LIMITED ACCESS

THIS IMPROVEMENT HAS BEEN DECLARED A LIMITED ACCESS HIGHWAY OR FREEWAY BY ACTION OF THE DIRECTOR OF HIGHWAYS IN ACCORDANCE WITH THE PROVISIONS OF SECTION 5511.02 REVISED CODE OF OHIO AND IS ESPECIALLY DESIGNED FOR THROUGH TRAFFIC.

MICROFILMED
JUN 11 1984

Sheet 346 Revised 2-15-63.

STATE OF OHIO
DEPARTMENT OF HIGHWAYS

MICROFILMED
SEP 6 1966
GROUND PHOTO LAB

U-UG-1100(9)

FED. RD. DIV.	STATE	PROJECT	FISCAL YEAR
2	OHIO	U-UG-1100(9)	

HAM-50-19.76

1
464

SIXTH ST. EXPRESSWAY HAM-50-19.76

204

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GROUND PHOTO LAB

GRADE SEPARATIONS WITH THE NEW YORK CENTRAL RAILROAD COMPANY, BALTIMORE AND OHIO RAILROAD COMPANY, SOUTHERN RAILWAY COMPANY, AND THE CINCINNATI UNION TERMINAL COMPANY

204 Real
1 – 100

HAMILTON COUNTY

CITY OF CINCINNATI

CONVENTIONAL SIGNS

CENTER LINE
PROPERTY LINE
FENCE ..... EXISTING ..... PROPOSED
RAILROAD ..... OR
POLES ..... TELEPHONE ○ POWER ○ LIGHT ○
GUARD RAIL ..... EXISTING ..... PROPOSED
DRAIN OR SEWER PIPE ..... EXISTING ..... PROPOSED
CATCH BASIN ..... EXISTING ..... PROPOSED
MANHOLES ..... EXISTING ○ ADJUSTED TO GRADE ◑ PROPOSED ●
VALVE CHAMBERS ..... EXISTING ⊗ ADJUSTED TO GRADE ⊗ PROPOSED ⊗
TELEPHONE CHAMBERS ..... EXISTING Ⓣ OR Ⓣ
ELECTRIC CHAMBERS ..... EXISTING Ⓔ OR Ⓔ
GAS MAIN
WATER MAIN ..... EXISTING
TELEPHONE CONDUIT ..... EXISTING
ELECTRIC CONDUIT ..... EXISTING

INDEX OF SHEETS

	SHEET No.		SHEET No.
TITLE SHEET	1	CROSS SECTION LOCATION DIAGRAM	125-127
GENERAL PLAN & PROFILE	2&3	CROSS SECTIONS & CELLAR VOLUMES	128-175
TYPICAL SECTIONS	4-20	SEWER DETAILS	176-187
GENERAL NOTES	21-25	WALL No.12, STEPS & MISC. DETAILS	188
SUMMARY OF QUANTITIES	26-34	GRADE DETAILS	189-203
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WATER WORKS	106-124	RIGHT OF WAY	414-464

NOTE: SHEET 413 OMITTED FROM PLANS

LINE DATA

PROJECT U-1100(9)

Sta. 22+42.00 E.B. to 30+50.00 E.B.	=	808.00'
Sta. 46+97.24 E.B. to 47+96.86 E.B.	=	99.62'
Sta. 52+50.00 E.B. to 57+83.77 E.B.	=	533.77'
Length of Project U-1100(9)	=	1441.39'
Approach Work (See Sheet No. 2)	=	2819.17'
Length of Work U-1100(9)	=	4260.56'

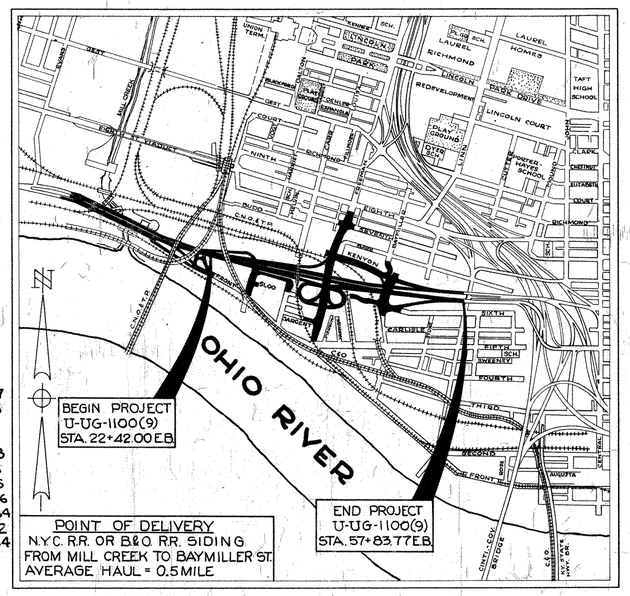
PROJECT UG-1100(9)

Sta. 30+50.00 E.B. to 46+97.24 E.B.	=	1647.24'
Sta. 47+96.86 E.B. to 52+50.00 E.B.	=	453.14'
Length of Project UG-1100(9)	=	2100.38'
Approach Work (See Sheet No. 2)	=	96.25'
Length of Work UG-1100(9)	=	2196.63'

TOTAL PROJECT U-UG-1100(9)

Total Length Project = 1441.39'(U) + 2100.38'(UG) = 3541.77 Lin. Ft. or 0.670 Mile
Total Length Work = 4260.56'(U) + 2196.63'(UG) = 6457.19 Lin. Ft. or 1.222 Miles

For Limits of 100% City Participation see Sheet No. 2



LOCATION PLAN

0 ¼ ½ ¾
SCALE OF MILES

PORTION TO BE IMPROVED

SCALES

PLAN
PROFILE HORIZONTAL ---- 0 8 16 24 32 40
PROFILE VERTICAL ---- 0 2 4 6 8 10
CROSS SECTIONS ---- 0 4 8 12 16 20

MICROFILMED
SEP 6 1966
GROUND PHOTO LAB

THE STANDARD SPECIFICATIONS OF THE STATE OF OHIO, DEPARTMENT OF HIGHWAYS, INCLUDING CHANGES AND SUPPLEMENTAL SPECIFICATIONS LISTED IN THE PROPOSAL SHALL GOVERN THIS IMPROVEMENT.

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 PROVISIONS FOR MAINTENANCE AND SAFETY OF TRAFFIC WILL BE AS SET FORTH IN THESE PLANS AND ESTIMATES.

THE RIGHT OF WAY FOR THIS IMPROVEMENT WILL BE PROVIDED BY THE STATE OF OHIO.

APPROVED: Joseph M. Unger
DATE: 8-27-62 DIVISION DEPUTY DIRECTOR

APPROVED: D.H. Carrman
DATE: 8-29-62 ENGINEER OF BRIDGES

APPROVED: W. J. Lamm
DATE: 9-4-62 ENGINEER OF LOCATION & DESIGN

APPROVED: C.W. McCaughey
DATE: 9-9-62 DEPUTY DIRECTOR OF DESIGN & CONSTRUCTION

APPROVED:
DATE: DEPUTY DIRECTOR OF RIGHT OF WAY

APPROVED: Guy E. Yeager
DATE: 9-5-62 DEPUTY DIRECTOR OF PLANNING & PROGRAMMING

APPROVED: L. A. Berry
DATE: 9-5-62 FIRST ASSISTANT DIRECTOR

APPROVED: E. L. Preston
DATE: 9-5-62 DIRECTOR OF HIGHWAYS

APPROVED: J. W. Richmond ACTING
DATE: 8/16/62 CITY MANAGER, CITY OF CINCINNATI

PLANS PREPARED BY
HAZELET & ERDAL – CONSULTING ENGINEERS
CINCINNATI, OHIO

FILE Nº	HAM-50-19.76
	DATE OF LETTING
	CONTRACT Nº

STANDARD DRAWINGS

G-7.07	6-1-56	L.J. No.1	7-1-55	I-21-23	8-1-56
RI-1	7-15-58	T.J.	9-12-60	L-1	4-1-50
F-1	9-1-59	I-1	11-15-60	L-3	4-1-50
F-3	9-1-59	I-12	7-1-54	L-3-A	4-1-50
T-35	1-2-56	I-146	1-22-52	AR-1-57	4-2-62
B-T-70-71	11-15-60	I-15 No.1	11-15-60	CSB-2-56(Sheet 2&3)	2-2-59
B-T-71R	3-2-53	I-15 No.2A	8-17-60	RB-1-55	2-2-59
				F.A.C.I.-1	12-27-61
				F.A.C.I.-2	12-27-61
				AS-1-54	12-1-54

SUPPLEMENTAL SPECIFICATIONS

18	Rev.	6-15-59
S-112		8-21-61
I-212	Rev.	8-21-61
CE-101.04		5-22-56
I-128		7-31-59
I-129	Rev.	4-5-61
S-197	Rev.	2-16-55
S-198	Rev.	2-16-55
S-207.10		4-25-61
S-307		5-23-60
S-257		2-15-62
M-107.18	Rev.	4-3-61
M-109.28	Rev.	8-12-59
M-206.14		7-15-49

DEPARTMENT OF COMMERCE
BUREAU OF PUBLIC ROADS

APPROVED:

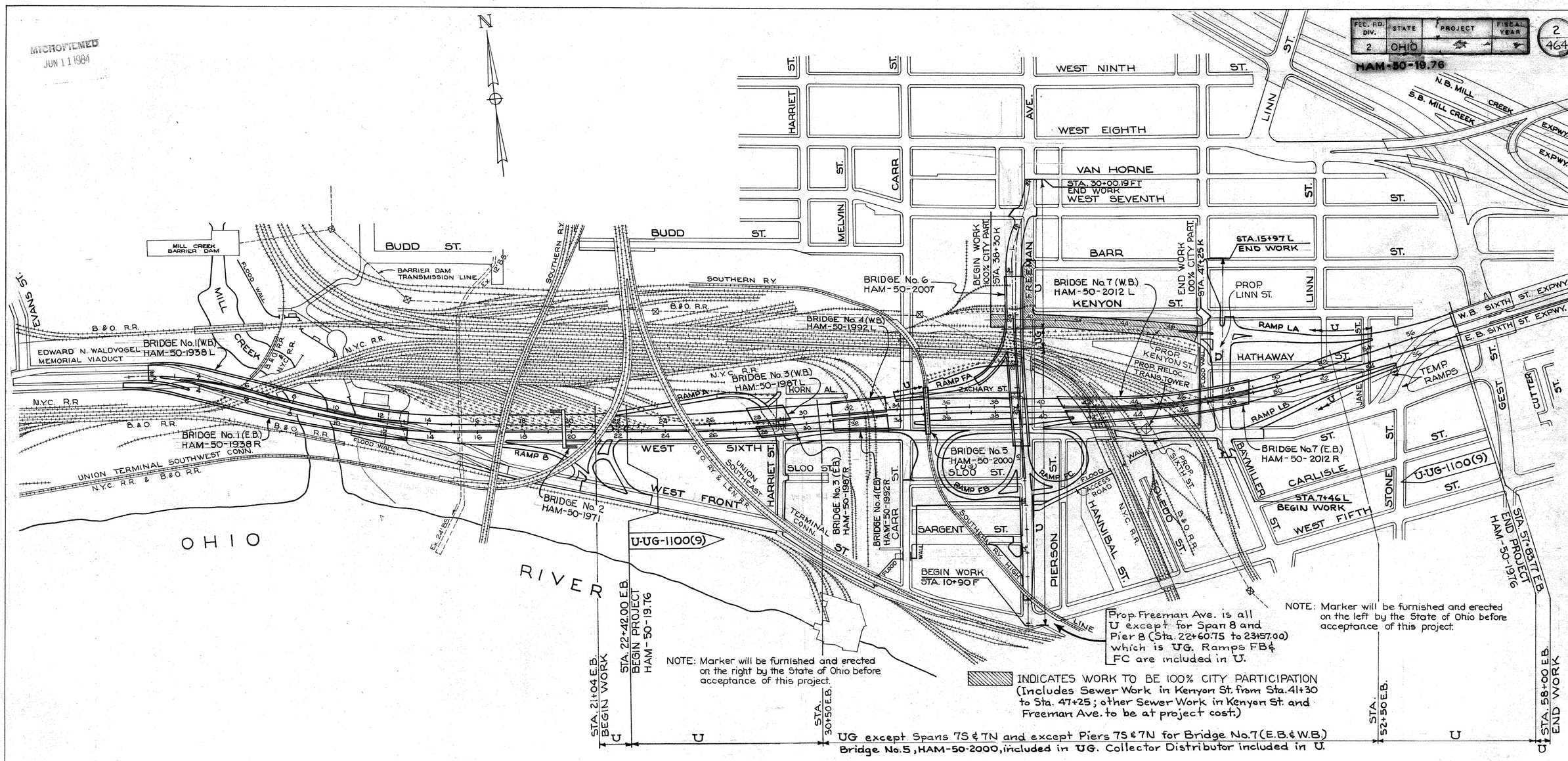
DIVISION ENGINEER — DATE

MICROFILMED
JUN 11 1984

FED. RD. DIV.	STATE	PROJECT	FISCAL YEAR
2	OHIO		

2
464

HAM-50-19.76



LENGTH OF APPROACHES AS SHOWN ON SHEET No. 1

SIXTH ST. EXP.	FREEMAN AVE.	LINN ST.
Sta. 21+04 to 22+42 = 138.00'	U Sta. 10+90 F to 22+60.75 F = 1170.75'	U Sta. 7+46 L to 15+97 L = 851'
Sta. 57+83.77 to 58+00 = 16.23'	U Sta. 23+57.00 F to 30+00.19 F = 643.19'	
Total U = 154.23'	Total U = 1813.94'	

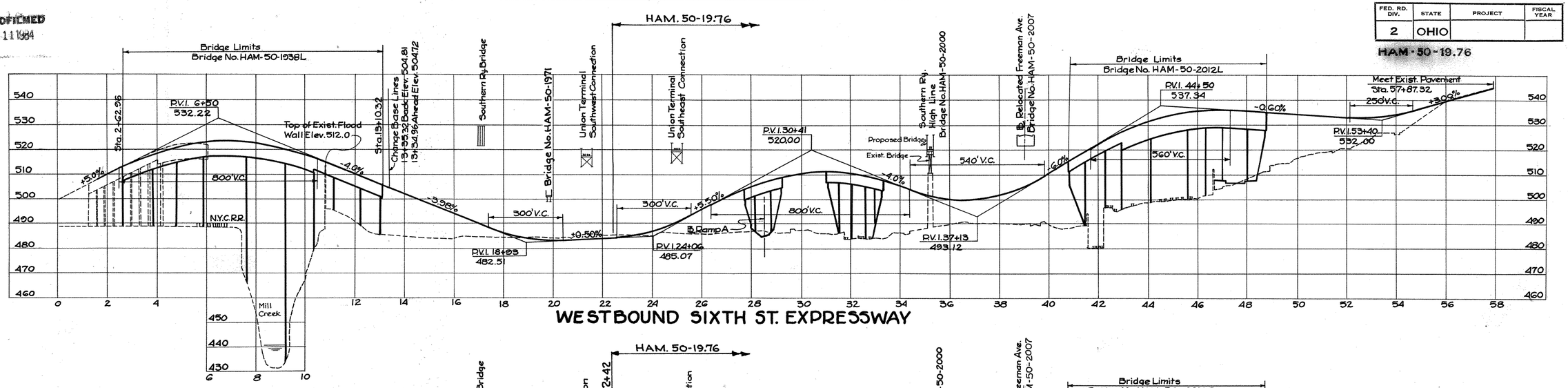
UG Sta. 22+60.75 F to 23+57.00 F = 96.25'

GENERAL PLAN

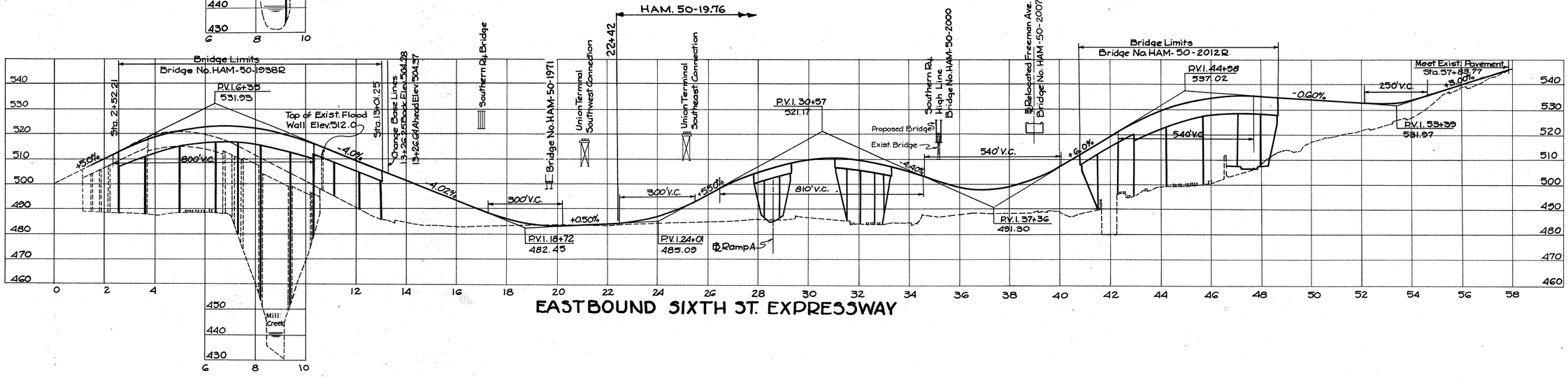
MICROFILMED
JUN 11 1984

FED. RD. DIV.	STATE	PROJECT	FISCAL YEAR
2	OHIO		

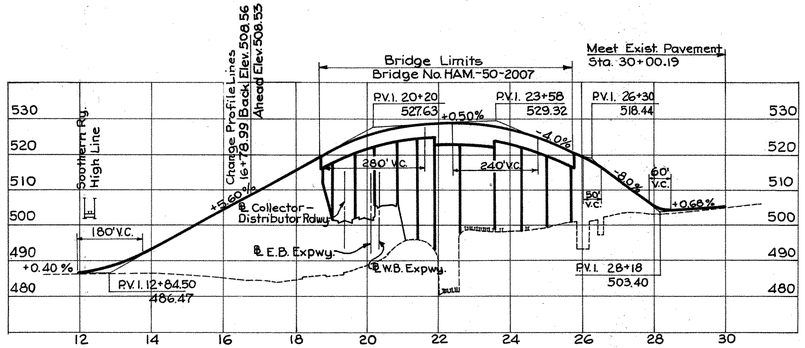
HAM-50-19.76



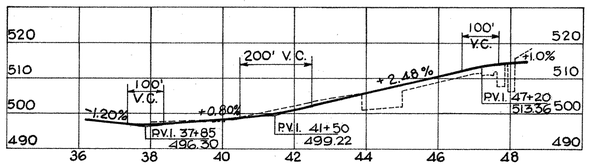
WESTBOUND SIXTH ST. EXPRESSWAY



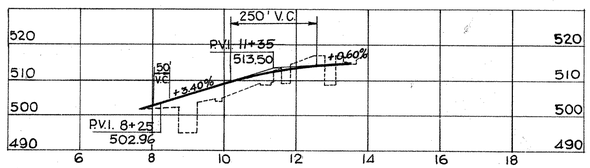
EASTBOUND SIXTH ST. EXPRESSWAY



FREEMAN AVENUE



KENYON STREET



LINN STREET

For Profile data on Sixth St., Carr St. and Harriet St. see Grade Detail Sheets.
For Ramp Profiles see regular Profile Sheets.

GENERAL PLAN PROFILES

FED. RD. DIV.	STATE	PROJECT	FISCAL YEAR
2	OHIO		

HAM-50-19.76

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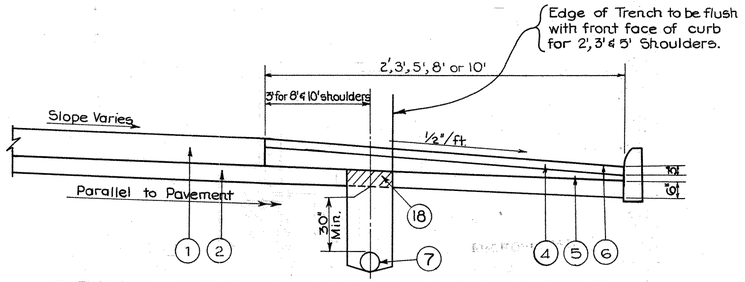
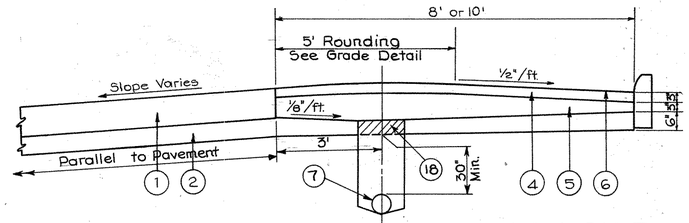
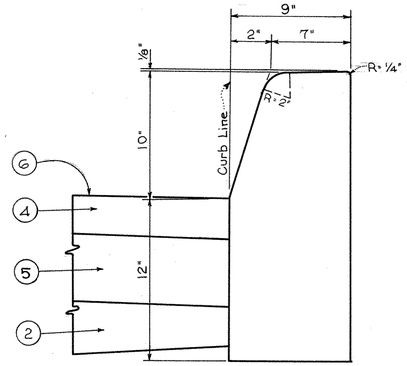


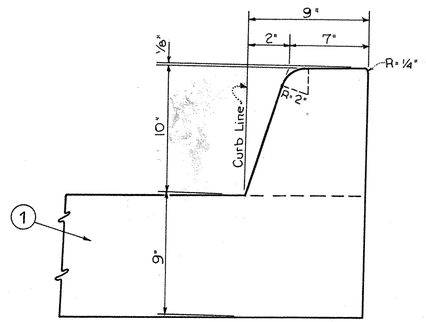
DETAIL OF SHOULDER ON LOW SIDE



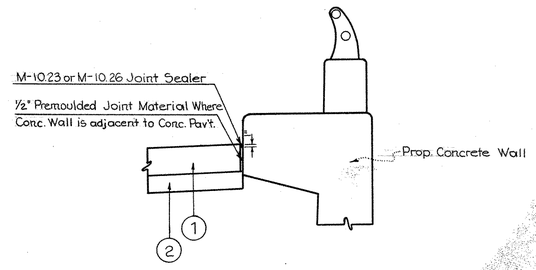
DETAIL OF SHOULDER ON HIGH SIDE



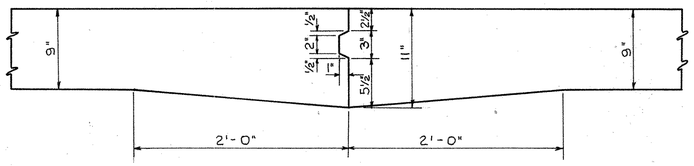
TYPE 10 CURB



TYPE 10 A CURB

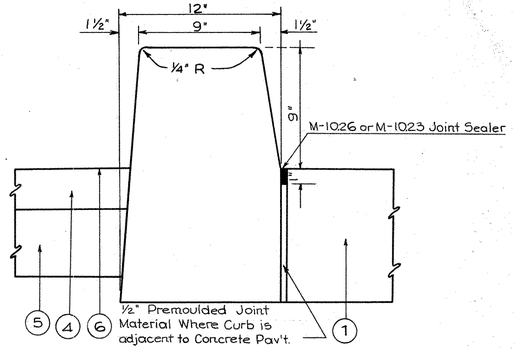


EXPANSION JOINT DETAIL

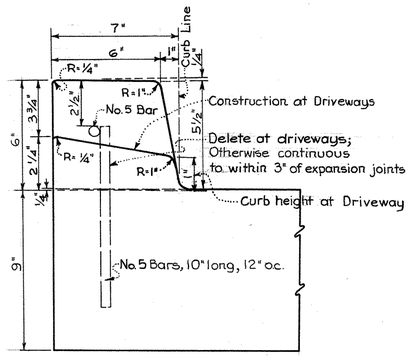


LONGITUDINAL KEY JOINT WITHOUT TIE BARS & WITH THICKENED EDGE

Note: Payment for extra concrete due to thickened edge included in price per sq. yd. of Pavement (Item T-71). The above thickened joint dimensions apply also to all "Expansion Joints Without Dowels And With Thickened Edges."
This detail applies only to joints where symbol "ET" or "LT" is called for on the Grade Detail Sheets.

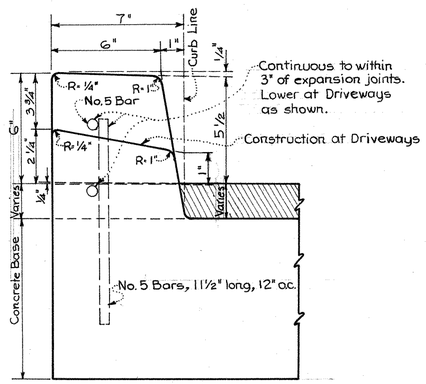


TYPE 9 CURB



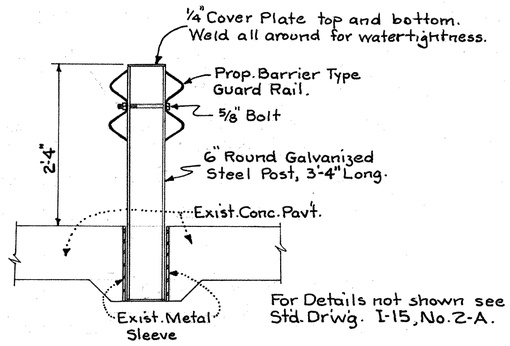
TYPE 7A CURB

City of Cincinnati Acc. No. 5562



TYPE 7B CURB

City of Cincinnati Acc. No. 5596



REMOVABLE BARRIER TYPE GUARD RAIL

TYPICAL SECTIONS

FED. RD. DIV.	STATE	PROJECT	FISCAL YEAR
2	OHIO		

5
464

HAM-50-19.76

TYPICAL SECTIONS
TYPE T-71

LEGEND

① Item T-71 9" Reinforced Portland Cement Concrete Pavement

② Item I-22 Subbase 6" Grading A or B, as per plan (See Sh. No.23)

③ Item I-22 Subbase 6" Grading C or D

*④ Item B-21 3" Waterproofed Aggregate Base Course { Type "A" T-35 Material may be used in construction of this course - See Note in Proposal.

⑤ Item B-112 Porous Base Course

⑥ Item T-31 Bituminous Surface Treatment, using { Bituminous Material, 0.25 Gal. per Sq. Yd. as per plan (See Note in Proposal) / No. 6 Aggregate 0.008 Cu. Yd. per Sq. Yd.

⑦ Item I-1 6" Pipe Class I-3, For Line And Grade See Plan And Profile Sheets.

⑧ Item I-12 Standard Type 6 Concrete Curb

⑨ Item I-12 Standard Type 2A Concrete Curb

⑩ Item I-13 4" Portland Cement Concrete Sidewalk

⑪ Item I-21 4" Standard Type I Portland Cement Concrete Median Pavement

⑫ Item I-15 Guard Rail, Steel Beam Standard Type (Deep)

⑭ Item L-9 Seeding And Protecting or Item L-10 Sodding, See Grade Detail Sheets

⑮ Item T-70 9" Portland Cement Concrete Pavement

⑯ Item I-12 Type 7A Concrete Curb

⑰ Item I-12 Type 7B Concrete Curb

⑱ Remove subbase for width of Item I-1 trench and replace with either Class 3 backfill or with porous base material immediately prior to placing the Item B-112 Porous Base Course. Cost shall be included in price bid per lin. ft. for Item I-1.

⑲ Item B-70 8" Portland Cement Concrete Base

*⑳ Item B-35 1¾" Asphaltic Concrete Leveling Course (70-85)

*㉑ Item T-35 1¼" Asphaltic Concrete Surface Type "C" (70-85)

㉒ Item T-30 Bituminous Tack Coat: Sec. M-5.5, MS-2 or RS-1 or Sec. M-5.2 RC-1 or RC-2 as per Sec. T-30.02 applied at the rate of 0.1 gal. per sq. Yd.

㉓ Item T-35 Variable Thickness (1" Min.) Asphaltic Concrete Surface Course Type "C" (70-85)

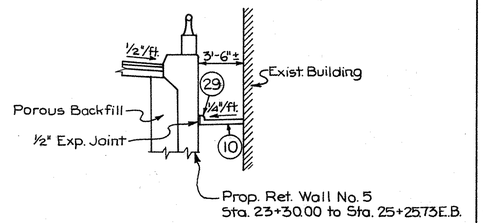
㉔ Item B-35 Variable Thickness Asphaltic Concrete Leveling Course (70-85)

㉗ Item I-21 Type "A" Concrete Traffic Island Pavement

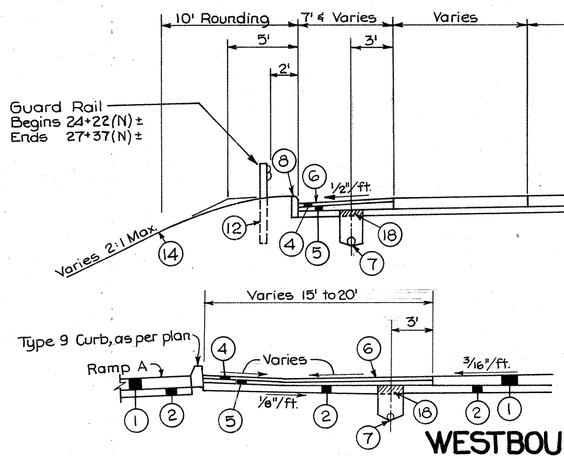
㉘ Item I-12 Type 10 Concrete Curb

㉙ Item I-12 Standard Type 4A Concrete Curb

* Thickness shown are "designed" thicknesses as described in Section T-35.01, B-35.01 & B-21.01



Note: For limits of variable dimensions shown on Typical Sections see Grade Detail Sheets.



WESTBOUND STA. 22+48.00 TO STA. 27+48.00

EASTBOUND STA. 22+42.00 TO STA. 27+56.10

Note:
For detail of paved shoulder see Sh. No. 4
For detail of Type 9 Curb see Sh. No. 4

EXPRESSWAY TYPICAL SECTIONS

FED. RD. DIV.	STATE	PROJECT	FISCAL YEAR
2	OHIO		

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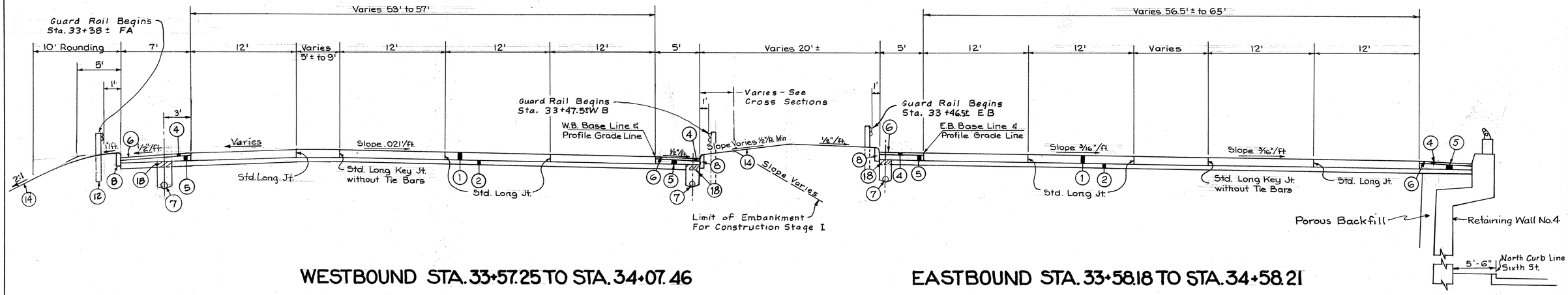
HAM-50-19.76

TYPICAL SECTIONS

TYPE T-71



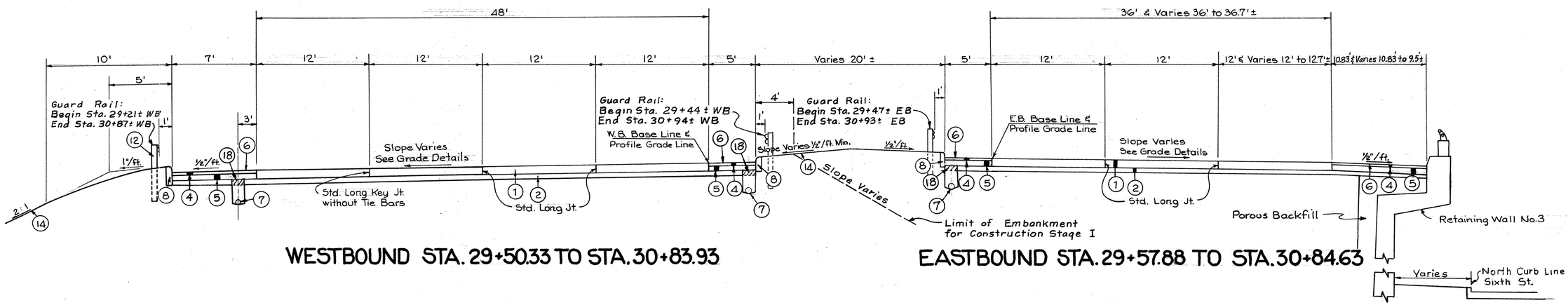
WESTBOUND STA. 33+57.25 TO STA. 34+07.46

EASTBOUND STA. 33+58.18 TO STA. 34+58.21

For detail of Paved Shoulder see Sh. No. 4
For Legend see Sh. No. 5

BRIDGES AND APPROACHES

BRIDGE NO. HAM.-50-1992 R-EASTBOUND STA. 30+84.63 TO STA. 33+58.18
BRIDGE NO. HAM.-50-1992 L-WESTBOUND STA. 30+83.93 TO STA. 33+57.25



WESTBOUND STA. 29+50.33 TO STA. 30+83.93

EASTBOUND STA. 29+57.88 TO STA. 30+84.63

BRIDGES AND APPROACHES

BRIDGE NO. HAM-50-1987 R-EASTBOUND STA. 27+56.10 TO STA. 29+57.88
BRIDGE NO. HAM-50-1987 L-WESTBOUND STA. 27+48.00 TO STA. 29+50.33

EXPRESSWAY TYPICAL SECTIONS

FED. RD. DIV.	STATE	PROJECT	FISCAL YEAR
2	OHIO		

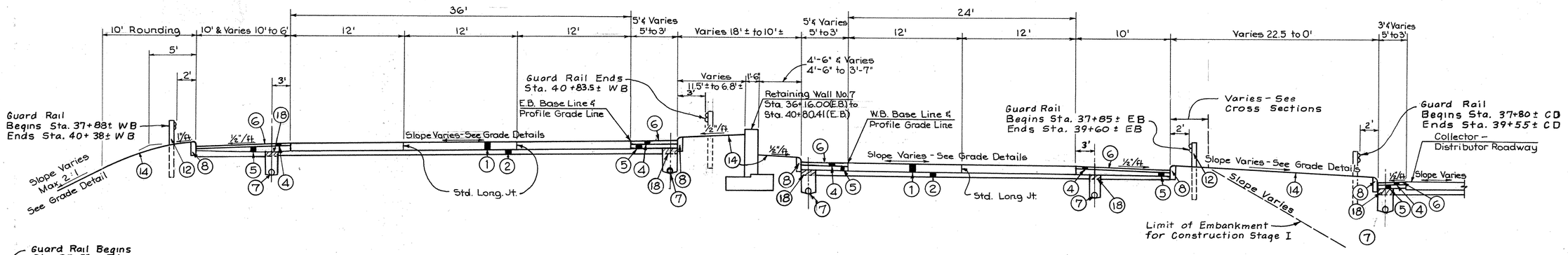
7/464

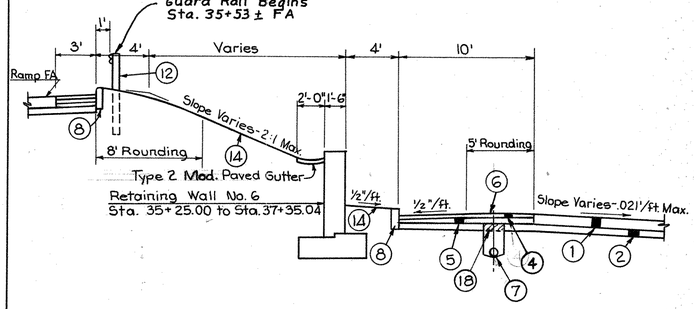
HAM-50-19.76

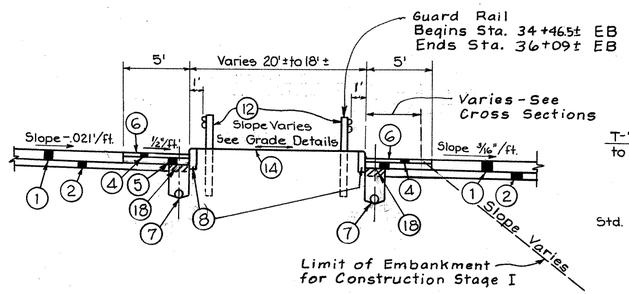
TYPICAL SECTIONS
TYPE T-71

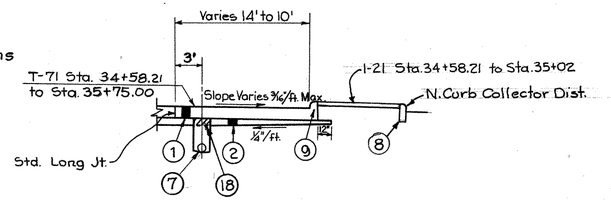
BRIDGES AND APPROACHES

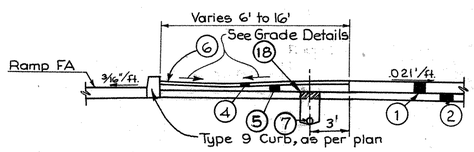
BRIDGE NO. HAM-50-2012 R- EASTBOUND STA. 40+60.46 TO STA. 48+94.14
BRIDGE NO. HAM-50-2012 L- WESTBOUND STA. 40+56.11 TO STA. 49+00.70











NOTE: For Detail of paved shoulder, see Sheet No.4
For Detail of Type 9 Curb, see Sheet No.4
For Legend, see Sheet No.5

WESTBOUND STA. 34+07.46 TO STA. 40+56.11

EASTBOUND STA. 34+58.21 TO STA. 40+60.46

EXPRESSWAY TYPICAL SECTIONS

FED. RD. DIV.	STATE	PROJECT	FISCAL YEAR
2	OHIO		

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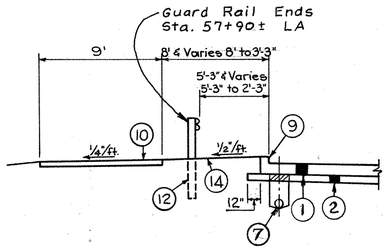
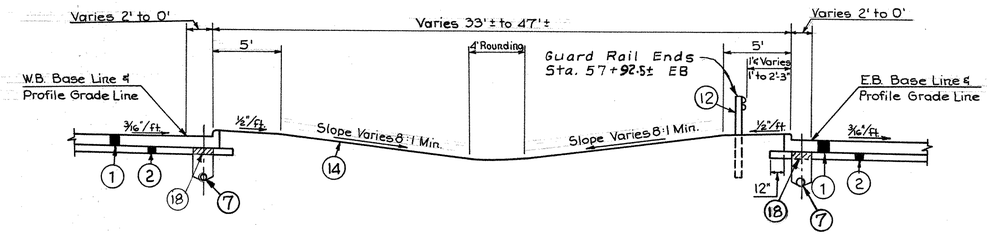
HAM-50-19.76

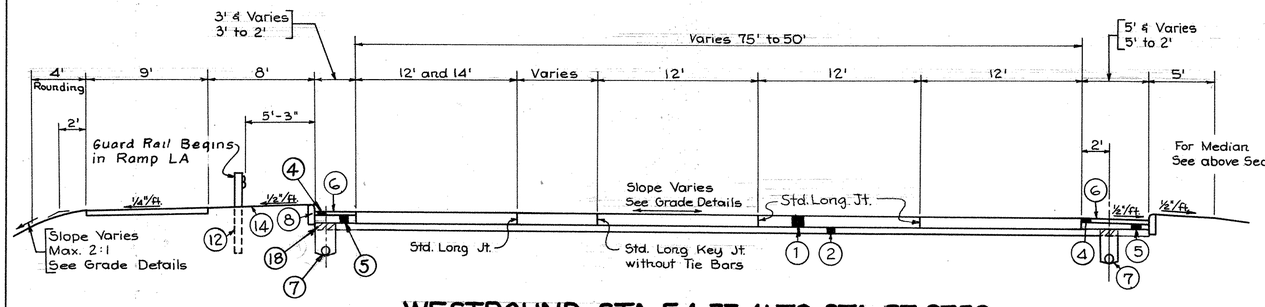
TYPICAL SECTIONS

TYPE T-71

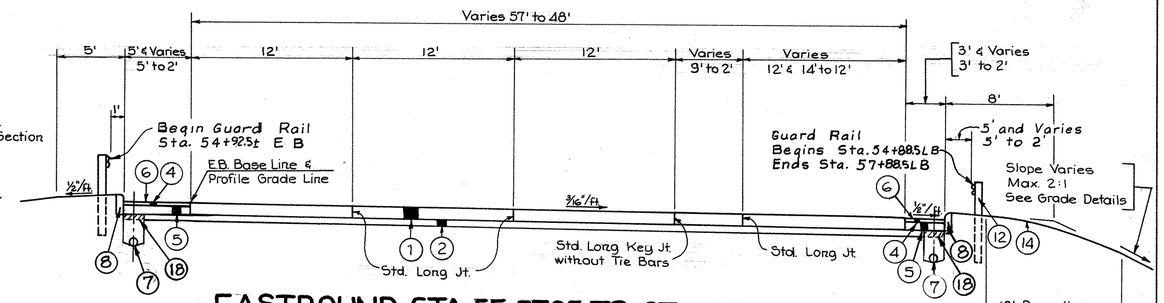




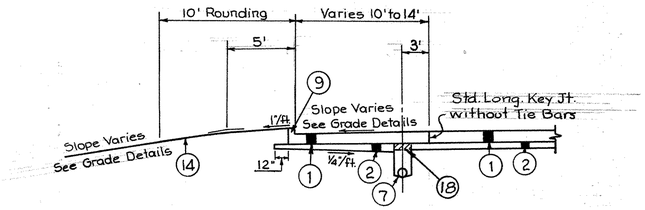
NOTE: For Detail of paved shoulder, see sheet No. 4
For Detail of Type 9 Curb, see sheet No. 4
For Legend, see sheet No. 5

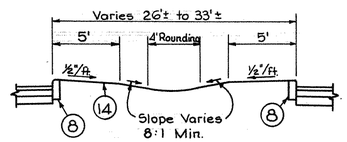


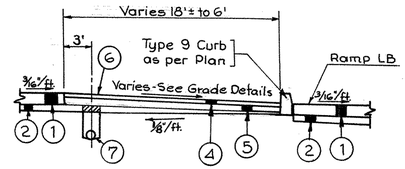
WESTBOUND STA. 54+33.41 TO STA. 57+87.32

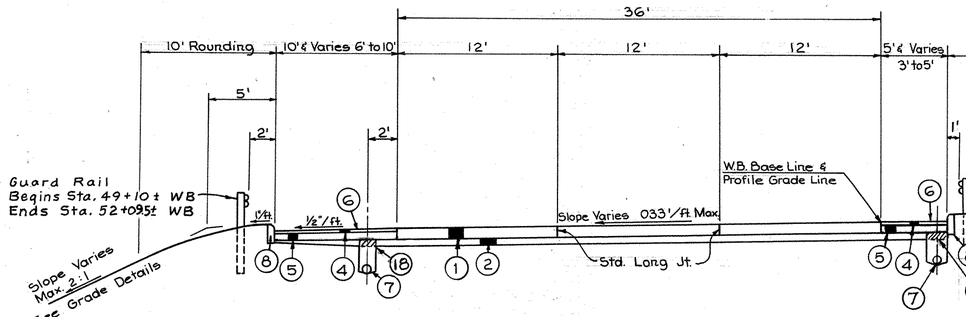


EASTBOUND STA. 55+37.05 TO STA. 57+83.77 (Back)

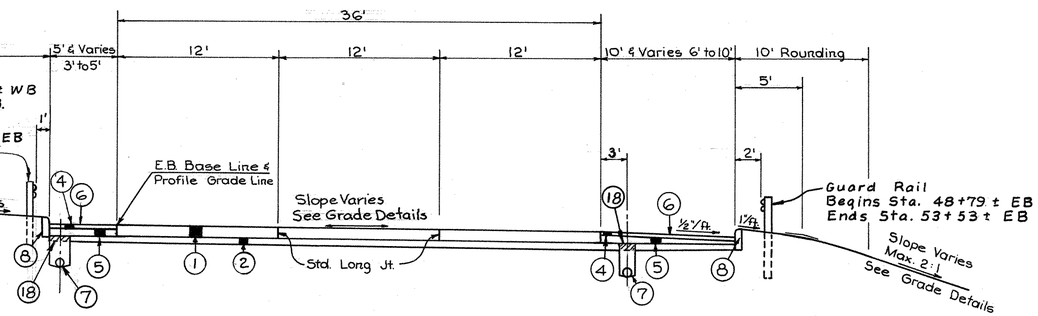








WESTBOUND STA. 49+00.70 TO STA. 54+33.41



EASTBOUND STA. 48+94.14 TO STA. 55+37.05

EXPRESSWAY TYPICAL SECTIONS

TYPICAL SECTIONS

TYPE T-71

FED. RD. DIV.	STATE	PROJECT	FISCAL YEAR
2	OHIO		

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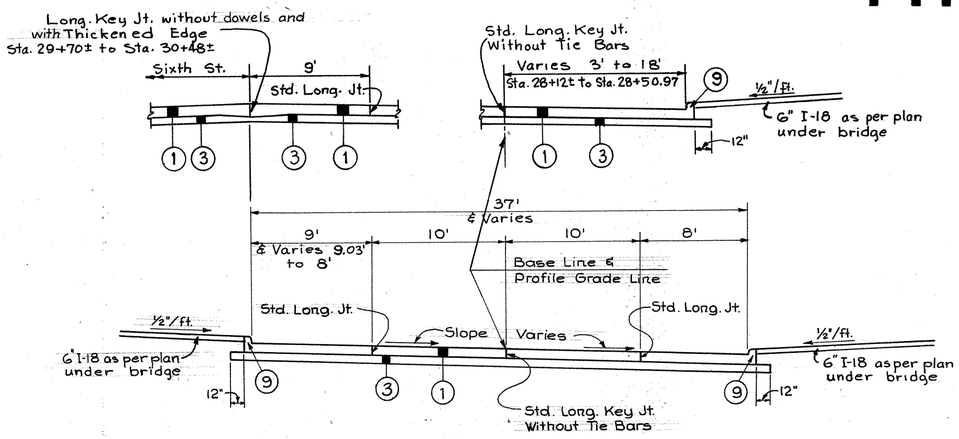
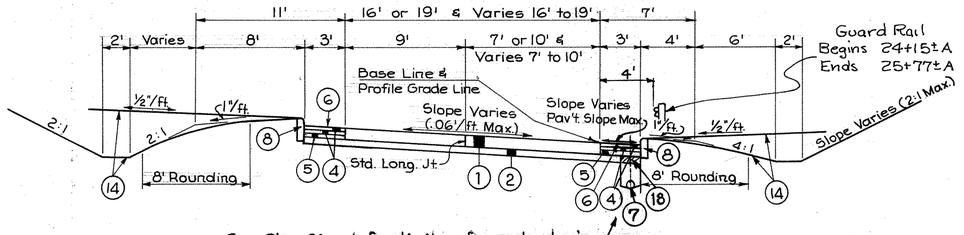
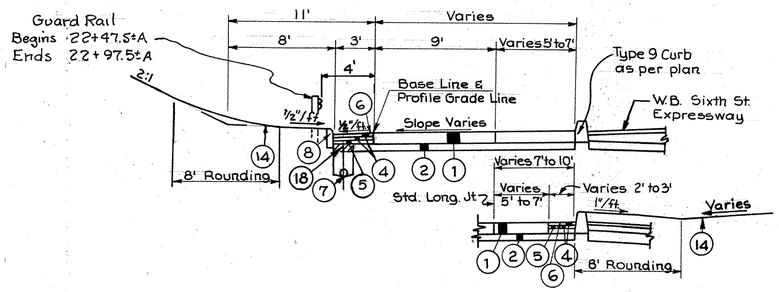


RAMP A STA. 28+12 ± TO STA. 30+87.85

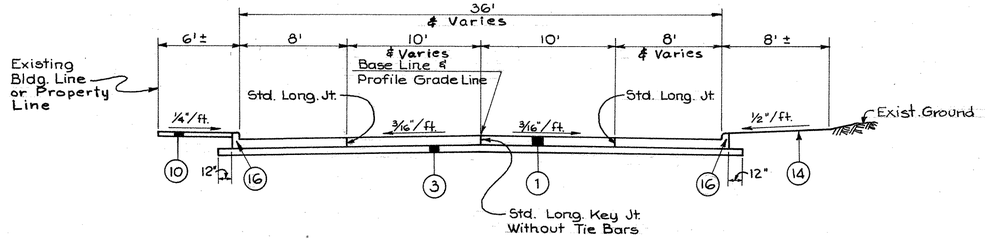


RAMP A STA. 23+75 TO STA. 28+12 ±

For detail of Paved Shoulder see Sh.No.4
For detail of Type 9 Curb see Sh.No.4
For Legend see Sh.No.5



RAMP A STA. 22+46 TO STA. 23+75



HARRIET STREET
STA. 30+87.85A TO STA. 33+43A

RAMP A & HARRIET ST. TYPICAL SECTIONS

TYPICAL SECTIONS
TYPE T-71

FED. RD. DIV.	STATE	PROJECT	FISCAL YEAR
2	OHIO		

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464

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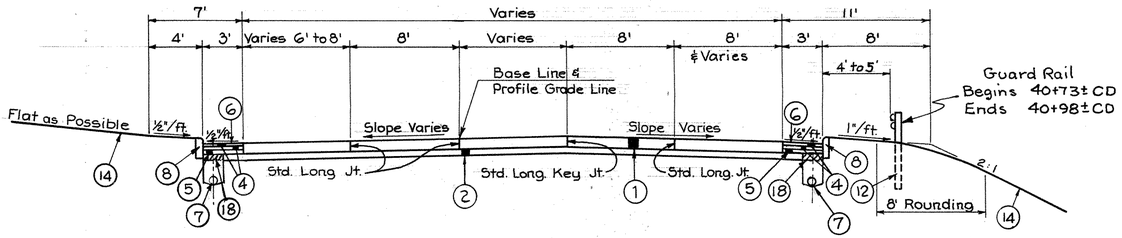
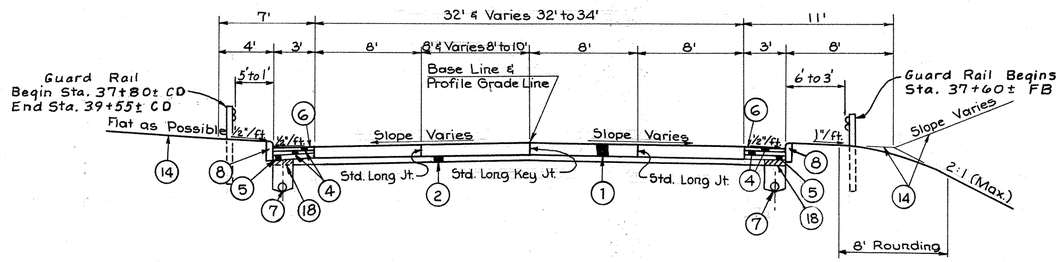
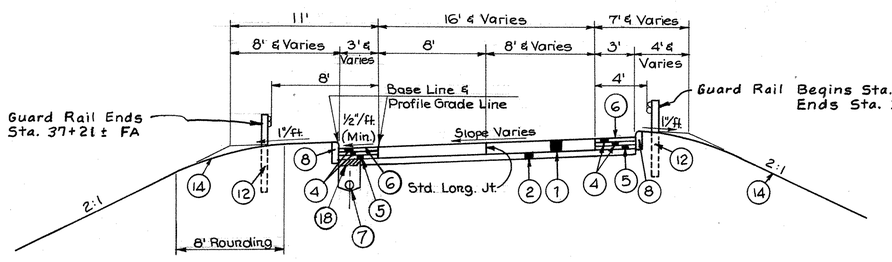


COLLECTOR DISTRIBUTOR ROADWAY
STA. 39+53± TO STA. 40+54.81



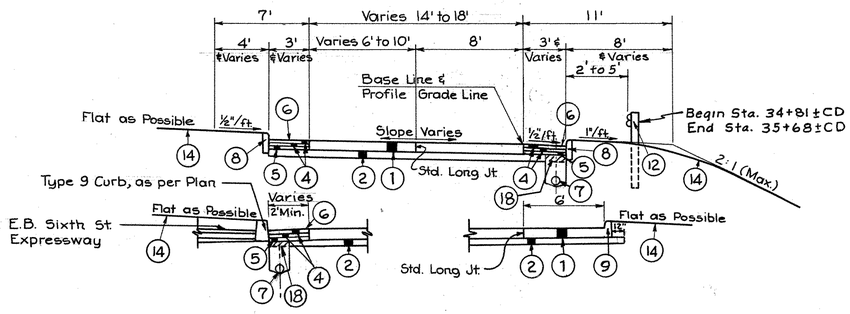
COLLECTOR DISTRIBUTOR ROADWAY
STA. 36+82.18 TO STA. 39+53±

BRIDGES AND APPROACHES
BRIDGE NO. HAM-50-2007 STA. 37+13.25 FA
TO STA. 42+34.51 FA

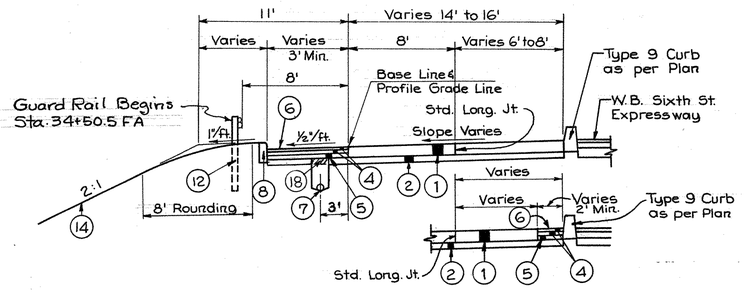


RAMP FA STA. 35+27± TO STA. 37+13.25

For detail of Paved Shoulder see Sh. No. 4
For detail of Type 9 Curb see Sh. No. 4
For Legend see Sh. No. 5



COLLECTOR DISTRIBUTOR ROADWAY
STA. 40+54.81 TO STA. 40+86±
STA. 34+55.81 TO STA. 36+82.18



RAMP FA STA. 34+08.28 TO STA. 35+27±

TYPICAL SECTION COLLECTOR DISTRIBUTOR & RAMP FA

FED. RD. DIV.	STATE	PROJECT	FISCAL YEAR
2	OHIO		

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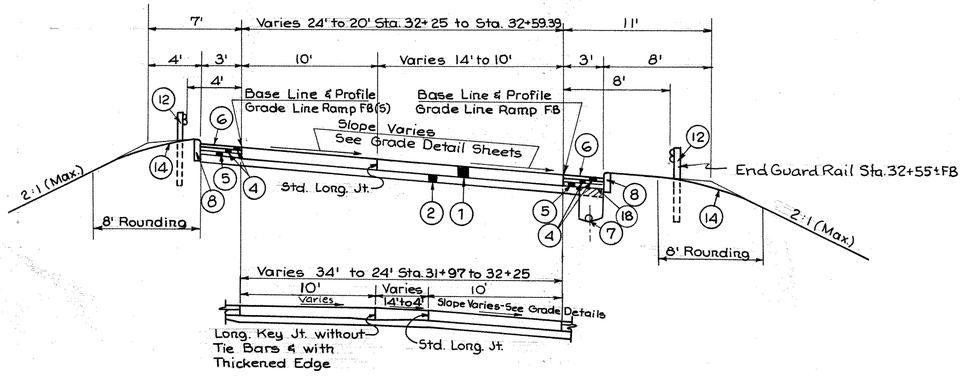
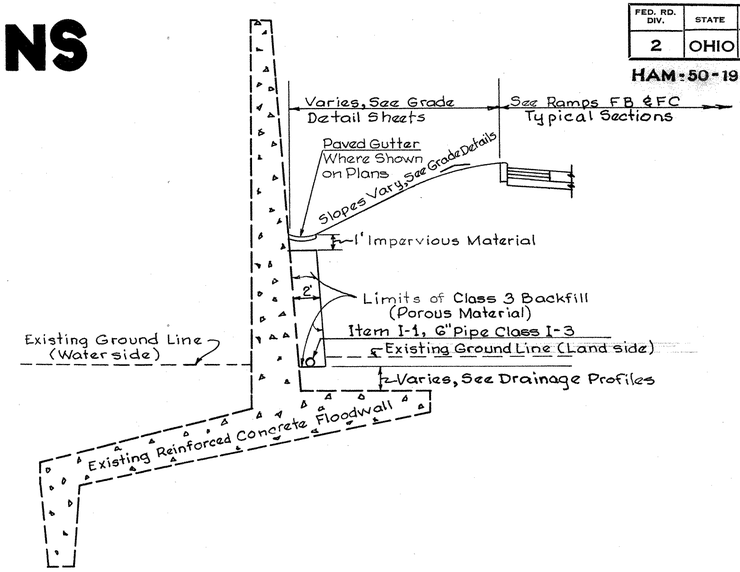
TYPICAL SECTIONS
TYPE T-71

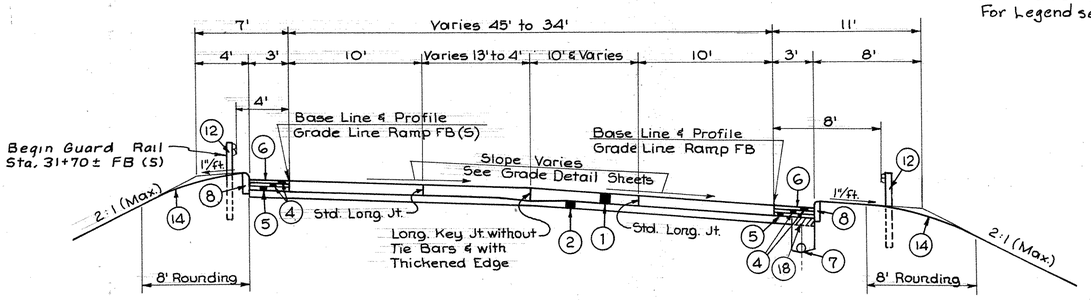


RAMP FB STA. 31+97± TO STA. 32+59.39

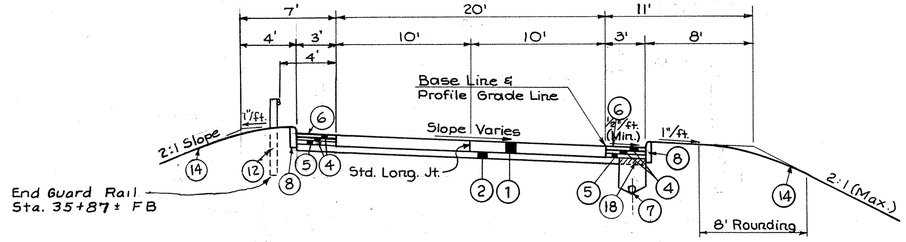
For detail of Paved Shoulder see Sh. No. 4
For detail of Type 9 Curb see Sh. No. 4
For Legend see Sh. No. 5



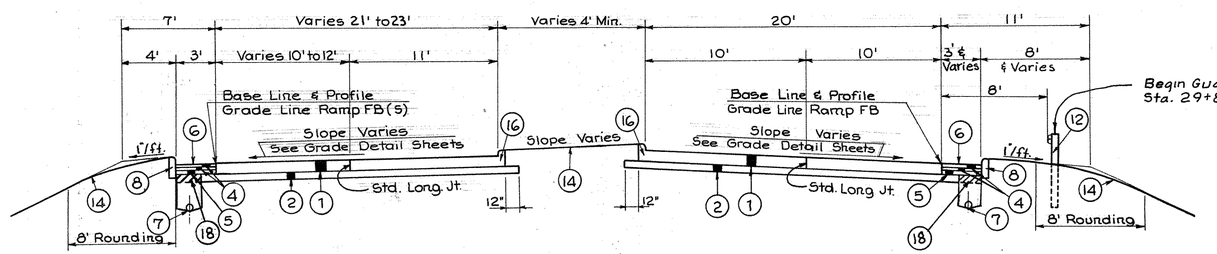
SECTIONS ADJACENT TO EXISTING FLOODWALL RAMP FB (S) STA. 30+94.36 TO RAMP FB STA. 32+45 ± RAMP FC STA. 43+55 ± TO RAMP FC(S) STA. 45+31 ±



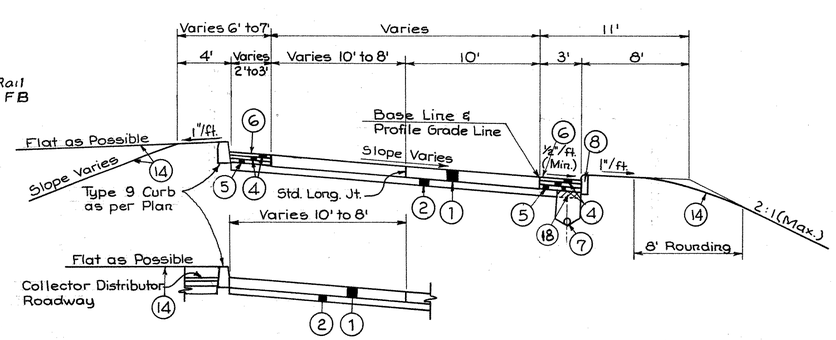
RAMP FB STA. 31+74.54 TO STA. 31+97±



RAMP FB STA. 32+59.39 TO STA. 35+85



RAMP FB STA. 30+79.80 TO STA. 31+74.54 & FB(S) STA. 30+94.36 TO STA. 31+67.33



RAMP FB STA. 35+85 TO STA. 36+84.95

TYPICAL SECTION RAMP FB

FED. RD. DIV.	STATE	PROJECT	FISCAL YEAR
2	OHIO		

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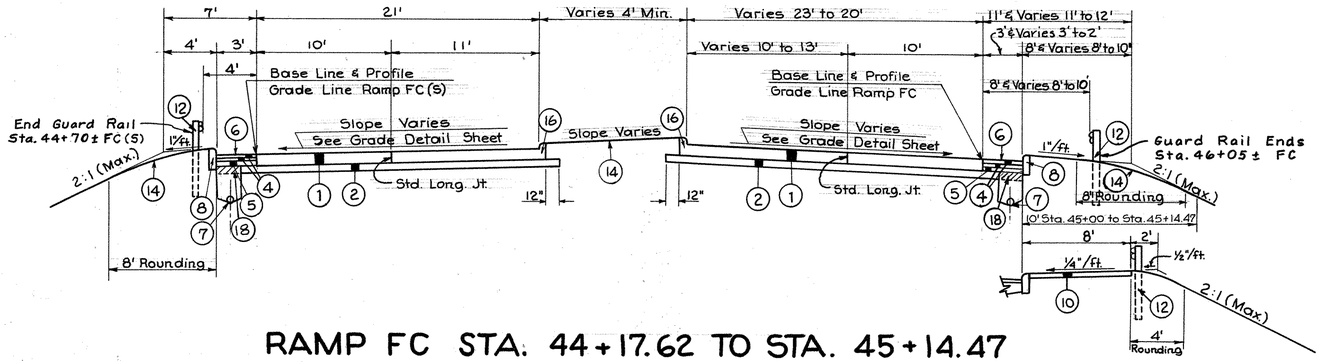
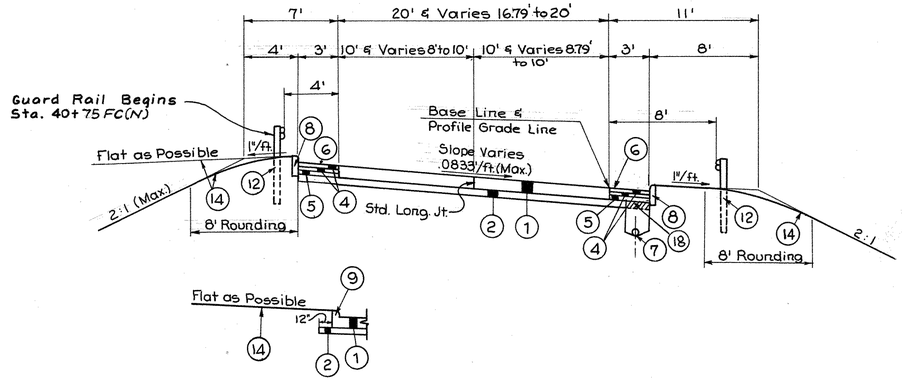
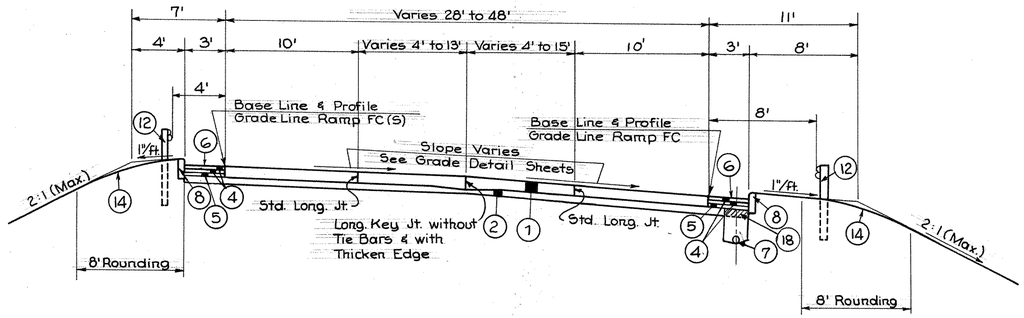
TYPICAL SECTIONS
TYPE T-71



RAMP FC STA. 44+17.62 TO STA. 45+14.47
& FC(S) STA. 44+37.46 TO STA. 45+31.00

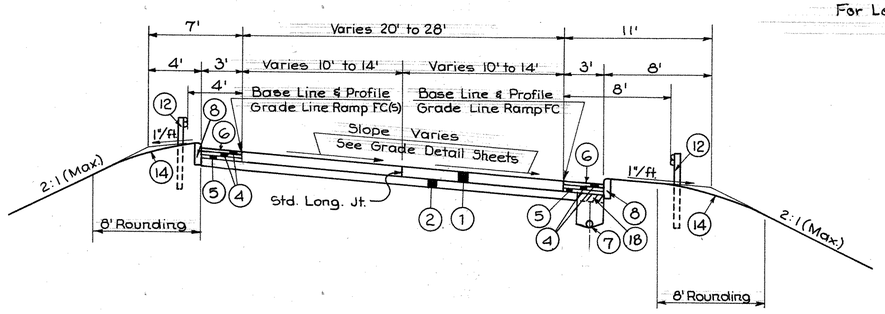


RAMP FC STA. 40+53.93 TO STA. 43+11.55



RAMP FC STA. 43+69.07 TO STA. 44+17.62

For detail of Paved Shoulder see Sh. No. 4
For Legend see Sh. No. 5



RAMP FC STA. 43+11.55 TO STA. 43+69.07

TYPICAL SECTION RAMP FC

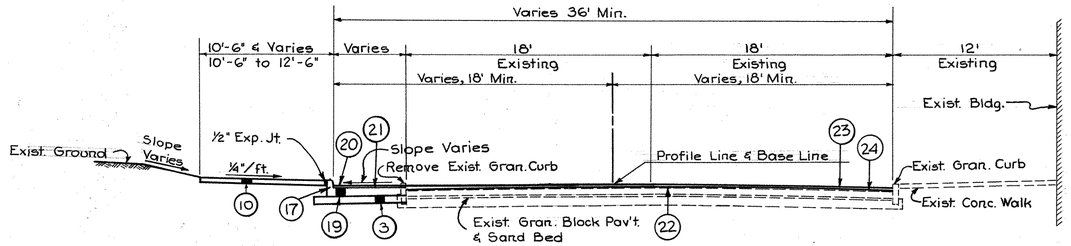
FED. RD. DIV.	STATE	PROJECT	FISCAL YEAR
2	OHIO		

13
464

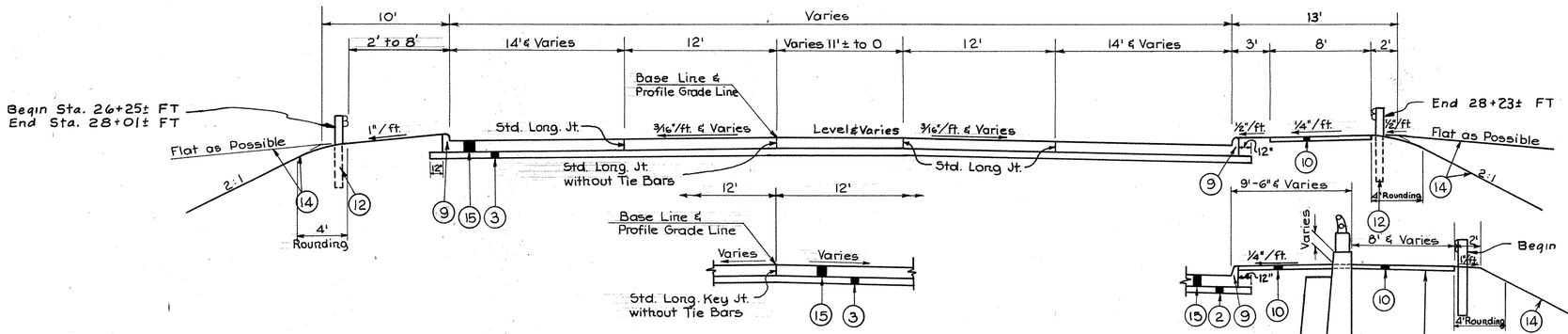
HAM-50-19.76

TYPICAL SECTIONS

TYPE T-35, T-70 & T-71



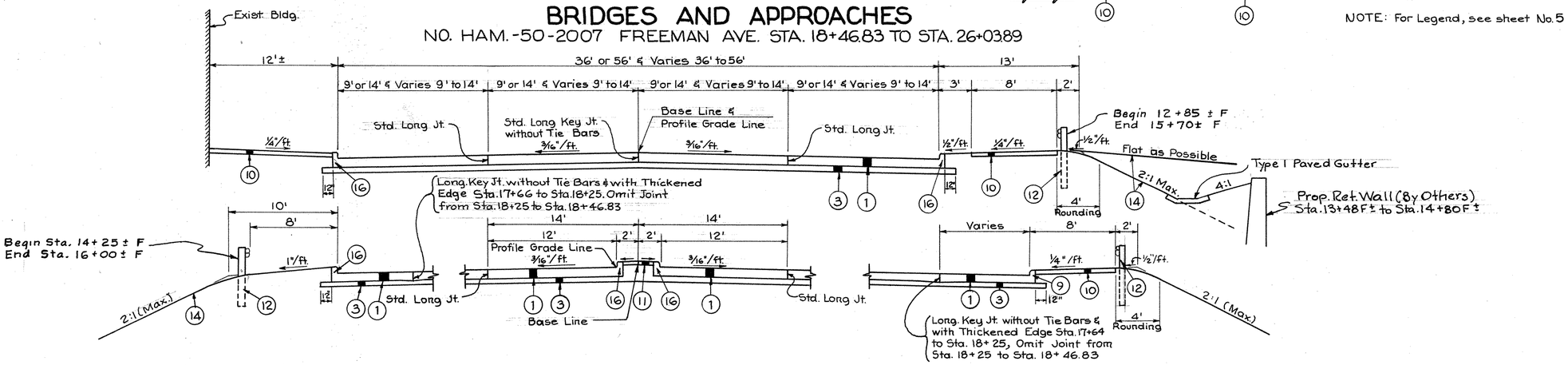
TEMPORARY FREEMAN AVE.-SEVENTH ST. TO STA. 30+00.19 F.T.



TEMPORARY FREEMAN AVE.-STA. 26+03.89 TO SEVENTH ST.

BRIDGES AND APPROACHES

NO. HAM.-50-2007 FREEMAN AVE. STA. 18+46.83 TO STA. 26+03.89



FREEMAN AVE.-STA. 12+00 TO STA. 18+46.83

NOTE: For Legend, see sheet No. 5

FREEMAN AVE. TYPICAL SECTIONS

FED. RD. DIV.	STATE	PROJECT	FISCAL YEAR
2	OHIO		

HAM-50-19.76

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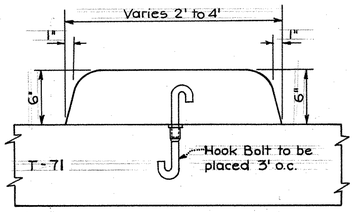
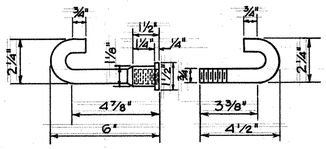
TYPICAL SECTIONS



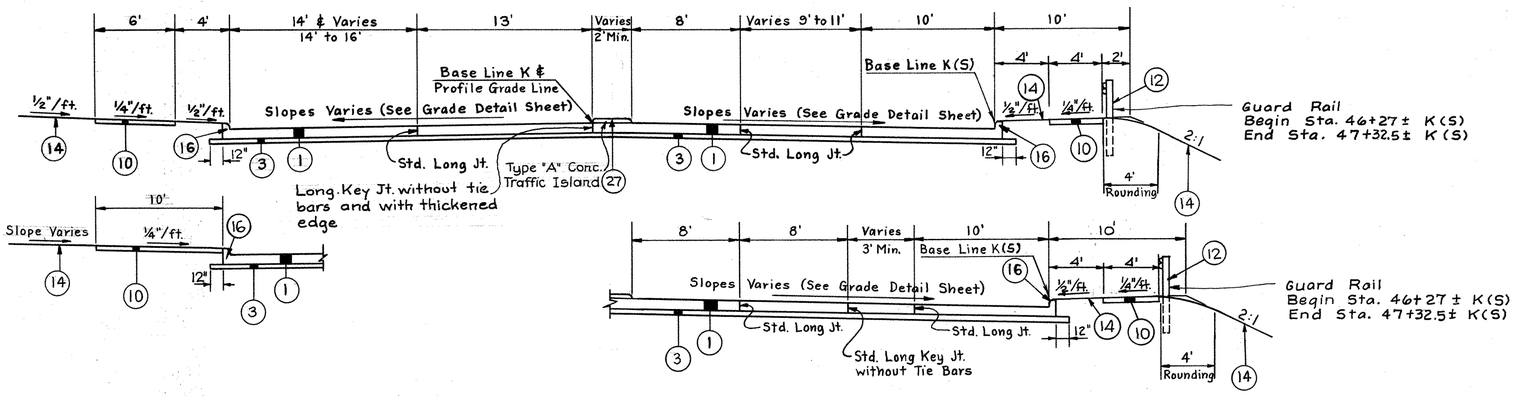
TYPE "A" CONCRETE TRAFFIC ISLAND

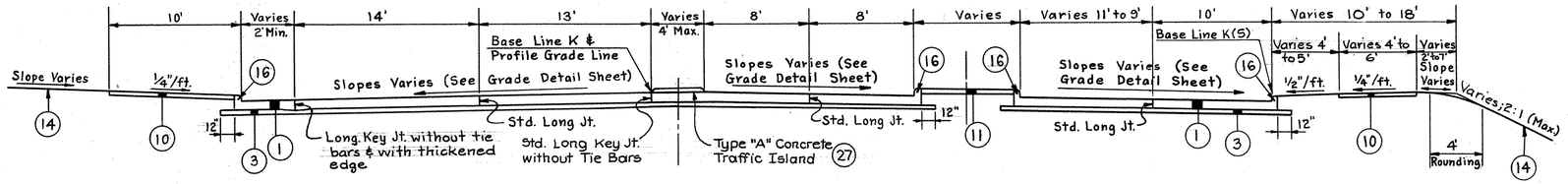


Notes: The larger bolt shall be placed in the first slab poured. Contractor shall provide means of protecting the open end of the socket from damage until the Median is poured at that location.

Material for hook bolts shall be steel and shall meet the requirments of Sec. M-7.1 or M-7.2 of the Construction and Material Specifications.

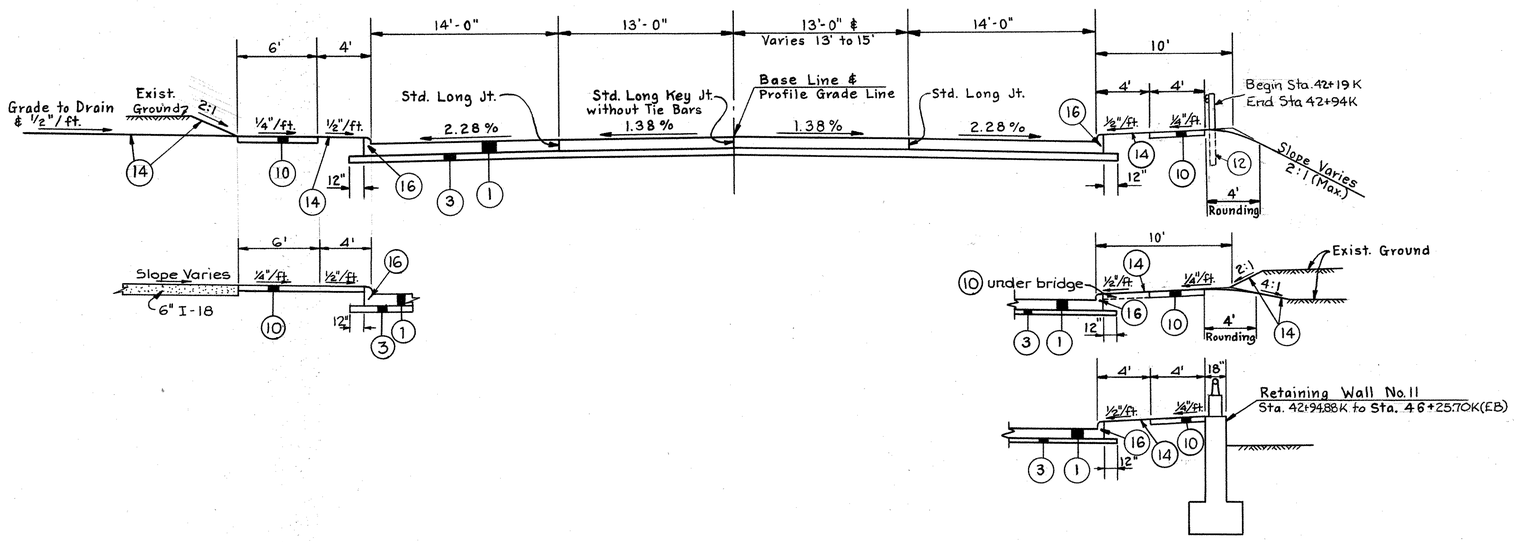
Cost of hook bolts shall be included in Item I-21.





KENYON ST. STA. 46+17.20 K TO STA. 47+60± K
STA. 46+22.62 K (EB) TO STA. 47+63± K (EB)

For Legend see Sh. No. 5



KENYON ST. STA. 38+30 TO STA. 46+17.20

KENYON ST. TYPICAL SECTIONS

TYPICAL SECTIONS

FED. RD. DIV.	STATE	PROJECT	FISCAL YEAR
2	OHIO		

HAM-50-19.76

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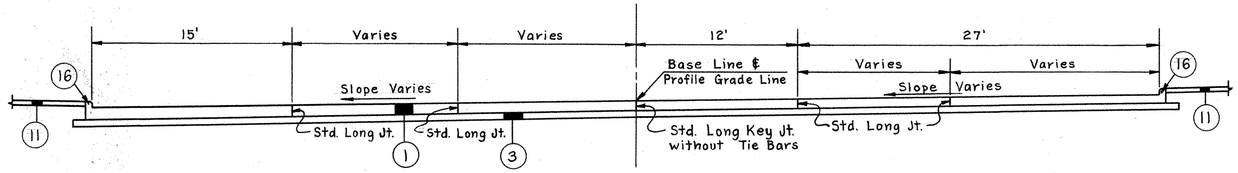
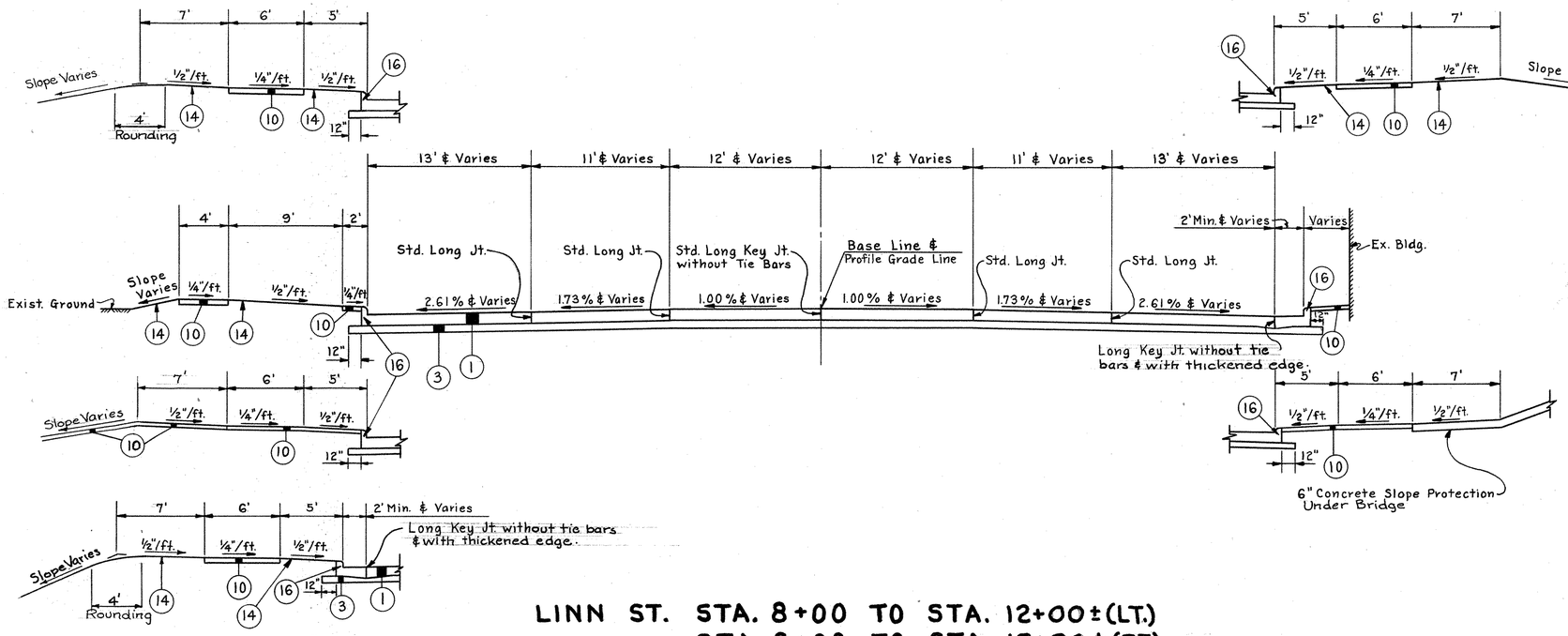
464



LINN ST. STA. 12+00± TO STA. 12+47±(LT.)
STA. 12+52± TO STA. 12+67±(RT.)

For Legend see Sh. No. 5



LINN ST. STA. 8+00 TO STA. 12+00±(LT.)
STA. 8+00 TO STA. 12+26±(RT.)

LINN ST. TYPICAL SECTIONS

TYPICAL SECTIONS

FED. RD. DIV.	STATE	PROJECT	FISCAL YEAR
2	OHIO		

HAM-50-19.76

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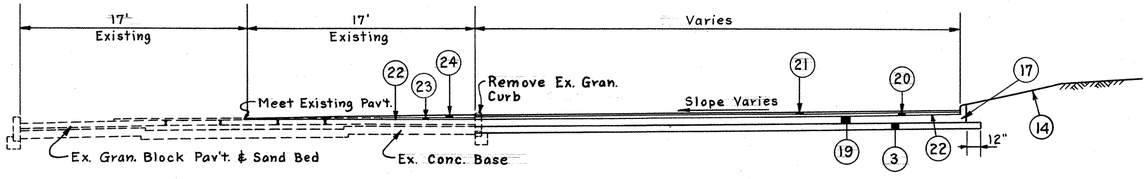
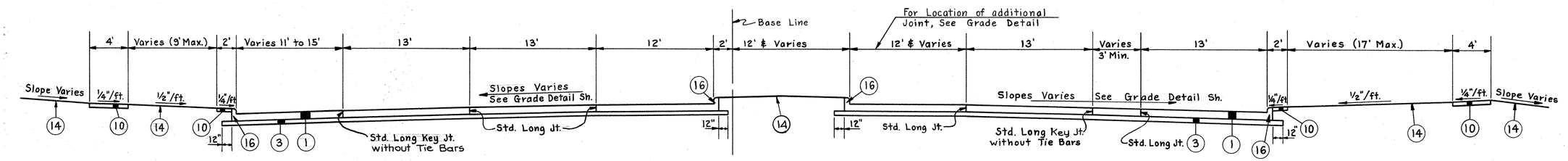
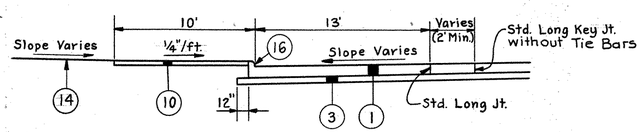
464



LINN ST. STA. 13+47.68 TO BARR ST.

For Legend see Sh. No. 5





LINN ST. STA. 13+07± TO STA. 13+47.68 (LT.)
STA. 13+07± TO STA. 13+41.34 (RT.)

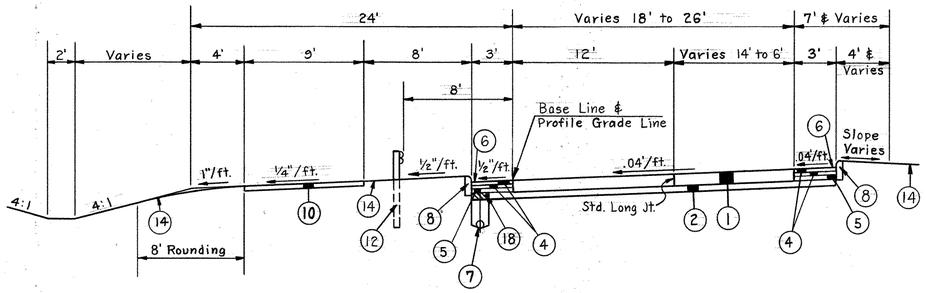
LINN ST. TYPICAL SECTIONS

FED. RD. DIV.	STATE	PROJECT	FISCAL YEAR
2	OHIO		

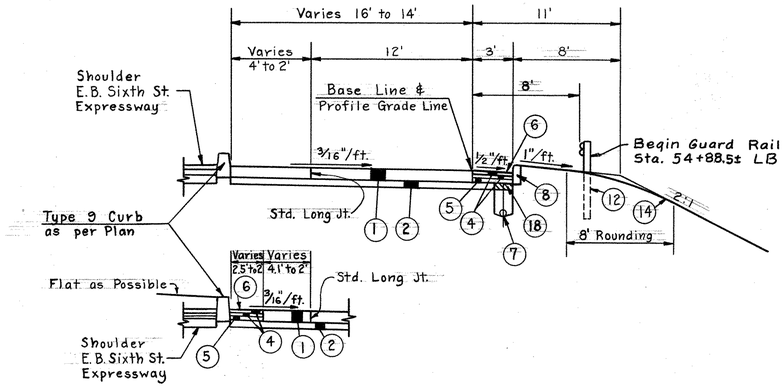
17
464

HAM-50-19.76

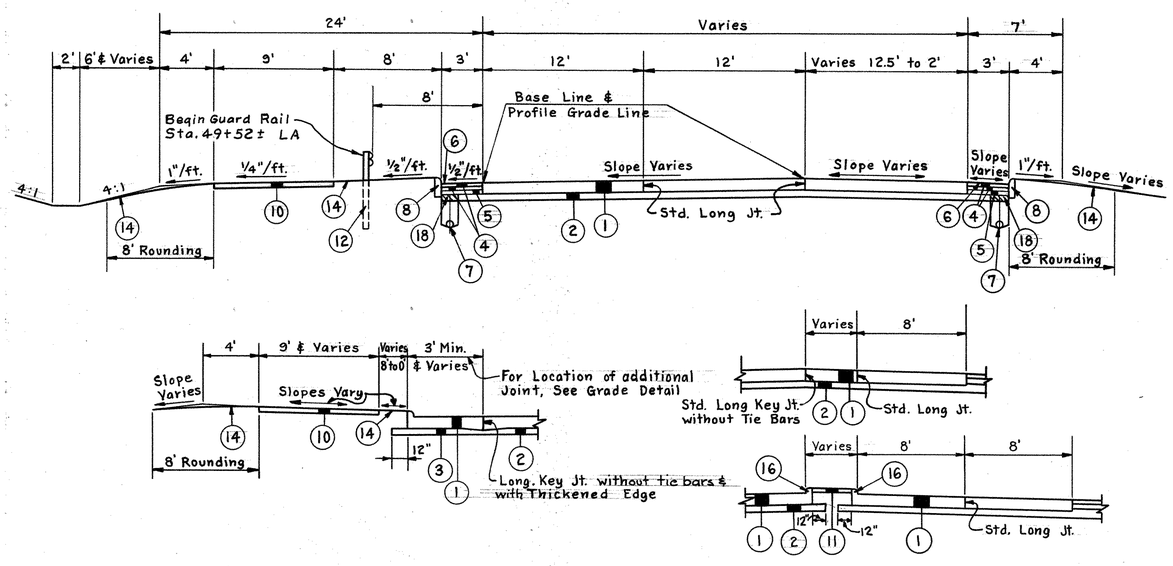
TYPICAL SECTIONS
TYPE T-71



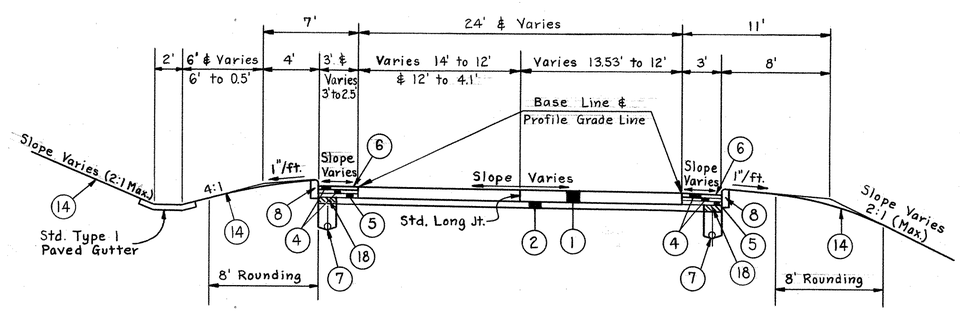
RAMP LA STA. 53+40± TO STA. 54+36.13



RAMP LB STA. 53+86± TO STA. 55+36.52



RAMP LA STA. 48+52± TO STA. 53+40±



See Plan Sheet for limits of underdrains

RAMP LB STA. 49+01.78 TO STA. 53+86±

For detail of Paved Shoulder see Sh. No. 4
For Legend see Sh. No. 5

TYPICAL SECTION RAMP LA & RAMP LB

TYPICAL SECTIONS

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2	OHIO		

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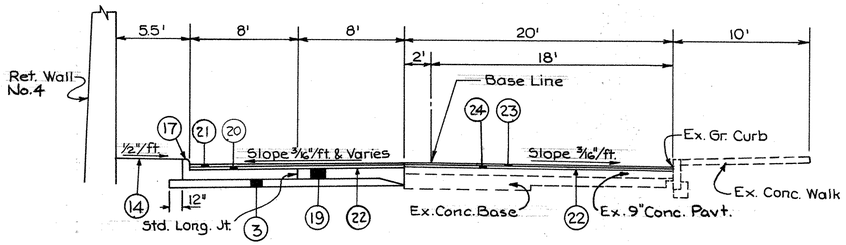
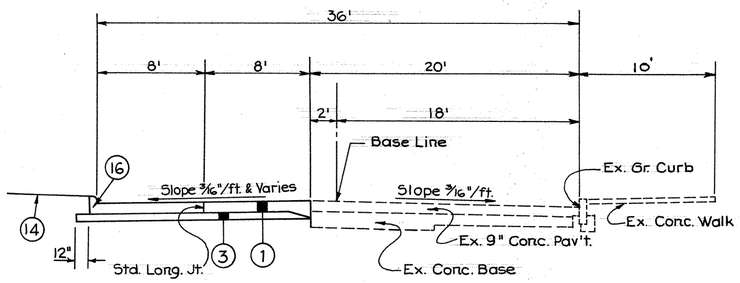
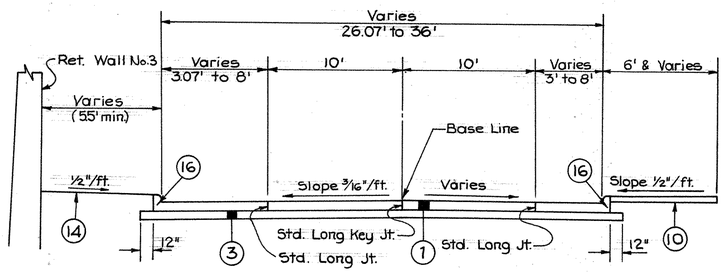


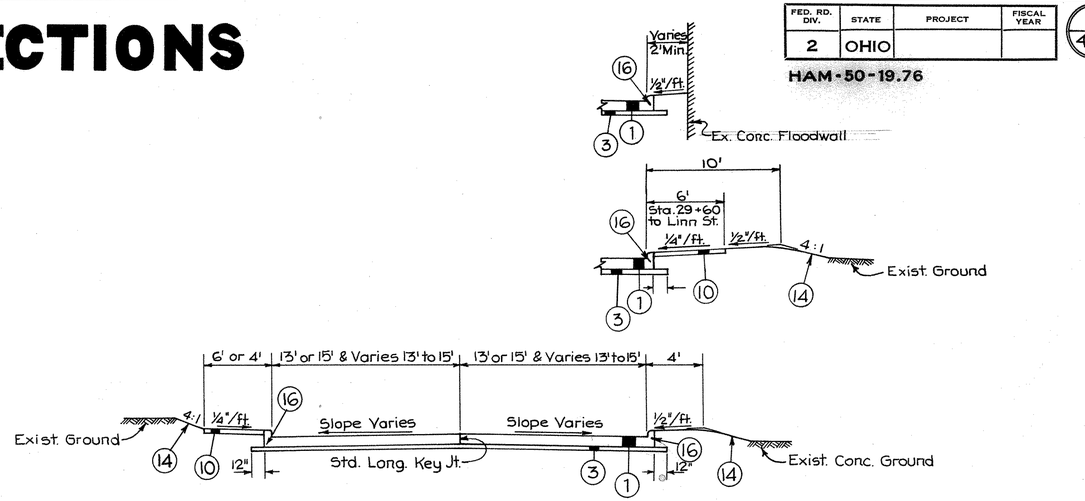
SIXTH ST.
STA. 14+50± TO STA. 15+08.4



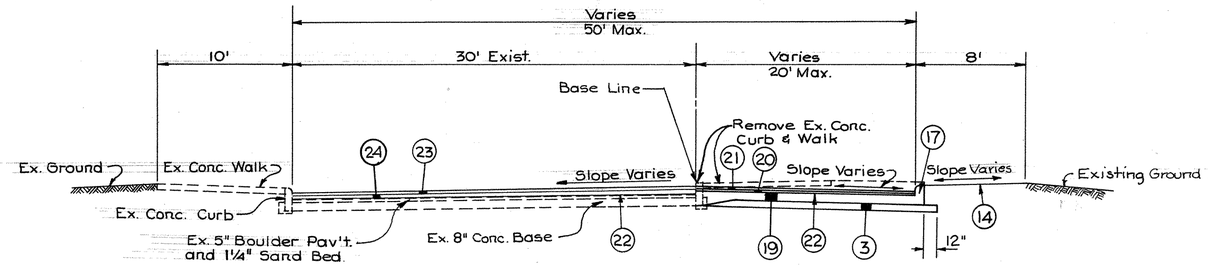
SIXTH ST.
STA. 13+03± TO STA. 14+50±



SIXTH ST.
STA. 10+62.94 TO STA. 12+93.00±

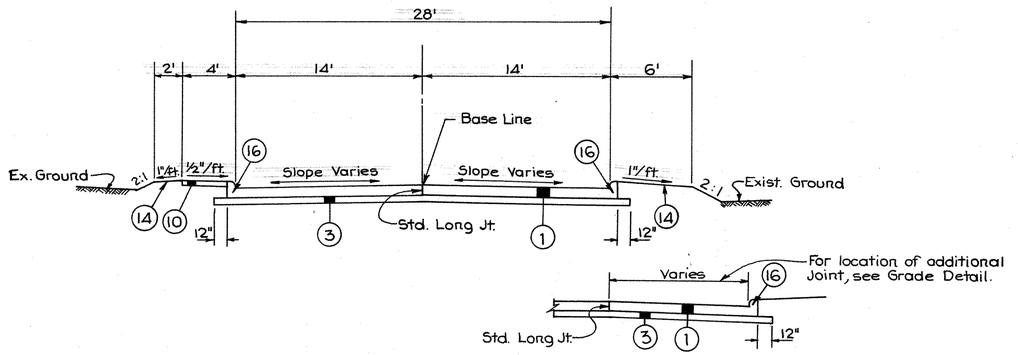


SIXTH ST.
STA. 25+85ST TO STA. 29+92.5 ST



CARR ST.
SLOO ST. TO SIXTH ST.

For Legend see Sh. No. 5



SARGENT ST. CONNECTION
STA. 10+30± TO STA. 12+51.38

TYPICAL SECTIONS SIXTH ST., CARR ST., AND SARGENT ST.

FED. RD. DIV.	STATE	PROJECT	FISCAL YEAR
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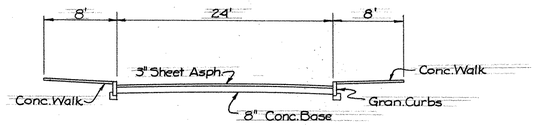
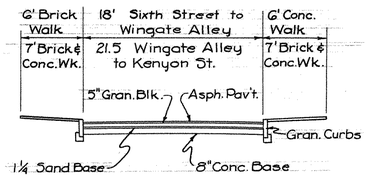


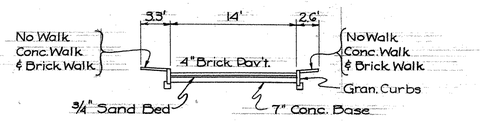
HATHAWAY ST.

JANE TO BAYMILLER



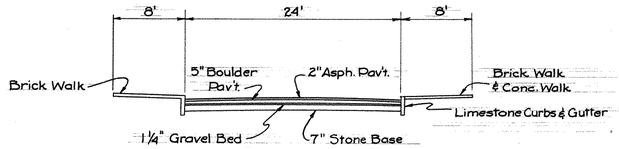
JANE ST.

KENYON TO SIXTH ST.



