

FORM 2165-10-58

STATEMENT OF ESTIMATED QUANTITIES

ITEM NO.	ITEM SAP 02-608-04	UNIT	TOTAL ESTIMATED QUANTITIES
2021.501	MULCHIZATION	LUMP SUM	1
2104.510	REMOVE FENCE	LIN. FT.	206
2105.501	COMMON EXCAVATION	CU. YD.	6411
2105.531	SALVAGED BITUMINOUS MIXTURE	CU. YD. (VM)	1575
2130.501	WATER	M GALLON	25
2131.501	CALCIUM CHLORIDE, TYPE 2	TON	13
2207.503	BITUMINOUS MATERIAL FOR MIXTURE	GALLON	42,890
2207.512	BIT. STABILIZED SUBGRADE (6" THICK)	SQ. YD.	13,835
2341.504	BITUMINOUS MATERIAL FOR MIXTURE	TON	62
2341.509	WEARING COURSE MIXTURE - FILLER	TON	1130
2357.502	BITUMINOUS MATERIAL FOR TACK COAT	GALLON	700
2503.502	12" REINFORCED CONCRETE SEWER CL.4	LIN. FT.	88
2503.502	15" REINFORCED CONCRETE SEWER CL.4	LIN. FT.	911
2503.504	15" METAL SEWER (16 GAGE)	LIN. FT.	40
2506.506	CONSTRUCT MANHOLES, DESIGN C OR G	LIN. FT.	8.5
2506.507	CONSTRUCT CATCH BASINS, DESIGN C OR G	LIN. FT.	16.8
2506.516	CASTING ASSEMBLIES	ASSEMBLY	7
2506.522	ADJ. FRAME & RING CASTINGS	ASSEMBLY	2
504.501	F. & I. 6" WATER MAIN	LIN. FT.	28
504.574	MOVE HYDRANT	HYDRANT	2
504.585	ADJ. WATER GATE HOUSING	HOUSING	9
2531.501	CONCRETE CURB & GUTTER DESIGN B618	LIN. FT.	235
2531.501	CONCRETE CURB & GUTTER DESIGN B918	LIN. FT.	100
2575.501	ROADSIDE SEEDING (1)	ACRE	0.5
2575.505	SODDING	SQ. YD.	1864
2575.511	MULCH MATERIAL TYPE 5	TON	0.4
2105.525	TOPSOIL BORROW	CU. YD. (VM)	395
565.661	REVISE SIGNAL SYSTEM	SYSTEM	1

(1) SEED & FERTILIZER WILL BE FURNISHED BY THE COUNTY.

FORM 2166-10-58

The following Standard Detail plates, approved by the Bureau of Public Roads, shall apply on this project.

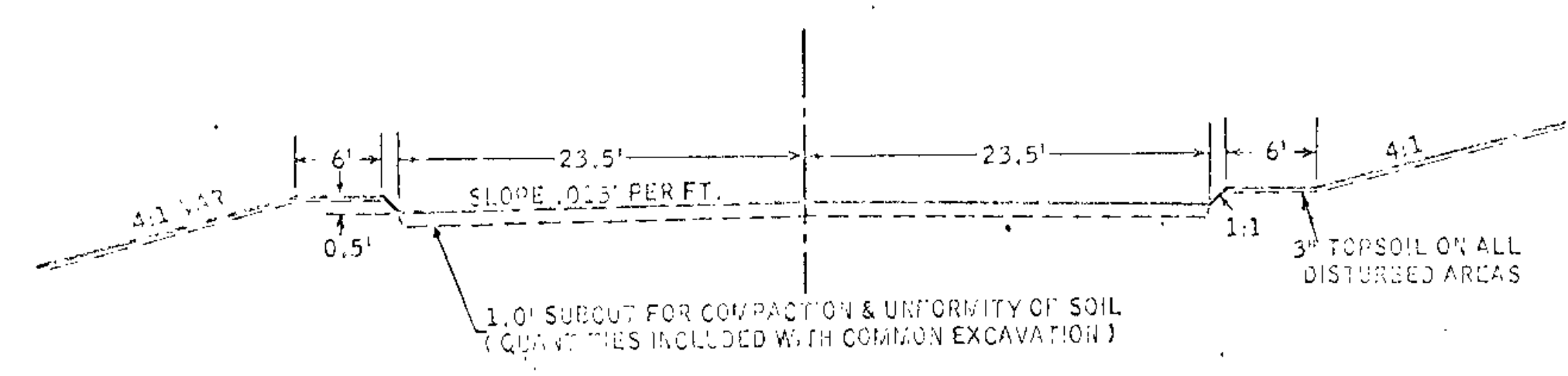
PLATE NO.	DESCRIPTION
3000 F	REINFORCED CONCRETE PIPE
3100 E	CONCRETE APRON FOR REINFORCED CONCRETE PIPE
4002 D	MANHOLE OR CATCH BASIN (DESIGN C)
4006 E	MANHOLE OR CATCH BASIN (DESIGN G)
4101 B	RING CASTING FOR MANHOLE OR CATCH BASIN (700-7)
4110 D	COVER CASTING FOR MANHOLE (711)
4126 D	CATCH BASIN FRAME CASTING (801)
4149 C	GRATE CASTING FOR CATCH BASIN (810)
4161 D	CURB BOX CASTING FOR CATCH BASIN (821B)
7100 D	CONCRETE CURBS & GUTTERS (B) (618) & (918)
7110 F	CURB & GUTTER CONSTRUCTION AT CATCH BASIN
8000 J	STANDARD END RAILS

SPECIAL DETAILS

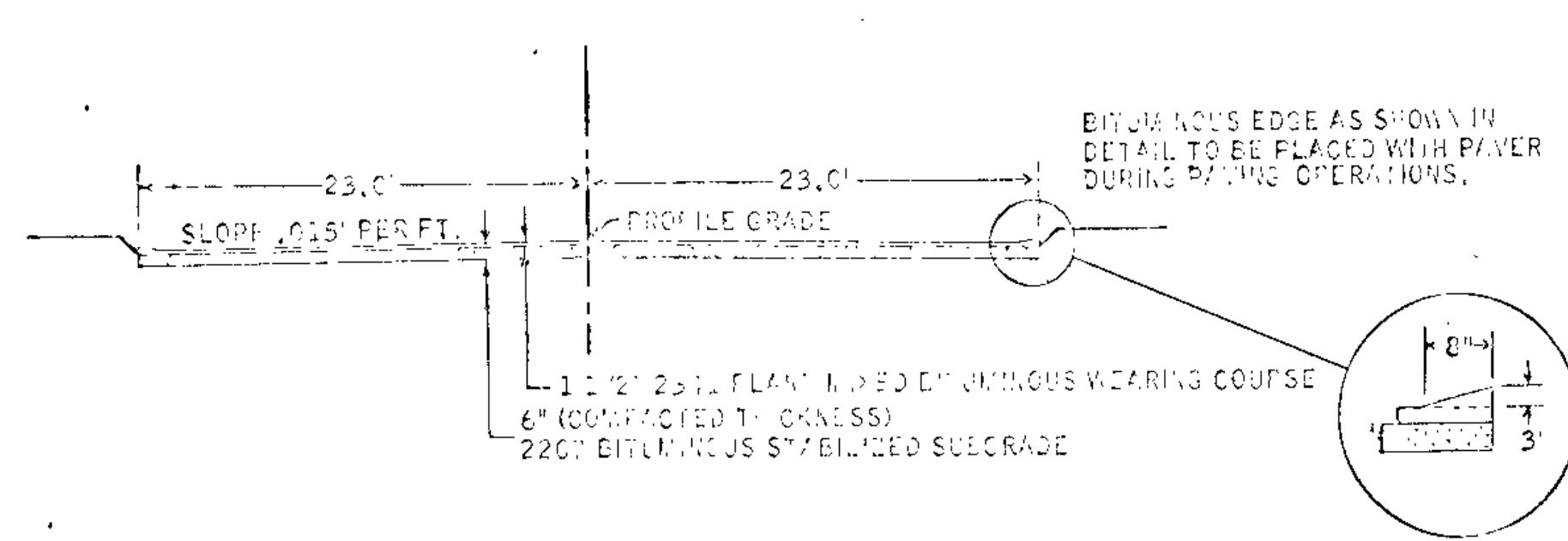
SALVAGED BITUMINOUS MATERIAL SHALL BE USED IN THE TOP 6" OF THE ROAD BED.

