

These plans together with the N.Y.C.R.R. plans constitute complete plans for this improvement.

The state's contractor shall first construct the main drainage line for the subway and complete the highway detour borrowing embankment along S.H. No. 49 without endangering or interfering with the traffic thereon. He shall then suspend his operations until March 1st, 1931 at which time the railroad company will commence the raising of its track and traffic on the highway will be removed to the detour road. The highway contractor will thereupon commence his grading operations at the south end of the project and work north building the required embankment along the railroad track from this excavation. The railroad company will drive the piling for its temporary detour track trestle about 20 feet north of the main track, spacing the bents to allow the highway contractor free access for excavating under the trestle and having the trestle in service in time to cause no interference with the progress of the highway contractor.

Immediately upon the completion of the excavation under the site of the main track the railroad's contractor will start the construction of the railroad bridge and same shall be pushed to completion and the temporary trestle removed in a manner which will cause a minimum delay to the paving operations of the highway contractor which will start at the south end as soon as all excavation for the highway is completed.

The highway contractor will conduct his paving operations in a manner which will not interfere with the activities of the railroad company's contractor nor with traffic on the highway or the railroad.

The temporary part of the highway detour shall be removed by the highway contractor after traffic has been restored to S.H. No. 49.

The above method of procedure may be modified by the engineer from time to time as the progress of the improvement may require.

CONVENTIONAL SIGNS

Corporation line	-----
Section line	- - - - -
R.R. Right of Way line	=====
Property line not fenced	-----x-----
Property line fenced	-----x-----x-----
Center line	-----o-----o-----
Telephone or Telegraph	-----o-----o-----o-----
Tree	o o o o
Proposed Sewer & Manhole	-----o-----o-----
Proposed Storm Water Inlet	-----o-----o-----

We the undersigned County Commissioners of Franklin County do hereby approve these plans under date of 1st January 1930

Fred W. Callahan
Milton W. McMillan
May T. Dign

STATE OF OHIO DEPARTMENT OF HIGHWAYS

GRADE SEPARATION WITH NEW YORK CENTRAL RR ON COLUMBUS-LANCASTER ROAD

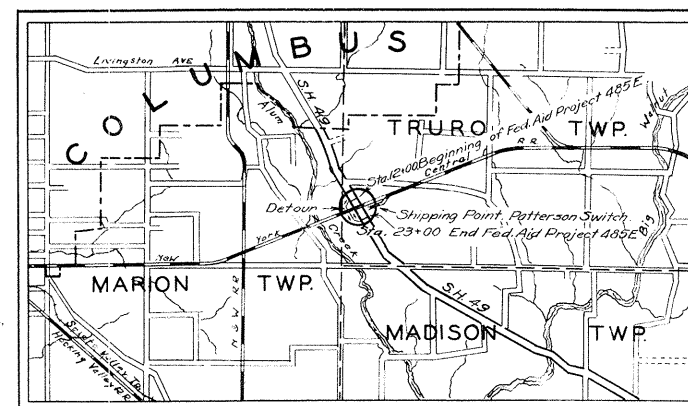
S.H. 49 SEC. E-I. NEW YORK CENTRAL SUBWAY

TRURO TOWNSHIP

FRANKLIN COUNTY

PET. NO. 6497 JULY 1930

LOCATION PLAN



INDEX

Title	1
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Note
The highway contractor shall place 6000 cu. yds. of excavation in embankment, to widen subgrade shoulders of the railroad track. This embankment extends from a point about 2000 ft. east of the crossing of S.H. No. 49 to a point about 400' west of the crossing; the average station haul being about 600 ft.

The embankment shall be placed to the standard section of the Railroad Company as required by the raising of its track. No material will be required to be placed under the track by the highway contractor nor will he be required to do any work in connection with the raising of the track.

The placing of the embankment shall be done as directed by and to the satisfaction of the Engineer of the Railroad Company. The embankment shall be placed in layers of full width to the slope line and not widened with loose material from the top. The most suitable material shall be reserved for finishing the last 12 inches of the surface. It shall be completed to such height above the subgrade and to such increased widths as will allow for shrinkage, compression and erosion.

No large stones will be allowed within 2 ft. of the subgrade and material unsuitable in the judgement of the Engineer of the Railroad Co. shall not be placed.

FED. RD. DIST. NO.	STATE	FED. AID PROJECT	FISCAL YEAR
10	OHIO		1931

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The Standard Specifications of the STATE of OHIO, Department of Highways, in force on date of contract will govern this improvement. Railroad Specifications will govern the Railroad Structures.

I hereby approve these plans and declare that the making of this improvement will not require the closing to traffic of the highway, and that a detour and right of way necessary for this improvement will be provided as shown on the plans and estimates.

Approved Lutis C. Gattman
Date Aug. 14, 1930 Resident District
Deputy Director

Approved H. D. Mearns
Date 8-11-30 Resident Division
Deputy Director

Approved H. P. Chapman
Date 10-25-30 Deputy Director
Bureau of Construction

Approved _____
Date _____ Deputy Director
Bureau of Maintenance

Approved J. P. Burkey
Date 9-17-30 Deputy Director
Bureau of Bridges

Approved Chas. H. Mearns
Date 10-25-30 Chief Engineer
First Asst. Director

Approved _____
Date 10-25-30 Director of Highways

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

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

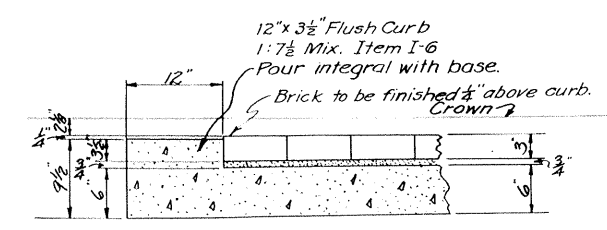
Approved _____
Date _____ Chief of Bureau

Approved _____
Date _____ Chief Engineer
New York Central R.R.

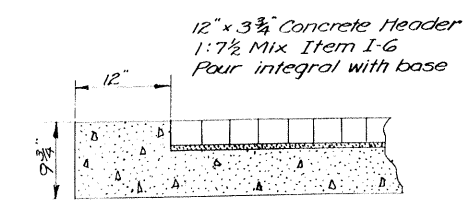
FRANKLIN COUNTY
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Total:
2470 Sq. Yds. Sodding Item I-19
4600 " " Seeding Item I-19

The use of subgrading or finishing machines or weighing of aggregates shall not be required, but otherwise shall conform strictly to the specifications.

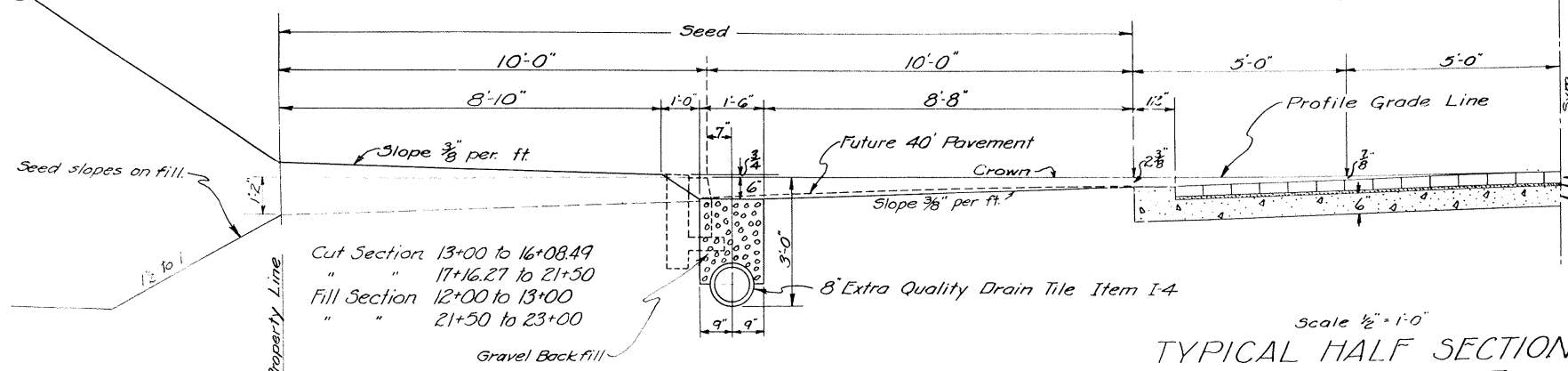


Scale 1" = 1'-0"
FLUSH CURB



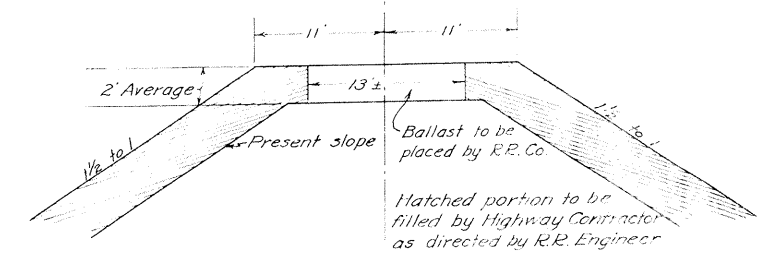
Longitudinal Section on &
CONCRETE HEADER

Sod to 1'-0" back of top of slope.
1 1/2 to 1 Slope
End of Maintenance Period of Sodding and Seeding I-19
is on day of final acceptance of contract.

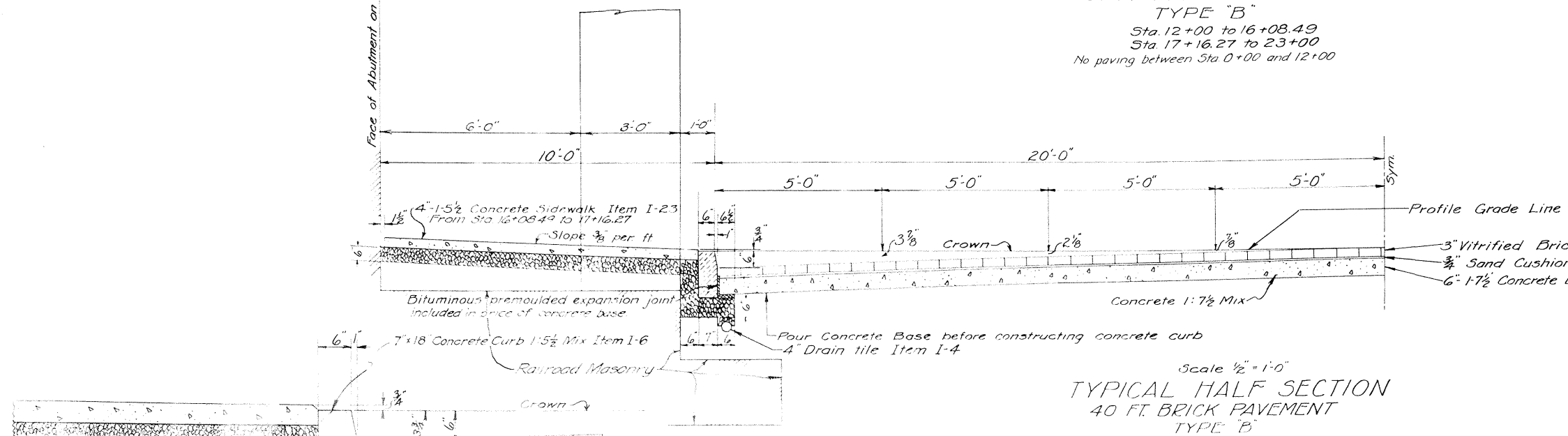


Scale 1/2" = 1'-0"
TYPICAL HALF SECTION
20' FT. BRICK PAVEMENT
TYPE "B"
Sta. 12+00 to 16+08.49
Sta. 17+16.27 to 23+00
No paving between Sta 0+00 and 12+00

