

CONVENTIONAL SIGNS

STATE LINE	.....	TIMBER	
COUNTY LINE	.....	BRUSH	
TOWNSHIP OR RANGE LINE	.....	ORCHARD	
SECTION LINE	.....	ROCK LEDGE	
QUARTER LINE	.....	SAND	
SIXTEENTH LINE	.....	EDGE OF CUT	
RIGHT-OF-WAY LINE	.....	TOE OF EMBANKMENT	
PROPERTY LINE (Except Land Lines)	.....	CATCH BASIN	
VACATED PLATTED PROPERTY	.....	MANHOLE	
CORPORATE OR CITY LIMITS	.....	FIRE HYDRANT	
TRUNK HIGHWAY CENTER LINE	.....	ARC LAMP	
RETAINING WALL	.....	OTHER LAMPS (State Kind)	
STEAM RAILROAD	.....	RAILROAD CROSSING SIGN	
ELECTRIC RAILROAD	.....	RAILROAD CROSSING BELL	
RAILROAD RIGHT-OF-WAY LINE	.....	ELECTRIC WARNING SIGN	
CREEK		CROSSING GATE	
RAPIDS OR WATERFALL		CATTLE GUARD	
DRY RUN		OVERHEAD (Highway Over)	
DRAINAGE DITCH		UNDERPASS (Highway Under)	
HIGH TENSION LINE		ABUTMENT, WALL & PIER	
POWER POLE LINE		BRIDGE	
TELEPHONE OR TELEGRAPH LINE		BUILDING (One Story Frame)	
DROP INLET		F-FRAME C-CONCRETE	
GUARD RAIL		S-STONE T-TILE	
WIRE FENCE		B-BRICK ST-STUCCO	
RAILROAD SNOW FENCE		IRON PIPE	
BOARD OR HIGHWAY SNOW FENCE		STONE MONUMENT	
STONE WALL OR FENCE		WOOD STAKE OR HUB	
HERB		MEANDER CORNER	
WATER PIPE			
SEWER PIPE			
DRAIN TILE			
GRAVEL PIT			
SAND PIT			
CLAY PIT			
ROCK QUARRY			
SPRINGS			
MARSH			
TRUNK HIGHWAY R/W			
RAILROAD R/W			
PRESENT ROAD R/W			

OFFICE OF COUNTY SURVEYOR

**RAMSEY COUNTY
GRADING PLAN
LARPENTEUR AVE.**

From Dale Street To Rice Street (S.T.H. 49)

RAMSEY COUNTY PROJ. 52-50E

GROSS LENGTH 5200 FEET 0.9848 MILES

LENGTH OF EXCEPTIONS 0 FEET 0 MILES

NET LENGTH 5200 FEET 0.9848 MILES

PLAN, 1 Inch = 100 Feet
 PROFILE, Horz. 1 Inch = 100 Feet. Vert. 1 Inch = 10 Feet
 WORKING PLANS Horz. 1 Inch = 100 Feet
 Vert. 1 Inch = 10 Feet
 Cross-Sections, 1 Inch = 10 Feet

LAYOUT

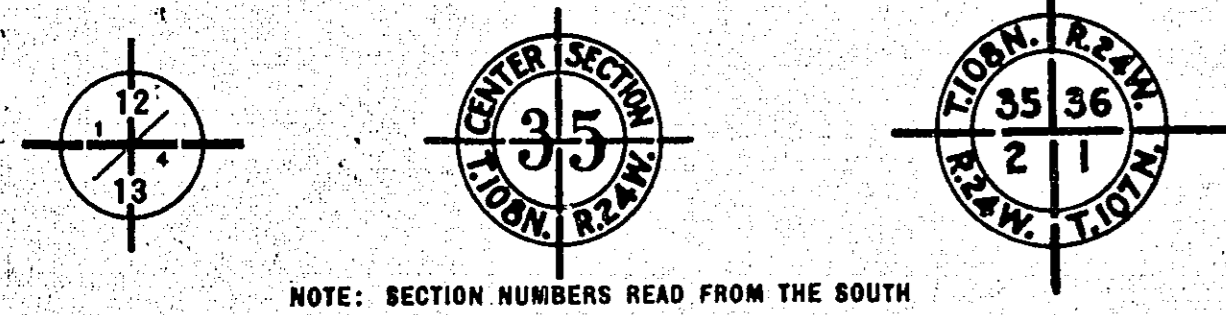
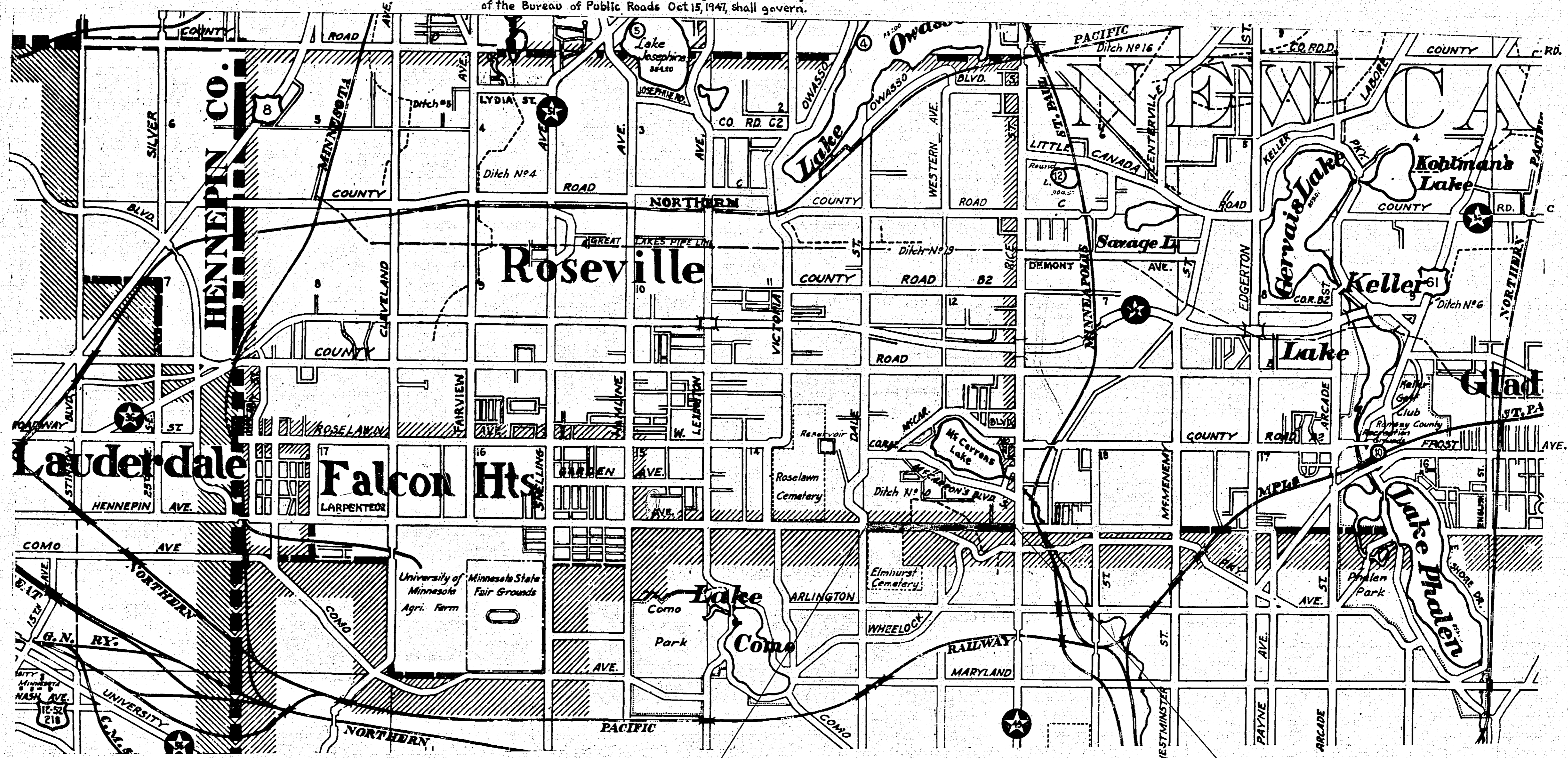
SCALE, 1 Inch = 2640 Feet

