

**PLANS SYMBOLS**

STATE LINE	-----	SPRINGS	-----
COUNTY LINE	-----	MARSH	-----
TOWNSHIP OR RANGE LINE	-----	TIMBER	(TIMBER)
SECTION LINE	-----	ORCHARD	-----
QUARTER LINE	-----	BRUSH	-----
SIXTEENTH LINE	-----	NURSERIES	-----
RIGHT-OF-WAY LINE	-----	CATCH BASIN	C.B. □
PRESENT RIGHT-OF-WAY LINE	-----	FIRE HYDRANT	-----
CONTROL OF ACCESS LINE	-----	CATTLE GUARD	-----
PROPERTY LINE (Except Land Lines)	-----	OVERPASS (Highway Over)	-----
VACATED PLATTED PROPERTY	-----	UNDERPASS (Highway Under)	-----
CORPORATE OR CITY LIMITS	-----	BRIDGE	-----
TRUNK HIGHWAY CENTER LINE	-----	BUILDING (One Story Frame)	-----
RETAINING WALL	-----	F-FRAME C-CONCRETE	-----
RAILROAD	-----	S-STONE T-TILE	-----
RAILROAD RIGHT-OF-WAY LINE	-----	B-BRICK ST-STUCCO	-----
RIVER OR CREEK	-----	IRON PIPE OR ROD	-----
DRY RUN	-----	MONUMENT (STONE, CONCRETE, OR METAL)	-----
DRAINAGE DITCH	-----	WOODEN HUB	-----
DRAIN TILE	-----	GRAVEL PIT	-----
CULVERT	-----	SAND PIT	-----
DROP INLET	-----	BORROW PIT	-----
GUARD RAIL	-----	ROCK QUARRY	-----
BARBED WIRE FENCE	-----		
WOODEN WIRE FENCE	-----		
CHAIN LINK FENCE	-----		
RAILROAD SNOW FENCE	-----		
STONE WALL OR FENCE	-----		
HEDGE	-----		
RAILROAD CROSSING SIGN	-----		
RAILROAD CROSSING BELL	-----		
ELECTRIC WARNING SIGN	-----		
CROSSING GATE	-----		
MEANDER CORNER	-----		

**UTILITIES SYMBOLS**

POWER POLE LINE	-----	CONDUIT	-----
TELEPHONE OR TELEGRAPH POLE LINE	-----	TELEPHONE CABLE IN CONDUIT	-----
JOINT TELEPHONE AND POWER OR POWER POLES	-----	ELECTRIC CABLE IN CONDUIT	-----
ON TELEPHONE POLES	-----	TELEPHONE MANHOLE	-----
ANCHOR	-----	ELECTRIC MANHOLE	-----
STEEL TOWER	-----	BURIED TELEPHONE CABLE	T-BUR
STREET LIGHT	-----	BURIED ELECTRIC CABLE	P-BUR
POSTAL TELEPHONE CABLE TERMINAL	-----	AERIAL TELEPHONE CABLE	T-AE
GAS MAIN	-----	SEWER, (SANITARY OR STORM)	-----
WATER MAIN	-----	SEWER MANHOLE	-----

**PIT DATA**

PIT NO. _____	Located in	_____
PIT NO. _____	Dead Haul	_____
PIT NO. _____	Located in	_____
PIT NO. _____	Dead Haul	_____
PIT NO. _____	Located in	_____
PIT NO. _____	Dead Haul	_____

**SPECIFICATIONS**

THE STANDARD SPECIFICATIONS FOR HIGHWAY CONSTRUCTION DATED JANUARY 1, 1968 SHALL GOVERN.

**OFFICE OF COUNTY ENGINEER  
RAMSEY COUNTY**

CONSTRUCTION PLAN FOR GRADING AND BITUMINOUS SURFACING

**LARPENTEUR AVE.**

BETWEEN: EAST SHORE DRIVE AND WHITE BEAR AVE.

FROM: A POINT 1597.65' WEST OF THE SOUTHEAST CORNER OF SEC. 16, T.29N., R.22W. TO: A POINT 46.84' WEST OF THE SOUTHEAST CORNER OF SEC. 16, T.29N., R. 22W.

AND

**STORM SEWER CONSTRUCTION, PHASE II DRAINAGE  
COOPERATIVE PROJECT-CITY, COUNTY & MAPLEWOOD  
(NON-PARTICIPATING STORM SEWER)**

AND

**SANITARY SEWER CONSTRUCTION  
VILLAGE OF NORTH ST. PAUL  
(NON-PARTICIPATING SANITARY SEWER)**

GROSS LENGTH	6850 FEET	1.297 MILES
BRIDGE LENGTH	0 FEET	0 MILES
EXCEPTIONS LENGTH	0 FEET	0 MILES
NET LENGTH	6850 FEET	1.297 MILES

**DESIGN DESIGNATION**

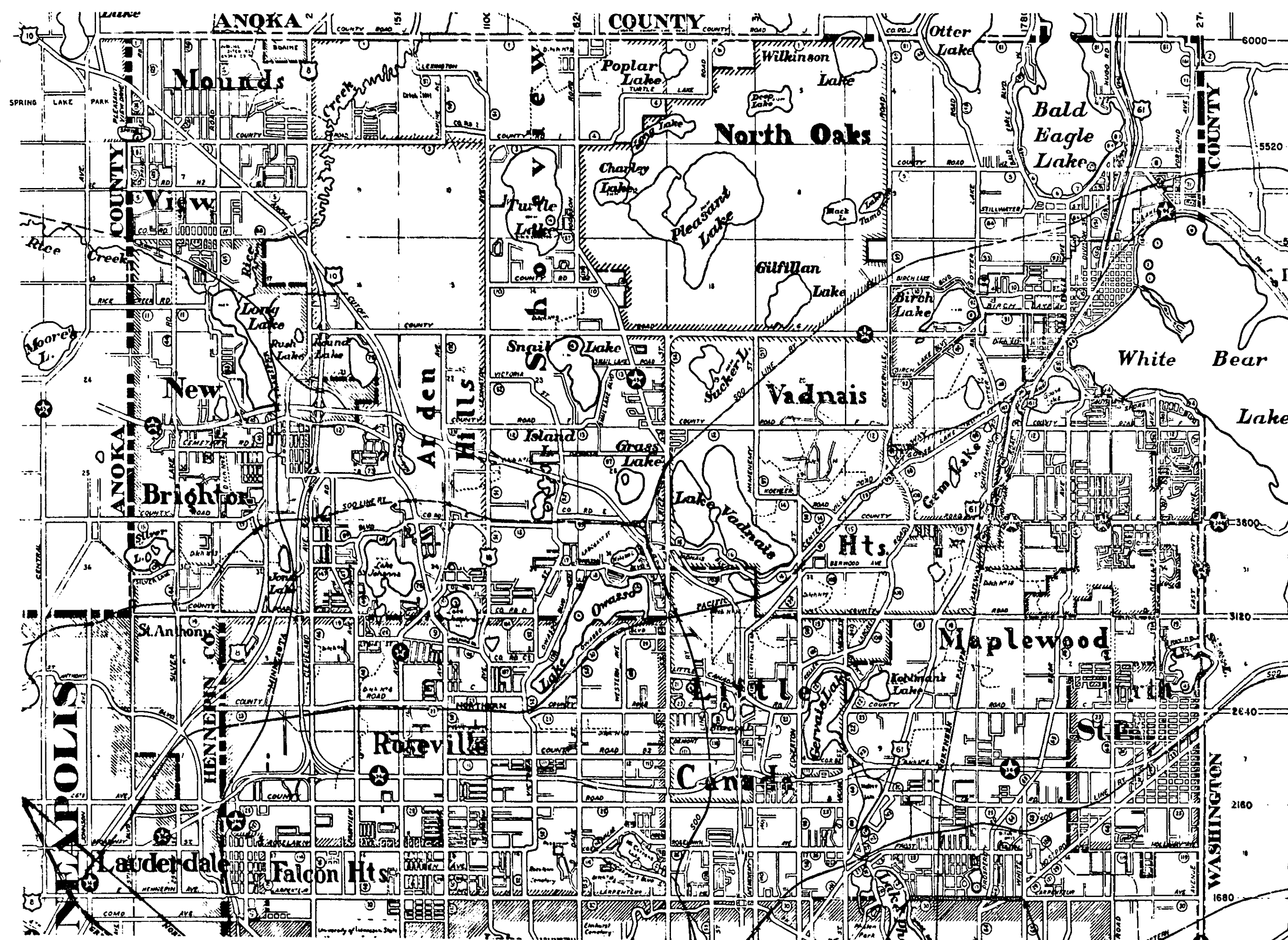
A.D.T. 1967	= 3473
A.D.T. 1985	= 7000
DHV	= 700
D(DIRECTIONAL DISTRIBUTION)	= 60-40
T(HEAVY COMMERCIAL) 1985	= 150-300

DESIGN SPEED = 30 M.P.H. FROM STA. 0+00 TO STA. 20+00.  
DESIGN SPEED = 35 M.P.H. FROM STA. 20+00 TO WHITE BEAR AVE.  
DESIGN LOAD = 9 TON  
SOIL FACTOR = 100 %

**INDEX**

SHEET NO.	DESCRIPTION
1	TITLE SHEET
2	TYPICAL SECTION & ESTIMATED QUANTITIES
3&4	DRAINAGE CHARTS
5-10	PLAN PROFILE & CONSTRUCTION PLAN
11-27	CROSS-SECTIONS
28-31	STORM SEWER CONSTRUCTION
32-35	SANITARY SEWER CONSTRUCTION

PLAN, 1 inch = 50 Feet  
PROFILE, Horiz. 1 inch = 10 Feet Vert. 1 inch = 5 Feet  
CROSS-SECTIONS, 1 inch = 10 Feet  
LAYOUT, 1 inch = 5280 Feet



BEGIN PROJECT  
STA. 0+35

END PROJECT  
STA. 68+85

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

*Walter Acker* REG. NO. 2042 DATE 1-16-68  
ENGINEER

RECOMMENDED FOR APPROVAL *Dean R. Rodden* DATE 1-23-68  
COUNTY ENGINEER

APPROVED *Phomask Pytue* DATE 2-5-68  
CHAIRMAN OF THE RAMSEY COUNTY BOARD

APPROVED *Phomask Pytue* DATE 2-28-68  
MAYOR, CITY OF ST. PAUL

APPROVED *Justin G. Gustafson* DATE 2-28-68  
MAYOR, VILLAGE OF MAPLEWOOD

MINNESOTA STATE HIGHWAY DEPARTMENT

RECOMMENDED FOR APPROVAL *C.E. Wickelbom* DATE 2-21-68

RECOMMENDED FOR APPROVAL *J. F. Johnson* DATE 2-20-68  
DISTRICT STATE AID ENGINEER

APPROVAL *C. E. Wickelbom* DATE 2-21-68  
STATE AID ENGINEER

STATEMENT OF ESTIMATED QUANTITIES

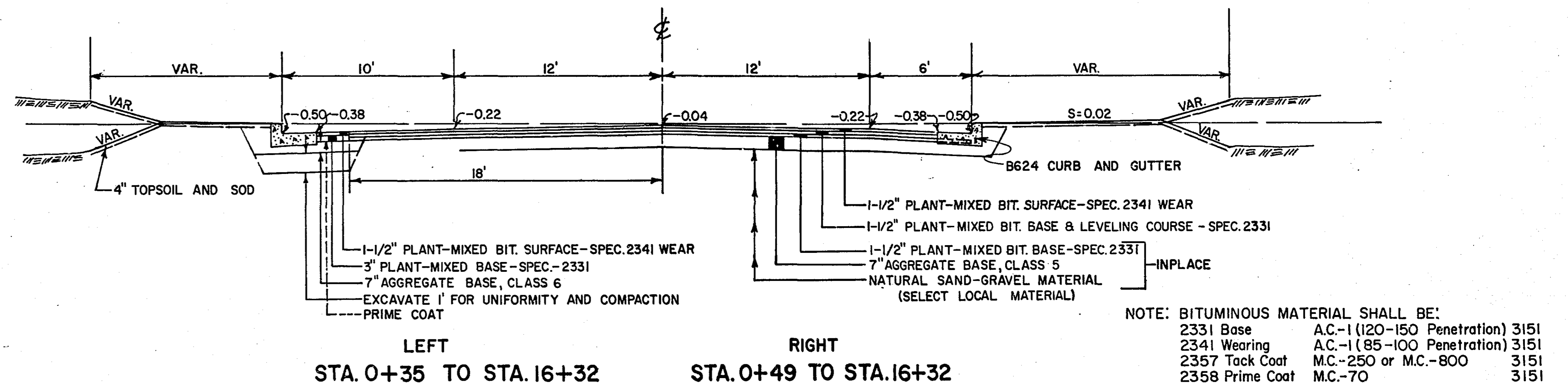
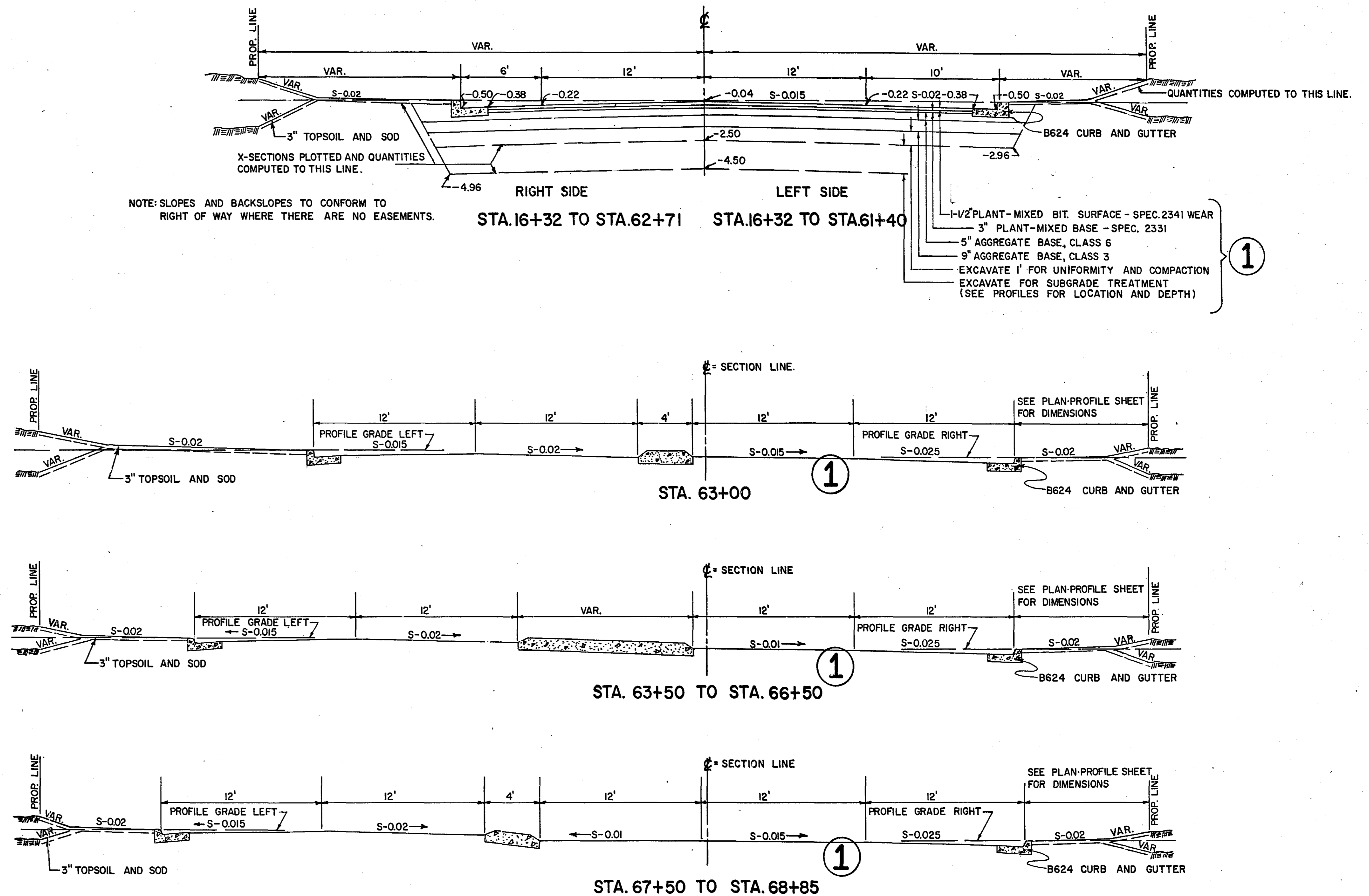
ITEM NO.	ITEM	UNIT	TOTAL ESTIMATED QUANTITIES
2031.503	FIELD LABORATORY, TYPE C	EACH	1
2101.511	CLEAR AND GRUB ROADWAYS	LUMP SUM	
2104.502	REMOVE FAVEMENT	S.Y.	124
2104.504	REMOVE CURB	L.F.	20
2104.506	REMOVE SIDEWALK	S.F.	70
2104.511	REMOVE MANHOLES AND CATCH BASINS	STRUCTURE	3
2105.501	COMMON EXCAVATION	C.Y.	39,841
2105.523	COMMON BORROW	C.Y.	7,808
2130.501	WATER	(M) GAL.	200
2211.501	AGGREGATE BASE, CLASS 3	TON	11,579
2211.501	AGGREGATE BASE, CLASS 6	TON	8,050
2331.504	BITUMINOUS MATERIAL FOR MIXTURE	TON	182
2331.514	BASE COURSE MIXTURE	TON	4,037
2341.504	BITUMINOUS MATERIAL FOR MIXTURE	TON	174
2341.509	WEARING COURSE MIXTURE + FILLER	TON	2,677
2357.502	BITUMINOUS MATERIAL FOR TACK COAT	GAL.	1,397
2358.501	BITUMINOUS MATERIAL FOR PRIME COAT	GAL.	8,379
2411.507	CONCRETE EROSION CONTROL STRUCTURE	STRUCTURE	1
2451.503	GRANULAR MATERIAL	C.Y.	625
2503.502	12" REINFORCED CONCRETE SEWER, CLASS 4	L.F.	128
2503.502	15" REINFORCED CONCRETE SEWER, CLASS 2	L.F.	736
2503.502	18" REINFORCED CONCRETE SEWER, CLASS 2	L.F.	554
2503.504	12" METAL SEWER, 16 GAUGE	L.F.	50
2503.502	21" REINFORCED CONCRETE SEWER, CLASS 2	L.F.	316
2506.508	CONSTRUCT CATCH BASINS, DESIGN M	STRUCTURE	2
2506.507	CONSTRUCT CATCH BASINS, DESIGN L.P. 4-H	L.F.	52
2506.507	CONSTRUCT CATCH BASINS, DESIGN L.P. 6-H	L.F.	13.4
2506.508	CONSTRUCT CATCH BASINS, DESIGN R.C.-2	STRUCTURE	23
2502.504	18" METAL SEWER, 16 GAUGE	L.F.	58
2506.512	RECONSTRUCT CATCH BASINS	L.F.	14.0
2506.522	ADJUST FRAME AND RING CASTINGS	ASSEMBLY	46
2506.516	CASTING ASSEMBLY	ASSEMBLY	27
2521.501	4" CONCRETE WALK	S.F.	70
2531.501	CONCRETE CURB & GUTTER, DESIGN B6 24	L.F.	13,610
2531.502	CONCRETE CURB, DESIGN B6	L.F.	40
2531.503	CONCRETE MEDIAN	S.F.	485
2531.507	CONCRETE DRIVEWAY PAVEMENT, 7" THICK	S.Y.	175
2531.507	CONCRETE DRIVEWAY PAVEMENT, 6" THICK	S.Y.	520
2506.506	CONSTRUCT MANHOLES, DESIGN A	L.F.	8.2
2575.501	ROADSIDE SEEDING	ACRE	1.14
2575.502	SEED MIXTURE 6	POUND	85
2575.505	SODDING	S.Y.	19,592
2575.531	COMMERCIAL FERTILIZER, ANALYSIS 12-12-12	TON	1.2
2575.551	TOPSOIL	C.Y.	1,633
504.685	ADJUST WATER GATE HOUSING	HOUSING	10
504.686	ADJUST SERVICE VALVE HOUSING	HOUSING	10
<b>STORM SEWER CONSTRUCTION</b>			
BID ITEM NO. 1		LUMP SUM	
BID ITEM NO. 2		LUMP SUM	
<b>SANITARY SEWER CONSTRUCTION</b>			
		LUMP SUM	