- 3" Vitrified Brick Item T-9
- 3/4" Sand Cushion " M-2
- 6" 1-7 1/2 Concrete Base " B-6



Pay quantity will be 10% less than measured embankment yardage.
TYPICAL SECTION ON RAILROAD

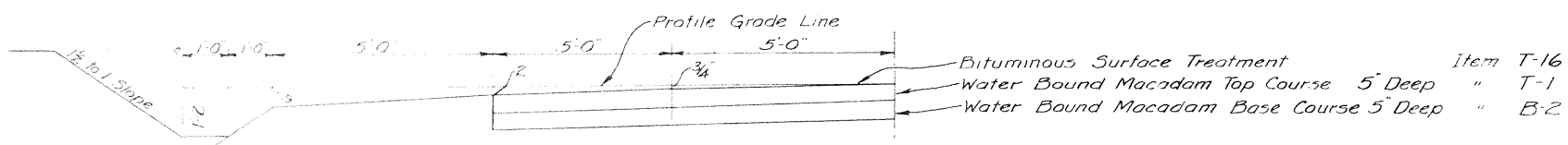


Scale 1/2" = 1'-0"
TYPICAL HALF SECTION
40' FT. BRICK PAVEMENT
TYPE "B"
Sta 16+08.49 to 17+16.27

- 3" Vitrified Brick Item T-9
- 3/4" Sand Cushion " M-2
- 6" 1-7 1/2 Concrete Base " B-6

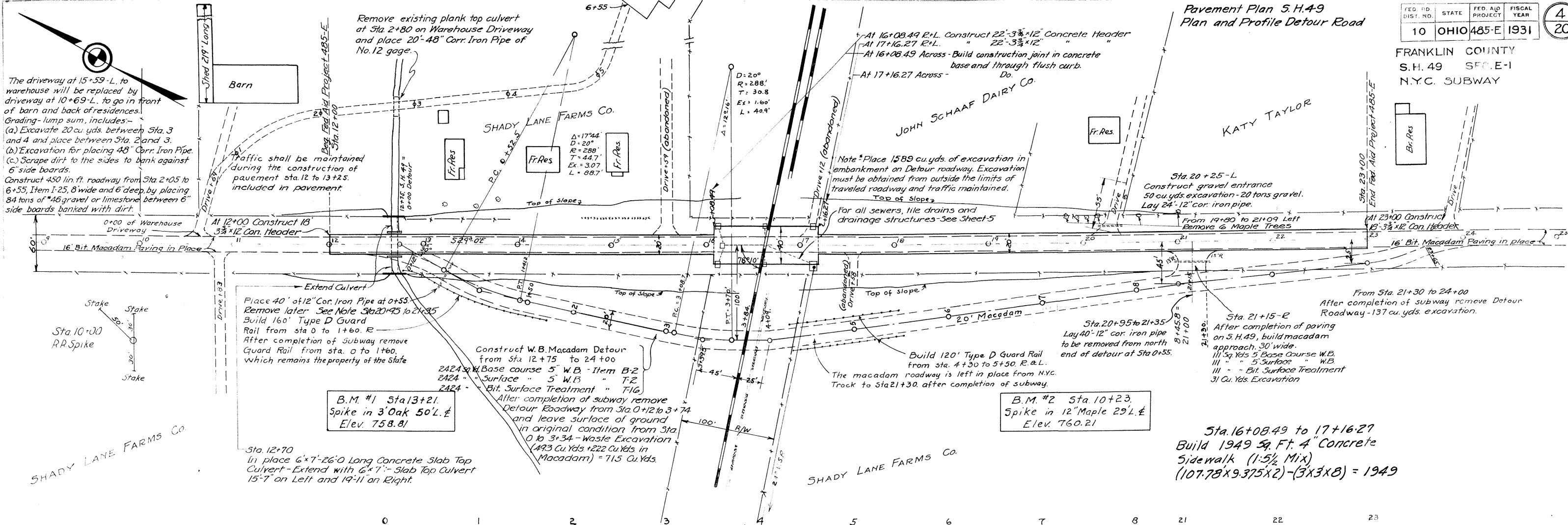


SECTION AT CURB
Scale 1" = 1'-0"



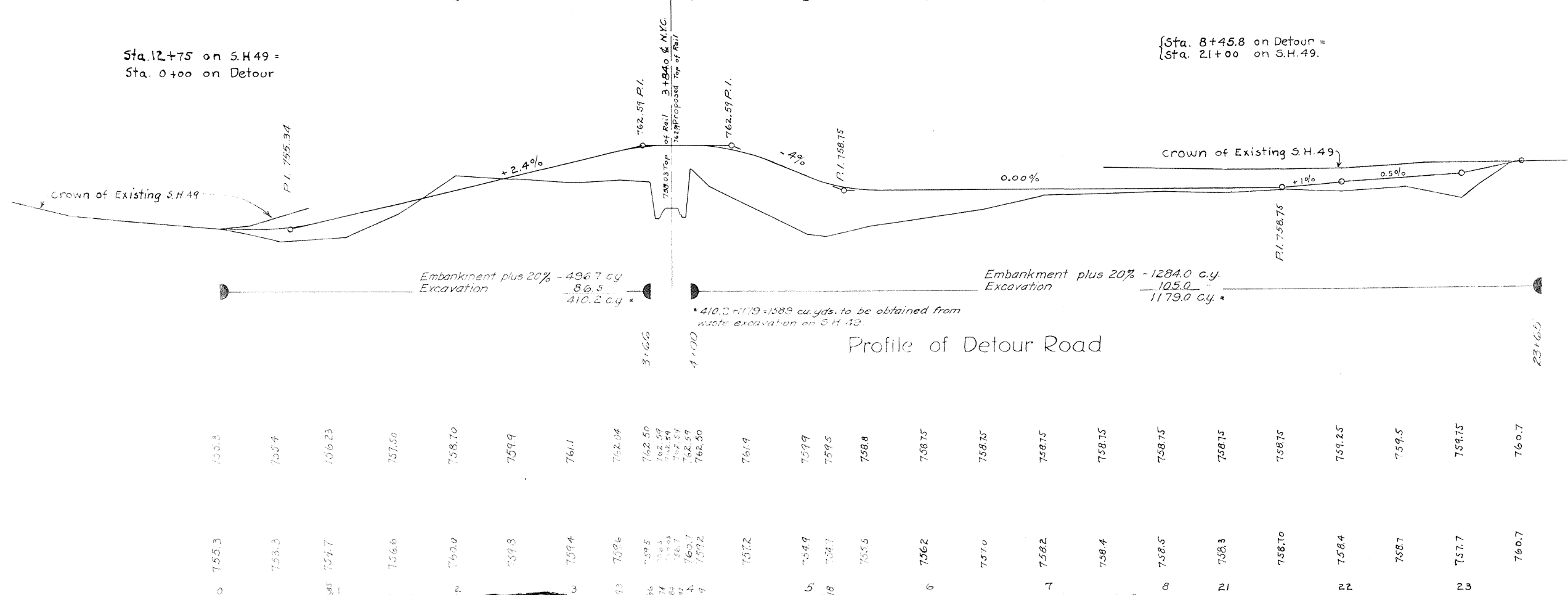
TYPICAL HALF SECTION
DETOUR ROADWAY
20' FT. WATER BOUND MACADAM
TYPE M(W)
Full length of detour on detour across N.Y.C. track

- Bituminous Surface Treatment Item T-16
- Water Bound Macadam Top Course 5" Deep " T-1
- Water Bound Macadam Base Course 5" Deep " B-2

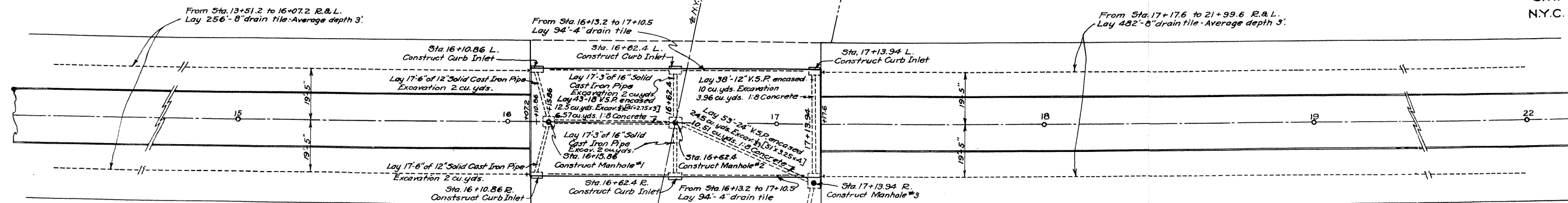


FED. ID.	STATE	FED. AID PROJECT	FISCAL YEAR
10	OHIO	485-E	1931

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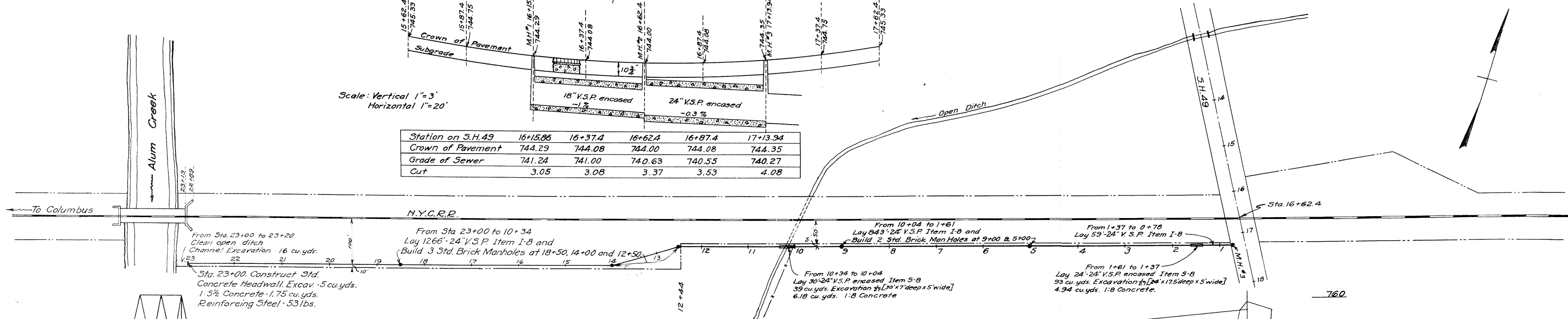
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Note: For details of Curb Inlets, Manholes, etc. see Sheets 6, 7 & 8.

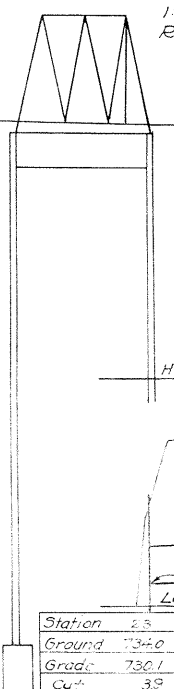
Scale: Vertical 1"=3'
Horizontal 1"=20'

Station on S.H. 49	16+58.6	16+37.4	16+62.4	16+87.4	17+13.94
Crown of Pavement	744.29	744.08	744.00	744.08	744.35
Grade of Sewer	741.24	741.00	740.63	740.55	740.27
Cut	3.05	3.08	3.37	3.53	4.08



Note - The cost of all necessary clearing and grubbing to be included in the price for 24" V.S.P. in place (Item I-8)

Note - The backfill over the 24" sewer shall be at least 2' deep.