EXCESS COMMON EXCAVATION, APPROXIMATELY 1212 CU. YD., SHALL BE HAULED TO OSBORN ROAD PROJECT (BETWEEN TH. 65 & OLD CENTRAL AVENUE) FOR EMBANKMENT MATERIAL. SEE SPECIAL PROVISIONS.

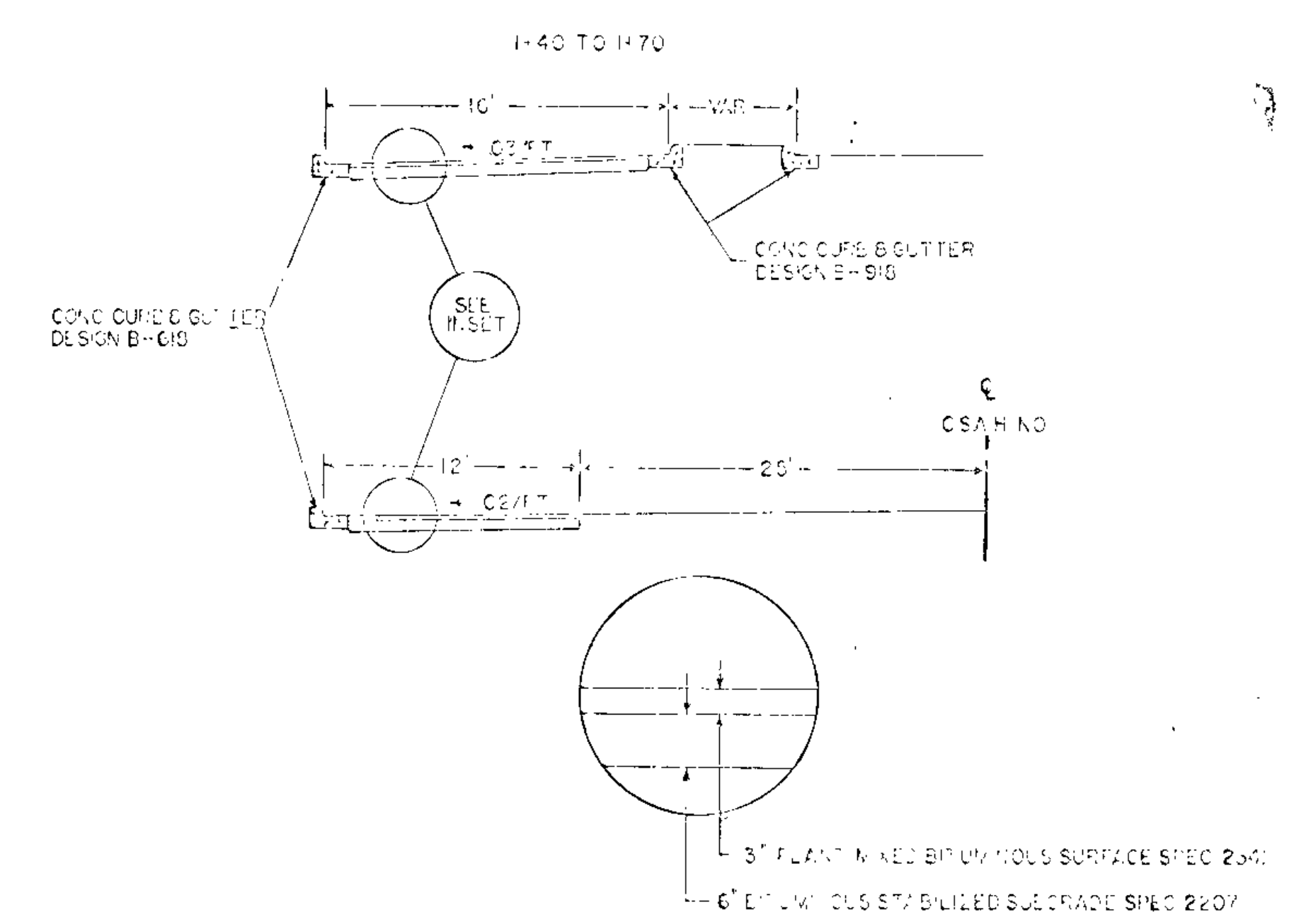
TYPICAL GRADING SECTION



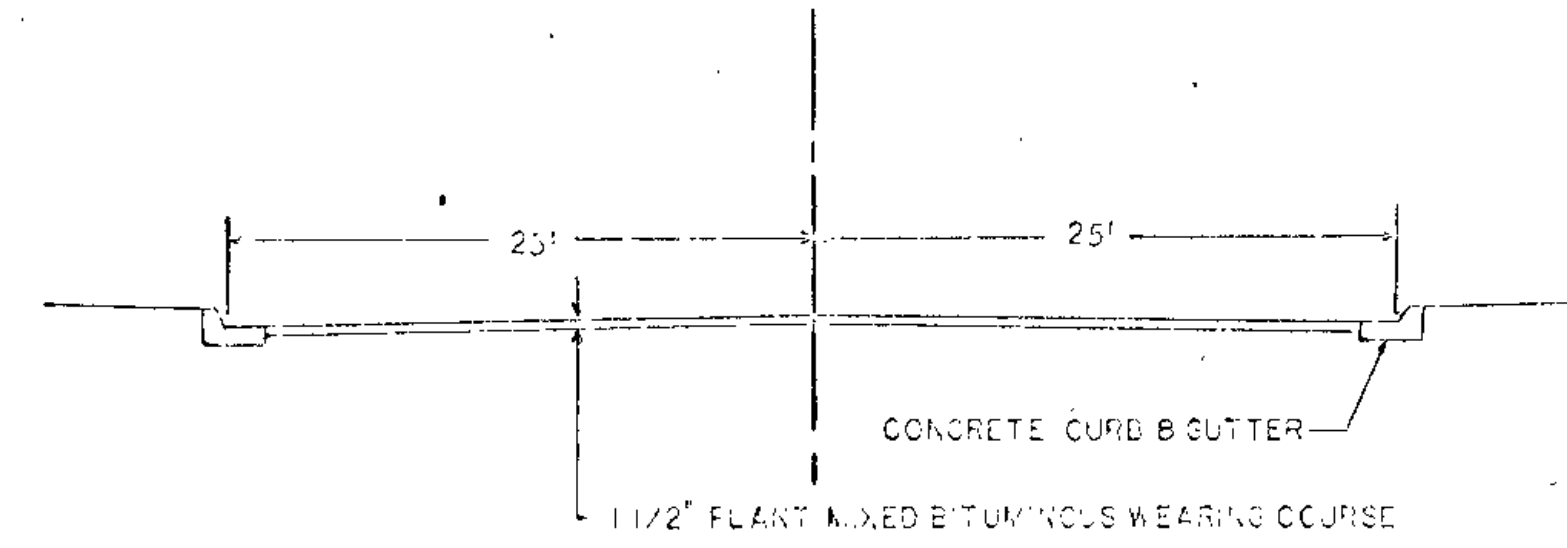
TYPICAL BITUMINOUS SECTIONS



TYPICAL SECTIONS
RT TURN LAND ADJACENT TO CSAH NO 1



FUTURE TYPICAL SECTION



NOTE: ALL DIMENSIONS SHOWN ON TYPICAL SECTIONS ARE NOMINAL.