(1) L.P. CATCH BASINS  
 (2) THE PROVISIONS OF 1903 SHALL NOT APPLY TO THESE ITEMS.

STANDARD DETAIL PLATES

3000 F	REINFORCED CONCRETE PIPE
3004 B	REINFORCED CONCRETE PIPE
4000 F	MANHOLE OR CATCHBASIN
4013 A	CATCH BASIN
4016 A	CURB OPENING CATCH BASIN
4130 A	CATCH BASIN FRAME AND GRATE CASTING
4131 B	RING CASTING FOR MANHOLE OR CATCHBASIN (CASTING NO. 700-7)
5200 B	REINFORCED CONCRETE SURGE BASIN
4110 D	COVER CASTING FOR MANHOLE (CASTING NO. 712)
7035 E	CONCRETE WALK AND CURB RETURN AT ENTRANCES
7100 D	CONCRETE CURB AND GUTTERS
7105 C	CONCRETE MEDIAN
7111 D	INSTALLATION OF CATCH BASIN CASTINGS
8000 C-8002 B	STANDARD BARRICADES
8008 C	CONTRACTORS SIGN
9102 B	SOD AT PIPE CULVERT ENDS

TYPICAL SECTIONS

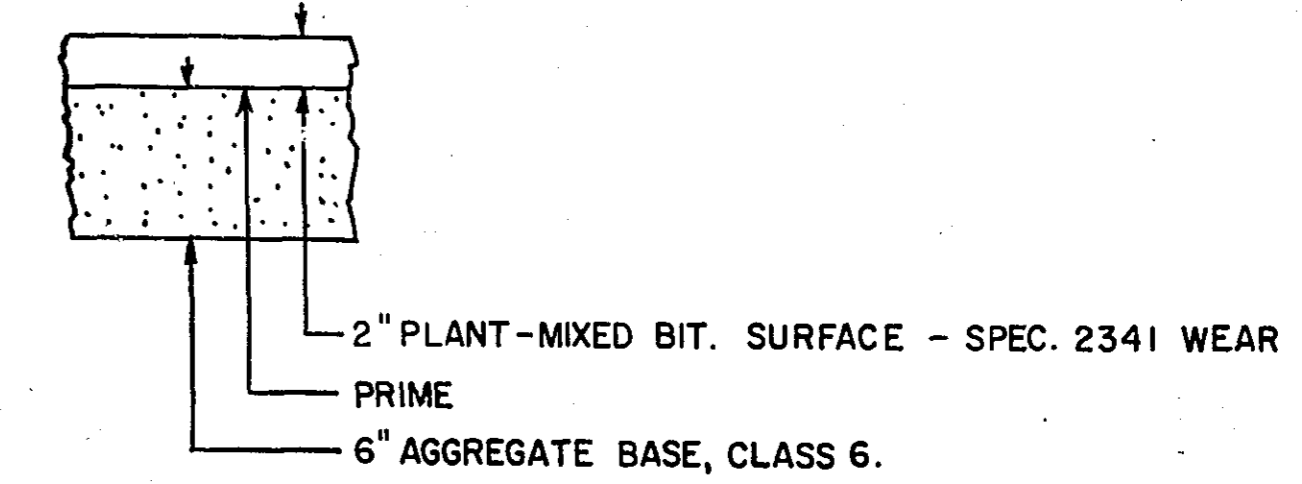




# DRAINAGE

# CHART

STATION	LOCATION	NO.	TYPE	DESIGN	CONST. HEIGHT LIN. FT.	F. & I. CASTING ASSEMBLY	ELEVATION			ADJUST CASTING ASSEMBLY	RECONSTRUCT C.B. OR M.H. LIN. FT.	INSTALL CASTING ASSEMBLY	INSTALL CONCRETE PIPE SEWER LINEAR FEET					C.M. PIPE LINEAR FEET		REMOVE C.B.	CLASS	DRAINS TO		REMARK		
							PROFILE	ORIGINAL GRATE OR RING	NEW GRATE OR RING				C.B. OR M.H. OUTLET	12"	15"	18"	21"	24"	12"			18"	STRUCTURE NO.		INL. EL.	
56+28±	LT. 44'	88	C.B.	R.C. 2	3.86	B		9337±	930.0											II	85'	929.40				
56+40	LT. 15'	89	M.H.																							CITY OF ST. PAUL
56+44	RT. 6'	90	M.H.				936.08	935.31	935.31	0.64											II	89'	930.80			
56+47	RT. 175'	91	C.B.	R.C. 2	4.46	B	936.17	935.60	931.30																	
56+54	LT. 215'	92	C.B.	R.C. 2	2.81	B	936.72	936.15	933.50																	MAKE SUITABLE TEE TO 90" R.C.P.
56+64	LT. 215'	93	C.B.	R.C. 2	2.73	B	937.14	936.57	934.00																	
57+93	RT. 19'	94	M.H.				940.90	940.90	940.54	0.36																
64+90	LT. 5'	95	M.H.				943.52	943.46	943.32	0.14																
68+40	RT. 22'	96	M.H.				941.28	941.32	940.90	0.42																
68+42	RT. 235'	97	C.B.	R.C. 2	3.57	B	941.28	940.71	937.30												IV	98	937.0			MAKE SUITABLE TEE CONN. TO 68+42± LT. 10'±
68+52	RT. 235'	98	C.B.	R.C. 2	3.60	B	941.01	940.44	937.0												II	90" R.C.P.	934.2			
68+78	LT. 395'	99	C.B.	R.C. 2	2.49	B	940.40	939.83	937.5												II	100	937.0			
68+78	LT. 17'	100	C.B.	M	2.80	A	940.40	940.00±	937.0												IV	90" R.C.P.				MAKE SUITABLE TEE CONN. TO 90" R.C.P.
68+78	LT. 11'	101	C.B.	M	2.50	A	940.40	940.00±	937.3												IV	100	937.0			
61+87	RT. 20'	102	M.H.				951.50	951.71	951.50	0.21																
62+60	RT. 20'	103	M.H.				951.92	952.15	951.40±	0.75																
63+13	RT. 20'	104	M.H.				951.50	951.42	951.50	0.12																
66+07	RT. 20'	105	M.H.				946.92	945.88	946.92	1.04																
36+08	RT. 175'	72A	M.H.	A	4.20	C	904.61	904.04	900.00						270'							72	896.0			
36+10	RT. 40'	72B	C.B.	R.C. 2	5.16	B	904.63	905.5±	900.50						22'						II	72A	900.25			
36+42	RT. 40'	72C	C.B.	R.C. 2	4.66	B	905.07	905.5±	901.00						30'						II	72B	900.75			
36+65	RT. 175'	72D	C.B.	R.C. 2	4.94	B	905.35	904.78	901.02						157'						II	72A	900.50			
36+75	LT. 215'	72E	C.B.	R.C. 2	3.50	B	905.51	904.94	901.60						40'						II	72D	901.30			
39+36	RT. 175'	72F	M.H.	A	4.02	C	908.02	907.52	903.50						271'						II	72D	901.02			
39+38	RT. 40'	72G	C.B.	R.C. 2	3.70	B	908.03	907.54	904.00						22'						II	72F	903.70			
39+45	LT. 215'	72H	C.B.	R.C. 2	3.16	B	908.07	907.50	904.50						40'						II	72F	903.75			
39+68	RT. 40'	72I	C.B.	R.C. 2	3.35	B	908.21	907.74	904.55						30'						II	72G	904.25			
39+93	RT. 175'	72J	C.B.	R.C. 2	3.70	B	908.36	907.79	904.25						56'						II	72F	903.75			



ALLEY AND SIDE STREET SURFACING

CASTING ASSEMBLY  
 A = CASTING ASSEMBLY NO. 4130 A - FRAME NO. 802  
 B = NEEAH INLET FRAME, GRATE, CURB BOX NO. R-3246-B OR EQUAL  
 C = CASTING ASSEMBLY NO. 4101 B - CASTING NO. 700-7 COVER CASTING NO. 712

RC. 2 = 23 STRUCTURES L.P. 4 = 5.2 L.F. LP. 6 = 13.4 L.F. DESIGN A = 8.2 L.F. DESIGN M = 2 STRUCTURES

## NON-PARTICIPATING SANITARY SEWER PROJECT

STATION	LOCATION	NO.	TYPE	DESIGN	CONST. HEIGHT LIN. FT.	F. & I. CASTING ASSEMBLY	ELEVATION	ADJUST CASTING ASSEMBLY	RECONSTRUCT C.B. OR M.H. LIN. FT.	INSTALL CASTING ASSEMBLY	INSTALL CONCRETE PIPE SEWER LINEAR FEET	C.M. PIPE LINEAR FEET	REMOVE C.B.	CLASS	STRUCTURE NO.	INL. EL.	REMARK
20+30	2	200	M.H.	II		A&B	892.56	882.53						II			INCLUDES STUB
23+80	2	201	M.H.	II		A&B	893.96	883.58						II	200	883.83	
26+50	2	202	M.H.	II		A&B	895.56	885.85						II	201	883.83	
30+25	2	203	M.H.	II		A&B	898.76	889.05						II	202	885.85	
34+00	2	204	M.H.	II		A&B	901.76	892.05						II	203	889.05	
37+00	2	205	M.H.	II		A&B	906.89	897.15						II	204	892.50	
40+80	2	206	M.H.	II		A&B	908.84	897.87						II	205	897.15	
43+50	2	207	M.H.	II		A&B	914.96	903.34						II	206	898.25	
47+50	2	208	M.H.	II		A&B	920.48	904.60						IV	207	903.64	
50+20	RT. 11'	209	M.H.	II		A&B	917.09	905.25						IV	208	904.60	
53+80	RT. 11'	210	M.H.	II		A&B	925.74	914.80						III	209	905.75	
BULKHEAD	RT. 5'							916.40						IV	210	915.50	

SANITARY SEWER M.H. DESIGN II - REFER TO CITY OF ST. PAUL STANDARD PLATE DRG. 2102.  
 SANITARY SEWER CASTING A & B - REFER TO CITY OF ST. PAUL STANDARD PLATE DRG. 2201 & 2202.

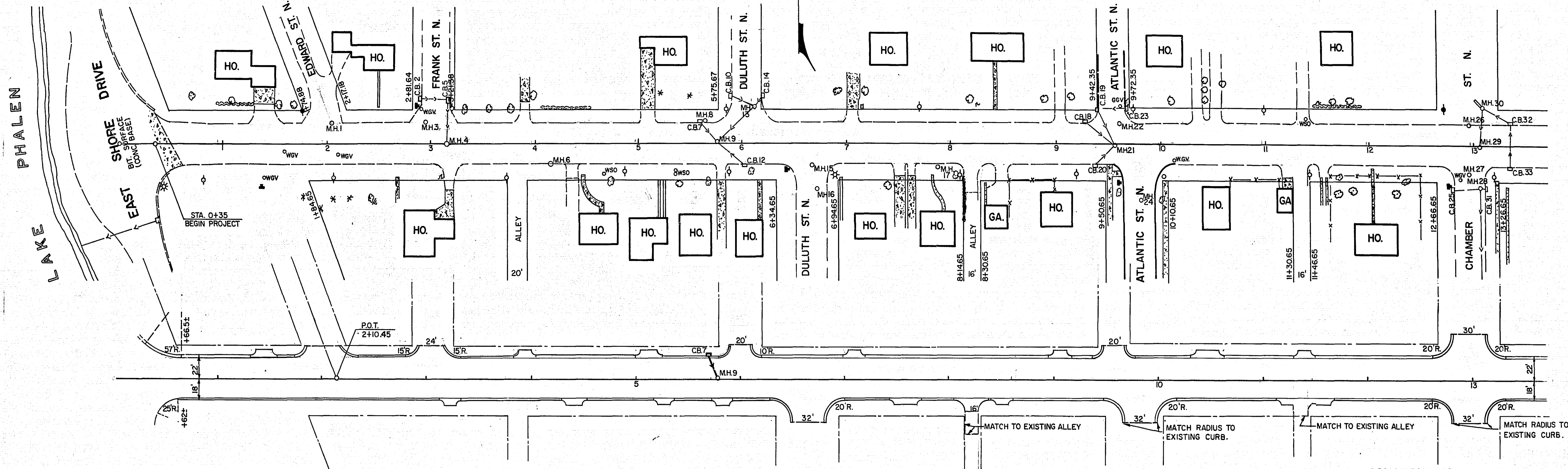
## CLEARING AND GRUBBING CHART

STA. TO	STA.	LOCATION	REMARKS
41+50	43+25	RIGHT	CLEAR ALL TREES
43+00	44+50	LEFT	CLEAR ALL TREES
48+00	53+40	RIGHT	CLEAR & GRUB ALL TREES *
42+36		LT. 49'	4" COTT., CLEAR
53+53		LT. 26'	5" ELM., CLEAR & GRUB
57+53		LT. 46'	4" BIRCH, CLEAR & GRUB
57+91		LT. 45'	6" APPLE, "
61+93		LT. 45'	16" ELM., "
64+78		RT. 28'	8" CHINESE ELM., "
65+62		LT. 46'	6" ELM., "
65+76		LT. 45'	6" ELM., "
65+80		LT. 46'	6" ELM., "
67+21		RT. 24'	10" ELM., CLEAR & GRUB

\* TO APPROX. 160' RIGHT AS DIRECTED BY ENGINEER

MICROFILMED  
 RAMSEY CO. ENGRS.