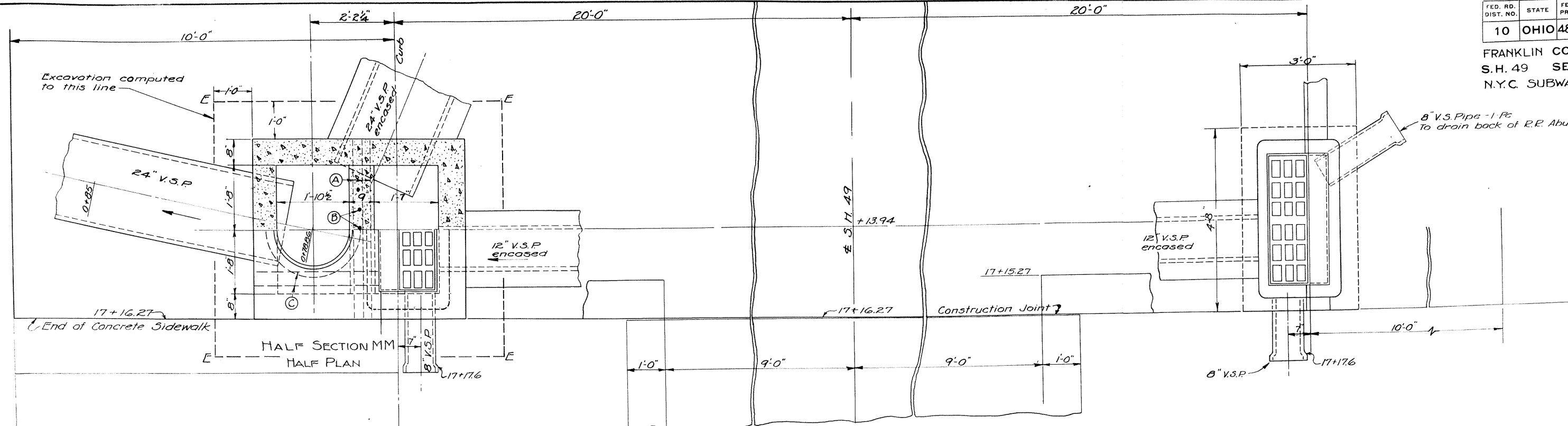
Station	23	+86	22	21	20	19	18	17	16	15	14	13	12	11	10	9	8	7	6	5	+50	4	+50	3	2	1	+78.86
Ground	734.0	737.8	738.0	736.7	735.4	736.8	736.5	735.0	734.7	734.4	734.8	735.8	740.4														
Grade	730.1	730.36	730.4	730.7	731.0	731.8	731.5	732.2	732.5	732.8	733.1	733.25															
Cut	3.9	7.44	7.6	6.0	4.4	5.5	5.5	3.1	2.5	1.9	2.0	2.7															

12	11	+38.5	10	9	8	7	6	5	+50	4	+50	3	2	1	+78.86
742.70	744.80	747.2	744.20	743.20	743.60	743.70	744.20	745.60	748.00	753.70	756.60	757.00	757.20	756.50	756.00
736.46	736.80	737.01	737.14	737.48	737.82	738.16	738.50	738.84	739.01	739.18	739.35	739.52	739.86	740.20	740.26
6.24	8.00	10.19	7.06	5.72	5.78	5.54	5.70	6.76	8.99	14.52	17.25	17.48	17.34	16.30	15.74

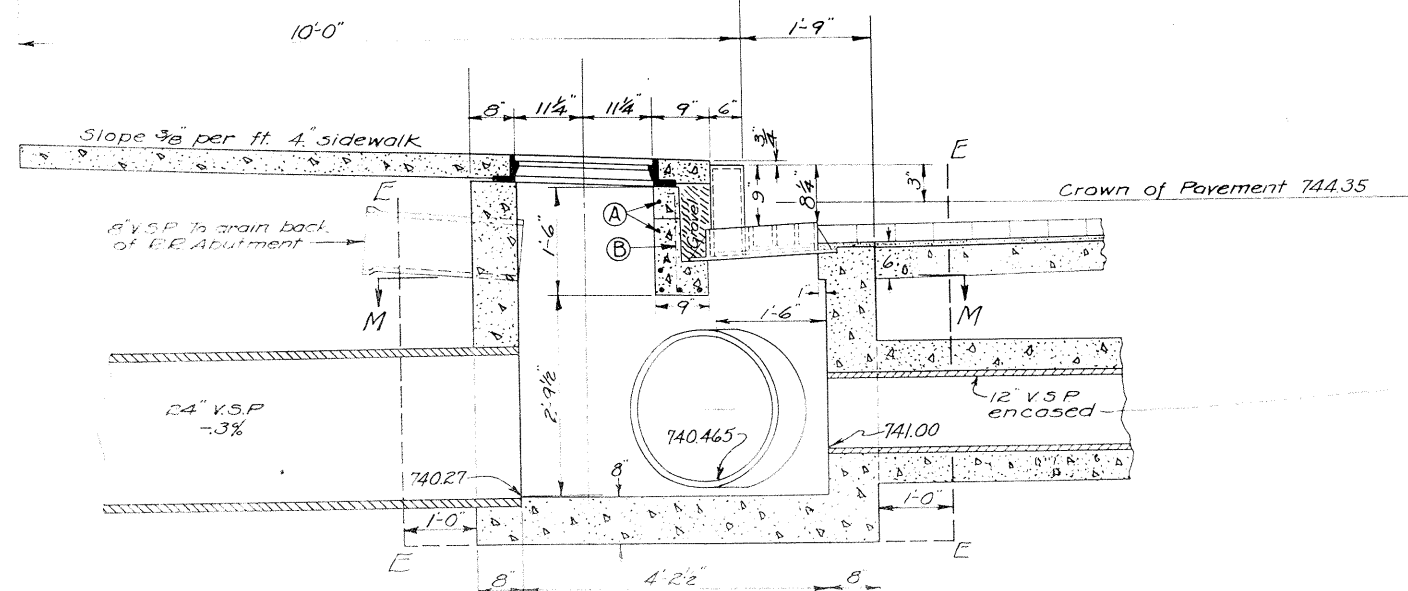
Storm Sewer Profile

Scale: Vertical 1"=5'
Horizontal 1"=100'

FRANKLIN COUNTY
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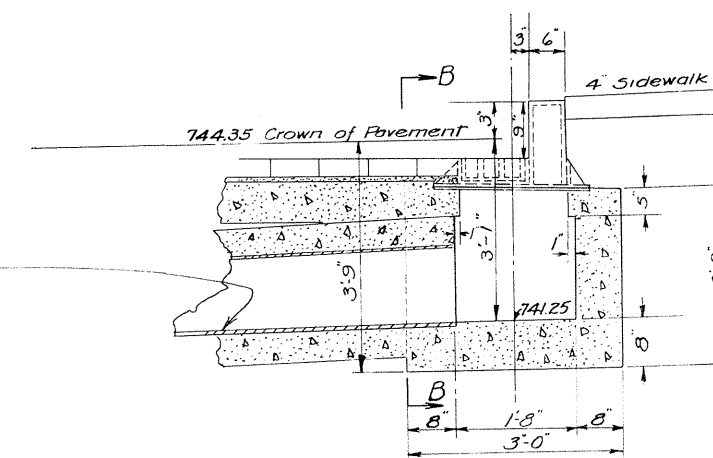


DETAIL OF MANHOLE No. 3



MANHOLE No. 3

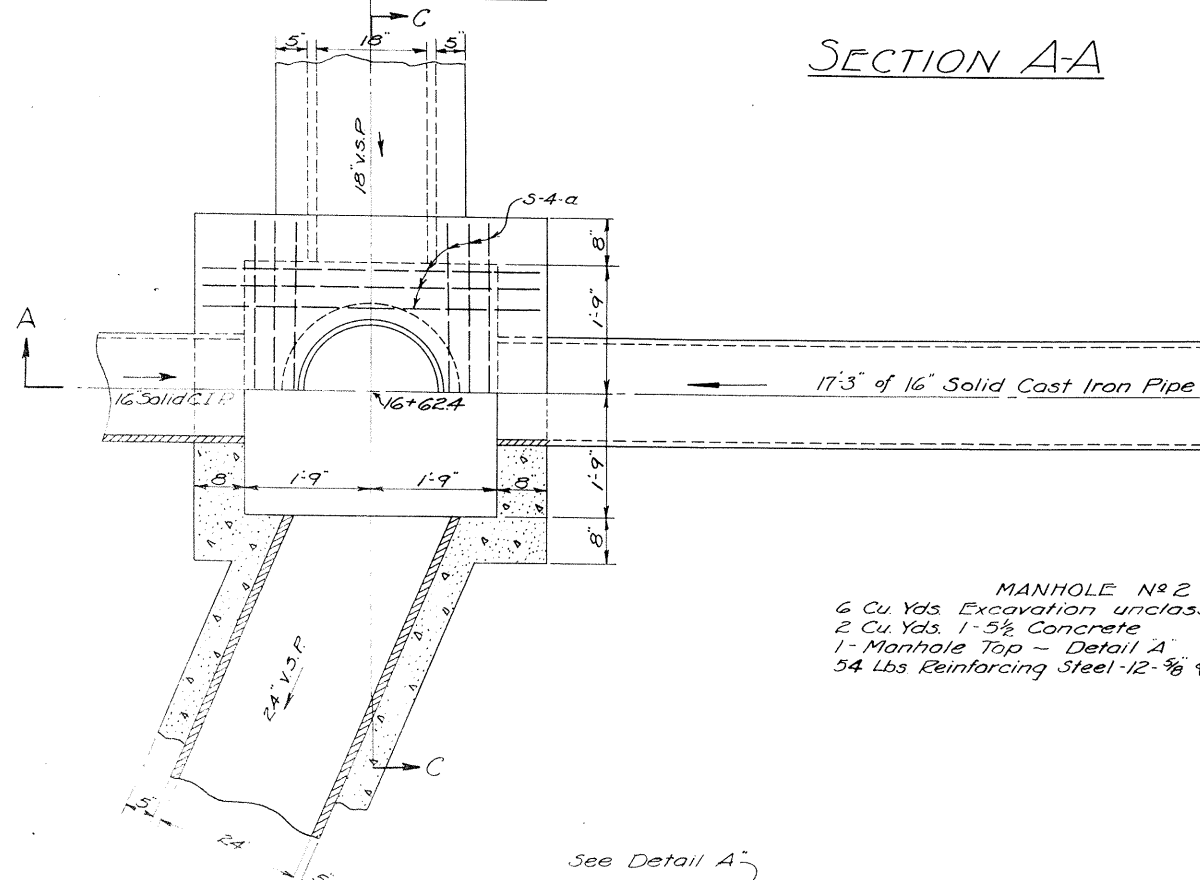
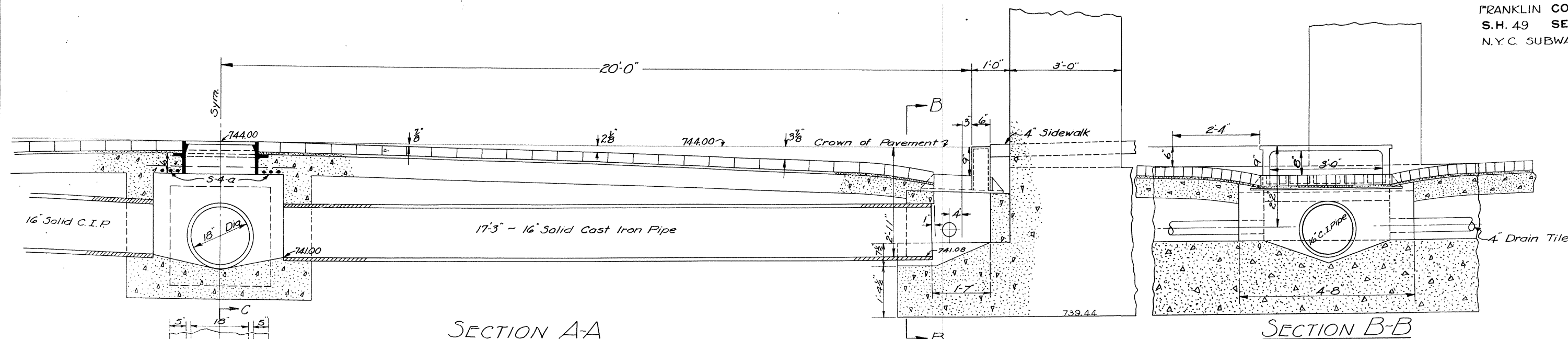
COMBINATION CURB INLET AND MANHOLE
ESTIMATE OF QUANTITIES-LUMP SUM
10 cu yds excavation unclassified (below curb)
1-Storm Water Inlet Pattern "G" Guenther Foundry or equal
1-Manhole, Top - (Special) Same as Detail A with bottom flange left off
Reinforcing Steel - 47
6-A Bars 3/8 - 4.3
5-B " 2'-0" (hook both ends)
4-C " 3'-0"
2.44 cu yds 1-5% Concrete
2 Pieces 8" Vitrified Sewer Pipe 2 Ft Lengths



