

AS BUILT PLAN

STATE PROJECT	FEDERAL PROJECT	
	PROJECT	CONTRACT
8998-00-10	STP 2009182	1

NWL
PROJECT ID: 8998-00-10
WITH: N/A

MAR 09

ORDER OF SHEETS

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

TOTAL SHEETS = 82

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

PLAN OF PROPOSED IMPROVEMENT

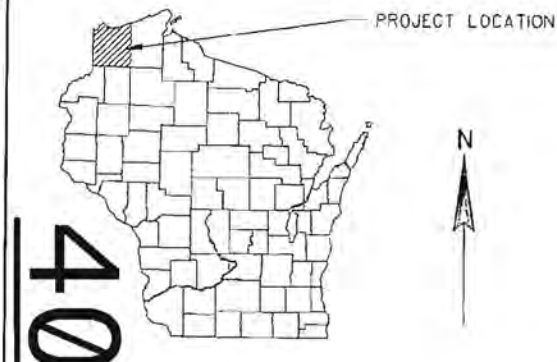
NORTH 12TH STREET, CITY OF SUPERIOR

(GRAND AVENUE - CATLIN AVENUE)

LOCAL STREET
DOUGLAS COUNTY

PROJECT LEADER: PATRICK LANGOUR, NUBE, INC
PRIME CONTRACTOR: ASHLAND CONSTRUCTION
BEGIN CONSTRUCTION: 06/09/2009
END CONSTRUCTION: 09/24/2009
FINAL CONTRACT COST:
CONTRACT MODIFICATIONS: 6 = \$ 20,323.92
CONTRACT ID: 20090310040

STATE PROJECT NUMBER
8998-00-10



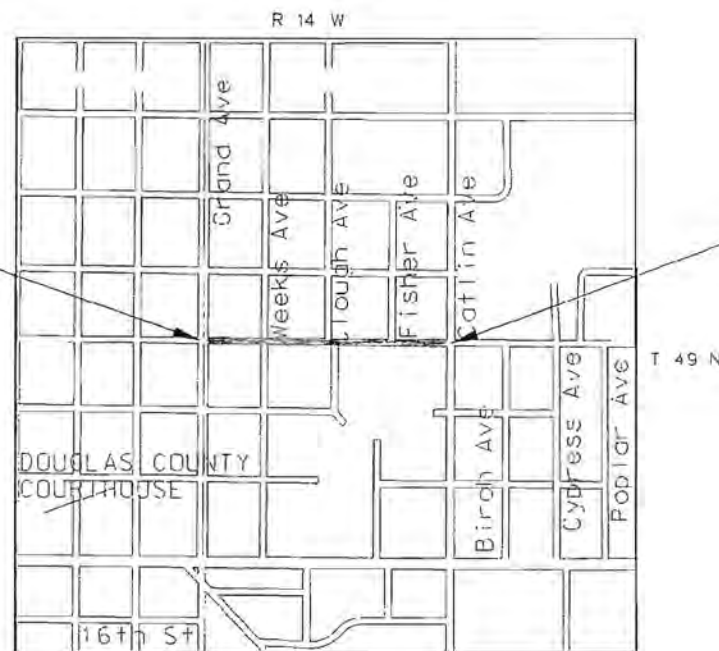
40

DESIGN DESIGNATION

A.A.D.T. 2009	= 2700
A.A.D.T. 2029	= 3100
D.H.V.	= 2.3
D.D.	= 62/38
T	= 2.9%
DESIGN SPEED	= 30 MPH
ESALS	= 167,900

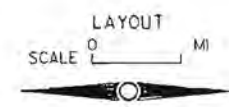
BEGIN PROJECT
8998-00-10
STA 50+20.00
Y = 306727.939
X = 149692.177

END PROJECT
8998-00-10
STA 64+70.88



CONVENTIONAL SYMBOLS

COUNTY LINE	COMBUSTIBLE FLUIDS	
CORPORATE LIMITS	UNDERGROUND UTILITIES	GAS
PROPERTY LINE	ELECTRIC	E
LOT LINE	TELEPHONE OR TELEGRAPH	T
LIMITED EASEMENT	TV/CABLE	TV
EARTHWORK BALANCE POINT	SERVICE PEDESTAL	
EXISTING RIGHT OF WAY	POWER POLE	
PROPOSED OR NEW R/W LINE	TELEPHONE POLE	
SURVEY LINE	RAILROAD	
SLOPE INTERCEPT	SANITARY SEWER	SAN
ORIGINAL GROUND	STORM SEWER	SS
MARSH OR ROCK PROFILE	WATER	W
(To be noted as such)	EXISTING CULVERT	
MARSH AREA	PROPOSED CULVERT	(Box or Pipe)
WOODED OR SHRUB AREA	CULVERT (Profile View)	



TOTAL NET LENGTH OF CENTERLINE = 0.275 MI 8998-00-10

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

ACCEPTED FOR
CITY of SUPERIOR
DATE: 10/21/08
ORIGINAL PLANS PREPARED BY:

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

PREPARED BY
Surveyor: SEH
Designer: SEH
Management Consultant: Klotzsch Engineers
C.O. Examiner: JANE ENGBRETSEN

APPROVED FOR THE DEPARTMENT
DATE: 10/29/08
Management Consultant Signature:

COUNTY: Douglas

STANDARD ABBREVIATIONS

ABUT	ABUTMENT	HYD	HYDRANT
AC	ACRE	ID	INSIDE DIAMETER
AGG	AGGREGATE	INV	INVERT
AECPRC	APRON ENDWALL FOR CULVERT PIPE REINFORCED CONCRETE	IP	IRON PIPE ON PIN
ASPH	ASPHALTIC	LHF	LEFT-HAND FORWARD
AVG	AVERAGE	L	LENGTH OF CURVE
ADT	AVERAGE DAILY TRAFFIC	LF	LINEAR FOOT
BF	BACK FACE	LC	LONG CHORD OF CURVE
BM	BENCH MARK	LS	LUMP SUM
BR	BRIDGE	MH	MANHOLE
CE	COMMERCIAL ENTRANCE	MOR	MID POINT OF RADIUS
CL OR C/L OR €	CENTER LINE	NC	NORMAL CROWN
	CENTRAL ANGLE OR DELTA	NO	NUMBER
CONC	CONCRETE	OBLIT	OBLITERATE
CPRC	CULVERT PIPE REINFORCED CONCRETE	PAVT	PAVEMENT
CPRCHE	CULVERT PIPE REINFORCED CONCRETE HORIZONTAL ELLIPTICAL	PE	PRIVATE ENTRANCE
CR	CREEK	PVRC	POINT OF VERTICAL REVERSE CURVE
CY	CUBIC YARD	QOR	QUARTER POINT OF RADIUS
C & G	CURB AND GUTTER	R	RADIUS
D	DEGREE OF CURVE	REQ'D	REQUIRED
DHV	DESIGN HOUR VOLUME	RES	RESIDENCE OR RESIDENTIAL
DISCH	DISCHARGE	RHF	RIGHT-HAND FORWARD
DG	DITCH GRADE	R/W	RIGHT-OF-WAY
DWY	DRIVEWAY	R	RIVER
X	EAST GRID COORDINATE	RDWY	ROADWAY
EAT	ENERGY ABSORBING TERMINAL	R/L OR R	REFERENCE LINE
EOR	END POINT OF RADIUS	SALV	SALVAGED
EL	ELEVATION	SAN	SANITARY SEWER
ENT	ENTRANCE	SF	SQUARE FEET
ESALS	EQUIVALENT SINGLE AXLE LOADS	SY	SQUARE YARD
EXC	EXCAVATION	SDD	STANDARD DETAIL DRAWINGS
EBS	EXCAVATION BELOW SUBGRADE	STA	STATION
EXIST	EXISTING	SS	STORM SEWER
FC	FACE OF CURB	SSPRC	STORM SEWER PIPE REINFORCED CONCRETE
FF	FACE TO FACE	SE	SUPERELEVATION RATE
FERT	FERTILIZE	TC	TOP OF CURB
FE	FIELD ENTRANCE	T OR TN	TOWN
FL	FLOW LINE	T	TRUCKS (PERCENT OF)
FO	FIBER OPTIC	TYP	TYPICAL
CWT	HUNDREDWEIGHT	VAR	VARIABLE
		VC	VERTICAL CURVE
		Y	NORTH GRID COORDINATE
		YD	YARD

GENERAL NOTES

ELEVATIONS SHOWN ON THE PLAN ARE REFERENCED TO THE APPROXIMATE USGS DATUM.

WHEN THE QUANTITY OF THE ITEMS OF BASE OR SURFACE COURSE IS MEASURED FOR PAYMENT BY THE TON THE DEPTH OR THICKNESS OF THE COURSE SHOWN ON THE PLANS IS APPROXIMATE AND THE ACTUAL THICKNESS WILL DEPEND ON THE DISTRIBUTION OF THE MATERIAL AS DIRECTED BY THE ENGINEER.

THE LOCATION 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.

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

CURVE DATA IS BASED ON THE ARC DEFINITION.

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

BEARINGS SHOWN ON THE PLANS ARE GRID BEARINGS TO THE NEAREST SECOND.

THE LOCATION OF ALL DRIVEWAYS WILL BE DETERMINED BY THE ENGINEER.

ALL CURB AND GUTTER RADII ARE SHOWN TO THE EDGE OF PAVEMENT UNLESS NOTED OTHERWISE.

ALL INTERSECTION EARTHWORK QUANTITIES ARE INCLUDED IN MAINLINE EARTHWORK QUANTITIES.

CONSTRUCT INSIDE EDGE OF SIDEWALK 1/4 INCH HIGHER THAN THE TOP OF CURB, WHEN THEY ARE ADJACENT TO EACH OTHER.

A VERTICAL SAWCUT SHALL BE MADE THROUGH EXISTING DRIVEWAYS AND PAVEMENTS AT REMOVAL LIMITS.

TOP OF CASTING ELEVATIONS SHOWN FOR INLETS REFER TO THE CASTING ELEVATION AT THE EDGE OF PAVEMENT AT THE GRATE.

ALL STORM SEWER INVERTS, ELEVATIONS, PIPE LENGTHS, AND GRADES ARE COMPUTED CENTER-TO-CENTER OF STRUCTURES.

ALL MANHOLES TO BE RECONSTRUCTED ARE COMBINED SANITARY SEWER/STORM SEWER MANHOLES.

EXCAVATION BELOW SUBGRADE (EBS) IS NOT USED TO BALANCE YARDAGE AND IS NOT SHOWN ON THE CROSS SECTIONS BUT IS MEASURED AND PAID FOR AS COMMON EXCAVATION.

PAVEMENT THICKNESS (INCH)	LOWER LAYER (INCH)	UPPER LAYER (INCH)
4.5"	2.5"	2"

ORDER OF DETAIL SHEETS

- TYPICAL SECTIONS
- CONSTRUCTION DETAILS
- INTERSECTION DETAILS
- STORM SEWER AND EROSION CONTROL
- SIGNING AND PAVEMENT MARKING
- TRAFFIC CONTROL
- ALIGNMENT DIAGRAM

UTILITY CONTACTS

SUPERIOR WATER, LIGHT & POWER CO.
2915 HILL AVENUE
P.O. BOX 519
SUPERIOR, WISCONSIN 54880
TELEPHONE: 715.395.6315
ATTENTION: KEVIN HABERMAN (ELECTRIC)
EMAIL: KHABERMAN@SWLP.COM

TELEPHONE: 715.395.6316
ATTENTION: TIM MELBY (WATER & GAS)
EMAIL: TMELBY@SWLP.COM

CHARTER COMMUNICATIONS
302 E. SUPERIOR STREET
DULUTH, MINNESOTA 55802
TELEPHONE: 218.529.8042
ATTENTION: JOHN QUADE
EMAIL: JOUADE@CHARTERCOM.COM

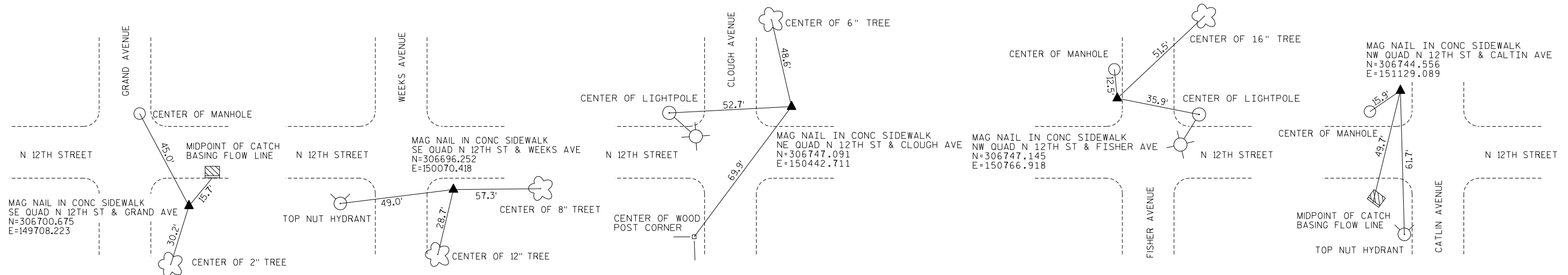
CENTURYTEL SERVICE GROUP
135 N. 21ST STREET
SUPERIOR, WISCONSIN 54880
ENGINEERING TELEPHONE: 715.392.0033
ATTENTION: ARNOLD MILLER
EMAIL: ARNOLD.MILLER@CENTURYTEL.COM

CITY OF SUPERIOR
PUBLIC WORKS
1316 N 14TH STREET
SUPERIOR, WISCONSIN 54880
TELEPHONE: 715.395.7539
ATTENTION: JEFF GOETZMAN
EMAIL: GOETZMAN@CI.SUPERIOR.WI.US



FOR FIELD LOCATES
CALL: 1.800.242.8511
www.DiggersHotline.com
** NOT A MEMBER OF DIGGER'S HOTLINE

CONTROL TIES

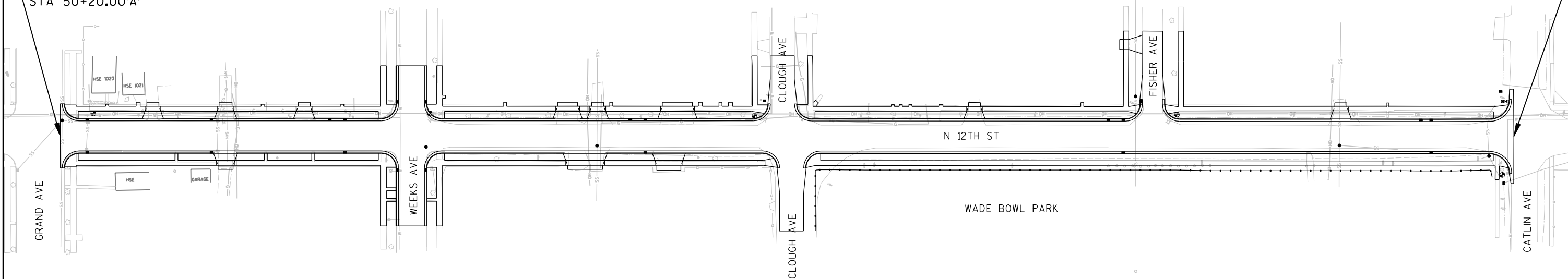


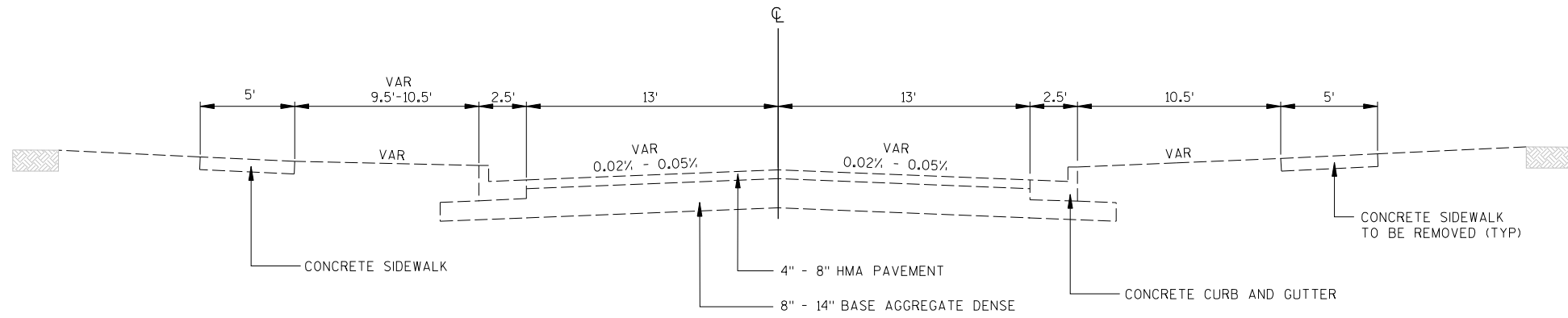
CITY OF SUPERIOR



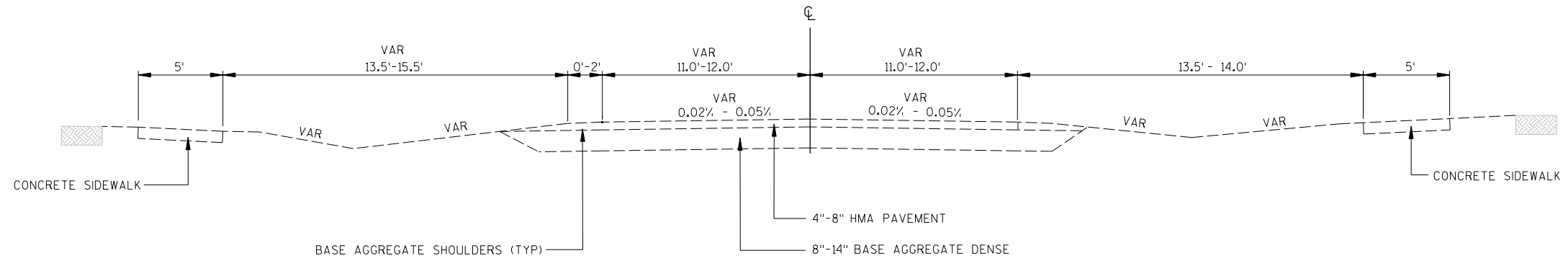
BEGIN PROJECT
STA 50+20.00'A'

END PROJECT
STA 64+70.88'A'

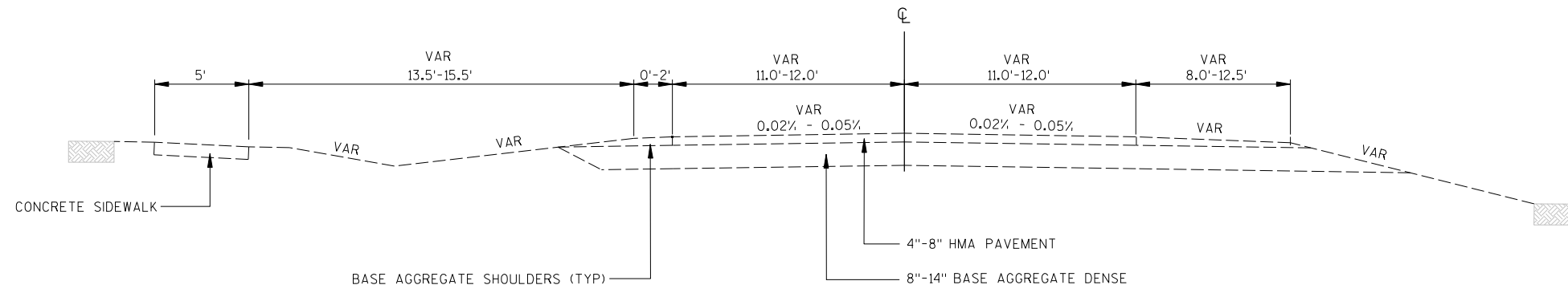




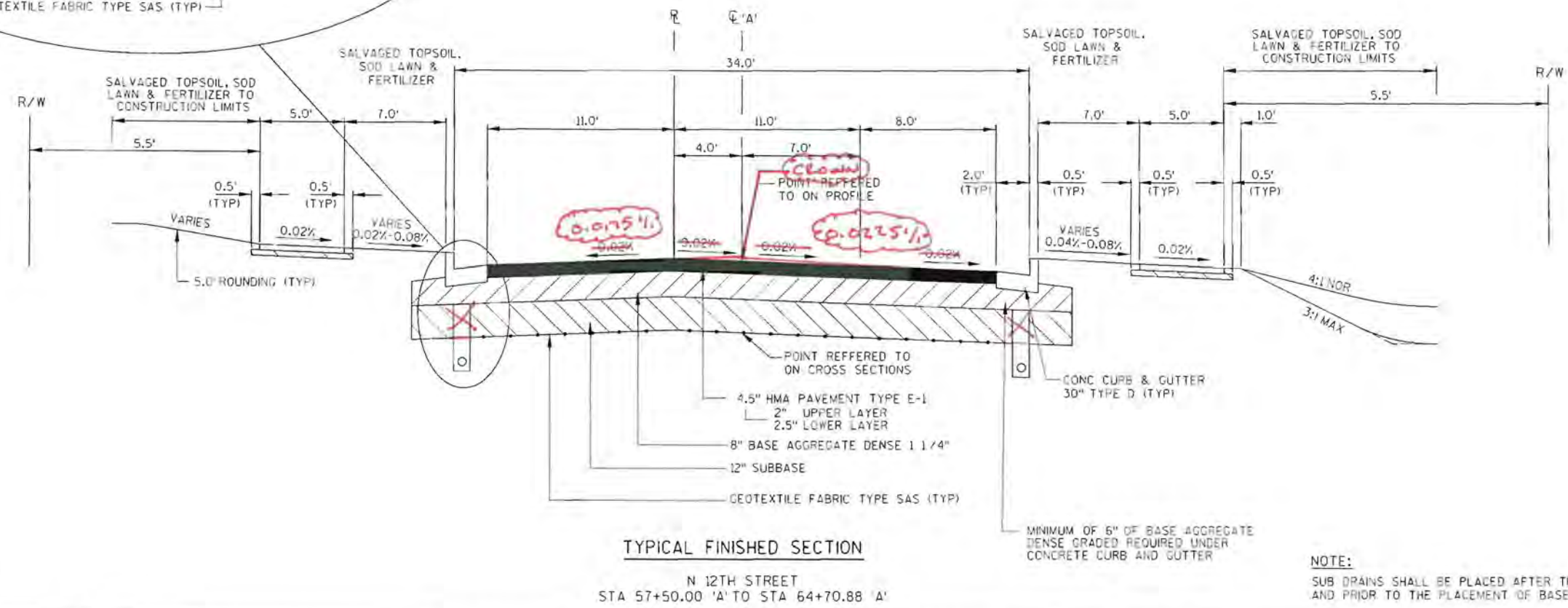
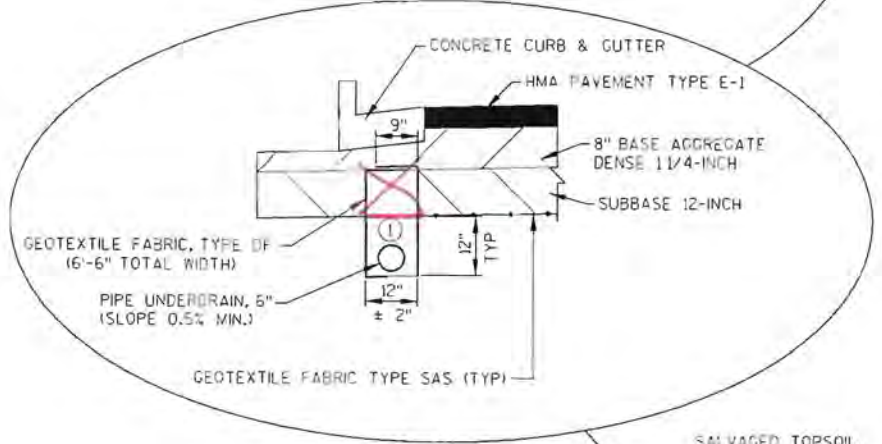
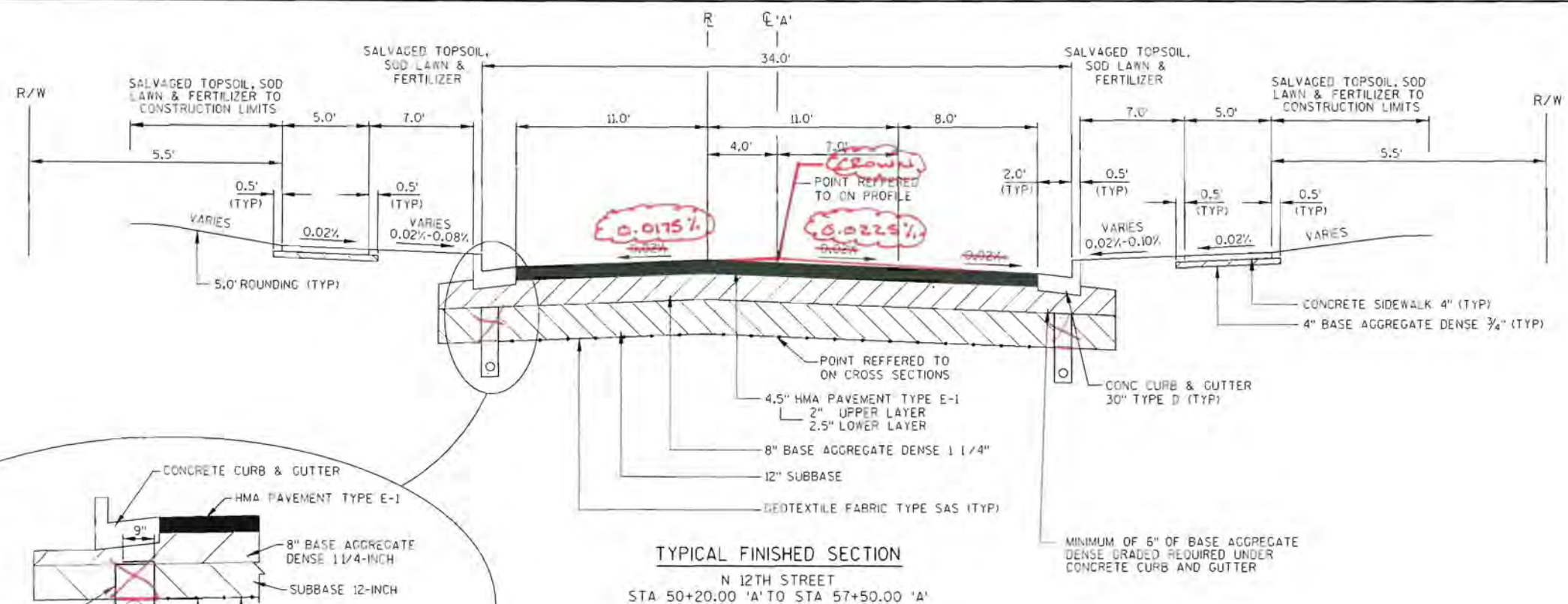
TYPICAL EXISTING SECTION
 N 12TH STREET
 STA 50+20.00 'A' TO STA 54+05.00 'A'



TYPICAL EXISTING SECTION
 N 12TH STREET
 STA 54+05.00 'A' TO STA 57+30.00 'A'



TYPICAL EXISTING SECTION
 N 12TH STREET
 STA 57+30.00 'A' TO STA 64+70.88 'A'



NOTES:

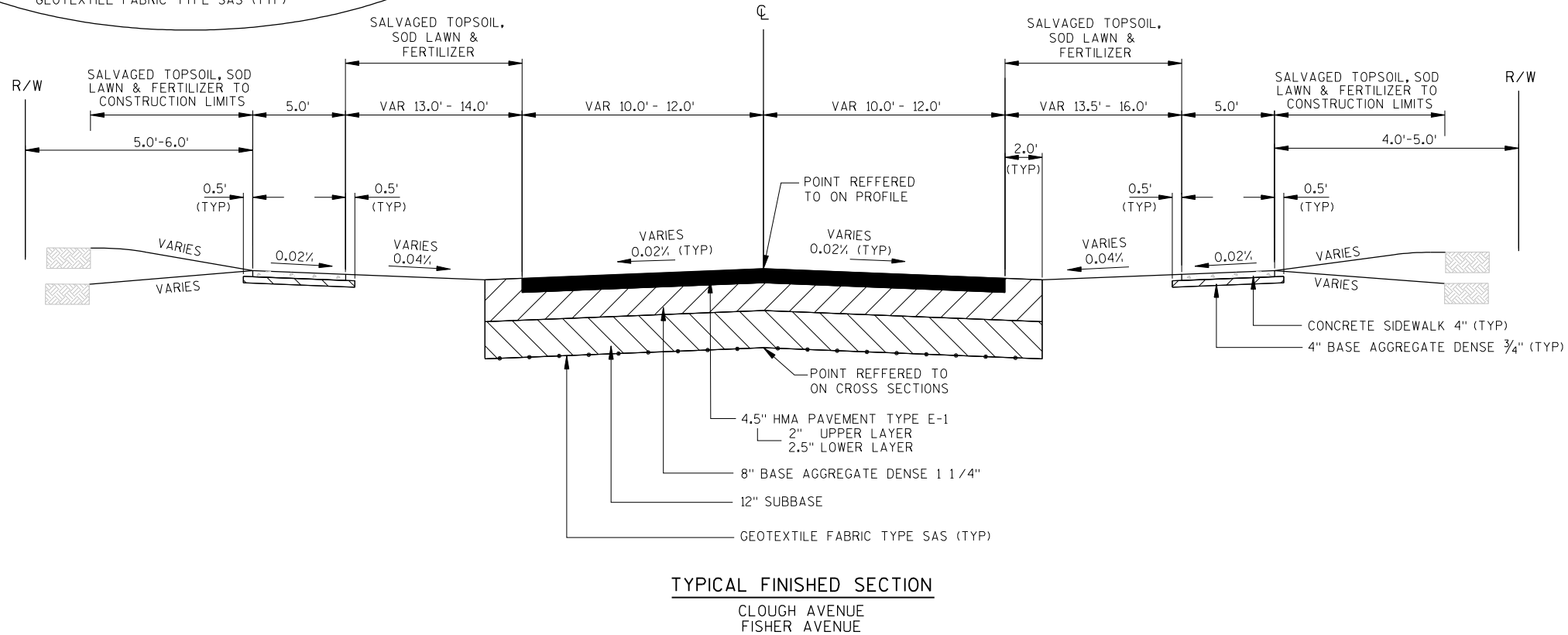
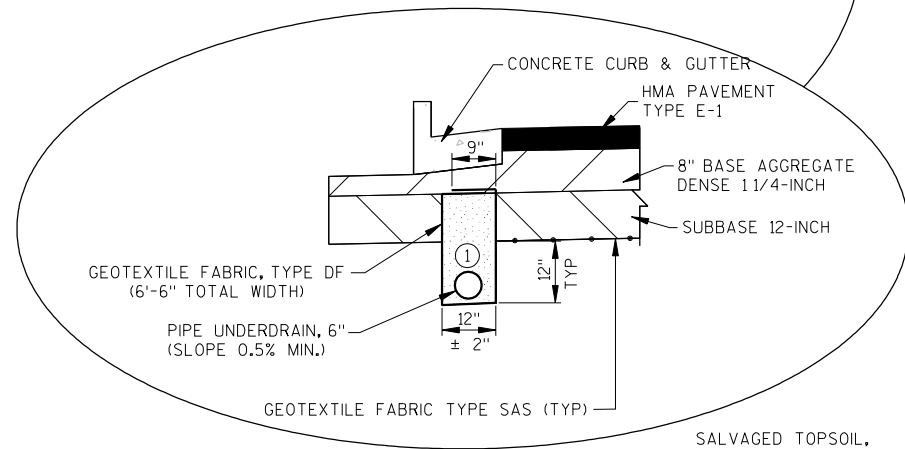
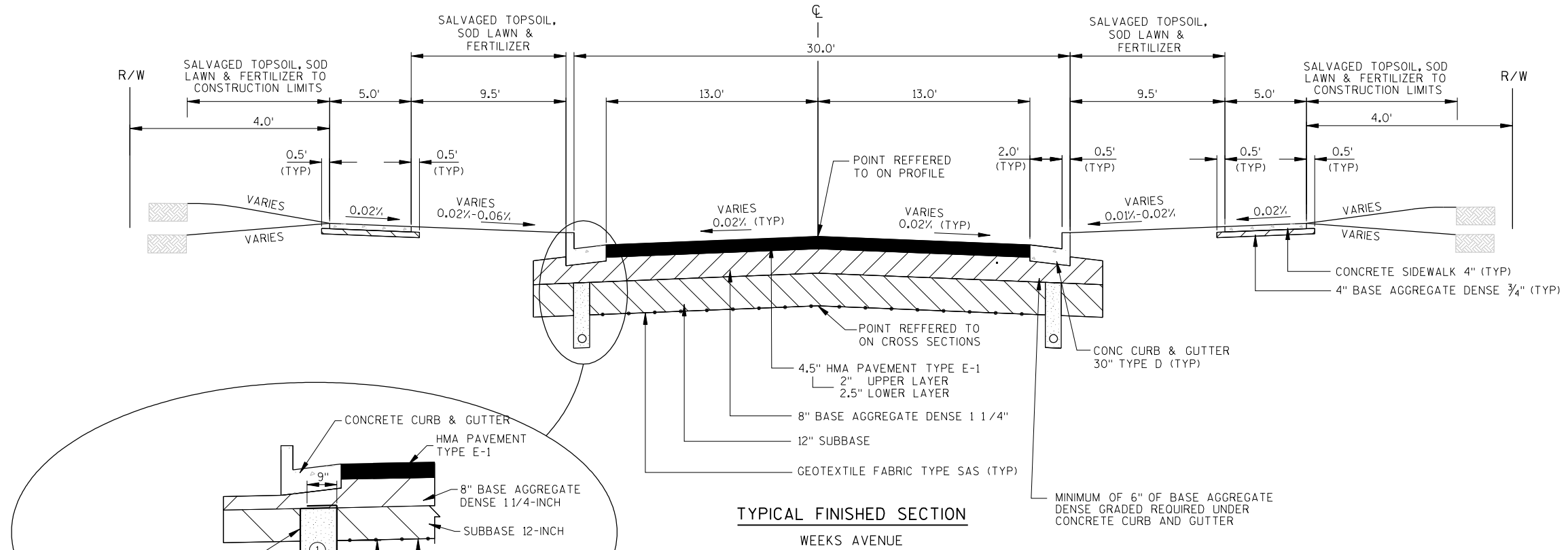
① OVERLAP FABRIC AT THE TOP OF THE SUBBASE 12-INCH LAYER, 6-INCH MIN OVERLAP

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

IF THERE IS A CONFLICT WITH THE STORM SEWER, THE PIPE UNDERDRAIN SHALL BE LAID PARALLEL TO THE STORM SEWER TOWARDS THE CENTER OF THE ROAD.

TRENCH BACKFILL WILL BE PAID FOR AS BASE AGGREGATE OPEN GRADED, OR IN LIEU OF USE WELL GRADED COARSE AGGREGATE SIZE NO 1 OR 2 AS PER SUBSECTION 501.2.5.4.4 OF THE STANDARD SPECIFICATIONS.

NOTE:
SUB DRAINS SHALL BE PLACED AFTER THE PLACEMENT OF SUBBASE, AND PRIOR TO THE PLACEMENT OF BASE AGGREGATE DENSE GRADED.

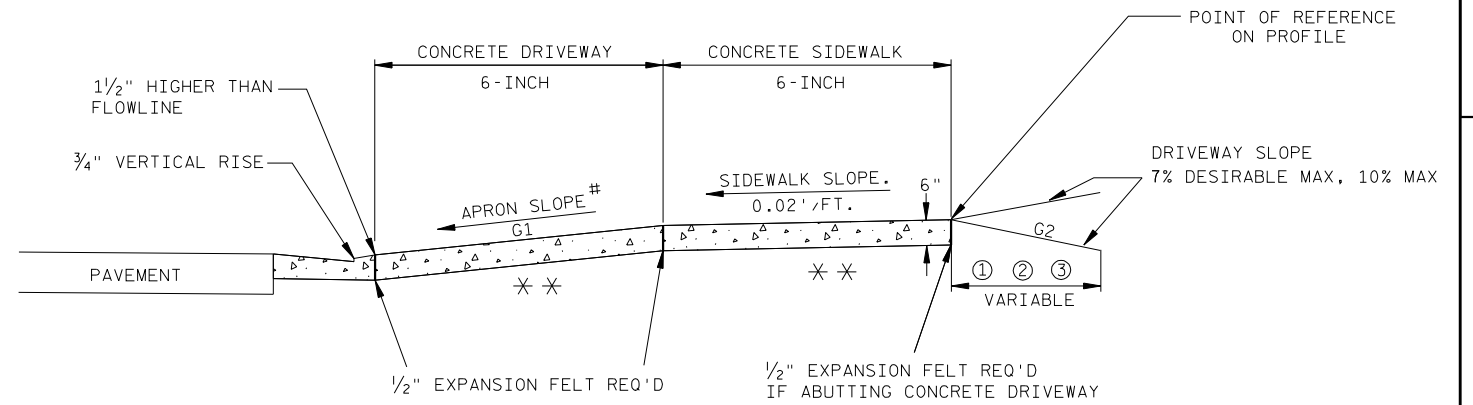


RUNOFF COEFFICIENT TABLE

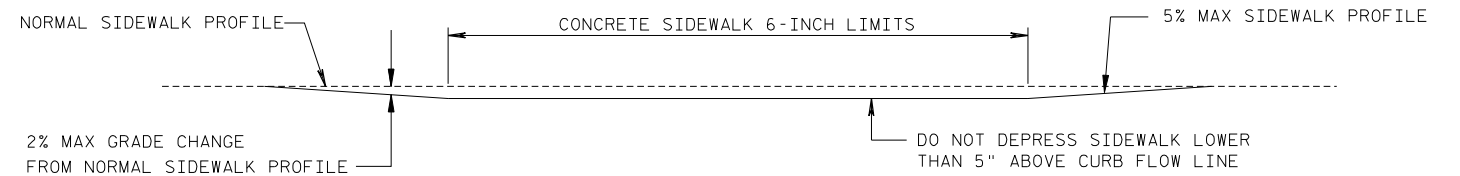
	HYDROLOGIC SOIL GROUP											
	A			B			C			D		
	SLOPE RANGE (PERCENT)			SLOPE RANGE (PERCENT)			SLOPE RANGE (PERCENT)			SLOPE RANGE (PERCENT)		
LAND USE:	0-2	2-6	6 & OVER	0-2	2-6	6 & OVER	0-2	2-6	6 & OVER	0-2	2-6	6 & OVER
ROW CROPS	.08 .22	.16 .30	.22 .38	.12 .26	.20 .34	.27 .44	.15 .30	.24 .37	.33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

TOTAL PROJECT AREA = 2.76 ACRES
 TOTAL AREA EXPECTED TO BE DISTURBED BY CONSTRUCTION ACTIVITIES = 2.53 ACRES

DRIVEWAY ENTRANCE DETAIL WITH SIDEWALK, CURB & GUTTER



TYPICAL SIDEWALK SECTION



DEPRESSED SIDEWALK PROFILE

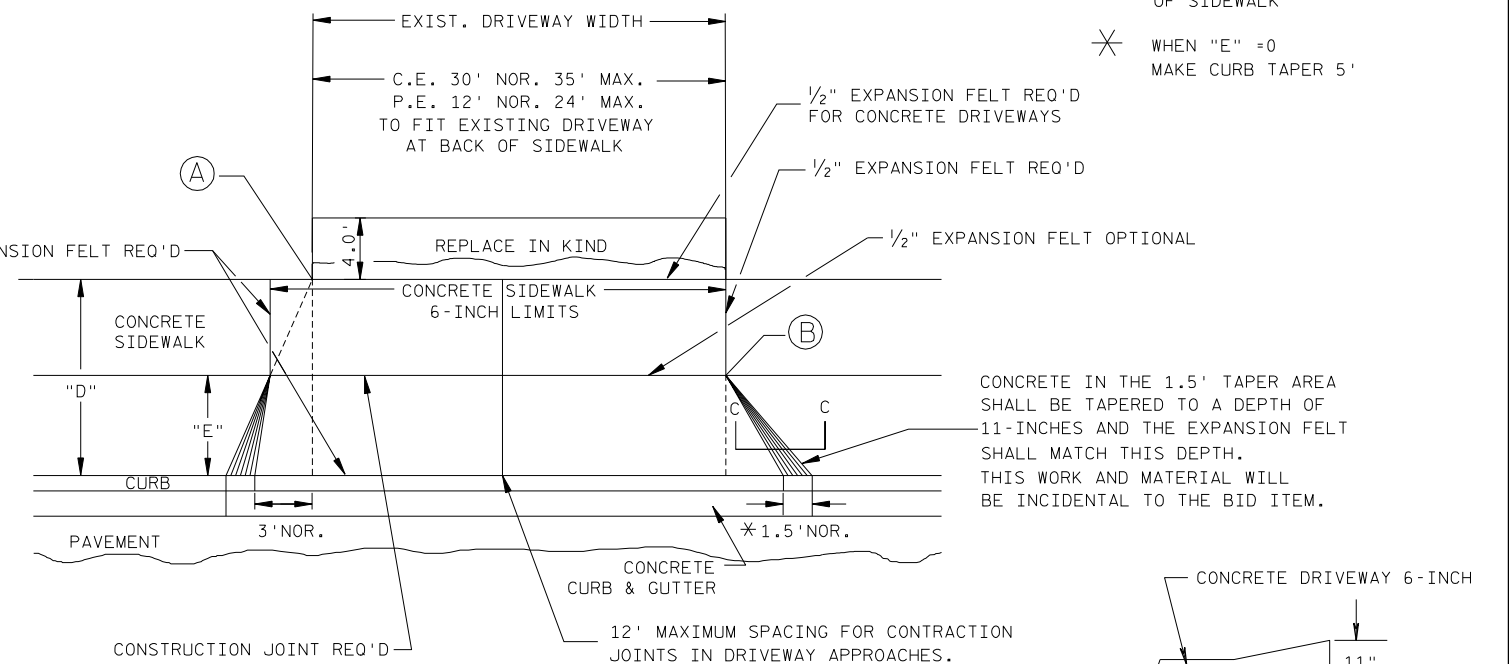
- (A) WHEN "D" IS 13' OR LESS, ALIGN TAPER WITH BACK OF SIDEWALK
- (B) WHEN "D" IS GREATER THAN 13', ALIGN TAPER WITH FRONT OF SIDEWALK
- * WHEN "E" = 0 MAKE CURB TAPER 5'

- ① - 6" CONCRETE DRIVEWAY
- ② - 6" BASE AGGREGATE DENSE 3/4" 1/2" EXPANSION FELT REQ'D
- ③ - 4" COMPACTED BASE AGGREGATE DENSE 3/4" BASE WITH 2" HMA PAVEMENT TYPE E-1

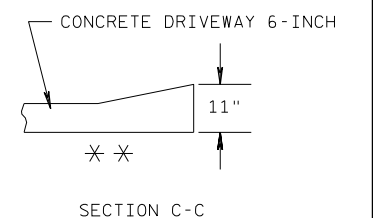
* * = 6" BASE AGGREGATE DENSE 1 1/4" REQ'D UNDER CONCRETE DRWY

TERRACE WIDTH (E)	APRON SLOPE (G1)		
	MIN %	DESIRABLE %	MAX %
3 FT	7.0	8.5	9.0
4 FT	5.0	7.0	9.0
5 FT	4.0	7.0	9.0
6 FT	4.0	7.0	9.0
7 FT	3.5	7.0	9.0
8 FT	3.0	7.0	9.0

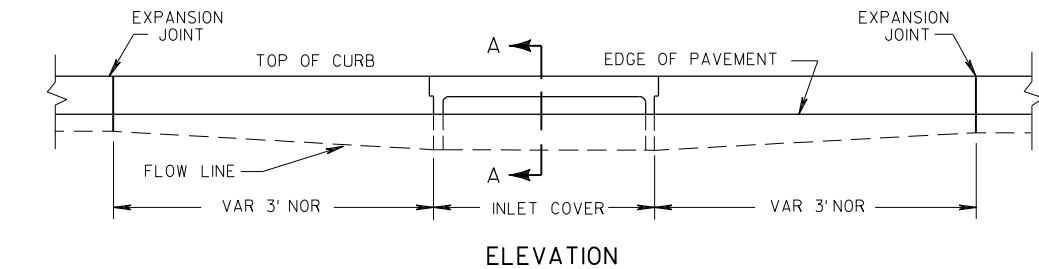
NOTE: ALGEBRAIC DIFFERENCE BETWEEN TANGENT GRADES G1 & G2 TO NOT EXCEED 15%
 DEPRESS SIDEWALK PROFILE IF DRIVEWAY APRON EXCEEDS MAX SLOPE



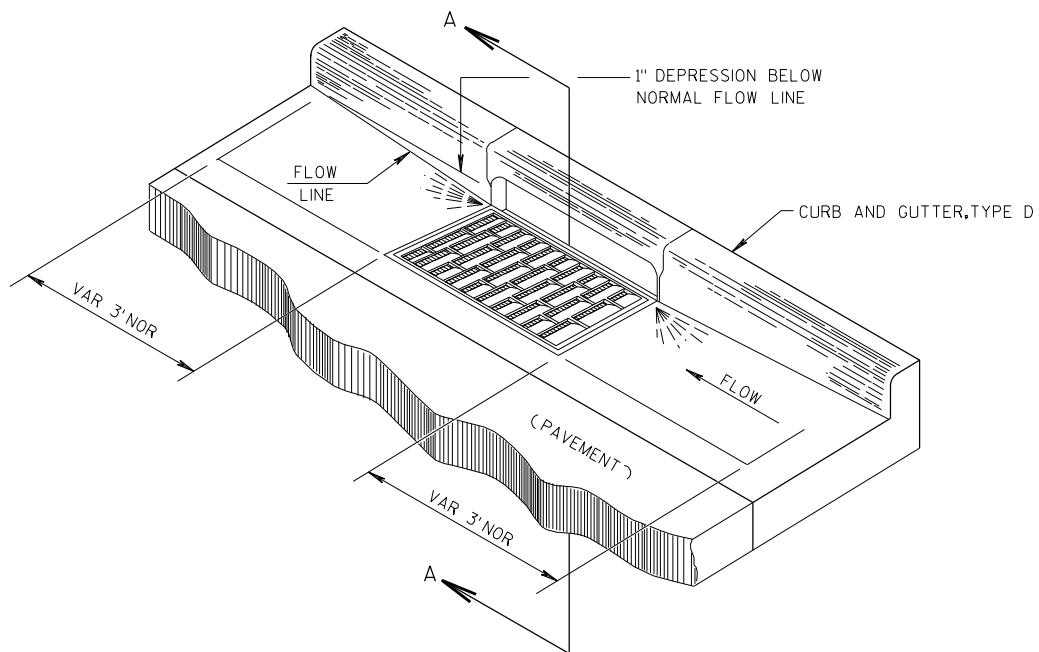
PLAN VIEW



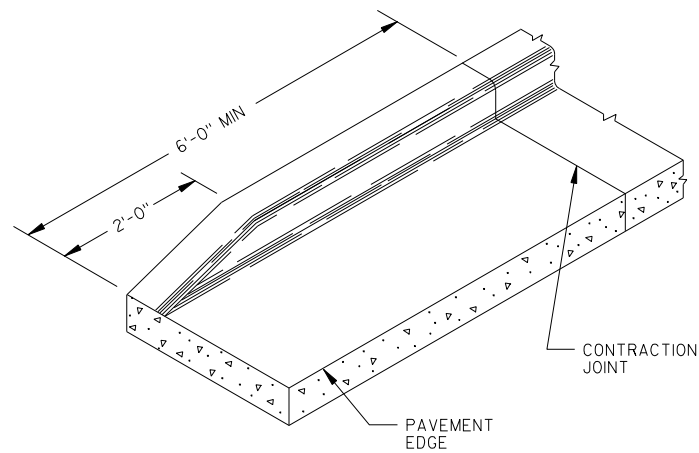
SECTION C-C



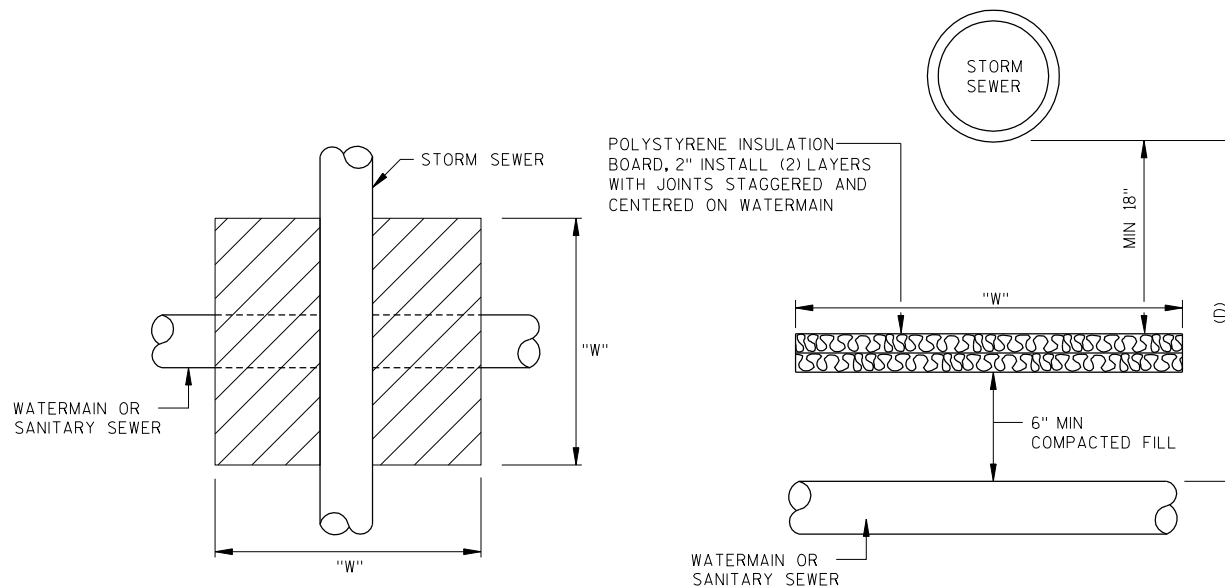
ELEVATION



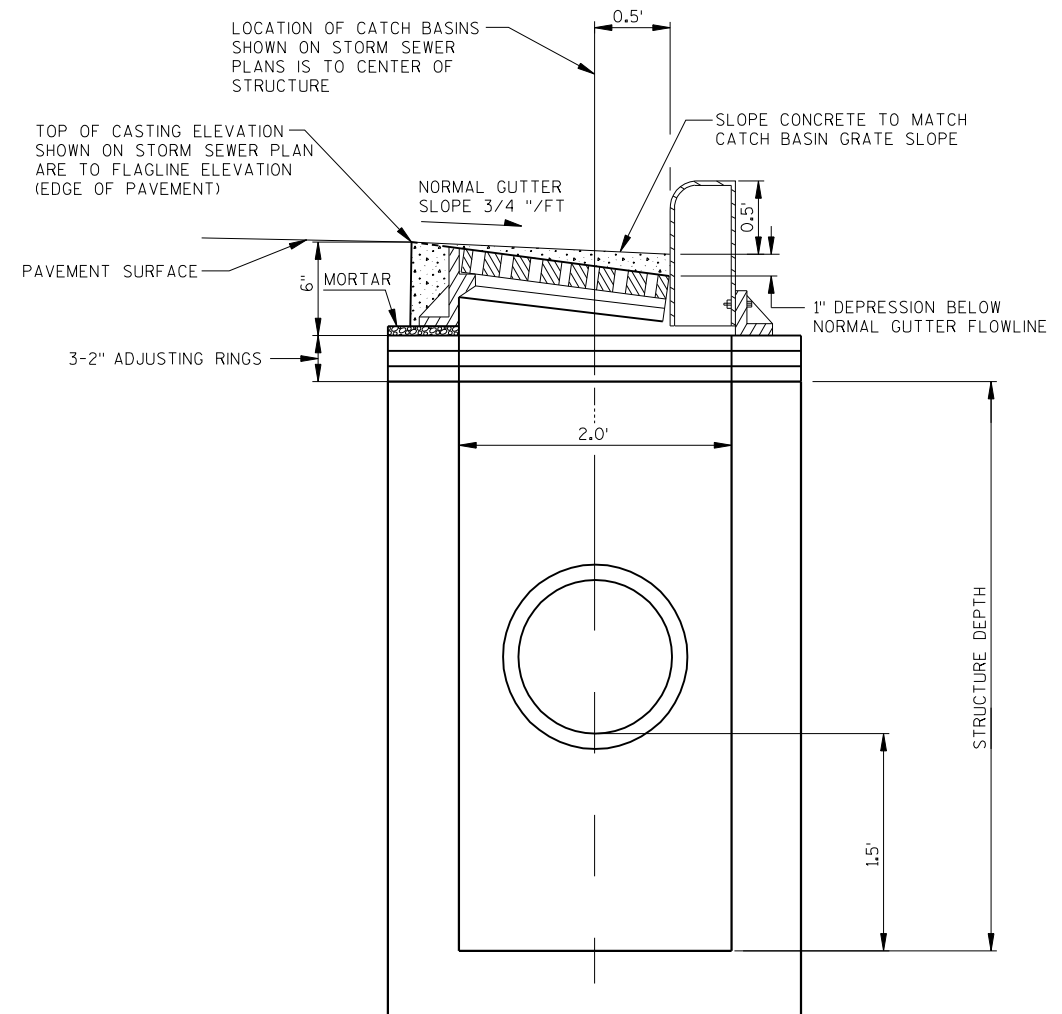
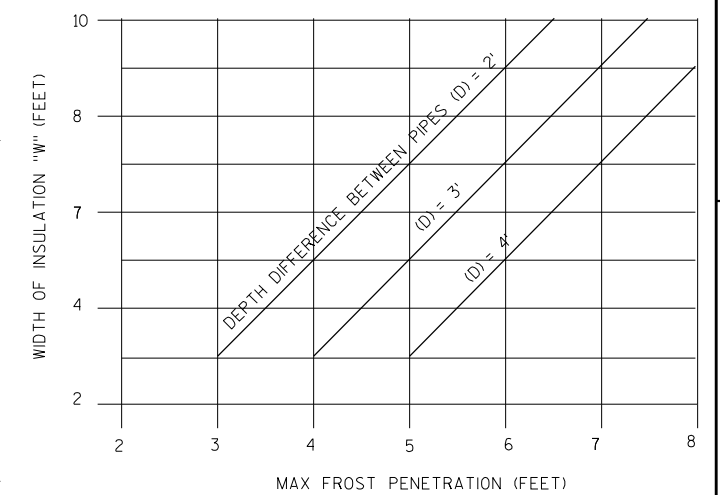
DETAIL OF CURB AND GUTTER AT CATCH BASINS



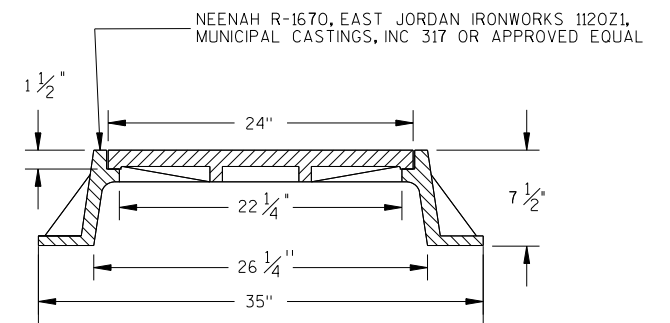
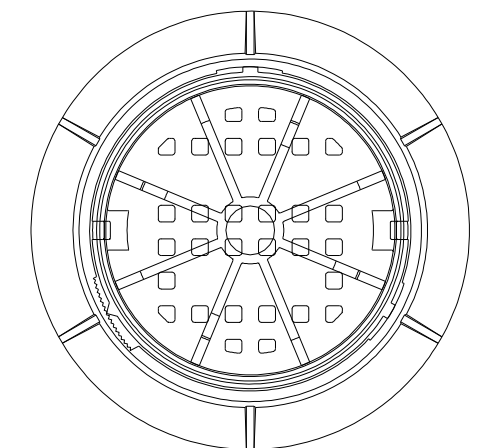
CURB END TREATMENT



WATERMAIN OR SANITARY INSULATION DETAIL



CATCH BASIN LOCATION
TYPE H INLET COVER
TYPE H-S INLET COVER



ALL MANHOLE CASTINGS SHALL CONFORM TO THE REQUIREMENTS OF ASTM A-48, CLASS NO. 30-B AND SHALL BE FREE FROM CRACKS, HOLES, SWELLS, AND COLD SHUTS.

