SUMMARY OF QUANTITIES

FED. RD. DIST. NO.	STATE	F.A.G.C. PROJECT	FISCAL YEAR	50/50
10	OHIO	F.A.G.M. 70-A(1)	1941	

LAKE COUNTY
S.H. 520 SEC. PAINESVILLE(PT)
GRADE SEPARATION

ROADWAY

Sheet No.	I-2 Storm Sewer Under Pavement Lin. Ft. 6"15	8"	12"	I-5 Pipe Spec. Each 8"6 T	8"6 Y	24"12"6"90° Bend	I-8 Manholes Each No. 1	No. 2	I-8 Adj. M.H. Each	I-8 No. 6 Inlet Each	I-8 C.B. No. 6 Each	I-8 Modif. No. 3 C.B. Each	I-2 Storm Sewer Lin. Ft. 8"	12"	I-2 Sanitary Sewer Under Pavement Lin. Ft. 6"	12"	S-24 Removal of Exist. Structures Lump Curb Inlet	Ditch Inlet	M.H.	Conc. Piers	E-12 Pipe Removed and Stored 4"	6"	12"	E-8 Removal & Disposal of Lin. Ft. Curb	C.&Gut	Header	Sq. Yds. Pavt.	Base	E-8 Rem & Store Wearg. Cr. S.Y.	P. Fence L.F.	I-12 2-A Curb L.F.	I-13 Side-Walk S.F.	Conc. Steps L.F.	E-9 Rem. Tr. & St. Each	I-17 Tr. Bd. Sid. Ape C.Y.	T-35 As. Conc Surf. C. C.Y.	T-70 Port. Cem. Conc. 6"	7"	Pav't-S.Y.	T-71 Reinf. Port. Cem. Conc. Pav't.-S.Y. 7"	I-15 Guard Rail L.F.	I-3 6" Pipe For Rowy. Drng. F.D.P.B.	Plain	S-1 Cl. "C" Conc. C.Y.	Spec. Picket Fence L.F.	I-4 Slope Drains 6"-L.F.	Pipe Outlets 6"-L.F.	I-15 Rem. & Store G.R.-L.F.	S-27 12" Culv. Pipe Lin. Ft.	E-2 Exc. For Str. Cu. Yds.
5																								115			29.3				781.14	2417	26.7	6	3.8	2.74	132.16	66.5	1317.42												
6																								137				39.4	39.4		6196			1				94												
7																								118.6	238.4	28	20.8	598.9	598.9		888.11	4867		2			14.44	705	758.3	18.5									10		
9	30		160	5				2	2	6			176	55	188		1	2			391	14	382																	600												
10	18	20	165	4		4	2	1		6		2						1	3		466		353																617	99		417	60						
11			117		1		4		5	7	1			60	47	17	4		3		854		66																	500												
24																				17									94.5													5.5	94.5					35	
19-A																																			6			50									40	8	
TOTAL	48	20	442	4	5	1	4	6	3	7	19	1	2	176	115	235	17	5	3	6	17	1711	14	801	370.6	238.4	28*	50.1	638.3	638.3	94.5	1669.25	13480	26.7	5	9.8	2.74	146.6	771.5	2075.72	162.5	1717	99	5.5	94.5	417	60	10	40	43

* Included for payment with base course removal.

EARTHWORK

STATION FROM	STATION TO	EXC. CU. YDS.	EMB. CU. YDS.	EMB. +20% CU. YDS.
3+06.83	16+24.45	23473	536	643

CALCULATIONS

T-71 7" REINFORCED PORTLAND CEMENT CONC. PAVEMENT.
STA. 3+87.6 TO STA. 15+12 1124.4×45÷9 = 5622.0 S.Y.
APPROACHES 2075.7 S.Y.
TOTAL = 7697.7 S.Y.

I-12 CONCRETE CURB TYPE 2-A
STA. 3+87.6 TO STA. 5+64.35 ON LT. 176.75 L.F.
STA. 6+54.35 TO STA. 15+12 ON LT. 857.65 L.F.
STA. 3+87.6 TO STA. 15+12 ON RT. 1124.40 L.F.
APPROACHES (SEE SUMMARY) 1669.25 L.F.
TOTAL = 3828.05 L.F.
DEDUCTIONS (INLETS) = 19×5 = 95.00 L.F.
TOTAL CURB = 3733.05 L.F.

