SUMMARY OF QUANTITIES

ROADWAY

FED. RD. DIST. NO.	STATE	PROJECT	FISCAL YEAR	SHEET NO.
10	OHIO		1945	28 / 28

LAKE COUNTY
S.H. 520 SEC. PAINESVILLE (PT)
S.H. 744 SEC. PAINESVILLE (PT.) & FAIRPORT (PT)

SHEET NO.	E-3 CHAN. EXC. CU. YDS	STORM SEWERS LIN. FT. 10"	12"	18" (I-2)	(I-5) 10'-30° Bends	I-8 RESET TO GRADE EACH M.H.	C.B.	W.V.	MON. BOX	I-10 RIP RAP TYPE "A" SQ.YDS	E-10 SEALING ONLY EDGE EXIST. PAV'T. LIN. FT.	I-15 GUARD RAIL LIN. FT. REM. & REBUILD	REM. & STORE	I-17 SD. APPR'S CU. YDS	E-12 Pipe Rem. & Stored 15" & Under L.F.	E-8 REMOVAL & DISPOSAL OF EXISTING PAVEMENT SQ.YDS	WEAR. COURSE SQ.YDS	CURB & GUTTER LIN. FT.	E-9 REMOVAL OF TREES EACH	I-14 PAVED GUTTER (TYPE 3) LIN. FT.	L-10 SODDING SQ.YDS	I-8 No. 16 C.B. EACH	S-122 C.B. Aban. EACH	S-22 Rem. of Por. of Ex. Mas. C.Y.
PAINESVILLE (PT)																								
4.						5	4	3			755					35.2								
5.						3	1	3			1295													
6.				4		4	1			5	1775			1.4		460.8			6					
7.										5		47	245	2.3		878.0			12	72	60			
From Struc. Table	18									17					6									
Total	18			4		12*	6	6		27	3825	47	245	3.7	6	1374.0			18	72	60			
FAIRPORT (PT.)																								
7			24								676					887.6					80	1		
8		57			2					6	2519	112		3.8					1					0.6
9											2280													
10											2400													
11							5		1		953											2	1	
12			29				2										177	190						
3																								0.6
To Struct.																								
Total		57	53		2		7		1	6	8152	788		3.8		887.6	177	190	1		80	3	1	

* Not a part of this contract.

E-305 & L-9

SEEDING & PROTECTING ROADWAY AREA'S

PAINESVILLE (PT) STA. 28+25 TO 37+25 — 5300 SQ.YDS
FAIRPORT HARBOR (PT) STA. 40+56.2 TO 61+00 — 6900 SQ.YDS

EXTRA LEVELING (PAINESVILLE PT)

0+00 to 29+47 = 2947 LF = 0.56 Mile
.56 x 175 Cu.Yds per mile = 98. Cu.Yds

FAIRPORT (PT.)
45+25 to 86+28 = 4103 LF = 0.78 Mi. x 175 = 136.5 Cu.Yds
86+28 to 96+10 = 982 LF = .19 Mi. x 225 = 42.7 Cu.Yds
Total = 179.2 Cu.Yds

PAVEMENT CALCULATIONS

PAINESVILLE (PT)

T-30 Bituminous Prime Coat

1162 Sq.Yds (Sheet 21) + 1343 Sq.Yds (Sheet 22) = 2505 Sq.Yds
250.5 x .10 Gal = 251 Gallons

T-35 1¼" Asphaltic Concrete Surface Course

		SQ.YDS	CU.YDS
Sta 0+00 to 16+03.67 = 1603.67 Lin.Ft. (1603.67 x 24) ÷ 9		= 4276.4	= 148.5
Intersection ~ Sta. 0+00 to 1+45	(See Sheet 4)	= 805.0	= 28.0
Wedge Sta. 1+45 to 2+00	(See Sheet 4)	= 15.3	= 0.6
Sta. 16+03.67 to 24+08.32	(See Sheet 21)	= 2765.6	= 96.0
Sta. 24+08.32 to 31+50.	(See Sheet 22)	= 1978.0	= 68.6
Sta. 31+50 to 37+39.5	(See Sheet 23)	= 1507.0	= 52.3
Sanford St	(See Sheet 6)	66.0	= 2.3
Totals		11413.3	396.3