6878

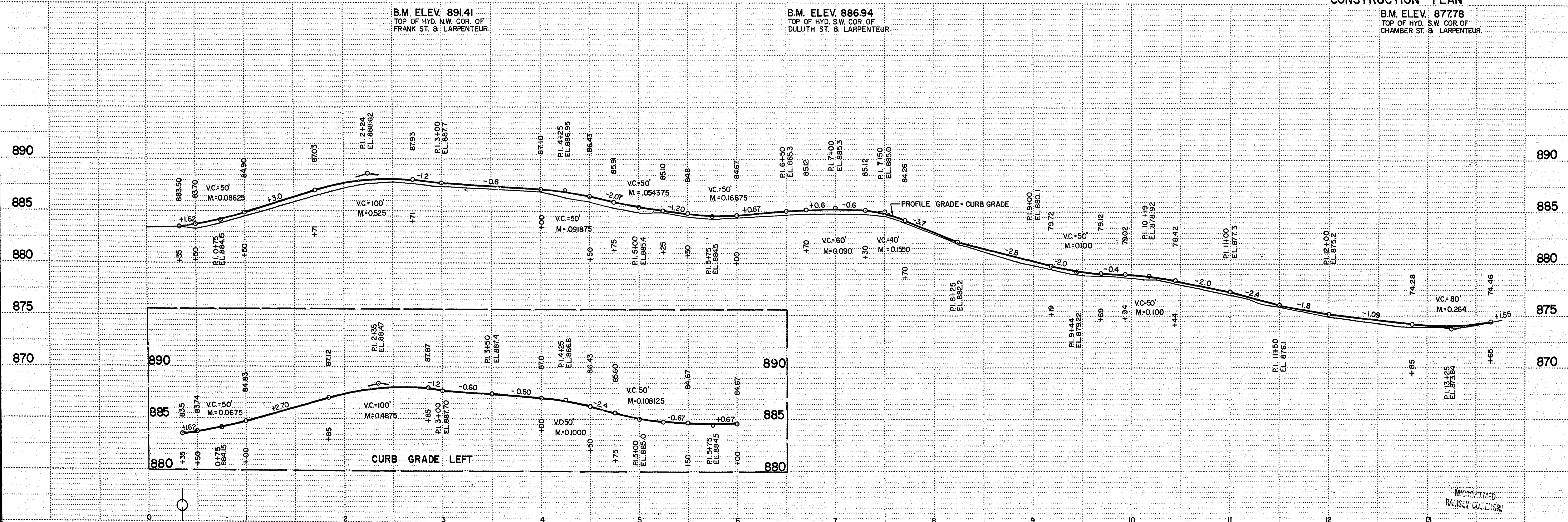


**CONSTRUCTION PLAN**

B.M. ELEV. 891.41  
TOP OF HYD. N.W. COR. OF  
FRANK ST. & LARPEUTEUR.

B.M. ELEV. 886.94  
TOP OF HYD. S.W. COR. OF  
DULUTH ST. & LARPEUTEUR.

B.M. ELEV. 877.78  
TOP OF HYD. S.W. COR. OF  
CHAMBER ST. & LARPEUTEUR.



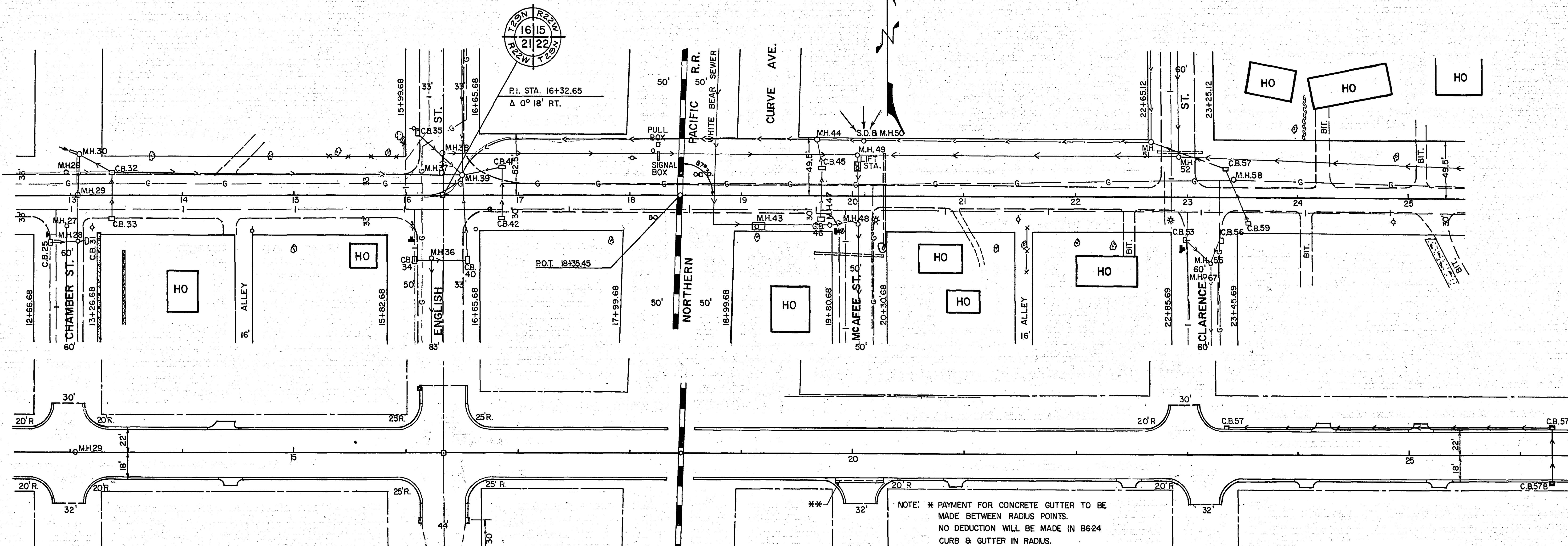
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S.A.P. NO. 62-630-11

Sheet No. 5 of 36 Sheets

6878

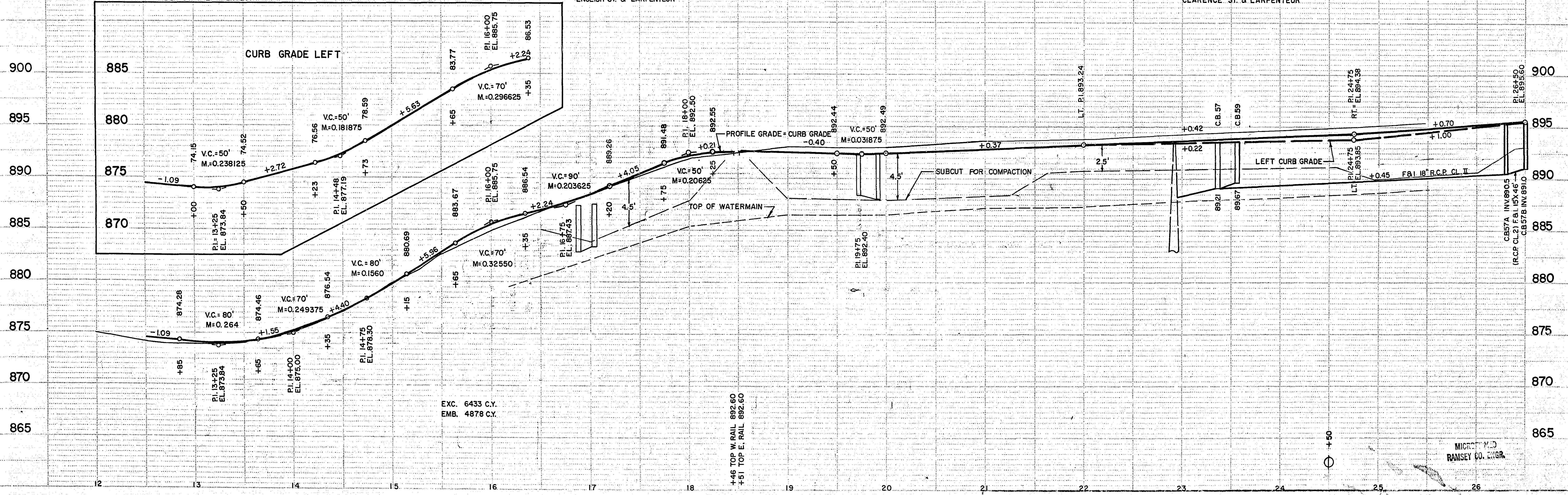
ROSEKOPF & ASSOCIATES, INC., ST. PAUL, MINNESOTA



B.M. ELEV. 877.78  
TOP HYD. S.W. COR.  
CHAMBER ST. & LARPENTEUR

B.M. ELEV. 889.45  
TOP HYD. S.W. COR. OF  
ENGLISH ST. & LARPENTEUR

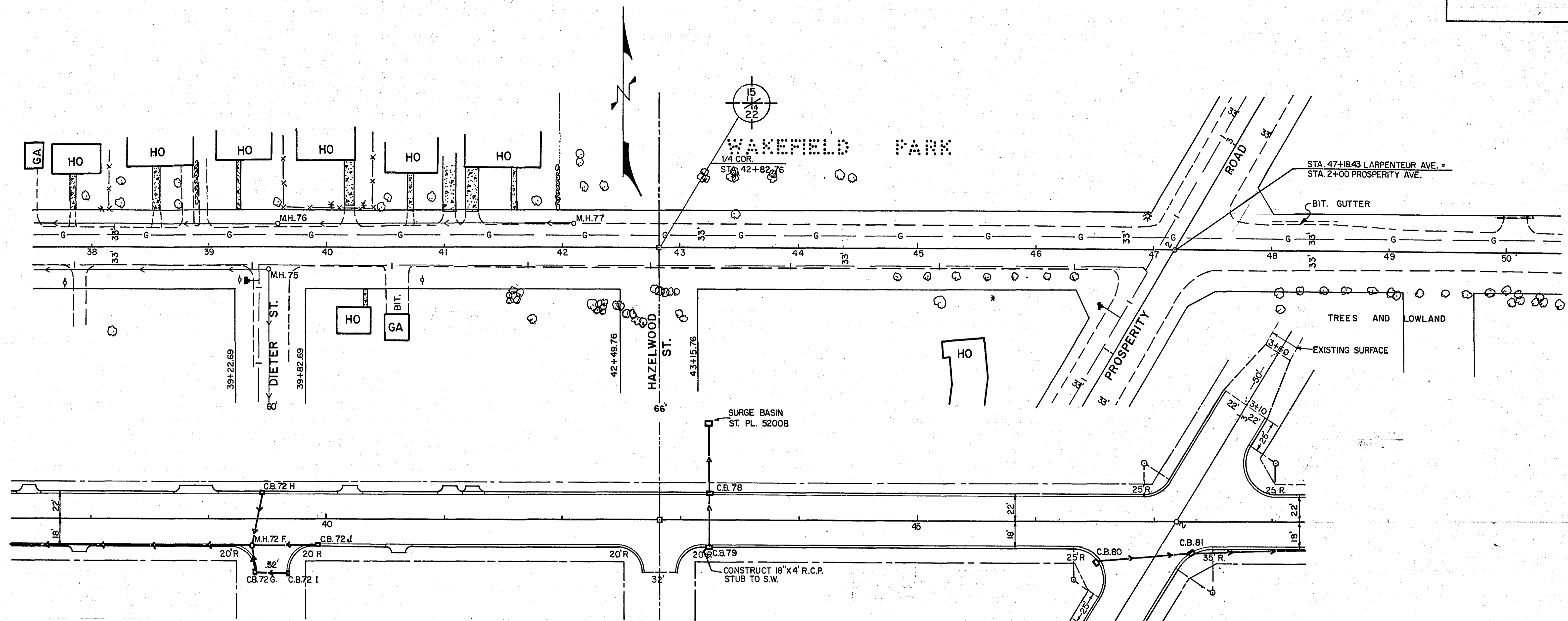
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TOP HYD. S.W. COR.  
CLARENCE ST. & LARPENTEUR



NORSTAR & NO. 102 ST. PAUL - MINNEAPOLIS, MINNESOTA

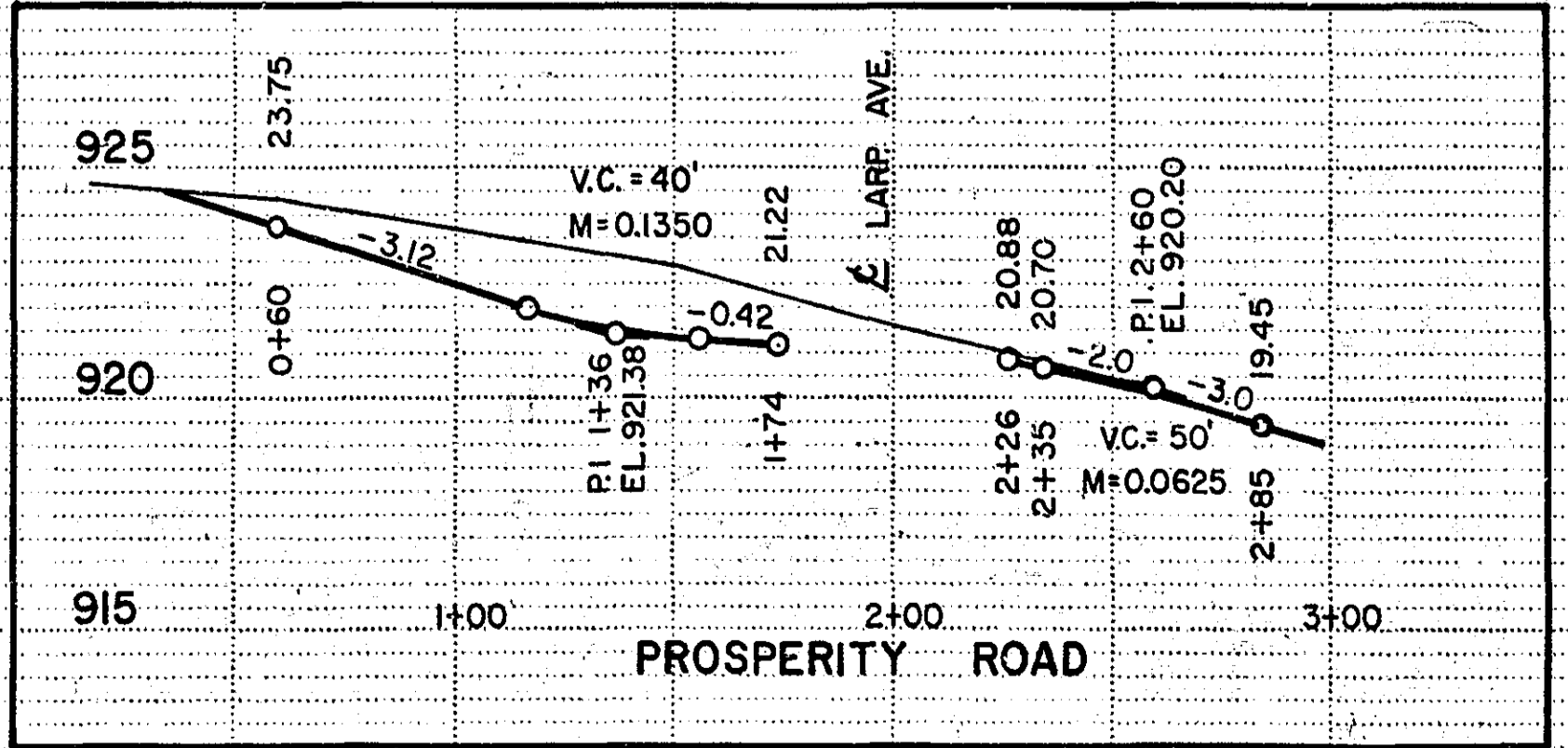
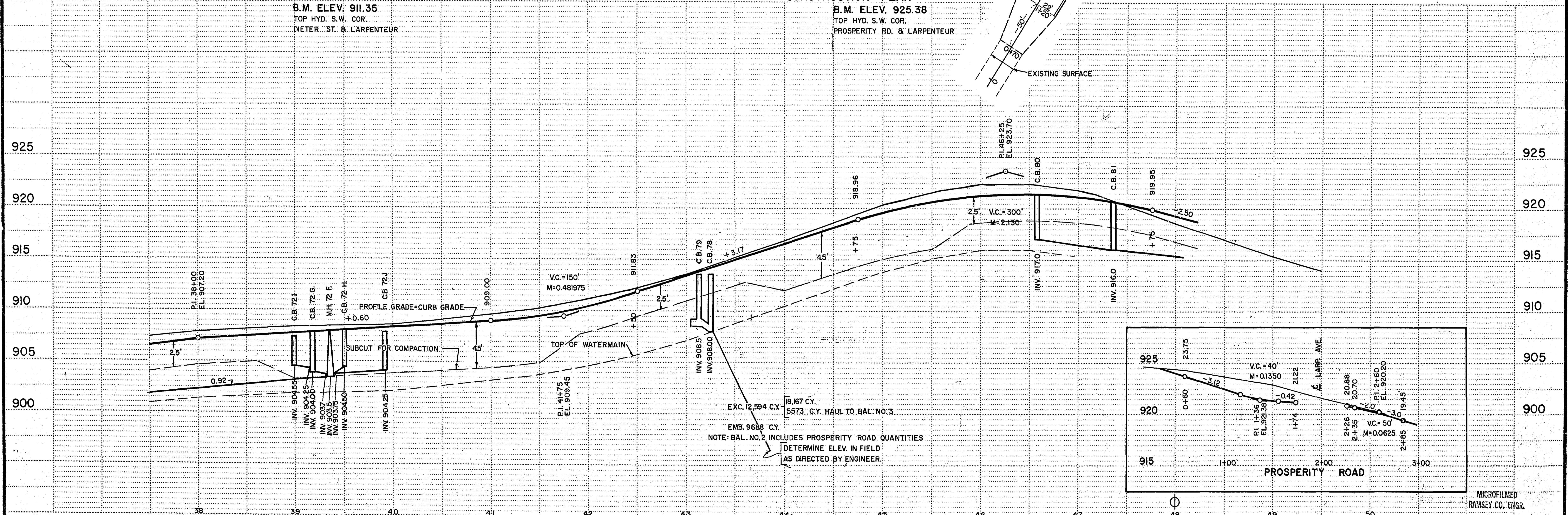
MICROFILM  
RAMSEY CO. ENGR.



