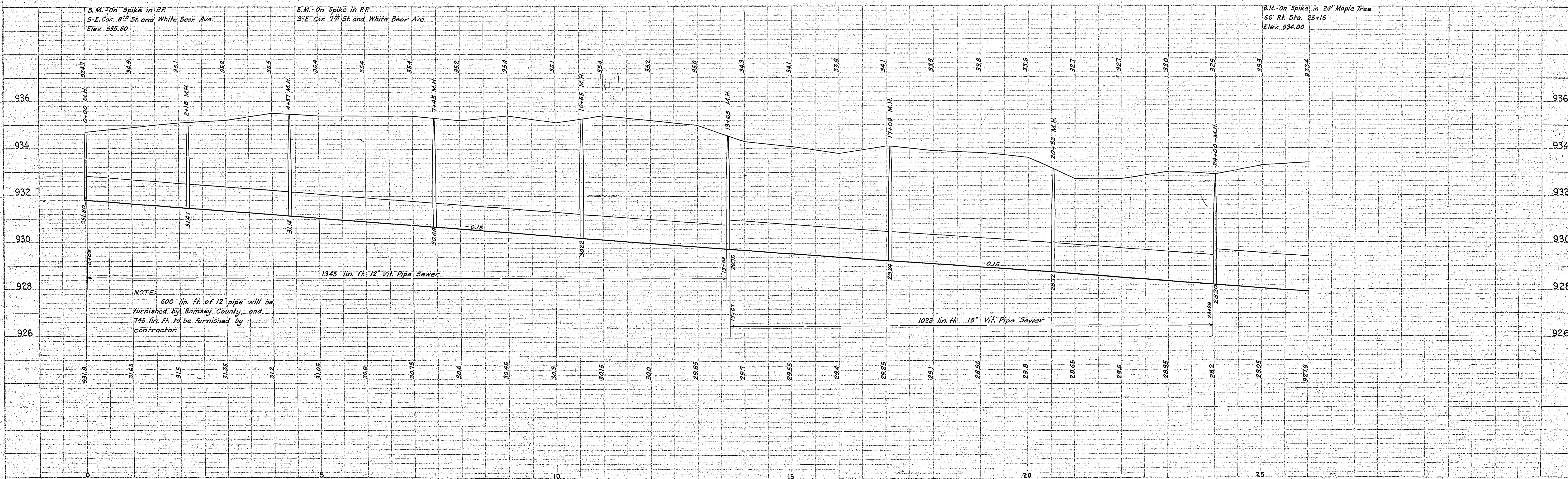
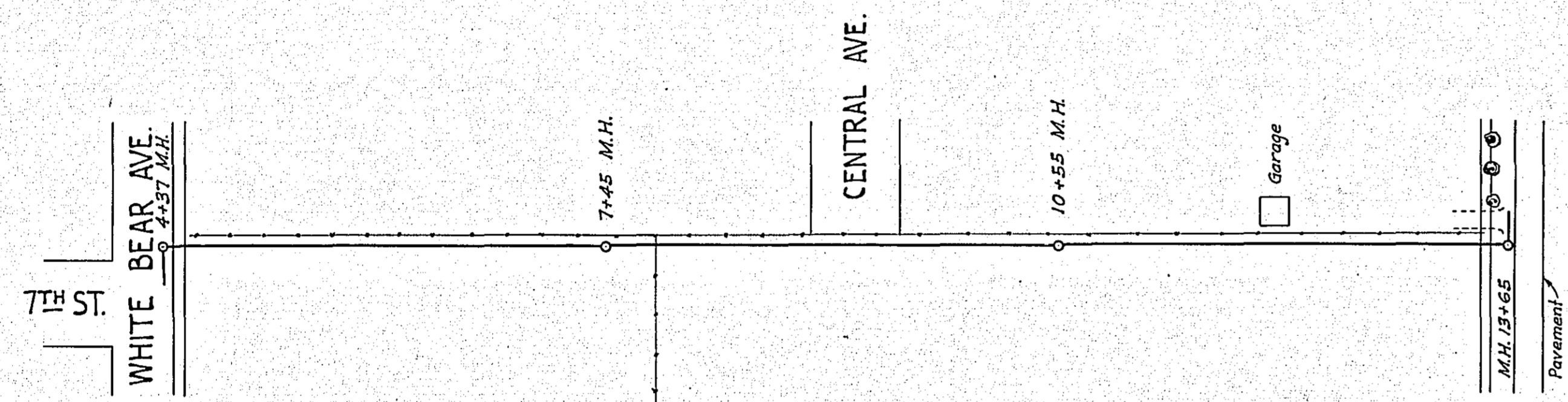