E-11 WATER
7697.7 + 146.6 + 771.5 = (IN CUTS) 8615.8 S.Y.
3720 × 1.5 ÷ 9 = (IN CUTS) 620.0 S.Y.
TOTAL 9235.8 S.Y.
9236 × 8 ÷ 36 = (IN CUTS) 2052 C.Y.
2052 (IN CUTS) + 536 (EMB) = 2588 C.Y.
2588 × 5 = 12940 GALLONS USE 13 M GAL.

E-8 REMOVAL AND DISPOSAL OF EXISTING CURB
STA. 3+87.6 TO STA. 9+30 ON RT. = 542.4 L.F.
DRIVES AND APPROACHES (SEE SUMMARY) 370.6 L.F.
913.0 L.F.
DEDUCT INLET - STA. 6+43 RT. 3.0 L.F.
TOTAL = 910.0 L.F.

E-8 REMOVAL & DISPOSAL OF EXIST. CURB & GUTTER
STA. 10+81.9 TO STA. 15+12 RT. & LT. 860.2 L.F.
APPROACHES (SEE SUMMARY) 238.4 L.F.
1098.6 L.F.
DEDUCT FOR INLETS STA. 12+62 RT. & LT. 6.0 L.F.
TOTAL 1092.6 L.F.

E-8 REMOVAL AND DISPOSAL OF EXIST. PAVEMENT
STA. 3+87.6 TO STA. 9+35
547.4 × 17.5 ÷ 9 = 1064.4 S.Y.
DRIVES (SEE SUMMARY) 50.1 S.Y.
TOTAL = 1114.5 S.Y.

E-8 REMOVAL & STORAGE OF EXIST. WEARING COURSE
STA. 10+81.9 TO STA. 15+12 = 430.1 L.F.
430.1 × 27 ÷ 9 1290.3 S.Y.
DRIVES & APPROACHES (SEE SUMMARY) 638.3 S.Y.
TOTAL = 1928.6 S.Y.

E-8 REMOVAL & DISPOSAL OF EXISTING BASE (SAME AS WEARING COURSE) 1928.6 S.Y.

GENERAL SUMMARY

ITEM	DESCRIPTION	QUAN.	UNIT
	PAVEMENT		
T-71	7" Reinforced Portland Cement Conc. Pavement	7698	Sq. Yds.
T-70	7" Portland Cement Concrete Pavement	772	" "
T-70	6" " " " "	147	" "
T-35	Asphaltic Concrete Surface Course Type B	3	Cu. Yds.
I-12	Concrete Curb - Type 2-A	3733	Lin. Ft.
	ROADSIDE IMPROVEMENT		
L-4	Renovating Existing Soil	41.1	M-Sq. Ft.
L-5	Seeding and Renovating Existing Sod	150	Sq. Yds.
L-5	Seeding	2460	Sq. Yds.
L-5	10-6-4 Commercial Fertilizer	822	Lbs.
L-10	Sodding	2110	Sq. Yds.
L-12	Ampelopsis Quinquefolia - Virginia Creeper 3-Yr.	20	Each.
L-13	Ligustrum Ibota - Ibota Privet 2'-3'	71	Each.
L-13	Forsythia Suspensa - Weeping Forsythia 3'-4'	417	Each.
L-14	Platanus Orientalis - Oriental or European Plane Tree 2'-2½" Cal.	22	Each.
L-14	Ulmus Americana - White or American Elm 2"-2½" Cal.	4	Each.
L-14	Crataegus Cordata - Washington Hawthorn 5'-6' B+B (20')	13	Each.
L-14	Acer Platanoides - Norway Maple 2"-2½" Cal.	1	Each.
L-18	Straw Mulching	2460	Sq. Yds.
I-3	4" Roadway Drainage	300	Lin. Ft.

