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Sheet No.	Typical Sections and Details
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Sheet No.	Cross Sections

TOTAL SHEETS =

CITY OF SUPERIOR

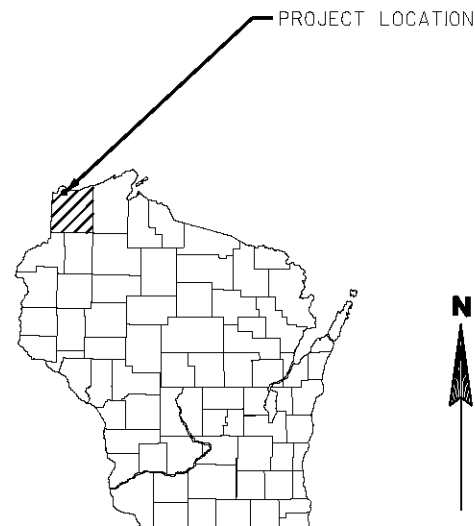
PLAN OF PROPOSED IMPROVEMENT

GRAND AVENUE

BROADWAY STREET - BELKNAP STREET

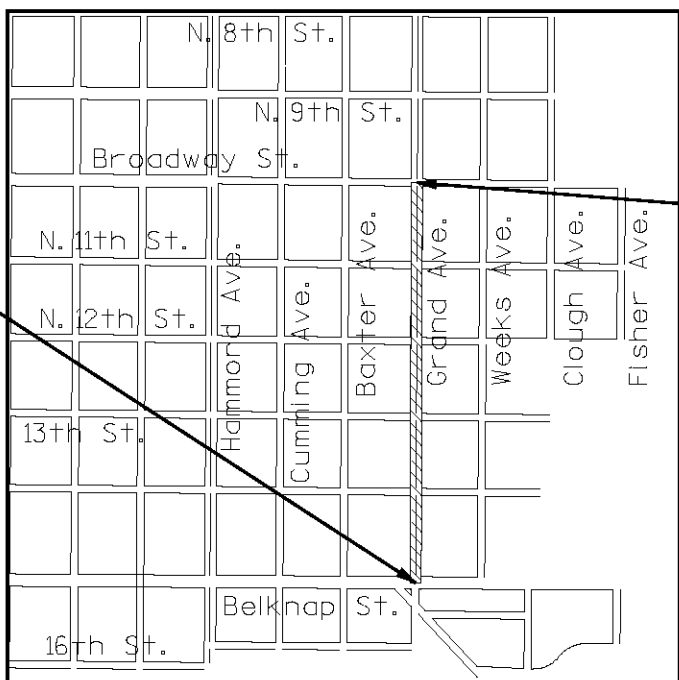
DOUGLAS COUNTY

SEH PROJECT NUMBER
SUPER0005.00



BEGIN PROJECT
STA. 101+10.34
Y = 573640.259
X = 1443484.243

END PROJECT
STA. 122+11.00
Y = 575739.898
X = 1443550.175



DESIGN DESIGNATION

A.D.T.	=
A.D.T.	=
D.H.V.	=
D.	=
T.	=
DESIGN SPEED	=
ESALS	=

CONVENTIONAL SYMBOLS

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

LAYOUT
SCALE 0 0.09 MI.



TOTAL NET LENGTH OF CENTERLINE = 0.398 MI.

Coordinates on this plan are referenced to the Wisconsin State Plane Coordinate System (WSPCS), North Zone.

APPROVED FOR

CITY _____ of SUPERIOR _____

DATE: _____ CITY ENGINEER _____

ORIGINAL PLANS PREPARED BY:

SEH

STANDARD ABBREVIATIONS

ABUT	ABUTMENT	LHF	LEFT-HAND FORWARD
AC	ACRE	L	LENGTH OF CURVE
AGG	AGGREGATE	LF	LINEAR FOOT
ASPH	ASPHALTIC	LC	LONG CHORD OF CURVE
AVG	AVERAGE	LS	LUMP SUM
ADT	AVERAGE DAILY TRAFFIC	MH	MANHOLE
BF	BACK FACE	NC	NORMAL CROWN
BM	BENCH MARK	NO	NUMBER
BR	BRIDGE	OBLIT	OBLITERATE
C.E.	COMMERCIAL ENTRANCE	PAVT	PAVEMENT
CL	CENTER LINE	P.E.	PRIVATE ENTRANCE
Δ	CENTRAL ANGLE OR DELTA	PVRC	POINT OF VERTICAL REVERSE CURVE
CONC	CONCRETE	R	RADIUS
CR	CREEK	RCCP	REINFORCED CONCRETE CULVERT PIPE
CY	CUBIC YARD	RES	RESIDENCE OR RESIDENTIAL
C & G	CURB AND GUTTER	REQ'D.	REQUIRED
D	DEGREE OF CURVE	RHF	RIGHT-HAND FORWARD
DHV	DESIGN HOUR VOLUME	R/W	RIGHT-OF-WAY
DISCH	DISCHARGE	R	RIVER
DG	DITCH GRADE	RDWY	ROADWAY
DWY	DRIVEWAY	R	REFERENCE LINE
X	EAST GRID COORDINATE	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	S.T.H.	STATE TRUNK HIGHWAYS
EXIST	EXISTING	STA.	STATION
FF	FACE TO FACE	SS	STORM SEWER
FERT	FERTILIZE	SE	SUPERELEVATION
F.E.	FIELD ENTRANCE	TC	TOP OF CURB
FL	FLOW LINE	T OR TN	TOWN
FO	FIBER OPTIC	T	TRUCKS (PERCENT OF)
CWT	HUNDREDWEIGHT	TYP.	TYPICAL
HYD	HYDRANT	VAR.	VARIABLE
ID	INSIDE DIAMETER	VC	VERTICAL CURVE
INV	INVERT	Y	NORTH GRID COORDINATE
IP	IRON PIPE OR PIN	YD	YARD

UTILITY CONTACTS

CITY OF SUPERIOR
 SANITARY SEWER SYSTEM (PUBLIC WORKS)
 SUPERIOR, WISCONSIN 54880
 TELEPHONE: 715.394.0333
 ATTENTION: PAUL KING (CITY ENGINEER)

SUPERIOR WATER, LIGHT & POWER CO.
 2915 HILL AVENUE
 P.O. BOX 519
 SUPERIOR, WISCONSIN 54880
 TELEPHONE: 715.394.2200
 ATTENTION: DAVID SMITH (ELECTRIC)
 ATTENTION: DALE GROTHE (WATER & GAS)

WILLIAMS PIPELINE COMPANY
 2301 WINTER STREET
 SUPERIOR, WISCONSIN 54880
 TELEPHONE: 715.392.2438

DESIGN CONTACT

SEH INC.
 831 EAST 2ND STREET
 DULUTH, MINNESOTA 55805
 TELEPHONE: 218.722.0547
 E-MAIL: sveyandt@sehinc.com
 ATTENTION: SCOTT WEYANDT

CENTURYTEL SERVICE GROUP
 135 N. 21ST STREET
 SUPERIOR, WISCONSIN 54880
 ENGINEERING TELEPHONE: 715.392.0059
 ATTENTION: GARY LEEPER
 CONSTRUCTION TELEPHONE: 608.796.5195
 ATTENTION: STY HOE

CHARTER COMMUNICATIONS
 302 E. SUPERIOR STREET
 DULUTH, MINNESOTA 55802
 TELEPHONE: 218.529.8028
 ATTENTION: ALAN SEIFERT

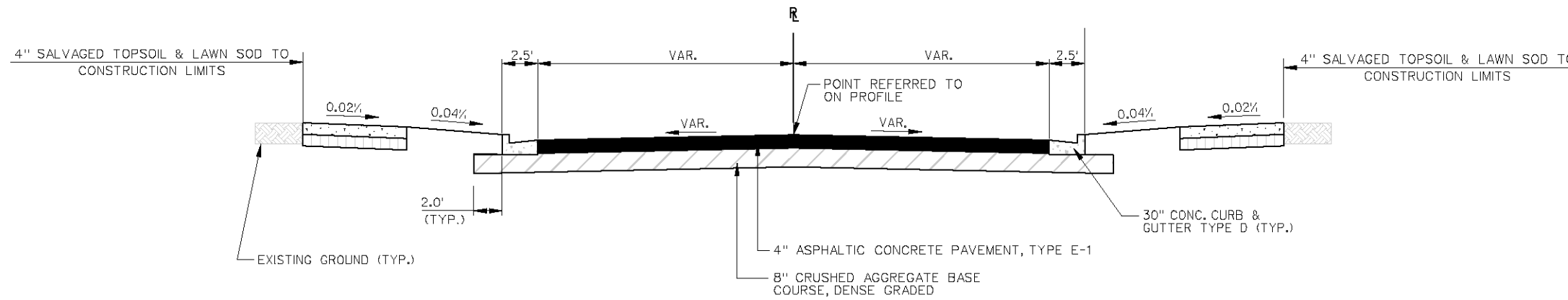


FOR FIELD LOCATES
 CALL: 1.800.242.8511
 www.DiggersHotline.com

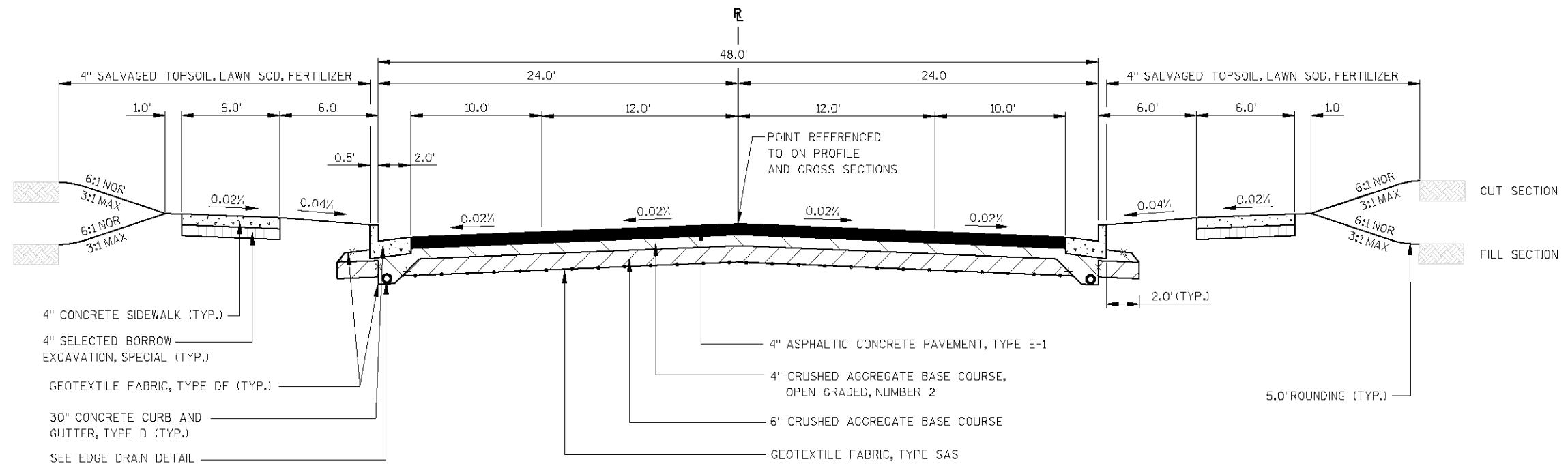
GENERAL NOTES

- 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.
 - DISTURBED AREAS WITHIN THE RIGHT-OF-WAY ARE TO BE 4-INCH TOPSOILED, FERTILIZED, AND SODDED. FINISHED SODDED SURFACE SHALL BE 1-INCH BELOW THE TOP OF ADJACENT CONCRETE.
 - BEARINGS SHOWN ON THE PLANS ARE GRID BEARINGS TO THE NEAREST SECOND.
 - THE LOCATION OF ALL DRIVEWAYS WILL BE DETERMINED BY THE ENGINEER.
 - SIGN PLATE DETAILS SHALL BE IN ACCORDANCE WITH THE FEDERAL HIGHWAY ADMINISTRATION "MANUAL OF UNIFORM TRAFFIC CONTROL DEVICES" UNLESS OTHERWISE PROVIDED FOR IN THE PLAN.
 - ALL SIDE ROAD 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.
 - ALL STORM SEWER INVERTS, ELEVATIONS, PIPE LENGTHS, AND GRADES ARE COMPUTED CENTER-TO-CENTER OF STRUCTURES.
 - 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) | LOWER/MIDDLE (INCH) | UPPER LAYER (INCH) |
| 4 | 2 | --- | 2 |
- TACK COAT HAS BEEN ESTIMATED AT AN APPLICATION RATE OF 0.025 GAL/S.Y. AND SHALL BE PLACED BETWEEN LAYERS OF ASPHALTIC PAVEMENT AND BETWEEN THE EXISTING CONCRETE PAVEMENT AND ASPHALTIC PAVEMENT.
 - THE PAVING, GRADING CONTRACT SHALL INCLUDE THE BACKFILL FOR THE AREA BEHIND THE CURB AND GUTTER (SPECIFY APPROPRIATE CONTRACT WHEN CURB AND GUTTER AND GRADING ARE IN SEPARATE CONTRACTS).
 - CURB RAMP TYPES ARE SHOWN ON PLAN SHEETS.
 - CONTRACTOR IS REQUIRED TO COORDINATE CONSTRUCTION OPERATIONS WITH "SUPERIOR WATER, LIGHT, AND POWER" TO COORDINATE WORK BY THE UTILITY.
 - CONTRACTOR WILL COORDINATE ALL ROAD CLOSURES AND STAGING OPERATIONS WITH THE CITY OF SUPERIOR AND PROVIDE ALL TRAFFIC CONTROL DEVICES NECESSARY. THESE SHOULD BE INCIDENTAL TO THE ITEM TRAFFIC CONTROL.
 - SINGLE POST SIGNS WITH MULTIPLE PANELS WILL BE MEASURED AS ONE SIGN.

LEVELS ON = 1,2,3,4,5,6,7,8,9,10,11,12,13,14,15,16,17,18,19,20,21,22,23,24,25,26,27,28,29,30,31,32,33,34,35,36,37,38,39,40,41,42,43,44,45,46,47,48,49,50,51,52,53,54,55,56,57,58,59,60,61,62,63



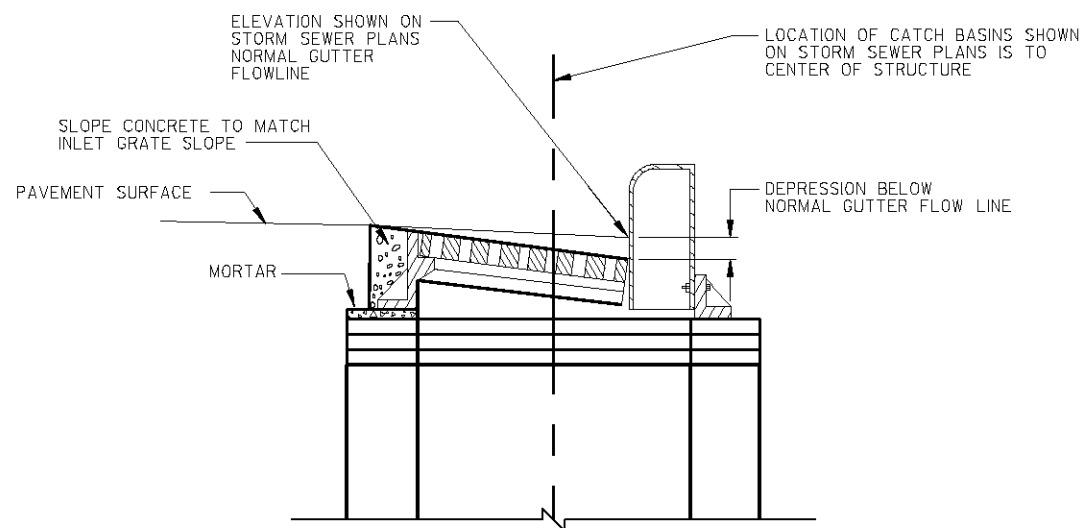
TYPICAL FINISHED SECTION - SIDE ROADS



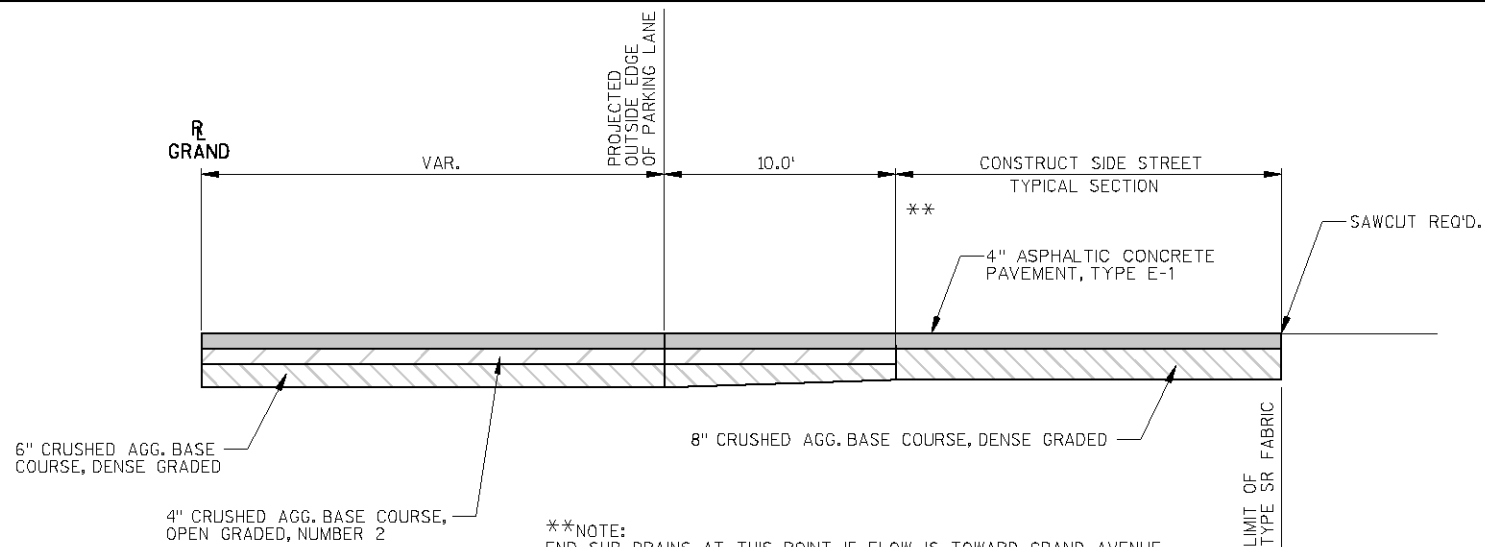
**TYPICAL FINISHED SECTION
GRAND AVENUE**

NOTE:
SUB DRAINS SHALL BE PLACED AFTER THE PLACEMENT OF CRUSHED AGGREGATE BASE COURSE, DENSE GRADED AND PRIOR TO THE PLACEMENT OF CRUSHED AGGREGATE BASE COURSE, OPEN GRADED, TO ENSURE THE CRUSHED AGGREGATE BASE COURSE, OPEN GRADED IS DIRECTLY CONNECTED TO THE SUB DRAINS.

LEVELS ON = 1, 2, 3, 4, 5, 6, 7, 8, 9, 10, 11, 12, 13, 14, 15, 16, 17, 18, 19, 20, 21, 22, 23, 24, 25, 26, 27, 28, 29, 30, 31, 32, 33, 34, 35, 36, 37, 38, 39, 40, 41, 42, 43, 44, 45, 46, 47, 48, 49, 50, 51, 52, 53, 54, 55, 56, 57, 58, 59, 60, 61, 62, 63

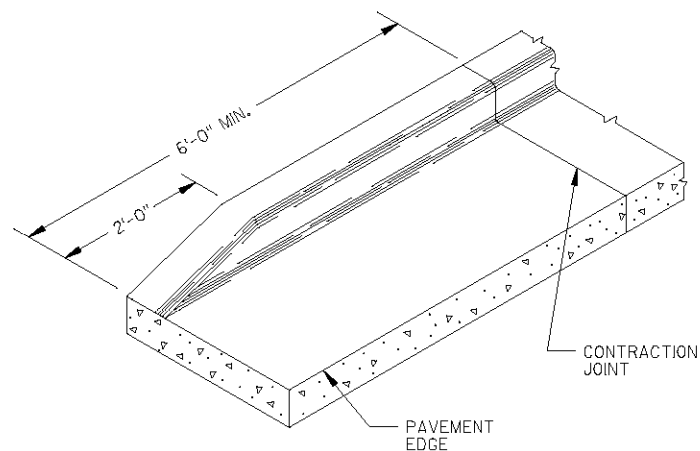


CATCH BASIN LOCATION DETAIL

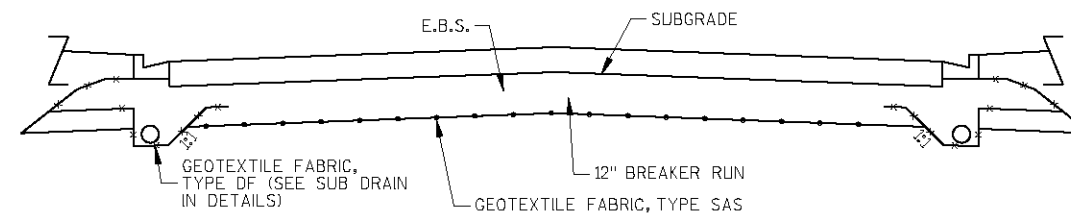


**NOTE:
END SUB DRAINS AT THIS POINT IF FLOW IS TOWARD GRAND AVENUE.
END SUB DRAINS AT INLET IF FLOW IS AWAY FROM GRAND AVENUE.
(FOLLOW CURB RADIUS)

SIDE STREET PAVEMENT TRANSITION

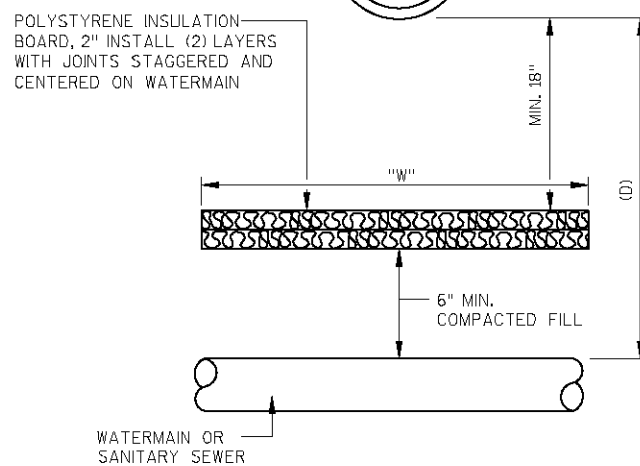
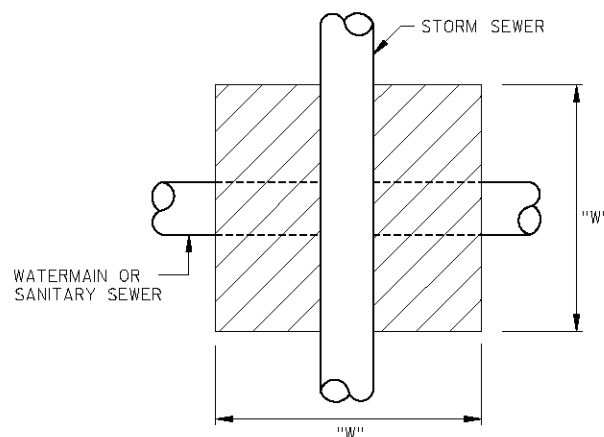


CURB END TREATMENT

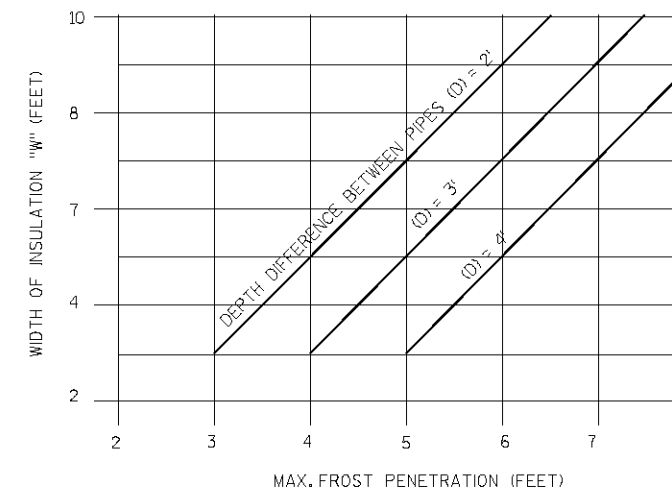


BREAKER RUN

NOTE:
SUB DRAINS SHALL BE PLACED AFTER THE PLACEMENT OF CRUSHED AGGREGATE BASE COURSE, DENSE GRADED AND PRIOR TO THE PLACEMENT OF CRUSHED AGGREGATE BASE COURSE, OPEN GRADED, TO ENSURE THE CRUSHED AGGREGATE BASE COURSE, OPEN GRADED IS DIRECTLY CONNECTED TO THE SUB DRAINS. ALL EBS WILL BE PAID AS COMMON EXCAVATION.