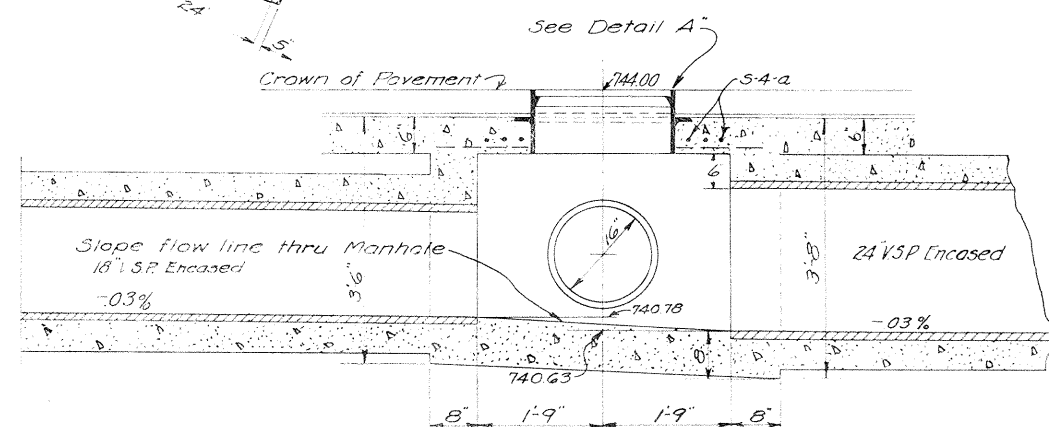
ESTIMATE OF QUANTITIES-LUMP BID

Curb Inlet at Station 17+13.94
3 Cu Yds. excavation unclassified (below curb)
1-Storm Water Inlet Pattern "G" Guenther Foundry or equal
0.9 Cu Yds. 1-5% Concrete
2 Pieces 8" Vitrified Sewer Pipe - 2 Ft Lengths

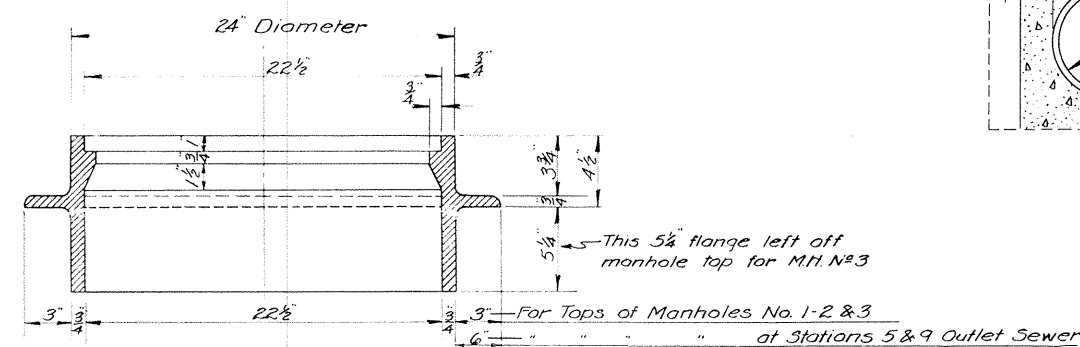
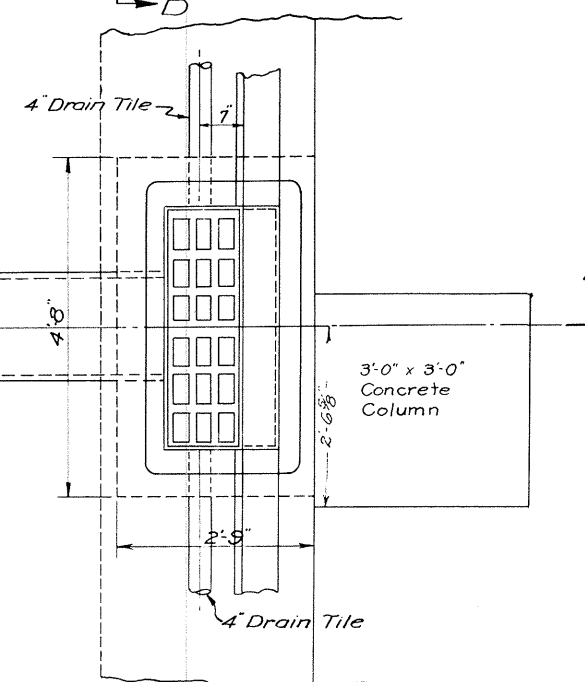
FRANKLIN COUNTY
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MANHOLE No 2
6 Cu. Yds. Excavation unclassified
2 Cu. Yds. 1-5% Concrete
1- Manhole Top - Detail A
54 Lbs Reinforcing Steel - 12- $\frac{3}{8}$ ϕ bars 4'-6" Long - Marked S-4-a



SECTION CC-MANHOLE No 2

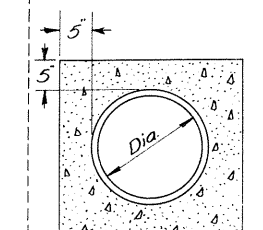


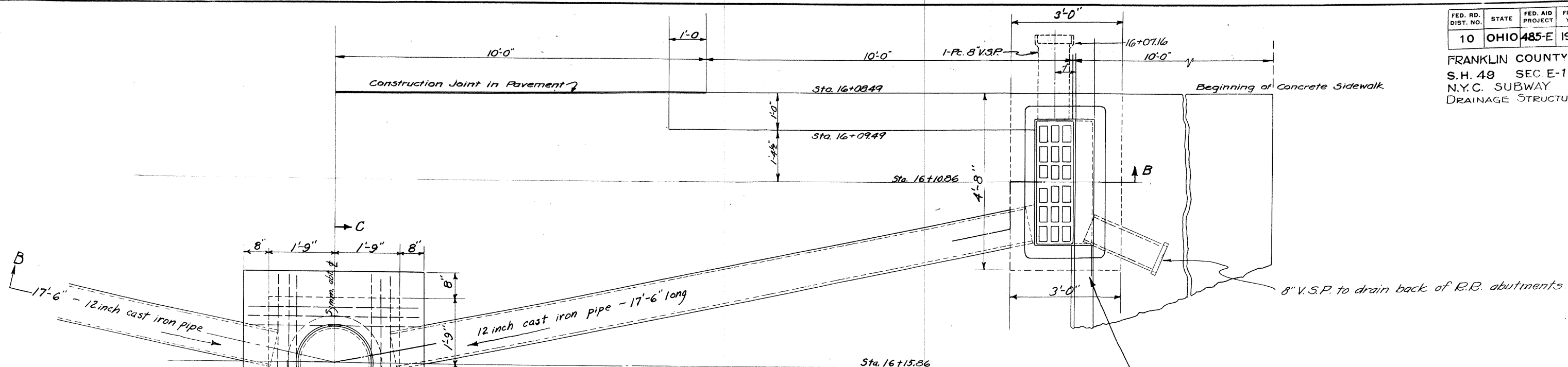
DETAIL A-MANHOLE TOP

CURB INLET R. & L. AT STA. 16+62.4
ESTIMATE OF QUANTITIES
1-Twin Pattern G Type Storm Water Inlet (Guenther Foundry or equal)
0.4 Cu. Yds. 1-5% Concrete

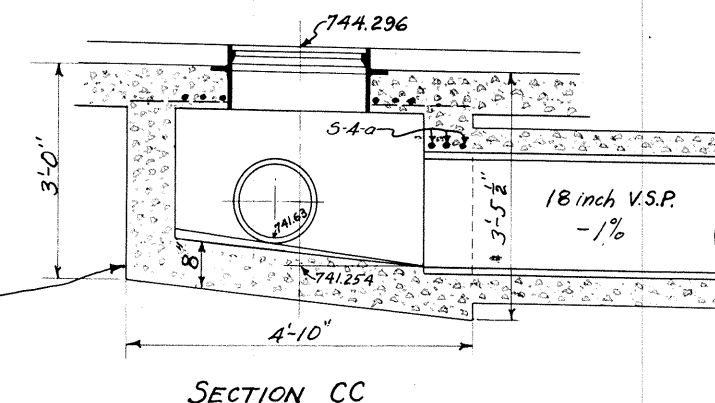
ITEM-S-1

Dia. of V.S.P.	Width of Excavation	Conc. encasing per ft.
12"	2'-6"	100 Cu. Yds.
18"	3'-0"	154 Cu. Yds.
24"	More than 6' deep	206 Cu. Yds.
24"	Less than 6' deep	3'-6"

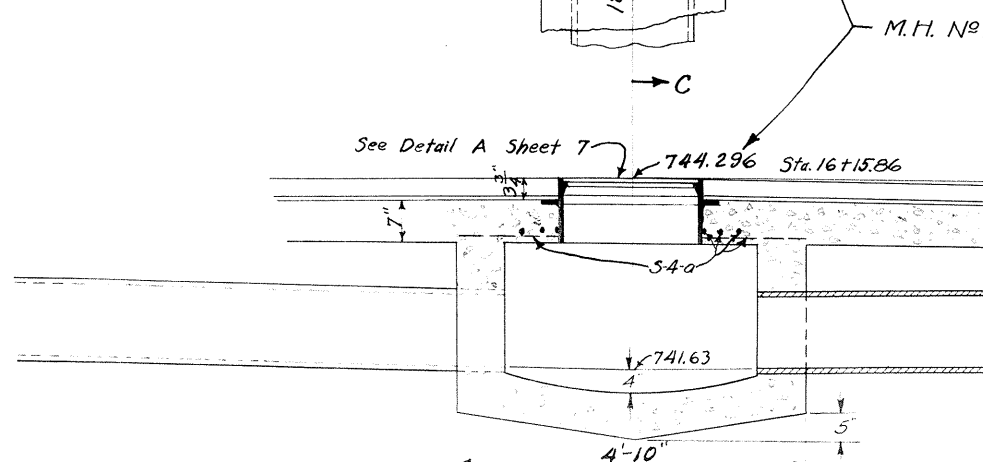




Curb Inlet at Station 16+10.86 R & L
- Estimate of Quantities - Lump Bid
3-cu. yds. excavation unclassified [below curb]
1-Storm water inlet Pattern G. Guenther Foundry or equal
0.9-cu. yds. 1-5 1/2 concrete
2 pieces 8" Vitrified Sewer Pipe 2' length

