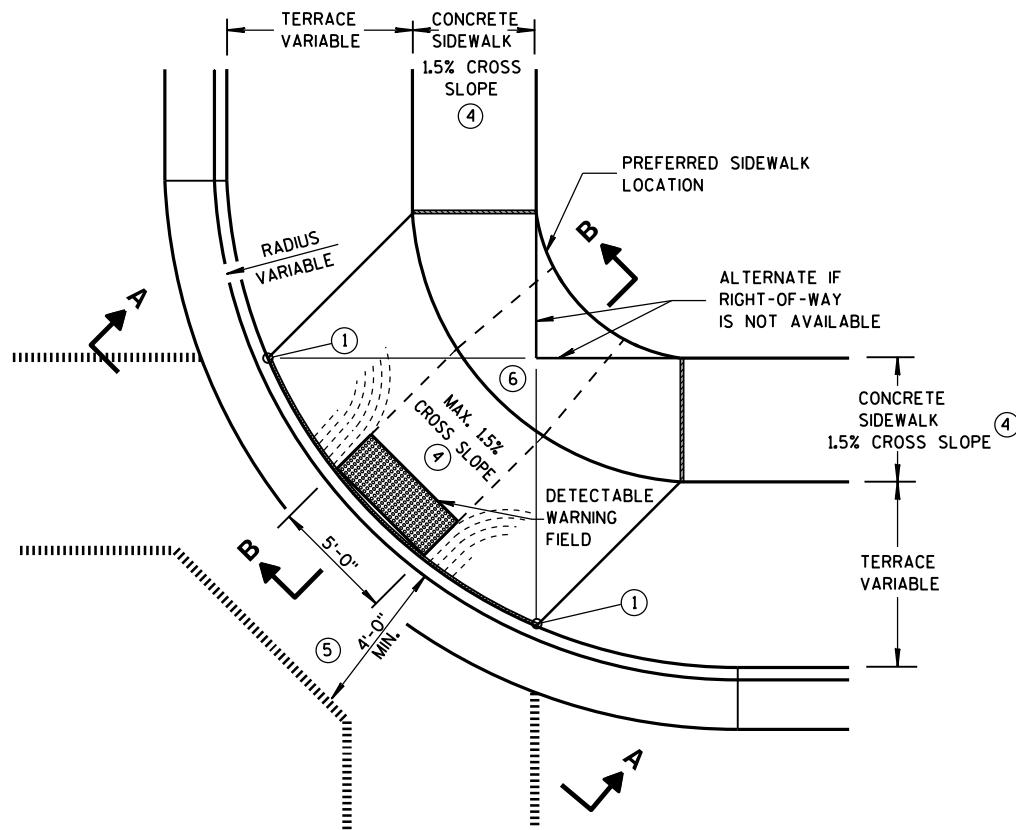
APPROVED

9-4-08

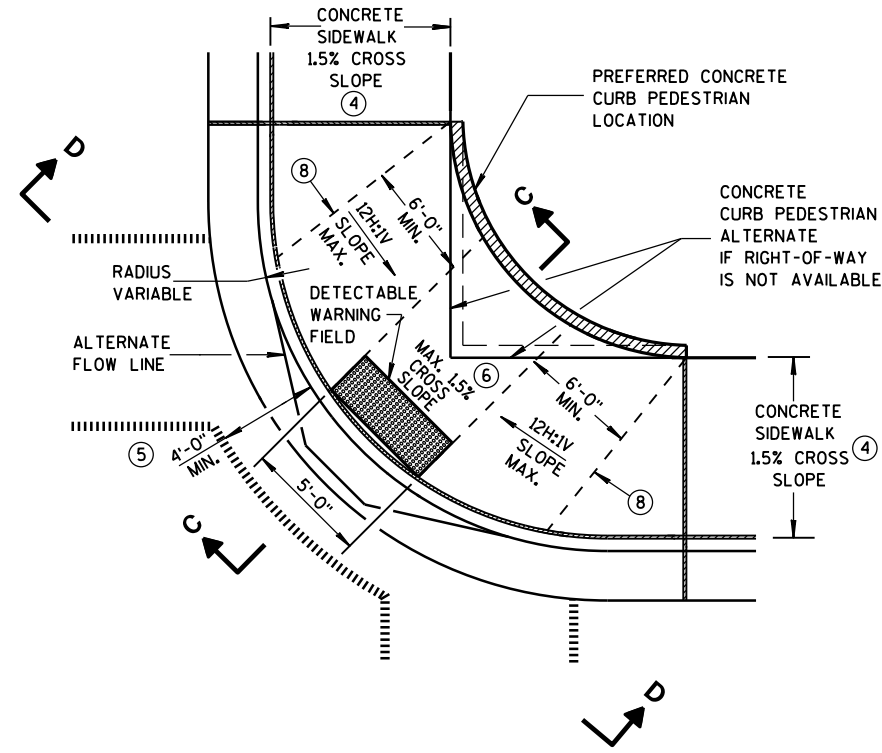
DATE

FHWA

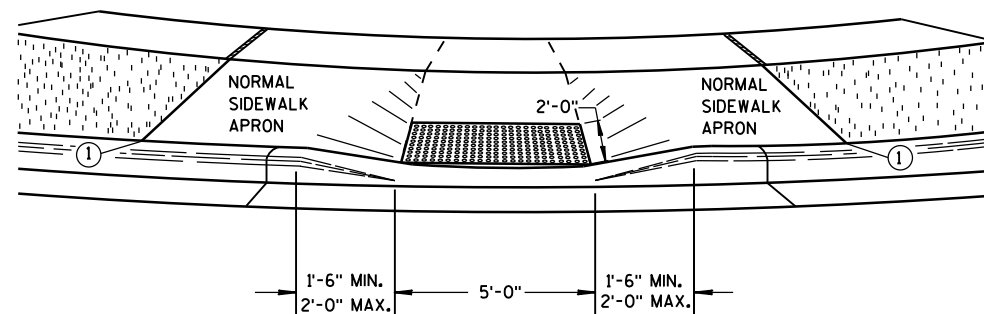
/S/ Jerry H. Zogg
ROADWAY STANDARDS DEVELOPMENT
ENGINEER



**PLAN VIEW
TYPE 1 RAMP**
(CENTER OF CORNER RADIUS)

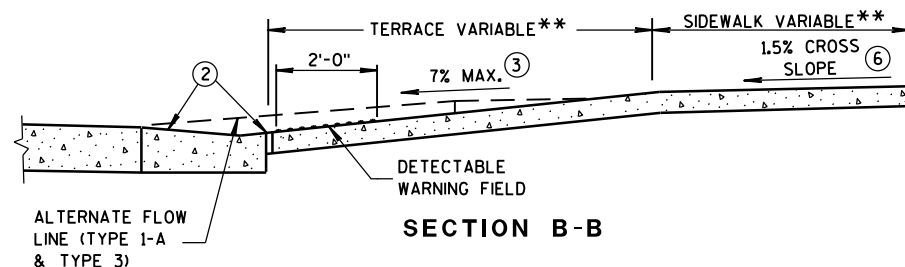


**PLAN VIEW
TYPE 1-A RAMP**
(NO TERRACE)

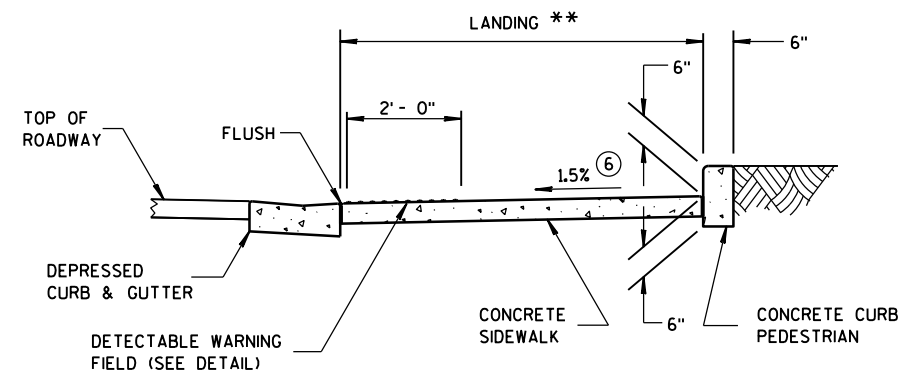


VIEW A-A

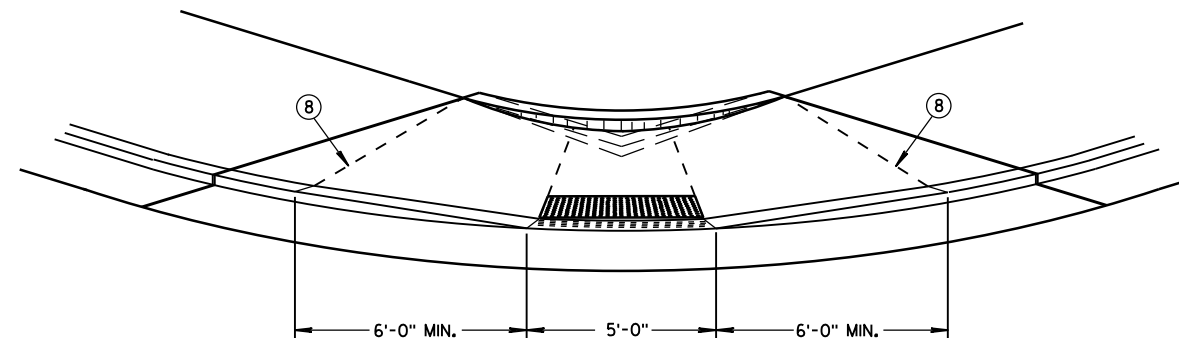
** WIDTH SHOWN ELSEWHERE
IN THE PLANS



SECTION B-B



SECTION C-C



VIEW D-D

GENERAL NOTES

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

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

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

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

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

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

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

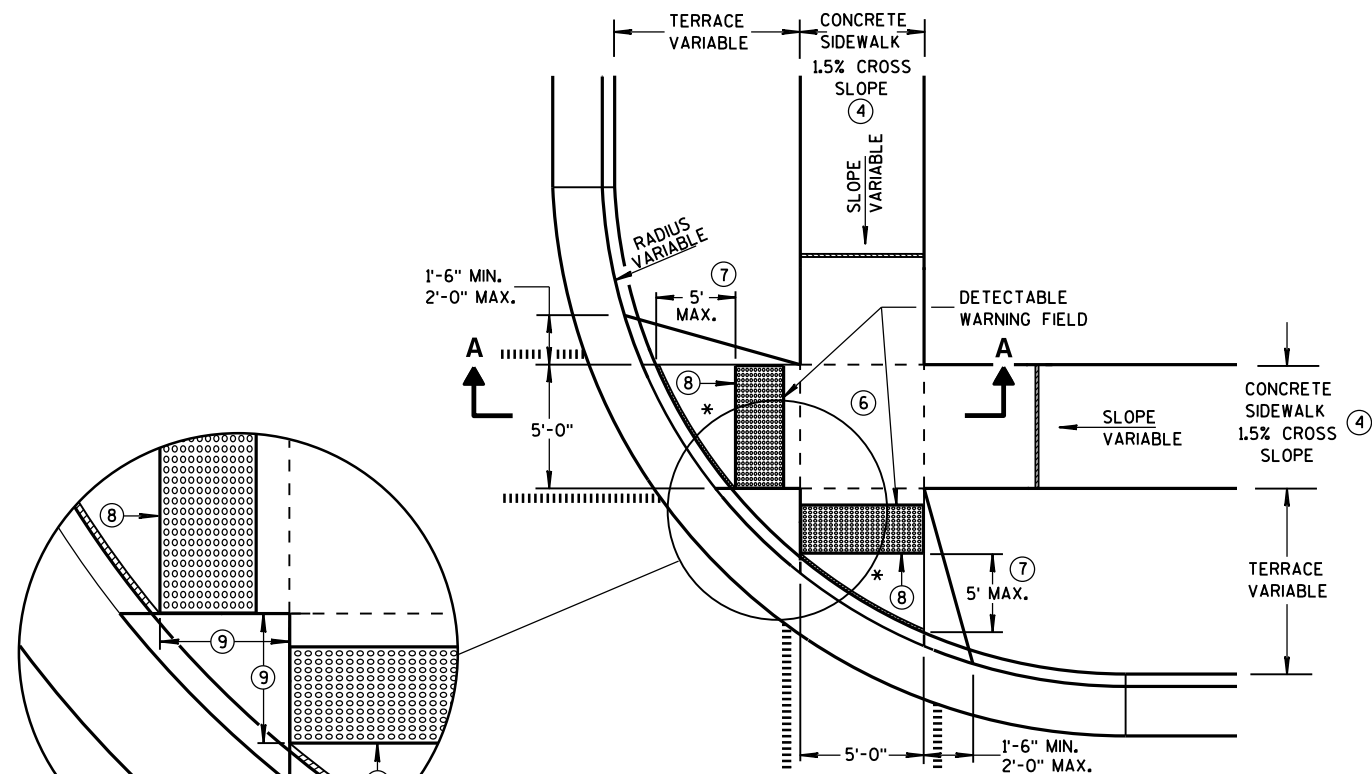
- ① THIS POINT IS AN EXTENSION OF OUTSIDE EDGE OF APPROACHING SIDEWALK WHERE IT MEETS THE BACK OF CONCRETE CURB.
- ② GRADE CHANGE BETWEEN GUTTER FLAG SLOPE AND THE CURB RAMP SLOPE SHALL NOT EXCEED 11%. MAXIMUM GUTTER FLAG SLOPE IS 4%. PROVIDE DRAINAGE AWAY FROM CURB RAMP AT GUTTER FLAG INTERFACE. NO VERTICAL LIPS OR DISCONTINUITIES GREATER THAN 1/4-INCH ARE ALLOWED.
- ③ ABSOLUTE MAXIMUM 12H:1V (8.33%) CURB RAMP SLOPE IS ALLOWABLE WITH FLATTENED GUTTER FLAG SLOPE AND NOT TO EXCEED 11% GRADE CHANGE.
- ④ ±0.5% CONSTRUCTION TOLERANCE IN SIDEWALK CROSS SLOPE. THE SIDEWALK CROSS SLOPE SHALL NOT EXCEED 2% WITHOUT PRIOR APPROVAL FROM THE ENGINEER.
- ⑤ PROVIDE A LEVEL LANDING IN THE STREET AND GUTTER AREA. (2% MAXIMUM SLOPE IN ANY DIRECTION). WHEN THE GUTTER SLOPE EXCEEDS 2%, CONSTRUCT THE LEVEL LANDING IN THE STREET AREA.
- ⑥ PROVIDE A LEVEL LANDING (MAXIMUM 2% SLOPE) IN ANY DIRECTION OF PEDESTRIAN TRAVEL. STANDARD LANDING SIZE IS 5 FEET X 5 FEET (MINIMUM 4 FEET X 4 FEET).
- ⑧ PROVIDE GRADE BREAK PERPENDICULAR TO DIRECTION OF WHEELCHAIR TRAVEL.

LEGEND

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

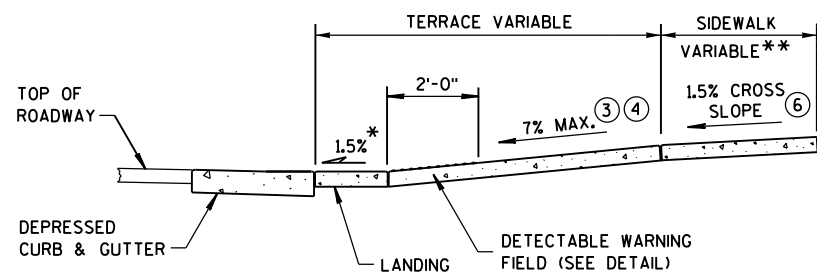
**CURB RAMPS
TYPES 1 AND 1-A**

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION



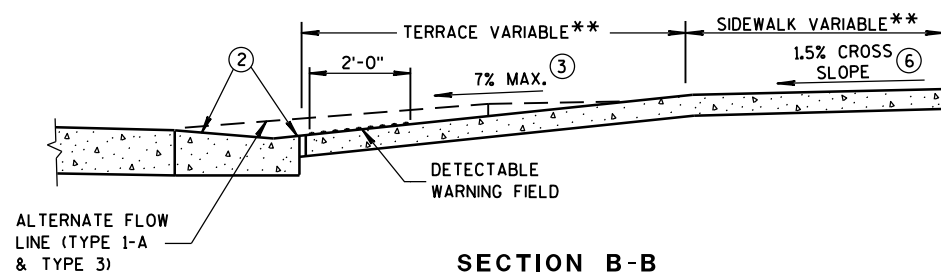
**PLAN VIEW
TYPE 2 RAMP**
(ON LINE WITH SIDEWALK)

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



SECTION A-A

** WIDTH SHOWN ELSEWHERE
IN THE PLANS



SECTION B-B

GENERAL NOTES

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

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

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

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

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

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

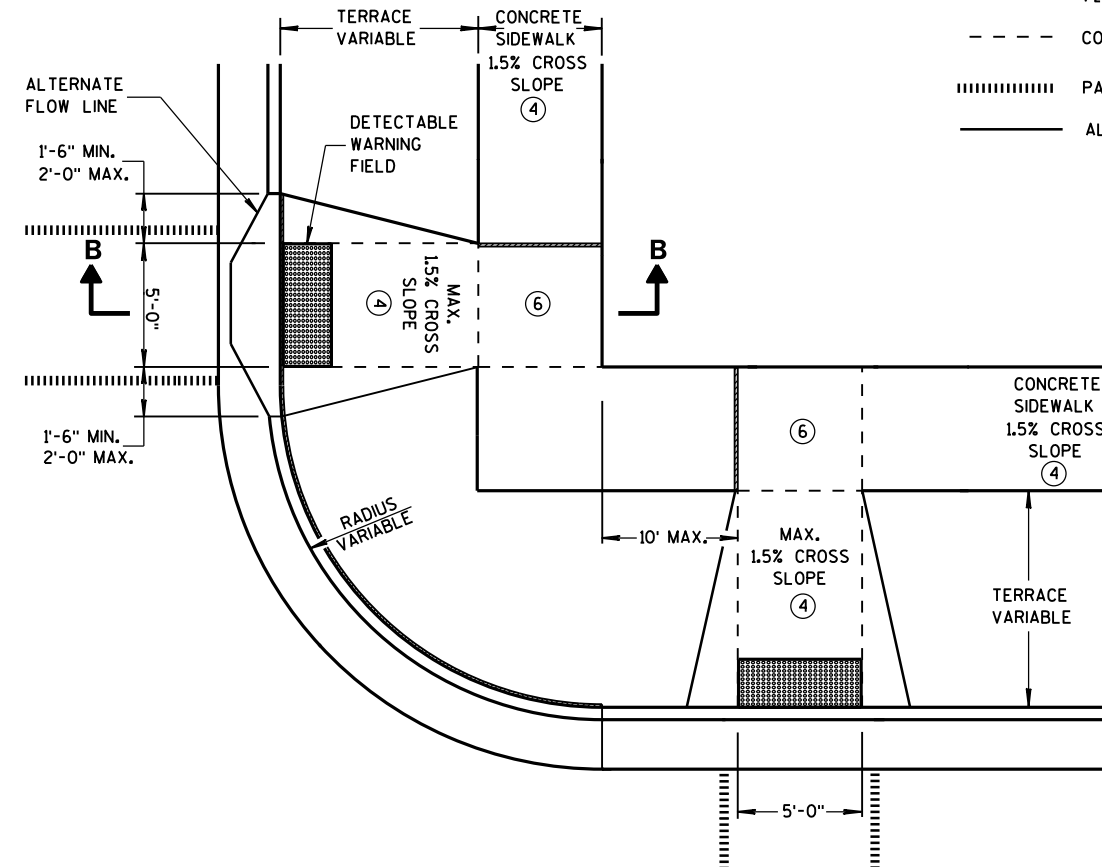
⑦ WHEN THIS DISTANCE EXCEEDS 5 FEET, USE MULTIPLE DETECTABLE WARNING PANELS ACROSS THE RAMP AND STAGGER ADDITIONAL DETECTABLE WARNING PANEL(S) FORWARD TO REDUCE THIS DISTANCE.

⑧ PROVIDE GRADE BREAK PERPENDICULAR TO DIRECTION OF WHEELCHAIR TRAVEL.

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

LEGEND

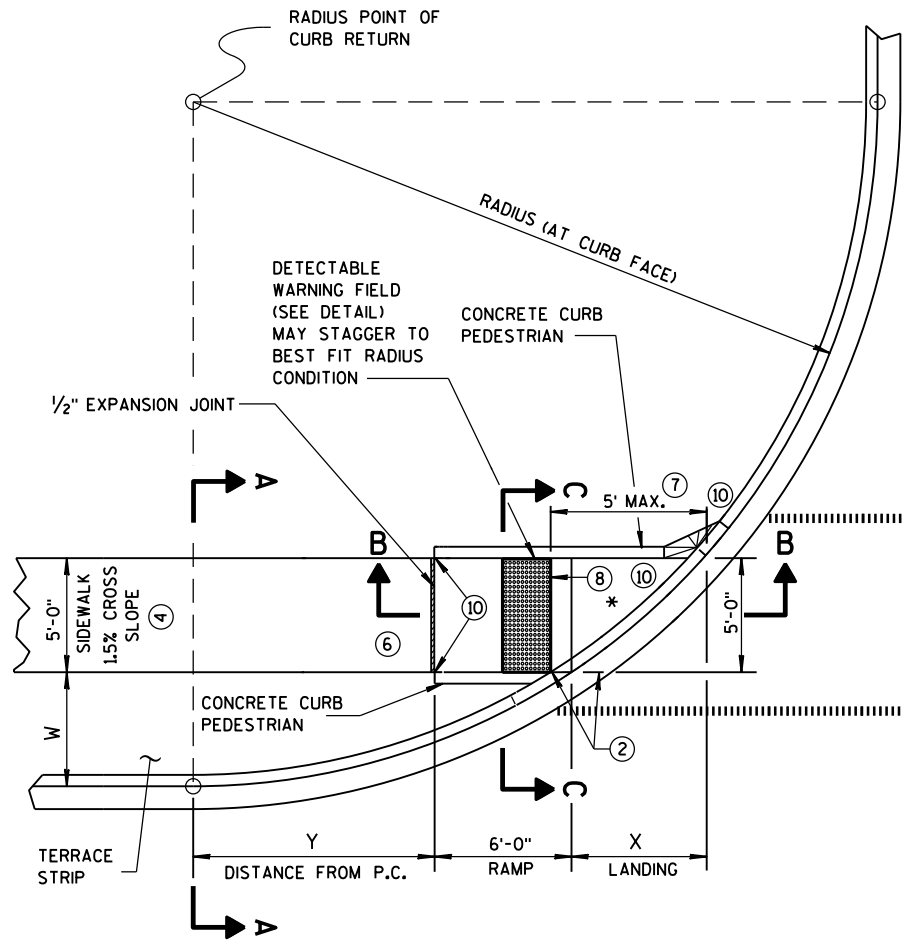
- 1/2" EXPANSION JOINT-SIDEWALK
- - - CONTRACTION JOINT FIELD LOCATED
- ||||| PAVEMENT MARKING CROSSWALK (WHITE)
- ALTERNATIVE LAYOUT



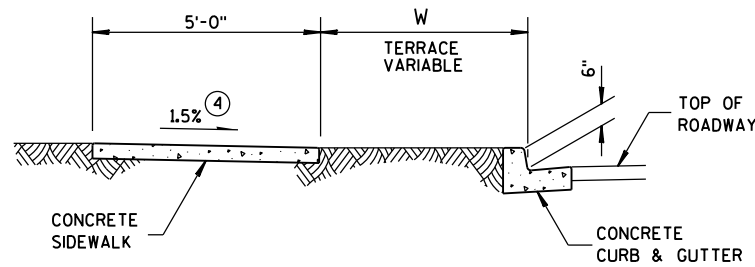
**PLAN VIEW
TYPE 3 RAMP**
(OUTSIDE OF CROSSWALK AREA)

**CURB RAMPS
TYPES 2 AND 3**

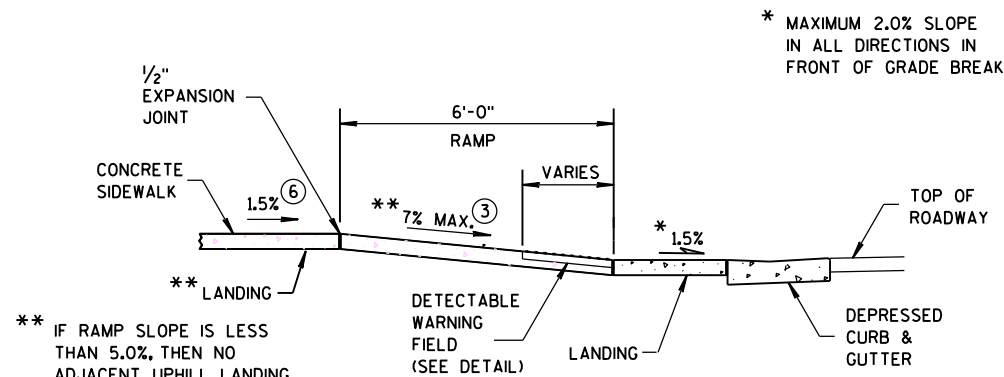
STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION



CURB RAMP TYPE 4B
PLAN VIEW

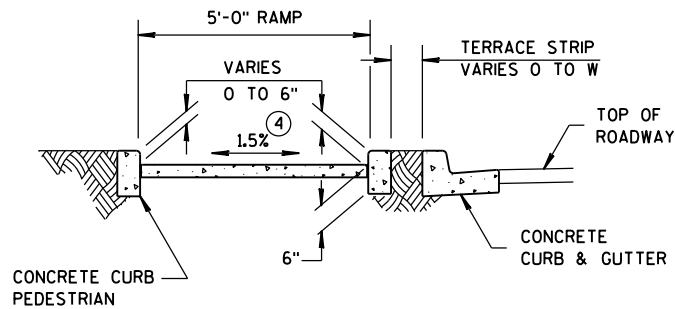


SECTION A-A FOR TYPE 4B

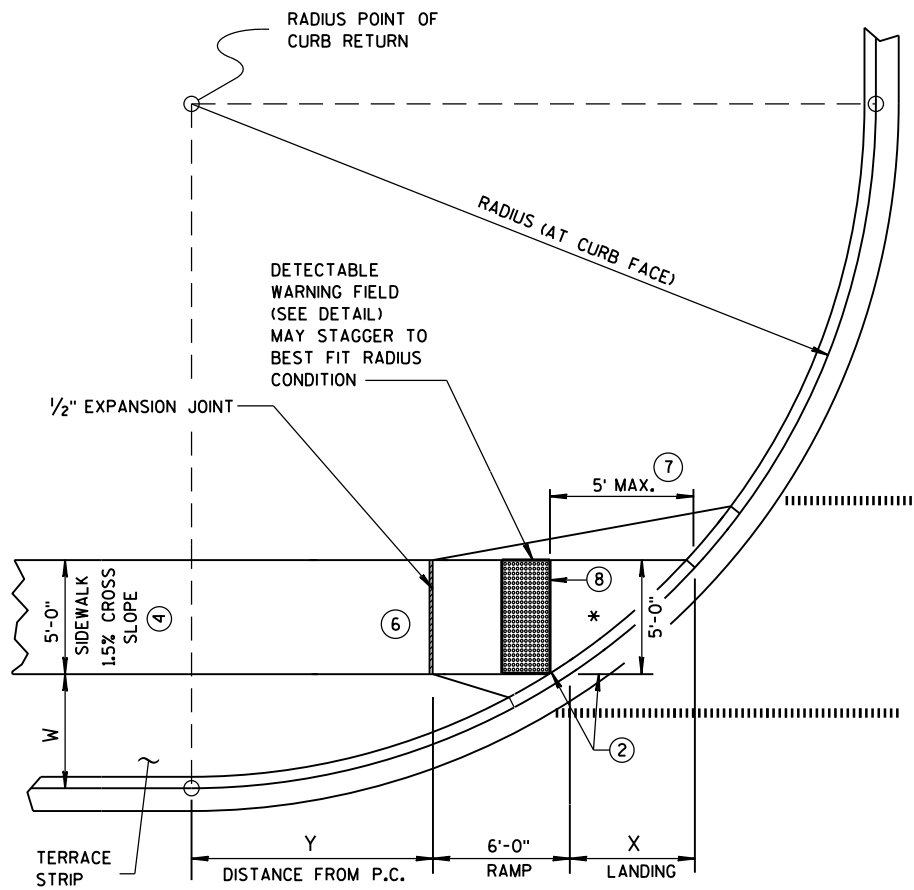


SECTION B-B FOR TYPE 4B

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



SECTION C-C FOR TYPE 4B

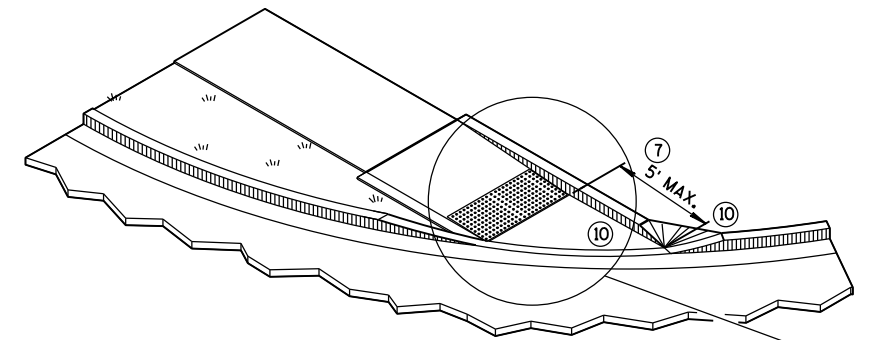


CURB RAMP TYPE 4B1
PLAN VIEW

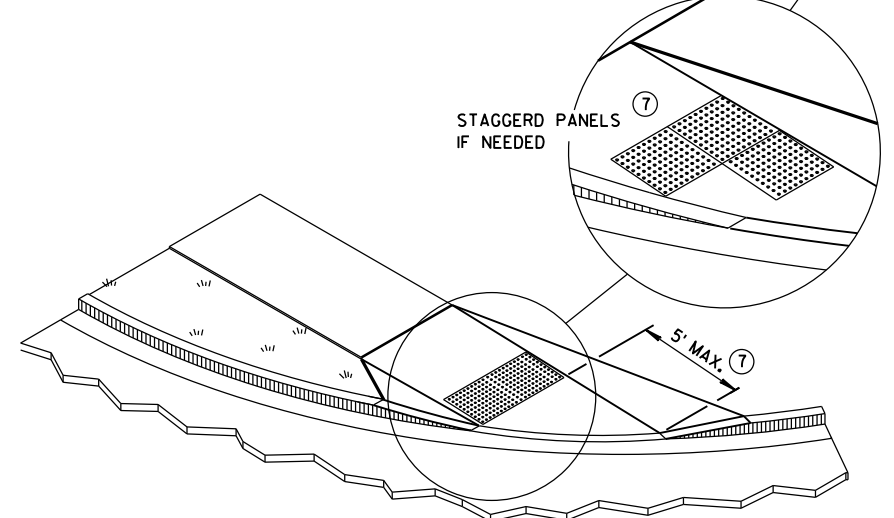
RADIUS (AT CURB FACE)	W = 3' - 0"		W = 4' - 0"		W = 5' - 0"		W = 6' - 0"		W = 7' - 0"	
	X	Y	X	Y	X	Y	X	Y	X	Y
20 FEET	5'-5 1/2"	4'-6 1/2"	4'-8 1/2"	6'-0"	4'-1"	7'-2 3/4"	3'-7"	8'-3 1/2"	3'-1 1/2"	9'-2 1/2"
30 FEET	7'-3 3/4"	7'-1"	6'-5 1/2"	8'-11 1/2"	5'-9 1/4"	10'-7"	5'-2 1/2"	12'-0"	4'-8 3/4"	13'-3 1/4"
40 FEET	8'-9 1/2"	9'-2 1/2"	7'-10"	11'-5 1/4"	7'-1"	13'-4 1/2"	6'-5 3/4"	15'-3/4"	5'-11 1/2"	16'-7 1/4"
50 FEET	10'-3/4"	11'-3/4"	9'-1/4"	13'-7 1/4"	8'-2 1/2"	15'-9 1/2"	7'-6 1/2"	17'-9"	6'-11 3/4"	19'-6 1/4"
60 FEET	11'-2 1/2"	12'-8 3/4"	10'-3/4"	15'-6 1/2"	9'-2 1/4"	17'-11 3/4"	8'-5 3/4"	20'-1 3/4"	7'-10 1/2"	22'-1 1/2"

GENERAL NOTES

- INTERMEDIATE RADII CAN BE INTERPOLATED
- AVOID PLACING DRAINAGE STRUCTURES, JUNCTION BOXES OR OTHER OBSTRUCTIONS IN FRONT OF RAMP ACCESS AREAS. DETECTABLE WARNING FIELDS THAT ARE INSTALLED AS A GROUP OR SIDE BY SIDE, SHALL BE FROM THE SAME MANUFACTURER.
- GRADE CHANGE BETWEEN GUTTER FLAG SLOPE AND THE CURB RAMP SLOPE SHALL NOT EXCEED 11%. MAXIMUM GUTTER FLAG SLOPE IS 4%. PROVIDE DRAINAGE AWAY FROM CURB RAMP AT GUTTER FLAG INTERFACE. NO VERTICAL LIPS OR DISCONTINUITIES GREATER THAN 1/4-INCH ARE ALLOWED.
 - ABSOLUTE MAXIMUM 12H:1V (8.33%) CURB RAMP SLOPE IS ALLOWABLE WITH FLATTENED GUTTER FLAG SLOPE AND NOT TO EXCEED 11% GRADE CHANGE.
 - ±0.5% CONSTRUCTION TOLERANCE IN SIDEWALK CROSS SLOPE. THE SIDEWALK CROSS SLOPE SHALL NOT EXCEED 2% WITHOUT PRIOR APPROVAL FROM THE ENGINEER.
 - PROVIDE A LEVEL LANDING (MAXIMUM 2% SLOPE) IN ANY DIRECTION OF PEDESTRIAN TRAVEL. STANDARD LANDING SIZE IS 5 FEET X 5 FEET (MINIMUM 4 FEET X 4 FEET).
 - WHEN THIS DISTANCE EXCEEDS 5 FEET, USE MULTIPLE DETECTABLE WARNING PANELS ACROSS THE RAMP AND STAGGER ADDITIONAL DETECTABLE WARNING PANEL(S) FORWARD TO REDUCE THIS DISTANCE.
 - PROVIDE GRADE BREAK PERPENDICULAR TO DIRECTION OF WHEELCHAIR TRAVEL.
 - INSTALL TRANSITION NOSE. (INCIDENTAL TO OTHER PAY ITEMS). DO NOT MARK TRANSITION NOSE.



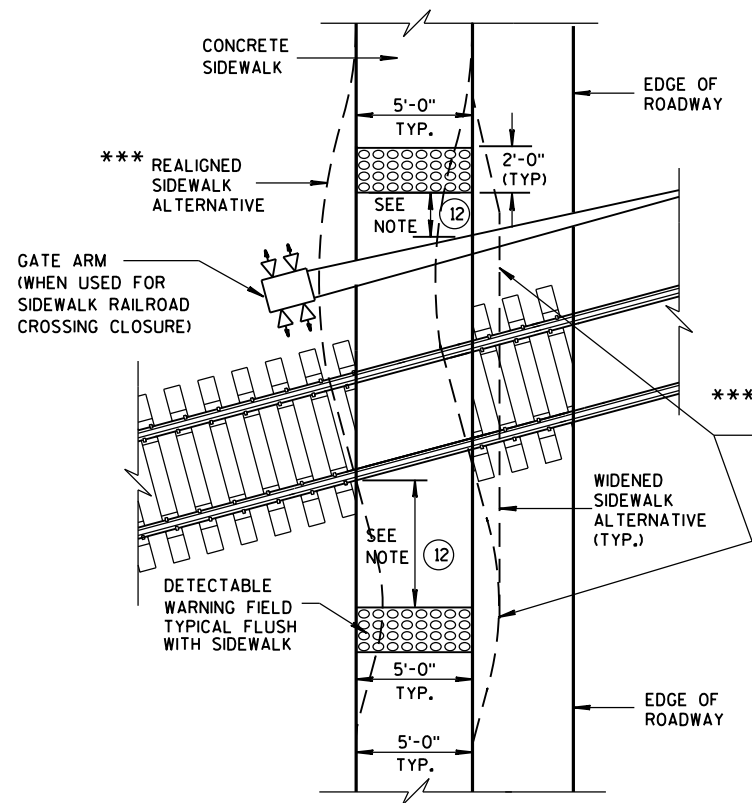
ISOMETRIC VIEW FOR TYPE 4B



ISOMETRIC VIEW FOR TYPE 4B1

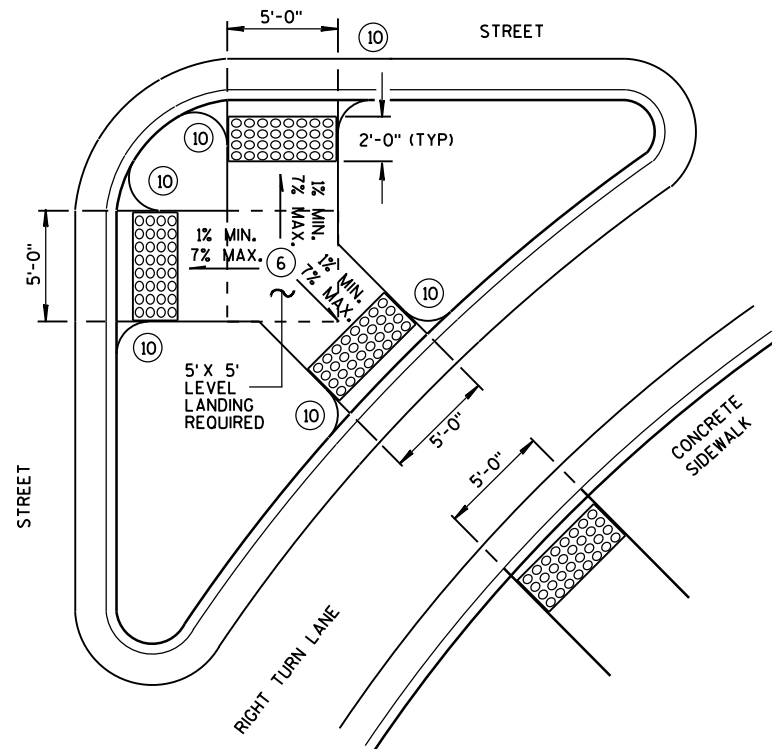
CURB RAMPS
TYPE 4B AND 4B1

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

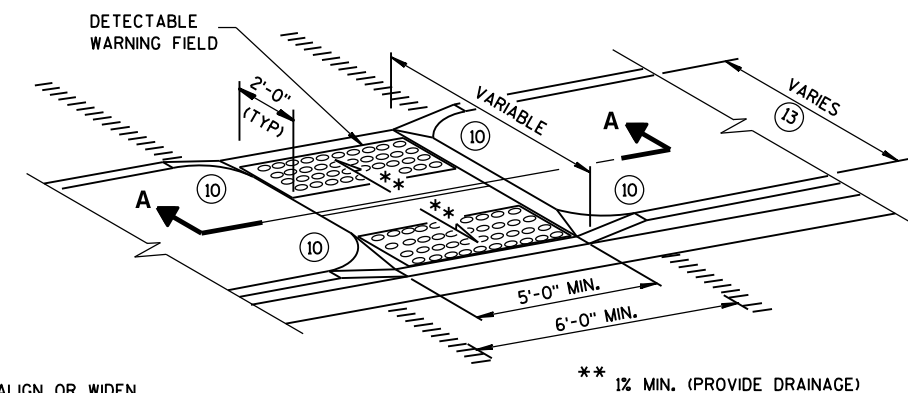


TYPE 8
DETECTABLE WARNINGS
AT RAILROAD CROSSING

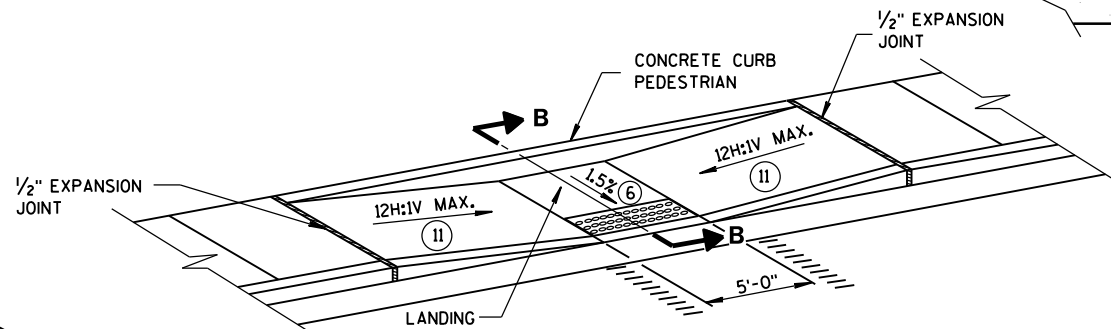
REFER TO GENERAL NOTES ② AND ③
FOR ALL ISLAND CURB RAMPS



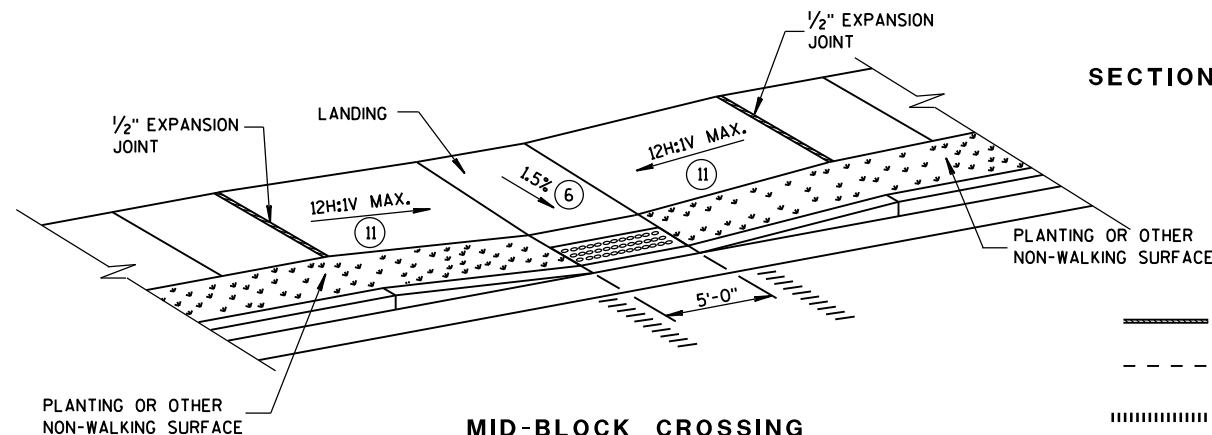
TYPE 6
DETECTABLE WARNING AT ISLANDS



MEDIAN ISLAND
NON-ELEVATED CROSSING
TYPE 5



MID-BLOCK CROSSING
TYPE 7A

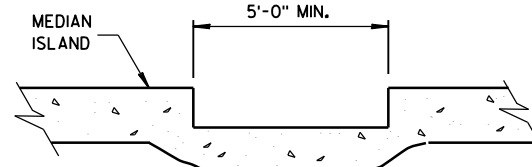


MID-BLOCK CROSSING
TYPE 7B

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

GENERAL NOTES

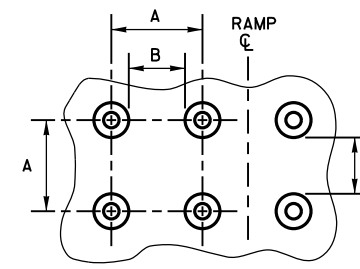
- SIDEWALK CROSS SLOPE SHALL NOT EXCEED 2%.
- DETECTABLE WARNING FIELDS THAT ARE INSTALLED AS A GROUP OR SIDE BY SIDE, SHALL BE FROM THE SAME MANUFACTURER.
- ② GRADE CHANGE BETWEEN GUTTER FLAG SLOPE AND THE CURB RAMP SLOPE SHALL NOT EXCEED 11%. MAXIMUM GUTTER FLAG SLOPE IS 4%. PROVIDE DRAINAGE AWAY FROM CURB RAMP AT GUTTER FLAG INTERFACE. NO VERTICAL LIPS OR DISCONTINUITIES GREATER THAN 1/4-INCH ARE ALLOWED.
- ③ ABSOLUTE MAXIMUM 12H:1V (8.33%) CURB RAMP SLOPE IS ALLOWABLE WITH FLATTENED GUTTER FLAG SLOPE AND NOT TO EXCEED 11% GRADE CHANGE.
- ④ ±0.5% CONSTRUCTION TOLERANCE IN SIDEWALK CROSS SLOPE. THE SIDEWALK CROSS SLOPE SHALL NOT EXCEED 2% WITHOUT PRIOR APPROVAL FROM THE ENGINEER.
- ⑥ PROVIDE A LEVEL LANDING (MAXIMUM 2% SLOPE) IN ANY DIRECTION OF PEDESTRIAN TRAVEL. STANDARD LANDING SIZE IS 5 FEET X 5 FEET (MINIMUM 4 FEET X 4 FEET).
- ⑩ INSTALL TRANSITION NOSE. (INCIDENTAL TO OTHER PAY ITEMS). DO NOT MARK TRANSITION NOSE.
- ⑪ SLOPE SIDEWALK TOWARD LANDING AS SHOWN WHERE THERE IS NO TERRACE OR WHERE THE TERRACE WIDTH IS LESS THAN 6 FEET WIDE.
- ⑫ THE EDGE OF THE DETECTABLE WARNING FIELD NEAREST TO A RAILROAD CROSSING SHALL BE 1.5 FEET ± 0.1' FROM THE FACE OF THE GATE ARM IF THE GATE ARM EXTENDS ACROSS THE SIDEWALK. WHERE THERE IS NO PEDESTRIAN GATE, THE EDGE OF THE DETECTABLE WARNING FIELD NEAREST TO THE RAILROAD CROSSING SHALL BE 15 FEET FROM THE NEAREST RAIL.
- ⑬ DO NOT INSTALL DETECTABLE WARNING FIELDS IF MEDIAN WIDTH BETWEEN BACK OF CURBS IS LESS THAN 6 FEET.



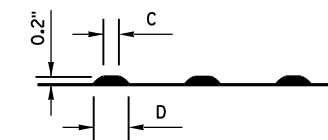
SECTION A-A

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

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

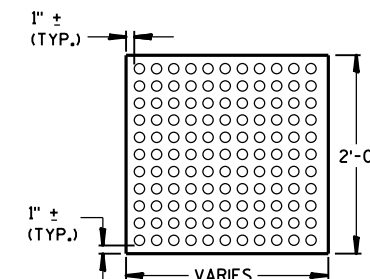


PLAN VIEW



ELEVATION VIEW

TRUNCATED DOMES
DETECTABLE WARNING PATTERN DETAIL



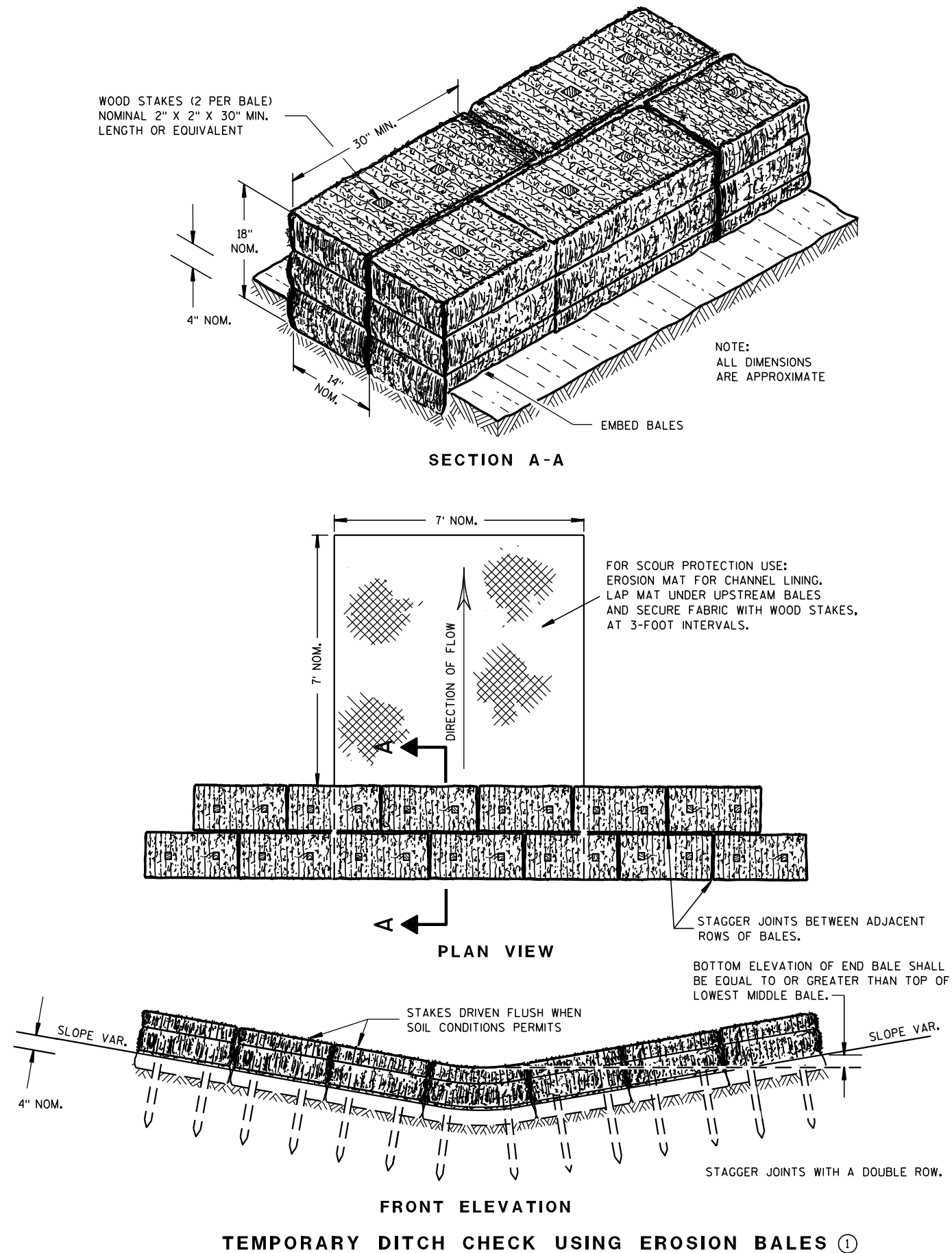
PLAN VIEW
DETECTABLE WARNING
FIELD (TYPICAL)

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

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

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

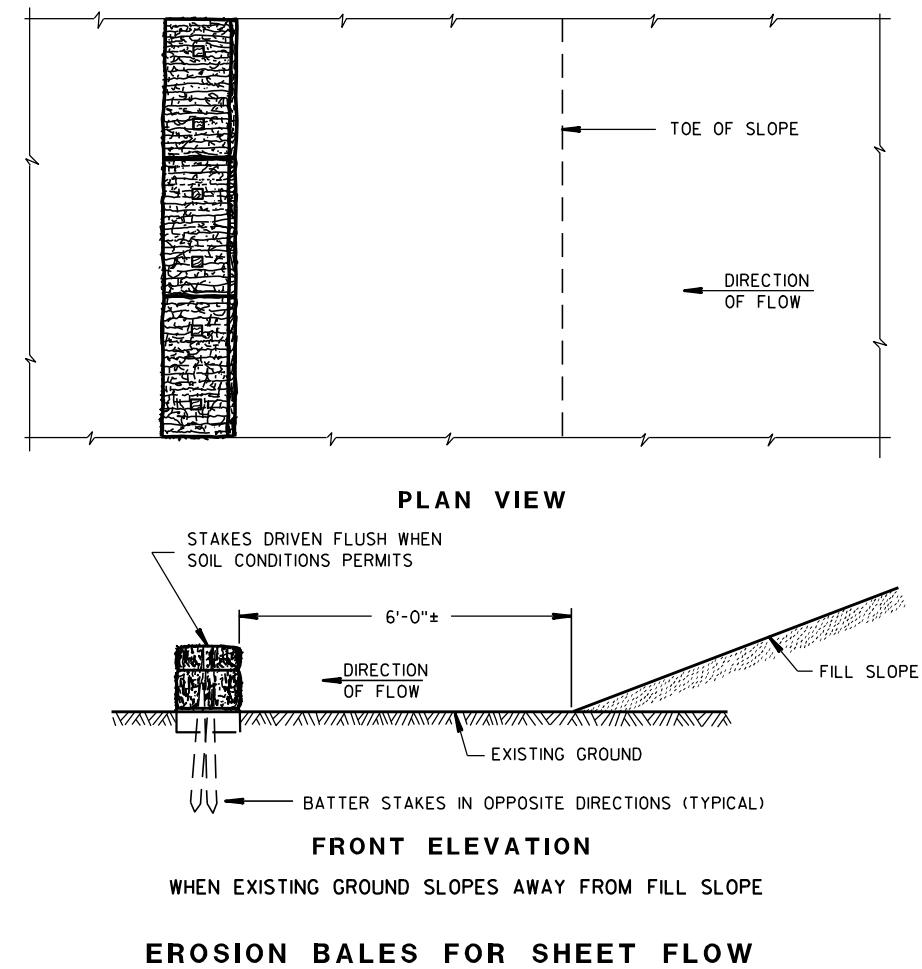
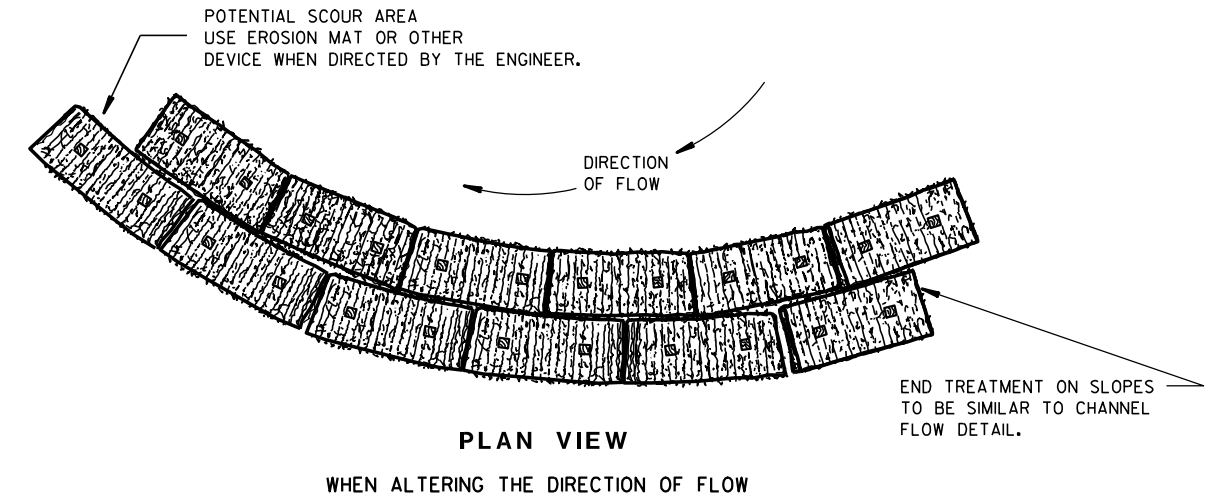
APPROVED
June, 2015 /S/ Jerry H. Zogg
DATE ROADWAY STANDARDS DEVELOPMENT
ENGINEER
FHWA



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.

TYPICAL INSTALLATIONS OF
EROSION BALES / TEMPORARY
DITCH CHECKS

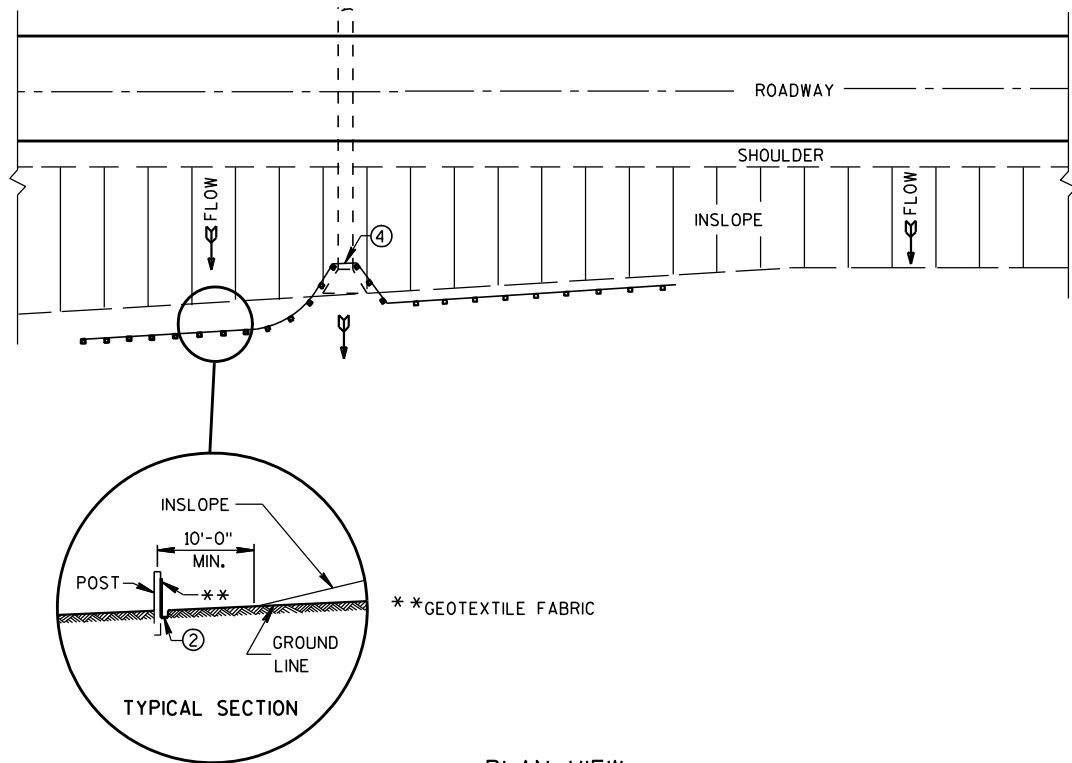
STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED

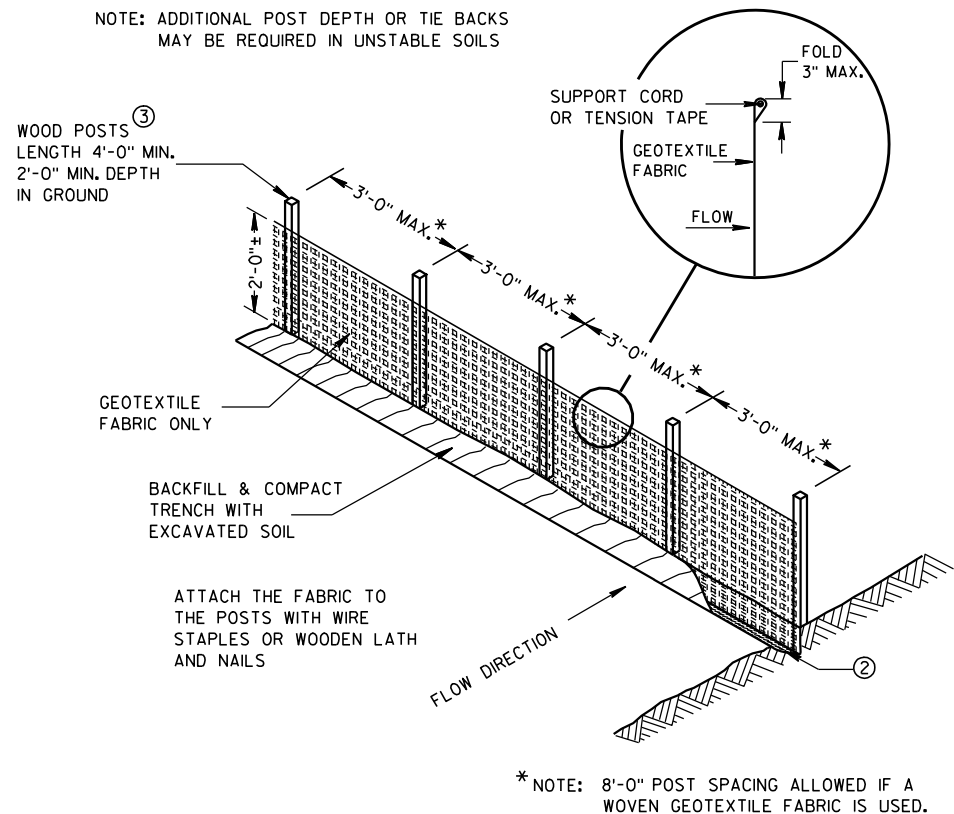
6/04/02
DATE

FHWA

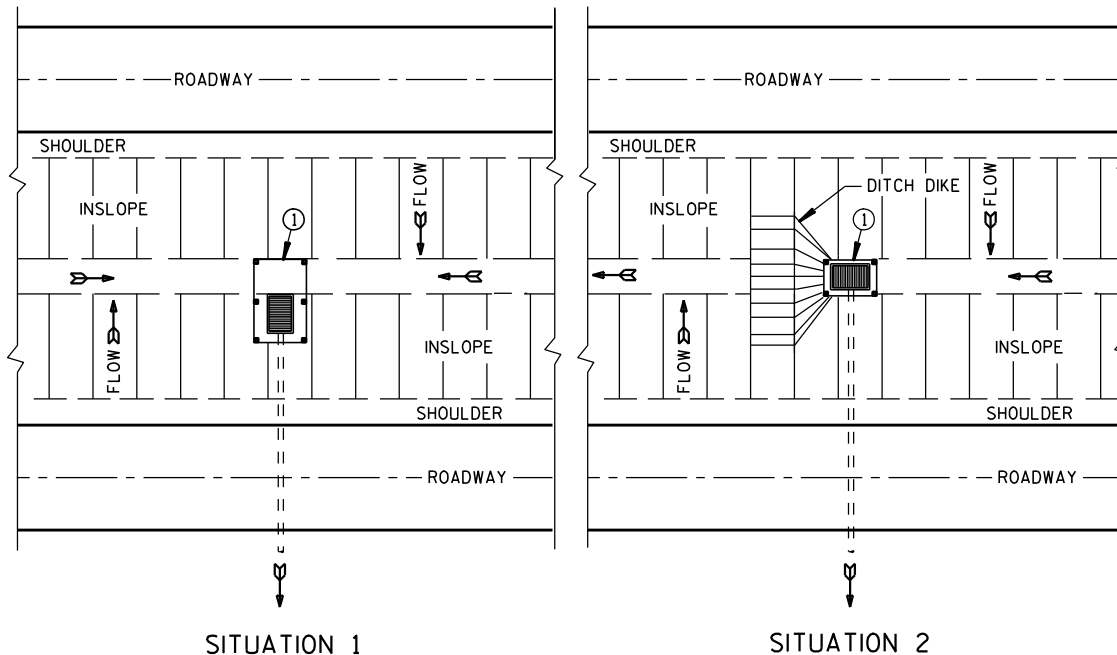
/S/ Beth Canestra
CHIEF ROADWAY DEVELOPMENT ENGINEER



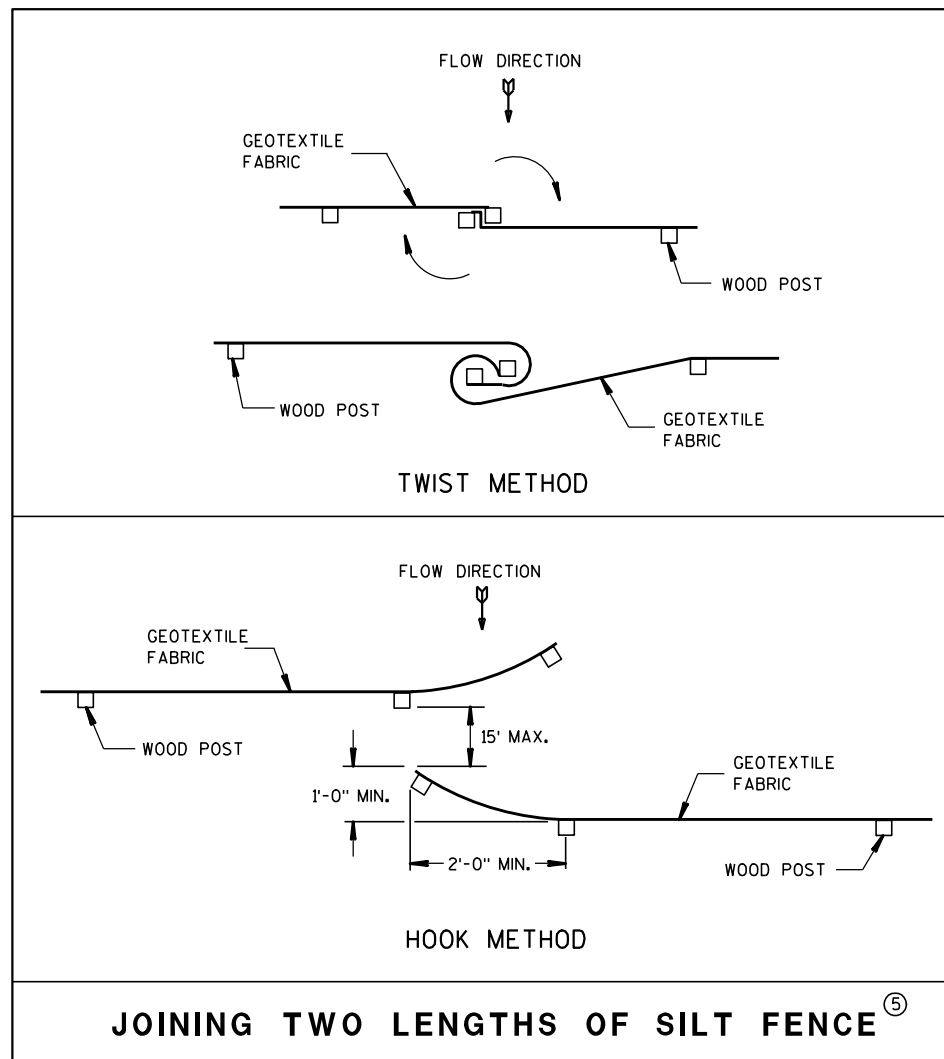
PLAN VIEW
TYPICAL APPLICATION OF SILT FENCE



SILT FENCE



PLAN VIEW
SILT FENCE AT MEDIAN SURFACE DRAINS

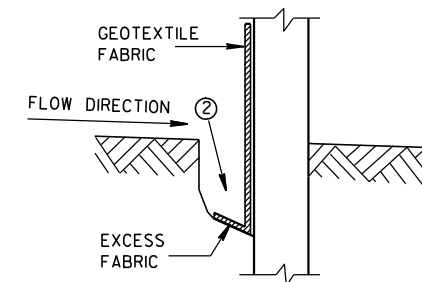


JOINING TWO LENGTHS OF SILT FENCE (5)

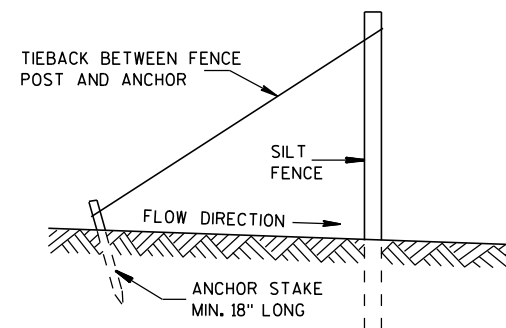
GENERAL NOTES

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

- ① HORIZONTAL BRACE REQUIRED WITH 2" X 4" WOODEN FRAME OR EQUIVALENT AT TOP OF POSTS.
- ② FOR MANUAL INSTALLATIONS THE TRENCH SHALL BE A MINIMUM OF 4" WIDE & 6" DEEP TO BURY AND ANCHOR THE GEOTEXTILE FABRIC. FOLD MATERIAL TO FIT TRENCH AND BACKFILL & COMPACT TRENCH WITH EXCAVATED SOIL.
- ③ WOOD POSTS SHALL BE A MINIMUM SIZE OF 1 1/8" X 1 1/8" OF OAK OR HICKORY.
- ④ SILT FENCE TO EXTEND ACROSS THE TOP OF THE PIPE.
- ⑤ CONSTRUCT SILT FENCE FROM A CONTINUOUS ROLL IF POSSIBLE BY CUTTING LENGTHS TO AVOID JOINTS. IF A JOINT IS NECESSARY USE ONE OF THE FOLLOWING TWO METHODS; A) OVERLAP THE END POSTS AND TWIST, OR ROTATE, AT LEAST 180 DEGREES, B) HOOK THE END OF EACH SILT FENCE LENGTH.



