

# CONSTRUCTION PLANS FOR GRANDVIEW ESTATES SUPERIOR, WISCONSIN

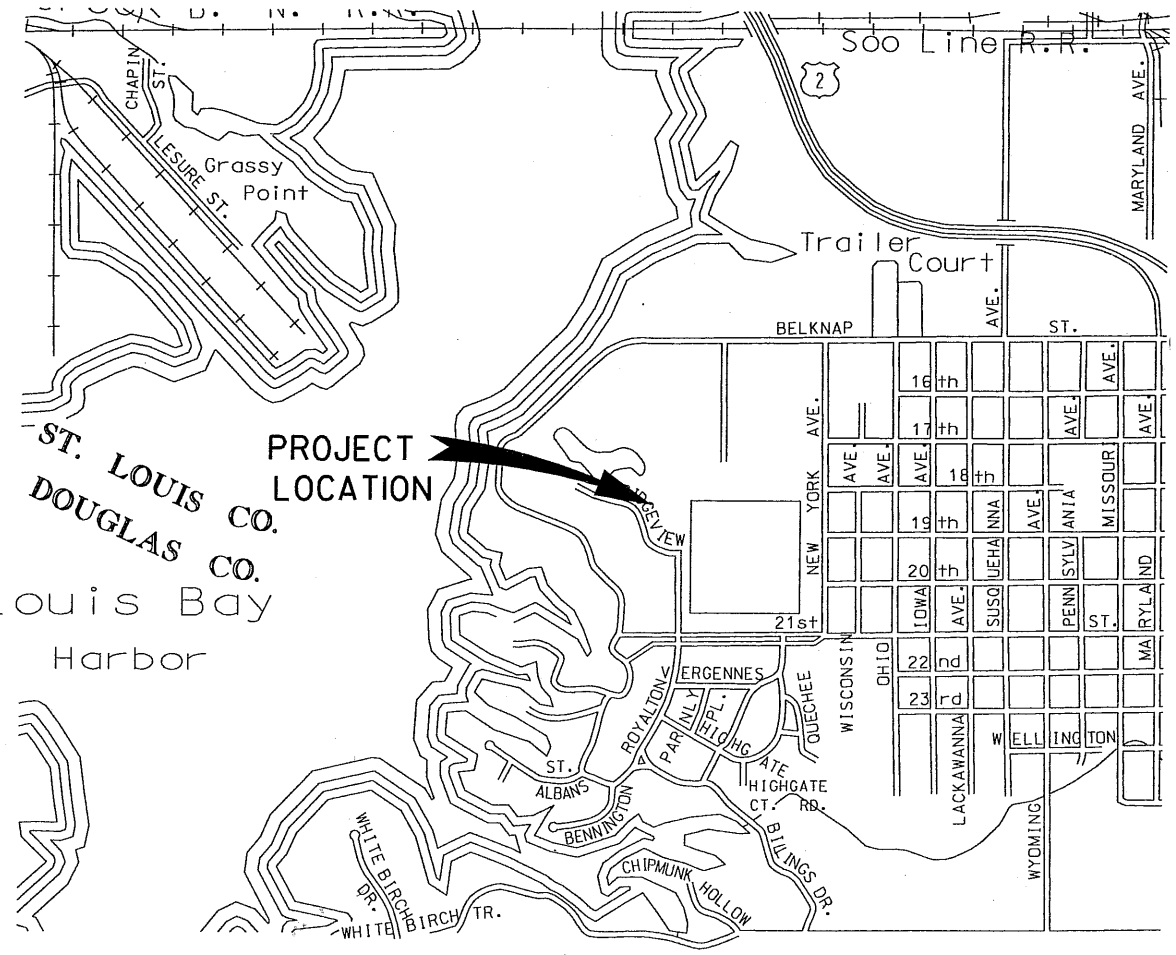
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NOTE:  
THE EXACT LOCATION OF UNDERGROUND UTILITIES SUCH AS GAS, TELEPHONE, FIBER OPTIC, ELECTRIC, CABLE TV, AND PIPE LINES ARE UNKNOWN. THE CONTRACTOR SHALL CONTACT DIGGERS HOTLINE AND ALL OTHER UTILITY OWNERS WHICH ARE WITHIN PROJECT LIMITS, BEFORE COMMENCING EXCAVATION.

DIGGERS HOTLINE.....1-800-242-8511

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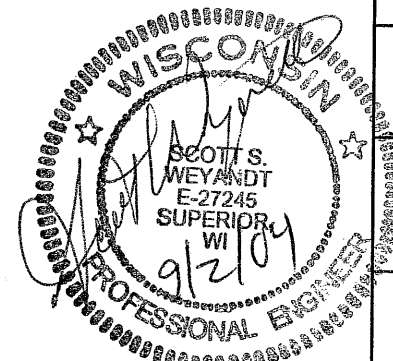
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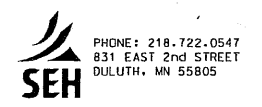
## LEGEND

	STREET CENTERLINE
<b>EXISTING</b>	
	CORPORATE LIMITS
	RIGHT OF WAY
	PERMANENT EASEMENT
	PROPERTY LINE
	SANITARY SEWER AND MANHOLE FORCE MAIN
	SANITARY SEWER SERVICE
	WATERMAIN, HYDRANT AND VALVE
	WATER SERVICE AND CURB STOP BOX
	WATER VALVE MANHOLE
	STORM SEWER, MANHOLE AND CATCH BASIN
	CULVERT
	BULKHEAD
	UNDERGROUND ELECTRIC CABLE OR CONDUIT
	UNDERGROUND ELECTRIC DUCT
	GAS MAIN
	UNDERGROUND TELEPHONE CABLE OR CONDUIT
	UNDERGROUND TELEPHONE DUCT
	UNDERGROUND TELEVISION CABLE OR CONDUIT
	UNDERGROUND TELEVISION DUCT
	ELECTRIC CONTROL CABINET/BOX
	ELECTRIC MANHOLE
	ELECTRIC TRANSFORMER/PEDESTAL
	POWER POLE & GUY ANCHOR
	LIGHT POLE
	GAS VALVE, GAS SIGN & GAS VENT
	TRAFFIC SIGNAL, STANDARD HAND HOLE
	TELEPHONE MANHOLE
	TELEPHONE PEDESTAL
	CABLE TV PEDESTAL
	SOIL BORING
	TRAVERSE POINT
	CONCRETE CURB AND GUTTER
	EXISTING PAVEMENT OR SIDEWALK
	SIGN (HWY, PARK, STOP, ETC.)
	STREET SIGN
	DITCH
	RAILROAD TRACKS
	BARBED WIRE FENCE
	CHAIN LINK FENCE
	ELECTRIC WIRE FENCE
	WOOD FENCE
	WOVEN WIRE FENCE
	GUARD RAIL
	TREE (DECIDUOUS)
	TREE (CONIFEROUS)
	BUSH-SHRUB
	WOODED AREA
	BUILDING
<b>PROPOSED</b>	
	NEW RIGHT OF WAY
	PERMANENT EASEMENT
	TEMPORARY EASEMENT
	CONSTRUCTION LIMITS
	SANITARY SEWER AND MANHOLE FORCE MAIN
	SANITARY SEWER SERVICE
	WATERMAIN, HYDRANT AND VALVE
	WATER SERVICE AND CURB STOP BOX
	WATER VALVE MANHOLE
	STORM SEWER, CATCH BASIN & MANHOLE
	CULVERT
	BULKHEAD
	DRAIN TILE
	CONCRETE CURB AND GUTTER
	SILT FENCE
	HAYBALES
	LIGHT POLE
	TRAFFIC SIGNAL, STANDARD SIGN (HWY, PARK, STOP, ETC.)
	STREET LIGHT FEED POINT
	STREET LIGHTING CABLE
	REMOVE TREE

ST. LOUIS CO.  
DOUGLAS CO.  
St. Louis Bay  
Upper Harbor



GRANDVIEW ESTATES  
SUPERIOR, WISCONSIN



I HEREBY CERTIFY THAT THIS PLAN WAS PREPARED BY ME OR UNDER MY DIRECT SUPERVISION AND THAT I AM A DULY LICENSED PROFESSIONAL ENGINEER UNDER THE LAWS OF THE STATE OF WISCONSIN.

Date: 9/2/04 Reg. No. E-27245

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**NOTES**

1. REMOVAL OF EXISTING SANITARY SEWER PIPE IS INCIDENTAL TO PLACEMENT OF NEW SANITARY SEWER.
2. TO BE PLACED AS DIRECTED BY THE ENGINEER.
3. SEE TRAFFIC CONTROL PLAN SHEET.
4. SEE EROSION CONTROL PLAN SHEET. THE UNIT "EACH" INCLUDES ALL INSTALLATION, MAINTENANCE, AND ALL MATERIALS REQUIRED FOR THE PROTECTION OF THE INLET.
5. INCLUDES QUANTITIES FOR CONSTRUCTION OF PEDESTRIAN TRAIL, AND RESTORATION OF 18TH ST., 21ST AVE., AND ROYALTON RD.
6. REMOVAL OF EXISTING SANITARY MANHOLES IS INCIDENTAL TO THE PLACEMENT OF NEW SANITARY MANHOLES.
7. TO BE USED UNDER ROADWAYS AND RIPRAP
8. INCLUDES COPPER TUBING, CORPORATION STOP, STAND PIPE, AND ALL OTHER MATERIALS AND PLUMBING WORK TO SERVE 46 UNITS. CURB STOP MODEL FORD B22-444M OR EQUAL. CORPORATION STOP MODEL FORD FB600-4 OR EQUAL WITH L02-44 1/4 BEND.
9. TO BE USED UNDER PEDESTRIAN TRAIL AND SIDEWALK
10. EXCAVATION LIMITS SHALL BE MARKED BY THE ENGINEER. SAWING OF THE MARKED LIMITS WILL BE PAID FOR ONLY ONE TIME, UNLESS DIRECTED BY THE ENGINEER. IF CONSTRUCTION ACTIVITIES REQUIRE THAT A SECOND SAWCUT IS NECESSARY, IT WILL BE AT THE CONTRACTOR'S EXPENSE.
11. OLDCASTLE PRECAST SAND INTERCEPTOR MODEL NO. 61267-SI OR EQUIVALENT.
12. HYDRO INTERNATIONAL DOWNSTREAM DEFENDER (4' DIAMETER) STORMCEPTOR MODEL NO. STC3600
13. INCLUDES MANHOLE COVER NEENAH TYPE 1670
14. SEED MIXTURE NO. 10 APPLIED AT 100 LB./ ACRE.
15. METHOD B APPLIED AT 2 TONS/ACRE
16. INCLUDES STRIPPING OF TOPSOIL FROM ALL AREAS THAT ARE TO BE DISTURBED BY CONSTRUCTION AND STOCK PILING FOR LATER USE. ALL TOPSOIL SALVAGED FROM THE PROJECT WILL BE USED IN AREAS DISTURBED BY CONSTRUCTION
17. TO BE PLACED 6-INCHES ABOVE PIPE IN TWO LAYERS WITH STAGGERED JOINTS

QUANTITIES						
CHART	NOTE	ITEM NUMBER	DESCRIPTION	UNIT	ESTIMATED QUANTITY	FINAL QUANTITY
		01505.1	MOBILIZATION	LUMP SUM	1.00	
	3	01559.1	TRAFFIC CONTROL	LUMP SUM	1.00	
	7	02075.1	GEOTEXTILE FABRIC TYPE SAS	SQ YD	7512.00	
	9	02075.2	GEOTEXTILE FABRIC TYPE DF	SQ YD	3453.00	
		02228.1	REMOVE AND REINSTALL SIGN (DRIVEN POST)	EACH	1.00	
	1	02228.2	REMOVE SEWER PIPE	LIN FT	328.00	
		02228.3	INSTALL SIGN	EACH	3.00	
		02232.1	CLEARING	ACRE	0.62	
		02232.2	GRUBBING	ACRE	0.62	
	17	02316.1	COMMON EXCAVATION (P) (CV)	CU YD	24308.00	
		02316.2	COMMON BORROW	CU YD	16719.00	
	4	02372.1	SILT FENCE, TYPE HEAVY DUTY	LIN FT	2100.00	
	4	02372.2	INLET PROTECTION TYPE B	EACH	16.00	
		02376.1	RIPRAP MEDIUM	CU YD	82.00	
		02510.1	8-INCH WATER MAIN	LIN FT	2310.00	
		02510.2	INSTALL HYDRANT AND VALVE	EACH	4.00	
	8	02510.3	1-INCH WATER SERVICE WITH CURB STOP	LIN FT	1624.00	
		02510.4	8-INCH GATE VALVE & BOX	EACH	5.00	
		02510.5	LIVE TAP CUT INTO EXISTING WATER MAIN	EACH	2.00	
		02510.6	CONNECT TO EXISTING WATER MAIN	EACH	1.00	
		02530.1	8-INCH SANITARY SEWER	LIN FT	2664.00	
	6,14	02530.2	SANITARY MANHOLE 48-INCH	VF	127.77	
		02530.3	8-INCH x 6-INCH WYE	EACH	46.00	
		02530.4	6-INCH SANITARY SERVICE PIPE	LIN FT	1458.00	
		02530.5	CONNECT TO EXISTING SANITARY MANHOLE	EACH	1.00	
		02530.6	CUT INTO & CONNECT TO EXISTING SANITARY SEWER	EACH	2.00	
		02530.7	MANHOLE FRAME SEALS (EXTERIOR) SAN	EACH	15.00	
		02530.8	MANHOLE FRAME SEALS (INTERIOR) SAN	EACH	15.00	
	2, 18	02330.9	3-INCH POLYSTYRENE INSULATION (EST.)	SQ YD	96.00	
		02623.1	6-INCH PERFORATED PVC PIPE DRAIN SDR 35	LIN FT	3600.00	
		02630.1	STORM SEWER PIPE REINFORCED CONCRETE CLASS III 12 - INCH	LIN FT	980.00	
		02630.2	STORM SEWER PIPE REINFORCED CONCRETE CLASS III 18 - INCH	LIN FT	1458.00	
		02630.3	STORM SEWER PIPE REINFORCED CONCRETE CLASS III 24 - INCH	LIN FT	660.00	
		02630.4	STORM MANHOLE TYPE 1 (48-INCH)	EACH	17.00	
		02630.5	STORM MANHOLE TYPE 2 (60-INCH)	EACH	1.00	
		02630.6	STORM MANHOLE TYPE 3 (72-INCH)	EACH	1.00	
		02630.7	STORM MANHOLE TYPE 4 (84-INCH)	EACH	3.00	
		02630.8	CATCH BASINS TYPE 2	EACH	5.00	
		02630.9	12-INCH AEW	EACH	3.00	
	12	02630.10	GRIT CHAMBER TYPE 1	EACH	1.00	
	11	02630.11	GRIT CHAMBER TYPE 2	EACH	1.00	
	13	02630.12	GRIT CHAMBER TYPE 3	EACH	1.00	
		02630.13	OUTLET STRUCTURE	EACH	1.00	
		02630.14	CUT INTO EXISTING STORM SEWER	EACH	3.00	
		02630.15	MANHOLE COVER, TYPE J	EACH	9.00	
		02630.16	INLET COVER, TYPE H-M	EACH	7.00	
		02630.17	INLET COVER, TYPE H-M-S (LOW POINTS)	EACH	8.00	
		02630.18	INLET COVER (BEEHIVE)	EACH	3.00	
		02722.1	CRUSHED AGGREGATE BASE COURSE, OPEN GRADED, # 2 (CV)	CU YD	2464.00	
		02722.2	BREAKER RUN	CU YD	2459.00	
	5	02745.1	ASPHALTIC CONCRETE PAVEMENT, TYPE E-3	TON	2275.00	
		02772.1	CONCRETE CURB AND GUTTER 36-INCH	LIN FT	3600.00	
		02776.1	4-INCH CONCRETE WALK	SQ FT	7125.00	
	16	02920.1	MULCHING	ACRE	14.80	
	15	02920.2	SEEDING	ACRE	14.80	
		02821.1	CHAIN LINK SAFETY FENCE (72-INCH)	LIN FT	754.00	
	10	02978.1	SAWING BITUMINOUS PAVEMENT (FULL DEPTH)	LIN FT	825.00	

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GRANDVIEW ESTATES  
SUPERIOR, WISCONSIN

ESTIMATED QUANTITY SHEET

FILE NO.	2
DATE	08/13/2004
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STORM SEWER TABULATIONS

STRUCTURE NUMBER	STRUCTURE TYPE	STATION FEET	OFFSET FEET	MH/CB DESIGN	EXISTING RIM ELEVATION FEET	NEW RIM ELEVATION FEET	INVERT OUT ELEVATION FEET	DRAINS TO STRUCTURE NUMBER	STORM MANHOLE TYPE 1 FEET	STORM MANHOLE TYPE 2 FEET	STORM MANHOLE TYPE 3 FEET	STORM MANHOLE TYPE 4 FEET
BILLINGS LANE												
109	CB	12+08	15.00 RT	TYPE 2 INLET	---	637.16	633.00					
110	MH	12+08	15.00 LT	TYPE 1 MH	---	637.16	633.25		4.00			
111	APRON	12+08	25.00 LT	APRON	---	---	635.00					
108	CB	10+23	15.00 LT	TYPE 2 INLET	---	635.74	632.00					
107	MH	10+23	15.00 RT	TYPE 1 MH	---	635.74	631.75		4.25			
106	MH	9+24	15.00 RT	TYPE 1 MH	---	636.10	631.12		5.38			
122	MH	7+79	9.80 RT	TYPE 1 MH	---	637.09	630.26		7.24			
121	MH	7+04	11.40 RT	TYPE 1 MH	---	637.07	629.72		7.28			
120	MH	6+43	10.70 RT	TYPE 1 MH	---	637.47	629.36		8.39			
118	MH	5+26	15.00 RT	TYPE 1 MH	---	635.68	629.21		6.79			
119	CB	5+26	15.00 LT	TYPE 2 INLET	---	635.68	632.00					
116	MH	3+15	15.00 RT	TYPE 1 MH	---	637.10	628.27		9.23			
117	CB	3+15	15.00 LT	TYPE 2 INLET	---	637.10	633.50					
115	MH	0+76	15.00 RT	TYPE 1 MH	---	637.00	627.46		9.54			
113	MH	0+47	15.00 RT	TYPE 1 MH	---	635.84	627.25		9.75			
114	CB	0+47	15.00 LT	TYPE 2 INLET	---	635.84	627.75					
GRIT CHAMBER TYPE 1	GRIT CHAMBER			GRIT CHAMBER		637.00	627.25					
112	APRON			APRON		---	627.00					
TOTAL BILLINGS LANE									71.85	0	0.00	0
BILLINGS COURT												
101	CB	40+94	15.00 RT	TYPE 2 INLET	---	636.94	633.25					
102	MH	40+94	15.00 LT	TYPE 1 MH	---	636.94	633.00		4.00			
103	MH	42+13	15.00 LT	TYPE 1 MH	---	637.82	632.00		5.90			
GRIT CHAMBER TYPE 3	GRIT CHAMBER	42+13	35.00 LT	GRIT CHAMBER	---	638.00	631.00					
104	MH	42+13	175.00 LT	TYPE 3 MH	---	636.00	621.50				14.50	
TOTAL BILLINGS COURT									9.90	0	14.50	0
REROUTE OF EXISTING 18"												
127	MH			TYPE 1 MH	---	637.00	628.55		8.45			
126	MH			TYPE 1 MH	---	637.00	626.15		10.85			
125	MH			TYPE 1 MH	---	634.00	625.85		8.15			
125B	MH			TYPE 4 MH	---	637.25	625.60					11.65
GRIT CHAMBER TYPE 2	GRIT CHAMBER			GRIT CHAMBER	---	637.25	625.55					
125A	MH			TYPE 4 MH	---	637.25	625.25					12.00
124	MH			TYPE 2 MH	---	637.00	622.58			14.42		
123	MH			TYPE 1 MH	---	634.00	626.00					
105	APRON			APRON	---	---	633.50					
TOTAL REROUTE									27.45	14.42	0.00	23.65
DITCH AROUND POND												
128	APRON			APRON	---	---	631.00					
129	MH			TYPE 1 MH	---	635.50	628.16		7.34			
130	MH			TYPE 4 MH	---	630.00	622.47					7.53
DITCH TOTAL									7.34	0	0.00	7.53
PROJECT TOTAL									116.54	14.42	14.50	31.18

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GRANDVIEW ESTATES  
SUPERIOR, WISCONSIN

TABULATION SHEET

FILE NO. ARR1VD0401.00	3
DATE 08/13/2004	37

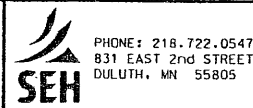
WATER SERVICES		
LOCATION	EACH	TRENCH LF
BILLINGS COURT		
42+18, RT	1	27
42+19, RT	1	13
42+46, RT	1	18
42+47, RT	1	22
42+60, RT	1	18
43+25, RT	1	66
43+33, LT	1	45
43+38, RT	1	60
43+43, RT	1	43
BILLINGS LANE		
1+05, RT	1	37
1+64, RT	1	36
2+14, RT	1	39
2+64, RT	1	40
3+13, RT	1	40
3+61, RT	1	31
3+74, LT	1	20
4+07, LT	1	20
4+14, RT	1	40
4+64, RT	1	40
4+74, LT	1	20
4+97, LT	1	20
5+14, RT	1	40
5+47, LT	1	20
5+64, RT	1	40
6+09, RT	1	43
6+13, LT	1	16
6+46, RT	1	46
6+92, RT	1	41
6+95, LT	1	20
7+85, RT	1	41
8+19, RT	1	48
8+35, LT	1	12
8+67, RT	1	46
8+90, RT	1	42
9+58, RT	1	48
9+81, RT	1	46
10+57, RT	1	40
10+80, RT	1	40
10+97, LT	1	20
11+65, RT	1	40
11+88, RT	1	40
12+73, RT	1	40
12+96, RT	1	40
13+81, RT	1	40
14+04, RT	1	40
14+95, RT	1	40
ITEM TOTAL	46	1624

SANITARY WYES		
LOCATION	EACH	4" OR 6" PVC SANITARY SEWER CONNECTION LF
BILLINGS COURT		
41+00, RT	1	16
42+00, LT	1	30
42+50, LT	1	22
42+50, RT	1	29
43+24, LT	1	57
43+29, RT	1	54
43+36, RT	1	56
43+38, LT	1	54
BILLINGS LANE		
1+00, RT	1	27
1+61, RT	1	26
2+11, RT	1	28
2+61, RT	1	30
3+11, RT	1	31
3+64, RT	1	40
3+71, LT	1	30
4+04, LT	1	30
4+11, RT	1	31
4+61, RT	1	31
4+71, LT	1	30
4+94, LT	1	30
5+11, RT	1	30
5+44, LT	1	30
5+61, RT	1	30
6+06, RT	1	33
6+11, LT	1	26
6+42, RT	1	36
6+88, RT	1	31
6+92, LT	1	30
7+87, RT	1	31
8+22, RT	1	38
8+39, LT	1	22
8+71, RT	1	35
8+94, RT	1	31
9+61, RT	1	37
9+84, RT	1	36
10+60, RT	1	30
10+83, RT	1	30
11+00, LT	1	30
11+68, RT	1	30
11+91, RT	1	30
12+76, RT	1	30
12+99, RT	1	30
13+84, RT	1	30
14+07, RT	1	30
14+98, RT	1	30
ITEM TOTAL	45	1458

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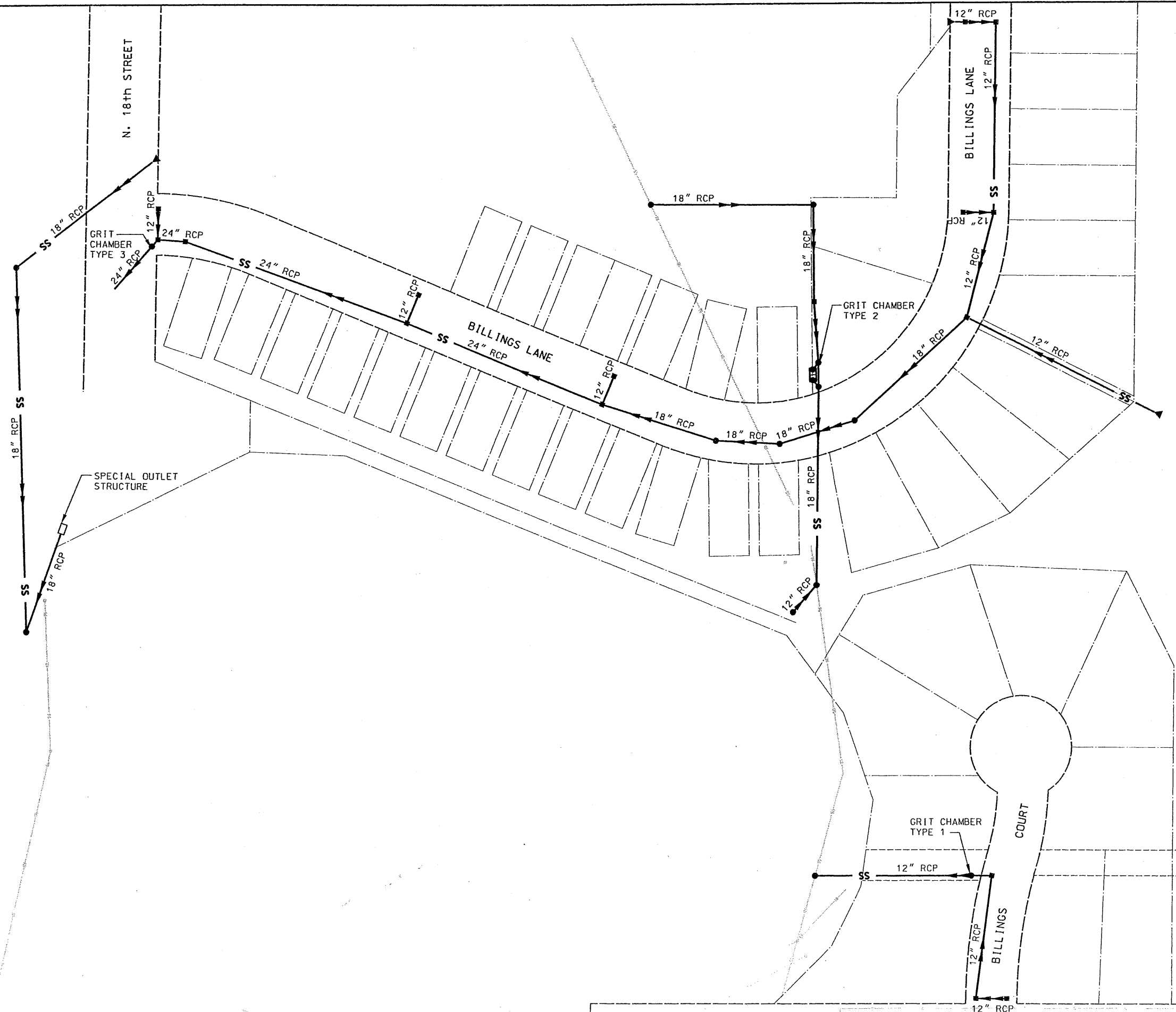
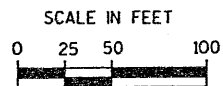


GRANDVIEW ESTATES  
SUPERIOR, WISCONSIN

TABULATIONS

FILE NO.	4
DATE	08/13/2004
	37





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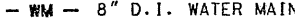

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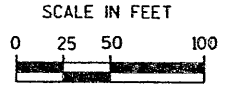
**GRANDVIEW ESTATES  
 SUPERIOR, WISCONSIN**