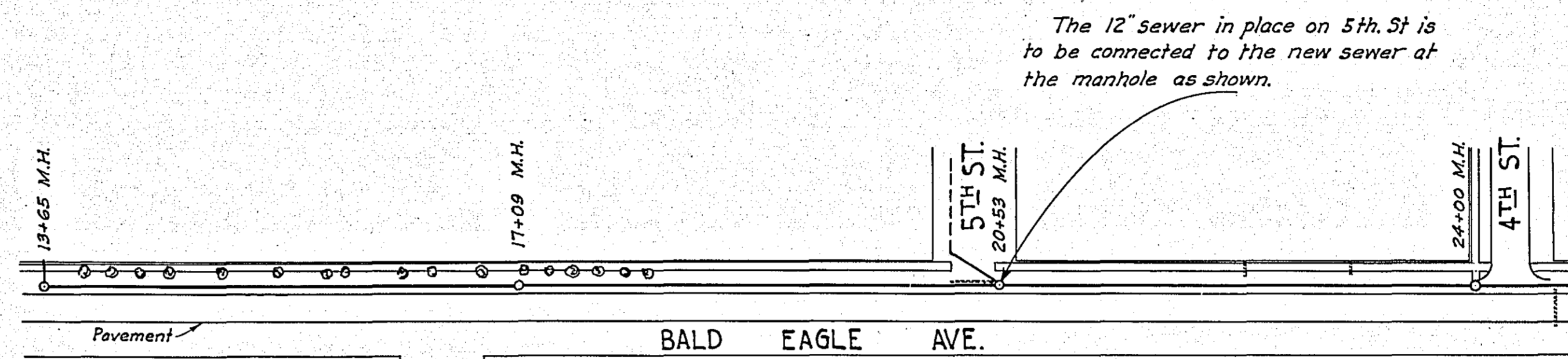
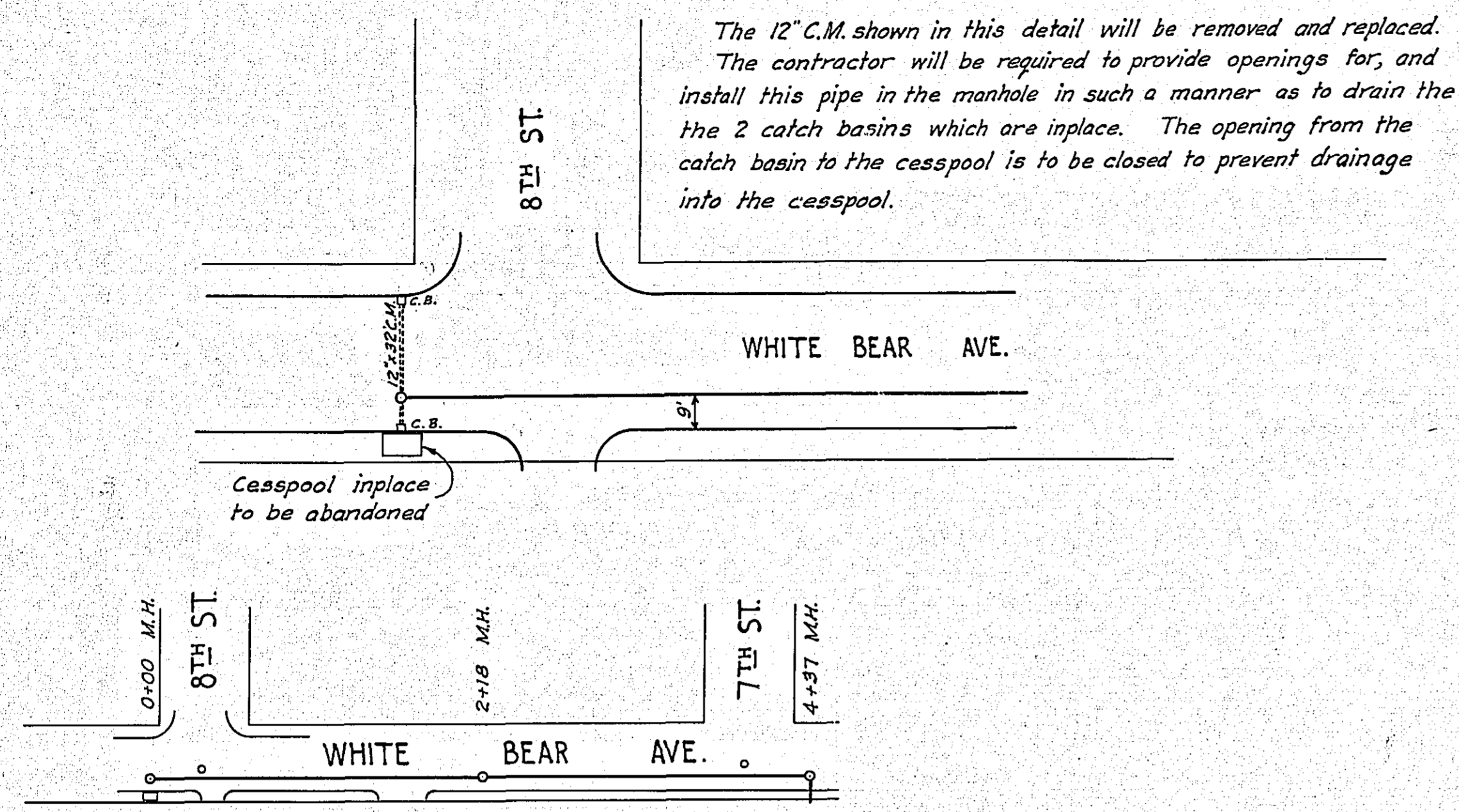