TRENCH DETAIL

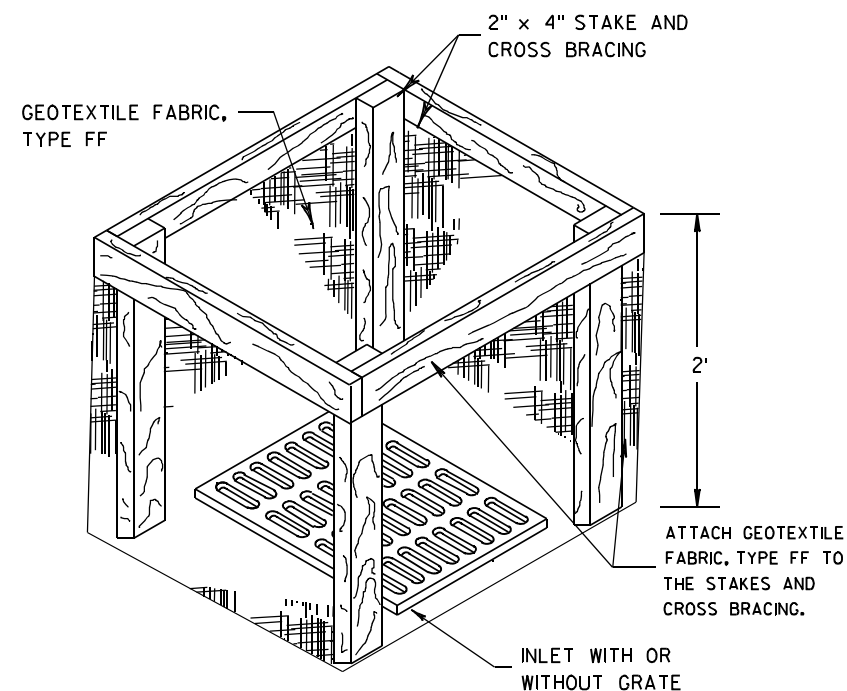
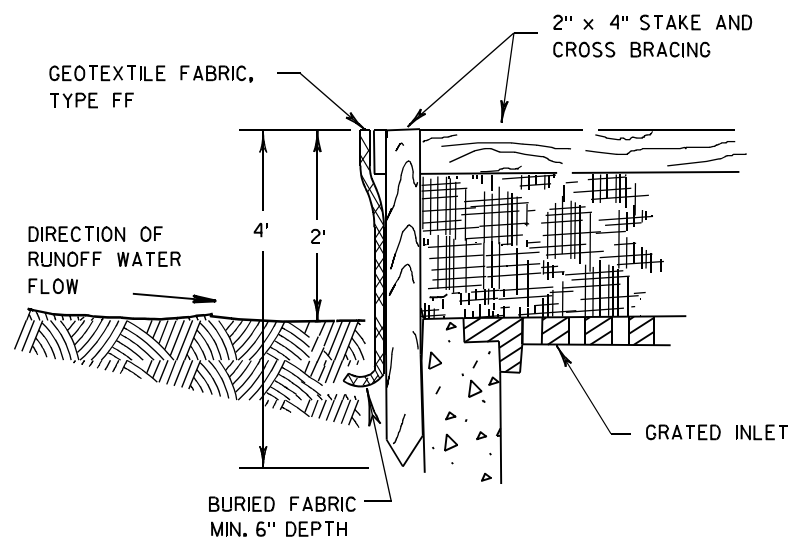


SILT FENCE TIE BACK
(WHEN REQUIRED BY THE ENGINEER)

SILT FENCE

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

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



INLET PROTECTION, TYPE A

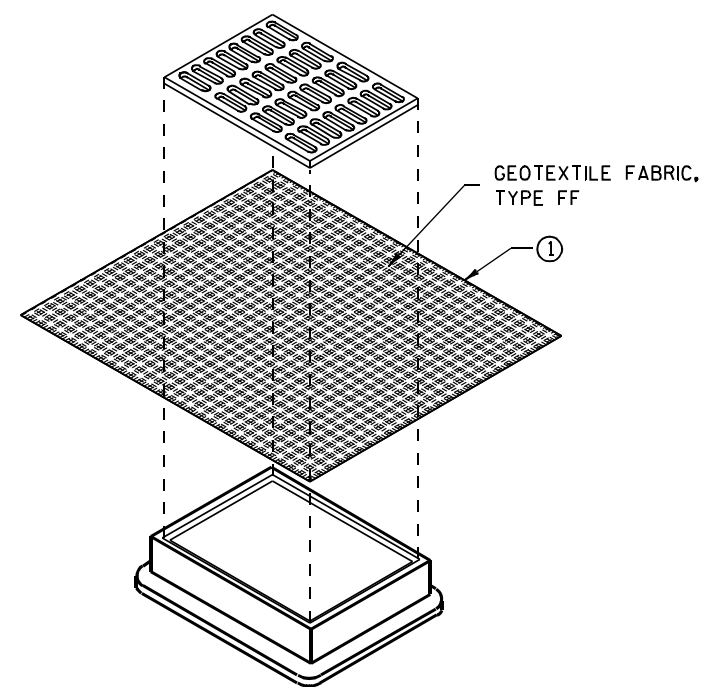
GENERAL NOTES

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.

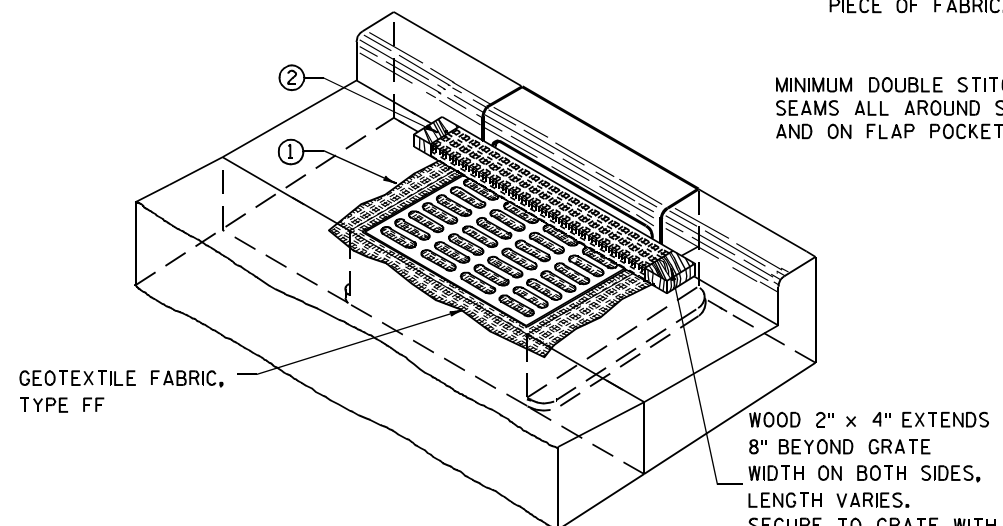
WHEN REMOVING OR MAINTAINING INLET PROTECTION, CARE SHALL BE TAKEN SO THAT THE SEDIMENT TRAPPED ON THE GEOTEXTILE FABRIC DOES NOT FALL INTO THE INLET. ANY MATERIAL FALLING INTO THE INLET SHALL BE REMOVED IMMEDIATELY.

- 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.

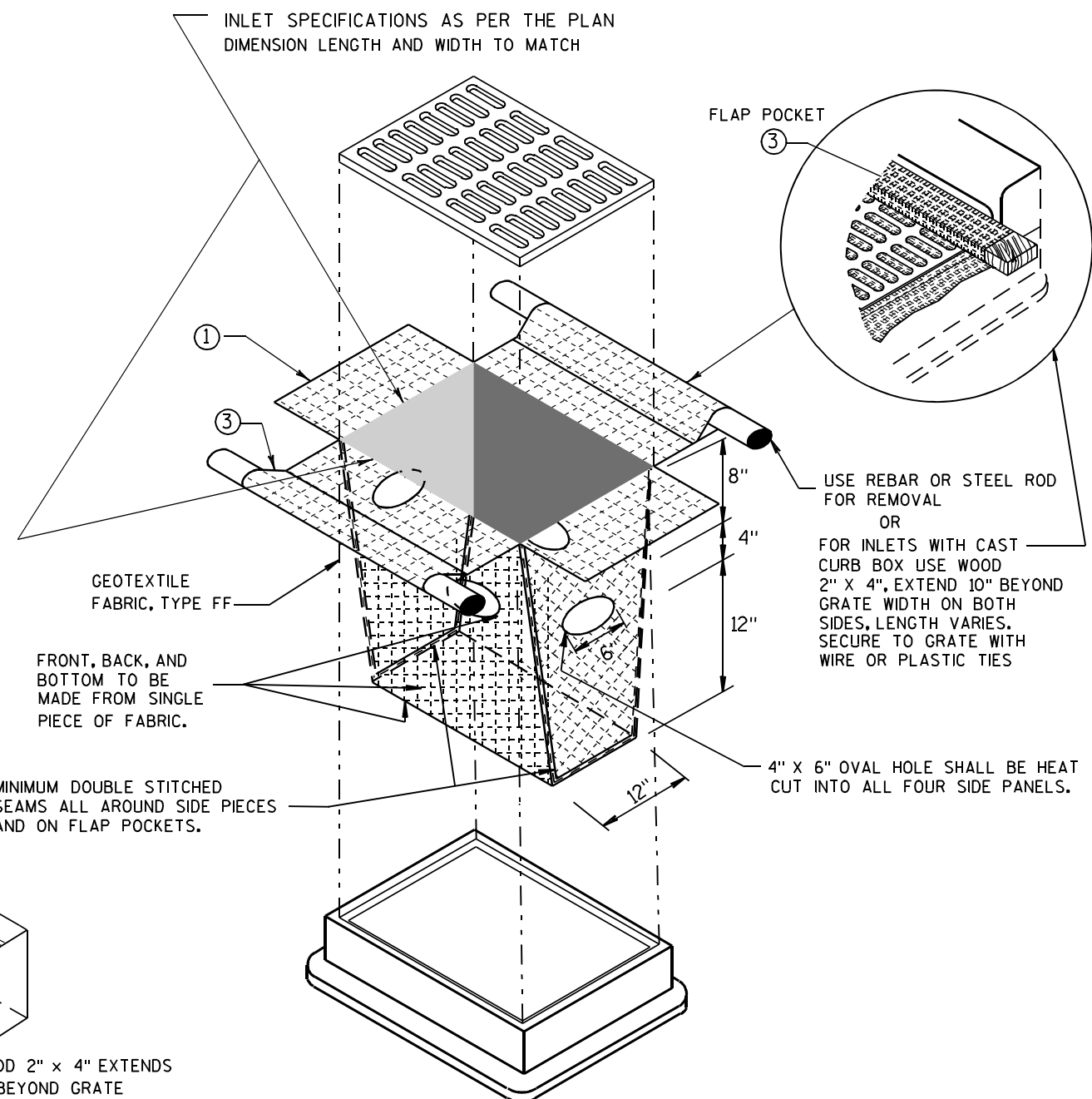
THE CONTRACTOR SHALL DEMONSTRATE A METHOD OF MAINTENANCE, USING A SEWN FLAP, HAND HOLDS OR OTHER METHOD TO PREVENT ACCUMULATED SEDIMENT FROM ENTERING THE INLET.

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)

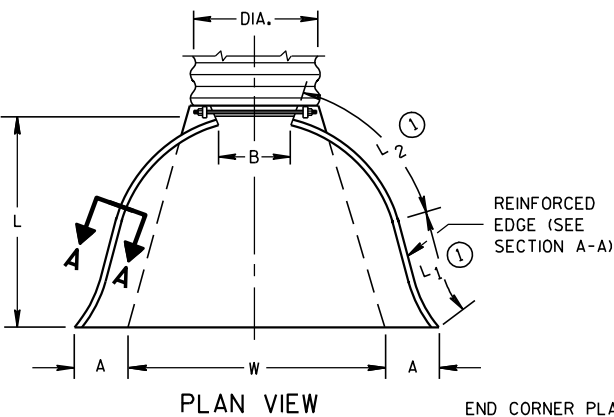
**INLET PROTECTION
TYPE A, B, C, AND D**

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

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

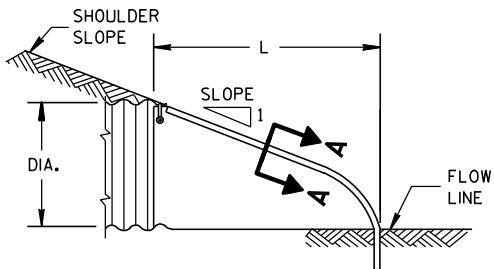
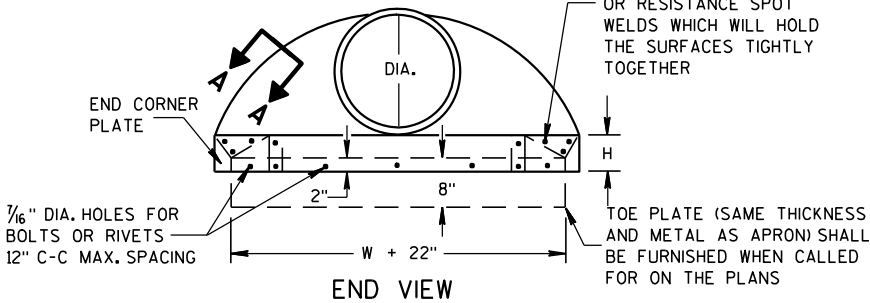
METAL APRON ENDWALLS												
PIPE DIA. (IN.)	MIN. THICK. (Inches)		DIMENSIONS (Inches)							APPROX. SLOPE		BODY
	STEEL	ALUM.	A (±1")	B (MAX.)	H (±1")	L (±1 1/2")	L1 ①	L2 ①	W (±2")			
12	.064	.060	6	6	6	21	12	17 1/2	24	2 1/2 to 1		1 Pc.
15	.064	.060	7	8	6	26	14	21 3/4	30	2 1/2 to 1		1 Pc.
18	.064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

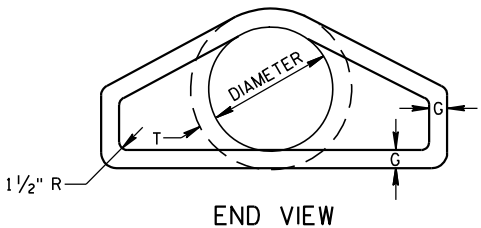
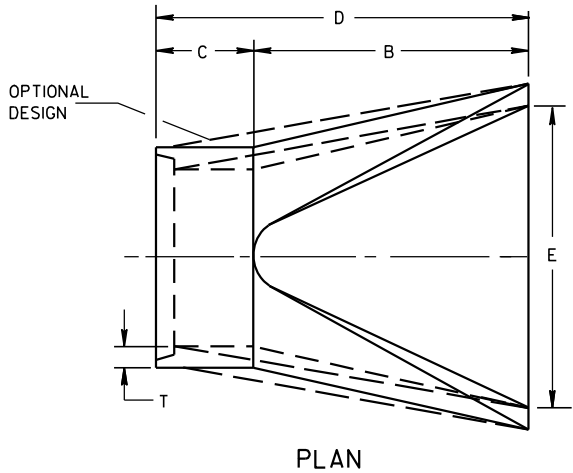
TOE PLATE (SAME THICKNESS AND METAL AS APRON) SHALL BE FURNISHED WHEN CALLED FOR ON THE PLANS



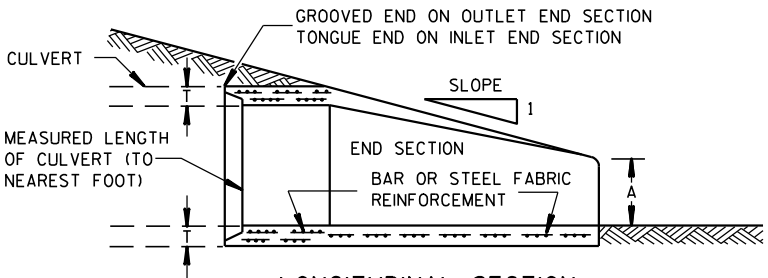
SIDE ELEVATION
METAL ENDWALLS

REINFORCED CONCRETE APRON ENDWALLS												
PIPE DIA. (IN.)	DIMENSIONS (Inches)							APPROX. SLOPE				
	T	A	B	C	D	E	G					
12	2	4	24	48 1/8	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				

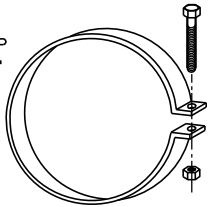
* MINIMUM
** MAXIMUM



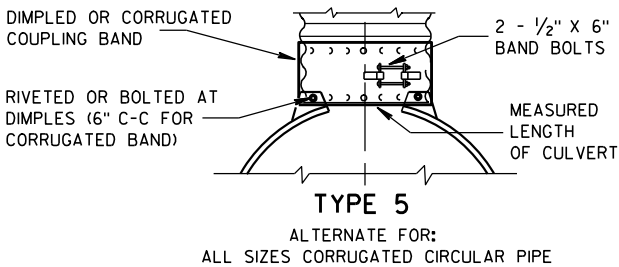
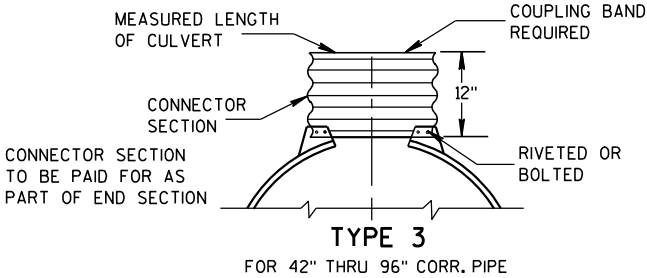
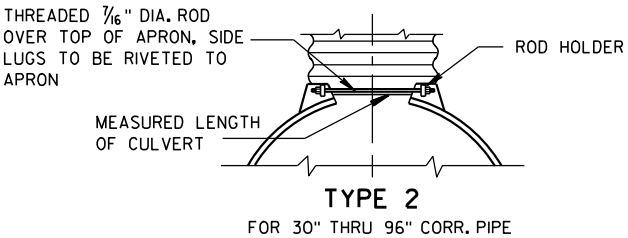
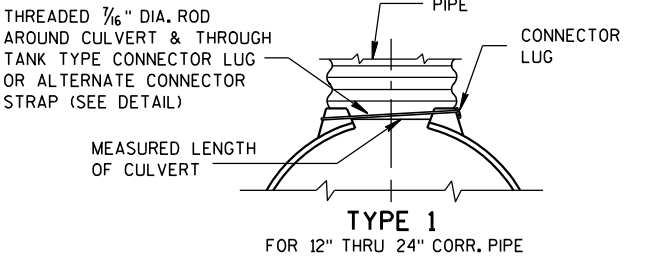
LONGITUDINAL SECTION
CONCRETE ENDWALLS



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



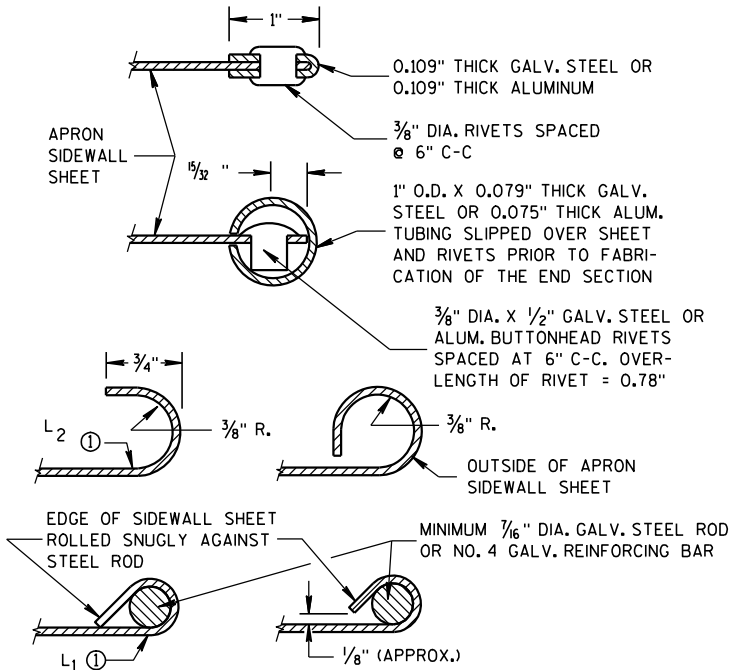
NOTE: DIMPLED BAND FITS OVER OUTSIDE OF ENDWALL, AND CORRUGATED BAND FITS INSIDE ENDWALL. DIMPLED BAND MAY BE USED WITH HELICALLY CORRUGATED PIPE.

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.

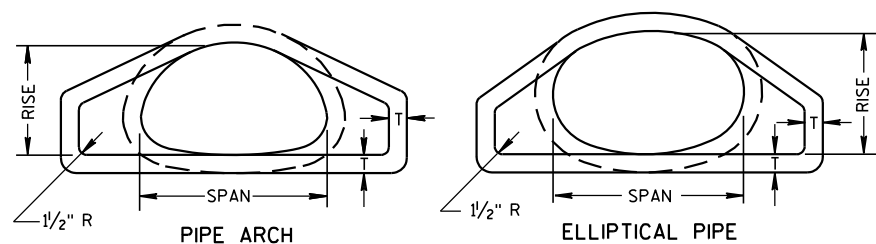
WHERE TWO OR MORE PIPES WITH APRON ENDWALLS ARE LAID ADJACENT TO EACH OTHER, THEY SHALL BE SEPARATED BY A DISTANCE SUFFICIENT TO PROVIDE A MINIMUM CLEARANCE OF 6 INCHES BETWEEN APRON ENDWALLS.

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

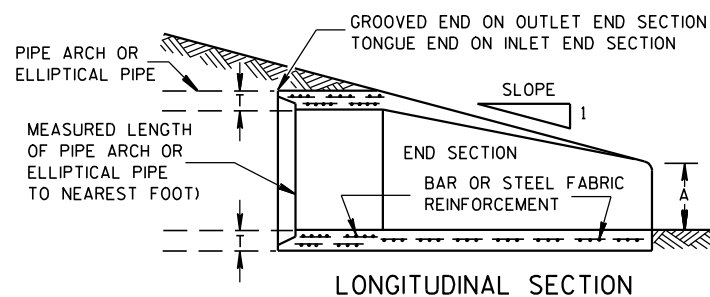
APRON ENDWALLS FOR
CULVERT PIPE

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

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

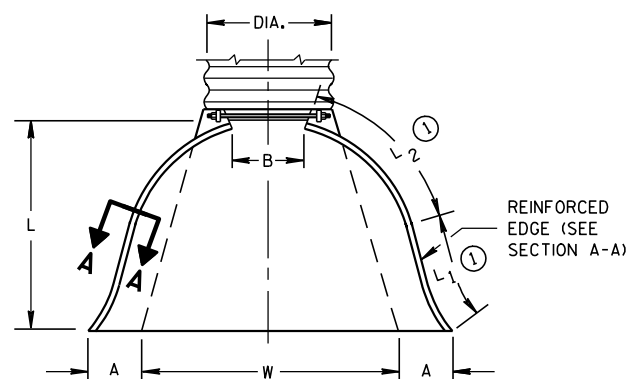


END VIEW



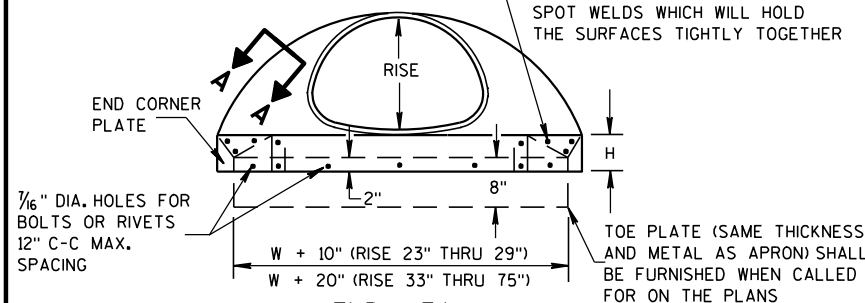
LONGITUDINAL SECTION

CONCRETE ENDWALLS

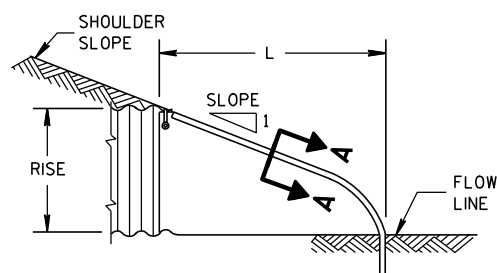
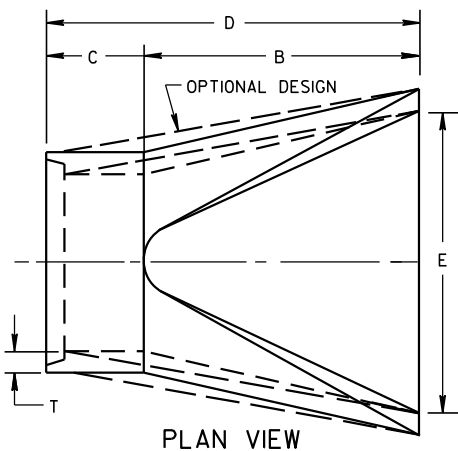


PLAN VIEW

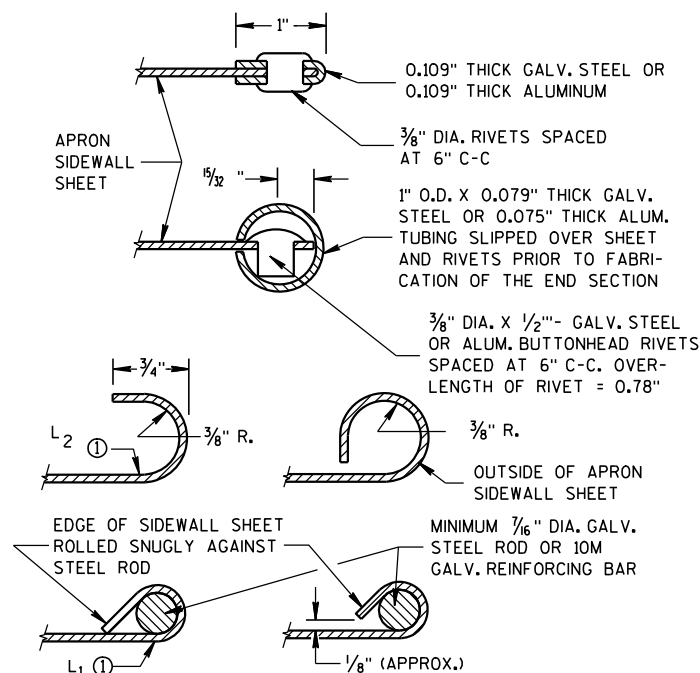
END CORNER PLATES MAY BE FASTENED TO APRON PROPER BY BOLTS, RIVETS, OR RESISTANCE SPOT WELDS WHICH WILL HOLD THE SURFACES TIGHTLY TOGETHER



END VIEW

SIDE ELEVATION
METAL ENDWALLS

PLAN VIEW



SECTION A-A

EQUIV. DIA. (Inches)	(Inches)		MIN. THICK. (Inches)		DIMENSIONS (Inches)							APPROX. SLOPE	BODY
	SPAN	RISE	STEEL	ALUM.	A (±1")	B (MAX.)	H (±1")	L (±1/2")	L1 ①	L2 ①	W (±2")		
					(±1")	(MAX.)	(±1")	(±1/2")	①	①	(±2")		
15	17	13	.064	.060	7	9	6	19	14	16	30	2 1/2 to 1	1 Pc.
18	21	15	.064	.060	7	10	6	23	14	19 3/8	36	2 1/2 to 1	1 Pc.
21	24	18	.064	.060	8	12	6	28	18	21 3/4	42	2 1/2 to 1	1 Pc.
24	28	20	.064	.060	9	14	6	32	18	27 1/2	48	2 1/2 to 1	1 Pc.
30	35	24	.079	.075	10	16	6	39	18	37 5/8	60	2 1/2 to 1	1 Pc.
36	42	29	.079	.075	12	18	8	46	24	45 3/8	75	2 1/2 to 1	1 Pc.
42	49	33	.109	.105	13	21	9	53	24	54 3/4	85	2 1/2 to 1	2 Pc.
48	57	38	.109	.105	18	26	12	63	24	68	90	2 1/2 to 1	3 Pc.
54	64	43	.109	.105	18	30	12	70	24	72 3/4	102	2 1/4 to 1	3 Pc.
60	71	47	.109*	.105*	18	33	12	77	30	82 1/4	114	2 1/4 to 1	3 Pc.
66	77	52	.109*	.105*	18	36	12	77	—	—	126	2 to 1	3 Pc.
72	83	57	.109*	.105*	18	39	12	77	—	—	138	2 to 1	3 Pc.

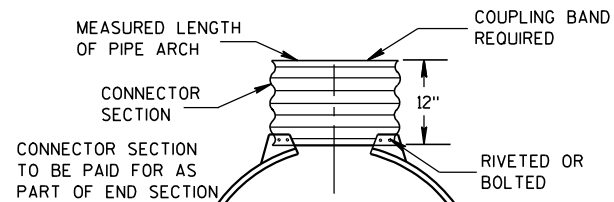
EQUIV. DIA. (Inches)	(Inches)		MIN. THICK. (Inches)		DIMENSIONS (Inches)							APPROX. SLOPE	BODY
	SPAN	RISE	STEEL	ALUM.	A (±1")	B (MAX.)	H (±1")	L (±1/2")	L1 ①	L2 ①	W (±2")		
					(±1")	(MAX.)	(±1")	(±1/2")	①	①	(±2")		
48	53	41	.109	.105	18	26	12	63	24	72 3/4	90	2 1/2 to 1	2 Pc.
54	60	46	.109	.105	18	30	12	70	30	82 1/4	102	2 to 1	2 Pc.
60	66	51	.109*	.105*	18	33	12	77	—	—	114	1 1/2 to 1	3 Pc.
66	73	55	.109*	.105*	18	36	12	77	—	—	126	1 1/2 to 1	3 Pc.
72	81	59	.109*	.105*	18	39	12	77	—	—	138	2 to 1	3 Pc.
78	87	63	.109*	.105*	22	38	12	77	—	—	148	1 1/2 to 1	3 Pc.
84	95	67	.109*	.105*	22	34	12	77	—	—	162	1 1/2 to 1	3 Pc.
90	103	71	.109*	.105*	22	38	12	77	—	—	174	1 1/2 to 1	3 Pc.
96	112	75	.109*	.105*	24	40	12	77	—	—	174	1 1/2 to 1	3 Pc.

NOTE: ALL SPLICES TO BE LAP RIVETED OR BOLTED.

* EXCEPT CENTER PANEL
SEE GENERAL NOTES

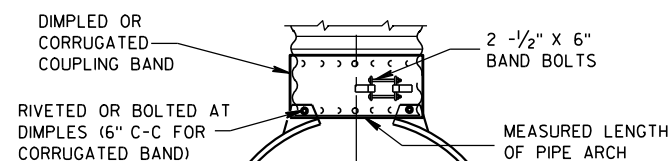
TYPE 2

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



TYPE 3

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



TYPE 5

ALTERNATE FOR:

ALL SIZES CORRUGATED PIPE ARCHES

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

CONNECTION DETAILS

REINFORCED CONCRETE PIPE ARCH

EQUIV. DIA. (Inches)	DIMENSIONS (Inches)								APPROX. SLOPE
	** SPAN	** RISE	T	A	B	C	D	E	
24	29	18	3	8 1/2	39	33	72	48	3 to 1
30	36	22	3 1/2	9 1/2	50	46	96	60	3 to 1
36	44	27	4	11 1/8	60	36	96	72	3 to 1
42	51	31	4 1/2	15 1/16	60	36	96	78	3 to 1
48	58	36	5	21	60	36	96	84	3 to 1
54	65	40	5 1/2	25 1/2	60	36	96	90	3 to 1
60	73	45	6	31	60	36	96	96	3 to 1
72	88	54	7	31	60	39	99	120	2 to 1
84	102	62	8	28 1/2	83	19	102	144	2 to 1

REINFORCED CONCRETE ELLIPTICAL PIPE

EQUIV. DIA. (Inches)	DIMENSIONS (Inches)								APPROX. SLOPE
	** SPAN	** RISE	T	A	B	C	D	E	
24	30	19	3 1/4	8 1/2	39	33	72	48	3 to 1
30	38	24	3 3/4	9 1/2	54	18	72	60	3 to 1
36	45	29	4 1/2	11 1/8	60	24	84	72	2 1/2 to 1
42	53	34	5	15 1/4	60	36	96	78	2 1/2 to 1
48	60	38	5 1/2	21	60	36	96	84	2 1/2 to 1
54	68	43	6	25 1/2	60	36	96	90	2 1/2 to 1
60	76	48	6 1/2	30	60	36	96	96	2 1/2 to 1

**NOMINAL SIZE

GENERAL NOTES

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

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

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

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

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

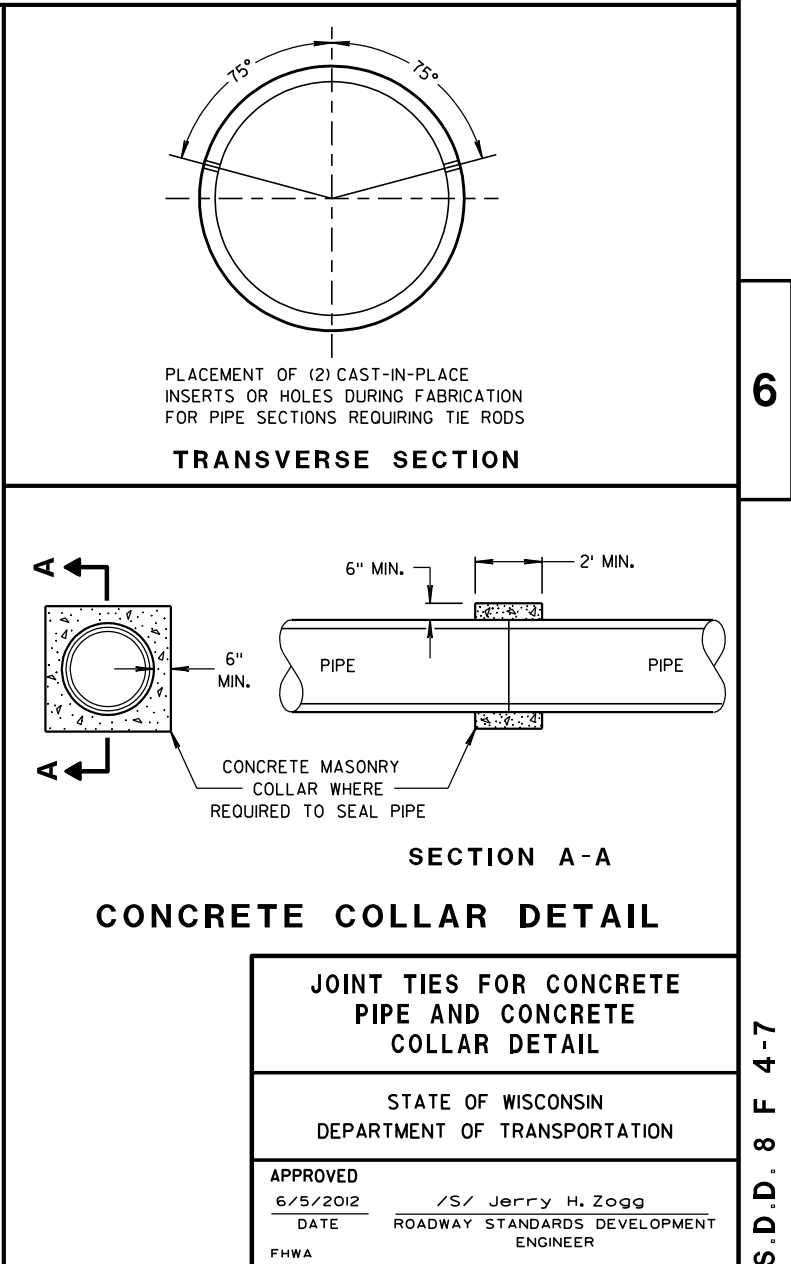
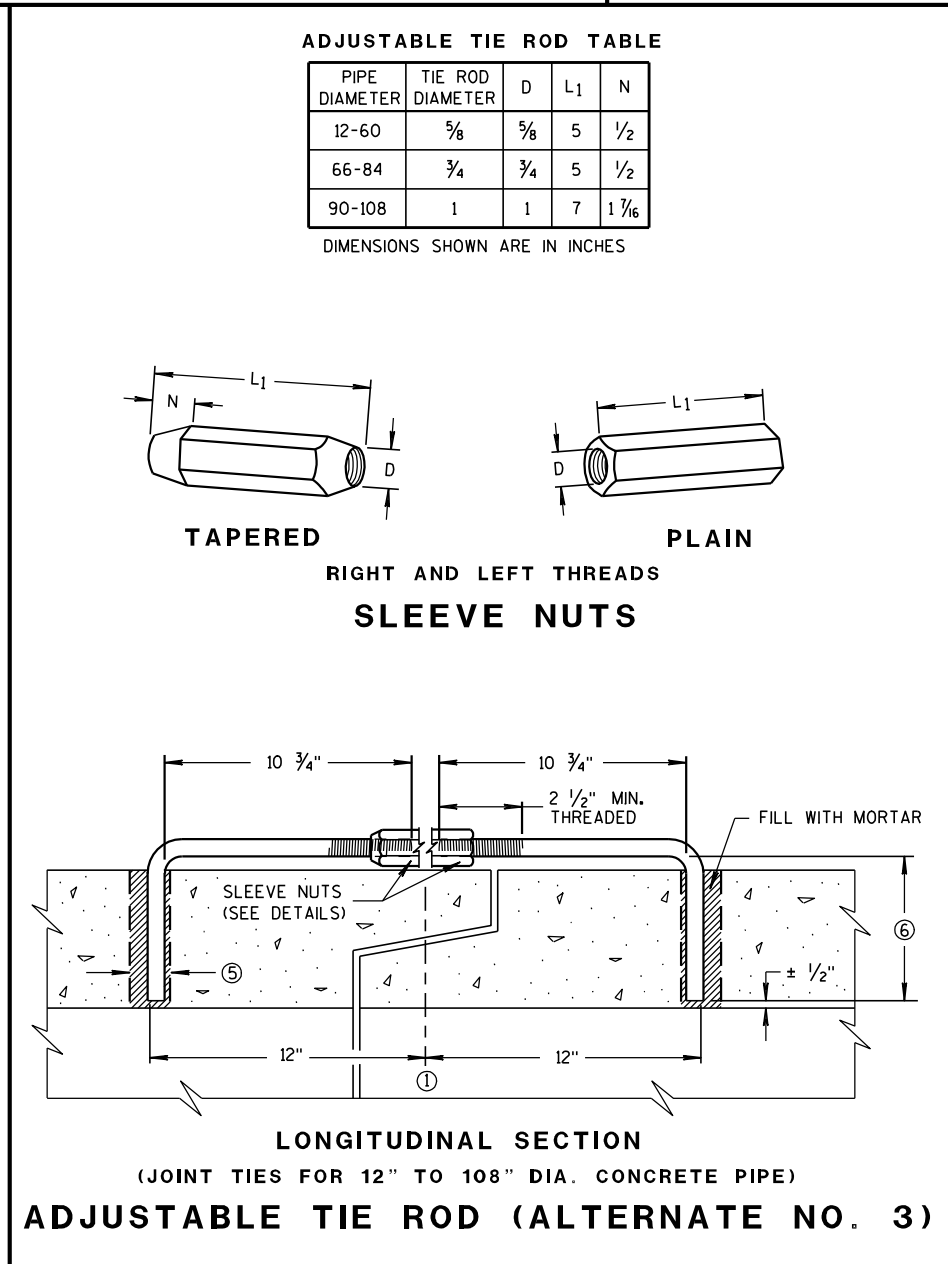
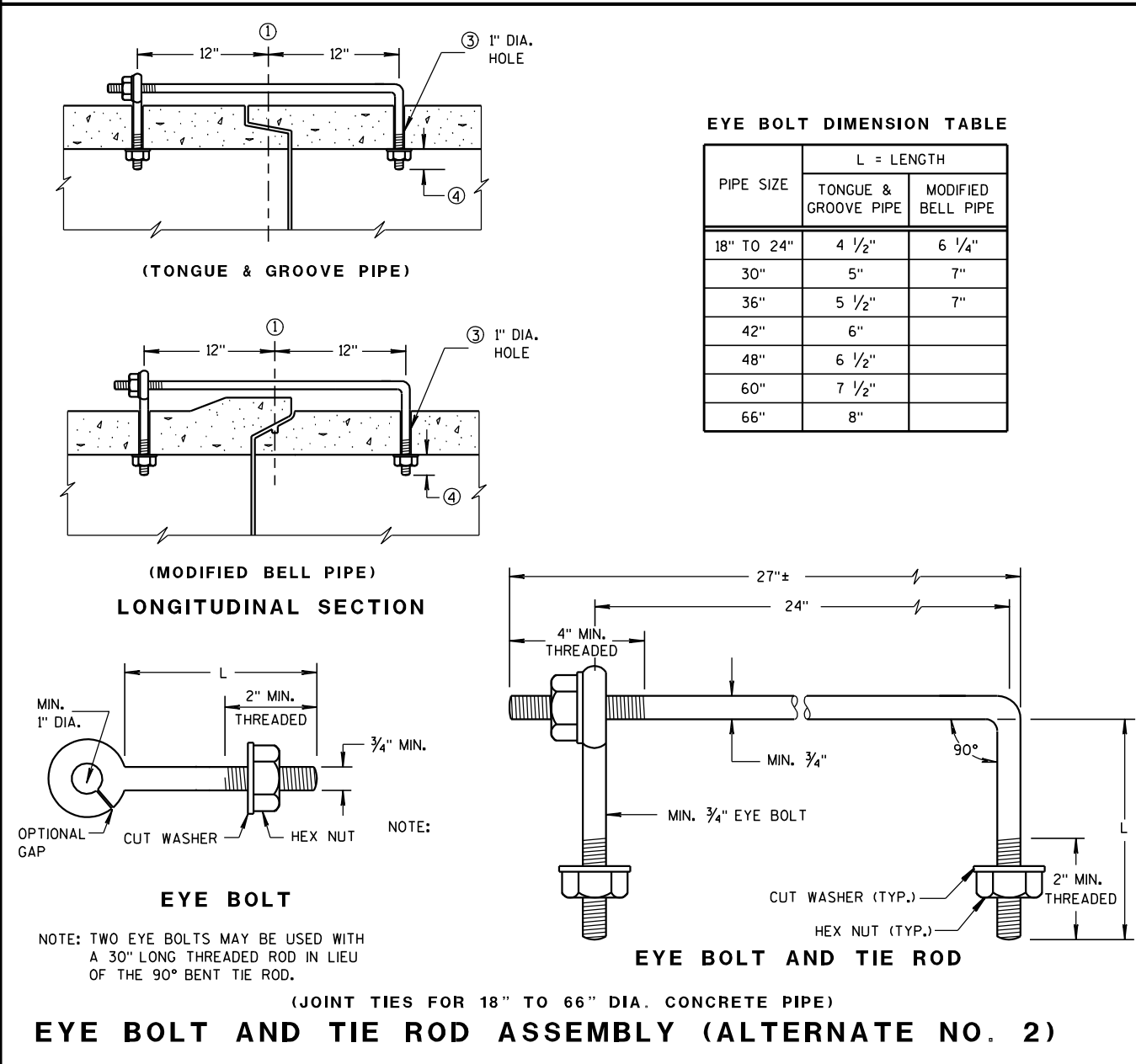
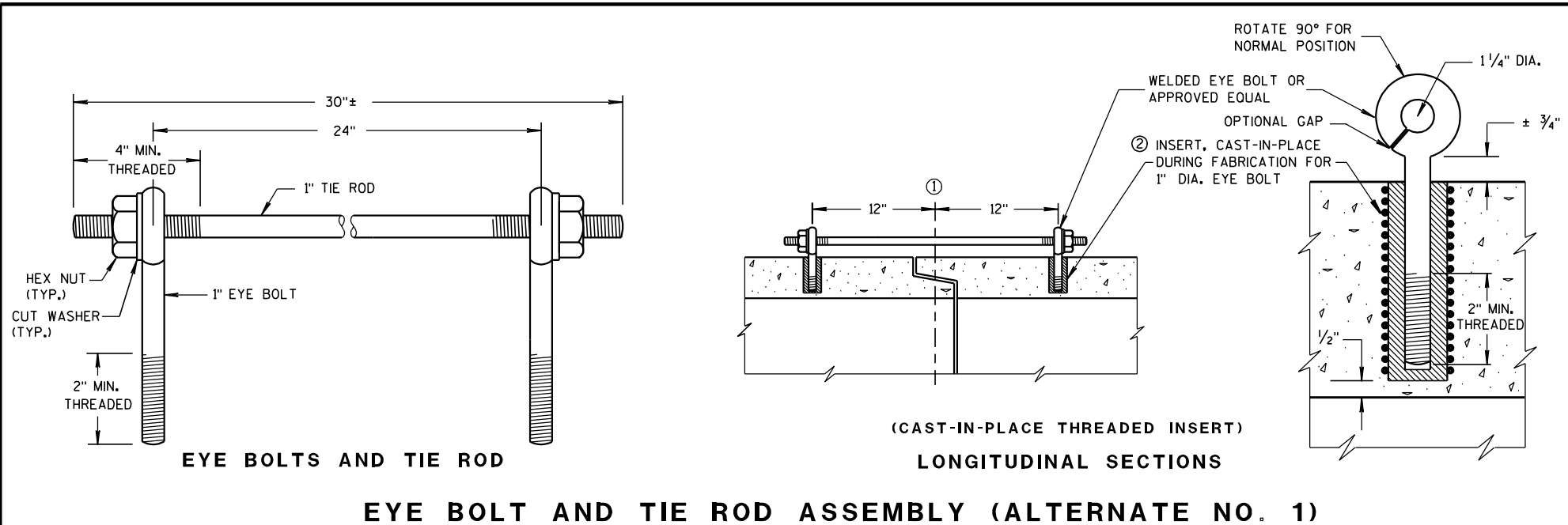
① FOR PIPE ARCH SIZES UP TO 73" X 55" A 180° ROLLED EDGE MAY BE USED INSTEAD OF STEEL ROD REINFORCEMENT. SEE SECTION A-A.

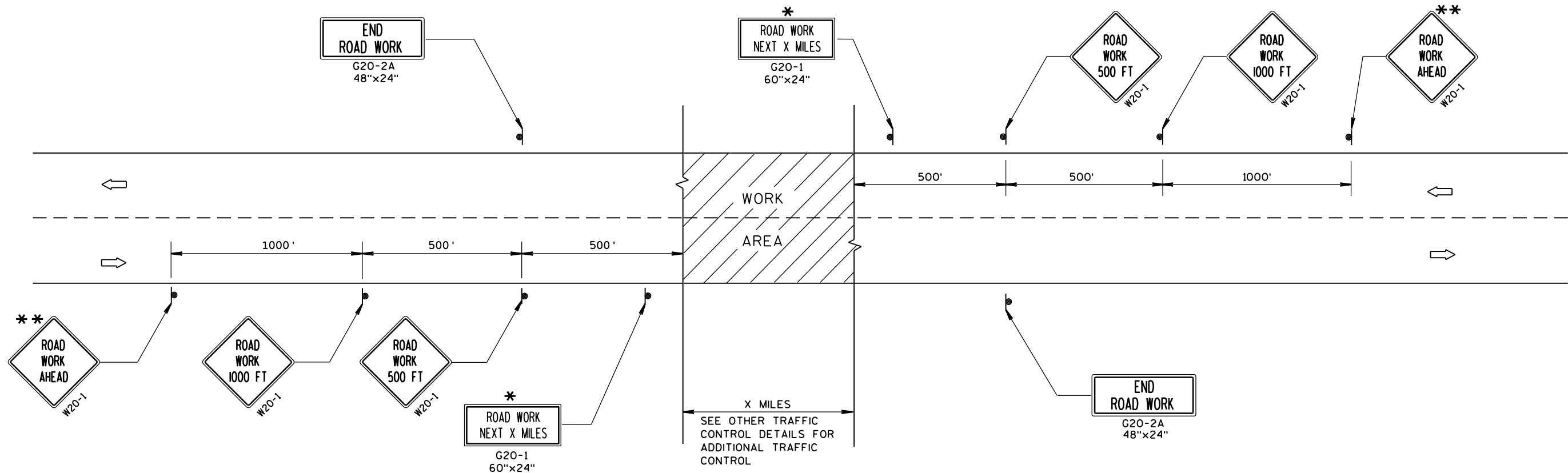
APRON ENDWALLS FOR
PIPE ARCH AND
ELLIPTICAL PIPESTATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED

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

FHWA





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.

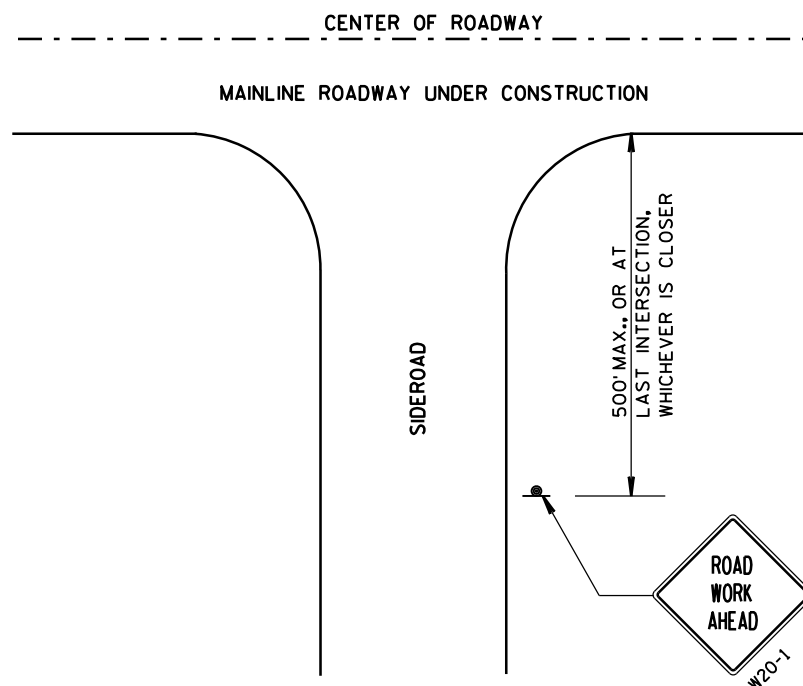
ALL SIGNS ARE 48"x48" UNLESS OTHERWISE NOTED.

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.



LEGEND

- SIGN ON PERMANENT SUPPORT
- DIRECTION OF TRAFFIC
- WORK AREA

TRAFFIC CONTROL, ADVANCE
WARNING SIGNS 45 M.P.H.
OR GREATER TWO-WAY
UNDIVIDED ROAD OPEN TO TRAFFIC

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

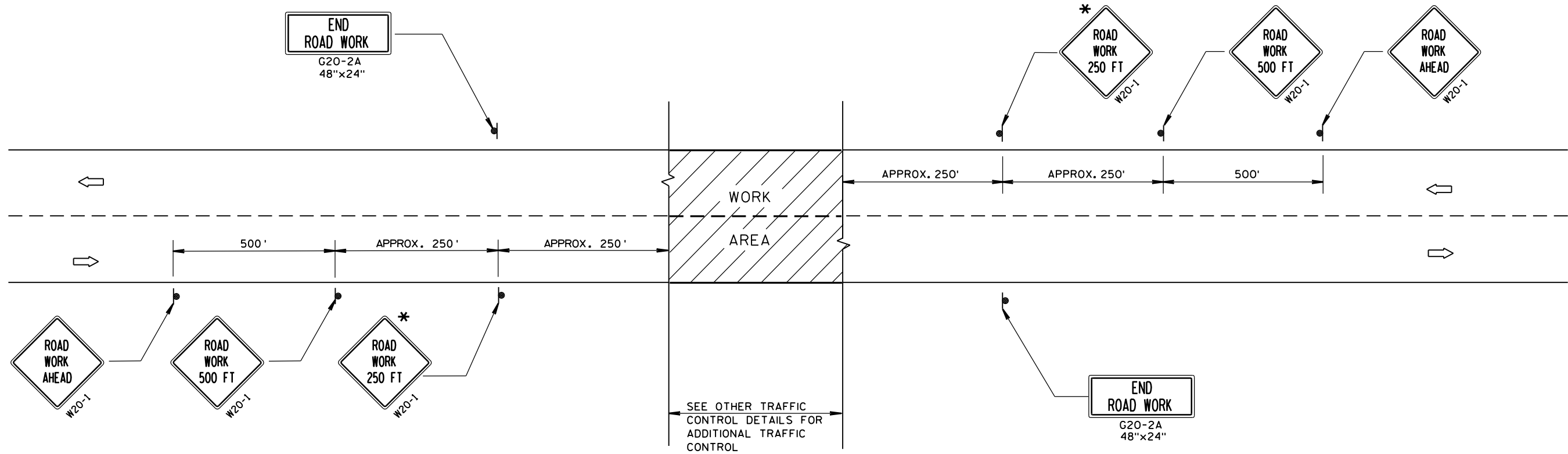
APPROVED

8/2013

DATE

FHWA

/S/ Travis Feltes
STATE TRAFFIC ENGINEER OF DESIGN



TYPICAL SIDEROAD APPROACH WARNING SIGN DETAIL

GENERAL NOTES

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

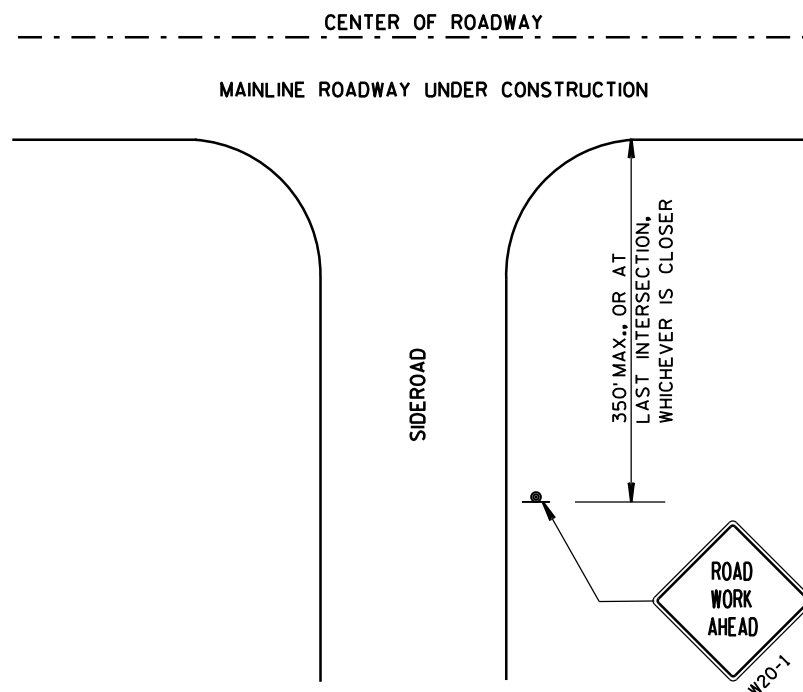
THE SPACING BETWEEN TRAFFIC CONTROL SIGNS SHOULD BE ADJUSTED TO NOT CONFLICT WITH AND SHOULD PROVIDE A DESIRABLE MINIMUM OF 200 FEET CLEARANCE TO EXISTING SIGNS THAT WILL REMAIN IN PLACE.

ALL SIGNS ARE 48"x48" UNLESS OTHERWISE NOTED. IF NECESSARY DUE TO SPACE CONSTRAINTS, 36"x36" SIGNS MAY BE USED INSTEAD OF 48"x48" SIGNS.

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

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

* THE THIRD W20-1 SIGN IS REQUIRED ONLY IF THERE IS AN INTERSECTION BETWEEN THE "ROAD WORK 500 FT" SIGN AND THE WORK ZONE. ADJUST THE PLACEMENT OF THIS SIGN BASED ON INTERSECTION LOCATION AND OTHER FIELD CONDITIONS.