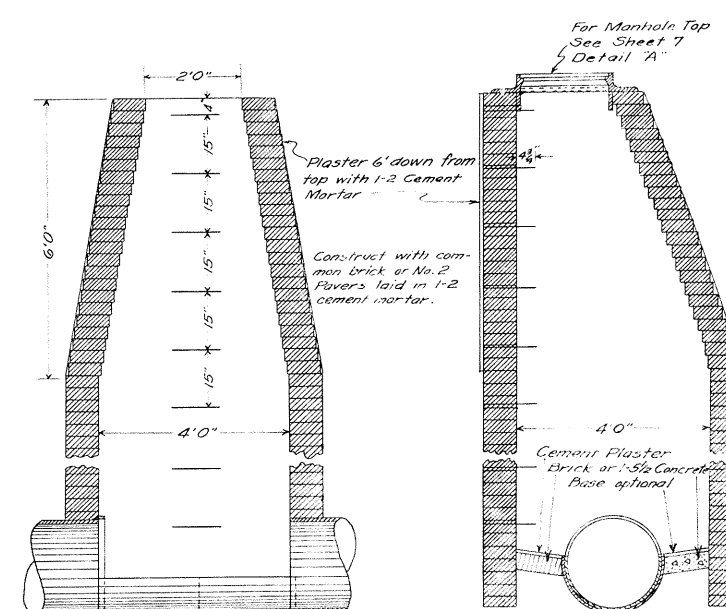
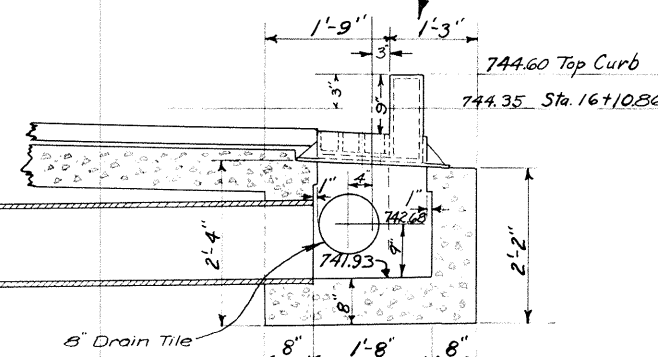


SECTION CC

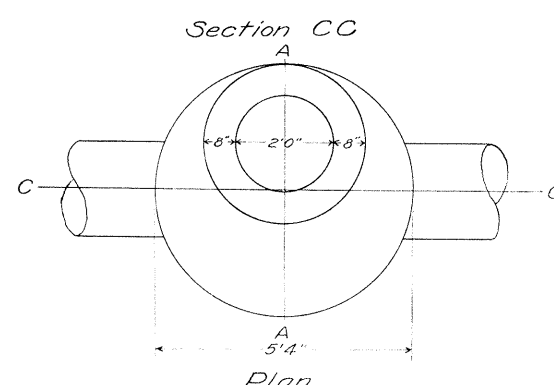


SECTION BB

M.H. No 1 Estimate of Quantities - Lump Bid
6-cu. yds. excavation unclassified [below crown of pavement]
1- Manhole Top - Detail A
1.9 cu. yds. 1-5 1/2 concrete
70 pounds reinforcing steel - 15 bars 5-4a 5/8" x 4'-6" long



Section AA



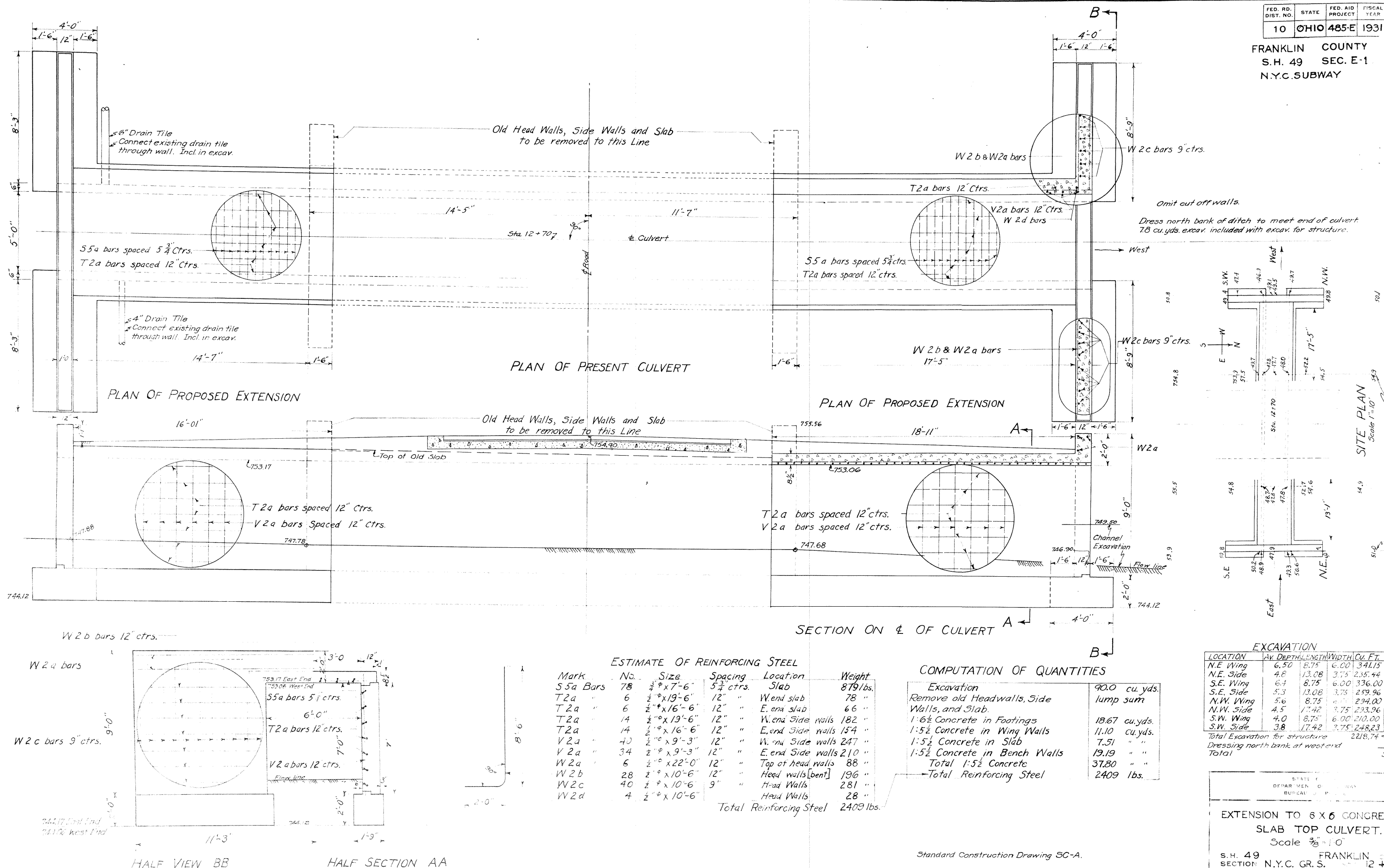
Plan



Manhole Step.

BRICK MANHOLE
5 Required at Sta. 5, 9, 12+50, 14 & 18+50 in Outlet Sewer.

FRANKLIN COUNTY
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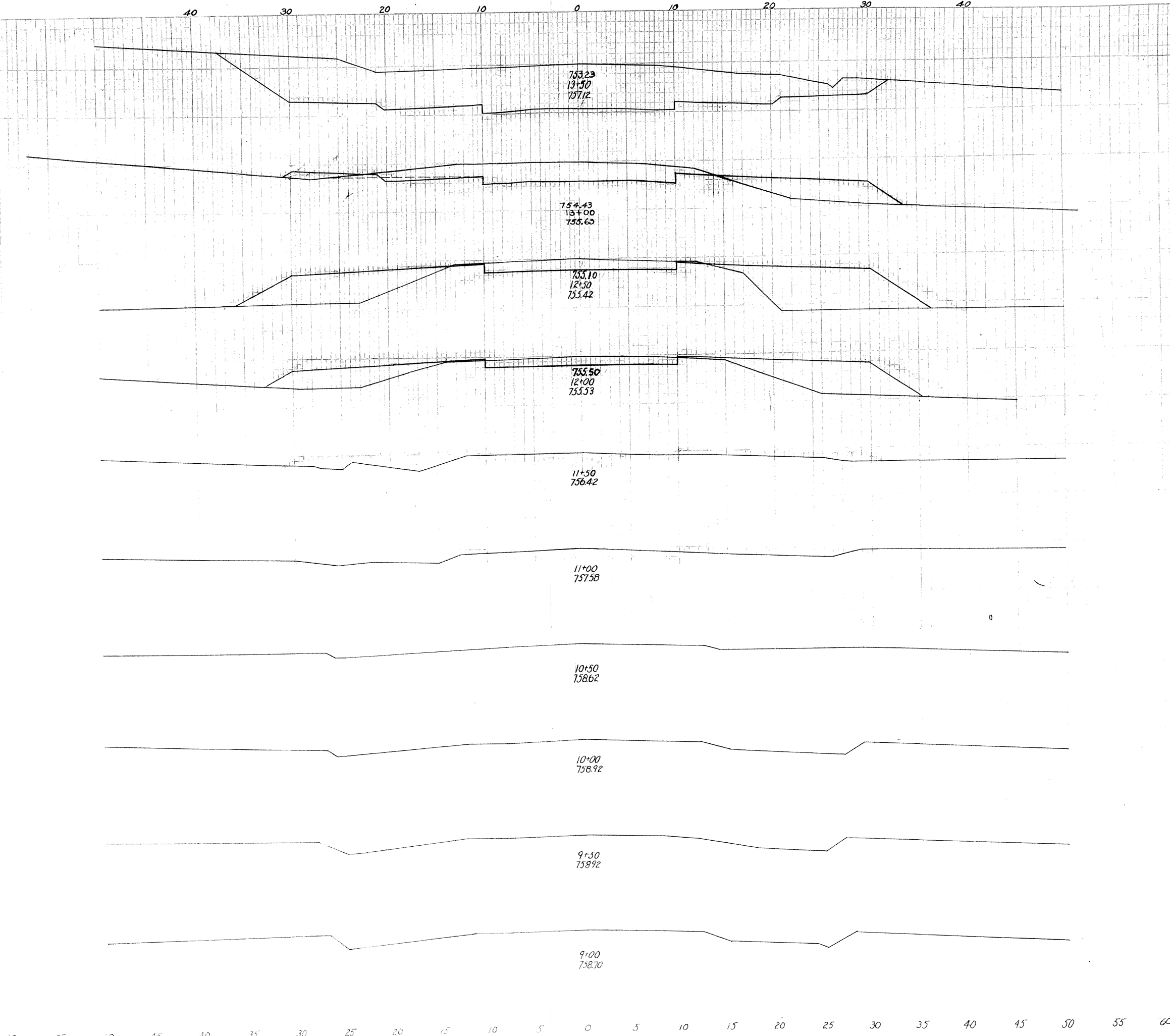


Note Book #36, Page 60 and 63.

Standard Construction Drawing SC-A.

