

Roscommon County Road Commission

James Porath, Commissioner
Justin Wykoff, Commissioner
Clint Stauffer, Commissioner
Brian Vaughn, Commissioner
Scott Eckstorm, Commissioner

820 E. West Branch Road
Prudenville, MI 48651

Roger Saxton, Manager
Phone:(989)366-0333
Fax:(989)366-0299
Website: www.roscommoncrc.com
E-mail: rcrc@roscommoncrc.com

NOTICE TO BIDDERS

The Roscommon County Road Commission will receive sealed bids until 2:45 p.m. on September 13, 2023. Bids will be opened for tabulation and review at the Roscommon County Road Commission on September 13, 2023 beginning at 3:00 p.m. The Project will be awarded at the Roscommon County Road Commission's regular board meeting on September 14, 2023, beginning at 7:00 p.m. Our office is located at 820 E. West Branch Road, Prudenville, MI 48651.

Roscommon County CIPP #2

Specifications may be obtained by contacting the Roscommon County Road Commission at the above address, by calling (989)-366-0333 ext.1003, emailing Belangern@roscommoncrc.com or by going to <http://www.roscommoncrc.com/bids-1.shtml>. Please check the website for any inquiries pertaining to this bid document.

Submit bids in a sealed envelope that is clearly marked with the words "**Roscommon County CIPP #2**"

The Roscommon County Road Commission reserves the right to reject any or all bids, to waive irregularities in any bid, and to accept the bid deemed to be in the best interest of Roscommon County Road Commission.

ROSCOMMON COUNTY BOARD
OF ROAD COMMISSIONERS

Jim Porath, Commissioner
Justin Wykoff, Commissioner
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**Roscommon County Road Commission
General Specification
For
Roscommon County CIPP #2**

General

The Roscommon County Road Commission is accepting sealed bids for the Cured-in-Place Pipe(CIPP) Liner for storm sewers:

- M-55, Houghton Lake, See Attachment A for list of pipes
- See Attachment B for map of Attachment A pipe locations

The Michigan Department of Transportation Special Provision for Cured-In-Place Pipe Liner for Culverts and Storm Sewers, the MDOT 2020 Standard Specifications for Construction, and ASTM F1216 Standard Practice for Rehabilitation of Existing Pipelines and Conduits by the Inversion and Curing of a Resin-Impregnated Tube or approved equivalents, shall be followed.

- Work may begin after award of project. No work during inclement weather, i.e. during snow and ice removal operations.
- Successful Contractor will be responsible for all traffic control. Traffic control devices shall be removed during inclement weather for facilitation of snow and ice removal operations.
- All work must be completed on or before December 31, 2023.
- Roscommon County Road Commission reserves the right to increase or decrease quantities in order to meet budgetary constraints.

Insurance requirements

The Roscommon County Road Commission requires that a “Certification of Insurance” be on file prior to allowing work within the right-of-way of any road under the jurisdiction of the Road Commission or MDOT.

The certificate of insurance shall contain or include the following:

1. Board of County Road Commissioners and Roscommon County Road Commission and all employees named as additional insured to all coverage.
2. General liability coverage - \$1,000,000 each occurrence.
3. Automotive liability - \$1,000,000 each occurrence.
4. Worker’s compensation – statutory limits.

Cured-In-Place Pipe Lining, 12 inch	\$ _____/Foot; 1,253 foot	\$ _____
Cured-In-Place Pipe Lining, 15 inch	\$ _____/Foot; 1,068 foot	\$ _____
Cured-In-Place Pipe Lining, 18 inch	\$ _____/Foot; 320 foot	\$ _____
Cured-In-Place Pipe Lining, 24 inch	\$ _____/Foot; 122 foot	\$ _____
Cured-In-Place Pipe Lining, 30 inch	\$ _____/Foot; 281 foot	\$ _____
Cured-In-Place Pipe Lining, 36 inch	\$ _____/Foot; 92 foot	\$ _____
	Total: \$	_____

As Needed Bid Quantities

Pipe Patch, 12 inch \$ _____/Each 4 Foot
Pipe Patch, 15 inch \$ _____/Each 4 Foot
Pipe Patch, 18 inch \$ _____/Each 4 Foot
Pipe Patch, 24 inch \$ _____/Each 4 Foot
Pipe Patch, 30 inch \$ _____/Each 4 Foot
Pipe Patch, 36 inch \$ _____/Each 4 Foot

Company Name

Date

Address

Telephone

City, State & Zip

Fax

E-mail Address

Authorized Signature

Printed Name of Authorized Signer

MICHIGAN
DEPARTMENT OF TRANSPORTATION

SPECIAL PROVISION
FOR
CURED-IN-PLACE PIPE LINER FOR CULVERTS AND STORM SEWERS

COS:DMG

1 of 2

APPR:NJM:DBP:11-19-20

a. Description. This work consists of the design and installation of the cured-in-place resin impregnated felt liner into an existing culvert or storm sewer by hydrostatic inversion or by the direct pulled-in-place method at the locations specified on the plans. Cure the liner in place so that the finished installation is continuous, provides structural support and is tight fitting to the existing pipe. The manufacturer of the liner system must provide the design, installation and inspection of the liner and must have an authorized representative on site during installation.

Provide video inspection of the culverts and sewers before (after cleaning) and after lining. All culvert and sewer cleaning, maintaining flow, bypass pumping and site preparation is included in this work except as described below.

b. Materials. Use tube and resin material in accordance with one of the following standards: *ASTM F1216*, *ASTM F1743*, or *ASTM F2019*, as applicable.

Design the liner for HS-20 live loading. Design the required cured-in-place liner wall thickness in accordance with Appendix X1 of *ASTM F1216*. Use the formulas assuming a fully deteriorated pipe condition and assume the water table is at the top surface of the pavement over the existing pipe.

Provide documentation and calculations to the Engineer indicating the proposed design liner thickness for each run of pipe, all component materials, and that the liner meets the minimum chemical resistance requirements in accordance with Appendix X2 of *ASTM F1216* prior to installation.

Provide a tube consisting of one or more layers of flexible needled felt or equivalent woven or nonwoven material capable of carrying resin and withstanding installation pressures and curing temperatures. Ensure the tube is compatible with the resin system used. Ensure the tube material can stretch to fit irregular culvert or sewer sections. Ensure the outside layer of the tube is plastic-coated with a material that is compatible with the resin system used. Fabricate the tube to the required size to fit the inside diameter for the full length of the existing culvert or sewer when cured. Ensure allowance is made for circumferential stretch during the hydrostatic inversion method and for longitudinal stretch during the direct pulled-in-place method.

c. Construction. Provide at least 10 work days notice to the Engineer prior to starting the work. Electronically submit all required documentation to the Engineer for approval prior to starting the work. Do not begin work until approval is received from the Engineer.

Video inspect the existing and lined pipe in accordance with subsection 402.03.J of the Standard Specifications for Construction. Thoroughly clean the existing pipe prior to video inspection. Dispose of all debris in accordance with subsection 205.03.P of the Standard Specifications for Construction.

Propose a corrective action to eliminate any obstruction revealed by the pre-installation inspection that cannot be removed by conventional pipe cleaning equipment and that prevents the cured-in-place liner from being installed properly. Ensure the proposed corrective action is approved by the Engineer prior to commencement of the work.

Maintain flow around the run of pipe designated for lining as necessary. Ensure the bypass pumping system can provide adequate capacity to handle the existing flow plus any additional flow that may occur during periods of precipitation. Electronically submit a bypass pumping plan containing all necessary details to the Engineer for approval at least 10 work days prior to conducting the work.

Continuously monitor all pumps and equipment. Follow local noise ordinances if pumping is required on a 24-hour basis.

Install the cured-in-place liner in accordance with the manufacturer's guidelines and *ASTM F1216*, *ASTM F1743*, or *ASTM F2019*, as applicable. Ensure the finished liner is continuous over the entire length of pipe and is free from visual defects, such as foreign inclusions, dry spots, pinholes, lifts, and delamination. Wrinkles or other flaws in the cured liner that reduce the hydraulic capacity of the pipe are unacceptable. Correct any deficiency found at no cost to the contract, utilizing a method approved by the Engineer. Remove and dispose of excess resin and other materials generated from the installation.