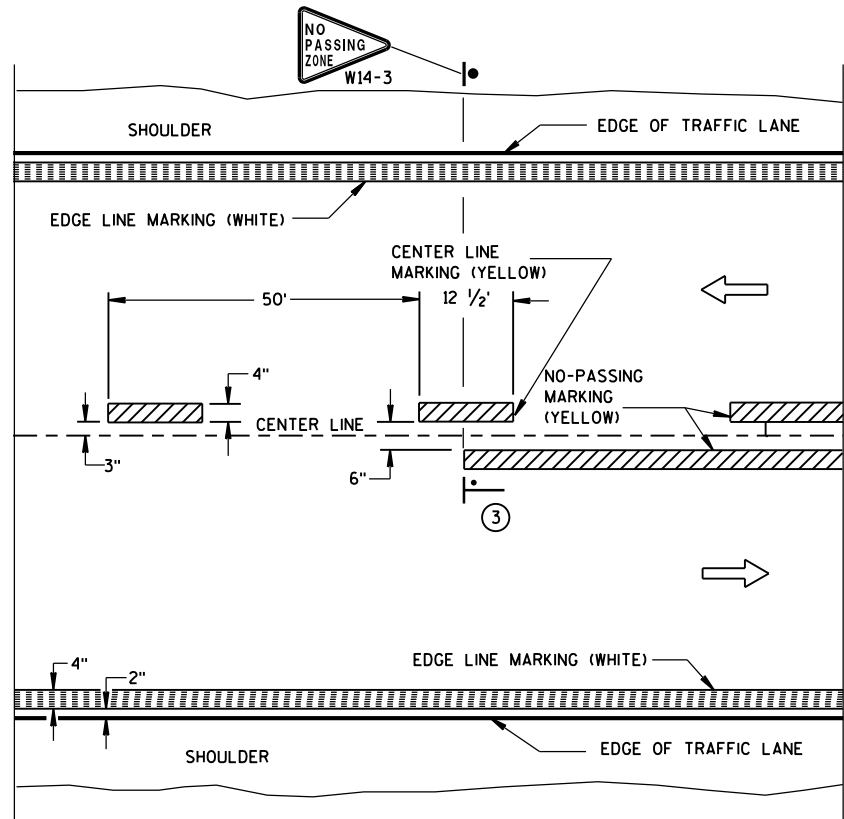
LEGEND

- SIGN ON PERMANENT SUPPORT
- DIRECTION OF TRAFFIC
- WORK AREA

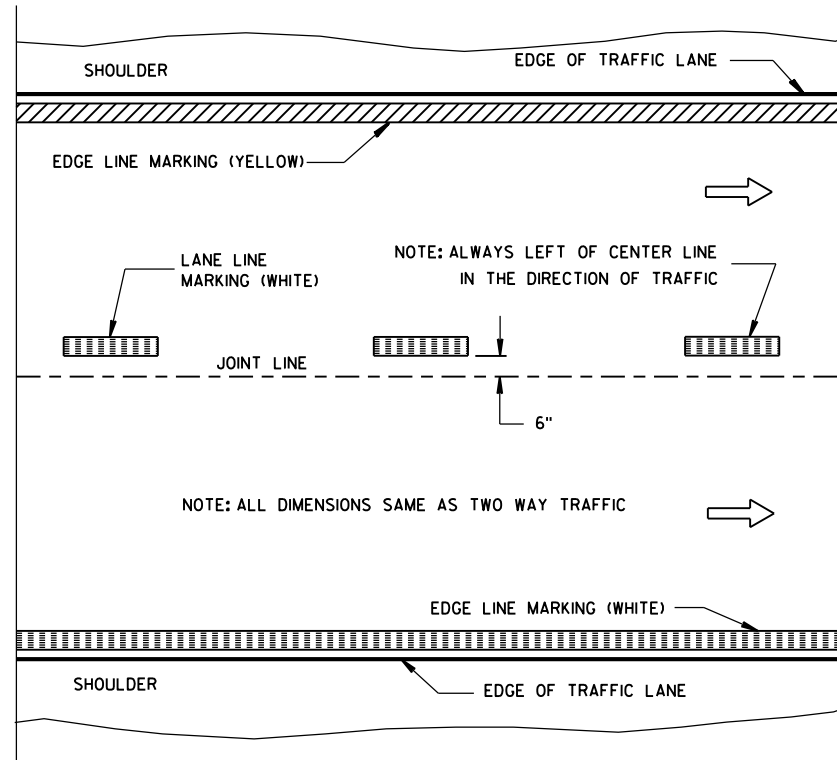
TRAFFIC CONTROL, ADVANCE
WARNING SIGNS 40 M.P.H.
OR LESS TWO-WAY UNDIVIDED
ROAD OPEN TO TRAFFIC

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
8/2013 /S/ Travis Feltes
DATE STATE TRAFFIC ENGINEER OF DESIGN
FHWA

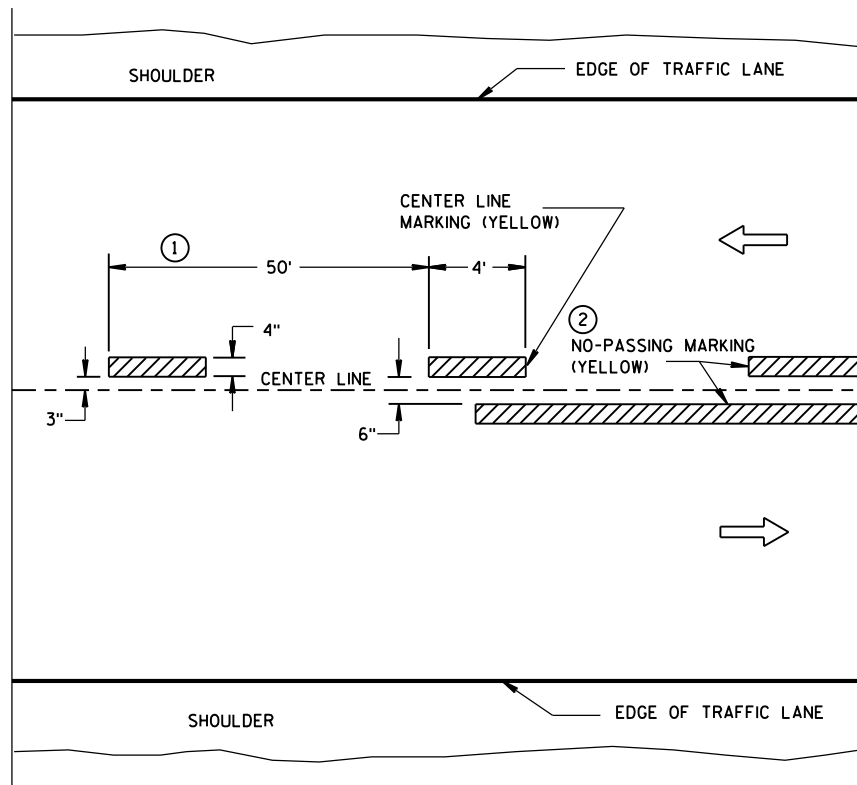


TWO WAY TRAFFIC

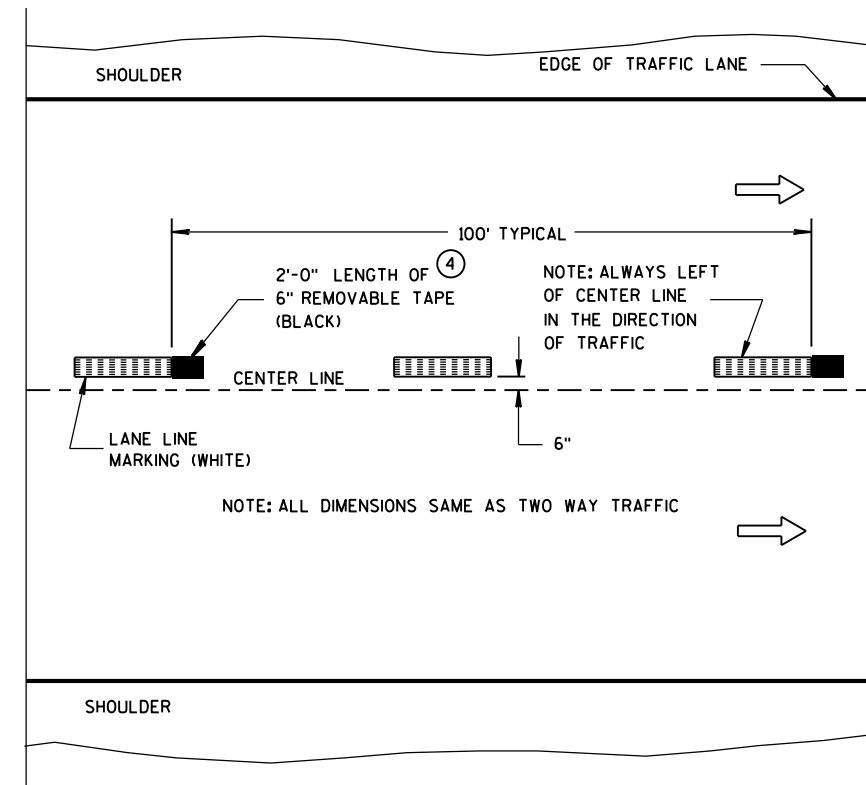


ONE WAY TRAFFIC

PERMANENT PAVEMENT MARKING



TWO WAY TRAFFIC



ONE WAY TRAFFIC

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

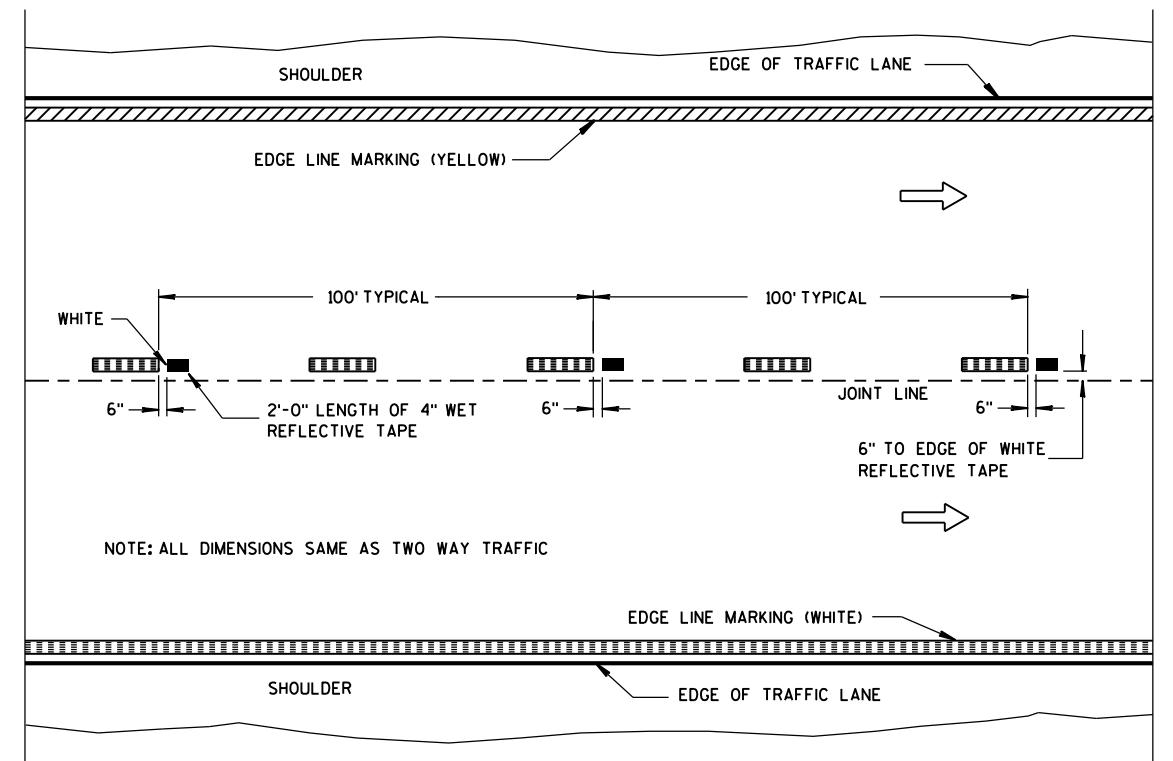
GENERAL NOTES

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

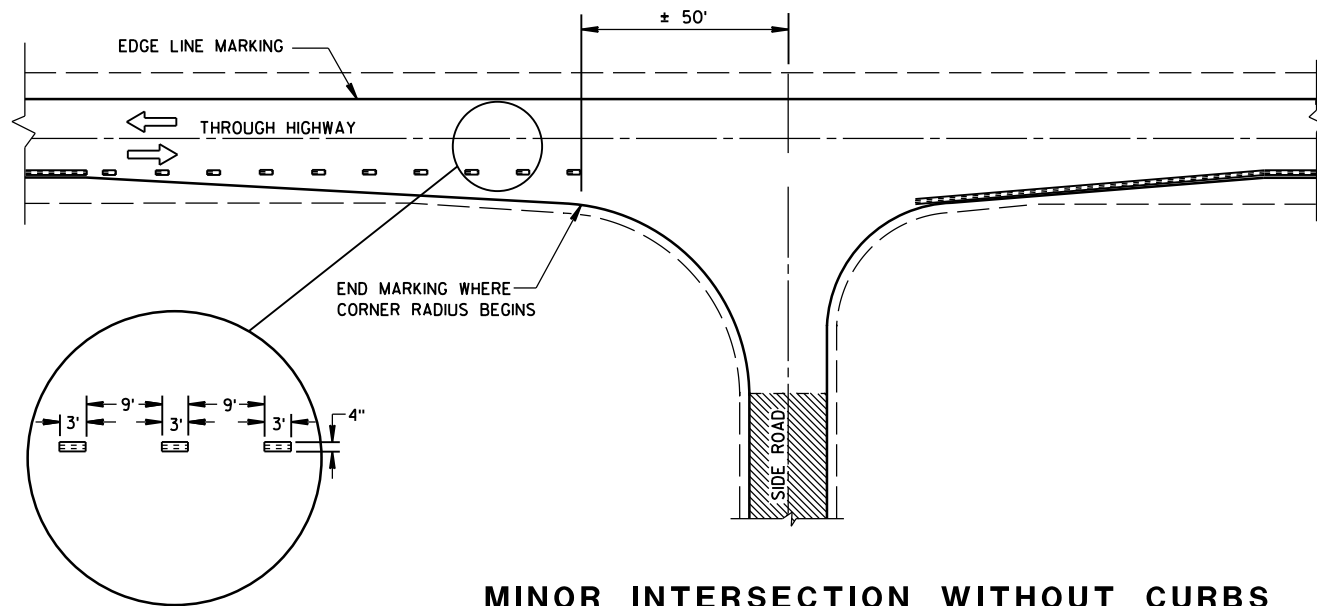
LEGEND

- "T" MARKING
- POST MOUNTED SIGN

PAVEMENT MARKING
(MAINLINE)

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

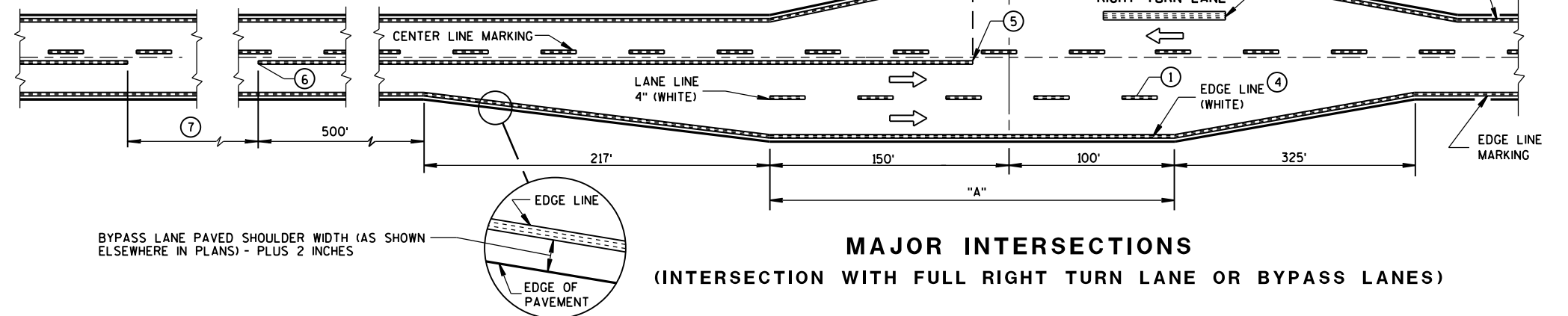
APPROVED
5-13-2013 /S/ Travis Feltes
DATE STATE TRAFFIC ENGINEER
FHWA



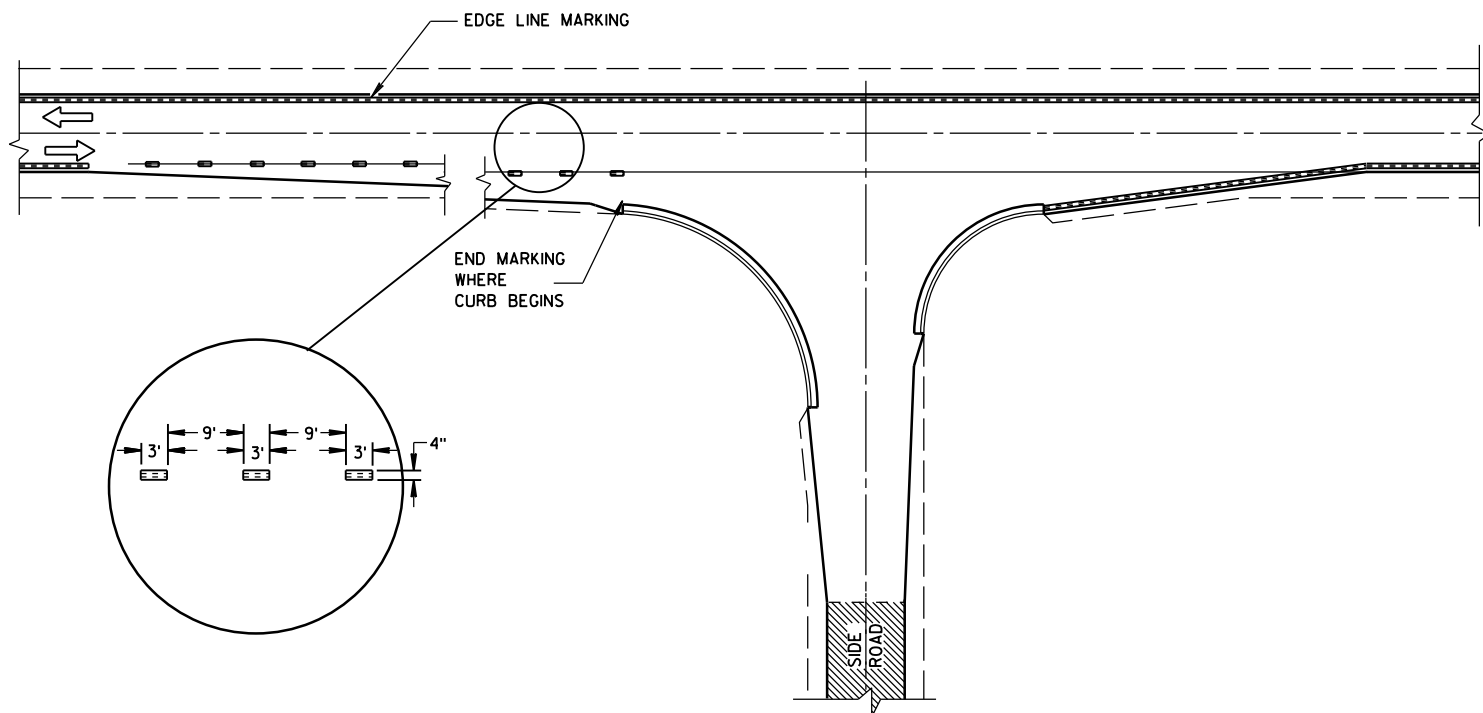
MINOR INTERSECTION WITHOUT CURBS

⑦

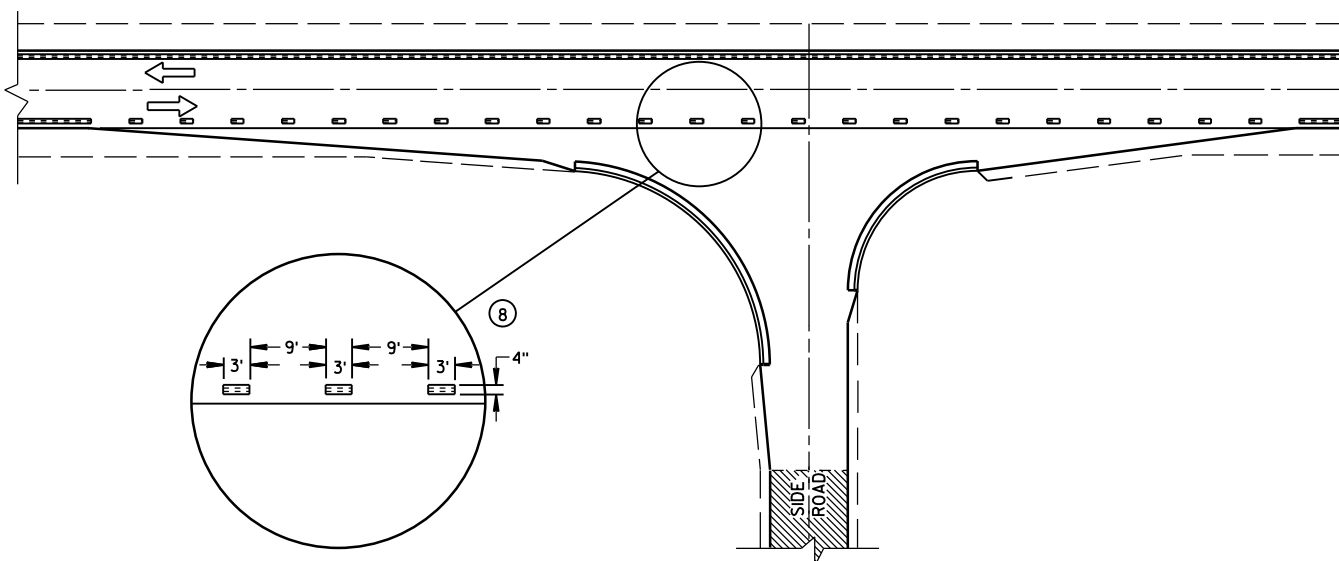
POSTED SPEED (MPH)	MINIMUM DISTANCE BETWEEN ZONES (FEET)
25 - 30	528
35 - 40	528
45 - 50	686
55	792



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

LEGEND

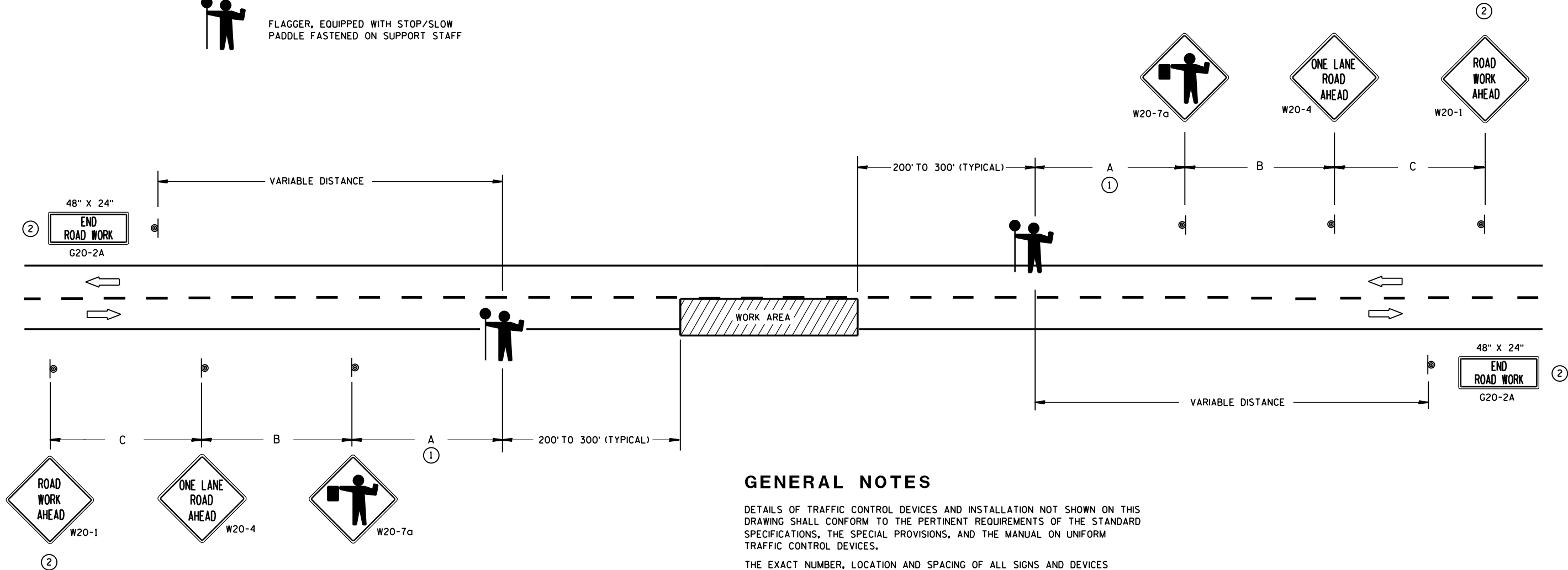
-  SIGN ON PORTABLE OR PERMANENT SUPPORT
-  DIRECTION OF TRAFFIC
-  WORK AREA
-  FLAGGER, EQUIPPED WITH STOP/SLOW PADDLE FASTENED ON SUPPORT STAFF

SIGN SPACING TABLE

SPEED LIMIT	SIGN SPACING A,B,C
25-35 MPH	200'
35-40 MPH	350'
45-55 MPH	500'



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, COVER OR REMOVE ALL TEMPORARY TRAFFIC CONTROL SIGNS.

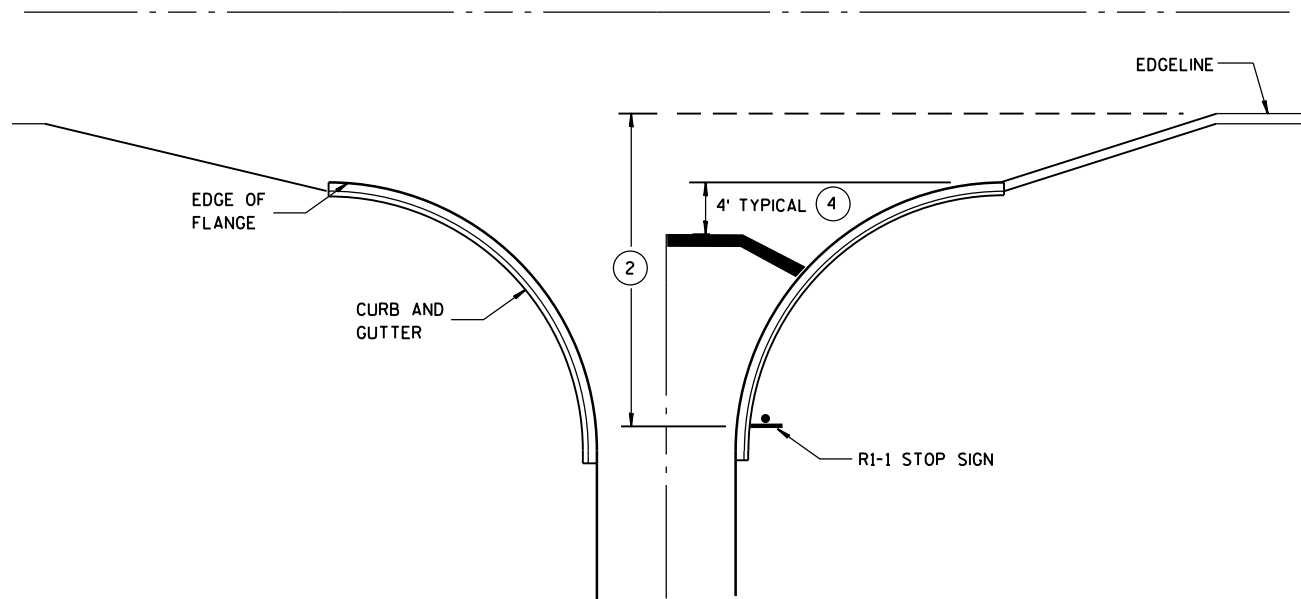
ALL SIGNS ARE 48" X 48" UNLESS OTHERWISE NOTED.

- 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.

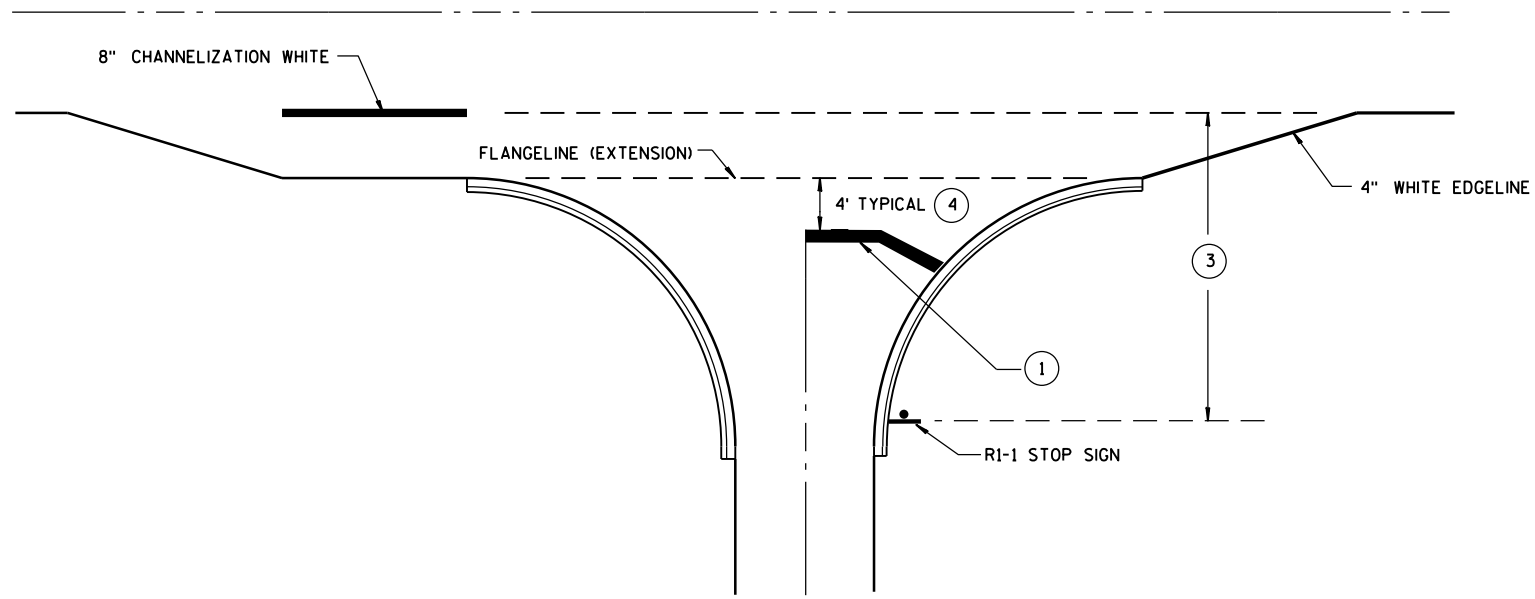
TRAFFIC CONTROL FOR LANE CLOSURE (SUITABLE FOR MOVING OPERATIONS)

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

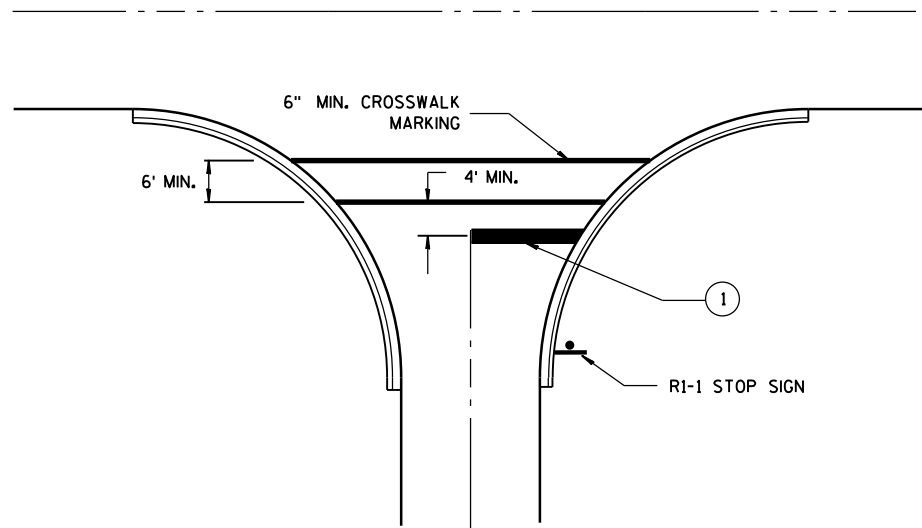
APPROVED
8/2013 /S/ Travis Feltes
DATE STATE TRAFFIC ENGINEER OF DESIGN
FHWA



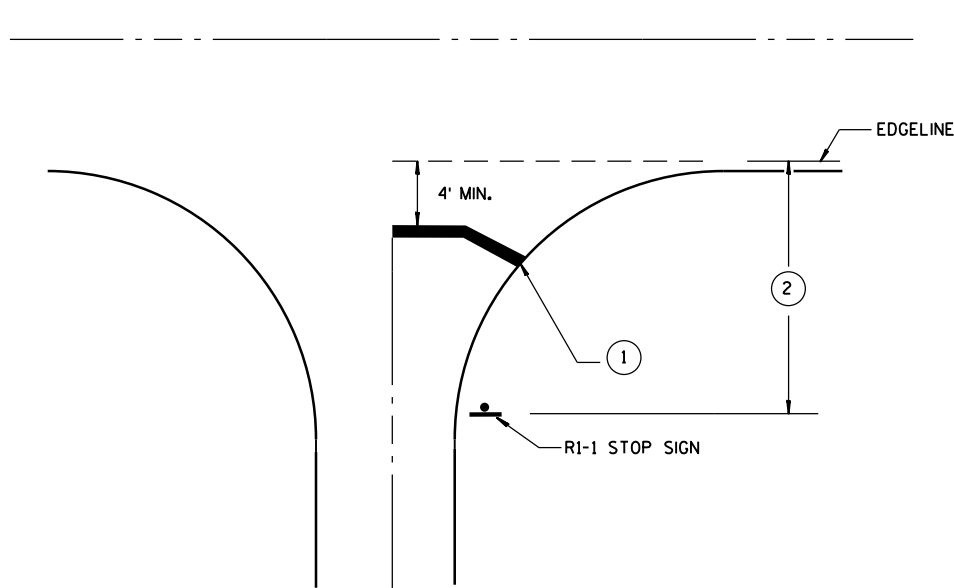
TYPICAL STOP LINE PAVEMENT MARKING
WITH CURB AND GUTTER



TYPICAL STOP LINE PAVEMENT MARKING
FOR SIDEROADS WITH RIGHT TURN LANE



TYPICAL STOP LINE PAVEMENT MARKING
FOR SIDEROADS WITH CROSSWALK MARKING



TYPICAL STOP LINE PAVEMENT MARKING
WITHOUT CURB AND GUTTER

GENERAL NOTES

- ① 18-INCH STOP LINES MAY BE DELETED OR ADDED BY THE PROJECT ENGINEER BASED ON VISIBILITY AND SIGHT LINES.
- ② IF STOP SIGN IS LESS THAN OR EQUAL TO 40 FEET FROM THE EDGE LINE THAN NO STOP LINE IS REQUIRED.
- ③ IF STOP SIGN IS LESS THAN OR EQUAL TO 30 FEET FROM THE FLANGELINE EXTENSION THAN NO STOP LINE IS REQUIRED.
- ④ MOVE CLOSER TO EDGE OF TRAVEL LANE AS NEEDED FOR VISIBILITY AND SIGHT LINES.

STOP LINE AND CROSSWALK PAVEMENT MARKING	
STATE OF WISCONSIN DEPARTMENT OF TRANSPORTATION	
APPROVED 4/30/2013 DATE	/S/ Travis Feltz STATE TRAFFIC ENGINEER
FHWA	

4' MINIMUM
5' DESIRABLE

**SIDEWALK
CLOSED**

R9-9
24" x 12"

TEMPORARY
PEDESTRIAN
ACCESS. SEE
SDD 15 D 30
SHEET "C".

4

5

1

6

4' MINIMUM
5' DESIRABLE

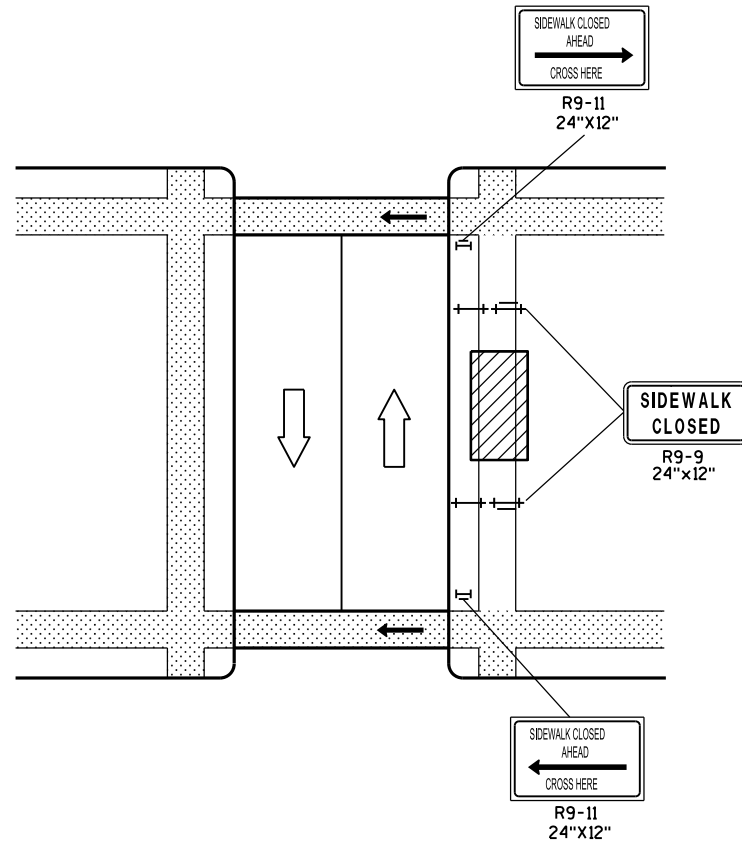
**SIDEWALK
CLOSED**

R9-9
24"x12"

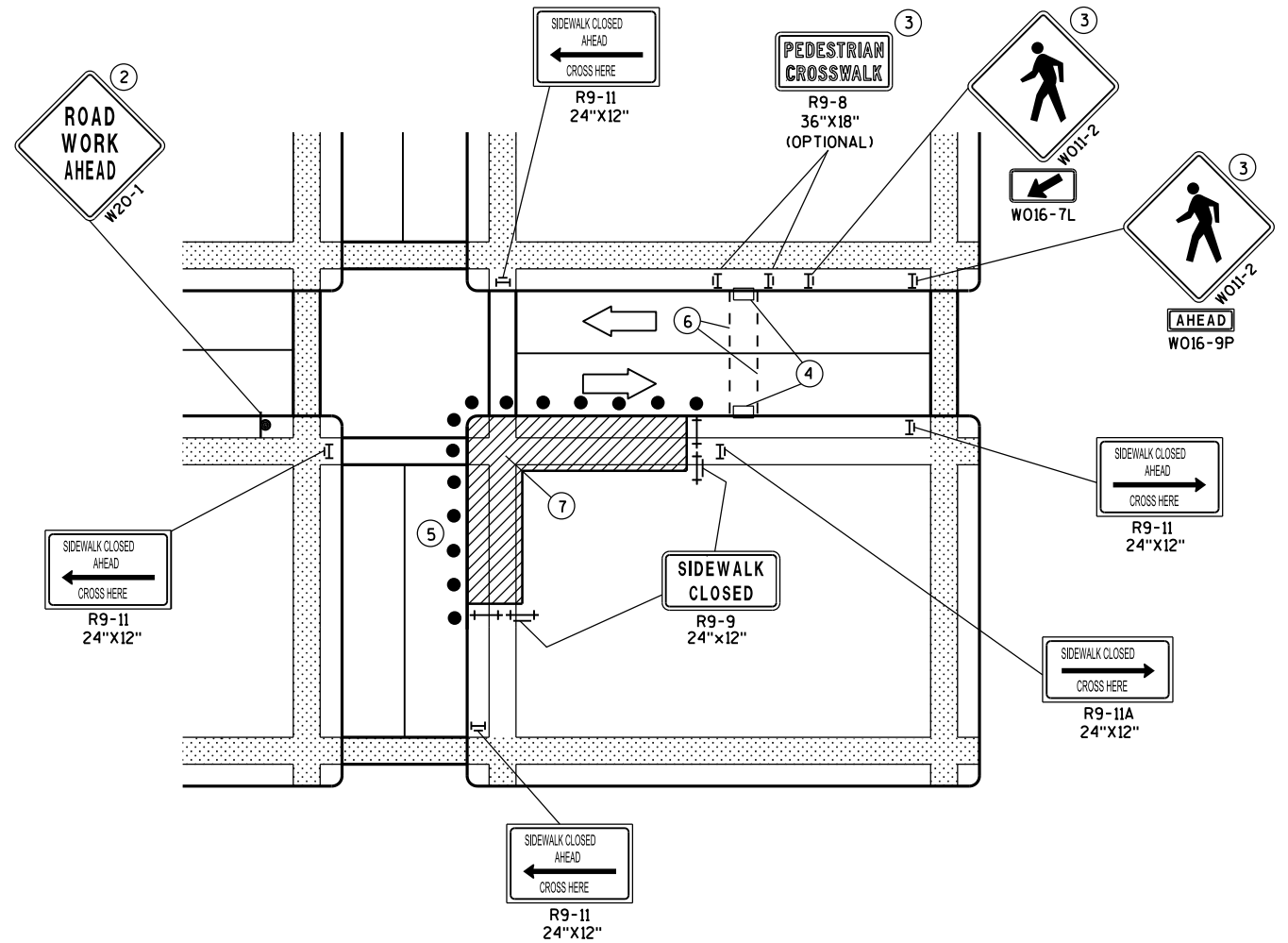
①

TEMPORARY
PEDESTRIAN
ACCESS. SEE
SDD 15 D 30
SHEET "C".

S.D.D. 15 D 30-2a



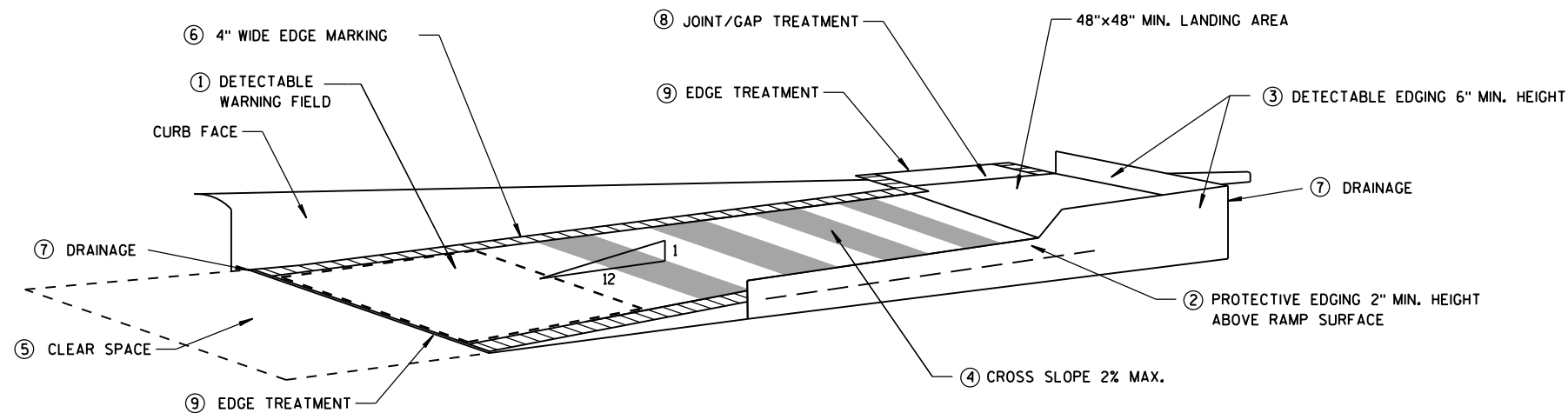
GENERAL NOTES



6

	SIGN ON PERMANENT SUPPORT		DIRECTION OF TRAFFIC
	UNDER PEDESTRIAN TRAFFIC		TRAFFIC CONTROL DRUM
	WORK AREA		
	PEDESTRIAN CHANNELIZATION DEVICE		
	TYPE II BARRICADE WITH/WITHOUT SIGN (ALL WITH ONE WARNING LIGHT, TYPE A, LOW- INTENSITY FLASHING)		
	TYPE III BARRICADE WITH/WITHOUT SIGN (ALL WITH ONE WARNING LIGHT, TYPE A, LOW- INTENSITY FLASHING)		

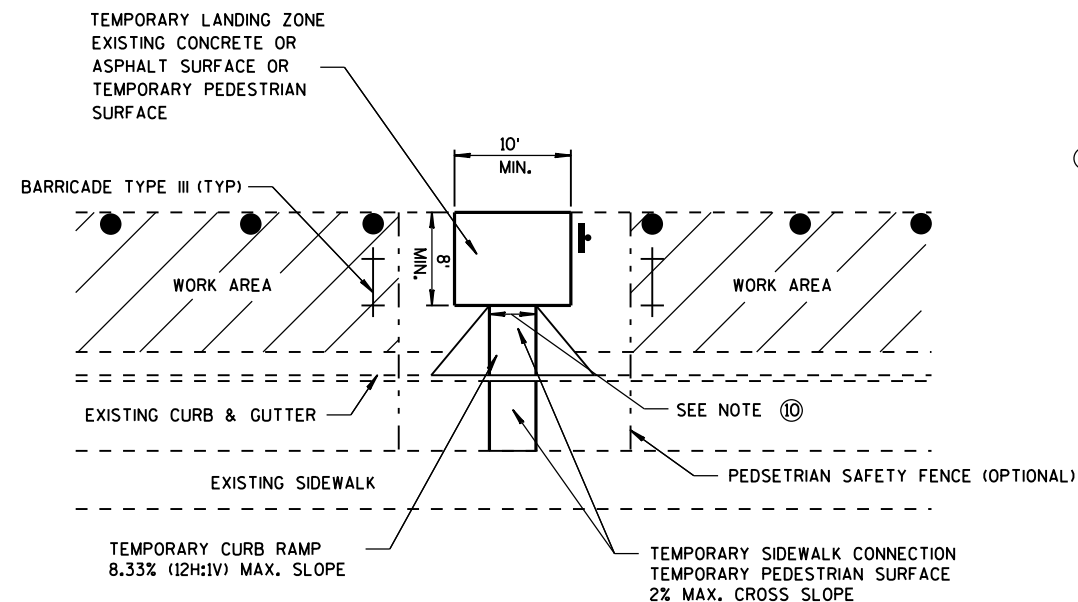
STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION



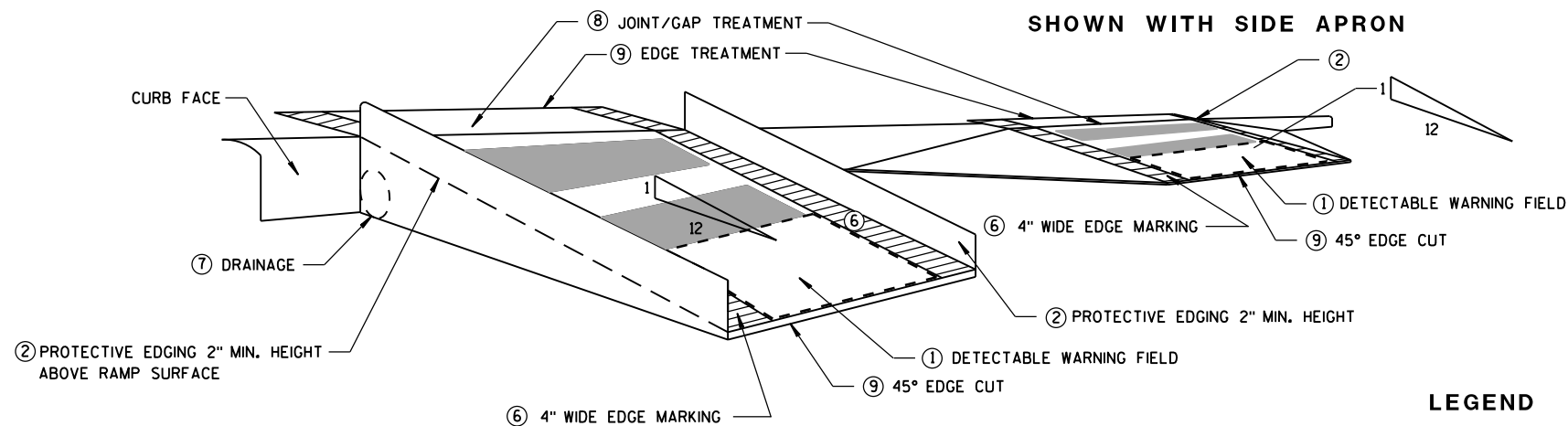
TEMPORARY CURB RAMP
PARALLEL TO CURB

GENERAL NOTES

- NOTIFY THE BUS COMPANY 7 DAYS IN ADVANCE OF THE BUS STOP RELOCATION.
ALTERNATE SIDEWALK WORK BETWEEN LEFT AND RIGHT SIDE OF ROADWAY
TO MAINTAIN PEDESTRIAN ACCESS.
- 1 CURB RAMPS SHALL BE 48" MIN. WIDTH WITH A FIRM, STABLE AND SLIP RESISTANT SURFACE. INSTALL CONTRASTING DETECTABLE WARNING FIELD AT PEDESTRIAN STREET CROSSINGS. REFER TO SDD 8D5 SHEET "E".
 - 2 PROTECTIVE EDGING WITH A 2" MIN. HEIGHT SHALL BE INSTALLED WHEN A CURB RAMP OR LANDING PLATFORM HAS A VERTICAL DROP OF 6" OR GREATER OR HAS A SIDE APRON SLOPE STEEPER THAN 1:3 (33%). PROTECTIVE EDGING SHOULD BE CONSIDERED WHEN CURB RAMPS OR LANDING PLATFORMS HAVE A VERTICAL DROP OF 3" OR MORE.
 - 3 DETECTABLE EDGING WITH 6" MIN. HEIGHT AND CONTRASTING COLOR SHALL BE INSTALLED ON ALL CURB RAMP LANDINGS WHERE THE WALKWAY CHANGES DIRECTION (TURNS).
 - 4 CURB RAMPS AND LANDINGS SHALL HAVE A 1:50 (2%) MAX. CROSS-SLOPE.
 - 5 CLEAR SPACE OF 48"x48" MIN. SHALL BE PROVIDED ABOVE AND BELOW THE CURB RAMP.
 - 6 THE CURB RAMP WALKWAY EDGE SHALL BE MARKED WITH A YELLOW COLOR, 4" WIDE MARKING, UNLESS A CONTRASTING DETECTABLE WARNING FIELD IS PROVIDED.
 - 7 DO NOT RESTRICT WATER FLOW IN THE GUTTER SYSTEM.
 - 8 LATERAL JOINTS OR GAPS BETWEEN SURFACES SHALL BE LESS THAN 1/2" WIDTH.
 - 9 CHANGES BETWEEN SURFACE HEIGHTS SHALL NOT EXCEED 1/2". LATERAL EDGES SHALL BE VERTICAL UP TO 1/4" HIGH, AND BEVELED AT 1:2 BETWEEN 1/4" AND 1/2".
 - 10 5' WIDE MIN. WITH PEDESTRIAN SAFETY FENCE, 10' WIDE MIN. WITHOUT PEDESTRIAN SAFETY FENCE.



TEMPORARY BUS STOP PAD



SHOWN WITH PROTECTIVE EDGE

TEMPORARY CURB RAMP
PERPENDICULAR TO CURB

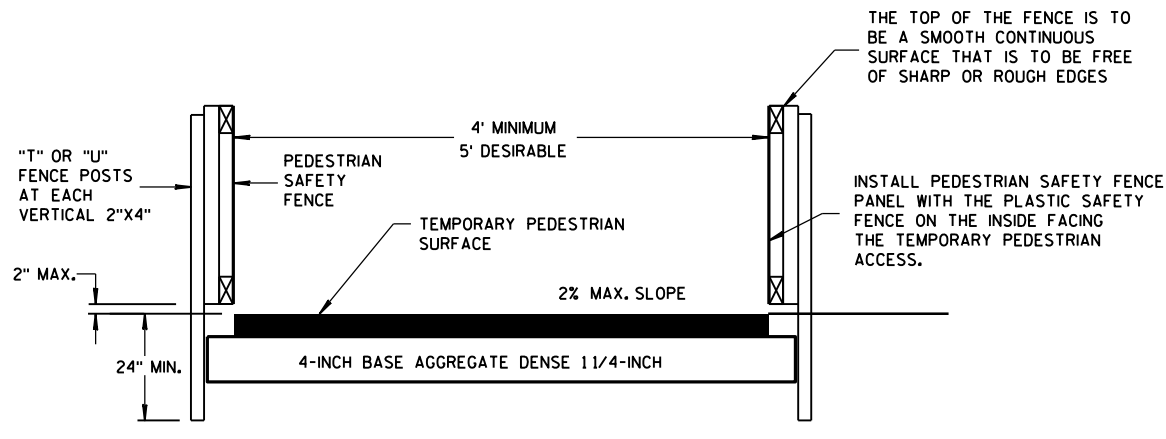
SHOWN WITH SIDE APRON

- LEGEND
- WORK AREA
 - TYPE III BARRICADE
 - TRAFFIC CONTROL DRUM

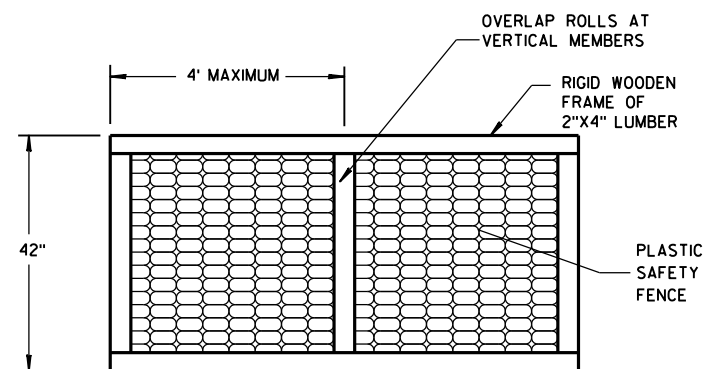
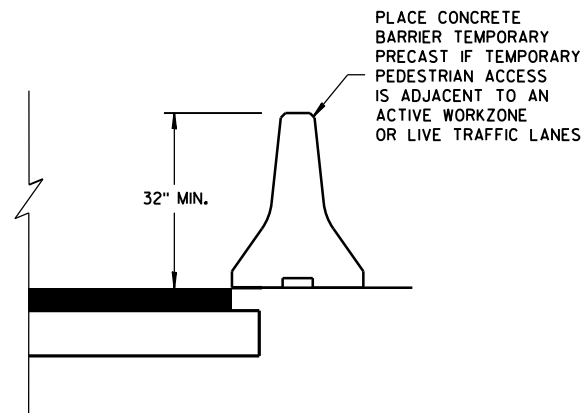
TRAFFIC CONTROL,
TEMPORARY ADA COMPLIANT
PEDESTRIAN ACCOMMODATION

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

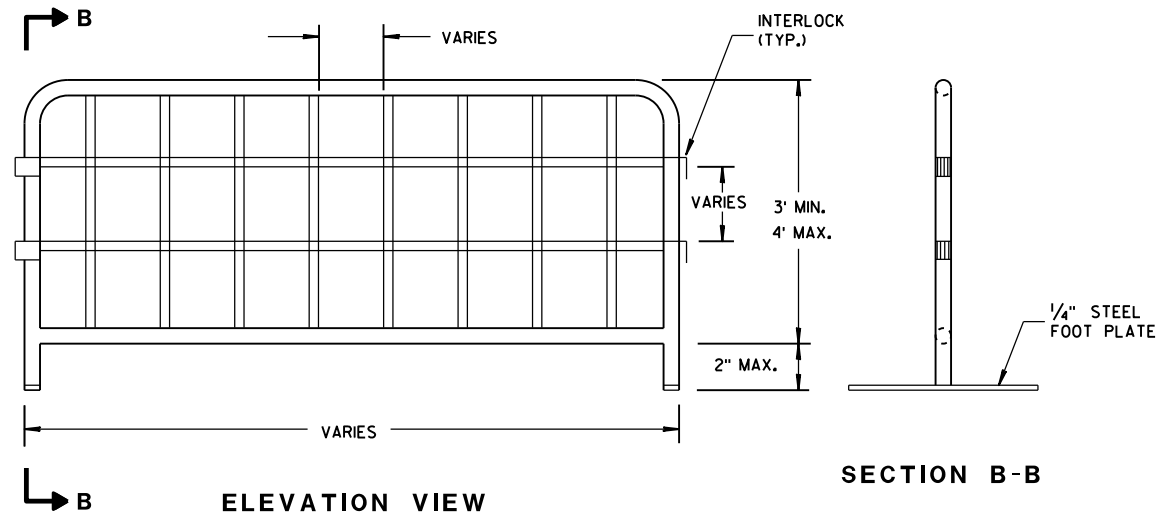
APPROVED
March 2015 /S/ Travis Feltes
DATE STATE TRAFFIC ENGINEER OF DESIGN
FHWA



TEMPORARY PEDESTRIAN ACCESS

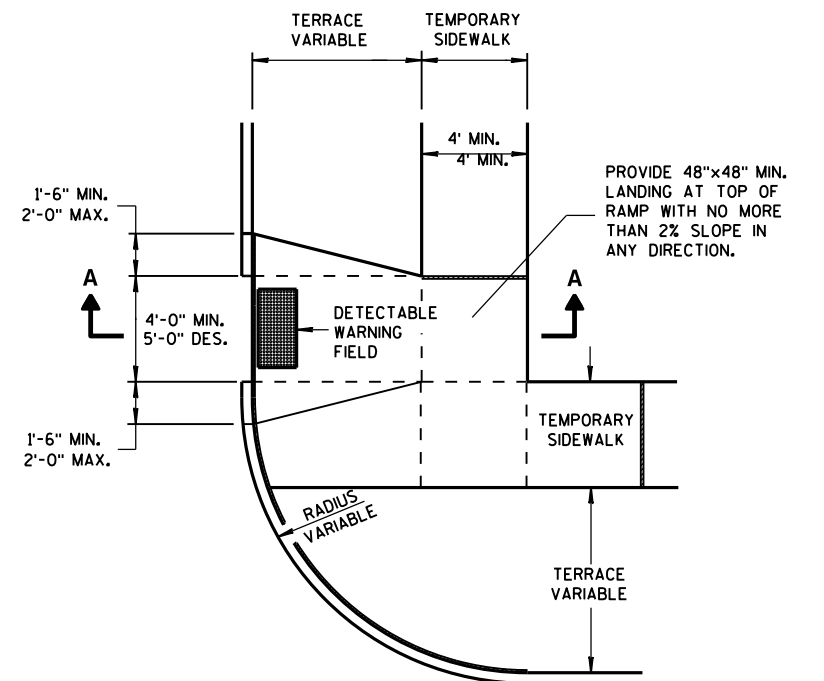
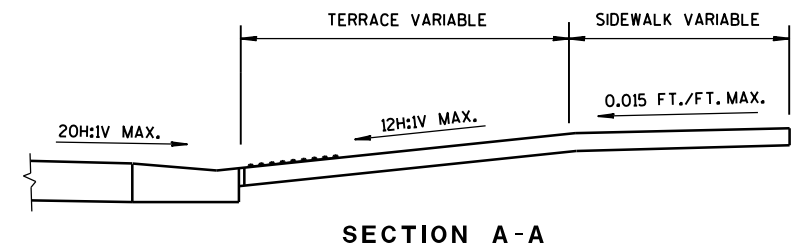


PEDESTRIAN SAFETY FENCE

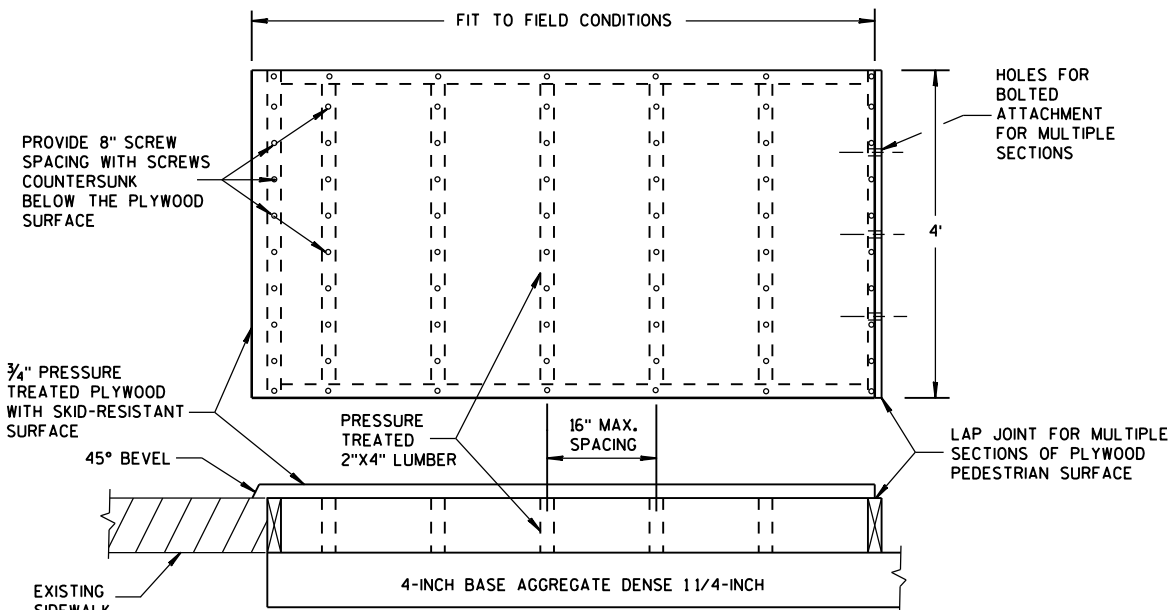


TEMPORARY PEDESTRIAN STEEL BARRICADE

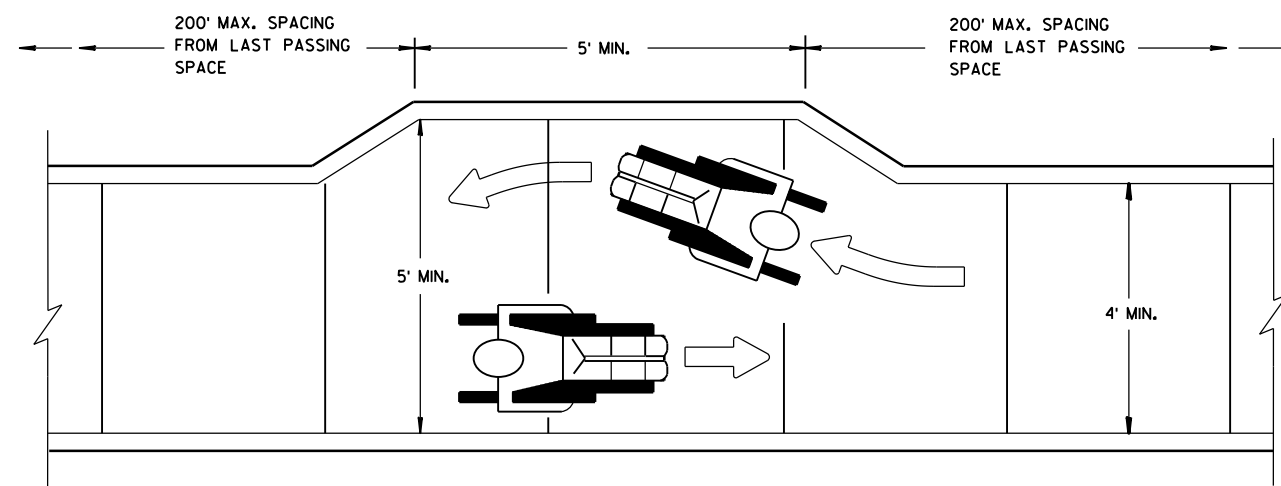
GENERAL NOTES
① INTERCHANGEABLE WITH THE PEDESTRIAN SAFETY FENCE.