**STORM SEWER  
 GENERAL LAYOUT**

FILE NO.	ARR1V00401.00	5
DATE	08/13/2004	37

LEGEND	
	HYDRANT
	GATE VALVE
	8" D.I. WATER MAIN
	1" WATER SERVICE

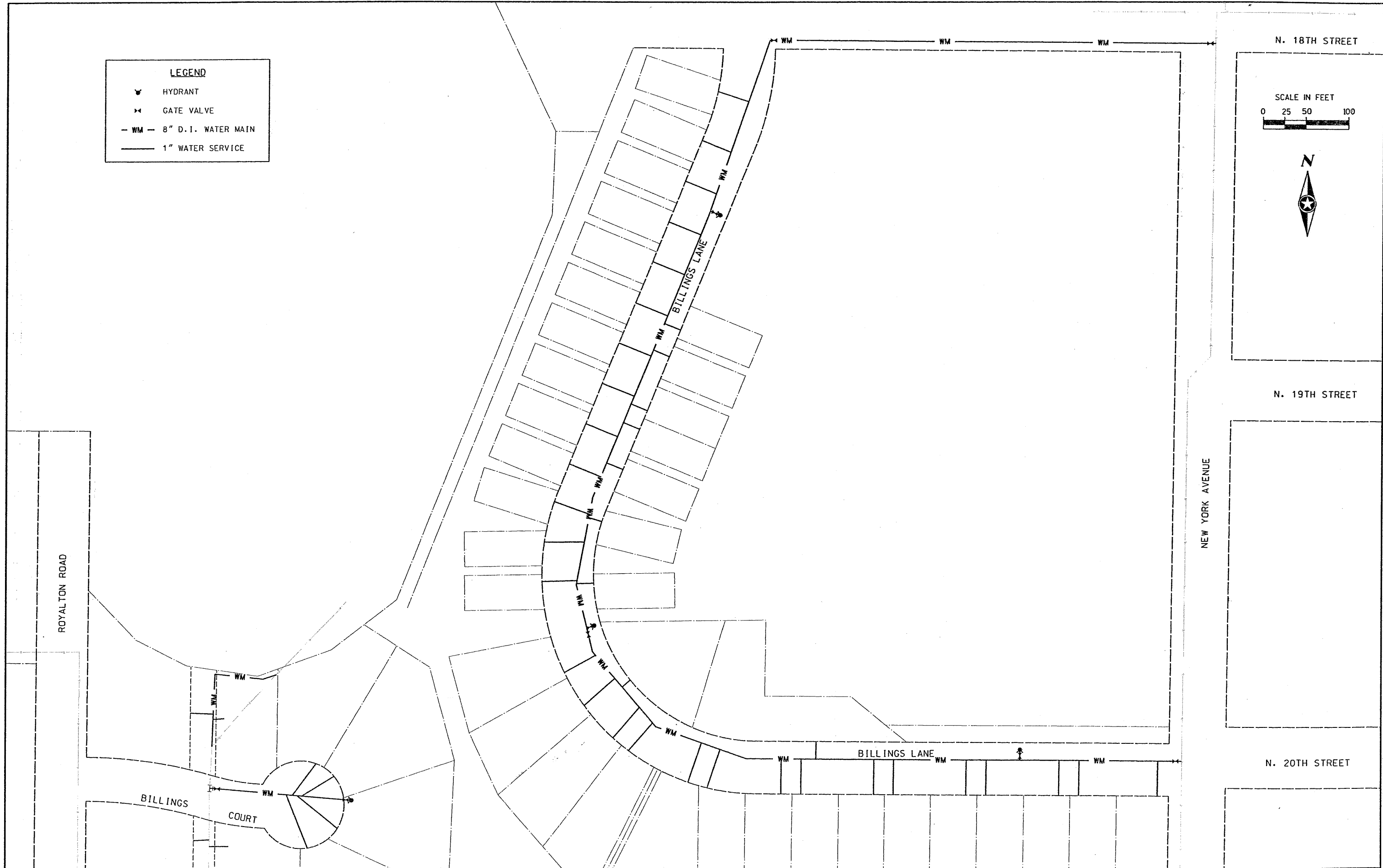
N. 18TH STREET



N. 19TH STREET

NEW YORK AVENUE


N. 20TH STREET



DRAWING NAME: Escalvissuperiorforreview Estorobasap plot14P1M100.dwg JOB #: LAYERS OFF:

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DULUTH, MN 55805

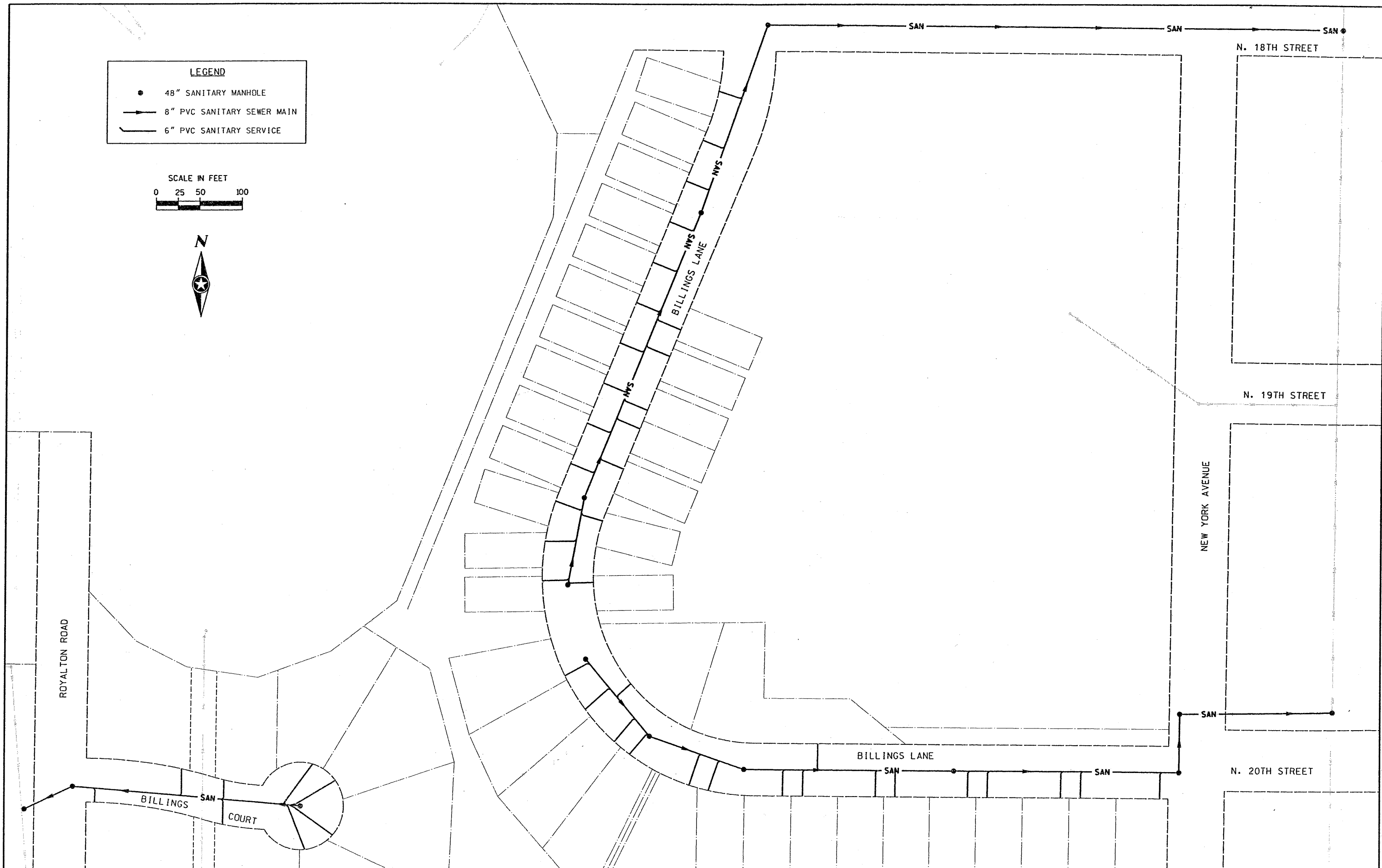
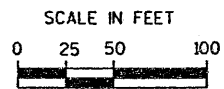
GRANDVIEW ESTATES  
SUPERIOR, WISCONSIN

WATER MAIN  
GENERAL LAYOUT

FILE NO.	6
ARRIVD0401.00	
DATE	08/13/2004
	37

**LEGEND**


- 48" SANITARY MANHOLE
- 8" PVC SANITARY SEWER MAIN
- 6" PVC SANITARY SERVICE



DRAWING NAME: E:\civil\superior\40\renov\Estates\sp\plot\SP\ANDL\BPH JOB 1: 08/13/04

DRAWN BY:	AMJ			
DESIGNER:	RER			
CHECKED BY:	MJB			
DESIGN TEAM	NO.	BY	DATE	REVISIONS

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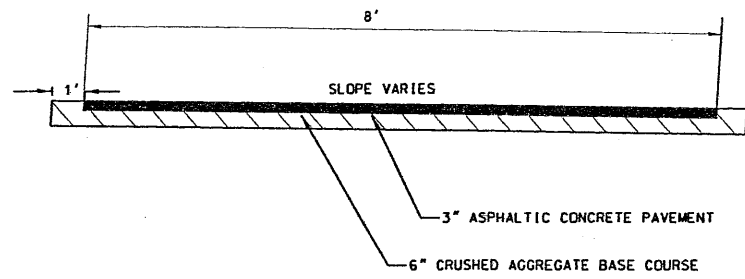


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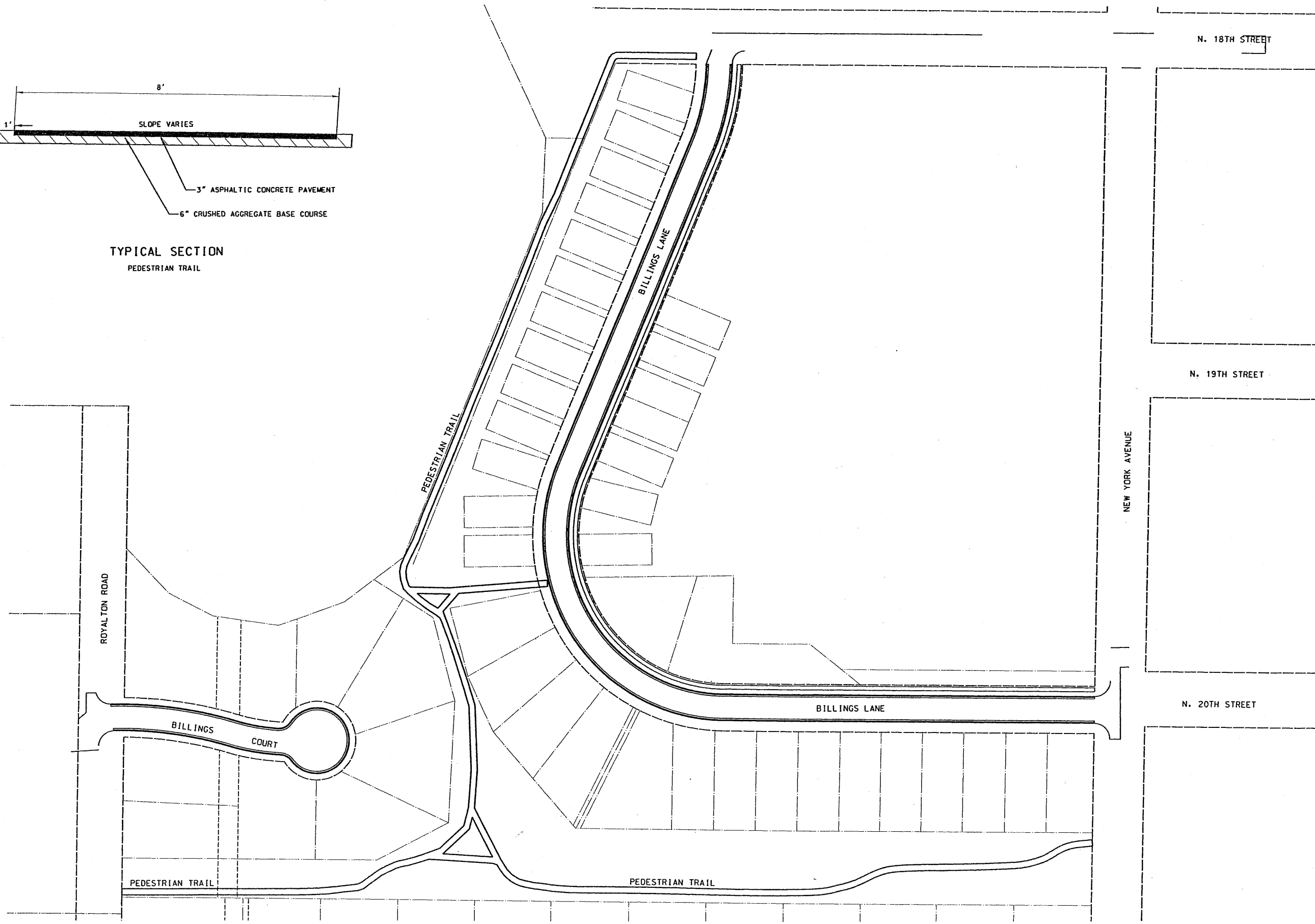
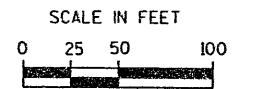
GRANDVIEW ESTATES  
SUPERIOR, WISCONSIN

SANITARY SEWER  
GENERAL LAYOUT

FILE NO.	ARRIVED0401.00	7
DATE	08/13/2004	37



TYPICAL SECTION  
PEDESTRIAN TRAIL



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DRAWN BY:	AMJ				
DESIGNER:	RER				
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GRANDVIEW ESTATES  
SUPERIOR, WISCONSIN

PEDESTRIAN TRAIL  
GENERAL LAYOUT

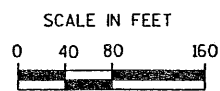
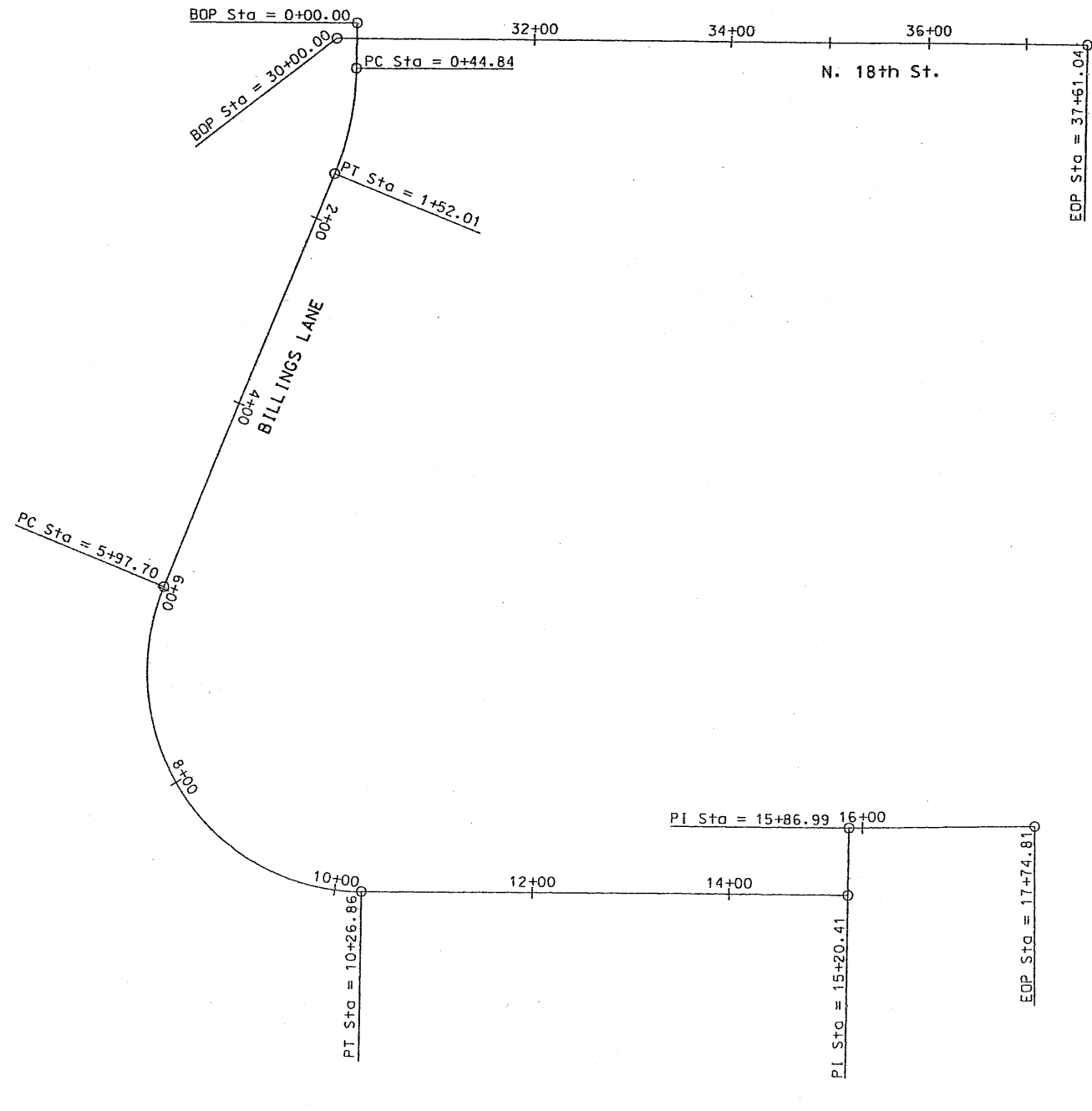
FILE NO.	ARRIVED0401.00	8
DATE	08/13/2004	37

**HORIZONTAL ALIGNMENT & SURVEY CONTROL POINTS**

PI #	STATION	NORTHING	EASTING	DISTANCE
<b>BILLINGS COURT</b>				
BDP	40+00.00	303257.8760	138523.6100	88.76
1	40+88.76	303295.4198	138604.0382	71.98
2	41+60.74	303294.8748	138676.0145	127.99
3	42+87.84	303259.3925	138798.9913	56.90
EOP	43+43.24	303265.9717	138855.5048	
<b>BILLINGS LANE</b>				
BDP	0+00.00	304174.6745	139369.2400	99.09
1	0+99.09	304075.5859	139368.7903	824.69
2	9+22.45	303311.9719	139057.3383	818.30
3	15+20.41	303305.9750	139875.6137	66.58
4	15+86.99	303372.5544	139876.1821	187.81
EOP	17+74.81	303374.0463	140063.9902	
<b>N. 18TH STREET</b>				
BDP	30+00.00	304159.4011	139349.1273	761.04
EOP	37+61.04	304153.6459	140110.1448	
<b>N. BILLINGS COURT</b>				
BDP	50+00.00	303294.7400	138730.1600	161.29
EOP	51+61.29	303456.0270	138731.1710	

**BENCHMARK INFORMATION**

BM #	ELEVATION	DESCRIPTION
1	XXXXX	XXXXXX



DRAWING NAME: E:\civil\superior\gr\planview\Estresdesigner\0411.dgn  
LAYER: 01  
SEH JOB #:

DRAWN BY: AMJ				
DESIGNER: RER				
CHECKED BY: SSW				
DESIGN TEAM	NO.	BY	DATE	REVISIONS

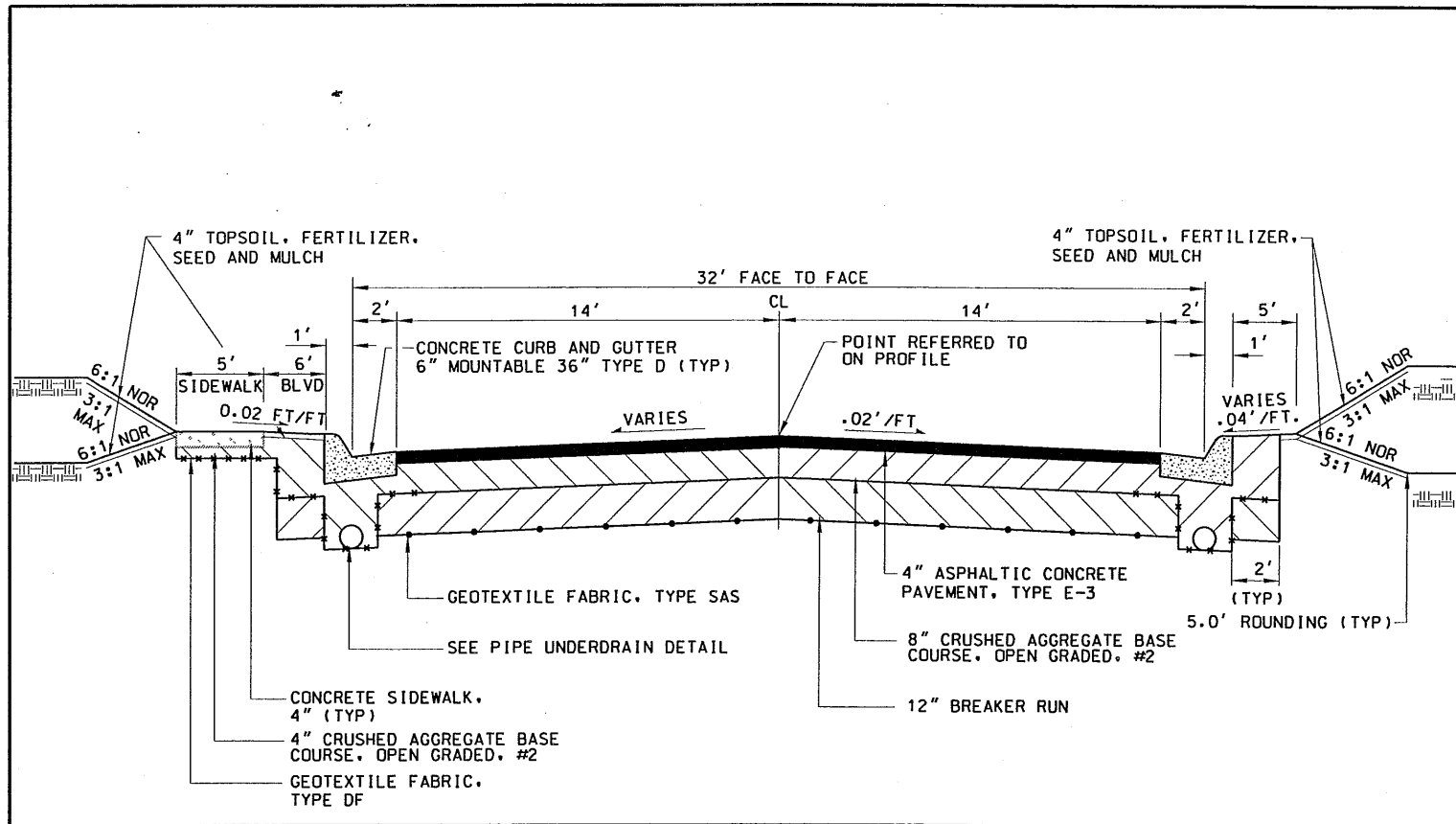
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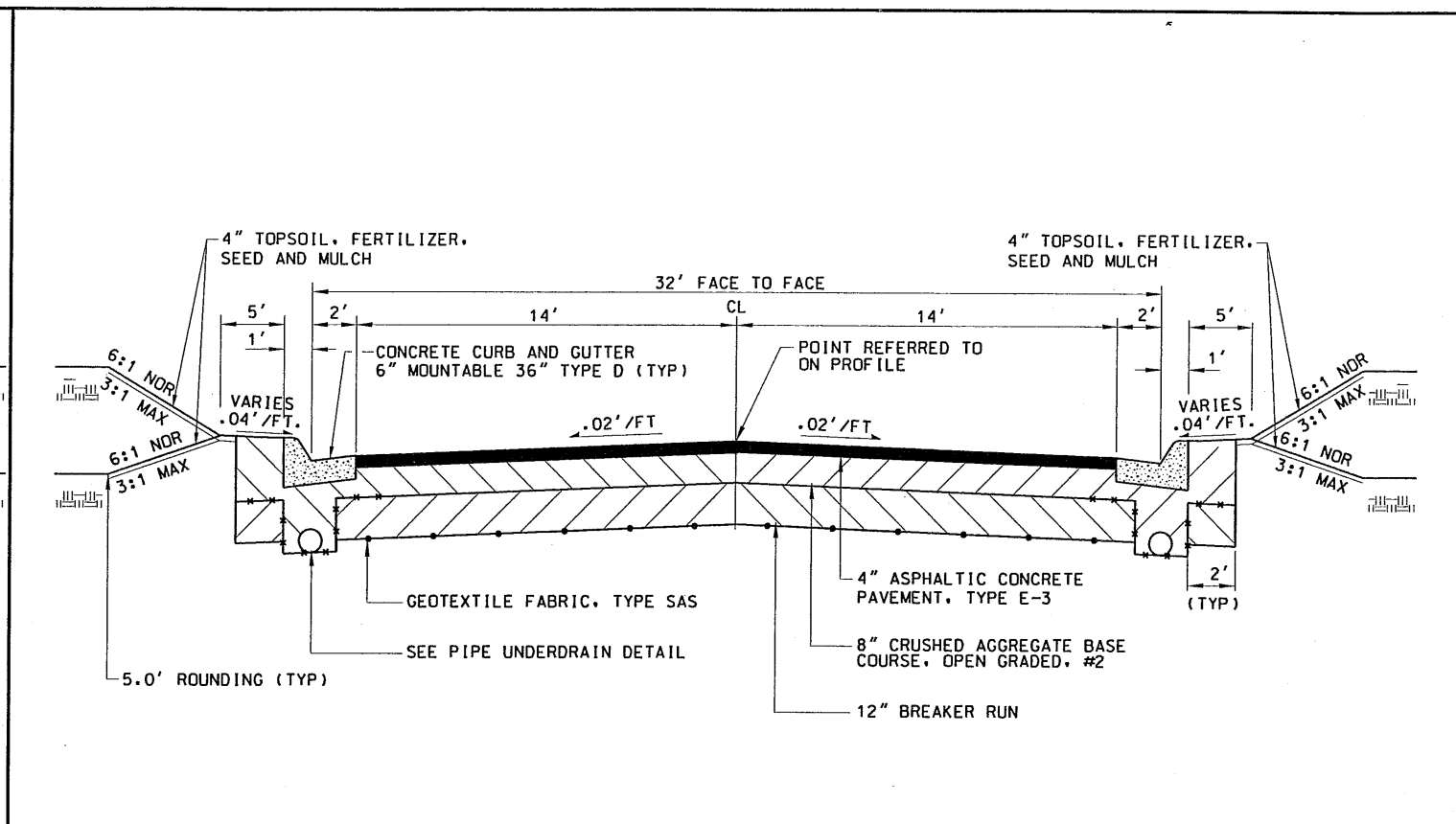
**GRANDVIEW ESTATES  
SUPERIOR, WI**

**GENERAL CONSTRUCTION ALIGNMENT  
AND BENCHMARKS**

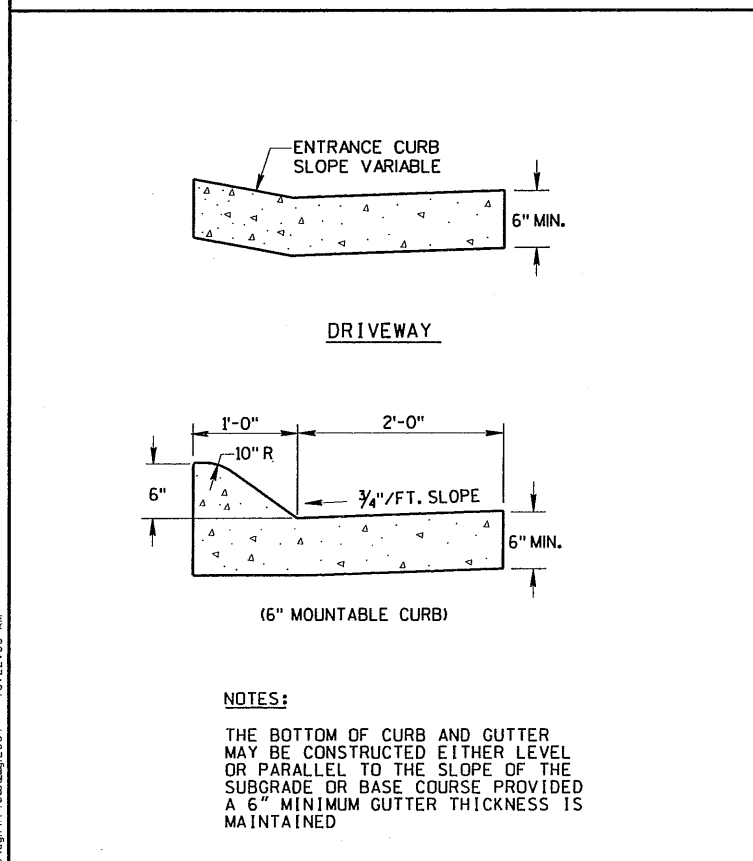
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DATE	08/13/2004
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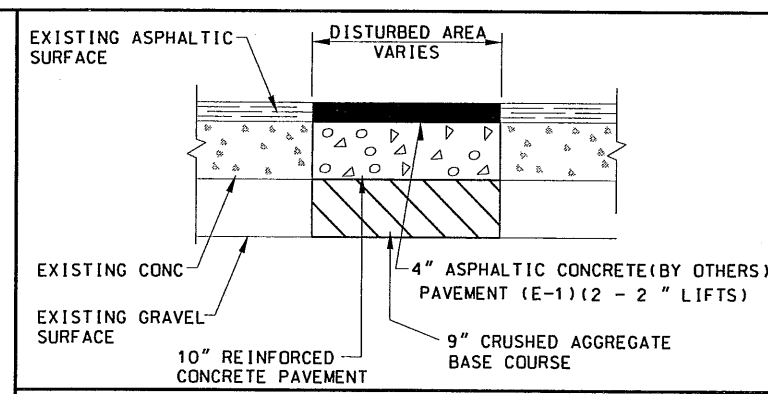
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BILLINGS LANE