For all types of resin and installation methods, capture and dispose of all process water and wastewater resulting from the installation and flushing of the cured-in-place liner. Ensure the captured water is disposed of at a local wastewater treatment facility or as otherwise approved by the Engineer in accordance with applicable federal, state, and local regulations and permit requirements. Provide written authorization to the Engineer for acceptance of this water from the local wastewater treatment facility prior to starting the work. Provide written confirmation to the Engineer from the disposal facility verifying the process water was disposed of properly. Ensure process water is not discharged directly or indirectly to a ditch, storm sewer, surface water body, or other unapproved location.

Prepare and test samples for each lined run of pipe in accordance with *ASTM F1216*, section 8.1 or *ASTM F2019*, section 7.1, as applicable.

Provide a certification, sealed by a Professional Engineer licensed in the State of Michigan, verifying that the lining system has been designed, manufactured, and installed in accordance with the applicable *ASTM standards* and this special provision.

d. Measurement and Payment. The completed work, as described, will be measured and paid for at the contract unit price using the following pay item:

Pay Item	Pay Unit
Cured-In-Place Pipe Lining, ___ inch	Foot

Cured-In-Place Pipe Lining, ___ inch includes cleaning, debris disposal and video inspection necessary to line the culverts and storm sewers as described.

The cost for the work to remove an obstruction that cannot be removed with conventional pipe cleaning equipment will be paid for separately in accordance with the contract.

Attachment A

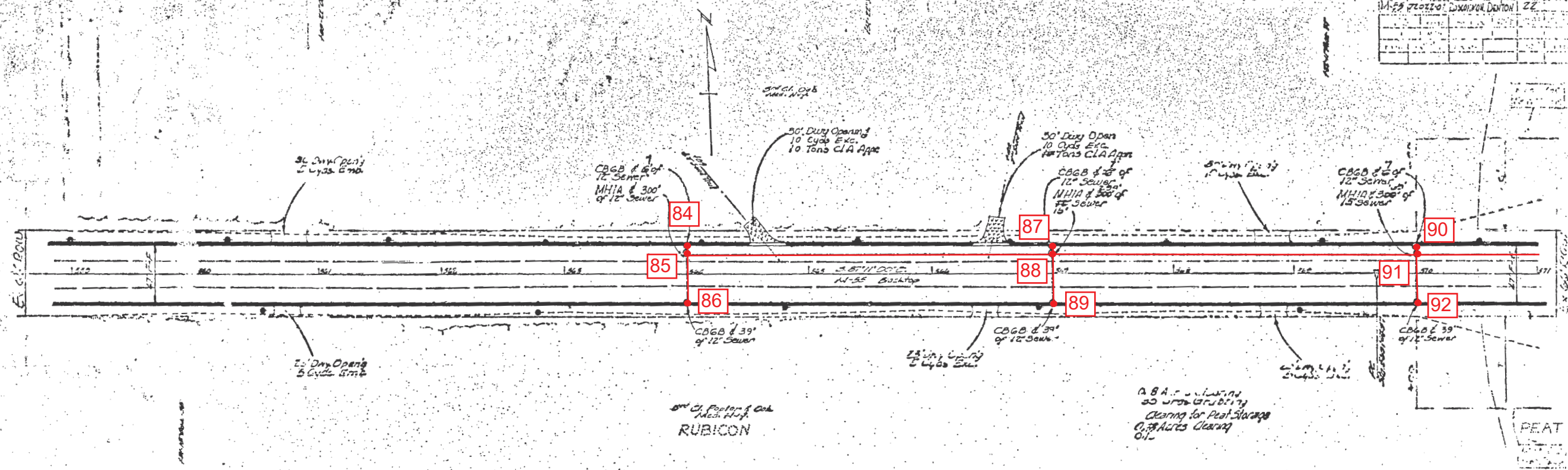
LINE	Length (Ft)	Diameter(In)
59 TO 60	4	12
61 TO 60	38	12
62 TO OUTLET	31	24
65 TO 64	23	12
65 TO 64_1	54	12
70 TO 71	11	12
72 TO 71	47	12
72 TO 71	39	12
73 TO 72	30	12
75 TO OUTLET	31	24
76 TO 77	11	12
79 TO 80	11	12
80 TO 77	297	12
81 TO 80	35	12
84 TO 85	5	12
87 TO 88	5	12
89 TO 88	38	12
90 TO 91	5	12
93 TO 94	4	12
95 TO 94	38	12
96 TO 97	5	12
97 TO 94	299	15
98 TO 97	38	12
99 TO 100	5	12
INLET EAST TO 220	174	15
INLET NORTH TO 220	44	15
INLET TO 121	3	12
INLET TO 194	15	12
INLET TO 64	23	18
INLET TO 75	60	24
100 TO 97	246	12
101 TO 100	38	12
102 TO 103	4	12
105 TO 106	16	12
106 TO 107	3	15
107 TO 112	493	15
108 TO 107	37	15
109 TO 108	18	15
110 TO 111	16	12
113 TO 112	39	12
115 TO 114	64	12
115.1 TO 115	25	12
116 TO 119	297	18
117 TO 118	3	12
120 TO 119	35	12
121 TO 120	6	12
122 TO 123	281	30
123 TO OUTLET	92	36

BM 53 Elev 1104.20
MOUND Top in 5" Oak
71.21 of 300' 300' 0"

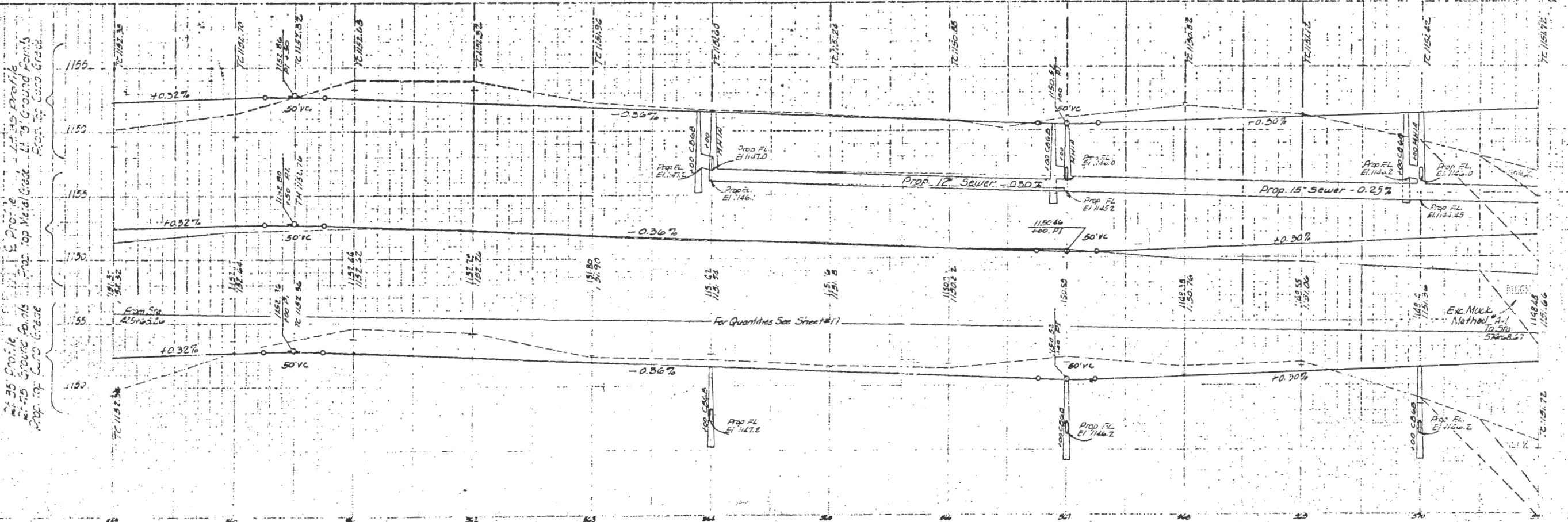
SEC. 16
T22N R3W

Witnesses to DEED RECORDATION
3.33' N 37.15' W 12' 0" P.C.
North - 02.34' - 6" Prop
N. 65° - 7.57' - 10" C.S.
170' 0"

