

STATE OF OHIO
DEPARTMENT OF HIGHWAYS
BUREAU OF CONSTRUCTION

FED. AID DIST. NO.	STATE	FED. AID PROJECT	FISCAL YEAR
10	OHIO		1934

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HOLMES COUNTY
S.H. 341 SEC. G (PT)

MILLERSBURG — DOVER ROAD

S.H. 341 SEC. G (PT.)

HOLMES COUNTY

BERLIN TOWNSHIP

NET LENGTH OF PROJECT 9162.5 LIN. FT. = 1.737 MI.

The Standard Specifications of the State of Ohio, Department of Highways, in force on date of contract, will govern this improvement.

I hereby approve these plans and declare that the making of this improvement will require the closing of the highway to traffic and that a temporary road will be provided as shown on the plans and estimates.
The necessary right of way has been provided.

Approved *Karl Snyder*
Date *8-15-34* Resident District Deputy Director

Approved *Fred K. Buehler*
Date *8-19-34* Resident Division Deputy Director

Approved _____
Date _____ Chief Engineer, Bureau of Maintenance.

Approved _____
Date _____ Chief Engineer, Bureau of Bridges.

Approved *Elmer Hilly*
Date *9-11-34* Chief Engineer, Bureau of Construction.

Approved *H.P. Chapman*
Date *9-11-34* First Ass't. Director and Chief Engineer.

Approved *O.W. Merrill*
Date *9-11-34* Director of Highways.

Recommended for Approval _____
Date _____ District Engineer, Bureau of Public Roads.

Recommended for Approval _____
Date _____ Chief Engineer, Bureau of Public Roads.

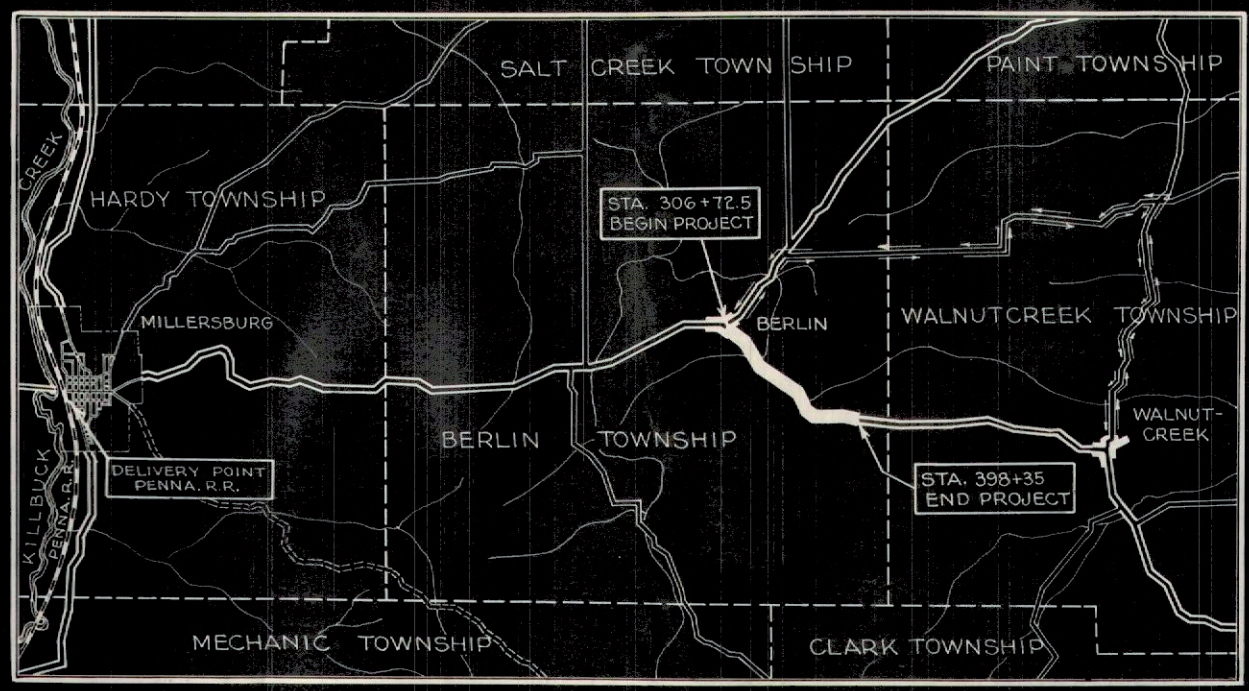
Approved _____
Date _____ Chief of Bureau.

CONVENTIONAL SIGNS

STATE LINE	----
COUNTY LINE	----
TOWNSHIP LINE	----
SECTION LINE	----
CENTER LINE	----
PROPERTY LINE	----
CITY OR VILLAGE LINE	----
FENCE LINE	----
STEAM RAILROAD	----
ELECTRIC RAILROAD	----
POLE LINE	----
GUARD RAIL	----
DRAIN PIPE, NEW	----
DRAIN PIPE, OLD	----

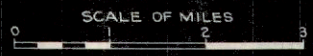
INDEX OF SHEETS

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AVERAGE HAUL 9 MILES

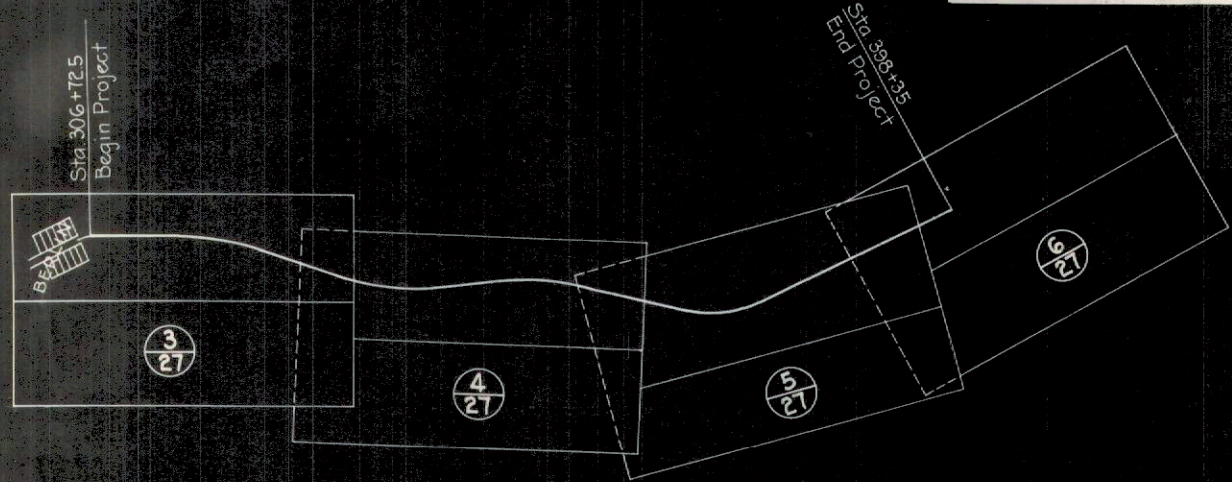
LOCATION PLAN



PORTION TO BE IMPROVED
DETOURS SHOWN THUS
STATE HIGHWAYS
IMPROVED COUNTY ROADS
UNIMPROVED COUNTY ROADS

SCALES

PLAN	1" = 100'
PROFILE - VERTICAL	1" = 10'
PROFILE - HORIZONTAL	1" = 100'
CROSS-SECTIONS	1" = 5'



ROAD INDEX BY SHEETS
Right of Way 60'
Scale 1" = 1000'

FILE NO.	HOLMES 341 G(PT)
DATE OF SALE	1934
CONTRACT NO.	