PLAN VIEW
TEMPORARY TYPE 3 RAMP
(OUTSIDE OF CROSSWALK AREA)



TEMPORARY PEDESTRIAN SURFACE PLYWOOD



NARROW SIDEWALK PASSING DETAIL

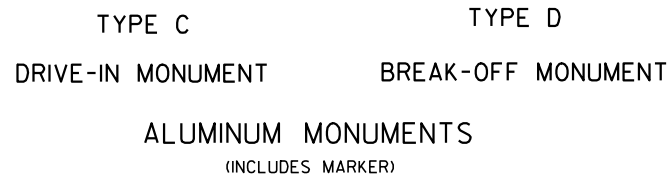
TRAFFIC CONTROL, PEDESTRIAN ACCOMMODATION	
STATE OF WISCONSIN DEPARTMENT OF TRANSPORTATION	
APPROVED March 2015 DATE	/S/ Travis Feltes STATE TRAFFIC ENGINEER OF DESIGN
FHWA	



U.S. DEPT. OF TRANSPORTATION
UNLAWFUL TO DISTURB

3 1/4" D

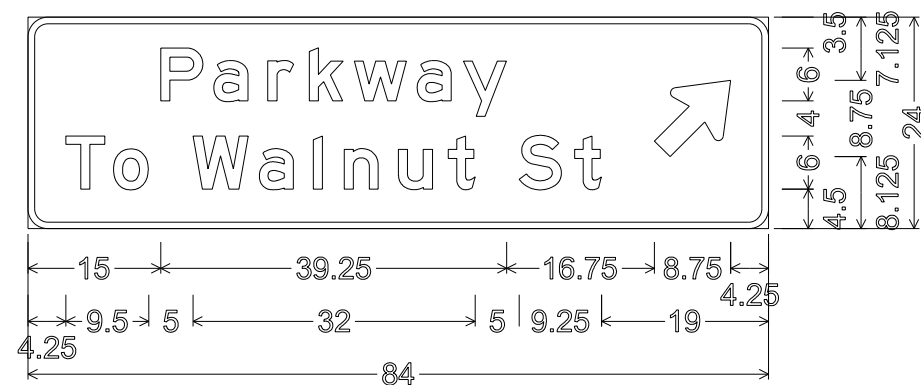
S.D.D. 16 A 1-6



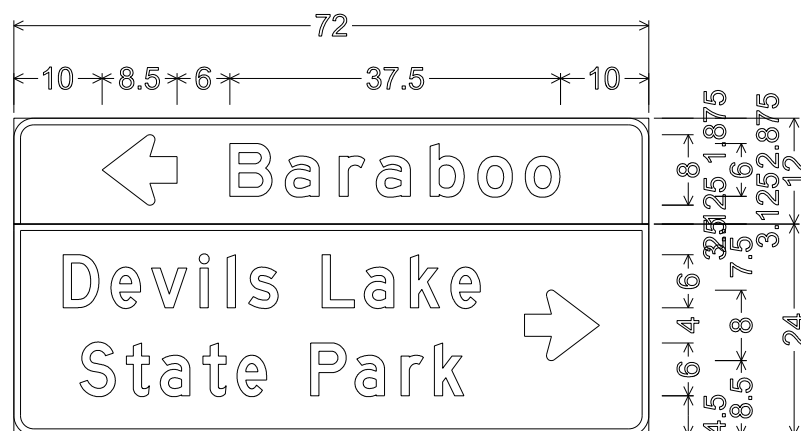
S.D.D. 16 A 1-6

NOTES

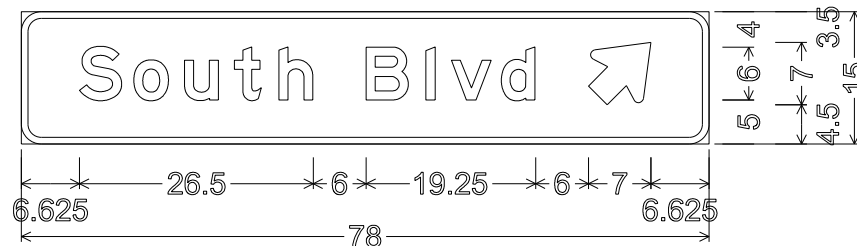
1. All Signs Type II - Type H Reflective
2. Color:
Background - Green except as noted
Message - WHITE
3. Message Series - E except as noted



D1-2;
2.250" Radius, 0.750" Border



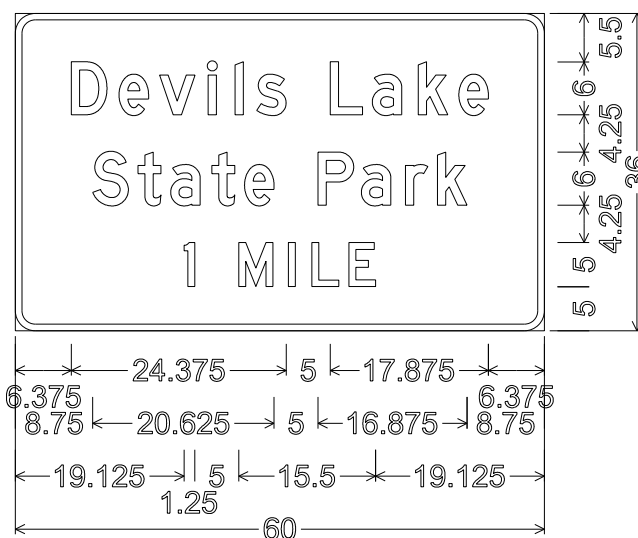
D1-3;
2.250" Radius, 0.750" Border, White on Green;
2.250" Radius, 0.750" Border, White on Brown;
"Devils" D; "Lake" D; "State" D; "Park" D;



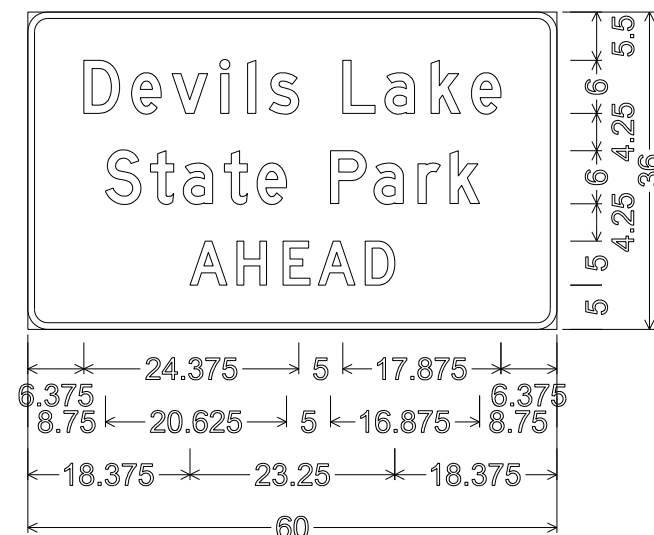
D1-1;
2.250" Radius, 0.750" Border



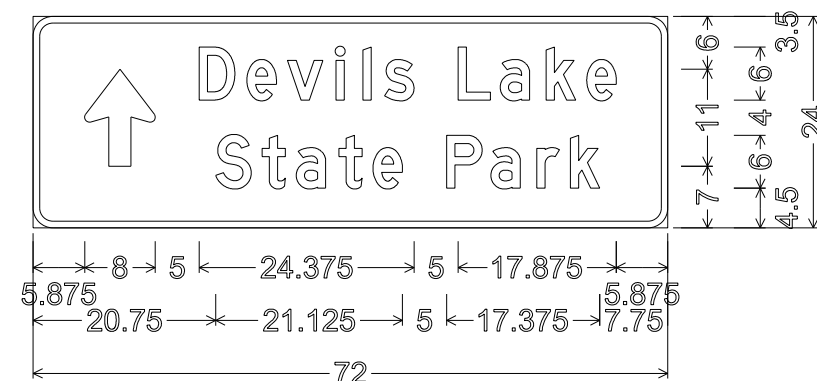
D1-1;
2.250" Radius, 0.750" Border



D7-51;
2.250" Radius, 0.750" Border, White on Brown;
"Devils" D; "Lake" D; "State" D; "Park" D; "1" D;
"MILE" D

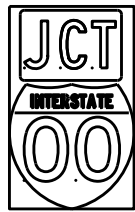


D7-51 MOD;
2.250" Radius, 0.750" Border, White on Brown;
"Devils" D; "Lake" D; "State" D; "Park" D; "AHEAD" D

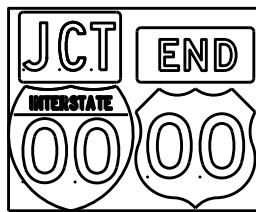


D1-2;
2.250" Radius, 0.750" Border, White on Brown;
Standard Arrow Custom 11.000" X 8.000" 90°;
"Devils" D; "Lake" D; "State" D; "Park" D;

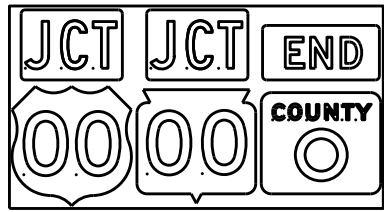
TYPICAL ASSEMBLIES



J1-1



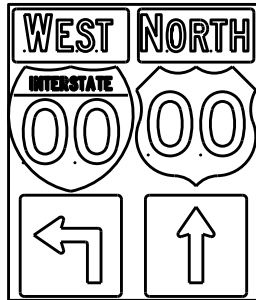
J1-2



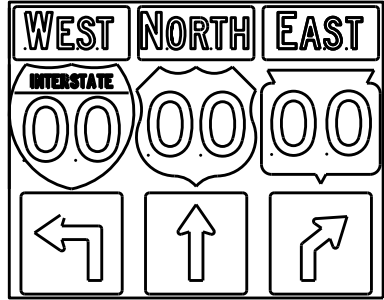
J1-3



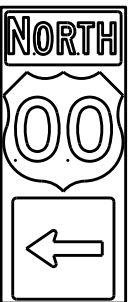
J2-1



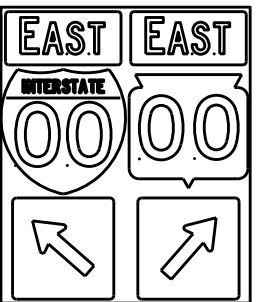
J2-2



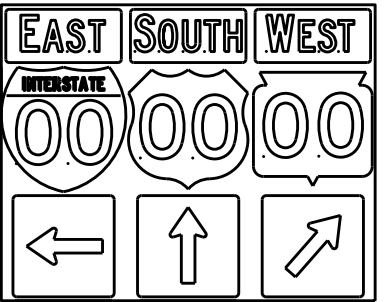
J2-3



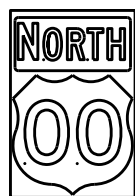
J3-1



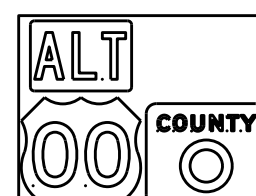
J3-2



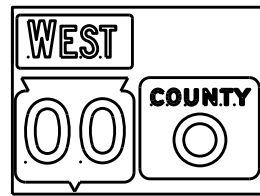
J3-3



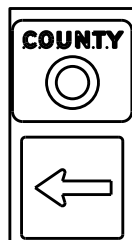
J4-1



J4-2



J4-2



J13-1



J12-1



J32-1



J33-1



J23-1

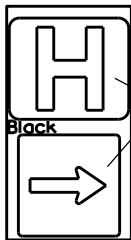


J22-1



JV

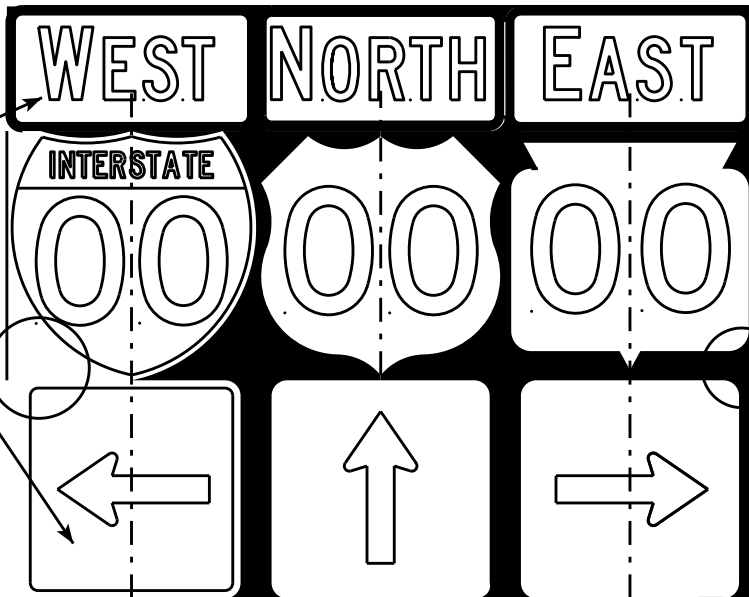
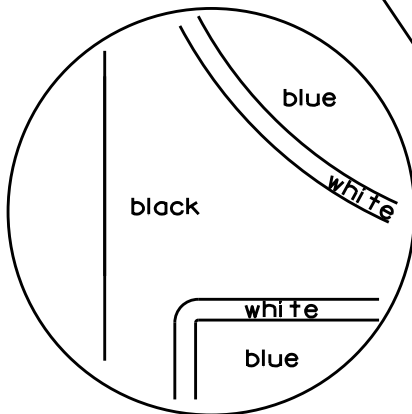
(Typical Vertical J-Assembly
See Note 10 and 11)



JH-1

Blue Background

[blue background
with interstate]



[black background]

ROUTE MARKERS & COMPONENTS
IN TYPICAL ASSEMBLIES

WISCONSIN DEPT OF TRANSPORTATION

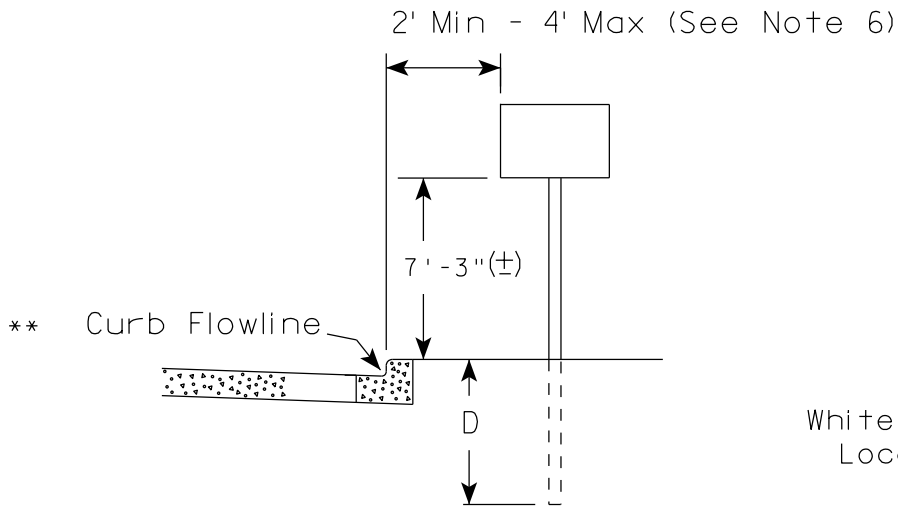
APPROVED *Matthew R. Rauch*
For State Traffic Engineer

DATE 2/06/14 PLATE NO. A2-1S.8

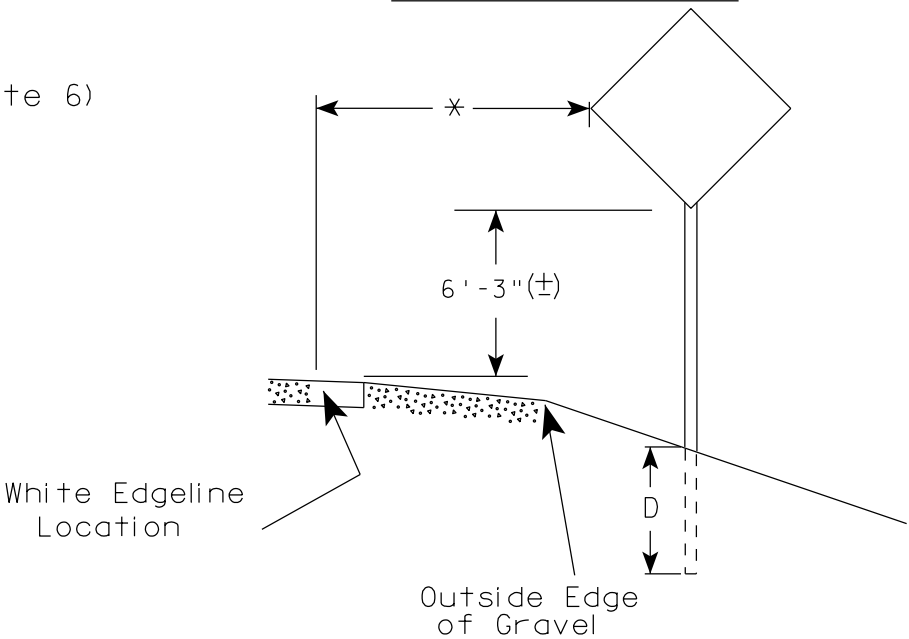
NOTES

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.

URBAN AREA

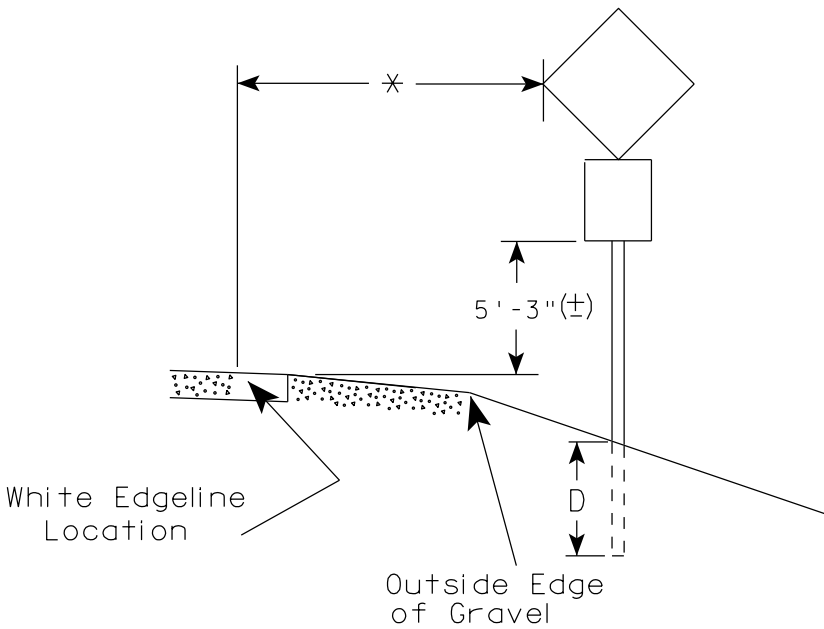
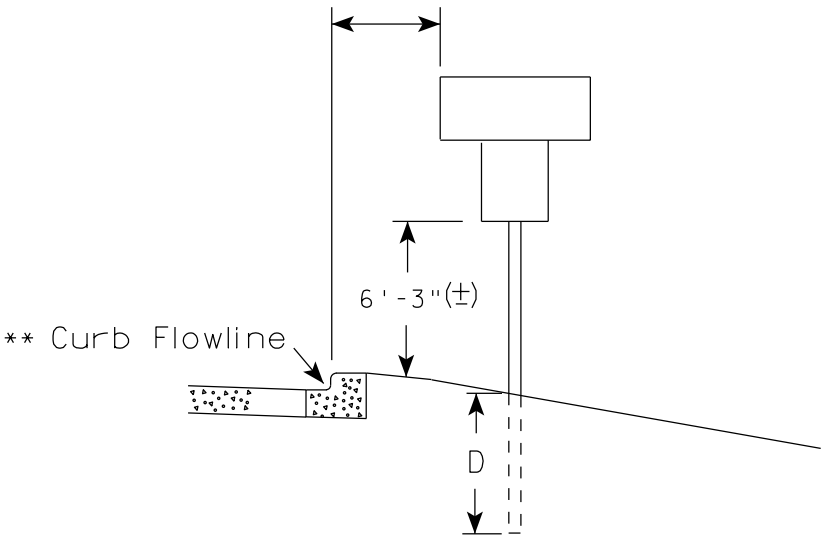


RURAL AREA (See Note 2)



- GENERAL NOTES
1. Signs wider than 4 feet or 20 sq.ft or larger, shall be mounted on multiple posts. Refer to plate A4-4.
 2. If signs are mounted on barrier wall, see A4-10 sign plate.
 3. For expressways and freeways, mounting height is 7'- 3" (±) or 6'-3" (±) depending upon existence of a sub-sign.
 4. Minimum mounting height for J assemblies (A2-1S) is 7'-3" (±) or 6'-3" (±) per urban or rural detail respectively.
 5. Minimum mounting height for signs mounted on traffic signal poles is 5'- 3" (±).
 6. Offset distance shall be consistent with existing signs or consistent throughout length of project.
 7. The (±) tolerance for mounting height is 3 inches.
 8. Folding signs shall be mounted at a height of 5'-3" (±) or as 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), In Road Object Markers (W5-54) & End of Road Markers (W5-56) shall be mounted at a height of 4'-3" (±).

2' Min - 4' Max (See Note 6)



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.

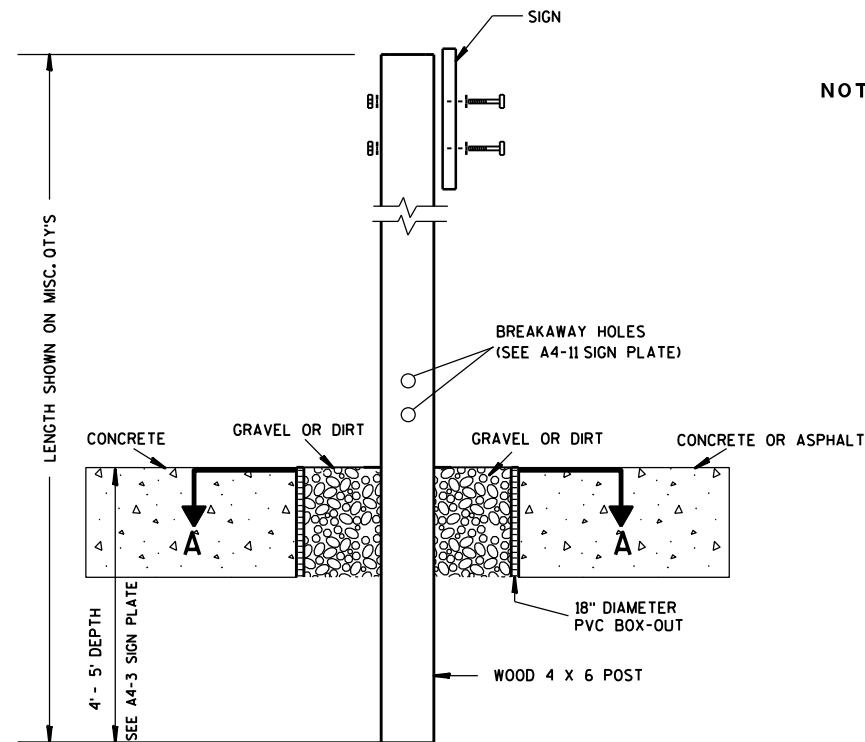
* 6 feet from edge of a paved shoulder or 12 feet from the edge of pavement (edge line location) or 2 feet from outside edge of gravel, whichever is greater unless directed by project engineer.

TYPICAL INSTALLATION
OF PERMANENT TYPE II
SIGNS ON SINGLE POSTS

WISCONSIN DEPT OF TRANSPORTATION

APPROVED *Matthew R. Rauch*
for State Traffic Engineer

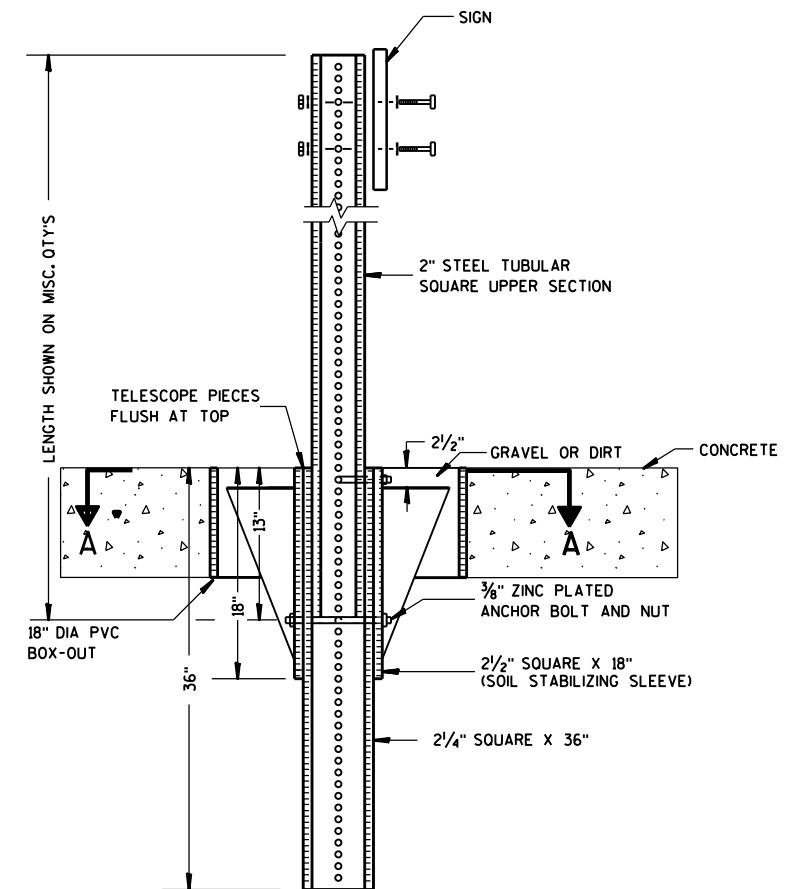
DATE 7/23/15 PLATE NO. A4-3.20



ELEVATION VIEW

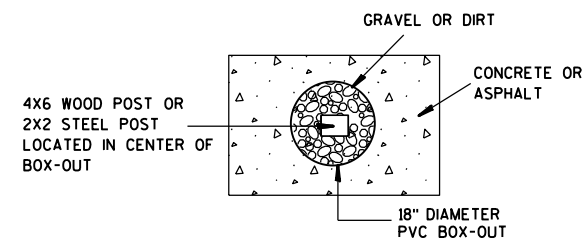
DETAIL OF WOOD 4 X 6 SIGN POST IN BOX-OUT

- NOTES: 1. ALL MATERIAL TO BE APPROVED BY ENGINEER PRIOR TO INSTALLATION
2. SEE SIGN PLATE A4-8 FOR SIGN HARDWARE REQUIREMENTS
3. 18 INCH X 18 INCH SQUARE BOX-OUTS MAY BE USED FOR INSTALLATIONS IN EXISTING CONCRETE OR ASPHALT LOCATIONS.



ELEVATION VIEW

DETAIL OF STEEL 2 X 2 SIGN POST IN BOX-OUT



PLAN VIEW

FOR NEW CONCRETE/ASPHALT INSTALLATIONS

SIGN POST
BOX-OUTS
A4-3B

WISCONSIN DEPT OF TRANSPORTATION

APPROVED *Matthew R. Rauch*
for State Traffic Engineer

DATE 1/27/14 PLATE NO. A4-3B.1

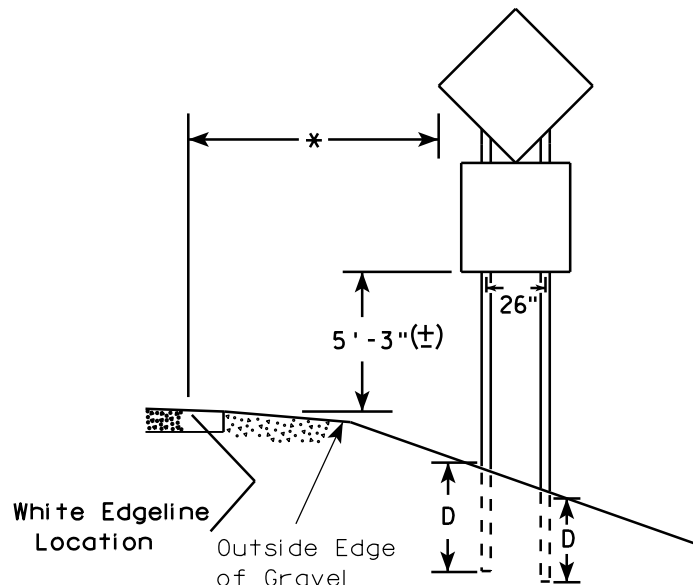
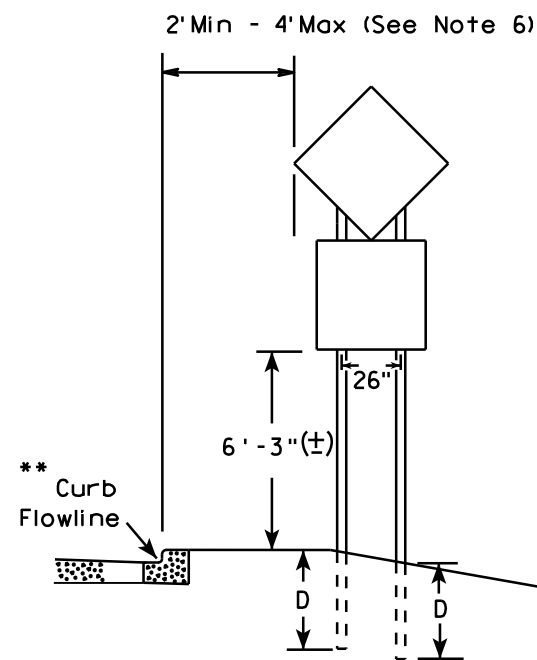
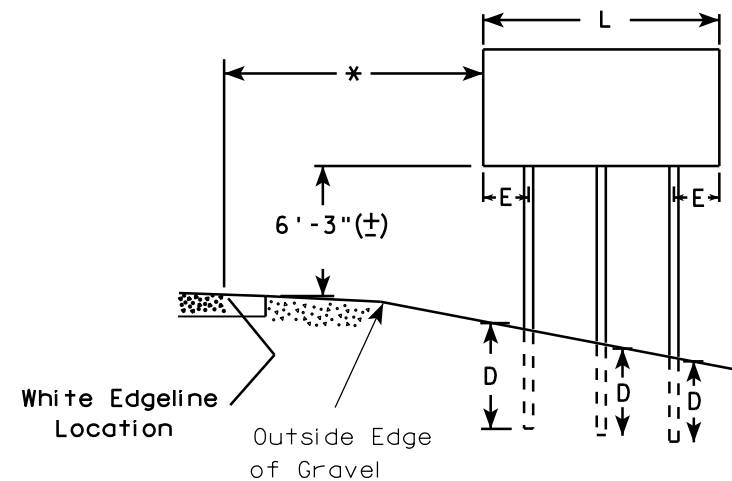
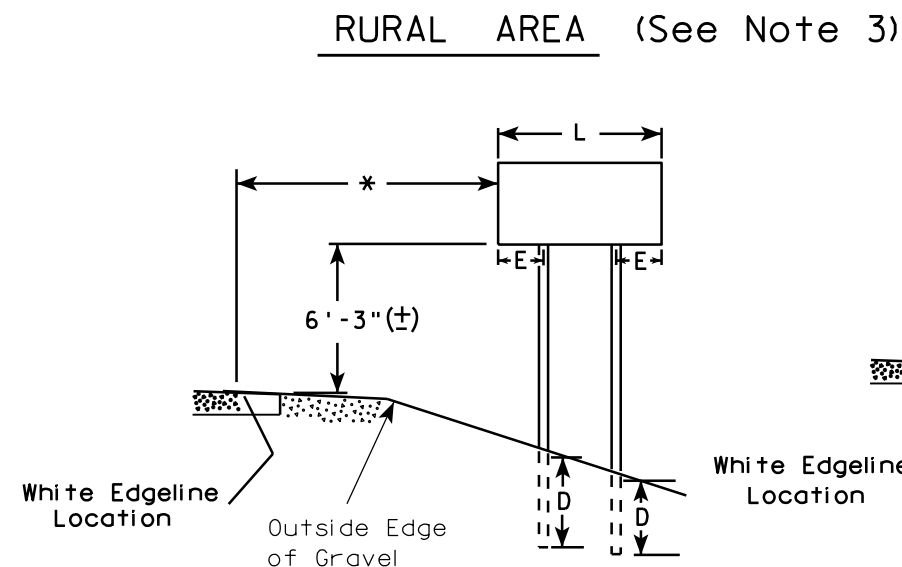
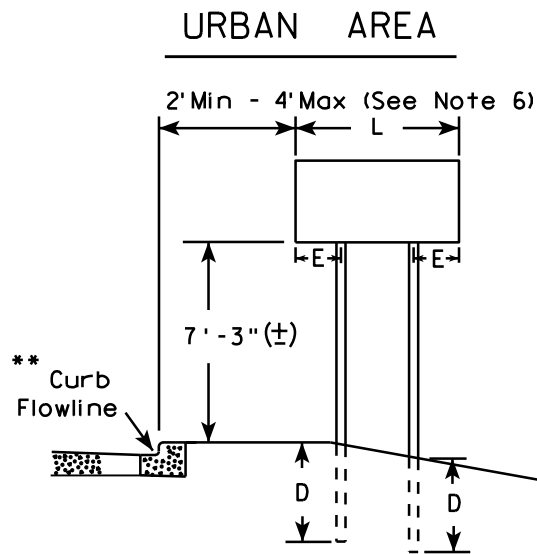
PROJECT NO:

HWY:

COUNTY:

SHEET NO:

E



48" DIAMOND WARNING SIGN

- GENERAL NOTES**
1. For 3 or 4 post installations, individual post spacing shall be greater than 3'-6".
 2. See tables below for required number of posts.
 3. For expressways and freeways, mounting height is 7'-3" (±) or 6'-3" (±) depending upon existence of sub-sign.
 4. The (±) tolerance for mounting height is 3 inches.
 5. Minimum mounting height for J assemblies (A2-1S) is 7'-3" (±) or 6'-3" (±) per urban or rural detail respectively.
 6. Offset distance shall be consistent with existing signs or consistent throughout length of project.
 7. Folding signs shall be mounted at a height of 5'-3" (±) or as directed by the engineer.
 8. The Double Arrow sign (W12-1) shall be mounted at a height of 2'-3" (±). The Chevron sign (W1-8), Roundabout Chevron panel (R6-4B), Clearance Markers (W5-52), Mile Markers (D10 series), In Road Object Markers (W5-54) & End of Road Markers (W5-56) shall be mounted at a height of 4'-3" (±).

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

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

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

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

SIGN SHAPE OTHER THAN DIAMOND (THREE POSTS REQUIRED)	
L	E
Greater than 120" less than 168"	12"

SIGN SHAPE OTHER THAN DIAMOND (FOUR POSTS REQUIRED)	
L	E
168" and greater	12"

POST EMBEDMENT DEPTH

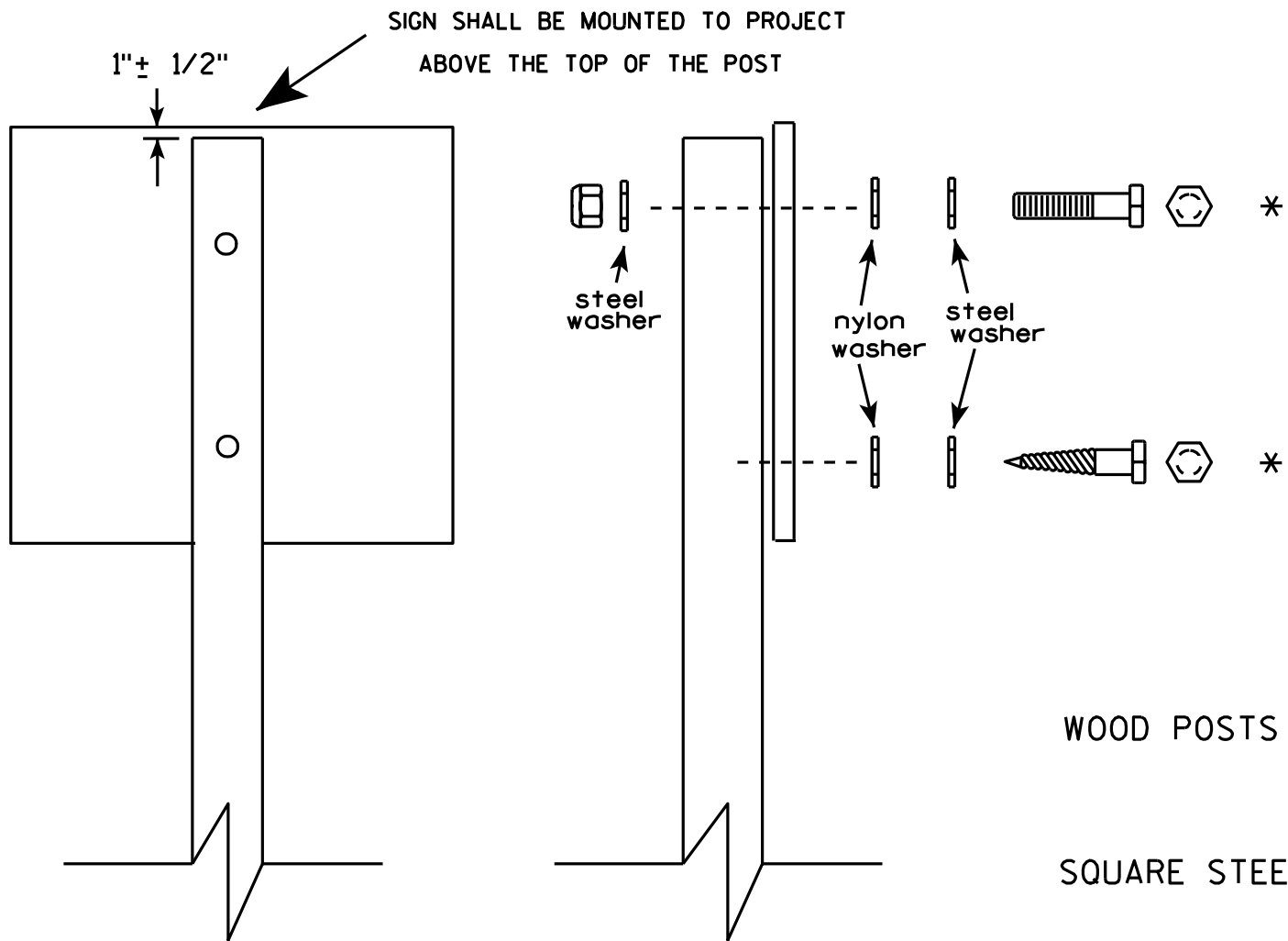
Area of Sign Installation (Sq. Ft.)	D (Min)
20 or Less	4'
Greater than 20	5'

TYPICAL INSTALLATION
OF TYPE II SIGNS
ON MULTIPLE POSTS

WISCONSIN DEPT OF TRANSPORTATION

APPROVED *Matthew R. Rauch*
for State Traffic Engineer

DATE 7/23/15 PLATE NO. A4-4.14

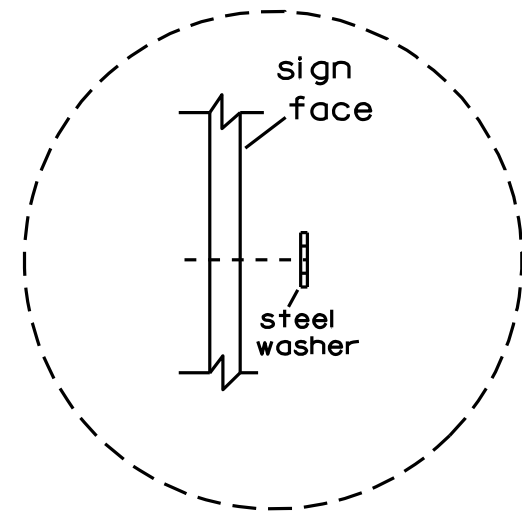


Nuts, bolts and lags used for mounting signs shall have hexagonal heads and shall be either :

- a. Hot dip galvanized in accordance with ASTM Designation: A 153, Class D, or SC 3
- b. Electro-galvanized in accordance with ASTM Designation : B 633, TYPE III, SC 3.

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

- WOOD POSTS (4" x 4" or 4" x 6")
LAG SCREWS - 3/8" X 3"
MACHINE BOLTS - 5/16" X 6-1/2" or 7" Length w/ nuts
- SQUARE STEEL POSTS (2" x 2")
MACHINE BOLTS - 3/8" X 3-1/4" Length w/ nuts
RIVETS - 9/32" (6605-9-6) BULB-TITE, TRI-FOLD, ALUMINUM BODY/MANDREL
O.D. FLANGE .720-.765 INCH, GRIP RANGE .042-.375 INCH
- WASHERS (ALL POSTS) -
1-1/4" O.D. X 3/8" I.D. X 1/16" STEEL
1-1/4" O.D. X 3/8" I.D. X .080 NYLON for all Type H signs.

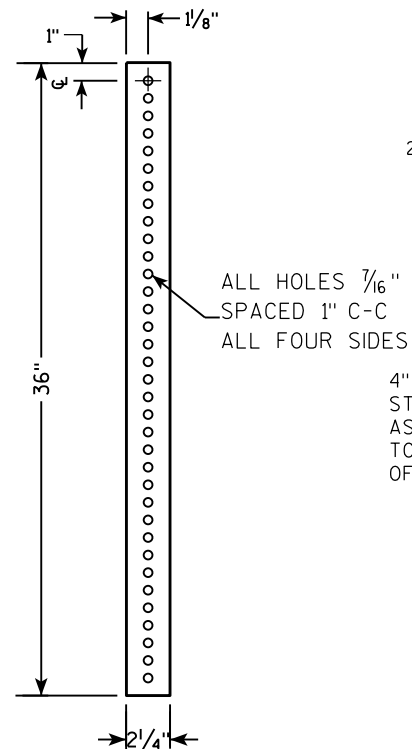


Washer Placement when Sign Has Other Than Type H or Type F Face

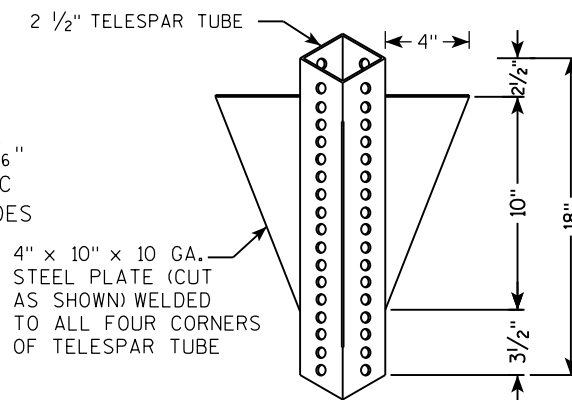
* Two different fastening systems are shown for illustration purposes. On any individual sign, either one or the other system shall be used. Actual number of fasteners per sign varies with the sign area, but normally there are two. For a single post installation, all signs greater than 9 sq. ft. require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

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

**2 1/4 " SQUARE
12 GAUGE
PERFORATED
GALVANIZED FINISH**



**2 1/2" SQUARE
12 GAUGE
OMNI-DIRECTIONAL
PERFORATED
SOIL STABILIZING SLEEVE
GALVANIZED FINISH**



LENGTH SHOWN ON MISC. QTY'S

18" DIA SCHEDULE 40 PVC BOX-OUT

TELESCOPE PIECES FLUSH AT TOP

2" STEEL TUBULAR SQUARE UPPER SECTION

ALL HOLES $\frac{7}{16}$ " SPACED 1" C-C ALL FOUR SIDES

$\frac{3}{8}$ " ZINC PLATED CORNER ANCHOR BOLT AND NUT

2 1/2" GRAVEL OR DIRT

13"

18"

36"

2 1/2" SQUARE X 18" (SOIL STABILIZING SLEEVE)

2 1/4" SQUARE X 36"

SEE SIGN PLATE A4-8 FOR BOLT WASHER, & NUT MATERIAL

SIGN

LENGTH SHOWN ON MISC. QTY'S

TELESCOPE PIECES FLUSH AT TOP

2" STEEL TUBULAR SQUARE UPPER SECTION

ALL HOLES $\frac{7}{16}$ " SPACED 1" C-C ALL FOUR SIDES

$\frac{3}{8}$ " ZINC PLATED CORNER ANCHOR BOLT AND NUT

1"

$\frac{3}{8}$ " ZINC PLATED ANCHOR BOLT AND NUT

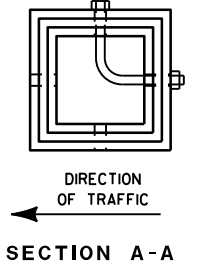
2 1/2" SQUARE X 18" (SOIL STABILIZING SLEEVE)

2 1/4" SQUARE X 36"

SEE SIGN PLATE A4-8 FOR BOLT WASHER, & NUT MATERIAL

SIGN

3/8" ZINC PLATED CORNER
ANCHOR BOLT AND NUT



Area of Sign Installation (Sq. Ft.)	Number of Required Posts
9 or less	1
Greater than 9 less than or equal to 18	2
Greater than 18 less than or equal to 27	3

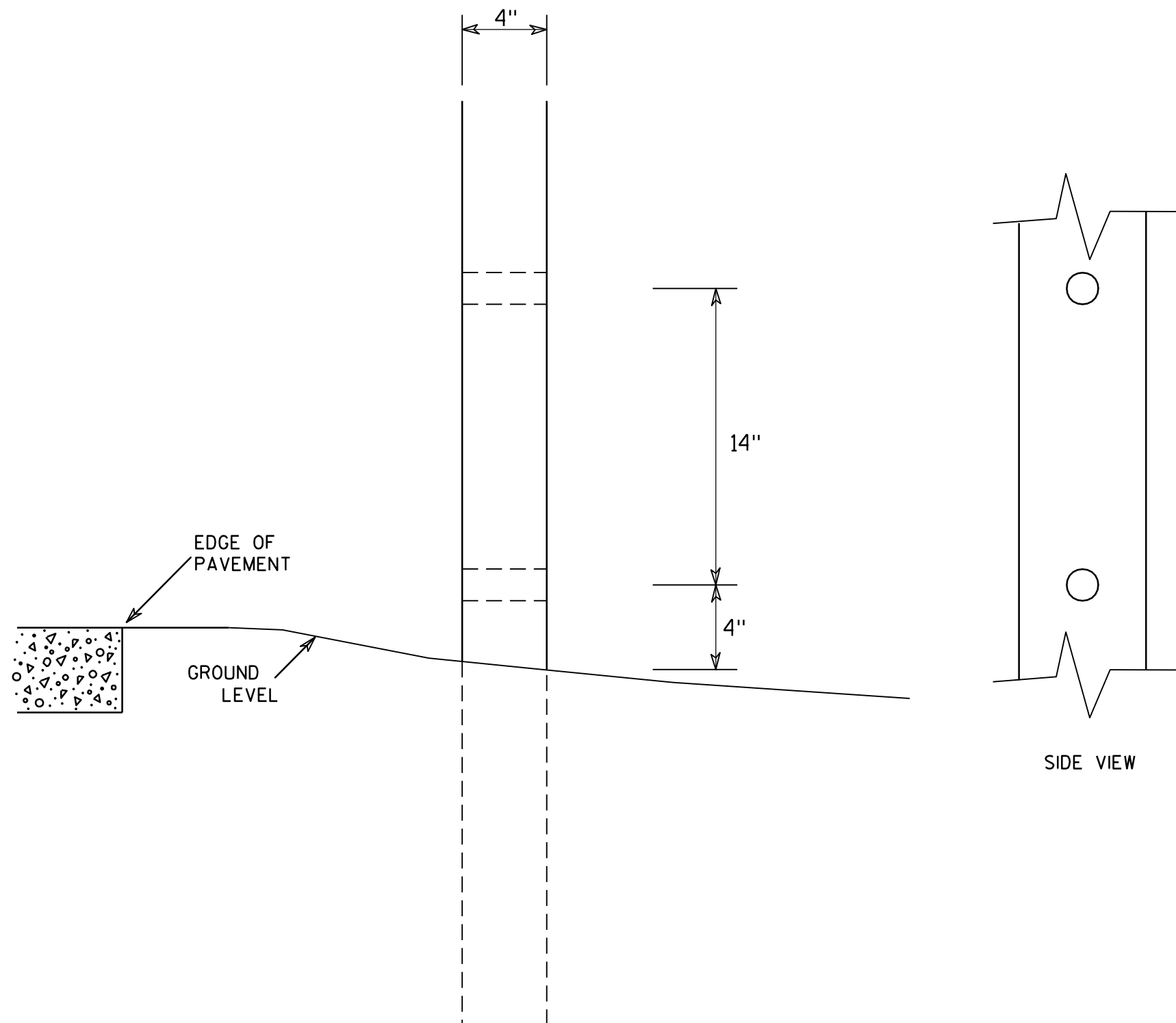
TUBULAR STEEL
SIGN POST
A4-9

WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
For State Traffic Engineer

DATE 2/05/15 PLATE NO. A4-9.9

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:

E

7

Metric equivalent
for this sign is:

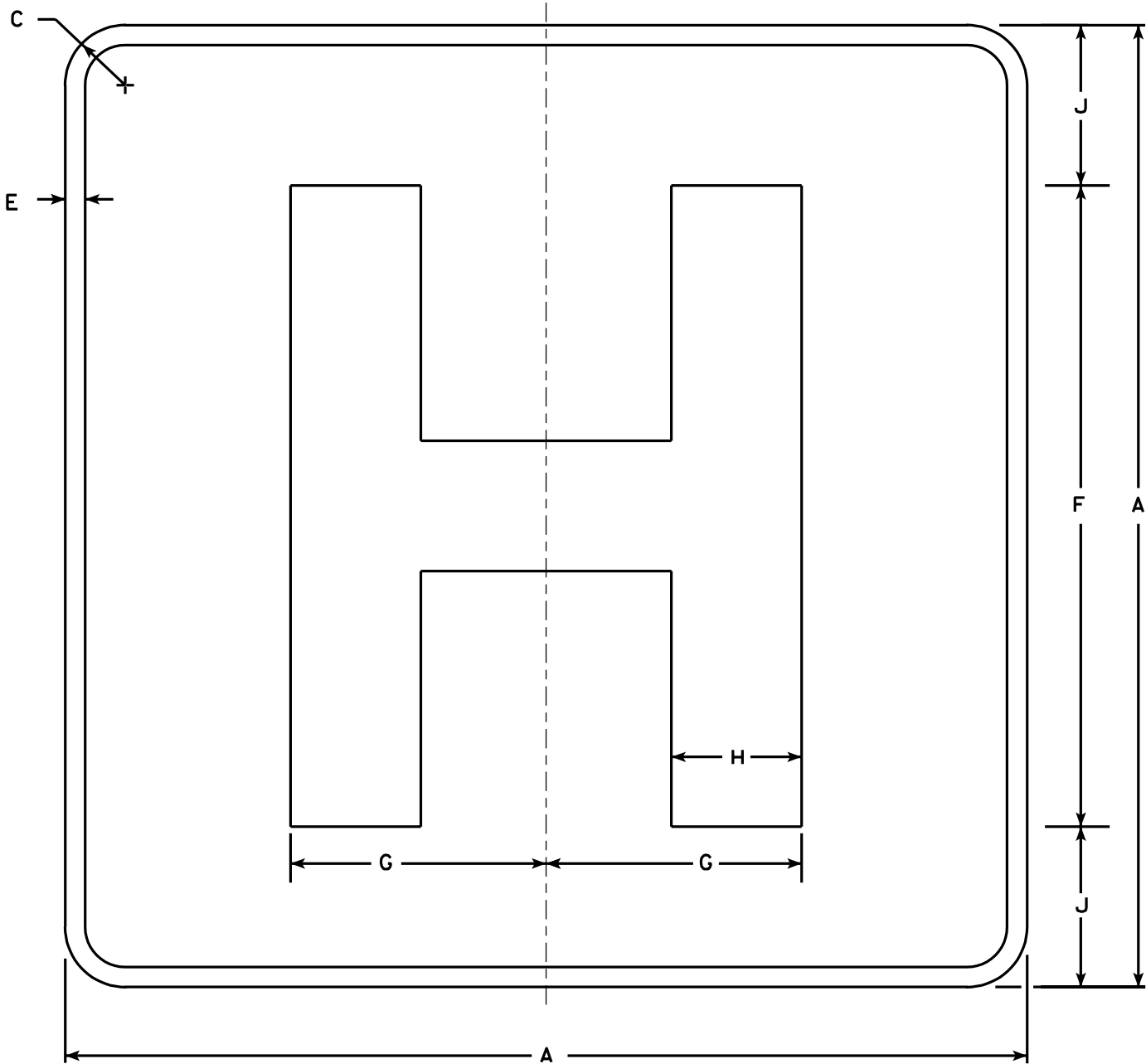
SIZE	
1	450 mmX 450 mm
2	600 mmX 600 mm
3	900 mmX 900 mm
4	X
5	X

SIZE	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	Area sq. ft.
1	18		1 1/8		1/2	12	4 3/4	2 3/8		3																	4.0
2	24		1 1/2		1/2	16	6 3/8	3 1/4		4																	4.0
3	36		2 1/4		3/4	24	9 1/2	4 7/8		6																	9.0
4																											
5																											

PROJECT NO:

SHEET NO:

E



D9-2

NOTES

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

STANDARD SIGN
D9-2

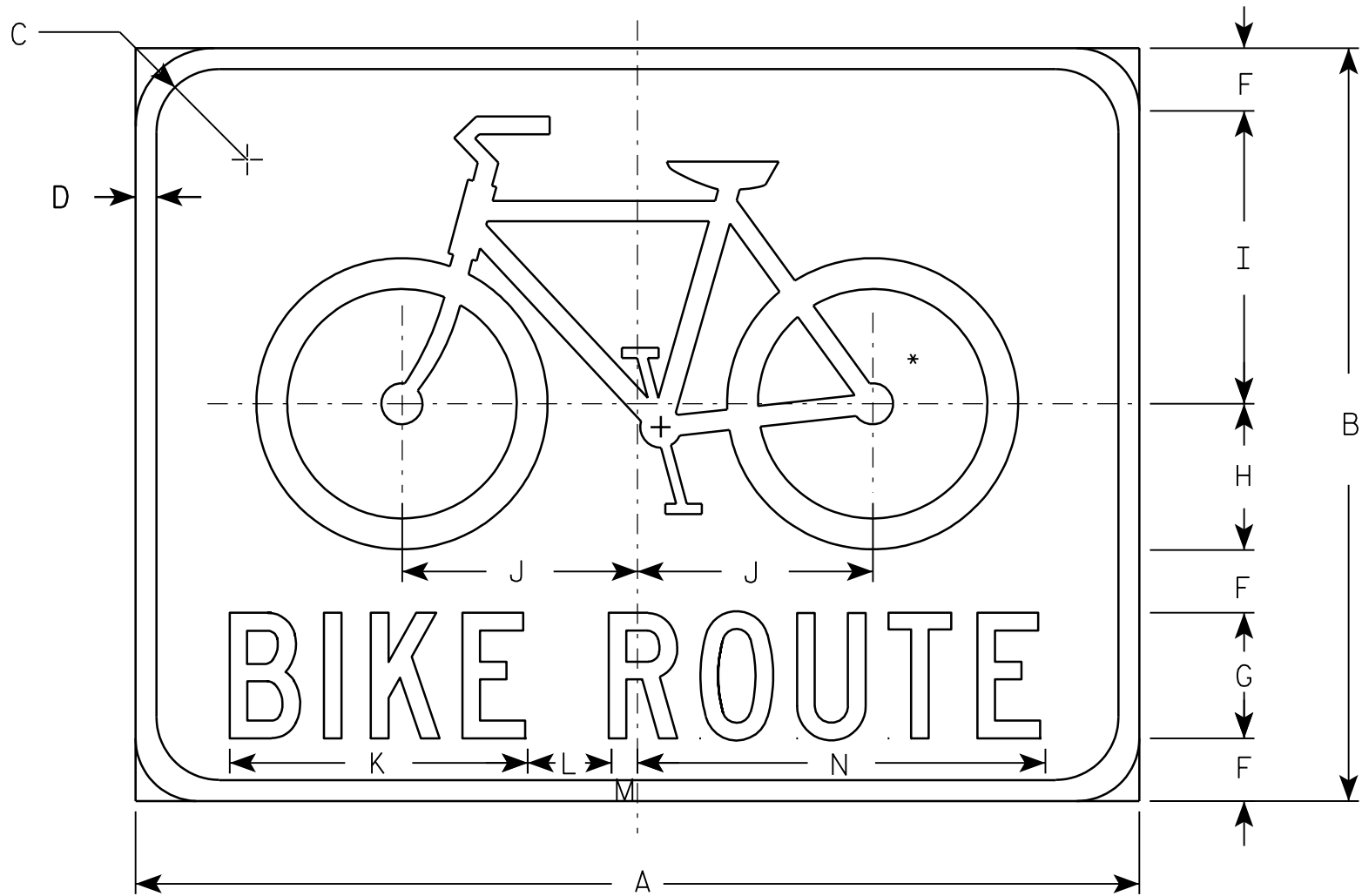
WISCONSIN DEPT OF TRANSPORTATION

APPROVED
Chester J. Spang
for State Traffic Engineer

DATE 1/15/02 PLATE NO. D9-2.4

7

7



D11-1

Metric equivalent
for this sign is:

SIZE	
1	
2	600 mm X 450 mm
3	750 mm X 600 mm
4	
5	

SIZE	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	Area sq. ft.	Area m ²
1																												
2	24	18	1 1/2	1/2		1 1/2	3	3 1/2	7	5 5/8	7 1/8	2	5/8	9 3/4													3.0	0.27
3	30	24	1 1/4	5/8		2	4	4 3/4	9 1/4	7 1/2	9 1/2	2 5/8	7/8	13													5.0	0.45
4																												
5																												

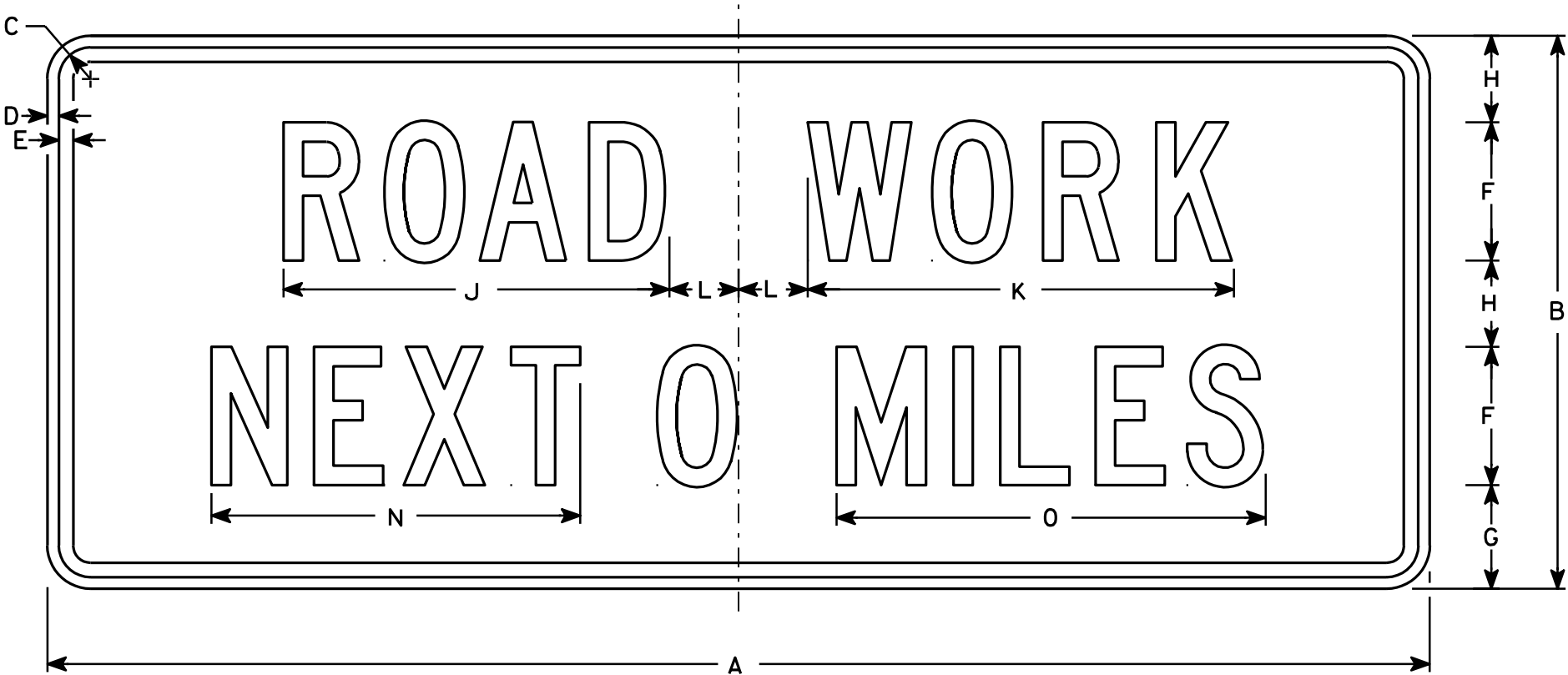
NOTES

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

* See W11-1 for symbol design

NOTES

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



G20-1

Metric equivalent
for this sign is:

SIZE	
1	
2	1500 mm X 600 mm
3	
4	1500 mm X 600 mm
5	

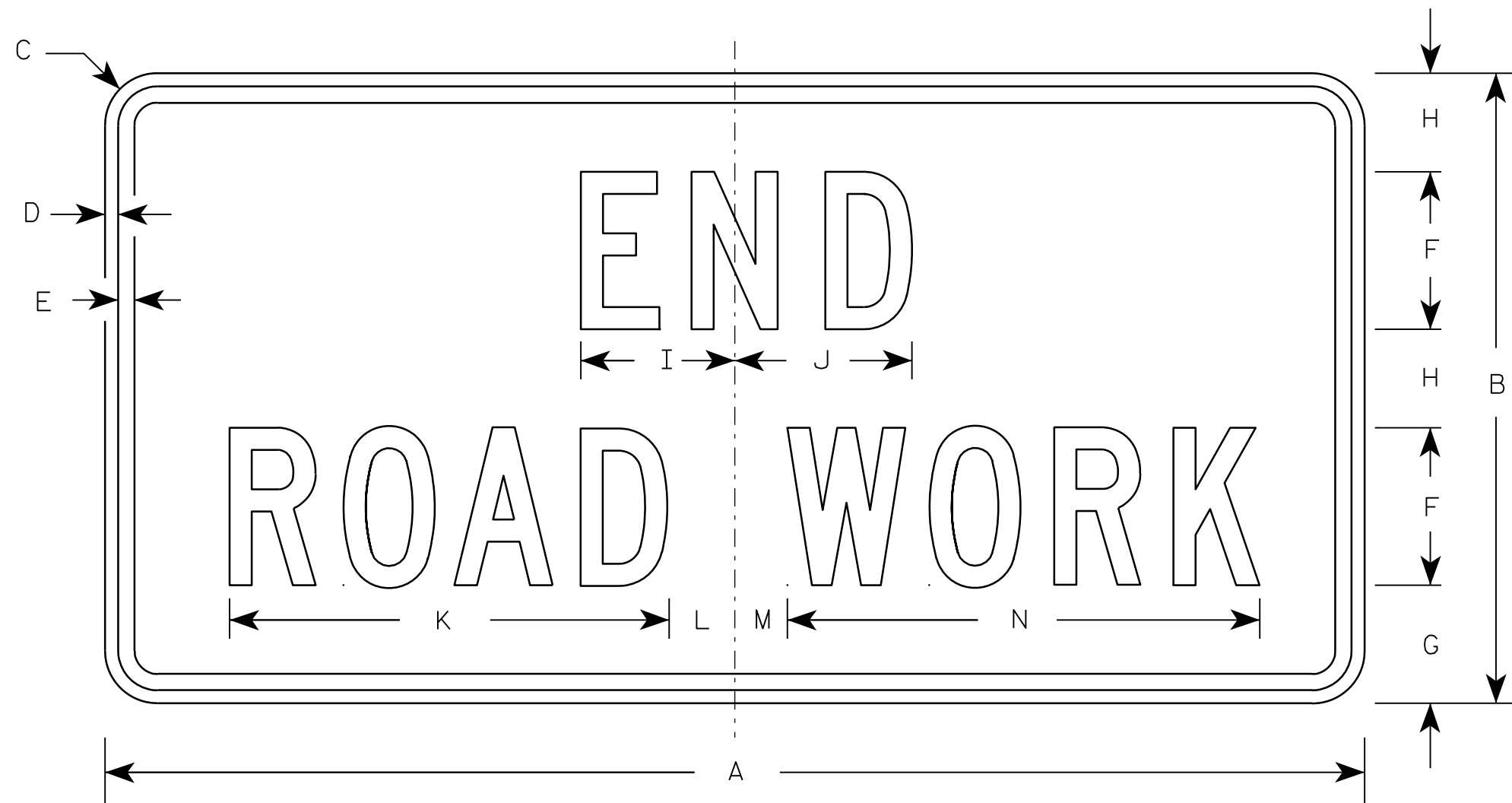
SIZE	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	Area sq. ft.	Area m ²
1																												
2	60	24	1 3⁄8	1⁄2	5⁄8	6	4 1⁄2	3 3⁄4		16 3⁄4	18 1⁄2	3		16	18 5⁄8												10	.90
3																												
4	60	24	1 3⁄8	1⁄2	5⁄8	6	4 1⁄2	3 3⁄4		16 3⁄4	18 1⁄2	3		16	18 5⁄8												10	.90
5																												

STANDARD SIGN
G20-1

WISCONSIN DEPT OF TRANSPORTATION

APPROVED
Chris J. Spay
State Traffic Engineer
DATE 4/8/97 PLATE NO. G20-1.7

7



G20-2A

NOTES

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

Metric equivalent
for this sign is:

SIZE	
1	900 mm X 450 mm
2	1200 mm X 600 mm
3	1200 mm X 600 mm
4	1200 mm X 600 mm
5	1200 mm X 600 mm

SIZE	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	Area sq. ft.	Area sq. m.
1	36	18	1 1/8	3/8	1/2	4	3 3/4	2 1/2	4 1/8	4 1/8	11 1/8	2	1	12 1/8													4.5	0.41
2	48	24	1 1/2	1/2	5/8	6	4 1/2	3 3/4	5 7/8	6 3/4	16 3/4	2 1/2	1 3/4	18 1/2													8.0	0.72
3	48	24	1 1/2	1/2	5/8	6	4 1/2	3 3/4	5 7/8	6 3/4	16 3/4	2 1/2	1 3/4	18 1/2													8.0	0.72
4	48	24	1 1/2	1/2	5/8	6	4 1/2	3 3/4	5 7/8	6 3/4	16 3/4	2 1/2	1 3/4	18 1/2													8.0	0.72
5	48	24	1 1/2	1/2	5/8	6	4 1/2	3 3/4	5 7/8	6 3/4	16 3/4	2 1/2	1 3/4	18 1/2													8.0	0.72

STANDARD SIGN
G20-2A

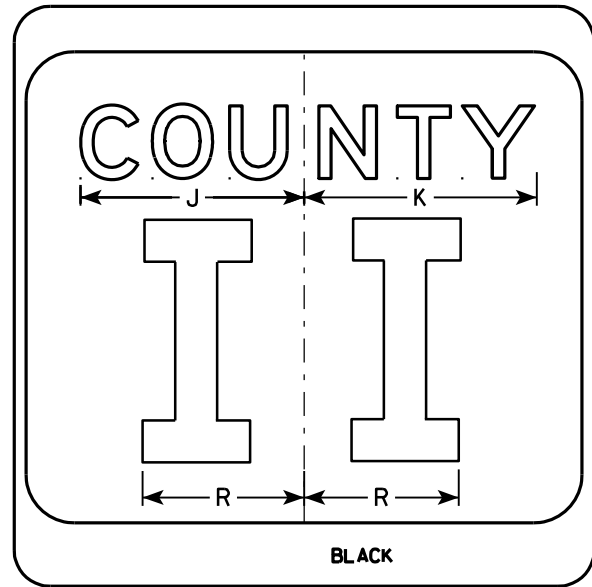
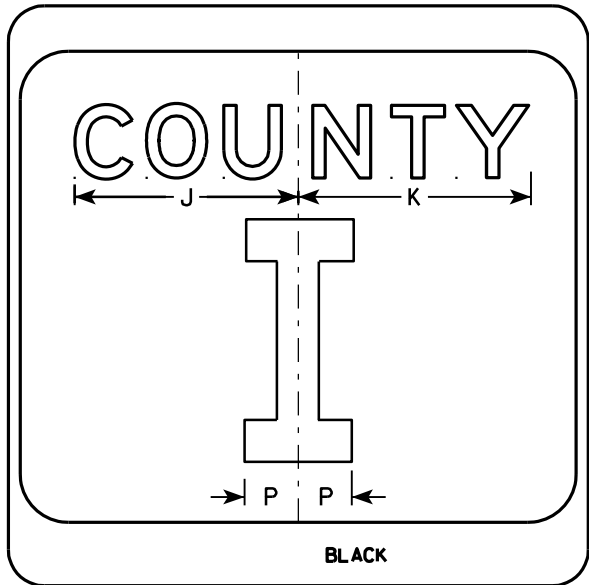
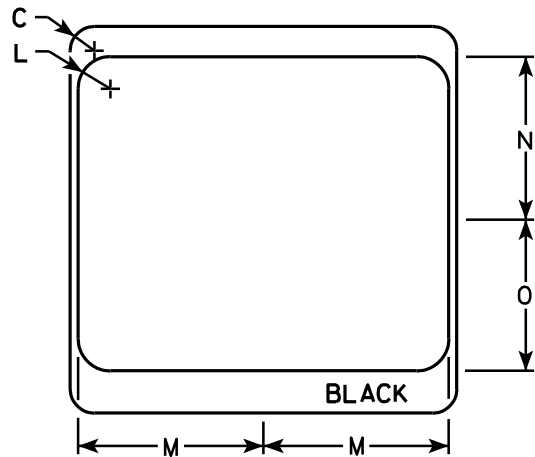
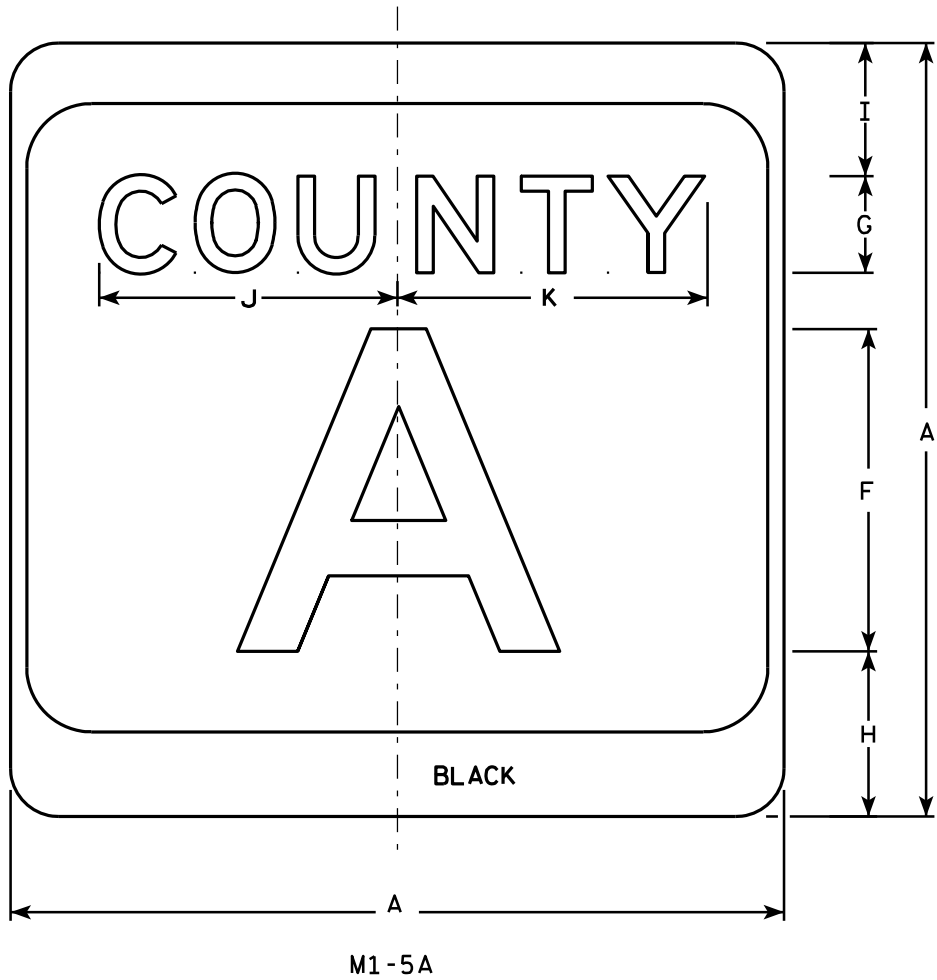
WISCONSIN DEPT OF TRANSPORTATION

APPROVED *Matthew R. Rauch*
for State Traffic Engineer

DATE 9/30/09 PLATE NO. G20-2A.8

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

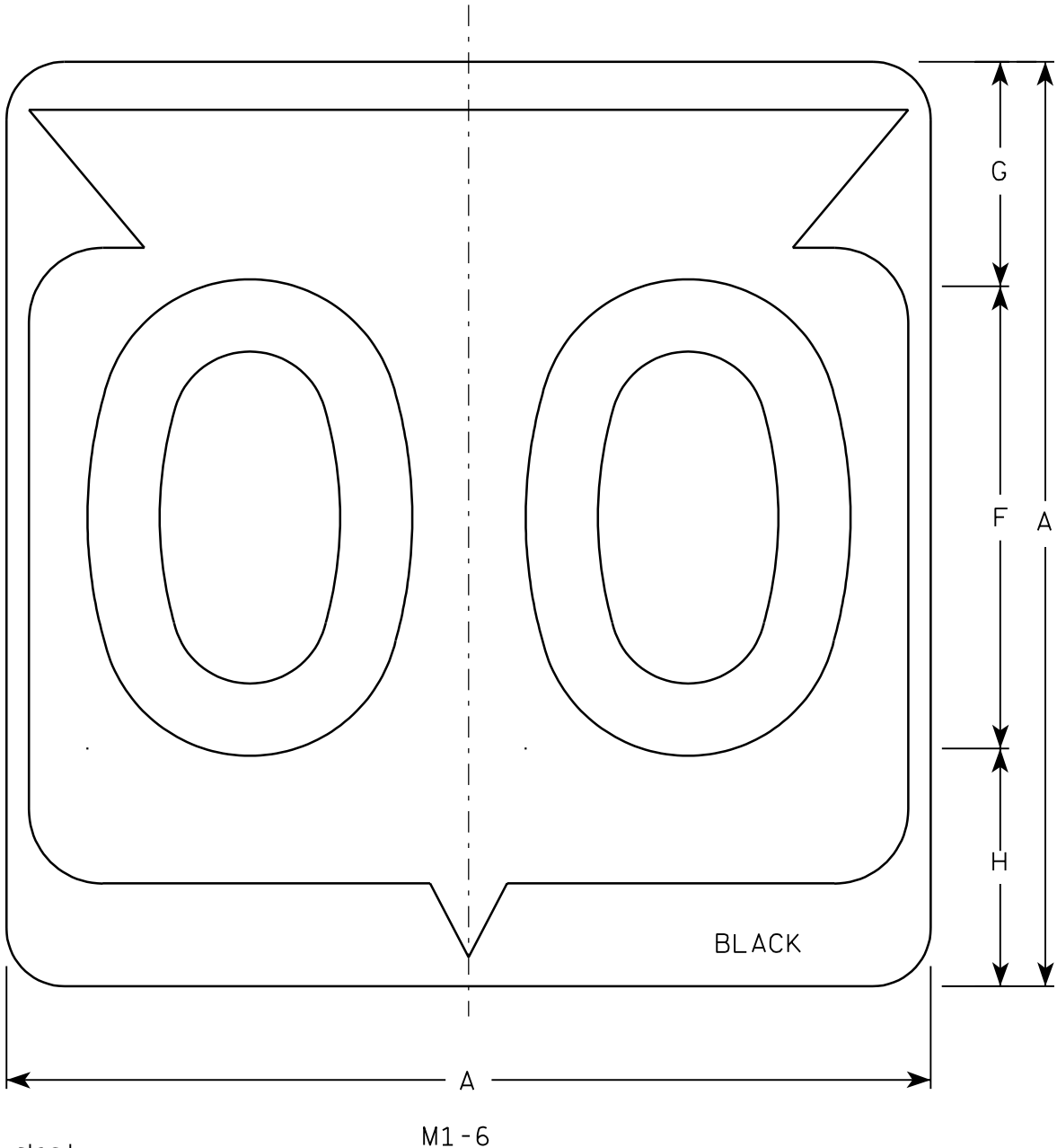
SIZE	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	Area sq. ft.
1																											
2	24		1 1/2			10	3	5 1/8	4 1/8	9 1/4	9 5/8	2	11 1/2	10 1/8	9 3/8	2 1/4		6 5/8									4.0
3	36		2 1/4			16	4	7 5/8	5 5/8	12 1/4	12 7/8	3	17 1/8	15 1/4	14	3 3/8		10									9.0
4	36		2 1/4			16	4	7 5/8	5 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> For State Traffic Engineer
DATE 9/27/11	PLATE NO. M1-5A.8

PROJECT NO:	HWY:	COUNTY:	SHEET NO:	E
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7

7



Metric equivalent
for this sign is:

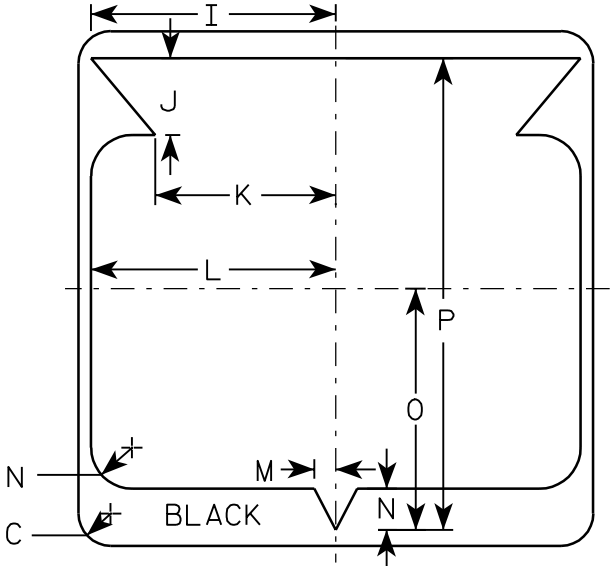
SIZE	
1	
2	600 mm X 600 mm
3	900 mm X 900 mm
4	900 mm X 900 mm
5	900 mm X 900 mm

SIZE	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	Area sq. ft.	Area m ²
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:				E
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NOTES

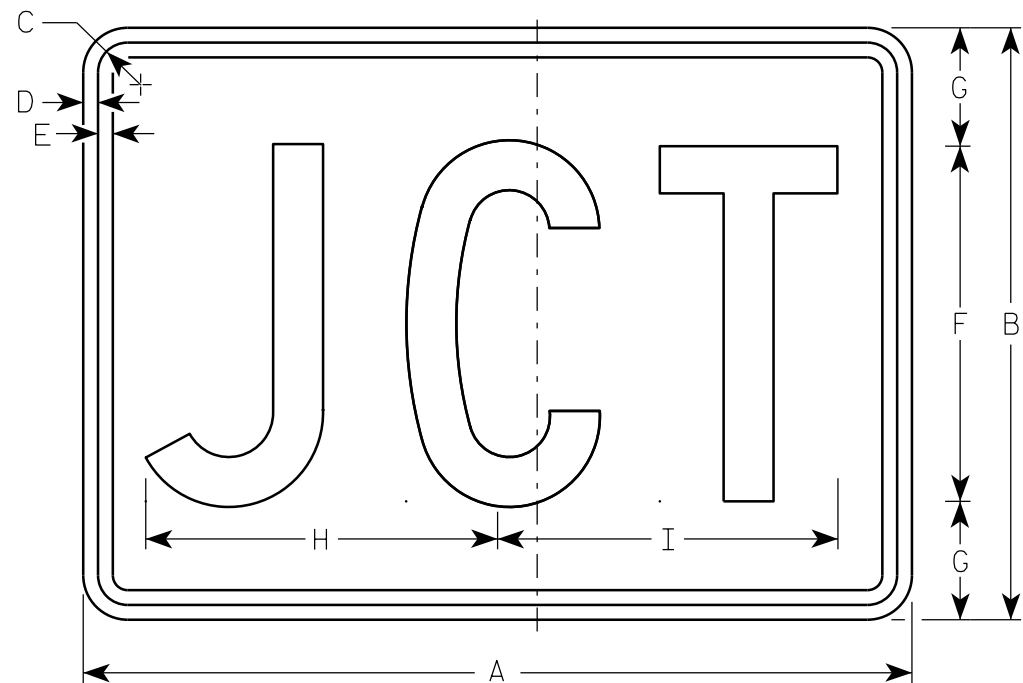
1. Sign is Type II - See Note 6 - reference WIS DOT Standard Specification for HIGHWAY and STRUCTURE CONSTRUCTION latest edition.
2. Color:
Background - White & Black - See Note 6
Message - Black
3. Message Series - See note 5
4. Corners may be square or rounded when base material is plywood but borders 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



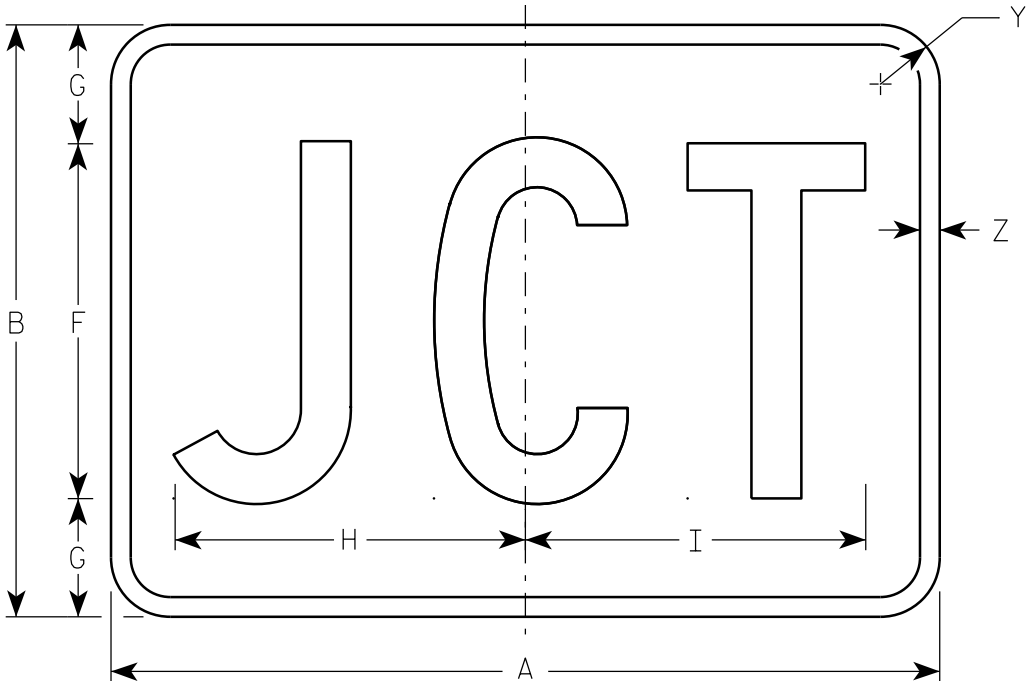
STATE ROUTE MARKER
M1-6 FOR ASSEMBLIES

WISCONSIN DEPT OF TRANSPORTATION

APPROVED
Chester J. Spang
for State Traffic Engineer
DATE 3/20/02 PLATE NO. M1-6.9



M2-1
MK2-1
MM2-1
MN2-1
MR2-1



MB2-1

NOTES

- 1. Sign is Type II - Type H
- 2. Color:
 - Background - See note 5
 - Message - See note 5
- 3. Message Series - C
- 4. Corners may be square or rounded when base material is plywood but borders shall be rounded as shown. When base material is metal, the corners and borders shall be rounded.
- 5. M2-1 Background - White
 Message - Black
 MB2-1 Background - Blue
 Message - White
 MK2-1 Background - Green
 Message - White
 MM2-1 Background - White
 Message - Green
 MN2-1 Background - Brown
 Message - White
 MR2-1 Background - Brown
 Message - Yellow

SIZE	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	Area sq. ft.
1																											
2	21	15	1 1/8	3/8	3/8	9	3	8 7/8	8 5/8																1 1/2	1/2	2.20
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
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
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

STANDARD SIGN

M2 - 1

WISCONSIN DEPT OF TRANSPORTATION

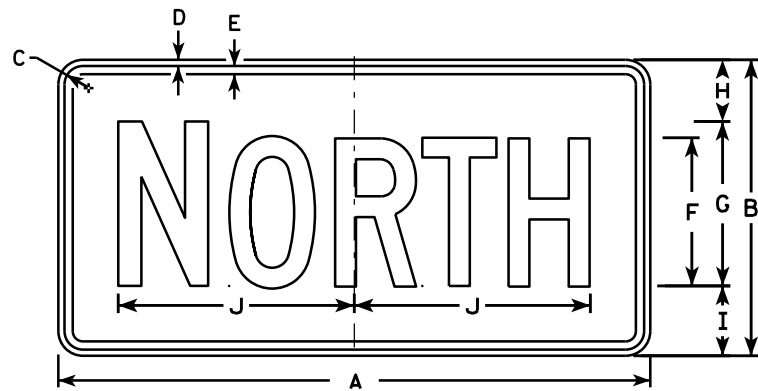
APPROVED

Matthew R. Rauch

For State Traffic Engineer

DATE 6/30/14

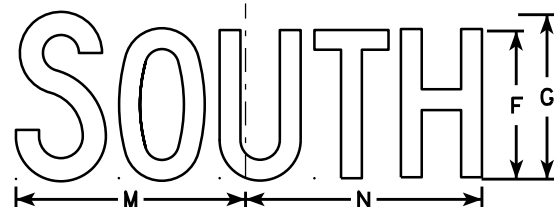
PLATE NO. M2-1.11



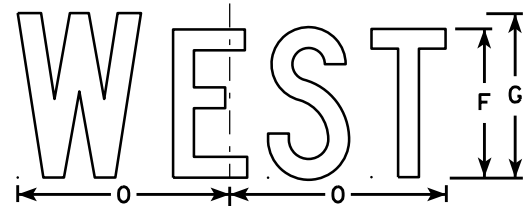
M3-1
MK3-1
MM3-1
MN3-1



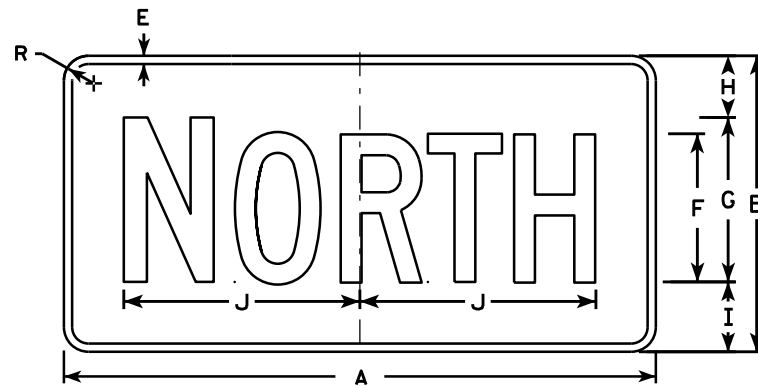
M3-2
MK3-2
MM3-2
MN3-2



M3-3
MK3-3
MM3-3
MN3-3



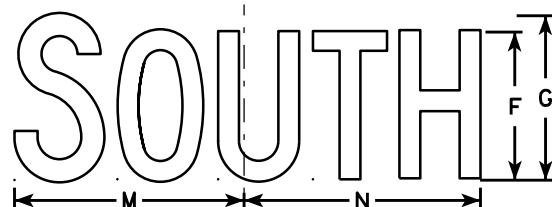
M3-4
MK3-4
MM3-4
MN3-4



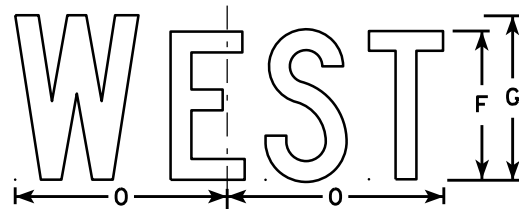
MB3-1



MB3-2



MB3-3



MB3-4

NOTES

1. All Signs Type II - Type H
2. Color:
Background - See note 5
Message - See note 5
3. Message Series - C
4. Corners may be square or rounded when base material is plywood but borders shall be rounded as shown. When base material is metal, the corners and borders shall be rounded.
5. M3-1 thru M3-4 Background - White
Message - Black
MB3-1 thru MB3-4 Background - Blue
Message - White
MK3-1 thru MK3-4 Background - Green
Message - White
MM3-1 thru MM3-4 Background - White
Message - Green
MN3-1 thru MN3-4 Background - Brown
Message - White
6. Note the first letter of each direction is larger than the remainder of the message.

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

STANDARD SIGNS
M3-1 thru M3-4
SERIES

WISCONSIN DEPT OF TRANSPORTATION

APPROVED
Matthew R. Rauch
for State Traffic Engineer

DATE 6/30/14 PLATE NO. M3-1.13

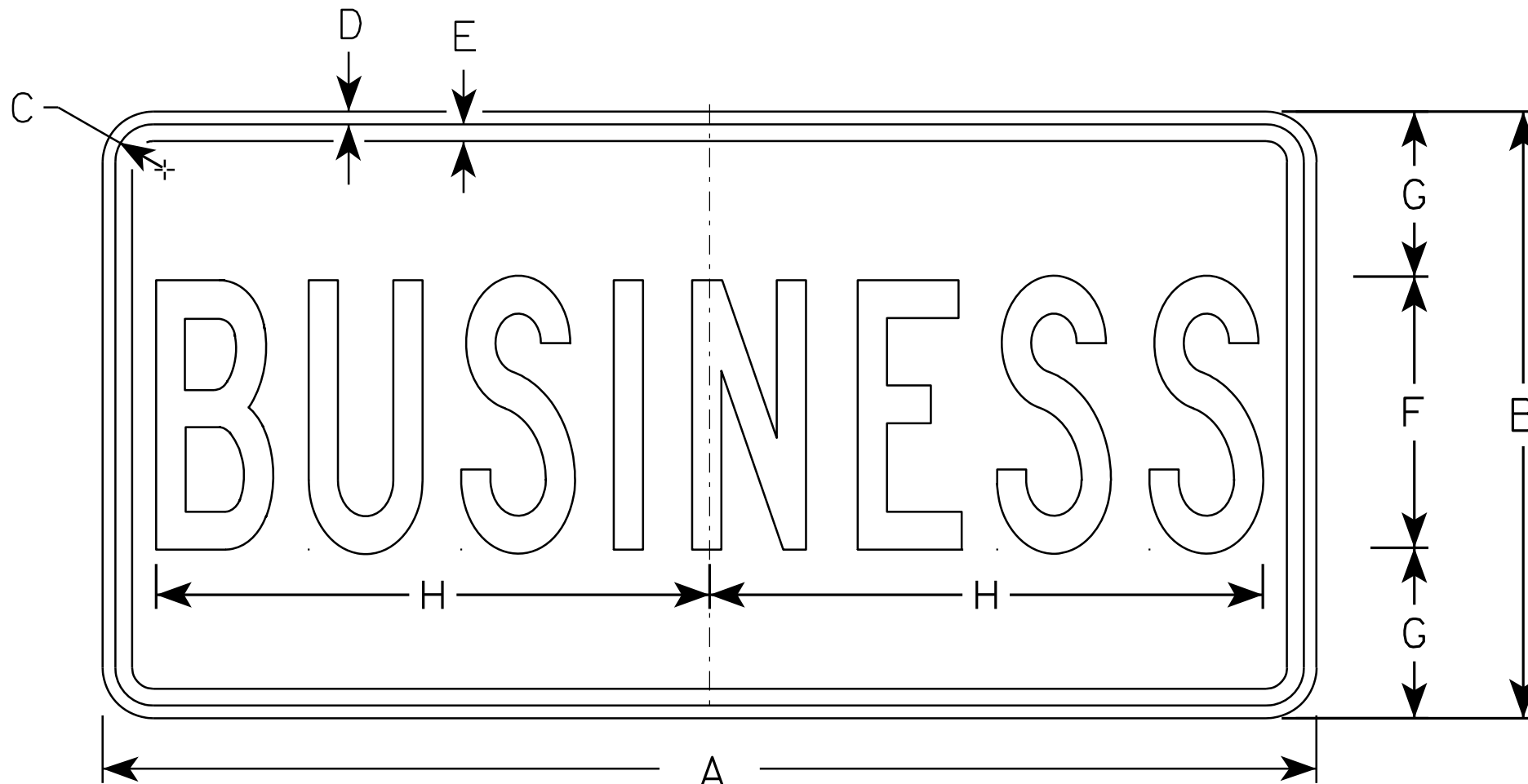
PROJECT NO:

HWY:

COUNTY:

SHEET NO:

E



M4 - 3

NOTES

1. Sign is Type II - See Note 5 - reference
WIS DOT Standard Specification for HIGHWAY
and STRUCTURE CONSTRUCTION latest edition.
2. Color:
Background - White - See Note 5
Message - Black
3. Message Series - B
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. Permanent Signs
Background - Type H Reflective
Detour or other temporary Signs
Background - Reflective

SIZE	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	Area sq. ft.
1																											
2	24	12	1 1/8	3/8	3/8	5	3 1/2	9 5/8																			2.0
3	36	18	1 1/8	3/8	1/2	8	5	16 3/8																			4.5
4																											
5																											

STANDARD SIGN

M4 - 3

WISCONSIN DEPT OF TRANSPORTATION

APPROVED *Matthew R. Rauch*
for State Traffic Engineer

DATE 11/10/10 PLATE NO. M4-3.5

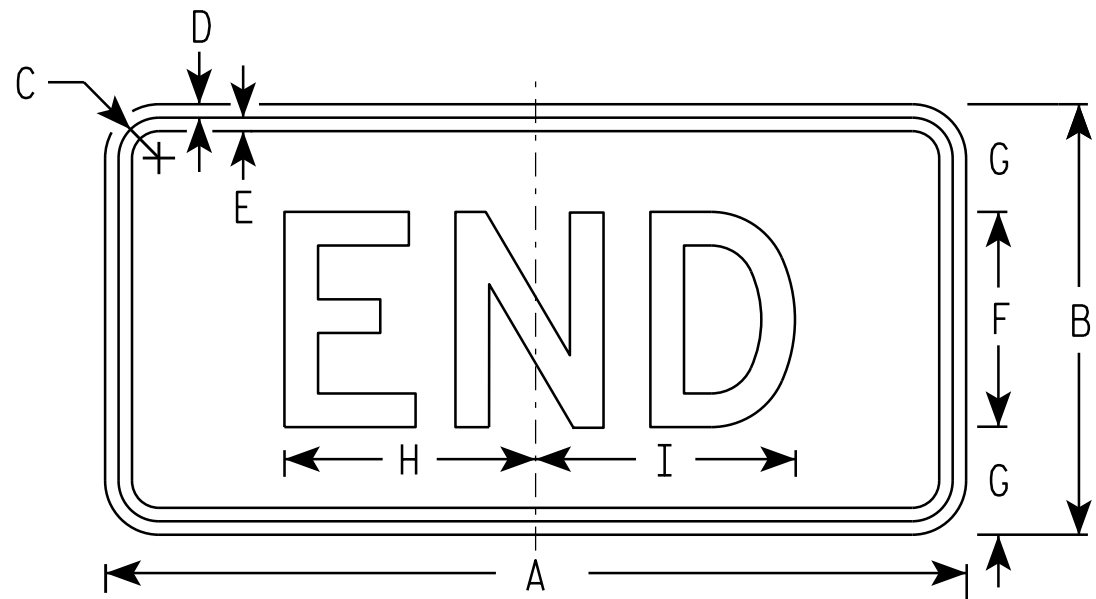
PROJECT NO:

HWY:

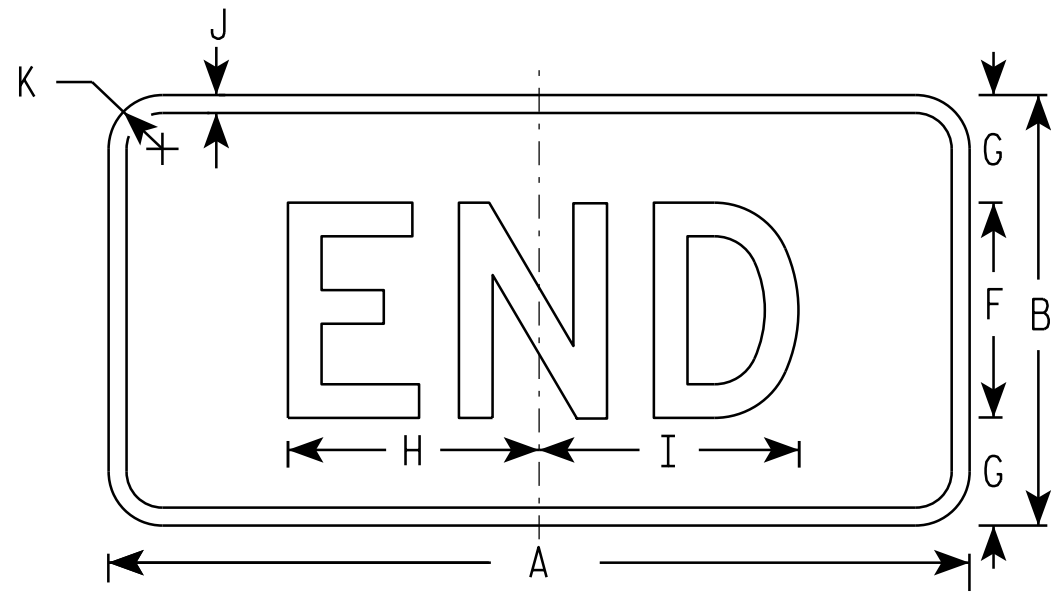
COUNTY:

SHEET NO:

E



M4-6
MK4-6
MM4-6
MN4-6
MR4-6



MB4-6

NOTES

1. Sign is Type II - Type H
2. Color:
Background - See note 5
Message - See note 5
3. Message Series - D
4. Corners may be square or rounded when base material is plywood but borders shall be rounded as shown. When base material is metal, the corners and borders shall be rounded.
5. M4-6 Background - White
Message - Black
MB4-6 Background - Blue
Message - White
MK4-6 Background - Green
Message - White
MM4-6 Background - White
Message - Green
MN4-6 Background - Brown
Message - White
MR4-6 Background - Brown
Message - Yellow

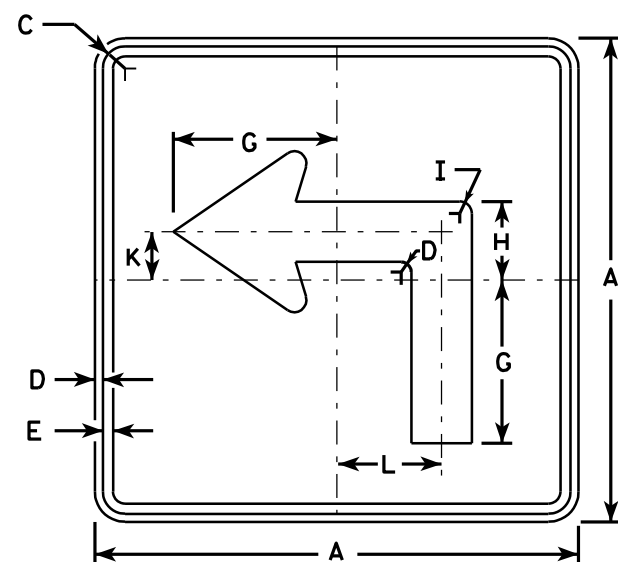
SIZE	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	Area sq. ft.
1																											
2	24	12	1 1/8	3/8	3/8	6	3	7	7 1/4	1/2	1 1/2																2.00
3	36	18	1 1/8	3/8	1/2	9	4 1/2	12	11 7/8	1/2	1 1/2																4.5
4	36	18	1 1/8	3/8	1/2	9	4 1/2	12	11 7/8	1/2	1 1/2																4.5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

STANDARD SIGN
M4-6

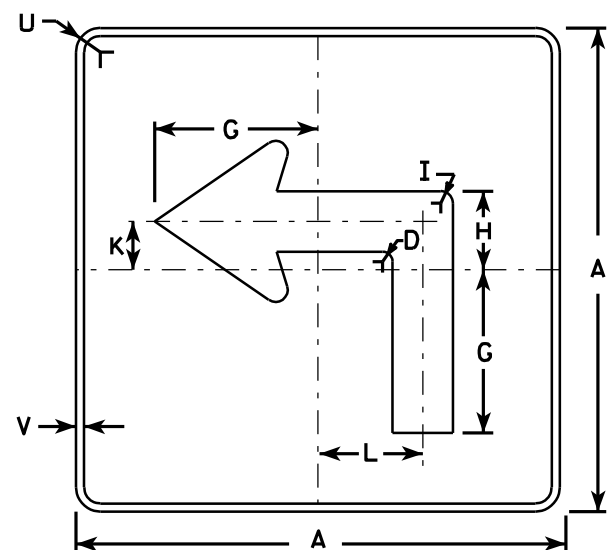
WISCONSIN DEPT OF TRANSPORTATION

APPROVED
Matthew R. Rauch
for State Traffic Engineer

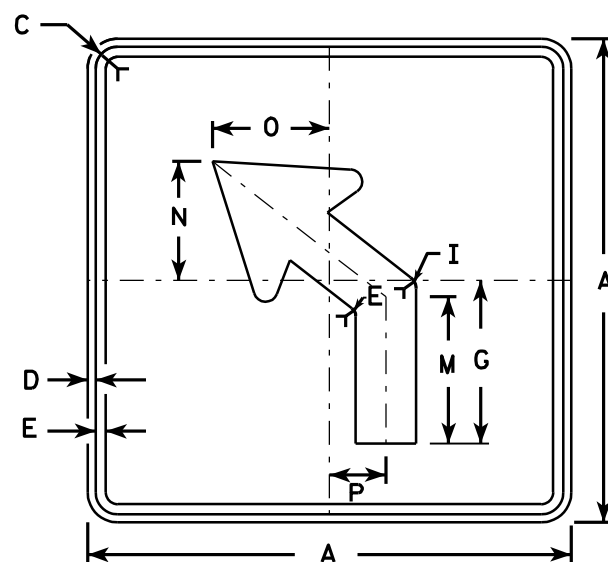
DATE 6/30/14 PLATE NO. M4-7.8



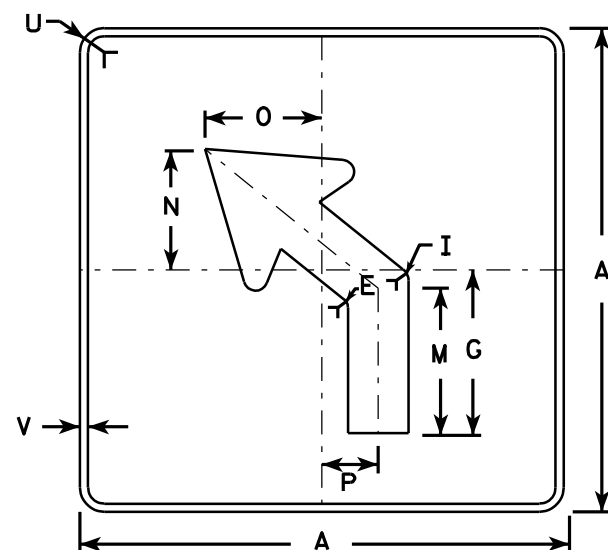
M5-1L
MK5-1L
MM5-1L
M05-1L
MP5-1L
MR5-1L



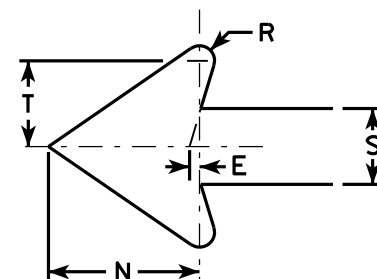
MB5-1L
MG5-1L
MN5-1L



M5-2L
MK5-2L
MM5-2L
M05-2L
MP5-2L
MR5-2L



MB5-2L
MG5-2L
MN5-2L

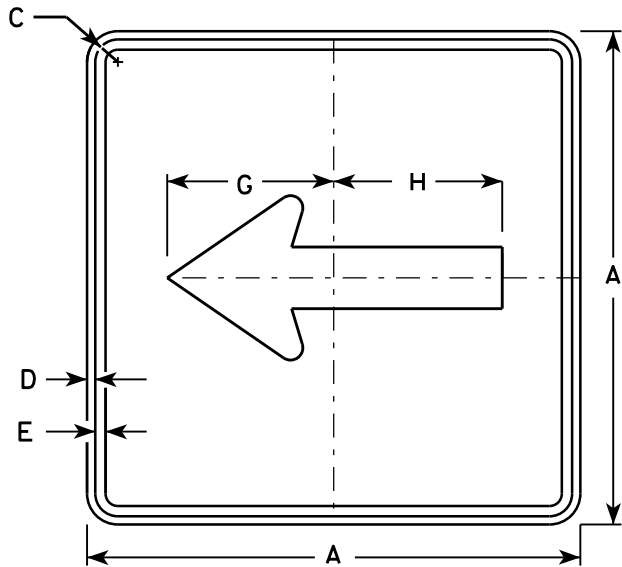


NOTES

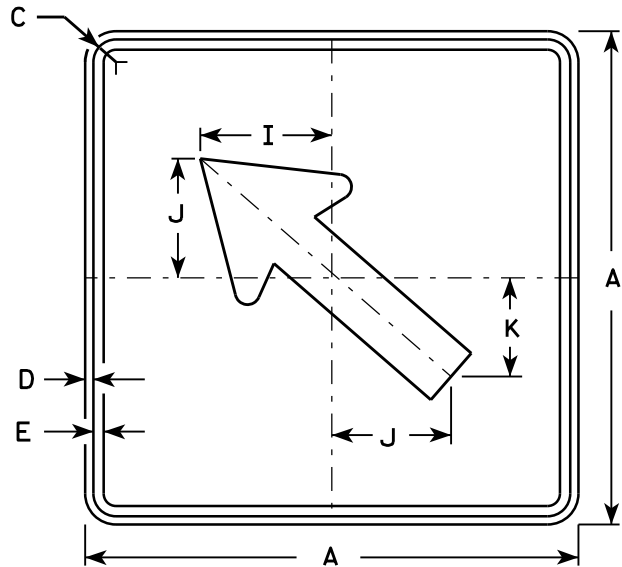
- Signs are Type II - See Note 4 - reference WIS DOT Standard Specification for HIGHWAY and STRUCTURE CONSTRUCTION latest edition.
- Color:
Background - See note 4
Message - See note 4
- Corners may be square or rounded when base material is plywood but borders shall be rounded as shown. When base material is metal, the corners and borders shall be rounded.
- M5-1 and M5-2 Background - White - Type H Reflective
Message - Black
MB5-1 and MB5-2 Background - Blue
Message - White - Type H Reflective
MG5-1 and MG5-2 Background - Green
Message - White - Type H Reflective
MK5-1 and MK5-2 Background - Green
Message - White Type H Reflective
MM5-1 and MM5-2 Background - White - Type H Reflective
Message - Green
MN5-1 and MN5-2 Background - Brown
Message - White - Type H Reflective
M05-1 and M05-2 Background - Orange - Type F Reflective
Message - Black
MP5-1 and MP5-2 Background - White - Type H Reflective
Message - Blue
MR5-1 and MR5-2 Background - Brown
Message - Yellow - Type H Reflective
- M5-1R same as M5-1L except arrow points right.
- M5-2R same as M5-2L except arrow tilts right.

SIZE	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	Area sq. ft.
1																											
2	21		1 1/8	3/8	3/8		7	3 3/8	5/8		2 1/8	4 1/2	6 3/8	5 1/4	5	2 1/2		1/2	2 5/8	3	1 1/2	1/2					3.06
3	30		1 3/8	1/2	5/8		10 1/8	4 7/8	7/8		3	6 1/2	9 1/8	7 1/2	7 1/4	3 1/2		3/4	3 3/4	4 1/4	1 7/8	1/2					6.25
4	30		1 3/8	1/2	5/8		10 1/8	4 7/8	7/8		3	6 1/2	9 1/8	7 1/2	7 1/4	3 1/2		3/4	3 3/4	4 1/4	1 7/8	1/2					6.25
5	30		1 3/8	1/2	5/8		10 1/8	4 7/8	7/8		3	6 1/2	9 1/8	7 1/2	7 1/4	3 1/2		3/4	3 3/4	4 1/4	1 7/8	1/2					6.25

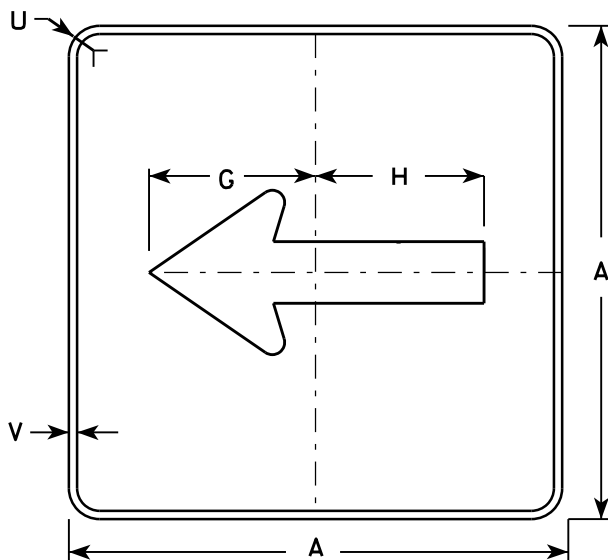
STANDARD SIGN	
M5-1 & M5-2	
WISCONSIN DEPT OF TRANSPORTATION	
APPROVED	<i>Matthew R. Rauch</i> for State Traffic Engineer
DATE 7/29/13	PLATE NO. M5-1.12



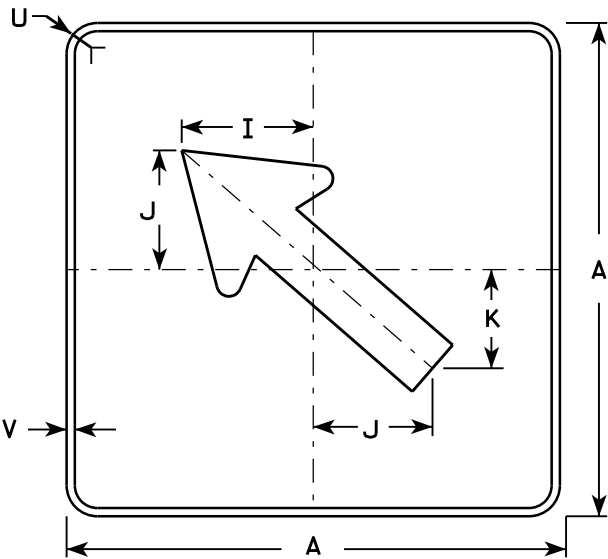
M6 - 1
MK6 - 1
MM6 - 1
MN6 - 1
M06 - 1
MP6 - 1
MR6 - 1



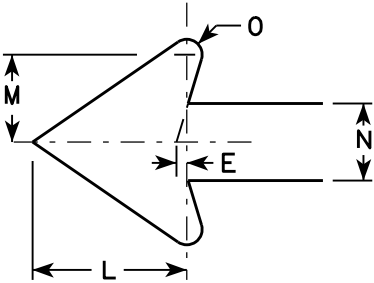
M6 - 2
MK6 - 2
MM6 - 2
MN6 - 2
M06 - 2
MP6 - 2
MR6 - 2



MB6 - 1



MB6 - 2



NOTES

- 1. Signs are Type II - Type H except as Shown
- 2. Color:
Background - See note 4
Message - See note 4
- 3. Corners may be square or rounded when base material is plywood but borders shall be rounded as shown. When base material is metal, the corners and borders shall be rounded.
- 4. M6-1 and M6-2 Background - White
Message - Black
MB6-1 and MB6-2 Background - Blue
Message - White
MG6-1 and MG6-2 Background - Green
Message - White
MK6-1 and MK6-2 Background - Green
Message - White
MM6-1 and MM6-2 Background - White
Message - Green
MN6-1 and MN6-2 Background - Brown
Message - White
M06-1 and M06-2 Background - Orange - Type F Reflective
Message - Black
MP6-1 and MP6-2 Background - White
Message - Blue
MR6-1 and MR6-2 Background - Brown
Message - Yellow

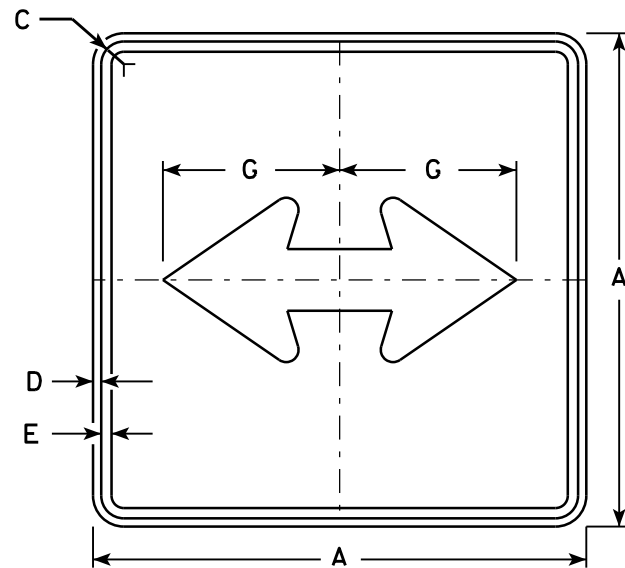
SIZE	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	Area sq. ft.
1																											
2	21		1 1/8	3/8	3/8		7 1/2	7 1/8	5 5/8	5	4 1/4	5 1/4	3	2 5/8	1/2						1 1/2	1/2					3.06
3	30		1 3/8	1/2	5/8		10 3/4	10 1/4	8	7 1/4	6	7 1/2	4 1/4	3 3/4	3/4						1 7/8	1/2					6.25
4	30		1 3/8	1/2	5/8		10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

STANDARD SIGN
M6 - 1 & M6 - 2
SERIES

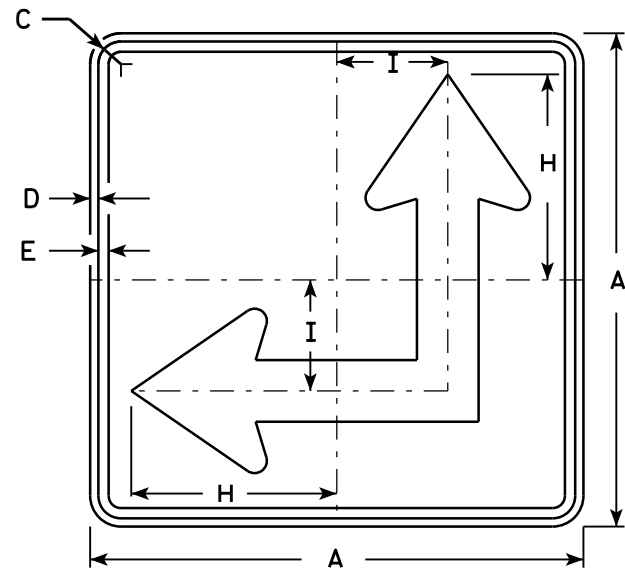
WISCONSIN DEPT OF TRANSPORTATION

APPROVED
Matthew R. Rauch
for State Traffic Engineer

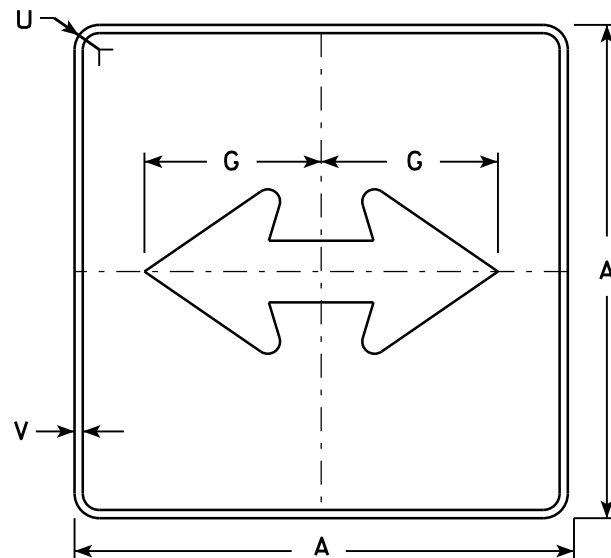
DATE 7/03/14 PLATE NO. M6-1.14



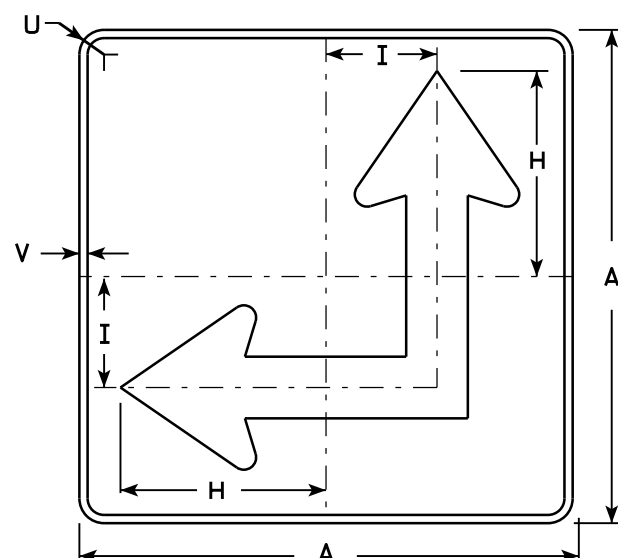
M6 - 4
MK6 - 4
MM6 - 4
MN6 - 4
MO6 - 4
MP6 - 4
MR6 - 4



M6 - 6
MK6 - 6
MM6 - 6
MN6 - 6
MO6 - 6
MP6 - 6
MR6 - 6



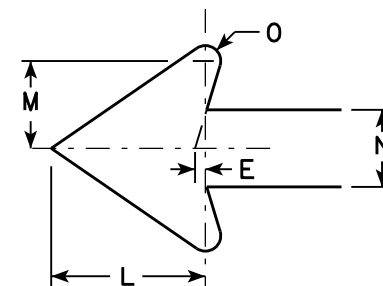
MB6 - 4



MB6 - 6

NOTES

- Signs are Type II - Type H except as Shown
- 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
Message - Black
MB6-4 and MB6-6 Background - Blue
Message - White
MK6-4 and MK6-6 Background - Green
Message - White
MM6-4 and MM6-6 Background - White
Message - Green
MN6-4 and MN6-6 Background - Brown
Message - White
MO6-4 and MO6-6 Background - Orange - Type F Reflective
Message - Black
MP6-4 and MP6-6 Background - White
Message - Blue
MR6-4 and MR6-6 Background - Brown
Message - Yellow
- M6-6R same as M6-6L except arrow points ahead and right.