DATE	BY	REVISION



8" AGG. BASE COURSE CURB & GUTTER DET# 8A BCWC @ 330#/540 47'F-F



10' 0" 11' 0" 12' 0" 13' 0" 14' 0" 15' 0" 16' 0" 17' 0" 18' 0" 19' 0" 20' 0" 21' 0" 22' 0" 23' 0" 24' 0" 25' 0" 26' 0" 27' 0" 28' 0" 29' 0" 30' 0" 31' 0" 32' 0" 33' 0" 34' 0" 35' 0" 36' 0" 37' 0" 38' 0" 39' 0" 40' 0" 41' 0" 42' 0" 43' 0" 44' 0" 45' 0" 46' 0" 47' 0" 48' 0" 49' 0" 50' 0" 51' 0" 52' 0" 53' 0" 54' 0" 55' 0" 56' 0" 57' 0" 58' 0" 59' 0" 60' 0" 61' 0" 62' 0" 63' 0" 64' 0" 65' 0" 66' 0" 67' 0" 68' 0" 69' 0" 70' 0" 71' 0" 72' 0"

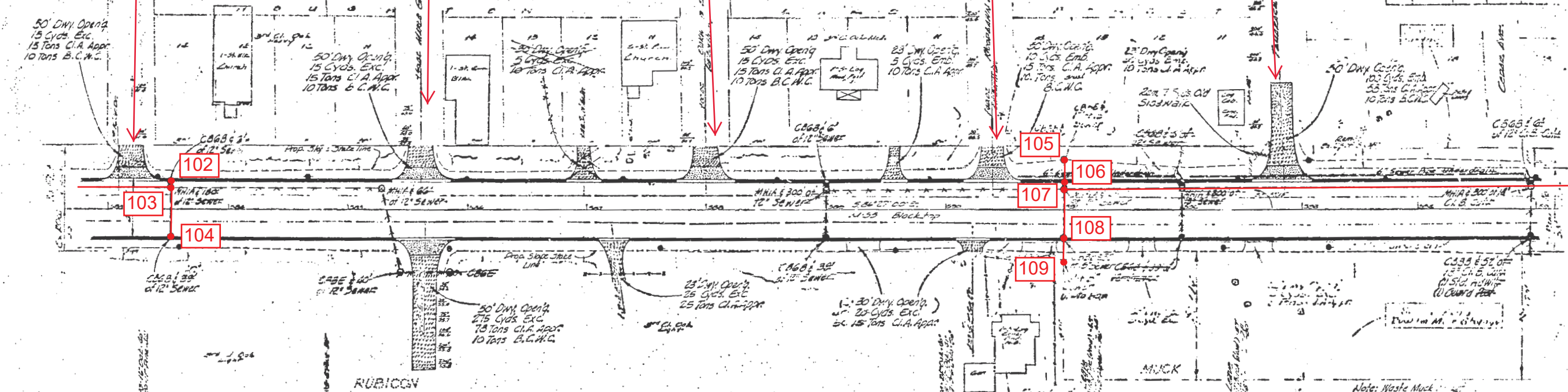
OTTAWA LN

MAPLE GROVE AVE

OAKWOOD AVE

IROQUOIS AVE

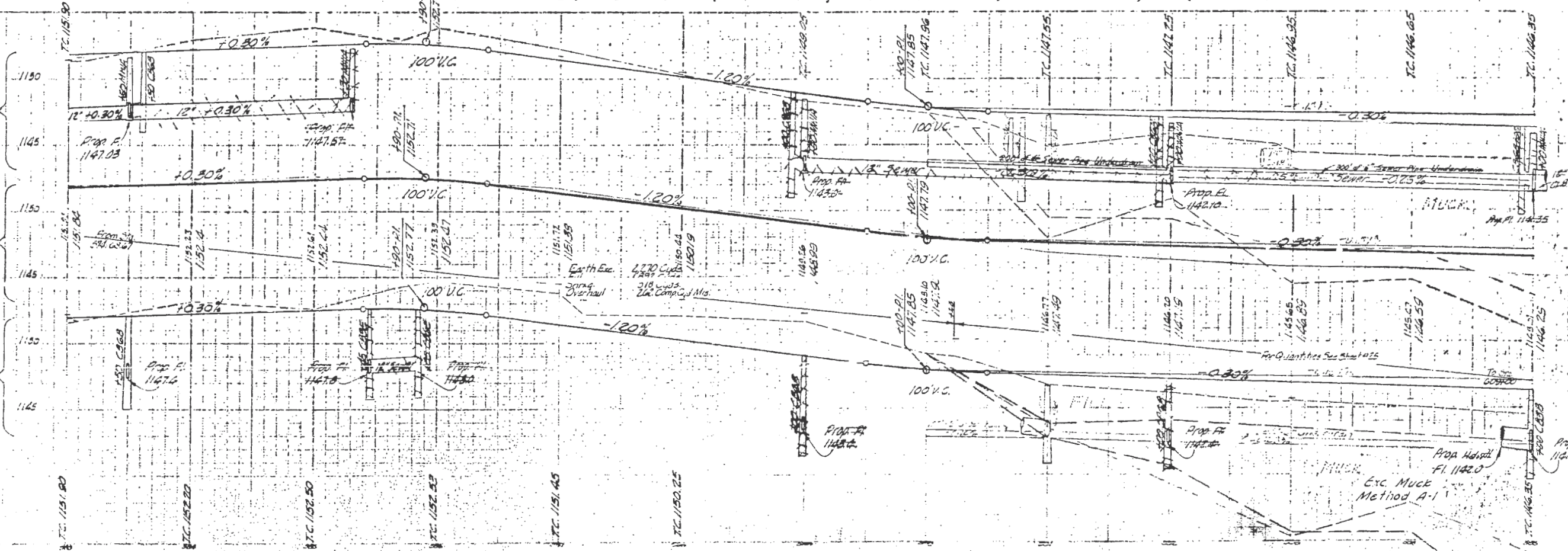
16TH ST



8" Agg. Base Course, Conc. Curb & Gutter Det. # 8A & B.C.W.C. @ 330 #/540 (47-F-F)

Note: Waste Muck
Sta. 591+00 to 591+50
From Sta. 591+50 to 591+50
Muck Exc. required & wasted in storage
Sta. 591+00 to 591+50 @ 2000 to 4000

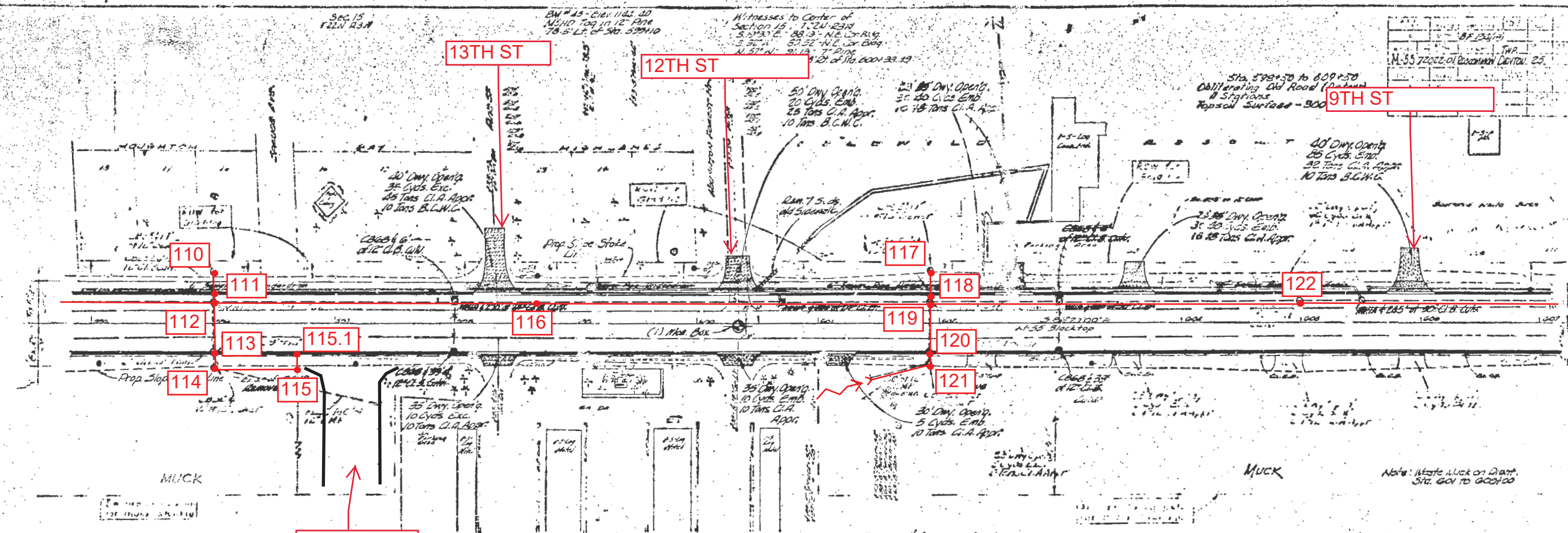
21-35 Profile
L: 75' Ground Points
Prop. Top of Curb Grade