B-35 Asphaltic Concrete Leveling Course

11413.3 Sq.Yds x 1¼/36 = 396.3 Cu.Yds
Deduction for Feathering on left from Sta. 1+50 to 16+25 = 7.1 Cu.Yds
396.3 - 7.1 = 389.2 Cu.Yds + 98.0 (Extra Leveling) + 91.0 Cu.Yds (Sheet 21) + 52.9 Cu.Yds (Sheet 22) + 1149.8 x 3÷36 = 95.8 = 726.9 Cu.Yds

B-35 Asphaltic Concrete Base Course

Sta. 1+45 to 16+03.67 = 1458.67 L.F.
(1458.67 x 7) ÷ 9 = 1134.5 Sq.Yds x 3/36 = 94.5 Cu.Yds
Wedge Sta 1+45 to 2+00 = 15.3 Sq.Yds x 3/36 = 1.3 Cu.Yds
16+03.67 to 24+08.32 (See Sheet 21) = 51.0 Cu.Yds
24+08.32 to 31+50. (See Sheet 22) = 52.9 Cu.Yds
31+50 to 37+39.5 (See Sheet 23) = 251.2 Cu.Yds
Merging Widening (See Sheet 22) = 1.0 Cu.Yds
Total = 451.9 Cu.Yds

I-19 Insulation Course

1134.9 + 15.3 + 612 + 634.3 + 6 + 1507 = 3909.5 Sq.Yds

I-11 Stone Curb

Sta. 35+75 To Sta. 37+40 (Rt. Side Only) (See Sheet 23) = 165 Lin.Ft.

I-117 Traffic Bound Side Approaches

Sta. 1+45 to 16+25 (Rt. Side) = (1480 x 4 x 0.17) ÷ 27 = 37.3 Cu.Yds.
Sta. 16+25 to 28+25 (Both Sides) = (2400 x 4 x 0.17) ÷ 27 = 60.4 Cu.Yds.
From Summary Table = 3.7 Cu.Yds.
Total = 101.4 Cu.Yds.

101.4 + 15% = 117. Cu.Yds

FAIRPORT (PT.)

Bituminous Prime Coat

1115 ᵃYds (Sht 3) + 50ᵃYds (Sht 24) + 1098ᵃYds (Sht 25) + 107ᵃYds (St Clair) + 40ᵃYds (New St) + 44ᵃYds (11th St) + 26ᵃYds (8.5 Switch) + 7330ᵃYds [Sta 49 + 21.78 to 86+28 (18'W)] + 2029ᵃYds [Sta. 86+28 to 92+80 (28'W)] = 11837 Sq.Yds
11837 x .10 Gal = 1184 Gal.

	SQ.YDS	CU.YDS
Sta. 40+56.2 to 45+25 (See Sheet 24)	1207.9	41.9
Sta. 45+25 to 49+21.78 (See Sheet 25)	1671.2	58.0
Sta. 49+21.78 to 86+28 = 3706.22 L.F. - 41 L.F. (RR Cross Sht 11) = 3665.22 x 24 ÷ 9 = 9773.9 ᵃYds + 107 (St Clair) + 40 (New St)	= 9920.9	344.5
Sta. 86+28 to 89+96 = 368 x 28 ÷ 9 = 1144.9ᵃYds + 44 (7th St) =	1188.9	41.3
Sta 89+96 to 92+80 = 294 - 10 (RR Cross Sht 11) = 284 x 29.5 ÷ 9 = 930.9 ᵃYds + 26 (Buckeye Switch Sht 11)	= 956.9	33.2
Sta. 92+80 to 96+10 (See Sheet 3)	1367.0	47.5
Total	16312.8	566.4

B-35 Asphaltic Concrete Leveling Course

16312.8 x 1¼/36 = 566.4 Cu.Yds + 5.4 C.Y (Sheet 24) = 571.8 Cu.Yds.
Deduction for feathering (Both Sides) 86+28 to 96+10 = 9.5 Cu.Yds.
571.8 - 9.5 + 179.2 (Extra Leveling) + 4.6 + 19.5 + 38.2 (Sh. 25) + 1004.6 Cu.Yds.