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

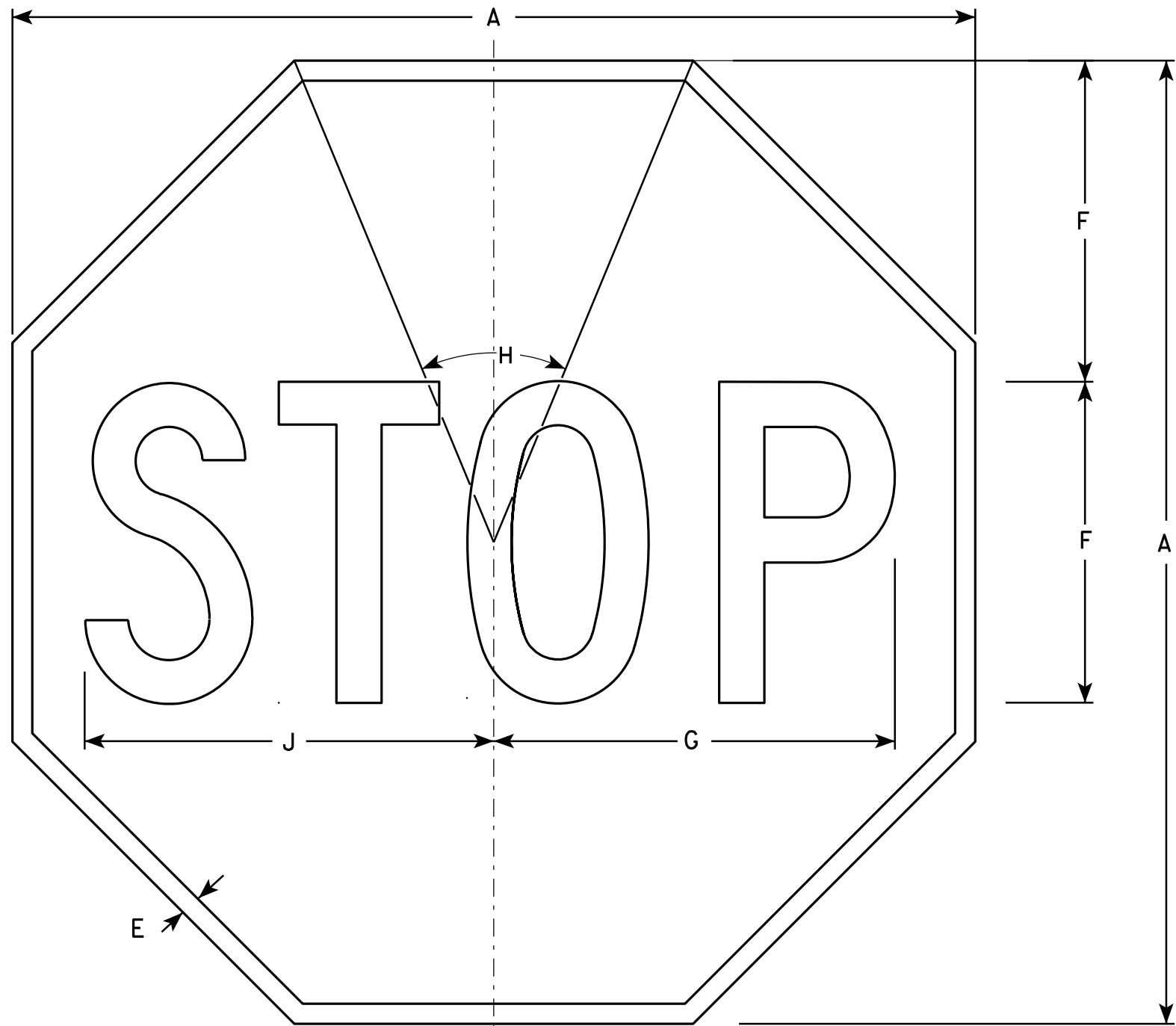
PROJECT NO: HWY: COUNTY: SHEET NO: E

STANDARD SIGN
M6 - 4 & M6 - 6
SERIES

WISCONSIN DEPT OF TRANSPORTATION

APPROVED *Matthew R. Rauch*
for State Traffic Engineer

DATE 7/03/14 PLATE NO. M6-4.9



NOTES

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

7

7

SIZE	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	Area sq. ft.
1	24				3/8	8	10	45°		10 1/4																	3.31
2S	30				5/8	10	12 1/2	45°		12 3/4																	5.18
2M	36				3/4	12	15	45°		15 3/8																	7.46
3	36				3/4	12	15	45°		15 3/8																	7.46
4	48				1	16	20	45°		20 1/2																	13.25
5	48				1	16	20	45°		20 1/2																	13.25
6	18				3/8	6	7 3/4	45°		7 3/4																	1.86
7	12				1/4	4	5	45°		5 1/8																	0.78

STANDARD SIGN
R1 - 1

WISCONSIN DEPT OF TRANSPORTATION

APPROVED *Matthew R. Rauch*
for State Traffic Engineer

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

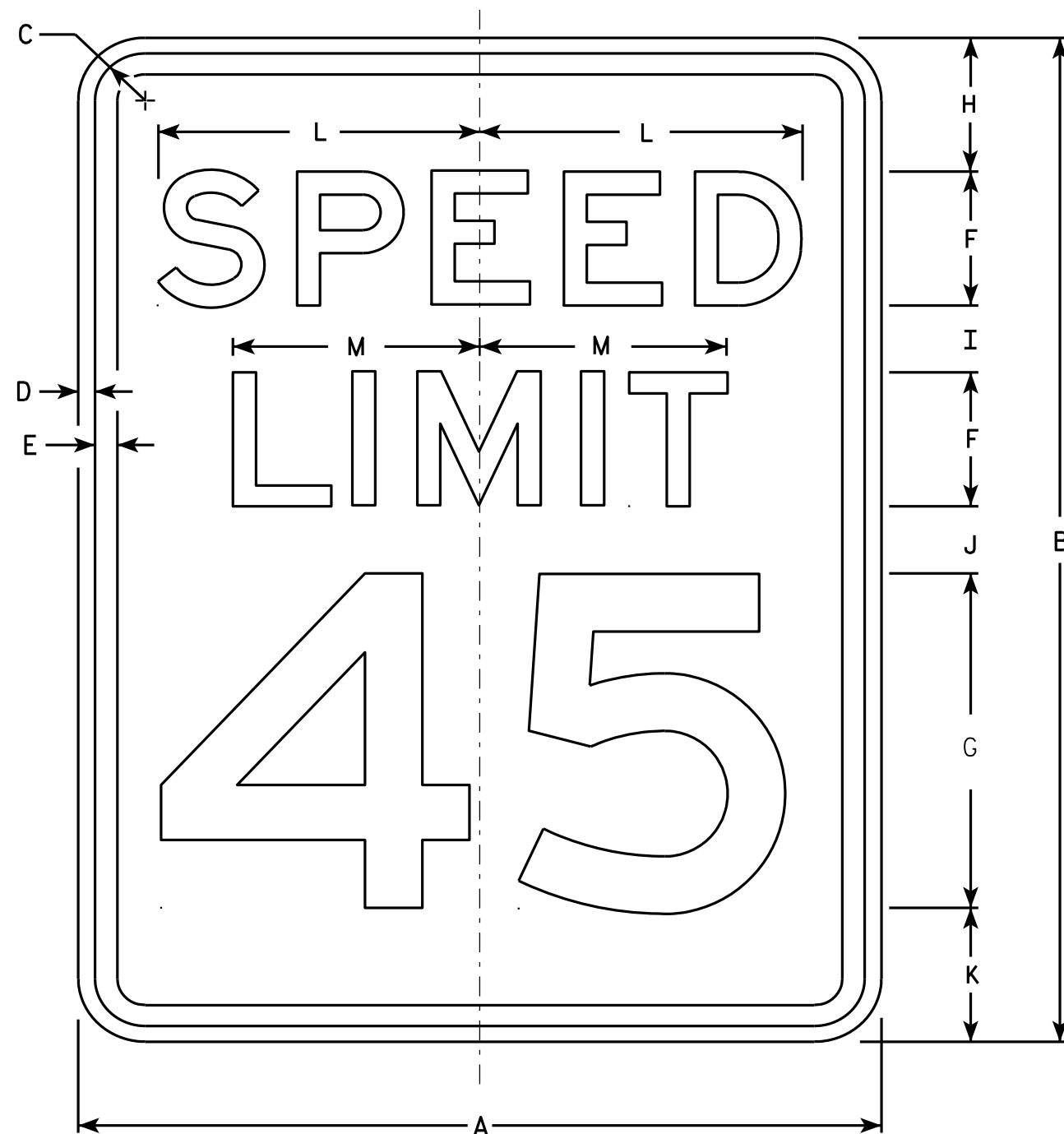
PROJECT NO:

HWY:

COUNTY:

SHEET NO:

E



NOTES

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

R2-1

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 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

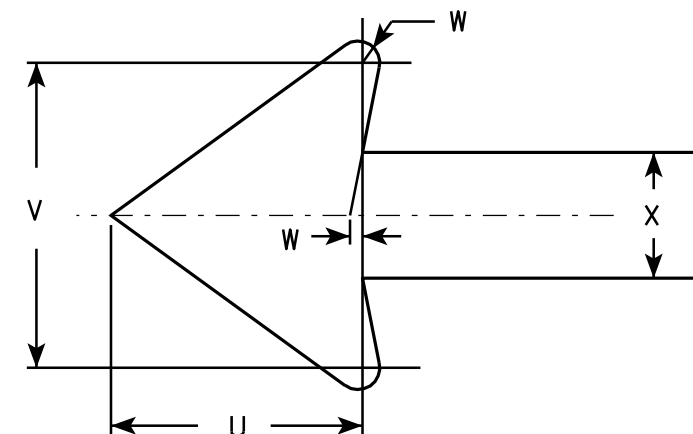
PROJECT NO: HWY: COUNTY: SHEET NO: E



R7-1

NOTES

1. Sign is Type II - Type H Reflective - reference WIS DOT Standard Specification for HIGHWAY and STRUCTURE CONSTRUCTION latest edition.
2. Color:
Background - White
Message - Red
3. Message Series - See Note 5
4. Corners may be square or rounded when base material is plywood but borders shall be rounded as shown. When base material is metal, the corners and borders shall be rounded.
5. Lines 1, 3 and 4 are series C, line 2 is series B.
6. R7-1D (double arrow)
R7-1L (left arrow)
R7-1R (right arrow)



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

STANDARD SIGN R7-1

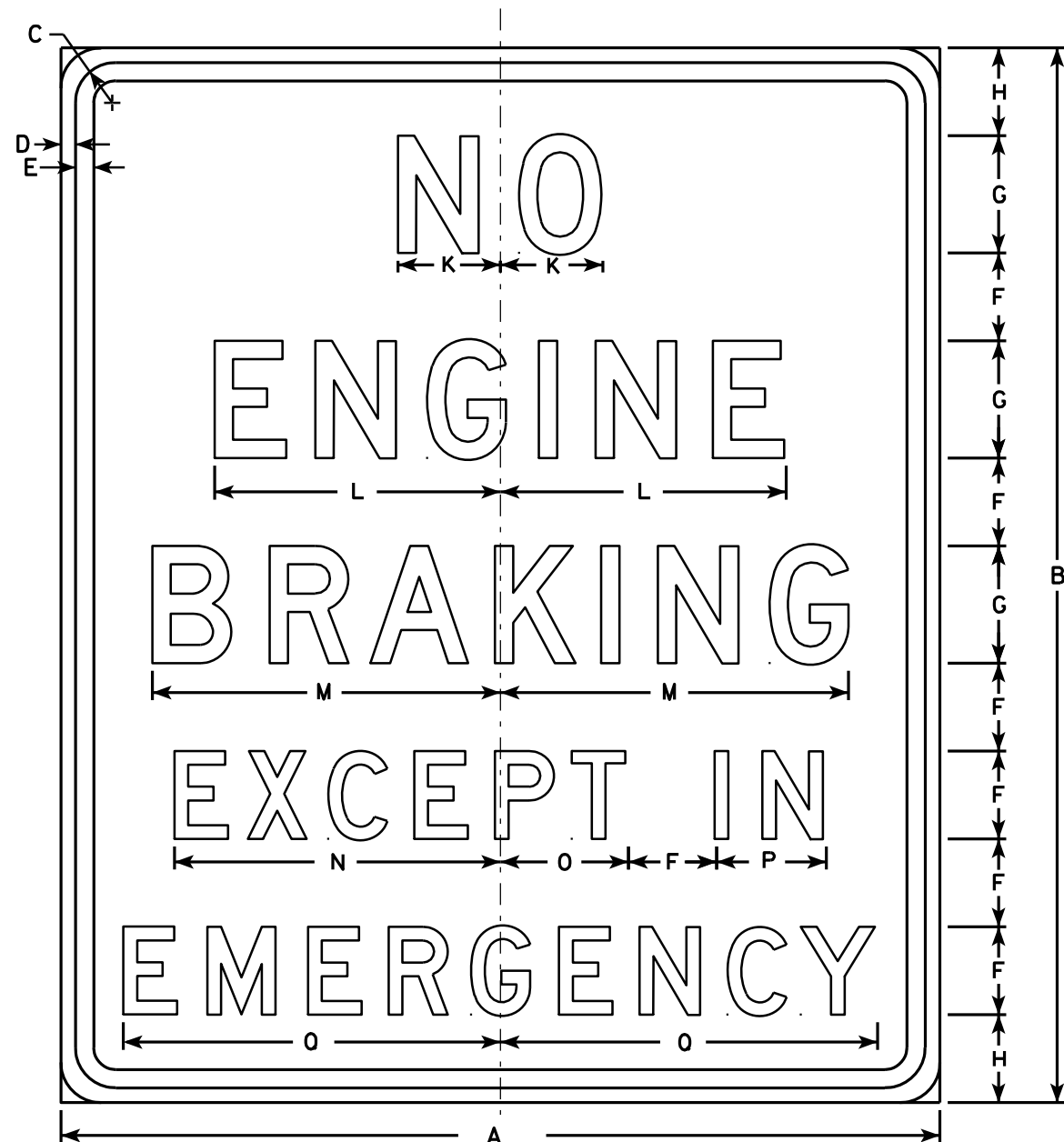
WISCONSIN DEPT OF TRANSPORTATION

APPROVED *Matthew R. Rauch*
for State Traffic Engineer

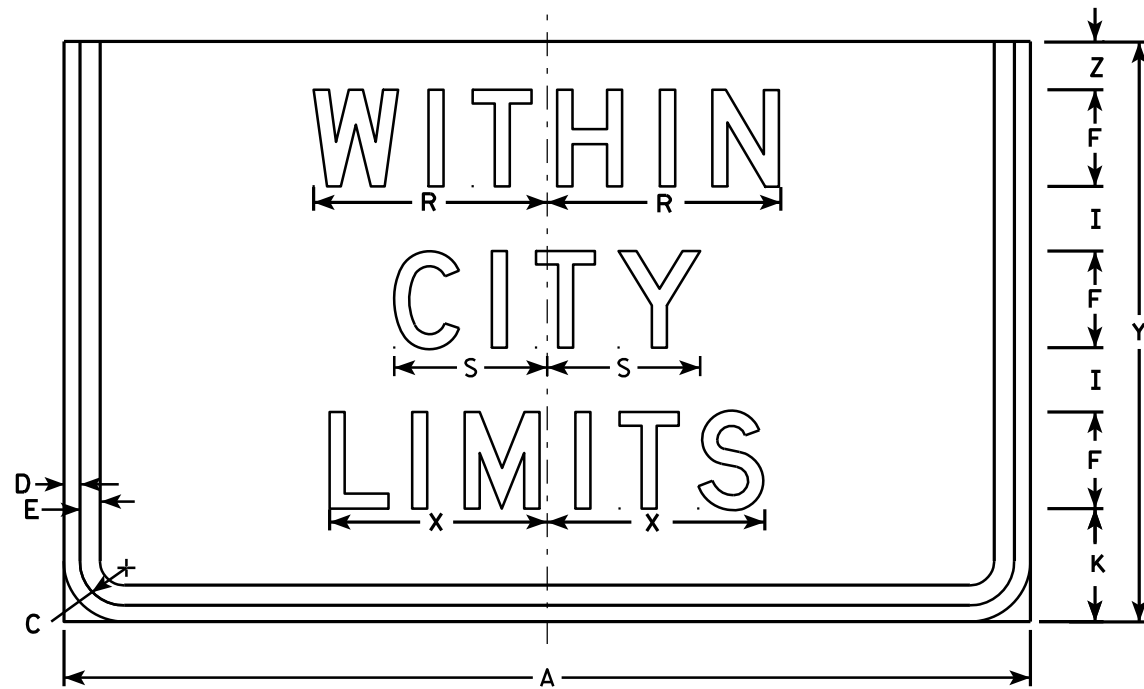
DATE 3/31/2011 PLATE NO. R7-1.9

PROJECT NO: HWY: COUNTY: SHEET NO: E

7

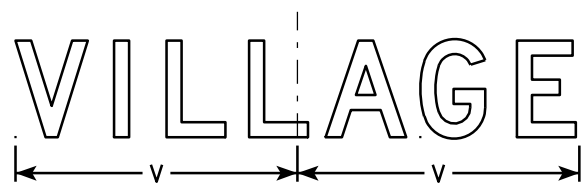


R10-64



R10-64F

Area sq. ft.
3.75
7.0



SIZE	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	O	R	S	T	U	V	W	X	Y	Z	Area sq. ft.
1	30	36	1 3/8	1/2	5/8	3	4	3	2		3 1/2	9 3/4	11 7/8	11 1/8	4 3/8	3 3/4	12 7/8	7 1/4	4 3/4		8 1/4	8 3/4	5/8	6 3/4	18	1 1/2	7.5
2S	30	36	1 3/8	1/2	5/8	3	4	3	2		3 1/2	9 3/4	11 7/8	11 1/8	4 3/8	3 3/4	12 7/8	7 1/4	4 3/4		8 1/4	8 3/4	5/8	6 3/4	18	1 1/2	7.5
2M	30	36	1 3/8	1/2	5/8	3	4	3	2		3 1/2	9 3/4	11 7/8	11 1/8	4 3/8	3 3/4	12 7/8	7 1/4	4 3/4		8 1/4	8 3/4	5/8	6 3/4	18	1 1/2	7.5
3	42	48	1 3/8	1/2	5/8	4	5	4 1/2	3		4	12 1/4	14 7/8	14 1/8	5 1/4	4 3/4	16 1/4	9	6		11	11 1/4	1 1/2	8 1/2	24	2	14.0
4																											
5																											

PROJECT NO:

HWY:

COUNTY:

SHEET NO:

E

NOTES

1. Signs are Type II - Type H Reflective - reference WIS DOT Standard Specification for HIGHWAY and STRUCTURE CONSTRUCTION latest edition.
2. Color:

Background - White

Message - Black
3. Message Series - D See note 5
4. Corners may be square or rounded when base material is plywood but borders shall be rounded as shown. When base material is metal, the corners and borders shall be rounded.
5. Line 2 of R10-64F is Series C for "TOWNSHIP" Only

STANDARD SIGN

R10-64 & R10-64F

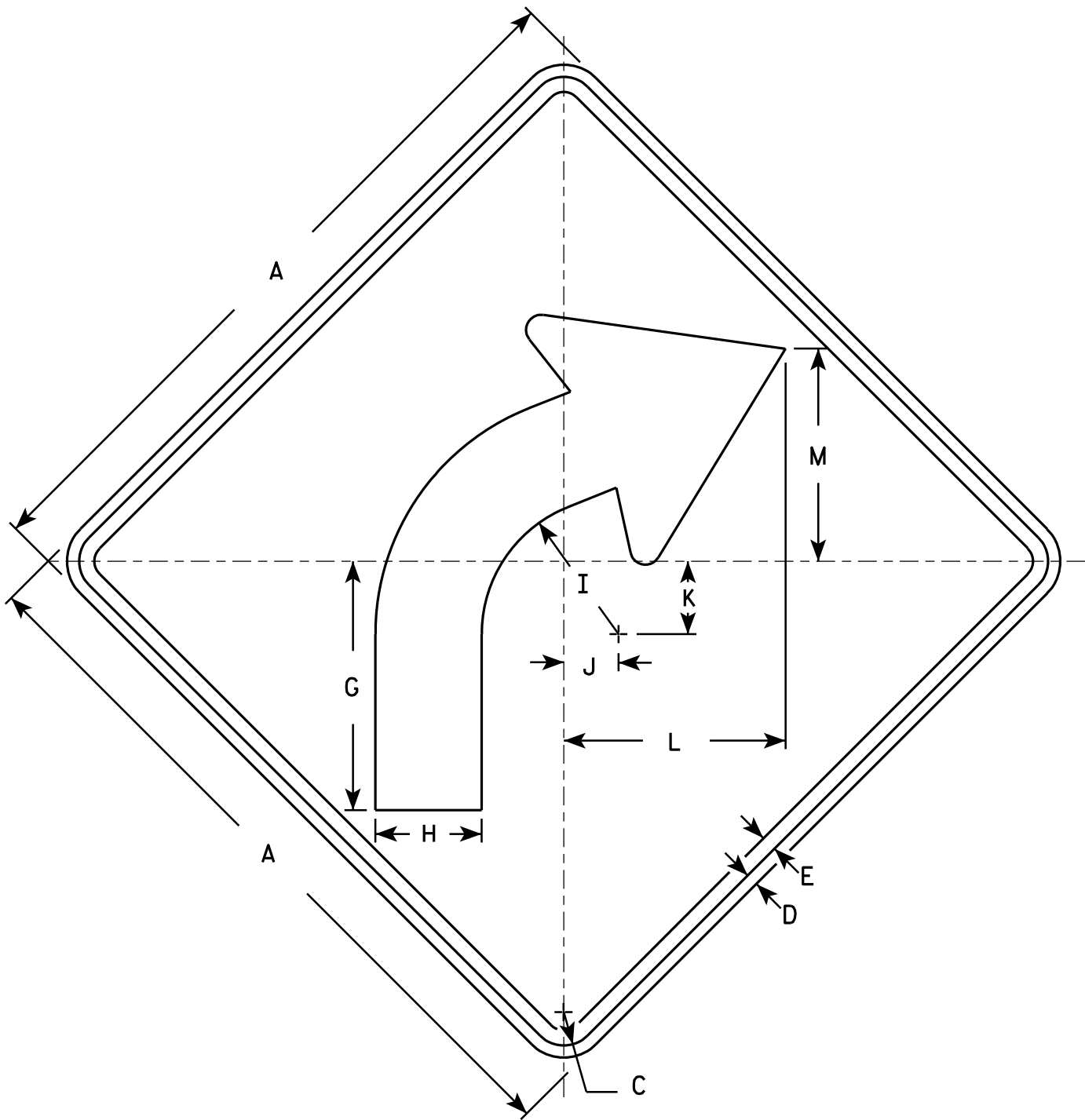
WISCONSIN DEPT OF TRANSPORTATION

APPROVED *Matthew R. Rauch*
For State Traffic Engineer

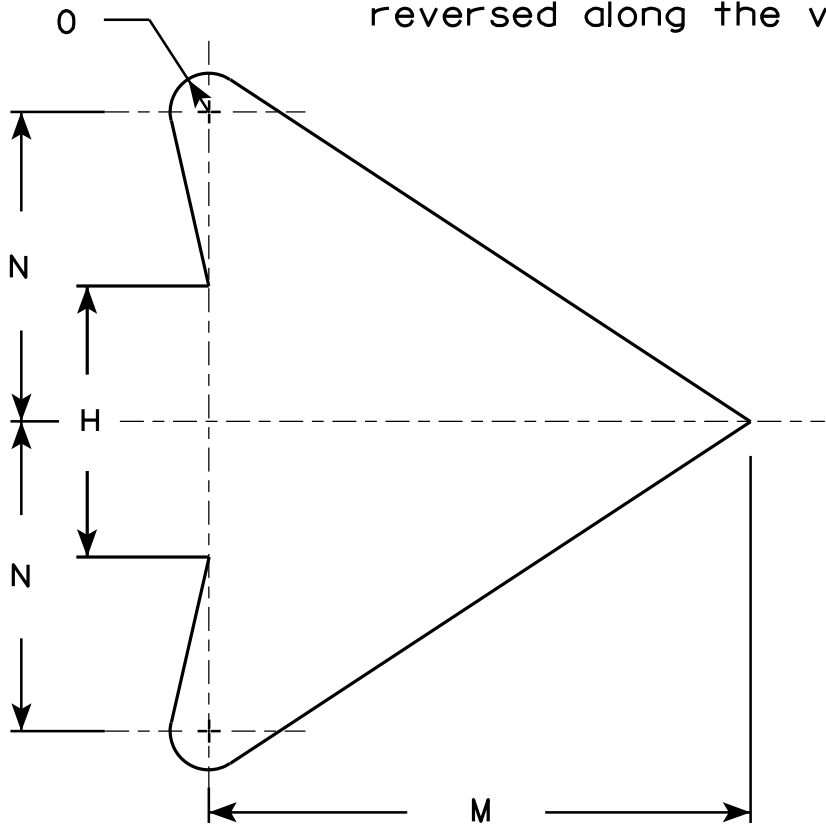
DATE 4/4/11 PLATE NO. R10-64.7

NOTES

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



W1-2R



ARROW DETAIL

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

STANDARD SIGN
W1-2

WISCONSIN DEPT OF TRANSPORTATION

APPROVED

Matthew R. Rauch
for State Traffic Engineer

DATE 5/15/12

PLATE NO. W1-2.10

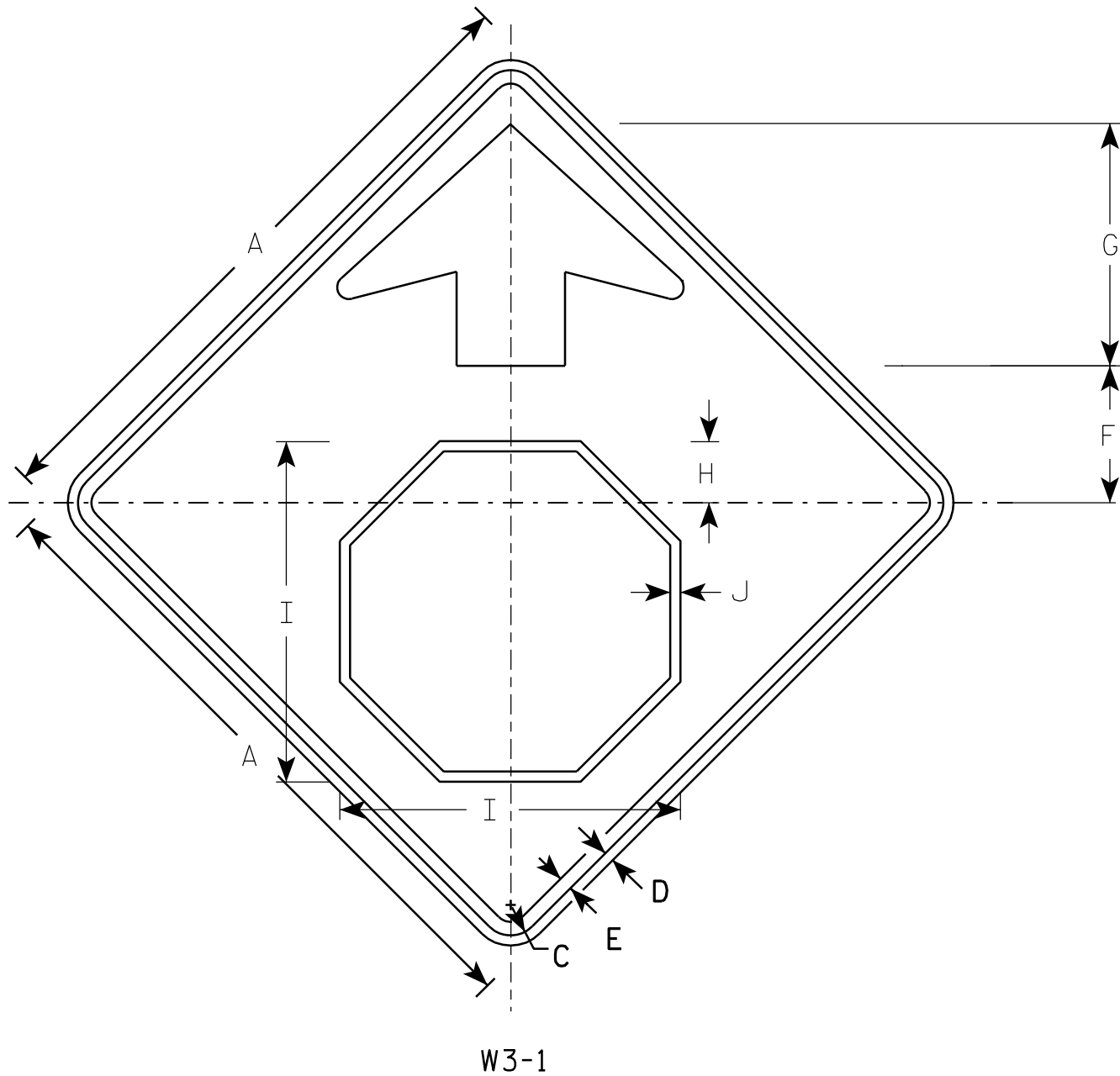
PROJECT NO:

HWY:

COUNTY:

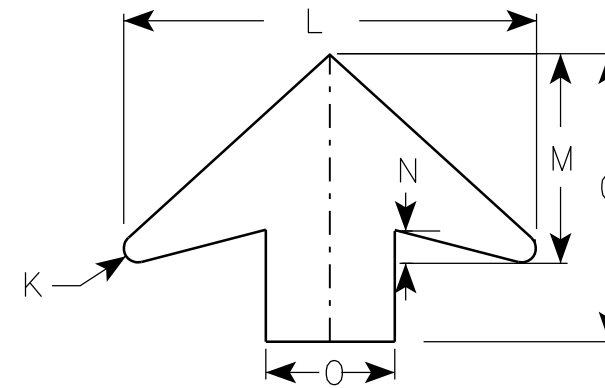
SHEET NO:

E



NOTES

1. All Signs Type II - Type F Reflective - reference WIS DOT Standard Specification for HIGHWAY and STRUCTURE CONSTRUCTION latest edition.
2. Color:
Background - YELLOW
Arrow & Border - BLACK
Stop Symbol - WHITE BORDER ON RED BACKGROUND



ARROW DETAIL

SIZE	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	Area sq. ft.
1	30		1 3/8	1/2	5/8	6 1/4	11 1/4	2 7/8	15 3/4	1/2	1/2	16	8	1 1/4	5												6.25
2S	36		1 5/8	5/8	3/4	7 1/2	13 1/2	3 1/2	19	5/8	5/8	19 1/4	9 3/4	1 5/8	6												9.0
2M	36		1 5/8	5/8	3/4	7 1/2	13 1/2	3 1/2	19	5/8	5/8	19 1/4	9 3/4	1 5/8	6												9.0
3	36		1 5/8	5/8	3/4	7 1/2	13 1/2	3 1/2	19	5/8	5/8	19 1/4	9 3/4	1 5/8	6												9.0
4	48		2 1/4	3/4	1	10	17 7/8	4 1/2	25 1/8	3/4	7/8	25 5/8	13	2	8												16.0
5	48		2 1/4	3/4	1	10	17 7/8	4 1/2	25 1/8	3/4	7/8	25 5/8	13	2	8												16.0

PROJECT NO:

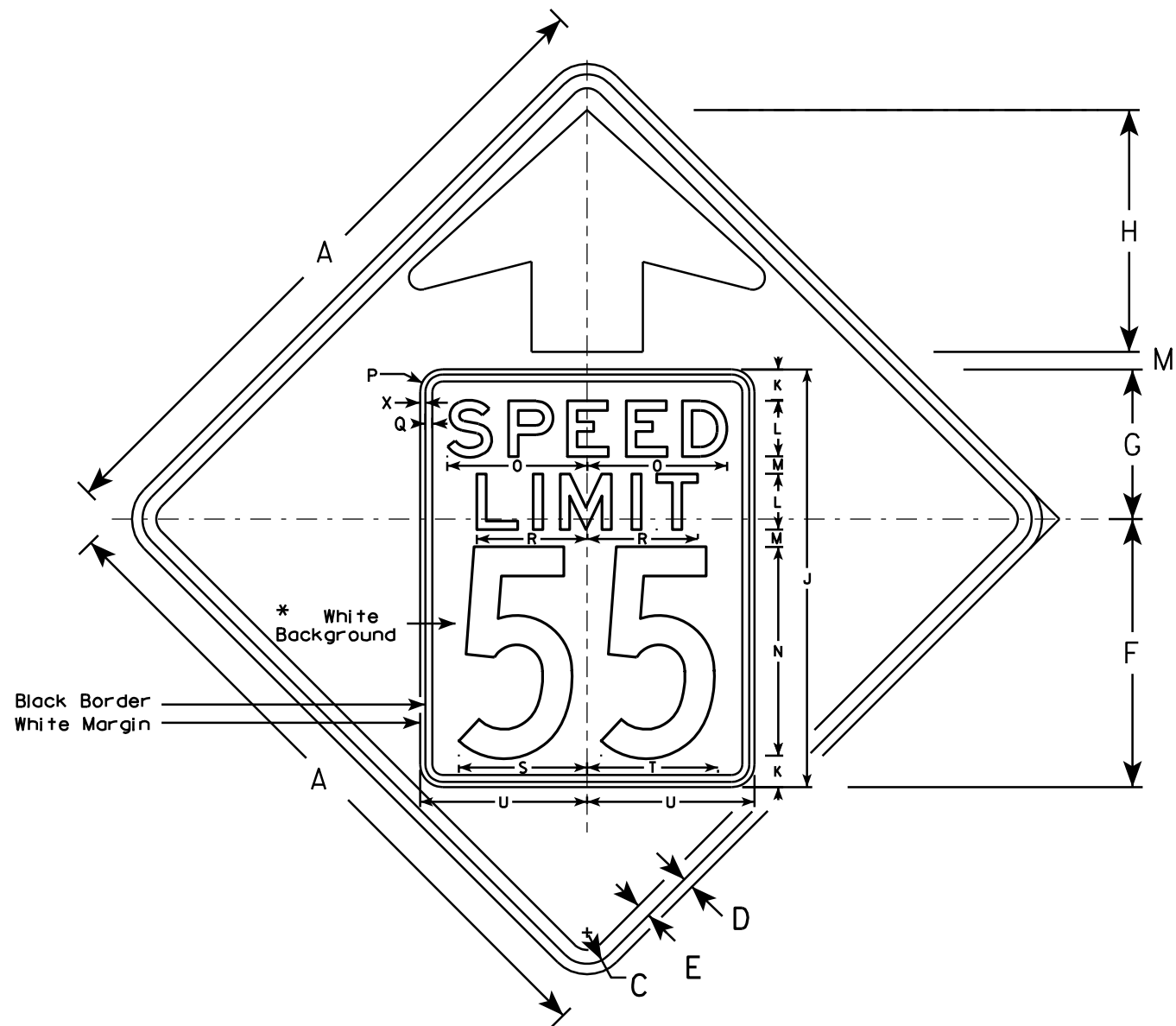
STANDARD SIGN
W3-1

WISCONSIN DEPT OF TRANSPORTATION

APPROVED *Matthew R. Rauch*
for State Traffic Engineer
DATE 6/7/10 PLATE NO. W3-1.12

SHEET NO:

E

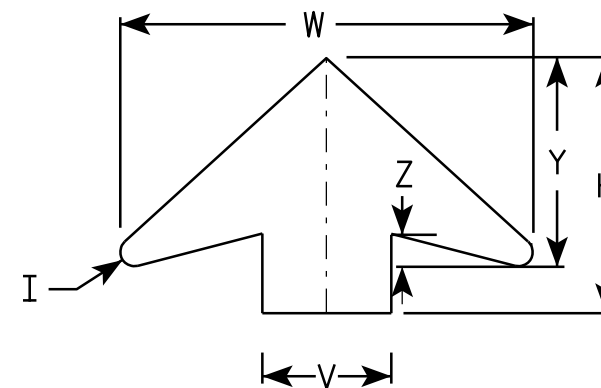


W3-5

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 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

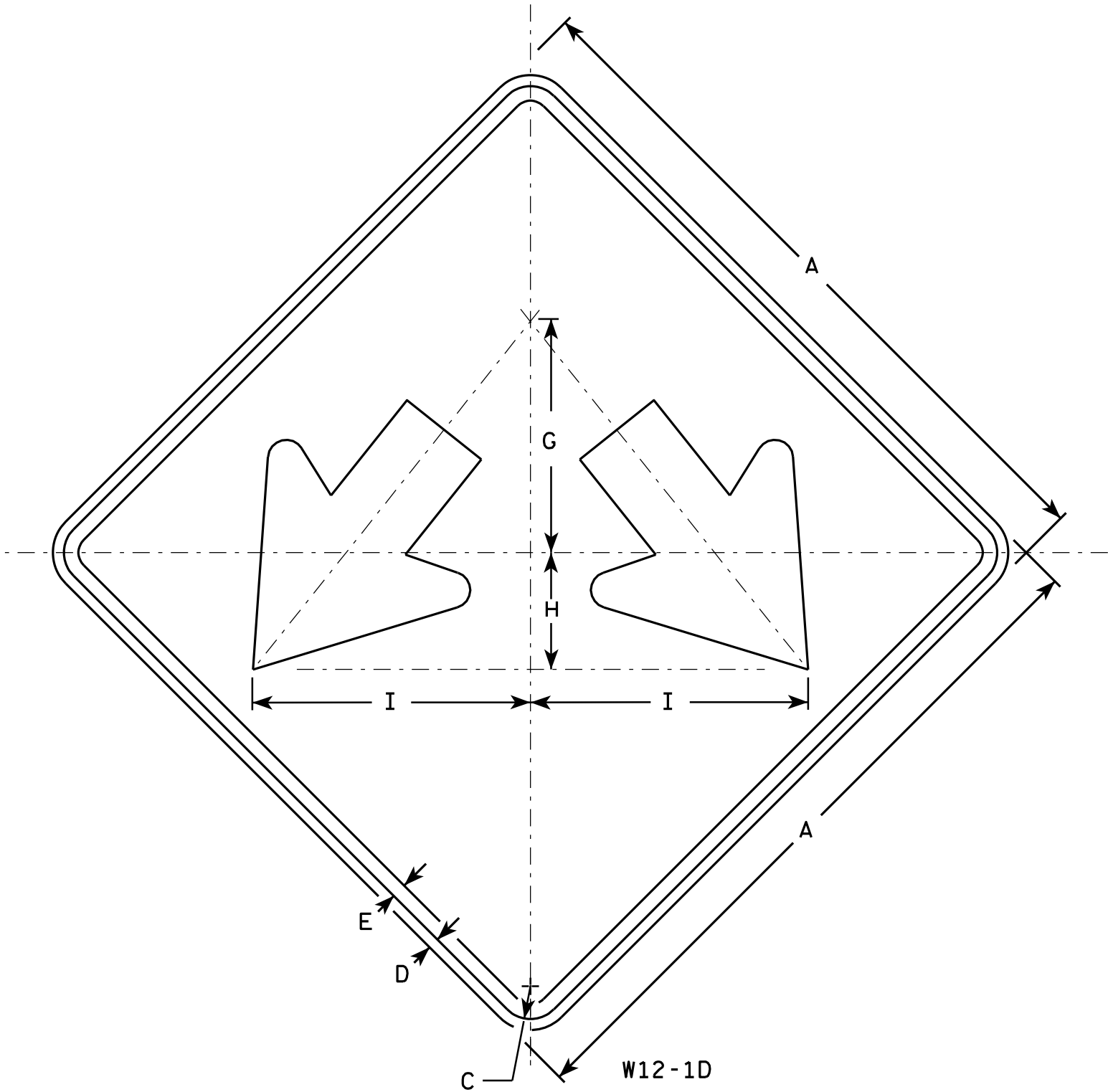
DATE 5/29/12

PLATE NO. W3-5.5

PROJECT NO:

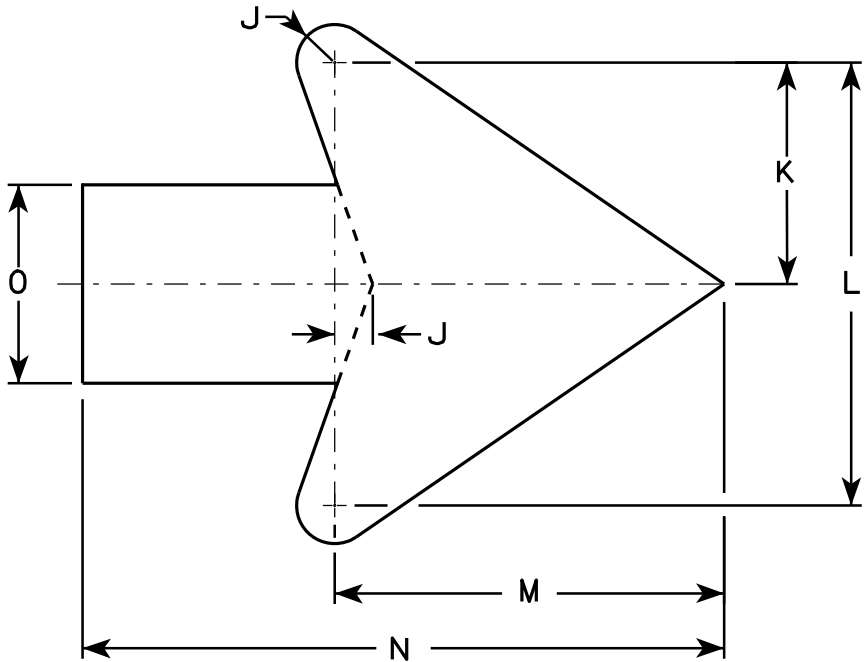
SHEET NO:

E



NOTES

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



Arrow Detail

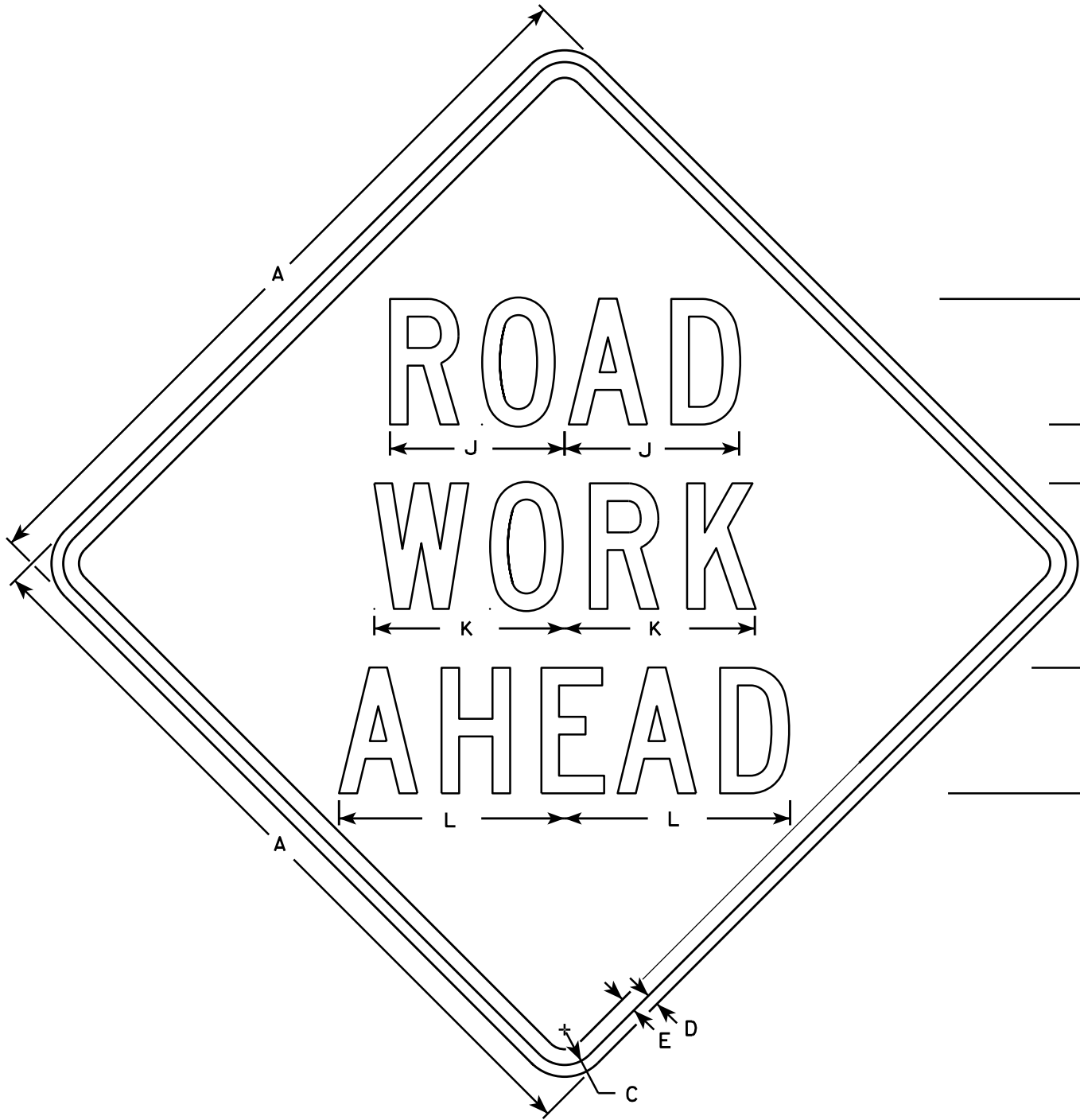
SIZE	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	Area sq. ft.
1																											
2S	24		1 1/8	1/2	3/8		8	4	9 1/2	3/8	3 3/8	7 1/4	6 3/8	10 3/8	3 1/4												4.0
2M	24		1 1/8	1/2	3/8		8	4	9 1/2	3/8	3 3/8	7 1/4	6 3/8	10 3/8	3 1/4												4.0
3	30		1 3/8	1/2	5/8		10	5	11 7/8	3/4	4 1/2	9	7 7/8	13	4												6.25
4	36		1 3/8	1/2	5/8		12	6	14 1/4	1	5 1/2	10 7/8	9 5/8	15 3/4	4 3/4												9.0
5	48		2 1/4	3/4	1		16	8	19	1 1/4	7 1/4	14 1/2	12 3/4	21	6 1/4												16.0

STANDARD SIGN
W12-1D

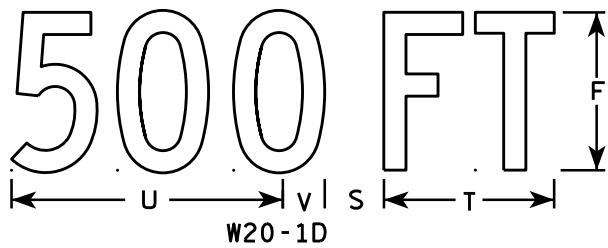
WISCONSIN DEPT OF TRANSPORTATION

APPROVED
Matthew R. Rauch
for State Traffic Engineer

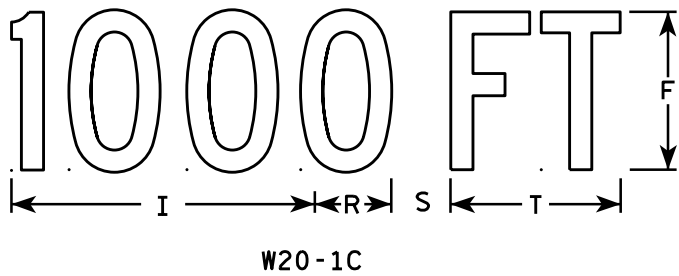
DATE 3/13/13 PLATE NO. W12-1D.15



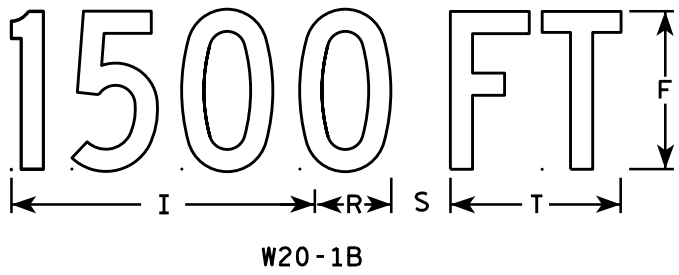
W20-1A



W20-1D



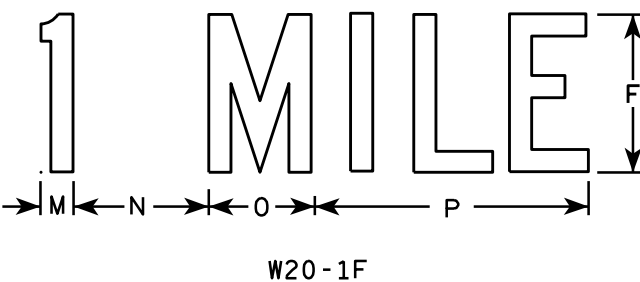
W20-1C



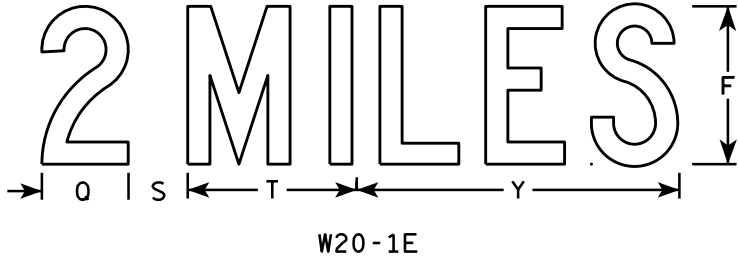
W20-1B



W20-1G



W20-1F



W20-1E

NOTES

- 1. Sign is Type II - Type F Reflective
- 2. Color:
Background - Orange
Message - Black
- 3. Message Series - C
- 4. Corners may be square or rounded when base material is plywood but borders shall be rounded as shown. When base material is metal, the corners and borders shall be rounded.

SIZE	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	Area sq. ft.
1	36		1 3/8	1/2	5/8	5	2 5/8	3 1/4	10 1/8	7	7 5/8	8 7/8	1 1/8	4 1/2	3 1/2	9		2 1/2	2 1/4	5 5/8	9	1 3/8	8	1 3/4	10 3/4	6	9.0
2S	48		2 1/4	3/4	1	8	3 3/4	5 1/8	15 3/8	11 1/8	12 1/8	14 3/8	1 5/8	6 7/8	5 3/8	13 7/8	4 3/8	3 7/8	3	8 5/8	13 3/4	2 1/8	11 7/8	2 3/4	16 3/8	9	16.0
2M	48		2 1/4	3/4	1	8	3 3/4	5 1/8	15 3/8	11 1/8	12 1/8	14 3/8	1 5/8	6 7/8	5 3/8	13 7/8	4 3/8	3 7/8	3	8 5/8	13 3/4	2 1/8	11 7/8	2 3/4	16 3/8	9	16.0
3	48		2 1/4	3/4	1	8	3 3/4	5 1/8	15 3/8	11 1/8	12 1/8	14 3/8	1 5/8	6 7/8	5 3/8	13 7/8	4 3/8	3 7/8	3	8 5/8	13 3/4	2 1/8	11 7/8	2 3/4	16 3/8	9	16.0
4	48		2 1/4	3/4	1	8	3 3/4	5 1/8	15 3/8	11 1/8	12 1/8	14 3/8	1 5/8	6 7/8	5 3/8	13 7/8	4 3/8	3 7/8	3	8 5/8	13 3/4	2 1/8	11 7/8	2 3/4	16 3/8	9	16.0
5	48		2 1/4	3/4	1	8	3 3/4	5 1/8	15 3/8	11 1/8	12 1/8	14 3/8	1 5/8	6 7/8	5 3/8	13 7/8	4 3/8	3 7/8	3	8 5/8	13 3/4	2 1/8	11 7/8	2 3/4	16 3/8	9	16.0

STANDARD SIGN
W20-1A, B, C, D, F & G

WISCONSIN DEPT OF TRANSPORTATION

APPROVED _____
State Traffic Engineer

DATE 5/07/15 PLATE NO. W20-1.10

STH 123

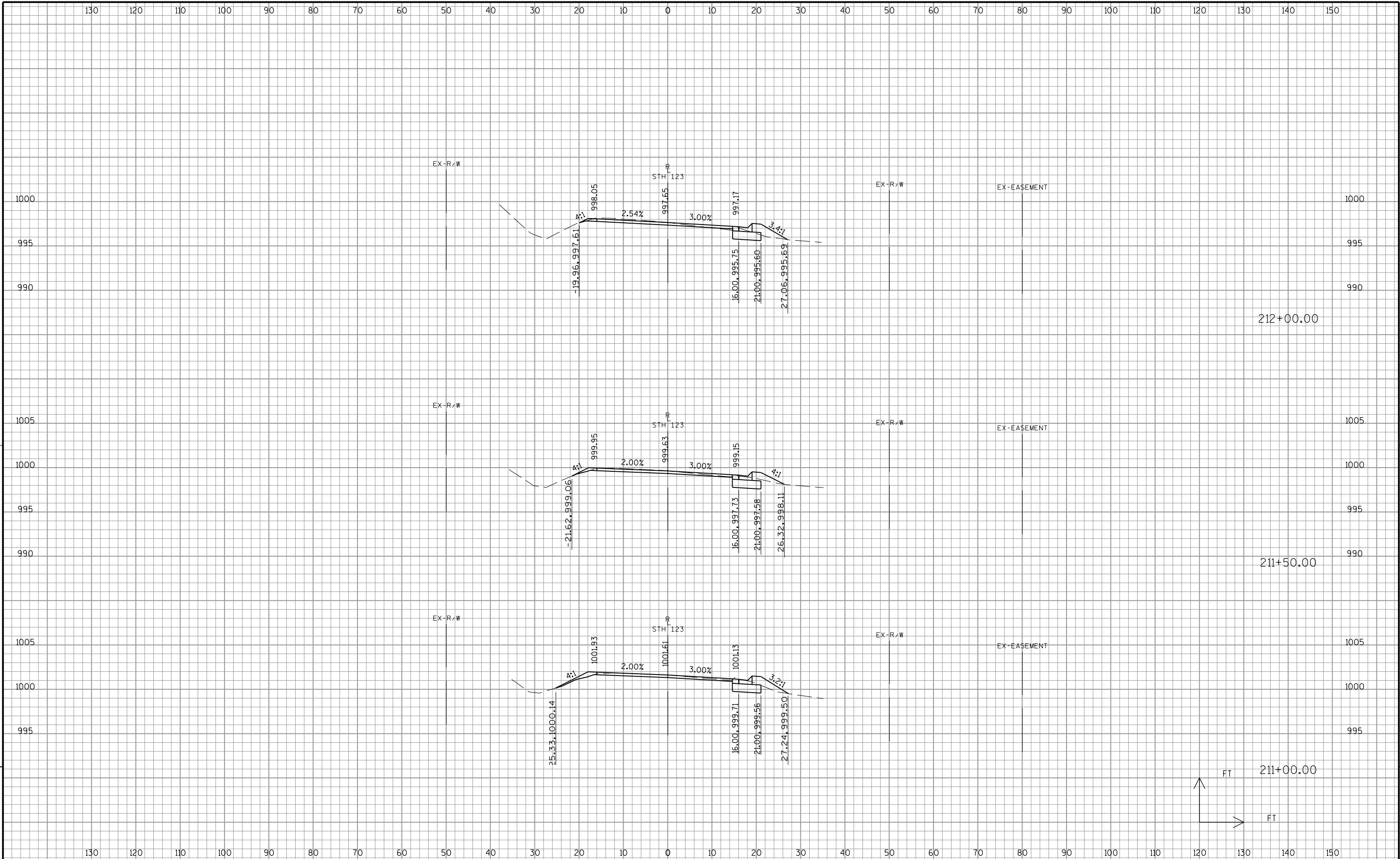
STATION	Distance	AREA (SF)		Inc. Vol (CY) (Unadjusted)		Cumulative Vol (CY)		Mass Ordinate
		Cut	Fill	Cut Note 1	Fill Note 3	Cut 1.00 Note 1	Expanded Fill 1.2	
211+00.00		8	5	0	0	0	0	0
211+50.00	50	8	4	15	8	15	10	5
212+00.00	50	7	6	14	9	29	20	8
212+50.00	50	6	8	12	13	41	36	4
213+00.00	50	9	8	14	15	54	55	0
213+50.00	50	9	7	17	14	71	72	-1
214+00.00	50	12	4	20	10	91	84	7
214+50.00	50	16	2	26	5	117	90	27
215+00.00	50	17	3	31	4	148	95	52
215+50.00	50	17	2	32	4	179	100	79
216+00.00	50	17	1	32	3	211	104	107
216+50.00	50	14	1	28	1	239	105	134
217+00.00	50	11	0	23	1	262	106	156
217+50.00	50	10	22	20	21	282	131	151
218+00.00	50	0	21	9	40	291	179	112
218+50.00	50	0	20	0	38	291	224	66
219+00.00	50	0	3	0	22	291	250	41
219+50.00	50	0	13	0	16	291	269	22
219+75.00	25	21	5	10	9	301	279	21
219+85.00	10	21	5	8	2	308	282	27
221+00.00	0	8	0	0	0	308	282	27
221+50.00	50	7	17	14	16	322	301	21
221+69.00	19	5	0	4	6	326	308	18
222+11.00	0	5	0	0	0	326	308	18
222+50.00	39	8	2	9	1	335	310	25
223+00.00	50	17	1	23	2	359	313	46
223+50.00	50	10	1	25	1	384	314	70
223+85.00	35	10	1	13	1	397	315	82
234+50.00	0	7	7	0	0	397	315	82
235+00.00	50	9	13	14	18	411	337	75
235+50.00	50	9	20	16	30	427	373	55
236+00.00	50	10	17	17	34	444	414	30
236+50.00	50	9	5	18	21	462	439	23
237+00.00	50	10	0	18	5	480	445	35
237+50.00	50	10	1	19	1	499	446	53
238+00.00	50	10	3	19	4	518	451	67
238+50.00	50	10	3	19	6	537	458	79
239+00.00	50	12	0	20	3	558	462	96
239+50.00	50	11	2	21	2	578	464	114
240+00.00	50	11	1	20	3	599	468	131
240+50.00	50	11	0	21	1	619	470	150
241+00.00	50	11	0	20	0	640	470	170
241+50.00	50	10	2	19	2	659	472	187
242+00.00	50	14	0	22	2	681	475	206
242+50.00	50	10	0	22	0	703	475	228
243+00.00	50	17	0	25	0	728	475	253
243+50.00	50	17	0	31	0	759	475	284
244+00.00	50	17	0	31	0	790	476	315
244+50.00	50	17	0	32	0	822	476	346
245+00.00	50	10	0	25	0	848	476	371
245+50.00	50	10	0	19	0	866	477	390
246+00.00	50	10	0	19	0	885	477	408
246+50.00	50	10	0	19	0	904	477	426
247+00.00	50	16	0	23	0	927	478	449
247+50.00	50	14	0	27	0	954	478	476
247+95.00	45	5	0	15	0	970	478	491
248+19.00	0	5	0	0	0	970	478	491
248+50.00	31	12	0	9	0	979	478	501
249+00.00	50	11	0	21	0	1000	478	522
249+50.00	50	13	0	23	0	1023	478	544
250+00.00	50	11	0	23	0	1045	478	567

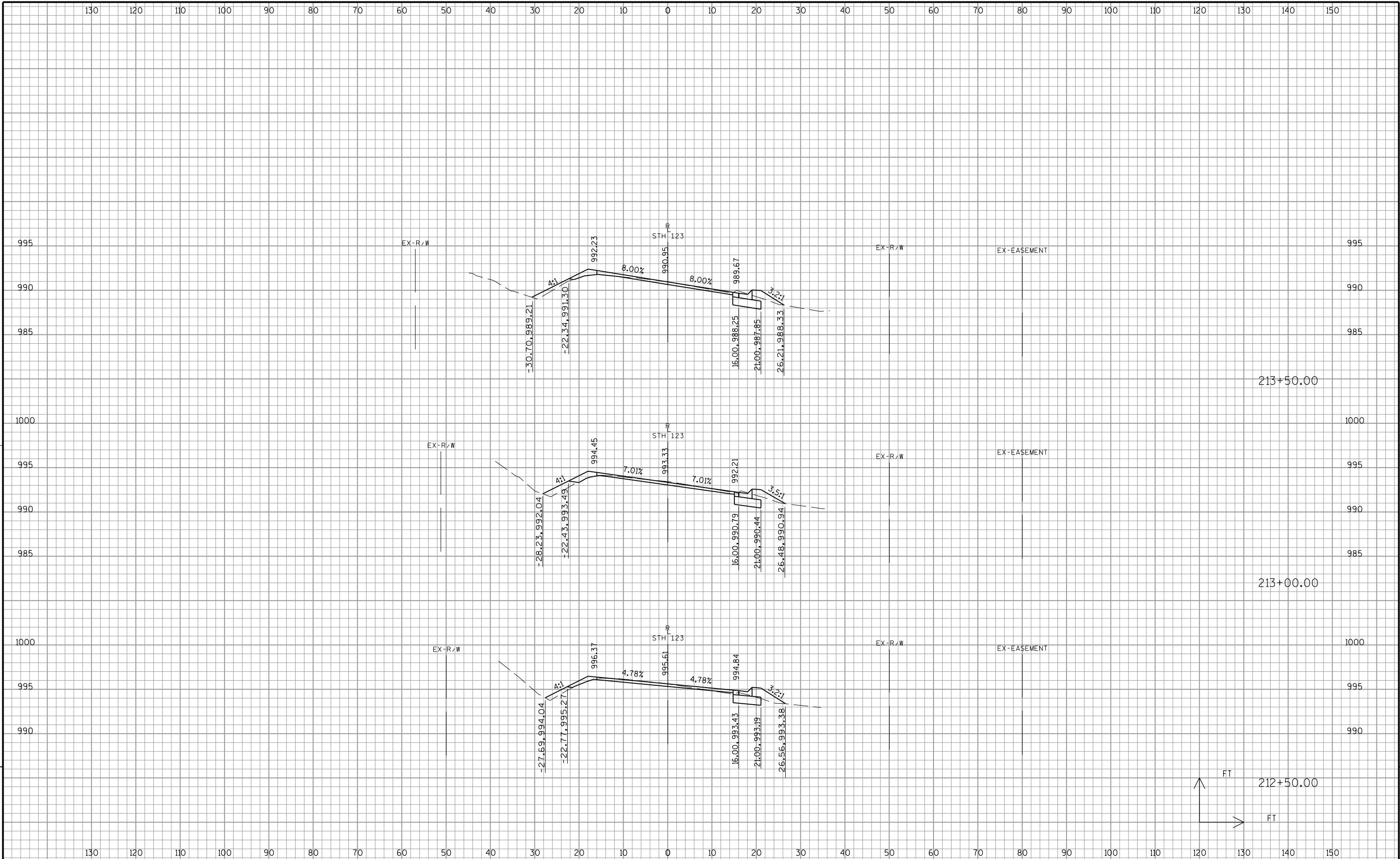
STH 123

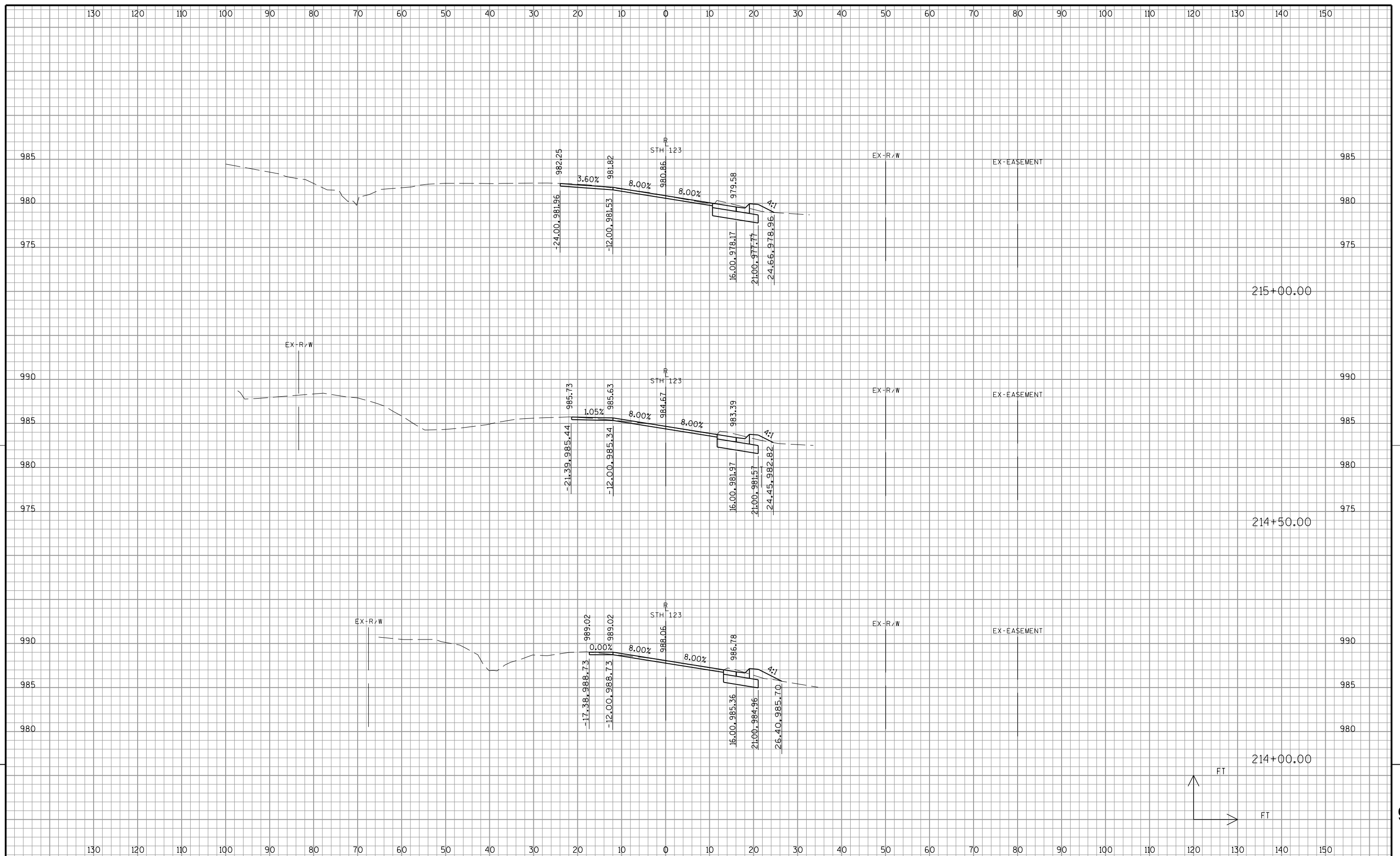
STATION	Distance	AREA (SF)		Inc. Vol (CY) (Unadjusted)		Cumulative Vol (CY)		Mass Ordinate
		Cut	Fill	Cut Note 1	Fill Note 3	Cut 1.00 Note 1	Expanded Fill 1.2	
250+50.00	50	11	0	20	0	1066	478	587
251+00.00	50	11	0	21	0	1086	478	608
251+50.00	50	13	0	22	0	1108	479	630
252+00.00	50	13	0	24	0	1133	479	654
252+50.00	50	12	0	24	0	1156	479	678
253+00.00	50	14	0	25	0	1181	479	702
253+50.00	50	13	0	26	0	1207	479	728
254+00.00	50	14	0	26	0	1232	479	754
254+50.00	50	20	0	32	0	1265	479	786
255+00.00	50	17	0	34	0	1299	479	820
255+50.00	50	15	0	30	0	1329	479	850
256+00.00	50	14	0	28	0	1357	479	878
256+50.00	50	14	0	26	0	1383	479	904
257+00.00	50	16	0	28	0	1410	479	932
257+50.00	50	10	0	24	0	1435	479	956
258+00.00	50	11	0	20	0	1454	479	975
258+50.00	50	12	0	22	0	1476	480	996
259+00.00	50	13	0	23	0	1499	480	1019
259+50.00	50	12	0	23	0	1522	480	1041
260+00.00	50	13	0	23	0	1545	480	1064
260+50.00	50	11	0	22	0	1567	480	1086
261+00.00	50	11	0	21	0	1587	481	1106
261+50.00	50	10	4	20	4	1607	485	1122
261+64.00	14	5	0	4	1	1611	486	1124
262+04.00	0	5	0	0	0	1611	486	1124
262+50.00	46	11	1	13	1	1624	487	1137
263+00.00	50	10	1	20	1	1643	489	1155
263+50.00	50	8	2	17	2	1660	491	1169
264+00.00	50	8	1	15	3	1675	494	1181
264+50.00	50	10	0	16	2	1691	496	1195
265+00.00	50	11	0	20	1	1710	497	1213
265+50.00	50	12	0	22	0	1732	497	1235
266+00.00	50	19	0	29	0	1762	498	1264
266+50.00	50	10	1	27	0	1789	498	1291
267+00.00	50	10	1	18	1	1807	499	1308
267+50.00	50	9	1	17	1	1824	501	1324
267+85.00	35	9	1	12	1	1836	502	1334
267+85.00	0	61	14	0	0	1836	502	1334
268+00.00	15	61	14	34	8	1870	511	1359
268+15.00	15	61	14	34	8	1904	520	1384
268+15.00	0	10	0	0	0	1904	520	1384
268+50.00	35	10	0	13	0	1918	520	1397
269+00.00	50	10	0	19	0	1936	521	1415
269+50.00	50	10	0	18	1	1955	521	1433
270+00.00	50	11	0	20	0	1974	522	1453
270+50.00	50	13	0	22	0	1997	522	1475
271+00.00	50	11	0	22	0	2019	522	1497
271+50.00	50	12	0	22	0	2041	522	1519
272+00.00	50	12	0	23	0	2064	522	1542
272+50.00	50	13	0	23	0	2086	522	1565
273+00.00	50	11	0	22	0	2108	522	1586
273+50.00	50	11	0	20	0	2128	522	1606
274+00.00	50	10	0	20	0	2148	522	1626
274+50.00	50	10	0	19	0	2167	522	1645
275+00.00	50	10	0	19	0	2186	522	1664
				2186	435			