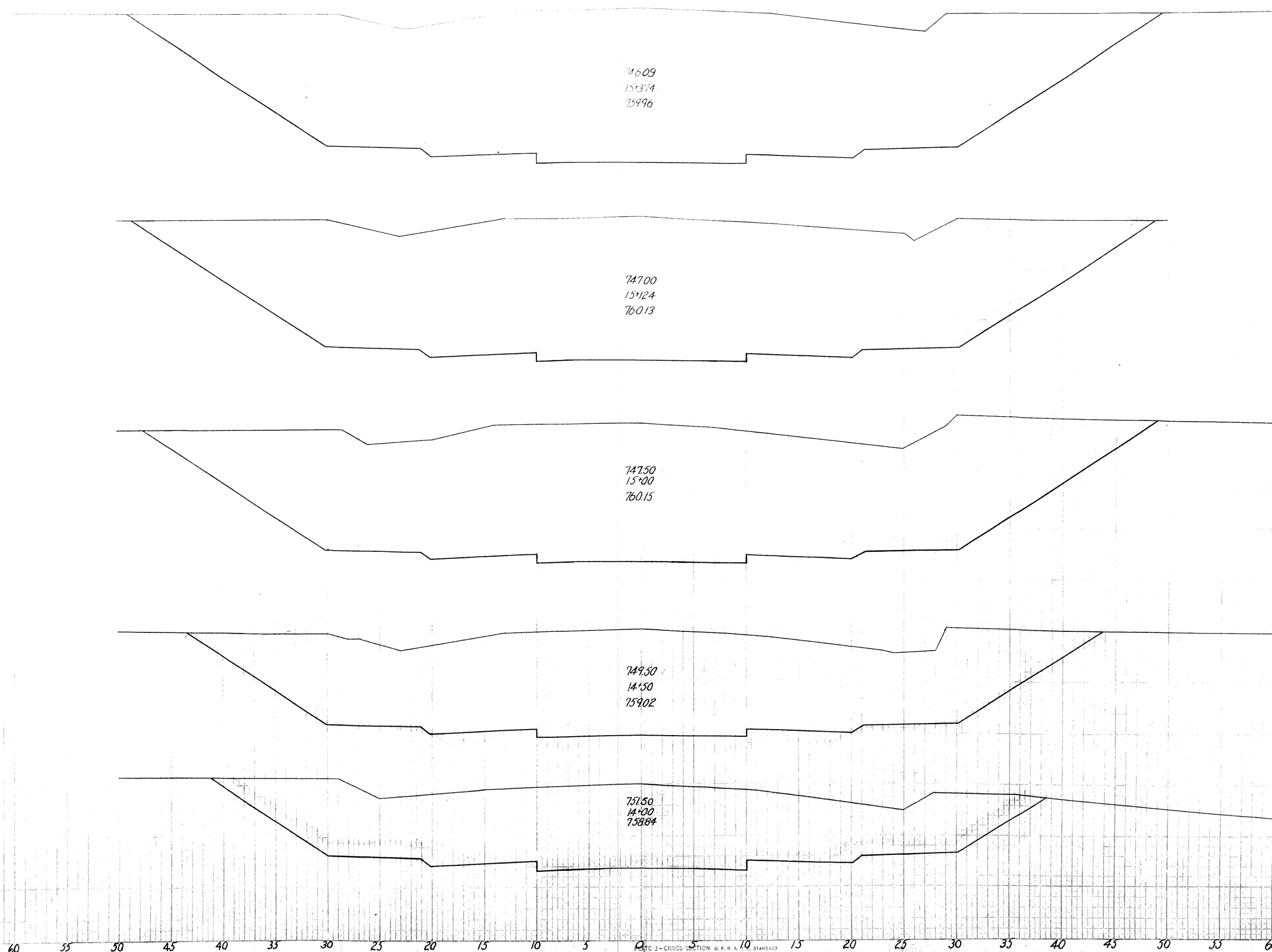
FRANKLIN COUNTY
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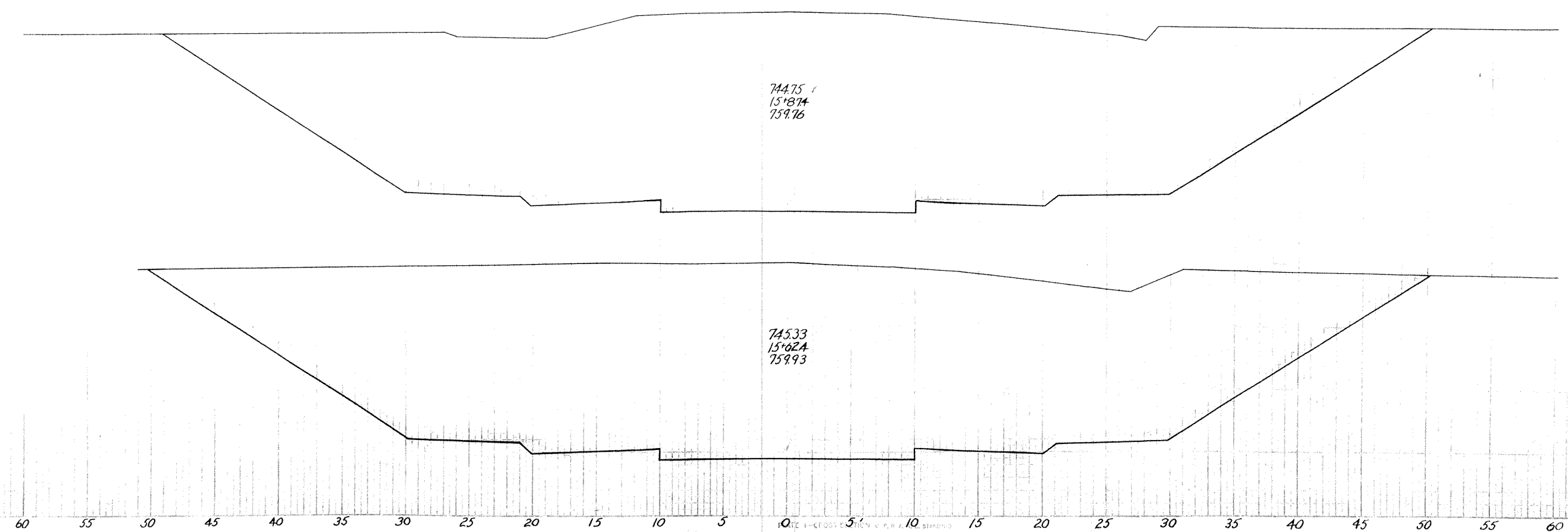
End Area		Cu. Yds.	
Cut	Fill	Cut	Fill
241	0		
		273.2	32.4
54	35		
54	31		
		67.6	134.3
19	114		
		32.4	172.2
16	72		



FRANKLIN COUNTY
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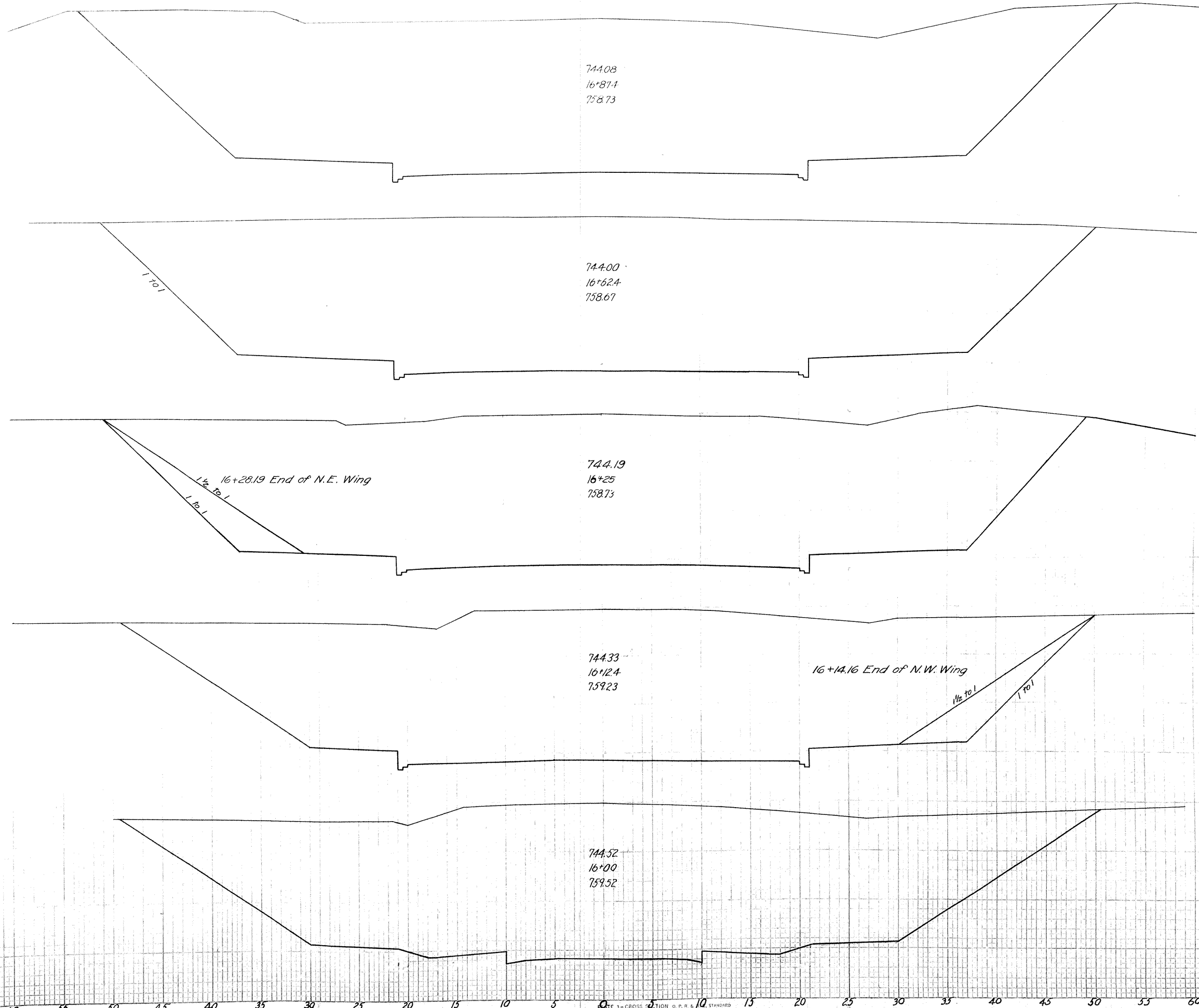
End Area		Cu. Yds.	
Cut	Fill	Cut	Fill
1067	0		
		952.8	0
991	0		
		446.2	0
952	0		
		1493.5	0
661	0		
		1056.5	0
480	0		
		667.6	0