SPECIFICATIONS

The Specifications for Highway Construction, dated July 1, 1947, and submitted for approval by the Division Engineer of the Bureau of Public Roads Oct 15, 1947, shall govern.

INDEX

SHEET NO.	DESCRIPTION
1	LAYOUT MAP & TITLE SHEET
2-3	ESTIMATE & MISC. DETAILS
4-5	PLAN & PROFILE
6-21	CROSS SECTIONS
22	DITCH #10 PLAN & PROFILE
23	DITCH #10 X-SEC.
24	MACKUBIN ST. PROFILE & X-SEC.
25	MARION ST. PROFILE & X-SEC.
26	WOODBIDGE & ALBEMARLE STS. PROFILE & X-SEC.
27-29-29'	BORROW PIT No. 1
30-31	BORROW PIT No. 2



BEG. OF PROJ.
STA. 0+10

END OF PROJ.
STA. 52+10.5

Approved *George M. Shepard*
CHIEF ENGINEER, CITY OF ST. PAUL

Approved *Harry S. Bronson*
COUNTY SURVEYOR

Approved *Mar. 11, 1952* *James A. Schmitt*
CHAIRMAN, RAMSEY COUNTY BOARD

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.

Harry S. Bronson

DATE *4/26/52* REG. NO. *5112*

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SAND PIT	
CLAY PIT	
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LARPENTEUR AVE.

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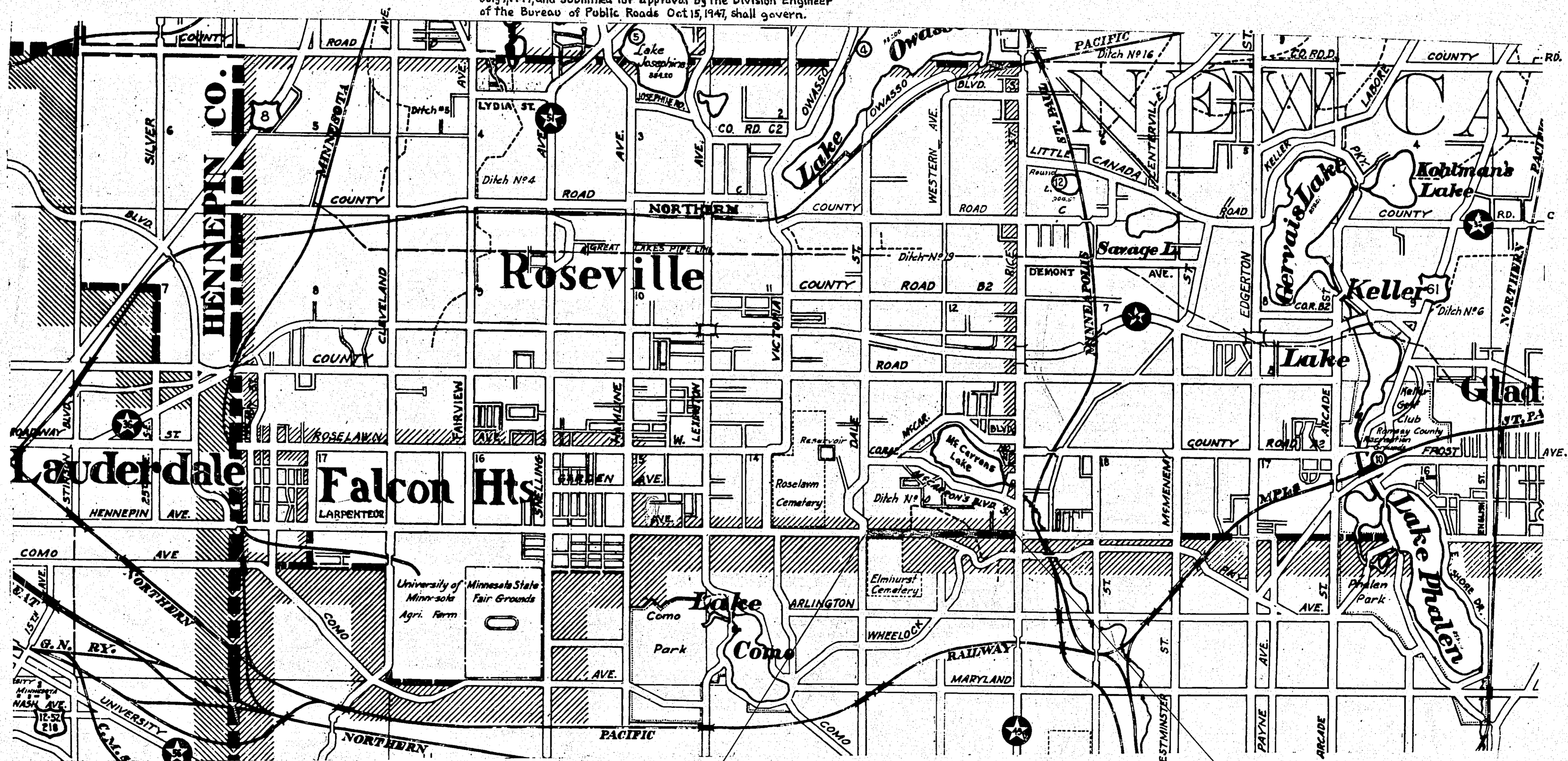
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NOTE: SECTION NUMBERS READ FROM THE SOUTH