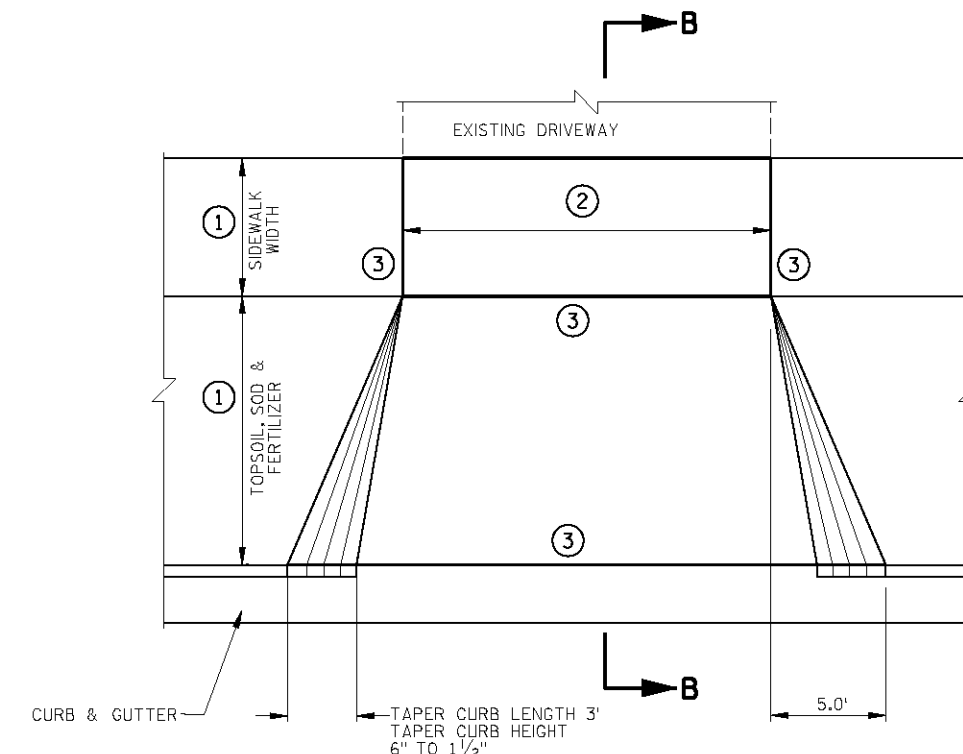
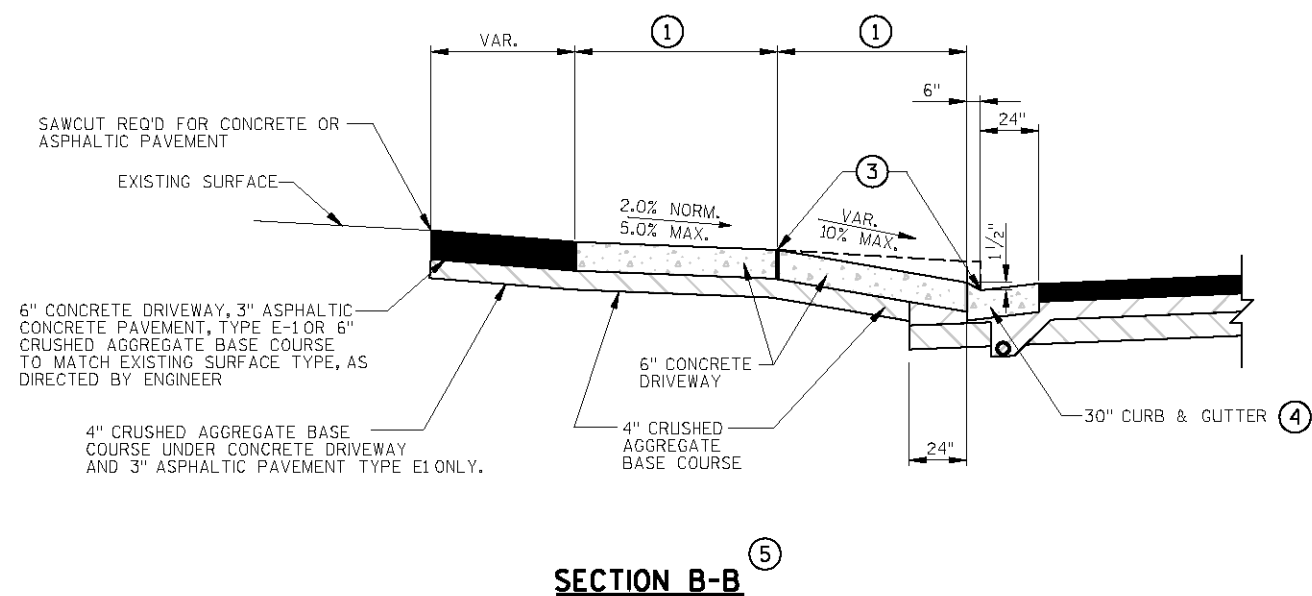


WATERMAIN OR SANITARY INSULATION DETAIL



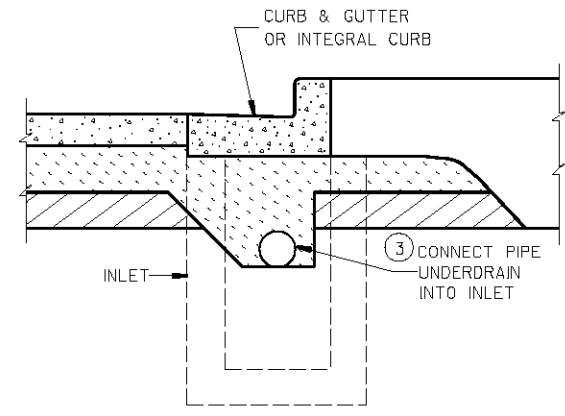
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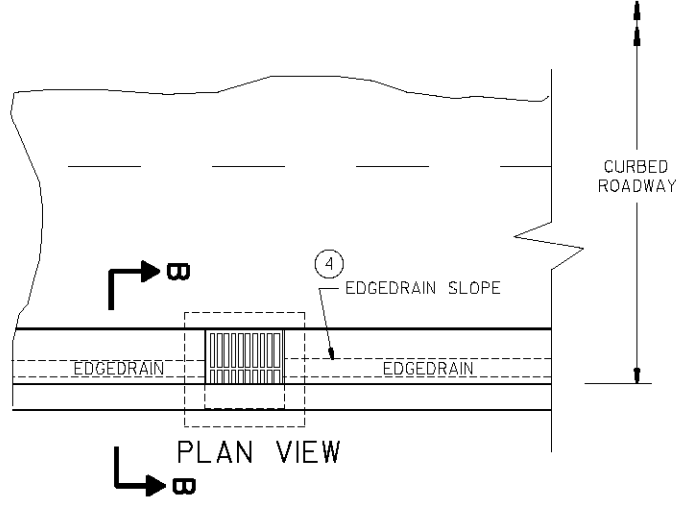


- NOTES:
- ① SEE TYPICAL SECTIONS FOR SIDEWALK AND TERRACE WIDTHS.
 - ② SEE PLAN/PROFILES FOR DRIVEWAY WIDTHS.
 - ③ 1/2" PREFORMED EXPANSION FILLER BETWEEN CURB AND NEW SIDEWALK AND BETWEEN NEW SIDEWALK AND EXISTING SIDEWALK AND EXISTING CONCRETE DRIVEWAY.
 - ④ SEE TYPICAL SECTIONS FOR CURB TYPE.
 - ⑤ SEE TYPICAL SECTIONS FOR PLACEMENT OF GEOTEXTILE FABRIC.

LEVELS ON = 1, 2, 3, 4, 5, 6, 7, 8, 9, 10, 11, 12, 13, 14, 15, 16, 17, 18, 19, 20, 21, 22, 23, 24, 25, 26, 27, 28, 29, 30, 31, 32, 33, 34, 35, 36, 37, 38, 39, 40, 41, 42, 43, 44, 45, 46, 47, 48, 49, 50, 51, 52, 53, 54, 55, 56, 57, 58, 59, 60, 61, 62, 63



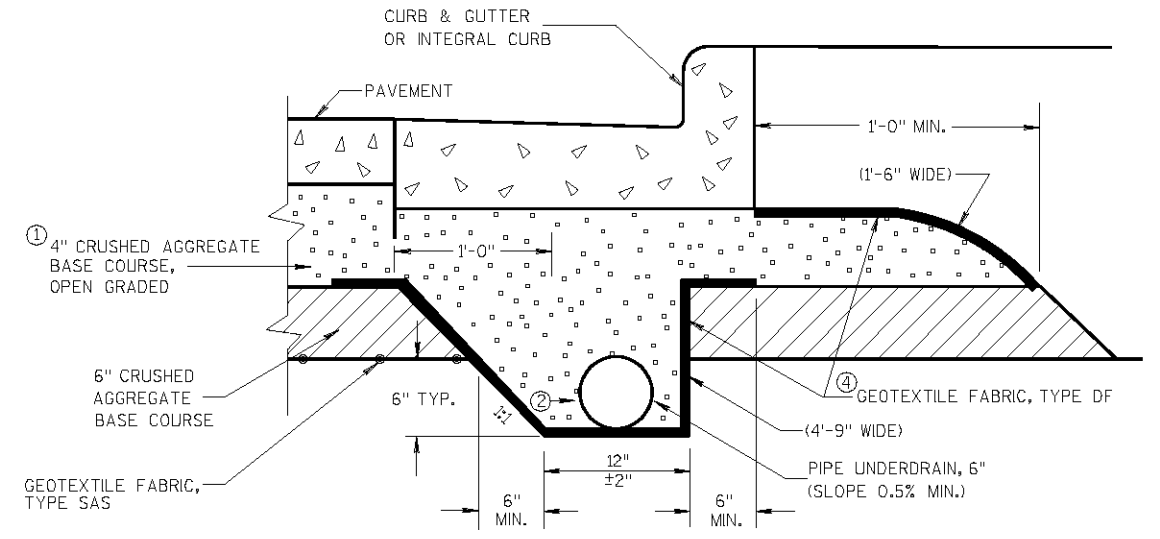
SECTION B-B
URBAN CROSS SECTION



ROADWAY WITH CURBS
(EDGEDRAIN CONNECTS INTO INLET STRUCTURES)
THIS CONNECTION IS INCIDENTAL TO PLACEMENT OF THE STRUCTURE.

NOTES

- THE DIMENSIONS SHOWN ON THE TYPICAL CROSS SECTIONS WILL GOVERN IN THE EVENT THERE IS A CONFLICT WITH THE DETAILS SHOWN ON THIS DRAWING.
- PIPE UNDERDRAIN SHALL BE LAID PARALLEL TO THE GRADE OF THE ROADWAY.
- ① THE GRADATION OF THE OPEN GRADED BASE COURSE SHALL BE EITHER NO. 1 OR NO. 2 AS SPECIFIED ELSEWHERE IN THE CONTRACT.
 - ② TRENCH BACKFILL WILL BE PAID FOR AS CRUSHED AGGREGATE BASE COURSE, OPEN GRADED NO. 1 OR NO. 2 AS SPECIFIED.
 - ③ FOLD OVER EXCESS GEOTEXTILE FABRIC AT THIS LOCATION.
 - ④ TOTAL FABRIC WIDTH IS 6'-3" FOR PAYMENT.



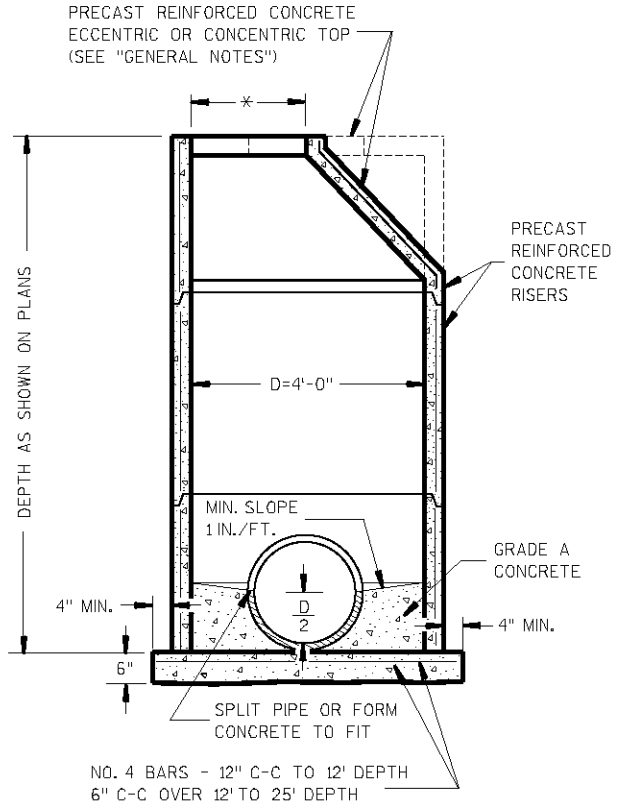
EDGEDRAIN IN URBAN ROADWAY

GENERAL NOTES

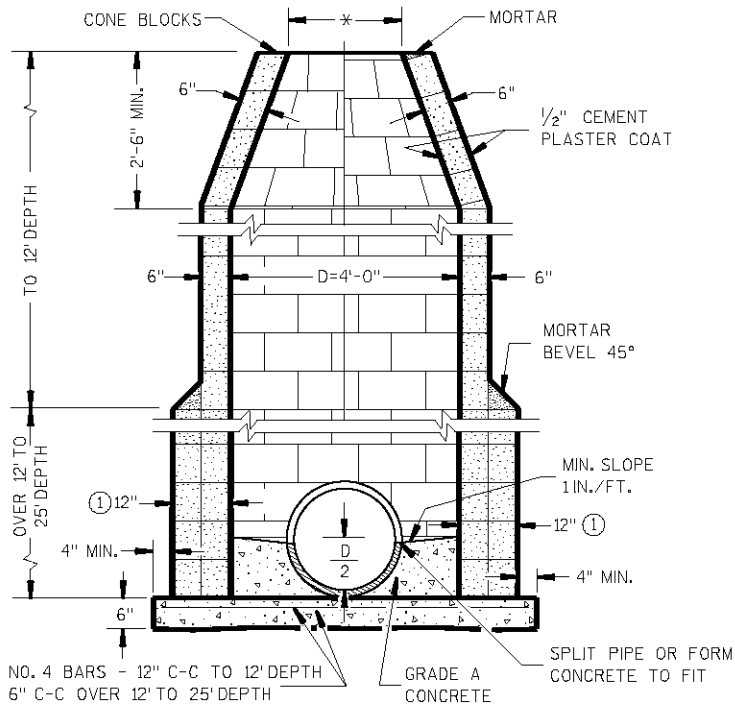
DETAILS OF CONSTRUCTION, MATERIALS AND WORKMANSHIP NOT SHOWN ON THIS DRAWING SHALL CONFORM TO THE PERTINENT REQUIREMENTS OF THE STANDARD SPECIFICATIONS AND THE APPLICABLE SPECIAL PROVISIONS.

- ① UNPERFORATED PIPE UNDERDRAIN AND FITTINGS FURNISHED FOR OUTFALL PIPE SHALL MEET THE REQUIREMENTS OF ONE OF THE FOLLOWING SPECIFICATIONS:
 POLYVINYL CHLORIDE (PVC) PLASTIC DRAIN, WASTE, AND VENT PIPE AND FITTINGS, ASTM D 2665, SCHEDULE 40 PVC.
 TYPE PSM POLYVINYL CHLORIDE (PVC) SEWER PIPE AND FITTINGS, ASTM D 3034, SDR 23.5 PVC SEWER PIPE.
- ② EDGEDRAIN SHALL BE CONNECTED TO INLETS REGARDLESS OF FLOW DIRECTION FOR DRAINAGE AND MAINTENANCE ACCESS.
- ③ EDGEDRAIN SHALL BE LAID PARALLEL TO THE GRADE OF ROADWAY, EXCEPT IN SPECIAL CIRCUMSTANCES AS DIRECTED BY THE ENGINEER IN THE FIELD.

LEVELS ON = 1, 2, 3, 4, 5, 6, 7, 8, 9, 10, 11, 12, 13, 14, 15, 16, 17, 18, 19, 20, 21, 22, 23, 24, 25, 26, 27, 28, 29, 30, 31, 32, 33, 34, 35, 36, 37, 38, 39, 40, 41, 42, 43, 44, 45, 46, 47, 48, 49, 50, 51, 52, 53, 54, 55, 56, 57, 58, 59, 60, 61, 62, 63

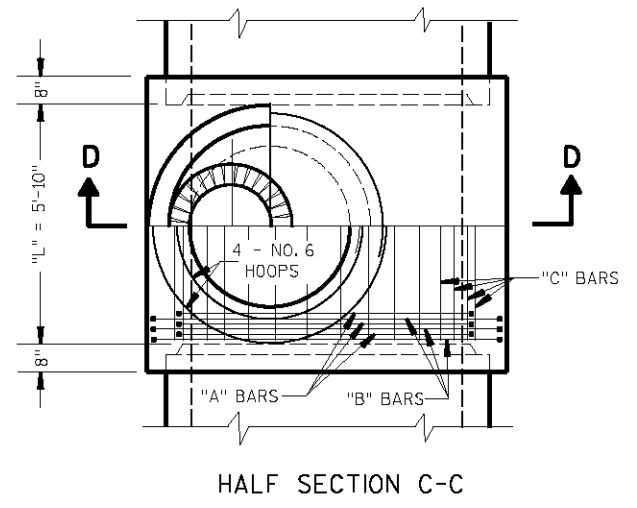


PRECAST REINFORCED CONCRETE

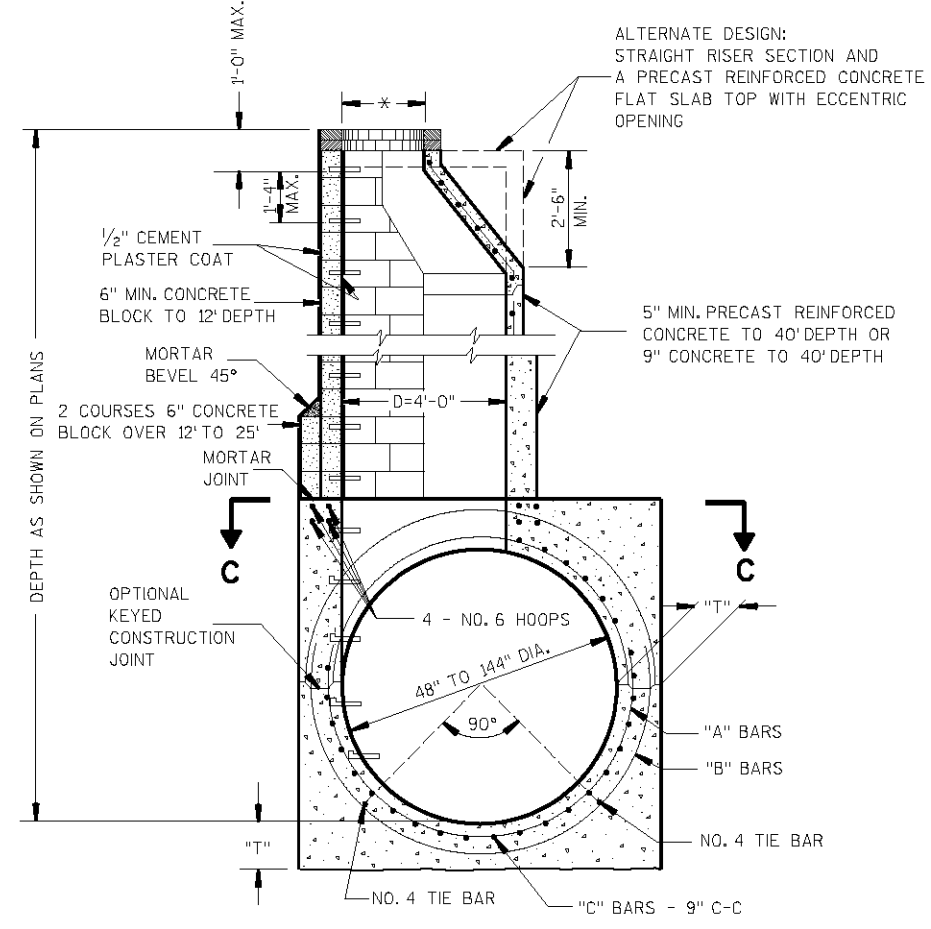


CONCRETE BLOCK

MANHOLES TYPE 1



HALF SECTION C-C



SECTION D-D

MANHOLE TYPE 5

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.

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 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; AND BE CAPABLE OF SUPPORTING A CONCENTRATED LOAD OF 300 LBS. FERROUS METAL STEPS NOT PAINTED OR TREATED TO RESIST CORROSION SHALL HAVE A MINIMUM CROSS SECTIONAL DIMENSION OF 1 INCH.

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. STEPS OF APPROVED POLYPROPYLENE PLASTIC COATED REINFORCEMENT BAR ARE ACCEPTABLE.

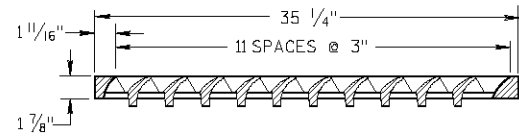
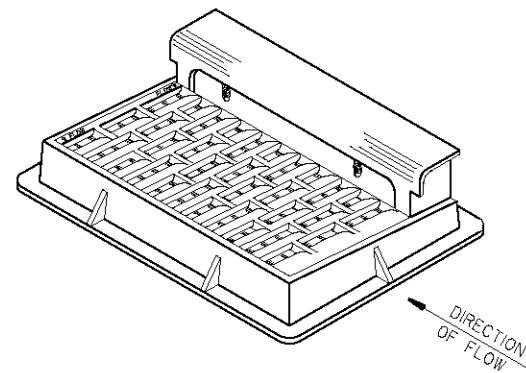
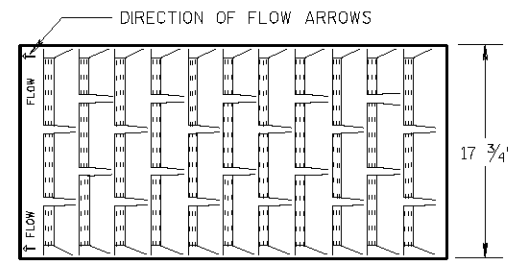
ALL BAR STEEL REINFORCEMENT SHALL BE EMBEDDED 2 INCHES CLEAR UNLESS OTHERWISE SHOWN OR NOTED.

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

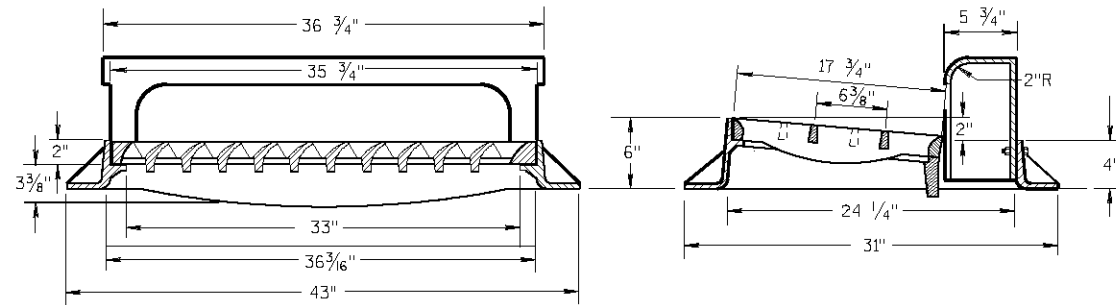
ALL PRECAST INLET UNITS SHALL CONFORM TO THE PERTINENT REQUIREMENTS OF AASHTO DESIGNATION M 199.

- * 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.

NOTE:
GRATE IS REVERSIBLE.

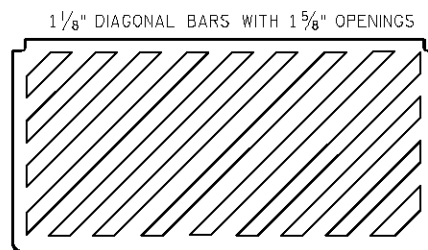


NOTE: CURB BOX HEIGHT ADJUSTABLE 6" TO 9"



TYPE "H"

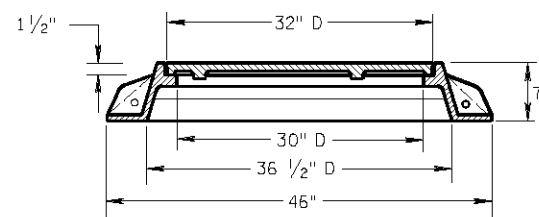
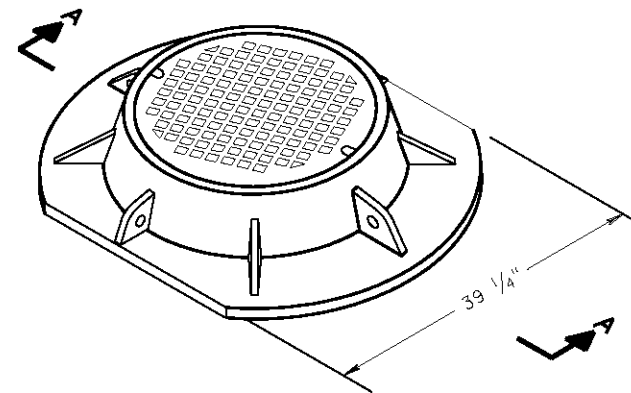
(APPROXIMATE WEIGHT 422 LBS.)
 FRAME..... 175 LBS.
 GRATE..... 138 LBS.
 CURB BOX..... 109 LBS.



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

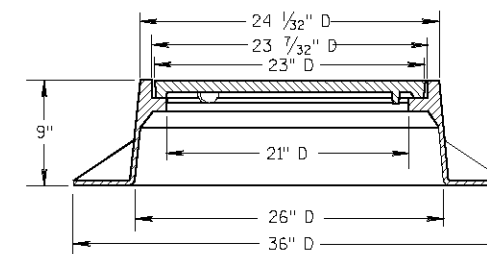
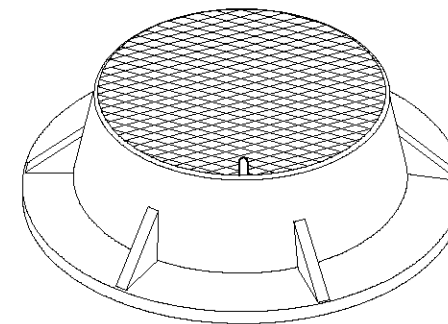
(MEASURES 35 1/4" X 17 3/4" X 2")
 (APPROXIMATE WEIGHT 172 LBS.)
 GRATE..... 172 LBS.

(NOTED AS TYPE H-S ON DRAINAGE TABLE)



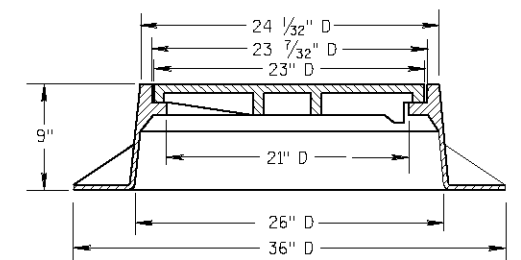
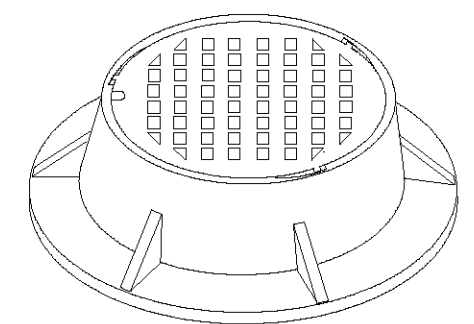
**SECTION A-A
TYPE "K"**

(APPROXIMATE WEIGHT 415 LBS.)
 FRAME..... 210 LBS.
 LID..... 205 LBS.



TYPE "J"

(APPROXIMATE WEIGHT 250 LBS.)
 FRAME..... 135 LBS.
 LID..... 115 LBS.