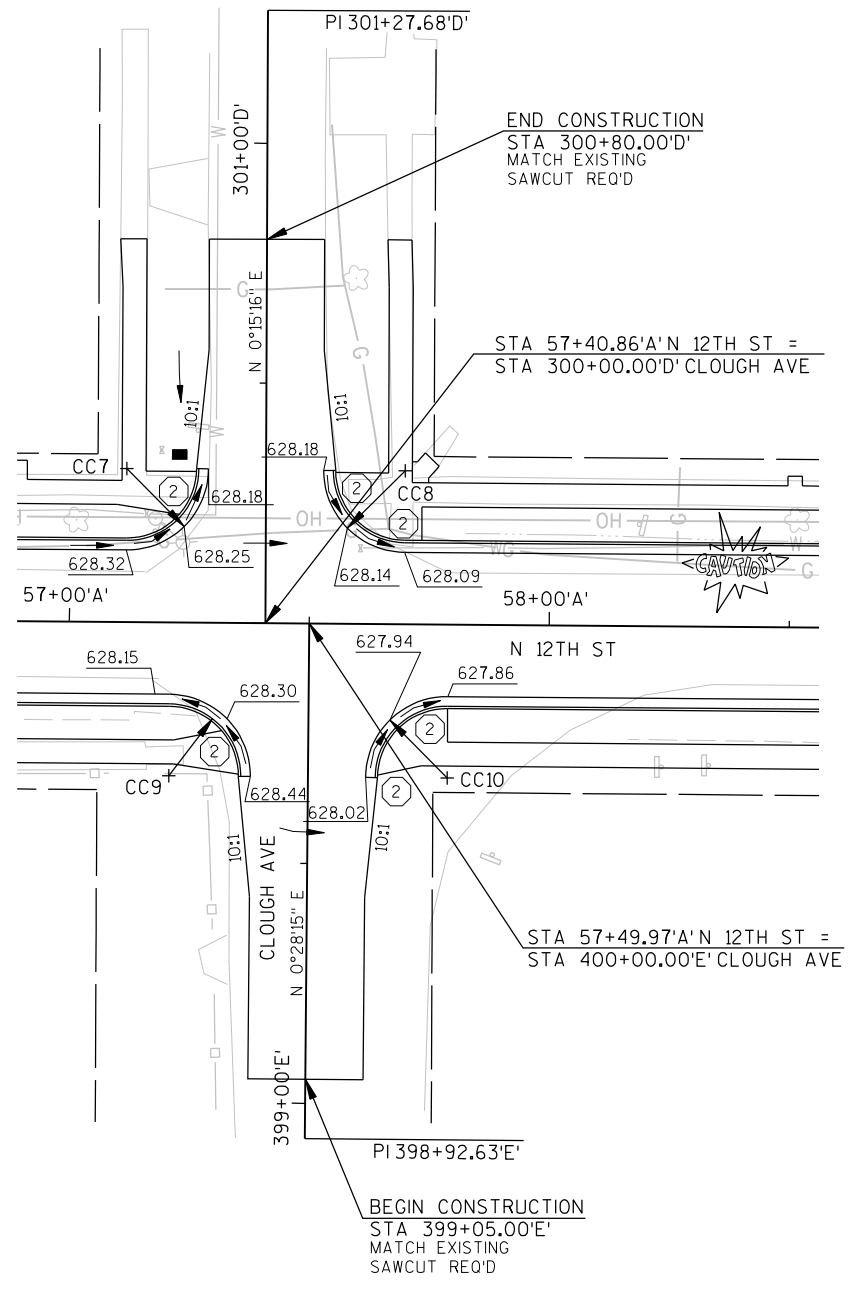
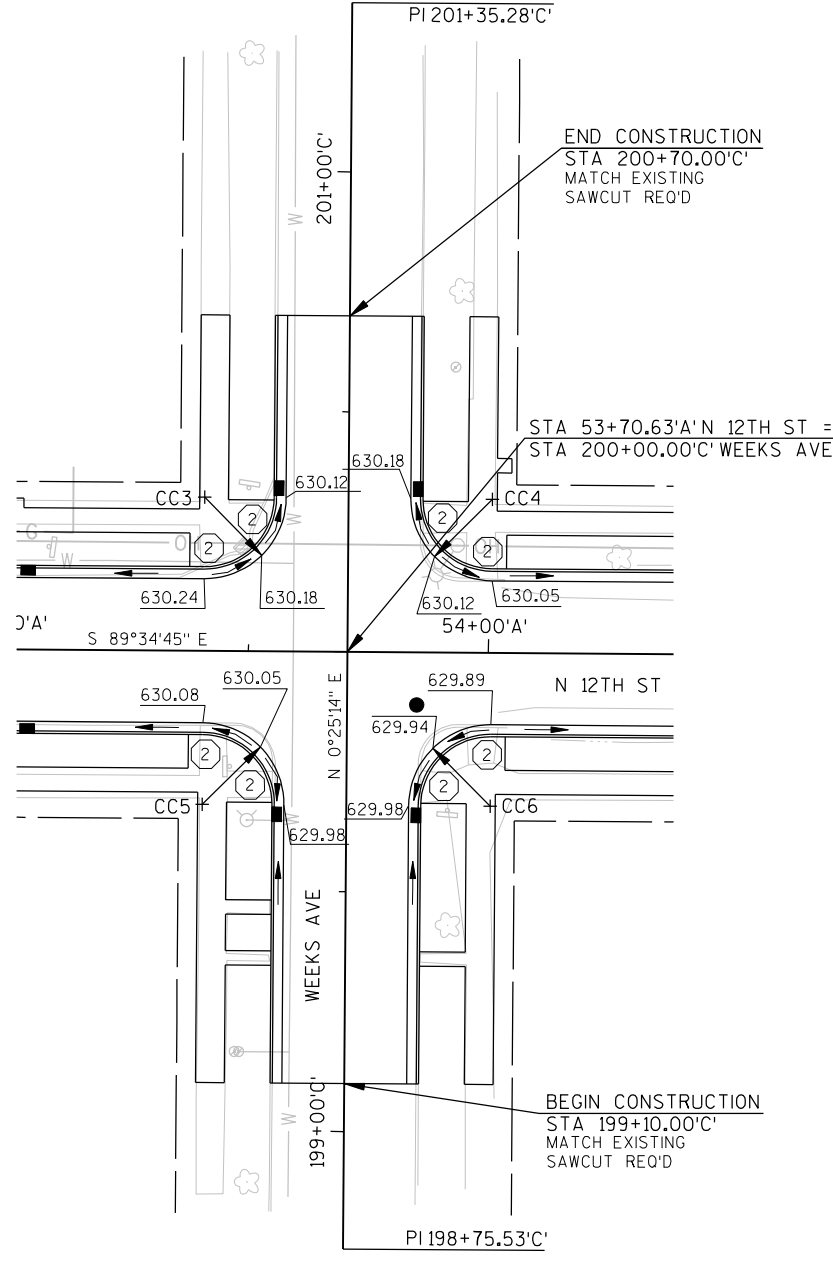
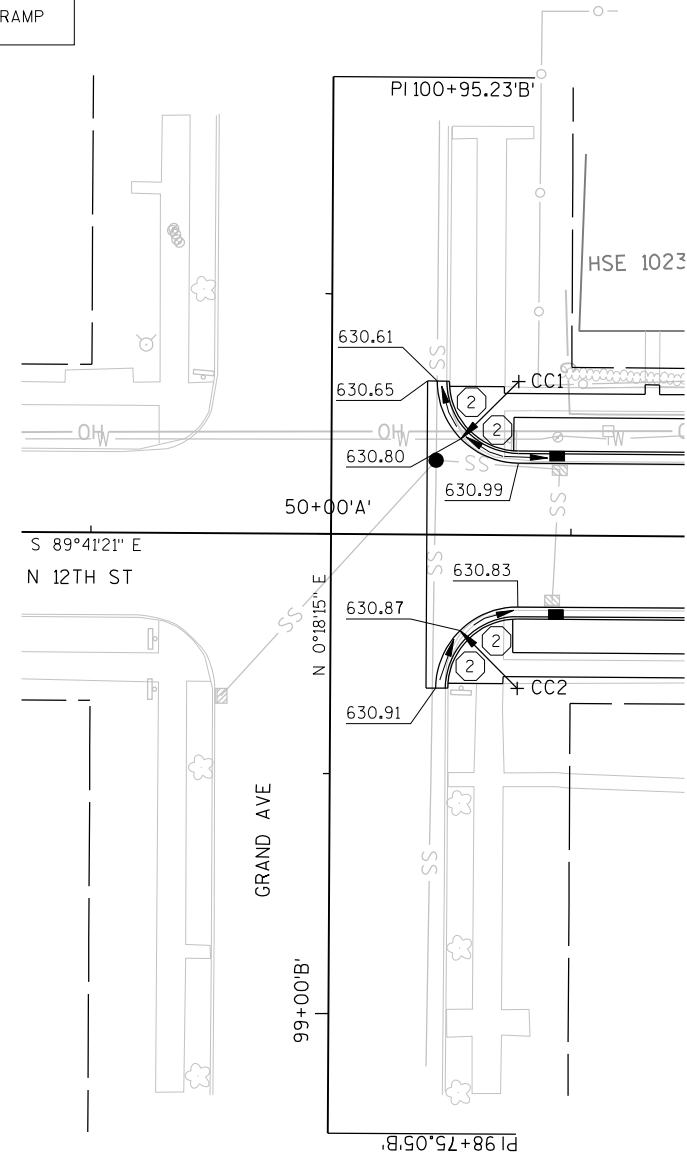
COVERS SHALL BE "SELF-SEALING", "T-SEAL" OR "GASKET SEALED" COVERS WITH "SANITARY" OR "STORM" LABELS AS APPLICABLE, OR OTHER LABELS APPROVED AS EQUAL.

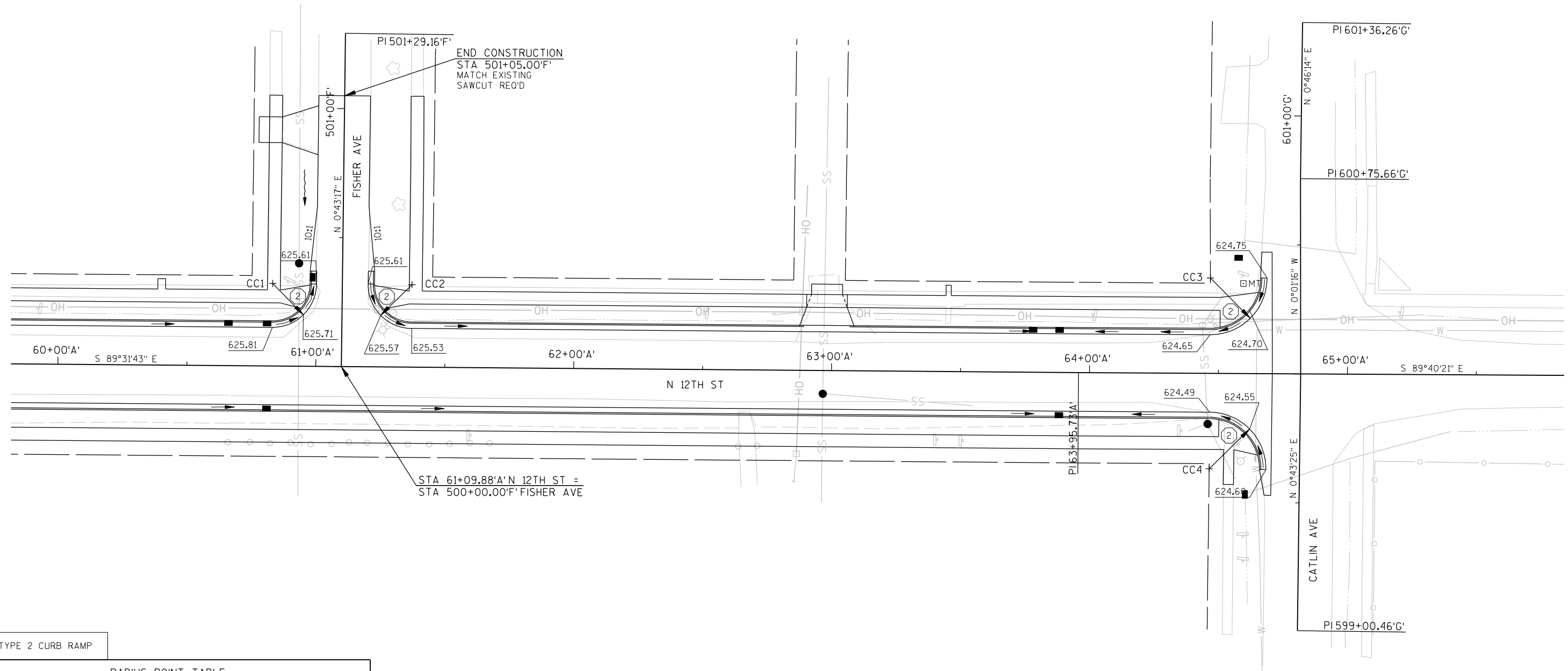
MANHOLE COVER TYPE SPECIAL

RADIUS POINT TABLE				
POINT	STATION	OFFSET	RADIUS	COORDINATES
CC1	50+38.94 N 12TH ST 100+31.92 GRAND AVE	32.0' LT 39.0' RT	17.0' R	Y = 306759.800 X = 149711.347
CC2	54+39.07 N 12TH ST 99+67.92 GRAND AVE	32.0' RT 39.0' RT	17.0' R	Y = 306695.800 X = 149711.007
CC3	53+40.63 N 12TH ST 200+32.00 WEEKS AVE	32.0' LT 30.0' LT	17.0' R	Y = 306757.584 X = 150013.037
CC4	54+00.63 N 12TH ST 200+32.00 WEEKS AVE	32.0' LT 30.0' RT	17.0' R	Y = 306757.143 X = 150073.036
CC5	53+40.63 N 12TH ST 199+68.00 WEEKS AVE	32.0' RT 30.0' LT	17.0' R	Y = 306693.584 X = 150012.567
CC6	54+00.63 N 12TH ST 199+68.00 WEEKS AVE	32.0' RT 30.0' RT	17.0' R	Y = 306693.144 X = 150072.566
CC7	57+11.74 N 12TH ST 300+32.12 CLOUGH AVE	32.0' LT 29.0' LT	17.0' R	Y = 306754.815 X = 150384.158
CC8	57+69.74 N 12TH ST 300+31.90 CLOUGH AVE	32.0' LT 29.0' RT	17.0' R	Y = 306754.338 X = 150442.156
CC9	57+20.97 N 12TH ST 399+68.00 CLOUGH AVE	32.0' RT 29.0' LT	17.0' R	Y = 306690.742 X = 150392.860
CC10	57+78.97 N 12TH ST 399+68.00 CLOUGH AVE	32.0' RT 29.0' RT	17.0' R	Y = 306690.265 X = 150450.858



② TYPE 2 CURB RAMP





② TYPE 2 CURB RAMP

RADIUS POINT TABLE

POINT	STATION	OFFSET	RADIUS	COORDINATES
CC1	60+83.02 N 12TH ST 500+31.88 FISHER AVE	32.0' LT 27.0' LT	17.0' R	Y = 306751.761 X = 150755.432
CC2	61+37.02 N 12TH ST 500+32.12 FISHER AVE	32.0' LT 27.0' RT	17.0' R	Y = 306751.317 X = 150809.430
CC3	64+46.65 N 12TH ST 600+37.20 CATLIN AVE	37.0' LT 35.0' LT	22.0' R	Y = 306753.899 X = 151118.997
CC4	64+46.62 N 12TH ST 599+62.74 CATLIN AVE	37.0' RT 35.0' LT	22.0' R	Y = 306679.900 X = 151118.542

BENCHMARK TABLE

NO	STATION	DESCRIPTION	ELEV
1	50+57.62, 21.8' LT	NAIL IN PP NE QUAD OF N 12TH ST AND GRAND AVE	632.51
2	53+93.42, 22.3' LT	NAIL IN PP NE QUAD OF N 12TH ST AND WEEKS AVE	631.67

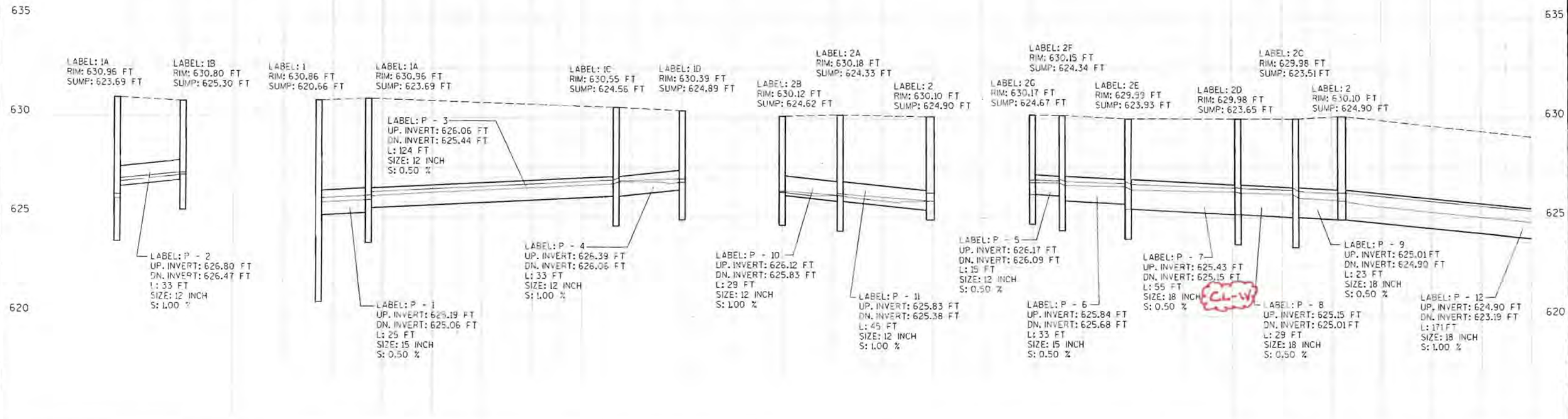
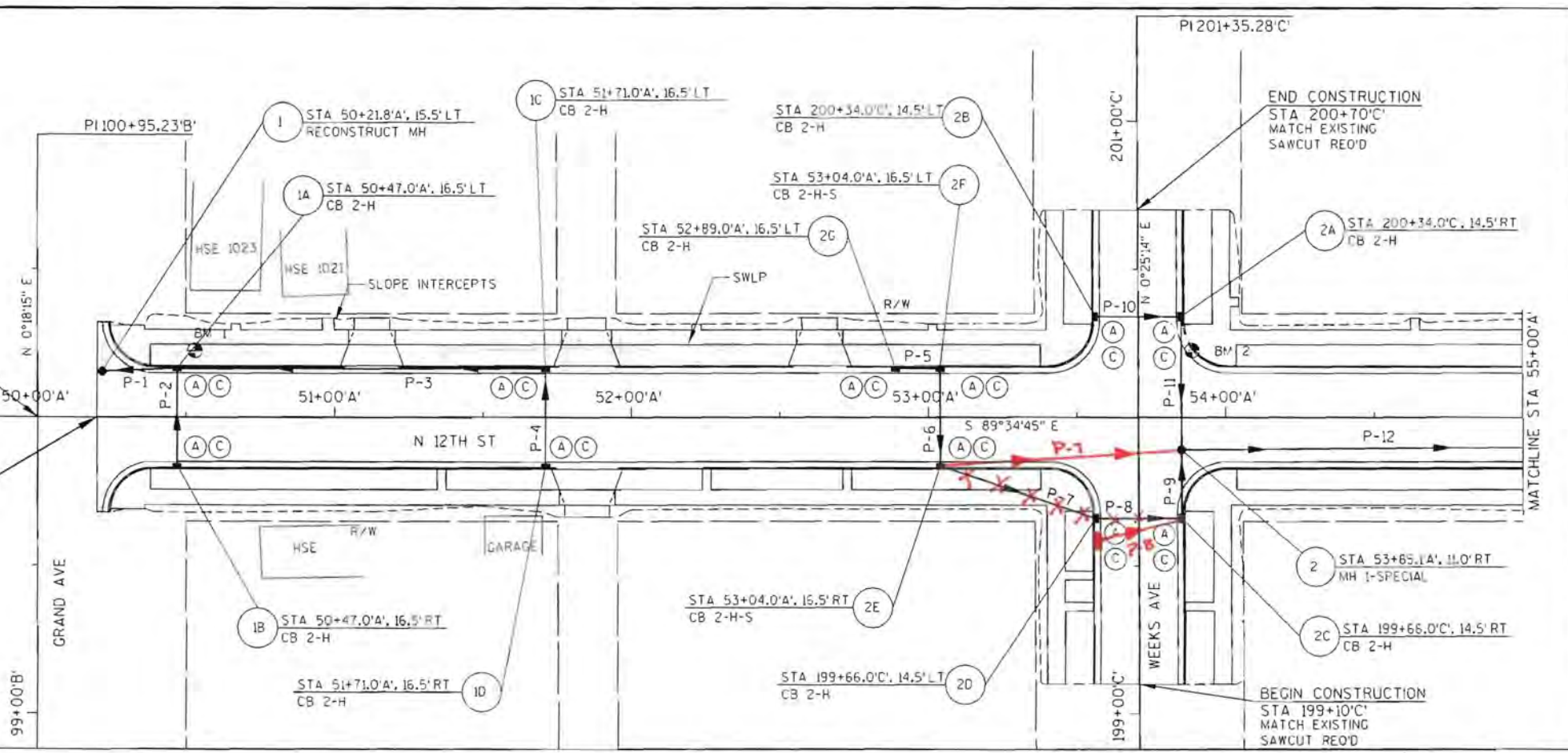


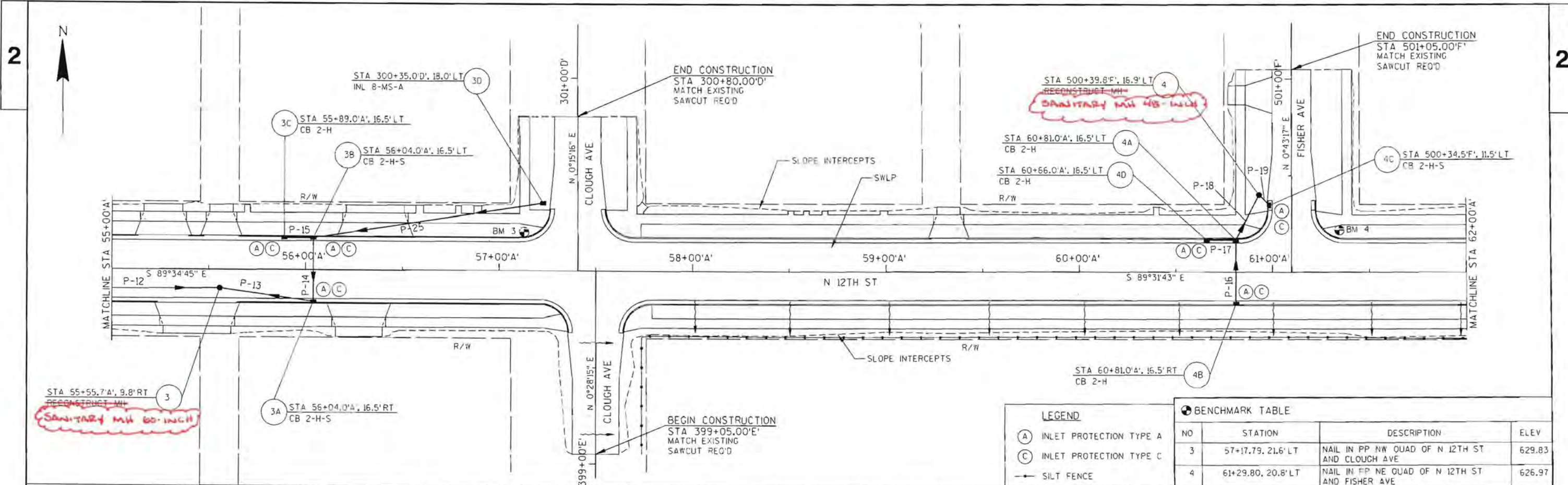
STA 50+00.00'A N 12TH ST = STA 100+00.00'B GRAND AVE

BEGIN PROJECT
 STA 50+20.00'A
 Y=306727.939
 X=149692.177
 MATCH EXISTING SAWCUT REO'D

LEGEND

- (A) INLET PROTECTION TYPE A
- (C) INLET PROTECTION TYPE C
- SILT FENCE



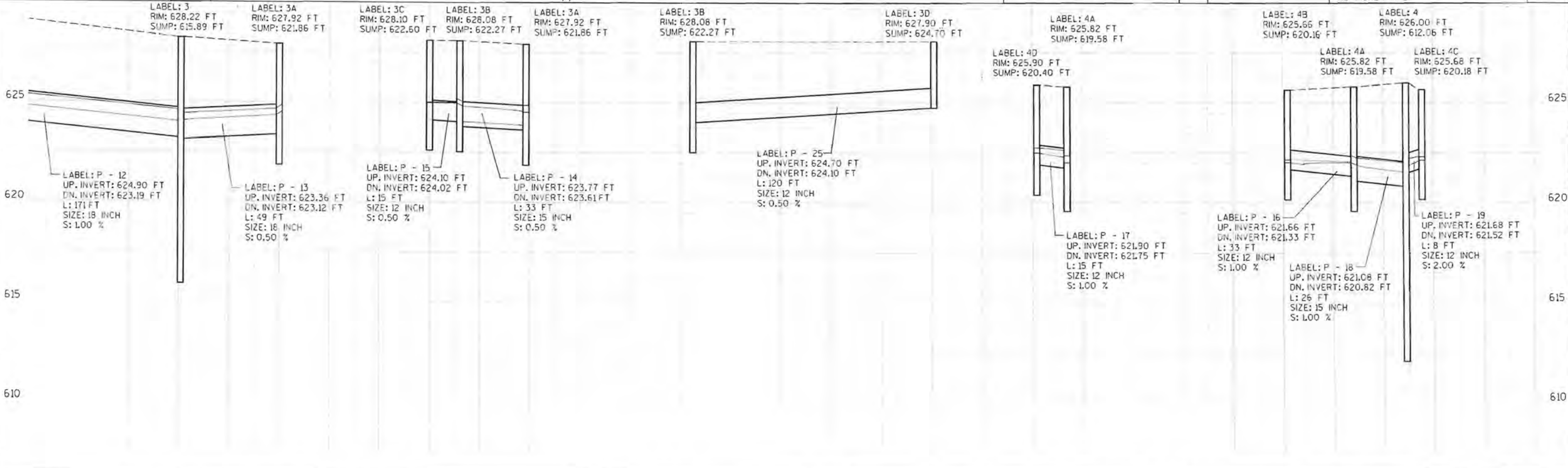


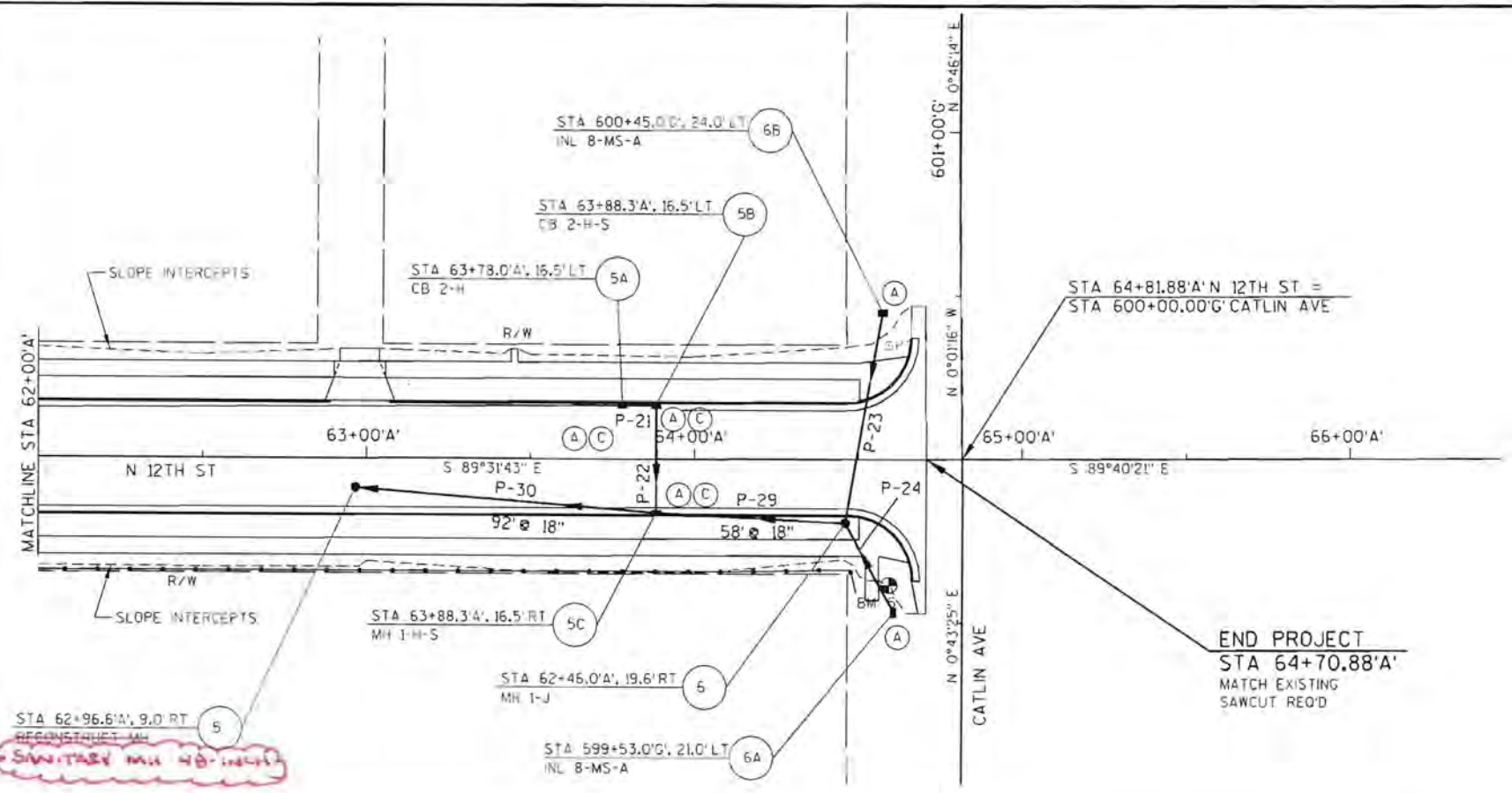
STA 55+55.7'A, 9.8'RT
RECONSTRUCT MH
SANITARY MH 60-INCH

STA 500+39.8'F, 16.9'LT
RECONSTRUCT MH
SANITARY MH 48-INCH

LEGEND			
(A)	INLET PROTECTION TYPE A		
(C)	INLET PROTECTION TYPE C		
—	SILT FENCE		

BENCHMARK TABLE			
NO	STATION	DESCRIPTION	ELEV
3	57+17.79, 21.6' LT	NAIL IN PP NW QUAD OF N 12TH ST AND CROUGH AVE	629.83
4	61+29.80, 20.8' LT	NAIL IN PP NE QUAD OF N 12TH ST AND FISHER AVE	626.97





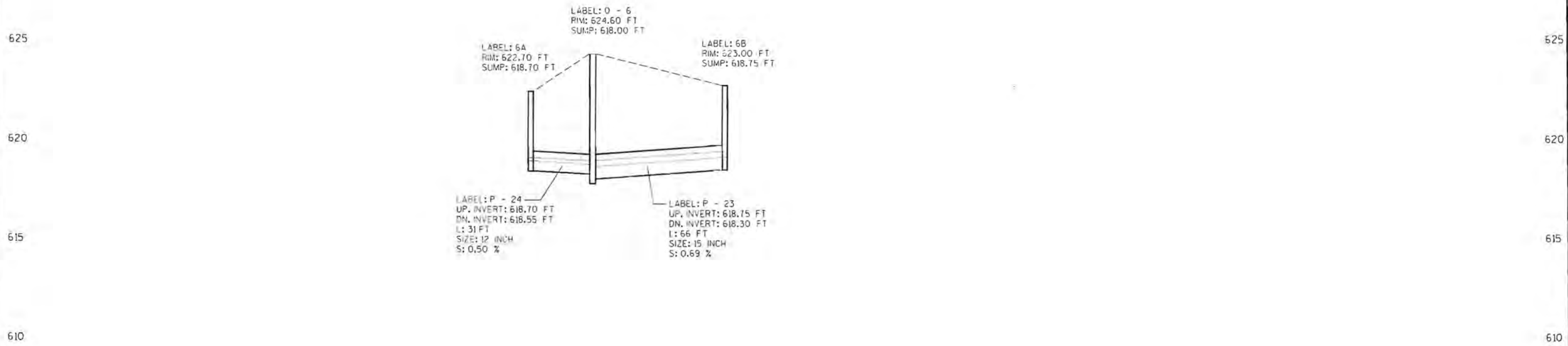
STA 62+96.6'A, 9.0' RT
 RECONSTRUCT MH
 SANITARY MH 48" INCH

LEGEND

- (A) INLET PROTECTION TYPE A
- (C) INLET PROTECTION TYPE C
- SILT FENCE

BENCHMARK TABLE

NO	STATION	DESCRIPTION	ELEV
5	64+58.84, 34.0' RT	TOP NUT OF HYD SW QUAD OF N 12TH ST AND CATLIN AVE	628.38



LABEL: 0 - 6
 RIM: 624.60 FT
 SUMP: 618.00 FT

LABEL: 6A
 RIM: 622.70 FT
 SUMP: 618.70 FT

LABEL: 6B
 RIM: 623.00 FT
 SUMP: 618.75 FT

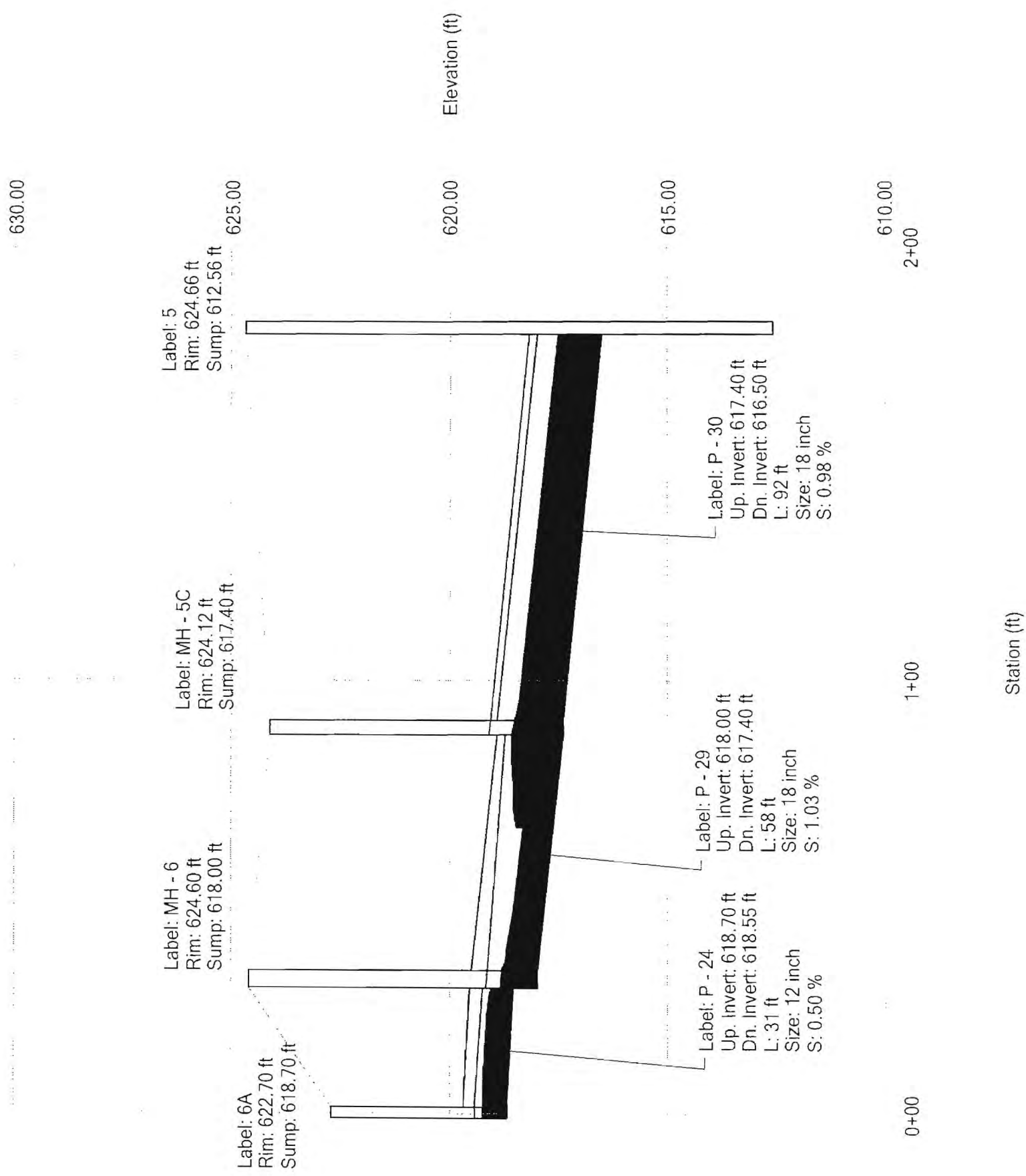
LABEL: P - 24
 UP. INVERT: 618.70 FT
 DN. INVERT: 618.55 FT
 L: 31 FT
 SIZE: 12 INCH
 S: 0.50 %

LABEL: P - 23
 UP. INVERT: 618.75 FT
 DN. INVERT: 618.30 FT
 L: 66 FT
 SIZE: 15 INCH
 S: 0.69 %

Profile
Scenario: Base

Profile: Profile - 1

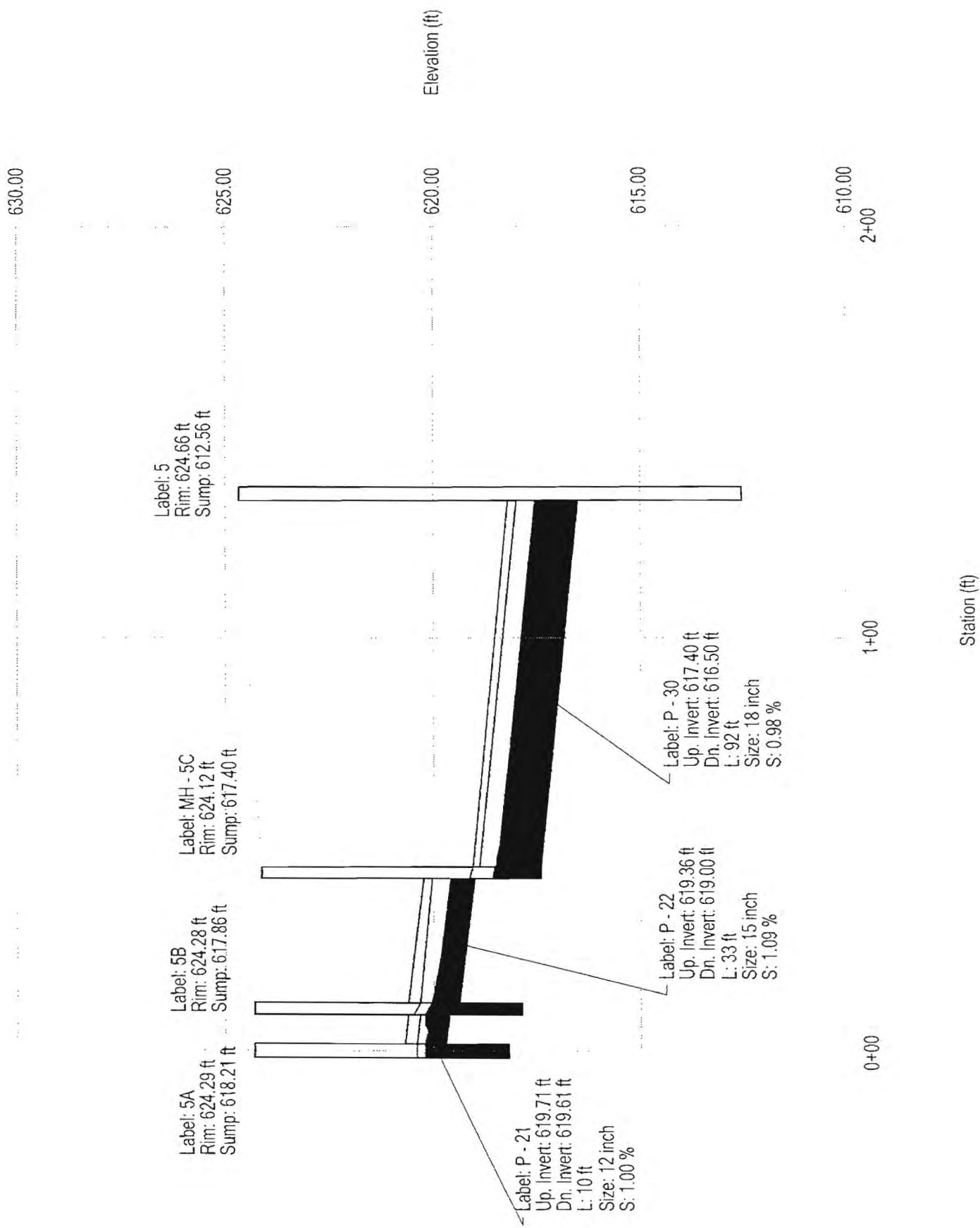
Scenario: Base



Profile
Scenario: Base

Profile: Profile - 2

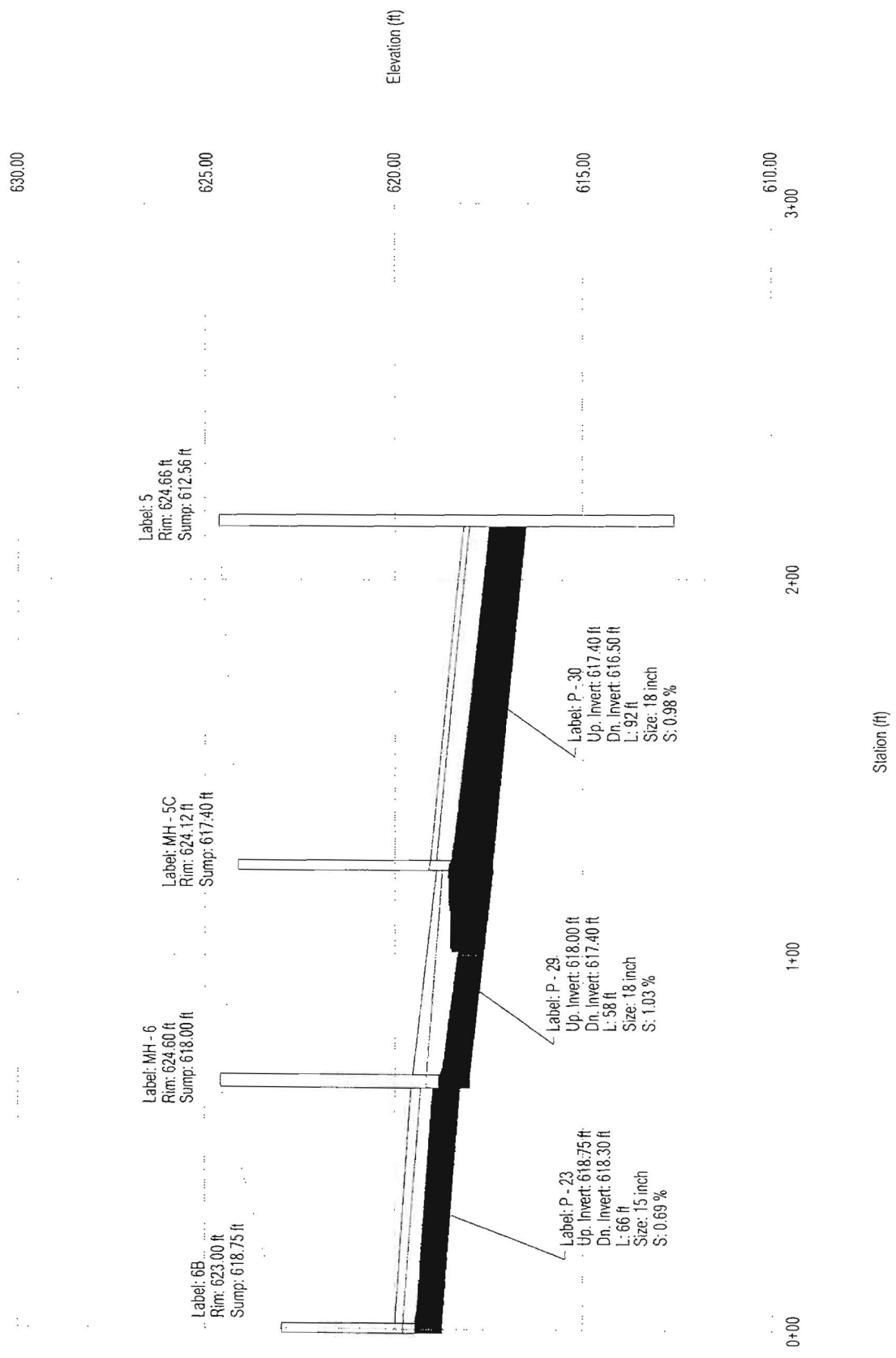
Scenario: Base



Profile
Scenario: Base

Profile: Profile - 3

Scenario: Base





- PAVEMENT MARKING LEGEND**
- (A) PAVEMENT MARKING EPOXY 4" (DOUBLE YELLOW)
 - (B) PAVEMENT MARKING CROSSWALK EPOXY 6" (WHITE)
 - (C) PAVEMENT MARKING EPOXY 4" (WHITE)
 - (D) PAVEMENT MARKING STOP LINE EPOXY 18" (WHITE)
 - (E) PAVEMENT MARKING EPOXY 8" (WHITE)

- SIGN LEGEND**
- EXISTING FLASHING LIGHT
 - SIGN(S) ON ONE TUBULAR STEEL POST (EXISTING)
 - SIGN(S) ON ONE WOOD POST
 - SIGN(S) ON TWO WOOD POST
 - (000) SIGN GROUP NUMBER

SIGNING GENERAL NOTES

SIGN LOCATIONS SHOWN ARE APPROXIMATE, FINAL LOCATIONS SHALL BE DETERMINED IN THE FIELD.

REMOVE = REMOVING SIGNS TYPE II AND REMOVING SMALL SIGN SUPPORTS

MOVE = MOVING SIGNS TYPE II, REMOVING SMALL SIGN SUPPORTS, AND POSTS WOOD (SIZE)

REPLACE = REMOVING SIGNS TYPE II, REMOVING SMALL SIGN SUPPORTS, SIGNS REFLECTIVE TYPE II, AND POSTS WOOD (SIZE)

INSTALL = SIGNS REFLECTIVE TYPE II, AND POSTS WOOD (SIZE)

BEGIN PROJECT
STA 50+20.00'A'

49+00'A'

50+00'A'

51+00'A'

52+00'A'

53+00'A'

54+00'A'

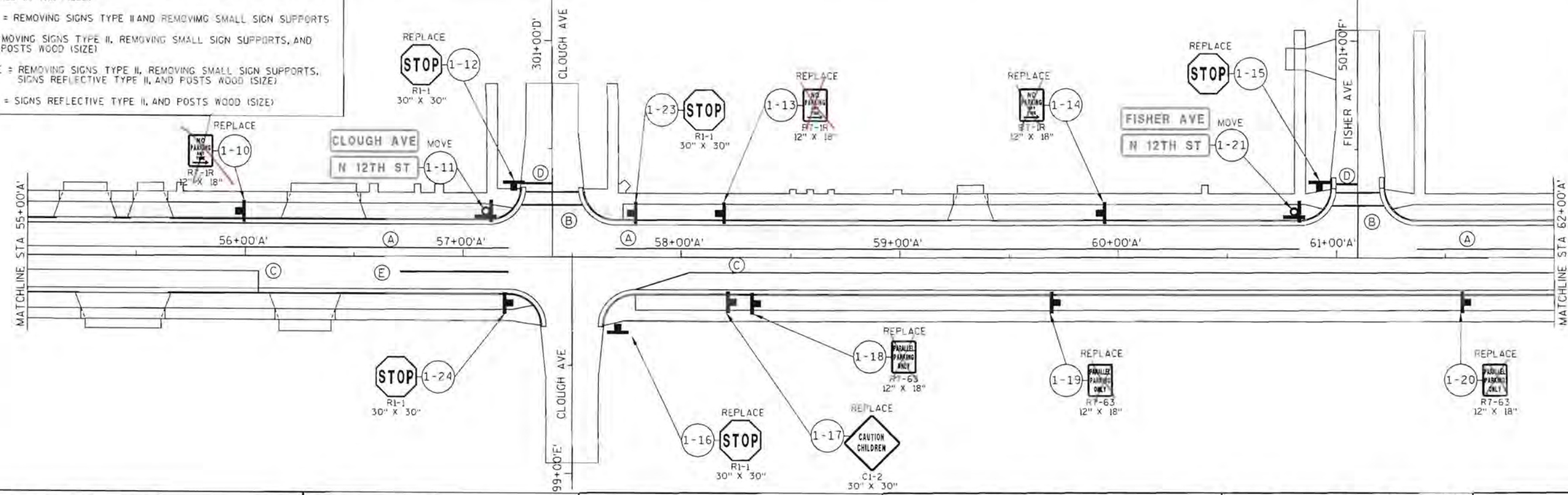
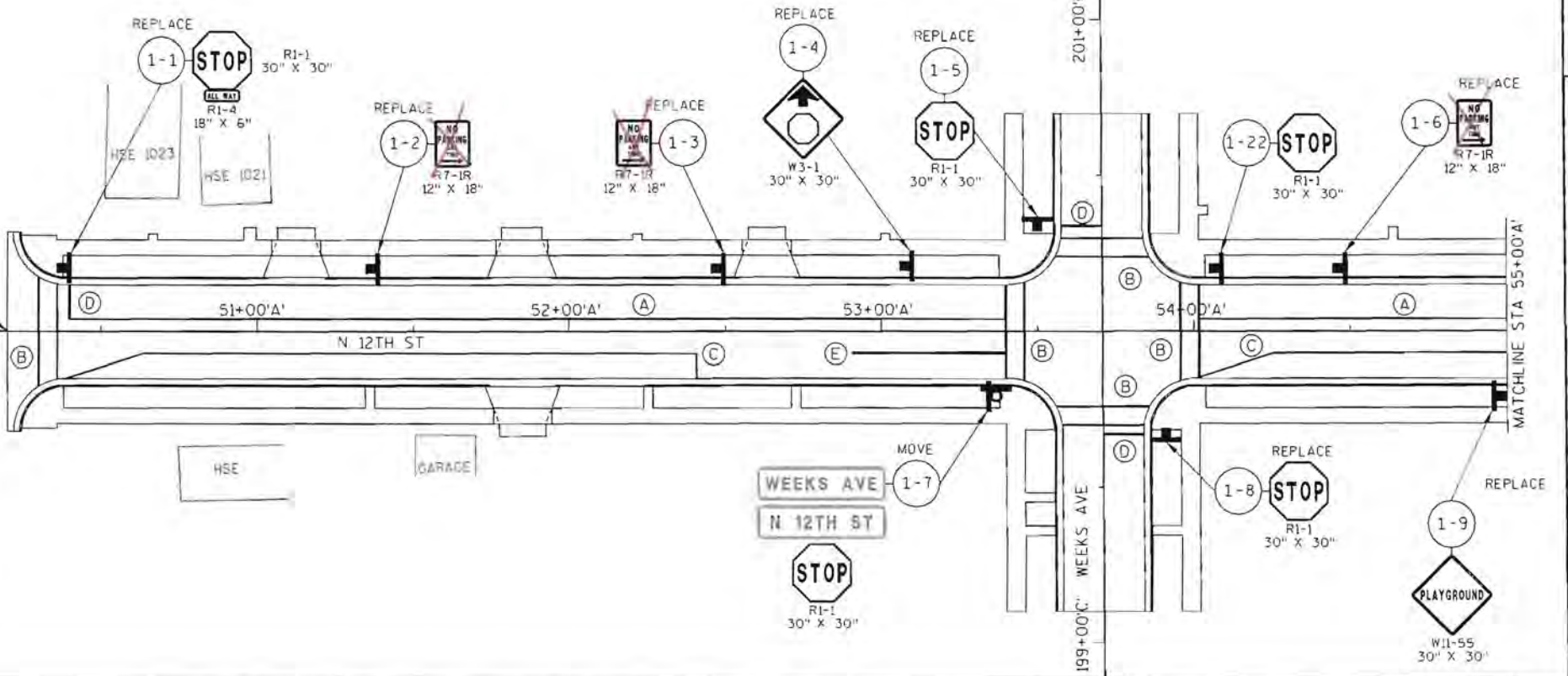
MATCHLINE STA 55+00'A'

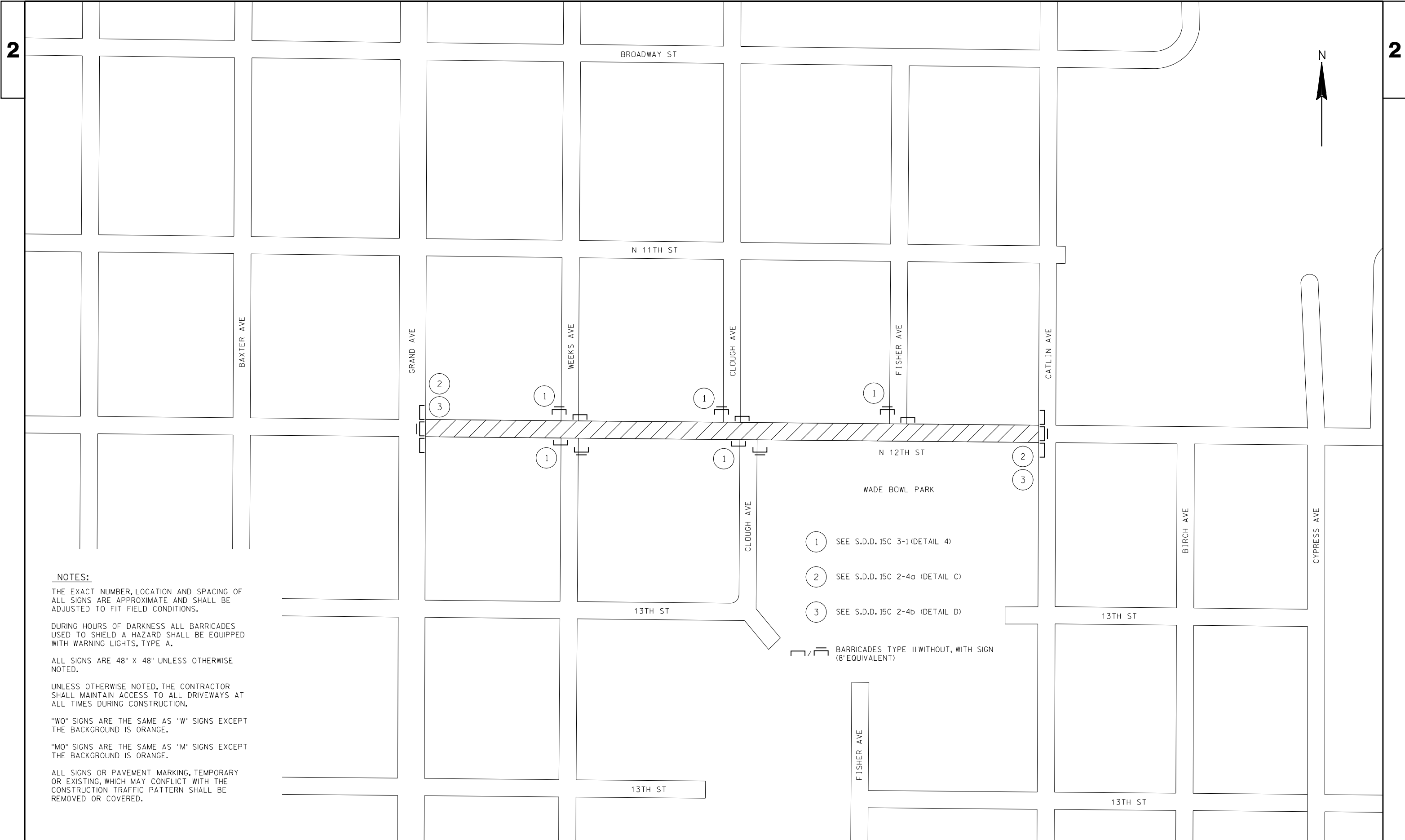
GRAND AVE

99+00'B'

201+00'C'

199+00'C'





NOTES:

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

DURING HOURS OF DARKNESS ALL BARRICADES USED TO SHIELD A HAZARD SHALL BE EQUIPPED WITH WARNING LIGHTS, TYPE A.

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

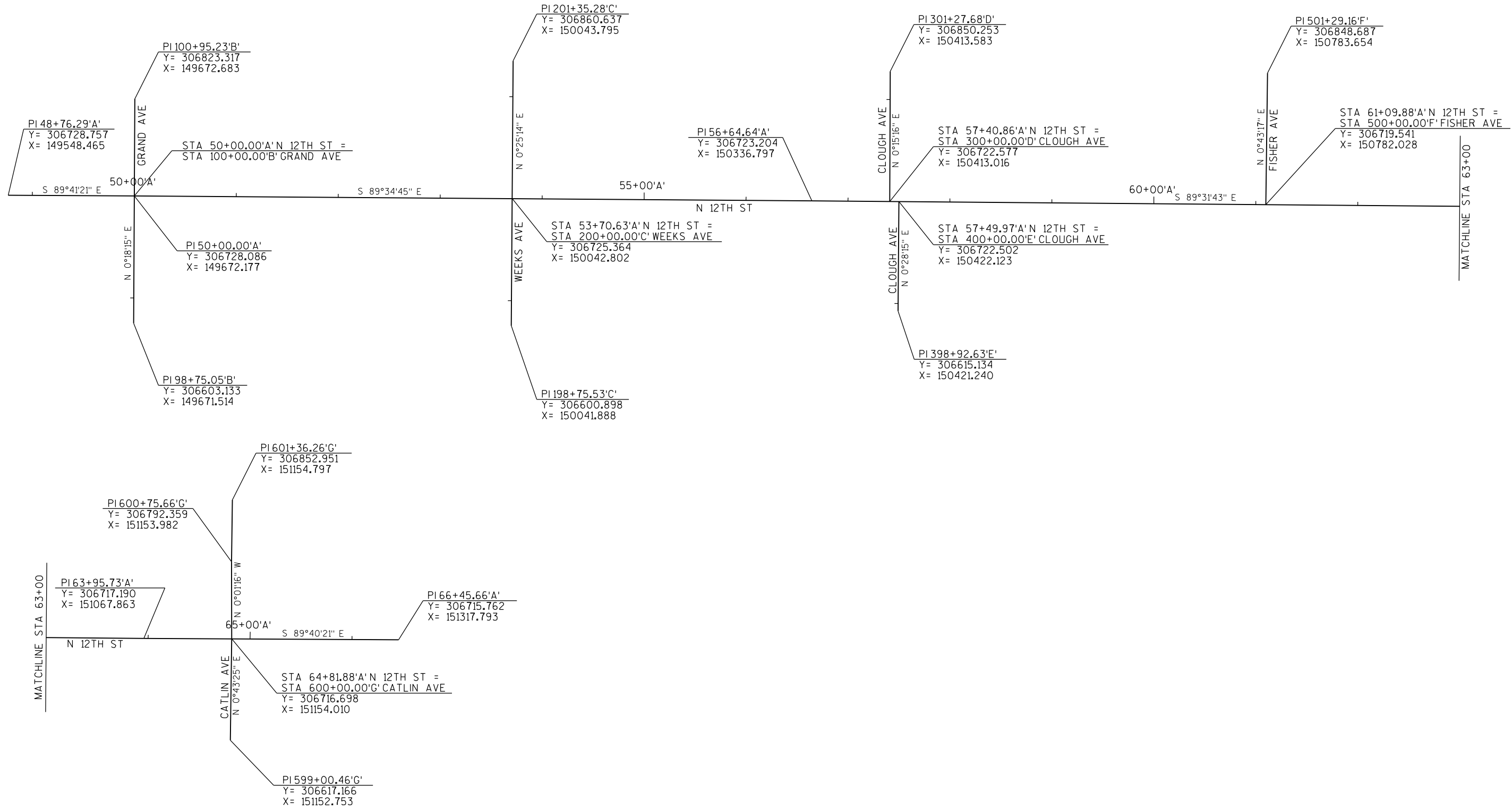
UNLESS OTHERWISE NOTED, THE CONTRACTOR SHALL MAINTAIN ACCESS TO ALL DRIVEWAYS AT ALL TIMES DURING CONSTRUCTION.

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

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

ALL SIGNS OR PAVEMENT MARKING, TEMPORARY OR EXISTING, WHICH MAY CONFLICT WITH THE CONSTRUCTION TRAFFIC PATTERN SHALL BE REMOVED OR COVERED.