B-35 Asphaltic Concrete Base Course

Sta 40+56.2 to Sta 45+25 (See Sheet 24) = 191.6 Cu.Yds
Sta 45+25 to Sta 49+21.78 (See Sheet 25) = 38.2 Cu.Yds
Sta. 49+21.78 to Sta. 86+28 = 3706.22 L.F. - 41 L.F. (RR) = 3665.22 L.F.
x6÷9 = 2443.5 ᵃYds - 28ᵃYds (St Clair) - 6ᵃYds (New St) = 2409.5 ᵃYds x 3/36 = 200.8 Cu.Yds
Intersection, Sta. 96+10 (See sheet 3) (55 ᵃYd) = 4.6 Cu.Yds
Total = 435.2 Cu.Yds

I-19 Insulation Course

1157.9 + 458.7 + 2409.5 + 55 = 4081.1 Sq.Yds

I-11 Stone Curb

Sta 40+56 to Sta. 42+97 (See sheet 24) = 241 Lin.Ft.

I-12 6"x 18" Concrete Curb ~ (From Sheet 3) = 199 Lin Ft.

I-117 Traffic Bound Side Approaches

Sta. 62+00 to 86+28 = 2428 L.F. (Both Sides) (4856 x 4 x 0.17) ÷ 27 = 122.3 C.Y.
From Summary Tables = 3.8 C.Y.
Total = 126.1 C.Y.

126.1 + 15% = 145. Cu.Yds

STRUCTURES ~ 20' SPAN & UNDER

MARK	SHEET NO.	TYPE	STATION	S-23 DOWEL HOLES EACH	E-2 EXC. FOR STRUCT. C.Y.	E-3 CHANNEL EXCAV. CU. YDS	I-8 NO. 2 M.H. MOD. EACH	I-8 NO. 1-2 A C.B. EACH	I-10 12" GROUTED RIP RAP TYPE A SQ.YDS	S-1 CLASS-E CONC. FOR STRUCT'S CU.YD	S-27 PIPE FOR CULVERTS LIN. FT. 12"	60"	E-12 PIPE REM & STORED 15" & UNDER LIN. FT.	S-22 REMOVAL OF PORTIONS OF EXIST. MAS. CU.YDS
PAINESVILLE (PT)														
C-1		3'x3' C.B. TOP	32+75	4				1		0.2				0.2
C-2		PIPE CULVERT	33+72		5			1			4		6	
C-3		PIPE CULVERT	35+01.55		35	18	1		17			68		5.0
To Rdwy						18			17				6	
TOTAL				4	40	36	1	1		0.2	4	68		5.2
FAIRPORT (PT.) HARBOR (PT)														
C-4		PIPE CULV'T EXT.	45+94	4	3.					0.8	12			0.6
From Rdwy Table														
From Sht 25				200										
TOTAL				204	3.					0.8	12			0.6