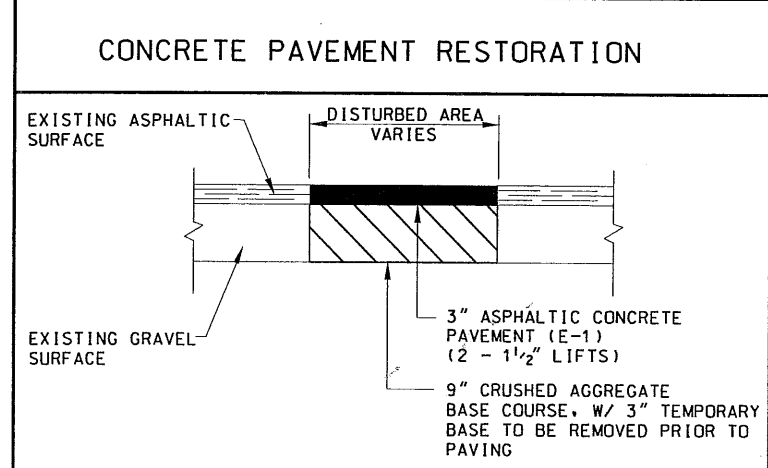
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BILLINGS COURT



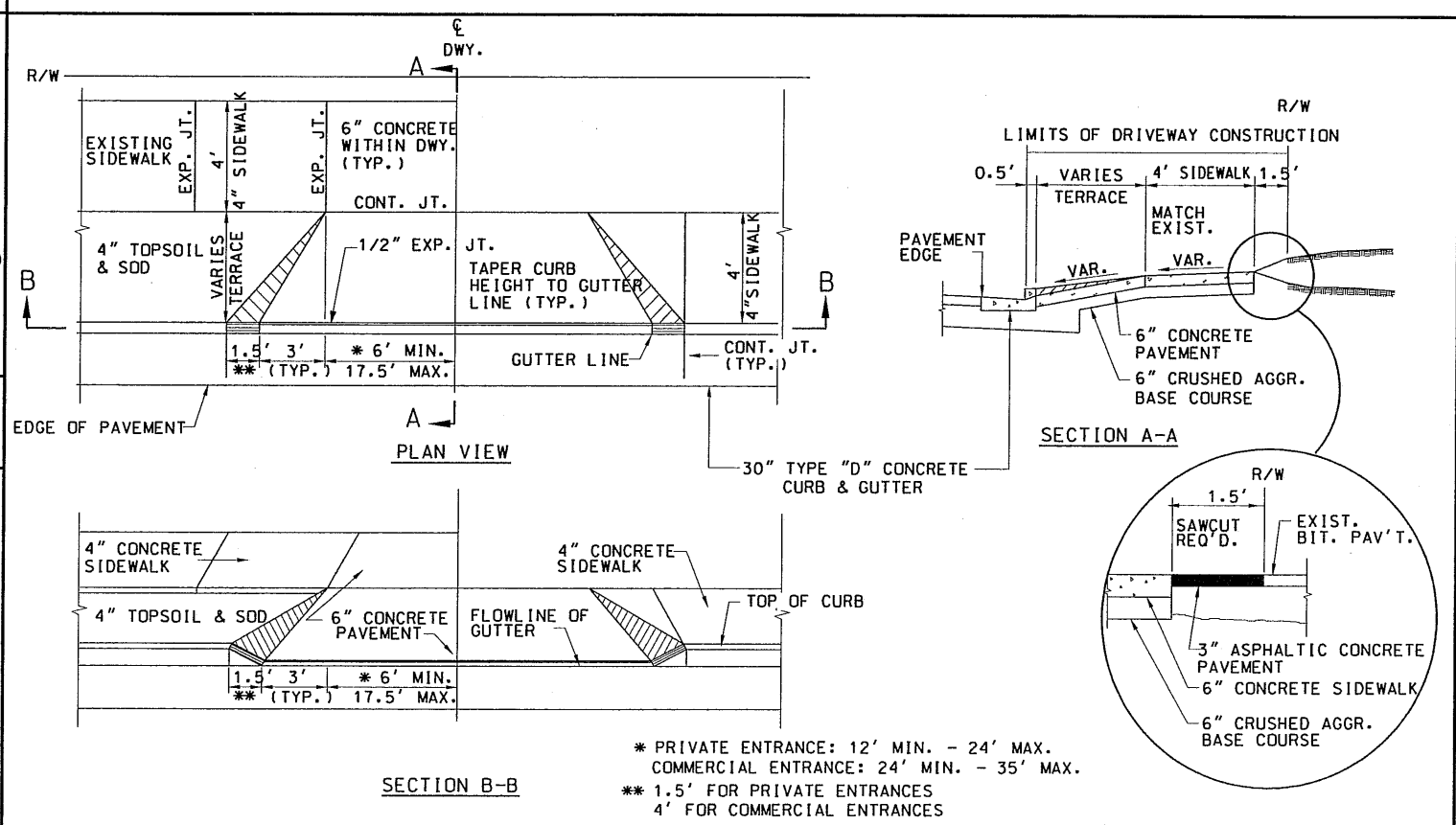
TYPE D CURB & GUTTER



CONCRETE PAVEMENT RESTORATION



ASPHALTIC PAVEMENT RESTORATION



PRIVATE OR COMMERCIAL ENTRANCE

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DESIGNER:	RER			
CHECKED BY:	MJB			
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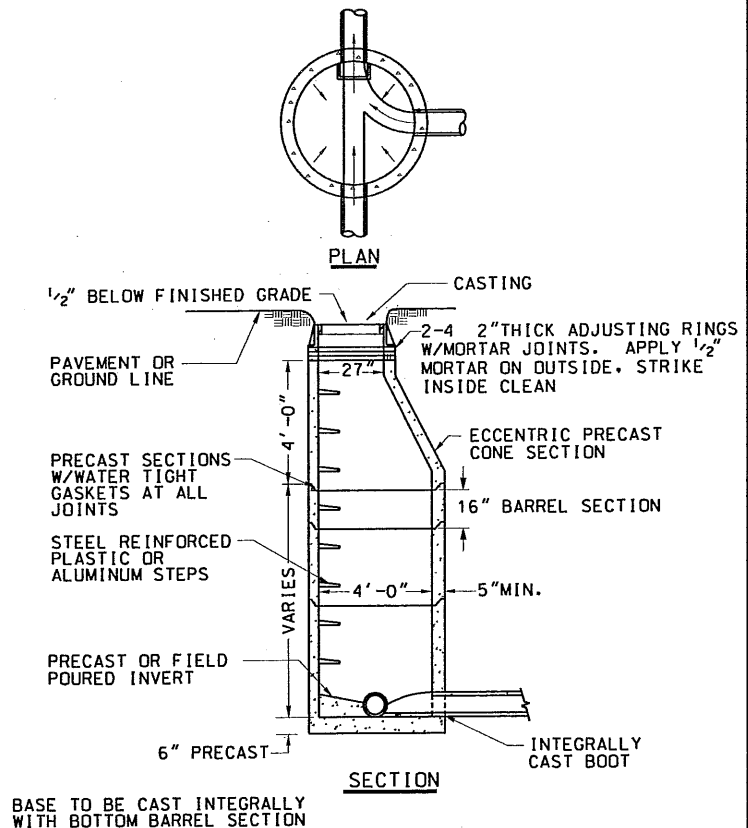
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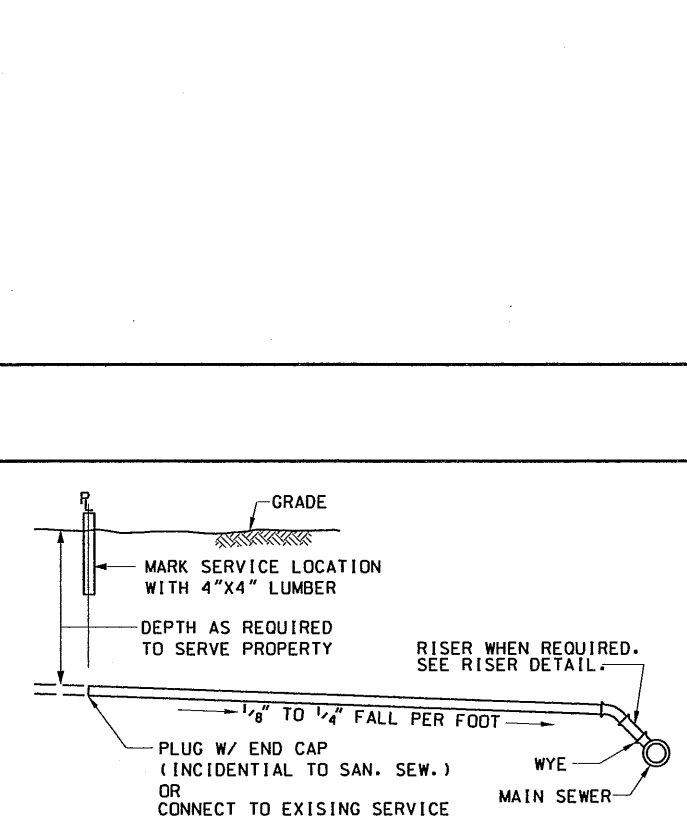
GRANDVIEW ESTATES  
SUPERIOR, WISCONSIN

DETAILS	FILE NO. ARR1V00401.00	10
	DATE 08/13/2004	37

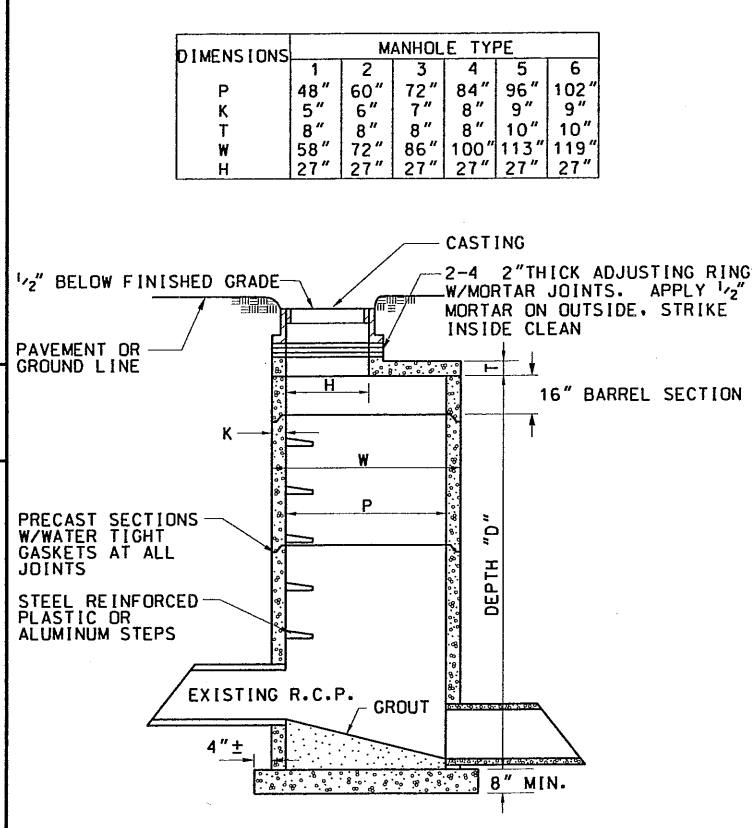




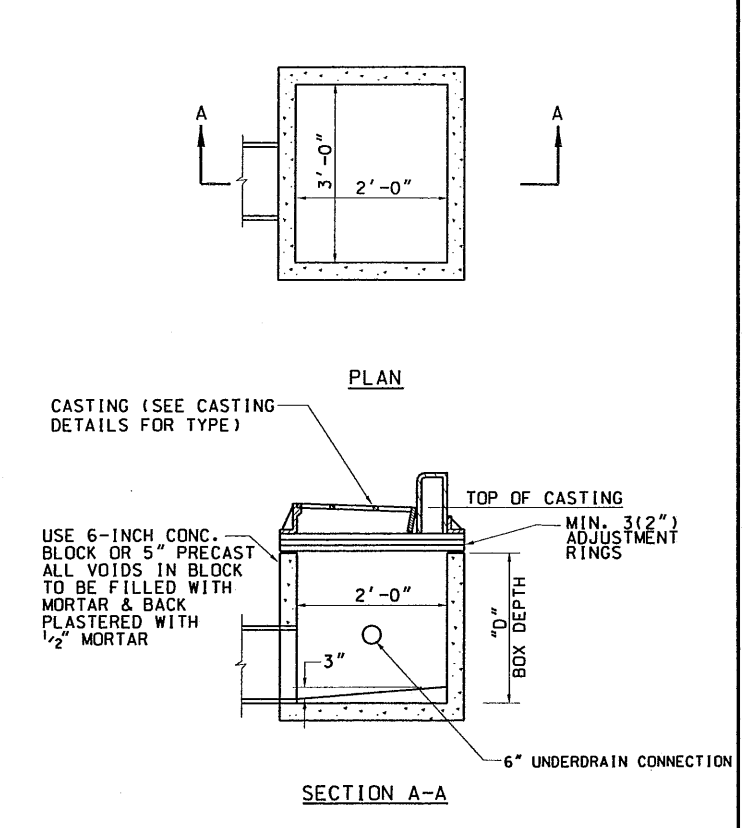
SANITARY MANHOLE



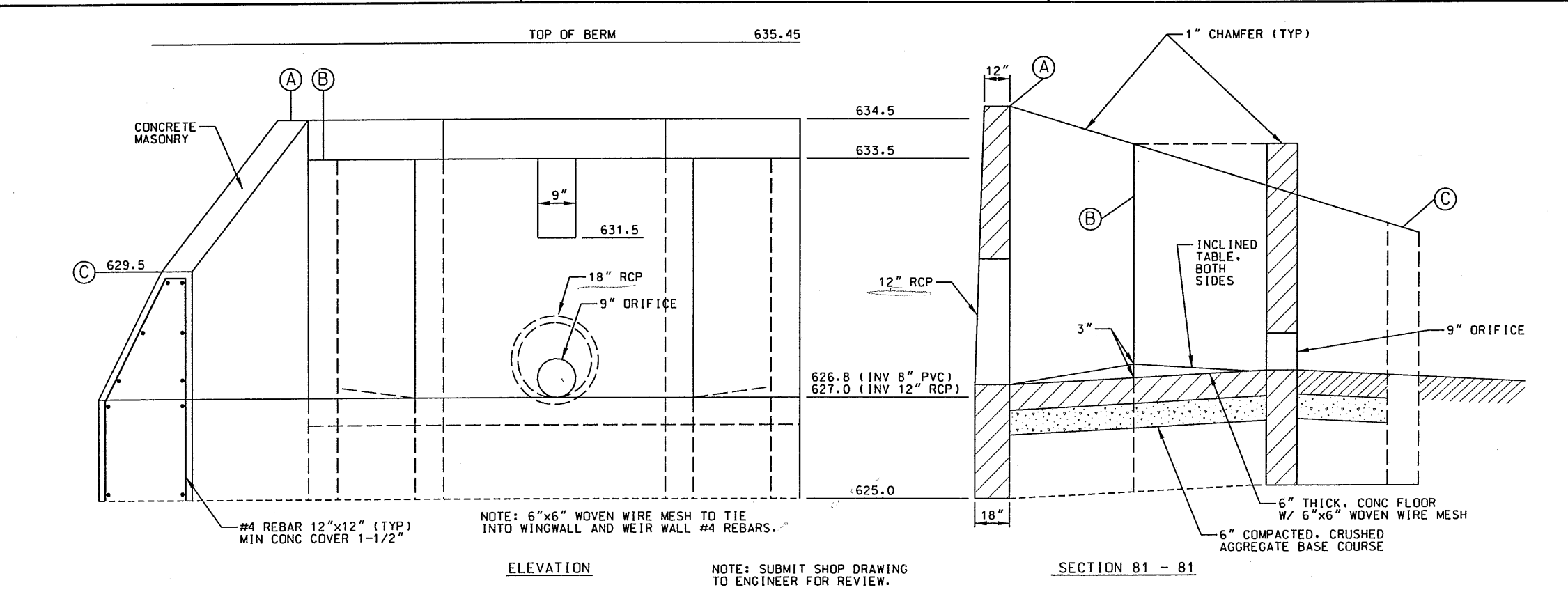
SANITARY SEWER SERVICE



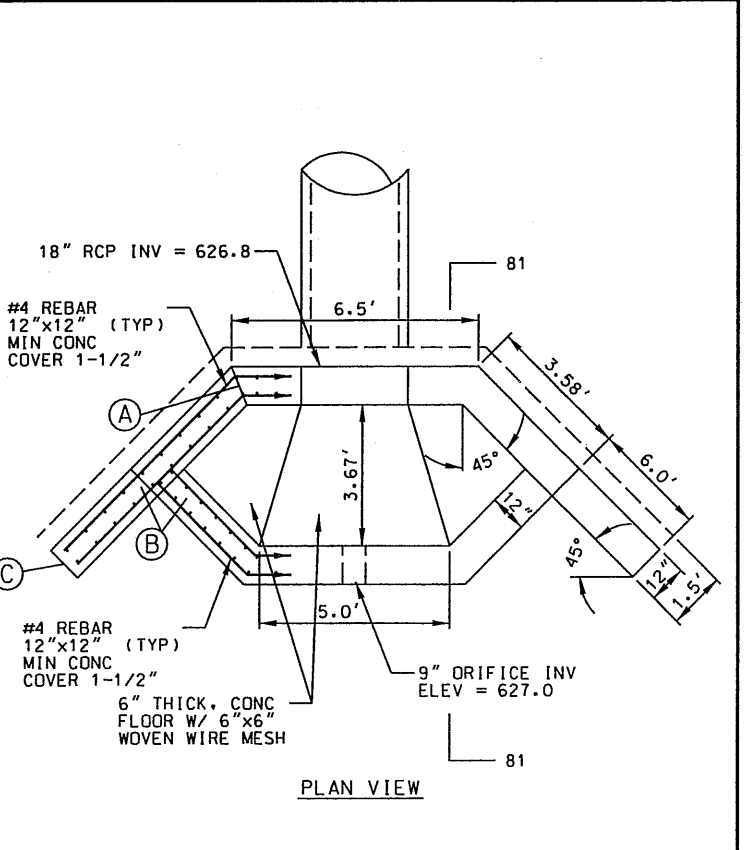
STORM MANHOLE



TYPE 2 INLET



SPECIAL OUTLET STRUCTURE - FRONT & SIDE VIEW




SPECIAL STORM STRUCTURE 112 - TOP VIEW

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DESIGNER:	RER			
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DETAILS	FILE NO.	ARR1V00401.00	11
	DATE	08/13/2004	37

**GENERAL NOTES**

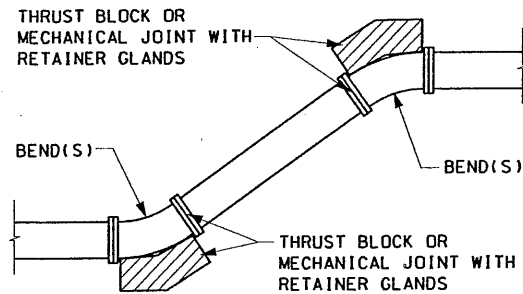
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DETAIL DRAWINGS FOR PROPOSED ALTERNATE DESIGNS FOR CATCH BASIN, MANHOLE AND INLET COVERS SHALL BE SUBMITTED TO THE ENGINEER FOR APPROVAL PROVIDING THAT SUCH ALTERNATE DESIGNS MAKE PROVISION FOR EQUIVALENT CAPACITY AND STRENGTH.

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

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

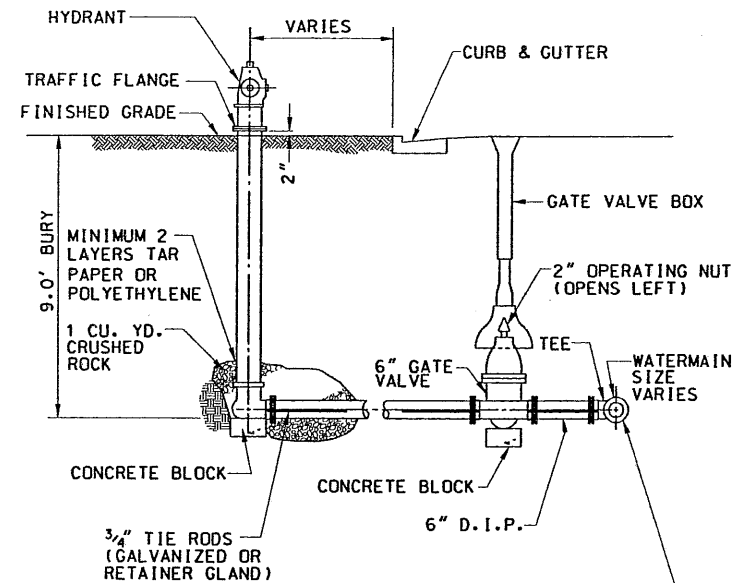
**GENERAL NOTES**



**THRUST BLOCK OR JOINT RESTRAINT**

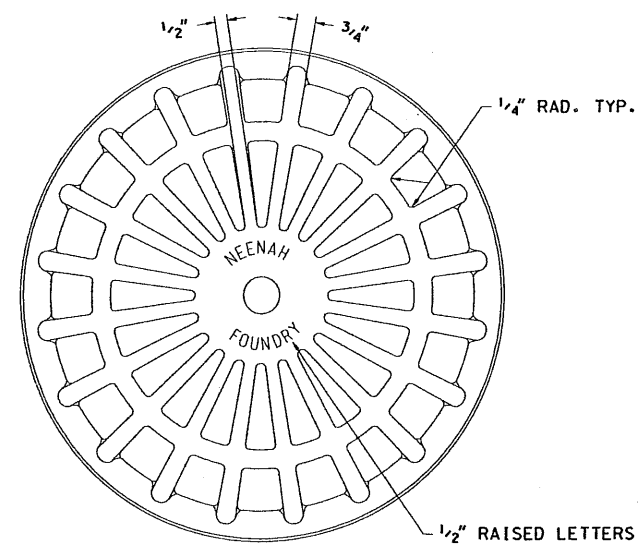
ALL JOINTS SHALL BE MECHANICAL TYPE WITH RETAINER GLANDS

WHERE HYDRANT BASE IS IN OR NEAR WATER TABLE, THE DRAIN PORT SHALL BE PLUGGED AND A TAG FURNISHED AND PLACED ON THE HYDRANT.

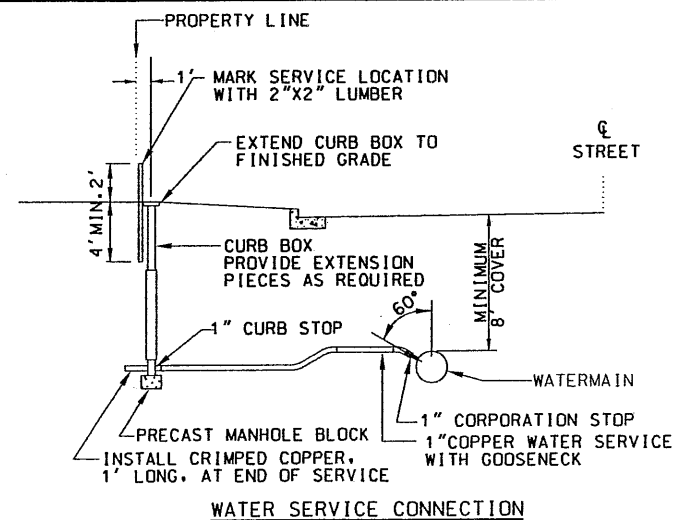
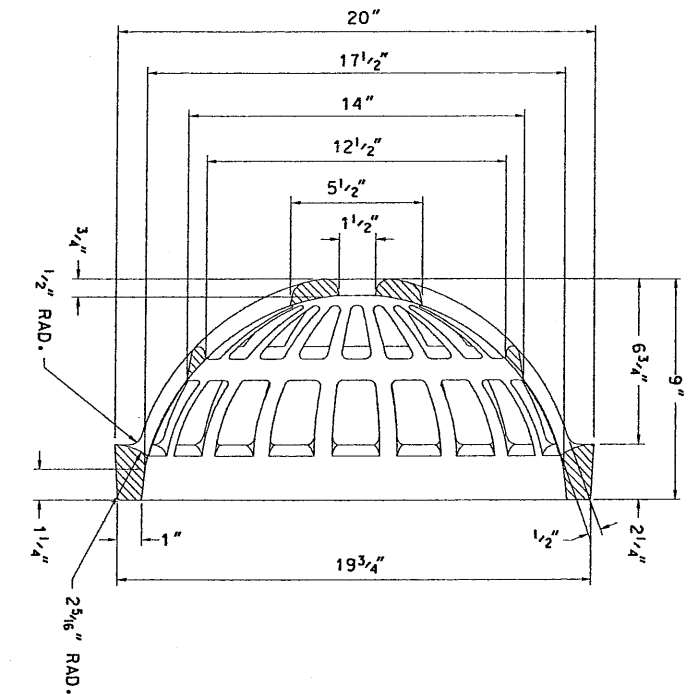


CONTRACTOR SHALL ROTATE TEE AND PROVIDE BENDS AS NECESSARY TO MAINTAIN MINIMUM 8' COVER ON HYDRANT LEAD AND A VERTICAL HYDRANT INSTALLATION OR MAY INSTALL A OFFSET FITTING.

