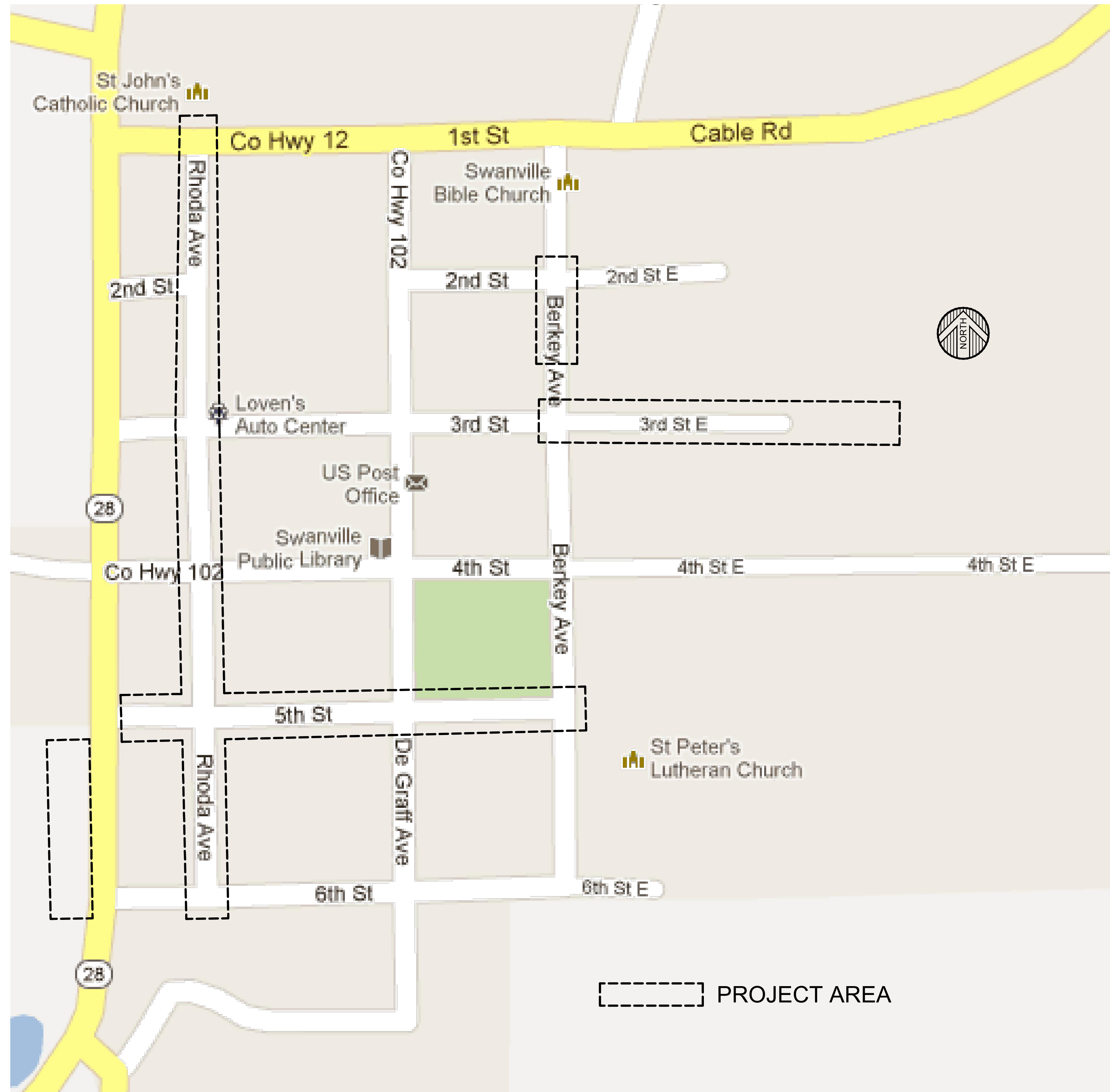


# 2013 WATER SYSTEM IMPROVEMENTS CITY OF SWANVILLE, MINNESOTA MORRISON COUNTY



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### GOVERNING SPECIFICATIONS

THE 2005 EDITION OF THE MINNESOTA DEPARTMENT OF TRANSPORTATION "STANDARD SPECIFICATIONS FOR CONSTRUCTION" SHALL GOVERN.

### CITY OFFICIALS

MAYOR:	SANDY PETERSON
CITY COUNCIL:	JIM MOLITOR TIM GRITTNER AJ JOHNSON
MAINTENANCE SUPERVISOR:	BRIAN ZAPZALKA
CITY CLERK:	JULIE HOLLERMANN

ARCHITECTS: ALEXANDRIA, MN; ENGINEERS: BARTER, MN; ENVIRONMENTAL SERVICES: BENDALL, MN; LAND SURVEYORS: GRAND FORKS, ND; WATER RESOURCES: RED WING, MN; ROCHESTER, MN.

WIDSETH SMITH NOLTING

DATE: JANUARY, 2013; AS SHOWN; SCALE: P.M.B.; DRAWN BY: M.E.R.; CHECKED BY: 0127B0012,000; JOB NUMBER: 0127B0012,000.

2013 WATER IMPROVEMENTS  
CITY OF SWANVILLE  
SWANVILLE, MINNESOTA  
TITLE SHEET

SHEET NO. 1  
1 of 53

SURVEY MONUMENTS

- BENCH MARK
- FOUND CIM
- FOUND CPNT.
- FOUND JLM
- FOUND LATH
- FOUND PIPE
- FOUND READING
- STAKED CIM
- STAKED CPNT.
- STAKED JLM
- STAKED PIPE

EXISTING TOPO SYMBOLS

- AC UNIT
- FENCE POST
- FLAG POLE
- GUARD POST
- GUY ANCHOR
- GUY POLE
- HANDICAP SYMBOL
- MAILBOX
- SHRUB
- SIGN DOUBLE POST
- SIGN SINGLE POST
- TREE CONIFER
- TREE DECIDUOUS
- TREE STUMP
- TV DISH
- WETLAND SYMBOL
- YARD LIGHT

EXISTING UTILITY MUNICIPAL SYMBOLS

- APRON
- LIFT STATION
- SANITARY CLEANOUT
- SANITARY MANHOLE
- STORM CATCH BASIN
- STORM INLET

EXISTING UTILITY MUNICIPAL SYMBOLS (cont.)

- STORM MANHOLE
- WATER CURB STOP
- WATER HANDHOLE
- WATER HYDRANT
- WATER MANHOLE
- WATER METER
- WATER VALVE
- WATER WELL

EXISTING UTILITY PRIVATE SYMBOLS

- ELEC GROUND LIGHT
- ELEC HANDHOLE
- ELEC LIGHT POLE
- ELEC MANHOLE
- ELEC METER
- ELEC PEDESTAL
- ELEC POLE
- ELEC SIGNAL
- ELEC TRANSFORMER BOX
- GAS METER
- GAS VALVE
- LP TANK
- TELE HANDHOLE
- TELE MANHOLE
- TELE PEDESTAL
- TELE POLE
- TV HANDHOLE
- TV PEDESTAL

SOIL BORING SYMBOLS

- LYSIMETER
- MONITOR WELL
- PERC TEST
- PIEZOMETER
- RECOVERY WELL
- SOIL BORING
- SOIL VAPOR POINT

PROPOSED UTILITY MUNICIPAL SYMBOLS

- APRON PROPOSED
- SANITARY CLEANOUT PROPOSED
- SANITARY LIFT STATION PROPOSED
- SANITARY LIFT STATION VALVE MANHOLE PROPOSED
- SANITARY MANHOLE PROPOSED
- SANITARY PLUG PROPOSED
- STORM CATCH BASIN PROPOSED
- STORM MANHOLE PROPOSED
- WATER 11 1/4° BEND PROPOSED
- WATER 22 1/2° BEND PROPOSED
- WATER 45° BEND PROPOSED
- WATER 90° BEND PROPOSED
- WATER CAP PROPOSED
- WATER CROSS PROPOSED
- WATER CURB STOP PROPOSED
- WATER HYDRANT PROPOSED
- WATER REDUCER PROPOSED
- WATER SLEEVE PROPOSED
- WATER TEE PROPOSED
- WATER VALVE PROPOSED

PROPOSED UTILITY PRIVATE SYMBOLS

- ELEC LIGHT POLE PROPOSED

EROSION CONTROL SYMBOLS

- SURFACE DRAINAGE ARROW
- STORM DRAIN INLET PROTECTION

TRAFFIC CONTROL DEVICES & SYMBOLS

- TRAFFIC CONTROL SIGN (1 POST)
- TRAFFIC CONTROL SIGN (2 POST)
- TYPE III BARRICADE
- DRUM CHANNELIZER
- FLASHING ARROW OR MESSAGE BOARD

EXISTING TOPOGRAPHIC LINES

- CENTER LINE
- EDGE OF WOODS
- FENCE BARB WIRE
- FENCE CHAIN LINK
- FENCE WOOD
- FORCEMAIN
- OVERHEAD CABLE TV
- OVERHEAD ELECTRIC
- OVERHEAD TELE
- RAILROAD
- RETAINING WALL
- SANITARY SEWER
- SANITARY SEWER SERVICE
- STORM SEWER
- STORM SEWER DRAIN TILE
- UNDERGROUND CABLE TV
- UNDERGROUND ELECTRIC
- UNDERGROUND FIBER OPTIC
- UNDERGROUND GAS
- UNDERGROUND TELE
- WATERMAIN
- WATERMAIN SERVICE
- WETLAND EDGE

R/W, LOT & EASEMENTS LINES

- BUILDING SETBACK LINE
- LOT LINE PROPOSED
- EASEMENT LINE
- EASEMENT LINE PROPOSED
- LOT LINE
- MNDOT CONTROLLED ACCESS LINE
- RIGHT OF WAY EXISTING
- RIGHT OF WAY PROPOSED

PROPOSED CONSTRUCTION LINES

- FENCE CHAIN LINK PROPOSED
- FENCE WOOD PROPOSED
- FENCE BARB WIRE PROPOSED
- FORCEMAIN PROPOSED
- SANITARY SEWER PROPOSED
- SANITARY SERVICE PROPOSED
- STORM SEWER PROPOSED
- STORM SEWER DRAIN TILE PROPOSED
- WATERMAIN PROPOSED
- WATERMAIN SERVICE PROPOSED

EROSION CONTROL LINES

- BALE CHECK
- BIO ROLL
- SILT FENCE
- SILT FENCE TYPE HEAVY DUTY
- SILT FENCE TYPE MACHINE SLICED
- SILT FENCE TYPE PREASSEMBLED
- FLOTATION SILT CURTAIN

HATCH PATTERN AND SHADING LEGEND

- RANDOM RIPRAP
- SOD
- SEED
- HYDRAULIC STABILIZER
- EROSION CONTROL BLANKET
- TEMP. ROCK CONSTRUCTION ENTRANCE
- BUILDING WALL HATCH
- BITUMINOUS SURFACE
- CONCRETE SURFACE
- GRAVEL SURFACE
- EASEMENT PATTERN

ARCHITECTS ENGINEERS ENVIRONMENTAL SERVICES LAND SURVEYORS WATER RESOURCES

WIDSETH SMITH NOLTING

DATE: JANUARY, 2013 AS SHOWN SCALE: P.M.B. M.E.R. DRAWN BY: M.E.R. CHECKED BY: M.E.R. JOB NUMBER: 0127B0012.000

2013 WATER IMPROVEMENTS CITY OF SWANVILLE SWANVILLE, MINNESOTA

PLAN LEGEND

SHEET NO. 2

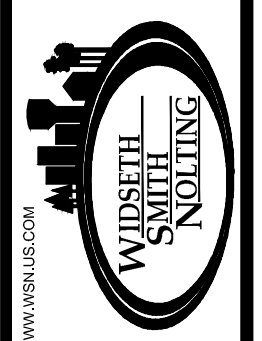
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STATEMENT OF ESTIMATED QUANTITIES

ITEM NO.	SPEC. NO.	ITEM DESCRIPTION	UNIT	RHODA AVENUE	5TH STREET	3RD STREET	BERKEY AVENUE	HWY 28 DITCH	PROJECT TOTAL
1	2021.501	MOBILIZATION	LUMP SUM	0.40	0.15	0.25	0.10	0.10	1.00
2	2101.501	CLEARING	ACRE					0.05	0.05
3	2101.506	GRUBBING	ACRE					0.05	0.05
4	2104.501	REMOVE CURB	LN FT	1005	240				1,245
5	2104.501	REMOVE CURB AND GUTTER	LN FT	315	215				530
6	2104.501	REMOVE WATERMAIN PIPE	LN FT	1,675	400	820			2,895
7	2104.501	REMOVE STORM SEWER PIPE	LN FT	32	480				512
8	2104.501	REMOVE METAL CULVERT	LN FT	96					96
9	2104.501	REMOVE FENCE	LN FT					10	10
10	2104.503	REMOVE SIDEWALK	SQ FT	5,290	342	200			5,832
11	2104.505	REMOVE BITUMINOUS PAVEMENT	SQ YD	9,989	4,578	1,367	1,086		17,019
12	2104.505	REMOVE CONCRETE PAVEMENT	SQ YD	40	40	80			160
13	2104.509	REMOVE HYDRANT	EACH	5	1	1			7
14	2104.509	REMOVE GATE VALVE AND BOX	EACH	3					3
15	2104.509	REMOVE PIPE APRON	EACH		2				2
16	2104.511	SAWING CONCRETE PAVEMENT (FULL DEPTH)	LN FT	100	20	40			160
17	2104.513	SAWING BITUMINOUS PAVEMENT (FULL DEPTH)	LN FT	500	420	90	208		1,218
18	2104.521	SALVAGE PIPE SEWER	LN FT	75					75
19	2104.521	SALVAGE AND RE-INSTALL FENCE	LN FT		45				45
20	2105.501	COMMON EXCAVATION (CV,P)	CU YD	3,979	2,374	32	315	160	6,860
21	2105.525	TOPSOIL BORROW (CV)	CU YD	699	388	233	10	235	1,565
22	2105.607	HAUL AND DISPOSE OF CONTAMINATED MATERIAL	CU YD	50					50
23	2118.501	AGGREGATE SURFACING CLASS 5	TON	15				15	30
24	2123.610	STREET SWEEPER (WITH PICKUP BROOM)	HOUR	8	8	8	4		28
25	2211.501	AGGREGATE BASE CLASS 5	TON	3,020	1,385	415	300		5,120
26	2232.501	MILL BITUMINOUS SURFACE (2")	SQ YD						0
27	2357.502	BITUMINOUS MATERIAL FOR TACK COAT	GAL	500	230	70	55		855
28	2360.501	TYPE SP 12.5 WEARING COURSE MIXTURE (2,B)	TON	2,200	1,010	310	240		3,760
29	2503.511	12" R.C. PIPE SEWER DES. 3006 CLASS V	LN FT	847	1,403				2,250
30	2503.511	24" R.C. PIPE SEWER DES. 3006 CLASS V	LN FT					243	243
31	2503.571	INSTALL PIPE SEWER	LN FT	75					75
32	2503.602	CONNECT TO EXISTING STORM SEWER	EACH	8	4				12
33	2503.603	8" HDPE PIPE SEWER	LN FT		37				37
34	2504.601	TEMPORARY WATER SERVICE	LUMP SUM	0.50	0.25	0.25			1.00
35	2506.501	CONSTRUCT DRAINAGE STRUCTURE, DESIGN SD	LN FT	22.10	73.78				95.88
36	2506.501	CONSTRUCT DRAINAGE STRUCTURE, DESIGN F	LN FT	6.46	12.10				18.56
37	2506.501	CONSTRUCT DRAINAGE STRUCTURE, DESIGN G	LN FT	5.89				5.19	11.08
38	2506.501	CONSTRUCT DRAINAGE STRUCTURE, DESIGN H	LN FT	4.52	2.46				6.98
39	2506.516	CASTING ASSEMBLY (STORM SEWER)	EACH	10	19			1	30
40	2506.522	ADJUST FRAME AND RING CASTING	EACH	13	17				30
41	2506.602	SEAL DRAINAGE STRUCTURE	EACH	10	19			1	30
42	2521.501	4" CONCRETE WALK	SQ FT	8,500	324				8,824
43	2531.501	CONCRETE CURB & GUTTER, DESIGN B624	LN FT	3,965	2,114				6,079
44	2531.507	6" CONCRETE DRIVEWAY PAVEMENT	SQ YD	362	82	90			534
45	2531.618	TRUNCATED DOMES	SQ FT	80	24				104
46	2563.601	TRAFFIC CONTROL	LUMP SUM	0.25	0.25	0.25	0.25		1.00
47	2573.502	SILT FENCE, TYPE MACHINE SLICED	LN FT	335	640	625			1,600
48	2573.530	STORM DRAIN INLET PROTECTION	EACH	10	16	1	2		29
49	2573.601	EROSION CONTROL SUPERVISOR	LUMP SUM	0.25	0.25	0.25	0.25		1
50	2573.602	STABILIZED CONSTRUCTION ENTRANCE	EACH	5	3	1	1		10
51	2575.501	SEEDING (TEMPORARY)	ACRE	1.3	0.7	0.4	0.1	0.5	3.0
52	2575.501	SEEDING (PERMANENT)	ACRE	1.3	0.7	0.4	0.1	0.5	3.0
53	2575.511	MULCH MATERIAL, TYPE 1 (TEMPORARY)	TON	2.6	1.4	0.8	0.2	0.9	5.9
54	2575.531	FERTILIZER, TYPE 2 (PERMANENT)	POUND	260	140	80	20	90	590
55	2575.560	HYDRAULIC SOIL STABILIZER, TYPE 5 (PERMANENT)	POUND	4,550	2,450	1,400	350	1,540	10,290
56	2575.608	SEED MIXTURE, TYPE 110 (TEMPORARY)	POUND	130	70	40	10	45	295
57	2575.608	SEED MIXTURE, TYPE 270 (PERMANENT)	POUND	260	140	80	20	90	590
58	2611.4A	CONNECT TO EXISTING WATERMAIN	EACH	3	4	2			9
59	2611.4A	CONNECT TO EXISTING WATER SERVICE	EACH	30	2	5			37
60	2611.4A	CONNECT TO EXISTING WATER SERVICE (IN BASEMENT)	EACH			1			1
61	2611.4A	8" PVC WATERMAIN PIPING	LN FT	2,200	990				3,190
62	2611.4A	8" PVC WATERMAIN PIPING (DIRECTIONAL DRILL)	LN FT			870			870
63	2611.4A	6" PVC WATERMAIN PIPING	LN FT	160		20			180
64	2611.4A	1" TYPE K COPPER SERVICE PIPE	LN FT	1,112	88	185			1,385
65	2611.4A	1" TYPE K COPPER SERVICE PIPE (DIRECTIONAL DRILL)	LN FT	290					290
66	2611.4B	8" GATE VALVE AND BOX W/ ADAPTOR	EACH	8	4	1			13
67	2611.4B	6" GATE VALVE AND BOX W/ ADAPTOR	EACH	7		1			8
68	2611.4C	1" CORPORATION STOP WITH SADDLE	EACH	32	3	6			41
69	2611.4D	1" CURB STOP AND BOX	EACH	32	3	6			41
70	2611.4E	HYDRANT	EACH	6		1			7
71	2611.4I	DUCTILE IRON WATERMAIN FITTINGS	POUND	3,850	700	2,100			6,650
72	-	SOIL TESTING - MATERIAL GRADATION	EACH	3	1	1			5
73	-	SOIL TESTING - PROCTOR	EACH	1	1	1			3
74	-	COMPACTION TESTING - UTILITY	EACH	36	24	5			65
75	-	INFORMATIONAL NEWSLETTER	WEEK	4	3	3	1		11

NOTES:  
(P) - PLANNED QUANTITY  
(CV) - COMPACTED VOLUME

**ENGINEERS**  
**ARCHITECTS**  
**LAND SURVEYORS**  
**ENVIRONMENTAL SERVICES**



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RED WING, MN  
ROCK FALLS, IL

DATE: JANUARY, 2013  
AS SHOWN  
SCALE: P.M.B.  
DRAWN BY: M.E.R.  
CHECKED BY:  
JOB NUMBER: 0127B0012.000

BY: P.M.B.  
REVISIONS DESCRIPTION  
BID ADDENDUM - DR. DRILL W/ ITEMS  
REVISE STORM SEWER QUANTITIES  
REVISE STORM SEWER QUANTITIES

DATE: 6-20-2013  
7-22-2013  
7-28-2013

DATE: 06-20-2013  
DATE: 06-20-2013  
LIC. NO. 43898  
MICHAEL E. RUDE

**2013 WATER IMPROVEMENTS**  
**CITY OF SWANVILLE**  
**SWANVILLE, MINNESOTA**  
**ESTIMATED QUANTITIES**

SHEET NO.  
**3**  
SHEET 3 OF 53

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APPLICABLE MINNESOTA DEPARTMENT OF TRANSPORTATION STANDARD PLATES	
PLATE NO.	
0005A	SPECIFICATION REFERENCE TO STANDARD PLATES
3000L	REINFORCED CONCRETE PIPE
3006G	GASKET JOINT FOR R.C. PIPE
4006L	MANHOLE OR CATCH BASIN (DESIGN G & H)
4010H	CONCRETE SHORT CONE AND ADJUSTING RING
4011E	PRECAST CONCRETE BASE
4026A	CONCRETE ENCASED CONCRETE ADJUSTING RINGS
4101D	RING CASTING FOR MANHOLE OR CATCH BASIN
4129G	CATCH BASIN FRAME CASTING (NO. 802A)
4151B	GRATE CASTING FOR CATCH BASIN (SQUARE TYPE) CASING NO. 811
4160D	CURB BOX CASTING FOR CATCH BASIN
4180J	MANHOLE OR CATCH BASIN STEP
7035M	CONCRETE WALK & CURB RETURNS AT ENTRANCES
7036F	PEDESTRIAN CURB RAMP
7100H	CONCRETE CURB & GUTTER (DESIGN B624)
7111J	INSTALLATION OF CATCH BASIN CASTINGS
8000I	STANDARD BARRACADES

BASIS FOR ESTIMATED QUANTITIES	
BITUMINOUS WEARING COURSE	
BITUMINOUS MIXTURE	115 LBS./SQ.YD./INCH THICKNESS
BITUMINOUS BASE COURSE	
BITUMINOUS MIXTURE	115 LBS./SQ.YD./INCH THICKNESS
BITUMINOUS TACK COAT	0.05 GAL./SQ. YD.
AGGREGATE BASE COURSE	
AGGREGATE BASE, CLASS 5	110 LBS./SQ.YD./INCH THICKNESS
SEEDING, MULCH, AND FERTILIZER	
SEED MIXTURE, 270	200 LBS./ACRE
SEED MIXTURE, 110 (TEMP.)	100 LBS./ACRE
HYDRAULIC SOIL STABILIZER, TYPE 5	3500 LBS./ACRE
FERTILIZER, TYPE 2	200 LBS./ACRE

**GENERAL NOTES**

- GOVERNING SPECIFICATIONS - SEE TITLE SHEET
- THE LOCATION OF UNDERGROUND UTILITIES SHOWN ON THE PLANS ARE APPROXIMATE. THE CONTRACTOR SHALL VERIFY UTILITY LOCATIONS AND DEPTHS AS REQUIRED. EXCAVATION TO LOCATE EXISTING UNDERGROUND UTILITIES SHALL BE INCIDENTAL.
- THE CONTRACTOR SHALL NOTIFY THE UTILITY OWNERS AT LEAST 48 HOURS BEFORE BEGINNING CONSTRUCTION.
- PER MINNESOTA STATE STATUE 216D, CONTRACTOR SHALL CONTACT GOPHER STATE ONE CALL AT LEAST TWO (2) WORKING DAYS PRIOR TO ANY TYPE OF EXCAVATION.

**UTILITY OWNERS:**

WATER & SEWER - CITY OF SWANVILLE  
TELEPHONE NO. 320-547-2291

ELECTRICAL - MINNESOTA POWER CO.  
TELEPHONE NO. 218-568-4754

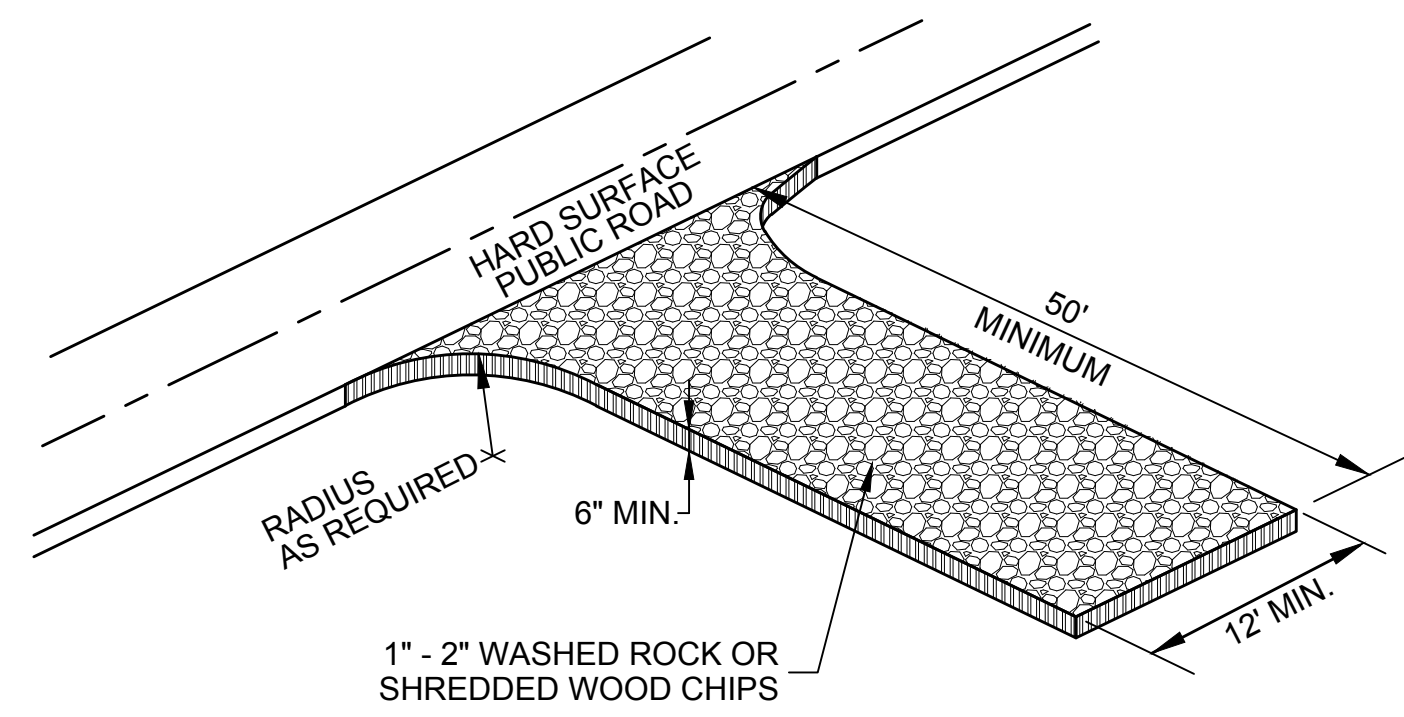
TELEPHONE - QWEST  
TELEPHONE NO. 1-800-283-4237

MIDSTATE EDUCATION DISTRICT  
TELEPHONE NO. 320-360-3696

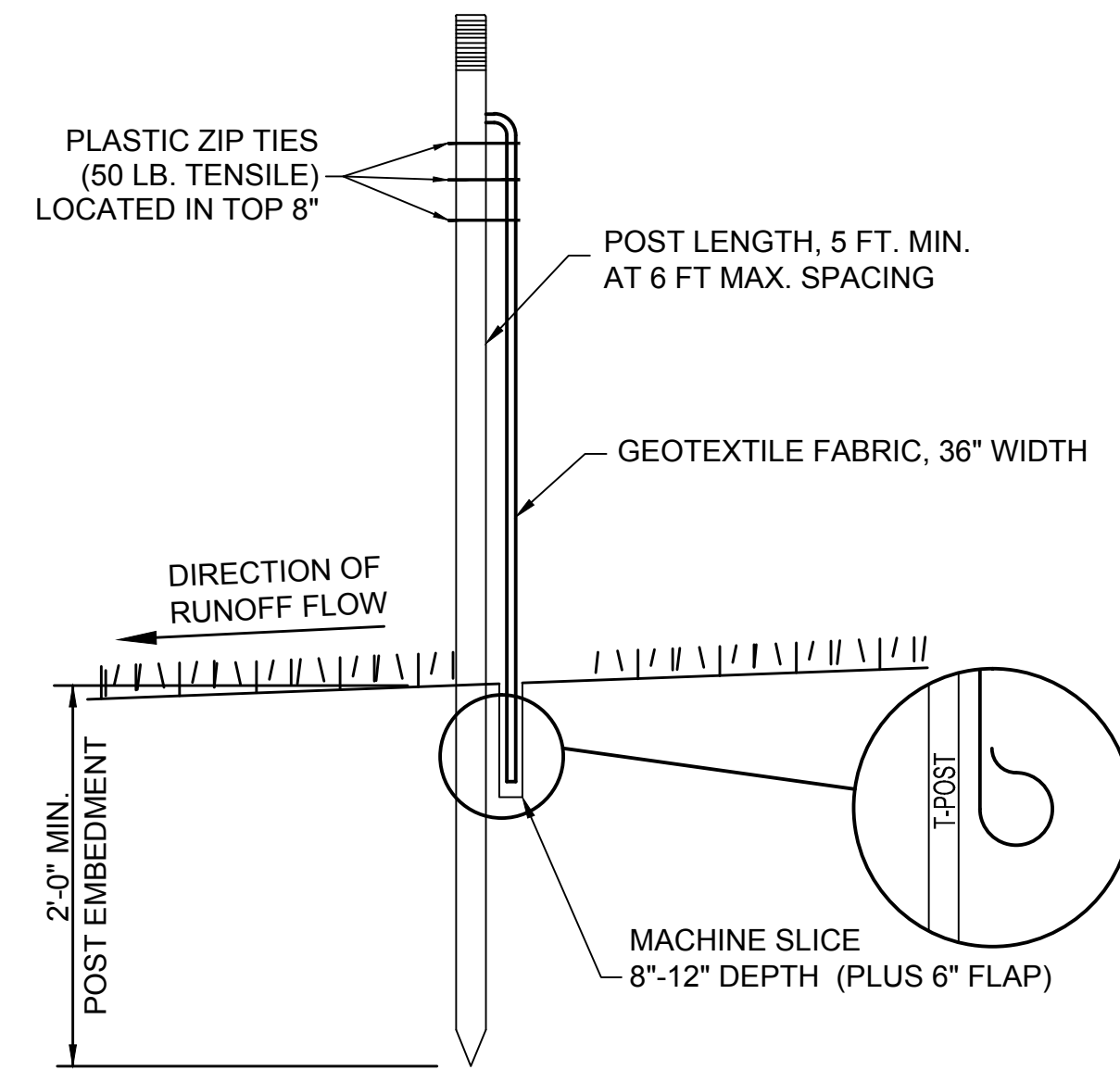
UPSALA COOP TELEPHONE  
TELEPHONE NO. 320-573-2122

GOPHER STATE - TELEPHONE NO. 1-800-252-1166  
ONE CALL

ENGINEERS ARCHITECTS LAND SURVEYORS ENVIRONMENTAL SERVICES  
 WIDSETH SMITH NOLTING  
 www.wsnolting.com  
 I HEREBY CERTIFY THAT THIS PLAN, SPECIFICATION, OR REPORT WAS PREPARED BY ME OR UNDER MY CLOSE PERSONAL SUPERVISION AND THAT I AM A DULY LICENSED PROFESSIONAL ENGINEER UNDER THE LAWS OF THE STATE OF MINNESOTA.  
 MICHAEL E. RUDE  
 DATE: 04-01-2013 LIC. NO. 43896  
 2013 WATER IMPROVEMENTS  
 CITY OF SWANVILLE  
 SWANVILLE, MINNESOTA  
 CHARTS  
 SHEET NO. 4  
 SHEET 4 OF 53  
 DATE: JANUARY, 2013 AS SHOWN P.M.B. M.E.R.  
 SCALE: DRAWN BY: CHECKED BY:  
 JOB NUMBER: 0127B0012.000



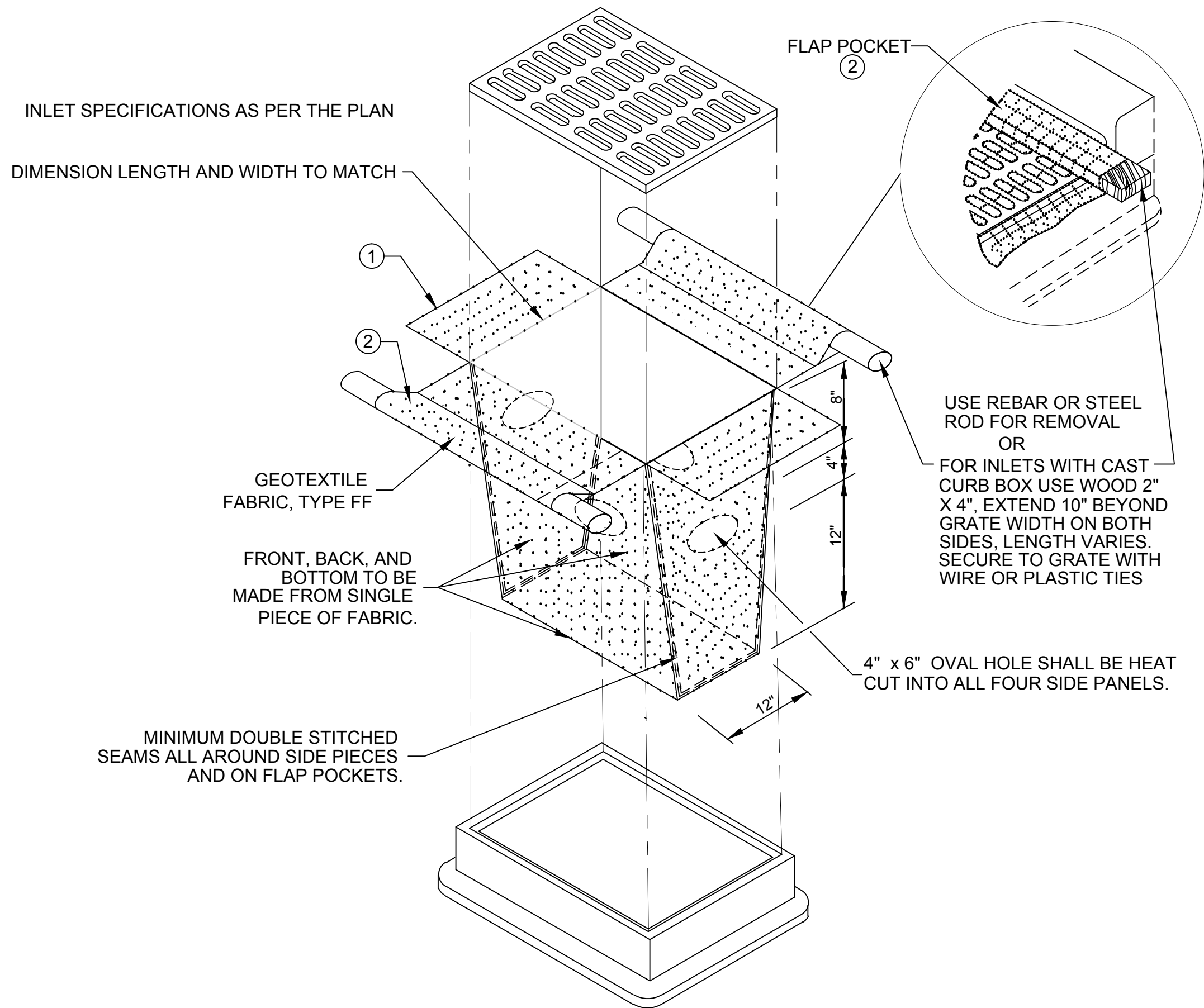
**STABILIZED CONSTRUCTION ENTRANCE**



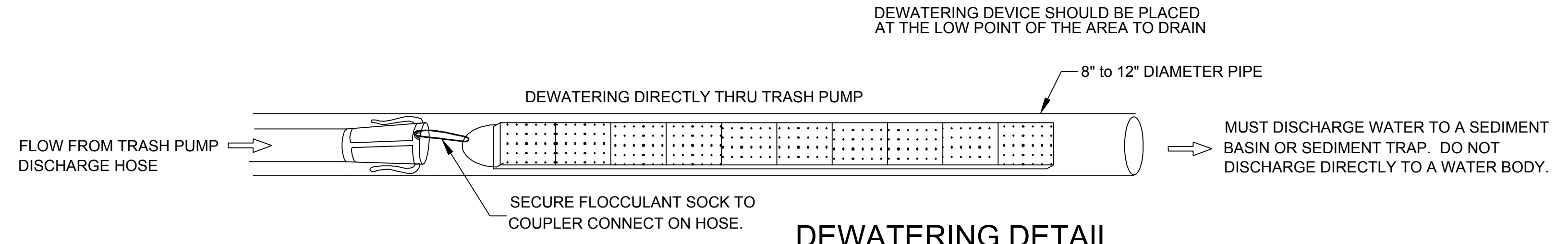
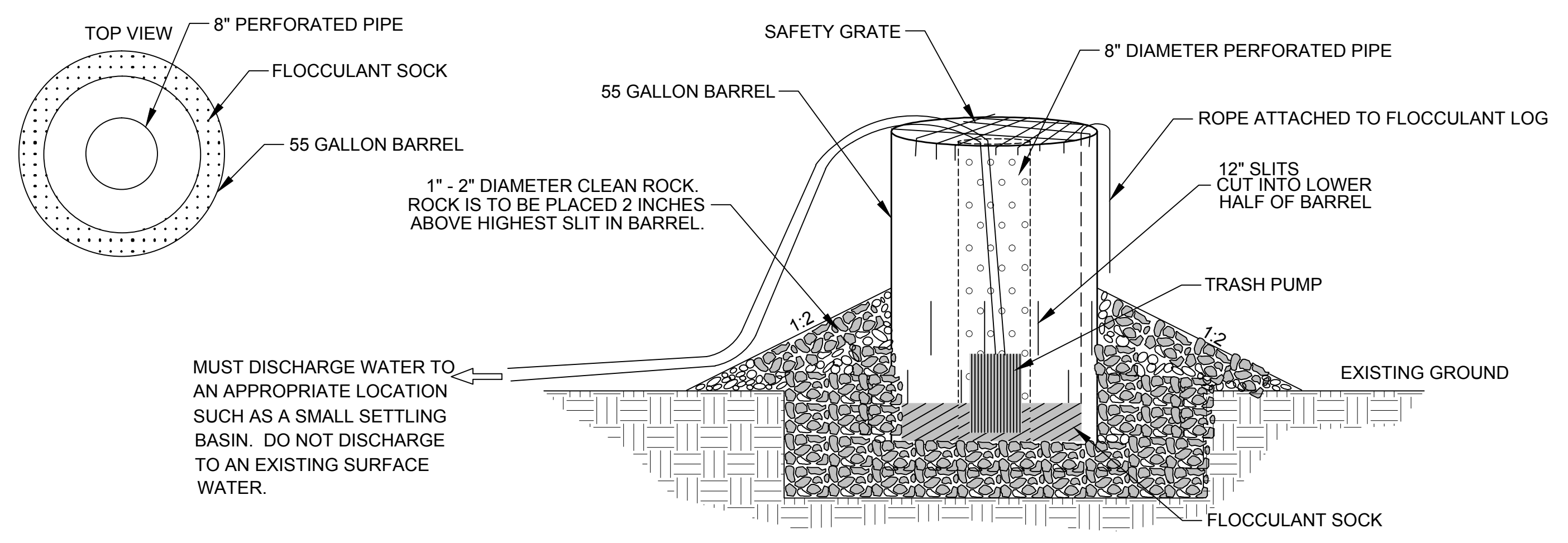
**SILT FENCE DETAIL**  
STANDARD MACHINE SLICED

**NOTE:**  
IT IS THE CONTRACTORS RESPONSIBILITY TO PROTECT ALL EXISTING TREES AND SHRUBS ADJACENT TO ROADWAY. THIS INCLUDES ROOT, TRUNK, AND BRANCH DAMAGE. TREES AND SHRUBS SPECIFICALLY TO BE REMOVED WILL BE INDICATED.

- GENERAL EROSION CONTROL NOTES:**
- ALL SILT FENCE SHALL BE IN-PLACE PRIOR TO ANY EXCAVATION/CONSTRUCTION AND SHALL BE MAINTAINED UNTIL VIABLE TURF OR GROUND COVER IS ESTABLISHED.
  - TEMPORARY SEEDING, MULCHING, TEMPORARY EROSION AND SEDIMENT CONTROL SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR IN ACCORDANCE WITH THE ABOVE TABLE.
  - ALL EXPOSED SOILS MUST BE STABILIZED, ACCORDING TO THE TABLE ABOVE, AFTER ROUGH GRADING OPERATIONS ARE COMPLETE. ALL STOCKPILES MUST HAVE ADEQUATE SEDIMENT TRAPPING SYSTEMS FUNCTIONING AROUND THEIR PERIMETER.



**INLET PROTECTION ③**  
(CAN BE INSTALLED IN ANY INLET TYPE WITH OR WITHOUT A CURB BOX)



**DEWATERING DETAIL**

ENGINEERS ARCHITECTS LAND SURVEYORS ENVIRONMENTAL SERVICES

WIDSETH SMITH NOLTING

DATE: JANUARY 2013 AS SHOWN P.M.B. M.E.R. 0127B0012.000

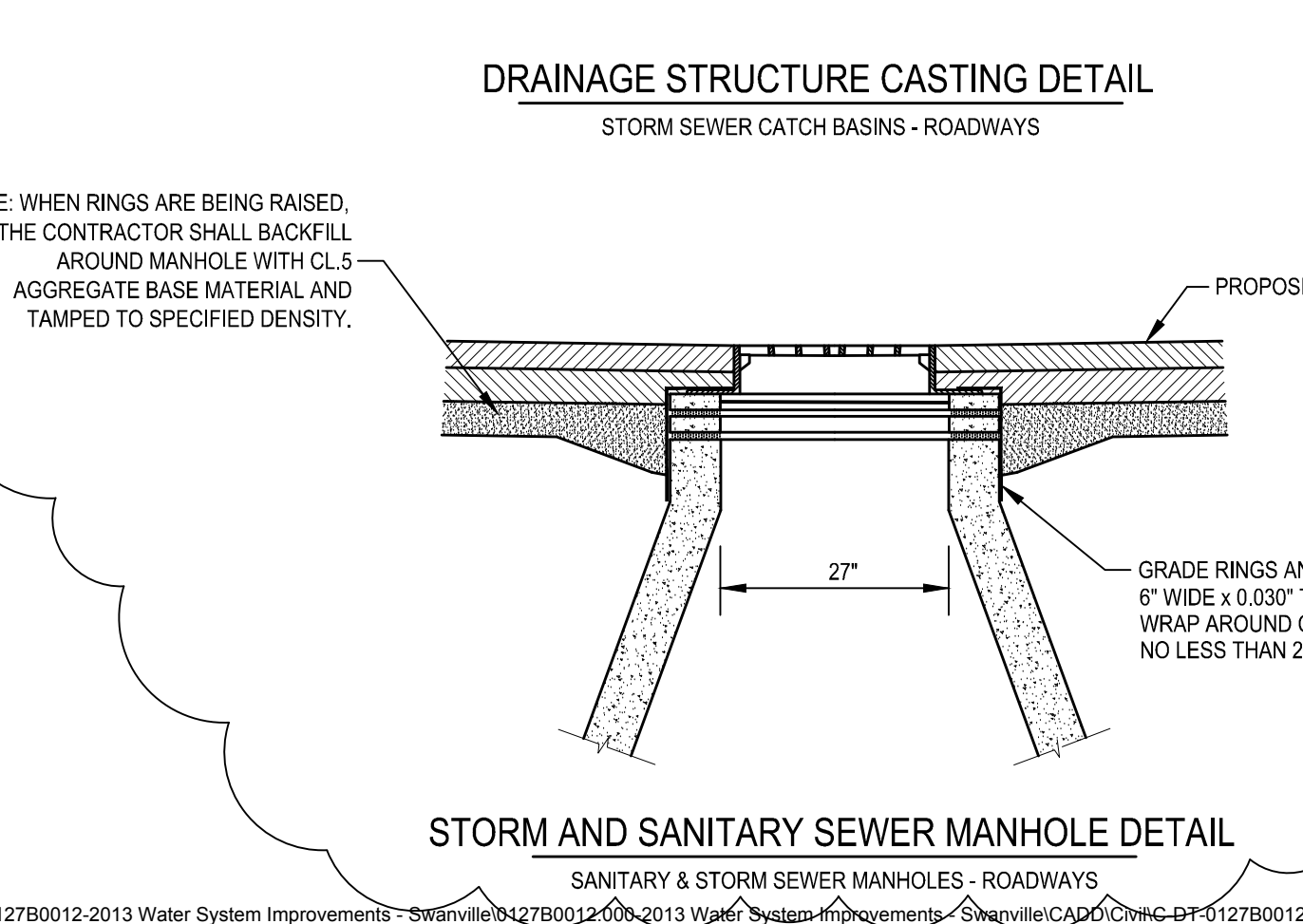
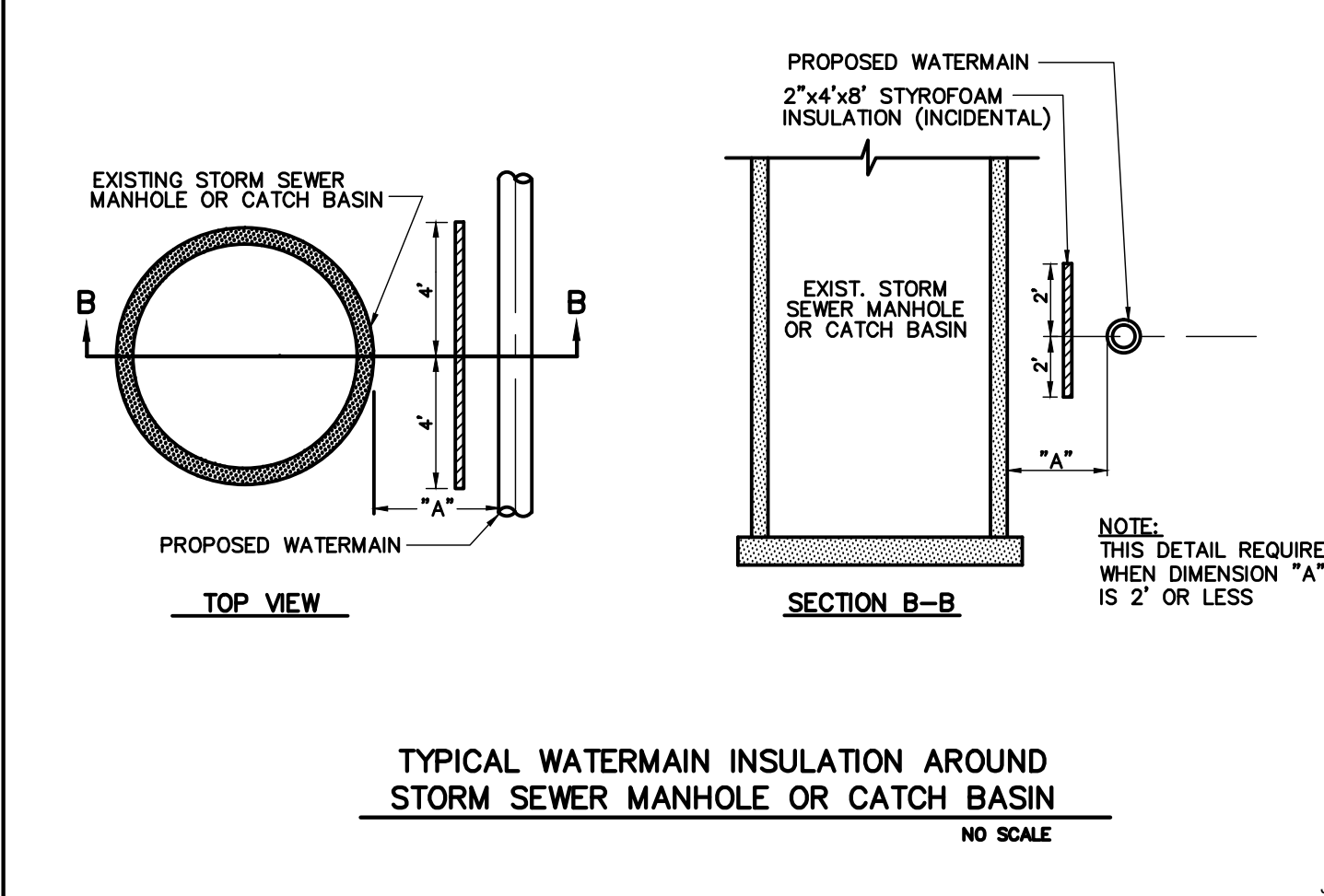
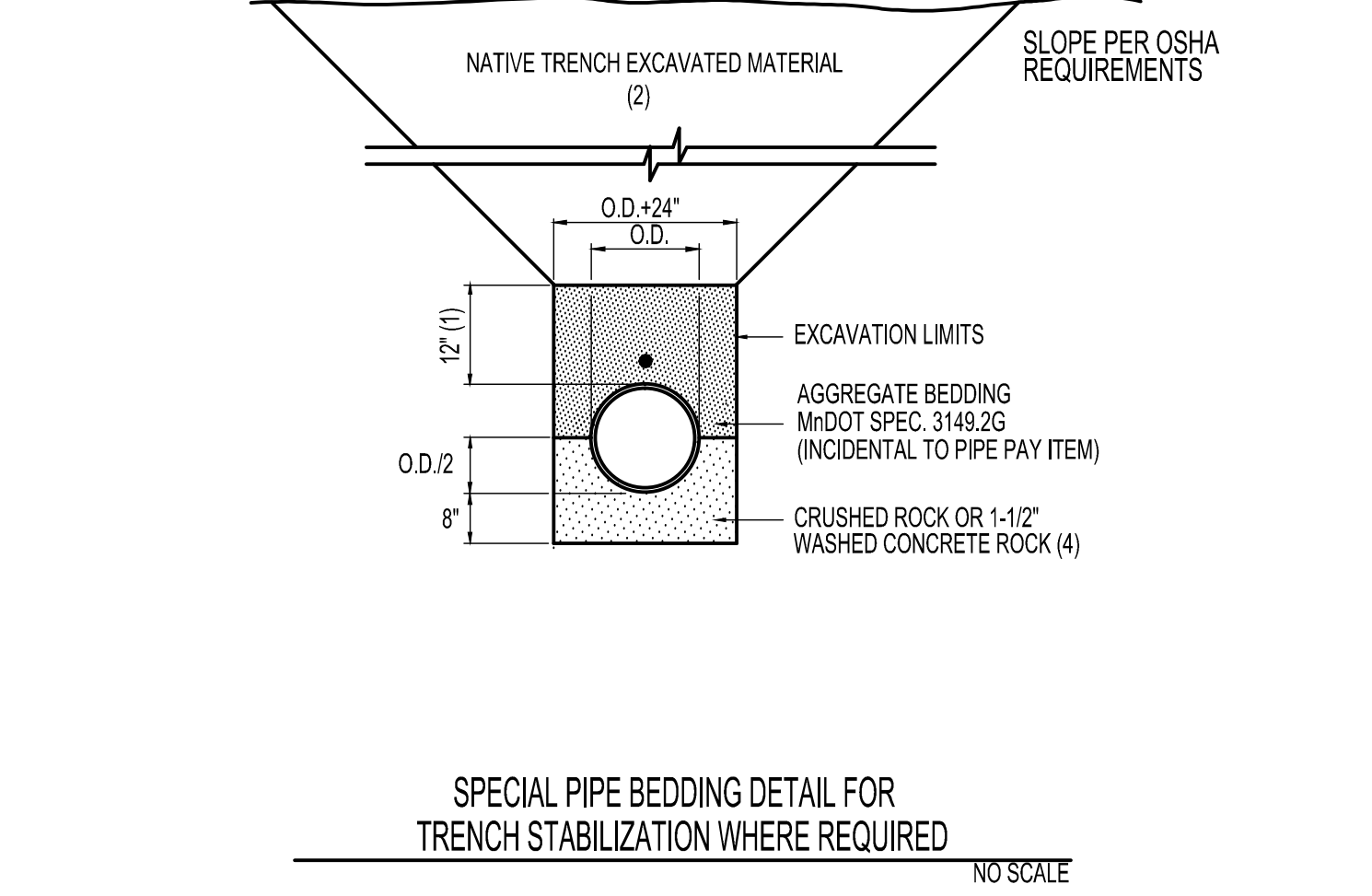
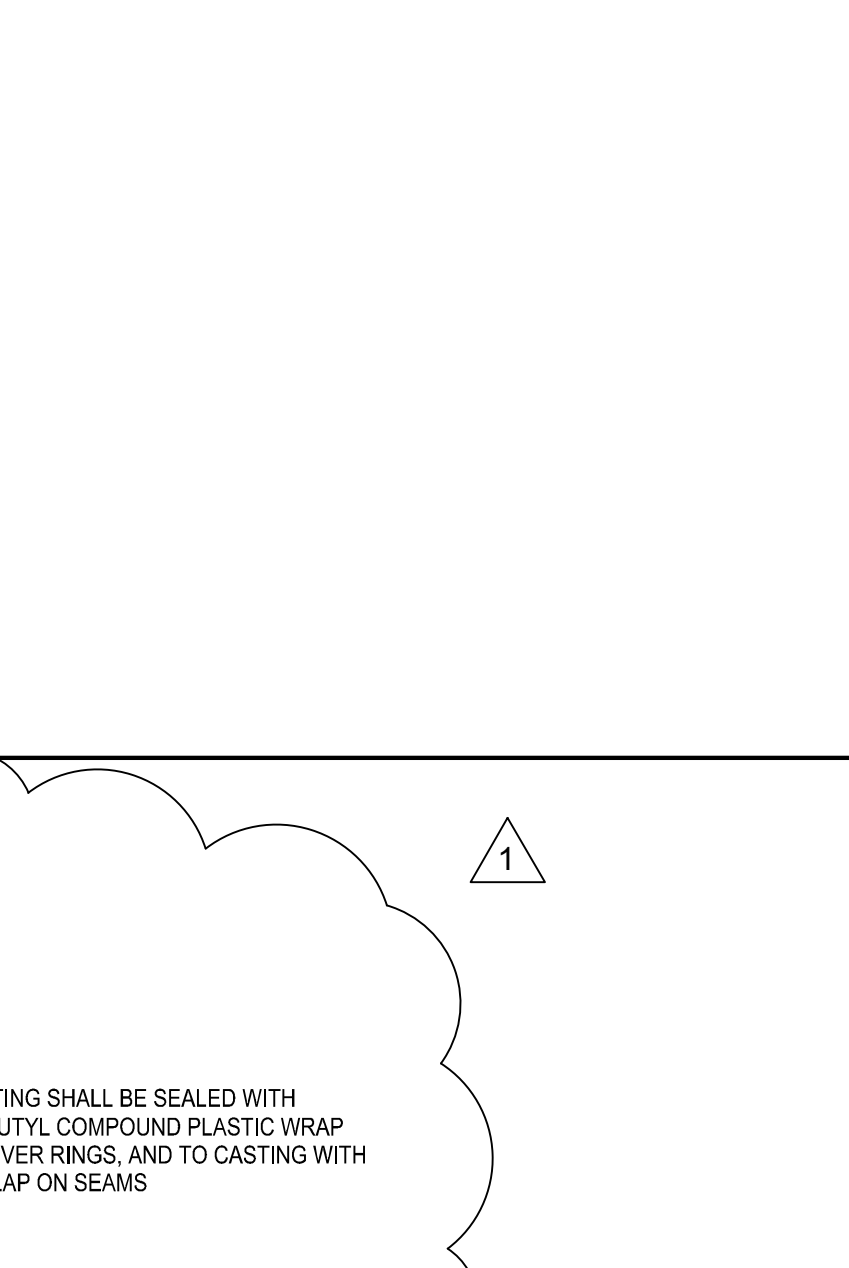
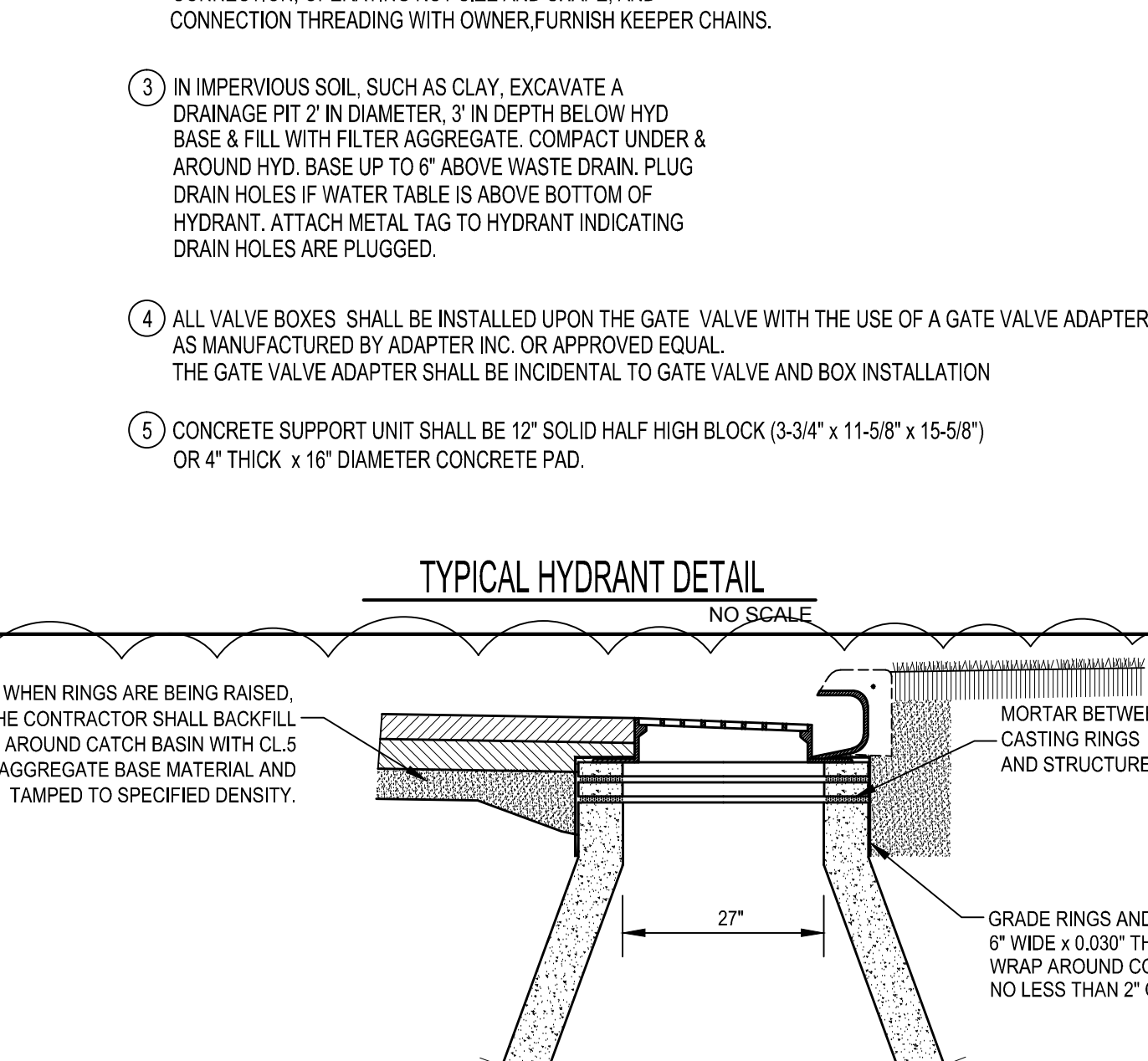
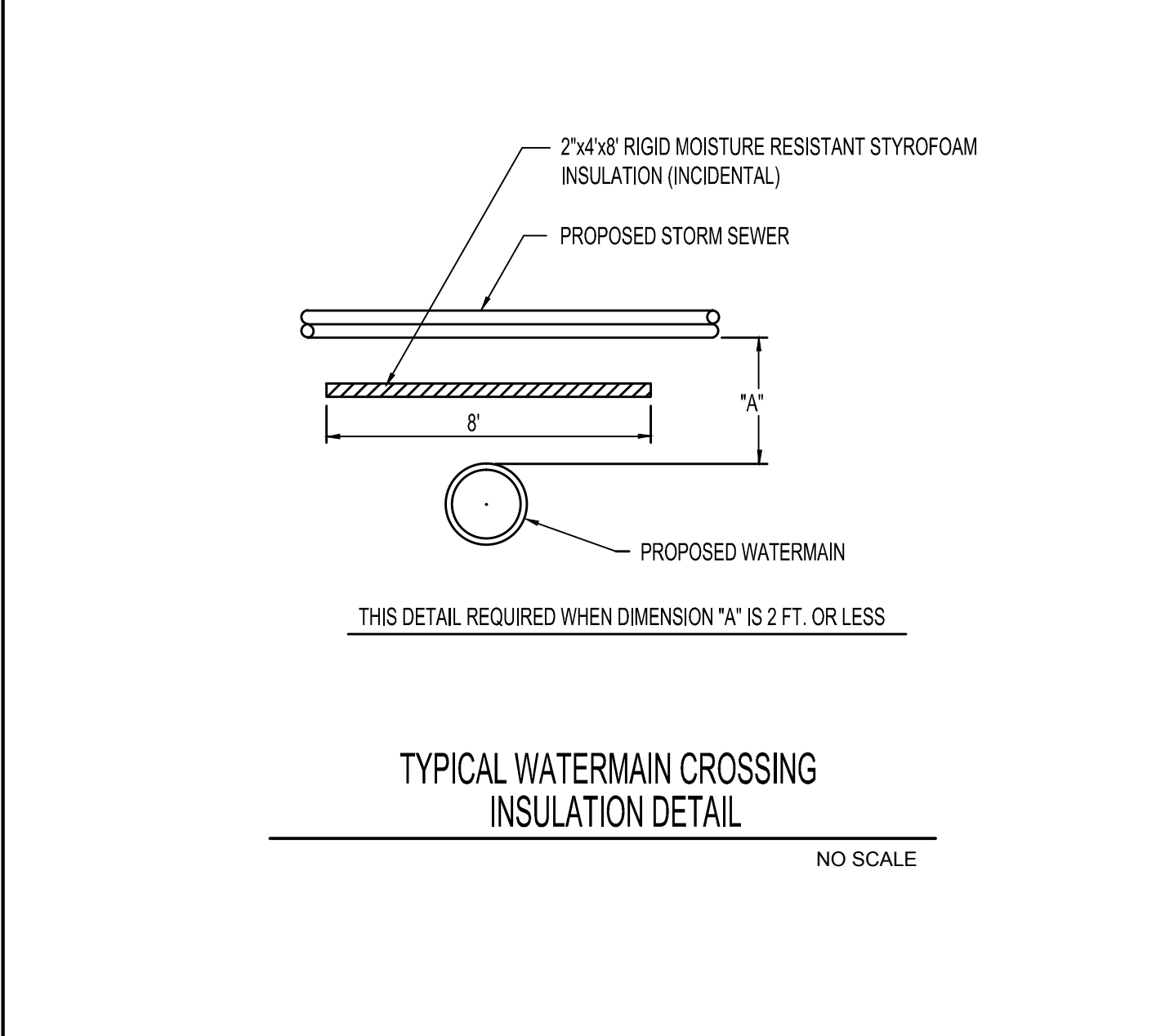
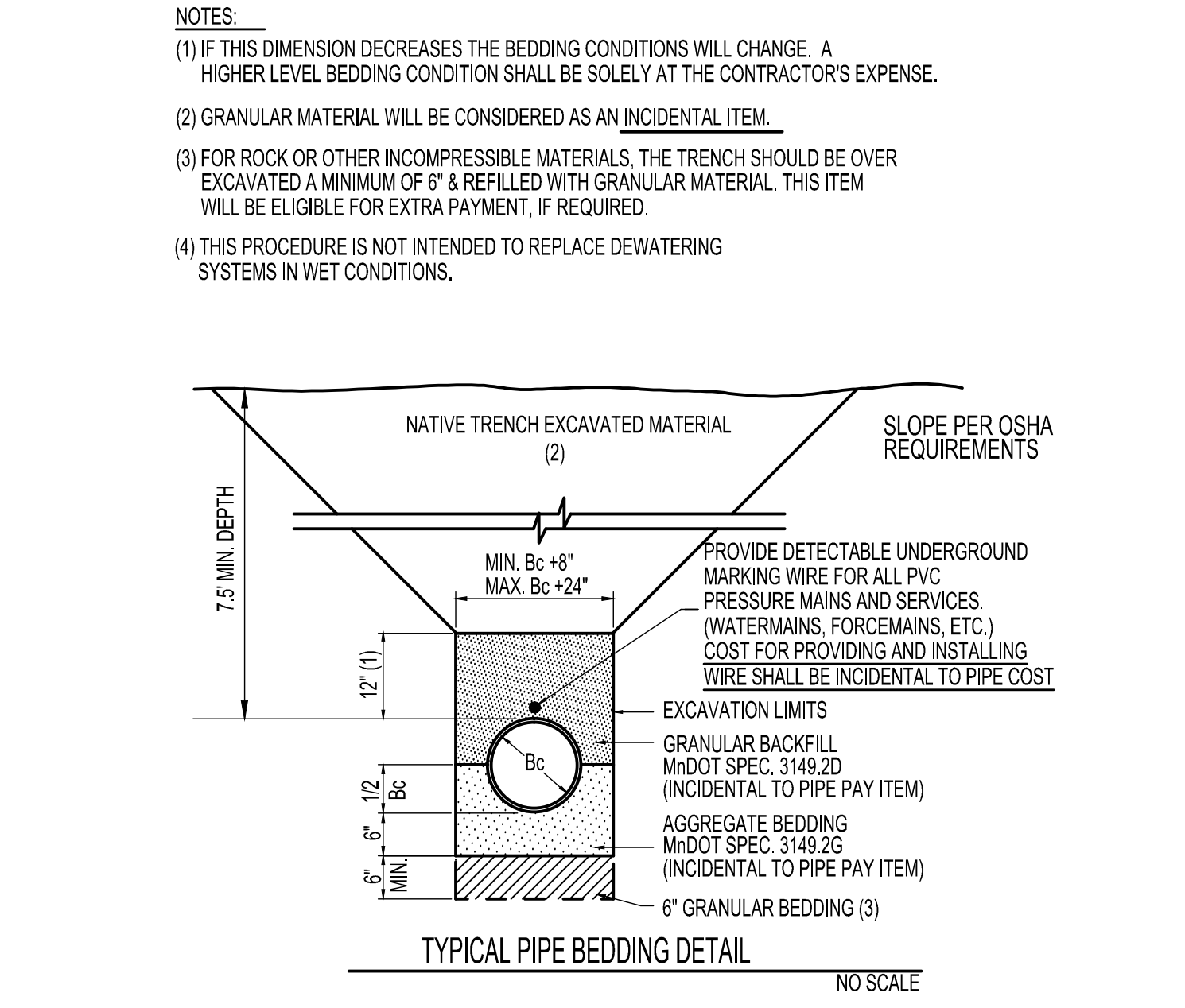
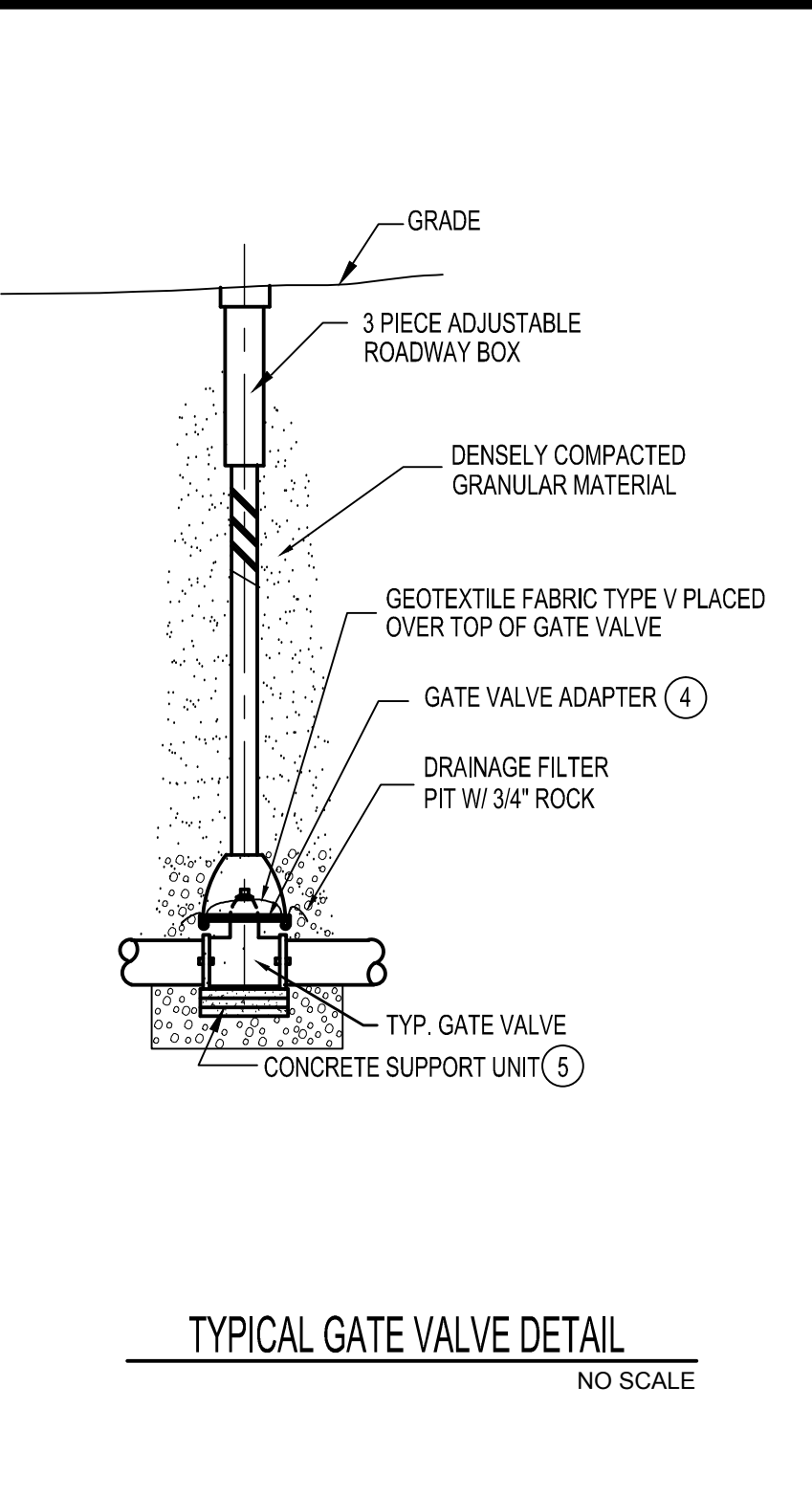
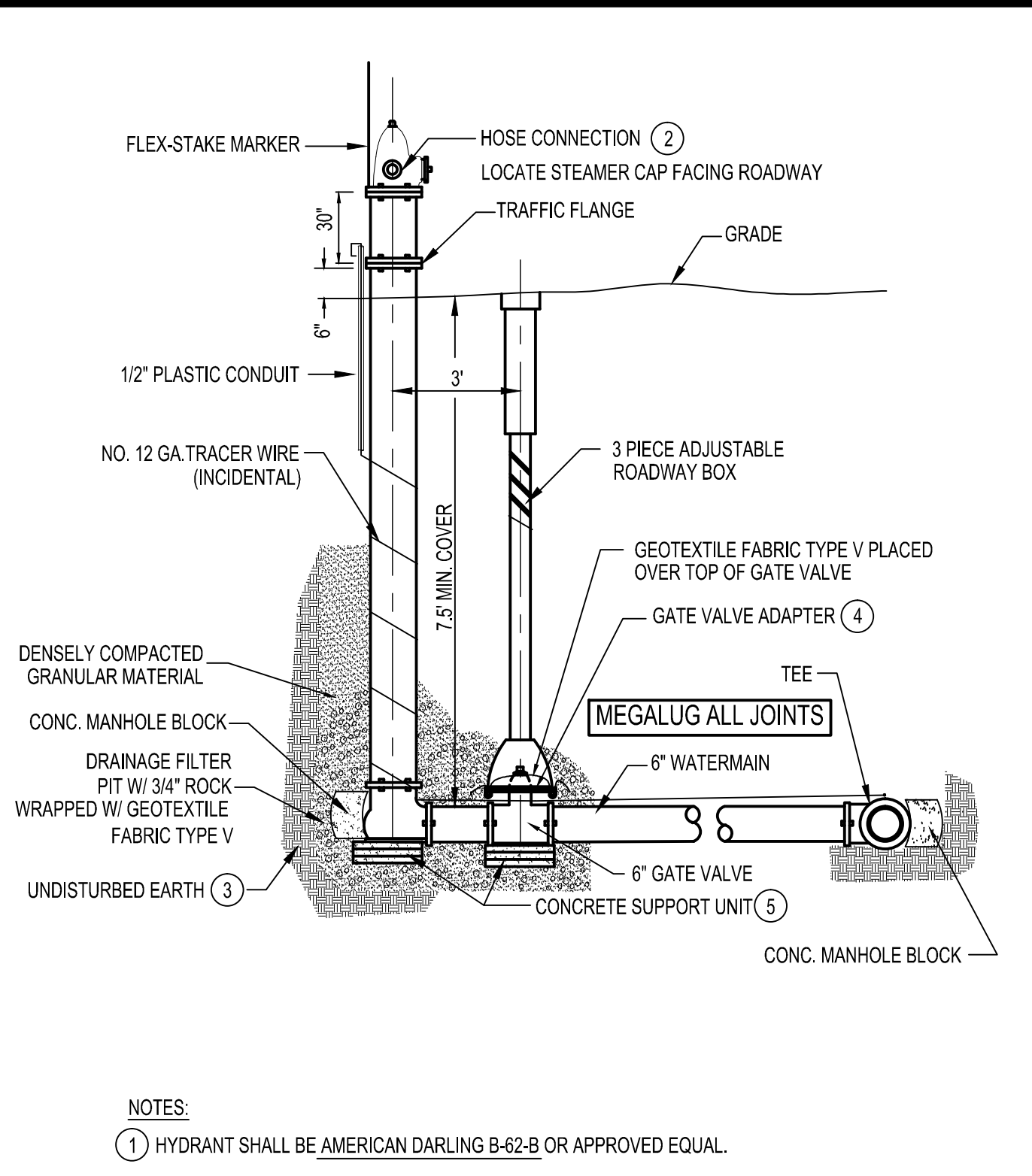
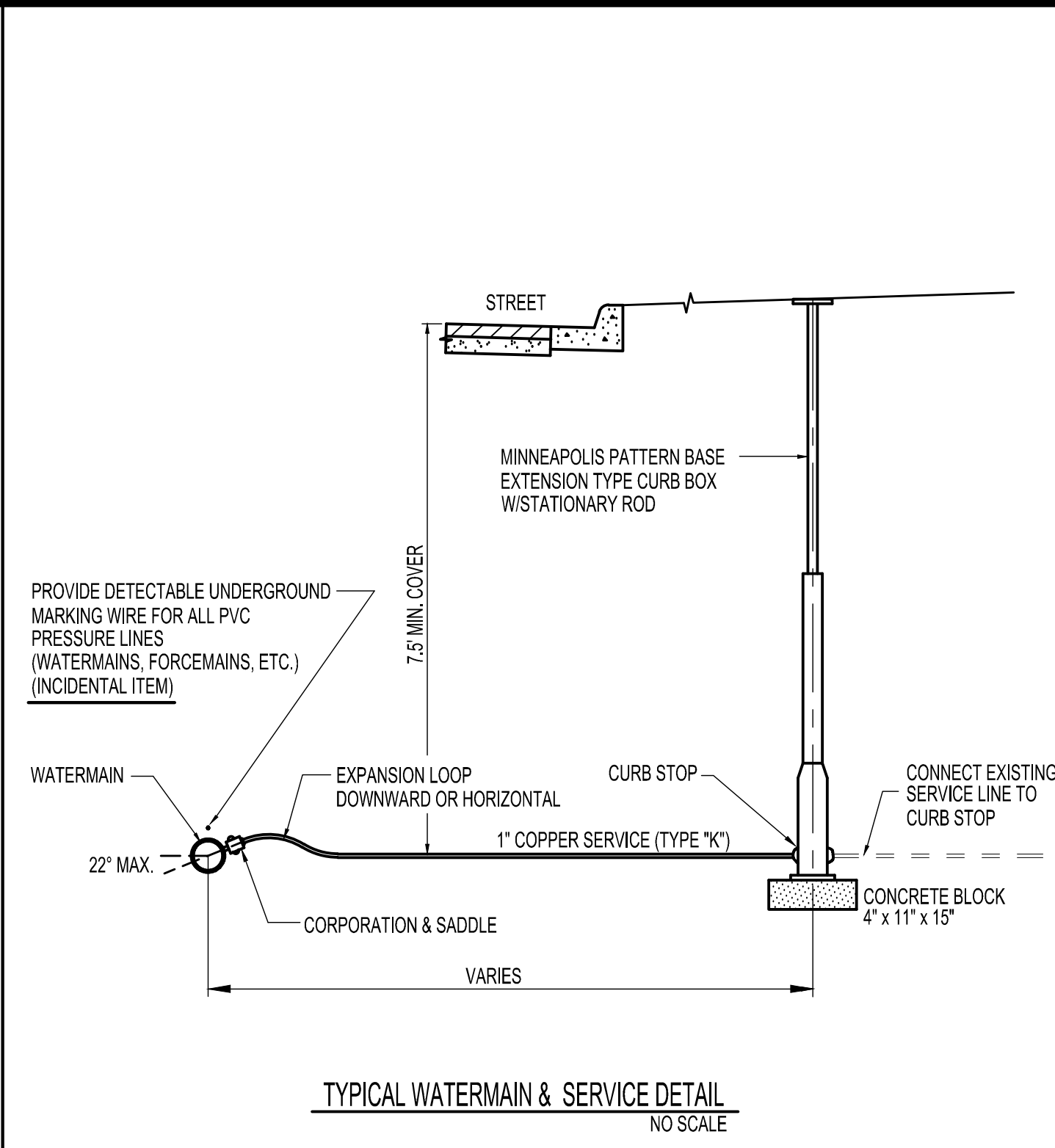
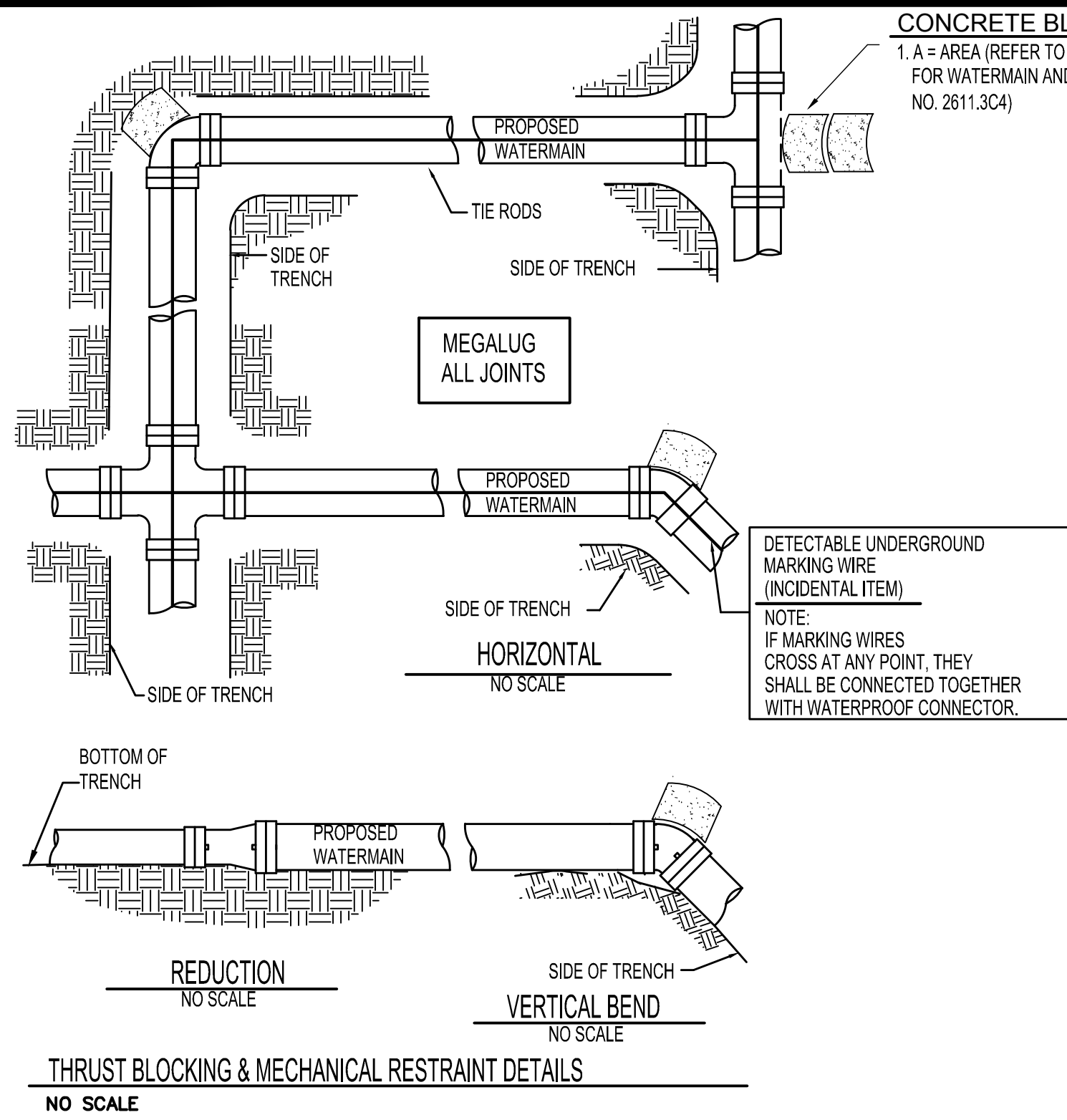
DATE: SCALE: DRAWN BY: CHECKED BY: JOB NUMBER: 0127B0012.000

2013 WATER IMPROVEMENTS CITY OF SWANVILLE SWANVILLE, MINNESOTA

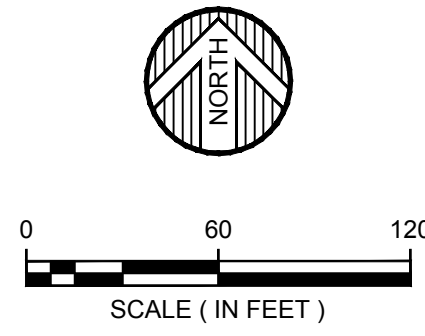
EROSION CONTROL DETAILS

SHEET NO. 5

J:\0127B-City of Swanville\0127B0012-2013 Water System Improvements - Swanville\0127B0012.000-2013 Water System Improvements - Swanville\CADD\Civil\IC-DT-0127B0012.000.dwg Plotted by: Mike Rude 6/6/2013 2:57:06 PM © 2013 WIDSETH SMITH NOLTING SHEET 5 OF 53

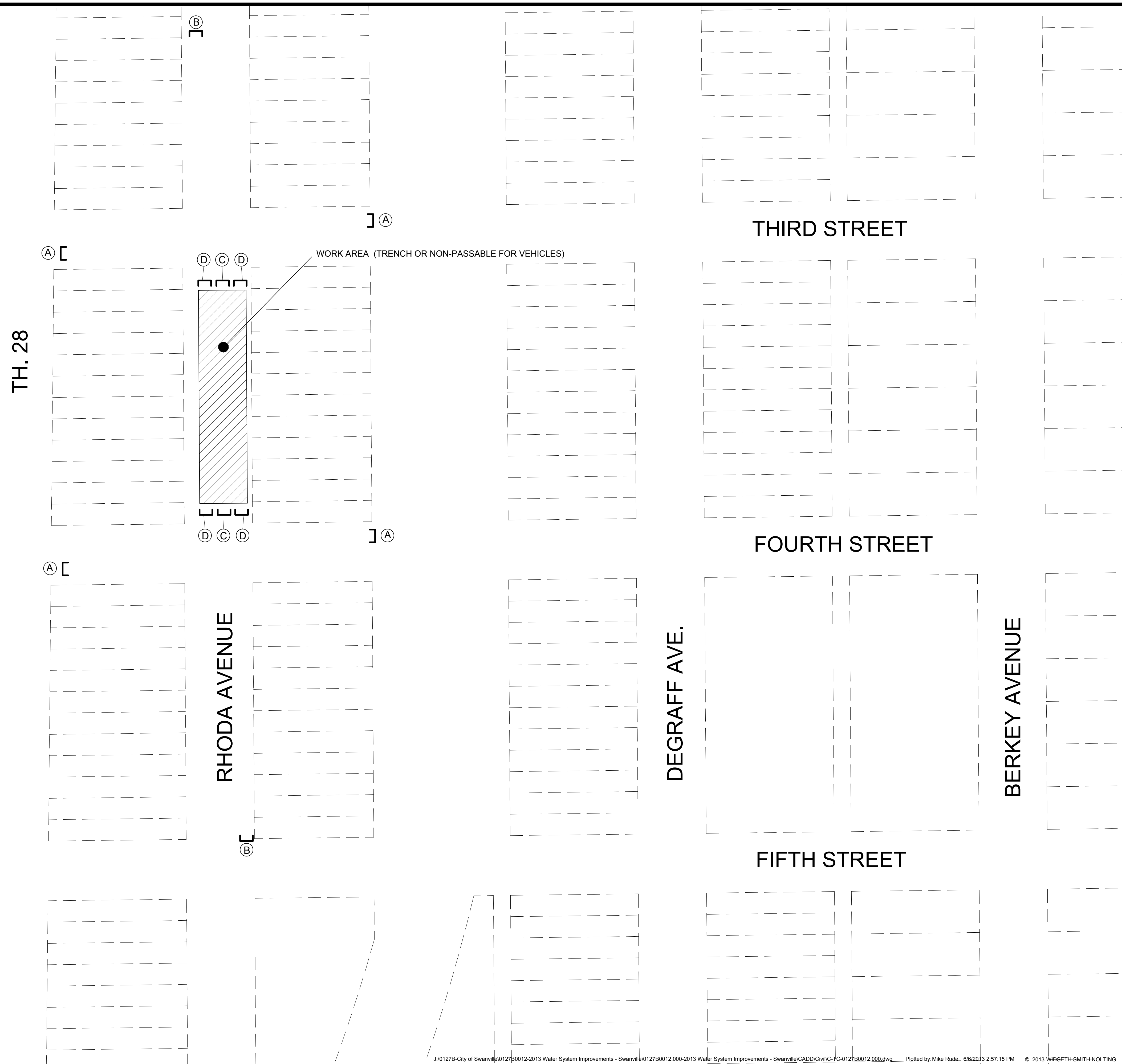


ENGINEERS	ARCHITECTS	LAND SURVEYORS	ENVIRONMENTAL SERVICES
DATE:	JANUARY, 2013	SCALE:	AS SHOWN
BY:	M.E.R.	REVISIONS DESCRIPTION:	ADDED MANHOLE CASTING DETAILS
DATE:	06-19-2013	REVISION:	1
DATE:	01-27-2012	JOB NUMBER:	0127B0012.000
<b>WATER DETAILS</b>			
<b>6</b>			
SHEET 6 OF 53			



**WORK ZONE TRAFFIC AND PEDESTRIAN CONTROL  
GENERAL REQUIREMENTS**

1. PROVIDE SIGNAGE AND PERSONNEL TO GUIDE AND PROTECT MOTORISTS AND PEDESTRIANS AROUND WORK AREA AS SHOWN IN TYPICAL LAYOUT.
2. UPDATE THE SIGNAGE LAYOUT DAILY BASED ON SEQUENCING OF CONSTRUCTION THROUGHOUT PROJECT AREA.
3. ARRANGE SEQUENCING OF CONSTRUCTION TO MAINTAIN ACCESS TO BUSINESSES AT ALL TIMES.
4. BASED ON SEQUENCING, PROVIDE AND PROPERLY LOCATE TEMPORARY SIGNAGE TO GUIDE PEDESTRIANS TO BUSINESS LOCATIONS.
5. SIGNAGE SHOWN ON DRAWINGS IS A MINIMUM. PROVIDE NECESSARY SIGNAGE AT NO ADDITIONAL COST TO THE PROJECT BASED ON SEQUENCING OF CONSTRUCTION AS DETERMINED BY THE CONTRACTOR.
6. ONLY HALF A BLOCK OF TRENCHING SHALL BE OPEN AT ANY ONE TIME, SUCH TRENCHING BEING PROPERLY FENCED OR BARRICADED FOR THE SAFETY OF PEDESTRIANS.
7. MAINTAIN PAVEMENT AND SIDEWALK IN PLACE AS LONG AS POSSIBLE TO ASSIST IN ACCESS TO BUSINESSES.
8. REMOVAL OF PAVEMENT, CURB AND GUTTER AND SIDEWALK IN ONE OPERATION WILL NOT BE ALLOWED. MULTIPLE MOBILIZATIONS FOR REMOVALS WILL BE NECESSARY.
9. REMOVE PAVEMENT AND CURB AND GUTTER NO LONGER THAN 3 DAYS PRIOR TO TRENCHING OR PREPARATION FOR NEW ROADBED.
10. CONTRACTOR SHALL SET UP TEMPORARY NORTH BOUND LANE PER MNDOT FIELD MANUAL; 6K-13 (LAYOUT 13) WHEN WORKING IN MNDOT RIGHT-OF-WAY. LANE CLOSURE SHALL BE REMOVED EACH NIGHT.
11. SEE SIGN SCHEDULE PLAN SHEET FOR SIGN SCHEDULE INFORMATION.