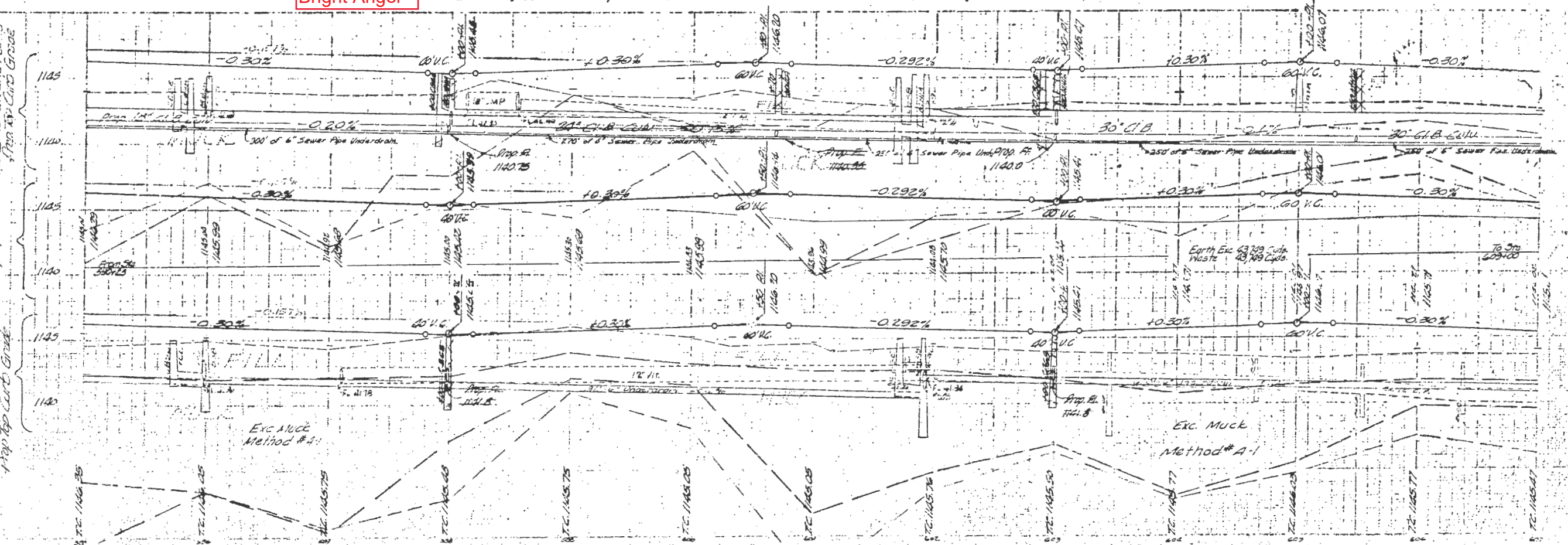
W-26-1

702201 BF 1/24/77 24

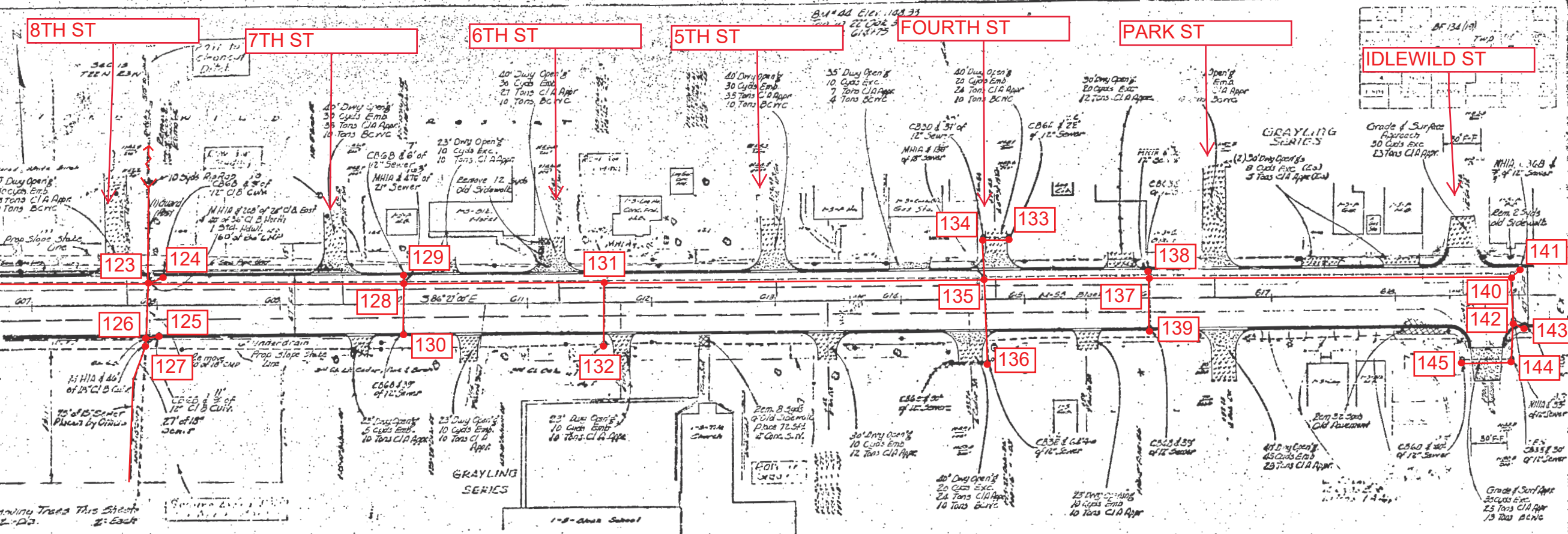
Property No. 257
L.K. 3-20-58
L.C. 1-2-1952



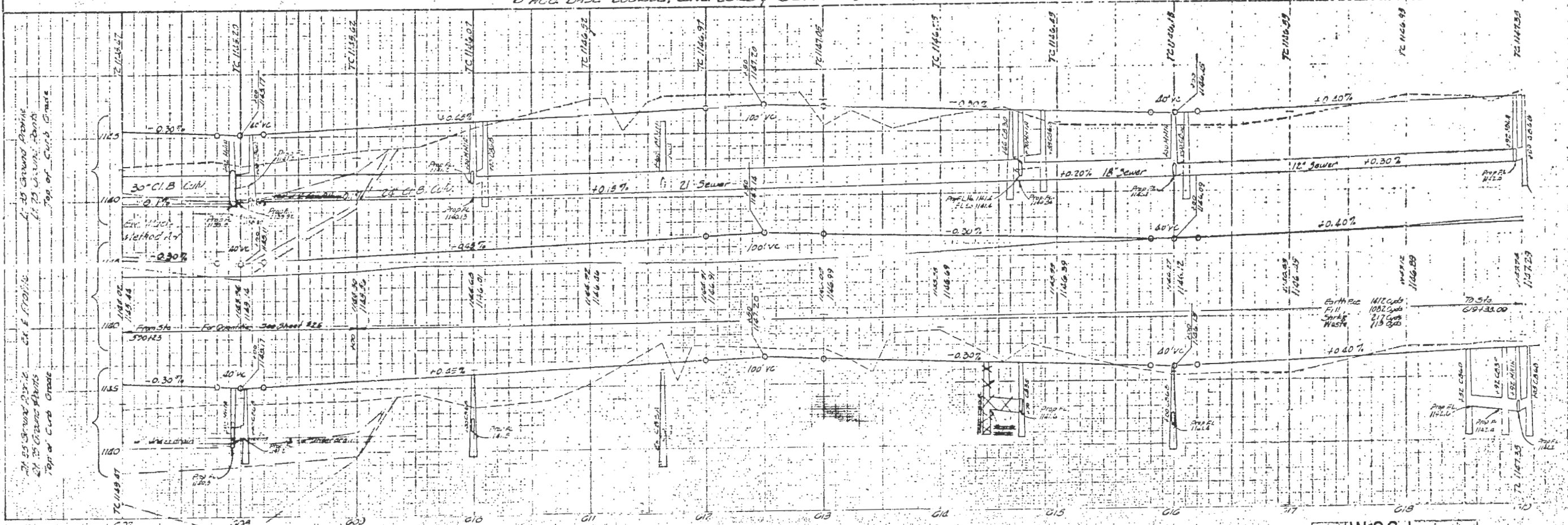
Excavation Method #1
Excavation Method #2
Excavation Method #3
Excavation Method #4
Excavation Method #5
Excavation Method #6
Excavation Method #7
Excavation Method #8
Excavation Method #9
Excavation Method #10
Excavation Method #11
Excavation Method #12
Excavation Method #13
Excavation Method #14
Excavation Method #15
Excavation Method #16
Excavation Method #17
Excavation Method #18
Excavation Method #19
Excavation Method #20
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Excavation Method #26
Excavation Method #27
Excavation Method #28
Excavation Method #29
Excavation Method #30
Excavation Method #31
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Excavation Method #83
Excavation Method #84
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Excavation Method #91
Excavation Method #92
Excavation Method #93
Excavation Method #94
Excavation Method #95
Excavation Method #96
Excavation Method #97
Excavation Method #98
Excavation Method #99
Excavation Method #100