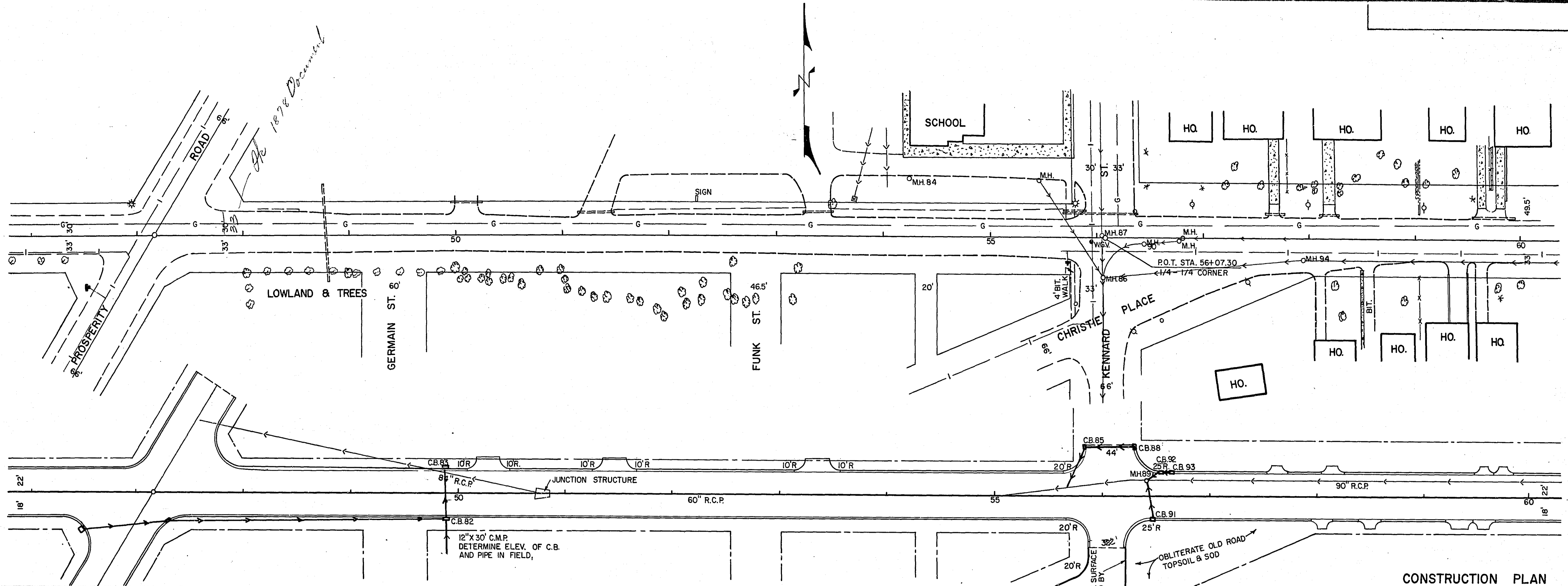


B.M. ELEV. 911.35  
TOP HYD. S.W. COR.  
DIETER ST. & LARPEN TEUR

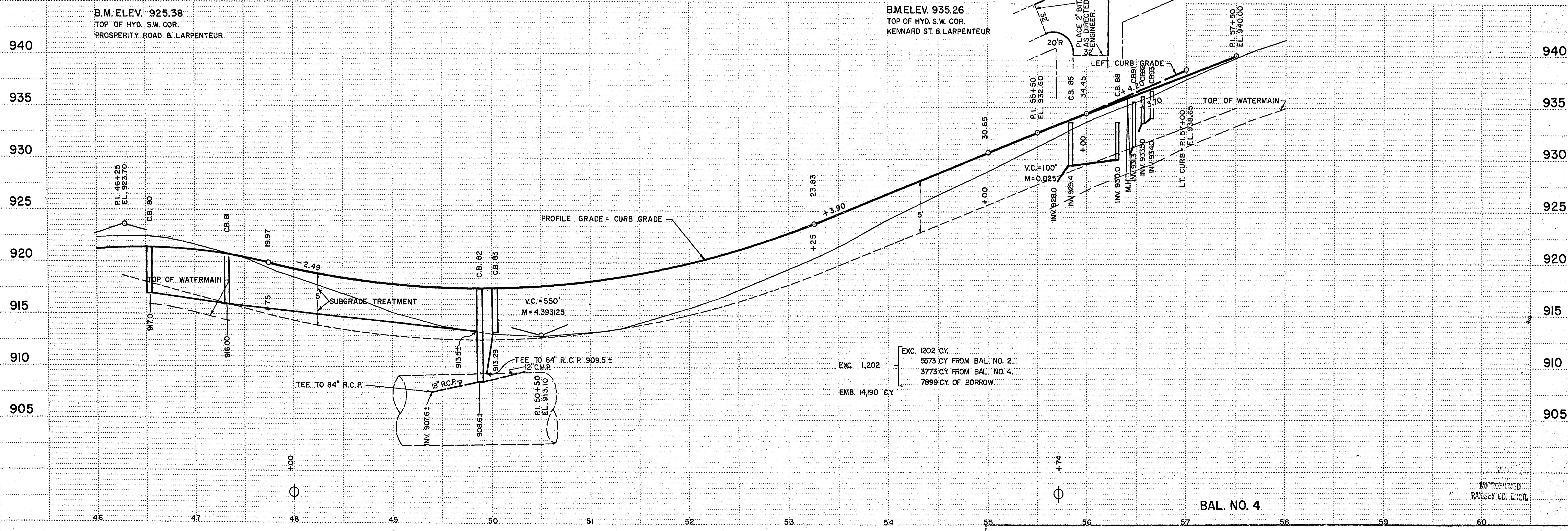
CONSTRUCTION PLAN  
B.M. ELEV. 925.38  
TOP HYD. S.W. COR.  
PROSPERITY RD. & LARPEN TEUR







CONSTRUCTION PLAN



B.M. ELEV. 925.38  
TOP OF HYD. S.W. COR.  
PROSPERITY ROAD & LARPEUTEUR

B.M. ELEV. 935.26  
TOP OF HYD. S.W. COR.  
KENNARD ST. & LARPEUTEUR

BAL. NO. 3

BAL. NO. 4

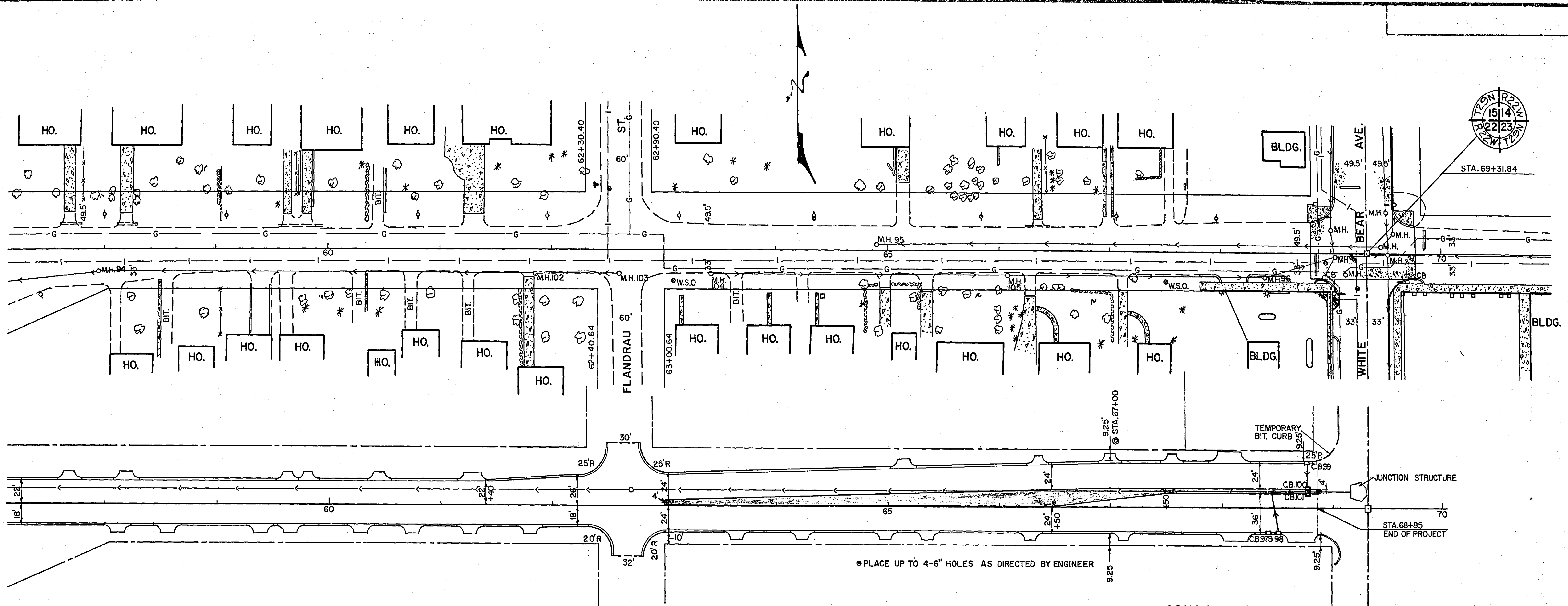
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Sheet No. 9 of 36 Sheets

6878

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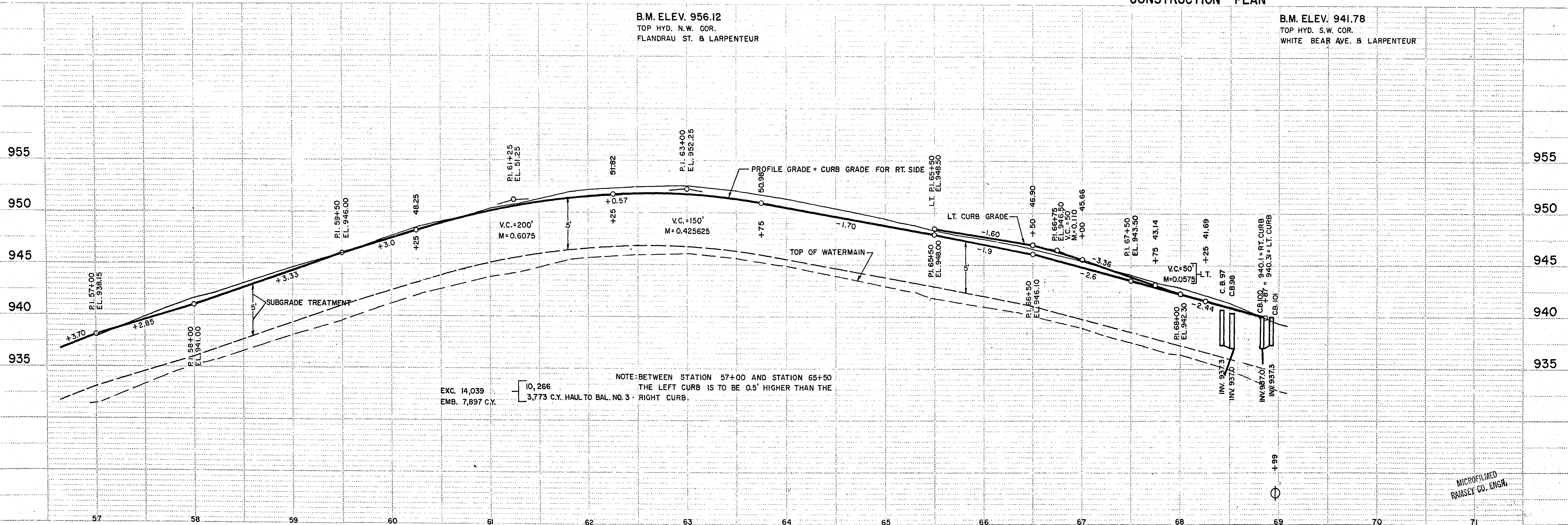
MICROFILMED  
BARSBY CO. DIV.



CONSTRUCTION PLAN

B.M. ELEV. 956.12  
 TOP HYD. N.W. COR.  
 FLANDRAU ST. & LARPENIEUR

B.M. ELEV. 941.78  
 TOP HYD. S.W. COR.  
 WHITE BEAR AVE. & LARPENIEUR



BAL. NO. 4

S.A.P. NO. 62-630-II

Sheet No. 10 of 36 Sheets

MICROFILMED  
 RAMSEY CO. ENGR.

6878

STATION-ELEVATION

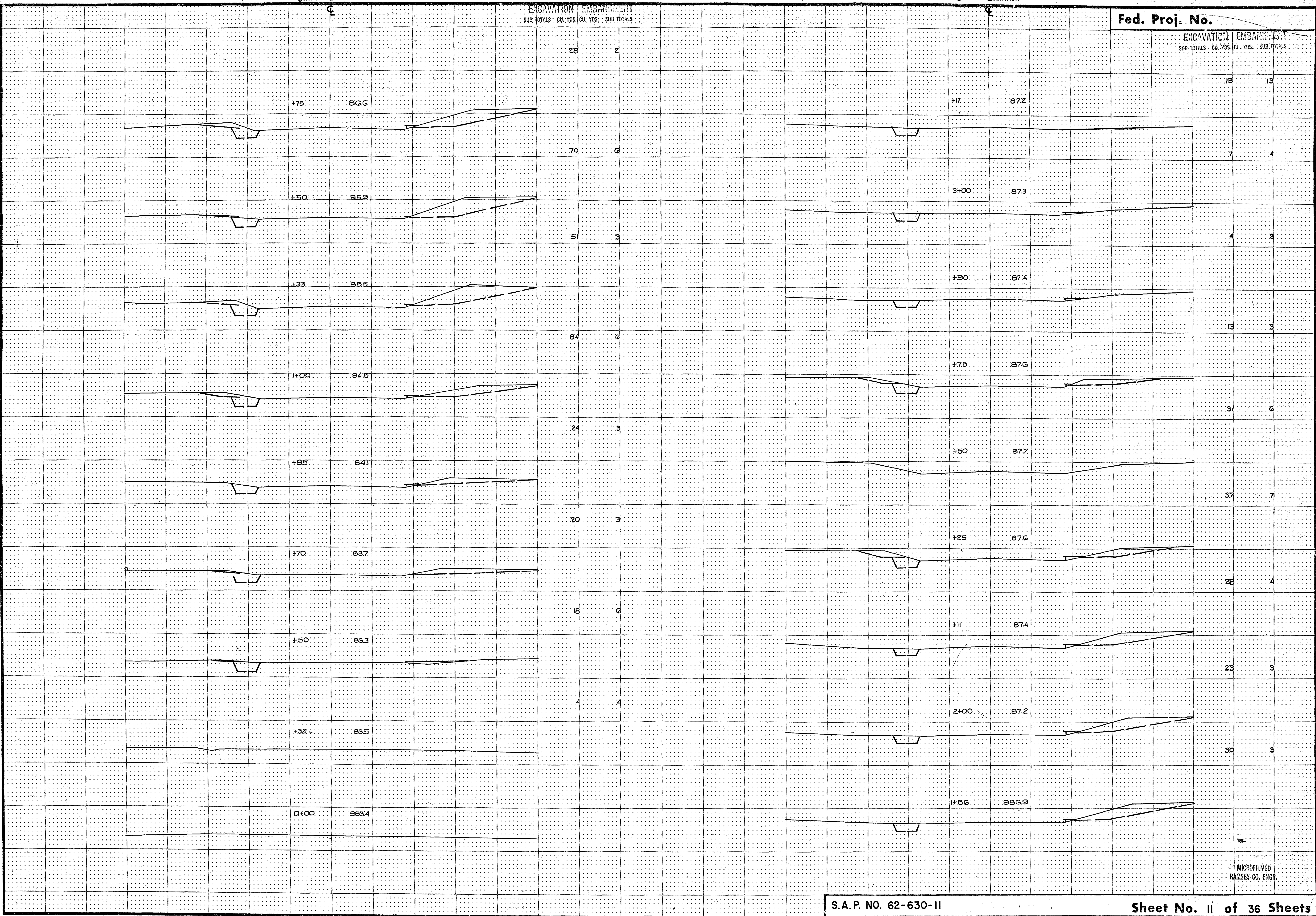
STATION-ELEVATION

Fed. Proj. No.