PI 48+76.29



DATE 30DEC08

ESTIMATE OF QUANTITIES

LINE NUMBER	ITEM	ITEM DESCRIPTION	UNIT	TOTAL	8998-00-10 QUANTITY
0010	201.0120	CLEARING	ID	8.000	8.000
0020	201.0220	GRUBBING	ID	8.000	8.000
0030	203.0100	REMOVING SMALL PIPE CULVERTS	EACH	9.000	9.000
0040	204.0100	REMOVING PAVEMENT	SY	105.000	105.000
0050	204.0150	REMOVING CURB & GUTTER	LF	987.000	987.000
0060	204.0155	REMOVING CONCRETE SIDEWALK	SY	1,380.000	1,380.000
0070	204.0215	REMOVING CATCH BASINS	EACH	6.000	6.000
0080	204.0245	REMOVING STORM SEWER (SIZE) 01. 8-INCH	LF	50.000	50.000
0090	204.0245	REMOVING STORM SEWER (SIZE) 02. 12-INCH	LF	134.000	134.000
0100	204.0280	SEALING PIPES	EACH	1.000	1.000
0110	204.9060.S	REMOVING (ITEM DESCRIPTION) 01. WOOD BOLLARDS	EACH	14.000	14.000
0120	205.0100	EXCAVATION COMMON **P**	CY	7,420.000	7,420.000
0130	213.0100	FINISHING ROADWAY (PROJECT) 01. 8998-00-10	EACH	1.000	1.000
0140	305.0110	BASE AGGREGATE DENSE 3/4-INCH	TON	620.000	620.000
0150	305.0120	BASE AGGREGATE DENSE 1 1/4-INCH	TON	3,560.000	3,560.000
0160	310.0110	BASE AGGREGATE OPEN GRADED	TON	475.000	475.000
0170	350.0104	SUBBASE	TON	5,300.000	5,300.000
0180	416.0160	CONCRETE DRIVEWAY 6-INCH	SY	245.000	245.000
0190	455.0122	ASPHALTIC MATERIAL PG64-34	TON	97.000	97.000
0200	455.0605	TACK COAT	GAL	170.000	170.000
0210	460.1101	HMA PAVEMENT TYPE E-1	TON	1,605.000	1,605.000
0220	460.2000	INCENTIVE DENSITY HMA PAVEMENT	DOL	1,000.000	1,000.000
0230	601.0411	CONCRETE CURB & GUTTER 30-INCH TYPE D	LF	3,070.000	3,070.000
0240	602.0405	CONCRETE SIDEWALK 4-INCH	SF	16,150.000	16,150.000
0250	602.0415	CONCRETE SIDEWALK 6-INCH	SF	1,250.000	1,250.000
0260	602.0505	CURB RAMP DETECTABLE WARNING FIELD YELLOW	SF	176.000	176.000
0270	608.0312	STORM SEWER PIPE REINFORCED CONCRETE CLASS III 12-INCH	LF	328.000	328.000
0280	608.0315	STORM SEWER PIPE REINFORCED CONCRETE CLASS III 15-INCH	LF	36.000	36.000
0290	608.0318	STORM SEWER PIPE REINFORCED CONCRETE CLASS III 18-INCH	LF	55.000	55.000
0300	608.0412	STORM SEWER PIPE REINFORCED CONCRETE CLASS IV 12-INCH	LF	206.000	206.000
0310	608.0415	STORM SEWER PIPE REINFORCED CONCRETE CLASS IV 15-INCH	LF	157.000	157.000
0320	608.0418	STORM SEWER PIPE REINFORCED CONCRETE CLASS IV 18-INCH	LF	357.000	357.000
0330	611.0103	CATCH BASINS TYPE 2	EACH	21.000	21.000
0340	611.0201	MANHOLES TYPE 1	EACH	1.000	1.000
0350	611.0305	INLETS TYPE 8	EACH	3.000	3.000
0360	611.0420	RECONSTRUCTING MANHOLES	EACH	5.000	5.000
0370	611.0624	INLET COVERS TYPE H	EACH	14.000	14.000
0380	611.0639	INLET COVERS TYPE H-S	EACH	7.000	7.000
0390	611.0645	INLET COVERS TYPE MS-A	EACH	3.000	3.000
0400	612.0106	PIPE UNDERDRAIN 6-INCH	LF	3,070.000	3,070.000
0410	612.0902.S	INSULATION BOARD POLYSTYRENE (INCH) 01. 2-INCH	SY	16.000	16.000
0420	619.1000	MOBILIZATION	EACH	1.000	1.000
0430	623.0200	DUST CONTROL SURFACE TREATMENT	SY	15,200.000	15,200.000
0440	625.0500	SALVAGED TOPSOIL	SY	3,530.000	3,530.000
0450	628.1504	SILT FENCE	LF	745.000	745.000

DATE 30DEC08

E S T I M A T E O F Q U A N T I T I E S

LINE NUMBER	ITEM	ITEM DESCRIPTION	UNIT	TOTAL	8998-00-10 QUANTITY
0460	628.1520	SILT FENCE MAINTENANCE	LF	745.000	745.000
0470	628.1905	MOBILIZATIONS EROSION CONTROL	EACH	1.000	1.000
0480	628.1910	MOBILIZATIONS EMERGENCY EROSION CONTROL	EACH	2.000	2.000
0490	628.7005	INLET PROTECTION TYPE A	EACH	24.000	24.000
0500	628.7015	INLET PROTECTION TYPE C	EACH	21.000	21.000
0510	629.0210	FERTILIZER TYPE B	CWT	2.500	2.500
0520	630.0140	SEEDING MIXTURE NO. 40	LB	10.000	10.000
0530	630.0200	SEEDING TEMPORARY	LB	15.000	15.000
0540	631.1000	SOD LAWN	SY	3,530.000	3,530.000
0550	634.0614	POSTS WOOD 4X6-1NCH X 14-FT	EACH	15.000	15.000
0560	634.0616	POSTS WOOD 4X6-1NCH X 16-FT	EACH	12.000	12.000
0570	634.0814	POSTS TUBULAR STEEL 2X2-1NCH X 14-FT	EACH	4.000	4.000
0580	637.0202	SIGNS REFLECTIVE TYPE II	SF	109.160	109.160
0590	638.2102	MOVING SIGNS TYPE II	EACH	8.000	8.000
0600	638.2602	REMOVING SIGNS TYPE II	EACH	29.000	29.000
0610	638.3000	REMOVING SMALL SIGN SUPPORTS	EACH	27.000	27.000
0620	642.5001	FIELD OFFICE TYPE B	EACH	1.000	1.000
0630	643.0100	TRAFFIC CONTROL (PROJECT) 01. 8998-00-10	EACH	1.000	1.000
0640	643.0420	TRAFFIC CONTROL BARRICADES TYPE III	DAYS	3,915.000	3,915.000
0650	643.0705	TRAFFIC CONTROL WARNING LIGHTS TYPE A	DAYS	6,180.000	6,180.000
0660	643.0900	TRAFFIC CONTROL SIGNS	DAYS	2,370.000	2,370.000
0670	645.0111	GEOTEXTILE FABRIC TYPE DF SCHEDULE A	SY	2,220.000	2,220.000
0680	645.0140	GEOTEXTILE FABRIC TYPE SAS	SY	6,365.000	6,365.000
0690	646.0106	PAVEMENT MARKING EPOXY 4-1NCH	LF	3,494.000	3,494.000
0700	646.0126	PAVEMENT MARKING EPOXY 8-1NCH	LF	150.000	150.000
0710	647.0566	PAVEMENT MARKING STOP LINE EPOXY 18-1NCH	LF	63.000	63.000
0720	647.0766	PAVEMENT MARKING CROSSWALK EPOXY 6-1NCH	LF	344.000	344.000
0730	650.4000	CONSTRUCTION STAKING STORM SEWER SYSTEM	EACH	30.000	30.000
0740	650.4500	CONSTRUCTION STAKING SUBGRADE	LF	3,618.000	3,618.000
0750	650.5000	CONSTRUCTION STAKING BASE	LF	1,809.000	1,809.000
0760	650.5500	CONSTRUCTION STAKING CURB GUTTER AND CURB & GUTTER	LF	3,070.000	3,070.000
0770	650.9910	CONSTRUCTION STAKING SUPPLEMENTAL CONTROL	LS	1.000	1.000
0780	650.9920	CONSTRUCTION STAKING SLOPE STAKES	LF	1,809.000	1,809.000
0790	690.0150	SAWING ASPHALT	LF	420.000	420.000
0800	690.0250	SAWING CONCRETE	LF	135.000	135.000
0810	SPV.0060	SPECIAL 01. UTILITY LINE OPENING (ULO)	EACH	3.000	3.000
0820	SPV.0060	SPECIAL 02. MANHOLE COVERS TYPE SPECIAL	EACH	1.000	1.000

3

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CLEARING AND GRUBBING			
		201.0120	201.0220
STATION	LOCATION	CLEARING ID	GRUBBING ID
PROJECT 8998-00-10 N 12TH STREET			
54+27'A'	LT	2	2
UNDISTRIBUTED	LT & RT	6	6
ITEM TOTALS		8	8

REMOVING SMALL PIPE CULVERTS			
		203.0100	
STATION	LOCATION	EACH	COMMENTS
PROJECT 8998-00-10 N 12TH STREET			
55+15.9'A' - 55+37.0'A'	LT	1	6" x 21' CMP
55+16.2'A' - 55+79.2'A'	RT	1	8" x 63' CMP
55+43.9'A' - 55+71.2'A'	LT	1	10" x 28' CMP
56+03.1'A' - 56+51.7'A'	RT	1	10" x 48' CMP
56+16.6'A' - 56+57.0'A'	LT	1	10" x 40' CMP
58+64.9'A' - 58+70.9'A'	LT	1	10" x 6' CMP
58+95.9'A' - 59+00.9'A'	LT	1	10" x 5' CMP
59+18.7'A' - 59+43.9'A'	LT	1	10" x 25' CMP
60+93.5'A'	LT	1	12" x 8' CMP
ITEM TOTAL		9	

REMOVING PAVEMENT		
		204.0100
STATION	LOCATION	SY
PROJECT 8998-00-10 N 12TH STREET		
51+85'A'	RT (DRIVEWAY)	9
51+86'A'	LT (DRIVEWAY)	10
52+63'A'	LT (DRIVEWAY)	7
55+26'A'	LT (DRIVEWAY)	10
56+27'A'	RT (DRIVEWAY)	38
56+36'A'	LT (DRIVEWAY)	18
63+00'A'	LT (DRIVEWAY)	7
FISHER AVENUE		
500+92'F'	LT (DRIVEWAY)	6
ITEM TOTAL		105

REMOVING CURB AND GUTTER		
		204.0150
STATION	LOCATION	LF
PROJECT 8998-00-10 N 12TH STREET		
50+20'A' - 51+85'A'	LT	199
50+20'A' - 51+85'A'	RT	171
51+85'A' - 53+75'A'	LT	170
51+85'A' - 53+75'A'	RT	171
53+75'A' - 54+05'A'	LT	23
53+75'A' - 54+05'A'	RT	24
WEEKS AVENUE		
199+10'C' - 200+70'C'	LT	115
199+10'C' - 200+70'C'	RT	114
ITEM TOTAL		987

REMOVING CONCRETE SIDEWALK		
		204.0155
STATION	LOCATION	SY
PROJECT 8998-00-10 N 12TH STREET		
50+25'A' - 53+75'A'	LT	186.7
50+25'A' - 53+75'A'	RT	184.3
53+75'A' - 57+50'A'	LT	166.3
53+75'A' - 57+50'A'	RT	173.3
57+50'A' - 61+10'A'	LT	194.2
61+10'A' - 64+75'A'	LT	198.3

WEEKS AVENUE		
STATION	LOCATION	SY
199+10'C' - 200+70'C'	LT	68.9
199+10'C' - 200+70'C'	RT	70.7
CLOUGH AVENUE		
300+31'D' - 300+80'D'	LT	31.8
300+31'D' - 300+80'D'	RT	30.1
FISHER AVENUE		
500+31'F' - 501+05'F'	LT	33.8
500+31'F' - 501+05'F'	RT	41.6
ITEM TOTAL		1380.0

REMOVING CATCH BASINS			
		204.0215	
STATION	LOCATION	EACH	
PROJECT 8998-00-10 N 12TH STREET			
50+46.2'A'	13.7' RT	1	
50+47.6'A'	13.7' LT	1	
51+77.0'A'	15.1' RT	1	
51+77.2'A'	14.9' LT	1	
53+48.7'A'	21.8' LT	1	
64+43.7'A'	18.7' LT	1	
ITEM TOTAL		6	

REMOVING STORM SEWER				
		204.0245.01		204.0245.02
STATION	LOCATION	8-INCH LF	12-INCH LF	COMMENTS
PROJECT 8998-00-10 N 12TH STREET				
50+21.8'A' - 50+47.6'A'	LT		26	RCP
50+46.9'A'	LT & RT		28	RCP
51+71.1'A'	LT & RT	30		DI
51+71.2'A'	LT	20		DI
60+94.0'A'	LT		6	RCP
64+39.9'A' - 64+43.7'A'	LT		4	CLAY
64+43.7'A' - 64+45.2'A'	LT & RT		40	CLAY
64+45.2'A' - 64+60.2'A'	RT		30	CMP
ITEM TOTALS		50	134	

SEALING PIPES		
		204.0280
STATION	LOCATION	EACH
PROJECT 8998-00-10 N 12TH STREET		
51+82.2'A'	33.5' LT	1
ITEM TOTAL		1

REMOVING WOOD BOLLARDS		
		204.9060.S.01
STATION	LOCATION	EACH
PROJECT 8998-00-10 N 12TH STREET		
60+66'A' - 61+68'A'	RT	14
ITEM TOTAL		14

EXCAVATION COMMON				
		205.0100		
STATION	LOCATION	EXCAVATION COMMON CY	EXP (30%) FILL CY	WASTE CY
PROJECT 8998-00-10 N 12TH STREET				
50+20 - 64+71	N 12TH ST EBS	6020	90	5930
		300	390	300
WEEKS AVENUE (SOUTH)				
199+10 - 199+80.5	WEEKS (SOUTH) EBS	230	5	225
		20	25	20
WEEKS AVENUE (NORTH)				
200+19.5 - 200+70	WEEKS (NORTH) EBS	160	5	155
		15	20	15
CLOUGH AVENUE (SOUTH)				
399+05 - 399+80.5	CLOUGH (SOUTH) EBS	200	0	200
		20	25	20
CLOUGH AVENUE (NORTH)				
300+19.5 - 300+80	CLOUGH (NORTH) EBS	170	5	165
		15	20	15
FISHER AVENUE				
500+19.5 - 501+19.5	FISHER NORTH EBS	245	5	240
		25	35	25
ITEM TOTALS		7420	625	7310

BASE AGGREGATE DENSE 3/4-INCH		
		305.0110
STATION	LOCATION	TON
PROJECT 8998-00-10 N 12TH STREET		
50+20'A' - 53+71'A'	LT (SIDEWALK)	52
50+20'A' - 53+71'A'	RT (SIDEWALK)	57
50+20'A' - 64+71'A'	LT (DRIVEWAYS)	65
50+20'A' - 64+71'A'	RT (DRIVEWAYS)	37
53+71'A' - 57+41'A'	LT (SIDEWALK)	48
53+71'A' - 57+50'A'	RT (SIDEWALK)	48
57+41'A' - 61+10'A'	LT (SIDEWALK)	56
57+50'A' - 64+71'A'	RT (SIDEWALK)	118
61+10'A' - 64+71'A'	LT (SIDEWALK)	53
WEEKS AVENUE		
199+10'C' - 199+68'C'	LT & RT (SIDEWALK)	25
200+32'C' - 200+70'C'	LT & RT (SIDEWALK)	15
CLOUGH AVENUE		
300+32'D' - 300+80'D'	LT & RT (SIDEWALK)	16
FISHER AVENUE		
500+32'F' - 501+05'F'	LT & RT (SIDEWALK)	22
500+92'F'	LT (DRIVEWAY)	8
ITEM TOTAL		620

3

3

3

BASE AGGREGATE DENSE 11/4-INCH			305.0120
STATION	LOCATION	TON	
PROJECT 8998-00-10			
N 12TH STREET			
50+20'A' - 53+71'A'	LT	374	
50+20'A' - 53+71'A'	RT	374	
53+71'A' - 57+41'A'	LT	400	
53+71'A' - 57+50'A'	RT	409	
57+41'A' - 61+10'A'	LT	397	
57+50'A' - 64+71'A'	RT	776	
61+10'A' - 64+71'A'	LT	388	
WEEKS AVENUE			
199+10'C' - 199+68'C'	LT & RT	105	
200+32'C' - 200+70'C'	LT & RT	69	
CLOUGH AVENUE			
300+32'D' - 300+80'D'	LT & RT	75	
399+00'E' - 399+68'E'	LT & RT	101	
FISHER AVENUE			
500+32'F' - 501+05'F'	LT & RT	92	
ITEM TOTAL		3560	

BASE AGGREGATE OPEN GRADED			310.0110
STATION	LOCATION	TON	
PROJECT 8998-00-10			
N 12TH STREET			
50+25'A' - 53+75'A'	LT	54	
50+25'A' - 53+75'A'	RT	53	
53+75'A' - 57+50'A'	LT	54	
53+75'A' - 57+50'A'	RT	56	
57+50'A' - 61+10'A'	LT	55	
57+50'A' - 64+75'A'	RT	113	
61+10'A' - 64+75'A'	LT	56	
WEEKS AVENUE			
199+10'C' - 199+68'C'	LT & RT	20	
200+32'C' - 200+70'C'	LT & RT	14	
ITEM TOTAL		475	

SUBBASE			350.0104
STATION	LOCATION	TON	
PROJECT 8998-00-10			
N 12TH STREET			
50+20'A' - 53+71'A'	LT	560	
50+20'A' - 53+71'A'	RT	560	
53+71'A' - 57+41'A'	LT	600	
53+71'A' - 57+50'A'	RT	614	
57+41'A' - 61+10'A'	LT	596	
57+50'A' - 64+71'A'	RT	1132	
61+10'A' - 64+71'A'	LT	588	
WEEKS AVENUE			
199+10'C' - 199+68'C'	LT & RT	158	
200+32'C' - 200+70'C'	LT & RT	104	
CLOUGH AVENUE			
300+32'D' - 300+80'D'	LT & RT	98	
399+00'E' - 399+68'E'	LT & RT	152	
FISHER AVENUE			
500+32'F' - 501+05'F'	LT & RT	138	
ITEM TOTAL		5300	

CONCRETE DRIVEWAY 6-INCH			416.0160
STATION	LOCATION	SY	
PROJECT 8998-00-10			
N 12TH STREET			
51+13'A'	LT	14.6	
51+85'A'	LT	15.1	
51+85'A'	RT	16.7	
52+64'A'	LT	14.4	
55+26'A'	LT	20.6	
55+43'A'	RT	32.2	
55+56'A'	LT	14.4	
56+28'A'	RT	37.2	
56+36'A'	LT	28.3	
59+35'A'	LT	14.4	
62+98'A'	LT	14.4	
FISHER AVENUE			
500+42'A'	LT	22.7	
ITEM TOTAL		245.0	

ASPHALTIC CONCRETE PAVEMENT				
STATION	LOCATION	455.0122	455.0605	460.1101
		ASPHALTIC MATERIAL PG64-34 TON	TACK COAT GAL	HMA PAVEMENT TYPE E-1 TON
PROJECT 8998-00-10				
N 12TH STREET				
50+20'A' - 53+71'A'	LT	10	17	166
50+20'A' - 53+71'A'	RT	10	17	166
50+20'A' - 64+71'A'	LT & RT (DRIVEWAYS)	1		18
53+71'A' - 57+41'A'	LT	11	19	179
53+71'A' - 57+50'A'	RT	11	19	183
57+41'A' - 61+10'A'	LT	11	18	177
57+50'A' - 64+71'A'	RT	20	40	341
61+10'A' - 64+71'A'	LT	10	18	172
WEEKS AVENUE				
199+10'C' - 199+68'C'	LT & RT	3	5	44
200+32'C' - 200+70'C'	LT & RT	2	3	29
CLOUGH AVENUE				
399+00'E' - 399+68'E'	LT & RT	3	5	49
300+32'D' - 300+80'D'	LT & RT	2	4	37
FISHER AVENUE				
500+32'F' - 501+05'F'	LT & RT	3	5	44
ITEM TOTALS		97	170	1605

CONCRETE CURB & GUTTER			601.0411
STATION	LOCATION	30-INCH TYPE D LF	
PROJECT 8998-00-10			
N 12TH STREET			
50+25'A' - 53+75'A'	LT	356	
50+25'A' - 53+75'A'	RT	349	
53+75'A' - 57+50'A'	LT	358	
53+75'A' - 57+50'A'	RT	367	
57+50'A' - 61+10'A'	LT	360	
57+50'A' - 64+75'A'	RT	722	
61+10'A' - 64+75'A'	LT	366	
WEEKS AVENUE			
199+10'C' - 199+68'C'	LT & RT	116	
200+32'C' - 200+70'C'	LT & RT	76	
ITEM TOTAL		3070	

CONCRETE SIDEWALK				602.0405	602.0415
STATION	LOCATION	4-INCH 6-INCH SF SF			
PROJECT 8998-00-10					
N 12TH STREET					
50+25'A' - 53+75'A'	LT	1614			
50+25'A' - 53+75'A'	RT	1791			
53+75'A' - 57+50'A'	LT	1540			
53+75'A' - 57+50'A'	RT	1536			
57+50'A' - 61+10'A'	LT	1795			
57+50'A' - 64+75'A'	RT	3647			
61+10'A' - 64+75'A'	LT	1713			
51+13'A'	LT (DRIVEWAY)			79	
51+85'A'	LT (DRIVEWAY)			84	
51+85'A'	RT (DRIVEWAY)			94	
52+64'A'	LT (DRIVEWAY)			80	
55+26'A'	LT (DRIVEWAY)			120	
55+43'A'	RT (DRIVEWAY)			195	
55+56'A'	LT (DRIVEWAY)			80	
56+28'A'	RT (DRIVEWAY)			140	
56+36'A'	LT (DRIVEWAY)			170	
59+35'A'	LT (DRIVEWAY)			79	
62+98'A'	LT (DRIVEWAY)			79	
WEEKS AVENUE					
199+10'C' - 200+70'C'	LT & RT	1283			
CLOUGH AVENUE					
300+28'D' - 300+80'D'	LT & RT	524			
FISHER AVENUE					
500+28'F' - 501+05'F'	LT & RT	707			
500+92'F'	LT (DRIVEWAY)			50	
ITEM TOTALS		16150		1250	

CURB RAMP DETECTABLE WARNING			602.0505
FIELD YELLOW			
STATION	LOCATION	SF	
PROJECT 8998-00-10			
N 12TH STREET			
50+26'A'	LT	8	
50+26'A'	RT	8	
50+34'A'	LT	8	
50+34'A'	RT	8	
53+43'A'	LT	8	
53+43'A'	RT	8	
53+52'A'	LT	8	
53+52'A'	RT	8	
53+90'A'	LT	8	
53+90'A'	RT	8	
53+98'A'	LT	8	
53+98'A'	RT	8	
57+22'A'	LT	8	
57+33'A'	RT	8	
57+60'A'	LT	8	
57+66'A'	RT	8	
57+70'A'	LT	8	
57+75'A'	RT	8	
60+96'A'	LT	8	
61+25'A'	LT	8	
64+58'A'	LT	8	
64+58'A'	RT	8	
ITEM TOTAL		176	

STORM SEWER		611.0201	SPV.0060.02	611.0420	611.0103	611.0305	611.0624	611.0639	611.0645					608.0312	608.0315	608.0318	608.0412	608.0415	608.0418						
STRUCTURE	STATION	LOCATION	MANHOLE		* RECONSTRUCTING MANHOLES EACH	CATCH BASINS TYPE 2 EACH	INLETS TYPE 8 EACH	INLET COVERS TYPE H EACH	INLET COVERS TYPE H-S EACH	INLET COVERS TYPE MS-A EACH	TC OR RIM ELEV	SUMP ELEV	BOX DEPTH LF	PIPE	STORM SEWER PIPE REINFORCED CONCRETE CLASS III			STORM SEWER PIPE REINFORCED CONCRETE CLASS IV			UPSTREAM INVERT ELEVATION	DOWNSTREAM INVERT ELEVATION	DRAINS TO STRUCTURE	SLOPE (%)	COMMENTS
			MANHOLES TYPE 1 EACH	COVERS TYPE SPECIAL EACH											12-INCH LF	15-INCH LF	18-INCH LF	12-INCH LF	15-INCH LF	18-INCH LF					
PROJECT 8998-00-10																									
1	50+21.8'A'	15.5' LT			1					630.86	620.66	----													EXISTING MH
1A	50+47.0'A'	16.5' LT				1				630.96	623.69	6.35	P - 1					25			625.19	625.06	1	0.50	
1B	50+47.0'A'	16.5' RT				1				630.80	625.30	4.58	P - 2				33				626.80	626.47	1A	1.00	
1C	51+71.0'A'	16.5' LT				1				630.55	624.56	5.07	P - 3	124							626.06	625.44	1A	0.50	
1D	51+71.0'A'	16.5' RT				1				630.39	624.89	4.58	P - 4								626.39	626.06	1C	1.00	
2G	52+89.0'A'	16.5' LT				1				630.17	624.67	4.58	P - 5	15							626.17	626.09	2F	0.50	
2F	53+04.0'A'	16.5' LT				1				630.15	624.34	4.89	P - 6					33			625.84	625.68	2E	0.50	
2E	53+04.0'A'	16.5' RT				1				629.99	625.43	3.64	P - 7								625.43	625.15	2D	0.50	
2D	199+66.0'C'	14.5' LT				1				629.98	623.65	5.41	P - 8								625.15	625.01	2C	0.50	
2C	199+66.0'C'	14.5' RT				1				629.98	623.51	5.55	P - 9								625.01	624.90	2	0.50	
2B	200+34.0'C'	14.5' LT				1				630.12	624.62	4.58	P - 10								626.12	625.83	2A	1.00	
2A	200+34.0'C'	14.5' RT				1				630.18	624.33	4.93	P - 11								625.83	625.38	2	1.00	
2	53+85.0'A'	11.0' RT	1	1						630.10	624.90	3.86	P - 12								624.90	623.19	3	1.00	
3	55+55.7'A'	9.8' RT			1					628.22	615.89	----													EXISTING MH
3A	56+04.0'A'	16.5' RT				1				627.92	621.86	5.14	P - 13								623.36	623.12	3	0.50	
3B	56+04.0'A'	16.5' LT				1				628.08	622.27	4.89	P - 14								623.77	623.61	3A	0.50	
3C	55+89.0'A'	16.5' LT				1				628.10	622.60	4.58	P - 15	15							624.10	624.02	3B	0.50	
3D	300+35.0'D'	18.0' LT						1		627.90	624.70	3.20	P - 25	120							624.70	624.10	3B	0.50	
4	500+39.8'F'	16.9' LT			1					626.00	612.06	----													EXISTING MH
4B	60+81.0'A'	16.5' RT				1				625.66	620.16	4.58	P - 16								621.66	621.33	4A	1.00	
4D	60+66.0'A'	16.5' LT				1				625.90	620.40	4.58	P - 17	15							621.90	621.75	4A	1.00	
4A	60+81.0'A'	16.5' LT				1				625.82	619.58	5.32	P - 18			26					621.08	620.82	4	1.00	
4C	500+34.5'F'	11.5' LT				1				625.68	620.18	4.58	P - 19	8							621.68	621.52	4	2.00	
5	62+96.6'A'	9.0' RT			1					624.66	612.56	----													EXISTING MH
5A	63+78.0'A'	16.5' LT				1				624.29	617.86	5.51	P - 20								619.36	617.65	5	2.00	
5B	63+88.0'A'	16.5' LT				1				624.28	618.21	5.15	P - 21			10					619.71	619.61	5A	1.00	
5C	63+88.0'A'	16.5' RT				1				624.12	618.62	4.58	P - 22								620.12	619.96	5B	0.50	
6	62+46.0'A'	19.6' RT			1					624.60	614.19	----													EXISTING MH
6B	600+45.0'G'	24.0' LT						1		623.00	618.75	4.25	P - 23								618.75	618.30	6	0.69	
6A	599+53.0'G'	21.0' LT						1		622.70	618.70	4.00	P - 24	31							618.70	618.55	6	0.50	
ITEM TOTALS			1	1	5	21	3	14	7	3				328	36	55	206	157	357						

* MANHOLES TO BE RECONSTRUCTED ARE COMBINED SANITARY/STORM SEWER MANHOLES.

PIPE UNDERDRAIN 6-INCH			612.0106
STATION	LOCATION	LF	
PROJECT 8998-00-10			
N 12TH STREET			
50+25'A' - 53+75'A'	LT	356	
50+25'A' - 53+75'A'	RT	349	
53+75'A' - 57+50'A'	LT	358	
53+75'A' - 57+50'A'	RT	367	
57+50'A' - 61+10'A'	LT	360	
57+50'A' - 64+75'A'	RT	722	
61+10'A' - 64+75'A'	LT	366	
WEEKS AVENUE			
199+10'C' - 199+68'C'	LT & RT	116	
200+32'C' - 200+70'C'	LT & RT	76	
ITEM TOTAL			3070

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INSULATION BOARD POLYSTYRENE (2-INCH) 612.0902.S

STATION LOCATION SY

PROJECT 8998-00-10
N 12TH STREET
50+20'A' - 64+71'A' * UNDISTRIBUTED 16

ITEM TOTAL 16

* TO BE DETERMINED BY THE ENGINEER IN THE FIELD

DUST CONTROL SURFACE TREATMENT 623.0200

STATION LOCATION SY

PROJECT 8998-00-10
N 12TH STREET
50+20'A' - 53+71'A' LT & RT 3227
53+71'A' - 57+41'A' LT & RT 3492
57+41'A' - 61+10'A' LT & RT 3338
61+10'A' - 64+71'A' LT & RT 3291

WEEKS AVENUE
199+10'C' - 199+68'C' LT & RT 451
200+32'C' - 200+70'C' LT & RT 296

CLOUGH AVENUE
300+32'D' - 300+80'D' LT & RT 277
399+00'E' - 399+68'E' LT & RT 433

FISHER AVENUE
500+32'F' - 501+05'F' LT & RT 395

ITEM TOTAL 15200

TURF ESTABLISHMENT 625.0500 631.1000 629.0210 630.0140 630.0200

STATION LOCATION SALVAGED TOPSOIL SY SOD LAWN SY FERTILIZER TYPE B CWT SEEDING MIXTURE NO. 40 LBS SEEDING TEMPORARY LBS

PROJECT 8998-00-10
N 12TH STREET
50+25'A' - 53+75'A' LT & RT 539 539 0.3
53+75'A' - 57+50'A' LT & RT 539 539 0.3
57+50'A' - 61+10'A' LT & RT 650 650 0.4
61+10'A' - 64+75'A' LT & RT 772 772 0.5

WEEKS AVENUE
199+10'C' - 199+68'C' LT & RT 156 156 0.1
200+32'C' - 200+70'C' LT & RT 106 106 0.1

CLOUGH AVENUE
300+32'D' - 300+80'D' LT & RT 144 144 0.1
399+00'E' - 399+68'E' LT & RT 72 72 0.0

FISHER AVENUE
500+32'F' - 501+05'F' LT & RT 233 233 0.1

UNDISTRIBUTED 319 319 0.6 10 15

ITEM TOTALS 3530 3530 2.5 10 15

SILT FENCE 628.1504 628.1520

STATION LOCATION LF MAINTENANCE LF

PROJECT 8998-00-10
N 12TH STREET
57+70'A' - 64+50'A' RT 745 745

ITEM TOTALS 745 745

MOBILIZATION 628.1905 628.1910

STATION LOCATION MOBILIZATIONS EROSION CONTROL EACH MOBILIZATIONS EMERGENCY EROSION CONTROL EACH

PROJECT 8998-00-10
N 12TH STREET
50+25'A' - 64+75'A' LT & RT 1 2

ITEM TOTAL 1 2

INLET PROTECTION 628.7005 628.7015

STRUCTURE STATION LOCATION TYPE A EACH TYPE C EACH

PROJECT 8998-00-10
1A 50+47.0'A' 16.5' LT 1 1
1B 50+47.0'A' 16.5' RT 1 1
1C 51+71.0'A' 16.5' LT 1 1
1D 51+71.0'A' 16.5' RT 1 1
2G 52+89.0'A' 16.5' LT 1 1
2F 53+04.0'A' 16.5' LT 1 1
2E 53+04.0'A' 16.5' RT 1 1
2D 199+66.0'C' 14.5' LT 1 1
2C 199+66.0'C' 14.5' RT 1 1
2B 200+34.0'C' 14.5' LT 1 1
2A 200+34.0'C' 14.5' RT 1 1
3A 56+04.0'A' 16.5' RT 1 1
3B 56+04.0'A' 16.5' LT 1 1
3C 55+89.0'A' 16.5' LT 1 1
3D 300+35.0'D' 18.0' LT 1 1
4B 60+81.0'A' 16.5' RT 1 1
4D 60+66.0'A' 16.5' LT 1 1
4A 60+81.0'A' 16.5' LT 1 1
4C 500+34.5'F' 11.5' LT 1 1
5A 63+78.0'A' 16.5' LT 1 1
5B 63+88.0'A' 16.5' LT 1 1
5C 63+88.0'A' 16.5' RT 1 1
6B 600+45.0'C' 24.0' LT 1
6A 599+53.0'G' 21.0' LT 1

ITEM TOTALS 24 21

TRAFFIC CONTROL 643.0420 643.0705 643.0900

LOCATION BARRICADES TYPE III DAYS WARNING LIGHTS TYPE "A" DAYS SIGNS DAYS

PROJECT 8998-25-71
N 12TH STREET/GRAND AVENUE 824 1030 412
WEEKS AVENUE 824 1648 618
CLOUGH AVENUE 721 1442 618
FISHER AVENUE 309 618 309
N 12TH STREET/CATLIN AVENUE 1237 1442 413

ITEM TOTALS 3915 6180 2370

3

SIGNING ITEMS			637.0202	634.0614	634.0616	634.0814	638.2102	638.2602	638.3000		
SIGN GROUP NUMBER	SIGN CODE	DESCRIPTION	SIGN SIZE W X H (INCHES)	SIGNS REFLECTIVE TYPE II SF	POSTS WOOD		POSTS TUBULAR STEEL 2X2-INCH X 14-FT EACH	MOVING SIGNS TYPE II EACH	REMOVING SIGNS TYPE II EACH	REMOVING SMALL SIGN SUPPORTS EACH	REMARKS
					4X6-INCH X 14-FT EACH	4X6-INCH X 16-FT EACH					
N 12TH STREET											
1-1	R1-1	STOP	30 X 30	5.18			1			1	
	R1-4	ALL WAY	18 X 6	0.75					1		
1-2	R7-1R	NO PARKING ANY TIME	12 X 18	1.50	1				1	1	
1-3	R7-1R	NO PARKING ANY TIME	12 X 18	1.50	1				1	1	
1-4	W3-1	STOP AHEAD	30 X 30	6.25			1		1	1	
1-5	R1-1	STOP	30 X 30	5.18					1	1	
1-6	R7-1R	NO PARKING ANY TIME	12 X 18	1.50	1				1	1	
1-7		WEEKS AVE N 12TH					1	1		1	EXISTING SIGN TO BE MOVED WITH NEW POST EXISTING SIGN TO BE MOVED STOP SIGN TO BE PLACED WITH SIDE ROADS
	R1-1	STOP	30 X 30	5.18				1			
1-8	R1-1	STOP	30 X 30	5.18	1				1	1	
1-9	W11-55	PLAYGROUND	30 X 30	6.25			1		1	1	
1-10	R7-1R	NO PARKING ANY TIME	12 X 18	1.50	1				1	1	
1-11		CLOUGH AVE N 12TH					1	1		1	EXISTING SIGN TO BE MOVED WITH NEW POST EXISTING SIGN TO BE MOVED
	R1-1	STOP	30 X 30	5.18	1				1	1	
1-12	R7-1R	NO PARKING ANY TIME	12 X 18	1.50	1				1	1	
1-13	R7-1R	NO PARKING ANY TIME	12 X 18	1.50	1				1	1	
1-14	R7-1R	NO PARKING ANY TIME	12 X 18	1.50	1				1	1	
1-15	R1-1	STOP	30 X 30	5.18			1		1	1	
1-16	R1-1	STOP	30 X 30	5.18	1				1	1	
1-17	C1-2	CAUTION CHILDREN	30 X 30	6.25			1		1	1	
1-18	R7-63	PARALLEL PARKING ONLY	12 X 18	1.50	1				1	1	
1-19	R7-63	PARALLEL PARKING ONLY	12 X 18	1.50	1				1	1	
1-20	R7-63	PARALLEL PARKING ONLY	12 X 18	1.50	1				1	1	
1-21		FISHER AVE N 12TH					1	1			EXISTING SIGN TO BE MOVED WITH NEW POST EXISTING SIGN TO BE MOVED
1-22	R1-1	STOP	30 X 30	5.18			1		1		
1-23	R1-1	STOP	30 X 30	5.18			1				
1-24	R1-1	STOP	30 X 30	5.18			1				
2-1	R2-1	SPEED LIMIT 25	24 X 30	5.00			1		1	1	
	R7-1R	NO PARKING ANY TIME	12 X 18	1.50					1		
2-2	W9-12	SLOW CHILDREN AT PLAY	12 X 18	1.50			1		1	1	
	R7-1R	NO PARKING ANY TIME	12 X 18	1.50					1		
2-3	R1-1	STOP	30 X 30	5.18			1		1	1	
	R1-4	ALL WAY	18 X 6	0.75					1		
2-4	R7-63	PARALLEL PARKING ONLY	12 X 18	1.50	1				1	1	
2-5	W9-12	SLOW CHILDREN AT PLAY	12 X 18	1.50	1				1	1	
2-6	R1-1	STOP	30 X 30	5.18			1		1	1	
	R1-4	ALL WAY	18 X 6	0.75					1		
2-7		CATLIN AVE N 12TH					1	1		1	EXISTING SIGN TO BE MOVED WITH NEW POST EXISTING SIGN TO BE MOVED
PROJECT ITEM TOTALS				109.16	15	12	4	8	29	27	

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GEOTEXTILE FABRIC TYPE DF SCHEDULE A 645.0111

STATION	LOCATION	SY
PROJECT 8998-00-10 N 12TH STREET		
50+25'A' - 53+75'A'	LT	257
50+25'A' - 53+75'A'	RT	252
53+75'A' - 57+50'A'	LT	259
53+75'A' - 57+50'A'	RT	265
57+50'A' - 61+10'A'	LT	260
57+50'A' - 64+75'A'	RT	524
61+10'A' - 64+75'A'	LT	264
WEEKS AVENUE		
199+10'C' - 199+68'C'	LT & RT	84
200+32'C' - 200+70'C'	LT & RT	55
ITEM TOTAL		2220

GEOTEXTILE FABRIC TYPE SAS 645.0140

STATION	LOCATION	SY
PROJECT 8998-00-10 N 12TH STREET		
50+20'A' - 53+71'A'	LT	666
50+20'A' - 53+71'A'	RT	666
53+71'A' - 57+41'A'	LT	719
53+71'A' - 57+50'A'	RT	735
57+41'A' - 61+10'A'	LT	711
57+50'A' - 64+71'A'	RT	1352
61+10'A' - 64+71'A'	LT	690
WEEKS AVENUE		
199+10'C' - 199+68'C'	LT & RT	181
200+32'C' - 200+70'C'	LT & RT	118
CLOUGH AVENUE		
300+32'D' - 300+80'D'	LT & RT	144
399+00'E' - 399+68'E'	LT & RT	202
FISHER AVENUE		
500+32'F' - 501+05'F'	LT & RT	181
ITEM TOTAL		6365

PAVEMENT MARKING 646.0106 646.0126 647.0566 647.0766

STATION	LOCATION	EPOXY		STOP LINE	CROSSWALK
		4-INCH LF	8-INCH LF	EPOXY 18-INCH LF	EPOXY 6-INCH LF
PROJECT 8998-00-10 N 12TH STREET					
50+20'A' - 53+71'A'	LT & RT	812	50	15	62
53+71'A' - 57+41'A'	LT & RT	856	50		62
57+41'A' - 61+10'A'	LT & RT	961			
61+10'A' - 64+71'A'	LT & RT	865	50		
WEEKS AVENUE					
199+10'C' - 199+68'C'	LT & RT			13	59
200+32'C' - 200+70'C'	LT & RT			13	59
CLOUGH AVENUE					
300+32'D' - 300+80'D'	LT & RT			12	55
FISHER AVENUE					
500+32'F' - 501+05'F'	LT & RT			10	47
ITEM TOTALS		3494	150	63	344

CONSTRUCTION STAKING STORM SEWER SYSTEM 650.4000

STRUCTURE	STATION	LOCATION	EACH
PROJECT 8998-00-10			
1	50+21.8'A'	15.5' LT	1
1A	50+47.0'A'	16.5' LT	1
1B	50+47.0'A'	16.5' RT	1
1C	51+71.0'A'	16.5' LT	1
1D	51+71.0'A'	16.5' RT	1
2G	52+89.0'A'	16.5' LT	1
2F	53+04.0'A'	16.5' LT	1
2E	53+04.0'A'	16.5' RT	1
2D	199+66.0'C'	14.5' LT	1
2C	199+66.0'C'	14.5' RT	1
2B	200+34.0'C'	14.5' LT	1
2A	200+34.0'C'	14.5' RT	1
2	53+85.0'A'	11.0' RT	1
3	55+55.7'A'	9.8' RT	1
3A	56+04.0'A'	16.5' RT	1
3B	56+04.0'A'	16.5' LT	1
3C	55+89.0'A'	16.5' LT	1
3D	300+35.0'D'	18.0' LT	1
4	500+39.8'F'	16.9' LT	1
4B	60+81.0'A'	16.5' RT	1
4D	60+66.0'A'	16.5' LT	1
4A	60+81.0'A'	16.5' LT	1
4C	500+34.5'F'	11.5' LT	1
5	62+96.6'A'	9.0' RT	1
5A	63+78.0'A'	16.5' LT	1
5B	63+88.0'A'	16.5' LT	1
5C	63+88.0'A'	16.5' RT	1
6	62+46.0'A'	19.6' RT	1
6B	600+45.0'G'	24.0' LT	1
6A	599+53.0'G'	21.0' LT	1
ITEM TOTAL			30

CONSTRUCTION STAKING 650.4500 650.5000

STATION	LOCATION	SUBGRADE	
		LF	BASE LF
PROJECT 8998-00-10 N 12TH STREET			
50+20'A' - 53+71'A'	LT & RT	702	351
53+71'A' - 57+41'A'	LT & RT	740	370
57+41'A' - 61+10'A'	LT & RT	738	369
61+10'A' - 64+71'A'	LT & RT	722	361
WEEKS AVENUE			
199+10'C' - 199+83'C'	LT & RT	146	73
200+18'C' - 200+70'C'	LT & RT	104	52
CLOUGH AVENUE			
300+18'D' - 300+80'D'	LT & RT	124	62
399+00'E' - 399+83'E'	LT & RT	166	83
FISHER AVENUE			
500+17'F' - 501+05'F'	LT & RT	176	88
ITEM TOTALS		3618	1809

CONSTRUCTION STAKING CURB 650.5500

GUTTER AND CURB & GUTTER

STATION	LOCATION	LF
PROJECT 8998-00-10 N 12TH STREET		
50+25'A' - 53+75'A'	LT	356
50+25'A' - 53+75'A'	RT	349
53+75'A' - 57+50'A'	LT	358
53+75'A' - 57+50'A'	RT	367
57+50'A' - 61+10'A'	LT	360
57+50'A' - 64+75'A'	RT	722
61+10'A' - 64+75'A'	LT	366
WEEKS AVENUE		
199+10'C' - 199+68'C'	LT & RT	116
200+32'C' - 200+70'C'	LT & RT	76
ITEM TOTAL		3070

CONSTRUCTION STAKING SUPPLEMENTAL CONTROL 650.9910

STATION	LOCATION	LS
PROJECT 8998-00-10 N 12TH STREET		
50+25'A' - 64+75'A'	LT & RT	1
ITEM TOTAL		1

CONSTRUCTION STAKING 650.9920

SLOPE STAKES LF

STATION	LOCATION	LF
PROJECT 8998-00-10 N 12TH STREET		
50+20'A' - 53+71'A'	LT & RT	351
53+71'A' - 57+41'A'	LT & RT	370
57+41'A' - 61+10'A'	LT & RT	369
61+10'A' - 64+71'A'	LT & RT	361
WEEKS AVENUE		
199+10'C' - 199+83'C'	LT & RT	73
200+18'C' - 200+70'C'	LT & RT	52
CLOUGH AVENUE		
300+18'D' - 300+80'D'	LT & RT	62
399+00'E' - 399+83'E'	LT & RT	83
FISHER AVENUE		
500+17'F' - 501+05'F'	LT & RT	88
ITEM TOTAL		1809

3

3

STATION	LOCATION	ASPHALT LF	CONCRETE LF	REMARKS
SAWING 690.0150 690.0250				
PROJECT 8998-00-10				
N 12TH STREET				
50+20'A'	LT & RT	68	5	
50+20'A' - 53+71'A'	LT & RT	13	12	CONCRETE SIDEWALK & DRIVEWAYS
53+71'A' - 57+41'A'	LT & RT	49	32	CONCRETE SIDEWALK & DRIVEWAYS
57+41'A' - 61+10'A'	LT & RT	11	4	CONCRETE SIDEWALK & DRIVEWAYS
61+10'A' - 64+71'A'	LT & RT		4	CONCRETE SIDEWALK
64+71'A'	LT & RT	101		
WEEKS AVENUE				
199+10'C'	LT & RT	26	22	
200+70'C'	LT & RT	26	22	
CLOUGH AVENUE				
300+80'D'	LT & RT	25	12	
399+00'E'	LT & RT	40		
FISHER AVENUE				
501+05'F'	LT & RT	21	10	
UNDISTRIBUTED				
		40	12	
ITEM TOTALS		420	135	

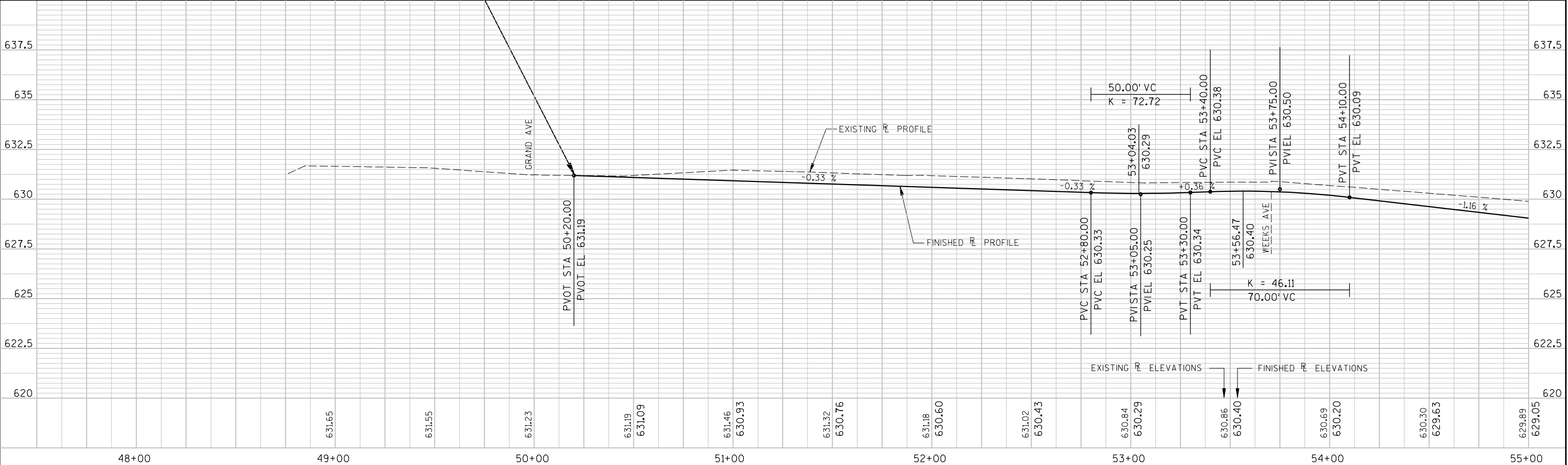
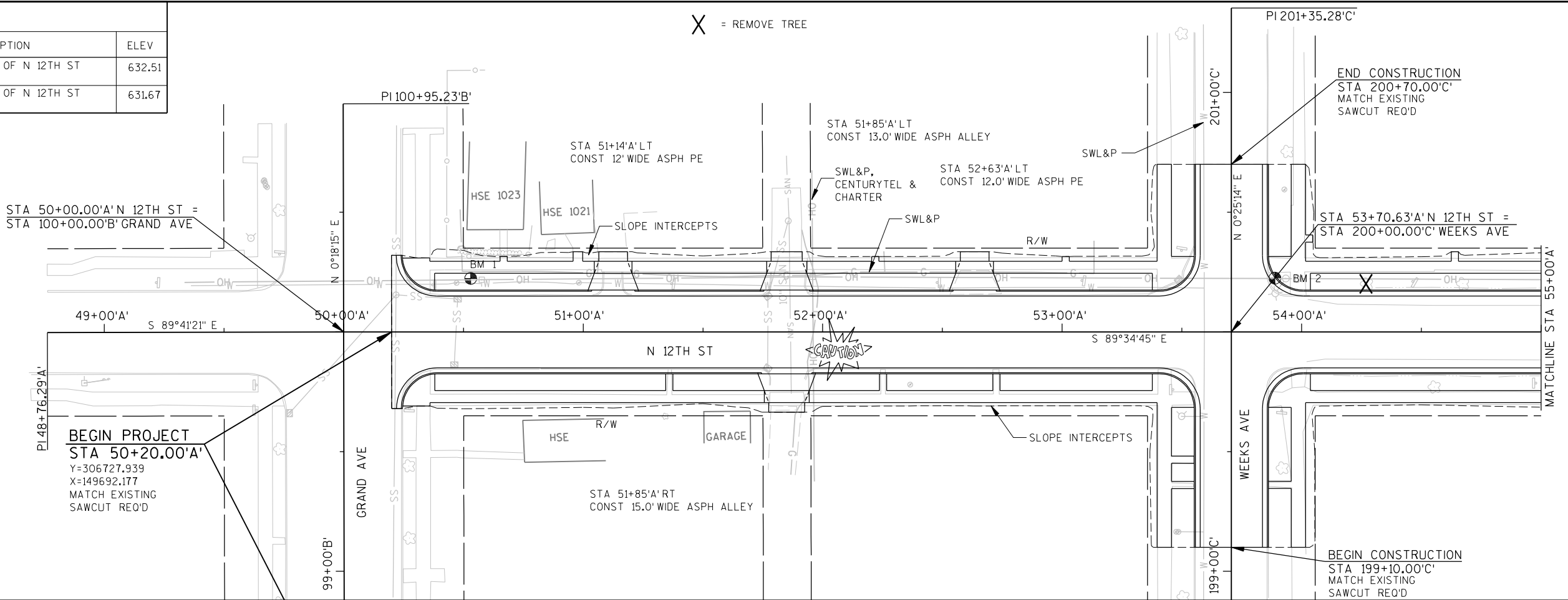
STATION	LOCATION	EACH
UTILITY LINE OPENING (ULO) SPV.0060.01		
PROJECT 8998-00-10		
N 12TH STREET		
50+20'A' - 64+71'A'	* UNDISTRIBUTED	3
ITEM TOTAL		3

* TO BE DETERMINED BY THE ENGINEER IN THE FIELD

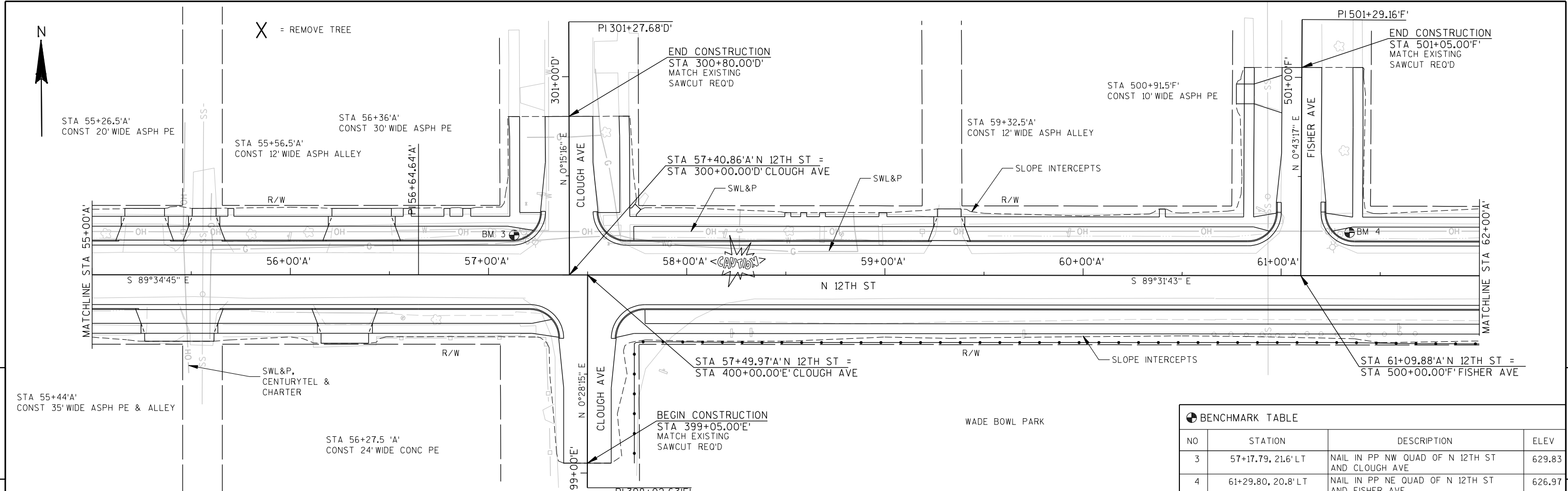
BENCHMARK TABLE			
NO	STATION	DESCRIPTION	ELEV
1	50+57.62, 21.8' LT	NAIL IN PP NE QUAD OF N 12TH ST AND GRAND AVE	632.51
2	53+93.42, 22.3' LT	NAIL IN PP NE QUAD OF N 12TH ST AND WEEKS AVE	631.67



X = REMOVE TREE

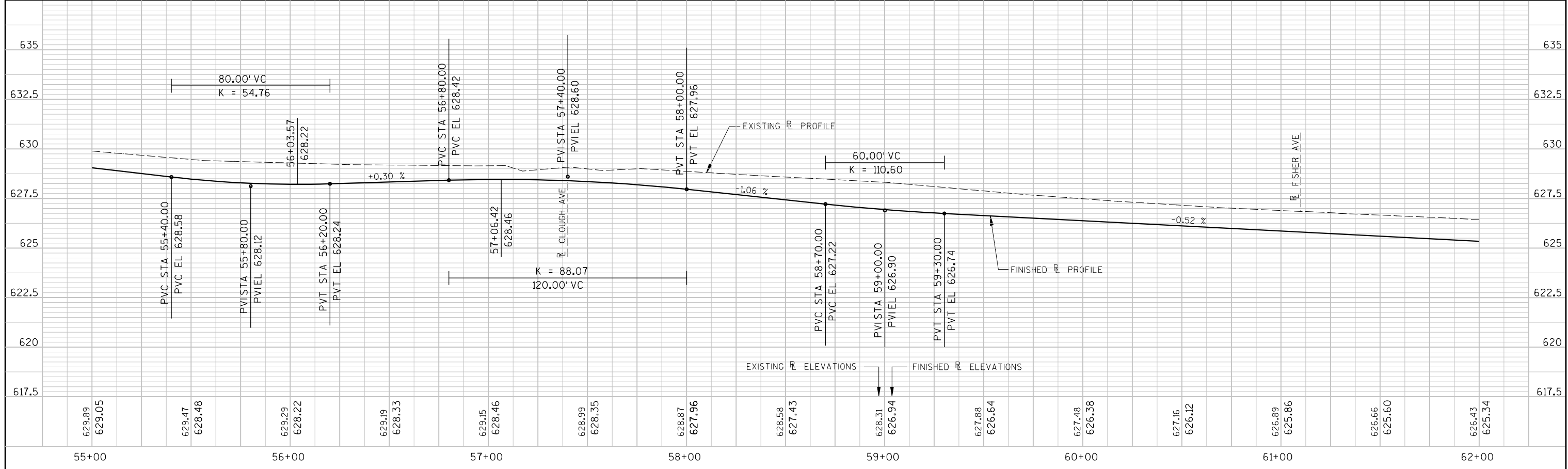


PROJECT NO: 8998-00-10	HWY: N 12TH STREET	COUNTY: DOUGLAS	PLAN AND PROFILE	SCALE, FEET	SHEET	E
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BENCHMARK TABLE

NO	STATION	DESCRIPTION	ELEV
3	57+17.79, 21.6' LT	NAIL IN PP NW QUAD OF N 12TH ST AND CLOUGH AVE	629.83
4	61+29.80, 20.8' LT	NAIL IN PP NE QUAD OF N 12TH ST AND FISHER AVE	626.97