1957
 F. Finney
 1958
 H. Finney

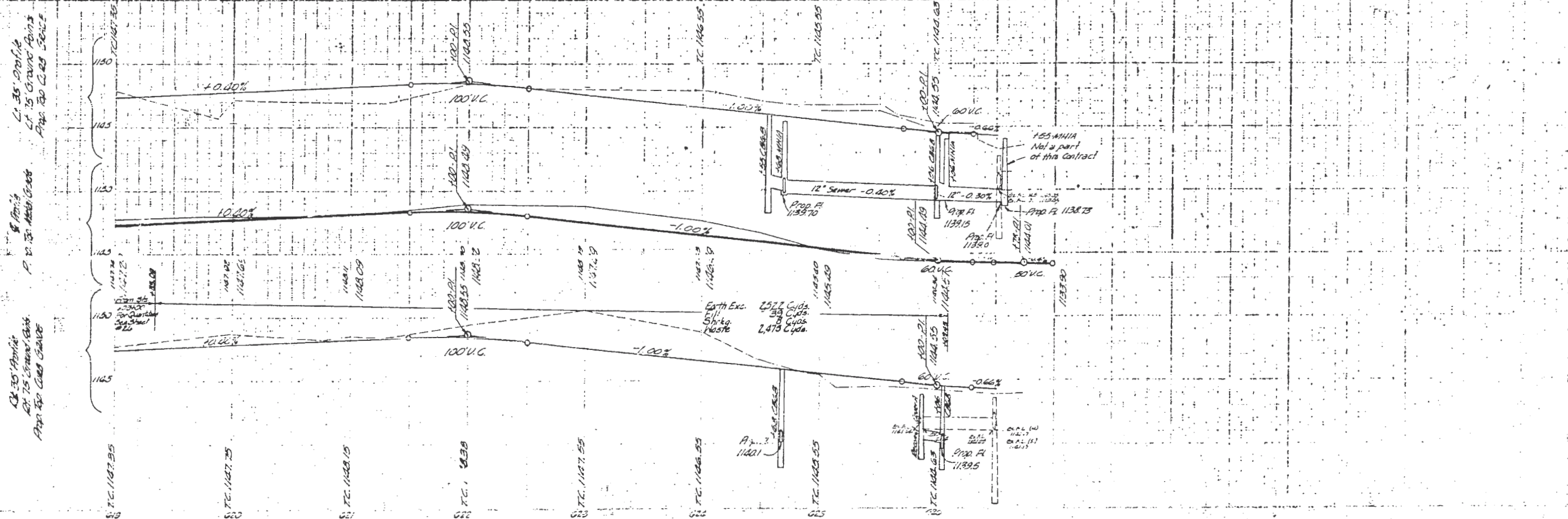
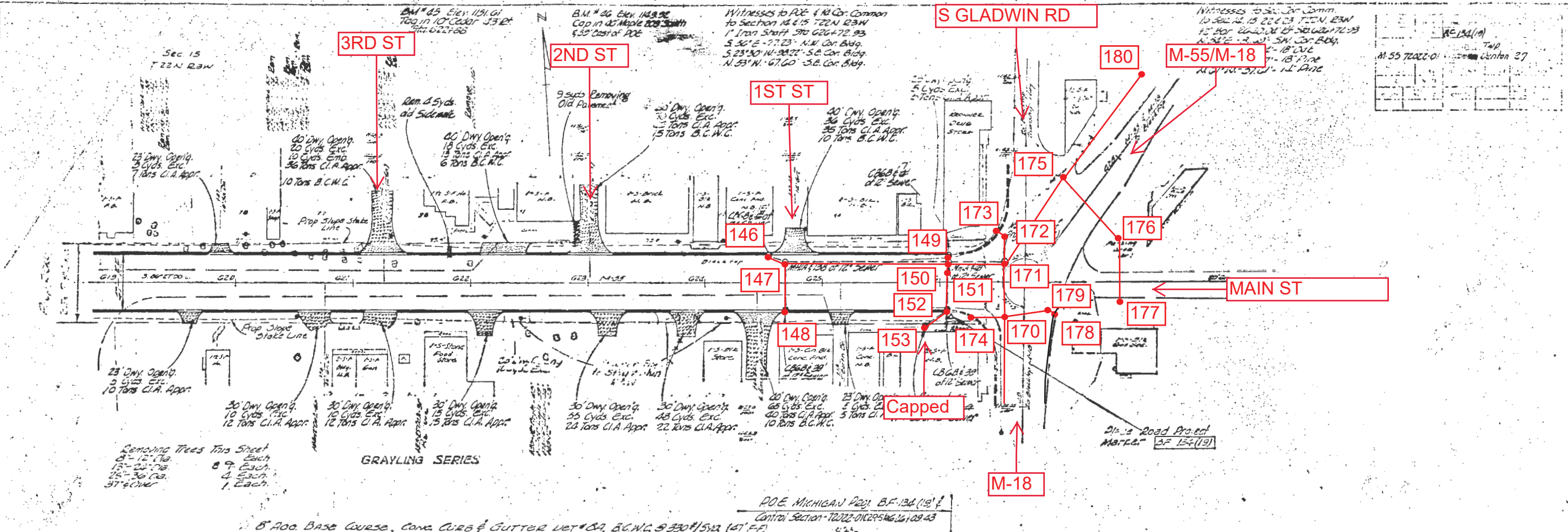