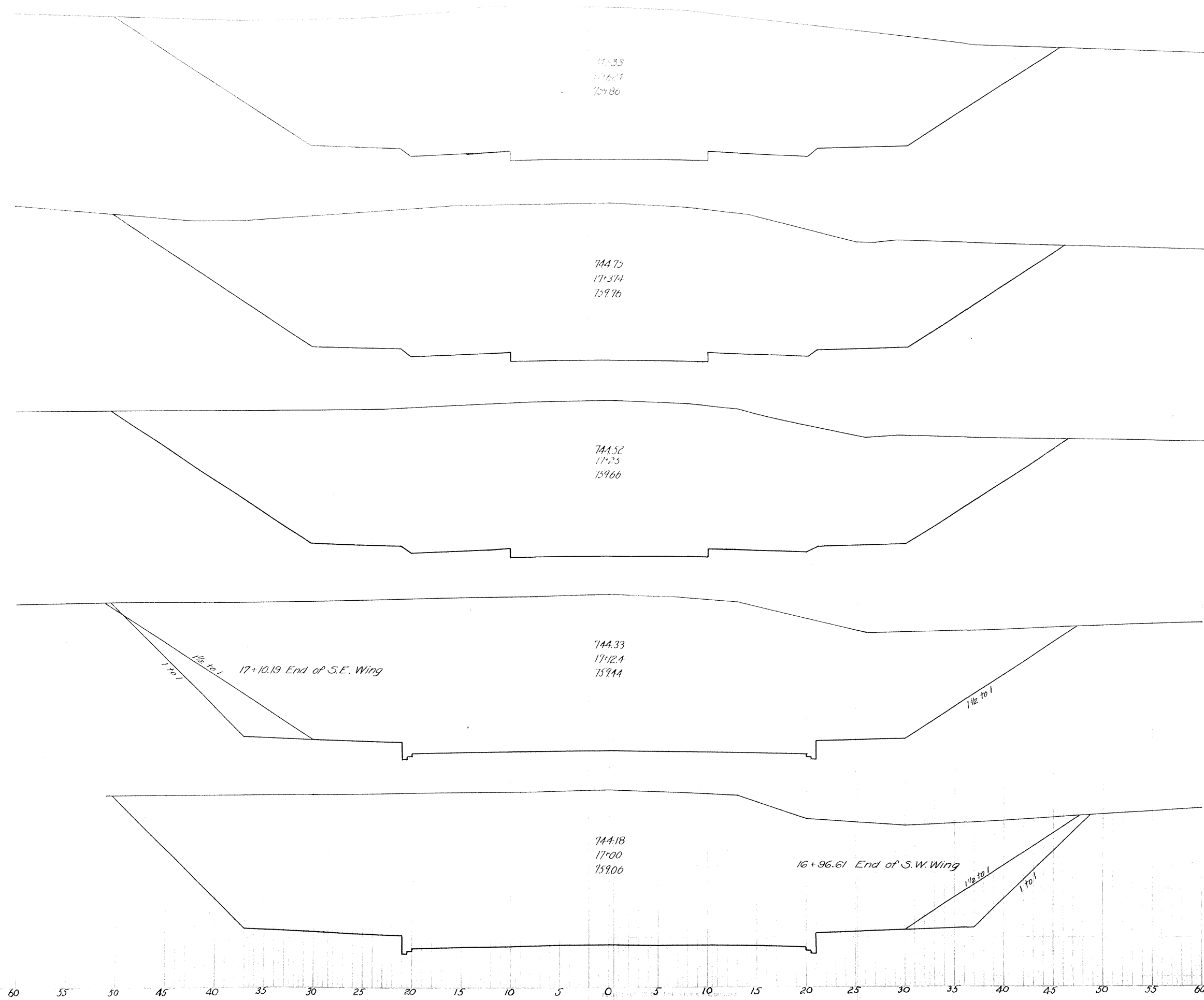
End Area		Cu. Yds.	
Cut	Fill	Cut	Fill
1122	0		
		1050.0	0
1145	0		
		1024.1	0

FRANKLIN COUNTY
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N.Y.C. SUBWAY



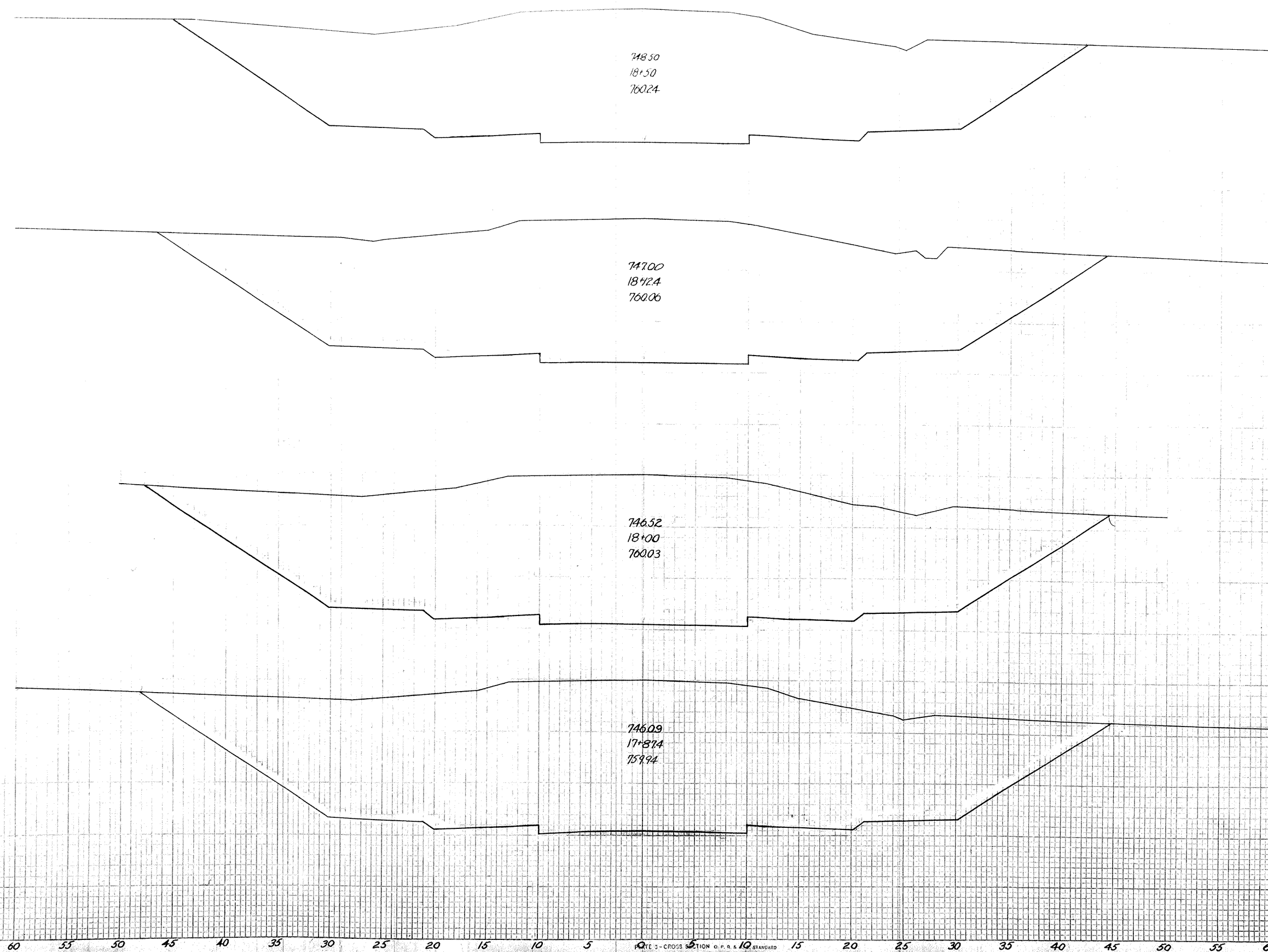
End Area		Cu Yds.	
Cut	Fill	Cut	Fill
1319	0		
		1206.5	0
1287	0		
		1780.0	0
1293	0		
1236	0		
		564.9	0
1185	0		
1146	0		
		521.0	0
1123	0		
		523.8	0

FRANKLIN COUNTY
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N.Y.C. SUBWAY



End Area		Cu. Yds	
Cut	Fill	Cut	Fill
1067	0		
		991.1	
1075	0		
		500.6	0
1105	0		
		523.1	0
1137	0		
1175	0		
		537.8	0
1167	0		
1215	0		
		591.3	0

FRANKLIN COUNTY
S.H. 49 S.D. E-1
N.Y.C. SUBWAY



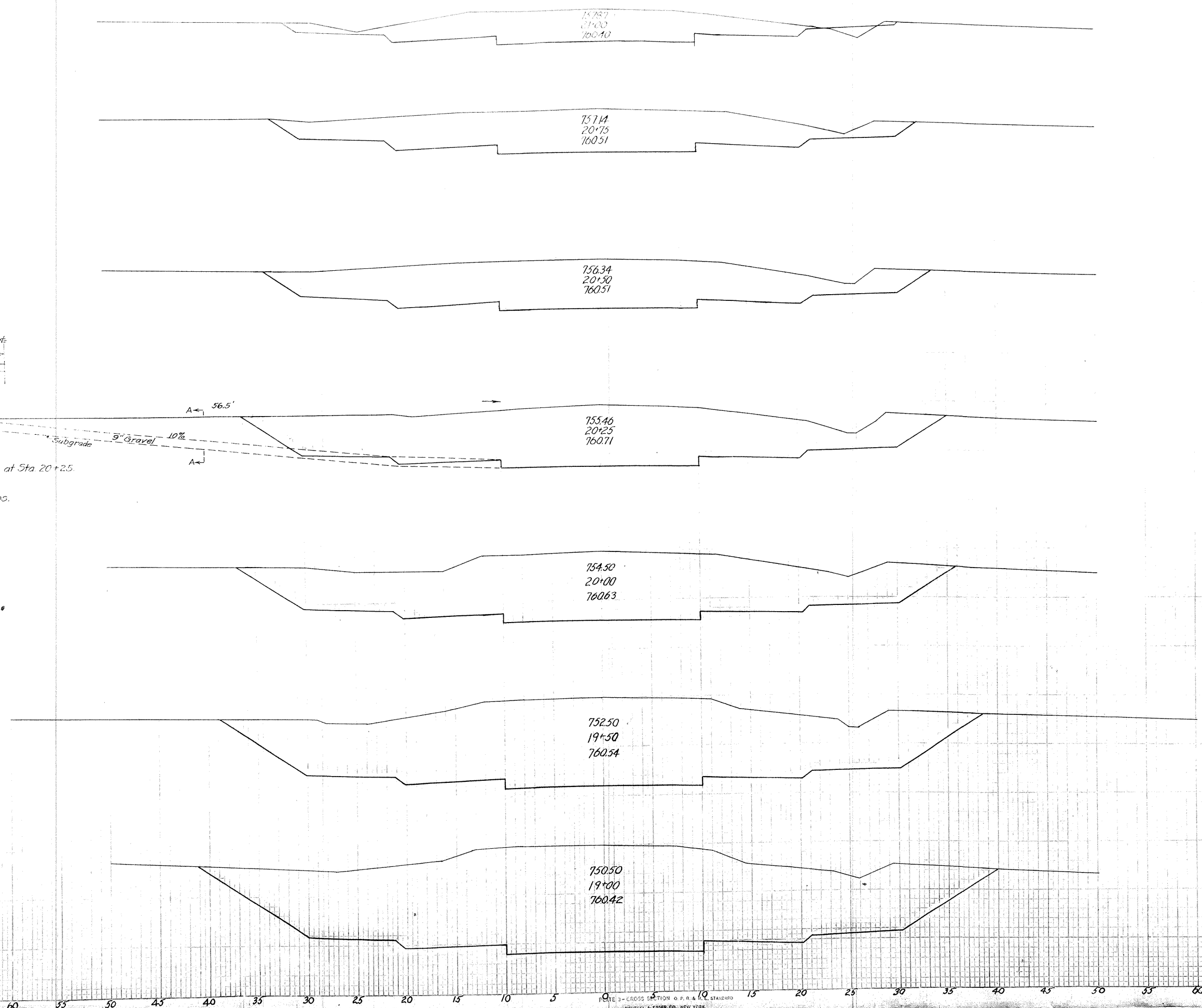
End Area		Cu. Yds	
Cut	Fill	Cut	Fill
765	0		
		1157.2	0
897	0		
		420.0	
932	0		
		442.6	0
965	0		
		940.7	0