TYPE "J" SPECIAL

TYPE "B" NON-ROCKING SELF-SEAL LID
 (APPROXIMATE WEIGHT 245 LBS.)
 FRAME..... 145 LBS.
 LID..... 100 LBS.
 (NOTED AS TYPE J-S ON THE DRAINAGE TABLE)

GENERAL NOTES

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

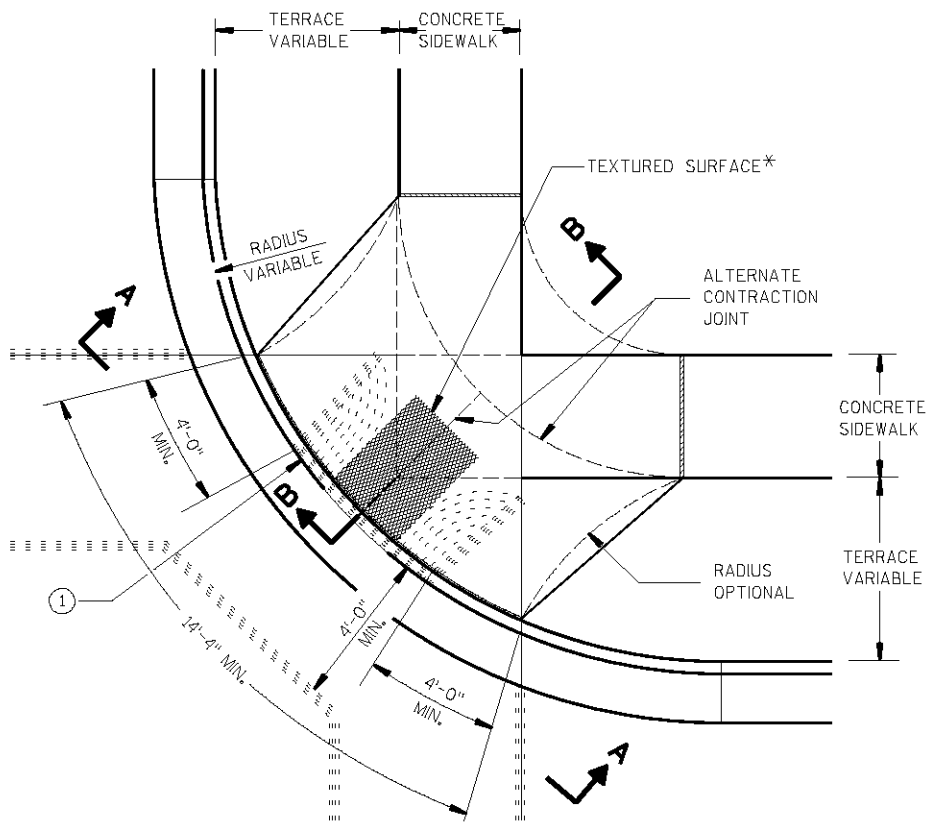
DETAIL DRAWINGS FOR PROPOSED ALTERNATE DESIGNS FOR CATCH BASIN, MANHOLE AND INLET COVERS SHALL BE SUBMITTED TO THE ENGINEER FOR APPROVAL PROVIDING THAT SUCH ALTERNATE DESIGNS MAKE PROVISION FOR EQUIVALENT CAPACITY AND STRENGTH.

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.

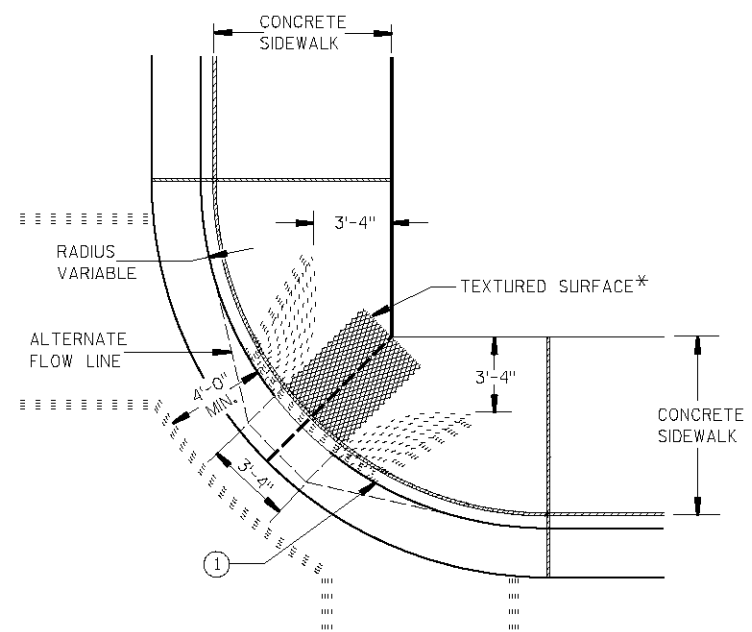
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LEVELS ON = 1,2,3,4,5,6,7,8,9,10,11,12,13,14,15,16,17,18,19,20,21,22,23,24,25,26,27,28,29,30,31,32,33,34,35,36,37,38,39,40,41,42,43,44,45,46,47,48,49,50,51,52,53,54,55,56,57,58,59,60,61,62,63

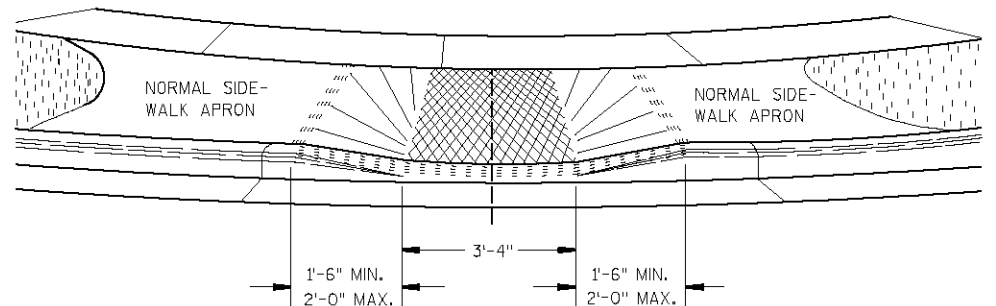


**PLAN VIEW
TYPE 1 RAMP**
(CENTER OF CORNER RADIUS)

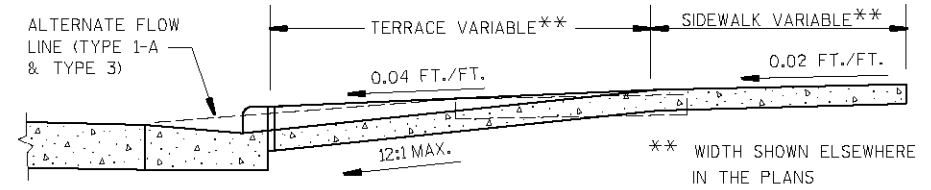
1/2" ——— EXPANSION JOINT-SIDEWALK
 - - - - - CONTRACTION JOINT
 LOCATION OF JOINTS MAY BE VARIED FROM THOSE SHOWN TO BETTER FIT SITE CONDITIONS AND/OR LOCAL GOVERNMENT PREFERENCE.



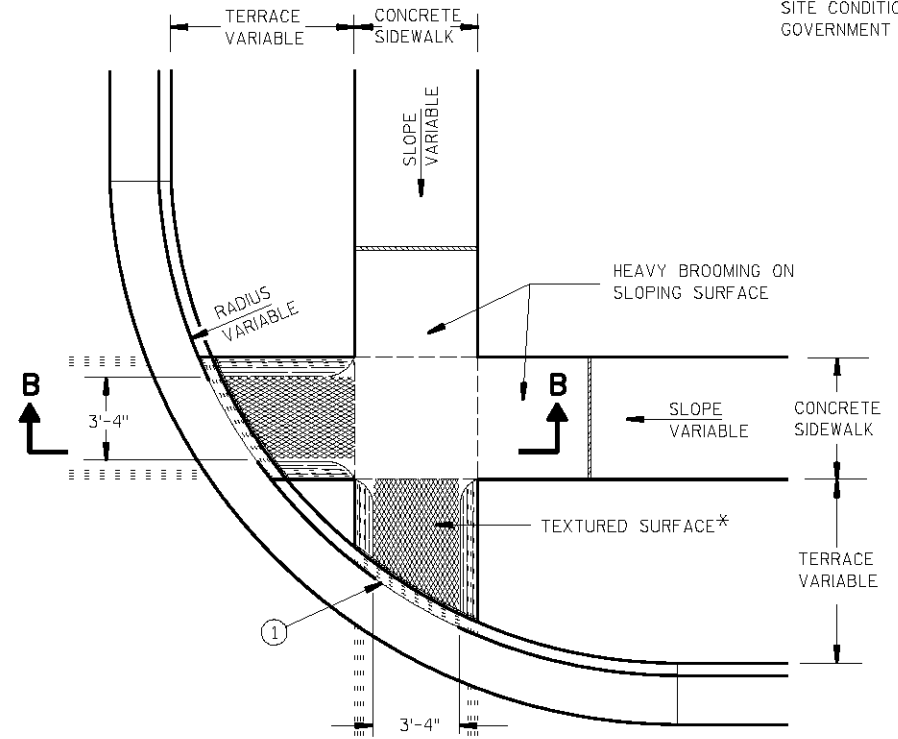
**PLAN VIEW
TYPE 1-A RAMP**
(NO TERRACE)



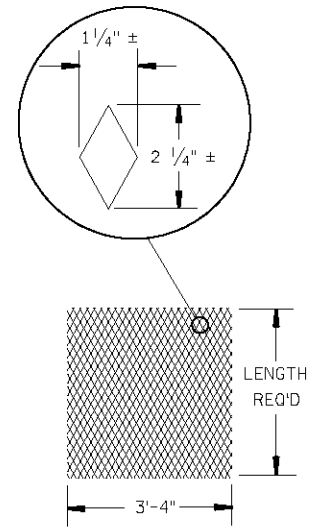
VIEW A-A



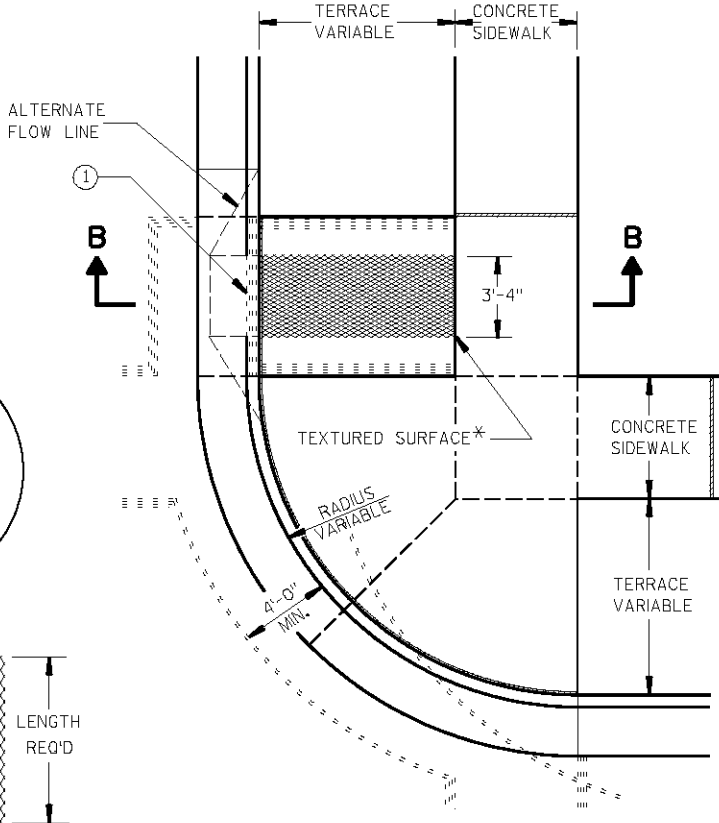
SECTION B-B



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



DETAIL OF DIAMOND PATTERN*

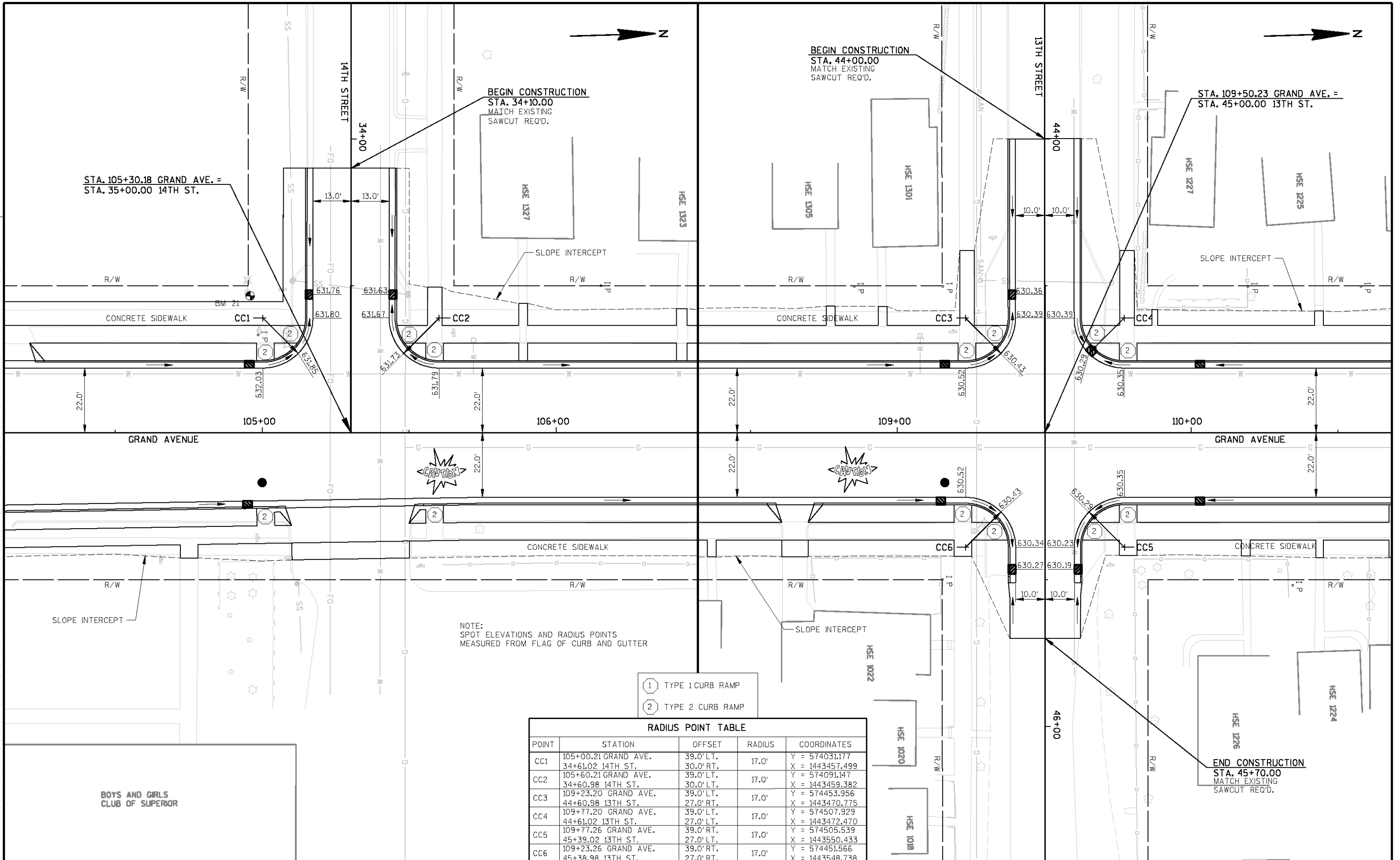


**PLAN VIEW
TYPE 3 RAMP**
(OUTSIDE OF CROSSWALK AREA)

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 12:1 OR FLATTER. WHEN NECESSARY, THE SIDEWALK ELEVATION MAY BE LOWERED TO MEET THE HIGH POINT ON THE RAMP.
- TYPE 1 OR TYPE 1-A RAMPS SHALL HAVE A NORMAL SIDEWALK APRON AND CURB ON BOTH SIDES OF RAMP.
- CURB RAMPS SHALL BE MEASURED AND PAID FOR AS CONCRETE SIDEWALK AND CONCRETE CURB AND GUTTER.
- SURFACE TEXTURING SHALL CONSIST OF LINEAR IMPRESSIONS APPROXIMATELY 1/4 INCH TO 3/8 INCH IN DEPTH AND WIDTH, ORIENTED TO PROVIDE A UNIFORM PATTERN OF DIAMOND SHAPES MEASURING APPROXIMATELY 1 1/4 INCHES IN WIDTH BY 2 1/4 INCHES IN LENGTH, WITH THE LENGTH BEING PARALLEL TO THE DIRECTION OF PEDESTRIAN MOVEMENT. THIS SURFACE TEXTURE MAY BE ACHIEVED BY IMPRESSING AND REMOVING A PIECE OF EXPANDED METAL REGULAR INDUSTRIAL MESH INTO THE SURFACE OF THE RAMP WHILE THE CONCRETE IS IN A PLASTIC STATE.
- ① THE RAMP SHALL BE BORDERED ON BOTH SIDES AND ON THE CURB LINE WITH A 4 INCH WIDE YELLOW PAINT STRIPE OR WITH BRICK OF A CONTRASTING COLOR. NORMALLY THE PAINT STRIPE ALTERNATE WILL BE USED. THE MUNICIPALITY OR THE DEPARTMENT WILL APPLY THIS STRIPING UNLESS OTHERWISE SPECIFIED IN THE CONTRACT.
- IF A MUNICIPALITY REQUIRES THE BRICK ALTERNATE, SPECIAL DETAILS AND PROVISIONS ARE SHOWN ELSEWHERE IN THE PLANS.

LEVELS ON = 1,2,3,4,5,6,7,8,9,10,11,12,13,14,15,16,17,18,19,20,21,22,23,24,25,26,27,28,29,30,31,32,33,34,35,36,37,38,39,40,41,42,43,44,45,46,47,48,49,50,51,52,53,54,55,56,57,58,59,60,61,62,63



NOTE:
SPOT ELEVATIONS AND RADIUS POINTS
MEASURED FROM FLAG OF CURB AND GUTTER

- ① TYPE 1 CURB RAMP
- ② TYPE 2 CURB RAMP

RADIUS POINT TABLE				
POINT	STATION	OFFSET	RADIUS	COORDINATES
CC1	105+00.21 GRAND AVE.	39.0' LT.	17.0'	Y = 574031.177
	34+61.02 14TH ST.	30.0' RT.		X = 1443457.499
CC2	105+60.21 GRAND AVE.	39.0' LT.	17.0'	Y = 574091.147
	34+60.98 14TH ST.	30.0' LT.		X = 1443459.382
CC3	109+23.20 GRAND AVE.	39.0' LT.	17.0'	Y = 574453.956
	44+60.98 13TH ST.	27.0' RT.		X = 1443470.775
CC4	109+77.20 GRAND AVE.	39.0' LT.	17.0'	Y = 574507.929
	44+61.02 13TH ST.	27.0' LT.		X = 1443472.470
CC5	109+77.26 GRAND AVE.	39.0' RT.	17.0'	Y = 574505.539
	45+39.02 13TH ST.	27.0' LT.		X = 1443550.433
CC6	109+23.26 GRAND AVE.	39.0' RT.	17.0'	Y = 574451.566
	45+38.98 13TH ST.	27.0' RT.		X = 1443548.738

SEH PROJECT NUMBER: SUPER0005.00

HWY: GRAND AVENUE

COUNTY: DOUGLAS

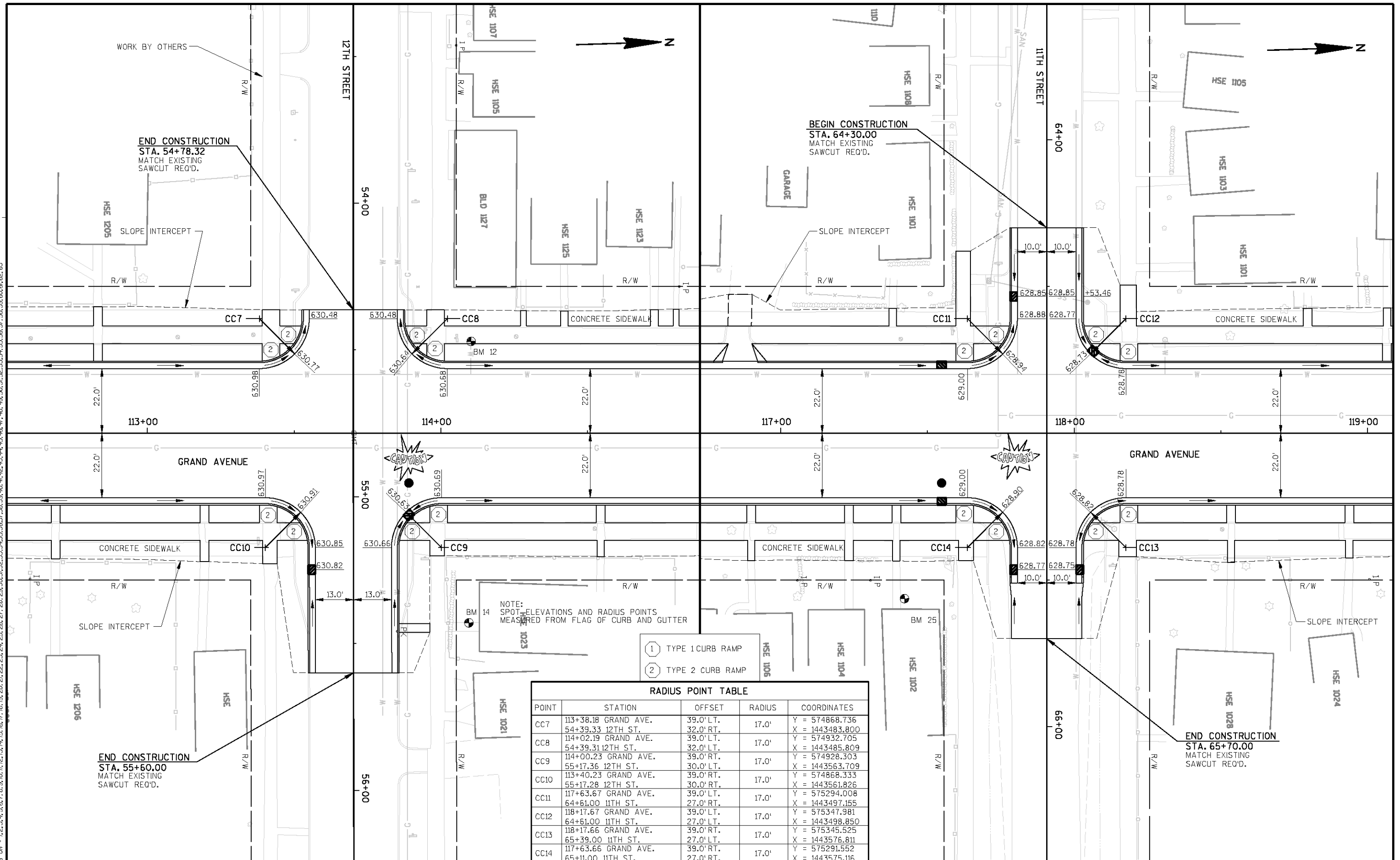
INTERSECTION DETAILS

SCALE, FEET

SHEET NO:

E

LEVELS ON = 1, 2, 3, 4, 5, 6, 7, 8, 9, 10, 11, 12, 13, 14, 15, 16, 17, 18, 19, 20, 21, 22, 23, 24, 25, 26, 27, 28, 29, 30, 31, 32, 33, 34, 35, 36, 37, 38, 39, 40, 41, 42, 43, 44, 45, 46, 47, 48, 49, 50, 51, 52, 53, 54, 55, 56, 57, 58, 59, 60, 61, 62, 63



- ① TYPE 1 CURB RAMP
- ② TYPE 2 CURB RAMP

RADIUS POINT TABLE				
POINT	STATION	OFFSET	RADIUS	COORDINATES
CC7	113+38.18 GRAND AVE. 54+39.33 12TH ST.	39.0' LT. 32.0' RT.	17.0'	Y = 574868.736 X = 1443483.800
CC8	114+02.19 GRAND AVE. 54+39.31 12TH ST.	39.0' LT. 32.0' LT.	17.0'	Y = 574932.705 X = 1443485.809
CC9	114+00.23 GRAND AVE. 55+17.36 12TH ST.	39.0' RT. 30.0' LT.	17.0'	Y = 574928.303 X = 1443563.709
CC10	113+40.23 GRAND AVE. 55+17.28 12TH ST.	39.0' RT. 30.0' RT.	17.0'	Y = 574868.333 X = 1443561.826
CC11	117+63.67 GRAND AVE. 64+61.00 11TH ST.	39.0' LT. 27.0' RT.	17.0'	Y = 575294.008 X = 1443497.155
CC12	118+17.67 GRAND AVE. 64+61.00 11TH ST.	39.0' LT. 27.0' LT.	17.0'	Y = 575347.981 X = 1443498.850
CC13	118+17.66 GRAND AVE. 65+39.00 11TH ST.	39.0' RT. 27.0' LT.	17.0'	Y = 575345.525 X = 1443576.811
CC14	117+63.66 GRAND AVE. 65+11.00 11TH ST.	39.0' RT. 27.0' RT.	17.0'	Y = 575291.552 X = 1443575.116