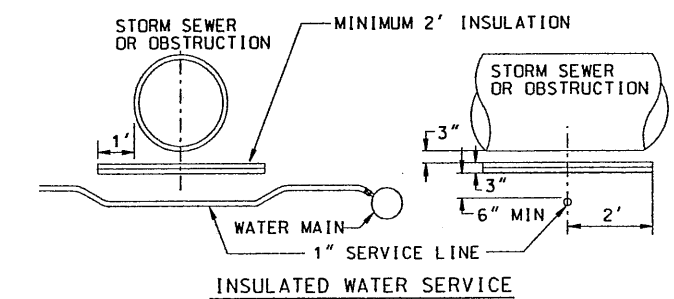
**FIRE HYDRANT**



**BEEHIVE GRATE**

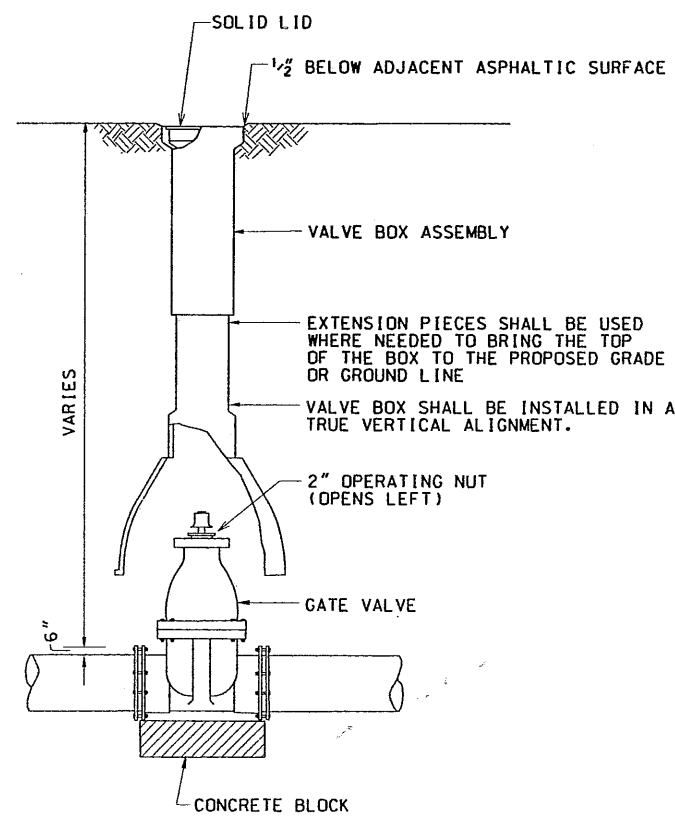


**WATER SERVICE CONNECTION**

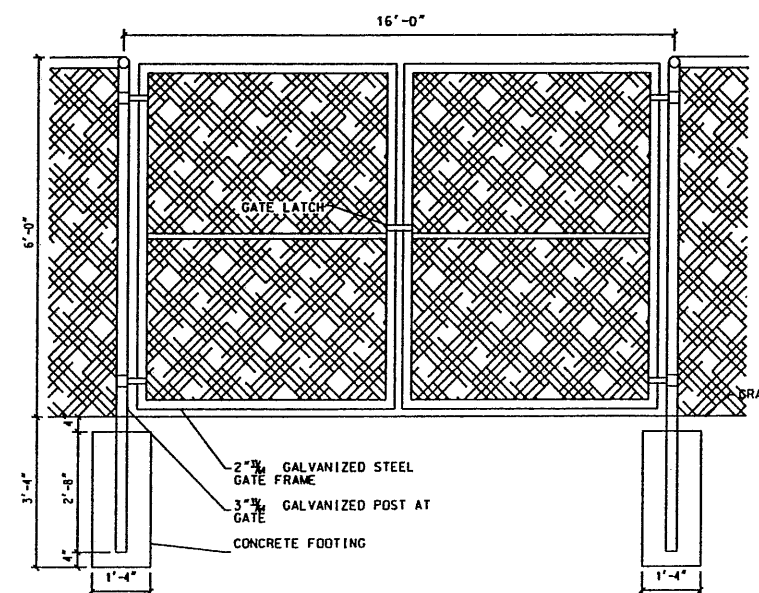


**INSULATED WATER SERVICE**

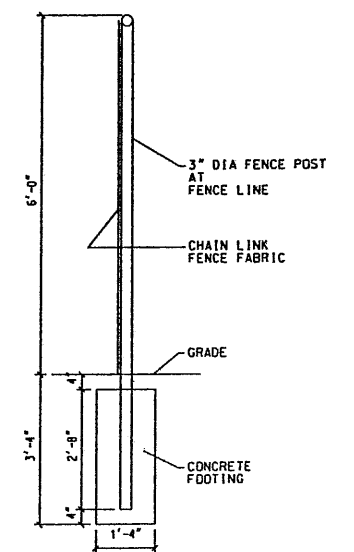
**1" WATER SERVICE CONNECTION**



**GATE VALVE & BOX**



**CHAIN LINK FENCE**



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DRAWN BY:	AMJ			
DESIGNER:	RER			
CHECKED BY:	SMF			
DESIGN TEAM	NO.	BY	DATE	REVISIONS

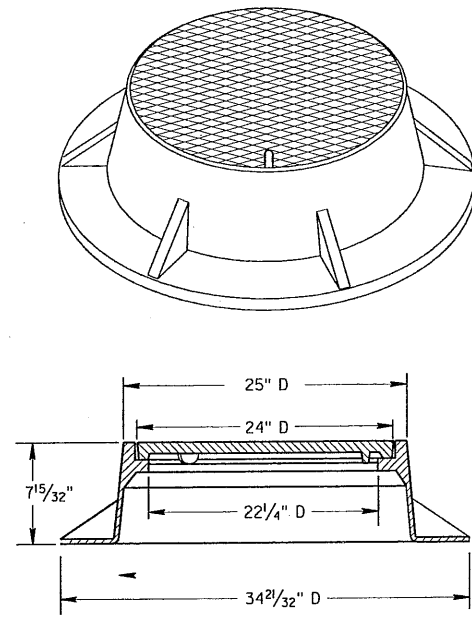
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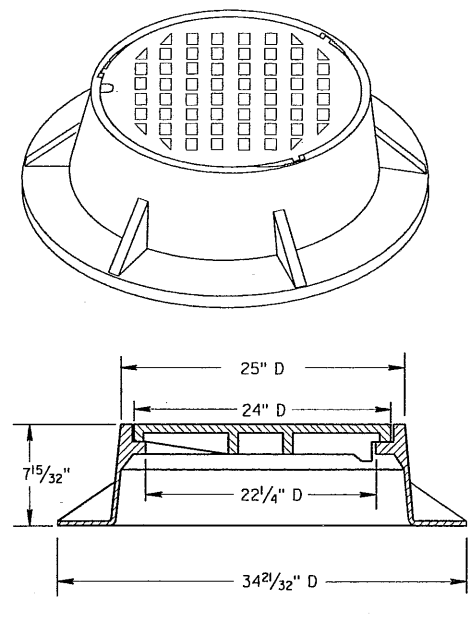
**GRANDVIEW ESTATES  
SUPERIOR, WISCONSIN**

DETAILS

FILE NO.	12
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DATE	08/13/2004
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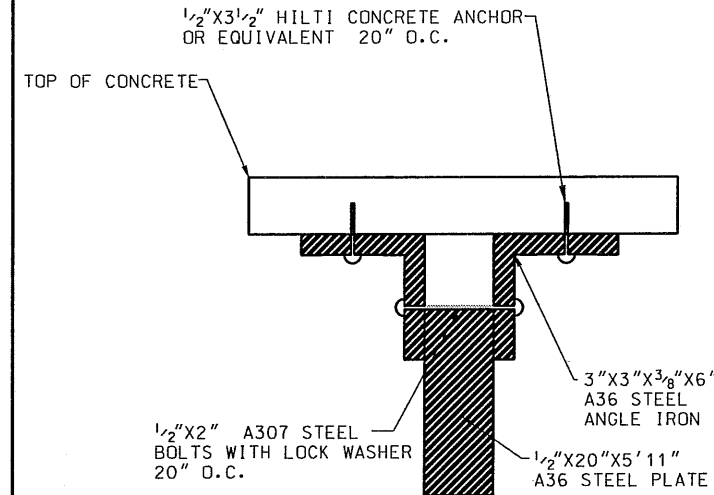


**TYPE "J"**  
 (APPROXIMATE WEIGHT 250 LBS.)  
 FRAME.....135 LBS.  
 LID.....115 LBS.

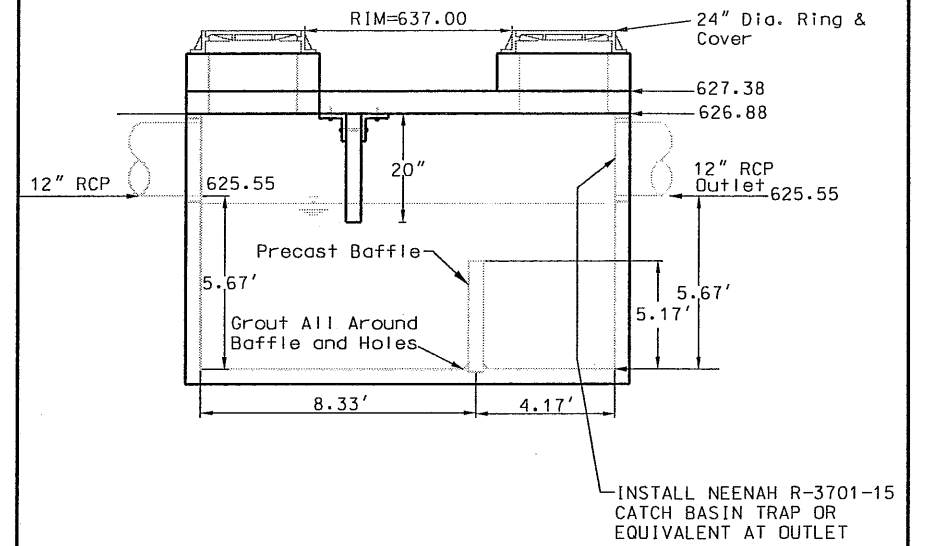


**TYPE "J" SPECIAL**  
 TYPE "B" NON-ROCKING SELF-SEAL LID  
 (APPROXIMATE WEIGHT 245 LBS.)  
 FRAME.....145 LBS.  
 LID.....100 LBS.  
 (NOTED AS TYPE J-S ON THE DRAINAGE TABLE)

INLET COVER TYPE J & TYPE J SPECIAL



TOP BOLTING DETAIL



ELEVATION VIEW

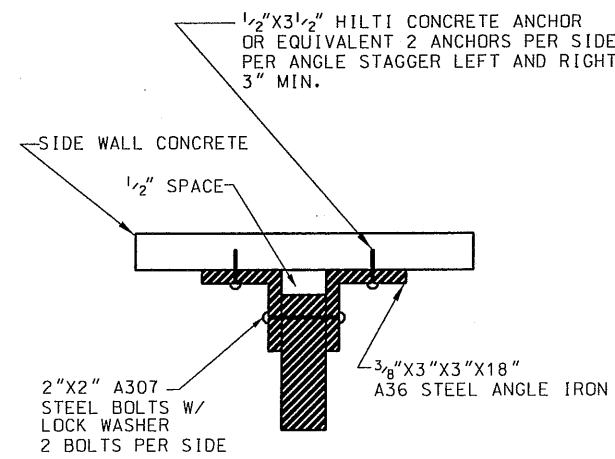
**GENERAL NOTES**

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

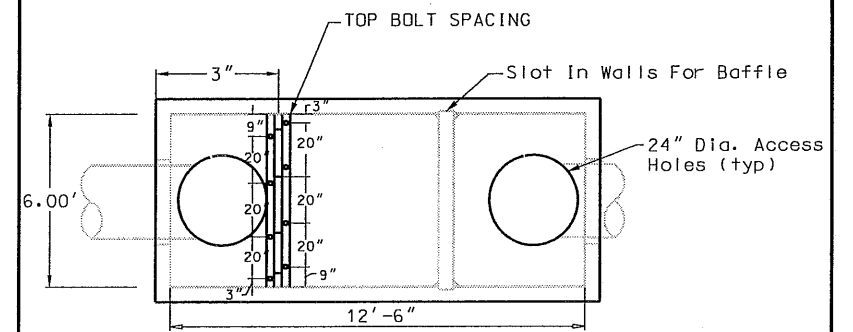
DETAIL DRAWINGS FOR PROPOSED ALTERNATE DESIGNS FOR MANHOLE COVERS SHALL BE SUBMITTED TO THE ENGINEER FOR APPROVAL PROVIDING THAT SUCH ALTERNATE DESIGNS MAKE PROVISION FOR EQUIVALENT CAPACITY AND STRENGTH.

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

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



SIDE BOLTING DETAIL



PLAN VIEW

GENERAL NOTES

GRIT CHAMBER TYPE 2 DETAIL

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DESIGNER: RER				
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DESIGN TEAM	NO.	BY	DATE	REVISIONS

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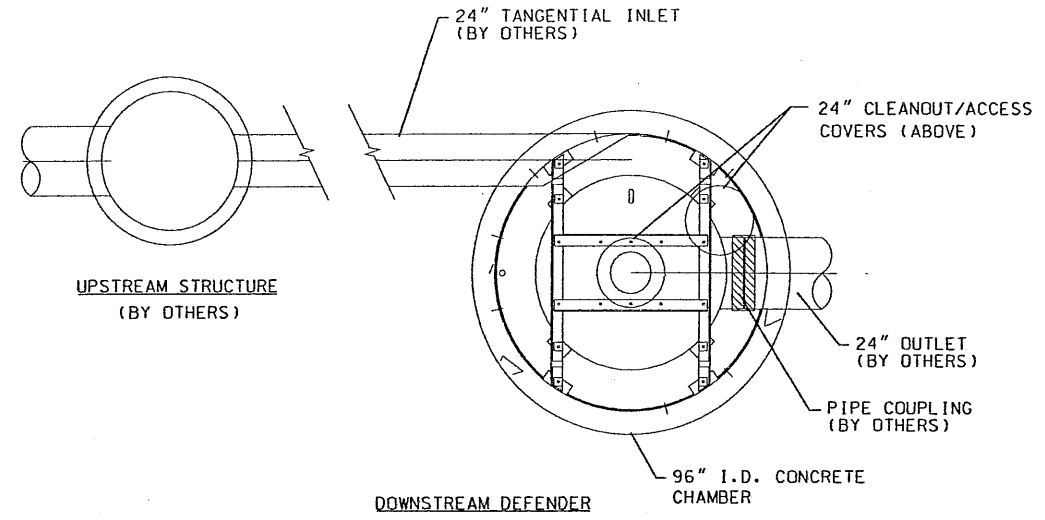


GRANDVIEW ESTATES  
 SUPERIOR, WISCONSIN

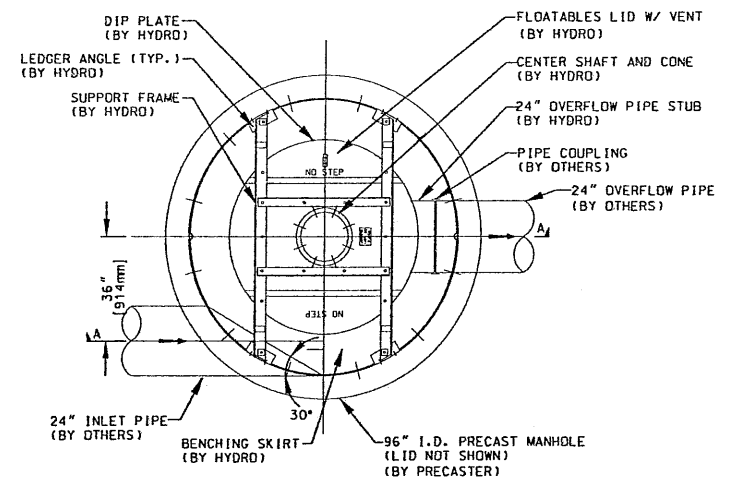
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DATE 08/13/2004	37

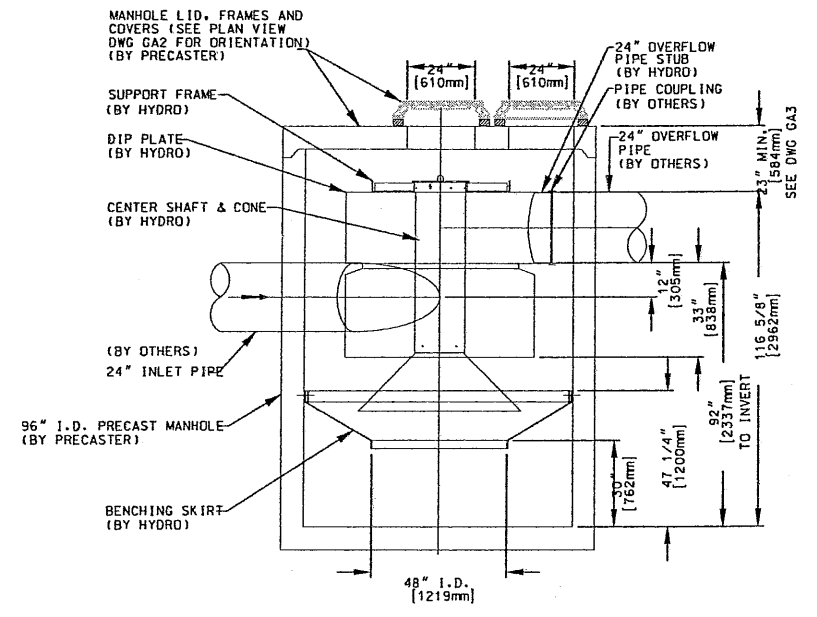
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GRIT CHAMBER TYPE 1 DOWNSTREAM DEFENDER

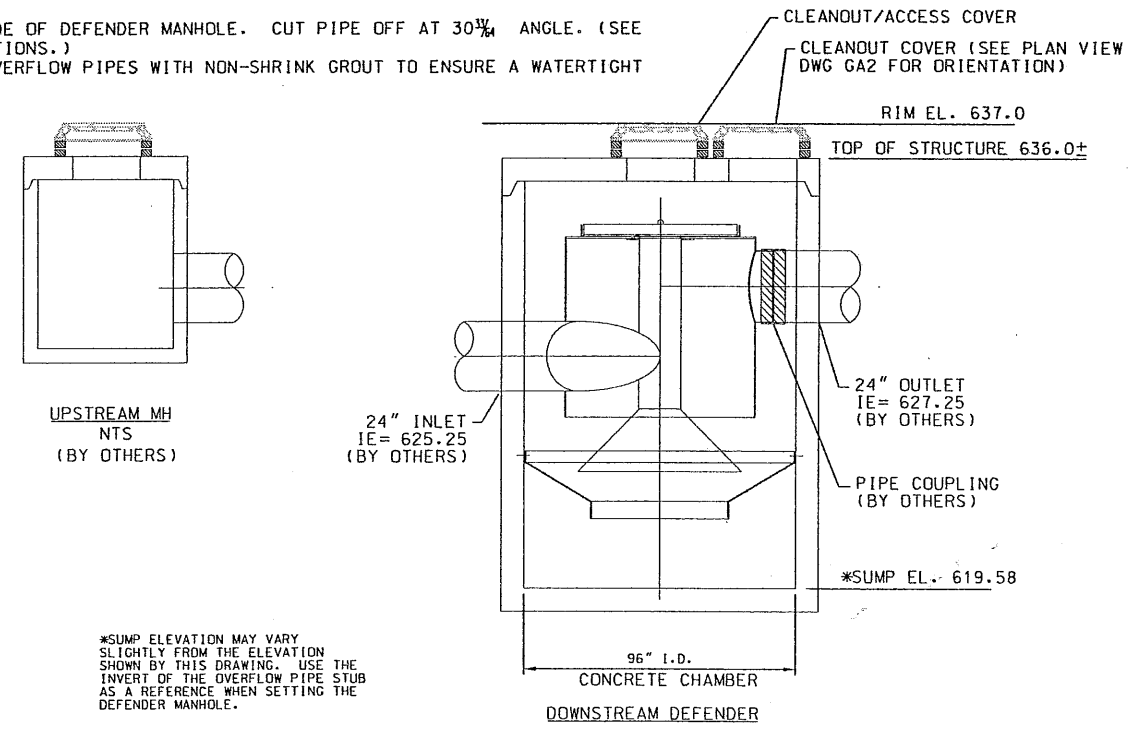


PLAN VIEW



SECTION A-A

- DEFENDER PIPE CONNECTIONS:**
1. RECOMMEND RCP OR PVC OVERFLOW PIPE.
  2. LARGE DIAMETER COUPLING REQUIRED TO CONNECT OVERFLOW PIPE TO OVERFLOW PIPE STUB. OVERFLOW PIPE STUB DIMENSIONS: O.D.=24 1/16", I.D.=24 7/16", STUB LENGTH=6"
  3. INLET PIPE ENTERS UNIT TANGENT TO INSIDE OF DEFENDER MANHOLE. CUT PIPE OFF AT 30 3/4° ANGLE. (SEE INSTALLATION INSTRUCTIONS.)
  4. GROUT INLET AND OVERFLOW PIPES WITH NON-SHRINK GROUT TO ENSURE A WATERTIGHT CONNECTION.



UPSTREAM MH NTS (BY OTHERS)

\*SUMP ELEVATION MAY VARY SLIGHTLY FROM THE ELEVATION SHOWN BY THIS DRAWING. USE THE INVERT OF THE OVERFLOW PIPE STUB AS A REFERENCE WHEN SETTING THE DEFENDER MANHOLE.

GRIT CHAMBER TYPE 1 DOWNSTREAM DEFENDER

**EQUIPMENT PERFORMANCE**

The stormwater treatment unit shall adhere to the hydraulic parameters given in the chart below and provide the removal efficiencies and storage capacities as follows:

1. Performance objectives: To remove 90% of all particles greater than 150 micron (100 mesh) with specific gravity of 2.65 at the design flow listed below, based on a particle size gradation similar to typical D.O.T. road sand having greater than 20% of all particles finer than 300 microns. Additionally, the treatment chamber must be capable of removing greater than 50% of all particles in the range of 300-425 microns at the peak capacity flow rate listed below.
2. Design flow: 198 l/s
3. Peak capacity: 425 l/s
4. Sediment Storage capacity: 3.56 Cu.m.
5. Oil storage capacity: 1987 liters.
6. Sediment shall be stored in a zone that is isolated from the main flow path and protected from reintraintment by a benching skirt.

GRIT CHAMBER TYPE 1

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DESIGNER: RER				
CHECKED BY: MJB				
DESIGN TEAM				

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GRANDVIEW ESTATES SUPERIOR, WISCONSIN

DETAILS

FILE NO. ARRIV00401.00	14
DATE 08/13/2004	37

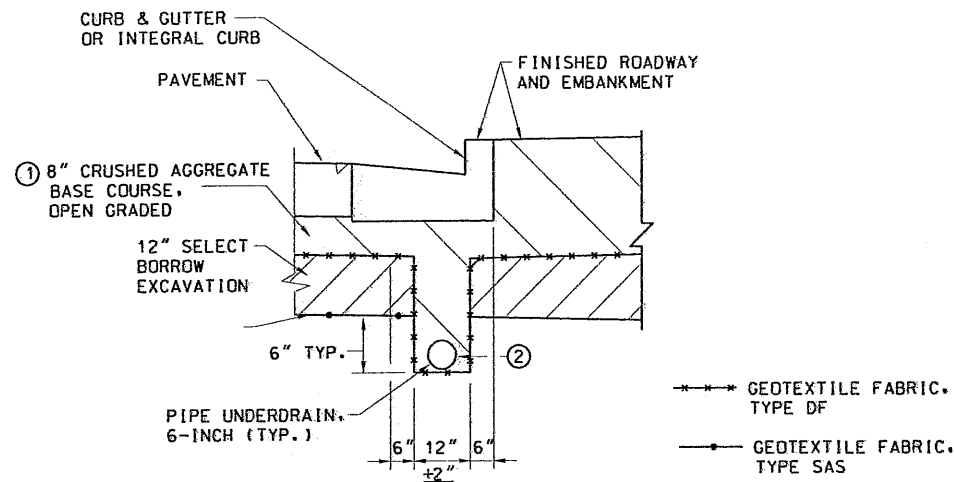
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**NOTES:**

THE DIMENSIONS SHOWN ON THE TYPICAL CROSS SECTIONS WILL GOVERN IN THE EVENT THERE IS A CONFLICT WITH THE DETAILS SHOWN ON THIS DRAWING.

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

- ① THE GRADATION OF THE OPEN GRADED BASE COURSE SHALL BE EITHER NO. 1 OR NO. 2 AS SPECIFIED ELSEWHERE IN THE CONTRACT.
- ② TRENCH BACKFILL WILL BE INCIDENTAL TO PIPE UNDERDRAIN.

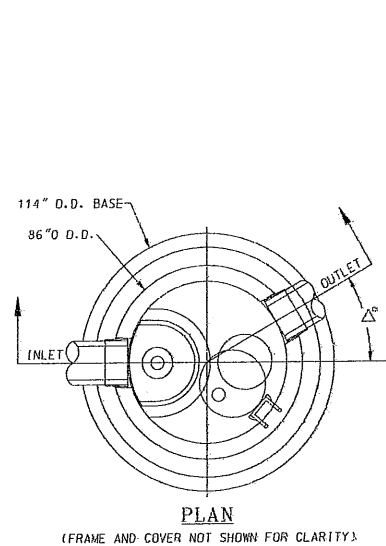


**EDGEDRAIN IN URBAN ROADWAY**

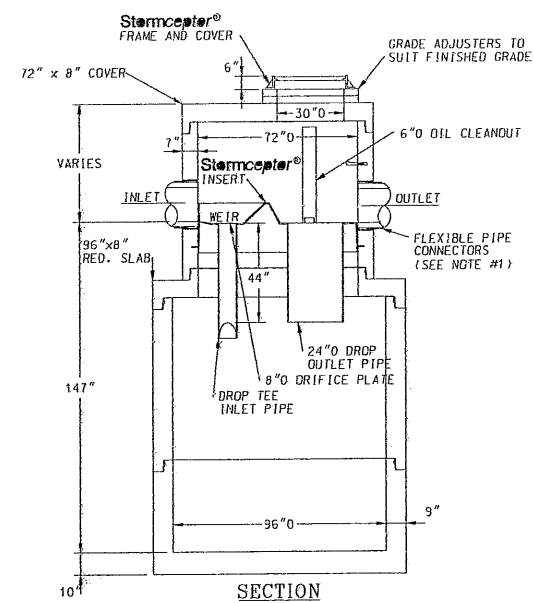
**EDGEDRAIN AND CRUSHED AGGREGATE  
BASE COURSE, OPEN GRADED NO. 1 OR NO. 2**

**NOTES**

- 1. THE USE OF FLEXIBLE PIPE CONNECTORS IS RECOMMENDED AT THE INLET AND OUTLET WHERE APPLICABLE.
- 2. THE COVER SHOULD BE POSITIONED OVER THE DROP OUTLET PIPE AND THE OIL CLEANOUT PIPE.
- 3. ALL JOINTS SHALL HAVE NEOPRENE GASKETS CONFORMING TO ASTM C443.
- 4. DESIGNED FOR AASHTO HS-20 LOADING.
- 5. THE Stormceptor® SYSTEM IS PROTECTED BY ONE OR MORE OF THE FOLLOWING U.S. PATENTS: #4985148, #5498331, #5725760, #5753115, #5849181.
- 6. PRODUCT WEIGHT:  
72"Ø BARREL = 1840 lbs/ft  
96"Ø BARREL = 3160 lbs/ft  
INTEGRAL BASE SLAB = 8860 lbs  
REDUCING SLAB = 5200 lbs  
COVER SLAB = 3940 lbs

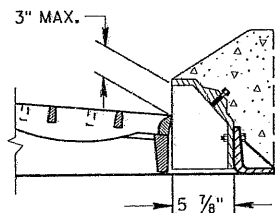


**PLAN**  
(FRAME AND COVER NOT SHOWN FOR CLARITY)



**SECTION**

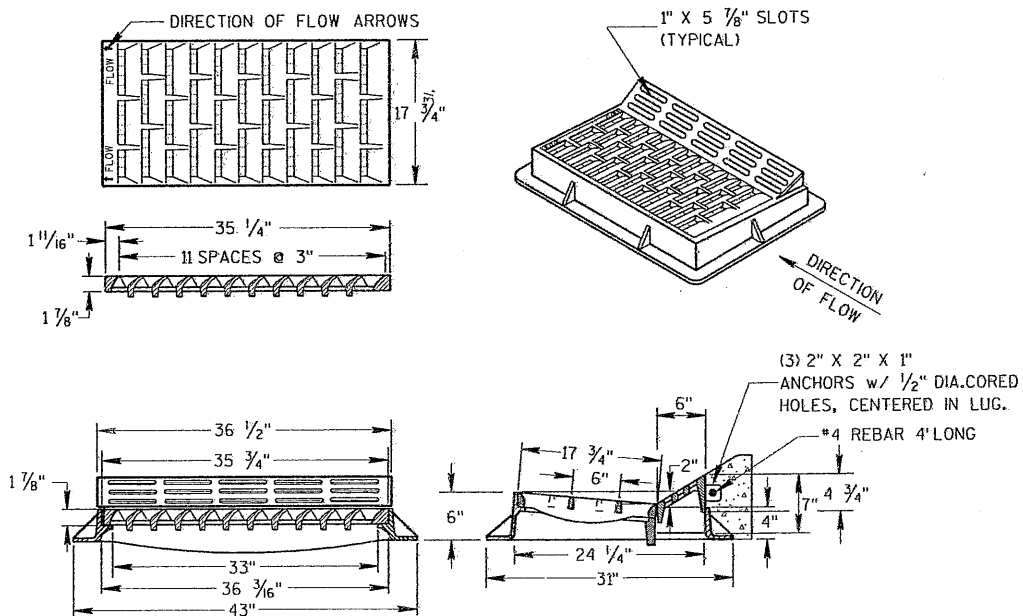
**GRIT CHAMBER TYPE 3**



**ALTERNATIVE CURB BOX  
FOR TYPE "HM" COVER**

(APPROXIMATE WEIGHT 79 LBS.)  
CURB BOX..... 79 LBS.  
USE WITH TYPES G & J CONCRETE CURB & GUTTER, 30 INCH  
NOTED AS TYPE HM-GJ ON DRAINAGE TABLE

NOTE:  
SPECIAL GRATE FOR THE  
TYPE "H" COVER MAY ALSO BE  
USED FOR THE TYPE "HM-GJ" COVER  
NOTED AS TYPE HM-GJ-S ON DRAINAGE TABLE



**TYPE "HM"**

(APPROXIMATE WEIGHT 375 LBS.)  
FRAME..... 175 LBS.  
GRATE..... 138 LBS.  
CURB BOX..... 62 LBS.