SUPPLEMENTAL PRINTS OF STANDARD CONSTRUCTION DRAWINGS
S-27 PC-1; S-27 PC-2; S-27 PC-3; I-1,2,3,4,5; I-8 I.N.O.1; G-7.07

CHECKING RECORD		
OFFICE	BY	DATE
RESIDENT	S.S.P.	8-15-34
DIVISION		
BUREAU OF MAINTENANCE		
BUREAU OF BRIDGES		
BUREAU OF CONSTRUCTION	W.R.U.	8-20-34
BUREAU OF PUBLIC ROADS		

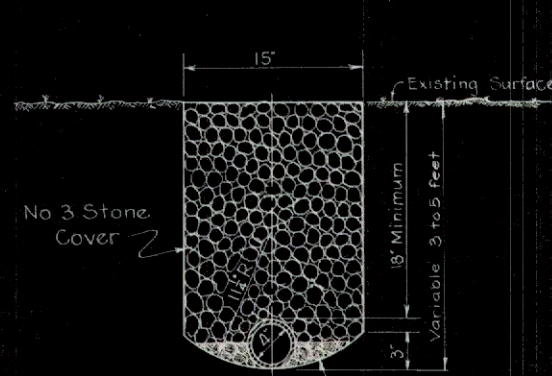
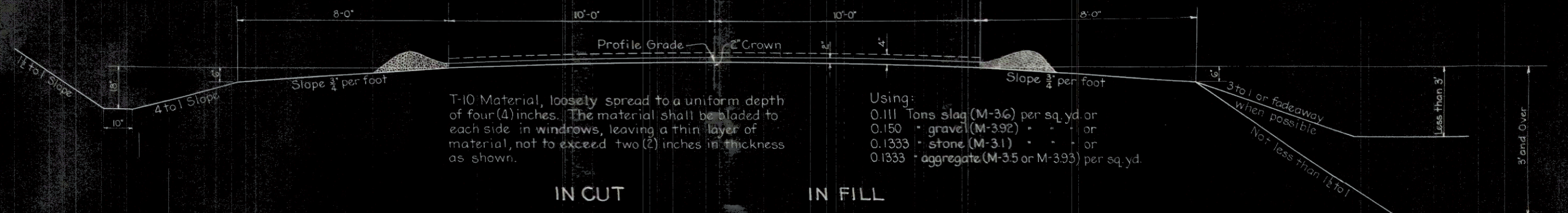
RECEIVED
By <i>W.C. Merrill</i> Clerk of Sales
9-11-1934 Date

APPROVED
By <i>G.L. Meyer</i> Planning Engineer
8-15-34 Date
Remarks <i>approved at 10:25</i> <i>at 10:25</i>

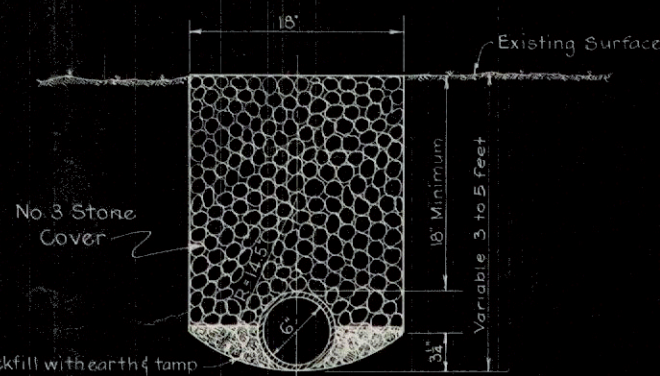
TYPICAL SECTIONS

FOR GRADING & TRAFFIC BOUND SURFACE
ITEMS E-1 & T-10

SCALE 1/2"=1'-0"



DETAIL 4" PIPE UNDERDRAIN



DETAIL 6" PIPE UNDERDRAIN

Note: Pavement on all curves will be superelevated and on curves 5' or over will be widened. See curve tables, Sheet No. 7.

Note: During the construction of this project, the contractor shall conduct his construction operations in such a manner that no more of the present pavement be disturbed than can be rebuilt before weather conditions discontinue paving operations, and that the entire project be open to traffic during the winter months as directed by the engineer in charge.

STRUCTURES 20' SPAN & UNDER											
Item No.	Station	Removals		Type	Size	Excavation		Concrete	Reinf. Steel	V.S.P. (Enc)	Remarks
		Type	Size (in. Ft.)			Channel Cu Yds.	Struct. Cu Yds.				
3-C	336+95	Corr. IP	18" x 32"	V.S.P. (Enc)	27" x 60" x 0"	12	38	0.4		57	Moved from 336+91
Totals						12	38	0.4		57	

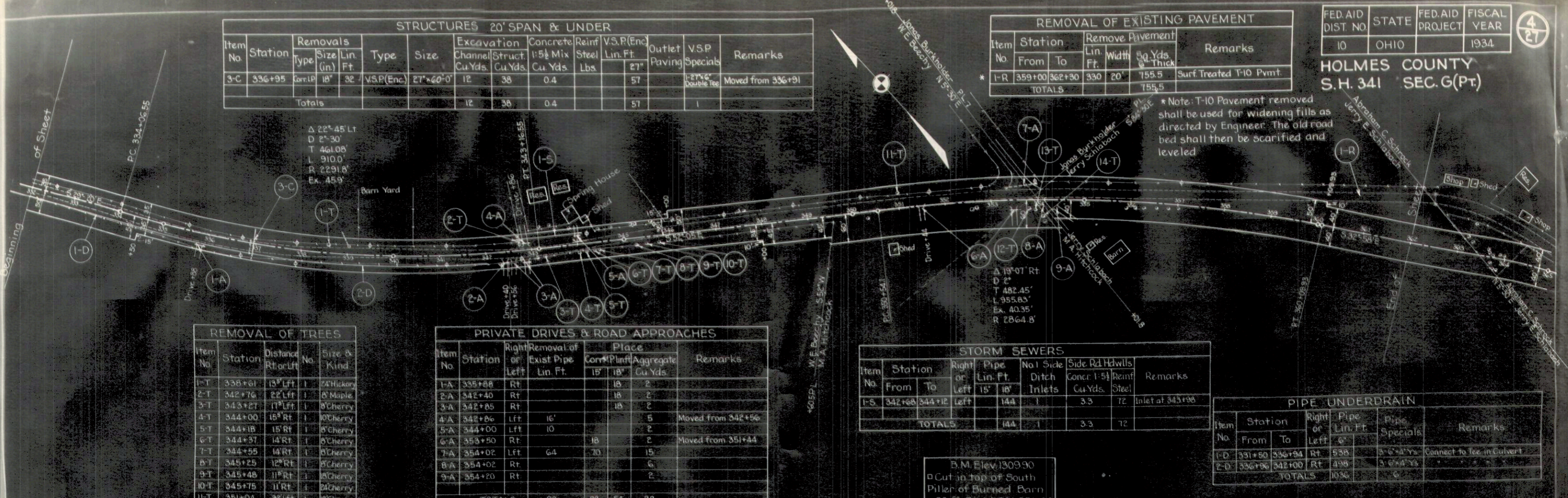
REMOVAL OF EXISTING PAVEMENT						
Item No.	Station	Remove Pavement			Remarks	
		From	To	Sq. Yds. 5/8" Thick		
1-R	359+00	362+30	330	20'	755.5	Surf. Treated T-10 Pvmnt.
TOTALS						755.5

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* Note: T-10 Pavement removed shall be used for widening fills as directed by Engineer. The old road bed shall then be scarified and leveled.



REMOVAL OF TREES				
Item No.	Station	Distance Rt or Lft	No.	Size & Kind
1-T	338+61	13' Lft	1	24" Hickory
2-T	342+76	22' Lft	1	8" Maple
3-T	343+27	17' Lft	1	8" Cherry
4-T	344+00	15' Rt	1	10" Cherry
5-T	344+18	15' Rt	1	8" Cherry
6-T	344+37	14' Rt	1	8" Cherry
7-T	344+95	14' Rt	1	8" Cherry
8-T	345+25	12' Rt	1	8" Cherry
9-T	345+48	11' Rt	1	8" Cherry
10-T	345+75	11' Rt	1	24" Cherry
11-T	351+04	32' Lft	1	8" Cherry
12-T	353+80	15' Rt	1	40" Oak
13-T	353+94	17' Rt	1	16" Gum
14-T	354+10	43' Rt	1	10" Pear
TOTALS 14				

PRIVATE DRIVES & ROAD APPROACHES						
Item No.	Station	Right or Left	Removal of Exist. Pipe Lin. Ft.	Place		Remarks
				Concr. Plnt	Aggregate Cu Yds.	
1-A	335+88	Rt		18	2	
2-A	342+40	Rt		18	2	
3-A	342+85	Rt		18	2	
4-A	342+86	Lft	16'		5	Moved from 342+56
5-A	344+00	Lft	10		2	
6-A	353+50	Rt		18	2	Moved from 351+44
7-A	354+02	Lft	64	70	15	
8-A	354+02	Rt		6	2	
9-A	354+20	Rt			2	
TOTALS 90 88 54 38						

STORM SEWERS										
Item No.	Station	Right or Left	Pipe Lin. Ft.	No. of Side Inlets	Side Rd. Hd. Wlls		Remarks			
					Concr. Cu Yds.	Reinf. Steel				
1-S	342+88	344+12	Left	144	1	3.3	72	Inlet at 343+98		
TOTALS							144	1	3.3	72

PIPE UNDERDRAIN					
Item No.	Station	Right or Left	Pipe Lin. Ft.	Pipe Specials	Remarks
2-D	336+96	342+00	Rt	498	3" x 4" Ys.
TOTALS 1036 6					

