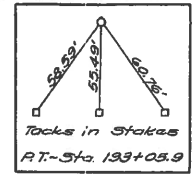


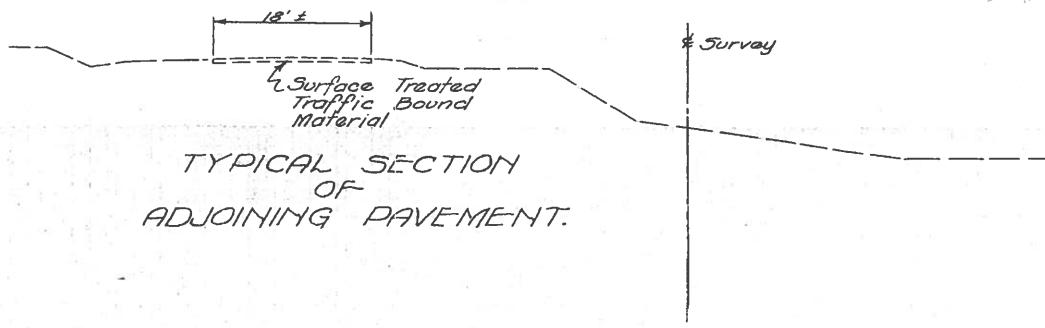
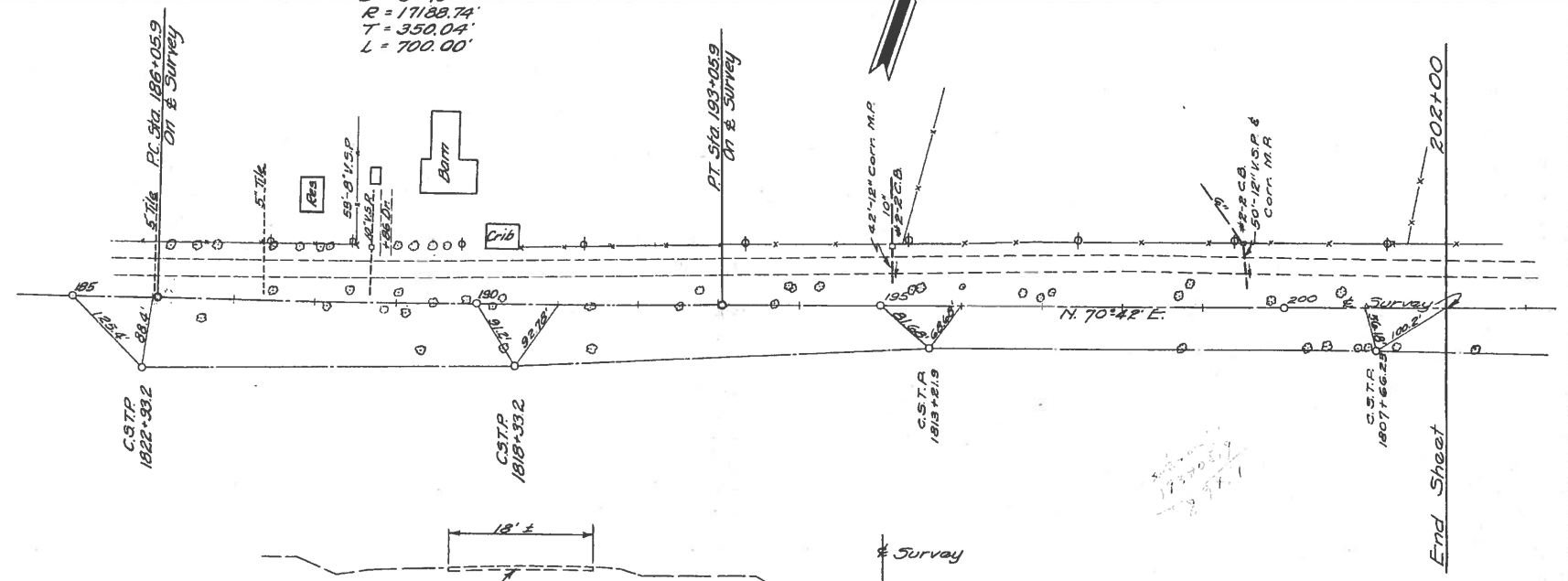
FED. RD. DIST. No.	STATE	FISCAL YEAR
10	OHIO	1938

3  
52

HENRY COUNTY  
S.H. 51 ~ SEC. Q (PT.)

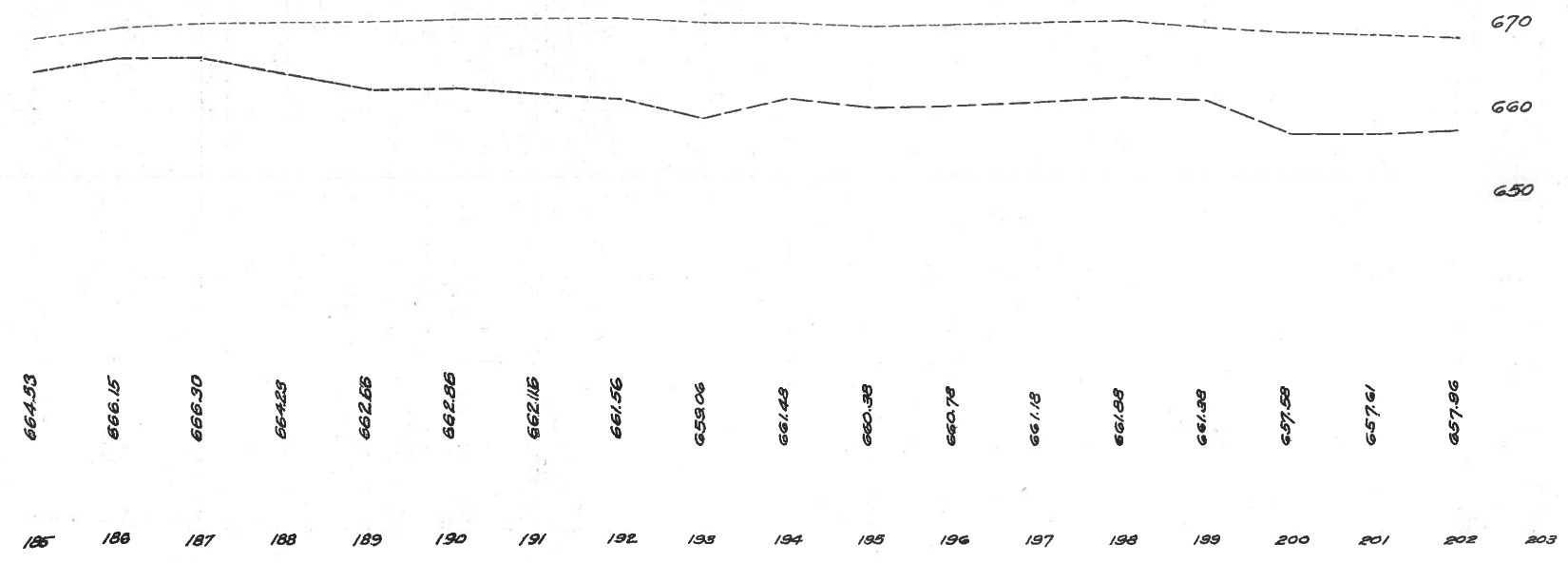


$\Delta = 1^{\circ}-10' L.A.$   
 $D = 0^{\circ}-10'$   
 $R = 17189.74'$   
 $T = 350.04'$   
 $L = 700.00'$



B.M. Sta. 199+32  
 Spk. in 15" Syc-  
 amore 70' Pt.  
 Elev. 662.59

Note: This sheet for alignment only.



664.53	666.15	666.30	667.23	662.88	662.86	662.115	661.56	659.06	661.43	660.35	660.78	661.18	661.85	661.95	657.58	657.61	657.96	
185	186	187	188	189	190	191	192	193	194	195	196	197	198	199	200	201	202	203