USE WITH CONCRETE CURB & GUTTER, 36 INCH.

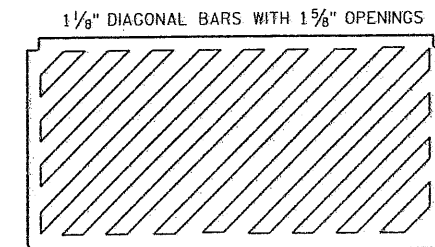
**GENERAL NOTES**

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

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

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

NOTE:  
GRATE IS REVERSIBLE.



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

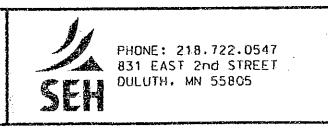
(MEASURES 35 1/4" X 17 3/4" X 2")  
(APPROXIMATE WEIGHT 172 LBS.)  
GRATE..... 172 LBS.

(NOTED AS TYPE H-S ON DRAINAGE TABLE)

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

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DESIGNER: RER				
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FILE NO. ARR1VD0401-00	15
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**LEGEND**

-  SIGN ON WOOD POST
-  TYPE 3 BARRICADE WITH SIGN
-  WARNING LIGHT
-  WORK ZONE (CLOSED TO TRAFFIC)



**NOTES**

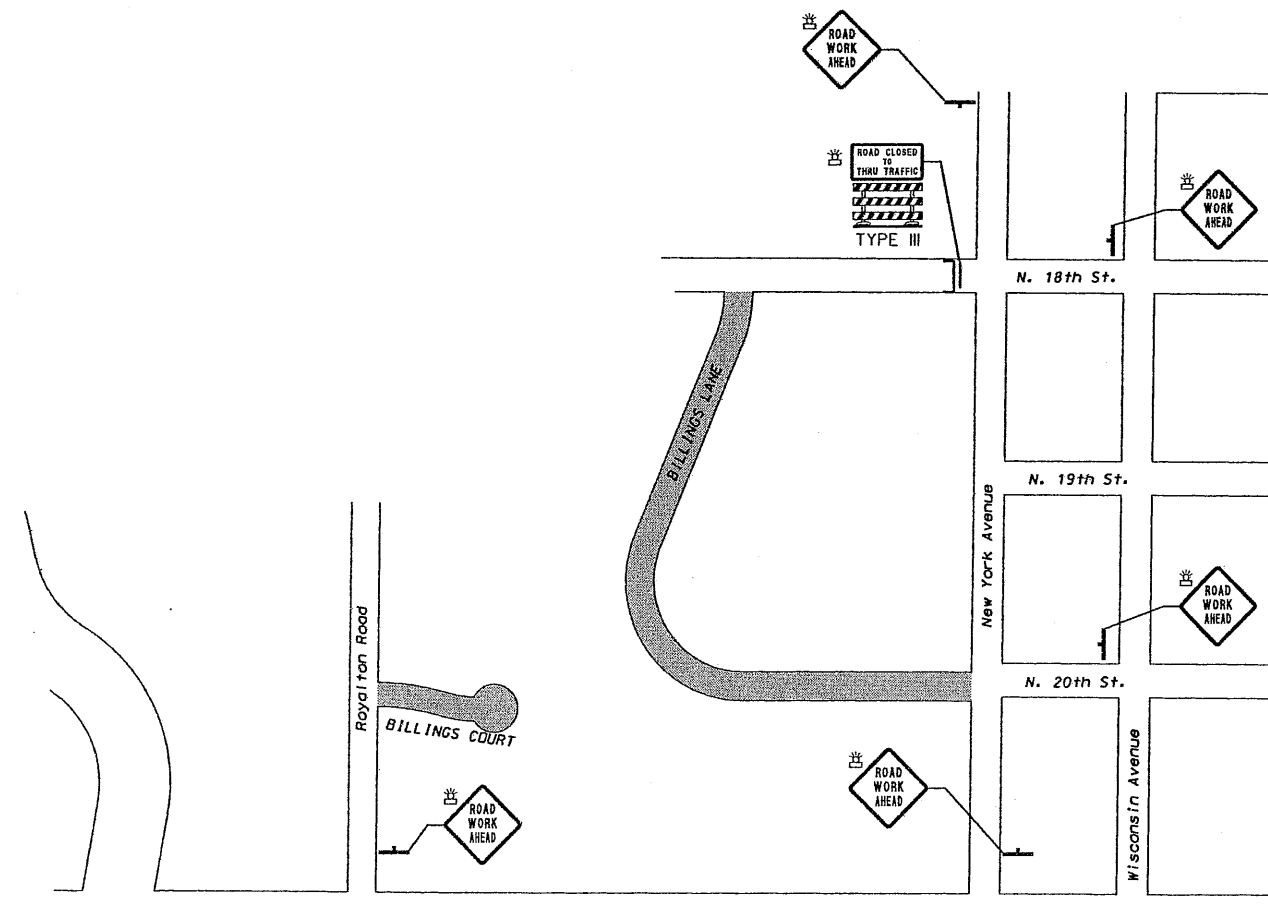
1. THE NUMBER AND PLACEMENT OF SIGNS AND DEVICES WILL DEPEND UPON THE SEQUENCE OF THE CONTRACTOR'S OPERATION.
2. "ROAD WORK AHEAD" SIGNS SHALL BE MOUNTED 200 FEET (1 BLOCK) IN ADVANCE OF CONSTRUCTION AND SHALL HAVE A TYPE "A" LOW INTENSITY FLASHING AMBER WARNING LIGHT MOUNTED ON THEM.
3. "ROAD CLOSED AHEAD" SIGNS SHALL BE ERECTED 200 FEET IN ADVANCE OF THE ACTUAL CLOSURE, OR AT THE INTERSECTION IN ADVANCE OF THE CLOSURE AND SHALL HAVE A TYPE "A" LOW INTENSITY FLASHING AMBER WARNING LIGHT MOUNTED ON THEM.
4. "ROAD CLOSED" SHALL BE INSTALLED ON TYPE III BARRICADES AND SHALL BE LOCATED AT THE POINT OF CLOSURE.
5. TYPE "A" LOW INTENSITY AMBER FLASHING WARNING LIGHTS SHALL BE MOUNTED ON ALL ADVANCE WARNING SIGNS AND ON ALL TYPE III BARRICADES WHEN USED AT NIGHT OR TO IDENTIFY HAZARDS.
6. ADDITIONAL SIGNING WILL BE REQUIRED FOR SEPARATE LANE CLOSURES. THIS SIGNING SHALL BE CONSIDERED INCIDENTAL TO TRAFFIC CONTROL.
7. RETROREFLECTIVE DRUMS SHALL BE USED ON CHANNELIZATION DEVICES TO DELINEATE THE EDGE OF THE TRAVELED WAY NEXT TO WORK ZONES OR HAZARDOUS AREAS AT NIGHT.
8. CONTRACTOR RESPONSIBLE FOR ALL TRAFFIC STRIPING FOR TRAFFIC CONTROL DURING CONSTRUCTION.
9. CONTRACTOR RESPONSIBLE FOR PLACEMENT OF CHANNELIZATION DEVICES TO CONTROL TRAFFIC THROUGH CONSTRUCTION AREAS. USE 30 FEET SPACING FOR TUBES AND DRUMS WHEN USED FOR CHANNELIZATION.
10. CONTRACTOR REQUIRED TO SUBMIT TRAFFIC CONTROL PLAN TO ENGINEER FOR APPROVAL PRIOR TO STARTING ANY WORK ON THE PROJECT. CONTRACTOR ALSO REQUIRED TO SUBMIT TRAFFIC CONTROL PLAN CHANGES FOR APPROVAL PRIOR TO CHANGING HIS SEQUENCE OF CONSTRUCTION OPERATIONS.
11. TRAFFIC ON ALL SHEETS MUST REMAIN OPEN IN BOTH DIRECTIONS THROUGHOUT THE COURSE OF THIS PROJECT.

**GENERAL NOTES**

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



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

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




**ESTIMATED QUANTITIES FOR TRAFFIC CONTROL**

THE FOLLOWING ITEMS ARE INCLUDED AND PAID FOR UNDER ITEM TRAFFIC CONTROL - LUMP SUM

SIGN NO.	MESSAGE	SIZE	NO. REQ'D	NOTES
W20-1	ROAD WORK AHEAD	36"x48"	5	1,2
	TYPE III BARRICADE	6' OR 8'	1	1,5
W20-3	ROAD CLOSED AHEAD	36"x48"		1,3
R11-4	ROAD CLOSED TO THRU TRAFFIC	60"x30"	1	1,5
R11-2	ROAD CLOSED	48"x30"		1,4,5
R11-3a	ROAD CLOSED LOCAL TRAFFIC ONLY	48"x30"		1,4,5
	FLASHING AMBER WARNING LIGHTS		6	5,6
•	CHANNELIZATION DEVICE (DRUM)			1,9
•	CHANNELIZATION DEVICE (TUBE DELINEATORS)			1,9

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DESIGNER: RER				
CHECKED BY: SSW				
DESIGN TEAM	NO.	BY	DATE	REVISIONS

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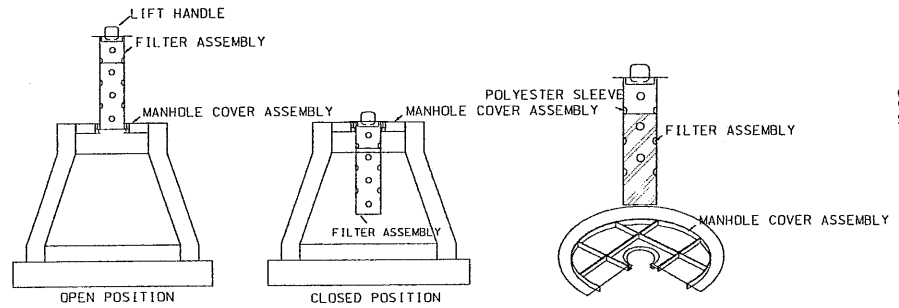
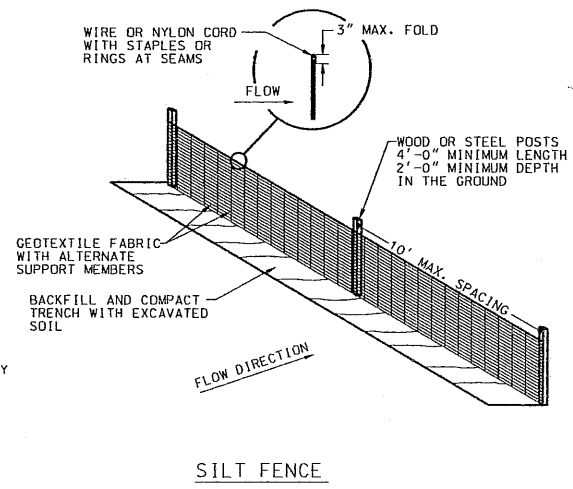
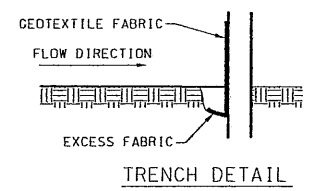
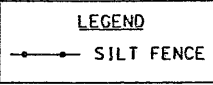
TRAFFIC CONTROL

FILE NO.	16
DATE	08/13/2004
APPROVAL	37

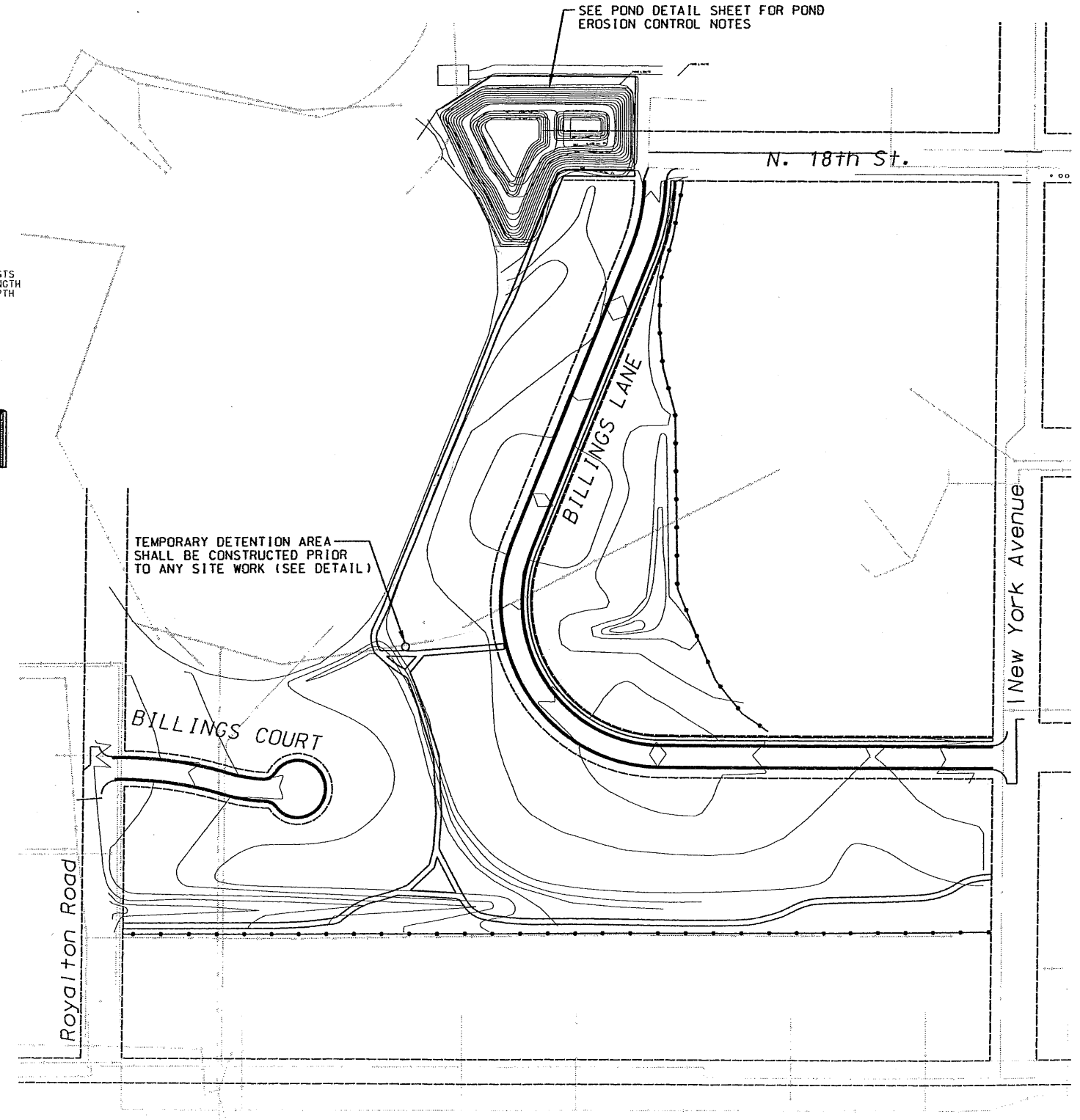
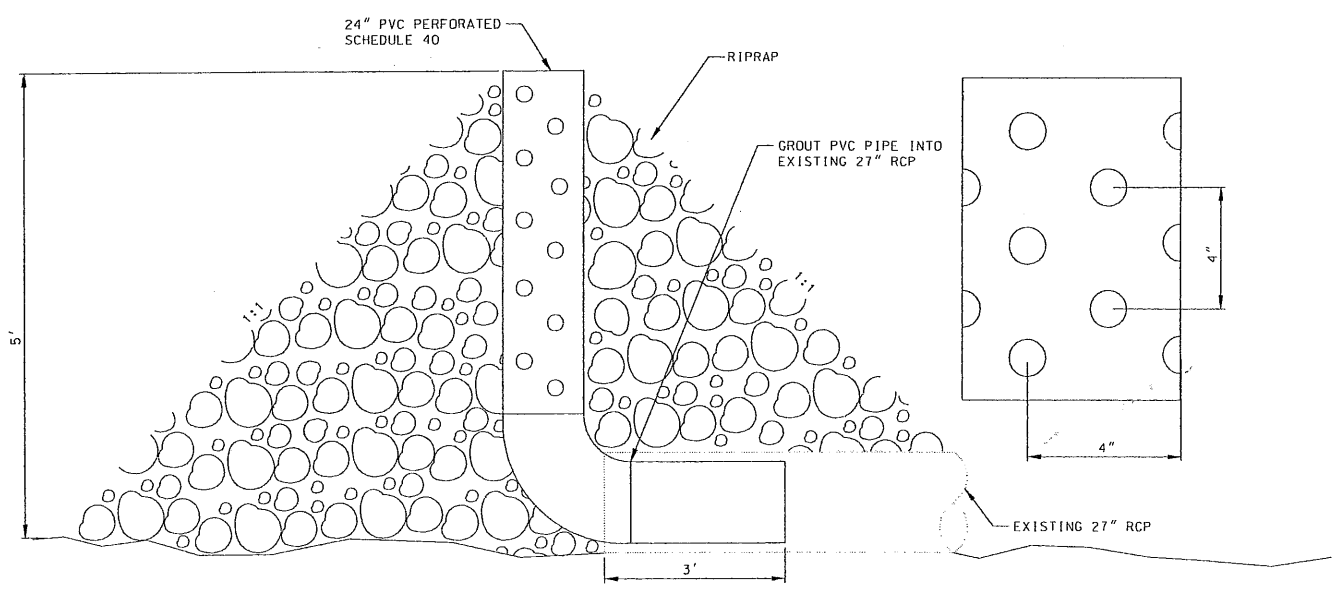
DRAWING NAME: Grandview Superior Grandview ESTATES.dwg DATE: 08/13/04



- EROSION AND SEDIMENT CONTROL NOTES**
- THE CONTRACTOR IS RESPONSIBLE FOR EROSION AND SEDIMENT CONTROL ON THIS PROJECT. CONTRACTOR SHALL PLACE OR OTHERWISE CONSTRUCT EROSION CONTROL SEDIMENT CONTAINMENT DEVICES TO PREVENT THE RUNOFF, TRACKING, OR LOSS OF SEDIMENT FROM DISTURBED AREAS OF THE PROJECT SITE. EXPOSED AREAS SHALL DRAIN TO PROTECTED BASINS OR SILT FENCE. SEDIMENT AND EROSION CONTROL DEVICES SHALL BE FUNCTIONAL BEFORE LAND IS OTHERWISE DISTURBED ON THIS SITE.
  - THE FOLLOWING CONTROLS WILL BE IMPLEMENTED AT THE CONSTRUCTION SITE:
    - EROSION AND SEDIMENT CONTROLS
      - \* EROSION CONTROL BLANKETS SHALL BE USED ON ALL SLOPES 3:1 OR STEEPER AND OVER 5 FEET HIGH AND TO A 10 FOOT WIDTH IN ALL DITCH BOTTOMS.
      - \* PERMANENT VEGETATION WILL BE ESTABLISHED AFTER TOPSOIL IS RESPREAD.
      - \* SILT FENCES WILL PREVENT SEDIMENT FROM DISCHARGING FROM SITE.
      - \* TRIANGULAR DITCH CHECKS WILL REDUCE VELOCITIES AND REDUCE EROSION IN DITCHES.
      - \* STORM INLETS AND OUTLET APRONS SHALL BE PROTECTED WITH SEDIMENT CONTAINMENT DEVICES.
      - \* STABILIZED CONSTRUCTION ENTRANCE.
  - ALL SLOPES AND DITCHES SHALL BE STABILIZED PRIOR TO OPENING NEW CULVERTS INTO EXISTING DRAINAGE WAYS.
  - IF ANY STOCKPILE IS TO REMAIN IN PLACE FOR MORE THAN 3 DAYS, SEDIMENT AND EROSION CONTROL DEVICES SHALL BE USED.
  - WATER PUMPED OR OTHERWISE DISCHARGED FROM THE SITE DURING CONSTRUCTION DEWATERING SHALL BE DIRECTED TOWARD SEDIMENT CONTAINMENT OR FILTERING DEVICE.
  - THE CONTRACTOR SHALL TAKE ALL POSSIBLE PRECAUTIONS TO PREVENT APPRECIABLE SOIL TRACKING ONTO ROADWAYS. SOIL, MUD, OR DEBRIS WASHED, TRACKED, OR DEPOSITED ONTO PAVED SURFACES SHALL BE REMOVED PRIOR TO THE END OF EACH WORK DAY.
  - STABILIZED CONSTRUCTION ENTRANCE(S) SHALL BE REMOVED AND AREA RESTORED AFTER GRADING IS COMPLETE.
  - THE CONTRACTOR SHALL MAINTAIN THE SEDIMENT AND EROSION CONTROL MEASURES INCLUDING AFTER EACH RAIN EVENT. ALL NONFUNCTIONAL DEVICES SHALL BE REPAIRED OR REPLACED OR CLEANED WITH NO ADDITIONAL COMPENSATION MADE THEREFOR.



- NOTES:**
- WIMCO ROAD DRAIN RD-27 SHOWN. FILTER ASSEMBLY MAY BE IN CLOSED POSITION DURING HOURS OF CONSTRUCTION OPERATIONS. FILTER SHALL BE IN THE OPEN POSITION DURING "OFF" HOURS TO ALLOW STORM WATER TO ENTER STRUCTURE.
  - DEVICES SHALL BE USED TO PREVENT SEDIMENT FROM ENTERING CATCH BASINS. DEVICES SHALL BE LEFT IN PLACE UNTIL CASTING ARE INSTALLED.
  - CAN ALSO USE ALTERNATE CATCH BASIN EROSION BARRIER (BARREL TYPE) BY ROYAL ANCHOR SYSTEMS.



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EROSION CONTROL

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DATE	08/13/2004

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EARTHWORK SUMMARY		
CUT VOLUME	24,308	C.Y.
FILL VOLUME	41,027	C.Y.
COMMON BORROW NEEDED	16,719	C.Y.

ALL VOLUMES ARE COMPACTED VOLUMES. CONTRACTOR IS RESPONSIBLE FOR SHRINKAGE AND COMPACTION FACTORS.

LEGEND	
— 6.36 —	EXISTING CONTOUR
— 6.37 —	PROPOSED CONTOUR

**GRADING GENERAL NOTES:**

ALL IMPORTED AND REGRADED MATERIAL SHALL BE COMPACTED TO 100% OF STANDARD DENSITY.

CONTRACTOR RESPONSIBLE FOR ALL DENSITY TESTING. DENSITY TEST RESULTS WILL BE PROVIDED TO ENGINEER AS THEY ARE RECEIVED.

FOR COMPLETE POND GRADING PLAN SEE POND GRADING SHEET.

TWO ROWS OF PINE TREES EXIST. BOTH ROWS OF TREES TO BE CLEARED AND GRUBBED.

TWO ROWS OF PINE TREES EXIST. THE WEST ROW OF TREES TO BE SAVED IN THIS AREA. THE EAST ROW OF TREES TO BE CLEARED AND GRUBBED.

PLACE RIPRAP MEDIUM.

CITY STORM WATER RETENTION POND

TWO ROWS OF PINE TREES EXIST. THE NORTH ROW OF TREES TO BE SAVED IN THIS AREA. THE SOUTH ROW OF TREES TO BE CLEARED AND GRUBBED.

CLEAR AND GRUB THESE AREAS

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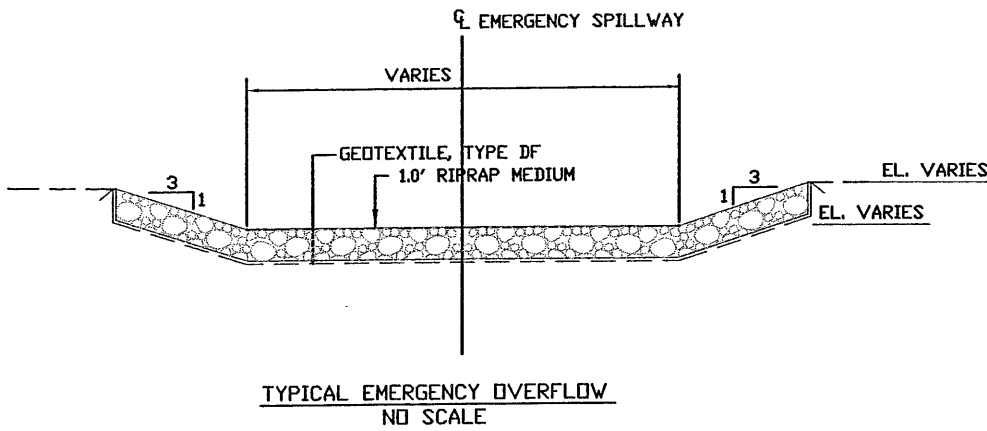
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SITE GRADING PLAN

FILE NO.  
ARRV00401.00  
DATE  
08/13/2004

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THE PROPOSED STORMWATER POND SHALL BE ROUGH GRADED AND OPERATIONAL PRIOR TO RECEIVING FLOW FROM THE SITE. THE TEMPORARY DETENTION AREA (SEE EROSION CONTROL SHEET) SHALL BE MAINTAINED UNTIL FLOWS ARE DIRECTED TO THE PROPOSED STORMWATER POND. FINAL GRADING AND STABILIZATION OF THE POND SHALL BE COMPLETED WHEN THE SITE GRADING IS COMPLETE AND TURF ESTABLISHMENT IS UNDERWAY.