B.M. Elev. 1309.90
Cut in top of South Pillar of Burned Barn
90 ft. Right Sta 351+30

B.M. Elev. 1263.89
Cut in top of Stone Wall
S.W. Cor. Res. Foundation
46 ft. Left Sta 343+90

B.M. Elev. 1275.52
Cut in N.W. Cor. Cistern
Cut in N.W. Cor. Barn
120 ft. Right Sta 355+00



Excavation 2567 Cu Yds.
Embankment 2139
Emb +20% 2567

Excavation 3625 Cu Yds.
Embankment 3020
Emb +20% 3625

Excavation 14930 Cu Yds.
Embankment 12235
Emb +20% 14682
Waste 248

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STA 306+72.5 (Exist Pav) P.T. 307+26.14

LEFT			D=18°R			RIGHT		
Edge Pavmt	Add or Deduct	Width	Station	Grade Elev.	Width	Add or Deduct	Edge of Pavmt.	
1293.28	0.75	10.00	306+72.5	1292.70	10.00	-0.17	1292.53	
1293.15	0.75		+75	92.57			92.40	
99.09	0.75		+76	92.51			92.34	
91.80	0.75		307	91.22			91.05	
90.30	0.60		+25	89.87			89.70	
90.24	0.60		+26	89.81			89.64	
88.81	0.46		+50	88.52			88.35	
87.31	0.31		+75	87.17			87.00	
85.89	0.16		308	85.90			85.73	
84.62	0.00		+25	84.79			84.62	
1284.58	0.00	10.00	+26	1284.75	10.00	0.17	1284.58	

No Extra Pavement

2° CURVE CONTINUED

LEFT			RIGHT				
Edge Pavmt	Add or Deduct	Width	Station	Grade Elev.	Width	Add or Deduct	Edge Pavmt
1261.57	0.40	10.00	325+25	1261.34	10.00	-0.17	1261.17
61.30	0.36		+397	61.11			60.94
60.95	0.31		+50	60.81			60.64
60.32	0.22		+75	60.27			60.10
59.70	0.13		326	59.74			59.57
59.07	0.04		+25	59.20			59.03
1258.80	0.00	10.00	+397	1258.97	10.00	0.17	1258.80

No Extra Pavement

2°30' Curve Continued

LEFT			RIGHT				
Edge Pavmt	Add or Deduct	Width	Station	Grade Elev.	Width	Add or Deduct	Edge Pavmt
1261.56	-0.17	10.00	343+75	1261.83	10.00	+0.17	1261.73
62.63	0.17	10.00	344+00	62.80	10.00	0.07	62.70
1263.37	0.17	10.00	+16.55	1263.54	10.00	0.00	1263.37

No Extra Pavement

P.C. 316+29.3 P.T. 325+35.97

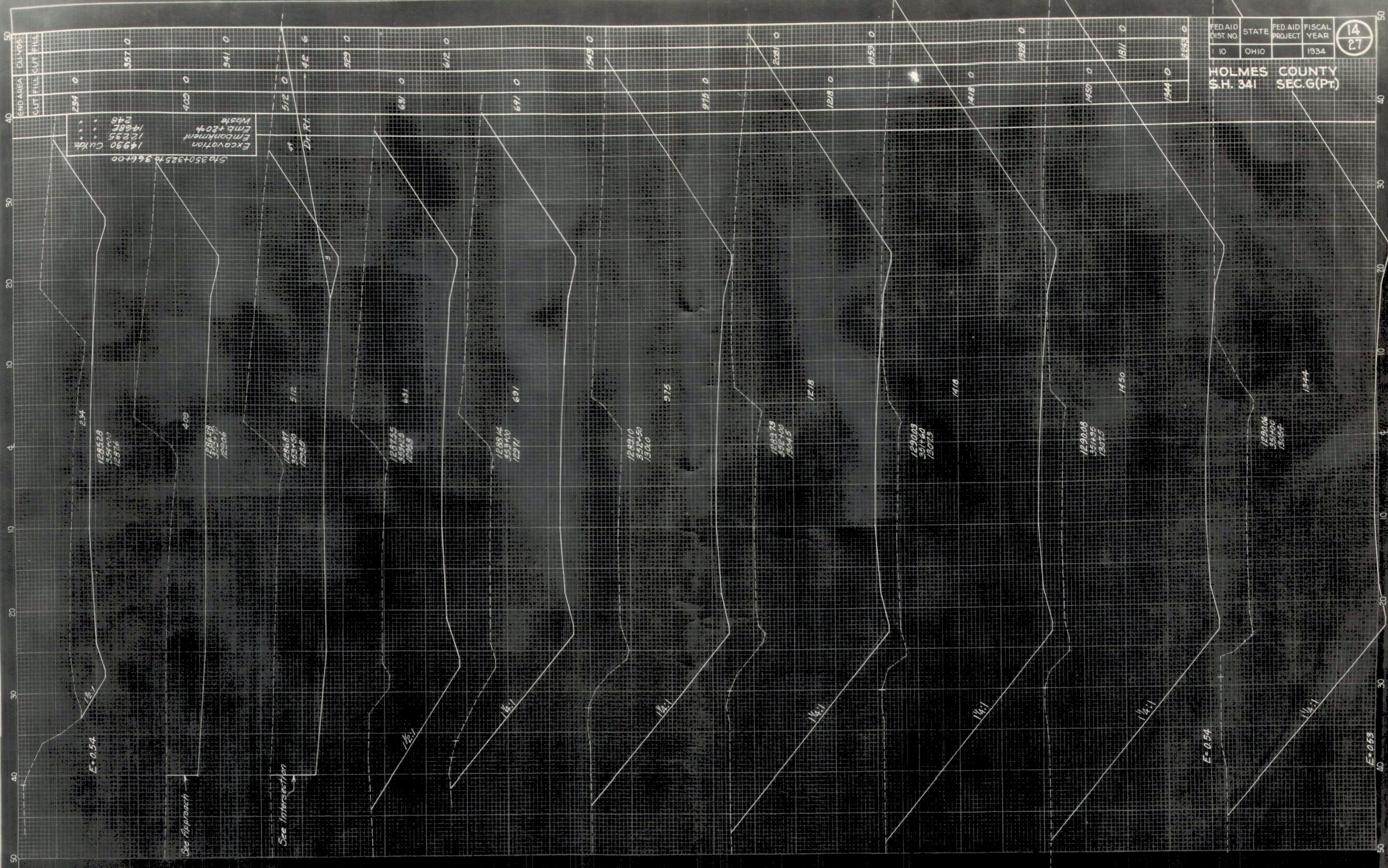
LEFT			D=2°R			RIGHT		
Edge Pavmt	Add or Deduct	Width	Station	Grade Elev.	Width	Add or Deduct	Edge Pavmt	
1282.48	0.00	10.00	315+29.3	1282.65	10.00	-0.17	1282.48	
82.11	0.07		+50	82.21			82.04	
81.66	0.16		+75	81.67			81.50	
81.22	0.25		316	81.14			80.97	
80.77	0.34		+25	80.60			80.43	
80.70	0.36		+29.3	80.51			80.34	
80.33	0.43		+50	80.07			79.90	
79.88	0.52		+75	79.53			79.36	
79.81	0.54		+79.3	79.44			79.27	
79.37			317	79.00			78.83	
78.83			+25	78.46			78.29	
78.30			+50	77.93			77.76	
77.76			+75	77.39			77.22	
77.13			318	76.86			76.69	
76.69			+25	76.32			76.15	
76.16			+50	75.79			75.62	
75.62			+75	75.25			75.08	
75.09			319	74.72			74.55	
74.55			+25	74.18			74.01	
74.02			+50	73.65			73.48	
73.49			+75	73.11			72.94	
72.95			320	72.58			72.41	
72.41			+25	72.04			71.87	
71.88			+50	71.51			71.34	
71.34			+75	70.97			70.80	
70.81			321	70.44			70.27	
70.27			+25	69.90			69.73	
69.74			+50	69.37			69.20	
69.20			+75	68.83			68.66	
68.67			322	68.30			68.13	
68.13			+25	67.76			67.59	
67.60			+50	67.23			67.06	
67.06			+75	66.69			66.52	
66.53			323	66.16			65.99	
65.99			+25	65.62			65.45	
65.46			+50	65.09			64.92	
64.92			+75	64.55			64.38	
64.39			324	64.02			63.85	
63.85			+25	63.48			63.31	
63.32			+50	62.95			62.78	
62.78			+75	62.41			62.24	
62.55	0.54		+85.97	62.18			62.01	
62.20	0.49		325	61.88			61.71	