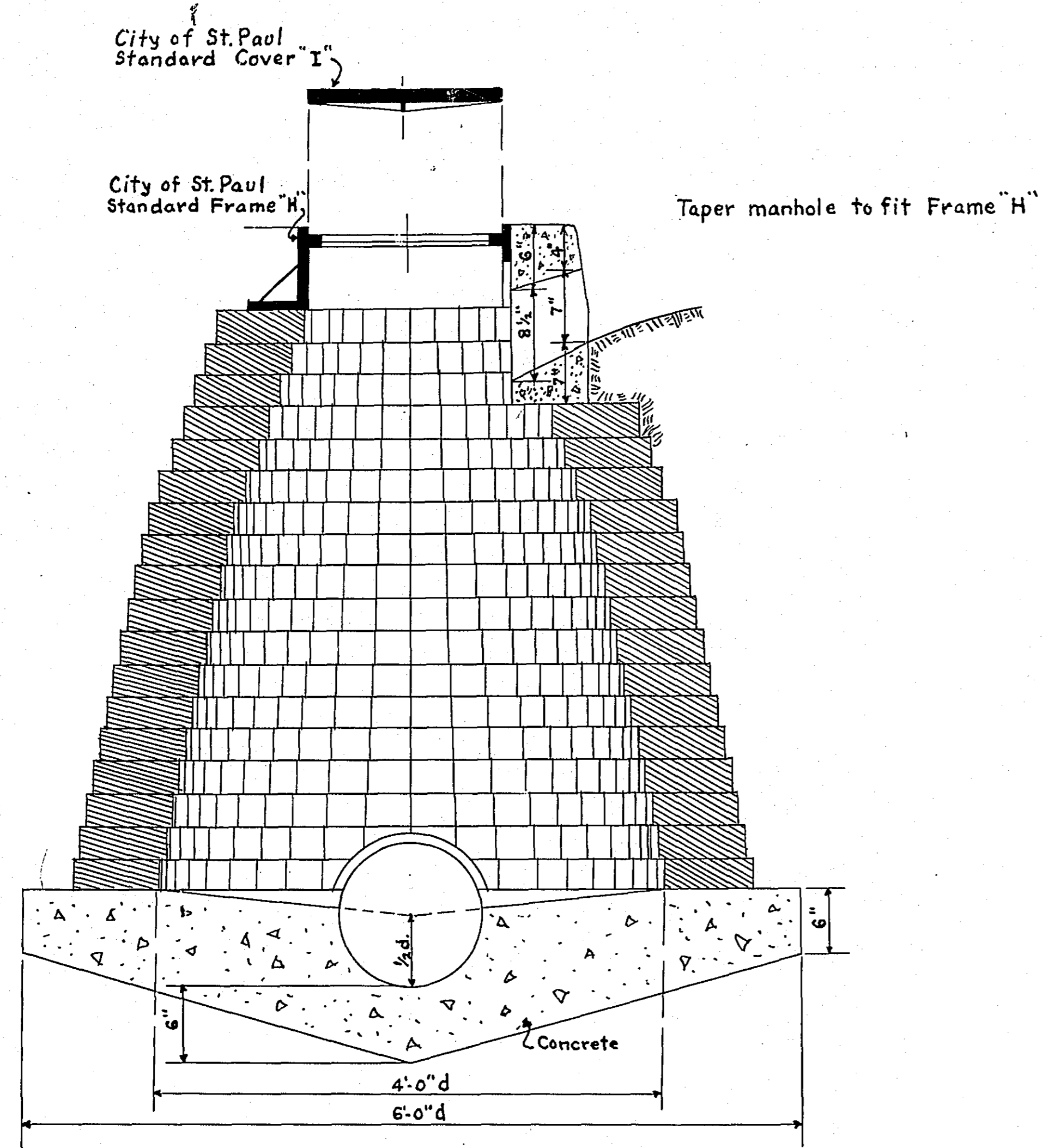
BEG. OF PROJ.
STA. 0+10

END OF PROJ.
STA. 52+10.5

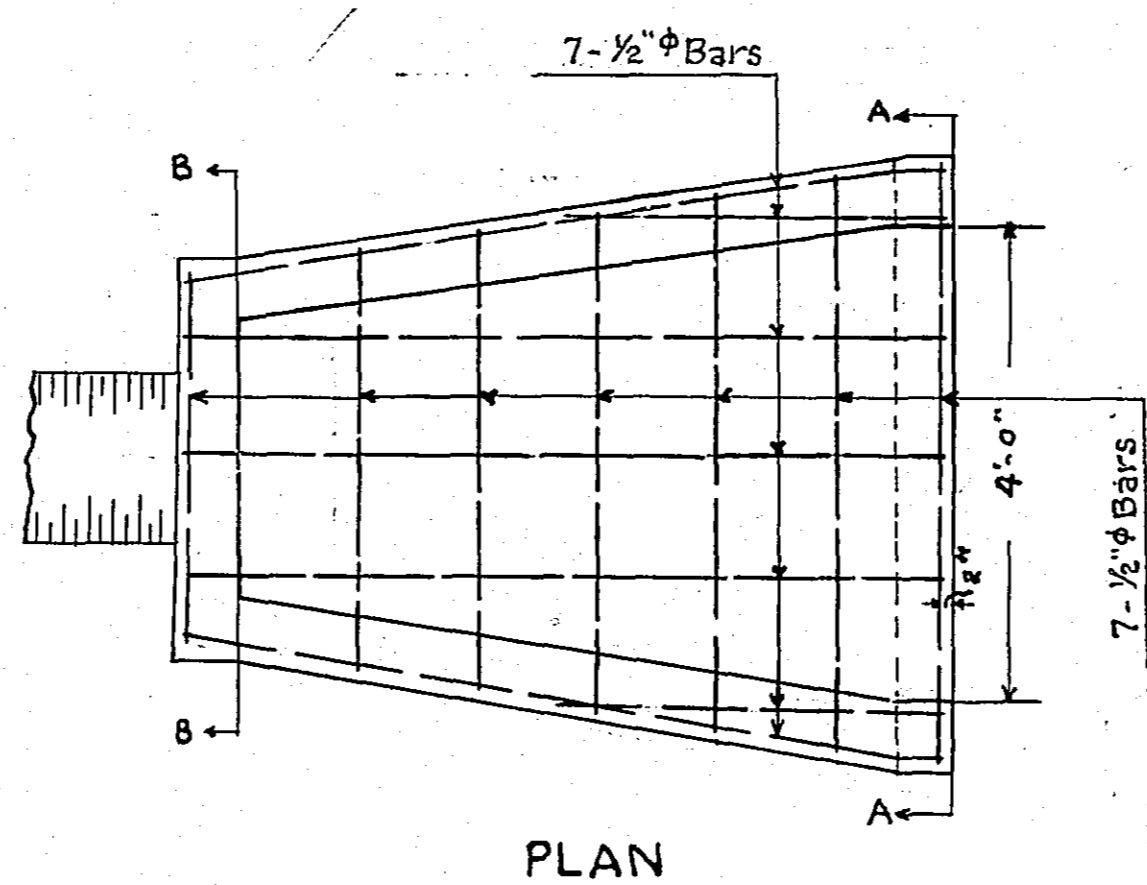
Approved: *George W. Shepard*
 CHIEF ENGINEER, CITY OF ST. PAUL
 Approved: *Barry S. Branson*
 COUNTY SURVEYOR
 Approved: *Mar 11-1952* *Thomas Schumann*
 CHAIRMAN RAMSEY COUNTY BOARD

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.
Barry S. Branson
 DATE *4/26/52* REG. NO. *812*

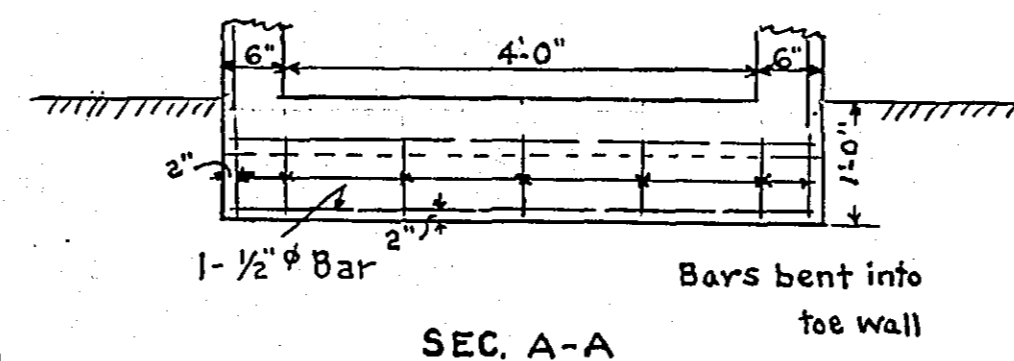
NOTE:
Place M.H. Steps 16" C to C
as shown in M.H.D. Standard
Plate No. 4180A



MANHOLE
Scale 1" = 1 ft.