**HENRY COUNTY  
S.H. 51 - SEC. "Q" (PT.)**

**ROADWAY DRAINAGE "D"**

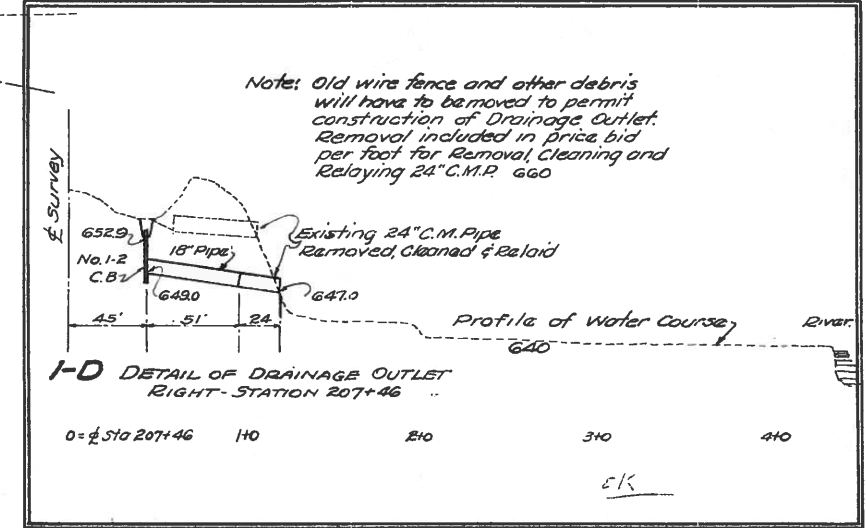
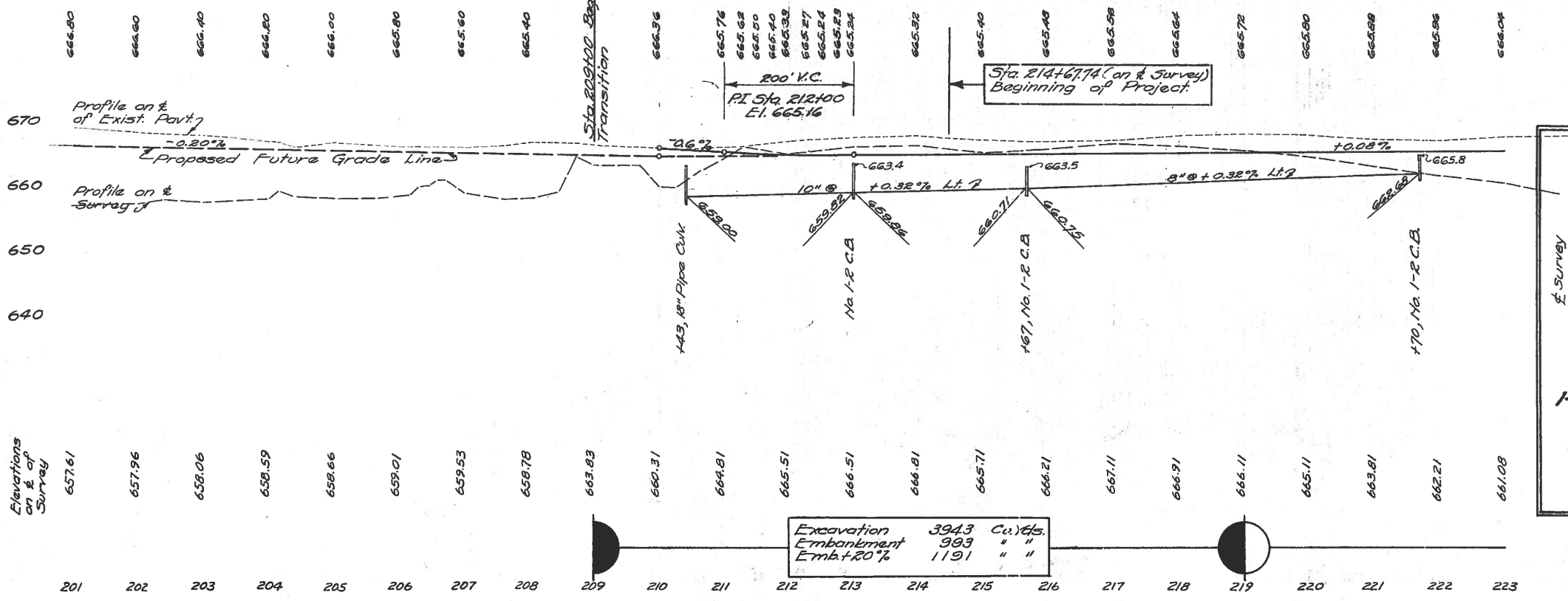
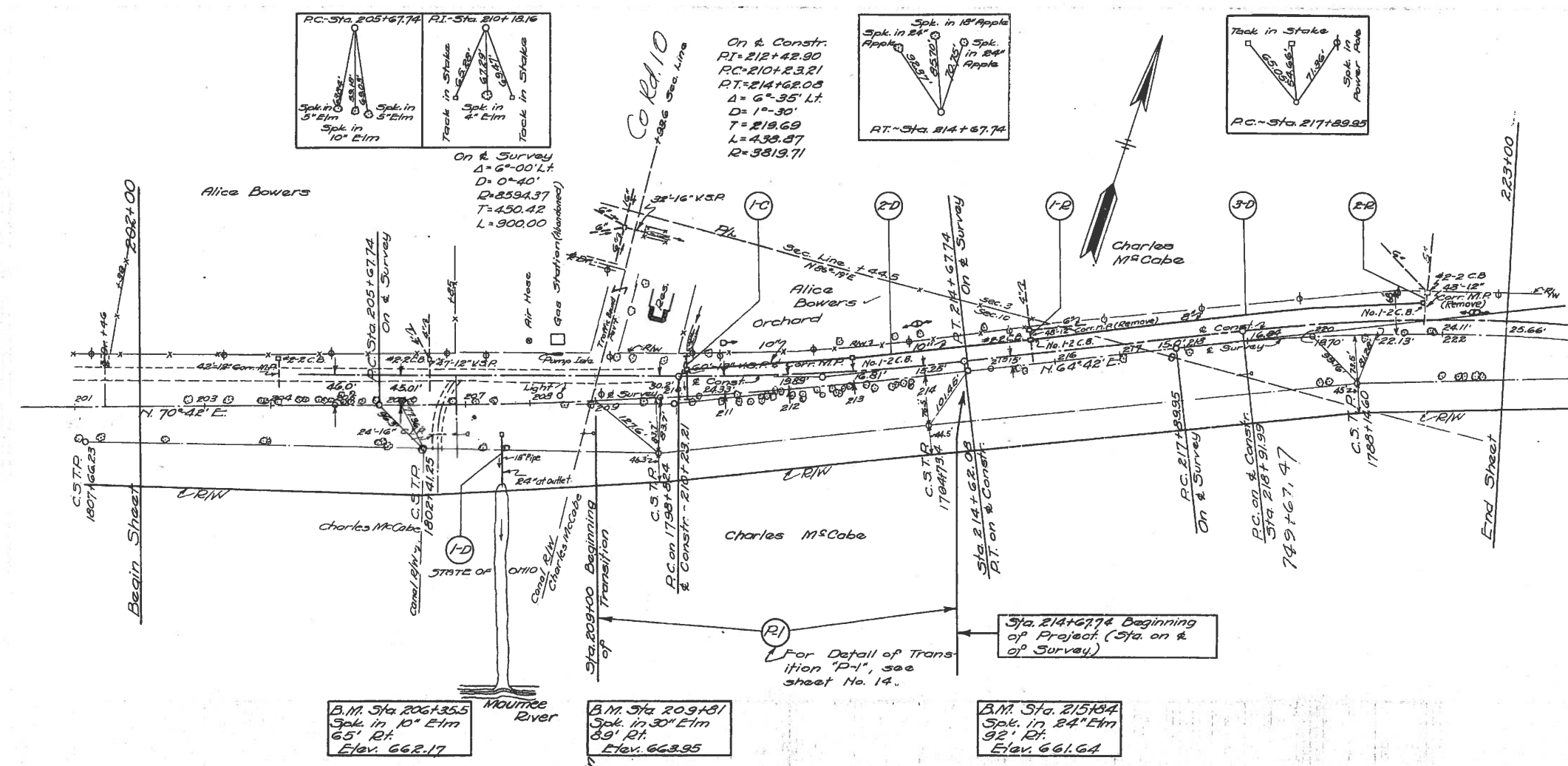
Ref. No.	Station	Side	Lin. Ft. Pipe Per Rdwy. Drng.	No. 1-2 C.B. Each	No. 7 C.B. Each	24" Corr. W.P. Ram. & Relaid Lin. Ft.
1-D	207+46	South Rt.		51	1	24
2-D	210+43	215+67	Lt.	520	2	
3-D	215+67	221+70	Lt.	602	1	
TOTALS:			602	520	51	24

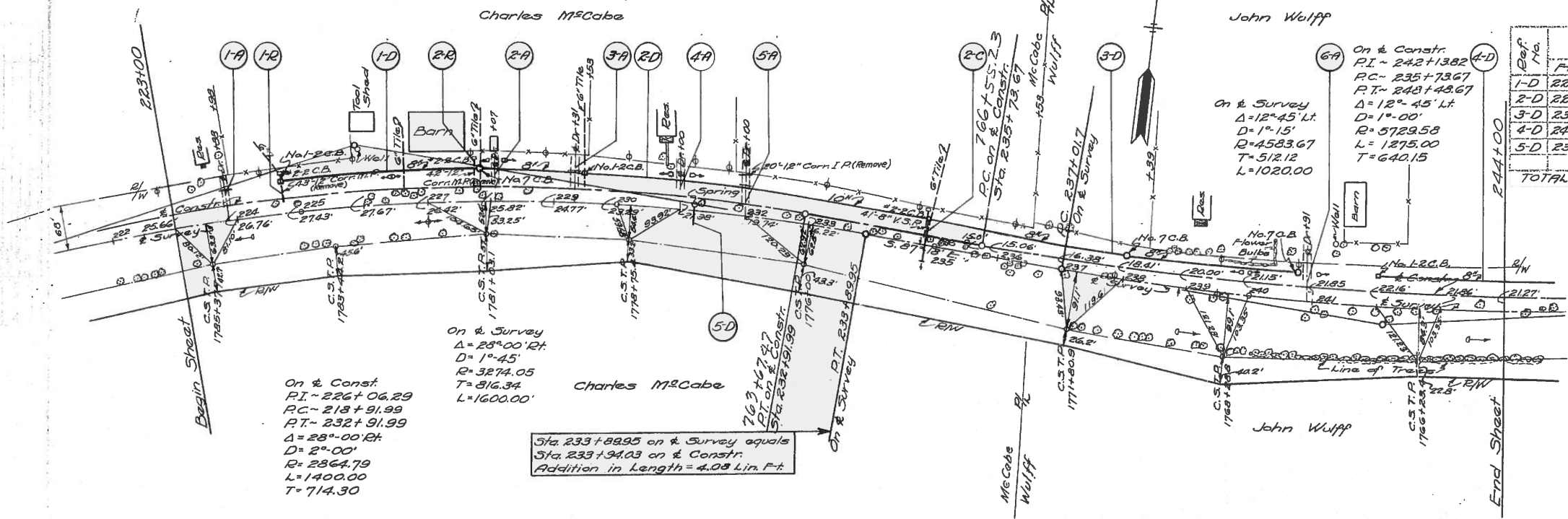
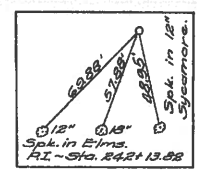
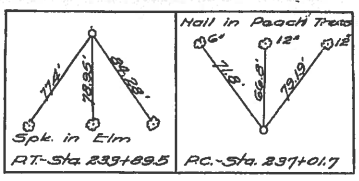
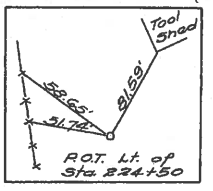
**STRUCTURES "C"**