PLAN	SURVEYED	DATE
	PLOTTED	
	NOTE BOOK	
	ALIGNMENT CHECKED	
	NO. OF VHS CHECKED	

PROFILE	SURVEYED	DATE
	PLOTTED	
	NOTE BOOK	
	ALIGNMENT CHECKED	
	STRUCTURE NOTATIONS CHECKED	

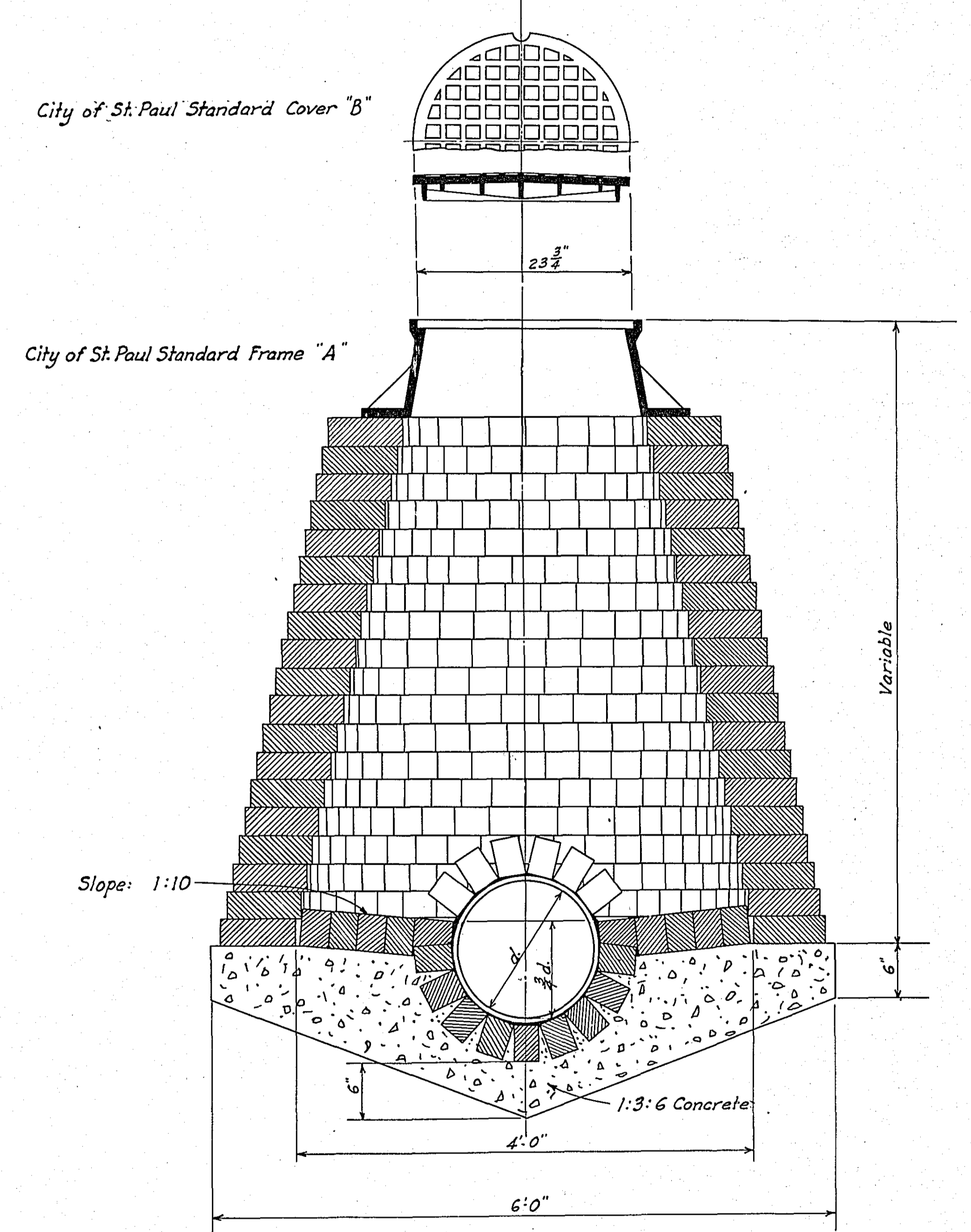


STATEMENT OF ESTIMATED QUANTITIES AND COSTS.