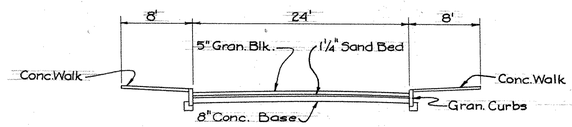
WINGATE ALLEY

JANE TO BAYMILLER



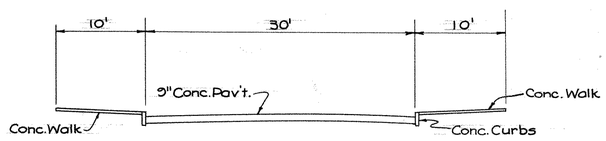
SLOO ST.

CARR TO FREEMAN & HARRIET EAST



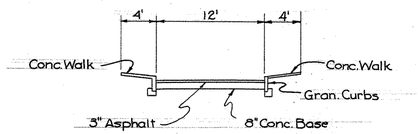
CARLISLE ST.

BAYMILLER TO STONE



BARR ST.

FREEMAN TO BAYMILLER



LINN ST.

HATHAWAY TO KENYON

EXISTING ROADWAY SECTIONS

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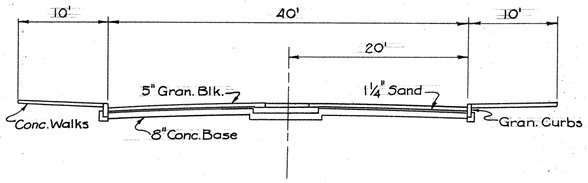
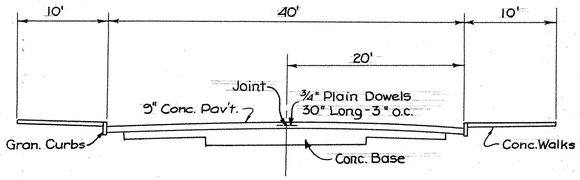
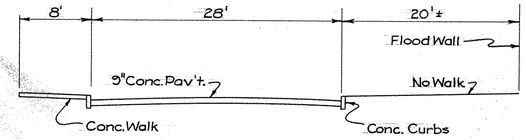


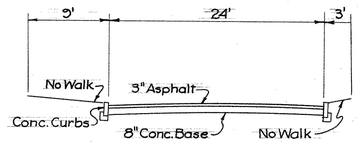
SIXTH ST.
CUTTER TO BAYMILLER ST.



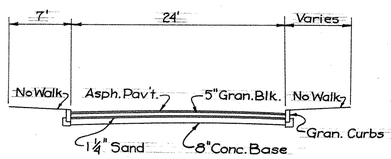
SIXTH ST.
BAYMILLER TO FRONT ST.



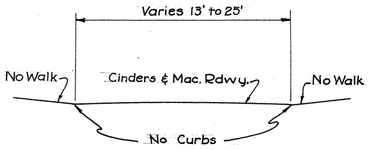
FRONT ST.
SIXTH TO FREEMAN



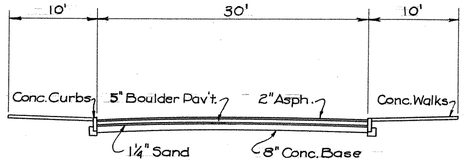
HARRIET ST.
FRONT TO SLOO



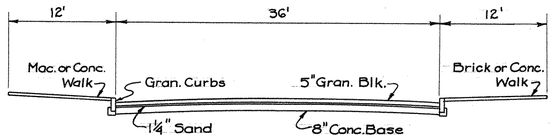
HARRIET ST.
SLOO TO SIXTH



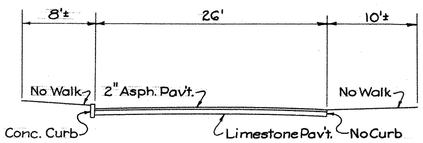
HARRIET ST.
SIXTH ST. NORTH



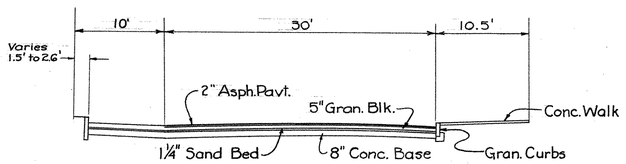
CARR ST.
FRONT TO B&O.R.R.



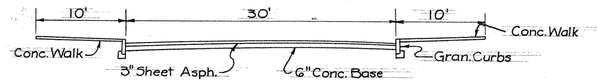
FREEMAN AVE.
FRONT TO EIGHTH



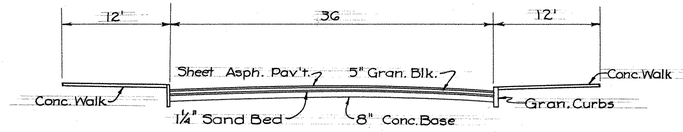
SARGENT ST.
FREEMAN TO CARR



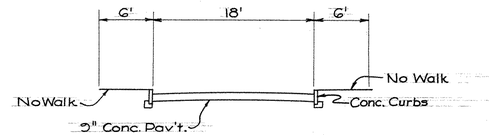
KENYON ST.
BAYMILLER TO FREEMAN



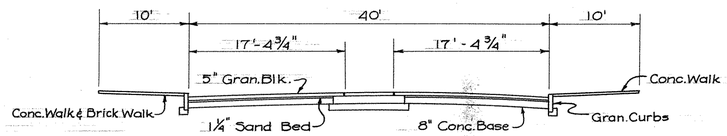
KENYON ST.
CUTTER TO BAYMILLER



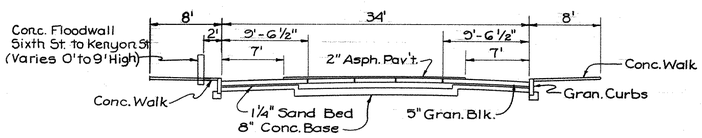
SEVENTH ST.
CARR TO BAYMILLER



PIERSON ST.
SIXTH ST. TO FLOOD WALL



BAYMILLER
SIXTH ST. TO CARLISLE



BAYMILLER
SIXTH ST. TO BARR

EXISTING ROADWAY SECTIONS

GENERAL NOTES

GENERAL

DESIGN SPEED

The geometrics of this project have been planned for a design speed of 50 miles per hour.

ELEVATION DATUM

All elevations are based on U.S.C. & G.S. datum.

FIELD OFFICE

The Contractor shall, in accordance with Section S-0.01 (b), provide, for the exclusive use of the State's and City's employees, a suitable field office having a minimum of 500 sq. ft. of floor space. The Contractor shall have a telephone installed and maintained in this field office during the construction of this project.

The Contractor shall also provide and install wiring and outlets suitable for connecting lights and office equipment in the field office and provide 110-volt alternating current to the office during the entire period of construction of this project.

WORK TO BE DONE BY THE CITY

The City will wreck and remove all the existing buildings, sheds, garages and other similar structures (unless otherwise shown on plans) within the limits of construction. In general, buildings will be wrecked to the top of the foundation walls and all the resulting debris removed, unless otherwise noted on plans. The Contractor will be expected to field check the site to view existing conditions as most of the wrecking will have been completed before construction begins.

The City will claim and haul from the project, parking meters, street signs, and street lighting standards, which are to be removed from their location and stockpiled by the Contractor.

The City utility forces in connection with the lighting will remove existing lamps, traffic lights and poles.

UTILITIES

The Contractor shall notify at least 48 hours before breaking ground all Public Service Corporations having wire, poles, pipe conduits, manholes or other structures that may be affected and not shown on these plans. Any and all work required for public or private utilities will be done by and at the expense of their respective owners, unless otherwise noted on these plans.

WATER AND GAS SHUT-OFF BOXES

The water and gas shut-off boxes generally located behind the existing curb are shown on the plan sheets and designated by the following symbols:

o G . . . . . Gas Box
o W . . . . . Water Box

RELOCATION OF WATER METER BOXES

If necessary, the Cincinnati Water Works Department will relocate all privately owned water meter boxes, and this item will not be included as a part of the work to be performed by the Contractor.

REPLACEMENT

The Contractor shall replace at his own expense any item not specifically listed for removal that is damaged or destroyed by his operation.

COOPERATION BETWEEN CONTRACTORS

The Contractor of this project will be required to cooperate and coordinate his work with all other Contractors. Where work is required to be done by other Contractors within the construction limits of this project, the Contractor of this project shall be required to furnish to the other Contractors continuous access through these work areas until the completion of their work.

All underground work shall be scheduled and completed at some planned time, agreeable to all parties concerned, that will cause the least amount of interference with the movement of traffic.

ESTIMATED QUANTITIES

Specific locations and usage of estimated quantities set up on this plan to be used "as directed by the Engineer" shall be made a matter of record by incorporation into the final change order governing completion of this project.

CONSTRUCTION LAYOUT STAKES

See note in proposal describing the work included in this lump sum pay item.

STORAGE OF CONSTRUCTION MATERIALS FOR EXPRESSWAY STRUCTURES OVER RAILROAD TRACKS

During the construction of expressway structures over railroad tracks, the Contractor shall store his materials in such a manner as to prevent trespassers from throwing loose objects onto the tracks and causing damage to the trains below.

GENERAL (CONT.)

FLOOD PROTECTION

All flood protection work such as flood walls, relocation of the flood gate storage house, sluice gates or any other work that is pertinent to the flood protection of this area shall be scheduled in such a manner that during the flood season period (December to May) full flood protection is provided to this area at all times. A work schedule shall be submitted to the City of Cincinnati and no flood protection work shall be started until specifically authorized by the City Manager of the City of Cincinnati in writing.

During the entire construction period of this project, the Contractor must provide uninterrupted access and utility service to gate house, flood gate location, sluice gates, pump houses or any other flood protection facilities as it existed prior to the start of construction.

PARKING

The Contractor shall not permit revenue producing parking of motor vehicles within the right of way of this project.

FLOOD GATE AND FLOOD GATE STORAGE HOUSE PLANS

Plans for portions of existing flood protection works which will be affected by the construction of the project are on file at the City of Cincinnati City Hall and the Office of the Administrator of Contract Sales in Columbus, Ohio. These prints are available to the bidder for his inspection.

FEDERAL AID CONSTRUCTION IDENTIFICATION SIGNS

The Contractor shall furnish, erect, maintain and subsequently remove Federal Aid Construction Identification Signs at each of the following locations:

1. At Station 22+42 E.B. located just south of the south curb of the eastbound lanes within the limited access right-of-way. The sign is to be so positioned as to be readable from the west.

2. At Station 57+00 W.B. located just north of the north curb of the westbound lanes within the limited access right-of-way. The sign is to be so positioned as to be readable from the east.

Sign detail shall be as specified on Standard Drawing FACI-1, "Code N-44(3)-102" substituting the word CITY for the word COUNTY wherever shown. The signs shall be erected in accordance with Standard Drawing FACI-2. Additional requirements shall be in accordance with notes in the Proposal.

CITY SURVEY MONUMENTS

There are a number of City Survey Monuments in the project area. Each monument shall be protected by the Contractor in accordance with the provisions of Section G-7.09 of the Construction and Material Specifications until the City Engineer's office has been notified and has determined whether the monument is to be preserved. The referencing and resetting of the City Survey Monuments will be done by the City forces.

LINN STREET TEMPORARY NORTH APPROACH

The construction north of Linn Street Station 13+47.68 connecting Linn Street to Baymiller Street is planned as a temporary improvement to permit traffic to use the new Linn Street. A later Urban Renewal Contract, extending Linn Street to the north, will provide for the removal of the temporary roadway.

Portions or all of the aforesaid construction, as shown on the plans may be non-performed. This would include all the roadway, pavement, and miscellaneous items which the plans indicate are to be performed in this area, and sewer work north of and including Manhole No. 109, and sewer work east of Manhole No. 109 to and including Manhole No. 113.

The construction of the aforesaid temporary roadways and work related thereto shall not be started until such work is specifically authorized by the Director in writing.

If any or all of this work is non-performed, payment shall be made in accordance with Section G-9.03 of the Construction and Material Specifications.

WATER WORKS

GENERAL NOTES

For Water Works Notes see Sheet No. 119.

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GENERAL NOTES

TRAFFIC

MAINTAINING TRAFFIC

The construction schedule and requirements for maintaining traffic shown in these general notes are intended to provide minimum inconvenience to traffic at all time, and to impose any interference to traffic on individual portions of the project for minimum periods of time. The order of construction where shown, indicates the order in which the various phases of work shall be undertaken and completed. The Contractor will be expected to complete each operation as quickly as good construction practices permit. Some of the operations can be carried on simultaneously and every effort shall be made to complete the project at the earliest possible date. The construction schedule and the requirements for maintaining traffic are predicated upon handling the traffic in a concentrated area in the basin of the City and any modification of the aforementioned construction schedule and requirements for maintaining traffic must be approved by the City Manager of the City of Cincinnati and the Director in writing.

The Contractor shall maintain the existing pavement within the limits of the work by making necessary repairs with bituminous material when requested by the Engineer. An estimated amount of asphaltic concrete surface course Item T-35 has been provided for this purpose. The Contractor shall construct temporary pavement where required and as directed by the Engineer for the purpose of maintaining traffic. An estimated amount of asphaltic concrete surface course Item T-35 and an estimated amount of aggregate base course Item B-19 has been provided for this purpose. The asphaltic concrete used for these purposes shall be paid for at the unit price bid for Item T-35, Asphaltic Concrete Surface Course, For Maintaining Traffic. The aggregate base course used for these purposes shall be paid for at the unit price bid for Item B-19, Aggregate Base Course, For Maintaining Traffic.

Local traffic on all streets within the limits of work and on all adjacent and intersecting streets shall be maintained in a manner causing the least amount of inconvenience to the abutting property owners. Temporary driveways shall be constructed, maintained and removed by the Contractor as directed by the Engineer. Aggregate and chloride used for maintaining local traffic shall be applied on temporary roadways as directed and in the amount requested by the Engineer and shall be paid for at the unit prices bid for the respective T-10 and M-10 items. The hardness and soundness requirements of the Construction and Material Specifications shall be waived for the traffic compacted surface course.

In the event of high flood stages during Stage Two of the Construction Schedule it will be necessary to use the westbound roadway of the expressway for two-way traffic, and the Contractor will be required to construct, maintain and remove temporary roadways as directed by the Engineer.

Pedestrian traffic shall be maintained at all times on the following streets within the project limits: Sixth Street between Harriet Street and Carr Street, and between Baymiller Street and Gest Street; Harriet Street; Carr Street between Front Street and Sixth Street; Front Street; Sargent Street; Seventh Street; Freeman Avenue between Front Street and Sargent Street, and between Kenyon Street and Barr Street and between Seventh Street and Eighth Street; Kenyon Street; Baymiller Street or Linn Street.

In addition, pedestrian traffic shall be maintained along the full length of Sixth Street during Stage One of the Construction Schedule, and along relocated Freeman Avenue from Front Street to Seventh Street during Stage Two of the Construction Schedule.

Where construction work interferes with the walks on any part of the project, temporary walks at least five feet wide shall be constructed. Temporary walks may be constructed of wood, asphaltic concrete or concrete. They shall be properly lighted and barricaded to assure a safe walk for the pedestrian. Walks shall be kept clean during the entire period of use. Payment for this work shall be included in the lump sum price bid for Maintaining Traffic.

The Contractor shall safeguard the traveling public on existing city streets during the construction of overhead bridges, by providing platforms, nets, or other suitable protection above the streets and sidewalks. Payment for this protection shall be included in the lump sum price bid for Maintaining Traffic.

Through traffic shall be maintained on full width of streets at all times during the construction period except as provided in these general notes.

TRAFFIC (CONT.)

SIXTH STREET

STAGE ONE

During Stage One of the Construction Schedule, traffic shall be maintained on Sixth Street at all times, except during erection of structural steel as noted herein, by use of the existing street in combination with the run-arounds indicated on the plans at construction areas.

During the construction of sewers, water lines and run-arounds, at least two 12-foot lanes of usable roadway shall be kept open to traffic at all times.

During the construction of the relocated portion of Sixth Street between Freeman Avenue and Baymiller Street, at least one 12-foot lane of traffic shall be kept open at all times for westbound traffic. Eastbound traffic shall be temporarily rerouted over Fifth Street until construction of the relocated roadway has been completed.

The erection of structural steel for the bridge spans over Sixth Street shall be done on Sunday between 6 A.M. and 12 noon, and the street may be closed during the hours when steel is being erected overhead. Permit for this work must be obtained from the City of Cincinnati at least two weeks prior to the street closing.

STAGE TWO

During Stage Two of the Construction Schedule, traffic shall be maintained on Sixth Street at all times within the limits noted herein.

During the construction of Sixth Street between Harriet Street and Carr Street, at least one 12-foot lane shall be kept open to traffic at all times.

During the construction of Sixth Street between Baymiller Street and Gest Street, at least two 10-foot lanes of usable roadway shall be kept open to traffic at all times.

Temporary material shall be installed where required, as directed by the Engineer.

FRONT STREET

Traffic shall be maintained at all times.

During construction of sewers across Front Street, at least two 10-foot lanes of usable roadway shall be kept open at all times. The roadway surface shall be restored immediately after each underground operation has been completed.

HARRIET STREET

Traffic shall be maintained at all times.

During construction work on Harriet Street at least one 12-foot lane of usable roadway width shall be kept open to traffic at all times.

North of Sixth Street, access to the Railroad Property shall be maintained at all times, either on existing Harriet Street, or by use of the partially completed roadway of Ramp A.

Temporary material shall be installed where required, as directed by the Engineer.

CARR STREET

Existing Carr Street, north of Sixth Street, shall be kept open as long as possible. However, when required for construction purposes, Carr Street north of Sixth Street, may be permanently closed.

Traffic shall be maintained at all times between Sixth Street and Front Street.

During sewer and roadway construction work for Carr Street between Sixth Street and Front Street at least one 12-foot lane of usable roadway width shall be kept open to traffic at all times.

Temporary material shall be installed where required, as directed by the Engineer

FREEMAN AVENUE

Existing Freeman Avenue shall be kept open to traffic as long as possible; however, during the construction of the relocated Freeman Avenue, the existing street may be closed to traffic except as noted herein.

During construction work between Front Street and Sargent Street, at least one 12-foot lane of usable roadway width for access to Sargent Street shall be kept open to traffic at all times.

During construction work between Kenyon Street and Barr Street at least two 12-foot lanes of usable roadway width shall be kept open to traffic at all times and the loading dock facilities for the building at No. 646 Freeman Avenue shall be maintained at all times.

During construction work between Seventh Street and Eighth Street, at least two 10-foot lanes of usable roadway width shall be kept open to traffic at all times.

Temporary material shall be installed where required, as directed by the Engineer.

SEVENTH STREET

Traffic shall be maintained at all times.

During construction work on Seventh Street at least two 10-foot lanes of usable roadway width shall be kept open to traffic at all times.

Temporary material shall be installed where required, as directed by the Engineer.

TRAFFIC (CONT.)

KENYON STREET - FREEMAN AVENUE TO BAYMILLER STREET

Traffic shall be maintained at all times.

During the construction of water mains, sewers and manholes in existing Kenyon Street, at least two 10-foot lanes of usable roadway shall be kept open at all times. The roadway surface shall be restored immediately after each underground operation has been completed.

At all other times, at least two 11-foot lanes of usable roadway shall be kept open to traffic, either on existing street or by use of the partially completed roadway of the relocated street.

Temporary material shall be installed where required, as directed by the Engineer.

BAYMILLER STREET (PROPOSED LINN STREET) - CARLISLE STREET TO BARR STREET

Traffic shall be maintained at all times, except during erection of structural steel as noted herein.

At least two 12-foot lanes of usable roadway shall be kept open to traffic at all times, either on existing Baymiller Street or by use of the partially completed roadway of Linn Street. Temporary material shall be installed where required, as directed by the Engineer.

The erection of structural steel for the bridge spans over the usable roadways at Baymiller Street and/or Linn Street shall be done on Sunday between 6 A.M. and 12 noon, and the roadways may be closed during the hours when steel is being erected overhead. Permit for the work must be obtained from the City of Cincinnati at least two weeks prior to the street closing.

TEMPORARY APPROACH CONNECTIONS - FROM SIXTH STREET TO THE SIXTH STREET EXPRESSWAY AT GEST STREET

The project to the east (HAM-50-20.43) includes temporary approach ramps from Sixth Street to the Sixth Street Expressway at the west limit of the structures over Gest Street.

During Stage One of the Construction Schedule, both temporary ramps shall be kept open to traffic at all times until the westbound roadway of the expressway has been opened to traffic. During the short period of construction operations on the westbound roadway of the expressway which interferes with the temporary westbound ramp, at least two 12-foot lanes of usable westbound roadway shall be kept open to traffic at all times either on the temporary ramp or by use of the partially completed westbound roadway of the expressway.

During Stage Two of the Construction Schedule, the eastbound temporary ramp shall be kept open to traffic at all times until the eastbound roadway of the expressway has been opened to traffic. During the short period of construction operations on the eastbound roadway of the expressway which interferes with the temporary eastbound ramp, at least two 12-foot lanes of usable eastbound roadway shall be kept open to traffic at all times either on the temporary ramp or by use of the partially completed eastbound roadway of the expressway.

The cost of maintaining traffic as outlined above, including all the provisions of Section G-4.05 and Section G-7.07 of the Construction and Material Specifications, except the cost of temporary run-arounds and temporary pavement, which are being paid for under separate items, is all included in the lump sum price bid for Maintaining Traffic.

CONSTRUCTION SCHEDULE

CONSTRUCTION SCHEDULE

The construction of the project is to be performed in two stages, as follows:

Stage One - Construction of the westbound roadway of the expressway including Ramp A, with traffic maintained on existing Sixth Street.

Stage Two - Construction of the eastbound roadway of the expressway after the westbound roadway has been substantially completed, and opened to traffic.

Any construction work which would interfere with the existing 20-inch water mains in Freeman Avenue and in Sixth Street shall not be performed until the new 24-inch water main in Front Street and across Mill Creek, which is to be placed by the Contractor for Project HAM-50-19.38, has been placed in service.

The relocation of Sixth Street between Freeman Avenue and Baymiller Street, shall be completed and opened to traffic before any construction restrictions are made to traffic on existing Freeman Avenue.

Other construction work may be done at the Contractor's discretion with the approval of the Project Engineer, but must be in accordance with the requirements for "Maintaining Traffic" and Flood Protection".

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GENERAL NOTES

PAVEMENT

PLACING AND FINISHING ASPHALTIC CONCRETE

The requirements under Section T-35.18 for mechanical equipment for placing and finishing asphaltic concrete are hereby waived for areas less than 5 feet in width or where surface is deformed, and the asphaltic concrete may be spread and finished by acceptable hand methods. Dump boards will be required if spread and finished by hand method.

EXPANSION AND CONTRACTION JOINTS

Where transverse joints are located closer than 10 feet to the regular blockout joints around catch basins, manholes and water valves, the blockout joints shall be continued to the transverse joint. Similarly, where longitudinal joints are located closer than 2 feet to the regular blockout joints around catch basins, manholes and water valves, the blockout joints shall be continued to the longitudinal joints.

In addition to contraction joints specifically located on pavement details, contraction joints in all T-71 pavement shall be provided in all cases in accordance with Standard Construction Drawing T.J.

Expansion joints not otherwise detailed shall be provided at all major structures as required by Standard Construction Drawing T.J.

I-22 SUBBASE, GRADING "A" OR "B", AS PER PLAN

The material furnished for this item shall meet the requirements of Grading "A" or "B" of Section I-22.02 except that, for either grading, no more than 10 per cent of the material shall pass a No. 200 sieve after all operations of placing and compacting have been completed.

RESTORATION OF PAVEMENT

For sewers that are to be constructed in existing streets or paved areas where no repaving is called for on the plans, the cost of the removal and replacement of this pavement shall be included in the contract unit price bid for Item I-1, Pipes.

Where pier footings are to be constructed in existing paved areas, the cost of the removal of the pavement will be included in the contract unit price bid for Item E-2, Excavation for Structures. The cost of replacement of this pavement shall be at the contract unit price bid for the various items and material required to replace the pavement.

For details of pavement restoration see Sheet No. 188.

SEQUENCE OF CONSTRUCTION OPERATIONS (SEE NOTE IN PROPOSAL)

ROADWAY

GUARD RAIL

Guard rail shall be flared to meet bridge railing in such a manner that the change in alignment of the guard rail will not exceed one foot in 20 feet.

The stationing of individual runs of guard rail shall be adjusted by the Engineer at the time of construction to accommodate conditions that may arise requiring such adjustments.

GUARD RAIL FLARES

Where proposed guard rail flares are constructed of rail elements which have not been fabricated exactly to fit the curvature shown on the plans, the two end posts of each flared section shall be encased in a minimum 4 inch thickness of Class "E" Concrete for the full depth of the post below the ground line. Payment for the encasement, if required, shall be included in the unit price bid for the guard rail.

OVERHEAD SIGNS

The exact stationing of Bridge Type Overhead Sign Assemblies in guard rail sections may be adjusted at the time of construction as directed by the Engineer, to avoid interference with guard rail posts.

DRIVEWAY EXPANSION JOINTS

One-half inch (1/2") premolded expansion joints Section M-10.02 shall be provided where the drive abuts a walk, longitudinal curb, wall or building.

Payment for the 1/2" premolded expansion joint material is included in the unit price bid per square yard for Item T-70, 8" Portland cement concrete pavement.

ITEM E-4, BORROW, AS PER PLAN

The upper four (4) inches of all embankment subgrade areas, shall consist of soil material as defined in Section E-1.02 suitable for the growth of vegetation. Material meeting these requirements shall be reserved from excavation items to the extent available or shall be furnished by the Contractor under Item E-4, Borrow, As Per Plan. Payment for any and all extra operations involved in meeting these requirements shall be included in the unit prices bid for excavation items and for Item E-4, Borrow, As Per Plan.

ITEM T-10, AS PER PLAN

The weights to be used in calculating the yardage to be paid for under this item, if a standard size coarse aggregate is specified, shall be the same as those indicated in the Construction and Material Specifications for crusher run or bank run materials.

SEEDING QUANTITIES

The entire work area on the project that is not paved or indicated as sodded on the plans shall be seeded.

SEEDING AND PROTECTING

Quantities for Seeding Item L-9 are calculated for the soil areas between the right-of-way lines and for the soil areas of any work limits that are beyond the right-of-way lines. Seed shall be sown at the rate of three(3) pounds per 1,000 sq. ft. except as otherwise noted in plans. Seeding formula for all seeded areas shall be in accordance with the following:

20% Kentucky Bluegrass (Poa pratensis)
65% Kentucky 31 Fescue (Festuca elatior Var. Ky. 31)
15% Red Clover (Trifolium pratense)

L-9 COMMERCIAL FERTILIZER

All areas to be seeded under Item L-9, or sodded under Item L-10, shall have commercial fertilizer (12-12-12) applied at the rate of twenty (20) pounds per 1,000 sq. ft.

L-10 SODDING

This item is provided on the plans for erosion control. The Engineer shall check and make adjustments in location and quantities for this item where indicated by field conditions during construction.

AGRICULTURAL LIMING MATERIALS

The location and need for agricultural liming materials will be determined by laboratory tests after rough grading operations have been performed. Quantities of agricultural liming materials as shown on the plans are sufficient for the entire project, but will be non-performed for the areas where tests show that the liming material is not needed. Where used, this material shall be applied at the rate of one hundred (100) pounds per 1,000 sq. ft.

REMOVING EXISTING STREET SIGNS

Existing street signs, traffic markers, and other similar objects within the limits of construction shall be removed and stockpiled on the right-of-way for the City of Cincinnati. Payment for removal and stockpiling of these items shall be included in the contract price bid per cubic yard for Item E-1, Roadway Excavation.

ROUNDING OF CORNERS ON CROSS SECTIONS

The rounded corners, shown on Standard Drawing RI-1, apply to all cross sections even though otherwise shown in these plans.

PAVEMENT REMOVAL, RIGID TYPE

Existing rigid type pavements shall be removed when they are located less than 3 feet below the proposed pavement subgrade in proposed pavement areas or less than 3 feet below the proposed finished surface in areas outside the proposed pavement. These removals shall include concrete pavement and

ROADWAY (CONT.)

PAVEMENT REMOVAL, RIGID TYPE (Continued)

integral curb, granite block pavement and base, and brick pavement and base, either with or without bituminous surface. Payment for this operation shall be made at the unit price bid per square yard for Item E-8, Removal and Disposal of Existing Pavement.

When existing rigid type pavements lie below the above limits, they shall not be removed. In lieu thereof, they shall be broken up in place into portions not to exceed one square foot in area prior to placement of proposed embankment. Payment for this operation shall be included in the unit price bid for Item E-1, Roadway Excavation.

REMOVAL OF EXISTING CURB

Removal of curb not integral with the pavement, including granite, stone, concrete, and steel plate curb shall be paid for at the unit price bid per lineal foot for Item E-8, Removal and Disposal of Existing Curb.

NON-RIGID PAVEMENT REMOVAL

The removal of non-rigid pavement is to be included in the contract unit price bid for Item E-1, Roadway Excavation.

CONCRETE SIDEWALK

Wherever the proposed concrete sidewalk adjoins or abuts an existing sidewalk the existing walk shall be cut and trimmed to a neat line as shown on the plans. Payment for cutting and trimming shall be included in the contract unit price bid per square foot for Item I-13, Concrete Sidewalks.

UNDERGROUND UTILITIES

The locations of the underground utilities shown on the plans have been obtained by diligent field checks and searches of available records. It is believed they are essentially correct, but the State of Ohio makes no guarantee as to their accuracy or completeness.

REMOVAL OF WALLS AND FOUNDATIONS AT PIERS, ABUTMENTS AND RETAINING WALLS

Portions of existing structures, building foundations and retaining walls should be entirely removed where they extend under proposed pier, abutment, and retaining wall footings, so that no interference is encountered when piling is driven for these structures.

Payment for this work shall be included in the contract unit price bid for Item E-2, Structure Excavation.

Payment for this work shall be included in the contract unit price bid for Item E-2, Structure Excavation.

ITEM I-18, 6" CRUSHED AGGREGATE UNDER BRIDGE STRUCTURES

This item shall consist of courses of crushed aggregate placed in accordance with the details shown on the plans.

The compaction and soundness requirements as set forth in the Construction and Material Specifications and in the proposal will be waived for this item.

WEED CONTROL WITHIN THE CONSTRUCTION AREA

It shall be the responsibility of the Contractor to cut all vegetation within the construction area when so ordered by the Engineer. It shall also be the responsibility of the Contractor to cut all weeds which may appear in newly seeded and sodded areas and to have these areas free from pollen producing weeds at the time of the final inspection. The removal of trees is not included in this work but is paid for under a separate item. Payment for the above described weed control shall be included in the contract price bid for the various items of this contract.

BANK RUN GRAVEL

An estimated amount of bank run gravel has been included in the general summary to be used at the direction of the Engineer in filling old cisterns and tunnels encountered under pavement.

"Bank Run Gravel" shall consist of sound durable material containing not more than 5 per cent clay or silt by weight and free from an excessive amount of deleterious material. It shall be well graded from coarse to fine; 100 per cent shall pass a 3 inch sieve, not more than 50 per cent shall pass a 1/4 inch sieve and not more than 10 per cent shall pass a No. 50 sieve. Measurement of the quantity of "Borrow-Bank Run Gravel" to be paid for shall be made in accordance with Section E-4.04 of the Construction and Material Specifications. Basis of payment shall be in accordance with Section E-4.05 of the Construction and Material Specifications.

ITEM S-24, REMOVAL OF EXISTING STRUCTURES

This item includes only the removal and disposal of existing structures tabulated in the plans.

All other removals on this project not separately itemized under Items E-8 or E-12, or included in Items E-2, E-3, I-1, I-8 or I-16 shall be considered miscellaneous removals as per Section E-1.03 (c) and shall be included for payment in the unit price bid for Item E-1, Roadway Excavation.

REMOVAL OF TREES AND STUMPS

Payment for removal of all trees and stumps on this project shall be included in the contract unit price bid for Item E-1, Roadway Excavation.

ITEM S.S. CE-101.04

An estimated quantity for this item has been included in the General Summary, for use as directed by the Engineer, in proof rolling of all subgrade, except for areas where rock or shale is encountered. The pneumatic tired roller shall be operated at 50 ton gross load for the final proof rolling.

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GENERAL NOTES

SEWERS

CONDITION OF SEWERS

Before any work is started on the project, representatives from the State, Contractor, and City shall make an inspection of the existing sewers, within the limits of the work area, on the project that are to remain in operation after the completion of the project and a record of such inspection reduced to writing by the State. All new sewers, inlets and manholes constructed as part of the project shall be free of all foreign matter and in a clean condition before the project will be acceptable to the State. All existing sewers inspected initially by the above mentioned parties shall be maintained and left in the same condition as determined by the original inspection. Any change in the condition resulting from the Contractor's operations shall be corrected to the satisfaction of the Engineer by the Contractor at no additional cost to the State.

SEWAGE

The Contractor shall conduct his operations so as to maintain any sewage flow uninterrupted throughout the construction period.

Any additional costs involved in maintaining this flow, by pumping or by any other approved method which is necessary for construction of the project, shall be included in the contract unit price bid per linear foot for pertinent pipe item.

LOCATION AND SIZE OF EXISTING PIPE

The location, type, depth and size of all existing pipe and house connections affected by this project are shown as nearly exact as available information will permit. The State of Ohio will not be responsible for any variations found during construction.

INLETS, MANHOLES, AND PIPES

The proposed elevations and locations of inlets, manholes, and pipes and the estimated lengths of pipe may be adjusted by the Engineer during construction.

TILE FOR SUBGRADE DRAINAGE

6" and 8" drain tile, Section M-6.1 or M-6.2, shall be furnished and placed by the Contractor, in manholes, catch basins and inlets for subgrade drainage, where, and as directed by the Engineer. Payment for same shall be included in price bid per "Each" for Item I-8 Manholes, Catch Basins and Inlets.

SANITARY CONNECTIONS PASSING OVER WATER MAINS

Any proposed house connection or lateral sewer, excluding inlet connections, which must of necessity pass over a proposed water main shall be encased in a minimum of six (6) inches of Class "E" concrete for a distance of ten (10) feet on each side of the center line of the water main. Payment for this work shall be included in the unit price bid for the pertinent pipe item.

CONNECTIONS TO EXISTING SEWERS

At places where the plans provide for proposed drainage pipe to be connected to existing pipes, it shall be the responsibility of the Contractor to locate the existing pipe both as to line and grade before he starts to lay the proposed sewer. The cost of this operation shall be included in the unit price bid for pertinent pipe item.

CONNECTION TO EXISTING MANHOLES OR SEWERS

Payment for connecting proposed sewers to existing manholes or sewers shall be included in the contract unit price bid per linear foot for pertinent pipe item.

SEWER HOUSE DRAINS

EXISTING HOUSE DRAINS. All existing house drains, which include sanitary, yard, roof, basement or other similar pipe drains, now in use which are disturbed because of the highway improvement, shall be replaced by the Contractor. If the existing sewer is to be abandoned, then a satisfactory house connection shall be provided. Payment for this work shall be at the contract unit price bid per linear foot of pertinent pipe item. Unrecorded house drains that are encountered during construction and required to be replaced under the direction of the Engineer shall be paid for as specified.

Where an existing house is to be removed, the upgrade end of the existing house connection shall be plugged by the proper installation of a suitable precast concrete or vitrified plug, or the construction of a bulkhead of brick or concrete masonry with a minimum thickness of 12 inches. Payment for this work shall be included in the contract unit price bid for Item E-1, Roadway Excavation.

PROPOSED HOUSE CONNECTIONS. The City of Cincinnati will notify property owners in advance of construction that if they contemplate new house connections to the proposed sewer, the property owner must furnish, at his sole cost, tees of the proper size and material to the Contractor. The Contractor will then install the tees as he proceeds with laying the sewer and payment for the work involved will be at the same rate as though he were furnishing and laying straight pipe.

To obtain a house connection to either an existing sewer that is to remain or to a proposed sewer, the property owner or his agent, at his sole cost, shall furnish all material and labor required to install the house connection from the carrier sewer to a point beyond the limits of roadway construction.

SEWERS (CONT.)

UNRECORDED CONNECTIONS

Any unrecorded active connections to the sewer, encountered in construction shall be reconnected to the existing sewers as directed by the Engineer. Payment for this work, except for work covered in Item I-16, shall be at the contract price bid per linear foot of the pertinent pipe item.

The following estimated quantities of the various items have been included for use under the direction of the Engineer to replace unrecorded house connections and drains encountered in the work and required to be replaced.

Item I-1, 250 L.F. 6" Pipe Class B-1, Sec. M-6.5(b)
Item I-1, 175 L.F. 8" Pipe Class B-1, Sec. M-6.5(b)
Item I-1, 80 L.F. 12" Pipe Class B-1

Item I-5, 3 Each Pipe Special 6" x 45° Bend Class B-1
Item I-5, 3 Each Pipe Special 8" x 45° Bend Class B-1
Item I-5, 3 Each Pipe Special 12" x 6" Tee Class B-1
Item I-5, 3 Each Pipe Special 12" x 8" Tee Class B-1

COOPERATION BETWEEN CONTRACTOR AND PROPERTY OWNER

The Contractor must cooperate with the property owner or his agent to give said property owner or his agent ample opportunity for extending said sewer connection from the tee branch or existing sewer to a point beyond roadway construction limits. The necessary house connections shall be installed by the property owner or his agent at no cost to the Contractor, other than the cost of cooperation in scheduling his work which said cost shall be assumed by the Contractor and shall be included in the unit prices bid for the various pipe items.

REMOVAL OF EXISTING HOUSE DRAINS

The removal, where required, of all existing house connections, which include sanitary, yard, roof, basement or other similar pipe drains within the construction limits shall be included in the price bid for Item E-1, Roadway Excavation, unless otherwise itemized for payment in the plans.

PIPE CUT-OFFS

When ball and spigot pipe is used, any necessary pipe cut-offs will be made at the spigot end of the length of pipe adjacent to the end length. When tongue and groove pipe is used, the length of pipe next to the end length shall be cut and butt joint formed with a collar as detailed in Standard Drawing No. I-1. The cost of the joint and collar shall be included in the contract unit price bid for the pertinent pipe item.

SEALING OF NEW PIPES

Sealing of new pipes shall be accomplished by the proper installation of a suitable precast concrete or vitrified plug, or the construction of a bulkhead of brick or concrete masonry with a minimum thickness of 12 inches. Payment for this work shall be included in the contract unit price bid per linear foot of the pertinent pipe item.

REMODEL BOTTOMS OF EXISTING MANHOLES

The Contractor shall remodel bottoms of existing manholes where indicated on the plans to facilitate a change in pipe size, slope, elevations, or sewer alignment. The new bottoms shall conform with details of manhole, Type A, as closely as conditions permit. Estimated brick masonry per manhole, 1/2 cubic yard. Payment for this work shall be included in the contract unit price bid for Item I-8, Remodel Bottom of Existing Manholes.

MANHOLES OR CATCH BASINS

Certain proposed manholes and catch basins, because of stage construction or detour construction, are to be built initially to an elevation other than final grade.

Payment for placing temporary frames and grates and any subsequent adjusting or reconstructing to grade for these manholes or catch basins shall be included in the contract unit prices bid for the pertinent types of Item I-8, Manholes or Catch Basins.

Certain proposed manholes shall be furnished with the Standard Grating Manhole Cover in lieu of the Standard Manhole Cover. The manholes requiring the grating type cover are shown in the sewer tabulation sheets. The contract unit price bid for the pertinent type of manhole shall include furnishing either the standard cover or the grating cover as per plan.

TUNNELING SEWERS

Wherever sewers in tunnel are called for in the plans, the Contractor shall construct these sewers in accordance with the provisions of Section SG-3 of the City of Cincinnati Construction and Material Specifications, and of the characteristics and to the dimensions and within the limits shown for typical tunnel sections as shown in the plans as ascribed to this item. (See Detail Sheet No. 180)

Payment for sewers in tunnel shall be at the contract price bid per linear foot for Item I-1 Pipes, Tunnel Construction, of the pertinent pipe size.

In all other cases, tunneling will not be permitted except by special permission of the Engineer and when permitted, shall be done under his specific direction.

SEWERS UNDER FLOOD GATES

Proposed sewer work under and through the floodwalls and gates shall be scheduled at times of minimum flood danger. The Contractor shall protect the area north of the floodwalls during times of high water by sandbagging and bulkheading any part of the floodwall, gates or sewers that are open due to his construction operations. This sandbagging and bulkheading shall be under direction of the Engineer as approved by and coordinated with the Superintendent of the Division of Water Pollution Control for the City of Cincinnati. The cost of sandbagging, bulkheading and protecting the area from flood damage, and removal of the sandbags and bulkheads shall be included in the unit price bid for constructing the pertinent pipe items.

SEWERS (CONT.)

SEWERS TO BE ABANDONED OR REMOVED

All existing sewers, manholes, and inlets that are to be abandoned as part of this project are noted on the plans. Payment for the removal of all manholes, catch basins, and inlets not specifically paid for under Item I-16 shall be included in the contract unit price bid for Item E-1 or E-2.

All existing sewers 24 inches or smaller in diameter, with cover of less than 3 feet shall be removed and paid for under Item E-12, Removal of Pipe 24 inches or smaller, unless removed under Item E-1, Roadway Excavation or Item E-2, Excavation for Structures. If the cover is more than 3 feet, the pipe shall be abandoned. Sewers abandoned or removed shall be sealed in accordance with requirements outlined under "Plugging Pipe Ends."

Existing sewers larger than 24 inches in diameter with cover of more than 3 feet, which because of their size or condition are marked for removal, shall be removed or shall be filled with sand or gravel and left in place. Any exposed ends shall be bulkheaded. Payment for removal or filling these large deep sewers shall be under Item E-12, Removal of Pipe larger than 24 inches. Payment for Item E-12, Removal of Pipe larger than 24 inches, shall include the necessary excavation and backfill for the trench if the pipe is removed or the granular fill if the pipe is filled and left in place, and the bulkheading of the remaining pipe.

Bulkheads shall consist of concrete or flat stones or brick laid in mortar to a thickness of one half the pipe diameter, except that the bulkheads for the 12" sewer to be abandoned in Freeman Avenue shall be 12" of concrete inside the end of the pipe on both sides of the cut.

The cost of bulkheading existing sewers due to installation of new sewers shall be included in the price bid for pertinent pipe item.

Where temporary sewers are shown on run-around or plan sheets, the cost of construction, maintaining and abandoning same when no longer needed shall be included in the Lump Sum price bid for Temporary Run-Arounds.

PLUGGING PIPE ENDS

Sewers which will be abandoned shall be sealed where they join manholes or inlets.

Existing sewers encountered in construction operations, that are inactive or to be abandoned, shall be sealed on both ends where broken into prior to backfill or construction of embankment.

Broken pieces and portions of pipe or tile shall be removed until a whole length is encountered, which shall be blocked with a plug with a minimum thickness of 12 inches made of concrete, flat stones or brick laid in mortar, or by installing a precast clay or concrete stopper.

Payment for the above work shall be included in the price bid for Item E-1, Roadway Excavation, unless otherwise itemized for payment in the plans.

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GENERAL NOTES

LIGHTING & SIGNING

LIGHTING

The work to be done in connection with the lighting of this project is to install a complete lighting system consisting of standards, brackets, luminaires, control equipment and supports, foundations for standards, pull boxes, current transformers, conduits, cables and necessary accessories, all ready to function and in accordance with the plans and specifications.

Each street lighting circuit shall be controlled by a fused switch and contactor located at the transformer. The contactor shall be operated by a photoelectric control mounted on a nearby light standard or other structure well above ground level, with exposure to north sky light.

SIGNING

The work to be done in connection with the signing of this project is to install a complete signing system with the exception of the erection of the signs themselves, and shall include the installation of various sign supports, switch boxes, foundations, pull boxes, sign circuit control assemblies, conduits, cables, and necessary accessories capable of supporting the desired sign loads, and furnishing power to the contactors at each sign support in accordance with the plans and specifications. Sign support structures are designed according to A.A.S.H.O. specifications dated November, 1960.

Sign lighting circuits shall be controlled by a fused switch located at the transformer. In addition, each sign shall be provided with a fused switch and contactor to control the lights on that sign. The contactor shall be operated by a photoelectric control mounted at the pole top, with exposure to north sky light.

All sign wiring from the contactors to the luminaires, and the luminaires themselves, shall be provided by others.

ELECTRICAL ENERGY

The transformers for the lighting and signing circuits shall be supplied with single phase current at 2,400 volts from Cincinnati Gas and Electric Company power poles at the locations shown on the plans. All secondary circuits shall be multiple three-wire circuits, with the neutral pole grounded. Street lighting circuits shall be 240 volts, with the neutral cable grounded at each lamp standard. Sign circuits shall be 120-240 volts, with the neutral cable grounded at each sign support, and the electrical load balanced at each sign. The complete installation shall comply with applicable sections of the National Electrical Safety Code and the National Electric Code.

TEMPORARY LIGHTING

Existing lighting shall be maintained on all existing roadways through the construction area remaining open to traffic. Should the Contractor require the removal of lighting from an existing roadway, the Contractor shall then be responsible for adequate temporary lighting of that portion of the existing roadway affected by the removal of existing lighting.

The Contractor shall be responsible for adequate street lighting of temporary and/or bypass roadways used by the public during construction.

The Contractor shall be responsible for lighting of new bridges opened to public use prior to acceptance of the project. However, he will not be responsible for damage done to lighting equipment because of traffic accidents by the public.

CABLE, ELECTRICAL

a. GENERAL

In general the cable shall meet applicable specifications of IPCEA, NEMA and ASTM for direct burial service, and shall be suitable for use on underground circuits of 5,000 volts for the primary circuits and 600 volts for the secondary circuits.

b. PRIMARY CABLE (5.0 KV. CLASS)

Primary cable shall be #6 solid copper, rubber insulated, 5,000 volts, 60 cycle A.C., neoprene jacketed, single conductor, suitable for direct burial service. Cable shall be marked every five feet with the manufacturers' name, wire size, voltage rating, type and style of cable. Insulation thickness shall be 10/64", and the neoprene jacket thickness shall be 4/64"; and applicable IPCEA and ASTM Specifications shall apply. Cables shall be color coded for identification, and color coding shall be continuous throughout length of each circuit.

c. SECONDARY CABLE

Secondary cable shall be #6 stranded copper, single conductor, rubber insulated, 600 volts, 60 cycle A.C., neoprene jacketed, suitable for direct burial service. Insulation thickness shall be 4/64", and the neoprene jacket thickness shall be 3/64"; and applicable IPCEA and ASTM specifications shall apply. Cables shall be color coded for identification, and color coding shall be continuous throughout length of circuit.

CONDUIT

Unless otherwise specified, conduit shall be asbestos cement conduit conforming to Type I of Federal Specification W-C-571b, and shall be concrete encased as shown on the plans. Wherever conduit is installed for future lighting, one No. 10 AWG galvanized steel drag wire shall be left in each conduit and the ends of the conduit shall be closed with capped bushing. Conduit used on underground runs shall have a minimum slope of four inches per hundred feet of length and shall slope downward to each pull box for drainage. Where there is no pull box, as between lamp standard foundations, a 1/2" diagonal drain hole from the lowest point of the conduit through the concrete encasement shall be provided, with a volume of porous material of at least 6" x 6" x 6" below the drain hole.

Exposed conduit, or short runs of conduit with severe bends shall be threaded two-inch diameter metallic conduit. Exposed conduit running along structures shall be supported at least 3/4" from the structure and supported every six feet of its length. Conduit runs exposed to the weather elements shall be constructed with waterproof integrity and gasketed fittings. No running threads or threadless fittings shall be used as part of metallic conduit installation. Conduit stubs shall be sealed with a duct sealing compound which is non-setting and will not damage cable insulation or conduit. All spare (empty) ducts shall be plugged and sealed with the duct seal.

LIGHTING & SIGNING (CONT.)

MARKERS

When a cable run is neither parallel with nor concentric with the roadway, concrete route markers shall be installed at points of departure and not over one hundred feet apart along the run. Markers shall be constructed as shown on the plans, with arrows inscribed on each marker to indicate the route of the cable.

POLES

All poles shall be of circular cross section tapered steel shaft. Lamp standard poles shall be of not less than #7 gauge. Sign support poles shall be of not less than #3 gauge. The wall shall be free of imperfections such as cracks, open seams or poor welds. The base shall be designed for bolting to a foundation or wall or structure parapet, and supplied with covers for the bolts. A hand hole with cover 4" x 6 1/2" shall be located near the base of the pole and as shown on the plans. Near the top and on the inside a J-hook shall be provided for cable support. ~~Lamp standard poles shall be of Union Metal Company Design 440A or an approved equal.~~ See note in Proposal.

GALVANIZING AND PAINTING

All lamp standards, bracket arms, overhead sign supports, transformer enclosures, switch boxes and other metal equipment, unless constructed of aluminum or stainless steel, shall be hot galvanized after fabrication, then etched and provided with ground coat before delivery. All marks caused by handling shall be painted with red lead before the final coat is applied. After erection the Contractor shall paint the above structures with two coats of aluminum enamel, conforming to Section M-9.12 of the Construction and Material Specifications.

Exposed portions of anchor bolts and nuts shall be galvanized conforming to Section M-10.30 (a) of the Construction and Material Specifications, and painted with one coat of red lead before lamp and sign standards are erected, and one coat after erection.

ELECTRICAL GROUNDS

Each lamp standard or sign support served by a wiring conduit, whether supported on a wall or a separate concrete foundation, shall have attached inside to a ground lug #4AWG bare copper ground cable, which shall extend out through the conduit, and be exothermic welded to a 5/8" diameter x 8-foot copper-covered steel ground rod.

Each pad-mounted transformer shall be grounded with three # 4AWG bare copper ground cables; one cable exothermic welded to the transclosure shell, and the other two cables grounding the electrical equipment as shown on the plans.

LUMINAIRES

The luminaires shall be 400 watt mercury vapor or 200 watt fluorescent as called for in the plans and shall be designed to operate in a horizontal position.

The mercury vapor housing shall be an aluminum unit having a two-piece design. A single piece forms the upper half of the luminaire assembly. The lower half, or refractor holding ring, shall be hinged on the house side and detachable from the upper housing from the street side. The refractor ring latching mechanism shall be on the street side. The housing shall present a pleasant streamlined appearance.

Fluorescent luminaires for underpass lighting shall have an aluminum housing mounted on adustable brackets to position the luminaire as required by field conditions. A side hinged acrylic plastic cover assembly shall be gasketed with neoprene to effectively seal the optical system. A readily removable Alzak aluminum reflector shall permit access to ballast and interior wiring.

All ballasts shall be enclosed in the luminaire housings.

Each bidder shall submit with his bid, descriptive literature which adequately describes and identifies the exact type of luminaires being bid under this specification.

ACCESSORIES

All accessories not specifically mentioned herein or called for on the plans, but which are required for first-class installation, shall be furnished and placed and shall be considered as paid for as part of the payment for this installation.

SUBSTITUTIONS

Substitutions of materials or equipment for that called for on the plans or in these specifications may be made if the substituted materials or equipment are equal or superior to those specified, and if approved by the Director. All applications for substitutions must be accompanied by a catalog cut, drawing or other suitable descriptive information which fully identifies the material to be substituted.

WORKMANSHIP

All workmanship shall be in accordance with the best standards of the electrical trade and blend in an orderly fashion with the surroundings. A first-class installation shall include a neat and clean appearance as well as proper functioning of equipment.

TEST AND FINAL ACCEPTANCE

All current carrying, switching and power consuming devices shall be tested after placement and before the device becomes part of an operable circuit.

The Contractor shall furnish all necessary test equipment and arrange for any power supply to this equipment, at his expense without addition compensation.

LIGHTING & SIGNING (CONT.)

TEST AND FINAL ACCEPTANCE (Continued)

The Contractor shall test and demonstrate to the satisfaction of the Engineer the following:

a. That all lighting, power, and control circuits are continuous, and free of short circuits, and unspecified grounds.

b. That the resistance to ground of all non-grounded conductors is not less than 10 megohms.

c. That all circuits are connected in accordance with the applicable wiring diagrams.

d. That all circuits are operable, which demonstration shall include the operation of each control not less than five times, and the continuous operation of each circuit for a period of one normal lighting period.

e. Final ground test shall be made after the circuit has been energized for the tests above, See Note on Sheet 214 for Maximum Ground Resistance.

f. Copies of reports of the testing results shall be extended to the owner of the equipment before acceptance is complete.

METHOD OF MEASUREMENT

Conduit length shall be considered as the distance measured along the center line of the conduit from the center of pull box or pole to the center of pull box or pole.

Cable length in conduit shall be considered as the actual length between centers of pull boxes or poles and from the top of the pole foundation to the lamp, plus an additional ten (10) per cent for slack, connections, and expansion loop requirements.

BASIS OF PAYMENT

The various items listed in the estimate shall be paid for at the unit prices bid for the various items set forth in the General Summary. All labor, material, equipment and accessories not specifically mentioned or listed, but which are required for a first-class installation, shall be included in the unit price bid for pertinent item to which they apply.

DIRECT BURIAL CABLE INSTALLATION

The trench shall be dug and backfilled in accordance with the plans. The sand bed and the first course of backfill shall be free of rocks, stones or other rough material which might later injure cable insulation.

Cable shall be installed with slack and shall be a minimum of 30 inches deep. In no case shall cable be pulled into the trench from a reel.

In areas where the cable passes close to obstructions around which there may later be excavations, a wood plank shall be laid to warn of the presence of the cable. Splices are not permitted except in pull boxes or hand holes.

Rev 7-16-62

GENERAL NOTES

Rev. 8-30-62 JEW.

DRAINAGE

FED. RD. DIV.	STATE	PROJECT	FISCAL YEAR
2	OHIO		

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ITEM I-1 PIPES (LIN. FT.)

| Location Manhole or Catch Basin Number Designation as Shown on Plan & Profile | Sheet No. | Class A-1 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | Class B-1 Sec. M-G.G(d) | Class B-1 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | Class F-1 |
|---|---|---|---

DRAINAGE

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Location Manhole or Catch Basin Number Designation as Shown on Plan and Profile	See Sheet No.	ITEM I-2	ITEM I-8 (EACH)																				ITEM I-14	
		Masonry Cu. Yd.	Manhole A or P As Per Plan	Manhole A 5' Diameter As Per Plan	Manhole Drop Type A or P As Per Plan	Manhole Type D As Per Plan	Manhole Adjusted to Grade	Manhole Reconstructed to Grade	Remodel Bottom of Existing Manhole	Type A Catch Basin	Type A-2 Catch Basin	Type C Catch Basin	Type D Catch Basin	Type K Catch Basin	Type V Catch Basin	Catch Basin Adjusted to Grade	Sluice Gate Chamber No. 1 Complete As Per Plan	Junction Chamber No. 1 As Per Plan	Junction Chamber No. 2 As Per Plan	Junction Chamber No. 3 As Per Plan	Junction Chamber No. 4 As Per Plan	Remodel Bottom of Existing Catch Basin	Lin. Ft. Paved Gutter Type 1	Lin. Ft. Paved Gutter Type 2, Modified As Per Plan
1A & 1B to 1 & 24A	50,51														1	2								
5A & 5B to 5 to 4; 4A & 4B to 4 to 3, 3A to 3 to 2	50,51,91		3							2	2		1											
7D to 7C to 7; 7A & 7B to 7 to 6 & 6A to 6 to 3	51,91		2							1	1		2	1										
9A to 9 to 10; 10A to 10 to 11, 11A to 11 to 8, 8A to 8 & 6	51,91		4							1														
13A to 13 & 12 to 8; 21A & 21 & 20, 20A & 20B to 20 to 8	51,54,91		4								1		2											
15A & 15B to 15 to 14; 14A & 14B to 14 to 13	54,56,91,92		2								1	2												
17A & 17B to 17 to 16; 16A & 16B & 16C to 16 to 15	54,92		2									2												
19A & 19B to 19 to 18; 18A to 18 to 17	54,92		2									2												
35A to 35 to 36; 36A to 36 to 37	54,96		3																					
37A & 37B to 37 to 38 to 34	54,65,96		1			1							1											
22A & 22B & 22C & 22D to 22	56						1			1	2			1										
23A, 23B & 23C to 23	56						1			1	2													
28A & 28B to 28 to 25; 26 to 25 to 25A	56,59,93,97	1.8	1			1						1						1						
30A to 30 to 28; 29A & 29B & 29C to 29 to 28	54,59,93		1			1					1	2	1											
33A to 33B to 33; 33C to 33 to 32	59,65,93		2							2		1												
32B to 32A to 32 to 31; 31B to 31A to 31 to 30	54,59,65		1							1				2										
34D to 34C to 34; 34B to 34A to 34 to 30	65,93									1		1		1										
44C to 44B to 44; 44A to 44 to 43	65,96		2							1		2												
43A to 43 to 42; 42A to 42B to 42 to 41	65,96		2								1												157	
46A to 46 to 45; 45A & 45B to 45 to 41	65,75,96		2																				55	
41A & 41B to 41 to 40; 40A, 40B & 40C to 40 & 39	65,70,94,96					2							1											
39A to 39 to 34	65,94												1											
84A, 84B & 84C to 84 to 83	59,65,100		2								1		1											
85D to 85A to 85; 85B & 85C to 85 to 83	65,100		1							1				1										
83A, 83B & 83C to 83 to 82 to 77	58,62,99,100		1							1			1						1					
51A & 51B to 51 to 50 to 40	65,70,94					2																		
81A & 81B to 81 to 80; 80A & 80B to 80 to 77	59,98		2							3	1													
79A & 79B to 79 to 78; 78A & 78B to 78 to 77	57,59,62,99		2							3			1										130	
77 to 76 to 74; 75A, 75B & 75C to 75 to 74	56,59,98,99		2									2	1				1							
74A, 74B & 74C to 74 to 73; 73C to 73B & 73A to 73 to 71	57,98		1					1		1	2		2	1									159	
72 to 71; 72 to 72A	57,98	0.5							1															
77 to 27 to 26	59,97		1																					
88 to 87, 87A to 87 to 86; 86A & 86B to 86 to 82	62,99		2	1						1		1											110	187
91 to 90 to 89 to 88; 90A to 90	62,75,95		2				1		1															
49A & 49B to 49 to 48; 48A & 48B to 48 to 47	75,96		3																				71	
47A & 47B to 47 to 46	75,96																						50	
95A to 95 to 94; 94A to 94 to 93	75,100		3																					
93A to 93B to 93 to 92 to 88	62,99				1					1				1										
98A to 98 to 97; 97A to 97 to 96 to 93	62,75,99,100		3																					
99 to 96, 96A to 96B to 96	62,75,99						1		1			2												
102A to 102 to 101; 101A to 101 to 100	75,99		2						1															
53 to 52; 52A & 52B to 52 to 51	70,94		2							1														
54A, 54B, 54C & 54D to 54 to 53	70,94		1							1														
56A & 56B to 56 to 53, 55A & 55B to 55 to 53	70,94		1								2									1				
66 to 56; 57A to 57 to 56	70,94,95		2																1					
59A, 59B & 59C to 59 to 58; 58A & 58B to 58 & 57	70,95		2							1														
61A to 61 to 60, 60A to 60 to 59	70,95		2										1											
64 to 63 to 62 to 58	70,72,95		3																					
64A, 64B & 64C to 64; 65A & 65B to 65 to 63	70,72,95						1				5													
116A, 116B & 116C to 116 to 103; 103A to 103	78,82,102		1			1				2	1		1										241	
104C to 104A to 104; 104B to 104 to 103	78,82,101					1				1				1	1									
108 to 105; 105A & 105B to 105 to 104	78,101					2				1	1													
107A & 107B to 107 to 106; 106A, 106B & 106C to 106 to 105	78,101		2										1										196	
108D to 108A to 108C to 108B to 108	78,84									1				2	1									
112 to 110; 111 to 110 to 109 to 108	84,101					2	1		1										1					
114A, 114B & 114C to 114 to 113; 113A & 113B to 113 to 109	84,101		2							1	1		3										266	
115 B & 115A to 115 to 114	84,86,101		1							1			1											
118A to 118 to 117; 117A to 117 to 116	78,102		2							1			1											
119A & 119B to 119 to 118; 120A to 120 to 118	78,102		2							1	1		1										280	
122A & 122B to 122 to 121; 121A to 121 to 120	78,86,88,102		2							1	1	1												
123B to 123A to 123 to 122	78,84,86,88,102		1								1	1												
125A & 125B to 125 to 124; 124A & 124B to 124 to 123	86,88,102		2							1	2		1											
126 & 126A; 127	72,56						2									1								
From General Notes																								
Totals to General Summary		3	89	1	1	13	8	1	5	36	30	20	25	11	3	3	1	1	1	1	1	1	1252	650

SUMMARY OF QUANTITIES

FED. RD. DIV.	STATE	PROJECT	FISCAL YEAR
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UNDERDRAINS

Symbol Designation on Plan	Location Station to Station U-UG	Side	See Sheet No.	6" Pipe, Class I-3 Item I-1, Lin. Ft.	6" Pipe, Class F-1 Item I-1, Lin. Ft.	8" Pipe, Class F-1 Item I-1, Lin. Ft.	Pipe Specials Class F-1, Item I-5 6" 6"×6"×60° Bends, Each	6" 6"×6"×90° Bends, Each	8" 8"×6"×6" Wyes, Each
U-1	Ramp A 22+46A to 23+45A	Lt.	50,51	99					
U-2	Ramp A 23+48A to 25+45A	Lt.	51	212	10				
U-3	Ramp A 25+75A to 28+10A	Rt.	51	225	10				
U-4	W.B.Exp. 22+48 to 23+60	Lt.	50,51	112					
U-5	W.B.Exp. 23+64 to 25+58	Lt.	51	170	20		1		
U-6	W.B.Exp. 25+61 to 27+50	Lt.	51	179	10		1		
U-7	W.B.Exp. 22+52 to 24+50	Rt.	50,51	196	15		1		
U-8	W.B.Exp. 24+46 to 27+73	Rt.	51	313	24		1		
U-9	E.B.Exp. 22+52 to 24+31	Lt.	50,51	184					
U-10	E.B.Exp. 24+35 to 26+09	Lt.	51	155	15'				
U-11	E.B.Exp. 26+13 to 27+75	Lt.	51	152	10				
U-12	E.B.Exp. 22+47 to 23+30	Rt.	50,51	83			1		
U-13	E.B.Exp. 25+31 to 27+90	Rt.	51	254	10		1		
U-14	W.B.Exp. 29+23 to 30+98	Lt.	54	170	10		1		
U-15	W.B.Exp. 29+23 to 31+07	Rt.	54	180	58			1	
U-16	E.B.Exp. 29+35 to 29+65	Lt.	54	30					
U-17	E.B.Exp. 29+65 to 31+08	Lt.	54	143					
U-18	E.B.Exp. 29+65		54			48		1	
U-19	Ramp FA 33+26FA to 35+09	Lt.	54,65	163	20		1		
U-20	W.B.Exp. 34+05 to 36+90	Lt.	54,65	265	20		1		
U-21	W.B.Exp. 33+35 to 34+60	Rt.	54,65	125	10				
U-22	E.B.Exp. 33+35 to 36+95	Lt.	54,65	360					
U-23	Ramp FA 35+09FA to 35+41FA	Lt.	65	23	10		1		
U-24	Ramp FA 35+45FA to 37+13FA	Lt.	65	158	10		1		
U-25	W.B.Exp. 36+90 to 38+58	Lt.	65	148	20		1		
U-26	W.B.Exp. 38+60 to 40+32	Lt.	65,75	162	10		1		
U-27	W.B.Exp. 34+63 to 36+09	Rt.	65	136	10				
U-28	W.B.Exp. 36+13 to 36+60	Rt.	65	37	10				
U-29	W.B.Exp. 36+60 to 40+58	Rt.	65,75	378	20				
U-30	E.B.Exp. 36+95 to 40+58	Lt.	65	363					
U-31	E.B.Exp. 36+95		65			36			1
U-32	E.B.Exp. 34+58 to 36+95	Rt.	65	230	8		1		
U-33	E.B.Exp. 36+95 to 39+00	Rt.	65	202	8		1		
U-34	E.B.Exp. 39+03.5 to 40+75	Rt.	65,75	170	8		1		
U-35	Coll. Dist. 35+05CD to 36+62 CD	Rt.	59,65	142	16		1		
U-36	Coll. Dist. 36+60 CD to 37+95CD	Lt.	59,65	124	13				
U-37	Coll. Dist. 38+00 CD to 40+80CD	Lt.	59,65,75	260	20				
U-38	Coll. Dist. 36+68FB to 39+40FB	Rt.	59,65	252	20				
U-39	Ramp FB 34+51FB to 36+63FB	Rt.	59,65	202	10				
U-40	Ramp FB 34+08FB to 34+51FB	Rt.	59	33	10				
U-41	Ramp FB 32+04FB to 34+05FB	Rt.	57,59	191	10				
U-42	Ramp FB 30+65FB to 32+00FB	Rt.	57,59	125	10				
U-43	Ramp FB 30+95 FB(S) to 31+67FB(S)	Lt.	57,59	62	10				
U-44	Ramp FB 31+67FB(S) to 32+00FB		57,59		50		1		
U-45	Ramp FC 39+44 FC to 41+67FC	Lt.	59,65,75	203	20				
U-46	Ramp FC 41+67FC to 43+05FC	Lt.	62	128	10				
U-47	Ramp FC 43+53 FC to 43+79FC	Lt.	62	16	10				
U-48	Ramp FC 43+79FC to 45+10 FC	Lt.	59,62	121	10				
U-49	Ramp FC 44+38 FC (S) to 45+18FC(S)	Rt.	59,62	70	10				
U-50	Floodwall @ Ramp FB	Lt.	57,59	212					
U-51	Floodwall @ Ramp FB	Lt.	59		90		1		
U-52	Floodwall @ Ramp FC	Rt.	57,62	272					
U-53	Floodwall @ Ramp FC		57,62		32	38	1		1
U-54	W.B.Exp. 49+15 to 52+57	Lt.	78,84	340	8		1		
U-55	W.B.Exp. 52+57 to 54+33	Lt.	78,84,86	174	8		1		
U-56	W.B.Exp. 49+03 to 52+60	Rt.	78,86	357					
U-57	W.B.Exp. 52+60 to 55+72	Rt.	78,86	312					
U-58	W.B.Exp. 52+60 E.B.	Rt.	78,86			18			1
U-59	E.B.Exp. 48+98 to 50+50	Lt.	78	142	10				
U-60	E.B.Exp. 50+54 to 52+60	Lt.	78,86,88	196	10		1		
U-61	E.B.Exp. 48+86 to 52+70	Rt.	78,86,88	360	28		1		
U-62	Ramp LB 48+08 LB to 51+00 LB	Lt.	78	272	20				

UNDERDRAINS (CONT'D)

Symbol Designation on Plans	Location Station to Station U-UG	Side	See Sheet No.	6" Pipe, Class I-3 Item I-1, Lin. Ft.	6" Pipe, Class F-1 Item I-1, Lin. Ft.	8" Pipe, Class F-1 Item I-1, Lin. Ft.	Pipe Specials Class F-1, Item I-5 6" 6"×6"×60° Bends, Each	6" 6"×6"×90° Bends, Each	8" 8"×6"×6" Wyes, Each
U-63	Ramp LB 51+12 LB to 53+27 LB	Rt.	78,86,88	195	20				
U-64	Ramp LB 53+31 LB to 55+89 LB	Rt.	86,88	248	10				
U-65	Ramp LB 55+93 LB to 57+80 LB	Rt.	86,88	177	10				
U-66	E.B.Exp. 52+70 to 55+37	Rt.	86,88	255	18		1		
U-67	E.B.Exp. 52+60 to 55+48	Lt.	78,86,88	271	20		1		
U-68	E.B.Exp. 55+50 to 57+25	Lt.	86,88	168	10		1		
U-69	W.B.Exp. 55+75.5 to 57+25	Rt.	86,88	140	10				
U-70	Ramp LA 54+05 LA to 57+25 LA	Lt.	86	310	10				
U-71	Ramp LA 51+48 LA to 54+01 LA	Lt.	84,86	243	10				
U-72	Ramp LA 49+19 LA to 51+44 LA	Lt.	84	215	10				
U-73	Ramp LA 48+57 LA(S) to 51+00 LA(S)	Rt.	84	233	10				
	Totals to General Summary			12,798	929	140	27	2	3

DRAINAGE

Location Manhole or Catch Basin Number Designation as Shown on Plan & Profile	See Sheet No.	ITEM I-8 (EACH) Manhole A or P As Per Plan	Type A Catch Basin	Type A-2 Catch Basin	ITEM I-1 PIPES (LIN. FT.) Class A-1 Sec. M-6.6(b) or Sec. M-6.8(b) 12"	15"	21"	24"	Sec. M-6.8(a) Encased 6"	Sec. M-6.6(c) 18"	ITEM I-5 PIPE SPECIALS (EACH) Class B-1 18"×6" Tee Branch	21"×6" Tee Branch	24"×6" Tee Branch
100 % CITY													
70A & 70B to 70 to 69 & 69D	73,97	2	1		47	20			20	165	1		
69A, 69B & 69C to 69 to 68 & 68D	73,97	1	1	1	63	20	174		20			1	
68A, 68B & 68C to 68 to 67 & 67D	73,94	1	2		68	20		166	20				1
67A, 67B & 67C to 67 to 66	73,94		2		90	20		67					
Totals to General Summary		4	6	1	268	80	174	233	60	165	1	1	1

FENCING

Station to Station U-UG	Side	See Sheet No	Std. Type "C" 5' High	Gate Type "C" 14' Double Opening
22+42 EB Exp. to 23+39 EB Exp.	Rt.	422	110	
22+46.5 A to 28+12A	Lt.	422,424	602	
25+97 EB Exp. to 28+02 EB Exp.	Rt.	423	311	1
27+54 WB Exp. to 28+00 A	Lt.	424	46	
27+76 EB Exp. to 27+81 EB Exp.	Lt.	424	16	
29+01 WB Exp. to 31+02 WB Exp.	Lt.	424,425	434	1
29+22 EB Exp. to 29+27 EB Exp.	Lt.	425	14	
31+07 EB Exp. to 31+08 EB Exp.	Lt.	425	11	
33+27 EB Exp. to 33+28.5 EB Exp	Lt.	425	13	
33+21 WB Exp. to 41+21 WB Exp.	Lt.	425,428, 429,433	999	
34+26 CD to 33+50 FB	Rt & Lt.	425,427	469	
48+04.98 LB to 12+30 L	Rt.	436,437	389	
49+39.12 LB to 58+08 LB	Rt.	436,438	937	
48+85.5 LA to 58+18 LA	Lt.	437,439	962	
Totals to General Summary			5313	2

SUMMARY OF QUANTITIES

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REMOVAL E-12 & ABANDON I-16

Designation Shown on Plan Sheet	Location U-UG	See Sheet No.	Item E-12 Removal of Pipe Lin. Ft. 24" Diam. or smaller	Item E-12 Removal of Pipe Lin. Ft. Larger than 24" Dia.	Item I-16, Catch Basins Abandoned Each	Item I-16, Man-holes Abandoned Each
M-1	Under E.B. Expwy Sta. 22+66 E.B. 10'R	50				1
M-2	Under E.B. Expwy Sta. 23+83 E.B. 9'R	51				1
M-3	Under E.B. Expwy Sta. 26+31 E.B. 13'R	51				1
C-1	Under E.B. Expwy Sta. 23+89 E.B. 2'R	51			1	
C-2	Under E.B. Expwy Sta. 23+90 E.B. 20'R	51			1	
C-3	Under E.B. Expwy Sta. 26+40 E.B. 5'R	51			1	
C-4	Under E.B. Expwy Sta. 26+51 E.B. 44'R	51			1	
C-5	Under E.B. Expwy @ Harriet St.	51,54			1	
C-6	Under E.B. Expwy @ Harriet St.	51,54			1	
C-7	Under E.B. Expwy @ Harriet St.	51,54			1	
P-1	Under E.B. Expwy Sta. 23+86 E.B. 6'R	51	10			
P-2	Under E.B. Expwy. Sta. 26+35 E.B. 8'R	51	10			
M-4	South of E.B. Expwy Sta. 31+38 E.B. 55'R	54				1
M-5	South of E.B. Expwy Sta. 31+94 E.B. 60'R	54				1
M-6	South of E.B. Expwy Sta. 32+60 E.B. 65'R	54,56				1
M-7	Under E.B. Expwy @ Carr St.	54,56,52,65				1
M-8	Carr St. @ E.B. Expwy	54,52,65				1
M-9	Carr St. @ E.B. Expwy	54,56,52				1
M-12	Under W.B. Expwy @ Carr St.	54,56,65				1
C-12	South of E.B. Expwy Sta. 31+37 E.B. 86'R	54			1	
C-13	South of E.B. Expwy Sta. 31+40 E.B. 48'R	54			1	
C-14	South of E.B. Expwy Sta. 32+16 E.B. 55'R	54			1	
C-15	South of E.B. Expwy Sta. 32+68 E.B. 68'R	54			1	
C-16	Under E.B. Expwy @ Carr St.	54,52,65			1	
C-17	Under E.B. Expwy @ Carr St.	54,52,65			1	
C-18	Sixth St. @ Carr St.	54,			1	
C-19	Sixth St. @ Carr St.	54,52,65			1	
C-20	Sixth St. @ Carr St.	54,52,65			1	
C-23	Under W.B. Expwy @ Carr St.	54			1	
C-24	Under W.B. Expwy @ Carr St.	54			1	
C-25	Under W.B. Expwy @ Carr St.	54			1	
P-4	South of E.B. Expwy Sta. 31+39 E.B. 51'R	54	7			
P-5	South of E.B. Expwy Sta. 32+64 E.B. 66'R	54	9			
M-10	Carr St. @ Sloo St.	56,52				1
M-11	Carr St. @ Sloo St.	56,52				1
C-8	Foot of Harriet St.	56			1	
C-9	Harriet St. @ Sloo St.	56			1	
C-10	Harriet St. @ Sloo St.	56			1	
C-11	Harriet St. Sta. 30+54A 5'L	56			1	
C-22	Carr St. @ Sloo St.	56,52			1	
P-3	Harriet St. Sta. 30+54A 3'L	56	6			
P-6	Carr St. @ Sloo St.	56,52	7			
M-15	Freeman Ave. Sta. 12+49 F 10'R	57				1
M-16	Freeman Ave. @ Sargent St.	57				1
M-17	Freeman Ave. @ Sargent St.	57				1
M-18	Freeman Ave. Sta. 15+62 F 16'R	57,52,62				1
M-19	Freeman Ave. Sta. 15+89 F 18'R	57,52,62				1
C-28	Freeman Ave. @ Sargent St.	57			1	
C-29	Freeman Ave. @ Sargent St.	57			1	
C-30	Freeman Ave. @ Sargent St.	57			1	
C-31	Freeman Ave. Sta. 15+79 F 10'L	57,52			1	
C-32	Freeman Ave. Sta. 15+83 F 24'L	57,52,62			1	
M-13	Ramp FB @ Collector - Distributor Rdwy	52,65				1
M-14	Ramp FB @ Collector - Distributor Rdwy	52,65				1
M-20	Freeman Ave. @ Sloo St.	52,62				1
M-21	Freeman Ave. @ Sloo St.	52				1
M-22	Freeman Ave. @ Sloo St.	52				1
M-23	Freeman Ave. @ Sloo St.	52,62				1
M-24	Freeman Ave. @ Sixth St.	52,62,65				1
M-25	Freeman Ave. @ Sixth St.	52,62,65				1
M-26	Freeman Ave. @ Sixth St.	52,65				1
C-26	Ramp FB @ Collector-Distributor Rdwy	52,65			1	
C-27	Ramp FB @ Collector-Distributor Rdwy	52,65			1	
C-33	Freeman Ave. @ Sloo St.	52,			1	

Designation Shown on Plan Sheet	Location U-UG	See Sheet No.	Item E-12 Removal of Pipe Lin. Ft. 24" Diam. or smaller	Item E-12 Removal of Pipe Lin. Ft. Larger than 24" Dia.	Item I-16, Catch Basins Abandoned Each	Item I-16, Man-holes Abandoned Each
C-34	Freeman Ave @ Sloo St.	52			1	
C-35	Freeman Ave. @ Sloo St.	52,62			1	
C-36	Freeman Ave. @ Sloo St.	52			1	
C-37	Freeman Ave. @ Sloo St.	52			1	
C-39	Freeman Ave. @ Sixth St.	52,62,65			1	
C-40	Freeman Ave. @ Sixth St.	52,65			1	
C-41	Freeman Ave. @ Sixth St.	52,62,65			1	
P-7	Sloo St. @ Ramp F B	52		95		
P-8	Sloo St. @ Freeman Ave.	52,62		260		
P-9	Freeman Ave. @ Sixth St.	52,65	10			
P-10	Freeman Ave. @ Sixth St.	52,62,65	14			
P-11	Freeman Ave. @ Sixth St.	52,62,65	11			
M-29	Pierson St. @ Ramp FC	62				1
M-30	Pierson St. @ Ramp FC	62				1
M-31	Pierson St. @ Ramp FC	62				1
M-32	Pierson St. @ Ramp FC	62				1
M-33	Pierson St. @ Sixth St.	62,75				1
M-34	Ramp FC Sta. 43+00 FC 26'L	62.				1
M-35	Sixth St. East of Ramp FC	62,75				1
M-36	Sixth St. East of Ramp FC	62,75				1
M-37	Sixth St. East of Ramp FC	62,75				1
C-47	Pierson St. @ Ramp FC	62			1	
C-48	Pierson St. @ Ramp FC	62			1	
C-49	Pierson St. @ Sixth St.	62,75			1	
C-50	Pierson St. @ Sixth St.	62,75			1	
C-51	Sixth St. East of Ramp FC	62,75			1	
C-52	Sixth St. East of Ramp FC	62,75			1	
C-53	Sixth St. East of Ramp FC	62,75			1	
C-54	Sixth St. East of Ramp FC	62,75			1	
P-17	Pierson St. @ Ramp FC	62	19			
P-18	Pierson St. @ Ramp FC	62	13			
P-19	Pierson St. @ Ramp FC	62,75	11			
P-20	Pierson St. @ Sixth St. @ E.B. Expwy	62,75		127		
P-21	Sixth St. East of Ramp FC	62,75	3			
P-22	Sixth St. East of Ramp FC	62,75	13			
M-27	Freeman Ave North of W.B. Expwy	65				1
M-28	Freeman Ave @ Barr St.	70				1
C-46	Freeman Ave @ Seventh St.	72			1	
P-15	Kenyon St. East of Jane St.	86	25			
P-16	Freeman Ave @ Seventh St.	72	8			
M-38	Sixth St. East of Ramp FC	75				1
C-55	Sixth St. East of Ramp FC	75			1	
C-61	E.B. Expwy @ Baymiller St.	75,78,82			1	
P-23	Sixth St. East of Ramp FC	75	9			
P-24	Under E.B. Expwy Sta. 41+80 EB 20'R	75		27		
P-25	Under E.B. Expwy Sta. 41+90 EB 5'R	75		20		
M-45	Sixth St. @ Baymiller St.	78,82				1
M-46	Sixth St. @ Baymiller St.	78,82				1
M-47	Sixth St. @ Baymiller St.	78,82				1
M-48	Sixth St. @ Linn St.	78,82				1
M-49	Sixth St. @ Ramp LB	78,82				1
M-50	E.B. Expwy @ Baymiller St.	78				1
M-51	Baymiller St. @ Hathaway St.	78				1
M-52	Baymiller St. @ Hathaway St.	78,84				1
M-53	Hathaway St. East of Baymiller St.	78,84				1
M-54	Hathaway St. @ W.B. Expwy	78,84				1
M-55	Hathaway St. Under W.B. Expwy	78,84				1
M-56	Hathaway St. Under E.B. Expwy	78,84,86,88				1
C-62	Sixth St. @ Linn St.	78,82			1	
C-63	Sixth St. @ Linn St.	78,82			1	
C-64	Sixth St. @ Ramp LB	78,82			1	
C-65	Baymiller St. @ Wingate Al.	78			1	
C-66	Baymiller St. @ Wingate Al.	78			1	

Designation Shown on Plan Sheet	Location U-UG	See Sheet No.	Item E-12 Removal of Pipe Lin. Ft. 24" Diam. or smaller	Item E-12 Removal of Pipe Lin. Ft. Larger than 24" Dia.	Item I-16, Catch Basins Abandoned Each	Item I-16, Man-holes Abandoned Each
C-67	Baymiller St. @ Wingate Al.	78			1	
C-68	Baymiller St. @ Hathaway St.	78,84			1	
C-69	Baymiller St. @ Hathaway St.	78,84			1	
C-70	Baymiller St. @ Hathaway St.	78,84			1	
C-71	Baymiller St. @ Hathaway St.	78,84			1	
C-72	Hathaway St. @ W.B. Expwy	78,84			1	
C-73	Hathaway St. Under W.B. Expwy	78			1	
C-74	Hathaway St. Under W.B. Expwy	78,84			1	
P-27	Sixth St. @ Linn St.	78,82	14			
P-28	Sixth St. @ Linn St.	78,82	18			
P-29	Sixth St. @ Ramp LB	78,82	8			
P-30	Baymiller St. @ Wingate Al.	78	12			
P-31	Baymiller St. @ Wingate Al.	78	13			
P-32	Baymiller St. @ Hathaway St.	78,84	20			
P-33	Baymiller St. @ Kenyon St.	78,84		170		
M-57	Baymiller St. @ Kenyon St.	84				1
C-75	Baymiller St. @ Kenyon St.	84			1	
C-76	Baymiller St. @ Kenyon St.	84			1	
P-34	Baymiller St. @ Kenyon St.	84	13			
P-35	Baymiller St. @ Kenyon St.	84	10			
M-58	Jane St. Under Ramp LB	86,88				1
M-59	Jane St. Under E.B. Expwy	86,88				1
M-60	Jane St. Under W.B. Expwy	86				1
M-61	Kenyon St. (End)	86				1
M-63	Temp. E.B. On Ramp	86,88				1
C-77	Jane St. Under W.B. Expwy	86			1	
C-78	Jane St. @ Kenyon St.	86			1	
C-79	Kenyon St. (End)	86			1	
C-80	Temp. W.B. Off Ramp	86,88			1	
C-81	Temp. E.B. On Ramp	86,88			1	
P-36	Jane St. Under W.B. Expwy	86	6			
P-37	Temp. W.B. Off Ramp	86,88	46			
P-38	Temp. E.B. On Ramp	86,88	28			
M-62	Sixth St. @ Jane St.	88				1
C-82	Sixth St. @ Jane St.	88			1	
C-83	Sixth St. @ Jane St.	88			1	
C-84	Sixth St. @ Temp. Ramp Median	88			1	
C-85	Sixth St. @ Temp. E.B. On Ramp	88			1	
P-39	Sixth St. @ Jane St.	88	15			
P-40	Sixth St. @ Jane St.	88	7			
P-41	Sixth St. @ Jane St.	88	18			
TOTAL TO GENERAL SUMMARY			413	699	73	57
100 % CITY						
M-39	Kenyon St. @ Freeman Ave.	70				1
M-40	Kenyon St. East of Freeman Ave.	70,73				1
C-42	Freeman Ave @ Kenyon St.	70			1	
C-43	Freeman Ave @ Kenyon St.	70			1	
C-44	Freeman Ave. @ Barr St.	70			1	
C-57	Freeman Ave @ Kenyon St.	70			1	
C-58	Freeman Ave @ Kenyon St.	70			1	
P-12	Freeman Ave @ Kenyon St.	70	22			
P-13	Freeman Ave @ Kenyon St.	70	18			
P-14	Freeman Ave @ Barr St.	70	17			
M-41	Kenyon St. East of Freeman Ave	73				1
M-42	Kenyon St. West of Baymiller St.	73				1
M-43	Kenyon St. West of Baymiller St.	73				1
M-44	Kenyon St. West of Baymiller St.	73,84				1
C-59	Kenyon St. East of Freeman Ave.	73			1	
C-60	Kenyon St. East of Freeman Ave.	73			1	
P-26	Kenyon St. East of Freeman Ave.	73	10			
TOTAL TO GENERAL SUMMARY 100% CITY			67	0	7	6

SUMMARY OF QUANTITIES

FED. RD. DIV.	STATE	PROJECT	FISCAL YEAR
2	OHIO		

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WALLS

WALL NO.	Station to Station U-UG	Side	See Sheet No.	Item S-1 Class "E" Concrete Footing Cu.Yds.	Item S-1 Class "E" Concrete Wall Shaft Cu.Yds.	Item S-3 Waterproofing Premolded Sealing Strip Lin.Ft.	Item S-3 Type "B" Waterproofing Sq. Yds.	Item S-4 Reinforcing Steel Lbs.	Item S-9 1" Preformed Exp. Jt. Filler (Gray Songe Rubber) Sq.Ft.	Item S-14 Railing (Aluminum Rail & Supports Concrete Parapet and End Posts.) Type "A" Lin.Ft.	Item S-14 Railing (Aluminum Rail & Supports Concrete Parapet and End Posts.) Type "C" Lin.Ft.	Item S-16 First Test Pile Lump Sum	Item S-18 Bearing Piles Steel H Piles 10BP42 Lin.Ft.	Item S-18 Bearing Piles Steel H Piles 12BP53 Lin.Ft.	Item S-29 Porous Backfill Cu.Yds.	Item S-29 Sec. M-6.4(h-c) 8" Bituminous Coated Helical Corr. Metal Pipe (Incl. Specials and Sand) Perforated Lin. Ft.	Item S-29 Sec. M-6.4(h-c) 8" Bituminous Coated Helical Corr. Metal Pipe (Incl. Specials and Sand) Non-perf. Lin. Ft.	Item S-29 Sec. M-6.6(a) 12" Reinf. Conc. Sewer Pipe Lin. Ft.	Item E-2 Cofferdams Cribs and Sheeting Lump Sum	Item E-2 Steel Sheet Piling Left in Place, As Per Plan Sq. Ft.	Item E-2 Unclassified Excavation Cu. Yds.	Item I-8 Inlet Frame and Grating Furnished & Placed Type A-2 Each	Item I-8 Inlet Frame and Grating Furnished & Placed Type "V" Each	Item T-71 9" Reinf. Portland Cem. Conc. Pavement, As Per Plan Sq. Yds.	Item Special Flood Gate Unit & Flood Gate Storage House Freeman Ave. Lump Sum
3	29+08.3EB to 31+57.7 CD	Rt.	234	358	509	250		120,302	268	165				6860	494	160		4	Lump		830	1		5	
4	33+09.5CD to 34+80 CD	Rt.	234	205	274	102	11	53,077	125	136				3100	253	132		4	Lump	200	540				
5	23+30EB to 25+25.73EB	Rt.	235	104	94	38		10,333	27	196					52	196	4		Lump		400				
6	35+25WB to 37+35.04WB	Lt.	238	64	75	36		4,395	19						50	206		4			225		1		
7	36+16EB to 40+80.41EB	Lt.	241	115	123	82		7,932	57						79				Lump		215				
8	41+22.78WB to 40+32.45WB	Lt.	242	105	125	55		13,507	56			Lump	960		75	108		12	Lump	400	385		2		
9	42+74.72EB to 41+82.55 EB	Rt.	245	298	292	127	2	52,180	130				3320		200	200		8	Lump	1245	2116		2		
10	25+82.1F to 26+94.2F	Rt.	249	181	207	87		27,868	106		112			2574	150	112			Lump	897	501				
12	11+35L (at Exist. Flood Wall)	Lt.	188	2	6			822	39												15				
	Total to General Summary			1432	1705	777	13	290,416	827	497	112	Lump	4,280	12,534	1353	1114	4	32	Lump	2742	5227	1	5	5	
	100% City																								
11	42+94.88K to 46+25.70K(E.B.)	Rt.	253	263	241	110		23,359	63	330			3724		200	338			Lump		750				
	Total to General Summary			263	241	110		23,359	63	330			3724		200	338			Lump		750				

See Sheet No. 257 to 264

MAINTAINING TRAFFIC

Lump Sum

ITEM E-11 WATER

U-UG	1000 Gal.
345,300 Cu.Yd. Emb. @ 0.005 M.Gal./Cu.Yd.	1726.6
9908 Cu.Yd. I-22 "	49.6
422 Cu.Yd. I-18 "	2.1
Total to General Summary	1778.3
100% CITY	
4960 Cu.Yd. Emb. @ 0.005 M.Gal./Cu.Yd.	24.8
989 Cu.Yd. I-22 "	4.9
Total to General Summary	29.7

ITEM S.S. CE-101.04 COMPACTION USING HEAVY PNEUMATIC TIRED ROLLER

U-UG	Sheet No.	Hours
Compacted Subgrade 59,609 Sq.Yd ÷ 2,000 Sq.Yd./Hr.	34	30
100% CITY		
Compacted Subgrade 5,729 Sq.Yd. ÷ 2,000 Sq.Yd./Hr.	34	3

ITEM S-22 REMOVAL OF PORTIONS OF EXISTING STRUCTURES — LUMP SUM

Location Station	Side	See Sh. No.	Type Construction	Approx. Height	Approx. Length
47+13K	Lt. & Rt.	73 & 169	Reinf. Concrete Floodwall	Varies	70'

ITEM S-24 REMOVAL OF EXISTING STRUCTURES LUMP SUM

Location Station	Side	See Sh. No.	Type of Construction	Approx. Height	Approx. Length
39+25K	Left	70	Concrete R.R. Bumper	4'	8'

SUMMARY OF QUANTITIES

FED. RD. DIV.	STATE	PROJECT	FISCAL YEAR
2	OHIO		

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STREET NAME	SHEET NO.	LOCATION	Item E-8 Removal and Disposal of Exist. Pavement Sq. Yds. U-UG	100% City	Removal & Disposal of Exist Curb, Curb & Gutter or Header Curb Lin. Ft. U-UG	100% City
Sixth St.	50	Sta. 22+42 E.B. to Sta. 23+00 E.B.	258		116	
Sixth St.	51	Sta. 23+00 E.B. to Sta. 24+50 E.B.	667		300	
Sixth St.	51	50'± W. of Harriet to E. Curb Harriet	375		115	
Sixth St.	54	*E. Curb Harriet to E. Curb Carr	1432		483	
Harriet St.	56	Sixth to Front	1018		705	
Sloo St.	56	Harriet to 37' E. of Harriet	103		84	
Carr St.	56	*Sixth to Sloo	30		190	
Freeman Ave	57	Sta. 12+00F to Sta. 13+60F	640		320	
Sargent St.	57	33'± W. of Freeman to 163' W. of Freeman	435		130	
Sloo St.	59	76'± E. of Carr to 106'± E. of Carr	80		60	
Sixth St.	59	*Carr St. East to proposed fill slope	80		75	
Sixth St.	59	South 25' of pav't. 95'± W. of Freeman to 49'± E. of Freeman	444		120	
Freeman Ave	59	Sixth to 82'± S. of Sixth	335		178	
Sixth St.	75	Sta. 25+85.05 T. to Sta. 28+80± S.T.	1283		560	
Freeman Ave.	65	170' N. of Sixth to R.R. Overpass	275		145	
Kenyon St.	70	Freeman to 87' E. of Freeman		365		180
Freeman Ave.	70	* B.&O.R.R. Crossing to Barr		340		300
Freeman Ave.	70	* Barr (proposed curb line) to Seventh	565		236	
Seventh St.	72	Freeman to 86' W. of Freeman			93	
Seventh St.	72	Freeman to 58' E. of Freeman			65	
Freeman Ave.	72	Seventh to 112' N. of Seventh			100	
Kenyon St.	73	87' E. of Freeman to Baymiller		2600		1250
Sixth St.	62	North 30'± of pav't. 125'± E. of Freeman to 245'± E. of Freeman	400		120	
Sixth St.	78	B.&O.R.R. Crossing to Sta. 49+08 S.	1355		345	
Wingate Alley	78	10' E. of Baymiller to 135' E. of Baymiller	200		250	
Wingate Alley	78	Sta. 50+50 E.B. to Sta. 52+50 E.B.	310		400	
Hathaway St.	78	10' E. of Baymiller to 215' E. of Baymiller	550		410	
Baymiller St.	78	Sixth to 90' N. of Sixth	600		190	
Baymiller St.	78	West ½ of pav't. 90' N. Sixth to 50' N. of N. Curb Hathaway	420		220	
Baymiller St.	82	*Sta. 8+00L to Sixth	150		35	
Baymiller St.	84	*50' N. of Hathaway to Temp. Conn. to Seventh	690		260	
Kenyon St.	84	*Baymiller to 160' E. of Baymiller	472		260	
Linn St.	84	Kenyon to 110' S. of Kenyon	150		225	
Wingate Alley	86	Jane to 110' W. of Jane	170		220	
Jane St.	86	Kenyon to 40' S. of Kenyon	100		90	
Kenyon St.	86	Limited Access Line East to end of exist. pav't.	530		280	
Jane St.	88	N. Curb Wingate to Sixth	265		235	
Exist. Temp. Conn. to Sixth	86&88	W.B. Off Ramp	1568			
Exist. Temp. Conn. to Sixth	86&88	E.B. On Ramp	1213			
Totals to General Summary			17170	3305	7615	1730

NOTE: All locations are from the nearest curb line unless otherwise indicated.

Portions of existing pavement and curb to be removed that are within the limits of "Item E-2 Unclassified Excavation" for Walls and Structures are not included with these quantities.

* See Grade Detail Sheets for portions of this pavement that are to remain.