Ref. No.	Station	Type	Size	See Detail on Sheet
1-C	210+43	Pipe Culv.	18" x 68'	49

**REMOVALS "R"**

Ref. No.	Station	Lin. Ft. Pipe	Exist. C.B. Ram. & Store.	Rem. & Dispos. of
1-R	215+67	48		1
2-R	221+71	48		1
TOTAL		96		2





**ROADWAY DRAINAGE "D"**

Ref. No.	Station	Side	Lin. Ft. Pipe for Roadway Drainage	Pipe Size	Pipe under Drives	Std. Catch Basins - Ea. 15' Spac.	Remarks
1-D	224+178	Left	432	8"	42	2	
2-D	229+150	Left	49	8"	42	1	
3-D	234+185	Left	586	8"	42	2	
4-D	242+100	Left	199	8"	42	1	
5-D	231+21	South		8"	38	1	See Detail below
<b>TOTALS:</b>			<b>1217.49</b>	<b>38</b>	<b>42</b>	<b>3</b>	<b>3</b>

**STRUCTURES "C"**

Ref. No.	Station	Type	Size	See Detail on Sheet
2-C	234+85	Pipe Culv.	12' x 66'	49

**REMOVALS "R"**

Ref. No.	Station	Lin. Ft. Pipe Exist	Rem. & Store	Rem. & Disp. of
1-R	224+178	43		1
2-R	227+171	42		1
5-A	232+100	20		
<b>TOTALS:</b>		<b>105</b>		<b>2</b>

**SIDE APPROACHES "A"**

Ref. No.	Station	Side	Aggregate Cu. Yds.	Lin. Ft. Pipe for Drives	Remarks
1-A	223+88	Left	4	21	
2-A	228+07	Left	4		No Pipe Required
3-A	228+31	Left	4	21	
4-A	231+00	Left	4		No Pipe Required
5-A	232+00	Left	4	21	
6-A	240+91	Left	4		No Pipe Required
Various*			12		*For 3 Mail Boxes
<b>TOTALS:</b>			<b>36</b>	<b>63</b>	

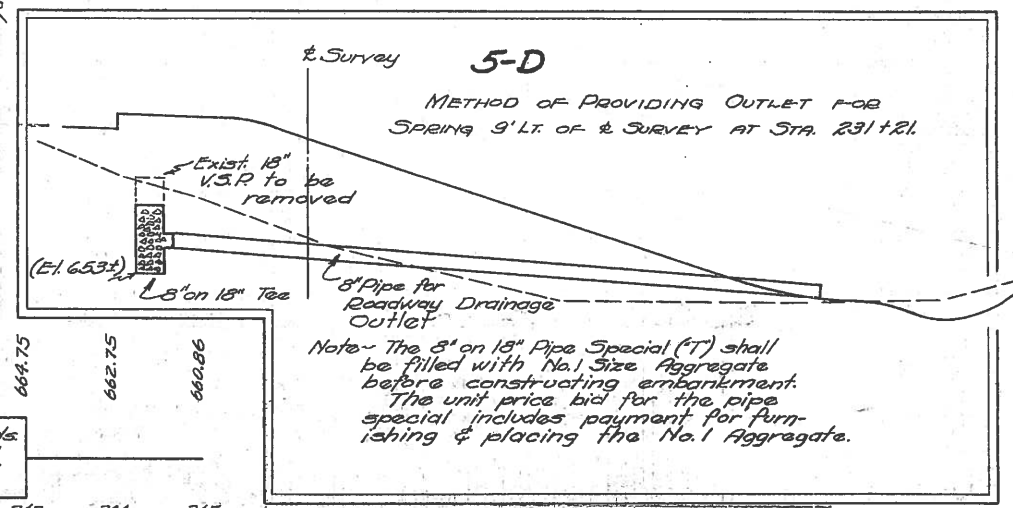
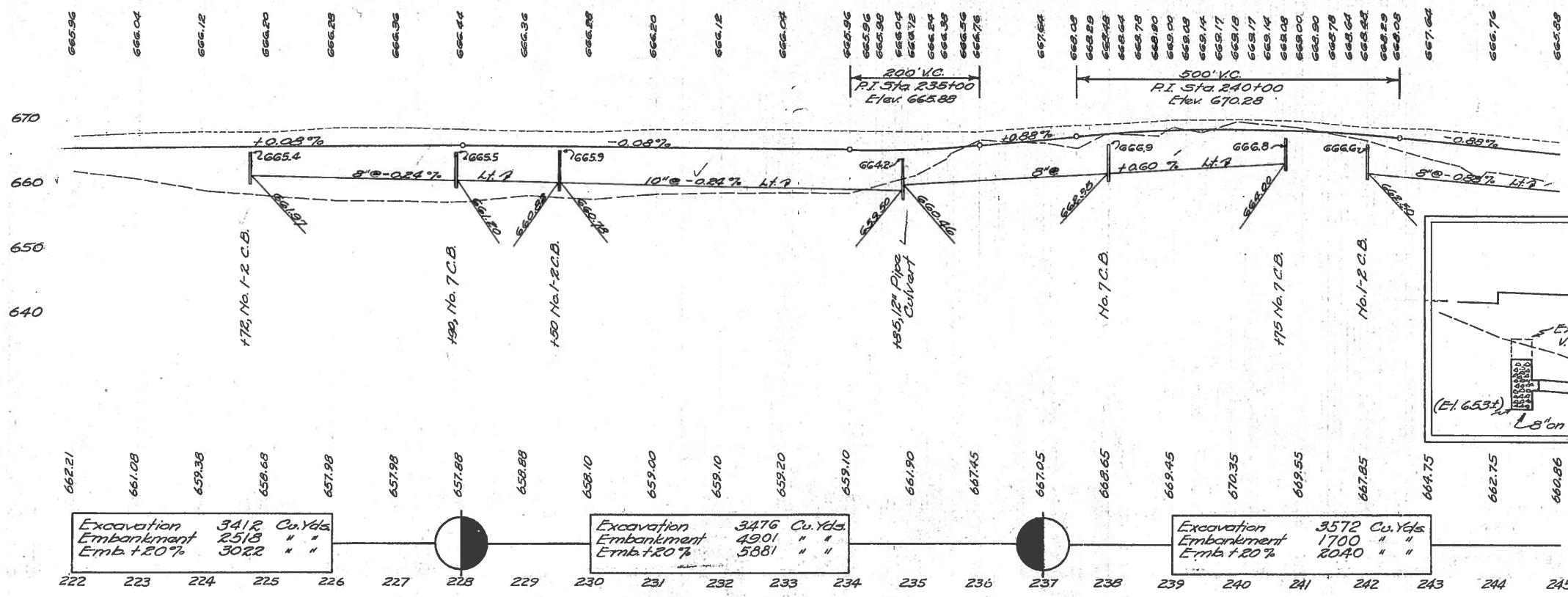
\*To be located as directed by the Engineer in charge.

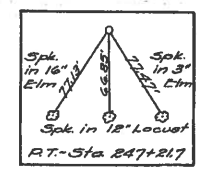
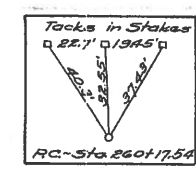
B.M. Sta. 223+18  
Spk. in 12" Elm  
58' Rt.  
Elev. 663.52

B.M. Sta. 230+00  
Spk. in 16" Elm  
75' Rt.  
Elev. 663.86

B.M. Sta. 235+50  
Spk. in 18" Elm  
75' Rt.  
Elev. 662.14

B.M. Sta. 240+00  
Spk. in 10" Walnut  
97' Rt.  
Elev. 664.17





**ROADWAY DRAINAGE "D"**

Ref. No.	Station		Side	Lin. Ft. Pipe for Rdwy. Drng.	Lin. Ft. Pipe for Under Drng.	Std. Catch Basins - Ea.			Lin. Ft. 24" Pipe for Rdwy. Drng. Outlet	Remarks
	From	To				No. 1	No. 2	No. 2		
1-D	244+00	246+50	Lt.	249						
2-D	246+50	South	Rt.	315			1	1	20	See Detail below
3-D	246+50	252+30	Lt.	536						
4-D	253+50	256+30	Lt.	280						
5-D	256+30	261+50	Lt.	518						
6-D	263+50	265+00	Lt.	149						
<b>TOTALS:</b>				1732	315	42	3	2	1	20