P.C. 334+06.55 P.T. 343+16.55

LEFT			D=2°30'L			RIGHT		
Edge Pavmt	Add or Deduct	Width	Station	Grade Elev.	Width	Add or Deduct	Edge Pavmt	
1252.39	-0.17	10.00	333+06.55	1252.56	10.00	+0.00	1252.39	
52.32			+25	52.49		0.08	52.40	
52.22			+50	52.39		0.18	52.40	
52.12			+75	52.29		0.29	52.41	
52.02			334	52.19		0.39	52.41	
51.99			+06.55	52.16		0.42	52.41	
51.92			+25	52.09		0.50	52.42	
51.82			+50	51.99		0.60	52.42	
51.79			+56.55	51.96		0.63	52.42	
51.72			+75	51.89			52.35	
51.62			335	51.79			52.25	
51.52			+25	51.69			52.15	
51.42			+50	51.59			52.05	
51.37			+75	51.51			52.00	
51.29			336	51.46			51.92	
51.27			+25	51.44			51.90	
51.29			+50	51.45			51.92	
51.34			+75	51.51			51.97	
51.42			337	51.59			52.05	
51.53			+25	51.70			52.16	
51.68			+50	51.85			52.31	
51.85			+75	52.02			52.48	
52.07			338	52.24			52.70	
52.31			+25	52.48			52.94	
52.59			+50	52.76			53.22	
52.88			+75	53.05			53.51	
53.18			339	53.35			53.81	
53.47			+25	53.64			54.10	
53.77			+50	53.94			54.40	
54.06			+75	54.23			54.69	
54.36			340	54.53			54.99	
54.65			+25	54.82			55.28	
54.95			+50	55.12			55.58	
55.24			+75	55.41			55.87	
55.57			341	55.71			56.20	
55.83			+25	56.00			56.46	
56.13			+50	56.30			56.76	
56.46			+75	56.63			57.09	
56.86			342	57.08			57.49	
57.33			+25	57.50			57.99	
57.88			+50	58.05			58.51	
58.29			+66.55	58.46		0.63	58.91	
58.49			+75	58.66		0.60	59.09	
59.18			343	59.35		0.49	59.67	
59.67			+16.55	59.84		0.42	60.09	
59.93			+25	60.10		0.38	60.31	
1260.76	-0.17	10.00	+50	1260.93	10.00	0.28	1261.04	

P.C. 350+54.10 P.T. 360+09.93

LEFT			D=2°R			RIGHT		
Edge Pavmt	Add or Deduct	Width	Station	Grade Elev.	Width	Add or Deduct	Edge Pavmt	
1288.07	0.00		349+54.1	1288.24	10.00	-0.17	1288.07	
88.60	+0.08	10.00	+75	88.69			88.52	
89.12	0.17		350+00	89.12			88.95	
89.57	0.26		+25	89.46			89.31	
89.94	0.35		+50	89.76			89.59	
89.97	0.36		+54.10	89.78			89.61	
90.22	0.44		+75	89.95			89.78	
90.43	0.53		351+00	90.07			89.90	
90.44	0.54		+04.10	90.07			89.90	
90.48			+25	90.11			89.94	
90.44			+50	90.07			89.90	
90.32			+75	89.95			89.78	
90.12			352+00	89.75			89.58	
89.84			+25	89.47			89.30	
89.48			+50	89.11			88.94	
89.04			+75	88.67			88.50	
88.53			353+00	88.16			87.99	
87.93			+25	87.56			87.39	
87.25			+50	86.88			86.71	
86.50			+75	86.13			85.96	
85.66			354+00	85.29			85.12	
84.74			+25	84.37			84.20	
83.75			+50	83.38			83.21	
82.67			+75	82.30			82.13	
81.52			355+00	81.15			80.98	
80.29			+25	79.92			79.75	
78.97			+50	78.60			78.43	
77.58			+75	77.21			77.04	
76.11			356+00	75.74			75.57	
74.56			+25	74.19			74.02	
72.93			+50	72.56			72.39	
71.22			+75	70.85			70.68	
69.47			357+00	69.10			68.93	
67.72			+25	67.35			67.18	
65.97			+50	65.60			65.43	
64.22			+75	63.85			63.68	
62.47			358+00	62.10			61.93	
60.72			+25	60.35			60.18	
58.97			+50	58.60			58.43	
57.22			+75	56.85			56.68	
55.47			359+00	55.10			54.93	
53.72								



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Excavation
14930 Cu Yds.
Embankment
1235
Waste
1468
248

Sta 350+32.5 to 366+00

See Approach

See Intersection

E=0.54

E=0.53

128228
354700
12576

128658
353710
12506

128687
353400
12535

128745
353120
12528

128814
353400
12571

128910
353450
13010

128979
353400
13045

129003
351400
13072

129008
351495
13075

129006
351400
13054

13444

END AREA	CUT	FILL	CUT	FILL
284 0				
409 0				
512 0				
612 0				
691 0				
795 0				
881 0				
953 0				
1018 0				
1088 0				
1150 0				
1218 0				
1281 0				
1344 0				
1409 0				
1474 0				
1549 0				

409 0
512 0
612 0
691 0
795 0
881 0
953 0
1018 0
1088 0
1150 0
1218 0
1281 0
1344 0
1409 0
1474 0
1549 0

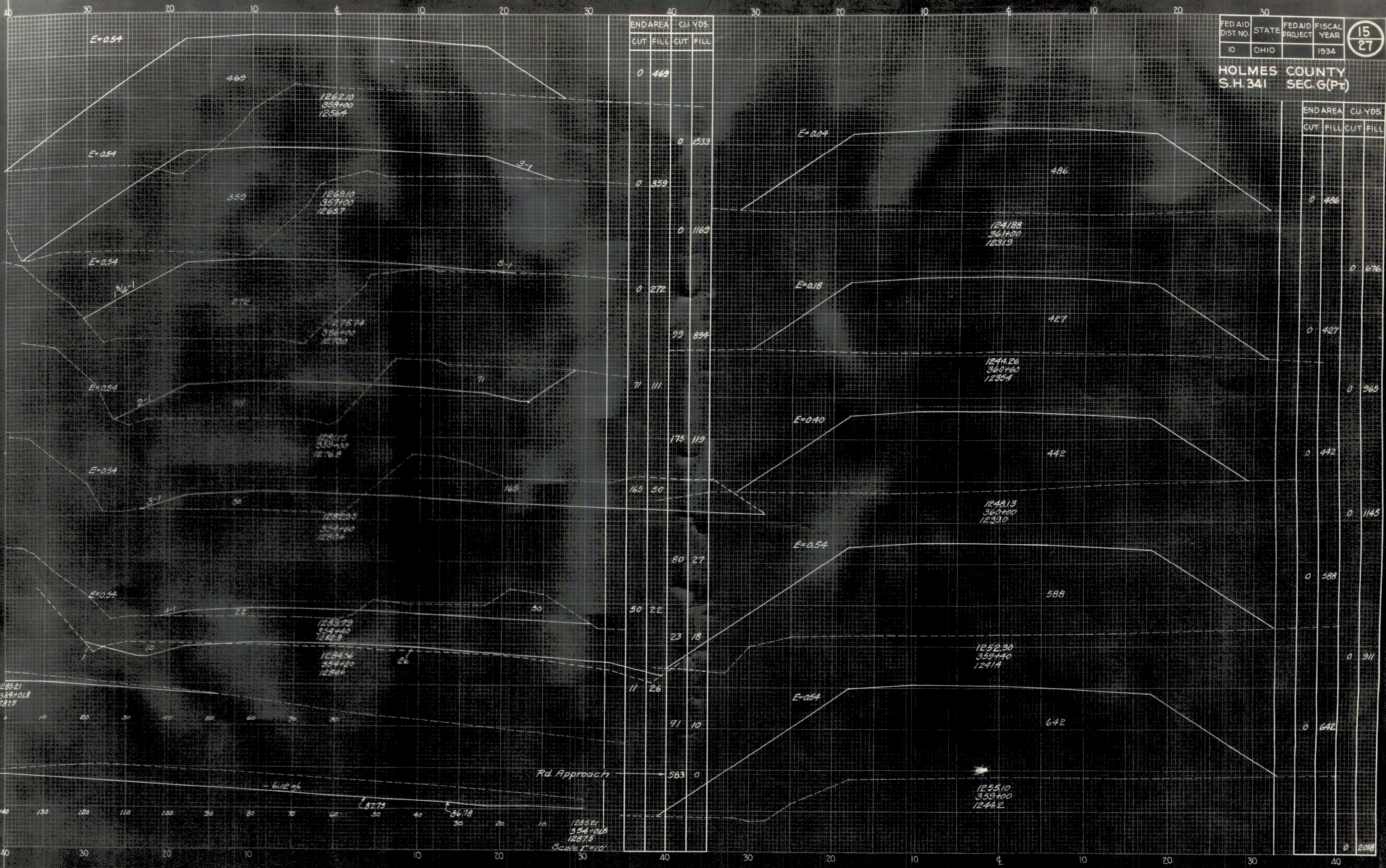
234
409
512
612
691
795
881
953
1018
1088
1150
1218
1281
1344
1409
1474
1549