ITEM	UNIT	MILE.....to		MILE.....to		MILE.....to		MILE.....to		MILE.....to		MILE.....to		MILE.....to		MILE.....to		TOTAL ESTIMATED QUANTITIES	ESTIMATED UNIT PRICES	AMOUNTS	TOTALS	
		Sta.	Sta.	Sta.	Sta.	Sta.	Sta.	Sta.	Sta.	Sta.	Sta.	Sta.	Sta.	Sta.	Sta.	Sta.	Sta.					
1	Clearing	Acres																				
2	Clearing	Tree																				
3	Grubbing	Acres																				
4	Grubbing	Tree																				
5	Excavation - Earth	Cu. Yd.																				
6	Excavation - Loose Rock	Cu. Yd.																				
7	Excavation - Solid Rock	Cu. Yd.																				
8	Excavation - Overhaul	Cu. Yd.																				
9	Special Excavation	Lin. Ft.																				
10	Hand Ditching	Cu. Yd.																				
11	Tile Drain	Lin. Ft.																				
12	Tile Drain	Lin. Ft.																				
13	Tile Drain	Lin. Ft.																				
14	Porous Back Fill Material	Cu. Yd.																				
15	Stone Rip-Rap	Cu. Yd.																				
16	Hauling Rip-Rap or Stone Drain Material	Cu. Yd. mile																				
17	Install	Lin. Ft.																				
18	Furnish & Install 12" pipe	Lin. Ft.																	745			
19	" " " 15" "	Lin. Ft.																	1023			
20	" " " 18" "	Lin. Ft.																	1140			
21	Man holes complete	Each																	12			
22	(Install only) 12" pipe	Lin. Ft.																	600			
23	Install	Lin. Ft.																				
24	Install	Lin. Ft.																				
25	Install 24" Ps	Lin. Ft.																				
26	Install 30" Ps	Lin. Ft.																				
27	Install 36" Ps	Lin. Ft.																				
28	P1 Culvert Haul	Ton Mile																				
29	P3 Culvert Haul	Ton Mile																				
30																						
31																						
32																						
TOTAL ESTIMATED COST OF GRADING (IN 'TOTALS' COLUMN)																						
33	Culv. Material	Lin. Ft.																				
34	Culv. Material	Lin. Ft.																				
35	Culv. Material	Lin. Ft.																				
36	Culv. Material	Lin. Ft.																				
37	Culv. Material	Lin. Ft.																				
38	Culv. Material	Lin. Ft.																				
39	P3 Culv. Material 24"	Lin. Ft.																				
40	P3 Culv. Material 30"	Lin. Ft.																				
41	P3 Culv. Material 36"	Lin. Ft.																				
TOTAL ESTIMATED COST OF PORTABLE CULVERT MATERIAL (IN 'TOTALS' COLUMN)																						
42	Gravel Pit Stripping	Cu. Yd.																				
43	Screening	Cu. Yd.																				
44	Loading	Cu. Yd.																				
45	Hauling	Cu. Yd. Mile																				
46	Shaping & Compacting	Man Hour																				
47	Shaping & Compacting	Man & Team Hour																				
48																						
49																						
50																						
51																						
TOTAL ESTIMATED COST OF GRAVEL HAUL (IN 'TOTALS' COLUMN)																						
52	Gravel Material F. O. B. Pit	Cu. Yd.																				
53	Freight (If any)	Cu. Yd.																				
54	Unloading from Cars	Cu. Yd.																				
TOTAL ESTIMATED COST OF GRAVEL MATERIAL (IN 'TOTALS' COLUMN)																						
55	Fine Grading-Exc. & Emb.	Cu. Yd.																				
56	Shoulders - Earth	Cu. Yd.																				
57																						
58																						
59	Pavement	Sq. Yd.																				
60	Integral Curb (One Course Concrete)	Lin. Ft.																				
61	Sloping Curb	Lin. Ft.																				
62	Surface Drain	Lin. Ft.																				
63	Surface Drain Basins	Basin																				
64	Bridge Approach Slabs (Square)	Slab																				
65	Bridge Approach Slabs (Rect)	Slab																				
66																						
67																						
68																						
TOTAL ESTIMATED COST OF PAVEMENT CONSTRUCTION (IN 'TOTALS' COLUMN)																						
69	Concrete	Cu. Yd.																				
70	Reinforcing Steel	Lb.																				
71	Excavation - Earth	Cu. Yd.																				
72	Excavation - Loose Rock	Cu. Yd.																				
73	Excavation - Solid Rock	Cu. Yd.																				
74	Bridge	* Bridge No.	Br. No.	Br. No.	Br. No.	Br. No.	Br. No.	Br. No.	Br. No.	Br. No.	Br. No.	Br. No.	Br. No.	Br. No.	Br. No.	Br. No.	Br. No.					
75	Station																					
76	Concrete	Cu. Yd.																				
77	Reinforcing Steel	Lb.																				
78	Structural Steel	Lb.																				
79	Piling	Lin. Ft.																				
80	Temporary Crossing	Lump Sum																				
81	Removing old Bridge	Lump Sum																				
82	Bituminous Surface	Sq. Yd.																				
83																						
84																						
TOTAL ESTIMATED COST OF STRUCTURES (IN 'TOTALS' COLUMN)																						
85	Guard Rail	Lin. Ft.																				
86	Gutter	Lin. Ft.																				
87	Excavation for Gutter	Cu. Yd.																				
TOTAL ESTIMATED COST OF MISCELLANEOUS ITEMS (IN 'TOTALS' COLUMN)																						

TYPICAL CROSS SECTIONS AND DETAILS

FED. ROAD DIST. NO.	STATE	FED. AID PROJ. NO.	SEC.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
4	MINN.					