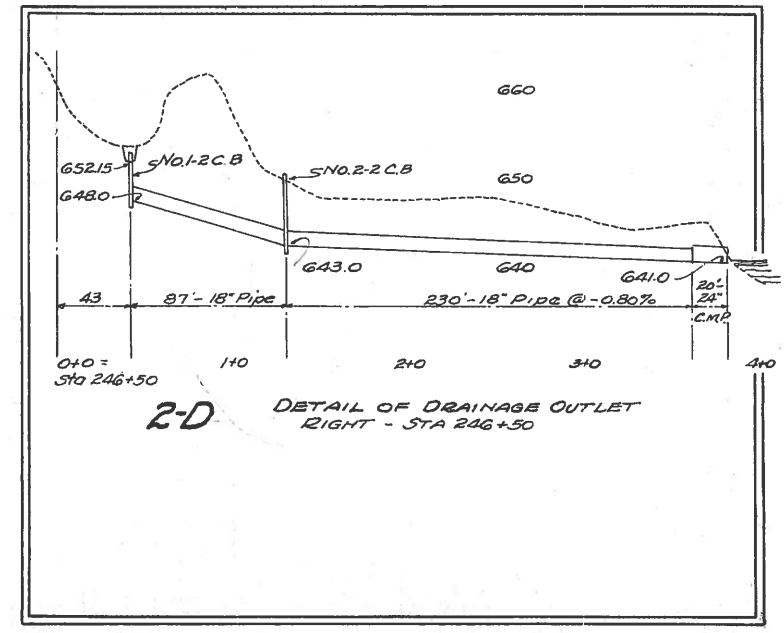
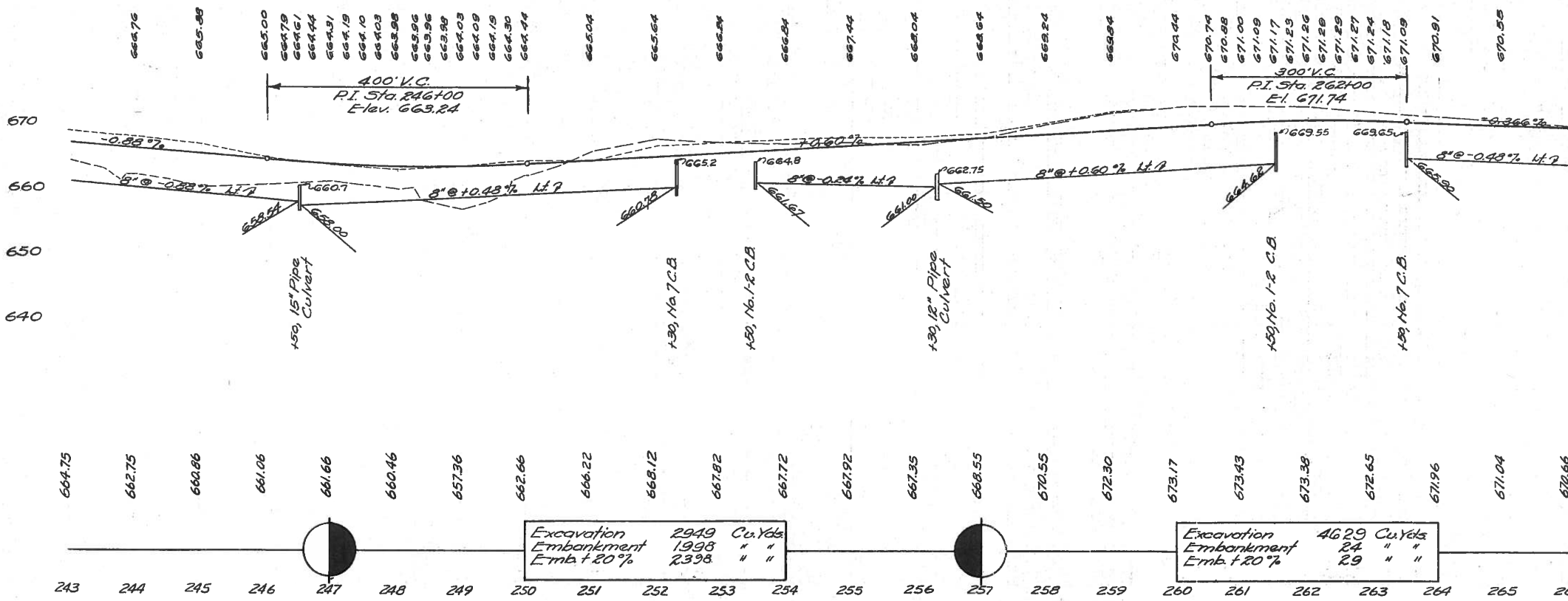
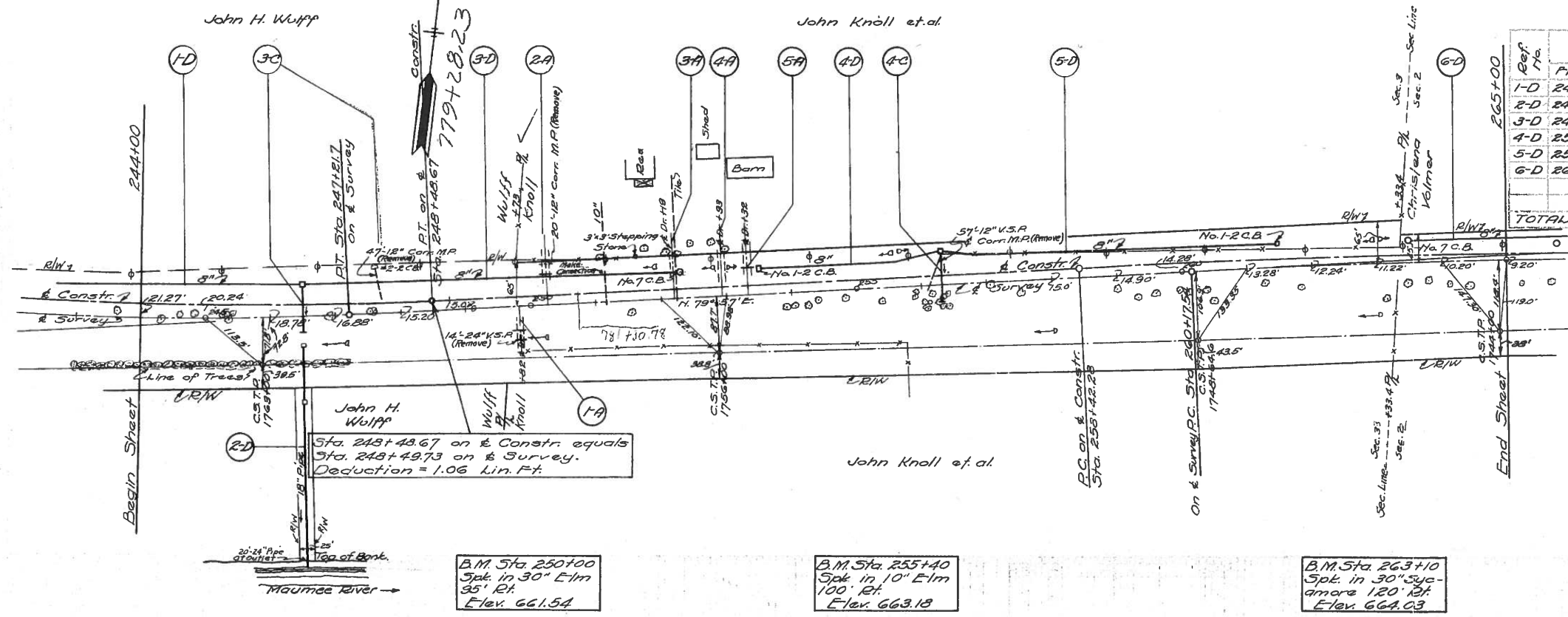
**STRUCTURES "C"**

Ref. No.	Station	Type	Size	See Detail on Sheet
3-C	246+50	Pipe Culv.	15" x 72'	49
4-C	256+30	Pipe Culv.	12" x 72'	49

**SIDE APPROACHES "A"**

Ref. No.	Station	Side	Aggre. gage	Lin. Ft. Pipe for Drives	Lin. Ft. Pipe Run & Stored	Remarks:
1-A	249+82	Rt.	5	30	12" 24"	14
2-A	250+25	Lt.	4	21	20	
3-A	252+19	Lt.	4			No. Pipe Required
4-A	252+33	Lt.	4			No. Pipe Required.
5-A	253+32	Lt.	4	21		
Various			4			*For one Mail Box
<b>TOTALS:</b>				25	72	20 14

\*To be located as directed by the Engineer in charge.





**HENRY COUNTY  
S.H. 51 - SEC. Q (PT)**

**TYPICAL SECTION OF  
EXISTING PAVEMENT**  
Sta. 272+69 to Sta. 281+68.8  
Reuben Nyswander et. al.

**ROADWAY DRAINAGE "D"**

Ref. No.	Station		Lin. Ft. Pipe for Roadway Drainage	Lin. Ft. Pipe for Std. Catch Under Drives Basins - E.C.	Lin. Ft. 24" Pipes for Roadway Drainage	Channel Excavation Cu. Yds.
	From	To				
1-D	265+00	270+50	Lt. 505	42	2	
2-D	270+50	272+50	Lt. 177	21		
3-D	282+00	286+00	Lt. 376	21	1	20
4-D	284+00	South Pt.		80	1	25
<b>TOTALS:</b>			881	178	4	25

**STRUCTURES "C"**

Ref. No.	Station	Type	Size	See Detail on Sheet
5-C	272+50	Pipe Culv.	15"x66'	50

cf. 5-D, Sta. 278 + 72.5, Pt. - Set No. 6  
C.B. Casting to Grade on Existing C.B.