**WIDSETH SMITH NOLTING**

ENGINEERS ARCHITECTS LAND SURVEYORS ENVIRONMENTAL SERVICES

ALEXANDRIA BEMIDJI BRANDED CROOKSTON GRAND FORKS SWANVILLE

DATE: 04-01-2013 LIC. NO. 43896

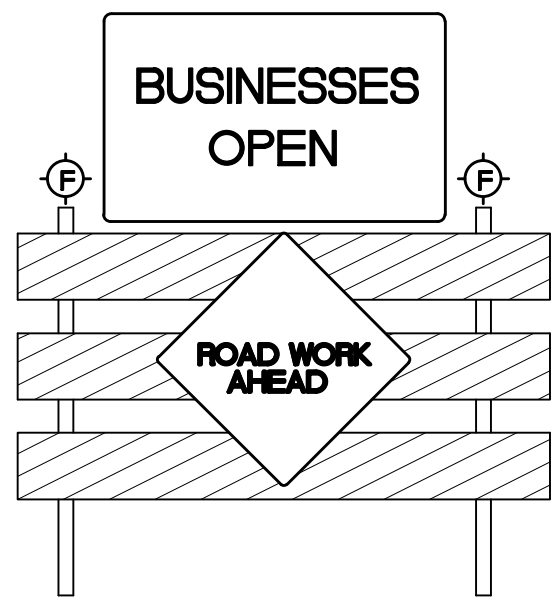
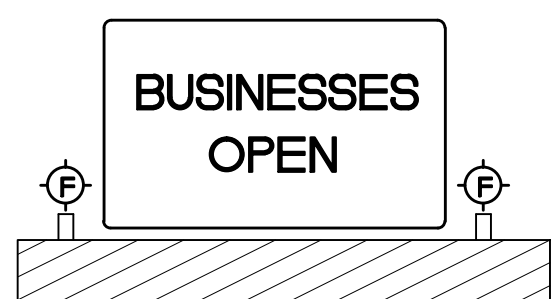
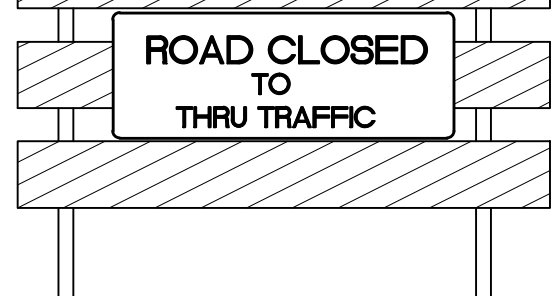
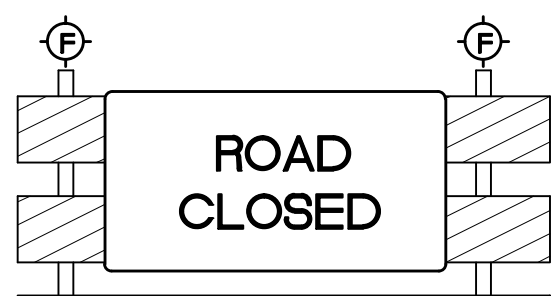
BY: *Michael E. Rude* MICHAEL E. RUDE

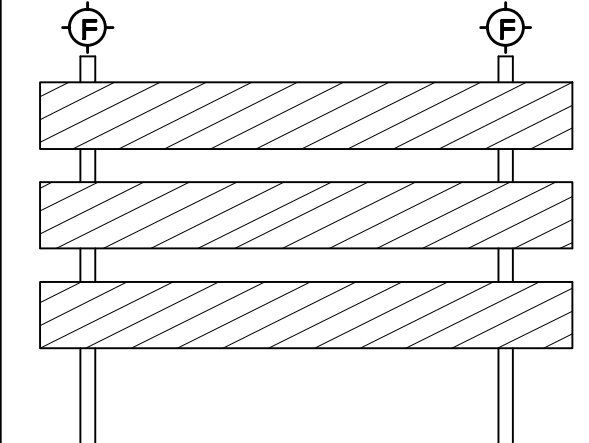
REVISIONS DESCRIPTION	DATE	REV#

DATE: JANUARY, 2013 AS SHOWN  
SCALE: DRAWN BY: P.M.B. CHECKED BY: M.E.R.  
JOB NUMBER: 0127B0012.000

2013 WATER IMPROVEMENTS  
CITY OF SWANVILLE  
SWANVILLE, MINNESOTA  
TRAFFIC CONTROL - GENERAL LAYOUT

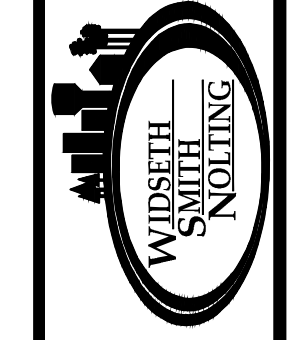
SHEET NO. **7**  
SHEET 7 OF 53

SIGN SCHEDULE				
PLAN KEY	NUMBER	DRAWING	COLOR	SIZE
A	G20-X6X AND TYPE A		BLACK ON ORANGE  FLASHING WARNING LIGHTS	48x36
	AND W20-1 AND TYPE III BARRICADE		BLACK ON ORANGE  ORANGE ON WHITE	36x36
	G20-X6X AND TYPE A		BLACK ON ORANGE  FLASHING WARNING LIGHTS	48x36
	R11-4 AND TYPE III BARRICADE		BLACK ON ORANGE  ORANGE ON WHITE	48x18
C	TYPE A		FLASHING WARNING LIGHTS	48x30
	AND R11-2		BLACK ON WHITE	
	AND TYPE III BARRICADE		ORANGE ON WHITE	

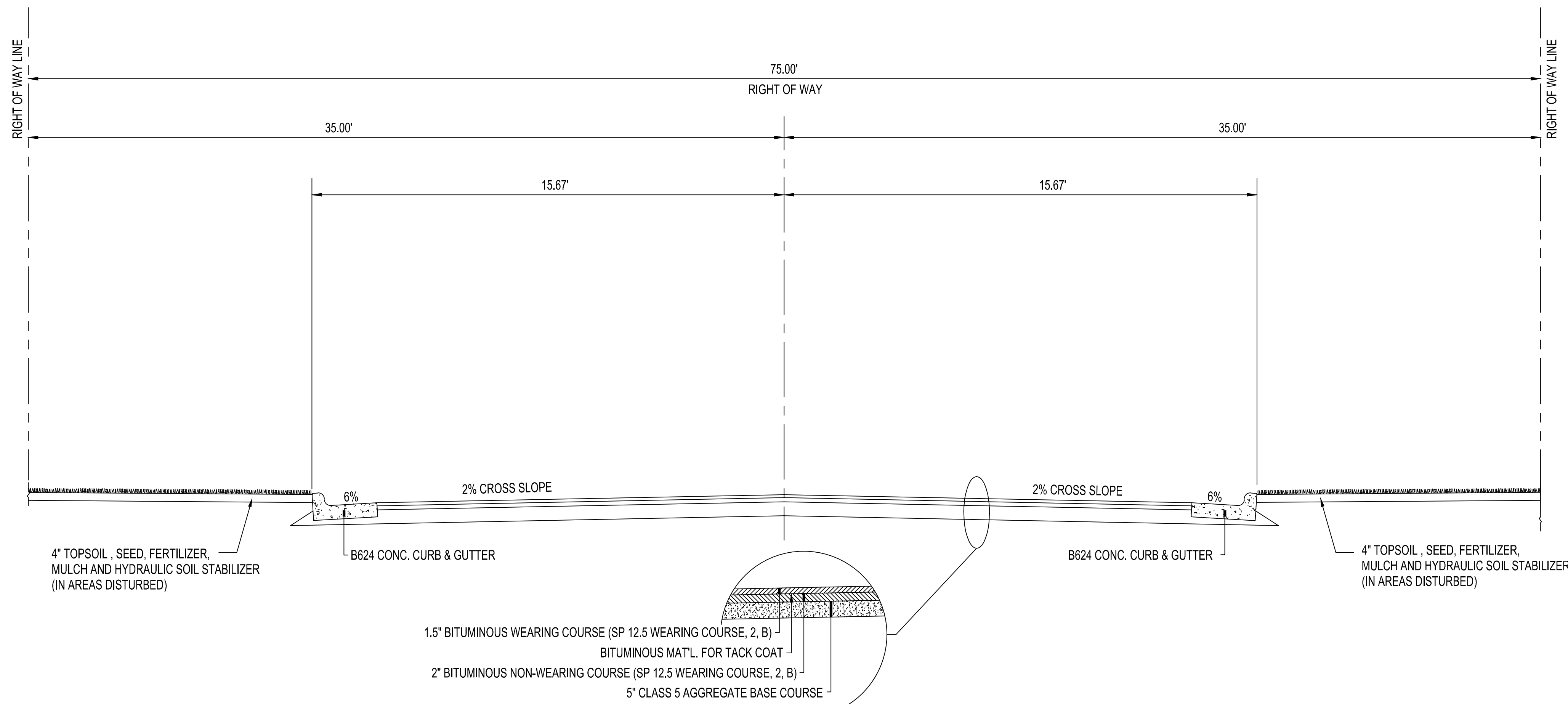
SIGN SCHEDULE				
PLAN KEY	NUMBER	DRAWING	COLOR	SIZE
D	TYPE A		FLASHING WARNING LIGHTS	
	AND TYPE III BARRICADE		ORANGE ON WHITE	

DATE	REV#	DESCRIPTION

I HEREBY CERTIFY THAT THIS PLAN, SPECIFICATION, OR REPORT  
IS MY ORIGINAL WORK AND THAT I AM A DULY LICENSED PROFESSIONAL ENGINEER UNDER  
THE LAWS OF THE STATE OF MINNESOTA.  
*Michael E. Rude*  
MICHAEL E. RUDE LIC. NO. 43896 DATE: 04-01-2013

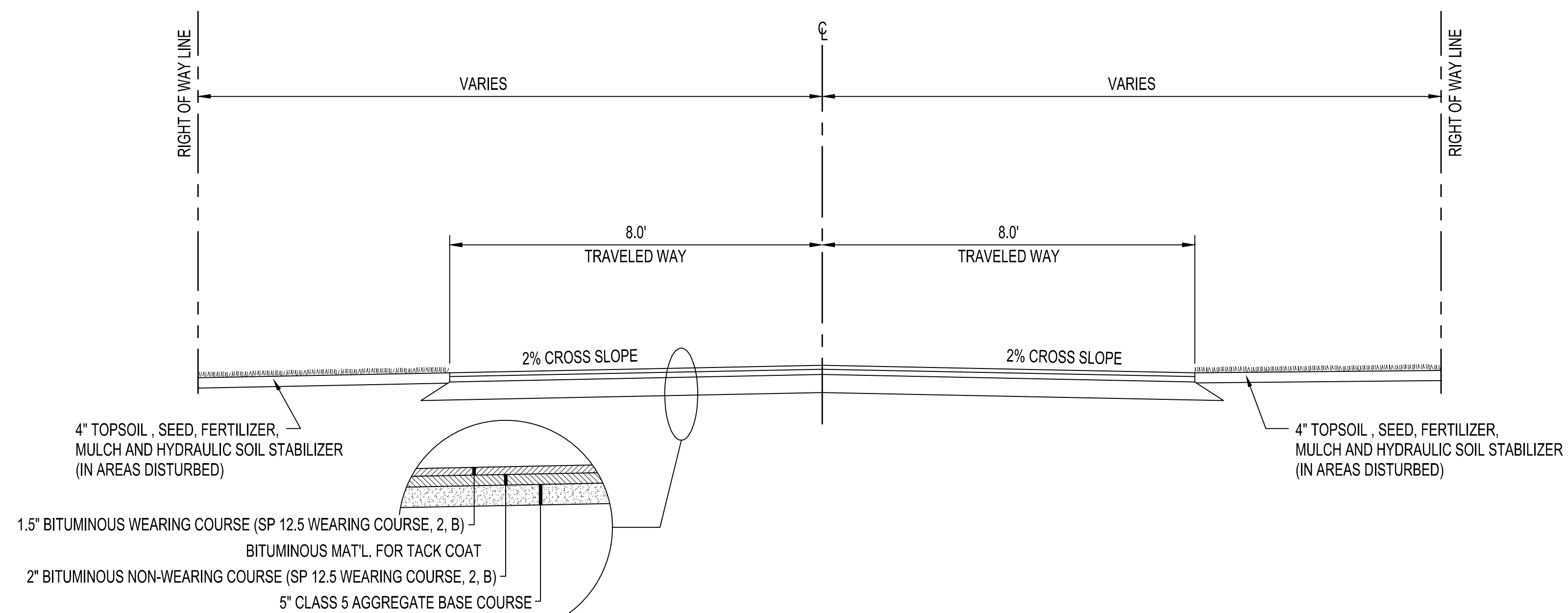




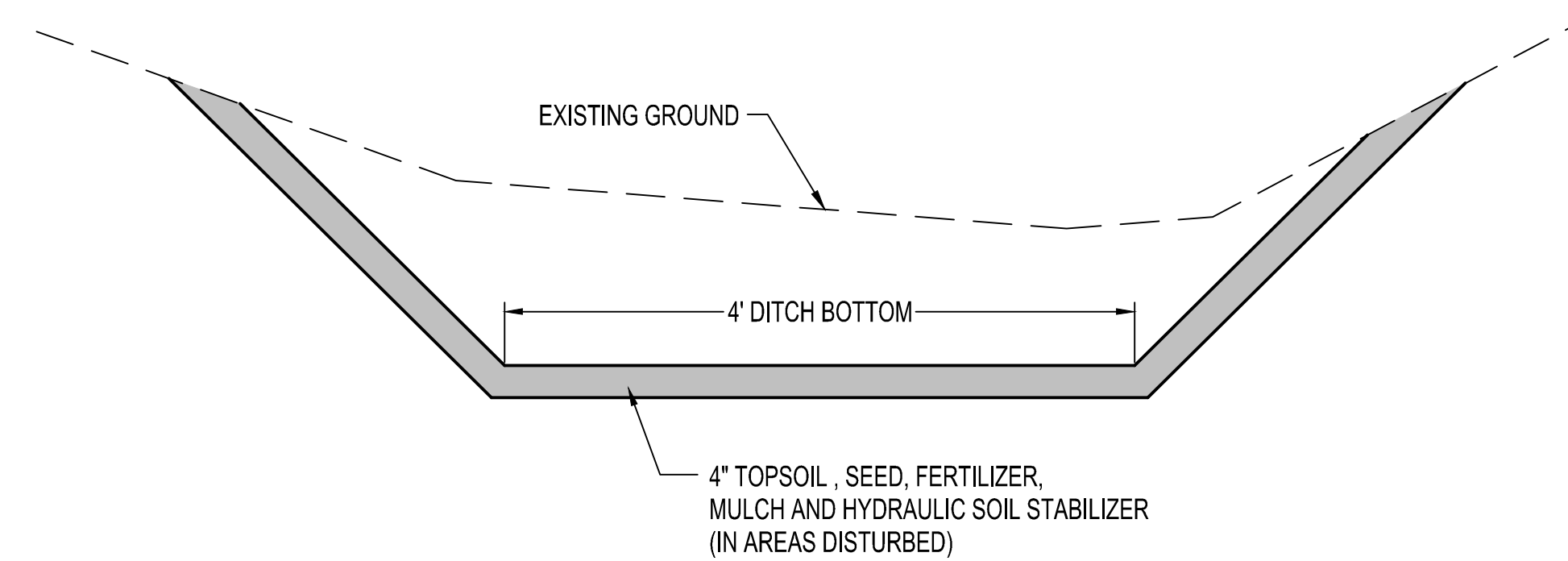


**TYPICAL SECTION - 5TH STREET**

RHODA AVENUE TO BERKEY AVENUE



**TYPICAL SECTION - 3RD STREET**



**TYPICAL DITCH SECTION - HWY. 28**

WISDETH SMITH NOLTING  
ENGINEERS ARCHITECTS LAND SURVEYORS ENVIRONMENTAL SERVICES

1. I HEREBY CERTIFY THAT THIS PLAN, SPECIFICATION, OR REPORT THAT I AM A DULY LICENSED PROFESSIONAL ENGINEER UNDER THE LAWS OF THE STATE OF MINNESOTA.

Michael Rude  
MICHAEL E. RUDE LIC. NO. 43896 DATE: 04-01-2013

DATE	REV#	REVISIONS DESCRIPTION

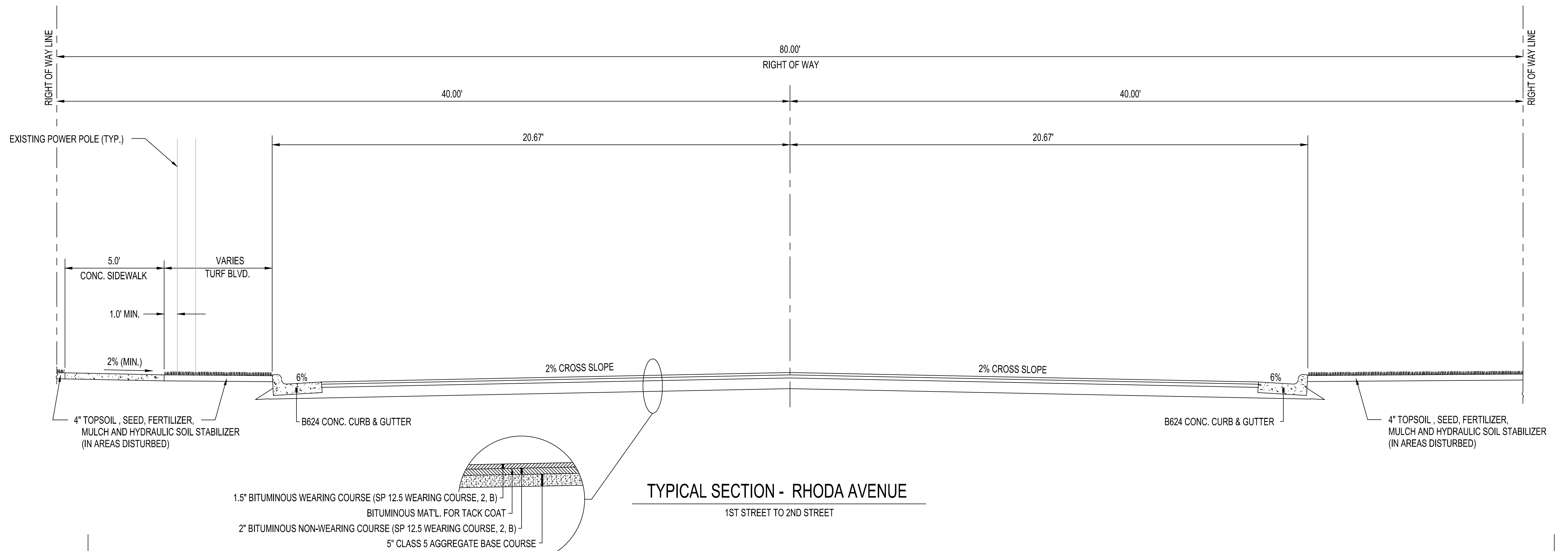
DATE: JANUARY, 2013 AS SHOWN P.M.B. M.E.R.  
SCALE: DRAWN BY: CHECKED BY:  
JOB NUMBER: 0127B0012.000

2013 WATER IMPROVEMENTS  
CITY OF SWANVILLE  
SWANVILLE, MINNESOTA  
TYPICAL SECTION - 5TH STREET

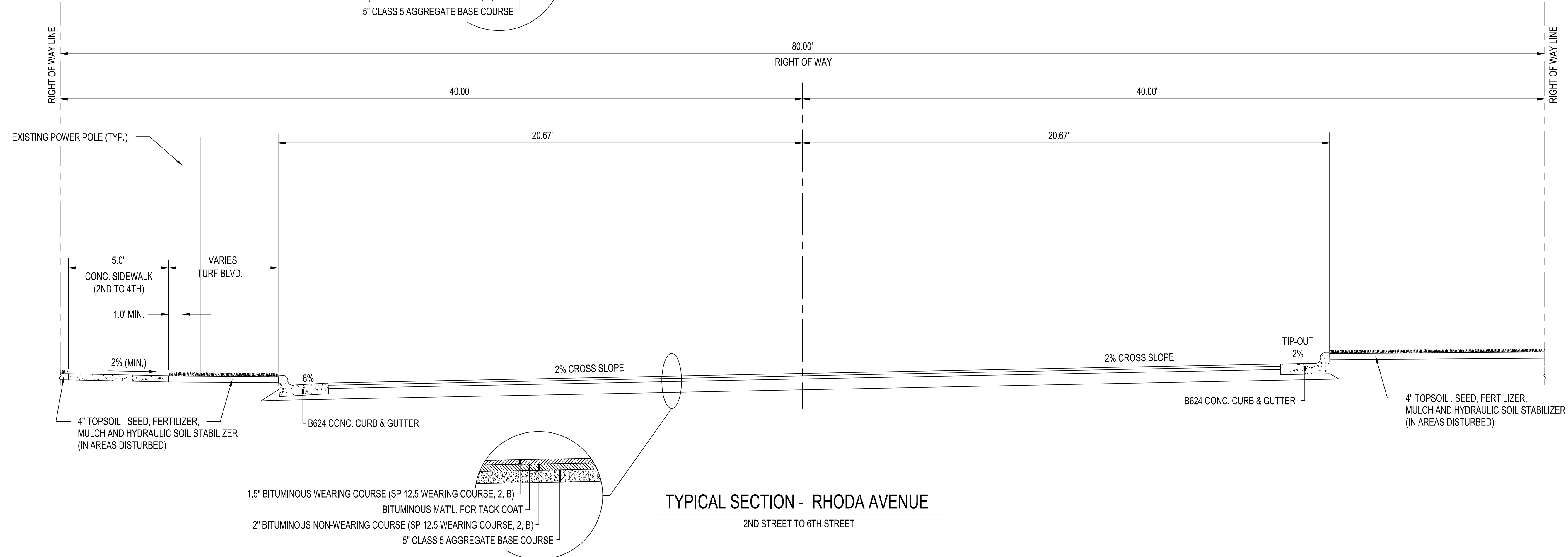
SHEET NO. 9  
SHEET 9 OF 53

DATE	REVISIONS DESCRIPTION	BY

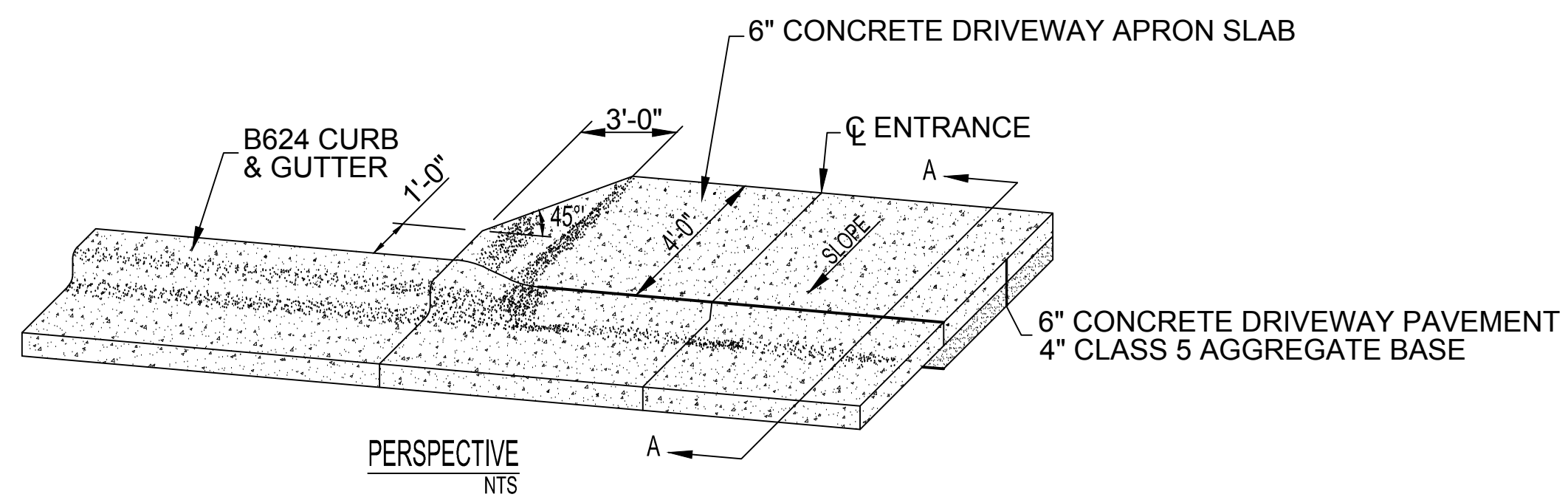
DATE: JANUARY, 2013	AS SHOWN	P.M.B.	M.E.R.
SCALE:	DRAWN BY:	CHECKED BY:	JOB NUMBER: 0127B0012.000



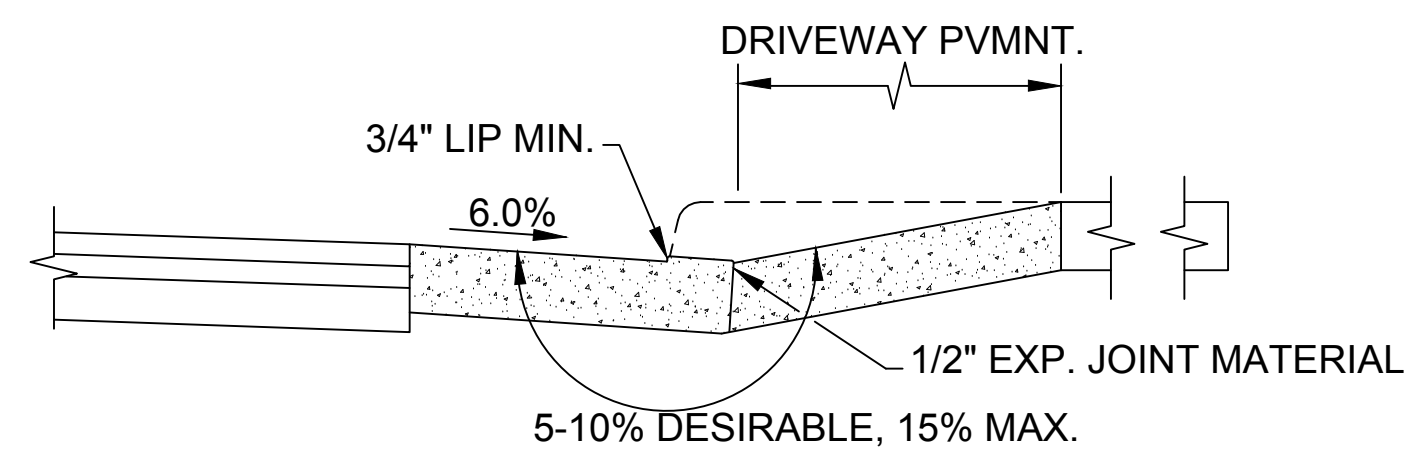
TYPICAL SECTION - RHODA AVENUE  
1ST STREET TO 2ND STREET



TYPICAL SECTION - RHODA AVENUE  
2ND STREET TO 6TH STREET

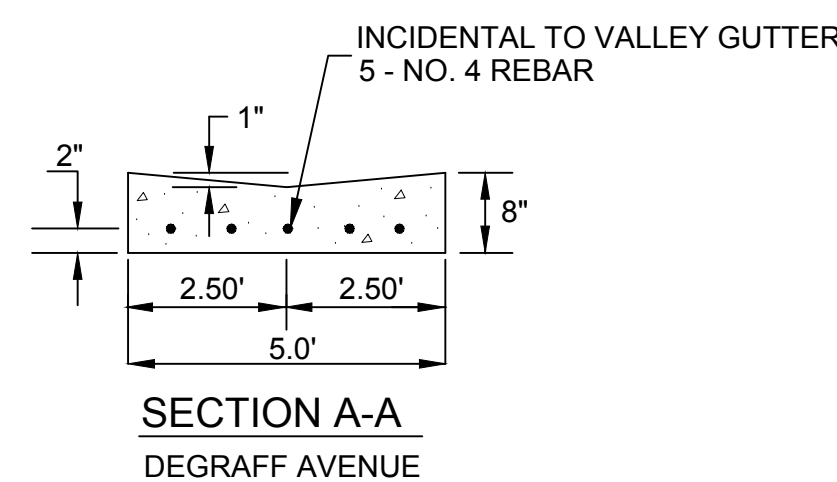


PERSPECTIVE  
NTS

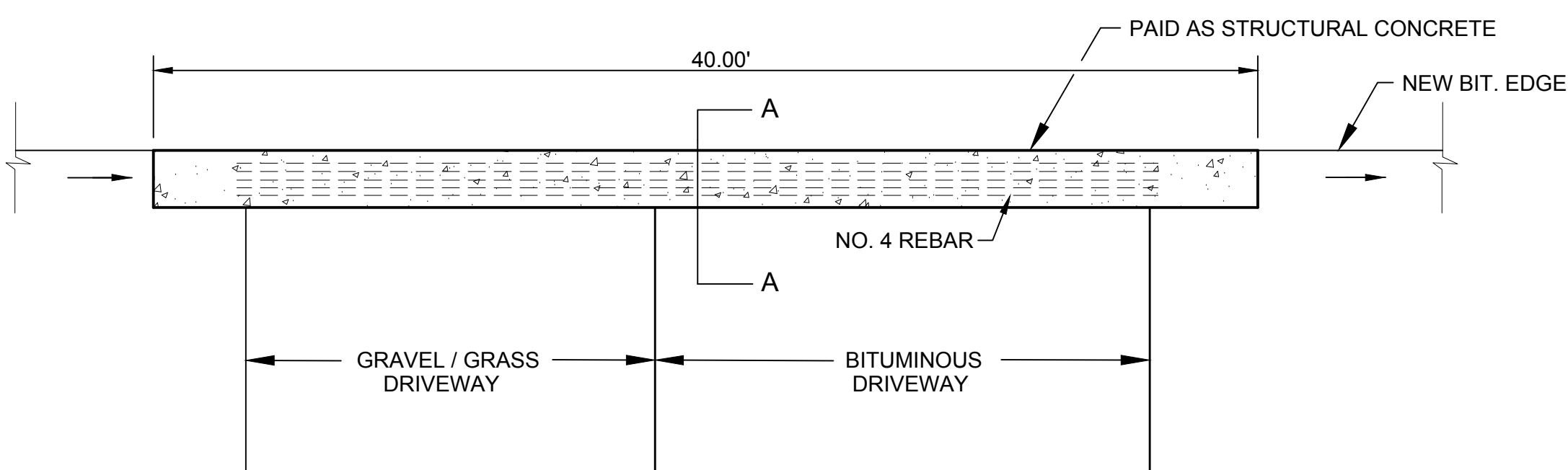


SECTION A-A  
NTS

CONCRETE DRIVEWAY APRON DETAIL

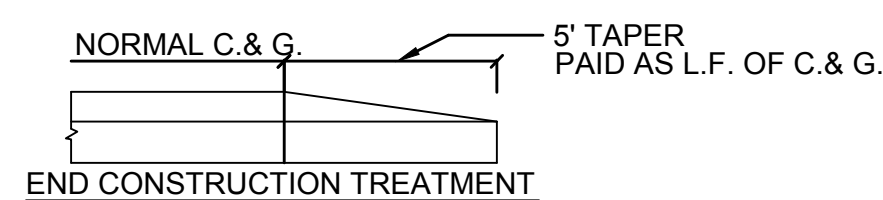
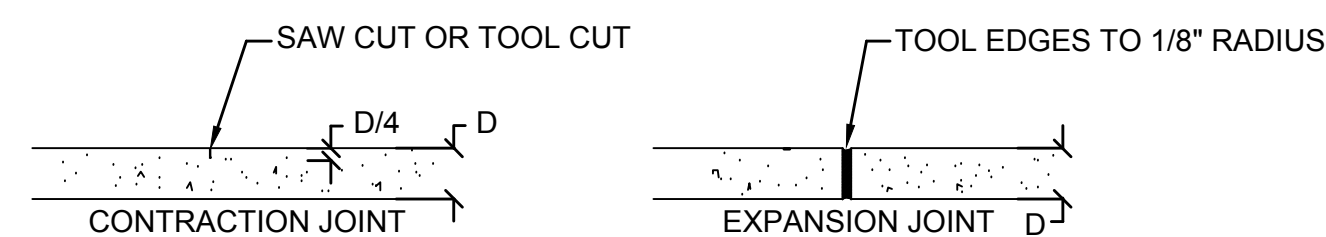


SECTION A-A  
DEGRAFF AVENUE



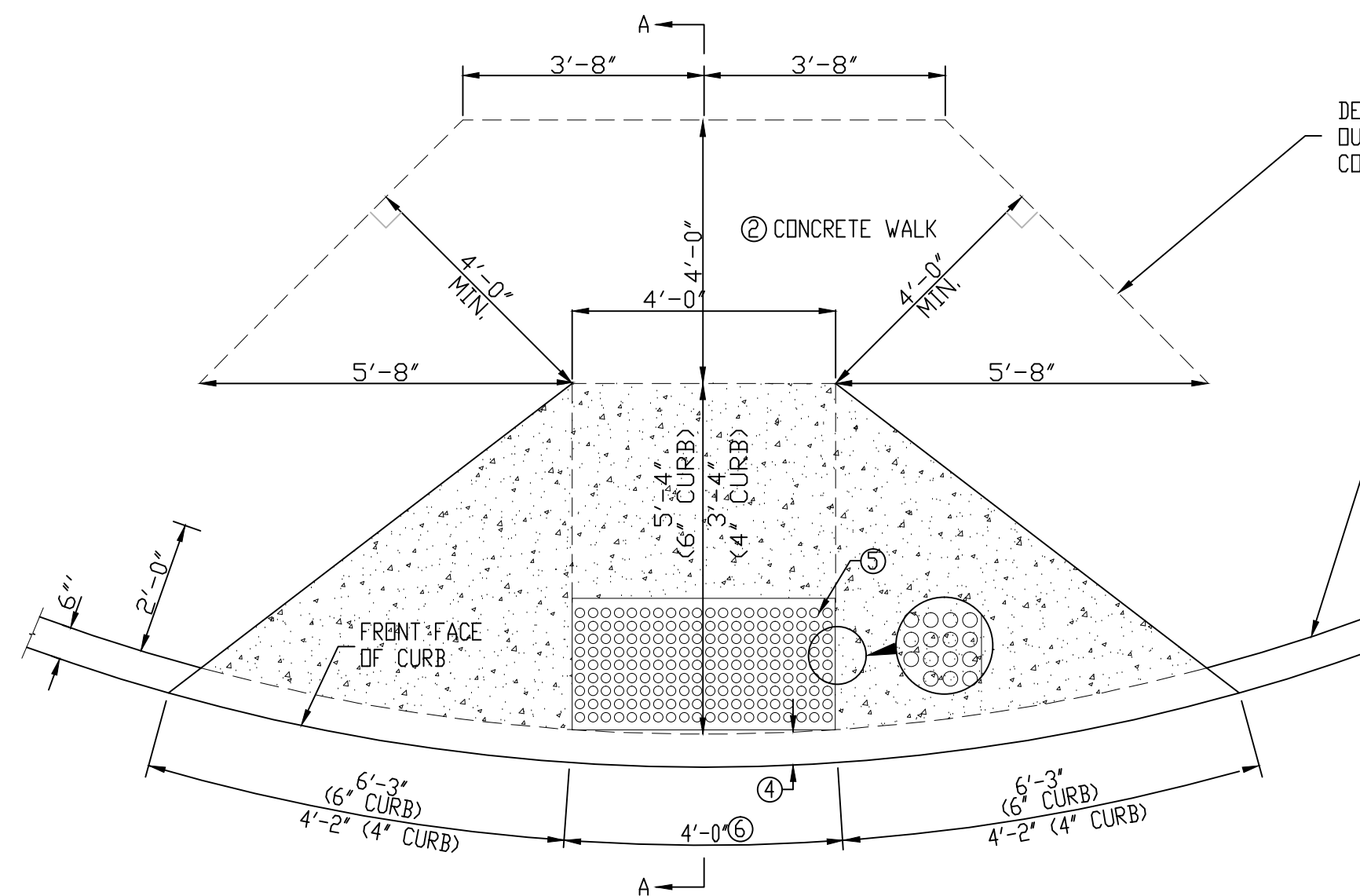
VALLEY GUTTER - PLAN VIEW  
NOTE: CONSTRUCTION PER MNDOT SPEC. 2531

CONCRETE VALLEY GUTTER DETAIL

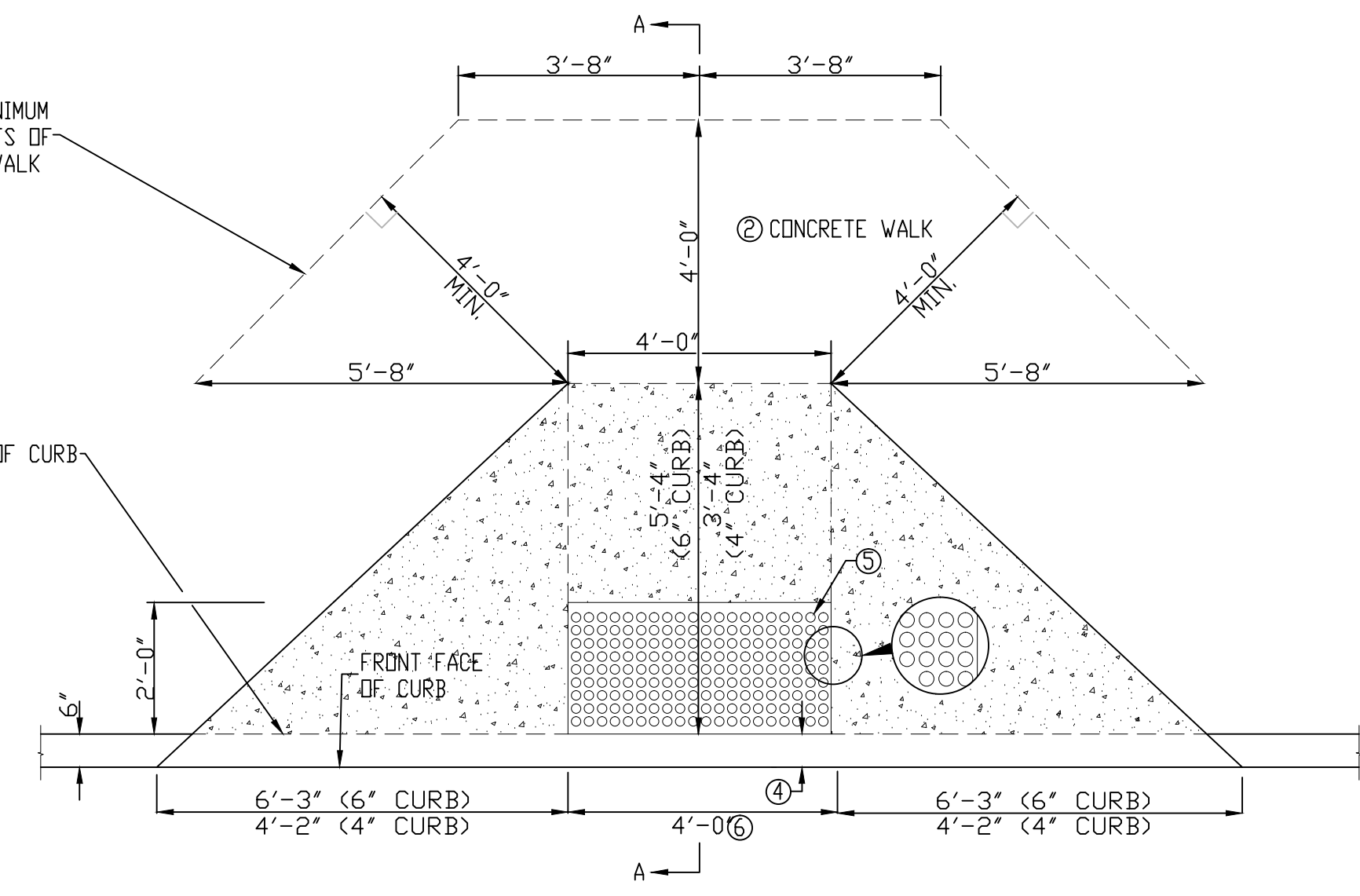


CONCRETE CURB & GUTTER DETAILS

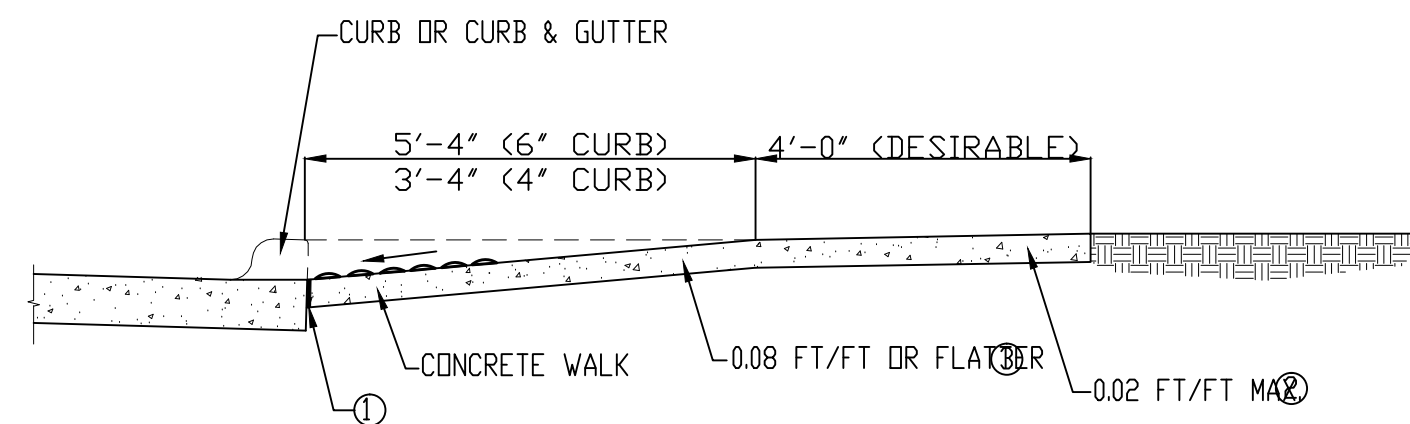
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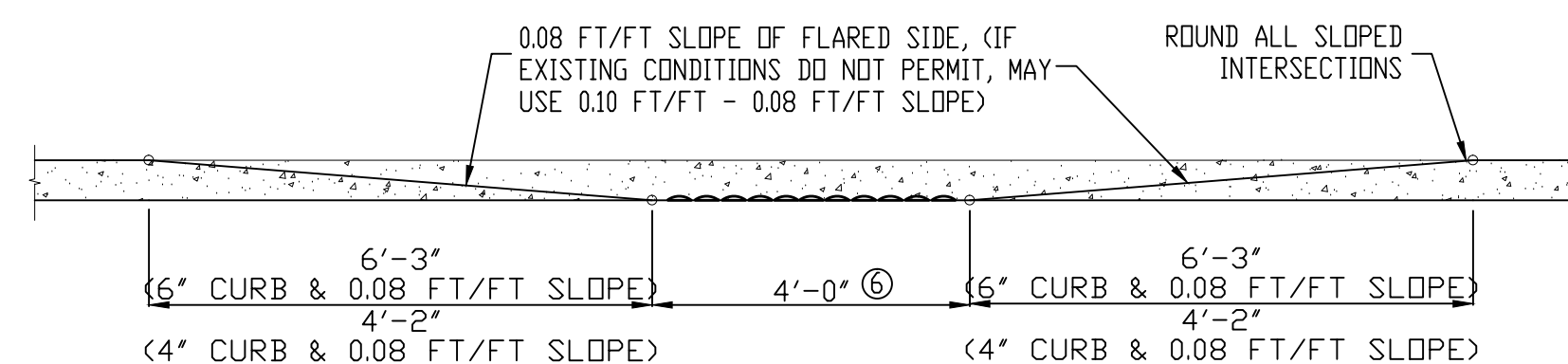
PLAN VIEW OF DIAGONAL RAMP



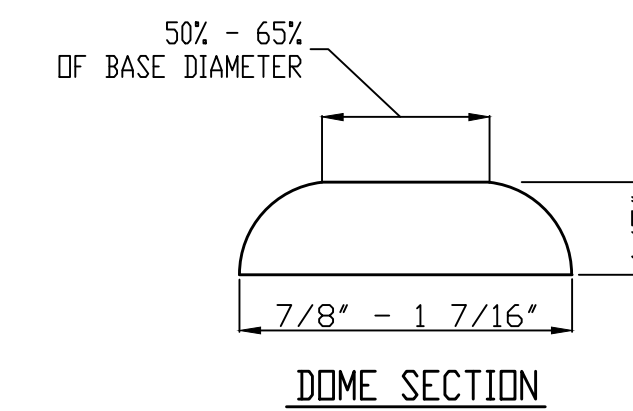
PLAN VIEW OF PERPENDICULAR RAMP



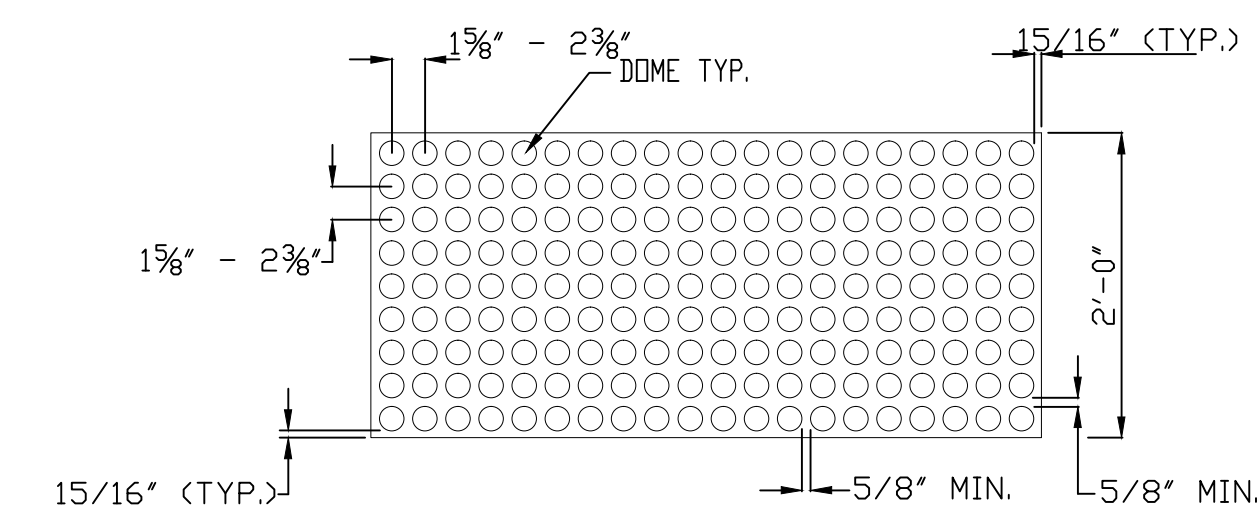
SECTION A-A



ELEVATION OF RAMP



DOME SECTION



DOME SPACING FOR CAST IRON INSERT

NOTES:

- 1) THE CURB AND CURB TRANSITION ON THE RAMP WILL BE PAID FOR AS LINEAR FEET OF CONCRETE CURB OR CONCRETE CURB AND GUTTER. THE RAMP AREA WILL BE PAID FOR AS CONCRETE WALK.
- 2) 1/2 INCH PREFORMED JOINT FILLER MATERIAL, AASHTO M 213.
- 3) WHEN POSSIBLE, PROVIDE A PATH OF TRAVEL 4' 0" WIDE BEHIND THE PEDESTRIAN RAMP. A RELATIVELY FLAT 4' x 4' LANDING WILL ALLOW WHEELCHAIRS TO NAVIGATE AROUND THE PEDESTRIAN RAMP.
- 4) WHEN A MEDIAN IS NOT WIDE ENOUGH FOR TWO PEDESTRIAN RAMPS AND A 48" LANDING BETWEEN THEM, THE PEDESTRIAN CROSSING SHALL BE CUT THROUGH THE MEDIAN AT STREET LEVEL.
- 5) 6" TO 8" IS THE REQUIRED OFFSET OF THE DETECTABLE WARNINGS/TRUNCATED DOME AREA FROM THE FRONT FACE OF CURB, OR PLACE THE DETECTABLE WARNINGS AT THE BACK OF CURB.
- 6) ADA REQUIRED TRUNCATED DOME AREA SHALL BE 2' 0" MIN. IN DIRECTION OF TRAVEL AND SHALL EXTEND THE FULL WIDTH (4' 0" TYP.) OF THE CURB RAMP. THIS 2' 0" BY 4' 0" WIDTH (TYP.) TRUNCATED DOME AREA SHALL CONTRAST VISUALLY WITH THE ADJACENT WALKING SURFACE.
- 7) 4' 0" FOR NEW CONSTRUCTION. 3' 0" ALLOWED FOR RETROFITS OR PRESERVATION PROJECTS.

PEDESTRIAN CURB RAMP DETAIL

WIDSETH SMITH NOLTING  
ENGINEERS ARCHITECTS LAND SURVEYORS ENVIRONMENTAL SERVICES  
DATE: JANUARY, 2013 AS SHOWN P.M.B. M.E.R. JOB NUMBER: 0127B0012.000  
2013 WATER IMPROVEMENTS CITY OF SWANVILLE SWANVILLE, MINNESOTA DRIVEWAY AND SIDEWALK DETAILS  
SHEET NO. 11 SHEET 11 OF 53

**STORM SEWER STRUCTURE SCHEDULE**

DS. NO	STATION	LOCATION	PROPOSED TOP OF CASTING	OUTLET	STRUCTURE TYPE				CASTING ASSEMBLY			24" RCP LIN. FT.	12" RCP LIN. FT.	8" HDPE DUAL WALL LIN. FT.	DRAINS TO STRUCTURE	% GRADE	INLET ELEV.	SEAL DRAINAGE STRUCTURE EACH	REMARKS:
					F	G	H	SD	EACH										
					LIN. FT.	LIN. FT.	LIN. FT.	LIN. FT.	A	B	C								
<b>RHODA AVENUE</b>																			
MH 43	18+00.0	19.0' RT	1169.87	1167.52			2.24			1			40		MH 44	0.58	1167.30	1	1
MH 44	18+00.0	19.0' LT	1169.97	1167.30						1			133		MH 45	0.50	1166.63	1	1
MH 45	19+33.3	19.0' LT	1170.39	1166.63						1					EXIST.			1	1
MH 46	19+33.8	19.0' RT	1170.39	1166.66						1					EXIST.			1	1
MH 47	15+00.1	19.0' LT	1171.19	1168.80			2.28				1		300		MH 44	0.50	1167.30	1	1
MH 48	7+57.0	19.0' LT	1174.24	1168.96							1		16		MH 49	0.55	1168.87	1	1
MH 49	7+57.0	3.7' LT	1174.64	1168.87					1				236		MH 50	0.50	1167.69	1	2
MH 50	5+21.3	3.7' LT	1173.65	1167.31	6.46				1				35		MH 52	2.00	1166.61	1	2
MH 58	9+19.2	14.0' RT	1175.30	1171.60						1			40		EXIST.	0.80	1171.2	1	1
MH 59	9+18.8	19.0' LT	1174.45	1170.66						1			47		EXIST.		1170.48	1	1
<b>5TH STREET</b>																			
MH 51	2+33.8	14.0' RT	1171.95	1167.77						1			30		MH 52	0.54	1167.61	1	1
MH 52	2+34.1	14.0' LT	1171.96	1166.60						1			157		MH 55	0.50	1165.83	1	1
MH 53	3+12.1	14.0' RT	1173.24	1168.17						1			30		MH 54	0.54	1168.00	1	2
MH 54	3+12.1	14.0' LT	1173.24	1168.00						1			43		MH 50	1.72	1167.31	1	1
MH 55	0+77.43	14.0' LT	1170.23	1165.83						1			30		MH 56	0.47	1165.69	1	1
MH 56	0+51.48	CL	1170.22	1165.69					1						EXIST.			1	2
MH 57	0+77.43	14.0' RT	1170.23	1165.99						1			30		MH 55	0.54	1165.83	1	1
PIPE	9+55	26' RT													MH 58		1171.70		
MH 60	8+47.6	14.0' RT	1184.70	1179.71						1			30		MH 69	2.31	1179.26	1	1
MH 61	8+44.3	14.0' LT	1184.40	1179.33						1			70		MH 62	1.47	1178.30	1	1
MH 62	7+58.6	14.0' LT	1183.03	1178.30						1			223		MH 63	2.28	1173.22	1	1
MH 63	5+35.5	14.0' LT	1179.38	1173.22	6.05					1			223		MH 54	2.34	1168.00	1	1
MH 64	5+35.5	14.0' RT	1179.38	1173.38	6.05					1			30		MH 63	0.54	1173.22	1	1
MH 65	10+24.9	14.0' RT	1188.98	1183.82						1			34		MH 66	0.53	1183.64	1	1
MH 66	10+07.0	14.0' LT	1188.41	1183.64						1			180		MH 61	2.39	1179.55	1	1
MH 67	7+57.9	14.0' RT	1183.00	1178.46						1			30		MH 62	0.54	1178.30	1	1
MH 68	7+76.0	34.0' RT	1183.40	1178.72						1			26		MH 67	1.00	1178.46	1	1
MH 69	8+30.6	24.6' RT	1183.95	1179.26						1			55		MH 68	1.00	1178.72	1	1
MH 70	9+75.9	33.9' LT	1186.53	1183.96			2.46			1				37	MH 66	0.42	1183.81	1	1
MH 71	11+89.1	23.1' LT	1197.20	1193.71						1			182		MH 66	5.52	1183.64	1	1
<b>HWY. 28 DITCH</b>																			
MH 72	1+32.8	CENTERLINE	1169.62	1164.55			5.19						95		OUTLET APRON	0.00	1164.55	1	1
INLET APRON	2+93.0	CENTERLINE		1164.55									148		MH 72	0.00	1164.55		1
<b>TOTAL</b>					<b>18.56</b>	<b>11.08</b>	<b>6.98</b>	<b>95.88</b>	<b>4</b>	<b>24</b>	<b>2</b>	<b>243</b>	<b>2250</b>	<b>37</b>				<b>30</b>	

**REMARKS**

1. PAY HEIGHT = TOP OF CASTING - OUTLET ELEV + 0.70' - 0.81'
2. PAY HEIGHT = TOP OF CASTING - OUTLET ELEV + 0.70' - 0.58'

CASTING ASSEMBLY SCHEDULE					
	CASTING	GRATE	BOX	EACH	
A	700-7	715		4	
B	NEENAH R-3250-DVSP			24	
C	NEENAH R-3250-DVSP W/O BOX			2	
<b>TOTAL</b>					<b>30</b>

ARCHITECTS  
ENGINEERS  
ENVIRONMENTAL SERVICES  
LAND SURVEYORS  
WATER RESOURCES

WIDSETH SMITH NOLTING

DATE: JANUARY 2013  
SCALE: AS SHOWN  
DRAWN BY: P.M.B.  
CHECKED BY: M.E.R.  
JOB NUMBER: 012780012.000

2013 WATER IMPROVEMENTS  
CITY OF SWANVILLE  
SWANVILLE, MINNESOTA  
STORM SEWER SCHEDULE

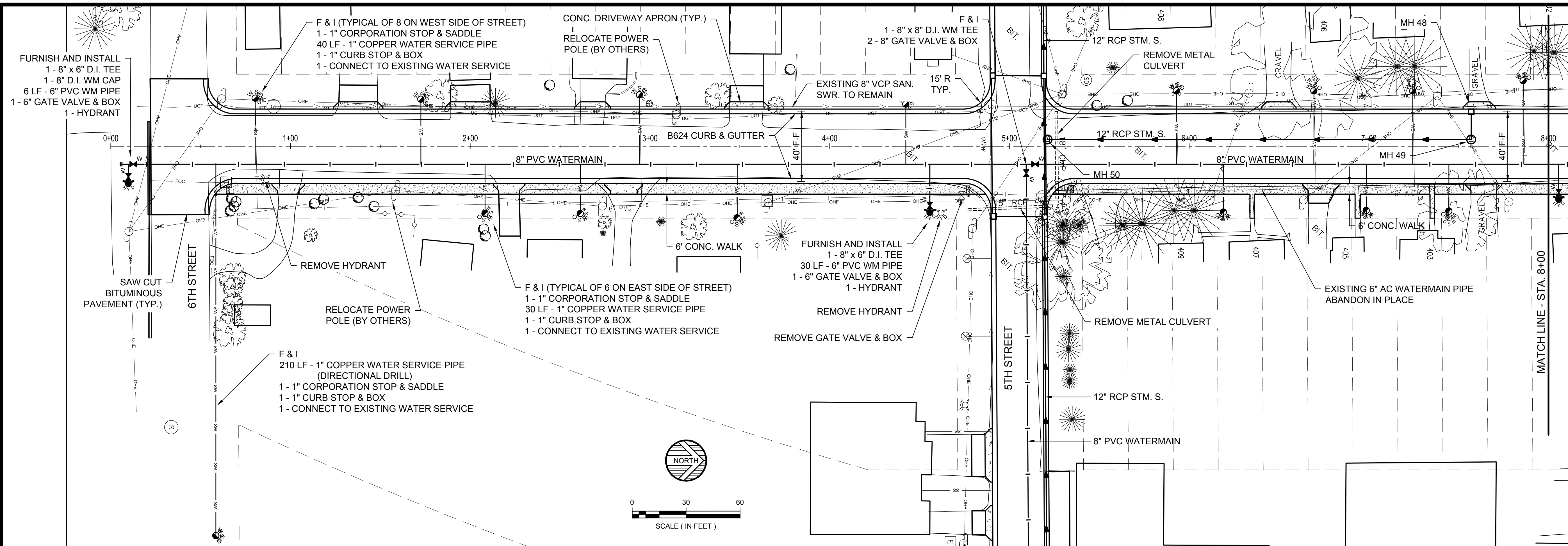
SHEET NO. 12 OF 53

DATE: 04-01-2013 L.C. NO. 43896  
MICHAEL E. RUDE

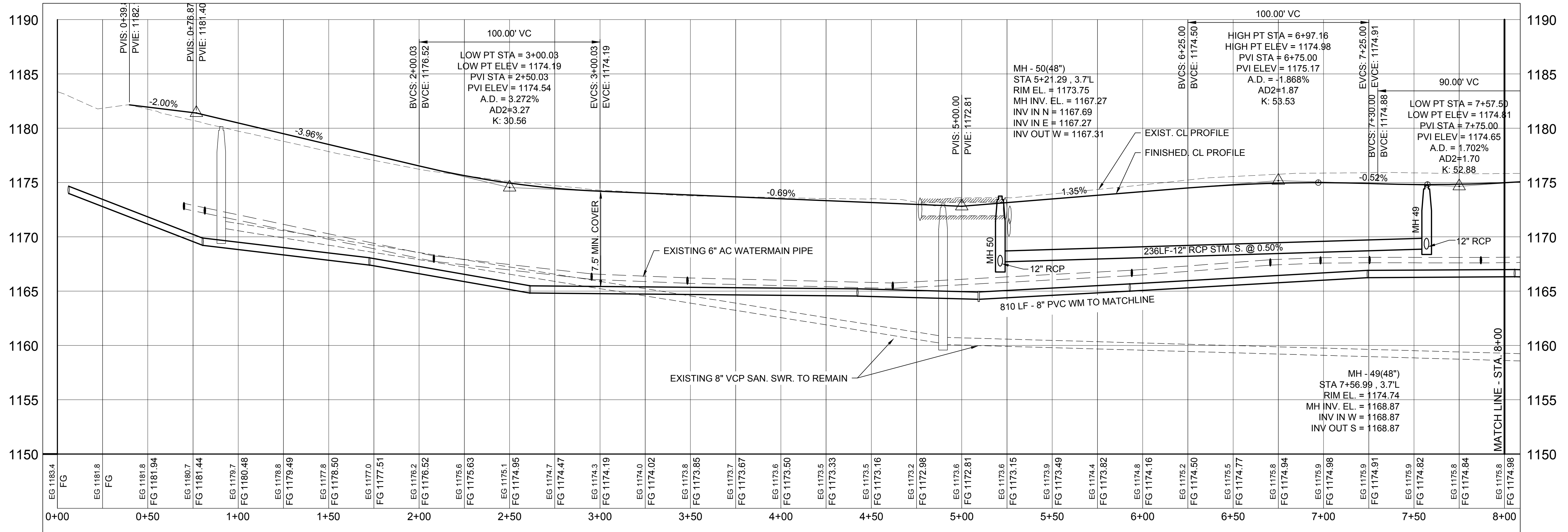
BY: P.M.B. P.M.B.  
REVISIONS DESCRIPTION  
ADDED MH 56 & 57 TO SCHEDULE  
REVISED MH 58 CASTING ELEV.

I HEREBY CERTIFY THAT THIS PLAN, SPECIFICATION, OR REPORT THAT I AM A DAILY LICENSED PROFESSIONAL ENGINEER UNDER THE LAWS OF THE STATE OF MINNESOTA.

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### RHODA AVENUE



ARCHITECTS  
 ENGINEERS  
 ENVIRONMENTAL SERVICES  
 LAND SURVEYORS  
 WATER RESOURCES

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I HEREBY CERTIFY THAT THIS PLAN, SPECIFICATION OR REPORT  
 THAT I AM A DULY LICENSED PROFESSIONAL ENGINEER UNDER  
 THE LAWS OF THE STATE OF MINNESOTA.

Michael E. Rude  
 MICHAEL E. RUDE  
 DATE: 04-01-2013 LIC. NO. 43896

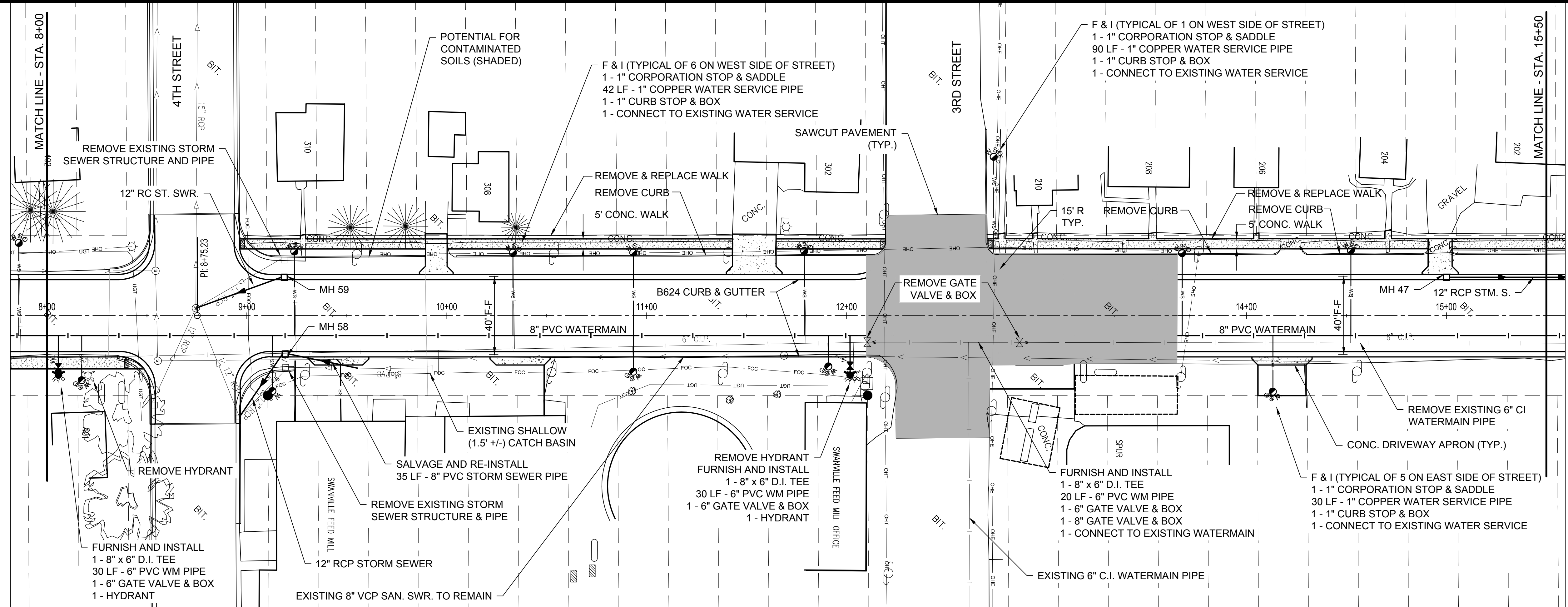
DATE	REVISIONS DESCRIPTION	BY	REV#
JANUARY 2013	AS SHOWN		

DATE: JANUARY 2013  
 SCALE: AS SHOWN  
 DRAWN BY: P.M.B.  
 CHECKED BY: M.E.R.  
 JOB NUMBER: 0127B0012.000

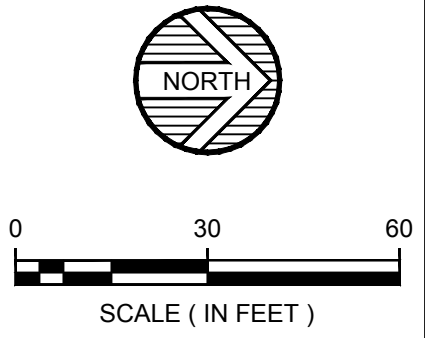
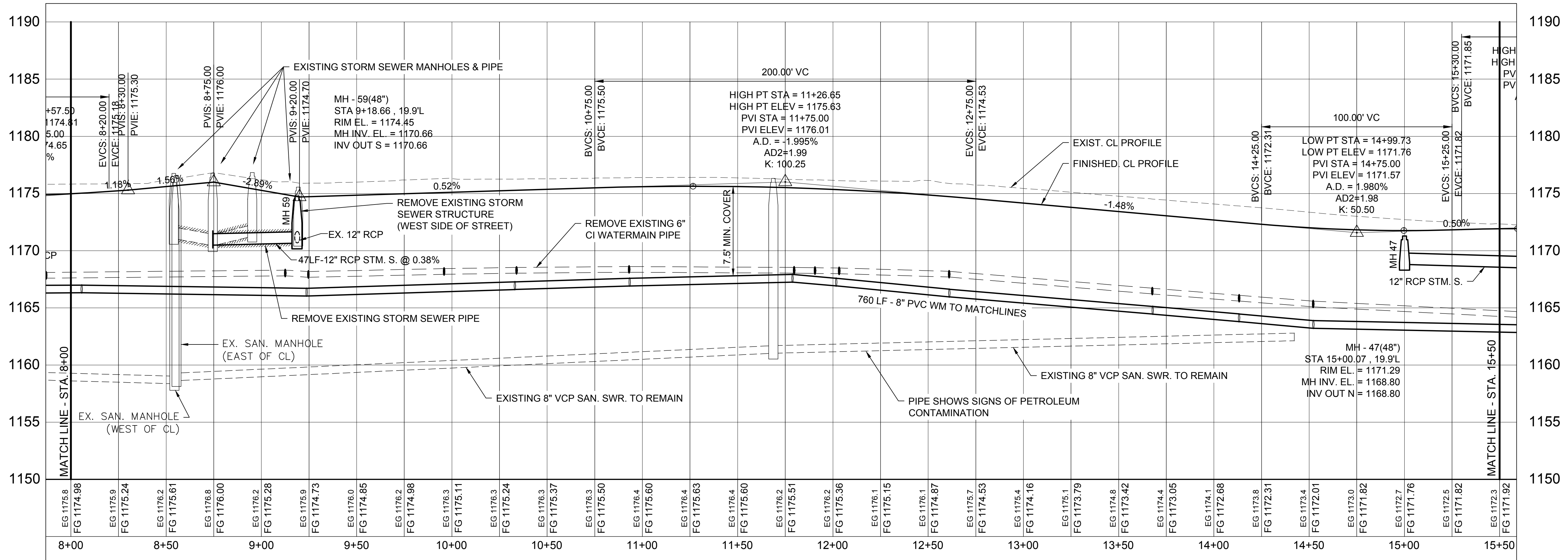
2013 WATER IMPROVEMENTS  
 CITY OF SWANVILLE  
 SWANVILLE, MINNESOTA

**PLAN AND PROFILE - RHODA AVENUE - 0+00 TO 8+00**

SHEET NO.  
**13**  
 OF 53

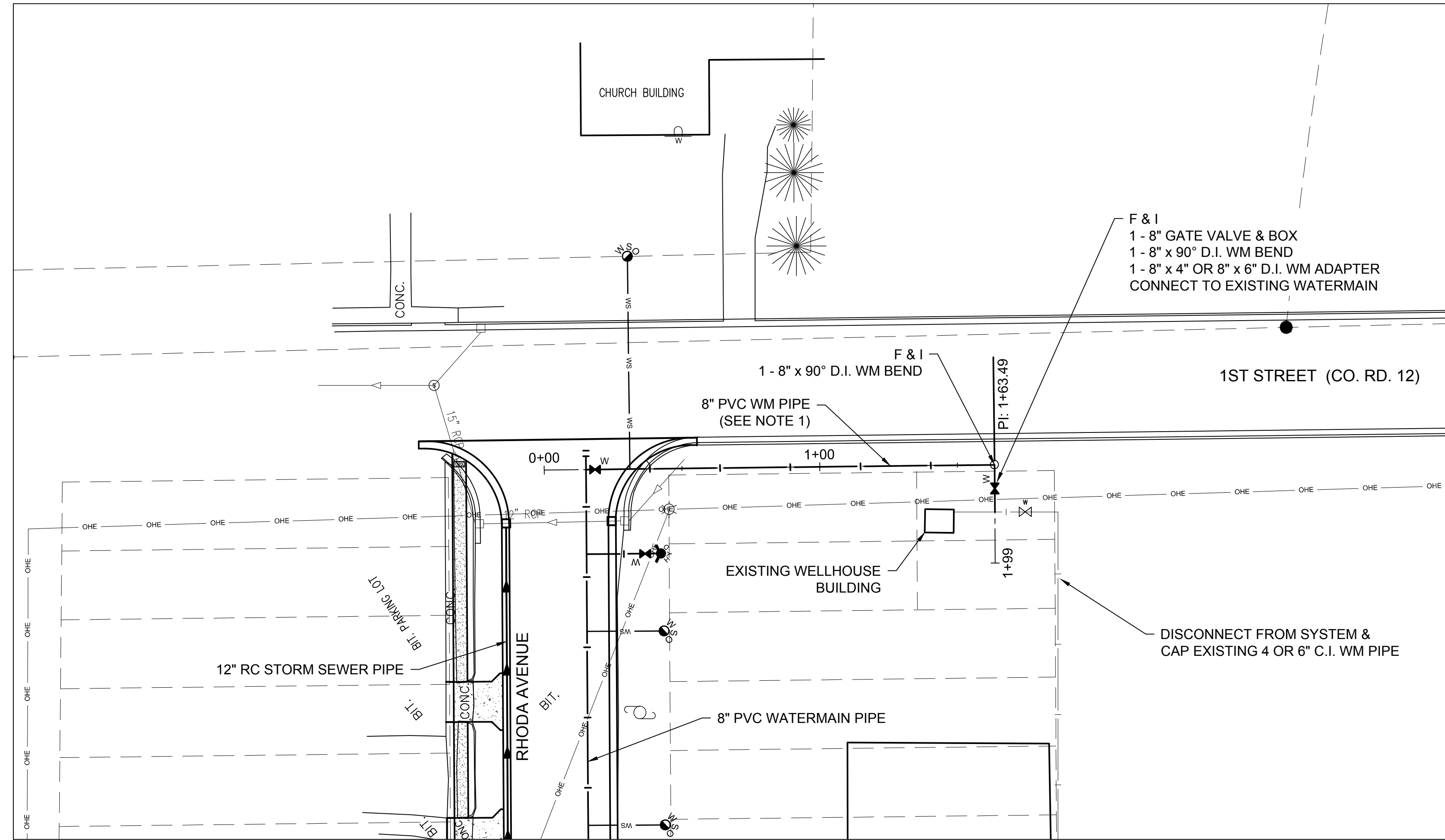


### RHODA AVENUE



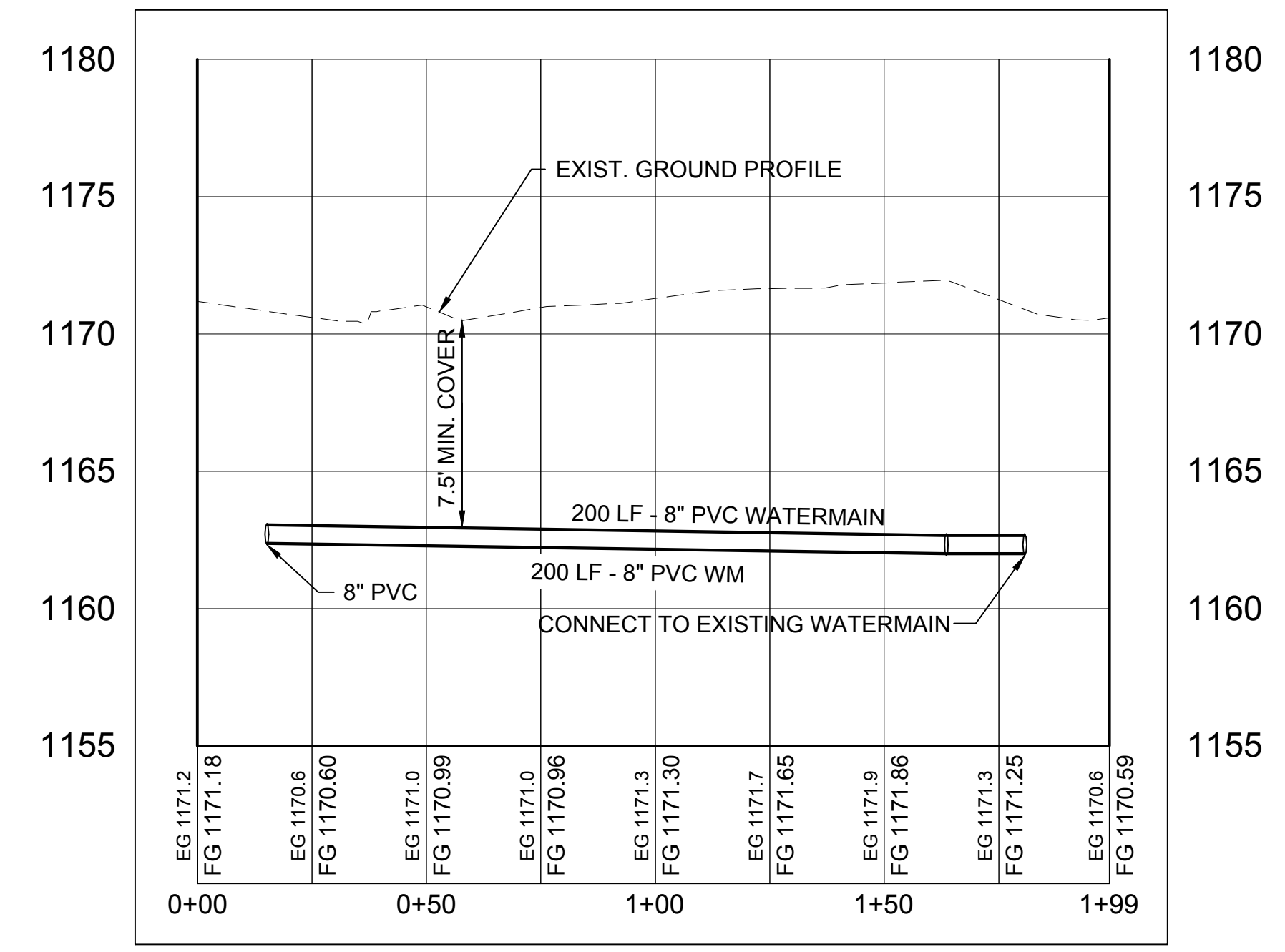
<p>ARCHITECTS ENGINEERS ENVIRONMENTAL SERVICES LAND SURVEYORS WATER RESOURCES</p>	<p>ALEXANDRIA, MN BARTER, MN BENNETT, MN GRAND FORKS, ND RED WING, MN ROCHESTER, MN</p>
<p>DATE: JANUARY, 2013 SCALE: AS SHOWN DRAWN BY: P.M.B. CHECKED BY: M.E.R. JOB NUMBER: 0127B0012.000</p>	
<p>2013 WATER IMPROVEMENTS CITY OF SWANVILLE SWANVILLE, MINNESOTA</p>	
<p>PLAN AND PROFILE - RHODA AVENUE - 8+00 TO 15+50</p>	
<p>SHEET NO. <b>14</b> 14 OF 53</p>	





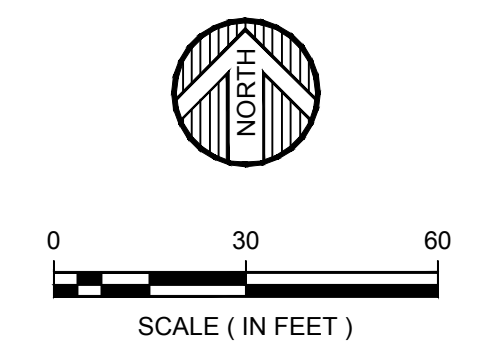
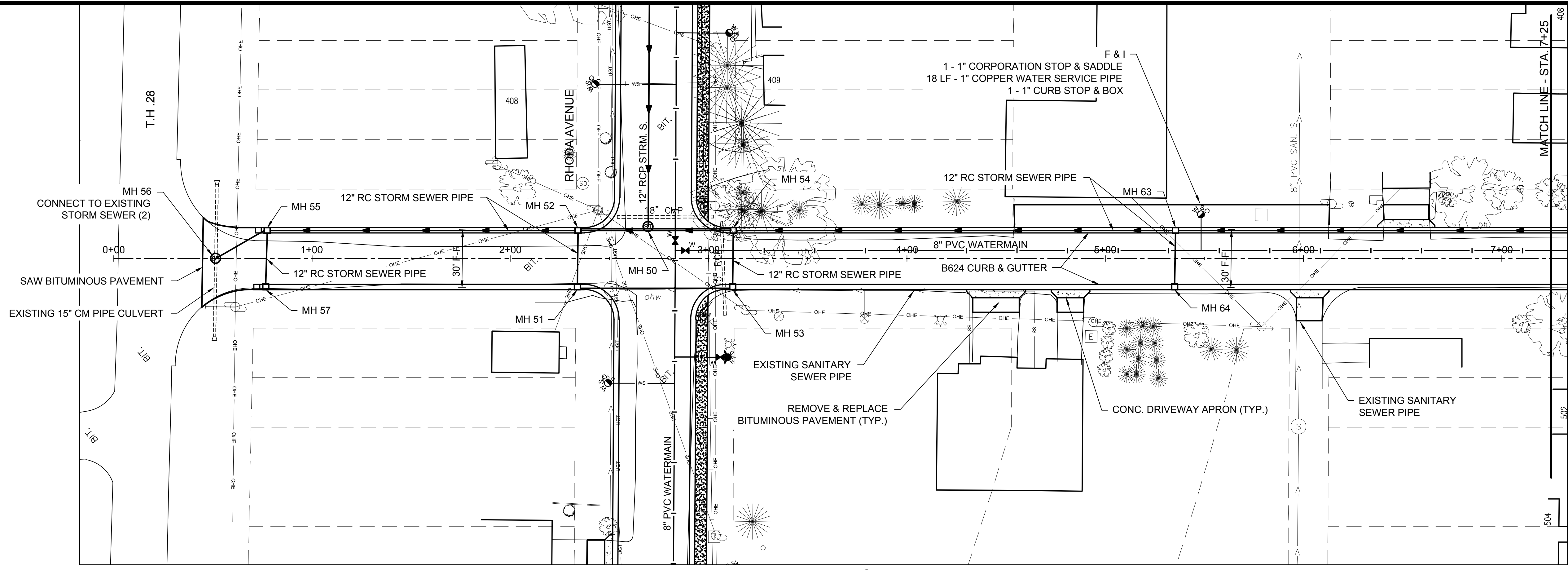
NOTES:  
 1. USE TRENCH BOX, SHEET PILING, TRENCHLESS EXCAVATION, OR OTHER APPROVED METHOD TO PRESERVE EXISTING CURB AND ROADWAY SURFACE OF CO. RD. 12 DURING INSTALLATION OF WATERMAIN PIPE.

### WELLHOUSE CONNECTION

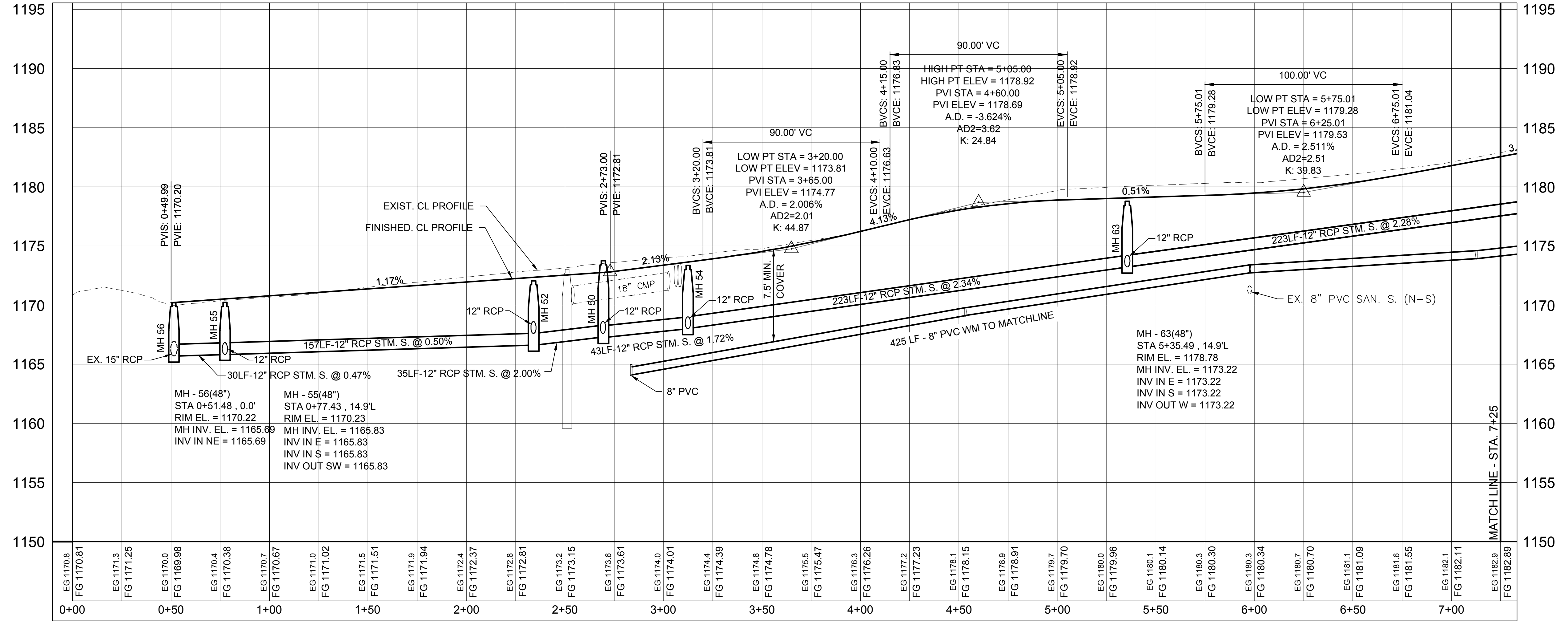


ARCHITECTS  
 ENGINEERS  
 ENVIRONMENTAL SERVICES  
 LAND SURVEYORS  
 WATER RESOURCES  
**WIDSETH SMITH NOLTING**  
 WWW.WSNOLTING.COM  
 I HEREBY CERTIFY THAT THIS PLAN, SPECIFICATION, OR REPORT THAT I AM A DAILY LICENSED PROFESSIONAL ENGINEER UNDER THE LAWS OF THE STATE OF MINNESOTA.  
 BY: *Michael E. Rude*  
 MICHAEL E. RUDE  
 DATE: 04-01-2013  
 L.C. NO. 43896  
 DATE: JANUARY, 2013  
 AS SHOWN  
 SCALE: P.M.B.  
 DRAWN BY: M.E.R.  
 CHECKED BY:  
 JOB NUMBER: 0127B0012.000  
 2013 WATER IMPROVEMENTS  
 CITY OF SWANVILLE  
 SWANVILLE, MINNESOTA  
**PLAN AND PROFILE - WELLHOUSE CONNECTION**  
 SHEET NO. **16**  
 SHEET 16 OF 53





**5TH STREET**



ARCHITECTS  
ENGINEERS  
ENVIRONMENTAL SERVICES  
LAND SURVEYORS  
WATER RESOURCES

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DATE: 04-01-2013 LIC. NO. 43888  
MICHAEL E. RUGE

DATE	REVISION DESCRIPTION
JANUARY, 2013	AS SHOWN

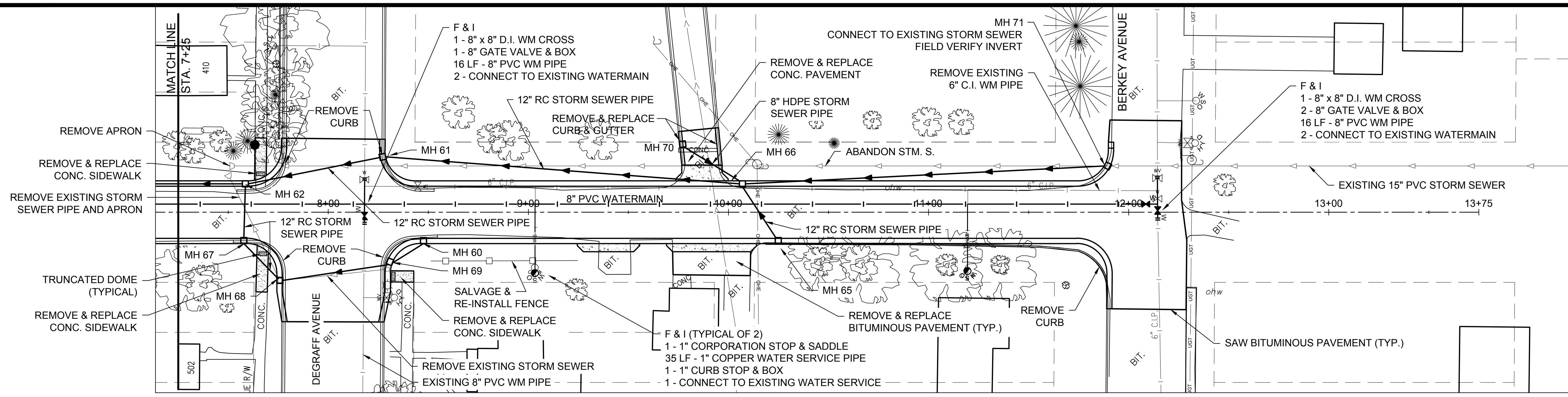
DATE: JANUARY, 2013  
SCALE: AS SHOWN  
DRAWN BY: P.M.B.  
CHECKED BY: M.E.R.  
JOB NUMBER: 0127B0012.000

2013 WATER IMPROVEMENTS  
CITY OF SWANVILLE  
SWANVILLE, MINNESOTA

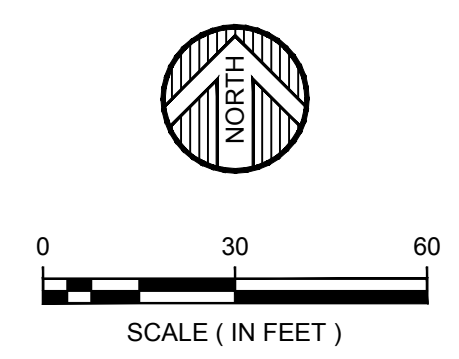
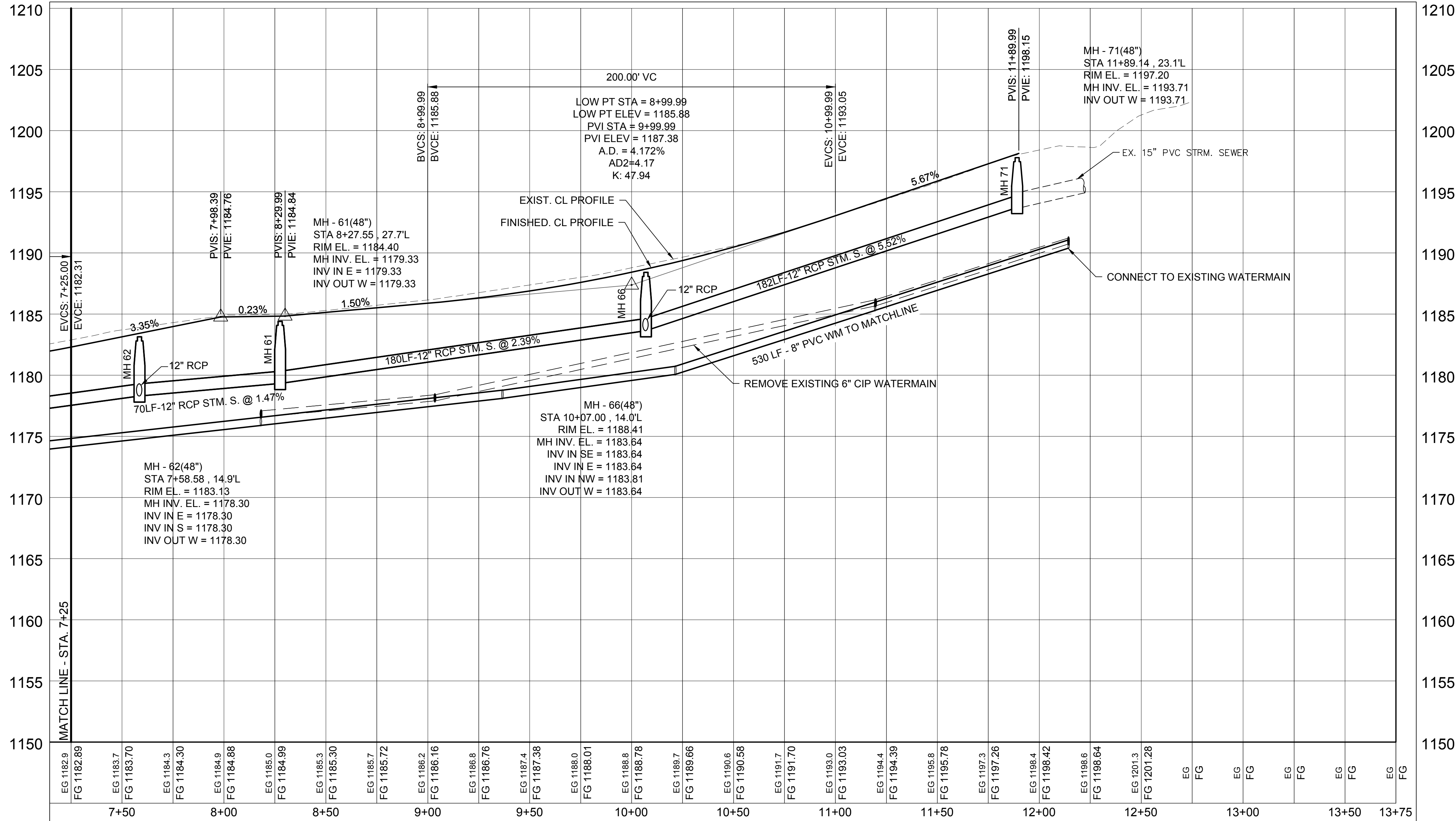
**PLAN AND PROFILE - 5TH STREET - 0+00 TO 7+00**

SHEET NO. **17**

SHEET 17 OF 53



**5TH STREET**



ARCHITECTS: ALEXANDRIA, MN  
 ENGINEERS: BARTER, MN  
 ENVIRONMENTAL SERVICES: BENDIS, MN  
 LAND SURVEYORS: GRAND FORKS, ND  
 WATER RESOURCES: RED WING, MN  
 ROCHESTER, MN

WIDSETH SMITH NOLTING  
 WWW.WSNOLTING.COM

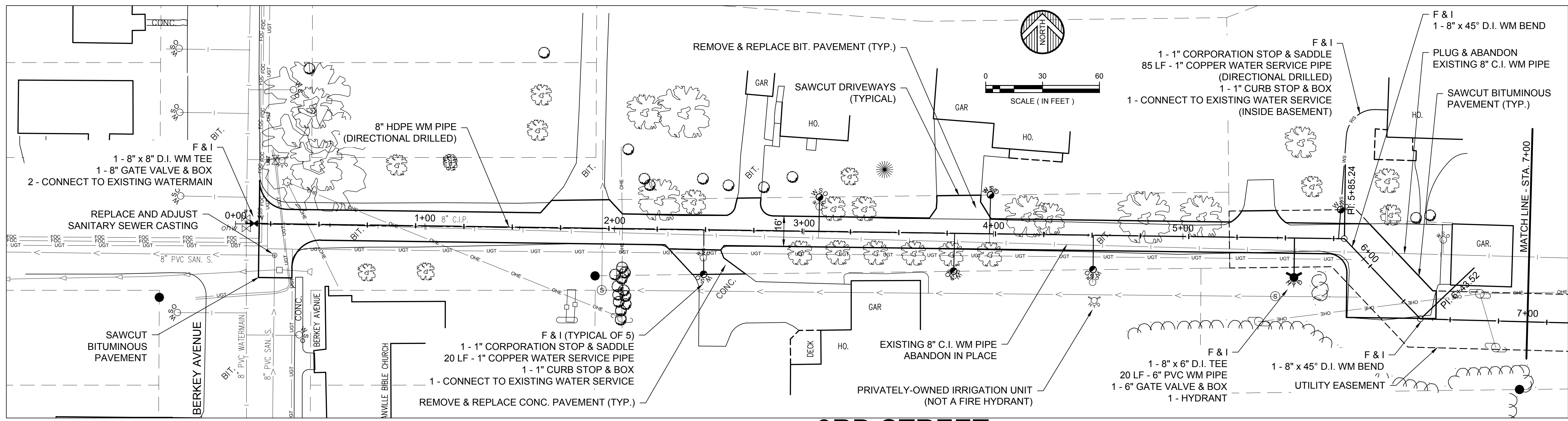
I HEREBY CERTIFY THAT THIS PLAN, SPECIFICATION, OR REPORT THAT I AM A DULY LICENSED PROFESSIONAL ENGINEER UNDER THE LAWS OF THE STATE OF MINNESOTA.  
 BY: *Michael E. Rude*  
 MICHAEL E. RUDE  
 DATE: 04-01-2013 LIC. NO. 43896

DATE	REVISIONS DESCRIPTION	BY
JANUARY, 2013	AS SHOWN	PMB
7-29-2013	REVISE MH 61 LOCATION & STM. S. ROUTE	PMB
7-29-2013	REVISED MH FT CASTING ELEV.	PMB

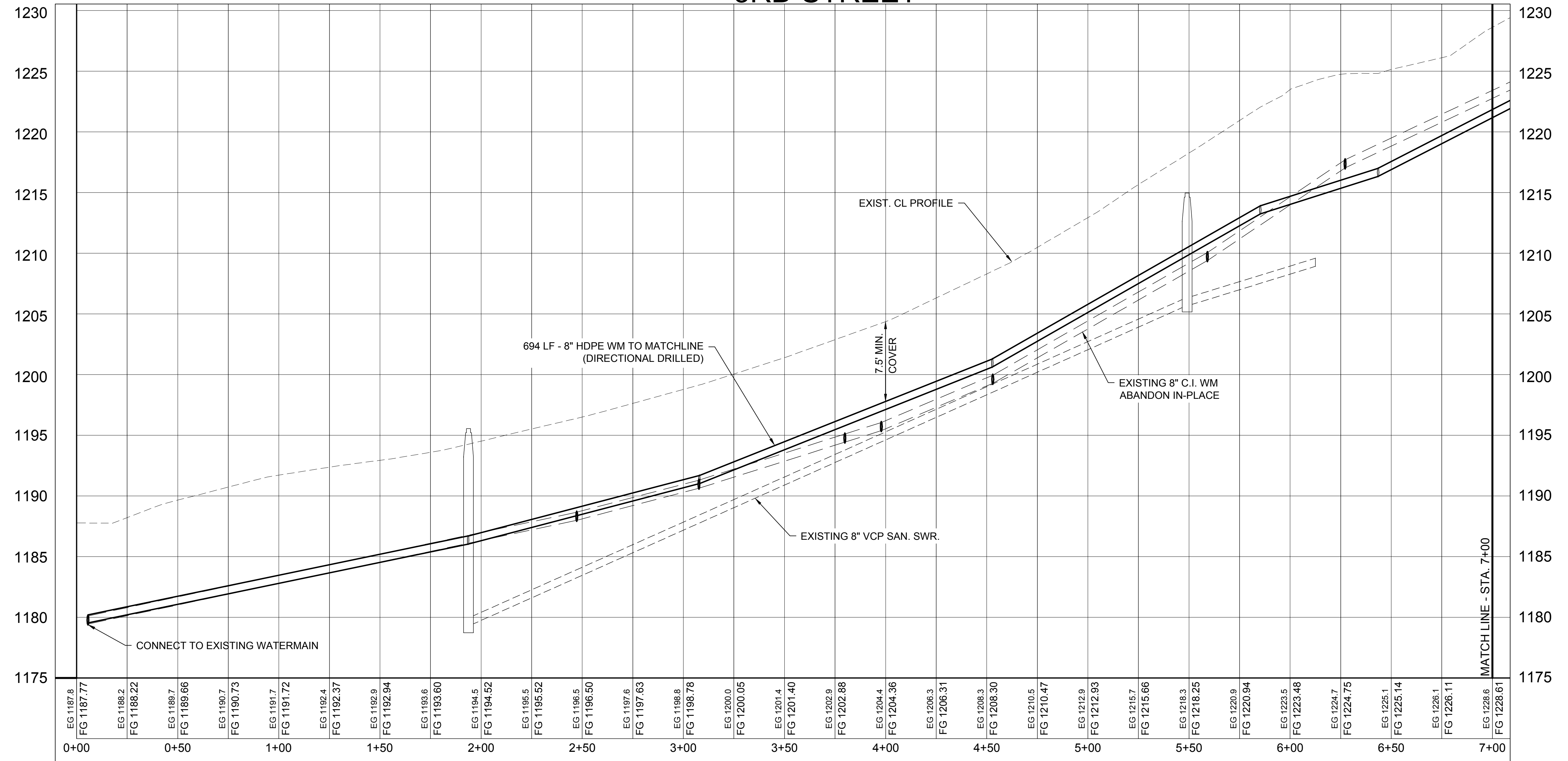
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 SCALE: AS SHOWN  
 DRAWN BY: PMB  
 CHECKED BY: M.E.R.  
 JOB NUMBER: 0127B0012.000

2013 WATER IMPROVEMENTS  
 CITY OF SWANVILLE  
 SWANVILLE, MINNESOTA  
**PLAN AND PROFILE - 5TH STREET - 7+00 TO END**

SHEET NO. **18**  
 SHEET 18 OF 53



### 3RD STREET



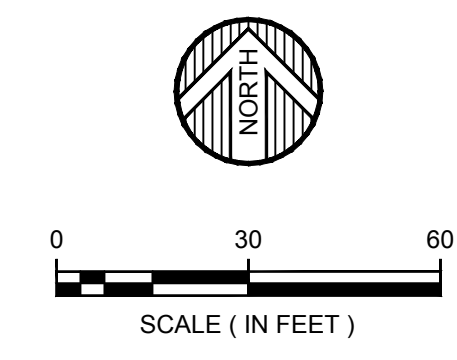
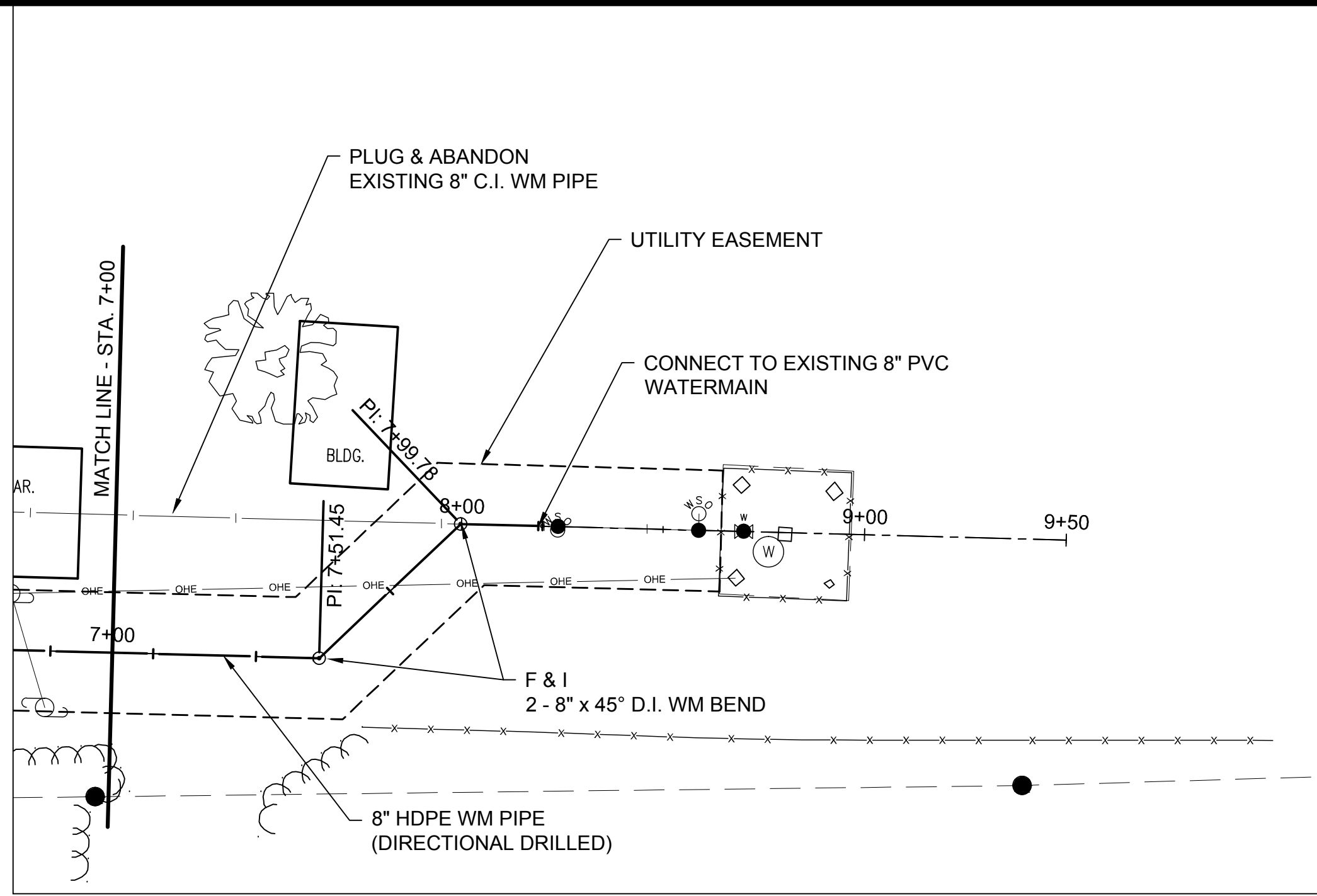
ARCHITECTS: WIDSETH SMITH NOLTING  
 ENGINEERS: ENVIRONMENTAL SERVICES  
 LAND SURVEYORS: LAND SURVEYORS  
 WATER RESOURCES: WATER RESOURCES

I HEREBY CERTIFY THAT THIS PLAN, SPECIFICATION, OR REPORT THAT I AM A DULY LICENSED PROFESSIONAL ENGINEER UNDER THE LAWS OF THE STATE OF MINNESOTA.  
 MICHAEL E. RUDE  
 DATE: 04-01-2013 LIC. NO. 43896

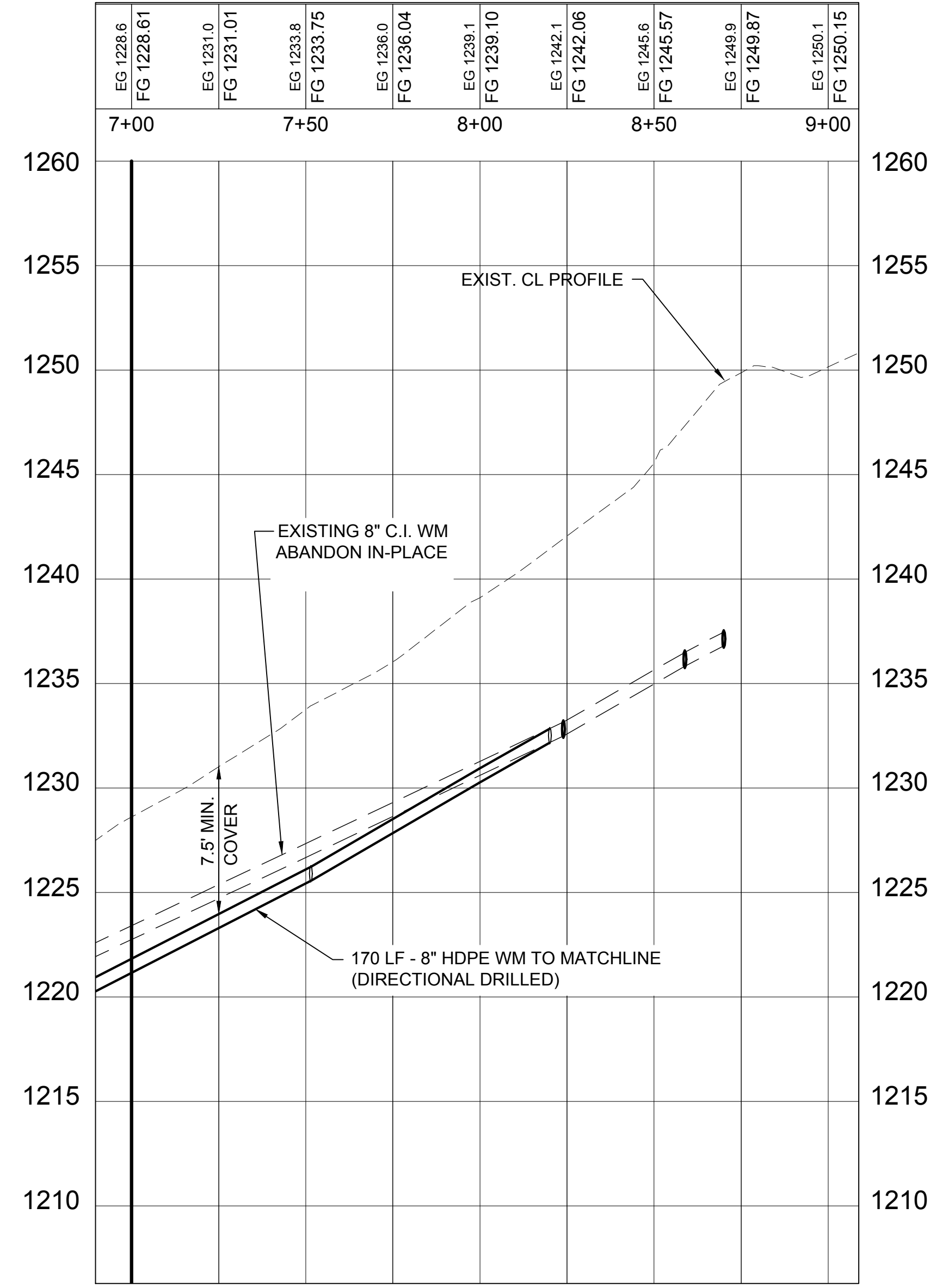
DATE	REVISIONS DESCRIPTION	REV#
JANUARY 2013	AS SHOWN	
	P.M.B.	
	M.E.R.	