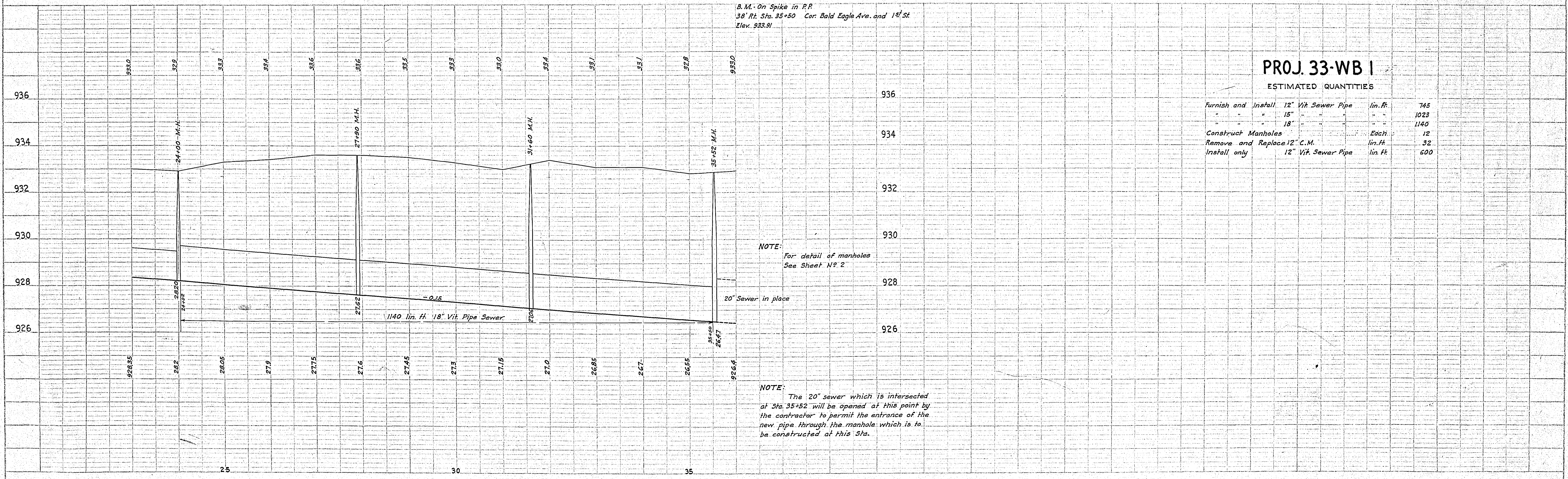
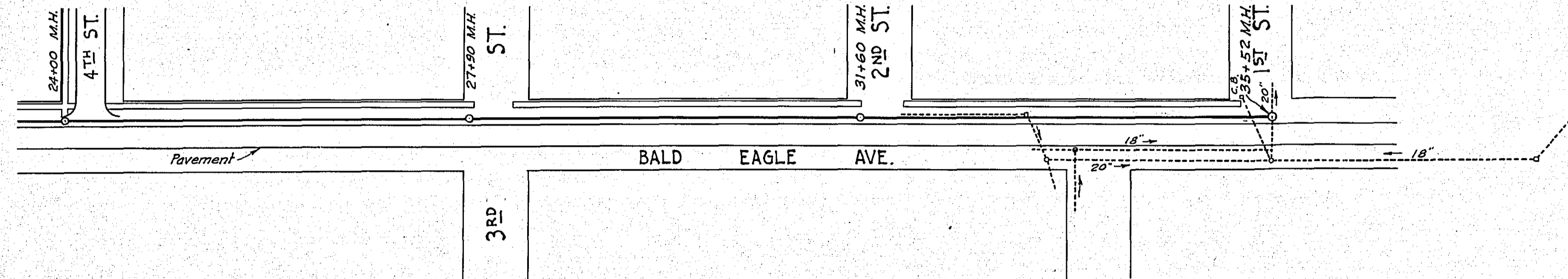


MAN HOLE
1'-1-0"

* NOTE: BRIDGE ITEMS LISTED UNDER BRIDGE NUMBERS IN MILE COLUMNS REGARDLESS OF LOCATION

PLAN	SUBMITTED	BY	DATE
	PLOTTED		
	ALIGNED CHECKED		
	BY		
	NO.		

PROFILE	SUBMITTED	BY	DATE
	PLOTTED		
	GRADES CHECKED		
	STRUCTURE LOCATIONS CHKD.		
	NO.		