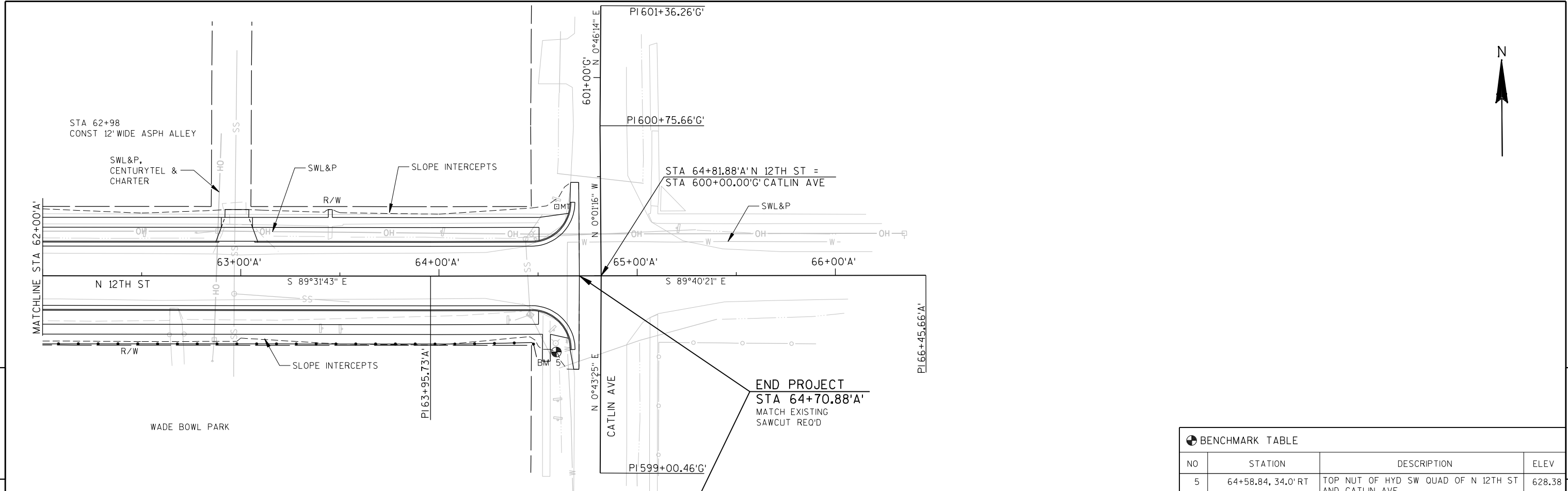


PROJECT NO: 8998-00-10 HWY: N 12TH STREET COUNTY: DOUGLAS PLAN AND PROFILE SCALE, FEET SHEET **E**

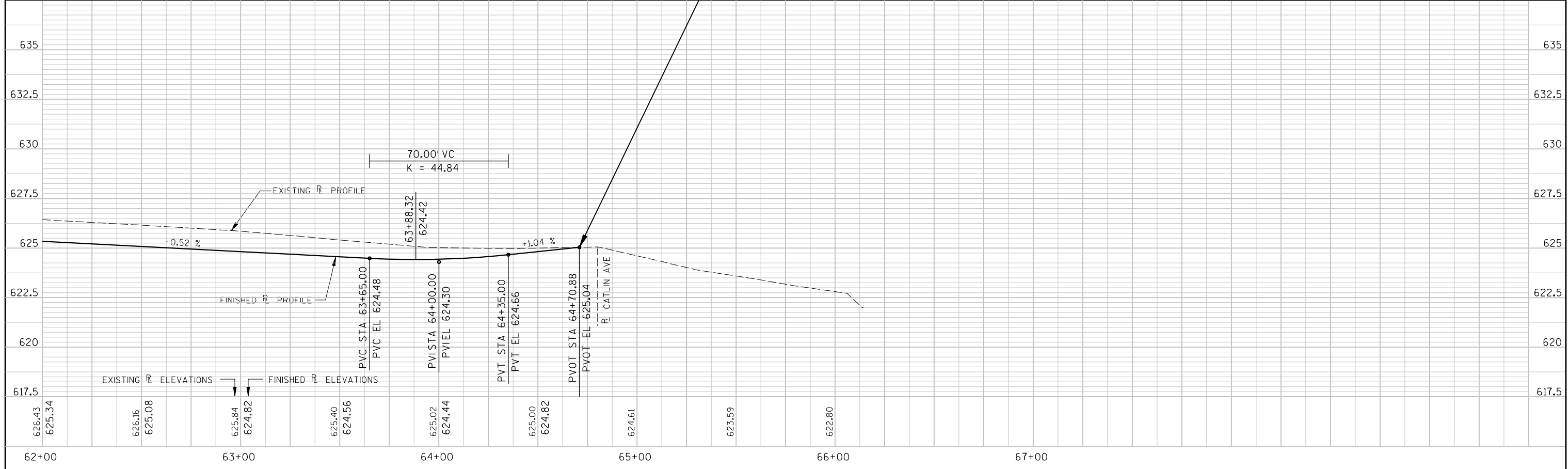


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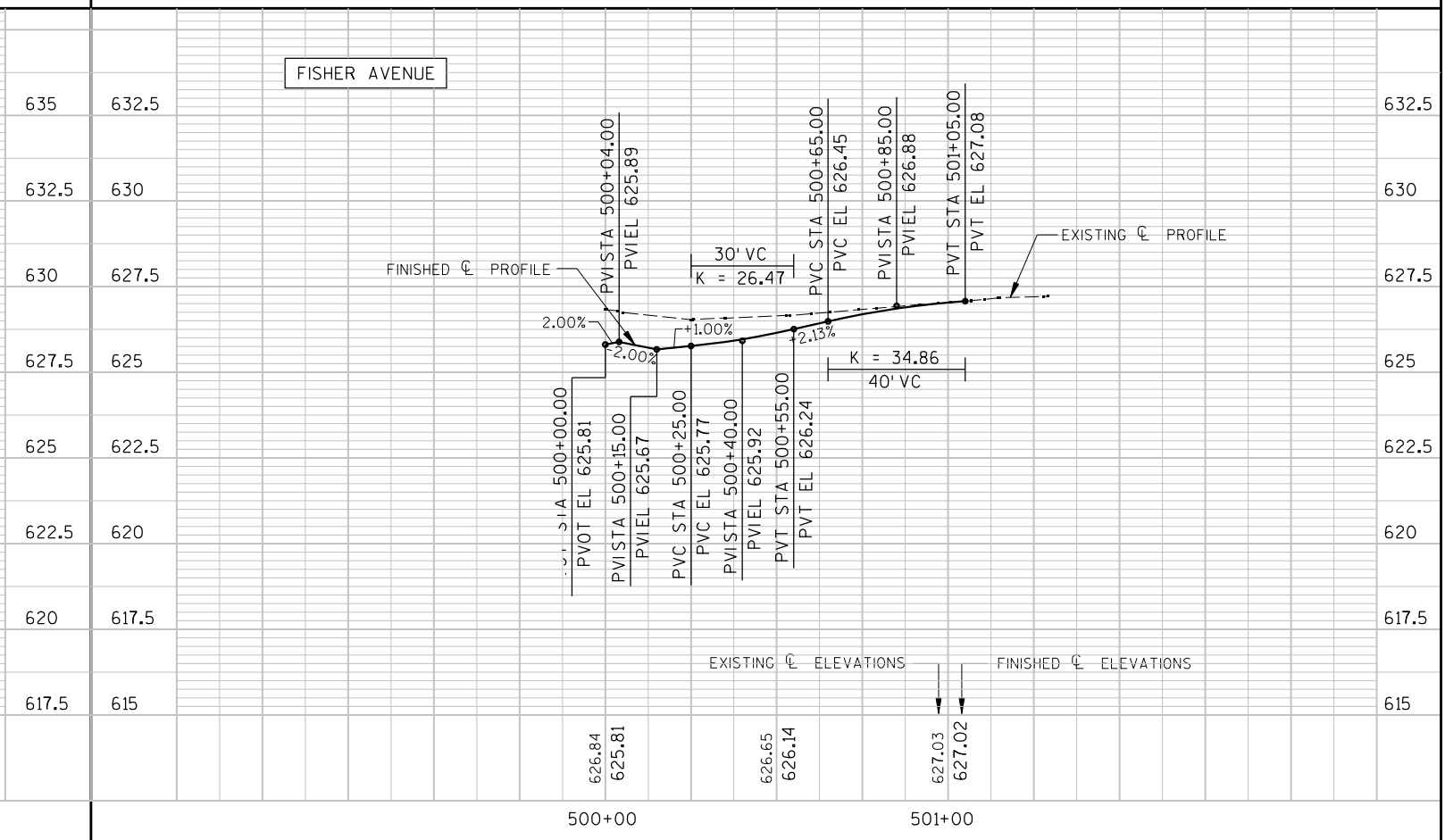
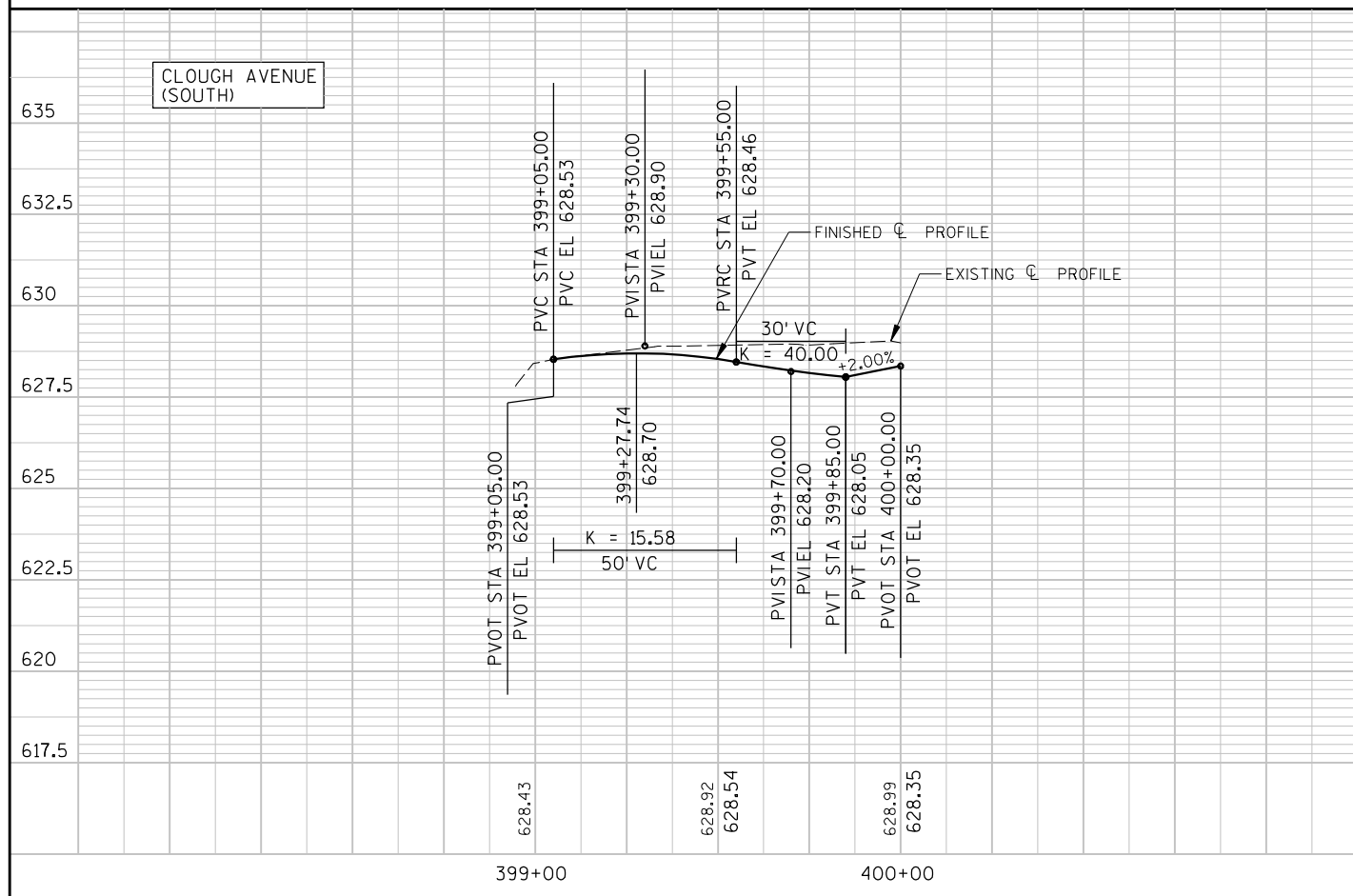
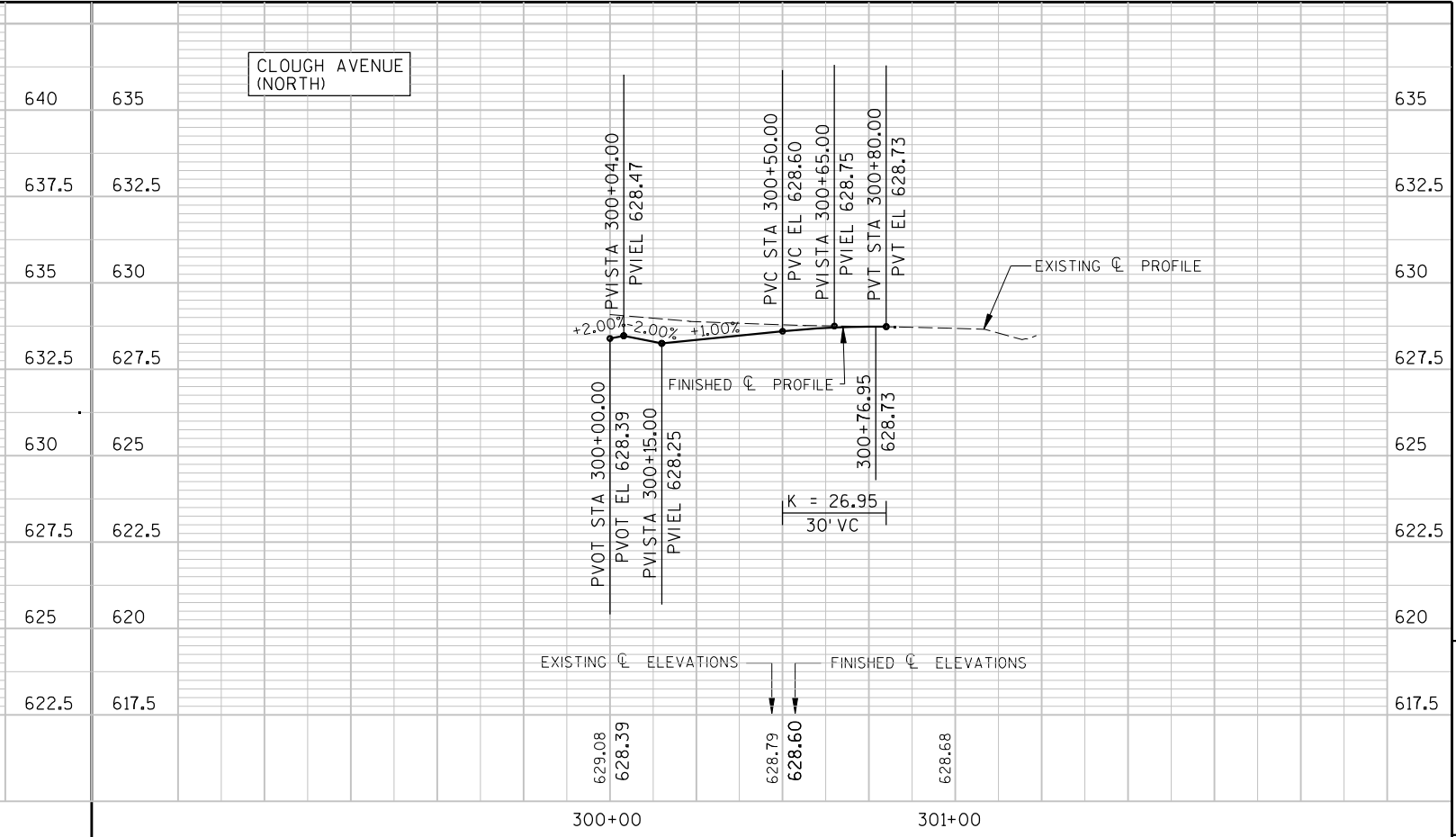
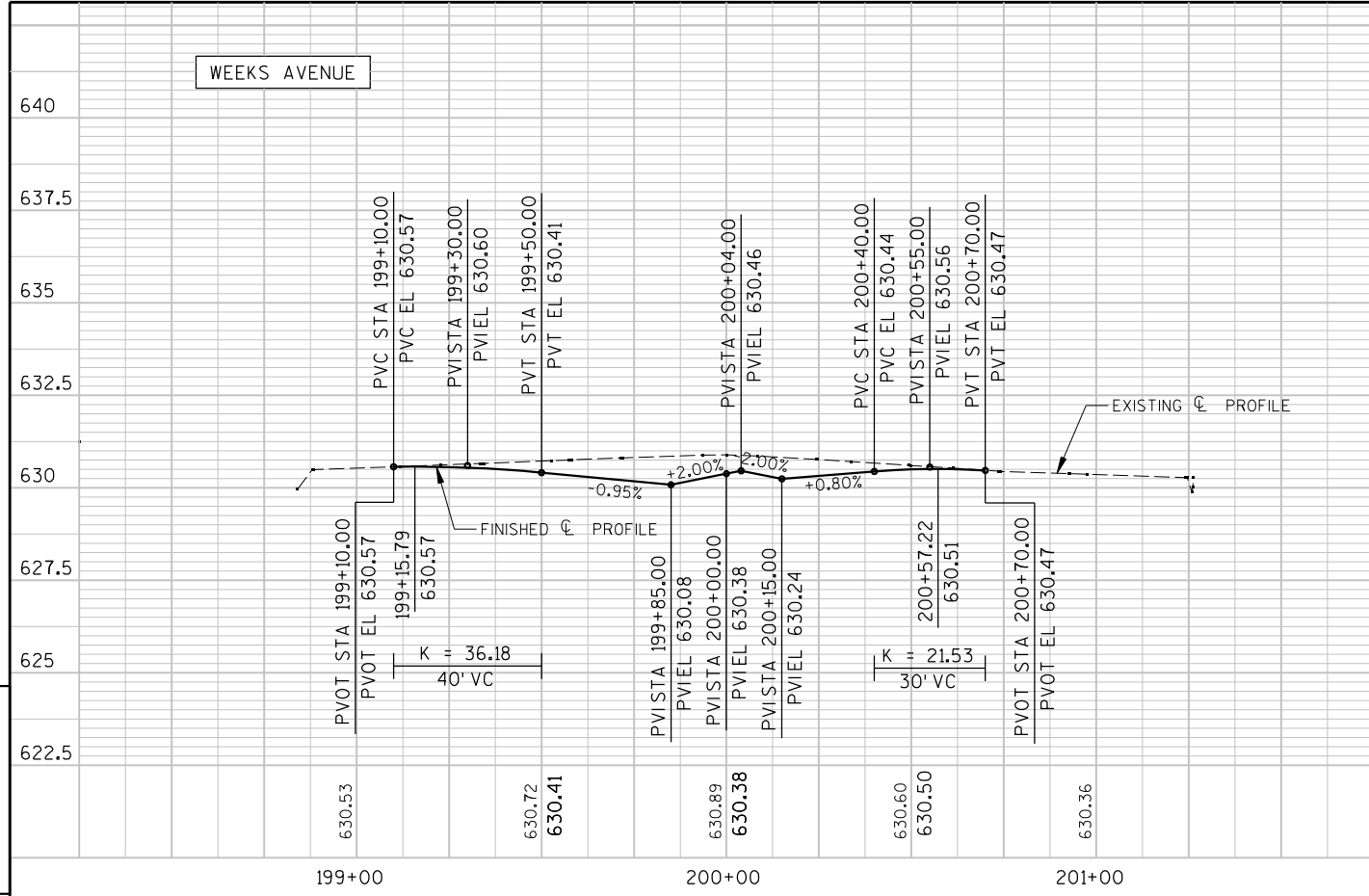
5



BENCHMARK TABLE			
NO	STATION	DESCRIPTION	ELEV
5	64+58.84, 34.0' RT	TOP NUT OF HYD SW QUAD OF N 12TH ST AND CATLIN AVE	628.38



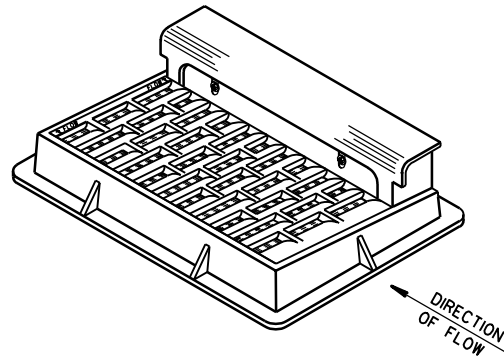
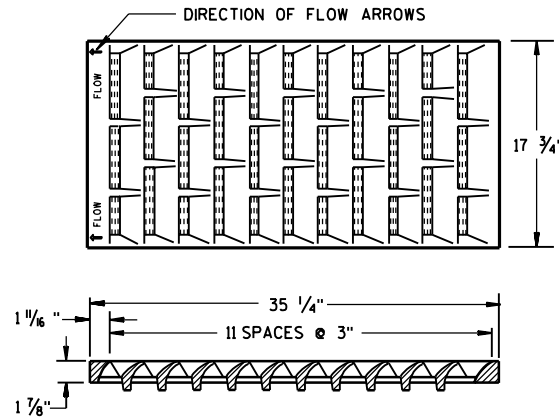
PROJECT NO: 8998-00-10 HWY: N 12TH STREET COUNTY: DOUGLAS PLAN AND PROFILE SCALE, FEET SHEET **E**



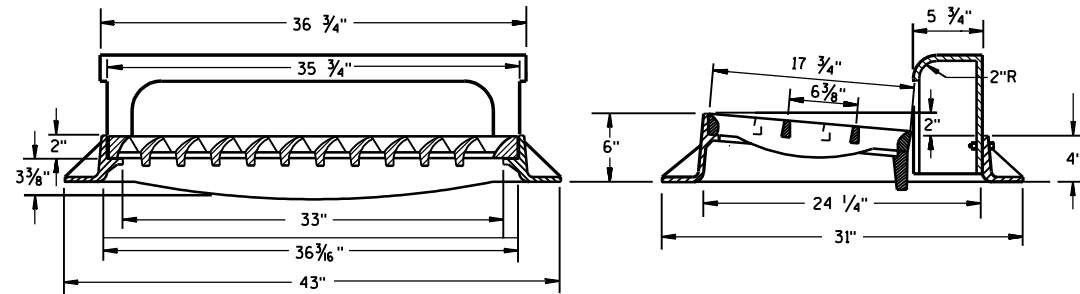
Standard Detail Drawing List

08A5-16A	INLET COVERS TYPE A, H, A-S, & H-S
08A5-16B	INLET COVERS TYPE B, B-A, C, MS, MS-A, & WM
08A6-4	CATCH BASINS TYPE 1 & 2
08B6-4	MANHOLES TYPE 1
08C5-2	INLETS TYPE 8, 9, 10, AND 11
08D1-16	CONCRETE CURB, CONCRETE CURB AND GUTTER & PAVEMENT TIES
08D5-11A	CURB RAMPS TYPES 1 AND 1-A
08D5-11B	CURB RAMPS TYPES 2 AND 3
08D5-11C	CURB RAMPS TYPE 4A
08D5-11D	CURB RAMPS TYPE 4B
08D5-11E	CURB RAMPS TYPES 5, 6, 7A, 7B & 8
08E9-6	SILT FENCE
08E10-2	INLET PROTECTION TYPE A, B, C AND D
15C2-4A	BARRICADES AND SIGNS FOR MAINLINE CLOSURES
15C2-4B	BARRICADES AND SIGNS FOR MAINLINE CLOSURES
15C3-1	BARRICADES AND SIGNS FOR SIDEROAD CLOSURES
15C8-10A	PAVEMENT MARKING (MAINLINE)
15C8-10B	PAVEMENT MARKING (INTERSECTIONS)
15C8-11E	PAVEMENT MARKING (ISLANDS, STOP LINE & CROSS WALK)
15D30-1	TRAFFIC CONTROL, SIDEWALK CLOSURE

NOTE:
GRATE IS REVERSIBLE.

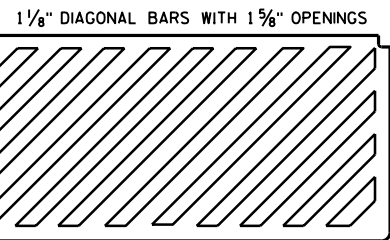


NOTE: CURB BOX HEIGHT ADJUSTABLE 6" TO 9"



TYPE "H"

(APPROXIMATE WEIGHT 422 LBS.)
 FRAME..... 175 LBS.
 GRATE..... 138 LBS.
 CURB BOX..... 109 LBS.



**SPECIAL GRATE FOR
TYPE "H" COVER**

(MEASURES 35 1/4" X 17 3/4" X 2")
 (APPROXIMATE WEIGHT 172 LBS.)
 GRATE..... 172 LBS.
 (NOTED AS TYPE H-S ON DRAINAGE TABLE)

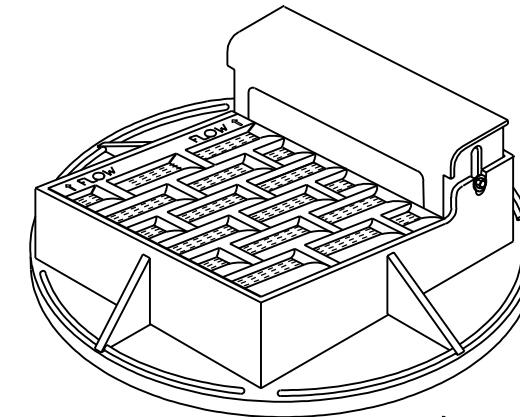
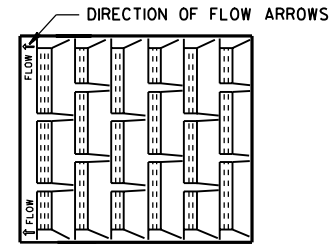
GENERAL NOTES

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.

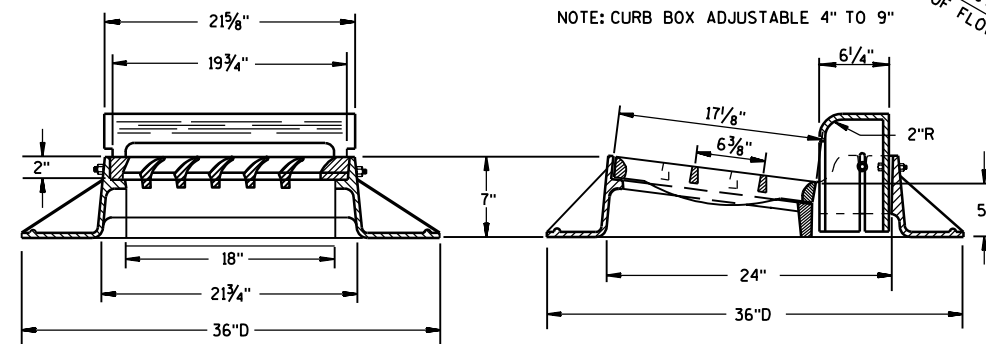
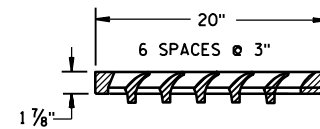
DETAIL DRAWINGS FOR PROPOSED ALTERNATE DESIGNS FOR CATCH BASIN, MANHOLE AND INLET COVERS SHALL BE SUBMITTED TO THE ENGINEER FOR APPROVAL PROVIDING THAT SUCH ALTERNATE DESIGNS MAKE PROVISION FOR EQUIVALENT CAPACITY AND STRENGTH.

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

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



NOTE: CURB BOX ADJUSTABLE 4" TO 9"

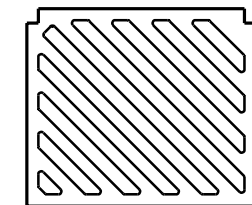


TYPE "A"

(APPROXIMATE WEIGHT 325 LBS.)
 FRAME..... 157 LBS.
 GRATE..... 84 LBS.
 CURB BOX..... 84 LBS.

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")
 GRATE..... 84 LBS.
 (NOTED AS TYPE A-S ON DRAINAGE TABLE)

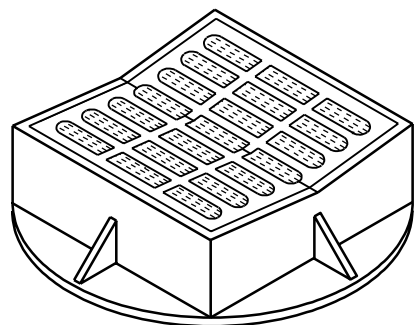
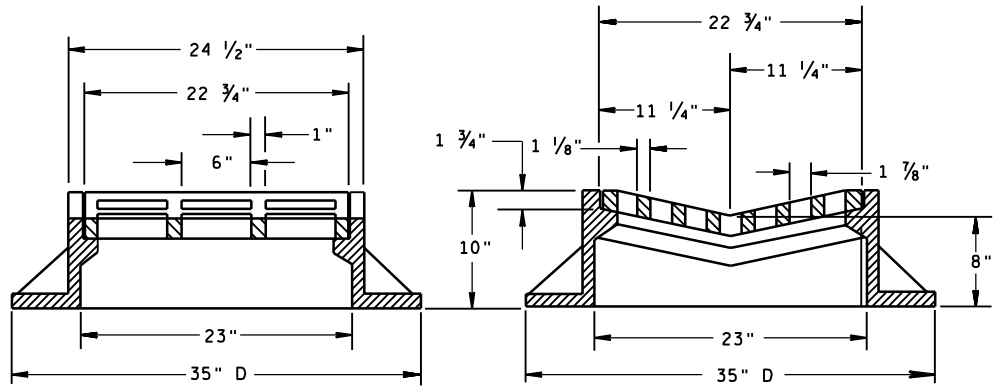
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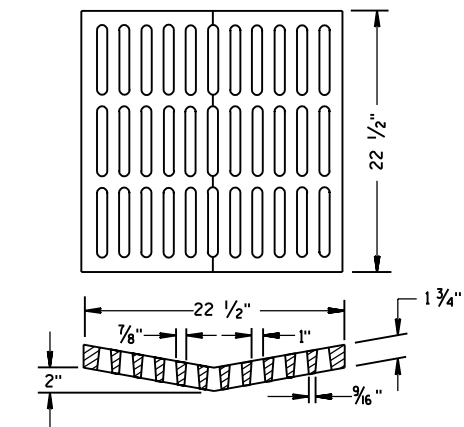
**INLET COVERS
TYPE A, H, A-S, & H-S**

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
 10/4/99 DATE
 [Signature] CHIEF ROADWAY DEVELOPMENT ENGINEER
 FHWA

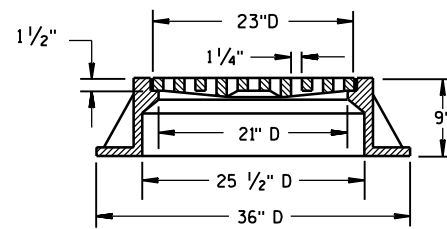
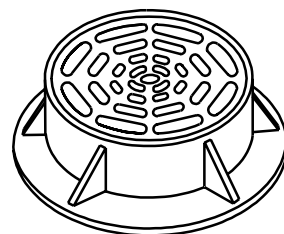


TYPE "B"
(APPROXIMATE WEIGHT 395 LBS.)
FRAME..... 285 LBS.
GRATE..... 110 LBS.



ALTERNATIVE GRATE FOR TYPE "B" COVER

(APPROXIMATE GRATE WEIGHT 125 LBS.)
GRATE..... 125 LBS.
USE WHERE PEDESTRIAN OR BICYCLE TRAFFIC IS POSSIBLE.
NOTED AS TYPE B-A ON THE DRAINAGE TABLE



TYPE "C"
(APPROXIMATE WEIGHT 340 LBS.)

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

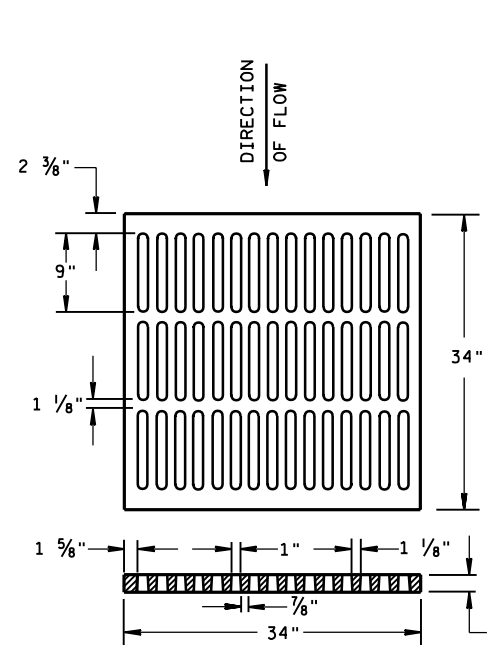
GENERAL NOTES

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

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

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

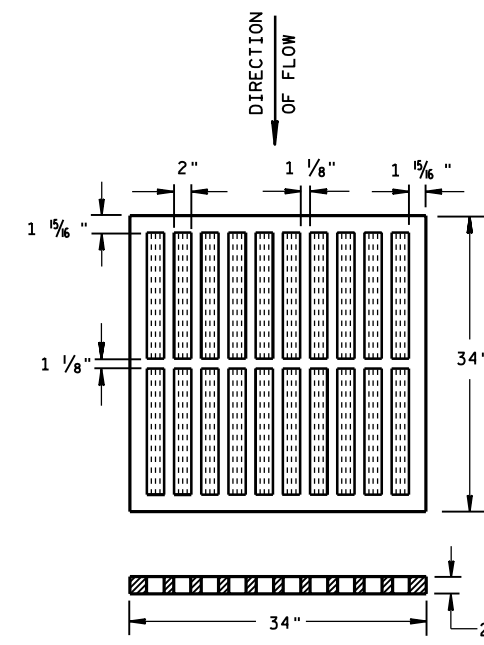
THE ACTUAL WEIGHT OF COVERS MAY VARY WITHIN 5 PERCENT, PLUS OR MINUS, OF THE APPROXIMATE WEIGHT.



ALTERNATIVE TYPE "MS"

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

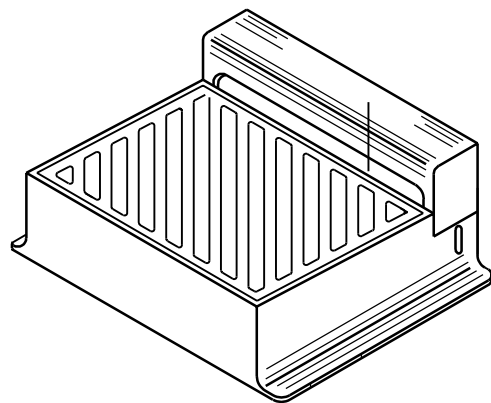
USE WHERE PEDESTRIAN OR BICYCLE TRAFFIC IS PERMITTED
NOTED AS TYPE MS-A ON THE DRAINAGE TABLE



TYPE "MS"

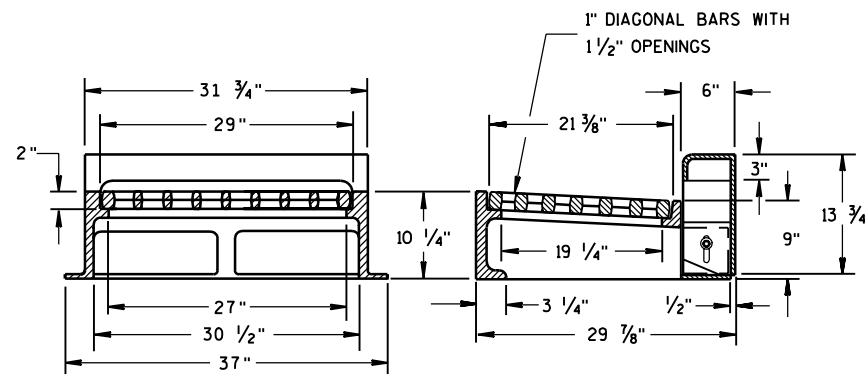
(APPROXIMATE GRATE WEIGHT 270 LBS.)
GRATE..... 270 LBS.

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



DIRECTION OF FLOW

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



NOTE: CURB BOX HEIGHT ADJUSTABLE 6" TO 9"

TYPE "WM"

(APPROXIMATE WEIGHT 670 LBS.)

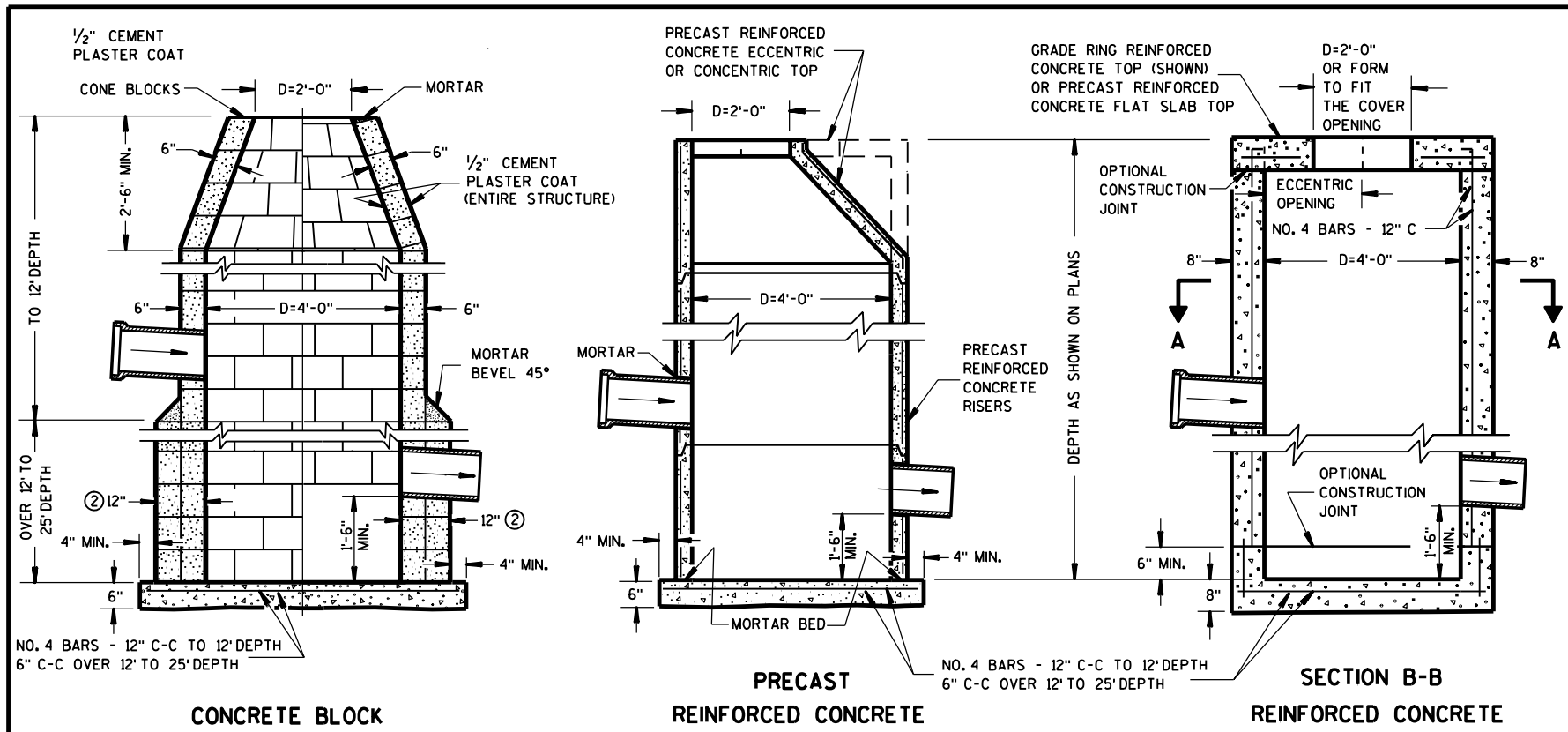
FRAME..... 360 LBS.
GRATE..... 160 LBS.
CURB BOX..... 150 LBS.

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

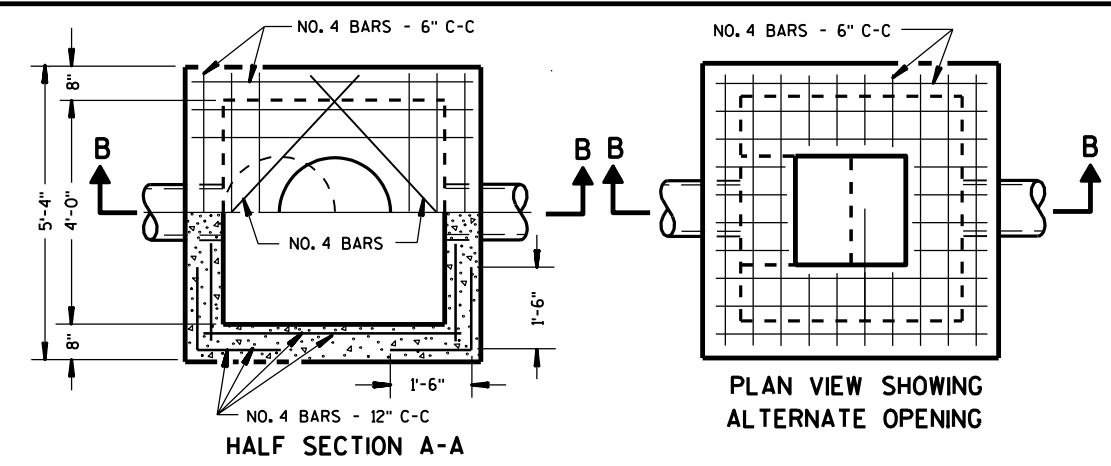
STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
10/4/99
DATE
FHWA

Paul J. Dineen
CHIEF ROADWAY DEVELOPMENT ENGINEER



CATCH BASINS, TYPE 1



GENERAL NOTES

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

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 1-C", "CATCH BASINS 1-B", "INLETS 3-H", ETC. THE FIRST DIGIT DESIGNATES THE MASONRY PORTION OF THE STRUCTURE, AND THE FOLLOWING LETTER DESIGNATES THE TYPE OF COVER TO BE USED TO COMPRISE THE COMPLETE UNIT.

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

PRECAST REINFORCED CONCRETE CONE TOPS (ECCENTRIC OR CONCENTRIC) OR PRECAST REINFORCED CONCRETE FLAT SLAB TOPS MAY BE USED ON CONCRETE BLOCK STRUCTURES. THE 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 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.

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

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

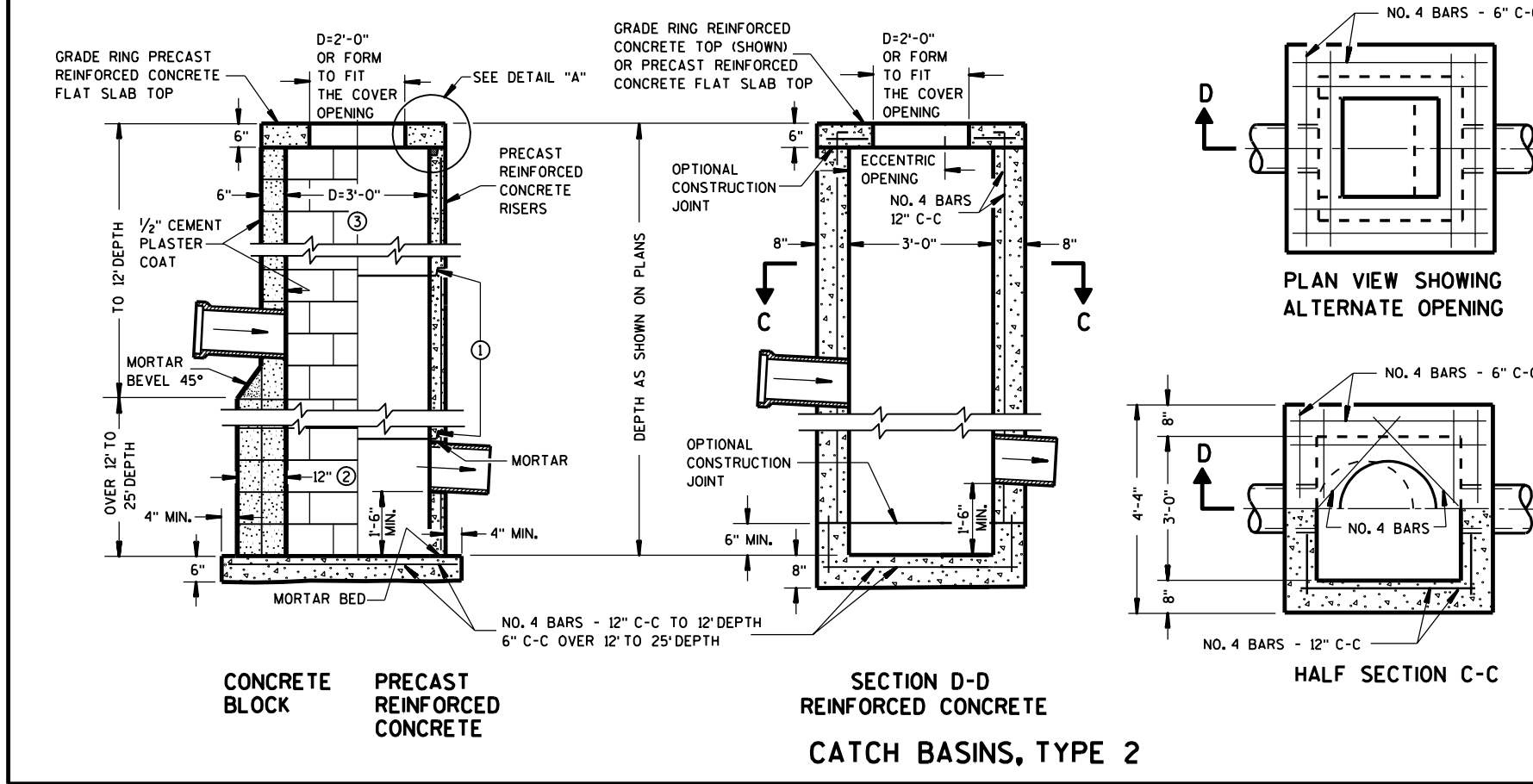
ALL PRECAST INLET UNITS SHALL CONFORM TO THE PERTINENT REQUIREMENTS OF AASHTO DESIGNATION M199.

THE "PRECAST REINFORCED CONCRETE FLAT SLAB TOP" OPTION IS REQUIRED ON CATCH BASINS, TYPE 1 WHEN 2' X 3' OPENING INLET COVERS ARE REQUIRED.

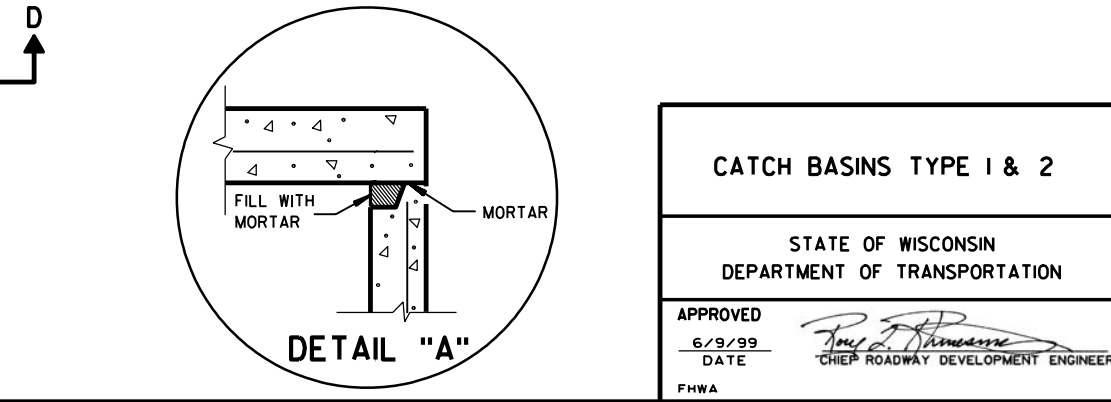
① PRECAST REINFORCED CONCRETE RISERS SHALL BE PLACED WITH THE TONGUE DOWN WHEN GRADE RINGS ARE USED FOR THE SLAB TOP.

② 2 COURSES 6" BLOCK.

③ WHEN THE CONNECTING PIPES ARE 24" OR LARGER THE PRECAST CATCH BASIN MAY BE INCREASED TO 42" DIA.



CATCH BASINS, TYPE 2



DETAIL "A"

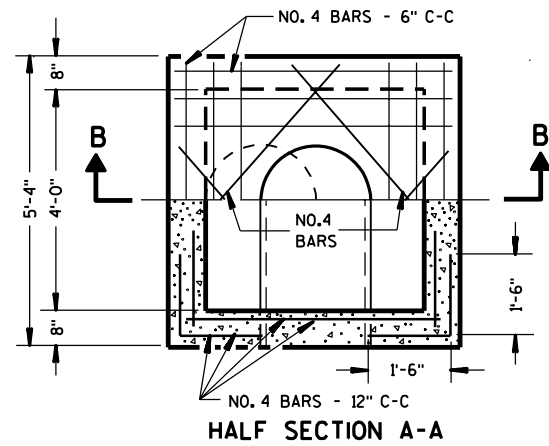
CATCH BASINS TYPE 1 & 2	
STATE OF WISCONSIN DEPARTMENT OF TRANSPORTATION	
APPROVED 6/9/99 DATE	 CHIEF ROADWAY DEVELOPMENT ENGINEER
FHWA	

6

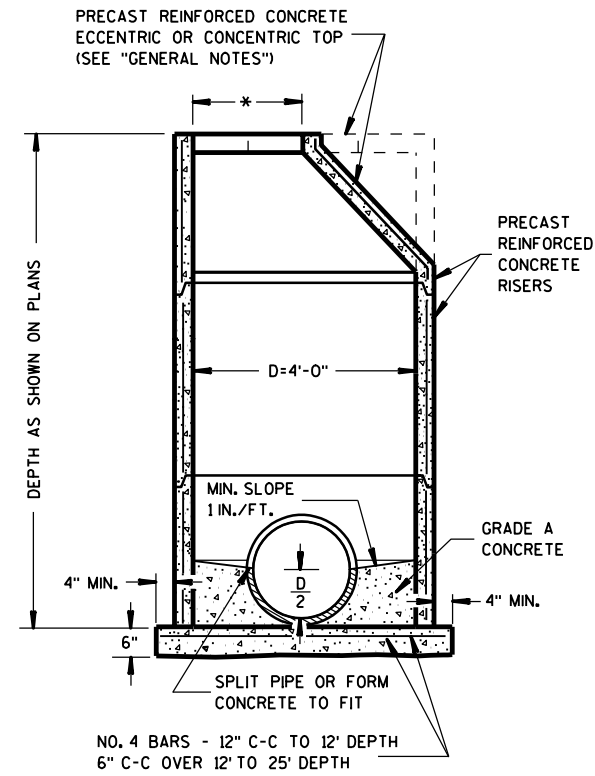
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S.D.D. 8 A 6-4

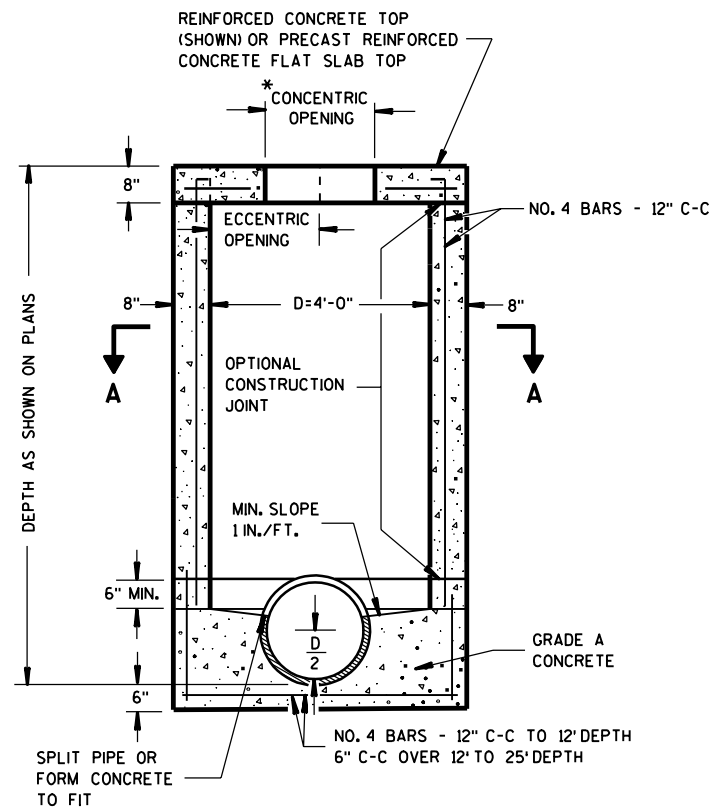
S.D.D. 8 A 6-4



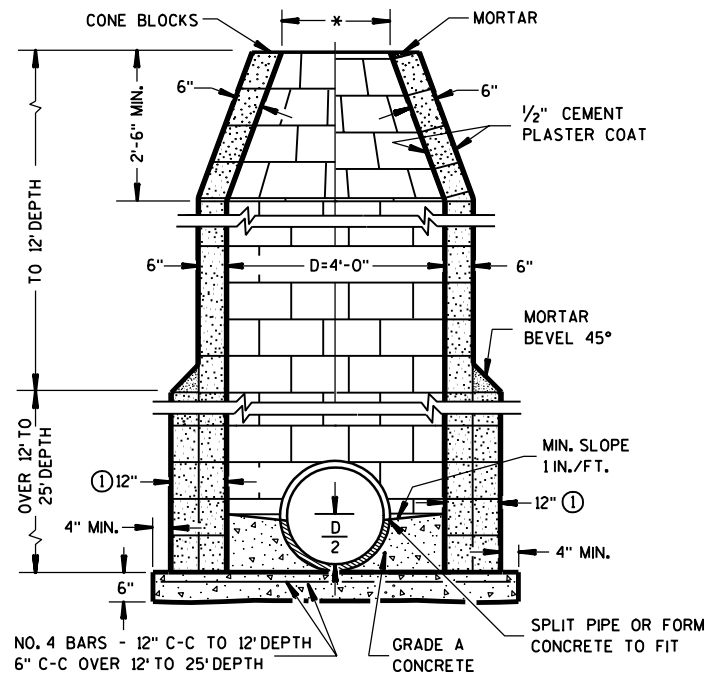
HALF SECTION A-A



PRECAST REINFORCED CONCRETE



SECTION B-B
REINFORCED CONCRETE



CONCRETE BLOCK

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.

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 1-C", "CATCH BASINS 1-B", "INLETS 3-H", ETC. THE FIRST DIGIT DESIGNATES THE MASONRY PORTION OF THE STRUCTURE, AND THE FOLLOWING LETTER DESIGNATES THE TYPE OF COVER TO BE USED TO COMPRISE THE COMPLETE UNIT.

PRECAST REINFORCED 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) 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 CONFORMING TO AASHTO M 199 SHALL BE INSTALLED IN ALL STRUCTURES OVER 5 FEET IN DEPTH.

SOLID ALUMINUM STEPS SHALL HAVE A MINIMUM CROSS SECTIONAL DIMENSION OF 0.75 INCH. ALUMINUM SURFACES TO BE EMBEDDED IN CONCRETE SHALL BE GIVEN ONE COAT OF SUITABLE QUALITY PAINT, SUCH AS ZINC CHROMATE PRIMER CONFORMING TO FEDERAL SPECIFICATION TT-P-645 OR EQUIVALENT.

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

PRECAST REINFORCED CONCRETE RISERS MAY BE PLACED WITH TONGUE UP OR DOWN.

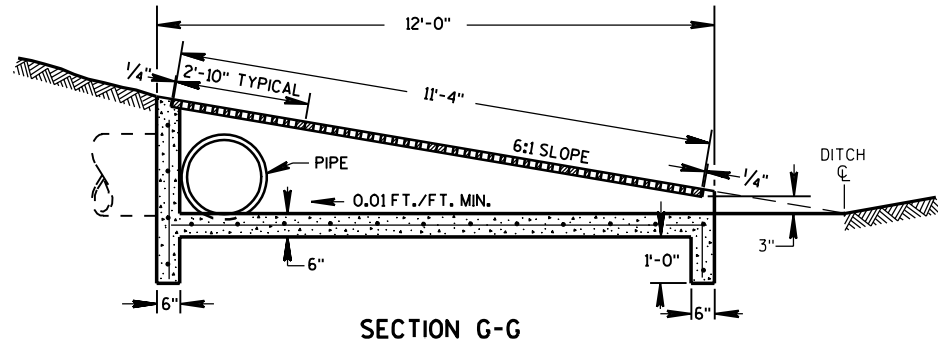
ALL PRECAST INLET UNITS AND MANHOLES SHALL CONFORM TO THE PERTINENT REQUIREMENTS OF AASHTO DESIGNATION M 199.

* USE 2'-0" DIAMETER OPENING WITH TYPE "C", "L" AND "J" COVERS, OR 3'-0" DIAMETER WITH TYPE "K" AND "M" COVERS.

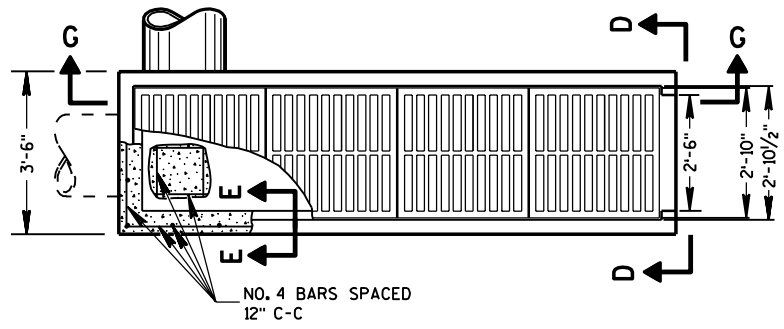
① 2 COURSES 6" BLOCK.

MANHOLES TYPE 1

MANHOLES TYPE 1	
STATE OF WISCONSIN DEPARTMENT OF TRANSPORTATION	
APPROVED 9/9/05 DATE	/S/ Jerry H. Zogg ROADWAY STANDARDS DEVELOPMENT ENGINEER
FHWA	

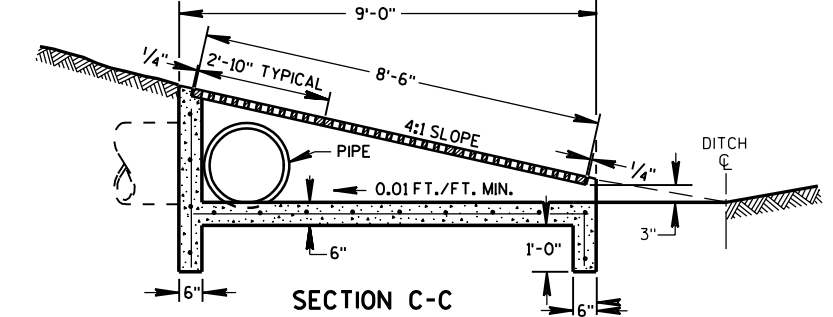


SECTION G-G

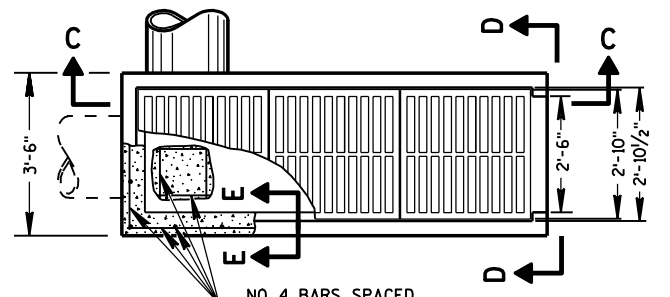


PLAN VIEW

REINFORCED CONCRETE INLET TYPE 11

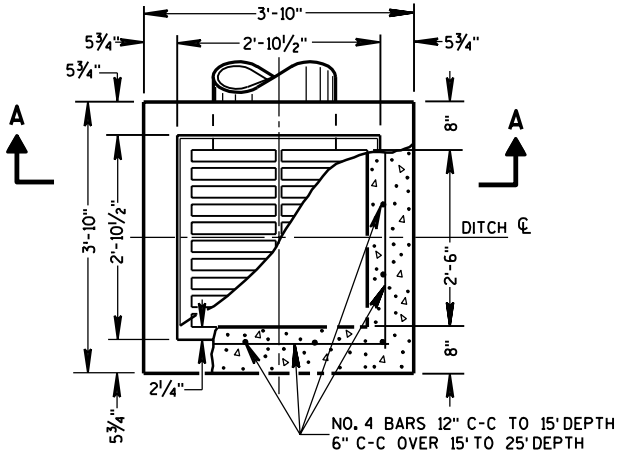


SECTION C-C

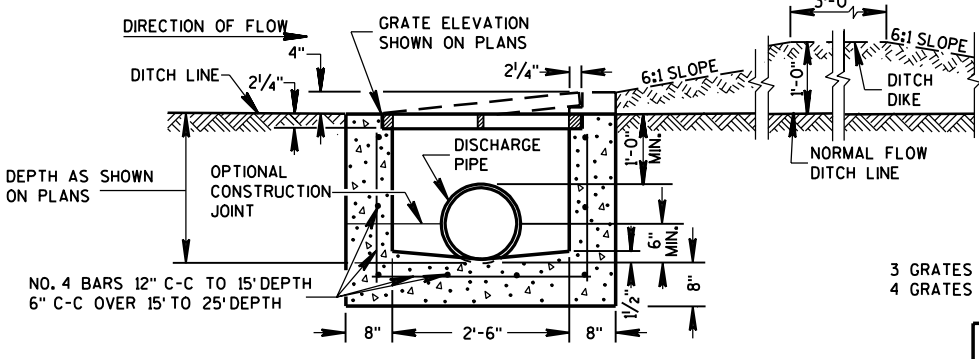


PLAN VIEW

REINFORCED CONCRETE INLET TYPE 10

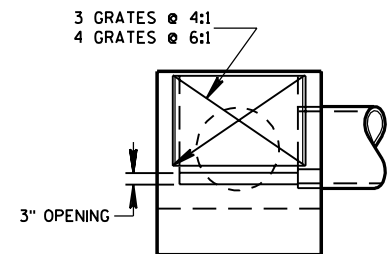


PLAN VIEW

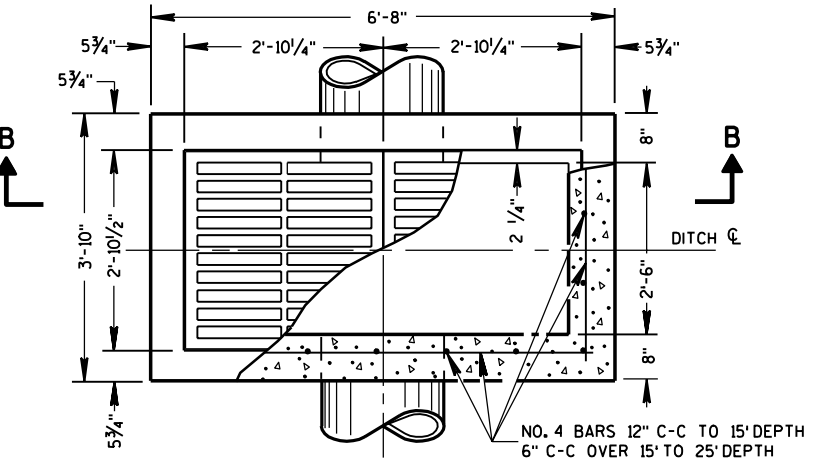


SECTION A-A

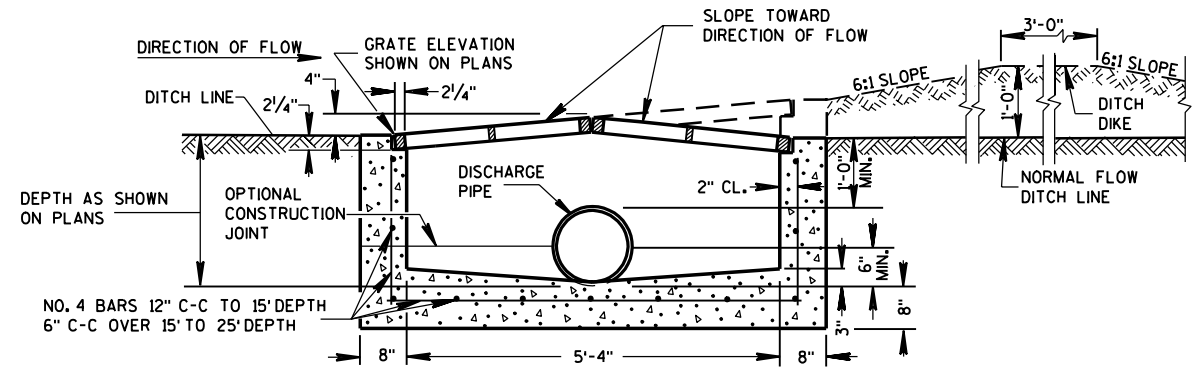
REINFORCED CONCRETE INLET TYPE 8



SECTION D-D

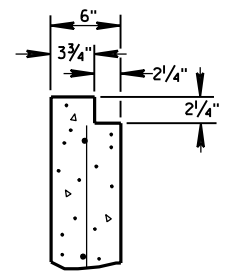


PLAN VIEW



SECTION B-B

REINFORCED CONCRETE INLET TYPE 9



SECTION E-E

INLETS TYPE 8, 9, 10 AND 11	
STATE OF WISCONSIN DEPARTMENT OF TRANSPORTATION	
APPROVED 8/10/94 DATE	 CHIEF ROADWAY 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.

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

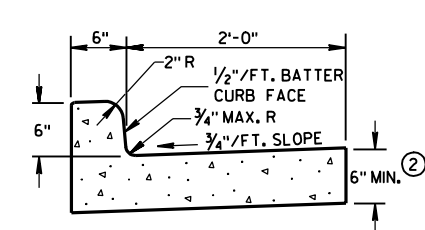
PRECAST REINFORCED CONCRETE INLET UNITS, IF USED, SHALL CONFORM TO THE REQUIREMENTS OF THE CATCH BASINS, MANHOLES AND INLETS SECTION OF THE STANDARD SPECIFICATIONS. UNLESS OTHERWISE AUTHORIZED IN WRITING BY THE ENGINEER, THE CONTRACTOR SHALL NOT ORDER AND DELIVER PRECAST INLET UNITS REQUIRED FOR THE PROJECT UNTIL A CORRECTED LIST OF SIZES IS FURNISHED BY THE ENGINEER.

ALL INLETS ARE DESIGNATED ON THE PLANS AS "INLETS, 8-MS", ETC. THIS DESIGNATION IS INTERPRETED TO MEAN THAT THE NUMBER, OR FIRST DIGIT DESIGNATES THE MASONRY PORTION OF THE STRUCTURE AND THE FOLLOWING LETTER DESIGNATES THE TYPE OF COVER OR IRON CASTING TO BE USED THEREWITH TO COMPRISE THE COMPLETE UNIT.

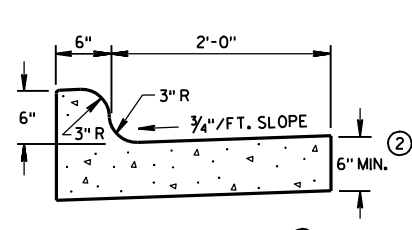
ALL BAR STEEL REINFORCEMENT SHALL BE EMBEDDED 2 INCHES CLEAR UNLESS OTHERWISE SHOWN OR NOTED.