2013 WATER IMPROVEMENTS  
 CITY OF SWANVILLE  
 SWANVILLE, MINNESOTA  
 PLAN AND PROFILE - 3RD STREET - 0+00 TO 6+00

SHEET NO. 19  
 SHEET 19 OF 53



### 3RD STREET



ARCHITECTS  
 ENGINEERS  
 ENVIRONMENTAL SERVICES  
 LAND SURVEYORS  
 WATER RESOURCES

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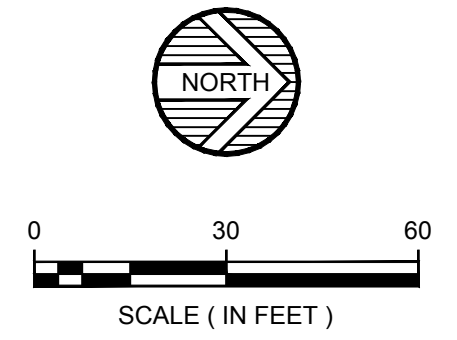
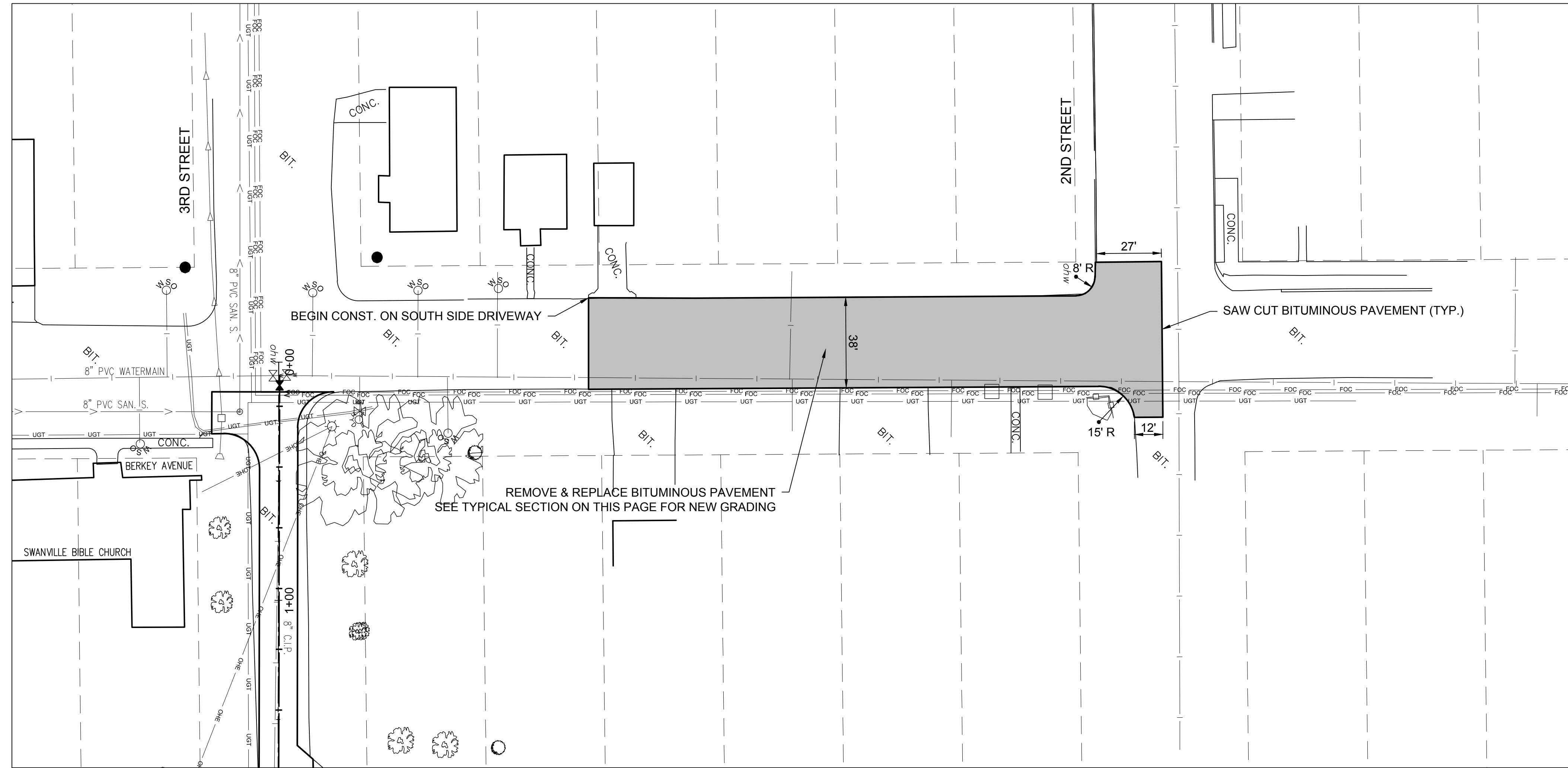
I HEREBY CERTIFY THAT THIS PLAN, SPECIFICATION, OR REPORT  
 WAS PREPARED BY ME OR UNDER MY CLOSE PERSONAL SUPERVISION  
 THAT I AM A DULY LICENSED PROFESSIONAL ENGINEER UNDER  
 THE LAWS OF THE STATE OF MINNESOTA.

Michael E. Rude  
 MICHAEL E. RUDE  
 DATE: 04-01-2013 LIC. NO. 43896

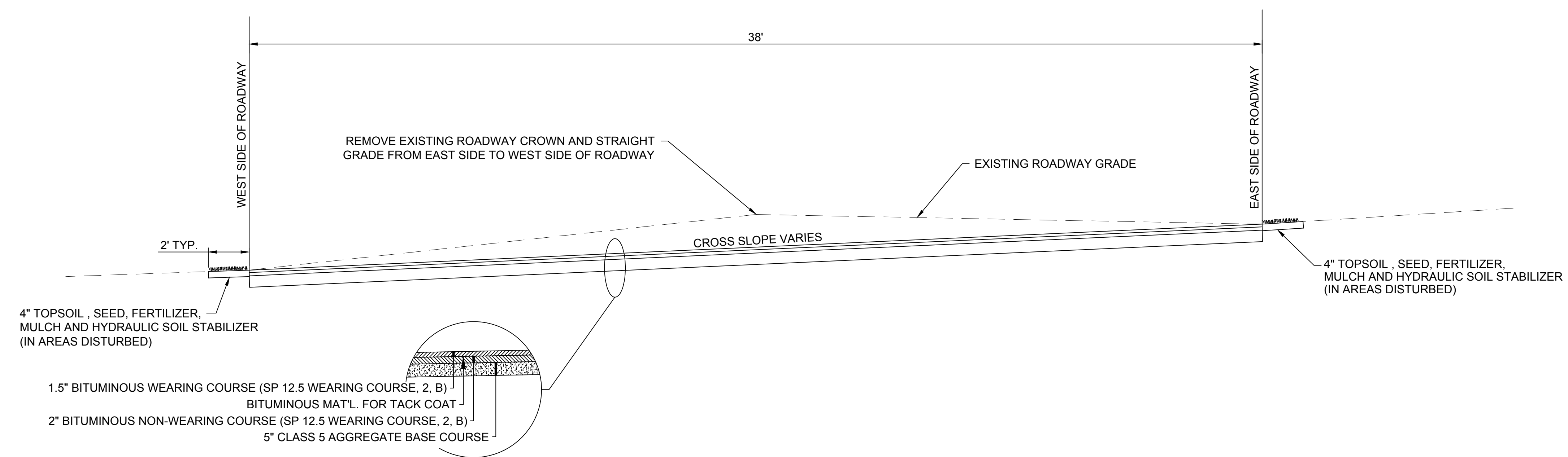
DATE	REVISIONS DESCRIPTION	BY
JANUARY, 2013 <td></td> <td></td>		
AS SHOWN		
DRAWN BY: P.M.B.		
CHECKED BY: M.E.R.		
JOB NUMBER: 0127B0012.000		

2013 WATER IMPROVEMENTS  
 CITY OF SWANVILLE  
 SWANVILLE, MINNESOTA  
 PLAN AND PROFILE - 3RD STREET - 6+00 TO END


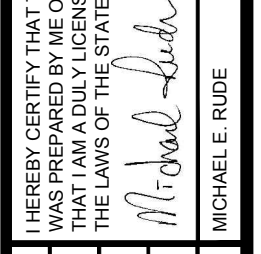
SHEET NO.  
**20**  
 SHEET 20 OF 53

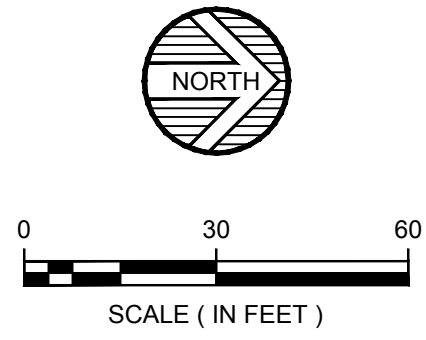
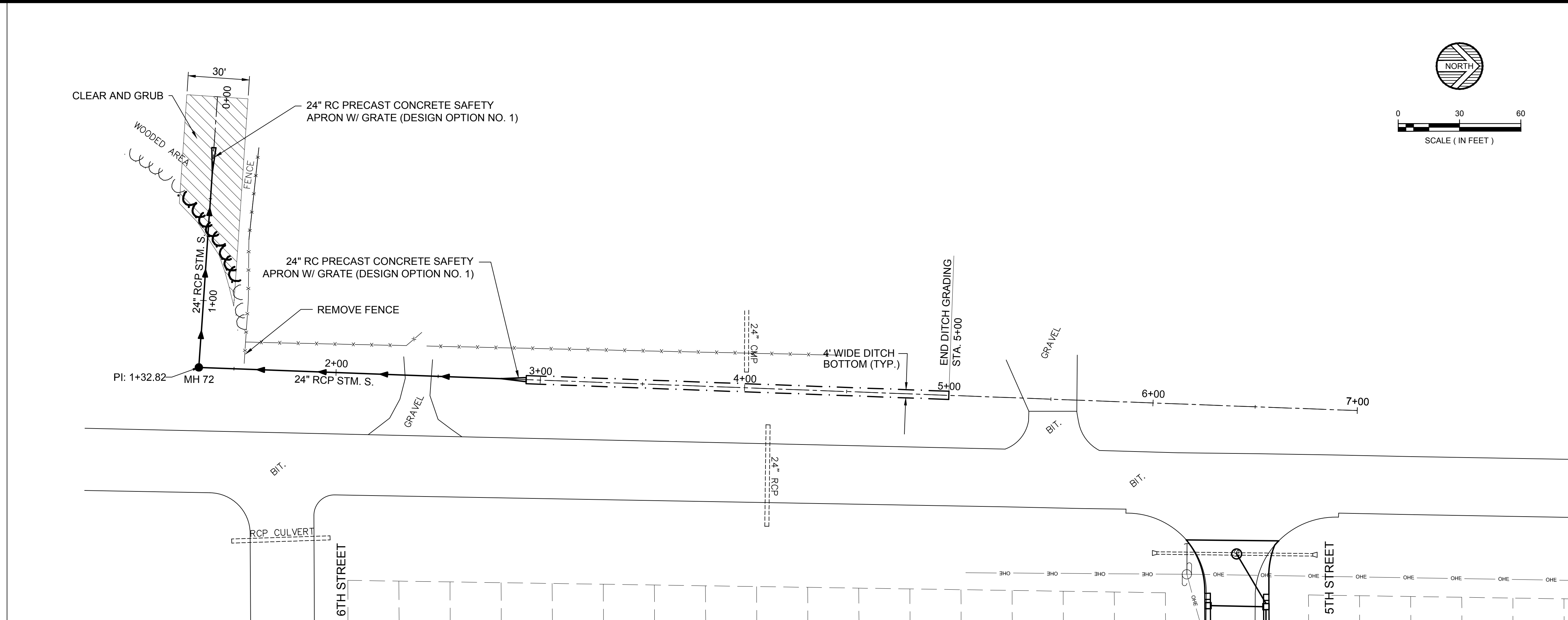


## BERKEY AVENUE

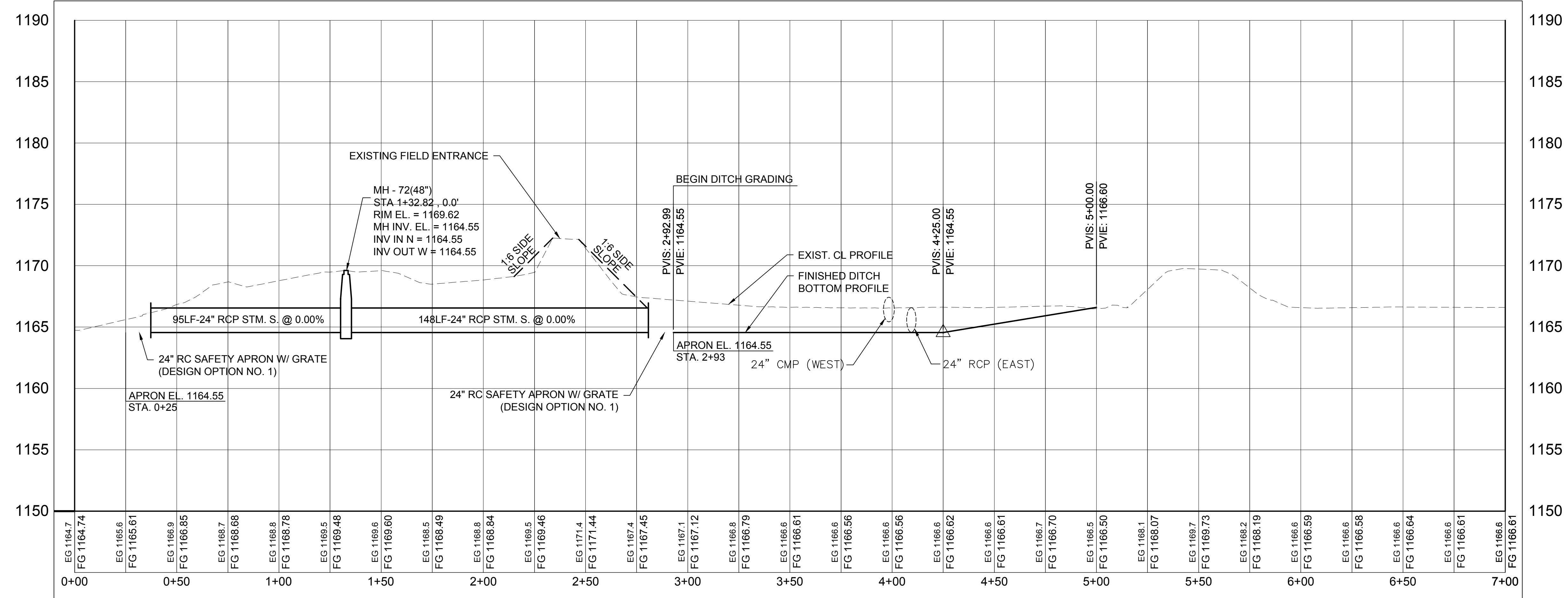


TYPICAL SECTION - BERKEY AVENUE

	<b>ARCHITECTS ENGINEERS ENVIRONMENTAL SERVICES LAND SURVEYORS WATER RESOURCES</b>
<small>WWW.WSNOLTING.COM</small>	<small>ALABAMA, MN ARIZONA, MN ARKANSAS, MN CALIFORNIA, MN FLORIDA, MN ILLINOIS, MN INDIANA, MN IOWA, MN KANSAS, MN LOUISIANA, MN MAINE, MN MARYLAND, MN MASSACHUSETTS, MN MICHIGAN, MN MINNESOTA, MN MISSISSIPPI, MN MISSOURI, MN MONTANA, MN NEBRASKA, MN NEVADA, MN NEW HAMPSHIRE, MN NEW JERSEY, MN NEW YORK, MN NORTH CAROLINA, MN NORTH DAKOTA, MN OHIO, MN OKLAHOMA, MN OREGON, MN PENNSYLVANIA, MN RHODE ISLAND, MN SOUTH CAROLINA, MN SOUTH DAKOTA, MN Tennessee, MN Texas, MN Utah, MN Vermont, MN Virginia, MN Washington, MN West Virginia, MN Wisconsin, MN Wyoming, MN</small>
<small>DATE: JANUARY, 2013 SCALE: AS SHOWN DRAWN BY: P.M.B. CHECKED BY: M.E.R. JOB NUMBER: 0127B0012.000</small>	<small>2013 WATER IMPROVEMENTS CITY OF SWANVILLE SWANVILLE, MINNESOTA PLAN - BERKEY AVENUE</small>
<small>DATE: _____ REV# _____ REVISIONS DESCRIPTION _____ BY _____</small>	<small>I HEREBY CERTIFY THAT THIS PLAN, SPECIFICATION, OR REPORT IS MY ORIGINAL WORK AND THAT I AM A DULY LICENSED PROFESSIONAL ENGINEER UNDER THE LAWS OF THE STATE OF MINNESOTA.     <small>MICHAEL E. RUDE LIC. NO. 43896</small> </small>
<small>SHEET NO. <b>21</b></small>	<small>SHEET 21 OF 53</small>



WEST DITCH - HWY. 28



ARCHITECTS  
ENGINEERS  
ENVIRONMENTAL SERVICES  
LAND SURVEYORS  
WATER RESOURCES

WIDSETH SMITH NOLTING

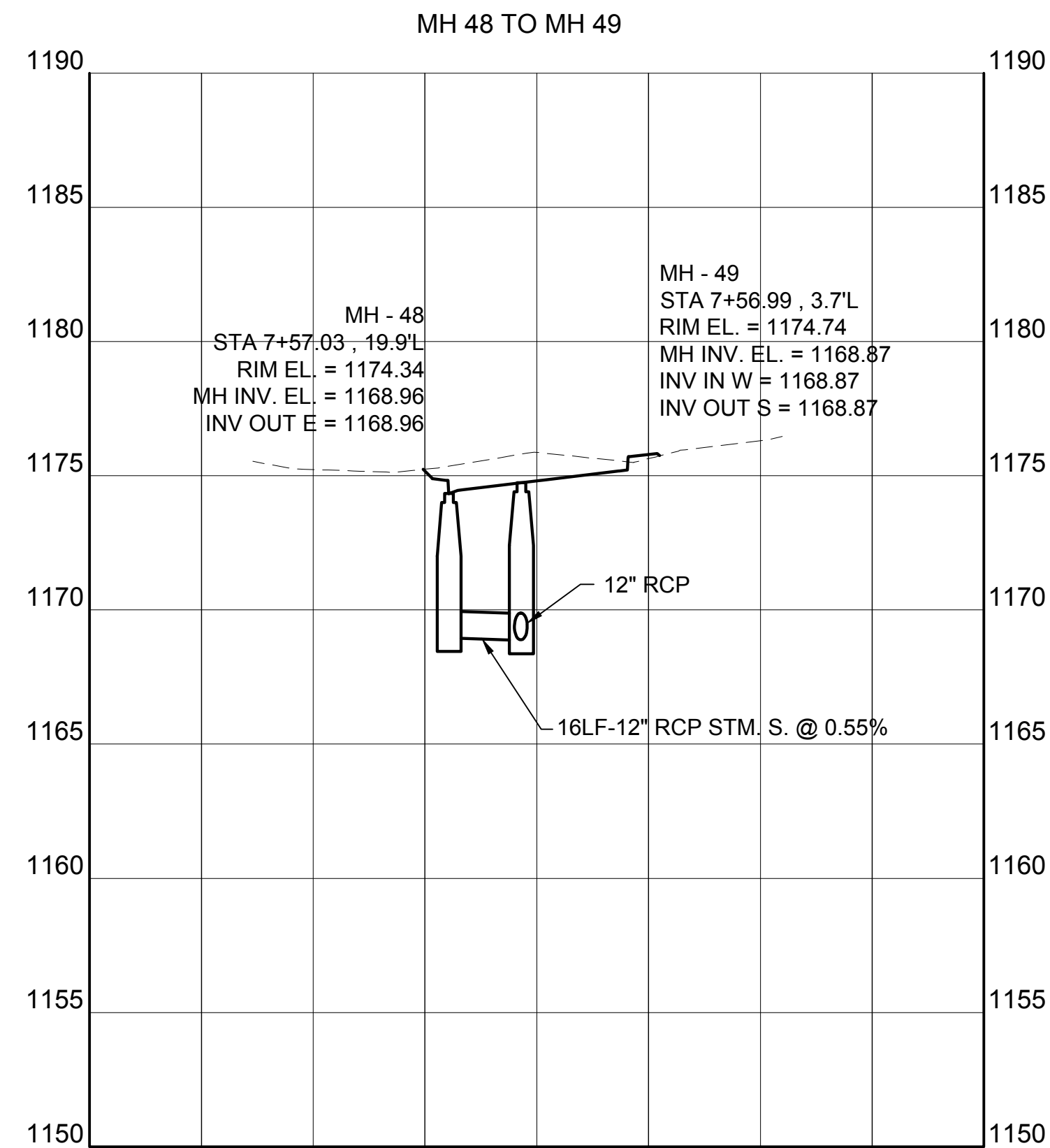
DATE: JANUARY, 2013  
SCALE: AS SHOWN  
DRAWN BY: P.M.B.  
CHECKED BY: M.E.R.  
JOB NUMBER: 0127B0012.000

2013 WATER IMPROVEMENTS  
CITY OF SWANVILLE  
SWANVILLE, MINNESOTA

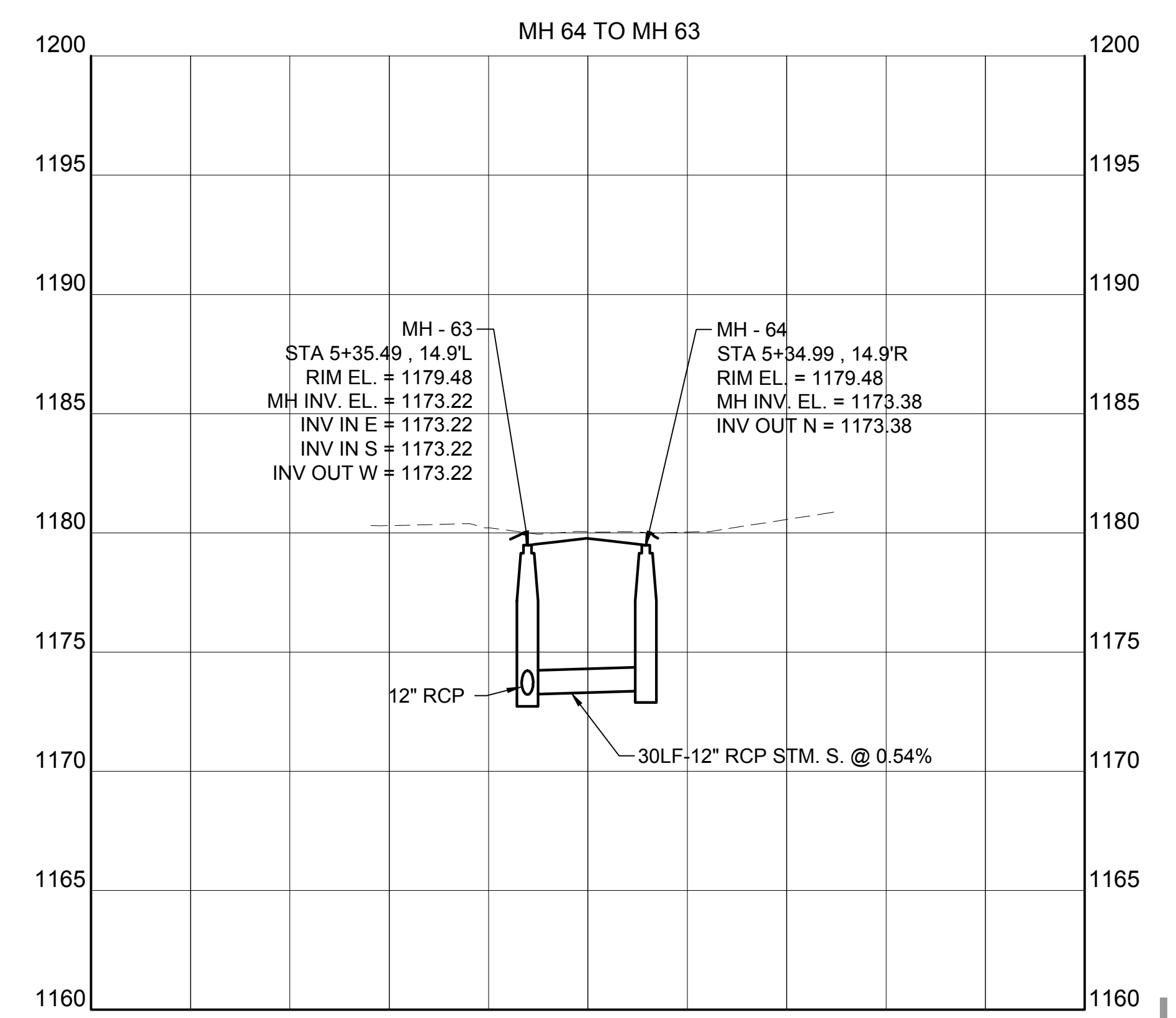
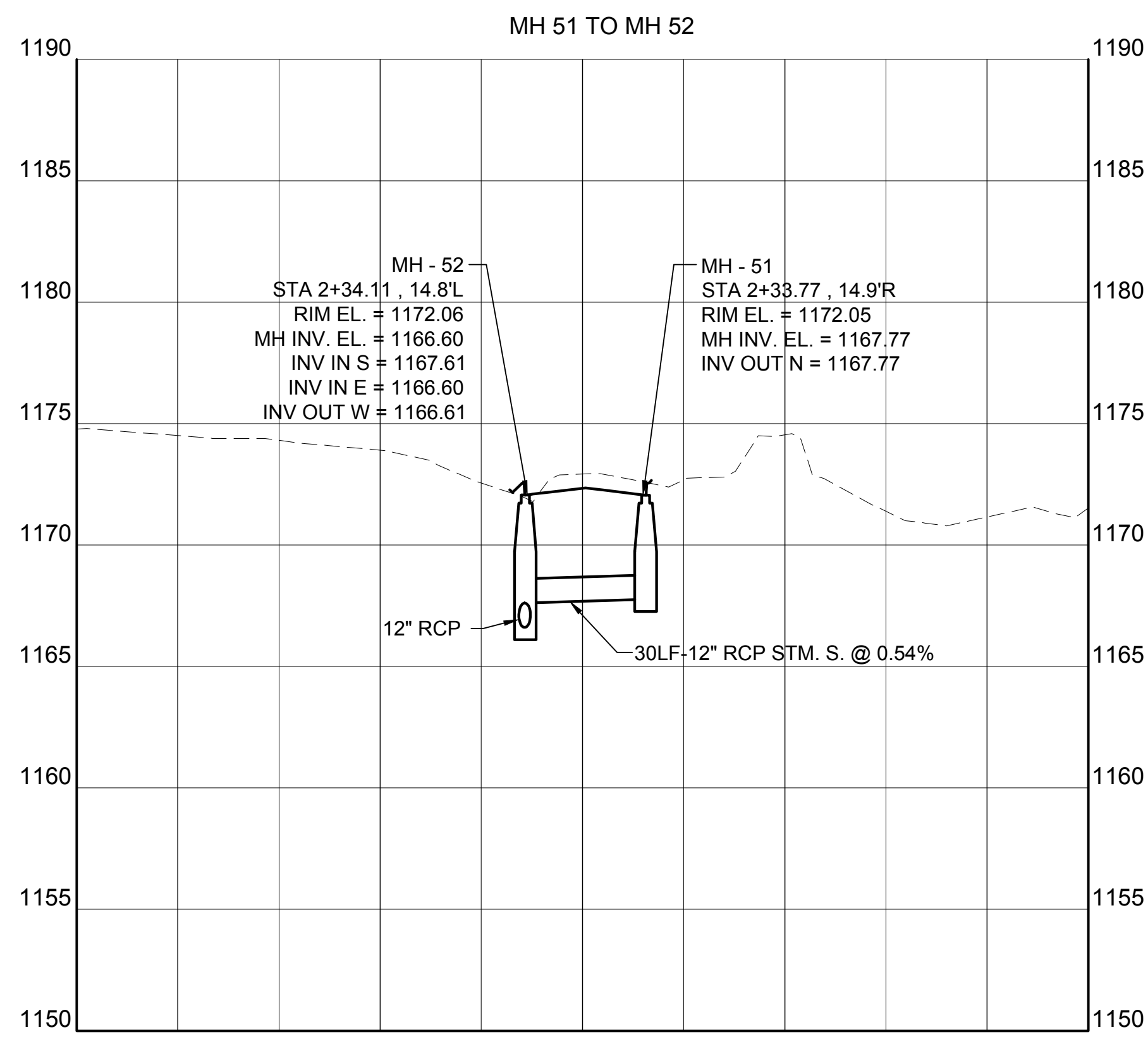
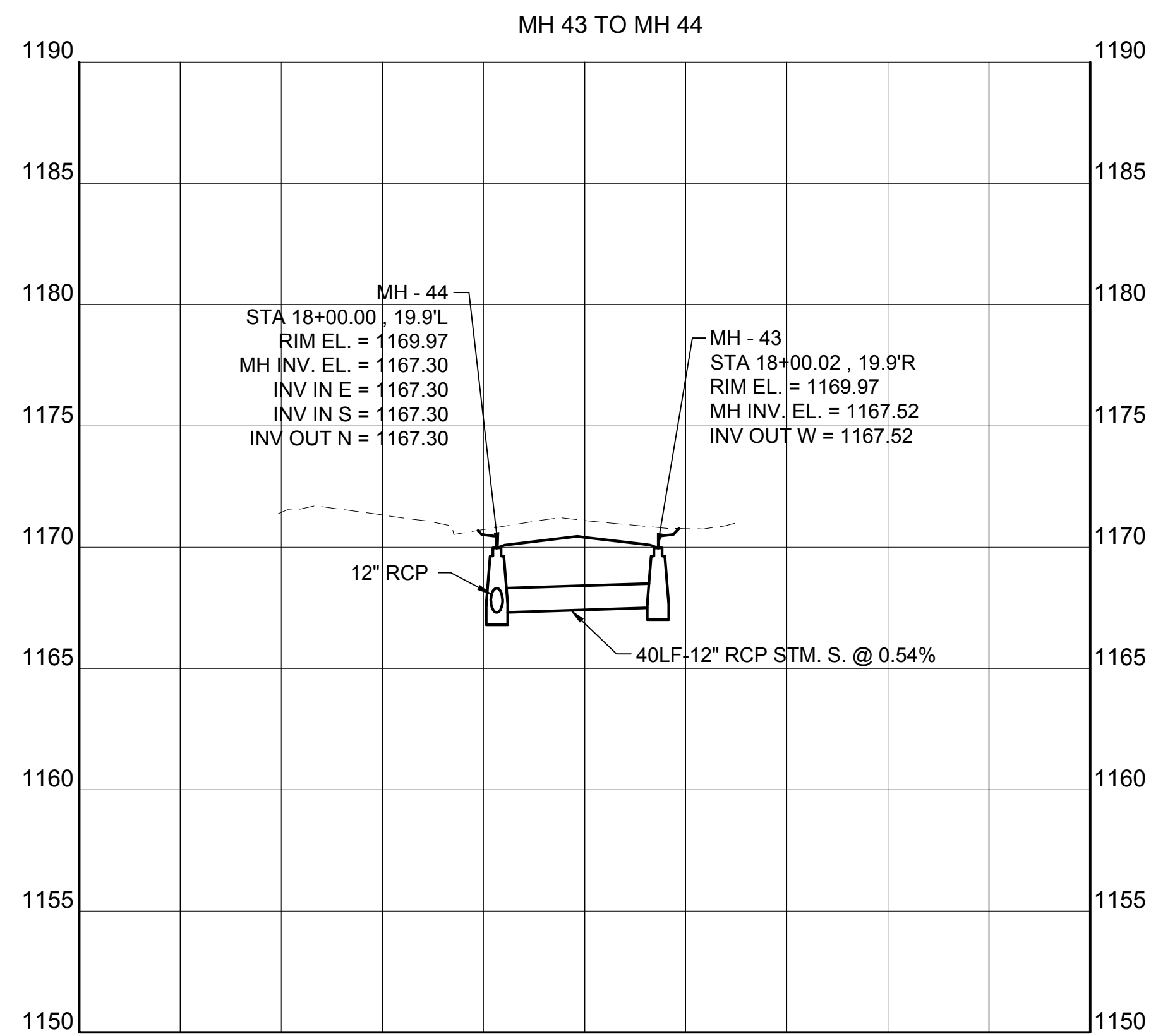
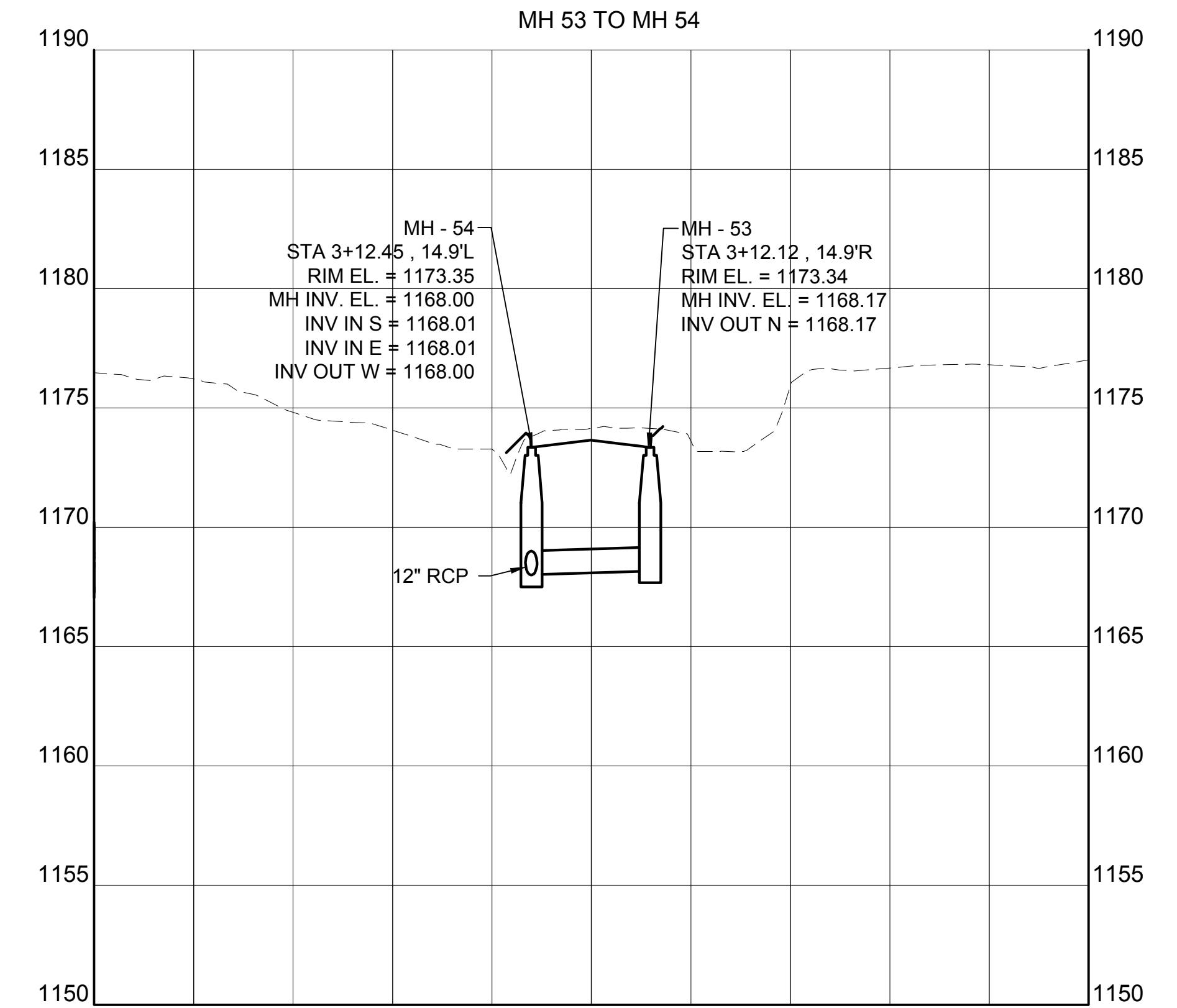
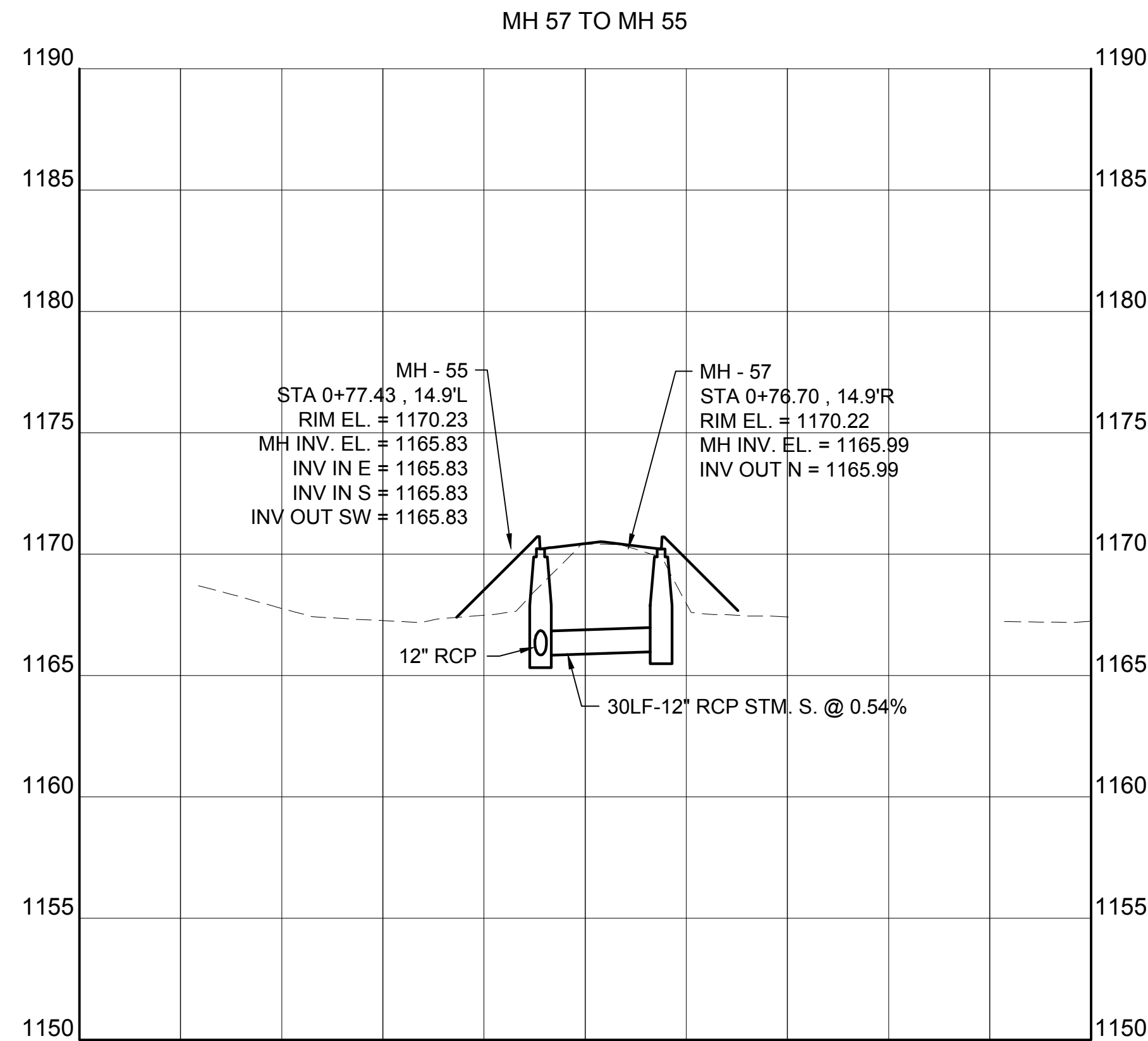
PLAN AND PROFILE - WEST DITCH - HWY 28

SHEET NO. 22  
SHEET 22 OF 53

RHODA AVENUE



5TH STREET



ARCHITECTS  
ENGINEERS  
ENVIRONMENTAL SERVICES  
LAND SURVEYORS  
WATER RESOURCES

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BY: *Michael Rude*  
MICHAEL R. RUDE  
DATE: 04-01-2013 LIC. NO. 43896

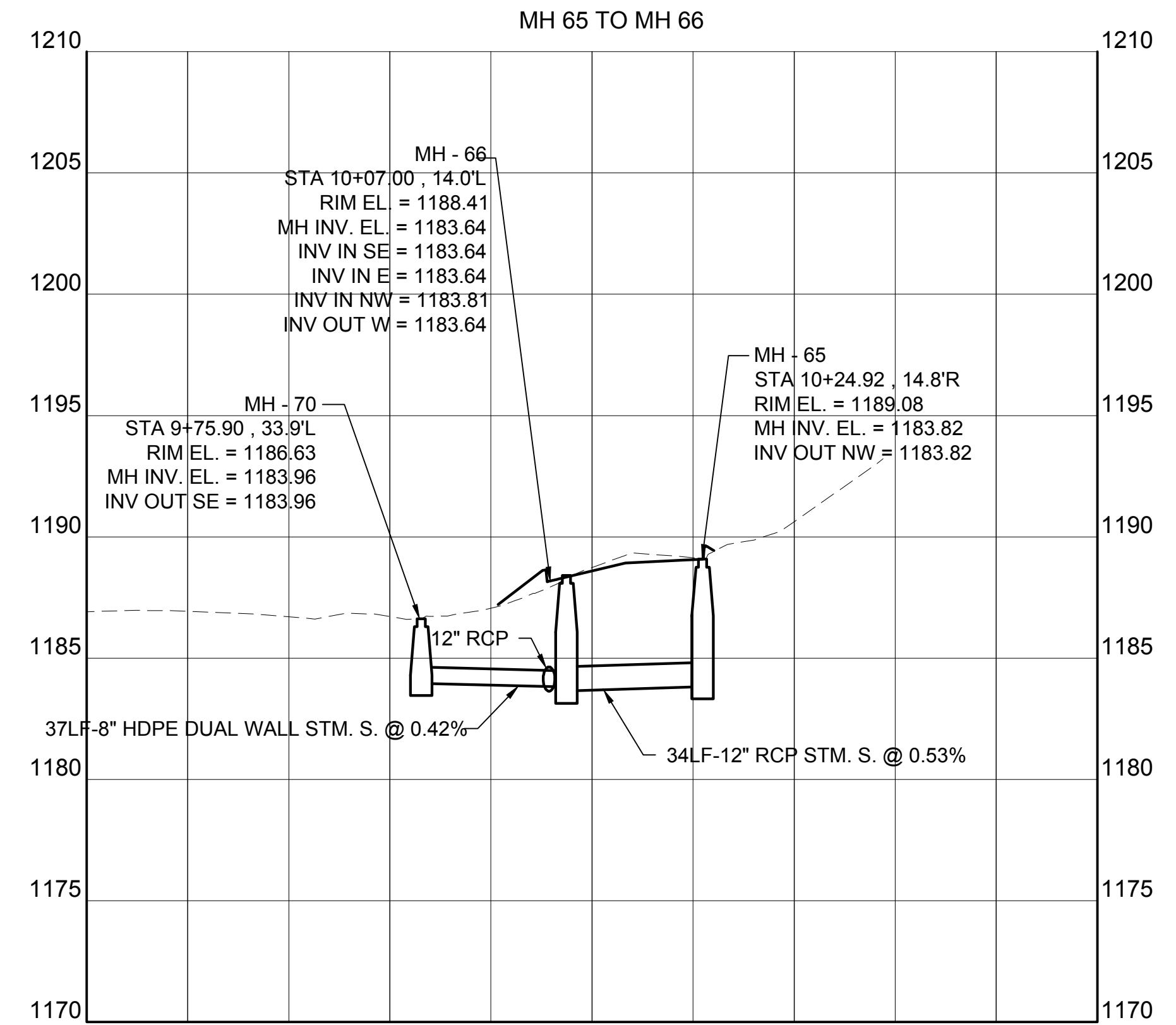
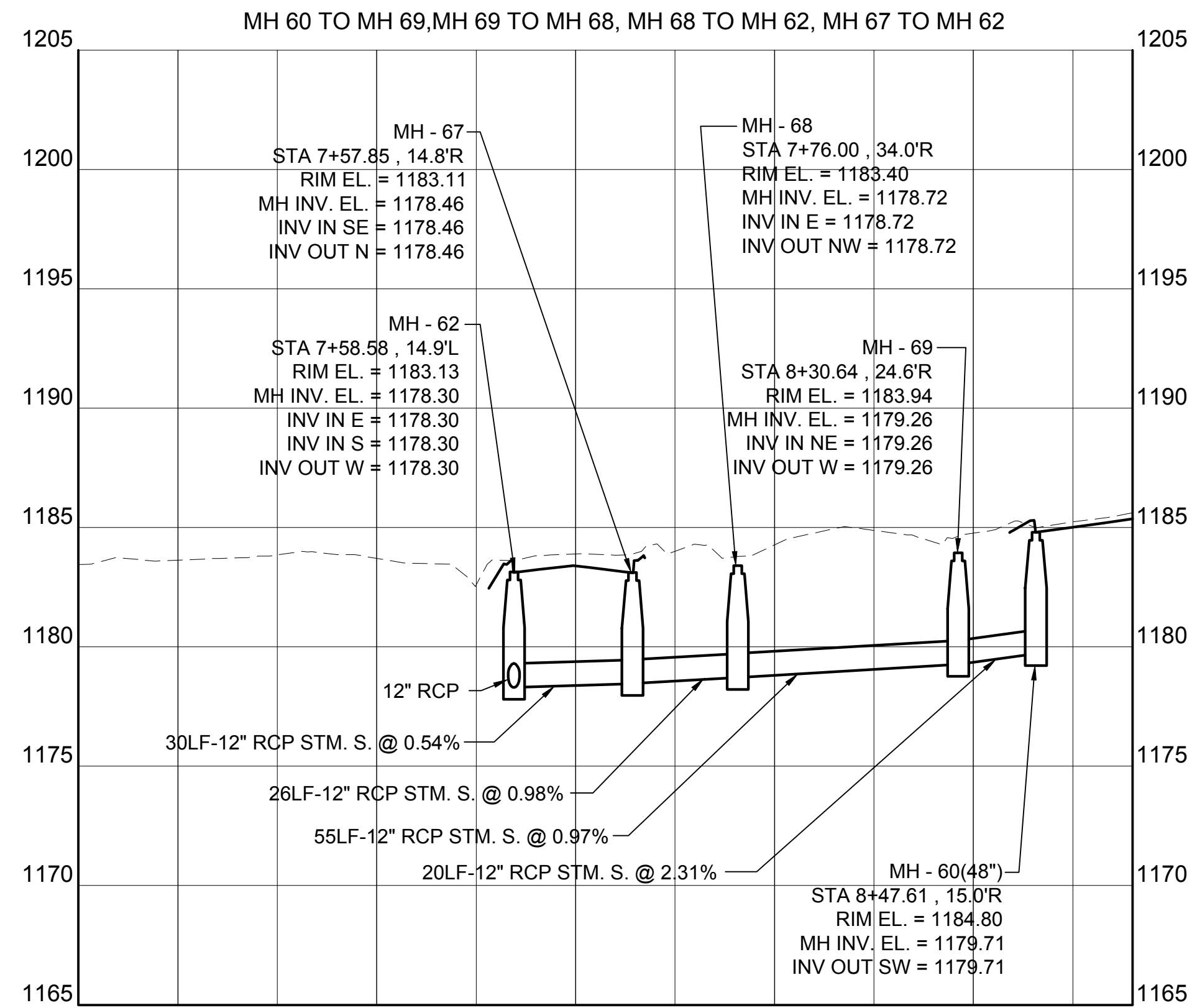
REVISIONS DESCRIPTION	DATE	REV#

DATE: JANUARY, 2013  
SCALE: AS SHOWN  
DRAWN BY: P.M.B.  
CHECKED BY: M.E.R.  
JOB NUMBER: 0127B0012.000

2013 WATER IMPROVEMENTS  
CITY OF SWANVILLE  
SWANVILLE, MINNESOTA  
STORM SEWER LATERAL PROFILES

SHEET NO. **23**  
SHEET 23 OF 53

5TH STREET



ARCHITECTS  
ENGINEERS  
ENVIRONMENTAL SERVICES  
LAND SURVEYORS  
WATER RESOURCES

WIDSETH SMITH NOLTING

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DATE: JANUARY, 2013  
SCALE: AS SHOWN  
DRAWN BY: P.M.B.  
CHECKED BY: M.E.R.  
JOB NUMBER: 0127B0012.000

BY: P.M.B.  
DESCRIPTION: LATERAL PROFILE

REVISIONS

REV#	DATE	DESCRIPTION

I HEREBY CERTIFY THAT THIS PLAN, SPECIFICATION, OR REPORT THAT I AM A DAILY LICENSED PROFESSIONAL ENGINEER UNDER THE LAWS OF THE STATE OF MINNESOTA.

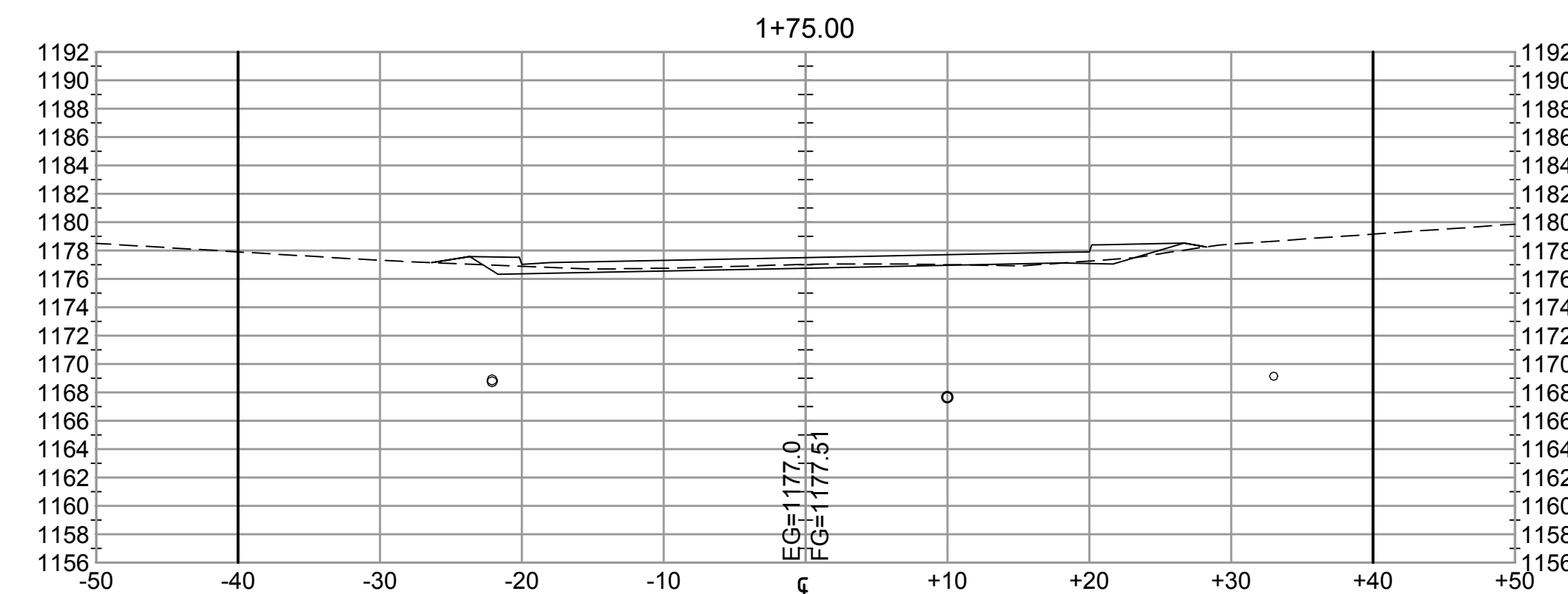
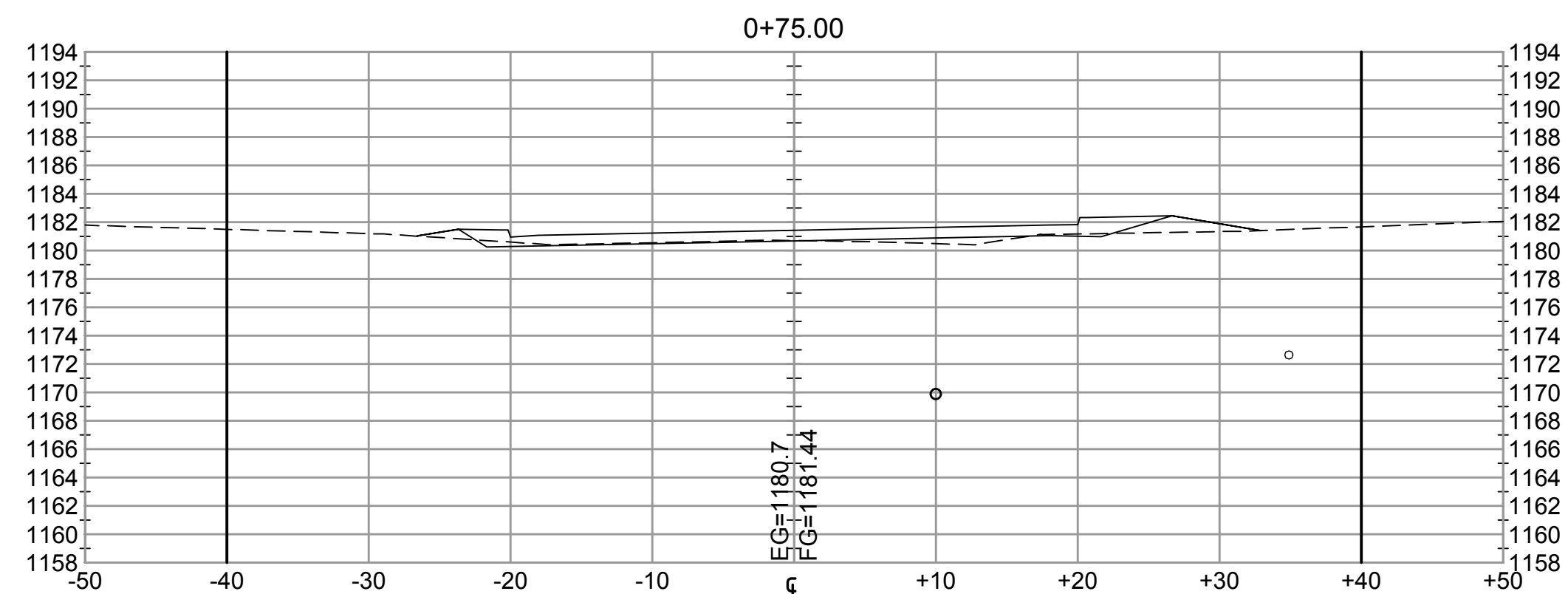
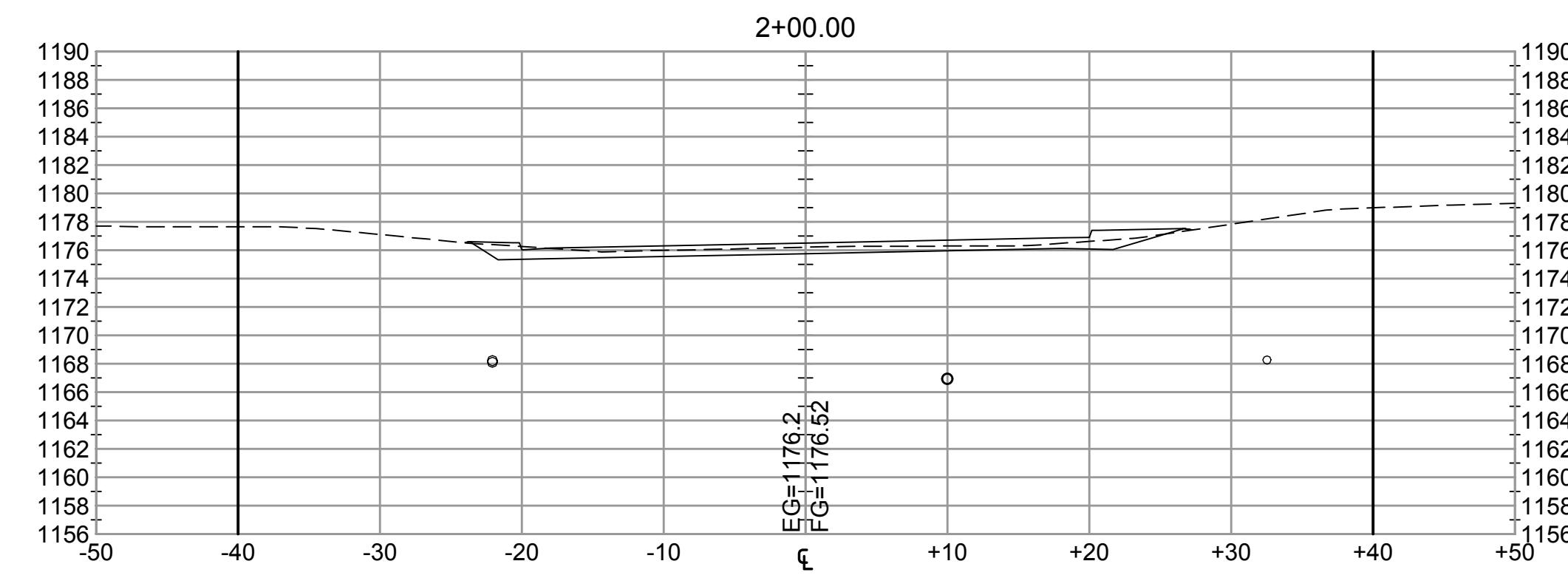
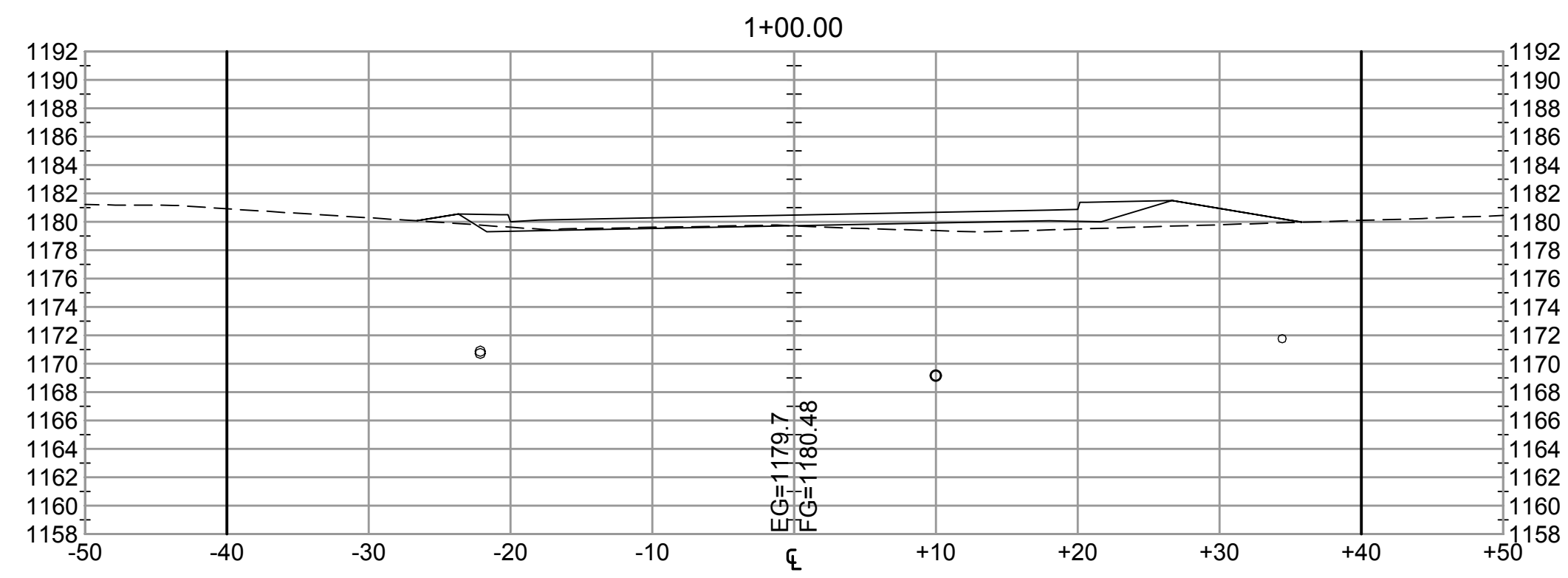
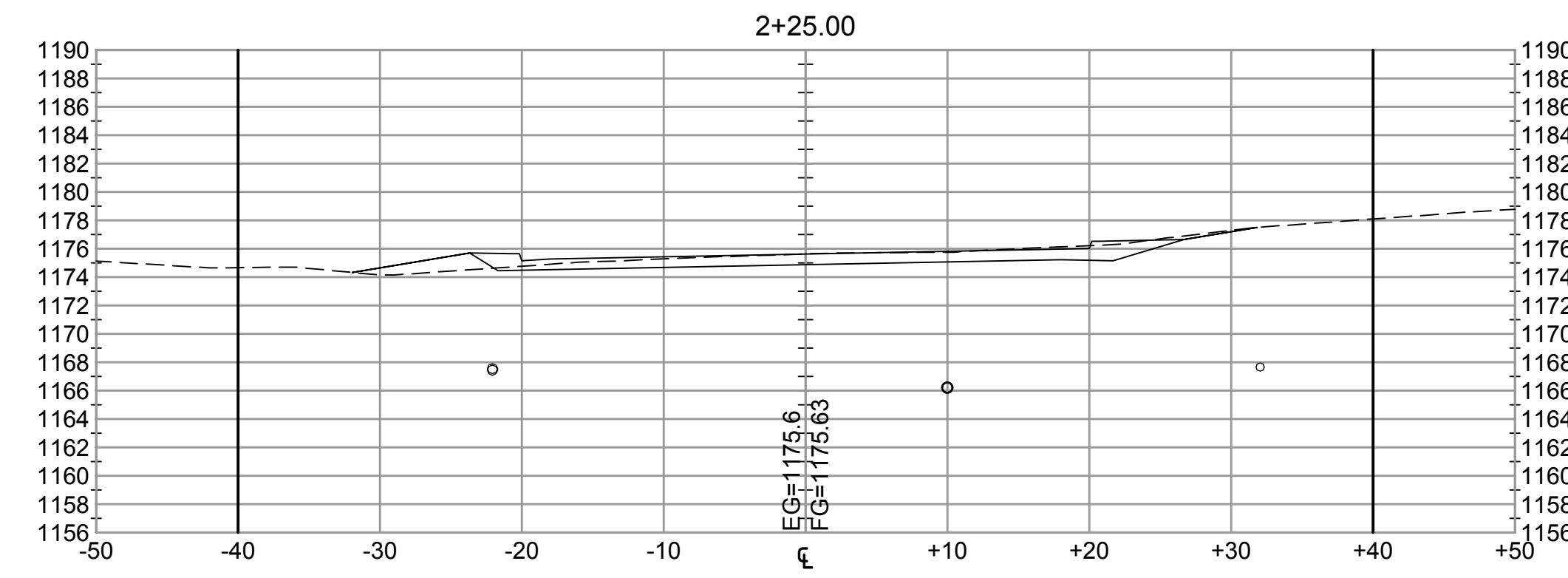
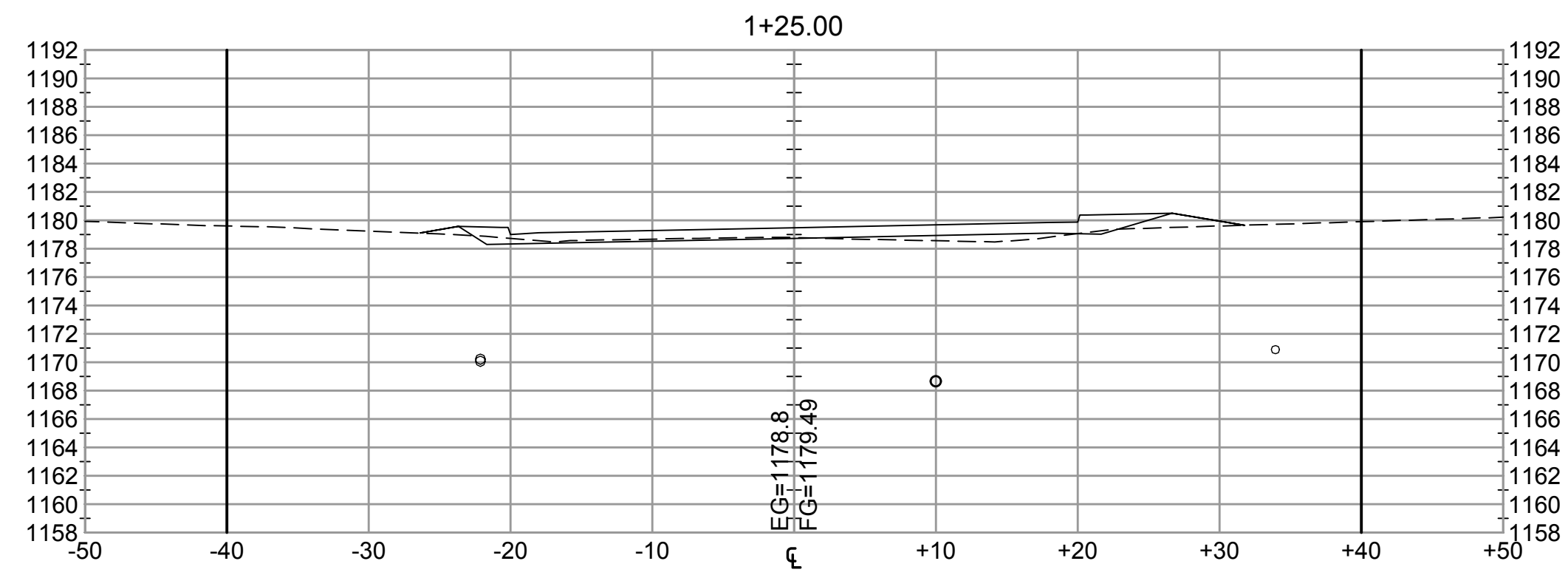
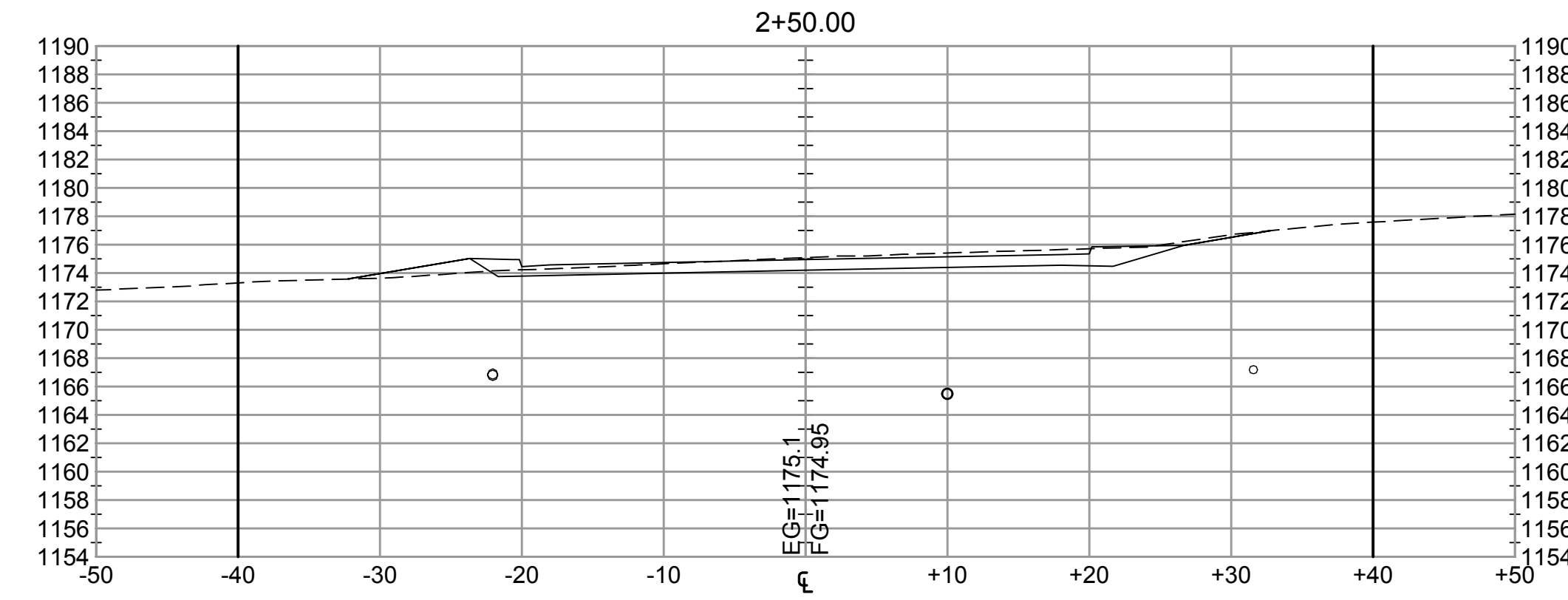
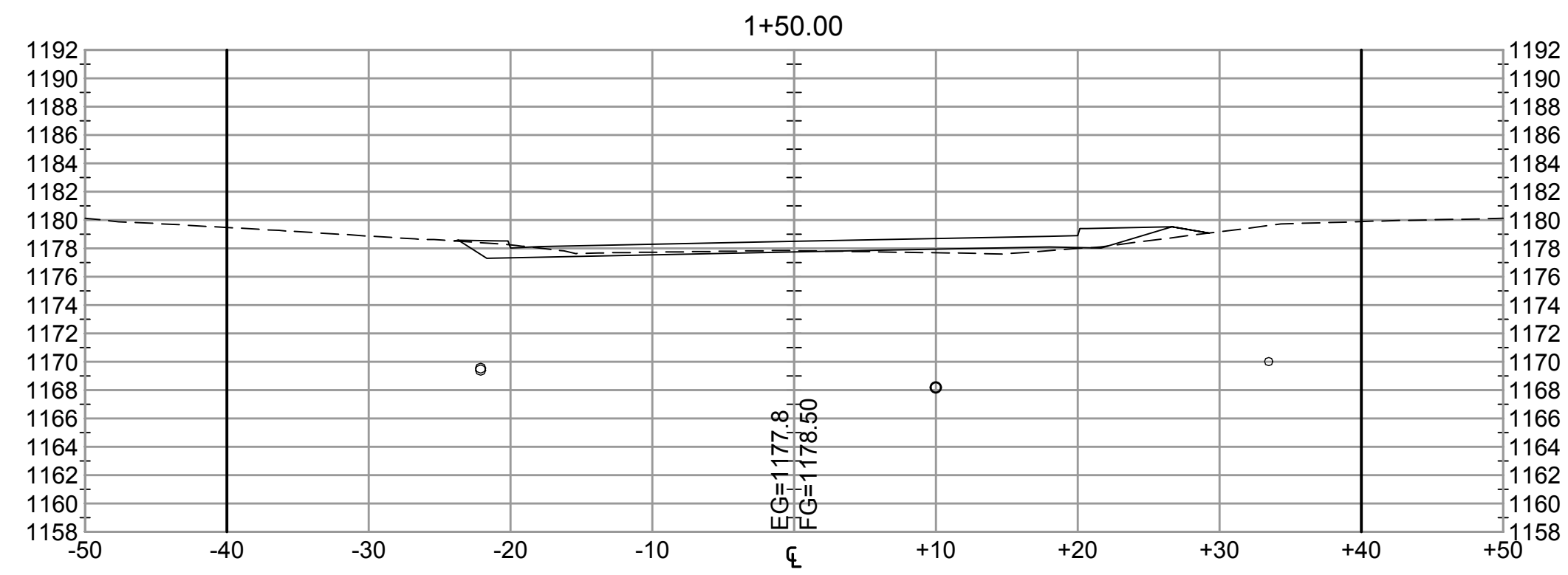
*Michael E. Rude*  
MICHAEL E. RUDE  
DATE: 04-01-2013 LIC. NO. 43896

2013 WATER IMPROVEMENTS  
CITY OF SWANVILLE  
SWANVILLE, MINNESOTA  
STORM SEWER LATERAL PROFILES

SHEET NO.  
**24**

SHEET 24 OF 53





ARCHITECTS  
 ENGINEERS  
 ENVIRONMENTAL SERVICES  
 LAND SURVEYORS  
 WATER RESOURCES

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 SUPERVISION AND THAT I AM A DULY LICENSED PROFESSIONAL ENGINEER UNDER  
 THE LAWS OF THE STATE OF MINNESOTA.

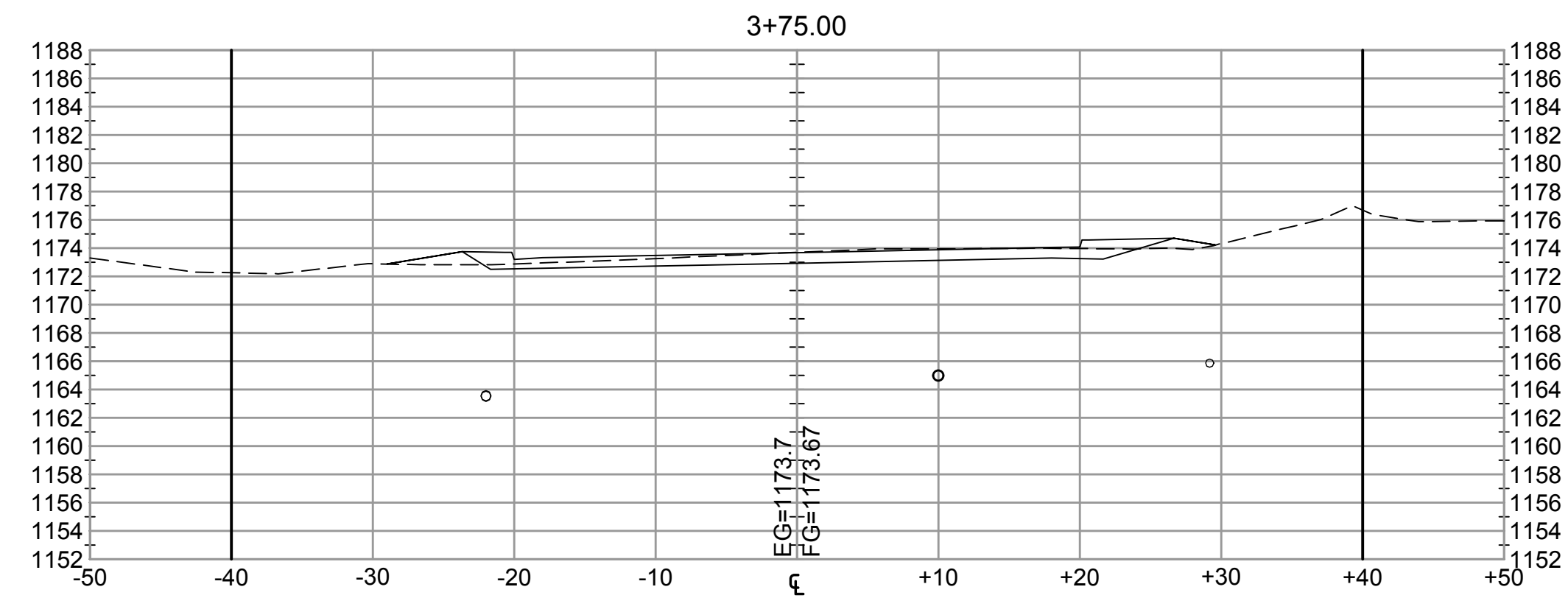
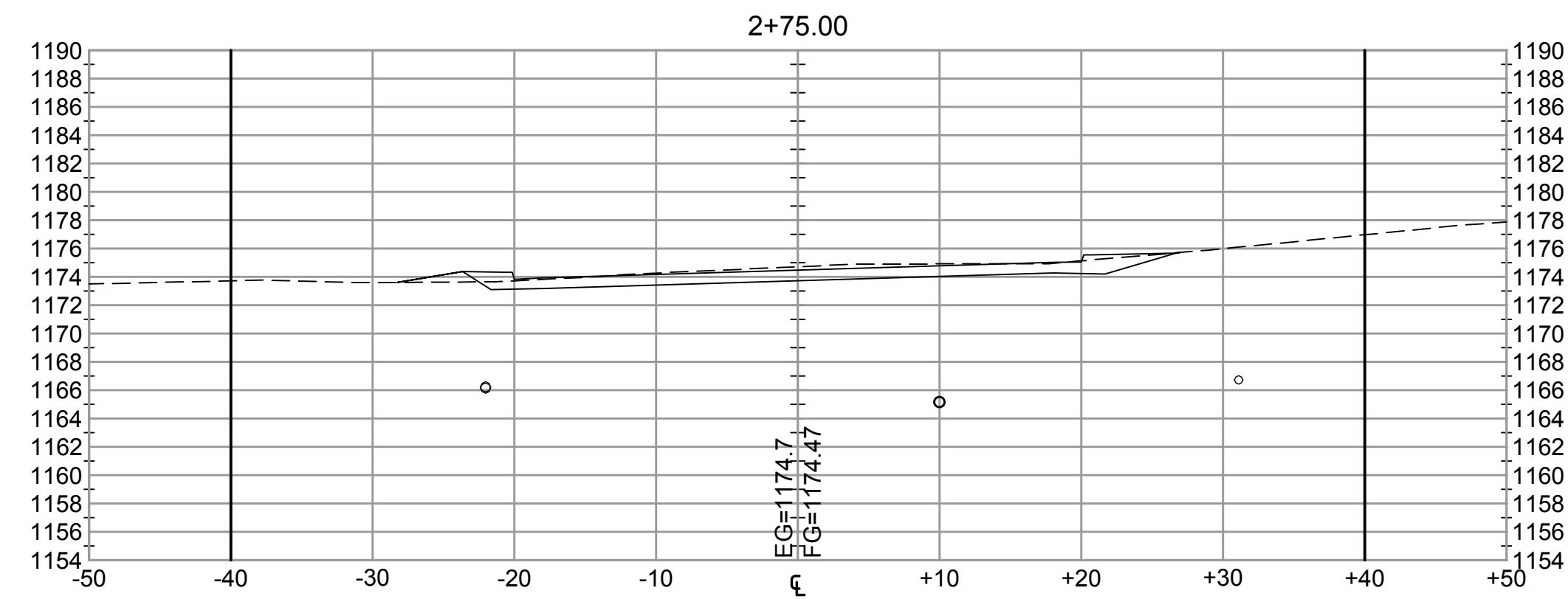
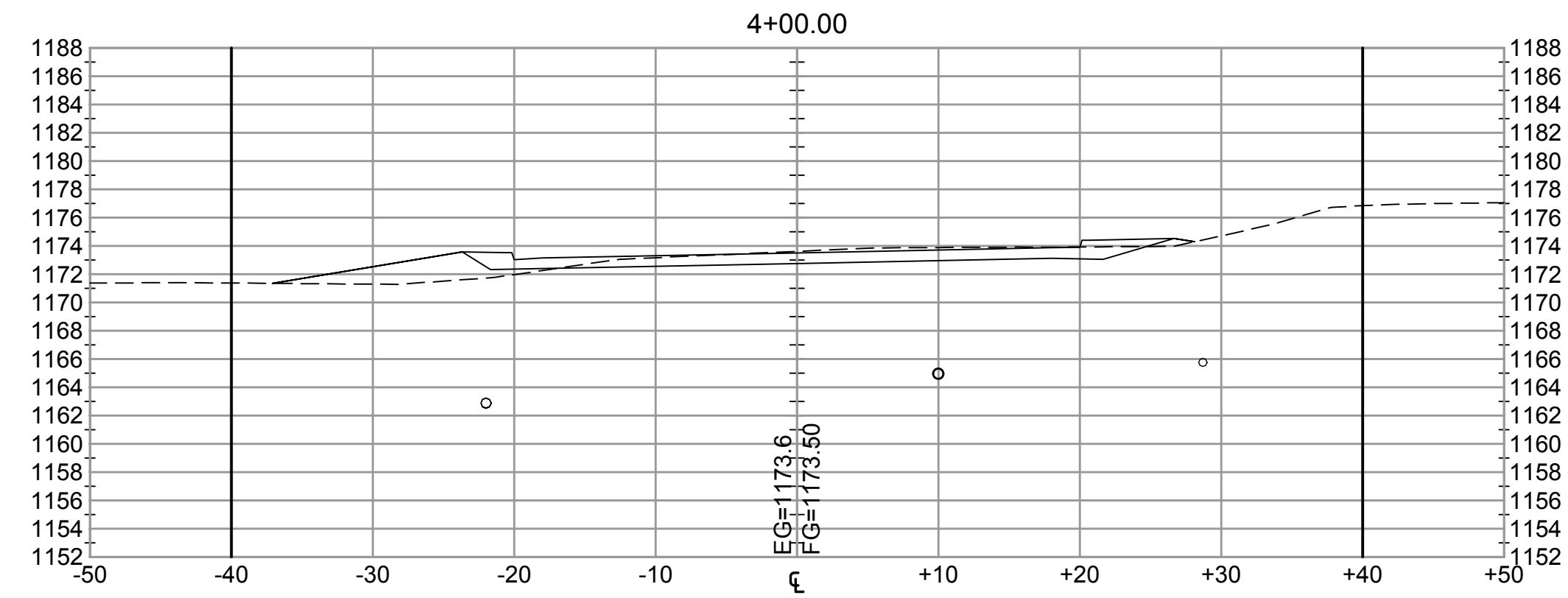
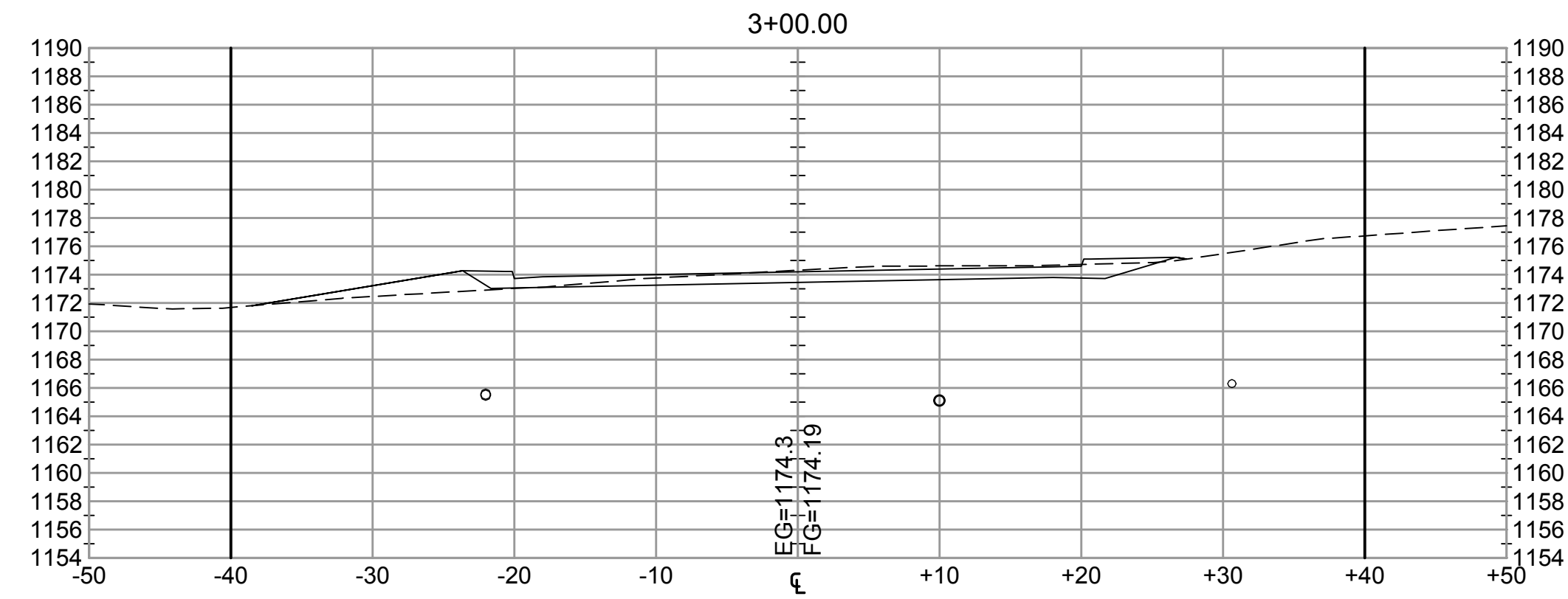
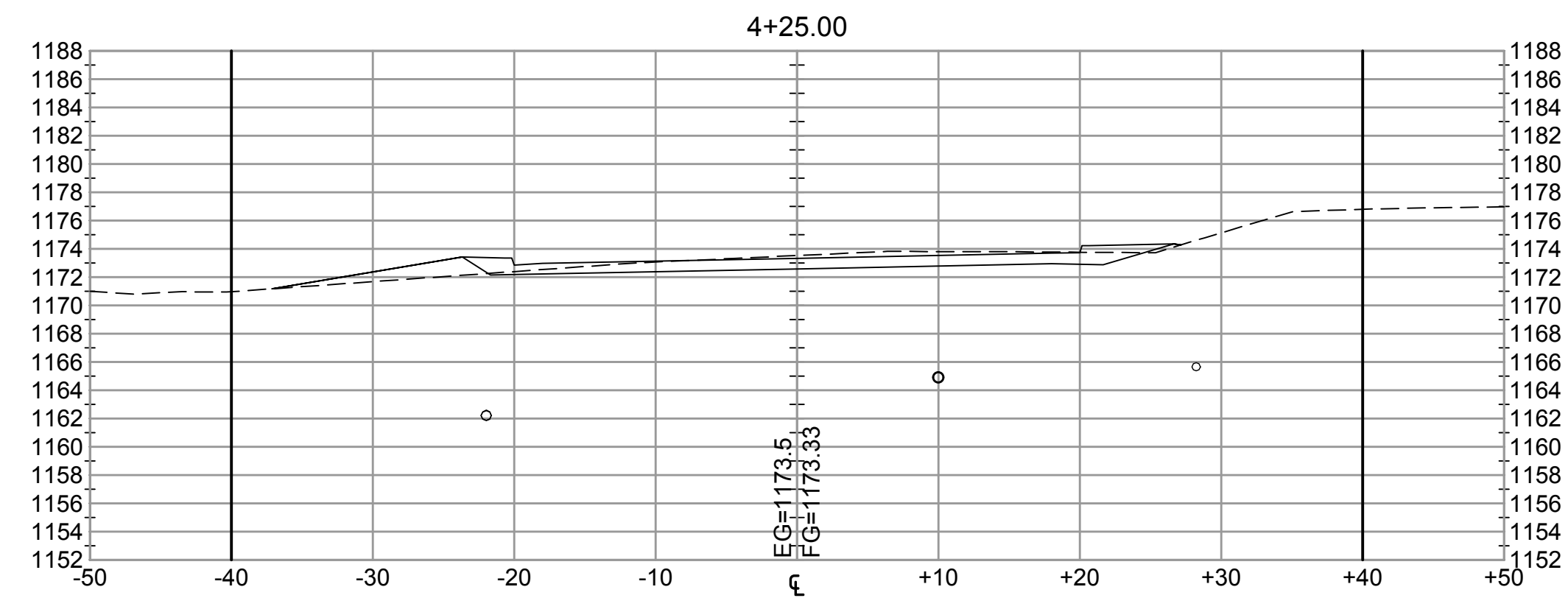
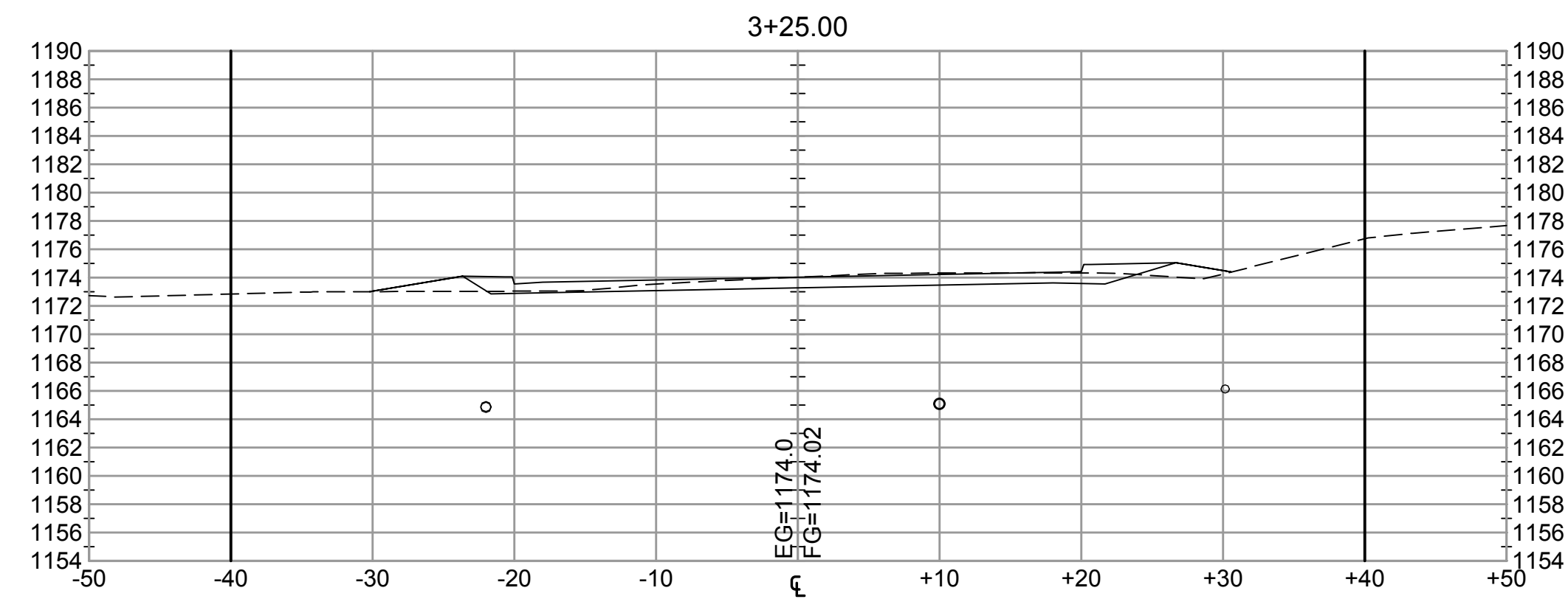
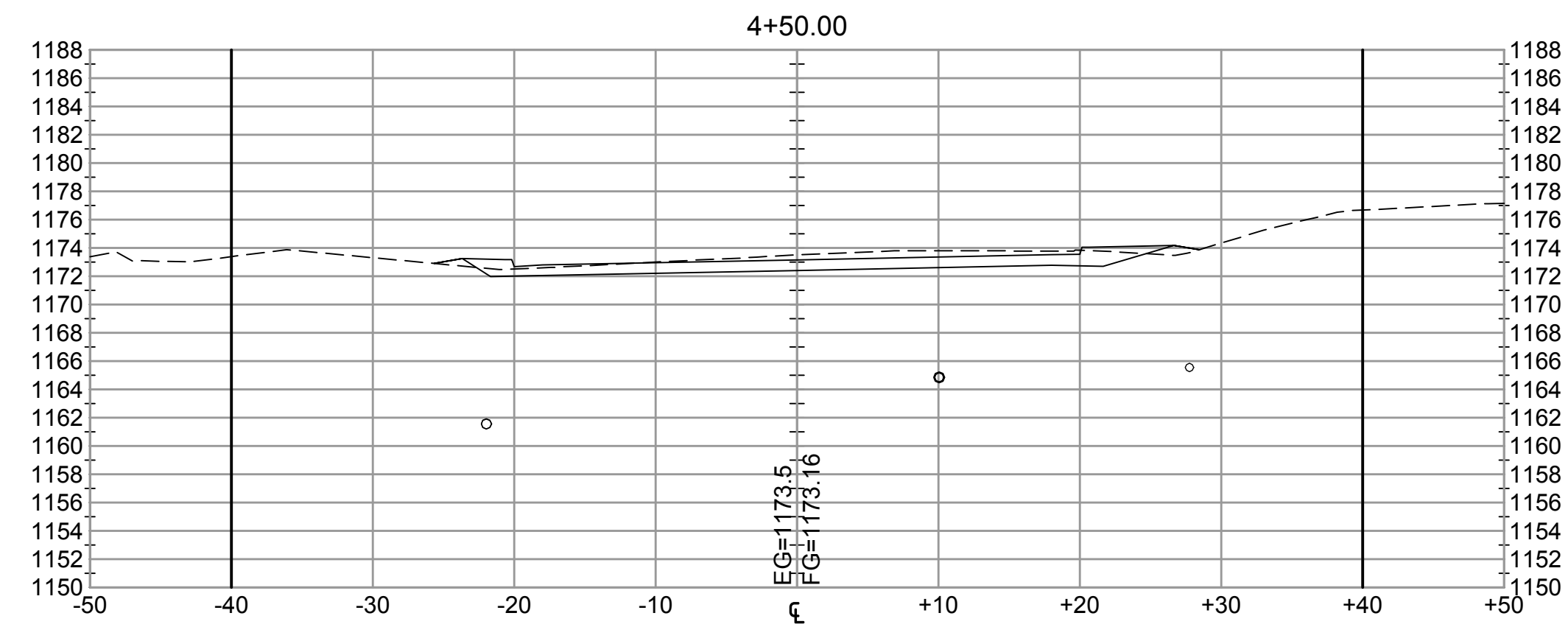
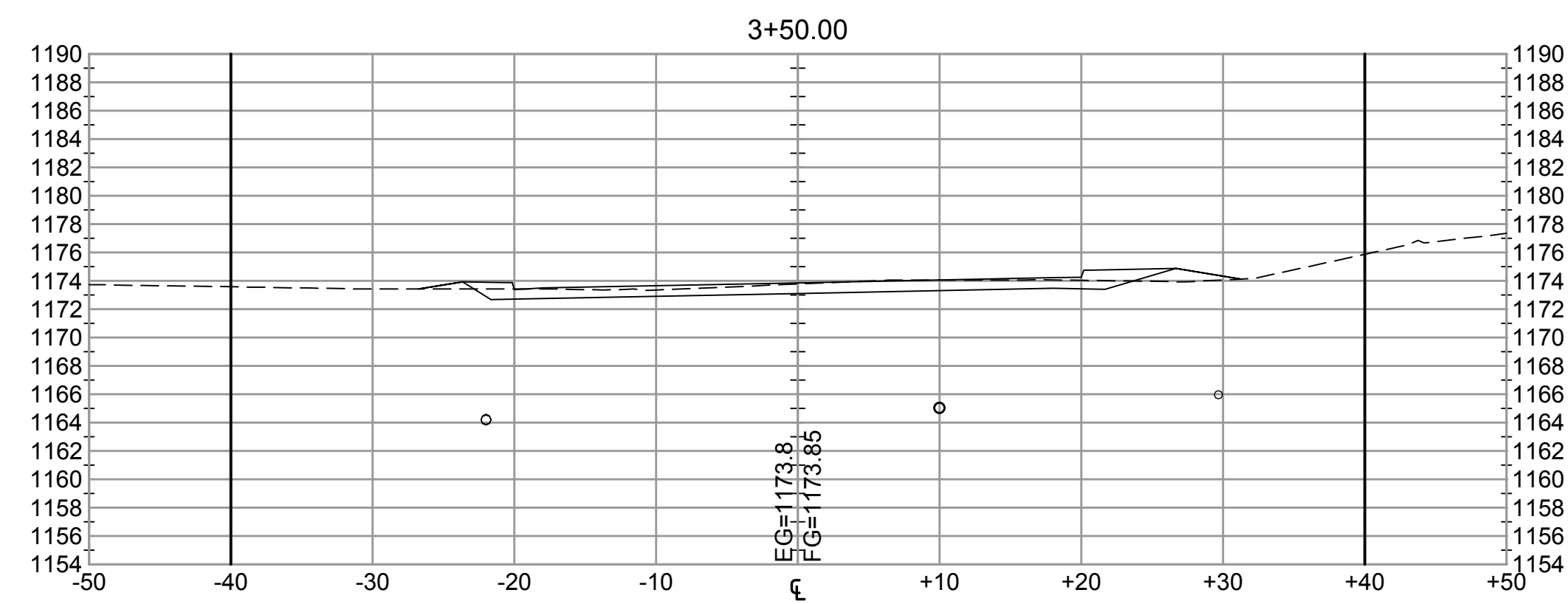
BY: *Michael E. Rude*  
 MICHAEL E. RUDE  
 DATE: 04-01-2013 LIC. NO. 43896