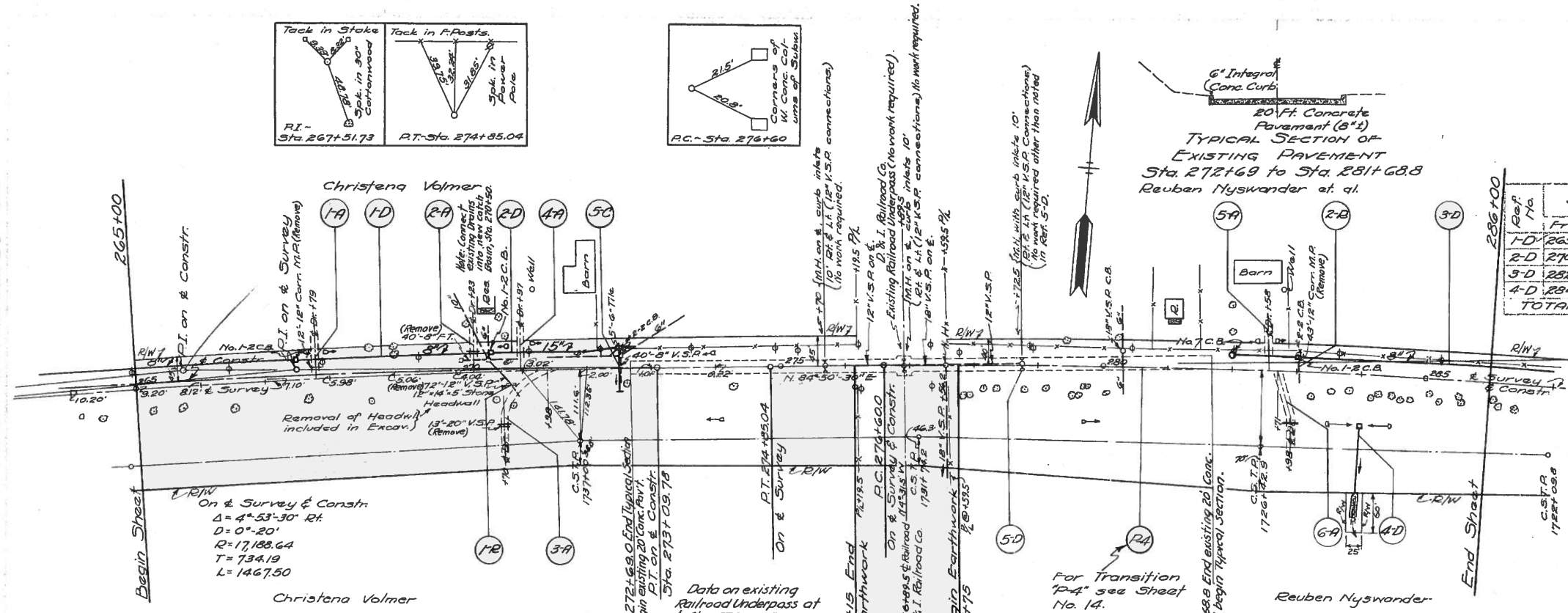
**REMOVALS "R"**

Ref. No.	Station	Lin. Ft. Pipe	Exist. C.B.
1-R	270+47	40	72
2-R	283+03	43	43
1-A	267+70	12	
3-A	270+70		13
<b>TOTALS:</b>		40	127

**SIDE APPROACHES "A"**

Ref. No.	Station	Side	Aggr. Cu. Yds.	n. Ft. Pipe or Drives 12"	Remarks:
1-A	267+70	Lt.	4		No Pipe Required
2-A	270+23	Lt.	4	21	
3-A	270+70	Rt.	5	30	
4-A	270+97	Lt.	4		No Pipe Required
5-A	282+50	Lt.	4		" " "
6-A	282+98	Rt.	4	30	" " "
	Various		0		*For 2 Mail Boxes
<b>TOTALS:</b>			33	81	

\*To be located as directed by the Engineer in charge.

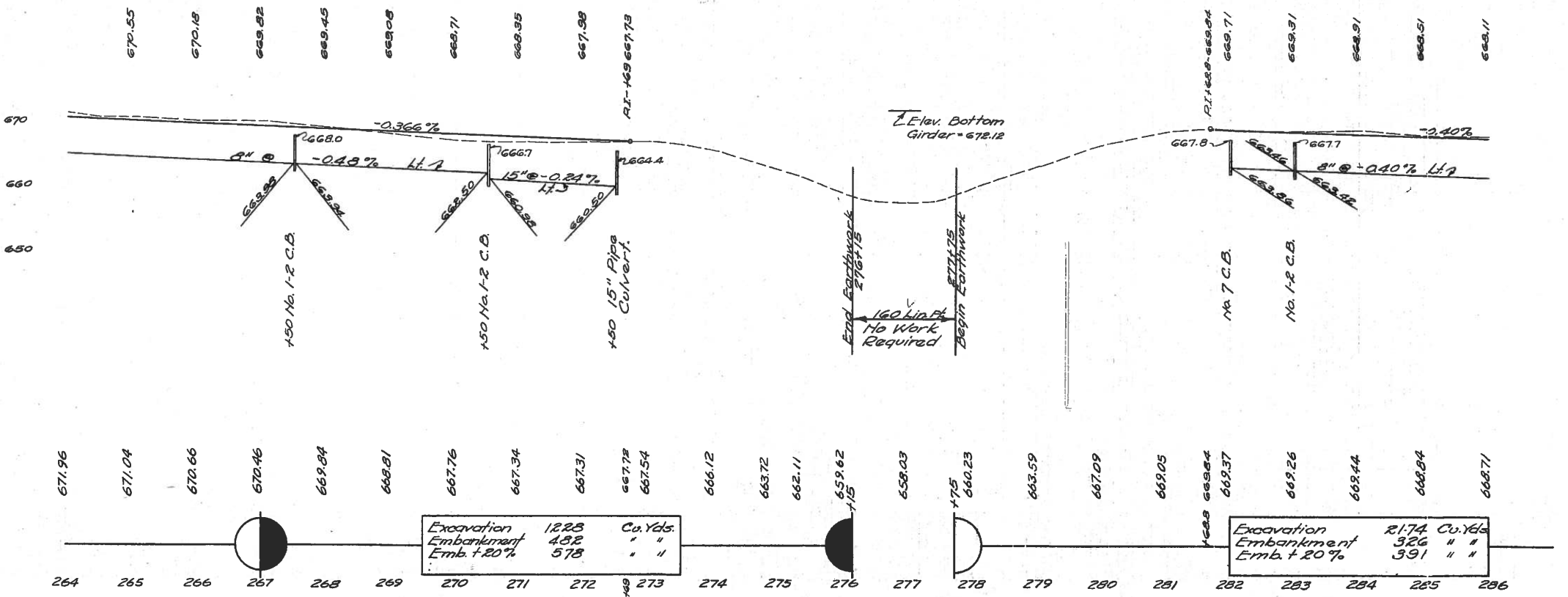


B.M. Sta. 267+55  
Spk. in 15" Elm  
125' Rt.  
Elev. 663.37

B.M. Sta. 271+42  
Spk. in 8" Walnut  
130' Rt.  
Elev. 661.09

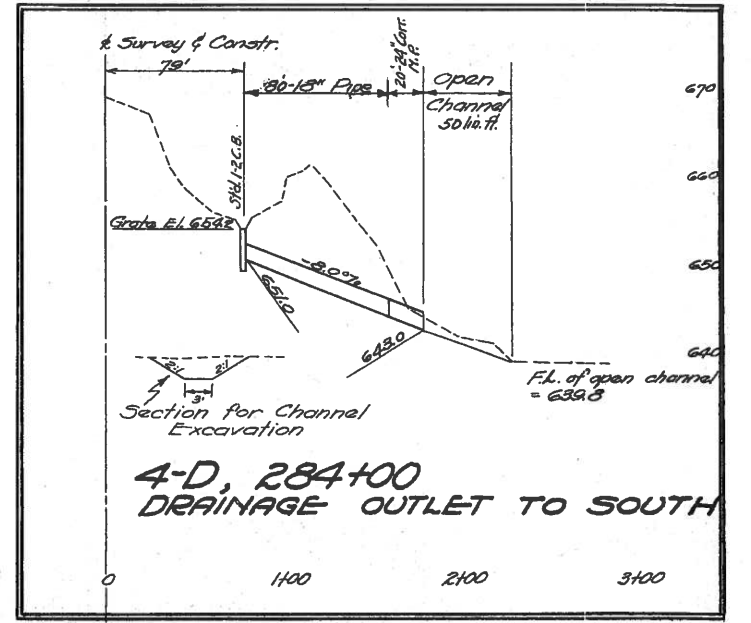
B.M. Sta. 276+62  
Cross on top of  
Curb 10.5 Lt.  
Elev. 658.56

B.M. Sta. 283+00  
Spk. in 8" Walnut  
130' Rt.  
Elev. 662.54



Excavation	12.23	Cu. Yds.
Embankment	4.82	" "
Emb. + 20%	5.78	" "

Excavation	21.74	Cu. Yds.
Embankment	3.26	" "
Emb. + 20%	3.91	" "



**4-D, 284+00  
DRAINAGE OUTLET TO SOUTH**

**HENRY COUNTY  
S.H. 51 - SEC. Q (PT.)**

**STRUCTURES "C"**

Ref. No.	Station	Type	Size	See Detail on Sheet
6-C	301+50	Pipe Culv.	15" x 60"	50