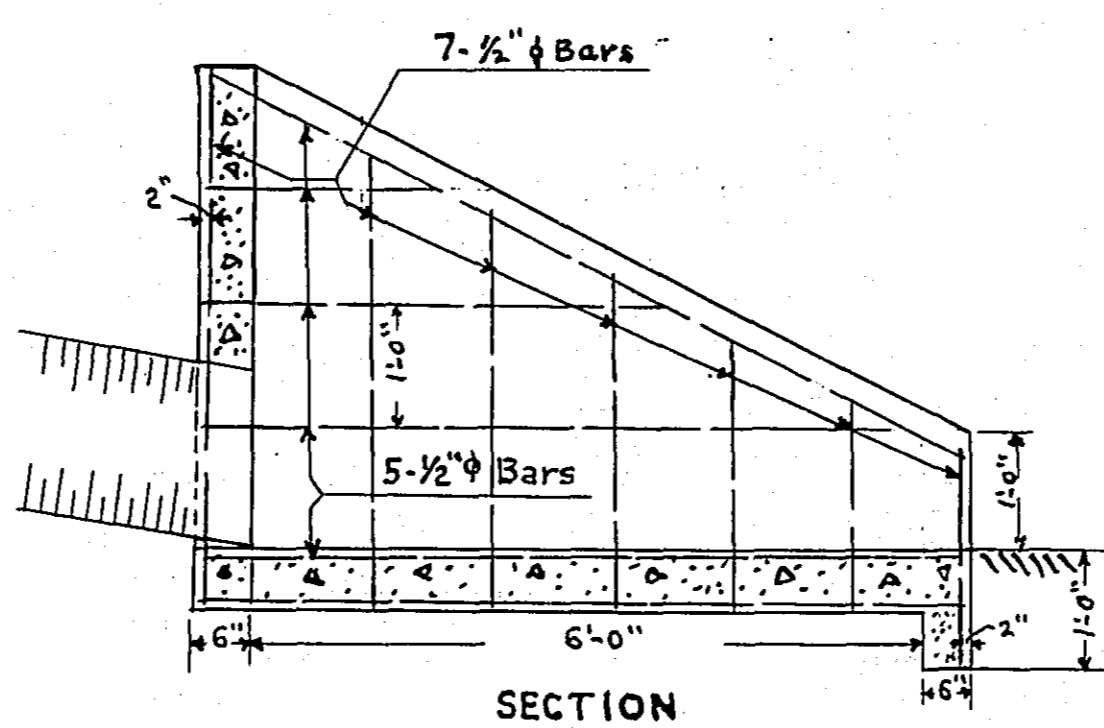


PLAN

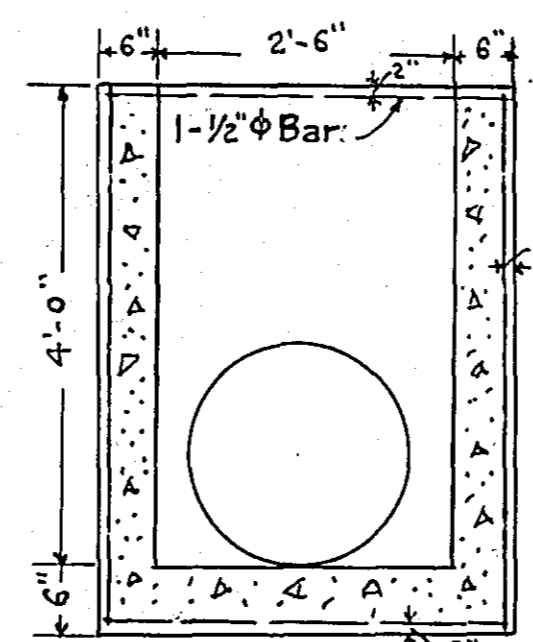


SEC. A-A

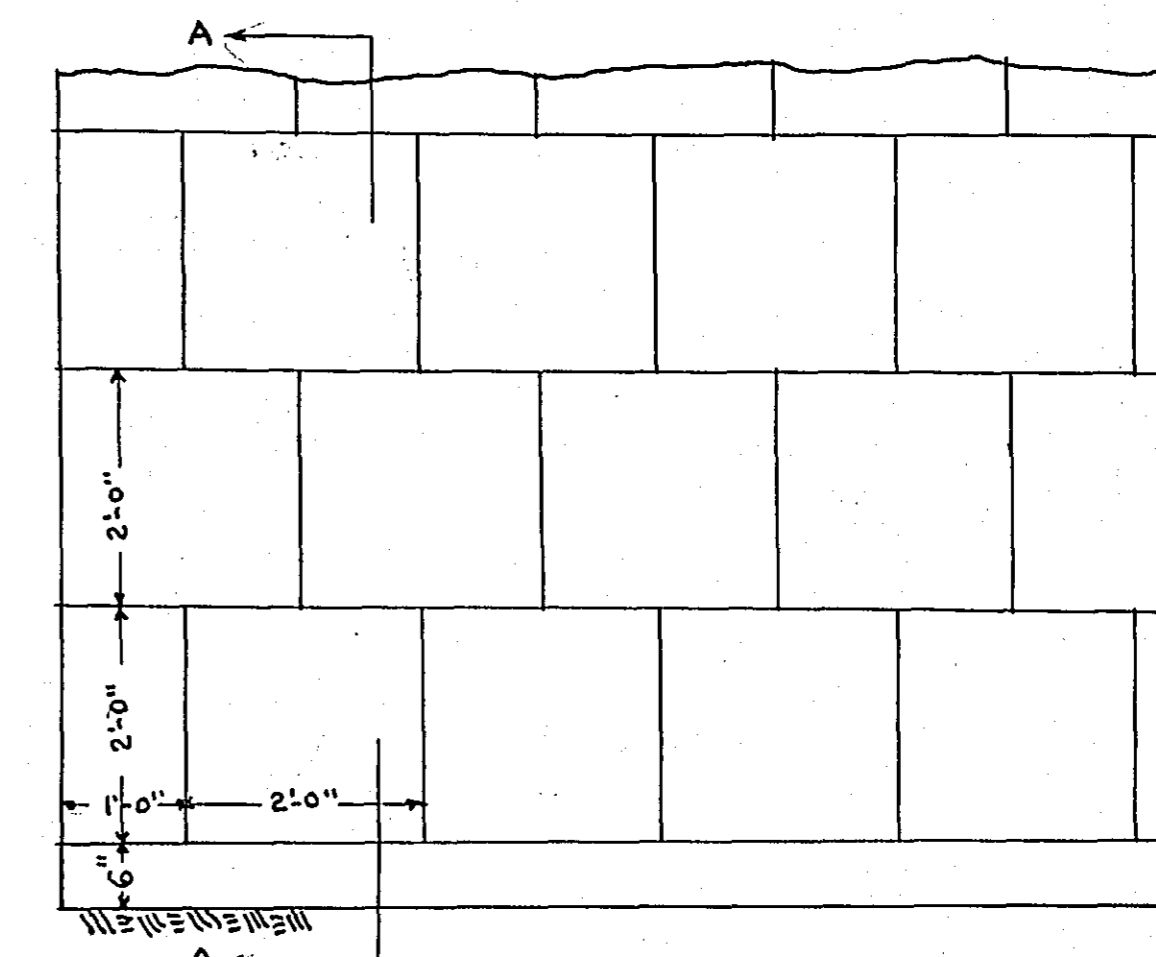