SUMMARY - ROADSIDE IMPROVEMENT

ITEM	Sht. 27	Sht. 28	Total	Unit
Platanus Orientalis - Oriental or European Plane Tree 2'-2½" Cal.	11	11	22	Each
Ulmus Americana - White or American Elm 2"-2½" Cal.	2	2	4	Each
Ligustrum Ibota - Ibota Privet 2'-3'	0	71	71	Each
Crataegus Cordata - Washington Hawthorn 5'-6' B+B (20')	10	3	13	Each
Seeding	1670	790	2460	Sq. Yd.
Sodding	830	1280	2110	Sq. Yd.
Straw Mulching	1670	790	2460	Sq. Yd.
Renovating Existing Soil	22.5	18.6	41.1	M-Sq. Ft.
10-6-4 Commercial Fertilizer	450	372	822	Lbs.
Forsythia Suspensa - Weeping Forsythia 3'-4'	241	176	417	Each
Ampelopsis Quinquefolia - Virginia Creeper 3-Yr.	8	12	20	Each
Renovating Existing Sod	150	0	150	Sq. Yd.
4" Roadway Drainage	140	160	300	Lin. Ft.
Acer Platanoides - Norway Maple 2"-2½" Cal.	1	0	1	Each

ITEM	DESCRIPTION	QUAN.	UNIT
	ROADWAY		
I-2	6" Storm Sewers Under Pavement	48	Lin. Ft.
I-2	8" " "	176	" "
I-2	12" " " (Pipe Under Pavement)	442	" "
I-3	6" Roadway Drainage - Full Depth Porous Backfill	1717	" "
I-3	6" Roadway Drainage	99	" "
I-4	6" Pipe Underdrain	417	" "
I-4	6" Pipe Outlets for Underdrains	60	" "
I-5	6"×6" Tees for Roadway Drainage (Full Depth Porous Backfill)	4	Each
I-5	8"×6" Ys for Storm Sewer	5	"
I-5	24"×12" Ys for Storm Sewer	1	"
I-5	6"-90° Bends - for Underdrains	4	"
I-8	No. 1 Manholes	6	"
I-8	No. 2 "	3	"
I-8	No. 6 Inlets	19	"
I-8	No. 6 Catch Basins	1	"
I-8	Modified No. 3 Catch Basins As Per Plan	2	"
I-8	Adjusting Manholes	7	"
I-2	6" Sanitary Sewers Under Pavement	235	Lin. Ft.
I-2	12" Sanitary Sewers Under Pavement	17	" "
I-13	4" Concrete Sidewalk	13480	Sq. Ft.
I-13	Concrete Steps 12" Tread - 6" Riser	267	Lin. Ft.
I-15	Guard Rail Beam Type Sec. I-15.05	162.5	" "
I-17	Traffic Bound Side Approaches	10	Cu. Yd.
E-1	Roadway Excavation (Unclassified)	23473	" "
E-8	Removal and Disposal of Existing Curb	910	Lin. Ft.
E-8	" " " " " Curb & Gutter	1093	" "
E-8	" " " " " Pavement	1115	Sq. Yd.
E-8	" " " " " Base	1929	" "
E-8	Removal and Storage of Existing Wearing Course	1929	" "
I-15	Removal and Storage of Existing Picket Fence	94.5	Lin. Ft.
E-9	Removal of Trees and Stumps	9	Each
E-11	Water (Est.)	13	M. Gals.
E-12	4" Pipe Removed and Stored	1711	Lin. Ft.
E-12	6" " " " "	14	" "
E-12	12" " " " "	801	" "
Spec.	Picket Fence	94.5	" "
S-1	Class "C" Concrete for Structures (Class "C")	5.5	Cu. Yds.
S-22	Removal of Five Existing Curb Inlets	Lump	Lump
S-22	" " Three " Ditch Inlets	Lump	"
S-22	" " Six " Manholes	Lump	"
S-22	" " Seventeen " Concrete Piers	Lump	"
I-2	12" Pipe for Storm Sewer	115	Lin. Ft.
I-2	15" Storm Sewers (Pipe Under Pavement)	20	Lin. Ft.
I-15	Guard Rail Removed And Stored	10	Lin. Ft.
S-27	12" Pipe for Roadway Culvert	40	Lin. Ft.
E-2	Excavation For Structures (Unclassified)	43	Cu. Yds.

RAILROAD STRUCTURE
For Estimated Quantities see Sheet No 49.

R.R. FORCE ACCOUNT
For Estimated Quantities see Sheet No 49.