SUMMARY OF QUANTITIES

FED. RD. DIV.	STATE	PROJECT	FISCAL YEAR
2	OHIO		

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EXCAVATION & EMBANKMENT

Location	Station to Station	See Sheet No.	Item E-1 Roadway Excavation & Embankment							Item E-4 Borrow		
						CELLAR VOLUMES						
			Roadway Excavation Cu. Yds.	Embankment Cu. Yds.	Embankment +15 %	Deduct from Cut Cu. Yds.	Add to Fill Cu. Yds.			Borrow Cu. Yds.	Bank-Run Gravel Cu. Yds.	
U.-UG												
Exp.	23+42 to 27+50	128,129	3,040	16,800								
Exp.	29+50 to 33+35.7	130,131	300	24,020								
Exp.	33+35.7 to 37+50	132,133	1,480	51,170								
Exp.	37+50 to 41+50	135-137	4,780	58,380								
Exp.	41+50 to 42+00	138	450	2,550								
Exp.	48+72 to 51+00	139,140	1,450	27,820								
Exp.	51+00 to 54+00	141,142	480	16,420								
Exp.	54+00 to 58+00	144-147	950	7,460								
Ramp A-Harriet St.	28+00A to 33+50A	148,149	1,220	7,420								
Ramp LA	49+32LA to 53+00LA	150,151	5,630	550								
Freeman Ave.	12+00F to 16+08F	152,153	410	11,040								
Freeman Ave. Access Dr.(Rt.)	Sta. 16+08F	154	150	1,760								
Freeman Ave. Earth Bench (Lt.)	Sta. 16+08F	154	10	490								
Freeman Ave.	16+12 F to 18+50F	155-160	460	73,360								
Freeman Ave.	18+50F to 18+71.3 F	161	120	3,980								
Freeman Ave.	24+49F to 26+50F	162,163		3,310								
Freeman Ave	26+50F to 30+00 FT	164,165	180	3,920								
Sixth St. West of Linn St.		170	540	80								
Linn St.	7+50L to 12+00L	171,172	1,090	7,630								
Linn St.	12+00L to 15+00L	173,174	2,860	900								
* Ramp FA	36+99FA to 37+90FA	67	3,960	3,960								
*Freeman Ave.	18+15 F to 19+22 F	60	6,890	6,890								
* Exp.	40+32 to 41+41	76&77	8,170	8,170								
*Exp.	48+24 to 49+06	79&80	7,220	7,220								
			51,840	345,300								
Cellar Volumes		175	- 3,770	+29,180		3770	29,180					
			48,070	374,480	430,652							
					- 48,070							
Estimated Quantity of Material Unsuitable for Embankment Purposes =					+ 26,240							
Totals to General Summary			48,070							408,822	500	

* These volumes are for the areas located at the South and West Abutments of Bridge No. HAM-50-2007 and at Abutment A and B of Bridge No. HAM-50-2012 R&L labeled "Remove and Replace with Suitable Material under Item E-1" (as shown on the bridge site plans and the roadway profile and cross section sheets)

100% CITY

Freeman Ave.	24+49F to 26+50F	162,163	370		
Kenyon St.	38+30K to 43+00K	166,167	2,450	520	
Kenyon St.	43+00K to 47+11.5K	168,169	470	4,440	
			3,290	4,960	5,700
					-3,290
Totals to General Summary			3,290							2410	100	

SUMMARY OF QUANTITIES

FED. RD. DIV.	STATE	PROJECT	FISCAL YEAR
2	OHIO		

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PAVEMENT

Location	Station to Station	See Sheet No.	Item T-71 Reinforced Portland Cement Concrete Pavement	Item T-70 Plain Portland Cement Concrete Pavement		Item B-70 Portland Cement Concrete Base Course Cl. "D" Conc.	Item I-22 Subbase 6" Min.		Item T-31 Bituminous Surface Treatment		Item B-21 Water-proofed Aggregate Base Course	Item B-112 Porous Base Course	Item I-18 Crushed Aggregate under Bridge Structures	Item T-35 Asphaltic Concrete Surface Course		Item B-35 Asphaltic Concrete Leveling Course		Item B-35 Sealing Vertical Face of Exist. Pavement	Item T-30 Bituminous Tack Coat @ 0.10 Gal. per Sq. Yd.	Item I-7 Reinforced Concrete Approach Slab	Item I-12 Concrete Curbs							Item I-13 Concrete Sidewalk	Item I-13 Concrete Steps	Item I-21 Portland Cem. Concrete Median Pav't.	Item I-21 Portland Cem. Conc. Traffic Island Pav't.	Item S-14 Handrail For Steps, As Per Plan
U-UG			Sq. Yds.	Sq. Yds.		Sq. Yds.	Cu. Yds.		Gal.	Cu. Yds.	Cu. Yds.	Cu. Yds.	Cu. Yds.	Sq. Yds.	Cu. Yds.	Sq. Yds.	Cu. Yds.	Lin. Ft.		Gal.	Sq. Yds.	Lin. Ft.							Sq. Ft.	Lin. Ft.	Sq. Yds.	Sq. Yds.	Lin. Ft.
			9"	9"	8"	8"	A or B	C or D	0.25 Gal. Per S.Y.	.008 C.Y. Per S.Y.	3"		6"	1¼"	Variable	1¾"	Variable	Lin. Ft.			13"	Type 2A	Type 4A	Type 6	Type 7A	Type 7B	Type 9	Type 10	Type 10A	4"		4"	Type "A"	
E.B. 6th St. Exp.	22+42 to 23+00	190	251				53		15.3	0.5	5.1	10.2										34		50									
W.B. 6th St. Exp.	22+47.8 to 23+00	190	235				55		22.2	0.7	7.4	14.8										49		16									
Ramp A	22+45.6 to 23+00	190	89				19		6.0	0.2	4.0	2.0												53			54						
E.B. 6th St. Exp.	23+00 to 27+56.10	190	1850				458		199.5	6.4	66.5	133.0									100			650				65					
W.B. 6th St. Exp.	23+00 to 27+48.00	190	2076				472		155.7	5.0	51.9	103.8									133			827				40					
Ramp A	23+00 to 28+12±	190	962				215		82.4	2.6	54.9	27.5												968			40						
Ramp A	28+12± to 30+87.65	190	1130		38			127					153											444					173				
Sixth St.	@ Wall No. 5	190																				166							581				
E.B. 6th St. Exp.	29+57.88 to 30+84.63 & 33+56.16 to 35+50	191	1056				265		81.2	2.6	27.1	54.1									361	98		292				60			33		
W.B. 6th St. Exp.	29+50.33 to 30+83.93 & 33+57.25 to 35+50	191	1527				413		134.3	4.3	44.8	89.6									411			444				85					
Ramp F.A.	33+51.5± to 35+50	191	354				85		38.6	1.2	20.2	18.4												167			142	20					
Coll.-Distr. Rdwy.	30+40.40 to 30+88.5± & 33+66.5± to 35+50	191	620				142		57.7	1.8	25.5	32.2												139				10					
Sixth St.	10+18.65 to 15+75.5(N)	191	1229		42	257		254						257	6	257	8	122	46					518	153			1255					
Harriet St. & Sloo St.	30+87.85A to 33+43A±	192	1167		37			203																460				1285					
Carr St. & Sloo St.	15+75.5(N) to 17+67± S(N)	192				183		67						183	17	183	25	170	78				24		190								
E.B. 6th St. Exp.	35+50 to 40+60.46	193	1409				400		201.7	6.5	67.2	134.4	35								183	25		1017				20					
W.B. 6th St. Exp.	35+50 to 40+56.11	193	1283				474		182.7	5.8	60.9	121.8	46								128			890				40					
Ramp F.A.	35+50 to 37+13.25	193	298				80		27.5	0.9	18.4	9.2	18								71			263			25	40					
Coll.-Distr. Rdwy.	35+50 to 40+89.5	193	966				197		53.6	1.7	35.7	17.9										15		548			68		20				
Ramp F B	29+70.60 to 38+81.41	194	2210				447		110.5	3.5	73.7	36.8										59		1267	189		135		20				
Sargent St.	10+30 to 12+51.38	194	991					174																	478				708				
Ramp F C	38+81.41 to 46+05.58	195	1982				396		90.5	2.9	60.3	30.2										51		1091	221				20				
Freeman Ave.	12+00 to 18+46.83	195	3555		123			640													161				802				5790		52		
Access Drive	15+83.3 (Rt.)	195			632																												
Freeman Ave.	26+03.89 Ft to 28+48.5± FT	196		1557				298					170								176	438						40	2666	192			38
Freeman Ave.	28+48.5± Ft to 30+00.19 FT	197				109		21						109	26	109	38	148	103						127				1180				
Linn St. Temp. Conn.	7+50± to 8+00	199				34		6						34	5	34	7	28	19				70										
Linn St.	8+00 to 8+25	199	158					27																26					145				
6th St. (W. of Linn St.)	25+80.5 to 29+93±	199	1073					120																595					1305				
Linn St.	12+00 to 13+47.68	200	1177					129																165					210	112			28
Ramp L A	48+48.51 to 53+00	200	2013				384		66.0	2.1	44.0	22.0												791	237				3995		72		
Kenyon St.	47+08.07 K to 47+72 ± K & 47+02.5 K(S) to 49+08.72 K(S)	200	777					137																	386				1947		128	24	
Linn St. Temp. Conn.	13+47.68 to Barr St.	200				548		95						548	14	548	21	200	105				57		211								
Linn St.	8+25 to 12+00	201	2923					496																475					8990				
E.B. 6th St. Exp.	48+94.14 to 52+50	201	1443				350		132.2	4.2	44.0	88.1									125			651				40					
W.B. 6th St. Exp.	49+00.70 to 52+50	201	1377				317		125.1	4.0	41.7	83.4									125			628				40					
Ramp L B	47+84.33 to 52+25	201	1094				222		59.6	1.9	30.9	12.9												718	22								
6th St.	47+44.8 to 49+07.92	201	784		25			134							1		1		2						197				1560				
E.B. 6th St. Exp.	52+50 to 57+83.77(BK)	202	2130				455		148.6	4.8	49.5	99.1										39		625				20					
W.B. 6th St. Exp.	52+50 to 57+87.32	202	2317				440		75.5	2.4	25.1	50.3										162		510				20			28		
Ramp L A	53+00 to 57+91.06	202	1175				227		45.3	1.4	22.3	23.0										52		548				20	4437				
Ramp L B	52+25 to 57+70.17	202	990				204		58.6	1.9	33.2	25.4												667			150	20					
Exist. 6th St.	Stone St. to Gest St.	203																						137									
Sub-Totals														1131	69	1131	100																
Conversion														38		55																	
Totals to General Summary			45,371	1557	897	1131	6770	3138	2171	70	924	1248	422	107 Cu.Yd.		155 Cu.Yd.		668	353	1974	1022	166	14,108	5215	681	614	480	160	36,227	304	313	24	66
100% CITY																																	
Exist. Freeman Ave. Kenyon St. to Barr St.		196				363		66						363		363			37						280				2700				
Kenyon St.	38+30 to 41+00	196	1622		94			278																415					2690				
" "	41+00 46+70	198	3473		161			598																1050					5484			15	
" "	46+70 47+08.07	200	271					47																71					442			13	
Sub-Totals														363		363																	
Conversion														13		18																	
Totals to General Summary			5366		255	363		989						13 Cu.Yd.		18 Cu.Yd.			37				1536	280				11,316			28	

SUMMARY OF QUANTITIES

FED. RD. DIV.	STATE	PROJECT	FISCAL YEAR
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ITEM I-15 GUARD RAIL

Location	Station to Station	Side	See Sheet No.	Steel Beam Std. Type (Deep) Lin. Ft.	Steel Beam Barrier Type (Deep), As Per Plan. Lin. Ft.	Steel Bm, Std Type (Deep) Removed & Rebuilt Lin. Ft.
U-UG						
Ramp A	22+47.5A to 22+97.5A	Lt.	50	50.		
Ramp A	24+15 A to 25+77 A	Rt.	51	162.5		
W.B. 6th St. Exp.	24+22 to 27+37	Lt.	51	312.5		
W. B. 6th St. Exp.	23+98 to 27+60.5	Rt.	51	362.5		
E. B. 6th St. Exp	23+90 to 27+65	Lt.	51	375.		
E. B. 6th St. Exp	22+42 to 23+29	Rt.	50&51	87.5		
E. B. 6th St. Exp.	25+26 to 27+85	Rt.	51	262.5		
W. B. 6th St. Exp.	29+21 to 30+87	Lt.	54	166.		
W. B 6th St. Exp.	29+44 to 30+94	Rt.	54	150.		
W. B. 6th St. Exp.	33+47.5 to 34+47.5	Rt.	54	100.		
Ramp FA	33+38FA to 34+50.5FA	Lt.	54	112.5		
E.B. 6th St. Exp	29+47 to 30+93	Lt.	54	146.		
E.B. 6th St. Exp.	33+46.5 to 34+46.5	Lt.	54	100.		
Freeman Ave.	12+85F to 15+70F	Rt.	57	287.5		
Freeman Ave.	14+25F to 16+00 F	Lt.	57	175.		
Ramp FB	29+81.5FB to 32+55FB	Rt.	59	262.5		
Ramp FB	31+70FB(S) to 35+87FB	Lt.	59	475.		
Ramp FB	37+54 FB to 38+91.5FB	Rt.	65	137.5		
Ramp FC	38+91.5FC to 46+04.5FC	Rt.	62	675.		
Ramp FC	40+75FC(N) to 44+70FC(S)	Lt.	62	450.		
Ramp FA	34+50.5FA to 37+21 FA	Lt.	65	270.		
Ramp FA	35+53FA to 37+24FA	Rt.	65	175.		
W.B. 6th St. Exp.	37+88 to 40+38	Lt.	65	250.		
W.B. 6th St. Exp.	34+47.5 to 40+83.5	Rt.	65	637.5		
E. B. 6th St. Exp.	34+46.5 to 36+09	Lt.	65	162.5		
E.B. 6th St. Exp.	37+85 to 39+60	Rt.	65	175.		
Coll.-Distr. Rdwy.	34+81CD to 35+68.5CD	Rt.	65	87.5		
Coll.-Distr. Rdwy.	37+80CD to 39+55 CD	Lt.	65	175.		
Freeman Ave.	26+25FT to 28+01 FT	Lt.	70	187.5		
Freeman Ave.	27+08FT to 28+23 FT	Rt.	70	112.5		
Coll.-Distr. Rdwy.	40+73CD to 40+98CD	Rt.	62	25.		
W. B. 6th St. Exp.	49+10 to 52+09.5	Lt.	78	300.		
W. B. 6th St. Exp.	48+75 to 52+00	Rt.	78	325.		
E. B. 6th St. Exp.	48+72 to 51+97	Lt.	78	325.		
E. B. 6th St. Exp	48+79 to 52+53	Rt.	78	375.		
Ramp LA	49+52LA to 52+52 LA	Lt.	84	300.		
Ramp LA	52+52LA to 57+90LA	Lt.	86	537.5		
E. B. 6th St. Exp.	54+92.5 to 57+92.5	Lt.	86	300.		
E. B. 6th St. Exp.	52+53 to 53+53	Rt.	86	100.		
Ramp LB	54+88.5LB. to 56+63.5LB	Rt.	86	175.		
Ramp LB	56+63.5LB. to 57+88.5LB.	Rt.	86			125
Sixth St.	25+60± ST	Lt&Rt.	75	62.5		
E.B. 6th St. Exp.	21+62 to 22+34	Lt.	50		72	
Totals to General Summary				9907	72	125
100% CITY						
Kenyon St.	42+19K to 42+94K	Rt.	73	75		
Kenyon St.	46+27K(S) to 47+05K(S)	Rt.	73	75		
Kenyon St.	47+05K(S) to 47+32.5K(S)	Rt.	84	25		
Totals to General Summary				175		

ITEM E-1 COMPACTED SUBGRADE SQ.YDS.

	See Sheet No.	U-UG	100% City
9" Reinforced Portland Cement Conc. Pavement	33	45,371	5366
9" Plain Portland Cement Concrete Pavement	33	1557	
8" Portland Cement Concrete Base Course	33	1131	363
Paved Shoulder 2171 Gal. x4	33	8684	
Reinforced Concrete Approach Slab	33	1974	
Type G Curb 14,108 Lin. Ft. x 0.5 ÷ 9	33	784	
Type 9 Curb 614 Lin. Ft. x 1.0 ÷ 9	33	68	
Type 10 Curb 480 Lin. Ft. x 0.75 ÷ 9	33	40	
Totals to General Summary		59,609	5729

EROSION CONTROL

Location	Station to Station	Side	See Sheet No.	Item L-9 Seeding & Protecting Square Yards	Item L-10 Sodding Square Yards	Item L-9 Commercial Fertilizer 12-12-12 Tons	Item L-9 Agricultural Liming Material Tons
U-UG							
Ramp A	22+45.5A to 23+00 A	Lt.	190	46	36		
W.B. 6th St. Exp.	22+85 to 23+00	Lt.	190	17			
W.B. 6th St. Exp.	22+47.8 to 23+00	Rt.	190	44			
E.B. 6th St. Exp.	22+43 to 23+00	Lt.	190	48			
E.B. 6th St. Exp.	22+43 to 23+00	Rt.	190	63			
Ramp A	23+00 A to 28+50 A	Lt.	190	580	370		
Ramp A	23+00 A to 28+15 A	Rt.	190	275	285		
W.B. 6th St. Exp	23+00 to 27+80	Lt.	190	220	1070		
W.B. 6th St. Exp.	23+00 to 27+65	Rt.	190	470			
E.B. 6th St. Exp.	23+00 to 27+65	Lt.	190	470			
E.B. 6th St. Exp	23+00 to 28+25	Rt.	190	170	1260		
W.B. 6th St. Exp.	28+70 to 31+40	Lt.	191	85	1710		
W.B. 6th St. Exp.	29+45 to 31+00	Rt.	191	160			
W.B. 6th St. Exp.	33+40 to 35+50	Rt.	191	230			
E.B. 6th St. Exp.	29+40 to 29+95	Lt.	191	160			
E.B. 6th St. Exp.	33+35 to 35+50	Lt.	191	215			
Ramp FA	32+85 FA to 35+50FA	Lt.	191	120	1740		
Coll. - Distr. Rdwy.	34+40CD to 35+50CD	Rt&Lt.	191	120	275		
Sixth St.	10+25S to 12+80S	Lt.	191	240			
Sixth St.	9+98.915(S) to 11+50S	Rt.	191	30			
Sixth St.	14+25 to 15+75S(N)	Lt.	191	105			
Ramp A - Harriet St.	29+75A to 33+00A	Rt&Lt.	192	390			
Carr St.	15+75S(N) to 5+00 St.	Lt.	192	160			
Ramp FA	35+50FA to 38+20FA	Lt.	193	155	1660		
Ramp FA	35+50FA to 37+30FA	Rt.	193	75			
W.B. 6th St. Exp.	35+50 to 38+65	Lt.	193	590	870		
W.B. 6th St. Exp.	39+40 to 41+15	Lt.	193	180	1105		
W.B. 6th St. Exp.	35+50 to 40+80	Rt.	193	330			
E. B. 6th St. Exp.	35+50 to 40+80	Lt.	193	270			
E. B. 6th St. Exp.	35+50 to 40+60	Rt.	193	460			
Coll.-Distr. Rdwy.	35+50CD to 40+60CD	Lt	193	450			
Sargent St.	10+00SC to 12+51.385C	Lt&Rt	194	210			
Freeman Ave.	13+80F to 16+10F	Lt.	194	405	1020		
Ramp FB	29+70.60FB to 38+70FB	Rt.	194	710	6700		
Ramp FB	31+05FB(S) to 36+55FB	Lt.	194	1050	1960		
Ramp FC	39+45FC to 46+25FC	Rt.	195	480	3780		
Ramp FC	40+55.25FC(N) to 45+31FC(S)	Lt.	195	690	1930		
Freeman Ave.	12+00F to 16+00F	Rt.	195	560	1520		
Freeman Ave.	25+70FT to 28+50FT	Lt.	196	1170	840		
Freeman Ave.	26+60FT to 28+50FT	Rt.	196	550	400		
Sixth St. (W.of Linn St)	25+85ST to 28+80ST	Lt&Rt.	199	770			
Linn St.	8+00L to 8+30L	Lt.	199	70			
Linn St.	13+00L to 13+80L	Lt.	200	240			
Linn St.	13+00L to 13+80L	Rt.	200	470			
Ramp LA	48+90LA to 53+00LA	Lt.	200	2150			
Ramp LA	48+65LA to 53+00 LA	Rt.	200	3160			
Linn St.	8+75L to 12+25L	Lt.	201	1010			
Linn St.	8+85L to 12+30L	Rt.	201	290			
W.B. 6th St. Exp	48+55 to 52+50	Lt.	201	170	1460		
W.B. 6th St. Exp.	48+75 to 52+50	Rt.	201	310			
E.B. 6th St. Exp.	48+70 to 52+50	Lt.	201	320			
E.B. 6th St. Exp.	48+20 to 52+50	Rt.	201	180	2330		
Ramp LB	47+60LB to 52+50LB	Lt.	201	810			
Ramp LB	49+00LB to 52+50LB	Rt.	201	420	160		
W.B. 6th St. Exp	52+50 to 54+33.41	Lt.	202	90	90		
W.B. 6th St. Exp	52+50 to 58+00	Rt.	202	980			
E. B. 6th St. Exp	52+50 to 58+00	Lt.	202	980			
E. B. 6th St. Exp	52+50 to 54+13	Rt.	203	80	120		
Ramp LA	53+00LA to 58+20LA	Lt.	202	2360	950		
Ramp LA	53+00LA to 54+36.13LA	Rt.	202	110			
Ramp LB	52+50 LB to 54+12 LB	Lt.	203	90			
Ramp LB	52+50 LB to 57+95LB	Rt.	203	930			
Exist. 6th St.	49+07.925 to Exist. E.B. on Ramp	Lt.	201&208	4150			
Totals to General Summary				32,893	33,641	5.99	29.95

EROSION CONTROL

Location	Station to Station	Side	See Sheet No.	Item L-9 Seeding & Protecting Square Yards	Item L-10 Sodding Square Yards	Item L-9 Commercial Fertilizer 12-12-12 Tons	Item L-9 Agricultural Liming Material Tons
100% CITY							
Kenyon St.	38+30K to 41+00K	Lt&Rt	196	470			
Kenyon St.	41+00K to 46+70K	Lt.	198	2820			
Kenyon St.	41+00K to 46+70K(S)	Rt.	198	310	280		
Kenyon St.	46+70K to 47+08.07K	Lt.	200	290			
Kenyon St.	46+70K(S) to 47+18K(S)	Rt.	200	30	160		
Totals to General Summary				3920	440	0.32	1.95

SUMMARY OF QUANTITIES

FED. RD. DIV.	STATE	PROJECT	FISCAL YEAR
2	OHIO		

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GENERAL SUMMARY

ITEM	QUANTITY	UNIT	CODE TYPE 7221 DESCRIPTION	UG	U	100% CITY
			ROADWAY			
E-1	51,360	Cu.Yd.	Roadway Excavation, As Per Plan, Method "B"	20,320	27,750	3290
E-1	65,338	Sq.Yd.	Compacted Subgrade	14,160	45,449	5729
E-4	411,232	Cu.Yd.	Borrow, As Per Plan	162,522	246,300	2410
E-4	600	Cu.Yd.	Borrow, As Per Plan, (Bank Run Gravel)	250	250	100
E-8	20,475	Sq.Yd.	Removal & Disposal of Existing Rigid Type Pavement	2934	14,236	3305
E-8	9,345	Lin.Ft.	Removal & Disposal of Existing Curb	2100	5515	1730
E-11	1808	M.Gal.	Water	643.3	1135	29.7
E-11	300	M. Gal.	Water For Dust Control	140	140	20
B-19	100	Cu.Yd.	Aggregate Base Course For Maintaining Traffic	45	45	10
T-35	100	Cu.Yd.	Asphaltic Concrete Surface Course or an Approved Bituminous Premixed Surface Course For Maintaining Traffic	45	45	10
T-10	100	Cu.Yd.	Traffic Compacted Surface Course, For Maintaining Traffic, As Per Plan	45	45	10
T-10	100	Cu.Yd.	Traffic Compacted Surface Course, Using Size No. 2 Material, For Maintaining Traffic, As Per Plan	45	45	10
M-10	20	Ton	Calcium Chloride, Furnished and Applied, For Maintaining Traffic	9	9	2
M-10	30	Ton	Calcium Chloride, Furnished and Applied, For Dust Control	13	13	4
S-14	66	Lin.Ft.	Handrail For Steps, As Per Plan		66	
S-15	Lump Sum	Lump Sum	Temporary Run-Arounds, As Per Plan (Sixth St. @ Bridge No. HAM-50-2000 & Bridge No. HAM-50-2007)	Lump Sum		
S-22	Lump Sum	Lump Sum	Removal of Portions of Existing Structure			Lump Sum
S-24	Lump Sum	Lump Sum	Removal of Existing Structures			Lump Sum
I-13	47,543	Sq.Ft.	4" Concrete Sidewalk	240	35,987	11,316
I-13	304	Lin.Ft.	Concrete Steps, As Per Plan		304	
I-15	10,082	Lin.Ft.	Guard Rail, Steel Beam Standard Type (Deep)	2938	6969	175
I-15	72	Lin.Ft.	Guard Rail, Steel Beam Barrier Type (Deep), As Per Plan		72	
I-15	125	Lin.Ft.	Guard Rail, Removed and Rebuilt		125	
I-18	422	Cu.Yd.	Stabilized Crushed Aggregate Shoulders and Approaches, As Per Plan	81	341	
L-9	36,813	Sq.Yd.	Seeding and Protecting, As Per Plan	3,711	29,182	3920
L-9	6.38	Tons	Commercial Fertilizer (12-12-12)	1.58	4.41	0.39
L-9	31.90	Tons	Agricultural Liming Material, As Per Plan	7.90	22.05	1.95
L-10	34,081	Sq.Yd.	Sodding, As Per Plan	7,045	26,596	440
S.S.-18	5313	Lin.Ft.	Fence, Type "C"	1204	4109	
S.S.-18	2	Each	Fence Gate, Type "C", 14' Double Opening	1	1	
S.S.C.E.-101.04	33	Hour	Compaction Using Heavy Pneumatic Tired Roller	7	23	3

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ITEM	QUANTITY	UNIT	CODE TYPE 7221 DESCRIPTION RETAINING WALLS	UG	U	100% CITY
E-2	5977	Cu.Yd.	Unclassified Excavation	1497	3730	750
E-2	Lump Sum	Lump Sum	Cofferdams, Cribs and Sheeting	Lump Sum	Lump Sum	Lump Sum
E-2	2742	Sq.Ft.	Steel Sheet Piling Left in Place, As Per Plan	600	2142	
S-1	1695	Cu.Yd.	Class "E" Concrete, Footings	579	853	263
S-1	1946	Cu.Yd	Class "E" Concrete, Wall Shafts	741	964	241
S-3	887	Lin.Ft.	Waterproofing-Premolded Sealing Strip	346	431	110
S-3	13	Sq.Yds.	Type "B" Waterproofing	11	2	
S-4	313,775	Lbs.	Reinforcing Steel	126,246	164,170	23,359
S-9	890	Sq.Ft.	1" Preformed Expansion Joint Filler (Gray Sponge Rubber)	353	474	63
S-14	827	Lin.Ft.	Railing Type "A" (Aluminum Rail & Supports, Concrete Parapet)	207	290	330
S-14	112	Lin.Ft.	Railing Type "C" (Aluminum Rail & Supports, Concrete Parapet)		112	
S-16	Lump Sum	Lump Sum	First Test Pile	LumpSum		
S-18	8004	Lin.Ft.	Bearing Piles 10 BP42	960	3320	3724
S-18	12,534	Lin.Ft.	Bearing Piles 12 BP53	6050	6484	
S-29	1553	Cu.Yd.	Porous Backfill	619	734	200
S-29	1452	Lin.Ft.	8" Bituminous Coated Helical Perforated Corrugated Metal Pipe [Sec.M-6.4(n-c)] (Including Specials and Sand)	309	805	338
S-29	4	Lin.Ft.	8" Bituminous Coated Helical Corrugated Metal Pipe [Sec.M-6.4(n-c)] Without Perforations (Including Specials and Sand)		4	
S-29	32	Lin.Ft.	12" Reinforced Concrete Sewer Pipe [Sec. M-6.6(a)]	16	16	
I-8	1	Each	Inlet Frame and Grating, Type A-2, As Per Plan, Furnished and Placed		1	
I-8	5	Each	Inlet Frame and Grating, Type V, Furnished and Placed	2	3	
T-71	5	Sq.Yds.	9" Reinforced Portland Cement Concrete Pavement, As Per Plan		5	
Special	Lump Sum	Lump Sum	Flood Gate Unit and Flood Gate Storage House, Freeman Ave, As Per Plan		Lump Sum	

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GENERAL SUMMARY

ITEM	QUANTITY	UNIT	CODE TYPE 7221 DESCRIPTION	UG	U	100% CITY
			DRAINAGE			
I-1	60	Lin. Ft.	6" Pipe Class A-1 Sec. M-6.8(a) Encased As Per Plan			60
I-1	269	Lin. Ft.	6" Pipe Class B-1, Sec. M-6.5(b)		269	
I-1	929	Lin. Ft.	6" Pipe Class F-1	203	726	
I-1	12,798	Lin. Ft.	6" Pipe Class I-3	4,897	7,901	
I-1	175	Lin. Ft.	8" Pipe Class B-1, Sec. M-6.5(b)		175	
I-1	140	Lin. Ft.	8" Pipe Class F-1	36	104	
I-1	3,979	Lin. Ft.	12" Pipe Class A-1, Sec. M-6.6(b) or Sec. M-6.8(b)	1,072	2,639	268
I-1	666	Lin. Ft.	12" Pipe Class A-1, Sec. M-6.6(c)	388	278	
I-1	38	Lin. Ft.	12" Pipe Class A-1, Sec. M-6.6(d)		38	
I-1	66	Lin. Ft.	12" Pipe Class A-1, Sec. M-6.6(d) under Railroad, As Per Plan	40		
I-1	2,634	Lin. Ft.	12" Pipe Class B-1	733	1,901	
I-1	269	Lin. Ft.	12" Pipe Class B-1, Sec. M-6.6(b) or Sec. M-6.8(b)	269		
I-1	671	Lin. Ft.	12" Pipe Class B-1, Sec. M-6.6(c)	549	122	
I-1	683	Lin. Ft.	12" Pipe Class F-1,	322	361	
				26		
I-1	1,286	Lin. Ft.	15" Pipe Class A-1, Sec. M-6.6(b) or Sec. M-6.8(b)	296	910	80
I-1	68	Lin. Ft.	15" Pipe Class A-1, Sec. M-6.6(d) under Railroad, As Per Plan	68		
I-1	884	Lin. Ft.	15" Pipe Class B-1	361	523	
I-1	135	Lin. Ft.	15" Pipe Class B-1, Sec. M-66(c)	135		
I-1	293	Lin. Ft.	15" Pipe Class B-1, Sec. M-6.6(d)		293	
I-1	77	Lin. Ft.	15" Pipe Class F-1		77	
I-1	364	Lin. Ft.	18" Pipe Class A-1, Sec. M-6.6(b) or Sec. M-6.8(b)		364	
I-1	165	Lin. Ft.	18" Pipe Class A-1, Sec. M-6.6(c)			165
I-1	56	Lin. Ft.	18" Pipe Class A-1, Sec. M-6.6(d) under Railroad As Per Plan	56		
I-1	119	Lin. Ft.	18" Pipe Class B-1		119	
I-1	126	Lin. Ft.	18" Pipe Class B-1, Sec. M-6.6(c)		126	
I-1	160	Lin. Ft.	18" Pipe Class B-1, Sec. M-6.6(d) under Railroad As Per Plan	160		
I-1	348	Lin. Ft.	21" Pipe Class A-1, Sec. M-6.6(b) or Sec. M-6.8(b)	89	85	174
I-1	98	Lin. Ft.	21" Pipe Class A-1, Sec. M-6.6(c)		98	
I-1	212	Lin. Ft.	21" Pipe Class A-1, Sec. M-6.6(d)		212	
I-1	92	Lin. Ft.	21" Pipe Class B-1,	92		
I-1	83	Lin. Ft.	21" Pipe Class B-1, Sec. M-6.6(b) or Sec. M-6.8(b)		83	
I-1	30	Lin. Ft.	21" Pipe Class B-1, Sec. M-6.6(d)	30		
I-1	207	Lin. Ft.	24" Pipe Class B-1, Sec. M-6.6(d)	207		
I-1	653	Lin. Ft.	24" Pipe Class A-1, Sec. M-6.6(b) or Sec. M-6.8(b)		420	233
I-1	194	Lin. Ft.	24" Pipe Class A-1, Sec. M-6.6(c)		194	
I-1	229	Lin. Ft.	24" Pipe Class B-1, Sec. M-6.6(b) or Sec. M-6.8(b)		229	
I-1	432	Lin. Ft.	30" Pipe Class A-1, Sec. M-6.6(b) or Sec. M-6.8(b)		432	
I-1	275	Lin. Ft.	30" Pipe Class A-1, Sec. M-6.6(c)		275	
I-1	631	Lin. Ft.	30" Pipe Class A-1, Sec. M-6.6(d)		631	
I-1	54	Lin. Ft.	30" Pipe Class A-1, Sec. M-6.6(d) under Railroad As Per Plan	42	12	
I-1	137	Lin. Ft.	30" Pipe Class B-1, Sec. M-6.6(c)		137	
I-1	42	Lin. Ft.	30" Pipe Class B-1, Sec. M-6.6(d) under Railroad As Per Plan		42	
I-1	72	Lin. Ft.	36" Pipe Tunnel Construction, As Per Plan		72	
I-1	79	Lin. Ft.	36" Pipe Class A-1, Sec. M-6.6(b) or Sec. M-6.8(b)		79	
I-1	33	Lin. Ft.	36" Pipe Class A-1, Sec. M-6.6(c)		33	
I-1	548	Lin. Ft.	36" Pipe Class A-1, Sec. M-6.6(d)		548	
Special	Lump	Lump	Filling Existing 42" Sewer	Lump		

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GENERAL SUMMARY

ITEM	QUANTITY	UNIT	CODE TYPE 7221 DESCRIPTION	UG	U	100% CITY
			DRAINAGE CONTINUED			
I - 1	445	Lin. Ft.	36" Pipe Class B-1, Sec. M-6.6(c)		445	
I - 1	90	Lin. Ft.	36" Pipe Class B-1, Sec. M-6.6(d) under Railroad As Per Plan		90	
I- 1	636	Lin. Ft.	48" Pipe Class A-1, Sec. M-6.6(b)		636	
I- 1	412	Lin. Ft.	54" Pipe Class A-1, Sec. M-6.6(b)	412		
I- 1	205	Lin. Ft.	54" Pipe Class A-1, Sec. M-6.6(d)	205		
I- 1	274	Lin. Ft.	54" Pipe Class B-1, Sec. M-6.6(c)		274	
I- 1	42	Lin. Ft.	54" Pipe Class B-1, Sec. M-6.6(d) under Railroad As Per Plan		42	
I- 1	18	Lin. Ft.	30" Radius Pipe Class A-1, Sec. M-6.6(b) or Sec. M-6.8(b)		18	
I- 1	32	Lin. Ft.	30" Radius Pipe Class A-1, Sec. M-6.6(c)		32	
I- 1	40	Lin. Ft.	36" Radius Pipe Class A-1, Sec. M-6.6(b) or Sec-M-6.8(b)		40	
I- 1	12	Lin. Ft.	36" Radius Pipe Class A-1, Sec. M-6.6(d)		12	
I- 1	73	Lin. Ft.	48" Radius Pipe Class A-1, Sec. M-6.6(b)		73	
I- 1	13	Lin. Ft.	54" Radius Pipe Class A-1, Sec. M-6.6(d)	13		
I- 1	61	Lin. Ft.	54" Radius Pipe Class B-1, Sec. M-6.6(c)		61	
I - 1	35	Lin. Ft.	54" Radius Pipe Class B-1, Sec. M-6.6(d) under Railroad As Per Plan		35	
I - 2	3	Cu. Yds.	Masonry	2	1	
I-5	1	Each	Pipe Special Class B-1, 18"x6" Tee Branch			1
I - 5	1	Each	Pipe Special Class B-1, 21"x6" Tee Branch			1
I - 5	1	Each	Pipe Special Class B-1, 24"x6" Tee Branch			1
I - 5	3	Each	Pipe Special Class B-1, 6"x45° Bend		3	
I - 5	3	Each	Pipe Special Class B-1, 8"x45° Bend		3	
I - 5	4	Each	Pipe Special Class B-1, 12"x 6" Tee Branch		4	
I - 5	3	Each	Pipe Special Class B-1, 12"x 8 Tee Branch		3	
I - 5	27	Each	Pipe Special Class F-1, 6"x60° Bend	7	20	
I - 5	2	Each	Pipe Special Class F-1, 6"x90° Bend		2	
I - 5	3	Each	Pipe Special Class F-1, 8"x6"x6" Wye Junction	1	2	
I - 5	13	Each	Pipe Special Class F-1, 12"x90° Bend	9	4	
I - 8	93	Each	Manhole A or P, As Per Plan	32	57	4
I - 8	1	Each	Manhole A, 5' Diameter, As Per Plan	1		
I - 8	1	Each	Manhole Drop Type A or P, As Per Plan	1		
I - 8	13	Each	Manhole Type D, As Per Plan	3	10	
I - 8	8	Each	Manhole Adjusted to Grade	3	5	
I - 8	1	Each	Manhole Reconstructed to Grade		1	
I - 8	5	Each	Remodel Bottom of Existing Manhole		5	
I - 8	42	Each	Type A Catch Basin	8	28	6
I - 8	31	Each	Type A-2 Catch Basin	4	26	1
I - 8	20	Each	Type C Catch Basin	13	7	
I - 8	25	Each	Type D Catch Basin	4	21	
I - 8	11	Each	Type K Catch Basin	2	9	
I - 8	3	Each	Type V Catch Basin		3	
I - 8	3	Each	Catch Basin Adjusted to Grade		3	
I - 8	1	Each	Remodel Bottom of Existing Catch Basin		1	
I - 8	1	Each	Sluice Gate Chamber No. 1 Complete, As Per Plan		1	
I - 8	1	Each	Junction Chamber No. 1, As Per Plan	1		
I - 8	1	Each	Junction Chamber No. 2, As Per Plan		1	
I - 8	1	Each	Junction Chamber No. 3, As Per Plan		1	
I - 8	1	Each	Junction Chamber No. 4, As Per Plan		1	
I-14	1,252	Lin. Ft.	Paved Gutter Standard Type 1	789	463	
I-14	650	Lin. Ft.	Paved Gutter, Type 2, Modified, As Per Plan	333	317	

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GENERAL SUMMARY

ITEM	QUANTITY	UNIT	CODE TYPE 7221 DESCRIPTION	UG	U	100 % CITY
			DRAINAGE CONTINUED			
I-16	80	Each	Catch Basins Abandoned	22	51	7
I-16	63	Each	Manholes Abandoned	18	39	6
E-12	480	Lin. Ft.	Pipe Removed, 24" and Under	68	345	67
E-12	699	Lin. Ft.	Pipe Removed, Over 24"	174	525	—

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ITEM	QUANTITY	UNIT	CODE TYPE 7221 DESCRIPTION	UG	U	100% CITY
			PAVEMENT			
B-21	924	Cu.Yd.	Waterproofed Aggregate Base Course, As Per Plan	275	649	
B-35	173	Cu.Yd.	Asphaltic Concrete Leveling Course (70-85)	54	101	18
B-35	668	Lin.Ft.	Sealing Vertical Face of Existing Rigid Pavement	292	376	
B-70	1494	Sq.Yd.	8" Portland Cement Concrete Base Course	440	691	363
B-112	1248	Cu.Yd.	Porous Base Course	549	699	
T-30	390	Gal.	Bituminous Tack Coat: Sec.M-5.5, MS-2 or RS-1 or Sec.M-5.2 RC-1 or RC-2 as per Sec.T-30.02	124	229	37
T-31	2171	Gal.	Bituminous Surface Treatment - Bituminous Material, As Per Plan	823	1348	
T-31	70	Cu.Yd.	Bituminous Surface Treatment - No.6 Aggregate	26	44	
T-35	120	Cu.Yd.	Asphaltic Concrete Surface Course, Type "C" (70-85)	37	70	13
T-70	1152	Sq.Yd.	8" Portland Cement Concrete Pavement	26	871	255
T-70	1557	Sq.Yd.	9" Portland Cement Concrete Pavement		1557	
T-71	50,737	Sq.Yd.	9" Reinforced Portland Cement Concrete Pavement	9025	36,346	5366
I-7	1974	Sq.Yd.	Reinforced Concrete Approach Slabs (T=13"), As Per Plan	1100	874	
I-12	1022	Lin.Ft.	Standard Type 2A Concrete Curb	123	899	
I-12	166	Lin.Ft.	Standard Type 4A Concrete Curb		166	
I-12	14,108	Lin.Ft.	Standard Type 6 Concrete Curb	3592	10,516	
I-12	6751	Lin.Ft.	Type 7A Concrete Curb, As Per Plan	168	5047	1536
I-12	961	Lin.Ft.	Type 7B Concrete Curb, As Per Plan	343	338	280
I-12	614	Lin.Ft.	Type 9 Concrete Curb, As Per Plan		614	
I-12	480	Lin.Ft.	Type 10 Concrete Curb, As Per Plan	270	210	
I-12	160	Lin.Ft.	Type 10A Concrete Curb, As Per Plan		160	
I-21	313	Sq.Yd.	4" Standard Type 1 Portland Cement Concrete Median Pavement	33	280	
I-21	52	Sq.Yd.	Portland Cement Concrete Traffic Island Pavement, As Per Plan		24	28
I-22	6770	Cu.Yd.	Subbase - Grading "A" or "B" As Per Plan	2131	4639	
I-22	4127	Cu.Yd.	Subbase - Grading "C" or "D"	212	2926	989
	Lump Sum	Lump Sum	Construction Layout Stakes	Lump Sum	Lump Sum	Lump Sum
	Lump Sum	Lump Sum	Maintaining Traffic, As Per Plan	Lump Sum	Lump Sum	Lump Sum

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GENERAL SUMMARY

ITEM	QUANTITY	UNIT	CODE TYPE 7221 DESCRIPTION	ROADWAY			BRIDGES							
							HAM-50-1987 L/R		HAM-50-1992L/R		HAM-50-2007		HAM-50-2012L/R	
	*		SIGNING	100 % CITY	U	UG	U	UG	U	UG	U	UG	U	UG
I-129	1	Each	Overhead Sign Support Type A - Span 55'		1									
I-129	1	Each	Overhead Sign Support Type A - Span 62'			1								
I-129	1	Each	Overhead Sign Support Type A - Span 76'			1								
I-129	6	Each	Overhead Sign Support Type B - Twin Beam		6							1		
I-129	2	Each	Overhead Sign Support Type B - Single Beam		2									
I-129	28	Cu.Yds.	Concrete for Sign Support Foundations, Type A (Class "C")		7	21								
I-129	42	Cu.Yds.	Concrete for Sign Support Foundations, Type B (Class "C")		42									
I-129	14,560	Lbs.	Steel Reinforcing Bars		9,465	5,095								
S-25	5	Each	Pull Box Type A		5									
S-25	2	Each	Handhole Frame and Cover 8"x8"		1	1								
S-25	555	Lin. Ft.	3" Asbestos Cement Conduit Encased in Concrete (Type 1)		475	80								
S-25		Lin. Ft.	2" Electric Metallic Conduit with Accessories				10							
S-25	770	Lin. Ft.	Single Conductor No.6 Secondary Cable, Plain		640	130	100					10		
S-25	10,645	Lin. Ft.	Single Conductor No.6 Secondary Cable, Identifiable		7,855	2,790	510					750		270
S-25	7	Each	Sign Circuit Switch (at Transformer)		7									
S-25	4	Each	Sign Sub-Circuit Switch (at Transformer)		4									
S-25	11	Each	Sign Circuit Control Assembly, 30 Amp.		8	3	1					1		

* Bridge Quantities are not included in Total Column.
See Bridge Sheets No. 266, 287, 327, & 362

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ITEM	QUANTITY	UNIT	CODE TYPE 7221 DESCRIPTION	ROADWAY			BRIDGES							
			LIGHTING	100% CITY	U	UG	HAM-50-1987L/R		HAM-50-1992L/R		HAM-50-2007		HAM-50-2012L/R	
	*						U	UG	U	UG	U	UG	U	UG
S-25	4	Each	15 K.V.A. Distribution Transformer and Cabinet for Pad Mounting		4									
S-25	3	Each	25 K.V.A. Distribution Transformer and Cabinet for Pad Mounting		3									
S-25	82	Each	400-Watt Mercury Vapor Luminaire I.E.S. Type II or III Distribution	7	61	14	2			4	6	1		10
S-25		Each	200-Watt Fluorescent Luminaire				4						6	
S-25	1	Each	3-Light Incandescent Floodlight Assembly		1									
S-25	8	Each	Flush Mount Island Light		7	1						1		
S-25	1	Each	Primary Fused Controller		1									
S-25	5	Each	Lighting Circuit Controller 30 Amp.		5									
S-25	2	Each	Lighting Circuit Controller 60 Amp.		2									
S-25	3	Each	Photoelectric Control for Lighting Circuit		2	1	1				1			2
S-25	5	Each	Lighting Sub-Circuit Switch		5									
S-25	84	Each	15-Amp. Fuse Block	7	64	13	6			4	6	2	6	10
S-25		Lump Sum	Electrical Grounding System for Bridge				Lump Sum			Lump Sum	Lump Sum			Lump Sum
S-25	1,685	Lin. Ft.	Single Conductor No.6 Primary Cable, Plain		1,685						620	110	105	760
S-25	1,685	Lin. Ft.	Single Conductor No.6 Primary Cable, Identifiable		1,685						620	110	105	760
S-25	13,470	Lin. Ft.	Single Conductor No.6 Secondary Cable, Plain	1,690	8,985	2,795	540			475	980	155	215	1,220
S-25	27,420	Lin. Ft.	Single Conductor No.6 Secondary Cable, Identifiable	3,390	18,325	5,705	1,430			950	2,160	310	430	2,600
S-25	3,415	Lin. Ft.	Three Conductor No.12 Secondary Cable	280	2,435	700	160			170	225	65	180	400
S-25		Each	Lamp Standard Type A (Structure) Modified with 15' Bracket Arm				1							
S-25	47	Each	Lamp Standard Type A with 10' Bracket Arm	7	37	3								
S-25	2	Each	Lamp Standard Type A Modified with 10' Bracket Arm		2									
S-25	1	Each	Lamp Standard Type A with Twin 10' Bracket Arms 135° Apart		1									
S-25	3	Each	Lamp Standard Type A with 12' Bracket Arm		2	1								
S-25	12	Each	Lamp Standard Type A with 15' Bracket Arm		7	5								
S-25	2	Each	Lamp Standard Type A with Twin 15' Bracket Arms 180° Apart			2								
S-25	1	Each	Lamp Standard Type A Modified with Twin 15' Bracket Arms 180° Apart			1								
S-25	1	Each	Lamp Standard Type A (Structure) with 10' Bracket Arm			1					5	1		8
S-25	1	Each	Lamp Standard Type A (Structure) Modified with 10' Bracket Arm		1						1			2
S-25		Each	Lamp Standard Type A (Structure) with 12' Bracket Arm							3				
S-25		Each	Lamp Standard Type A (Structure) Modified with 12' Bracket Arm				1							
S-25	4	Each	Lamp Standard Type A (Structure) with 15' Bracket Arm		3	1				1				
S-25	2	Each	Lamp Standard Type A with Twin 15' Bracket Arms 135° Apart		2									
S-25	36	Each	Pull Box Type A	2	28	6								
S-25		Each	Junction Box, as per plan				9			4				
S-25		Each	Handhole Frame and Cover 10" x 18"								12	5	7	19
S-25	5	Each	Handhole Frame and Cover 8" x 8"		3	2	1							
S-25	3	Each	Transformer Mounting Pad, Single		3									
S-25	2	Each	Transformer Mounting Pad, Twin		2									
S-25	11,785	Lin. Ft.	3" Asbestos Cement Conduit, Encased in Concrete (Type 1)	1,540	7,700	2,545								
S-25		Lin. Ft.	3" Asbestos Cement Conduit (Structure) (Type 1)				12			9	1,070	300	290	1,740
S-25		Lin. Ft.	3" Rigid Metallic Conduit with Accessories				320			425				
S-25		Lin. Ft.	2" Electric Metallic Conduit with Accessories				170				215	120	165	105
S-25		Each	Conduit Support Assembly				65			100				
S-25	2,215	Lin. Ft.	Cable Trench 9" Wide, Including Markers		2,215									

* Bridge Quantities are not included in Total Column.
See Bridge Sheets No. 266, 287, 327, & 362

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GENERAL SUMMARY

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GENERAL SUMMARY

ITEM	QUANTITY	UNIT	DESCRIPTION	UG	U	100% CITY
			STRUCTURES OVER 20 FT. SPAN			
For Quantities See Sheet No.266			Bridge No.HAM-50-1987 R E.B. 6th St. Expressway over Ramp A (City Bridge No. 3R)			
For Quantities See Sheet No.266			Bridge No.HAM-50-1987 L W.B. 6th St. Expressway over Ramp A (City Bridge No.3L)			
For Quantities See Sheet No.287			Bridge No.HAM-50-1992 R E.B. 6th St. Expressway over R.R. (City Bridge No.4R)			
For Quantities See Sheet No.287			Bridge No.HAM-50-1992 L W.B. 6th St. Expressway over R.R. (City Bridge No.4L)			
For Quantities See Sheet No.313			Bridge No.HAM-50-2000 C.N.O. & T.P. R.R. over 6th St. Expressway (City Bridge No. 5)			
For Quantities See Sheet No.327			Bridge No.HAM-50-2007 Freeman Ave. over 6th St. Expressway (City Bridge No.6)			
For Quantities See Sheet No.362			Bridge No.HAM-50-2012 R E.B. 6th St. Expressway over R.R. (City Bridge No.7R)			
For Quantities See Sheet No.362			Bridge No.HAM-50-2012 L W.B. 6th St. Expressway over R.R. (City Bridge No.7L)			
			WATER WORKS			
			For Estimated Quantities See Sheet No. 124 CODE TYPE Y060			
			CODE TYPE 7221 **ALTERNATE BID ITEMS**			
SS-18	5313	Lin.Ft.	Fence, Aluminum Type "C"	1204	4109	
SS-18	2	Each	Fence Gate, Aluminum Type "C" (14' Double Opening)	1	1	

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GENERAL SUMMARY

REMOVAL OF BUILDINGS

CODE TYPE 7221

ITEM	QUANTITY	UNIT	PARCEL NO.	ADDRESS	DESCRIPTION	UG	U	100% CITY
E-10	Lump	Lump Sum	2342-WL	1023-1029 Sixth St.	2 story brick building with an attached metal shed	Lump Sum		
E-10	Lump	Lump Sum	2343-WL	1011 Sixth St.	1 story frame building and 1 story concrete block building	Lump Sum		
E-10	Lump	Lump Sum	2345-WL	1001 Sixth St.	3 story brick building	Lump Sum		
E-10	Lump	Lump Sum	2365-WL	546-66 Freeman Ave.	3 story brick building with a 1 story brick addition		Lump Sum	
E-10	Lump	Lump Sum	2366-WL	955 Sixth St.	Frame Shed	Lump Sum		
E-10	Lump	Lump Sum	2368-WL	Pierson St.	Brick Garage	Lump Sum		
E-10	Lump	Lump Sum	2369-WL	951 Sixth St.	3½ story brick building with a detached 1 and 2 story brick garage and a 3½ story and 4 story brick building	Lump Sum		
E-10	Lump	Lump Sum	2370-WL	947 Sixth St.	2 story brick building with a 1 story concrete block addition	Lump Sum		
E-10	Lump	Lump Sum	2377-WL	826 Sixth St.	2 Story brick building	Lump Sum		
E-10	Lump	Lump Sum	2378-WL	828 Sixth St.	2 story brick building with an attached frame shed.	Lump Sum		
E-10	Lump	Lump Sum	2379-WL	832-840 Sixth St.	4 story and 3 story brick building with a 1 story concrete block addition	Lump Sum		
E-10	Lump	Lump Sum	2381-WL	851-65 Hathaway St.	One-3 story and 2 story brick building with a 2 story concrete block addition, one-2story brick building and one-2½ story brick building	Lump Sum		
E-10	Lump	Lump Sum	2382-WL	841-45 Hathaway St.	One-3 story brick building with a 1 story brick addition and an attached concrete block garage, one-3 story brick building with a 2 story brick and frame addition and an attached concrete block garage and one-3 story brick building with a 1 story frame addition	Lump Sum		
E-10	Lump	Lump Sum	2424-AR	N. Side Sixth St. Baymiller to Freeman Ave.	One-1 story concrete block building and two-1 story metal buildings	Lump Sum		
E-10	Lump	Lump Sum	2448-WL	641-59 Freeman Ave.	Two-3 story Brick buildings		Lump Sum	
E-10	Lump	Lump Sum	2450-WL	W. Side Freeman Ave. @ Kenyon St.	1 story metal building		Lump Sum	
E-10	Lump	Lump Sum	2451-LA	N. Side Zachary St. Carr to Freeman Ave	1 story concrete block building with a 1 story metal addition and a 1 story concrete and metal building	Lump Sum		
E-10	Lump	Lump Sum	2452-WL	N.W. Corner Zachary St. & Freeman Ave.	1 story concrete block building	Lump Sum		
E-10	Lump	Lump Sum	2455-WL	1010 Sixth St.	3 story brick and 2 story concrete block building	Lump Sum		
E-10	Lump	Lump Sum	2456-WL	1016-1020 Sixth St.	2 story brick building	Lump Sum		
E-10	Lump	Lump Sum	2466-LA	1120-1140 Sixth St.	One-1 story concrete block building, two-1 story metal buildings and one-frame shed.	Lump Sum		
E-10	Lump	Lump Sum	2466A-WL	615 Carr St.	4 story brick building with a 1 story concrete block addition	Lump Sum		
E-10	Lump	Lump Sum	2467E-LA		One metal box car		Lump Sum	
E-10	Lump	Lump Sum	8-1316		One 1 story metal and frame building			Lump Sum

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(21)
P.I. Sta. 24+64.46
P.C. Sta. 24+14.46
P.C.C. Sta. 25+14.46
Δ = 0° 20' 00"
D = 0° 20' 00"
R = 17,188.74'
L = 100.00'
T = 50.00'

(22)
P.I. Sta. 25+64.46
P.C.C. Sta. 25+14.46
P.C.C. Sta. 26+14.46
Δ = 1° 40' 00"
D = 1° 40' 00"
R = 3,437.75'
L = 100.00'
T = 50.00'

(23)
P.I. Sta. 26+50.05
P.C.C. Sta. 26+14.46
P.C.C. Sta. 26+85.63
Δ = 1° 25' 24"
D = 2° 00' 00"
R = 2,864.79'
L = 71.17'
T = 35.59'

(24)
P.I. Sta. 27+35.63
P.C.C. Sta. 26+85.63
P.C.C. Sta. 27+85.63
Δ = 1° 40' 00"
D = 1° 40' 00"
R = 3,437.75'
L = 100.00'
T = 50.00'

(25)
P.I. Sta. 28+35.63
P.C.C. Sta. 27+85.63
P.T. Sta. 28+85.63
Δ = 0° 20' 00"
D = 0° 20' 00"
R = 17,188.74'
L = 100.00'
T = 50.00'

(26)
P.I. Sta. 34+94.01
P.C. Sta. 31+08.04
P.T. Sta. 38+79.46
Δ = 5° 08' 34"
D = 0° 40' 00"
R = 8,594.37'
L = 771.42'
T = 385.97'

(27)
P.I. Sta. 25+62.64
P.C. Sta. 22+08.94
P.T. Sta. 29+15.71
Δ = 5° 53' 23"
D = 0° 50' 00"
R = 6,875.50'
L = 706.77'
T = 353.70'

(118)
P.I. Sta. 23+59.16 WB(N)
P.C.C. Sta. 22+46.48 WB(N)
P.T. Sta. 24+71.72 WB(N)
Δ = 4° 30' 17"
D = 2° 00'
R = 2864.79'
L = 225.24'
T = 112.68'

(119)
P.C. Sta. 20+46.09 ELB
P.T. Sta. 21+53.13 ELB
Δ = 122° 39' 13"
R = 50.00'
L = 107.04'
T = 91.43'

(120)
P.I. Sta. 21+36.60 ELA
P.C.C. Sta. 20+69.43 ELA
P.O.C. Sta. 21+99.67 ELA
Δ = 34° 32' 48"
R = 216.00'
L = 130.24'
T = 67.17'

(28)
P.I. Sta. 34+86.13
P.C. Sta. 32+51.53
P.T. Sta. 37+20.33
Δ = 5° 51' 36"
D = 1° 15' 00"
R = 4,583.66'
L = 468.80'
T = 234.60'

(29)
P.I. Sta. 17+91.20 A
P.C. Sta. 17+41.17 A
P.T. Sta. 18+41.21 A
Δ = 2° 00' 03"
D = 2° 00' 00"
R = 2,864.79'
L = 100.04'
T = 50.03'

(30)
P.I. Sta. 21+38.54 A
P.C. Sta. 20+11.35 A
P.T. Sta. 22+65.06 A
Δ = 10° 08' 54"
D = 4° 00' 00"
R = 1,432.40'
L = 253.71'
T = 127.19'

(31)
P.I. Sta. 26+94.97 A
P.C. Sta. 26+59.56 A
P.C.C. Sta. 27+29.83 A
Δ = 17° 30' 21"
D = 24° 54' 40"
R = 230.00'
L = 70.27'
T = 35.41'

(32)
P.I. Sta. 27+80.30 A
P.C.C. Sta. 27+29.83 A
P.C.C. Sta. 28+27.20 A
Δ = 37° 11' 40"
D = 38° 11' 50"
R = 150.00'
L = 97.37'
T = 50.47'

(33)
P.I. Sta. 28+84.07 A
P.C.C. Sta. 28+27.20 A
P.C.C. Sta. 29+38.71 A
Δ = 27° 46' 45"
D = 24° 54' 40"
R = 230.00'
L = 111.51'
T = 56.87'

(34)
P.I. Sta. 30+13.89 A
P.C.C. Sta. 29+38.71 A
P.T. Sta. 30+87.85 A
Δ = 17° 53' 47"
D = 12° 00' 00"
R = 477.46'
L = 149.14'
T = 75.18'

(35)
P.I. Sta. 27+07.40 A(N)
P.C. Sta. 26+79.04 A(N)
P.C.C. Sta. 27+35.33 A(N)
Δ = 17° 30' 21"
D = 31° 06' 01"
R = 184.23'
L = 56.29'
T = 28.36'

(36)
P.I. Sta. 19+02.57 B
P.C. Sta. 18+21.89 B
P.T. Sta. 19+79.00 B
Δ = 32° 08' 58"
D = 20° 27' 46"
R = 280.00'
L = 157.11'
T = 80.68'

(37)
P.I. Sta. 21+97.74 B
P.C. Sta. 21+31.21 B
P.T. Sta. 22+62.16 B
Δ = 25° 00' 33"
D = 19° 05' 55"
R = 300.00'
L = 130.95'
T = 66.53'

(39)
P.I. Sta. 23+29.32 TA
P.C. Sta. 22+66.92 TA
P.T. Sta. 23+85.19 TA
Δ = 45° 10' 37"
D = 38° 11' 50"
R = 150.00'
L = 118.27'
T = 62.40'

(40)
P.I. Sta. 21+91.72 TA
P.C.C. Sta. 21+63.01 TA
P.T. Sta. 22+20.35 TA
Δ = 7° 38' 26"
D = 13° 19' 29"
R = 430.00'
L = 57.34'
T = 28.71'

(41)
P.C.C. Sta. 20+37.35
P.C.C. Sta. 21+63.01 TA
Δ = 180° 00' 00"
R = 40.00'
L = 125.66'

(42)
P.I. Sta. 19+69.84 TA
P.C. Sta. 18+86.67 TA
P.C.C. Sta. 20+37.35 TA
Δ = 37° 32' 11"
D = 24° 54' 40"
R = 230.00'
L = 150.68'
T = 78.16'

(43)
P.I. Sta. 11+72.51 S
P.C. Sta. 10+76.95 S
P.C.C. Sta. 12+67.38 S
Δ = 11° 54' 07"
D = 6° 15'
R = 916.73'
L = 190.43'
T = 95.56'

(44)
P.I. Sta. 11+46.36 S(N)
P.C. Sta. 10+50.52 S(N)
P.C.C. Sta. 11+93.97 S(N)
Δ = 9° 32' 43"
D = 10° 00' 00"
R = 572.96'
L = 95.45'
T = 47.84'

(45)
P.I. Sta. 11+50.06 S (S)
P.C.C. Sta. 10+66.09 S (S)
P.T. Sta. 12+33.42 S (S)
Δ = 11° 54' 07"
D = 7° 06' 47"
R = 805.51'
L = 167.33'
T = 83.97'

(46)
P.I. Sta. 12+30.70 S (N)
P.C.C. Sta. 11+93.57 S (N)
P.T. Sta. 12+67.38 S (N)
Δ = 4° 30'
D = 6° 07' 47"
R = 934.73'
L = 73.41'
T = 36.73'

(47)
P.C. Sta. 9+98.91 S(S)
P.C.C. Sta. 10+66.09 S (S)
Δ = 76° 58' 53"
R = 50.00'
L = 67.18'

(48)
P.C.C. Sta. 9+94.28 S (N)
P.T. Sta. 10+56.80 S (N)
Δ = 89° 33' 18"
R = 40.00'
L = 62.52'

(53)
P.I. Sta. 15+84.28 S(N)
P.C. Sta. 15+16.12 S(N)
P.T. Sta. 16+18.00 S(N)
Δ = 97° 17' 01"
R = 60.00'
L = 101.88'
T = 68.16'

(54)
P.I. Sta. 31+56.72 CD
P.C. Sta. 30+40.40 CD
P.T. Sta. 32+72.76 CD
Δ = 6° 58' 15"
D = 3° 00' 00"
R = 1,909.86'
L = 232.36'
T = 116.32'

(55)
P.I. Sta. 34+51.26 CD
P.C. Sta. 34+14.70 CD
P.T. Sta. 34+87.82 CD
Δ = 1° 49' 41"
D = 2° 30' 00"
R = 2,291.83'
L = 73.12'
T = 36.56'

(56)
P.I. Sta. 33+15.04 FA
P.C. Sta. 31+67.86 FA
P.T. Sta. 34+62.13 FA
Δ = 3° 40' 42"
D = 1° 15' 00"
R = 4,583.66'
L = 294.27'
T = 147.18'

ALIGNMENT & WITNESS PLAN

FED. RD. DIV.	STATE	PROJECT	FISCAL YEAR
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(49)
P.I. Sta. 26+86.97 FT(W)
P.C. Sta. 26+13.14 FT (W)
P.T. Sta. 27+59.23 FT(W)
Δ = 20° 31' 00"
D = 14° 02' 39"
R = 407.97'
L = 146.09'
T = 73.83'

(50)
P.I. Sta. 26+78.83 FT
P.C.C. Sta. 26+13.14 FT
P.T. Sta. 27+43.25 FT
Δ = 19° 31' 00"
D = 15° 00' 00"
R = 381.97'
L = 130.11'
T = 65.69'

(51)
P.I. Sta. 27+20.39 FT (N.B.)
P.C. Sta. 26+60.78 FT (N.B.)
P.T. Sta. 27+79.05 FT (N.B.)
Δ = 17° 44' 28"
D = 15° 00' 00"
R = 381.97'
L = 118.27'
T = 59.61'

(52)
P.I. Sta. 27+12.09 FT (E)
P.C. Sta. 26+60.78 FT (E)
P.T. Sta. 27+62.69 FT (E)
Δ = 16° 24' 10"
D = 16° 05' 44"
R = 355.97'
L = 101.91'
T = 51.31'

(57)
P.I. Sta. 41+85.66
P.C. Sta. 41+35.66
P.C.C. Sta. 42+35.66
Δ = 0° 20' 00"
D = 0° 20' 00"
R = 17,188.74'
L = 100.00'
T = 50.00'

(58)
P.I. Sta. 42+85.66
P.C.C. Sta. 42+35.66
P.C.C. Sta. 43+35.66
Δ = 1° 39' 40"
D = 1° 39' 40"
R = 3,449.25'
L = 100.00'
T = 50.00'

(60)
P.I. Sta. 41+48.45
P.C. Sta. 40+98.45
P.C.C. Sta. 41+98.45
Δ = 0° 20' 00"
D = 0° 20' 00"
R = 17,188.74'
L = 100.00'
T = 50.00'

(61)
P.I. Sta. 42+48.45
P.C.C. Sta. 41+98.45
P.C.C. Sta. 42+98.45
Δ = 1° 40' 20"
D = 1° 40' 20"
R = 3,426.33'
L = 100.00'
T = 50.00'

(63)
P.I. Sta. 39+58.41 CD
P.C. Sta. 38+81.41 CD
P.T. Sta. 40+35.18 CD
Δ = 7° 41' 18"
D = 5° 00' 00"
R = 1,145.92'
L = 153.77'
T = 77.00'

(64)
P.I. 42+20.19 CD
P.C. 41+62.95 CD
P.T. 42+77.37 CD
Δ = 4° 34' 37"
D = 4° 00' 00"
R = 1,432.40'
L = 114.42'
T = 57.24'

(65)
P.I. Sta. 16+84.02 F
P.C.C. Sta. 14+33.75 F
P.T. Sta. 19+34.12 F
Δ = 3° 45' 10"
D = 0° 45' 00"
R = 7,639.44'
L = 500.37'
T = 250.27'

(66)
P.I. Sta. 24+02.67 F
P.C. Sta. 21+92.10 F
P.T. Sta. 26+13.14 F
Δ = 3° 09' 28"
D = 0° 45' 00"
R = 7,639.44'
L = 421.04'
T = 210.57'

(67)
P.I. Sta. 12+87.40 F (W)
P.C. Sta. 12+48.85 F (W)
P.T. Sta. 13+25.93 F (W)
Δ = 3° 04' 59"
D = 4° 00' 00"
R = 1,432.40'
L = 77.08'
T = 38.55'

(68)
P.I. Sta. 12+52.51 F (E)
P.C. Sta. 12+24.62 F (E)
P.T. Sta. 12+80.40 F (E)
Δ = 2° 13' 52"
D = 4° 00' 00"
R = 1,432.40'
L = 55.78'
T = 27.89'

(69)
P.I. Sta. 14+61.87 F (E)
P.C. Sta. 13+90.51 F (E)
P.C.C. Sta. 15+33.17 F (E)
Δ = 4° 16' 47"
D = 3° 00' 00"
R = 1,909.86'
L = 142.66'
T = 71.36'

(70)
P.I. Sta. 24+27.08 F (N.B.)
P.C.C. Sta. 23+29.47 F (N.B.)
P.T. Sta. 25+24.62 F (N.B.)
Δ = 3° 54' 11"
D = 2° 00' 00"
R = 2,864.79'
L = 195.15'
T = 97.61'

(71)
P.I. Sta. 29+61.39 FT (W)
P.C. Sta. 29+20.13 FT (W)
P.T. Sta. 30+01.90 FT (W)
Δ = 18° 44' 28"
D = 22° 55' 06"
R = 250.00'
L = 81.77'
T = 41.26'

(72)
P.I. Sta. 29+41.53 FT
P.C. Sta. 28+81.92 FT
P.T. Sta. 30+00.19 FT
Δ = 17° 44' 28"
D = 15° 00' 00"
R = 381.97'
L = 118.27'
T = 59.61'

(73)
P.I. Sta. 29+20.31 FT (E)
P.C. Sta. 28+84.28 FT (E)
P.T. Sta. 29+55.85 FT (E)
Δ = 16° 24' 10"
D = 22° 55' 06"
R = 250.00'
L = 71.57'
T = 36.03'

(121)
P.I. Sta. 12+14.30 SC
P.C. Sta. 11+71.52 SC
P.T. Sta. 12+51.38 SC
Δ = 50° 50' 31"
D = 63° 39' 43"
R = 90.00'
L = 79.86'
T = 42.78'

(122)
P.I. Sta. 10+13.70 SC (S)
P.C.C. Sta. 9+96.03 SC (S)
P.T. Sta. 10+30.00 SC (S)
Δ = 38° 55' 37"
R = 50.00'
L = 33.97'
T = 17.67'

(123)
P.I. Sta. 11+18.75 SC (N)
P. C. Sta. 10+58.98 SC (N)
P.T. Sta. 11+08.90 SC (N)
Δ = 143° 00' 00"
R = 20.00'
L = 49.92'
T = 52.77'

(77)
P.I. Sta. 39+83.34 FA
P.C.C. Sta. 38+98.71 FA
P.T. Sta. 40+66.76 FA
Δ = 16° 48' 17"
D = 10° 00' 00"
R = 572.96'
L = 168.05'
T = 84.63'

(78)
P.I. Sta. 38+37.05 FA(S)
P.C. Sta. 36+94.77 FA(S)
P.R.C. Sta. 39+40.61 FA(S)
Δ = 72° 14' 01"
D = 29° 22' 57"
R = 195.00'
L = 245.84'
T = 142.28'

(79)
P.I. Sta. 30+41.69 F B
P.C.C. Sta. 29+70.60 FB
P.C.C. Sta. 31+08.49 FB
Δ = 34° 21' 02"
D = 24° 54' 40"
R = 230.00'
L = 137.89'
T = 71.09'

(84)
P.I. Sta. 30+82.18 FB(S)
P.C.C. Sta. 30+38.50 FB(S)
P.C.C. Sta. 31+10.30 FB(S)
Δ = 82° 16' 41"
R = 50.00'
L = 71.80'
T = 43.68'

(85)
P.I. Sta. 40+62.14 FC
P.C. Sta. 40+35.56 FC
P.C.C. Sta. 40+88.48 FC
Δ = 13° 10' 56"
D = 24° 54' 40"
R = 230.00'
L = 52.92'
T = 26.58'

(86)
P.I. Sta. 41+55.06 FC
P.C.C. Sta. 40+88.48 FC
P.C.C. Sta. 42+08.22 FC
Δ = 62° 22' 15"
D = 52° 05' 14"
R = 110.00'
L = 119.74'
T = 66.58'

(87)
P.I. Sta. 42+60.71 FC
P.C.C. Sta. 42+08.22 FC
P.C.C. Sta. 43+03.26 FC
Δ = 60° 30' 10"
D = 63° 39' 43"
R = 90.00'
L = 95.04'
T = 52.49'

(88)
P.I. Sta. 44+88.02 FC
P.C.C. Sta. 43+03.26 FC
P.C.C. Sta. 45+42.01 FC
Δ = 113° 59' 36"
D = 47° 44' 47"
R = 120.00'
L = 238.75'
T = 184.76'

(113)
P.I. Sta. 40+41.56 K
P.C. Sta. 39+70.75 K
P.T. Sta. 41+12.30 K
Δ = 4° 14' 47"
D = 3° 00' 00"
R = 1,909.86'
L = 141.55'
T = 70.81'

(74)
P.I. Sta. 36+88.15 FA
P.C. Sta. 36+55.39 FA
P.C.C. Sta. 37+20.77 FA
Δ = 8° 42' 44"
D = 13° 19' 29"
R = 430.00'
L = 65.38'
T = 32.76

(75)
P.I. Sta. 37+74.27 FA
P.C.C. Sta. 37+20.77 FA
P.C.C. Sta. 38+24.43 FA
Δ = 34° 56' 08"
D = 33° 42' 12"
R = 170.00'
L = 103.66'
T = 53.50'

(76)
P.I. Sta. 38+62.02 FA
P.C.C. Sta. 38+24.43 FA
P.C.C. Sta. 38+98.71 FA
Δ = 21° 49' 29"
D = 29° 22' 57"
R = 195.00'
L = 74.28'
T = 37.59'

(80)
P.I. Sta. 32+80.99 FB
P.C.C. Sta. 31+08.49 FB
P.C.C. Sta. 33+71.84 FB
Δ = 94° 18' 25"
D = 35° 48' 36"
R = 160.00'
L = 263.35'
T = 172.50'

(81)
P.I. Sta. 36+47.94 FB
P.C.C. Sta. 33+71.84 FB
P.C.C. Sta. 36+58.26 FB
Δ = 131° 17' 05"
D = 45° 50' 12"
R = 125.00'
L = 286.42'
T = 276.10'

(82)
P.I. Sta. 37+09.90 FB
P.C.C. Sta. 36+58.26 FB
P.T. Sta. 37+61.06 FB
Δ = 13° 41' 50"
D = 13° 19' 29"
R = 430.00'
L = 102.80'
T = 51.64'

(83)
P.I. Sta. 31+38.83 FB (S)
P.C.C. Sta. 31+10.30 FB (S)
P.T. Sta. 31+67.16 FB (S)
Δ = 11° 22' 21"
D = 20° 00' 00"
R = 286.48'
L = 56.86'
T = 28.53'

(89)
P.I. Sta. 45+74.00 FC
P.C.C. Sta. 45+42.01 FC
P.T. Sta. 46+05.58 FC
Δ = 15° 50' 13"
D = 24° 54' 40"
R = 230.00'
L = 63.57'
T = 31.99'

(90)
P.I. Sta. 44+01.15 FC (S)
P.C.C. Sta. 43+11.55 FC (S)
P.T. Sta. 44+85.22 FC (S)
Δ = 34° 44' 02"
D = 20° 00' 00"
R = 286.48'
L = 173.67'
T = 89.60'

(91)
P.I. Sta. 40+81.53 FC (N)
P.C. Sta. 40+70.18 FC (N)
P.C.C. Sta. 40+92.77 FC (N)
Δ = 13° 10' 56"
D = 58° 20' 46"
R = 98.20'
L = 22.59'
T = 11.35'

(92)
P.I. Sta. 13+68.20 F
P.C. Sta. 13+02.64 F
P.C.C. Sta. 14+33.75 F
Δ = 1° 18' 40"
D = 1° 00' 00"
R = 5,729.58'
L = 131.11'
T = 65.56'

ALIGNMENT & WITNESS PLAN

FED. RD. DIV.	STATE	PROJECT	FISCAL YEAR
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47/464

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N

BARR ST.

P.C.C.

R=200'

FUTURE

P.C.

TEMP CONN

J. BAYMILLER ST.

Exist.

N. 7° 09' 25" E.

Traverse Line W. Walk Baymiller St.

End Conc. Pav't.

Traverse Line N. Walk Kenyon St.

(AA-W)=691.91'

(DB-V)=764.91'

S. 82° 48' 50" E.

221.02'

62.33'

82.21'

27'

27'

S. 78° 34' 03" E.

KENYON ST.

44K

Base Line Kenyon, Nose 47+22.62K (EB)

(16' Rt.)

46K

46K(EB)

S. 77° 40' E.

46K(S)

P.T.(EB)

P.C. 44+44.96K(EB)

=P.O.T. 44+44.96K

E.B.

P.C.C.

P.C. 46+22.62 K(S)

=P.O.T. 46+22.62 K(EB) 27' Rt.

Nose 47+41.39K(S) (23' Lt.)

Nose 47+71.82K(S) (21' Lt.)

48K(S)

P.T.

K(S)

484.18'

N. 1° 22' 06" E.

P.C.

N. 7° 28' 40" E.

102

P.T. 49+08.72 K(S)

=P.O.T. 10+54.88 L (36' Lt.)

N. 9° 39' 15" E.

Base Line Linn St.

R=80'

P.C.C. 48+64.56 LA(S)

R=2'

40.70'

(2+46.48)

R=200'

R=2'

39.56'

(1+99.15)

ST.

LINN

R=2'

16'

36'

225.75'

R=3'

Base Line Ramp LA

S. 78° 44' 03" E. 50 LA

105

50 LA(S)

RAMP LA

S. 79° 20' 00" E.

Nose 49+24.14 LA(S)

(18' Lt.)

P.C.

P.T.

Change Base Lines

P.O.T. 51+00 LA(24' Lt.)

=P.O.T. 51+00 LA

477.10'

Traverse Line S. Walk Kenyon St.

S. 82° 48' 50" E.

145.83'

1184.08'

P.T. 57+02.01 LA=

P.O.T. 51+02.01 (50' Lt.)

GEST ST.

N. 5° 57' 24" W.

Traverse Line E. Walk Cutler St.

N. 7° 12' 10" E.

Nose 54+36.13 LA

(23' Rt.)

Exist. Approach Slab

P.O.T. 57+87.32

P.O.T. 57+83.77 Back*

P.O.T. 57+83.79 Ahead

Exist. Approach Slab

88.71'

N. 8° 54' 40" W.

173.30'

104

105

103

54 LA

56 LA

52 LA

52 LA(S)

SIXTH ST. EXPRESSWAY

WESTBOUND

Base Line Westbound Expwy. 54

N. 79° 45' 34" E.

Nose 54+33.41

(52' Lt.)

Nose 55+37.05

N. 79° 45' 34" E.

EXPRESSWAY

SIXTH ST.

EASTBOUND

Base Line Eastbound Expwy. 54

N. 83° 07' 18" E.

=P.O.T. 10+03.17 L (36' Lt.)

P.T. 10+17.30 L (W)

S. 86° 20' 01" E.

P.T. 9+84.63 L (36' Rt.)

=P.O.T. 9+70.51 L(E)

P.O.T. 43+91.64 CD=

P.O.C. 43+91.66 (36' Rt.)

P.C. 26+90.74 ST

24.50'

N. 85° 18' 20" W.

HJ=785.07'

Meet Ex. Pav't. 25+85.51

Trav. S. Walk Sixth St.

PROPOSED SIXTH ST.

S. 83° 13' 20" E.

117.41'

32.10'

Traverse Line E. Walk Baymiller St.

P.O.C. 47+84.32

P.O.T. 47+12.54 S

Nose Tangent Point

Sta. 49+01.78 (30.54' Rt.)

(205' Lt.)

Base Line Ramp LB

N. 73° 33' 30" E.

RAMP LB

Change Base Lines

P.T. 50+80 LB (24' Rt.)

=P.O.T. 50+80 LB

P.C. 51+60.03 LB

P.O.T. 51+60.03 LB (24' Lt.)

P.T. 52+05.46 LB (23.10' Lt.)

P.T. 57+61.63 LB (48' Rt.)

Nose 55+36.52 LB

Base Line Ramp LB

54 LB

52 LB

109

108

107

56 LB

SIXTH ST.

Traverse Line S. Walk Sixth St.

N. 81° 10' 30" E. 897.62'

130.16'

312.38'

S. 83° 10' 37" E.

S. 83° 02' 50" E.

72.93'

105.07'

99.98'

171.18'

Nose 49+07.32 S (22' Rt.)

Begin Conc. Pav't. 6+00 L

P.O.C. 8+28.92 L

=P.O.T. 30+25.64 S

P.C. 6+43.33 L(E)

=P.O.T. 6+43.33 L(E) (27' Rt.)

P.C. 6+64.37 L(W)

=P.O.T. 6+64.37 L(27' Lt.)

BAYMILLER ST.

S. 15° 58' 00" E.

499.84'

Traverse Line E. Walk Baymiller St.

Trav. N. Walk Fifth St.

N. 95° 15' W.

AC

FUTURE

27'

27'

50'

40' Exist.

L3

L(E)

L(W)

L1

L2

L4

L5

L6

L7

L8

L9

L10

L11

L12

L13

L14

L15

L16

L17

L18

L19

L20

L21

L22

L23

L24

L25

L26

L27

L28

L29

L30

L31

L32

L33

L34

L35

L36

L37

L38

L39

L40

L41

L42

L43

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LEGEND

- Item T-71 Reinforced Portland Cement Concrete Pavement (For Thickness see Typical Section)
- Item T-70 Plain Portland Cement Concrete Pavement (For Thickness see Typical Section)
- Item T-70 8" Plain Portland Cement Concrete Pavement
- Item I-21 4" Standard Type I Portland Cement Concrete Median Pavement
- Item I-13 4" Portland Cement Concrete Sidewalk
- Item B-112 Porous Base Course
  Item B-21 3" Waterproofed Aggregate Base Course
  Item T-31 Bituminous Surface Treatment
- Item T-35 1¼" Asphaltic Concrete Surface Course Type "C" (70-85)
  Item B-35 1¾" Asphaltic Concrete Leveling Course (70-85)
  Item B-70 8" Plain Portland Cement Concrete Base Course
  Item T-30 Bituminous Tack Coat @ 0.10 Gal. Per Sq. Yd.
- Item E-8 Removal and Disposal of Existing Pavement
  Item T-35 1¼" Asphaltic Concrete Surface Course Type "C" (70-85)
  Item B-70 8" Plain Portland Cement Concrete Base Course
  Item T-30 Bituminous Tack Coat @ 0.10 Gal. Per Sq. Yd.
  Item B-35 1¾" Asphaltic Concrete Leveling Course (70-85)
- Item T-35 Variable Thickness (1" Min) Asphaltic Concrete Surface Course Type "C" (70-85)
  Item B-35 Variable Thickness Asphaltic Concrete Leveling Course (70-85)
  Item T-30 Bituminous Tack Coat @ 0.10 Gal. Per Sq. Yd.
- Item I-18 6" Crushed Aggregate Under Bridge Structures
- Sod — Item L-10 Sodding

UTILITY REPORT

UTILITY	OWNER	ADDRESS
Gas, Light & Power	Cinti. Gas & Electric Co.	4th St. & Main St., Cinti. 2, Ohio
Water	Cinti. Water Works	4747 Spring Grove Ave, Cinti. 32, Ohio
Sewer	Cinti. Sewer Department	City Hall, Cinti. 2, Ohio
Telephone	Cinti. & Suburban Bell Telephone Co.	225 E. 4th St., Cinti. 2, Ohio
Telegraph	Western Union Telegraph Co.	4th St. & Walnut St., Cinti. 2, Ohio
Transportation	Cinti. Transit Co.	309 Vine St., Cinti. 2, Ohio
Transportation	New York Central System	Big Four Bldg. Indianapolis, Ind.
Transportation	Baltimore and Ohio Railroad Co.	600 Temple Bar Bldg., Cinti. 2, Ohio
Transportation	Southern Railway System	307 E. 4th St., Cinti. 2, Ohio
Transportation	Cinti. Union Terminal Co.	1301 Freemann Ave., Cinti. 3, Ohio
Flood Protection	City of Cincinnati	Mill Creek Barrier Dam, 1525 W. 8th. St., Cinti. 4, Ohio
Flood Protection	U.S. Army Corps of Engineers	315 Main St., Cinti. 2, Ohio

BENCH MARKS

B.M.	El. 505.15	N. End of Iron W.T. of 3½ St. Br. #704 Freeman Ave.
B.M.	El. 506.55	S.W. Cor. St. W.T. of 3 St. Br. on N.E. cor. 7th & Carr St. (#700 Carr - #1038 7th St.)
B.M.	El. 517.23	W. End conc. D.S. Ent. to Hudepohl Bottling Dept. #831 W. 6th St.
B.M.	El. 501.16	⊥ notch on N.E. cor. of E. conc. Abut. Wall of Floodwall Gate 50'± S. of S. Curb Line of 6th St. & 200'± W. of Baymiller St.
B.M.	El. 513.72	S.W. Cor. of St. D.S., 18' E. of Bldg. Cor. ent. to 3½ St. Br., N.W. cor. Kenyon & Baymiller
B.M.	El. 488.26	□ notch top of conc. steel covered cor. 4' ab. grd. N.E. cor. of car siding cover on E. Side of Early & Daniel Grain Elevator on S. Side of 6th St. 155'± W. of W. curb of Carr St.

NOTE: All Elevations refer to U.S.C.&G.S. Datum.

BENCH MARKS, PAVEMENT LEGEND & SUPPLEMENTARY INDEX

FED. RD. DIV.	STATE	PROJECT	FISCAL YEAR
2	OHIO		

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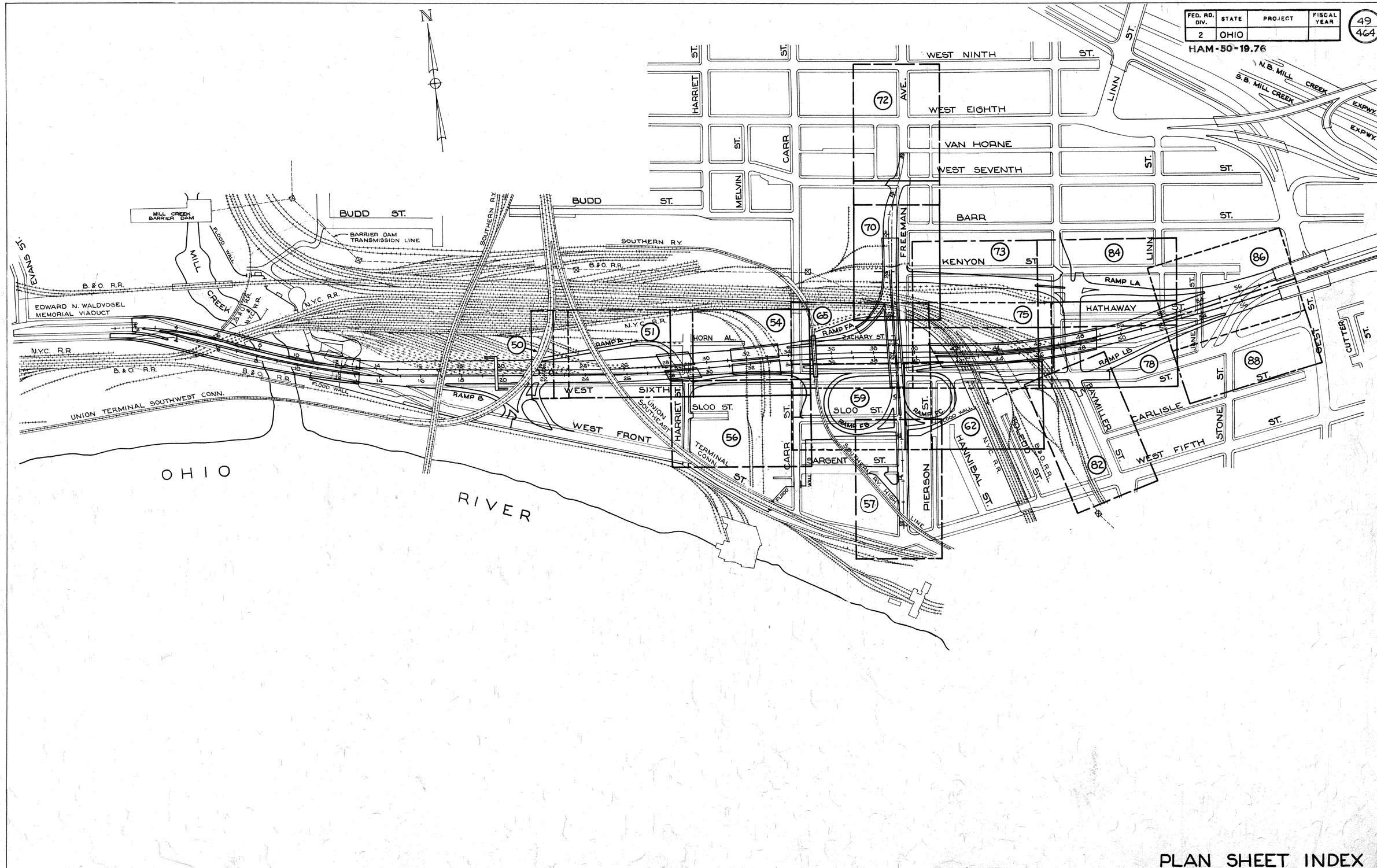

PLAN SHEET INDEX

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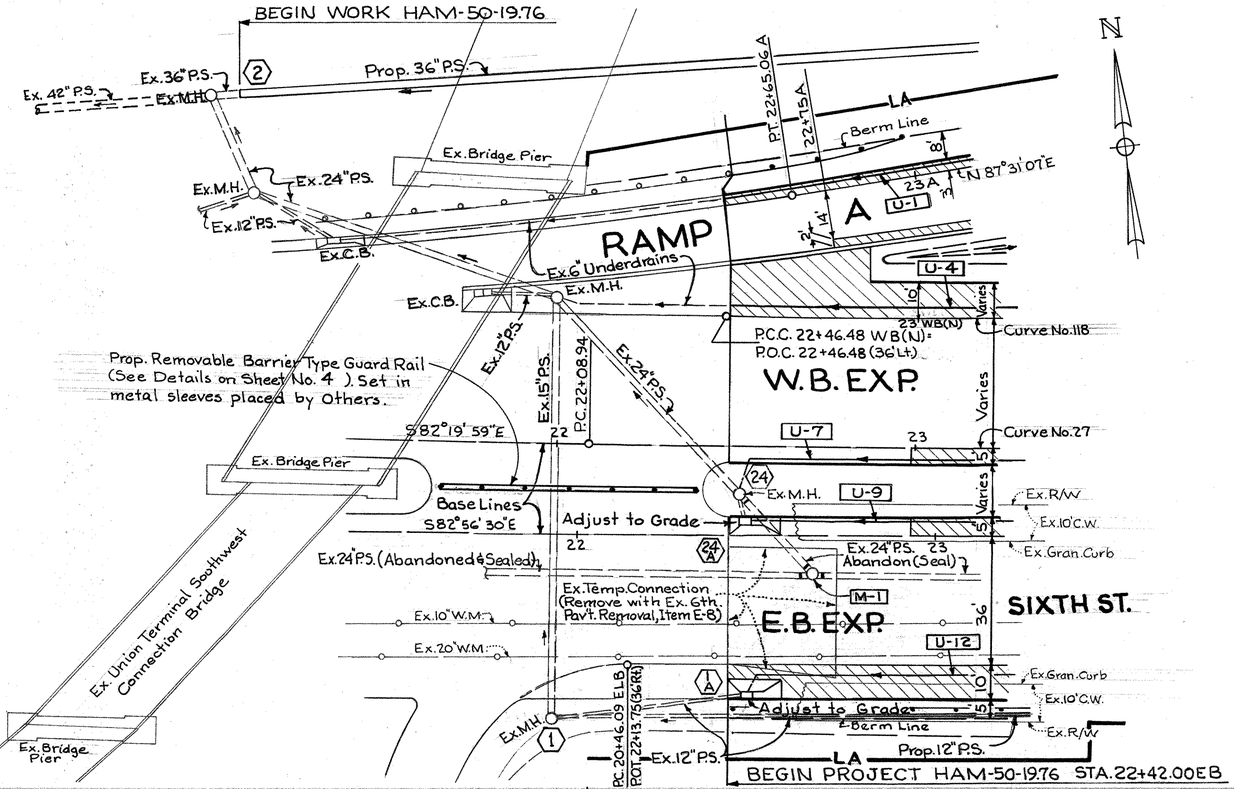
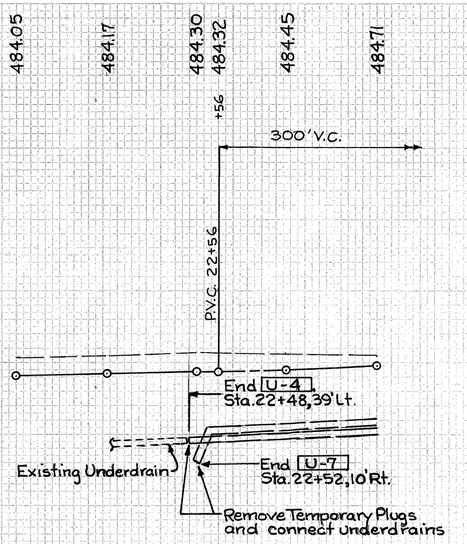
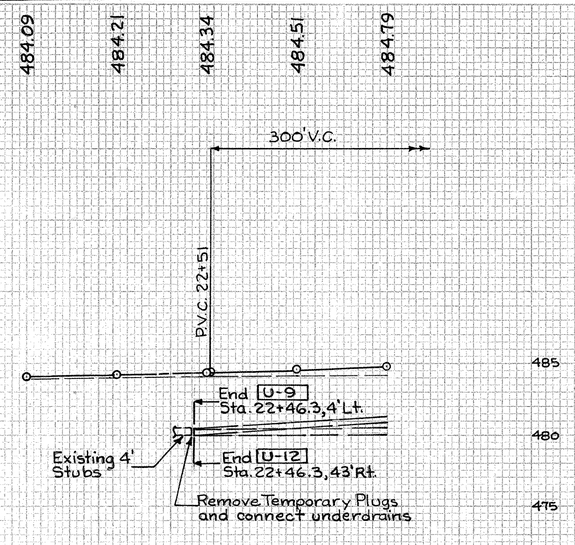
For Typical Section of Existing Adjoining Expressway Pavement see Sixth St. Expressway HAM-50-19.38



ALL SODDING AND TYPE CURBS ARE INDICATED ON THE GRADE DETAIL SHEETS.
FENCE IS SHOWN ON THE RIGHT OF WAY PLANS.

M-1 indicates Manhole Abandoned
C-1 indicates Catch Basin Abandoned
P-1 indicates Pipe Removed
U-1 indicates Underdrain. For size and limits see Sheet No. 28





EXPWY. STA. 22+00 TO STA. 23+00

FED. RD. DIV.	STATE	PROJECT	FISCAL YEAR
2	OHIO		

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M-50-19.76

Note: Exist. Railroad Tracks within the proposed Right of Way are to be removed by Others.

N

Private

Ex. 12" P.S.

Ex. N.Y.C. R.R. Tracks

Ex. Cinder Drive

Ex. Bridge Pier

Ex. 18" P.S.

Prop. 18" P.S. Sec. M-6.6(c) Class B-1

Ex. Met. Casting

Ex. Old Conc. Footings

Fr. Shed

Wooded Coal Box

Ex. Old 12" Conc. Wall

Ex. Wooden Ice Box

1 St. Met.

Ex. 12" Conc. Wall

Ex. P.S. (Size & Location unknown)

Prop. 21" P.S.

Ex. Meter Box

Prop. 12" P.S.

Ex. R/W

Ex. 5' Tree

Survey Traverse Line

Prop. 15" P.S. Class F-1

Ex. R/W

Ex. 4' W.M.

Ex. Cinders & Mac. Rdwy

Ex. Conc. Curb

Ex. Gran. Curb

Approach Slab

1 St. Conc. Bl. Gar.

HARRIET ST.

Ex. Conc. Drive

Ex. 10" C.W.

Ex. 6" W.M.

Ex. 10" W.M.

Ex. 16" W.M.

Ex. 20" W.M.

Ex. Mac.

Ex. Gas

Ex. Conc. Chamber

Ex. Conc.

Ex. Gravel

Ex. Dirt Road (Parking Area)

Ex. RR Track

Varies

Ex. Gravel Parking Lot

Asph. Drive

Ex. Brick Drive

Ex. Conc. Dr.

Ex. Wood Gate

Ex. Wood Fence

Ex. Steel Bent

Ex. Cyclone Fence

12" × 6" Boards

Ex. Wire Fence with Gates

Ret. Wall No. 5

Ex. 5" Conc. Wall & Wood Fence

Ex. 6' W.M. F.B.

Ex. 12" Conc. Wall

Ex. Bridge Pier

Ex. Sewers

Ex. 4" G.M.

Ex. 20" P.S.

Ex. 24" R.S.

Ex. 6" Conc. Wall

Remove Ex. Conc. Wall (Item E-1)

Ex. Construction Material Storage Area

Ex. 9" Conc. Wall for Traveling Crane

Remove Portion of Ex. Wall (Item E-1)

Ex. 9" Conc. Wall

Ex. 12" Conc. Wall

Ex. Bridge Pier

Ex. Cyclone Fence

Ex. Gravel Parking Lot

Asph. Drive

Ex. Wood Fence

Ex. Steel Bent

Prop. 36" P.S.

Prop. 30" P.S.

Prop. 15" P.S.

Prop. 12" P.S.

Prop. 12" P.S. Class F-1

Prop. 15" P.S. Class F-1

Prop. 24" P.S.

Prop. 12" P.S. Class F-1

Prop. 12" P.S.

Prop. 12" P.S.

Prop. 12" P.S.

FED. RD. DIV.	STATE	PROJECT	FISCAL YEAR
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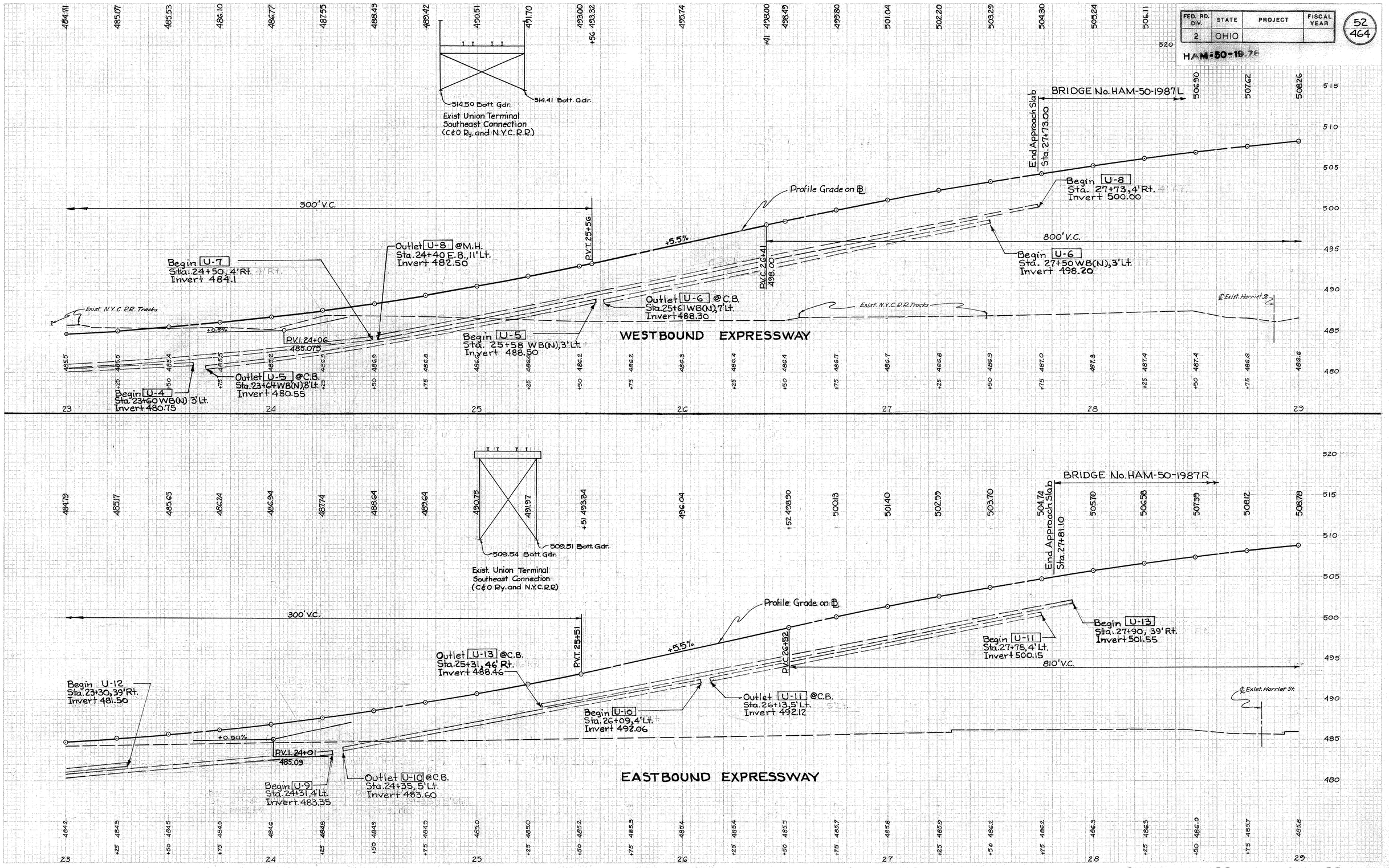

EXPWY. STA. 23+00 to STA. 29+00

FED. RD. DIV.	STATE	PROJECT	FISCAL YEAR
2	OHIO		

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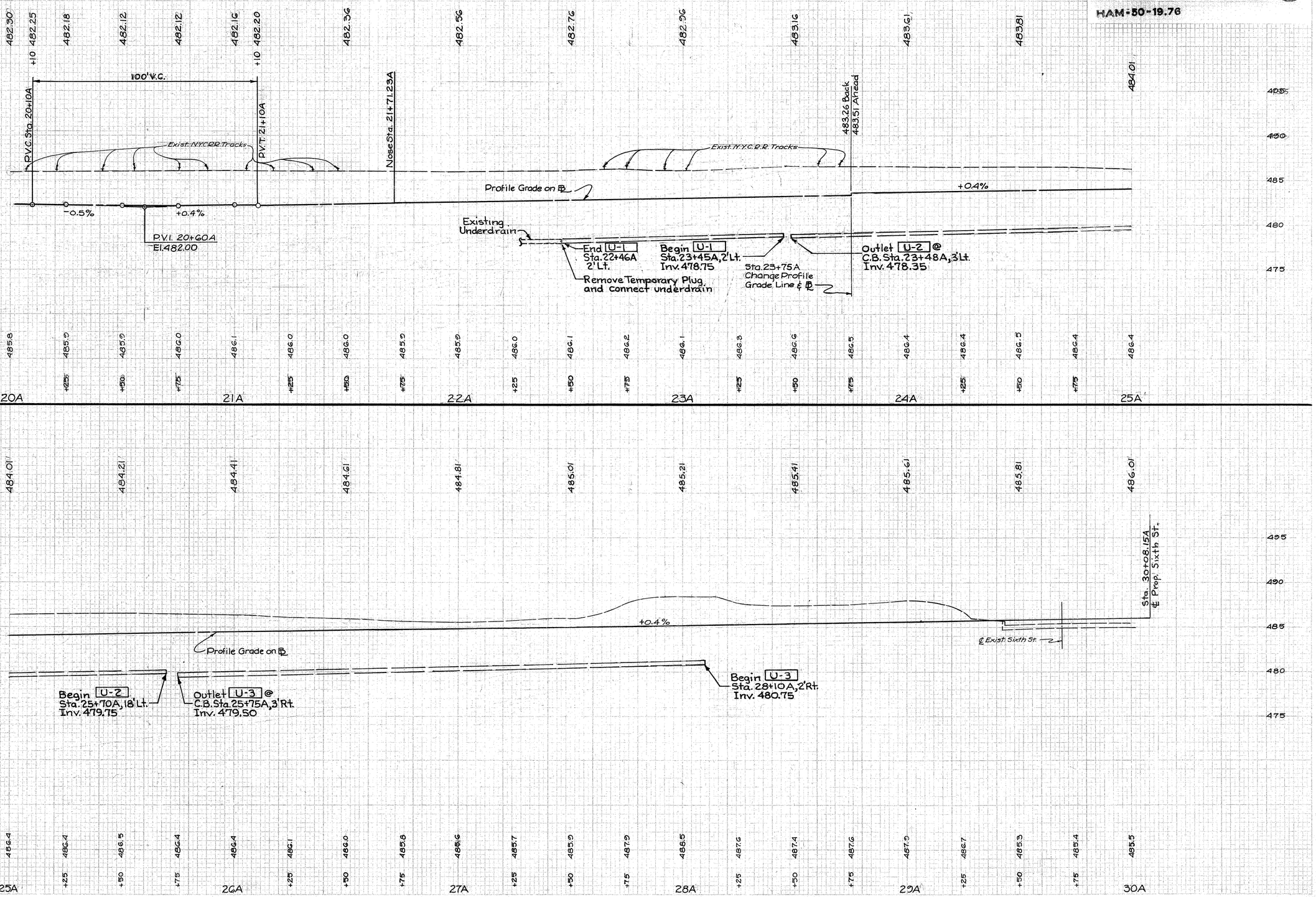

PLATE 3 - CROSS SECTION O.D.O.T. STANDARD

RAMP A

FED. RD. DIV.	STATE	PROJECT	FISCAL YEAR
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Prop. Pier Columns shown as follows,

Ex. 18" P.S. Ex. 18" P.S. Ex. 18" P.S. Ex. 18" P.S. Ex. 18" P.S. Ex. 18" P.S. Ex. 12" P.S. Private Ex. 8" C.I.P.

Met. Casting

Ex. Old Conc. Footings

Ex. Wooden Ice Box

Ex. Old 12" Conc. Wall

Ex. Cinder Parking Areas

1 St. Conc. Met.

Conc. Slab

Connect Exist. House Drain to Prop. Pipe Sewers - Remove

Ex. Conc. Wall (E-1)

Ex. 6' Conc. Wall

Ex. 9" Conc. Wall-2

Ex. 12" Conc. Wall

Ex. Conc. Step

1 St. Met. Seat

Ex. 12" Conc. Wall

Ex. P.S. (Size & Location unknown)

Ex. 2' Conc. Wall

Ex. 9" Conc. Wall

Prop. Drainage Ditch

Prop. 12" P.S.

Fr. Shed

Ex. Cinder Drive

Ex. N.Y.C. R.R. Tracks

Storage Area

Survey Traverse Line

Ex. 15" P.S.

Ex. Intercepter Sewer

Ex. Shed

4 St. Br. * 615

Prop. 21" P.S.

Prop. 54" P.S.

Prop. 15" P.S.

Berm Line

Abandon (Seal)

N. 88° 05' 56" E.

Prop. 12" P.S. Class F-1

Prop. 15" P.S.

Conc. Loading Platform

2:1 Slope

1 St. Conc. Blk. Gar.

Nose 34+08.68 FA

Abandon (Seal) Maintain

C-25

Ex. Meter Box

Prop. Gas Line

Ex. Shingle Footings

Prop. 21" P.S.

Prop. 12" P.S. Class F-1

HORN ALLEY

2:1 Slope

Ex. R/W

1 St. Met. 1122

Ex. 31+67.86 FA (46' Lt.)