Note: All reinforcing steel
1/2" φ deformed bars



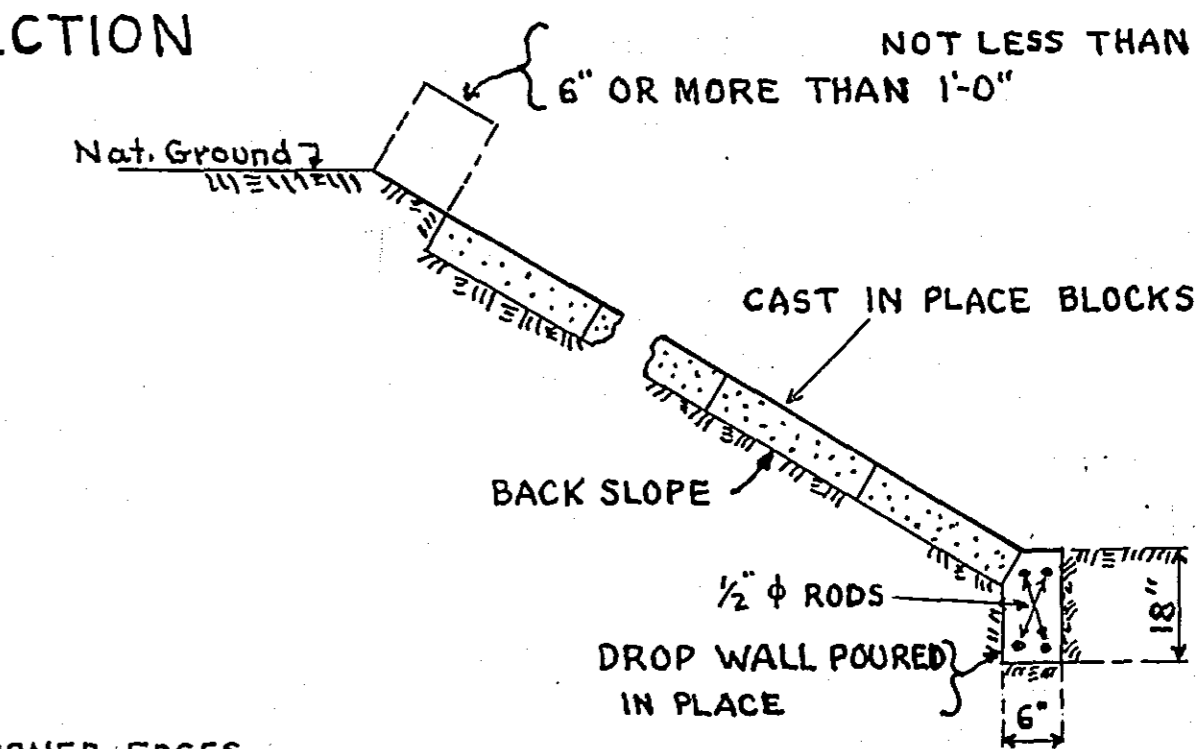
SECTION
CONCRETE OUTLET FOR METAL PIPE SEWER