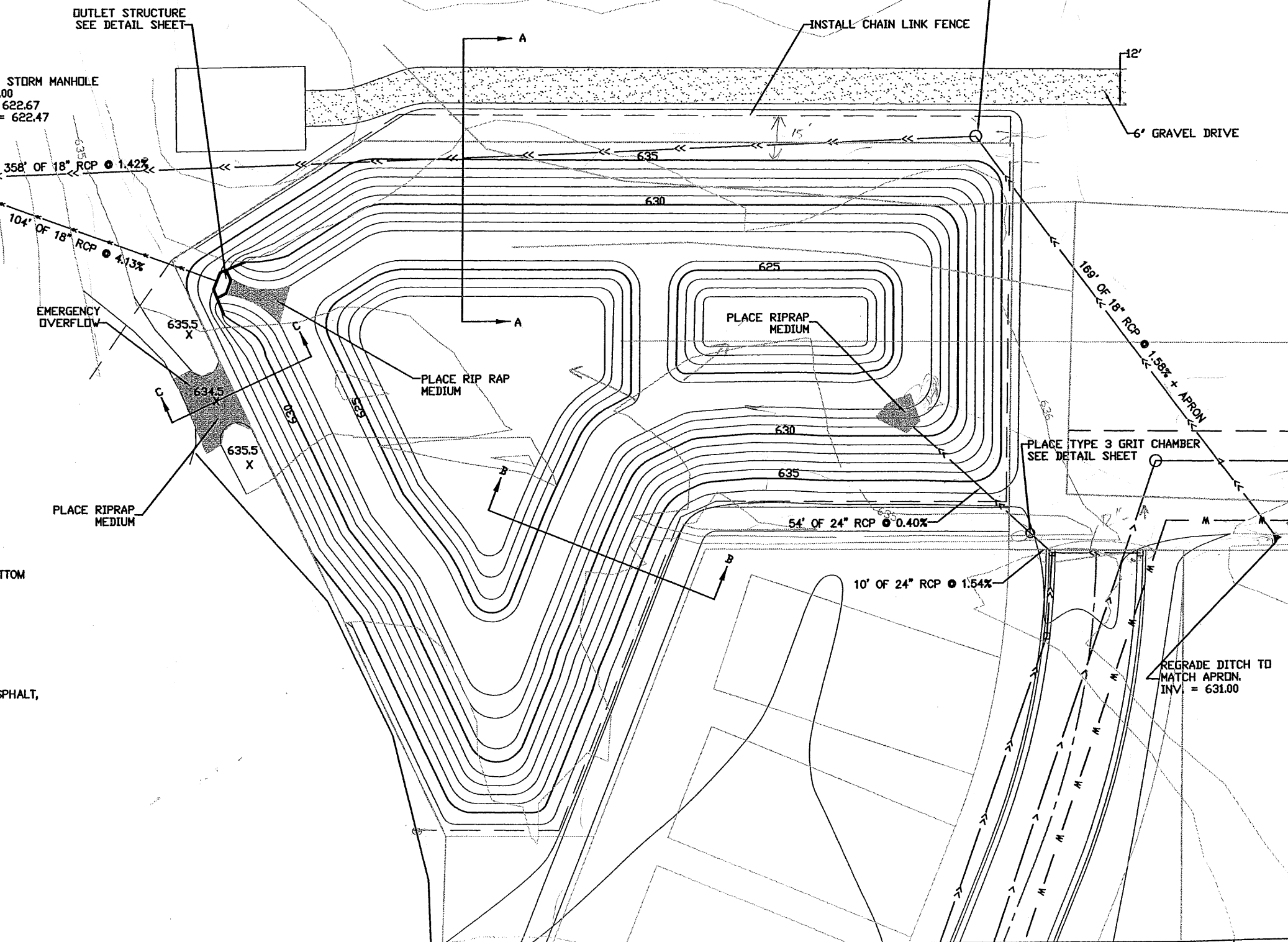
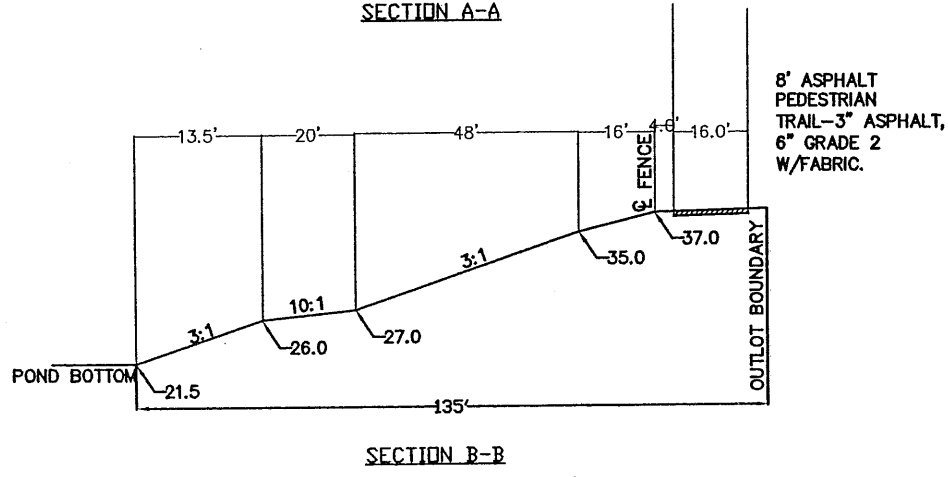
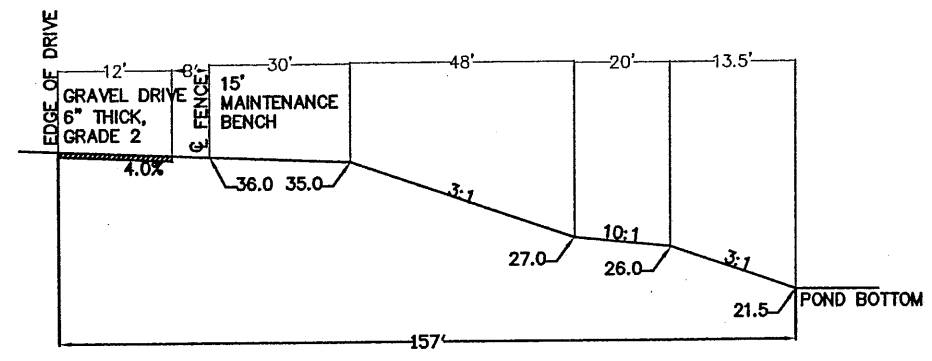
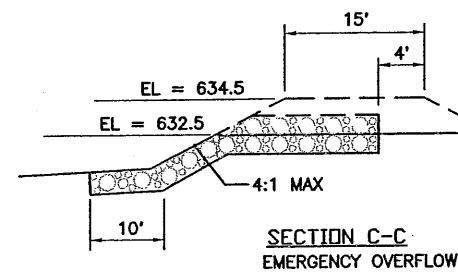
PLACE 48" STORM MANHOLE  
RIM = 635.50  
INV. IN = 628.36  
INV. OUT = 628.16

OUTLET STRUCTURE  
SEE DETAIL SHEET

INSTALL CHAIN LINK FENCE

PLACE 84" STORM MANHOLE  
RIM = 630.00  
INV. IN = 622.67  
INV. OUT = 622.47

12'  
6' GRAVEL DRIVE



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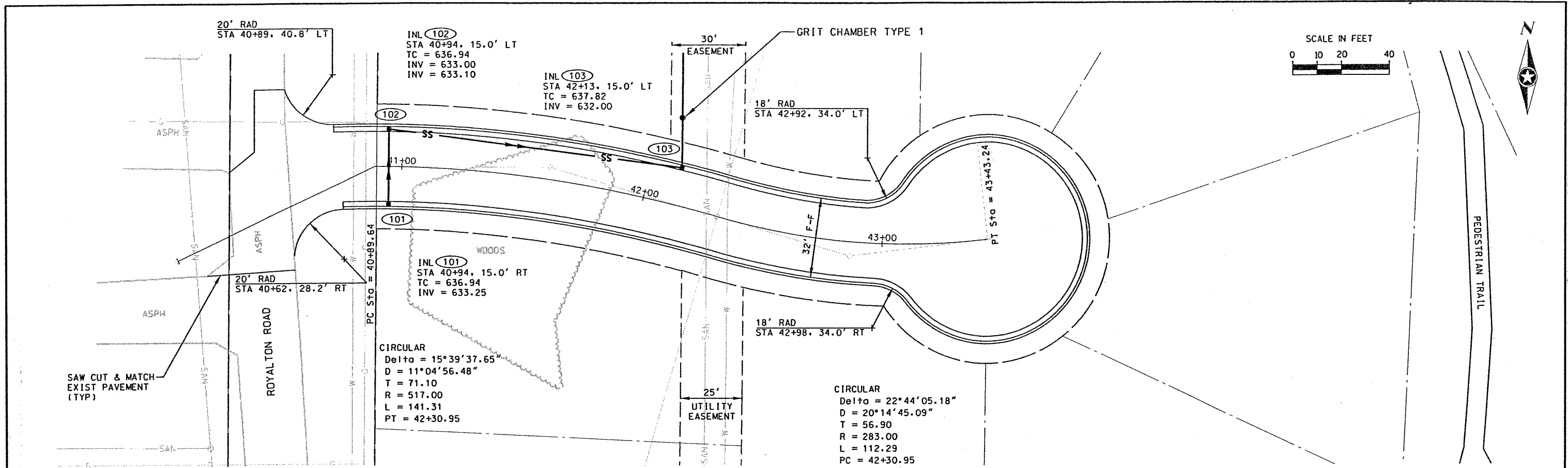
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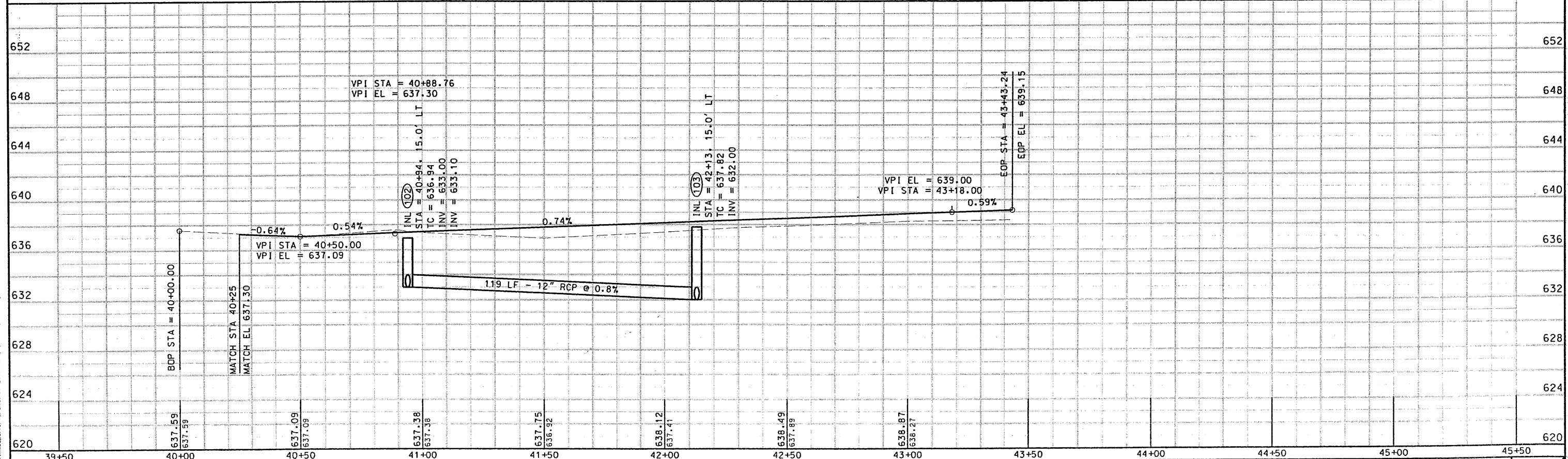
POND GRADING PLAN

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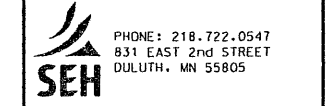
**BILLINGS COURT**



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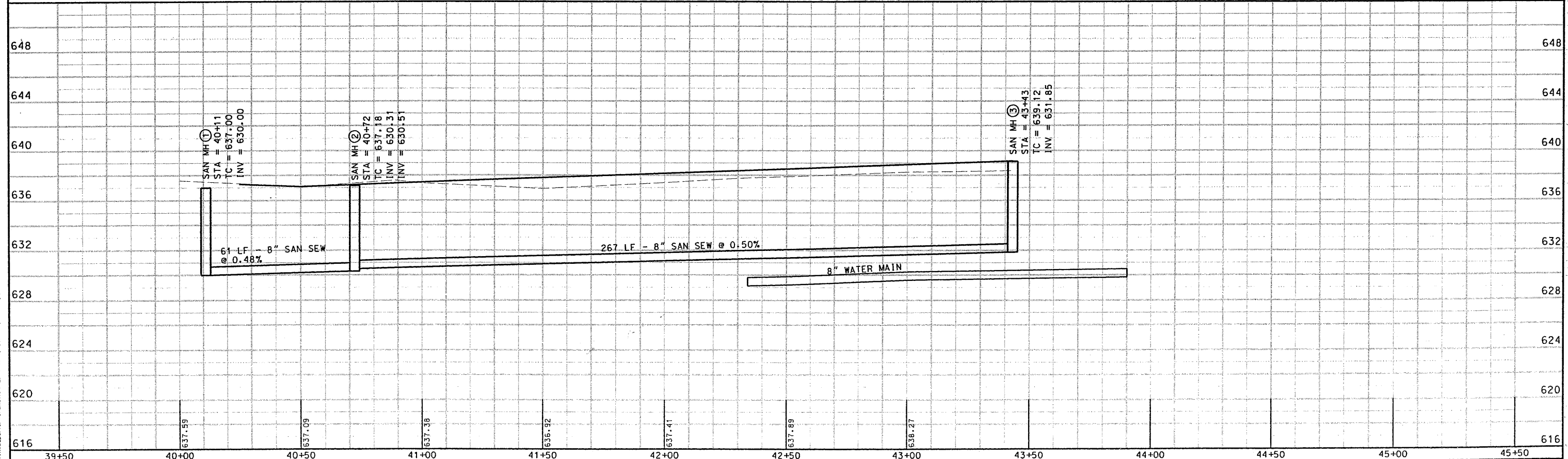
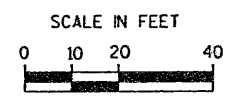
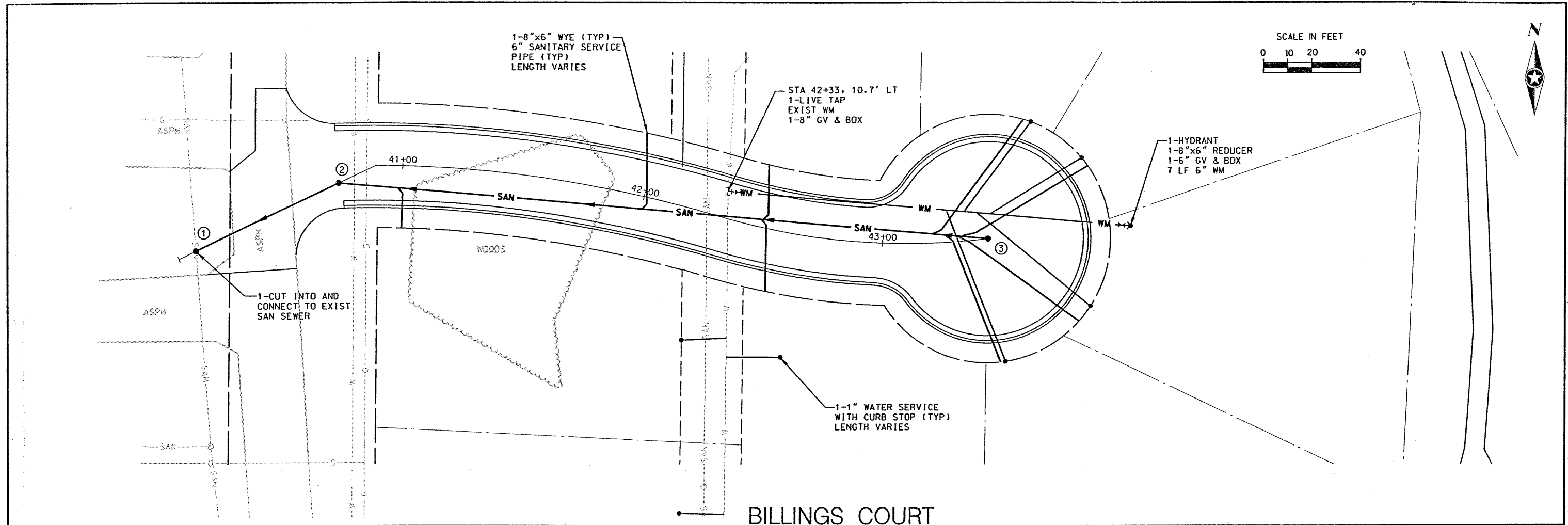
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**GRANDVIEW ESTATES SUPERIOR, WISCONSIN**

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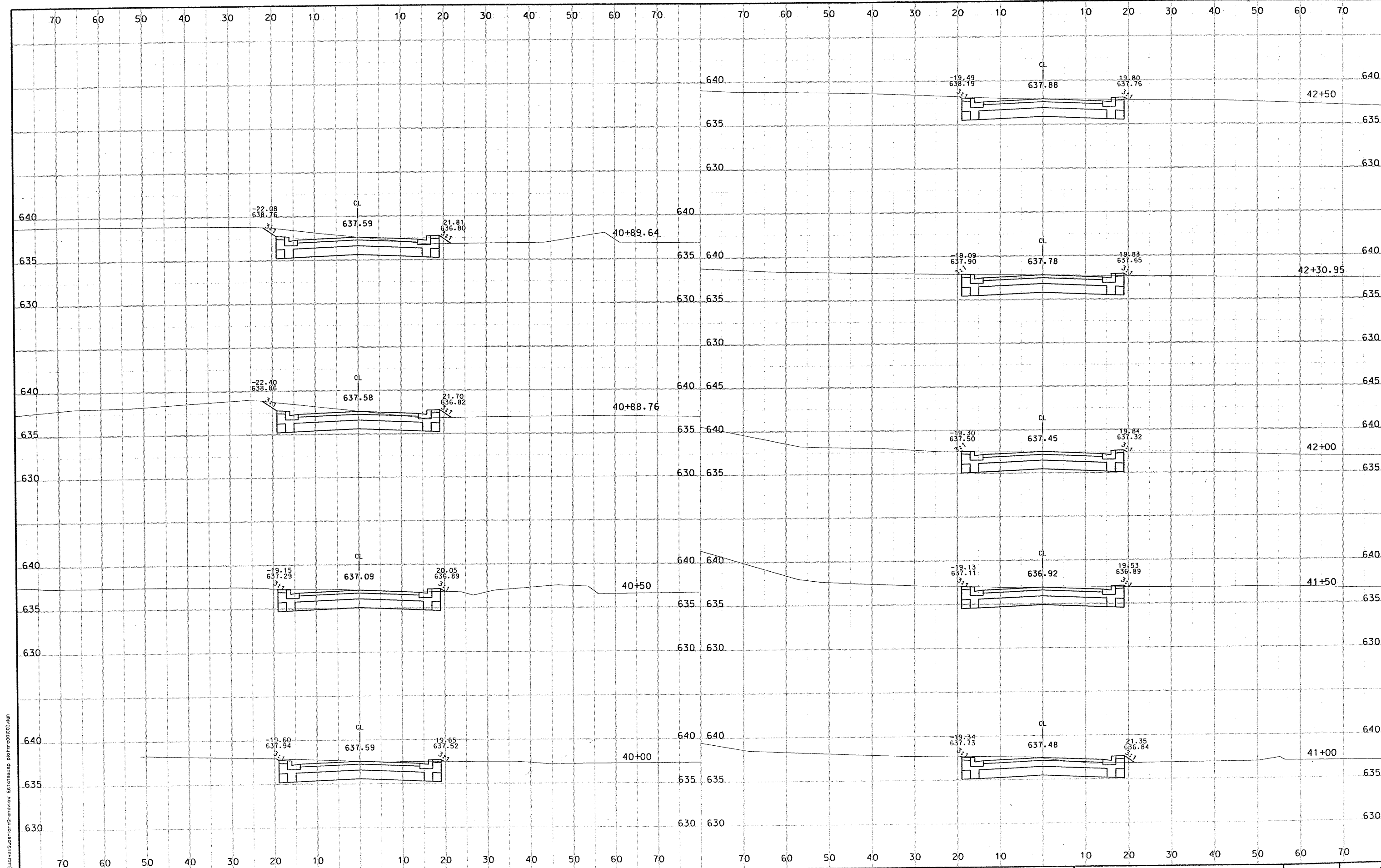
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SUPERIOR, WISCONSIN

UTILITY PLAN & PROFILE  
BILLINGS COURT

FILE NO. ARR1V00401.05	21
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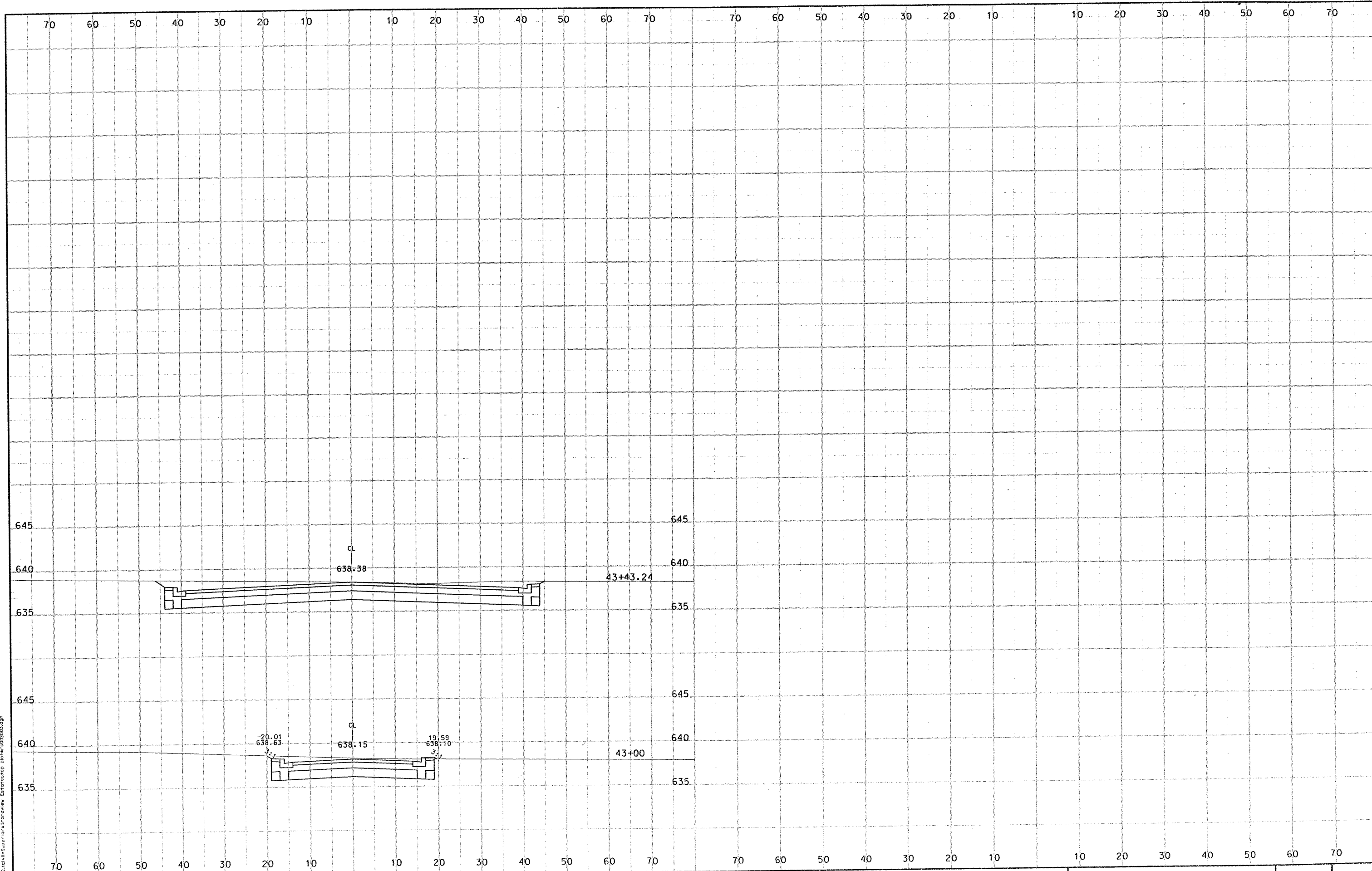
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CROSS SECTIONS  
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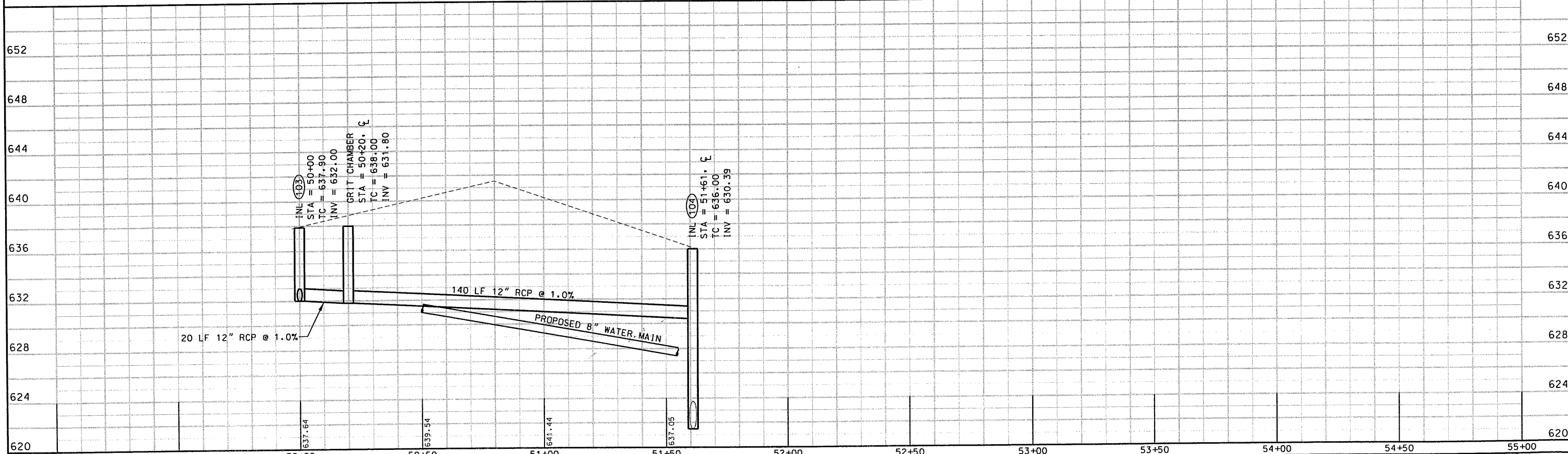
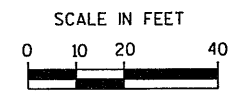
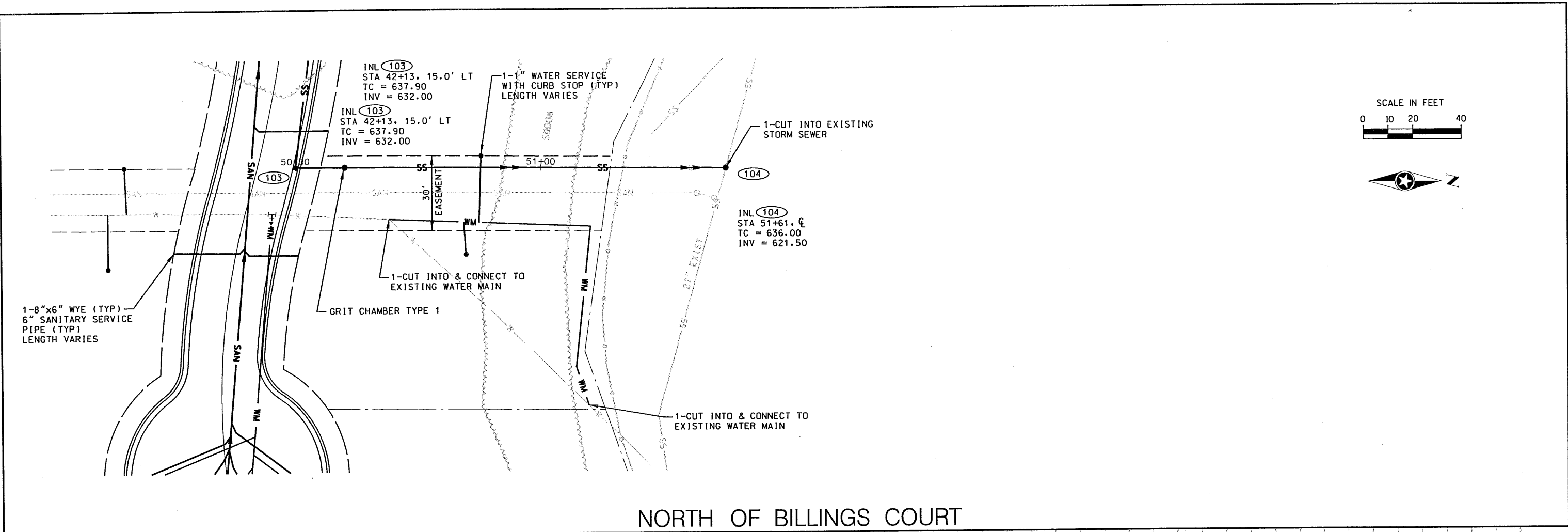
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**CROSS SECTIONS  
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DATE	08/13/2004
	37