FRANKLIN COUNTY
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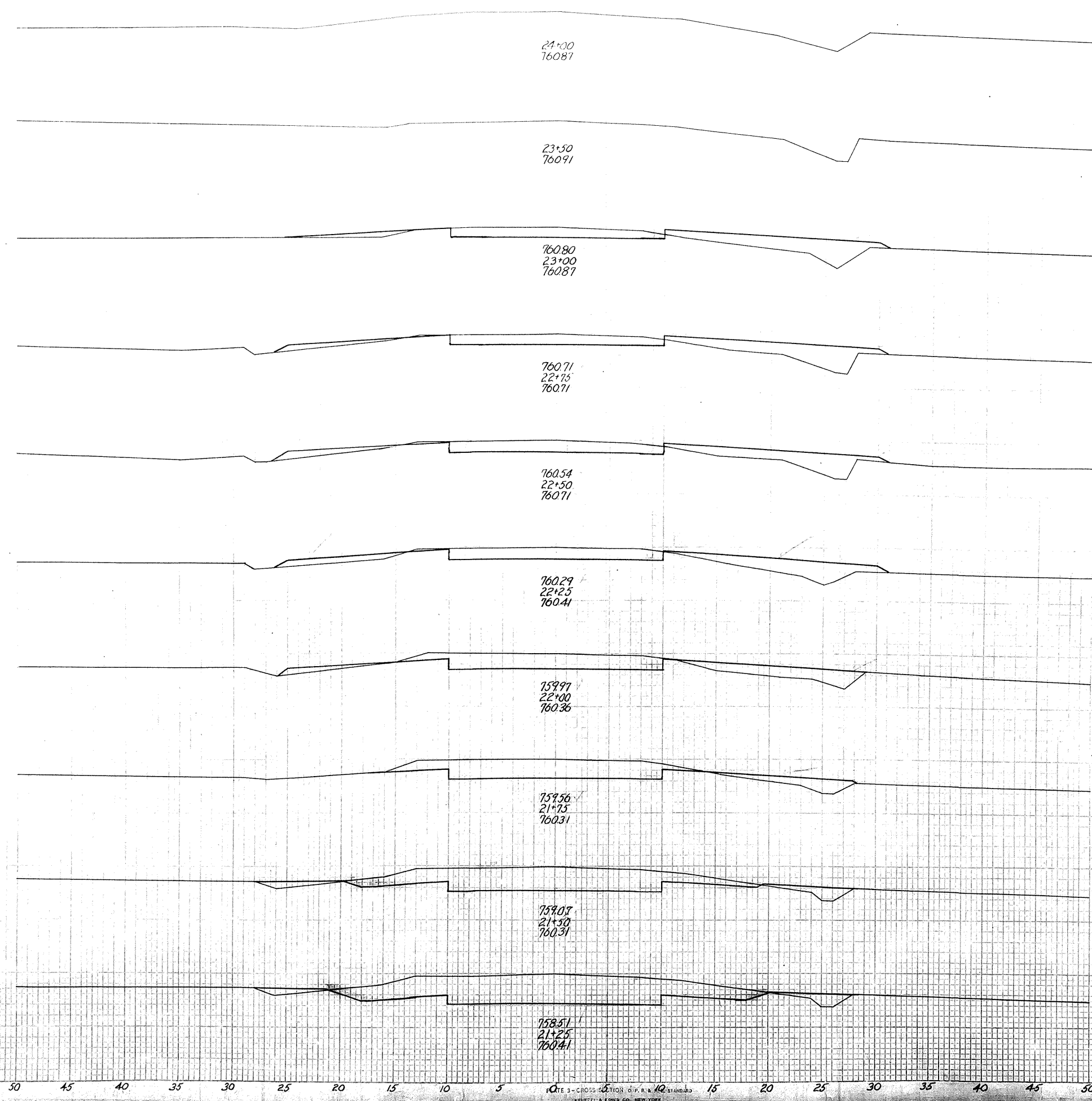
End Area		Cu. Yds	
Cut	Fill	Cut	Fill
120	3		
		141.7	1.4
186	0		
		199.0	0
245	0		
		256.5	0
309	0		
		306.5	0
353	0		
		775.0	0
484	0		
		1008.4	0
605	0		
		1268.5	0



Construct drive on East side at Sta 20+25.
Excavation 50 cu yds.
Gravel in driveway 20 tons.



FRANKLIN CO.
S.H. 49 SEC. E-1
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Excavation in S.H. 49 ----- 22036 cu. yds.
Embankment [466 cu. yds + 20%] on S.H. 49 ----- 559 cu. yds.
Excavation to be placed in embankment on Detour Road ----- 1589 cu. yds. 2148 cu. yds.
Waste ----- 19888 cu. yds.

End Area		Cu. Yds.	
Cut	Fill	Cut	Fill
17	27		
		16.2	25.5
18	28		
		18.1	24.1
21	24		
		19.9	23.2
22	26		
		24.1	20.4
30	19		
		33.3	13.0
42	9		
		46.8	7.9
59	8		
		64.4	7.0
80	7		
		92.6	4.6

20 10 10 20

20 10 10 20

FRANKLIN COUNTY
S.H. 49 SEC. E-1
N.Y.C. SUBWAY
DETOUR CROSS SECTIONS

FED. RD. DIST. NO.	STATE	FED. AID PROJECT	FISCAL YEAR
10	OHIO	485-E	1931

18
20

END CUT	AREA FILL	Cut	Fill
0	71	0	68.5
0	66	0	72.2
0	34	0	31.5
20	0	18.5	28.7
0	31	14.8	46.3
16	19	26.0	63.8
10	46	8.7	74.9
0	40	0	28.0
0	0	0	0

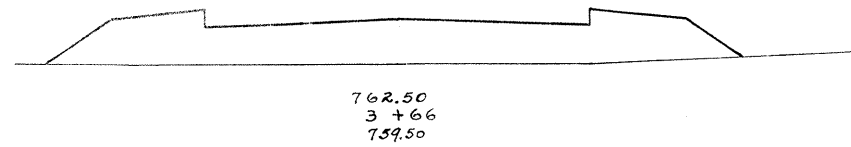
Beginning to Sta. 3+66
Excavation
Borrow
496.7 Cu Yds.
86.5
410.2

3+66

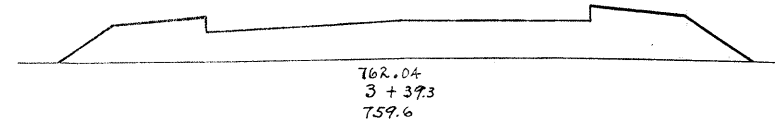
PLATE 2 - CROSS SECTION
THE H. K. & C. CO., COLUMBUS, OHIO

END CUT	AREA FILL	Cut	Fill
0	62	0	136.1
0	85	0	135.7
0	144	0	100.0
0	156	0	286.1
0	153	0	187.5
0	34	0	21.3
0	34	0	0

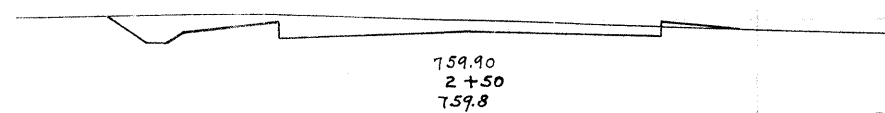
4+00



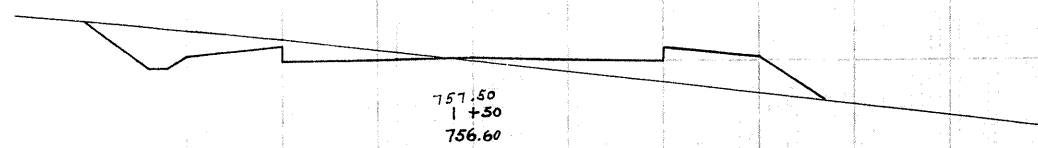
0.5' Superelevation



761.1
3+00
739.4



758.70
2+00
760.0



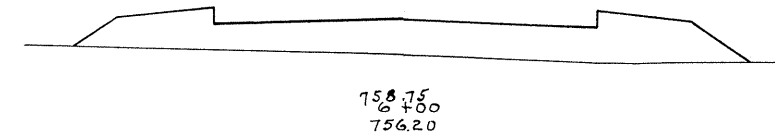
0.57' Superelevation

756.23
0+96.85
754.7

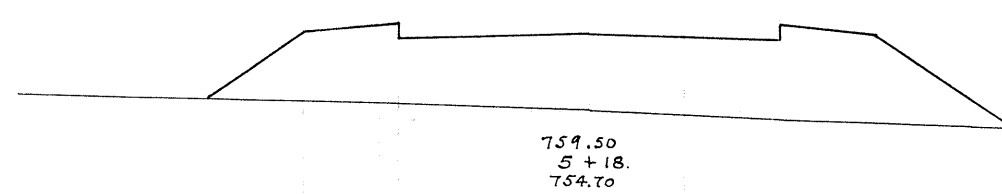
Edge of Present Macadam

Place 32'-8" Cor. Iron pipe at 0+55

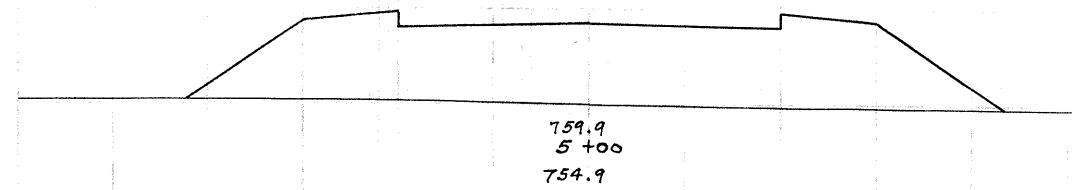
755.40
0+50
753.30



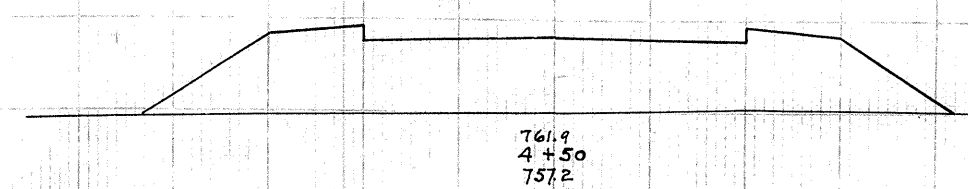
758.80
5+50
755.50



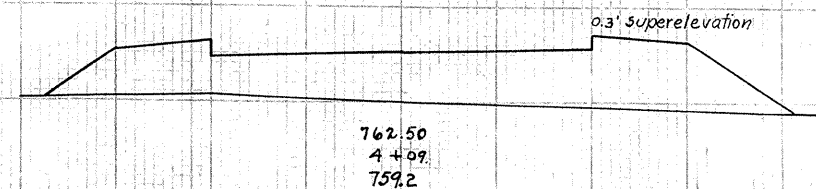
759.50
5+18
754.70



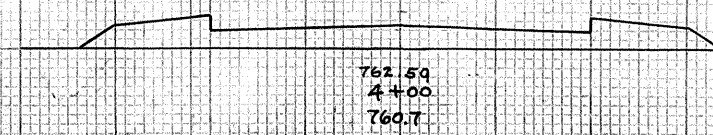
759.9
5+00
754.9



761.9
4+50
757.2



762.50
4+09
759.2



762.59
4+00
760.7

5
H
49

23+50
760.9

760.70
23+50
760.7

760.80
23+00
760.87

759.75
23+00
757.7

760.54
22+50
760.71

759.50
22+50
758.71

759.97
22+00
760.36

759.25
22+00
758.40

759.07
21+50
760.31

758.75
21+50
758.70

757.87
21+00
760.40

758.75
8+45.8 = 21+00
758.3

758.75
8+00
758.50

758.75
7+50
758.4

758.75
7+00
758.2

758.75
6+50
757.0

END AREA		Cut	Fill
Cut	Fill		
		0.6	4.1
7	9		
		8.4	13.0
2	5		
		4.6	8.4
3	4		
		2.8	8.4
0	5		
		1.0	7.4
1	3		
		9.3	3.7
9	1		
		26.4	0.9
22	0		
		36.1	0
17	0		
		15.8	22.2
0	24		
		0	50.0
0	30		
		0	85.2

Embankment (1070.0 plus 20%) 1284.0 Cu. Yds.
Excavation 105.9
Borrow 1179.0
From Sta. 4+00 to End

FED. RD DIST NO	STATE	FED. AID PROJECT	FISCAL YEAR	1920
10	OHIO	485-E	1931	20

FRANKLIN COUNTY
SH. 49 SEC. E-1
N.Y.C. SUBWAY
DETOUR CROSS SECTIONS