1/2:1
1/4:1
1/4:1
1/4:1
1/4:1
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1/4:1
1/4:1
1/4:1
1/4:1

E=0.54

E=0.54

E=0.53



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END AREA		CU. YDS.	
CUT	FILL	CUT	FILL
0	469		
0	1533		
0	359		
0	1169		
0	272		
99	894		
71	111		
175	119		
165	50		
80	27		
50	22		
23	18		
11	26		
91	10		
583	0		

END AREA		CU. YDS.	
CUT	FILL	CUT	FILL
0	486		
0	676		
0	427		
0	965		
0	442		
0	1145		
0	588		
0	911		
0	642		
0	2058		

1285.21
354+01.8
1287.5

1283.73
354+00
1282.9

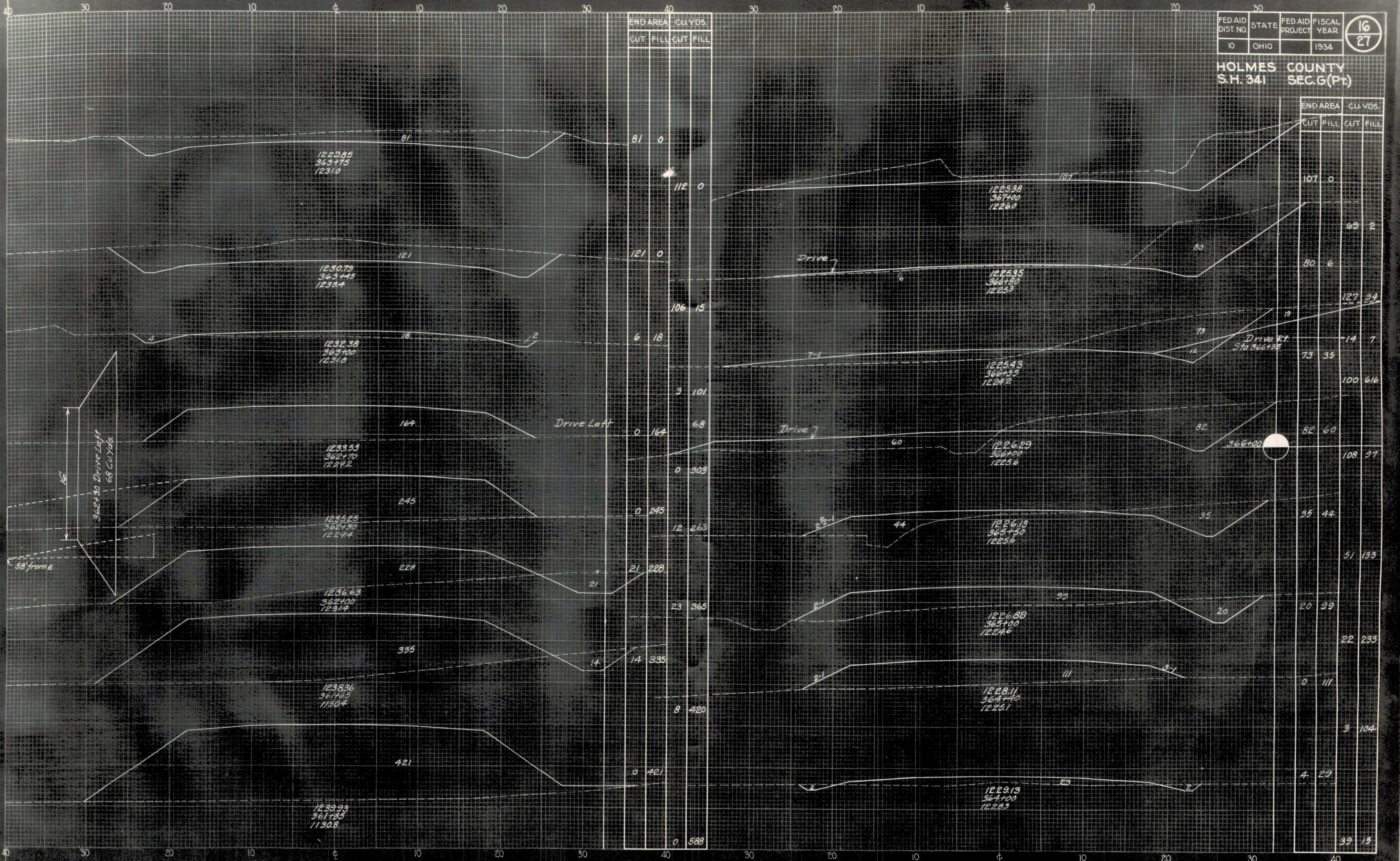
1284.54
354+00
1284.4

1285.21
354+01.8
1287.5
Scale 1"=10'

1255.10
359+00
1244.2

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HOLMES COUNTY
S.H. 341 SEC. G (Pt.)



END AREA CU. YDS.		CUT		FILL	
CUT	FILL	CUT	FILL	CUT	FILL
81	0	112	0	107	0
121	0	106	15	69	2
6	18	127	34	50	6
3	101	73	35	127	34
0	164	100	616	14	7
0	503	52	60	108	97
0	245	35	44	51	133
21	228	20	39	22	233
23	365	0	111	3	104
14	335	4	29	39	13
8	420				
0	421				
0	588				

END AREA		CU. YDS.	
CUT	FILL	CUT	FILL
107	0	69	2
50	6	127	34
73	35	14	7
52	60	108	97
35	44	51	133
20	39	22	233
0	111	3	104
4	29	39	13

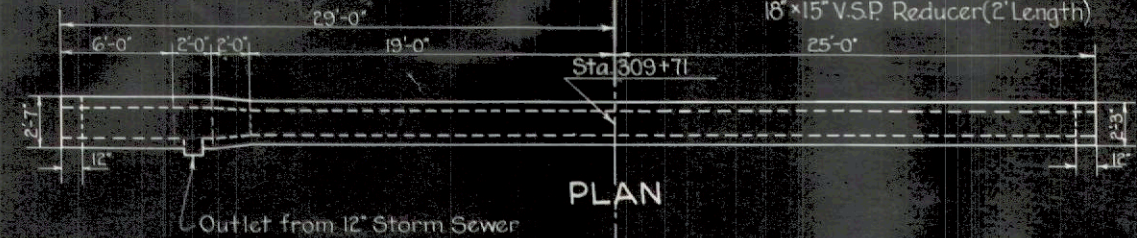
Fed. Rd. Dist. No.	State	Fed. Rd. Project	Fiscal Year
10	Ohio		1934

24
27

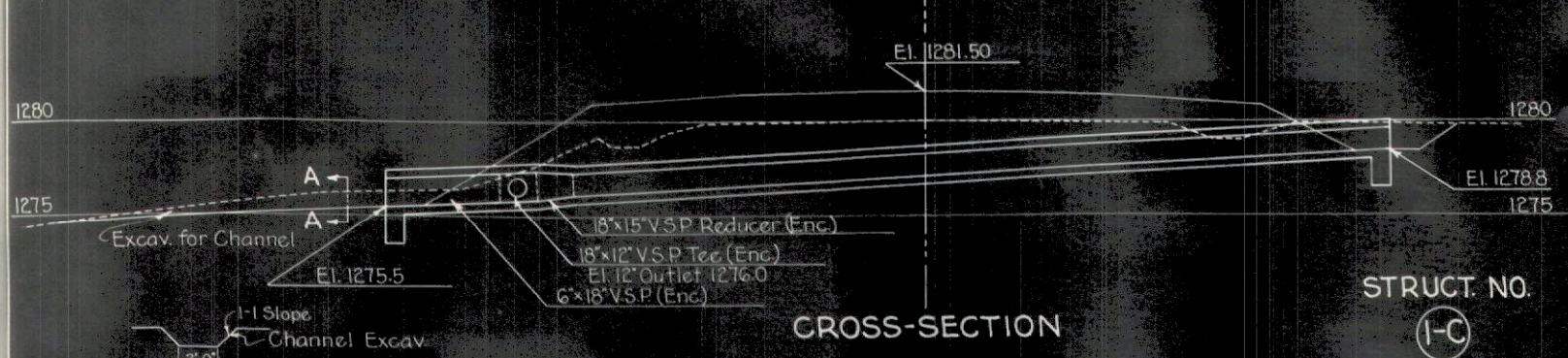
HOLMES COUNTY
S.H. 341 SEC. G(Pt)

CULVERT DATA
Type: V.S. Pipe (Enc.) Culvert. Std. Dwg. S-27 PC. 2 & 3
Size: 18" x 6' reduced to 15" x 44'-0" and 2 Specials
Work Req'd: Build Std. 18" x 6' V.S.P. (Enc.) Culvert. Build 18" x 12" Tee (Enc.) and 18" x 15" (Enc.) Reducer. Build 15" x 44' V.S.P. (Enc.) Culvert. Total length = 70 Lin. Ft.