Prop. 31+67.86 (46' Lt.)

Ex. 9" Conc. Wall

Ex. Conc. Dr.

Ex. Conc. Area

Ex. Chamber

Berm Line

U-14

Ex. Gate

Ex. Cinders

54'-10"

Base Line Ramp FA

32FA

33FA

34FA

Curve No. 56

EXPRESSWAY

Ex. Bit. Mac. Pvt. & Conc. Curbs

Ex. 15" P.S.

Approach Slab

Curve No. 28

Nose 34+07.36

Ex. 10' C.W.

Ex. 24" G.M.

Ex. 4' G.M.

Ex. 4" W.M.

Ex. 36" W.M.

Ex. 12" Br. Wall

Survey Traverse Line

Ex. Gran. Curb

Ex. Cinders & Mac. Rdwy.

Ex. Conc. Curb

Ex. Conc. Chamber

Curve No. 25

Curve No. 27

Ex. R.R. Tracks

Ex. Conc. Dr.

Ex. Conc. Wall

Ex. Cyclone Fence

Ex. Cinder Parking Lot

Ex. Gravel Dr.

Parking Lot

Ex. Conc. Chamber

Ex. Lumber Piles

Ex. Pulley

Ex. Winching Pulleys

Curve No. 54

Ex. 12" Conc. Wall

Curve No. 26

Curve No. 46

Ret. Wall No. 3

Ex. 18" P.S.

Ex. 10" C.W.

Ex. 4" G.M.

Ex. 4' W.M.

Ex. 4' G.M.

Ex. 6" W.M. F.B.

Ex. 10" W.M.

Ex. 20" W.M.

Ex. 6" W.M.

Ex. 8" W.M.

Ex. 6" W.V.

Ex. 8" W.V.

Ex. 6" Conc. Wall

Ex. Conc.

Ex. Gravel

Ex. Conc.

Ex. 4" W.M.

Ex. 6" W.M. F.B.

Ex. Bit. Mac.

Ex. Bit. Mac. Pvt. & Conc. Curbs

Ex. 2.4' Br.

Ex. 4' W.M.

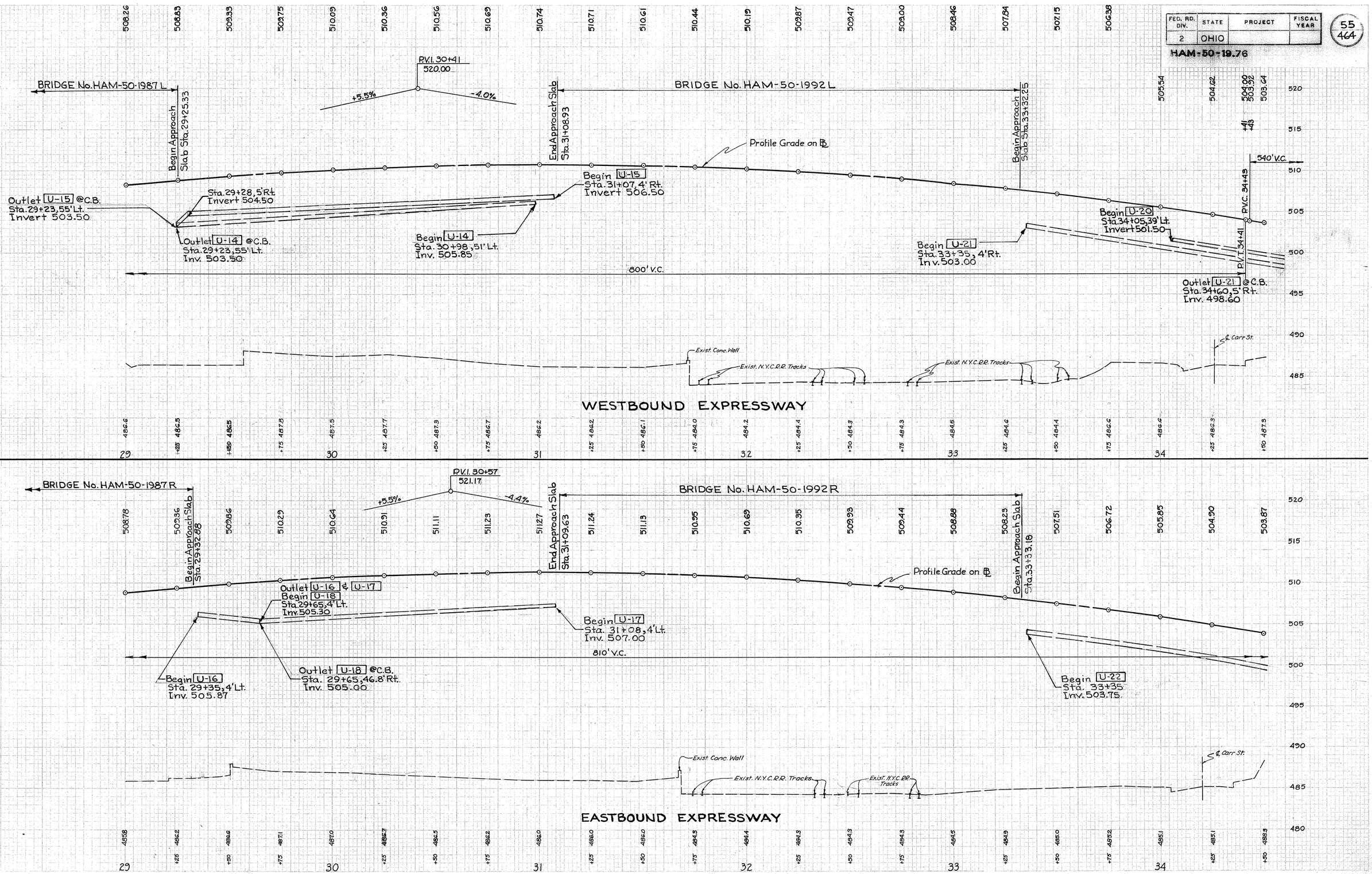
Ex. 4' G.M.

Ex. 10' C.W

FED. RD. DIV.	STATE	PROJECT	FISCAL YEAR
2	OHIO		

55
464

HAM-50-19.76



EXPWY STA. 29+00 to STA. 34+50

FED. RD. DIV.	STATE	PROJECT	FISCAL YEAR
2	OHIO		

56
464

HAM-50-19.76

HARRIET ST. AND CARR ST.

SLOO ST.

HARRIET ST.

CARR ST.

Survey Traverse Line

POC 30+08.15 A
POT 2+99.60 S

PT. 30+87.65 A

PC. 9+98.91 S(S)

PC. 33+08 A

PC. 33+26.26 A

Meet Exist. Pav't.

Meet Exist Pav't Jt. 33+43 A

Match Line

Match Line

Abandon (Seal)

Adjust to Grade

Prop. 12" P.S.

Prop. 15" P.S.

Prop. 54" P.S.

Prop. 30" P.S.

Ex. 3" Gas Main Curb Integral With Walk

Ex. 8' Conc. Walk

Ex. Boulder Pav't. - Mac. Covered

Ex. Field Stone Curb

No Walk

Ex. Lime St. Curb

Ex. Mac. Pav't.

Ex. Conc. Curb

Ex. Conc. Pav. - Mac. Covered

Ex. Brick Drive

Ex. Br. Walk

Ex. Wood Fence

Ex. Cyclone Fence

Ex. Gravel Parking Area

Ex. Mac. Dr.

Ex. Flood Wall

Ex. Concrete Steps

Ex. Scale Platform

Ex. 6" Conc. Wall

Remove Portion of Ex. Wall (Item E-1)

Ex. Conc. Gravel

Ex. Conc. Camber

Ex. 4" W.M.

Ex. 20" W.M.

Ex. 4" G.M.

Ex. R/W

Ex. Gr. Curb

Maintain

Ex. Mac.

Ex. Bit. Mac.

Ex. Bit. Mac.

2 St. Sheet Met.

6 St. Conc.

7 St. Sheet Met. Grain Elevator

1 St. Met. Cover

4 St. Br.

Ex. 6" W.M. F.B.

Ex. 10" C.W.

Ex. 10" W.M.

Ex. 12" W.M.

Ex. 6" Collector

Ex. Flood Gate

Ex. Footings for Steel Bent

Ex. Conc. Curbs

Ex. 18" C.P.S.

Ex. 12" P.S.

Ex. 8" P.S.

Ex. 6" G.M.

Ex. 3" G.M.

Ex. 12" P.S.

Ex. Electric Guy Pole

Ex. Cyclone Fence

Ex. Conc. Curb

Ex. Conc. Walk

Ex. R/W

Ex. Mac. Pav.

Ex. Br. Walk

Ex. Br. Dr.

Ex. 24" G.M.

Ex. 24" Br. S.

Ex. 7" Br. W.

Ex. House Drain

Ex. 6" Interceptor Sewer

Ex. Mac. Pav't. w/ Conc. Curbs

Ex. 10" C.W.

Ex. 24" P.S.

Ex. 15" P.S.

Ex. 6" H.S.V. St. Sewer

Ex. Blacktop Pav't.

Ex. Guard Rail

Ex. Mac. Sidewalk

Ex. Evergreens

Ex. Grass

Ex. Gutter

Ex. Curb

Ex. Concrete Steps

Ex. Gate

Ex. 54" C.P.S.

Ex. 24" G.M.

Ex. 6" Interceptor Sewer Abandoned (By S)

Ex. 8" W.M.

Ex. 4" G.M.

Ex. 48" Br. Sewer

Ex. 54" P.S.

Ex. 4" G.M.

Ex. 8" Collector Drain

Ex. 6" W.M.

Ex. 54" P.S.

Ex. 12" P.S.

Ex. 4" Br. S.

Ex. C.W.

Ex. R/W

Ex. Granite Block Drive

Ex. Br. Dr.

Ex. Conc. Curb

Ex. 10" C.W.

Ex. Br. Dr.

Ex. 24" G.M.

Ex. 6" W.M.

Ex. 7" Br. W.

Ex. R/W

Ex. House Drain

Ex. 6" Interceptor Sewer

Ex. Mac. Pav't. w/ Conc. Curbs

Ex. 10" C.W.

Ex. 24

FED. RD. DIV.	STATE	PROJECT	FISCAL YEAR
2	OHIO		

57
464

HAM-50-19.76

Pipe Curve Data
P.I. Sta. 10+97.86F 6' Rt.
Δ = 21° 43'
D_c = 190° 59'
R = 30'
T = 5.75'
L = 11.37'

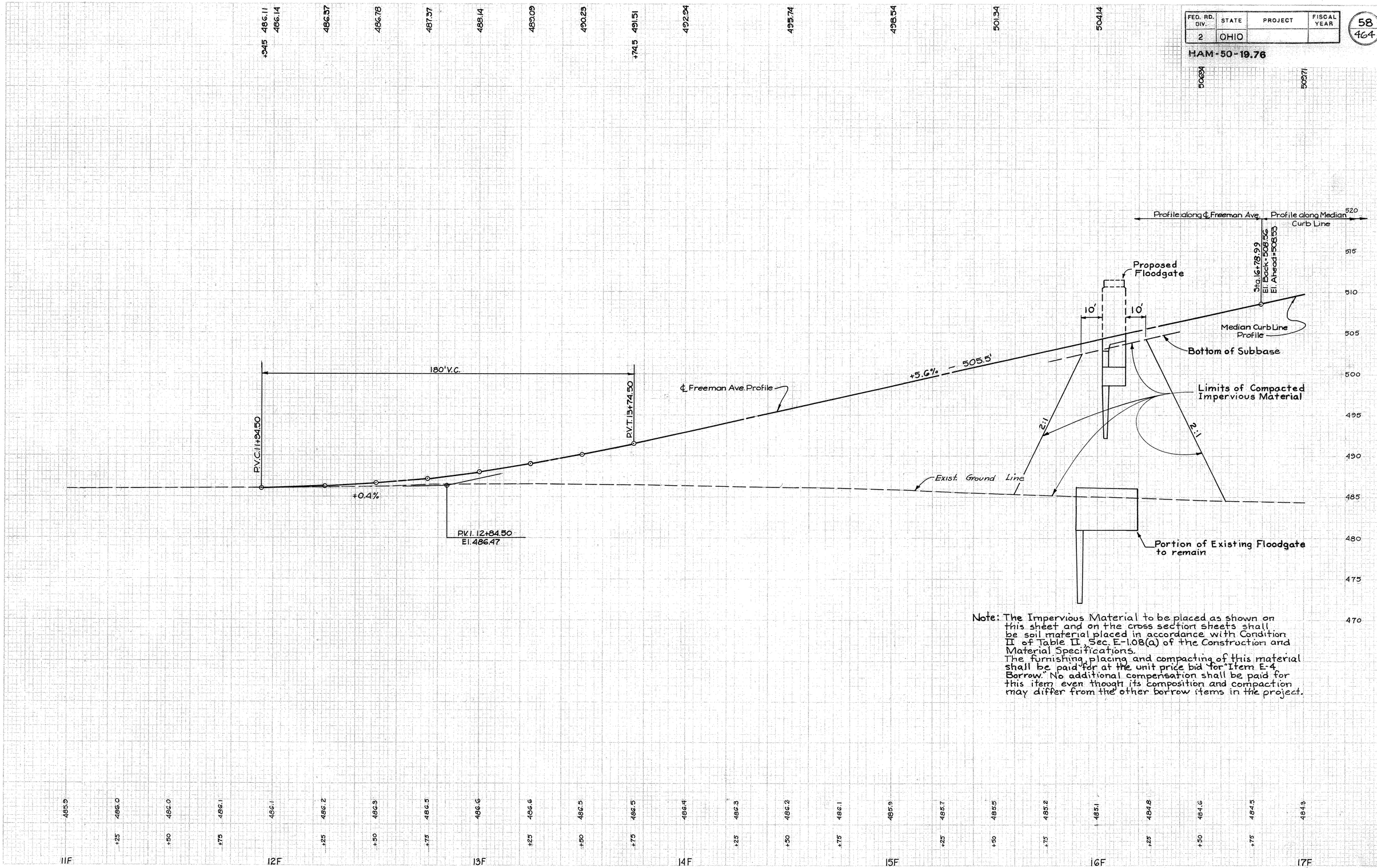
Note : D-1 - Remodel Bottom Existing Manhole.

FREEMAN AVE. STA. 11+00 TO STA. 16+00

FED. RD. DIV.	STATE	PROJECT	FISCAL YEAR
2	OHIO		

58
464

HAM-50-19.76



Note: The Impervious Material to be placed as shown on this sheet and on the cross section sheets shall be soil material placed in accordance with Condition II of Table II, Sec. E-1.08(a) of the Construction and Material Specifications.
The furnishing, placing and compacting of this material shall be paid for at the unit price bid for "Item E-4 Borrow." No additional compensation shall be paid for this item even though its composition and compaction may differ from the other borrow items in the project.

FREEMAN AVE. STA 11+00E to STA 17+00E

FED. RD. DIV.	STATE	PROJECT	FISCAL YEAR
2	OHIO		

59
464

HAM-50-19.76

Remove with Struct. Excavation.

SIXTH ST.

COLLECTOR DISTRIBUTOR RDWY.

FREEMAN AVE.

BRIDGE NO. HAM-50-2007

CARR ST.

SLOO ST.

SIBLEY AL.

RAMP FB

RAMP FC

Ex. Conc. Pier

Ex. Wire Fence

Ex. House Dr.

Ex. Guy Pole

Survey Traverse Line

Berm Line

Base Line

Ex. House Drain

Ex. Guard Post

Ex. Gate

Ex. Scale

Ex. Br. Area

Ex. Conc. Area

Ex. Earth S.W.

Ex. Mac. Pav't. and L.S. Curbs

Ex. Mac. Pav't. Conc. Curbs

Ex. Gran. Pav't. and Conc. Curb

Ex. Mac. Pav't. Abandon (Seal)

Ex. Br. Wk.

Ex. Br. Dr.

Ex. Conc. Dr.

Ex. Conc. Walk

Ex. Conc. Flood Wall

Ex. Steel I Beam Posts with Ex. Steel Pipe Barrier Rail

Ex. Wd. Posts

Ex. Wire Cable

Ex. Guy Wire

Ex. Gates

Ex. Curb Covered

Ex. Earth S.W.

Ex. Mac. Pav't. and L.S. Curbs

Ex. Gran. Pav't. and Conc. Curb

Ex. Br. Wk.

Ex. Br. Dr.

Ex. Conc. Dr.

Ex. Conc. Walk

FED. RD. DIV.	STATE	PROJECT	FISCAL YEAR
2	OHIO		

60
464

HAM-50-19.76

508.71 512.51 515.31 518.11 +80 519.79 520.87 522.13 523.26 524.25 525.20 526.00 526.68 527.25 527.70 528.04 528.27 +60 528.33 528.53 +38 528.72

528.77 528.78 528.67

280' V.C.

240' V.C.

P.V.I. 20+20 F
El. 527.63

P.V.C. 18+80 F

P.V.T. 21+60 F

P.V.C. 22+38 F

+0.5%

End Approach
Slab - Sta. 18+71.83F

Begin Approach
Slab - Sta. 18+46.83 F

+5.6% - 505.5'

BRIDGE No. HAM-50-2007

Crushed Aggregate
Slope Protection

Collector
Distributor

E.B. Expressway

W.B. Expressway

Crushed Aggregate
Slope Protection

Exist. B&O R.R. Tracks

Limits of Embankment for
Stage 1 Construction

6" of I-18

TEMP. RUN-AROUND

1½:1

1½:1

1½:1

Exist. Ground Line

Retaining Walls

Exist. N.Y.C. R.R. Tracks

Remove and replace
with suitable material
under Item E-1
6890 Cu. Yds.

6'x 5' Sewer

Sta. 18+35 F
Elev. 472.0

Sta. 19+07 F
Elev. 476.0

540 535 530 525 520 515 510 505 500 495 490 485 480 475 470

484.3 484.3 483.9 484.4 484.7 485.1 485.4 485.8 485.7 486.1 486.5 488.0 488.7 489.6 490.6 492.7 495.3 495.8 495.7 495.2 490.6 480.6 481.7 498.1 498.4

+25 +50 +75 +25 +50 +75 +25 +50 +75 +25 +50 +75 +25 +50 +75

17F 18F 19F 20F 21F 22F 23F

PLATE 3-CROSS SECTION O.P.R.A.C.S. STANDARD

FREEMAN AVE. STA. 17+00F to STA. 23+00F

FED. RD. DIV.	STATE	PROJECT	FISCAL YEAR
2	OHIO		

61
464

HAM-50-19.76

511.83 510.28 506.46 503.34 502.68 500.97 499.45 498.10 496.93 495.94 495.13 494.49 494.04 493.76 493.66 493.15 493.80 493.95 494.30 494.84

+79.80 +85 +83

Nose Sta. 30+79.80 FB

Begin U-42
Sta. 30+65 FB, 1' Rt.
Invert 508.00

P.V.C. 31+83

300' V.C.

Begin U-41
Sta. 32+04 FB, 2' Rt.
Invert 497.00

Profile Grade on ℄

Begin U-43
Sta. 30+95 FB(s), 2' Lt.
Invert 501.75

Outlet U-43, Begin U-44
Sta. 31+67 FB(s), 2' Lt.
Invert 501.00

Outlet U-42 & U-44
Sta. 32+00 FB, 3' Rt.
Invert 498.00

-7.65%

0.89%

P.V.I. 33+33 FB
El. 492.46

P.V.T. 34+83 FB

Begin U-39
Sta. 36+63 FB, 2' Rt.
Invert 490.75

Nose Sta. 36+84.35 FB

495.28 495.60 +84.35

Outlet U-41
@ C.B. Sta. 34+05 FB, 3' Rt.
Inv. 489.00

Begin U-40
Sta. 34+08 FB, 2' Rt.
Inv. 489.50

Outlet U-40 & U-39
@ C.B. Sta. 34+51 FB, 3' Rt.
Inv. 488.50

Exist. C.O.H. x 5.0' V
Stone Sewer

Exist. C.O.H. x 5.0' V
Stone Sewer

520 515 510 505 500 495 490 485 480 475 470

+75 +25 +50 +75 +25 +50 +75 +25 +50 +75 +25 +50 +75 +25 +50 +75 +25 +50 +75

485.5 484.8 484.3 484.5 485.7 486.1 486.7 486.7 486.6 486.1 486.2 486.4 486.0 485.8 485.3 485.5 485.9 485.5 485.4 485.4 487.4 487.4 484.1 484.7 484.9 485.0

31FB 32FB 33FB 34FB 35FB 36FB 37FB

PLATE 3-CROSS SECTION O.P.S.B.S. STANDARD
REVISED 1 AUGUST 1980 (REVISED)

RAMP FB

FED. RD. DIV.	STATE	PROJECT	FISCAL YEAR
2	OHIO		

62
464

HAM-50-19.76

RAMP FC STA. 40+00 TO STA. 46+00

FED. RD. DIV.	STATE	PROJECT	FISCAL YEAR
2	OHIO		

HAM-50-19.76

63
464

505.88 507.33 508.02 508.73 508.95 509.89 510.77 511.38 511.70 511.75 511.52 511.01 510.22 509.15 507.98 507.92 507.81 506.61 505.87 505.57 505.71 506.31 507.35 508.84 510.60 510.77 512.00

+37 +53.93 +37 +98 +14.47

512.86 -514.72 -516.29

525 520 515 510 505 500 495 490 485 480 475 470

Nose Sta. 40+53.93 FC

P.V.I. 41+67 FC El. 515.55

5.78% 5.81%

P.V.C. 40+37 FC

U-45 Sta. 40+54 FC, 2' Rt. Invert 504.55

Begin U-45 & U-46 Sta. 41+67 FC, 2' Rt. Invert 507.25

260' V.C.

See Collector Distributor

P.V.C. 42+98 FC

200' V.C.

P.V.T. 42+97 FC

Begin U-49 Sta. 44+38 FC(s), 2' Lt. Invert 503.00

-5.81% 6.49%

P.V.I. 44+98 FC

Nose Sta. 45+14.47 FC

Begin U-48 Sta. 45+10 FC, 2' Rt. Invert 507.00

Outlet U-49 @ C.B. Sta. 45+18 FC(s) 3' Lt. Invert 502.50

Outlet U-46 @ C.B. Sta. 43+50 FC, 3' Rt. Inv. 501.20

P.V.I. 43+98 FC El. 502.11

Begin U-47 Sta. 43+53 FC 2' Rt. Inv. 501.25

Outlet U-47 & U-48 @ C. B. Sta. 43+79, 3' Rt. Inv. 500.50

Hannibal St.

Sixth St.

℄ Pierson St.

Freeman Ave.

Exist. 6.0 H x 5.0 V Stone Sewer

Exist. 6.0 H x 5.0 V Stone Sewer

487.5 488.3 488.8 489.4 490.2 490.8 492.5 493.3 492.6 492.7 493.3 492.0 491.0 490.4 488.7 488.0 488.1 487.4 486.8 486.5 486.0 485.1 485.2 485.3

+25 +50 +75 +25 +50 +75 +25 +50 +75 +25 +50 +75 +25 +50 +75 +25 +50 +75

40FC 41FC 42FC 43FC 44FC 45FC

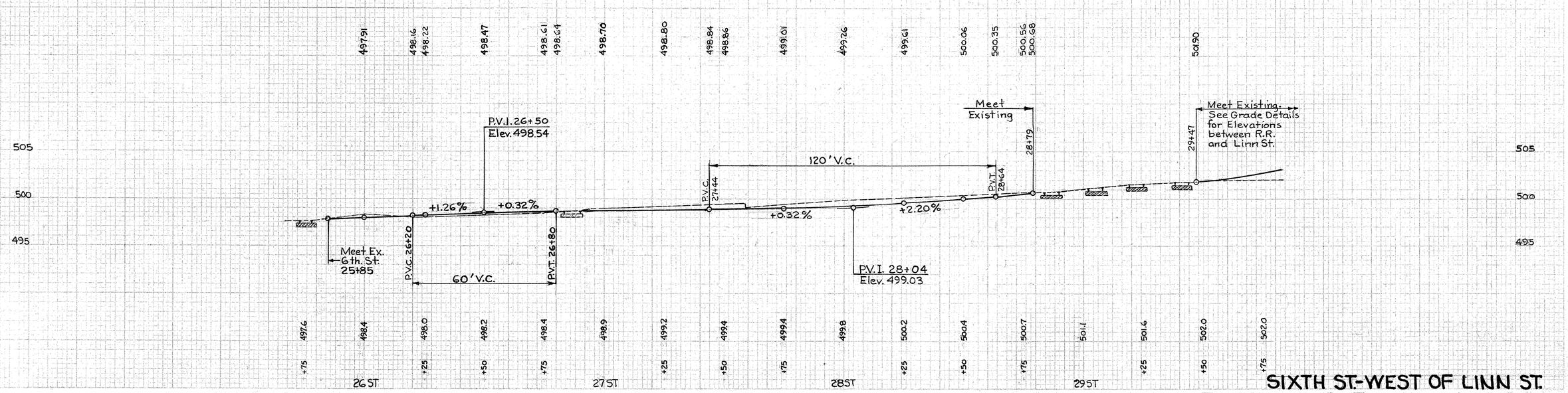
PLATE 3 - CROSS SECTION C.S.S.A.A.E. STANDARD

RAMP FC

RD.	STATE	PROJECT	FISCAL YEAR
	OHIO		

HAM-50-19.76

64
464



SIXTH ST.-WEST OF LINN ST.

PLATE 3-CROSS SECTION O.P.R. & R.E. STANDARD

FED. RD. DIV.	STATE	PROJECT	FISCAL YEAR
2	OHIO		

65/464

HAM-50-19.76

Note D-1: Abandon & Seal Prop. 18 P.S. when no longer needed for Temp. Run-around (incidental to the cost of the Temp. Run-around)

Pipe Curve Data
PI = Sta. 34+60.5 FA 38' Lt.
Δ = 75° 30'
R = 45'
T = 34.84'
L_c = 59.30'

Pipe Curve Data
PI = Sta. 38+22 FA 16' Lt.
Δ = 61° 52'
R = 45'
T = 26.97'
L = 48.59'

Remove Portion of Exist. Stone Wall (Bridge Quantity)

Remove Exist. Bridge (Bridge Quantity)

Remove Ex. Crib Walls (Item E-1)

Remove Ex. Stone Wall (Item E-1)

Type 2 Modified Paved Gutter

Retaining Wall No. 8-21

Remove with Struct. Excavation

Ex. Steel Plate

Ex. 6" Conc. Mat - Remove Ex. Stone Wall (Bridge Quant.)

Ex. Scrap Yard (Filled)

Ex. Scrap Bale Conveyor

Fr. Shed

Ex. Timber Metal Crib Wall

Ex. Timber Crib Wall

Ex. Stone Wall

Ex. N.Y.C. R.R. Tracks

Ex. B&O R.R. Tracks

R.R. Tracks removed (By Others)

Survey Traverse Line

Maintain

Seal

Abandon (Seal)

Nose 22+78.21F

Prop. Sign

Nose PRC 39+12.05 FA (22' Lt.)

PCC 38+98.71 FA

PRC 39+04.61 FA (5)

PC 21+92.10F

PC 36+55.39 FA (19' Rt.)

POT 36+55.39 FA (5)

PCC 37+20.77 FA

POT 37+61.06 FB

PC 38+19.41 FB & FC

POT 38+61.41 FB & FC

PC 38+79.46

POT 39+82.58 FC

PC 40+35.56 FC

POT 40+35.56 FC (W)

PC 40+53.93 FC

PC 40+55.25 FC (N)

Nose 40+54.80 CD

Nose 34+55.81 CD

Nose 34+58.21

Nose 36+92.16 CD

PT 34+87.82 CD

PT 37+20.33

PT 40+35.18 CD

Curve No. 28

Curve No. 26

Curve No. 55

Curve No. 82

Curve No. 74

Curve No. 76

Curve No. 78

Curve No. 63

Change Base Line

Base Line

Approach Slab

Berm Line

Cel. El. 77.2

Cel. Fl. = 88.8

Ret. Wall No. 6

Ret. Wall No. 7

Type 2 Modified Paved Gutter (Bridge Quant.)

Type 2 Modified Paved Gutter

Prop. Temp. 18" P.S. See Note D-1 This Sheet

Prop. 54" P.S.

Prop. 12" P.S.

Prop. 15" P.S.

Prop. 18" P.S.

Prop. 21" P.S.

Prop. 12" P.S. Class F-1

Prop. 15" P.S. Class F-1

Prop. 54 P.S. Class F-1

Ex. 18" P.S.

Ex. 24" P.S.

Ex. 15" P.S.

Ex. 12" P.S.

Ex. 10" C.W.

Ex. 4" W.M.

Ex. 20" W.M.

Ex. 4" G.M.

Ex. 3" G.M.

Ex. 12" C.W.

Ex. 12" C.I.

Ex. 8" W.M.

Ex. 2" P.S.

Ex. 4" W.M.

Ex. 6" W.M.

Ex. 12" W.M.

Ex. 20" W.M.

Ex. 12" P.S.

Ex. 18" P.S.

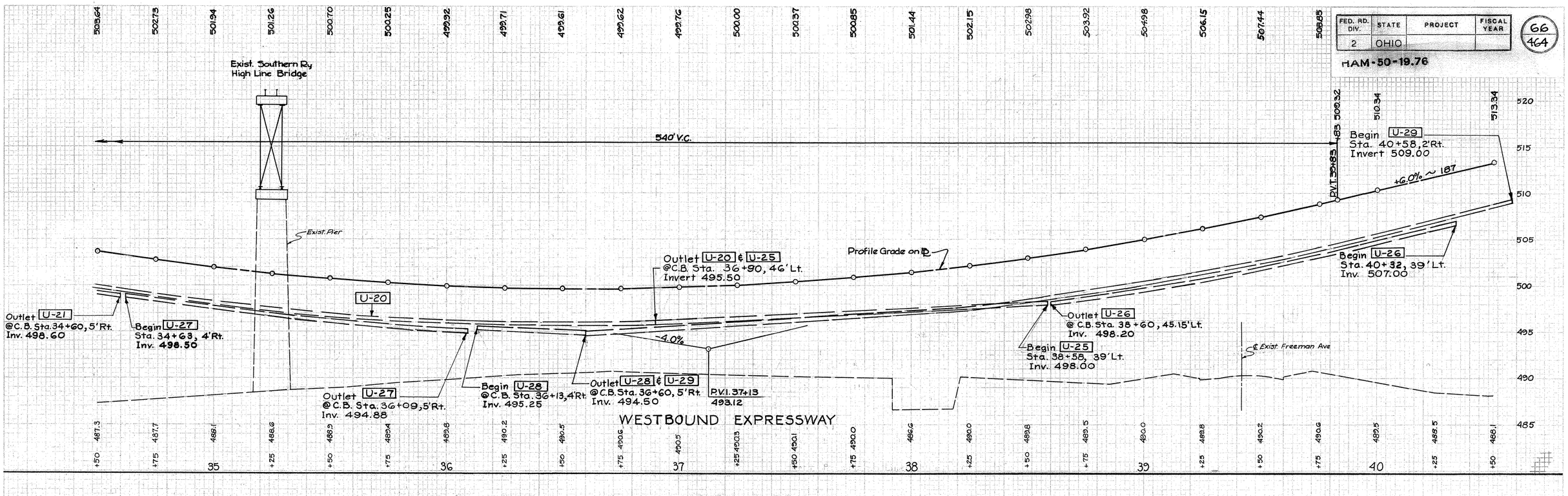
Ex. 15" P.S.

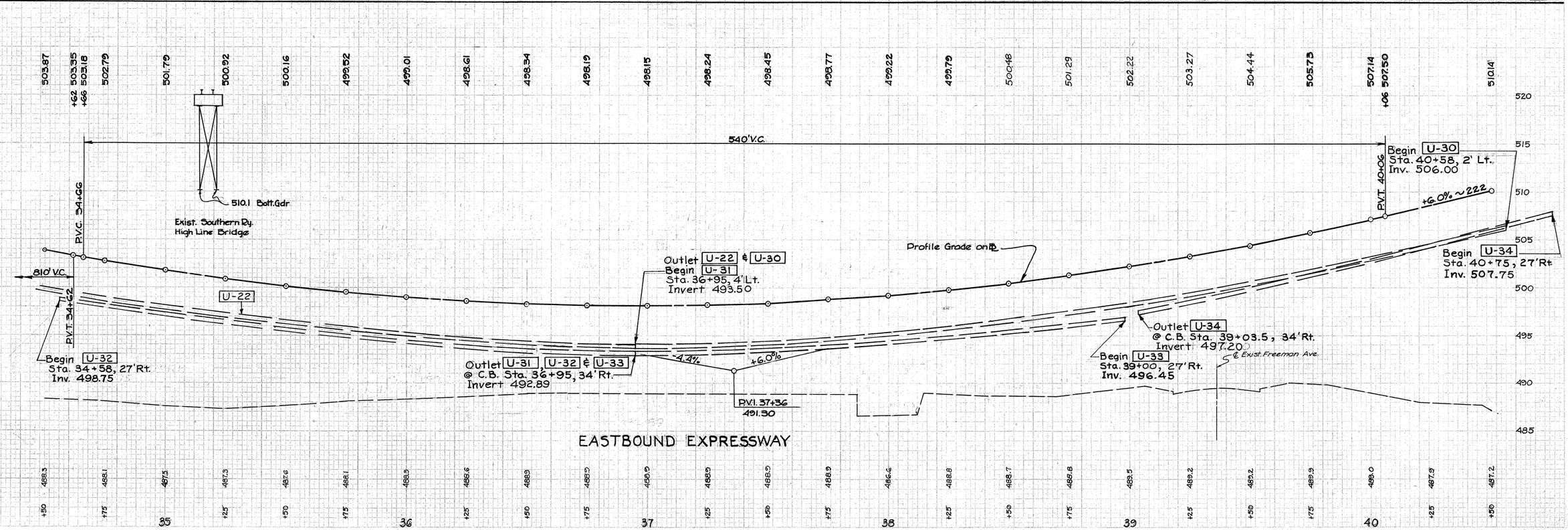
Ex. 10" C.W

FED. RD. DIV.	STATE	PROJECT	FISCAL YEAR
2	OHIO		

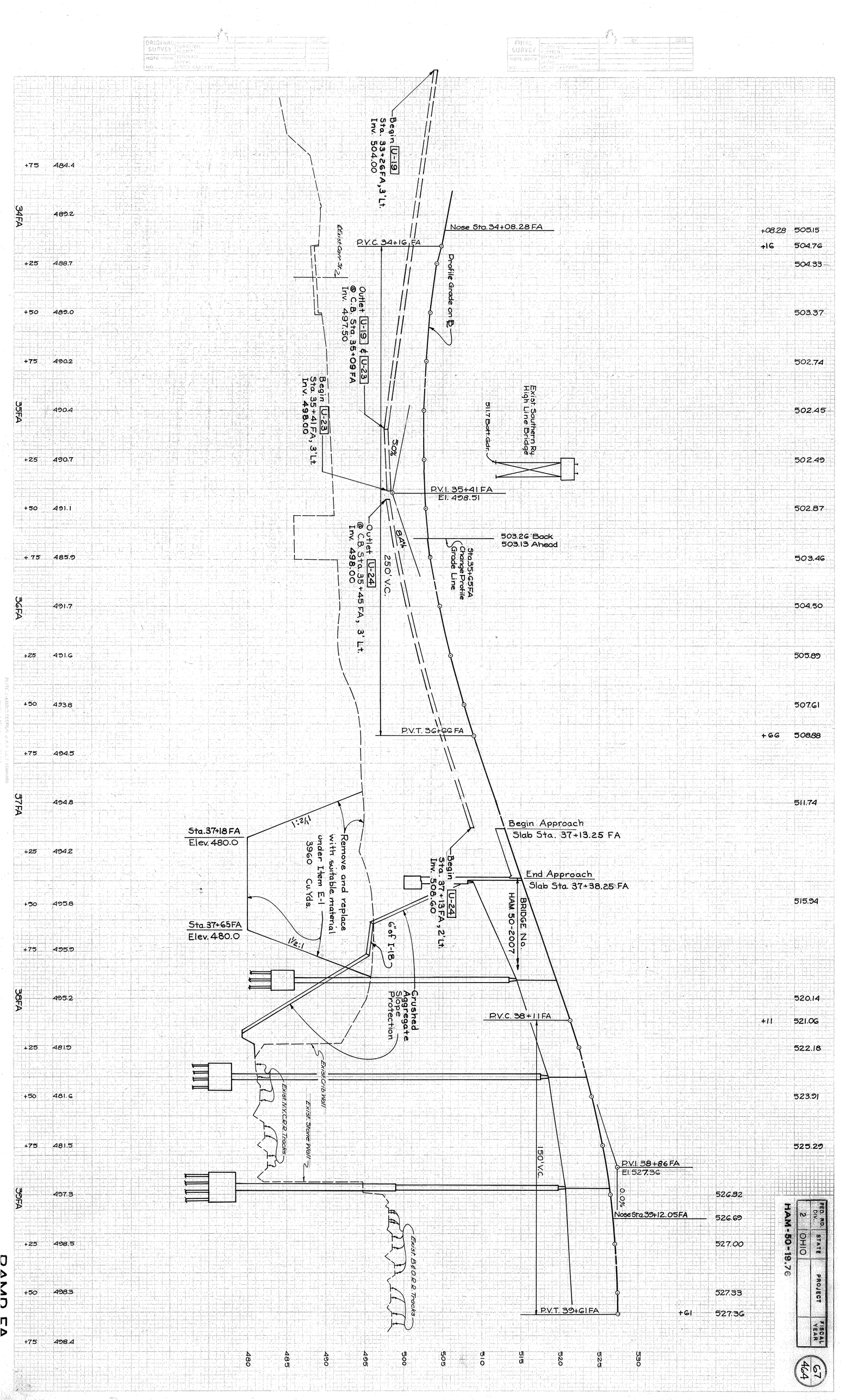
66
464

HAM-50-19.76





EXPWY STA. 34+50 to STA. 40+50



FED. RD. DIV.	STATE	PROJECT	FISCAL YEAR
2	OHIO		

HAM-50-19.76

67
464

DAMD FA

FED. RD. DIV.	STATE	PROJECT	FISCAL YEAR
2	OHIO		

68
464

HAM-50-19.76

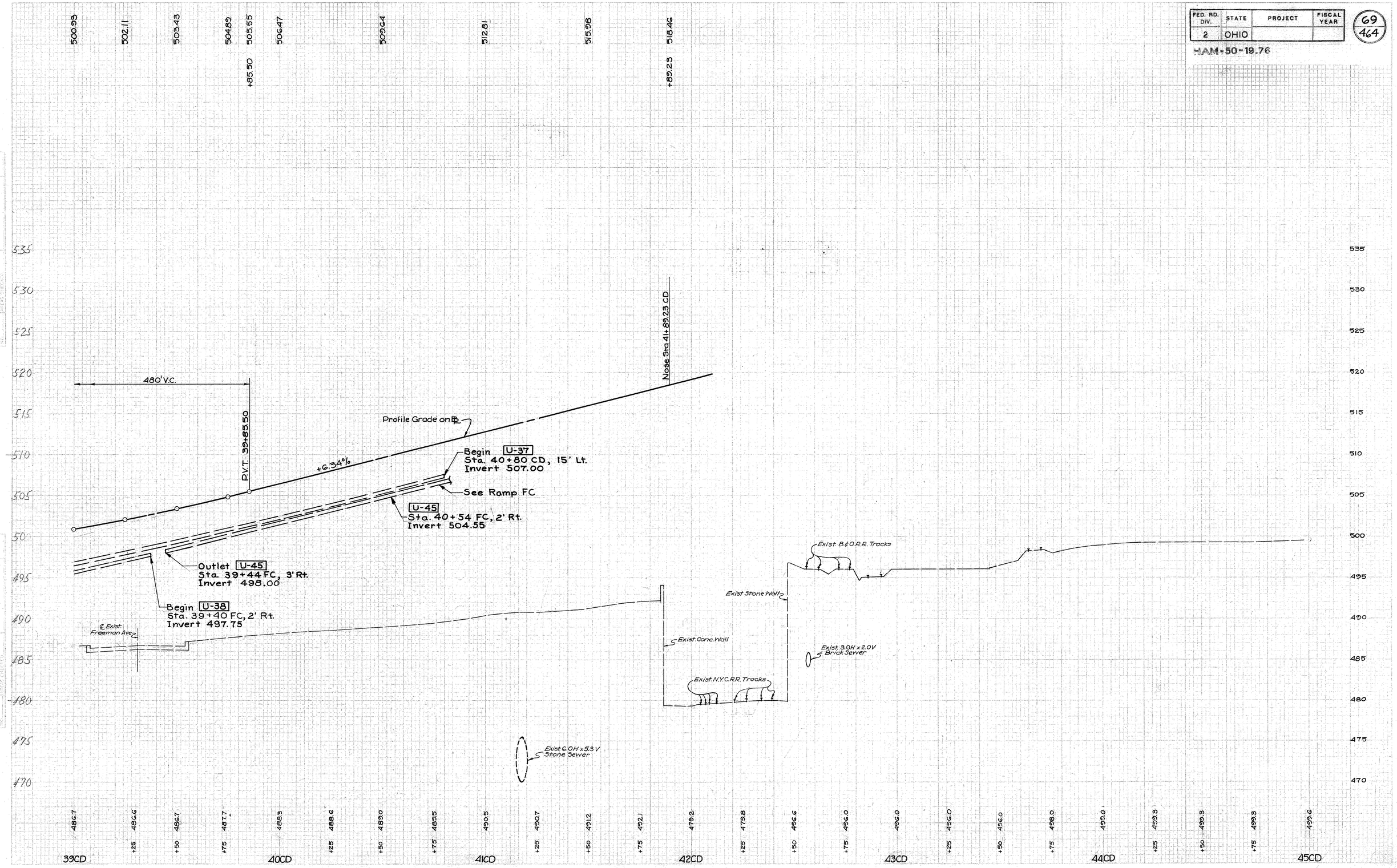
ORIGINAL SURVEY — SURVEYED — COMPUTED — TRACED — CHECKED — DATE — NOTE BOOKS — PAGES — NO. — FINAL SURVEY — BY — DATE — TEMPLATE — TRACED — CHECKED — DATE — NO. — DESCRIPTION

| | | |

FED. RD. DIV.	STATE	PROJECT	FISCAL YEAR
2	OHIO		

69
464

HAM-50-19.76



COLLECTOR DISTRIBUTOR RDWY.

FED. RD. DIV.	STATE	PROJECT	FISCAL YEAR
2	OHIO		

70
464

HAM-50-19.76

FREEMAN AVE. STA. 22+00 TO STA. 28+00

FED. RD. DIV.	STATE	PROJECT	FISCAL YEAR
2	OHIO		

71
464

HAM-50-19.76

528.67 528.45 528.10 527.65 527.07 526.38 525.57 524.64 524.52 523.64 521.64 519.64 519.44 518.48 516.85 516.44 512.84 508.84 505.80 505.94 503.83 530

+0.5% P.V.I. 23+58 F El. 529.32

Profile Shown at Construction ℄

Begin Approach Slab Sta. 25+78.89 F

-4.0%

240' V.C.

P.V.T. 24+78

BRIDGE No. HAM-50-2007

P.V.C. 26+05 F

Change Base Line and Profile Grade Line

50' V.C.

P.V.I. 26+30 FT El. 518.44

P.V.T. 26+55 FT

26+13.14 FT

End Approach Slab Sta. 26+03.89 F

Begin Temporary Construction

Profile Shown at Base Line For Southbound Rdwy.

-8.0%

60' V.C.

P.V.C. 27+88 FT

P.V.T. 28+48 FT

Seventh St.

+0.68%

Exist. B&O. R.R. Tracks

Exist. B&O. R.R. Track

6" of I-18

Exist. Ground Line

P.V.I. 28+18 FT El. 503.40

+43 503.59
+46 503.62

503.96

525 520 515 510 505 500 495 490

498.4 498.2 498.1 498.1 498.2 498.2 498.5 500.2 500.6 495.2 501.4 496.9 502.3 502.5 503.5 503.4 503.0 503.0 503.3 503.0 503.5 503.4

23F +25 +50 +75 24F +25 +50 +75 25F +25 +50 +75 26F +25 +50 +75 27FT +25 +50 +75 28FT +25 +50 +75 29FT

503.96 504.30 504.64

END WORK

Sta. 30+00.19 FT

+0.68%

503.4 503.8 504.1 504.4 504.6 504.9 505.2 505.4 505.6

29FT +25 +50 +75 30FT +25 +50 +75 31FT

520 515 510 505 500 495 490 485

PLATE 5 - CROSS SECTION O.D.O.T. R.E. STANDARD

FREEMAN AVE. STA. 23+00F to STA. 31+00FT

FED. RD. DIV.	STATE	PROJECT	FISCAL YEAR
2	OHIO		

72
464

HAM-50-19.76

Ex. Wire Fence
Ex. Conc. Wall
Ex. Elec. C.
Ex. Gravel Parking Area
Ex. House Dr.
Ex. Conc. Pav't.
Gravel Pav.
Ex. Bit. Mac. Dr.
Ex. Wire Fence
Ex. Conc. W.
Limits of Grading
Ex. Air Pump
Ex. 8" P.S.
Ex. 10" W.M.
Ex. 12" P.S.
Ex. Conc. Wk.
Ex. Bit. Covered Gran. Pav't. & Gr. Curbs
ST.
Survey Traverse Line
Ex. Conc. Wk.
Cel. El. 02.0
2 St. Br.
*1018 - *1020
Cel. El. 02.5
2 St. Br.
Ex. Conc. Wk.
Ex. Conc. Walk
Ex. Br. Pav.
Iron Cover
24"
Ex. 2" G.M.
Cel. El. 96.0
Cel. El. 96.0
3 St. Br.
*1009 - *1016
Cel. El. 96.0
Cel. El. 96.0
Cel. El. 96.0
Ex. Conc. Wall
Ex. Conc. Walk
Ex. C.W.
Ex. 12" P.S.
Survey Traverse Line
VAN HORNE AL.
Ex. Br. Pav.
1 St. Shingle
Ex. Conc.
1 St. Metal
Cel. El. 01.0
2 St. Br.
*1023 - *1025
Cel. El. 01.0
Ex. 12" P.S.
Ex. House Dr.
Ex. Conc.
Ex. Br. Gar.
Cel. El. 00.0
3 St. Br.
*1017 - *1021
Cel. El. 00.0
Ex. Wood Fence
Ex. Conc.
2 St. Br.
Cel. El. 00.0
1½ St. Br.
*1013
Ex. Conc. Wk.
Ex. 20" W.M.
Fuel Intank
Ex. 4" G.M.
Ex. 12" P.S.
ST.
Ex. W.U.C.
Ex. T.C.
LORING AL.
Ex. House Dr.
Ex. C.W.
Ex. 12" P.S.
Ex. 2" G.M.
Ex. Wire Fence
Ex. Conc.
Survey Traverse Line
Ex. Gravel Pav't.
END WORK
Ex. Wire Fence
Ex. Conc. Pav't.
Ex. Conc. Pav't.
1 St. Br.
Survey Traverse Line
Ex. Oil Intakes
Shed
Ex. 1 St. Conc. Blk.
100'
Berm Line
Ex. Conc. Pav't.
R=25'
28 FT(W)
Ex. Gas Intakes
Dr.
Pump Island
Base Line
Temp. Conn.
Ex. Mac. Pav't.
Survey Traverse Line
Ex. Pump Island
Sign. Post
TEMPORARY
Ex. T.C.
Prop. Conc. Walk
Ex. W.U.C.
Ex. 12" G.M.
Ex. 16" W.M.
Berm Line
Ex. 4" G.M.
Prop. 24" P.S.
Limit of Grading
Ex. Conc. Wk.
Ex. House Dr.
Ex. 4" G.M.
Ex. 10" P.S.
Ex. T.C.
Ex. Conc. Wk.
Ex. Gravel Pav't.
Ex. Conc. Pav't.
Fr. Shed
1St Conc. Blk.
12'
Ex. 3" G.M.
Maintain
Prop. 12" P.S.
Prop. 12" P.S.
3 St. Br.
*1000
Prop. Conc. Walk
Ex. Elec. C.
Ex. W.U.C.
Curve No. 71
Ex. T.C.
Curve No. 72
Ex. 12" P.S.
Adjust to Grade
Curve No. 73
Ex. 4" G.M.
Ex. Elec. C.
Ex. Conc. Wk.
Ex. Elec. C.
Ex. Conc. Pav't.
Ex. Wire Fence
Ex. Conc.
Ex. Conc. Pav't.
Cel. El. 00.4
3 St. Br.
*711
Cel. El. 96.2
3½ St. Br.
*713
Cel. El. 96.0
3½ St. Br.
*715
Cel. El. 96.2
3½ St. Br.
*717 - *719
Cel. El. 96.7
*721
Cel. El. 97.0
3½ St. Br.
*723
1 St. Br.
Survey Traverse Line
Ex. Conc. Wk.
Ex. 8" W.M.
Ex. 12" P.S.
Ex. 20" G.M.
Ex. 20" W.M.
Ex. W.U.C.
Ex. T.C.
Ex. 12" P.S.
Ex. 3" G.M.
Ex. Conc. Wk.
Ex. Conc. Wk.
Ex. Bit. Covered Gran. Pav't. & Gr. Curbs
Ex. 10" W.M.
Ex. T.C.
SEVENTH
Survey Traverse Line
Ex. Conc. Wk.
Ex. Conc. Wk.
Ex. Conc. Wk.
Ex. Conc.
Ex. Wood Fence
Ex. Conc.
Ex. Wood Fence
Ex. Wood Plank
Ex. Conc. Wk.
Ex. Conc. Wk.
Ex. Guy Pole
Ex. Elec. C.
Ex. 16" W.M.
VAN HORNE ST.
Ex. 3" G.M.
Ex. Elec. C.
Ex. Conc. Wk.
Ex. Iron Fence
Ex. Conc.
Ex. Brick Wall
Ex. Conc. Blk. Wall
Survey Traverse Line
Ex. Elec. C.
Ex. 4" G.M.
EIGHTH
Ex. 20' G.M.
Ex. 20" W.M.
Ex. Elec. C.
Survey Traverse Line
Ex. 15" P.S.
Iron Pipe
Ex. Elec. C.
Ex. 18" P.S.
Ex. Elec. C.
Ex. Conc. Wk.
Guy Pole
Ex. Gran. Pav't. & Curbs
Ex. 15" P.S.
FREEMAN AVE.
Ex. 16" W.M.
Ex. T.C.
Ex. Elec. C.
N. 07° 35' 50" E.
30 FT
18'
36'
Ex. 15"
Ex. 12" P.S.
Ex. 4" G.M.
Ex. Elec. C.
Ex. Conc. Wk.
Ex. Wood Fence
Ex. Wood Plank
Ex. Conc. Wk.
Ex. Guy Pole
Ex. Wood Fence
Ex. Conc.
Ex. Wood Fence
Ex. Conc. Wk.
Ex. Conc. Wk.
Survey Traverse Line
Ex. Gas Pipes
Ex. Conc.
Ex. Mac. over Conc.
Ex. Pump Island
Ex. Conc. Wk.
Ex. Pk.
L. Std.
1 St. Br.
*664 - *666
1 St. Br.
Gas Station
Ex. 24" P.S.
Ex. 24" P.S.
Ex. 15" P.S.
Ex. T.C.
Survey Traverse Line
Ex. House Dr.
LADD
AL.
2 St. Br.
*702
3½ St. Br.
*704
3 St. Br.
*706
2½ St. Br.
*708
2 St. Br.
2 St. Br.
Ex. Wood Fence
P.T. 29+55.85 FT(E)
P.O.T. 29+96.73 FT(E)
P.T. 30+00.19 FT(16' Lt.)
P.O.T. 30+00.19 FT(186' Rt.)
2 St. Br.
*710
Cel. El. 98.5
1 St. Fr.
Ex. Iron Fence
Ex. Conc.
Cel. El. 97.6
2 St. Br.
3½ St. Br.
*712
Cel. El. 98.0
Ex. Conc. Wk.
Ex. Brick Wall
Ex. Conc. Blk. Wall
3½ St. Br.
*714
Cel. El. 99.5
Cel. El. 98.3
2½ St. Br.
1 St. Fr.
1½ St. Fr.
Ex. Conc. Wk.
3½ St. Br.
*716
Cel. El. 98.2
1 St. Fr.
2 St. Br.
*955 - *957
Survey Traverse Line
Ex. Elec. C.
Ex. 4" G.M.
Ex. 20' G.M.
Ex. 20" W.M.
Ex. Elec. C.
Ex. 8" W.M.
Ex. 12" P.S.
Ex. W.U.C.
Ex. T.C.
Ex. 12" P.S.
Ex. 3" G.M.
Ex. Conc. Wk.
Survey Traverse Line
Ex. Conc. Wk.
Ex. Conc. Wk.
Ex. Conc. Wk.
Ex. Conc.
Ex. Wood Fence
Ex. Conc.
Ex. Wood Fence
Ex. Wood Plank
Ex. Conc. Wk.
Ex. Conc. Wk.
Ex. Guy Pole
Ex. Elec. C.
Ex. 16" W.M.
VAN HORNE ST.
Ex. 3" G.M.
Ex. Elec. C.
Ex. Conc. Wk.
Ex. Iron Fence
Ex. Conc.
Ex. Brick Wall
Ex. Conc. Blk. Wall
Survey Traverse Line
Ex. Elec. C.
Ex. 4" G.M.
EIGHTH
Ex. 20' G.M.
Ex. 20" W.M.
Ex. Elec. C.
Survey Traverse Line
Ex. 15" P.S.
Iron Pipe
Ex. Elec. C.
Ex. 18" P.S.
Ex. Elec. C.
Ex. Conc. Wk.
Guy Pole
Ex. Gran. Pav't. & Curbs
Ex. 15" P.S.
FREEMAN AVE.
Ex. 16" W.M.
Ex. T.C.
Ex. Elec. C.
N. 07° 35' 50" E.
30 FT
18'
36'
Ex. 15"
Ex. 12" P.S.
Ex. 4" G.M.
Ex. Elec. C.
Ex. Conc. Wk.
Ex. Wood Fence
Ex. Wood Plank
Ex. Conc. Wk.
Ex. Guy Pole
Ex. Wood Fence
Ex. Conc.
Ex. Wood Fence
Ex. Conc. Wk.
Ex. Conc. Wk.
Survey Traverse Line
Ex. Gas Pipes
Ex. Conc.
Ex. Mac. over Conc.
Ex. Pump Island
Ex. Conc. Wk.
Ex. Pk.
L. Std.
1 St. Br.
*664 - *666
1 St. Br.
Gas Station
Ex. 24" P.S.
Ex. 24" P.S.
Ex. 15" P.S.
Ex. T.C.
Survey Traverse Line
Ex. House Dr.
LADD
AL.
2 St. Br.
*702
3½ St. Br.
*704
3 St. Br.
*706
2½ St. Br.
*708
2 St. Br.
2 St. Br.
Ex. Wood Fence
P.T. 29+55.85 FT(E)
P.O.T. 29+96.73 FT(E)
P.T. 30+00.19 FT(16' Lt.)
P.O.T. 30+00.19 FT(186' Rt.)
2 St. Br.
*710
Cel. El. 98.5
1 St. Fr.
Ex. Iron Fence
Ex. Conc.
Cel. El. 97.6
2 St. Br.
3½ St. Br.
*712
Cel. El. 98.0
Ex. Conc. Wk.
Ex. Brick Wall
Ex. Conc. Blk. Wall
3½ St. Br.
*714
Cel. El. 99.5
Cel. El. 98.3
2½ St. Br.
1 St. Fr.
1½ St. Fr.
Ex. Conc. Wk.
3½ St. Br.
*716
Cel. El. 98.2
1 St. Fr.
2 St. Br.
*955 - *957

FREEMAN AVE. STA. 28+00 TO STA. 30+00

FED. RD. DIV.	STATE	PROJECT	FISCAL YEAR
2	OHIO		

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N

8 St. Br.
4 St. Br.
2 St. Br.
Ex. 30" P.S.
Maintain
8 St. Br. #974
8 St. Br.
2 St. Br.
3 St. Br.
3 St. Br. #950
1 St. Br. #940
2 St. Br. #934
1 St. Br.
2 St. Br. #930
2 St. Br. #928
2½ St. Br. #926
2 St. Br.
2 St. Br.
2 St. Br. #916
3½ St. Br. #900
ST.

Ex. Elec. Con.
C.W.
Survey Traverse Line
Adjust to Grade Gran. Curb
Ex. 15" P.S.
Maintain
Abandon (Seal)
C-60
M-41
Limit of Grading
Ex. 12" P.S.
Abandon (Seal)
M-42
Ex. Granite Pav't. Asphalt Covered
Ex. 12" P.S.
M-43
Ex. House Dr.
Ex. 12" P.S.
Abandon (Seal)
M-44
Ex. 12" Stone Wall (to remain)
Survey Traverse Line
ST.
Ex. Elec. Con.

KENYON
M-40
Ex. 18" P.S.
Abandon (Seal)
Ex. 12" P.S.
Prop. 30" P.S.
Bulkhead
Ex. 30" P.S.
Ex. 6" W.M.
Ex. 3" G.M.
Ex. Gutter
Prop. 15" P.S.
Prop. 6" P.S.
Plug
C-59
Prop. Conc. Walk
Prop. 24" P.S.
Gran. Curb
Prop. 24" P.S.
Prop. 12" P.S.
Plug
Prop. 15" P.S.
Met. Canopy Overhead
Plug
Plug
Prop. 15" P.S.
Plug
Prop. 6" P.S.
Plug
Prop. 15" P.S.

Curve No. 113
41K
42K
S. 78° 34' 03" E.
Base Line
43K
1 St. Sh. Met. Warehouse
27'
Prop. 21" P.S.
Prop. 6" P.S.
Prop. 12" P.S.
Remove Portions of Exist. Conc. Loading Dock under Item E-1
44K
45K
45K(EB)
Curve No. 114
Prop. 18" P.S.
Prop. 12" P.S.
Ex. House Dr.
46K
46K(EB)
Nose
46+17.20 K
R-1' F/C
S. 77° 40' E.
Remove Portions of Exist. Conc. Floodwall under Item S-22
47K
47K(EB)
Prop. 12" P.S.
Ex. 21" St. Wtr.

41+12.30 K
P.T.
Prop. Conc Walk
Abandon (Seal)
Berm Line
2:1 Slope
R.R. Tracks removed (By Others)
27'
10'
16'
Ex. B & O R.R. Tracks
Maintain
P.O.T. 44+44.96 K(EB)
P.C. 44+44.96 K(EB)
P.T. 45+35.04 K(EB)
Prop. Ret. Wall No. 11
Ex. Loading Dock
Ex. Conc. Loading Dock
℄ (EB) Kenyon St.
℄ (S) Kenyon St.
Curve No. 100.3
Curve No. 101
Berm Line
2:1 Slope
Ex. Stone Wall
Remove Portions of Exist. Stone Wall under Item E-1
P.O.T. 46+22.62 K(EB)
P.C. 46+22.62 K(S)
P.C.C. 46+80.85 K(S)
Ex. Stone Wall (to remain)
Ex. 18" Conc. Flood Wall
Ex. 15" St. Wall
BAYMILLER

Ex. Cinder Drive
Ex. 3' x 2.5' Stone Sewer
Ex. B & O R.R. Tracks
Ex. Stone Wall
Ex. B & O R.R. Track
Ex. 3.8' x 3' Stone Sewer
Ex. Cinder Dr.
Ex. Loading Dock
1 St. Sh. Met. Warehouse

KENYON ST. STA. 41+00 TO STA. 47+00

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2	OHIO		

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| | | |

FED. RD. DIV.	STATE	PROJECT	FISCAL YEAR
2	OHIO		

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Notes: D-1 - Remodel Bottom Existing Manhole & Adjust Top of Cover to Grade.

★ See note in Proposal for filling and sealing existing 42" sewer (Ref. Nos P-24 and P-25)

N

Ex. Loading Dock

Ex. Loading Dock

1 St Sh. Met. Warehouse

Ex. Cinder Dr.

Ex. Conc. Steps 6' x 5'

Prop. Conc. Steps. See Sheet No. 188 for Details

Ex. 18" Stone Wall

Ex. 15" St. Wall

Ex. Conc. Wall

Elec. C.

Prop. 12" P.S.

Ex. 9" Con. Wall

1 St. Fr.

1 St. Corr. Met.

Ex. B & O. R.R. Tracks

Ex. Stone Wall

Ex. 24" P.S.

Approx. Location Ex. 3.8'H x 3.0'V Br.

Ex. Inlet

Ex. NYC. R.R. Tracks

Prop. Retaining Wall No. 8-2

Type 2 Mod. Pvtd. Gutter-J

Prop. 12" P.S.

Prop. 15" P.S.

2:1 Slope

Prop. 12" P.S.

Ex. Stone Wall

Remove Ex. Stone Wall and Pilaster (Bridge Quant.)

Ex. Stone Pilaster

Ex. Stone Wall

Varies

Ex. Br. Wall

Prop. 12" P.S. Class F-1

Approach Slab

U-26

U-29

S. 62° 21' 46" E.

Prop. Retaining Wall No. 7

S. 83° 13' 20" E.

Approach Slab

U-34

Prop. 12" P.S.

U-37

Base Line

Curve No. 63

Prop. Sign

S. 83° 13' 20" E.

Ex. 10" C.W.

Ex. 8" W.M.

U-45

Curve No. 85

Abandon (Seal)

Ex. 3" G.M.

Ex. 12" P.S.

Abandon (Seal)

Ex. 3" G.M.

Ex. 10" C.W.

Ex. Wire Fence

Survey Traverse Line

Seal with Bulkhead

Remove Portion of Ex. Stone Wall (Bridge Quantity)

Remove Ex. Stone Wall (Bridge Quantity)

Ex. 24" P.S. to Remain

Curve No. 60

S. 83° 13' 20" E.

Ex. 24" P.S.

Ex. 24" P.S.

Ex. 2'-6" Stone Sewer

Ex. 3'-6" Stone Sewer

Ex. 42" C.I.P. Inspected

Ex. 4'-6" Br. Sewer

Ex. Conc. Foundation Wall

Ex. Inlet

Prop. 12" P.S. Class A-1 Sec. M. 6.6 (d) Under Railroad

Curve No. 64

N. 89° 05' 22" E.

Ex. Br. Fill

Prop. 12" P.S. Class F-1

Prop. 24" P.S.

Ex. Stone Wall

Ex. Guy Pole

Prop. 12" P.S. Class F-1

Survey Traverse Line

Ex. Conc. Pavm't and Gr. Curbs

Ex. 2' G.M.

Berm Line

Ex. 10' C.W.

Ex. 6" W.M.

Ex. C.

3½ St. Br. 2 St. Br. 2 St. Br.

#551 #347

Seal with Bulkhead

Ex. 3½ St. Br. #943

Meet Exist. Pav't Sta. 25+85 ST

Traverse Line

Ex. Inlets

Prop. 24" P.S.

Ex. Conc.

Drive

Prop. Retaining Wall No. 9-2

Type 2 Mod. Pav. Gutter

Abandon Seal

Ex. 2'75 H x 3' Br. Sewer

Ex. Brick Lined Brook Loop

Wood Bumper

Abandon (Seal)

Ex. R/W

Ex. 10' C.W.

Ex. 8" W.M.

Abandon (Seal)

Prop. 12" P.S.

Ex. Guy Pole

Ex. Inlets

Prop. 24" P.S.

Ex. 24" P.S.

Ex. 10' C.W.

Prop. 15" P.S.

Prop. 18" P.S.

Ex. R/W

Ex. Bit. Mac. Crossing

Ex. 4" Stand. Pipe

Prop. Tower Footing Grillage (By Others)

Ex. Guy Wires

Ex. Meter Box

Prop. Tower Outline at Ground Line (By Others)

Seal with Bulkhead

Ex. R.R. X-ing Buck

Abandon (Seal)

Ex. 3'-6" x 2'-5" Br. Sewer

Ex. Guy Pole

Ex. Guy Wires

Abandon (Seal)

Ex. Conc. Pavm't and Conc. Curbs

Ex. Guy Wire

Ex. 10' C.W.

Prop. 12" P.S.

Ex. Aband. 12" P.S.

Prop. 15" P.S.

Prop. 18" P.S.

Ex. 8" Collector Dr.

Ex. 8" W.M.

Ex. Gran. Curb

Prop. Conc. Walk

Survey Traverse Line

Ex. 8" Collectors Drain

Maintain

Ex. 12" C.P.S. (Private)

Ex. 12" C.P. Sewer to remain in service

Ex. Gate House

Ex. Conc. Bulkhead

Ex. 8" W.M.

FLOOD GATE NO. 13

Ex. Bit. Mac. R.R. Crossing

Ex. 2" C.W.

Ex. R/W

Ex. 12" C.P.S. (Private)

Ex. 12" C.P. Sewer to remain in service

Ex. 8" Driveway

Ex. 18" Flood Wall

Ex. W.U.C.

Ex. Elec. C.

Ex. Br. Fill

Ex. Stone Wall

Ex. Inlets

Ex. Conc. Foundation Wall

Ex. Brick Lined Brook Loop

Ex. Conc. Bulkhead

Ex. Conc. Loading Platform

Ex. Frame House

Ex. Tension Tower

Ex. Power Tower

Ex. Guy Wire

Ex. Bit. Mac. Crossing

Ex. 8" W.M.

Ex. 8" Collectors Drain

Maintain

Ex. 12" C.P.S. (Private)

Ex. 12" C.P. Sewer to remain in service

Ex. Gate House

Ex. Conc. Bulkhead

Ex. 8" W.M.

FLOOD GATE NO. 13

Ex. Bit. Mac. R.R. Crossing

Ex. 2" C.W.

Ex. R/W

Ex. 12" C.P.S. (Private)

Ex. 12" C.P. Sewer to remain in service

Ex. 8" Driveway

Ex. 18" Flood Wall

Ex. W.U.C.

Ex. Elec. C.

Ex. Br. Fill

Ex. Stone Wall

Ex. Inlets

Ex. Conc. Foundation Wall

Ex. Brick Lined Brook Loop

Ex. Conc. Bulkhead

Ex. Conc. Loading Platform

Ex. Frame House

Ex. Tension Tower

Ex. Power Tower

Ex. Guy Wire

Ex. Bit. Mac. Crossing

Structural Steel of Exist. Tower to be removed by Others. Substructure to be removed under Bridge Quantities.

Ex. B & O. R.R. Tracks

Ex. Guy Wire

Ex. B & O. R.R. Tracks

Ex. B & O. R.R. Tracks

Relocated R.R. Track (By Others)

R.R. Tracks removed (By Others)

N. 86° 20' 01" E.

R.R. Tracks removed (By Others)

R.R. Tracks removed (By Others)

Curve No. 62

Curve No. 59

Curve No. 61

Curve No. 58

Remove Ex. Sewers under Bridge Quantities

Curve No. 57

Curve No. 116

Curve No. 117

Curve No. 115

Curve No. 85

Curve No. 86

Base Line

Base Line

Base Line

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510.14 513.14 516.14 519.14 520.82 522.11 523.50 524.82 526.06 527.23 528.32 529.33 530.26 531.12 531.91 532.41 533.25 533.80 534.28 534.68 535.00 535.25

P.V.I. 44+38
537.016

-0.6%

535
530
525
520
515
510
505
500
495
490
485
480

Profile Grade on ℄

540' V.C.

Begin Approach
Slab Sta. 40+60.46

End Approach
Slab Sta. 40+85.46

BRIDGE No. HAM-50-2012 R

+6.0% ~ 222'

P.V.C. 42+28

Crushed Aggregate
Slope Protection

Exist. Conc. Wall

Exist. Stone Wall

Exist. B&O.R.R. Tracks

Exist. B&O.R.R. Track

Exist. B&O.R.R. Tracks

Exist. B&O.R.R. Tracks

Remove and replace with suitable material under Item E-1
8170 Cu. Yds.

Exist. N.Y.C.R.R. Tracks

Exist. 3.0 H. x 2.0 V. Brick Sewer

EASTBOUND EXPRESSWAY

Sta. 40+57
Elev. 476.0

1½:1 Slope @ 90° to ℄ Abut. Brg.

Sta. 41+17
Elev. 476.0

Exist. 6.0 H. x 5.3 V. Stone Sewer

487.7 488.3 489.0 489.7 490.0 479.9 480.3 480.3 496.8 495.2 496.0 497.6 497.8 498.8 499.1 499.4 499.3 499.4 499.6 500.1 500.2 500.3 500.8 501.6 502.3

+50 +75 41 +25 +50 +75 42 +25 +50 +75 43 +25 +50 +75 44 +25 +50 +75 45 +25 +50 +75 46 +25 +50

PLATE 5, CROSS SECTION, O.P.R.D.E.E. STANDARDS

E.B. EXPWY. STA. 40+50 to STA. 46+50

ORIGINAL SURVEY
FINAL SURVEY
NOTE BOOK
NO.
DATE
CHECKED
TENTATIVE
AREAS
CHECKED

FED. RD. DIV.	STATE	PROJECT	FISCAL YEAR
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513.34 516.34 519.34 520.54 520.84 522.29 523.66 524.96 526.19 527.34 528.42 529.43 530.36 531.22 532.01 532.72 533.36 533.92 534.41 534.83 535.17 535.44 535.64 535.76

+50 +70 +75

PVI 44+50
537.34
-0.6%

Profile Grade on ℄

Begin Approach
Slab Sta. 40+56.11

End Approach
Slab Sta. 40+81.11

BRIDGE No. HAM-50-2012 L

+6.0% ~ 187'

PVC 41+70

560' V.C.

535 530 525 520 515 510 505 500 495 490 485 480

Crushed Aggregate
Slope Protection

Exist. Brick & Stone Wall

Exist. B & O.R.R. Tracks

Exist. Stone Wall

Exist. B & O.R.R. Tracks

Exist. B. & O.R.R. Tracks

Exist. N.Y.C.R.R. Tracks

Exist. 4.3. Hx 4.0V Brick Sewer

Remove and replace with suitable material under Item E-1
8170 Cu. Yds.

1½:1 Slope @ 90° to ℄ Abut. Brg.

Sta. 40+53
Elev. 476.0

Sta. 41+13
Elev. 476.0

WESTBOUND EXPRESSWAY

488.1 488.3 488.7 488.1 489.3 490.2 490.7 490.5 490.5 491.1 491.7 491.0 491.9 492.5 493.0 493.2 493.3 493.5 494.0 494.5 495.0 495.3 495.2 495.5 495.5 496.4 501.4 502.2

+50 +75 +25 +50 +75 +25 +50 +75 +25 +50 +75 +25 +50 +75 +25 +50 +75 +25 +50

41 42 43 44 45 46

PLATE 3 - CROSS SECTION O.D.O.T. 1-H-K STANDARD

W.B. EXPWY. STA. 40+50 to STA. 46+50

ORIGINAL SURVEY / FINAL SURVEY — SURVEYED, PLOTTED, TEMPLATE, CHECKED, DATE

FED. RD. DIV.	STATE	PROJECT	FISCAL YEAR
2	OHIO		

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52 L A (S)

WESTBOUND EXPRESSWAY
BRIDGE NO. HAM-50-2012 L

EASTBOUND EXPRESSWAY
BRIDGE NO. HAM-50-2012 R

HATHAWAY ST.

LINN ST.

SIXTH ST.

BAYMILLER ST.

WINGATE ST.

AL. ST.

RAMP LB

Berm Line

Ex. Stone Wall

Seal with Bulkhead

Nose sta 11+99.15 (L) 39.56 Rt.

Nose sta 12+25.75 L

Nose sta 11+99.15 (R) 39.56 Rt.

Nose sta 9+82.43 (L) 39.56 Rt.

Nose 11+99.15 (L) 39.56 Rt.

Abandon (Seal)

Ex. Track Covered with Asph. Conc.

Ex. Conc. Wall

Ex. Conc. Steps

Ex. 15" Stone Wall

Ex. Conc. Walk

Ex. Track Covered with Asph. Conc.

Ex. 4' Brick Walk

Ex. 8" C.W.

Ex. 8" W.M.

Ex. T.C.

Ex. R/W

Ex. 3' G.M.

Ex. 3' C.W.

Ex. 4" W.M.

Ex. 4' G.M.

Ex. 10' C.W.

Ex. 10' Br. Wk.

Ex. 10' Stone Wk.

Ex. 12" P.S.

Ex. 15" P.S.

Ex. 15" P.S. (Maintain)

Ex. Elec. C.

Ex. House Dr.

Ex. Fence

Ex. Br. Wall

Ex. Conc. Blk. Wall

Ex. Conc. Bulkhead

Ex. 8" Collector Drain

Ex. 12' C.P.S. (Private)

Ex. 49.5" Sewer

Ex. 20' Gravel

Ex. 2' C.W.

Ex. 2' R/W

Ex. 8" W.M. Crossing

Ex. Bit. Mac. R.R. Crossing

Prop. 48" P.S.

Prop. 15" P.S.

Prop. 12" P.S.

Prop. 12" P.S. Class F-1

Prop. 24" P.S.

Prop. 18" P.S.

Prop. 12" P.S. Survey Traverse Line

Prop. Conc. Steps. See Sht. No. 168 for Details.

Prop. Conc. Walk

Prop. Conc. Blk. Wall

Prop. Sign

Prop. Track Drain

Prop. Conc. Ex. Br. Wall

Prop. Conc. Walk Ex. Conc. Blk. Wall

Prop. 12" P.S. Survey Traverse Line

Prop. 15" P.S. Survey Traverse Line

FED. RD. DIV.	STATE	PROJECT	FISCAL YEAR
2	OHIO		

HAM-50-18.78

79
464

535.25 | 535.43 | 535.54 | 535.48 | +68 535.40 | 535.20 | 534.90 | 534.60 | 534.30 | 534.00 | 533.70 | 533.40 | 533.10 | 532.80 | 532.72 | 532.66 | 532.60

BRIDGE No. HAM 50-2012 R

Begin Approach Slab Sta. 48+69.14

End Approach Slab Sta. 48+34.14

Begin U-61 Sta. 48+86.39' Rt. Invert 531.40

P.V.T. 47+68

540' V.C.

-0.6%

Profile Grade on ℄

P.V.C. 52+14

250' V.C.

535

530

525

520

515

510

505

Begin U-59 Sta. 48+98.2' Lt. Invert 530.00

Outlet U-59 @ C.B. Sta. 50+50.5' Lt. Invert 528.50

Begin U-60 Sta. 50+54.4' Lt. Invert 529.00

Ex. Flood Wall

4" Concrete Pavement

Relocated Linn St.

Concrete Slope Protection (Bridge Quant.)

Remove & replace with suitable material under Item E-1 7220 Cu. Yds.

℄ Exist. Wingate Alley

℄ Exist. Baymiller St.

Exist. Cinti. St. Rwy. Tracks

Exist. 4.3 Brick Sewer

1½:1 Slope @ 90° to ℄ Abut. Brg.

Sta. 48+42 Elev. 497.0

Sta. 48+93 Elev. 497.0

502.2 | 503.7 | 504.1 | 505.1 | 505.6 | 507.0 | 502.1 | 502.1 | 502.1 | 513.5 | 514.0 | 510.7 | 513.6 | 510.9 | 517.2 | 517.9 | 518.5 | 519.4 | 512.2 | 520.0 | 516.1 | 520.9 | 521.8 | 522.2 | 522.5

+50 | +75 | +25 | +50 | +75 | +25 | +50 | +75 | +25 | +50 | +75 | +50 | +25 | +50 | +75 | +25 | +50 | +75 | +25 | +50

47 | 48 | 49 | 50 | 51 | 52

PLATE 3 - CROSS SECTION O.P.R.E.P.S. STANDARD

EB EXPWY STA 46+50 to STA 52+50

FED. RD. DIV.	STATE	PROJECT	FISCAL YEAR
2	OHIO		

HAM-50-19.76

80
464

535.76 | 535.81 | 535.79 | 535.69 / 535.66 +30 | 535.54 | 535.24 | 534.94 | 534.64 | 534.34 | 534.04 | 533.74 | 533.44 | 533.14 | 532.75 | 532.70 | 532.63

BRIDGE No. HAM-50-2012 L

Begin Approach Slab Sta. 48+75.70

End Approach Slab Sta. 49+00.70

560' V.C.

P.V.I. 47+30

-0.6%

Profile Grade on ℄

250' V.C.

P.V.C. 52+15

Outlet U-58 @ MH
Sta. 52+60 EB, 8' Lt.
Invert 527.75

End U-56 & Begin U-58
Sta. 52+60, 4' Rt.
Invert 528.00

Begin U-54
Sta. 49+15, 39' Lt.
Invert 528.75

Begin U-56
Sta. 49+03, 2' Rt.
Invert 530.25

℄ Exist. Hathaway St.

Outlet U-54 @ C.B.
Sta. 52+57, 46' Lt.
Invert 526.75

535 | 530 | 525 | 520 | 515 | 510 | 505 | 500 | 495

Exist. Flood Wall

4" Concrete Pavement

℄ Exist. Baymiller St.

Relocated Linn St.

Concrete Slope Protection (Bridge Quant.)

Remove & replace with suitable material under Item E-1
7220 Cu. Yds.

Exist. Cinti. St. Ry. Tracks

Exist. 4.3 Brick Sewer

Sta. 48+48
Elev. 497.0

1½:1 Slope @ 90° to ℄ Abut. Brg.

Sta. 49+00
Elev. 497.0

+50 502.2 | +75 504.1 | 504.3 | +25 501.1 | +50 506.8 | +75 507.9 | 509.0 | +25 502.1 | +50 502.1 | +75 511.5 | 509.0 | +25 510.7 | +50 514.4 | +75 510.9 | +25 516.0 | +50 512.1 | +75 512.8 | 519.3 | +25 519.4 | +50 519.6 | +75 520.3 | 520.8 | +25 521.7 | +50 523.0

47 | 48 | 49 | 50 | 51 | 52

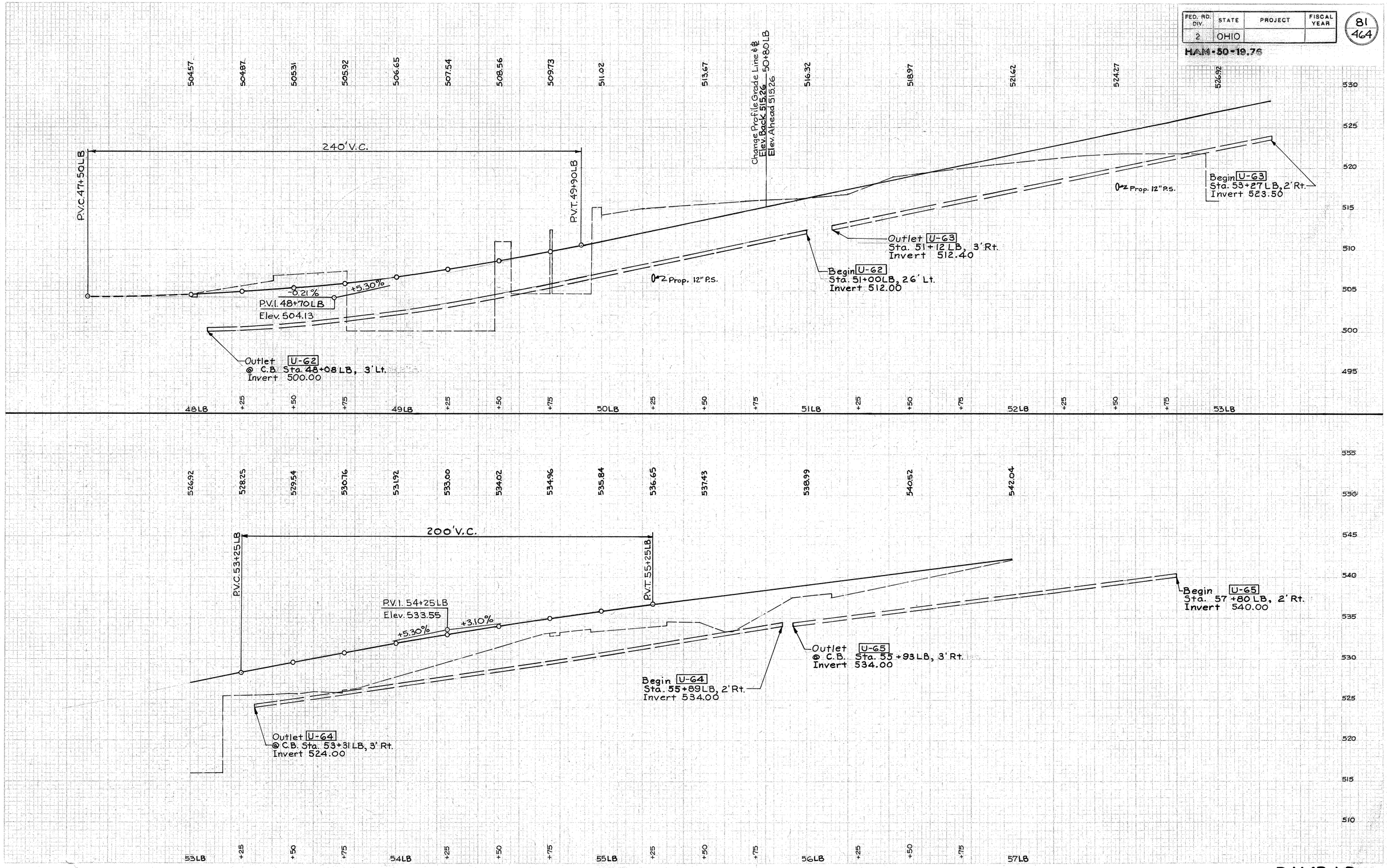
PLATE 3 - CROSS SECTION S.P.R. & R.E. STANDARD

W.B. EXPWY. STA. 46+50 to STA. 52+50

FED. RD. DIV.	STATE	PROJECT	FISCAL YEAR
2	OHIO		

HAM-50-19.76

81
464



RAMP LB

FED. RD. DIV.	STATE	PROJECT	FISCAL YEAR
2	OHIO		

82
464

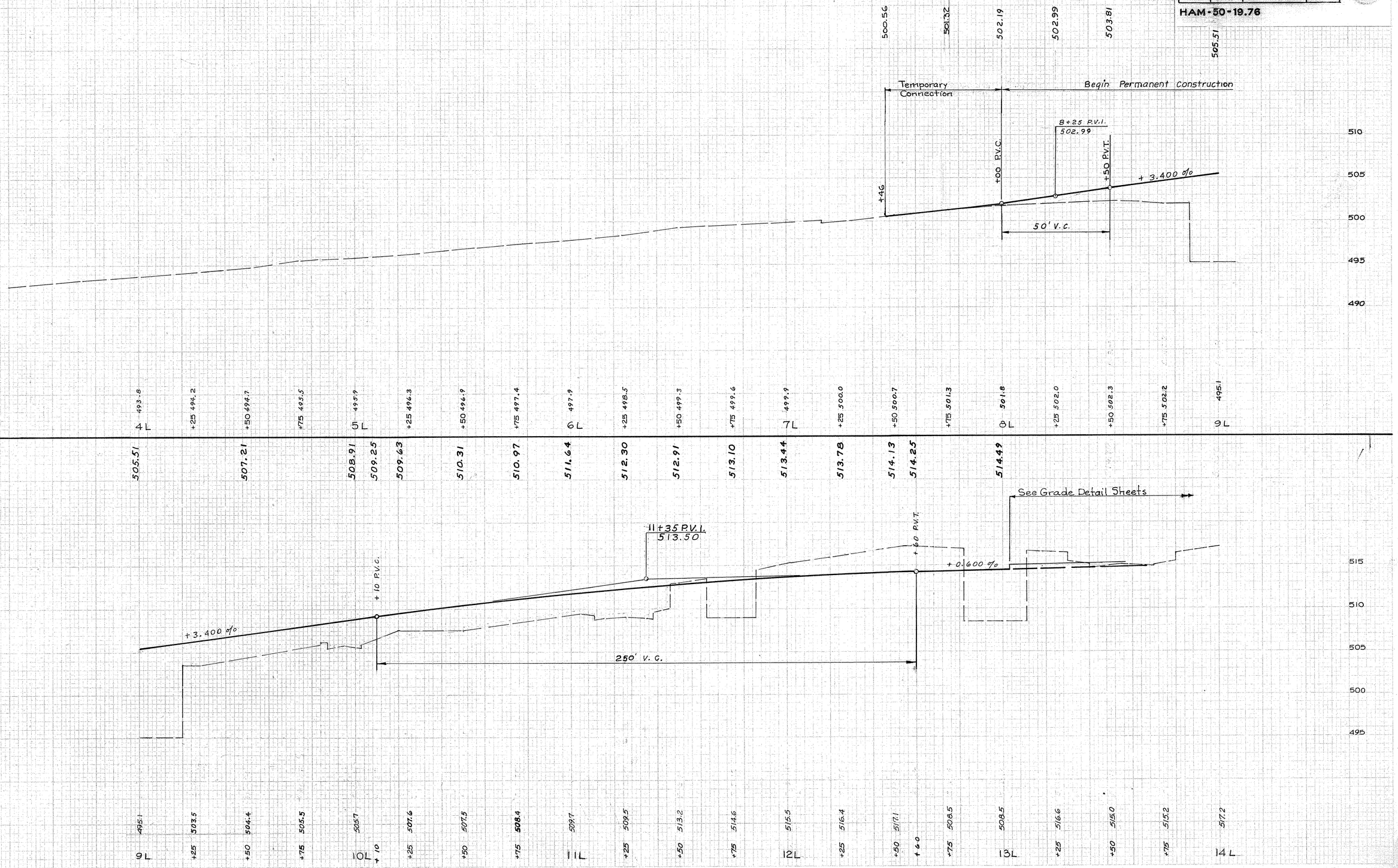
HAM-50-19.76

LINN ST. STA. 7+50 TO STA. 9+75

FED. RD. DIV.	STATE	PROJECT	FISCAL YEAR
2	OHIO		

HAM-50-19.76

83
464



LINN ST.

FED. RD. DIV.	STATE	PROJECT	FISCAL YEAR
2	OHIO		

84
464

HAM-50-19.76

Notes: D-1 - Remodel Bottom of Existing Manhole & Adjust Top of Cover to Grade. Bulkheading of Existing 4' Brick Sewer incidental to Remodeling Bottom of Existing Manhole.

RAMP LA STA. 47+00 TO STA. 53+00

FED. RD. DIV.	STATE	PROJECT	FISCAL YEAR
2	OHIO		

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464

HAM-50-19.76

514.65 514.89 515.14 515.40 515.78 516.21 516.75 517.40 518.14 518.97 521.59 523.64 525.69 527.74 529.79 531.84 533.32

+36.13 LA Nose Sta. 54+36.13 LA

See W.B. Expwy

Change Profile Grade Line & ℄
Elev. Back 519.92
Elev. Ahead 519.55

200' V.C.

P.V.C. 49+10 LA

51+00 LA

P.V.T. 51+10 LA

+0.98% +4.10%

Begin U-71
Sta. 54+01 LA, 2' Lt.
Invert 527.25

Outlet U-70
@ C.B. Sta. 54+05 LA, 3' Lt.
Invert 527.00

Outlet U-71
@ C.B. Sta. 51+48 LA, 3' Lt.
Invert 516.50

Begin U-73
Sta. 51+00 LA(S), 2' Rt.
Invert 516.10

Begin U-72
Sta. 51+44, 2' Lt.
Invert 516.75

P.V.I. 50+10 LA
Elev. 516.22

Outlet U-72 @ C.B.
Sta. 49+19 LA, 27' Lt.
Invert 510.25

Outlet U-73
@ C.B. Sta. 48+57 LA(S), 3' Rt.
Invert 509.75

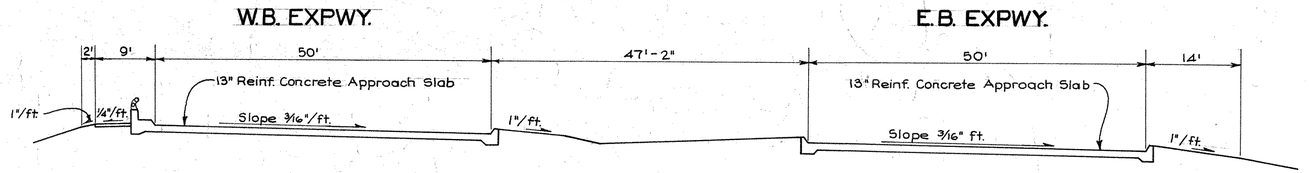
530 525 520 515 510 505

| | | |

FED. RD. DIV.	STATE	PROJECT	FISCAL YEAR
2	OHIO		

86/464

HAM-50-19.76



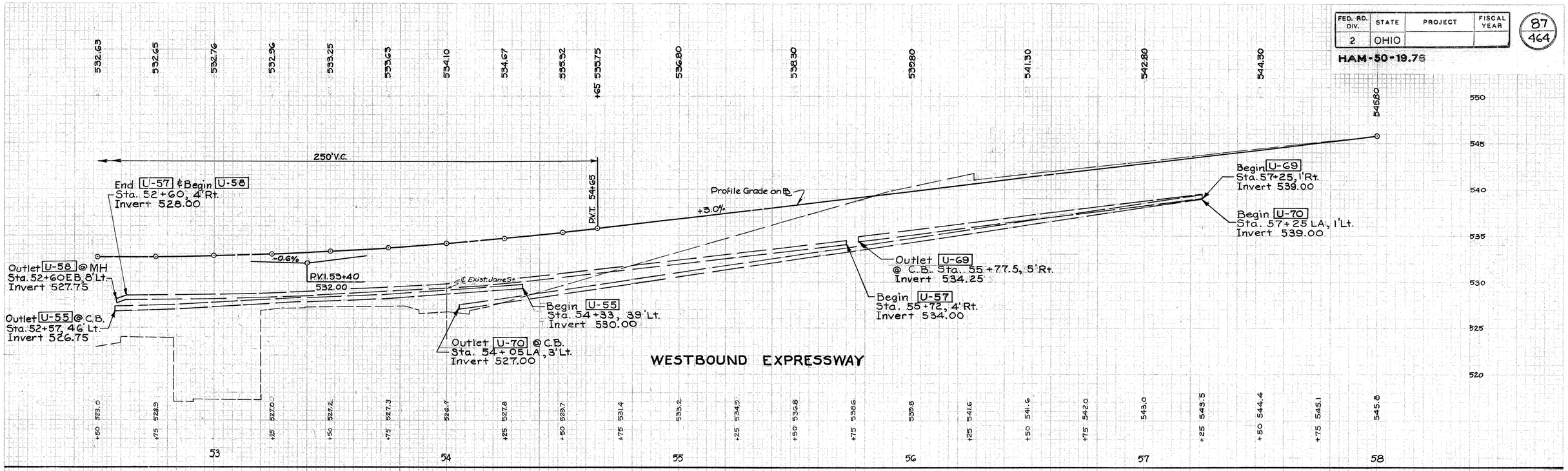
TYPICAL SECTION OF EXISTING ADJOINING EXPRESSWAY PAVEMENT

KENYON ST.
LINN ST.
HATHAWAY ST.
WINGATE AL.
JANE ST.
GEST ST.
RAMP LA
RAMP LB
WESTBOUND EXPRESSWAY
EASTBOUND EXPRESSWAY
EX. TEMP. W.B. OFF RAMP
EX. TEMP. E.B. ON RAMP
Limited Access Acquired in Connection with HAM.-25-0.46 & HAM.-50-20.43
Limit of Grading by Others
Ex. 15" P.S. to remain in service
Abandon (Seal)
Limit of Grading
Prop. 12" P.S.
Prop. 15" P.S.
Prop. Conc. Walk
Prop. Sign
Prop. Median Ditch
Drainage Ditch
Ex. Berm Line
Berm Line
Base Line
Survey Traverse Line
Curve No. 103
Curve No. 104
Curve No. 107
Curve No. 108
Curve No. 94
Ex. Guard Rail (Remove & Rebuild)
Grading By Others
Exist. 4' Sidewalk
Exist. Approach Slab
BRIDGE NO. HAM-50-2044L
BRIDGE NO. HAM-50-2044R
P.O.T. 57+87.32 W.B. Expwy.
P.O.T. 57+83.77 Back
P.O.T. 57+83.79 Ahead
END PROJECT HAM-50-19.76
END WORK HAM-50-19.76
Sta. 57+83.77 E.B. Expwy.-Back=
Sta. 57+83.79 E.B. Expwy.-Ahead
N. 79° 45' 34" E.
N. 83° 07' 18" E.
N. 73° 33' 19" E.
Ex. C.W.
Ex. 12" P.S.
Ex. 15" P.S.
Ex. 18" P.S.
Ex. 3" G.M.
Ex. 4" G.M.
Ex. 6" W.M.
Ex. 8" W.M.
Ex. 10" C.W.
Ex. House Dr.
Ex. Conc.
Ex. Conc. Wk.
Ex. Gore
Ex. Gore Lamp
Ex. Aspt. Grant. Curb
Ex. Br. Pavm't. & Gr. Curb
Ex. Gran. Pav. & Curb
Ex. 6" C.W.
Ex. 8.2" C.W.
Ex. 3" G.M.
Ex. 6" W.M.
Old Fire Cistern
No Walk
No Cellar
Survey Traverse Line
Survey Traverse Line
Survey Traverse Line

FED. RD. DIV.	STATE	PROJECT	FISCAL YEAR
2	OHIO		

87
464

HAM-50-19.76



EXPWY. STA. 52+50 to STA. 58+00

FED. RD. DIV.	STATE	PROJECT	FISCAL YEAR
2	OHIO		

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464

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EASTBOUND EXPRESSWAY

HATHAWAY ST.

WINGATE AL.

RAMP LB

RAMP LA

JANE ST.

GEST ST.

STONE ST.

SIXTH ST.

Prop. 15" P.S.
Prop. 12" P.S.
Berm Line
Base Line
Survey Traverse Line
Curve No. 94
Curve No. 107
Curve No. 108
P.T. 57+61.63
Exist. 50' Approach Slab
Ex. Guard Rail (Remove & Rebuild)
Ex. Drainage Ditch
Ex. Cinder Parking Lot
Ex. Gas Lamp
Type 1 Paved Gutter
No Walk
Ex. Br. Pav't & Granite Curbs
Abandon (Seal)
Ex. Cinder Area
Exist. 10' Walk to be removed (Curb to remain)
Ex. House Dr.
Ex. Grnt. Pav't & Curbs
Ex. Elec. C.
Ex. 3" G.M.
Ex. 8" W.M.
Ex. 15" P.S.
Ex. 12" P.S.
Ex. 24" P.S.
Ex. 30" P.S.
Ex. C.W.
Ex. Berm Line
Limited Access Acquired in Connection with HAM-25-0.46 & HAM-50-20.43
EX. TEMP. W.B. OFF RAMP
EX. TEMP. E.B. ON RAMP
N. 73° 33' 19" E
P.C. 54+18.27 LB
Ex. 4" C.W. 54+36.52 LB
Nose 55+36.52 LB
P.C.C. 55+71.25 LB
Nose 55+57.05 LB
P.T. 57+61.63 LB
=P.T. 57+61.63 (48' Rt.)
1 St. Br. *802
4 St. Br. *804-06
3 St. Br.
U-60 U-61 U-62 U-63 U-64 U-65 U-66 U-67 U-68
M-56 M-58 M-59 M-62 M-63
C-80 C-81 C-82 C-83 C-84 C-85
P-36 P-37 P-38 P-39 P-40 P-41

SIXTH ST. – JANE ST. TO GEST ST.

REG. ADM. DIV.	STATE	PROJECT	FISCAL YEAR
2	OHIO		

HAM-50-19.76

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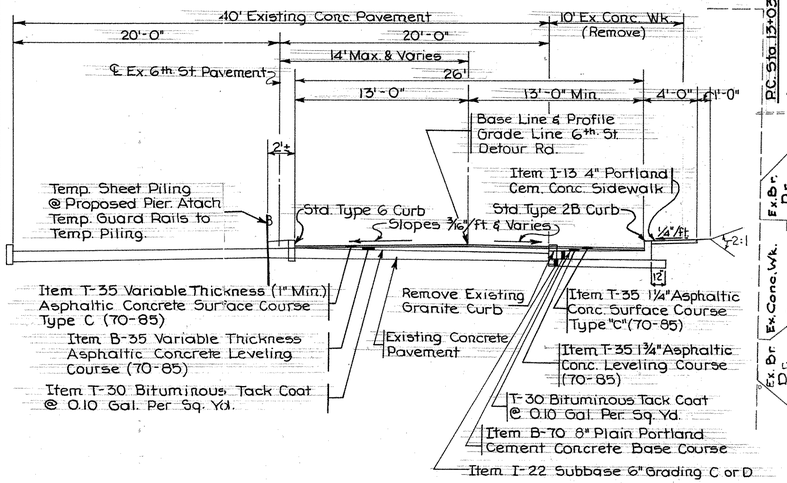
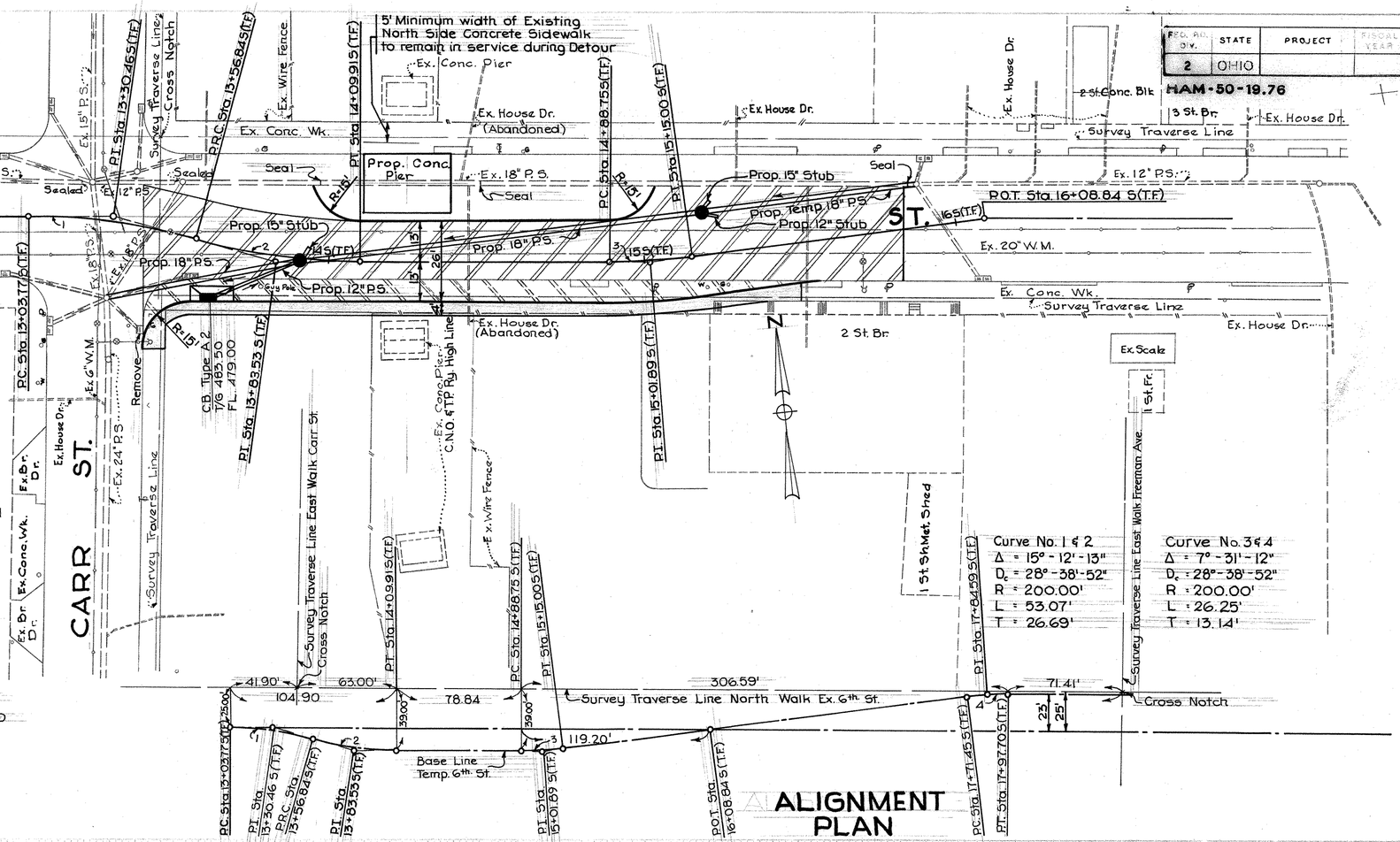
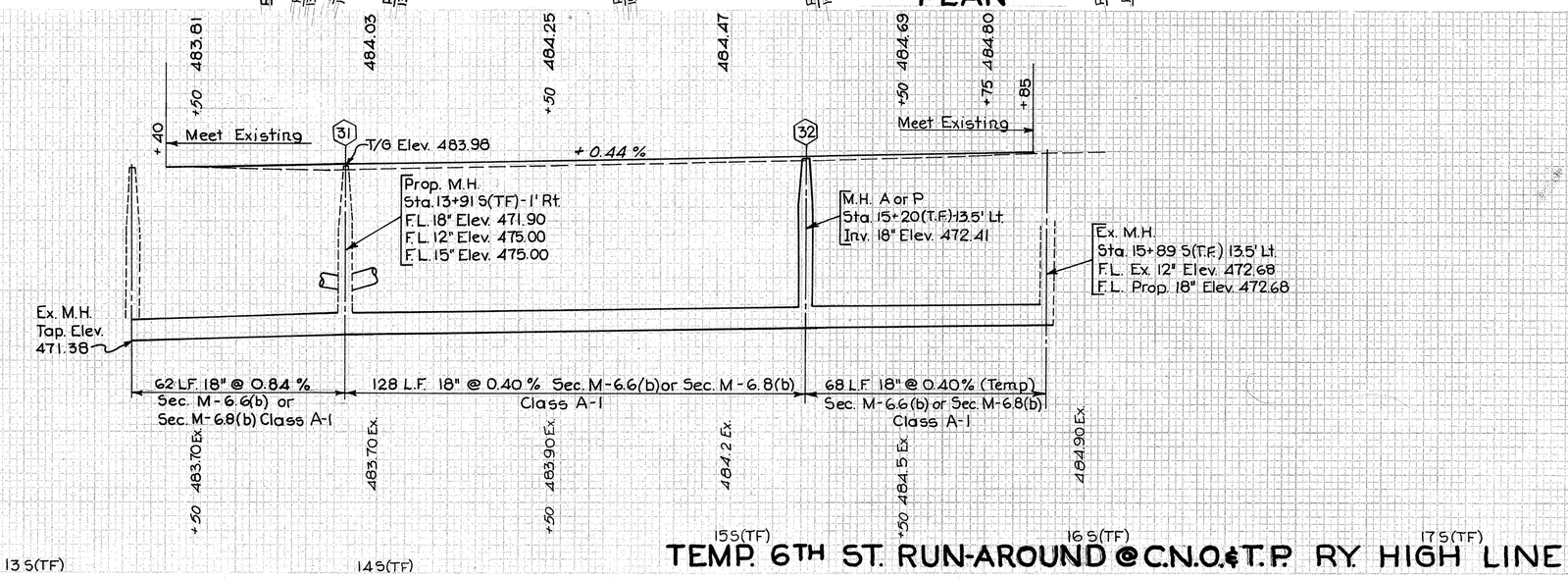
BASIS OF PAYMENT for this Temporary Run-Around shall be made under the lump sum "Item S-15, Temporary Run-Arounds, As Per Plan" which payment shall be full conpensation for providing, maintaining and subsequently removing portions of the run-arounds, as per plan.