1959
 L. Schaefer
 1957
 M. Wilson
 1957
 J. E. H. H.
 1957
 F. Finney
 1957
 J. B. Schaefer



L. Finger 1957
 L. Finger 1958
 L. Finger 1959

L. Finger 1957
 L. Finger 1958
 L. Finger 1959



SWEET PLUM AVE

APRICOT AVE

CRANBERRY AVE

GRAPEVINE AVE

M-55

S GLADWIN RD

M-18/
M-55

MAIN ST

BOSCOMMON

Rem. Trees This Sheet
15-17 Do 2 each
18-24 Do 10 each
25-26 Do 7 each

1993 Lin. Ft. Sawing
Bit. Surf.

Class A Shoulders
on Transition
10 Tons

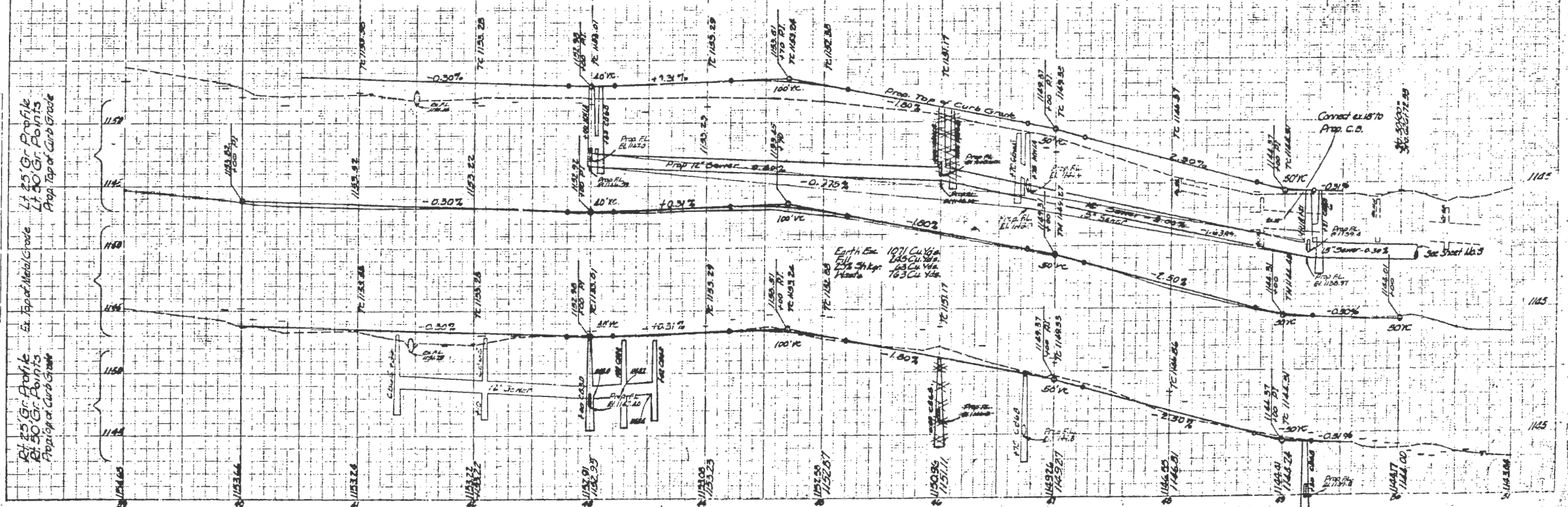
PLAT OF IDEWILD
REPORT NO. 1

POB Control Section 72051 C.R. Sta. 62+00
Hidden with 8" Pipe Base Case, BCWC @ 330' Layd
Curb, Curb & Gutter Det. BA (AT FF)

POE Control Section 72051 C.R. Sta. 42+30.3

OPERATION	BY	DATE
PRELIMINARY DESIGN	W. CHASE	7-23
FINAL DESIGN	W. CHASE	8-10
FINAL CHECK	W. CHASE	8-10
FINAL APPROVAL	W. CHASE	8-10

DATE	OPERATION	BY
7-23	PRELIMINARY DESIGN	W. CHASE
8-10	FINAL DESIGN	W. CHASE
8-10	FINAL CHECK	W. CHASE
8-10	FINAL APPROVAL	W. CHASE



W-27-3

Witnesses to P1-ROB & 1/4 Cor (Doubt Sec 140) M-55 & 1/4-18 (No Curve)
 S 75° 30' 00" W 72.93'
 N 55° 15' 00" W 56.30' Cor. Blkg.
 S 23° 15' 00" W 36.22' Cor. Blkg.
 S 30° 15' 00" W 77.25' 1/4 Cor. Blkg.
 1" Iron (Max. Box)

Witnesses to P1-ROB & 1/4 Cor (Doubt Sec 140) M-55 & 1/4-18 (No Curve)
 S 75° 30' 00" W 72.93'
 N 55° 15' 00" W 56.30' Cor. Blkg.
 S 23° 15' 00" W 36.22' Cor. Blkg.
 S 30° 15' 00" W 77.25' 1/4 Cor. Blkg.
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 N 55° 15' 00" W 56.30' Cor. Blkg.
 S 23° 15' 00" W 36.22' Cor. Blkg.
 S 30° 15' 00" W 77.25' 1/4 Cor. Blkg.
 1" Iron (Max. Box)

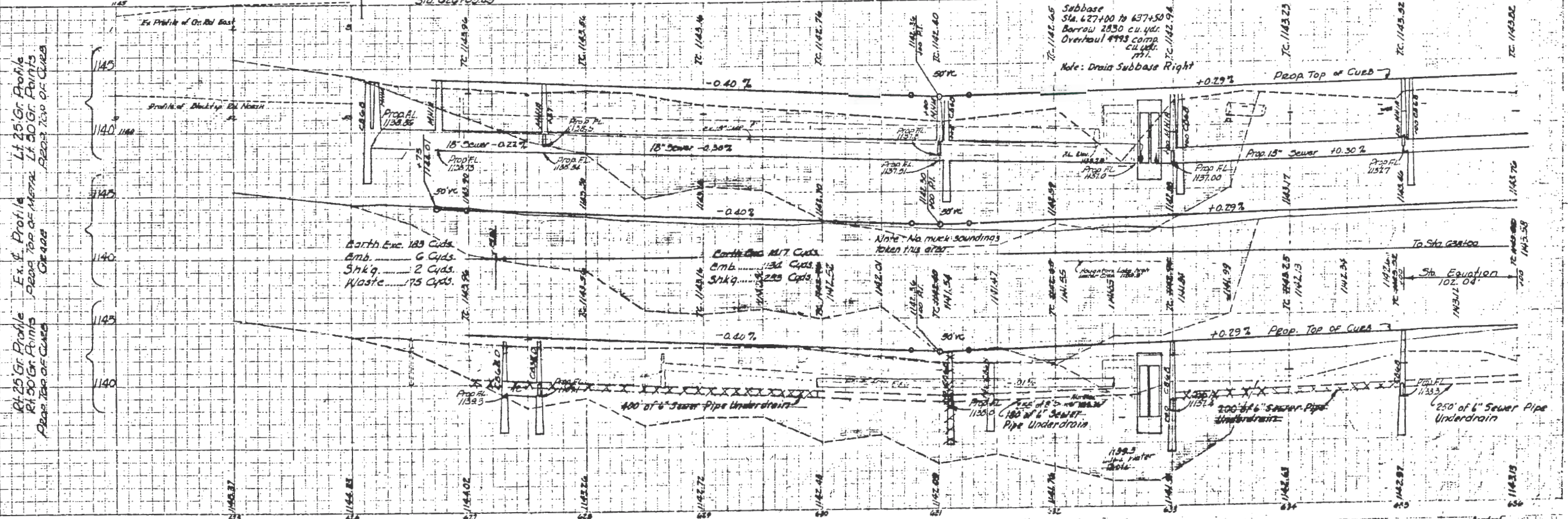
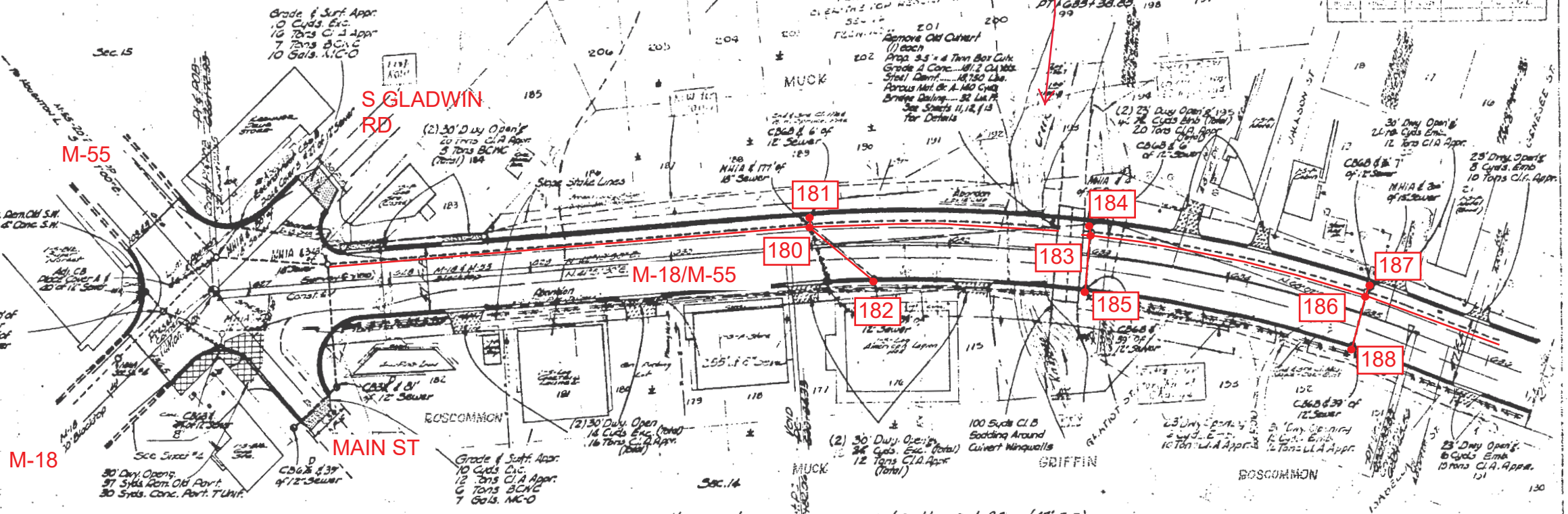
Witnesses to P1-ROB & 1/4 Cor (Doubt Sec 140) M-55 & 1/4-18 (No Curve)
 S 75° 30' 00" W 72.93'
 N 55° 15' 00" W 56.30' Cor. Blkg.
 S 23° 15' 00" W 36.22' Cor. Blkg.
 S 30° 15' 00" W 77.25' 1/4 Cor. Blkg.
 1" Iron (Max. Box)