STATION	LOCATION	ADJUST. ITEMS	TYPE
100+62	11 RT.	WATER GATE VALVE	
105+27	7 RT.	WATER GATE VALVE	
108+15	7 RT.	WATER GATE VALVE	
111+09	7 RT.	WATER GATE VALVE	
114+07	7 RT.	WATER GATE VALVE	
117+06	11 RT.	WATER GATE VALVE	
120+01	11 RT.	WATER GATE VALVE	
124+60	14 RT.	WATER GATE VALVE	
124+65	7 RT.	WATER GATE VALVE	
100+61	1 RT.	SANITARY MAN HOLE	
105+38	25 RT.	SANITARY MAN HOLE	

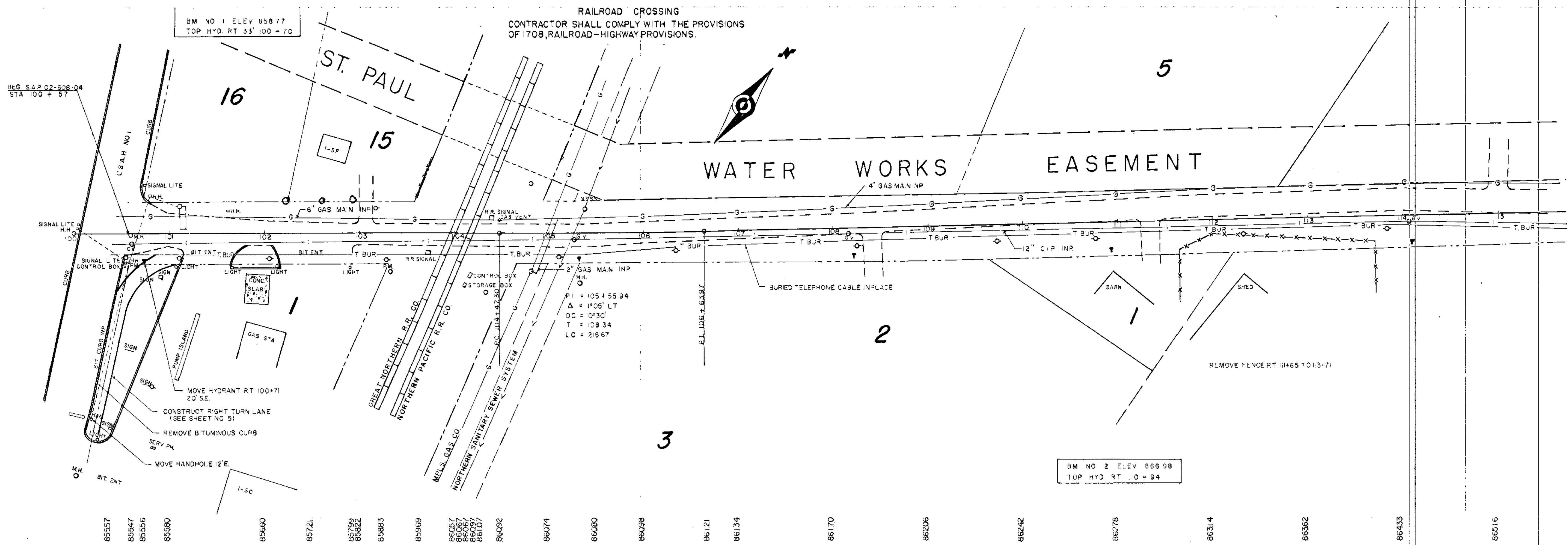
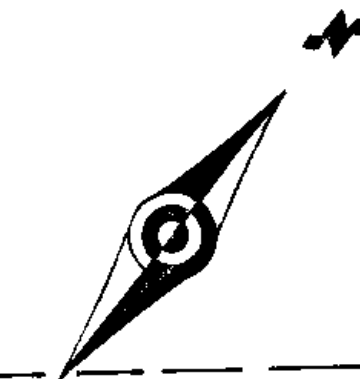
BASIS OF PLANNED QUANTITIES

- 2207 BITUMINOUS STABILIZED SUBGRADE
BITUMINOUS MATERIAL FOR MIX 0.5 GAL. PER SQ. YD. PER INCH THICKNESS
BITUMINOUS MATERIAL FOR FOG 0.10 GAL. PER SQ. YD.
- 2341 PLANT MIXED BITUMINOUS WEARING COURSE
BITUMINOUS MIXTURE 150 LBS. PER SQ. YD.
BITUMINOUS MATERIAL 5.5 % OF MIXTURE BY WT.
- 2357 BITUMINOUS MATERIAL FOR TACK COAT 0.05 GAL. PER SQ. YD.

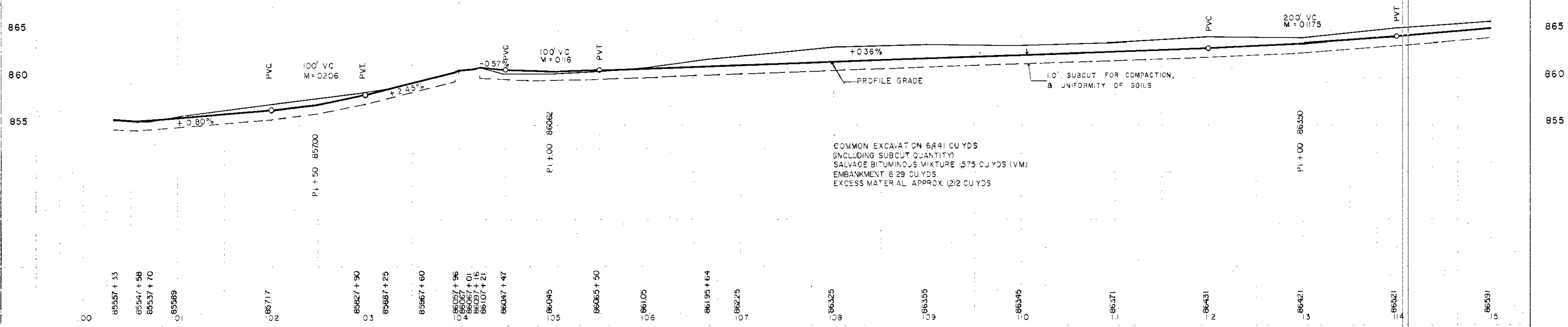
RAILROAD CROSSING
 CONTRACTOR SHALL COMPLY WITH THE PROVISIONS
 OF 1708, RAILROAD-HIGHWAY PROVISIONS.