TYPICAL SECTION TEMP. 6TH ST. AT C.N.O.&T.P. RAILWAY HIGH LINE



ALIGNMENT PLAN



TEMP. 6TH ST. RUN-AROUND @ C.N.O.&T.P. RY. HIGH LINE

BASIS OF PAYMENT - See note on Sheet No. 89

FED. RD. DIV.	STATE	PROJECT	FISCAL YEAR
2	OHIO		

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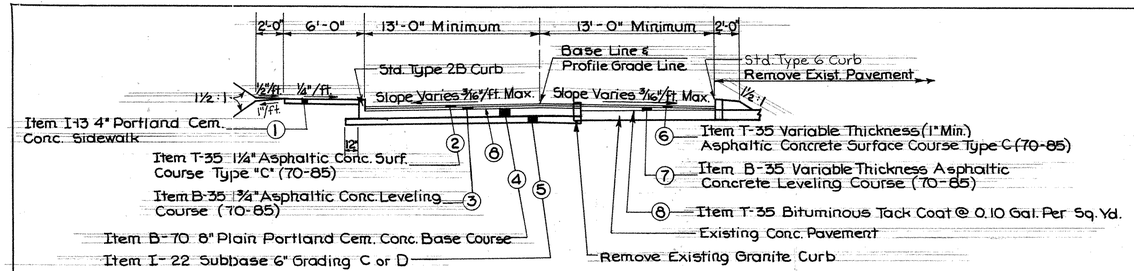
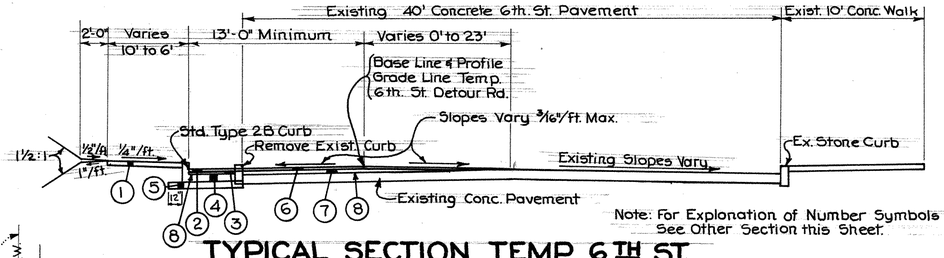
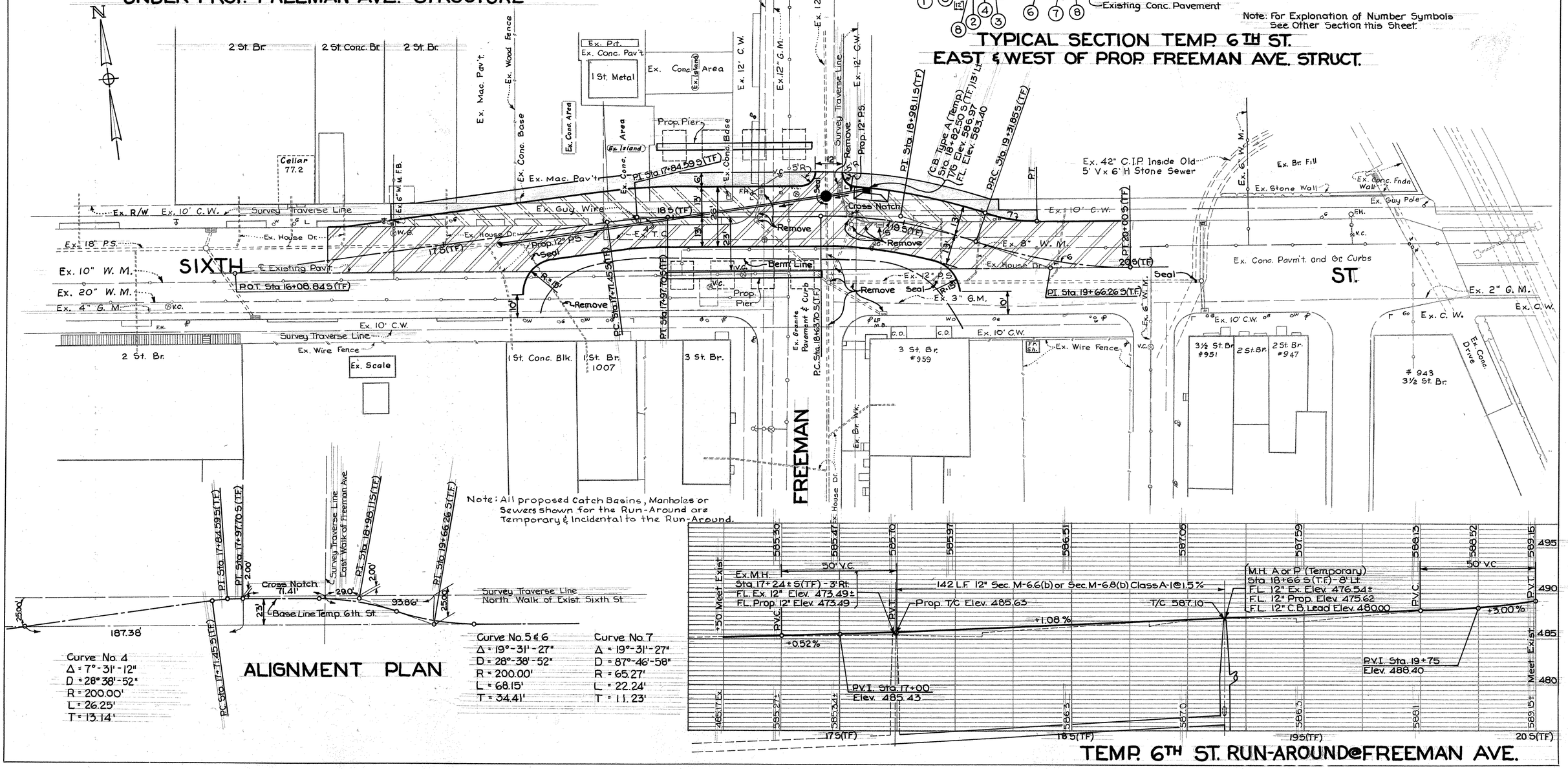


TYPICAL SECTION TEMP. 6TH ST. UNDER PROP. FREEMAN AVE. STRUCTURE



Note: For Explanation of Number Symbols See Other Section this Sheet.

TYPICAL SECTION TEMP. 6TH ST. EAST & WEST OF PROP. FREEMAN AVE. STRUCT.


N
2 St. Br.
2 St. Conc. Br.
2 St. Br.
Ex. Mac. Pav't.
Ex. Wood Fence
Ex. Pd.
Ex. Conc. Pav't
1 St. Metal
Ex. Conc. Area
(Ex. Island)
Ex. 12" C.W.
Ex. 12" G.M.
Ex. T.C.
Ex. 20" W.M.
Ex. 3" G.M.
Ex. 12" P.S.
Survey Traverse Line
Ex. 12" G.W.
Prop. Pier
Prop. 12" P.S.
Ex. Conc. Base
Ex. Conc. Area
Ex. Island
Cellar 77.2
Ex. 6" W.M. F.B.
Ex. Mac. Pav't.
Ex. Conc. Base
Pt. Sta. 17+84.59 (TF)
Ex. R/W
Ex. 10' C.W.
Survey Traverse Line
Ex. Guy Wire
185 (TF)
Ex. House Dr.
Ex. 18" P.S.
Prop. 12" P.S.
Seal
Ex. T.C.
Remove
Ex. 10" W.M.
SIXTH
℄ Existing Pavt.
P.O.T. Sta. 16+08.845 (TF)
Ex. 20" W.M.
Ex. 4" G.M.
Berm Line
Prop. Pier
Ex. 10' C.W.
Survey Traverse Line
Ex. Wire Fence
Ex. Scale
2 St. Br.
1 St. Conc. Blk.
1 St. Br. 1007
3 St. Br.
Ex. Granite Pavement & Curb
P.C. Sta. 18+63.70 S (TF)
P.T. Sta. 17+97.70 S (TF)
FREEMAN
Ex. House Dr.
Ex. Br. Wk.
3 St. Br. #959
Ex. Wire Fence
Ex. 10' C.W.
Ex. 12" P.S.
Remove
Seal
Ex. 3" G.M.
Ex. 18" P.S.
Survey Traverse Line
Ex. Wood Fence
Ex. Conc. Base
Ex. Conc. Area
Ex. Island
Prop. Pier
Ex. 12" C.W.
Ex. 12" G.M.
Ex. 12" P.S.
Ex. 3" G.M.
Survey Traverse Line
Ex. 12" G.W.
Prop. 12" P.S.
Remove
Seal
Cross Notch
Ex. 10" C.W.
Ex. 8" W.M.
Ex. House Dr.
Ex. 42" C.I.P. Inside Old 5' V x 6' H Stone Sewer
Ex. 6" W.M.
Ex. Br. Fill
Ex. Stone Wall
Ex. Conc. Fndn. Wall
Ex. Guy Pole
Ex. Conc. Pavm't. and Gr. Curbs
ST.
Ex. 2" G.M.
Ex. C.W.
Ex. C.W.
Ex. 10' C.W.
3½ St. Br. #951
2 St. Br.
2 St. Br. #947
943 3½ St. Br.
Ex. Conc. Drive
Pt. Sta. 18+98.115 (TF)
(C.B. Type A (Temp.) Sta. 18+92.50 S (TF) 13' Lt. F.F. Elev. 586.97 F.L. Elev. 583.40)
PRC. Sta. 19+31.855 (TF)
P.T.
Pt. Sta. 19+66.265 (TF)
P.T. Sta. 19+80.05 (TF)
206 (TF)
Seal
Ex. 6" W.M.
Ex. 10' C.W.
Ex. C.W.
Ex. 2" G.M.
Ex. C.W.
3½ St. Br. #959
Ex. Wire Fence
Ex. Br. Wk.
Ex. House Dr.
Ex. Granite Pavement & Curb
P.C. Sta. 18+63.70 S (TF)
P.T. Sta. 17+97.70 S (TF)
Pt. Sta. 17+84.59 S (TF)
Ex. 6" W.M. F.B.
Ex. Mac. Pav't.
Ex. Conc. Base
Ex. Conc. Area
Ex. Island
Ex. 12" C.W.
Ex. 12" G.M.
Ex. T.C.
Ex. 20" W.M.
Ex. 3" G.M.
Ex. 12" P.S.
Survey Traverse Line
Ex. 12" G.W.
Prop. Pier

FED. RD. DIV.	STATE	PROJECT	FISCAL YEAR
2	OHIO		

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464

HAM-50-19.76

2

249 L.F. 36"@ 0.50% Class B-1 Sec. M-6.6(c)

8 L.F. 36" P.S.@0.50% By Others

T/C Elev. 485.50

Remove Plug

Ex. 5' Diam. M.H. Sta. 21+05A 44'Lt. Inv. Ex. 42" Elev. 463.50 Inv. Ex. 36" Elev. 464.00 Inv. Ex. 24" Elev. 465.00

3

196 L.F. 36"@ 0.50% Class B-1, Sec. M-6.6(c)

M.H. A or P Sta. 23+66A-26'Lt. Inv. 36" Elev. 465.29 Inv. 15" Elev. 476.26

4

58 L.F. 15"@1.50% Class A-1 Sec. M-6.6(b) or Sec. M-6.8(b)

T/C Elev. 487.50

T/C Elev. 485.00

M.H. A or P Sta. 23+59A-30'Rt. Inv. 15" Elev. 477.13 Inv. 12" Elev. 477.38

5

108 L.F. 12"@ 1.50% Class A-1 Sec. M-6.6(b) or Sec. M-6.8(b)

T/C Elev. 488.86

MH A or P Sta. 24+40E.B.-11'Lt. Inv. 12" Elev. 479.00

6

T/C Elev. 484.80

M.H. A or P Sta. 25+60A-23'Lt. Inv. 36" Elev. 466.27 Inv. 30" Elev. 466.77 Inv. 15" Elev. 476.40

7

30 L.F. 15"@2.00% Class A-1, Sec. M-6.6(b) or Sec. M-6.8(b)

T/C Elev. 484.50

MH A or P Sta. 25+57A-8'Rt. Inv. 15" Elev. 477.00

490 485 480 475 470 465

6

258 L.F. 30"@ 0.50% Class A-1, Sec. M-6.6(c)

T/C Elev. 484.80

See Profile upper right this sheet

9

51.5 L.F. 12"@1.00% Class B-1

T/C Elev. 489.50

M.H. A Sta. 28+21 EB-38'Rt. Inv. 12" Elev. 482.00

10

88 L.F. 12"@ 1.00% Class B-1

T/C Elev. 489.00

M.H. A or P Sta. 28+04 EB-11'Lt. Inv. 12" Elev. 481.48

11

52 L.F. 12"@ 1.00% Class A-1, Sec. M-6.6(b) or Sec. M-6.8(b)

T/C Elev. 488.00

M.H. A or P Sta. 27+92A-23'Rt. Inv. 12" Elev. 480.60

8

166.5 L.F. 24"@ 0.40% Class A-1, Sec. M-6.6(c)

83 L.F. 21"@ 2.00% Class B-1 Sec. M-6.6(b) or Sec. M-6.8(b)

T/C Elev. 487.00

MH A or P Sta. 28+06A 26'Lt. Inv. 30" Elev. 468.06 Inv. 24" Elev. 468.56 Inv. 21" Elev. 473.00 Inv. 12" Elev. 480.08

20

132 L.F. 12"@ 2.00% Class B-1, Sec. M-6.6(b) or Sec. M-6.8(b)

T/C Elev. 487.50

T/C Elev. 485.98

Sanitary tap

MH A or P Sta. 29+01WB-105'Lt. Inv. 21" Elev. 474.66 Inv. 12" Elev. 475.99

12

27 L.F. 24" @0.40% Class A-1, Sec. M-6.6(c)

T/C Elev. 485.93

M.H. A or P Sta. 29+61A-14'Lt. Inv. 24" Elev. 469.23

13

T/C Elev. 488.50

Sanitary tap

M.H. A or P Sta. 29+88A-14'Lt. Inv. 24" Elev. 469.34 Inv. 21" Elev. 469.59

21

80 L.F. 21"@ 0.40%

M.H. A or P Sta. 30+35NB-106'Lt. Inv. 12" Elev. 478.63

14

T/C Elev. 485.05

M.H. A, or P Sta. 10+93S 5'Lt. Inv. 21" Elev. 469.91

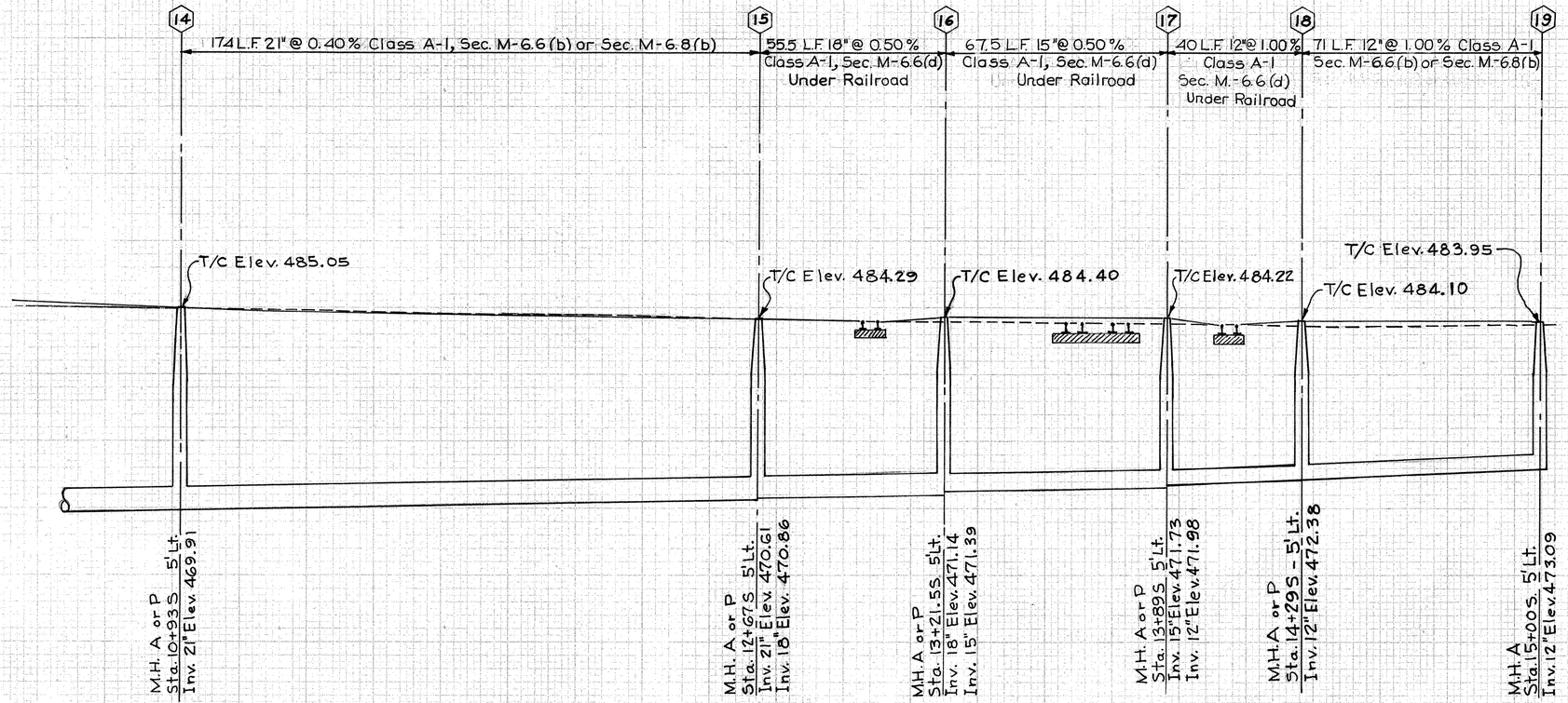
490 485 480 475 470

SEWER PROFILES

FED. RD. DIV.	STATE	PROJECT	FISCAL YEAR
2	OHIO		

92
464

HAM-50-19.76



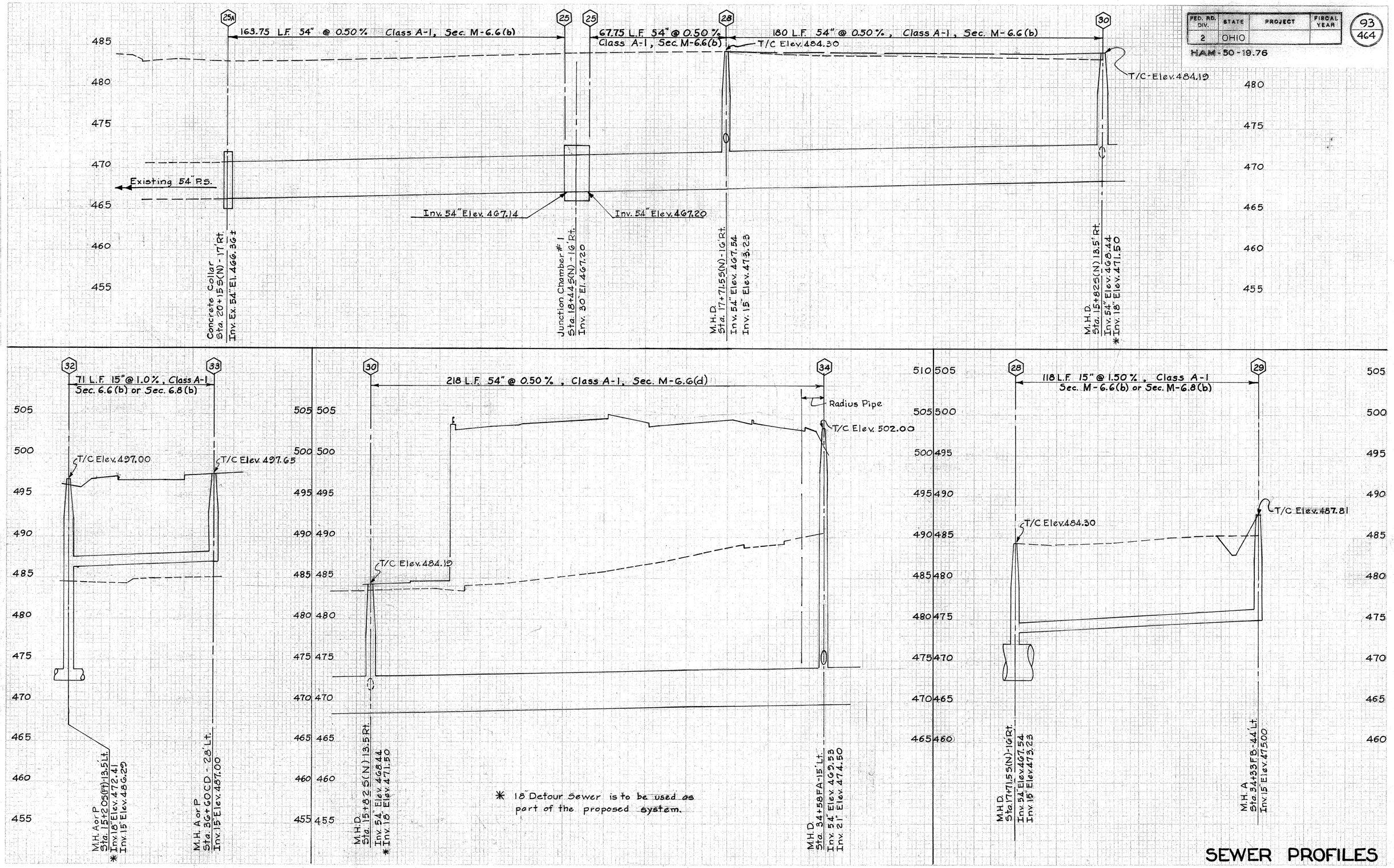
SEWER PROFILES

PLATE 3 - CROSS SECTION O. P. R. & P. E. STANDARD

FED. RD. DIV.	STATE	PROJECT	FISCAL YEAR
2	OHIO		

HAM-50-19.76

93
464



* 18" Detour Sewer is to be used as part of the proposed system.

SEWER PROFILES

FED. RD. DIV.	STATE	PROJECT	FISCAL YEAR
2	OHIO		

HAM-50-19.76

34 — 215 L.F. 54" @ 0.5% Class B-1, Sec. M-6.6(c) — 39 — 120 L.F. 54" @ 0.5% Class B-1, Sec. M-6.6(c) — 40 — 35 L.F.-54" @ 0.5% Class B-1 Sec. M-6.6(d) Under R.R. — 50 — 42 L.F.-54" @ 0.5% Class B-1 Sec. M-6.6(d) Under R.R. — 51 — 90 L.F. 36" @ 6.2% Class B-1, Sec. M-6.6(d) Under Railroad — 52

Radius Pipe

T/C Elev. 502.00

T/C Elev. 488.30

Radius Pipe

T/C Elev. 482.00

T/C Elev. 481.50

T/C Elev. 497.50

T/C Elev. 497.23

M.H. D
Sta. 34+53FA-15' Lt.
Inv. 54" Elev. 462.53
Inv. 21" Elev. 474.50

M.H. D
Sta. 36+65FA-50' Lt.
Inv. 54" Elev. 470.61

M.H. D
Sta. 38+08FA-26' Lt.
Inv. 54" Elev. 471.21
Inv. 21" Elev. 473.98

M.H. D
Sta. 38+45FA-24' Lt.
Inv. 54" Elev. 471.38
Inv. Ex. 24" Elev. 473.81

M.H. D
Sta. 38+95FA-22' Lt.
Inv. 54" Elev. 471.59
Inv. 36" Elev. 473.09

M.H. A or P
Sta. 39+85FA-21' Lt.
Inv. 36" Elev. 478.68

52 — 33 L.F. 36" @ 6.2% Class A-1 Sec. M-6.6(c) — 53 — 83 L.F. 36" @ 1.80% Class A-1, Sec. M-6.6(b) or Sec. M-6.8(b) — 54 — 32 L.F. 24" @ 1.8% Class A-1 Sec. M-6.6(b) or Sec. M-6.8(b) — 55 — 36 L.F. 36" @ 18% Class A-1 Sec. M-6.6(b) or Sec. M-6.8(b) — 56 — 56 — 133 L.F. 30" @ 1.7% Class A-1, Sec. M-6.6(b) or Sec. M-6.8(b) — 66 — 67 L.F. 24" @ 2.6% Class A-1 Sec. M-6.6(b) or Sec. M-6.8(b) — 67 — 166 L.F. 24" @ 2.5% Class A-1, Sec. M-6.6(b) or Sec. M-6.8(b) — 68

T/C Elev. 497.23

T/C Elev. 497.03

T/C Elev. 496.56

T/C Elev. 497.30

T/C Elev. 497.65

T/C Elev. 498.99

T/C Elev. 500.11

T/C Elev. 504.09

M.H. A or P
Sta. 39+82FA-21' Lt.
Inv. 36" Elev. 478.68

M.H. A or P
Sta. 38+81K 3' Rt.
Inv. 36" Elev. 480.74
Inv. 24" Elev. 481.74

M.H. A or P
Sta. 38+60K-20' Lt.
Inv. 24" Elev. 482.32

M.H. A or P
Sta. 39+50K-19' Lt.
Inv. 36" Elev. 482.23

Inv. 36" Elev. 482.88

Inv. 30" Elev. 483.38

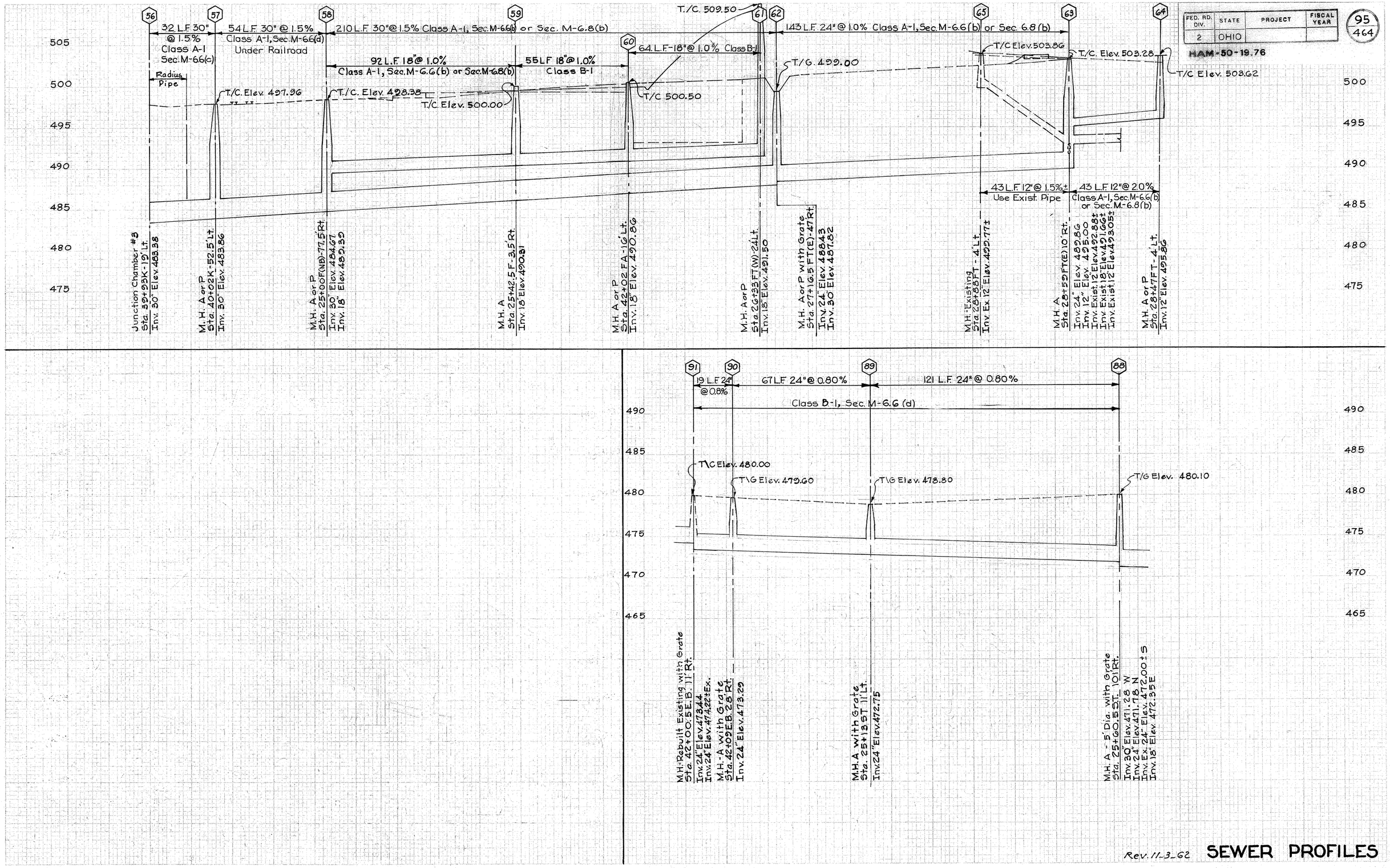
Junction Chamber # 3
Sta. 39+93 K-19' LT.
Inv. 30" Elev. 483.38

M.H. A or P
Sta. 41+28K-19' Lt.
Inv. 30" Elev. 485.64
Inv. 24" Elev. 486.25
Inv. Ex. 30" Elev. 486.68

M.H. A or P
Sta. 41+95 K-21' Lt.
Inv. 24" Elev. 488.00

M.H. A or P
Sta. 43+61K-21' Lt.
Inv. 24" Elev. 492.15
Inv. 21" Elev. 492.40

SEWER PROFILES



Rev. 11-3-62

SEWER PROFILES

FED. RD. DIV.	STATE	PROJECT	FISCAL YEAR
2	OHIO		

HAM-50-19.76

96
464

44 — 62 L.F. 12" @ 6.46% Class A-1, Sec. M-6.6(b) or Sec. M-6.8(b)

43 — 108 L.F. 12" @ 2.00% Class B-1 Sec. M-6.6(b) or Sec. M-6.8(b)

42 — 64 L.F. 12" @ 10.60% Class B-1 Sec. M-6.6(b) or Sec. M-6.8(b)

41 — 95 L.F. 15" @ 1.00% Class B-1

45 — 93 L.F. 15" @ 1.00% Class B-1

46

40 — 92 L.F. 21" @ 1.00% Class B-1

T/C Elev. 500.45

T/C Elev. 500.49

T/C Elev. 496.50

T/C Elev. 486.00

T/C Elev. 486.50

T/C Elev. 483.00

T/C Elev. 482.00

M.H. A or P
Sta. 37+42 WB-8' Rt.
Inv. 12" Elev. 492.00
Inv. 12" Elev. 492.50

M.H. A or P
Sta. 37+48 WB-50' Lt.
Inv. 12" Elev. 488.00

Carr St. Outfall Sewer

M.H. D
Sta. 38+08 FA-2 G Lt.
Inv. 54" Elev. 471.21
Inv. 21" Elev. 473.98

M.H. A
Sta. 21+05.5 F 43' Lt.
Inv. 12" Elev. 485.84
Inv. 12" Elev. 483.50

M.H. A
Sta. 21+68.5-50' Lt.
Inv. 12" Elev. 476.72
Inv. 15" Elev. 475.40
Inv. 21" Elev. 474.90

M.H. A or P
Sta. 21+47.5 F 42' R
Inv. 15" Elev. 476.35

M.H. A or P
Sta. 40+26 WB 108' Lt.
Inv. 12" Elev. 477.53
Inv. 15" Elev. 477.28

505 500 495 490 485 480 475 470

46 — 92 L.F. 12" @ 1.00% Class B-1 Sec. M-6.6(c)

47 — 53 L.F. 12" @ 5.00% Class B-1 Sec. M-6.6(c)

48 — 99 L.F. 12" @ 5.00% Class B-1 Sec. M-6.6(c)

49

T/C Elev. 493.40

T/C Elev. 495.50

T/C Elev. 495.50

For elev. see above profile

M.H. A or P
Sta. 41+03 WB-50.5' Lt.
Inv. 12" Elev. 472.58 S
Inv. 12" Elev. 478.45 N

M.H. A or P
Sta. 41+22 WB-5' Lt.
Inv. 12" Elev. 482.23

M.H. A or P
Sta. 41+47 C.D. 17' Rt.
Inv. 12" Elev. 487.18

500 495 490 485 480 475

35 — 70 L.F. 12" @ 1.00% Class B-1

36 — 97 L.F. 12" @ 3.00% Class B-1 Sec. M-6.6(b) or Sec. M-6.8(b)

37 — 135 L.F. 15" @ 2.16% Class B-1 Sec. M-6.6(c)

38 — 30 L.F. 21" @ 2.16% Class B-1 Sec. M-6.6(c)

34 — T/C Elev. 502.00

T/C Elev. 490.80

T/C Elev. 494.00

T/C Elev. 485.50

T/C Elev. 493.80

M.H. A
Sta. 33+13 C.D. 7' Lt.
Inv. 12" Elev. 482.92

M.H. A or P
Sta. 33+08 W.B. 6' Rt.
Inv. 12" Elev. 482.22

M.H. A
Sta. 32+98 FA-39' Lt.
Inv. 15" Elev. 478.56
Inv. 12" Elev. 479.31

M.H. A or P
Sta. 34+36 FA-35' Lt.
Inv. 21" Elev. 475.14
Inv. Ex. 15" Elev. 475.35±
Inv. 15" Elev. 475.64

M.H. D
Sta. 34+58 FA-15' Lt.
Inv. 21" Elev. 474.50
Inv. 54" Elev. 469.53

500 495 490 485 480 475 470

SEWER PROFILES

PLATE 3 - CROSS SECTION O.P.R.R.R.V. STANDARD
KRUTTSCHNITT CO., NEW YORK

FED. RD. DIV	STATE	PROJECT	FISCAL YEAR
2	OHIO		

HAM-50-19.76

97
464

68 — 174 L.F. 21"@ 1.50% Class A-1, Sec. M-6.6(b) or Sec. M-6.8(b) — 69 — 165 L.F. 18"@ 0.50% Class A-1 Sec. M-6.6(c) — 70

T/C Elev. 504.09

T/C Elev. 508.38

T/C Elev. 512.49

M.H. A or P
Sta. 43+61 K 21'L
Inv. 24" Elev. 492.15
Inv. 21" Elev. 492.40

M.H. A or P
Sta. 45+35 K 22'L
Inv. 21" Elev. 495.01
Inv. 18" Elev. 495.26

M.H. A or P
Sta. 47+00 K-23'L
Inv. 18" Elev. 496.09

25 — 17 L.F. 30" @ 0.50% Class A-1 Sec. M-6.6(c) — 26 — 137 L.F. 30"@ 0.50% Class B-1, Sec. M-6.6(c) — 27 — 339 L.F. 30"@ 0.50% Class A-1, Sec. M-6.6(d) — 77

Radius Pipe (R$_{\text{C}}$ = 25')

90 L.F. 6"@ 5.00% Class F-1

210 L.F. 6"@ 1.00% Class I-3

T/C. Elev. 485.00

T/C. Elev. 488.80

T/C. Elev. 507.53

U-50

Plug

U-51

Inv. 6" Elev. 482.00

Inv. 486.50

Inv. 488.60

Inv. 30" Elev. 467.20
Inv. 54" Elev. 467.20
Inv. 54" Elev. 467.14

Inv. 30" Elev. 469.68

M.H. A or P
Sta. 18+34.5(N) 8'Lt.
Inv. 30" Elev. 467.29

M.H. A or P
Sta. 33+80 FB 48'Lt.
Inv. 30" Elev. 467.98

Junction Chamber #2
Sta. 16+62 F-6' Rt.

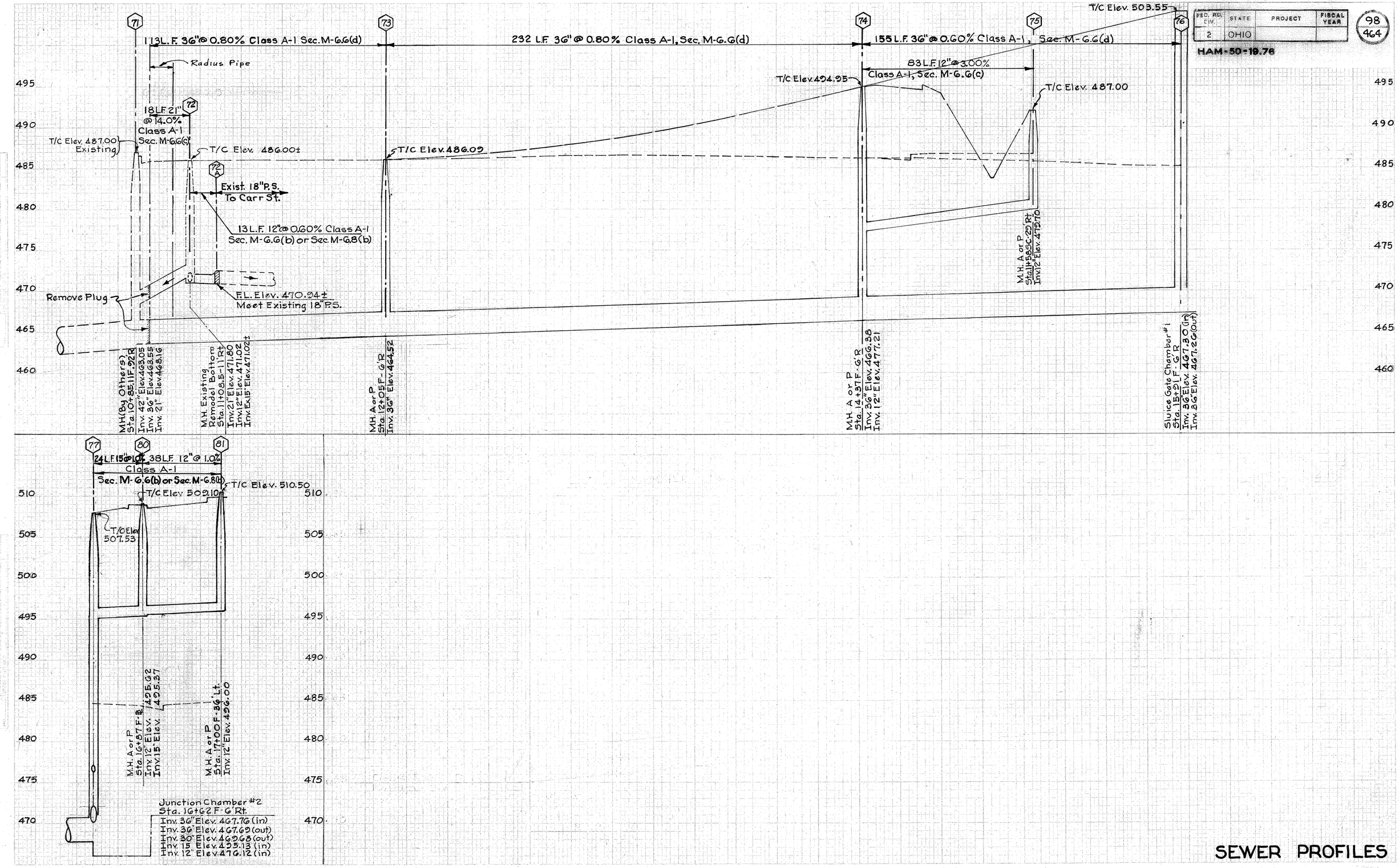
SEWER PROFILES

PLATE 3-CROSS SECTION O.D.T. & U.S. STANDARDS

FED. RD. DIV.	STATE	PROJECT	FISCAL YEAR
2	OHIO		

HAM-50-19.76

98
464



SEWER PROFILES

PED. RD. DIV.	STATE	PROJECT	FISCAL YEAR
2	OHIO		

99
464

HAM-50-19.76

92 — 58 L.F. 18" @ 1.50% Class B-1, Sec. M-6.6(d) Under Railroad — 93 — 68 L.F. 18" @ 1.00% Class B-1, Sec. M-6.6(d) Under Railroad — 96 — 147 L.F. 15" @ 1.00% Class A-1 Sec. M-6.6(b) or Sec. M-6.8(b) — 99 — 94± L.F. Exist. 12" @ 1.17% (to remain) — 100 — 76 L.F. 12" @ 1.00% Class B-1 — 101 — 59 L.F. 12" @ 1.00% Class B-1 — 102

T/C Elev. 497.38

T/C Elev. 493.00

T/C Elev. 492.35

T/C Elev. 500.59

T/C Elev. 502.21

T/C Elev. 501.00

T/C Elev. 500.50

M.H. A or P
Sta. 26+59 ST 57' Rt.
Inv. 18" Elev. 488.34
Inv. 12" Elev. 489.03

M. H. A or P
Sta. 27+11 ST 18.5' Rt.
Inv. 18" Elev. 489.02
Inv. 15" Elev. 489.27
Inv. 12" Elev. 489.55

Ex. M.H.
Sta. 28+48 ST 21' Lt.
Inv. 15" Elev. 490.74
Inv. Ex. 12" Elev. 490.97±

Ex. M.H.
Sta. 46+34 EB-46' R
Inv. Ex. 12" Elev. 492.10±
Inv. 12" Elev. 492.10

M.H. A
Sta. 45+83.5 E B-10' L
Inv. 12" Elev. 492.86

M.H. A
Sta. 45+48 WB-38' L
Inv. 12" Elev. 493.45

Drop M.H. A or P
Sta. 25+91.5 ST 87' Rt.
Inv. 18" Elev. 472.85
Inv. 18" Elev. 487.47
Inv. 12" Elev. 473.35 (Drop)

510 505 500 495 490 485 480 475 470

76 — 79 — 78 — 77 — 82 — 86 — 87 — 88 — 92

72 L.F. 36" @ 0.60% Tunnel Construction — 59.5 L.F. 36" @ 0.60% Class A-1, Sec. M-6.6(d) — 131 L.F. 30" @ 0.80% Class A-1, Sec. M-6.6(d) — 161 L.F. 30" @ 0.80% Class A-1, Sec. M-6.6(d) — 42 L.F. 30" @ 0.80% Class B-1 Sec. M-6.6(d) Under Railroad — 33.5 L.F. 18" @ 1.50% Class B-1 Sec. M-6.6(d) Under Railroad

25 L.F. 12" @ 1.00% Class A-1, Sec. M-6.6(b) or Sec. M-6.8(b)

T/G Elev. 503.55

T/C Elev. 507.00

T/C Elev. 507.53

38 L.F. 12" @ 1.0% Class A-1, Sec. M-6.6(d)

T/C Elev. 505.49

T/C Elev. 508.76

T/C Elev. 505.00

36 L.F. 8" @ 6.00% Class F-1

34 L.F. 6" Grade Varies Class F-1

270 L.F. 6" @ 1.00% Class I-3

T/C Elev. 497.38

U-52

Plug

Inv. 6" Elev. 491.0

T/C Elev. 491.66

Inv. 6" El. 488.30

U-53

Grade to clear Ex. Floodwall Footing

T/G Elev. 480.10

M.H. A or P
Sta. 45+21 FC(S)-22' Lt.
Inv. 12" Elev. 496.00

Inv. 6" Elev. 479.83
Inv. 8" Elev. 479.66
Pick up Ex. 6" Drain

Drop M.H. A or P
Sta. 25+91.50 ST 87' Rt.
Inv. 18" Elev. 472.85
Inv. 18" Elev. 487.47
Inv. 12" Elev. 473.35 (Drop)

M.H. A, 5' Diam/Grate
Sta. 25+60.50 ST 101' Rt.
Inv. 30" Elev. 471.28 W
Inv. 24" Elev. 471.78 N
Inv. Ex. 24" Elev. 472.00±
Inv. 18" Elev. 472.35 E

M.H. A or P
Sta. 42+40 FC 74' L
Inv. 30" Elev. 470.94

M.H. A or P
Sta. 43+54 FC 15' R
Inv. 30" Elev. 469.65

M.H. A or P
Sta. 16+80 F 61.5' R
Inv. 36" Elev. 468.10
Inv. 30" Elev. 468.60
Inv. 21" Elev. 475.25

Junction Chamber #2
Sta 16+62 F 6' R
Inv. 36" Elev. 467.76 (In)
Inv. 36" Elev. 467.69 (Out)
Inv. 30" Elev. 469.68 (Out)
Inv. 15" Elev. 475.13 (In)
Inv. 12" Elev. 476.12

M.H. A or P
Sta. 16+27 F-20' Rt.
Inv. 6" Elev. 478.40
Inv. 6" Elev. 477.83
Inv. 12" Elev. 475.75
Inv. 12" Elev. 476.50

Sluice Gate Chmbr #1
Inv. 36" Elev. 467.30 (In)
Inv. 36" Elev. 467.26 (Out)

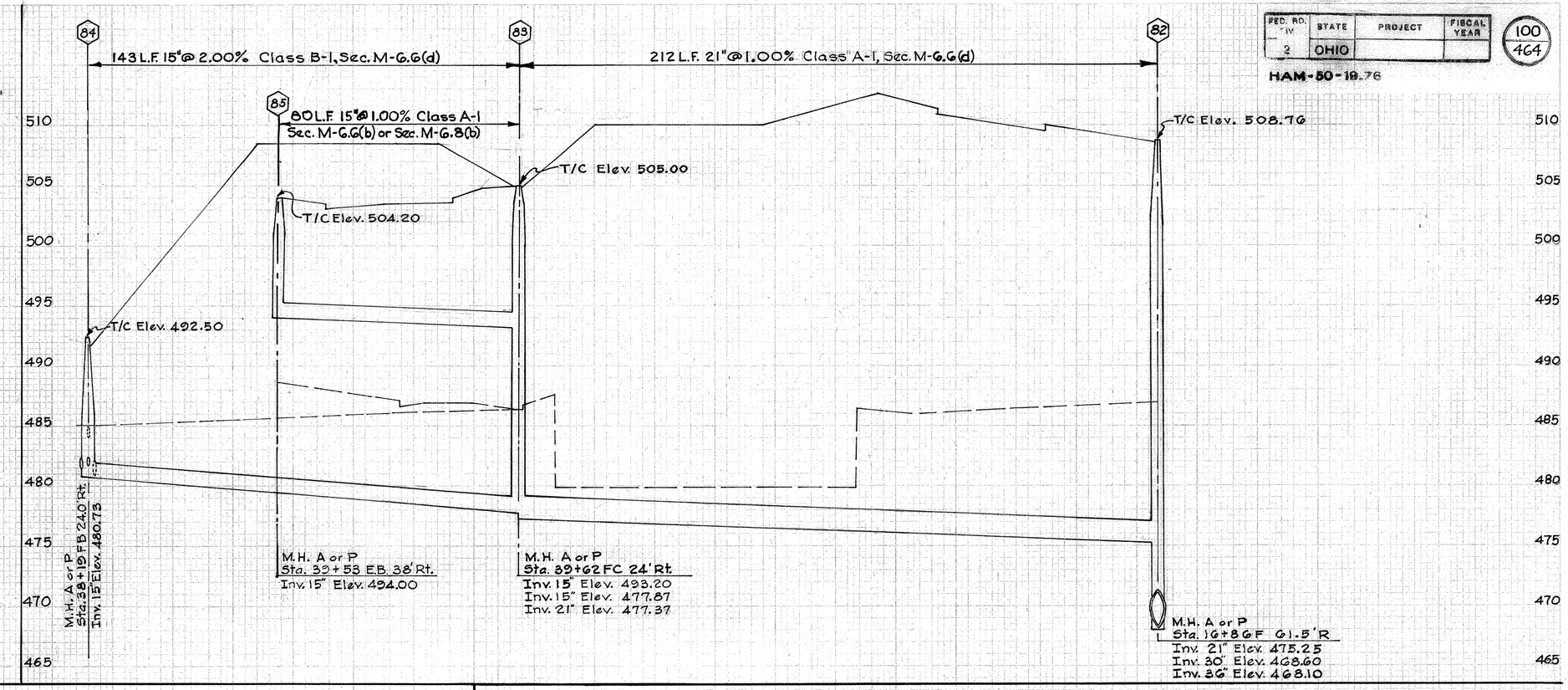
510 505 500 495 490 485 480 475 470 465

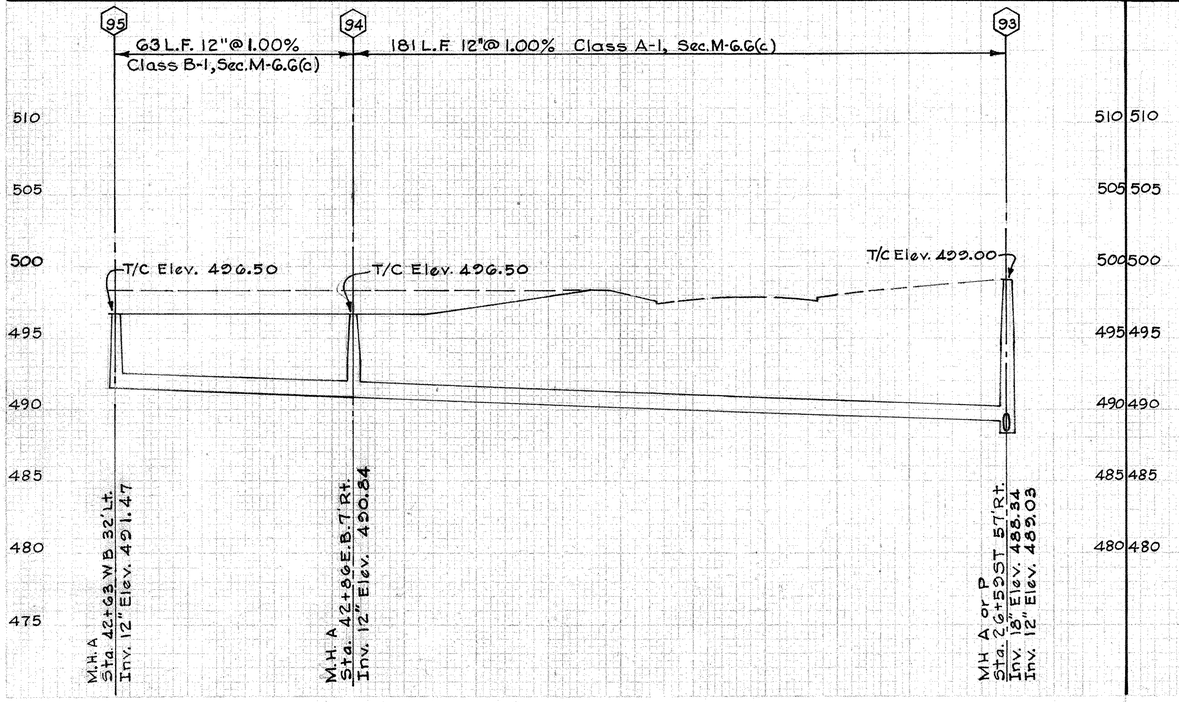
SEWER PROFILES

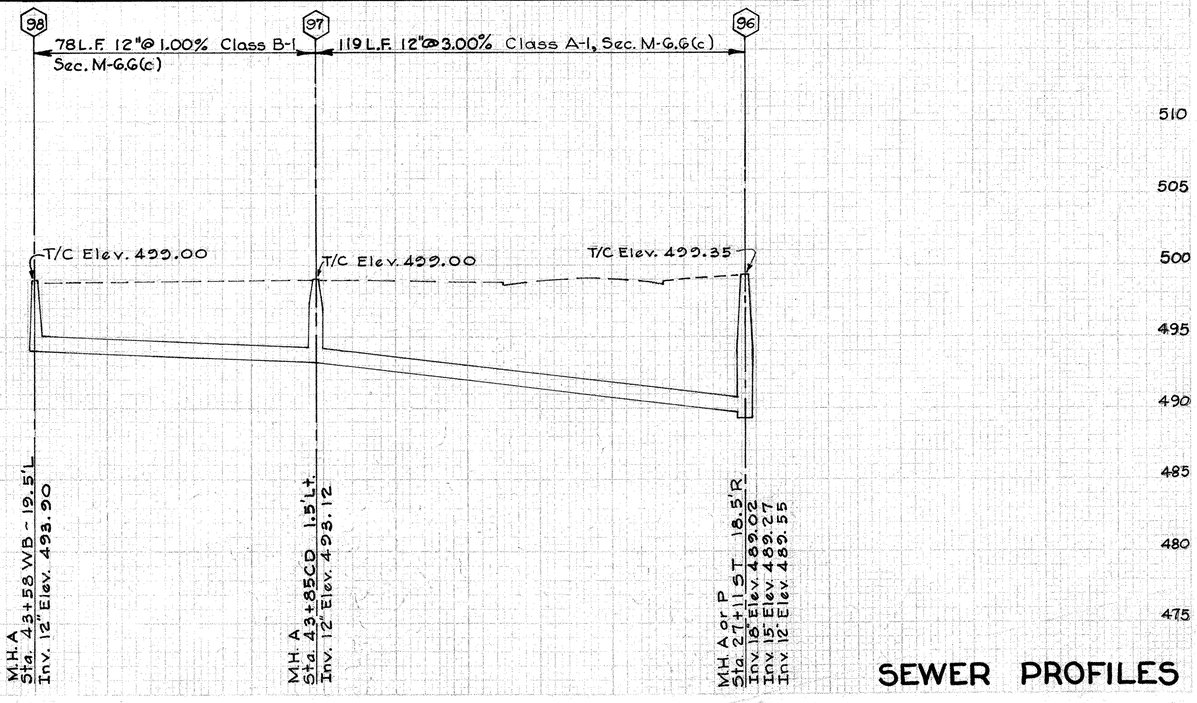
FED. RD. IV	STATE	PROJECT	FISCAL YEAR
2	OHIO		

HAM-50-18.76

100
464







SEWER PROFILES

FED. RD. CIV.	STATE	PROJECT	FISCAL YEAR
2	OHIO		

HAM-50-19.76

101 / 464

101-290
205 Fed

205

100 L.F. 48"@ 2.10% Class A-1 Sec. M-G.G(b)

Radius Pipe

170 L.F. 48" @ 2.10% Class A-1, Sec. M-G.G(b)

60 L.F. 12"@ 1.00% Class B-1

68 L.F. 15"@ 2.00% Class A-1, Sec. M-G.G(b) or Sec. M-G.8(b)

127 L.F. 48"@ 2.10% Class A-1, Sec. M-G.G(b)

101 L.F. 48"@ 2.10% Class A-1, Sec. M-G.G(b)

107 L.F. 30"@ 2.00% Class A-1, Sec. M-G.G(b) or Sec. M-G.8(b)

51 L.F. 48"@ 0.90% Class A-1, Sec. M-G.G(b)

48" to MH# 112

T/C Elev. 502.10 Ex.

T/C Elev. 505.46

T/C Elev. 511.50

T/C Elev. 511.50

T/C Elev. 511.02

T/C Elev. 513.62

T/C Elev. 515.50

T/C Elev. 514.80

Radius Pipe

M.H. D
Sta. 8+00 L-17' Rt.
Inv. 4.3' Ex. Br. Elev. 486.89
Inv. 48" Elev. 487.18
Inv. 24" Elev. 489.18

M. H. D
Sta. 8+99 L-4.5' Rt.
Inv. 48" Elev. 489.28

M.H. A
Sta. 10+33 L-70' Rt.
Inv. 12" Elev.- 504.10

M.H. A
Sta. 10+22 L-70' Rt.
Inv. 15" Elev. 503.25
Inv. 12" Elev. 503.50

M.H. D
Sta. 10+70 L 6' Rt.
Inv. 46" Elev. 492.85
Inv. 15" Elev. 501.89

M.H. D
Sta. 11+27 L-4' Rt.
Inv. 48" Elev. 495.52

Junction Chamber #4
Sta. 13+03.5 L-4' Rt.
Inv. 45" North Elev. 497.85
Inv. 48" South Elev. 497.64
Inv. 30" East Elev. 499.35

M.H. D
Sta. 13+60 L-4' Rt.
Inv. 48" Elev. 498.31
Inv. 18" Elev. 501.45 Ex.±
Inv. 12" Elev. 498.38

See Profile Lower Left This Sheet

229 L.F. 24"@ 2.00% Class B-1, Sec. M-G.G(b) or Sec. M-G.8(b)

160 L.F. 48"@ 0.85% Class A-1 Sec. M-G.G(b) To MH# 110

Radius Pipe

246 L.F. 15" @ 4.00% Class B-1, Sec. M-G.5(b), Sec. M-G.G(b) or Sec. M-G.8(b)

83 L.F. 12"@ 0.46% Class A-1 Sec. M-G.G(c)

T/C Elev. 514.85

T/C Elev. 513.73

T/C Elev. 521.44

T/C Elev. 526.40

T/C Elev. 515.50

T/C Elev. 513.14

Existing 3'-6" or 48" Sewer

M.H. A or P
Sta. 49+21 LA 46' L
Inv. 30" Elev. 501.45
Inv. 24" Elev. 502.00

M.H. D
Sta. 14+86 L-85' Lt.
Meet Existing Sewer
@ Inv. 48" Elev. 499.69±

M.H. A or P
Sta. 51+50 LA-22' L
Inv. 24" Elev. 506.58
Inv. 15" Elev. 507.33

M.H. A or P
Sta. 54+00 LA 50' Lt.
Inv. 15" Elev. 517.17

See Above Profile

M.H. Existing
Sta. 13+75 L-79' Lt.
Inv. 12" Elev. 498.76
Inv. Ex. 48" Elev. 496.76

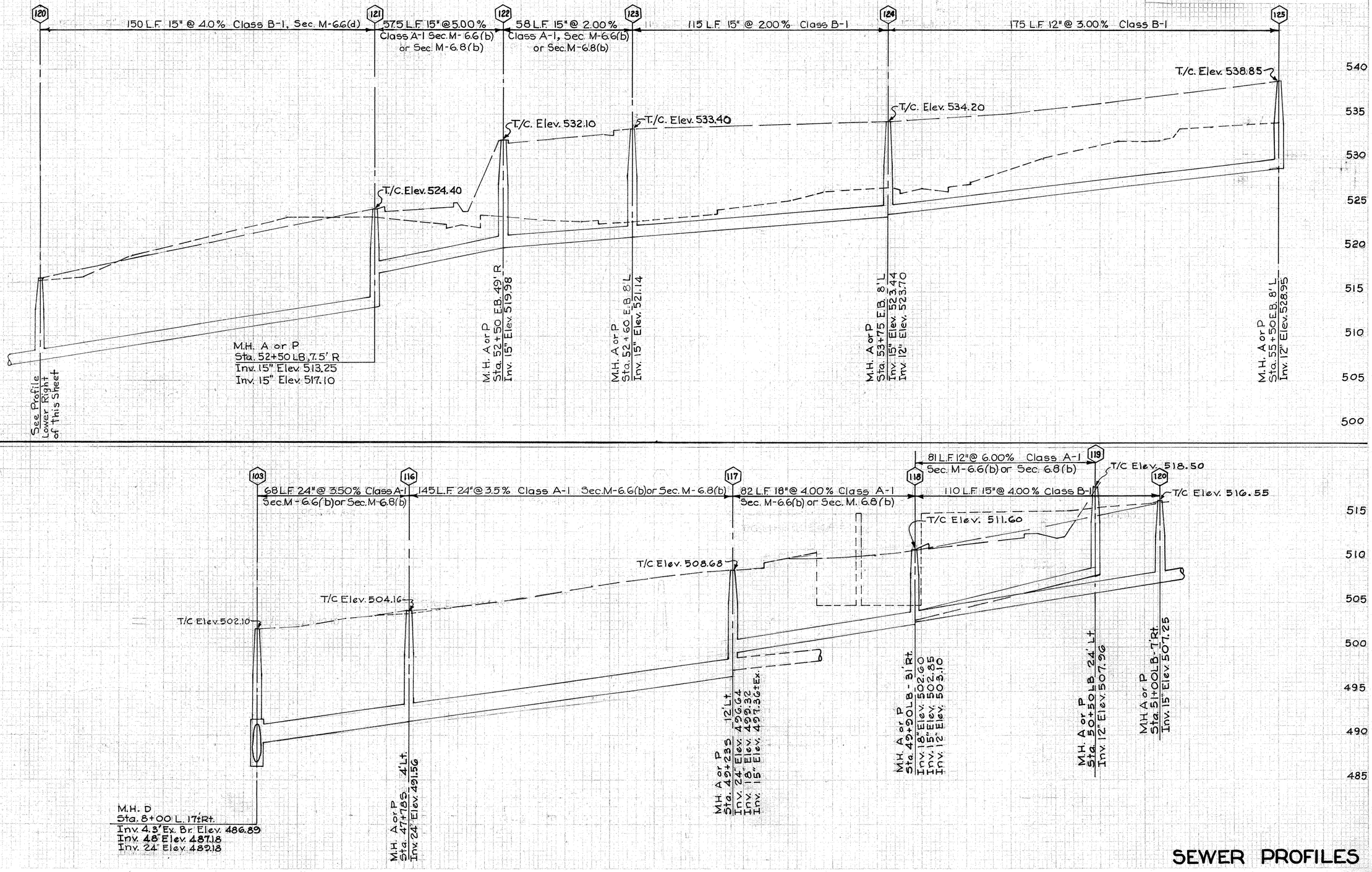
SEWER PROFILES

PLATE 7 CROSS-SECTION OF R.S.A.F.E. STANDARD

FED. AID PROJ.	STATE	PROJECT	FISCAL YEAR
3	OHIO		

H.A.M-50-19.76

102
464



SEWER PROFILES

FINAL SURVEY
SURVEYED
PLOTTED
NOTE BOOK
TEMPLATE
CHECKED
DESIGNED
NO.

ORIGINAL SURVEY
SURVEYED
PLOTTED
NOTE BOOK
CHECKED
NO.

FED. RD. DIV.	STATE	PROJECT	FISCAL YEAR
2	OHIO		

HAM-50-19.76

103
464

SEWER TABULATIONS

MANHOLE No.	TYPE	PLAN SH. No.	PROFILE SH. No.	EXPRESSWAY OR RAMP	STATION		FLOW LINE ELEVATION	GRATING ELEVATION	FLOW LINE ELEVATION AT M.H. C.B. OR SEWER	CATCH BASIN	RIM ELEV.
1	Exist. M.H.	50	—	E.B. Expressway	21+93 E.B.	5'R	475.54 15"Ex 477.80 12"Ex 476.41 12"Ex	483.15 484.40	477.80 12"Ex 478.51 12"Ex @ Ex. Stub	1A 1B	485.30Ex
2	Ex. M.H. 5' Diam.	50	91	Ramp A	21+05 A	44'L	463.50 42"Ex 464.00 36"Ex 465.00 24"Ex.				485.50Ex
3	A or P	51	91	Ramp A	23+66 A	26'L	465.29 36" 476.51 12"			3A	487.50
4	A or P	51	91	Ramp A	23+59 A	30'R	477.38 12"			4A 4B	485.00
5	A or P	51	91	E.B. Expressway	24+40 E.B.	11'L	479.00 12"			5A 5B	488.86
6	A or P	51	91	Ramp A	25+60 A	23'L	466.27 36" 466.77 30" 476.40 15"			6A	484.80
7	A or P	51	91	Ramp A	25+57.7 A	8'R	477.00 15"			7A 7B 7C 7D	484.50
8	A or P	51	91	Ramp A	28+06 A	26'L	468.06 30" 468.56 24" 475.00 21" 480.08 12"			8A	487.00
9	A	51	91	E.B. Expressway	28+21 E.B.	36'R	482.00 12"			9A	489.50
10	A or P	51	91	E.B. Expressway	28+04 E.B.	11'L	481.48 12"			10A	489.00
11	A or P	51	91	Ramp A	27+92 A	23'R	480.60 12"			11A	488.00
12	A or P	51	91	Ramp A	29+61 A	14'L	469.25 24"				485.98
13	A or P	51	91	Ramp A	29+88 A	14'L	469.34 24" 469.59 21"			13A	485.93
14	A or P	54,56	91,92	Sixth Street	10+93 S	5'L	469.91 21"			14A 14B	485.05
15	A or P	54	92	Sixth Street	12+67 S	5'L	470.61 21" 470.86 18"			15A 15B	484.29
16	A or P	54	92	Sixth Street	13+21.5 S	5'L	471.14 18" 471.39 15"			16A 16B 16C	484.40
17	A or P	54	92	Sixth Street	13+89 S	5'L	471.73 15" 471.98 12"			17A 17B	484.22
18	A or P	54	92	Sixth Street	14+29 S	5'L	472.38 12"			18A	484.10
19	A	54	92	Sixth Street	15+00 S	5'L	473.09 12"			19A 19B	483.95
20	A or P	51,54	91	W.B. Expressway	29+01 W.B.	105'L	474.66 21" 475.99 12"			20A 20B	487.50
21	A or P	54	91	W.B. Expressway	30+35 W.B.	106'L	478.63 12"			21A	488.50
22	Exist.	56	—	Harriet Street	31+78 A	2'R	477.49 12"			22A 22B 22C 22D	486.14
23	Exist.	56	—	Harriet Street	33+38 A	2'R	474.58± 12"Ex			23A 23B	484.29
24	Exist.	50	—	W.B. Expressway	22+50 W.B.	135'R	466.28 24"Ex			24A	485.00Ex
25	J.C. #1	56,59	93,96	Carr Street	18+44 S(N)	16'R	467.14 54" 467.20 54" 467.20 30"			25A	
26	A or P	56,59	97	Carr Street	18+34 S(N)	8'L	467.29 30"				485.00
27	A or P	59	97	Ramp FB	35+80 FB	48'L	467.98 30"				488.80
28	D	56,59	93	Carr Street	17+11.5 S(N)	16'R	467.54 54" 473.23 15"			28A 28B	484.30
29	A	59	93	Ramp FB	34+33 FB	44'L	475.00 15"			29A 29B 29C	487.81
30	D	54,59,65	93	Carr Street	15+82 S(N)	135'R	468.44 54" 471.50 18"			30A	487.19
31	A or P	54,59,65		Sixth Street Temporary	13+91 S(Tf)	1'R	471.90 18"	489.90		31A 31B	489.90
32	A or P	59,65	93	Sixth St. Temporary Detour @ Southern Ry. High Line	15+20 S(Ft)	135'L	472.41 18" 486.29 15"	497.00		32A 32B	497.00
33	A or P	59,65	93	Collector Distributor	36+60 C.D.	28'L	487.00 15"	497.65		33A 33B 33C	497.65
34	D	65	93,94,96	Ramp FA	34+58 FA	15'L	469.53 474.50	502.00		34A 34B 34C 34D	502.00
35	A	54	96	Collector Distributor	33+13 C.D.	7'L	482.92 12"	494.80		35A	484.00
36	A or P	54	96	W.B. Expressway	33+08 W.B.	6'R	482.22 12"	494.00		36A	484.00
37	A	54	96	Ramp FA	32+98 FA	39'L	478.56 479.31	485.50		37A 37B	485.50
38	A or P	54,65	96	Ramp FA	34+36 FA	35'L	475.14 21" 475.64 15" 475.35± 15"Ex	493.80			
39	D	65	94	Ramp FA	36+65 FA	50'L	470.61 54"	488.30		39A	488.30
40	D	65,70	94,96	Ramp FA	38+08 FA	26'L	471.21 54" 473.98 21"	492.00		40A 40B 40C	492.00
41	A	65	96	Freeman Avenue	21+68.5 F	50'L	474.90 21" 475.40 15" 476.72 12"	483.00		41A 41B	485.10
42	A	65	96	Freeman Avenue	21+05.5 F	45'L	465.84 483.50	496.50 502.61		42A 42B	496.50 502.61
43	A or P	65	96	W.B. Expressway	37+46 W.B.	50'L	488.00 12"	500.49		43A	500.45
44	A or P	65	96	W. B. Expressway	37+27 W.B.	8'R	492.00 12"	500.45		44A 44B 44C	496.00
45	A or P	65	96	Freeman Avenue	21+47.5 F	42'R	476.35 15"	486.00		45A 45B	486.00
46	A or P	65,75	96	W.B. Expressway	40+26 W.B.	103'L	477.28 15" 477.53 12"	486.50		46A	486.50
47	A or P	75	96	W.B. Expressway	41+03 W.B.	50.5'L	479.58 5 12" 478.45 N 12"	493.40		47A 47B 47C	493.40
48	A or P	75	96	W.B. Expressway	41+29 W.B.	5'L	482.25 12"	495.50		48A 48B	495.50
49	A or P	75	96	Collector Distributor	41+67 C.D.	17'R	487.18 12"	495.50		49A 49B	495.50
50	D	65,70	94	Ramp FA	38+45 FA	24'L	471.38 54" 476.38± 24"Ex.	481.50			481.50
51	D	65,70	94	Ramp FA	38+95 FA	29'L	471.59 54" 473.09 36"	497.50		51A 51B	497.50
52	A or P	70	94	Ramp FA	39+89 FA	21'L	478.68 36"	497.23		52A 52B	497.23
53	A or P	70	94	Kenyon Street	38+61 K	3'R	480.74 24" 481.74 24"	497.03			
54	A or P	70	94	Kenyon Street	38+60 K	20'L	482.32 24"	496.56		54A 54B 54C 54D	496.56

MANHOLE No.	TYPE	PLAN SH. No.	PROFILE SH. No.	EXPRESSWAY OR RAMP	STATION		FLOW LINE ELEVATION	GRATING ELEVATION	FLOW LINE ELEVATION AT M.H. C.B. OR SEWER	CATCH BASIN	RIM ELEV.
54	A or P	70	94	Kenyon Street	38+34.33 K	27'R	491.76	495.97		54A 54B 54C 54D	490.50 483.07 490.60 482.32
	A			Kenyon Street	38+34.33 K	27'R	491.76				
	Stub			Ramp FA	38+60 K	59'L	483.45				
	Stub			Kenyon Street	38+60 K	20'L	482.64				
53	A or P	70	94	Ramp FA	38+90 FA	41'R	494.00	495.97			491.00
	A			Kenyon Street	38+34.33 K	27'R	491.76				483.16
52	A or P	70	94	Ramp FA	39+00 FA	51'L	478.64				
	Stub			Ramp FA	39+00 FA	59'L	483.45				
51	D	65,70	94	Ramp FA	38+99 FA	61'R	494.00	495.97			490.50
	Stub			Ramp FA	38+60 K	59'L	483.45				483.07
	A			Kenyon Street	38+34.33 K	27'R	491.76				490.60
	A			Kenyon Street	38+28 K	20'L	482.64				482.32

FED. RD. DIV.	STATE	PROJECT	FISCAL YEAR
2	OHIO		

HAM-50-19.76

SEWER TABULATIONS

MANHOLE No.	TYPE	PLAN SH. No.	PROFILE SH. No.	EXPRESSWAY OR RAMP	STATION		FLOW LINE ELEVATION		RIM ELEV.	CATCH BASIN	TYPE	FLOW LINE ELEVATION AT M.H. C.B. OR SEWER	
55	A or P	70	94	Kenyon Street	39+50 K	19'L	482.23	36"	497.30	55A	Struct	491.00	12"
										55B	Struct	491.00	12"
56	JC.*3	70	94,95	Kenyon Street	39+95 K	19L	482.88 483.38 483.38	36" 30" 30"	497.65	56A A-2 56B		489.50 489.62	12" 12"
57	A or P	70	95	Kenyon Street	40+10K	56L	494.31±	12"	497.96	57A	Ex.C.B.	491.00	12"
58	A or P	70	95	Freeman Avenue	25+00F(NB)175R	34R	494.00	12"	497.88	58A	A	490.50	12"
					25+00F(NB)	25R	495.50	12"		58B	Struct	492.30	12"
59	A	70	95	Freeman Avenue	25+42.5F	3.5R	490.31	18"	500.00	59A	Struct	495.00	12"
										59B	Struct	494.00	12"
										59C	Struct	495.00	12"
60	A or P	70	95	Ramp FA	42+02FA	16L	490.86	18"	500.50	60A	Struct	494.50	12"
61	A or P	70	95	Freeman Ave.Temp.	26+33FT(W)	24L	491.50	18"	509.50	61A	D	499.00	12"
62	A or P w/Grate	70	95	Freeman Ave.Temp.	27+16.5FT(E)	47R	487.82 488.43	30" 24"	499.00 (Grate)				
63	A	70,72	95	Freeman Ave.Temp.	28+59FT(E)	10'R	489.86 491.66± 492.88± 493.05± 495.00	18"Ex. 12"Ex. 12"Ex. 12"Ex.	503.28				
64	A or P	70,72	95	Freeman Ave.Temp.	28+47FT	41L	495.86	12"	503.62	64A 64B 64C	A-2 A-2 A-2	496.50 496.50 496.00	12" 12" 12"
65	Exist.	72	95	Freeman Ave.Temp.	28+88FT	41L	499.77±	12"Ex.	503.86	65A 65B	A-2 A-2	499.90 499.90	12" 12"
66	A or P	73	94	Kenyon Street	41+28 K	19L	486.68± 485.64 486.25	30"Ex. 30" 24"	498.99				
67*	A or P	73	94	Kenyon Street	41+95K	21L	488.00	24"	500.11	67A 67B 67C 67D	A A Stub SewTop	493.00 493.00 491.00 490.85	12" 15" 6"
68*	A or P	73	94,97	Kenyon Street	43+61K	21'L	492.15 492.40	24" 21"	504.09	68A 68B 68C 68D	A Stub A SewTop	497.00 495.40 497.00 495.85	12" 15" 12" 6"
69*	A or P	73	97	Kenyon Street	45+35K	22L	495.01 495.26	21" 18"	508.38	69A 69B 69C 69D	A Stub A-2 SewTop	501.50 497.50 501.50 498.11	12" 15" 12" 6"
70*	A or P	84,73	97	Kenyon Street	47+00K	23L	496.09	18"	512.49	70A 70B	Stub A	501.60 501.60	15" 12"
71	By Others	57	98	Freeman Avenue	10+85.11F	92R	463.05 463.55 468.16	42" 36" 21"	487.00				
72	Exist.	57	98	Freeman Avenue	11+08.5F	11R	471.80 471.02 471.02±	21" 12" 15"Ex.	486.00+	72A	Collar	471.02	12"
73	A or P	57	98	Freeman Avenue	12+05F	6R	464.52	36"	486.09	73A 73B 73C	A K D	485.54 486.97 485.75	12" 15" 12"
74	A or P	57	98	Freeman Avenue	12+37F	6R	466.38 477.21	36" 12"	494.95	74A 74B 74C	A-2 A-2 D	492.87 492.79 484.01	12" 12" 12"
75	A or P	57	98	Sargent Street	11+58 SC	29R	479.70	12"	487.00	75A 75B 75C	C C D	486.67 486.58 483.50	12" 12" 12"
76	Sluice Gate Combo#1	57,59	98,99	Freeman Avenue	15+91F	6R	467.26 467.30	36" 36"	503.55				
77	J.C.*2	57,59	97,98 99	Freeman Avenue	16+62F	6R	467.69 467.76 469.68 495.13 476.12	36" 36" 30" 15" 12"	507.53				
78	A or P	57,59, 62	99	Freeman Avenue	16+27F	20R	478.40 477.83 495.75 476.50	6" 6" 12" 12"	505.49	78A 78B	A A	505.50 505.50	12" 12"
79	A or P	57,59 62	99	Ramp FC(S)	45+21FC(S)	22'L	496.00	12"	507.00	79A 79B	D A	496.50 496.90	12" 12"
80	A or P	57,59		Freeman Avenue	16+87F	℄	495.37 495.62	15" 12"	509.48	80A 80B	A A	502.00 502.00	12" 12"
81	A or P	59		Freeman Avenue	17+00F	36L	496.00	12"	510.50	81A 81B	A A-2	503.20 496.34	12" 12"
82	A or P	57,59, 62	98,99 100	Freeman Avenue	16+86F	61.5R	468.10 468.60 475.25	36" 30" 21"	508.76				
83	A or P	59,62, 65	100	Ramp FC	39+62FC	24R	493.20 477.67 477.37	15" 15" 21"	505.00	83A 83B 83C	D A Struct	482.92 494.12 500.00	12" 12" 12"
84	A or P	59,65	100	Ramp FB	38+19FB	24R	480.73	15"	492.50	84A 84B 84C	D A-2 Struct	481.25 482.75	12" 12"
85	A or P	65	100	E.B. Expressway	39+53E.B.	38R	494.00	15"	504.20	85A 85B 85C 85D	K A Struct Struct	494.50 494.50 496.00 496.45	12" 12" 12" 12"
86	A or P	62	99	Ramp FC	43+54FC	15R	469.65	30"	505.00	86A 86B	C A	498.00 498.00	12" 12"
87	A or P	62	99	Ramp FC	42+40FC	74'L	470.94	30"	491.66	87A	Special	476.00	12"
88	5'A w/Grate	62	95,99	Relocated Sixth St.	25+60.5ST	101R	471.28 W 471.78 N 472.00±S 472.35E	30" 24" 24"Ex. 16"Ex.	480.10				
89	A w/Grate	62,75	95	Relocated Sixth St.	25+13 ST	11'L	472.75	24"	478.80 (grate)	89A 89B	Exist. Exist.	478.70± 479.20±	use Exist. use Exist.
90	A w/Grate	75	95	E.B. Expressway	42+09 E.B.	28R	473.29	24"	479.60 (grate)	90A	Struct	E.B. Expressway	12"
91	Exist. w/Grate	75	95	E.B. Expressway	42+00.5E.B.	11R	473.44 474.22±	24" 24"Ex.	480.00 (grate)			474.29	
92	Drop A or P	62	99	Relocated Sixth St.	25+91.5 ST	67R	472.85 487.41 473.35(Drop)	18" 18" 12"	497.38				
93	A or P	62	99,100	Relocated Sixth St.	26+59 ST	57R	486.34 489.03	18" 12"	499.00	93A 93B	A K	493.00 490.75	12" 15"
94	A	75	100	E.B. Expressway	42+86E.B.	7R	490.84	12"	496.50	94A	Struct	491.67	12"
95	A	75	100	W.B. Expressway	42+63 W.B.	32'L	491.47	12"	496.50	95A	Struct	491.67	12"
96	A or P	62,75 99,100	Relocated Sixth St.	27+11 ST	16.5R	489.02 489.27 489.55	18" 15" 12"Ex.	499.35	96A 96B	C C	493.35 493.00	12" 15"
97	A	75	100	Collector Distributor	43+85 CD	1.5L	493.12	12"	499.00	97A	Struct	E.B. Expressway	12"
98	A	75	100	W.B. Expressway	43+56W.B.	19.5L	493.90	12"	499.00	98A	Struct	W.B. Expressway	12"
99	Exist.	62,75, 99	Relocated Sixth St.	28+48ST	21'L	490.74 487.18 489.18	15"Ex. 48" 24"	500.59					
100	Exist.	75,78, 82	99	E.B. Expressway	46+34E.B.	46'R	492.10± 492.10	12"Ex. 12"	502.21				
101	A	75	99	E.B. Expressway	45+83.5E.B.	10'L	492.86	12"	501.00	101A	Struct	E.B. Expressway	12"
102	A	75	99	W.B. Expressway	45+48 W.B.	36L	493.45	12"	500.50	102A	Struct	W.B. Expressway	12"
103	D	82	101,102	Linn Street	8+00L	17±R	486.89 487.18 489.18	4.5Ex. 48" 24"	502.10	103A	A	495.00	12"
104	D	78,82	101	Linn Street	8+99L	45'R	469.28	48"	505.46	104A 104B 104C	K A V	498.50 498.50 500.00	15" 12" 12"
					8+85L	3.4'L	499.75	15"	504.16				
					8+98.5L	35R	501.00	12"	504.76				
					9+00L	75L	500.50	12"	503.75				

* See Sheet 28 for Summary of Quanitities - 100% City.

MANHOLE No.	TYPE	PLAN SH. No.	PROFILE SH. No.	EXPRESSWAY OR RAMP	STATION	FLOW LINE ELEVATION	GRATING ELEVATION	FLOW LINE ELEVATION AT M.H. C.B. OR SEWER	CATCH BASIN	RIM ELEV
105	D	78	101	Linn Street	10+70 L 6R	492.85 46" 501.89 15"	497.85 48"N 497.64 48"S 499.35 30"E	504.50 12" 504.50 12"	105A 105B	511.02
106	A	78	101	Linn Street	10+92 L 70R	505.25 15" 503.50 12"	498.31 46" 501.45 18"Ex 496.38 12"	505.00 12" 504.00 12" 506.00 12"	106A Struct 106B D 106C Struct	511.50
107	A	78	101	Linn Street	10+33 L 70R	504.10 12"	495.52 46"	505.00 12" 505.00 12"	107A Struct 107B Struct	511.50
108	D	78,84	101	Linn Street	11+97 L 4R	495.52 46"			108A K 108B K 108C A 108D Y	513.62
109	JC.#4	84	101	Linn Street	13+03.5 L 4'R	497.85 48"N 497.64 48"S 499.35 30"E				
110	D	84	101	Linn Street	13+60 L 4'R	498.31 46" 501.45 18"Ex 496.38 12"				515.50
111	Exist.	84	101	Linn Street	13+75 L 79L	498.76 12' 498.76 48"Ex				513.14
112	D	84	101	Linn Street	14+86 L 85L	499.69± 48"				513.73
113	A or P	84	101	Ramp LA	49+21 LA 46L	501.49 30" 502.00 24"			113A D 113B A-2	514.85
114	A or P	84	101	Ramp LA	51+50 LA 22L	506.58 24" 507.33 15"			114A A 114B D 114C D	521.44
115	A or P	86	101	Ramp LA	54+00 LA 50L	517.17 15"			115A A 115B D	526.40
116	A or P	78,82	102	Sixth Street	47+78 S 4'L	491.56 24"			116A D 116B A-2 116C A	504.16
117	A or P	78	102	Sixth Street	49+23 S 12L	496.64 24" 499.32 18" 497.36± 15"Ex			117A A	508.68
118	A or P	78	102	Ramp LB	49+90 LB 3'R	502.60 18" 502.85 15" 503.10 12"			118A D	511.60
119	A or P	78	102	Ramp LB	50+50 LB 24'L	507.96 12"			119A A-2 119B D	518.50
120	A or P	78	102	Ramp LB	51+00 LB 7'R	507.25 15"			120A A	516.55
121	A or P	86,88	102	Ramp LB	52+50 LB 75R	513.25 15" 517.10 15"			121A A	524.40
122	A or P	78,86 88	102	E.B. Expressway	52+50 E.B. 49R	519.98 15"			122A A-2 122B C	532.10
123	A or P	78,84 86,88	102	E.B. Expressway	52+60 E.B. 8'L	521.14 15'			123A C 123B A-2	533.40
124	A or P	86,88	102	E.B. Expressway	53+75 E.B. 8'L	523.44 15" 523.70 12"			124A A 124B D	534.20
125	A or P	86,88	102	E.B. Expressway	55+50 E.B. 8'L	528.95 12"			125A A-2 125B A-2	538.85
126	Exist.	72	—	Freeman Ave.	28+87 FT (E) 16R	499.95 ± Ex. 12"		503.22		
127	Exist.	56	56	Harriet Street	30+54 A 2'R	Use Existing		486.20		

EXPRESSWAY OR RAMP	STATION	FLOW LINE ELEVATION	GRATING ELEVATION	FLOW LINE ELEVATION AT M.H. C.B. OR SEWER	CATCH BASIN	TYPE
Linn Street	48+70 K'S(EB) B. 36R	507.74 12"	510.74	504.50 12"	105A A-2	
Linn Street	10+86 L 36R	506.50 12"	510.61	504.50 12"	105B A	
W.B. Expressway	48+15 W.B. 37L	507.45 12"		505.00 12"	106A Struct	
Linn Street	11+16.5 L 90R	504.50 12"	507.75	504.00 12"	106B D	
W.B. Expressway	48+84 W.B. 41L	519.79 12"		506.00 12"	106C Struct	
E.B. Expressway	48+00 E.B. 2R	505.67 12"		505.00 12"	107A Struct	
E.B. Expressway	48+66 E.B. 2L	519.79 12"		505.00 12"	107B Struct	
Linn Street	12+05 L 40L	505.25 15"	512.91	499.75 15"	108A K	
Ramp LA	48+57 LA(S) B.	508.83 15"	514.03	506.60 15"	108B K	
Ramp LA	48+60 LA B.	510.62 12"	514.55	509.08 12"	108C A	
Linn Street	48+18 K'S(EB) 45R	506.50 12"	510.00	505.50 12"	108D Y	
Ramp LA	49+23 LA 56L	510.25 15"	513.25	508.80 12"	113A D	
Ramp LA	49+19 LA 27L	509.77 12"	514.64	508.80 12"	113B A-2	
Ramp LA	51+48 LA 3L	516.22 12"	521.15	515.00 12"	114A A	
W.B. Expressway	50+75 W.B. 64L	513.12 12"	516.12	510.00 12"	114B D	
Ramp LA	51+75 LA 37L	516.43 12"	519.93	515.00 12"	114C D	
Ramp LA	54+05 LA 3L	526.00 12"	531.71	517.80 12"	115A A	
Ramp LA	55+00 LA 59L	523.50 12"	526.89	519.40 12"	115B D	
Ramp LB	48+16 LB 52L	499.25 12"	502.75	495.00 12"	116A D	
Ramp LB	48+08 LB 3L	499.54 12"	504.57	497.00 12"	116B A-2	
Sixth Street	48+12 S 20R	498.20 12"	503.88	497.00 12"	116C A	
Sixth Street	49+13 S 20L	503.00 12"	507.88±	501.00 12"	117A A	
Ramp LB	49+88 LB 39R	505.90 12"	509.15	505.00 12"	118A D	
E.B. Expressway	50+50 E.B. 5L	526.50 12"	533.27	512.00 12"	119A A-2	
Ramp LB	50+60 LB 14L	509.30 12"	512.17	509.00 12"	119B D	
Ramp LB	51+12 LB 3R	512.00 12"	516.66	507.00 12"	120A A	
Ramp LB	53+31 LB 3R	523.25 12"	528.20	518.40 12"	121A A	
E.B. Expressway	52+25 E.B. 46R	527.00 12"	531.60	525.73 12"	122A A-2	
E.B. Expressway	52+70 E.B. 46R	525.75 12"	531.45	523.72 12"	122B C	
W.B. Expressway	52+57 W.B. 46L	524.46 15"	531.40	523.37 15"	123A C	
W.B. Expressway	52+02 W.B. 46L	526.01 12"	531.61	524.71 12"	123B A-2	
E.B. Expressway	54+19 E.B. 54R	528.00 12"	532.81	526.00 12"	124A A	
E.B. Expressway	53+48 E.B. 18L	528.94 12"	532.15	527.00 12"	124B D	
W.B. Expressway	55+17.5 W.B. 5R	533.50 12"	538.68	529.56 12"	125A A-2	
Ramp LB	55+93 LB 3R	533.50 12"	538.41	529.56 12"	125B A-2	
C.B.Ex.	Freeman Ave.	29+07 FT 29R	Use Existing	503.17	Use Existing	126A

SEWER TABULATIONS

FED. RD. DIV.	STATE	PROJECT	FISCAL YEAR
2	OHIO		

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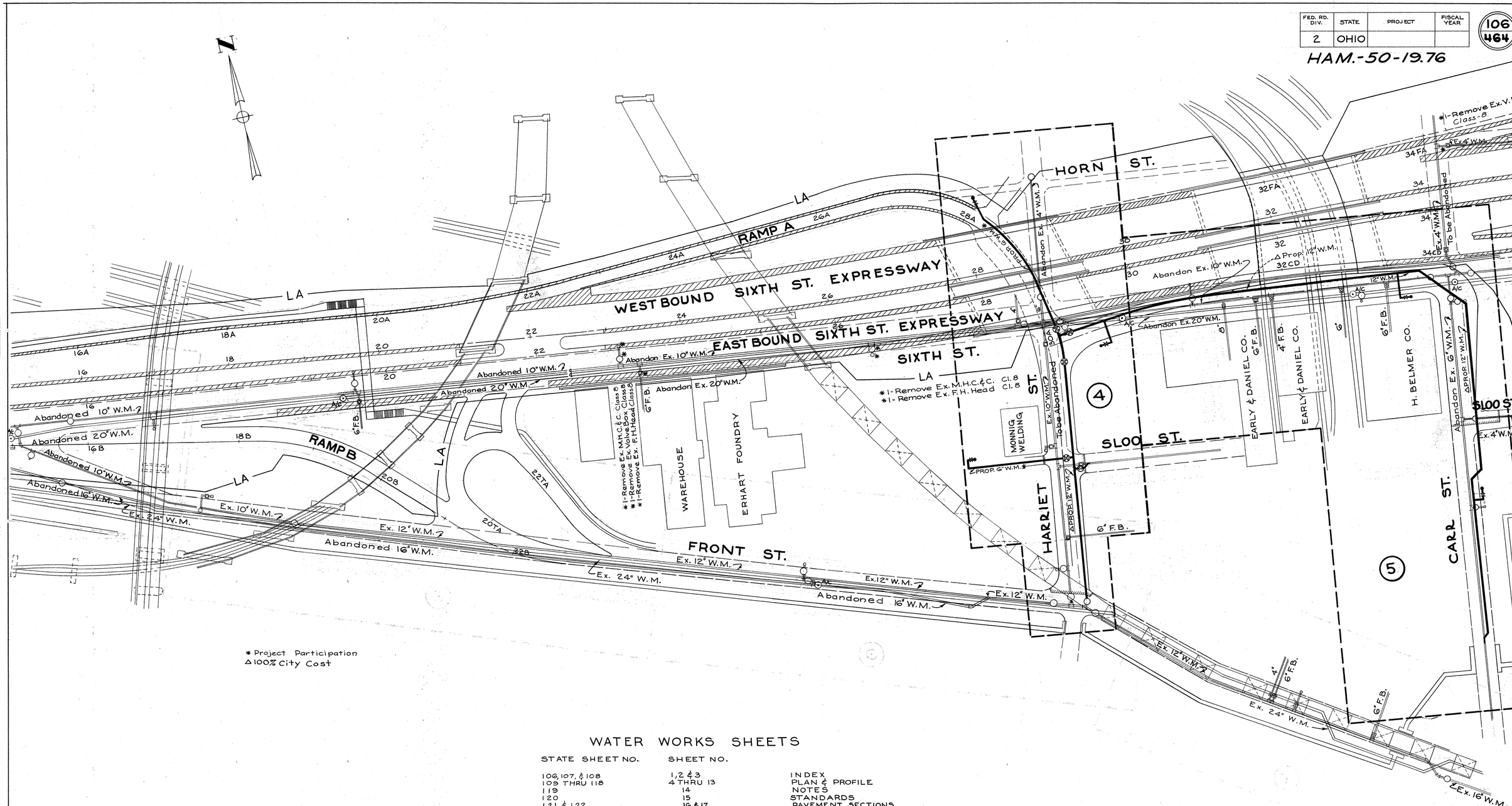
HAM.-50-19.76



WATER WORKS SHEETS

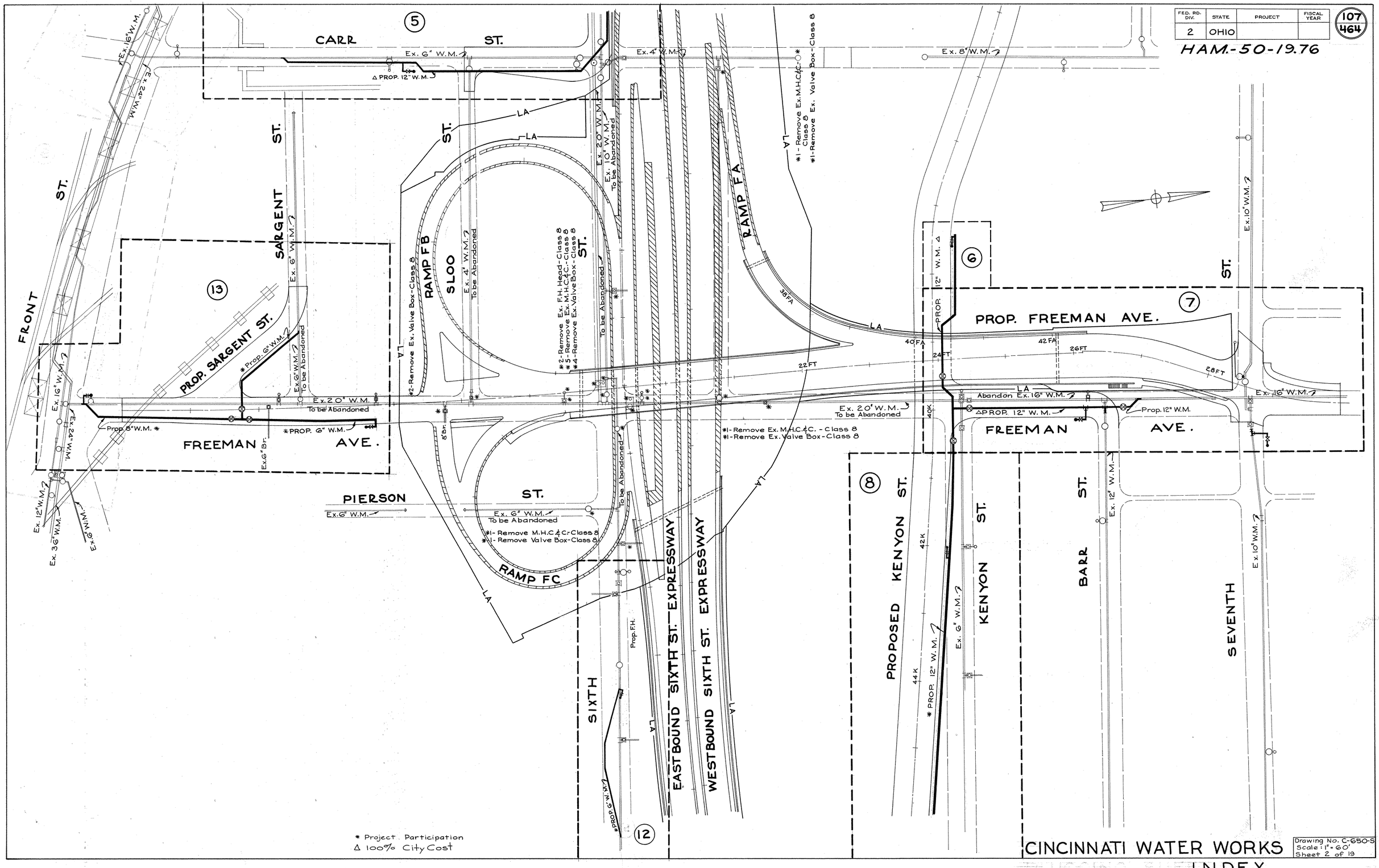
STATE SHEET NO.	SHEET NO.	
106, 107, & 108	1, 2 & 3	INDEX
109 THRU 118	4 THRU 13	PLAN & PROFILE
119	14	NOTES
120	15	STANDARDS
121 & 122	16 & 17	PAVEMENT SECTIONS
123	18	MATERIAL SUMMARY
124	19	LABOR SUMMARY

SIXTH ST. EXPRESSWAY
STA. 22+50±, 6TH ST. EXP. TO GEST ST.