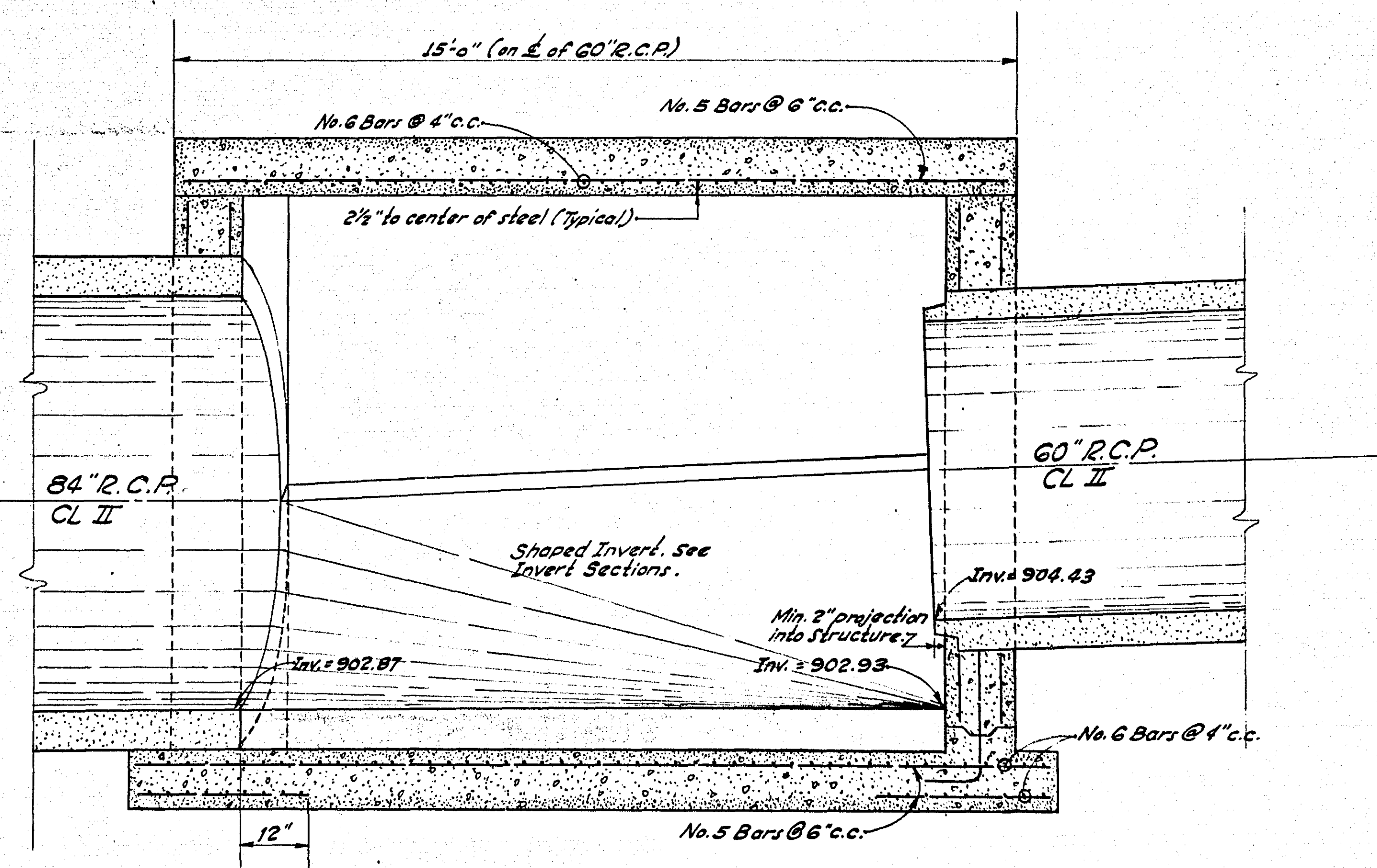
EXCAVATION EMBANKMENT  
SUR. TOTALS: CU. YDS. CU. YDS. SUB-TOTALS

EXCAVATION EMBANKMENT  
SUR. TOTALS: CU. YDS. CU. YDS. SUB-TOTALS

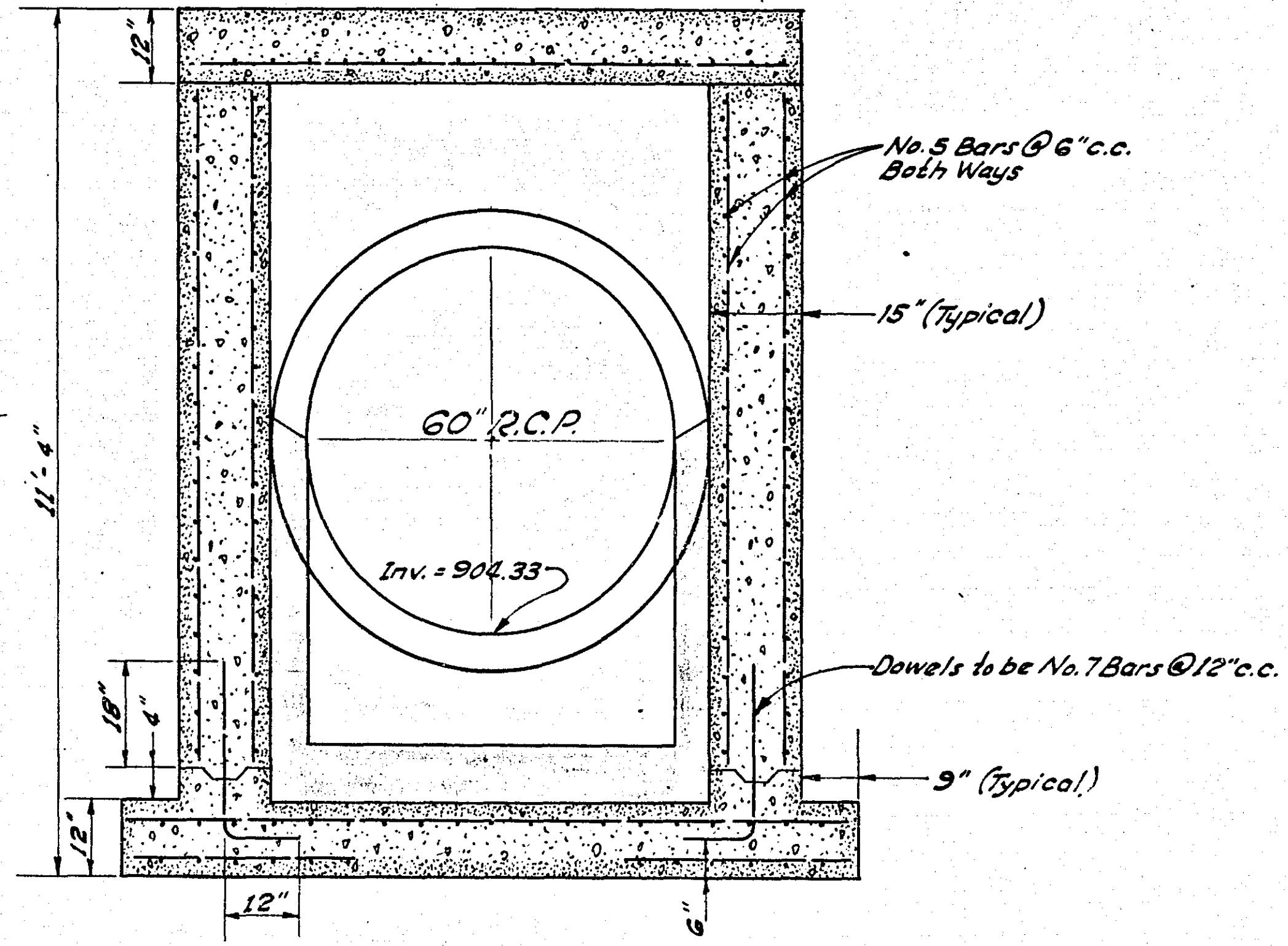
FUNCTIONAL CROSS SECTION - OPEN DOTTED  
E. A. ROGERS CO. - MINNEAPOLIS, ST. PAUL



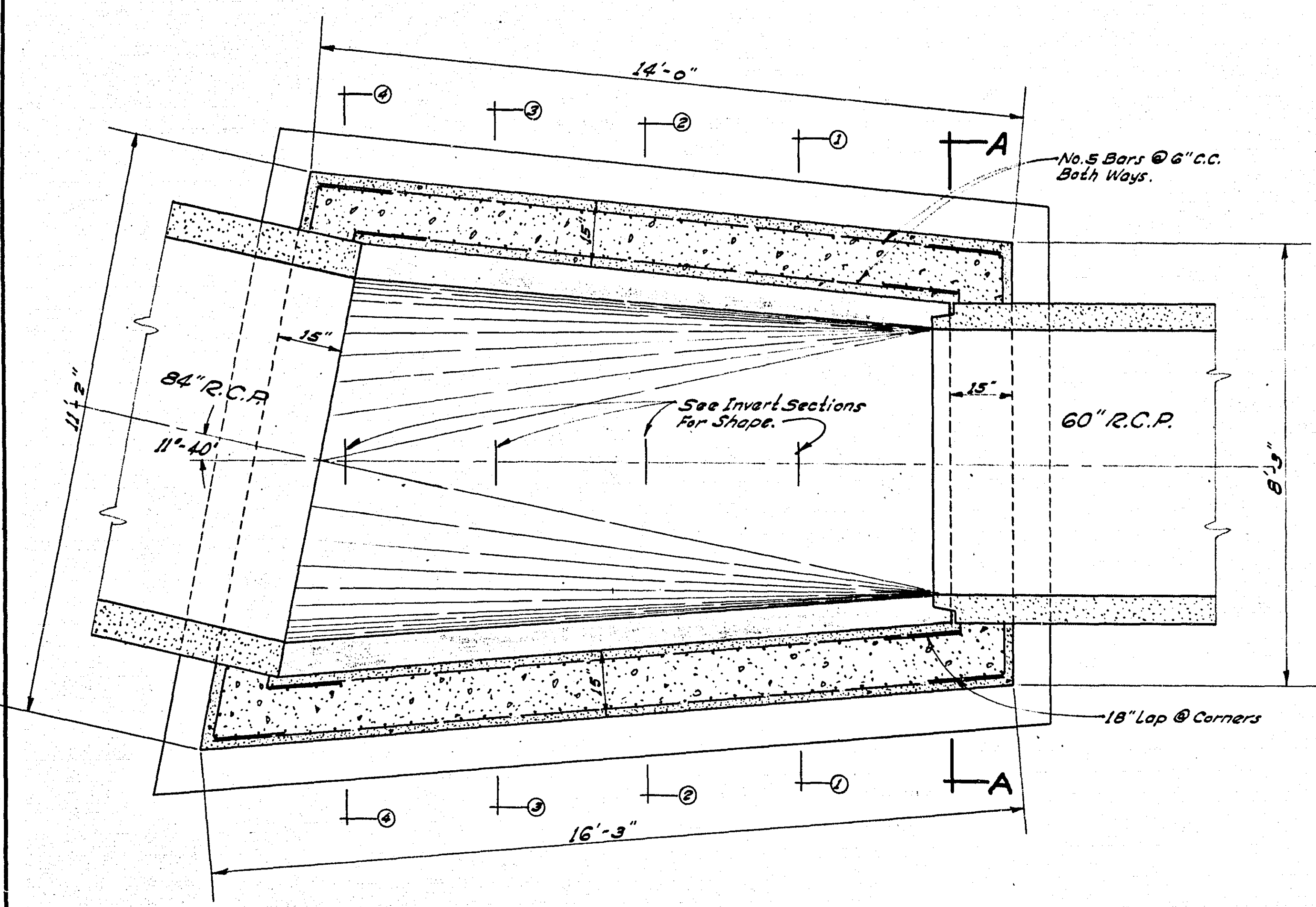
DRG. 3602



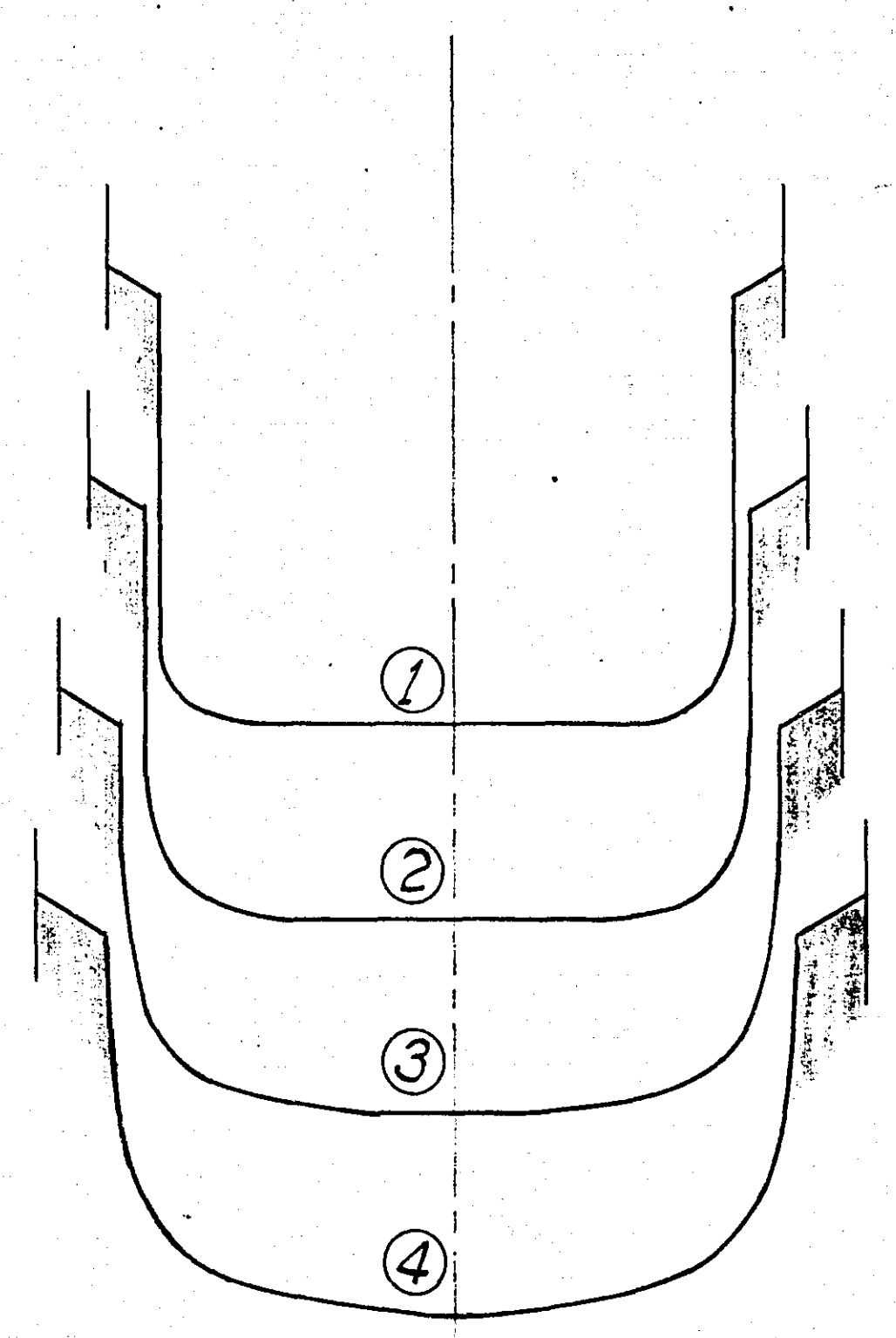
**ELEVATION**  
 Scale: 1/2" = 1'-0"



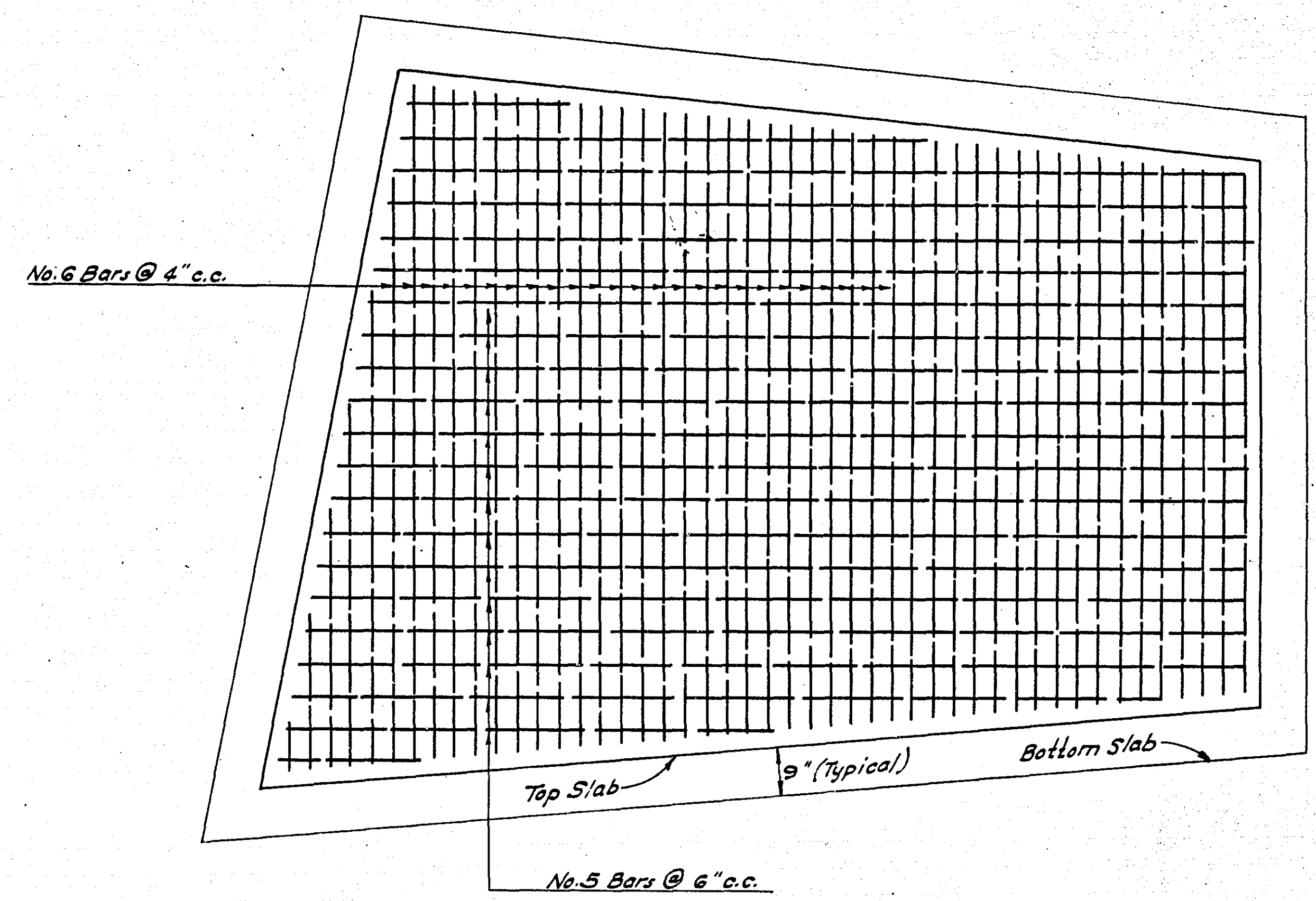
**SECTION A-A**  
 Scale: 1/2" = 1'-0"