SEC. B-B



TYPICAL LAYOUT OF CAST IN PLACE SLOPE PROTECTION

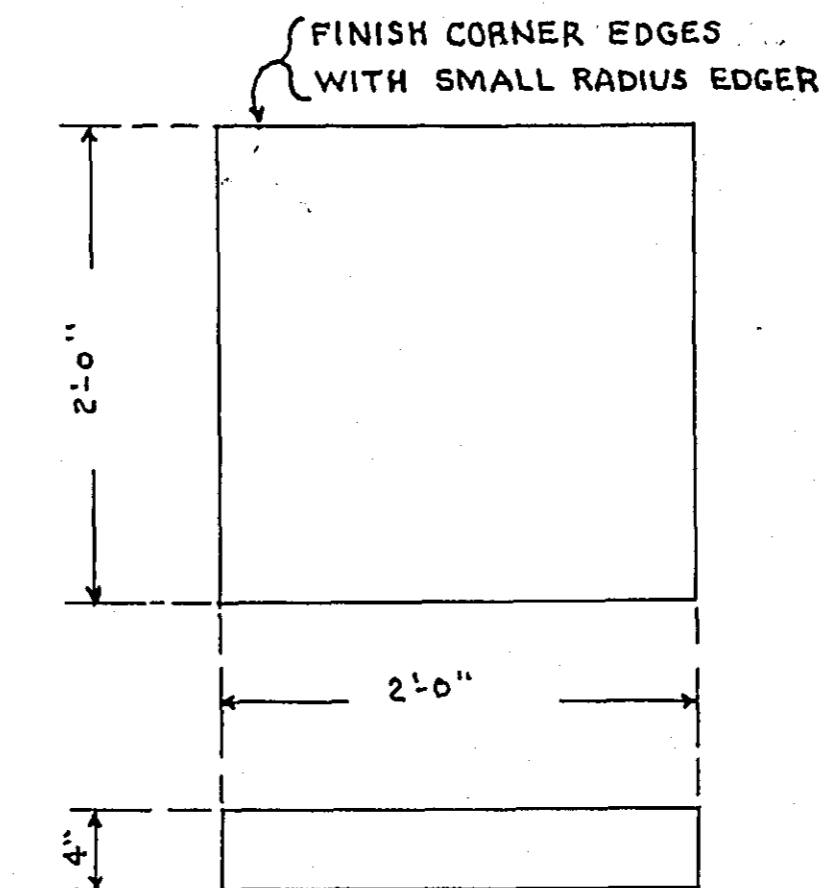


SECTION A-A

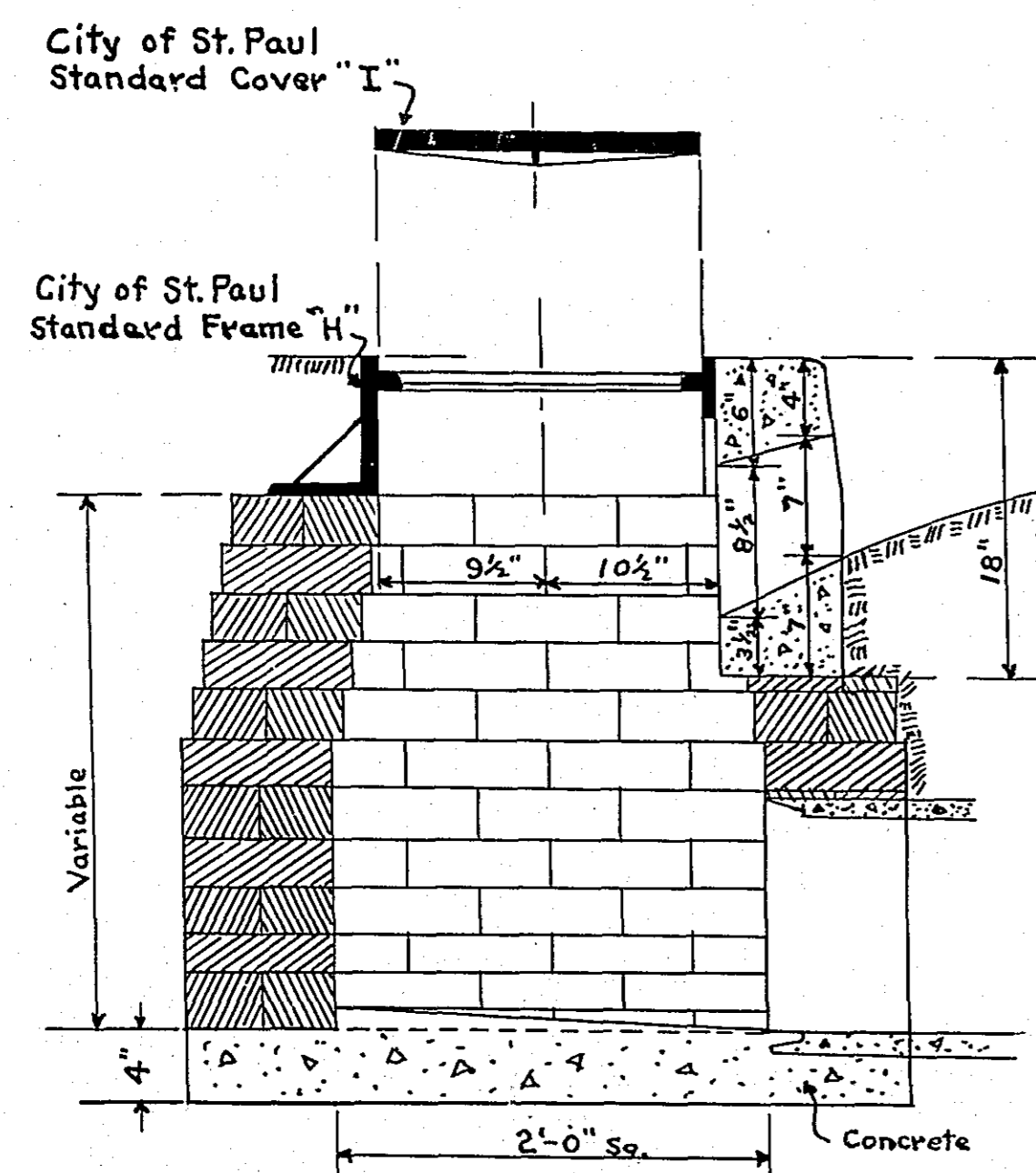
CONSTRUCTION NOTES