**REMOVALS "R"**

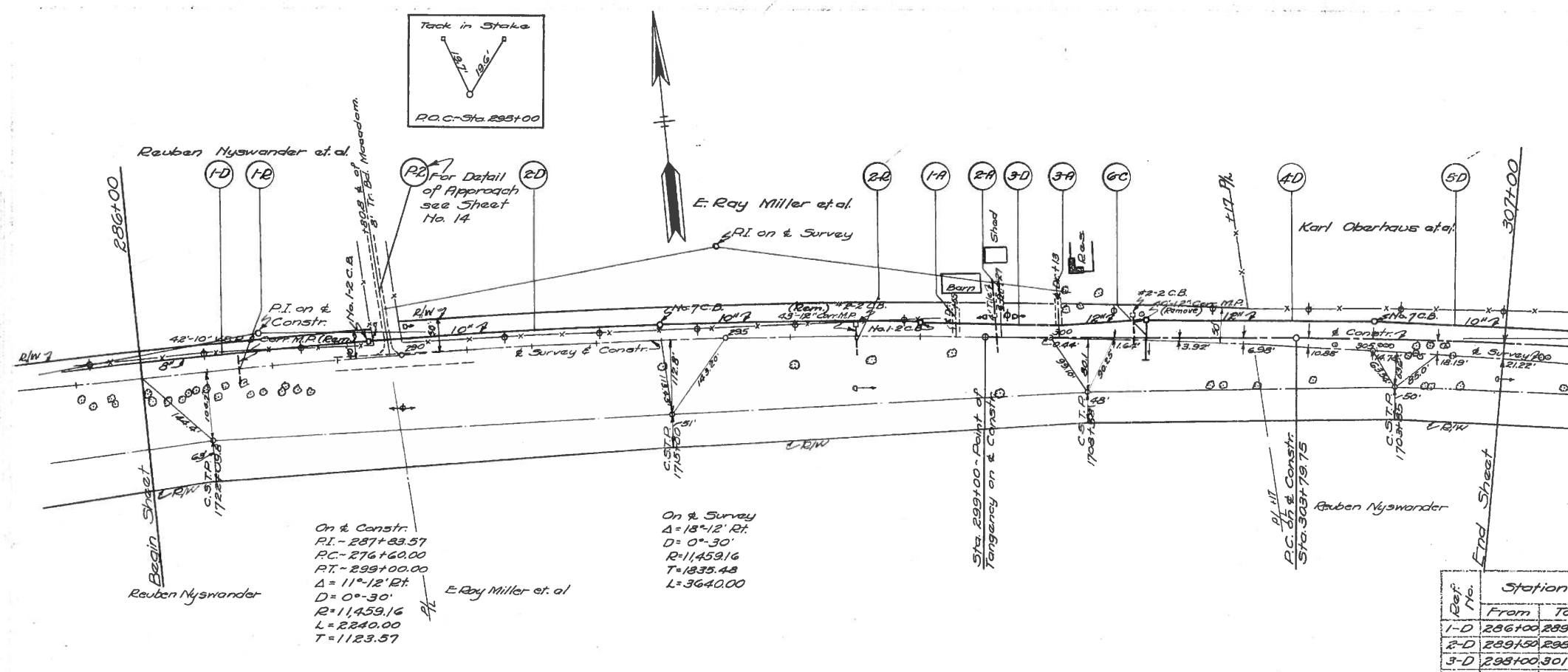
Ref. No.	Station	Lin. Ft. Pipe Rem. & Store	Exist. CB. Rem. & Disp. of
1-R	287+49	42	1
2-R	297+01	43	1
<b>TOTALS:</b>		<b>85</b>	<b>2</b>

**SIDE APPROACHES "A"**

Ref. No.	Station	Side	Aggra. gate Cu. Yds	Lin. Ft. Pipe for Drives 12"	Remarks:
1-A	298+55	Lt.	4	21	No. Pipe Required *To be located as directed by the Engr. in charge.
2-A	299+27	Lt.	4	21	
3-A	300+13	Lt.	4	21	
<b>TOTALS:</b>			<b>12</b>	<b>63</b>	

**ROADWAY DRAINAGE "D"**

Ref. No.	Station		Side	Lin. Ft. Pipe for Rdwy. Drainage			Std. Catch Basins - Ea.	Remarks:
	From	To		8"	10" 12"	10" 12" No. 7		
1-D	286+00	289+50	Lt.	349			1	
2-D	299+50	298+00	Lt.	316	30		1	Pipe Under Side Road to Lt.
3-D	298+00	301+50	Lt.	285		63		
4-D	301+50	305+00	Lt.	349			1	
5-D	305+00	307+00	Lt.	199				
<b>TOTALS:</b>				<b>1498</b>	<b>30</b>	<b>63</b>	<b>2</b>	<b>2</b>



On & Constr.  
P.I. - 287+83.57  
P.C. - 276+60.00  
P.T. - 299+00.00  
Δ = 11°-12' Rt.  
R = 11,459.16  
L = 2240.00  
T = 1123.57

On & Survey  
Δ = 18°-12' Rt.  
D = 0°-30'  
R = 11,459.16  
L = 1835.48  
T = 3640.00

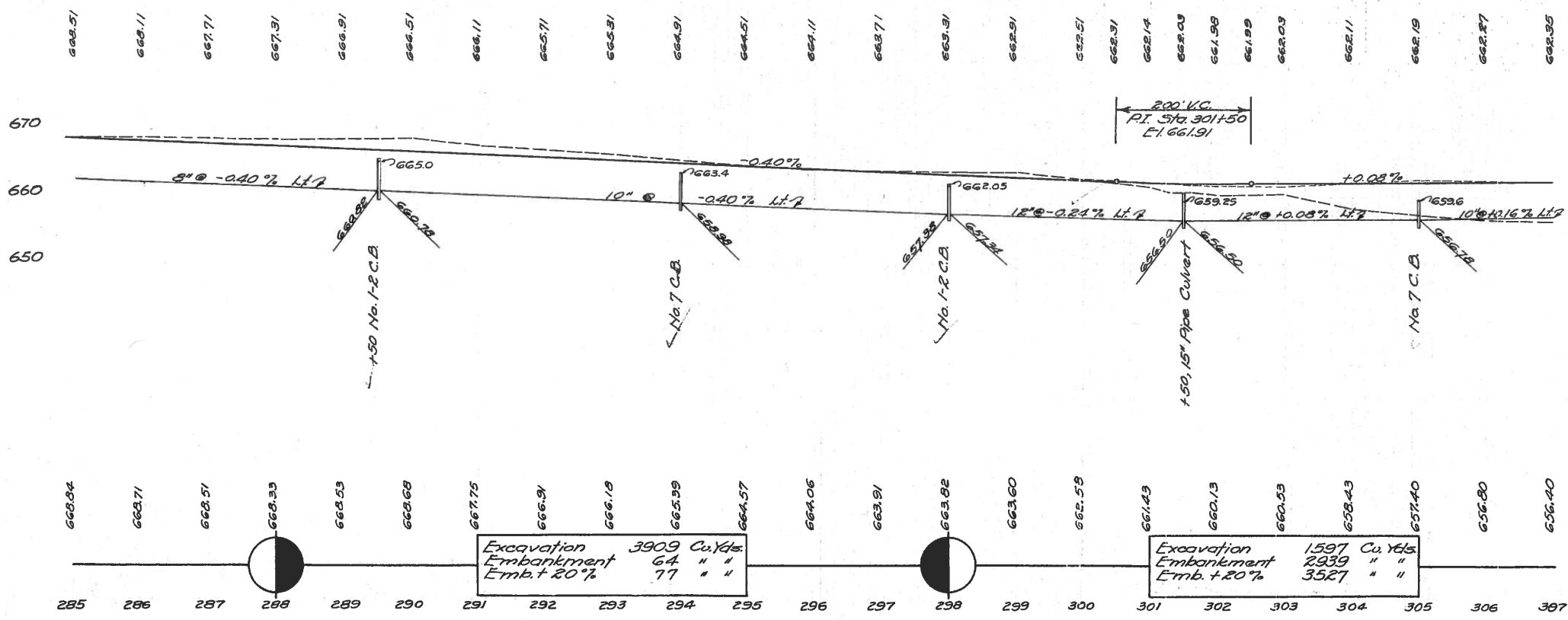
B.M. Sta. 287+70  
Spk. in 10" Elm  
117' Rt.  
Elev. 664.46

B.M. Sta. 290+80  
Spk. in 12" Elm  
120' Rt.  
Elev. 663.32

B.M. Sta. 295+55  
Spk. in 12" Elm  
115' Rt.  
Elev. 663.17

B.M. Sta. 300+00  
Spk. in Elm Clump  
97' Rt.  
Elev. 661.61

B.M. Sta. 304+00  
Spk. in 14" Elm  
70' Rt.  
Elev. 663.48



Excavation 3909 Cu. Yds.  
Embankment 64 " "  
Emb. + 20% 77 " "

Excavation 1597 Cu. Yds.  
Embankment 2939 " "  
Emb. + 20% 3527 " "

**HENRY COUNTY  
S.H. 51 - SEC. Q (PT.)**

**ROADWAY DRAINAGE "D"**

Ref. No.	Station		Side	Lin. Ft. Pipe for Roadway Drainage		Lin. Ft. Pipe for Roadway Drng. Under Drives		Std. Catch Basins - Ea.		Lin. Ft. 24" Pipe for Roadway Drng. Outlet
	From	To		18" 8"	10"	8" 10"	10"	No. 2	No. 7	
1-D	307+00	310+00	Lt.		299				1	
2-D	310+00	316+00	Lt.	575		21		1	1	
3-D	317+30	323+00	Lt.		568					
4-D	323+00	323+00	Lt.	499						
5-D	310+00	South	Rt.	54				1		20
<b>TOTALS:</b>				54	1074	867	21	4	1	20

**STRUCTURES "C"**

Ref. No.	Station	Type	Size	See Detail on Sheet
7-C	317+30	Pipe Culv.	12" x 54"	50