**PLAN VIEW**  
 Scale: 1/2" = 1'-0"



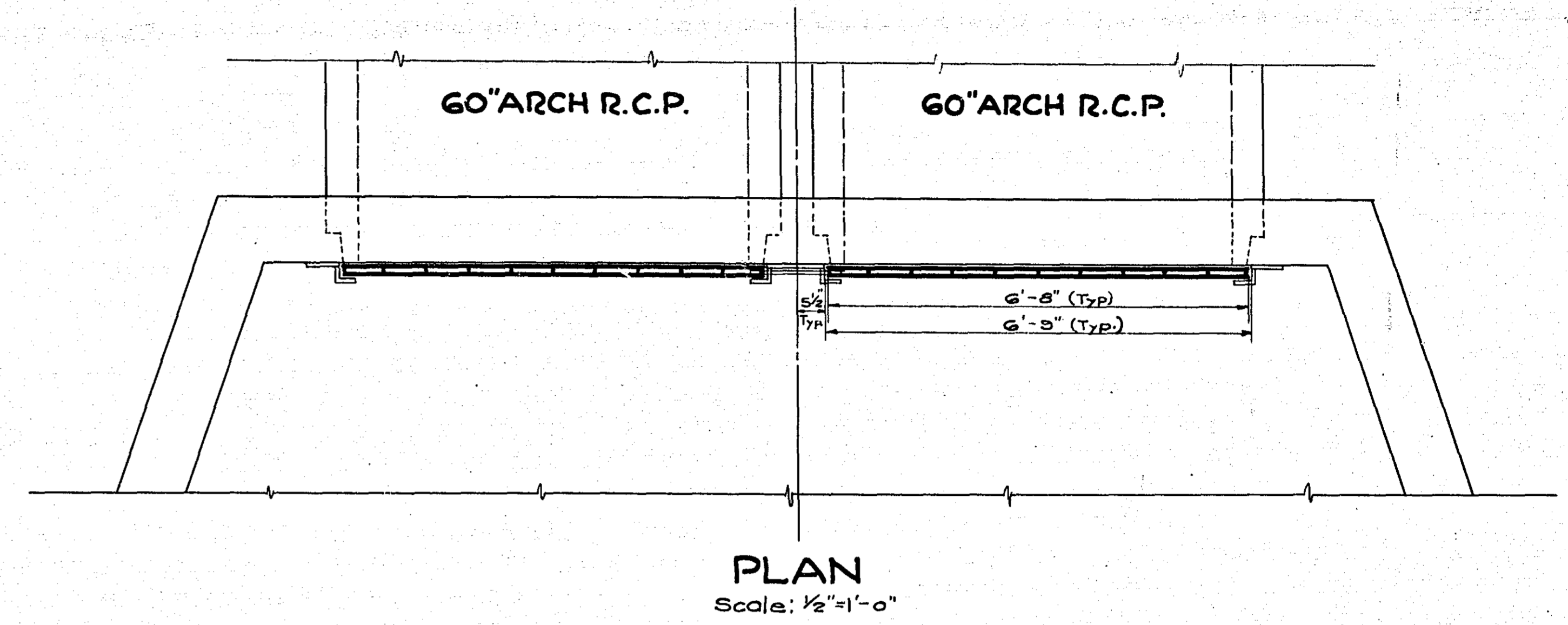
**INVERT SECTIONS**  
 SEE PLAN VIEW  
 Scale: 1/2" = 1'-0"



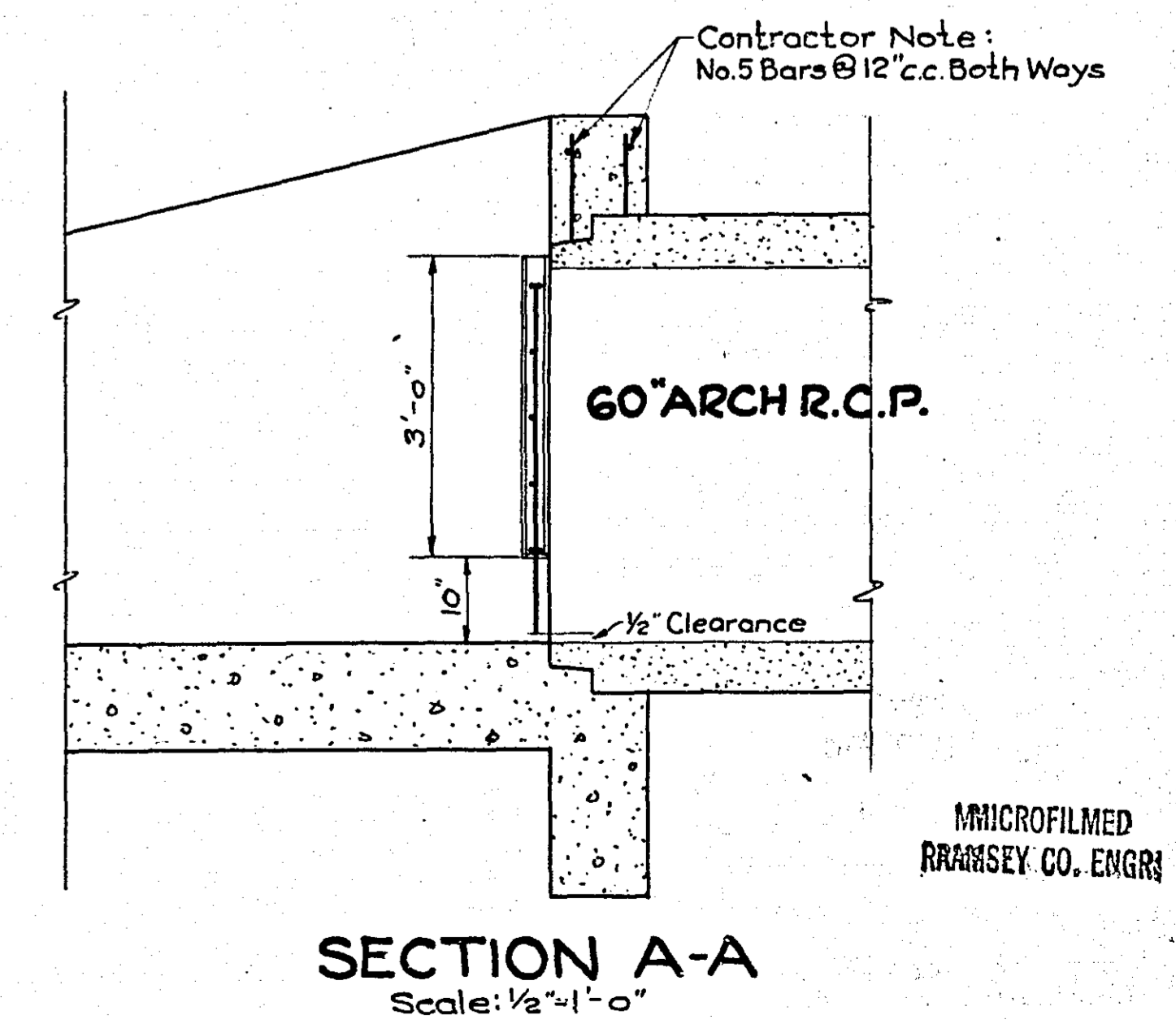
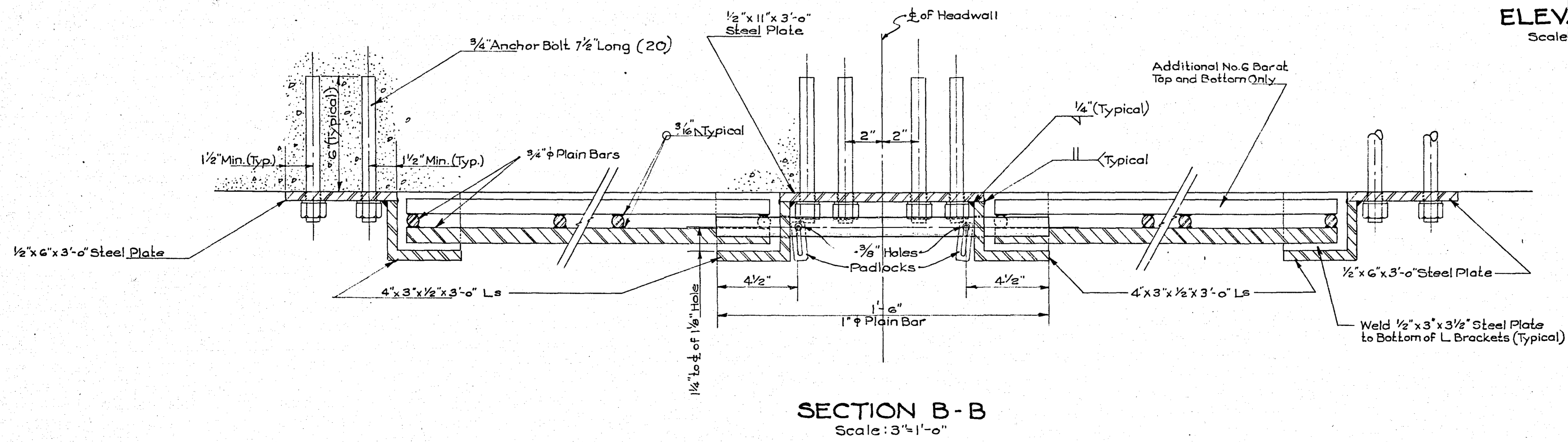
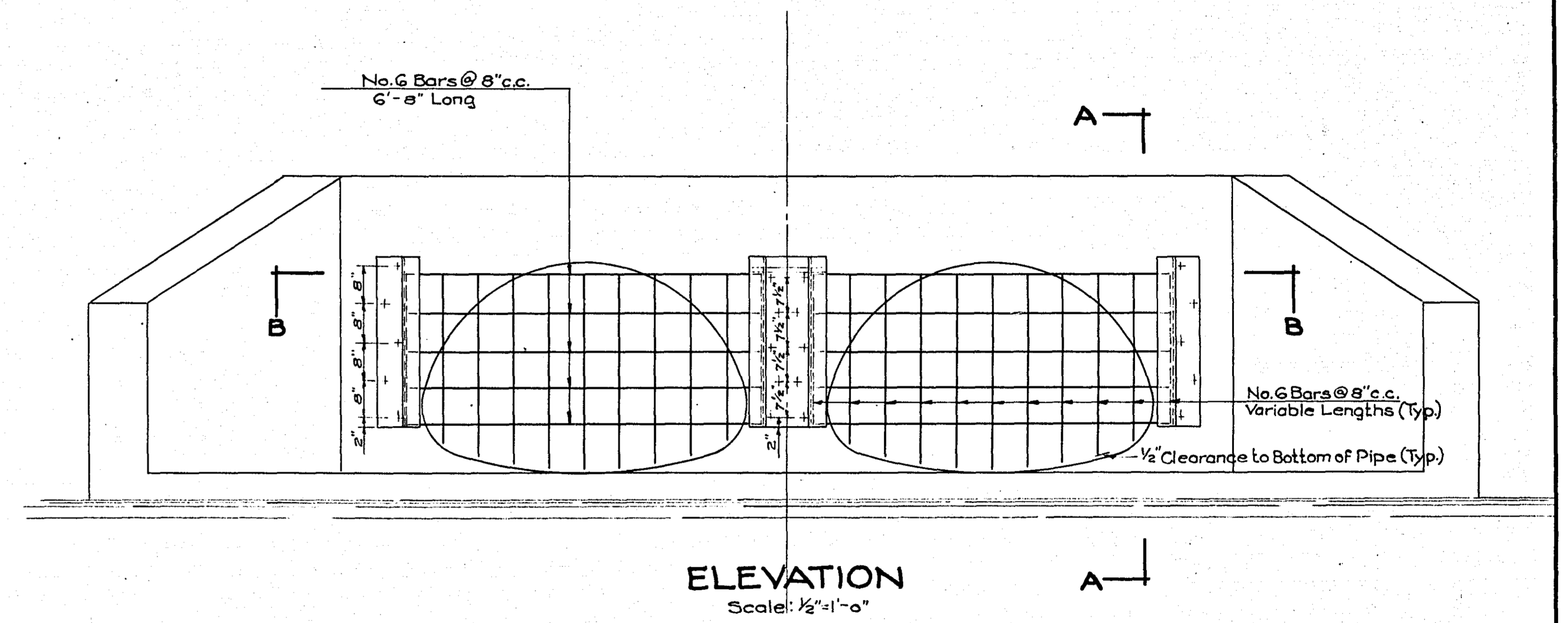
**TOP & BOTTOM SLABS**  
 REINFORCING DETAILS  
 Scale: 1/2" = 1'-0"

NOTE:  
 All Concrete to Be Class 3460

CONTRACT 'A-2'  
 PART OF  
**PHASE II DRAINAGE**  
 COOPERATIVE PROJECT  
 CITY, COUNTY & MAPLEWOOD  
**GRATE DETAILS**  
 OUTLET STRUCTURE AT WAKEFIELD LAKE  
 DRG. 3601



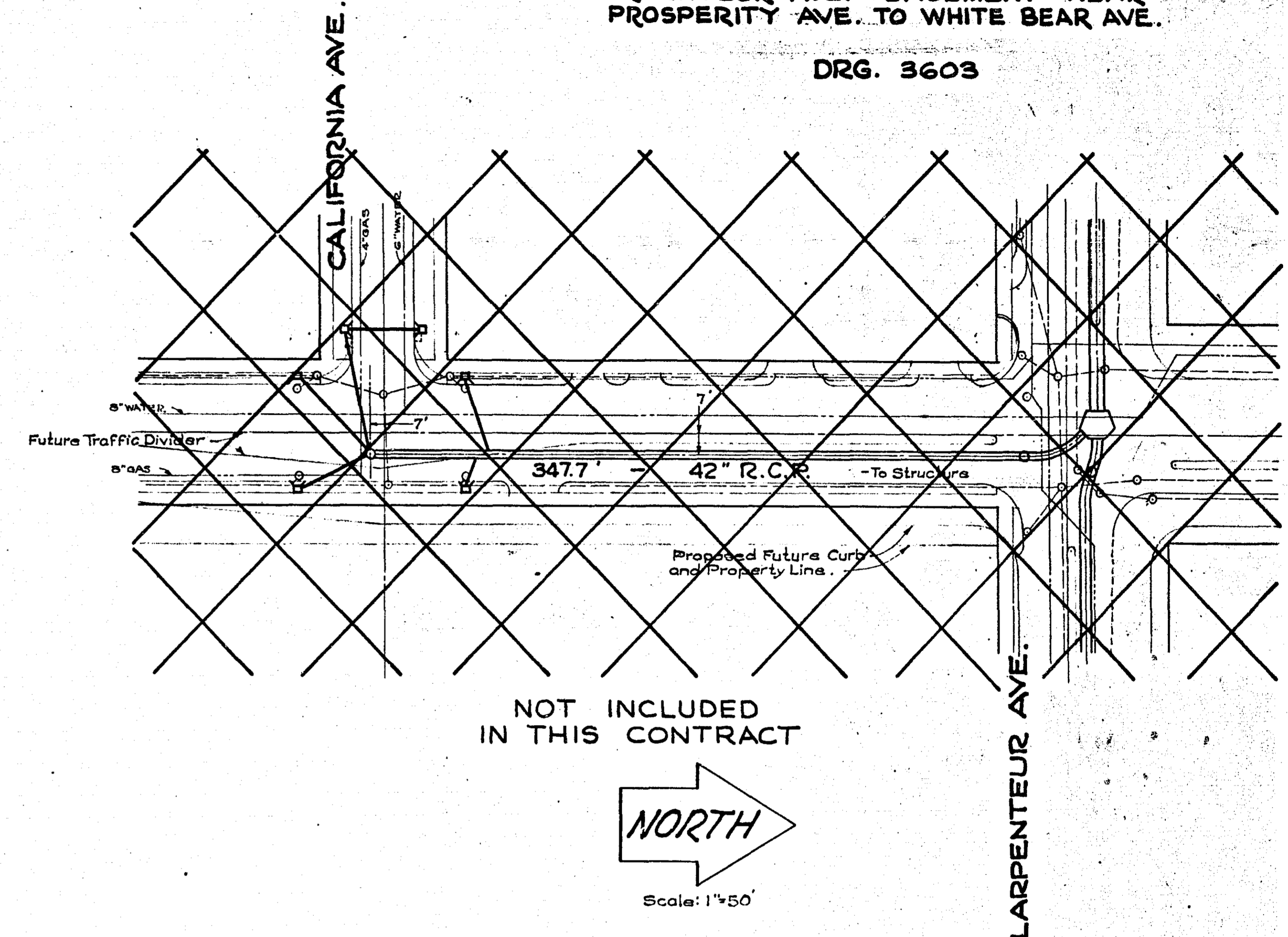
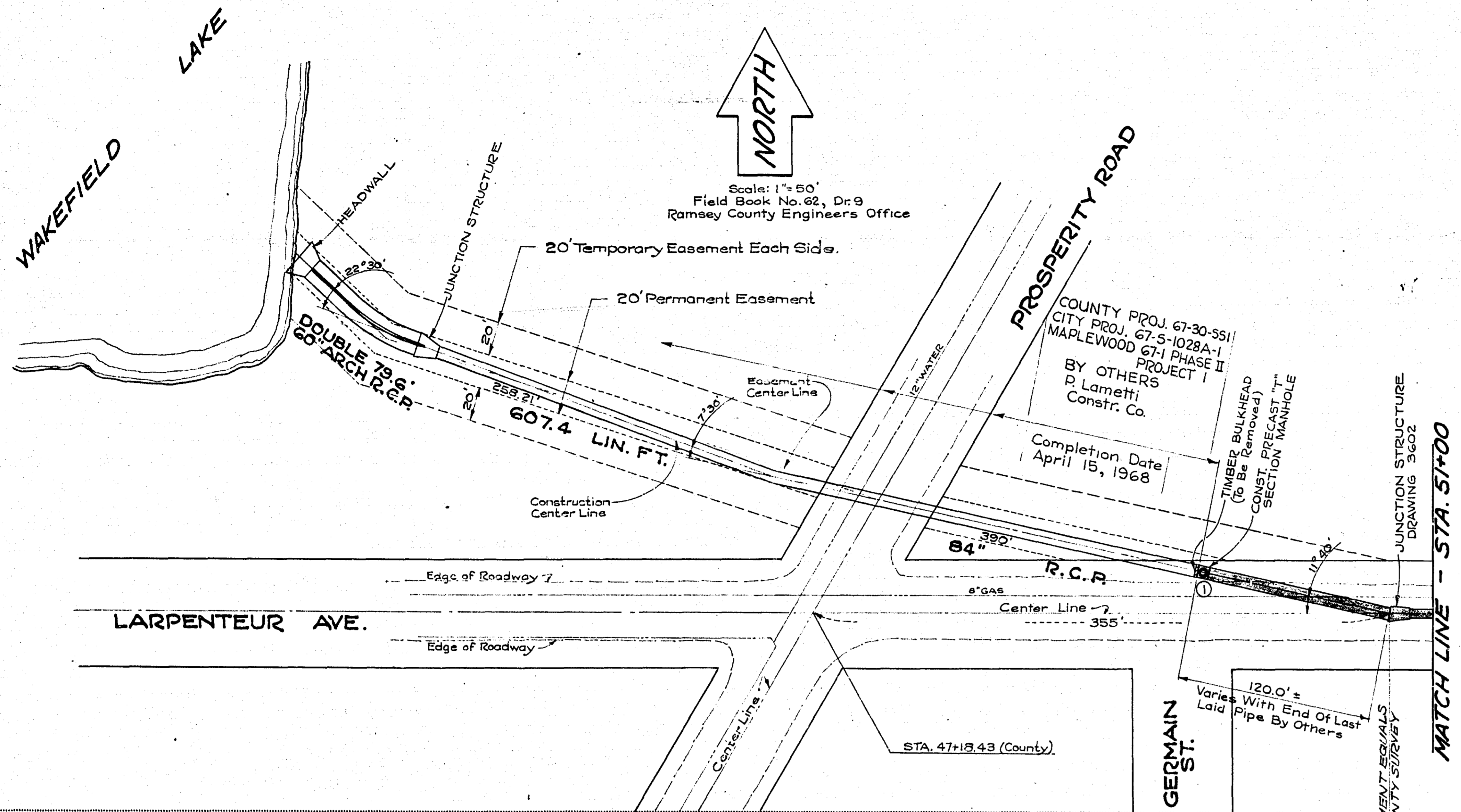
**NOTES:**  
 Fabrication of Grating as per M.H.D.-2471  
 Structural Steel as per M.H.D.-3306  
 Anchor Bolts as per M.H.D.-3387  
 All Holes Drilled in 1/2" Plates to be 3/16"