SEH PROJECT NUMBER: SUPER0005.00

HWY: GRAND AVENUE

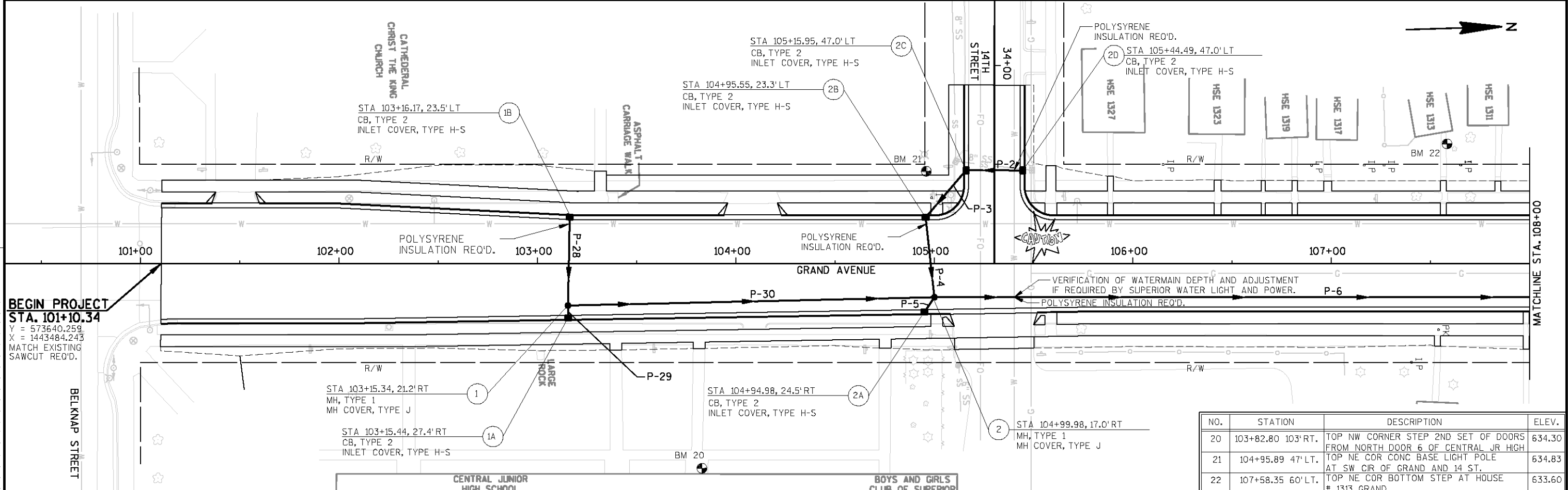
COUNTY: DOUGLAS

INTERSECTION DETAILS

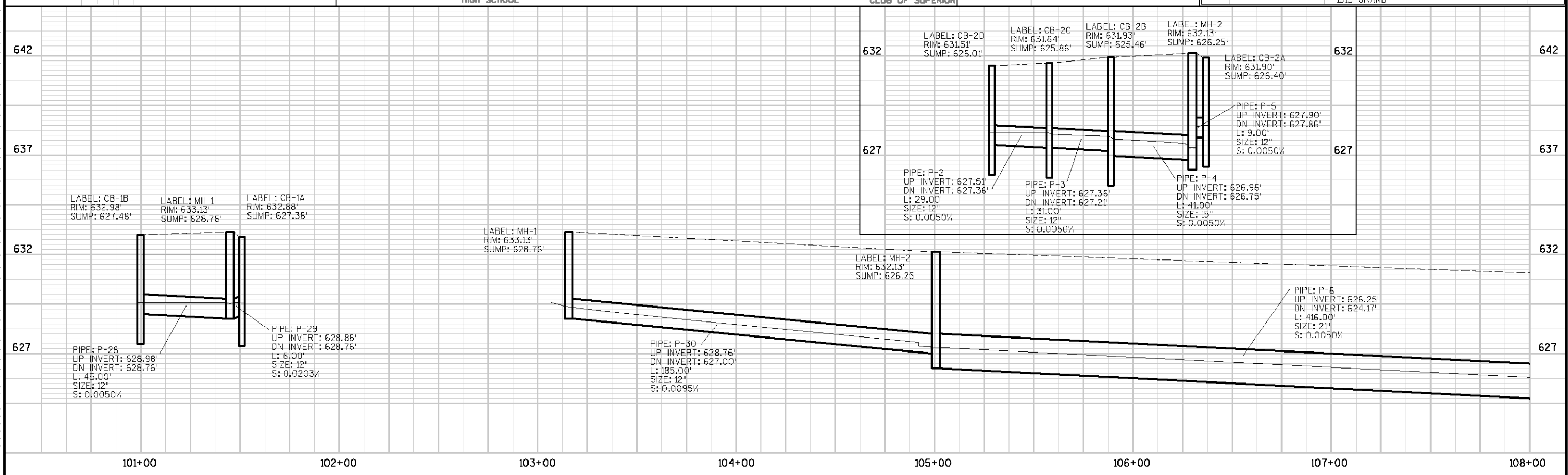
SCALE, FEET

SHEET NO:

E

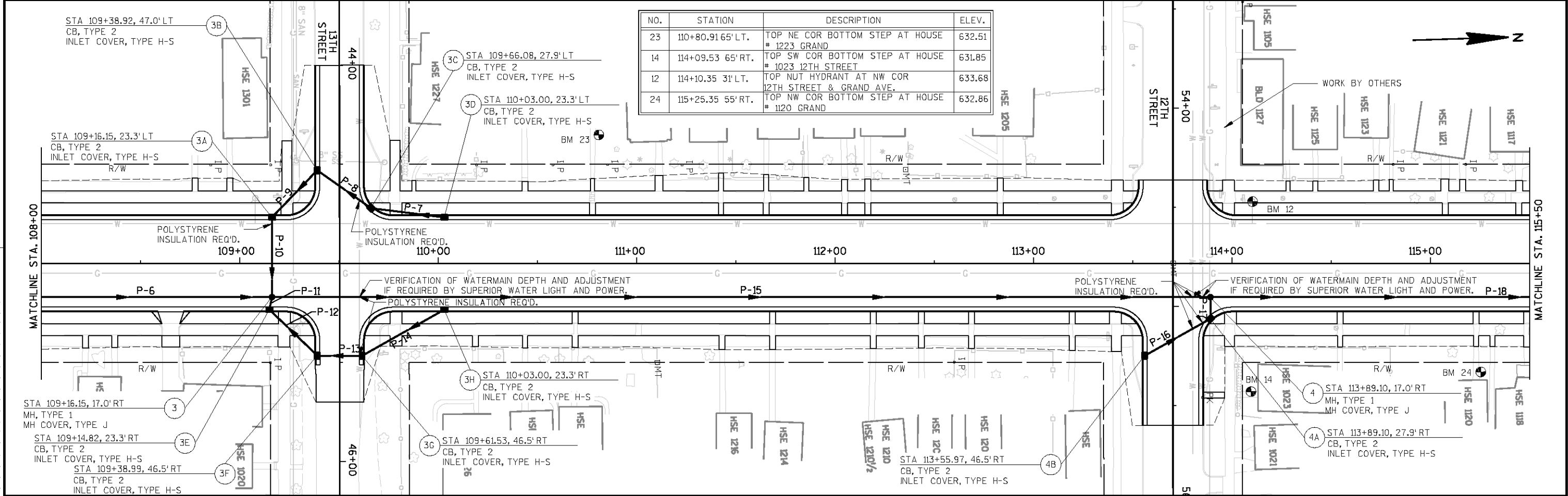


NO.	STATION	DESCRIPTION	ELEV.
20	103+82.80 103' RT.	TOP NW CORNER STEP 2ND SET OF DOORS FROM NORTH DOOR 6 OF CENTRAL JR HIGH	634.30
21	104+95.89 47' LT.	TOP NE COR CONC BASE LIGHT POLE AT SW COR OF GRAND AND 14 ST.	634.83
22	107+58.35 60' LT.	TOP NE COR BOTTOM STEP AT HOUSE # 1313 GRAND	633.60

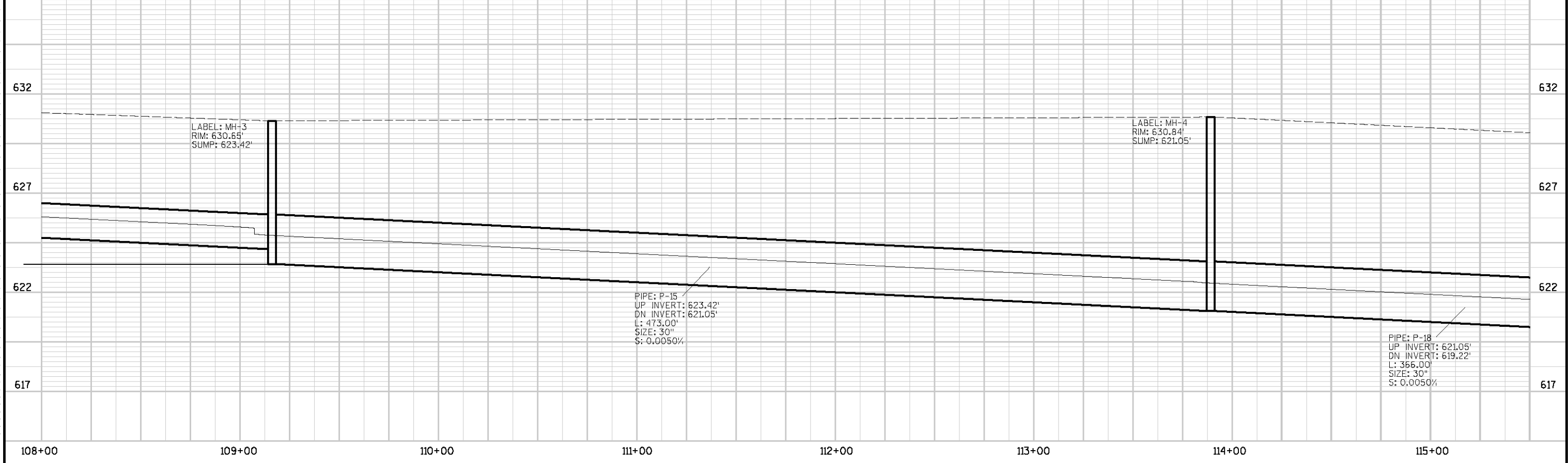


SEH PROJECT NUMBER: SUPER0005.00 HWY: GRAND AVENUE COUNTY: DOUGLAS STORM SEWER SCALE, FEET 0 25 50 SHEET NO: E

LEVELS ON = 1, 2, 3, 4, 5, 6, 7, 8, 9, 10, 11, 12, 13, 14, 15, 16, 17, 18, 19, 20, 21, 22, 23, 24, 25, 26, 27, 28, 29, 30, 31, 32, 33, 34, 35, 36, 37, 38, 39, 40, 41, 42, 43, 44, 45, 46, 47, 48, 49, 50, 51, 52, 53, 54, 55, 56, 57, 58, 59, 60, 61, 62, 63

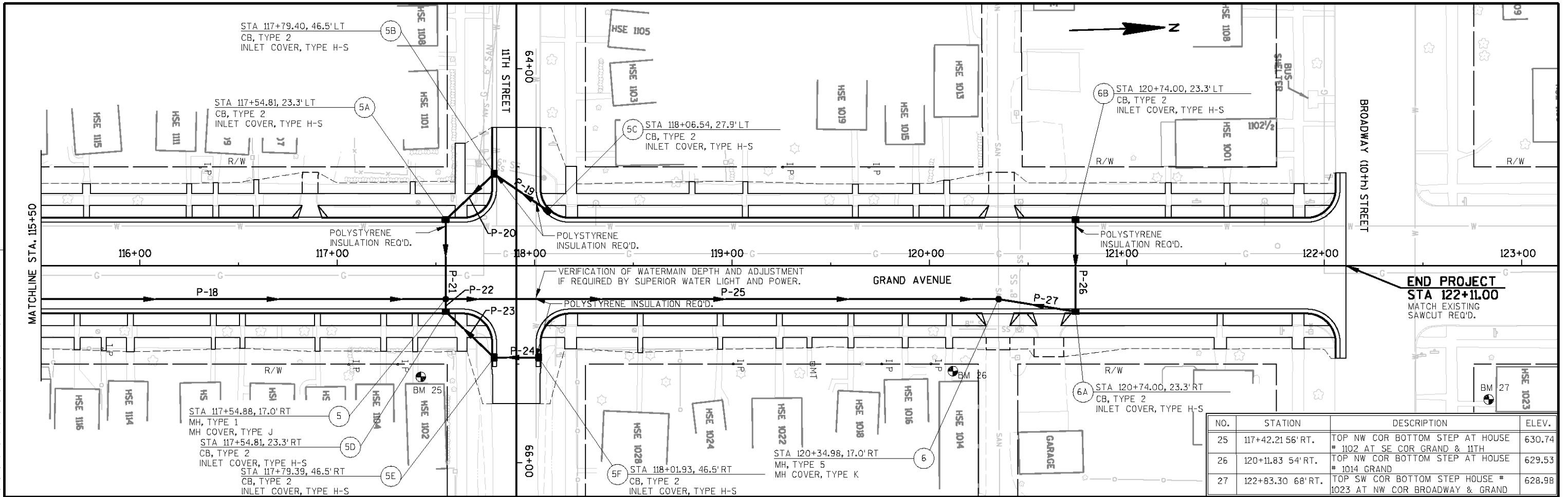


NO.	STATION	DESCRIPTION	ELEV.
23	110+80.9165' LT.	TOP NE COR BOTTOM STEP AT HOUSE # 1223 GRAND	632.51
14	114+09.53 65' RT.	TOP SW COR BOTTOM STEP AT HOUSE # 1023 12TH STREET	631.85
12	114+10.35 31' LT.	TOP NUT HYDRANT AT NW COR 12TH STREET & GRAND AVE.	633.68
24	115+25.35 55' RT.	TOP NW COR BOTTOM STEP AT HOUSE # 1120 GRAND	632.86

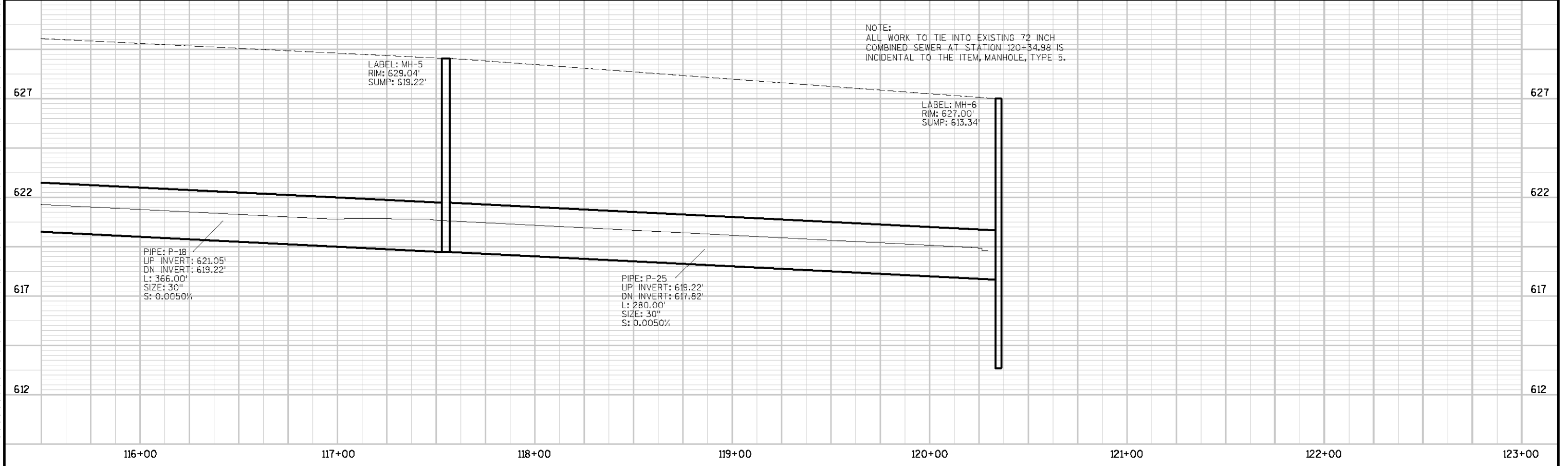


SEH PROJECT NUMBER: SUPER0005.00 HWY: GRAND AVENUE COUNTY: DOUGLAS STORM SEWER SCALE, FEET 0 25 50 SHEET NO: E

LEVELS ON = 1,2,3,4,5,6,7,8,9,10,11,12,13,14,15,16,17,18,19,20,21,22,23,24,25,26,27,28,29,30,31,32,33,34,35,36,37,38,39,40,41,42,43,44,45,46,47,48,49,50,51,52,53,54,55,56,57,58,59,60,61,62,63

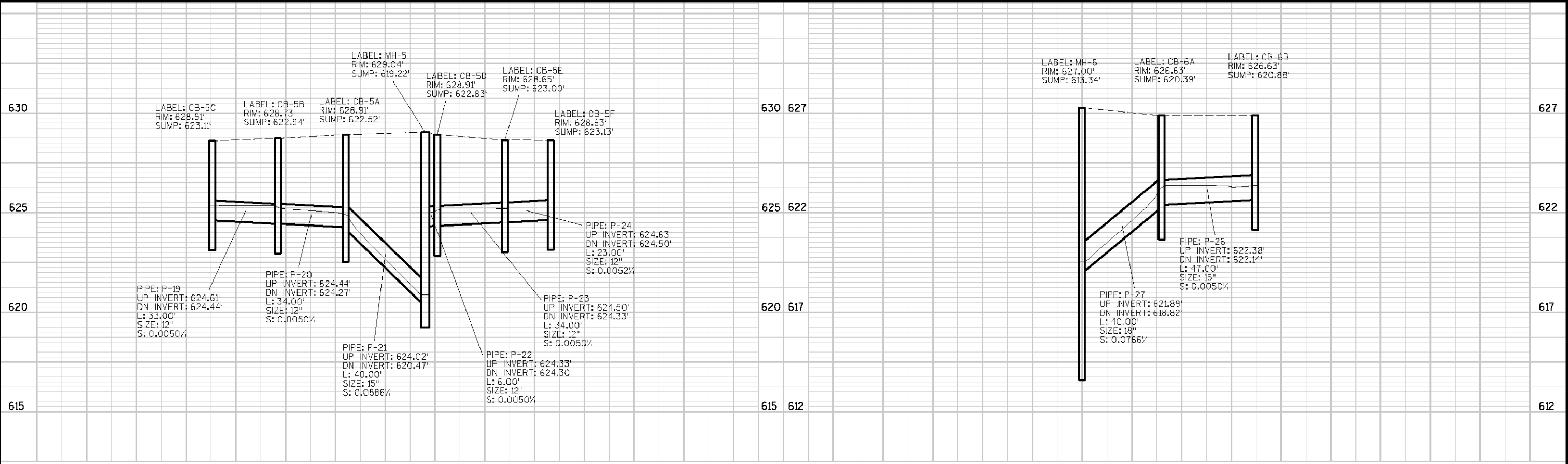
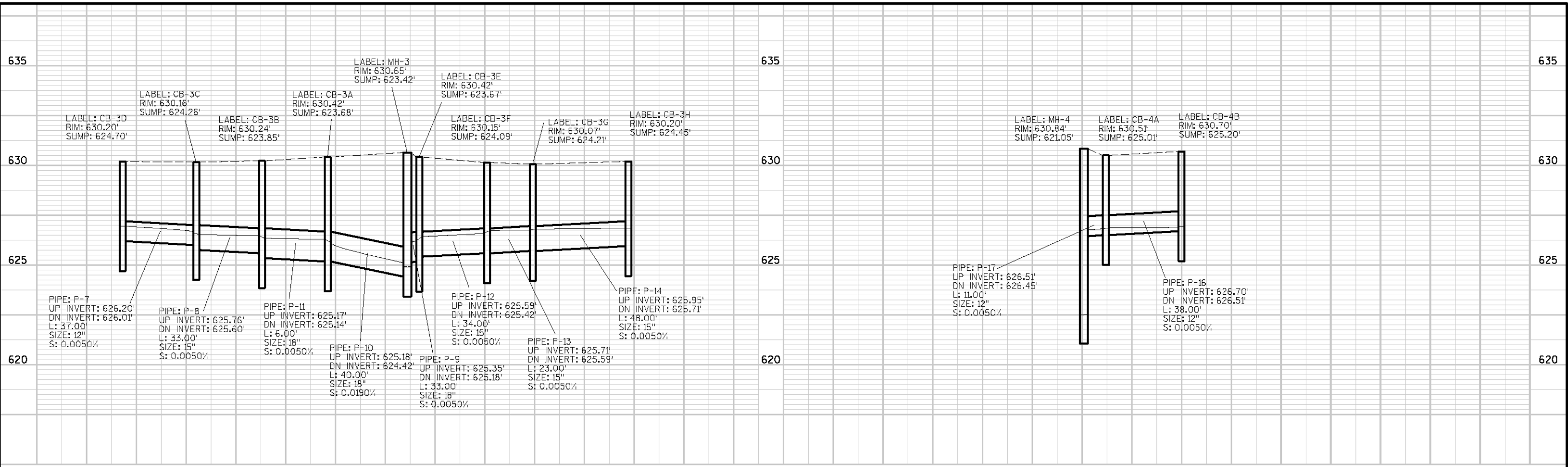


NO.	STATION	DESCRIPTION	ELEV.
25	117+42.21 56' RT.	TOP NW COR BOTTOM STEP AT HOUSE # 1102 AT SE COR GRAND & 11TH	630.74
26	120+11.83 54' RT.	TOP NW COR BOTTOM STEP AT HOUSE # 1014 GRAND	629.53
27	122+83.30 68' RT.	TOP SW COR BOTTOM STEP HOUSE # 1023 AT NW COR BROADWAY & GRAND	628.98

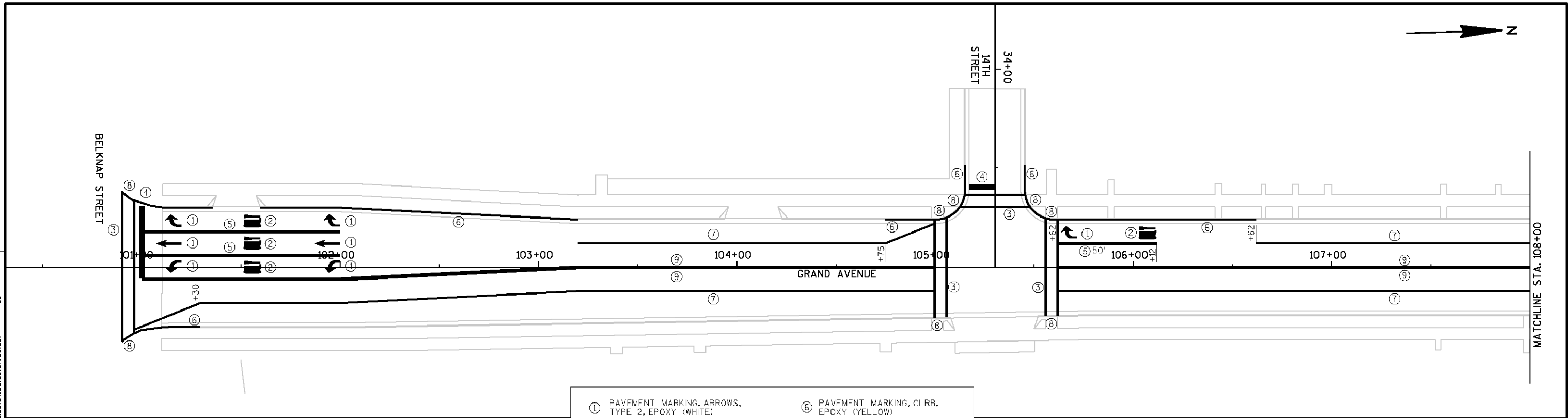


NOTE:
ALL WORK TO TIE INTO EXISTING 72 INCH COMBINED SEWER AT STATION 120+34.98 IS INCIDENTAL TO THE ITEM, MANHOLE, TYPE 5.

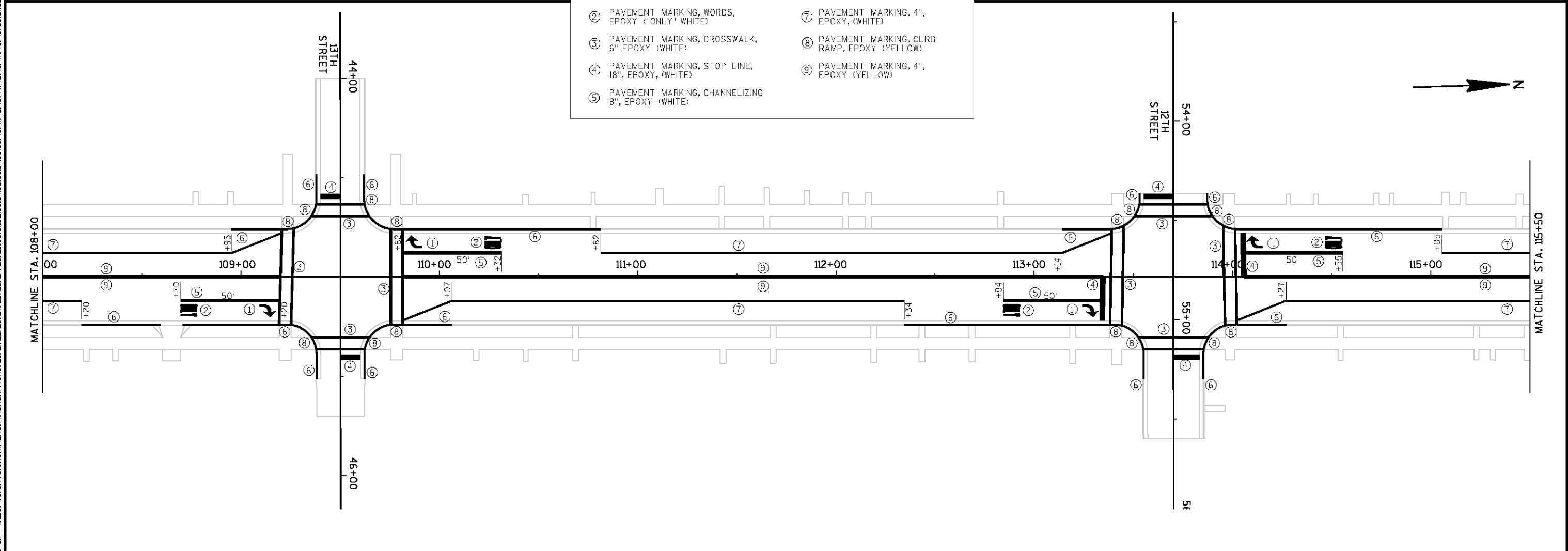
LEVELS ON = 1,2,3,4,5,6,7,8,9,10,11,12,13,14,15,16,17,18,19,20,21,22,23,24,25,26,27,28,29,30,31,32,33,34,35,36,37,38,39,40,41,42,43,44,45,46,47,48,49,50,51,52,53,54,55,56,57,58,59,60,61,62,63