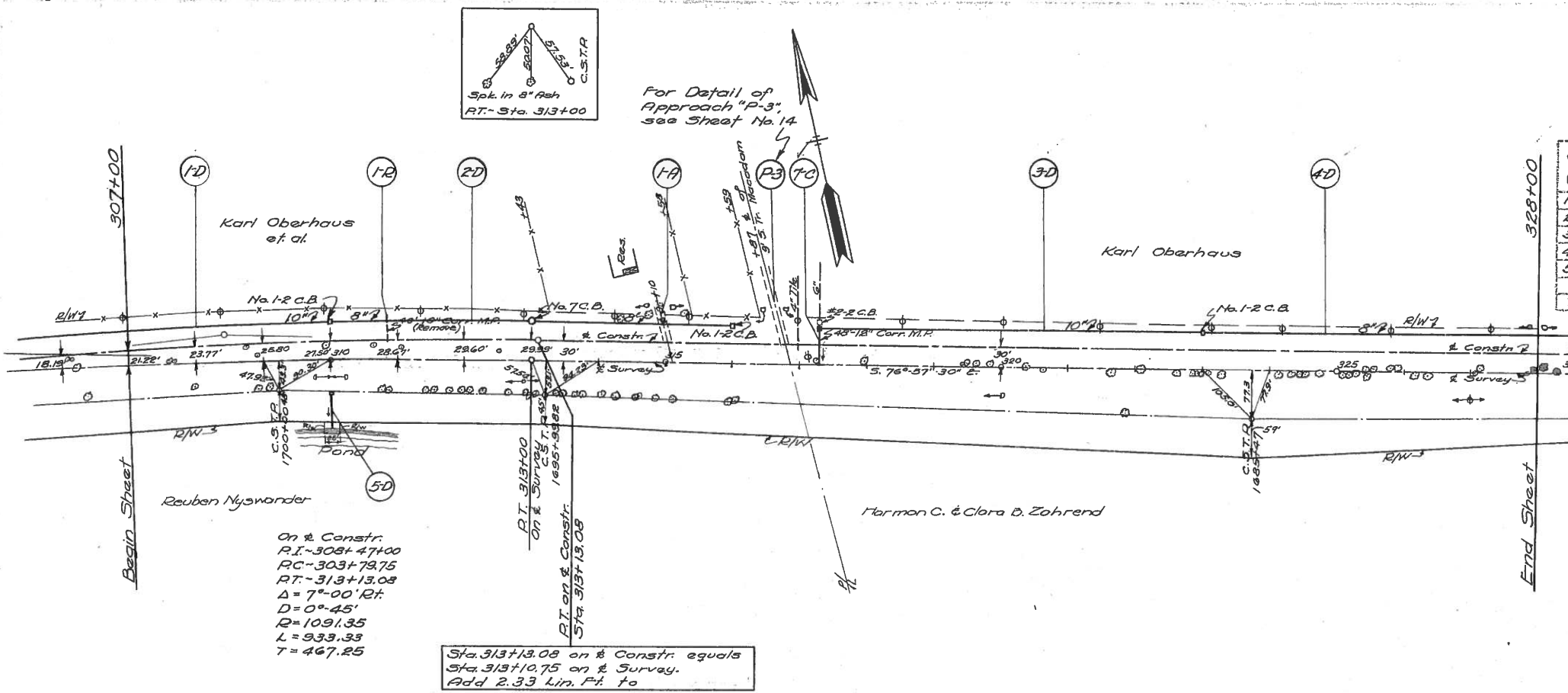
**REMOVALS "R"**

Ref. No.	Station	Lin. Ft. Pipe Rem. & Store.	Exis. C.B. Rem. & Disp. of
1-R	310+85	40	
<b>TOTAL:</b>			

**SIDE APPROACHES "A"**

Ref. No.	Station	Side	Aggre. Lin. Ft. Pipe for Drives	Remarks:
1-A	315+10	Lt.	4	No Pipe Required
	Various		4	For 1 Mail Box
<b>TOTALS:</b>				8

\*To be located as directed by the Engineer in charge.



B.M. Sta. 307+00  
Spk. in 15" Elm  
60' Rt.  
Elev. 662.94

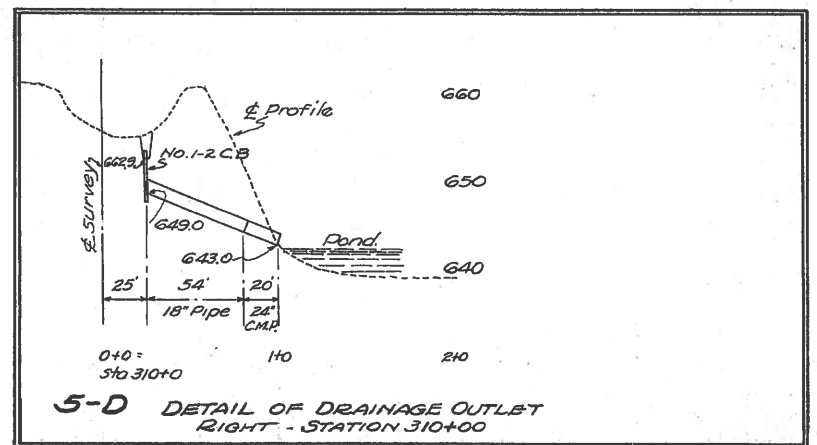
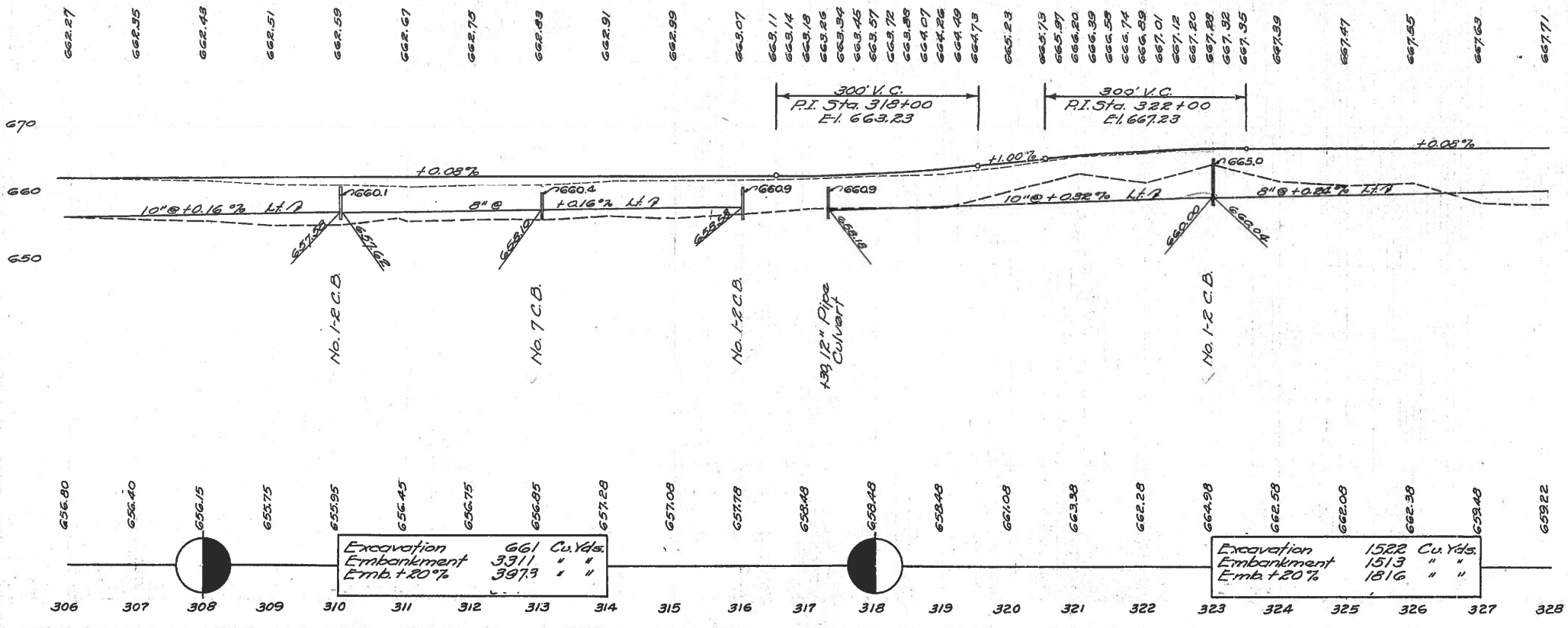
B.M. Sta. 313+50  
Spk. in 18" Elm  
60' Rt.  
Elev. 661.81

B.M. Sta. 318+00  
Spk. in 7" Elm  
85' Rt.  
Elev. 661.75

B.M. Sta. 324+00  
Spk. in 18" Elm  
85' Rt.  
Elev. 661.51

Sta. 313+13.08 on & Constr. equals  
Sta. 313+10.75 on & Survey.  
Add 2.33 Lin. Ft. to

On & Constr.  
R.I.-308+47+00  
R.C.-303+79.75  
R.T.-313+13.08  
Δ = 7°-00' Rt.  
D = 0°-45'  
R = 1091.35  
L = 933.33  
T = 467.25