ESTIMATED QUANTITIES
Channel Excav. 2 Cu. Yds.
Excavation (Struct.) 24 " "
Concrete 1-5 1/2 (Cutoff walls) 0.3 " "
18" V.S. Pipe (Enc.) 6 Lin. Ft.
15" V.S. Pipe (Enc.) 44 " "
18" x 12" V.S.P. Tee (2' Length) 1 Special
18" x 15" V.S.P. Reducer (2' Length) 1 " "



PLAN

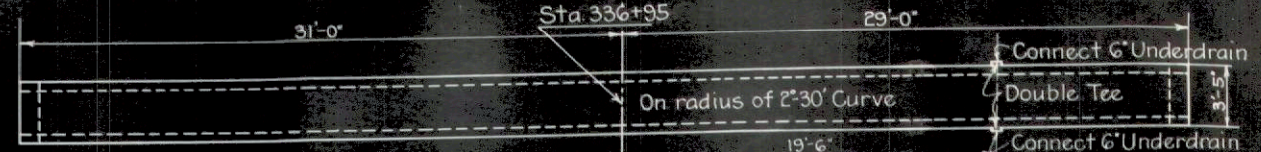


CROSS-SECTION

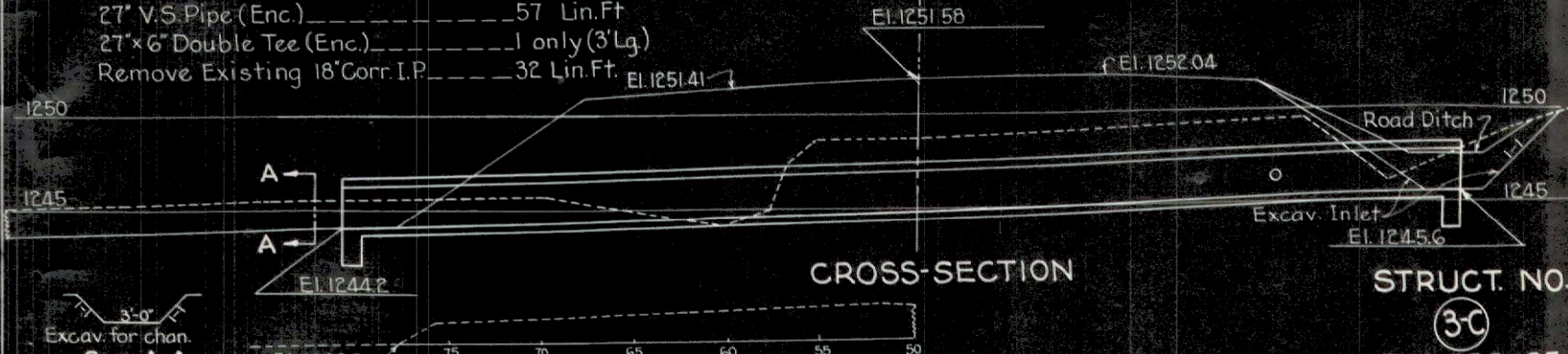
STRUCT. NO. (1-C)
Sta. 309+71

CULVERT DATA
Type: V.S.P. (Enc.) Culvert. Std. Dwg. S-27 PC. 2 & 3
Size: 27" x 60'-0" (including Double Tee)
Work Req'd: Build Std. 27" x 57" V.S.P. (Enc.) Culvert and one double 27" x 6" Tee (Enc.) Total 60 Lin. Ft.

ESTIMATED QUANTITIES
Excavation (Structure) 36 Cu. Yds.
Excavation (Channel) 12 " "
Concrete 1-5 1/2 (Cut off walls) 0.4 " "
27" V.S. Pipe (Enc.) 57 Lin. Ft.
27" x 6" Double Tee (Enc.) 1 only (3' Lg.)
Remove Existing 18" Corr. I.P. 32 Lin. Ft.



PLAN

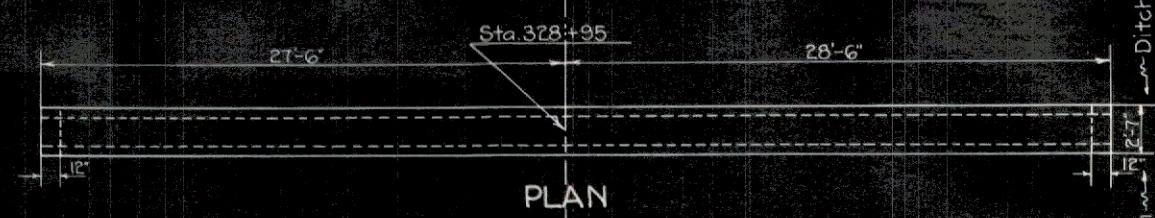


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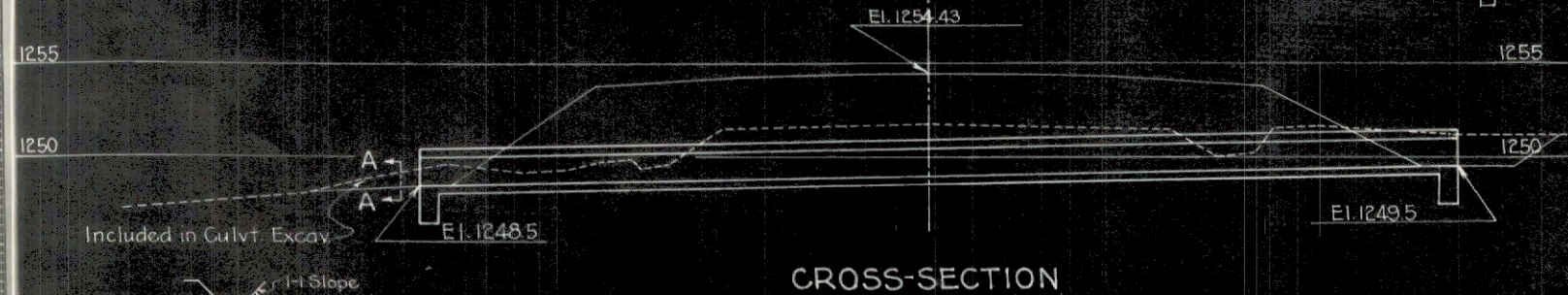
STRUCT. NO. (3-C)
Sta. 336+95

CULVERT DATA
Type: Pipe Culvert V.S.P. (Enc.) Std. Dwg. S-27 PC. 2 & 3
Size: 18" x 56'-0"
Work Req'd: Build Std. 18" x 56' V.S.P. (Enc.) Culvert.

ESTIMATED QUANTITIES
Excavation 25 Cu. Yds.
Concrete 1-5 1/2 (Cutoff walls) 0.3 " "
18" V.S. Pipe (Enc.) 56 Lin. Ft.