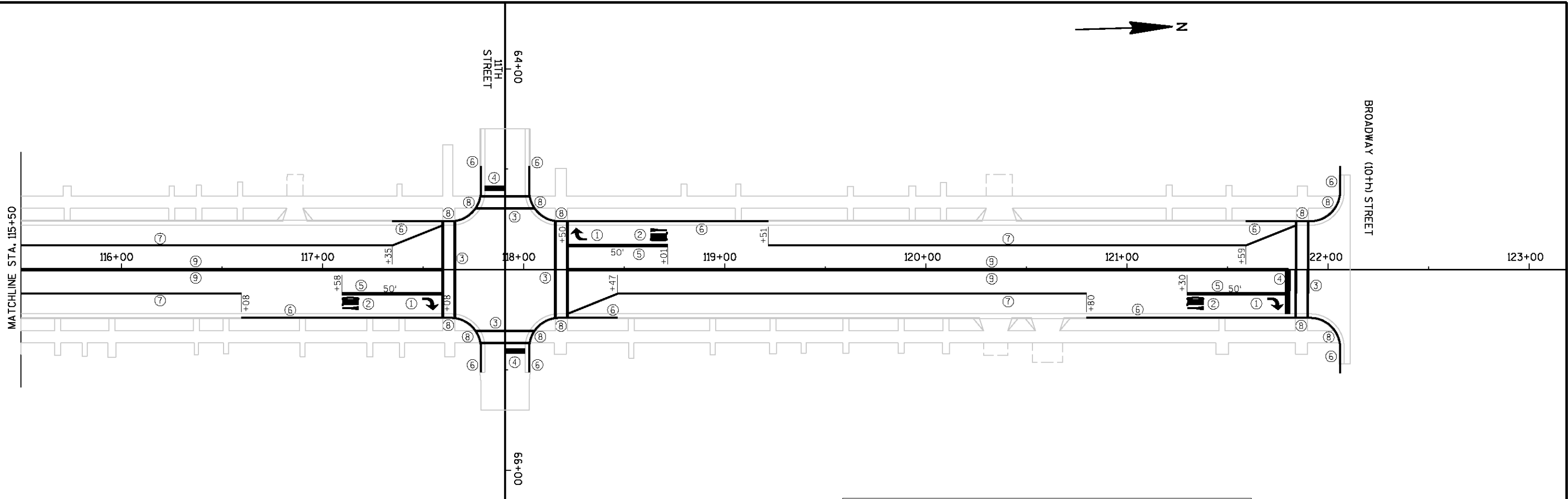
LEVELS ON = 1,2,3,4,5,6,7,8,9,10,11,12,13,14,15,16,17,18,19,20,21,22,23,24,25,26,27,28,29,30,31,32,33,34,35,36,37,38,39,40,41,42,43,44,45,46,47,48,49,50,51,52,53,54,55,56,57,58,59,60,61,62,63



- | | |
|--|---|
| ① PAVEMENT MARKING, ARROWS, TYPE 2, EPOXY (WHITE) | ⑥ PAVEMENT MARKING, CURB, EPOXY (YELLOW) |
| ② PAVEMENT MARKING, WORDS, EPOXY ("ONLY" WHITE) | ⑦ PAVEMENT MARKING, 4", EPOXY, (WHITE) |
| ③ PAVEMENT MARKING, CROSSWALK, 6" EPOXY (WHITE) | ⑧ PAVEMENT MARKING, CURB RAMP, EPOXY (YELLOW) |
| ④ PAVEMENT MARKING, STOP LINE, 18", EPOXY, (WHITE) | ⑨ PAVEMENT MARKING, 4", EPOXY (YELLOW) |
| ⑤ PAVEMENT MARKING, CHANNELIZING 8", EPOXY (WHITE) | |



LEVELS ON = 1,2,3,4,5,6,7,8,9,10,11,12,13,14,15,16,17,18,19,20,21,22,23,24,25,26,27,28,29,30,31,32,33,34,35,36,37,38,39,40,41,42,43,44,45,46,47,48,49,50,51,52,53,54,55,56,57,58,59,60,61,62,63



① PAVEMENT MARKING, ARROWS, TYPE 2, EPOXY (WHITE)	⑥ PAVEMENT MARKING, CURB, EPOXY (YELLOW)
② PAVEMENT MARKING, WORDS, EPOXY ("ONLY" WHITE)	⑦ PAVEMENT MARKING, 4", EPOXY, (WHITE)
③ PAVEMENT MARKING, CROSSWALK, 6" EPOXY (WHITE)	⑧ PAVEMENT MARKING, CURB RAMP, EPOXY (YELLOW)
④ PAVEMENT MARKING, STOP LINE, 18", EPOXY, (WHITE)	⑨ PAVEMENT MARKING, 4", EPOXY (YELLOW)
⑤ PAVEMENT MARKING, CHANNELIZING 8", EPOXY (WHITE)	

LEVELS ON = 1, 2, 3, 4, 5, 6, 7, 8, 9, 10, 11, 12, 13, 14, 15, 16, 17, 18, 19, 20, 21, 22, 23, 24, 25, 26, 27, 28, 29, 30, 31, 32, 33, 34, 35, 36, 37, 38, 39, 40, 41, 42, 43, 44, 45, 46, 47, 48, 49, 50, 51, 52, 53, 54, 55, 56, 57, 58, 59, 60, 61, 62, 63

CLEARING AND GRUBBING			
STATION TO STATION	LOCATION	(20102)	(20105)
		CLEARING I.D.	GRUBBING I.D.
GRAND AVE.			
101+10.34 - 122+11.00	LT & RT	144	144
ITEM TOTAL		144	144

REMOVING CONCRETE SIDEWALK		
STATION TO STATION	LOCATION	(20406)
		REMOVING CONCRETE SIDEWALK S.Y.
GRAND AVE.		
101+10.34 - 105+30.18	LT	262
101+10.34 - 105+30.18	RT	250
105+30.18 - 109+50.23	LT	272
105+30.18 - 109+50.23	RT	257
109+50.23 - 113+70.18	LT	274
109+50.23 - 113+70.18	RT	252
113+70.18 - 117+90.66	LT	275
113+70.18 - 117+90.66	RT	277
117+90.66 - 122+11.00	LT	274
117+90.66 - 122+11.00	RT	277
ITEM TOTAL		2670

REMOVING STORM SEWER					
STATION TO STATION	LOCATION	(20414)	(20415)	(20496)	(90030E)
		REMOVE MH EACH	REMOVE CB EACH	SEALING PIPES EACH	REMOVE SEWER PIPE L.F.
GRAND AVE.					
105+10.88	LT		1		
105+49.13	LT		1		
105+09.98 - 105+10.88	LT			1	38
105+10.88 - 105+49.13	LT				39
109+28.59	LT	1			
109+28.59	LT			1	48
109+72.88	LT	1			
109+28.29 - 109+72.88	LT				45
117+71.52	LT		1		
117+71.52 - 117+73.94	LT			1	18
117+71.52 - 118+04.57	LT				34
118+04.57	LT	1			
120+15.18 - 120+45.57	RT				30
120+45.57	RT	1			
120+45.57 - 120+46.17	LT - RT				65
120+46.17	LT	1			
ITEM TOTAL		5	3	3	316

REMOVING CURB, CURB & GUTTER			
STATION TO STATION	LOCATION	(20403)	(20405)
		REMOVE CURB L.F.	REMOVE CURB & GUTTER L.F.
GRAND AVE.			
101+10.34 - 105+30.18	LT	435	40
101+10.34 - 105+30.18	RT	406	9
105+30.18 - 109+50.23	LT	467	43
105+30.18 - 109+50.23	RT	420	0
109+50.23 - 113+70.18	LT	459	0
109+50.23 - 113+70.18	RT	441	0
113+70.18 - 117+90.66	LT	448	0
113+70.18 - 117+90.66	RT	449	0
117+90.66 - 122+11.00	LT	463	0
117+90.66 - 122+11.00	RT	453	0
ITEM TOTAL		4441	92

CRUSHED AGGREGATE BASE COURSE				
STATION TO STATION	LOCATION	CRUSHED AGGREGATE BASE COURSE		
		(30404) BASE COURSE TON	(30420) OPEN GRADED No. 2 TON	(65050) CONSTRUCTION STAKING L.F.
GRAND AVE.				
101+10.34 - 105+30.18	MATCHLINE	793	580	840
105+30.18 - 109+50.23	MATCHLINE	793	580	840
109+50.23 - 113+70.18	MATCHLINE	793	580	840
113+70.18 - 117+90.66	MATCHLINE	795	582	840
117+90.66 - 122+11.00	MATCHLINE	822	636	840
14TH STREET				
34+10.00 - 34+78.00	LT	127		136
13TH STREET				
44+00.00 - 44+78.00	LT	121		156
45+22.00 - 45+70.00	RT	77		96
12TH STREET				
54+36.32 - 54+56.32	LT	48		40
55+00.00 - 55+60.00	RT	113		120
11TH STREET				
64+30.00 - 64+78.00	LT	78		96
65+22.00 - 65+70.00	RT	77		96
ITEM TOTAL		4637	2958	4940

EARTHWORK SUMMARY				
STATION TO STATION	LOCATION	(20501)	FILL *	WASTE
		COMMON EXCAVATION C.Y.	C.Y.	C.Y.
GRAND AVE.				
101+50 - 122+00	MAINLINE	7648	115	7533
GRADING				
101+50 - 122+00	MAINLINE	571	0	571
EBS				
BROADWAY ST., 11TH ST., 12TH ST., 13TH ST., 14TH ST., BELKNAP ST.	SIDE ROADS	700	10	690
GRADING				
ITEM TOTAL		8919	125	8794

* EXPANSION FACTOR 1.3

BREAKER RUN STONE		
STATION TO STATION	LOCATION	(30426)
		BREAKER RUN STONE TON
GRAND AVE.		
101+10.34 - 122+11.00	UNDISTRIBUTED	1000
ITEM TOTAL		1000

LEVELS ON = 1, 2, 3, 4, 5, 6, 7, 8, 9, 10, 11, 12, 13, 14, 15, 16, 17, 18, 19, 20, 21, 22, 23, 24, 25, 26, 27, 28, 29, 30, 31, 32, 33, 34, 35, 36, 37, 38, 39, 40, 41, 42, 43, 44, 45, 46, 47, 48, 49, 50, 51, 52, 53, 54, 55, 56, 58, 59, 63

ASPHALTIC PAVING				
STATION TO STATION	LOCATION	(40204)	(40501)	(40722)
		ASPHALTIC MATERIAL FOR TACK COAT	ASPHALTIC MATERIAL FOR PLANT MIXES	ASPHALTIC CONCRETE PAVEMENT TYPE E-1
		GAL	TON	TON
GRAND AVE.				
101+10.34 - 105+30.18	MATCHLINE	65	34	571
105+30.18 - 109+50.23	MATCHLINE	51	27	452
109+50.23 - 113+70.18	MATCHLINE	51	27	452
113+70.18 - 117+90.66	MATCHLINE	51	27	452
117+90.66 - 122+11.00	MATCHLINE	52	28	459
14TH STREET				
34+10.00 - 34+78.00	LT	5	3	46
13TH STREET				
44+00.00 - 44+78.00	LT	5	3	41
45+22.00 - 45+70.00	RT	3	2	28
12TH STREET				
54+36.32 - 54+56.32	LT	2	1	18
55+00.00 - 55+60.00	RT	5	2	41
11TH STREET				
64+30.00 - 64+78.00	LT	3	2	27
65+22.00 - 65+70.00	RT	3	2	28
ITEM TOTAL		297	157	2615

CONCRETE DRIVEWAY		
STATION TO STATION	LOCATION	(41605)
		CONCRETE DRIVEWAY 6-INCH S.Y.
GRAND AVE.		
101+47.78	LT	35.3
104+08.35	LT	61.7
105+30.18	RT	87.2
108+65.13	RT	30.6
116+86.17	LT	33.3
120+34.70	RT	44.9
120+36.52	LT	49.7
120.60.56	RT	43.3
ITEM TOTAL		386

CONCRETE SIDEWALK		
STATION TO STATION	LOCATION	(60204)
		CONCRETE SIDEWALK 4-INCH S.F.
GRAND AVE.		
101+10.34 - 105+30.18	LT	2198
101+10.34 - 105+30.18	RT	2405
105+30.18 - 109+50.23	LT	2871
105+30.18 - 109+50.23	RT	2410
109+50.23 - 113+70.18	LT	2859
109+50.23 - 113+70.18	RT	2815
113+70.18 - 117+90.66	LT	2764
113+70.18 - 117+90.66	RT	3022
117+90.66 - 122+11.00	LT	2753
117+90.66 - 122+11.00	RT	2634
ITEM TOTAL		26731

CONCRETE CURB AND GUTTER			
STATION TO STATION	LOCATION	(60133)	(65055)
		CONCRETE CURB AND GUTTER, 30-INCH, TYPE D L.F.	CONSTRUCTION STAKING, CONCRETE CURB AND GUTTER L.F.
GRAND AVE.			
101+10.34 - 105+30.18	LT	412.6	412.6
101+10.34 - 105+30.18	RT	419.9	419.9
105+30.18 - 109+50.23	LT	408.6	408.6
105+30.18 - 109+50.23	RT	415.9	415.9
109+50.23 - 113+70.18	LT	406.5	406.5
109+50.23 - 113+70.18	RT	408.5	408.5
113+70.18 - 117+90.66	LT	407.0	407.0
113+70.18 - 117+90.66	RT	409.0	409.0
117+90.66 - 122+11.00	LT	426.9	426.9
117+90.66 - 122+11.00	RT	426.9	426.9
14TH STREET			
34+10.00 - 34+61.02	LT	51.0	51.0
34+10.00 - 34+61.02	RT	51.0	51.0
13TH STREET			
44+00.00 - 44+60.98	LT	61.0	61.0
44+00.00 - 44+60.98	RT	61.0	61.0
45+38.98 - 45+51.07	LT	12.1	12.1
45+38.98 - 45+51.07	RT	12.1	12.1
12TH STREET			
54+36.32 - 54+39.32	LT	3.0	3.0
54+36.32 - 54+39.32	RT	3.0	3.0
55+17.28 - 55+60.00	LT	42.6	42.6
55+17.28 - 55+60.00	RT	42.7	42.7
11TH STREET			
64+30.00 - 64+61.00	LT	31.0	31.0
64+30.00 - 64+61.00	RT	31.0	31.0
65+39.00 - 65+51.08	LT	12.1	12.1
65+39.00 - 65+51.08	RT	12.1	12.1
ITEM TOTAL		4568	4568

STORM SEWER															
STATION TO STATION	LOCATION	(52201)	(52202)	(52203)	(52204)	(52207)	(61102)	(61110)	(61113)	(61151)	(61152)	(61156)	(61182)	(65040)	
		RCP CL. III 12-INCH L.F.	RCP CL. III 15-INCH L.F.	RCP CL. III 18-INCH L.F.	RCP CL. III 21-INCH L.F.	RCP CL. III 30-INCH L.F.	CB, TYPE 2 EACH	MH, TYPE 1 EACH	MH, TYPE 5 EACH	MH COVERS, TYPE J EACH	MH COVERS, TYPE K EACH	INLET COVER, TYPE H-S EACH	ADJUSTING MH COVER EACH	CONSTRUCTION STAKING, STORM SEWER SYSTEM EACH	
GRAND AVE.															
101+10.34 - 122+11.00	MAINLINE	519	266	385	416	1119	24	5	1	5	1	24	1	1	
ITEM TOTAL		519	266	385	416	1119	24	5	1	5	1	24	1	1	

PIPE UNDERDRAIN		
STATION TO STATION	LOCATION	(61201)
		PIPE UNDERDRAIN 6-INCH L.F.
GRAND AVE.		
101+10.34 - 105+30.18	LT	400
101+10.34 - 105+30.18	RT	430
105+30.18 - 109+50.23	LT	383
105+30.18 - 109+50.23	RT	403
109+50.23 - 113+70.18	LT	381
109+50.23 - 113+70.18	RT	383
113+70.18 - 117+90.66	LT	382
113+70.18 - 117+90.66	RT	383
117+90.66 - 122+11.00	LT	393
117+90.66 - 122+11.00	RT	393
ITEM TOTAL		3931

DUST CONTROL SURFACE TREATMENT		
STATION TO STATION	LOCATION	(62302)
		DUST CONTROL SURFACE TREATMENT S.Y.
GRAND AVE.		
101+10.34 - 122+11.00	MAINLINE	38718
ITEM TOTAL		38718

TURF ESTABLISHMENT			
STATION TO STATION	LOCATION	(62501)	(63110)
		SALVAGED TOPSOIL S.Y.	LAWN SOD S.Y.
GRAND AVE.			
101+10.34 - 105+30.18	LT	570	570
101+10.34 - 105+30.18	RT	434	434
105+30.18 - 109+50.23	LT	525	525
105+30.18 - 109+50.23	RT	581	581
109+50.23 - 113+70.18	LT	618	618
109+50.23 - 113+70.18	RT	630	630
113+70.18 - 117+90.66	LT	515	515
113+70.18 - 117+90.66	RT	622	622
117+90.66 - 122+11.00	LT	593	593
117+90.66 - 122+11.00	RT	574	574
ITEM TOTAL		5662	5662

WATER			
STATION TO STATION	LOCATION	(62401)	(63103)
		WATER MGAL	SODDED AREAS MGAL
GRAND AVE.			
101+10.34 - 105+30.18	UNDISTRIBUTED	20	12
ITEM TOTAL		20	12

SIGNING			
STATION TO STATION	LOCATION	(63822)	(63830)
		MOVING SIGNS TYPE II EACH	REMOVING SMALL SIGN SUPPORTS EACH
GRAND AVE.			
101+10.34 - 122+11.00	MAINLINE	28	5
ITEM TOTAL		28	5

TRAFFIC CONTROL		
STATION TO STATION	LOCATION	(64301)
		TRAFFIC CONTROL EACH
GRAND AVE.		
101+10.34 - 122+11.00	MAINLINE	1
ITEM TOTAL		1

GEOTEXTILE FABRIC			
STATION TO STATION	LOCATION	(64501)	(64503)
		GEOTEXTILE FABRIC TYPE SAS S.Y.	GEOTEXTILE FABRIC TYPE DF S.Y.
GRAND AVE.			
101+10.34 - 105+30.18	LT	1073	280
101+10.34 - 105+30.18	RT	1073	280
105+30.18 - 109+50.23	LT	1074	280
105+30.18 - 109+50.23	RT	1074	280
109+50.23 - 113+70.18	LT	1073	280
109+50.23 - 113+70.18	RT	1073	280
113+70.18 - 117+90.66	LT	1075	280
113+70.18 - 117+90.66	RT	1075	280
117+90.66 - 122+11.00	LT	1074	280
117+90.66 - 122+11.00	RT	1074	280
ITEM TOTAL		10738	2800

PAVEMENT MARKING										
STATION TO STATION	LOCATION	(64602)	(64618)	(64710)	(64718)	(64730)	(64734)	(64758)	(64778)	(64782)
		PAVEMENT MARKING 4-INCH EPOXY L.F.	PAVEMENT MARKING, CHANNELIZING, 8-INCH EPOXY L.F.	PAVEMENT MARKING STOP LINE 18-INCH L.F.	PAVEMENT MARKING CROSS WALK 6-INCH L.F.	PAVEMENT MARKING ARROWS TYPE 1 EPOXY EACH	PAVEMENT MARKING ARROWS TYPE 2 EPOXY EACH	PAVEMENT MARKING WORDS (ONLY) EPOXY EACH	PAVEMENT MARKING CURB EPOXY L.F.	PAVEMENT MARKING CURB RAMP EPOXY L.F.
GRAND AVE.										
101+10.34 - 122+11.00	MAINLINE	6306	600	185	1431	2	12	11	1457	387
ITEM TOTAL		6306	600	185	1431	2	12	11	1457	387

CONSTRUCTION STAKING, SUBGRADE		
STATION TO STATION	LOCATION	(65045)
		CONSTRUCTION STAKING, SUBGRADE L.F.
GRAND AVE.		
101+10.34 - 122+11.00	MAINLINE	2101
ITEM TOTAL		2101

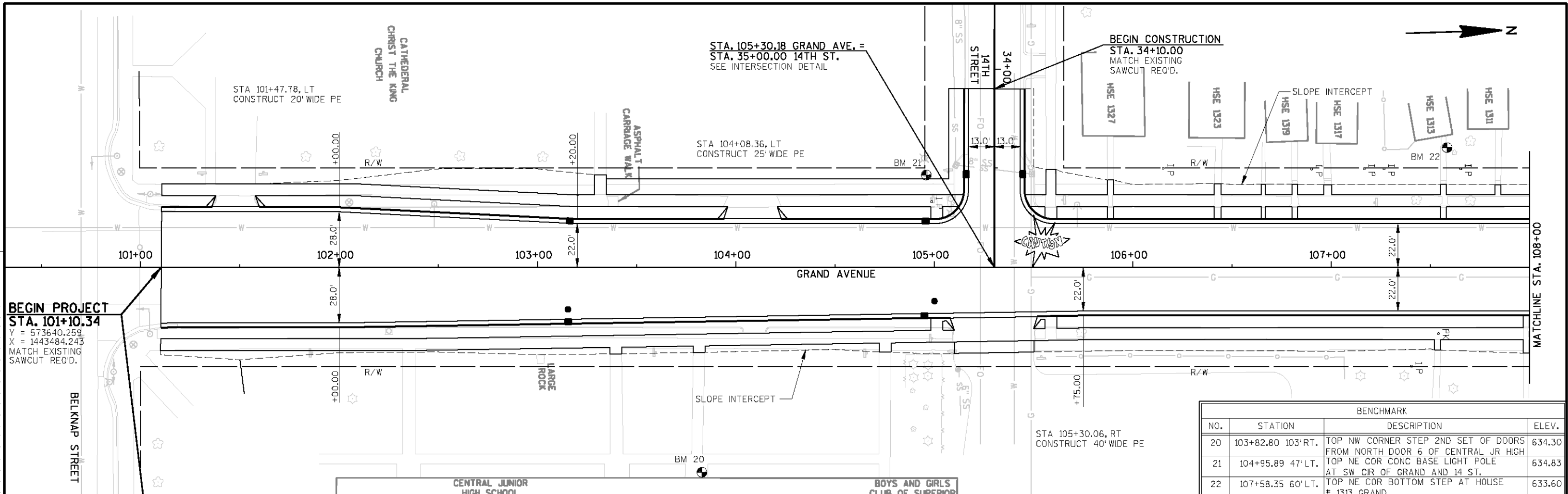
PAVEMENT SAWING		
STATION TO STATION	LOCATION	(66501)
		SAWING EXISTING PAVEMENT L.F.
GRAND AVE.		
101+10.34	BEGINNING OF PROJECT	61
105+30.18	LT	40
105+30.18	RT	31
109+50.23	LT	25
109+50.23	RT	24
113+70.18	LT	35
113+70.18	RT	31
117+90.66	LT	25
117+90.66	RT	24
122+11.00	END OF PROJECT	105
ITEM TOTAL		401

SELECTED BORROW EXCAVATION, SPECIAL		
STATION TO STATION	LOCATION	(90035)
		SELECTED BORROW SPECIAL TON
GRAND AVE.		
101+10.34 - 105+30.18	LT	54
101+10.34 - 105+30.18	RT	60
105+30.18 - 109+50.23	LT	70
105+30.18 - 109+50.23	RT	60
109+50.23 - 113+70.18	LT	70
109+50.23 - 113+70.18	RT	70
113+70.18 - 117+90.66	LT	68
113+70.18 - 117+90.66	RT	74
117+90.66 - 122+11.00	LT	68
117+90.66 - 122+11.00	RT	64
ITEM TOTAL		658

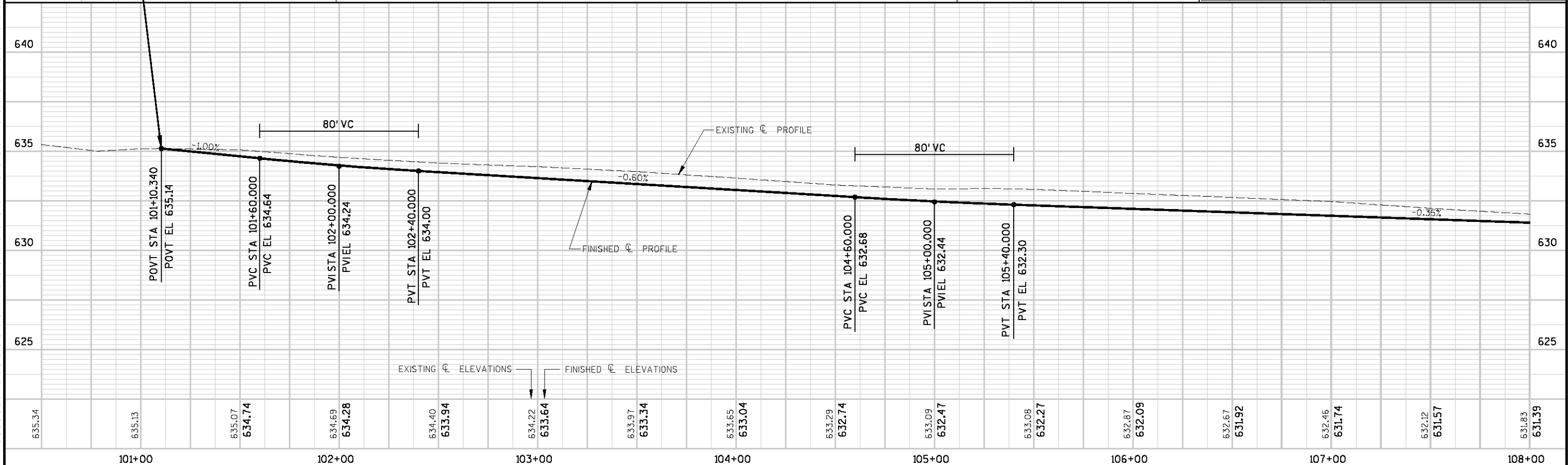
POLYSTYRENE INSULATION BOARD		
STATION TO STATION	LOCATION	(90905)
		POLYSTYRENE INSULATION BOARD, 2-INCH S.F.
GRAND AVE.		
103+16.11	20' LT	81
104+95.91	20' LT	81
105+40.17	17' RT	81
105+40.22	47' LT	81
109+16.15	20' LT	81
109+60.21	32' LT	81
109+60.24	17' RT	81
109+60.26	47' RT	81
113+80.17	17' RT	81
113+80.17	33' RT	81
113+85.17	17' RT	81
113+85.17	30' RT	81
117+54.82	20' LT	81
117+80.67	46' LT	81
118+00.65	47' RT	81
118+00.66	17' RT	81
118+00.67	32' LT	81
120+74.00	20' LT	81
ITEM TOTAL		1458

LEVELS ON = 1, 2, 3, 4, 5, 6, 7, 8, 9, 10, 11, 12, 13, 14, 15, 16, 17, 18, 19, 20, 21, 22, 23, 24, 25, 26, 27, 28, 29, 30, 31, 32, 33, 34, 35, 36, 37, 38, 39, 40, 41, 42, 43, 44, 45, 46, 47, 48, 49, 50, 51, 52, 53, 54, 55, 56, 57, 58, 59