BM NO 1 ELEV 858.77
 TOP HYD RT 33+100+70

BM NO 2 ELEV 866.98
 TOP HYD RT 10+94

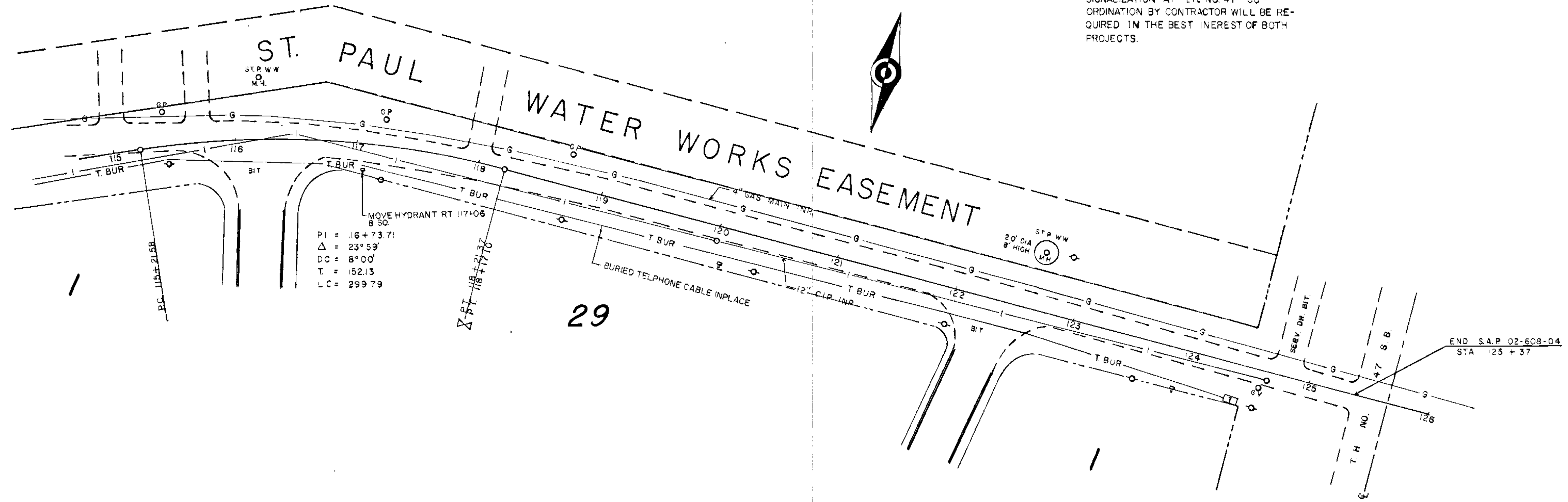


- 85557
- 85547
- 85556
- 85580
- 85660
- 85721
- 85799
- 85822
- 85883
- 85969
- 86057
- 86067
- 86067
- 86097
- 86107
- 86092
- 86074
- 86080
- 86098
- 86121
- 86134
- 86170
- 86206
- 86242
- 86278
- 86314
- 86362
- 86433
- 86516



- 85557 + 33
- 85547 + 58
- 85537 + 70
- 85589
- 85717
- 85827 + 90
- 85887 + 25
- 85967 + 60
- 86057 + 96
- 86067
- 86067 + 01
- 86097 + 16
- 86107 + 21
- 86047 + 47
- 86045
- 86065 + 50
- 86105
- 86195 + 64
- 86225
- 86325
- 86355
- 86345
- 86371
- 86431
- 86421
- 86521
- 86531

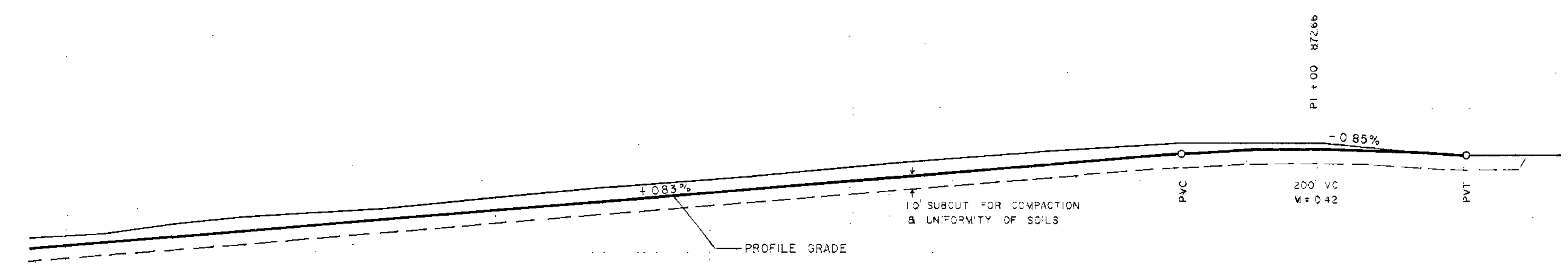
NOTE:
 STATE OF MINN. HAS CONTRACTED FOR
 SIGNALIZATION AT T.H. NO. 47. CO-
 ORDINATION BY CONTRACTOR WILL BE RE-
 QUIRED IN THE BEST INTEREST OF BOTH
 PROJECTS.



- 86516
- 86558
- 86599
- 86640
- 86682
- 86723
- 86765
- 86851
- 86934
- 87017
- 87100
- 87185
- 87213
- 87224
- 87213
- 87202
- 87181

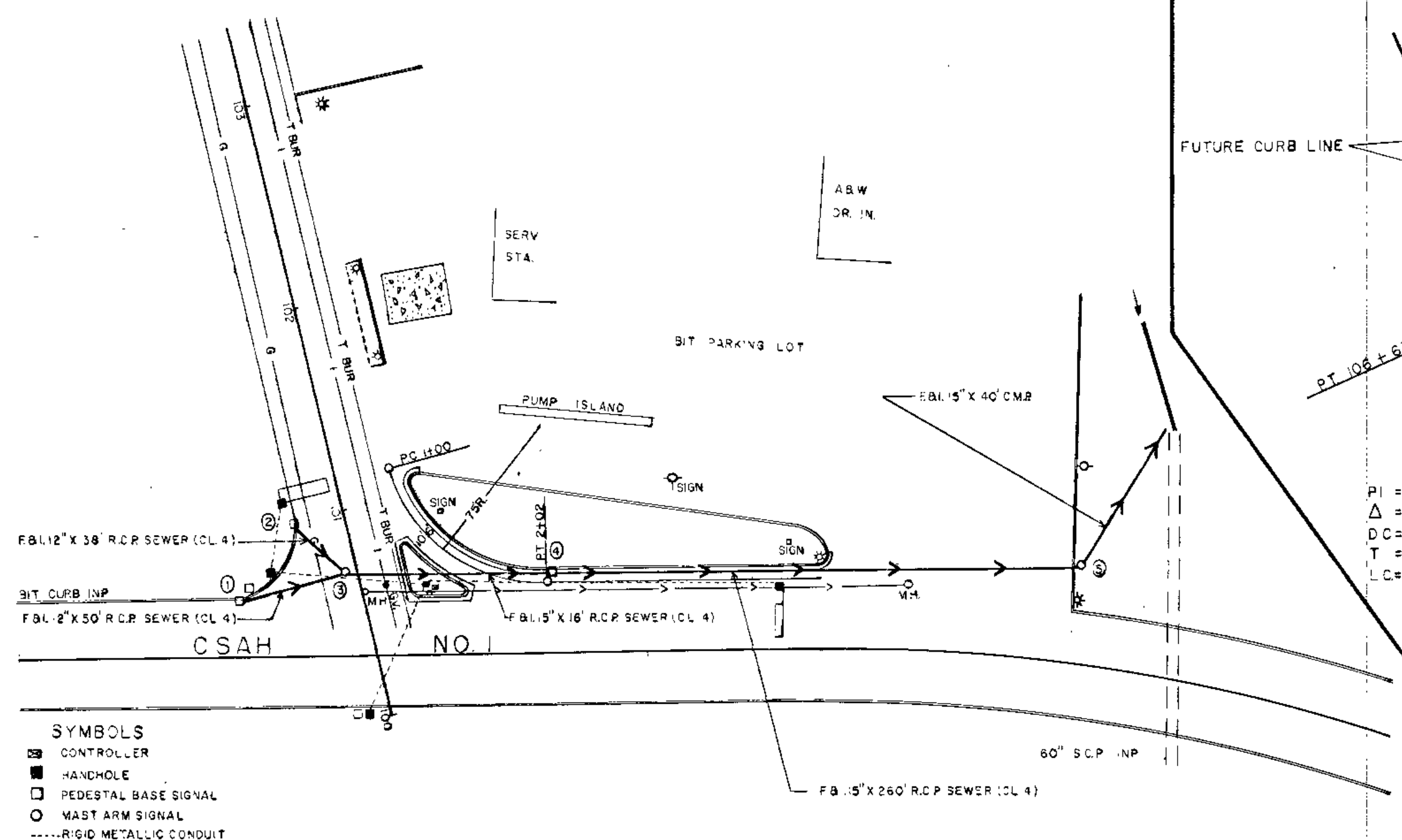
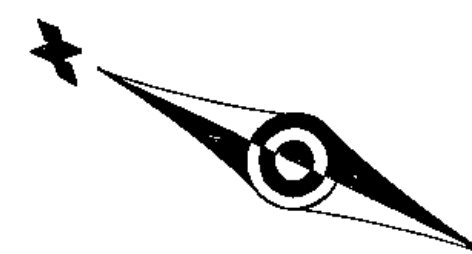
875
870
865