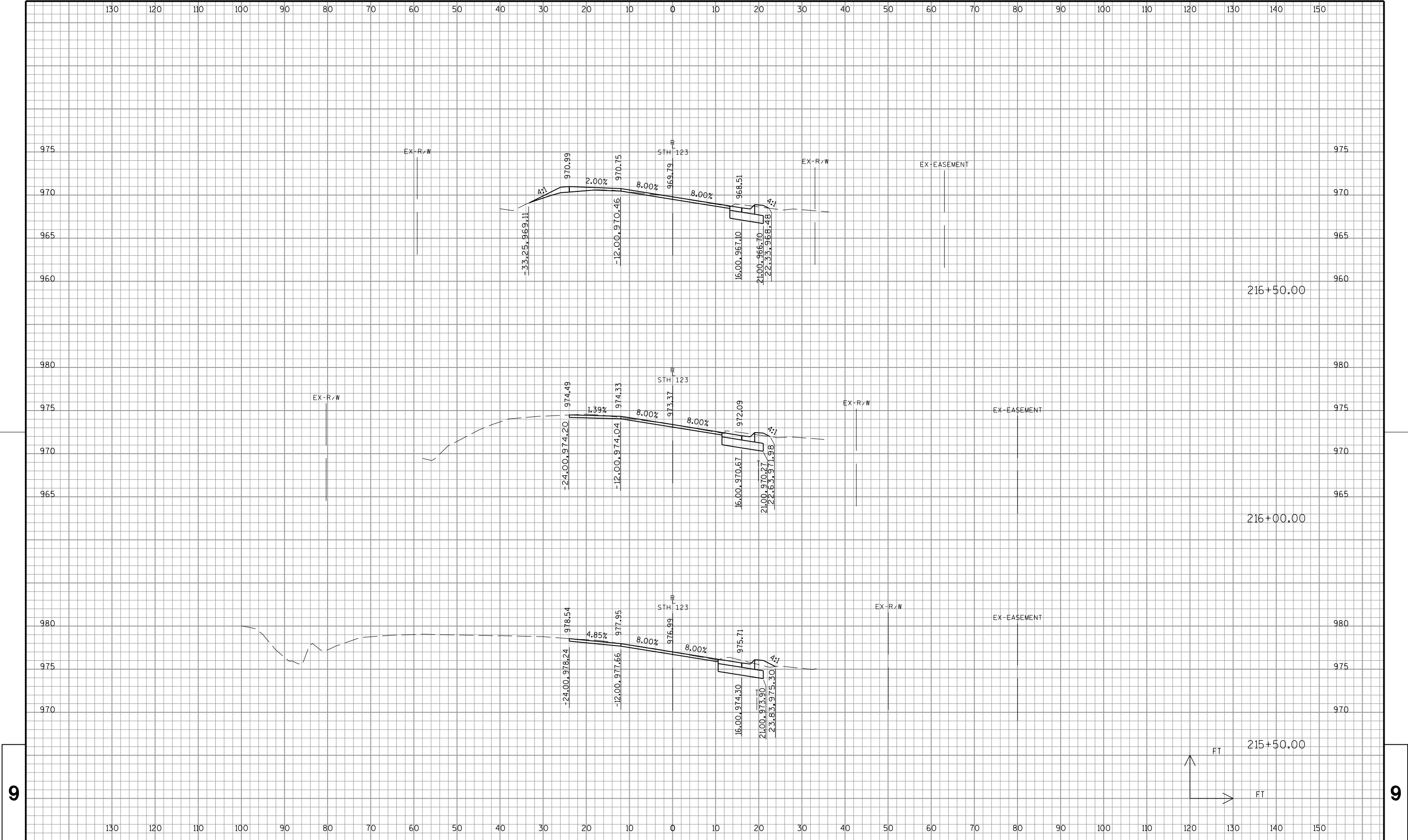
STH 123

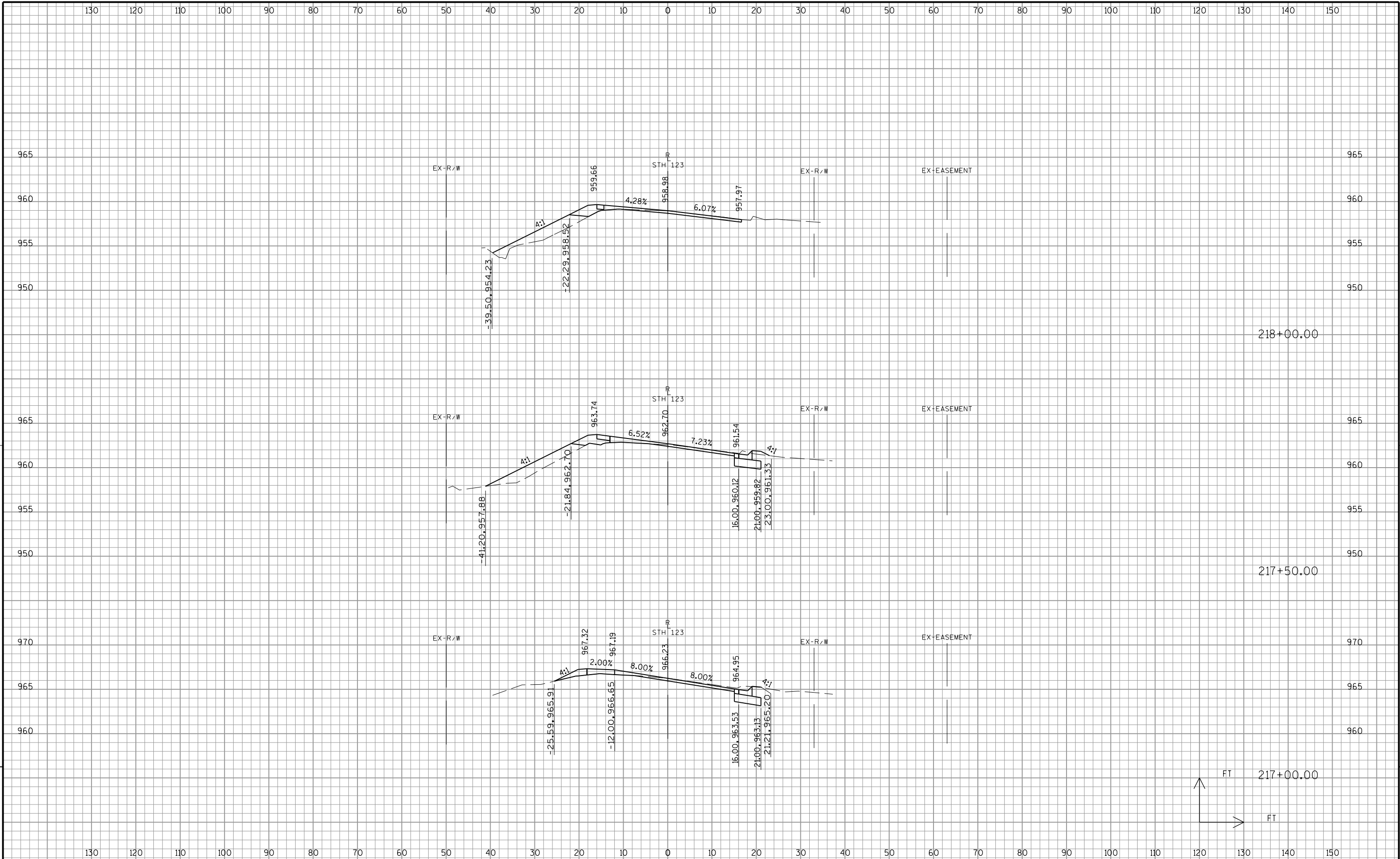
STATION	Distance	AREA (SF)		Inc. Vol (CY) (Unadjusted)		Cumulative Vol (CY)		Mass Ordinate
		Cut	Fill	Cut	Fill	Cut 1.00 Note 1	Expanded Fill 1.2	
255+00.00		7	3	0	0	0	0	0
255+50.00	50	7	4	13	7	13	8	5
256+00.00	50	6	4	12	7	24	17	7
256+50.00	50	7	5	12	8	36	27	9
257+00.00	50	8	3	14	7	50	36	14
257+50.00	50	8	6	15	8	65	45	19
258+00.00	50	8	0	15	5	80	52	28
258+02.00	2	8	0	1	0	80	52	28
259+42.00	0	7	3	0	0	80	52	28
259+50.00	8	7	3	2	1	82	53	29
260+00.00	50	6	19	11	20	93	77	16
260+50.00	50	7	6	12	23	105	105	0
261+00.00	50	8	6	14	11	119	118	1
261+03.00	3	8	6	1	1	120	119	1
262+07.00	0	5	0	0	0	120	119	1
262+50.00	43	13	8	14	6	134	127	7
263+00.00	50	8	9	19	16	153	146	7
263+50.00	50	6	11	13	19	166	169	-3
264+00.00	50	5	8	10	18	176	191	-15
264+50.00	50	7	4	11	11	187	204	-18
265+00.00	50	8	3	13	7	200	213	-13
265+38.00	38	8	3	11	4	211	218	-7
266+46.00	0	9	1	0	0	211	218	-7
266+50.00	4	9	1	1	0	212	218	-6
267+00.00	50	7	3	15	4	227	222	5
267+50.00	50	7	3	14	5	240	228	12
267+85.00	35	7	3	9	4	250	233	17
268+15.00	0	6	7	0	0	250	233	17
268+50.00	35	6	7	7	9	257	244	13
269+00.00	50	5	14	10	19	267	267	0
269+50.00	50	4	12	9	24	276	295	-20
270+00.00	50	5	15	8	25	284	326	-42
270+50.00	50	8	6	11	20	295	349	-54
271+00.00	50	7	2	13	8	308	358	-50
271+50.00	50	6	10	12	11	320	372	-51
272+00.00	50	7	6	12	15	333	389	-57
272+50.00	50	8	4	13	9	346	401	-55
273+00.00	50	7	3	13	6	359	408	-49
274+00.00	100	13	11	36	26	395	440	-45
274+50.00	50	7	2	18	12	413	454	-40
275+00.00	50	10	0	16	2	429	455	-26
				429	380			

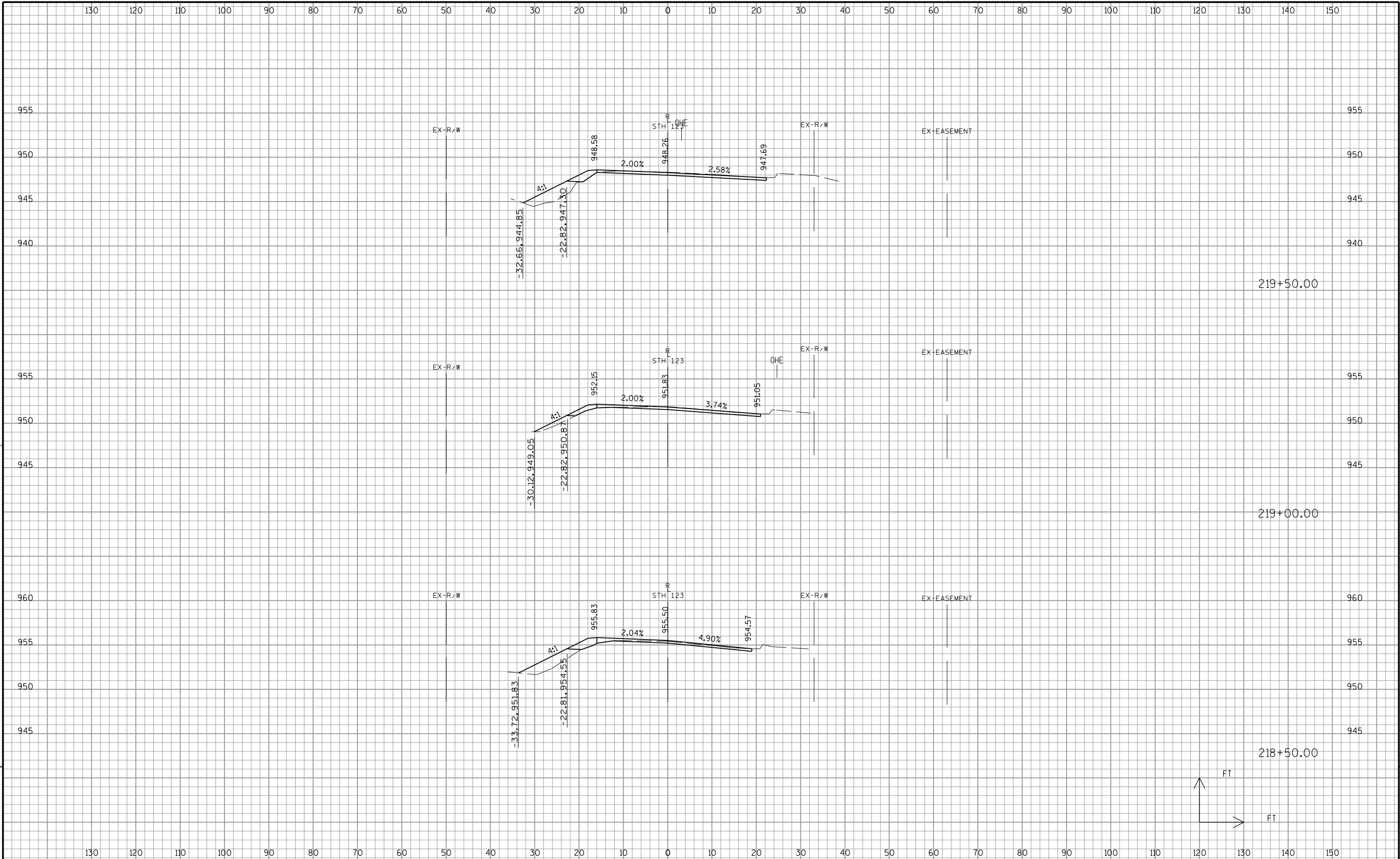






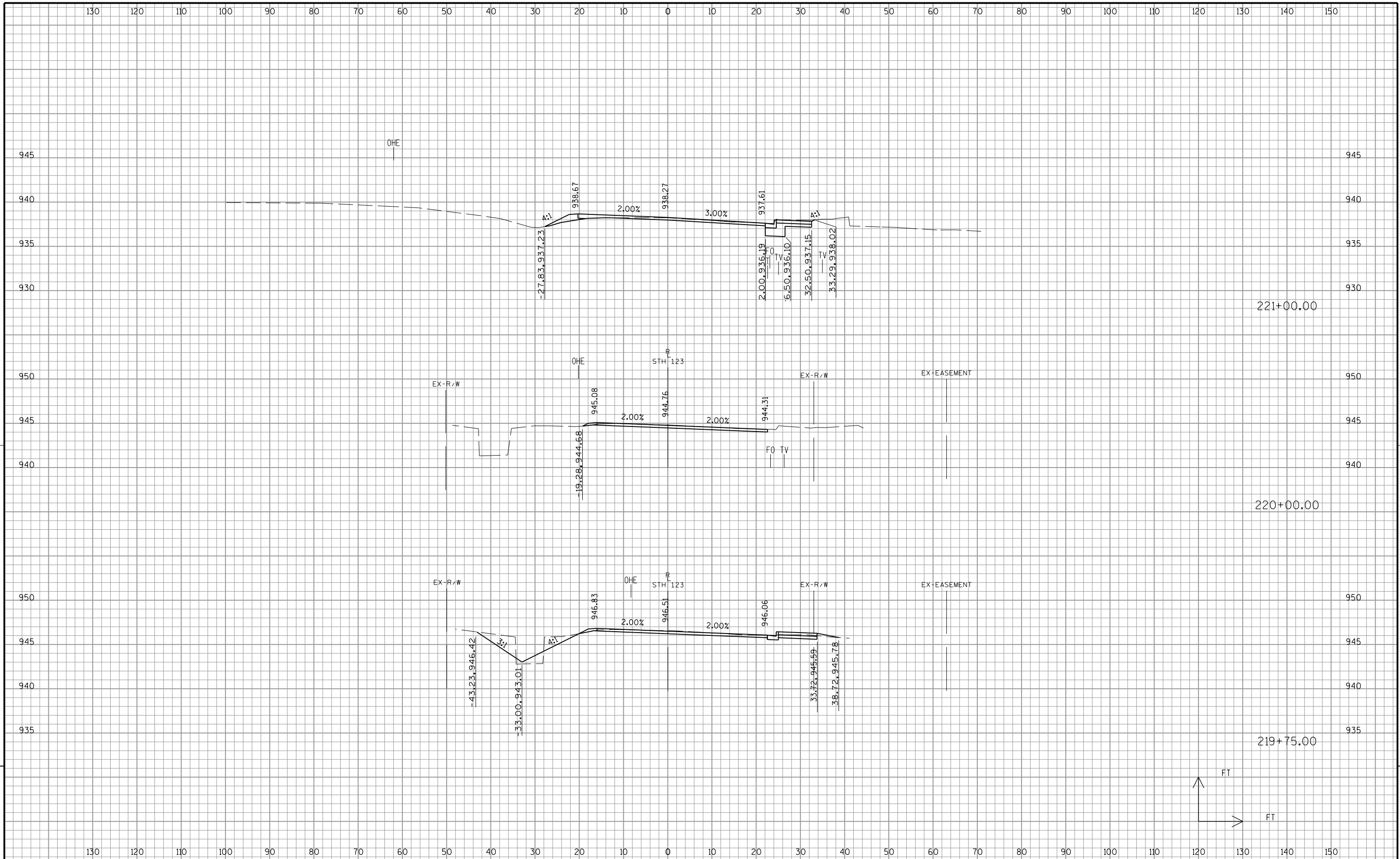


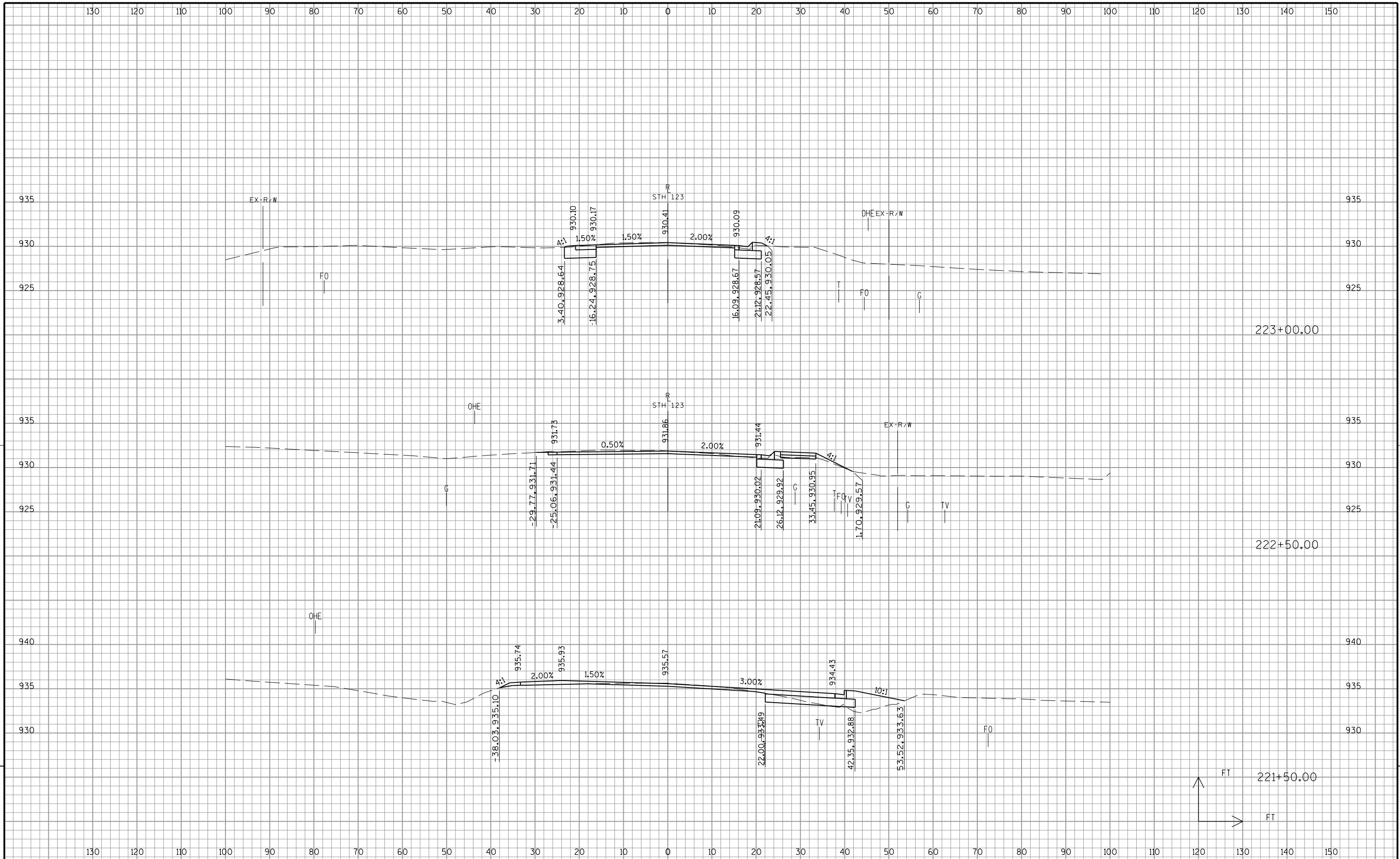


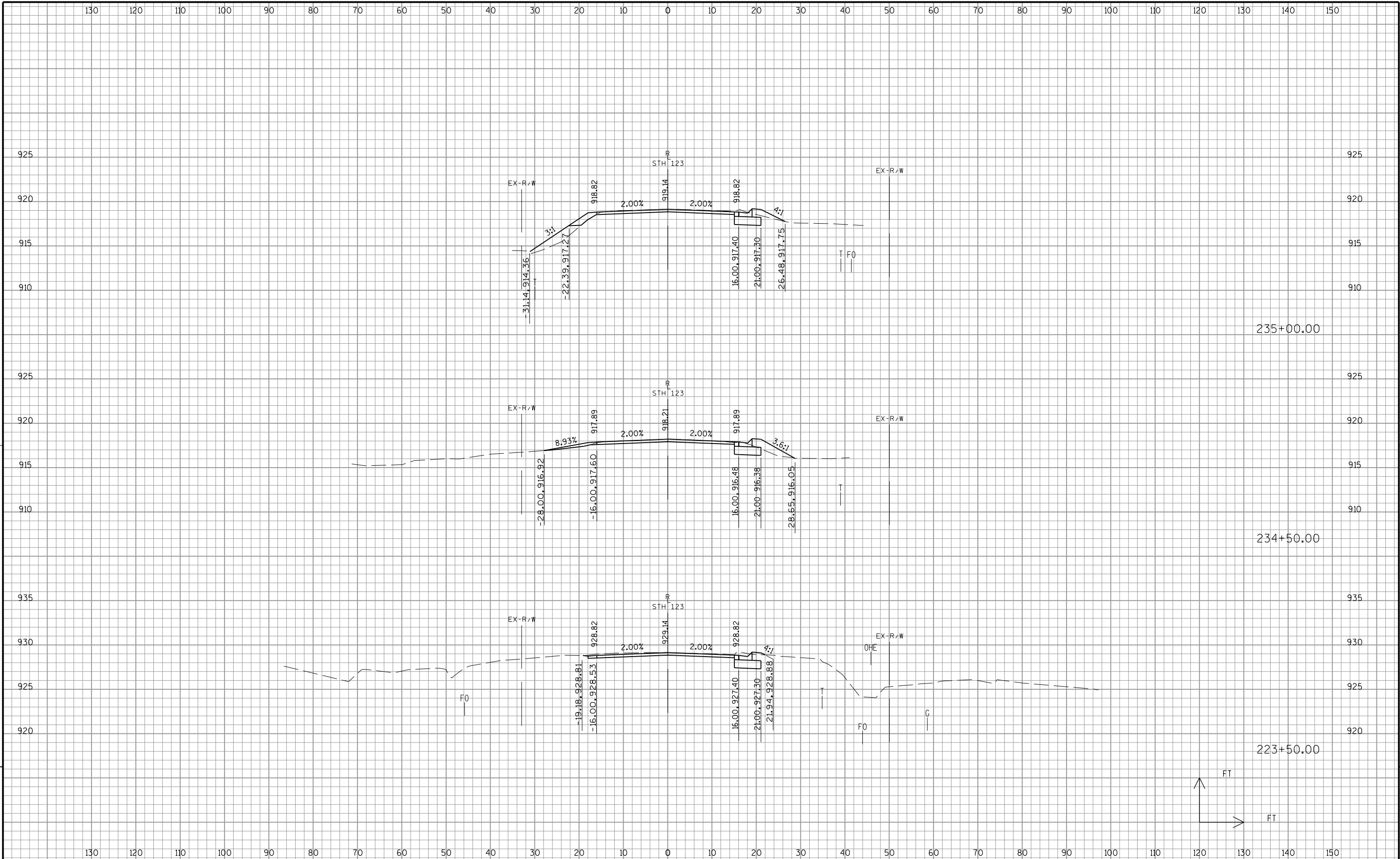


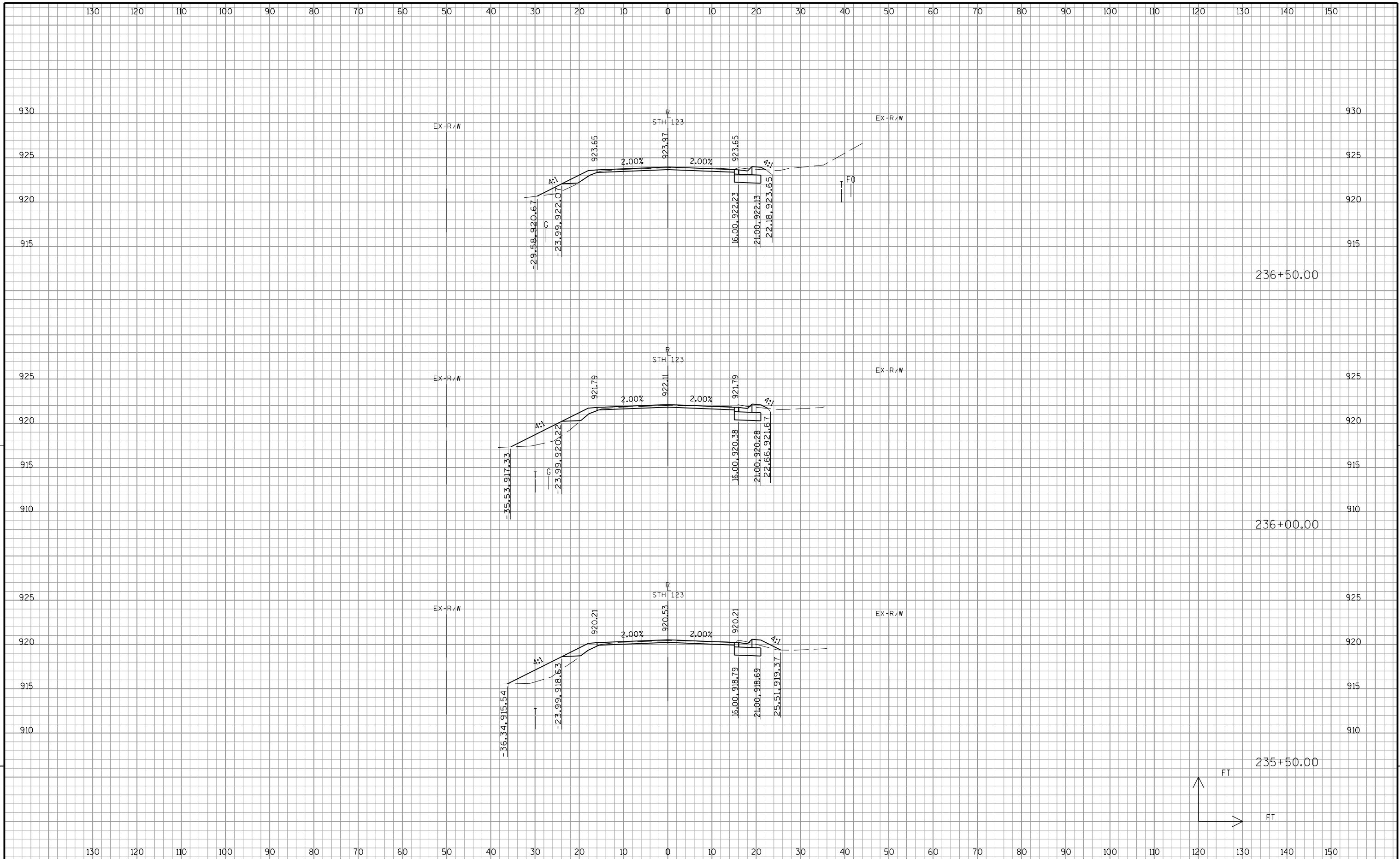
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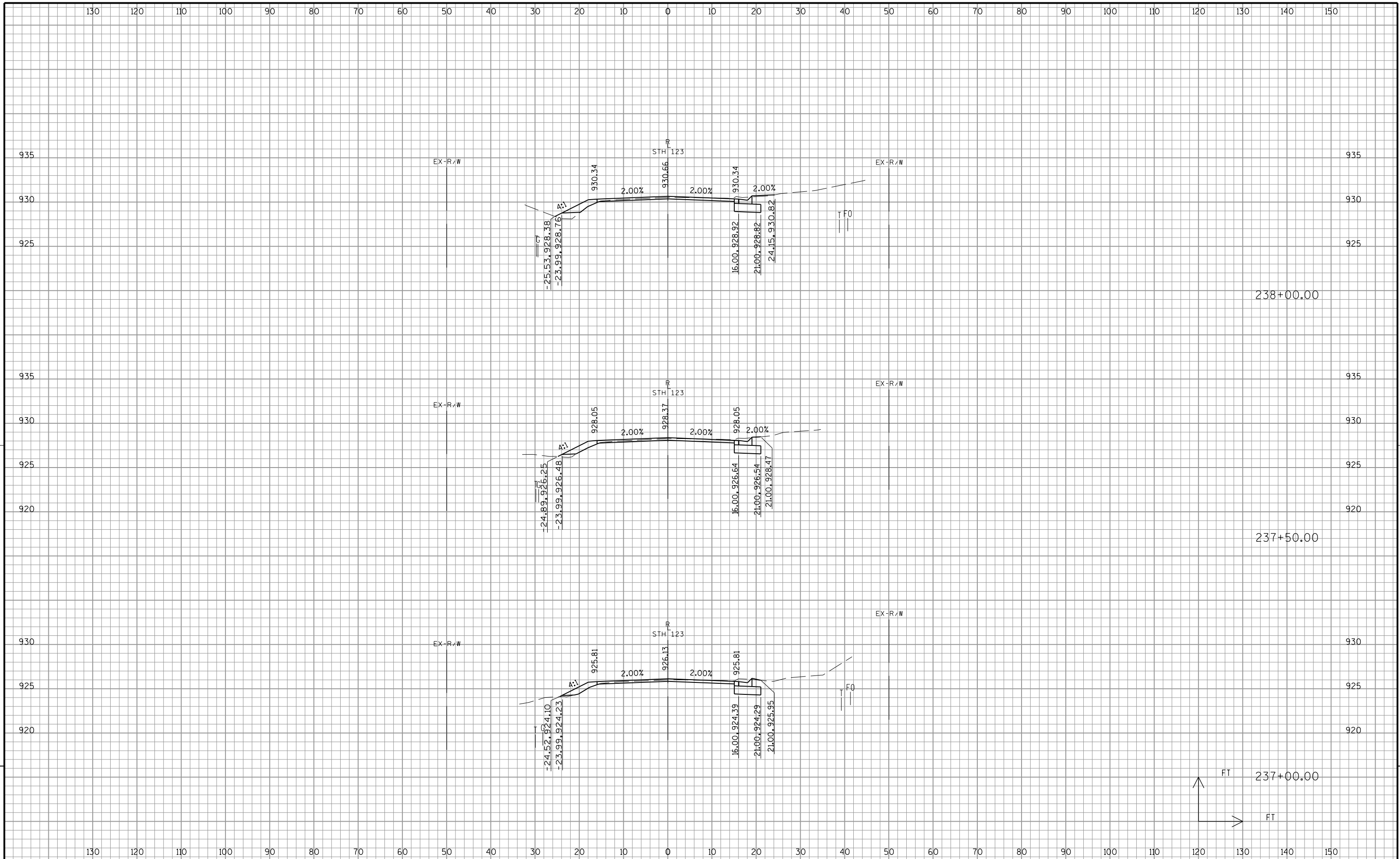






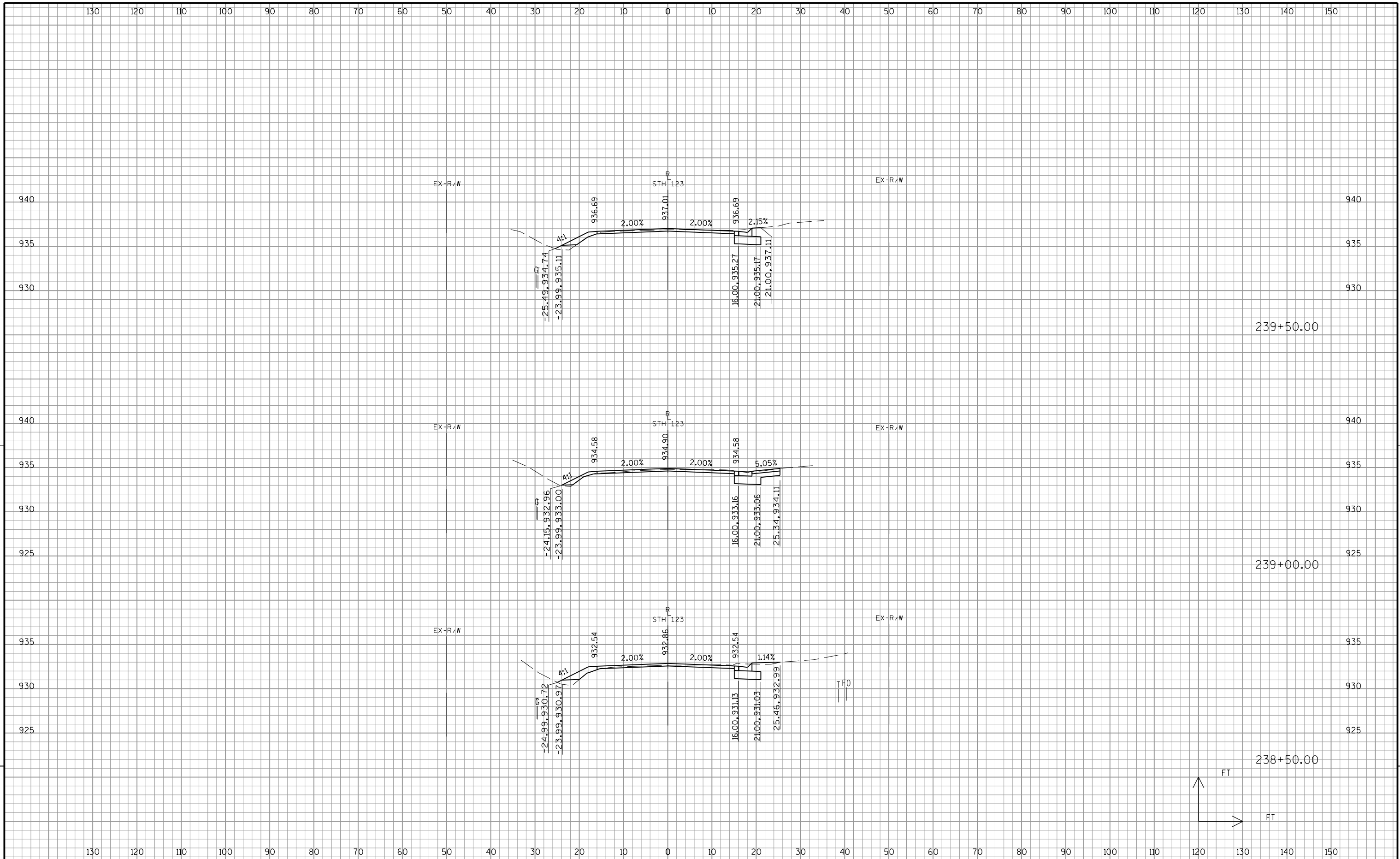
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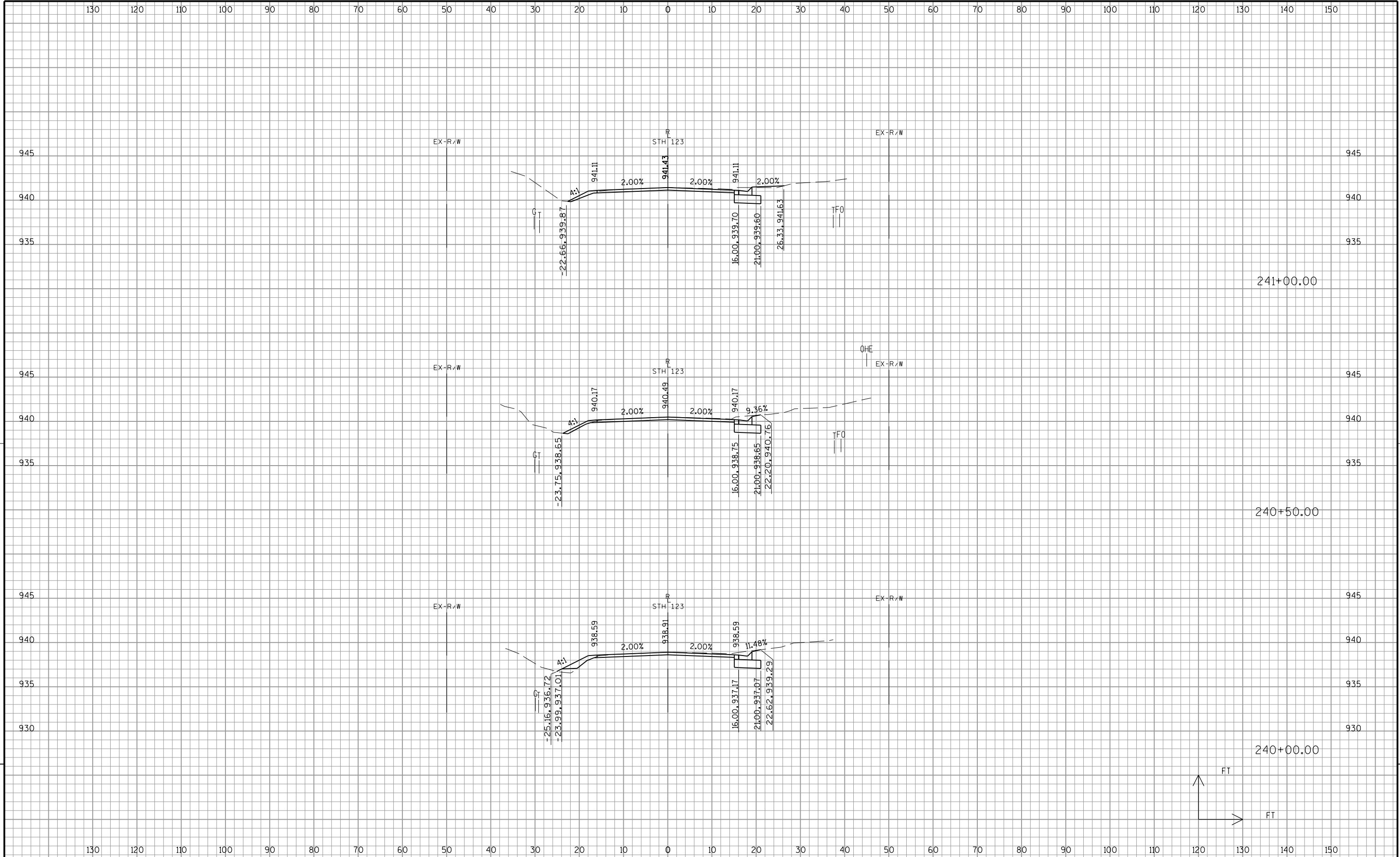
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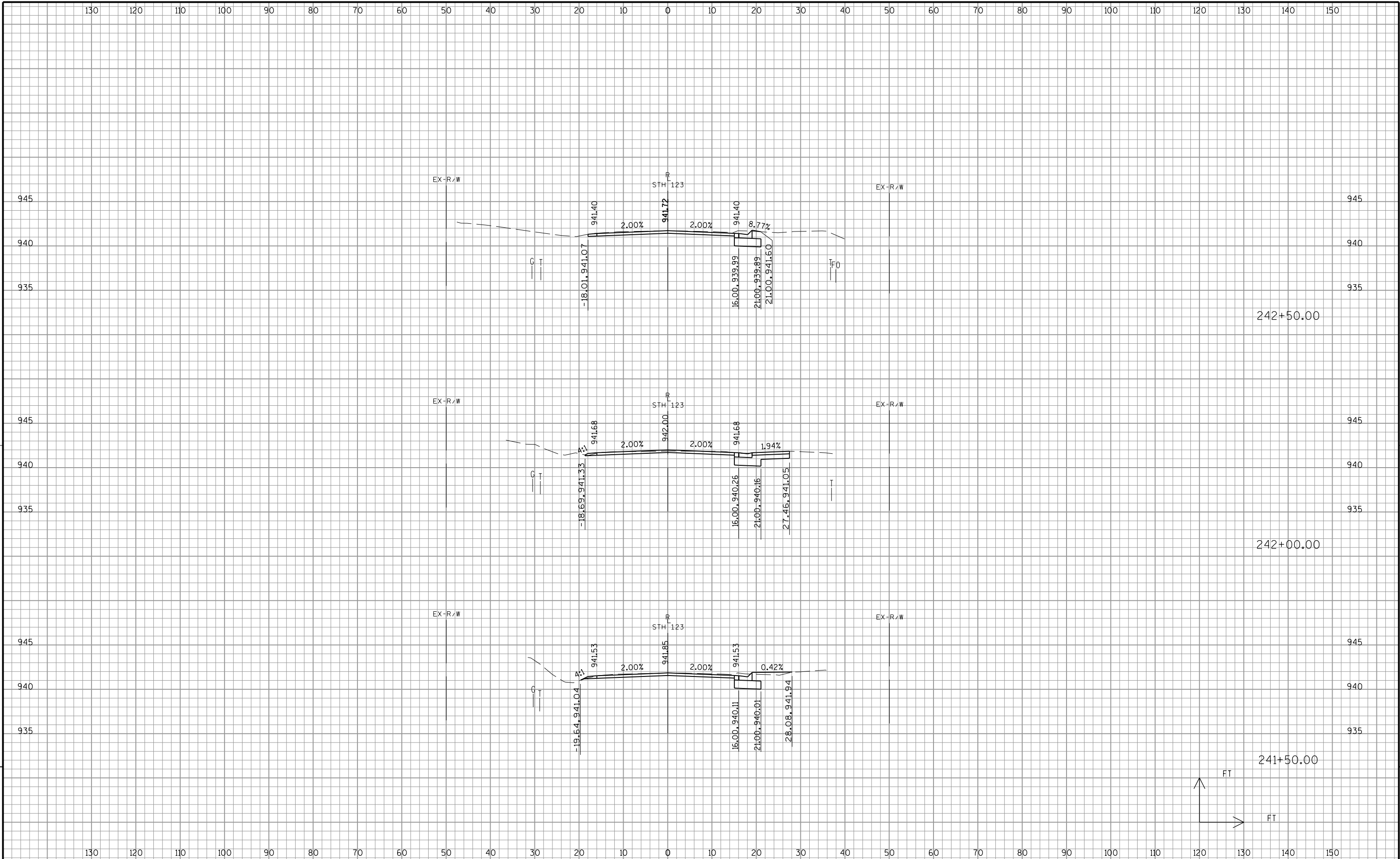
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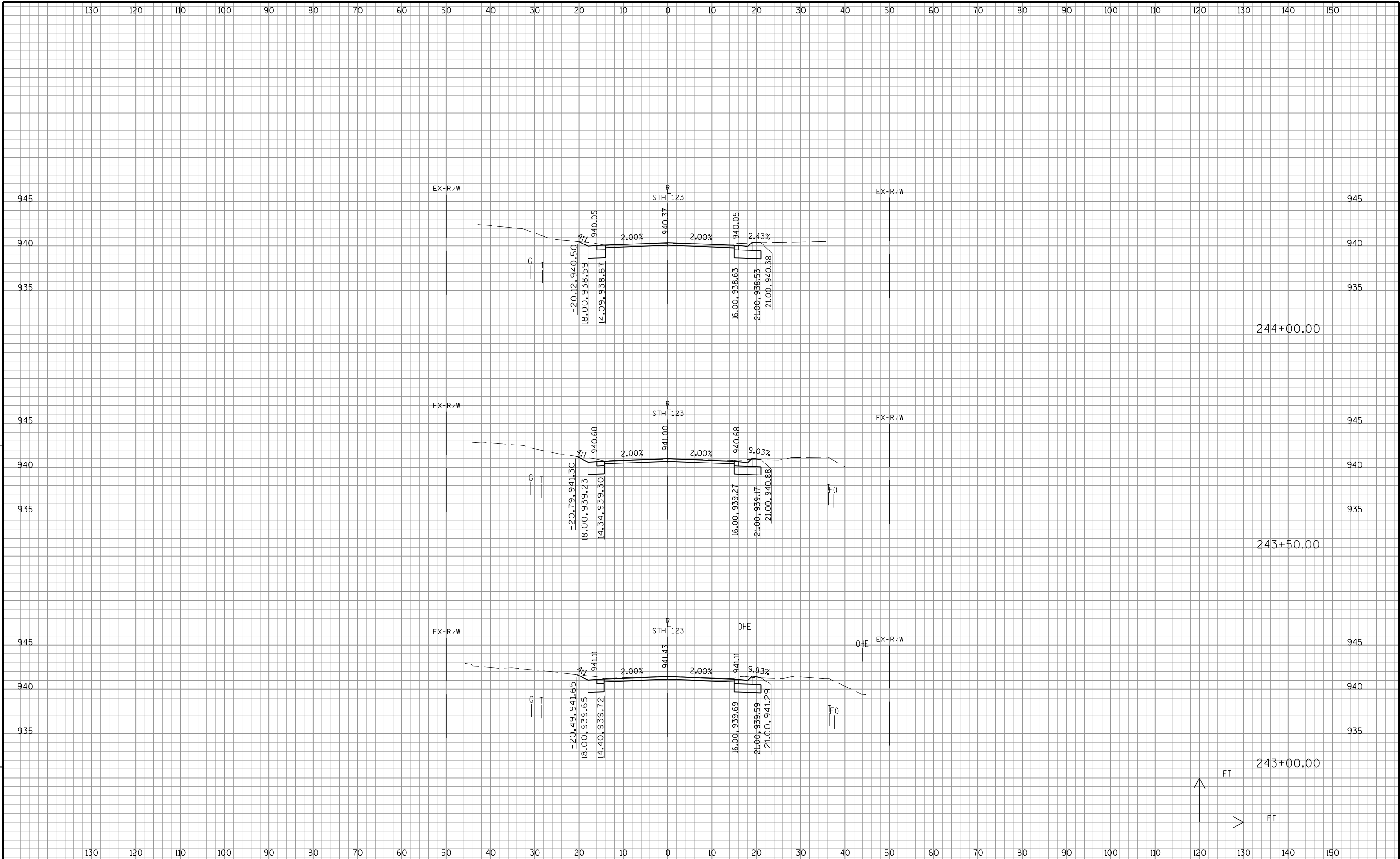


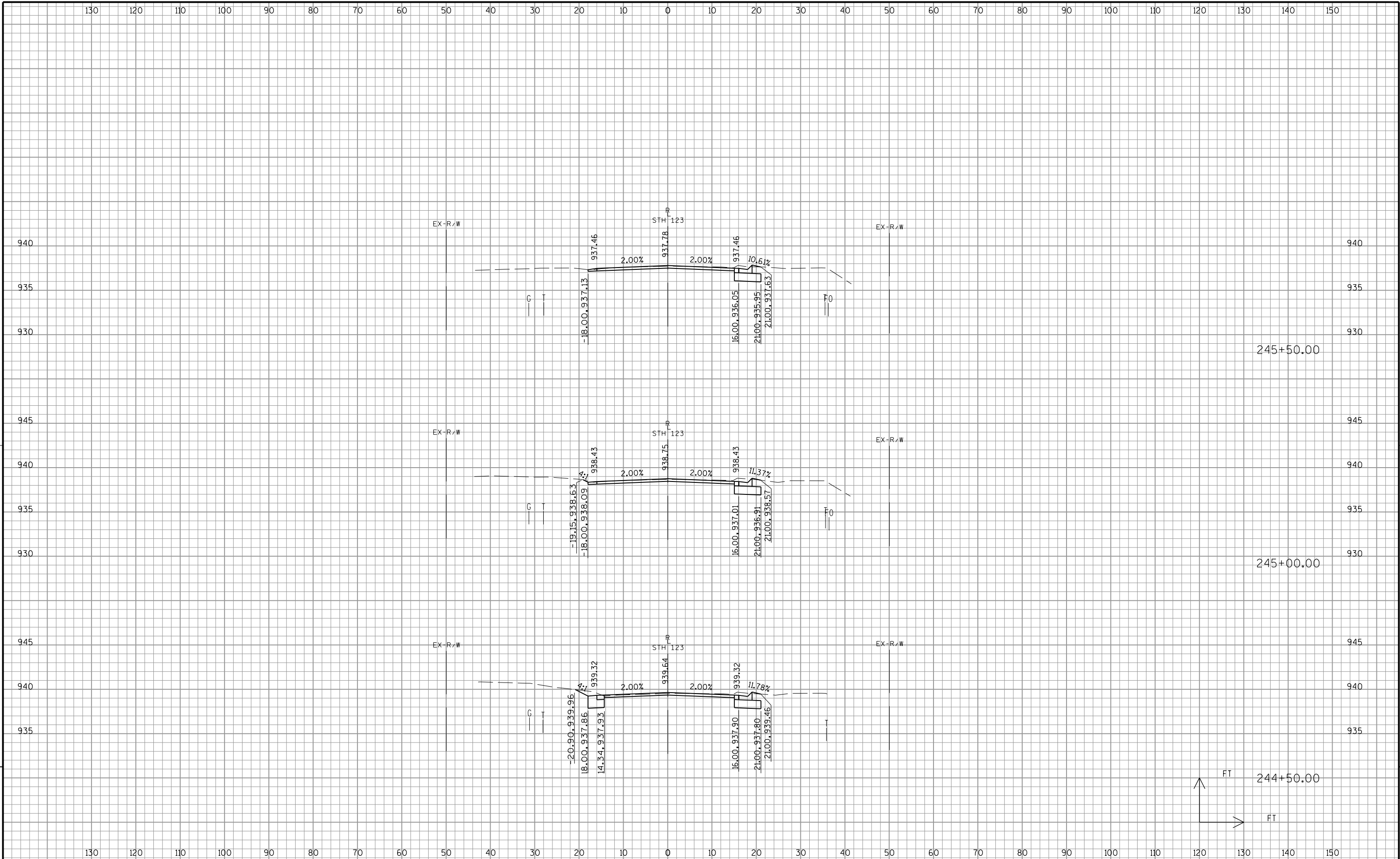


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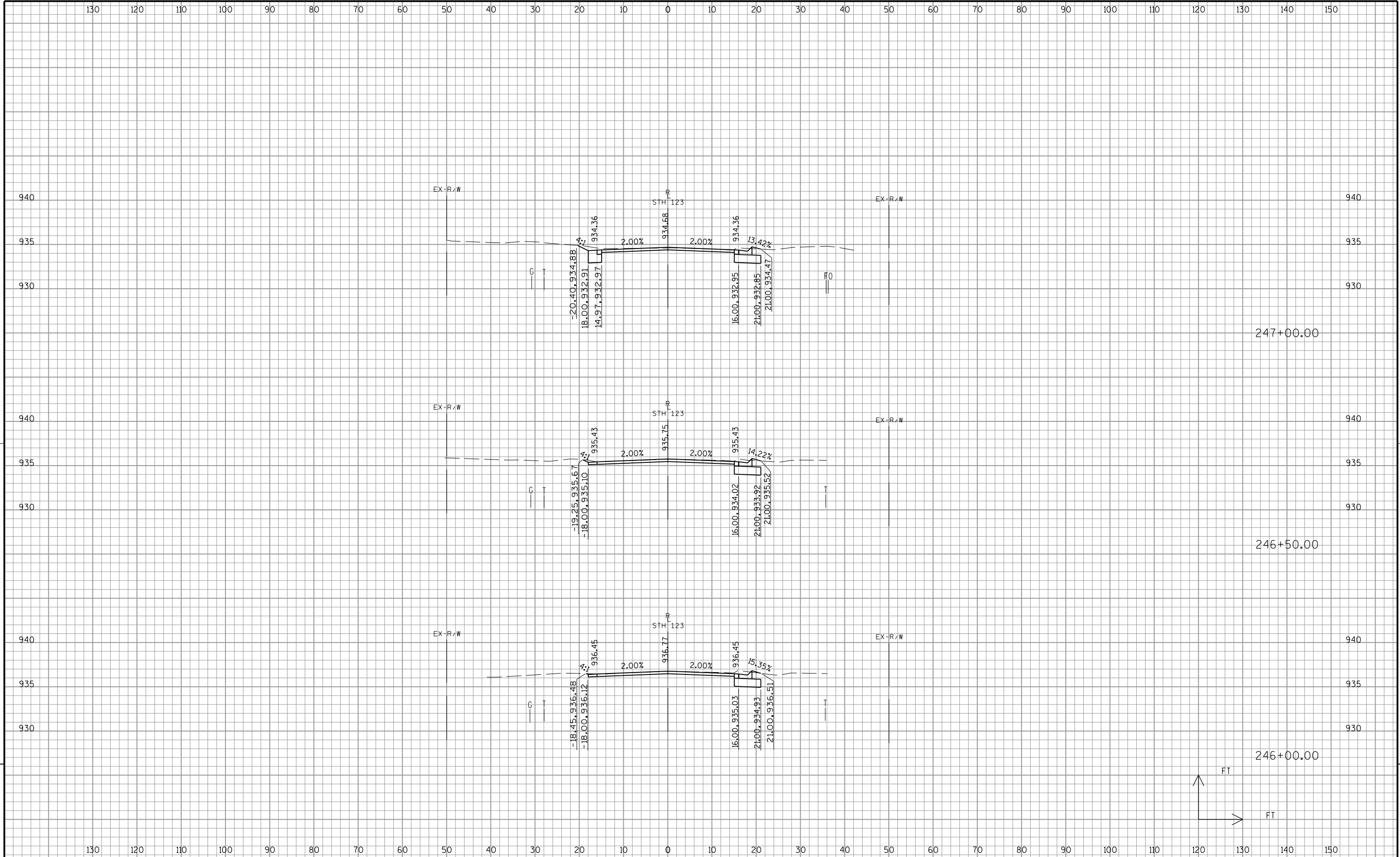