6

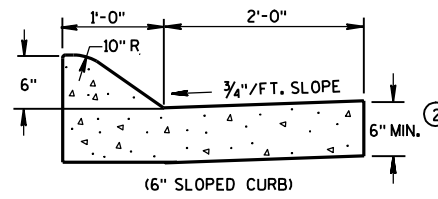
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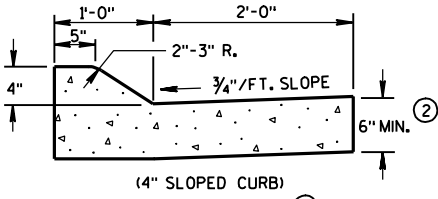
TYPES A & D ①



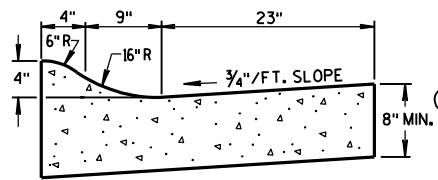
TYPES K & L ①



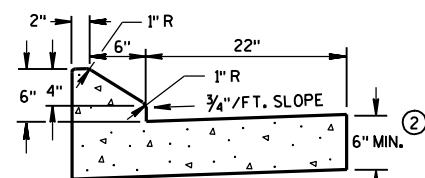
(6" SLOPED CURB)



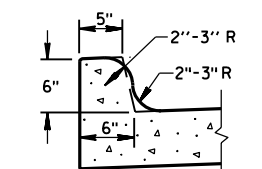
(4" SLOPED CURB)



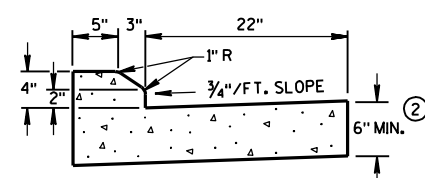
4" SLOPED CURB TYPES R & T ① ④



6" SLOPED CURB TYPES G & J ①

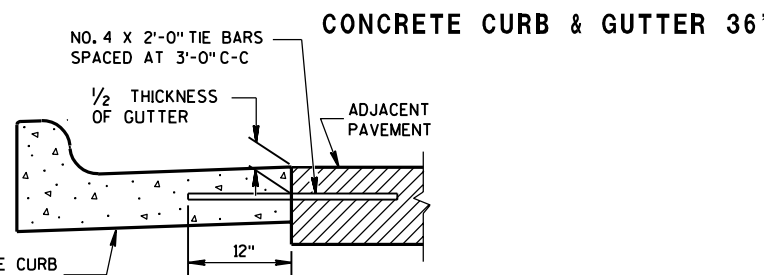


OPTIONAL CURB SHAPE FOR TYPES K & L ①

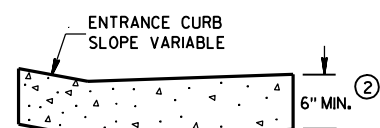


4" SLOPED CURB TYPES G & J ①

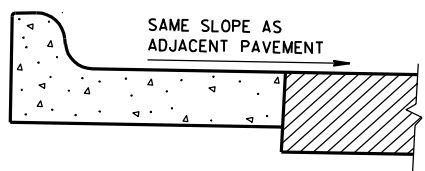
CONCRETE CURB & GUTTER 30"



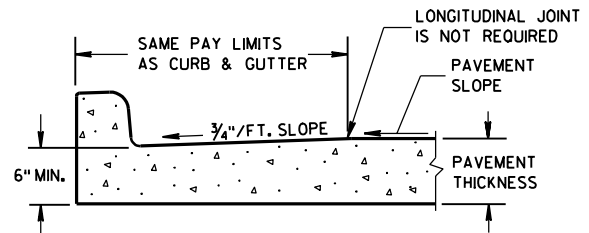
TYPICAL TIE BAR LOCATION ①



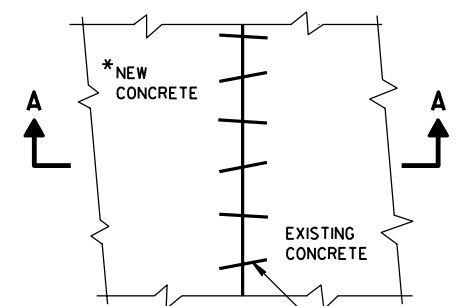
DRIVEWAY ENTRANCE CURB (WHEN DIRECTED BY THE ENGINEER)



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



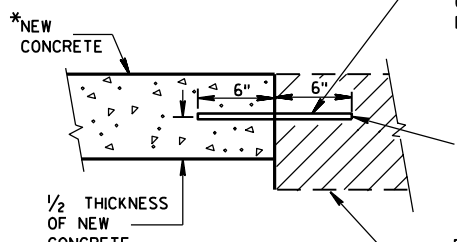
PARTIAL SECTION OF PAVEMENT WITH INTEGRAL CURB & GUTTER



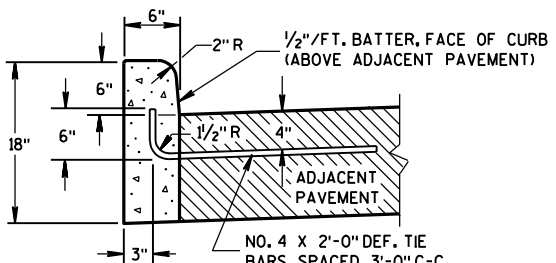
PLAN VIEW

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

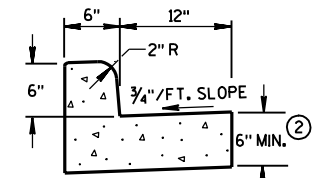
NO. 6 X 12" DEF. BARS SPACED 3'-0" C-C, INSTALLED ON 6:1 SKEW HORIZONTALLY, DIRECTION OF SKEW ALTERNATING AFTER EVERY ONE OR TWO BARS.



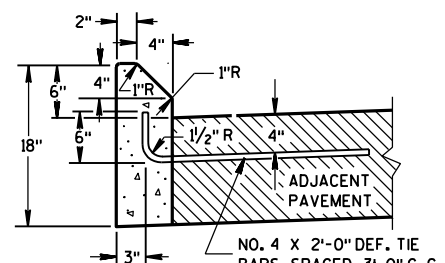
SECTION A-A PAVEMENT TIES



TYPES A & D ①



TYPES A & D CONCRETE CURB & GUTTER 18" ①



TYPES G & J ①

CONCRETE CURB

GENERAL NOTES

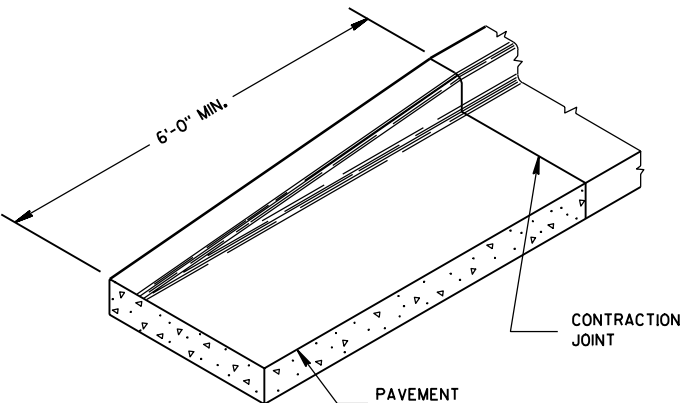
DETAILS OF CONSTRUCTION, MATERIALS AND WORKMANSHIP NOT SHOWN ON THIS DRAWING SHALL CONFORM TO THE PERTINENT REQUIREMENTS OF THE CONTRACT. PAVEMENT TIES AND TIE BARS SHALL BE EPOXY COATED IN CONFORMANCE WITH SUBSECTION 505.2.6.2 OF THE STANDARD SPECIFICATIONS.

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

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

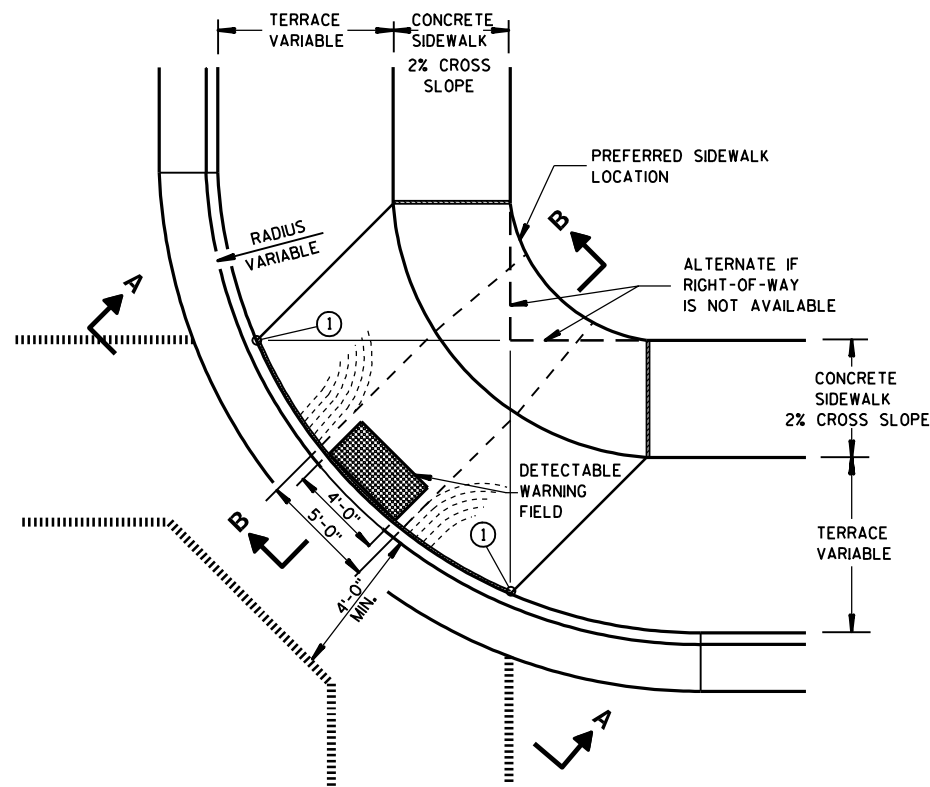
UNLESS OTHERWISE SHOWN ON THE TYPICAL CROSS SECTIONS, THE BASE AGGREGATE AND COMMON EXCAVATION LIMITS ARE 2'-0" BEHIND THE BACK OF CURBS.

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

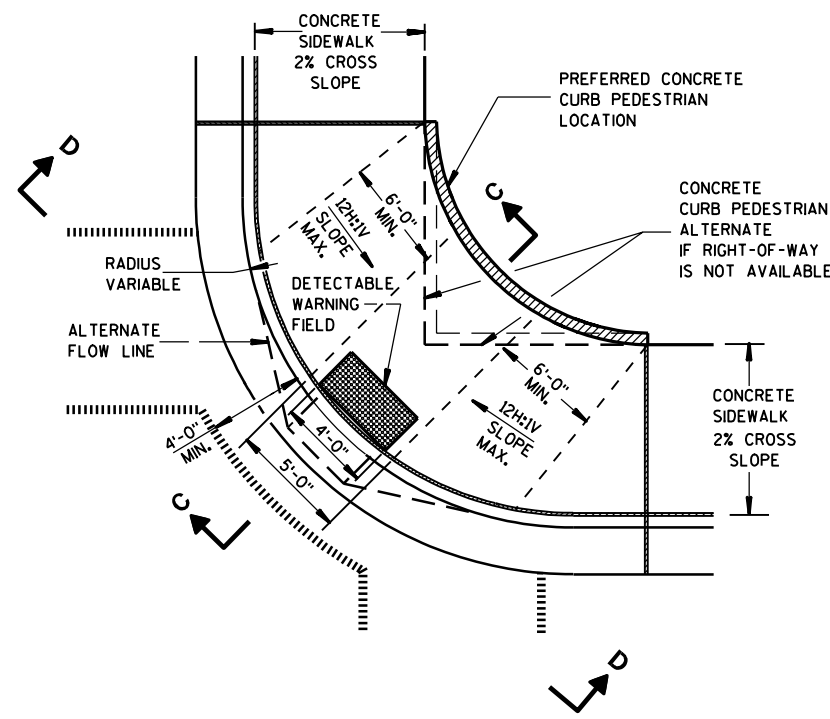


END SECTION CURB & GUTTER

CONCRETE CURB, CONCRETE CURB & GUTTER AND PAVEMENT TIES	
STATE OF WISCONSIN DEPARTMENT OF TRANSPORTATION	
APPROVED 4/4/08 DATE	/S/ Jerry H. Zogg ROADWAY STANDARDS DEVELOPMENT ENGINEER
FHWA	



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



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

GENERAL NOTES

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

RAMPS SHALL BE BUILT AT 12H:1V OR FLATTER. WHEN NECESSARY, THE SIDEWALK ELEVATION MAY BE LOWERED TO MEET THE HIGH POINT ON THE RAMP.

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

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

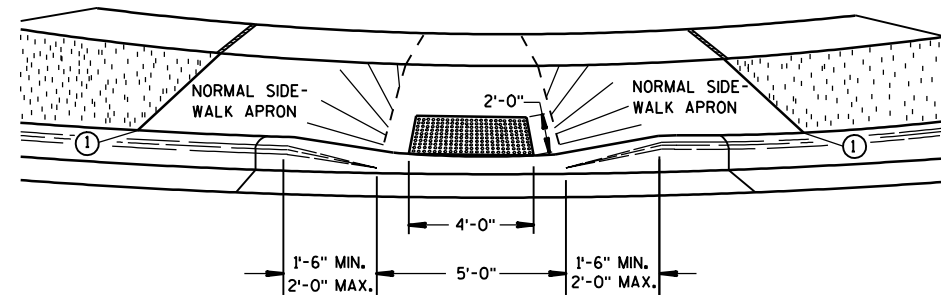
SELECT CURB RAMP DETECTABLE WARNING FIELD MATERIALS AND DEVICES FROM THE DEPARTMENT'S APPROVED MATERIALS LIST. THE COLOR OF THE DETECTABLE WARNING FIELD IS SPECIFIED ELSEWHERE AND IS INCIDENTAL TO THE BID ITEM OF "CURB RAMP DETECTABLE WARNING FIELD".

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

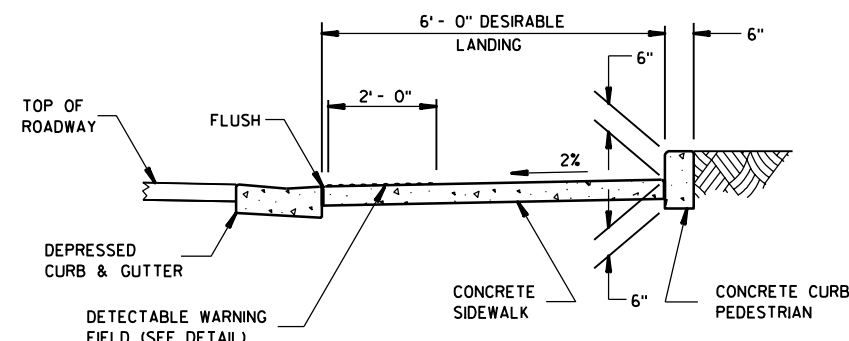
- ① THIS POINT IS AN EXTENSION OF OUTSIDE EDGE OF APPROACHING SIDEWALK WHERE IT MEETS THE BACK OF CONCRETE CURB.
- ② GRADE CHANGE BETWEEN GUTTER FLAG SLOPE AND THE CURB RAMP SLOPE SHALL NOT EXCEED 11%. PROVIDE DRAINAGE AWAY FROM CURB RAMP AT GUTTER FLAG INTERFACE.

LEGEND

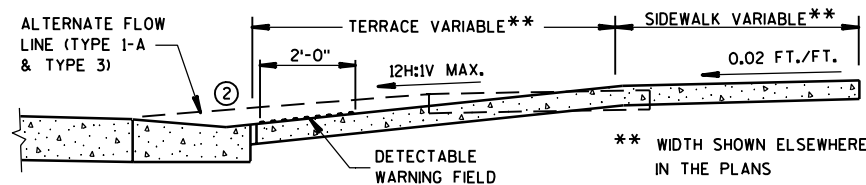
- 1/2" EXPANSION JOINT-SIDEWALK
- - - CONTRACTION JOINT FIELD LOCATED
- ||||| PAVEMENT MARKING CROSSWALK (WHITE)
- - - ALTERNATIVE LAYOUT



VIEW A-A

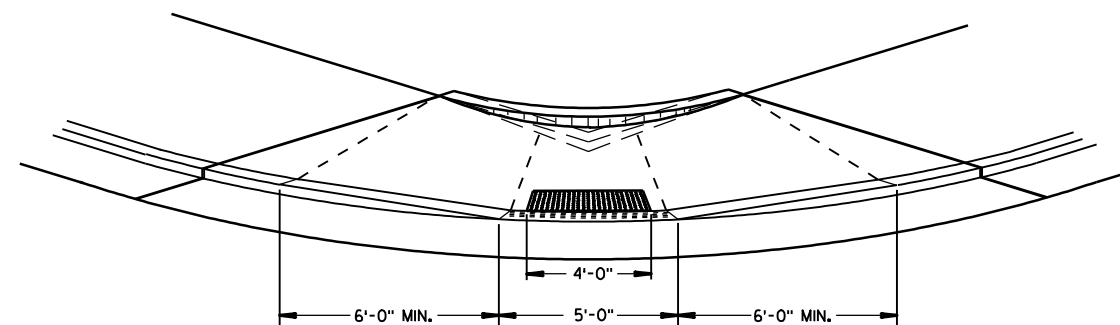


SECTION C-C



SECTION B-B

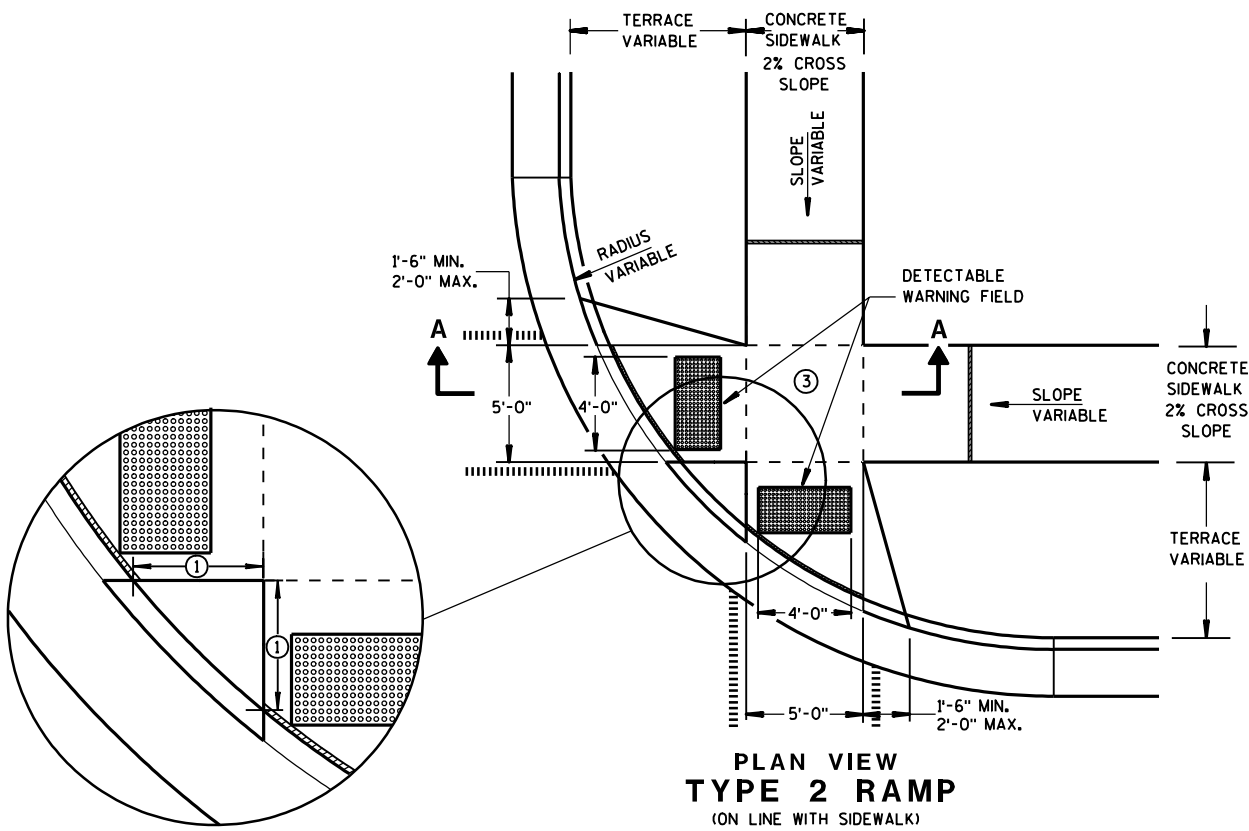
** WIDTH SHOWN ELSEWHERE IN THE PLANS



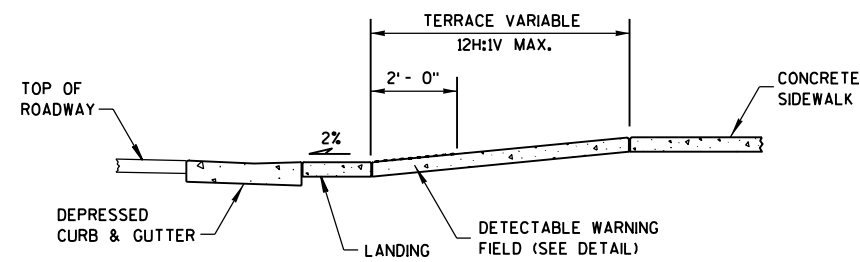
VIEW D-D

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

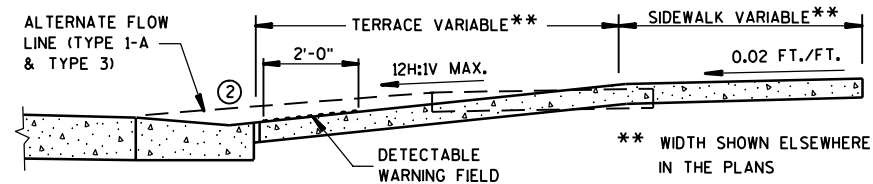
STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION



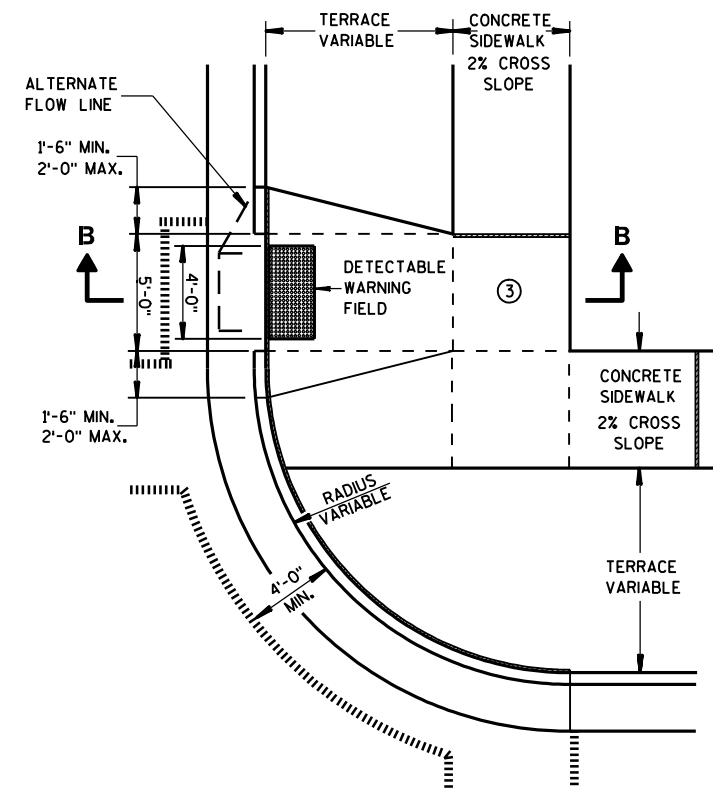
**PLAN VIEW
TYPE 2 RAMP**
(ON LINE WITH SIDEWALK)



SECTION A-A



SECTION B-B



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

GENERAL NOTES

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

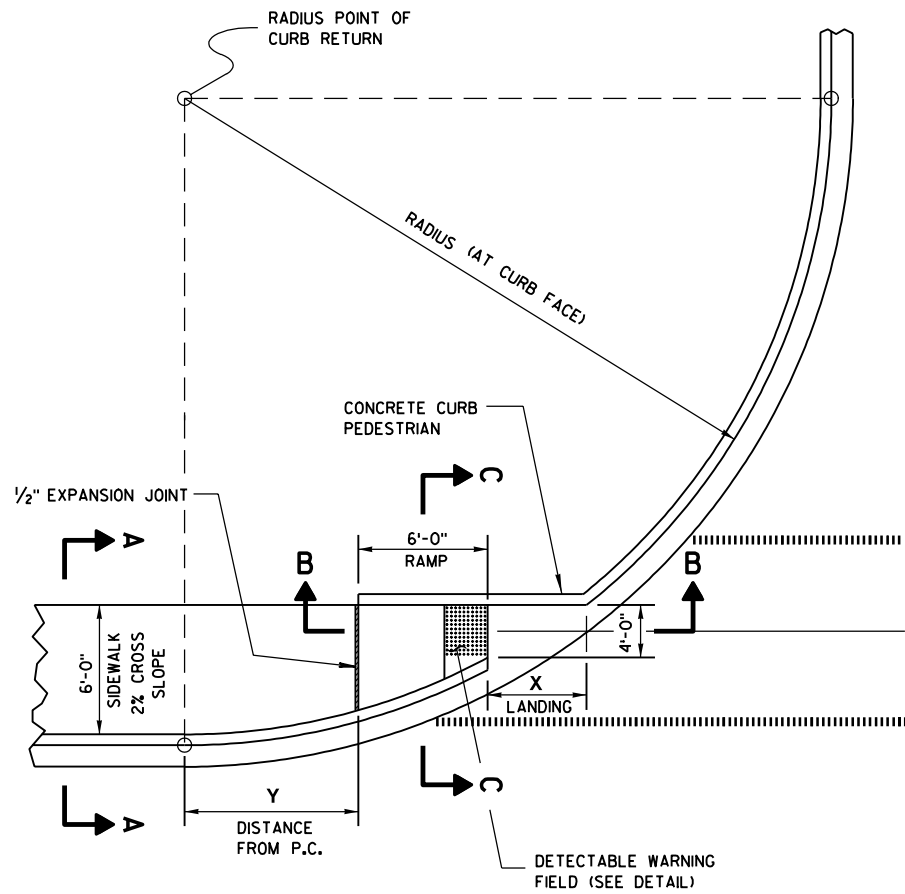
- ① WHEN THIS DISTANCE IS LESS THAN 6'-0" IT MAY BE DIFFICULT TO ACHIEVE A 12H:1V SLOPE, OR FLATTER, ON THE RAMP, REDUCE CURB HEIGHT IN TRIANGLE AREA TO ACHIEVE 12H:1V SLOPE, OR FLATTER, ON RAMP. 2" MINIMUM CURB HEIGHT.
- ② GRADE CHANGE BETWEEN GUTTER FLAG SLOPE AND THE CURB RAMP SLOPE SHALL NOT EXCEED 1%. PROVIDE DRAINAGE AWAY FROM CURB RAMP AT GUTTER FLAG INTERFACE.
- ③ PROVIDE LANDING AT TOP OF RAMP WITH NO MORE THAN 2% SLOPE IN ANY DIRECTION.

LEGEND

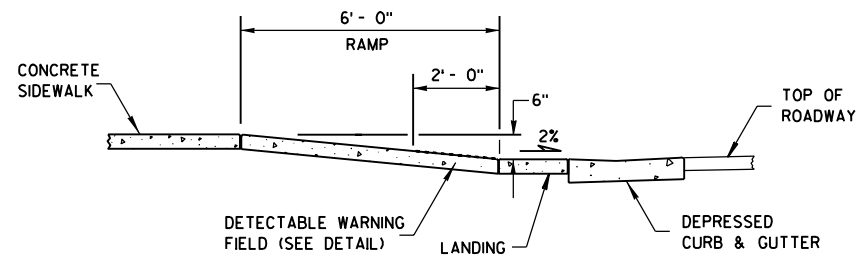
- 1/2" EXPANSION JOINT-SIDEWALK
- - - CONTRACTION JOINT FIELD LOCATED
- ||||| PAVEMENT MARKING CROSSWALK (WHITE)
- - - ALTERNATIVE LAYOUT

**CURB RAMPS
TYPES 2 AND 3**

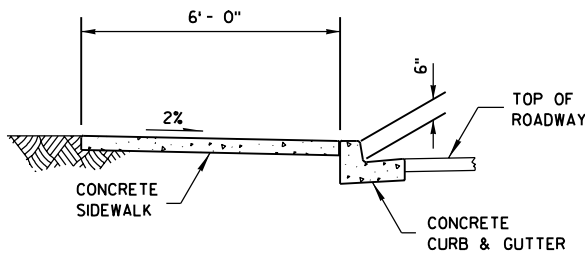
STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION



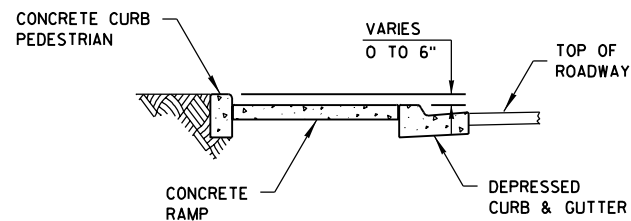
**CURB RAMP TYPE 4A
PLAN VIEW**



SECTION B-B



SECTION A-A



SECTION C-C

RADIUS (AT CURB FACE)	X	Y
20 FEET	6'-1 ³ / ₄ "	2'-7 ¹ / ₄ "
30 FEET	7'-11 ³ / ₄ "	4'-8 ¹ / ₄ "
40 FEET	9'-5 ¹ / ₄ "	6'-5"
50 FEET	10'-8 ³ / ₄ "	7'-11 ¹ / ₄ "
60 FEET	11'-10 ¹ / ₄ "	9'-3 ¹ / ₂ "

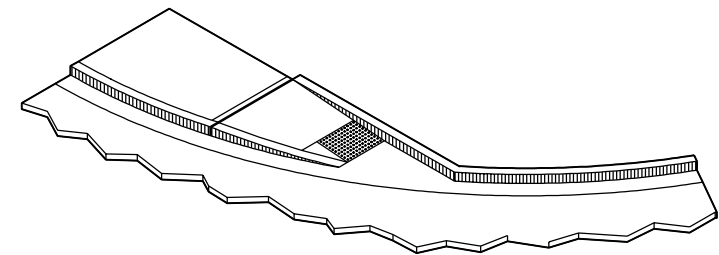
INTERMEDIATE RADII CAN BE INTERPOLATED

GENERAL NOTES

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

RAMP SLOPES SHALL NOT BE STEEPER THAN 12:1.

SIDEWALK CROSS SLOPE SHALL NOT EXCEED 2%.



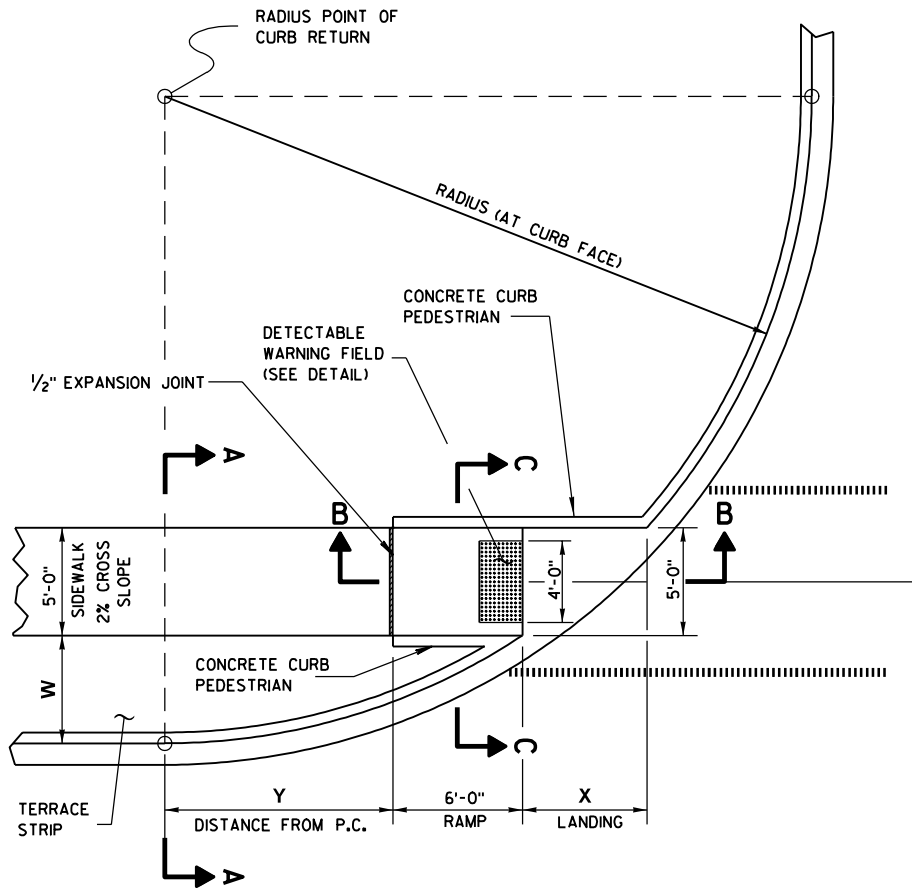
ISOMETRIC VIEW

LEGEND

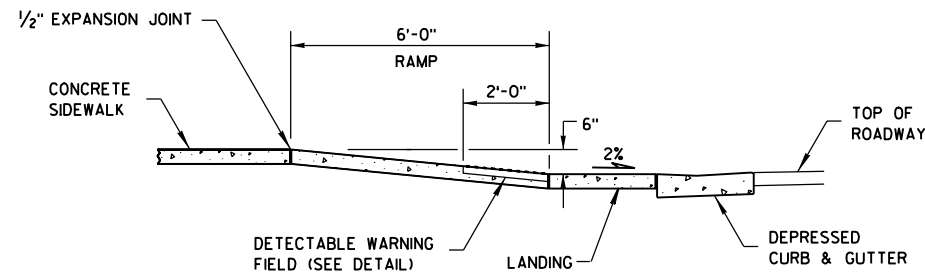
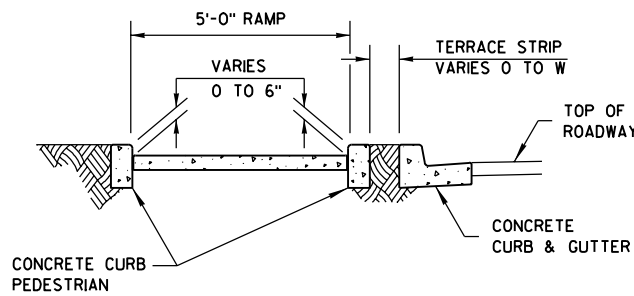
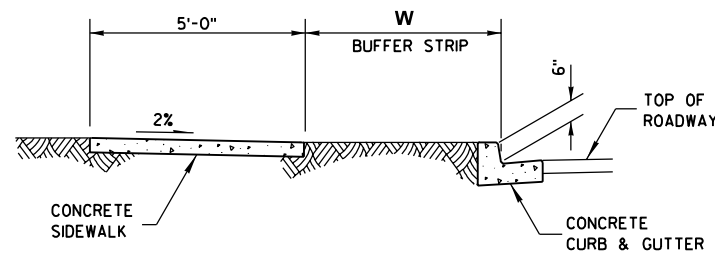
- 1/2" EXPANSION JOINT-SIDEWALK
- - - CONTRACTION JOINT FIELD LOCATED
- ||||| PAVEMENT MARKING CROSSWALK (WHITE)

**CURB RAMPS
TYPE 4A**

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION



**CURB RAMP TYPE 4B
PLAN VIEW**



GENERAL NOTES

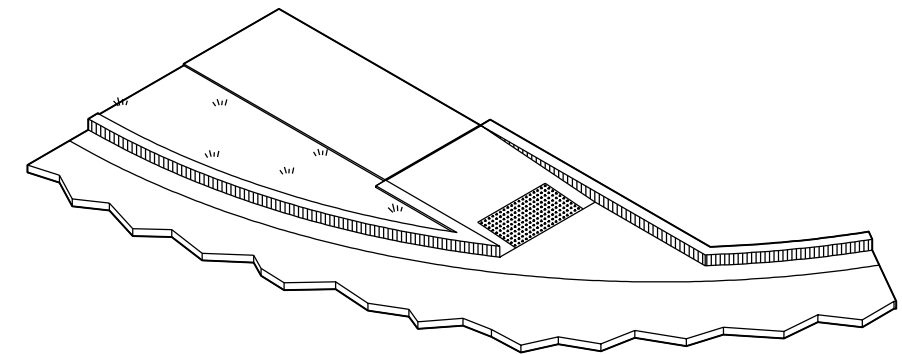
AVOID PLACING DRAINAGE STRUCTURES, JUNCTION BOXES OR OTHER OBSTRUCTIONS IN FRONT OF RAMP ACCESS AREAS.

RAMP SLOPES SHALL NOT BE STEEPER THAN 12:1.

SIDEWALK CROSS SLOPE SHALL NOT EXCEED 2%.

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 1/4"	5'-11 1/2"	16'-7 1/4"
50 FEET	10'-3 3/4"	11'-3 3/4"	9'-1 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 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"
70 FEET	12'-2 3/4"	14'-3 1/4"	11'-1 1/4"	17'-4"	10'-1"	19'-11 3/4"	9'-3 3/4"	22'-4 1/4"	8'-8 1/4"	24'-6 1/4"
80 FEET	13'-2"	15'-8 1/2"	11'-10 1/2"	18'-11 3/4"	10'-10 3/4"	21'-10"	10'-1"	24'-4 3/4"	9'-5"	26'-8 3/4"
90 FEET	14'-1 1/2"	17'-1 1/2"	12'-8 1/4"	20'-6 1/2"	11'-7 3/4"	23'-7"	10'-9 3/4"	26'-3 3/4"	10'-1 1/4"	28'-9 1/2"
100 FEET	14'-10 1/2"	18'-3 3/4"	13'-5 1/2"	22'-0"	12'-4 1/4"	25'-2 3/4"	11'-5 3/4"	28'-1 1/2"	10'-9"	30'-9"

INTERMEDIATE RADII CAN BE INTERPOLATED

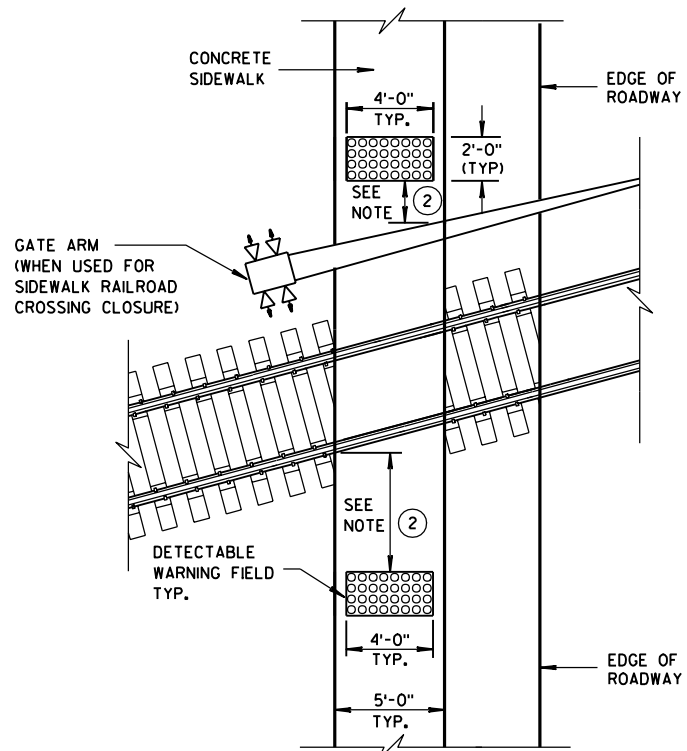


LEGEND

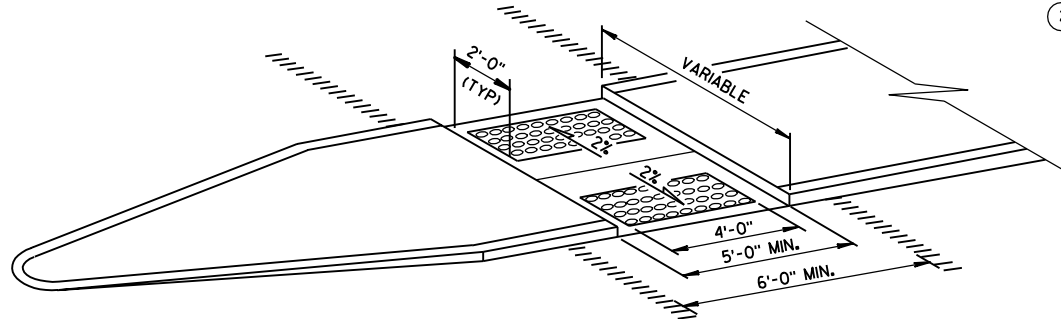
- 1/2" EXPANSION JOINT-SIDEWALK
- - - CONTRACTION JOINT FIELD LOCATED
- ▤ PAVEMENT MARKING CROSSWALK (WHITE)

**CURB RAMPS
TYPE 4B**

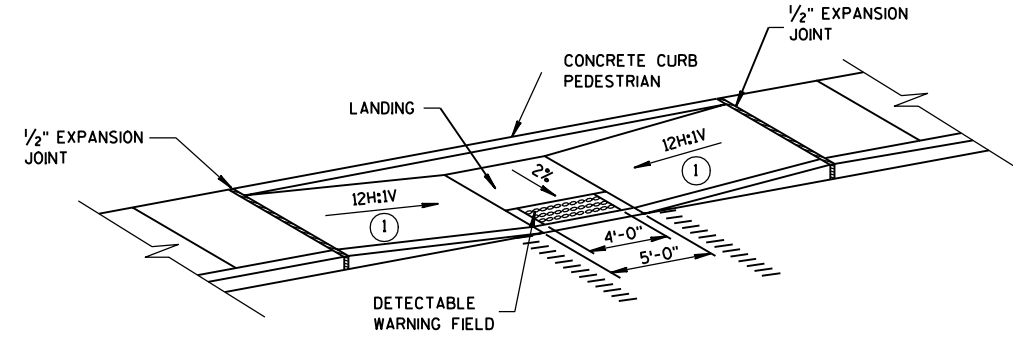
STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION



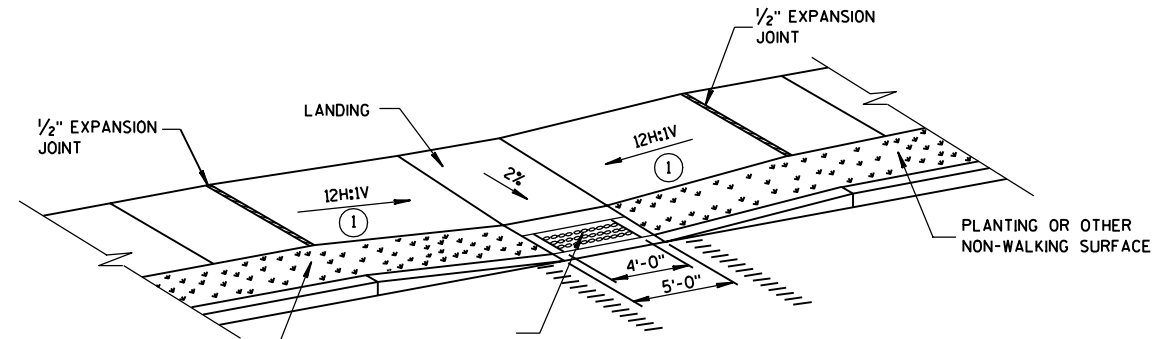
**TYPE 8
DETECTABLE WARNINGS
AT RAILROAD CROSSING**



**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.

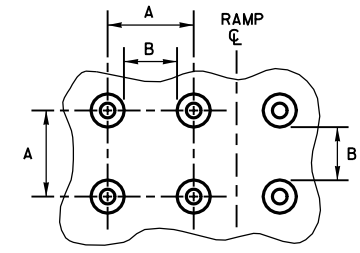
GENERAL NOTES

SIDEWALK CROSS SLOPE SHALL NOT EXCEED 2%.

- ① SLOPE SIDEWALK TOWARD LANDING AS SHOWN WHERE THERE IS NO TERRACE OR WHERE THE TERRACE WIDTH IS LESS THAN 6 FEET WIDE.
- ② THE EDGE OF THE DETECTABLE WARNING FIELD NEAREST TO A RAILROAD CROSSING SHALL BE 1.5 FEET ± 0.1' FROM THE FACE OF THE GATE ARM IF THE GATE ARM EXTENDS ACROSS THE SIDEWALK. WHERE THERE IS NO PEDESTRIAN GATE, THE EDGE OF THE DETECTABLE WARNING FIELD NEAREST TO THE RAILROAD CROSSING SHALL BE 15 FEET FROM THE NEAREST RAIL.

LEGEND

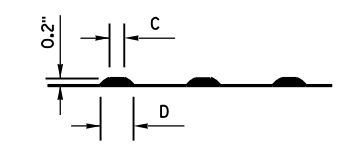
- 1/2" EXPANSION JOINT-SIDEWALK
- - - CONTRACTION JOINT FIELD LOCATED
- ▤ PAVEMENT MARKING CROSSWALK (WHITE)



PLAN VIEW

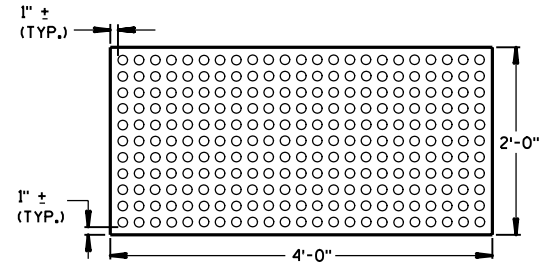
	MIN.	MAX.
A	1.6"	2.4"
B	0.65"	1.5"
C	*	*
D	0.9"	1.4"

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

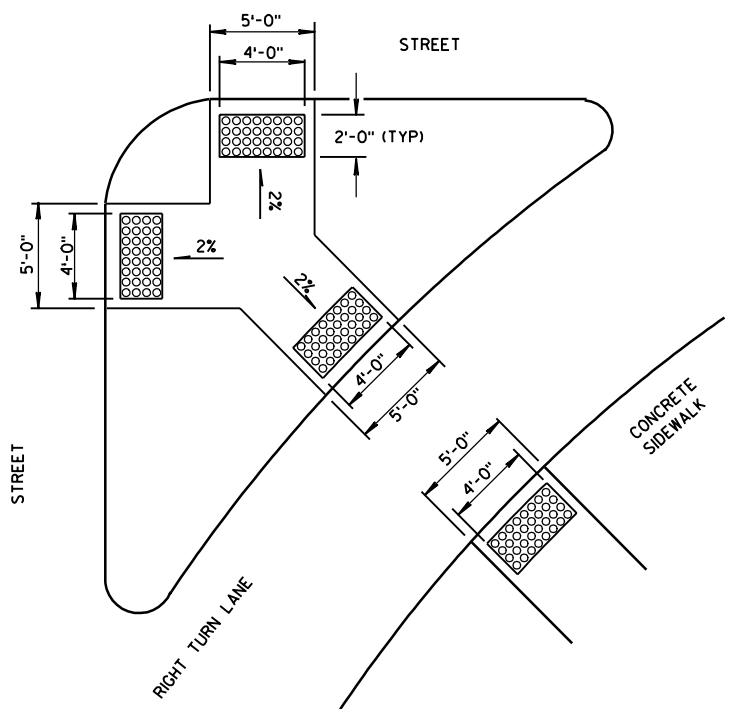


ELEVATION VIEW

**TRUNCATED DOMES
DETECTABLE WARNING
PATTERN DETAIL**

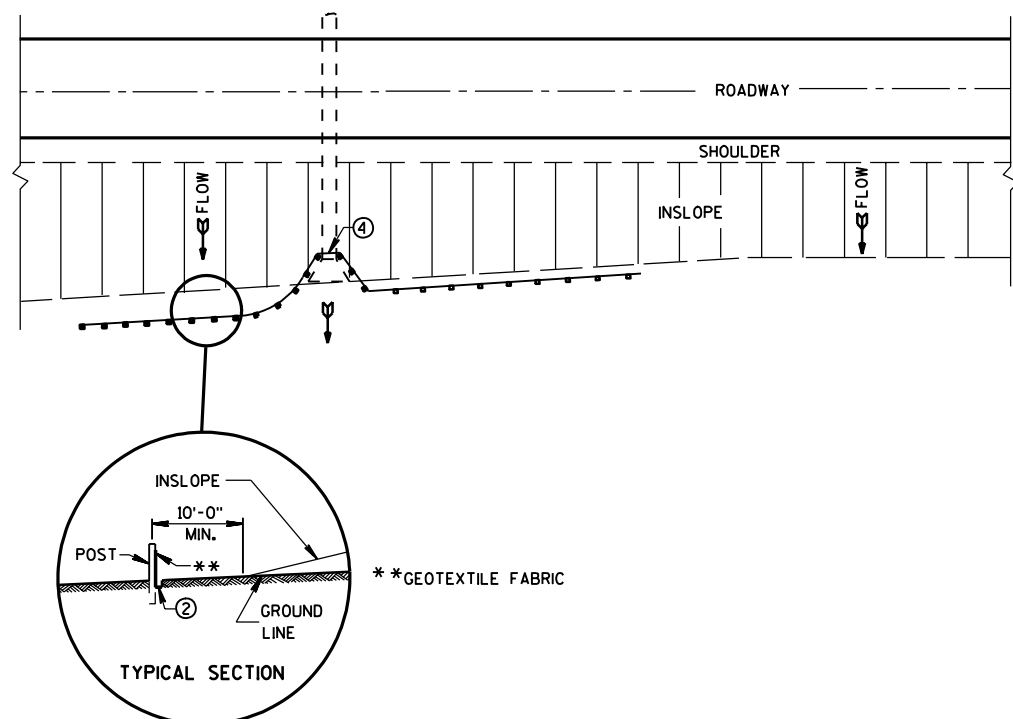


**PLAN VIEW
DETECTABLE WARNING
FIELD (TYPICAL)**

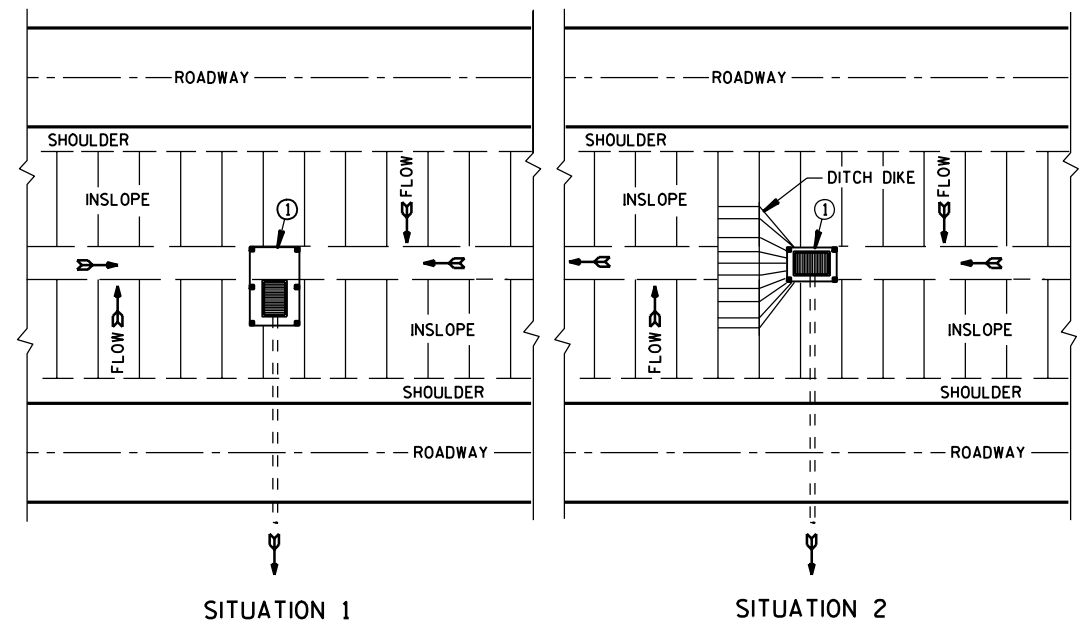


**TYPE 6
DETECTABLE WARNING AT ISLANDS**

CURB RAMPS TYPES 5, 6, 7A, 7B & 8	
STATE OF WISCONSIN DEPARTMENT OF TRANSPORTATION	
APPROVED 9/9/05 DATE FHWA	/s/ Jerry H. Zogg ROADWAY STANDARDS DEVELOPMENT ENGINEER

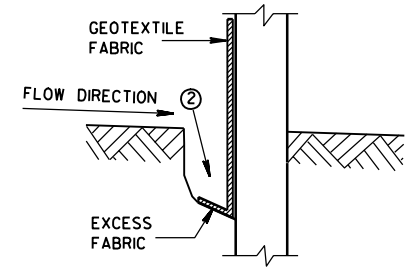


PLAN VIEW
TYPICAL APPLICATION OF SILT FENCE

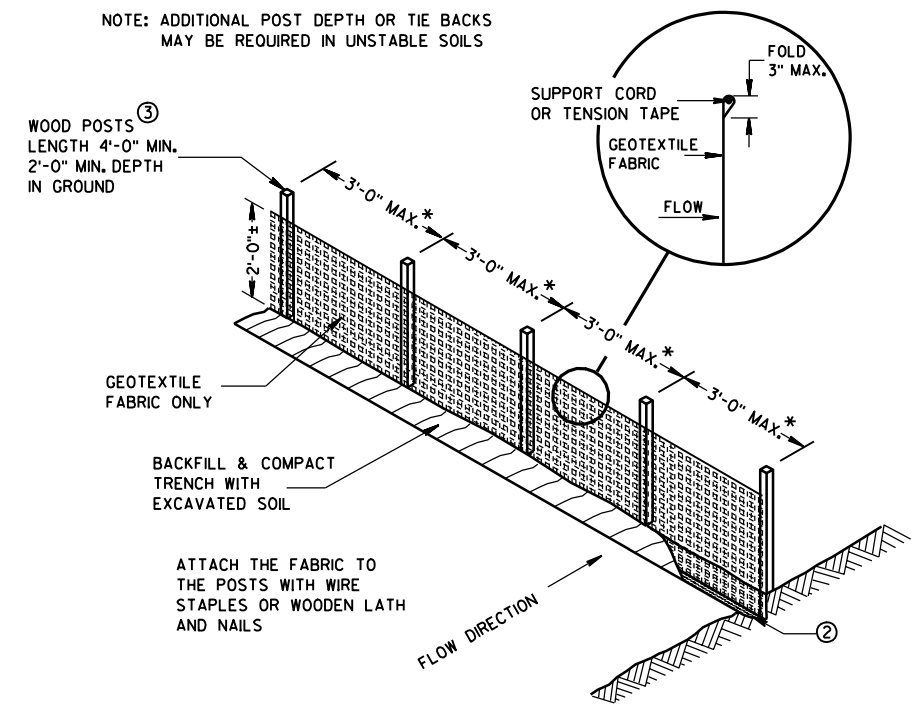


SITUATION 1 SITUATION 2
PLAN VIEW
SILT FENCE AT MEDIAN SURFACE DRAINS

- GENERAL NOTES**
- DETAILS OF CONSTRUCTION NOT SHOWN ON THIS DRAWING SHALL CONFORM TO THE PERTINENT REQUIREMENTS OF THE STANDARD SPECIFICATIONS AND APPLICABLE SPECIAL PROVISIONS.
- ① HORIZONTAL BRACE REQUIRED WITH 2" X 4" WOODEN FRAME OR EQUIVALENT AT TOP OF POSTS.
 - ② FOR MANUAL INSTALLATIONS THE TRENCH SHALL BE A MINIMUM OF 4" WIDE & 6" DEEP TO BURY AND ANCHOR THE GEOTEXTILE FABRIC. FOLD MATERIAL TO FIT TRENCH AND BACKFILL & COMPACT TRENCH WITH EXCAVATED SOIL.
 - ③ WOOD POSTS SHALL BE A MINIMUM SIZE OF 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.

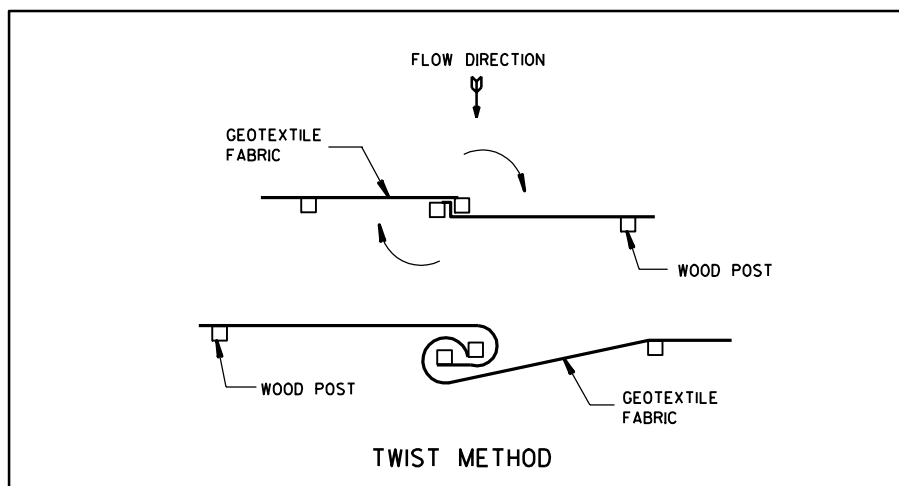


TRENCH DETAIL

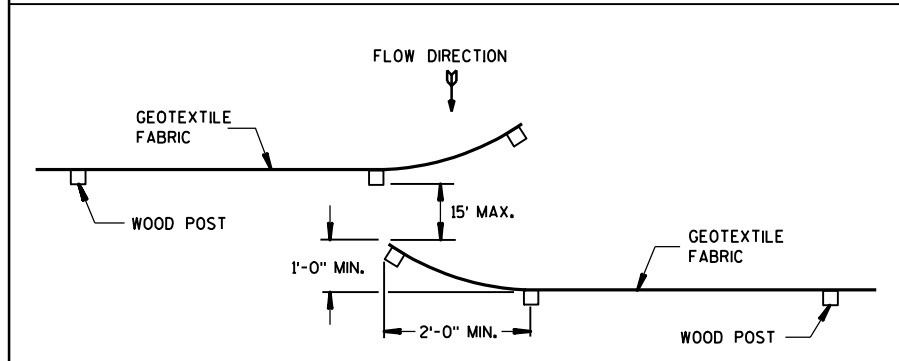


SILT FENCE

* NOTE: 8'-0" POST SPACING ALLOWED IF A WOVEN GEOTEXTILE FABRIC IS USED.

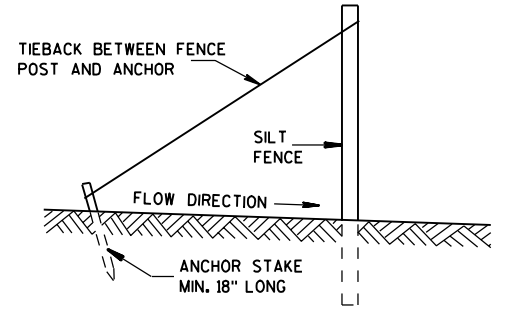


TWIST METHOD



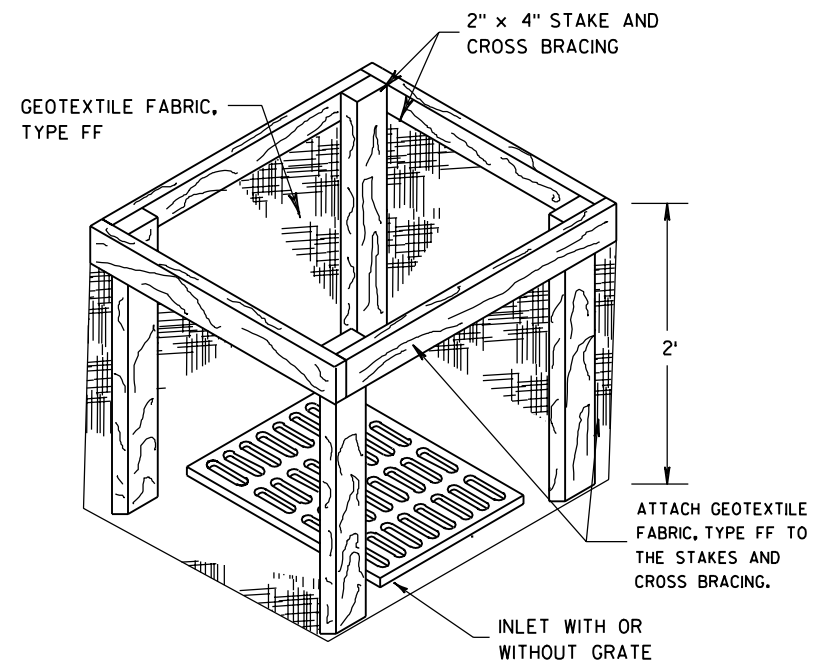
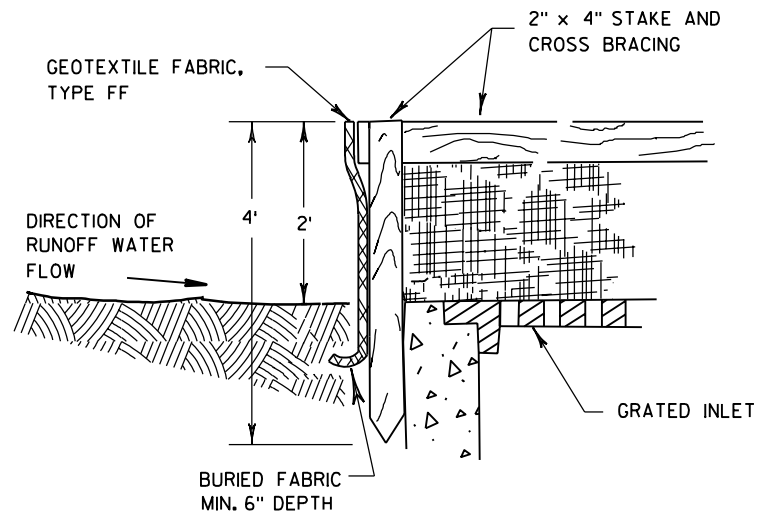
HOOK METHOD

JOINING TWO LENGTHS OF SILT FENCE ⑤



SILT FENCE TIE BACK
(WHEN REQUIRED BY THE ENGINEER)

SILT FENCE	
STATE OF WISCONSIN DEPARTMENT OF TRANSPORTATION	
APPROVED 4-29-05 DATE FHWA	 CHIEF ROADWAY DEVELOPMENT ENGINEER



INLET PROTECTION, TYPE A

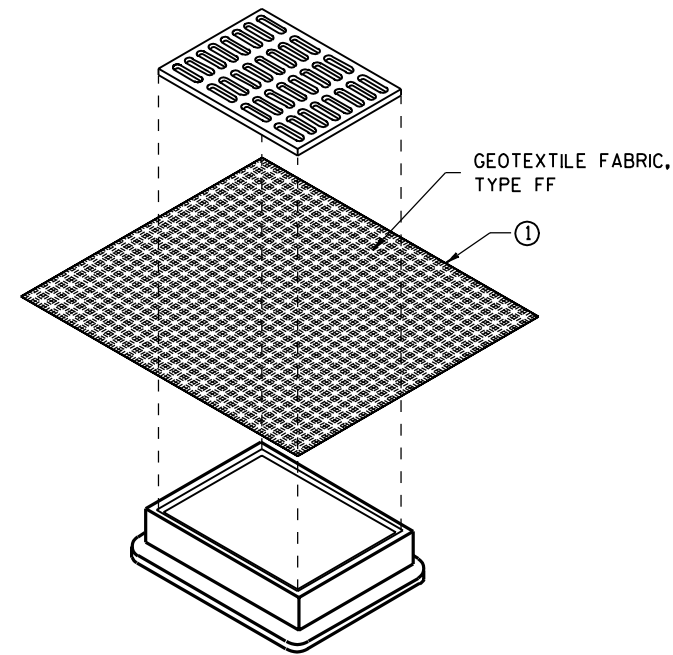
GENERAL NOTES

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.