CINCINNATI WATER WORKS
DISTRIBUTION DIVISION

APP'D BY C.F.D.	Walter R. Moeller		
DRAWING E.L.B.	4-26-62	SCALE: 1" = 60'	
CHECKED W.C.	4-26-62	DRAWING NUMBER	C-650-S
APP'D.		Sheet No. 1 of 19	

CINCINNATI WATER WORKS
INDEX



FED. RD. DIV. 2
STATE OHIO
PROJECT
FISCAL YEAR
107
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HAM.-50-19.76
CARR ST.
Ex. 6" W.M.
Ex. 4" W.M.
Ex. 8" W.M.
Δ PROP. 12" W.M.
FRONT ST.
SARGENT ST.
PROP. SARGENT ST.
Ex. 16" W.M.
Ex. 24" W.M.
Ex. 6" W.M.
Prop. 6" W.M.
Ex. 6" W.M. To be Abandoned
Ex. 20" W.M. To be Abandoned
Prop. 8" W.M.
PROP. 6" W.M.
FREEMAN AVE.
Ex. 6" Br.
Ex. 12" W.M.
Ex. 36" W.M.
Ex. 6" W.M.
PIERSON ST.
Ex. 6" W.M.
Ex. 6" W.M. To be Abandoned
*1- Remove M.H.C.&C.-Class 8
*1- Remove Valve Box-Class 8
RAMP FC
RAMP FB
SLOO ST.
Ex. 4" W.M. To be Abandoned
*2-Remove Ex. Valve Box-Class 8
*2-Remove Ex. F.H. Head-Class 8
*5-Remove Ex. M.H.C.&C.-Class 8
*4-Remove Ex. Valve Box-Class 8
Ex. 20" W.M. To be Abandoned
Ex. 10" W.M. To be Abandoned
RAMP FA
*1- Remove Ex. M.H.C.&C.-Class 8
*1-Remove Ex. Valve Box-Class 8
LA
38FA
22FT
40FA
24FT
42FA
26FT
28FT
PROP. 12" W.M. Δ
PROP. FREEMAN AVE.
Abandon Ex. 16" W.M.
Ex. 20" W.M. To be Abandoned
Ex. 16" W.M.
Prop. 12" W.M.
Ex. 10" W.M.
*1- Remove Ex. M.H.C.&C. - Class 8
*1-Remove Ex. Valve Box-Class 8
SIXTH ST.
Prop. F.H.
EASTBOUND SIXTH ST. EXPRESSWAY
WESTBOUND SIXTH ST. EXPRESSWAY
PROPOSED KENYON ST.
KENYON ST.
42K
44K
PROP. 12" W.M.
Ex. 6" W.M.
BARR ST.
Ex. 12" W.M.
SEVENTH ST.
Ex. 10" W.M.
* Project Participation
Δ 100% City Cost
CINCINNATI WATER WORKS
Drawing No. C-650-S
Scale: 1" = 60'
Sheet 2 of 19
INDEX

FED. RD. DIV.	STATE	PROJECT	FISCAL YEAR
2	OHIO		

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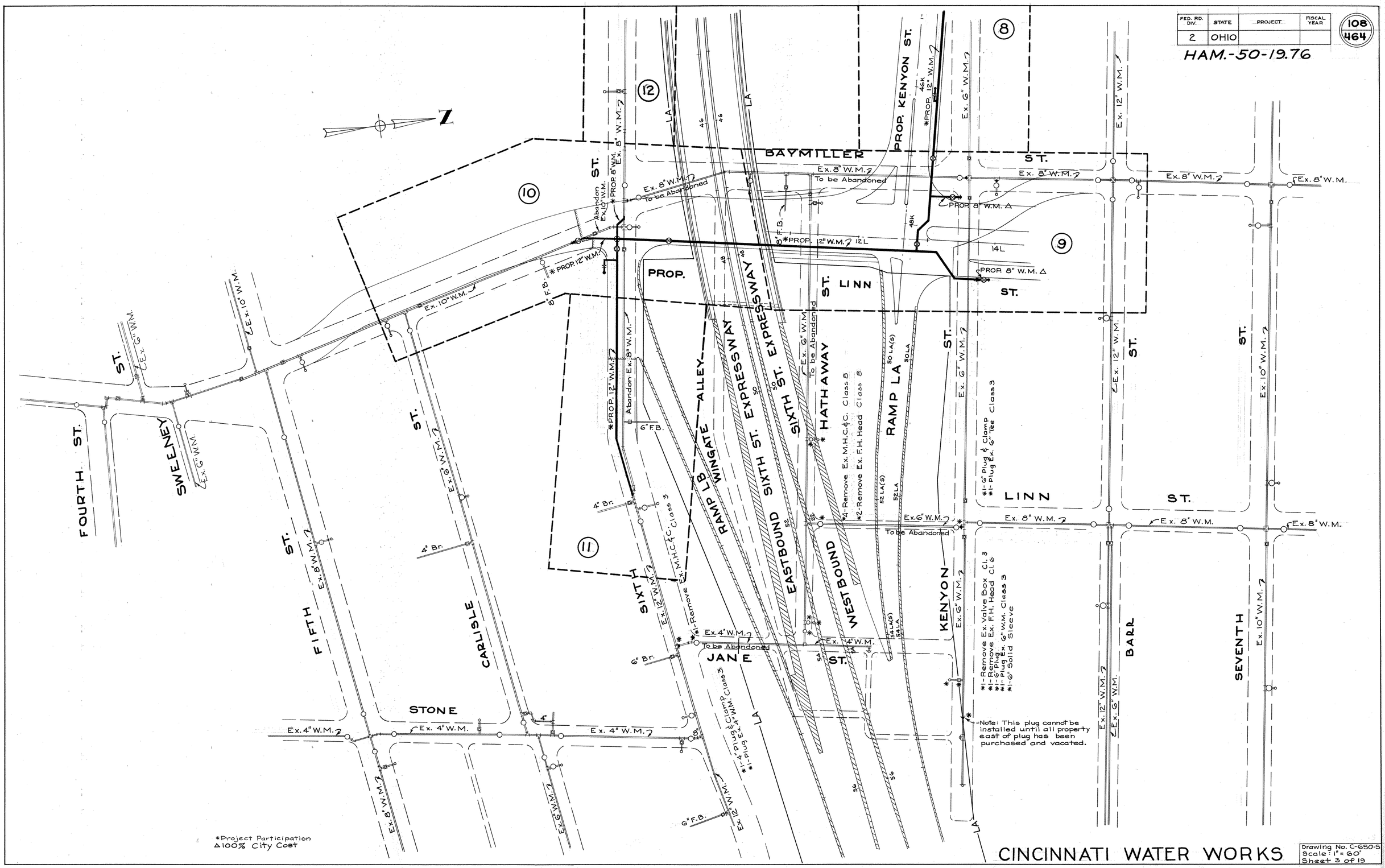

CINCINNATI WATER WORKS

Drawing No. C-650-S
Scale: 1" = 60'
Sheet 3 of 19

INDEX

FED. RD. DIV.	STATE	PROJECT	FISCAL YEAR
2	OHIO		

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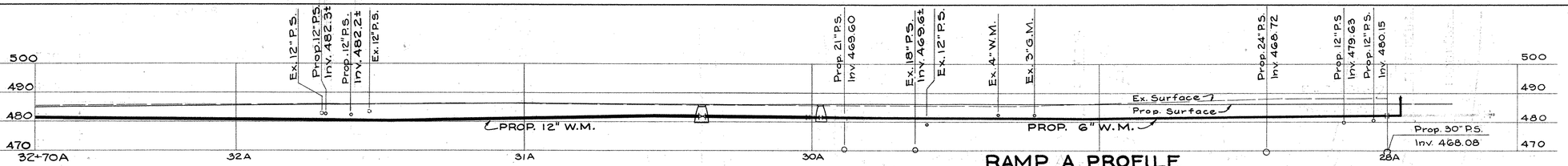
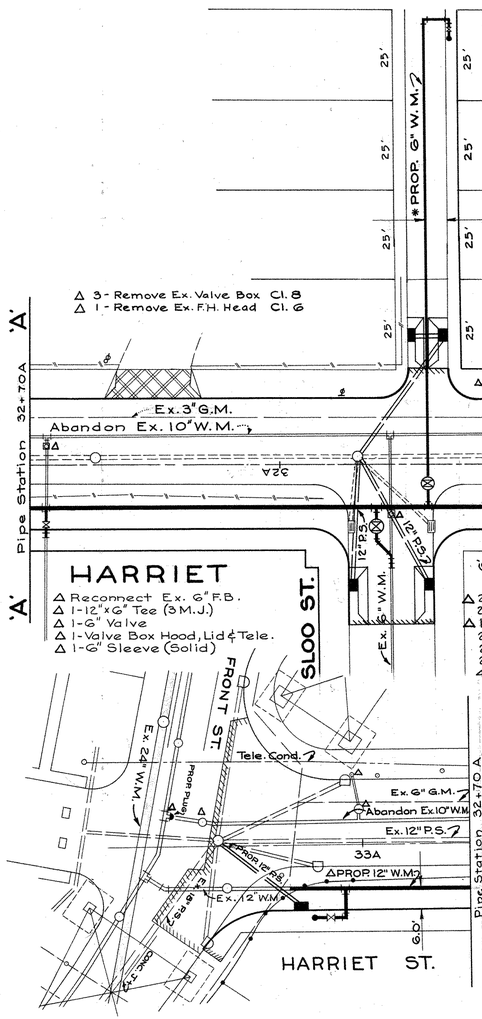
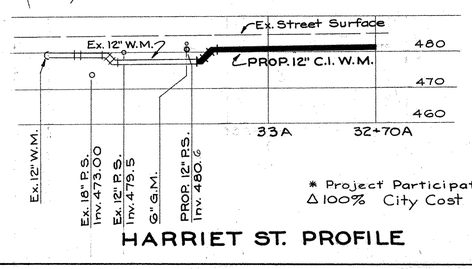
HAM-50-19.76



HARRIET ST. PROFILE



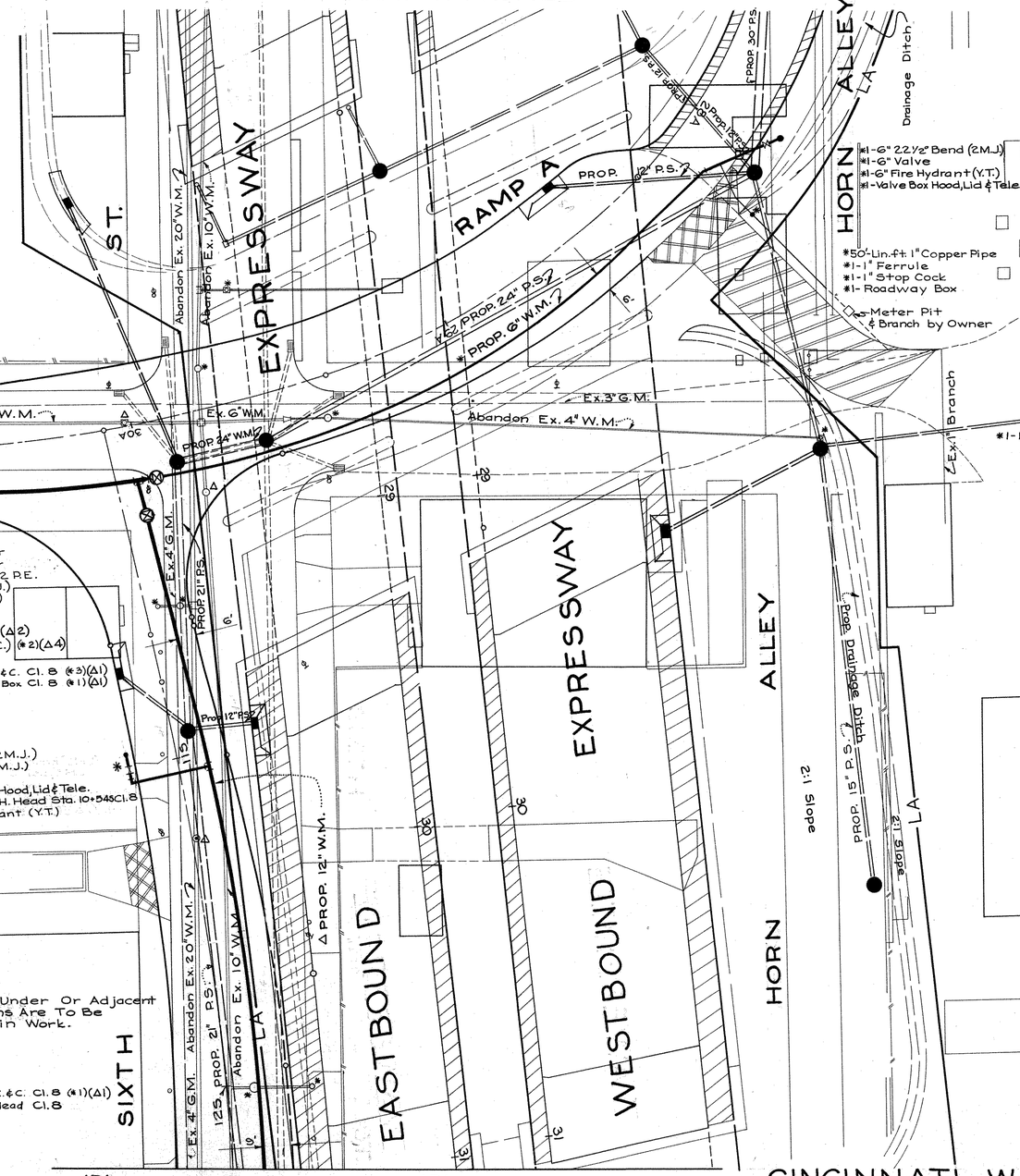


* Project Participation
△ 100% City Cost

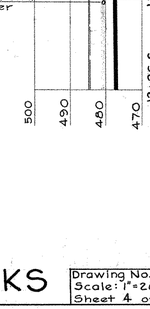
HARRIET ST. PROFILE

NOTE:
All Sewers Which Are Under Or Adjacent To The Proposed Water Mains Are To Be Installed Prior To Water Main Work.

RAMP A PROFILE



PROP. SIXTH ST. PROFILE



CINCINNATI WATER WORKS

SIXTH ST. & HARRIET ST.

Drawing No. C-650-S
Scale: 1"=20' Hor.
Sheet 4 of 19

FED. RD. DIV.	STATE	PROJECT	FISCAL YEAR
2	OHIO		

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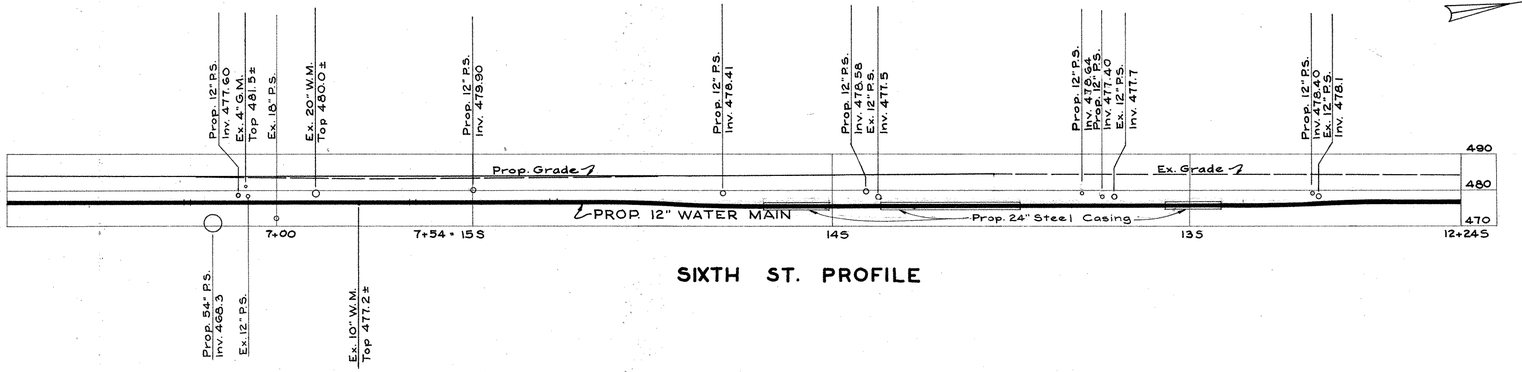
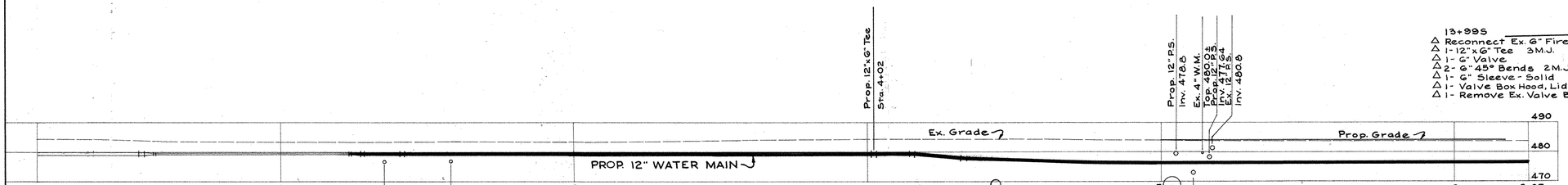
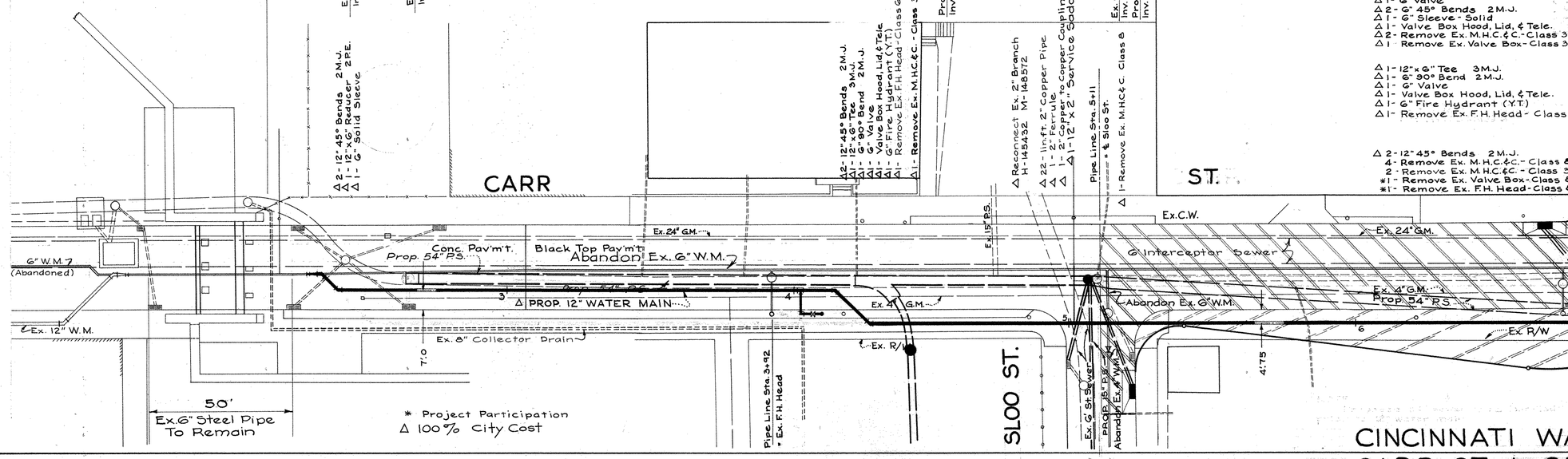


SIXTH ST. PROFILE

All Sewers Which Are Under Or Adjacent to The Proposed Water Main Are to be Installed Prior to Water Main Work.



CARR ST. PROFILE



'B'

12+60S
Δ Reconnect Ex. 8" Fire Br.
Δ 1 - 12"x8" Tee 3 M.J.
Δ 1 - 8" Valve
Δ 2 - 8" 45° Bends 2 M.J.
Δ 1 - 8" Sleeve - Solid
Δ 1 - Valve Box Hood, Lid, & Tele.
Δ 1 - Remove Ex. Valve Box - Class 3

12+89S
Δ Reconnect Ex. 6" Fire Br.
Δ 1 - 12"x6" Tee 3 M.J.
Δ 1 - 6" Valve
Δ 2 - 6" 45° Bends 2 M.J.
Δ 1 - 6" Sleeve - Solid
Δ 1 - Valve Box Hood, Lid, & Tele.
Δ 1 - Remove Ex. Valve Box - Class 3

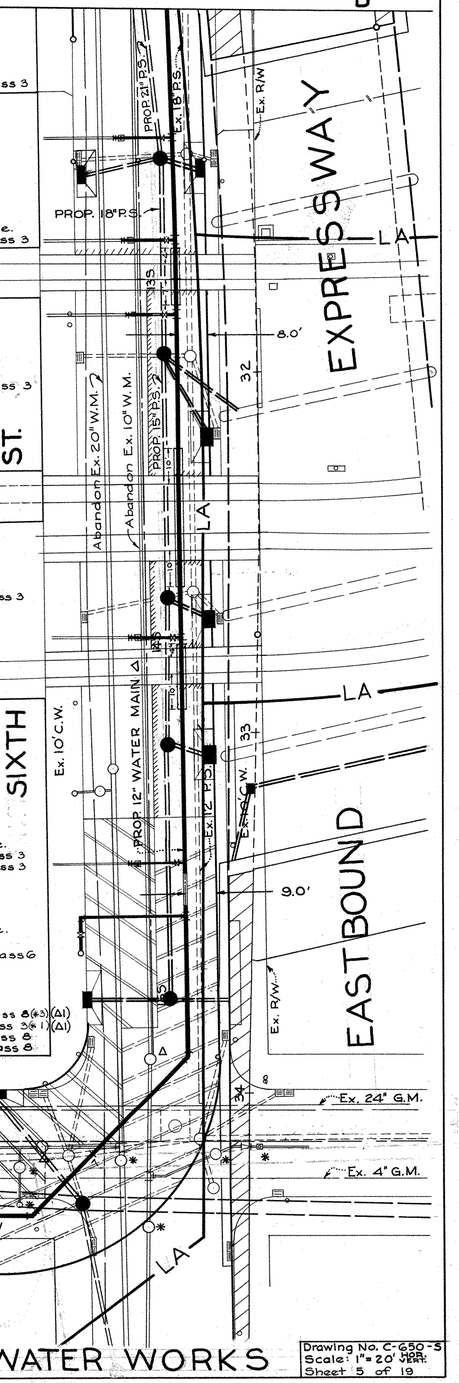
13+10S
Δ Reconnect Ex. 4" Fire Br.
Δ 1 - 12"x4" Tee 3 M.J.
Δ 1 - 4" Valve
Δ 2 - 4" 45° Bends 2 M.J.
Δ 1 - 4" Sleeve - Solid
Δ 1 - Valve Box Hood, Lid, & Tele.
Δ 1 - Remove Ex. Valve Box - Class 3

13+99S
Δ Reconnect Ex. 6" Fire Br.
Δ 1 - 12"x6" Tee 3 M.J.
Δ 1 - 6" Valve
Δ 2 - 6" 45° Bends 2 M.J.
Δ 1 - 6" Sleeve - Solid
Δ 1 - Valve Box Hood, Lid, & Tele.
Δ 1 - Remove Ex. Valve Box - Class 3

14+62S
Δ Reconnect Ex. 6" Fire Br.
Δ 1 - 12"x6" Tee 3 M.J.
Δ 1 - 6" Valve
Δ 2 - 6" 45° Bends 2 M.J.
Δ 1 - 6" Sleeve - Solid
Δ 1 - Valve Box Hood, Lid, & Tele.
Δ 2 - Remove Ex. M.H.C.&C. - Class 3
Δ 1 - Remove Ex. Valve Box - Class 3

Δ 1 - 12"x6" Tee 3 M.J.
Δ 1 - 6" 90° Bend 2 M.J.
Δ 1 - 6" Valve
Δ 1 - Valve Box Hood, Lid, & Tele.
Δ 1 - 6" Fire Hydrant (Y.T.)
Δ 1 - Remove Ex. F.H. Head - Class 6

Δ 2 - 12"-45° Bends 2 M.J.
2 - Remove Ex. M.H.C.&C. - Class 3 (Δ1)
2 - Remove Ex. M.H.C.&C. - Class 3 (*1)
*1 - Remove Ex. Valve Box - Class 3
*1 - Remove Ex. F.H. Head - Class 6



CINCINNATI WATER WORKS
CARR ST. & SIXTH ST.

Drawing No. C-650-5
Scale: 1"= 20'
Sheet 5 of 19

FED. RD. DIV.	STATE	PROJECT	FISCAL YEAR
2	OHIO		

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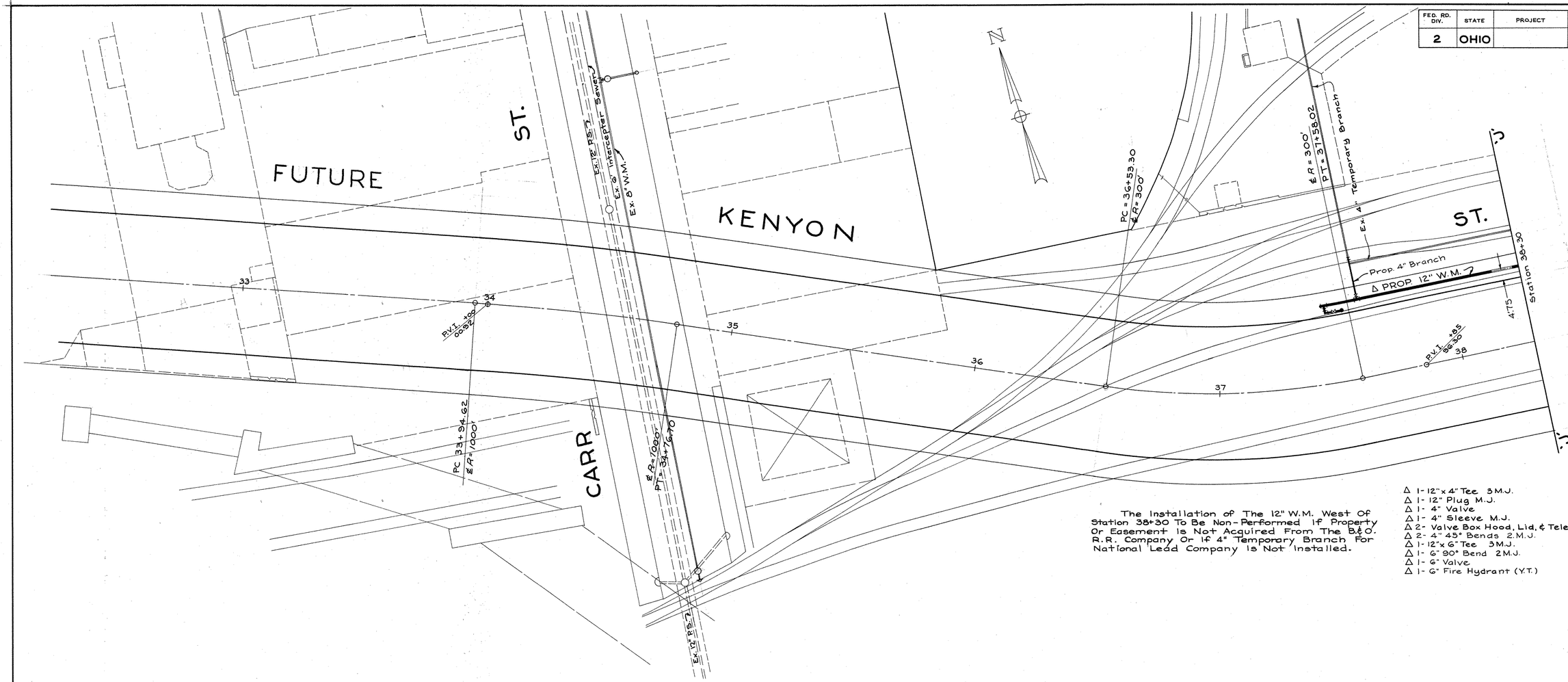
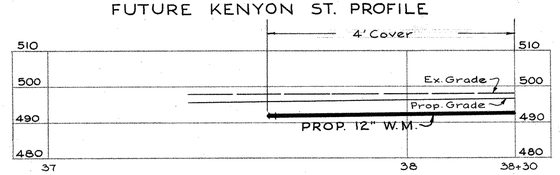


The Installation of The 12" W.M. West Of Station 38+30 To Be Non-Performed If Property Or Easement Is Not Acquired From The B.&O. R.R. Company Or If 4" Temporary Branch For National Lead Company Is Not Installed.

Δ 1- 12" x 4" Tee 3 M.J.
Δ 1- 12" Plug M.J.
Δ 1- 4" Valve
Δ 1- 4" Sleeve M.J.
Δ 2- Valve Box Hood, Lid, & Tele.
Δ 2- 4" 45° Bends 2 M.J.
Δ 1- 12" x 6" Tee 3 M.J.
Δ 1- 6" 90° Bend 2 M.J.
Δ 1- 6" Valve
Δ 1- 6" Fire Hydrant (Y.T.)

FUTURE KENYON ST. PROFILE



Δ - 100% City Cost

CINCINNATI WATER WORKS
PROP. KENYON ST.

Drawing No. C-650-5
Scale: 1" = 20' Hor.
Sheet 6 of 19

FED. RD. DIV.	STATE	PROJECT	FISCAL YEAR
2	OHIO		

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LORING AL.

See Water Works Sheet # 6 for new branch to National Lead Co.

'J' Station 38+30 'J'

4'75

Δ 2-12" 45° Bends (2 M.J.)

Ex. B. & O. R.R. Tracks

PROP. FREEMAN AVE.

LA

40FA 41FA 42FA

39K 40K

PROP. KENYON ST.

PROP. 12" W.M.

11.5'

24F 24F(NB) 25F 25F(NB) 26F 26F(NB) 27FT 27F(NB) 28FT

PROP. 36" P.S.

Ex. 4" Temporary Branch to National Lead Co.

PROP. 18" P.S.

Ex. 12" P.S.

Prop. Drainage Ditch

2:1 Slope

Ex. 8" P.S.

Ex. 12" P.S.

Ex. 10" W.M.

Ex. 2" G.M.

Ex. Wire Fence

R/W

Ex. C.W.

Ex. 4" G.M.

Ex. 18" P.S.

Ex. Tel. Ducts

Ex. Conc. Wk.

Ex. 3" G.M.

* 1-6" Plug & Clamp
* 1-Plug Ex. 6" W.M. Class 3
* 1-Remove M.H.C.&C. Class 3
* 1-Remove Ex. F.H. Class 3
* 1-Adjust Valve Chamb. Class 3
* 1-Reset Valve Box Class 3

ST. LA

W.U.C.

Ex. I.C.

Ex. R/W

Ex. C.W.

Ex. 12" G.M.

Abandon Ex. 16" W.M.

Ex. Gran. Blk. Pavm't and Gran. Curb

PROP. 12" W.M.

PROP. 30" P.S.

Ex. 4" G.M.

Ex. T.C.

Ex. 12" G.M.

Ex. 16" W.M.

Ex. Elec. C.

30FT

Ex. 12" P.S.

Ex. Conc. Wk.

Ex. Elec. C.

2:1 Slope

4:1 Slope

Ex. Curb

Track Area

10' 10'

14.0

60°

FREEMAN ST.

'D' 'D'

BARR ST.

SEVENTH AVE.

VAN HORNE ST.

Δ 4-12" 45° Bends - 2 M.J.
3-12" Valves & Chambers (*1)(Δ2)
* 1-12" x 12" Tee - 3 M.J.
3-M.H.C.&C. (*1)(Δ2)
6-1" Ferrules (A.C.) (*2)(Δ4)

Δ 1-Remove Ex. M.H.C.&C. Class 8
3-Remove Ex. Valve Box Class 8 (*1)(Δ2)
*1-Remove Ex. F.H. Head Class 8
*1-Remove Ex. Valve Box Class 8

NOTE:
All proposed sewers which are under or adjacent to proposed water mains are to be installed prior to water main work.

G46 Freeman Ave. H-59777 M-67477
Install 2" Service Branch
25'-1 in. ft. 2" Copper Pipe
1-12"x2" Service Saddle
1-2" Ferrule
1-2" Stop Cock
1-Roadway Box

Δ 1-12"x6" Tee 3 M.J.
1-6" 90° Bend 2 M.J.
1-6" Valve
1-6" Fire Hydrant (Y.T.)
1-Valve Box Hood, Lid & Tele.

* 1-Remove Ex. M.H.C.&C. (Cl. 3)
3-Remove Ex. Valve Box (Cl. 3) (*2)
* 1-Remove Ex. F.H. Head (Cl. 8)

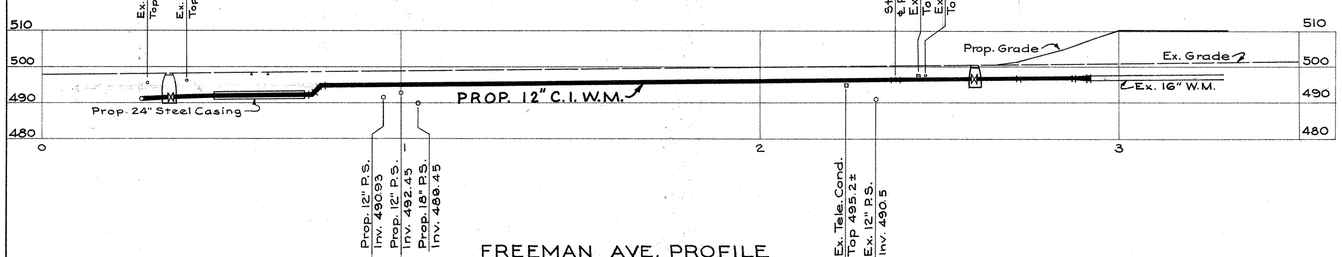
Ex. 12" P.S.
Ex. Conc. Port & Curb
Ex. 12" W.M.
Ex. 4" G.M.

Δ 1-12"x12" Tee 3 M.J.
Δ 1-12" Sleeve-Solid
Δ 2-12" 45° Bend 2 M.J.
Δ 2-12"x12" Reducer 2 R.E.
Δ 1-16" Sleeve-Solid
Δ 1-12" Valve & Chamber
Δ 1-M.H.C.&C.
Δ 2-1" Ferrules (A.C.)

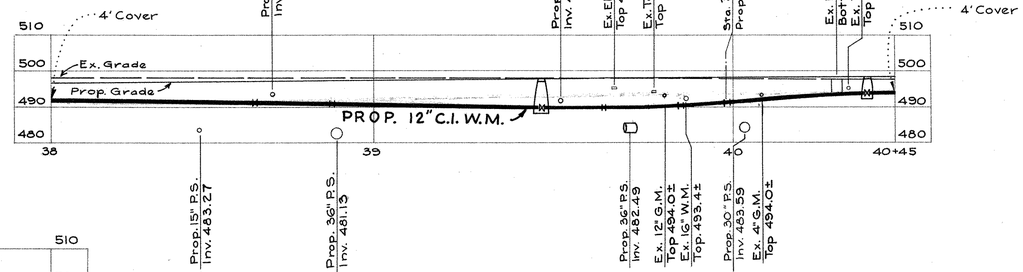
* 1-10"x6" Tee 3H
* 1-10" Sleeve Solid
* 1-6" 90° Bend 2 M.J.
* 1-6" Valve 2H
* 1-Valve Box Hood, Lid, & Tel.
* 1-6" Fire Hydrant Head Y.T.

Ex. Elec. C.
Ex. 22" P.S.
Ex. 10" W.M.
Ex. 6" W.M.
Ex. Elec. C.

*Project Participation
Δ 100% City Cost



FREEMAN AVE. PROFILE



PROP. KENYON ST. PROFILE

CINCINNATI WATER WORKS

FREEMAN AVE. & PROP. KENYON ST.

Drawing No. C-650-5
Scale: 1" = 20' HOR.
Sheet 7 of 19

FED. RD. DIV.	STATE	PROJECT	FISCAL YEAR
2	OHIO		

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KENYON ST.

N

950

M-113604

'D'

'D'

'E'

'E'

Ex. Elec. Cond.

Abandon Ex. 6" W.M.

Ex. 15" P.S.

Ex. 12" P.S.

Ex. 6" W.M.

Ex. 12" P.S.

Ex. 3" G.M.

30" P.S.

47.5'

15" P.S.

6" P.S.

15" P.S.

6" P.S.

15" P.S.

4.75'

6" P.S.

*PROP. 12" C.I. WATER MAIN

41K

42K

43K

44K

45K

45K(EB)

46K

46K(EB)

* 1-12"x6" Tee 3M.J.
* 1-6" 90° Bend 2M.J.
* 1-6" Valve 2H
* 1-6" Fire Hydrant (Y.T.)
* 1-Valve Box Hood, Lid, & Tele.
* 1-6" Sleeve-Solid
* 1-6" Plug

* 1-Remove Ex. Valve Box-Class 3
* 1-Remove Ex. F.H. Head-Class 6
* 1-Remove Ex. Valve Box-Class B
* 1-Plug Ex. 6" Water Main-Class 3

Existing Sewers, manholes, and inlets that are to be abandoned with Expressway construction shall not be removed or disturbed for Water Works construction until no longer required for drainage purposes. Decision to be by City Engineering Division and State Engineer.

All proposed sewers which are under proposed water main are to be installed prior to water main work.

* 1-4" Plug & Plug Clamp

* 1-Plug Ex. 4" Tee Class 3
* 1-Remove Ex. Valve Box-Class 3

* 1-12"x6" Tee 3M.J.
* 1-6" 90° Bend 2M.J.
* 1-6" Valve 2H
* 1-6" Fire Hydrant (Y.T.)
* 1-Valve Box Hood, Lid, & Tele.

Ex. Stone Wall

* 1-4" Plug & Plug Clamp

* 1-Plug Ex. 4" Tee Class 3
* 1-Remove Ex. Valve Box-Class 3

4' Cover

520
510
500
490
480

Ex. Grade

Ex. 6" W.M.

Prop. Grade

*PROP. 12" C.I. WATER MAIN

Prop. Grade

Ex. Grade

41 K

42 K

43 K

44 K

45 K

46 K

Ex. 30" P.S. Inv. 487.1±

Prop. 15" P.S. Inv. 491.2±

Prop. 6" P.S. Inv. 491.2±

Prop. 15" P.S. Inv. 495.7±

Prop. 6" P.S. Inv. 496.9±

Prop. 15" P.S. Inv. 499.0±

Prop. 6" P.S. Inv. 500.0±

PROP. KENYON ST. PROFILE

* Project Participation

CINCINNATI WATER WORKS
PROP. KENYON ST.

Drawing No. C-650-5
Scale: 1"=20' Vert.
Sheet 8 of 19

FED. RD. DIV.	STATE	PROJECT	FISCAL YEAR
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BAYMILLER

*2- Remove Ex. M.H.C.&C. Class B
*2- Remove Ex. Valve Box Cl. B
*1- Remove Ex. F.H. Head Cl. B

*1- 12" Valve & Chamber
Δ1- 12" x 8" Tee 3M.J.
Δ1- 8" Valve & Chamber
Δ1- 18' Length 8" Pipe M.J.
Δ1- 8" Plug M.J.
4- 1" Ferrules (A.C.) (*2)(Δ2)
2- M.H.C.&C. (*1)(Δ1)

*1- 8" Plug & Plug Clamp
*1- 6" Plug & Plug Clamp
*1- Plug Ex. 8" W.M. Class B
*1- Plug Ex. 6" W.M. Class 3
*1- Remove Ex. M.H.C.&C. Class B
*1- Reset Ex. Valve Box

*1- Adjust Ex. Valve Chamber

*1- Remove Ex. M.H.C.&C. Class 3
*1- Remove Ex. F.H. Class B

*2- 12" 22½° Bends 2M.J.
*1- 12" x 12" Tees 3M.J.
Δ2- 8" 45° Bends 2M.J.
*1- 12" Valve & Chamber

Δ1- 12" x 8" Reducer 2P.E.
Δ1- 8" Valve & Chamber
Δ1- 18' Length 8" Pipe M.J.
Δ1- 8" Plug M.J.
4- 1" Ferrules (A.C.) (*2)(Δ2)
2- M.H.C.&C. (*1)(Δ1)

*1- 12" Offset Bend M.J.

All Sewers Which Are Under Or Adjacent To The Proposed Water Mains Are To Be Installed Prior To Water Main Work.

* Project Participation
Δ 100% City Cost

PROP. LINN ST. PROFILE

PROP. KENYON ST. PROFILE

NOTE: Ex. telephone conduit to be abandoned prior to water main installation. Check with Tel. Co. before construction.

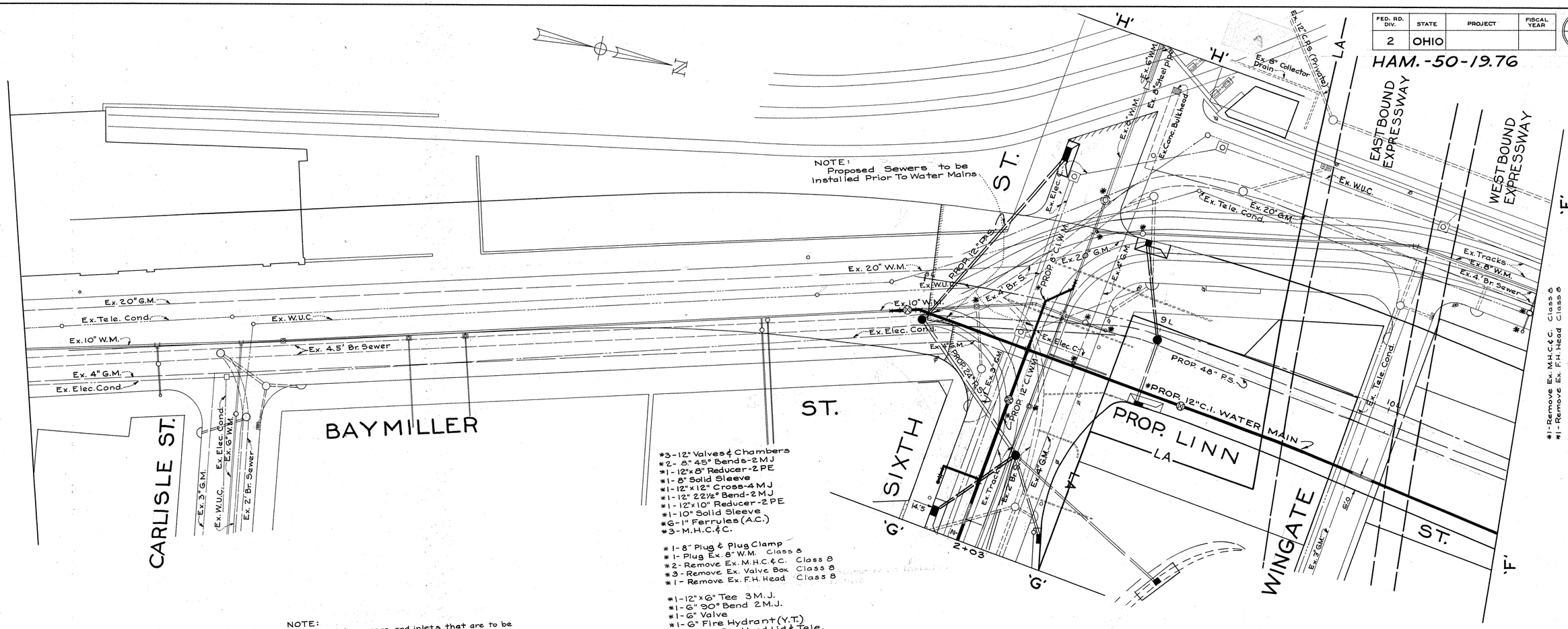
CINCINNATI WATER WORKS
PROP. LINN ST. & PROP. KENYON ST.

Drawing No. C-650-5
Scale: 1"=20' Hor.
Sheet 9 of 19

FED. RD. DIV.	STATE	PROJECT	FISCAL YEAR
2	OHIO		

115
464

HAM.-50-19.76



*3-12" Valves & Chambers
*2-8" 45° Bends-2 MJ
*1-12"x8" Reducer-2 PE
*1-8" Solid Sleeve
*1-12"x12" Cross-4 MJ
*1-12" 22½° Bend-2 MJ
*1-12"x10" Reducer-2 PE
*1-10" Solid Sleeve
*6-1" Ferrules (A.C.)
*3-M.H.C.&C.

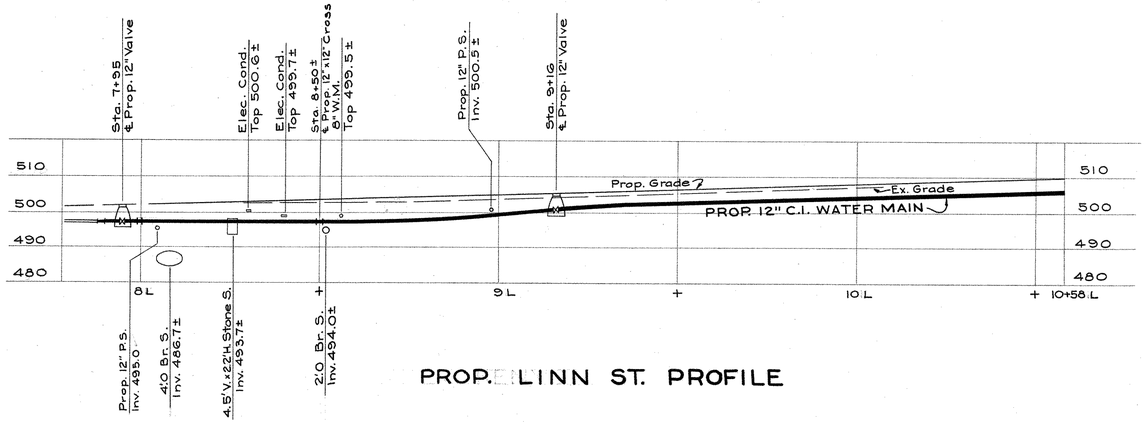
*1-8" Plug & Plug Clamp
*1-Plug Ex. 8" W.M. Class B
*2-Remove Ex. M.H.C.&C. Class B
*3-Remove Ex. Valve Box Class B
*1-Remove Ex. F.H. Head Class B

*1-12"x6" Tee 3 M.J.
*1-6" 90° Bend 2 M.J.
*1-6" Valve
*1-6" Fire Hydrant (Y.T.)
*1-Valve Box Hood, Lid & Tele.
*1-Adjust Valve Chamber

*1-Remove Ex. M.H.C.&C. Class B
*1-Remove Ex. F.H. Head Class B

NOTE:
Existing sewers and inlets that are to be abandoned with Expressway construction shall not be removed or disturbed for Water Works construction until no longer required for drainage purposes. Decision to be by City Engineering Division and State Engineer.

*Project Participation



PROP. LINN ST. PROFILE

CINCINNATI WATER WORKS
SIXTH ST. & PROP. LINN ST.

Drawing No. C-650-5
Scale: 1"= 20' Hor.
Sheet 10 of 19

FED. RD. DIV.	STATE	PROJECT	FISCAL YEAR
2	OHIO		

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464

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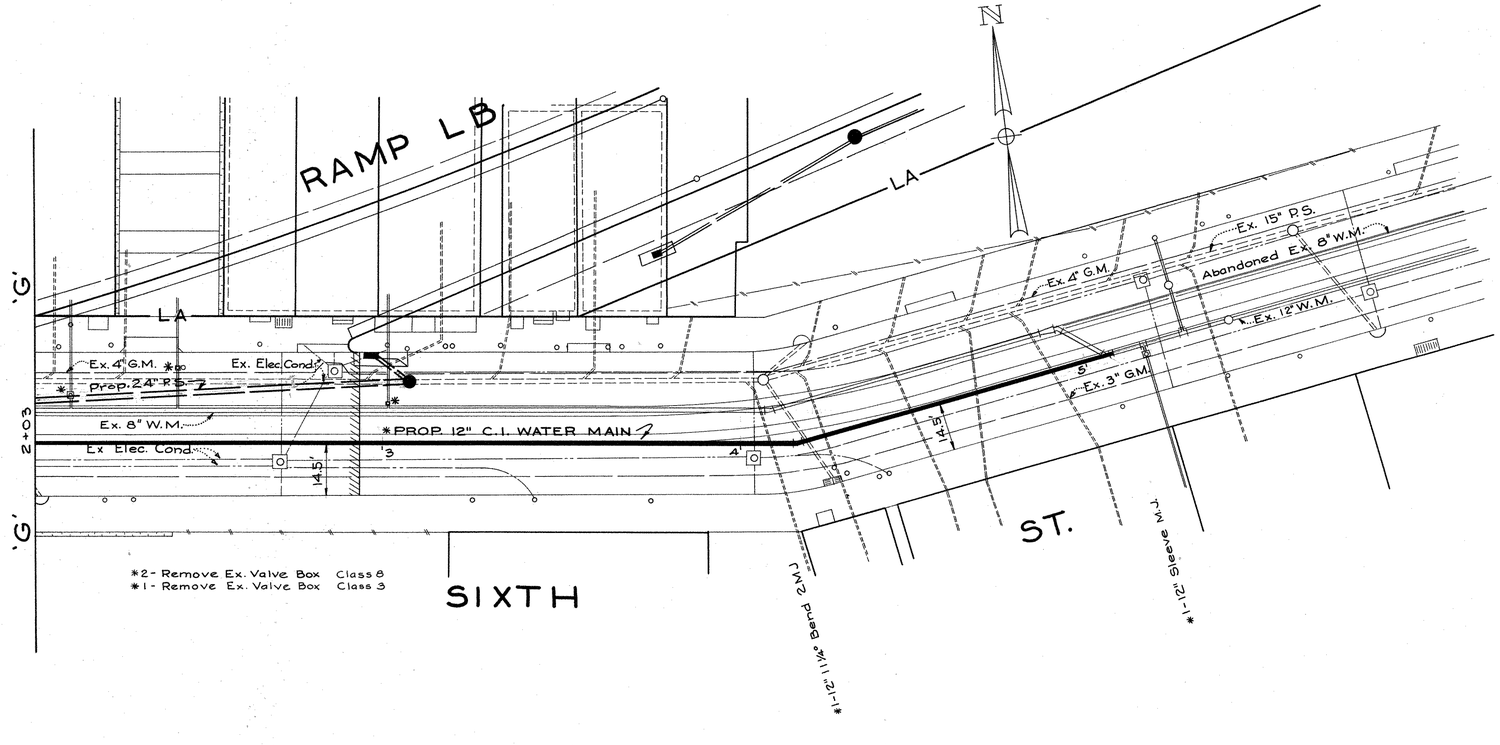

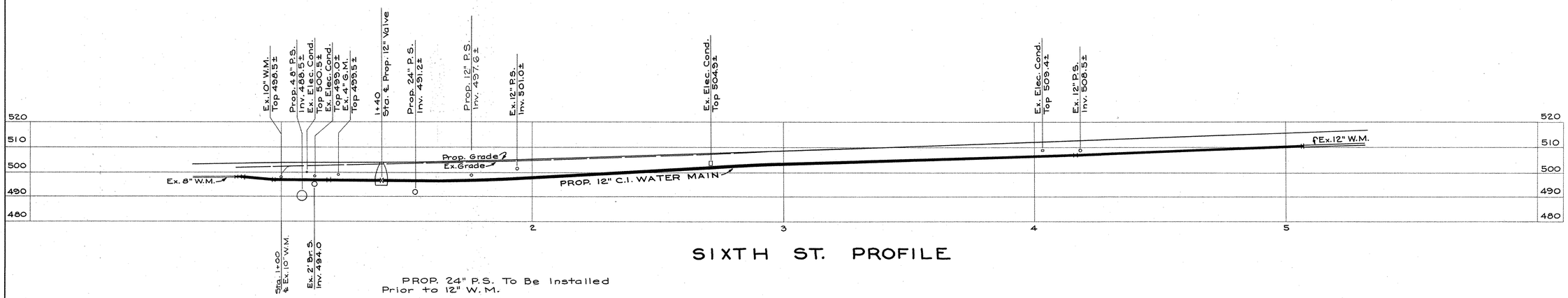

SIXTH ST. PROFILE

PROP. 24" P.S. To Be Installed Prior to 12" W.M.

*Project Participation

CINCINNATI WATER WORKS
SIXTH ST.

Drawing No. C-650-5
Scale: 1" = 20' HOR.
1" = 20' VERT.
Sheet 11 of 19

FED. RD. DIV.	STATE	PROJECT	FISCAL YEAR
2	OHIO		

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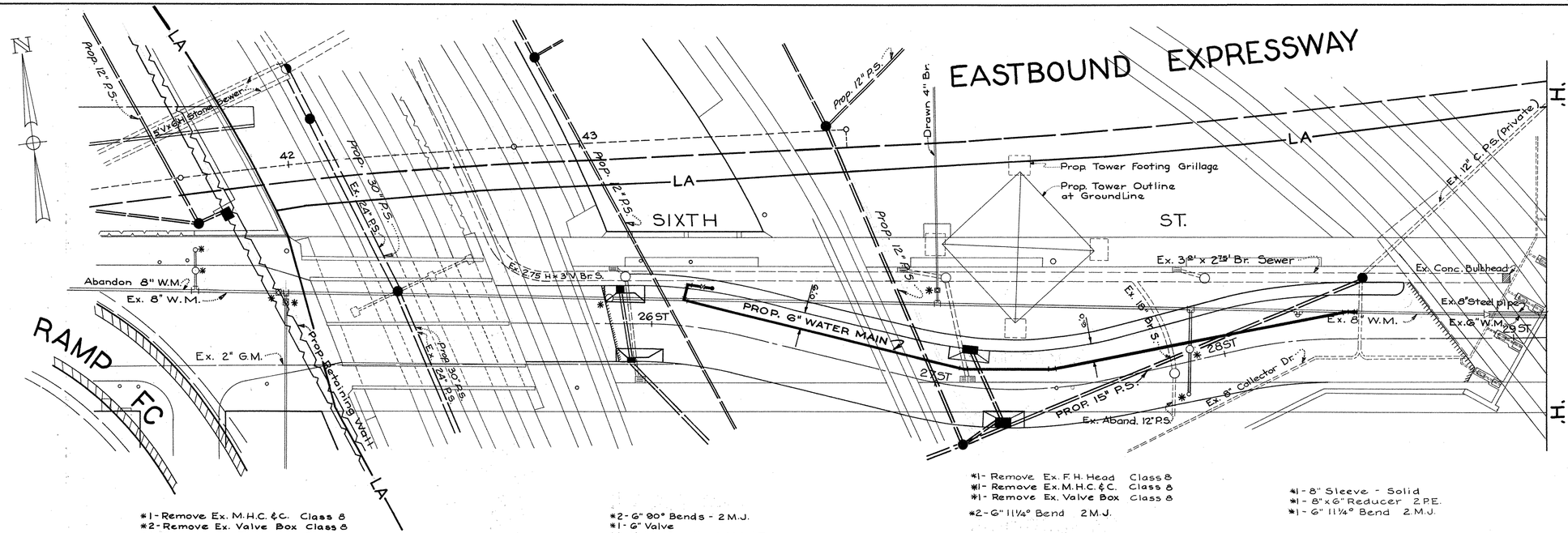


*1- Remove Ex. M.H.C. & C. Class B
*2- Remove Ex. Valve Box Class B
*1- Remove Ex. F.H. Head Class B

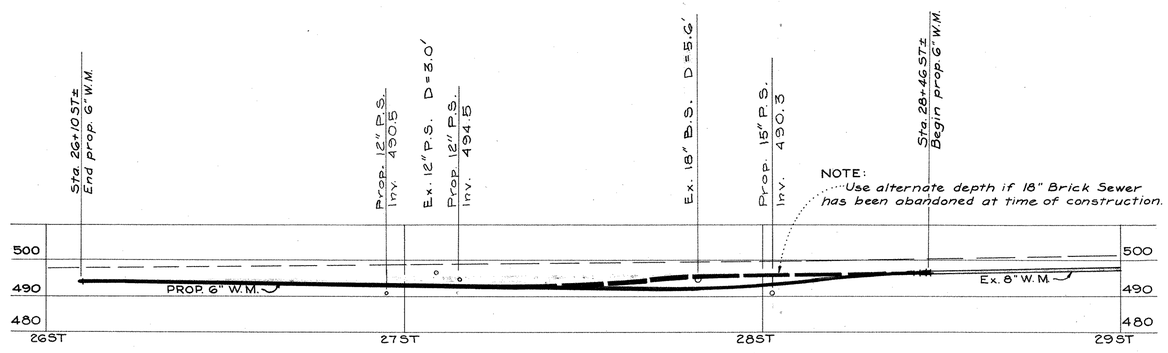
*2- 6" 90° Bends - 2 M.J.
*1- 6" Valve
*1- Valve Box Hood, Lid, & Tele.
*1- 6" Fire Hydrant (Y.T.)

*1- Remove Ex. M.H.C. & C. Class B

*1- Remove Ex. F.H. Head Class B
*1- Remove Ex. M.H.C. & C. Class B
*1- Remove Ex. Valve Box Class B

*2- 6" 11¼° Bend 2 M.J.

*1- 8" Sleeve - Solid
*1- 8"x6" Reducer 2 P.E.
*1- 6" 11¼° Bend 2 M.J.



* Project Participation

CINCINNATI WATER WORKS
SIXTH ST.

Drawing No. C-650-S
Scale: 1"-20' HOR.
Sheet 12 of 19

FED. RD. DIV.	STATE	PROJECT	FISCAL YEAR
2	OHIO		

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HAM-50-19.76

All Sewers Which Are Under Or Adjacent To The Proposed Water Mains Are To Be Installed Prior To Water Main Work

SARGENT ST. PROFILE

FREEMAN AVE. PROFILE

FREEMAN AVE. PROFILE

* - Project Participation

CINCINNATI WATER WORKS

Drawing No. C-650-5
Scale: 1" = 20' Horiz.
Sheet 13 of 19

SARGENT ST. & FREEMAN AVE.

FED. RD. DIV.	STATE	PROJECT	FISCAL YEAR
2	OHIO		

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GENERAL NOTES

Water Main Items Are To Be Constructed In Accordance With The Provisions Of General Construction And Material Specifications For Highway And Sewers, Dated January 1, 1956, And The Specifications Of The Cincinnati Water Works Governing The Installation Of Water Mains And Appurtenances In Force At The Time Of The Opening Of The Bids, Copies Of These Specifications Are On File At The Office Of The ~~Engineer~~ Administrator Of Contract Sales For State Highway Department And At The Offices Of The City Engineer Of Cincinnati, Ohio.

The Existing Water Mains, Gas Mains, Sewers And All Other Underground Conduits Have Been Platted From The Best Available Records For The Convenience Of The Contractor. The Cincinnati Water Works Cannot Guarantee The Accuracy Of Said Records And Cannot Be Held Responsible For Any Resulting Error Of Their Plotted Location On These Plans. The Contractor Shall Determine, In The Field Ahead Of Construction, The Exact Location Of Any Sub-Surface Utility To Be Crossed By The Proposed Water Mains, Any Confliction, Between The Proposed Water Mains And The Existing Sub-Surface Utilities Or Structures, Caused By The Contractor's Failure To Locate Said Sub-Surface Features Far Enough In Advance Of Construction To Be Avoided Shall Be The Resonsibility Of The Contractor And He Shall Assume The Cost Of All Engineering, Labor And Material Required In Order To By-Pass Or Change The Utility Or Structure In The Path Of The Proposed Water Main. The Contractor Must Support All Utilities That Are Encountered During The Installation Of Proposed Water Mains.

Payment Will Be Made Only For Work Performed And No Payment Will Be Made For Non-Performance Of Any Item Or For Non-Performance Of Any Portion Of The Estimated Quantity Given For Any Item.

All Cast Iron Pipe And Specials To Be Cement Lined. All Pipe Specials And Appurtenances Shall Be Inspected At The Site Of Manufactor By The Cincinnati Water Works.

The Cincinnati Water Works Will Not Be Responsible For The Cost Of Lowering Or Relaying Branches And/Or Appurtenances Not Within The Existing Right-Of-Way Of This Street Improvement.

All Existing Pipe Sewers, Inlet Connections And House Drains That Are Changed Shall Be Relaid In A Straight Line Grade And Shall Not Be Trapped.

Any Sanitary Sewer Or House Connection Lying Directly Above Any Of The Proposed Water Mains Shall Be Encased In Concrete And Payment For This Work Will Be Made At The Unit Price Bid For Concrete Masonry Item W-48.

Provide 12" Minimum Clearance And Cushion Between Sewer Pipes Or Structures And Proposed Water Mains, Except Where Noted On Plans.

Additional Concrete And Steel For Backing Or Reinforcing Bends May Be Added At The Discretion Of The Water Works Engineer Or Inspector. Payment For This Work Will Be Made At The Unit Price Bid For Concrete Masonry Item W-49 And Reinforcing Steel Item C-3.

Any Manhole Curbs And Covers Or Valve Boxes, To Be Adjusted Or Reset That Are Found To Be Defective Shall Be Replaced With New Castings. Payment For This Work Will Be Made At The Unit Price Bid For Hauling Water Works Material W-52.

All Walks, Driveways, Sod Areas, Steps, Etc. That Are Disturbed During The Laying Of The Proposed Water Mains Shall Be Restored To Thier Original State Or Better By The Contractor.

All Sewer Work Is To Be Performed By A Licensed Sewer Tapper, Under Public Work Supervision And Inspection. Separate Application For Permits For Sewer Construction Must Be Made With The Department Of Public Works.

It Shall Be The Contractor's Responsibility To Arrange For The Removal And Replacement Of Any Poles And Guys Necessary For The Installation Of The Proposed Water Mains And Any Cost Connected Thereto Shall Be His Expense.

Where Abandoned Rails Or Ties Interfere With Laying The Proposed Water Main The Rails And The Complete Ties Shall Be Removed.

Existing Sewers And Inlets That Are To Be Abandoned With Expressway Construction Shall Not Be Removed Or Disturbed For Water Works Construction Until No Longer Required For Drainage Purposes. Decision To Be By City Engineering Division And State Engineer.

The Exact Location Of Proposed Plugs Is To Be Governed By Field Conditions, And Is Primarily Dependent Upon The Ownership And Occupation Of Property Parcels At The Time Of Construction.

The Existing 20" Water Main In Freeman Ave., And The Existing 10" And 20" Water Main In W. Sixth St., Cannot Be Abandoned Until The Proposed 24" Water Main In Front St. From Freeman Ave. To Station 3+00 Westbound Expressway, Is Completed And In Service, As Shown On Plans For Ham.-50-19.38.

GENERAL NOTES

Adequate Water Service Must Be Maintained By The Contractor At All Times For Required Usage And Fire Protection At His Expense.

Temporary Lines :

If Necessary Of Where Directed By Superintendent, Temporary Lines Shall Be Furnished, Installed And Maintained By The Contractor For The Purpose Of Supplying Consumers And For Fire Protection.

The Pipe Lines Shall Be Of A Size To Supply A Reasonable Amount Of Water To Consumers And For Fire Protection. The Cost Of The Temporary Pipe Lines Shall Be Included In The Cost Of Laying The Water Mains In This Project, No Extra Charge Will Be Allowed.

Permits Must Be Taken Out By The Prime Contractor On All Utility Work Outside The Limits Of New Pavement Construction. The Contractor Will Be Required To Place A Deposit With The City Of Cincinnati For Restoration Of Sheet Asphalt Surface Only, Which Work Will Be Restored By The Highway Maintenance Division Of The City Of Cincinnati At A Cost Of $2.00 Per Square Yard. The Contractor Shall Restore All Other Types Of Pavement Surface Without Charge After Receiving The Necessary Street Opening Permits From The City Of Cincinnati.

The Cost Of All Restoration, Including Deposit For Sheet Asphalt Is Included In Bid Item Listed On Summary Sheet. The Deposit Required For Sheet Asphalt Is $ 600.00 .

Pipe Removed For Construction Purposes, Under Item W-15, Is No Longer The Property Of The Cincinnati Water Works, And Shall Be Disposed Of By The Contractor. No Payment Will Be Made For Hauling This Material.

All Sewers Which Are Under Or Adjacent to The Proposed Water Mains Are to be Installed Prior to Water Main Work.

CINCINNATI WATER WORKS NOTES

Drawing No. C-650-S
Sheet 14 of 19

FED. RD. DIV.	STATE	PROJECT	FISCAL YEAR
2	OHIO		

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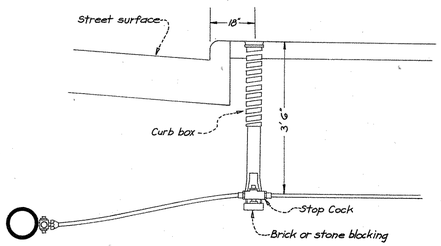
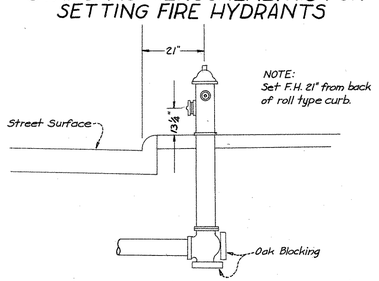
TYPICAL SERVICE BRANCH INSTALLATION

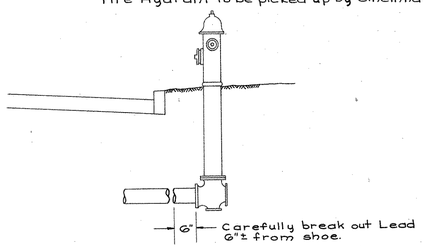


STANDARD MEASUREMENTS FOR SETTING FIRE HYDRANTS

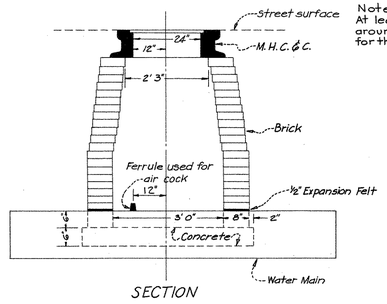


FIRE HYDRANT REMOVAL

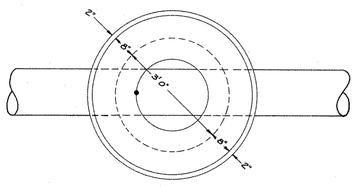
Note: Fire Hydrant and shoe to be carefully removed.
Fire Hydrant to be picked up by Cincinnati Fire Department.



STANDARD CHAMBER FOR AIR COCKS

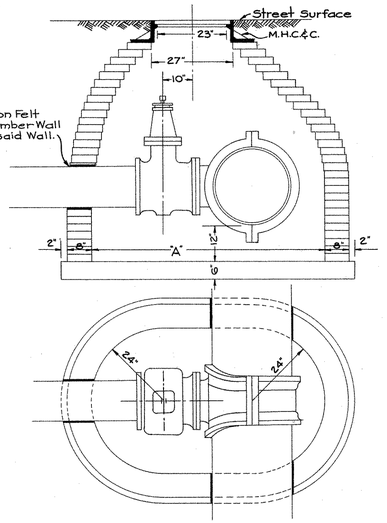


SECTION



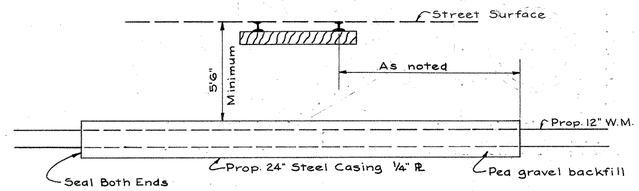
PLAN

Note:
At least ½" thick Expansion Felt around all pipes thru Chamber Wall for the full thickness of said Wall.

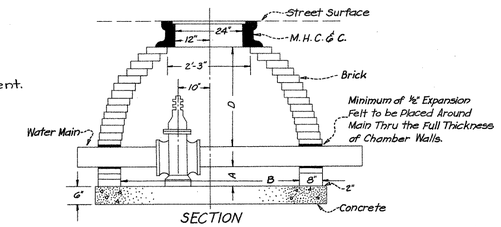


To be used for Estimates only			
Size of W.W.Connection	"A"	Concrete Cu. Yds.	Brick Cu. Yds.
6"x 4" to 12" x 10"	5'-6"	0.7	2.2

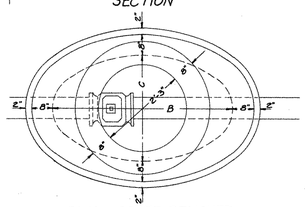
PROP. 24" STEEL CASING AT RAILROAD CROSSING



STANDARD CHAMBER FOR VERTICAL VALVES



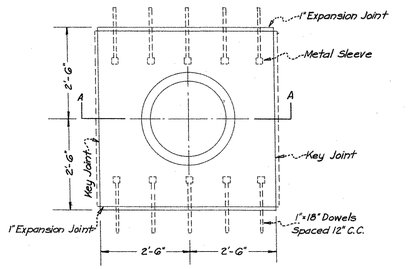
SECTION



PLAN - COVER REMOVED

SIZE OF VALVE	A	B	C	D	CONC. CU YDS.	BRICK CU YDS.
4"-6"-8"	6"	5'-0"	3'-0"	2'-11"	0.5	1.3
10"-12"	6"	5'-0"	4'-0"	2'-11"	0.6	1.6

BLOCKING-OUT AROUND AIR-COCK & VERTICAL VALVE CHAMBERS



SECTION A-A

NOTE:
When chambers are near curb the Blocking out shall continue through curb as shown.

CINCINNATI WATER WORKS
STANDARDS

Drawing No. C-650-S
Scale: None
Sheet 15 of 19

FED. RD. DIV.	STATE	PROJECT	FISCAL YEAR
2	OHIO		

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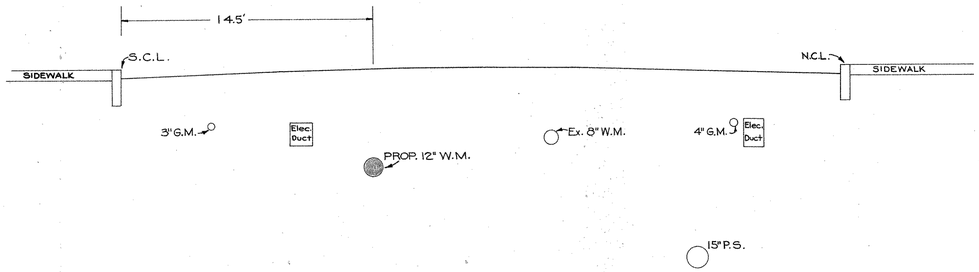
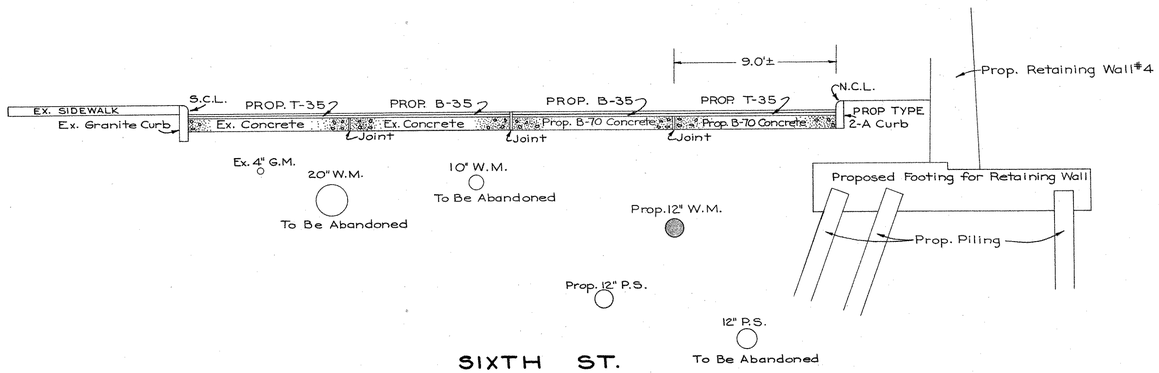
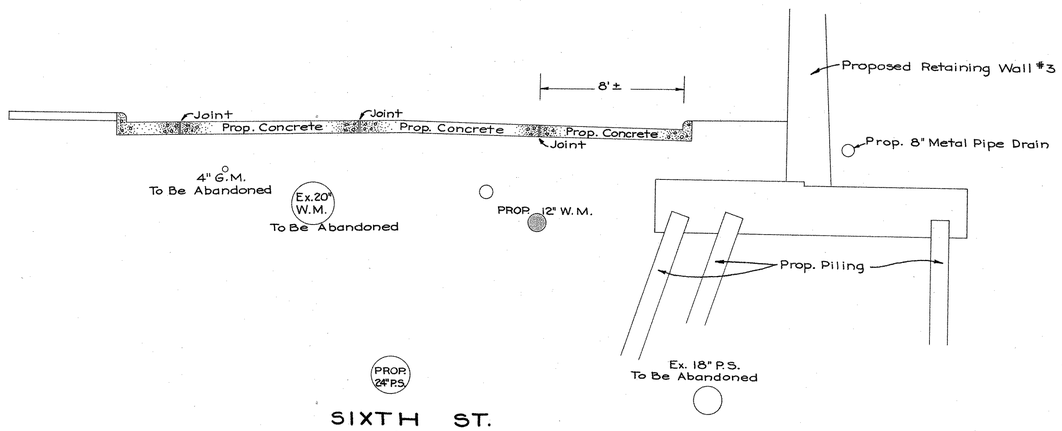


SIXTH ST.
2+68



SIXTH ST.
14+75



SIXTH ST.
11+08

CINCINNATI WATER WORKS
PAVEMENT SECTIONS

Drawing No. C-650-S
Scale: 1/4" = 1'
Sheet No. 16 of 19

FED. RD. DIV.	STATE	PROJECT	FISCAL YEAR
2	OHIO		

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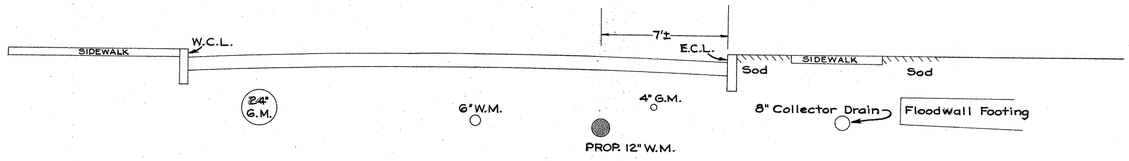
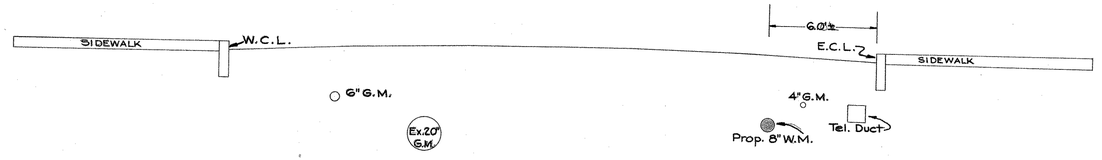
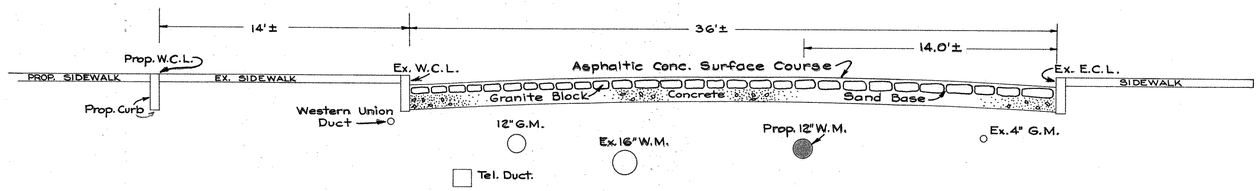




FREEMAN AVE.
12F

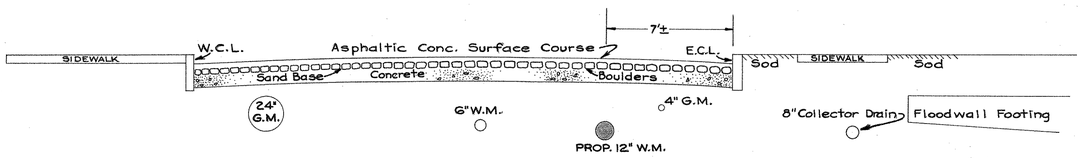
PROP. 54" P.S.

CARR ST.
3+40



PROP. 30" P.S.

FREEMAN AVE.
25+50F



PROP. 54" P.S.

CARR ST.
3+11

CINCINNATI WATER WORKS
PAVEMENT SECTIONS

Drawing No. C-650-5
Scale: 1/4" = 1'
Sheet No. 17 of 19

MATERIAL SUMMARY

FED. RD. DIV.	STATE	PROJECT	FISCAL YEAR
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CAST IRON PIPE & SPECIALS

100% CITY COST	100% PROJECT COST U	100% PROJECT COST UG	TOTAL	UNIT	DESCRIPTION
103	97		200	18 FT. LENGTH	12" CAST IRON PIPE COMP. JT.
	5		5	LIN FT.	10" CAST IRON PIPE - CUT PIPE
8	16		24	18 FT. LENGTH	8" CAST IRON PIPE COMP. JT.
2			2	18 FT. LENGTH	8" CAST IRON PIPE M.J.
10	63		73	18 FT. LENGTH	6" CAST IRON PIPE COMP. JT.
2			2	18 FT. LENGTH	4" CAST IRON PIPE H. & S.
	1		1	EA	12" OFFSET BEND M.J.
15			15	EA	12" 45° BEND 2 M.J.
1			1	EA	12" 45° BEND M.J. × P.E.
	3		3	EA	12" 22 1/2° BEND 2 M.J.
	1		1	EA	12" 11 1/4° BEND 2 M.J.
4	4		8	EA	8" 45° BEND 2 M.J.
5	12		17	EA	6" 90° BEND 2 M.J.
8	4		12	EA	6" 45° BEND 2 M.J.
	1		1	EA	6" 22 1/2° BEND 2 M.J.
4			4	EA	4" 45° BEND 2 M.J.
	3		3	EA	6" 11 1/4° BEND 2 M.J.
1			1	EA	12" PLUG M.J.
1			1	EA	10" PLUG
	2		2	EA	8" PLUG
2			2	EA	8" PLUG M.J.
	5		5	EA	6" PLUG
	3		3	EA	4" PLUG
1			1	EA	10" PLUG CLAMP
	2		2	EA	8" PLUG CLAMP
	3		3	EA	6" PLUG CLAMP
	3		3	EA	4" PLUG CLAMP
1			1	EA	16" × 12" REDUCER 2 P.E.
	1		1	EA	12" × 10" REDUCER 2 P.E.
1	1		2	EA	12" × 8" REDUCER 2 P.E.
1	1		2	EA	12" × 6" REDUCER 2 P.E.
	2		2	EA	8" × 6" REDUCER 2 P.E.
1			1	EA	16" SOLID SLEEVE
1			1	EA	12" SOLID SLEEVE
	1		1	EA	12" SLEEVE M.J.
	2		2	EA	10" SOLID SLEEVE
1	2		3	EA	8" SOLID SLEEVE
6	3		9	EA	6" SOLID SLEEVE
1			1	EA	6" SLEEVE M.J.
1			1	EA	4" SOLID SLEEVE
1			1	EA	4" SLEEVE M.J.
	1		1	EA	12" × 12" CROSS 4 M.J.
2	2		4	EA	12" × 12" TEE 3 M.J.
2			2	EA	12" × 8" TEE 3 M.J.
10	5		15	EA	12" × 6" TEE 3 M.J.
2			2	EA	12" × 4" TEE 3 M.J.
	1		1	EA	10" × 6" TEE 3 H.
	3		3	EA	8" × 6" TEE 3 M.J.
5	6		11	EA	12" VALVE
3	1		4	EA	8" VALVE
12	13		25	EA	6" VALVE
2			2	EA	4" VALVE
12	11		23	EA	VALVE BOX HOOD, LID, & TELESCOPE
8	11		19	EA	M.H.C.& C.
13			13	EA	6" FIRE HYDRANT (Y.T.)

BRANCH MATERIAL

100% CITY COST	100% PROJECT COST U	100% PROJECT COST UG	TOTAL	UNIT	DESCRIPTION
2			2	EA	2" FERRULES
16	23		39	EA	1" FERRULES
60			60	LIN. FT.	2" COPPER SERVICE PIPE
	60		60	LIN. FT.	1" COPPER SERVICE PIPE
1			1	EA	2" STOP COCK
	1		1	EA	1" STOP COCK
1			1	EA	2" COPPER TO COPPER COUPLING
1	1		2	EA	ROADWAY BOXES
2			2	EA	12" × 2" SERVICE SADDLE

CONTINGENCY MATERIAL

1			1	EA	1 1/2" FERRULE
1			1	EA	3/4" FERRULE
60			60	LIN. FT.	1 1/2" COPPER SERVICE PIPE
60			60	LIN. FT.	3/4" COPPER SERVICE PIPE
1			1	EA	1 1/2" STOP COCK
1			1	EA	3/4" STOP COCK
2			2	EA	CURB BOXES

NOTE:

ALL OF THE MATERIAL, EXCEPT FIRE HYDRANTS, LISTED ON THIS SUMMARY SHALL BE FURNISHED TO THE CONTRACTOR BY THE CINCINNATI WATER WORKS. THE CONTRACTOR SHALL PROCURE THE FIRE HYDRANTS FROM THE CINCINNATI FIRE DEPARTMENT. THE CAST IRON AND SERVICE BRANCH MATERIALS SHALL BE OBTAINED AT THE WATER WORKS YARDS AT 4747 SPRING GROVE AVENUE. IF GIVEN A MINIMUM NOTICE OF 24 HOURS, THE WATER WORKS WILL LOAD THIS MATERIAL ON THE CONTRACTOR'S TRUCKS.

CINCINNATI WATER WORKS
WATER WORKS MATERIAL

Drawing No. C-650-S
Sheet No. 18 of 19

WATER WORKS SUMMARY

FED. RD. DIV.	STATE	PROJECT	FISCAL YEAR
2	OHIO		

124
464

HAM.-50-19.76

TYPE CODE YOGO

100% CITY COST	100% PROJECT COST "U"	100% PROJECT COST ITEM	TOTAL	UNIT	DESCRIPTION	CITY OF CINCINNATI SPECIFICATION ITEM NUMBER
4		SPECIAL	4	LIN.FT.	LAYING 16" CAST IRON PIPE CLASS 8	W-1
1300	1528	SPECIAL	2828	LIN.FT.	LAYING 12" CAST IRON PIPE CLASS 8	W-1
66		SPECIAL	66	LIN.FT.	LAYING 12" CAST IRON PIPE WITH RESTORATION CLASS 6	W-1
307	229	SPECIAL	536	LIN.FT.	LAYING 12" CAST IRON PIPE WITH RESTORATION CLASS 3	W-1
77		SPECIAL	77	LIN.FT.	LAYING 12" CAST IRON PIPE WITH RESTORATION CLASS 1	W-1
98		SPECIAL	98	LIN.FT.	LAYING 12" CAST IRON PIPE IN 24" I.D. STEEL CASING	W-1
	9	SPECIAL	9	LIN.FT.	LAYING 10" CAST IRON PIPE WITH RESTORATION CLASS 3	W-1
106	222	SPECIAL	328	LIN.FT.	LAYING 8" CAST IRON PIPE CLASS 8	W-1
28		SPECIAL	28	LIN.FT.	LAYING 8" CAST IRON PIPE WITH RESTORATION CLASS 6	W-1
44	65	SPECIAL	109	LIN.FT.	LAYING 8" CAST IRON PIPE WITH RESTORATION CLASS 3	W-1
87	973	SPECIAL	1060	LIN.FT.	LAYING 6" CAST IRON PIPE CLASS 8	W-1
25	26	SPECIAL	51	LIN.FT.	LAYING 6" CAST IRON PIPE WITH RESTORATION CLASS 6	W-1
64	136	SPECIAL	200	LIN.FT.	LAYING 6" CAST IRON PIPE WITH RESTORATION CLASS 3	W-1
2		SPECIAL	2	LIN.FT.	LAYING 6" CAST IRON PIPE WITH RESTORATION CLASS 1	W-1
14		SPECIAL	14	LIN.FT.	LAYING 4" CAST IRON PIPE CLASS 8	W-1
6		SPECIAL	6	LIN.FT.	LAYING 4" CAST IRON PIPE WITH RESTORATION CLASS 3	W-1
98		SPECIAL	98	LIN.FT.	FURNISHING & INSTALLING 24" I.D. STEEL CASING	W-7
2	7	SPECIAL	9	EACH	HAULING & SETTING 6" FIRE HYDRANT CLASS 8	W-11
3	2	SPECIAL	5	EACH	HAULING & SETTING 6" FIRE HYDRANT WITH RESTORATION CLASS 6	W-11
	1	SPECIAL	1	EACH	RESETTING EX. FIRE HYDRANT CLASS 6	W-12
1	19	SPECIAL	20	EACH	REMOVING FIRE HYDRANT HEADS CLASS 8	W-13
4	2	SPECIAL	6	EACH	REMOVING FIRE HYDRANT HEADS WITH RESTORATION CLASS 6	W-13
	10	SPECIAL	10	LIN.FT.	REMOVING EX. 20" WATER MAIN	W-15
5		SPECIAL	5	LIN.FT.	REMOVING EX. 16" WATER MAIN	W-15
4	4	SPECIAL	8	LIN.FT.	REMOVING EX. 12" WATER MAIN	W-15
10	21	SPECIAL	31	LIN.FT.	REMOVING EX. 10" WATER MAIN	W-15
6	18	SPECIAL	24	LIN.FT.	REMOVING EX. 8" WATER MAIN	W-15
45	15	SPECIAL	60	LIN.FT.	REMOVING EX. 6" WATER MAIN	W-15
7	9	SPECIAL	16	LIN.FT.	REMOVING EX. 4" WATER MAIN	W-15
1		SPECIAL	1	EACH	PLUGGING EX. 10" WATER MAIN CLASS 3	W-21
	2	SPECIAL	2	EACH	PLUGGING EX. 8" WATER MAIN CLASS 8	W-21
	5	SPECIAL	5	EACH	PLUGGING EX. 6" WATER MAIN CLASS 3	W-21
	3	SPECIAL	3	EACH	PLUGGING EX. 4" WATER MAIN CLASS 3	W-21
60		SPECIAL	60	LIN.FT.	HAULING & INSTALLING 2" COPPER SERVICE PIPE & FITTINGS	W-28
	60	SPECIAL	60	LIN.FT.	HAULING & INSTALLING 1" COPPER SERVICE PIPE & FITTINGS	W-28
1	1	SPECIAL	2	EACH	HAULING & INSTALLING CURB & ROADWAY BOXES	W-39
12	11	SPECIAL	23	EACH	INSTALLING VALVE BOXES	W-41
14	16	SPECIAL	30	C.Y.	BRICK MASONRY	W-47
70	45	SPECIAL	115	C.Y.	CONCRETE MASONRY 1:5 CLASS 1	W-48
108	110	SPECIAL	218	TONS	HAULING WATER WORKS MATERIAL	W-52
12	61	SPECIAL	73	EACH	REMOVING EX. M.H.C.& C. OR VALVE BOXES CLASS 8	W-54
12	13	SPECIAL	25	EACH	REMOVING EX. M.H.C.& C. OR VALVE BOXES WITH RESTORATION CLASS 3	W-54
	3	SPECIAL	3	EACH	ADJUSTING EX. VALVE CHAMBERS	S-11
	2	SPECIAL	2	EACH	RESETTING EX. VALVE BOXES	W-44

TYPE CODE YOGO

100% CITY COST	100% PROJECT COST "U"	100% PROJECT COST ITEM	TOTAL	UNIT	DESCRIPTION	CITY OF CINCINNATI SPECIFICATION ITEM NUMBER
					CONTINGENCY ITEMS	
5	5	SPECIAL	10	C.Y.	ROCK EXCAVATION	W-45
10	10	SPECIAL	20	C.Y.	ADDITIONAL EXCAVATION	W-46
50	50	SPECIAL	100	LIN.FT.	CHANGING 6" PIPE SEWER	S-20
50	50	SPECIAL	100	LIN.FT.	CHANGING 8" PIPE SEWER	S-20
25	25	SPECIAL	50	LIN.FT.	CHANGING 10" PIPE SEWER	S-3
25	25	SPECIAL	50	LIN.FT.	CHANGING 12" PIPE SEWER	S-3
25	25	SPECIAL	50	LIN.FT.	CHANGING 15" PIPE SEWER	S-3
25	25	SPECIAL	50	LIN.FT.	CHANGING 18" PIPE SEWER	S-3
25	25	SPECIAL	50	LIN.FT.	CHANGING 20" PIPE SEWER	S-3
25	25	SPECIAL	50	LIN.FT.	CHANGING 24" PIPE SEWER	S-3
10	10	SPECIAL	20	M. BD. FT.	SHEETING & BRACING ORDERED LEFT IN PLACE	S-25
5	5	SPECIAL	10	C.Y.	CONCRETE MASONRY 1:5 MIX CLASS 2	W-48
60		SPECIAL	60	LIN.FT.	HAULING & INSTALLING 1½" COPPER SERVICE PIPE & FITTINGS	W-28
60		SPECIAL	60	LIN.FT.	HAULING & INSTALLING ¾" COPPER SERVICE PIPE & FITTINGS	W-28

NOTE:

THE UNIT PRICE BID FOR ALL ITEMS IN THIS SUMMARY SHALL INCLUDE THE COST OF RESTORATION FOR THE TYPE OF STREET PAVEMENT LISTED AFTER THE ITEMS. RESTORATION MUST BE MADE IN ACCORDANCE WITH THE CITY OF CINCINNATI DEPARTMENT OF PUBLIC WORKS RULES AND REGULATIONS GOVERNING THE MAKING OF OPENINGS IN STREETS, ALLEYS, SIDEWALKS AND PUBLIC WAYS OF THE CITY OF CINCINNATI AND THE MANNER IN WHICH THE PAVING IS TO BE RESTORED.

WHENEVER AN EXISTING WATER MAIN IS PLUGGED OR REMOVED UNDER ITEM W-21, W-22, W-15 OR W-16, THE DEAD-END OR ABANDONED PORTION OF THE MAIN SHALL BE COMPLETELY BULKHEADED AND SEALED WITH CONCRETE BY THE CONTRACTOR.

NO EXTRA PAYMENT WILL BE MADE FOR THIS WORK. THE COST OF THIS WORK SHOULD BE INCLUDED IN THE PRICE BID FOR THESE ITEMS.

W-7 FURNISHING AND INSTALLING CASING

W-7.01 DESCRIPTION. THIS ITEM SHALL COVER THE FURNISHING AND INSTALLING OF STEEL CASING WHERE SHOWN ON THE PLANS OR WHERE ORDERED BY THE ENGINEER. THE CASING SHALL BE FABRICATED FROM STEEL PLATE HAVING A MINIMUM THICKNESS OF 1/4 INCH AND JOINED BY LONGITUDINAL, CIRCUMFERENTIAL OR SPIRAL WELDS. THE CONTRACTOR SHALL MAKE ANY NECESSARY EXCAVATION AND /OR BORING, FURNISH AND INSTALL THE STEEL CASING, INSTALL GROUT IN ALL VOIDS BETWEEN THE CASING AND THE WALLS OF THE EXCAVATION, BULKHEAD BOTH ENDS OF THE CASING WITH BRICKWORK, AND PROPERLY BACKFILL ALL OPENINGS.

THE PROVISIONS OF ITEM SG-3, "TUNNELING", SHALL ALSO APPLY TO THIS ITEM.

W-7.02 PAYMENT PAYMENT FOR THE ITEM OF "FURNISHING AND INSTALLING CASING" WILL BE MADE AT THE UNIT PRICE BID WHICH SHALL COVER ALL LABOR, MATERIAL AND EQUIPMENT REQUIRED TO FURNISH AND INSTALL THE CASING COMPLETE, INCLUDING EXCAVATING, BORING, HAULING, GROUTING ALL VOIDS, AND BACKFILLING ALL OPENINGS.

PAYMENT FOR THE BRICK BULKHEADS WILL BE MADE UNDER ITEM W-47, "BRICK MASONRY".

PAYMENT FOR INSTALLING THE WATER MAIN IN THE CASING WILL BE MADE UNDER ITEM W-1.

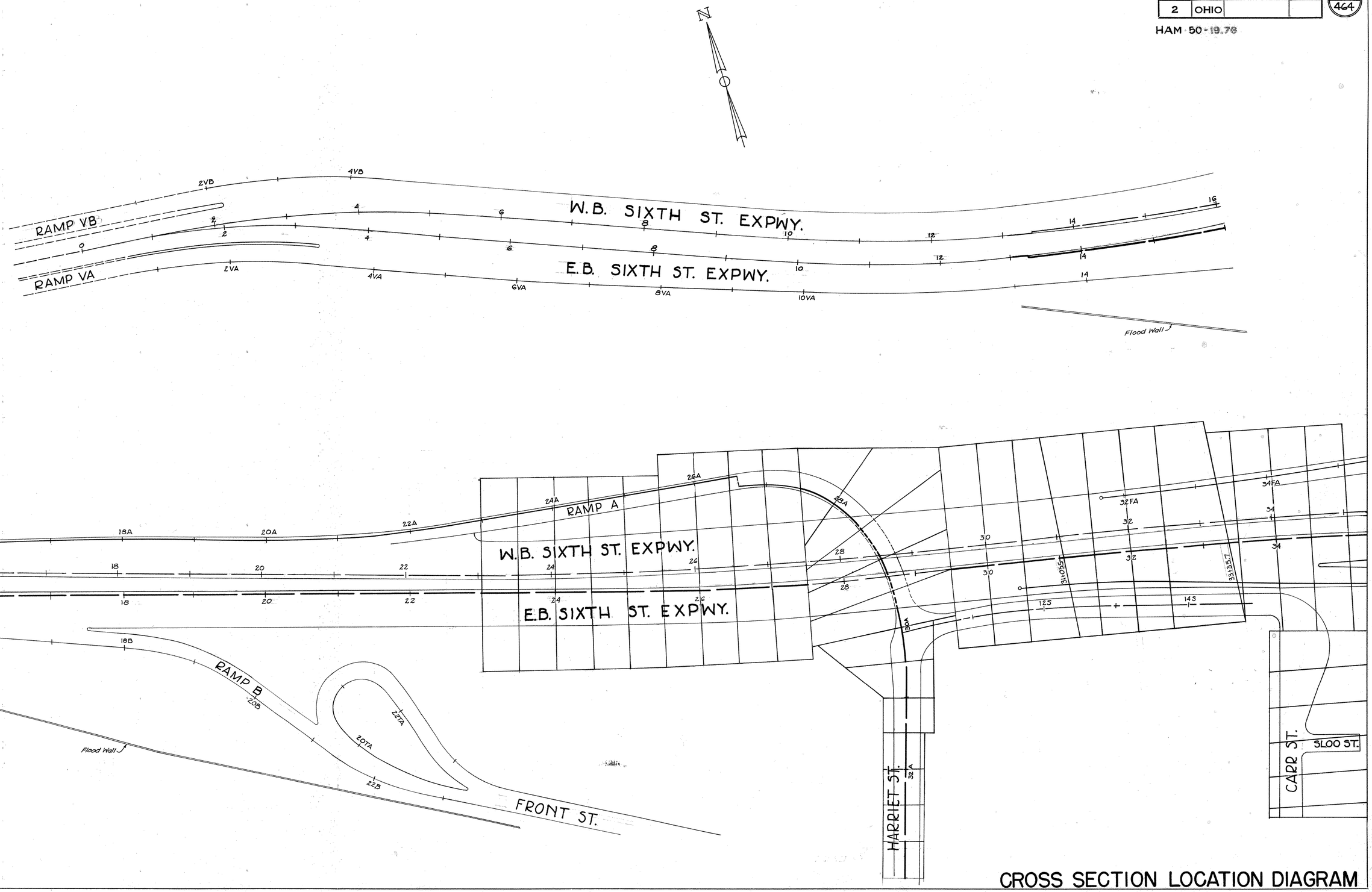
NOTE:

THE PRIME CONTRACTOR MUST DEPOSIT THE SUM OF $600.00 WITH THE CITY OF CINCINNATI, WHICH IS THEIR ESTIMATE, FOR COST OF SHEET ASPHALT.

FED. RD. DIV.	STATE	PROJECT	FISCAL YEAR
2	OHIO		

125
464

HAM-50-19.76

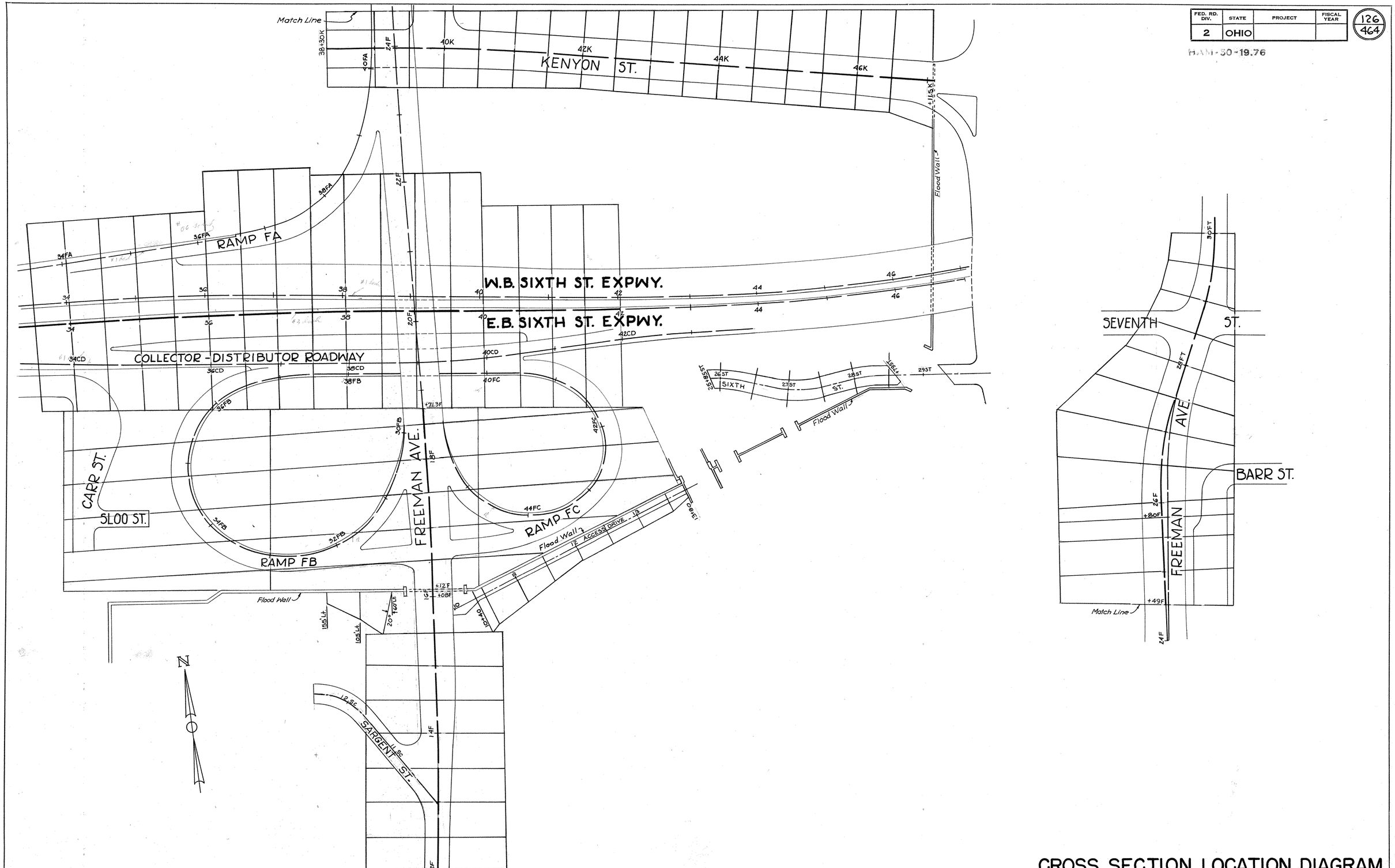


CROSS SECTION LOCATION DIAGRAM

FED. RD. DIV.	STATE	PROJECT	FISCAL YEAR
2	OHIO		

126
464

HAM-50-19.76



CROSS SECTION LOCATION DIAGRAM

FED. RD. DIV.	STATE	PROJECT	FISCAL YEAR
2	OHIO		

127
464

HAM-50-19.76



CROSS SECTION LOCATION DIAGRAM

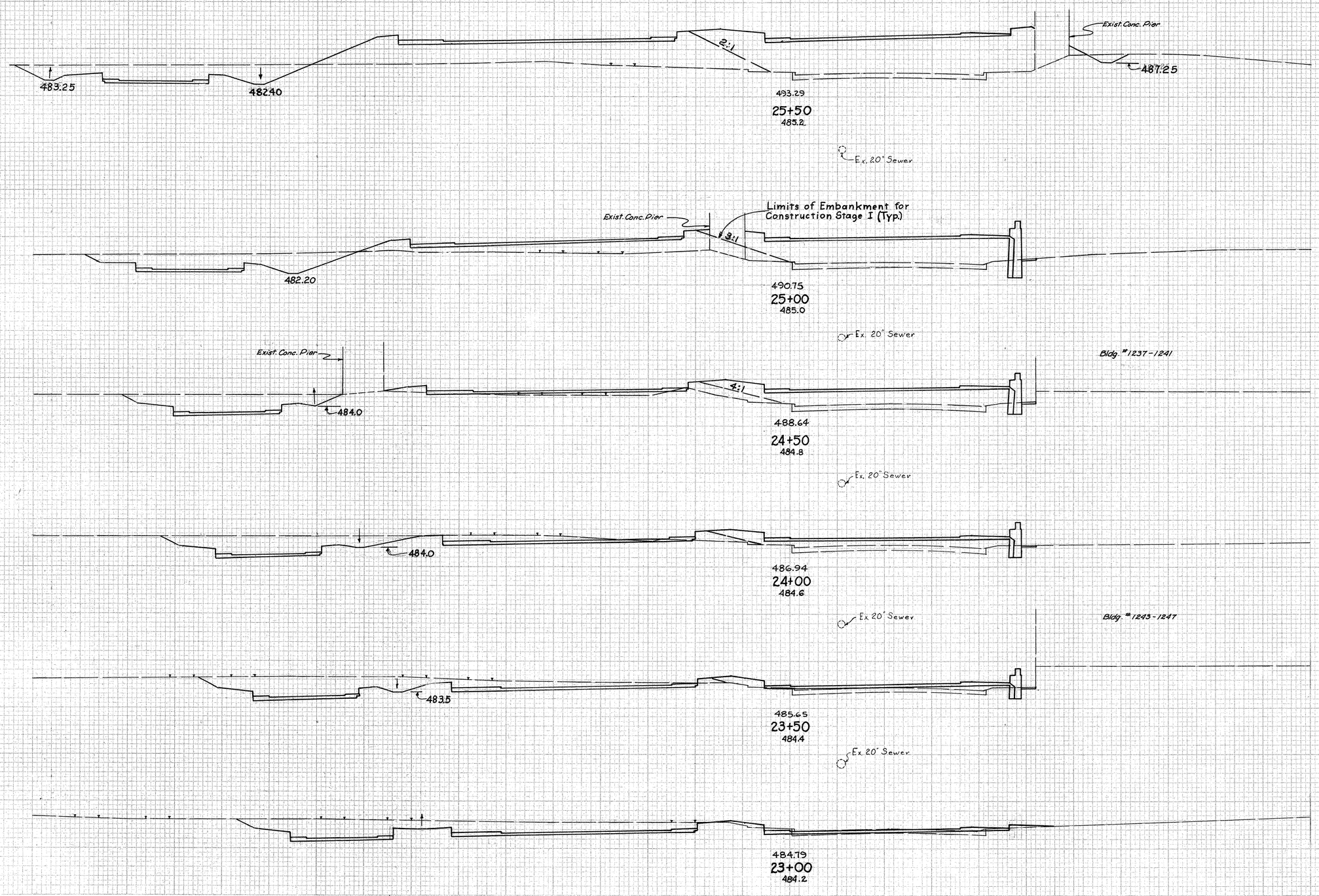
150 100 50 ℄ 50 100

Base Line E. B. Rdwy.