875
870
865



- 866591
- 86621 + 50
- 86691
- 86741 + 50
- 86771
- 86801 + 50
- 86851
- 86901
- 86951
- 87001
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- 87151
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- 87251
- 87301
- 87351
- 87401
- 87451
- 87501

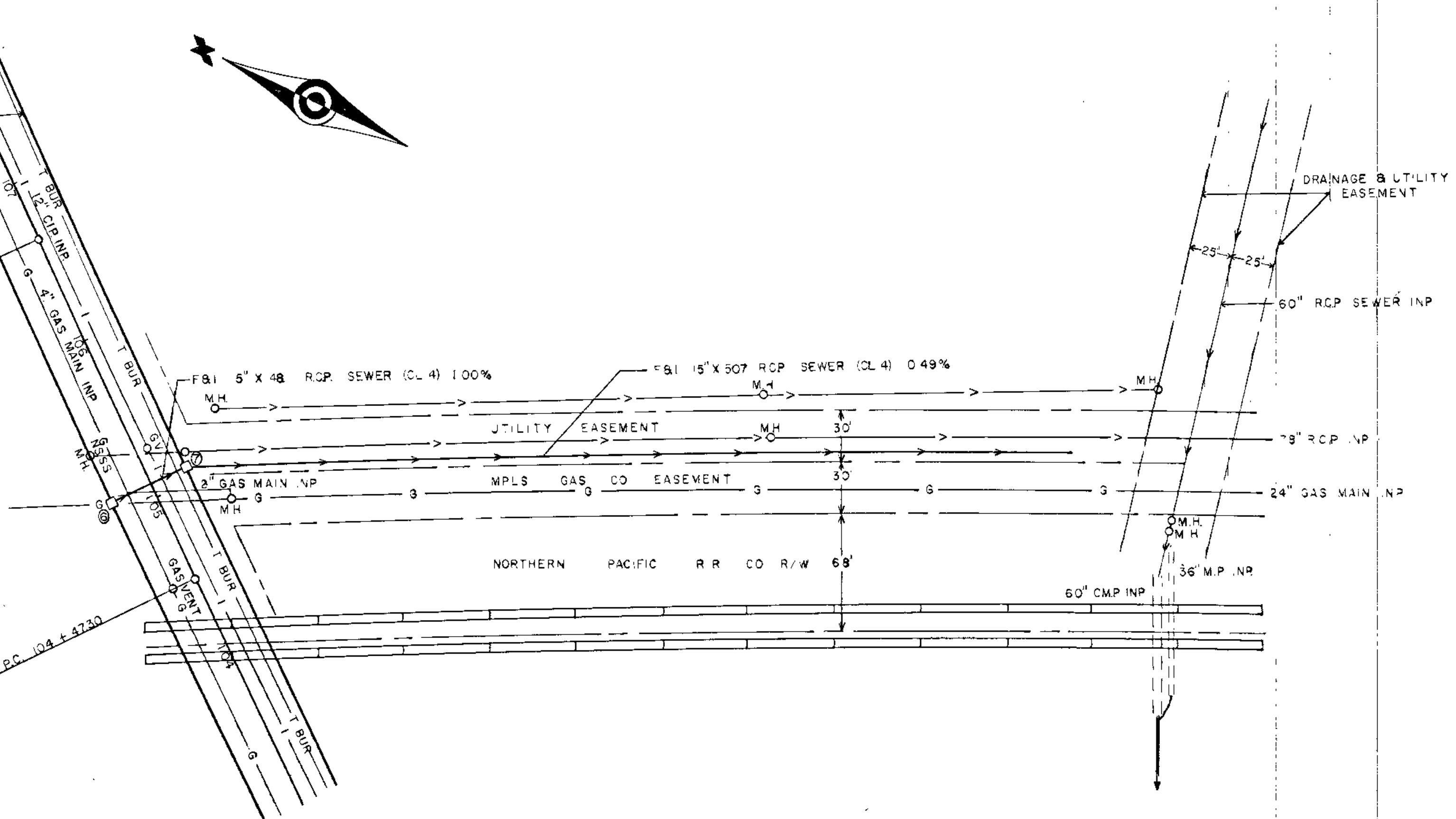
STORM SEWER



PI = 105 + 5594
 $\Delta = 1^{\circ}05' LT$
 DC = 0°30'
 T = 108.34
 LC = 216.67

- SYMBOLS**
- CONTROLLER
 - HANDHOLE
 - PEDESTAL BASE SIGNAL
 - MAST ARM SIGNAL
 - RIGID METALLIC CONDUIT

BIM NO 1 ELEV 858.77
 TOP HYD RT 33' 00 + 70

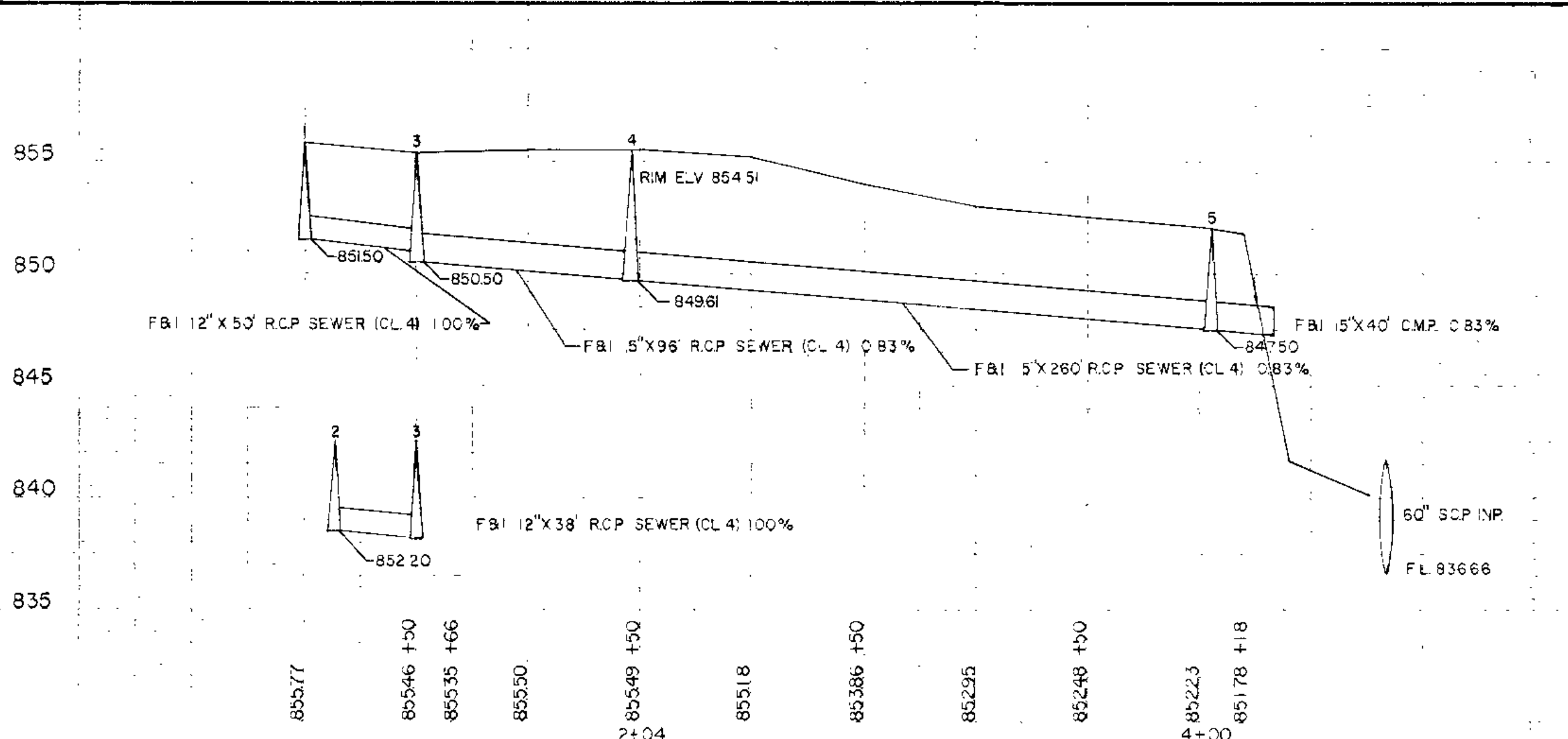