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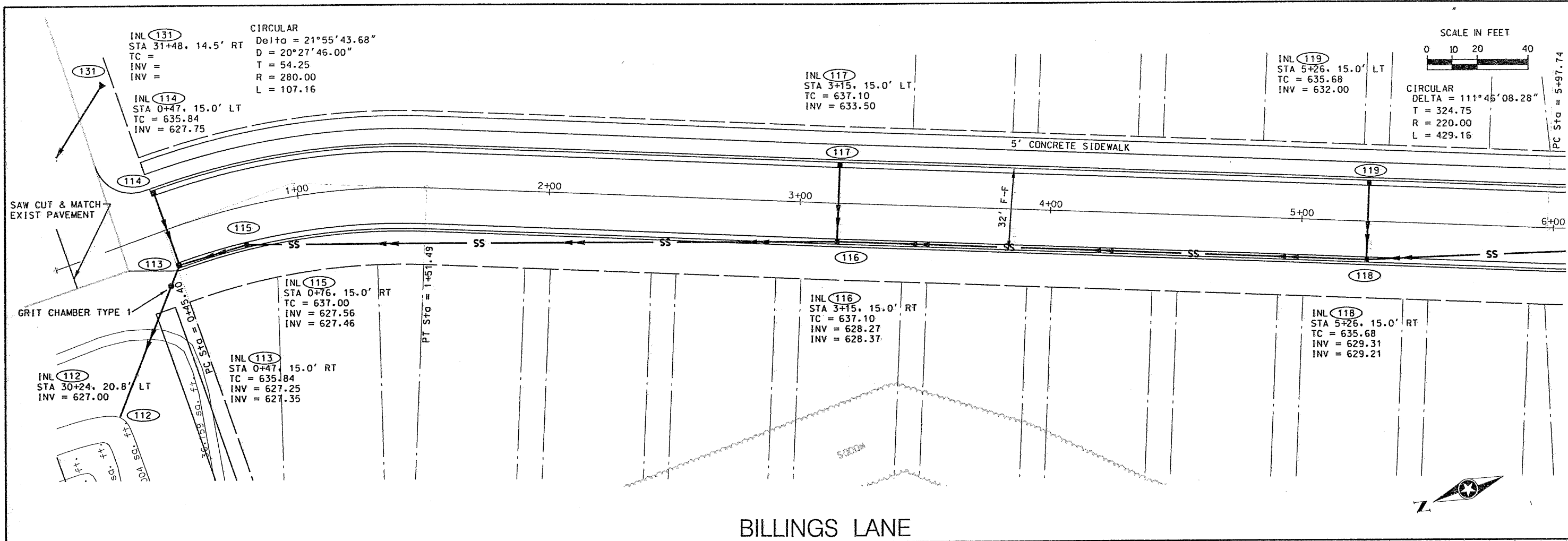
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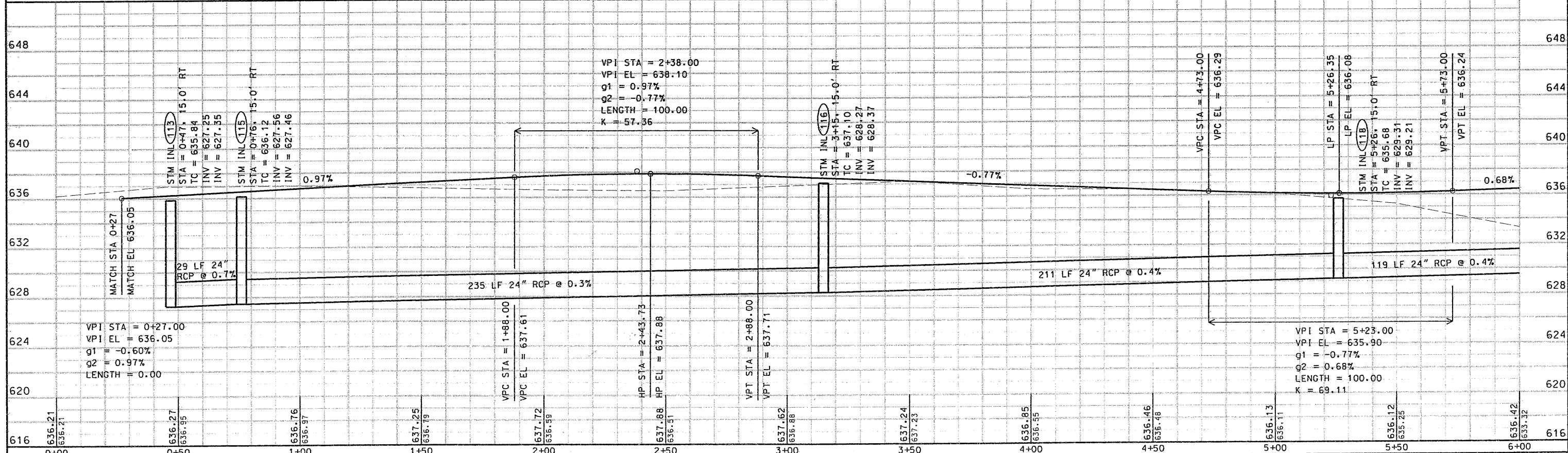
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STORM SEWER & WATER MAIN  
PLAN & PROFILE

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DATE 08/13/2004	37



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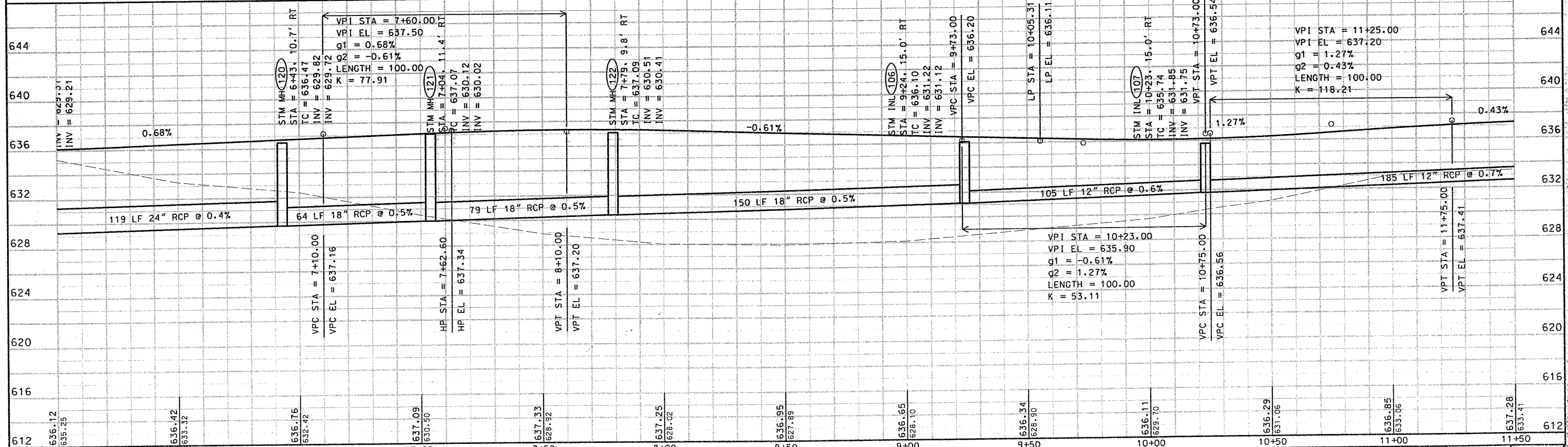
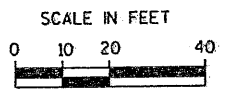
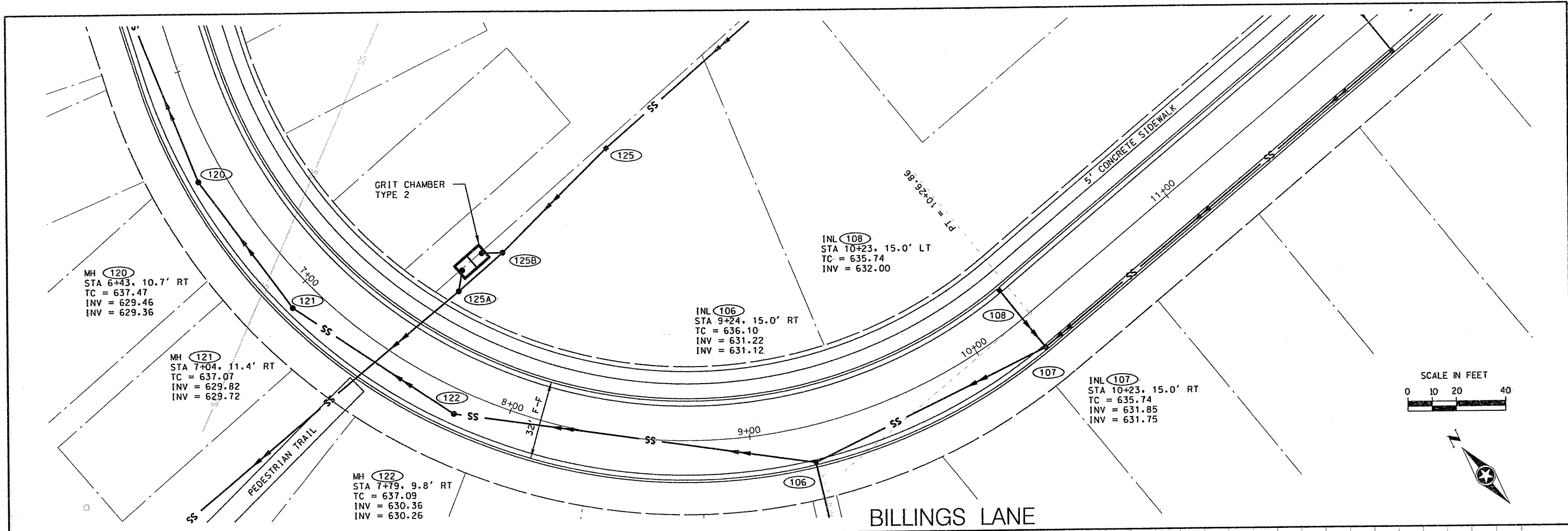
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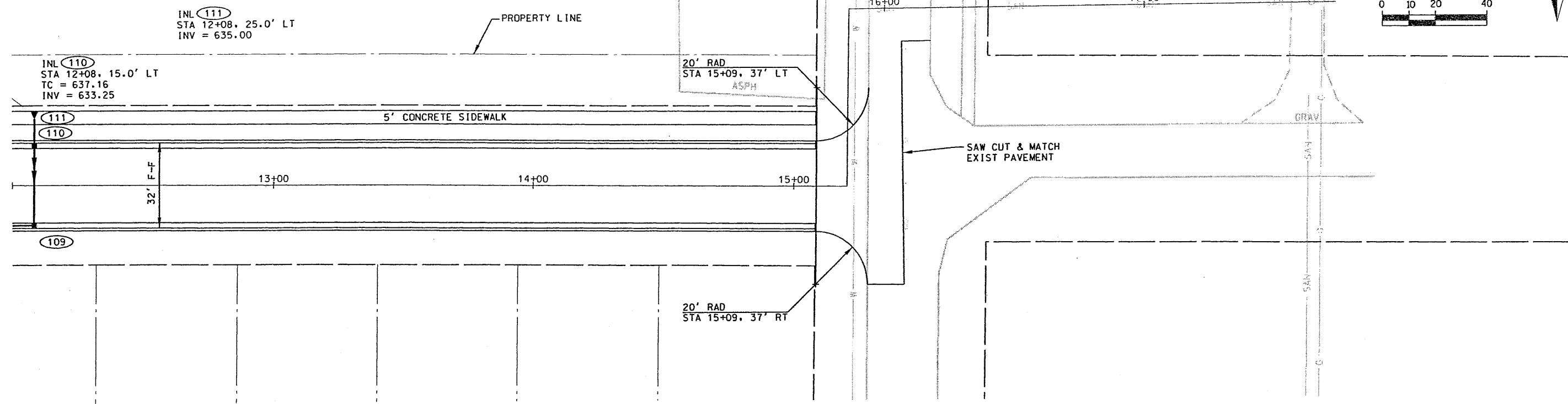
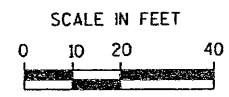
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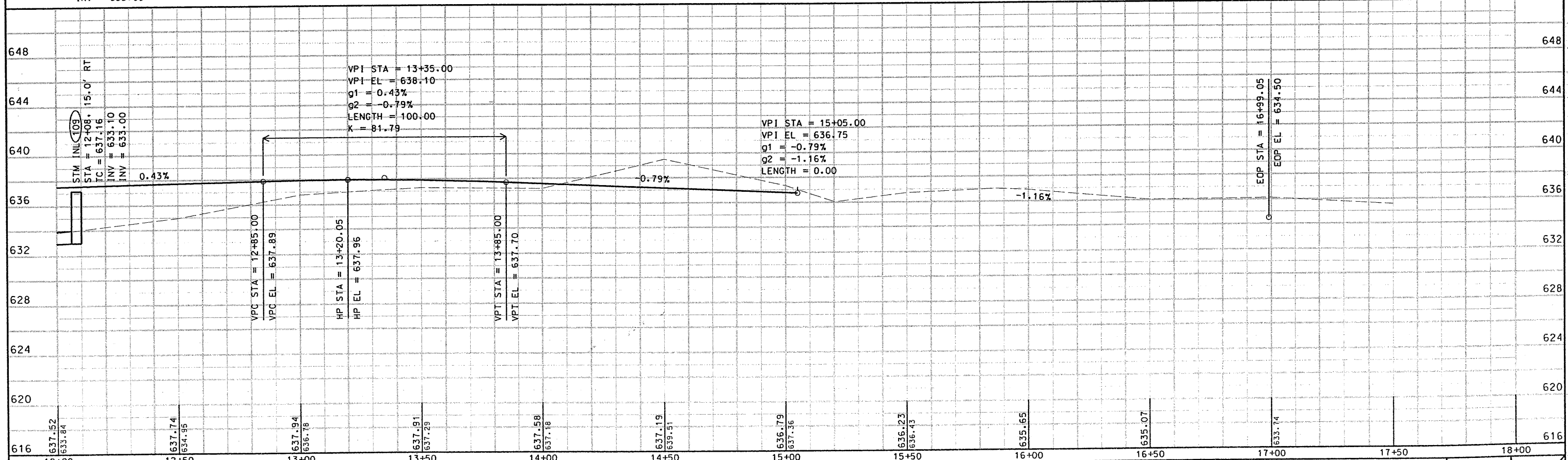
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### BILLINGS LANE

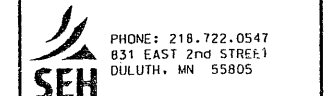


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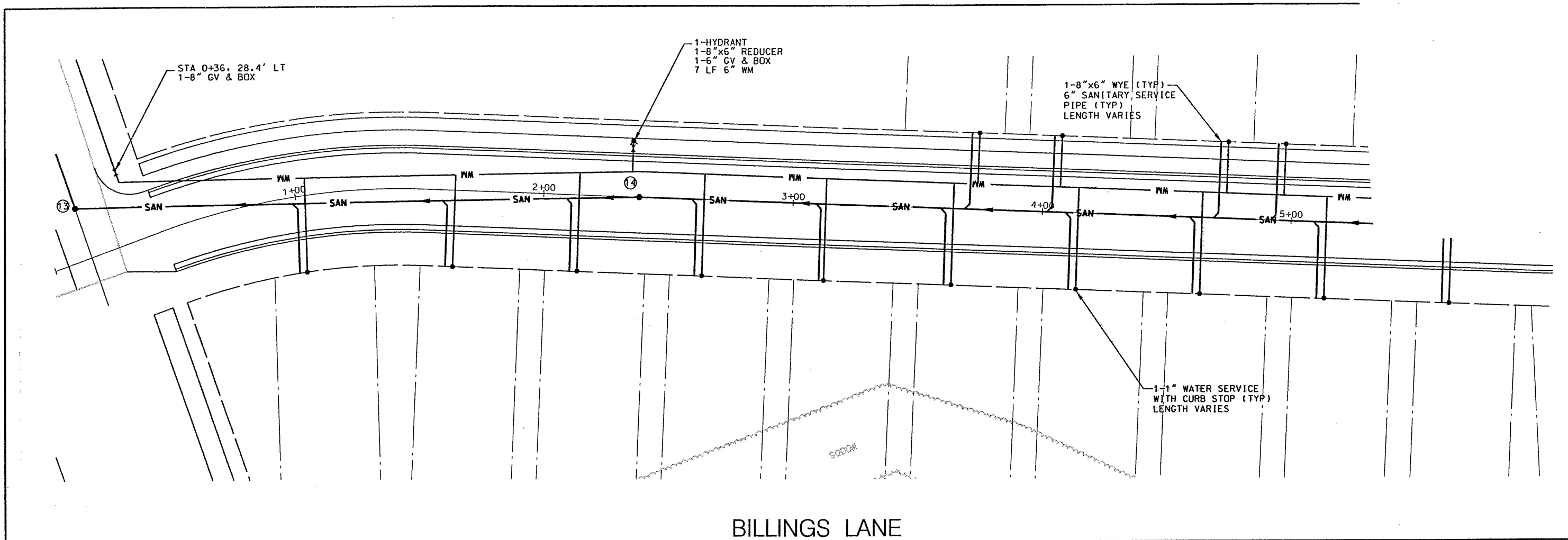


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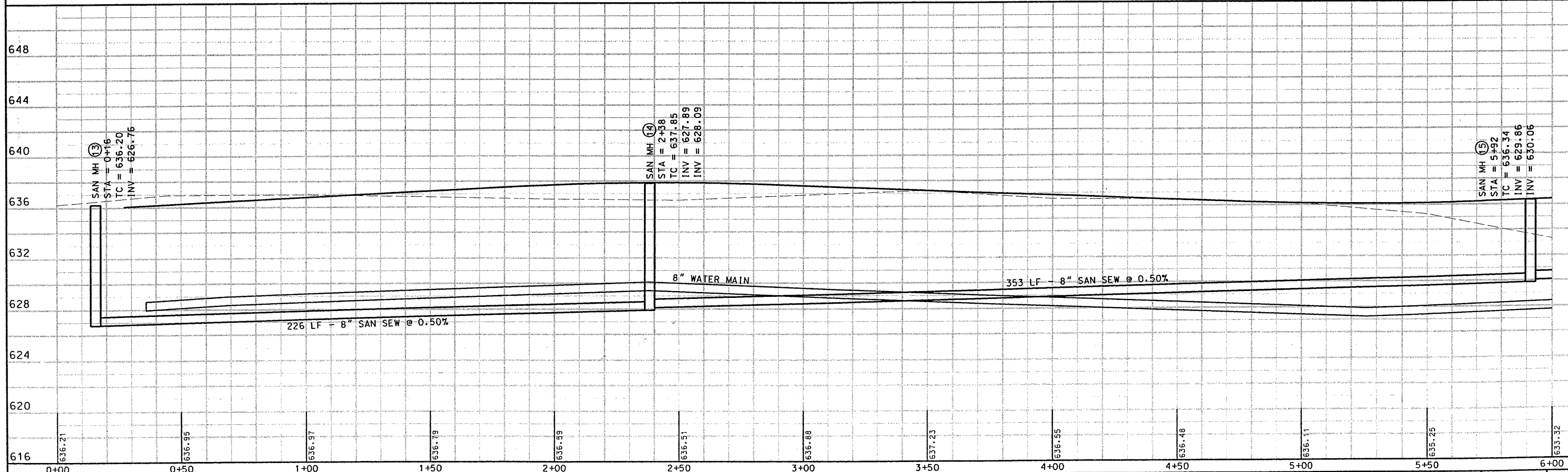
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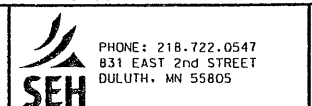


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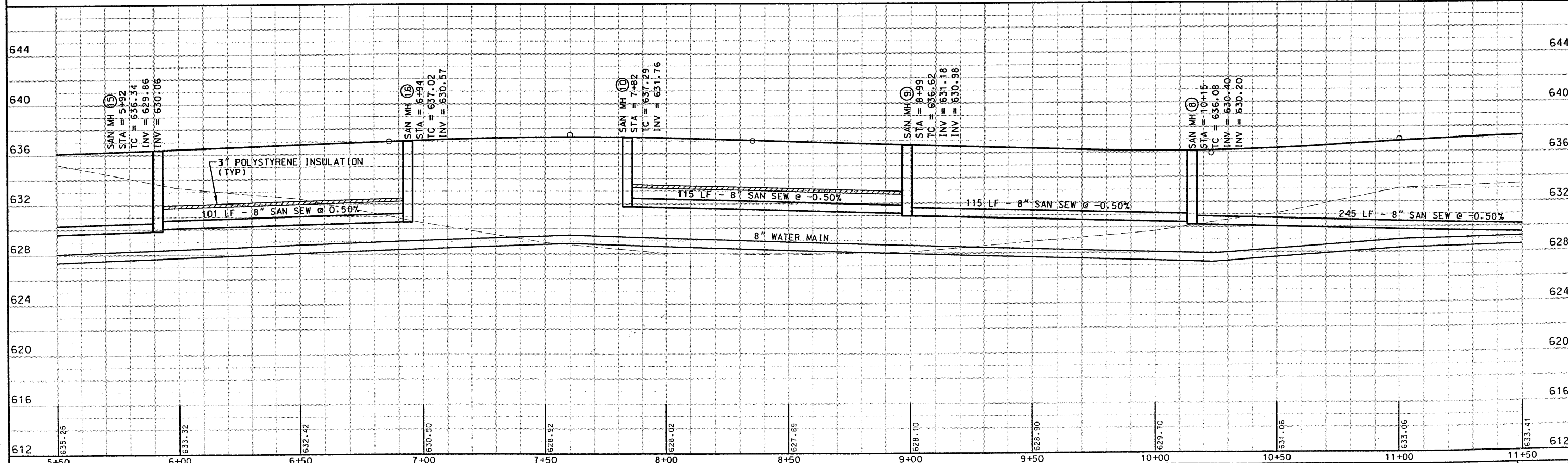
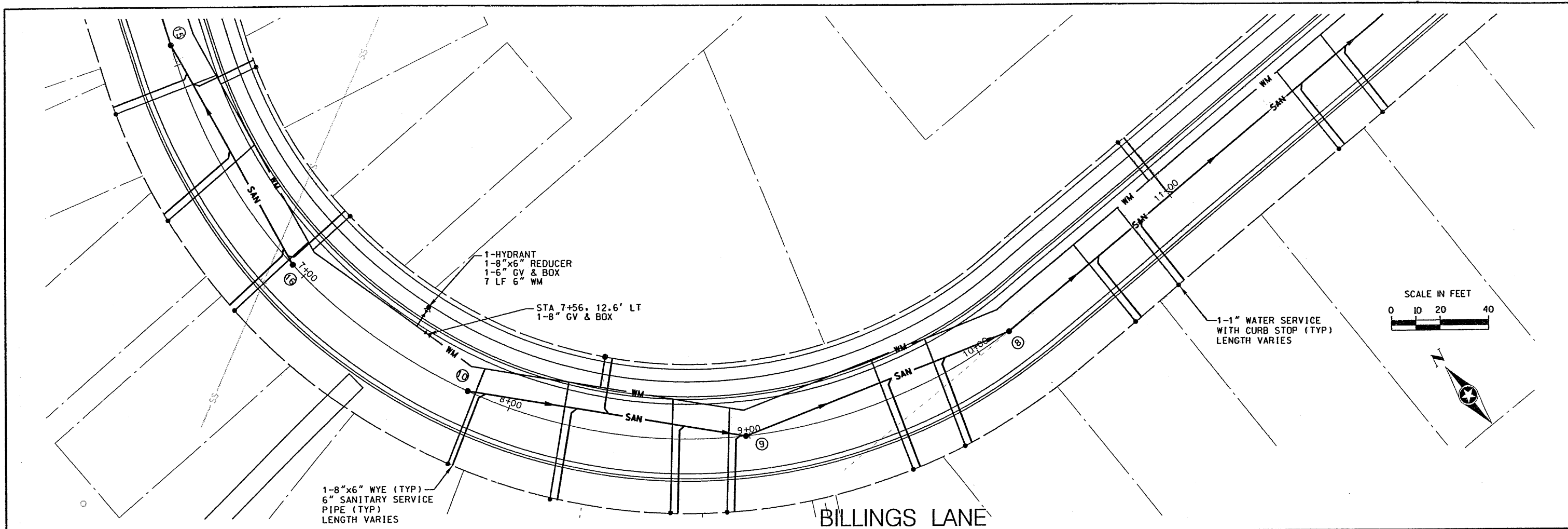
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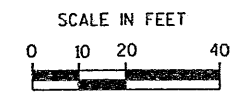
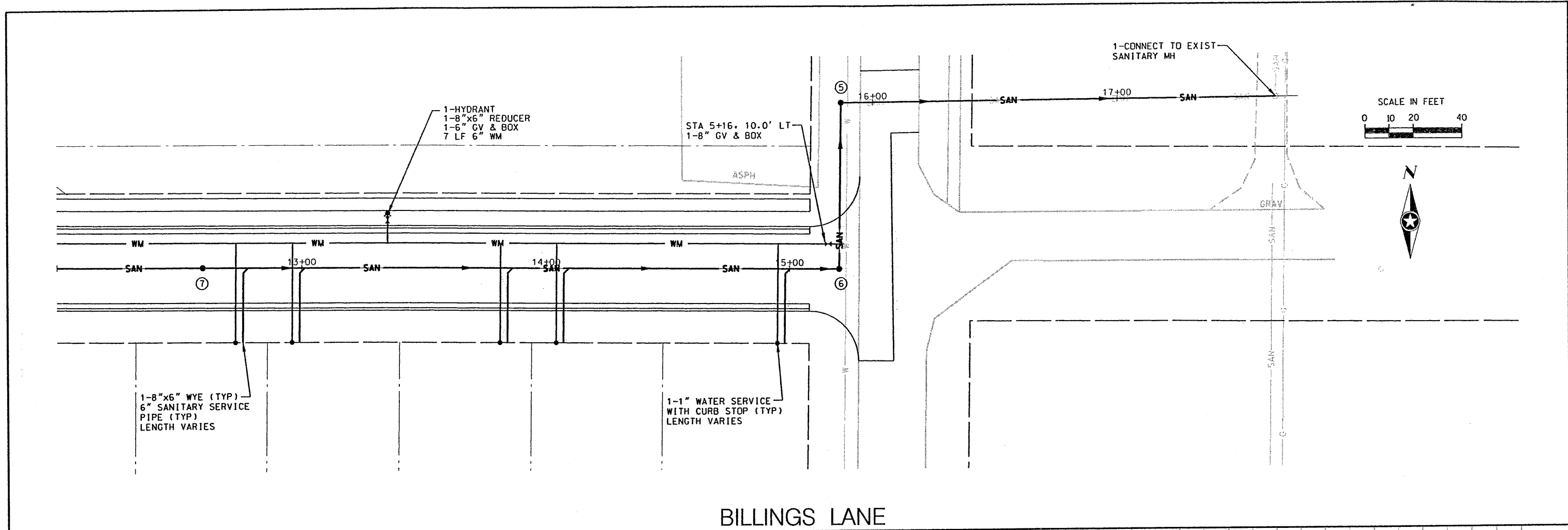
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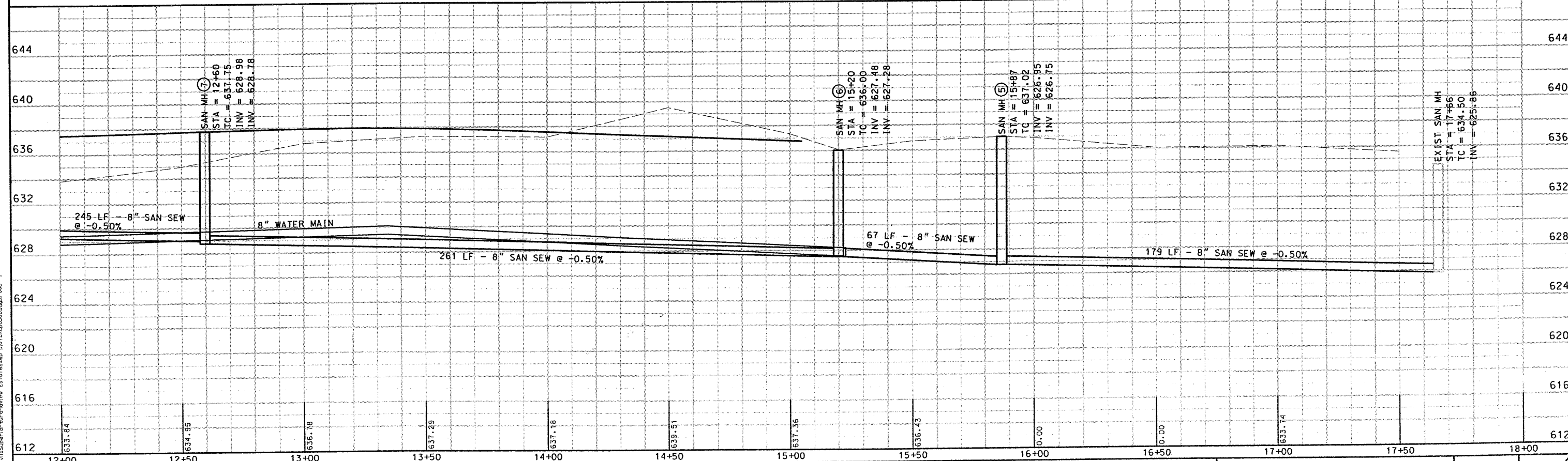
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BILLINGS LANE