B.M. On Spike in P.P.
30' Rt. Sta. 35+50 Cor. Bald Eagle Ave. and 1st St
Elev. 933.91

PROJ. 33-WB 1

ESTIMATED QUANTITIES

Furnish and Install	12" Vit. Sewer Pipe	lin. ft.	745
"	" 15" "	" "	1023
"	" 18" "	" "	1140
Construct	Manholes	Each	12
Remove and Replace	12" C.M.	lin. ft.	32
Install, only	12" Vit. Sewer Pipe	lin. ft.	600

NOTE:
For detail of manholes
See Sheet No 2

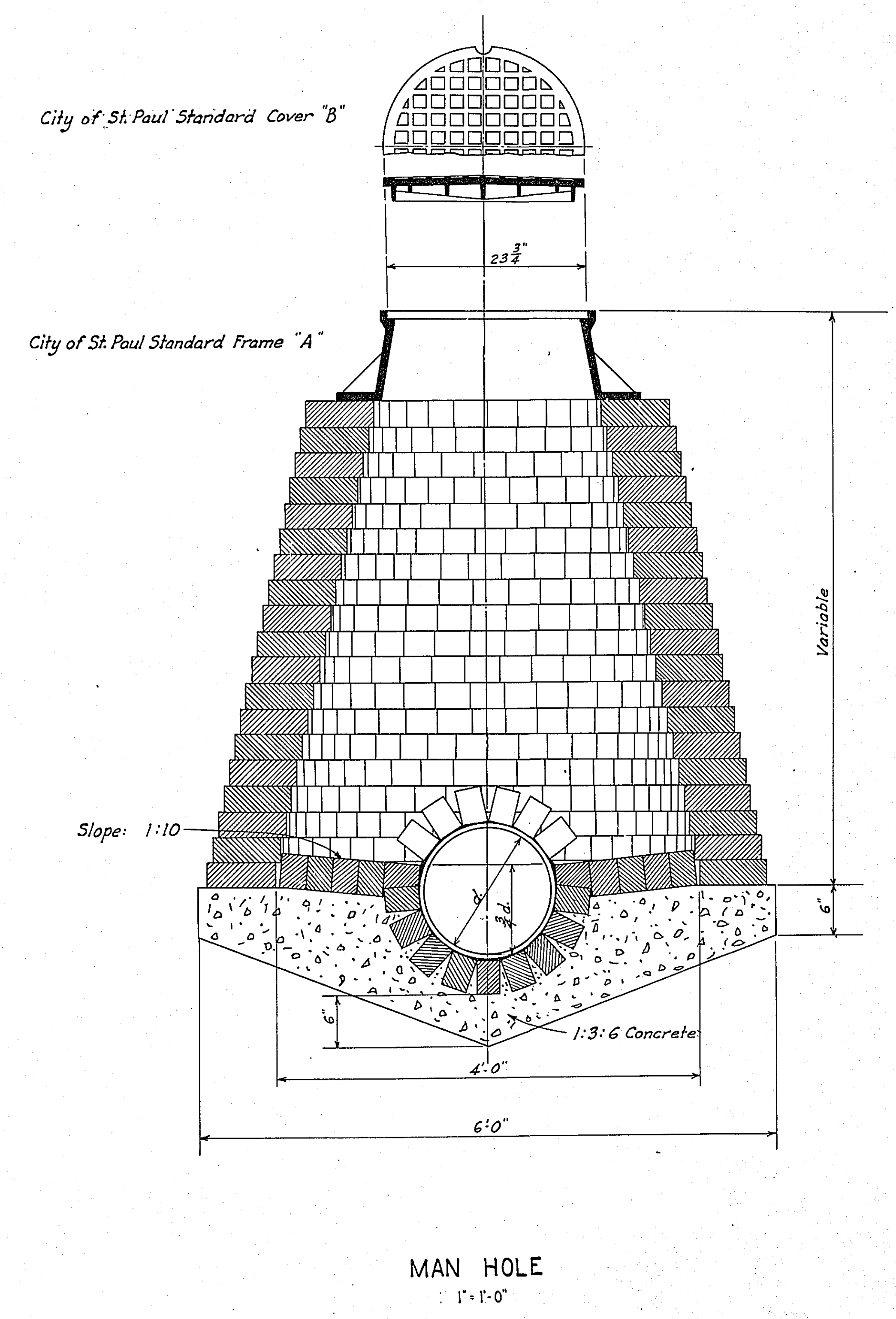
NOTE:
The 20" sewer which is intersected
at Sta. 35+52 will be opened at this point by
the contractor to permit the entrance of the
new pipe through the manhole which is to
be constructed at this Sta.

STATEMENT OF ESTIMATED QUANTITIES AND COSTS.