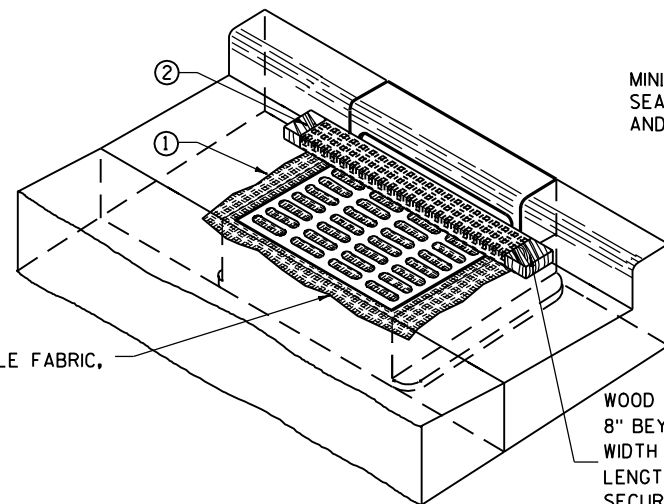
WHEN REMOVING OR MAINTAINING INLET PROTECTION, CARE SHALL BE TAKEN SO THAT THE SEDIMENT TRAPPED ON THE GEOTEXTILE FABRIC DOES NOT FALL INTO THE INLET. ANY MATERIAL FALLING INTO THE INLET SHALL BE REMOVED IMMEDIATELY.

- 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)

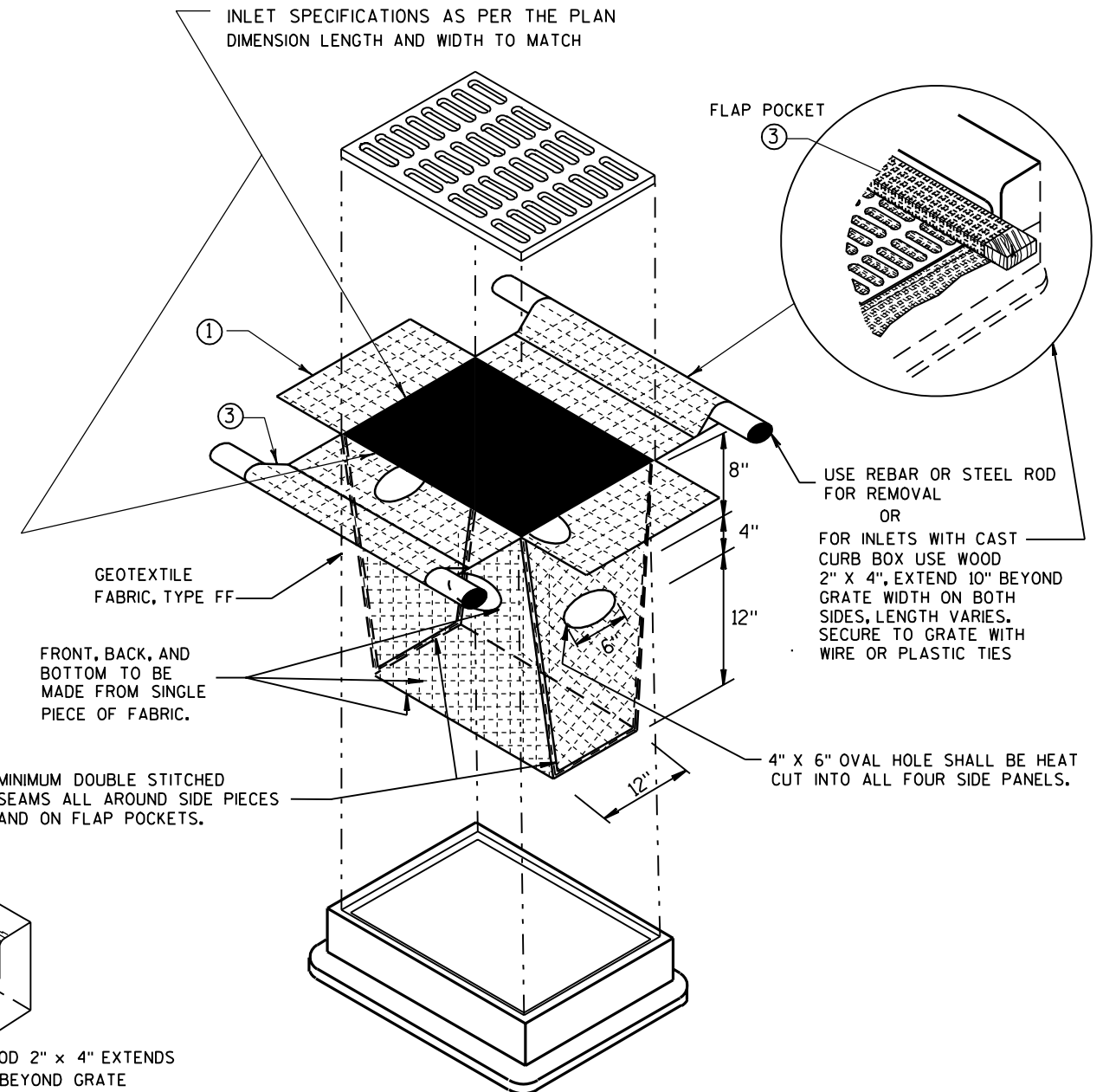
INSTALLATION NOTES

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)

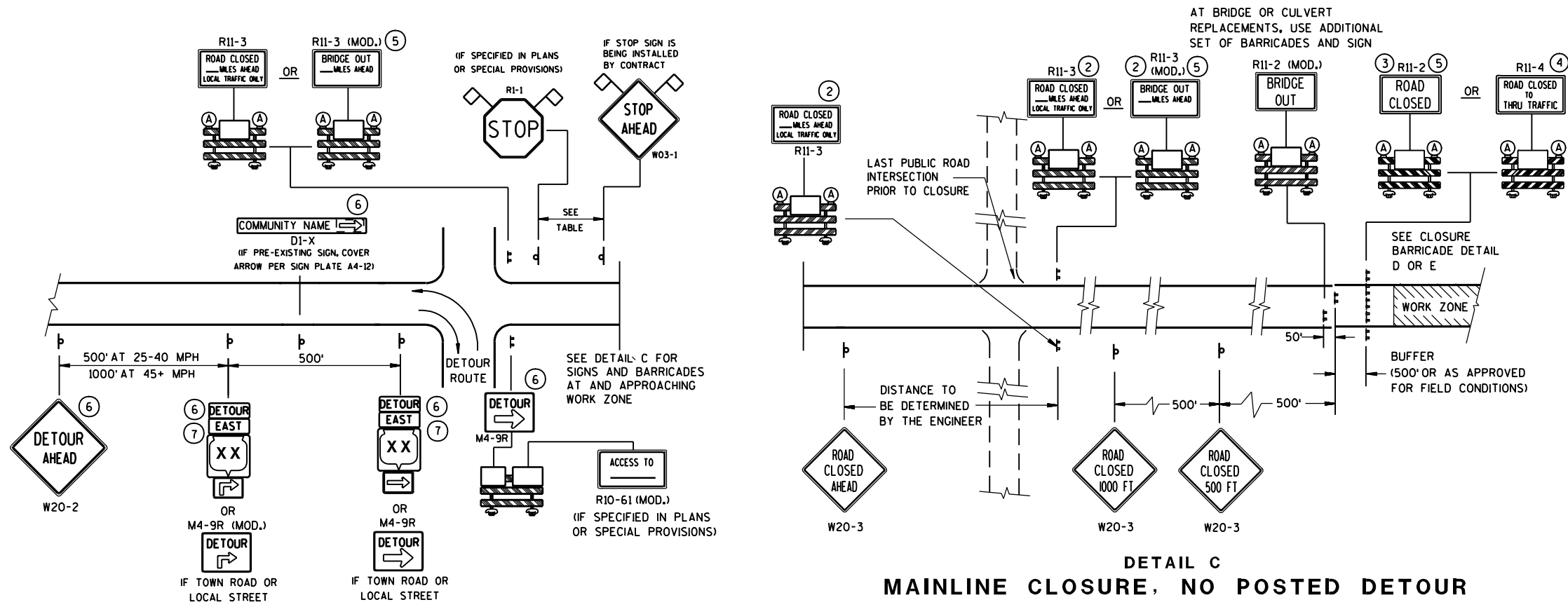
INLET PROTECTION TYPE A, B, C, AND D	
STATE OF WISCONSIN DEPARTMENT OF TRANSPORTATION	
APPROVED 10/16/02 DATE FHWA	 CHIEF ROADWAY DEVELOPMENT ENGINEER

6

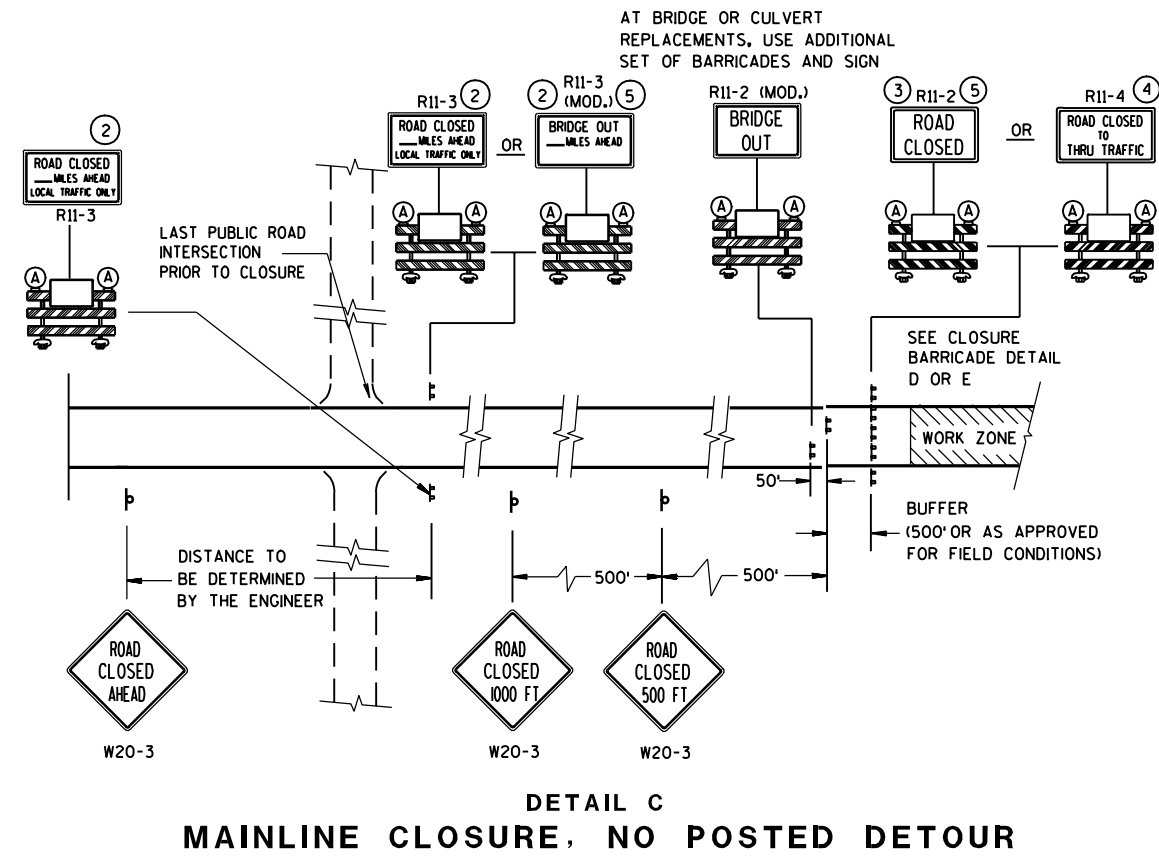
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S.D.D. 8 E 10-2

S.D.D. 8 E 10-2



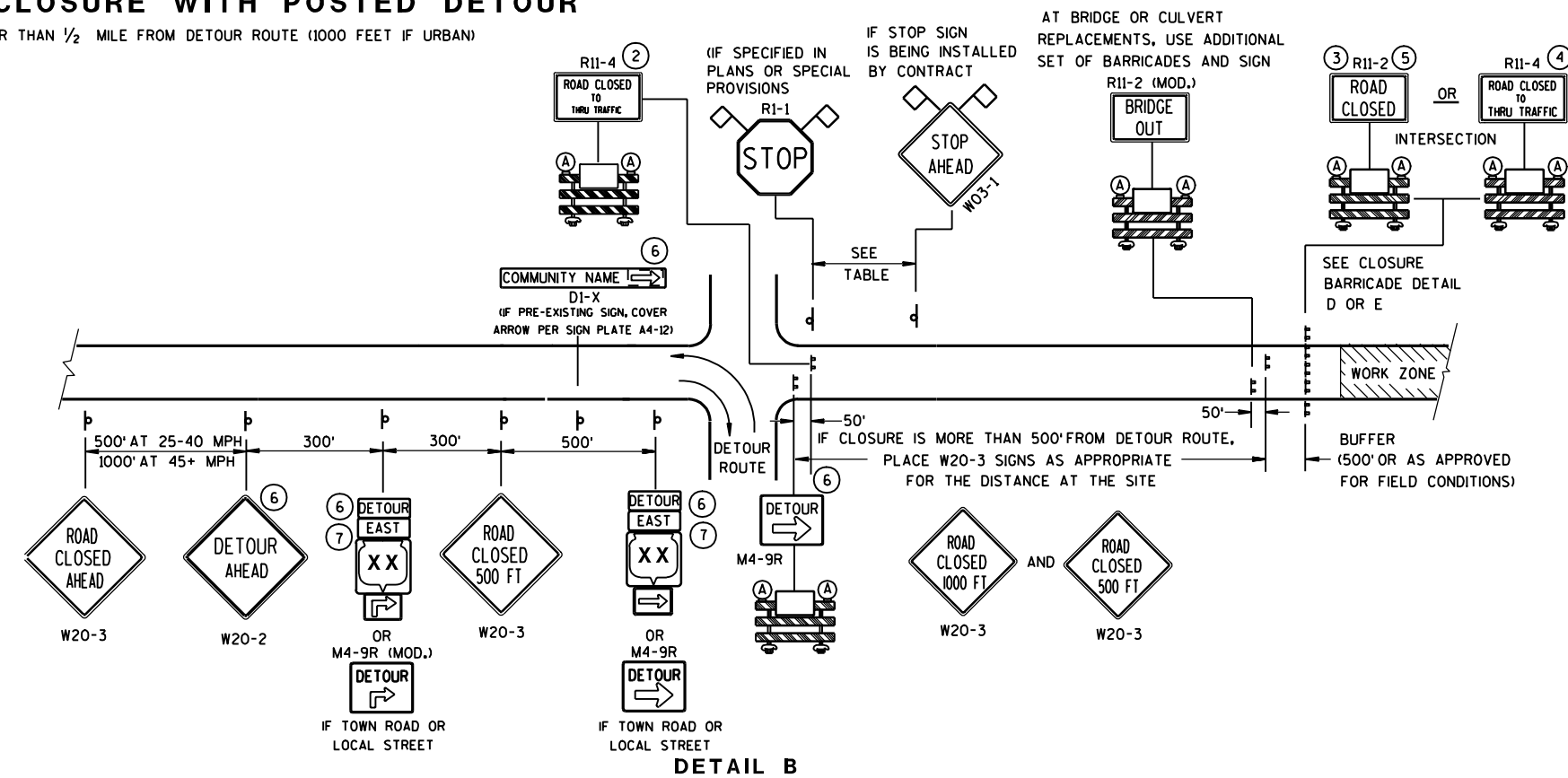
DETAIL A
MAINLINE CLOSURE WITH POSTED DETOUR
 WORK ZONE GREATER THAN 1/2 MILE FROM DETOUR ROUTE (1000 FEET IF URBAN)



DETAIL C
MAINLINE CLOSURE, NO POSTED DETOUR

SPEED LIMIT (MPH)	"STOP AHEAD" ADVANCE WARNING DISTANCE (FT)
25	200
30	200
35	350
40	350
45	500
50	550
55	750

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



DETAIL B
MAINLINE CLOSURE WITH POSTED DETOUR
 WORK ZONE LESS THAN 1/2 MILE FROM DETOUR ROUTE (1000 FEET IF URBAN)

LEGEND

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

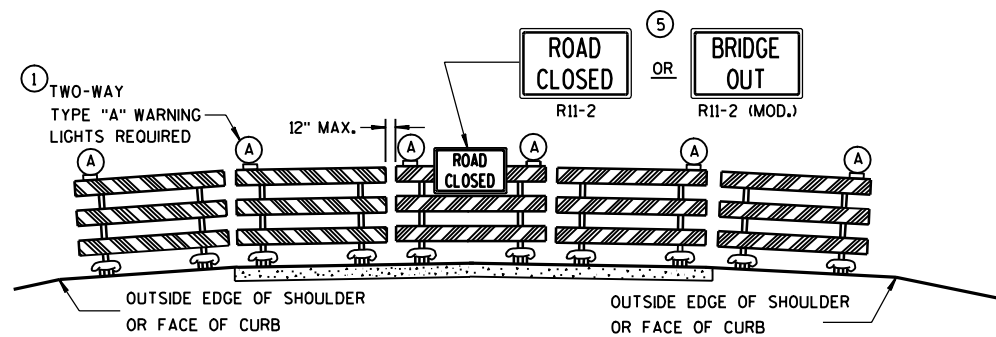
BARRICADES AND SIGNS FOR MAINLINE CLOSURES
 STATE OF WISCONSIN
 DEPARTMENT OF TRANSPORTATION

6

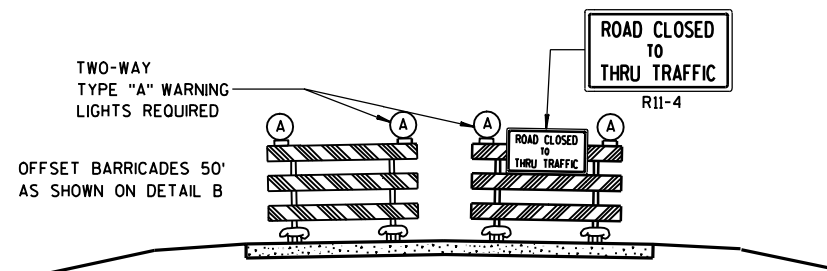
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S.D.D. 15 C 2-40

S.D.D. 15 C 2-40



DETAIL D
ROAD CLOSURE BARRICADE DETAIL
 APPROACH VIEW



DETAIL E
LANE CLOSURE BARRICADE DETAIL
 APPROACH VIEW

SEE SDD 15C2-4a FOR LEGEND

GENERAL NOTES

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

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

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

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

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

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

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

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

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

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

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

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

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

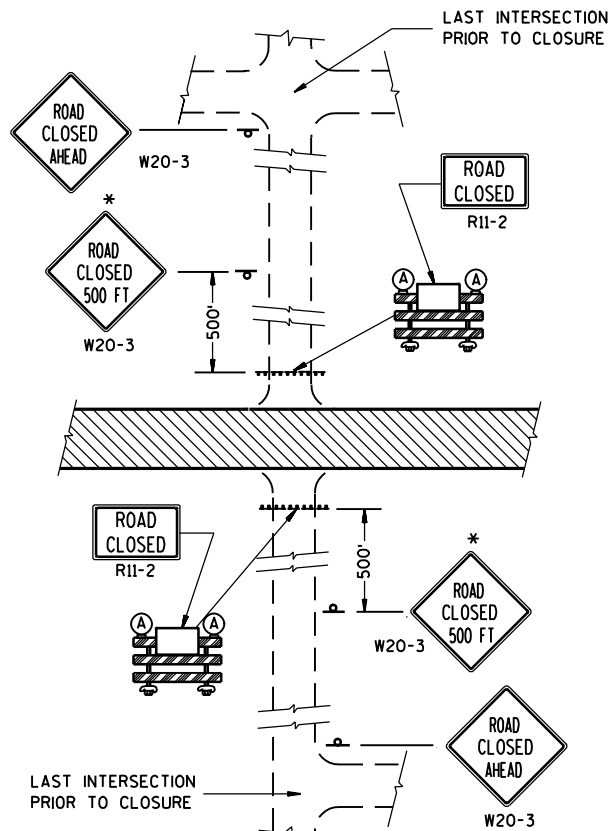
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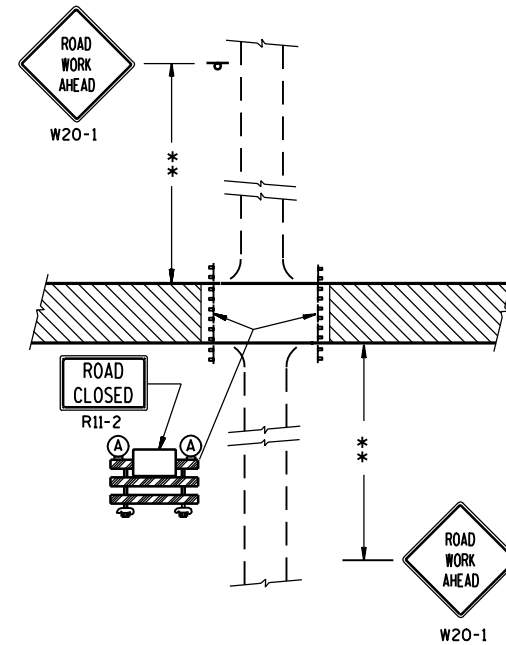
S.D.D. 15 C 2-4b

S.D.D. 15 C 2-4b

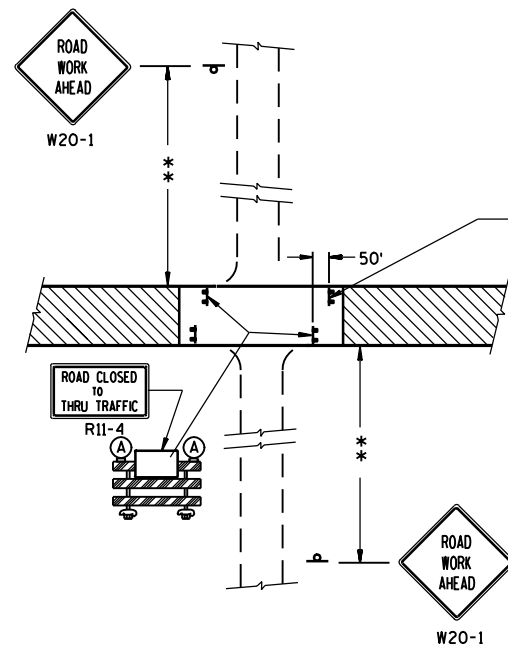
BARRICADES AND SIGNS FOR MAINLINE CLOSURES	
STATE OF WISCONSIN DEPARTMENT OF TRANSPORTATION	
APPROVED 9/16/03 DATE	<i>Thomas N. Nottm...</i> CHIEF SIGNS AND MARKING ENGINEER
FHWA	



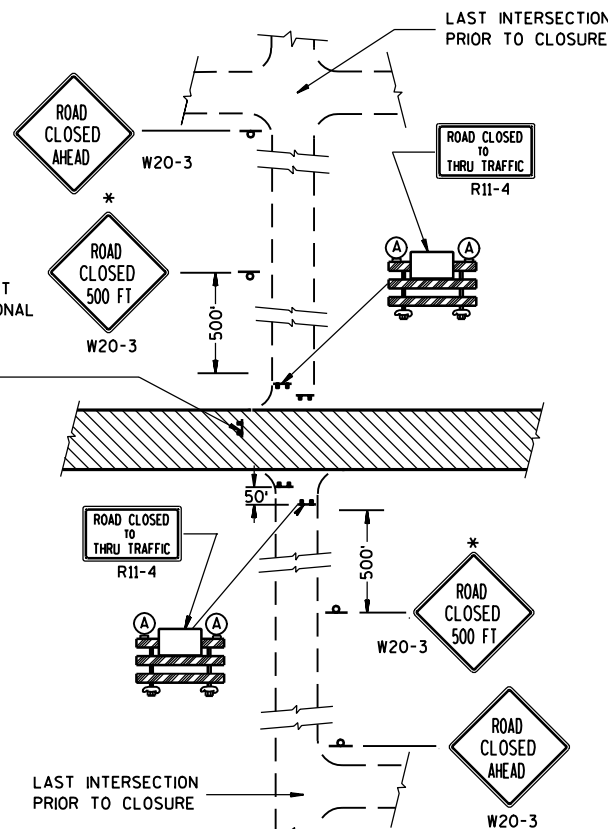
DETAIL 1
(NO ACCESS TO PROJECT)



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



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



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

GENERAL NOTES

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

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

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

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

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

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

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

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

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

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

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

R11-2 SHALL BE 48" X 30".

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

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

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

LEGEND

▬ POST MOUNTED WARNING SIGN

▬ TYPE III BARRICADES

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

▨ WORK AREA

**BARRICADES AND SIGNS
FOR
SIDEROAD CLOSURES**

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

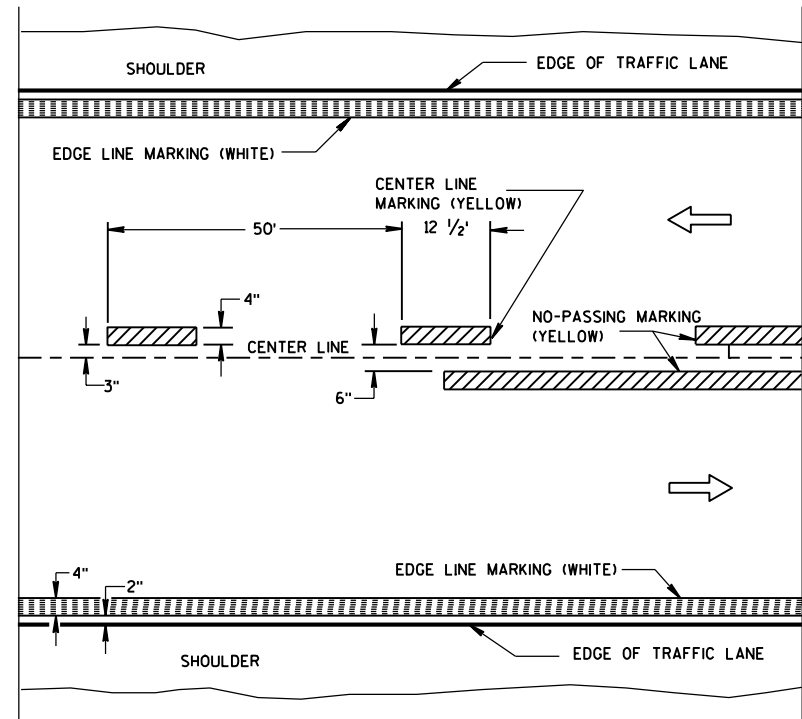
APPROVED

9-16-03

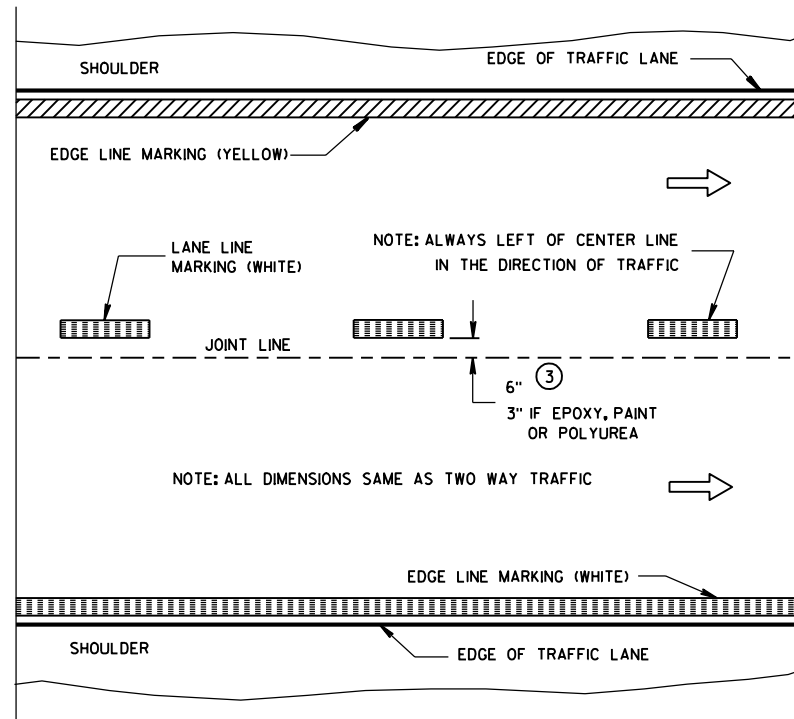
DATE

Thomas N. Nottolan for
CHIEF SIGNS AND MARKING ENGINEER

FHWA

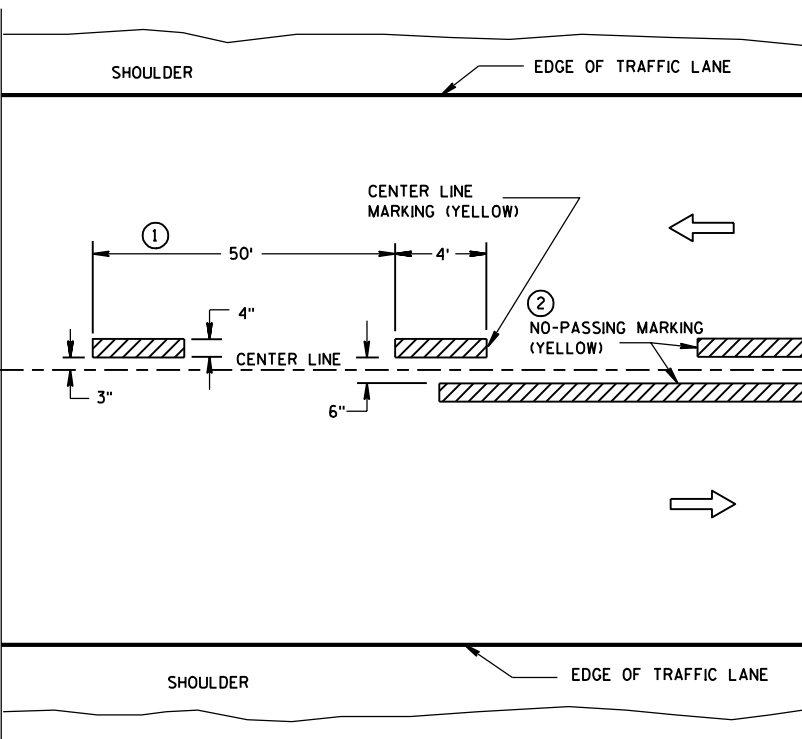


TWO WAY TRAFFIC

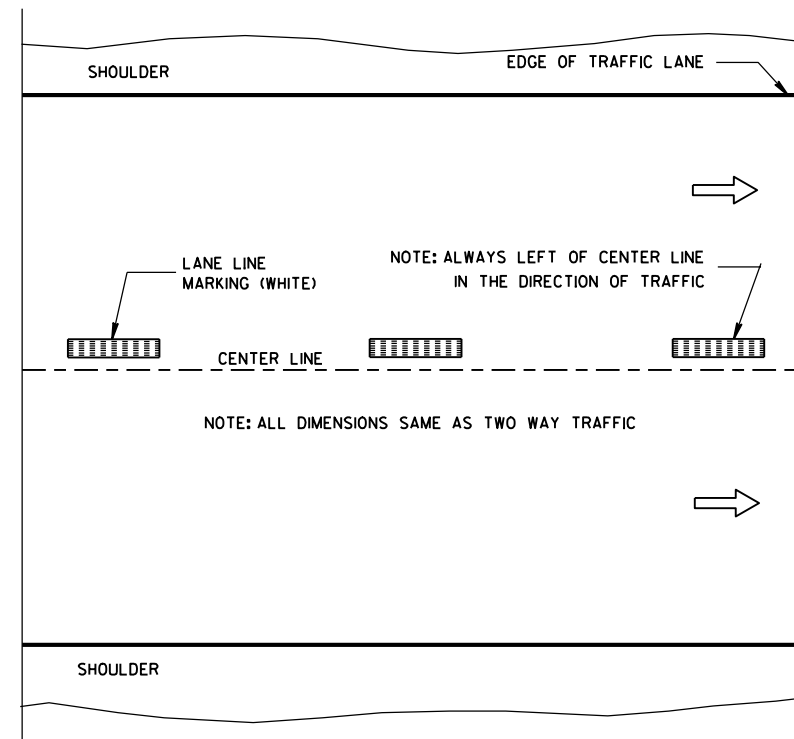


ONE WAY TRAFFIC

PERMANENT PAVEMENT MARKING



TWO WAY TRAFFIC



ONE WAY TRAFFIC

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

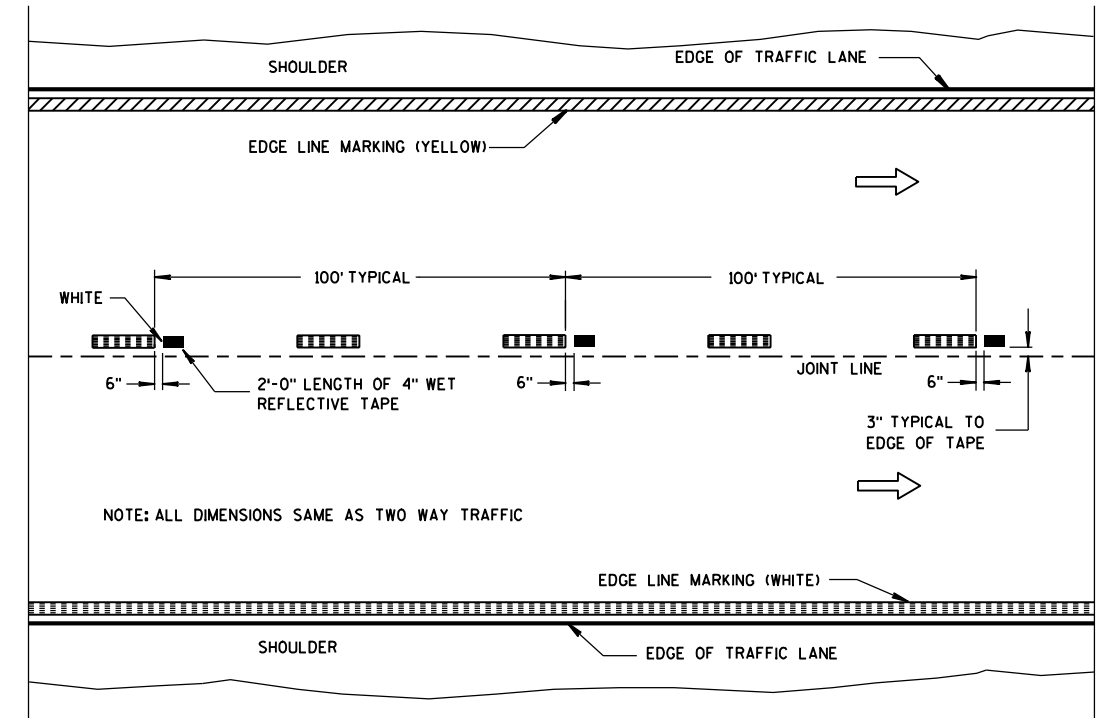
GENERAL NOTES

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 DIMENSION FROM THE WHITE REFLECTIVE EDGE FOR WET REFLECTIVE TAPE PLACEMENT ONLY.

NOTE

ARROW SYMBOL (→) SHOWS DIRECTION OF TRAVEL



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

6

6

S.D.D. 15 C 8-100

S.D.D. 15 C 8-100


PAVEMENT MARKING (MAINLINE)	
STATE OF WISCONSIN DEPARTMENT OF TRANSPORTATION	
APPROVED 1-16-07 DATE	/S/ Thomas N. Notbohm STATE TRAFFIC ENGINEER OF DESIGN
FHWA	

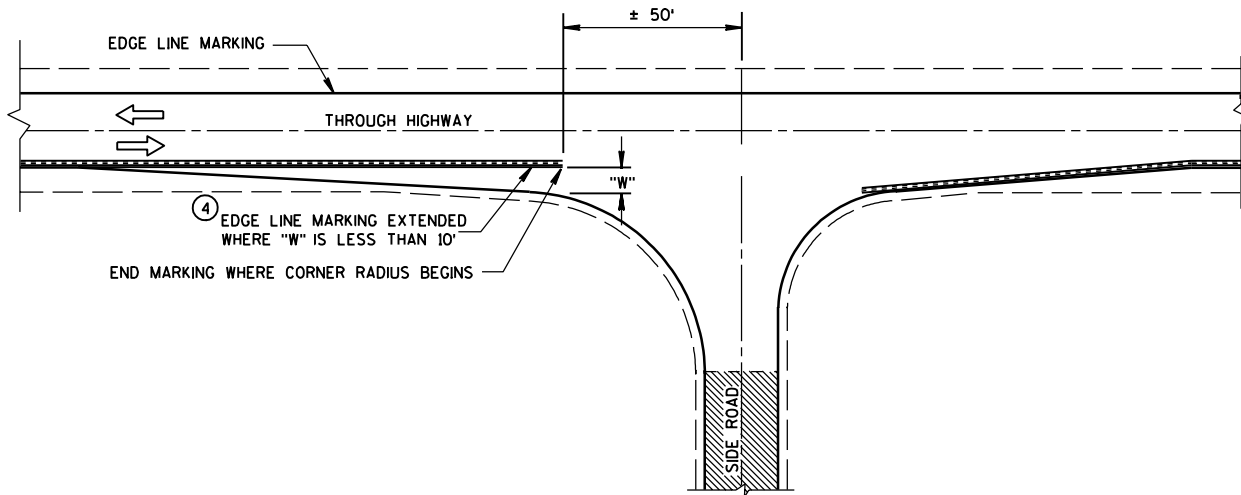
GENERAL NOTES

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 LOCATE THE EDGE LINE ALONG THE TAPER WHERE "W" IS 10' OR MORE.
- ⑤ 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.

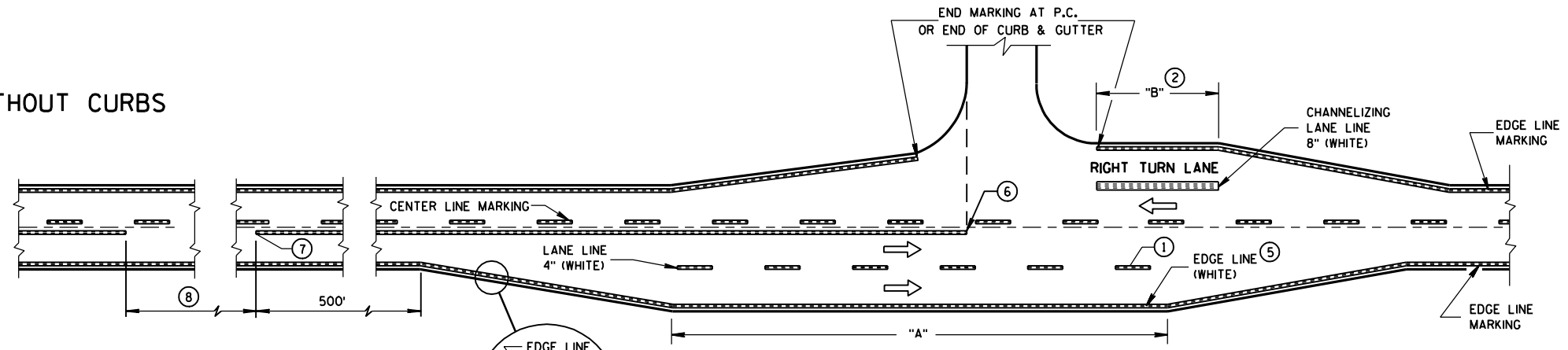
- ⑥ BARRIER LINE ENDS AT SIDE ROAD PAVEMENT/SURFACE EDGE EXTENSION.
- ⑦ BARRIER LINE STARTS 500 FEET PRIOR TO THE BYPASS TAPER.
- ⑧ IF THE DISTANCE BETWEEN 2 SUCCESSIVE NO-PASSING ZONES IS LESS THAN THE MINIMUM DISTANCE BETWEEN ZONES, CONNECT THE 2 ZONES.

ARROW SYMBOL () SHOWS DIRECTION OF TRAVEL

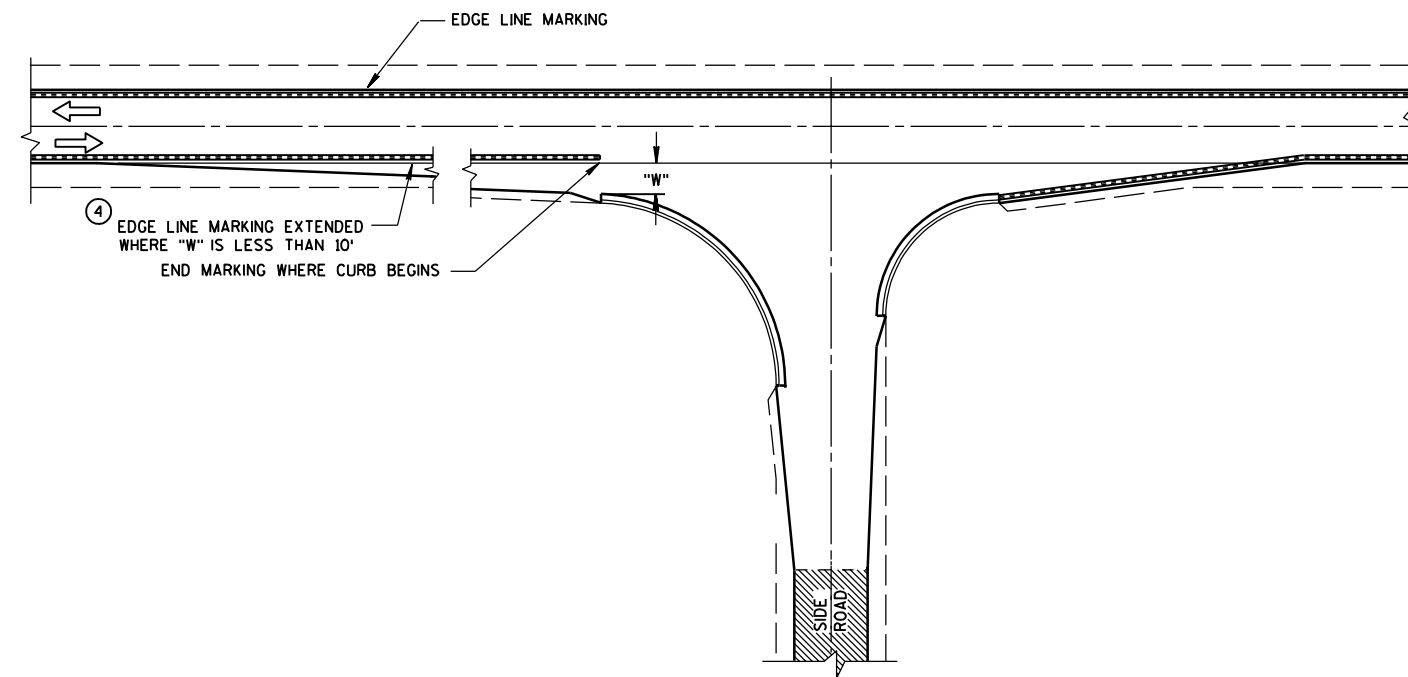


MINOR INTERSECTION WITHOUT CURBS

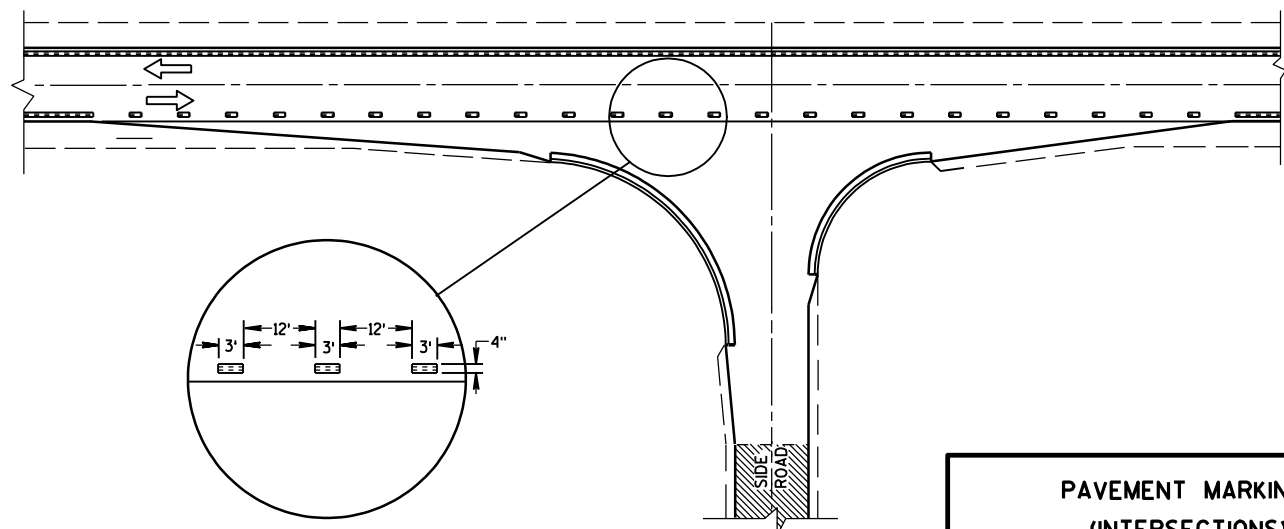
POSTED SPEED (MPH)	MINIMUM DISTANCE BETWEEN ZONES (FEET)
25 - 30	528
35 - 40	528
45 - 50	686
55	792



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



MINOR INTERSECTION WITH CURBS
(TYPICAL MARKING)



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

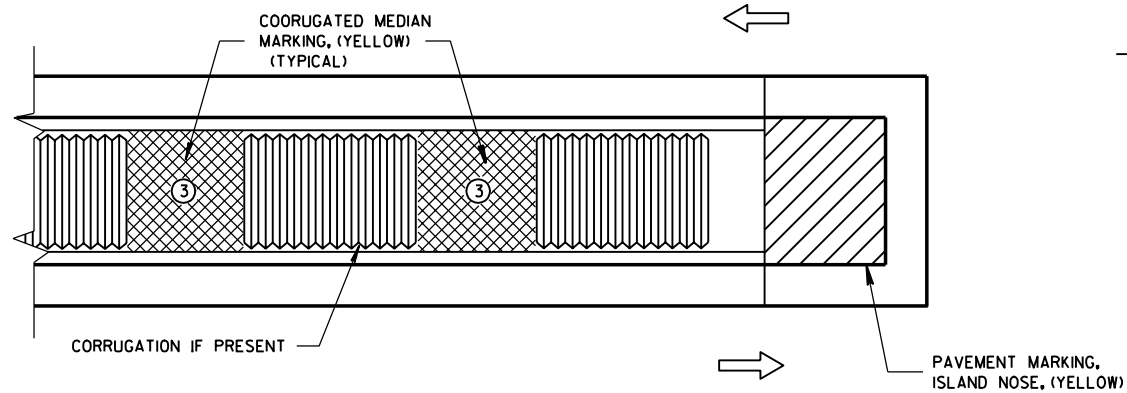
PAVEMENT MARKING
(INTERSECTIONS)

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

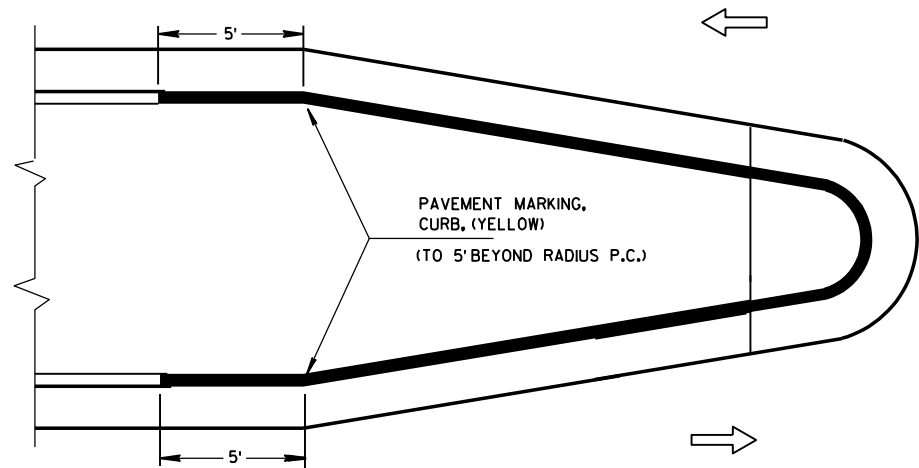
APPROVED
3/15/05
DATE

Thomas N. Notbohm
STATE TRAFFIC ENGINEER OF DESIGN

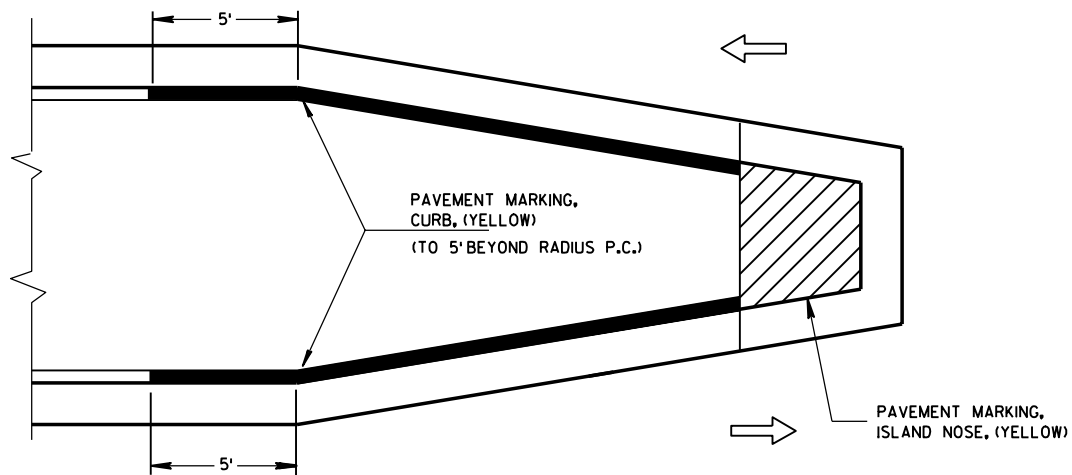
FHWA



MEDIAN ISLAND WITH SQUARE BLUNT NOSE

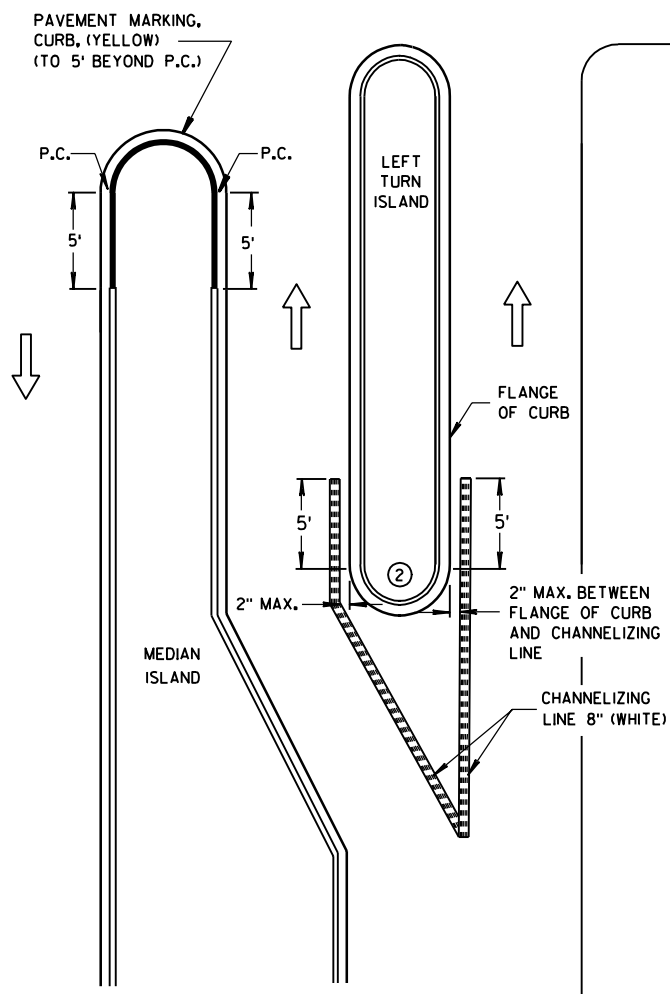


MEDIAN ISLAND WITH ROUND BLUNT NOSE

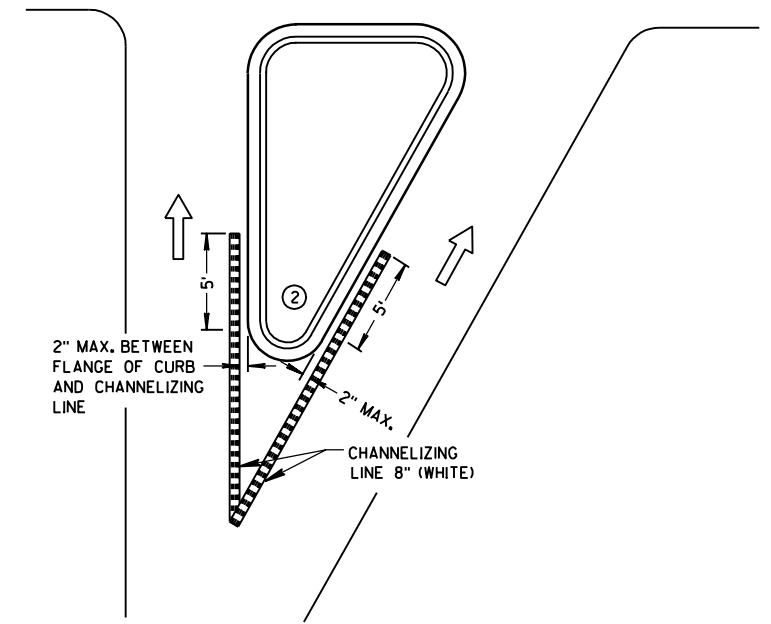


MEDIAN ISLAND WITH SLOPED NOSE

TYPICAL PLACEMENT OF PAVEMENT MARKING ON MEDIAN ISLANDS



LEFT TURN & MEDIAN ISLAND



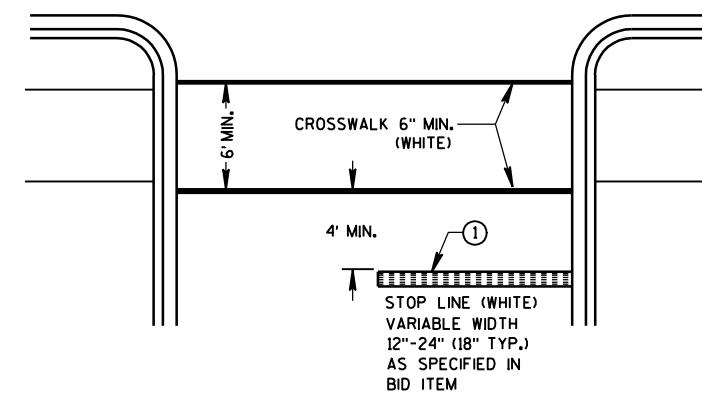
RIGHT TURN ISLAND

GENERAL NOTES

- ① STOP LINE IS REQUIRED ONLY WHEN SPECIFIED IN THE CONTRACT.
- ② DO NOT MARK CURB NOSES THAT SEPARATE LANES OF TRAFFIC TRAVELING IN THE SAME DIRECTION.
- ③ WHEN CONCRETE CORRUGATED MEDIAN IS CONSTRUCTED TO SEPARATE TRAFFIC OPERATING IN THE OPPOSING DIRECTION YELLOW PAVEMENT MARKING SHALL BE APPLIED TO THE FLAT PORTION OF THE CONCRETE CORRUGATED MEDIAN. THE ITEM OF PAVEMENT MARKING, CONCRETE CORRUGATED MEDIAN, WILL BE MEASURED IN PLACE AND ACCEPTED IN ACCORDANCE WITH THE CONTRACT AND PAID FOR AT THE CONTRACT UNIT PRICE PER SQUARE FOOT.

LEGEND

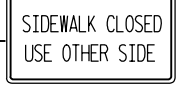
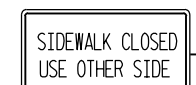
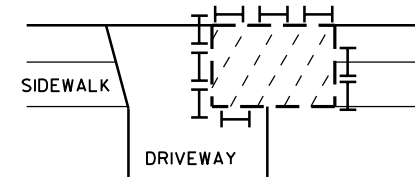
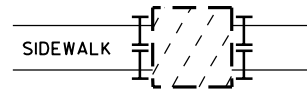
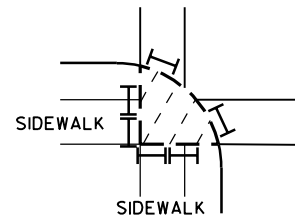
- ISLAND NOSE MARKING
- CURB MAKING
- CORRUGATED MEDIAN MARKING
- DIRECTION OF TRAVEL



STOP LINE AND CROSSWALK

PAVEMENT MARKING (ISLANDS, STOP LINE & CROSS WALK)	
STATE OF WISCONSIN DEPARTMENT OF TRANSPORTATION	
APPROVED 9-21-07 DATE	/s/ Thomas N. Notbohm STATE TRAFFIC ENGINEER OF DESIGN
FHWA	

WARNING OF LOCALIZED SIDEWALK WORK AREAS



200' TYP.

IF WORK AREA ENCR OACHES INTO THE ROADWAY, SEE OTHER TRAFFIC CONTROL DETAILS FOR ADDITIONAL TRAFFIC CONTROL

LEGEND

- POST MOUNTED SIGN
- TYPE II BARRICADE WITH/WITHOUT SIGN (ALL WITH ONE WARNING LIGHT, TYPE A, LOW-INTENSITY FLASHING)
- WORK AREA
- DIRECTION OF TRAFFIC FLOW

GENERAL NOTES :

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

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

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

* "ROAD WORK AHEAD" SIGNS ARE NOT REQUIRED IF THE SIDEWALK CLOSURE OCCURS WITHIN A LARGER WORK ZONE WHERE ADVANCE WARNING SIGNS ARE ALREADY PRESENT, OR IF THE WORK AREA AND EQUIPMENT ARE MORE THAN 2 FEET BEHIND THE CURB.