REVISIONS DESCRIPTION	REV#	DATE

DATE: JANUARY, 2013  
 SCALE: AS SHOWN  
 DRAWN BY: P.M.B.  
 CHECKED BY: M.E.R.  
 JOB NUMBER: 0127B0012.000

2013 WATER IMPROVEMENTS  
 CITY OF SWANVILLE  
 SWANVILLE, MINNESOTA  
 CROSS SECTIONS - RHODA AVENUE (1)

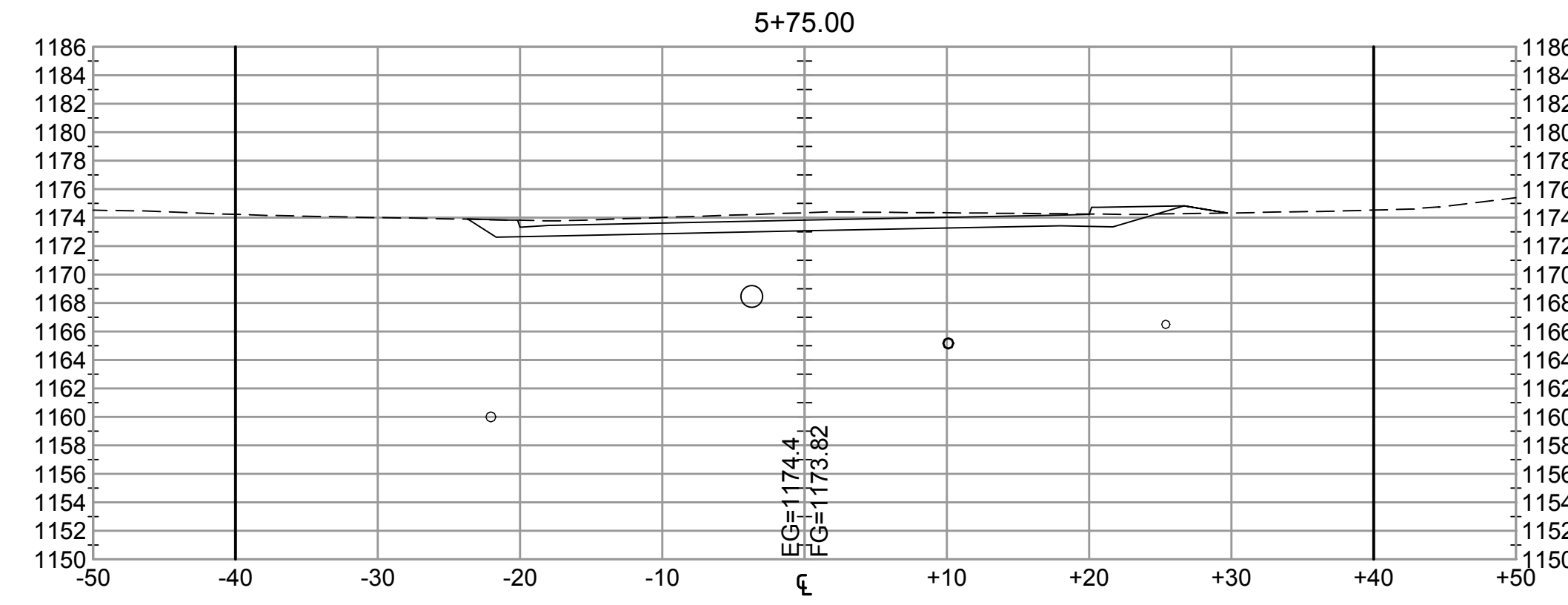
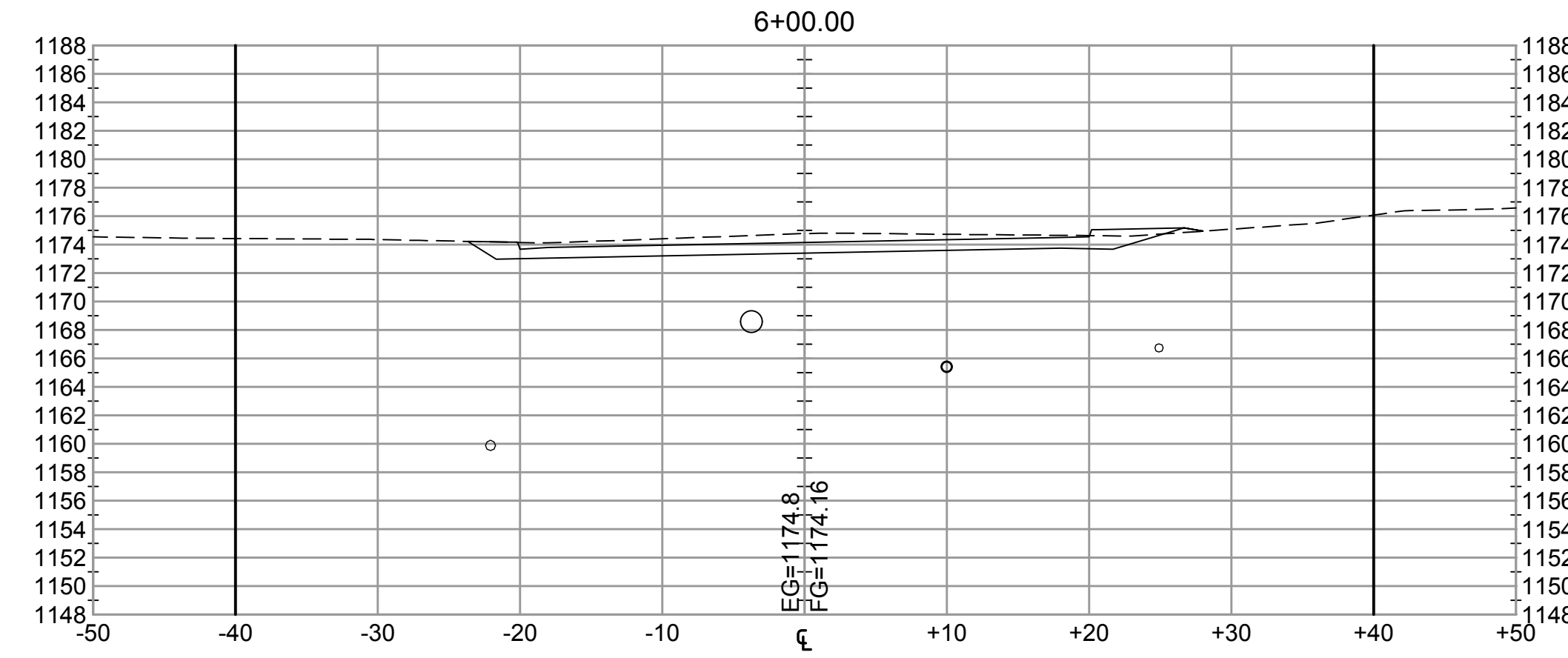
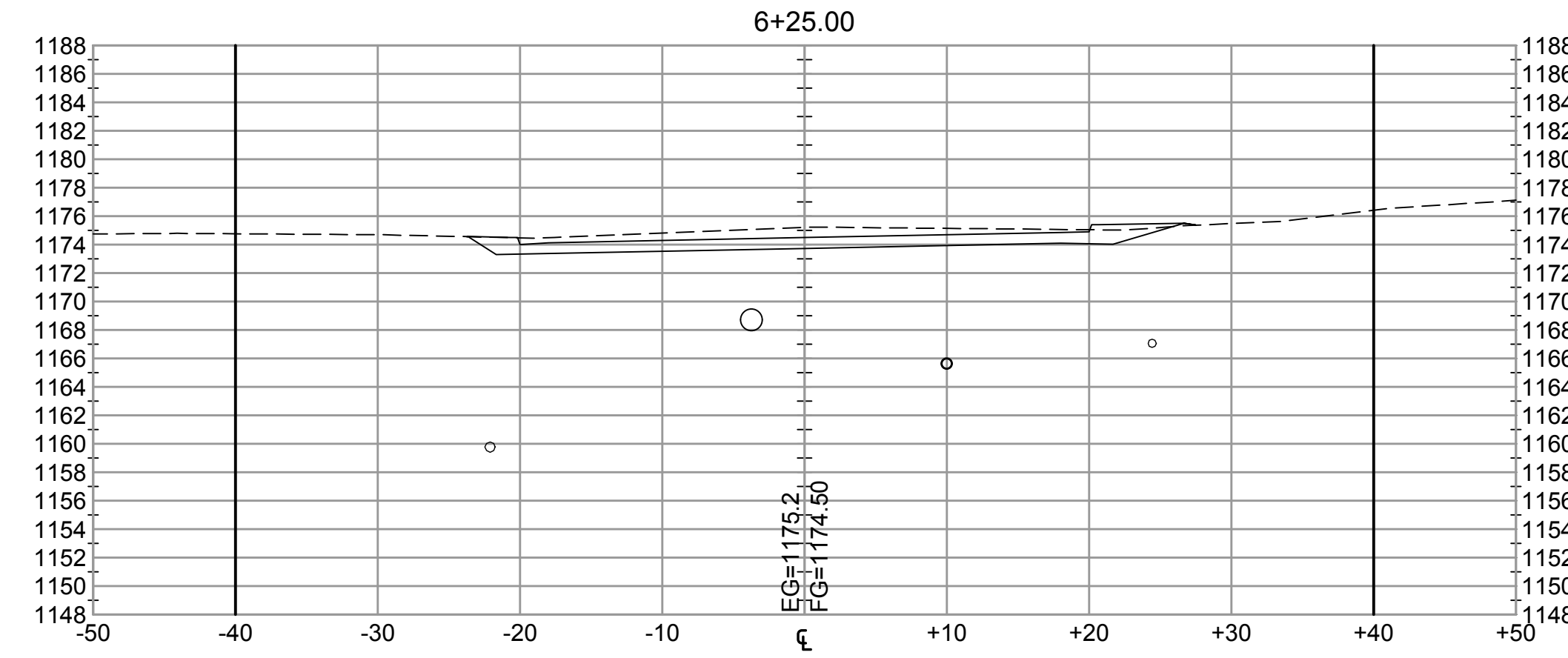
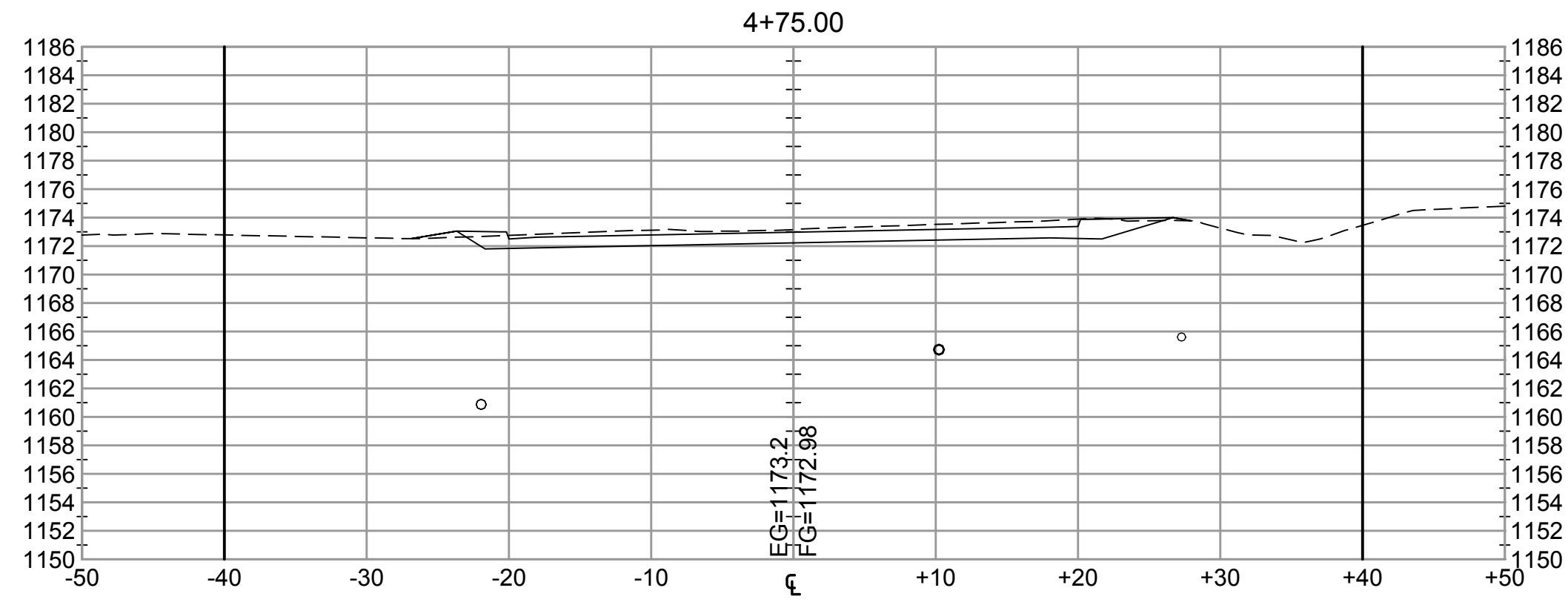
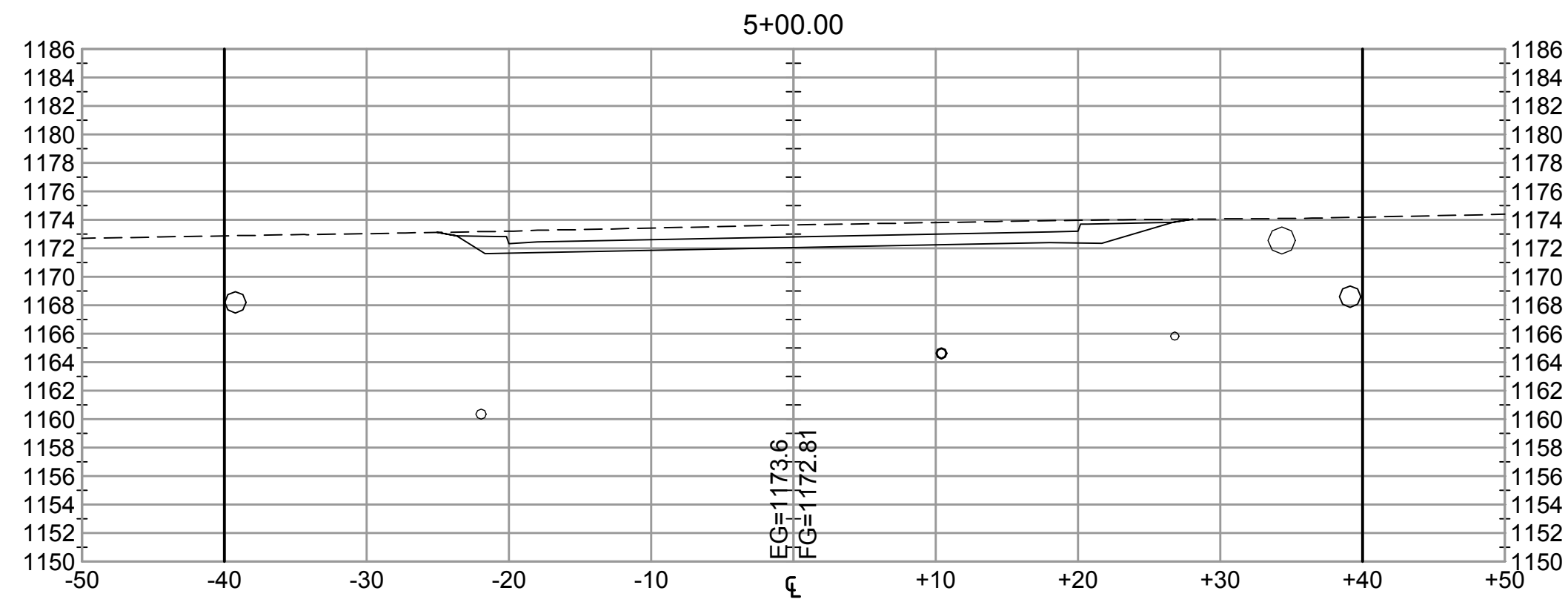
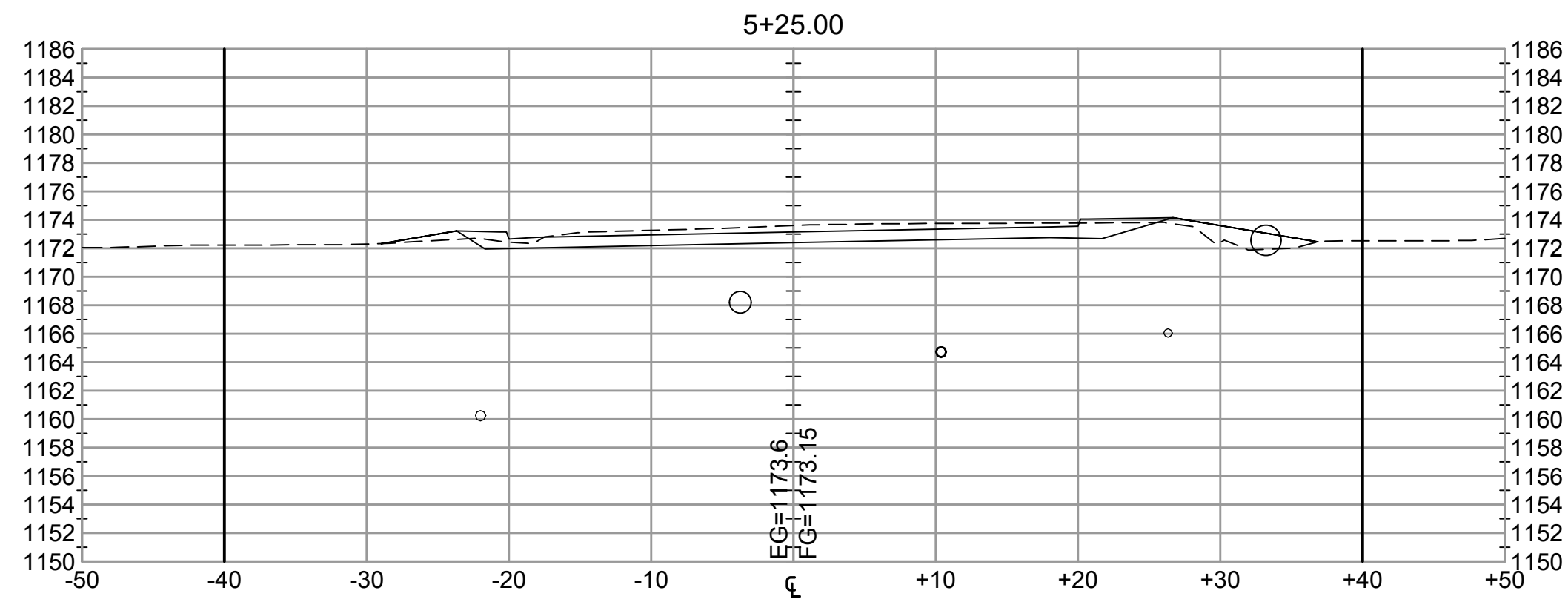
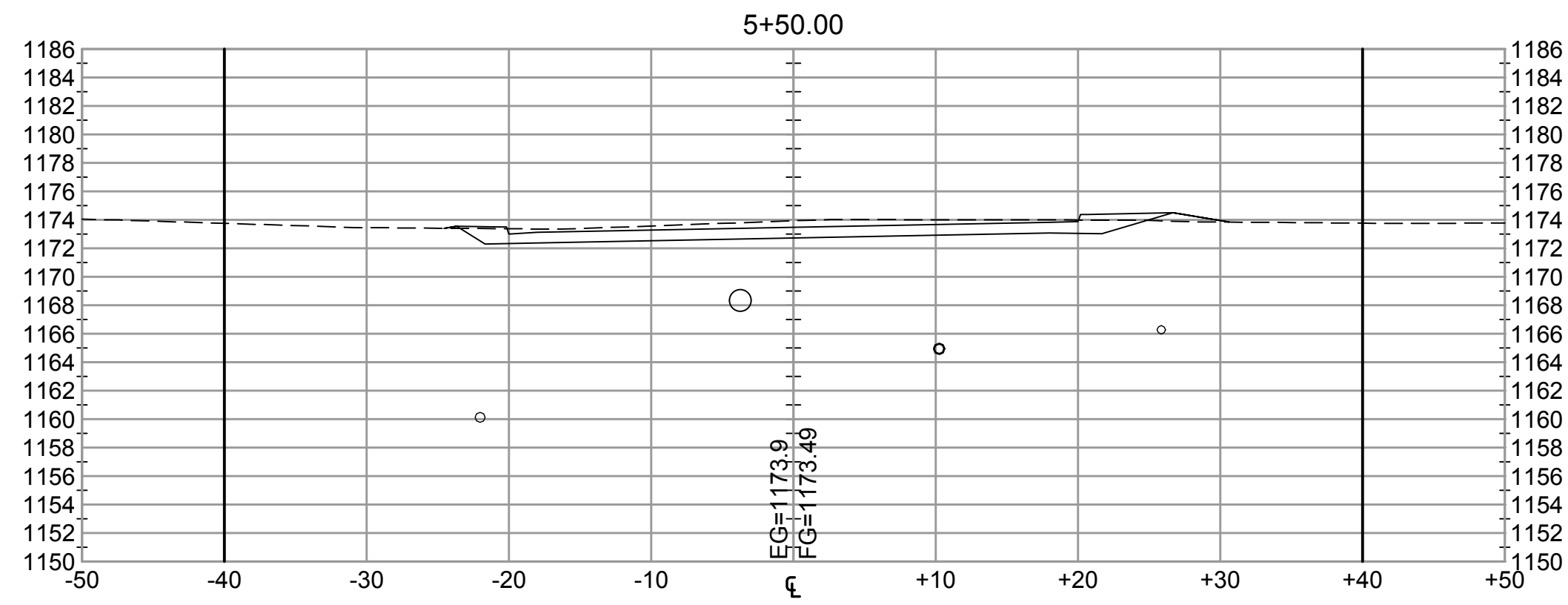
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2013 WATER IMPROVEMENTS  
 CITY OF SWANVILLE  
 SWANVILLE, MINNESOTA  
 CROSS SECTIONS - RHODA AVENUE (2)



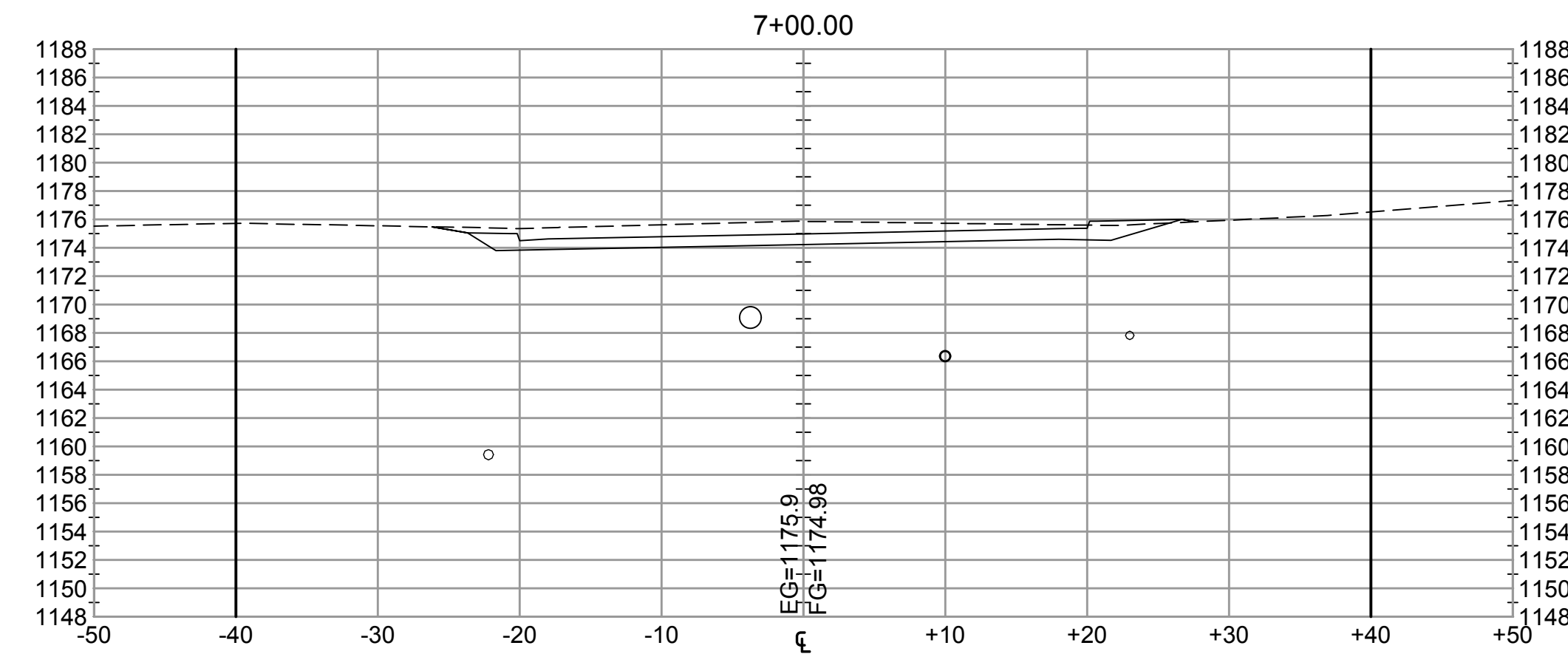
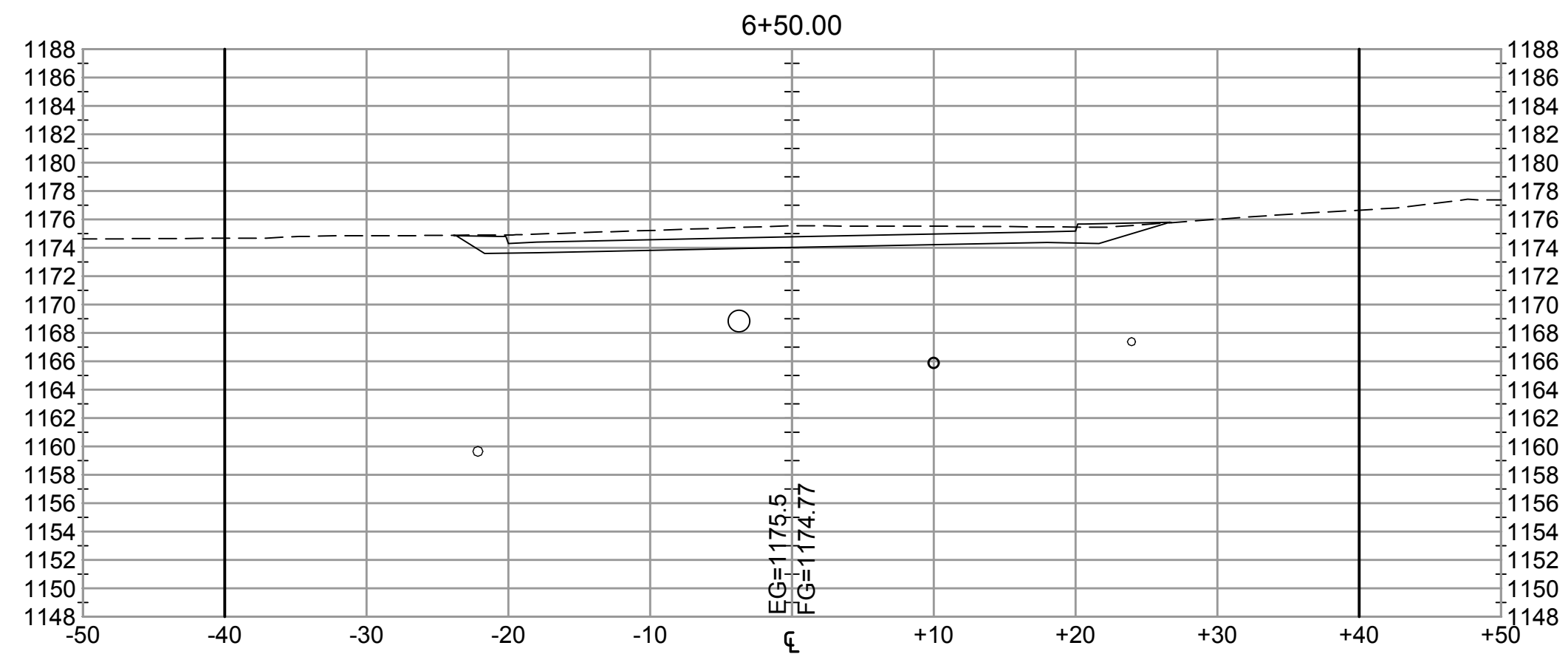
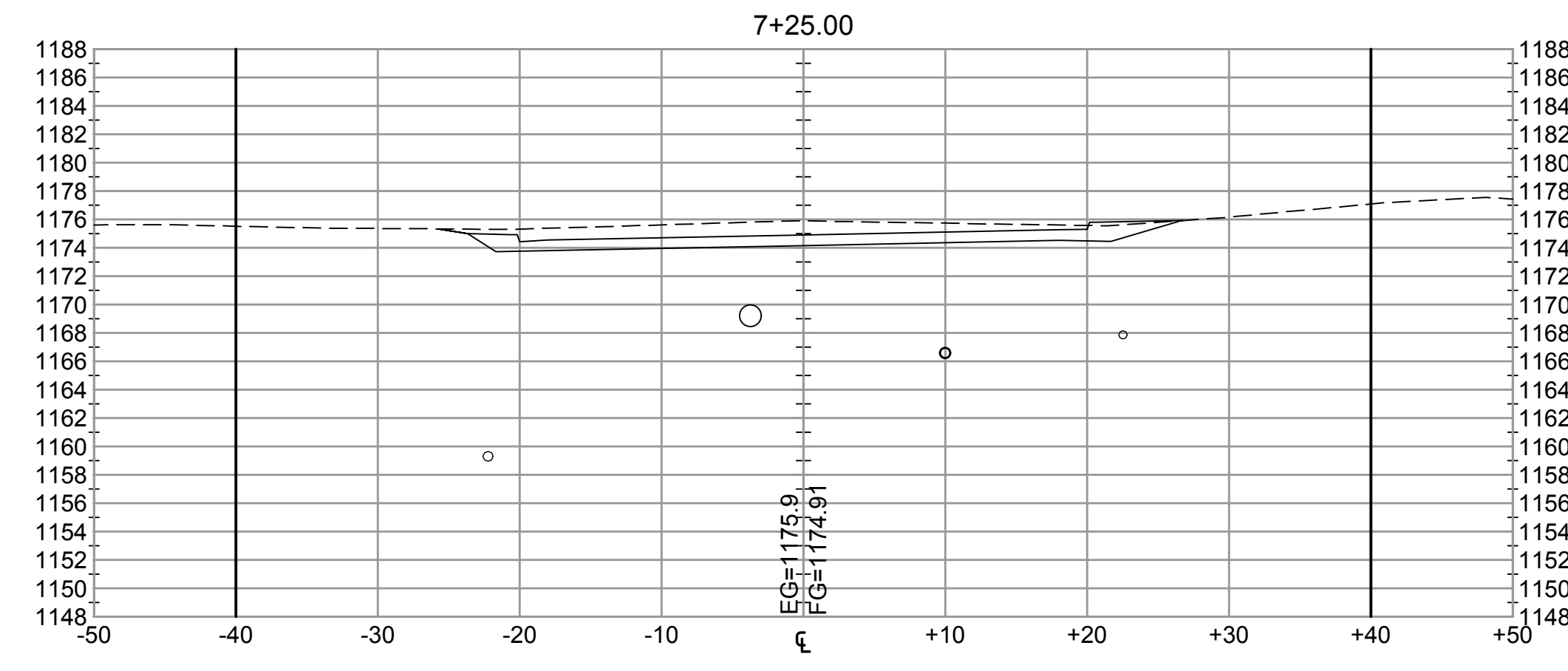
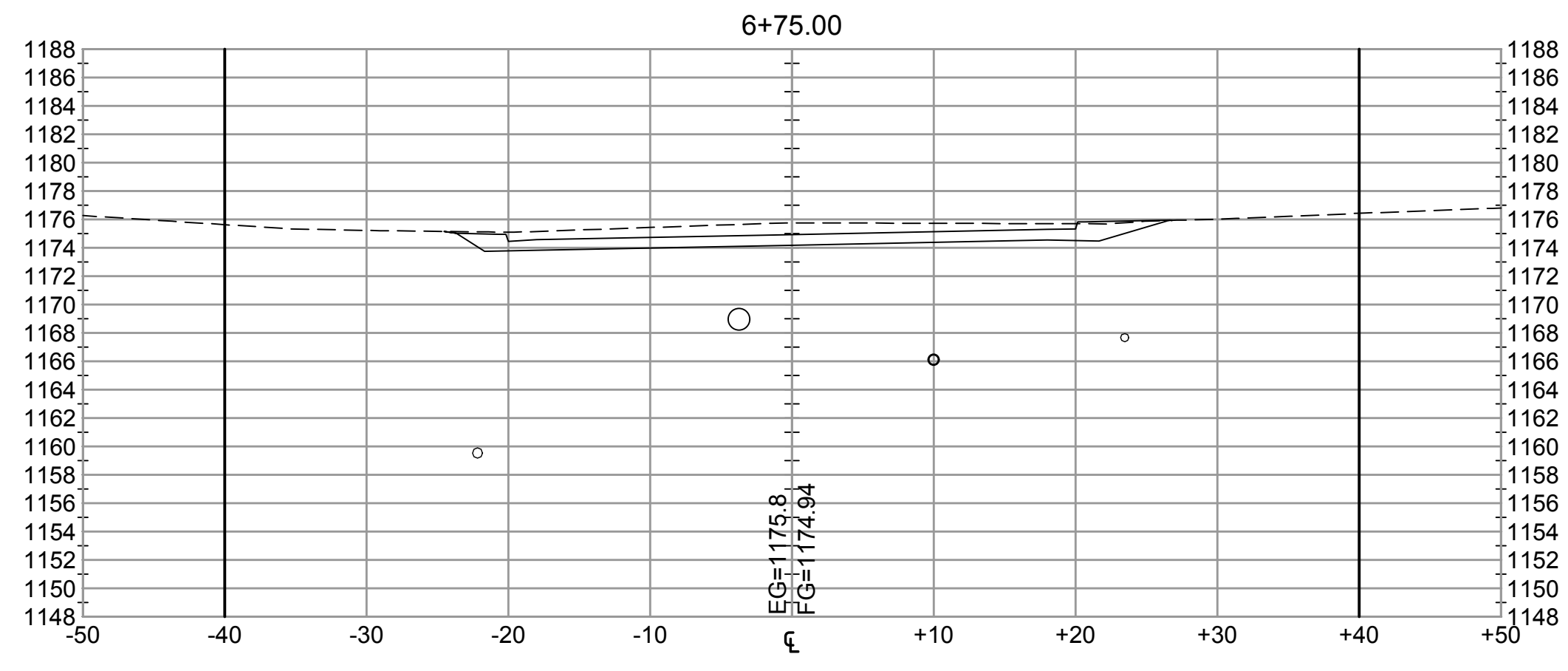
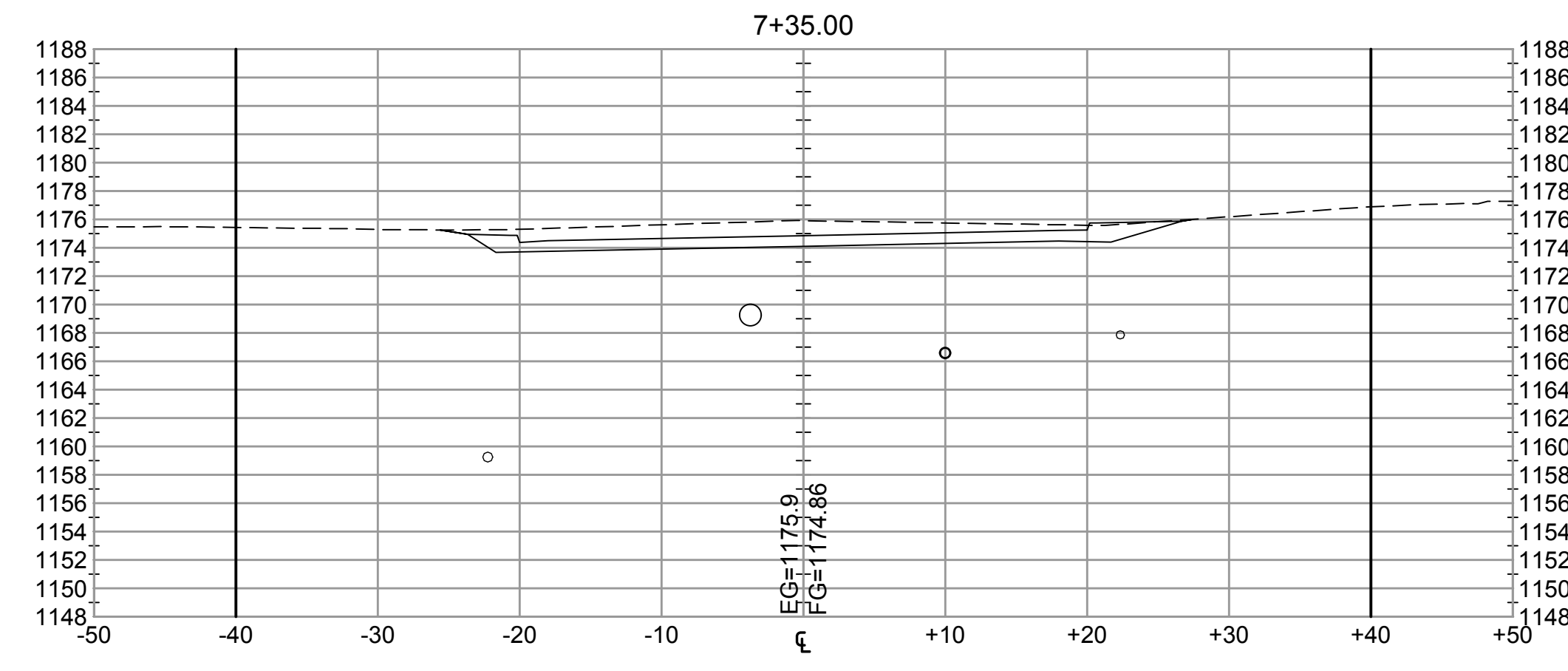
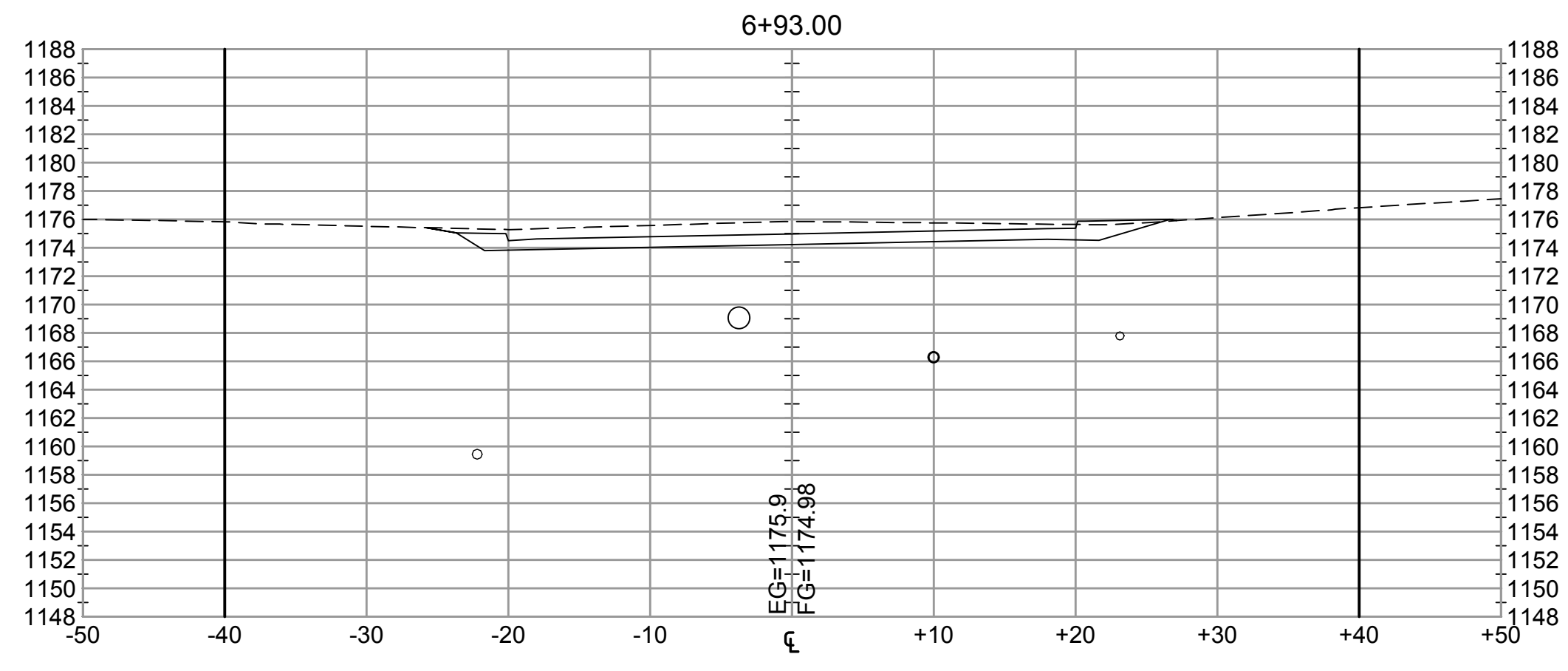
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MICHAEL E. RUDE  
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2013 WATER IMPROVEMENTS  
CITY OF SWANVILLE  
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CROSS SECTIONS - RHODA AVENUE (3)



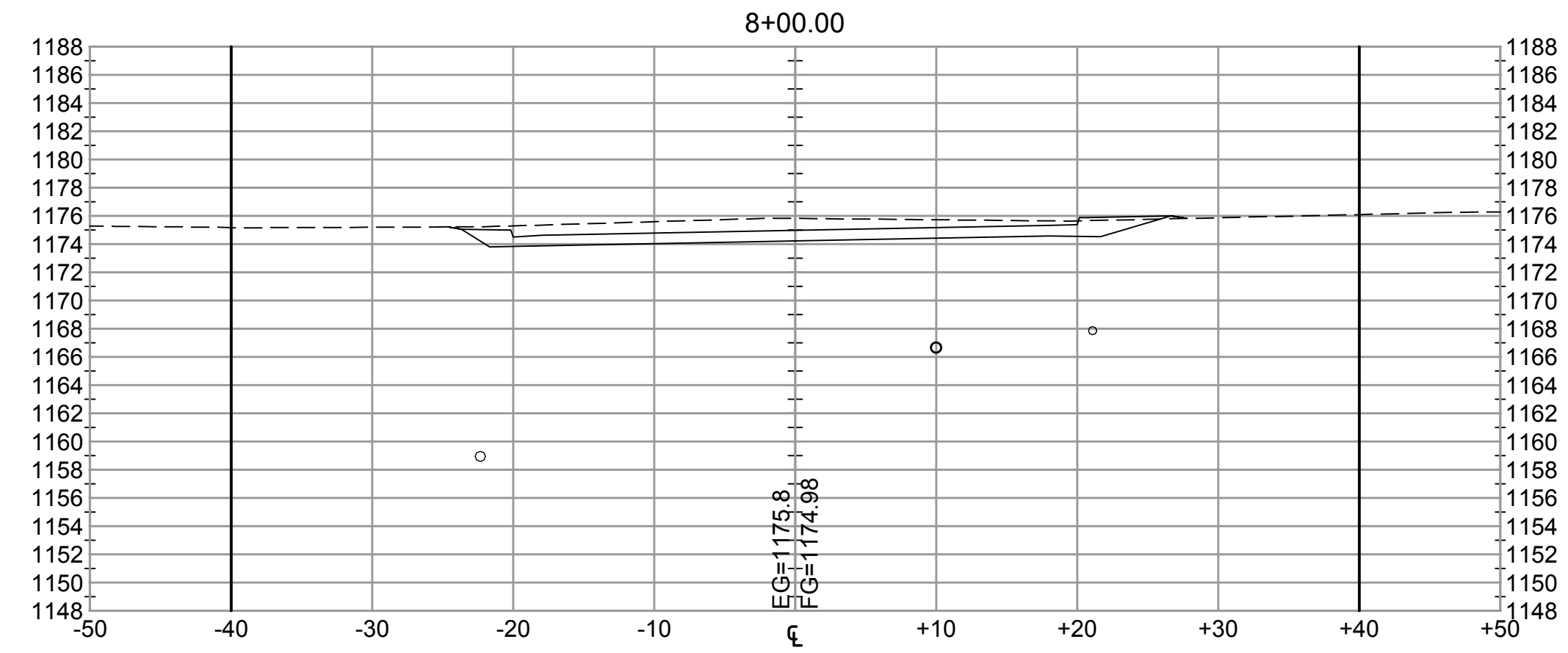
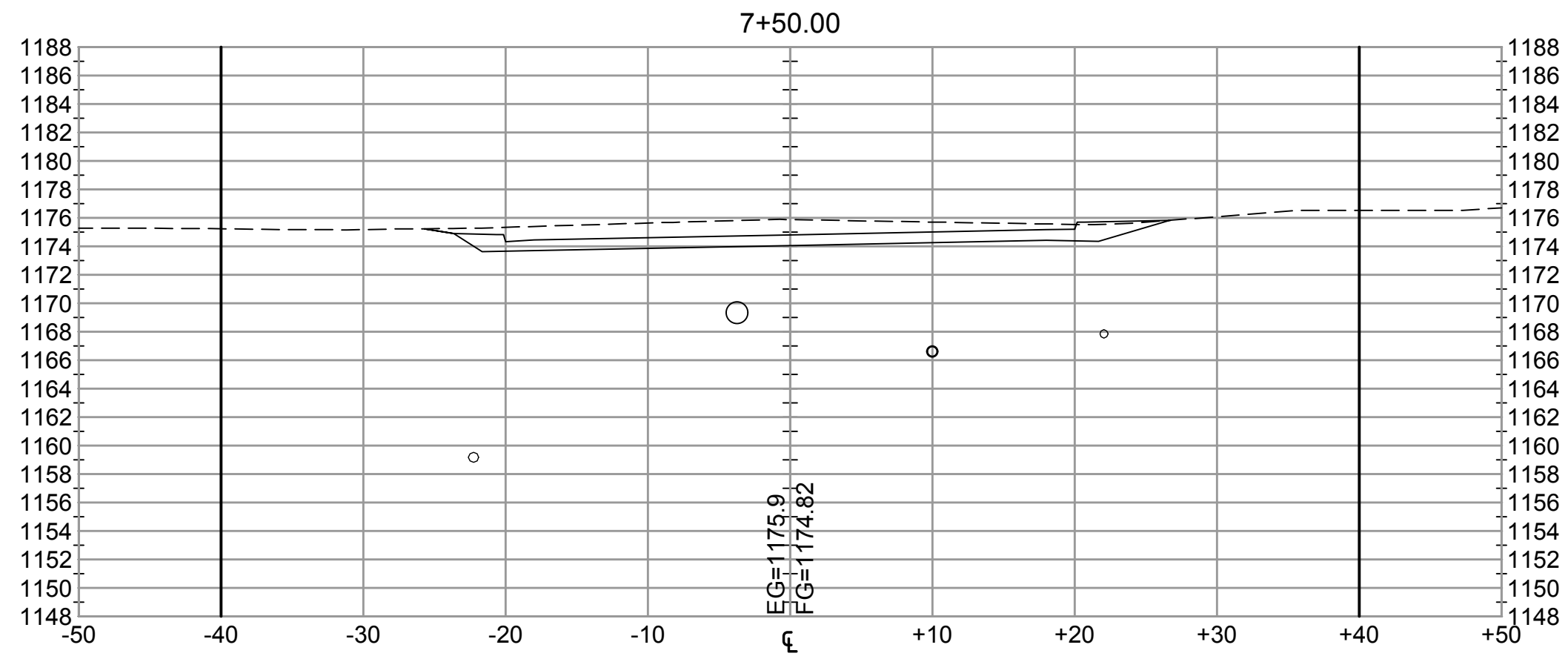
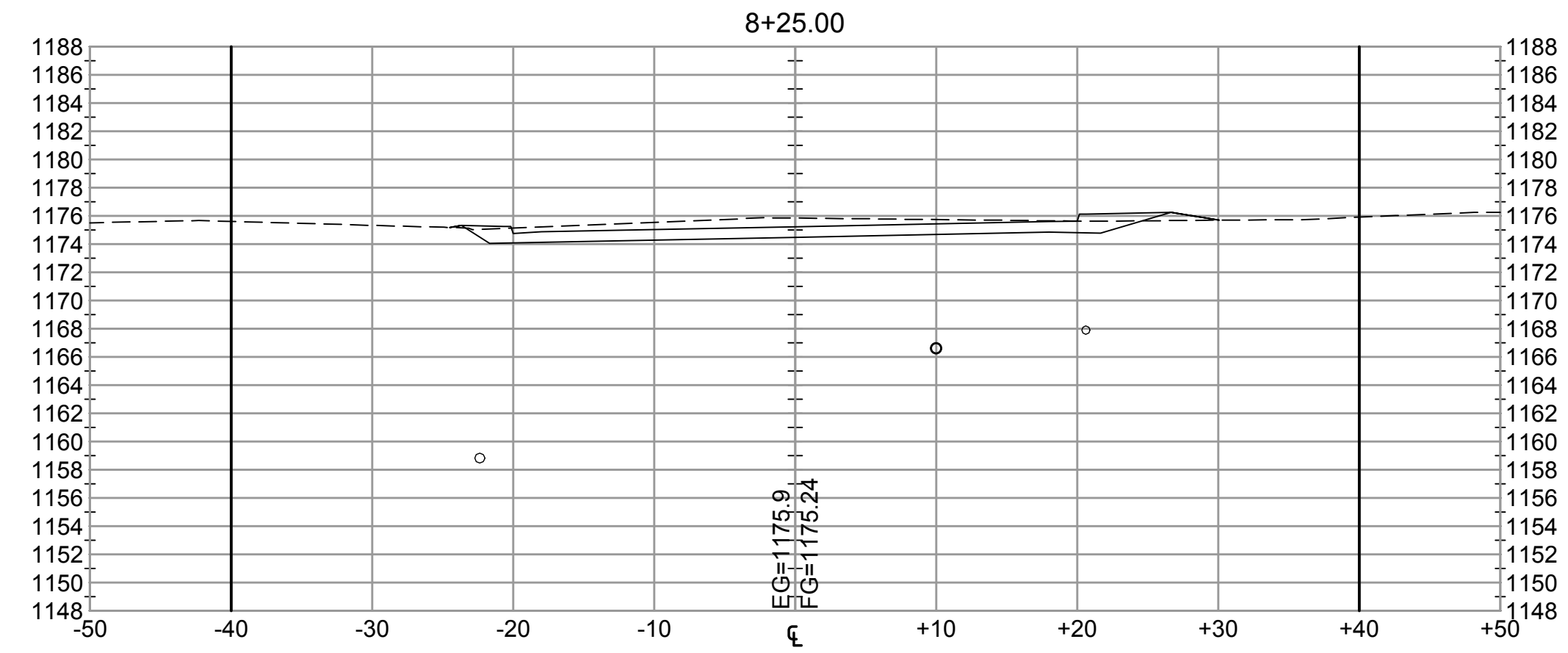
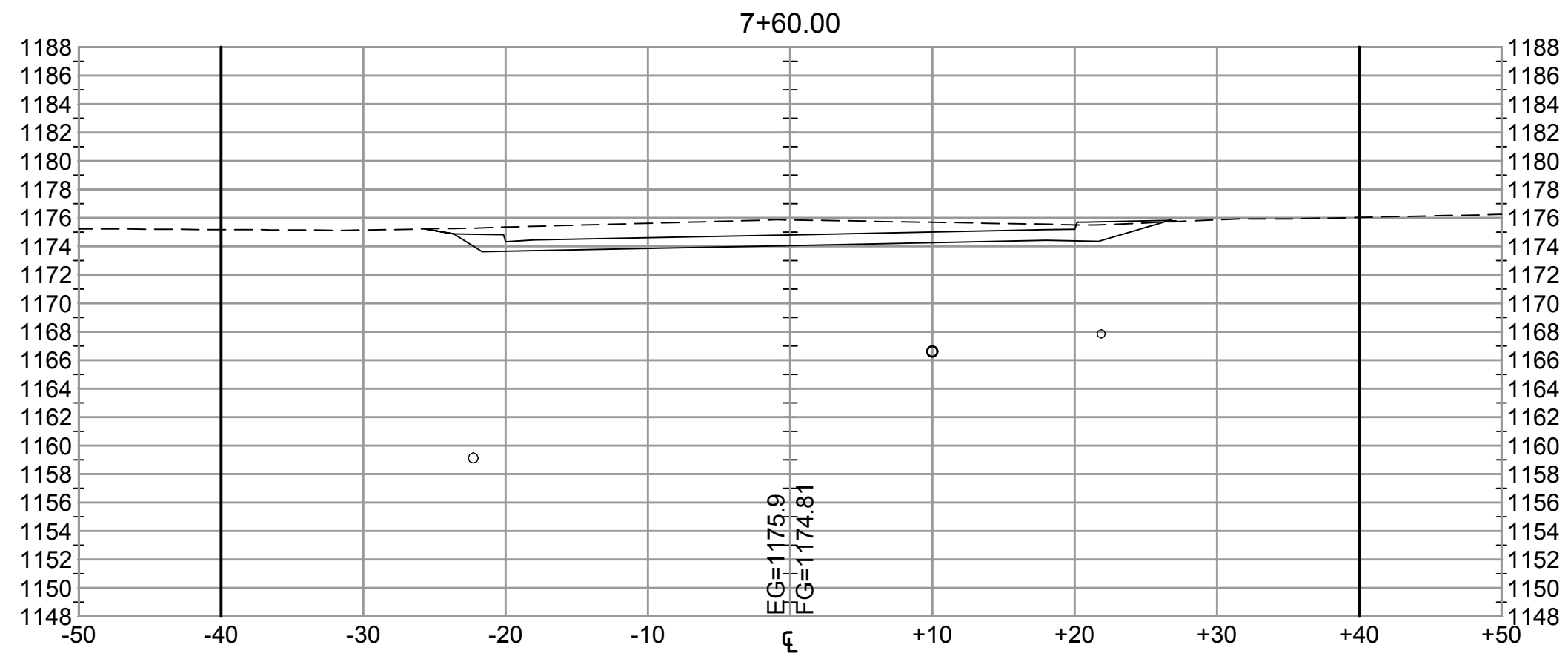
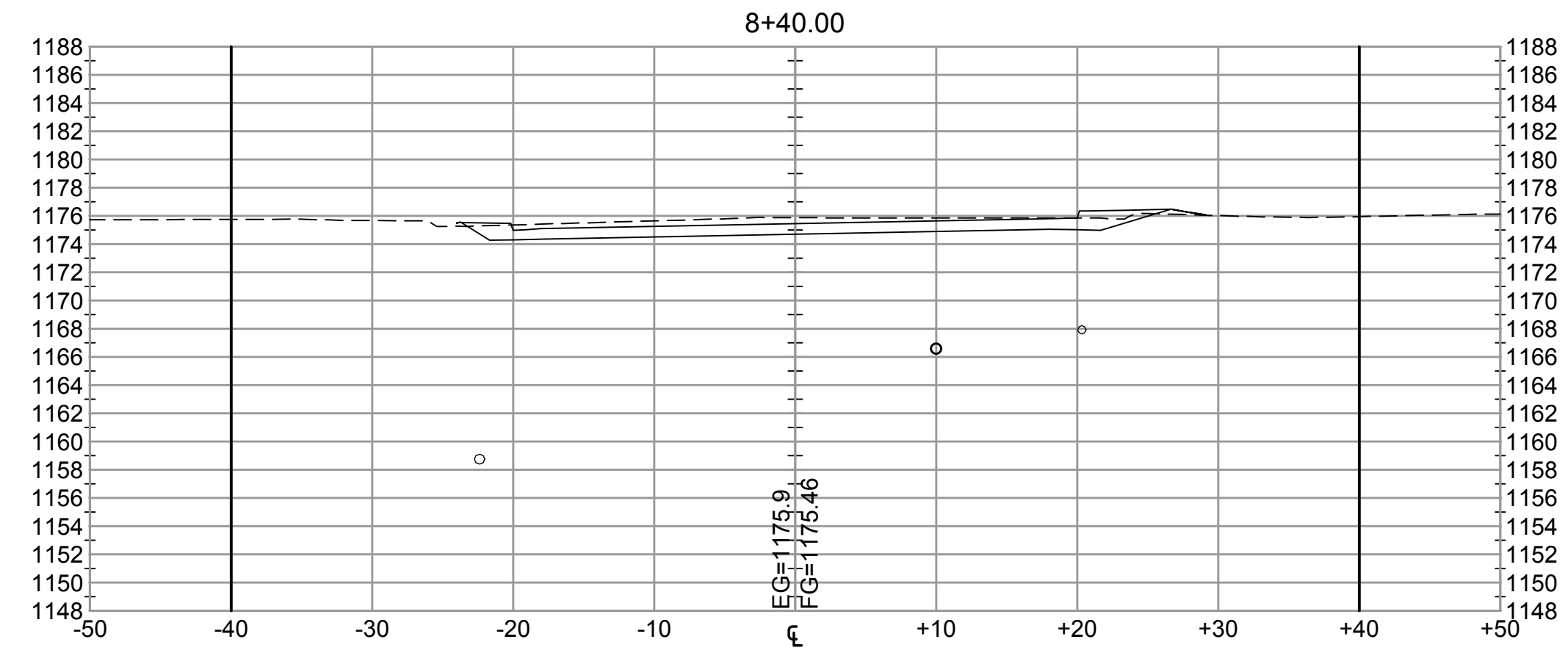
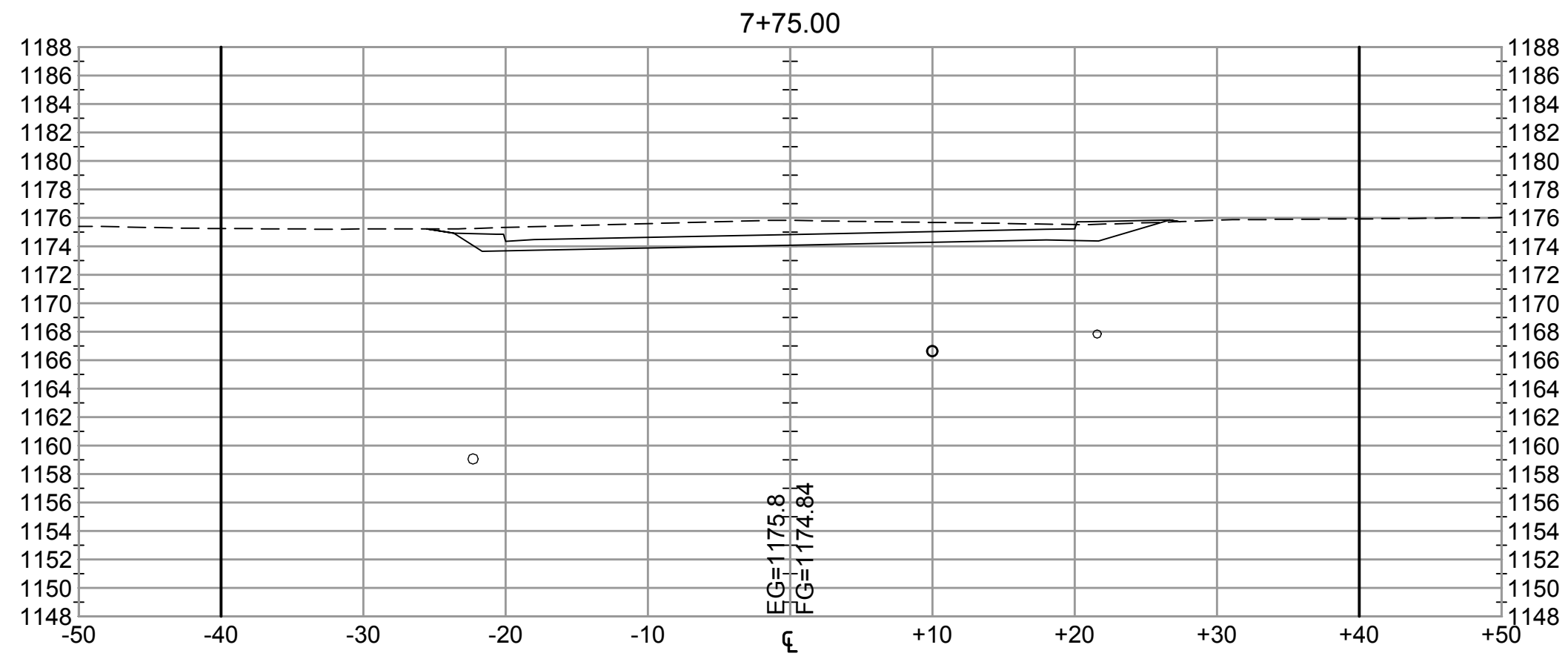
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CITY OF SWANVILLE  
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CROSS SECTIONS - RHODA AVENUE (4)



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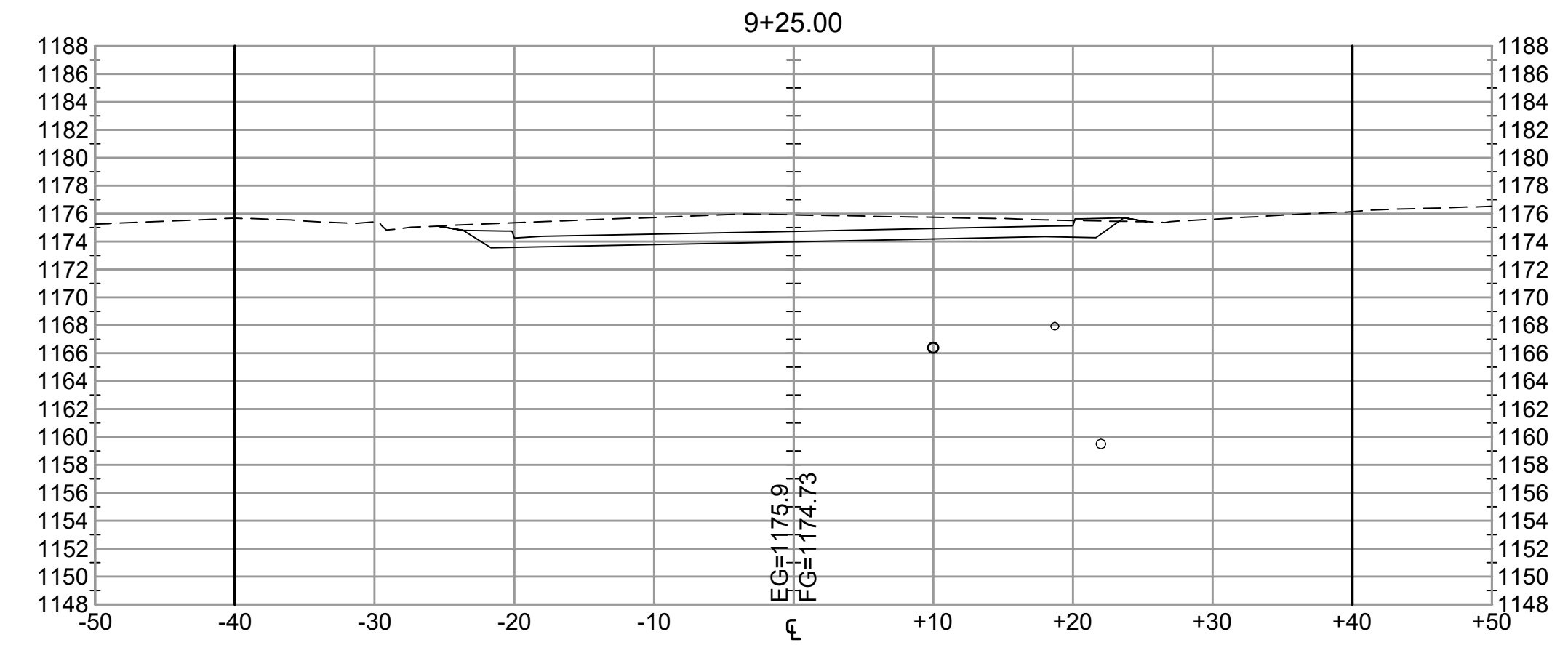
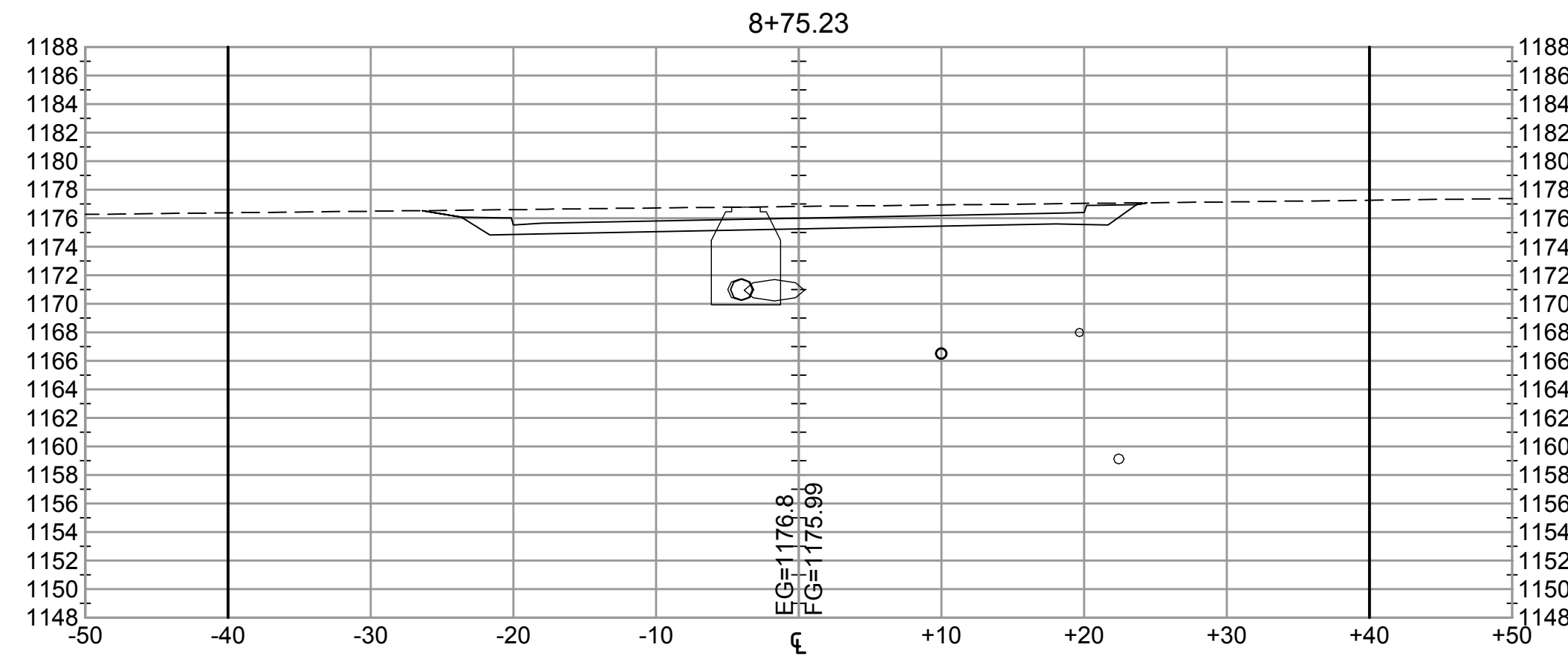
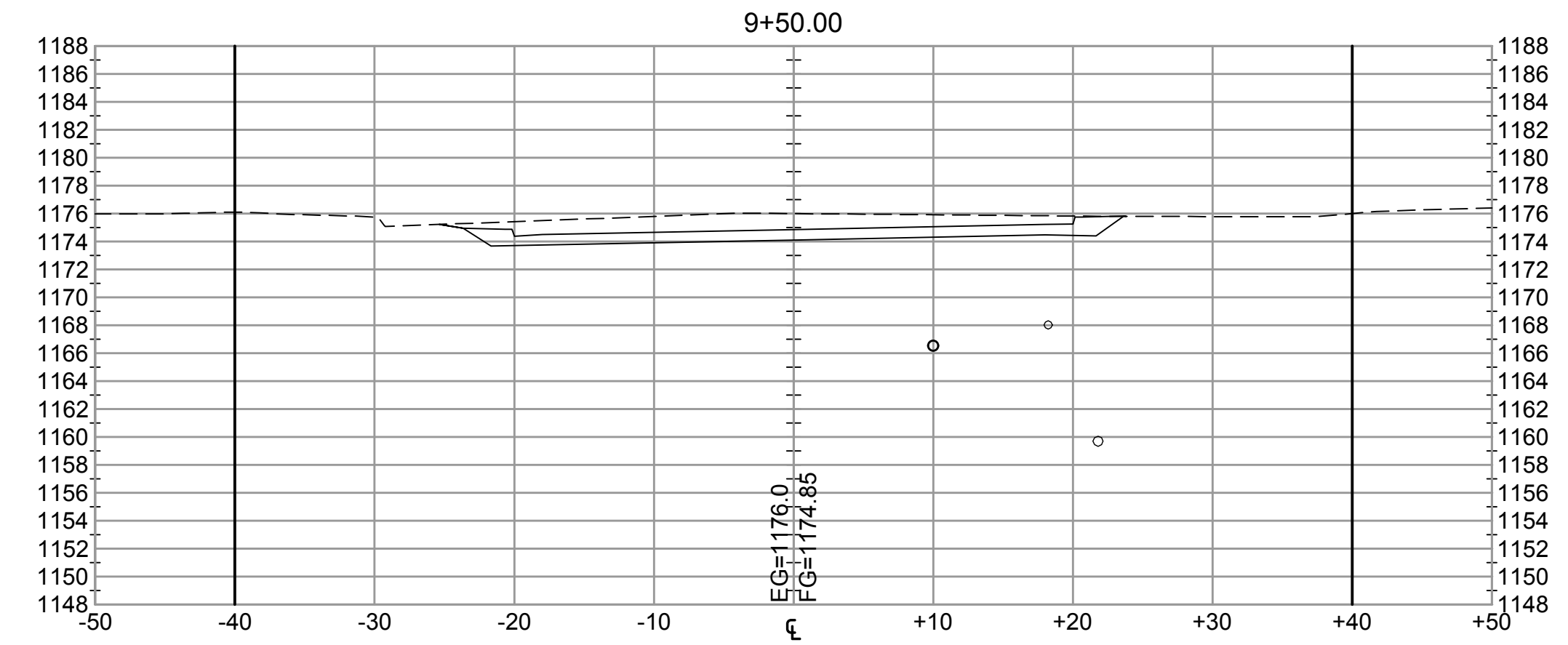
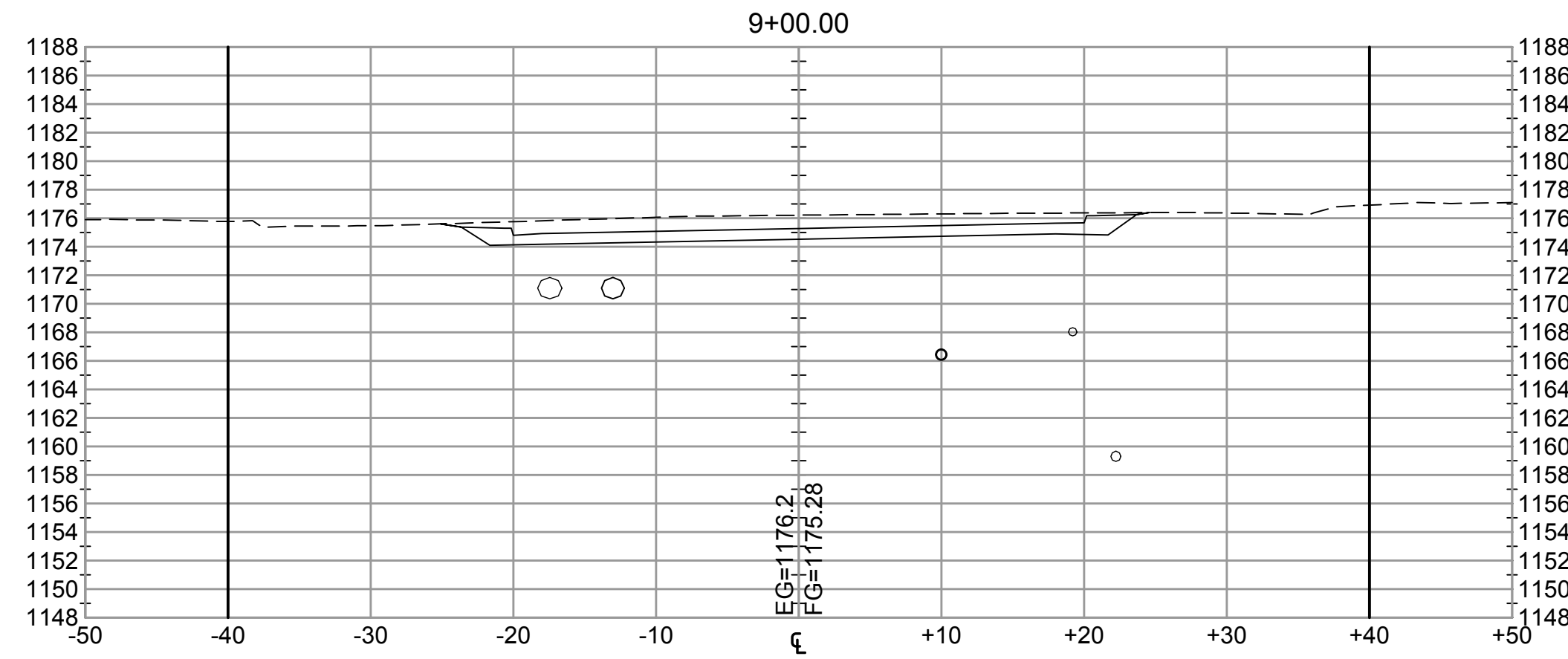
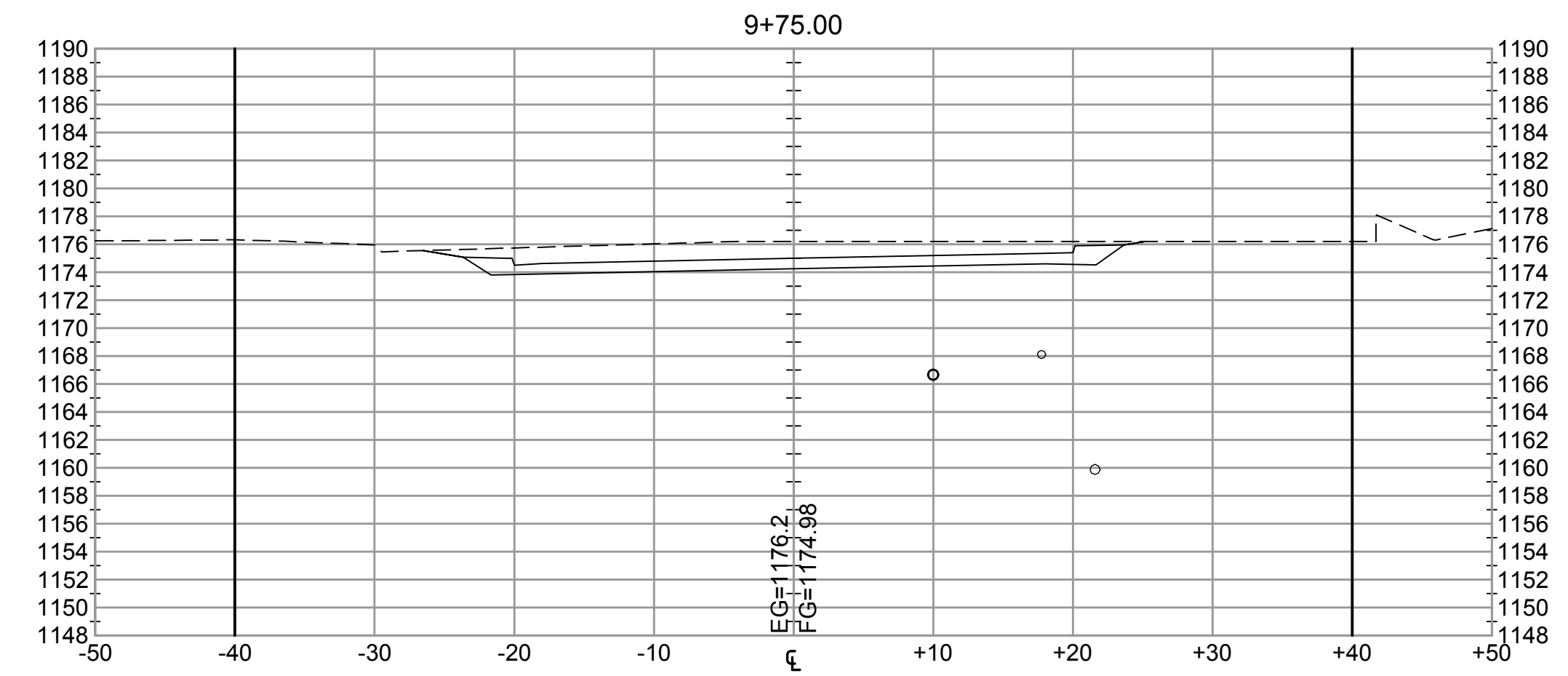
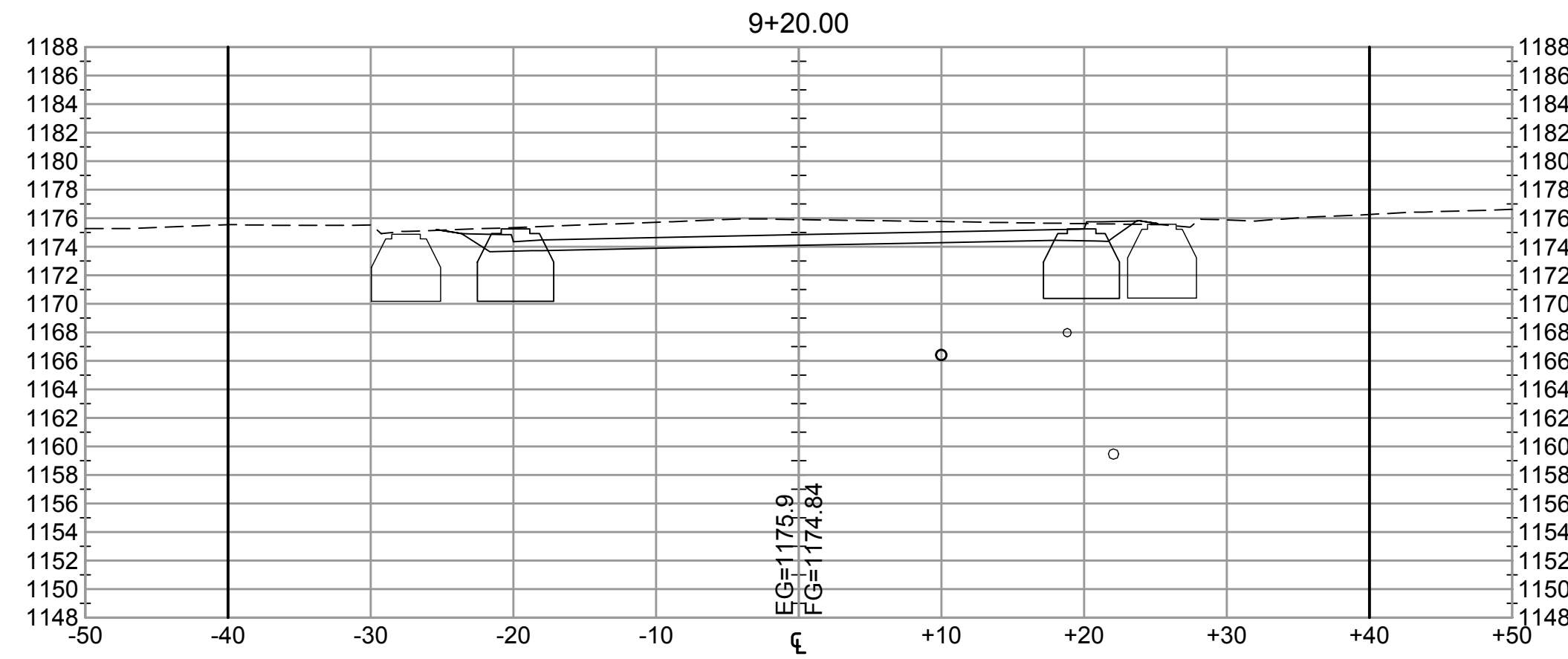
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CROSS SECTIONS - RHODA AVENUE (5)