GENERAL SUMMARY

ITEM	DESCRIPTION	PAINESVILLE (PT)	FAIRPORT (PT)	TOTAL	UNIT
	ROADWAY				
E-1	Roadway Excavation (Unclassified)	2441	880	3321	C.Y.
E-3	Channel Excavation	18	-	18	C.Y.
E-4	Borrow	3321	2816	6137	C.Y.
E-8	Removal & Disposal of Existing Pavement	1374	888	2262	SY.
E-8	Removal & Disposal of Existing Wearing Course	-	177	177	SY.
E-8	Removal & Disposal of Existing Curb & Gutter	-	190	190	L.F.
E-9	Removal of Trees and Stumps	18	1	19	Ea.
E-10	Sealing only of Existing Pavement Edge.	3825	8152	11977	LF
E-11	Water	11	13	24	M Gal.
E-12	Pipe removed & stored (15" and under)	6	-	6	LF
I-2	10" Pipe for Storm Sewers	-	57	57	LF
I-2	12" Pipe for Storm Sewers	-	53	53	LF
I-2	18" Pipe for Storm Sewers	4	-	4	LF
I-5	10" Pipe Specials for Storm Sewers	-	2	2	Ea
I-8	No 16 Catch Basin	-	3	3	Ea
I-8	Catch Basins reset to grade.	6	7	13	Ea
I-8	Water Valves reset to grade.	6	-	6	Ea
I-8	Monument Box reset to grade	-	1	1	Ea.
I-10	Type A Rip Rap.	27	6	33	SY.
I-14	Paved Gutter (Type 3)	72	-	72	LF
I-15	Guard Rail removed and rebuilt.	47	788	835	LF
I-15	Guard Rail removed and stored.	245	-	245	LF
I-117	Side Approaches, Mail box Turnouts and Berm Material.	117	145	262	CY
S-122	Catch Basin Abandoned	-	1	1	Ea
S-9	Stone Underdrain (Sheet 3) as per plan	140	210	350	LF
T-10	Concrete for Island Ends (Sheet 25)		08	08	CY.
T-35	Asphaltic Concrete Surface Course Type "A"	396	567	963	CY.
B-35	Asphaltic Concrete Leveling Course	727	1005	1732	CY.
B-35	Asphaltic Concrete Base Course	452	435	887	CY.
I-11	6"x 18" Stone Curb, as per plan Sht. 23	165	241	406	LF
I-12	6"x 18" Concrete Curb Type 6	-	199	199	LF
I-12	Type 2 Curb Modified (From Sheet 25) as per plan	-	336	336	LF
I-19	1¼" Insulation Course	3910	4081	7991	SY.
Special	4" to 5" Granulated Slag Base Course for Islands - Grade "B"	-	117	117	SY.
T-30	Bituminous Prime Coat including sand cover. Sec. M-5.5 MS-1	251	1184	1435	Gal.
I-8	No. 2 Manhole Modified, as per plan.	1	-	1	Ea.
I-8	No. 1-2A STANDARD CATCH BASIN.	1	-	1	Ea.
S-1	Class E Concrete for Structures	02	08	1.	CY.
S-22	Removal of Portions of Exist Masonry	5.2	06	58	CY.
S-27	12" Pipe for Roadway Culverts	4.	12.	16	LF
S-27	60" Pipe for Roadway Culverts.	68	-	68	LF
S-23	Dowel Holes	4	204	208	EA
E-2	Excavation for Structures	40	3	43	CY
	ROADWAY CONTINUED				
L-9	Commercial Fertilizer 4-12-4	954	1242	2196	Lbs.
L-10	Sodding	60	80	140	SY.
E-305	Seeding and Protecting Roadway Area's	5300	6900	12200	SY.

PAVEMENT | STRUCTURES 20' SPAN & UNDER

EARTHWORK

FROM	TO	EXCAVAT.	EMBANK	EMB + 45%
PAINESVILLE				
28+00	33+00	1141	166	241
33+00	37+39.5	891	2088	3027
From Sheet 5		382 (1)	53	77
TOTALS		2414	2307	3345
FAIRPORT				
40+56	45+00	6	1900	2755
45+00	57+00	414	339	492
57+00	69+00	258	127	184
69+00	81+00	140	154	223
81+00	86+28	62	29	42
TOTALS		880	2549	3696

BORROW

PAINESVILLE (PT.) 3345 - 2414 = 931 C.Y.
FAIRPORT (PT.) 3696 - 880 - 281 C.Y.