KNAPPEN CREEK

Bench Mark # 47
 MAND Top in N.
 Root of 20" Pine
 61' W. S. 334.31'
 Elev. 1141.45

Clearing & Grubbing This Sheet
 .06 Acres Clearing
 10 Stds. Grubbing
 200 Side Class A Sodding to be
 placed as directed by the
 Engineer

DATE	BY	OPERATION
7-28	W. J. ...	...
8-10	W. J. ...	...
8-20	W. J. ...	...
8-25	W. J. ...	...
8-30	W. J. ...	...
9-10	W. J. ...	...
9-15	W. J. ...	...
9-20	W. J. ...	...
9-25	W. J. ...	...
9-30	W. J. ...	...
10-5	W. J. ...	...
10-10	W. J. ...	...
10-15	W. J. ...	...
10-20	W. J. ...	...
10-25	W. J. ...	...
10-30	W. J. ...	...
11-5	W. J. ...	...
11-10	W. J. ...	...
11-15	W. J. ...	...
11-20	W. J. ...	...
11-25	W. J. ...	...
11-30	W. J. ...	...
12-5	W. J. ...	...
12-10	W. J. ...	...
12-15	W. J. ...	...
12-20	W. J. ...	...
12-25	W. J. ...	...
12-30	W. J. ...	...

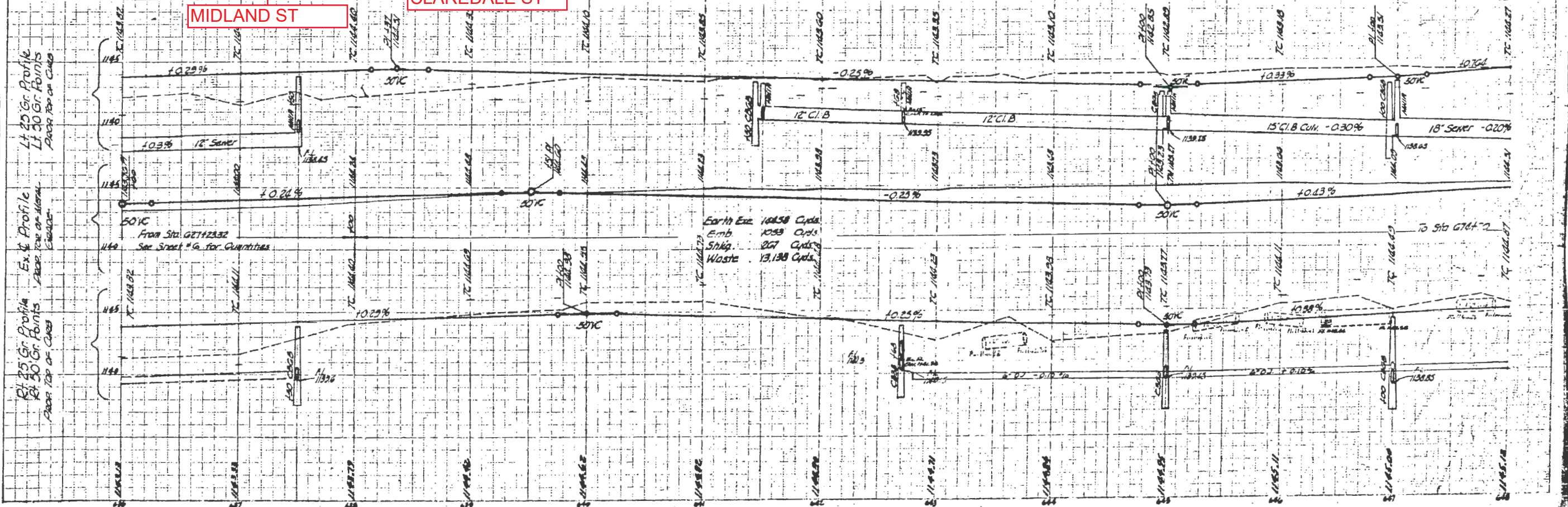
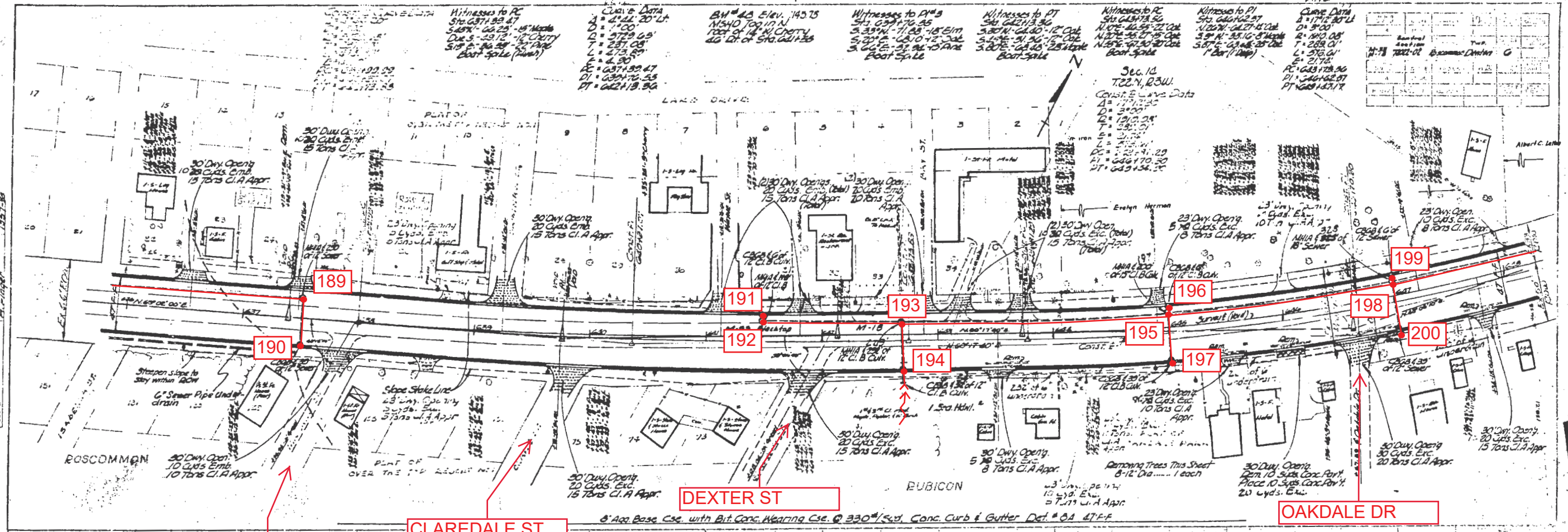


DATE	BY	OPERATION
7-28	W. J. ...	...
8-10	W. J. ...	...
8-20	W. J. ...	...
8-25	W. J. ...	...
8-30	W. J. ...	...
9-10	W. J. ...	...
9-15	W. J. ...	...
9-20	W. J. ...	...
9-25	W. J. ...	...
9-30	W. J. ...	...
10-5	W. J. ...	...
10-10	W. J. ...	...
10-15	W. J. ...	...
10-20	W. J. ...	...
10-25	W. J. ...	...
10-30	W. J. ...	...
11-5	W. J. ...	...
11-10	W. J. ...	...
11-15	W. J. ...	...
11-20	W. J. ...	...
11-25	W. J. ...	...
11-30	W. J. ...	...
12-5	W. J. ...	...
12-10	W. J. ...	...
12-15	W. J. ...	...
12-20	W. J. ...	...
12-25	W. J. ...	...
12-30	W. J. ...	...