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SHEET 29 OF 53



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 BERLIN, MN  
 GRAND FORKS, ND  
 RED WING, MN  
 ROCHESTER, MN

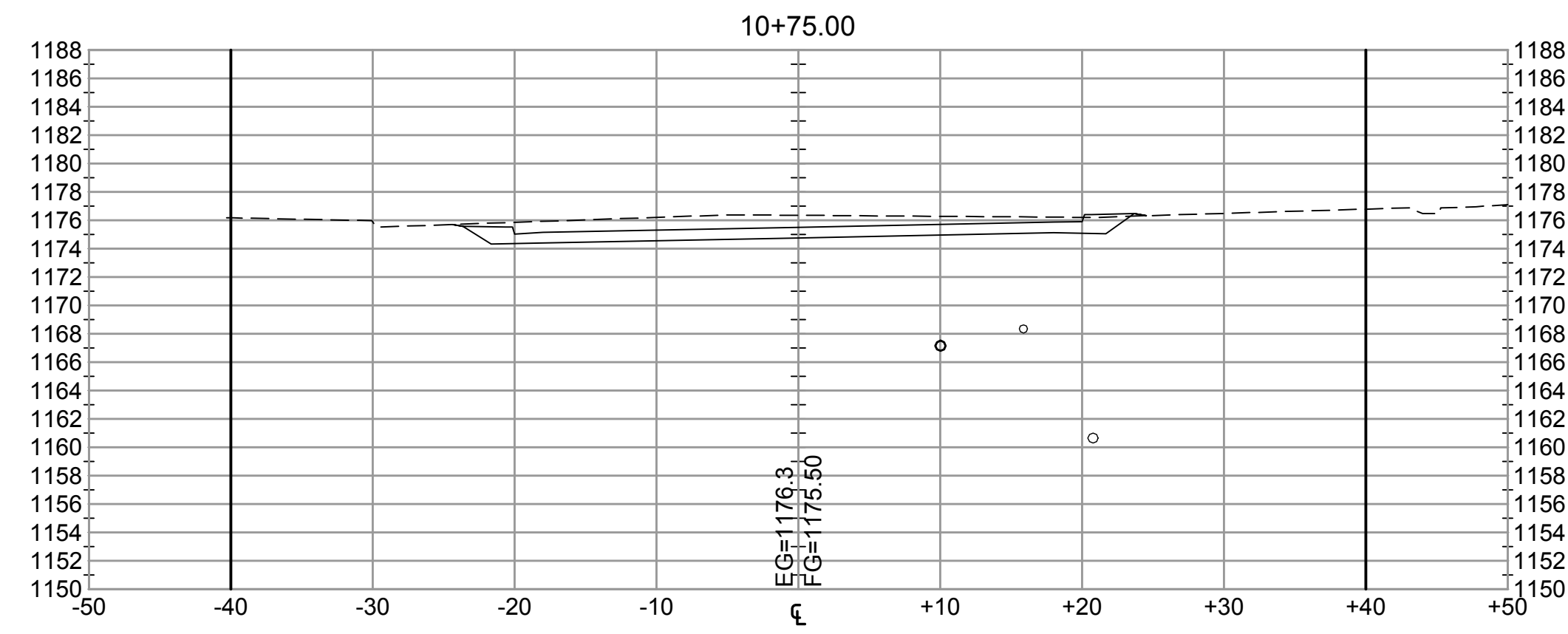
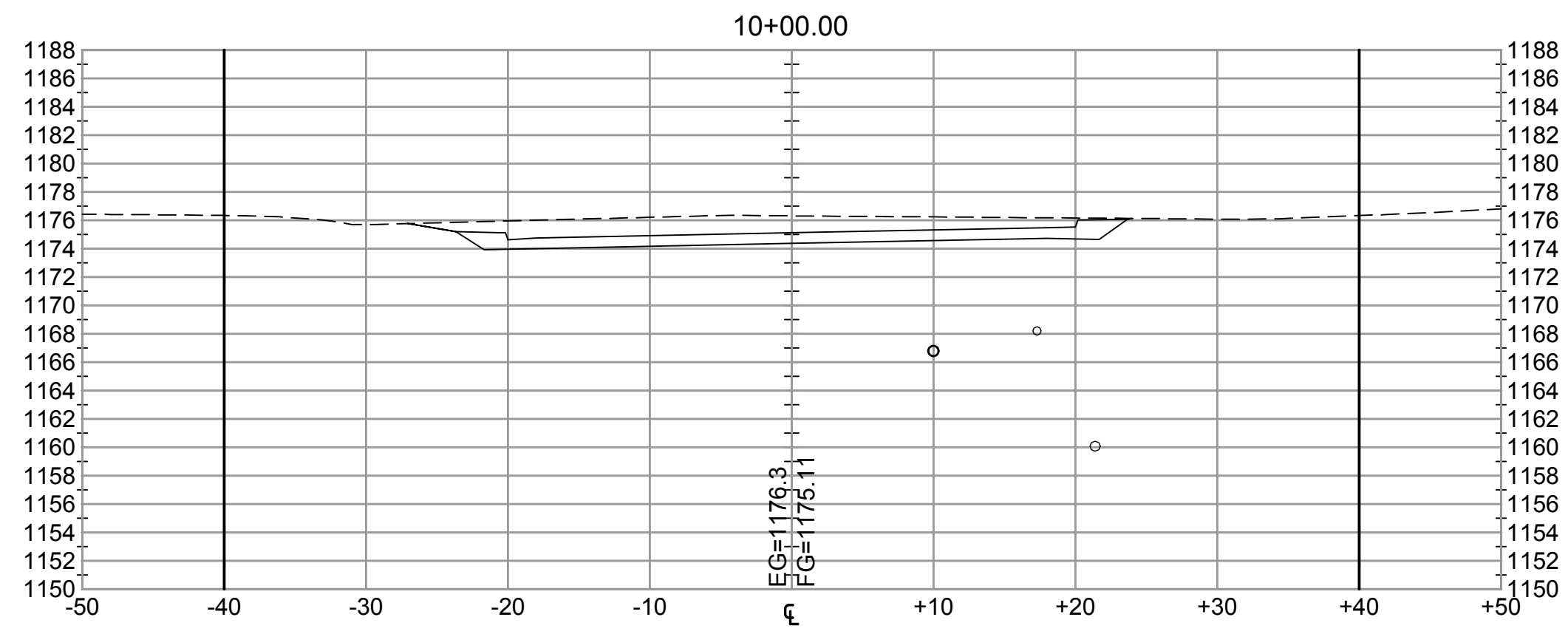
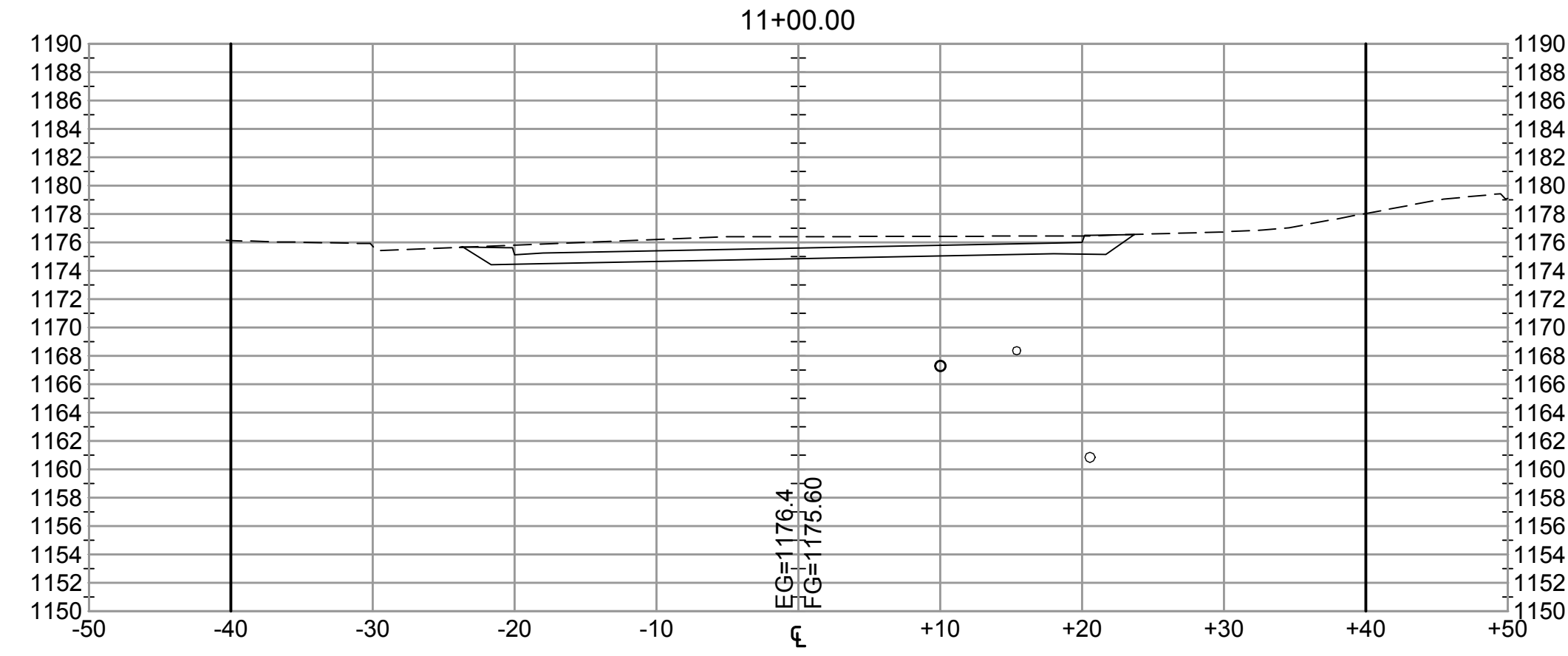
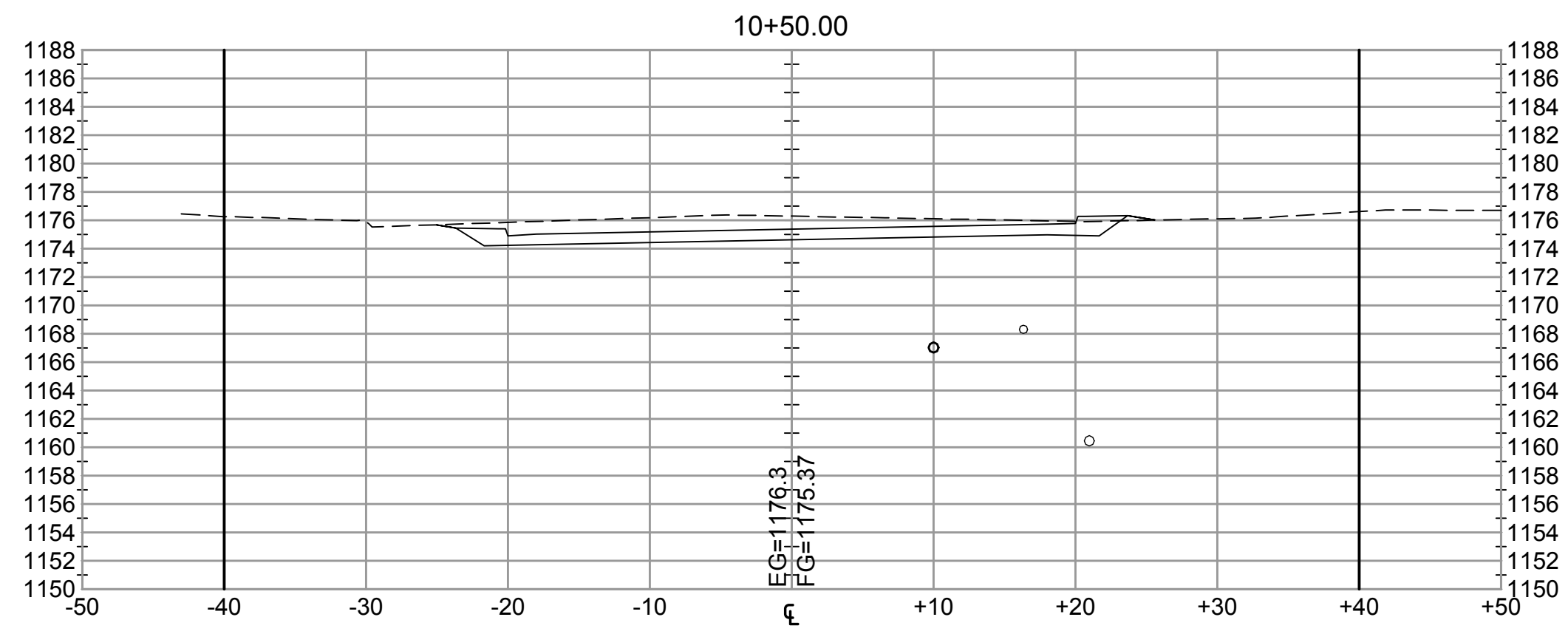
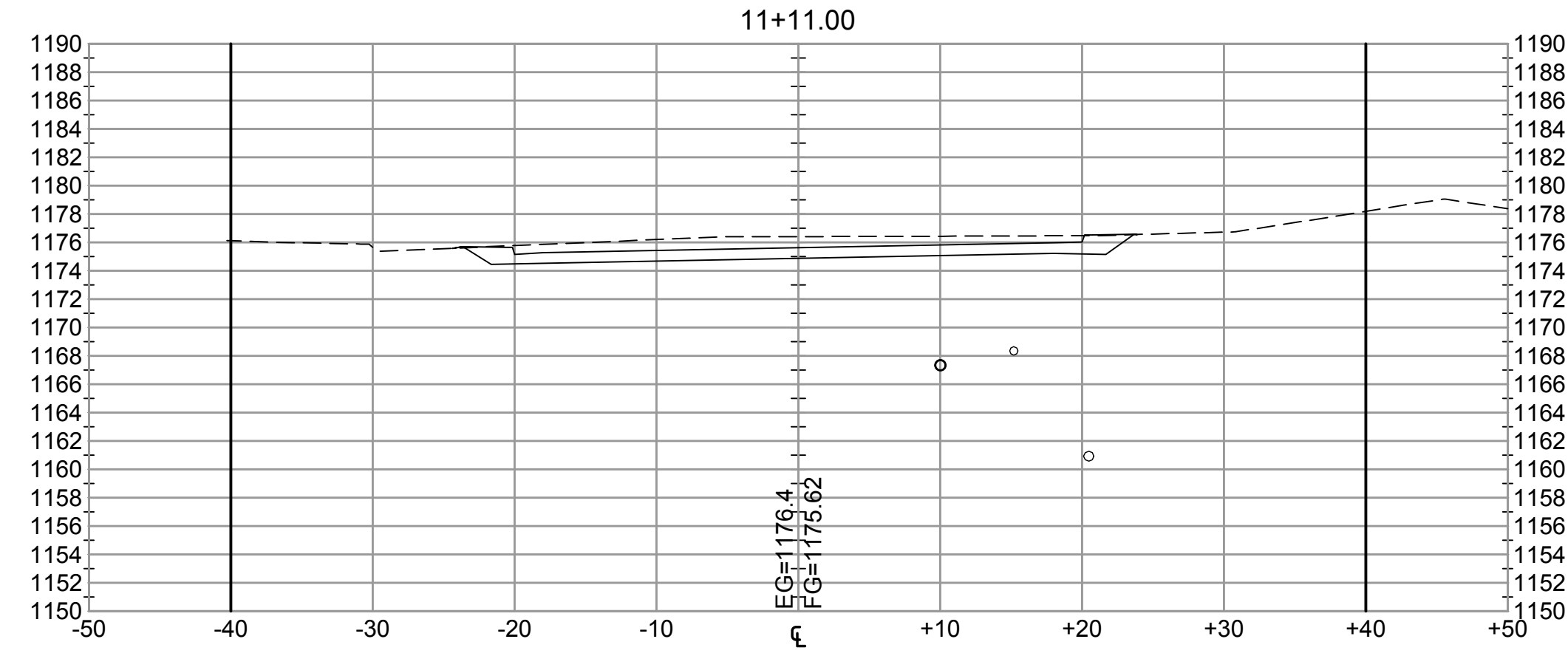
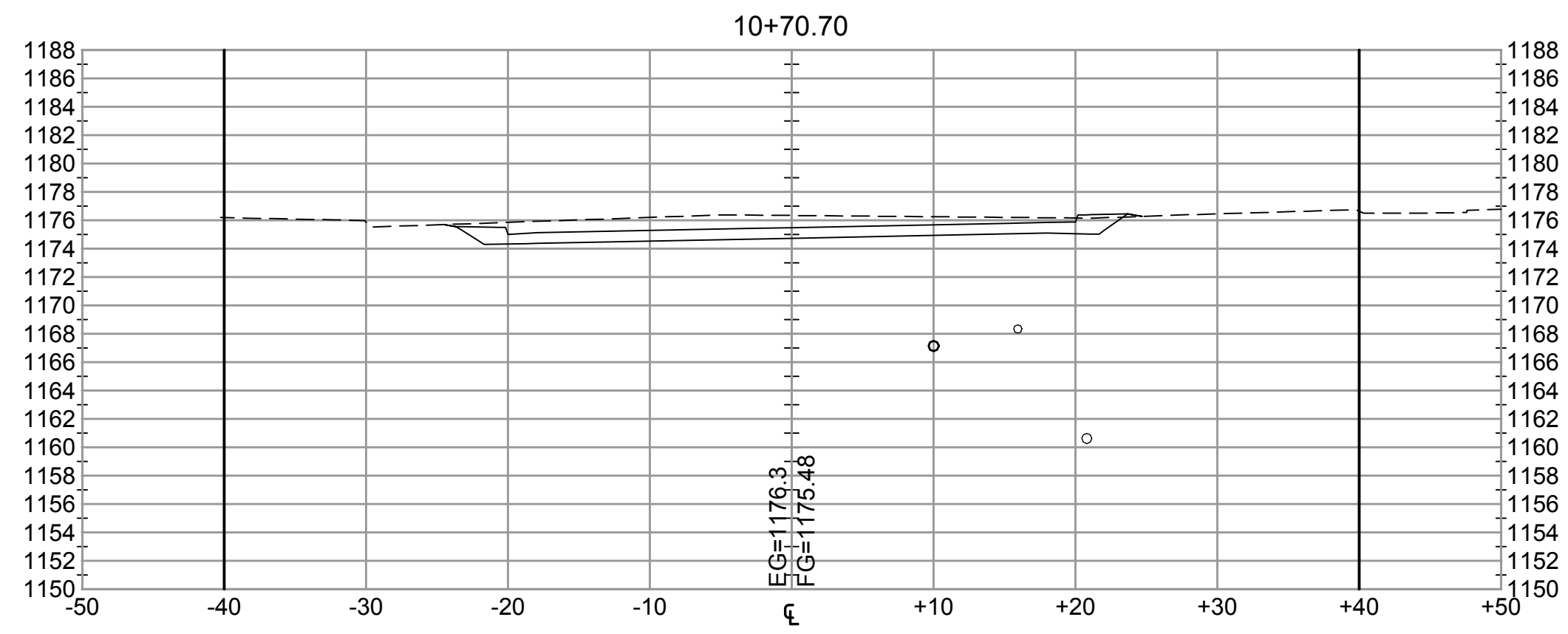
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 CITY OF SWANVILLE  
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**CROSS SECTIONS - RHODA AVENUE (6)**

SHEET NO.  
**30**

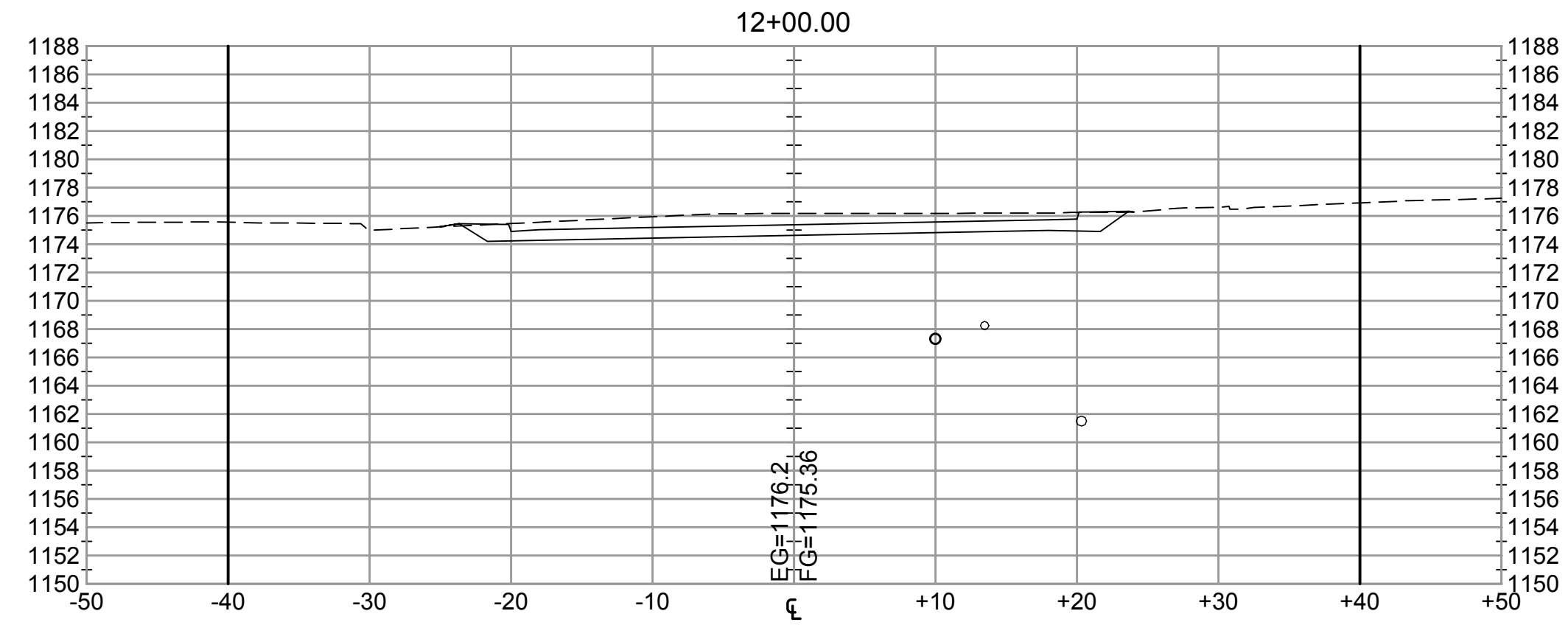
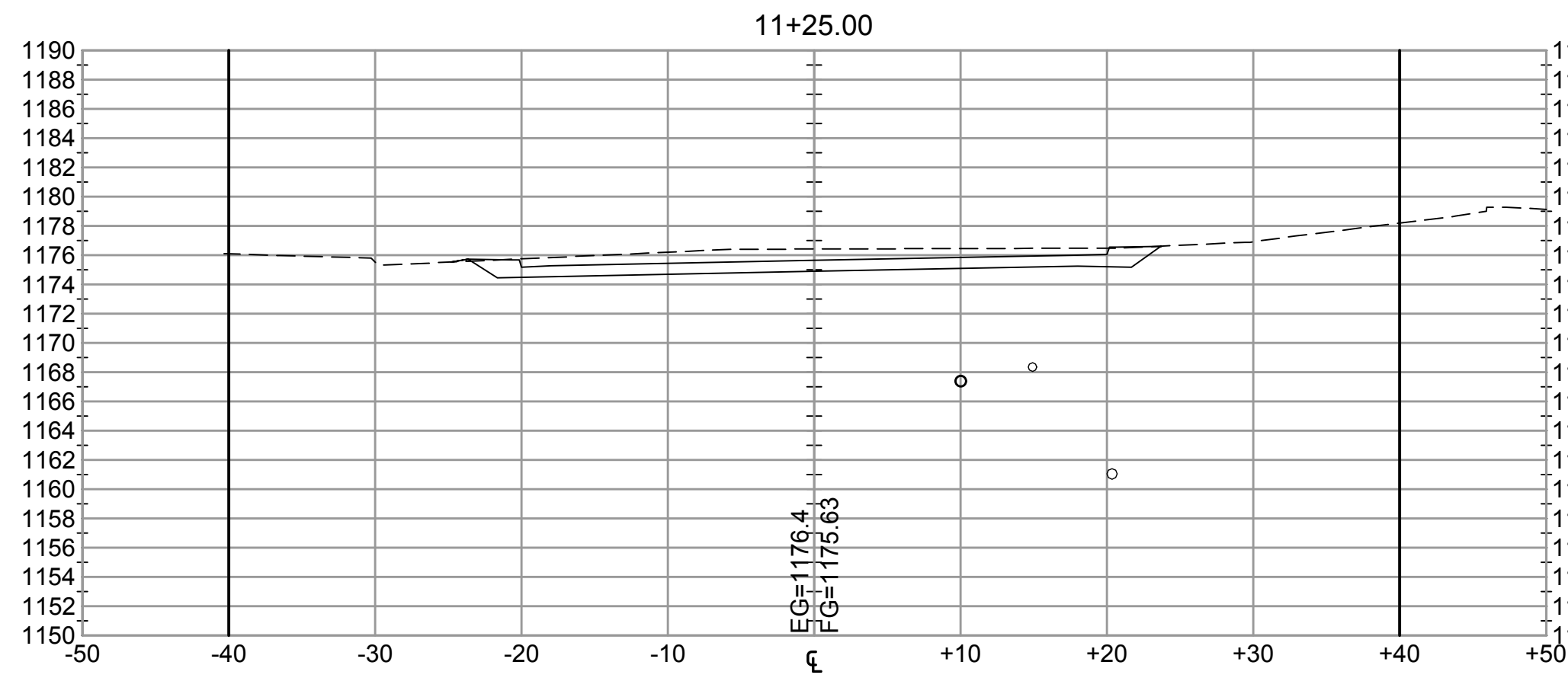
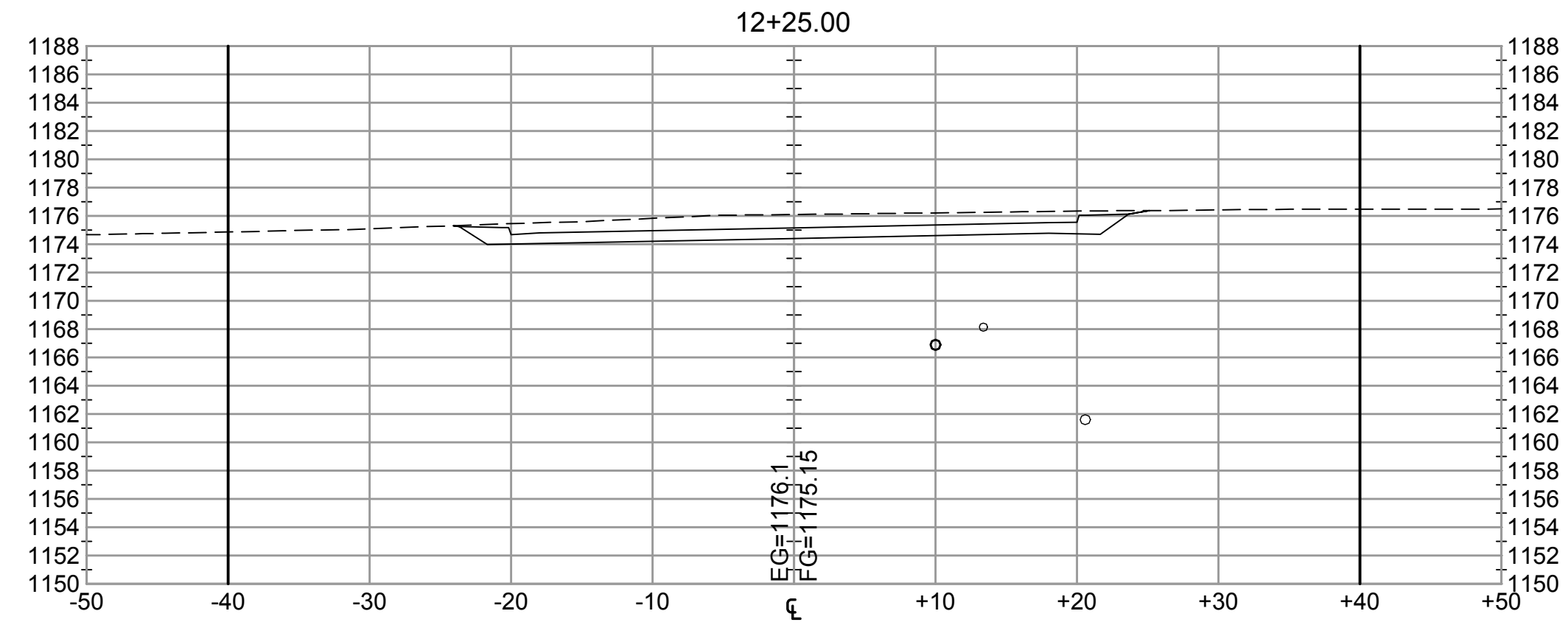
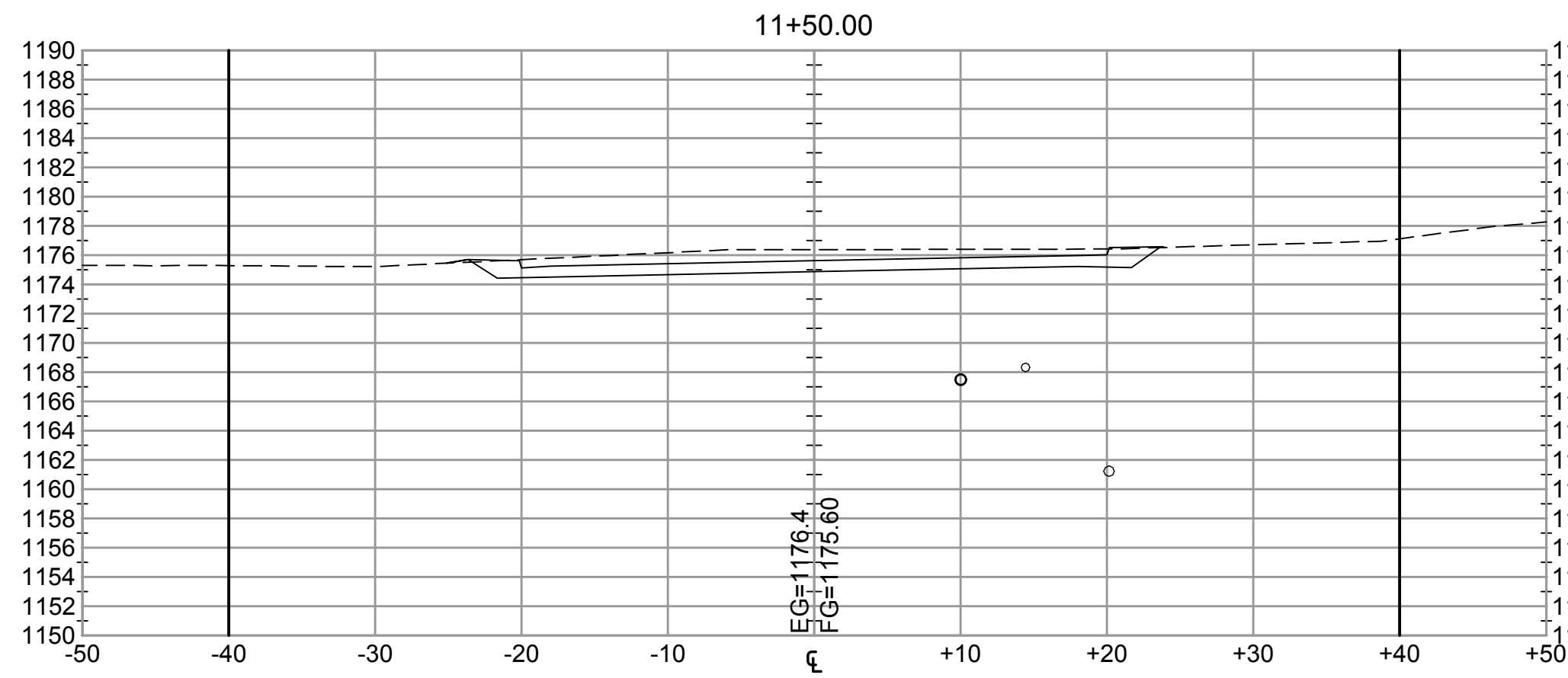
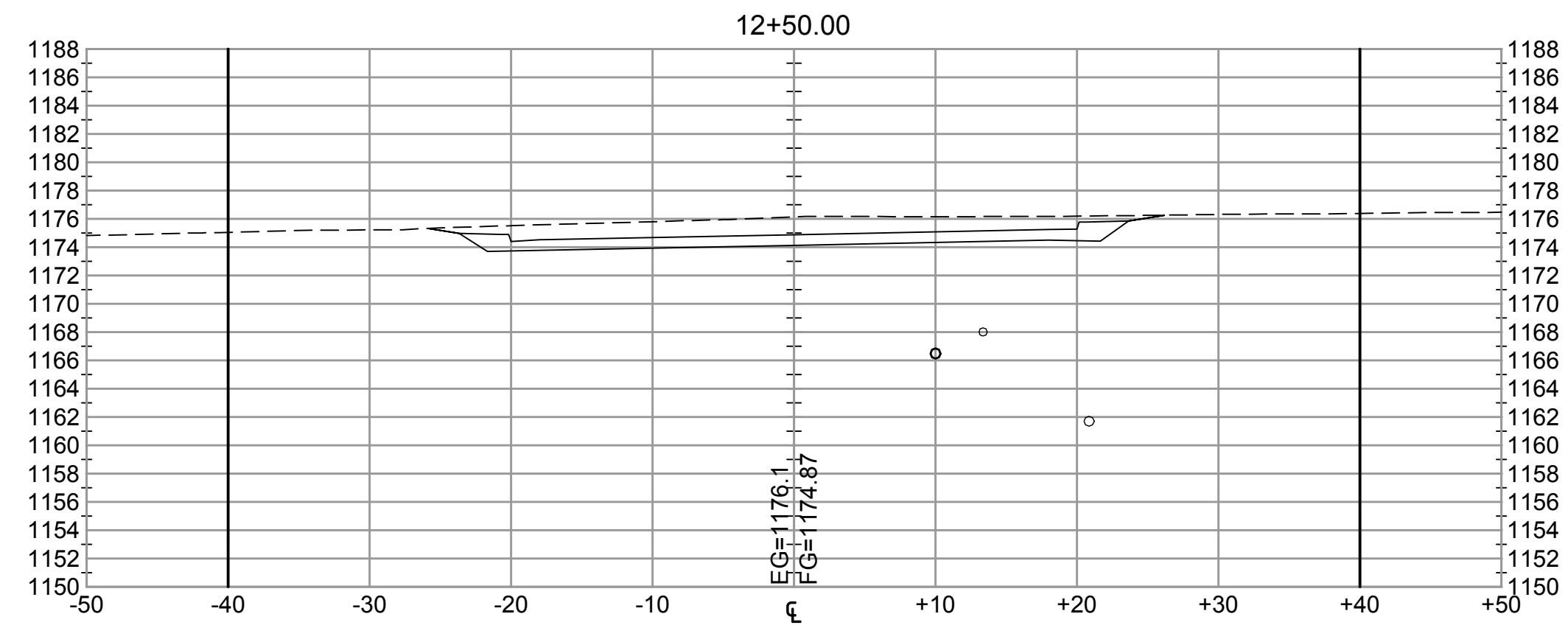
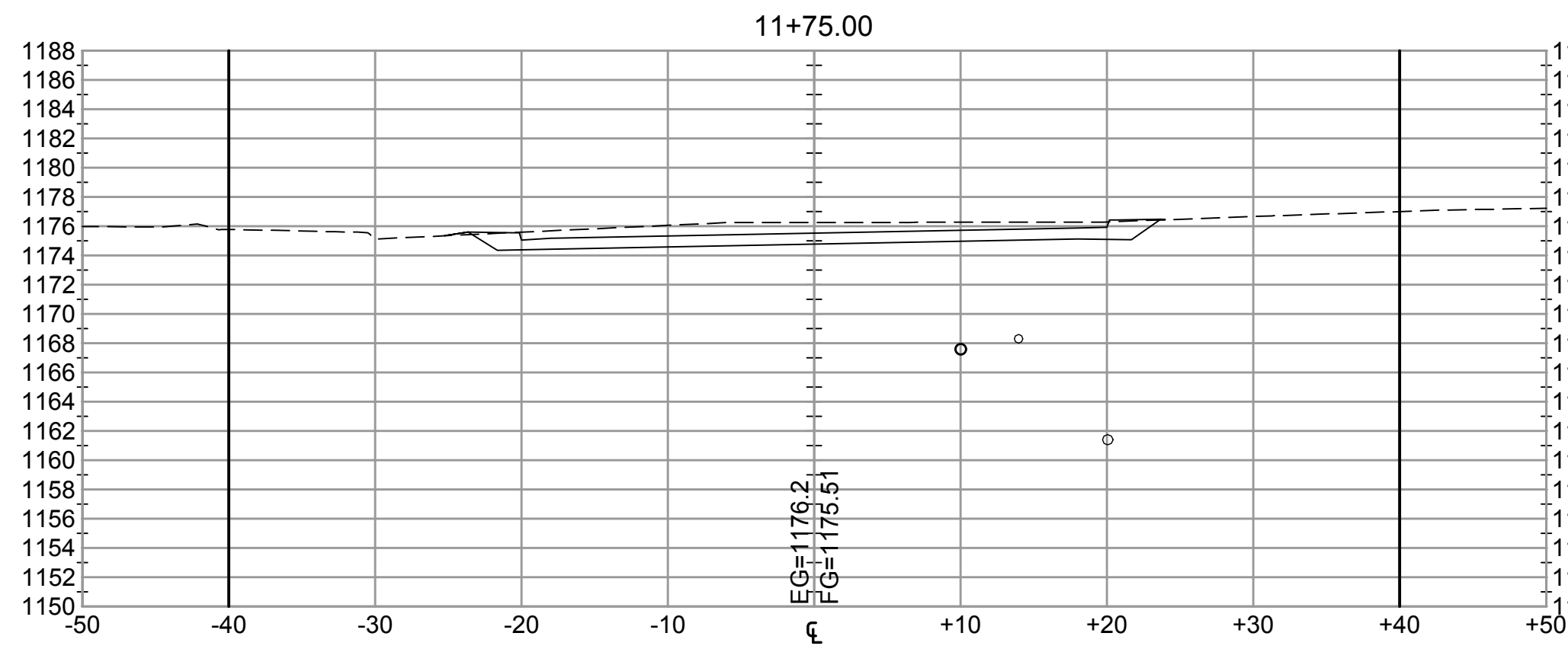


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2013 WATER IMPROVEMENTS  
 CITY OF SWANVILLE  
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**CROSS SECTIONS - RHODA AVENUE (7)**

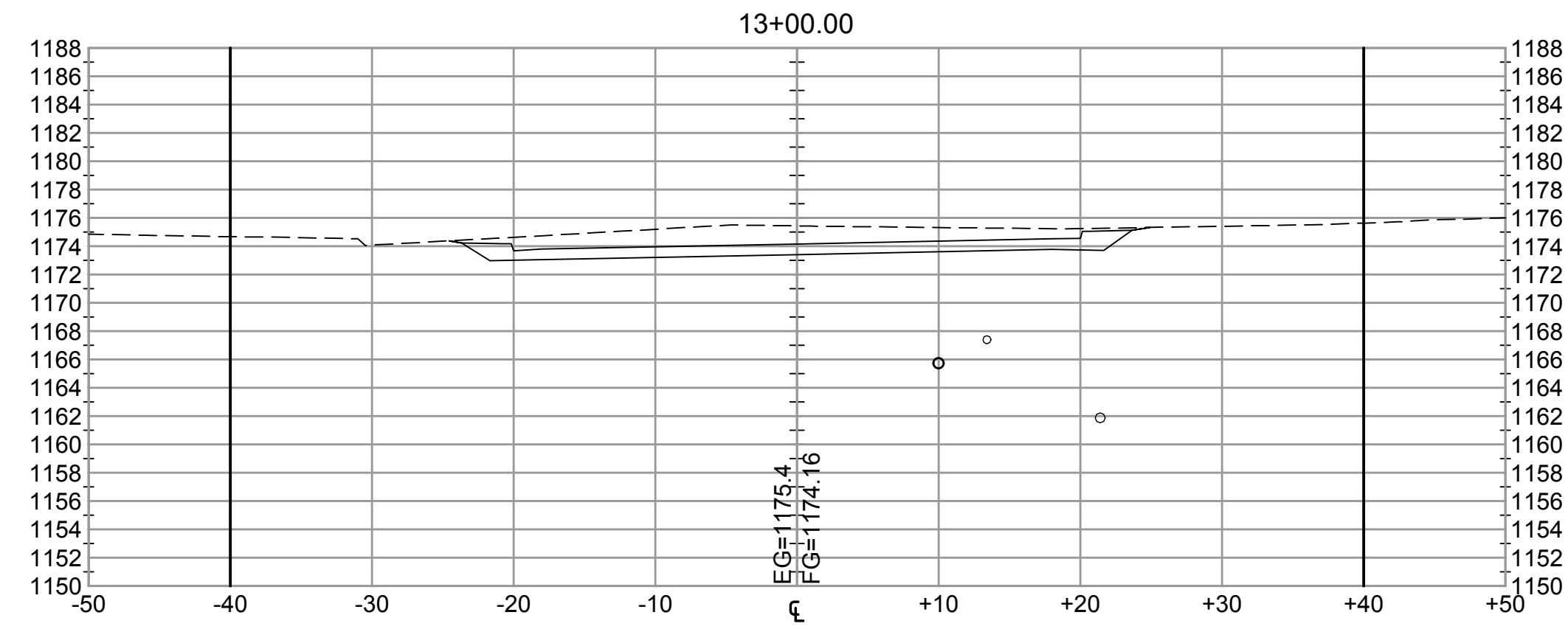
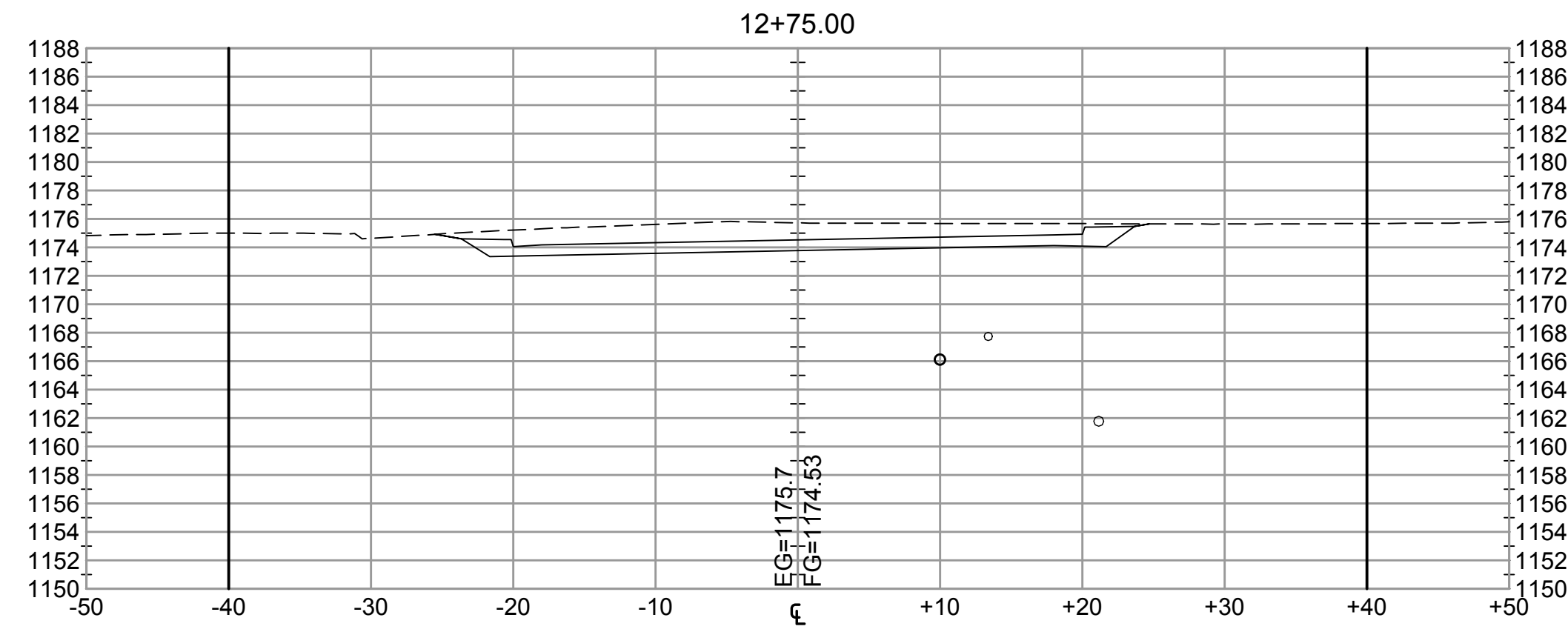
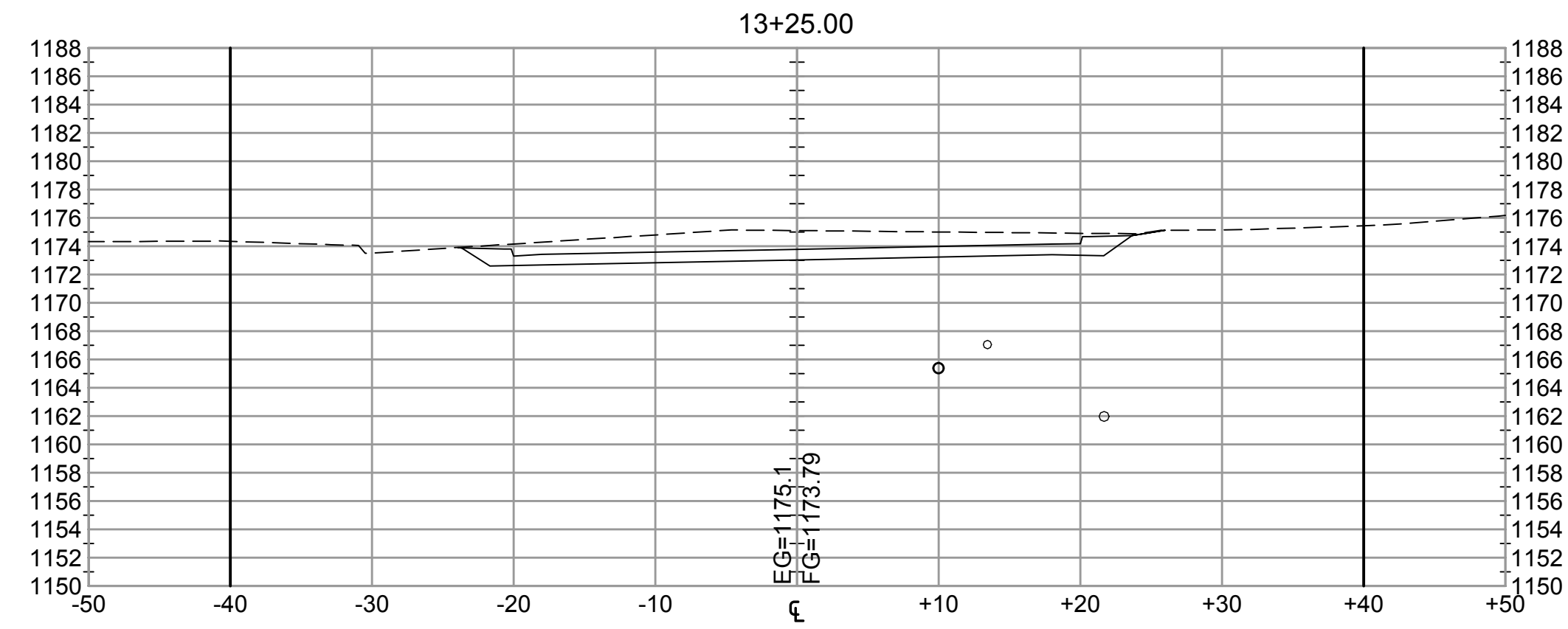
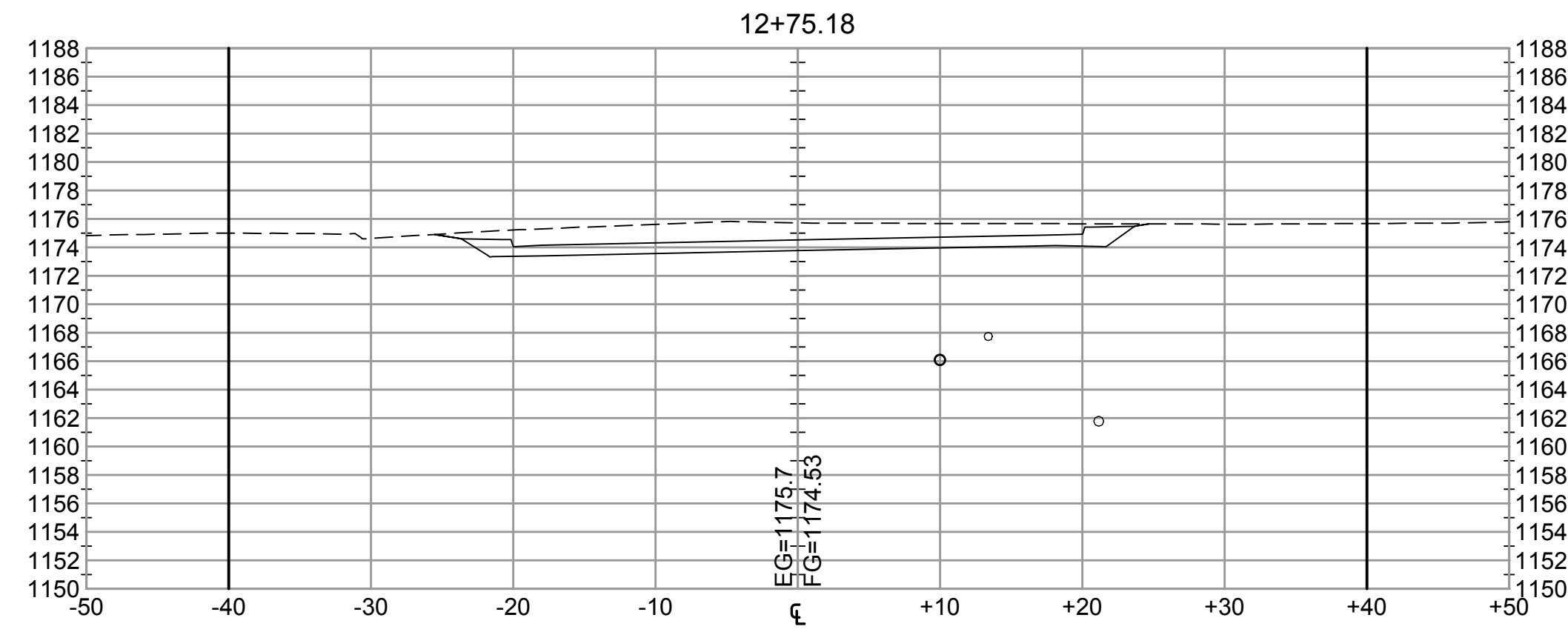
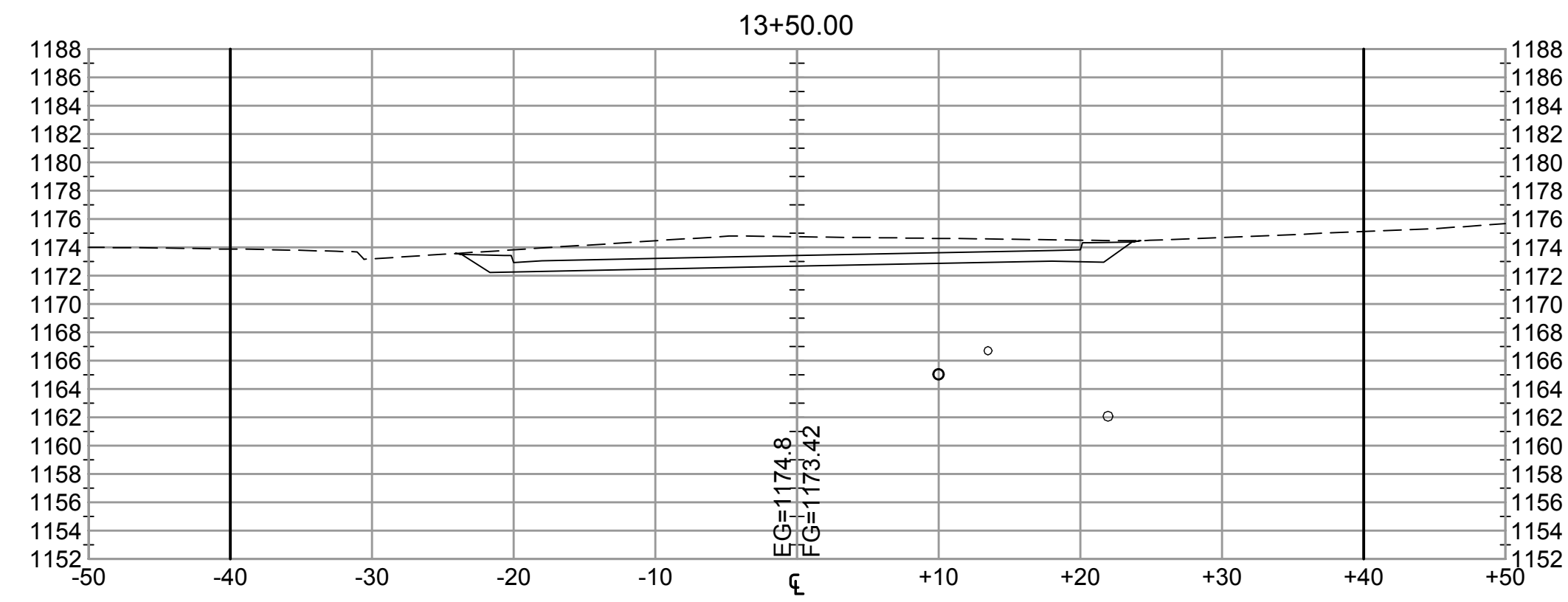
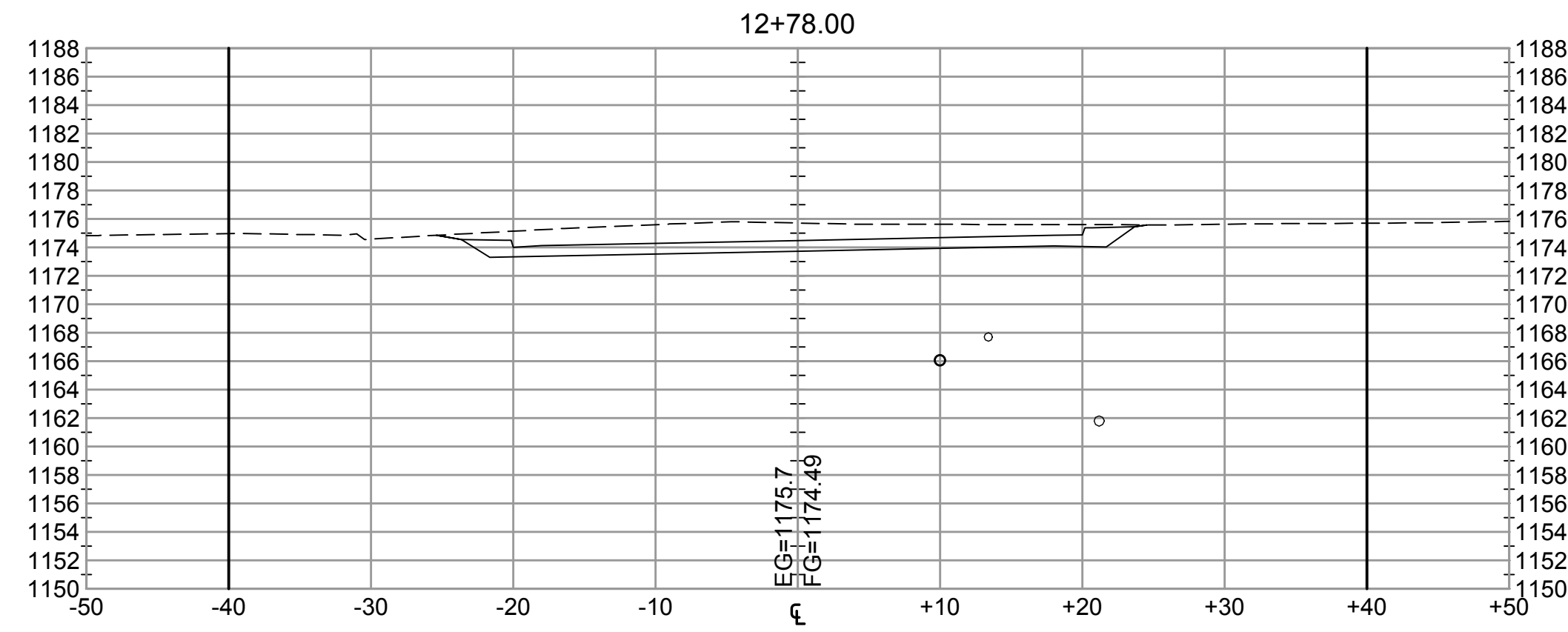


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2013 WATER IMPROVEMENTS  
 CITY OF SWANVILLE  
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**CROSS SECTIONS - RHODA AVENUE (8)**





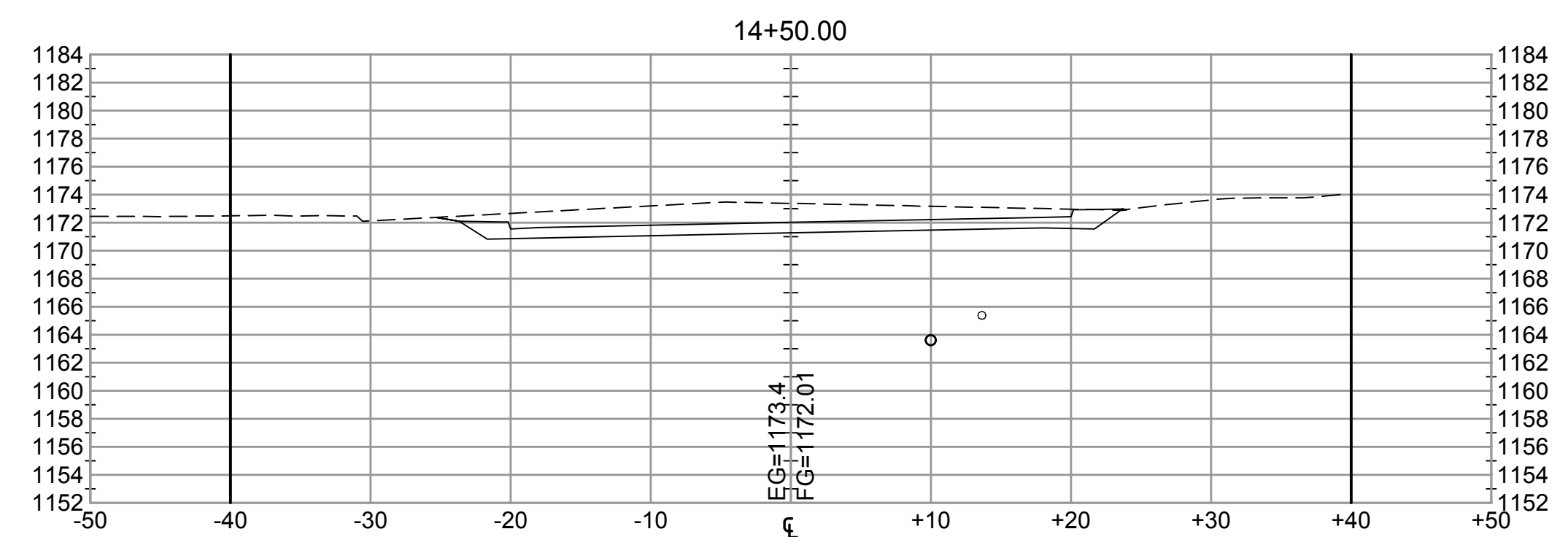
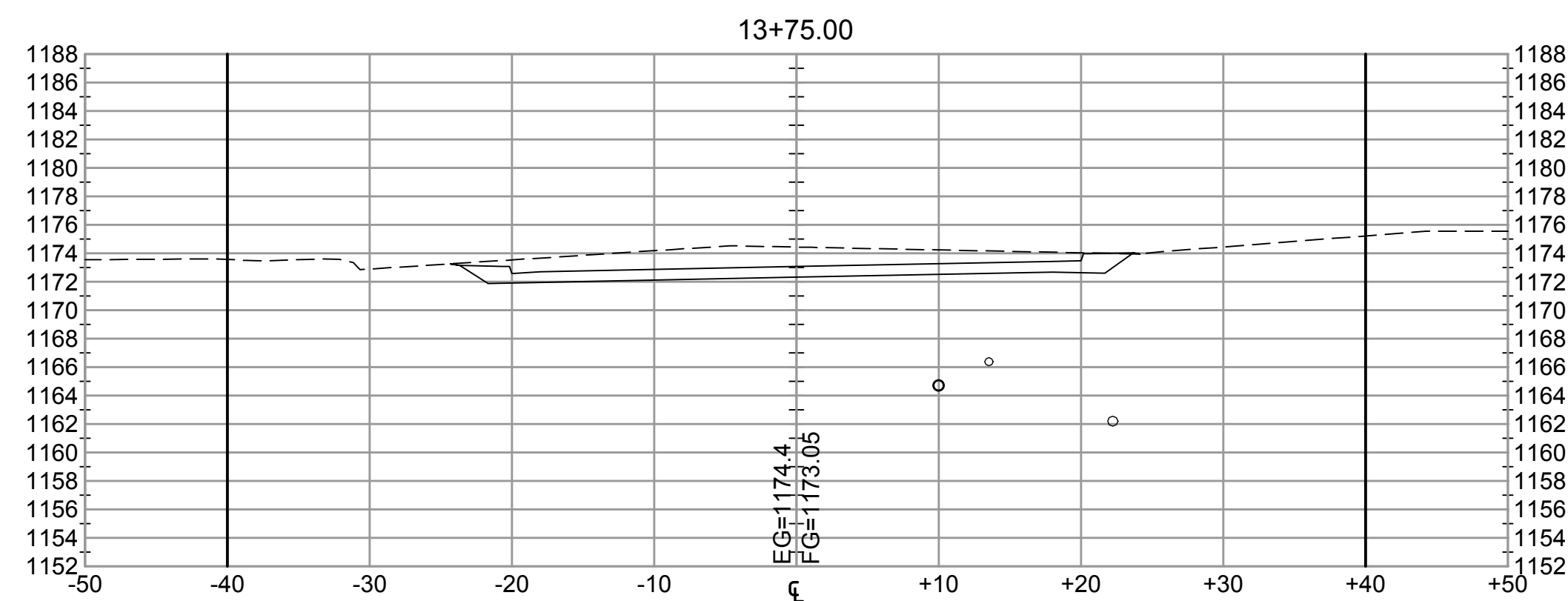
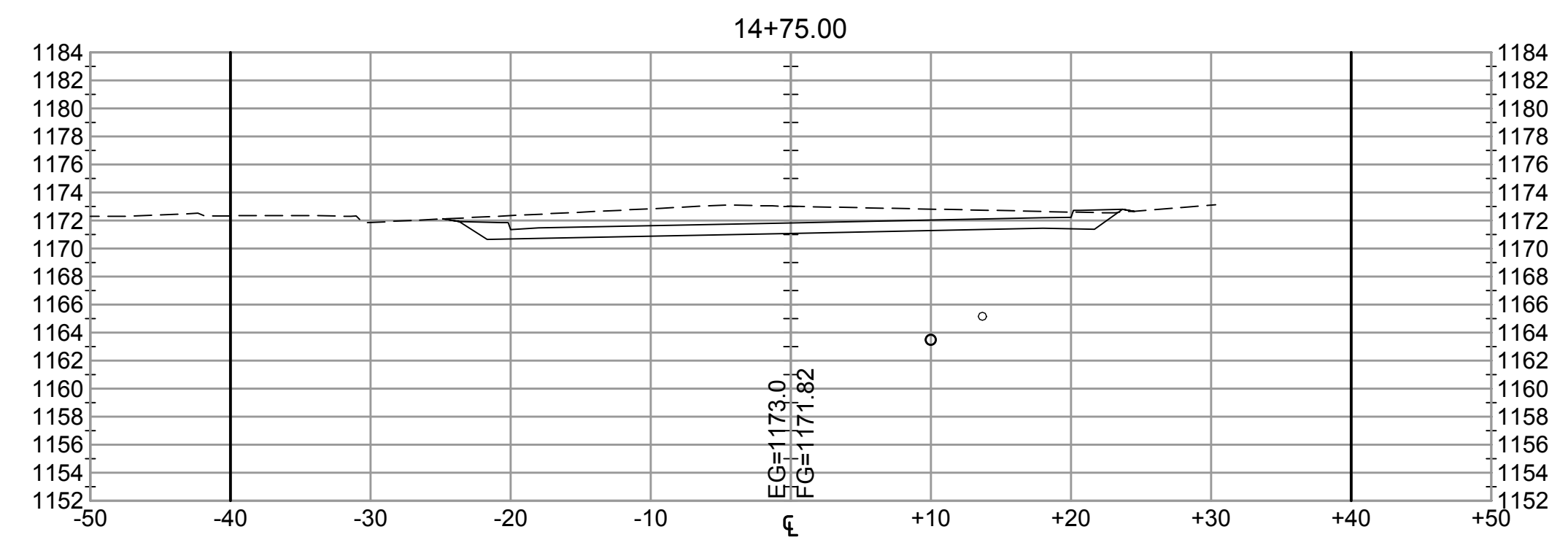
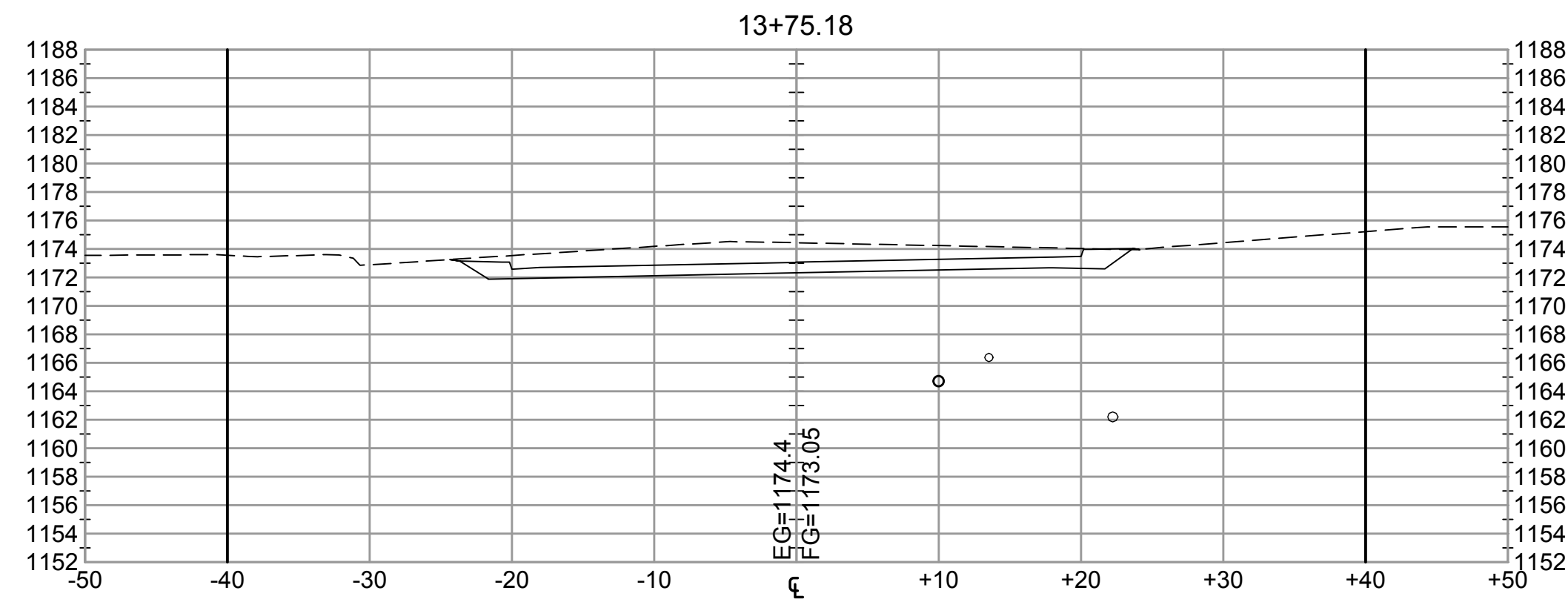
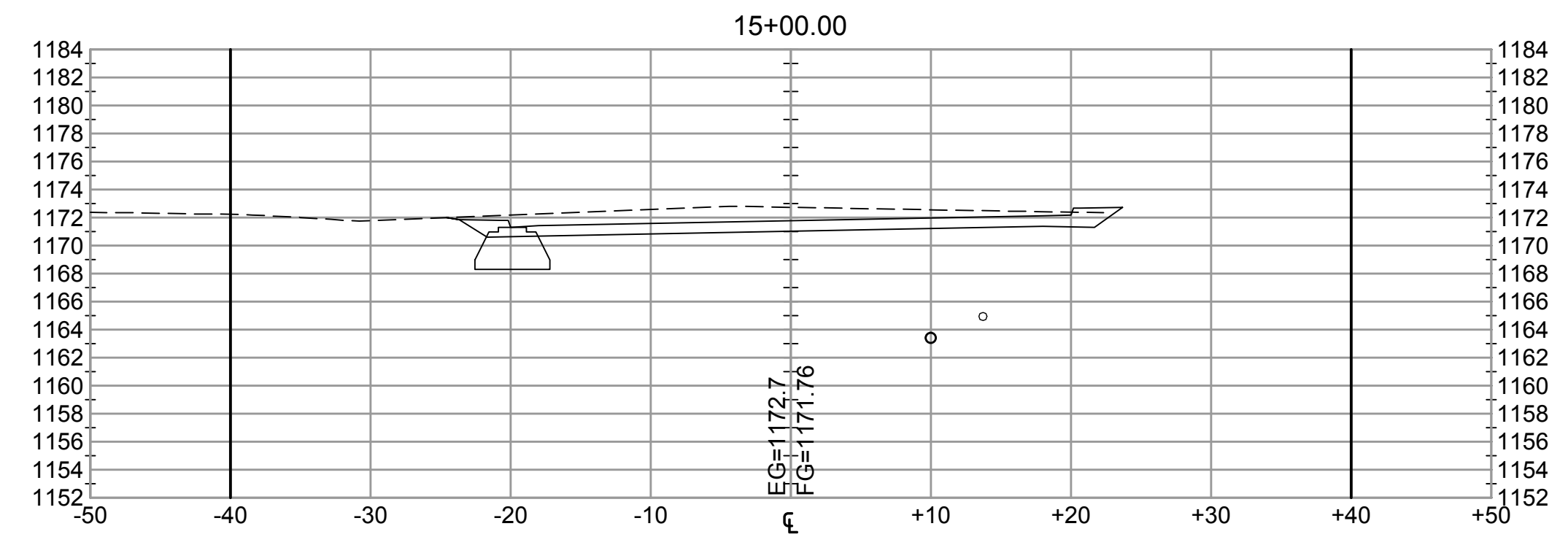
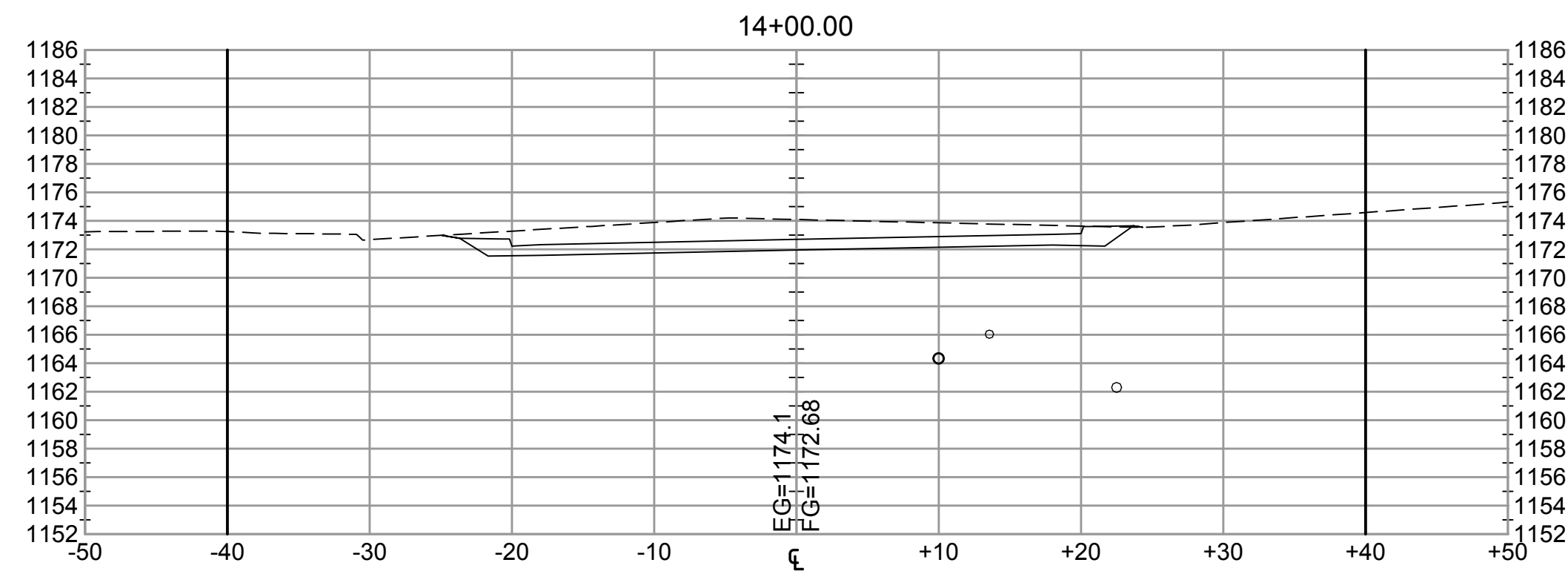
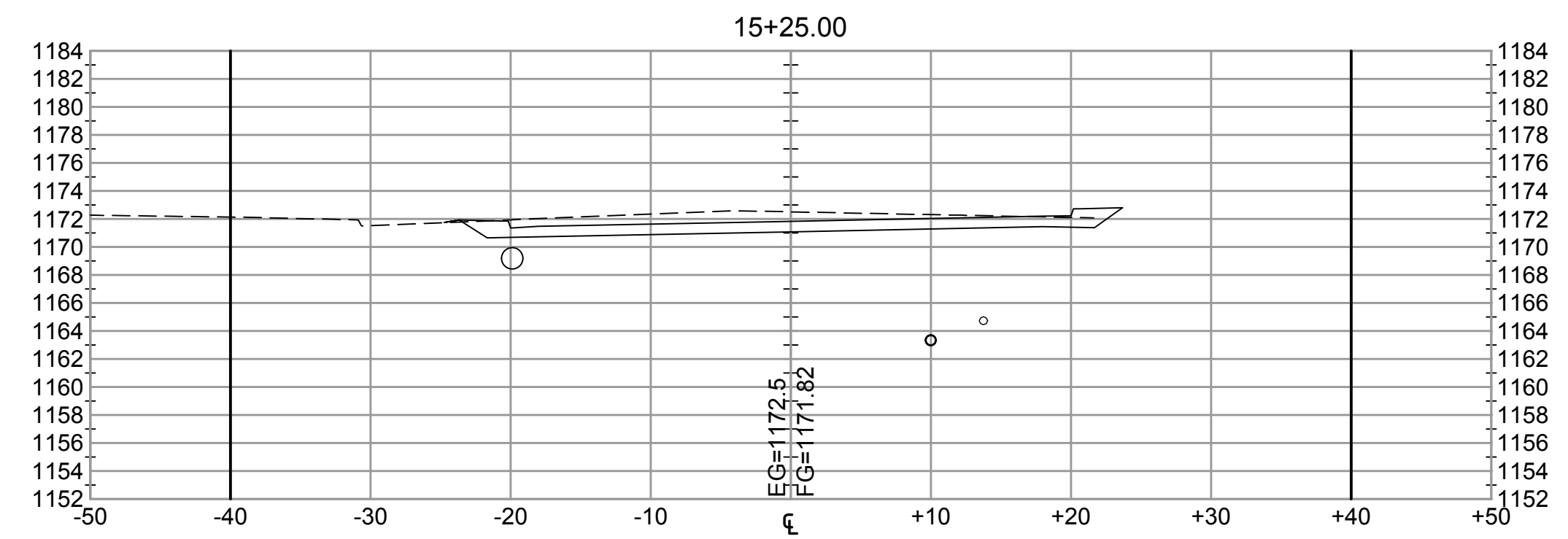
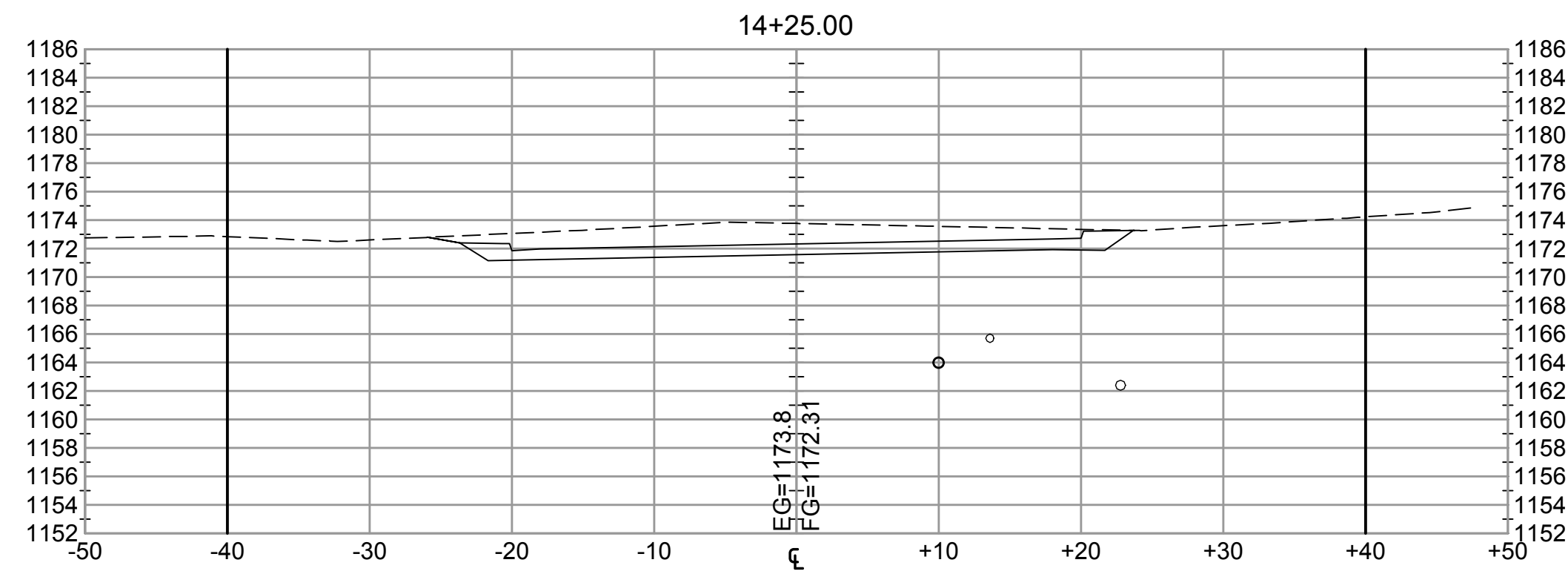
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 CITY OF SWANVILLE  
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**CROSS SECTIONS - RHODA AVENUE (9)**



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 DATE: 04-01-2013 LIC. NO. 43896

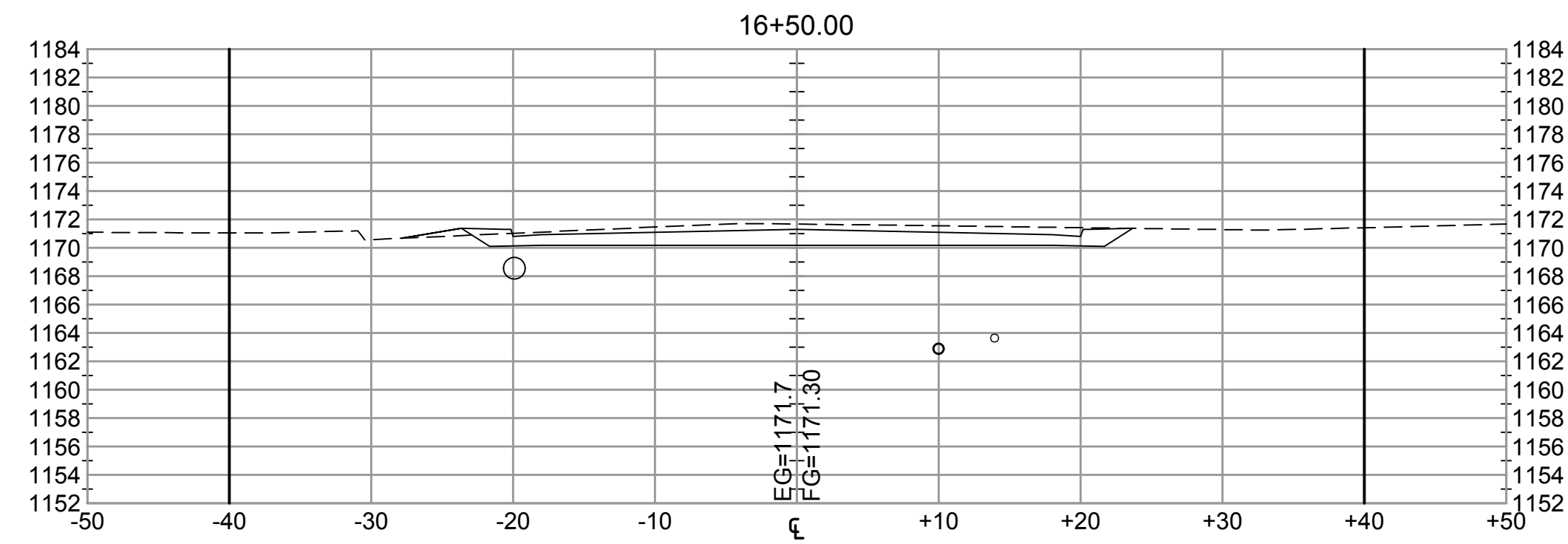
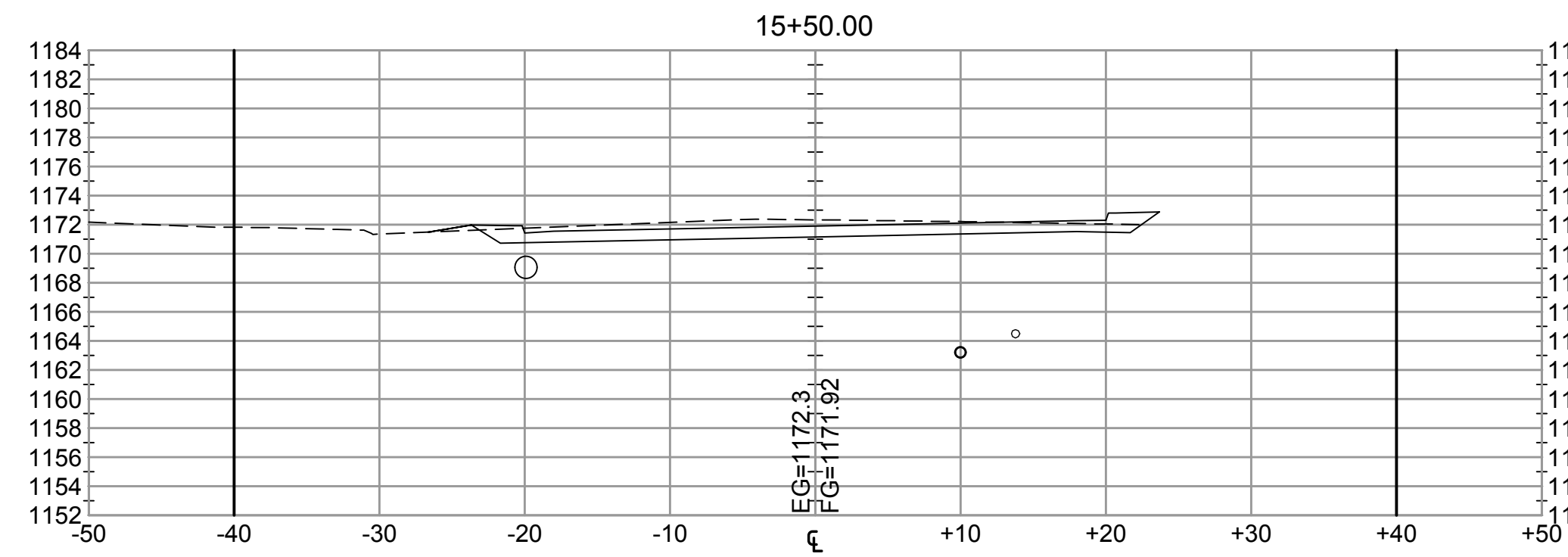
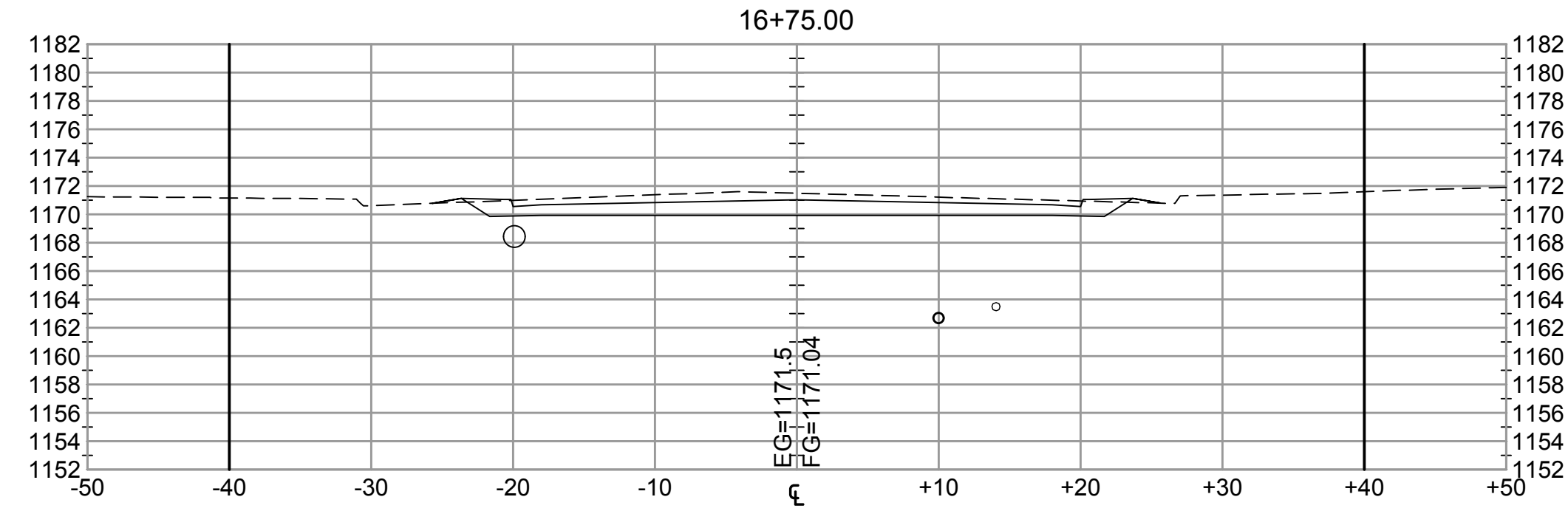
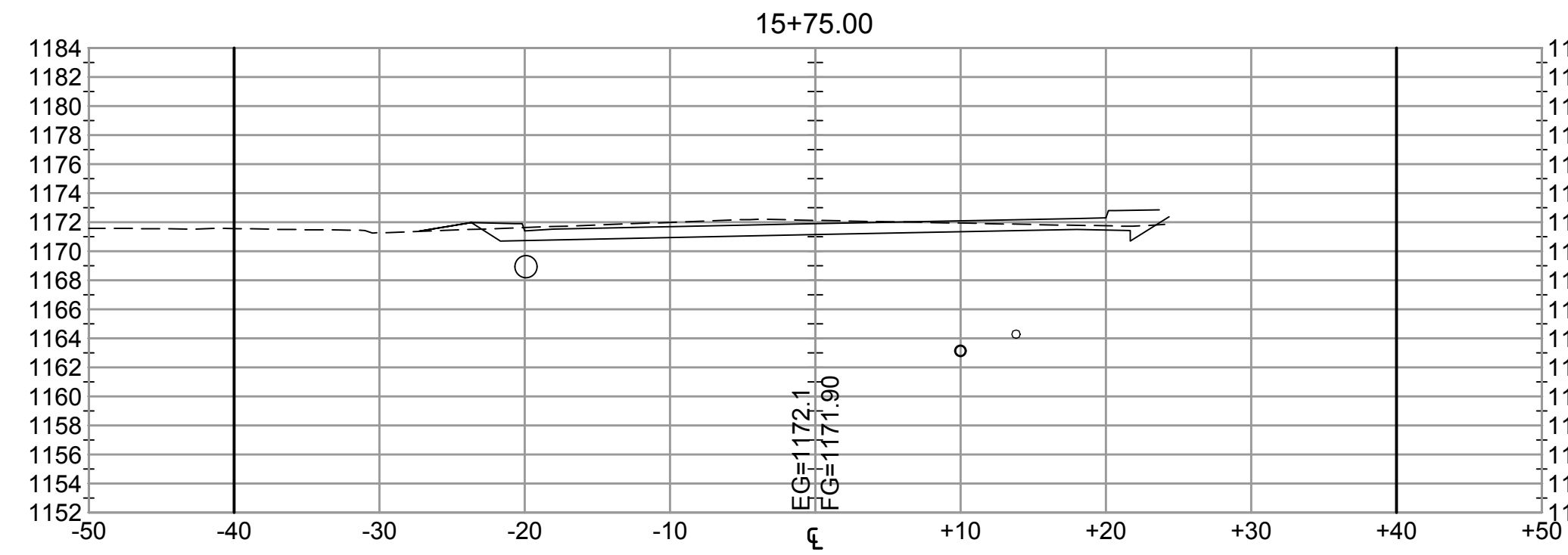
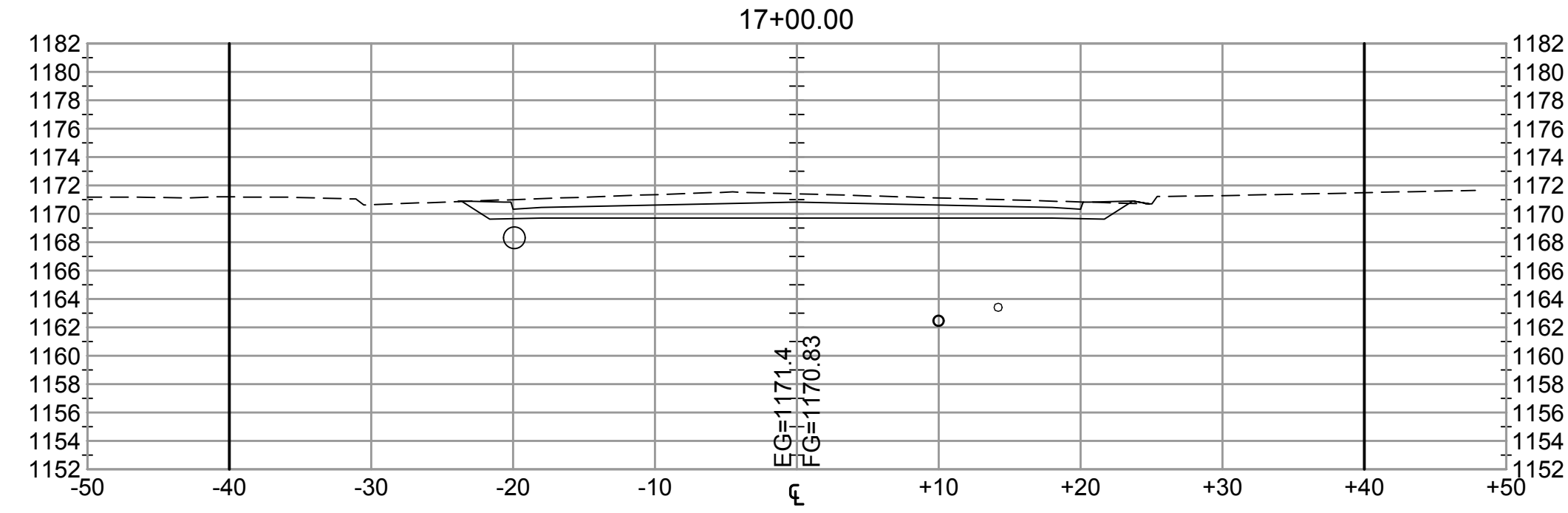
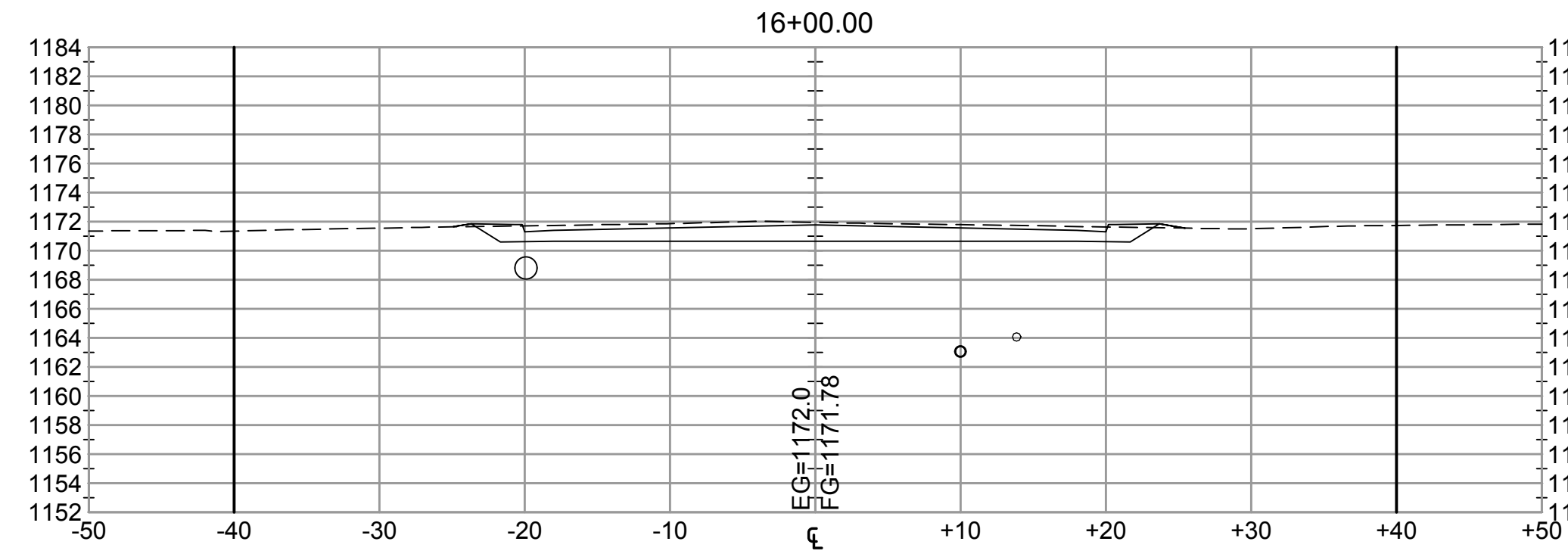
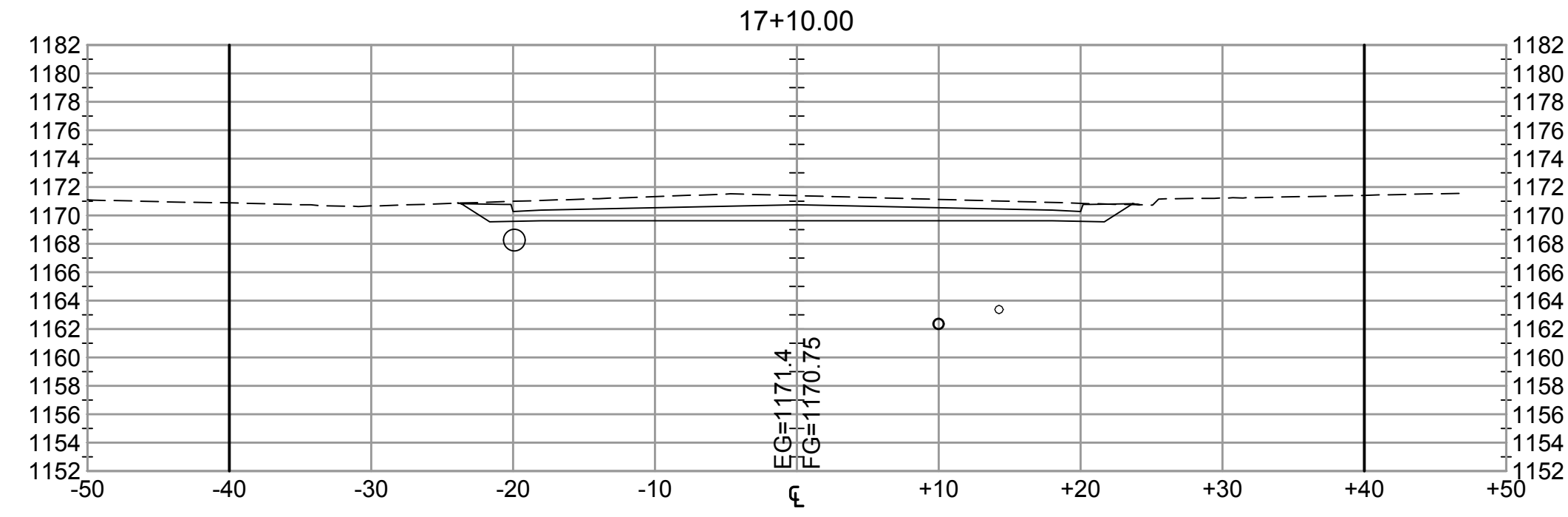
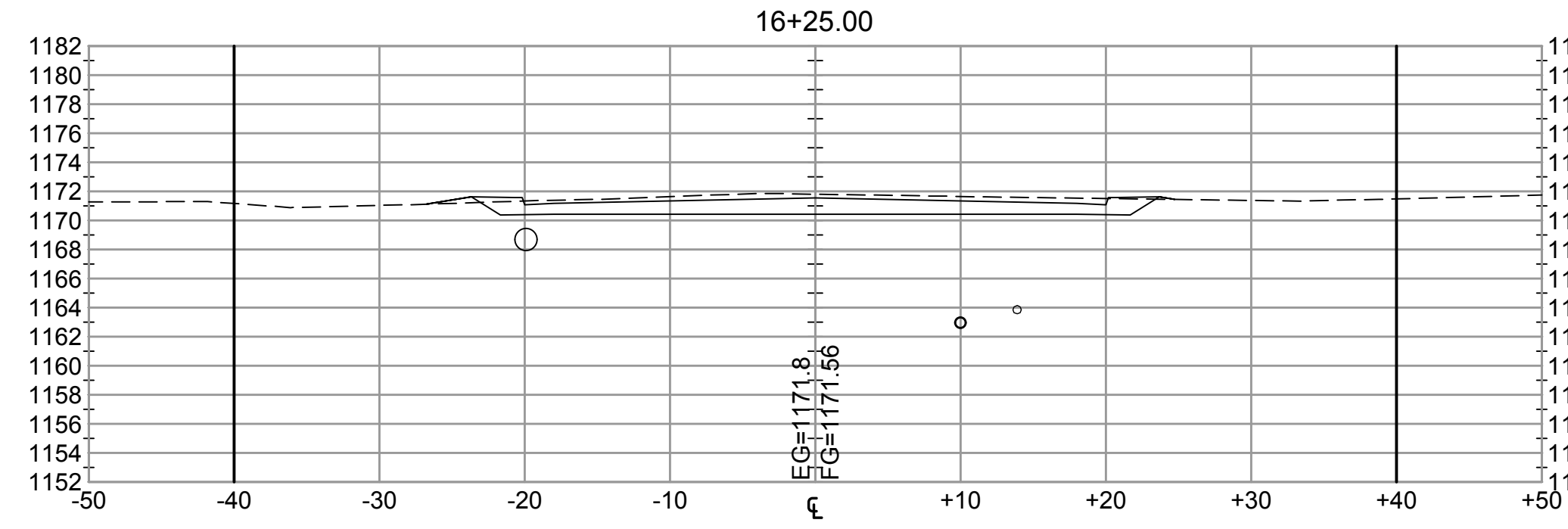
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**2013 WATER IMPROVEMENTS**  
**CITY OF SWANVILLE**  
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**CROSS SECTIONS - RHODA AVENUE (10)**