FIELD PRODUCTION - CONCRETE 1A6 M.H.D. 2401

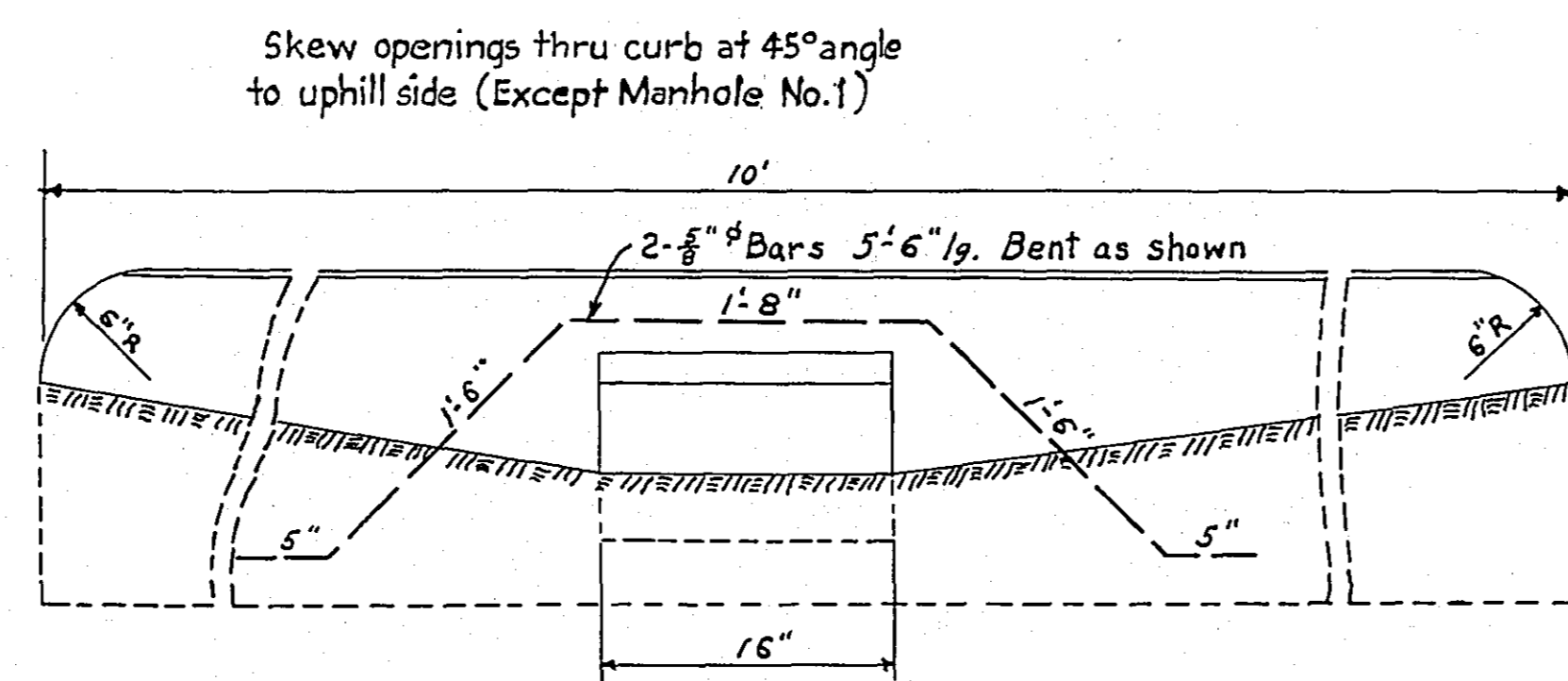
METAL REINFORCEMENT AS PER M.H.D. 3301
CONSTRUCTION REQUIREMENTS SHALL BE IN
ACCORDANCE WITH M.H.D. 2514.3