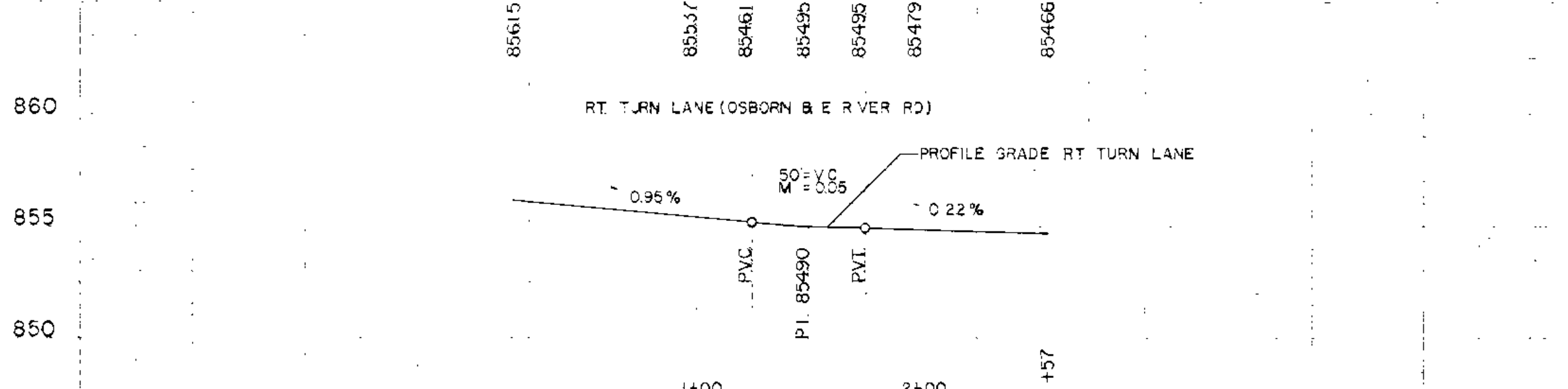
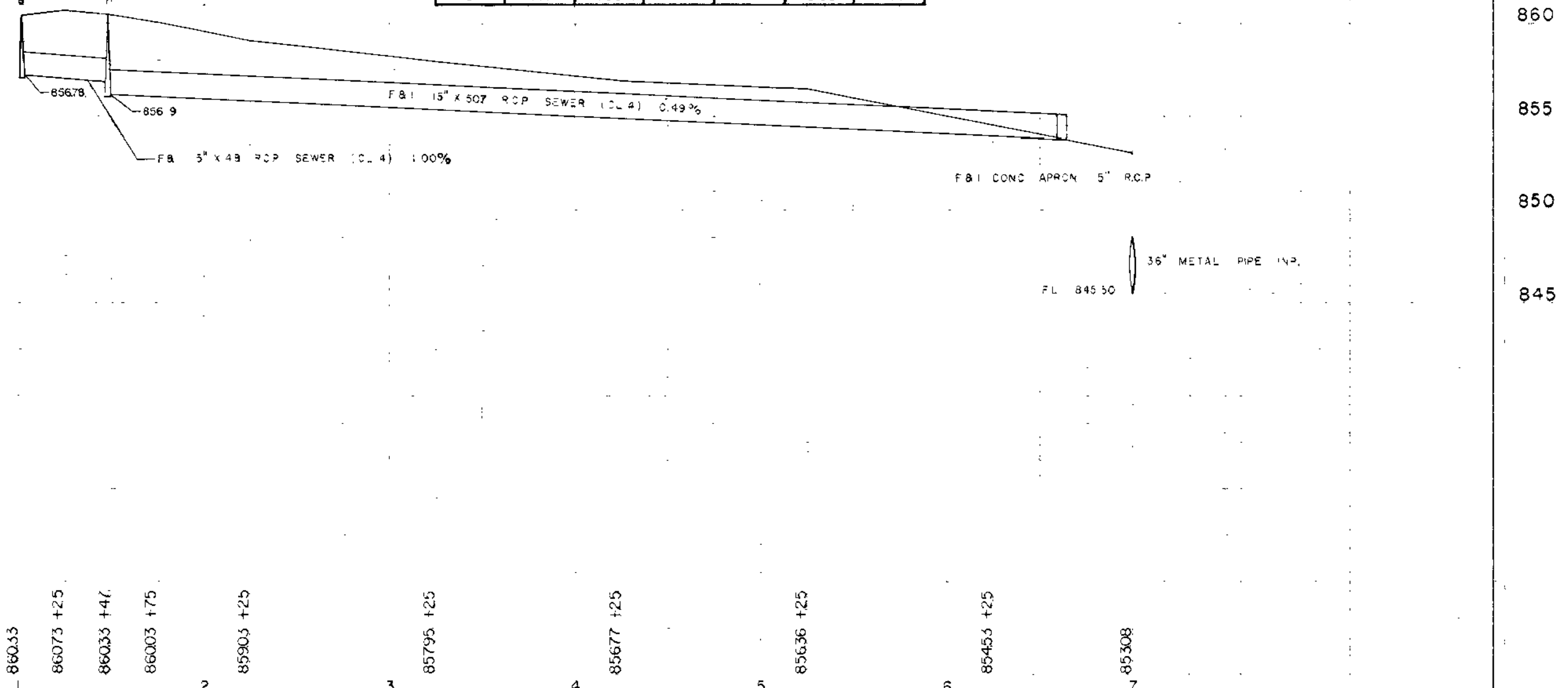


STORM SEWER

NO	STATION	LOCAT DN	TYPE	DES GV	REMARKS	L'N FT	TOP CASTING	OUTLET	CAS ASSEM	DRAIN TO	12" RCP	5" RCP	15" CMP
1	100+67	55' LT	CB	C or G		34	855.97	85.50	A	M.H. NO 3	50'		
2	100+97	239 LT	CB	C or G		21	855.20	85.20	A	M.H. NO 3	38'		
3	100+71	6 LT	M.H.	C or G		4	855.46	850.50	B	CB NO 4		96'	
4	2+04	49 LT	CB	C or G	RT TURN LANE	49	854.51	849.61	A	M.H. NO 5		260'	
5	4+61		M.H.	C or G	RT TURN LANE	41	852.6	847.50	B	DITCH			40'
6	105+11	239 LT	CB	C or G		27	860.3	857.20	A	CB NO 7		48'	
7	105+11	239 RT	CB	C or G		37	860.13	856.19	A	DITCH		507'	