SHEET NO.  
**34**

SHEET 34 OF 53



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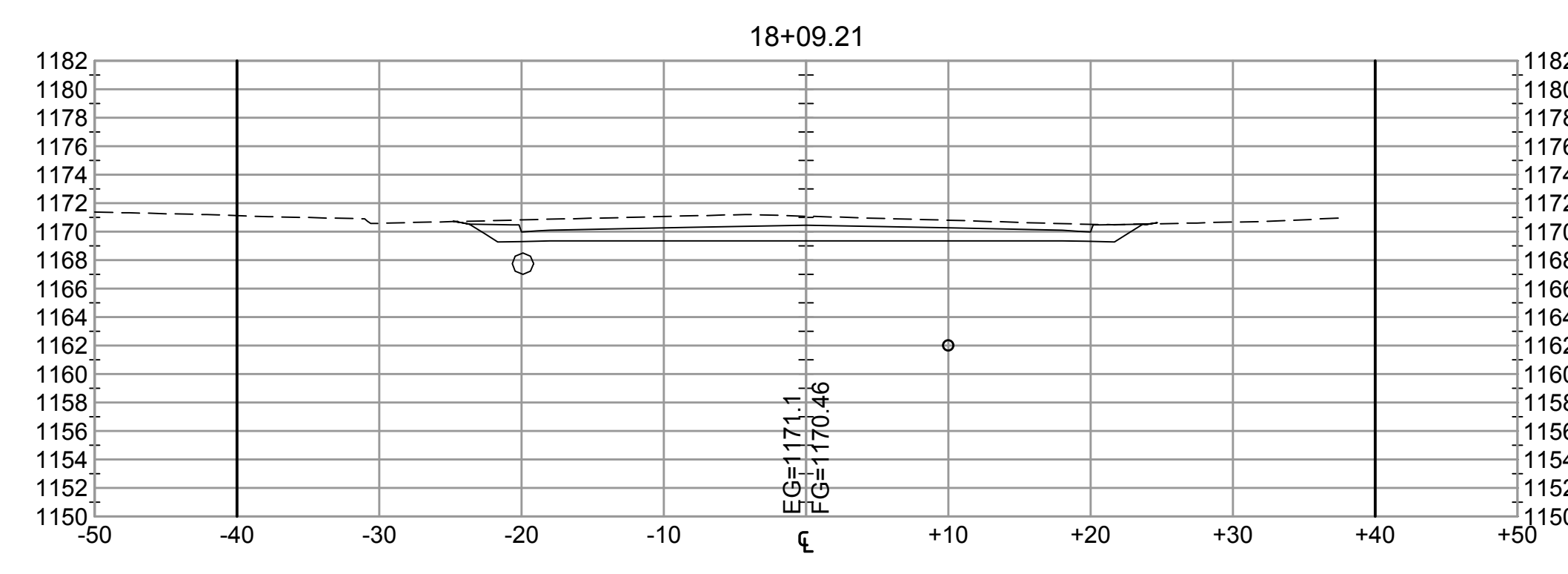
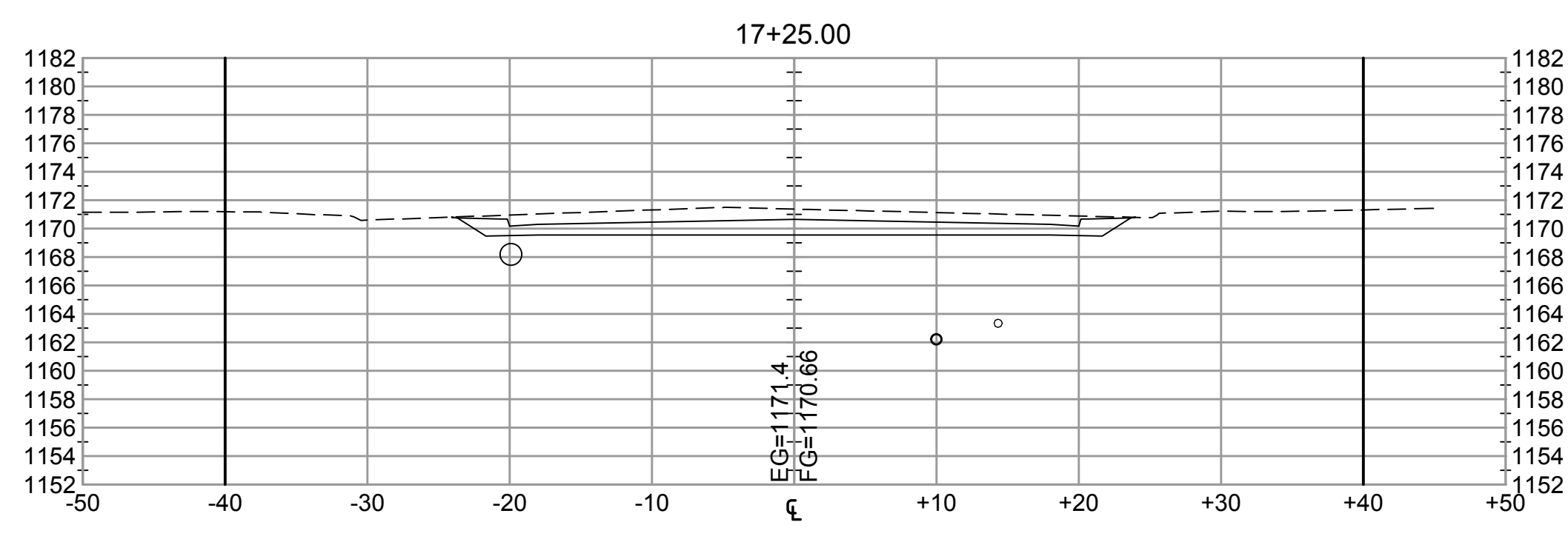
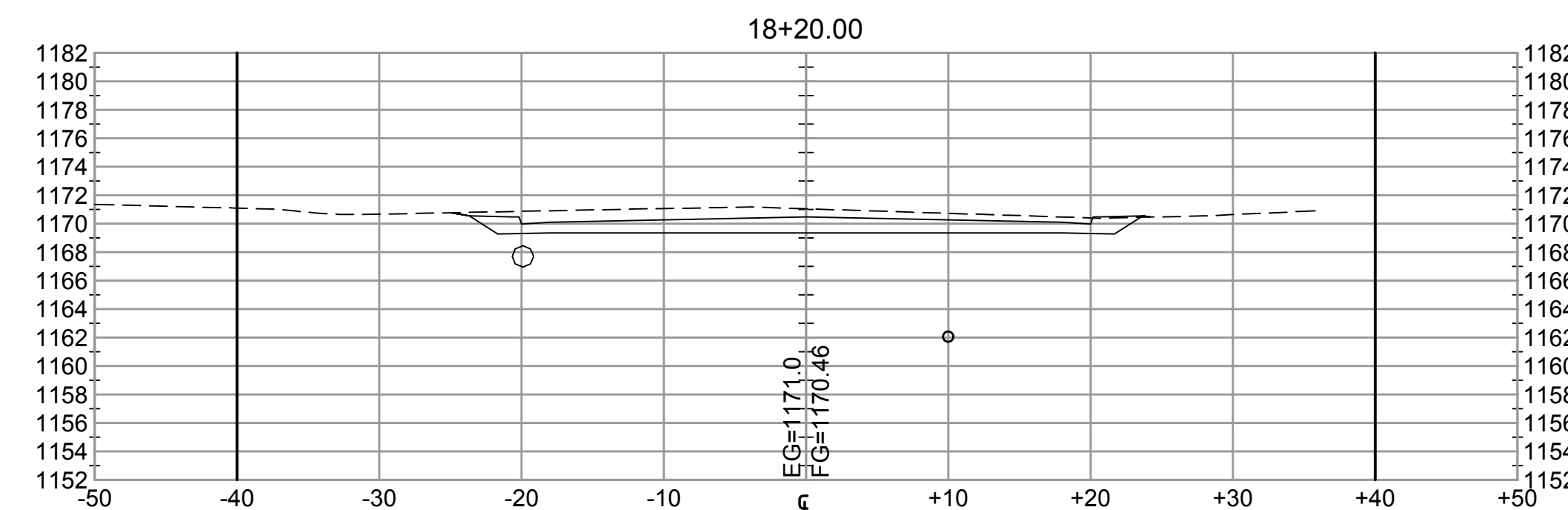
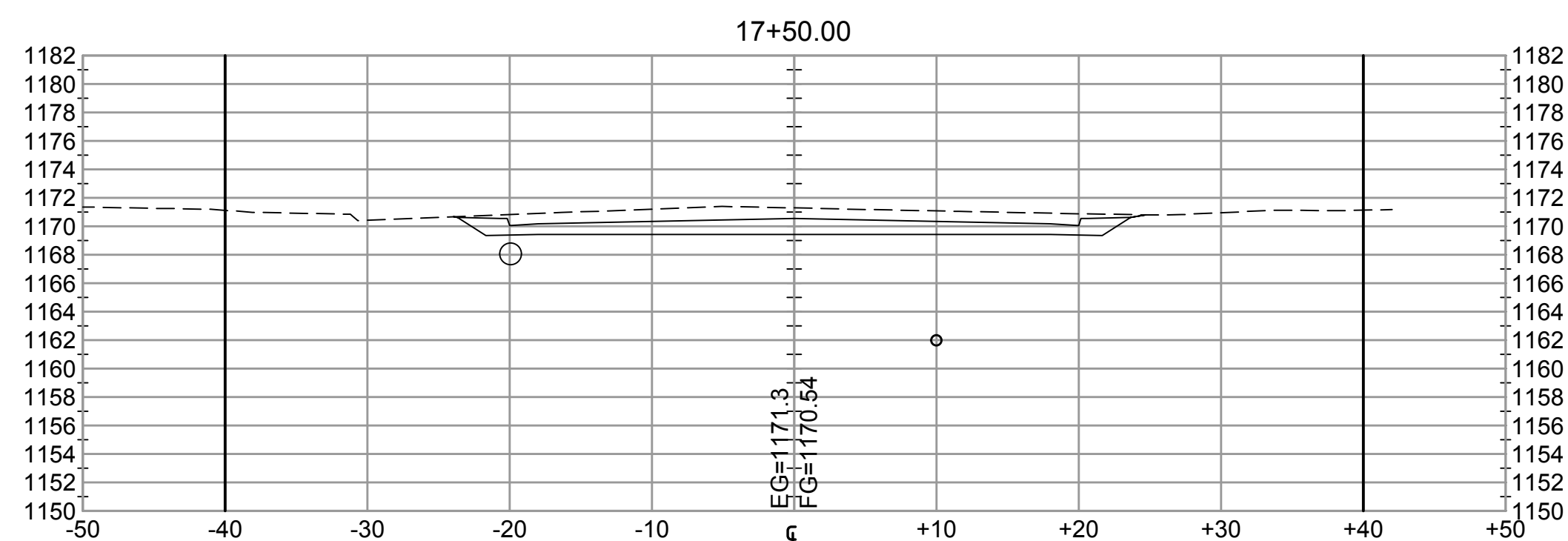
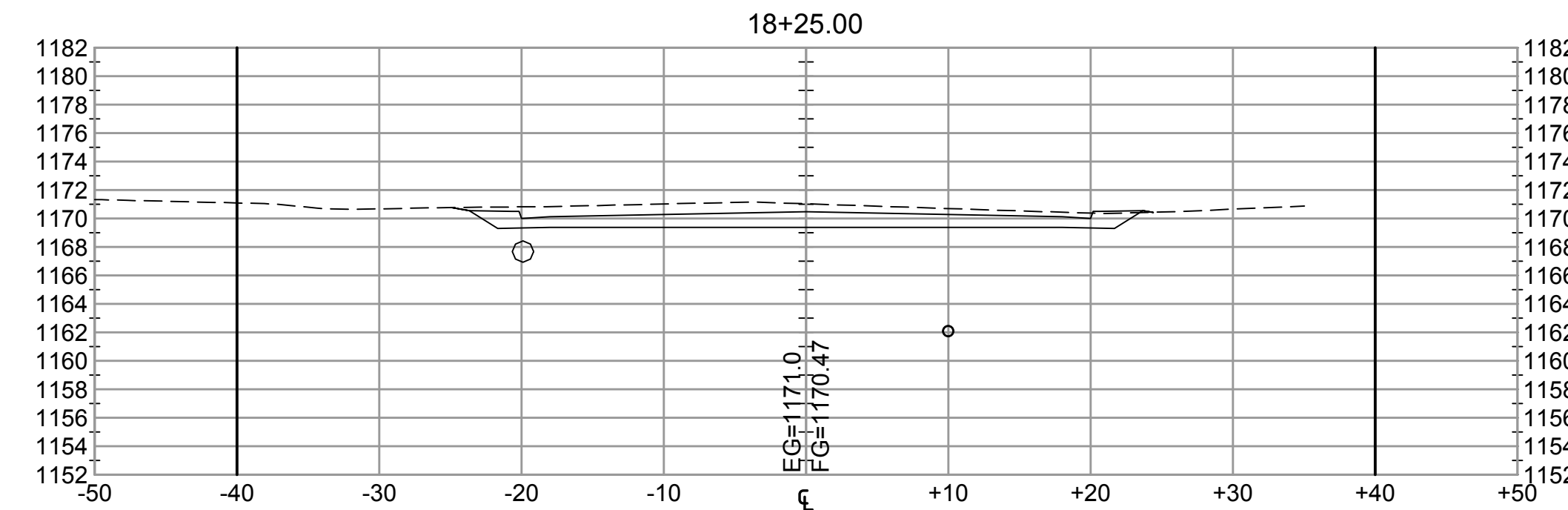
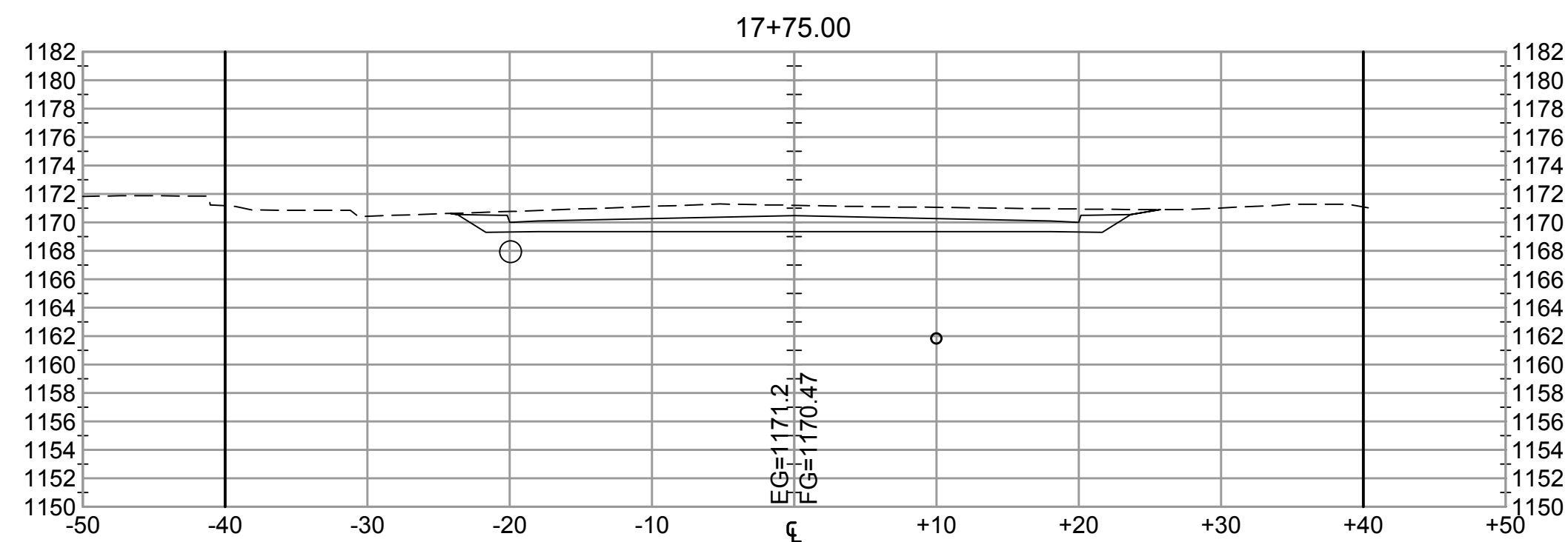
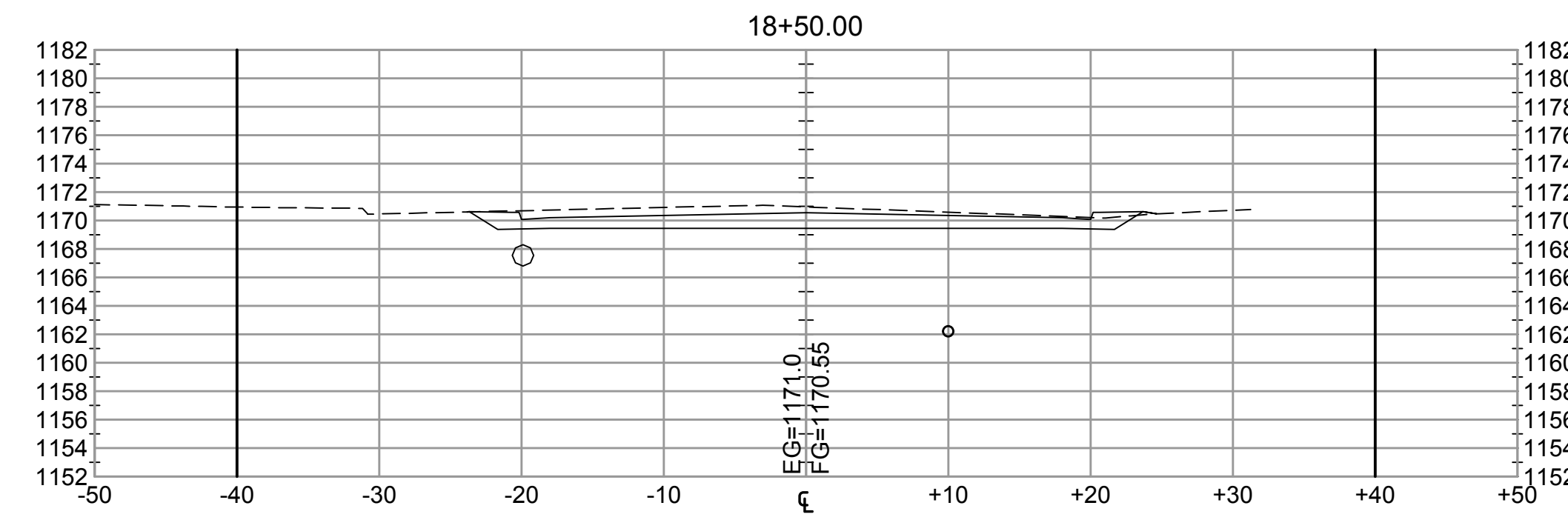
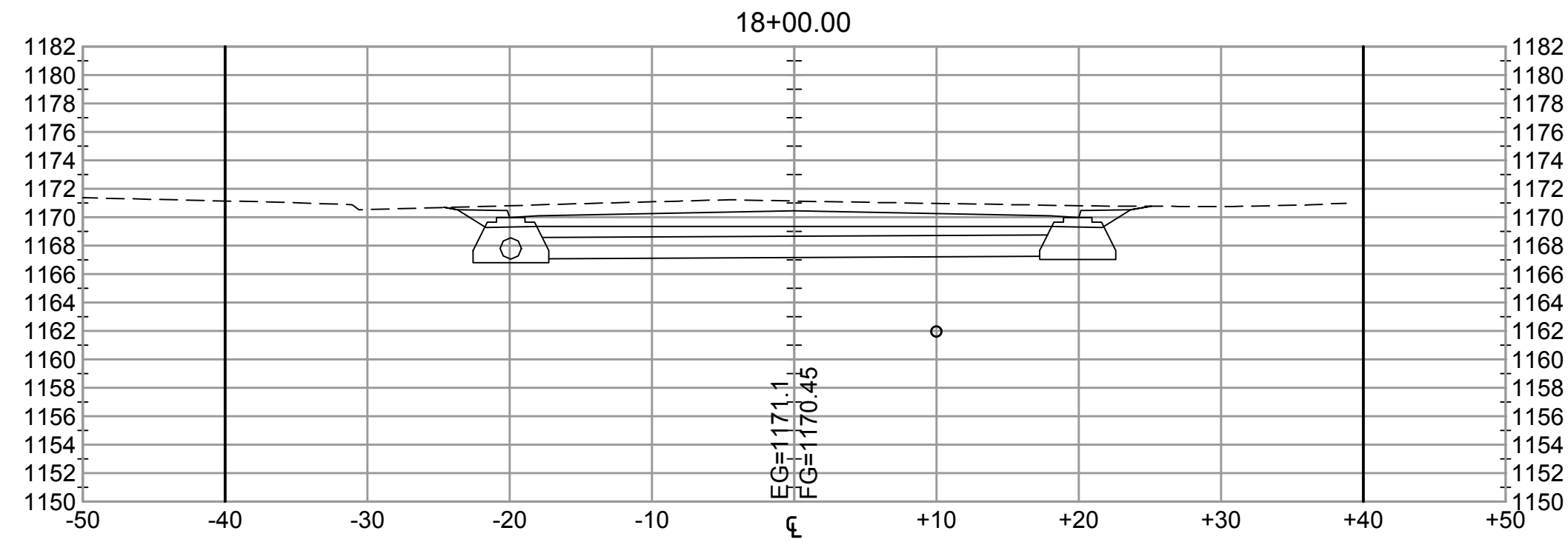
DATE: JANUARY, 2013  
SCALE: AS SHOWN  
DRAWN BY: P.M.B.  
CHECKED BY: M.E.R.  
JOB NUMBER: 0127B0012.000

2013 WATER IMPROVEMENTS  
CITY OF SWANVILLE  
SWANVILLE, MINNESOTA  
CROSS SECTIONS - RHODA AVENUE (11)

SHEET NO.  
**35**

SHEET 35 OF 53

BY: [Signature]  
I HEREBY CERTIFY THAT THIS PLAN, SPECIFICATION, OR REPORT  
THAT I AM A DULY LICENSED PROFESSIONAL ENGINEER UNDER  
THE LAWS OF THE STATE OF MINNESOTA.  
MICHAEL E. RUDE  
DATE: 04-01-2013 LIC. NO. 43896



2013 WATER IMPROVEMENTS  
CITY OF SWANVILLE  
SWANVILLE, MINNESOTA  
**CROSS SECTIONS - RHODA AVENUE (12)**

DATE: JANUARY, 2013  
SCALE: AS SHOWN  
DRAWN BY: P.M.B.  
CHECKED BY: M.E.R.  
JOB NUMBER: 0127B0012.000

DATE	REV#	DESCRIPTION

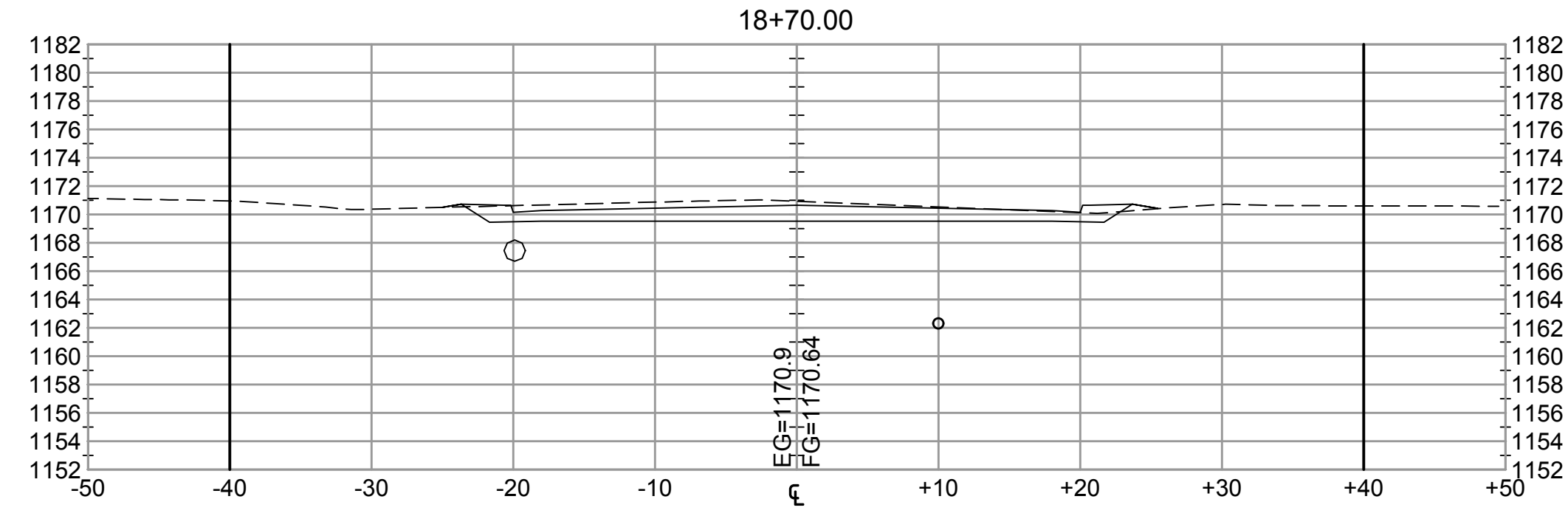
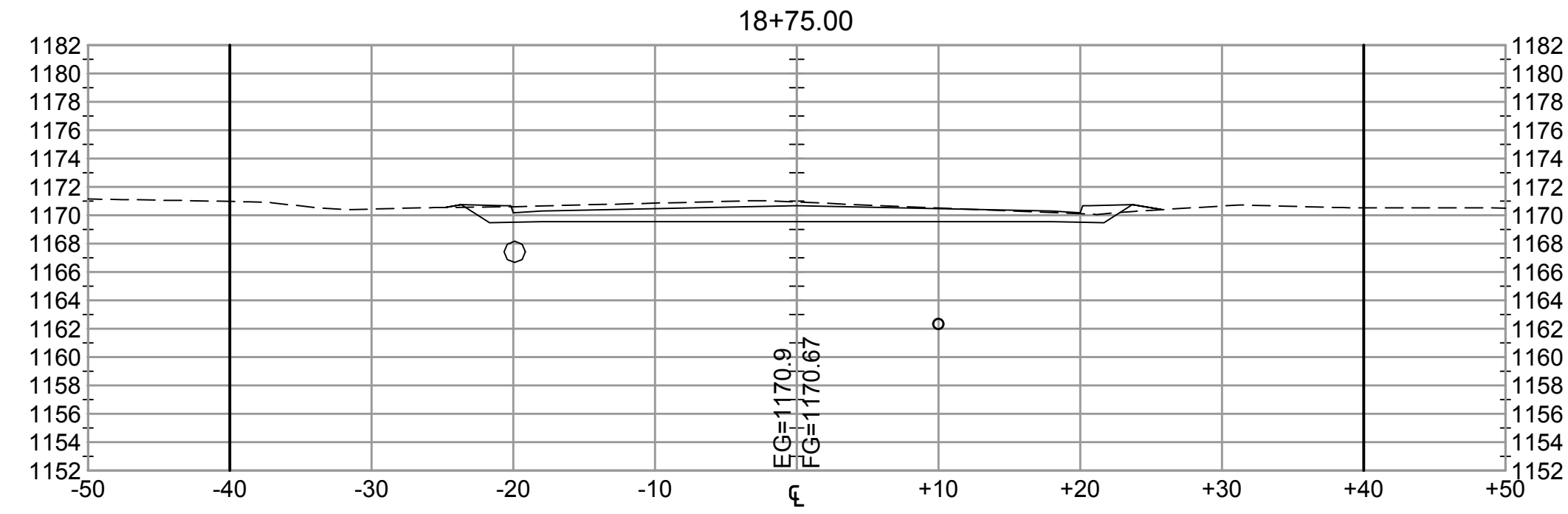
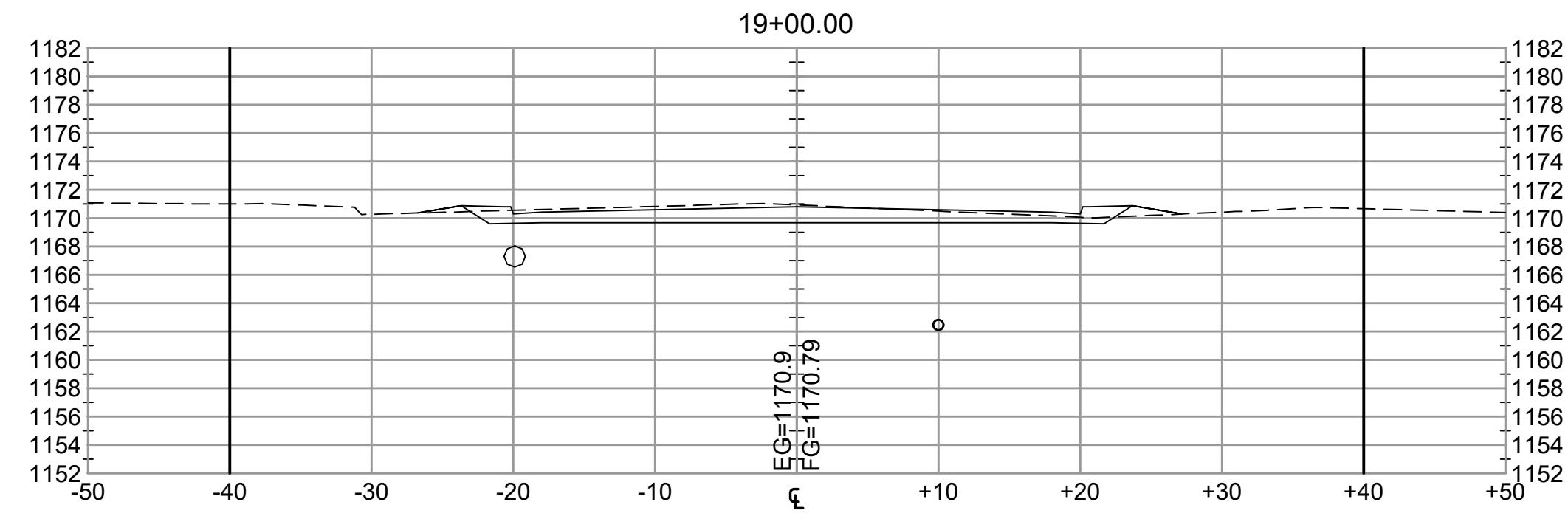
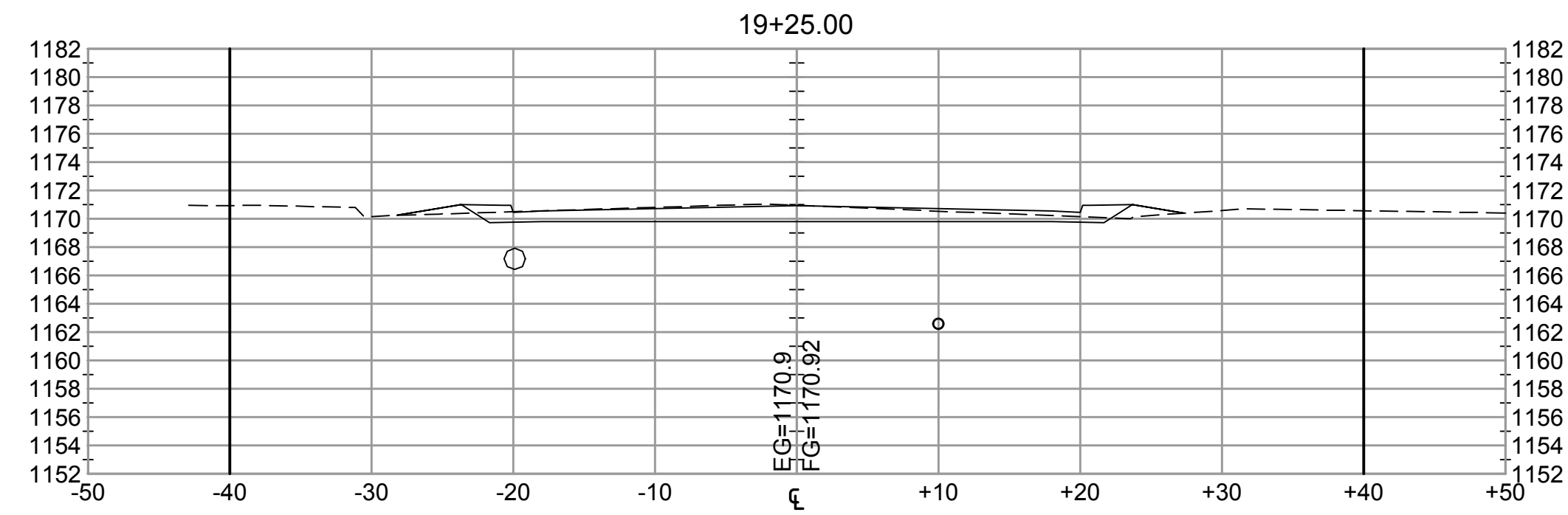
BY: *Michael E. Rude*  
I HEREBY CERTIFY THAT THIS PLAN, SPECIFICATION, OR REPORT WAS PREPARED BY ME OR UNDER MY CLOSE PERSONAL SUPERVISION AND THAT I AM A DULY LICENSED PROFESSIONAL ENGINEER UNDER THE LAWS OF THE STATE OF MINNESOTA.  
MICHAEL E. RUDE  
DATE: 04-01-2013 LIC. NO. 43896

ARCHITECTS  
ENGINEERS  
ENVIRONMENTAL SERVICES  
LAND SURVEYORS  
WATER RESOURCES

WIDSETH SMITH NOLTING  
WWW.WSNOLTING.COM

ALEXANDRIA, MN  
BARTER, MN  
BENDEL, MN  
BENTON, MN  
GRAND FORKS, ND  
RED WING, MN  
ROCHESTER, MN

SHEET NO. **36**  
SHEET 36 OF 53



ALEXANDRIA, MN  
BATEL, MN  
BENNETT, MN  
BIRDA, MN  
GRAND FORKS, ND  
RED WING, MN  
ROCHESTER, MN

ARCHITECTS  
ENGINEERS  
ENVIRONMENTAL SERVICES  
LAND SURVEYORS  
WATER RESOURCES



I HEREBY CERTIFY THAT THIS PLAN, SPECIFICATION, OR REPORT  
WAS PREPARED BY ME OR UNDER MY CLOSE PERSONAL SUPERVISION  
AND THAT I AM A DULY LICENSED PROFESSIONAL ENGINEER UNDER  
THE LAWS OF THE STATE OF MINNESOTA.

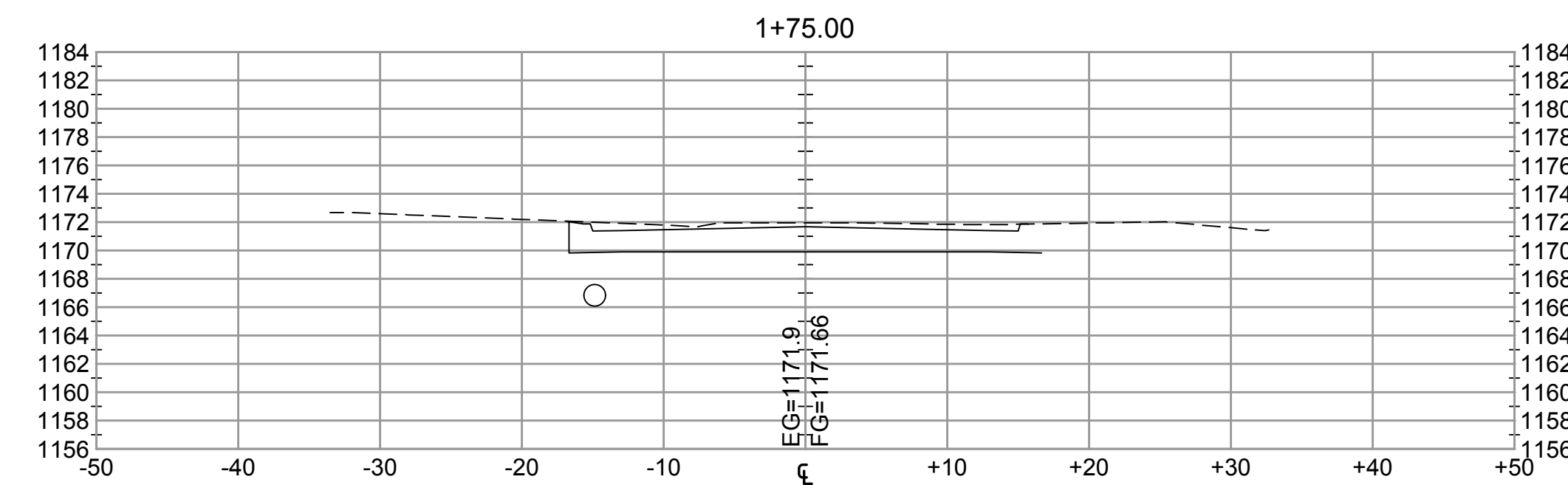
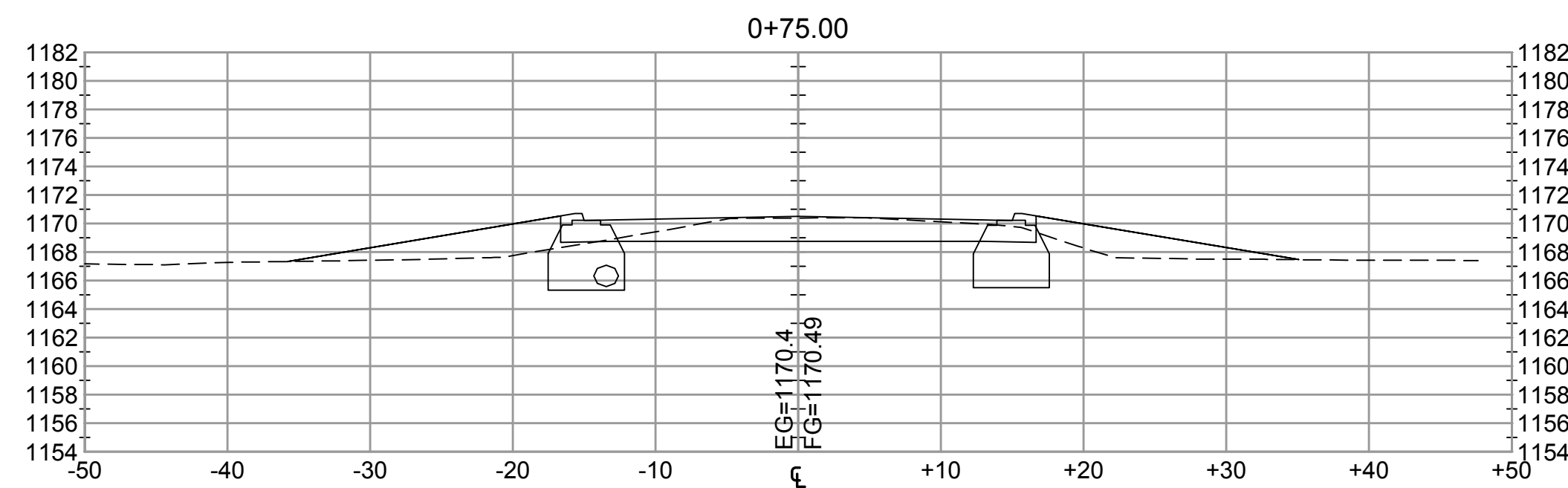
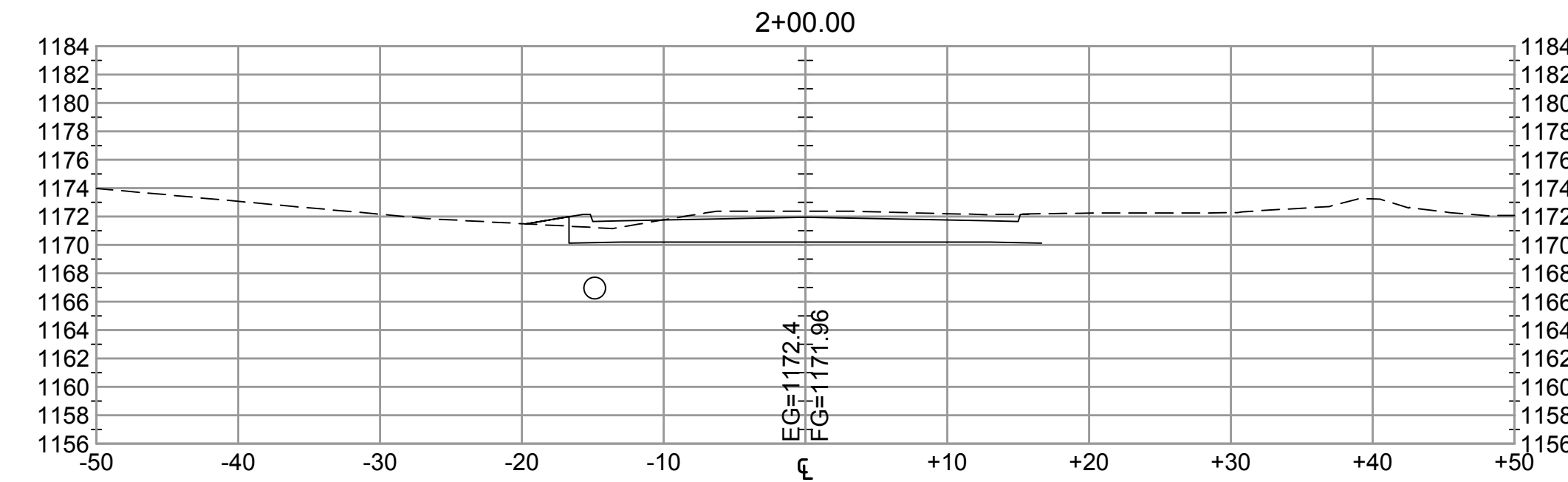
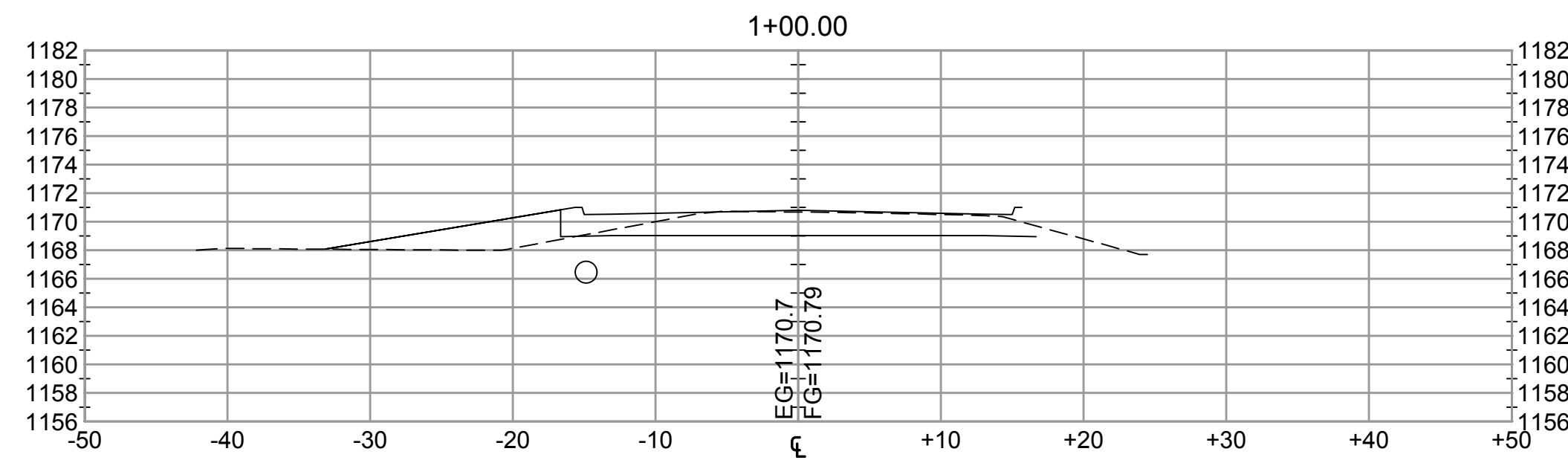
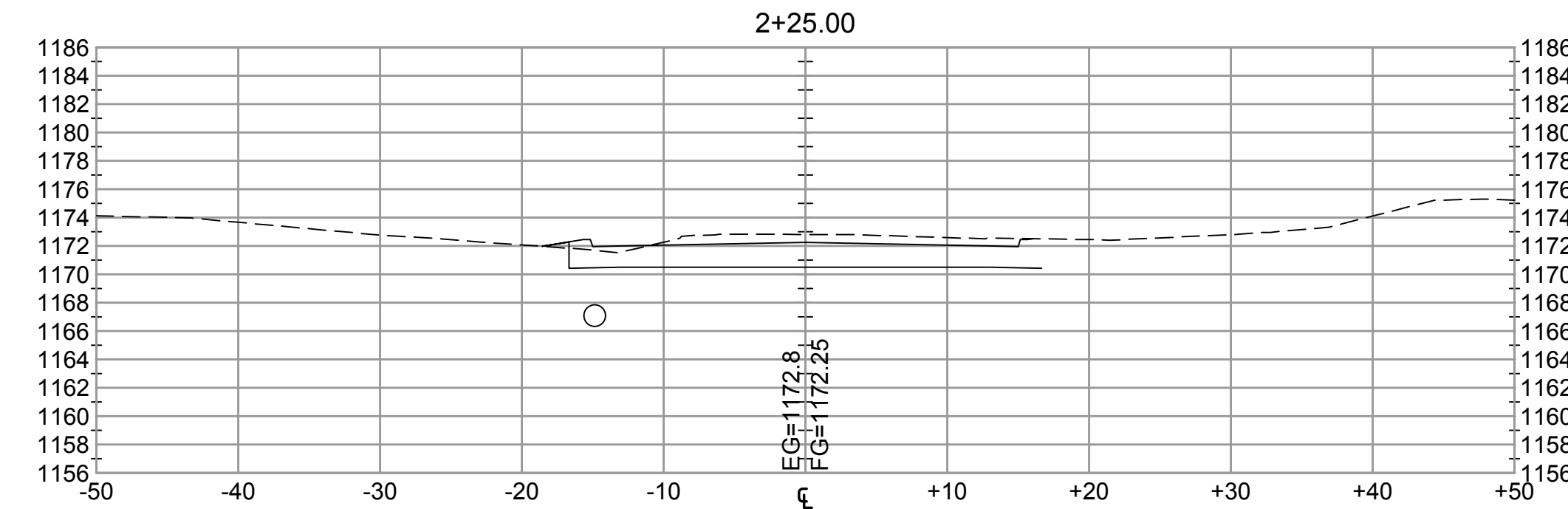
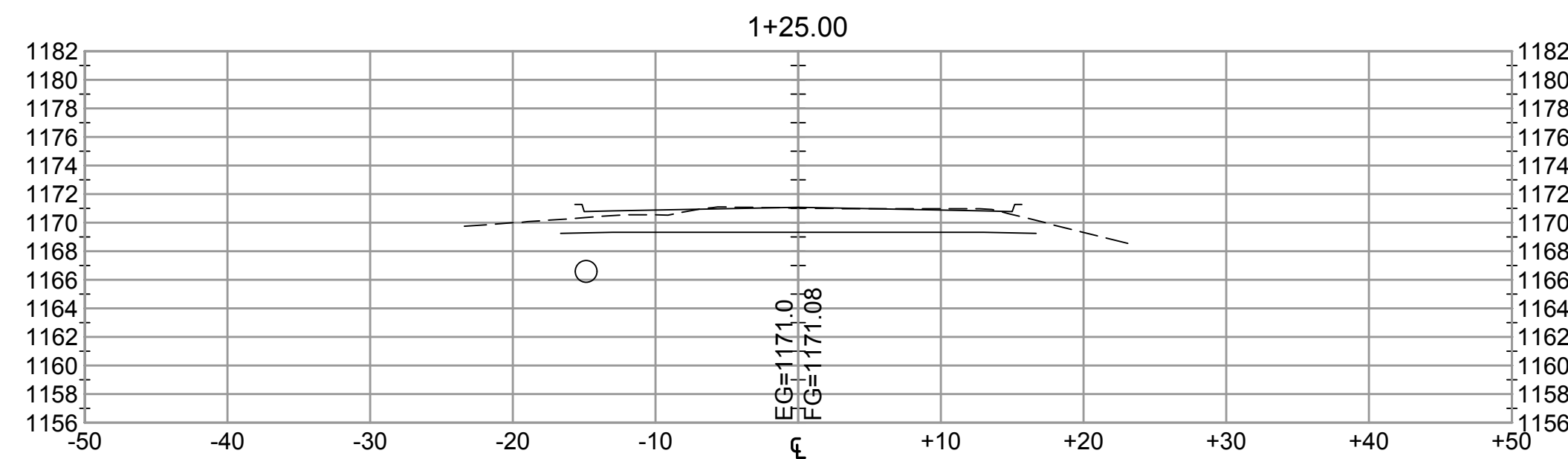
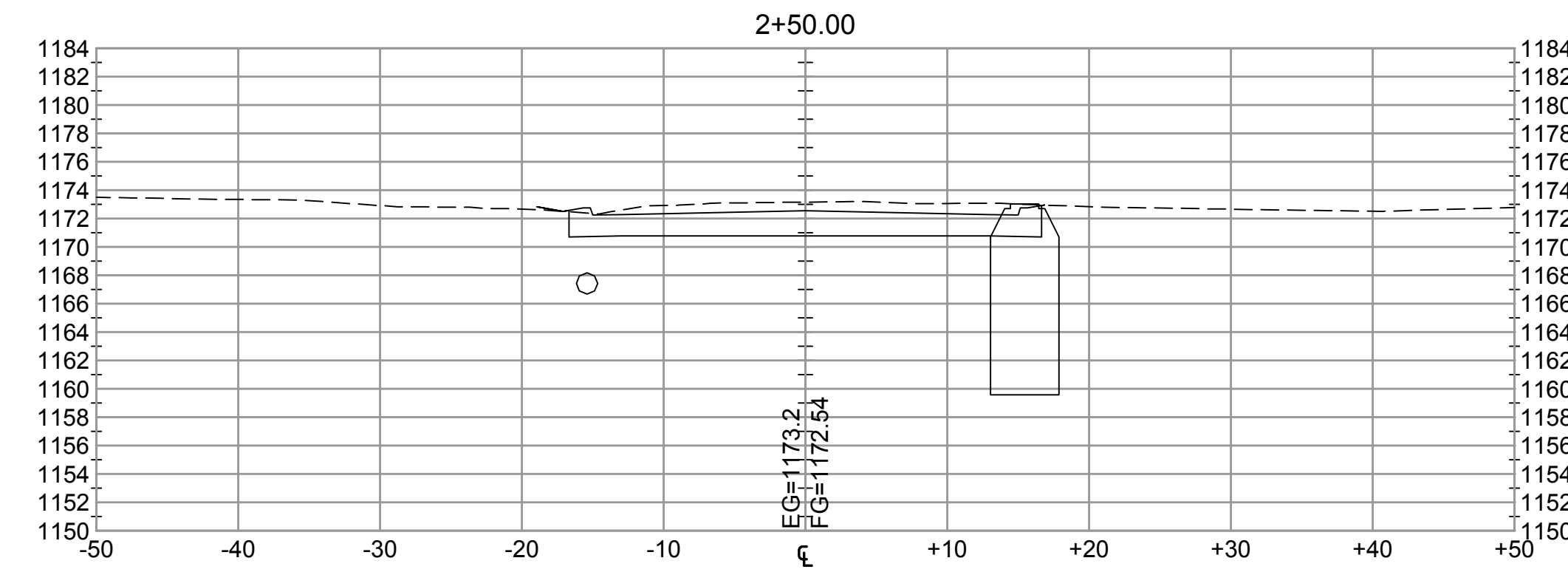
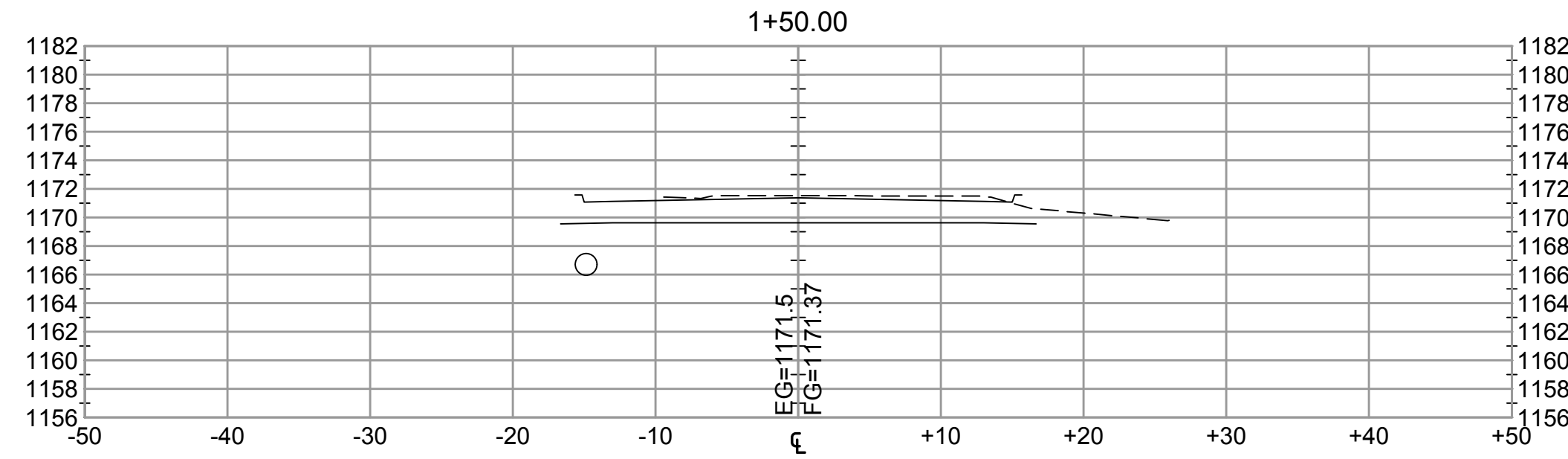
*Michael E. Rude*  
MICHAEL E. RUDE  
DATE: 04-01-2013 LIC. NO. 43896

DATE	REV#	REVISIONS DESCRIPTION	BY

DATE: JANUARY, 2013  
SCALE: AS SHOWN  
DRAWN BY: P.M.B.  
CHECKED BY: M.E.R.  
JOB NUMBER: 0127B0012.000

2013 WATER IMPROVEMENTS  
CITY OF SWANVILLE  
SWANVILLE, MINNESOTA  
CROSS SECTIONS - RHODA AVENUE (13)

SHEET NO.  
**37**  
SHEET 37 OF 53



ARCHITECTS  
 ENGINEERS  
 ENVIRONMENTAL SERVICES  
 LAND SURVEYORS  
 WATER RESOURCES

WIDSETH SMITH NOLTING  
 WWW.WSN.COM

I HEREBY CERTIFY THAT THIS PLAN, SPECIFICATION, OR REPORT  
 THAT I AM A DULY LICENSED PROFESSIONAL ENGINEER UNDER  
 THE LAWS OF THE STATE OF MINNESOTA.

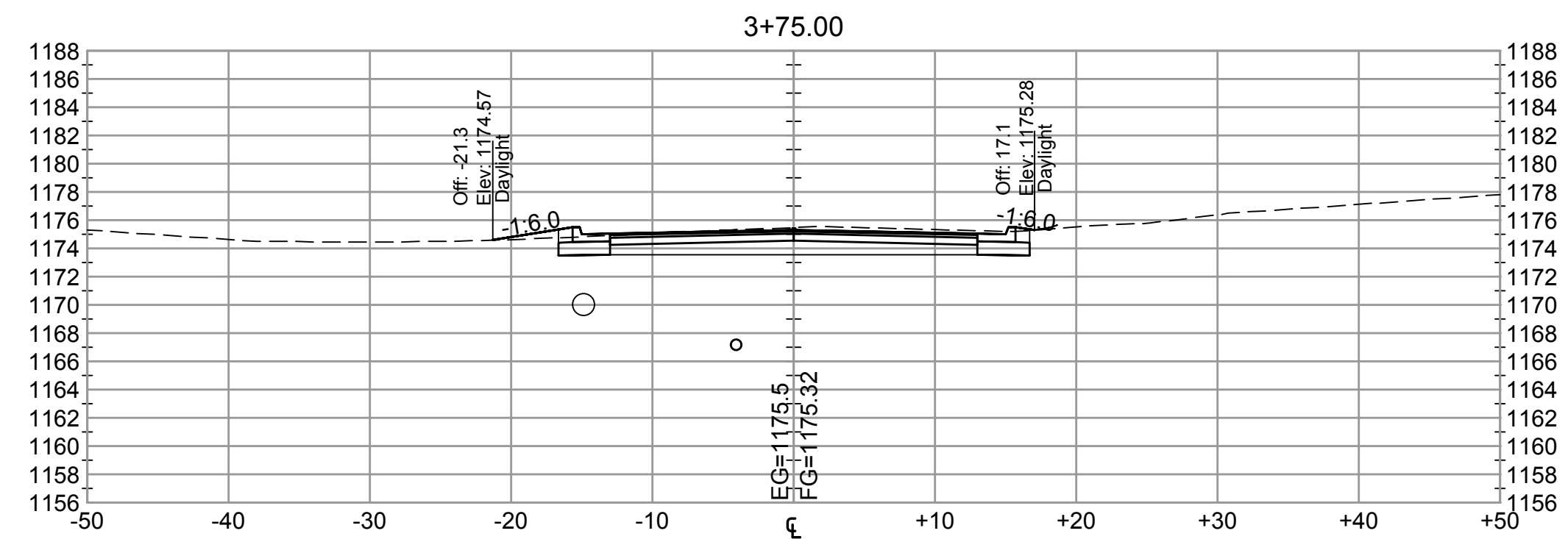
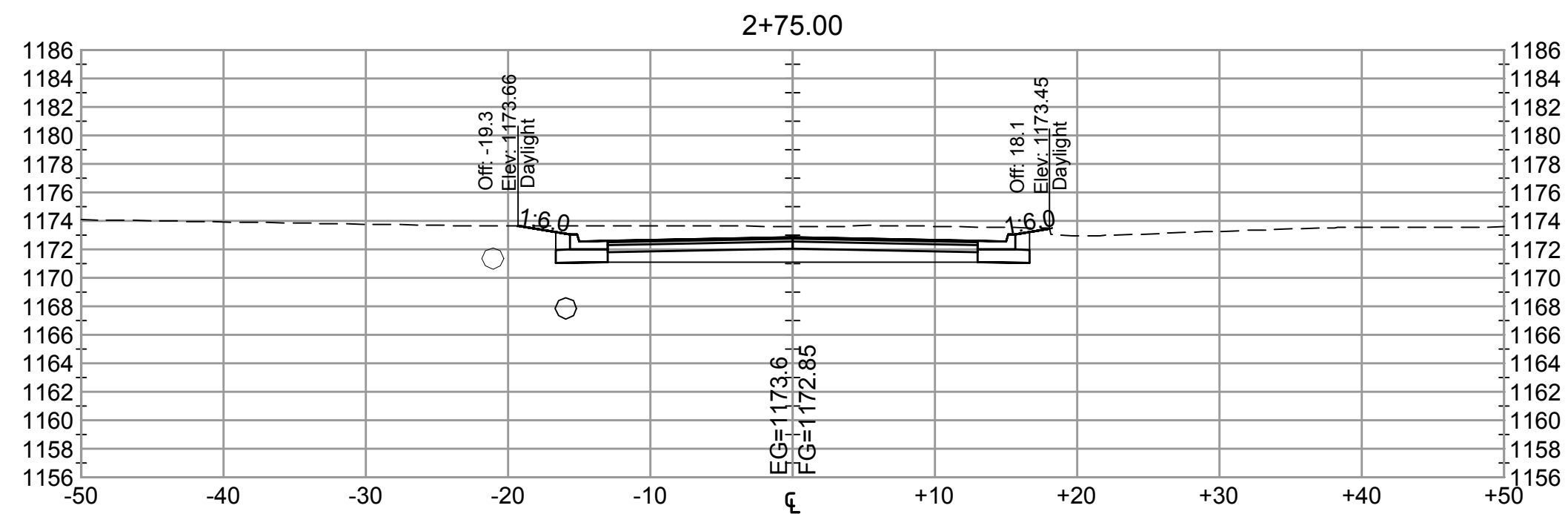
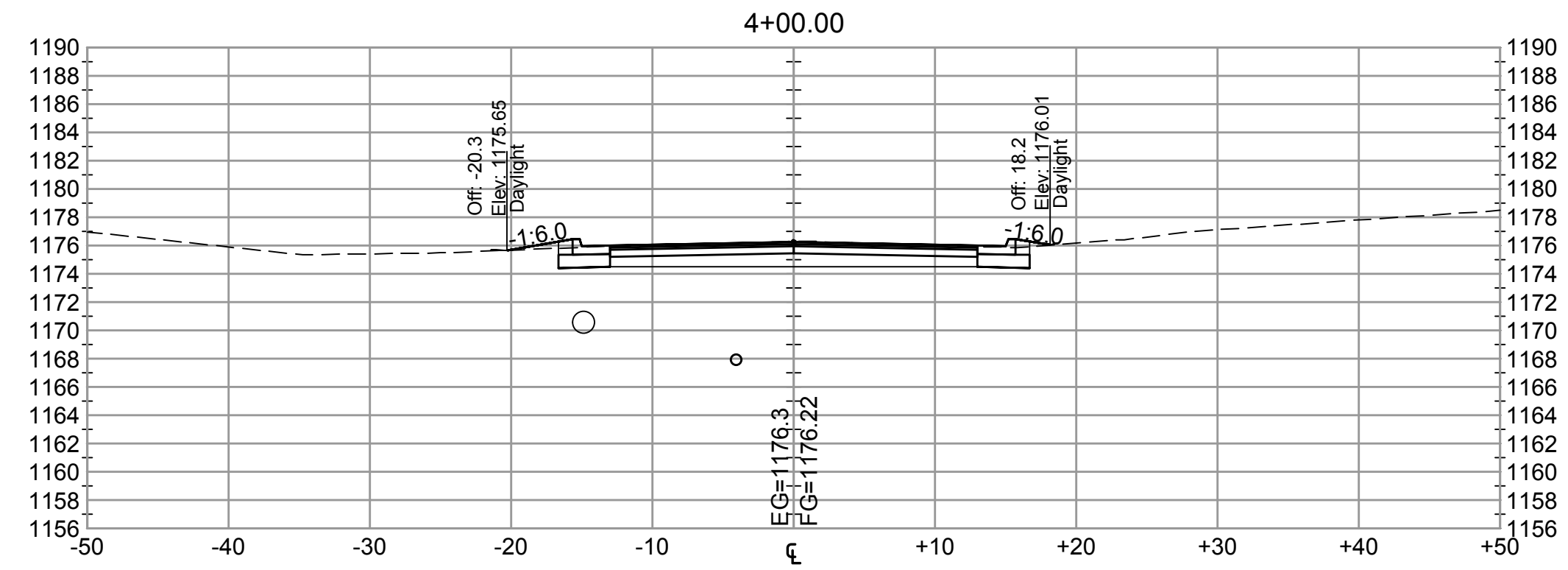
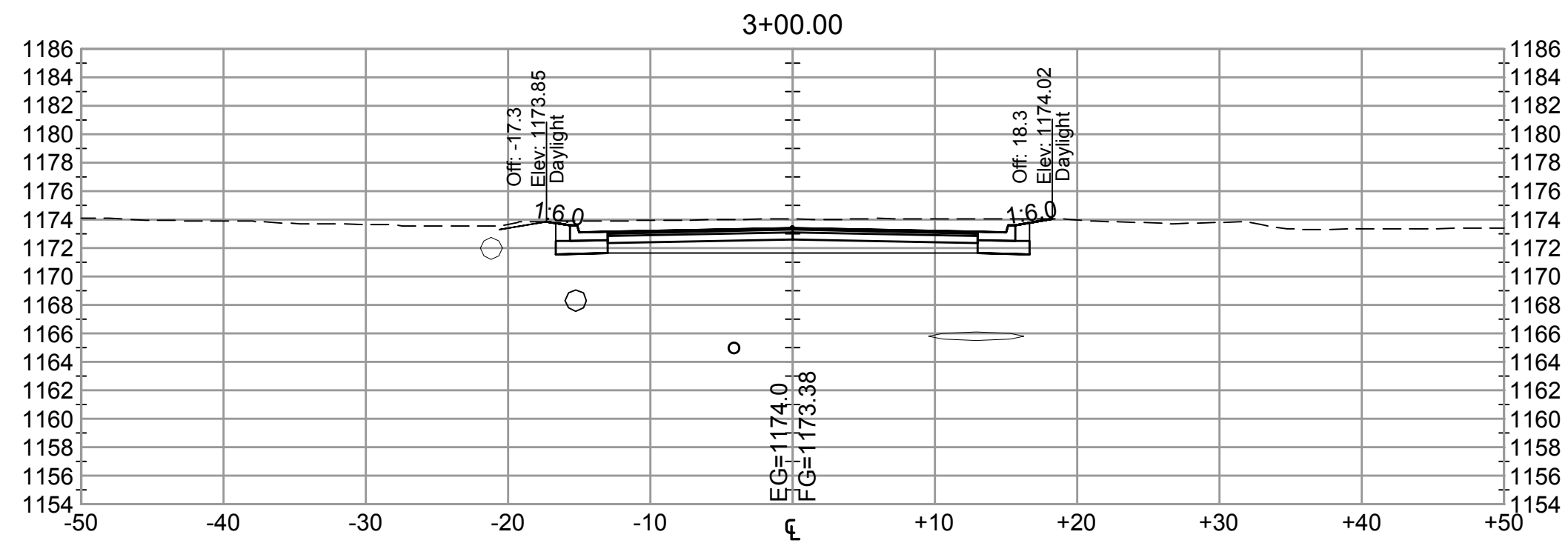
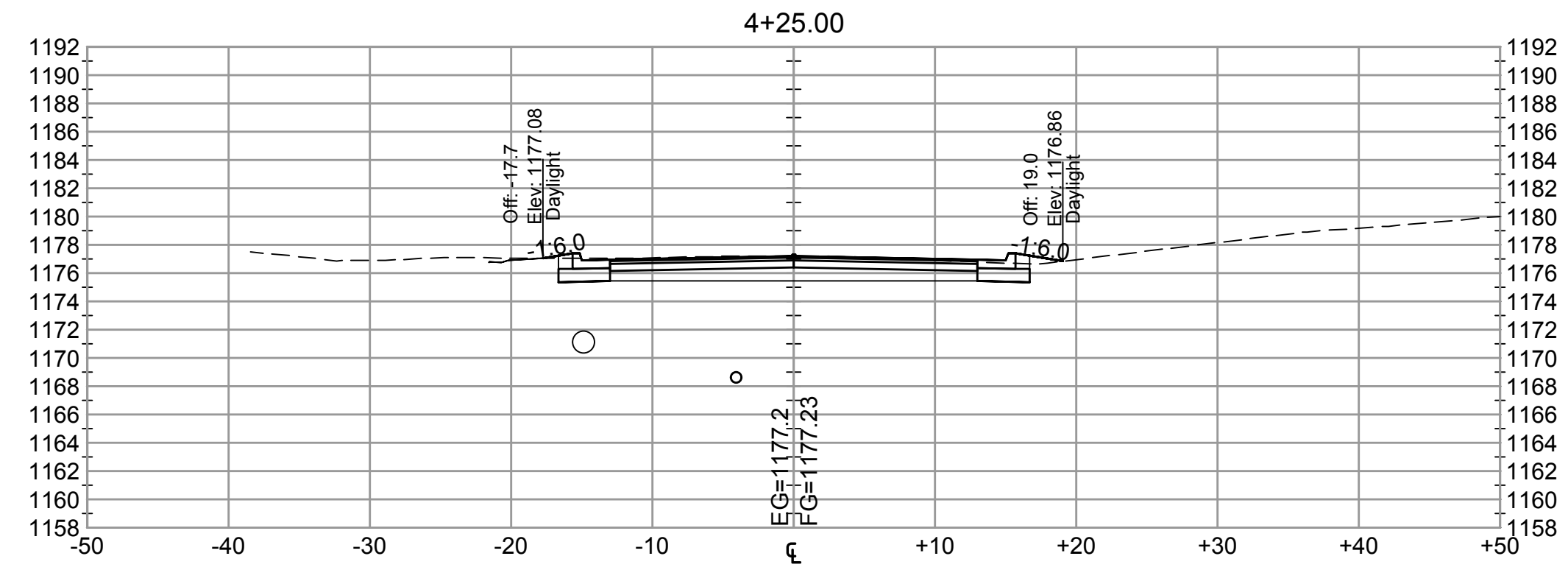
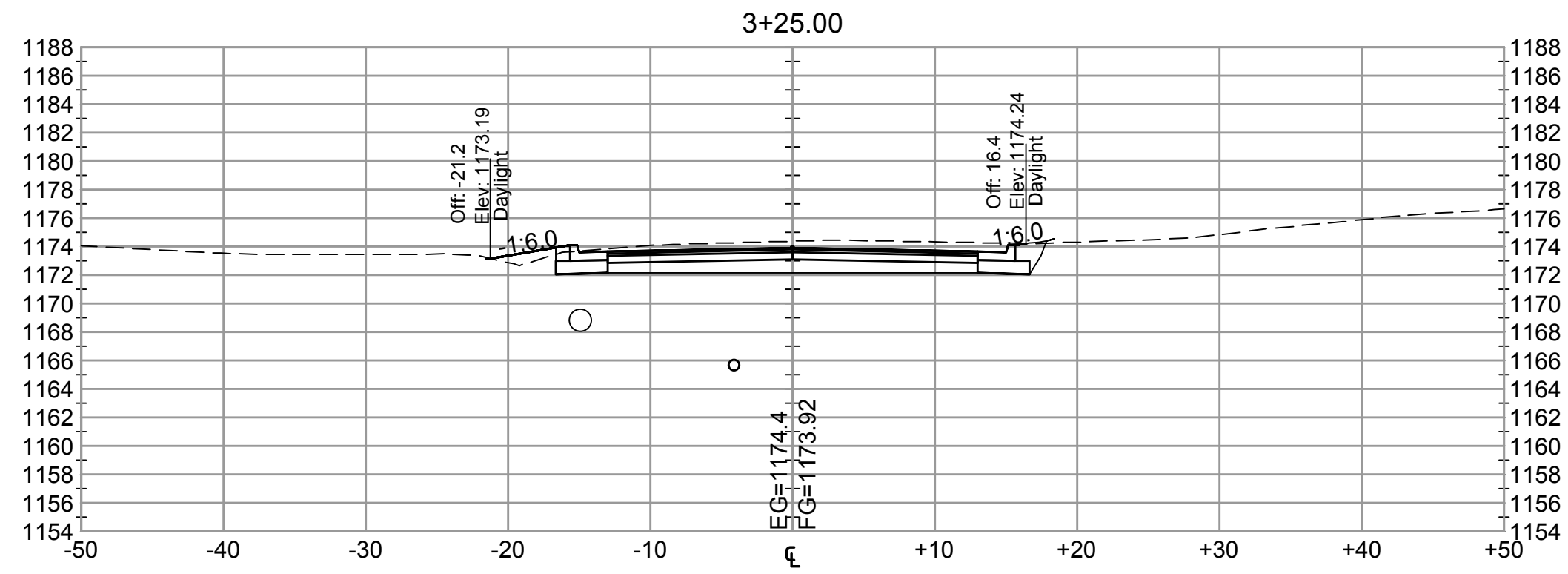
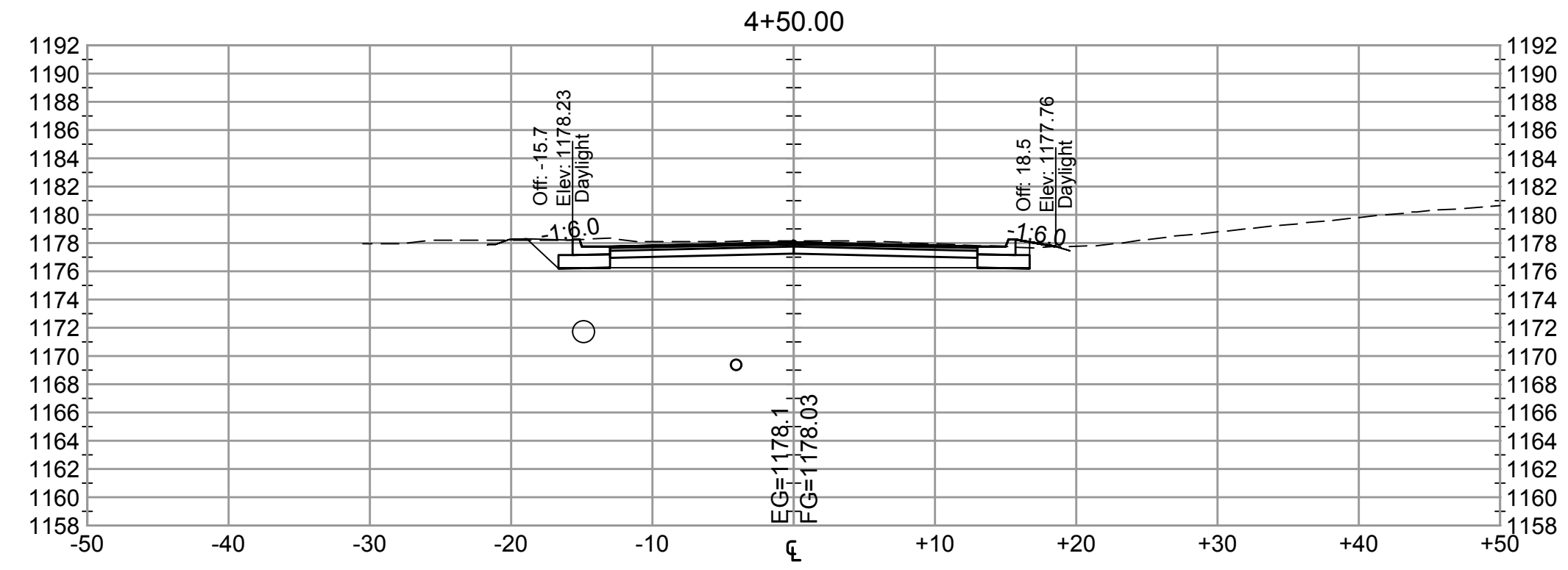
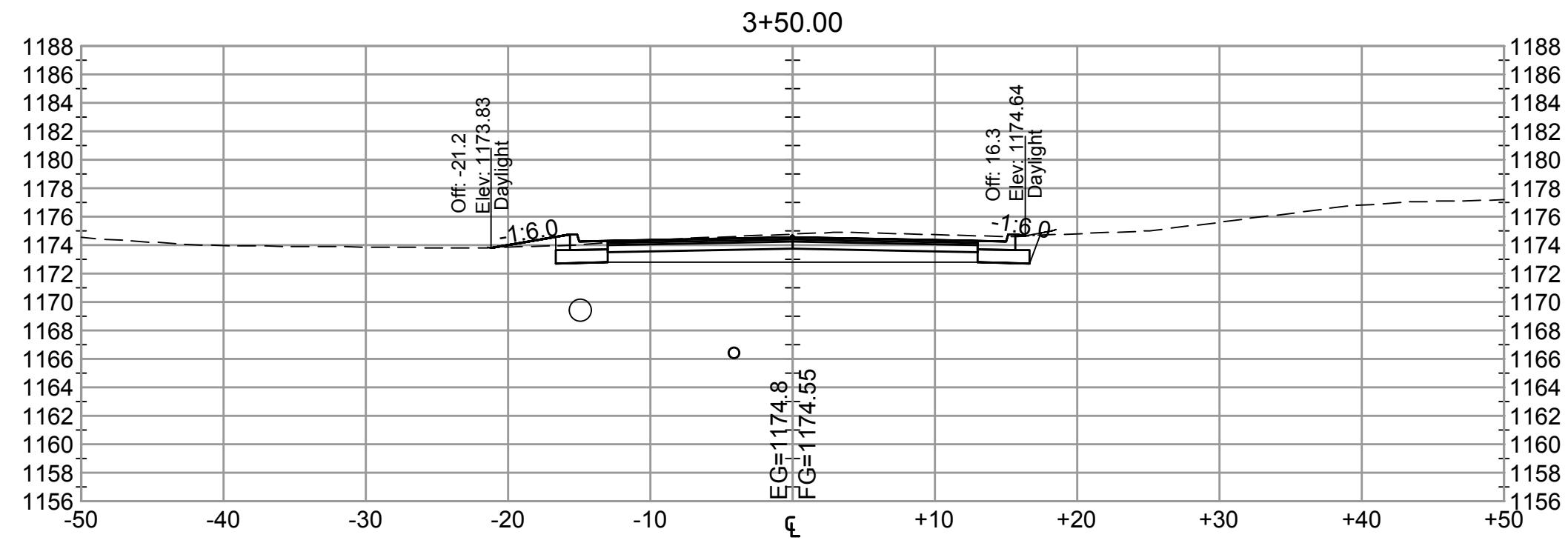
BY: *Michael E. Rude*  
 MICHAEL E. RUDE  
 DATE: 04-01-2013 LIC. NO. 43896

REVISIONS DESCRIPTION	REV#	DATE

DATE: JANUARY, 2013  
 SCALE: AS SHOWN  
 DRAWN BY: P.M.B.  
 CHECKED BY: M.E.R.  
 JOB NUMBER: 0127B0012.000

2013 WATER IMPROVEMENTS  
 CITY OF SWANVILLE  
 SWANVILLE, MINNESOTA  
 CROSS SECTIONS - 5TH STREET (1)

SHEET NO.  
**38**  
 SHEET 38 OF 53



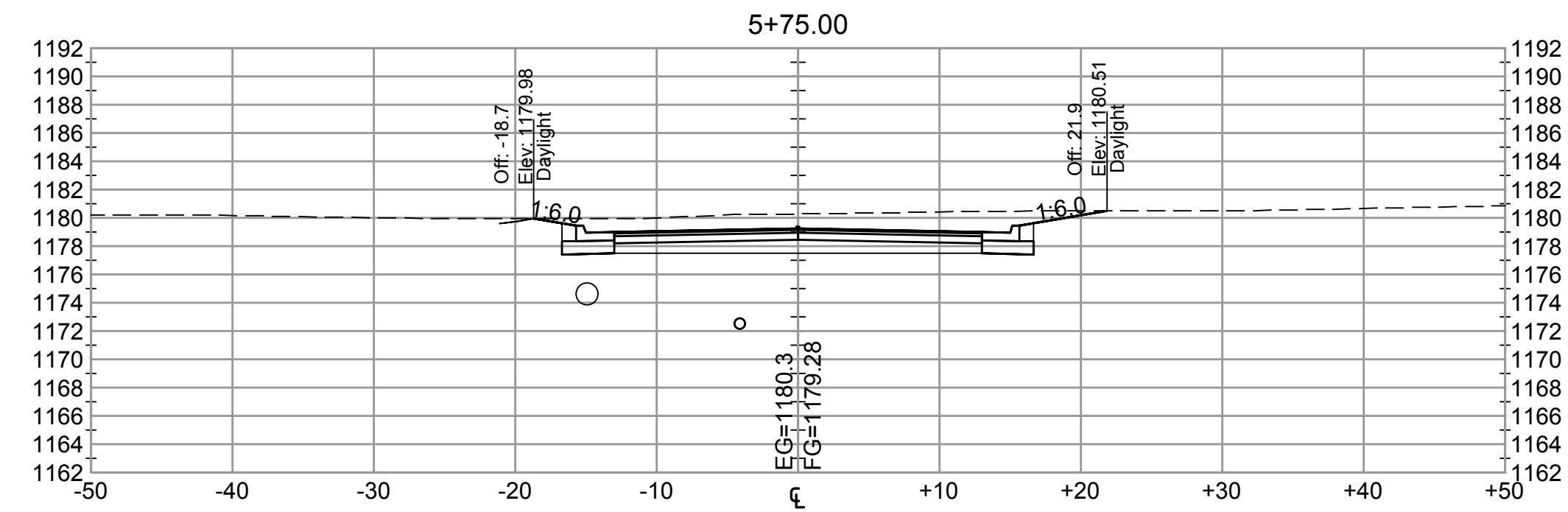
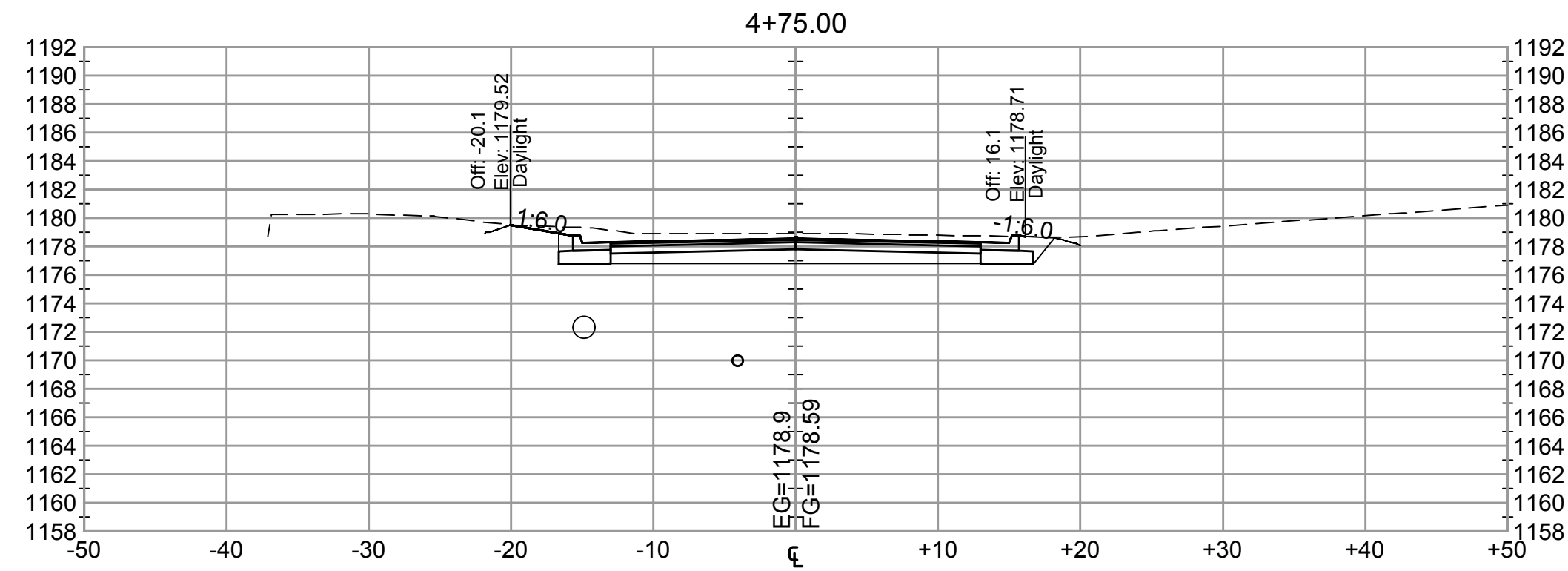
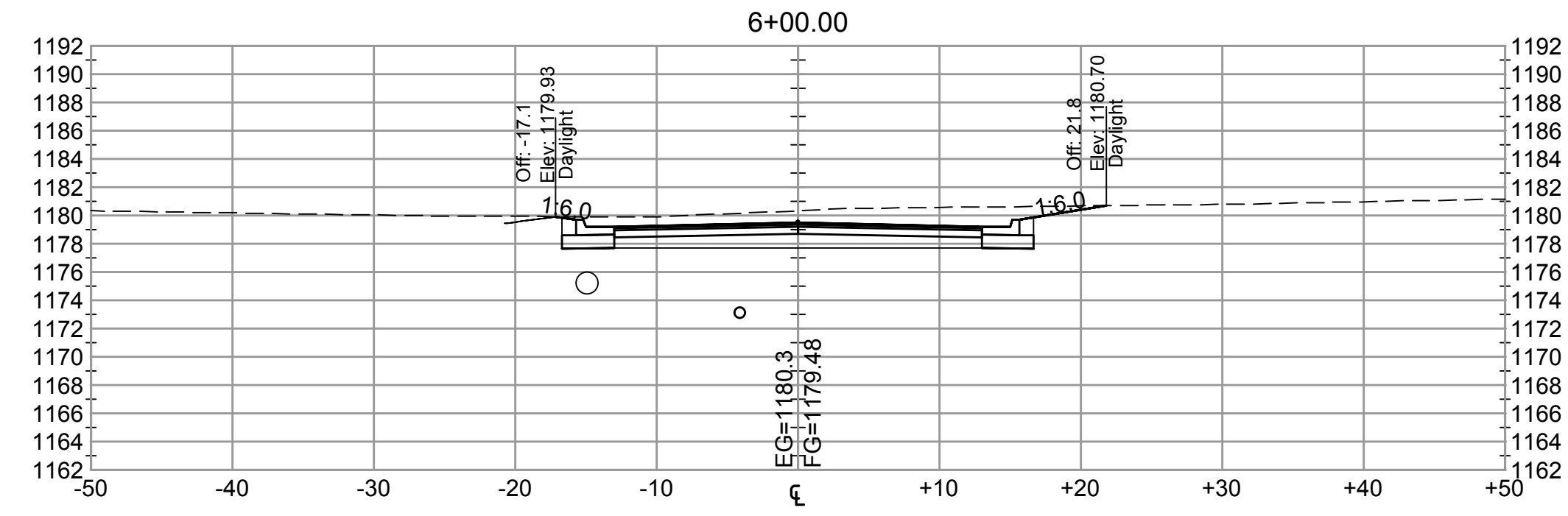
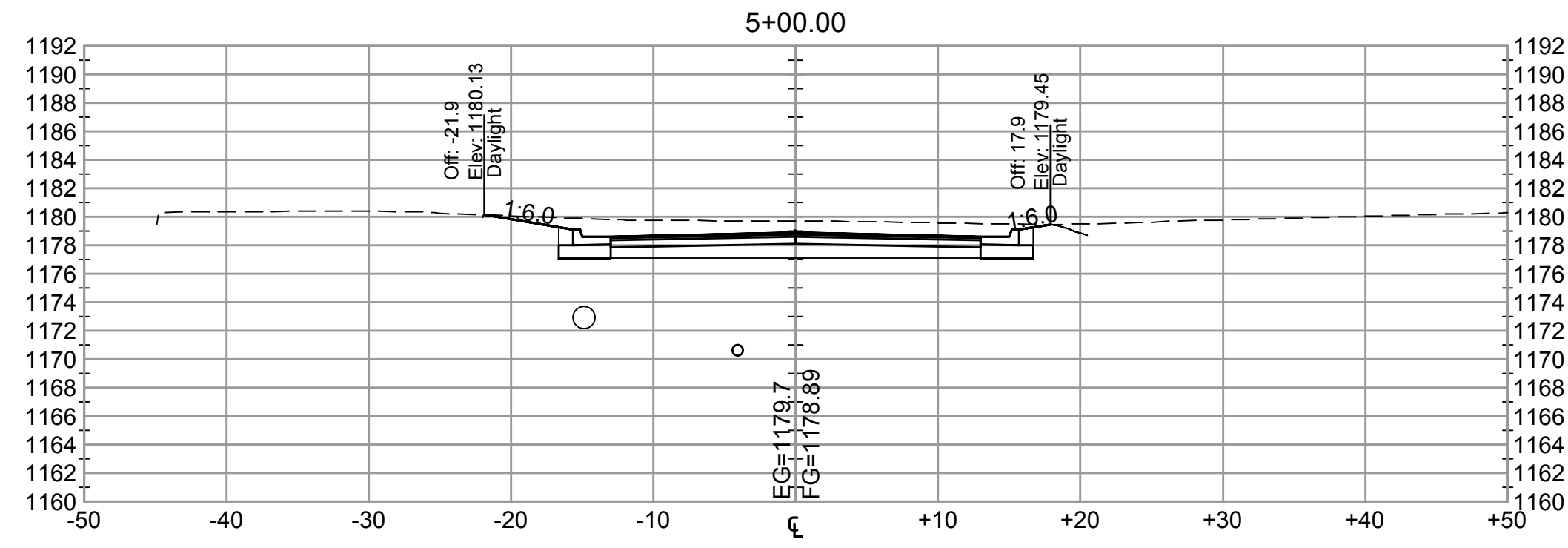
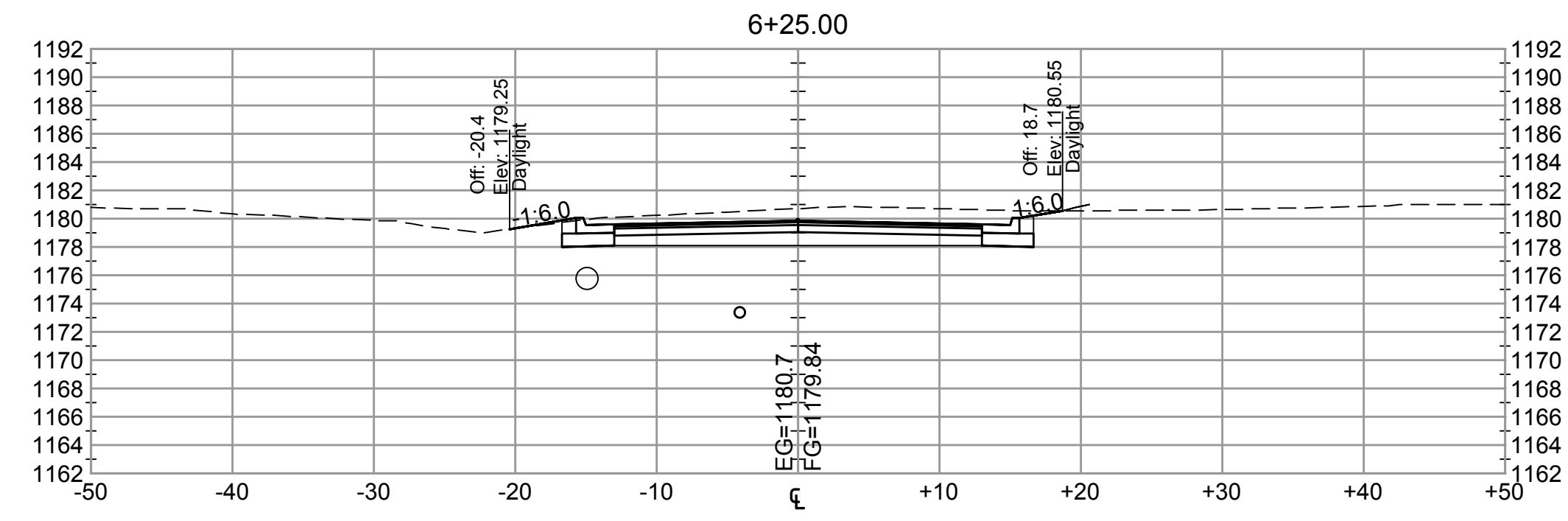
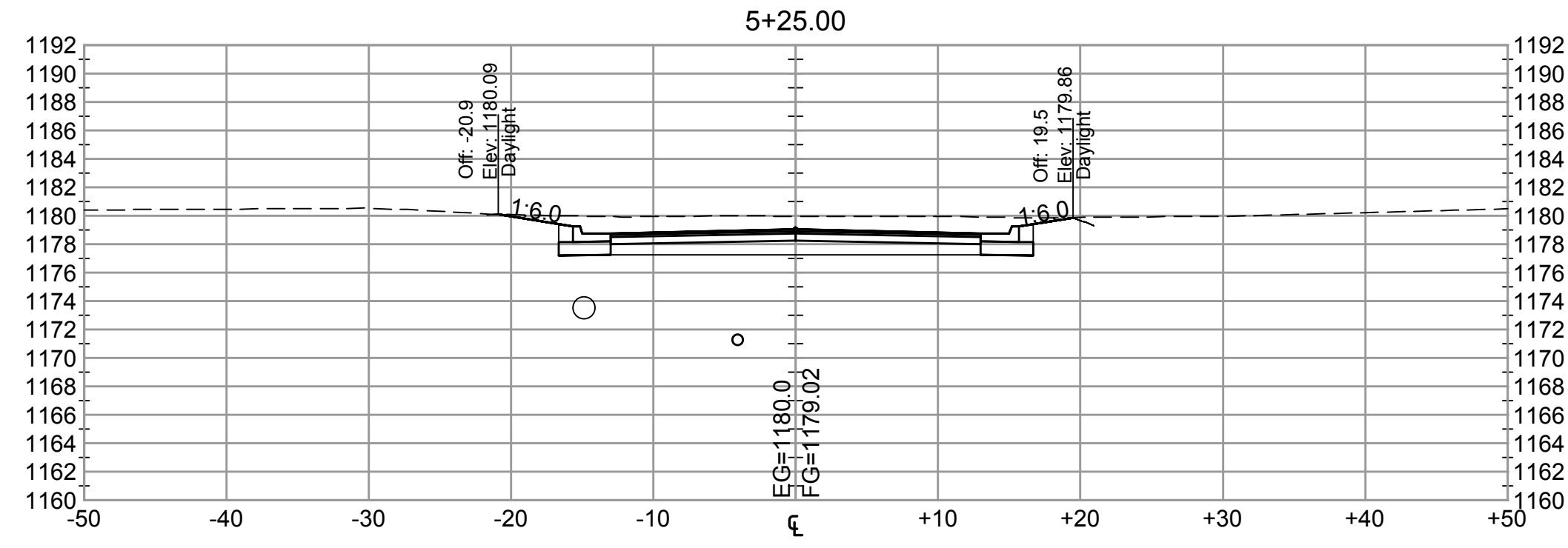
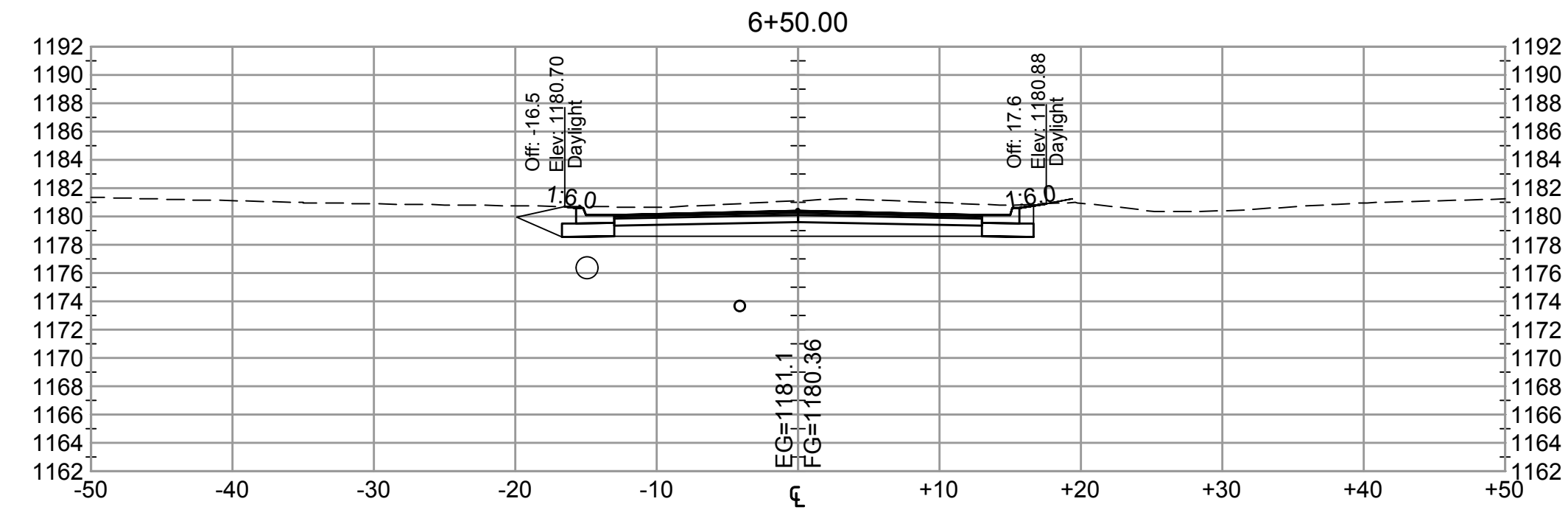
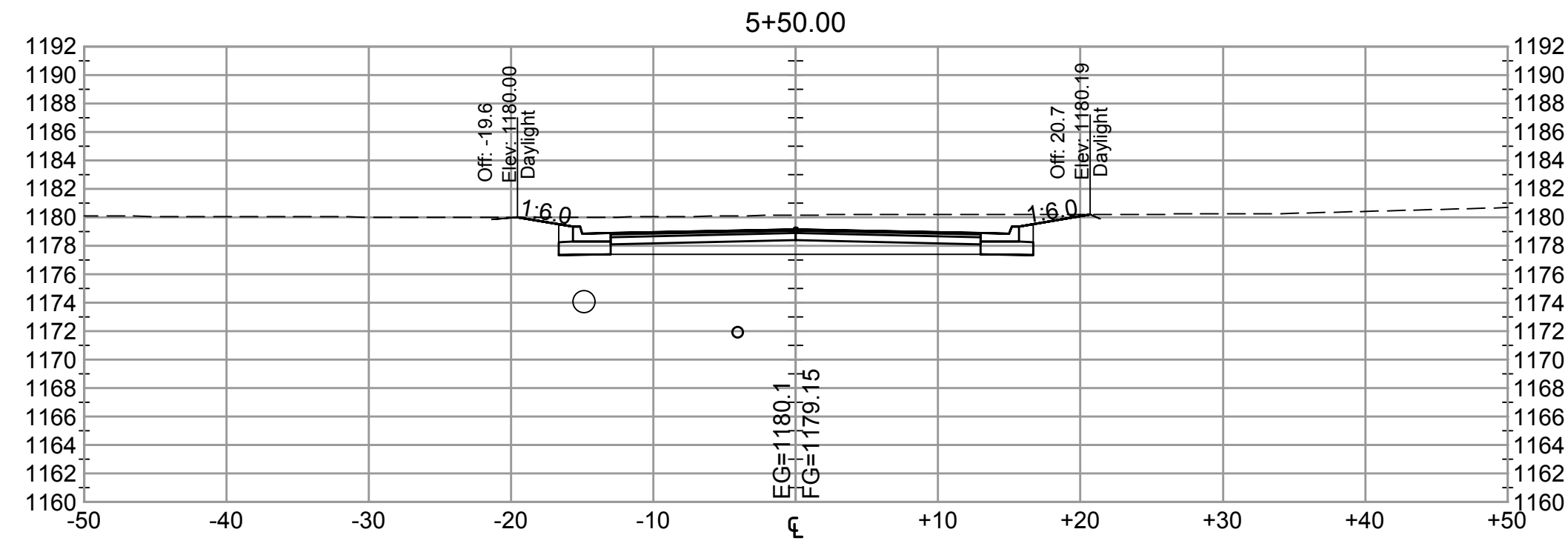
I HEREBY CERTIFY THAT THIS PLAN, SPECIFICATION, OR REPORT WAS PREPARED BY ME OR UNDER MY CLOSE PERSONAL SUPERVISION AND THAT I AM A duly LICENSED PROFESSIONAL ENGINEER UNDER THE LAWS OF THE STATE OF MINNESOTA.

*Michael E. Ruge*  
 MICHAEL E. RUGE  
 DATE: 04-01-2013 LIC. NO. 43898

DATE	REVISION DESCRIPTION	BY
JANUARY, 2013	AS SHOWN	
	P.M.B.	
	M.E.R.	

JOB NUMBER: 0127B0012.000

2013 WATER IMPROVEMENTS  
 CITY OF SWANVILLE  
 SWANVILLE, MINNESOTA  
**CROSS SECTIONS - 5TH STREET (2)**



I HEREBY CERTIFY THAT THIS PLAN, SPECIFICATION, OR REPORT WAS PREPARED BY ME OR UNDER MY CLOSE PERSONAL SUPERVISION AND THAT I AM A duly LICENSED PROFESSIONAL ENGINEER UNDER THE LAWS OF THE STATE OF MINNESOTA.