DETAILS OF CAST IN PLACE BLOCKS
ALTERNATE FOR FLAG STONE SLOPE PROTECTION
ITEM No. 2514.501

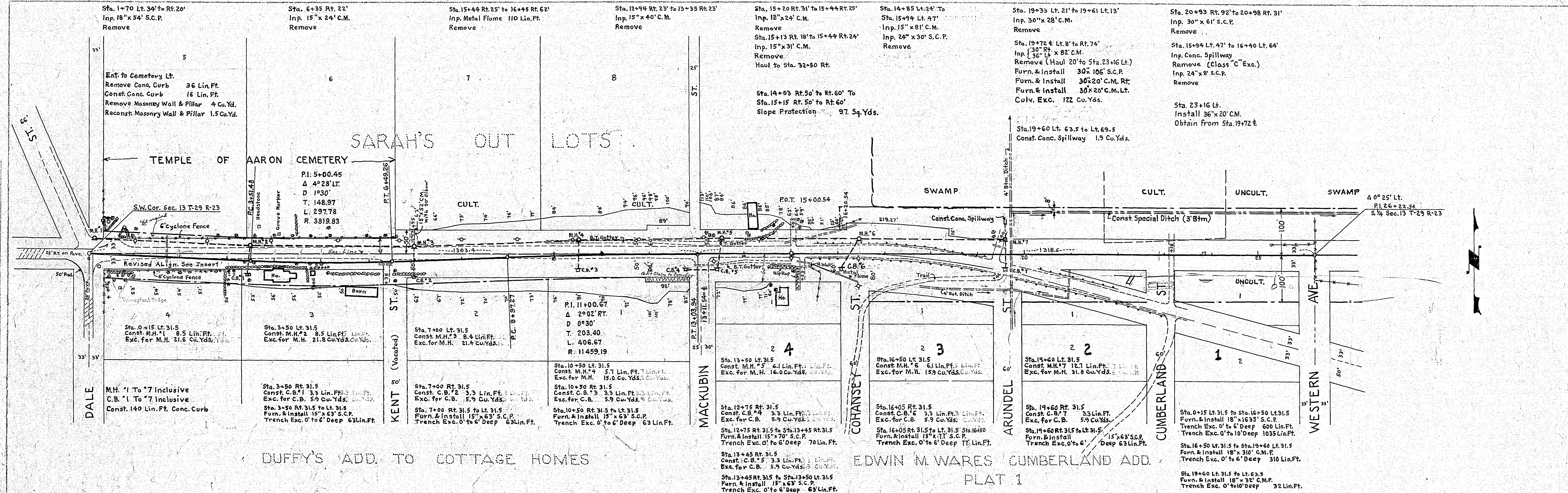


CATCH BASIN TYPE NO. 1
Scale 1" = 1 ft.

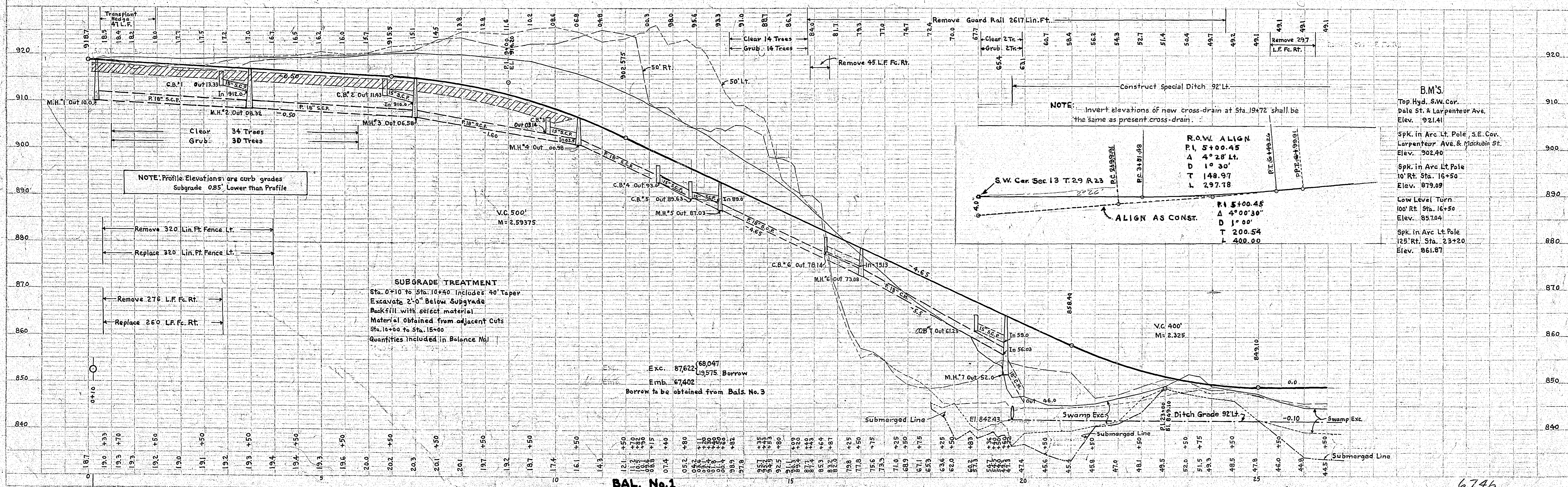


DETAIL OF CONCRETE CURB
FOR
CATCH BASINS & MANHOLES
Scale 1" = 1 ft.

PLAN
 SHEET NO. 4 OF 31 SHEETS
 DATE: 1934
 PROJECT: DUFFY'S ADD. TO COTTAGE HOMES



PROFILE
 SHEET NO. 4 OF 31 SHEETS
 DATE: 1934
 PROJECT: DUFFY'S ADD. TO COTTAGE HOMES



TEST RESULTS				
BORROW PIT	No. 2			
% Passing 1/2"	1	2	3	4
100	100	100	100	100
97.9	99.0	98.8	99.7	99.7
96.2	97.5	97.9	98.3	98.3
93.7	96.6	95.5	95.0	95.0
92.9	95.1	93.8	93.2	93.2
92.1	92.2	93.0	92.9	92.9
89.2	88.7	89.7	89.5	89.5
84.0	83.3	84.4	81.5	81.5
75.2	75.3	75.8	76.1	76.1
56.0	58.7	59.4	52.6	52.6
29.4	29.2	31.3	27.1	27.1
9.7	16.8	16.9	9.2	9.2
3.4	4.1	3.5	3.1	3.1
1.8	2.6	2.0	2.0	2.0

Sta. 32+50 Rt. 97.5
Install 15"x30"C.M.
Haul from Sta. 15+13 Rt.

Sta. 38+00 E
Furn. & Install 30"x72" S.C.P.
Furn. & Install 30"x18"C.M. Rt. 36' to Rt. 54'
Furn. & Install 30"x18"C.M. Lt. 36' to Lt. 54'
Pipe Culv. Exc. 90 Cu. Yds.

Sta. 51+86 Rt. 30' to Sta. 52+10.5 Rt. 55'
Const. Radius Curb 39.30 Lin. Ft.
Sta. 51+86 Lt. 30' to Sta. 52+10.5 Lt. 55'
Const. Radius Curb 39.30 Lin. Ft.
Const. Straight Curb 5.00 Lin. Ft.

Sta. 52+11 Rt.
Furn. & Install Casting Assembly
Frame "E" & Cover "F"
Remove Present Casting Assembly.