ITEM	UNIT	MILE.....to		MILE.....to		MILE.....to		MILE.....to		MILE.....to		MILE.....to		MILE.....to		MILE.....to		TOTAL ESTIMATED QUANTITIES	ESTIMATED UNIT PRICES	AMOUNTS	TOTALS
		Sta.	Sta.	Sta.	Sta.	Sta.	Sta.	Sta.	Sta.	Sta.	Sta.	Sta.	Sta.	Sta.	Sta.	Sta.	Sta.				
1	Clearing	Acre																			
2	Clearing	Tree																			
3	Grubbing	Acre																			
4	Grubbing	Tree																			
5	Excavation - Earth	Cu. Yd.																			
6	Excavation - Loose Rock	Cu. Yd.																			
7	Excavation - Solid Rock	Cu. Yd.																			
8	Excavation - Overhaul	Cu. Yd.																			
9	Special Excavation	Lin. Ft.																			
10	Hand Ditching	Cu. Yd.																			
11	Tile Drain	in.....																			
12	Tile Drain	in.....																			
13	Tile Drain	in.....																			
14	Porous Back Fill Material	Cu. Yd.																			
15	Stone Rip - Rap	Cu. Yd.																			
16	Hauling 100 lbs. or more of Stone (300 ft. haul)	Cu. Yd. mile																			
17	Install	Lin. Ft.																			
18	Furnish & install 12" pipe	Lin. Ft.																745			
19	" " 15" "	Lin. Ft.																1023			
20	" " 18" "	Lin. Ft.																1140			
21	Man holes complete	Each																12			
22	(install only) 12" pipe	Lin. Ft.																600			
23	Install	Lin. Ft.																			
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25	Install 24" Ps	Lin. Ft.																			
26	Install 30" Ps	Lin. Ft.																			
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37	Culv. Material	Lin. Ft.																			
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40	P3 Culv. Material 30"	Lin. Ft.																			
41	P3 Culv. Material 36"	Lin. Ft.																			
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43	Screening	Cu. Yd.																			
44	Loading	Cu. Yd.																			
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47	Shaping & Compacting	Man & Team																			
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53	Freight (if any)	Cu. Yd.																			
54	Unloading from Cars	Cu. Yd.																			
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55	Fine Grading-Exc. & Emb.	Cu. Yd.																			
56	Shoulders - Earth	Cu. Yd.																			
57																					
58																					
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74	Bridge	* Bridge No.	Br. No.	Br. No.	Br. No.	Br. No.	Br. No.	Br. No.	Br. No.	Br. No.	Br. No.	Br. No.	Br. No.	Br. No.	Br. No.	Br. No.	Br. No.	Br. No.	Br. No.	Br. No.	Br. No.
75	Station																				
76	Concrete	Cu. Yd.																			
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87	Excavation for Gutter	Cu. Yd.																			
TOTAL ESTIMATED COST OF MISCELLANEOUS ITEMS IN 'TOTALS' COLUMN																					

TYPICAL CROSS SECTIONS AND DETAILS

FED. ROAD DIST. NO.	STATE	FED. AID PROJ. NO.	SEC.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
4	MINN.					



* NOTE: BRIDGE ITEMS LISTED UNDER BRIDGE NUMBERS IN MILE COLUMNS REGARDLESS OF LOCATION

CONVENTIONAL SIGNS & ABBREVIATIONS

STATE LINE	-----	EXCAVATION	-----	F
COUNTY LINE	-----	EMBANKMENT	-----	F
TOWNSHIP LINE	-----	OVERHAUL	-----	H
SECTION LINE	-----	SURFACING	-----	S
CITY, VILLAGE, OR BOROUGH	-----	GUARD RAIL	-----	SR
FENCE LINE	-----	INTERSECTION ANGLE	-----	A
RIGHT-OF-WAY LINE	-----	RADIUS	-----	R
TRAVELLED WAY	-----	ELEVATION	-----	EL
RAILROADS	-----	VERTICAL CURVE	-----	VC
RETAINING WALL	-----	BENCH MARK	-----	B.M.
BASE OR SURVEY LINE	-----	SECTIONAL CONCRETE CULVERT	-----	P.C.
LEVER	-----	CORRUGATED METAL CULVERT	-----	C.M.
GRAVEL PIT	-----	CULVERT HAUL	-----	P.L.H.
SAND PIT	-----	TON MILES	-----	T.M.
CLAY PIT	-----	IN PLACE	-----	Imp.
ROCK QUARRY	-----	REPLACE	-----	Rep.
CULVERTS	-----	RIGHT	-----	R
PLAIN	-----	LEFT	-----	L
WITH FACE WALLS	-----	HAND DITCHING	-----	H.D.
WITH WING WALLS	-----	POINT OF CURVE	-----	P.C.
DROP INLET	-----	POINT OF TANGENT	-----	P.T.
POWER POLE LINE	-----	POINT OF INTERSECTION	-----	P.I.
TELEPHONE OR TELEGRAPH LINE	-----	SPECIAL EXCAVATION	-----	S.E.
MARSH	-----	SPECIAL FLOWING	-----	S.P.
HERD, BRUSH, OR TIMBER	-----	TELEPHONE POLE	-----	Tel.P.
GROUND ELEVATION	-----			
GRADE ELEVATION	-----			

OFFICE OF COUNTY SURVEYOR

RAMSEY COUNTY

Plan and Profile of County Project No. 33-W.B.1

A point on White Bear Ave.
From near the No. City Limits To the intersection of Bald Eagle Ave. & 1st St.