PLAN

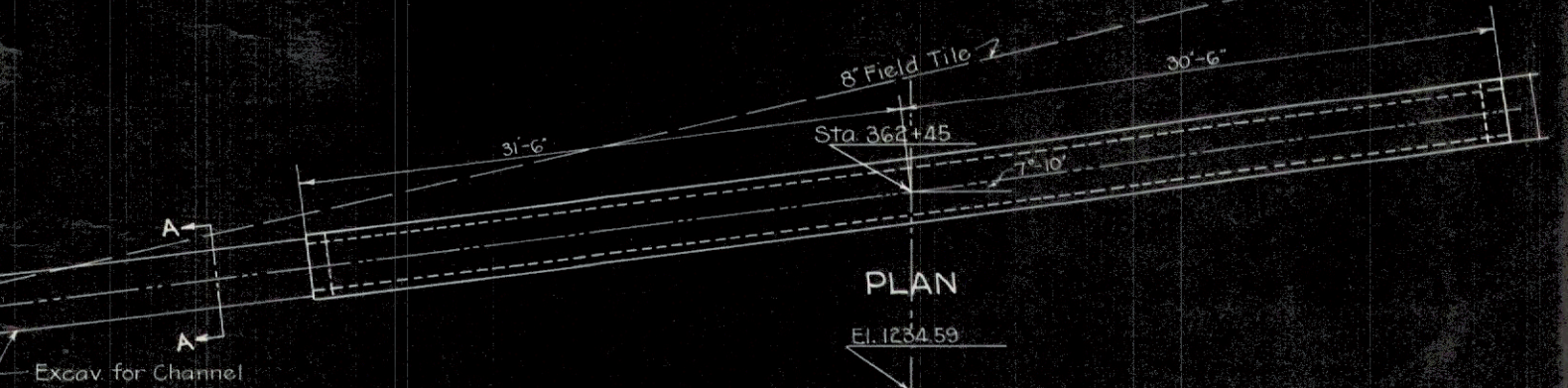


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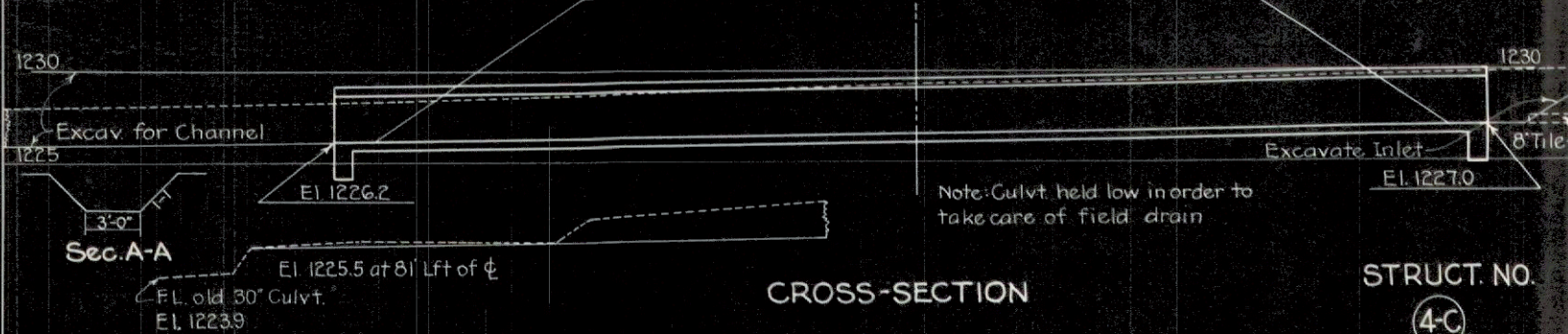
STRUCT. NO. (2-C)
Sta. 328+95

CULVERT DATA
Type: Pipe Culvert V.S.P. (Enc.) Std. Dwg. S-27 PC. 2 & 3
Size: 30" x 62'-0"
Work Req'd: Build Std. 30" x 62' V.S.P. (Enc.) Culvert.

ESTIMATED QUANTITIES
Channel Excavation 15 Cu. Yds.
Excavation (Culvert) 39 Cu. Yds.
Concrete 1-5 1/2 (Cutoff walls) 0.4 " "
30" V.S. Pipe (Enc.) 62 Lin. Ft.



PLAN



CROSS-SECTION

STRUCT. NO. (4-C)
Sta. 362+45

Fed Aid Dist. No.	State	Fed Aid Project	Fiscal Year
10	Ohio		1934

26
27

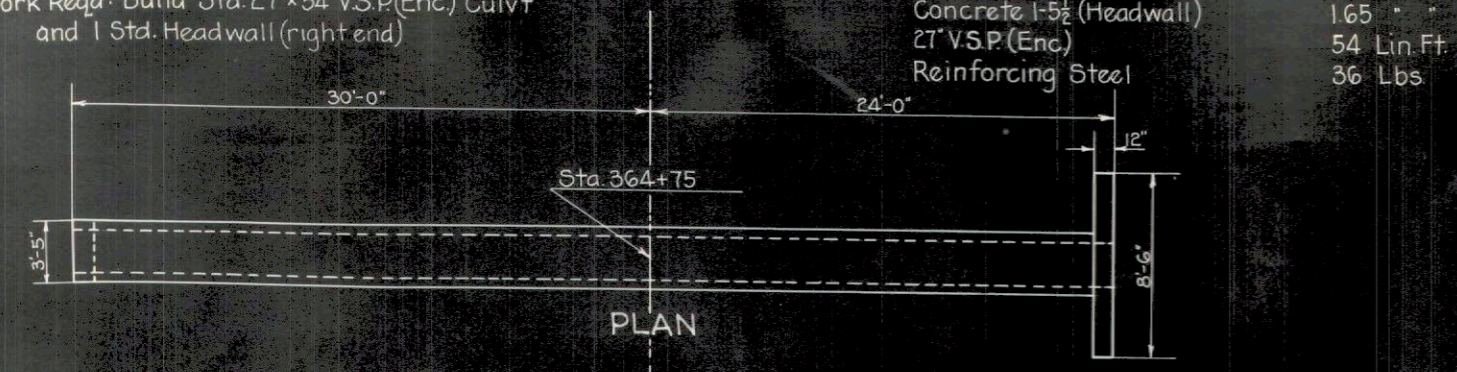
HOLMES COUNTY
S.H. 341 SEC. G(Pt.)

CULVERT DATA

Type: Pipe Culvt. Std Dwg. S-27 PC. 1, 2 & 3
Size: 27" x 54"
Work Reqd: Build Std. 27" x 54" V.S.P. (Enc.) Culvt+ and 1 Std. Headwall (right end)

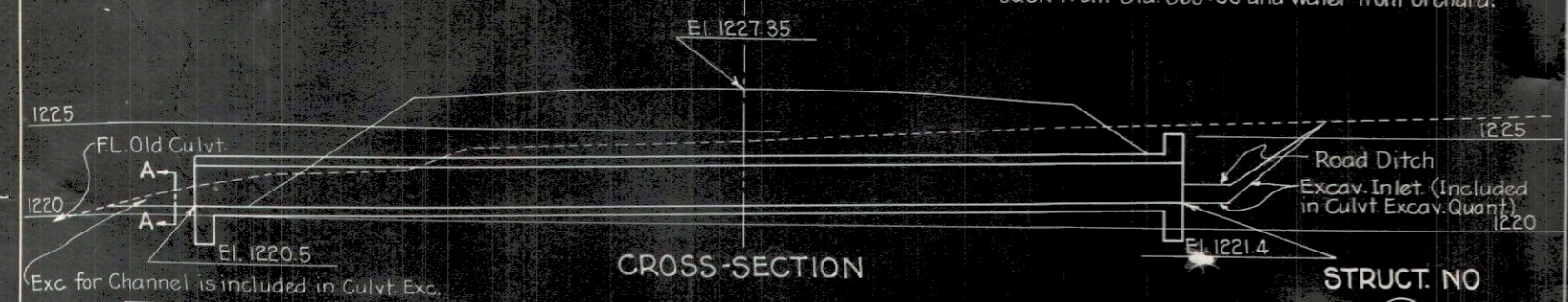
ESTIMATED QUANTITIES

Excavation 44 Cu. Yds.
Concrete 1-5 1/2 (Cutoff wall) 0.4 " "
Concrete 1-5 1/2 (Headwall) 1.65 " "
27" V.S.P. (Enc.) 54 Lin. Ft.
Reinforcing Steel 36 Lbs.



PLAN

Headwall reqd. because of ditch grade back from Sta. 369+00 and water from orchard.



CROSS-SECTION

STRUCT. NO

5-C

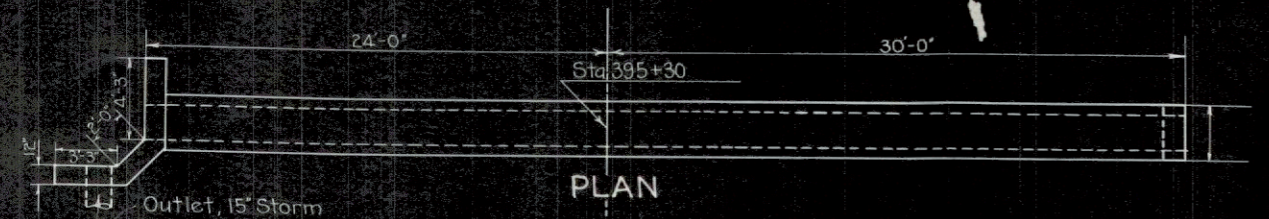
STA. 364+75

CULVERT DATA

Type: Pipe Culvt. Std Dwg. S-27 PC. 1, 2 & 3
Size: 21" x 54"
Work Reqd: Build Std. 21" x 54" V.S.P. (Enc.) Culvt. with one Std. Side Road Headwall.