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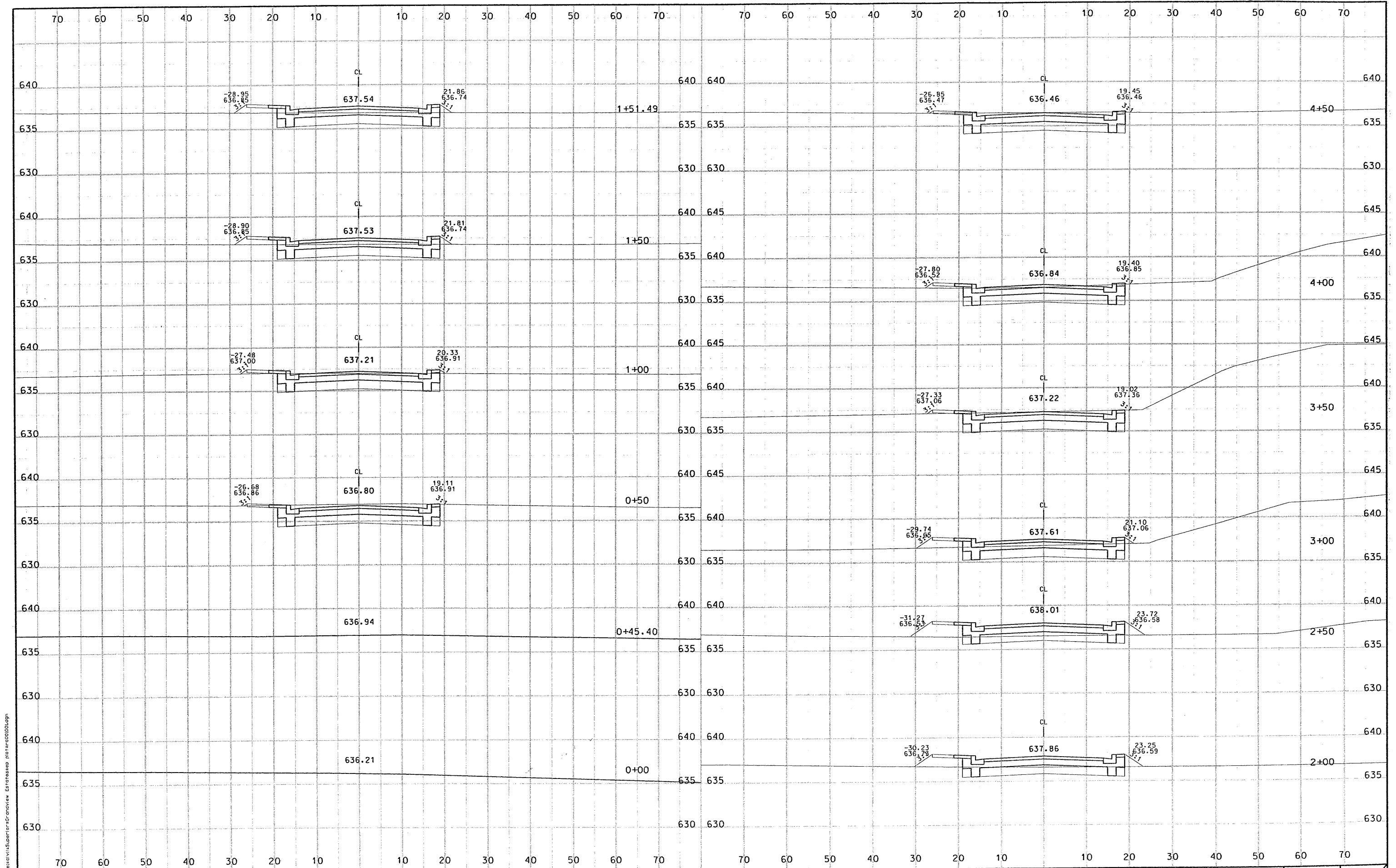
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UTILITY PLAN & PROFILE  
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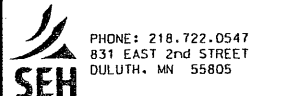


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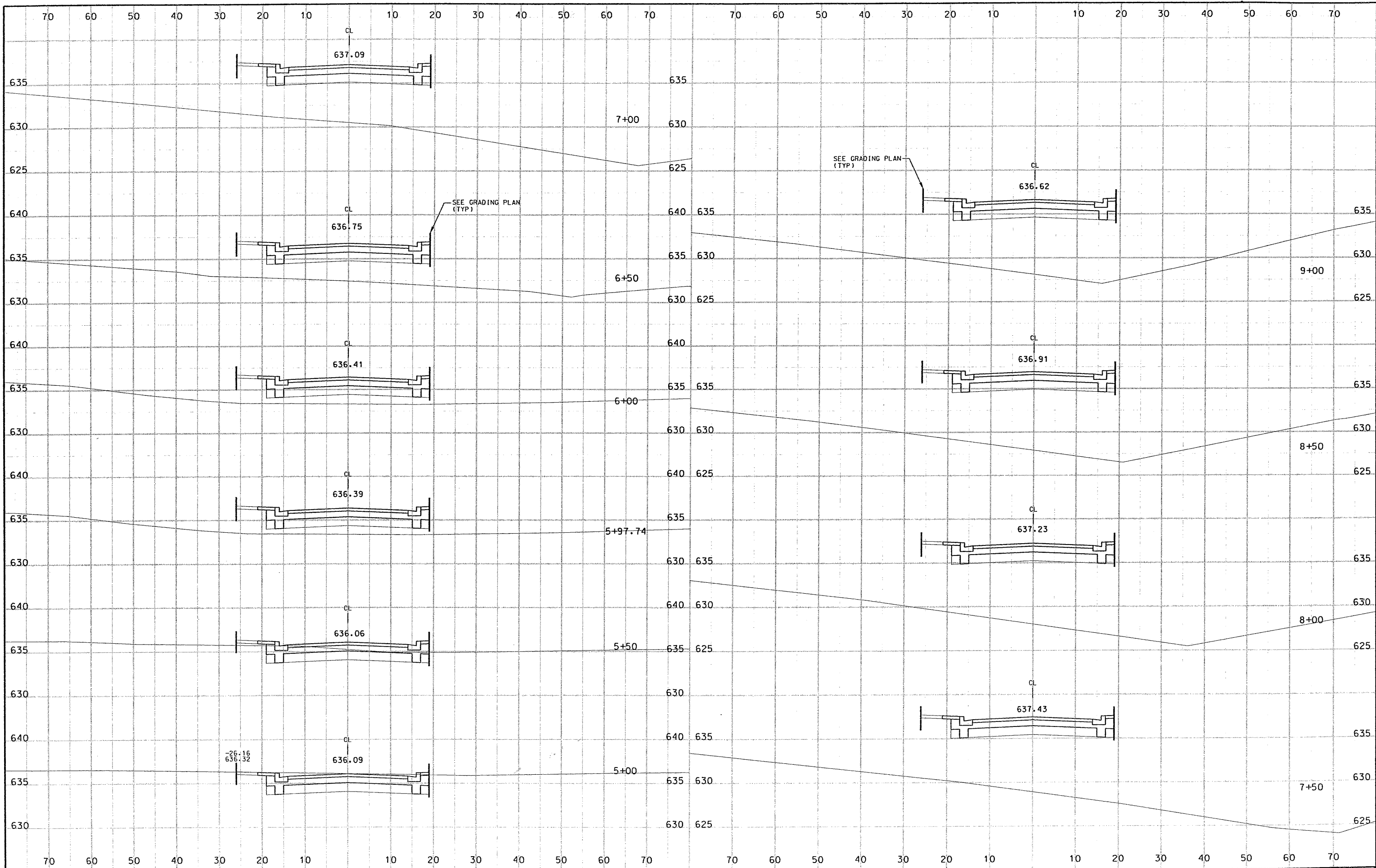
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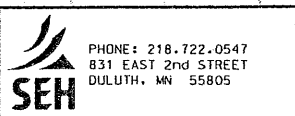
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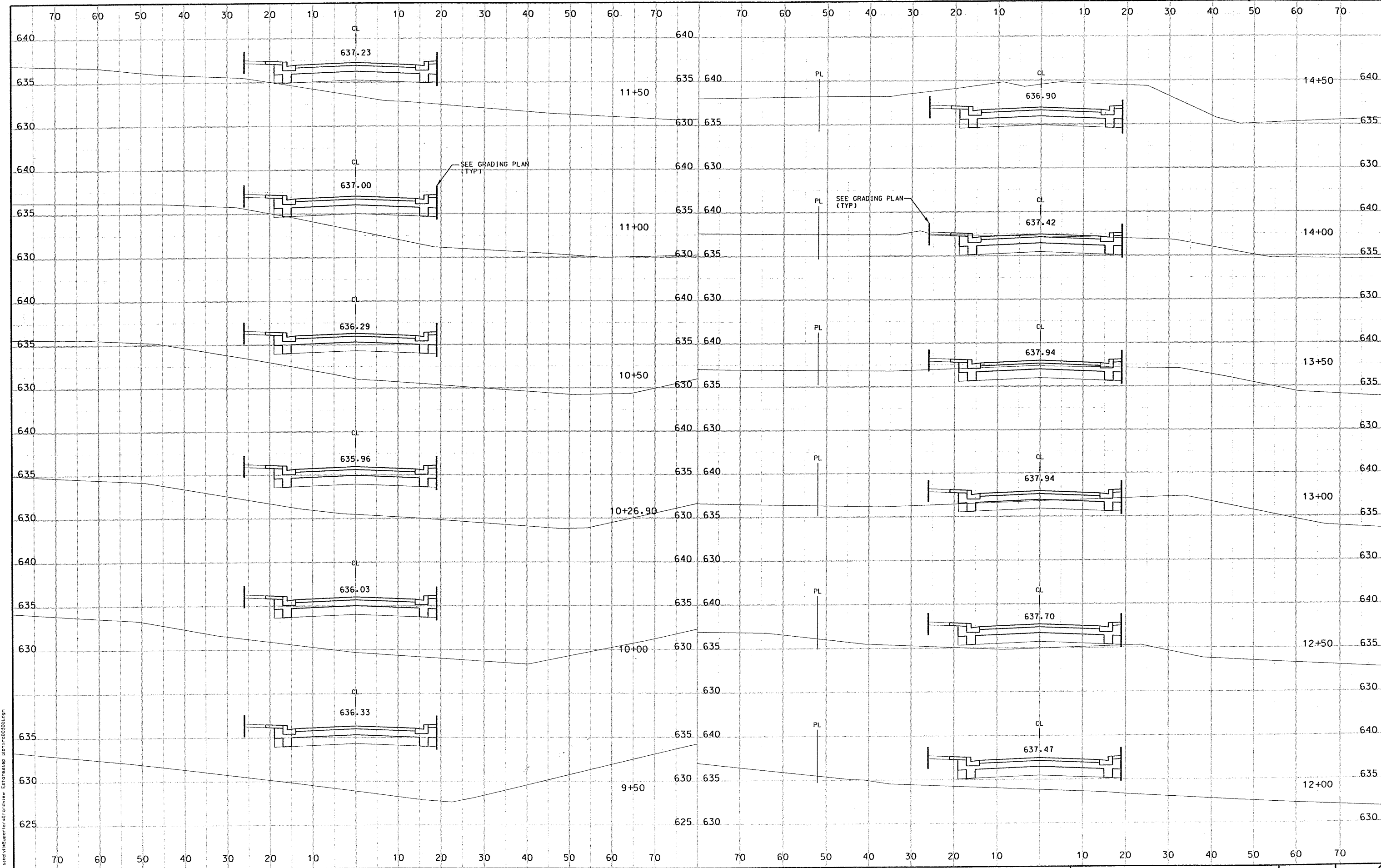


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DATE	08/13/2004	37

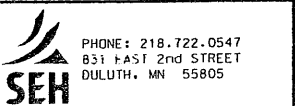




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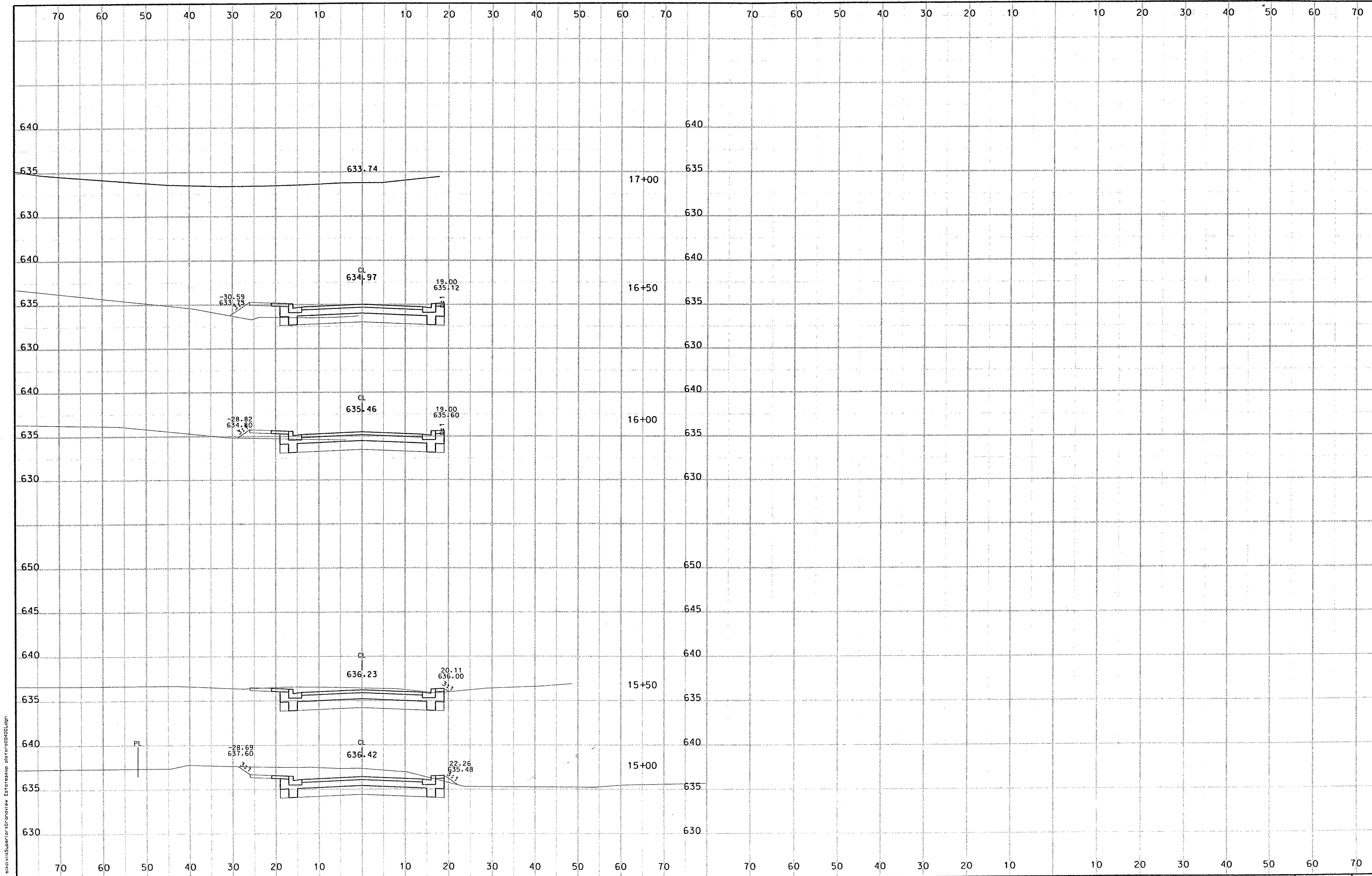
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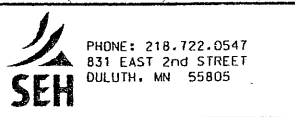
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DATE	08/13/2004	37



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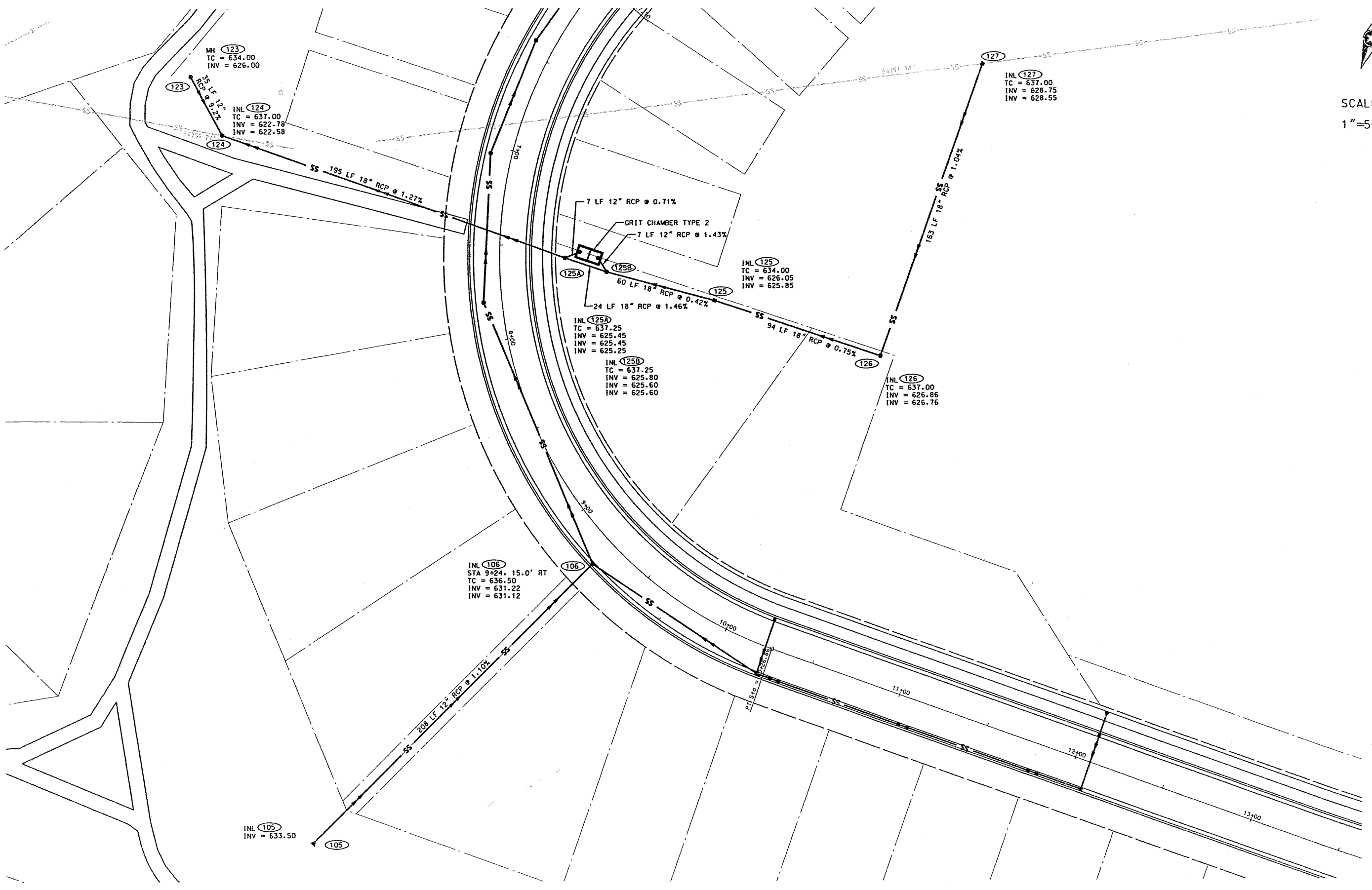
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BILLINGS LANE

FILE NO.	34
ARRIVED DATE	08/13/2004
DATE	08/13/2004




SCALE:  
1"=50'



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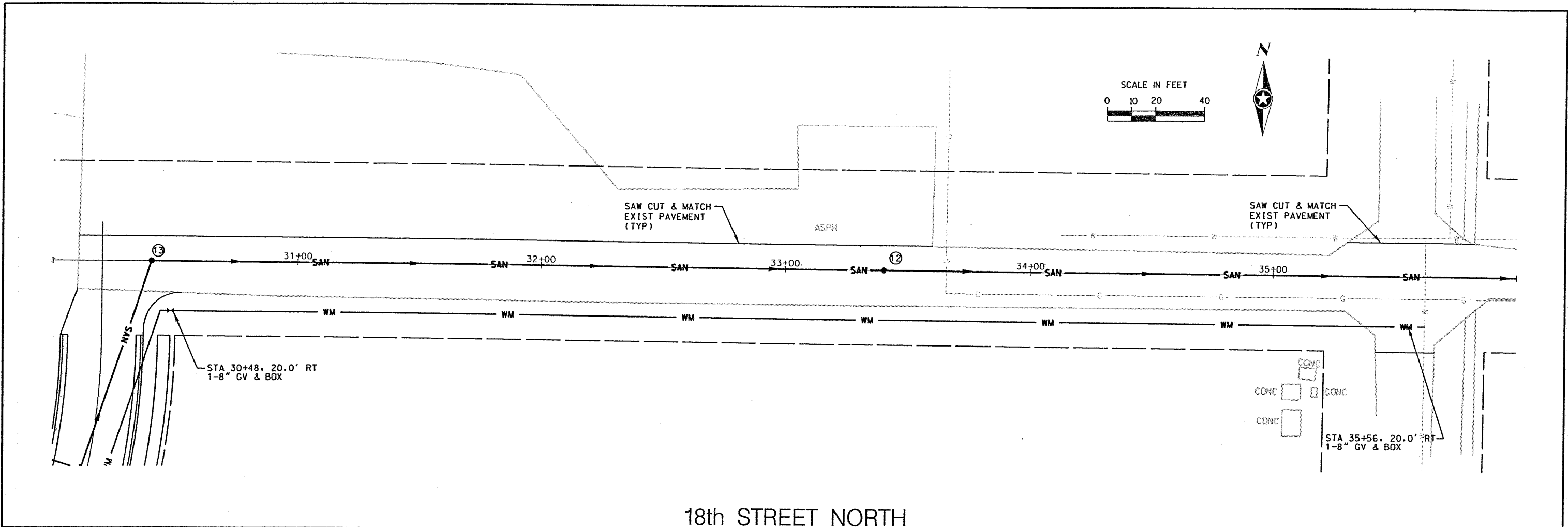
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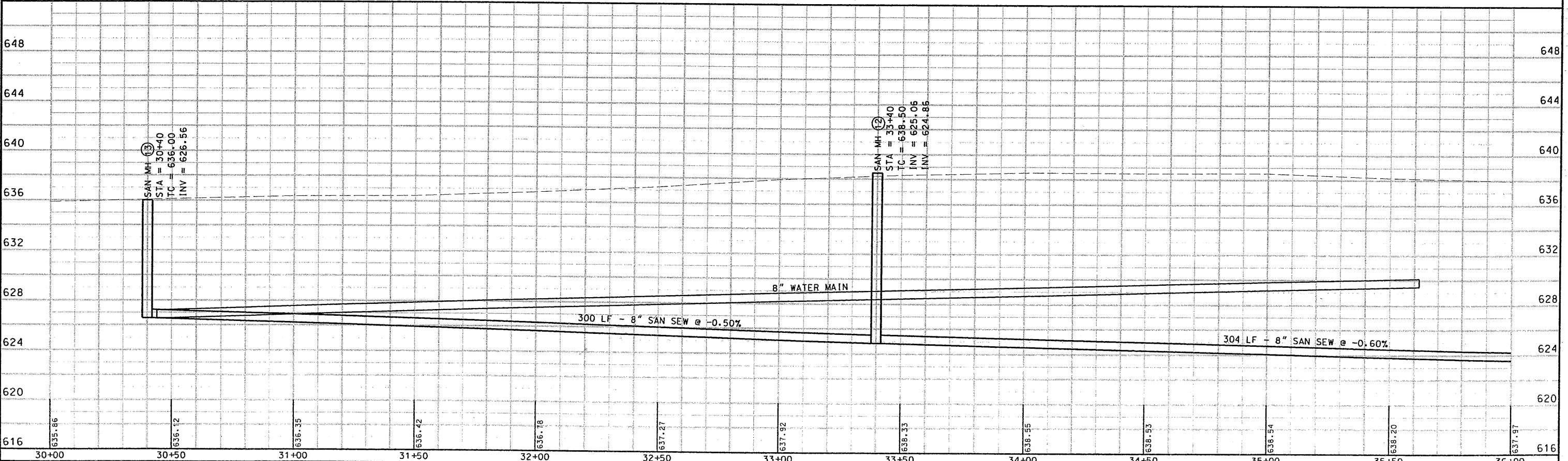
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18th STREET NORTH



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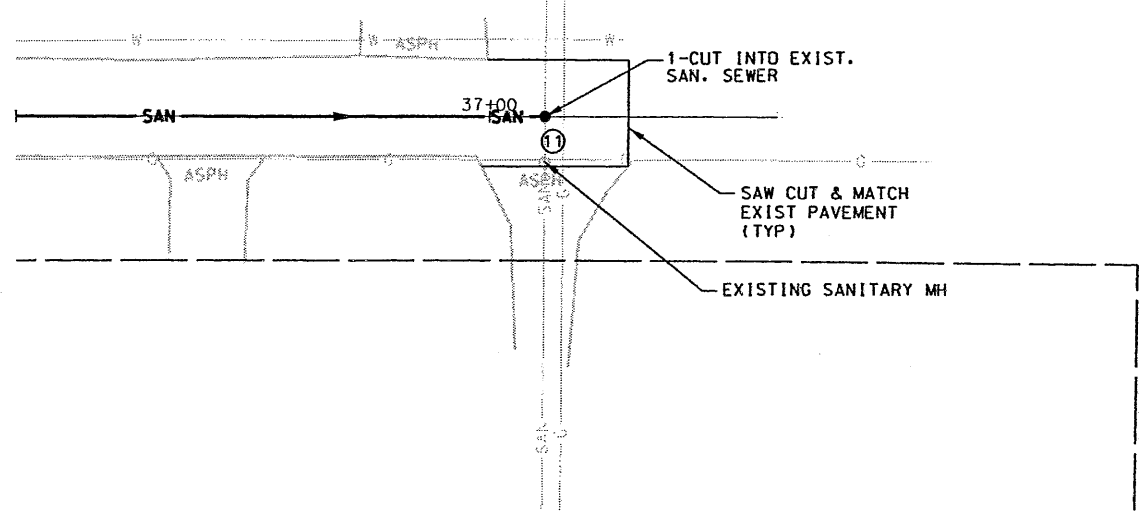
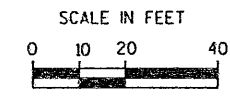
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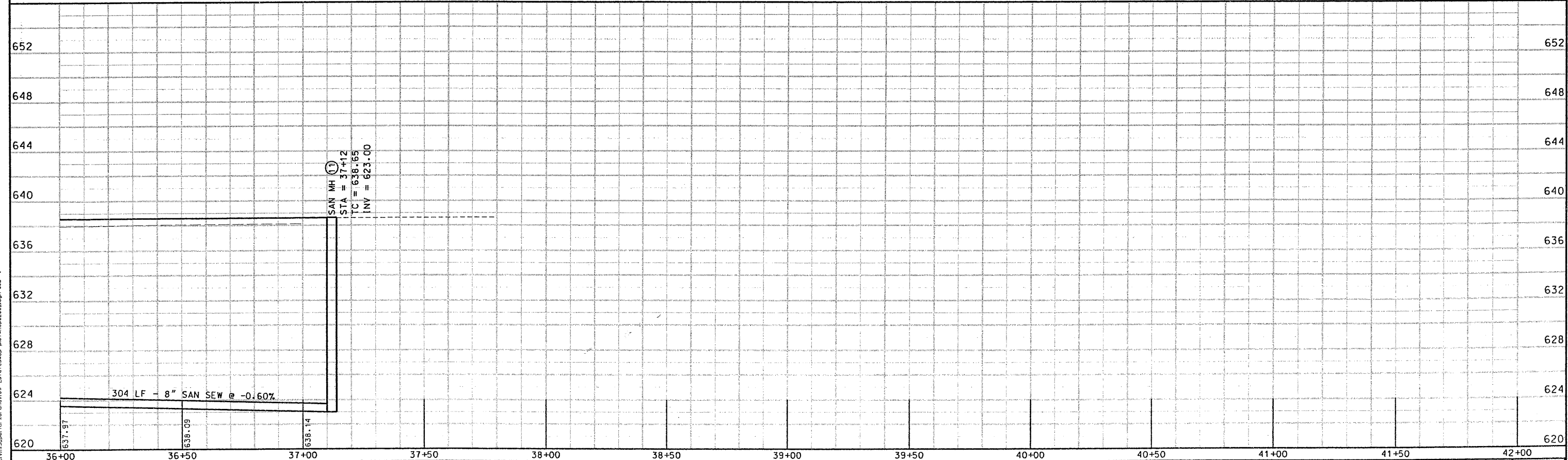
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DATE 08/13/2004	37



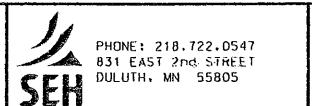


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