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

TRAFFIC CONTROL, SIDEWALK CLOSURE

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
5/23/00
DATE

Clinton J. Spang
CHIEF SIGNS AND MARKING ENGINEER

FHWA

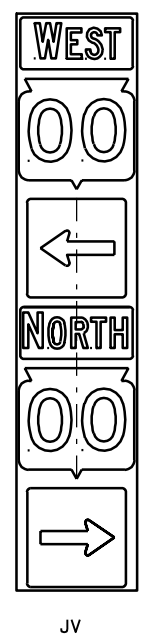
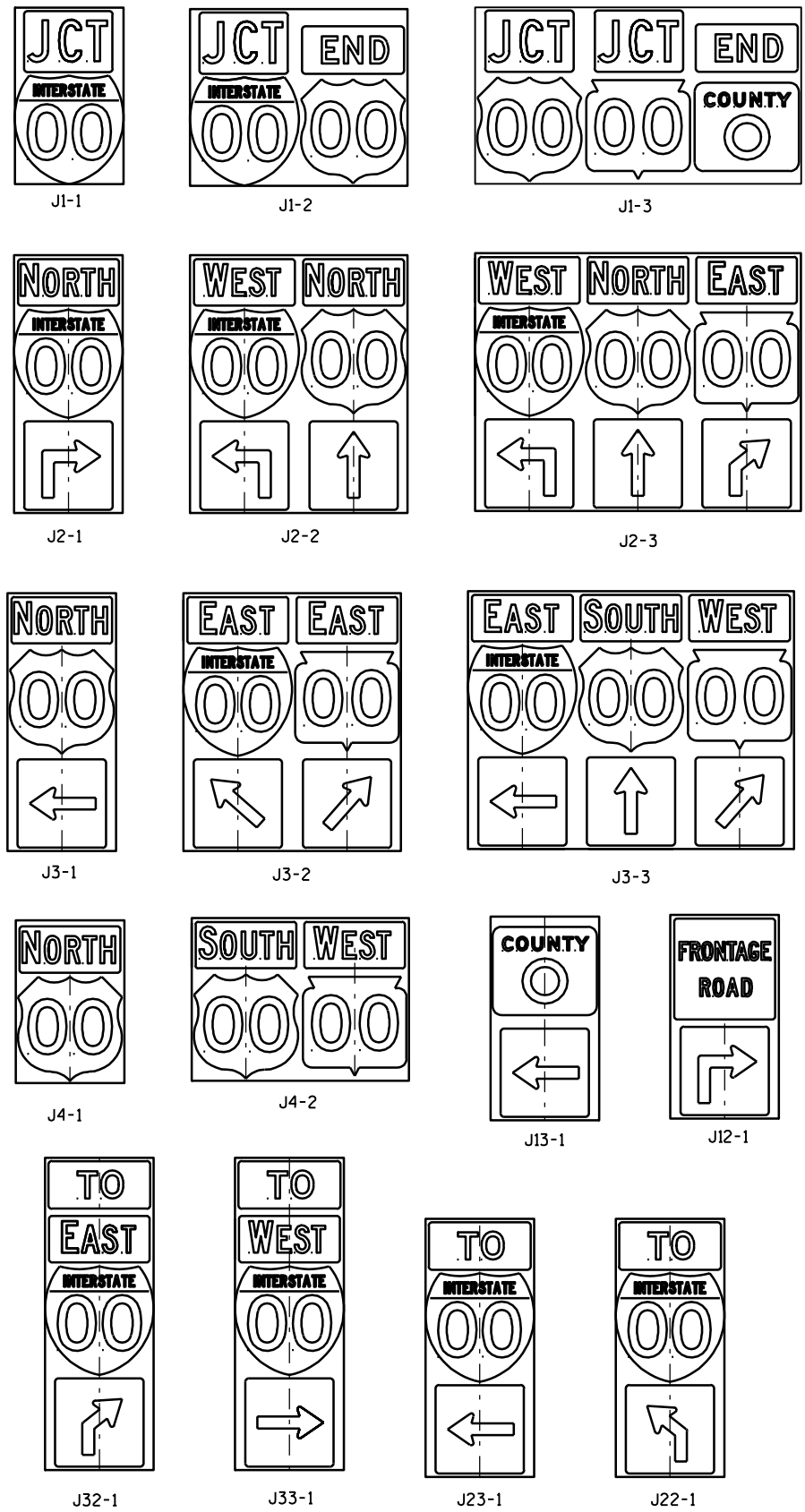
6

6

S.D.D. 15 D 30-1

S.D.D. 15 D 30-1

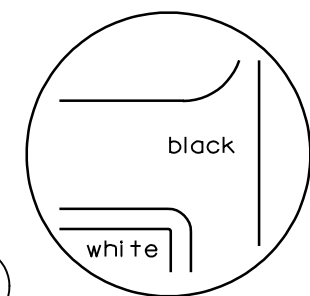
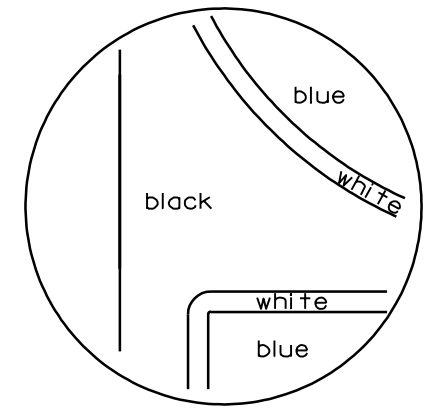
TYPICAL ASSEMBLIES



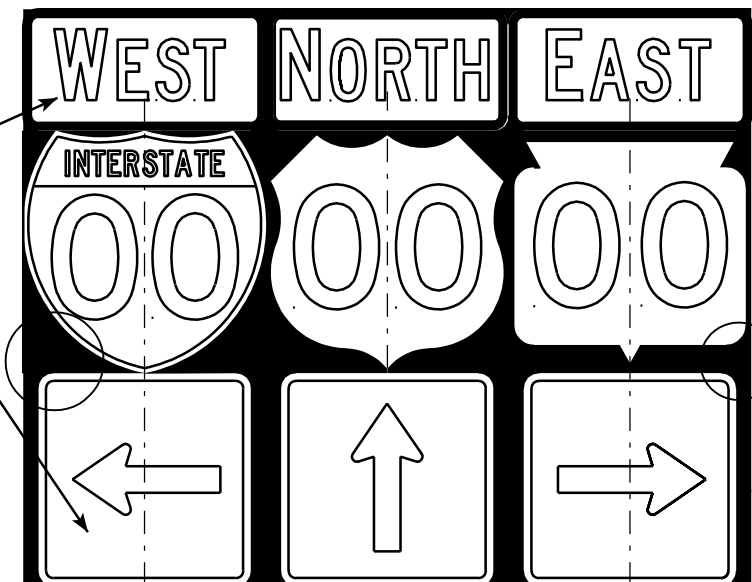
NOTES

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 since base material is plywood.
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 heads that are same size. If the route marker heads are different size use multiple piece component.

[blue background with interstate]



[black background]

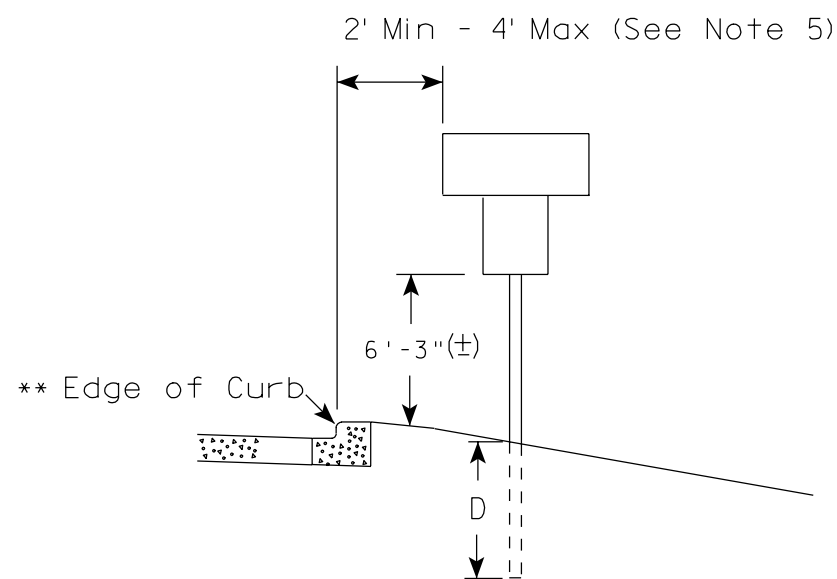
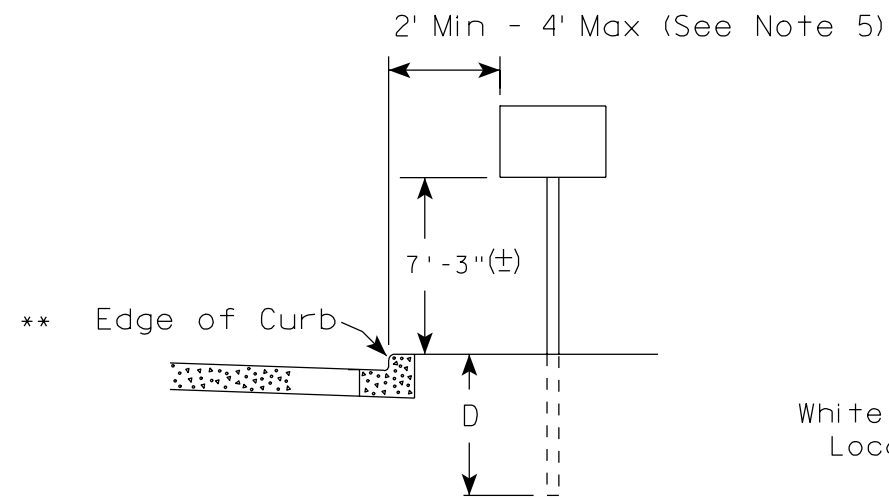


ROUTE MARKERS & COMPONENTS IN TYPICAL ASSEMBLIES	
WISCONSIN DEPT OF TRANSPORTATION	
APPROVED	<i>Matthew R. Rauch</i> For State Traffic Engineer
DATE 8/26/05	PLATE NO. A2-15.4

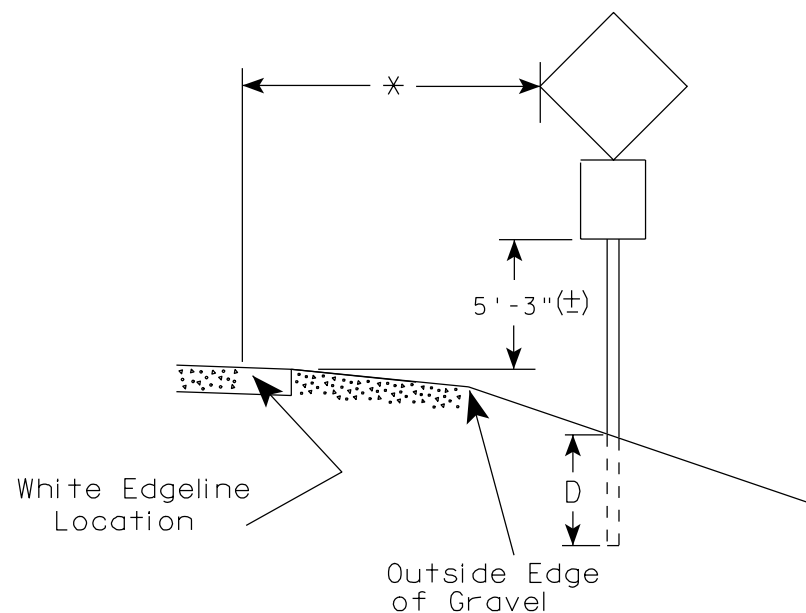
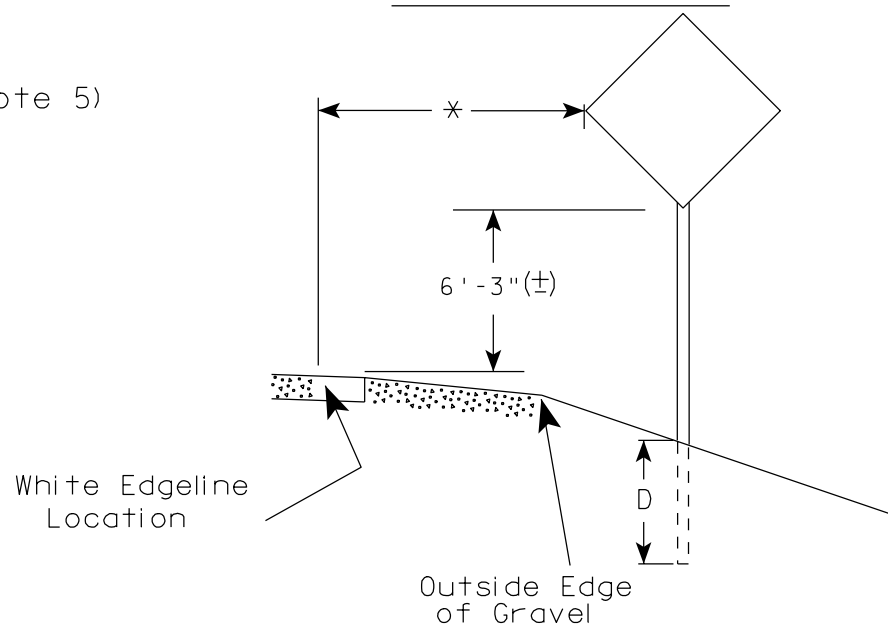
7

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URBAN AREA



RURAL AREA (See Note 2)



GENERAL NOTES

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

POST EMBEDMENT DEPTH

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

* * 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 12/12/07 PLATE NO. A4-3.14

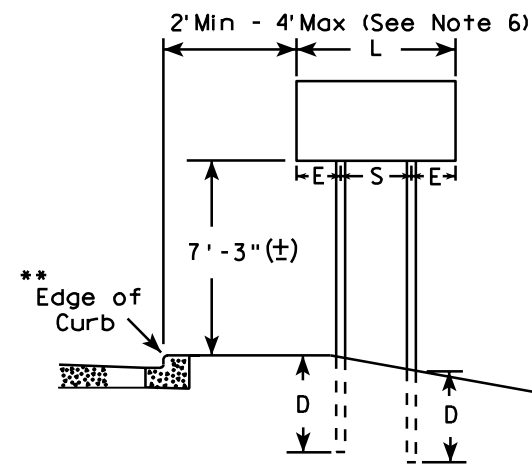
GENERAL NOTES

1. For 3 post installations, spacing is $S/2$ and S must be greater than 7'-0".
2. For 4 post installations, spacing is $S/3$ and S must be greater than 10'-6".
3. For expressways and freeways, mounting height is 7'-3" (\pm) or 6'-3" (\pm) depending upon existence of sub-sign.
4. The (\pm) tolerance for mounting height is 3 inches.
5. Minimum mounting height for J assemblies (A4-5) is 7'-3" (\pm) or 6'-3" (\pm) per urban or rural detail respectively.
6. Offset distance shall be consistent with existing signs or consistent throughout length of project.
7. Folding stop signs (R1-1F) shall be mounted at a height of 5'-3" (\pm) or as directed by the engineer.
8. The Double Arrow sign (W12-1) shall be mounted at a height of 2'-3" (\pm). The Chevron sign (W1-8), Roundabout Chevron panel (W1-8A), Clearance Markers (W5-52), Mile Markers (D10 series) & End of Road Markers (W5-56 & W5-56A) shall be mounted at a height of 4'-3" (\pm).

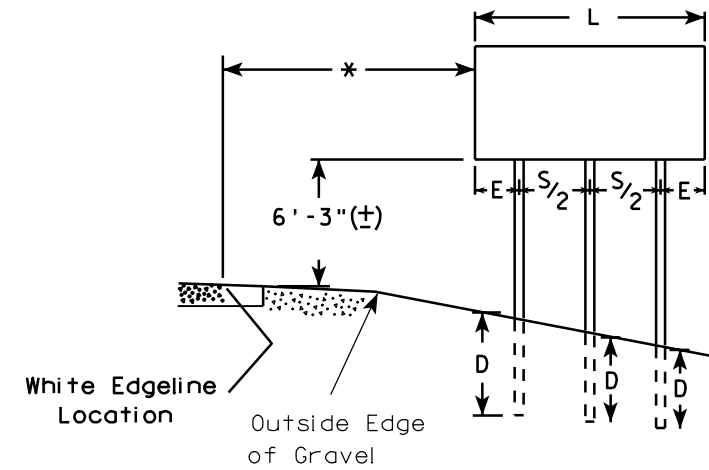
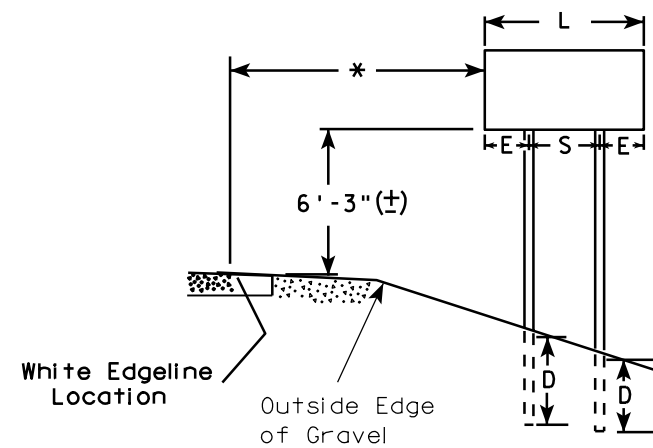
* 6 feet from edge of a paved shoulder or 12 feet from the edge of pavement (edge line location) or 2 feet from outside edge of gravel, whichever is greater unless directed by project engineer.

** 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.

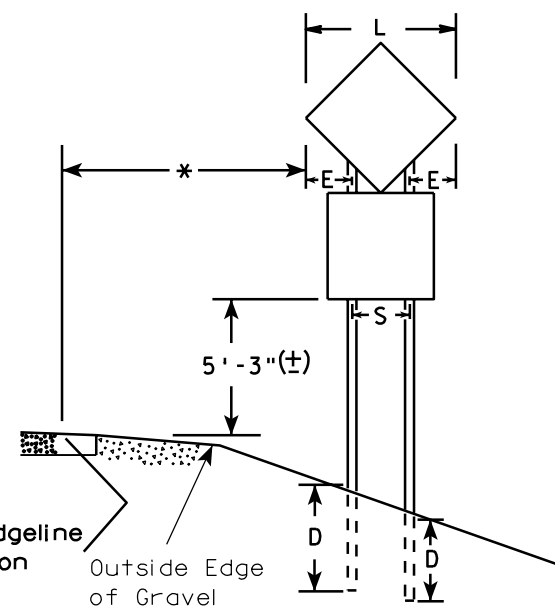
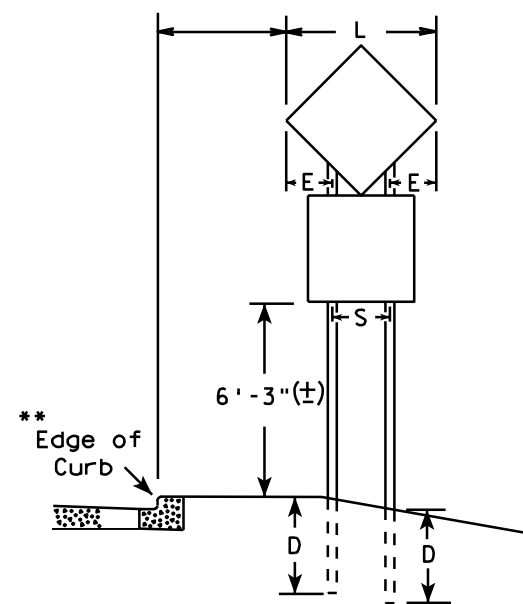
URBAN AREA



RURAL AREA (See Note 3)



URBAN AREA



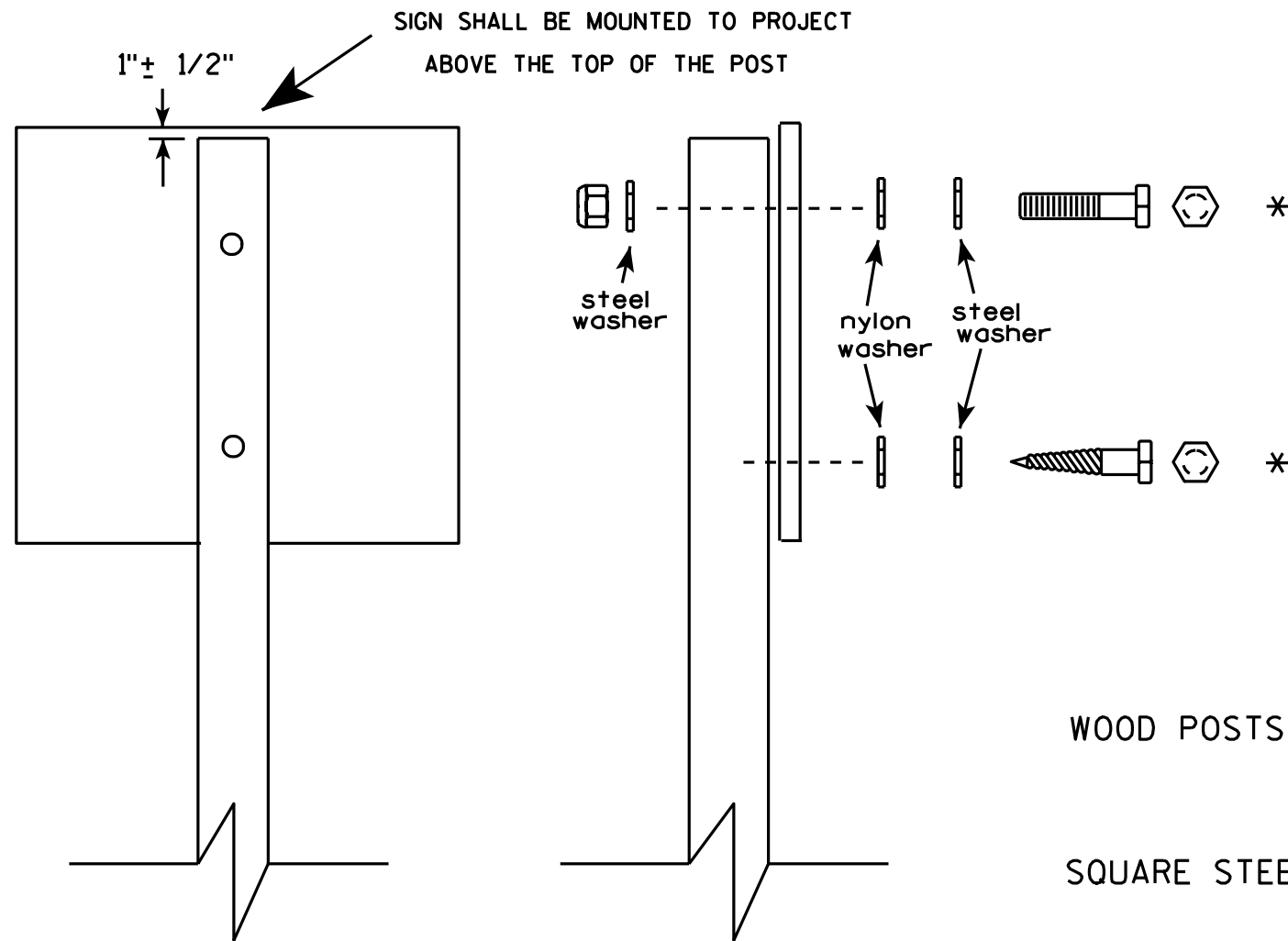
DIAMOND SHAPED SIGNS		
L	S	E
Less than 60"	20"	L/2 - 10
60"--72"	32"	L/2 - 16
Greater than 72"	3 L/5	L/5

SIGN SHAPE OTHER THAN DIAMOND (Two Post Installations)		
L	S	E
Less than 60"	L-24"	12"
60" or more	3 L/5	L/5

POST EMBEDMENT DEPTH

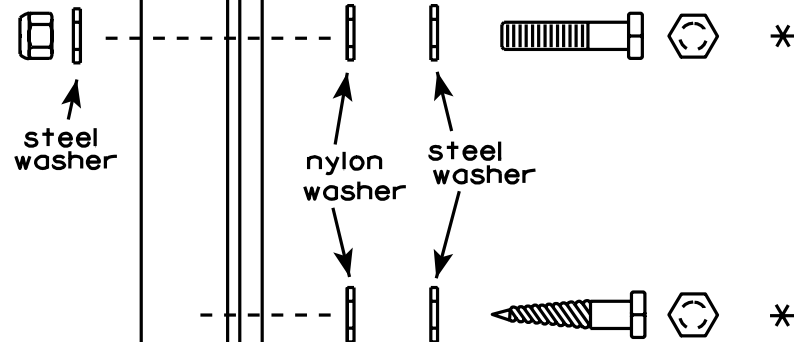
Area of Sign Installation (Sq. Ft.)	D (Min)
20 or Less	4'
Greater than 20	5'

TYPICAL INSTALLATION OF TYPE II SIGNS ON MULTIPLE POSTS	
WISCONSIN DEPT OF TRANSPORTATION	
APPROVED	<i>Matthew R. Rauch</i> for State Traffic Engineer
DATE 12/12/07	PLATE NO. A4-4.9



SIGN SHALL BE MOUNTED TO PROJECT ABOVE THE TOP OF THE POST

1" ± 1/2"



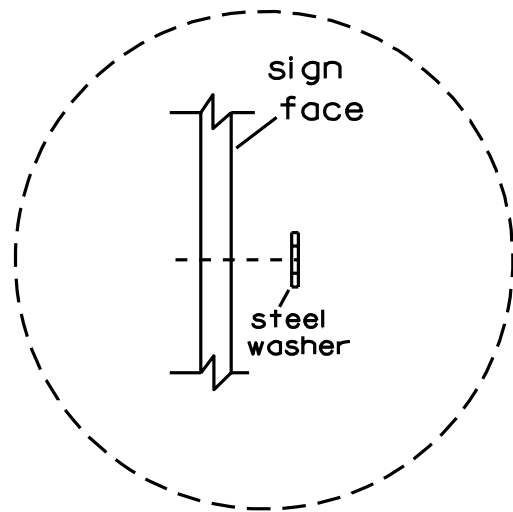
Nuts, bolts and lags used for mounting signs shall have hexagonal heads and shall be either :

- Hot dip or mechanically galvanized in accordance with ASTM Designation: A 153, Class D, or
- Cadmium plated in accordance with ASTM Designation : B 766 TYPE 3, Class 12, or
- 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

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



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

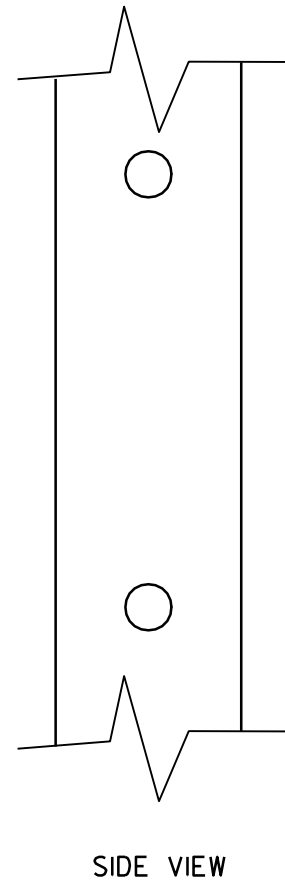
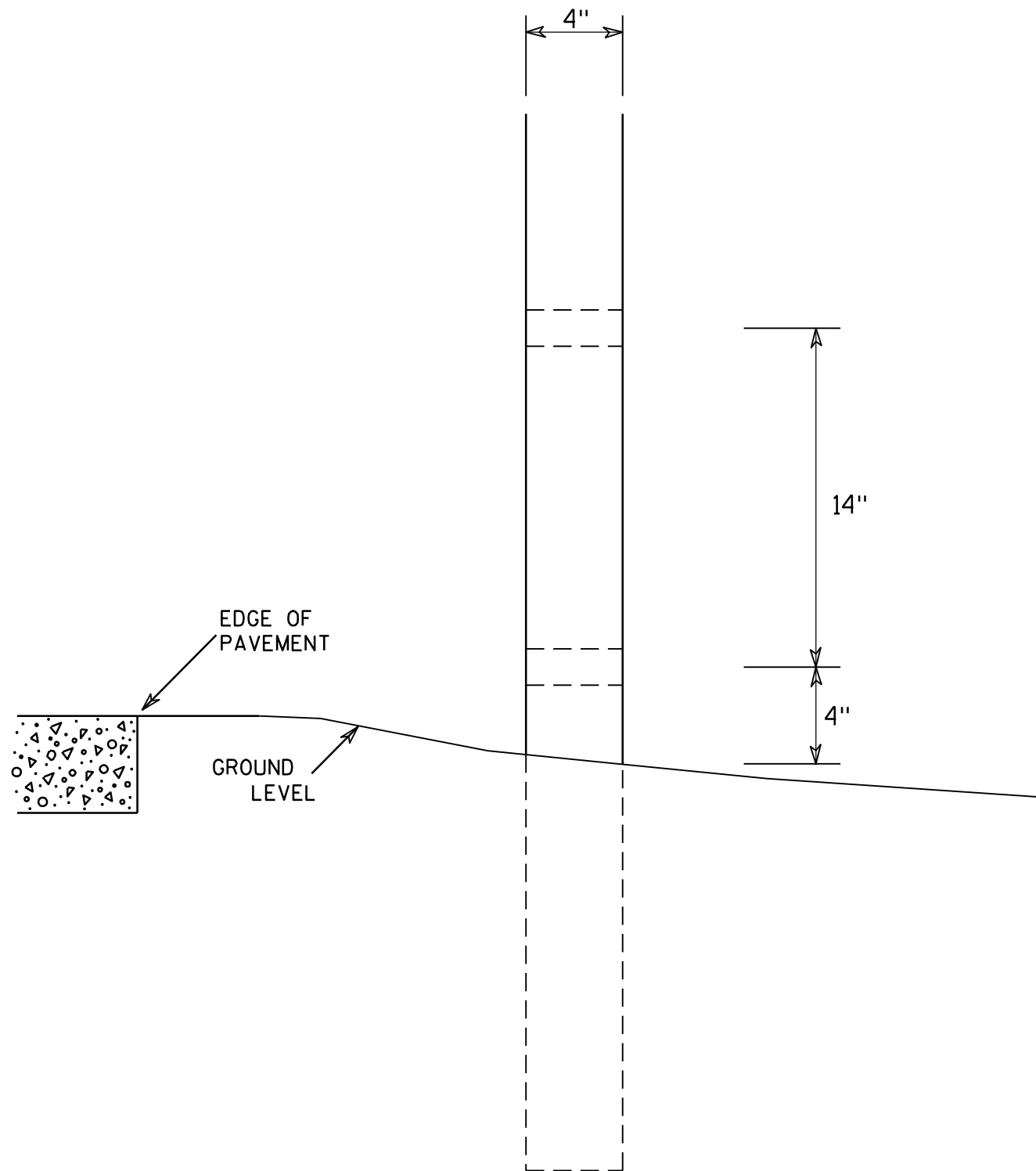
* Two different fastening systems are shown for illustration purposes. On any individual sign, either one or the other system shall be used. Actual number of fasteners per sign varies with the sign area, but normally there are two. For a single post installation, all signs greater than 9 sq. ft. require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

ATTACHMENT OF SIGNS TO POSTS

WISCONSIN DEPT OF TRANSPORTATION

APPROVED *Matthew R Rauch*
for State Traffic Engineer

DATE 8/30/06 PLATE NO. A4-8.6



GENERAL NOTES

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

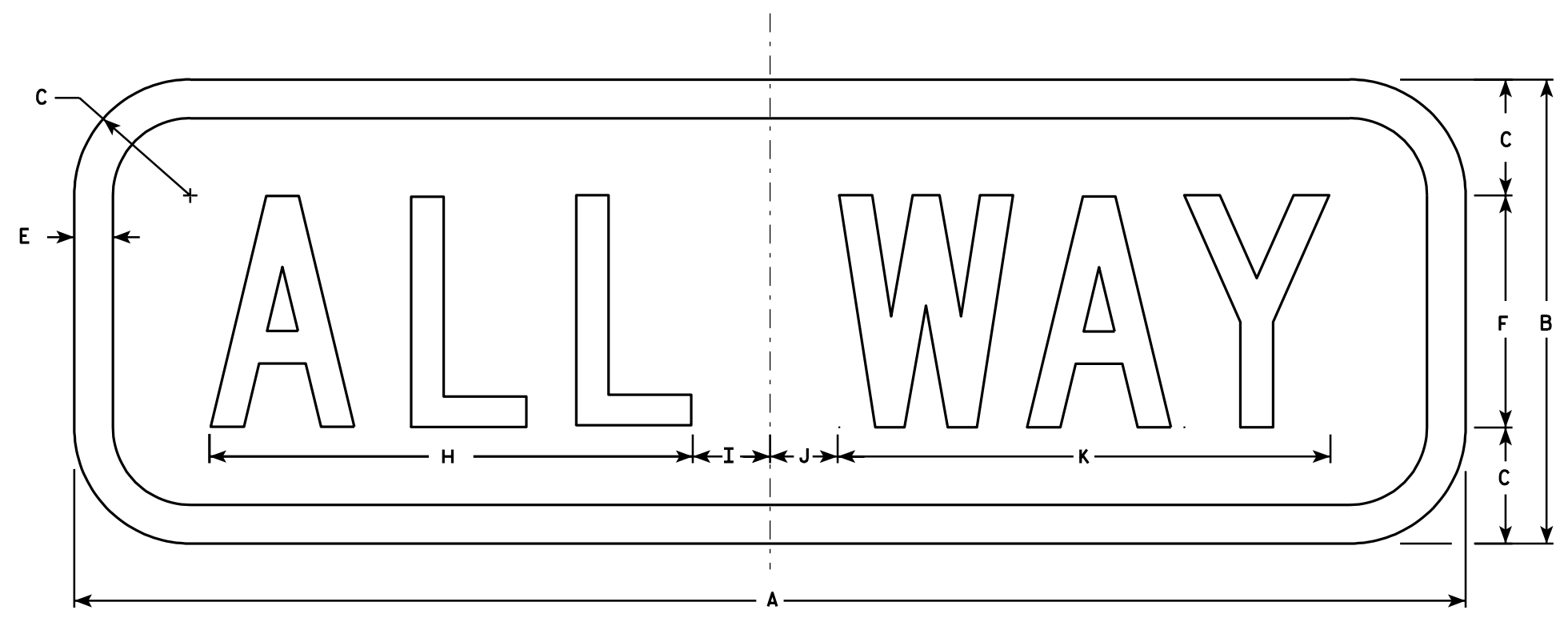
7

7

4 X 6 WOOD POST MODIFICATIONS	
<i>WISCONSIN DEPT OF TRANSPORTATION</i>	
APPROVED	<i>Chester J Spang</i> for State Traffic Engineer
DATE <u>3/27/97</u>	PLATE NO. <u>A4-11.2</u>

NOTES

1. Sign is Type II - Type H Reflective - reference WIS DOT Standard Specification for HIGHWAY and STRUCTURE CONSTRUCTION latest edition.
2. Color:
Background - Red
Message - White
3. Message Series - C
4. 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.



R1-4

7

7

Metric equivalent for this sign is:

SIZE	
1	450 mm X 150 mm
2	450 mm X 150 mm
3	
4	
5	

SIZE	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	Area sq. ft.	Area sq.
1	18	6	1 1/2		1/2	3		6 1/4	1 1/4	7/8	6 3/8																0.75	0.07
2	18	6	1 1/2		1/2	3		6 1/4	1 1/4	7/8	6 3/8																0.75	0.07
3																												
4																												
5																												

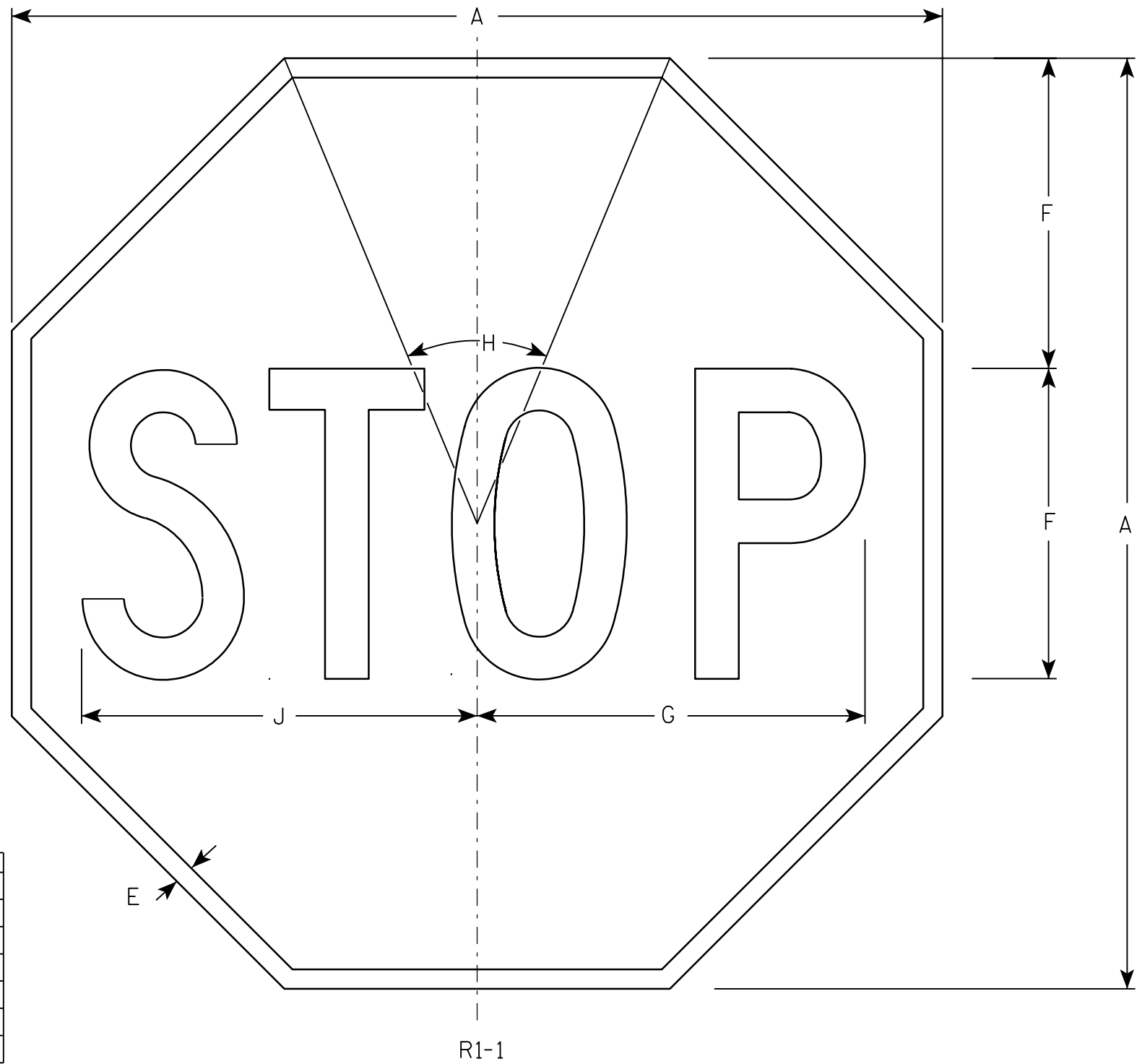
STANDARD SIGN
R1-4

WISCONSIN DEPT OF TRANSPORTATION

APPROVED *Christa J. Spang*
for State Traffic Engineer

DATE 2/4/98 PLATE NO. R1-4.4

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 - Red
Message - White
3. Message Series - C

Metric equivalent for this sign is:

SIZE	
1	600 mm X 600 mm
2	750 mm X 750 mm
3	900 mm X 900 mm
4	1200 mm X 1200 mm
5	1200 mm X 1200 mm
6	450 mm X 450 mm
7	300 mm X 300 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	24				3/8	8	10	45°		10 1/4																	3.31	0.31	
2	30				5/8	10	12 1/2	45°		12 3/4																		5.18	0.48
3	36				3/4	12	15	45°		15 3/8																		7.46	0.69
4	48				1	16	20	45°		20 1/2																		13.25	1.23
5	48				1	16	20	45°		20 1/2																		13.25	1.23
6	18				3/8	6	7 3/4	45°		7 3/4																		1.86	0.17
7	12				1/4	4	5	45°		5 1/8																		0.78	0.07

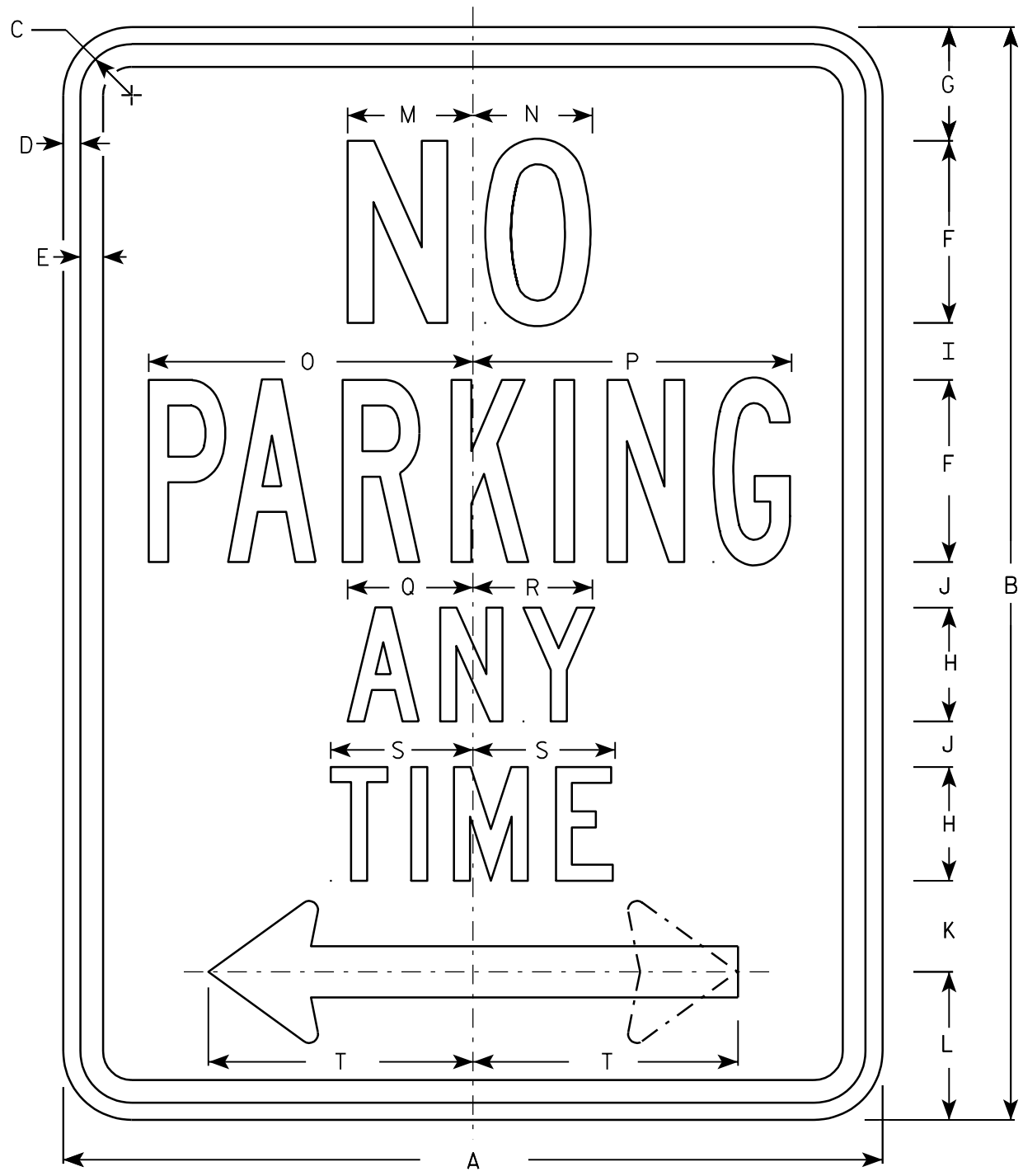
STANDARD SIGN
R1-1

WISCONSIN DEPT OF TRANSPORTATION

APPROVED *Chester J Spang*
for State Traffic Engineer

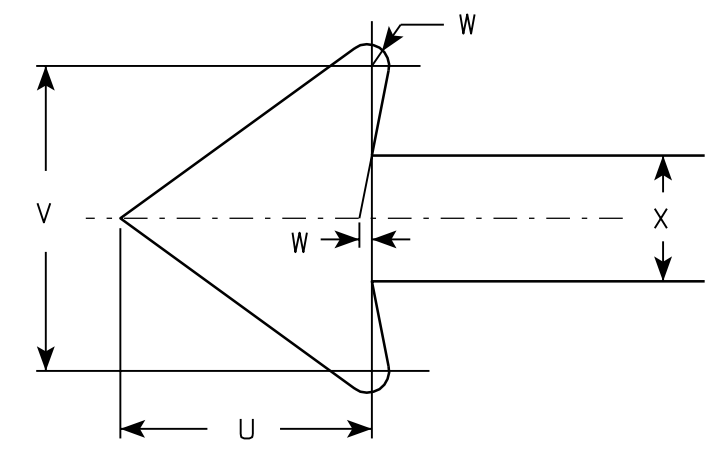
DATE 10/15/98 PLATE NO. R1-1.11

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 - 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)



7

Metric equivalent for this sign is:

SIZE	
1	300 mm X 450 mm
2	450 mm X 600 mm
3	600 mm X 750 mm
4	
5	

R7-1

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.	Area m ²	
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	0.14	
2	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	0.27	
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	0.45	
4																													
5																													

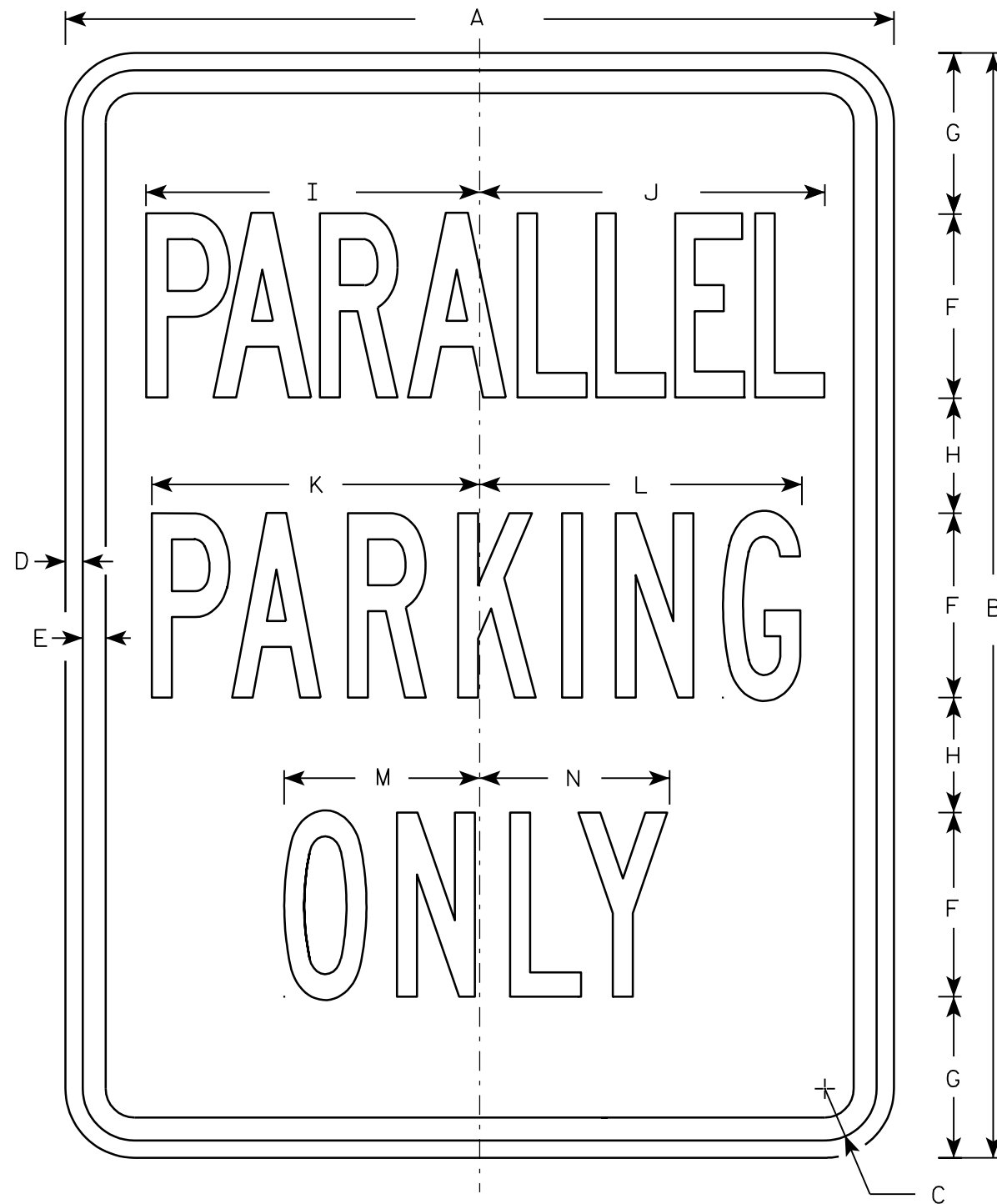
STANDARD SIGN
R7-1

WISCONSIN DEPT OF TRANSPORTATION

APPROVED *Chester J Spang*
for State Traffic Engineer

DATE 2/7/02 PLATE NO. R7-1.8

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 - 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.

7

Metric equivalent for this sign is:

SIZE	
1	300 mm X 450 mm
2	450 mm X 600 mm
3	600 mm X 750 mm
4	
5	

R7-63

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	12	18	1 1/8	3/8	3/8	3	2 5/8	1 7/8	4 7/8	5	4 7/8	4 7/8	3 1/8	3 1/8													1.5	0.14
2	18	24	1 1/8	3/8	1/2	4	3 1/2	2 1/2	7 1/4	7 1/2	7 1/8	7	4 1/4	4 1/8													3.0	0.27
3	24	30	1 1/8	3/8	1/2	5	4 3/8	3 1/4	9 5/8	10	9 1/4	9 1/4	5 1/4	5 1/8													5.0	0.45
4																												
5																												

STANDARD SIGN
R7-63

WISCONSIN DEPT OF TRANSPORTATION

APPROVED

Chester J. Spang
for State Traffic Engineer

DATE 2/8/02 PLATE NO. R7-63.5

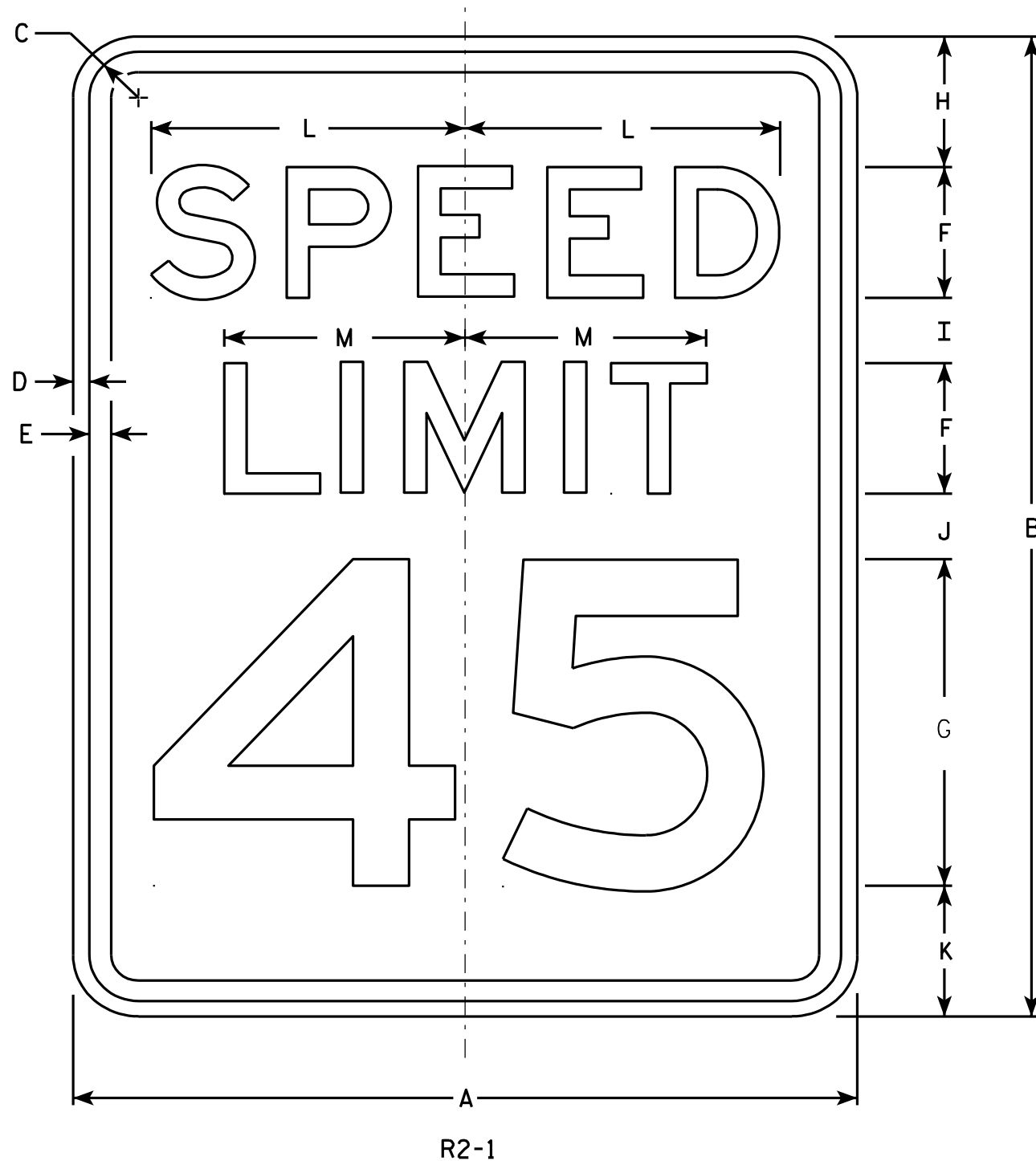
PROJECT NO:

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.