FED. RD. DIV.	STATE	PROJECT	FISCAL YEAR
2	OHIO		

128
464

HAM-50-19.76



END AREA		VOLUME	
CUT	FILL	CUT	FILL
220	975		
		370	1330
180	455		
		310	680
150	280		
		350	400
230	150		
		460	210
270	70		
		520	90
290	25		

150 100 50 ℄ 50 100

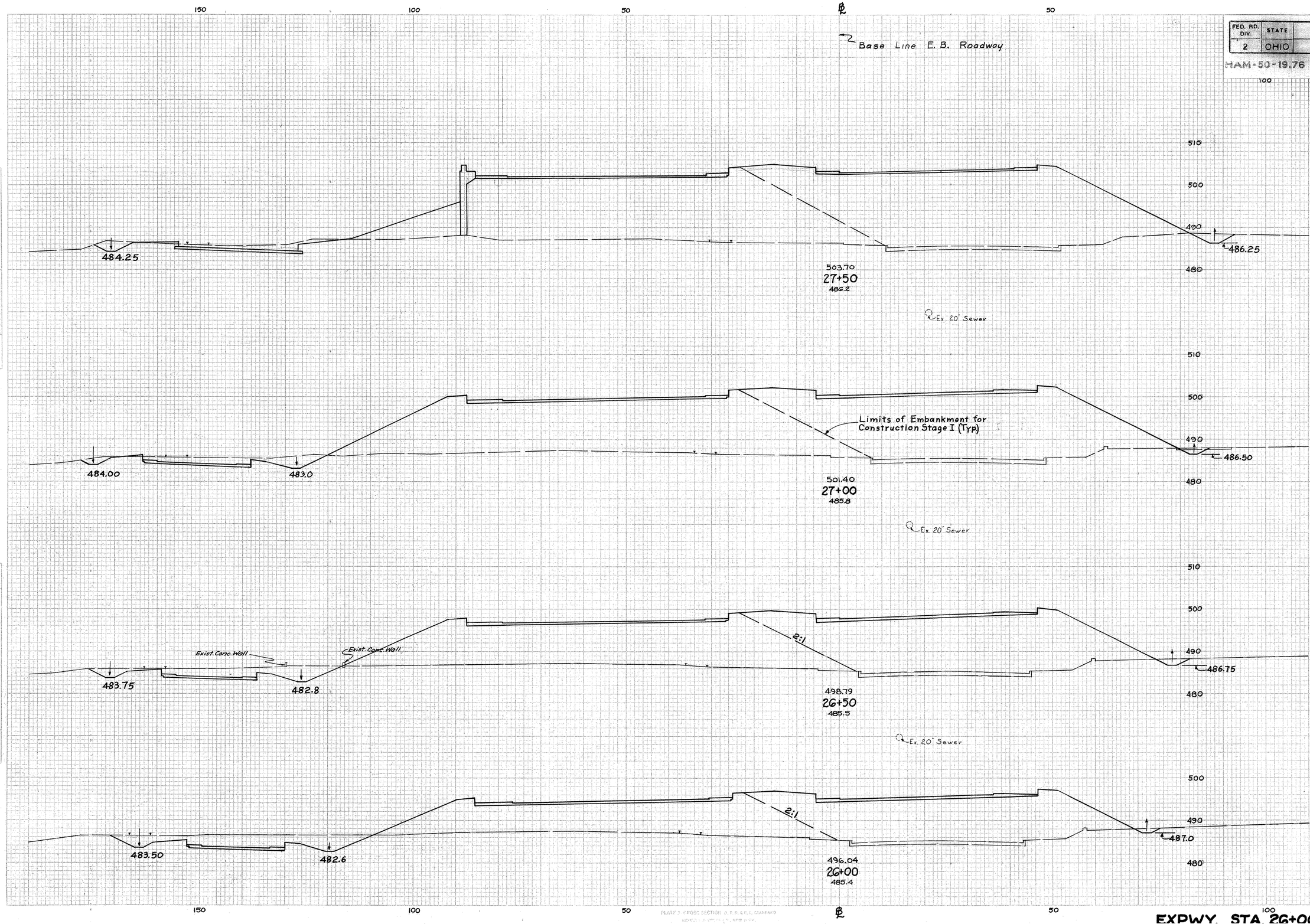
PLATE 2-CROSS SECTIONS O.D.P.A.R.C. STANDARD

EXPWY STA 23+00 to STA 25+50

FED. RD. DIV.	STATE	PROJECT	FISCAL YEAR
2	OHIO		

129
464

HAM-50-19.76



END AREA CUT	END AREA FILL	VOLUME CUT	VOLUME FILL
80	2700		
		160	4740
95	2415		
		210	4040
135	1950		
		290	3110
175	1405		
		370	27

FINAL SURVEY — SURVEYED, PLOTTED, TEMPLATE, AREAS, AREAS CHECKED — NOTE BOOK NO. — BY — DATE

ORIGINAL SURVEY — SURVEYED, PLOTTED, TEMPLATE, AREAS, AREAS CHECKED — NOTE BOOK NO. — BY — DATE

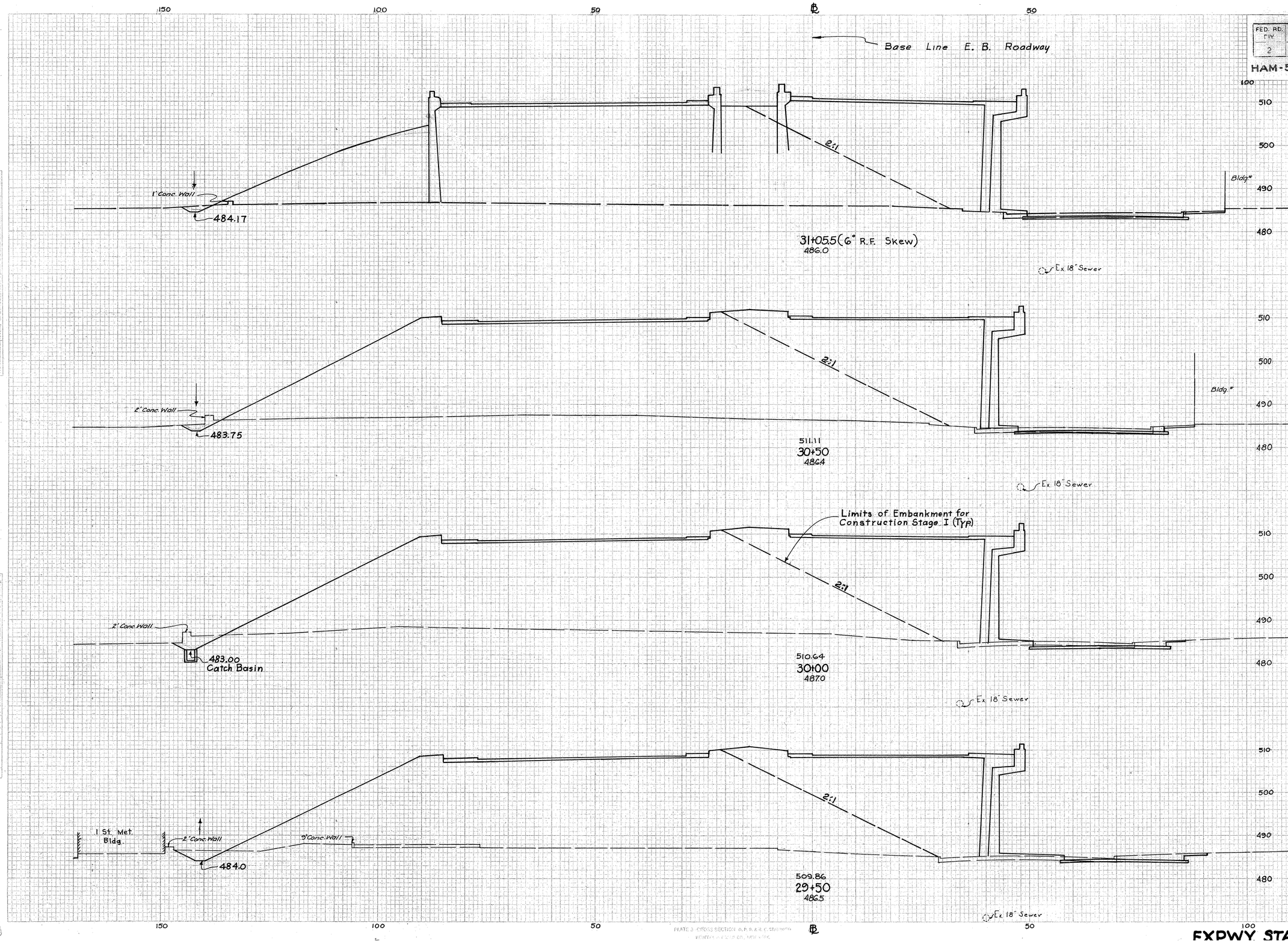
PLATE 3 - CROSS SECTION O. P. R. & R. L. STANDARD

EXPWY. STA. 26+00 to STA. 27+5

FED. RD. DIV.	STATE	PROJECT	FISCAL YEAR
2	OHIO		

130
464

HAM-50-19.76



Fill @ Face of Abutment ≈ 2000 Cu.Yd.

END AREA CUT	END AREA FILL	VOLUME CUT	VOLUME FILL
30	3475		
		50	7290
20	3610		
		60	6470
50	3380		
		90	6220
45	3335		

FINAL SURVEY — SURVEYED, PLOTTED, TEMPLATE, AREAS, AREAS CHECKED, NOTE BOOK, NO.

ORIGINAL SURVEY — SURVEYED, PLOTTED, TEMPLATE, AREAS, AREAS CHECKED, NOTE BOOK, NO.

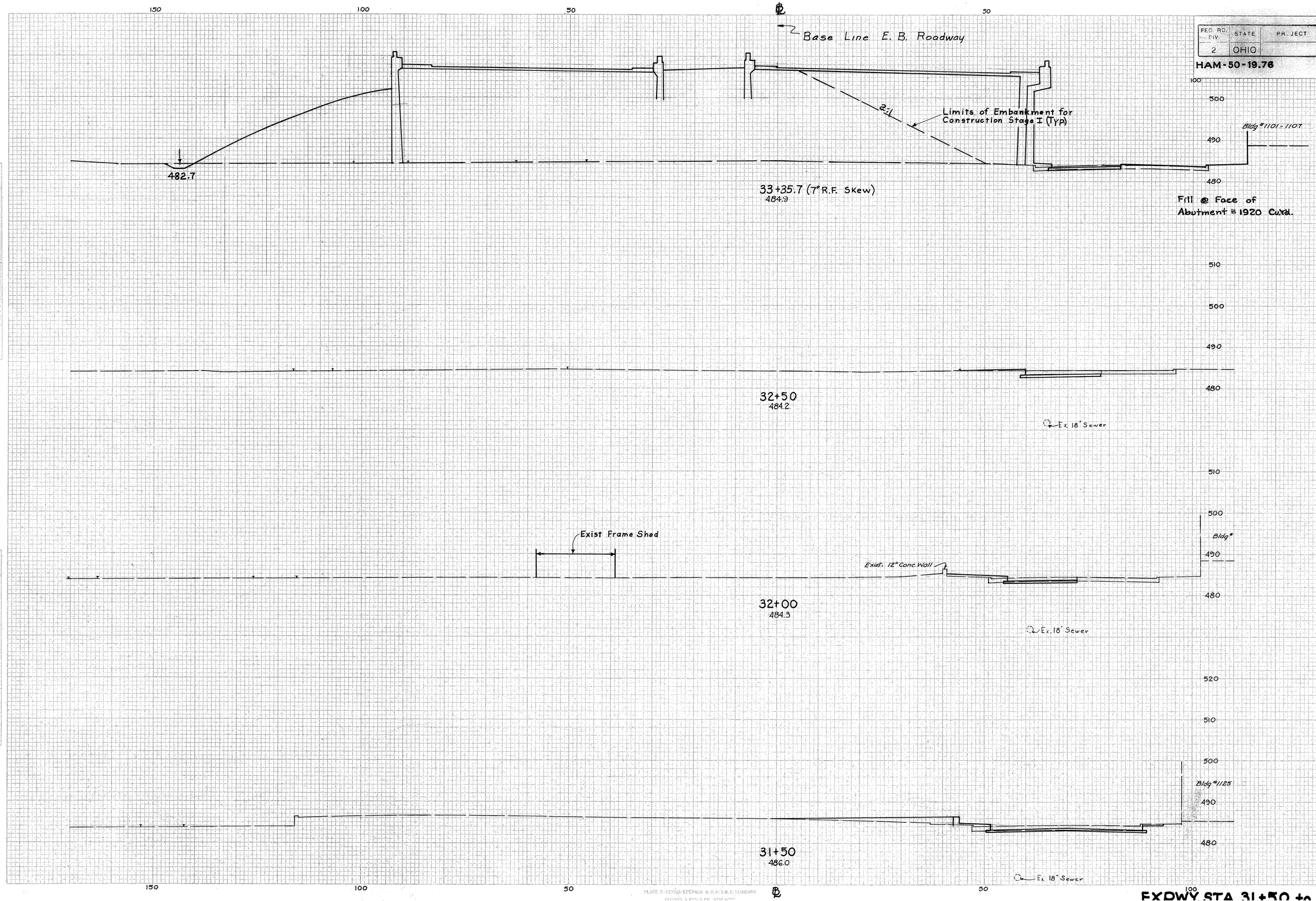
PLATE 3 - CROSS SECTION O.P.R.R. & C. STAMMER KEUFFEL & ESSER CO., NEW YORK

EXPWY. STA. 29+50 to STA. 31+00

FED. RD. DIV.	STATE	PROJECT	FISCAL YEAR
2	OHIO		

131
464

HAM-50-19.76



END AREA CUT	END AREA FILL	VOLUME CUT	VOLUME FILL
5	3850		
		20	1920
10	0		
		20	10
10	15		
		20	60
15	50		
		40	2050

FINAL SURVEY — SURVEYED, PLOTTED, TEMPLATE, AREAS, AREAS CHECKED — NOTE BOOK NO. — BY — DATE

ORIGINAL SURVEY — SURVEYED, PLOTTED, TEMPLATE, AREAS, AREAS CHECKED — NOTE BOOK NO. — BY — DATE

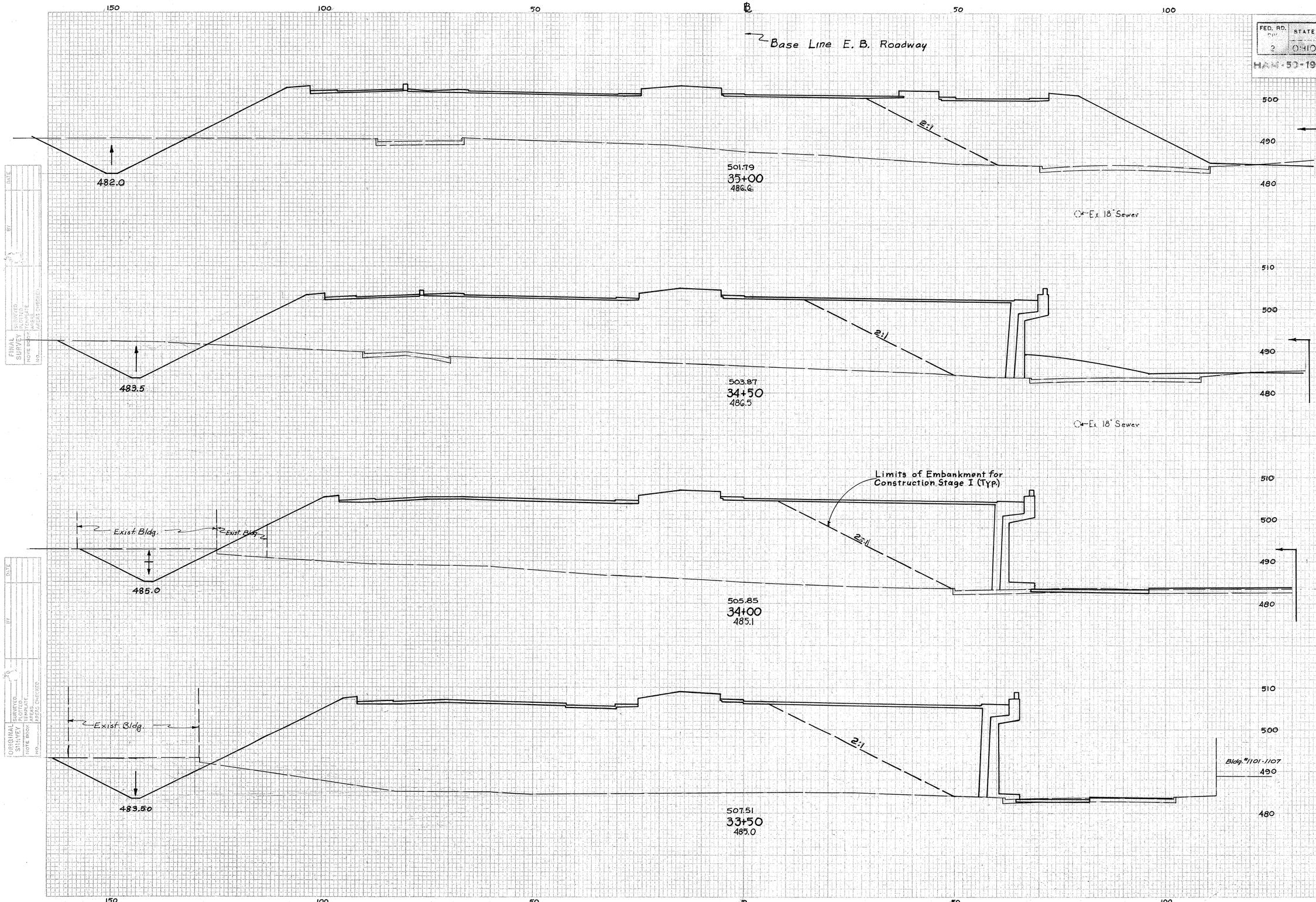
PLATE 3 - CROSS SECTION O. P. R. & R. C. STANDARD
KEUFFEL & ESSER CO. NEW YORK

EXPWY STA 31+50 to STA 33+29

FED. RD. DIV.	STATE	PROJECT	FISCAL YEAR
2	OHIO		

132
464

HAM-50-19.76



END AREA		VOLUME	
CUT	FILL	CUT	FILL
180	2935		
		340	5500
185	3010		
		310	5750
150	3195		
		330	6320
210	3635		
		60	1940

FINAL SURVEY — SURVEYED, PLOTTED, TEMPLATE, AREAS, AREAS CHECKED — NOTE BOOK NO. — BY — DATE

ORIGINAL SURVEY — SURVEYED, PLOTTED, TEMPLATE, AREAS, AREAS CHECKED — NOTE BOOK NO. — BY — DATE

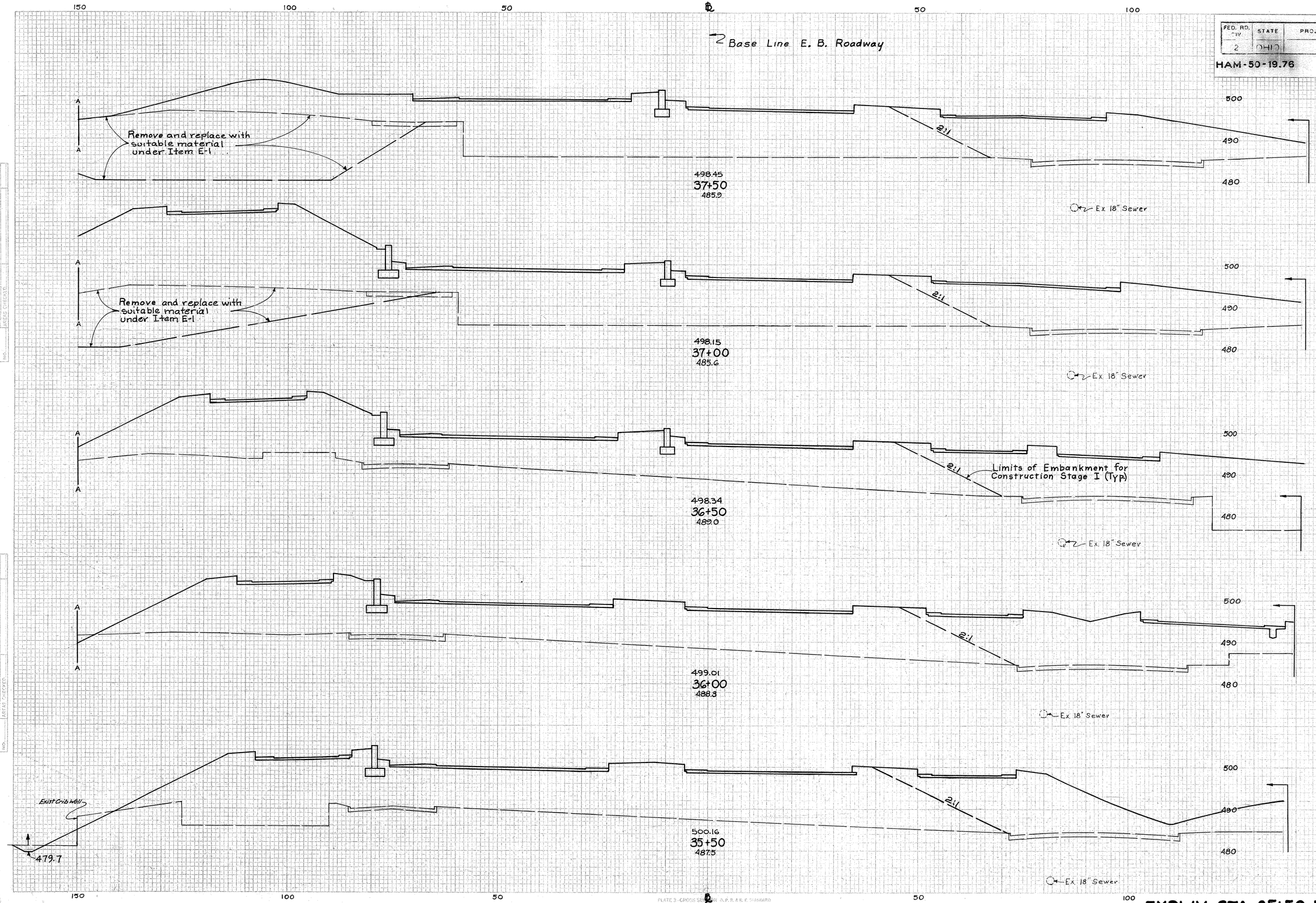
PLATE 3 - CROSS SECTION O. P. P. & R. F. STANDARD
KEUFFEL & ESSER CO. 10 X 10 TO THE INCH

EXPWY STA. 33+50 to STA. 35+00

FED. RD. DIV.	STATE	PROJECT	FISCAL YEAR
2	OHIO		

133
464

HAM-50-19.76



END AREA CUT	END AREA FILL	VOLUME CUT	VOLUME FILL
90	3975		
		80	8190
0	4870		
		40	7340
45	3050		
		70	5470
35	2860		
		60	5300
25	2860		
		190	5360

FINAL SURVEY — SURVEYED, PLOTTED, TEMPLATE, AREAS, AREAS CHECKED — NOTE BOOK NO. — BY — DATE

ORIGINAL SURVEY — SURVEYED, PLOTTED, TEMPLATE, AREAS, AREAS CHECKED — NOTE BOOK NO. — BY — DATE

PLATE 3 - CROSS SECTION A.P.R.R. & R.E. STANDARD
KEUFFEL & ESSER CO., NEW YORK

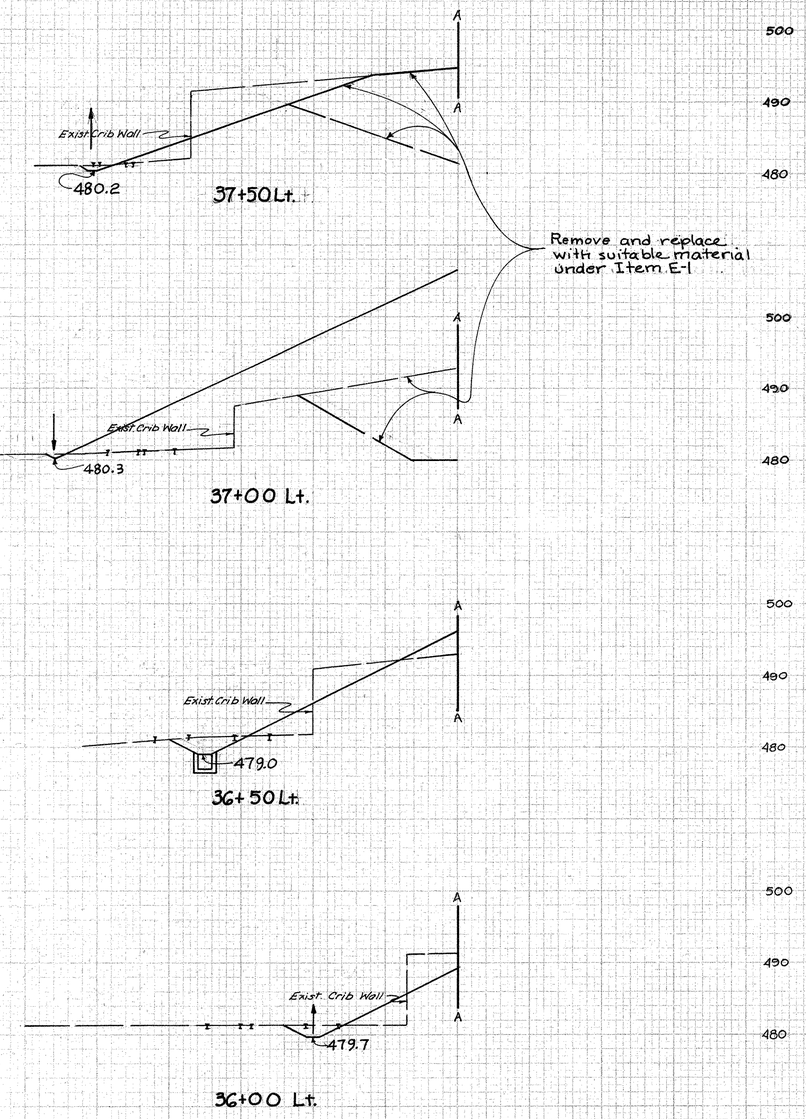
EXPWY. STA. 35+50 to STA. 37+50

FED. RD. DIV.	STATE	PROJECT	FISCAL YEAR
2	0410		

HAM-50-19.76

134
464

250 200 150

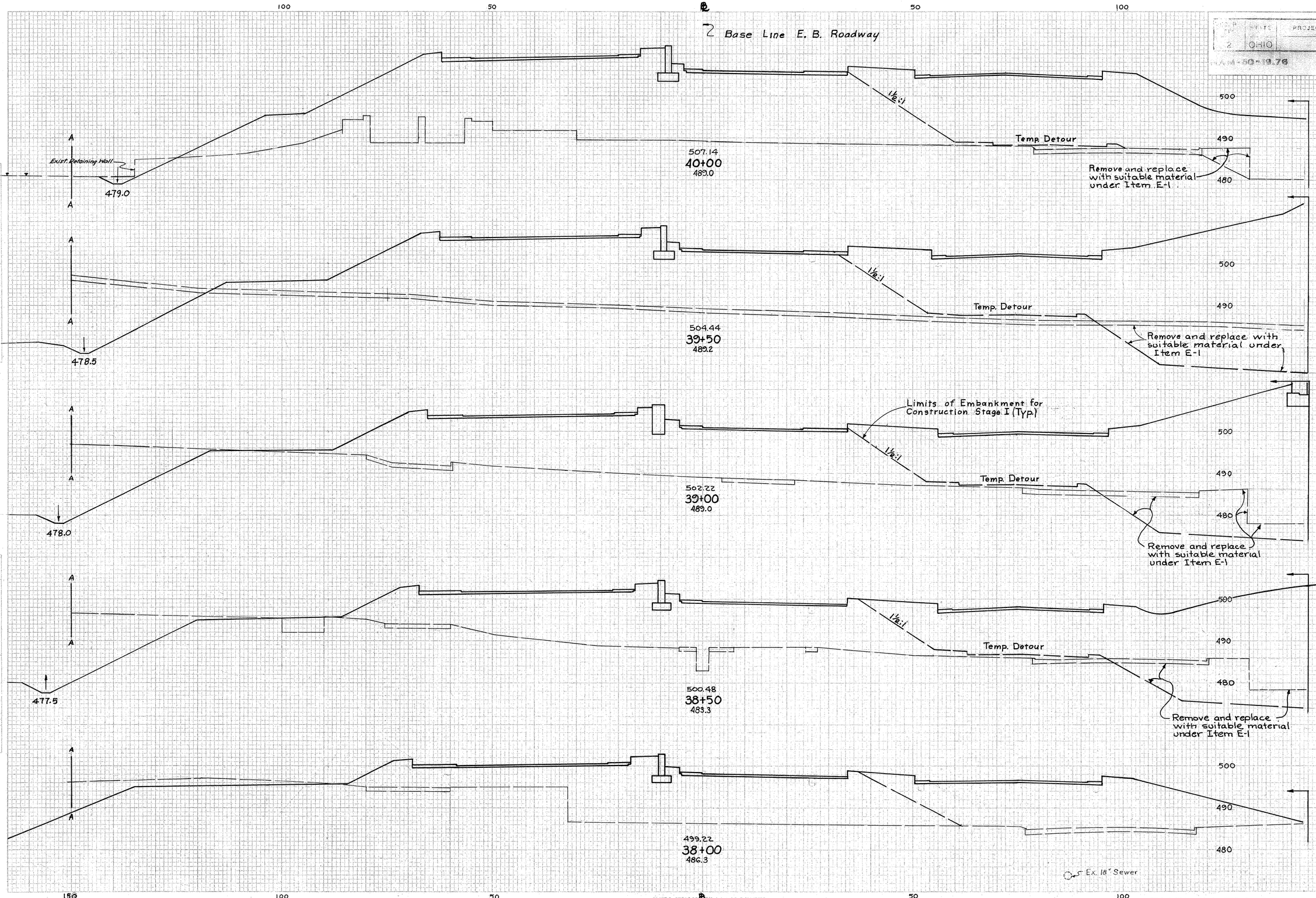


ORIGINAL SURVEY
FINAL SURVEY
SURVEYED
PLOTTED
NOTE BOOK
TEMPLATE
AREAS
AREAS CHECKED
NO.
BY
DATE

PLATE 3-CROSS SECTIONS O.P.P. S.R.E. STANDARD
KEUFFEL & ESSER CO., NEW YORK.

250 200 150

EXPWY. STA. 35+50 to STA. 37+50 EXT. LT.



END AREA		VOLUME	
CUT	FILL	CUT	FILL
30	4050		
		440	7750
440	4320		
		1140	7400
790	3665		
		1500	6170
830	2995		
		1120	4710
380	2095		
		440	5620

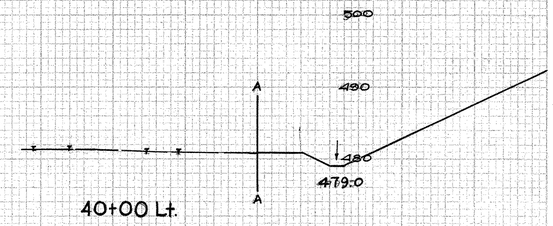
EXPWY. STA. 38+00 to STA. 40+00

FED. RD. DIV.	STATE	PROJECT	FISCAL YEAR
2	OHIO		

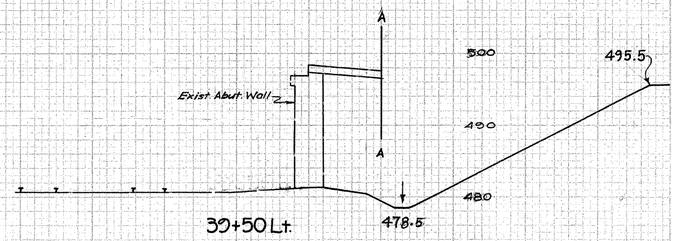
136
464

HAM-50-19.76

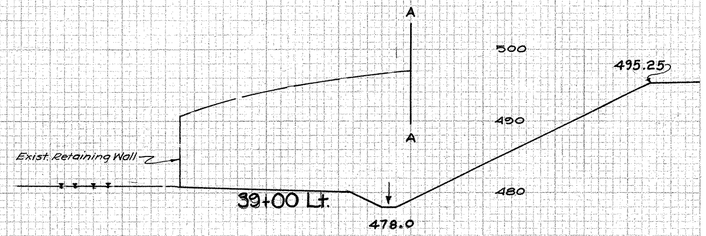
250 200 150

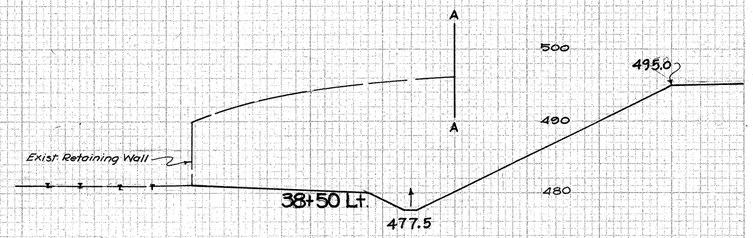


40+00 Lt.



39+50 Lt.





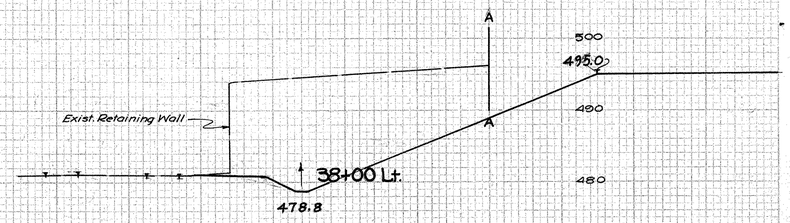


PLATE 3 - CROSS SECTION O. P. R. & R. E. STANDARD
KEUFFEL & ESSER CO., NEW YORK.

250 200 150

EXPWY. STA. 38+00 to STA. 40+00 Ext. Lt.

FINAL SURVEY
NOTE BOOK
NO.
DATE
SURVEYED
PLOTTED
TEMPLATE
AREAS
CROSS CHECKED

ORIGINAL SURVEY
NOTE BOOK
NO.
DATE
SURVEYED
PLOTTED
TEMPLATE
AREAS
CROSS CHECKED

FED. RD. DIV.	STATE	PROJECT	FISCAL YEAR
2	OHIO		

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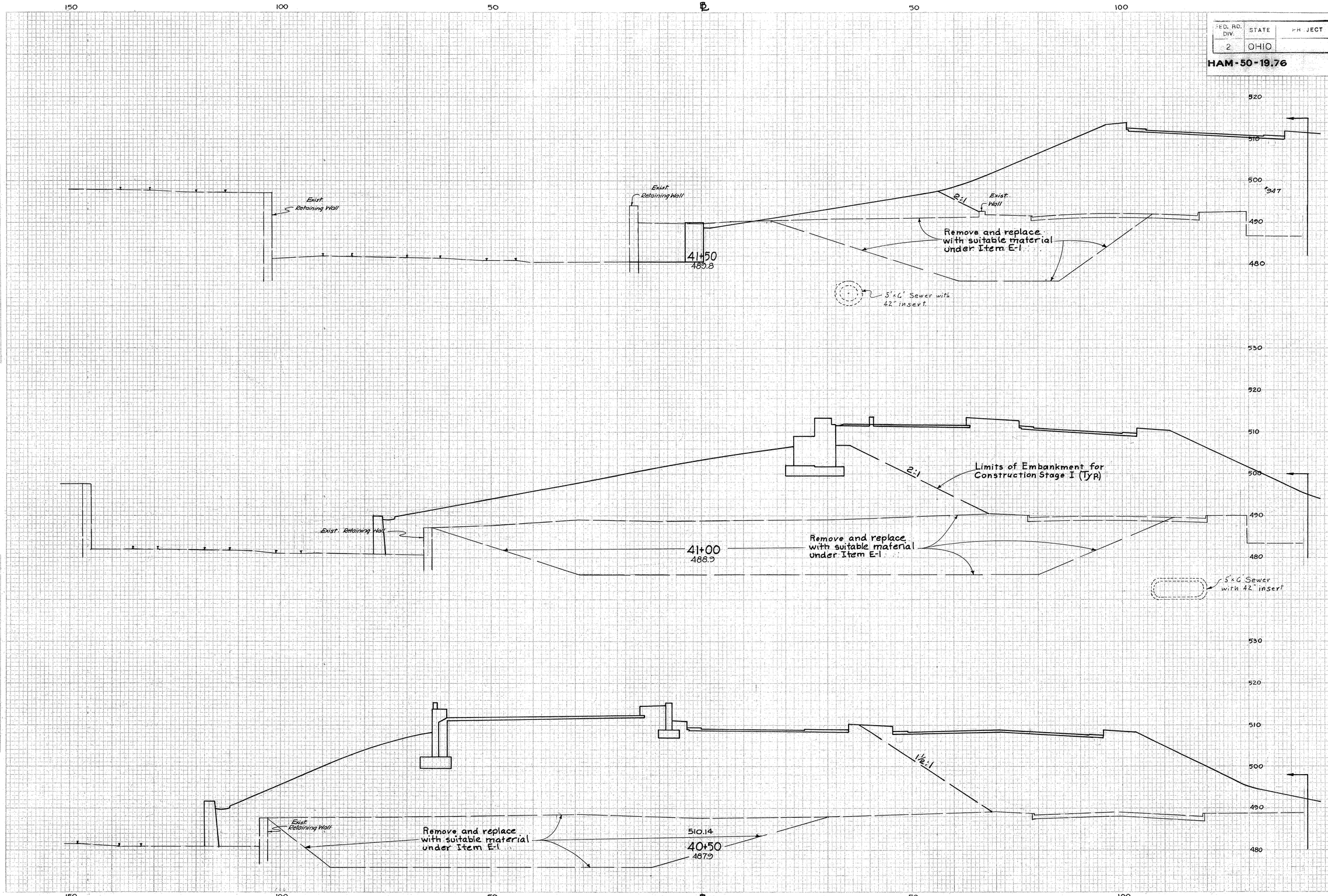
464

HAM-50-19.76



END AREA		VOLUME	
CUT	FILL	CUT	FILL
115	2530		
		110	7160
0	5200		
		0	10310
0	5950		
		30	9260

FINAL SURVEY — SURVEYED, PLOTTED, TEMPLATE, AREAS, AREAS CHECKED — NOTE BOOK NO. — BY — DATE

ORIGINAL SURVEY — SURVEYED, PLOTTED, TEMPLATE, AREAS, AREAS CHECKED — NOTE BOOK NO. — BY — DATE

PLATE 3 - CROSS SECTION O.P.A. & R.E. STANDARD
MENTEL & FOSTER CO., NEW YORK

EXPWY. STA. 40+50 to STA. 41+50

FED. RD. DIV.	STATE	PROJECT	FISCAL YEAR
2	OHIO		

HAM-50-19.76

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464

END AREA		VOLUME	
CUT	FILL	CUT	FILL

FINAL SURVEY
SURVEYED
PLOTTED
TEMPLATE
NOTE BOOK
NO.
AREAS CHECKED
BY
DATE

ORIGINAL SURVEY
SURVEYED
PLOTTED
TEMPLATE
NOTE BOOK
NO.
AREAS CHECKED
BY
DATE

150 100 50 ℄ 50 100

Exist. Retaining Wall

Exist. Retaining Wall

Ex. Sewer & M.H.

42+00
481.0

520
510
500
490
480

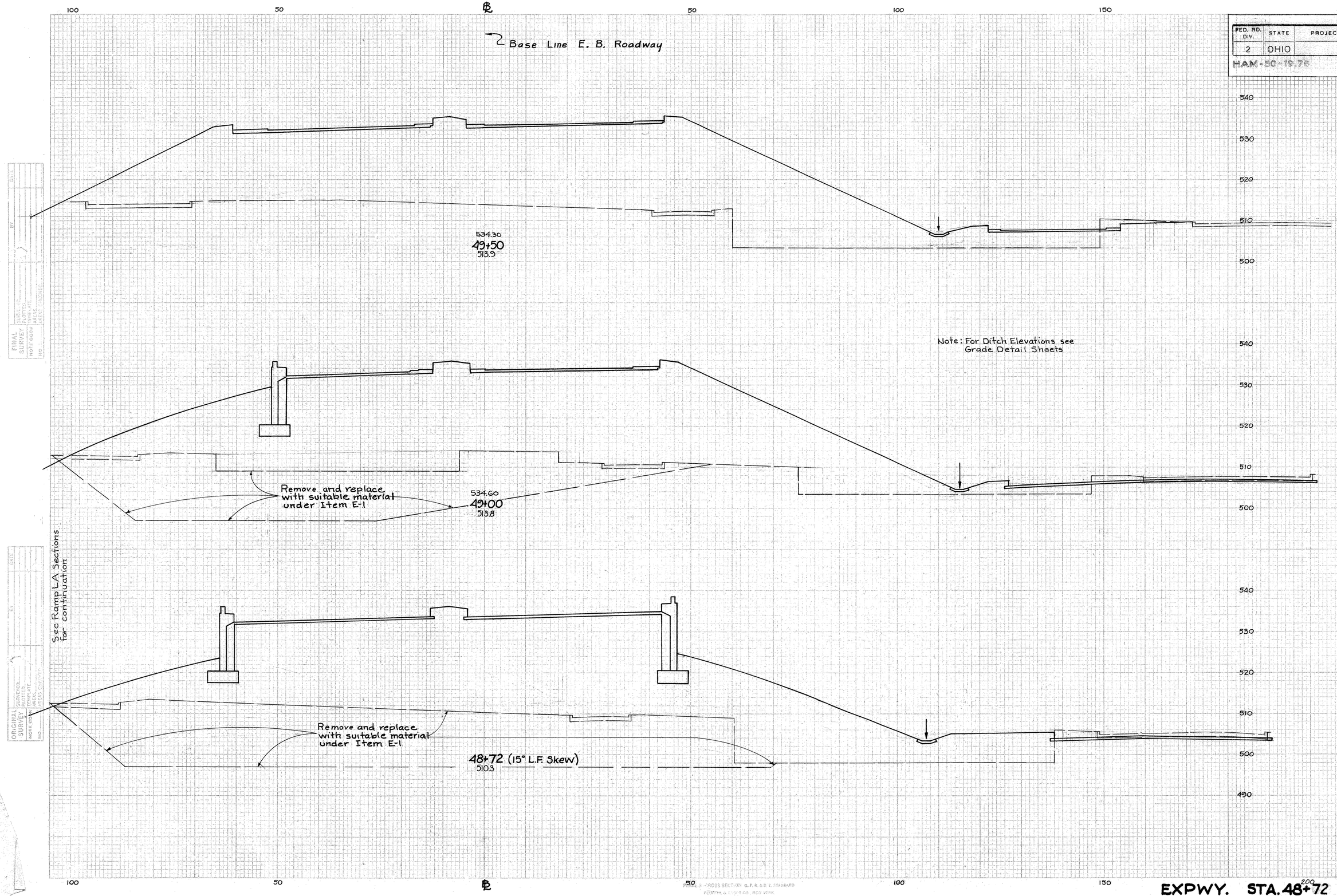
370 225

450 2550

150 100 50 ℄ 50 100

PLATE 3-CROSS SECTION O.P.R.R.R.E. STANDARD
KEUFFEL & ESSER CO., NEW YORK.

EXPWY STA 42+00



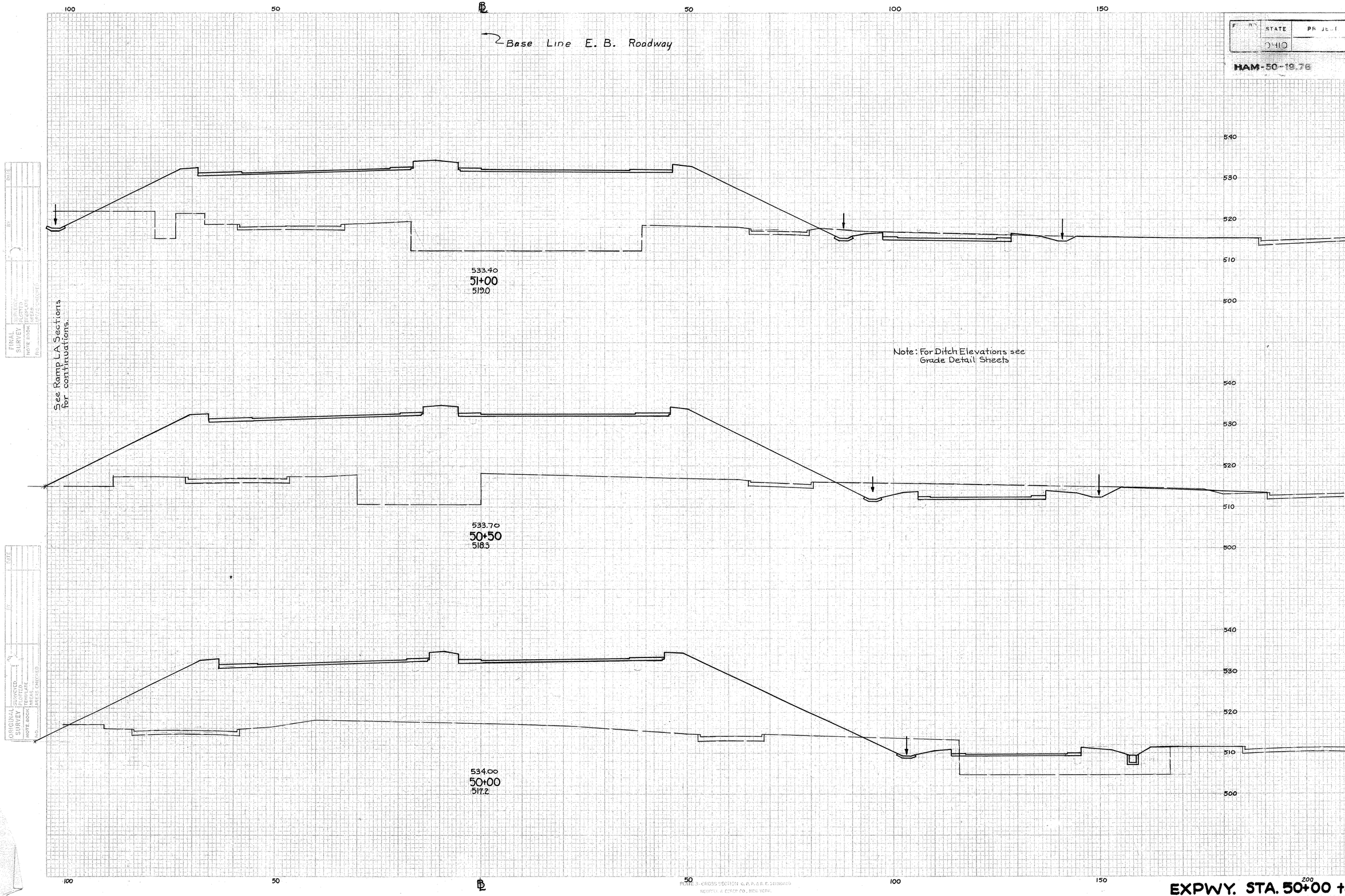
FED. RD. DIV.	STATE	PROJECT	FISCAL YEAR
2	OHIO		

139
464

HAM-50-19.76

END AREA CUT	END AREA FILL	VOLUME CUT	VOLUME FILL
200	3145		
		330	7710
160	5180		
		150	5420
125	5270		

EXPWY. STA. 48+72 to STA. 49+50



STATE	PROJECT	FISCAL YEAR
OHIO		

140
464

HAM-50-19.76

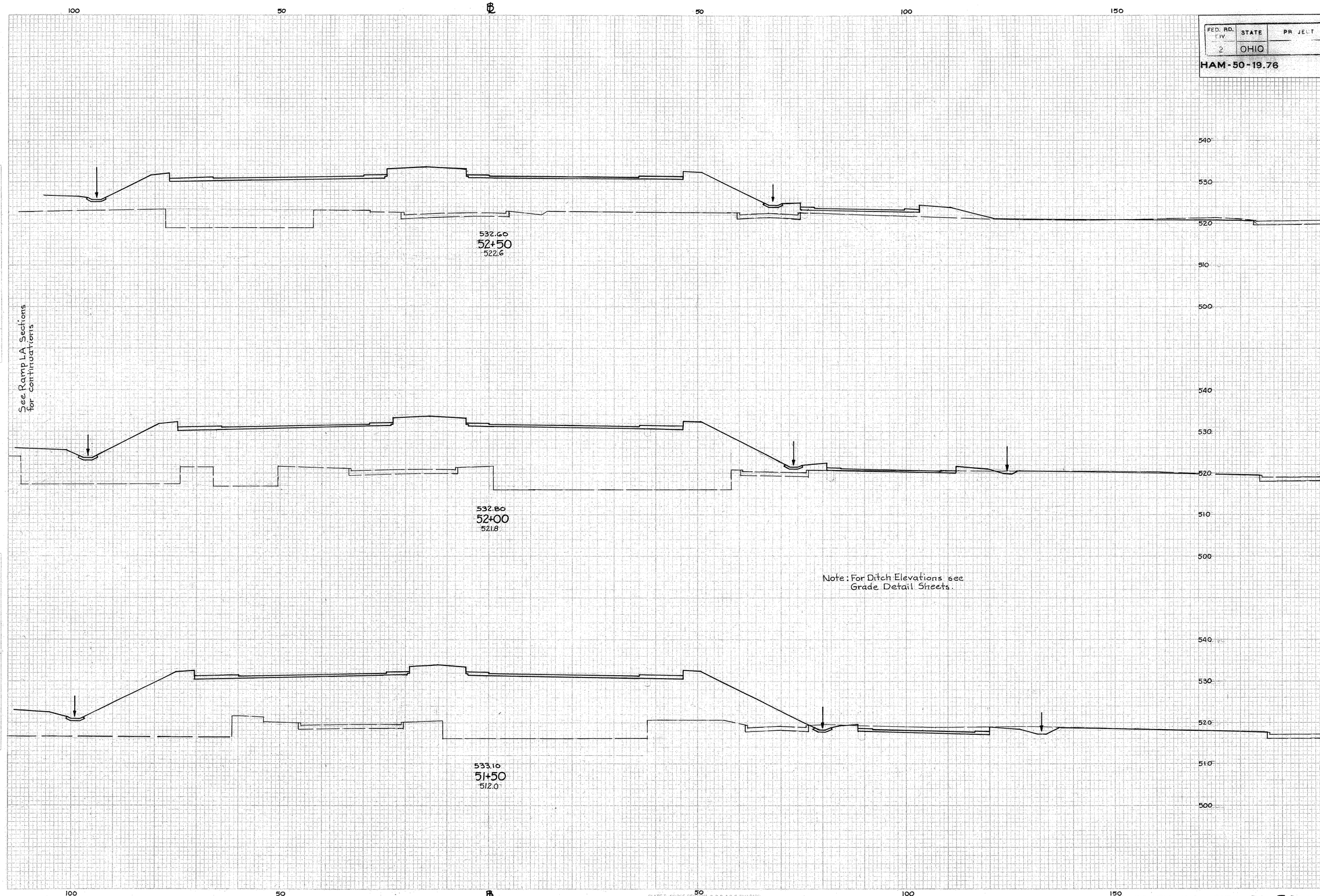
ENDAREA CUT	ENDAREA FILL	VOLUME CUT	VOLUME FILL
90	2020		
		270	4300
200	2620		
		350	4950
185	2725		
		350	5440

EXPWY. STA. 50+00 to STA. 51+00

FED. RD. DIV.	STATE	PROJECT	FISCAL YEAR
2	OHIO		

141
464

HAM-50-19.76



END AREA CUT	END AREA FILL	VOLUME CUT	VOLUME FILL
0	1390		
		10	2690
10	1510		
		70	3050
70	1785		
		140	3520

FINAL SURVEY — SURVEYED, PLOTTED, TEMPLATE, AREAS, AREAS CHECKED — NOTE BOOK NO. — BY — DATE

ORIGINAL SURVEY — SURVEYED, PLOTTED, TEMPLATE, AREAS, AREAS CHECKED — NOTE BOOK NO. — BY — DATE

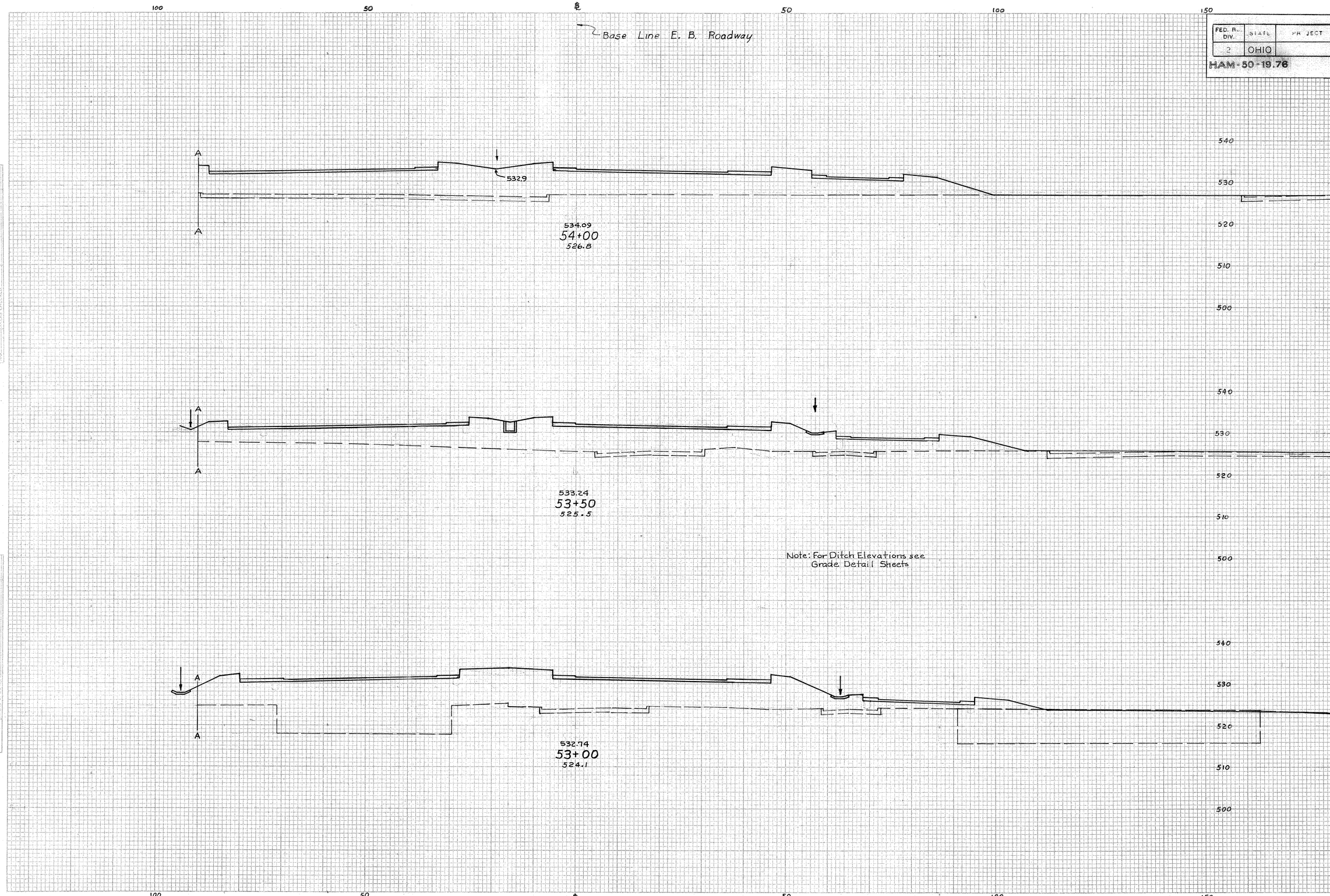
PLATE 3 - CROSS SECTION O.P.R.&R.E. STANDARD

EXPWY STA 51+50 to STA 52+50

FED. RD. DIV.	STATE	PROJECT	FISCAL YEAR
2	OHIO		

HAM-50-19.76

142
464



END AREA CUT	END AREA FILL	VOLUME CUT	VOLUME FILL
70	1280		
		120	2180
60	1075		
		140	2440
190	1560		
		0	2540

FINAL SURVEY — SURVEYED, PLOTTED, TEMPLATE, AREAS, AREAS CHECKED — NOTE BOOK NO. — BY — DATE

ORIGINAL SURVEY — SURVEYED, PLOTTED, TEMPLATE, AREAS, AREAS CHECKED — NOTE BOOK NO. — BY — DATE

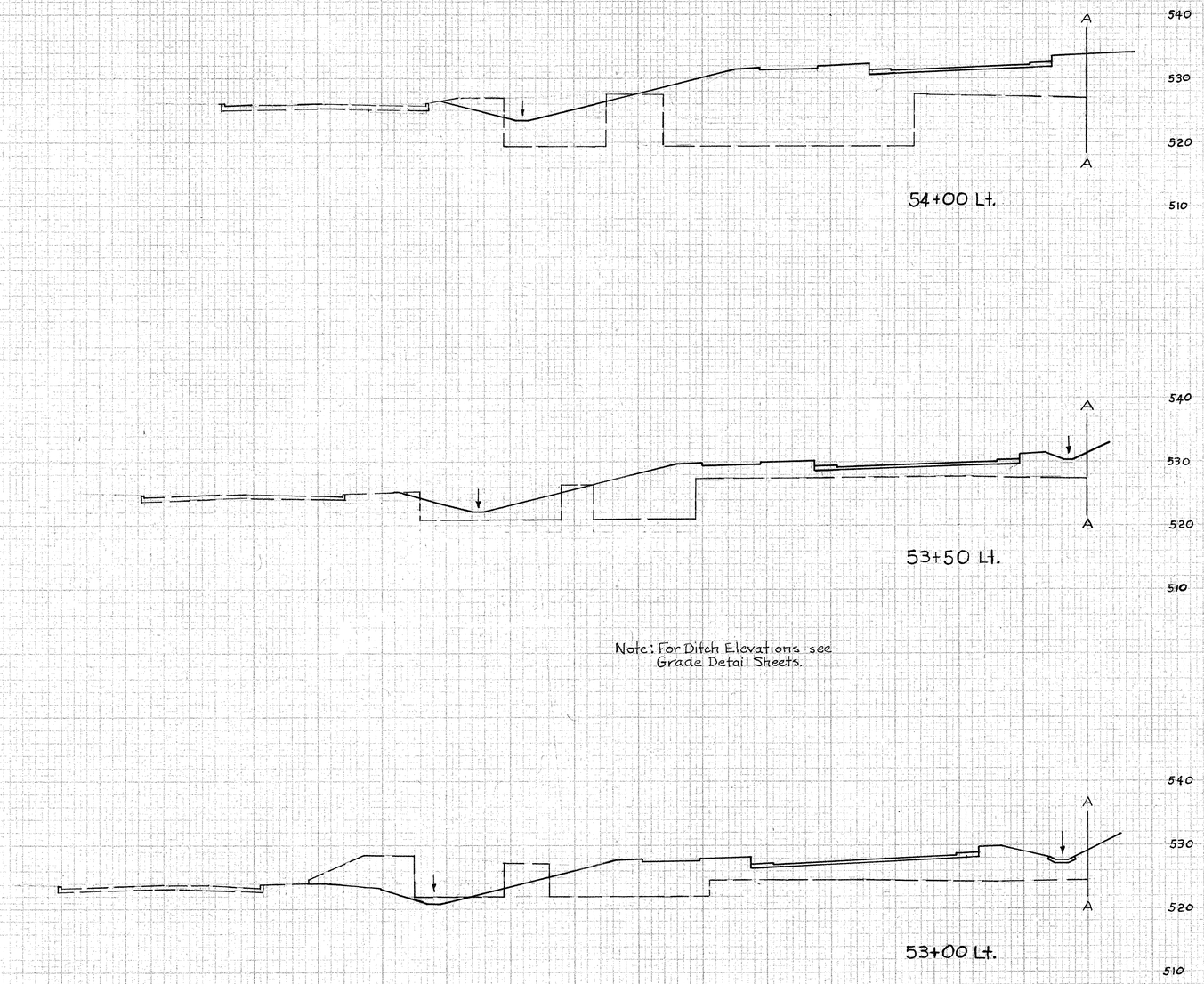
PLATE 3 - CROSS SECTION O. P. R. & R. E. STANDARD

EXPWY STA 53+00 to STA 54+00

FED. RD. DIV.	STATE	PROJECT	FISCAL YEAR
2	OHIO		

143
464

HAM-50-19.76



Note: For Ditch Elevations see Grade Detail Sheets.

FINAL SURVEY
NOTE BOOK
NO.
SURVEYED
PLOTTED
TEMPLATE
AREAS
AREAS CHECKED
BY
DATE

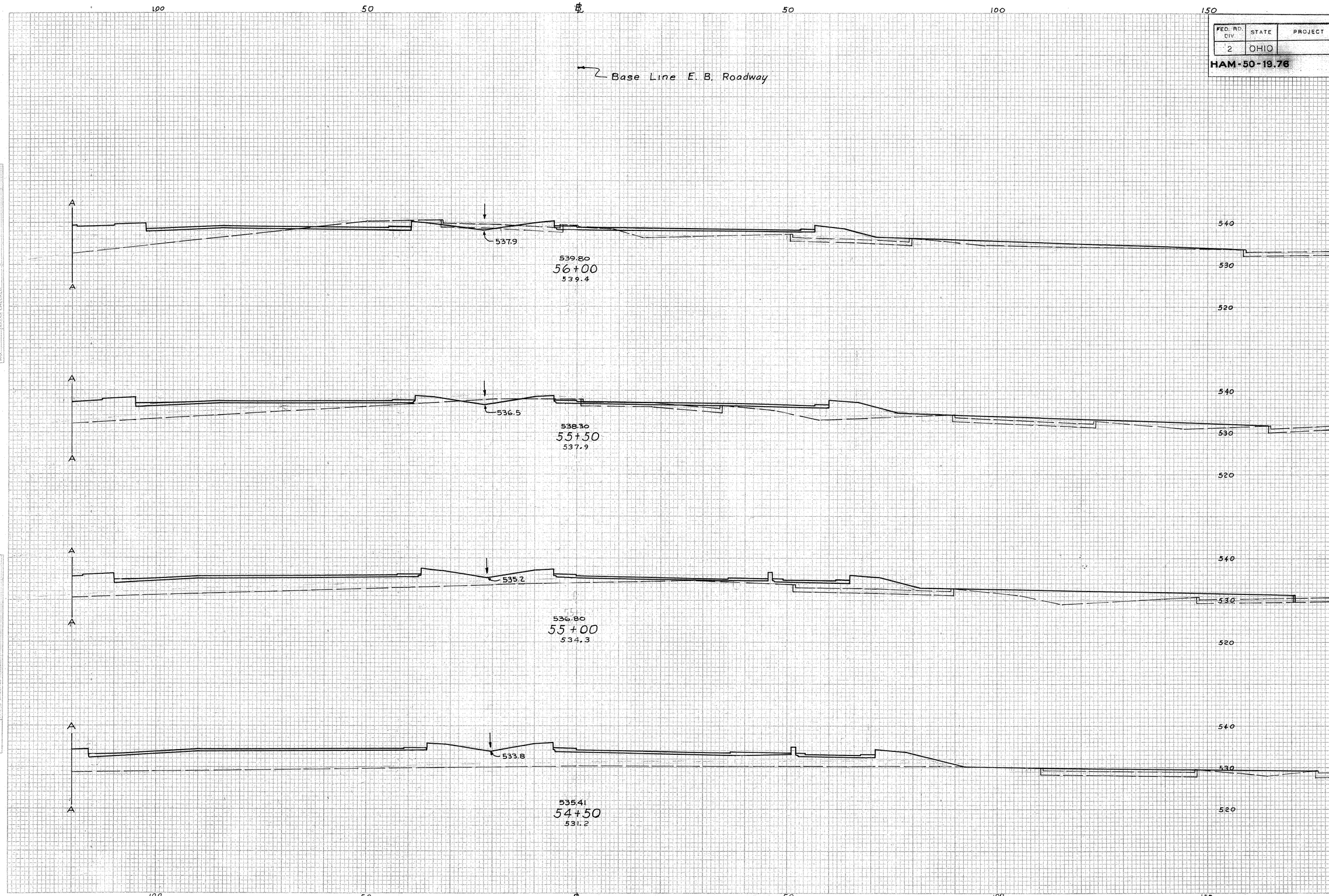
ORIGINAL SURVEY
NOTE BOOK
NO.
SURVEYED
PLOTTED
TEMPLATE
AREAS
AREAS CHECKED
BY
DATE

EXPWY. STA. 53+00 to STA. 54+00 EXT. LT.

FED. RD. DIV.	STATE	PROJECT	FISCAL YEAR
2	OHIO		

144
464

HAM-50-19.76



END AREA CUT	END AREA FILL	VOLUME CUT	VOLUME FILL
60	440		
		80	940
25	575		
		40	1250
20	780		
		50	1660
35	1010		
		100	2120

FINAL SURVEY — SURVEYED, PLOTTED, TEMPLATE, AREAS, AREAS CHECKED — NOTE BOOK NO. — BY — DATE

ORIGINAL SURVEY — SURVEYED, PLOTTED, TEMPLATE, AREAS, AREAS CHECKED — NOTE BOOK NO. — BY — DATE

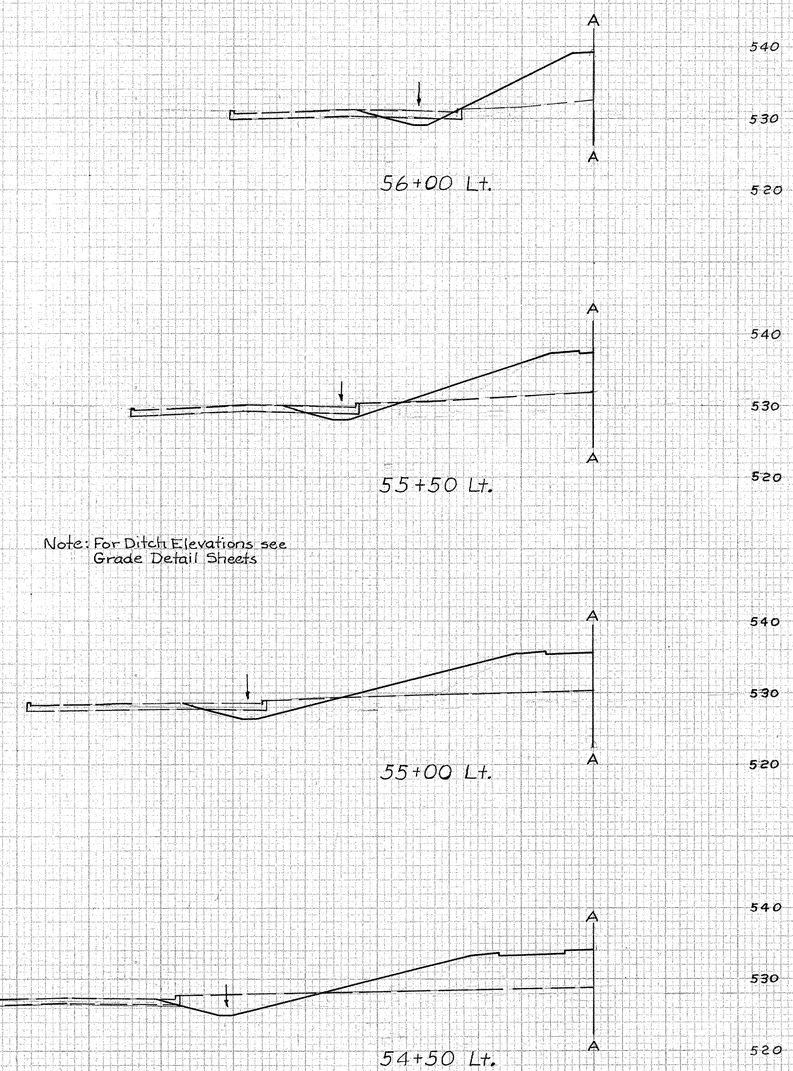
PLATE 3 - CROSS SECTION O. P. R. & R. E. STANDARD
KEUFFEL & ESSER CO. NEW YORK

EXPWY STA. 54+50 to STA. 56+00

FED. RD. DIV.	STATE	PROJECT	FISCAL YEAR
2	OHIO		

145
464

HAM-50-19.78



FINAL SURVEY — SURVEYED, PLOTTED, TEMPLATE, AREAS, AREAS CHECKED — NOTE BOOK NO. — DATE

ORIGINAL SURVEY — SURVEYED, PLOTTED, TEMPLATE, AREAS, AREAS CHECKED — NOTE BOOK NO. — DATE

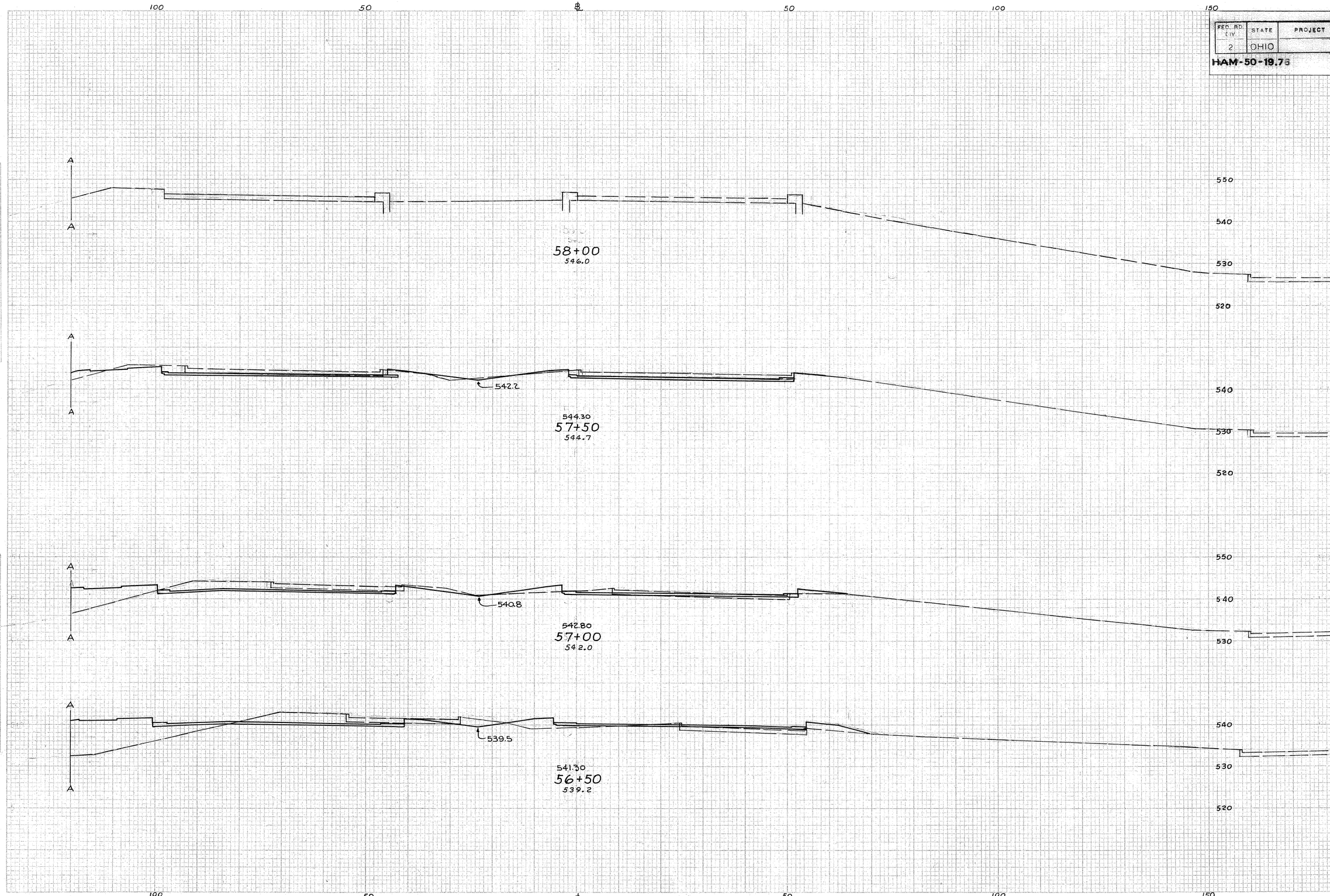
PLATE 3 - CROSS SECTION O. P. W. & R. R. STANDARD

EXPWY STA 54+50 to STA 56+00 EXT LT

FED. RD. DIV.	STATE	PROJECT	FISCAL YEAR
2	OHIO		

HAM-50-19.76

146
464



END AREA CUT	END AREA FILL	VOLUME CUT	VOLUME FILL
0	0		
		110	20
120	20		
		220	190
115	185		
		200	520
100	380		
		150	760

FINAL SURVEY — SURVEYED, PLOTTED, TEMPLATE, AREAS, AREAS CHECKED, NOTE BOOK, NO.

ORIGINAL SURVEY — SURVEYED, PLOTTED, TEMPLATE, AREAS, AREAS CHECKED, NOTE BOOK, NO.

PLATE 3 - CROSS SECTION O. P. R. & R. E. STANDARD
KEUFFEL & ESSER CO. NEW YORK

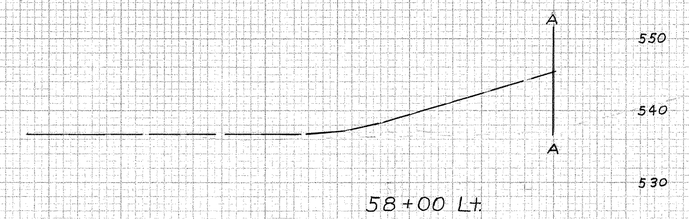
EXPWY STA. 56+50 to STA. 58+00

FED. RD. DIV.	STATE	PROJECT	FISCAL YEAR
2	0410		

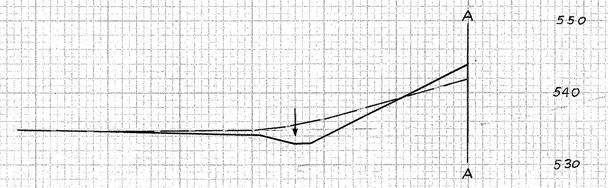
147
464

HAM-50-19.76

200 150

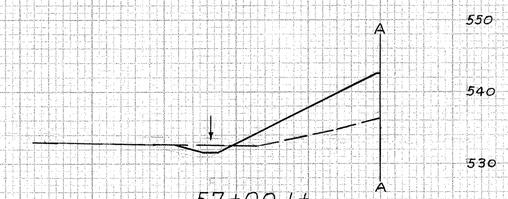


58+00 Lt.

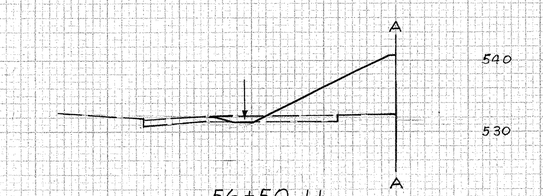


57+50 Lt.

Note: For Ditch Elevations see Grade Detail Sheets.



57+00 Lt.



56+50 Lt.

200 150 100

FINAL SURVEY — NOTE BOOK NO. — SURVEYED — PLOTTED — TEMPLATE — AREAS — AREAS CHECKED — BY — DATE

ORIGINAL SURVEY — NOTE BOOK NO. — SURVEYED — PLOTTED — TEMPLATE — AREAS — AREAS CHECKED — BY — DATE

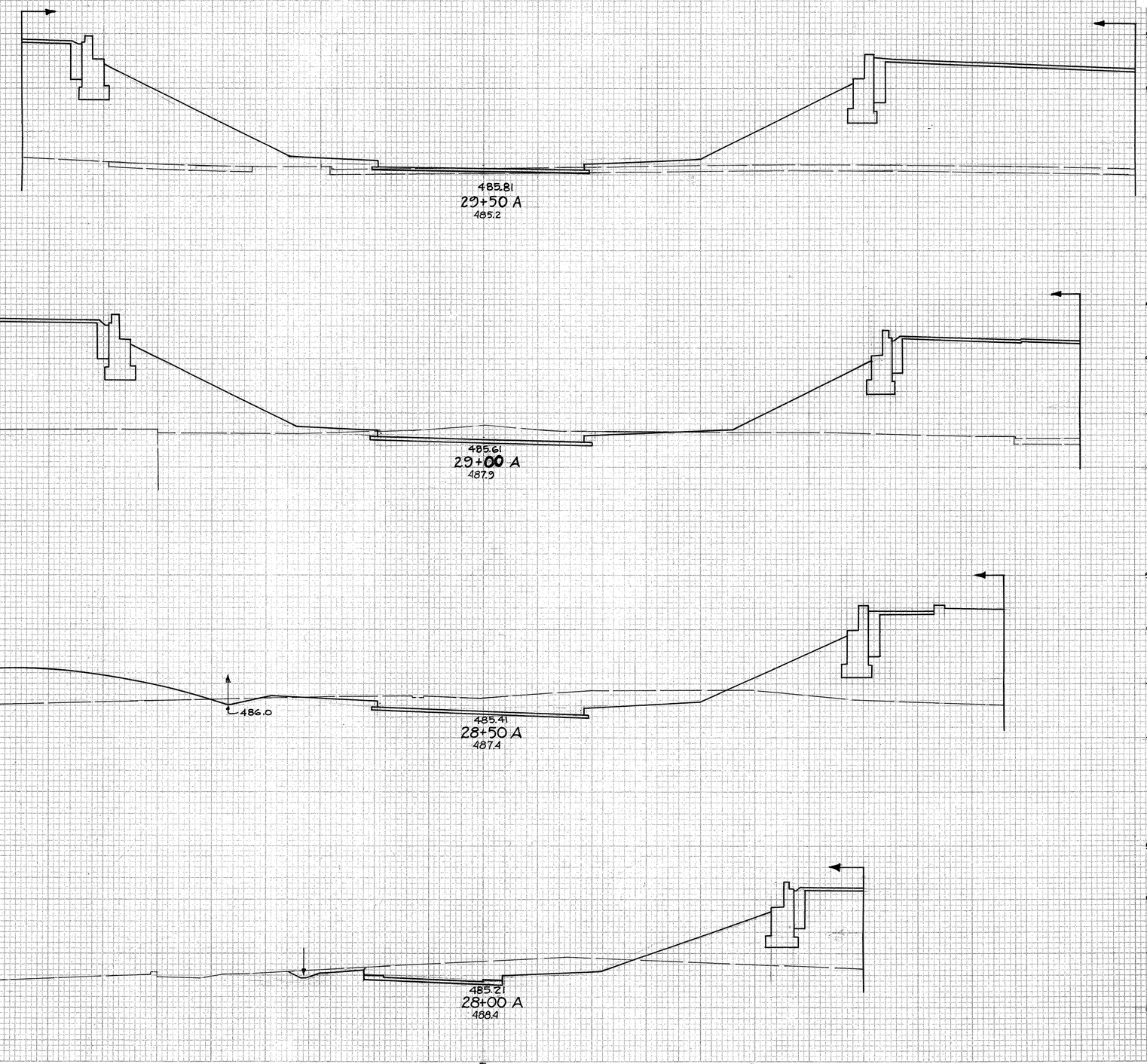
PLATE 3 CROSS SECTION O.P.P. & R.E. STANDARD

EXPWY STA 56+50 to STA 58+00 EXT LT

FED. RD. DIV.	STATE	PROJECT	FISCAL YEAR
2	OHIO		

HAM-50-19.76

148
464



END AREA		VOLUME	
CUT	FILL	CUT	FILL
0	1880		
		100	3450
110	1850		
		320	2510
230	860		
		370	1080
165	310		
		230	370

PLATE 3 - CROSS SECTIONS FOR O. P. R. & R. E. STANDARD
SCHEFFEL & ESSER CO., NEW YORK.

RAMP A HARRIET ST. STA. 28+00A to STA. 29+50A

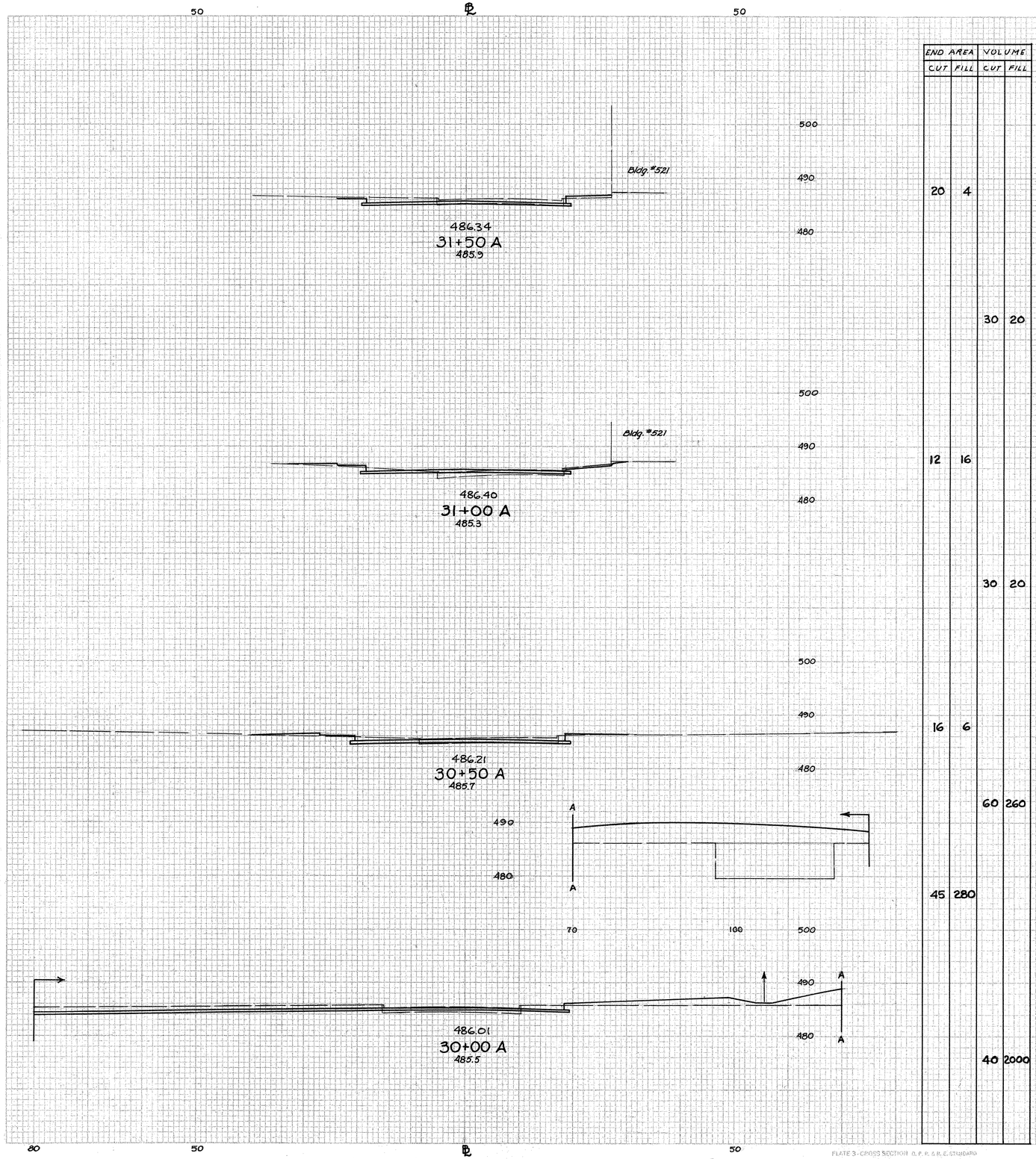
FINAL SURVEY
SURVEYED
PLOTTED
AREAS
NOTE BOOK
NO.
AREAS CHECKED
BY
DATE

ORIGINAL SURVEY
SURVEYED
PLOTTED
AREAS
NOTE BOOK
NO.
AREAS CHECKED
BY
DATE

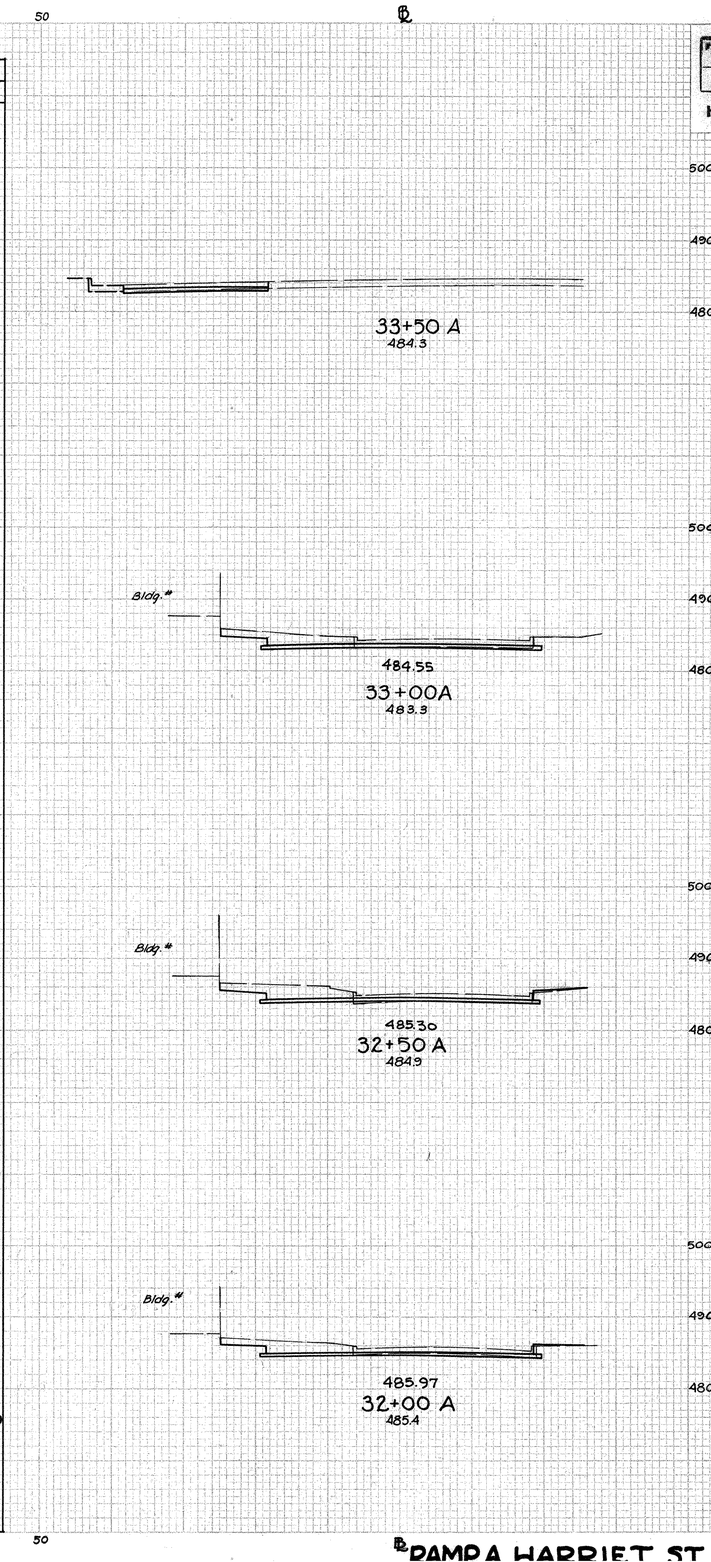
FED. RD. DIV.	STATE	PROJECT	FISCAL YEAR
2	OHIO		

149
464

HAM-50-19.76



END AREA CUT	END AREA FILL	VOLUME CUT	VOLUME FILL
20	4		
		30	20
12	16		
		30	20
16	6		
		60	260
45	280		
		40	2000



END AREA CUT	END AREA FILL	VOLUME CUT	VOLUME FILL
5	0		
		30	0
30	0		
		60	2
32	2		
		60	3
35	1		
		50	5

FINAL SURVEY — SURVEYED, PLOTTED, TEMPLATE, AREAS, AREAS CHECKED, NOTE BOOK, NO., BY, DATE

ORIGINAL SURVEY — SURVEYED, PLOTTED, TEMPLATE, AREAS, AREAS CHECKED, NOTE BOOK, NO., BY, DATE

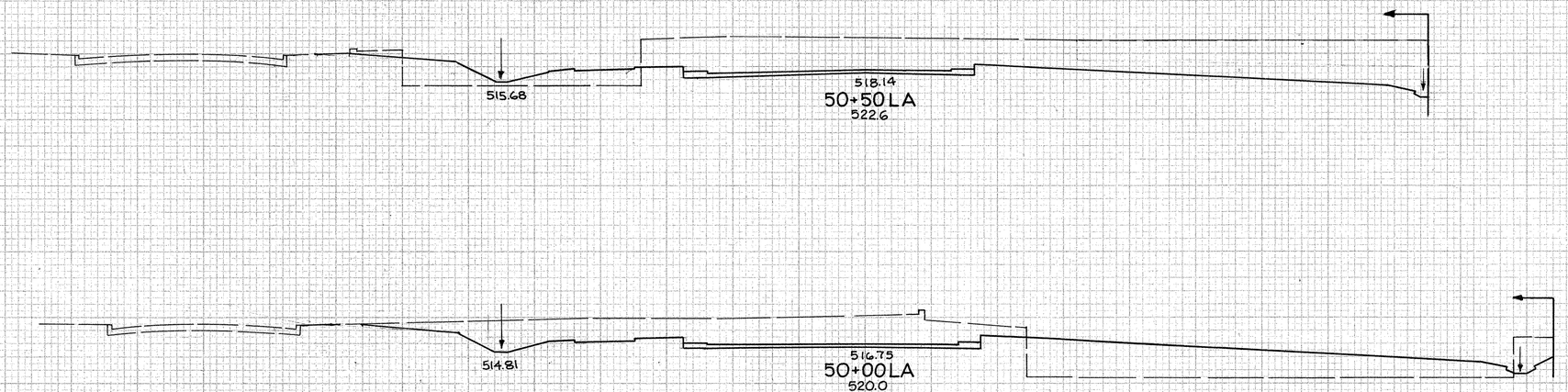
PLATE 3 - CROSS SECTION D. P. R. & R. E. STANDARD
GEOFFEL & ESSER CO., NEW YORK.

RAMP A HARRIET ST. STA. 30+00A to STA. 33+50A

FED. RD. CIV.	STATE	PROJECT	FISCAL YEAR
2	OHIO		

150
464

HAM-50-19.78



Note: For Ditch Elevations see Grade Detail Sheets.

	END AREA		VOLUME	
	CUT	FILL	CUT	FILL
530				
	820	0		
520				
510				
			1300	0
530				
520				
	590	0		
510				
			1180	5
520				
	680	5		
510				
500				
			440	5
520				
	650	10		
510				
500				

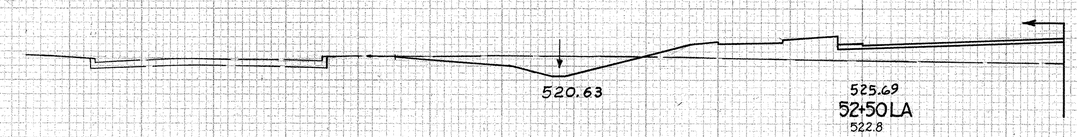
PLATE 3 - CROSS SECTION O.P.R. & R.E. STANDARD
SCHIFFER & ESSER CO., NEW YORK.

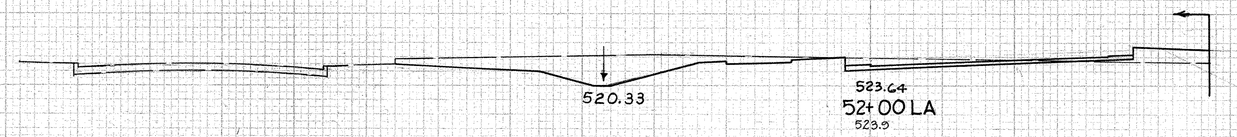
RAMP LA STA. 49+32LA to STA. 50+50LA

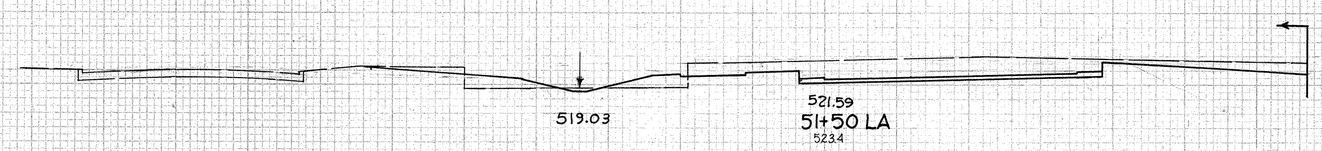
FED. RD. DIV.	STATE	PROJECT	FISCAL YEAR
2	OHIO		

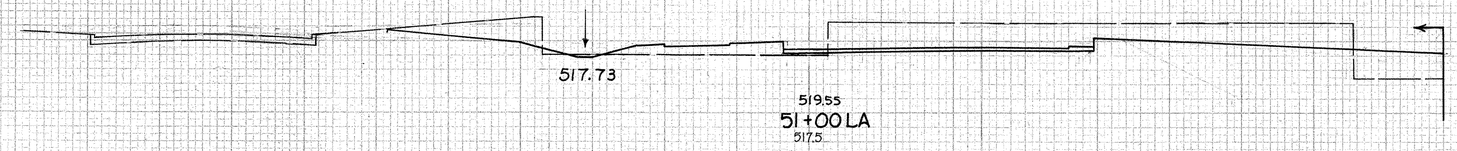
151
464

HAM-50-19.76









	END AREA		VOLUME	
	CUT	FILL	CUT	FILL
530				
			170	380
520	45	135		
510				
			180	140
530				
	145	20		
520				
510				
			380	20
530				
	260	0		
520				
510				
			730	0
530				
520	530	0		
510				
			1250	0

PLATE 3 - CROSS SECTIONS ... O.P.R. & R.E. STANDARD

RAMP LA STA 51+00 LA to STA 52+50 LA

ORIGINAL SURVEY — CHECKED, PLOTTED, TEMPLATE, NOTE BOOK, AREAS PREPARED, NO.