CASTING ASSEMBLY

KEY	GRATE	FRAME	CURB BOX	COVER	HEIGHT	TYPE
A	8" O	80"	B21	7" I	0.87	CB
B	7" I	700-7		7" I	0.58	MH

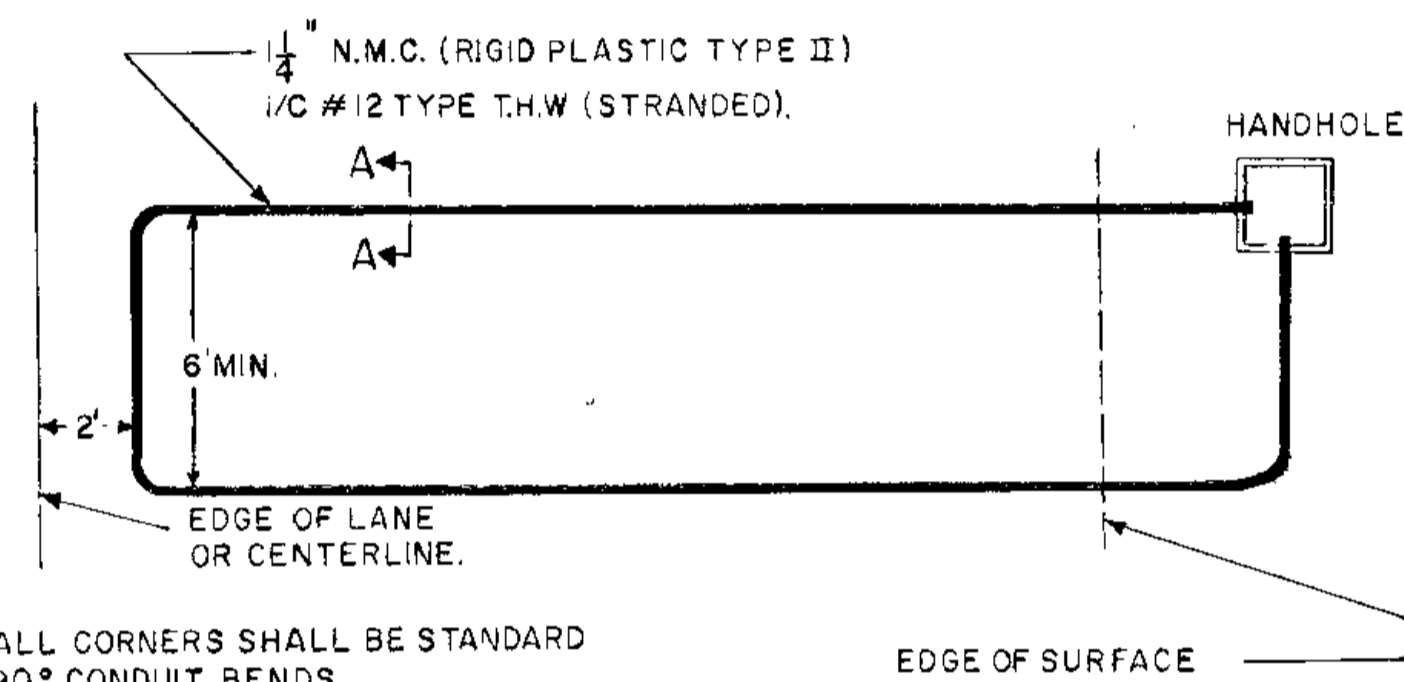


LOOP DETECTOR DETAIL B

SCALE NONE

NOTE: NUMBER OF TURNS IN THE LOOPS SHALL BE AS SPECIFIED ENGINEER IN THE FIELD.

THE LOOP SHALL BE ONE CONTINUOUS WIRE WITH NO SPLICES AND EACH TURN SHALL BE PULLED TIGHT WITH NO SLACK IN THE HANDHOLE.

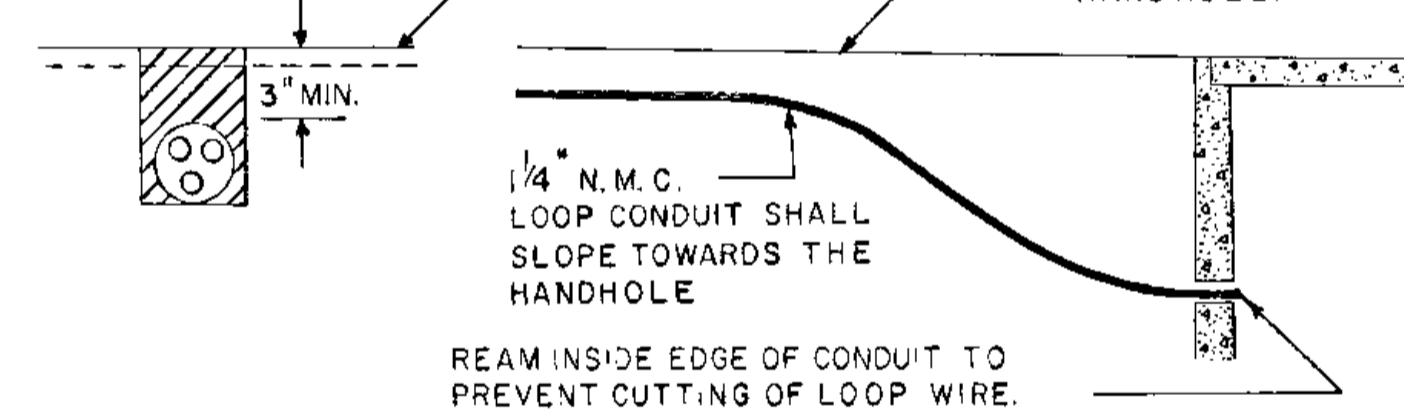


ALL CORNERS SHALL BE STANDARD 90° CONDUIT BENDS

EDGE OF SURFACE

SEC. A-A

FILL TO BE EQUAL TO ROADWAY MATERIAL NOW IN PLACE.

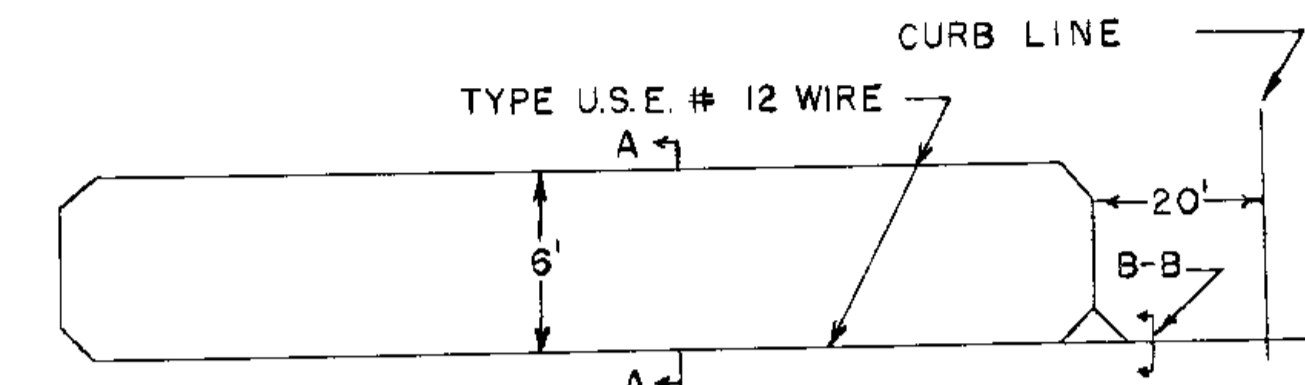


REAM INSIDE EDGE OF CONDUIT TO PREVENT CUTTING OF LOOP WIRE.

THE LOOP DETECTOR SHALL BE PLACED AFTER COMPLETION OF THE BITUMINOUS STABILIZED BASE AND PRIOR TO PAVING THE FINAL BITUMINOUS MAT.