Station	Station	Station	Station
1187.00	1187.00	1187.00	1187.00
1187.00	1187.00	1187.00	1187.00
1187.00	1187.00	1187.00	1187.00
1187.00	1187.00	1187.00	1187.00

OPERATION	PRELIMINARY PLAN DRAFTER
DESIGNED BY	ALBERT C. LATHAM
CHECKED BY	ALBERT C. LATHAM
DATE	APR 18 - 1928

OPERATION	PLANNED
DESIGNED BY	ALBERT C. LATHAM
CHECKED BY	ALBERT C. LATHAM
DATE	APR 18 - 1928



W-27-3

Witnesses to PT
Sta. 649+47.17
N 17° 14' 43.45" E 26.00' Dist.
2 10' 10" 21.05' W of Top of Post
Due to 1" 10' 10" 21.05' Dist.
172' Bar (6' Deep)

Witnesses to P.C.
Sta. 650+00.00
N 17° 14' 43.45" E 26.00' Dist.
1 10' 10" 21.05' W of Top of Post
Due to 1" 10' 10" 21.05' Dist.
172' Bar (6' Deep)

EN 110' Elev. 1140.87
N 17° 14' 43.45" E 26.00' Dist.
2 10' 10" 21.05' W of Top of Post
Due to 1" 10' 10" 21.05' Dist.
172' Bar (6' Deep)

Witnesses to P.T.
Sta. 650+00.00
N 17° 14' 43.45" E 26.00' Dist.
1 10' 10" 21.05' W of Top of Post
Due to 1" 10' 10" 21.05' Dist.
172' Bar (6' Deep)

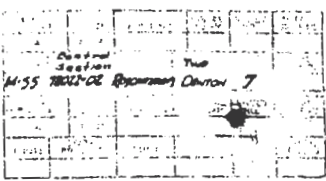
Const. & Curve Data
D = 300.00'
R = 150.00'
T = 240.00'
L = 180.00'
P = 100.00'

Witnesses to P.T.
Sta. 655+00.00
N 17° 14' 43.45" E 26.00' Dist.
1 10' 10" 21.05' W of Top of Post
Due to 1" 10' 10" 21.05' Dist.
172' Bar (6' Deep)

Const. & Curve Data
D = 300.00'
R = 150.00'
T = 240.00'
L = 180.00'
P = 100.00'

Station Elevation
Survey Sta. 650+00.00
Dhead = Const. Sta.
655+91.82 P.C.
Line Length = 111'

BM # 50 Elev. 1145.41
MSUD (top of roof of 7 Oak St. 1st Fl. Stk. 0581-52 (4-35))



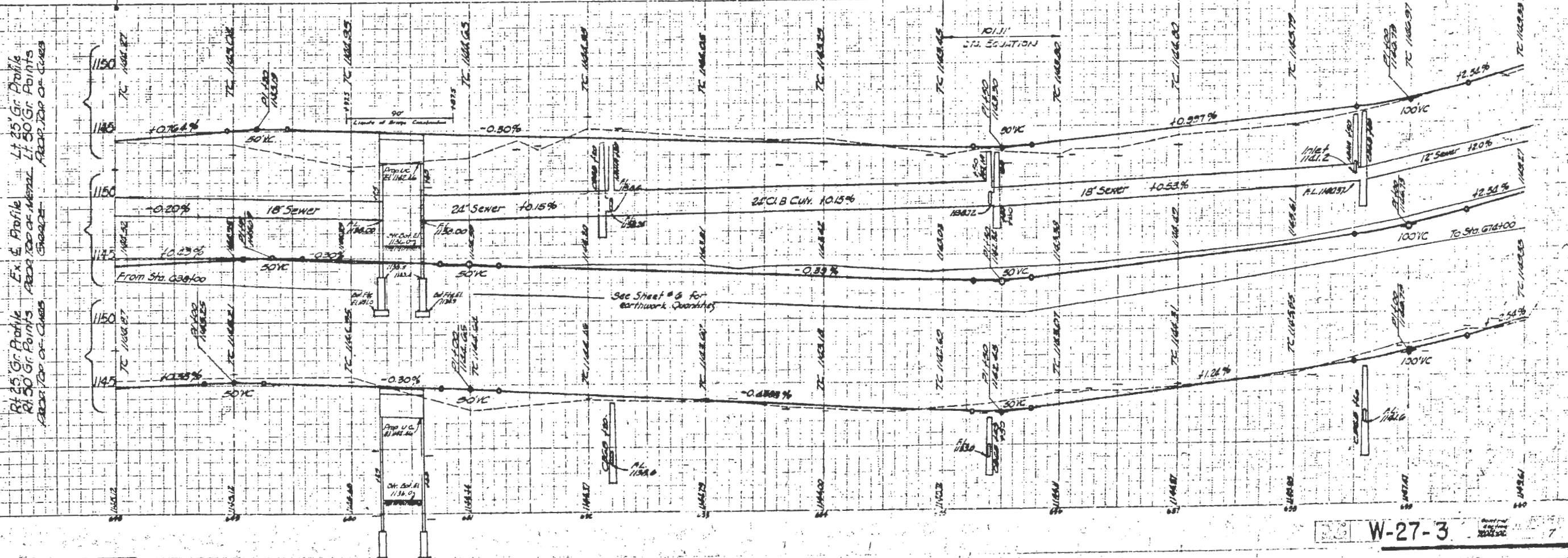
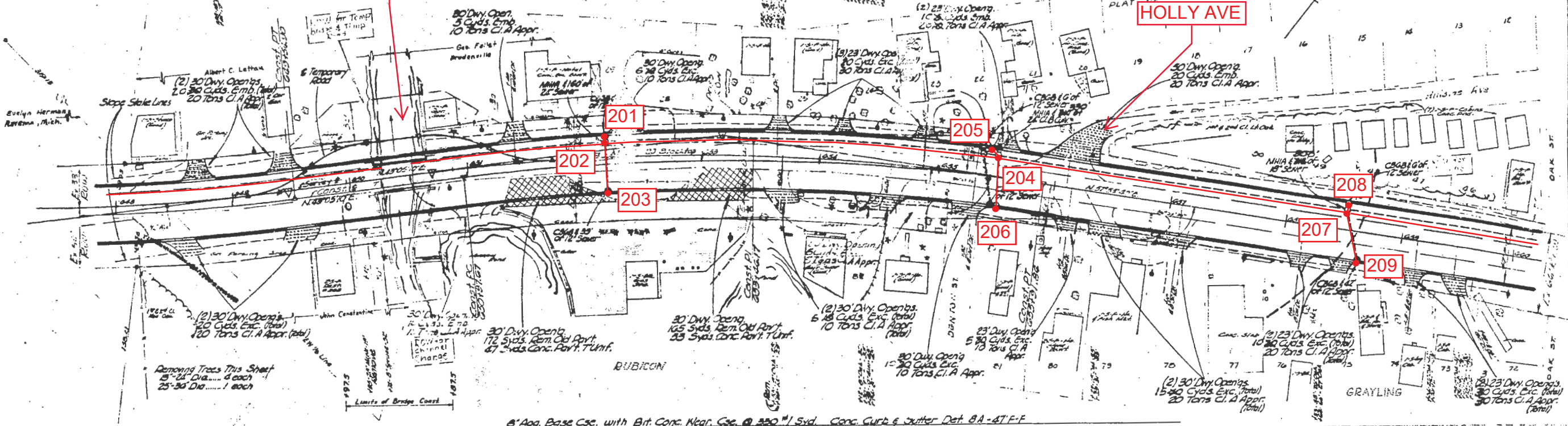
Note: For Temp. Road Alignment see Bridge Plans B2 of 16-2-3, C2

DENTON CREEK

HOLLY AVE

REV. 8-19-88 O.O.

DATE	12-28-88
BY	W. J. BROWN
CHECKED	W. J. BROWN
PROJECT	W. J. BROWN
SCALE	AS SHOWN
PROJECT NAME	W. J. BROWN
PROJECT NUMBER	W. J. BROWN
PROJECT LOCATION	W. J. BROWN
PROJECT OWNER	W. J. BROWN
PROJECT DESCRIPTION	W. J. BROWN



DATE	12-28-88
BY	W. J. BROWN
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PROJECT	W. J. BROWN
SCALE	AS SHOWN
PROJECT NAME	W. J. BROWN
PROJECT NUMBER	W. J. BROWN
PROJECT LOCATION	W. J. BROWN
PROJECT OWNER	W. J. BROWN
PROJECT DESCRIPTION	W. J. BROWN

DATE	11-15-77
BY	W. J. ...
CHECKED	...
APPROVED	...
OPERATION	...
DESCRIPTION	...

DATE	11-15-77
BY	W. J. ...
CHECKED	...
APPROVED	...
OPERATION	...
DESCRIPTION	...