CONTRACT 'A-2'  
PART OF  
**PHASE II DRAINAGE**  
COOPERATIVE PROJECT  
CITY, COUNTY & MAPLEWOOD

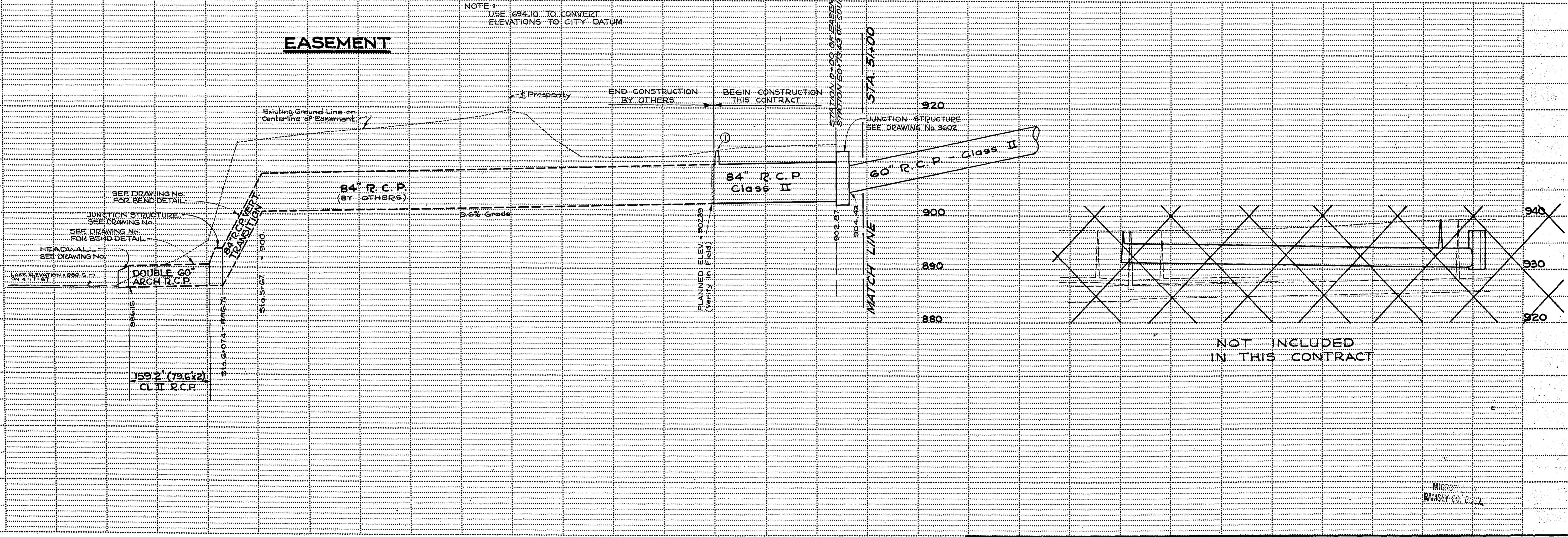
LARPEN TEUR AVE. - EASEMENT NEAR  
PROSPERITY AVE. TO WHITE BEAR AVE.

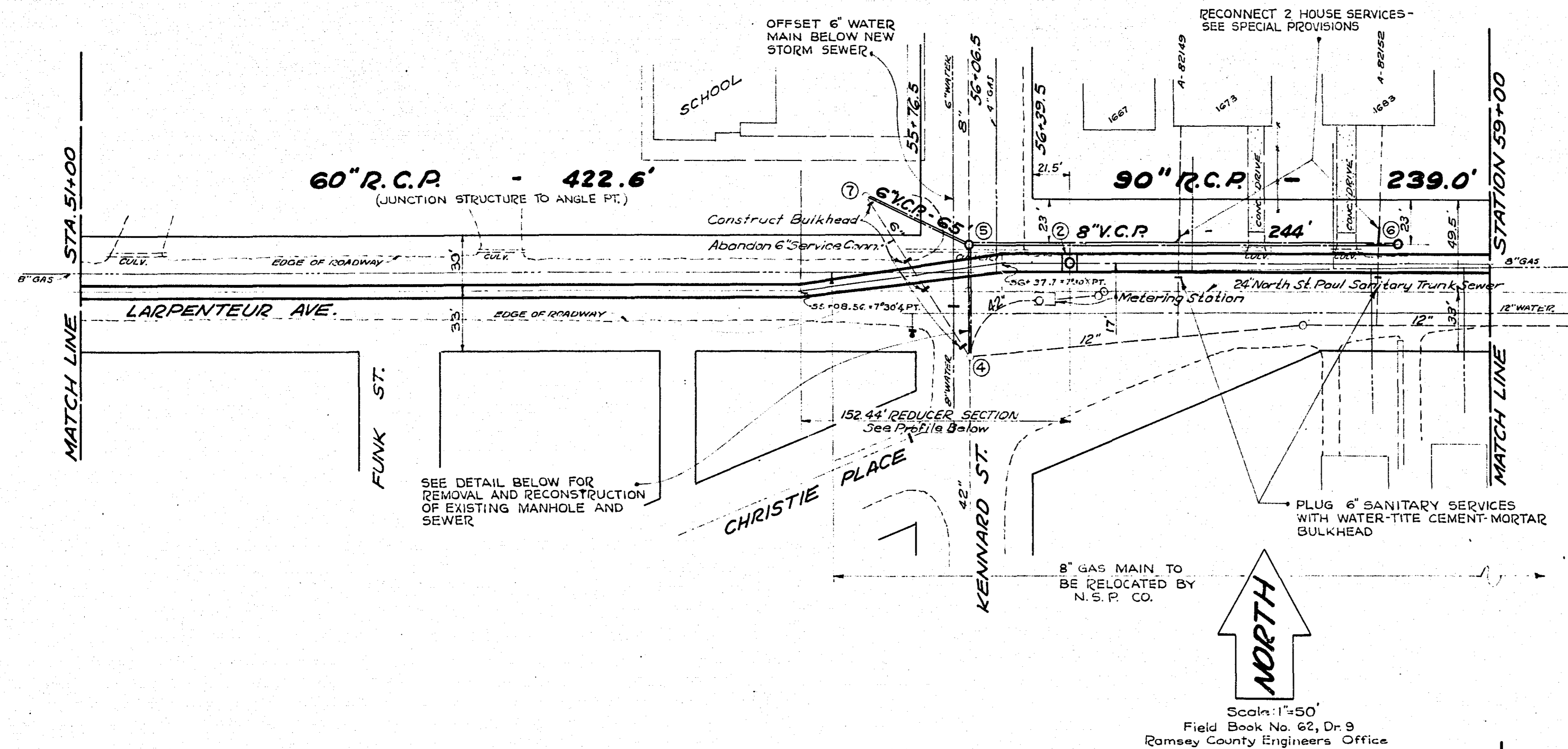
DRG. 3603



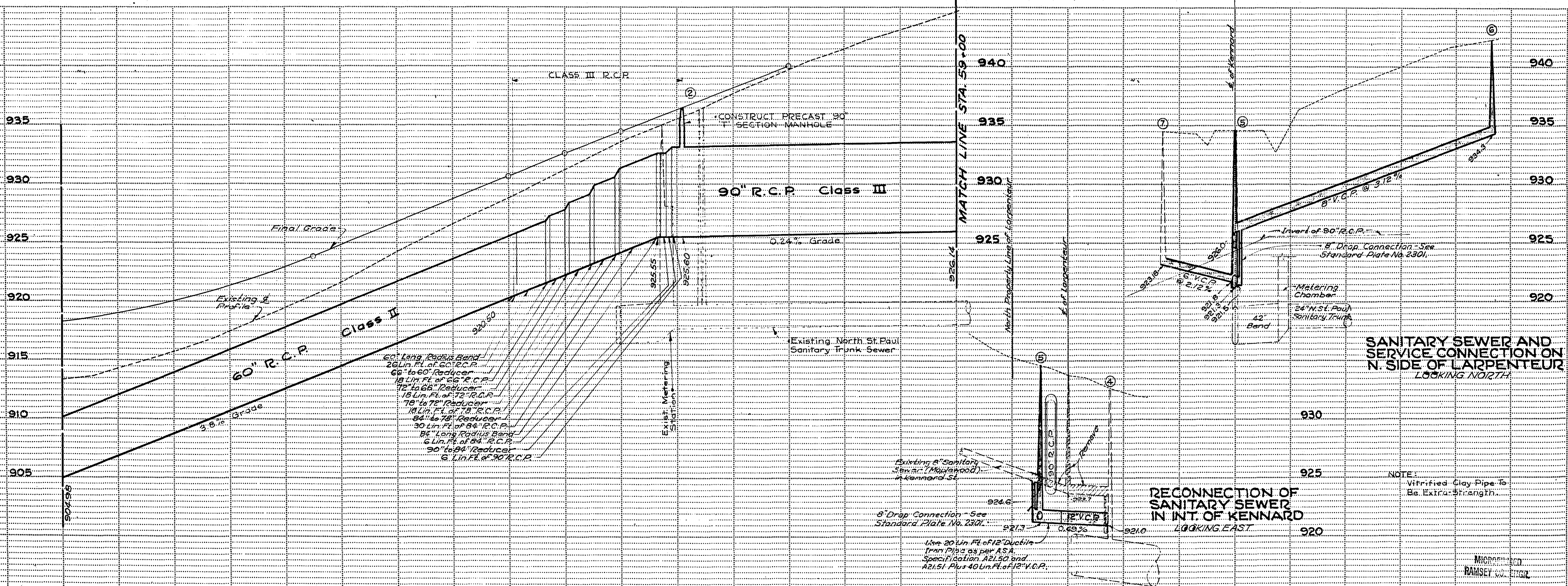
**EASEMENT**

NOTE 1  
USE 694.10 TO CONVERT  
ELEVATIONS TO CITY DATUM



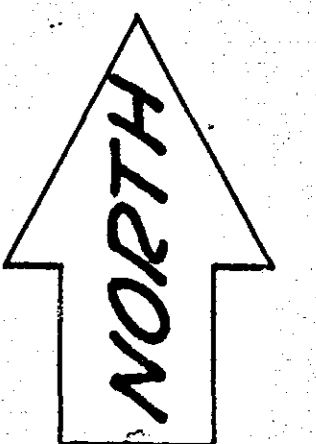
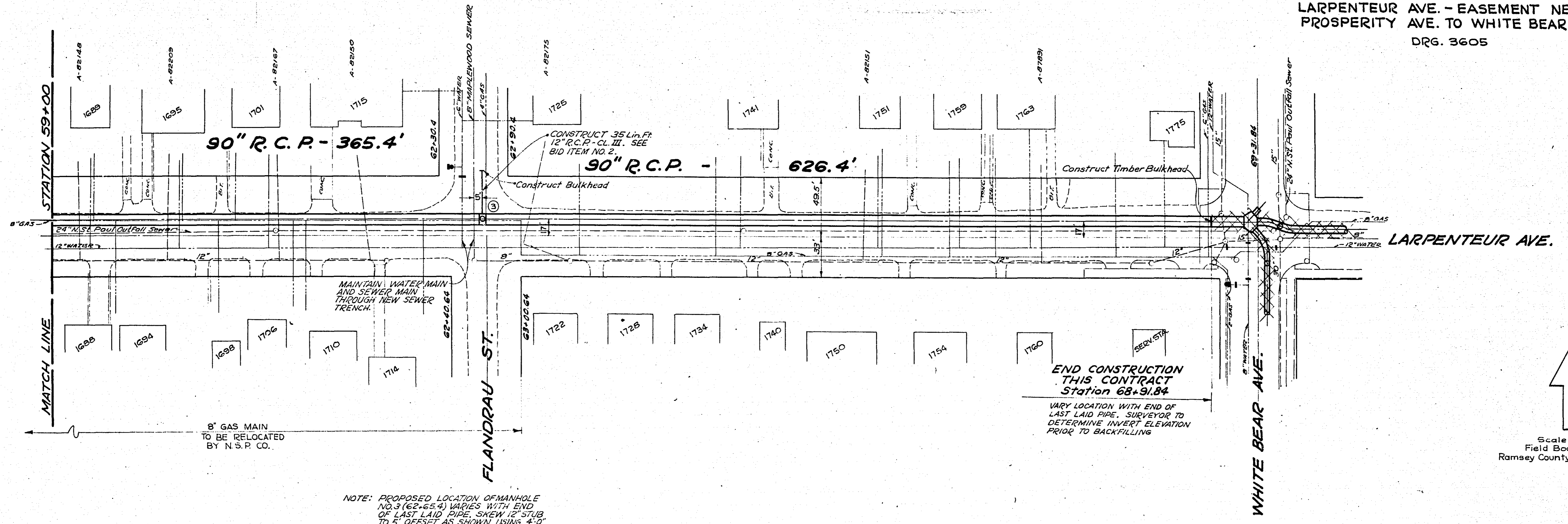


NOTE:  
 Use G941 To Convert Elevations  
 To City Datum.