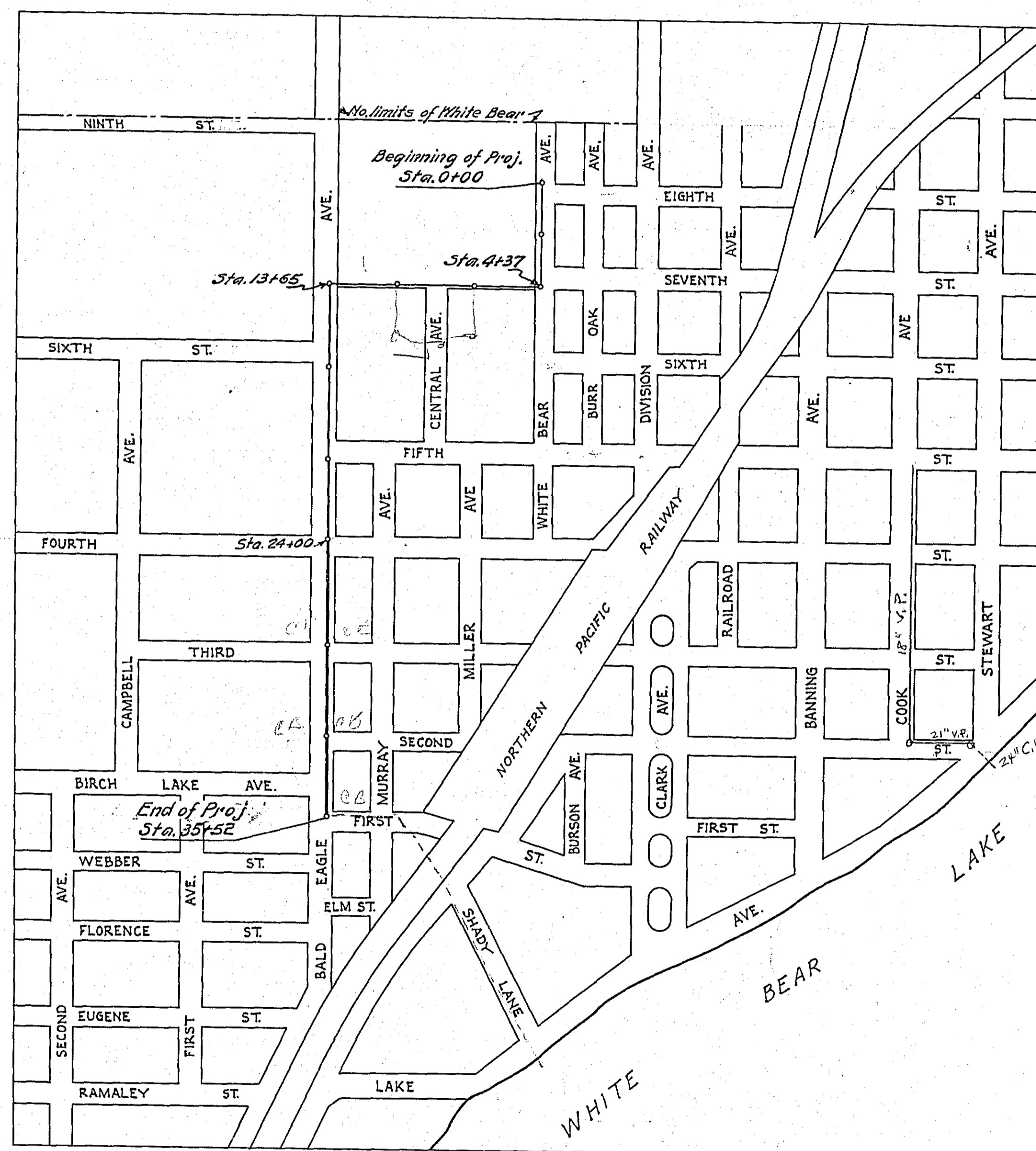
GROSS LENGTH 3552 FEET 0.67 MILES
LENGTH OF EXCEPTIONS FEET MILES
NET LENGTH 3552 FEET 0.67 MILES

PLAN, 1 Inch = 100 Feet
PROFILE, Horz. 1 Inch = 100 Feet. Vert. 1 Inch = 72 Feet
WORKING PLANS (Horz. 1 Inch = 100 Feet. Vert. 1 Inch = 72 Feet. Cross-Sections; 1 Inch = Feet)

LAYOUT
SCALE, 1 Inch = 450 Feet

INDEX OF SHEETS

- Sheet No. 1. Title Sheet and Layout Map
- " No. 2. Typical Cross-Sections and Statement
- " No. 3. Plan and Profile, Sta. 0+00 to Sta. 25+50.
- " No. 4. " " " " 25+50 " 35+25



Date of Resolution for Preparation of Plans 6/5 1933

Planned by *M. W. Casper* ASSISTANT ENGINEER

Recommended for Approval *[Signature]* ASSISTANT ENGINEER

Plans Approved and Recommended for Consideration *[Signature]* COUNTY SURVEYOR

Approved by County Board 1933 *[Signature]* CHAIRMAN OF COUNTY BOARD

APPROVED 6/6 1933 *[Signature]* MAYOR CITY OF WHITE BEAR