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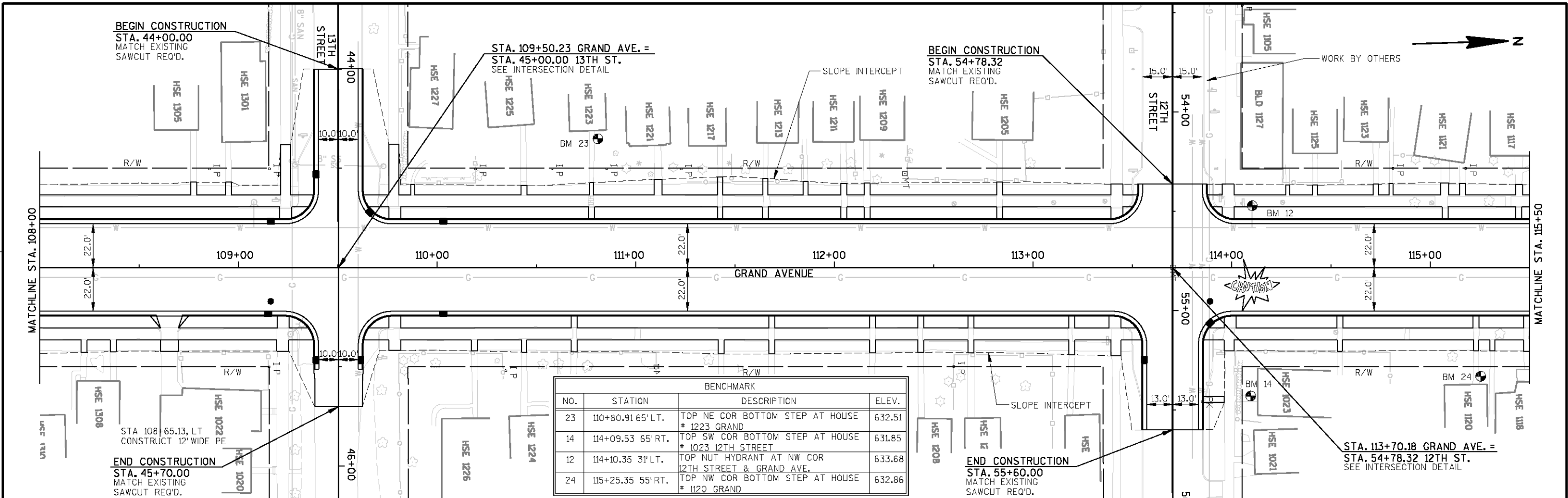
BENCHMARK			
NO.	STATION	DESCRIPTION	ELEV.
20	103+82.80 103' RT.	TOP NW CORNER STEP 2ND SET OF DOORS FROM NORTH DOOR 6 OF CENTRAL JR HIGH	634.30
21	104+95.89 47' LT.	TOP NE COR CONC BASE LIGHT POLE AT SW COR OF GRAND AND 14 ST.	634.83
22	107+58.35 60' LT.	TOP NE COR BOTTOM STEP AT HOUSE # 1313 GRAND	633.60



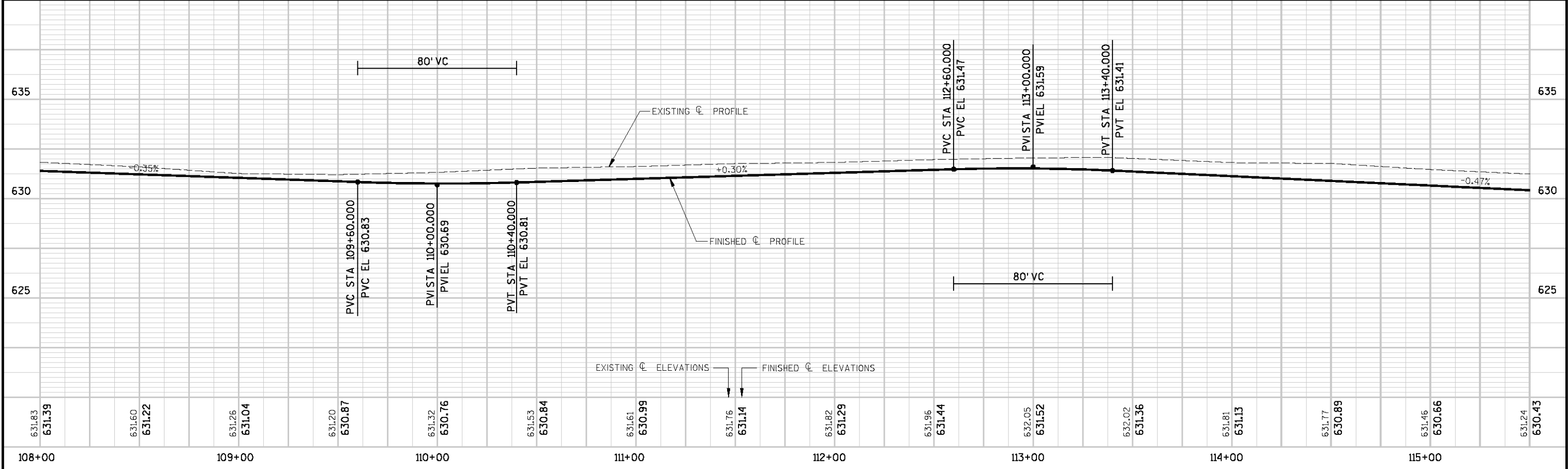
STATION	EXISTING CL ELEVATIONS	FINISHED CL ELEVATIONS
101+00	635.34	635.13
102+00	634.69 634.28	634.07 634.74
103+00	634.40 633.94	634.22 633.64
104+00	633.97 633.34	633.65 633.04
105+00	633.29 632.74	633.09 632.47
106+00	633.08 632.27	632.87 632.09
107+00	632.67 631.92	632.46 631.74
108+00	632.12 631.57	631.83 631.39

SEH PROJECT NUMBER: SUPER0005.00 HWY: GRAND AVENUE COUNTY: DOUGLAS PLAN & PROFILE SCALE, FEET 0 25 50 SHEET NO: E

LEVELS ON = 1,2,3,4,5,6,7,8,9,10,11,12,13,14,15,16,17,18,19,20,21,22,23,24,25,26,27,28,29,30,31,32,33,34,35,36,37,38,39,40,41,42,43,44,45,46,47,48,49,50,51,52,53,54,55,56,57,58,59,60,61,62,63

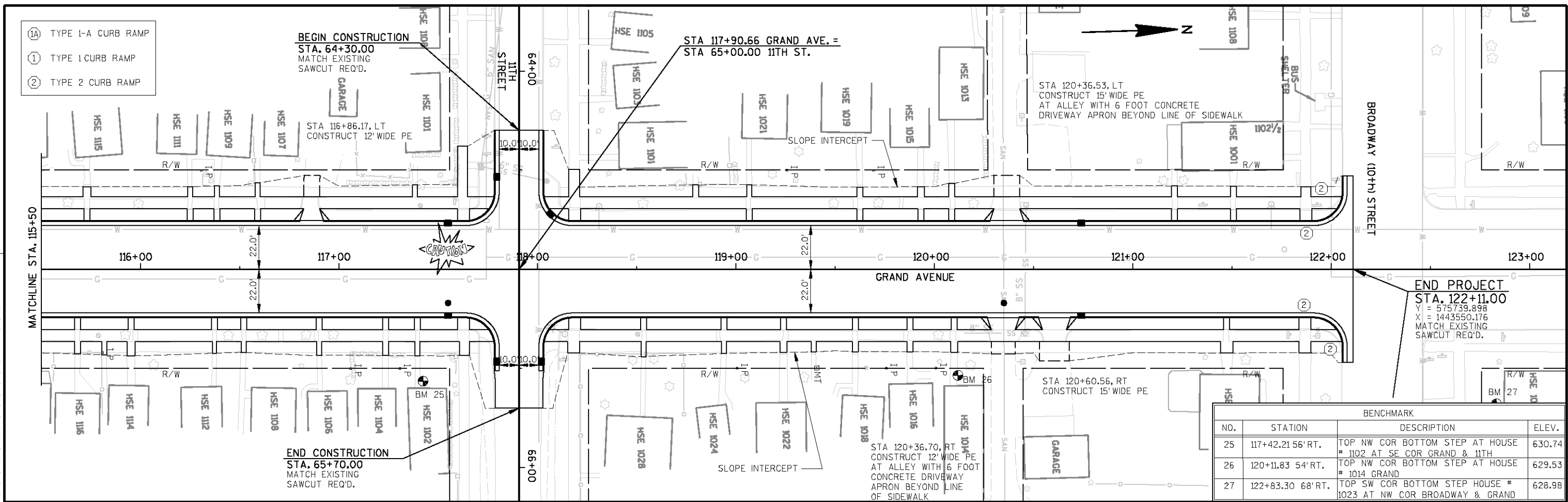


BENCHMARK			
NO.	STATION	DESCRIPTION	ELEV.
23	110+80.91 65' LT.	TOP NE COR BOTTOM STEP AT HOUSE # 1223 GRAND	632.51
14	114+09.53 65' RT.	TOP SW COR BOTTOM STEP AT HOUSE # 1023 12TH STREET	631.85
12	114+10.35 3' LT.	TOP NUT HYDRANT AT NW COR 12TH STREET & GRAND AVE.	633.68
24	115+25.35 55' RT.	TOP NW COR BOTTOM STEP AT HOUSE # 1120 GRAND	632.86

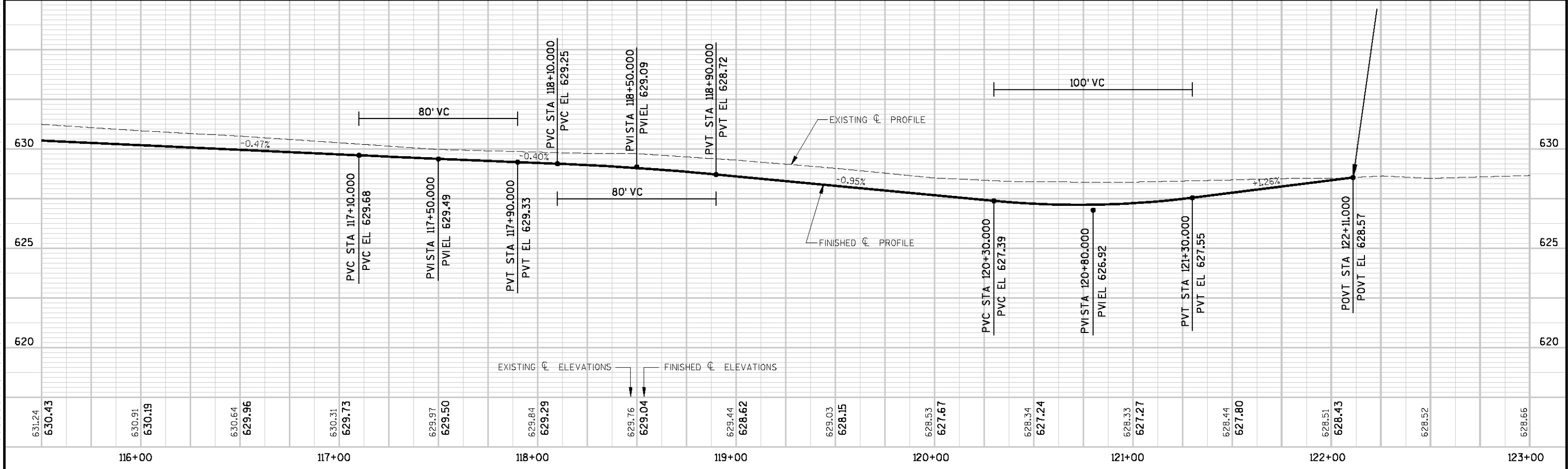


SEH PROJECT NUMBER: SUPER0005.00 HWY: GRAND AVENUE COUNTY: DOUGLAS PLAN & PROFILE SCALE, FEET 0 25 50 SHEET NO: E

- ① TYPE 1-A CURB RAMP
- ① TYPE 1 CURB RAMP
- ② TYPE 2 CURB RAMP



BENCHMARK			
NO.	STATION	DESCRIPTION	ELEV.
25	117+42.21 56' RT.	TOP NW COR BOTTOM STEP AT HOUSE # 1102 AT SE COR GRAND & 11TH	630.74
26	120+11.83 54' RT.	TOP NW COR BOTTOM STEP AT HOUSE # 1014 GRAND	629.53
27	122+83.30 68' RT.	TOP SW COR BOTTOM STEP HOUSE # 1023 AT NW COR BROADWAY & GRAND	628.98

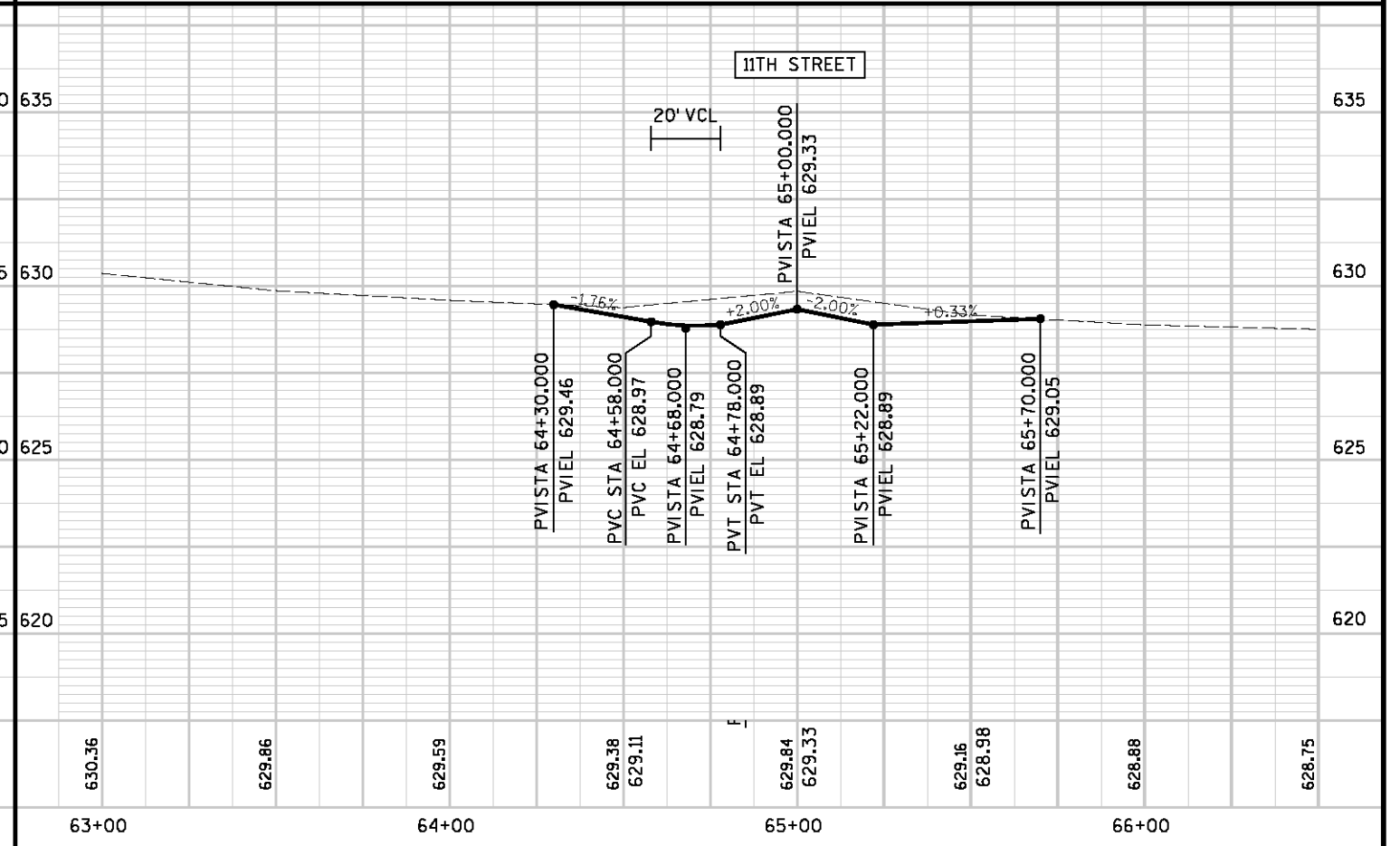
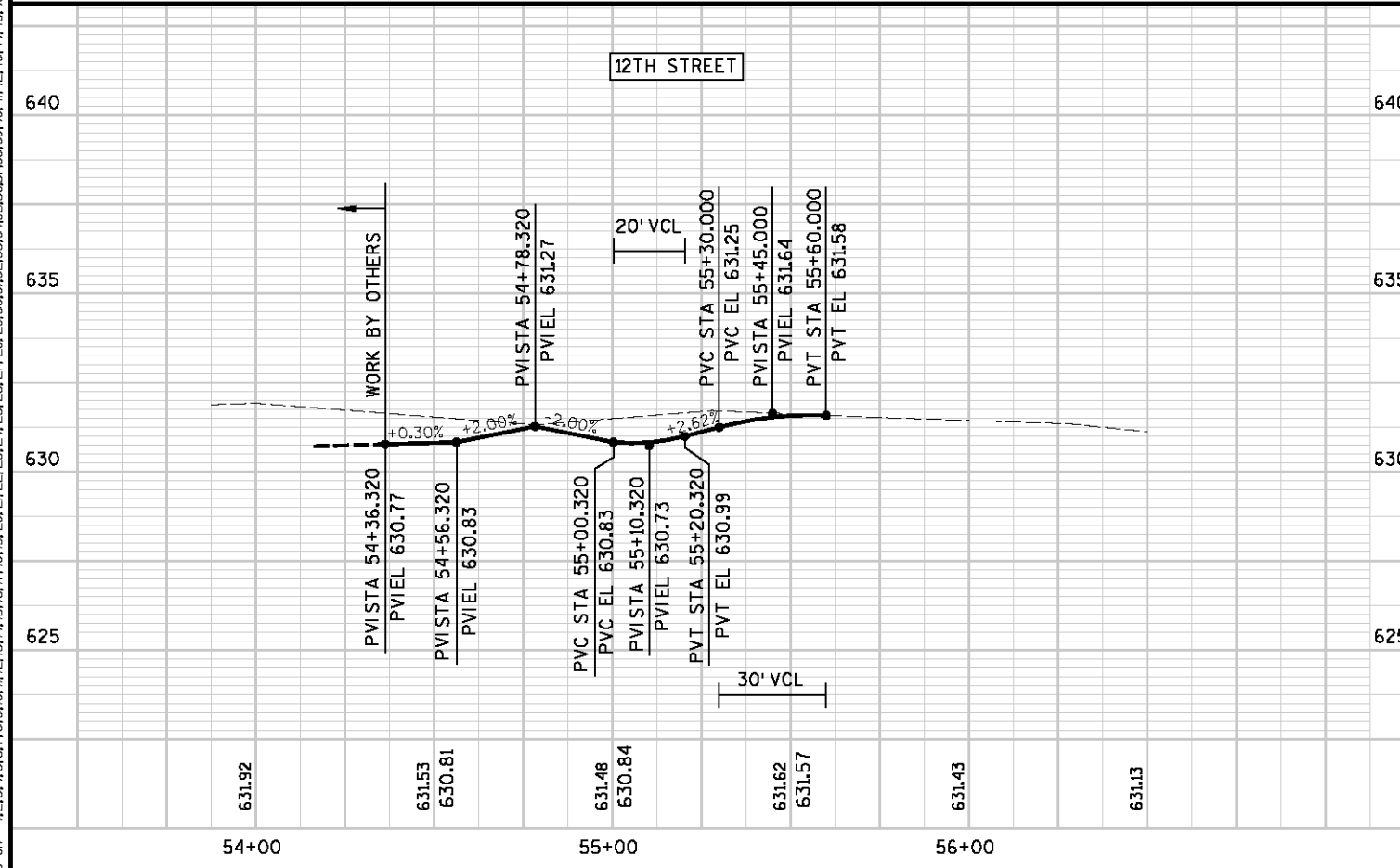
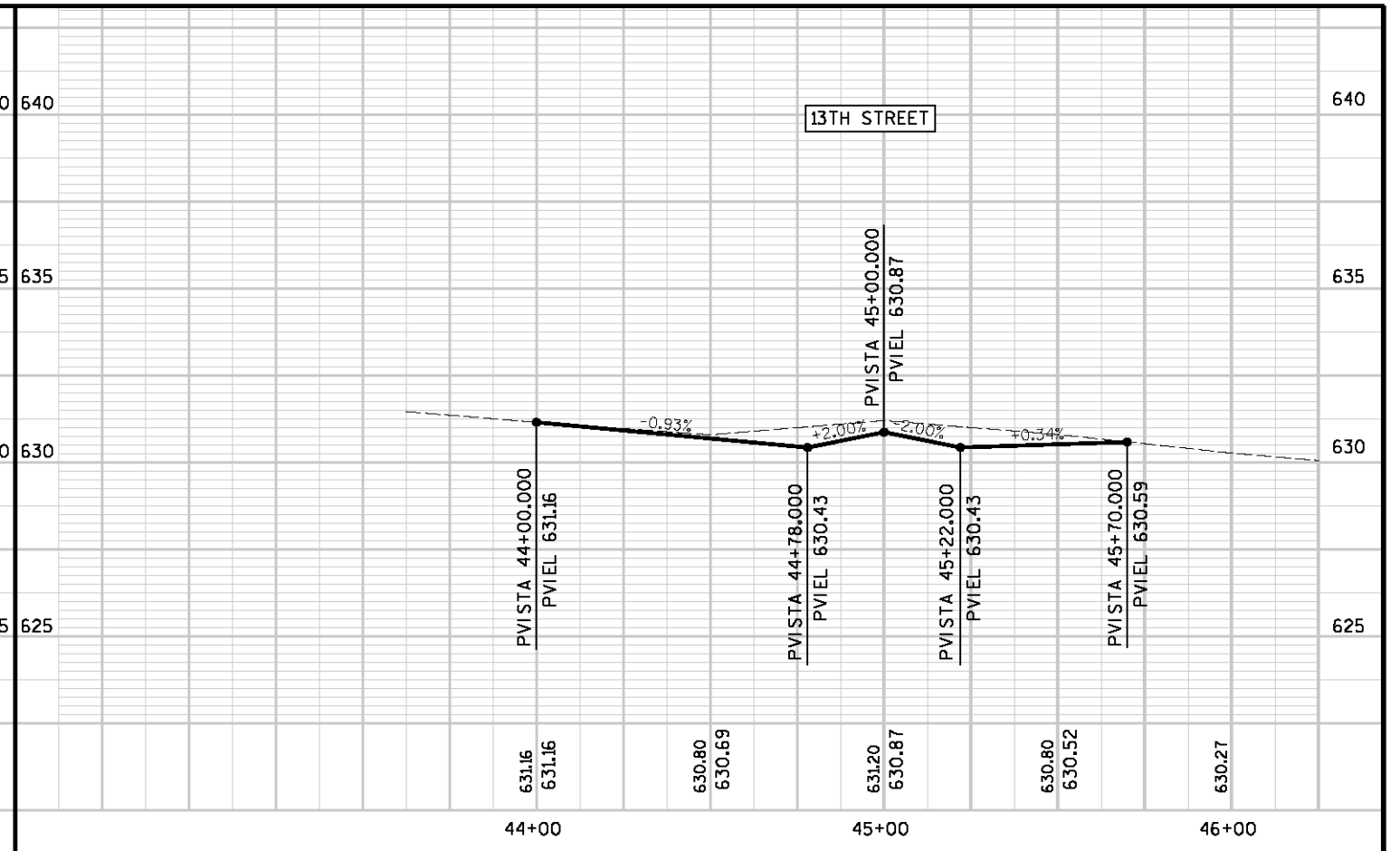
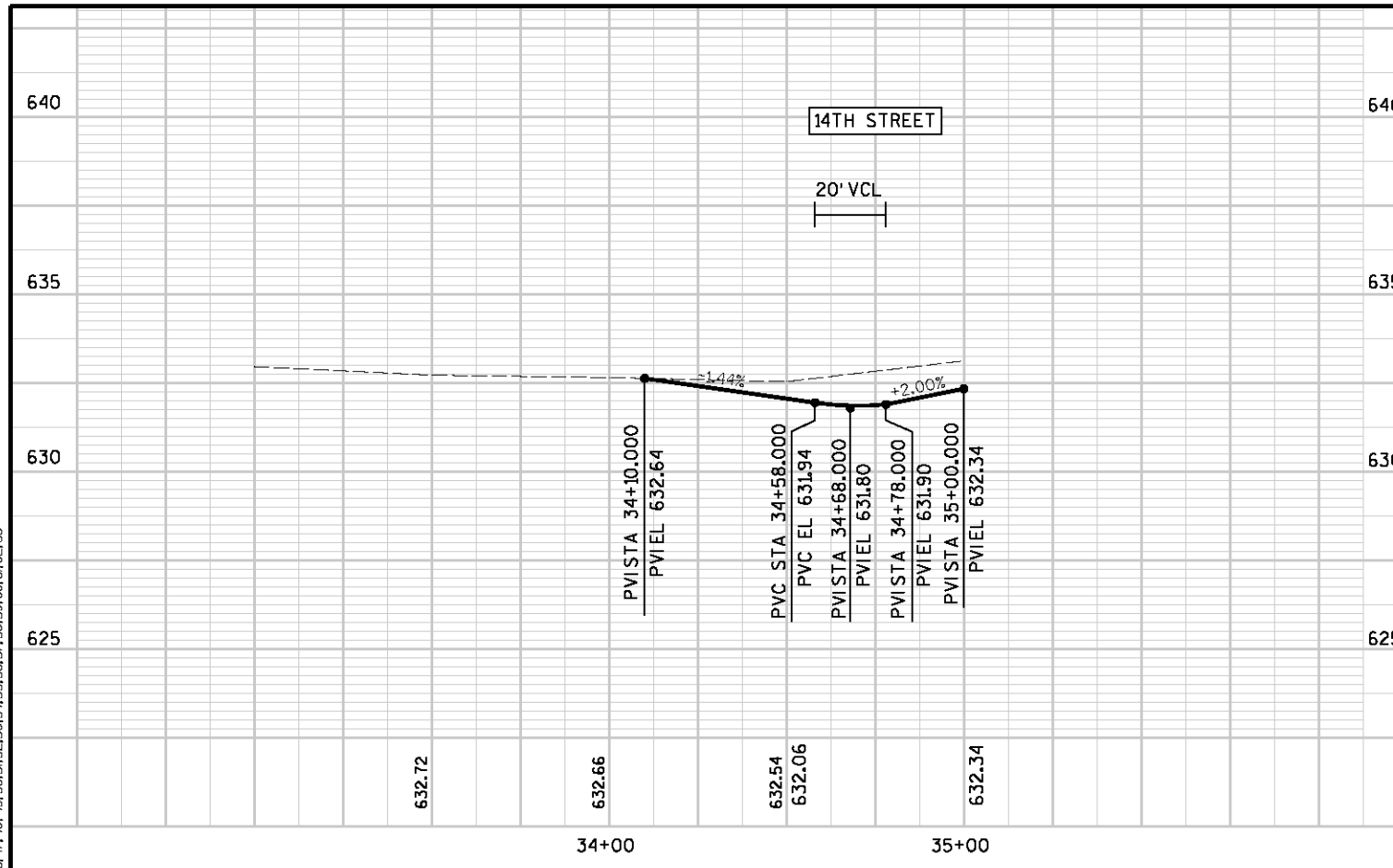