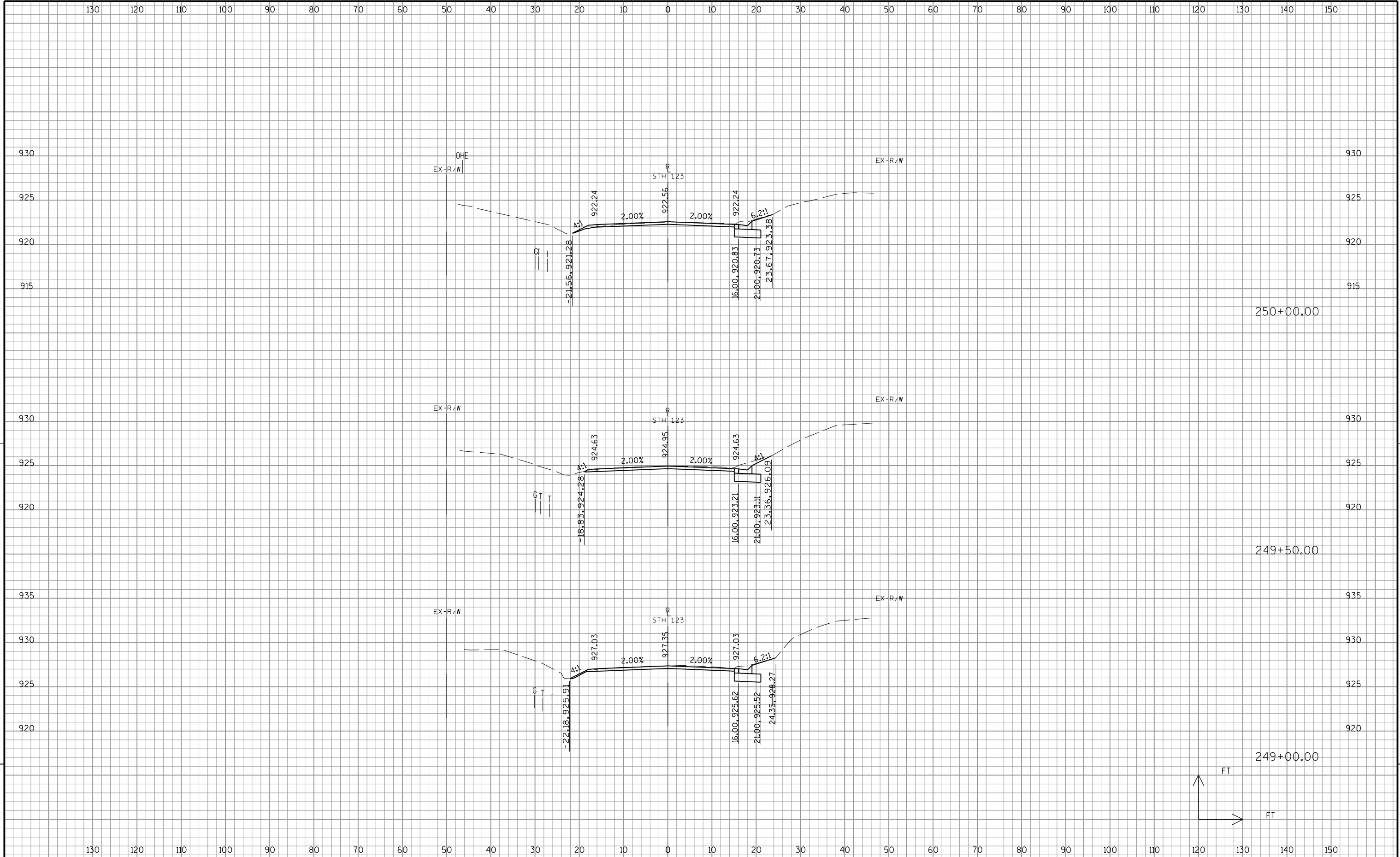




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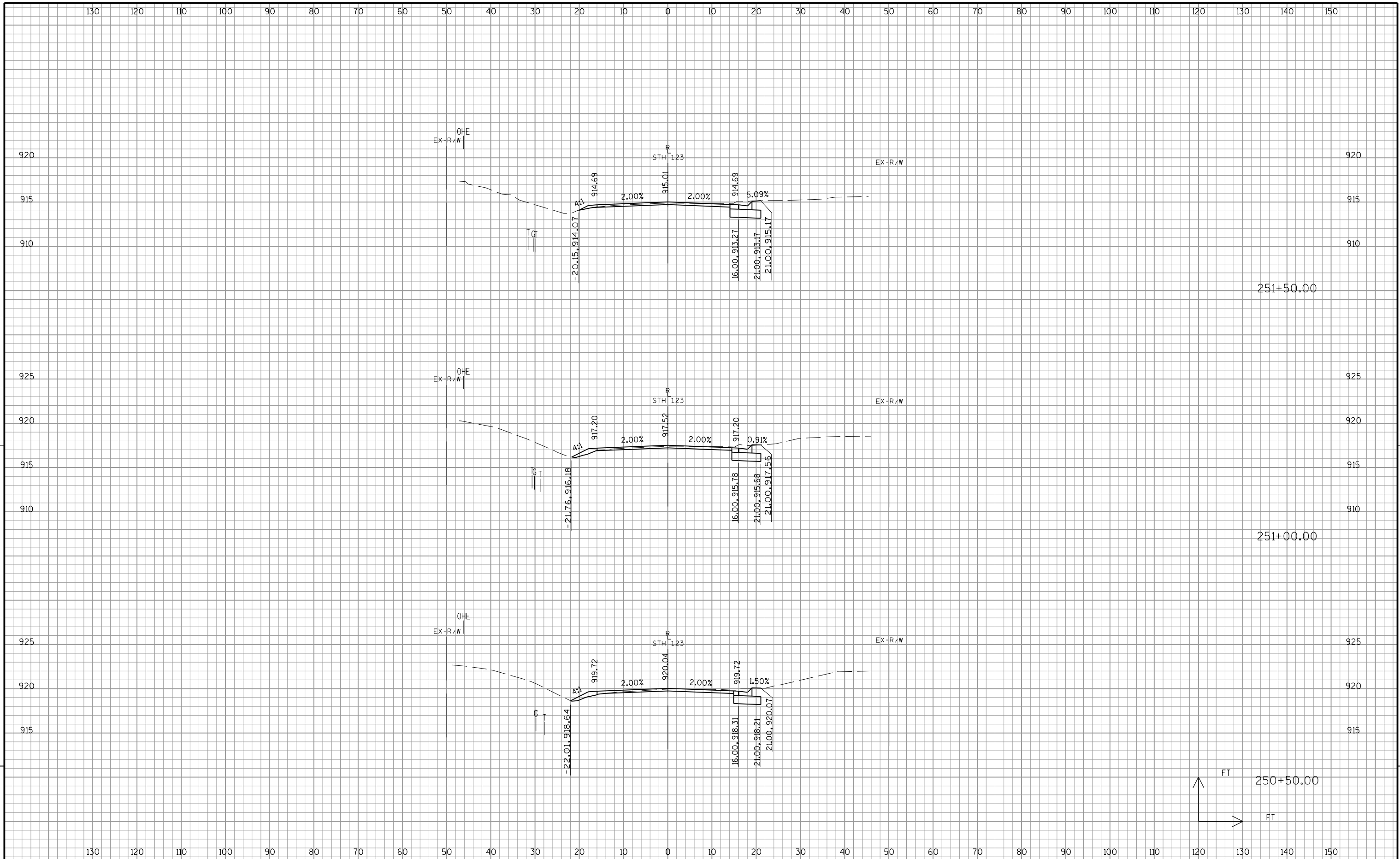
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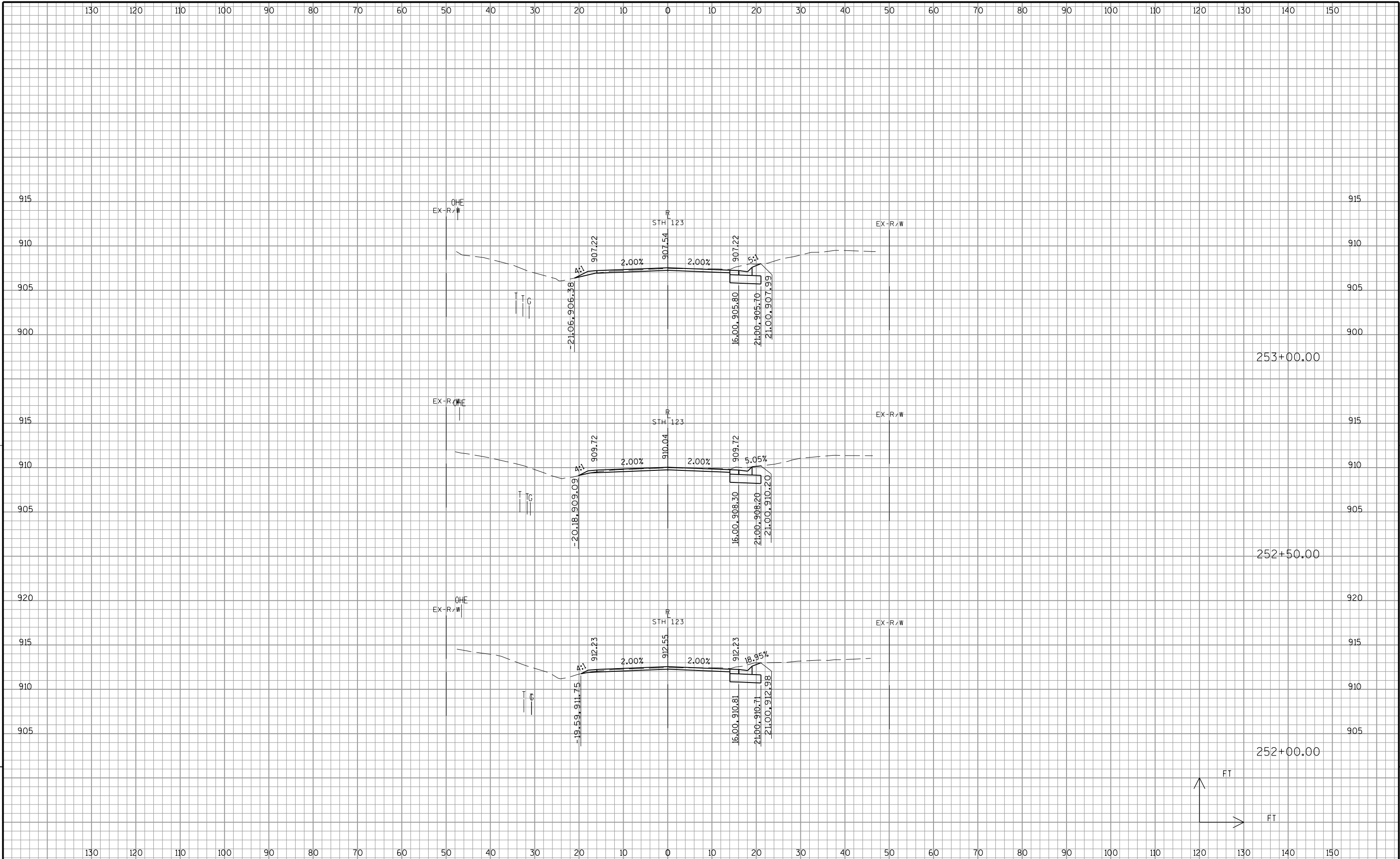
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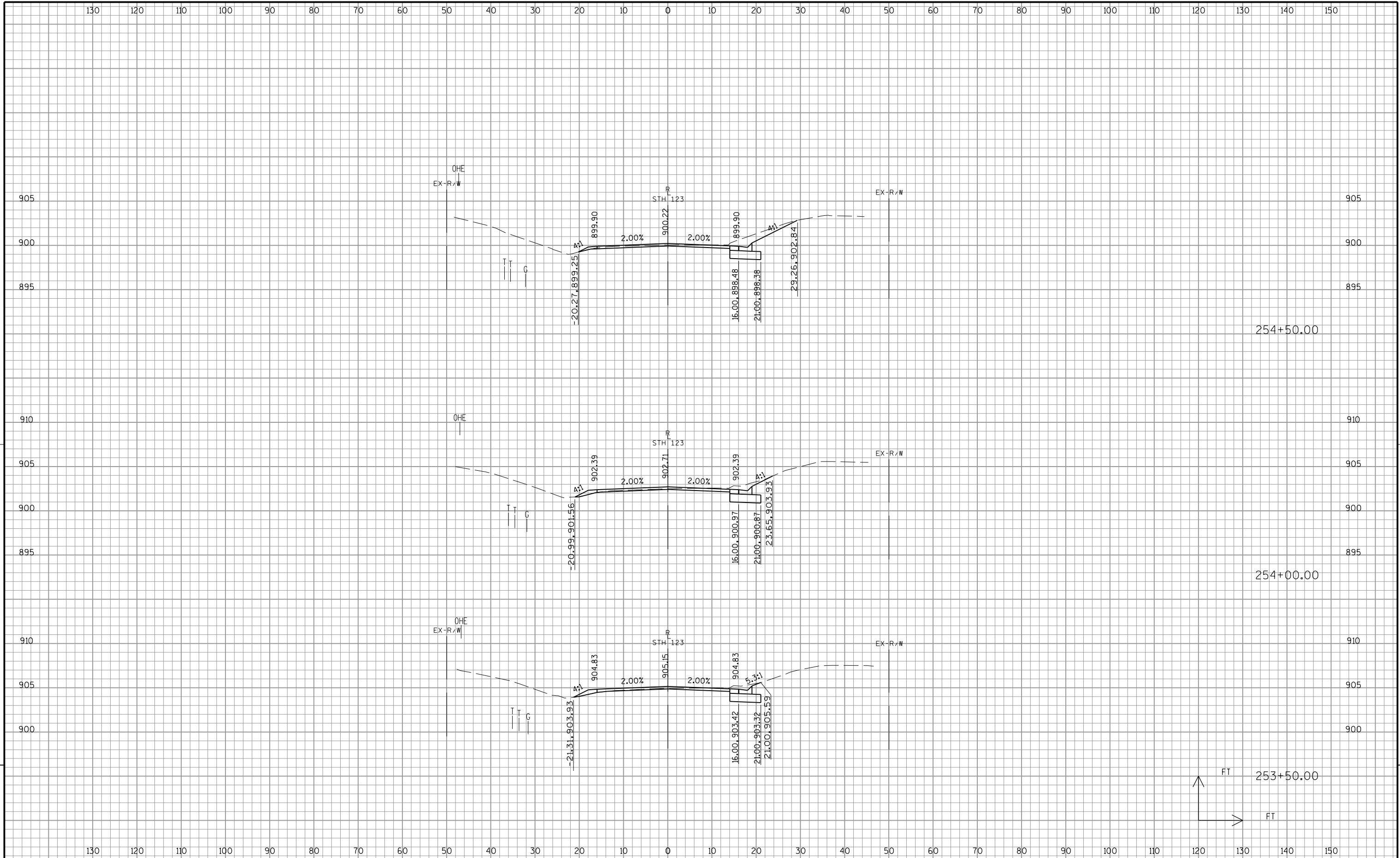
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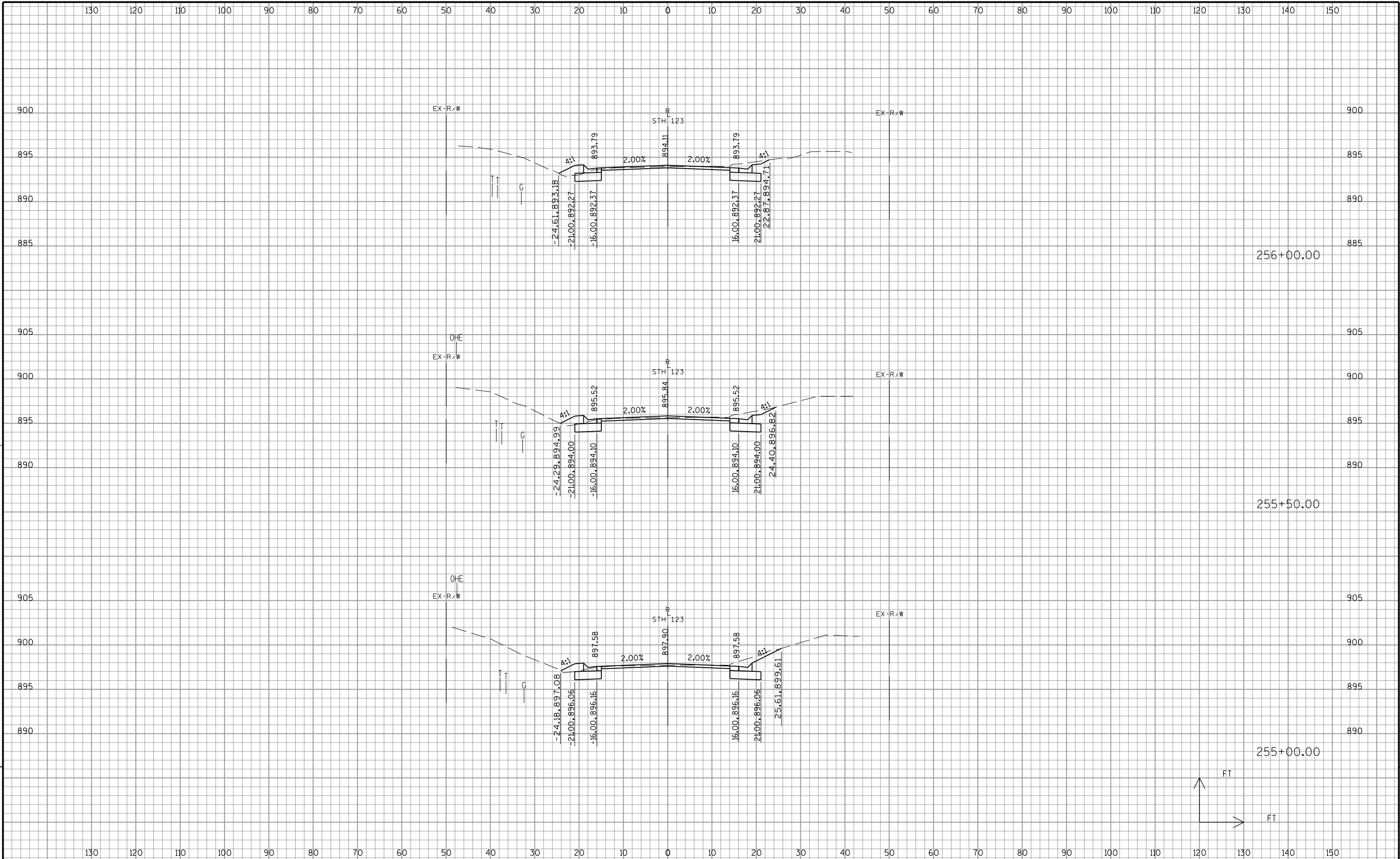
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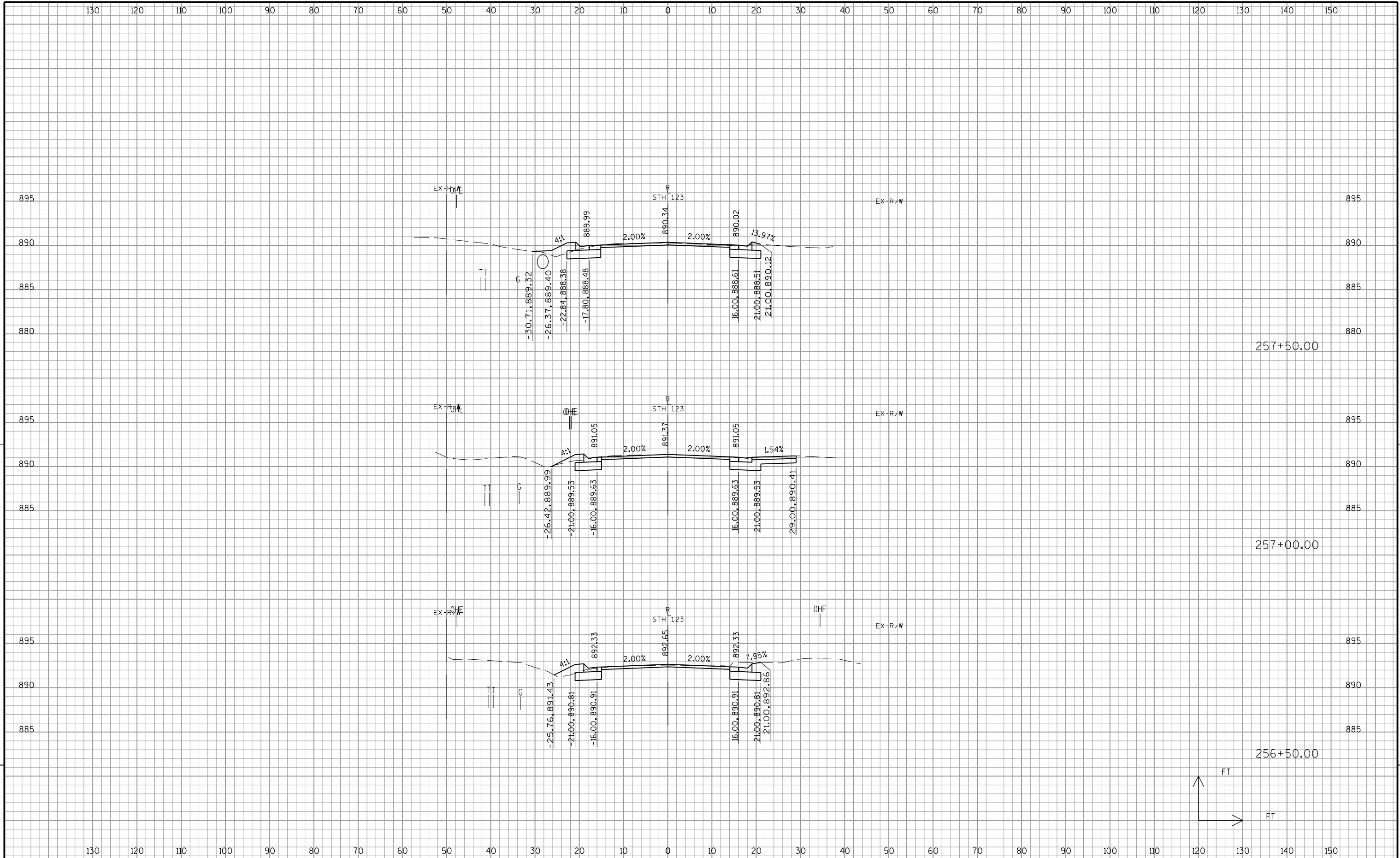
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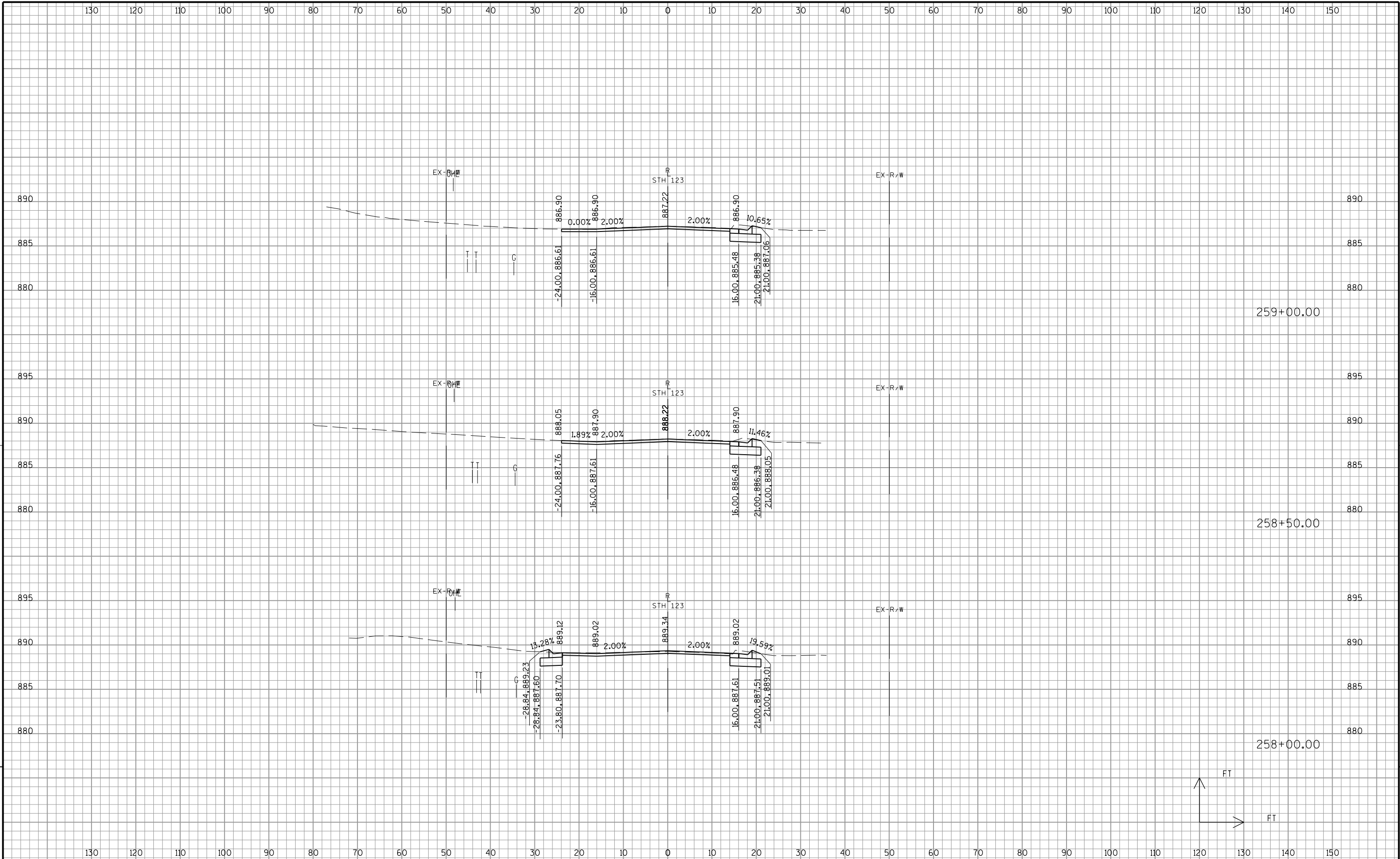
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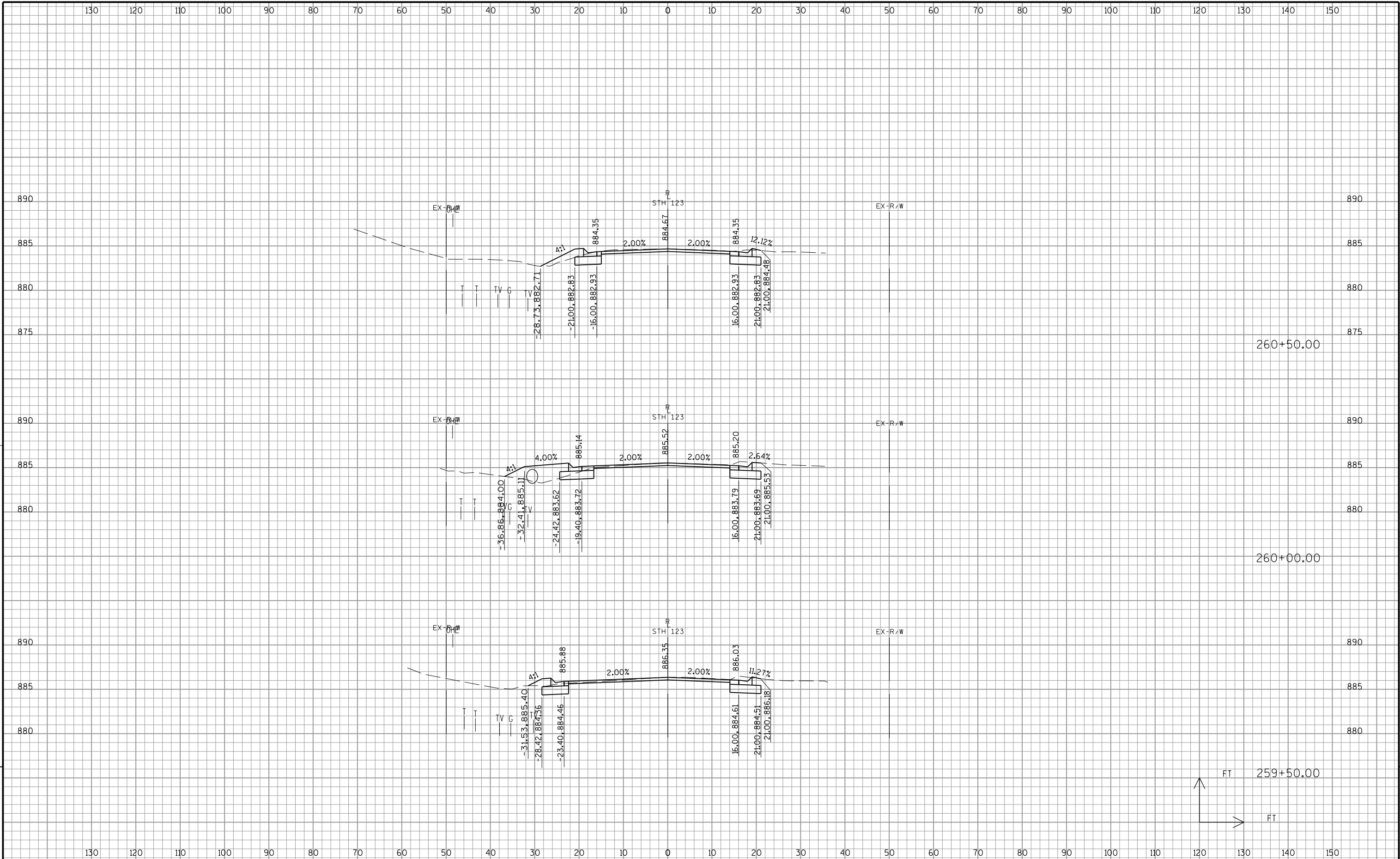
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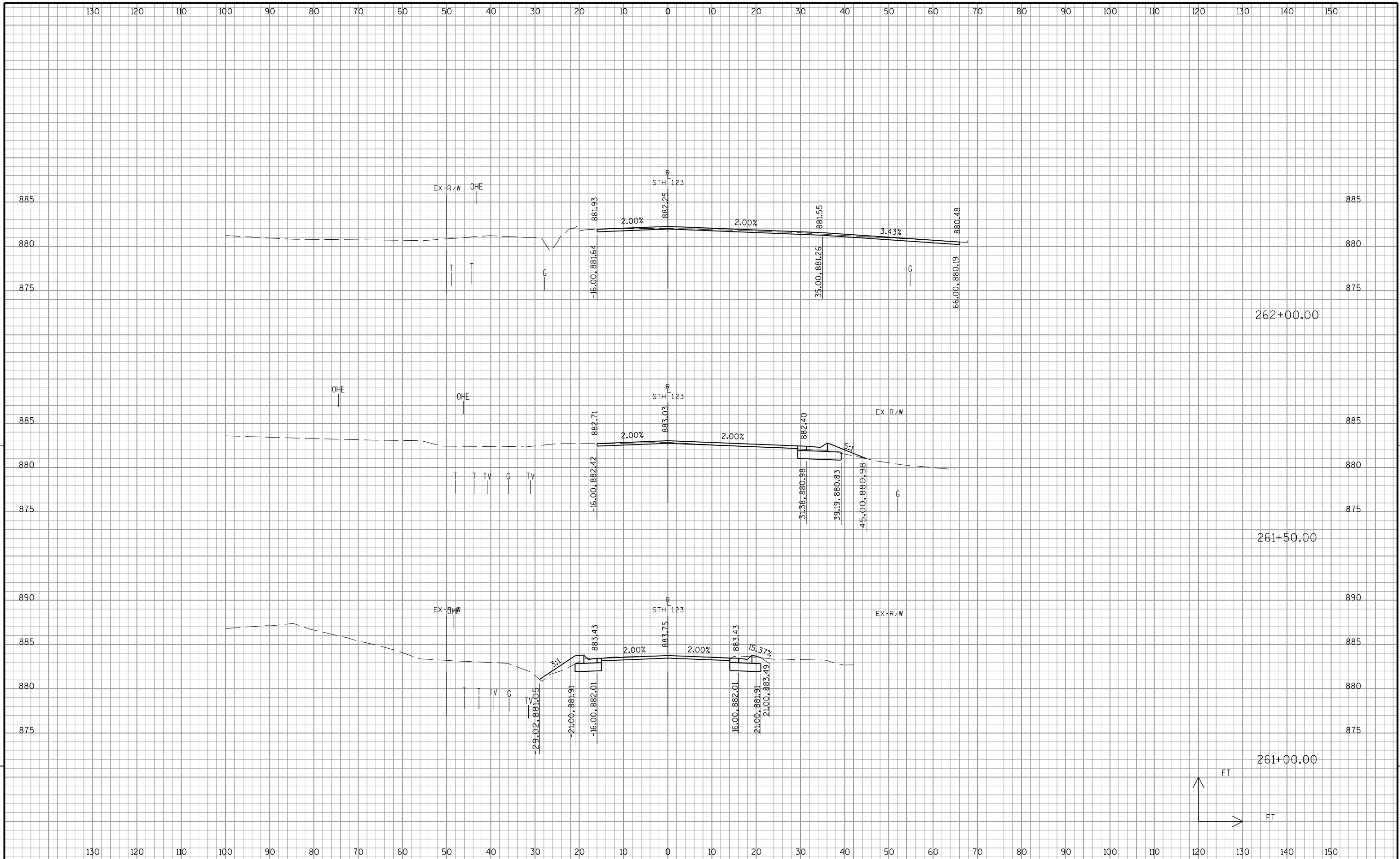
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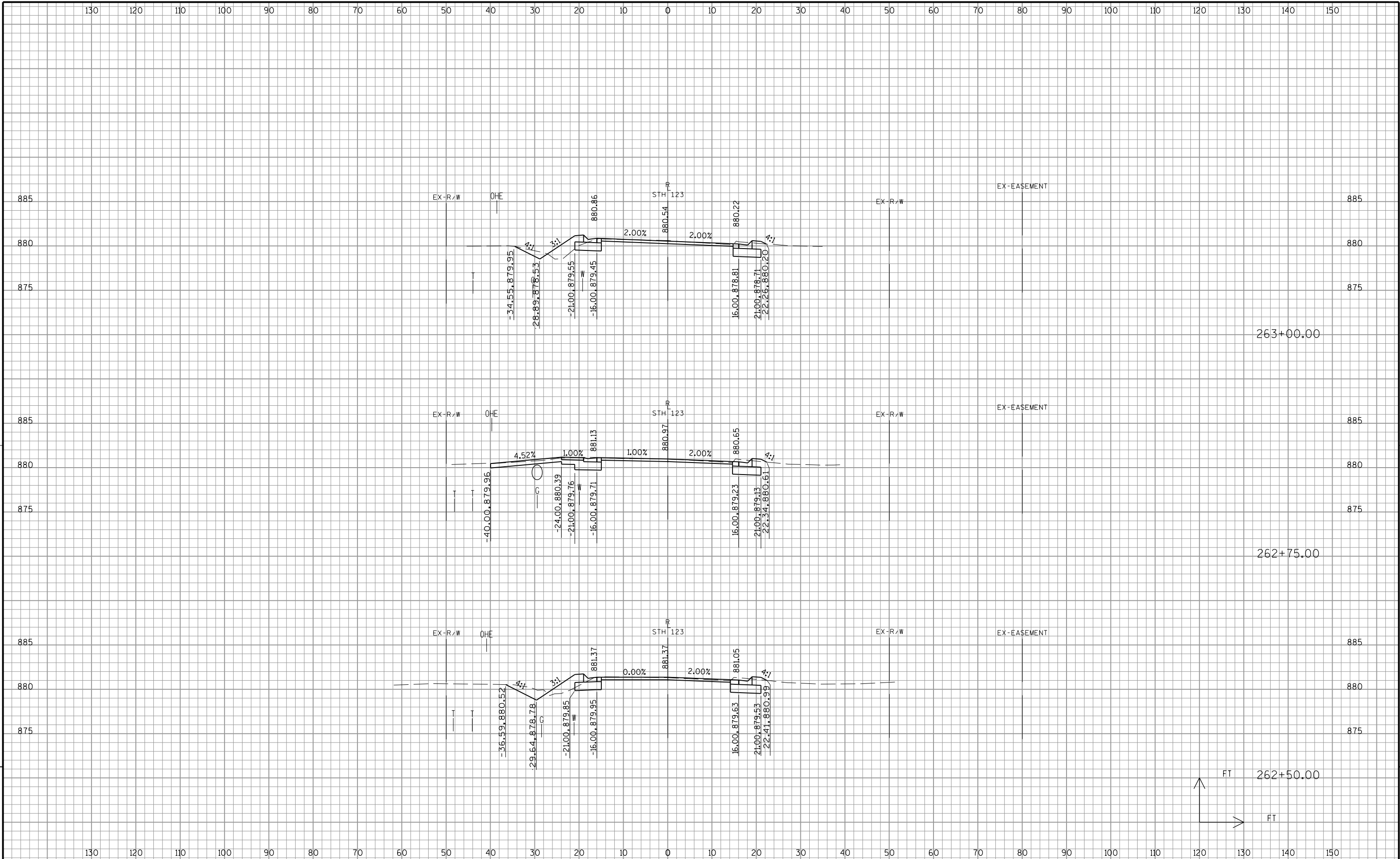


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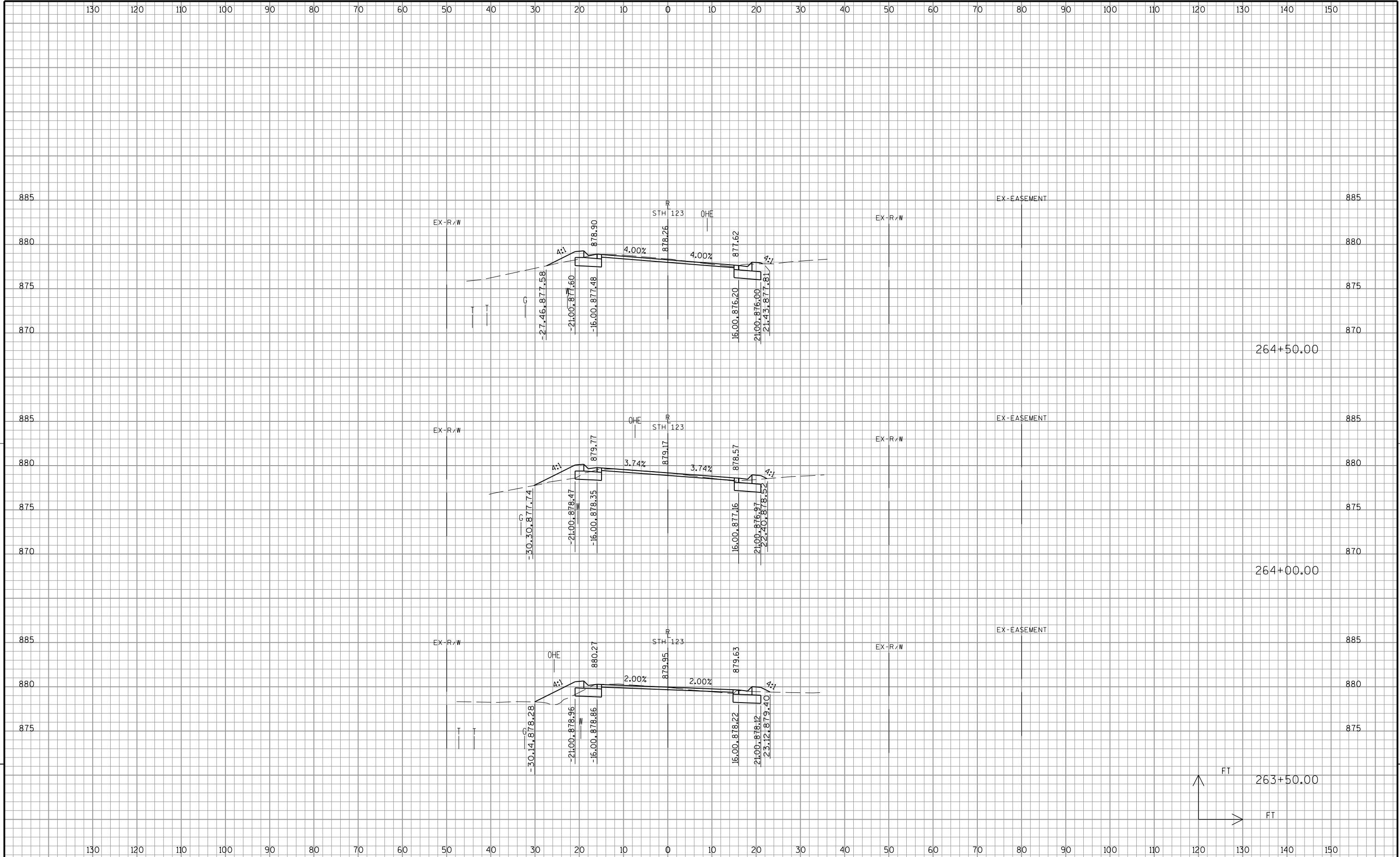


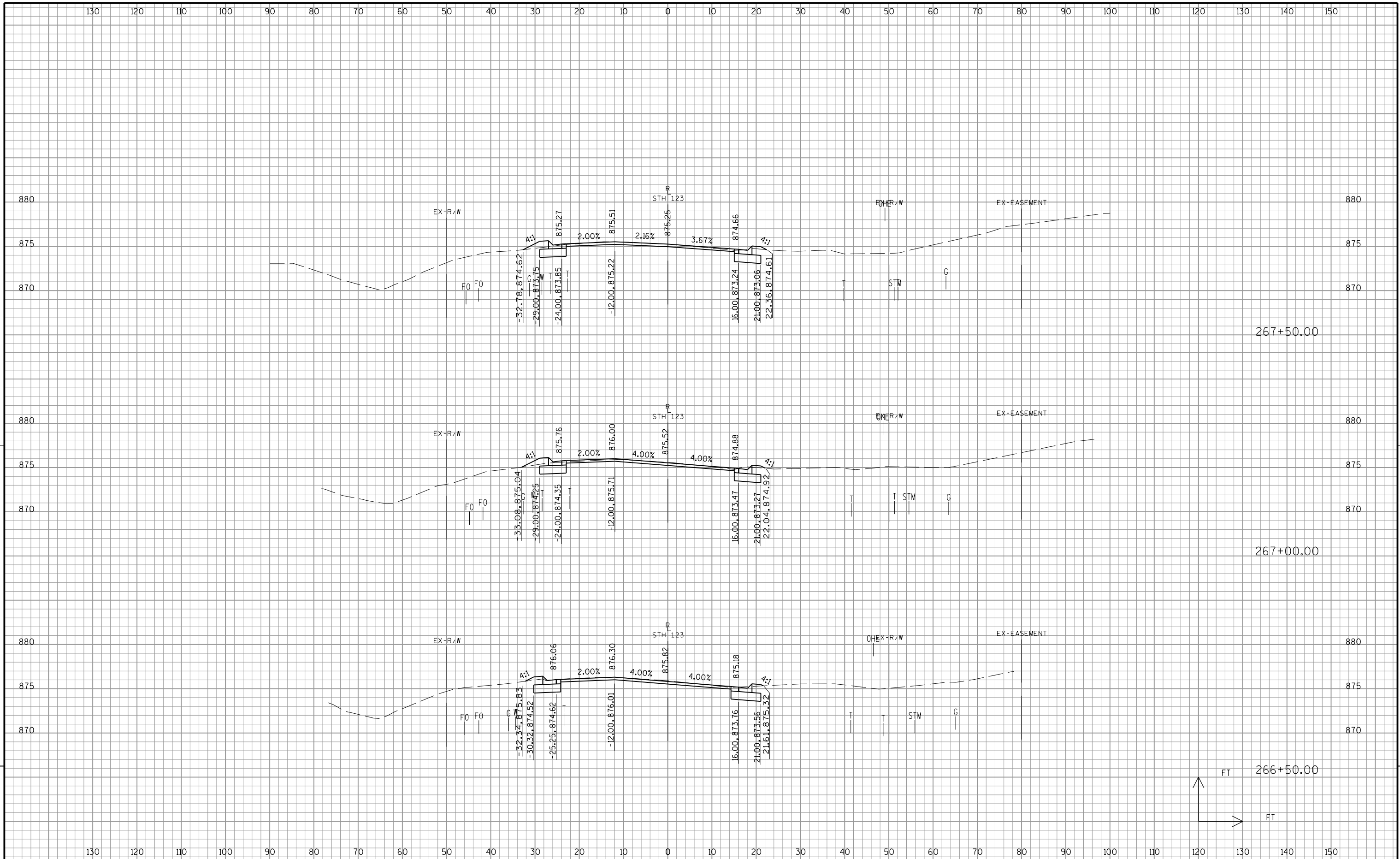


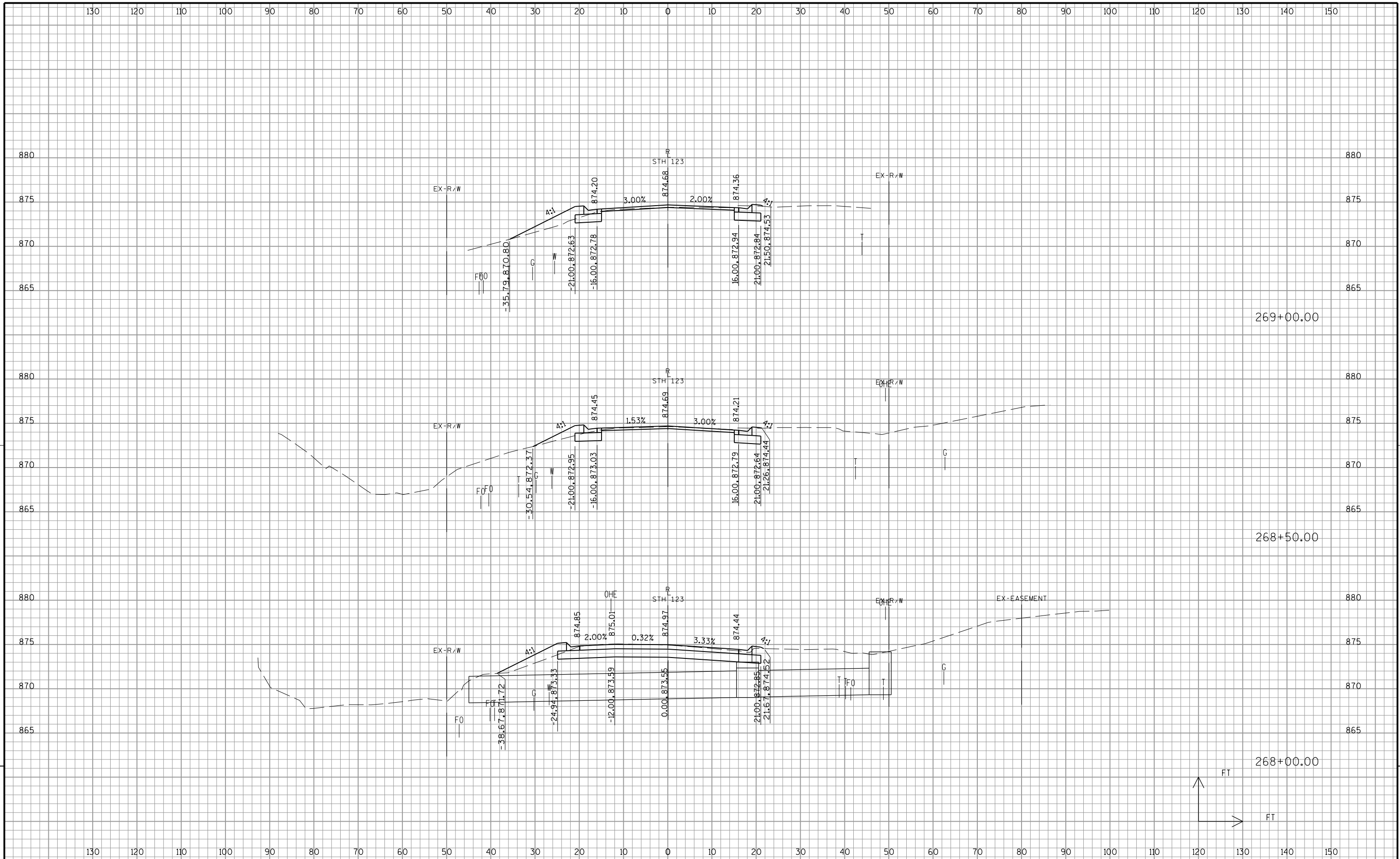


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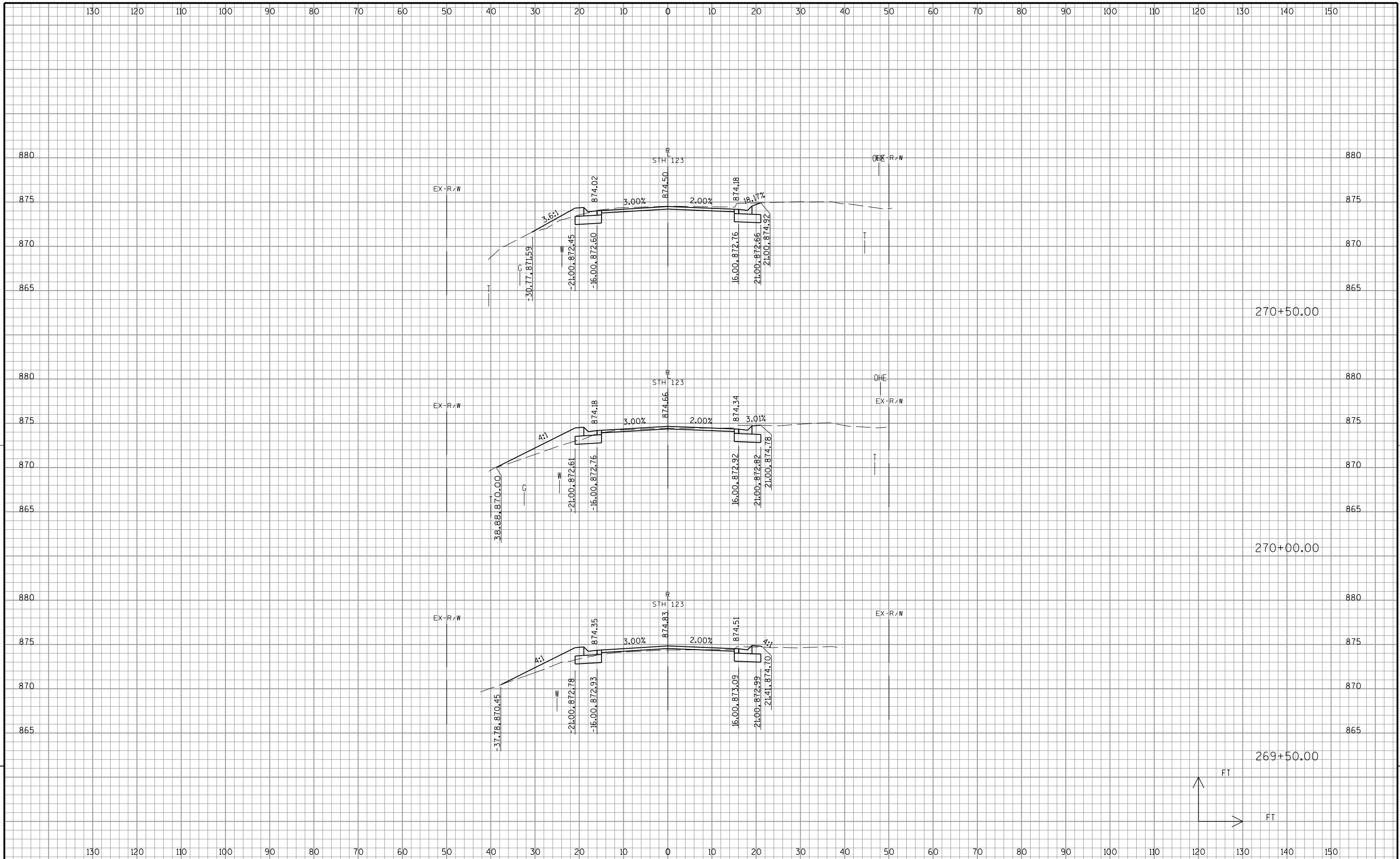


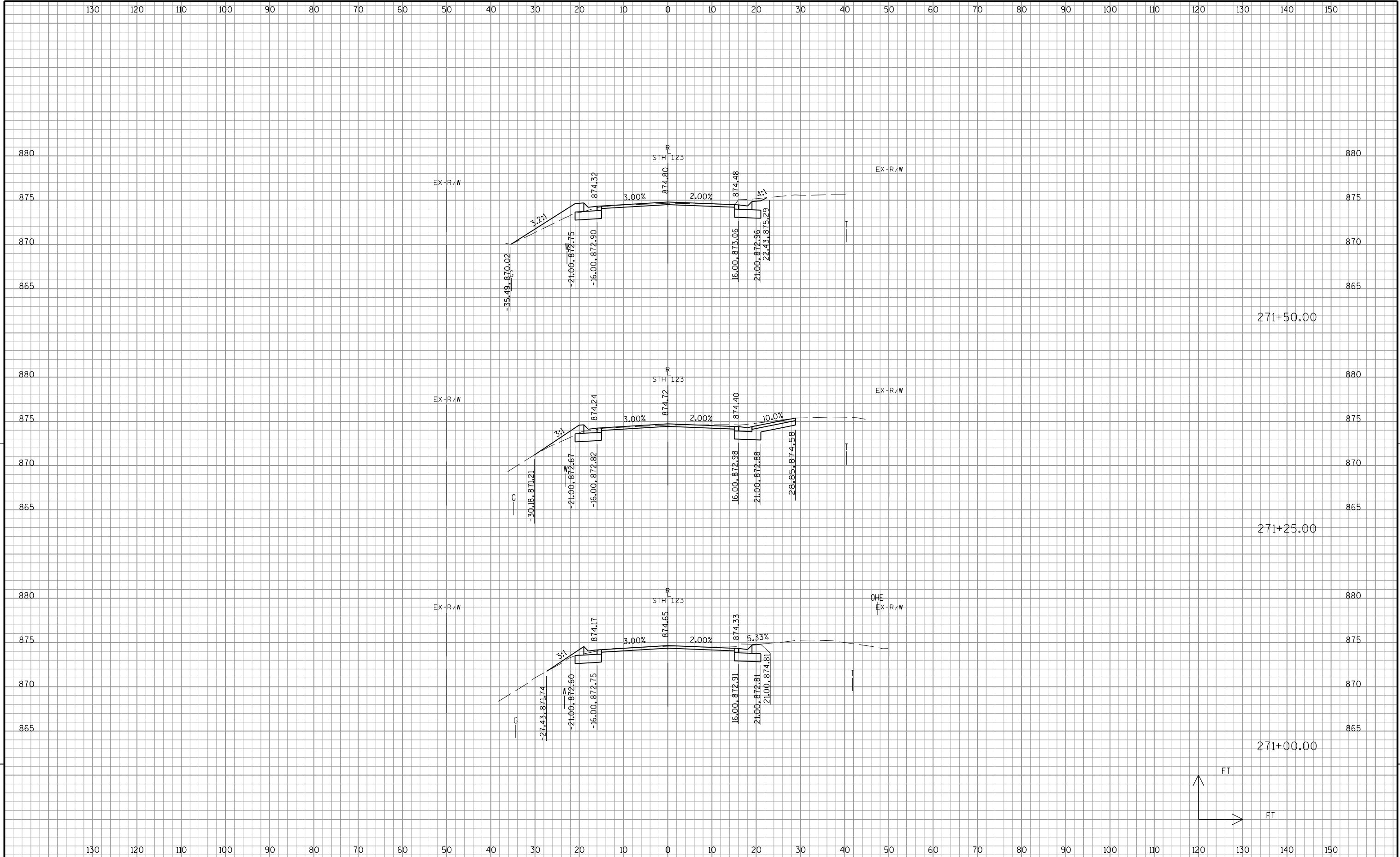


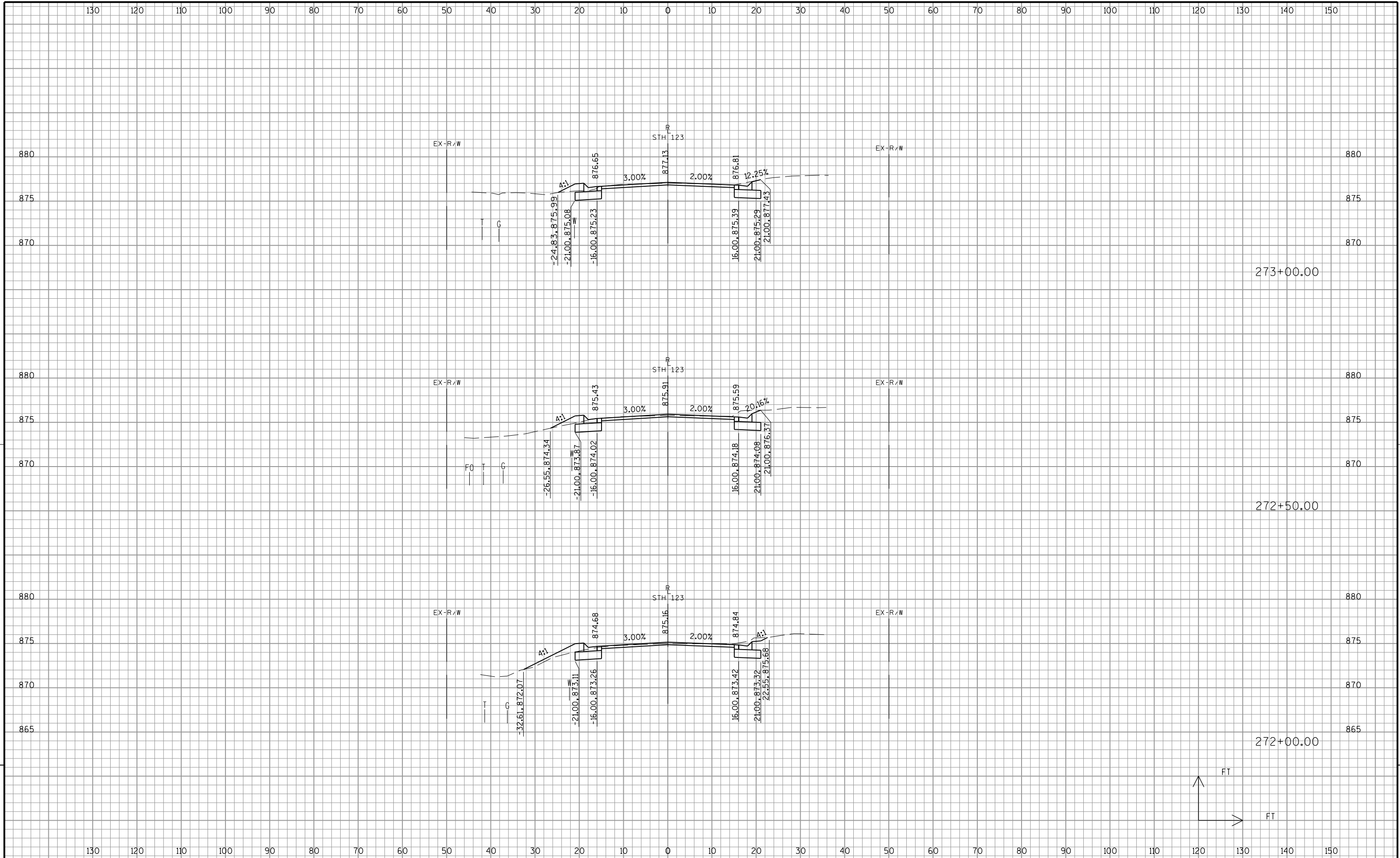


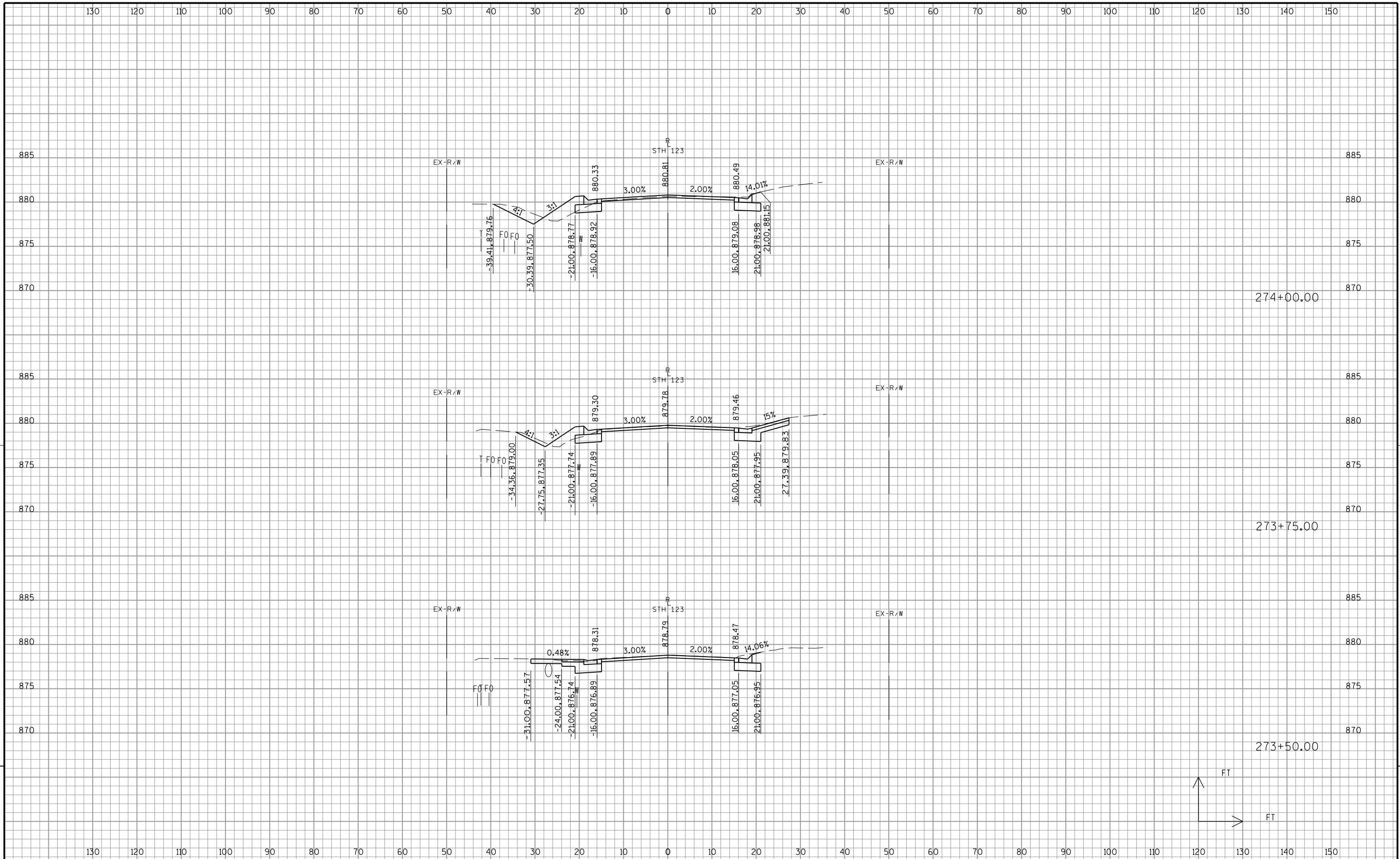
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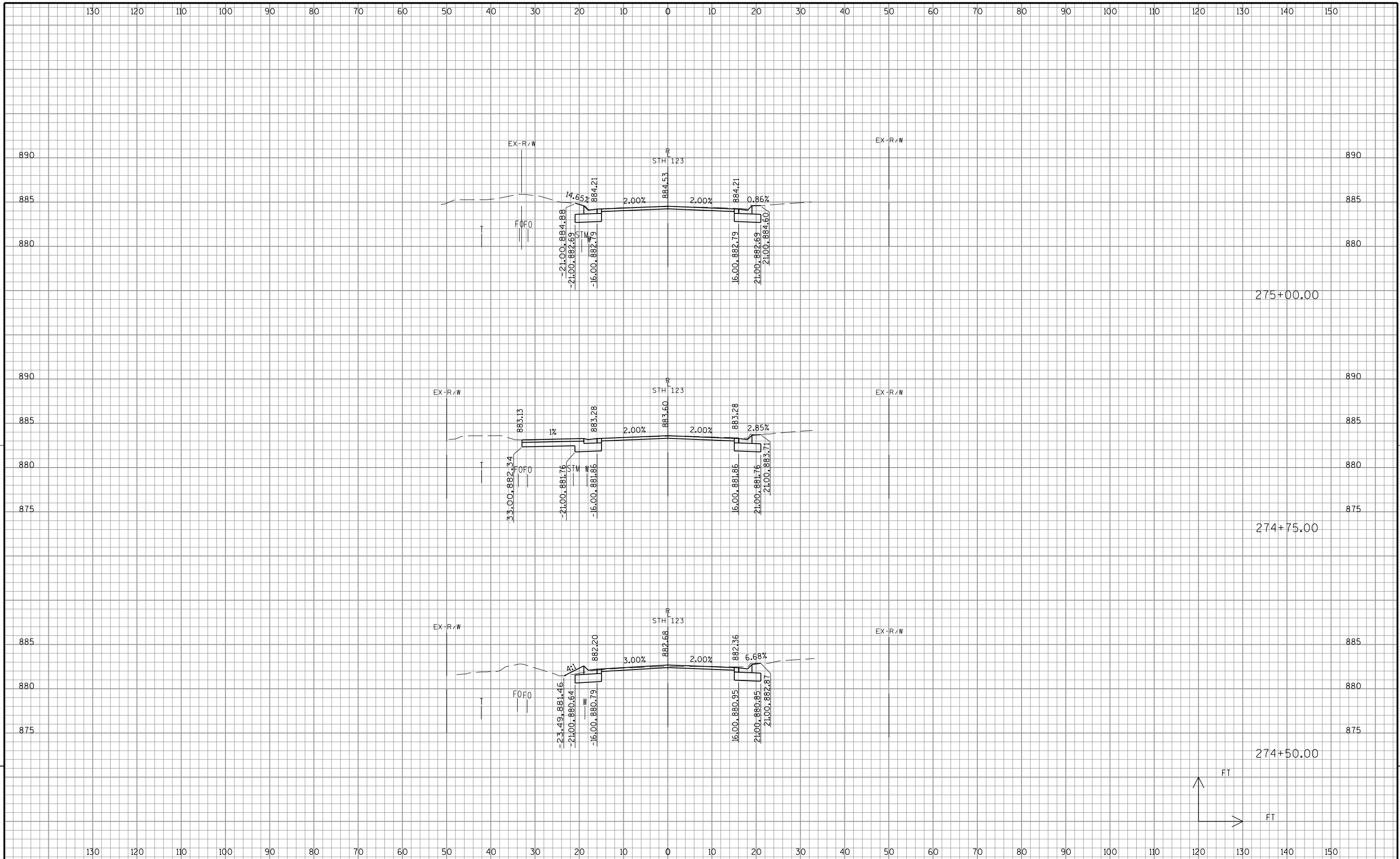






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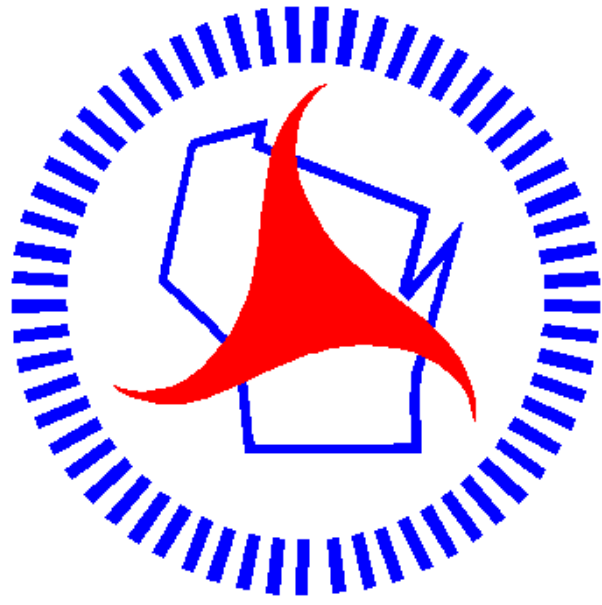
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Notes



Wisconsin Department of Transportation

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through innovation and exceptional service.

<http://www.dot.wisconsin.gov>