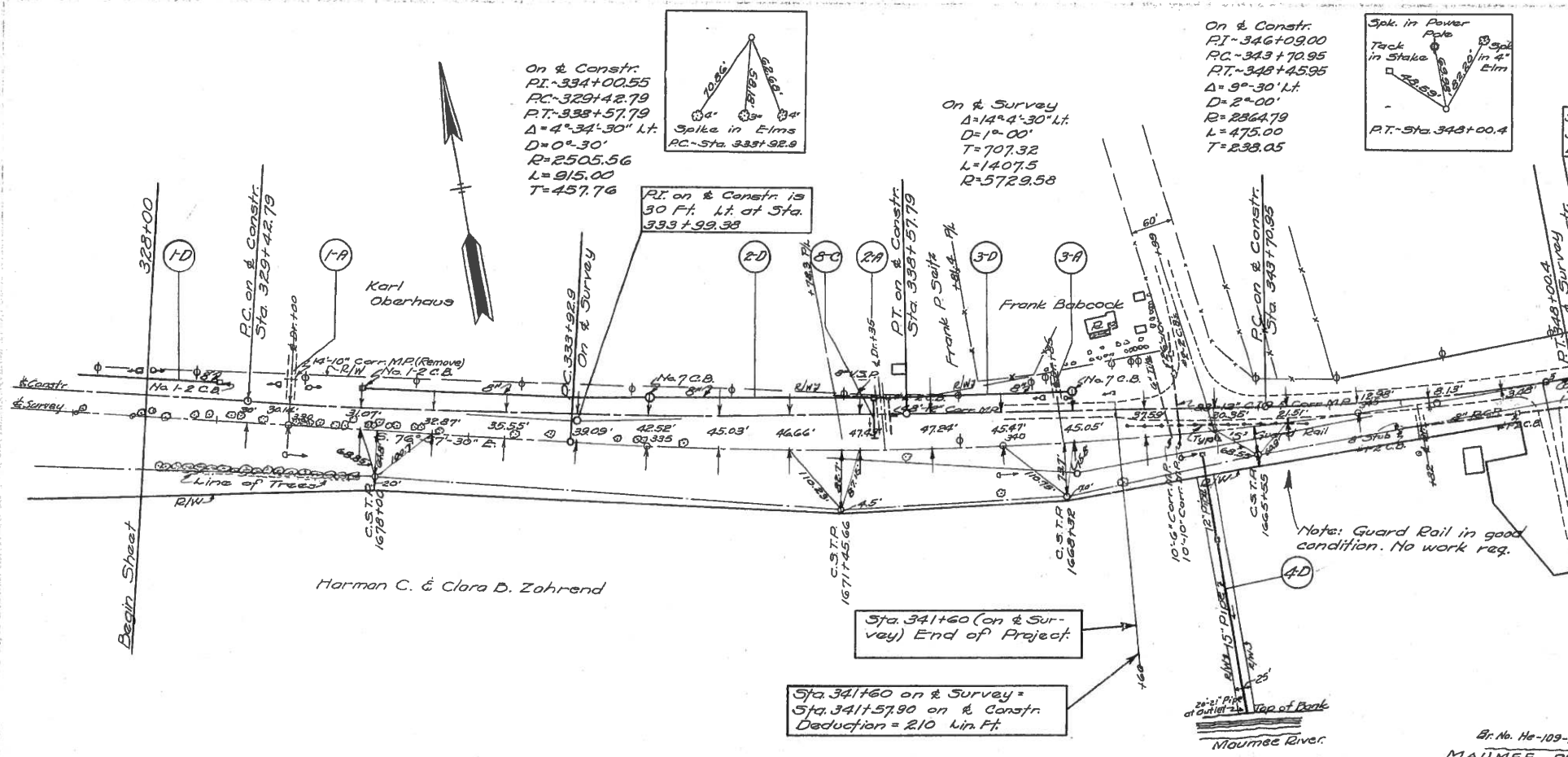


**5-D DETAIL OF DRAINAGE OUTLET  
RIGHT - STATION 310+00**

Excavation 661 Cu. Yds.  
Embankment 391.3 " "

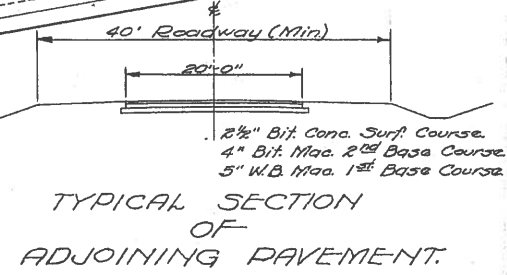
Excavation 1522 Cu. Yds.  
Embankment 151.3 " "

**HENRY COUNTY**  
**S.H. 51 - SEC. "Q" (PT.)**



Sta. 348+45.95 on & Constr. equals  
Sta. 348+51.05 on & Survey.  
Deduct 5.10 Lin. Ft.

Sta. 348+00.4 on & Survey  
of S.H. 51 - Sec. "Q" (pt.) = Sta.  
348+4.2 of S.H. 51 - Sec. "P".



TYPICAL SECTION  
OF  
ADJOINING PAVEMENT.

**ROADWAY DRAINAGE "D"**

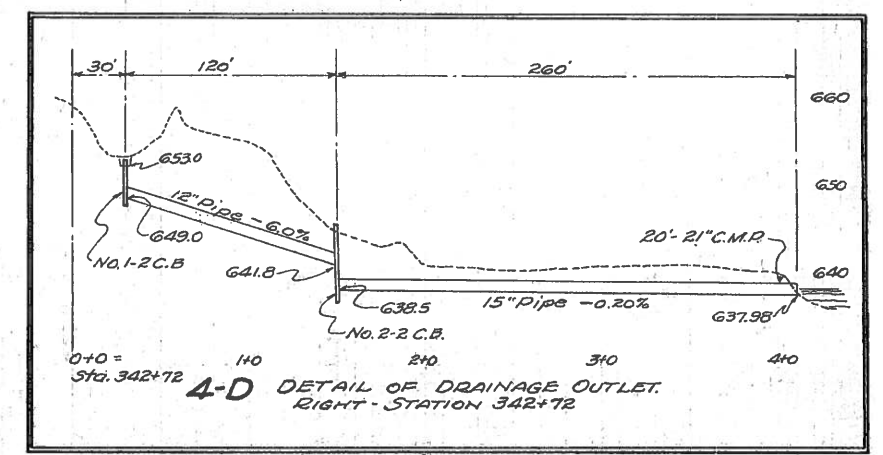
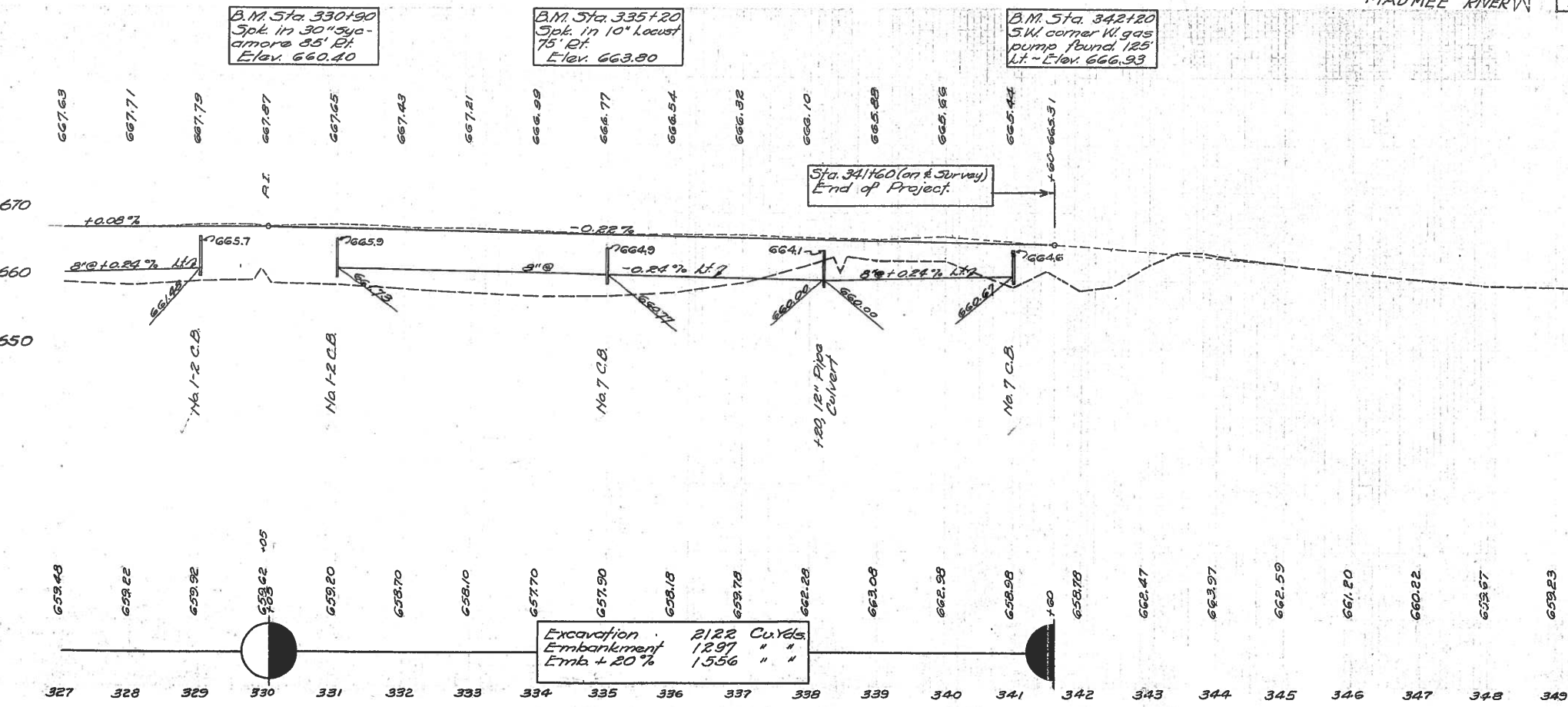
Ref. No.	Station		Side	Lin. Ft. Pipe for Roadway Drainage			Lin. Ft. Pipe for Rdwy. Drng. Under Drives	Std. Catch Basins - Ea.			21" Pipe for Rdwy. Drng. Outlet ~ Lin. Ft.
	From	To		8"	12"	15"		No. 1-2	No. 7	No. 8	
1-D	328+00	329+00	Lt.	99				1			
2-D	331+00	339+20	Lt.	716				1	1		
3-D	339+20	341+00	Lt.	296			42				
4-D	342+72	South	Rt.		120	240				1	20
<b>TOTALS:</b>				1051	120	240	42	3	2	1	20

**STRUCTURES "C"**

Ref. No.	Station	Type	Size	See Detail on Sheet
8-C	335+20	Pipe Cul.	12" x 78"	50

**SIDE APPROACHES "A"**

Ref. No.	Station	Side	Aggr. gate for Drives	Lin. Ft. Pipe for Drives	10" Pipe removed and stored. Lin. Ft.	Remarks:
1-A	330+00	Lt.	4	12"	14	No Pipe Required
2-A	335+35	Lt.	4	21"		" " "
3-A	340+95	Lt.	4			" " "
<b>TOTALS:</b>				12	21	14



**4-D** DETAIL OF DRAINAGE OUTLET.  
RIGHT - STATION 342+72