*Michael E. Ruge*  
MICHAEL E. RUGE

DATE: 04-01-2013 LIC. NO. 45898

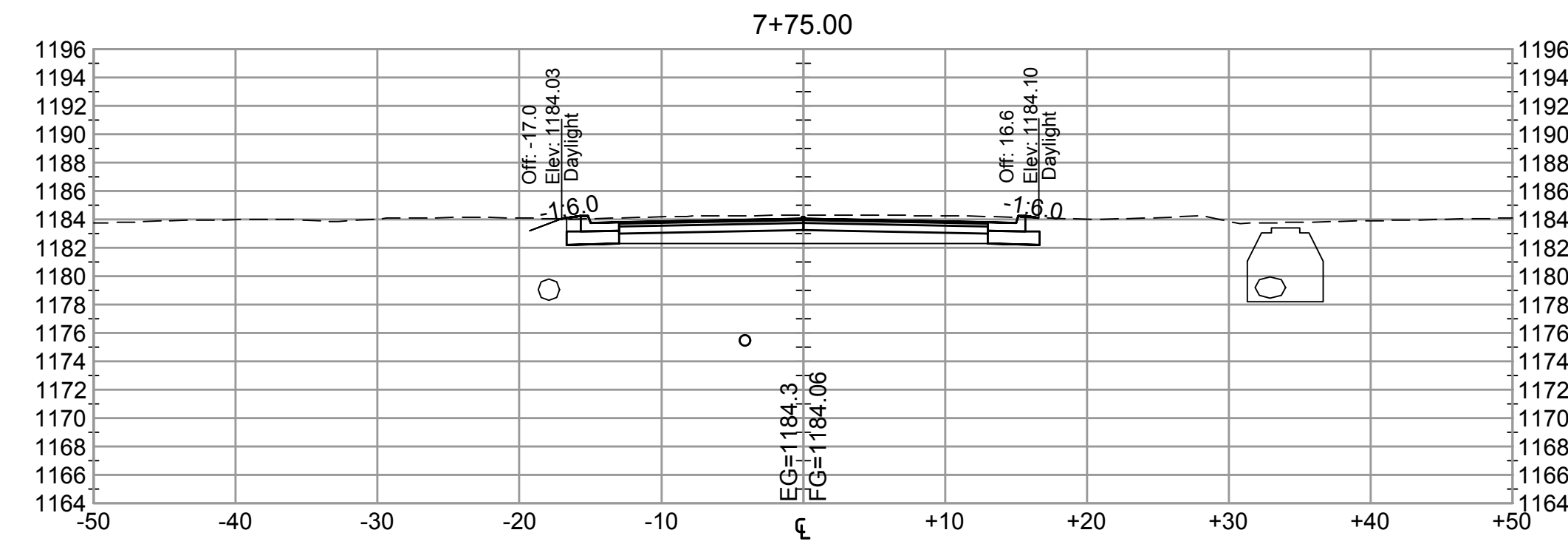
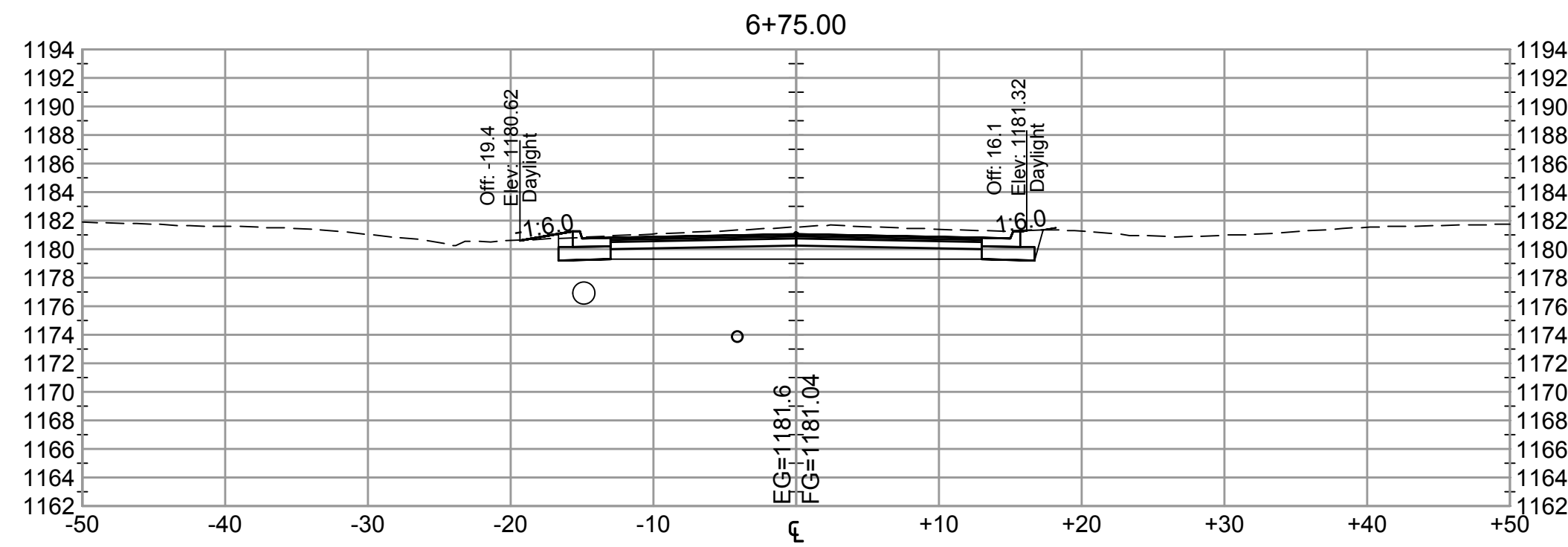
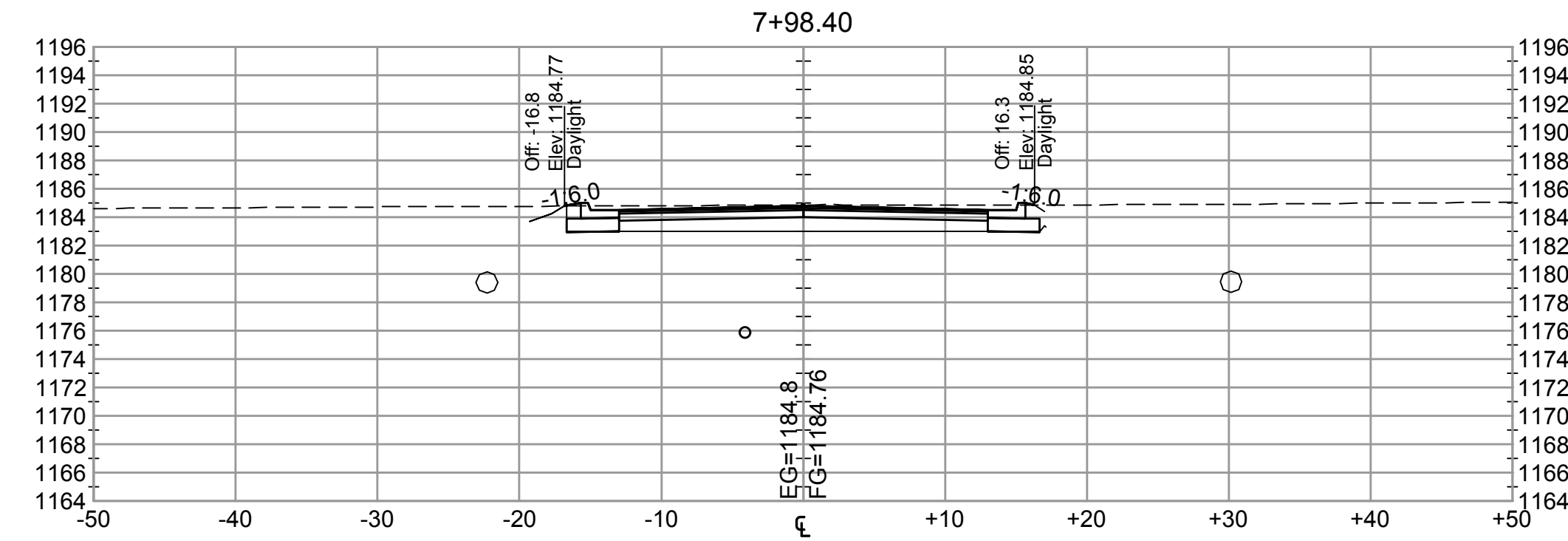
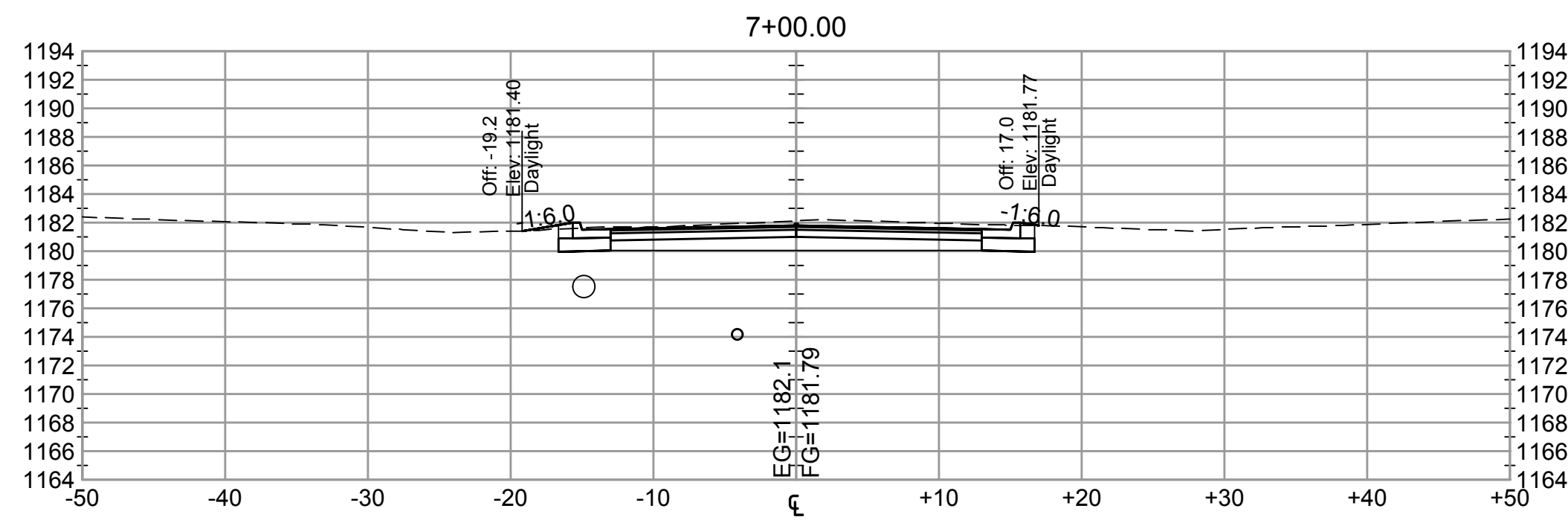
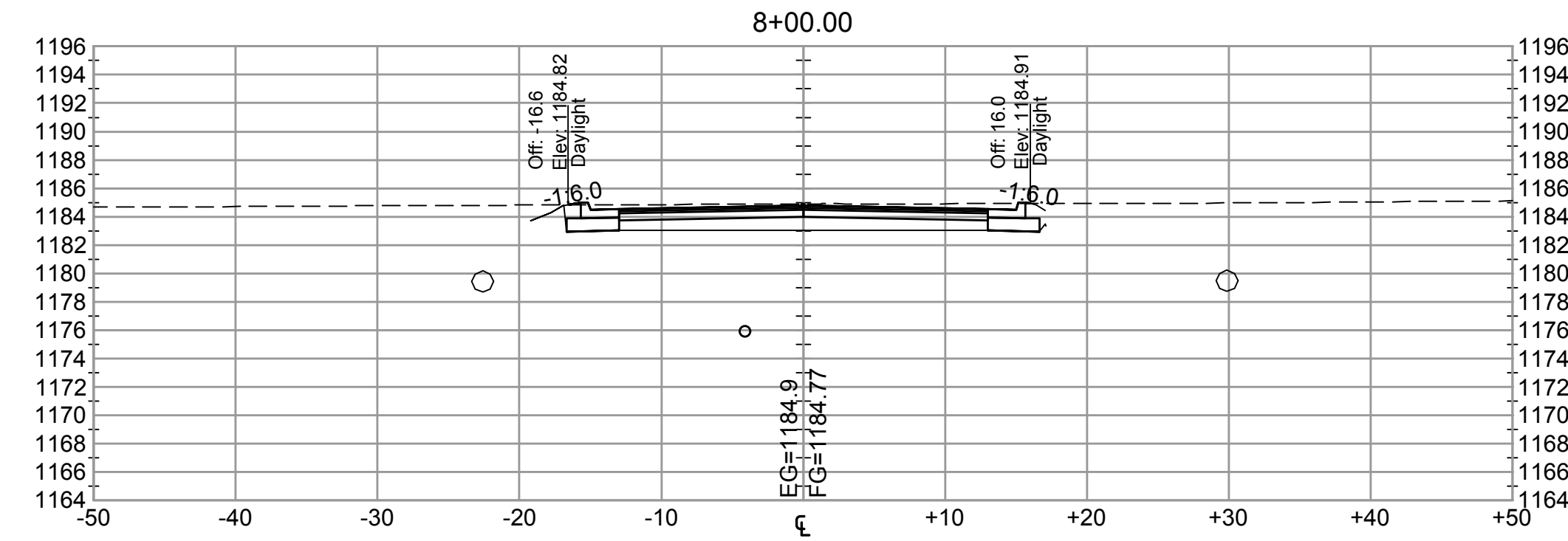
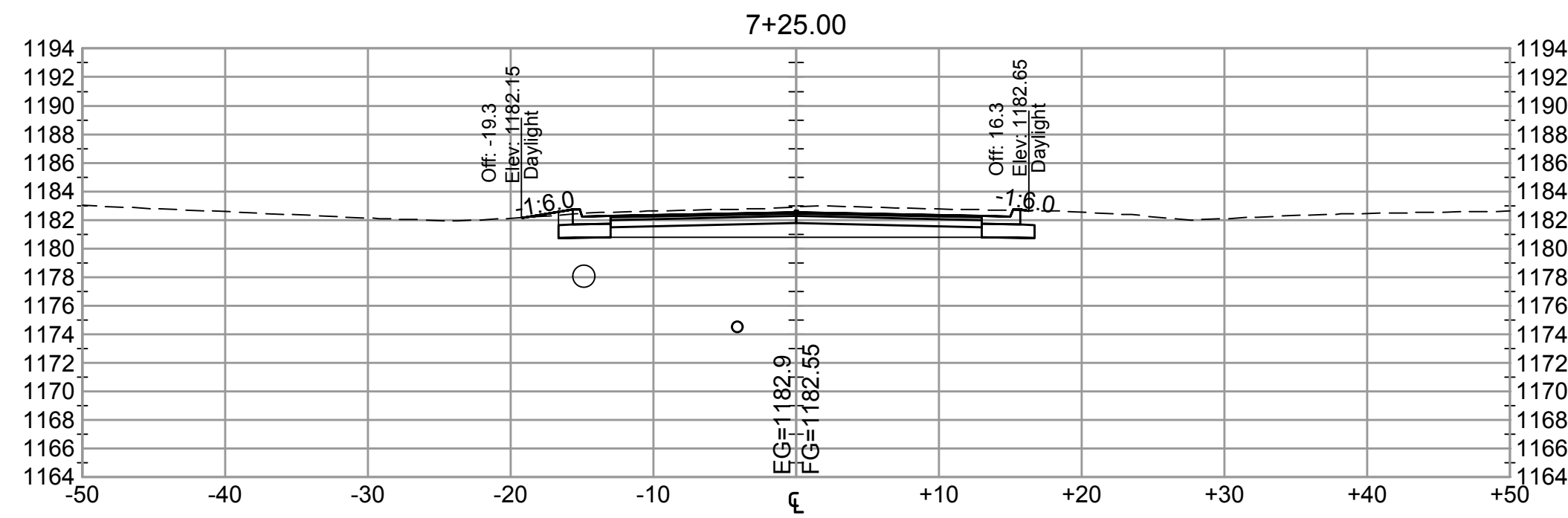
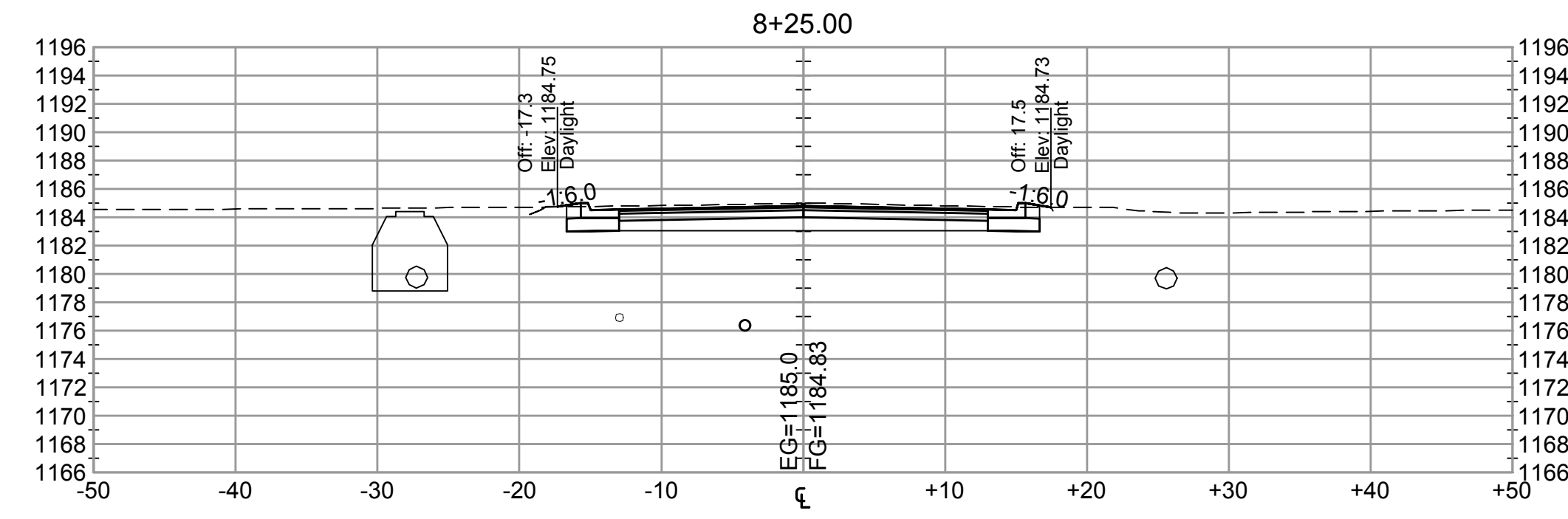
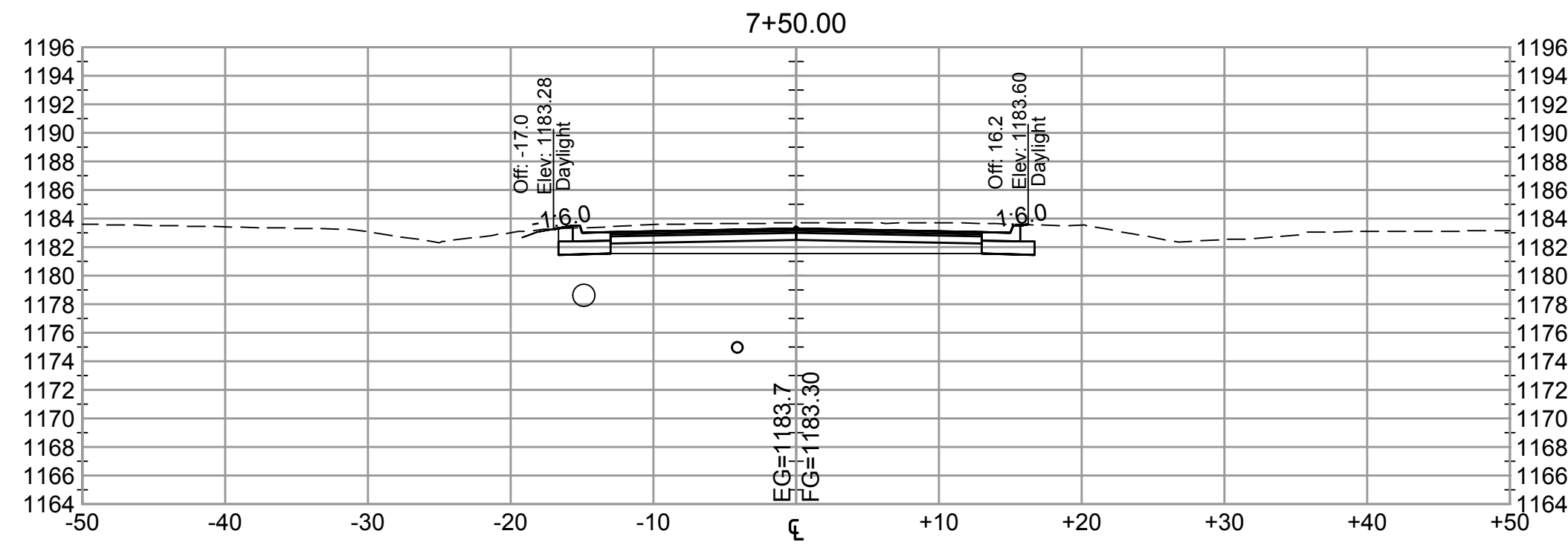
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JANUARY, 2013	AS SHOWN	

SCALE: P.M.S.  
DRAWN BY: M.E.R.  
CHECKED BY: M.E.R.  
JOB NUMBER: 0127B0012.000

2013 WATER IMPROVEMENTS  
CITY OF SWANVILLE  
SWANVILLE, MINNESOTA

CROSS SECTIONS - 5TH STREET (3)





ALEXANDRIA, MN  
BAXTER, MN  
EMERSON, MN  
CROOKSTON, MN  
GRAND DUNES, MN  
ROCHESTER, MN

ARCHITECTS  
ENGINEERS  
ENVIRONMENTAL SERVICES  
LAND SURVEYORS  
WATER RESOURCES

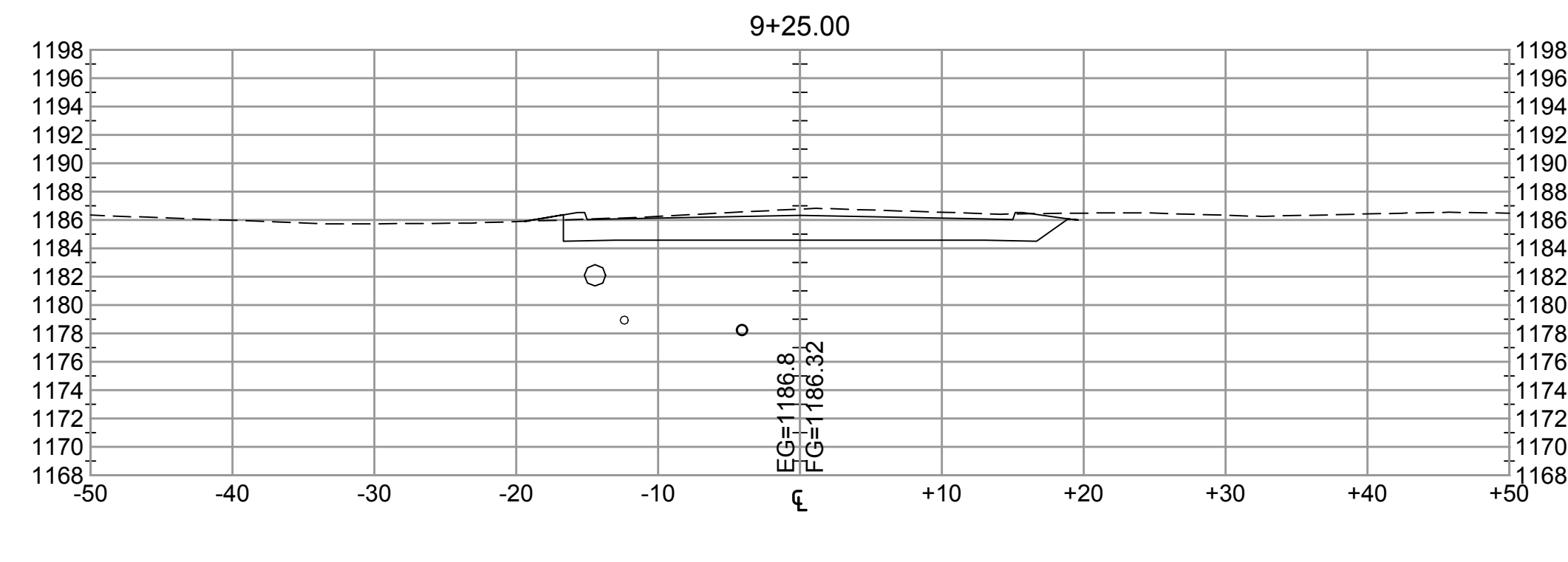
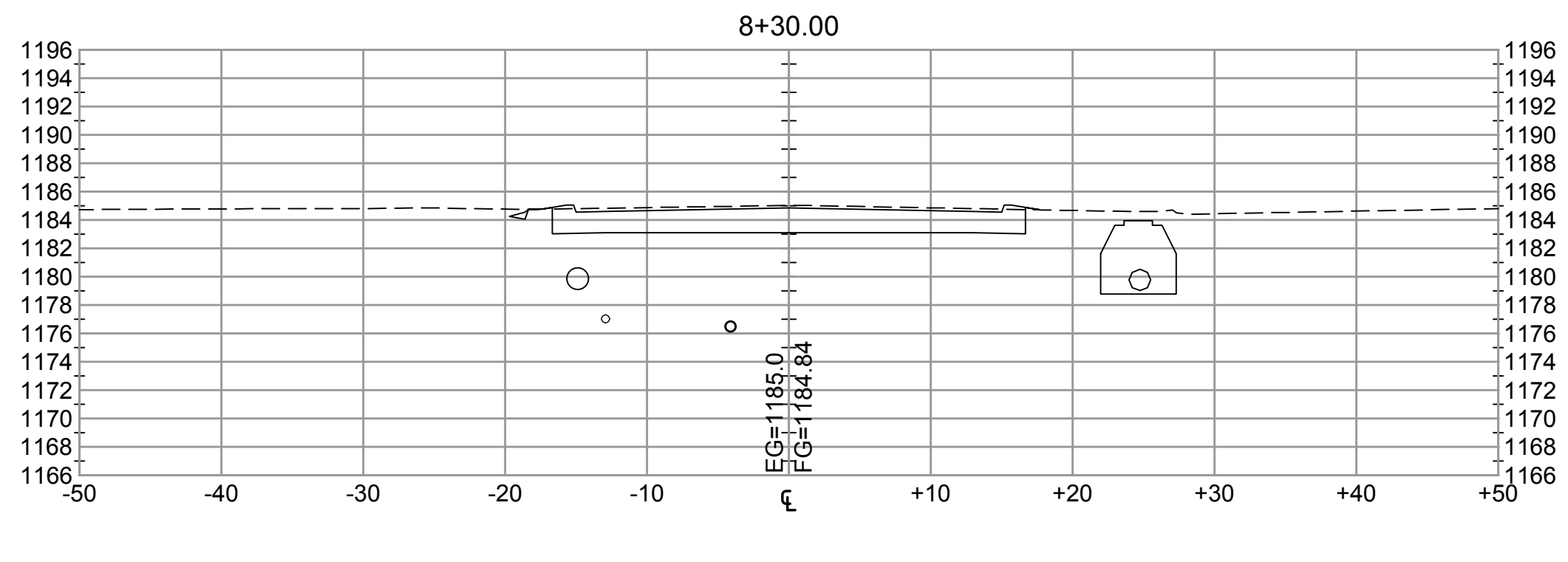
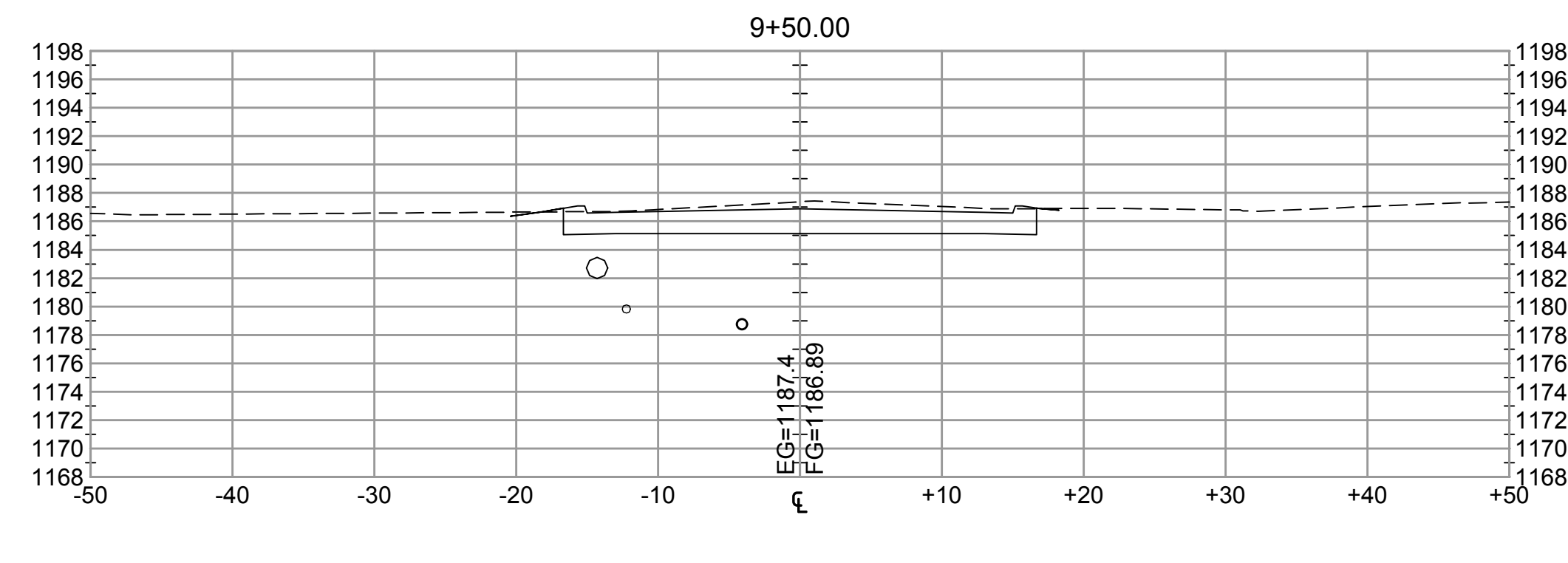
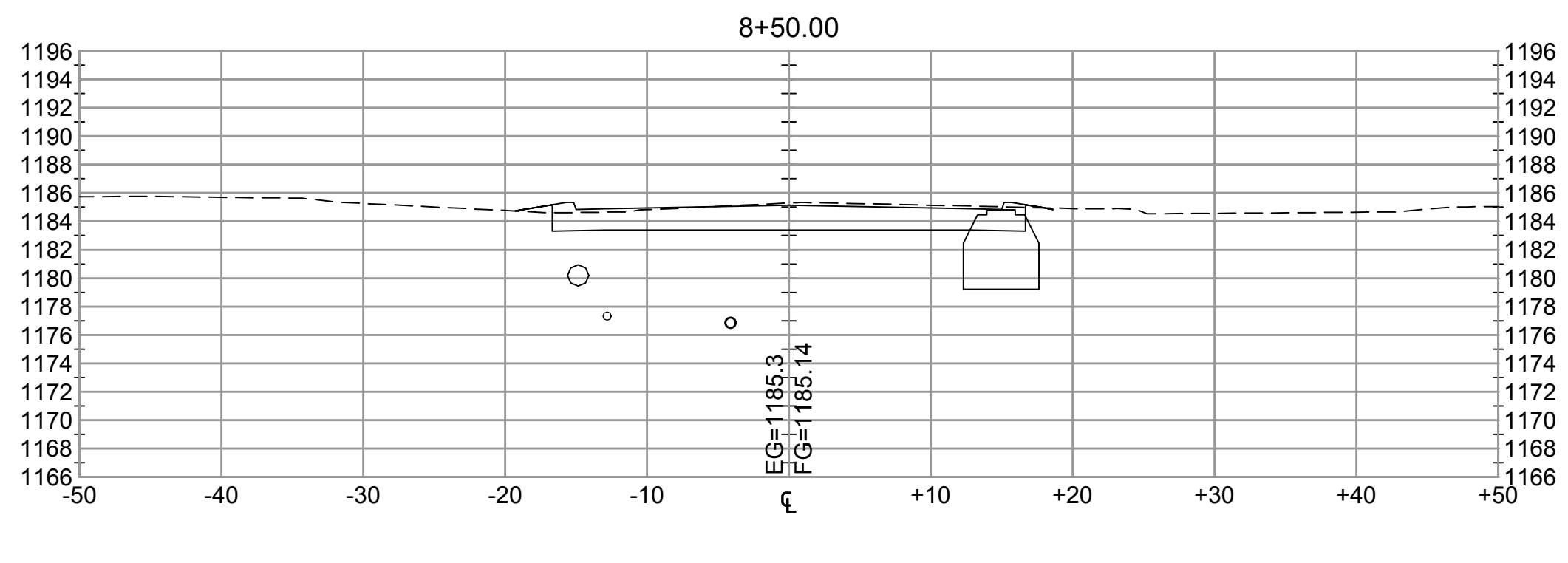
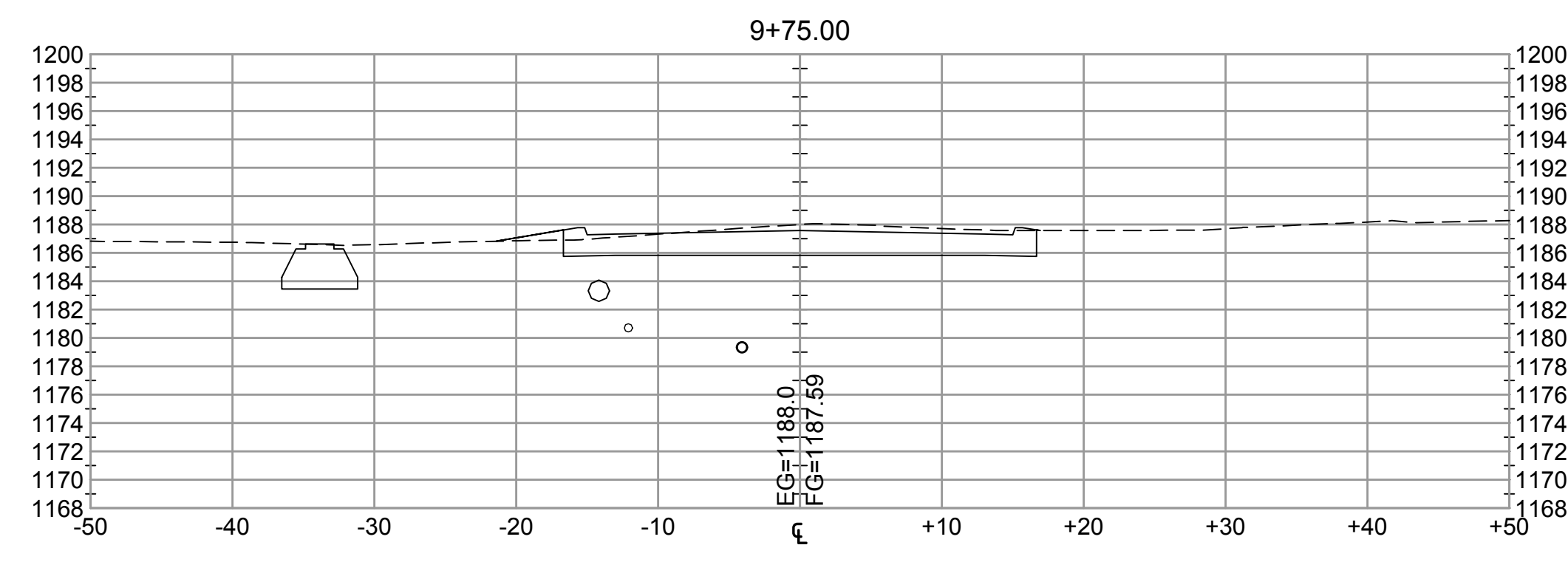
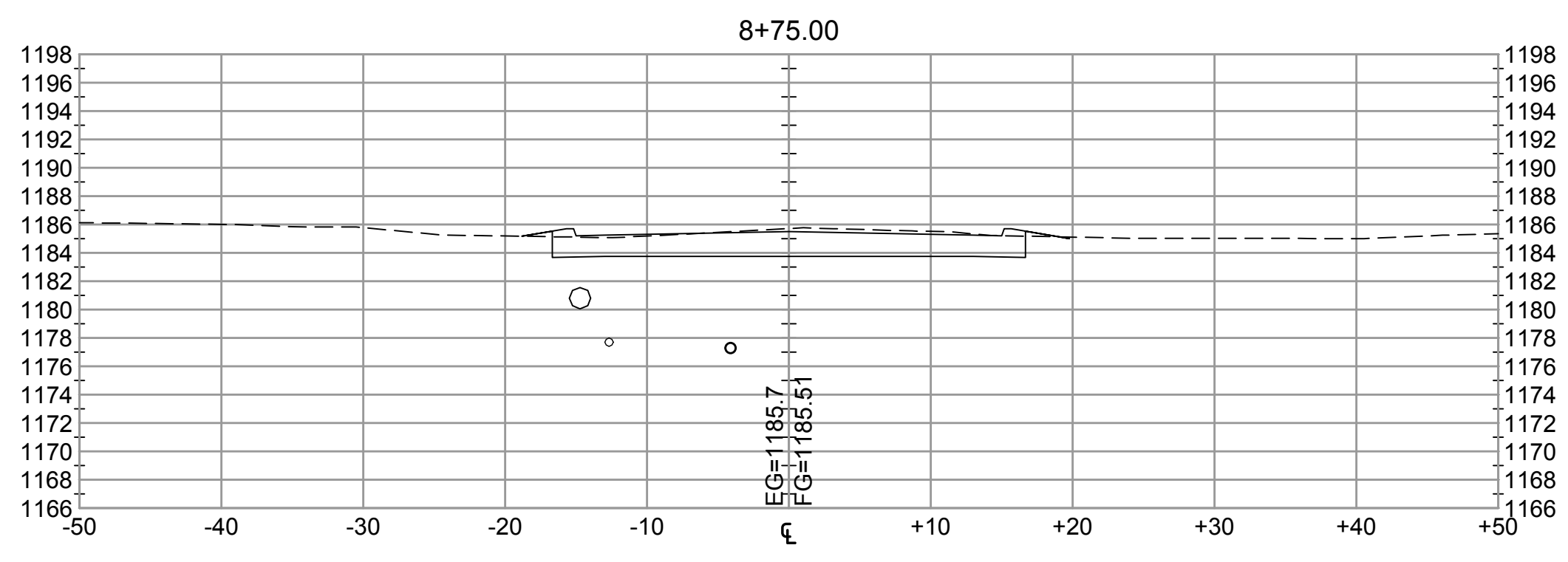
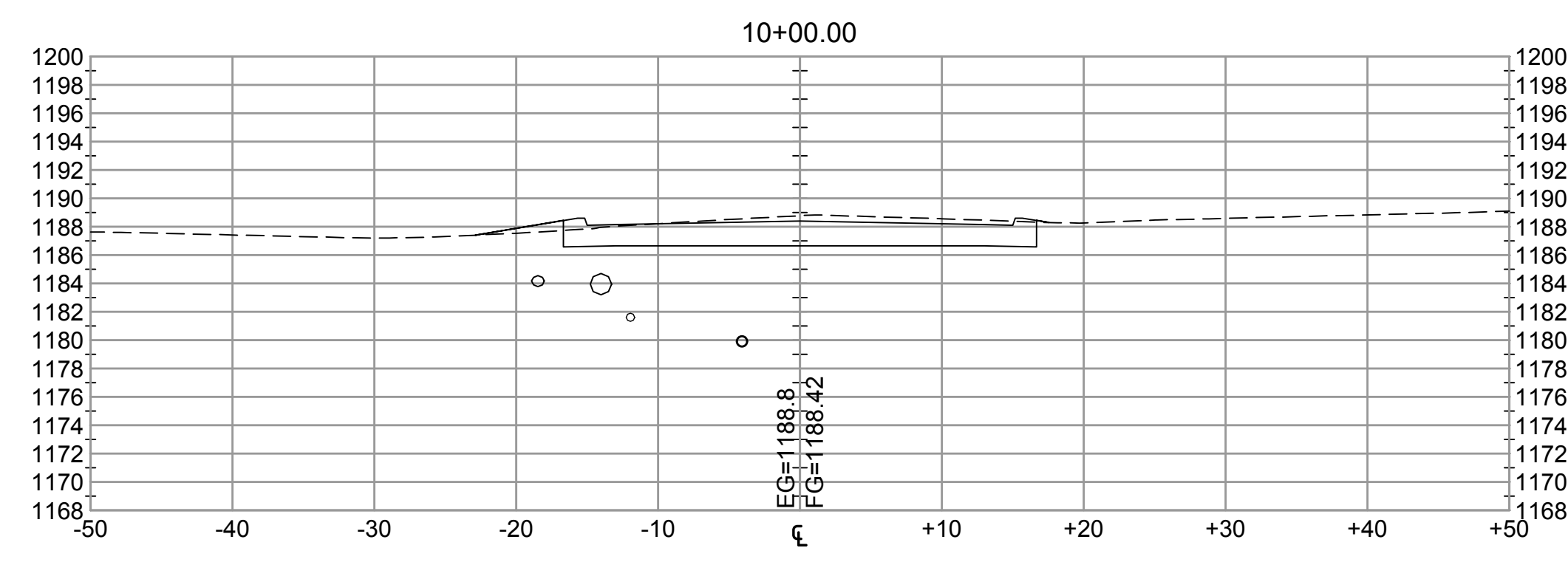
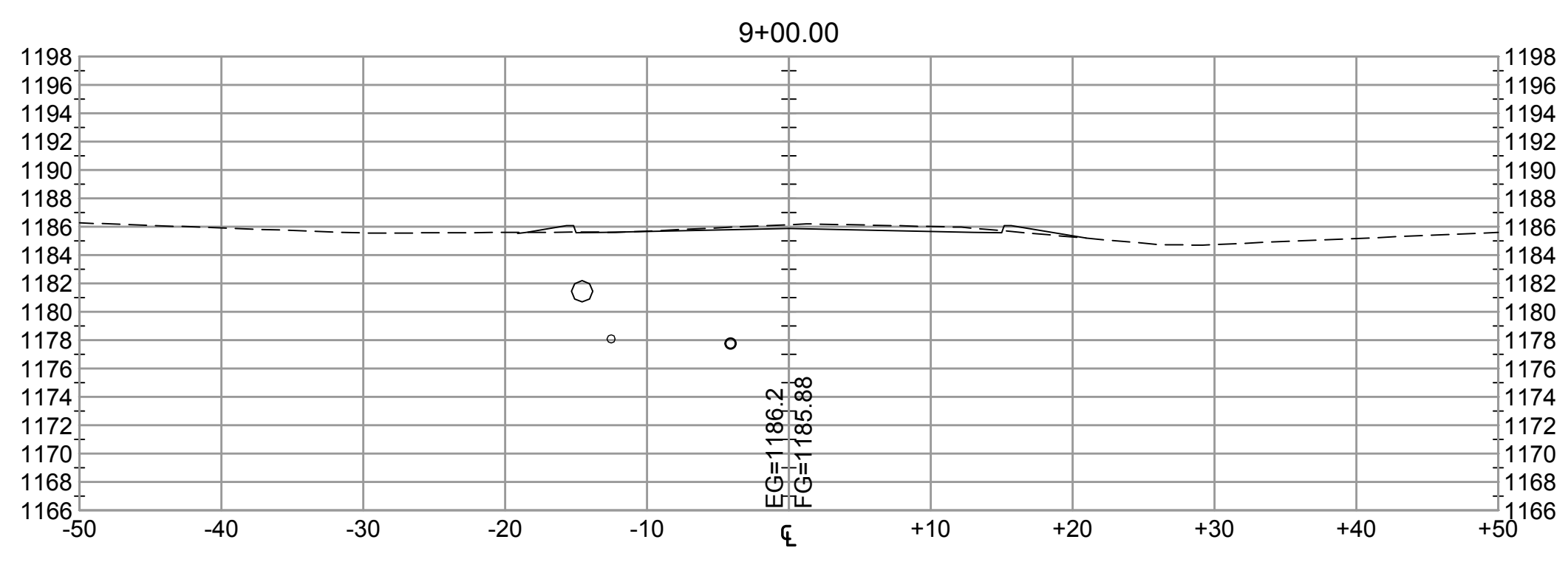


I HEREBY CERTIFY THAT THIS PLAN, SPECIFICATION, OR REPORT WAS PREPARED BY ME OR UNDER MY CLOSE PERSONAL SUPERVISION AND THAT I AM A DULY LICENSED PROFESSIONAL ENGINEER UNDER THE LAWS OF THE STATE OF MINNESOTA.

*Michael E. Ruge*  
MICHAEL E. RUGE DATE: 04-01-2013 LIC. NO. 45898

DATE	REVISION DESCRIPTION	BY
JANUARY, 2013	AS SHOWN	
	P.M.B.	
	M.E.R.	
JOB NUMBER: 0127B0012.000		

2013 WATER IMPROVEMENTS  
CITY OF SWANVILLE  
SWANVILLE, MINNESOTA  
CROSS SECTIONS - 5TH STREET (4)



ARCHITECTS  
ENGINEERS  
ENVIRONMENTAL SERVICES  
LAND SURVEYORS  
WATER RESOURCES

WIDSETH SMITH NOLTING

WWW.WSN.COM

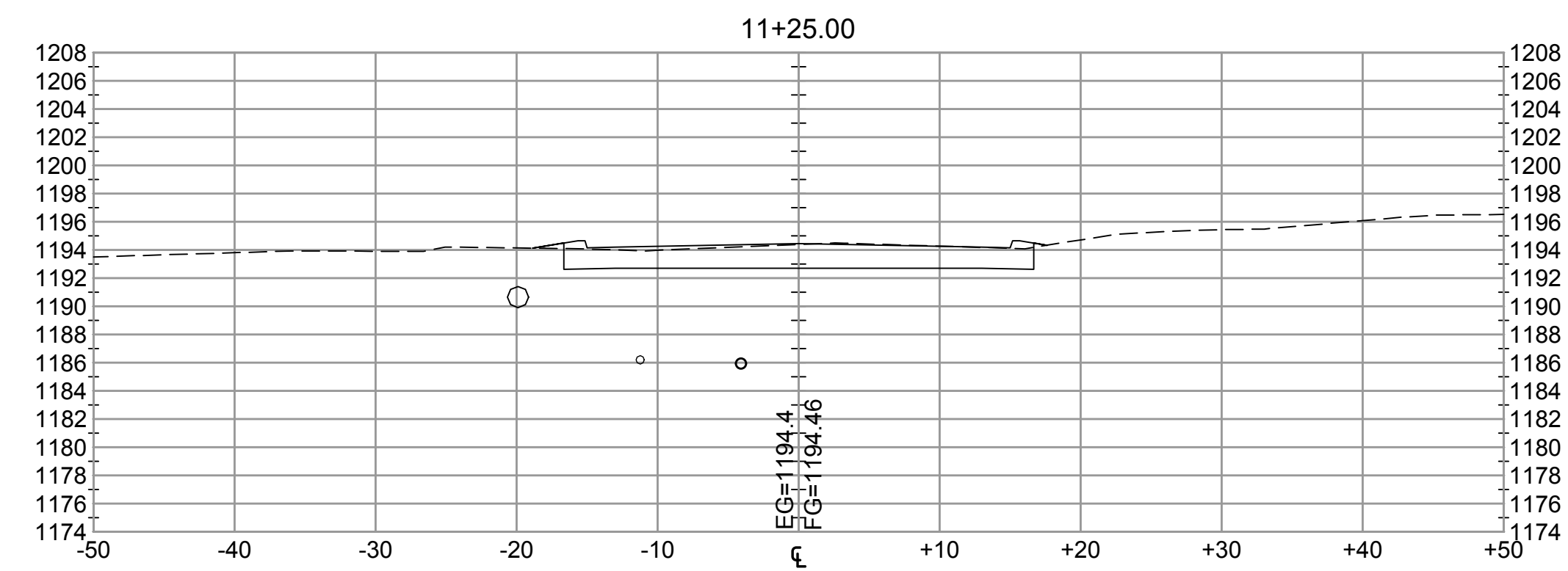
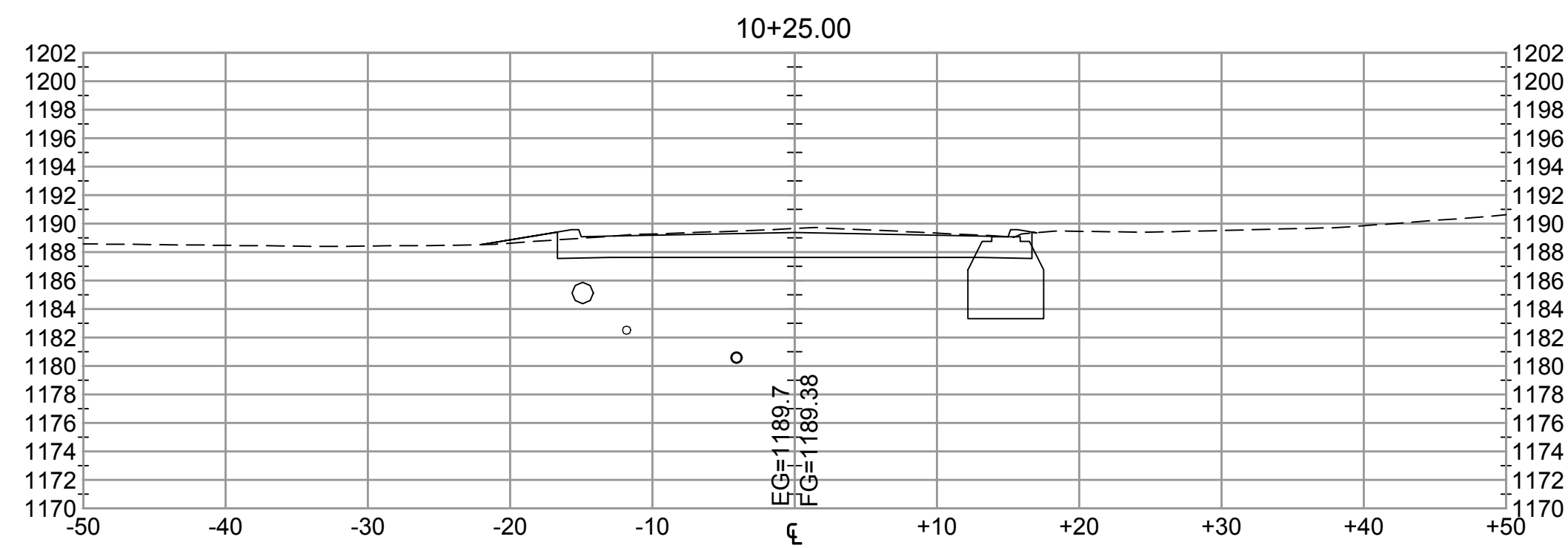
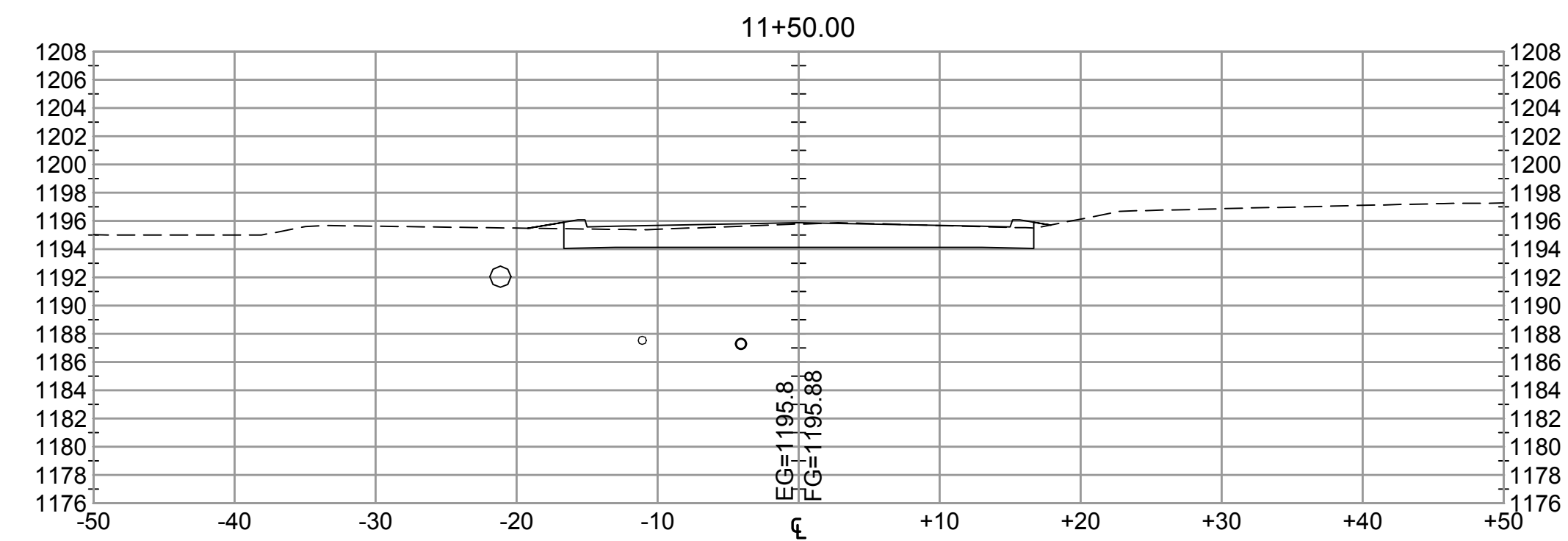
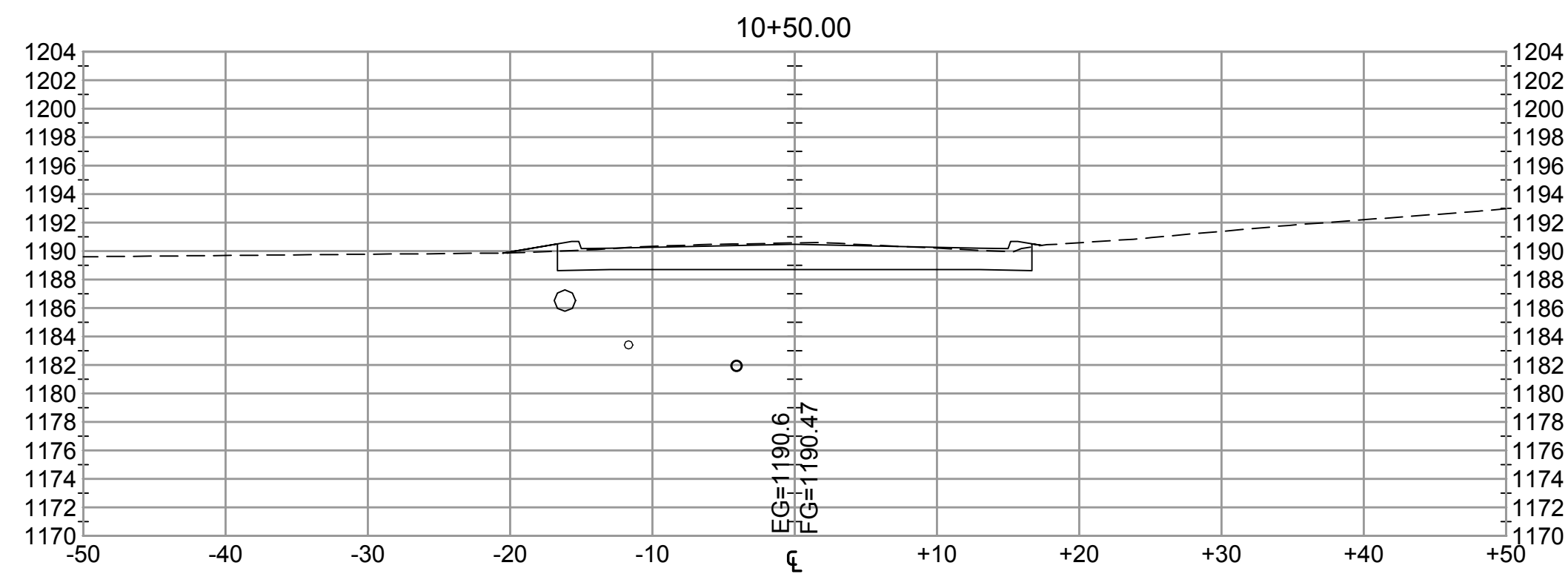
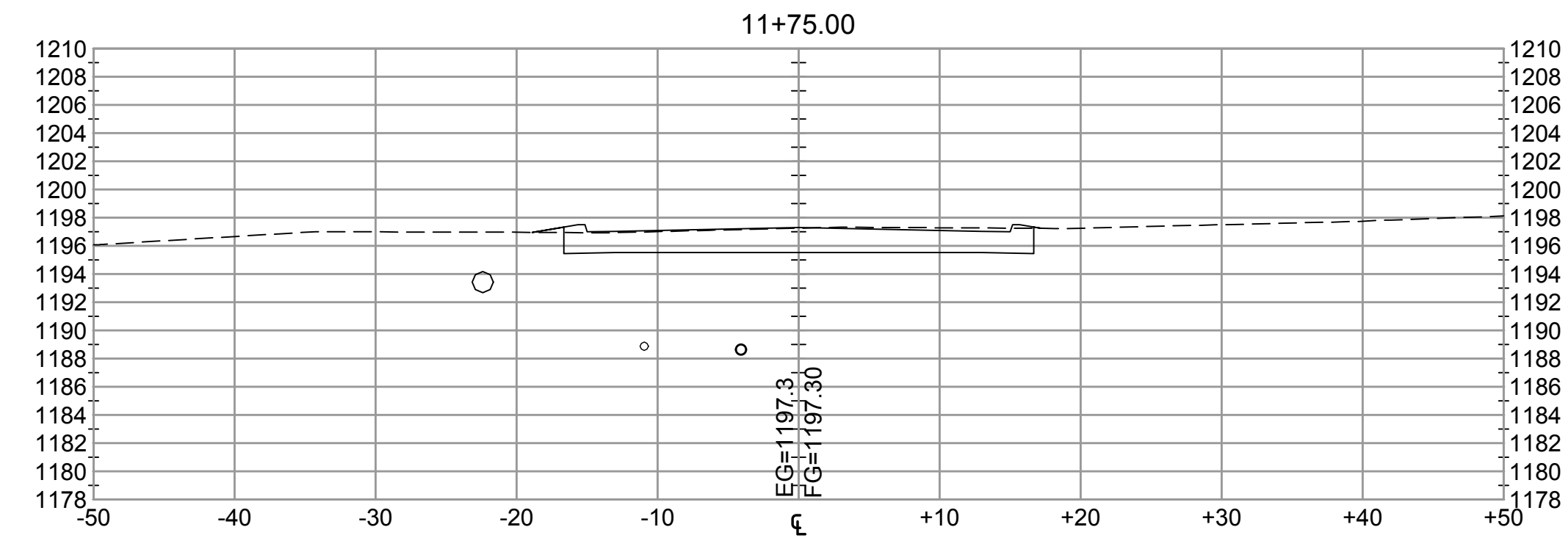
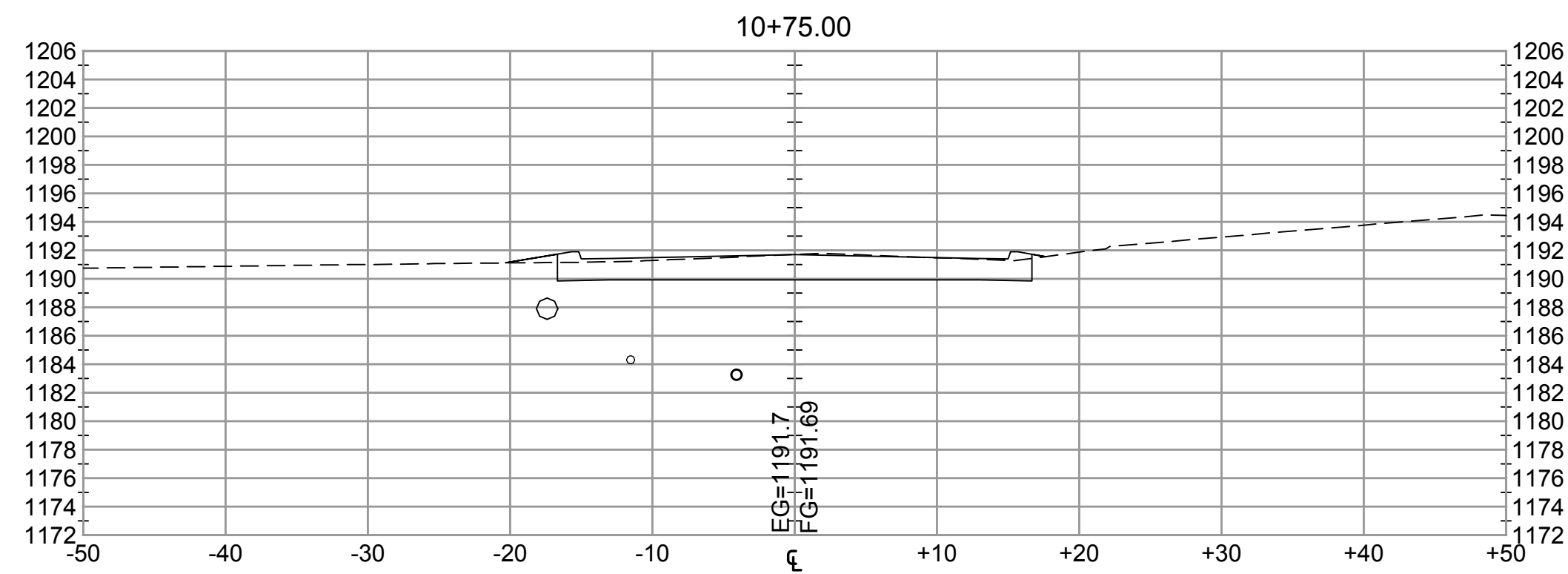
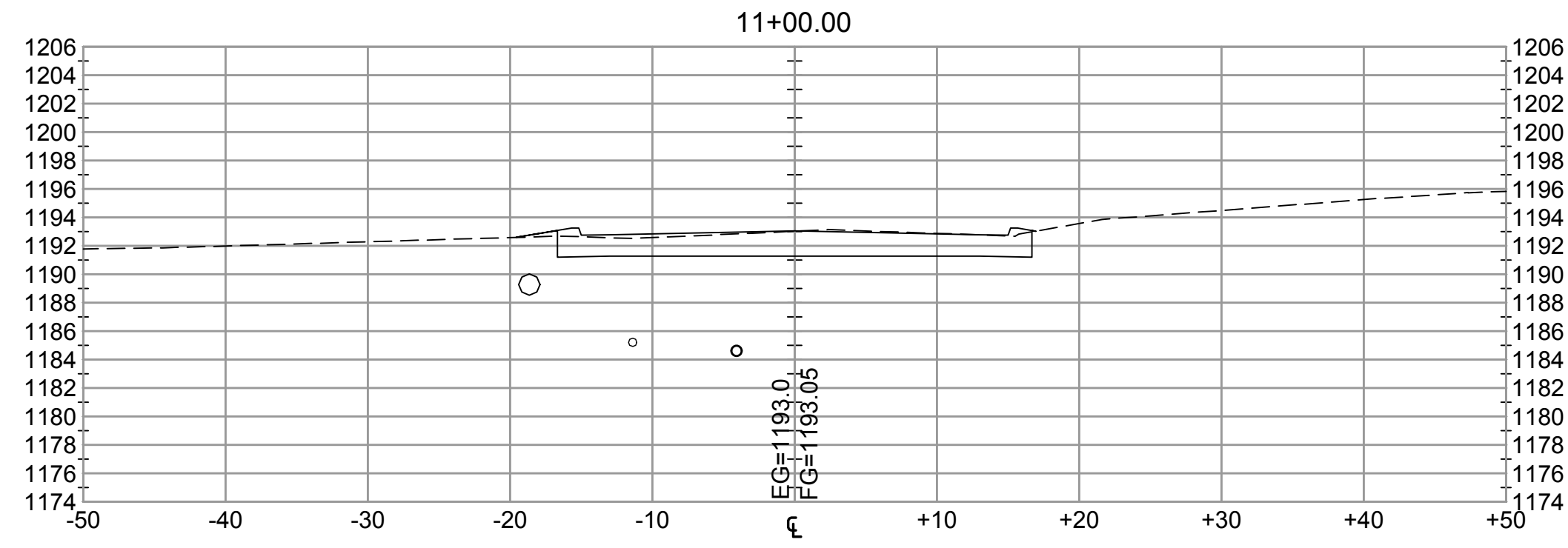
DATE: JANUARY, 2013  
SCALE: AS SHOWN  
DRAWN BY: P.M.B.  
CHECKED BY: M.E.R.  
JOB NUMBER: 0127B0012.000

BY: [Signature]  
REVISIONS DESCRIPTION: [Blank]  
DATE: [Blank]  
REV#: [Blank]

I HEREBY CERTIFY THAT THIS PLAN SPECIFICATION OR REPORT THAT I AM A DULY LICENSED PROFESSIONAL ENGINEER UNDER THE LAWS OF THE STATE OF MINNESOTA.  
MICHAEL E. RUDE  
DATE: 04-01-2013 LIC. NO. 43896

2013 WATER IMPROVEMENTS  
CITY OF SWANVILLE  
SWANVILLE, MINNESOTA  
CROSS SECTIONS - 5TH STREET (5)

SHEET NO. 42  
SHEET 42 OF 53



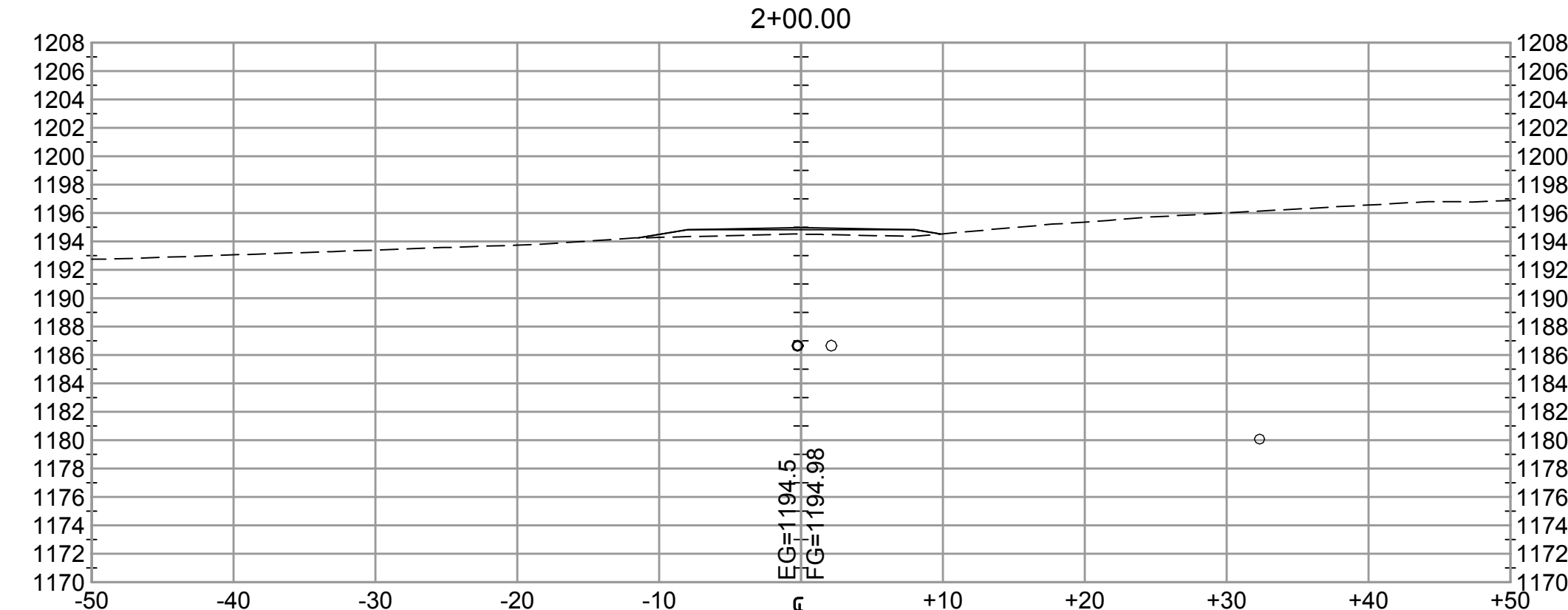
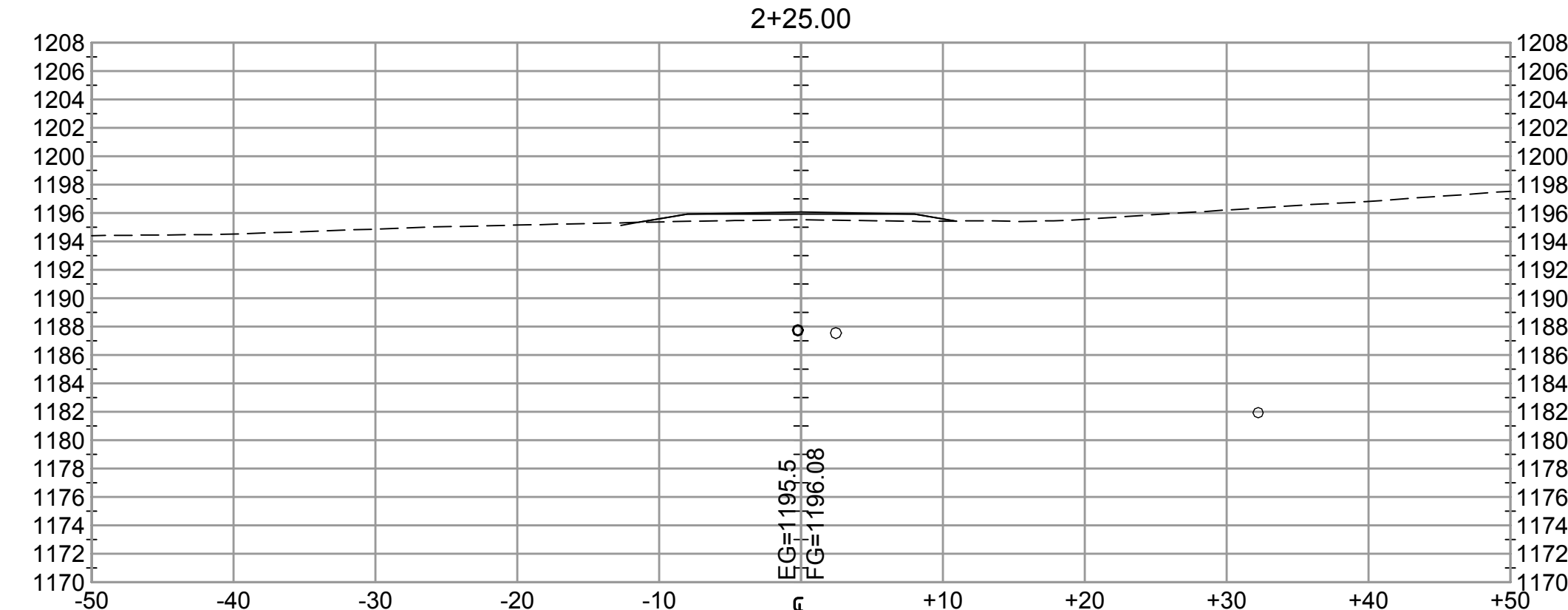
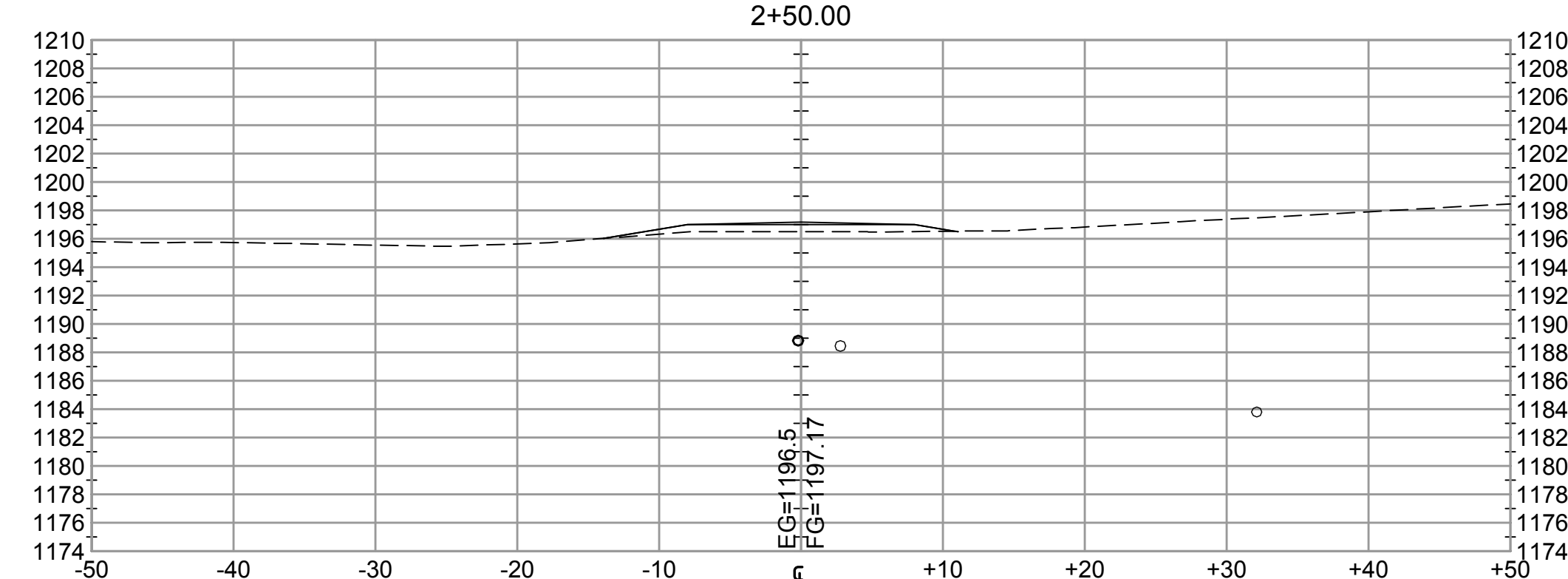
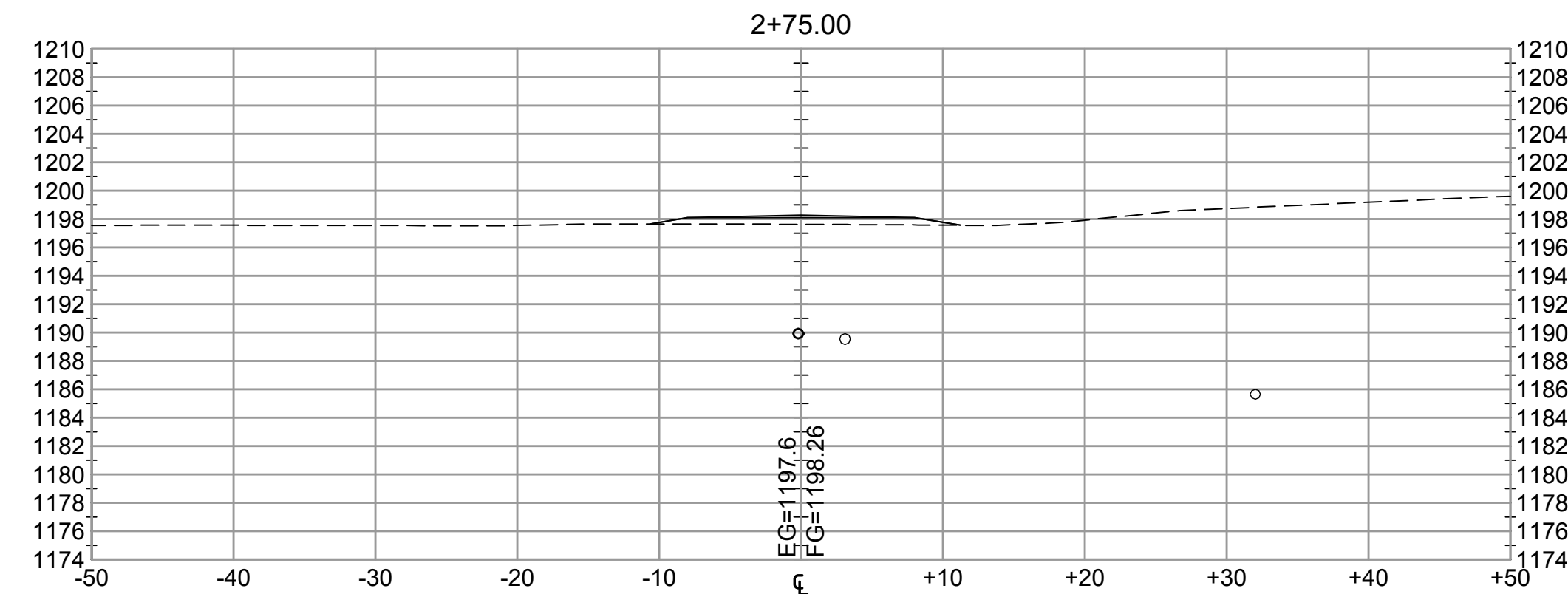
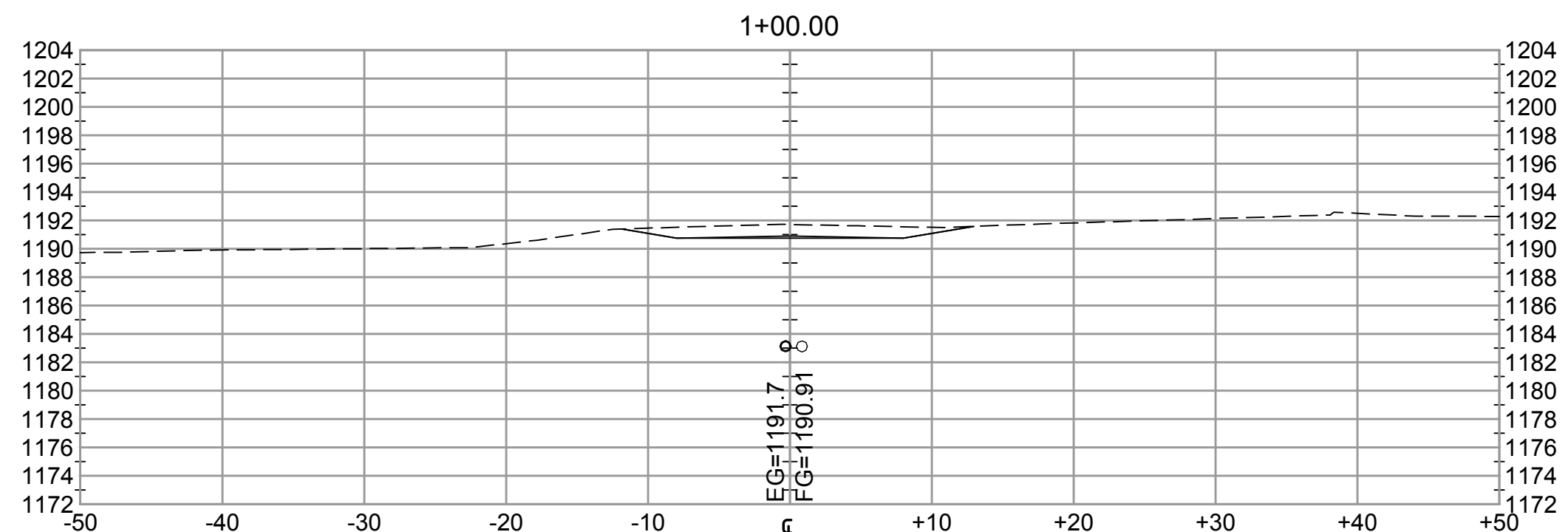
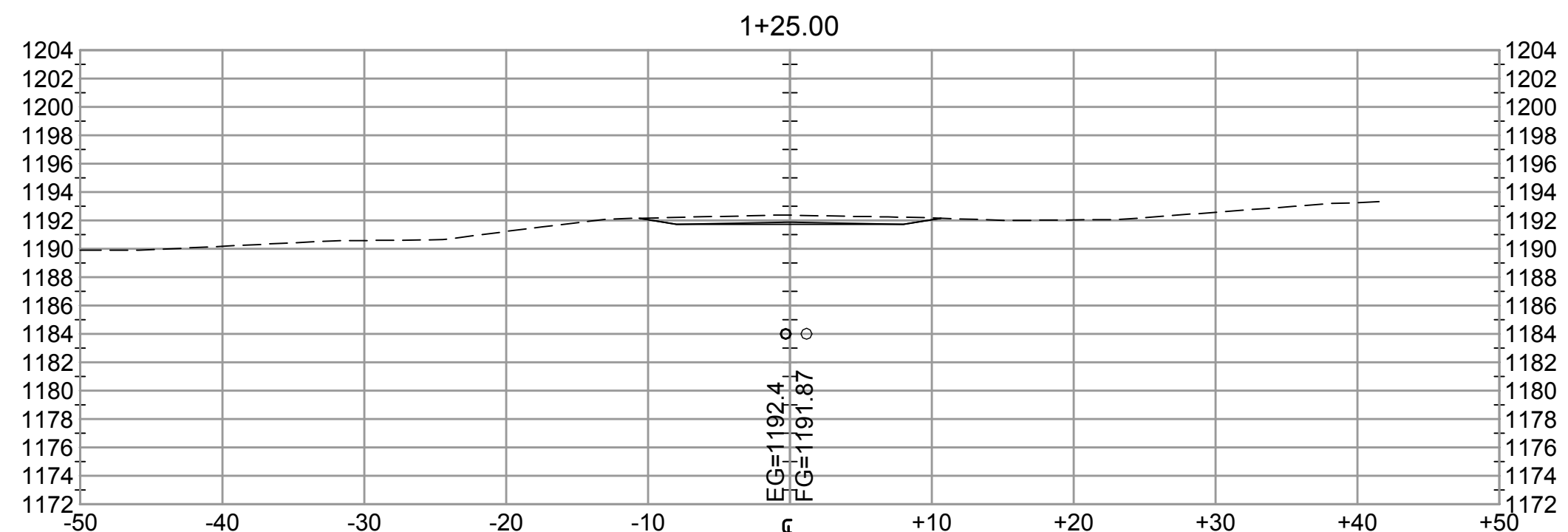
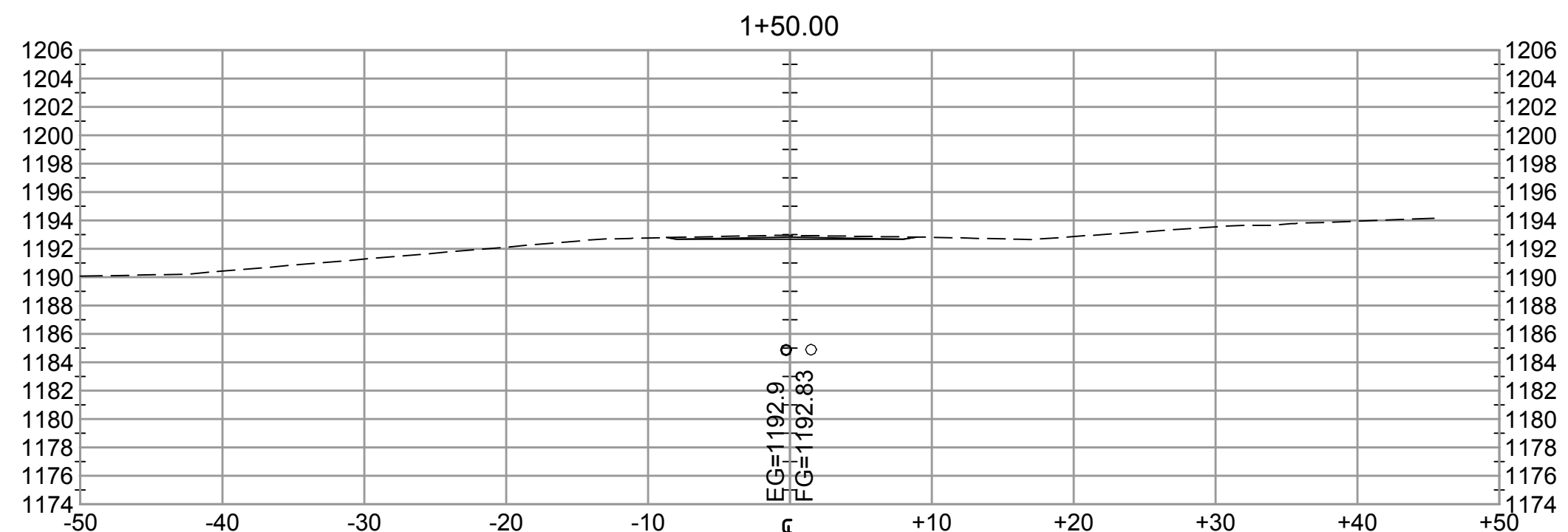
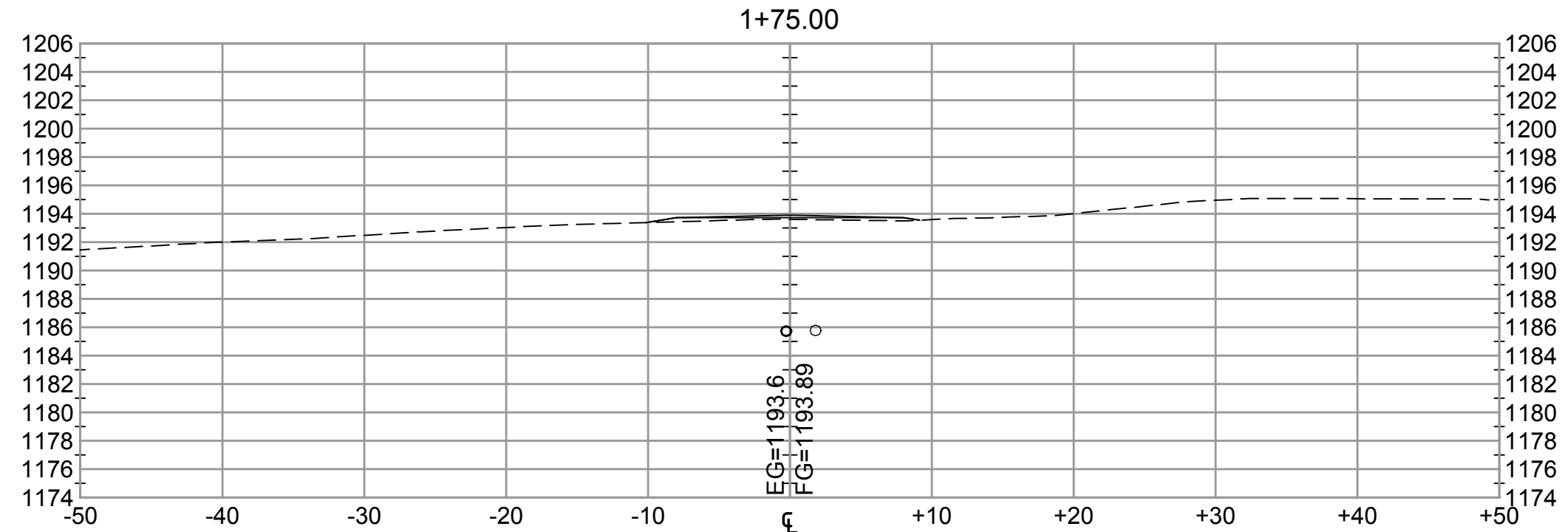
I HEREBY CERTIFY THAT THIS PLAN, SPECIFICATION, OR REPORT THAT I AM A DAILY LICENSED PROFESSIONAL ENGINEER UNDER THE LAWS OF THE STATE OF MINNESOTA.

*Michael E. Rude*  
MICHAEL E. RUDE  
DATE: 04-01-2013 LIC. NO. 43896

REVISIONS DESCRIPTION	BY	DATE

DATE: JANUARY, 2013	AS SHOWN	P.M.B.	M.E.R.	JOB NUMBER: 0127B0012.000
SCALE:	DRAWN BY:	CHECKED BY:		

2013 WATER IMPROVEMENTS  
CITY OF SWANVILLE  
SWANVILLE, MINNESOTA  
CROSS SECTIONS - 5TH STREET (6)



ARCHITECTS  
 ENGINEERS  
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 LAND SURVEYORS  
 WATER RESOURCES

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I HEREBY CERTIFY THAT THIS PLAN, SPECIFICATION, OR REPORT  
 THAT I AM A DULY LICENSED PROFESSIONAL ENGINEER UNDER  
 THE LAWS OF THE STATE OF MINNESOTA.