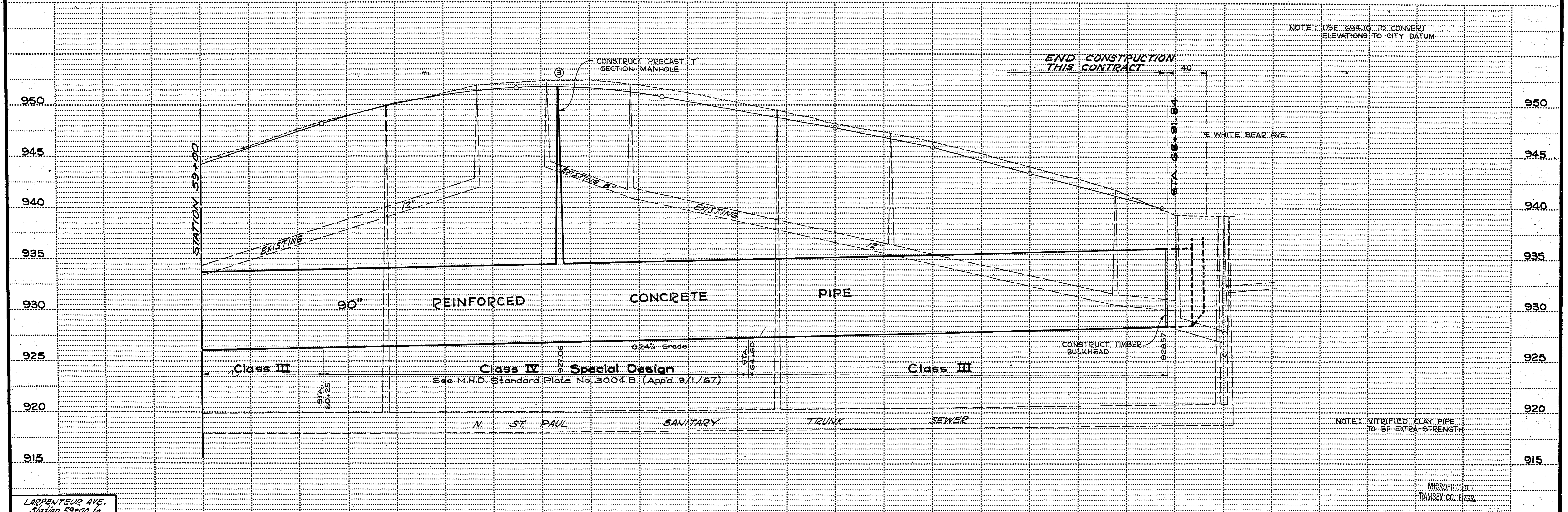


LARPEN TEUR AVE.  
 Station 54+00  
 to Sta. 59+00  
 SEWER PLAN  
 Sew. Dr. II No. 3604

CONTRACT 'A-2'  
 PART OF  
**PHASE II DRAINAGE**  
 COOPERATIVE PROJECT  
 CITY, COUNTY AND MAPLEWOOD  
 LARPEUTEUR AVE. - EASEMENT NEAR  
 PROSPERITY AVE. TO WHITE BEAR AVE.  
 DRG. 3605



Scale: 1" = 50'  
 Field Book No. 62, Dr. 9  
 Ramsey County Engineers Office

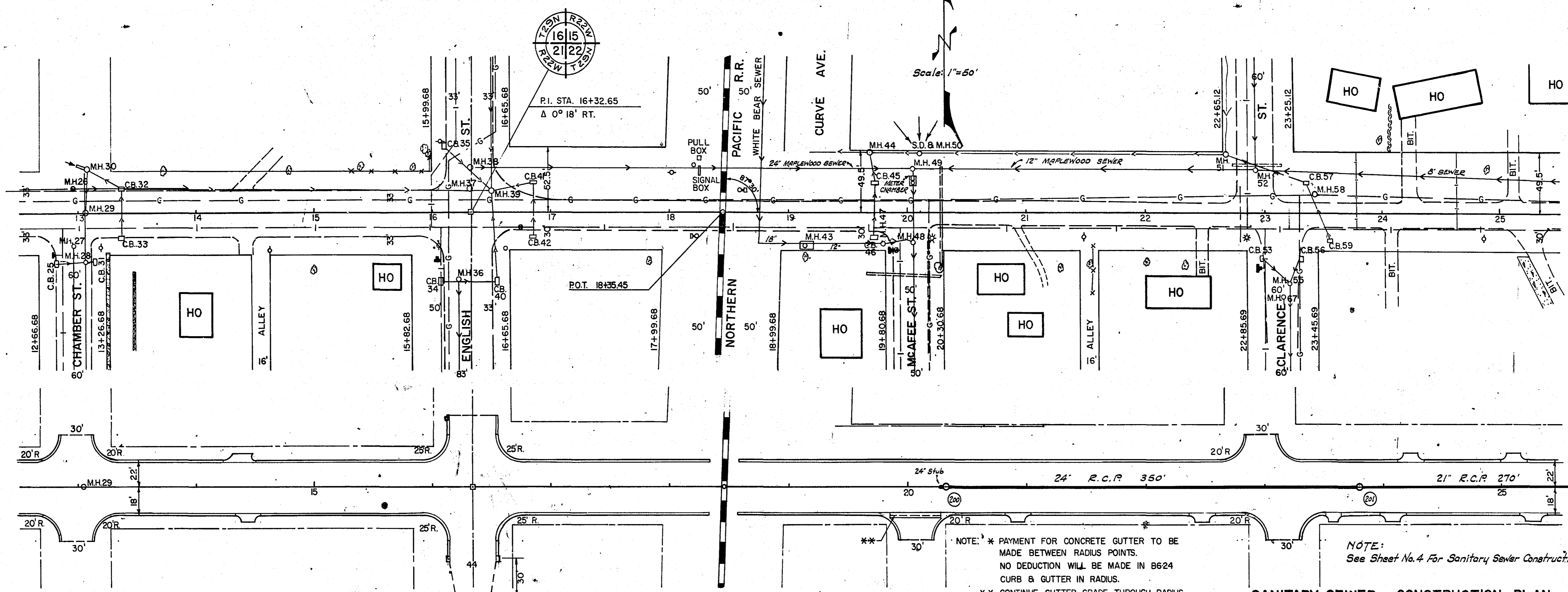


LARPEUTEUR AVE.  
 Station 59+00 to  
 White Bear Ave.  
 SEWER PLAN  
 Sew. Dr. 11 No. 3605

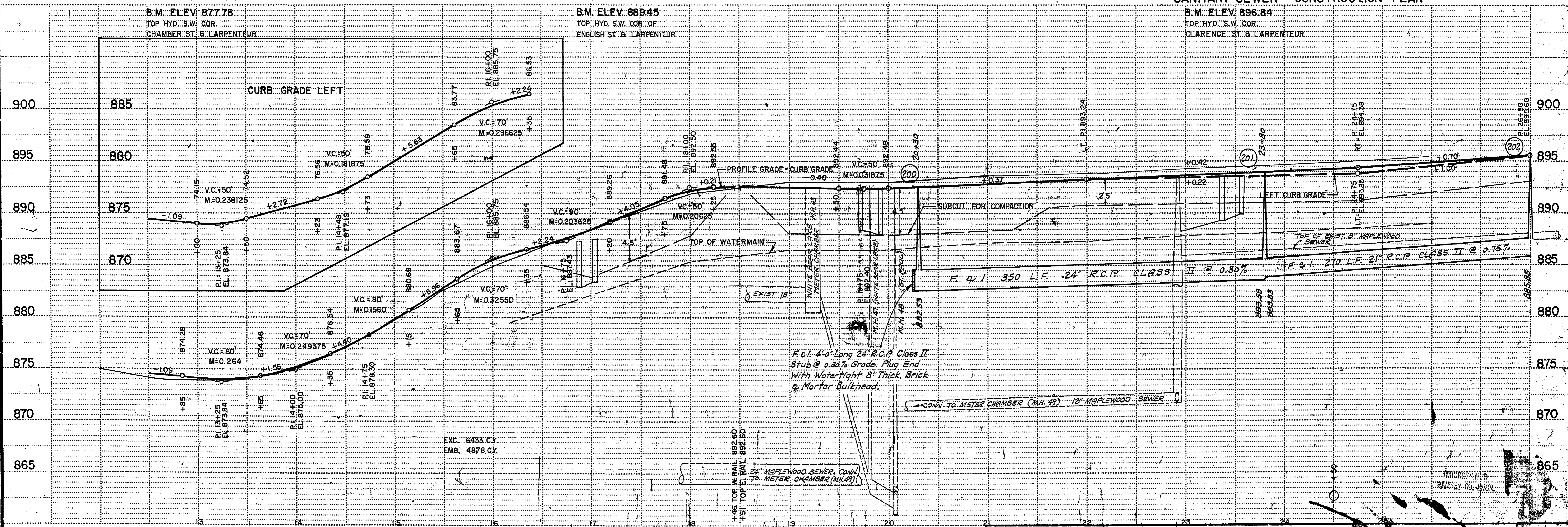
S.A.P. NO. 62-630-11

Sheet No. 31 of 36 Sheets

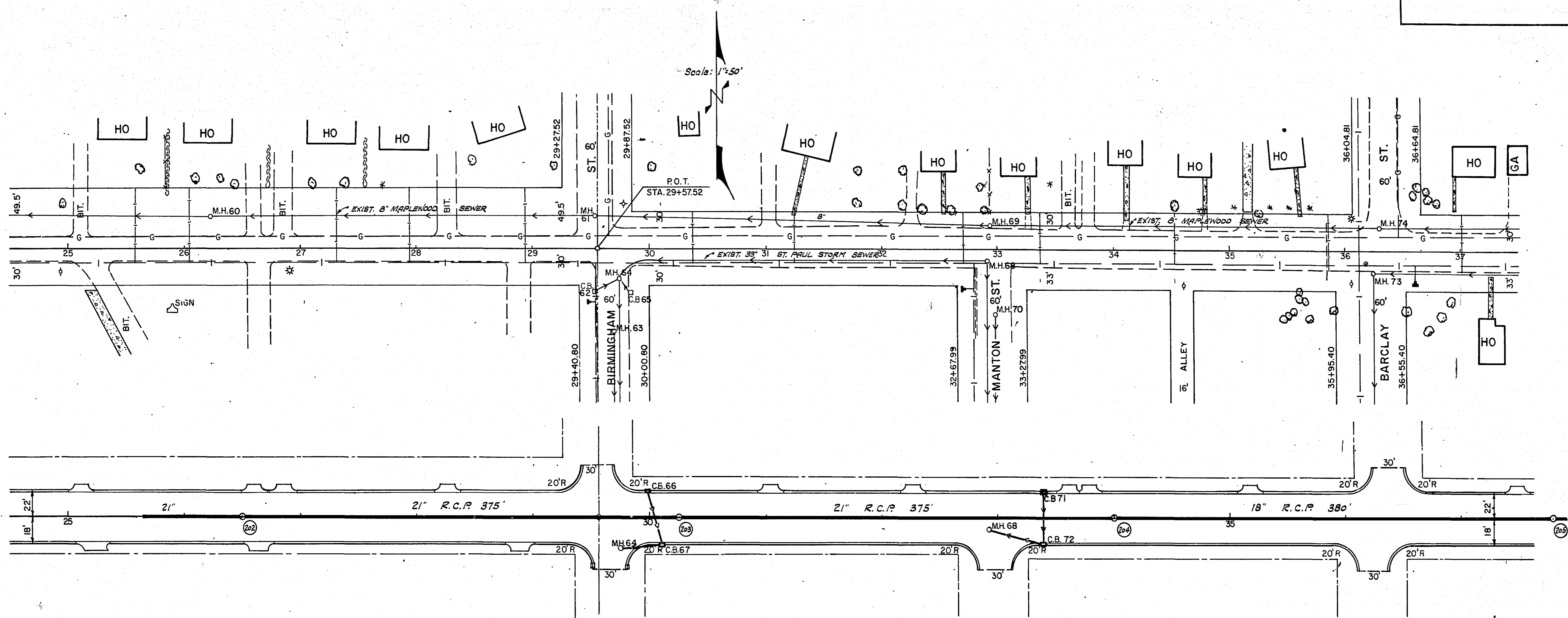




**SANITARY SEWER CONSTRUCTION PLAN**



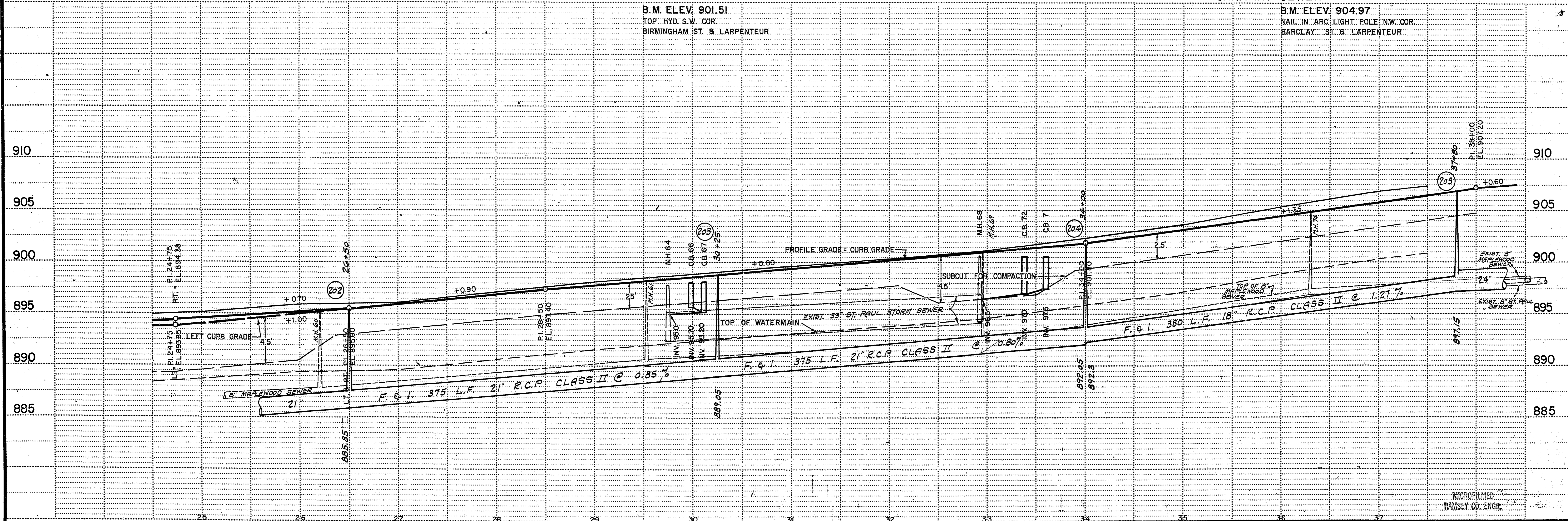
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**SANITARY SEWER CONSTRUCTION PLAN**

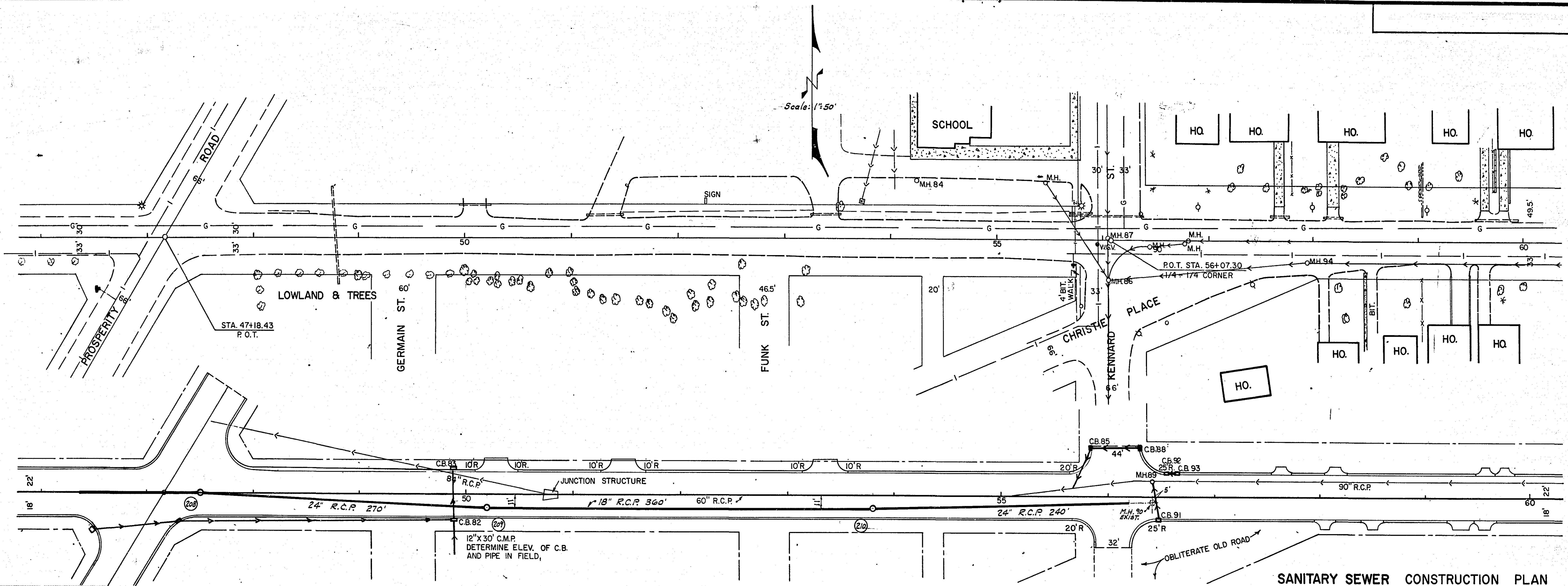
B.M. ELEV. 901.51  
 TOP HYD. S.W. COR.  
 BIRMINGHAM ST. & LARPEUR

B.M. ELEV. 904.97  
 NAIL IN ARC LIGHT POLE N.W. COR.  
 BARCLAY ST. & LARPEUR



MICROFILMED  
 RAMSEY CO. ENGR.





SANITARY SEWER CONSTRUCTION PLAN