7

7

Metric equivalent for this sign is:

SIZE	
1	450 mm X 600 mm
2	600 mm X 750 mm
3	900 mm X 1200 mm
4	900 mm X 1200 mm
5	1200 mm X 1500 mm

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.	Area m ²
1	18	24	1 1/8	3/8	1/2	3	8	3	2	2	3	7 1/4	5 1/2														3.0	.28
2	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	.46
3	36	48	1 3/8	1/2	5/8	6	14	6	5	5	6	14 3/8	11														12.0	1.11
4	36	48	1 3/8	1/2	5/8	6	14	6	5	5	6	14 3/8	11														12.0	1.11
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	1.86

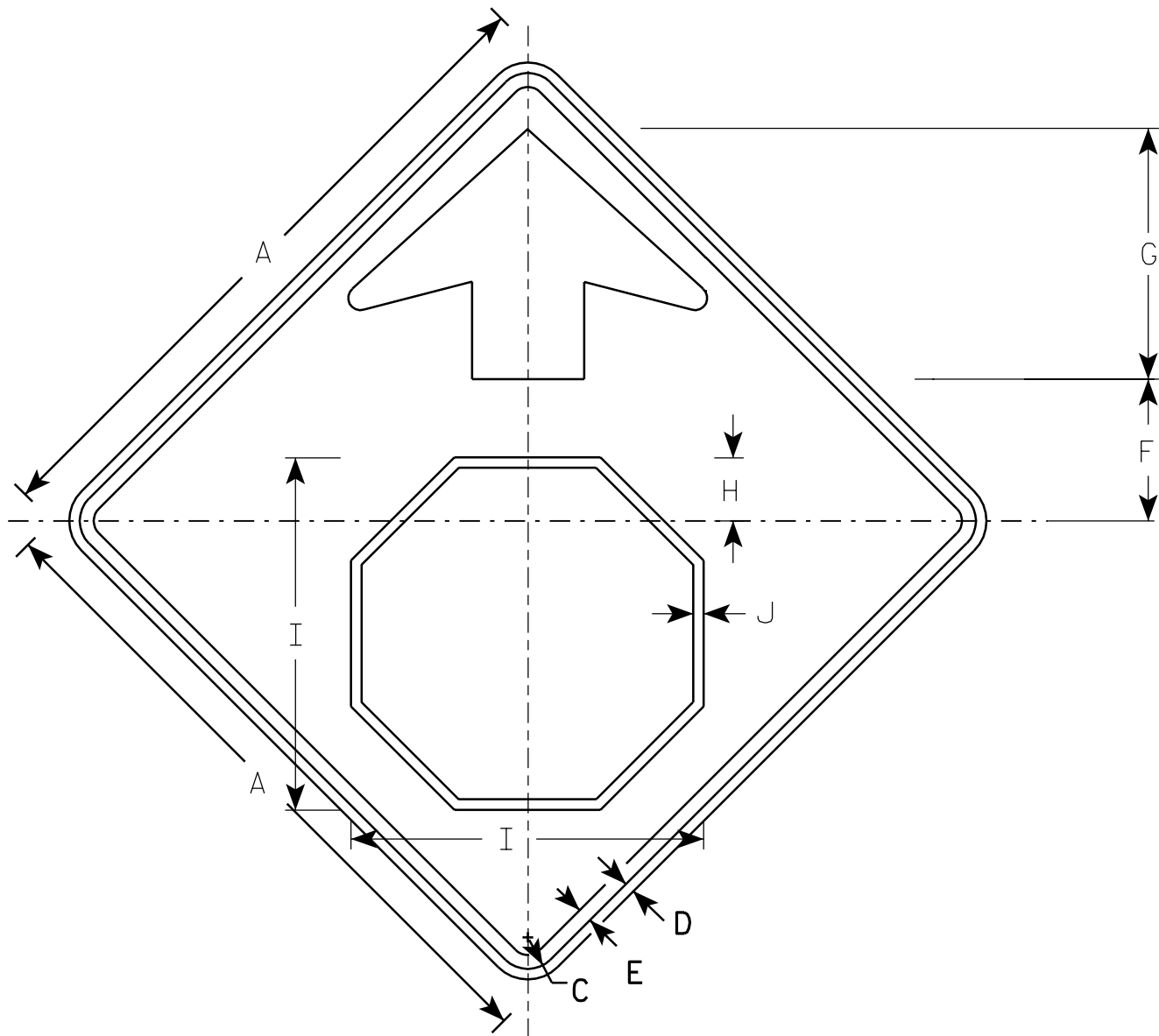
STANDARD SIGN
R2-1

WISCONSIN DEPT OF TRANSPORTATION

APPROVED *Matthew R. Rauch*
For State Traffic Engineer

DATE 7/05/05 PLATE NO. R2-1L12

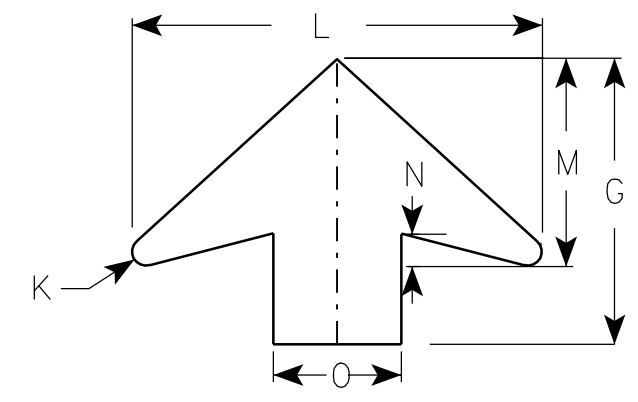
PROJECT NO: _____ HWY: _____ COUNTY: _____ SHEET NO: _____ E



W3-1

NOTES

1. All Signs Type II - Type H 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

Metric equivalent for this sign is:

SIZE	
1	750 mm X 750 mm
2	900 mm X 900 mm
3	900 mm X 900 mm
4	1200 mm X 1200 mm
5	1200 mm X 1200 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	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	0.56
2	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	0.81
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	0.81
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	1.44
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	1.44

STANDARD SIGN
W3-1

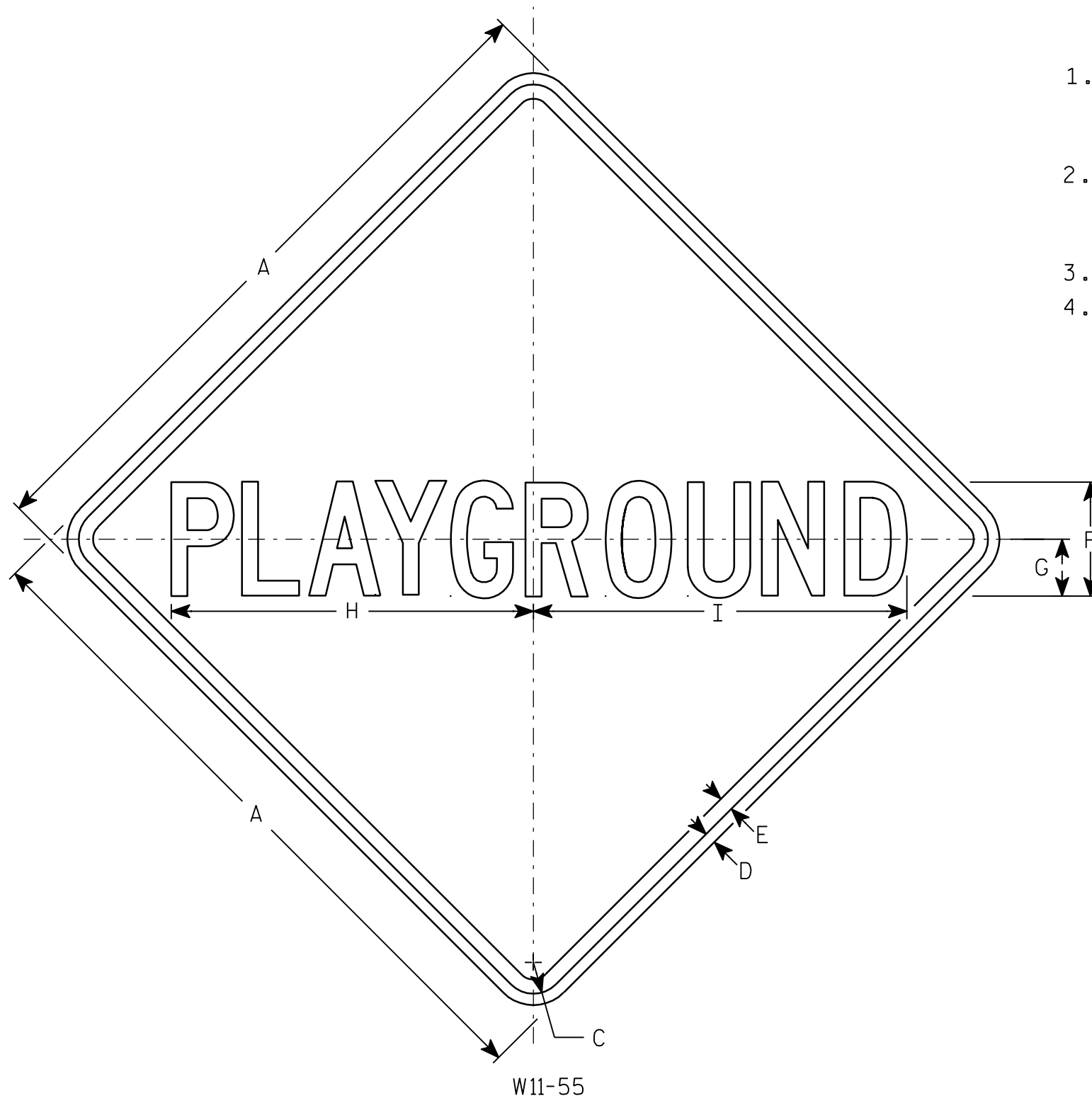
WISCONSIN DEPT OF TRANSPORTATION

APPROVED *Matthew R. Rauch*
for State Traffic Engineer

DATE 1/27/05 PLATE NO. W3/1.11

NOTES

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



7

Metric equivalent for this sign is:

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

SIZE	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	Area sq. ft.	Area m ²
1	30		1 3/8	1/2	5/8	5	2 1/2	15 7/8	16 3/8																		6.25	0.56
2	30		1 3/8	1/2	5/8	5	2 1/2	15 7/8	16 3/8																		6.25	0.56
3																												
4																												
5																												

STANDARD SIGN
W11-55

WISCONSIN DEPT OF TRANSPORTATION

APPROVED *Chester J Spang*
for State Traffic Engineer

DATE 2/122/02 PLATE NO. W11-55.5

PROJECT NO: _____ HWY: _____ COUNTY: _____ SHEET NO: **E**

7

NORTH 12TH STREET: STA 50+20 - STA 64+70.88								EXP Fact=	1.3
STATION	END AREA		VOLUME		CUMULATIVE VOLUME		MASS HAUL (CY)		
	CUT (SF)	FILL (SF)	CUT (CY)	FILL (CY)	CUT (CY)	FILL (CY)			
50+20	89.2	1.8							
50+39	87.2	1.8	62	2	62	2	60		
50+50	91.5	1	37	1	99	3	96		
51+00	103.5	0.3	181	2	280	5	275		
51+13	105.3	0	48	0	328	5	323		
51+50	104.5	0	146	0	474	5	469		
51+85	103.2	0	135	0	609	5	604		
52+00	105.3	0.6	58	0	667	5	662		
52+50	106.1	0.2	196	1	863	6	857		
52+63	107.8	0	51	0	914	6	908		
53+00	105.2	0	146	0	1060	6	1054		
53+36	99.8	0.3	137	0	1197	6	1191		
54+05	104.9	0	262	0	1459	6	1453		
54+50	104.9	1.1	175	1	1634	7	1627		
55+00	103.8	1.9	193	4	1827	11	1816		
55+27	112.9	0	106	1	1933	12	1921		
55+44	117.8	1	75	0	2008	12	1996		
55+50	123.3	0.1	27	0	2035	12	2023		
55+57	125.3	0	30	0	2065	12	2053		
56+00	116.6	1.3	195	1	2260	13	2247		
56+28	124.5	0	123	1	2383	14	2369		
56+36	123.8	0	39	0	2422	14	2408		
56+50	117.5	0.4	63	0	2485	14	2471		
57+00	110.5	1.5	211	2	2696	16	2680		
58+00	112.9	1.9	414	8	3110	24	3086		
58+50	121.3	1	217	3	3327	27	3300		
59+00	135.6	0.1	238	1	3565	28	3537		
59+33	140.9	0	166	0	3731	28	3703		
59+50	132.6	0.4	89	0	3820	28	3792		
60+00	122.4	1.8	236	3	4056	31	4025		
60+50	120.3	2.3	225	5	4281	36	4245		
60+83	119.4	3	147	4	4428	40	4388		
61+37	118.2	1.3	238	6	4666	46	4620		
61+50	115.5	1.9	56	1	4722	47	4675		
62+00	114.5	4.4	213	8	4935	55	4880		
62+50	115.3	0.9	213	6	5148	61	5087		
62+98	124.2	0.1	213	1	5361	62	5299		
63+00	124.4	0	9	0	5370	62	5308		
63+50	112.1	0.7	219	1	5589	63	5526		
64+00	97.4	5.1	194	7	5783	70	5713		
64+47	84.9	6.4	157	13	5940	83	5857		
64+71	94.2	6.4	80	7	6020	90	5930		

WEEKS AVENUE (SOUTH): STA 199+10 - STA 199+80.5								EXP Fact=	1.3
STATION	END AREA		VOLUME		CUMULATIVE VOLUME		MASS HAUL (CY)		
	CUT (SF)	FILL (SF)	CUT (CY)	FILL (CY)	CUT (CY)	FILL (CY)			
199+10	78.8	3.1							
199+50	89.1	0.7	124	4	124	4	120		
199+68	96.4	0.5	62	1	186	5	181		
199+81	92.2	0.9	44	0	230	5	225		

WEEKS AVENUE (NORTH): STA 200+19.5 - STA 200+70								EXP Fact=	1.3
STATION	END AREA		VOLUME		CUMULATIVE VOLUME		MASS HAUL (CY)		
	CUT (SF)	FILL (SF)	CUT (CY)	FILL (CY)	CUT (CY)	FILL (CY)			
200+20	92.4	0.2							
200+32	88.8	0.7	42	0	42	0	42		
200+50	81.1	4.5	57	2	99	2	97		
200+70	82.5	0.9	61	3	160	5	155		

CLOUGH AVENUE (SOUTH): STA 399+05 - STA 399+80.5								EXP Fact=	1.3
STATION	END AREA		VOLUME		CUMULATIVE VOLUME		MASS HAUL (CY)		
	CUT (SF)	FILL (SF)	CUT (CY)	FILL (CY)	CUT (CY)	FILL (CY)			
399+05	55.8	0.1							
399+30	61.9	0	54	0	54	0	54		
399+50	72.7	0	50	0	104	0	104		
399+68	89.4	0	54	0	158	0	158		
399+81	92.1	0	42	0	200	0	200		

CLOUGH AVENUE (NORTH): STA 300+19.5 - STA 300+80								EXP Fact=	1.3
STATION	END AREA		VOLUME		CUMULATIVE VOLUME		MASS HAUL (CY)		
	CUT (SF)	FILL (SF)	CUT (CY)	FILL (CY)	CUT (CY)	FILL (CY)			
300+20	87.4	3.4							
300+32	85.3	3.4	40	2	40	2	38		
300+50	72.3	0.8	53	2	93	4	89		
300+80	66.9	0.2	77	1	170	5	165		

FISHER AVENUE: STA 500+19.5 - STA 501+05								EXP Fact=	1.3
STATION	END AREA		VOLUME		CUMULATIVE VOLUME		MASS HAUL (CY)		
	CUT (SF)	FILL (SF)	CUT (CY)	FILL (CY)	CUT (CY)	FILL (CY)			
500+20	108.2	1.1							
500+32	105.9	0.8	50	1	50	1	49		
500+50	77.8	1.9	61	1	111	2	109		
500+92	59.1	0.8	105	3	216	5	211		
501+00	57.1	1.6	18	0	234	5	229		
501+05	56.4	1.5	11	0	245	5	240		

9

9

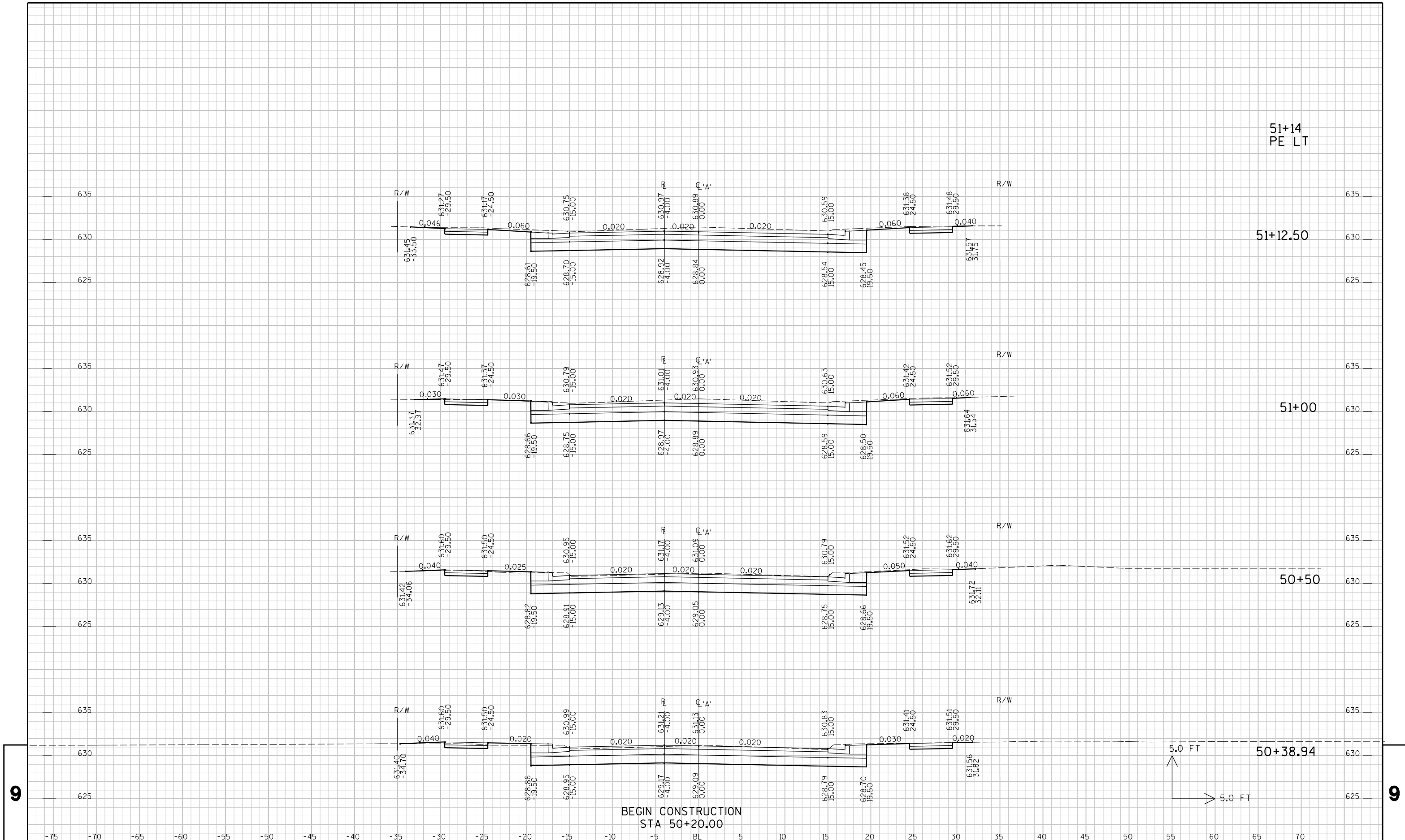
51+14
PE LT

51+12.50

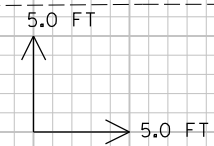
51+00

50+50

50+38.94



BEGIN CONSTRUCTION
STA 50+20.00



9

9

STATE PROJECT NO : 8998-00-10

HWY : N. 12TH STREET

COUNTY : DOUGLAS

CROSS SECTIONS - N. 12TH STREET

SHEET NO:

E

FILE NAME : p:\pt\s\super\080100\CAD\XS12ST25.DGN

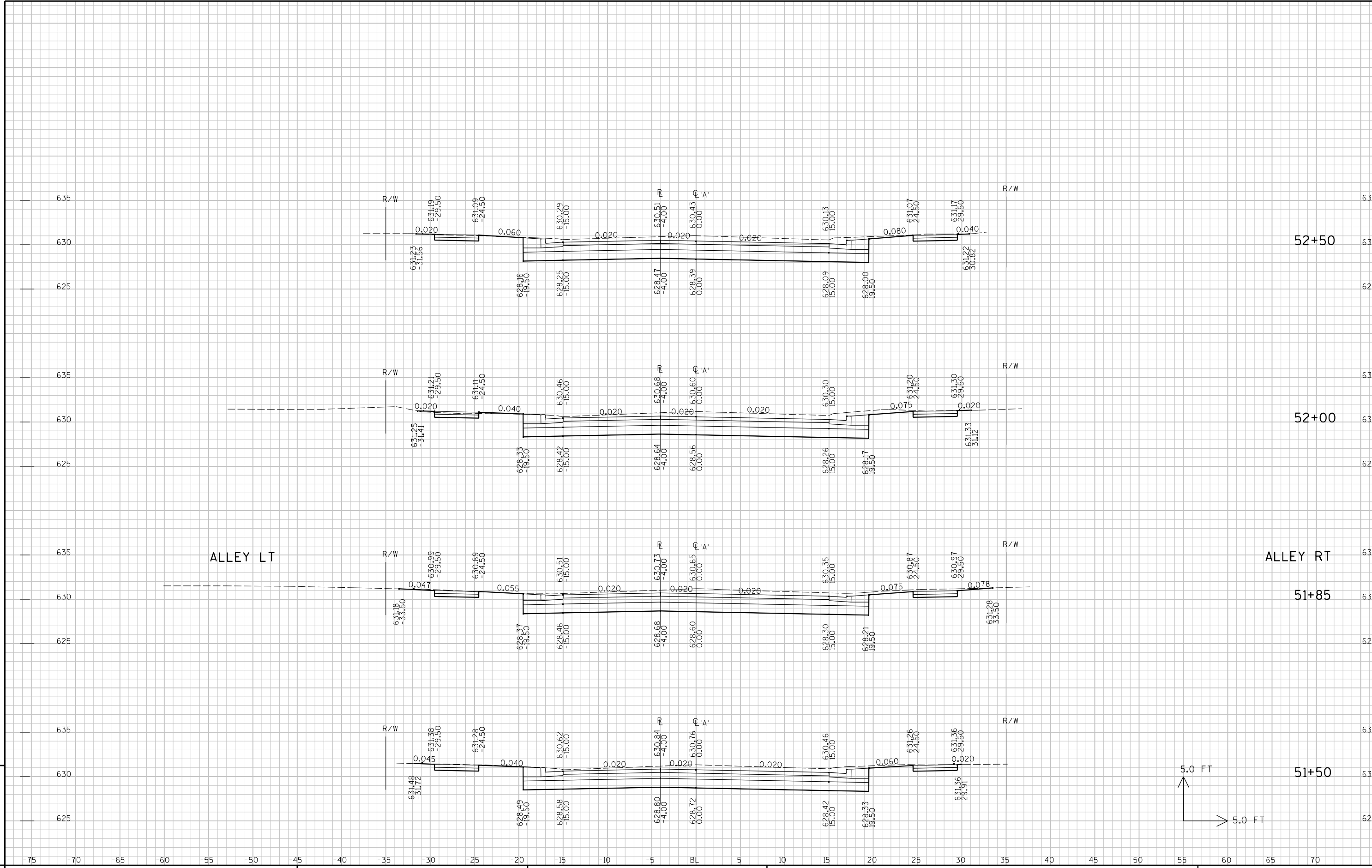
PLOT TIME : 2:44:06 PM

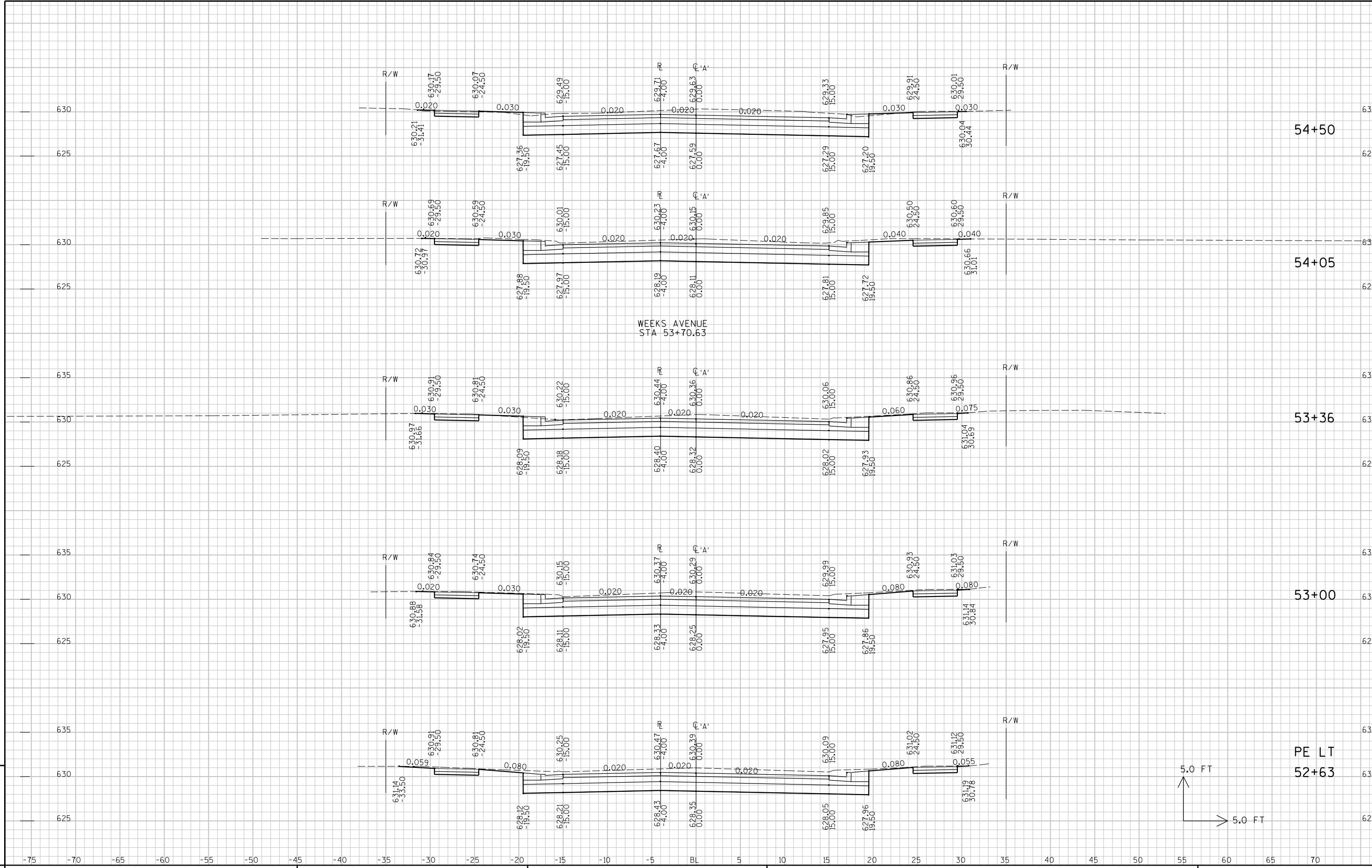
PLOT DATE : 10/27/2008

PLOT BY : SEH

PLOT NAME :

PLOT SCALE : N/A





STATE PROJECT NO : 8998-00-10

HWY : N. 12TH STREET

COUNTY : DOUGLAS

CROSS SECTIONS - N. 12TH STREET

SHEET NO:

E

FILE NAME : p:\pt\s\super\080100\CAD\XS12ST25.DGN

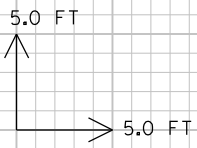
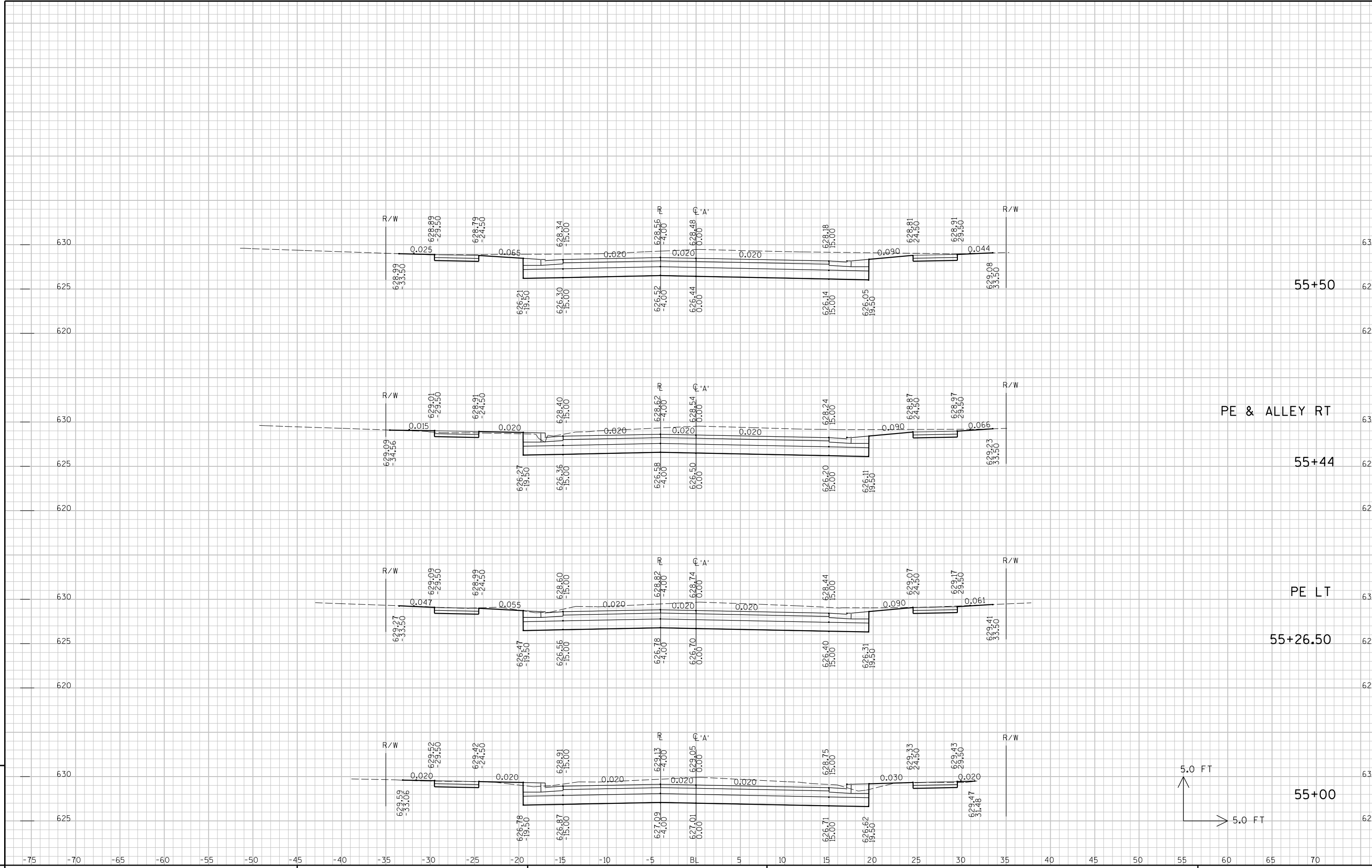
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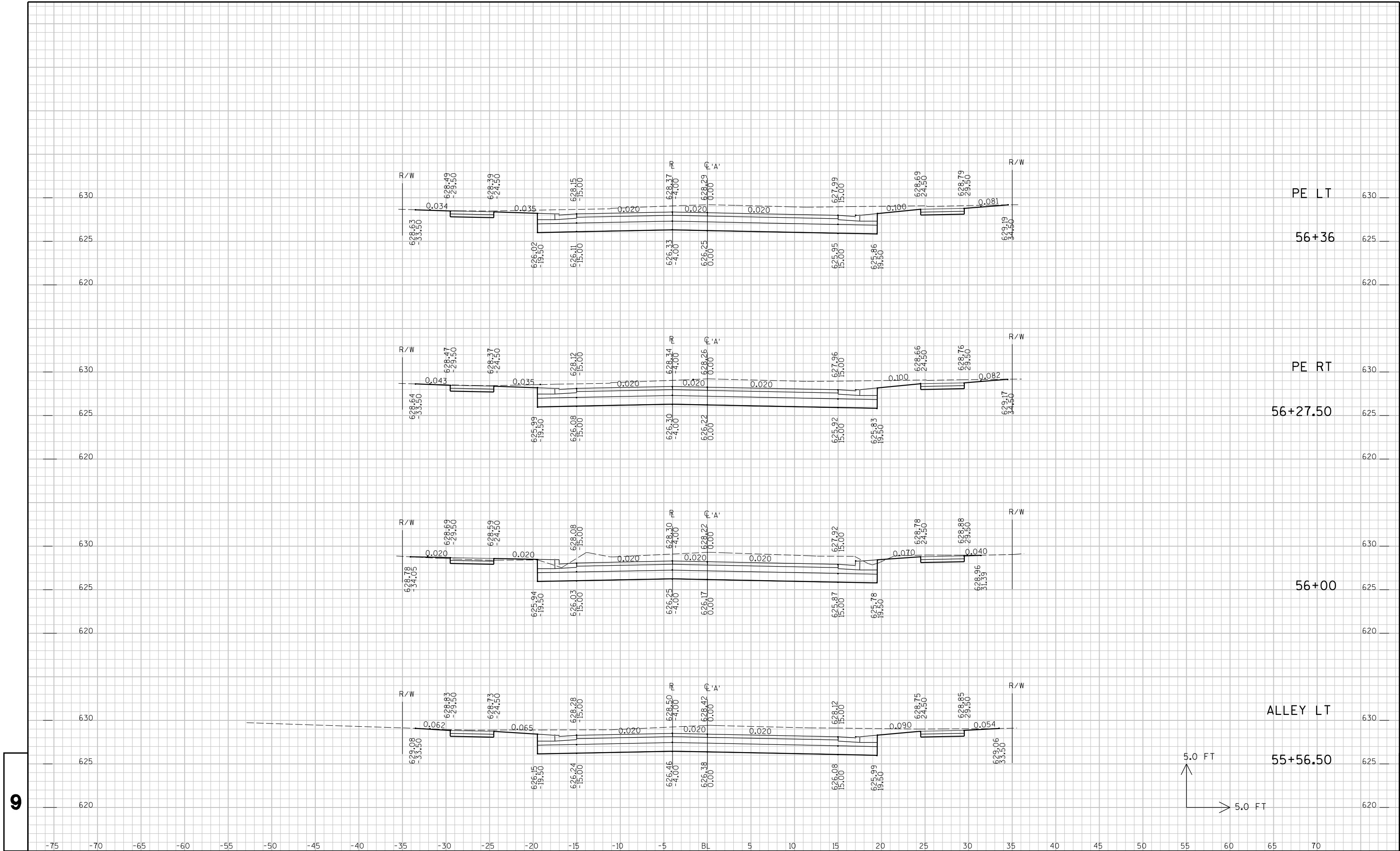
PLOT DATE : 10/27/2008

PLOT BY : SEH

PLOT NAME :

PLOT SCALE : N/A





STATE PROJECT NO : 8998-00-10

HWY : N. 12TH STREET

COUNTY : DOUGLAS

CROSS SECTIONS - N. 12TH STREET

SHEET NO:

FILE NAME : p:\pt+s\super\080100\CAD\XS12ST25.DGN

PLOT TIME : 2:44:10 PM

PLOT DATE : 10/27/2008

PLOT BY : SEH

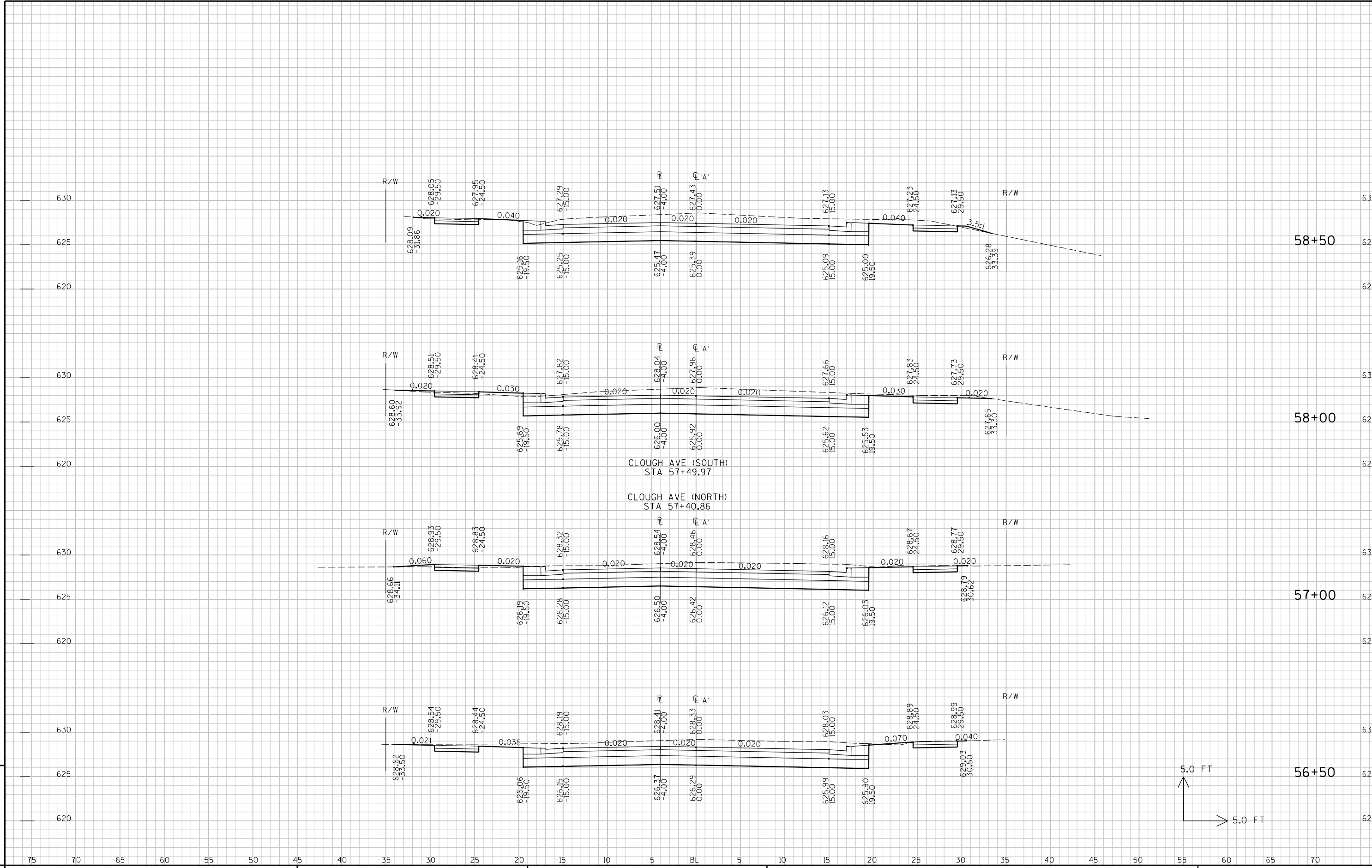
PLOT NAME :

PLOT SCALE : N/A

9

9

E

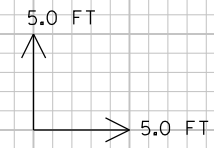


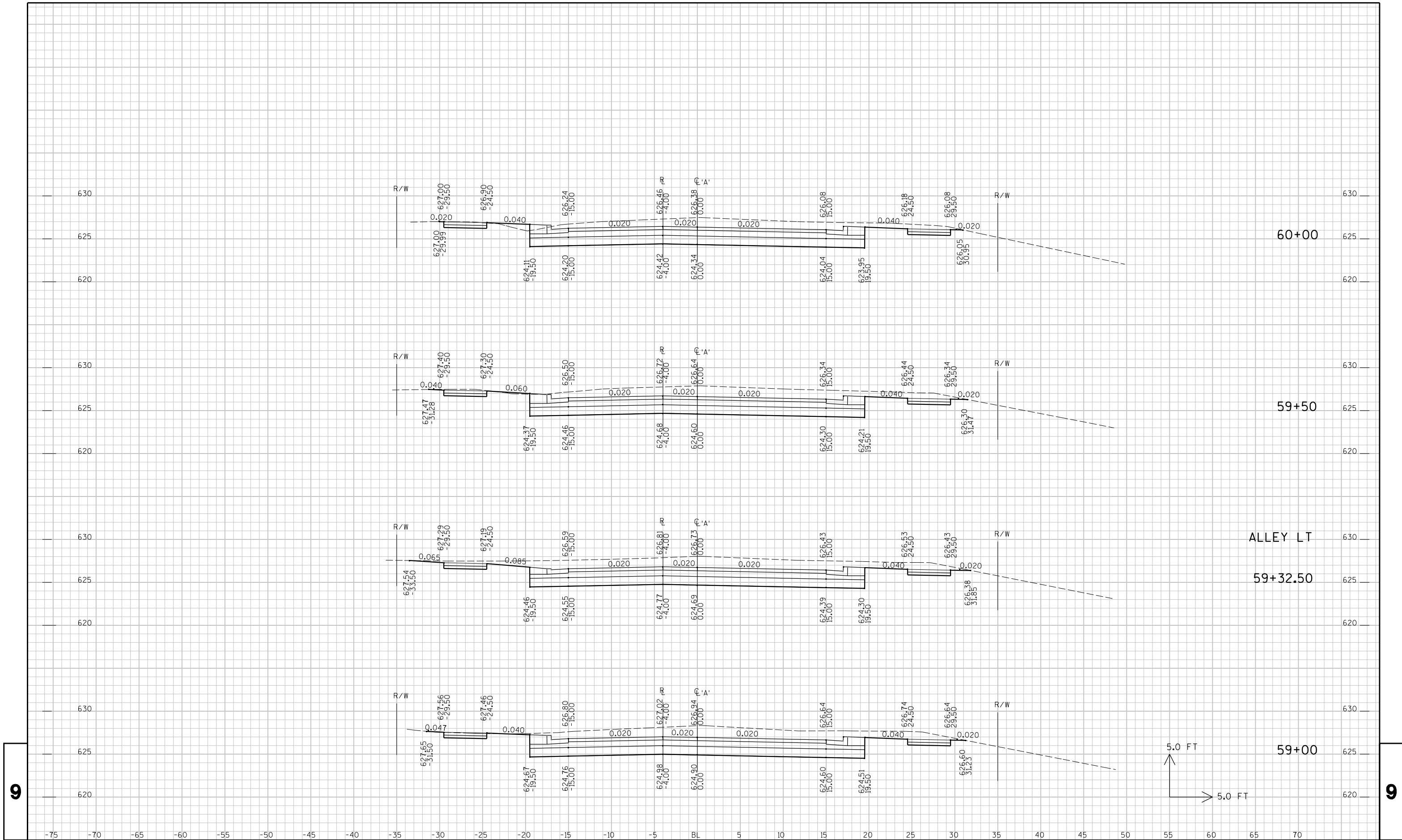
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FILE NAME : p:\p+\super\080100\CAD\XS12ST25.DGN PLOT TIME : 2:44:11 PM PLOT DATE : 10/27/2008 PLOT BY : SEH PLOT NAME : PLOT SCALE : N/A

9

9





STATE PROJECT NO : 8998-00-10

HWY : N. 12TH STREET

COUNTY : DOUGLAS

CROSS SECTIONS - N. 12TH STREET

SHEET NO:

FILE NAME : p:\pfs\super\080100\CAD\XS12ST25.DGN

PLOT TIME : 2:44:12 PM

PLOT DATE : 10/27/2008

PLOT BY : SEH

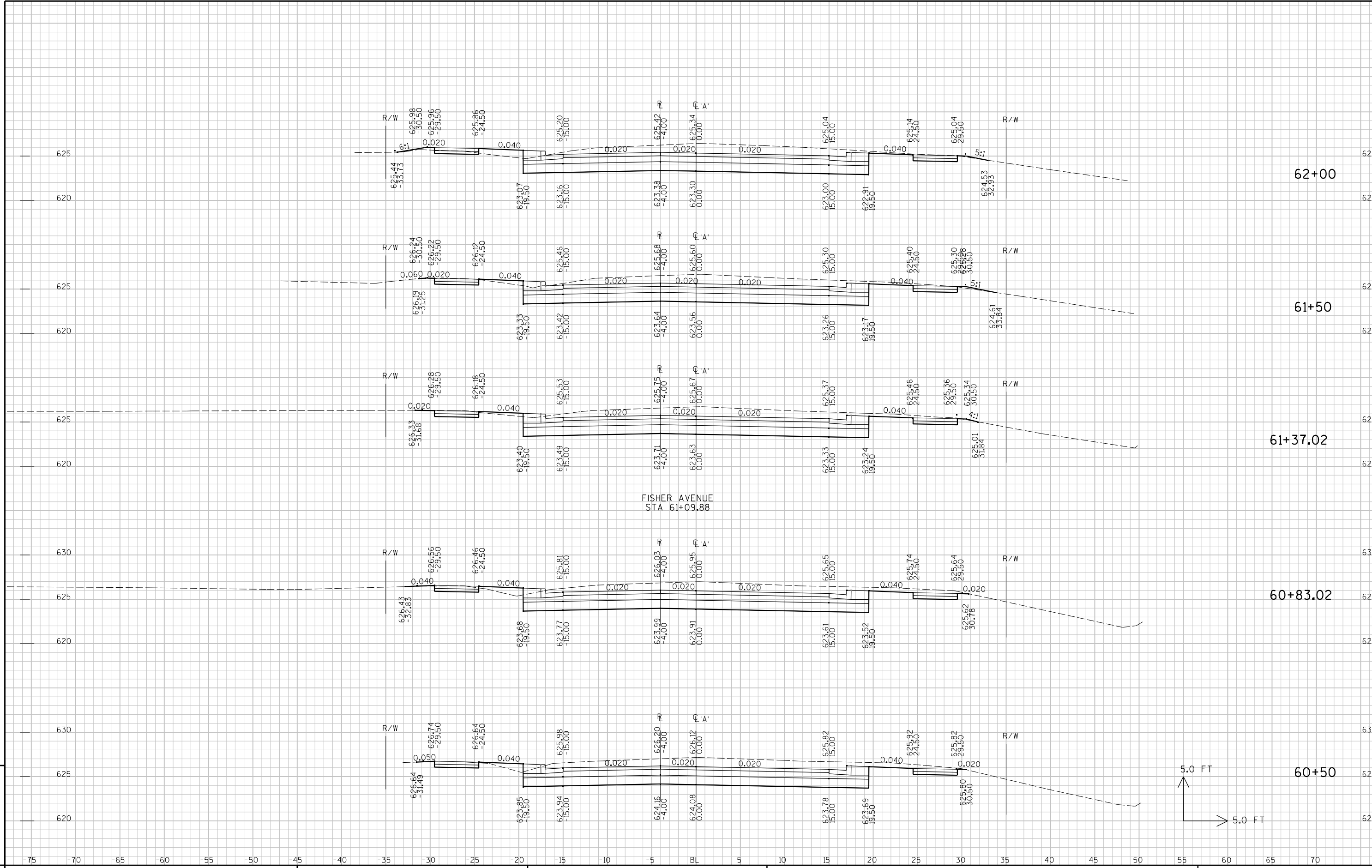
PLOT NAME :

PLOT SCALE : N/A

9

9

E

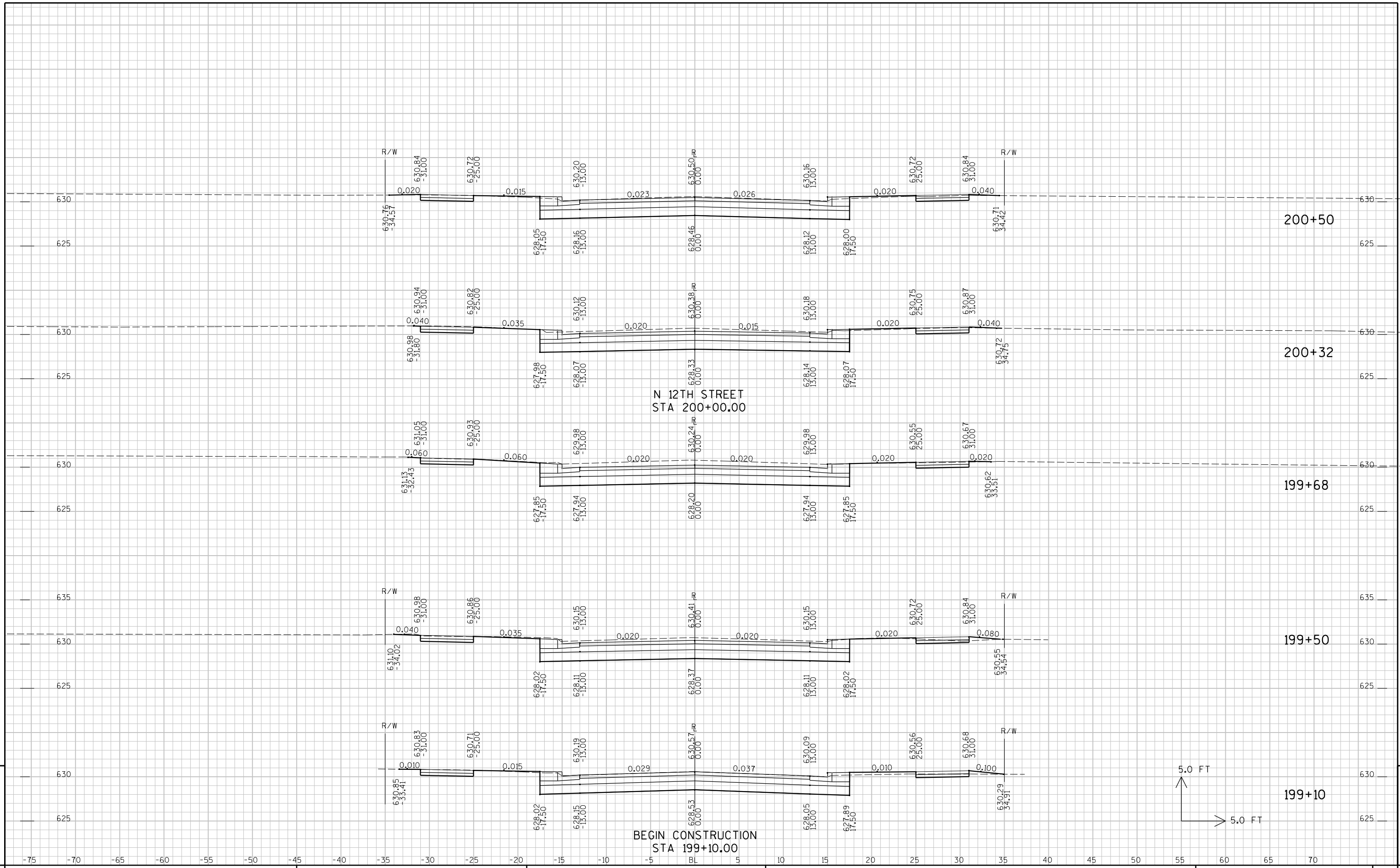


STATE PROJECT NO : 8998-00-10 HWY : N. 12TH STREET COUNTY : DOUGLAS CROSS SECTIONS - N. 12TH STREET SHEET NO: E

FILE NAME : p:\p1\s\super\080100\CAD\X512ST25.DGN PLOT TIME : 2:44:13 PM PLOT DATE : 10/27/2008 PLOT BY : SEH PLOT NAME : PLOT SCALE : N/A

9

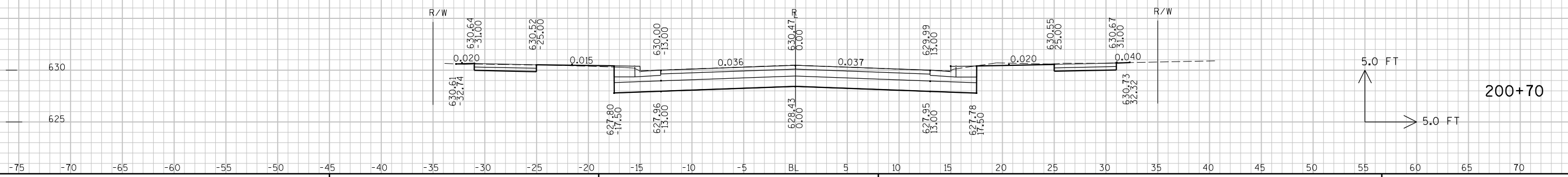
9



9

9

END CONSTRUCTION
STA 200+70.00



9

9

STATE PROJECT NO : 8998-00-10

HWY : WEEKS AVENUE

COUNTY : DOUGLAS

CROSS SECTIONS - WEEKS AVENUE

SHEET NO:

E

FILE NAME : p:\pt\s\super\080100\CAD\XS WEEKS.DGN

PLOT TIME : 2:44:17 PM

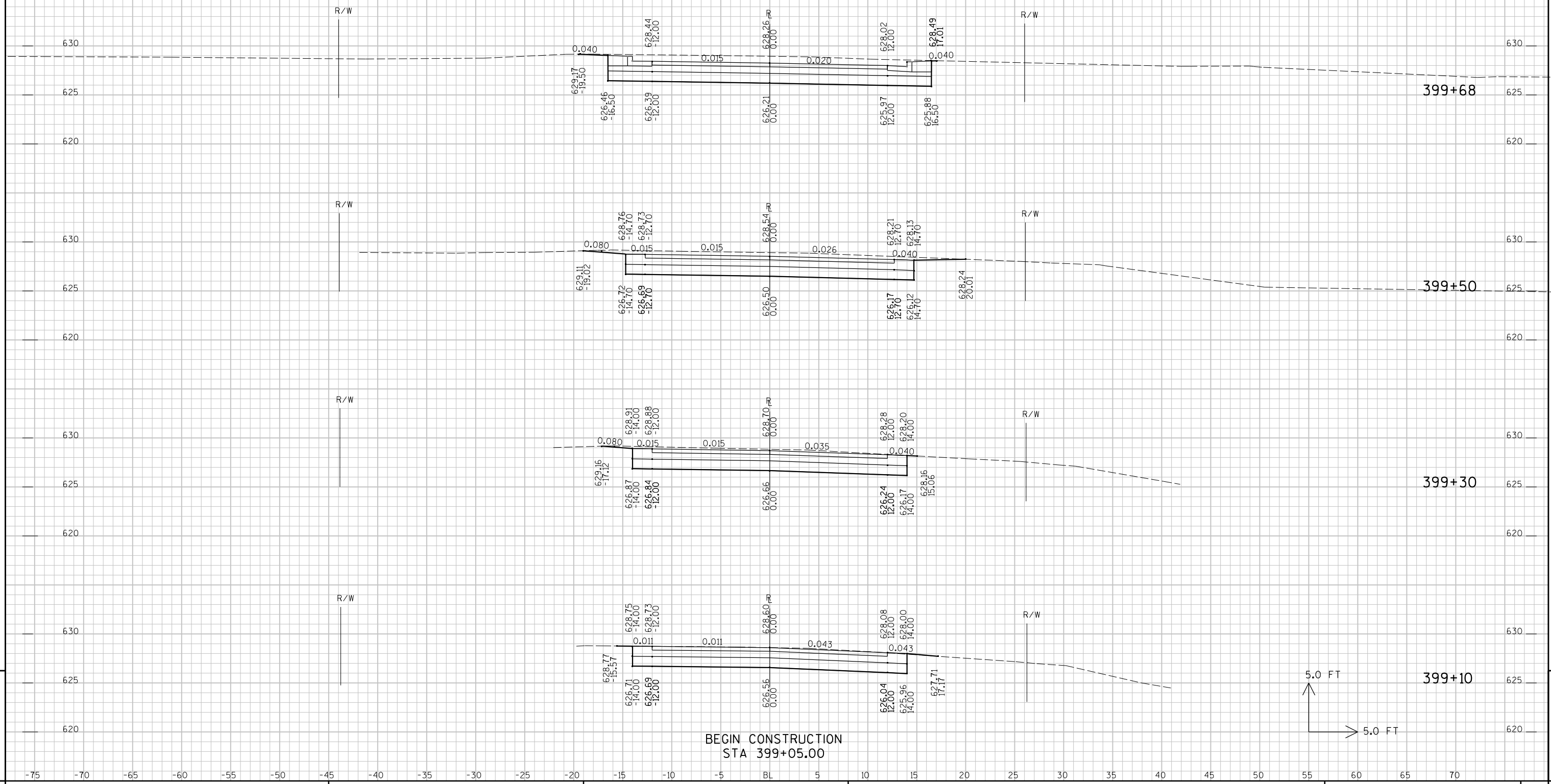
PLOT DATE : 10/27/2008

PLOT BY : SEH

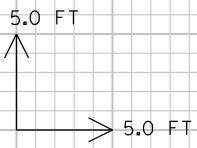
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PLOT SCALE : N/A

N 12TH STREET
STA 400+00.00



BEGIN CONSTRUCTION
STA 399+05.00

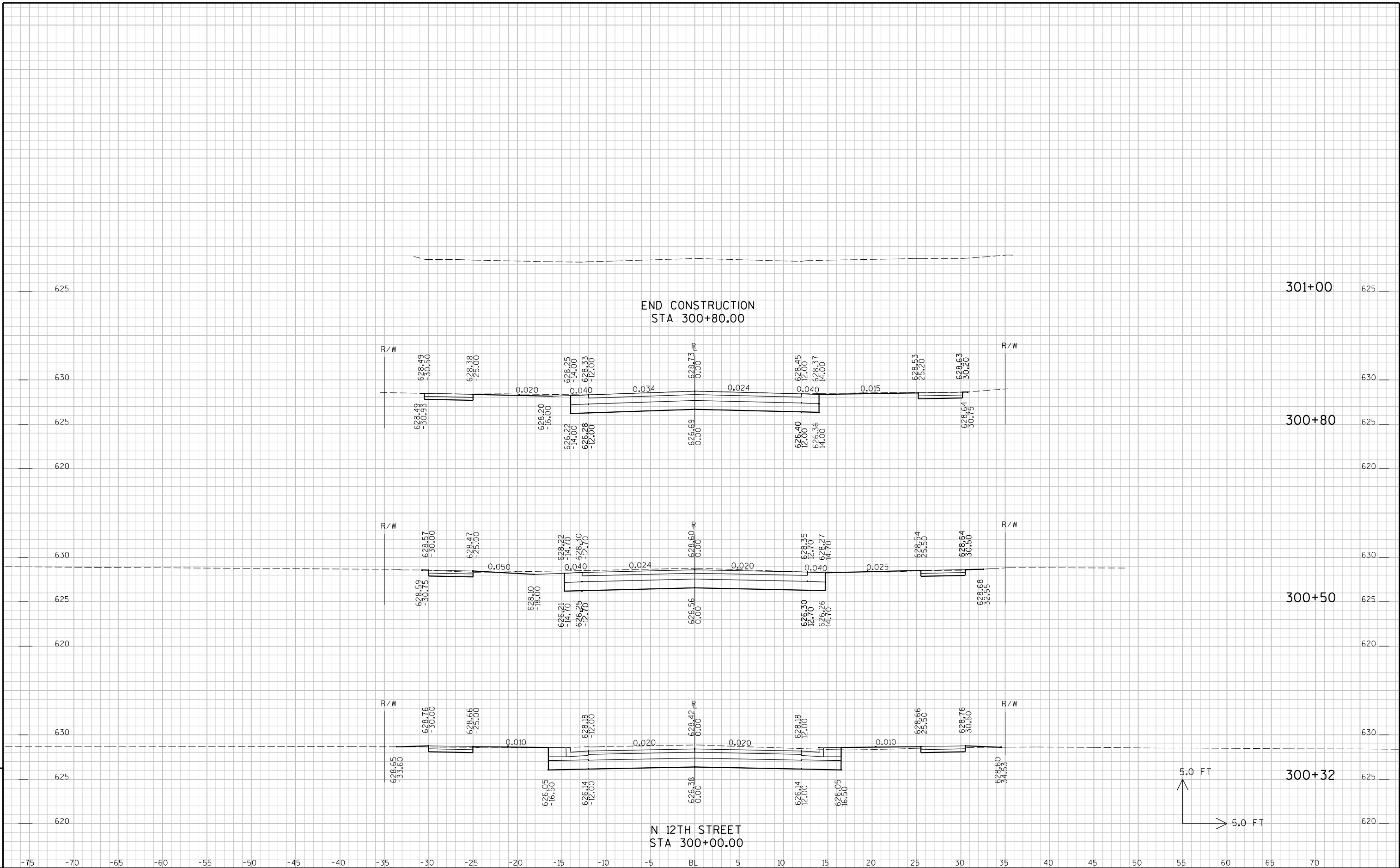


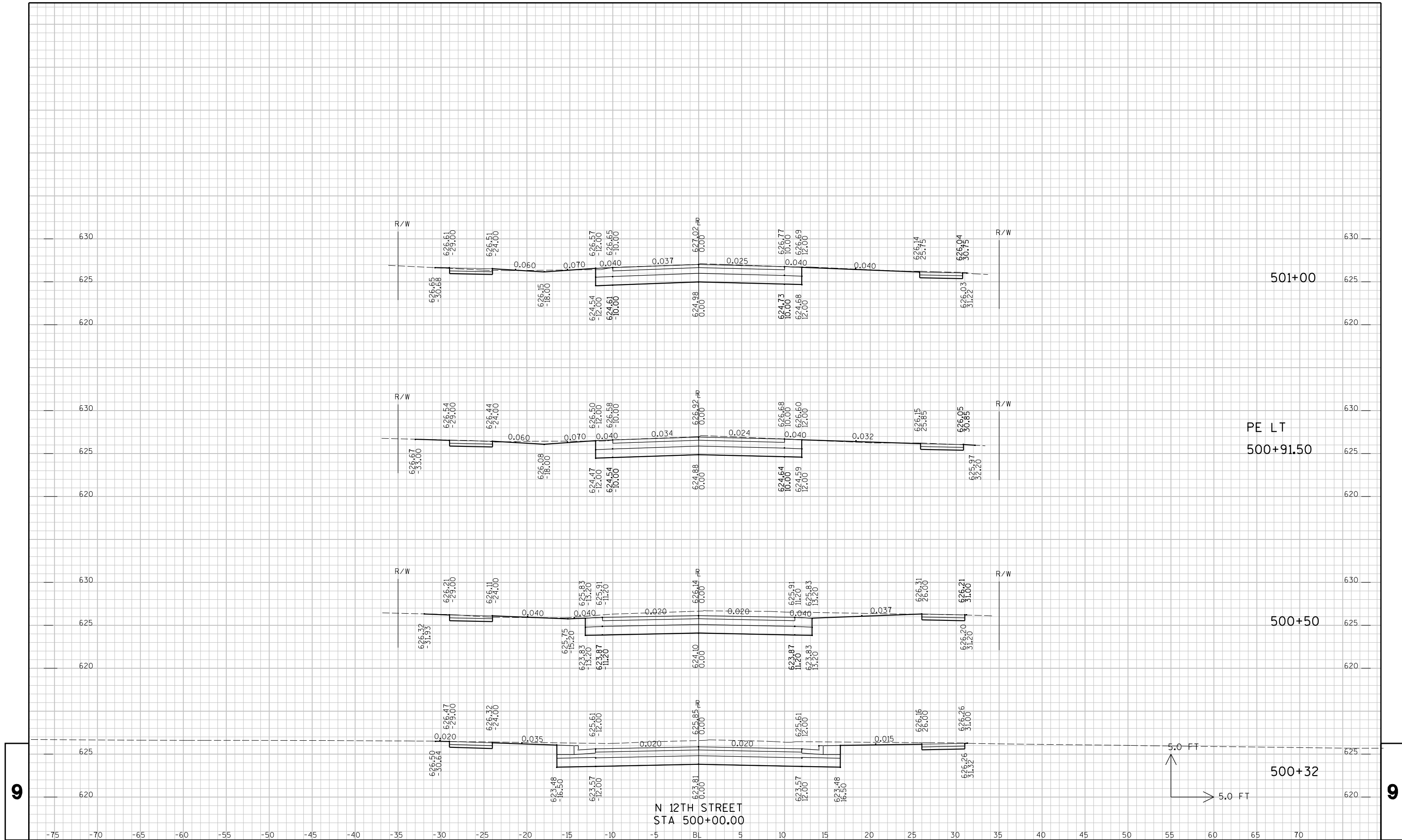
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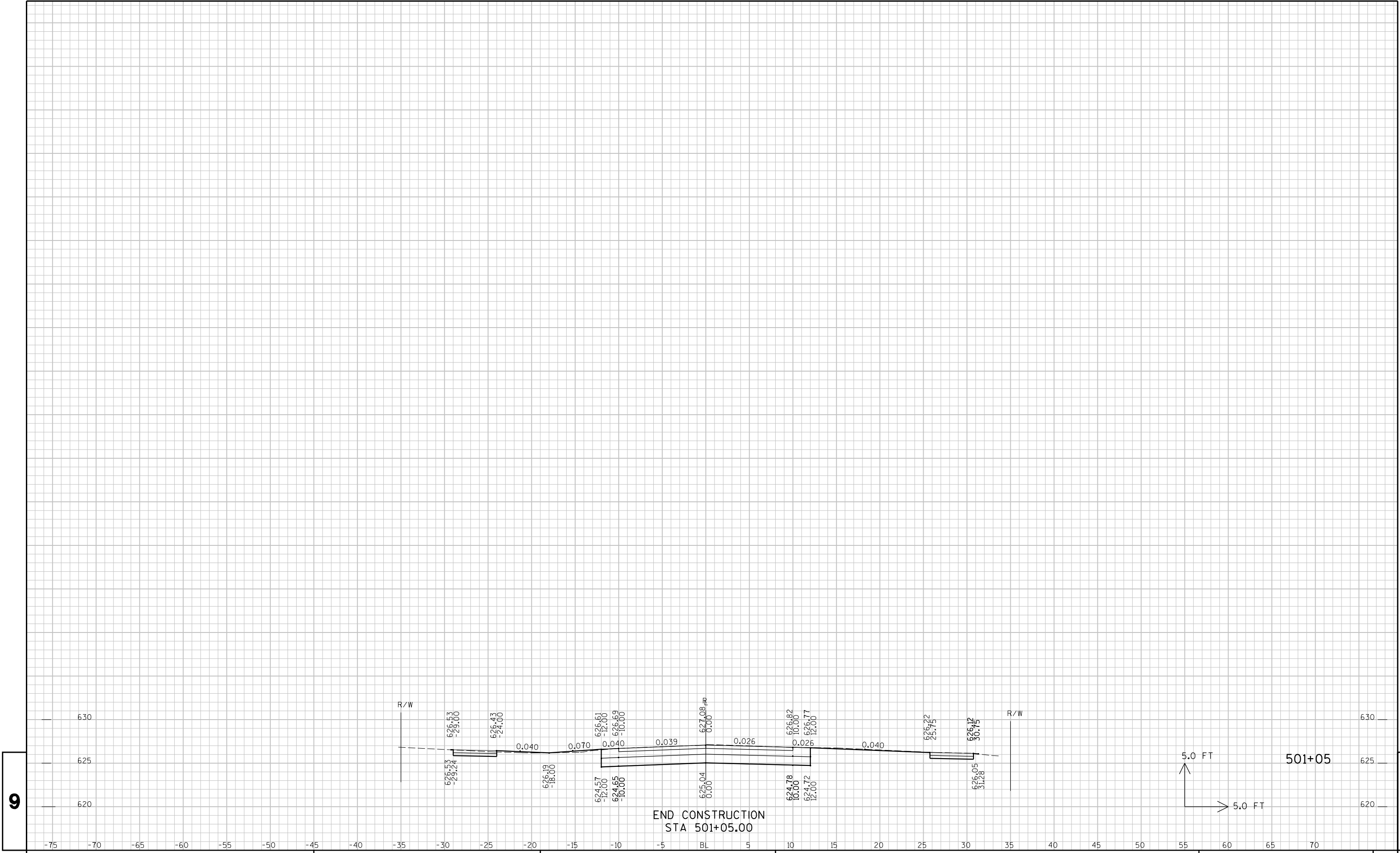
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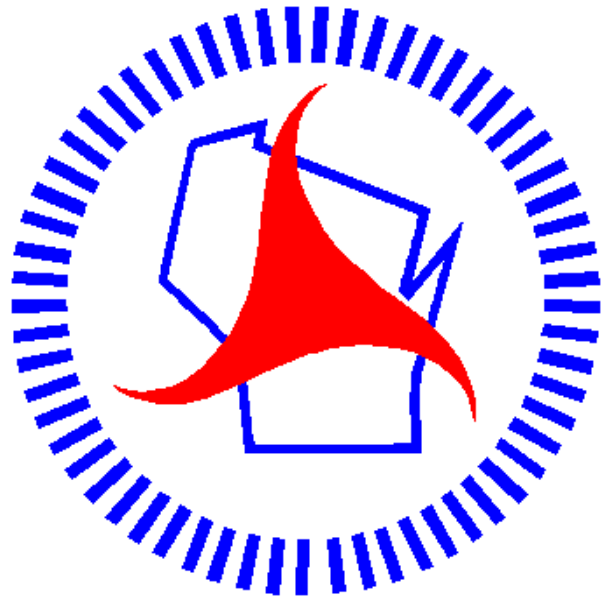




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Notes



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