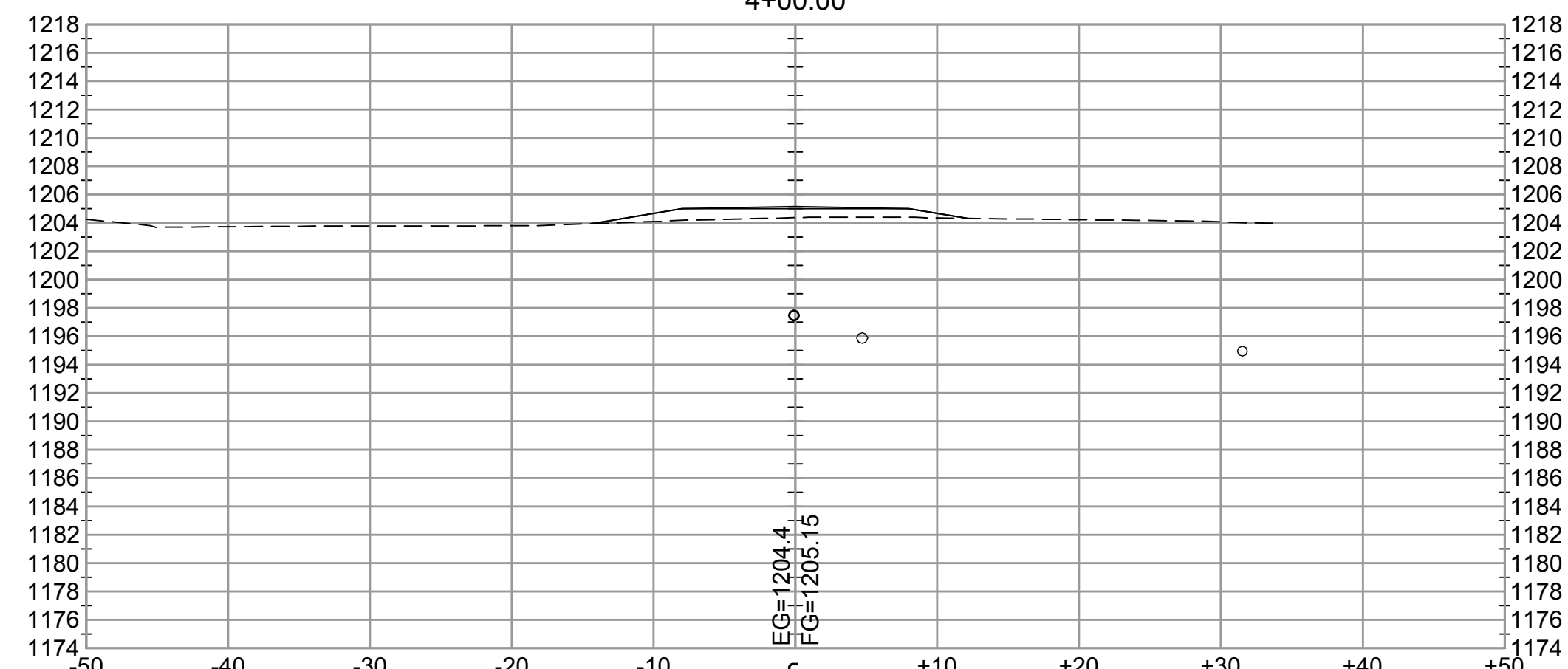
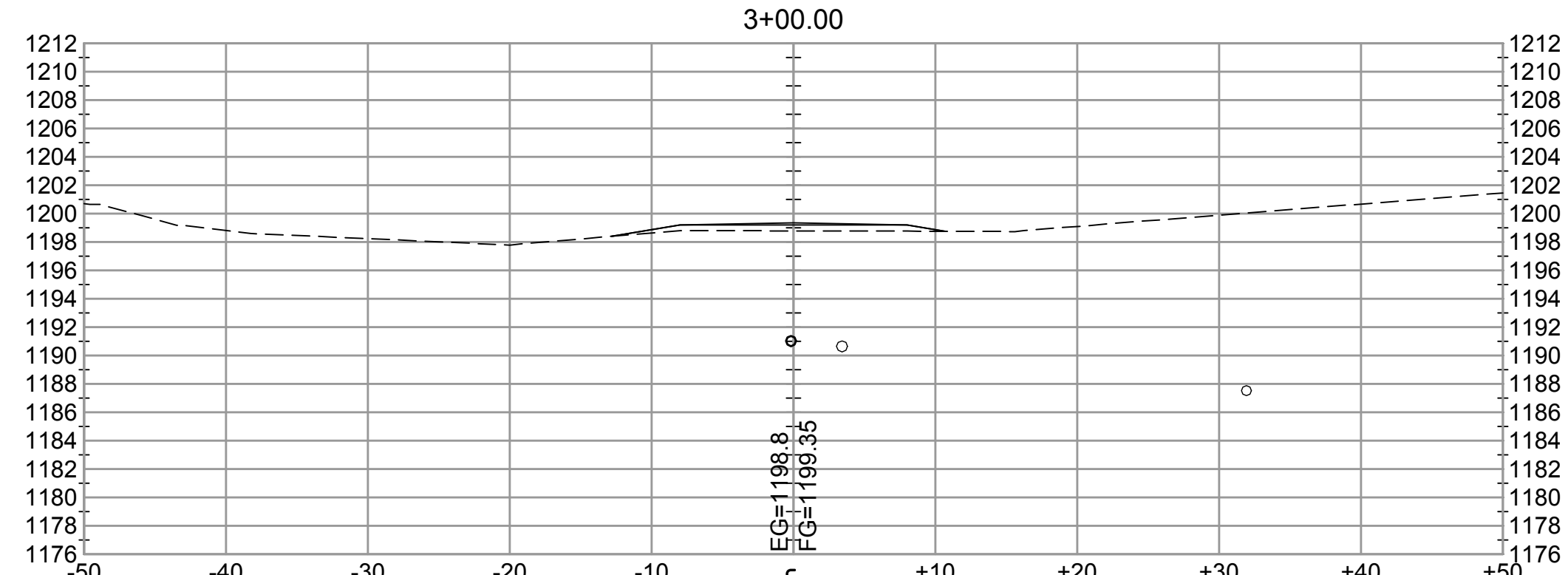
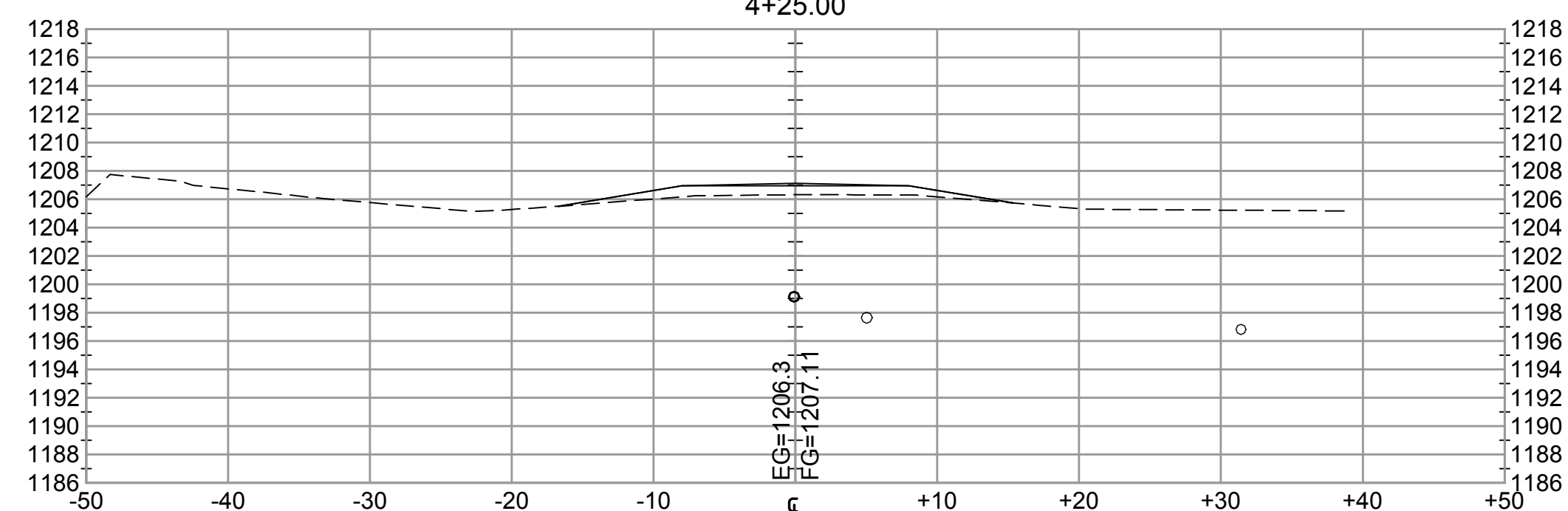
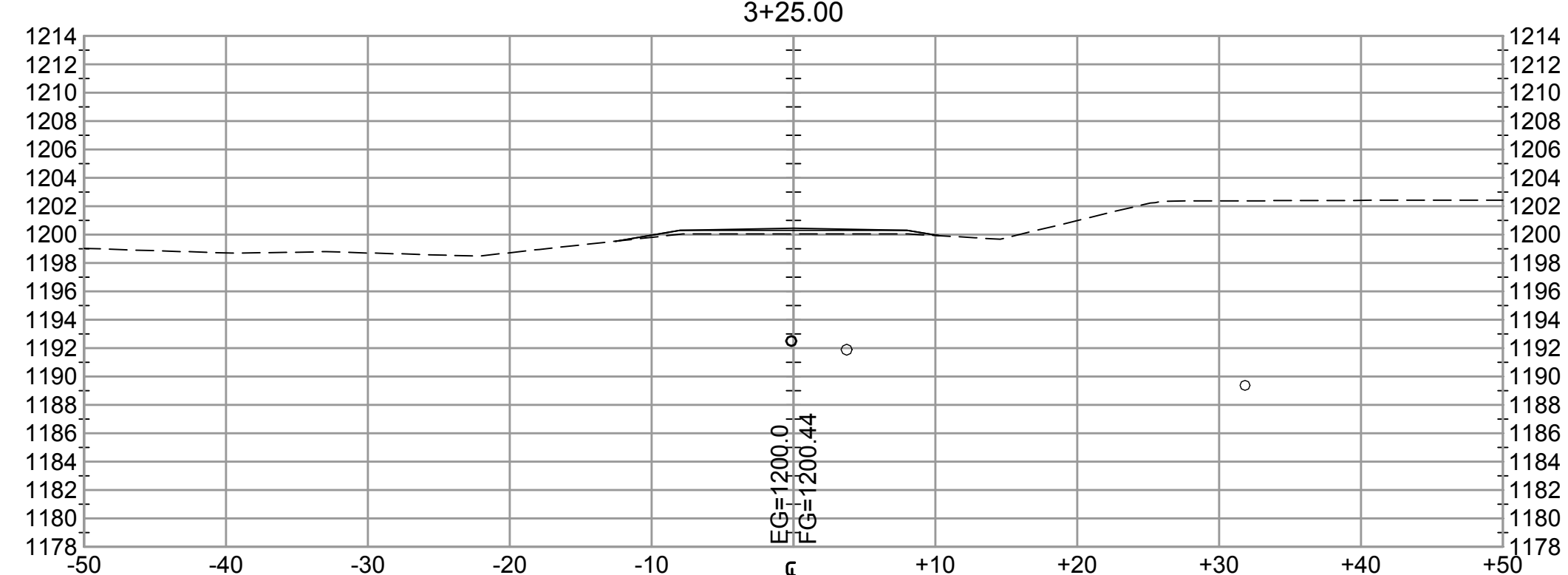
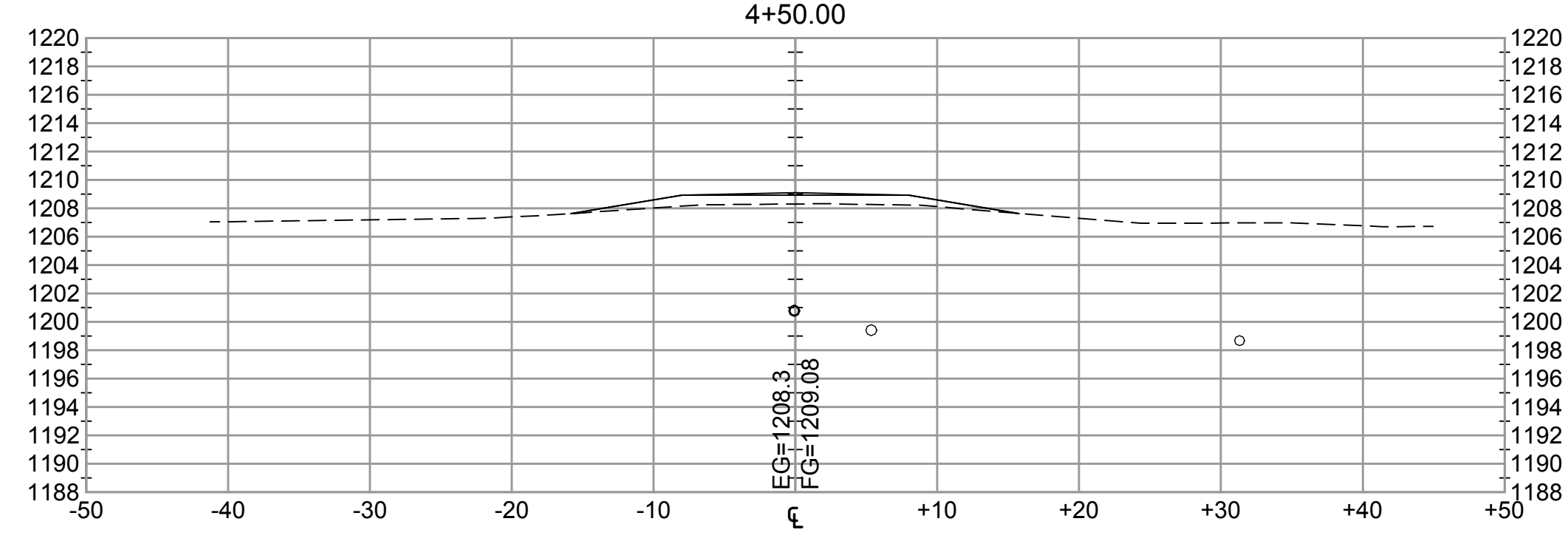
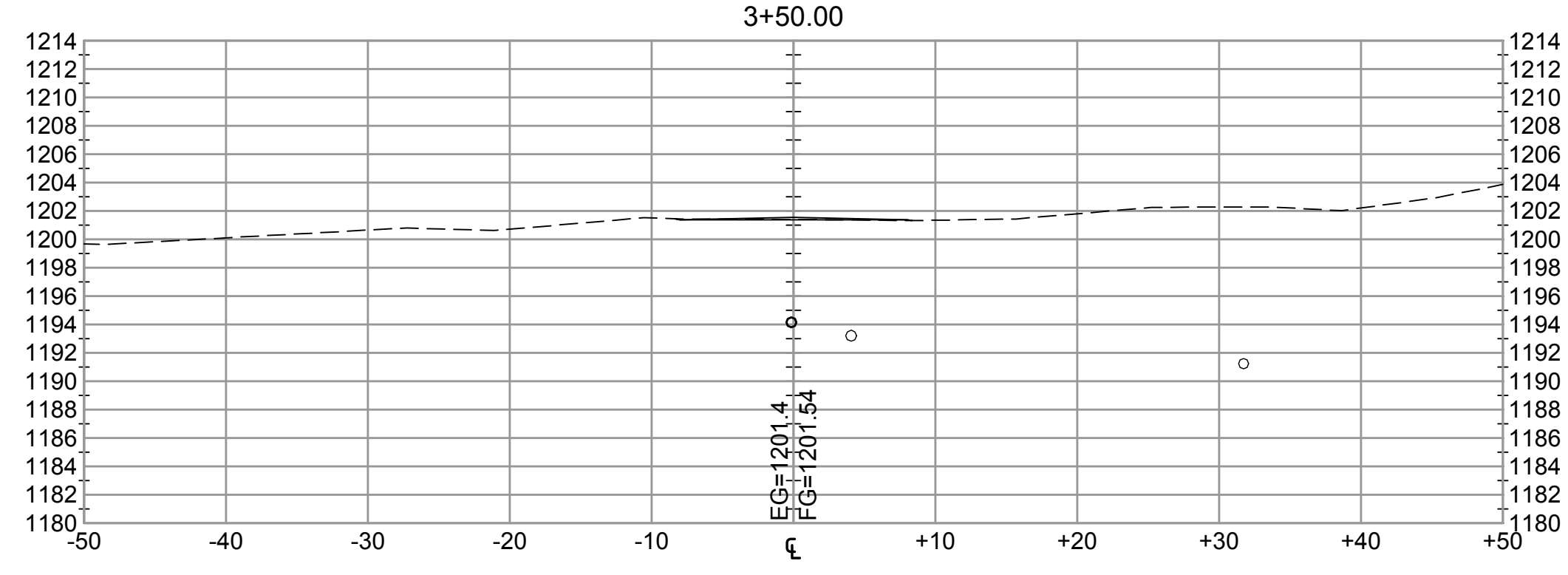
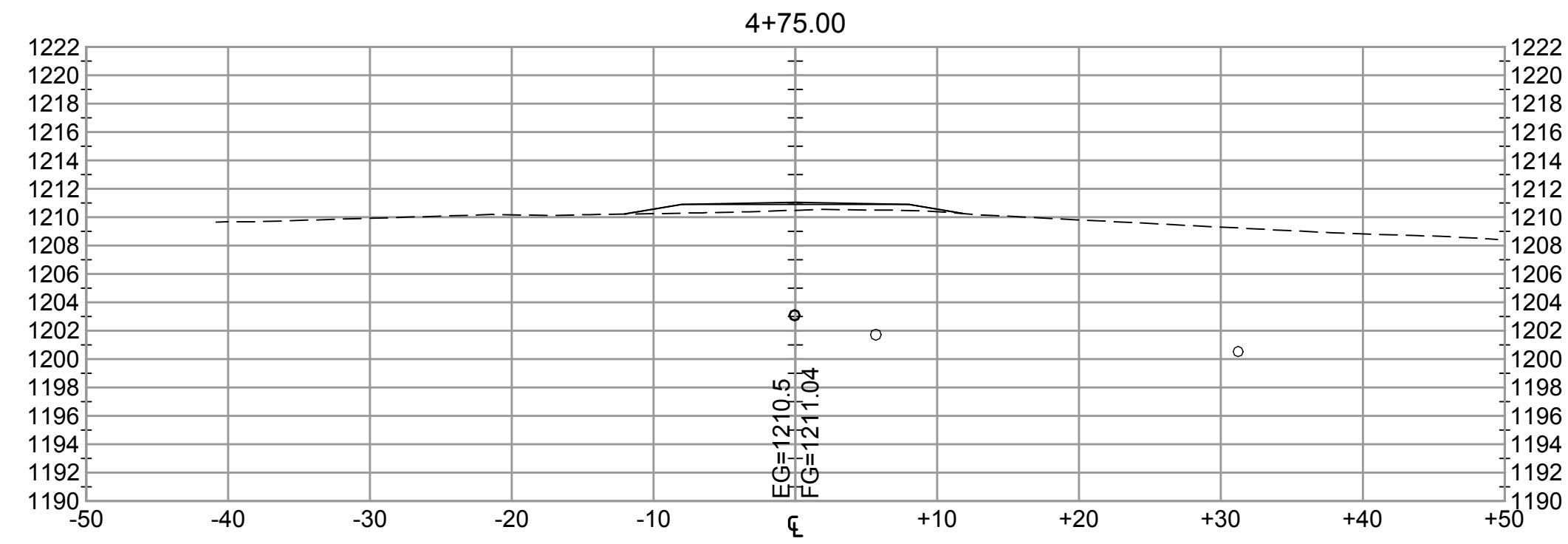
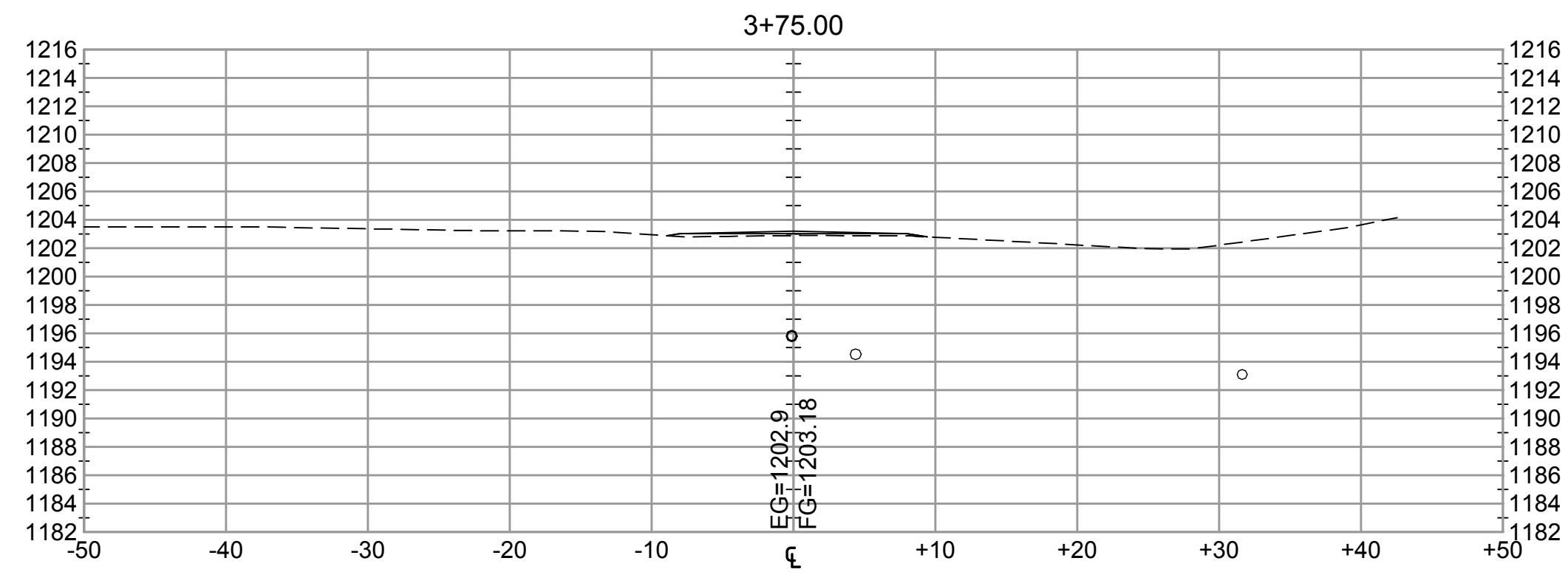
BY: *Michael E. Rude*  
 MICHAEL E. RUDE  
 DATE: 04-01-2013 LIC. NO. 43896

REVISIONS DESCRIPTION	DATE	REV#

DATE: JANUARY, 2013  
 SCALE: AS SHOWN  
 DRAWN BY: P.M.B.  
 CHECKED BY: M.E.R.  
 JOB NUMBER: 0127B0012.000

2013 WATER IMPROVEMENTS  
 CITY OF SWANVILLE  
 SWANVILLE, MINNESOTA  
 CROSS SECTIONS - 3RD STREET (1)

SHEET NO.  
**44**  
 SHEET 44 OF 53



**2013 WATER IMPROVEMENTS**  
**CITY OF SWANVILLE**  
**SWANVILLE, MINNESOTA**  
**CROSS SECTIONS - 3RD STREET (2)**

DATE: JANUARY, 2013  
SCALE: AS SHOWN  
DRAWN BY: P.M.B.  
CHECKED BY: M.E.R.  
JOB NUMBER: 0127B0012.000

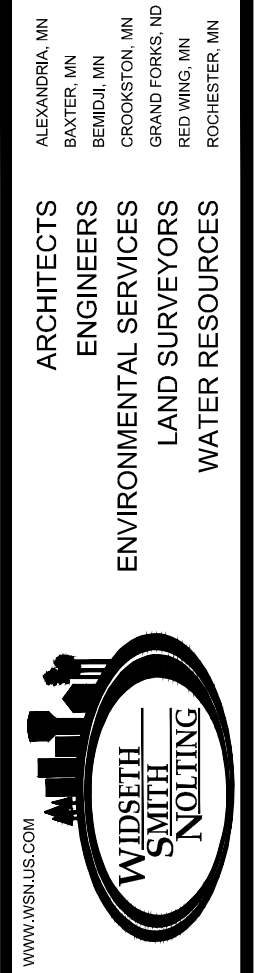
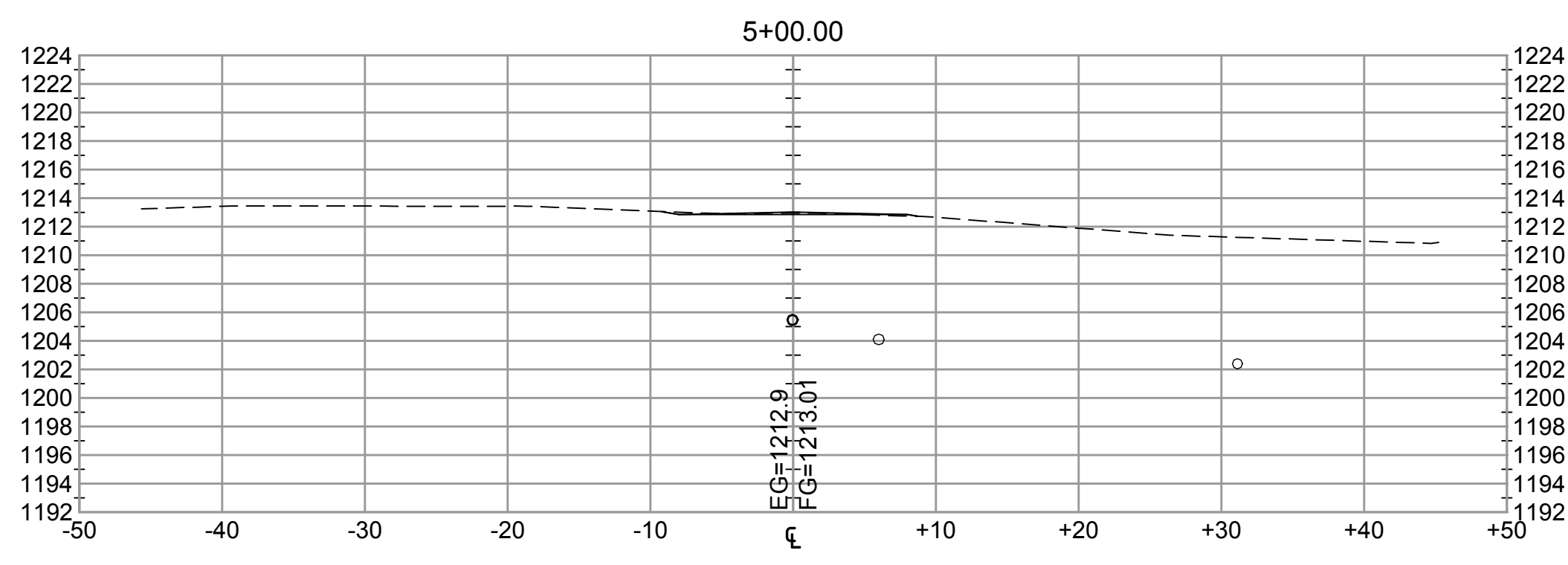
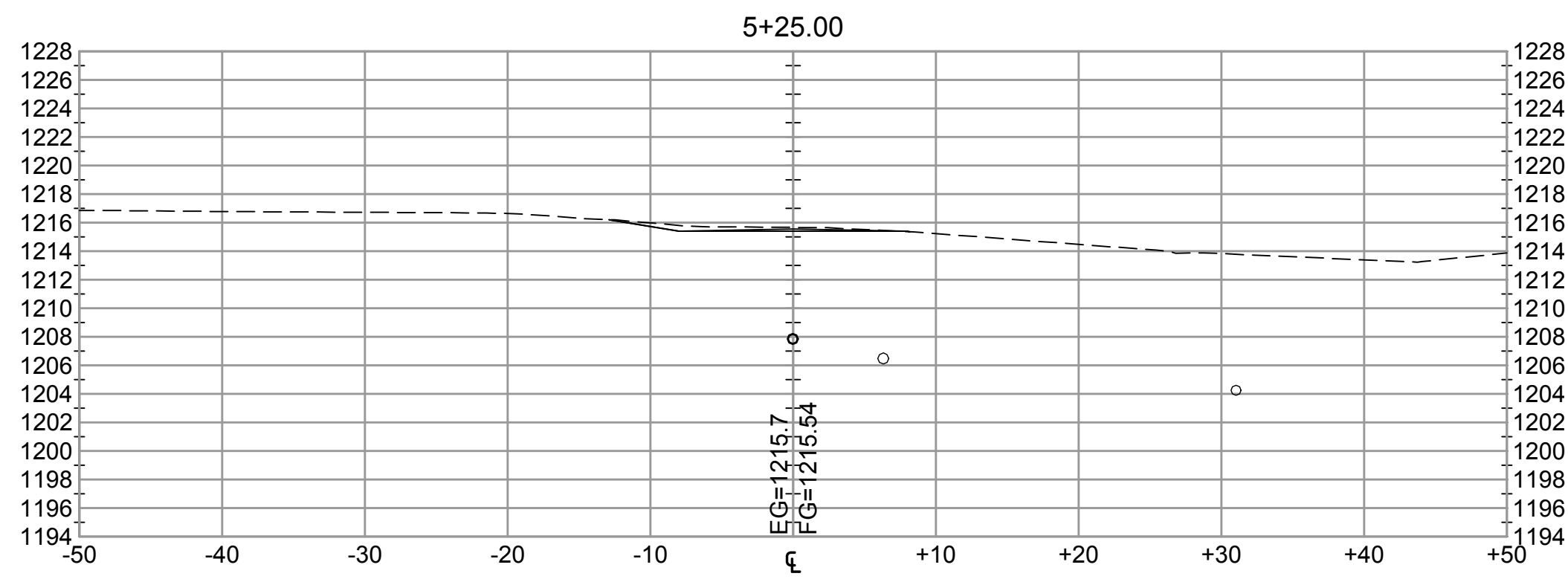
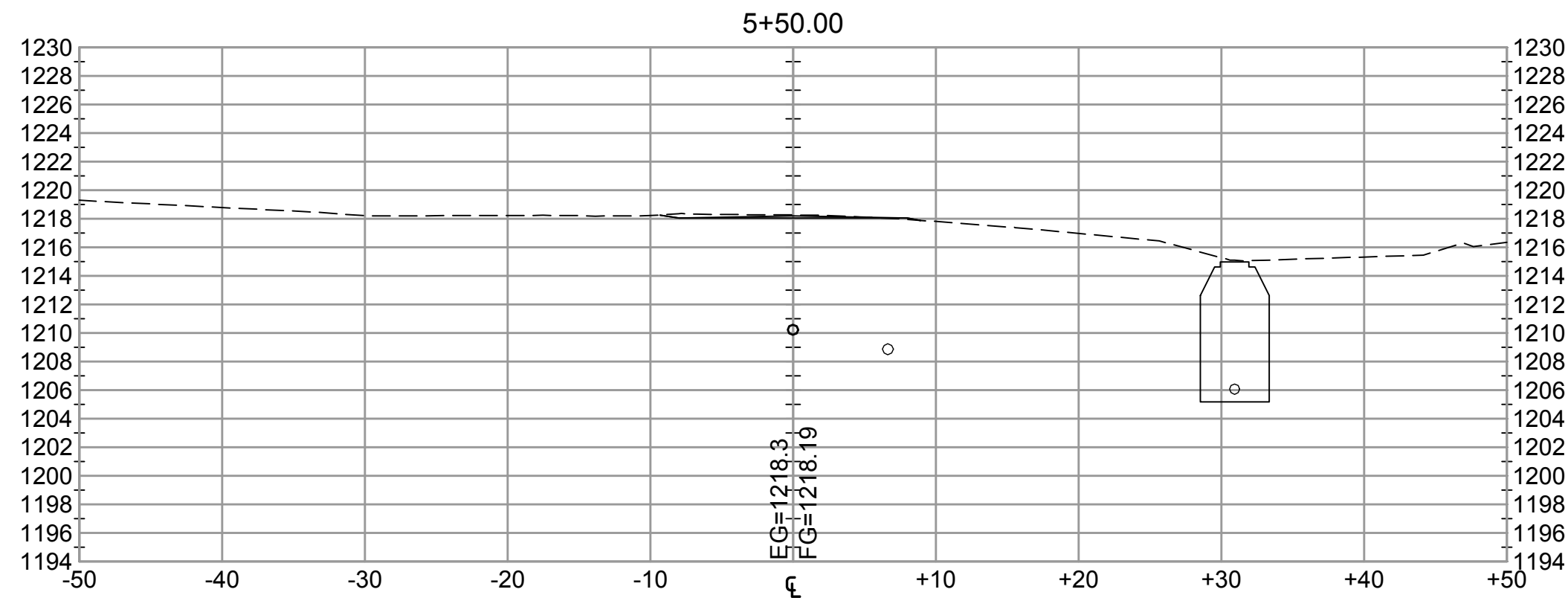
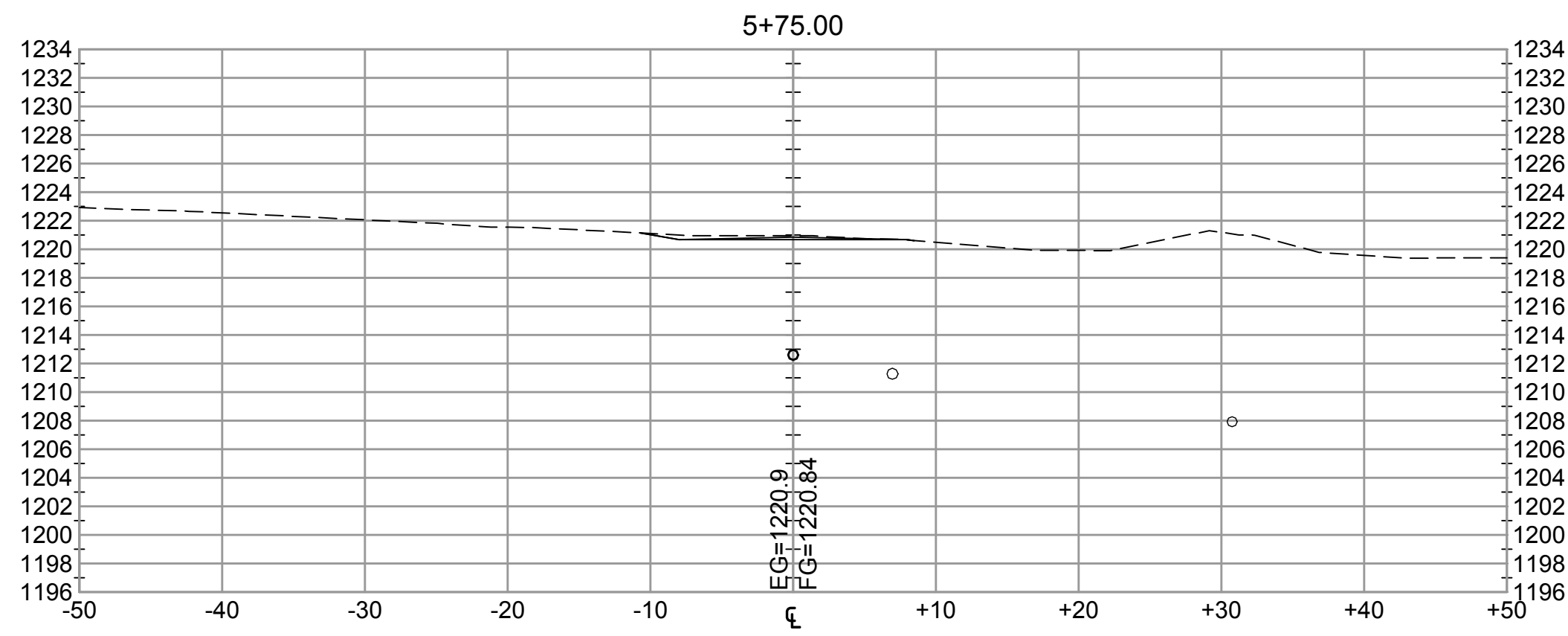
DATE	REV#	DESCRIPTION

BY: *Michael E. Rude*  
I HEREBY CERTIFY THAT THIS PLAN SPECIFICATION OR REPORT THAT I AM A DULY LICENSED PROFESSIONAL ENGINEER UNDER THE LAWS OF THE STATE OF MINNESOTA.  
MICHAEL E. RUDE  
DATE: 04-01-2013 LIC. NO. 43896

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LAND SURVEYORS  
WATER RESOURCES

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SHEET NO. **45**  
SHEET 45 OF 53

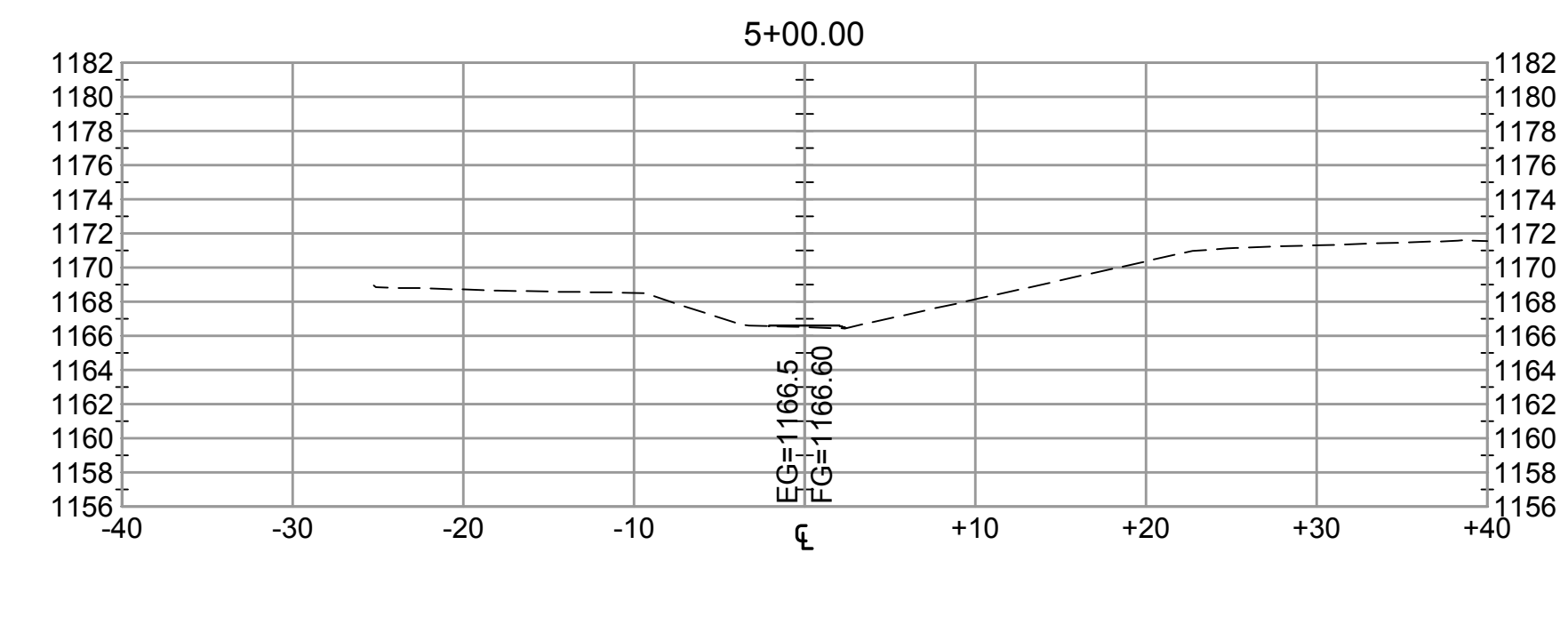
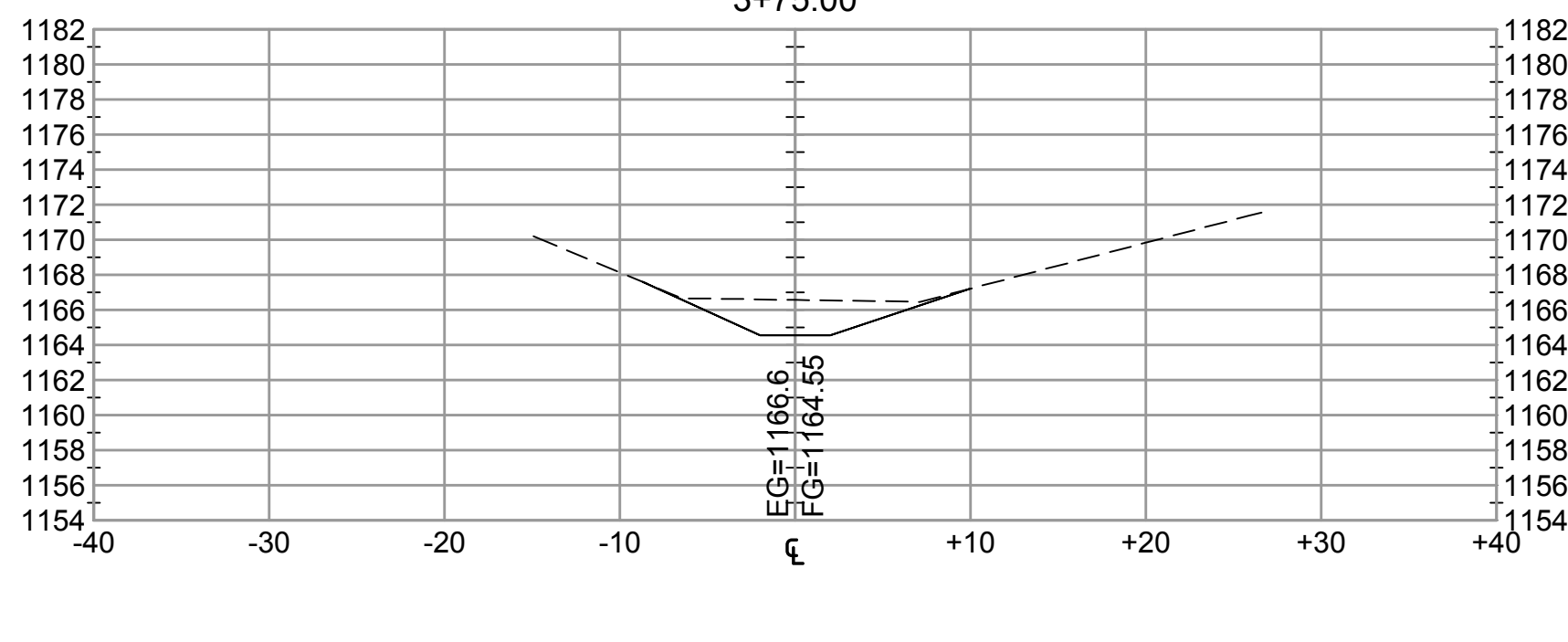
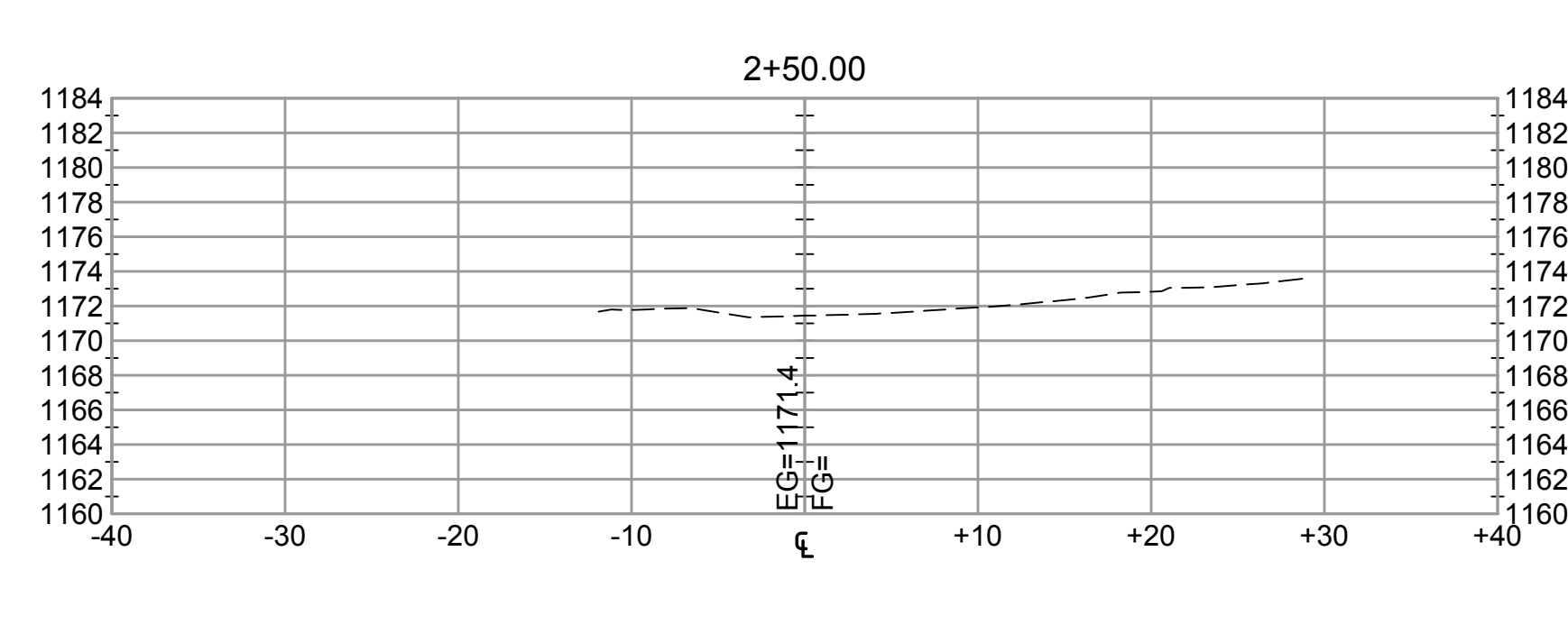
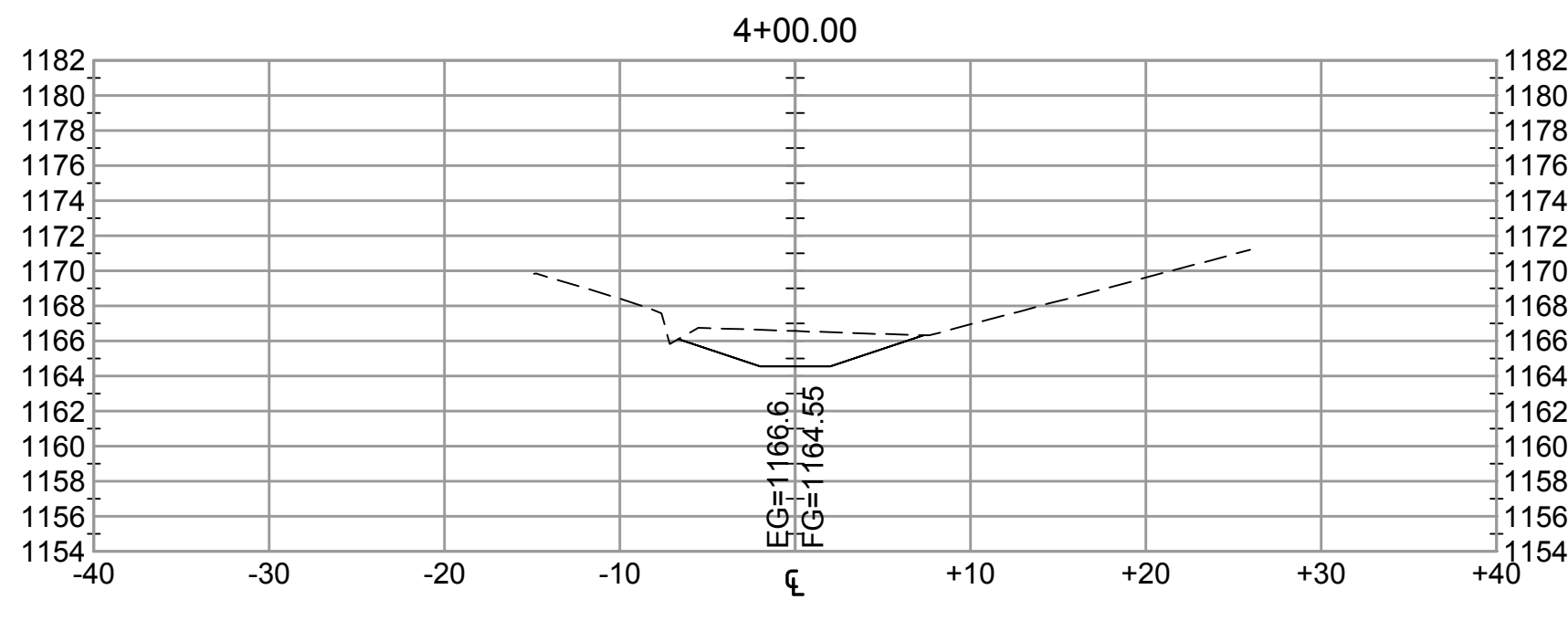
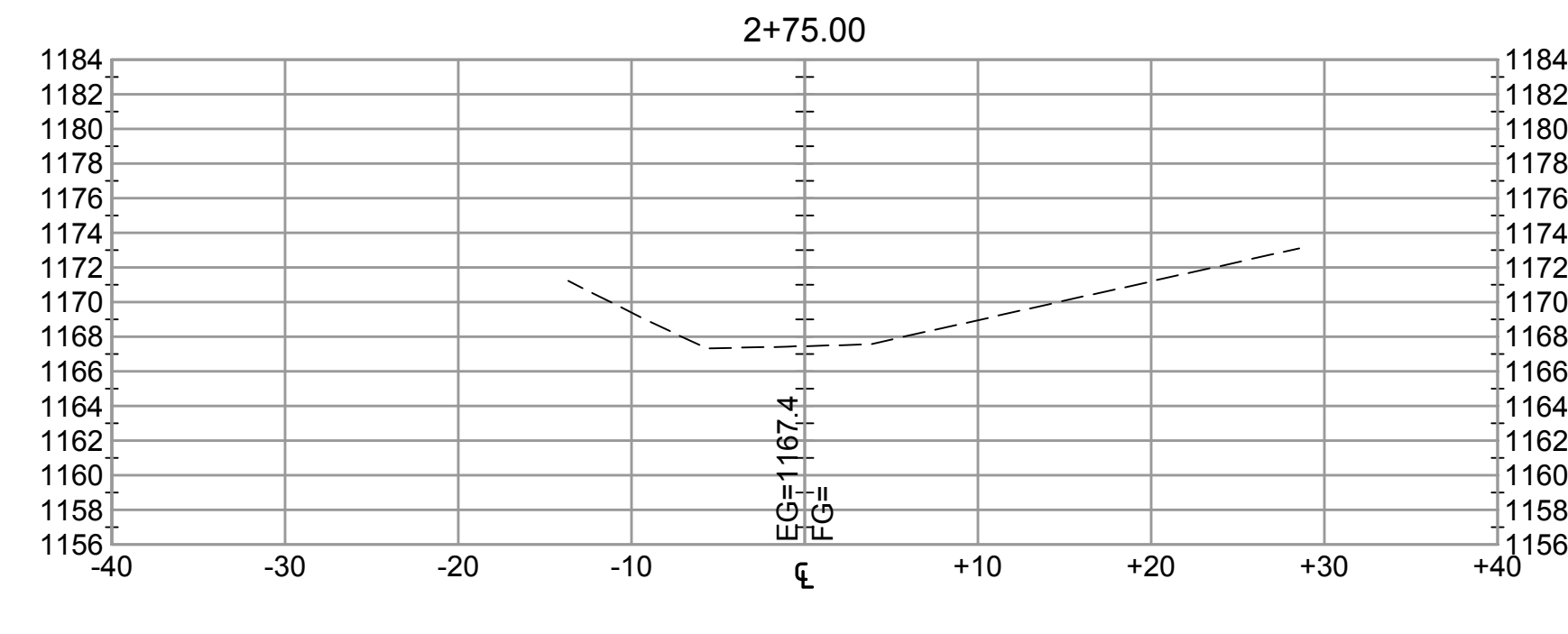
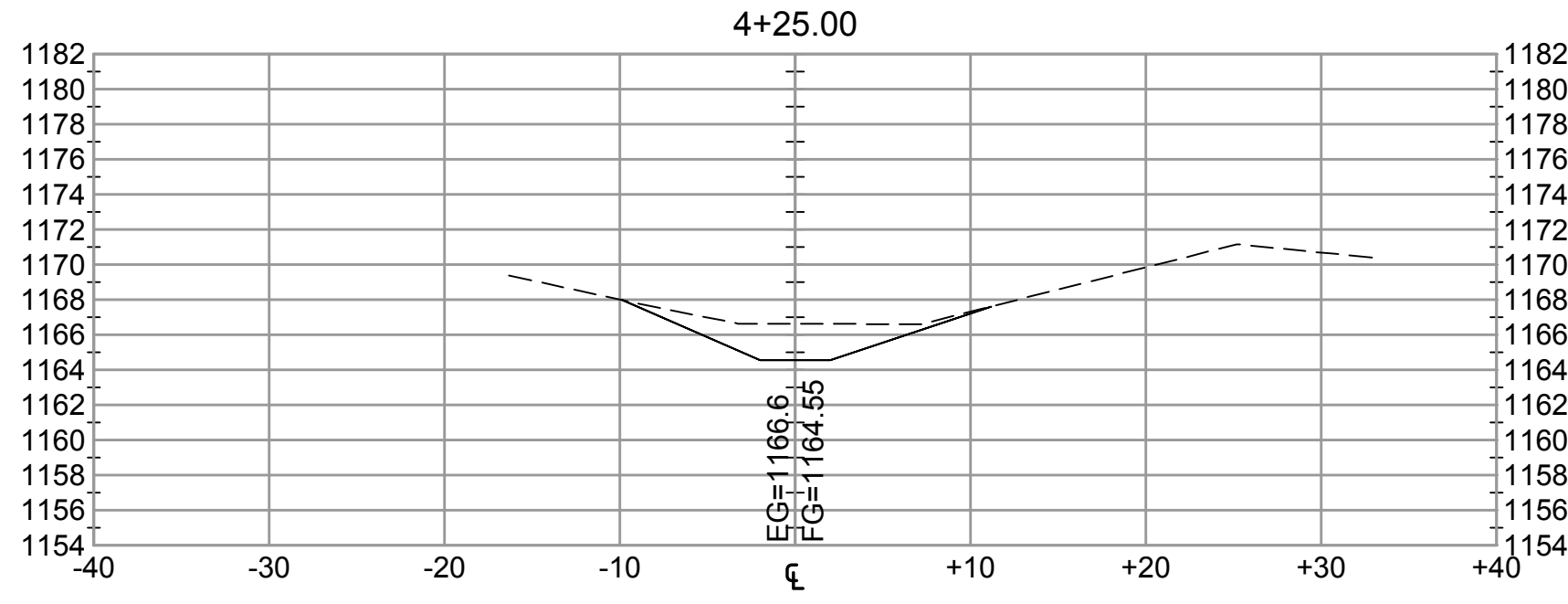
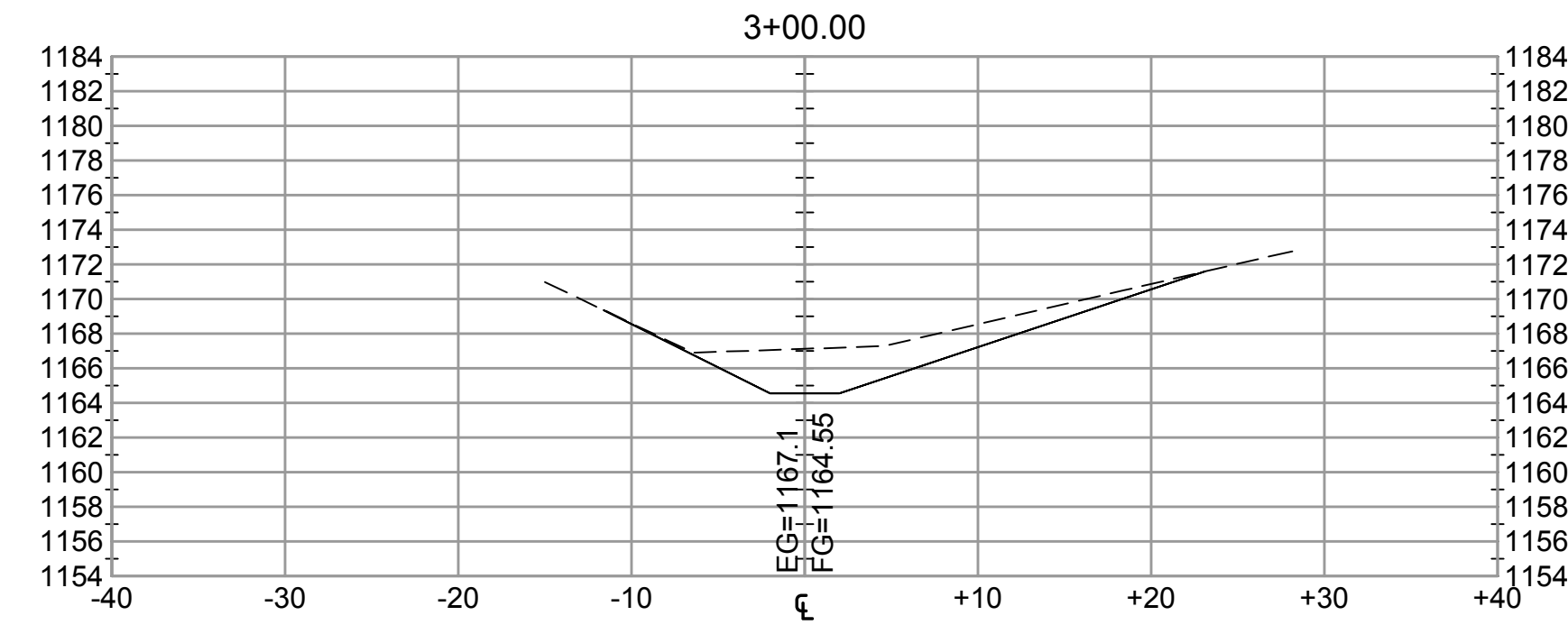
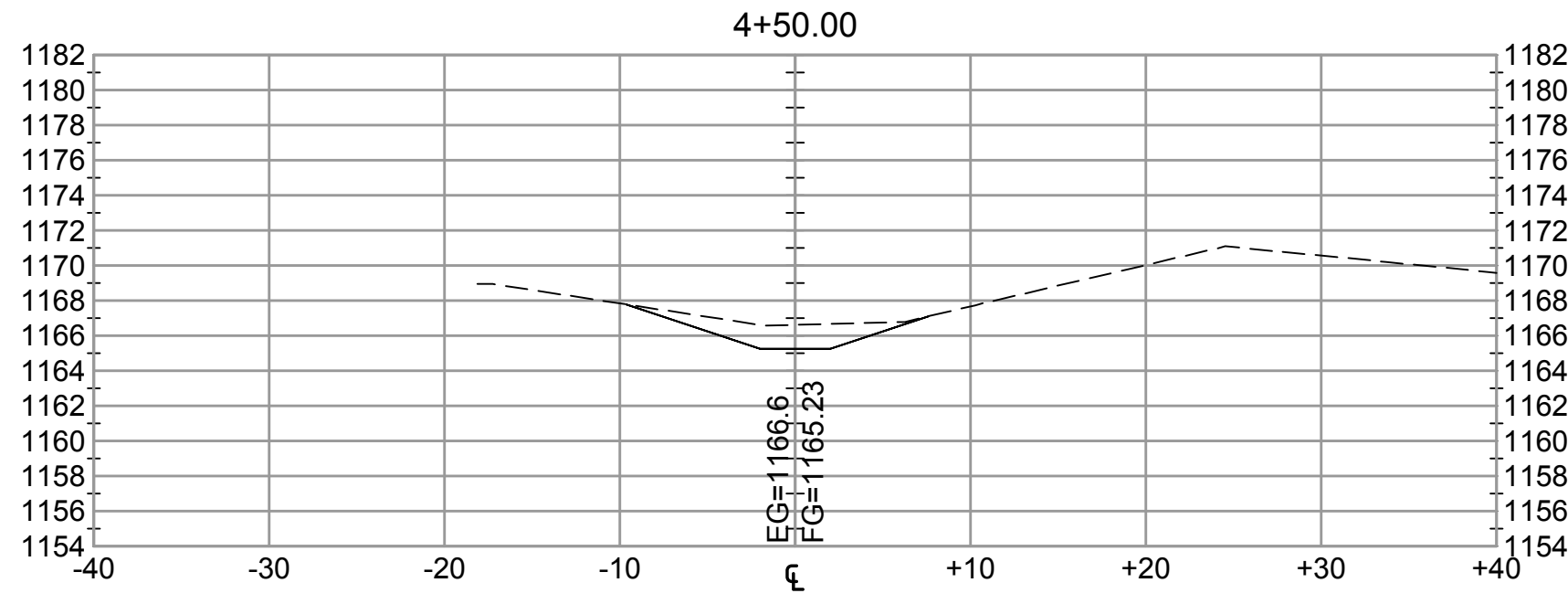
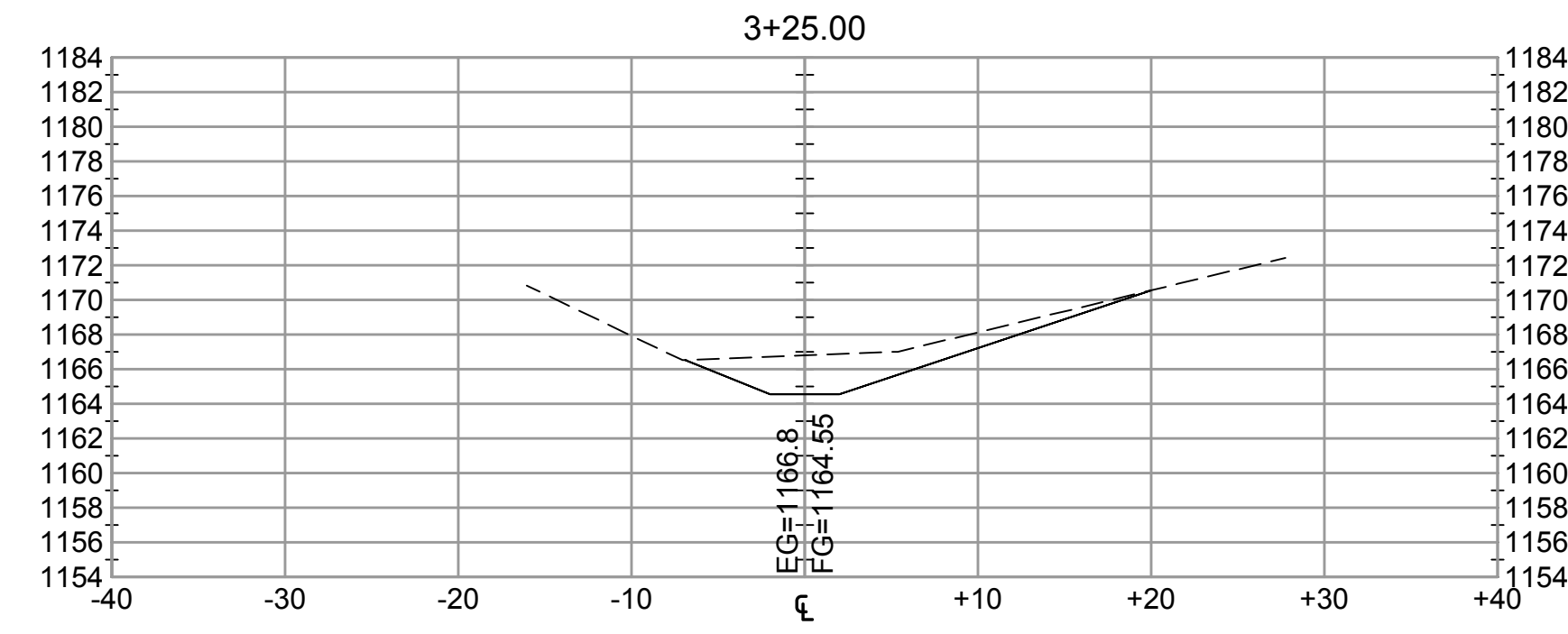
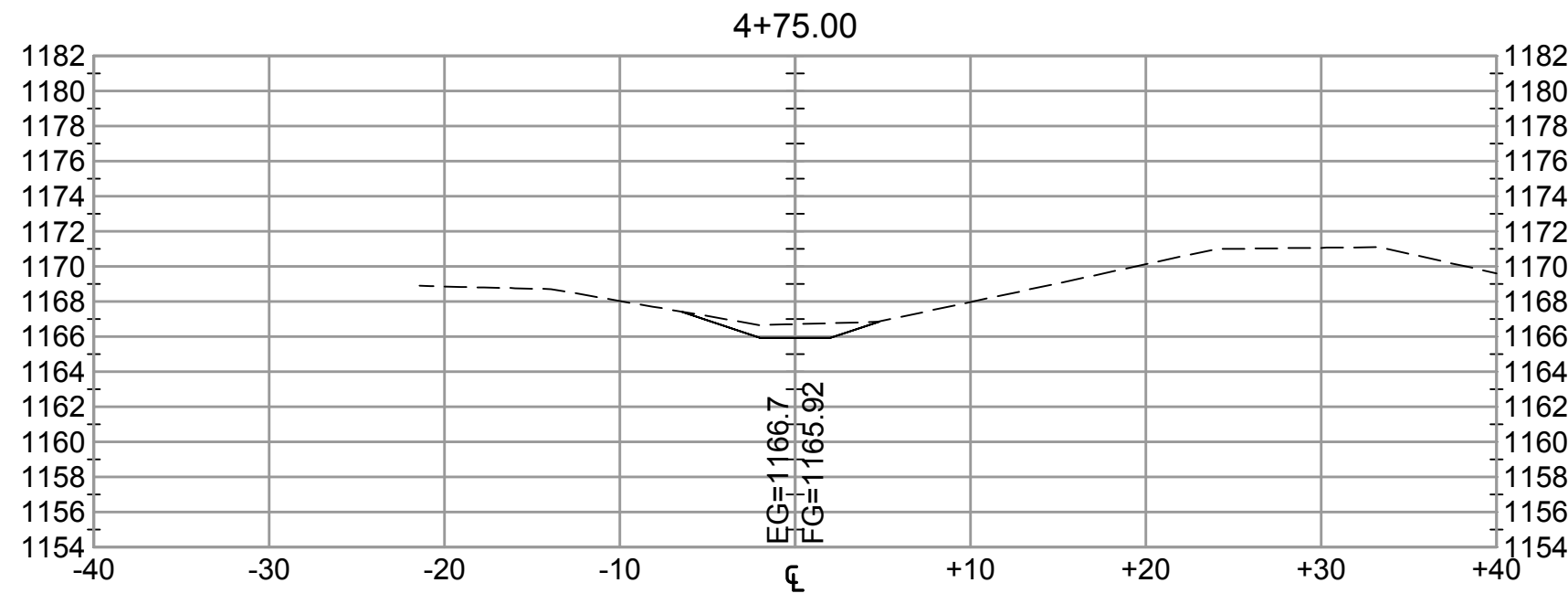
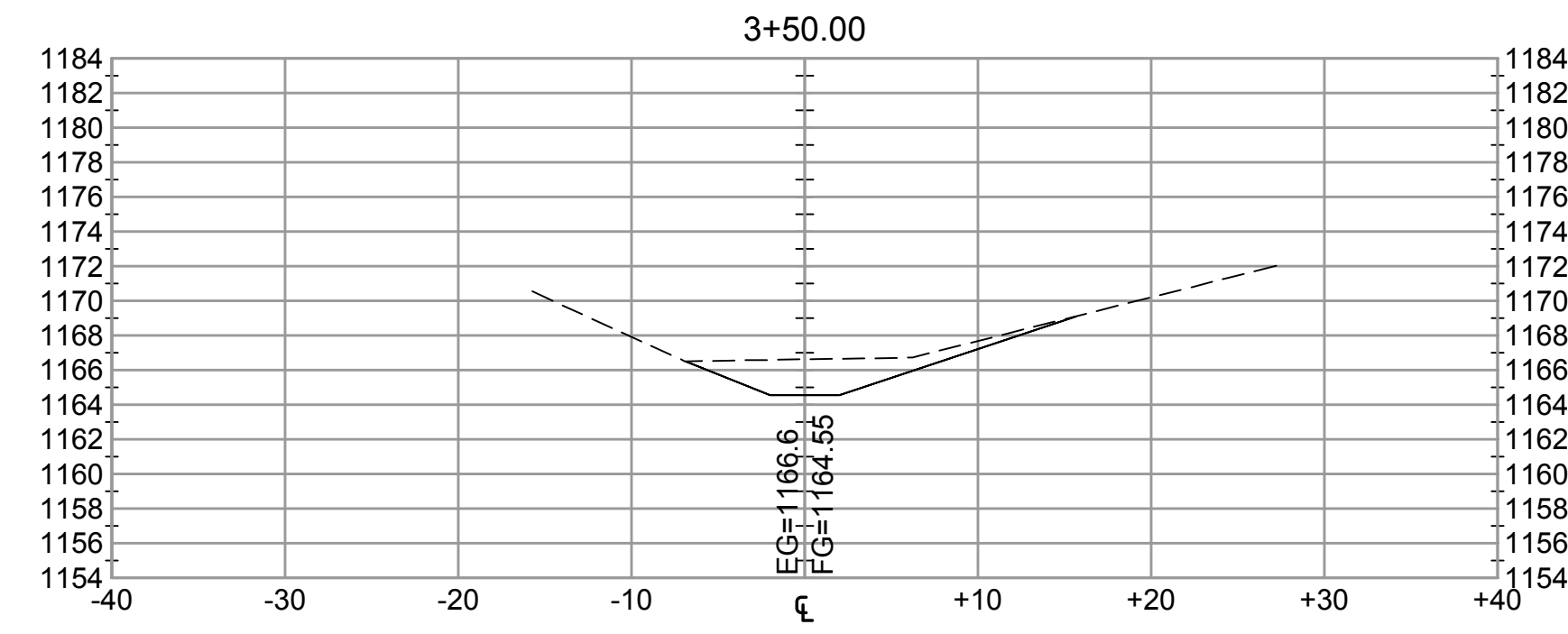


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 MICHAEL E. RUDE DATE: 04-01-2013 LIC. NO. 43896

DATE	REVISIONS DESCRIPTION	REV#
JANUARY, 2013 <td></td> <td></td>		
AS SHOWN		
DRAWN BY: P.M.B.		
CHECKED BY: M.E.R.		
DATE		

DATE: JANUARY, 2013  
 SCALE: AS SHOWN  
 DRAWN BY: P.M.B.  
 CHECKED BY: M.E.R.  
 JOB NUMBER: 0127B0012.000

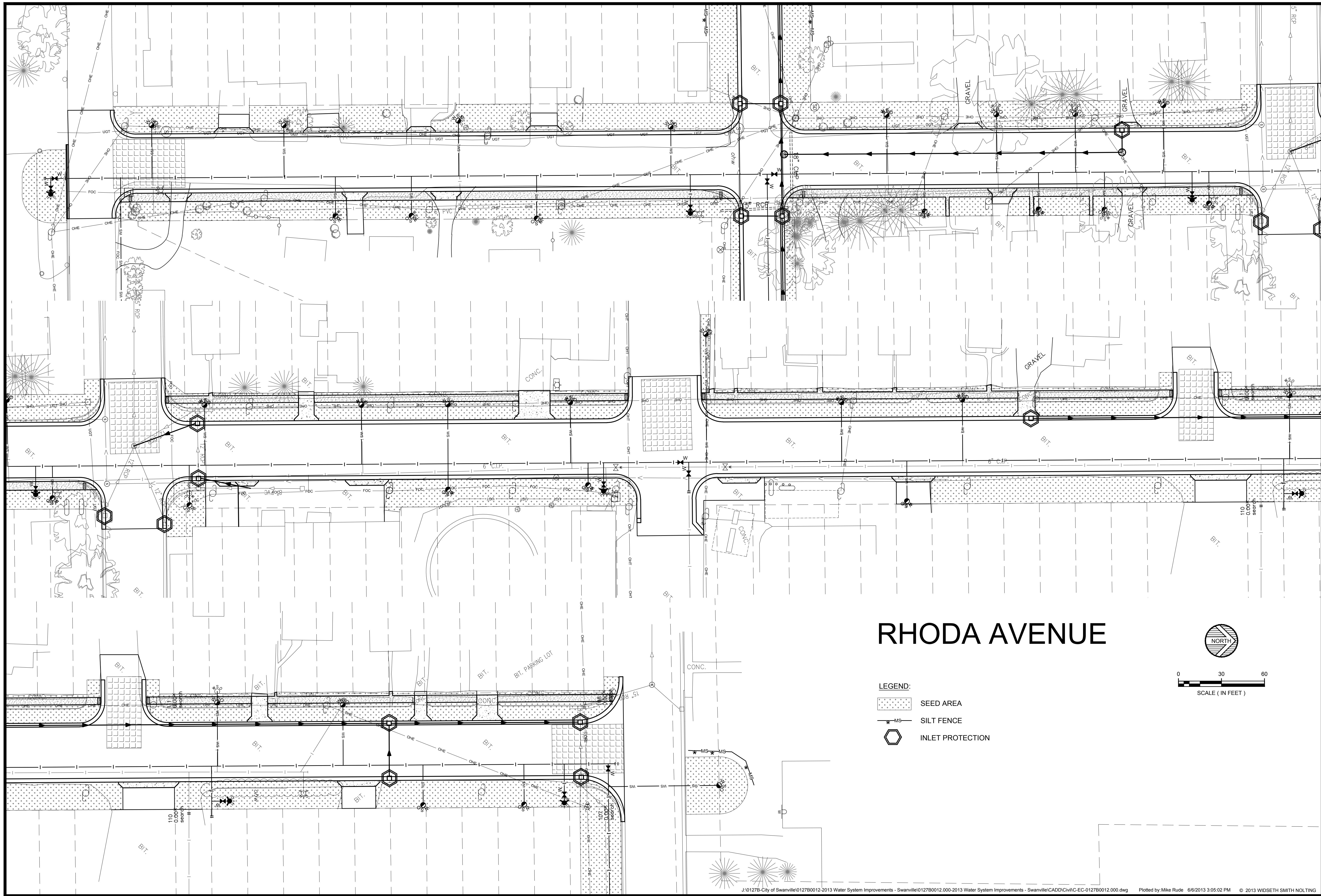
2013 WATER IMPROVEMENTS  
 CITY OF SWANVILLE  
 SWANVILLE, MINNESOTA  
 CROSS SECTIONS - 3RD STREET (3)




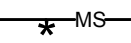

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 Michael E. Rude  
 MICHAEL E. RUDE  
 DATE: 04-01-2013 L.C. NO. 43896

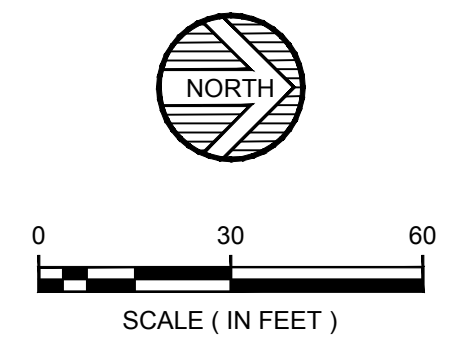
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AS SHOWN			
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SCALE:			
DRAWN BY:			
CHECKED BY:			
JOB NUMBER:	0127B0012.000		

2013 WATER IMPROVEMENTS  
 CITY OF SWANVILLE  
 SWANVILLE, MINNESOTA  
 CROSS SECTIONS - HWY 28 DITCH



# RHODA AVENUE

- LEGEND:**
-  SEED AREA
  -  SILT FENCE
  -  INLET PROTECTION



<p>DATE: JANUARY, 2013 SCALE: AS SHOWN DRAWN BY: P.M.B. CHECKED BY: M.E.R. JOB NUMBER: 0127B0012.000</p>	<p>REVISIONS DESCRIPTION</p> <table border="1" style="width: 100%; border-collapse: collapse;"> <thead> <tr> <th>DATE</th> <th>REVISIONS DESCRIPTION</th> </tr> </thead> <tbody> <tr> <td> </td> <td> </td> </tr> <tr> <td> </td> <td> </td> </tr> <tr> <td> </td> <td> </td> </tr> </tbody> </table>	DATE	REVISIONS DESCRIPTION						
DATE	REVISIONS DESCRIPTION								
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<p>SHEET NO. <b>48</b></p>									
<p>SHEET 48 OF 53</p>									

BY: I HEREBY CERTIFY THAT THIS PLAN, SPECIFICATION, OR REPORT THAT I AM A DULY LICENSED PROFESSIONAL ENGINEER UNDER THE LAWS OF THE STATE OF MINNESOTA.

*Michael E. Rude*  
MICHAEL E. RUDE  
DATE: 04-01-2013 LIC. NO. 43896

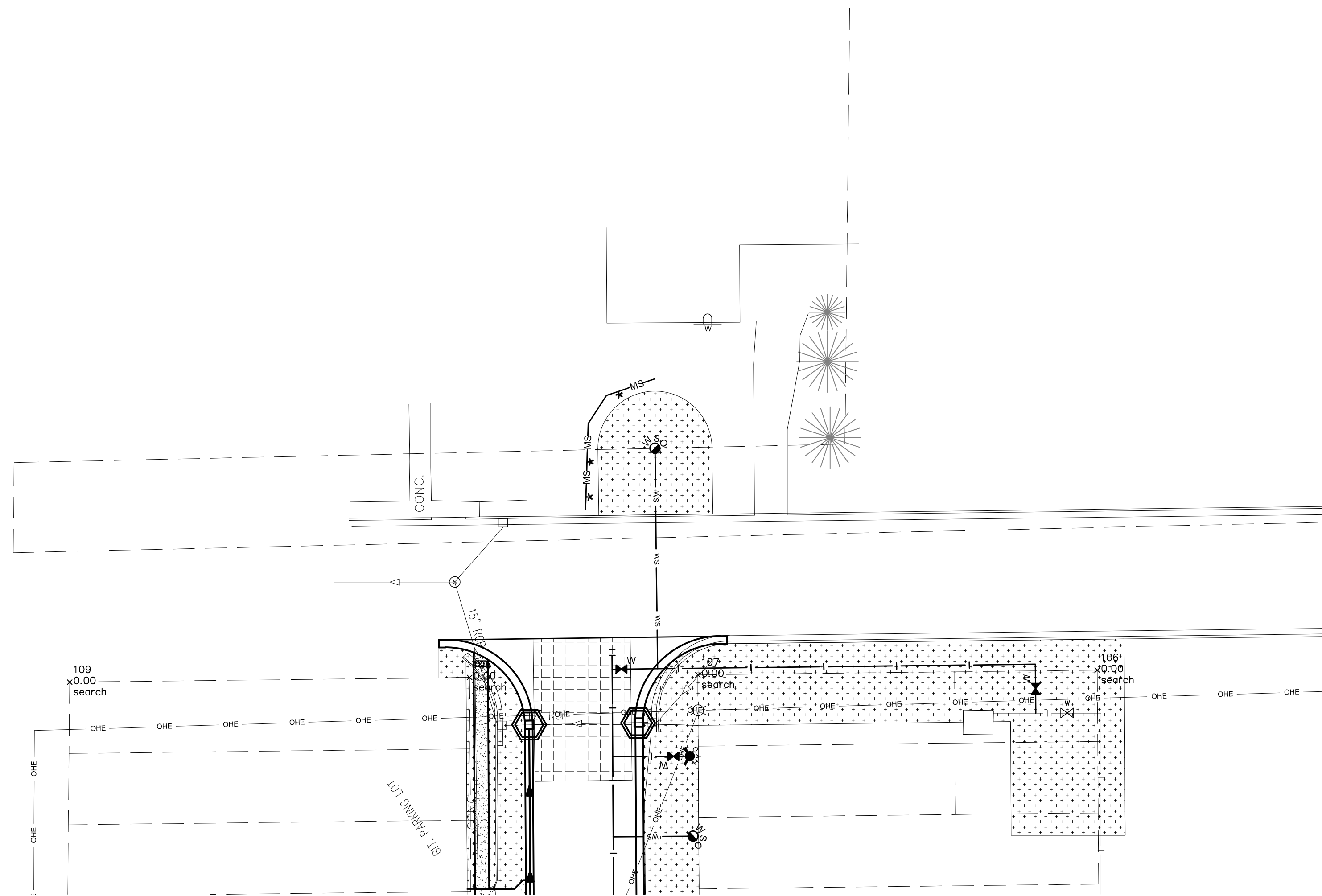
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ENVIRONMENTAL SERVICES  
LAND SURVEYORS  
WATER RESOURCES

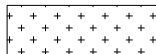
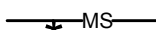

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BARTER, MN  
BEMIDJIE, MN  
GRAND FORKS, ND  
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ROCHESTER, MN

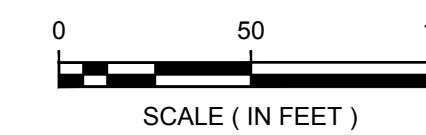
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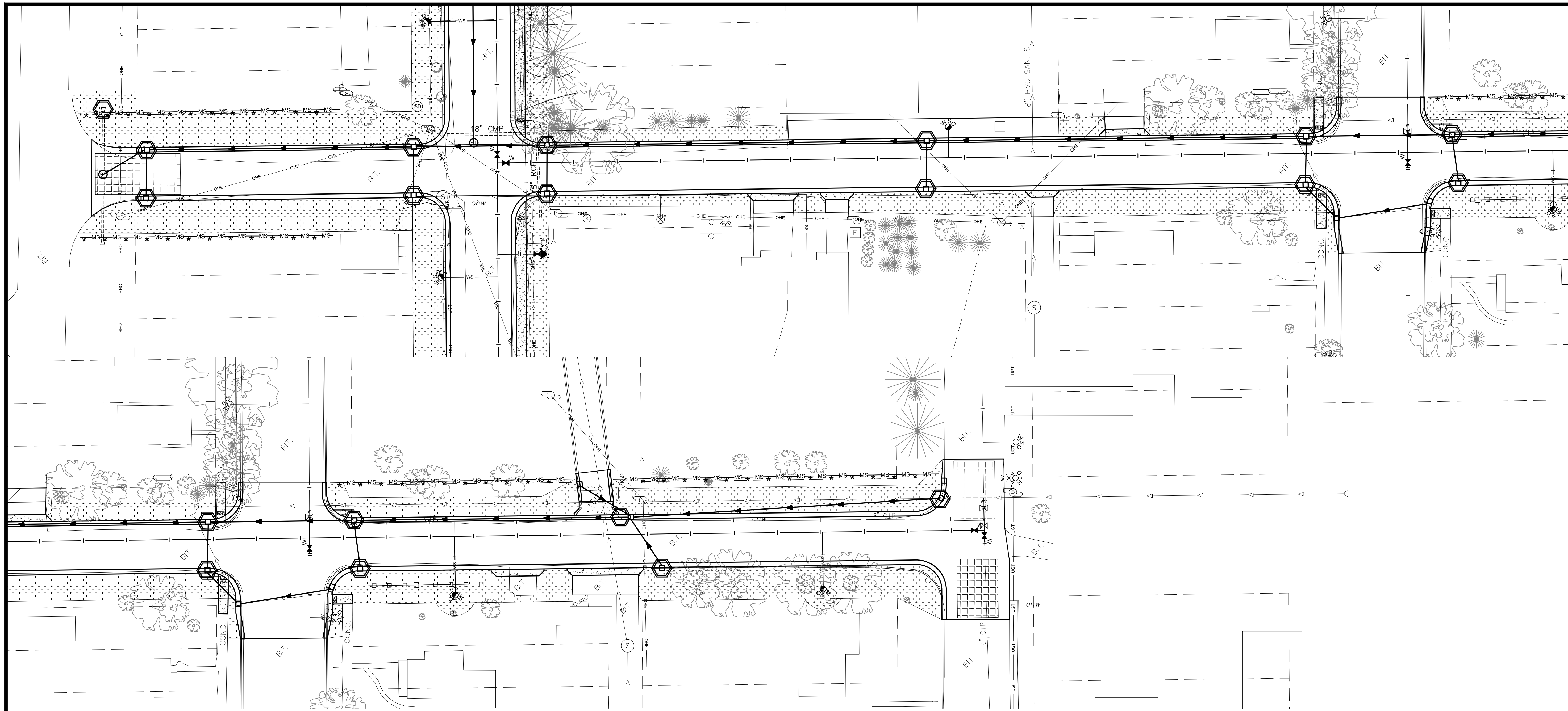


- LEGEND:**
-  SEED AREA
  -  SILT FENCE
  -  INLET PROTECTION


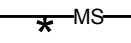

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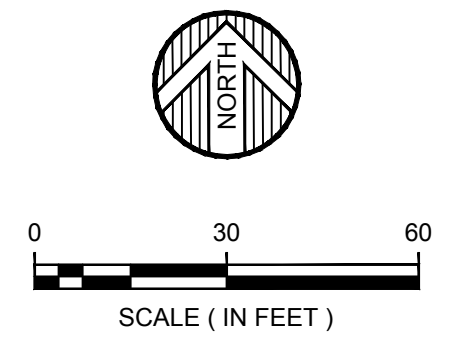


<b>2013 WATER IMPROVEMENTS</b> CITY OF SWANVILLE SWANVILLE, MINNESOTA <b>EROSION CONTROL - WELLHOUSE CONNECTION</b>		SHEET NO. <b>49</b> SHEET 49 OF 53	DATE: JANUARY, 2013 SCALE: AS SHOWN DRAWN BY: P.M.B. CHECKED BY: M.E.R. JOB NUMBER: 0127B0012.000	REVISIONS DESCRIPTION REV# DATE	BY DATE	I HEREBY CERTIFY THAT THIS PLAN, SPECIFICATION, OR REPORT WAS PREPARED BY ME OR UNDER MY CLOSE PERSONAL SUPERVISION THAT I AM A DULY LICENSED PROFESSIONAL ENGINEER UNDER THE LAWS OF THE STATE OF MINNESOTA.  MICHAEL E. RUDE DATE: 04-01-2013 LIC. NO. 43896	 <b>WIDSETH SMITH NOLTING</b> ARCHITECTS ENGINEERS ENVIRONMENTAL SERVICES LAND SURVEYORS WATER RESOURCES ALEXANDRIA, MN BATEL, MN BEMIDJIE, MN GRAND FORKS, ND RED WING, MN ROCHESTER, MN WWW.WSNOLTING.COM
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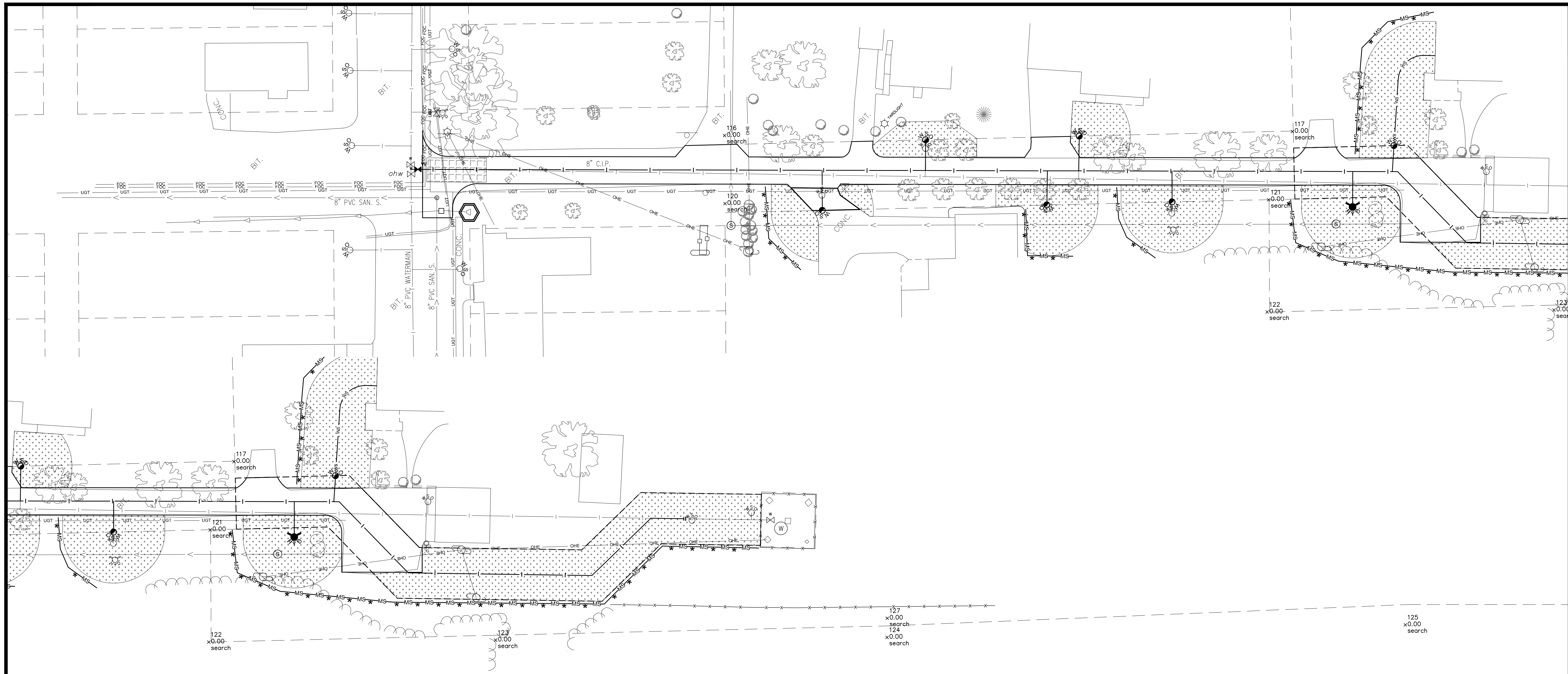


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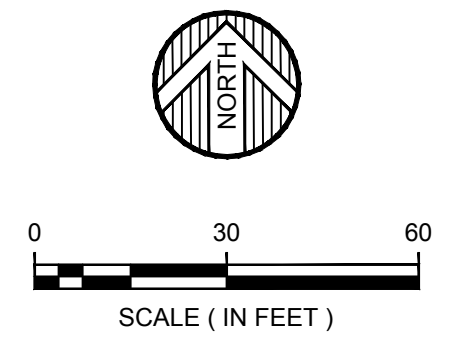
- LEGEND:**
-  SEED AREA
  -  SILT FENCE
  -  INLET PROTECTION

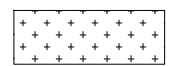
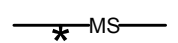



<p>DATE: JANUARY, 2013 SCALE: AS SHOWN DRAWN BY: P.M.B. CHECKED BY: M.E.R. JOB NUMBER: 0127B0012.000</p>	<table border="1" style="width: 100%; border-collapse: collapse;"> <thead> <tr> <th>DATE</th> <th>REV#</th> <th>REVISIONS DESCRIPTION</th> <th>BY</th> </tr> </thead> <tbody> <tr> <td> </td> <td> </td> <td> </td> <td> </td> </tr> <tr> <td> </td> <td> </td> <td> </td> <td> </td> </tr> <tr> <td> </td> <td> </td> <td> </td> <td> </td> </tr> </tbody> </table>	DATE	REV#	REVISIONS DESCRIPTION	BY													<p>I HEREBY CERTIFY THAT THIS PLAN, SPECIFICATION, OR REPORT THAT I AM A DULY LICENSED PROFESSIONAL ENGINEER UNDER THE LAWS OF THE STATE OF MINNESOTA.</p> <p style="text-align: right;"><i>Michael E. Rude</i> MICHAEL E. RUDE DATE: 04-01-2013 LIC. NO. 43896</p>
DATE	REV#	REVISIONS DESCRIPTION	BY															
<p>2013 WATER IMPROVEMENTS CITY OF SWANVILLE SWANVILLE, MINNESOTA EROSION CONTROL - 5TH STREET</p>		<p>ARCHITECTS ENGINEERS ENVIRONMENTAL SERVICES LAND SURVEYORS WATER RESOURCES</p> <p style="text-align: center;"><b>WIDSETH SMITH NOLTING</b> WWW.WSNOLTING.COM</p>																
<p>SHEET NO. <b>50</b></p>		<p>SHEET 50 OF 53</p>																

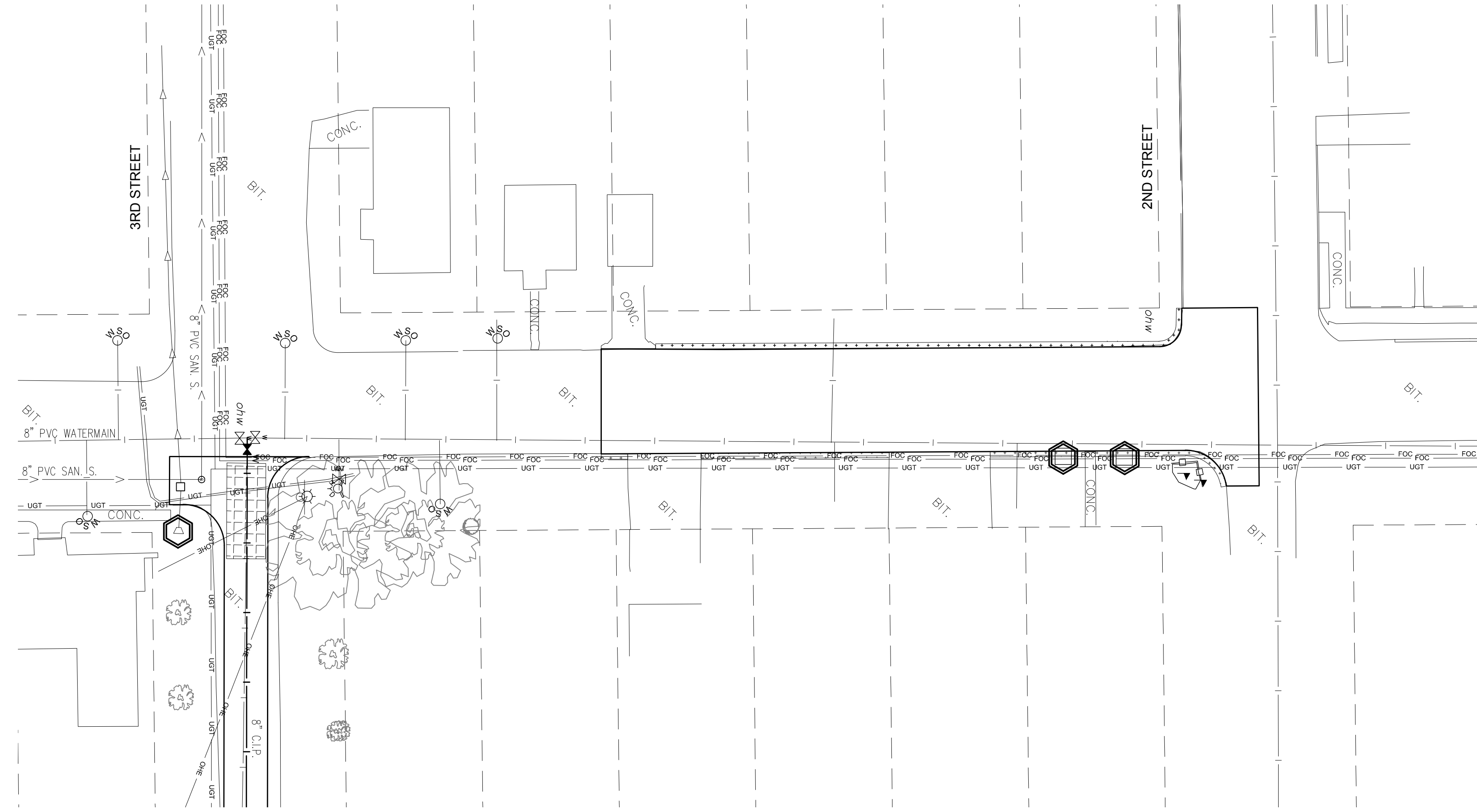


# 3RD STREET

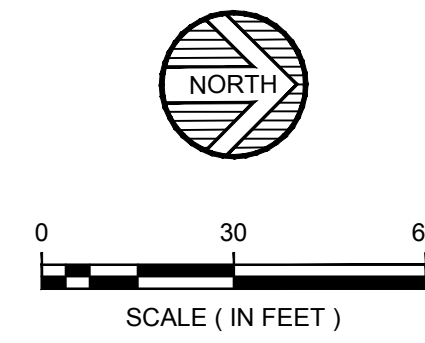


- LEGEND:**
-  SEED AREA
  -  SILT FENCE
  -  INLET PROTECTION

<p><b>2013 WATER IMPROVEMENTS</b>          CITY OF SWANVILLE          SWANVILLE, MINNESOTA  <b>EROSION CONTROL - 3RD STREET</b></p>	<p>ARCHITECTS  <b>ENGINEERS</b>          ENVIRONMENTAL SERVICES          LAND SURVEYORS          WATER RESOURCES</p> <p><b>WIDSETH SMITH NOLTING</b></p>	<p>DATE: JANUARY, 2013          SCALE: AS SHOWN          DRAWN BY: P.M.B.          CHECKED BY: M.E.R.          JOB NUMBER: 0127B0012.000</p>
<p>DATE: _____          REVISIONS DESCRIPTION: _____          REV# _____</p>	<p>BY: _____          I HEREBY CERTIFY THAT THIS PLAN, SPECIFICATION, OR REPORT          THAT I AM A DAILY LICENSED PROFESSIONAL ENGINEER UNDER          THE LAWS OF THE STATE OF MINNESOTA.</p> <p style="text-align: right;"><i>Michael E. Rude</i>          MICHAEL E. RUDE</p>	<p>DATE: 04-01-2013 LIC. NO. 43896</p>



# BERKEY AVENUE



- LEGEND:**
- SEED AREA
  - SILT FENCE
  - INLET PROTECTION

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*Michael E. Rude*  
 MICHAEL E. RUDE

DATE: 04-01-2013 LIC. NO. 43896

DATE	REV#	REVISIONS DESCRIPTION	BY

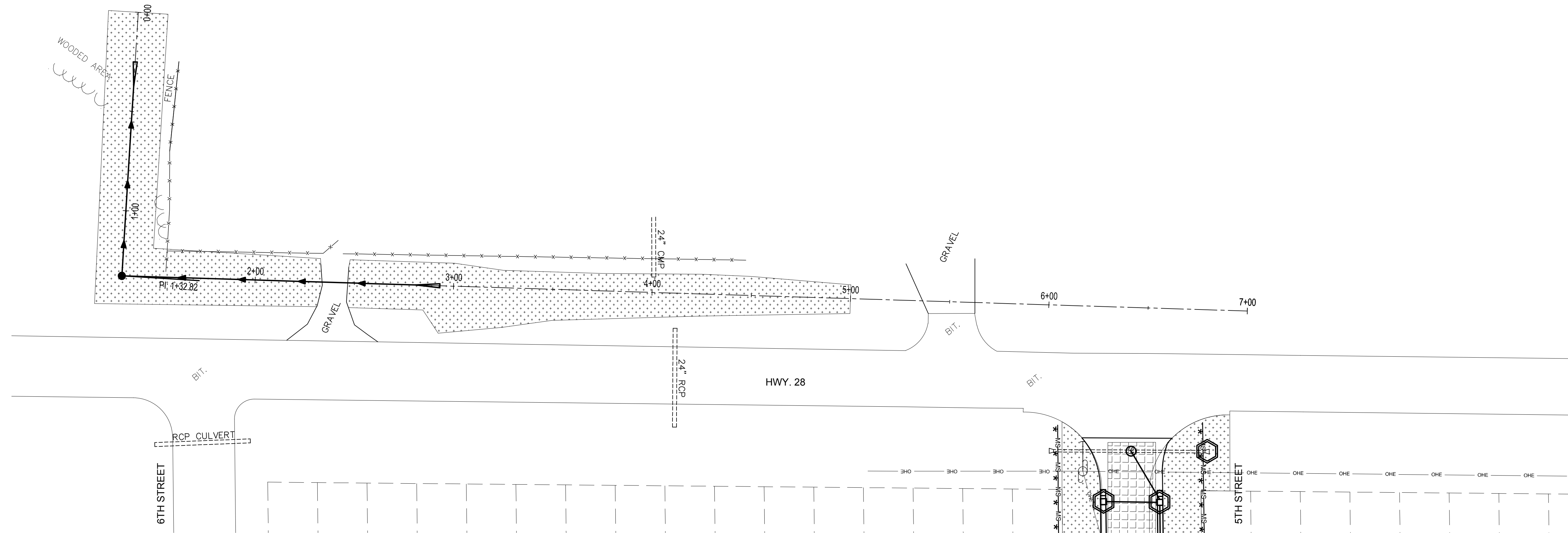
DATE: JANUARY, 2013  
 SCALE: AS SHOWN  
 DRAWN BY: P.M.B.  
 CHECKED BY: M.E.R.  
 JOB NUMBER: 0127B0012.000

2013 WATER IMPROVEMENTS  
 CITY OF SWANVILLE  
 SWANVILLE, MINNESOTA  
**EROSION CONTROL - BERKEY AVENUE**

SHEET NO.  
**52**

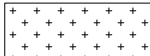
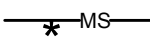

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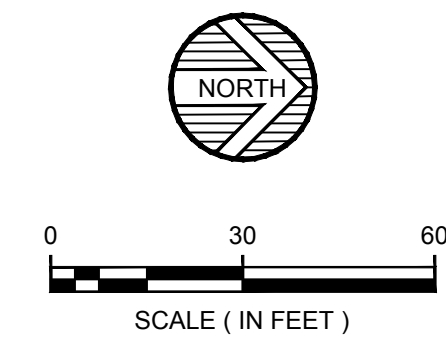
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# HWY. 28 DITCH

**LEGEND:**

-  SEED AREA
-  SILT FENCE
-  INLET PROTECTION



<b>2013 WATER IMPROVEMENTS</b> CITY OF SWANVILLE SWANVILLE, MINNESOTA <b>EROSION CONTROL - HWY 28 DITCH</b>		SHEET NO. <b>53</b> SHEET 53 OF 53
DATE: JANUARY, 2013 SCALE: AS SHOWN DRAWN BY: P.M.B. CHECKED BY: M.E.R. JOB NUMBER: 0127B0012.000	REVISIONS DESCRIPTION REV# DATE	BY: <i>Michael E. Rude</i> I HEREBY CERTIFY THAT THIS PLAN, SPECIFICATION, OR REPORT THAT I AM A DULY LICENSED PROFESSIONAL ENGINEER UNDER THE LAWS OF THE STATE OF MINNESOTA. MICHAEL E. RUDE DATE: 04-01-2013 LIC. NO. 43896
ARCHITECTS ENGINEERS ENVIRONMENTAL SERVICES LAND SURVEYORS WATER RESOURCES		ALEXANDRIA, MN BAYTOWN, MN BEHNDEN, MN GRAND FORKS, ND RED WING, MN ROCHESTER, MN