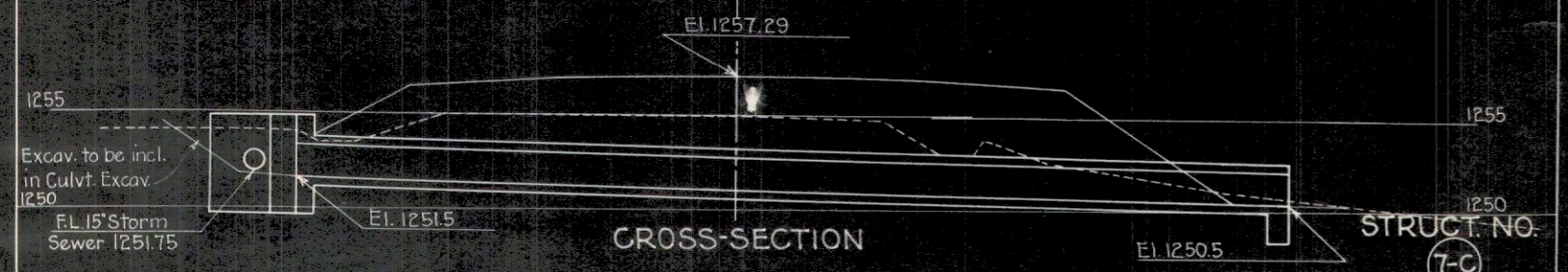
ESTIMATED QUANTITIES

Excavation 36 Cu. Yds.
Concrete 1-5 1/2 (One Cutoff wall) 0.15 " "
Concrete 1-5 1/2 (One S.Rd Hdll) 1.9 " "
Reinforcing Steel 39 Lbs.
21" V.S. Pipe (Enc.) 54 Lin. Ft.
Remove Exist. C.I. Pipe 20 " "



PLAN

Headwall necessary due to driveway



CROSS-SECTION

STRUCT. NO

7-C

STA. 395+30

SUMMARY OF QUANTITIES

STRUCTURES 20' SPAN AND UNDER

Items No.	Sheet No.	Removals			Excavation Cu. Yds.		Concrete 1-5 1/2 Mix Cu. Yds.	Reinf. Steel Lbs.	V.S. Pipe (Enc.) Lin. Ft.						Outlet Paving Sq. Yds.	V.S. Pipe Specials (Enc.)			Remarks
		Type	Size	Lin. Ft.	Channel	Structure			15"	18"	21"	27"	30"	36"		18"x12" Tee	18"x15" Reducer	27"x6" Double Tee	
K & 2-C	3	V.S.P.C.I.P.	10'x12"	58	2	49	0.6		44	62									
3-C	4	Corr. I.P.	18"	32	12	38	0.4					57							
4-C to 6-C	5				19	147	5.25	986				54	62	132					
7-C	6	C.I.P.	10'x14"	20		36	2.05	39			54								
TOTALS				110	33	270	8.3	1025	44	62	54	111	62	132					

PAVEMENT CALCULATION

Beginning of Project Sta. 306+72.5
 End of Project Sta. 398+35
 Gross Length of Project ----- 9162.5 Lin. Ft.
 No Deductions
 Net Length of Project ----- 9162.5 Lin. Ft.
 Area of 20' Wide Traffic Bound Pavement ----- 20361.11 Sq. Yds.
 Extra Pavement:
 Widening of Curve - Sta. 368+67.8 to Sta. 379+27.8 ----- 193.84 Sq. Yds.
 Total Area of Traffic Bound Pavement ----- 20,554.95 Sq. Yds.
 Volume of Traffic Bound Material (4" Thick) ----- 2,283.88 Cu. Yds.

FINISHING SHOULDERS, SLOPES & DITCHES

Net Length of Project (No Deductions) ----- 9162.5 Lin. Ft.
 Net length of finishing Shoulders, Slopes & Ditches ----- 9162.5 Lin. Ft.

EXCAVATION & EMBANKMENT

Station		Excavation Cu. Yds.	Embankment Cu. Yds.	Embankment +20% Cu. Yds.	Waste Cu. Yds.	Borrow Cu. Yds.
From	To					
306+72.5	313+97	1943	1619	1943		
313+97	322+95	4240	3523	4228	12	
322+95	331+83	3187	2656	3187		
331+83	340+66	2567	2139	2567		
340+66	350+32.5	3625	3020	3625		
350+32.5	366+00	14930	12235	14682	248	
366+00	381+07	20494	16979	20375	119	
381+07	384+93	2963	2469	2963		
384+93	390+23	4704	3920	4704		
390+23	395+50	2087	1739	2087		
395+50	398+35	380	366	1159		779
TOTALS		61,120	51,265	61,520	379	779

PRIVATE DRIVES & ROAD APPROACHES

Items No.	Sheet No.	Place				Aggregate Cu. Yds.	Removal of Existing Pipe Lin. Ft.
		Corr. M. Pipe	Lin. Feet	12"	15"		
1-A to 5-A	3		42		14		90
1-A to 9-A	4		88	54	38		
1-A to 11-A	5		72	42	28		
1-A to 6-A	6		18		15		18
TOTALS			220	96	28	115	108

REMOVAL OF TREES

Items No.	Sheet No.	No.
1-T to 3-T	3	3
1-T to 14-T	4	14
1-T to 17-T	5	17
1-T to 2-T	6	2
TOTALS		36

STORM SEWERS

Items No.	Sheet No.	Pipe - Lin. Ft.			No. of Side Ditch Inlets	Headwalls	
		12"	15"	18"		Concrete 1-5 1/2 Cu. Yds.	Reinf. Steel Lbs.
1-5	3	130				1.1	30
1-5	4			144	1	3.3	72
1-5 to 3-5	6		174		2	1.4	33
TOTALS		130	174	144	3	5.8	135

PIPE UNDERDRAIN

Items No.	Sheet No.	Pipe - Lin. Ft.		Pipe Specials	
		4"	6"	6"x4" Ys	4"x4" Tee
1-D to 2-D	4		1036	6	
1-D to 2-D	5	902	150	5	5
TOTALS		902	1186	11	5

REMOVAL EXIST. PAVEM.

Items No.	Sheet No.	Traffic Bound T-10 Pavemt. Sq. Yds.
1-R	4	7555
1-R to 2-R	5	3444
TOTALS		41995

GENERAL SUMMARY

ITEM	ROADWAY	QUANTITY
E-1	Roadway Excavation	61120 Cu. Yds.
E-4	Borrow	779 Cu. Yds.
E-5	Finishing Shoulders, Slopes & Ditches	9162.5 Lin. Ft.
E-8	Removal Existing T-10 Pavement	41995 Sq. Yds.
E-9	Removal and disposal Trees	36 Only
I-6	Removal Existing Pipe, Side Approaches	108 Lin. Ft.
I-1	15" Corr. M.P. for Drives	220 Lin. Ft.
I-1	18" Corr. M.P. " "	96 Lin. Ft.
I-1	24" Corr. M.P. " "	28 Lin. Ft.
I-2	12" Pipe Storm Sewer	130 Lin. Ft.
I-2	15" Pipe " "	174 Lin. Ft.
I-2	18" Pipe " "	144 Lin. Ft.
I-4	4" Pipe-Pipe Underdrain	902 Lin. Ft.
I-4	6" Pipe - " "	1186 Lin. Ft.
I-5	Pipe Special 4"x4" Tee	5 Only
I-5	Pipe " 6"x4" Y	11 Only
I-8	No. 1 Side Ditch Inlet	3 Only
I-7	Aggregate for Side Approaches	115 Cu. Yds.
S-1	1-5 1/2 Concrete for Storm Sewer Hdwlts.	5.8 Cu. Yds.
S-4	Reinforcing Steel	135 Lbs.
PAVEMENT		
T-10	Traffic Bound Surface Course	22839 Cu. Yds.
STRUCTURES 20' SPAN & UNDER		
E-2	Excavation for Structures	270 Cu. Yds.
E-3	Channel Excavation	33 Cu. Yds.
S-1	Concrete 1-5 1/2 Mix	8.3 Cu. Yds.
S-4	Reinforcing Steel	1025 Lbs.
S-27	15" V.S. Pipe (Enc.)	44 Lin. Ft.
S-27	18" V.S. Pipe (Enc.)	62 Lin. Ft.
S-27	21" V.S. Pipe (Enc.)	54 Lin. Ft.
S-27	27" V.S. Pipe (Enc.)	111 Lin. Ft.
S-27	30" V.S. Pipe (Enc.)	62 Lin. Ft.
S-27	36" V.S. Pipe (Enc.)	132 Lin. Ft.
I-5	V.S.P. Special 18"x15" Reducer (Enc.)	1 Only
I-5	" " 18"x12" Tee (Enc.)	1 Only
I-5	" " 27"x6" Double Tee (Enc.)	1 Only