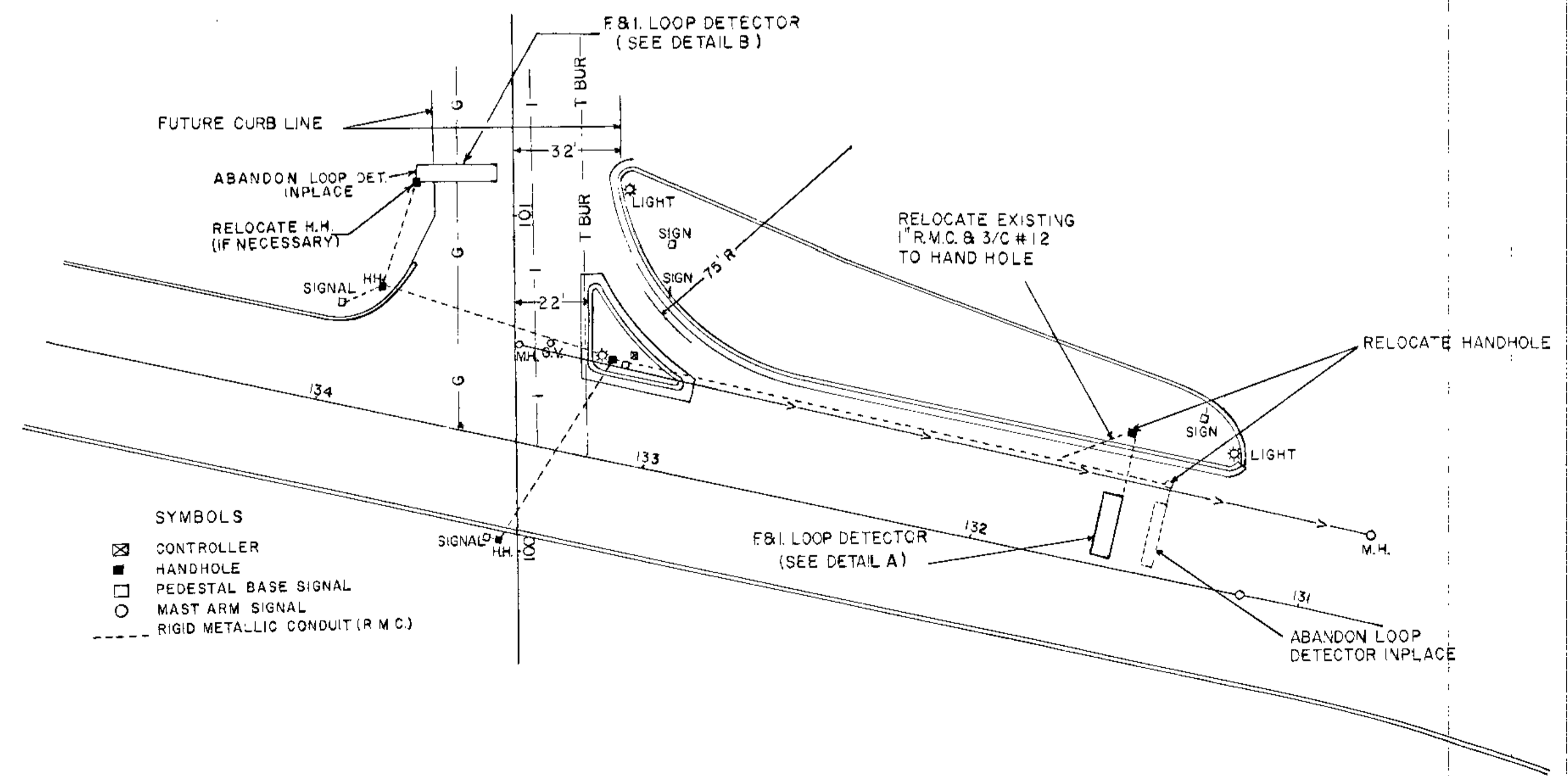
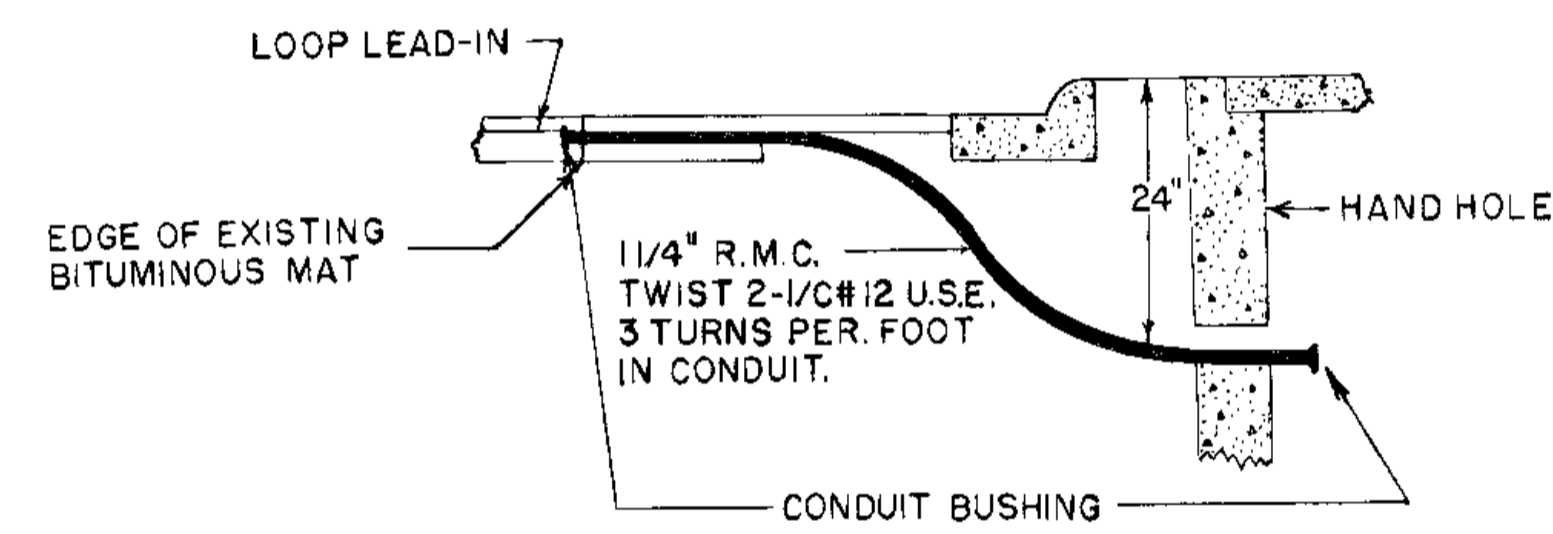
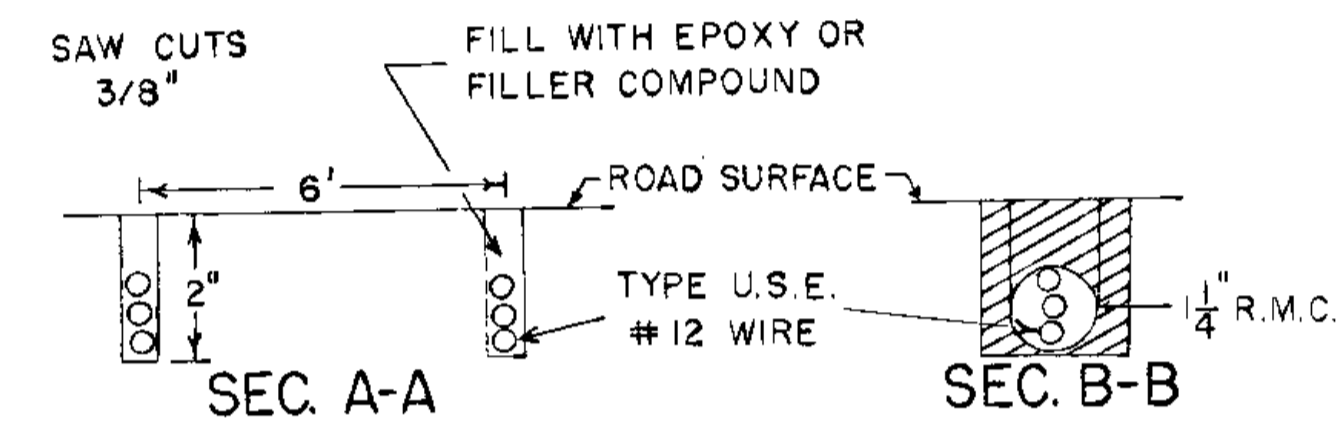
LOOP DETECTOR INSTALLATION DETAIL A

NOTE: NUMBER OF TURNS IN LOOPS SHALL BE THREE (3)



PUSH WIRE IN SAW CUTS WITH WOOD STICK - NOT A SCREW DRIVER

ALL CORNERS SHALL BE BEVELED TO APPROX. 45° TO PREVENT SHARP BENDS IN WIRE



- SYMBOLS
- ☒ CONTROLLER
 - HANDHOLE
 - PEDESTAL BASE SIGNAL
 - MAST ARM SIGNAL
 - RIGID METALLIC CONDUIT (R.M.C.)