STATION	EXISTING ELEVATION	FINISHED ELEVATION
116+00	631.24	630.43
117+00	630.91	630.19
118+00	630.64	629.96
119+00	629.31	629.73
120+00	629.97	629.50
121+00	629.84	629.29
122+00	629.76	629.04
123+00	629.44	628.62
	629.03	628.15
	628.53	627.67
	628.34	627.24
	628.33	627.27
	628.44	627.80
	628.51	628.43
	628.52	
	628.66	

SEH PROJECT NUMBER: SUPER0005.00 HWY: GRAND AVENUE COUNTY: DOUGLAS PLAN & PROFILE SCALE, FEET 0 25 50 SHEET NO: E

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SEH PROJECT NUMBER: SUPER0005.00

HWY: GRAND AVENUE

COUNTY: DOUGLAS

SIDE STREET PROFILES

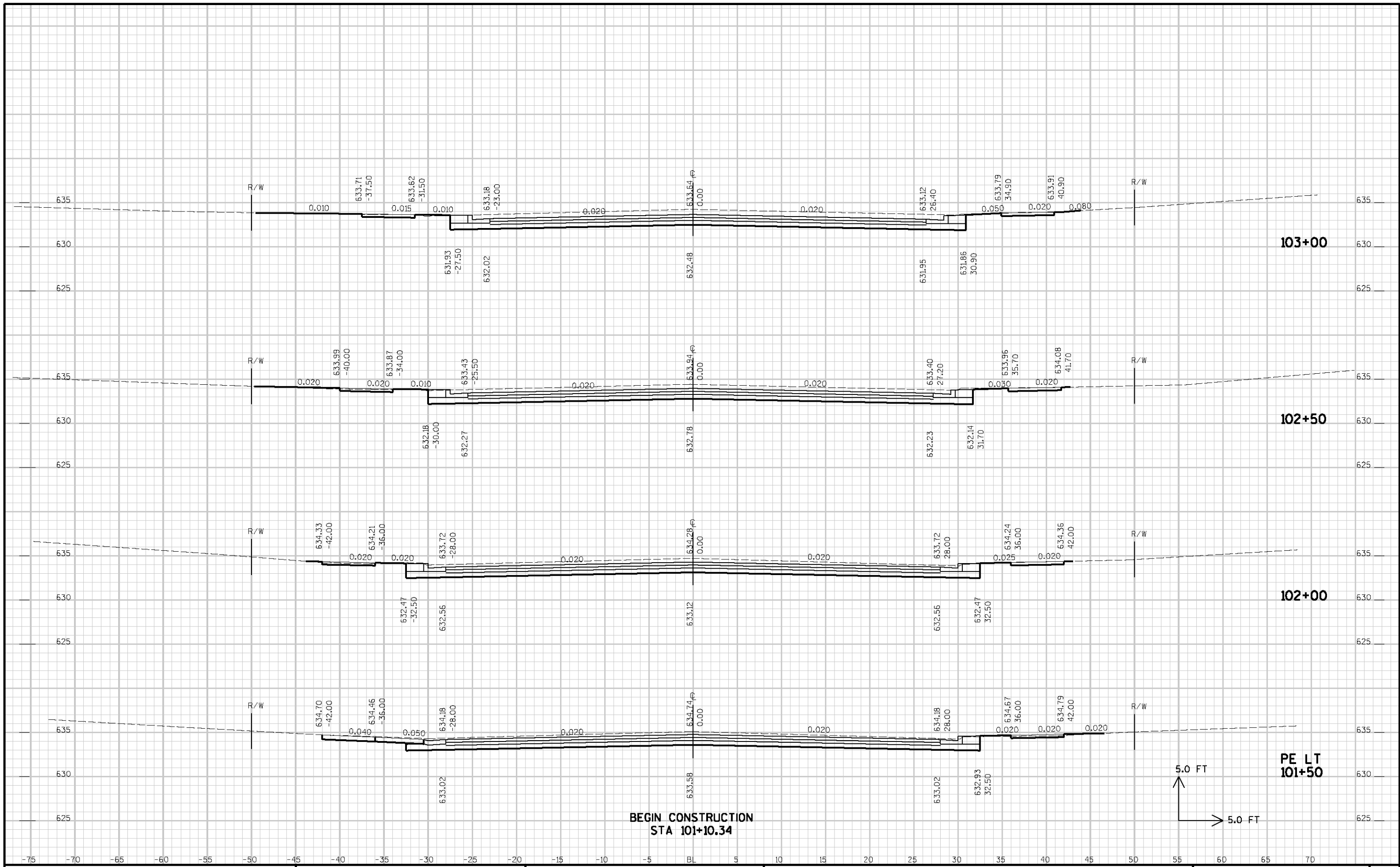
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SHEET NO: E

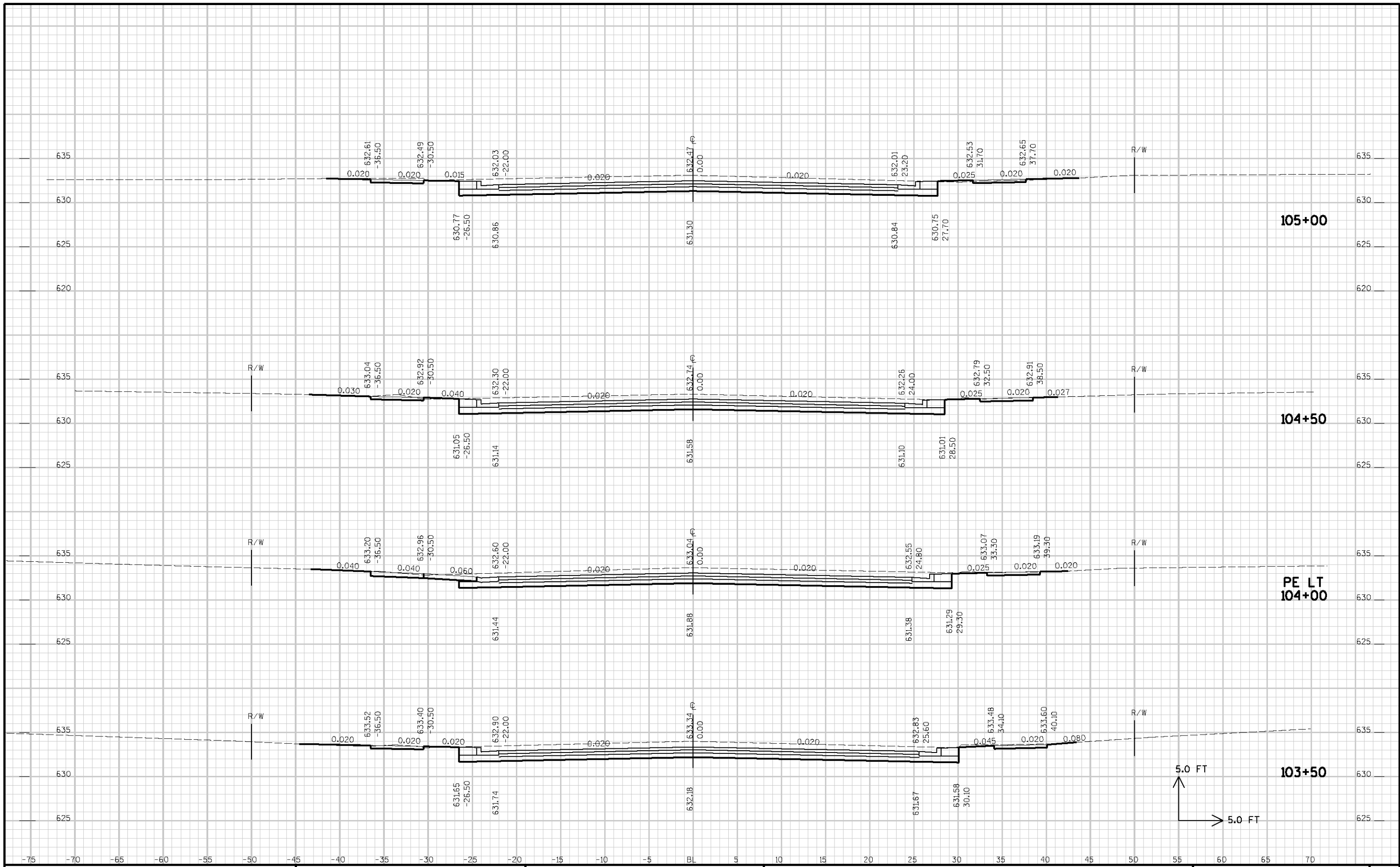
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GRAND AVE. MAINLINE							
STATION	END AREA		VOLUME		CUM VOLUME		MASS HAUL C.Y.
	CUT S.F.	FILL S.F.	CUT C.Y.	FILL* C.Y.	CUT C.Y.	FILL* C.Y.	
101+50	97.0	0.7					
102+00	100.3	0.2	182.69	1.08	182.69	1.08	181.60
102+50	102.3	0.7	187.59	1.08	370.28	2.17	368.11
103+00	103.5	0.9	190.56	1.93	560.83	4.09	556.74
103+50	104.3	0.8	192.41	2.05	753.24	6.14	747.10
104+00	103.6	0.1	192.50	1.08	945.74	7.22	938.52
104+50	98.9	0.5	187.50	0.72	1133.24	7.94	1125.30
105+00	100.0	1.0	184.17	1.81	1317.41	9.75	1307.66
105+30	105.1	0.0	113.94	0.72	1431.35	10.47	1420.88
105+50	126.4	2.9	85.74	1.40	1517.09	11.87	1505.22
106+00	109.6	0.0	218.52	3.49	1735.61	15.36	1720.25
106+50	108.7	0.1	202.13	0.12	1937.74	15.48	1922.26
107+00	108.0	0.2	200.65	0.36	2138.39	15.84	2122.55
107+50	100.0	0.4	192.59	0.72	2330.98	16.56	2314.42
108+00	90.9	0.9	176.76	1.56	2507.74	18.13	2489.61
108+50	86.2	2.5	163.98	4.09	2671.72	22.22	2649.50
108+65	89.7	1.0	48.86	1.26	2720.58	23.48	2697.10
109+00	76.9	3.5	107.98	3.79	2828.56	27.28	2801.29
110+00	100.9	1.1	329.26	11.07	3157.82	38.35	3119.47
110+50	99.4	1.1	185.46	2.65	3343.29	41.00	3302.29
111+00	92.9	2.4	178.06	4.21	3521.34	45.21	3476.13
111+50	91.9	2.8	171.11	6.26	3692.45	51.47	3640.98
112+00	91.9	1.9	170.19	5.66	3862.64	57.13	3805.51
112+50	86.5	3.1	165.19	6.02	4027.82	63.15	3964.68
113+00	90.1	2.5	163.52	6.74	4191.34	69.89	4121.46
113+39	101.9	0.6	138.67	2.91	4330.01	72.80	4257.21
114+00	106.6	0.2	235.53	1.17	4565.54	73.97	4491.56
114+50	108.8	0.4	199.44	0.72	4764.98	74.69	4690.29
115+00	104.4	0.9	197.41	1.56	4962.39	76.26	4886.13
115+50	104.5	1.0	193.43	2.29	5155.81	78.55	5077.27
116+00	100.4	1.3	189.72	2.77	5345.54	81.32	5264.22
116+50	96.3	1.9	182.13	3.85	5527.67	85.17	5442.50
116+86	103.0	0.8	132.87	2.34	5660.53	87.51	5573.03
117+00	94.4	1.9	51.18	0.91	5711.71	88.42	5623.29
117+50	90.8	2.1	171.48	4.81	5883.19	93.23	5789.96
118+21	98.0	0.3	248.24	4.10	6131.43	97.33	6034.10
118+50	97.0	1.4	104.72	1.19	6236.15	98.52	6137.63
119+00	100.3	1.9	182.69	3.97	6418.84	102.49	6316.34
119+50	108.0	1.1	192.87	3.61	6611.71	106.10	6505.60
120+00	109.8	0.5	201.67	1.93	6813.37	108.03	6705.34
120+36	126.3	0.0	157.40	0.43	6970.77	108.46	6862.31
120+50	118.1	0.4	63.36	0.13	7034.14	108.60	6925.54
120+61	135.6	0.0	51.68	0.11	7085.82	108.70	6977.11
121+00	127.9	0.0	190.31	0.00	7276.12	108.70	7167.42
121+50	99.0	0.9	210.09	1.08	7486.21	109.79	7376.43
121+84	80.4	2.8	112.96	3.03	7599.17	112.82	7486.35
122+00	83.0	2.1	48.41	1.89	7647.59	114.70	7532.88

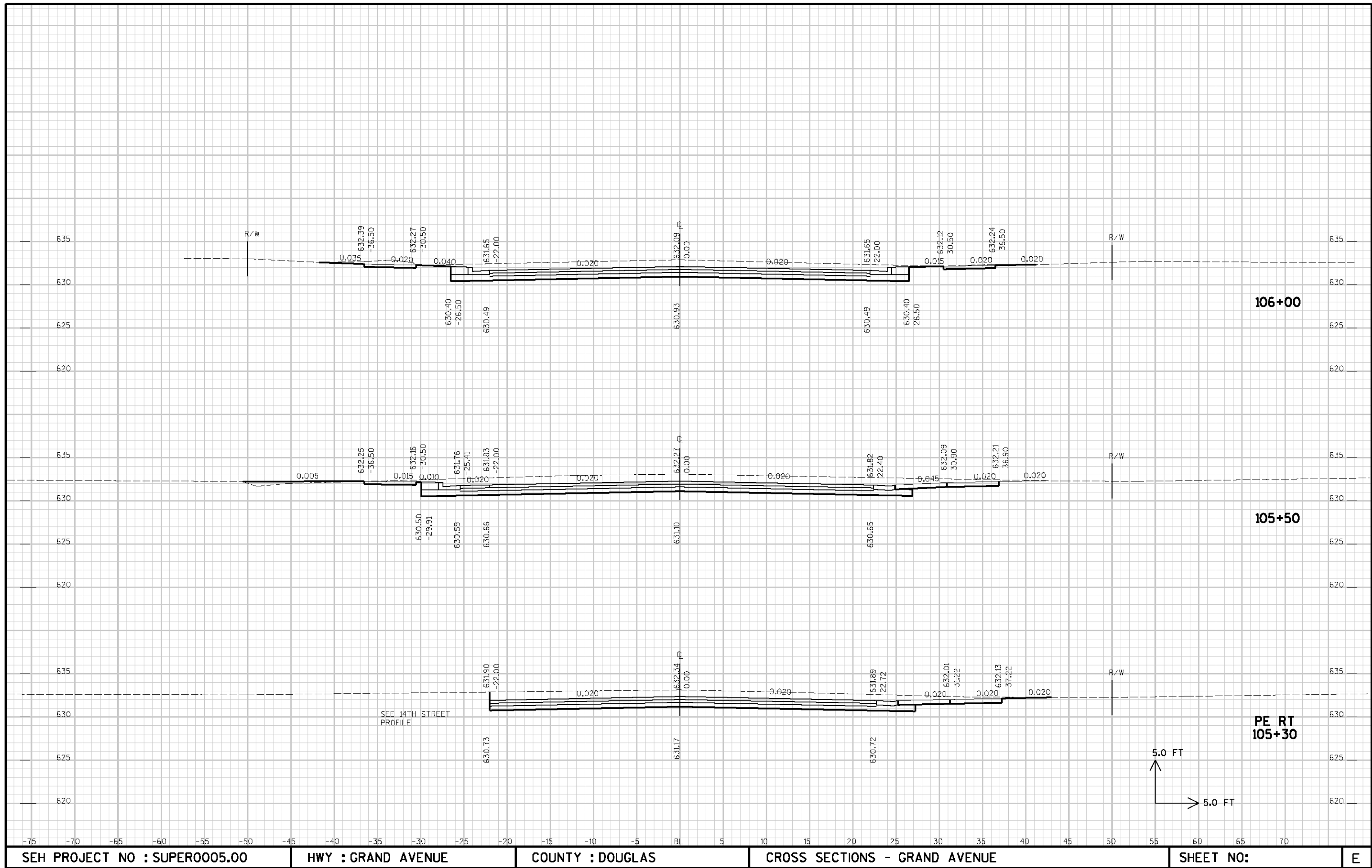
* NOTE - ALL FILL VOLUMES EXPANDED 30%



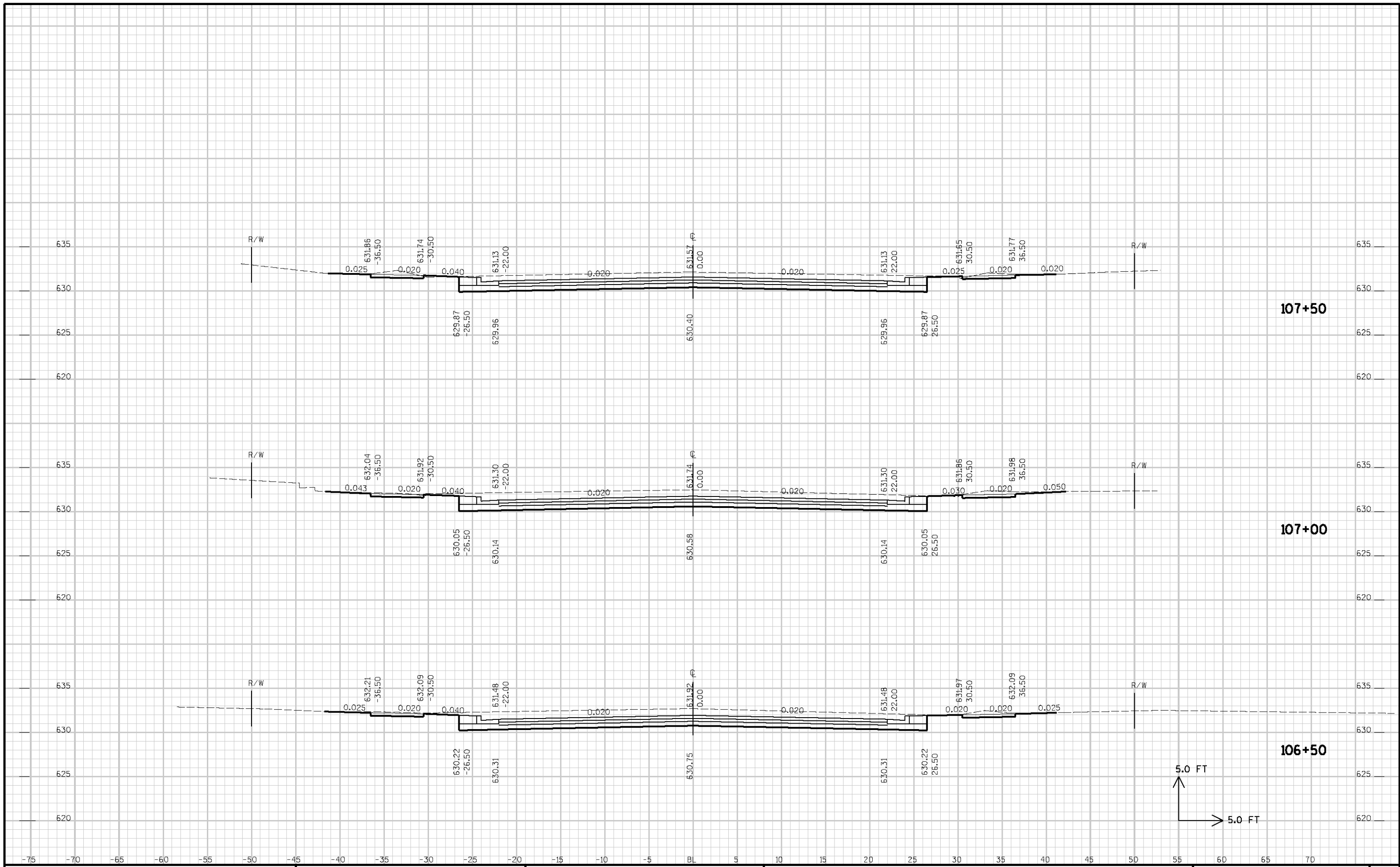
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SEH PROJECT NO : SUPER0005.00	HWY : GRAND AVENUE	COUNTY : DOUGLAS	CROSS SECTIONS - GRAND AVENUE	SHEET NO:	E
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SEH PROJECT NO : SUPER005.00	HWY : GRAND AVENUE	COUNTY : DOUGLAS	CROSS SECTIONS - GRAND AVENUE	SHEET NO:	E
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SEH PROJECT NO : SUPER0005.00

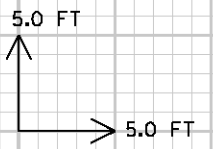
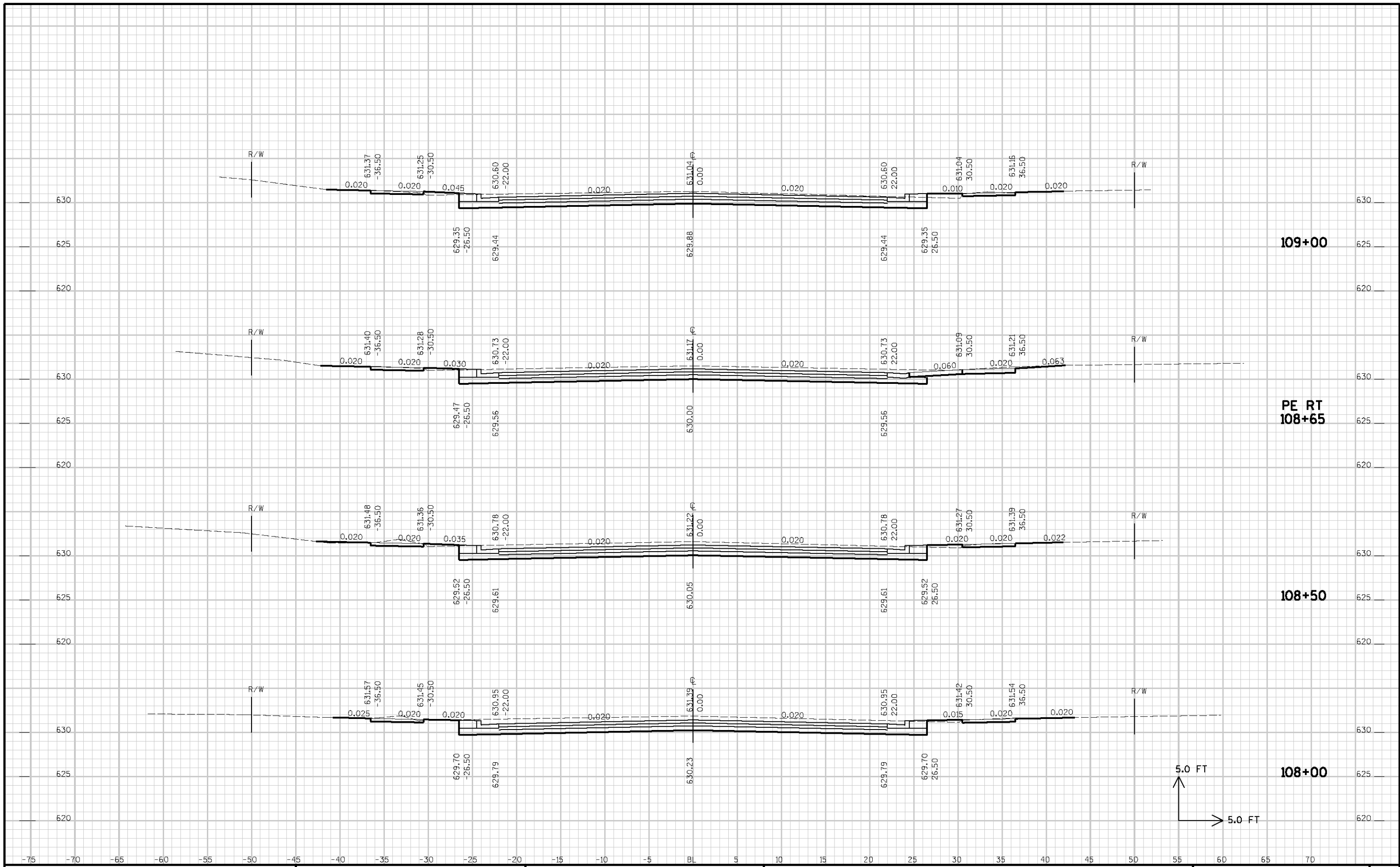
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COUNTY : DOUGLAS

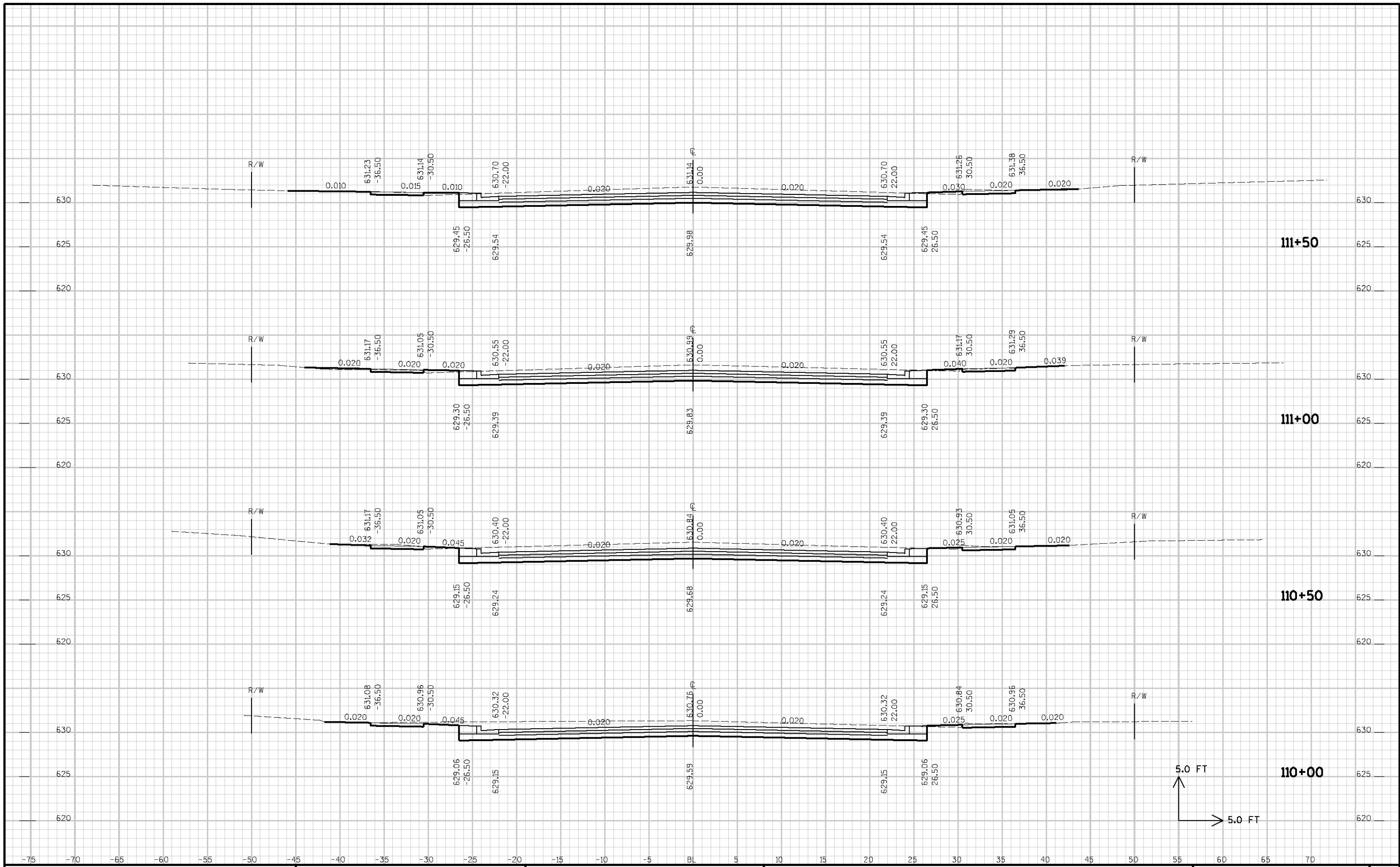
CROSS SECTIONS - GRAND AVENUE

SHEET NO:

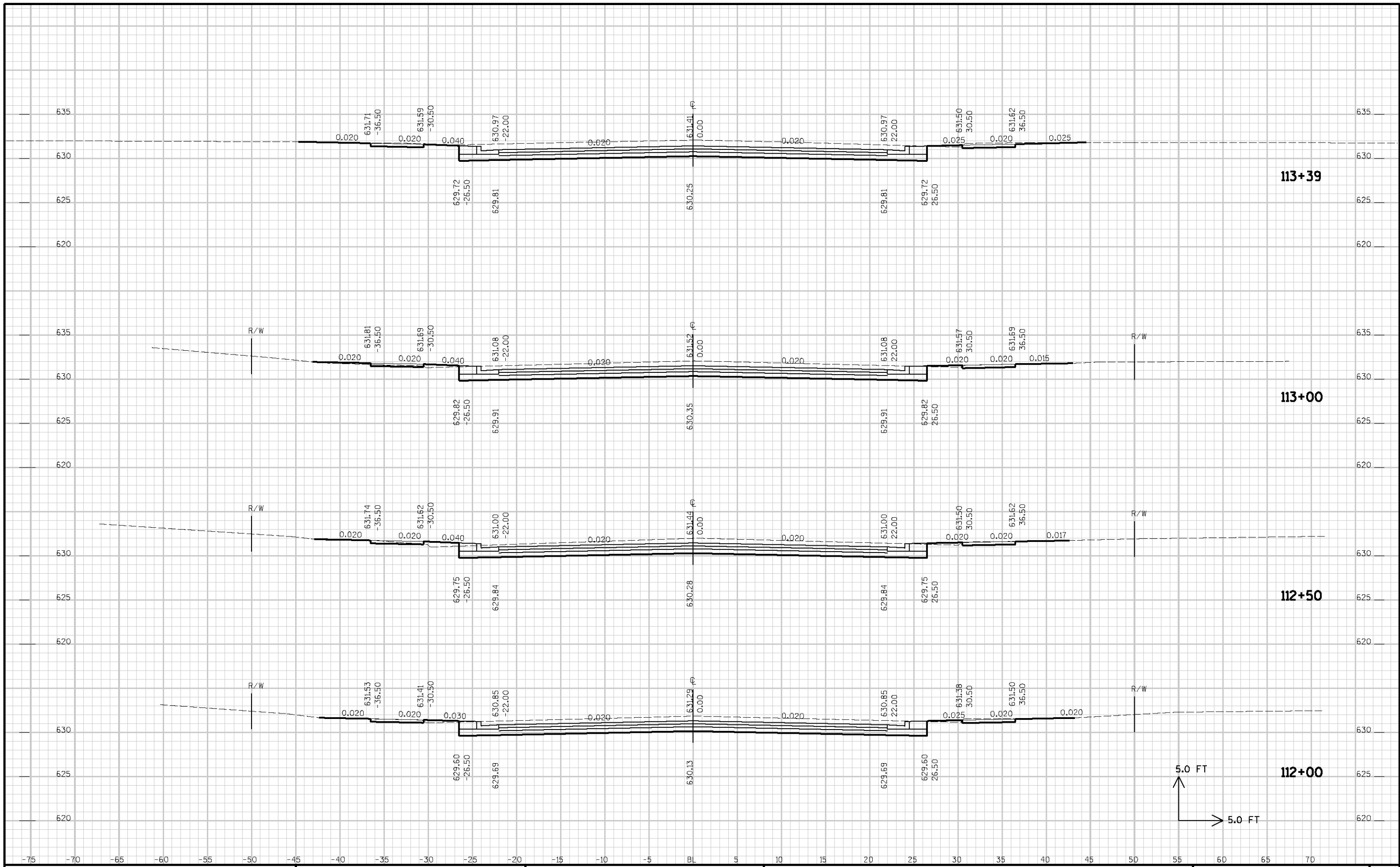
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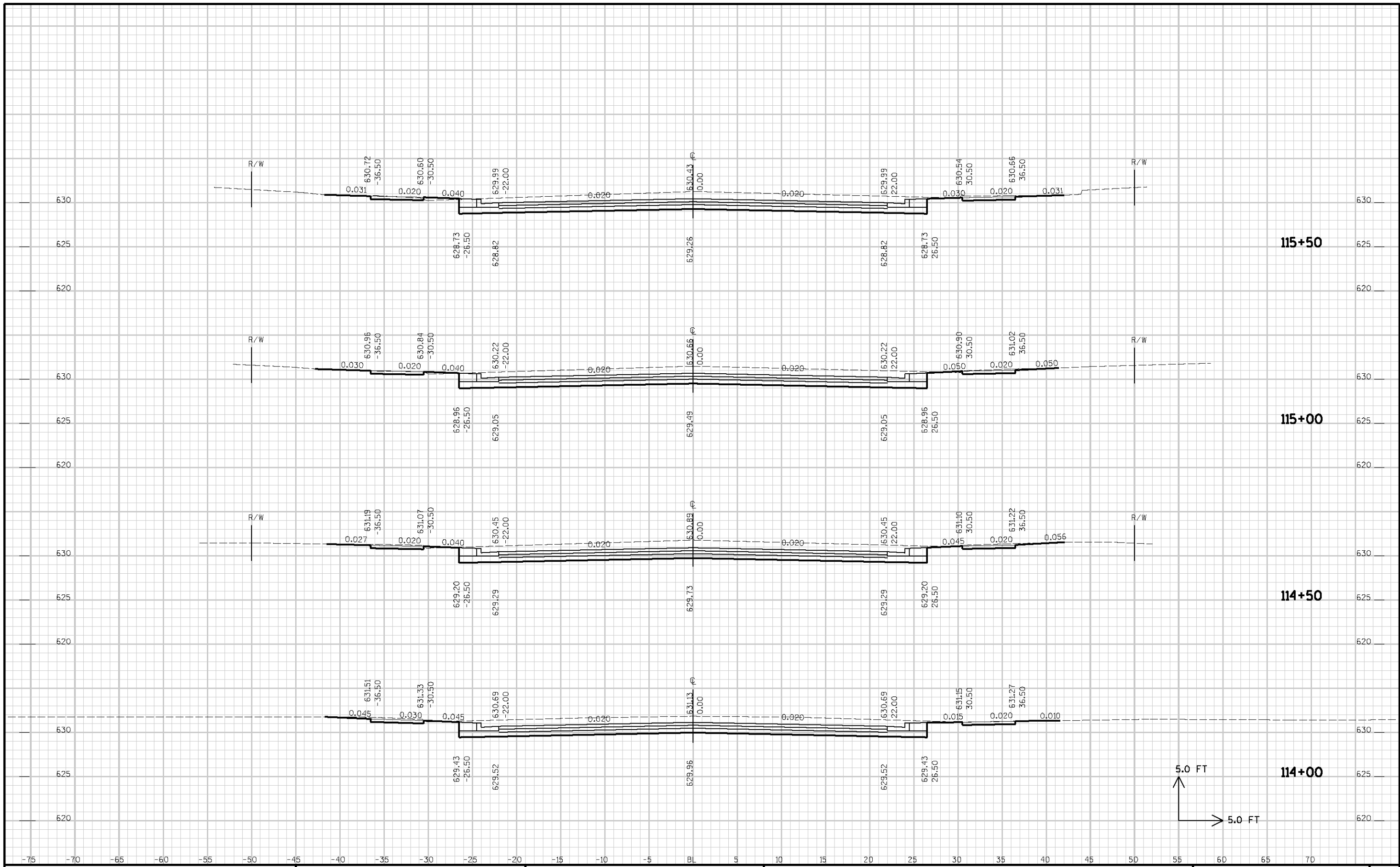
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SEH PROJECT NO : SUPER0005.00 HWY : GRAND AVENUE COUNTY : DOUGLAS CROSS SECTIONS - GRAND AVENUE SHEET NO: E



SEH PROJECT NO : SUPER005.00	HWY : GRAND AVENUE	COUNTY : DOUGLAS	CROSS SECTIONS - GRAND AVENUE	SHEET NO:	E
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SEH PROJECT NO : SUPER0005.00

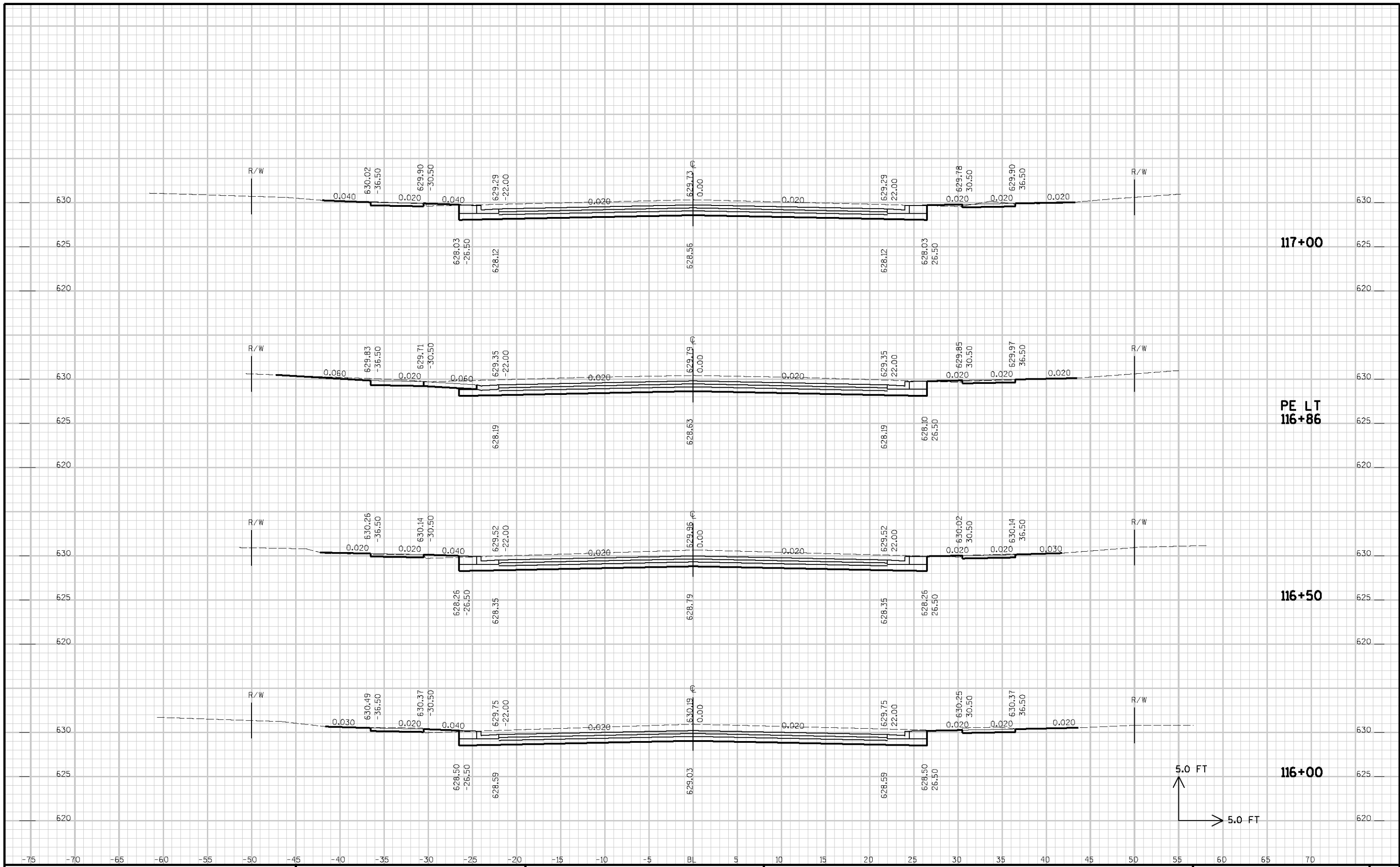
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COUNTY : DOUGLAS

CROSS SECTIONS - GRAND AVENUE

SHEET NO:

E



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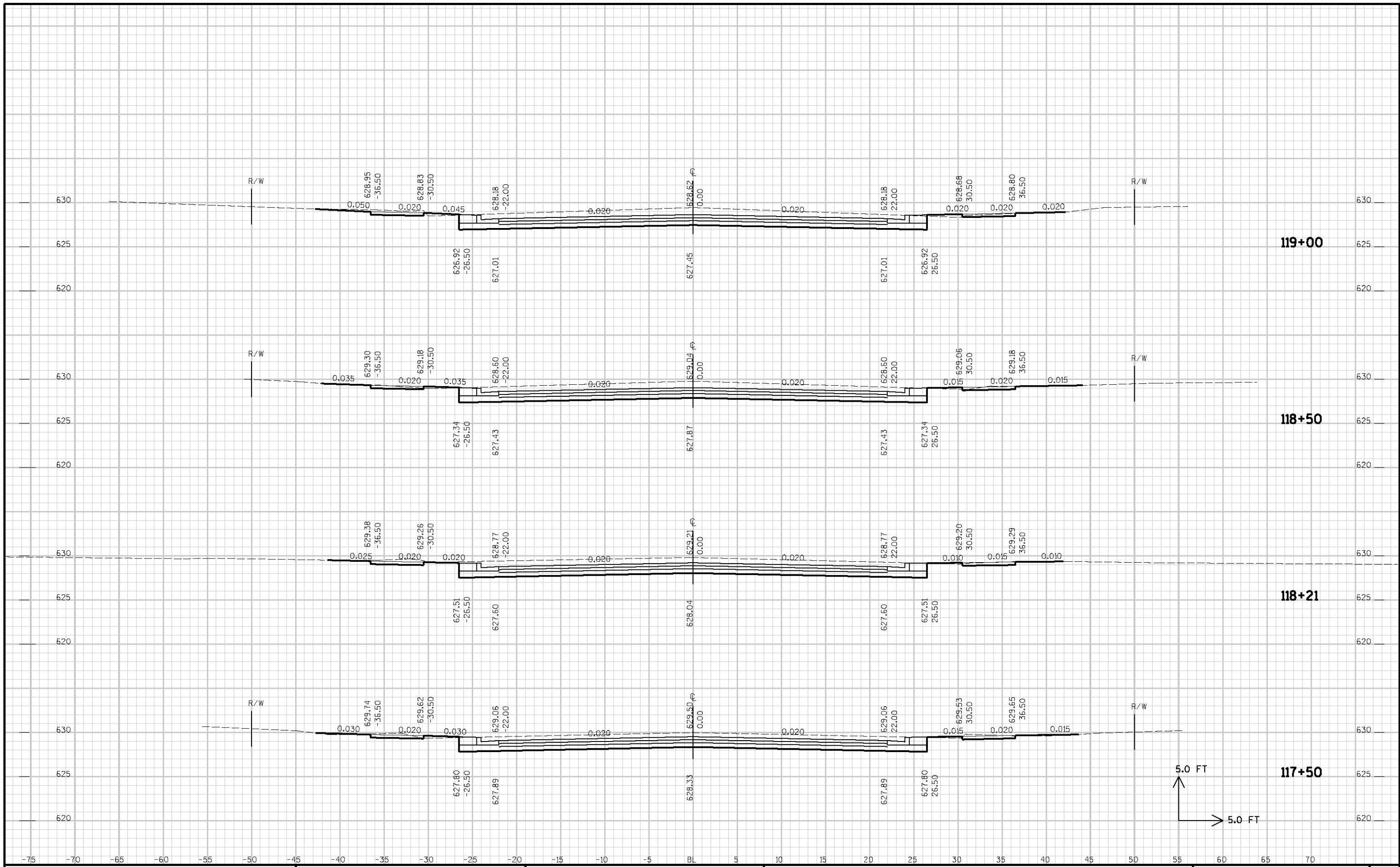
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COUNTY : DOUGLAS

CROSS SECTIONS - GRAND AVENUE

SHEET NO:

E



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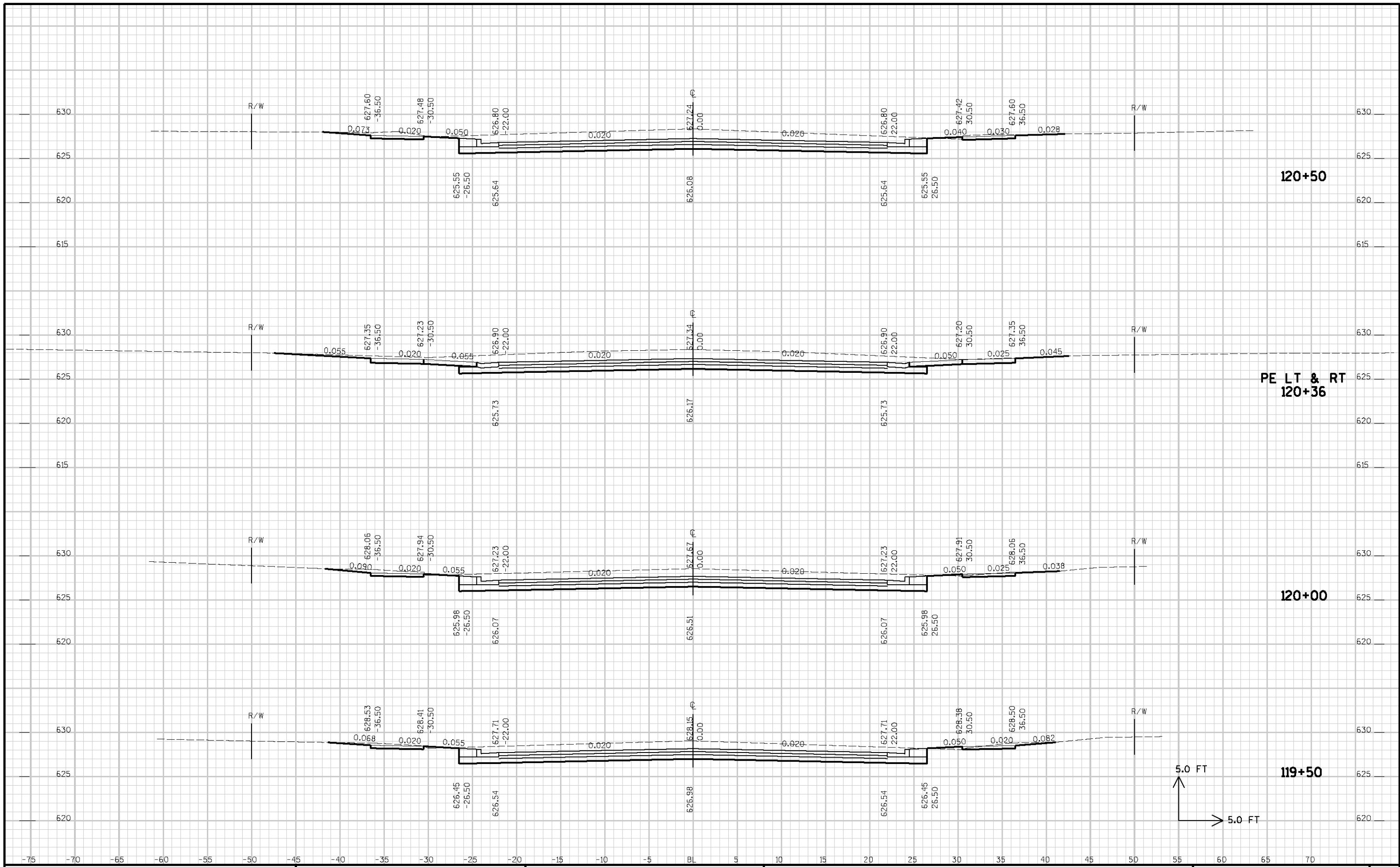
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COUNTY : DOUGLAS

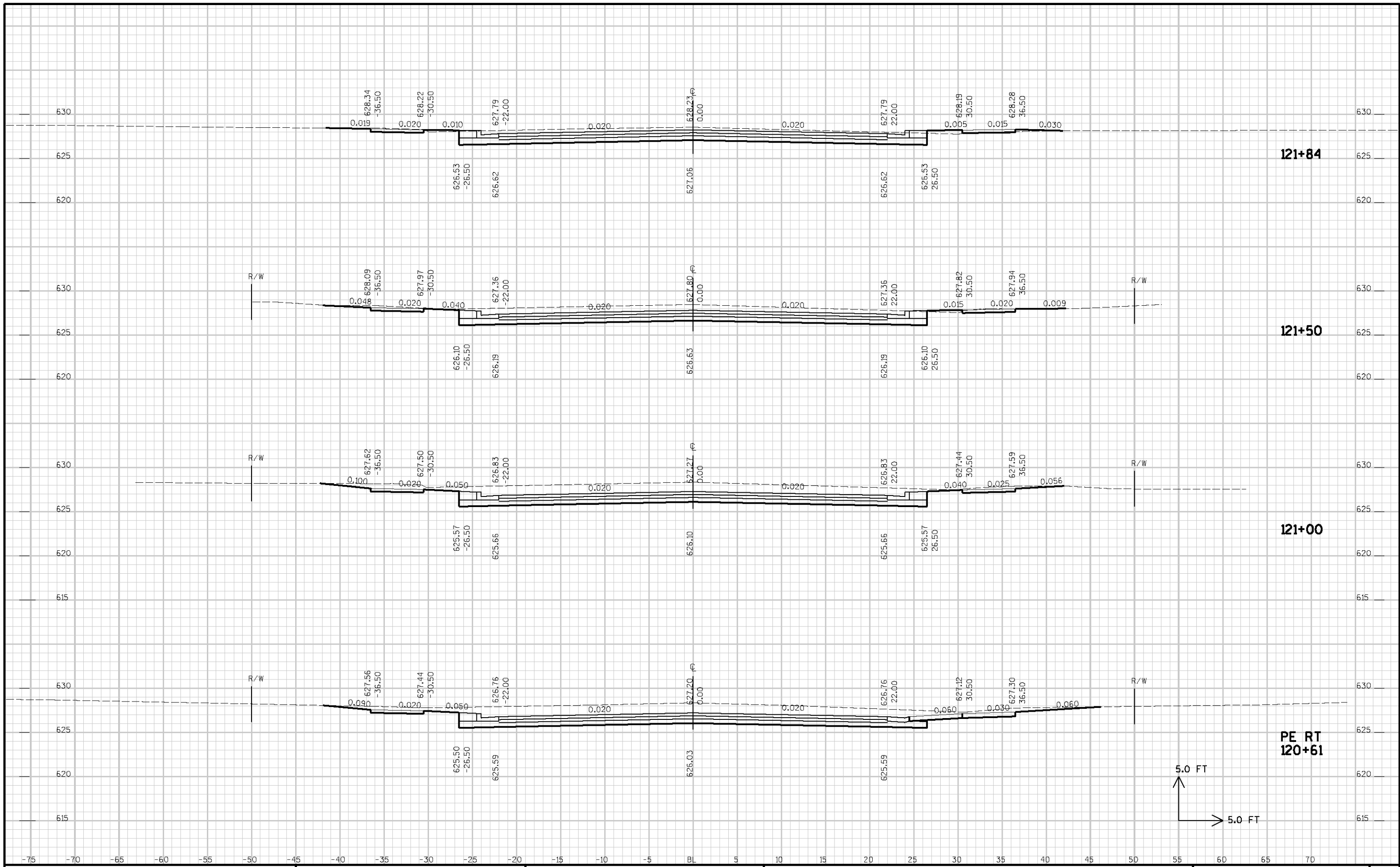
CROSS SECTIONS - GRAND AVENUE

SHEET NO:

E



SEH PROJECT NO : SUPER005.00	HWY : GRAND AVENUE	COUNTY : DOUGLAS	CROSS SECTIONS - GRAND AVENUE	SHEET NO:	E
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SEH PROJECT NO : SUPER0005.00

HWY : GRAND AVENUE

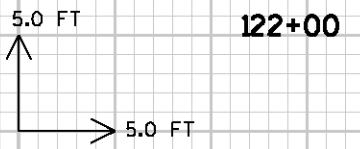
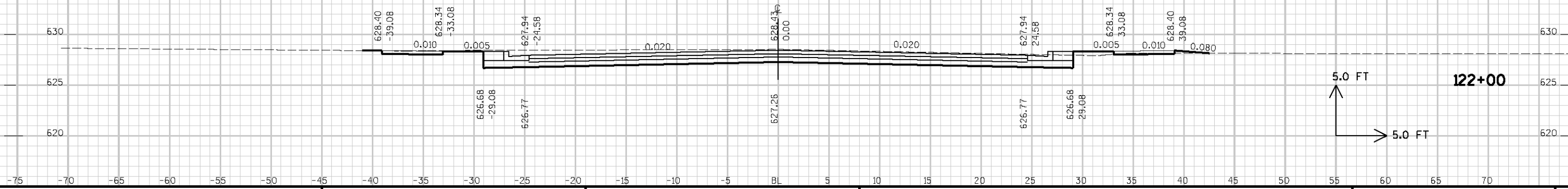
COUNTY : DOUGLAS

CROSS SECTIONS - GRAND AVENUE

SHEET NO:

E

END CONSTRUCTION
STA 122+11.00



122+00