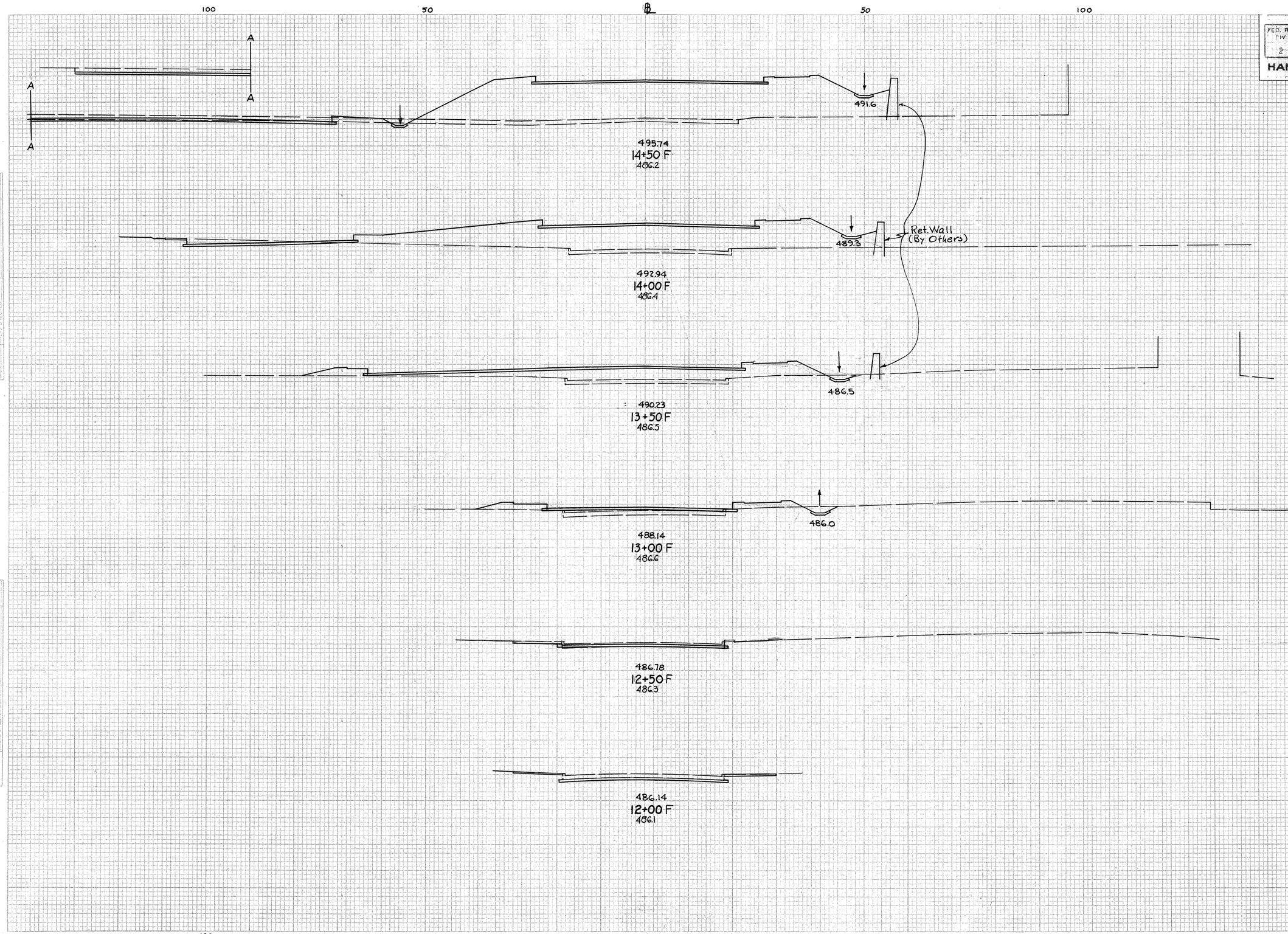
FINAL SURVEY — SURVEYED, PLOTTED, TEMPLATE, NOTE BOOK, AREAS CHECKED, NO.

DATE BY

FED. RD. DIV.	STATE	PROJECT	FISCAL YEAR
2	0410		

152
464

HAM-50-19.76



END AREA CUT	END AREA FILL	VOLUME CUT	VOLUME FILL
70	840		
		110	1310
45	570		
		50	770
10	260		
		10	325
5	90		
		10	90
10	5		
		40	5
30	0		

FINAL SURVEY — SURVEYED, PLOTTED, TEMPLATE, AREAS, AREAS CHECKED — NOTE BOOK NO. — BY — DATE

ORIGINAL SURVEY — SURVEYED, PLOTTED, TEMPLATE, AREAS, AREAS CHECKED — NOTE BOOK NO. — BY — DATE

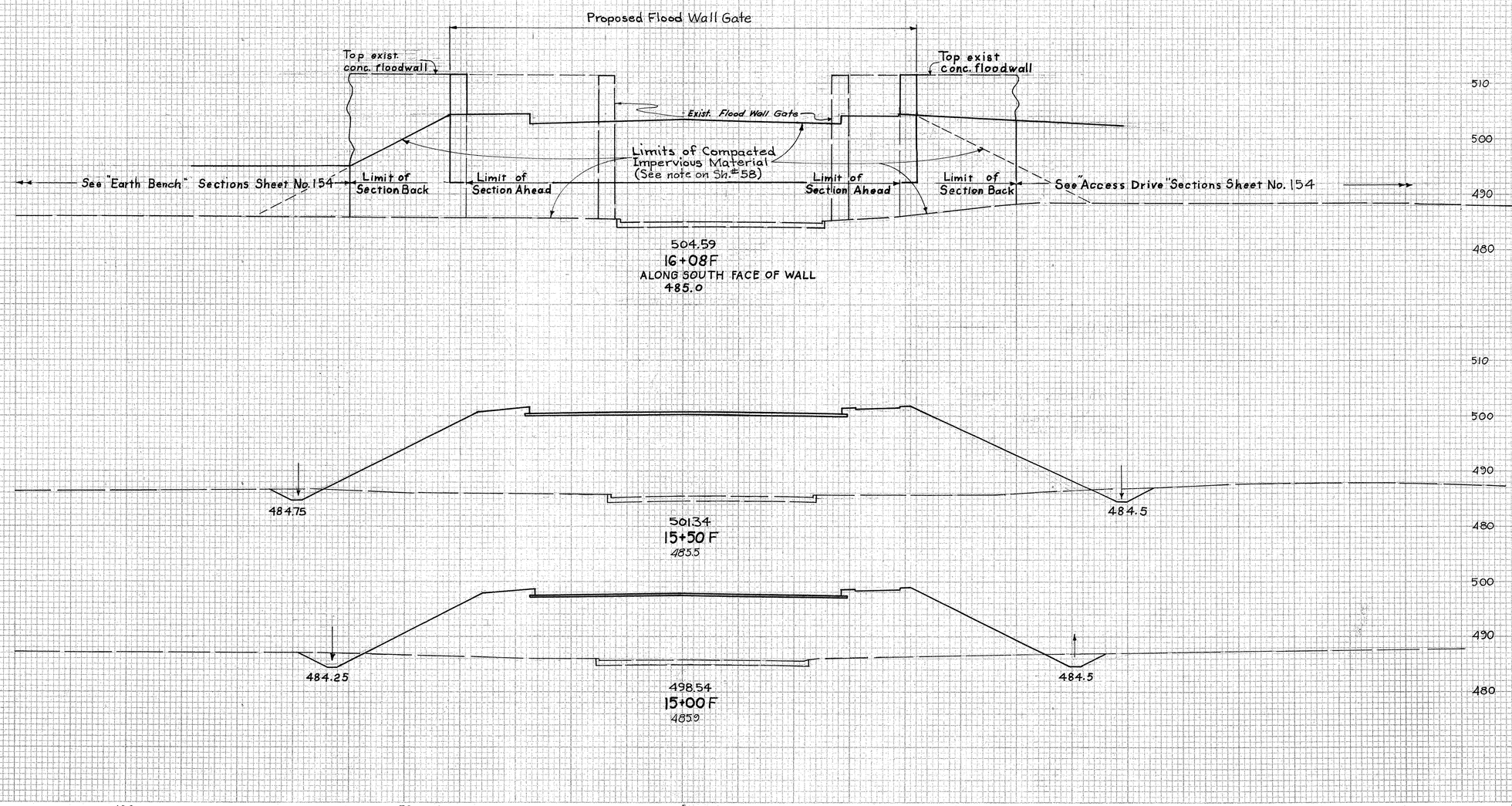
PLATE 3 - CROSS SECTION O. P. R. & R. C. STANDARD
KEUFFEL & ESSER CO. NEW YORK

FREEMAN AVE. STA. 12+00F to STA. 14+50 F

FED. RD. DIV.	STATE	PROJECT	FISCAL YEAR
2	OHIO		

153
464

HAM-50-19.76



END AREA CUT	END AREA FILL	VOLUME CUT	VOLUME FILL
0	1430		
0	2100		
		30	4040
25	1660		
		60	2630
35	1180		
		100	1870

FINAL SURVEY — NOTE BOOK NO. — SURVEYED — PLOTTED — TEMPLATE — AREAS — AREAS CHECKED — BY — DATE

ORIGINAL SURVEY — NOTE BOOK NO. — SURVEYED — PLOTTED — TEMPLATE — AREAS — AREAS CHECKED — BY — DATE

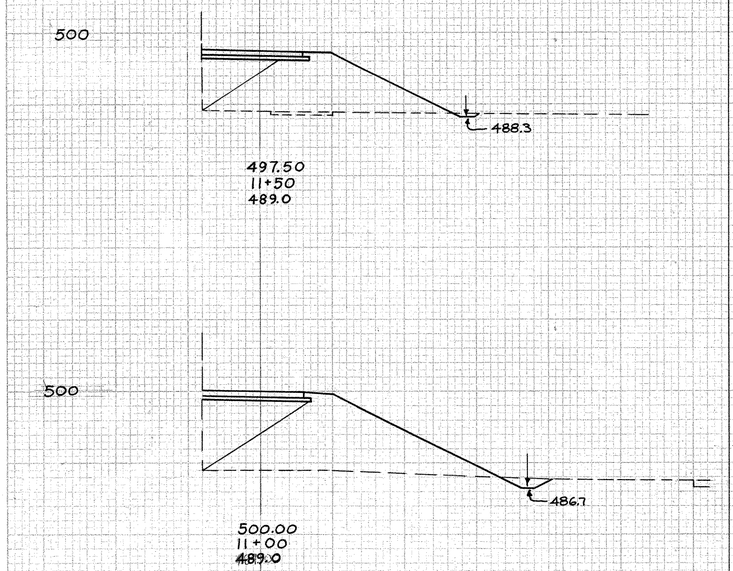
FREEMAN AVE. STA. 15+00F to STA. 16+08

FED. RD. DIV	STATE	PROJECT	FISCAL YEAR
2	OHIO		

154
464

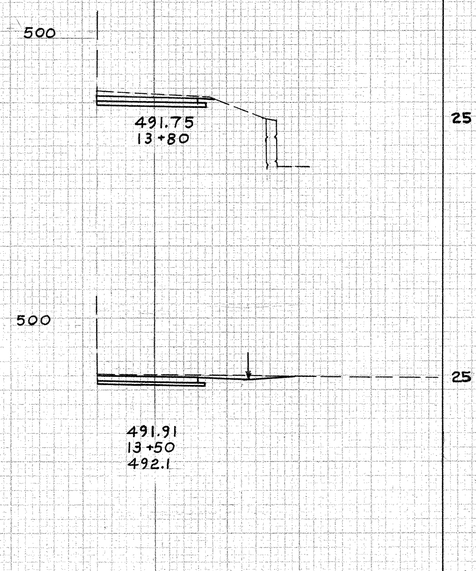
HAM-50-19.76

NOTE : Fill for Access Drive and Earth Bench south of Floodwall to be placed before fill north of Floodwall.

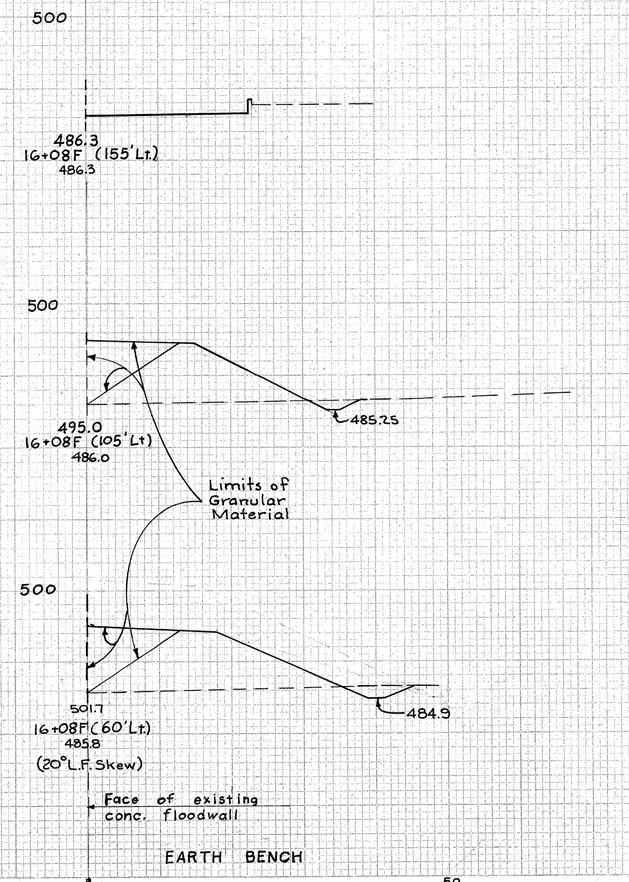


END AREA		VOLUME	
CUT	FILL	CUT	FILL
2	205		
		5	500
5	335		
		20	720
15	445		
		5	170
20	490		

ACCESS DRIVE



END AREA		VOLUME	
CUT	FILL	CUT	FILL
25	0		
		30	0
25	0		
		50	0
30	0		
		30	20
5	20		
		5	90
3	75		
		5	260



END AREA		VOLUME	
CUT	FILL	CUT	FILL
0	0		
		0	180
5	195		
		10	310
10	230		

EARTH BENCH

FLATE 3 - CROSS SECTION O.P.P. & R.E. STANDARD KEUFFEL & ESSER CO., NEW YORK.

FREEMAN AVE – ACCESS DRIVE (RT) & EARTH BENCH (LT) STA. 16+08 F

FED. RD. DIV.	STATE	PROJECT	FISCAL YEAR
2	OHIO		

HAM-50-19.76

155
464

END AREA		VOLUME	
CUT	FILL	CUT	FILL
	15 9980		
			30 15860
	20 7140		
			20 7810
	15 3955		
	0 1470		
			0 220

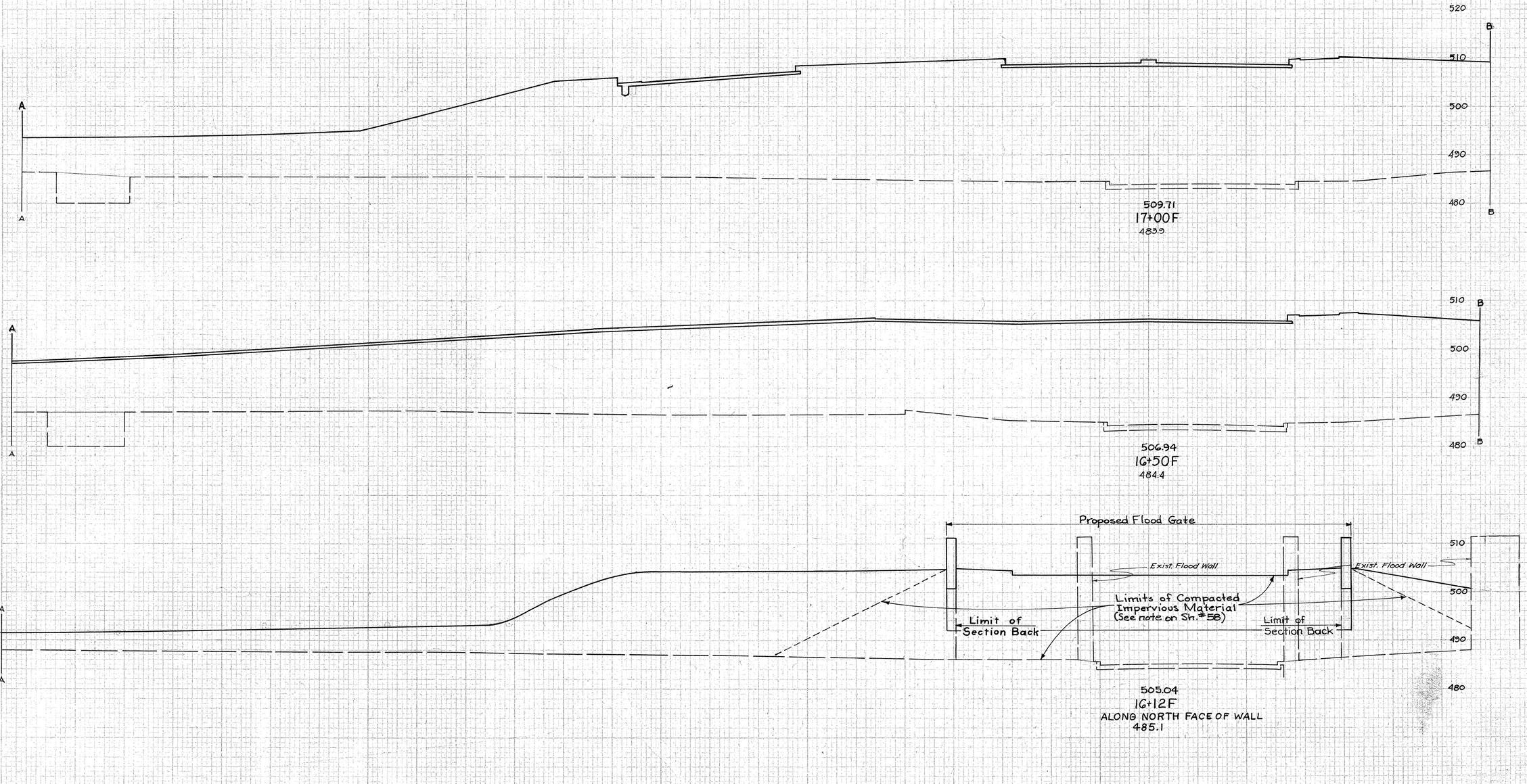


PLATE 3 - CROSS SECTION O. T. R. & F. E. STANDARD

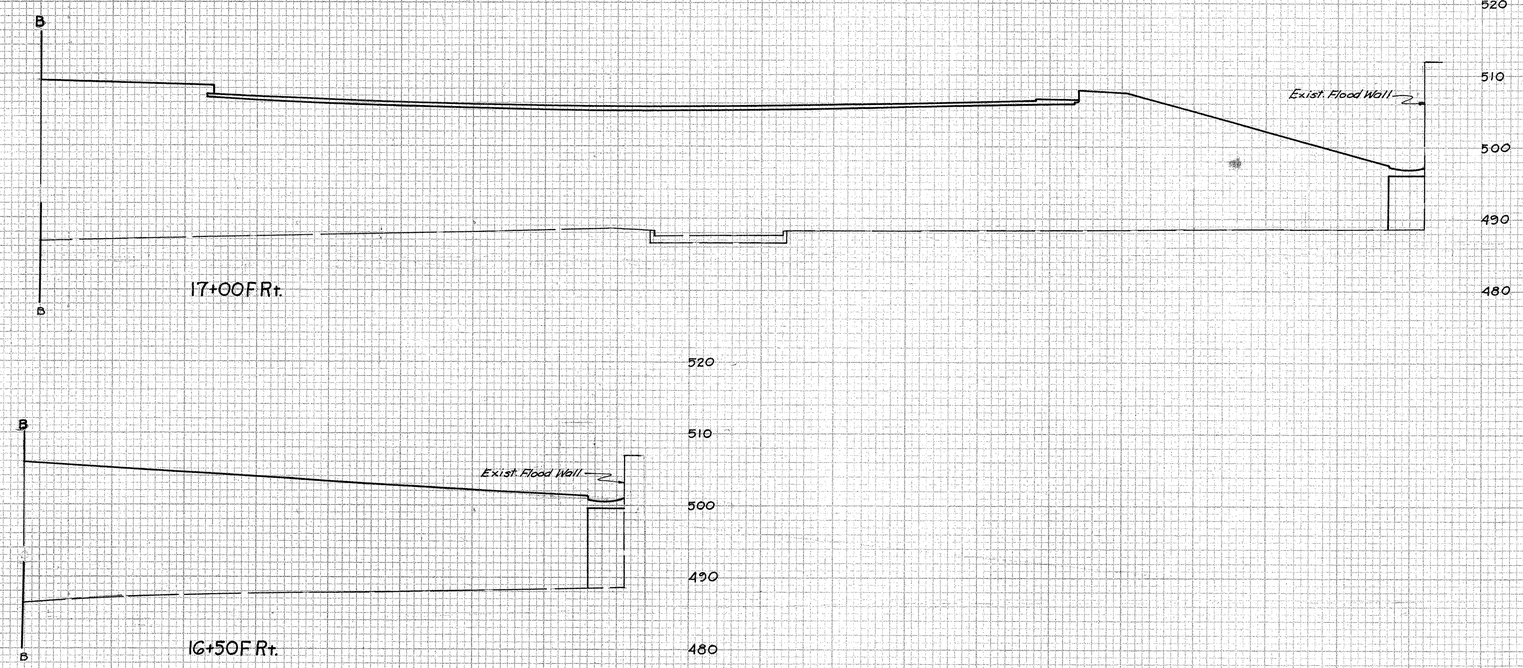
FREEMAN AVE. STA. 16+12F to STA. 17+00F

FED. RD. DIV.	STATE	PROJECT	FISCAL YEAR
2	OHIO		

HAM-50-19.76

156
464

100 150 200 250 300



70 80 90 100 110 120 130 140 150 200 250 300

PLATE 3 - CROSS SECTION O. P. R. & R. E. STANDARD
KRUFFEL & ESSER CO., NEW YORK

FREEMAN AVE. STA. 16+50F to STA. 17+00F EXT. RT.

FINAL SURVEY
SURVEYED BY
PLOTTED DATE
NOTE BOOK
NO.
AREAS CHECKED

ORIGINAL SURVEY
SURVEYED BY
PLOTTED DATE
NOTE BOOK
NO.
AREAS CHECKED

FED. RD. DIV.	STATE	PROJECT	FISCAL YEAR
	(0413)		

HAM-50-19.76

157
464

550 500 450 400 350 300 250

520
510
500
490
480

A

Exist. Conc. Piers

484.00

17+00 FLt.

Ex. 4' B.S.

510
500
490
480

A

485.00

16+50 FLt.

Ex. 4' B.S.

520
510
500
490
480

A

16+12 FLt.

Ex. 4'3" B.S.

550 500 450 400 350 300 250

CROSS SECTION O.P.R.&B.C. STANDARD
KOPPERS & ESSEX CO. NEW YORK

FREEMAN AVE. STA. 16+14 Ft to STA. 17+00 F EXT. LT.

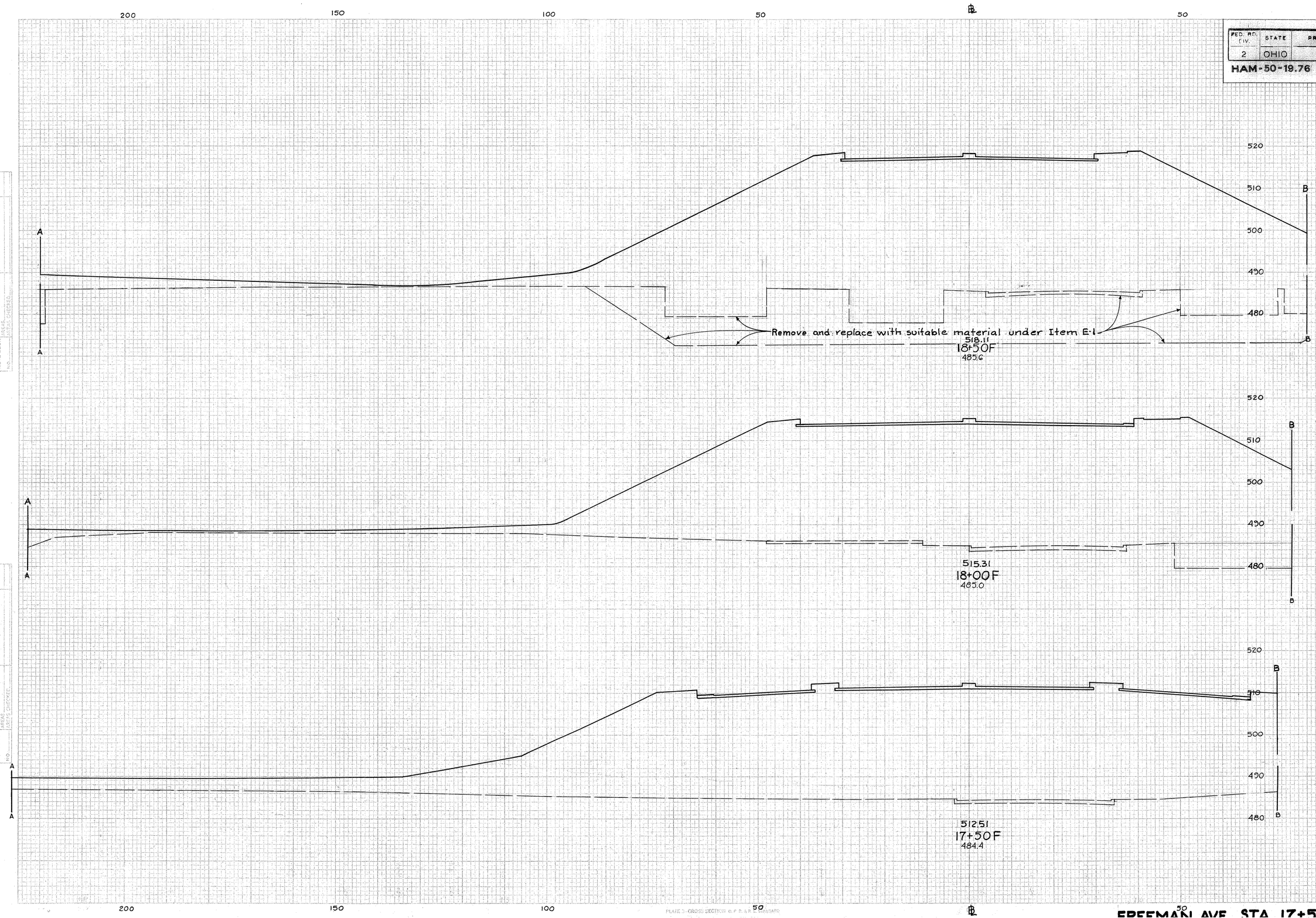
FINAL SURVEY
SURVEYED
PLOTTED
TEMPLATE
AREAS
MAP BOOK
NO.
LETTERS CHECKED
BY
DATE

ORIGINAL SURVEY
SURVEYED
PLOTTED
TEMPLATE
AREAS
MAP BOOK
NO.
LETTERS CHECKED
BY
DATE

FED. RD. DIV.	STATE	PROJECT	FISCAL YEAR
2	OHIO		

HAM-50-19.76

158
464



END AREA CUT	END AREA FILL	VOLUME CUT	VOLUME FILL
125	10730		
		150	17090
40	7720		
		140	15140
110	8630		
		120	17240

FINAL SURVEY — SURVEYED, PLOTTED, TEMPLATE, AREAS, AREAS CHECKED, NOTE BOOK NO., BY, DATE

ORIGINAL SURVEY — SURVEYED, PLOTTED, TEMPLATE, AREAS, AREAS CHECKED, NOTE BOOK NO., BY, DATE

PLATE 3 - CROSS SECTION O.P.R.A.R.D. STANDARD

FREEMAN AVE. STA. 17+50F to STA. 18+50F

FED. RD. DIV.	STATE	PROJECT	FISCAL YEAR
2	OHIO		

HAM-50-19.76

159
464

100 150 200 250 300 350 400

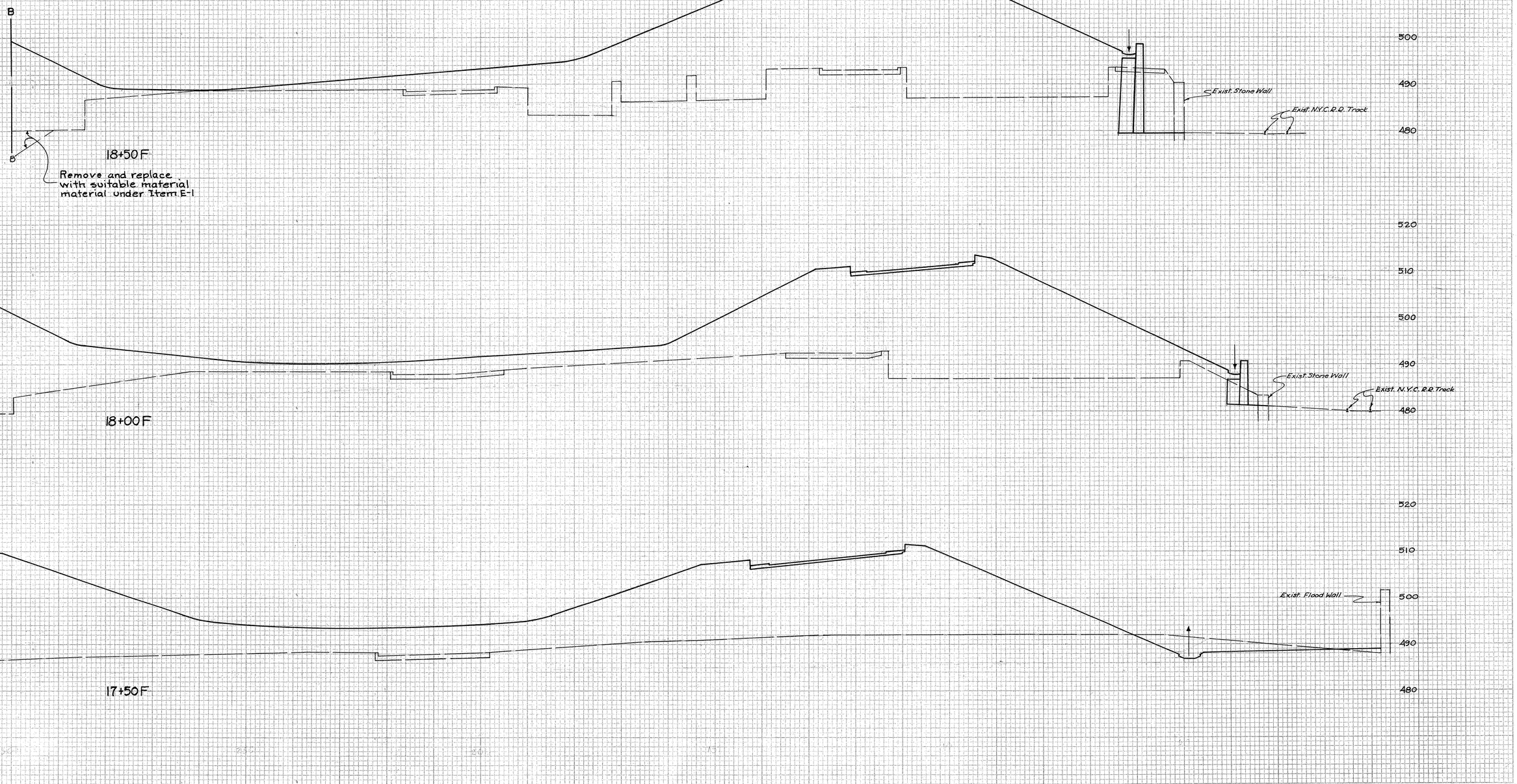


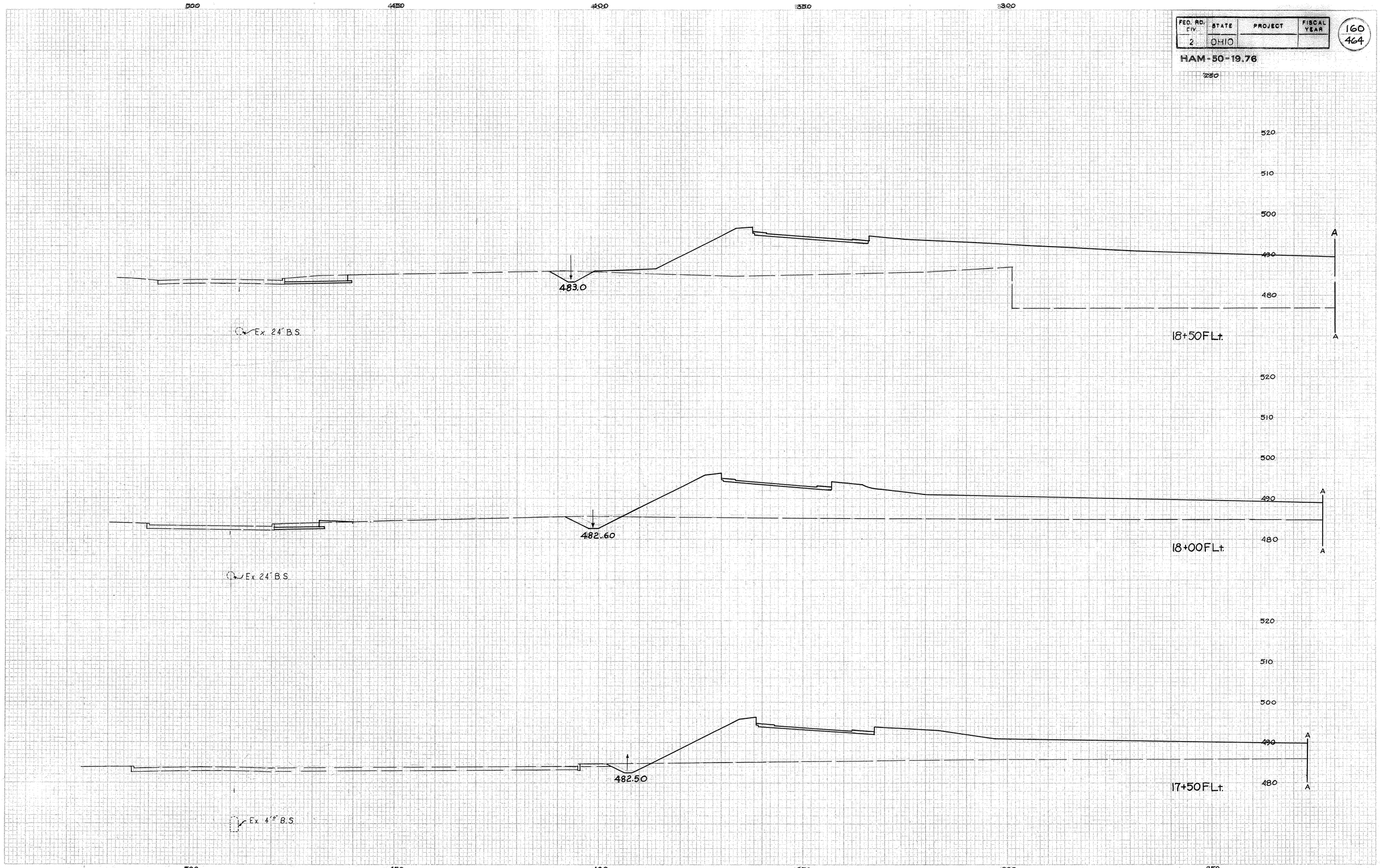
PLATE 3 - CROSS SECTION O. P. R. & R. C. STANDARD
NEWKIRK & ESSER CO., NEW YORK.

FREEMAN AVE. STA. 17+50F to STA 18+50F EXT. RT.

FED. RD. DIV.	STATE	PROJECT	FISCAL YEAR
2	OHIO		

160
464

HAM-50-19.76



FINAL SURVEY
NOTE BOOK NO.
SURVEYED
PLOTTED
TEMPLATE
AREAS
AREAS CHECKED
BY
DATE

ORIGINAL SURVEY
NOTE BOOK NO.
SURVEYED
PLOTTED
TEMPLATE
AREAS
AREAS CHECKED
BY
DATE

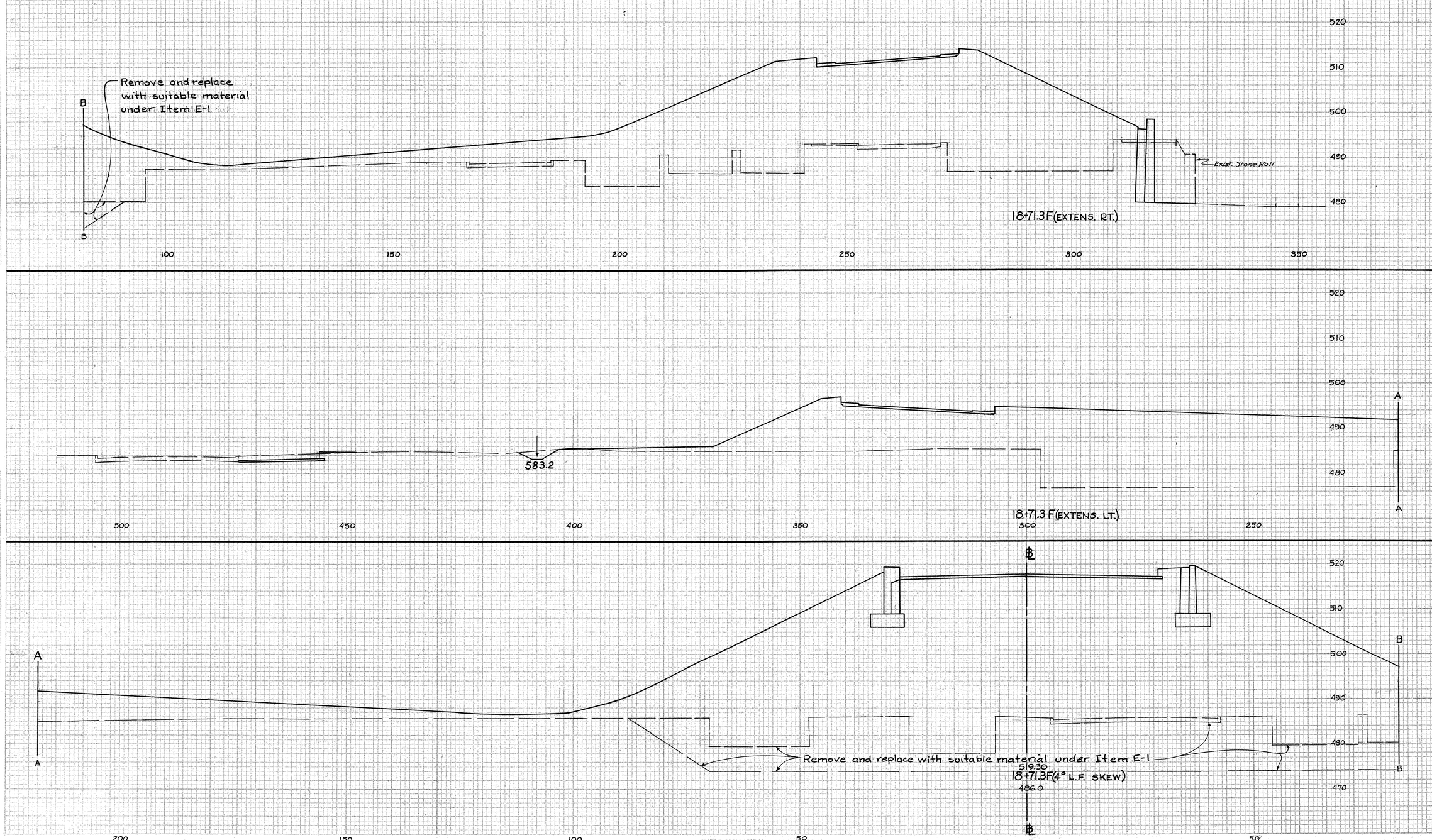
PLATE 3 - CROSS SECTION O.P.R. & R.E. STANDARD

FREEMAN AVE. STA. 17+50F to STA. 18+50F EXT. LT.

STATE	PROJECT	FISCAL YEAR
OHIO		

HAM-50-19.76

161
464



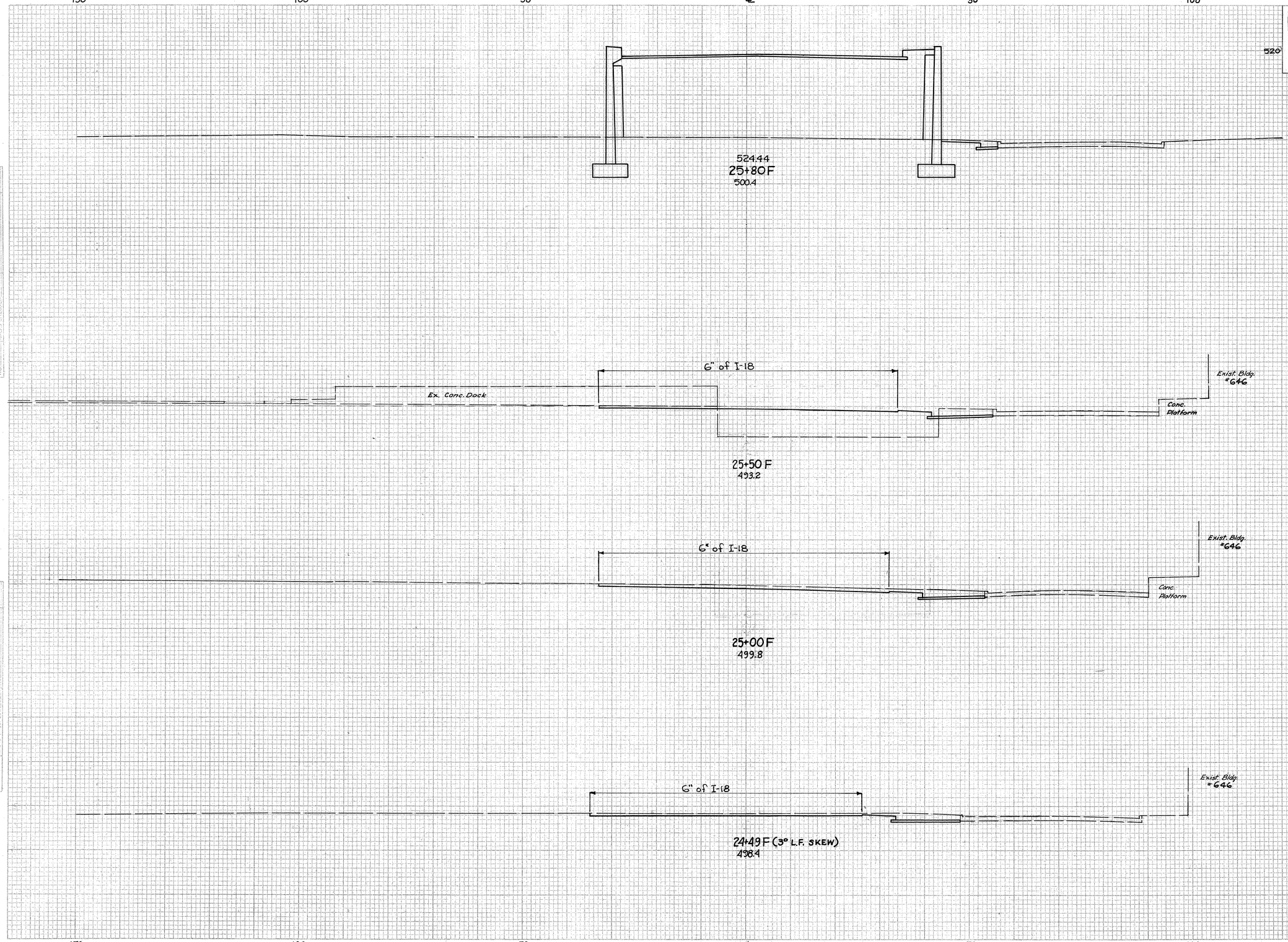
END AREA CUT	END AREA FILL	VOLUME CUT	VOLUME FILL
90	2270		
30	1275		
0	6550		
		120	3980

FINAL SURVEY: SURVEYED, PLOTTED, TEMPLATE, AREAS, AREAS CHECKED, NOTE BOOK, NO. — BY — DATE

ORIGINAL SURVEY: SURVEYED, PLOTTED, TEMPLATE, AREAS, AREAS CHECKED, NOTE BOOK, NO. — BY — DATE

PLATE 3 - CROSS SECTION O. P. R. & R. C. STANDARD
KEUFFEL & ESSER CO., NEW YORK

FREEMAN AVE. STA. 18+71.3F



FED. RD. DIV.	STATE	PROJECT	FISCAL YEAR
2	OHIO		

HAM-50-19.76

162/464

END AREA CUT	END AREA FILL	VOLUME CUT	VOLUME FILL
10	1270		
		40	0
70	0		
		140	0
85	0		
		140	0
60	0		

FINAL SURVEY — NOTE BOOK NO. — SURVEYED — PLOTTED — TEMPLATE — AREAS — AREAS CHECKED — BY — DATE

ORIGINAL SURVEY — NOTE BOOK NO. — SURVEYED — PLOTTED — TEMPLATE — AREAS — AREAS CHECKED — BY — DATE

PLATE 3 - CROSS SECTION O. P. R. & R. E. STANDARD

FREEMAN AVE. STA. 24+49F to STA. 25+80F

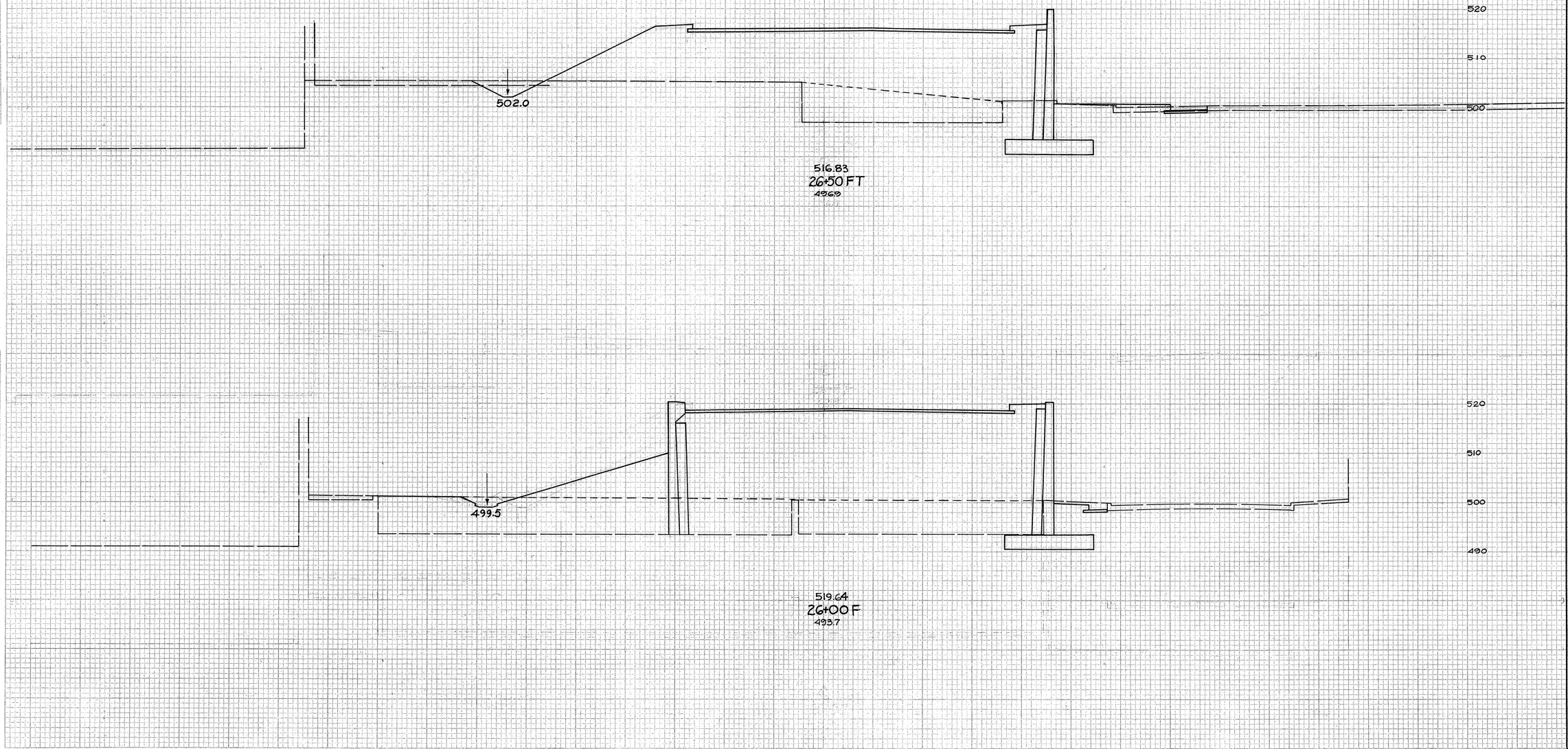
FED. RD. DIV.	STATE	PROJECT	FISCAL YEAR
2	OHIO		

HAM-50-19.76

163
464

FINAL SURVEY	DATE
SURVEYED	
PLOTTED	
TEMPLATE	
NOTE BOOK	
AREAS	
NO.	AREAS CHECKED

ORIGINAL SURVEY	DATE
SURVEYED	
PLOTTED	
TEMPLATE	
NOTE BOOK	
AREAS	
NO.	AREAS CHECKED



END AREA CUT	END AREA FILL	VOLUME CUT	VOLUME FILL
		20	1070
		40	2310
		25	1425
		10	1000

PLATE 3-CROSS SECTIONS O.P.R.R.C.E. STANDARD
REUFFEL & ESSER CO., NEW YORK

FREEMAN AVE. STA. 26+00F to STA. 26+50F

FED. RD. DIV	STATE	PROJECT	FISCAL YEAR
2	0410		

HAM-50-19.78

164
464

150 100 50 ℄ 50 100

520
510
500

503.62
28+50 FT
502.9

503.5

501.0

504.94
28+00 FT
503.2

503.0

499.8

508.84
27+50 FT
505.4

Basement Fill
502.5

500.0

512.84
27+00 FT
495.1

END AREA		VOLUME	
CUT	FILL	CUT	FILL
	25	40	
			25 140
2	115		
			20 580
15	510		
			30 1320
20	920		
			40 1840

FINAL SURVEY — SURVEYED, PLOTTED, TEMPLATE, AREAS, PROFILE CHECKED, NOTE BOOK, NO.

ORIGINAL SURVEY — SURVEYED, PLOTTED, TEMPLATE, AREAS, PROFILE CHECKED, NOTE BOOK, NO.

BY DATE

150 100 50 ℄ 50 100 150

PLATE 3-CROSS SECTIONS O. P. R. & R. C. STANDARD
KEUFFEL & ESSER CO., NEW YORK.

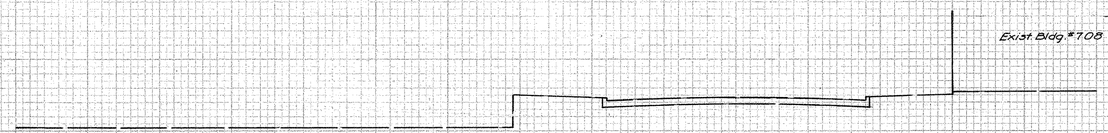
FREEMAN AVE. STA. 27+00 FT to STA. 28+50 F

FED. RD. DIV.	STATE	PROJECT	FISCAL YEAR
2	OHIO		

HAM-50-19.76

165
464

100 50 ℄ 50



30+00 FT
504.6



29+50 FT
504.1

29+00 FT
503.5

510
500
490

END AREA		VOLUME	
CUT	FILL	CUT	FILL
0	0		
		5	0
5	0		
		20	0
20	0		
		40	40

100 50 ℄ 50

PLATE 3 - CROSS SECTION O. F. P. & R. E. STANDARD
WENTZEL & ASSOC. CO. - NEW YORK

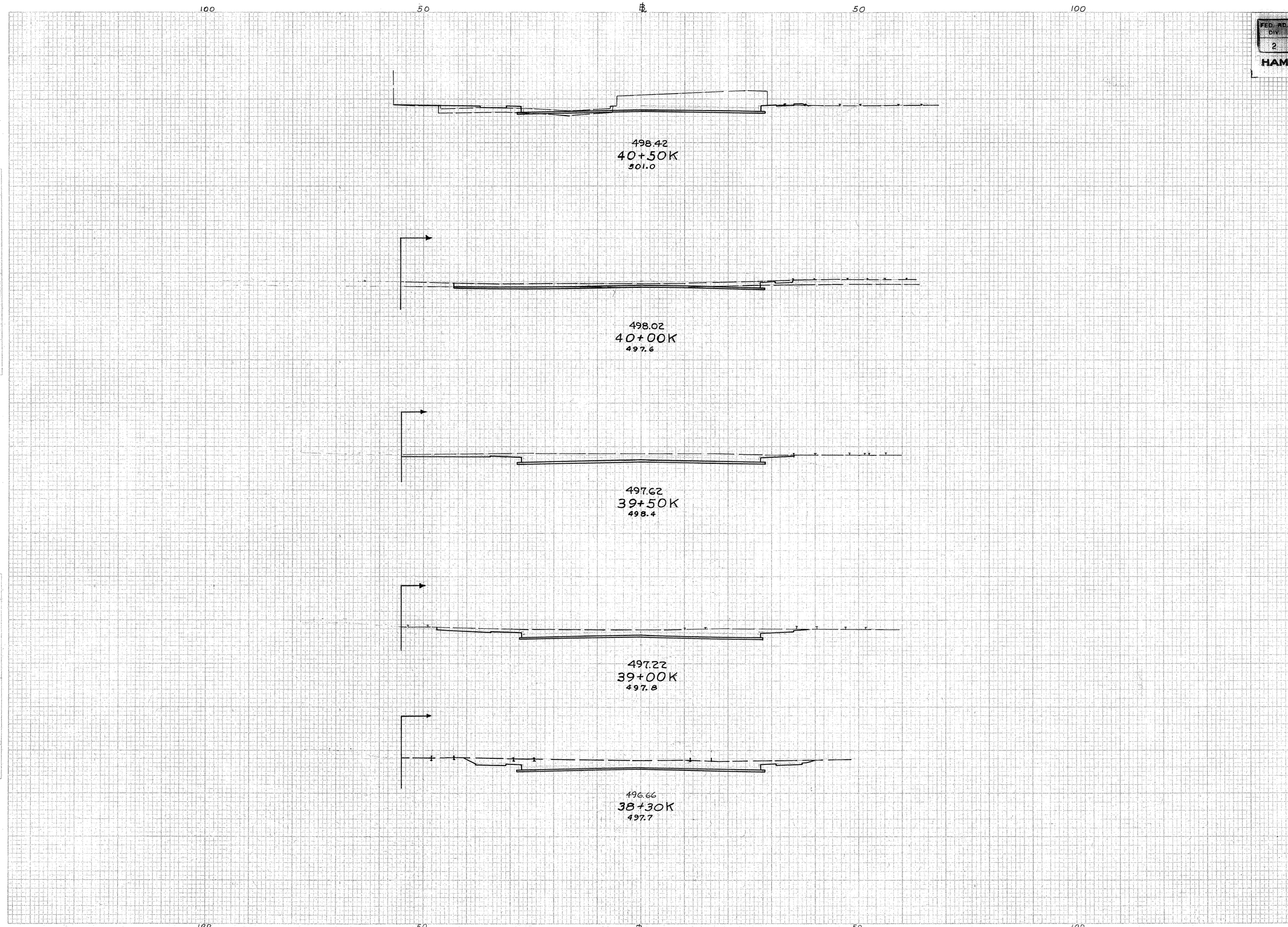
FREEMAN AVE. STA. 29+00 FT to STA. 30+00 FT

ORIGINAL SURVEY
SURVEYED
PLOTTED
NOTE BOOK
NO.
CHECKED
DATE

FED. RD. DIV.	STATE	PROJECT	FISCAL YEAR
2	OHIO		

166
464

HAM-50-19.76



END AREA CUT	END AREA FILL	VOLUME CUT	VOLUME FILL
155	30		
		170	40
25	10		
		160	10
150	0		
		260	0
135	0		
		390	0
170	0		

FINAL SURVEY — SURVEYED, PLOTTED, TEMPLATE, AREAS, AREAS CHECKED, NOTE BOOK, NO.

ORIGINAL SURVEY — SURVEYED, PLOTTED, TEMPLATE, AREAS, AREAS CHECKED, NOTE BOOK, NO.

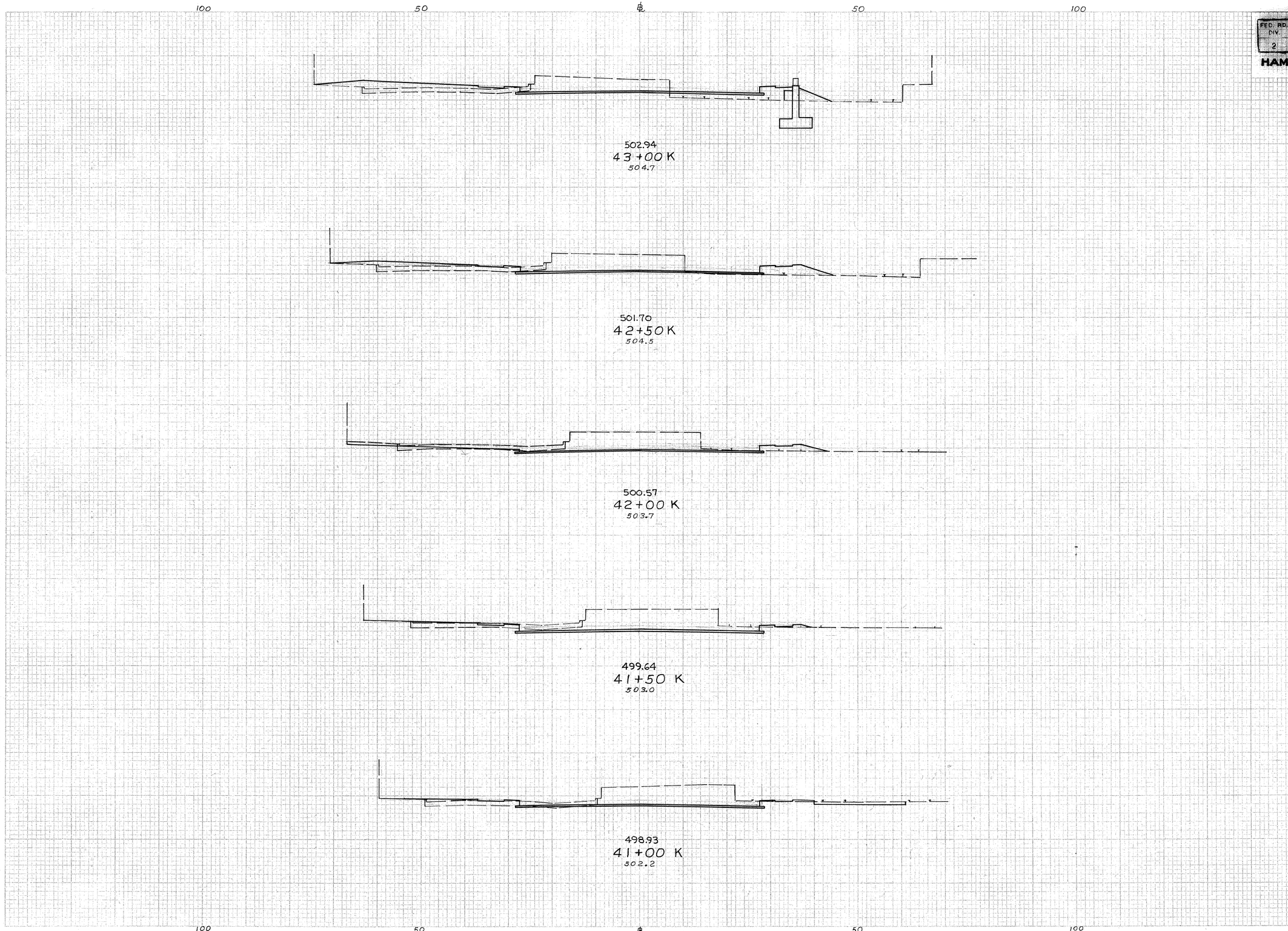
PLATE 3 CROSS SECTION O.P.R.& P.E. STANDARD
KEUFFEL & ESSER CO., NEW YORK.

KENYON ST. STA. 38+30K to STA. 40+50K

FED. RD. DIV.	STATE	PROJECT	FISCAL YEAR
2	OHIO		

167/464

HAM-50-19.76



END AREA CUT	END AREA FILL	VOLUME CUT	VOLUME FILL
115	130		
		240	200
140	90		
		280	110
165	25		
		330	50
195	25		
		330	50
160	30		
		290	60

FINAL SURVEY — SURVEYED, PLOTTED, TEMPLATE, AREAS, AREAS CHECKED, NOTE BOOK, NO., BY, DATE

ORIGINAL SURVEY — SURVEYED, PLOTTED, TEMPLATE, AREAS, AREAS CHECKED, NOTE BOOK, NO., BY, DATE

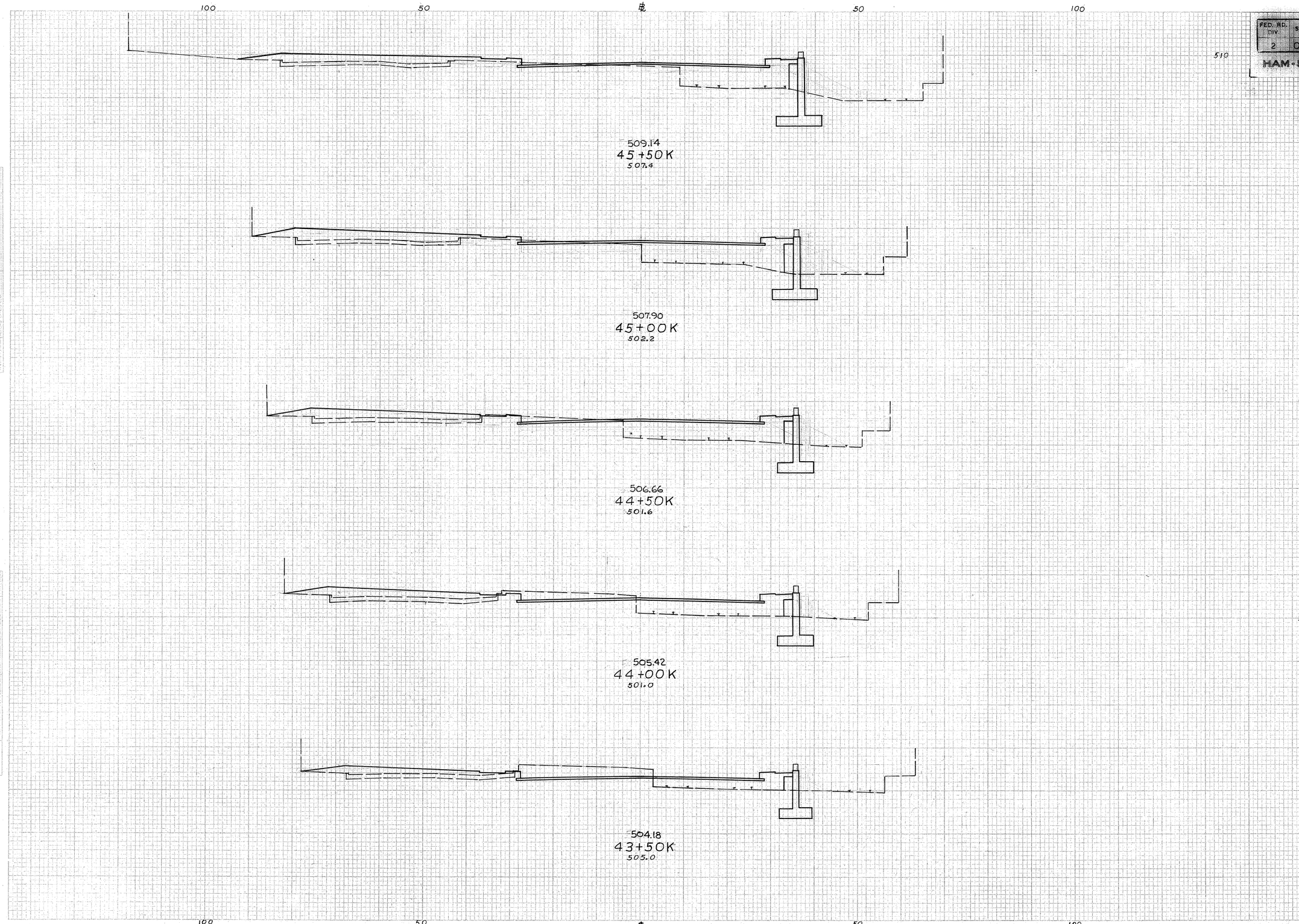
PLATE 3 - CROSS SECTION

KENYON ST. STA. 41+00 to STA. 43+00

FED. RD. DIV.	STATE	PROJECT	FISCAL YEAR
2	OHIO		

168
464

HAM-50-19.76



END AREA CUT	END AREA FILL	VOLUME CUT	VOLUME FILL
10	275		
		20	550
10	320		
		30	560
25	285		
		70	490
50	245		
		130	380
90	170		
		190	280

FINAL SURVEY — SURVEYED, PLOTTED, TEMPLATE, AREAS, AREAS CHECKED — NOTE BOOK NO. — BY — DATE

ORIGINAL SURVEY — SURVEYED, PLOTTED, TEMPLATE, AREAS, AREAS CHECKED — NOTE BOOK NO. — BY — DATE

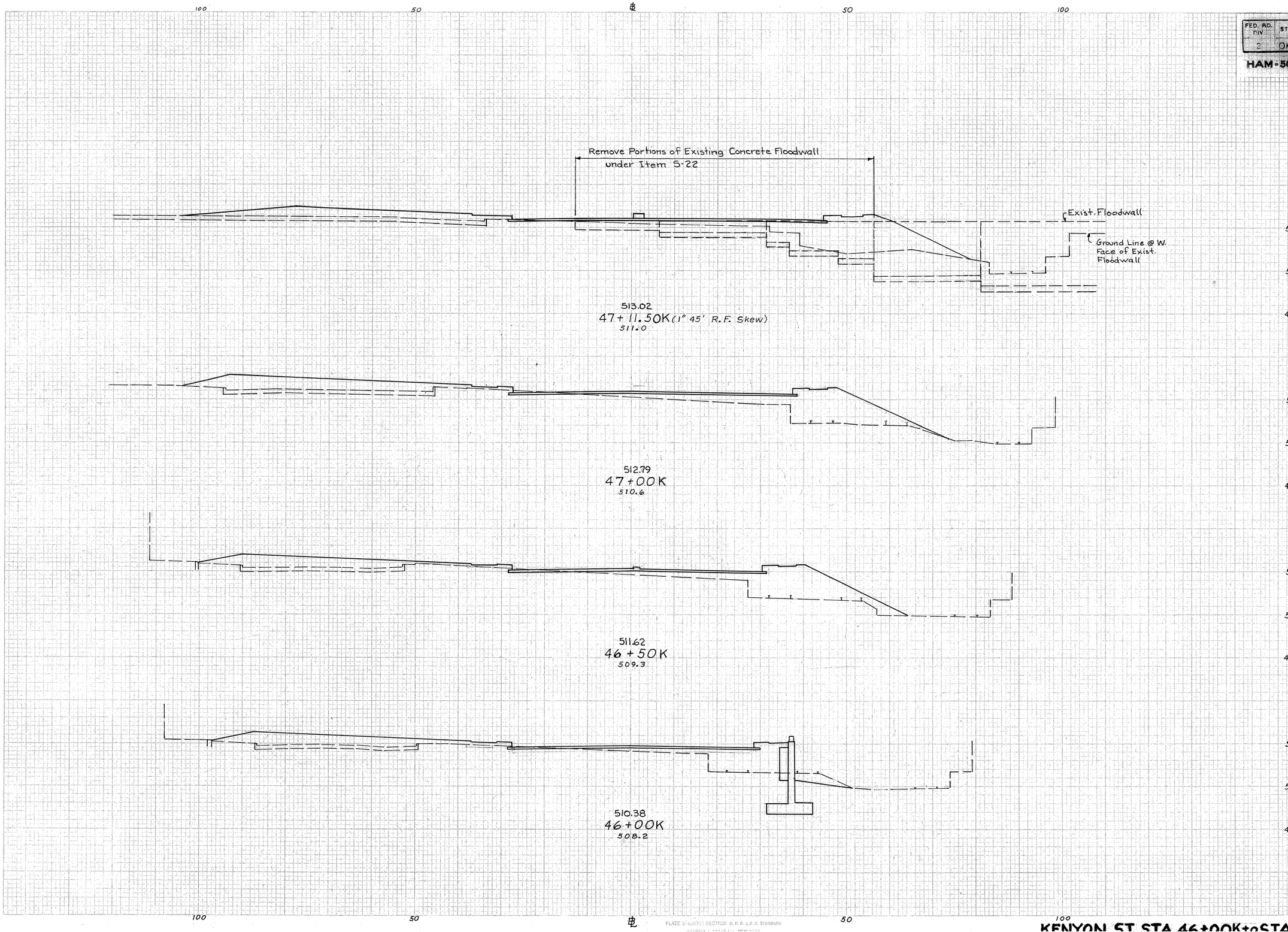
PLATE 3 - CROSS SECTION C. P. R. & R. E. STANDARD

KENYON ST. STA. 43+50K to STA. 45+50K

FED. RD. NV	STATE	PROJECT	FISCAL YEAR
2	OHIO		

169
464

HAM-50-19.76



END AREA CUT	END AREA FILL	VOLUME CUT	VOLUME FILL
2	480		
		0	200
10	445		
		10	770
5	390		
		10	660
5	320		
		10	550

FINAL SURVEY — SURVEYED, PLOTTED, TEMPLATE, AREAS, AREAS CHECKED

ORIGINAL SURVEY — SURVEYED, PLOTTED, TEMPLATE, AREAS, AREAS CHECKED

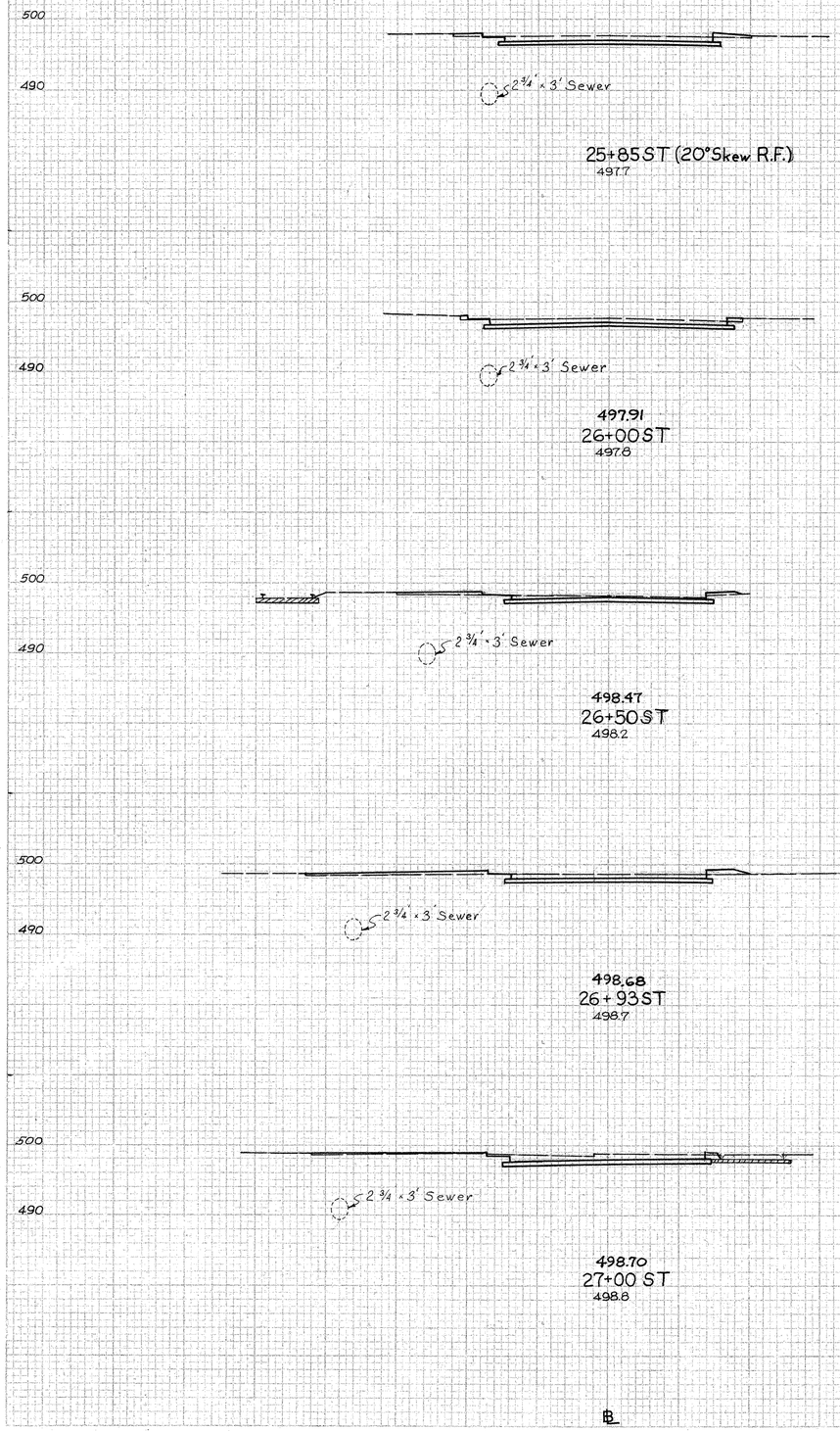
PLATE 3 - CROSS SECTION O.P.R.R.R.E. STANDARD

KENYON ST STA 46+00K to STA 47+11.50K

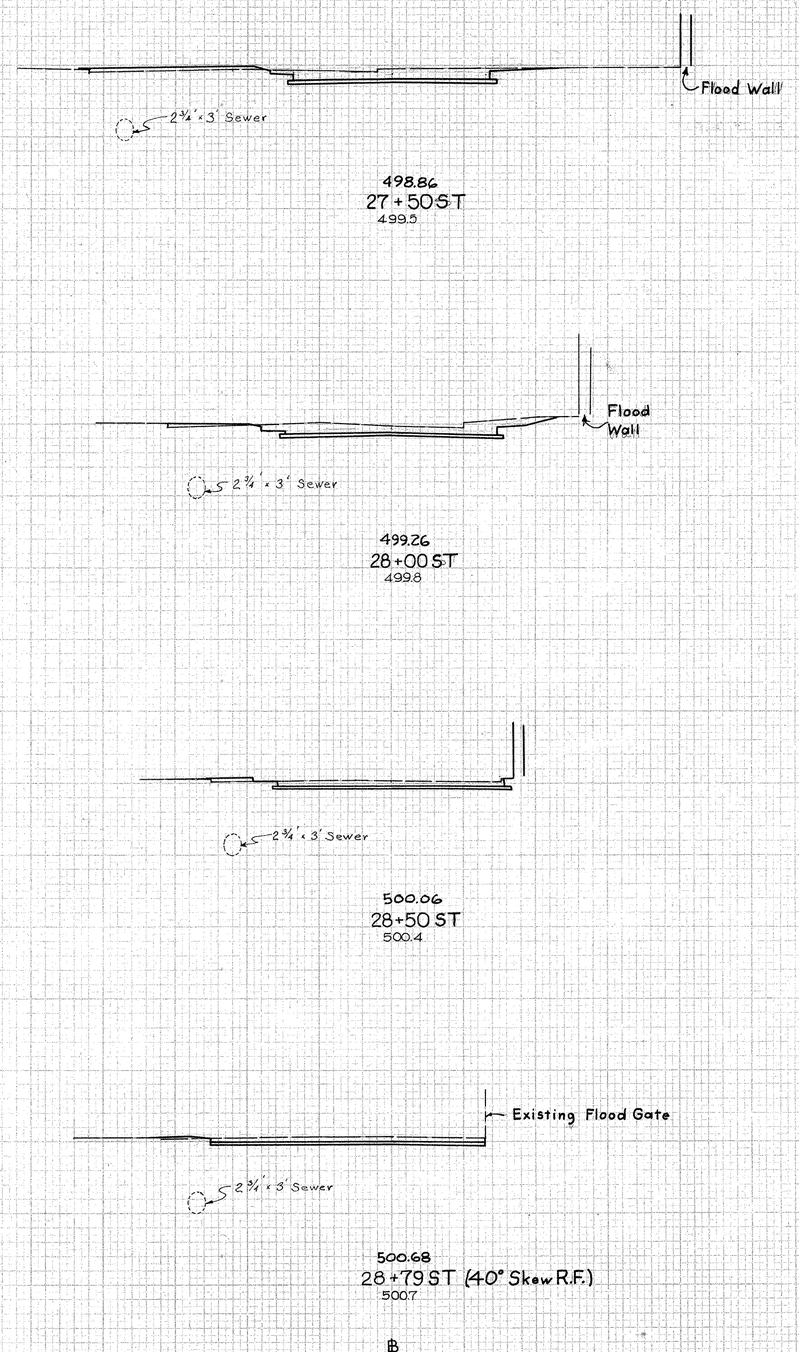
FED. RD. DIV.	STATE	PROJECT	FISCAL YEAR
2	OHIO		

HAM-50-19.76

170
464



End Area		Volume	
Cut	Fill	Cut	Fill
40	5		
		20	5
45	2		
		60	10
25	10		
		60	20
40	15		
		70	15
35	2		
		90	10



End Area		Volume	
Cut	Fill	Cut	Fill
60	10		
		110	10
60	4		
		90	5
35	4		
		40	5
45	2		

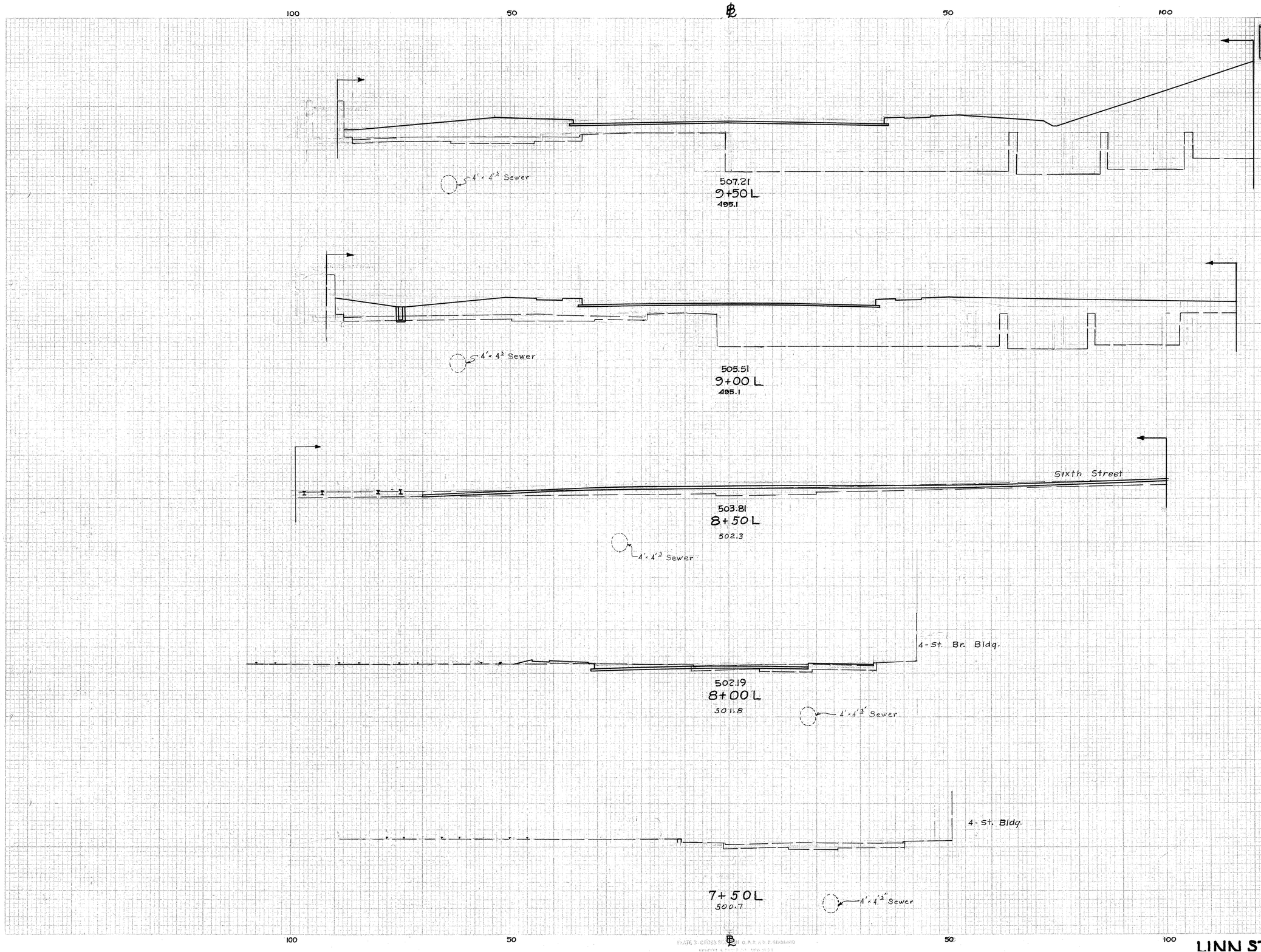
PLATE 3-CROSS SECTION O.P.R. B.R.E. STANDARD

SIXTH STREET-WEST OF LINN STREET

FED. RD. DIV.	STATE	PROJECT	FISCAL YEAR
2	OHIO		

171
464

HAM-50-19.76



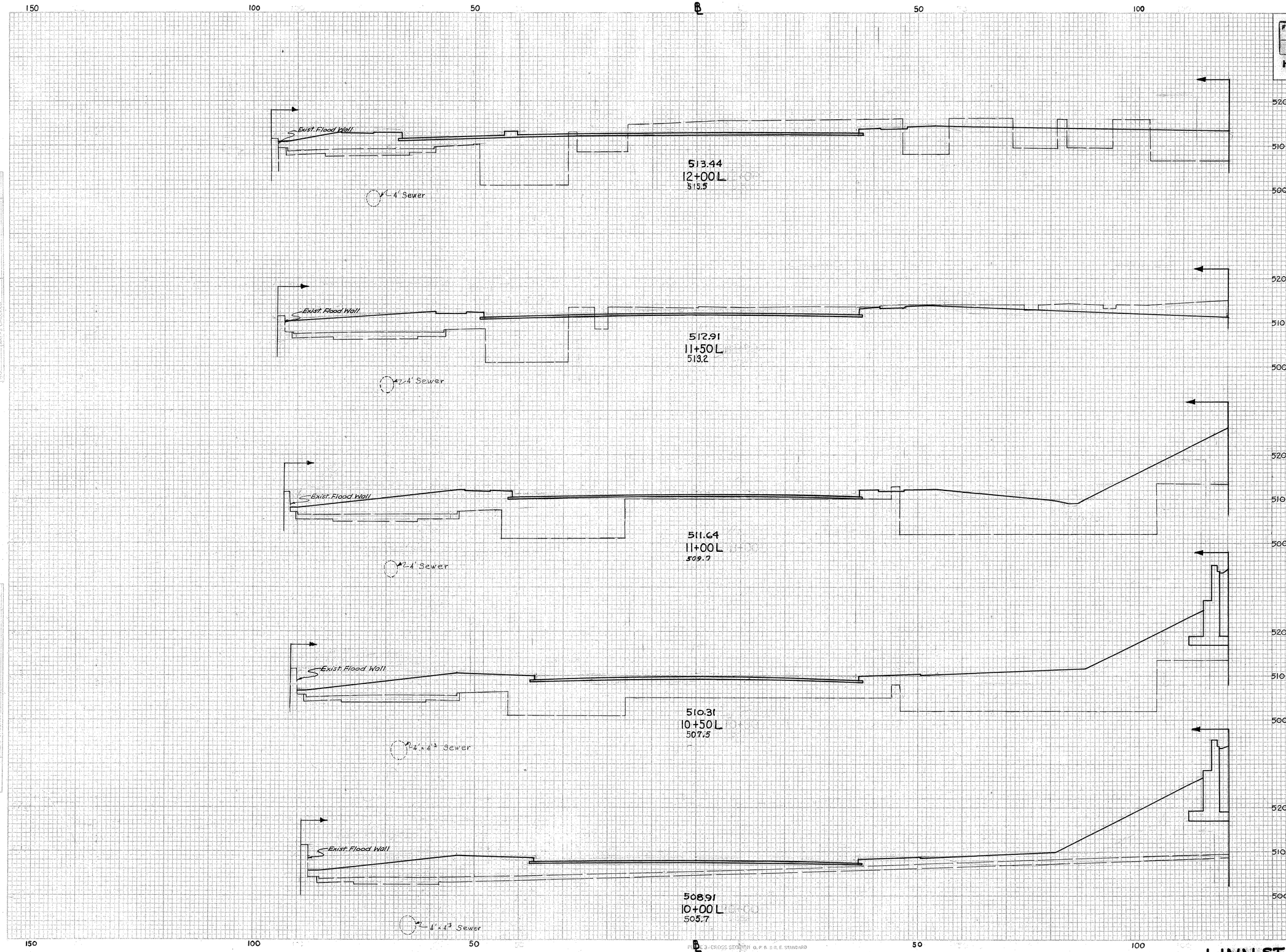
END AREA CUT	END AREA FILL	VOLUME CUT	VOLUME FILL
0	935		
		0	1500
0	680		
		0	770
0	150		
		30	190
30	50		
		30	50
0	0		

LINN ST. STA. 7+50L to STA. 9+50L

FED. RD. DIV.	STATE	PROJECT	FISCAL YEAR
2	OHIO		

172/464

HAM-50-19.76



END AREA CUT	END AREA FILL	VOLUME CUT	VOLUME FILL
380	180		
		590	350
260	200		
		340	620
110	465		
		100	1130
0	755		
		0	1430
0	785		
		0	1590

FINAL SURVEY — SURVEYED, PLOTTED, TEMPLATE, AREAS, AREAS CHECKED — NOTE BOOK NO. — BY — DATE

ORIGINAL SURVEY — SURVEYED, PLOTTED, TEMPLATE, AREAS, AREAS CHECKED — NOTE BOOK NO. — BY — DATE

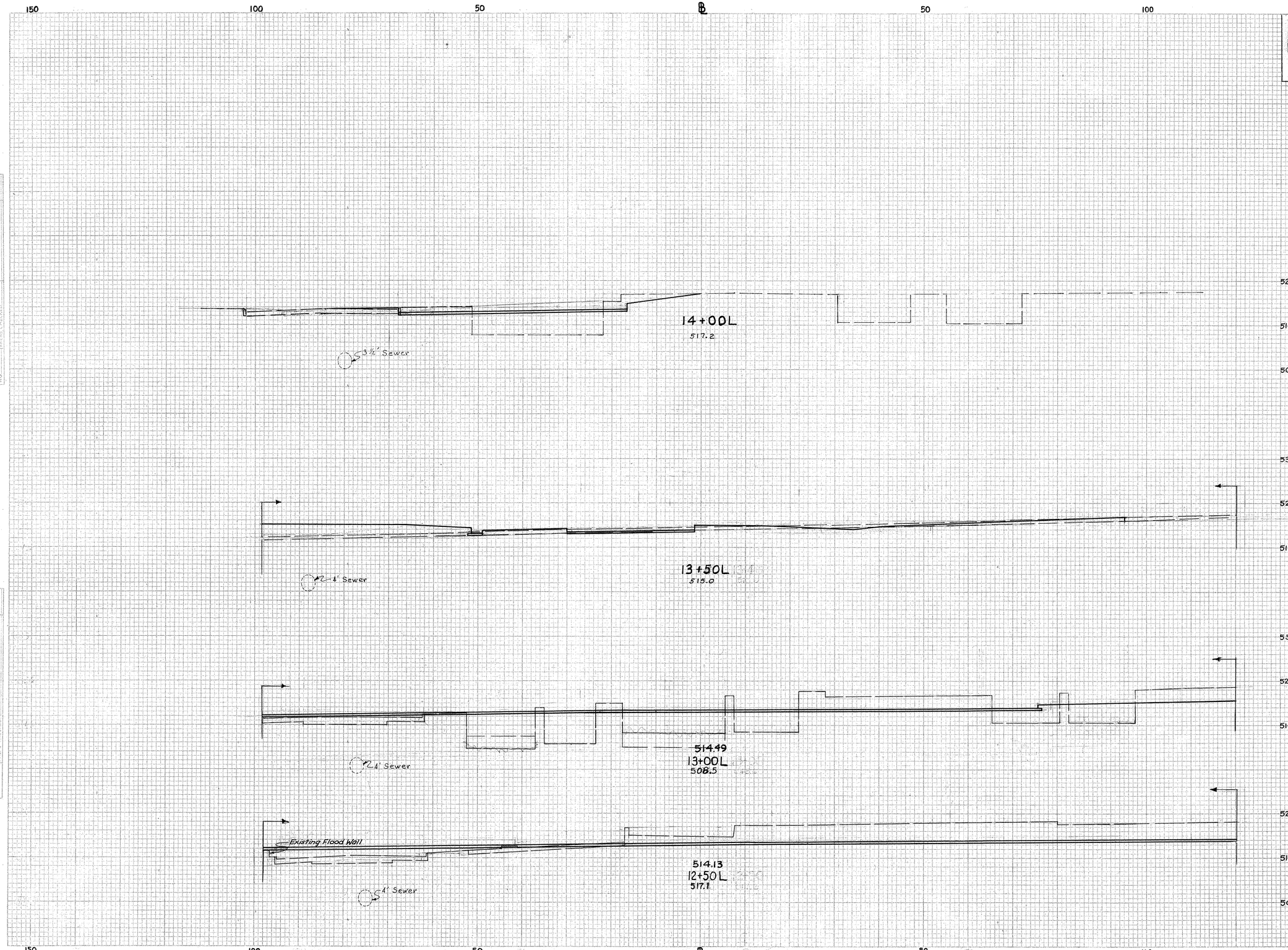
PLATE 3 - CROSS SECTION O.P.R.B.R.E. STANDARD
KEUFFEL & ESSER CO., NEW YORK.

LINN ST. STA. 10+00L to STA. 12+00L

FED. RD. DIV.	STATE	PROJECT	FISCAL YEAR
2	OHIO		

173
464

HAM-50-19.76



END AREA CUT	END AREA FILL	VOLUME CUT	VOLUME FILL
120	0		
		120	200
15	215		
		500	250
530	60		
		1070	170
630	120		
		940	280

FINAL SURVEY — SURVEYED, PLOTTED, TEMPLATE, AREAS, AREAS CHECKED, NOTE BOOK, NO., DATE

ORIGINAL SURVEY — SURVEYED, PLOTTED, TEMPLATE, AREAS, AREAS CHECKED, NOTE BOOK, NO., DATE

FIELD 3-CROSS SECTION O. P. R. & R. C. STANDARD
KEUFFEL & ESSER CO., NEW YORK.

LINN ST STA 12+50L to STA 14+00L

FED. RD. DIV.	STATE	PROJECT	FISCAL YEAR
2	OHIO		

174
464

HAM-50-19.76

END AREA		VOLUME	
CUT	FILL	CUT	FILL
		4	0
		60	0
		65	0
		170	0

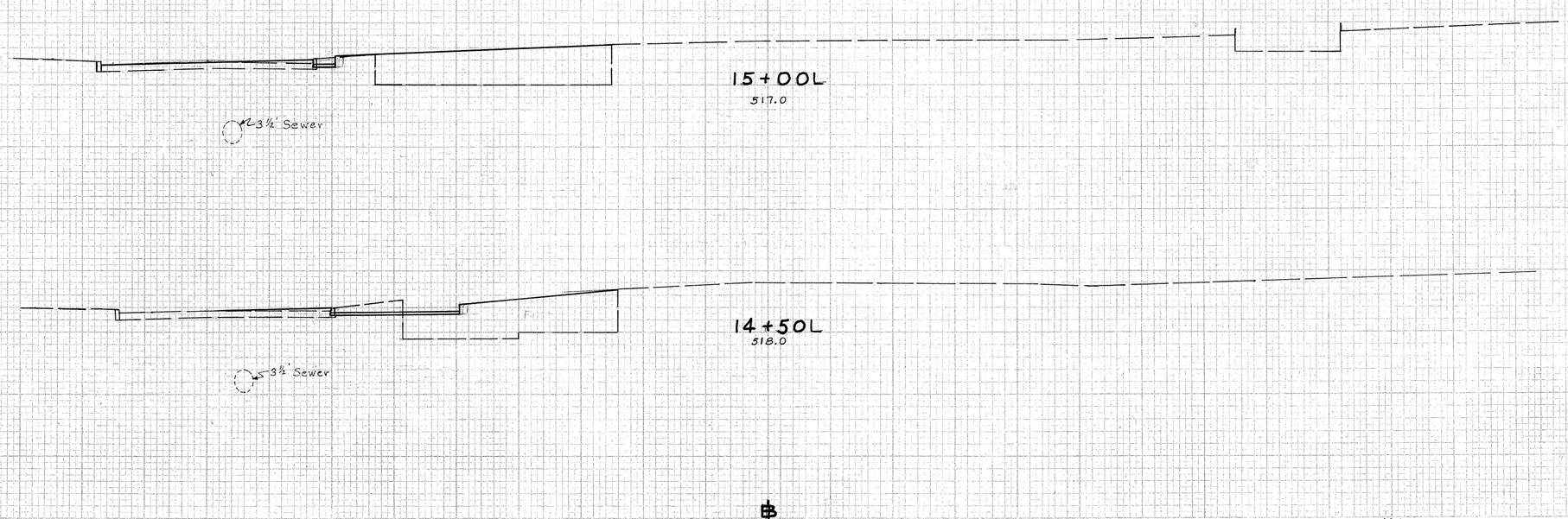


PLATE 3-CROSS SECTION O.P.R.R.R.E. STANDARD
KEUFFEL & ESSER CO. NEW YORK.

LINN ST. STA. 14+50L to STA. 15+00L

FINAL SURVEY
ORIGINAL SURVEY

FED. RD. DIV.	STATE	PROJECT	FISCAL YEAR
2	OHIO		

175
474

HAM-50-19.76

STREET	HOUSE NO.	AREA SQ.FT.	DEPTH FT. CUT	DEPTH FT. FILL	VOLUME CU. FT. DEDUCT FROM CUT	VOLUME CU. FT. ADD TO FILL
HATHAWAY ST.	806-08	1,230		7.0		8,610
↑	810-12	1,230		5.5		6,765
	813-19	2,750		5.5		15,125
	814	610		4.0		2,440
	818-20	1,505		5.0		7,525
	822	595		5.0		2,975
	823-25	1,310		4.5		5,895
	824	1,065		5.0		5,325
	826-28	1,550	1.5	5.0	2,325	7,750
	827	495		5.5		2,725
	830-32	1,510	3.5	4.0	5,285	6,040
	831-33	1,125		7.5		8,440
	834	325	0.5	1.0	165	325
	835	580		6.0		3,480
	836	325	0.5	1.0	165	325
	837	560		6.0		3,360
	838	730	2.0	3.0	1,460	2,190
	839	655		6.0		3,930
	840	660	2.0	3.0	1,320	1,980
	841	505		5.5		2,780
	842	1,295	3.0	4.0	3,885	5,180
	843	640		5.5		3,520
	844	950	2.0	3.5	1,900	3,325
	845	855		5.0		4,275
	846	890	2.5	3.0	2,225	2,670
	848-50	1,700	2.5	7.0	4,250	11,900
	851	1,010		4.0		4,040
	852-54	960	2.0	5.0	1,920	4,800
	853-55	1,420		6.0		8,520
	856	805	1.5	6.5	1,210	5,230
	858-60	670	1.5	5.0	1,005	3,350
	859	6,090		9.0		54,810
	862	350	2.0	4.5	700	1,575
	864	825	2.0	4.0	1,650	3,300
HATHAWAY ST.	865	3,000		6.0		18,000
KENYON ST.	755-61	2,995	5.0	7.0	1,495	20,965
↑	763-65	1,120	1.0	4.5	1,120	5,040
	767-73	3,150	2.5	2.5	7,875	7,875
	775	1,715	0.5	6.5	860	11,475
	801-03	1,080	1.0	5.0	1,080	5,400
	805	610	2.0	5.5	1,220	3,355
	807	575	2.0	4.0	1,150	2,300
	809	550	2.0	1.0	1,100	550
	811	770	3.0	1.0	2,310	770
	813	655	4.0	1.0	2,620	655
	815	415	4.5		1,865	
	817	645	3.0	3.0	1,935	1,935
	819	650	2.5	3.0	1,625	1,950
	821	720	3.0	3.0	2,160	2,160
	823-25	1,620	3.0	3.0	4,860	4,860
	827-29	1,620	3.0	3.0	4,860	4,860
	831-33	1,460	3.0	4.0	4,380	5,840
	837	970	4.0	4.5	3,880	4,365
KENYON ST.	839-41	800	2.5	9.0	2,000	7,200
SIXTH ST.	828	2,710	2.0	5.0	5,420	13,550
↑	834	3,850	2.0	7.5	7,700	28,875
	836	2,300	2.0	5.0	4,600	11,500
	838	2,000	2.0	3.5	4,000	7,000
	846	4,300		8.5		36,550
	850	6,500		8.5		55,250
SIXTH ST.	1001	1,310		8.0		10,480
BAYMILLER ST.	622-24	1,405		10.5		14,755
↑	628	695		10.0		6,950
	630	2,260	1.0	6.0	2,260	13,560
	638	1,000		7.0		7,000
	640-42	935		6.0		5,610
BAYMILLER ST.	644-46	1,620		7.5		12,150
FREEMAN AVE.	564-66	1,560		5.0		7,800
					101,840	555,065
					27	27
SUB TOTALS		CU. YDS.			= 3,770	= 20,560

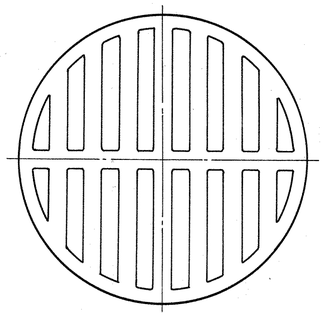
STREET	HOUSE NO.	AREA SQ. FT.	DEPTH FT. CUT	DEPTH FT. FILL	VOLUME CU. FT. DEDUCT FROM CUT	VOLUME CU. FT. ADD TO FILL
SIXTH ST.	943	5,950		6.0		35,700
↑	947	530		6.0		3,180
	949	610		5.0		3,050
	951	1,285		6.5		8,350
	959	2,240		6.0		13,440
	1007	1,570		7.0		10,990
	1016-20	335		7.5		2,515
SIXTH ST.	1023-29	4,000		9.0		36,000
FREEMAN AVE.	641-59	14,878		7.0		104,146
FREEMAN AVE.	711	1,775		6.0		10,650
SLOO ST.	1019	935		5.0		4,675
						232,696
						27
SUB TOTAL		CU. YDS.				= 8,620
TOTALS CARRIED TO SHEET No. 32					3770 CU. YDS.	29,180 CU. YDS

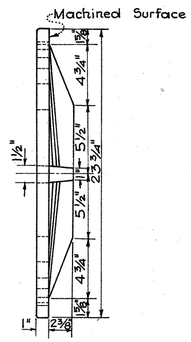
CELLAR VOLUMES

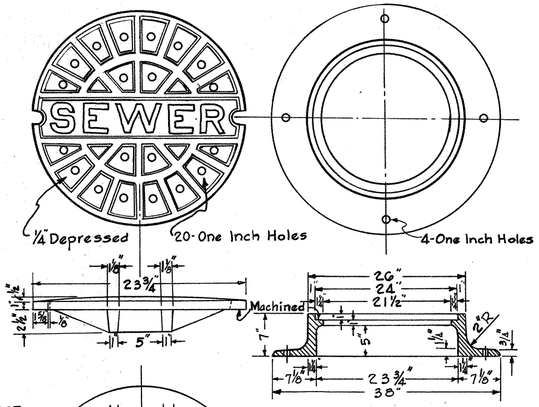
FED. RD. DIV.	STATE	PROJECT	FISCAL YEAR
2	OHIO		

176
464

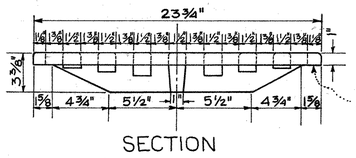
HAM-50-19.76







City of Cincinnati Acc. No. 49007

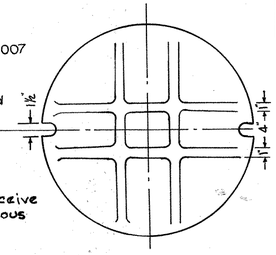


Note: For use with standard manhole frame, Acc. No. 49005 Approx. Wt. 105 lbs.

Machined Surface

Note: All Castings to receive 2 Coats of Bituminous Paint.

STANDARD GRATING MANHOLE COVER

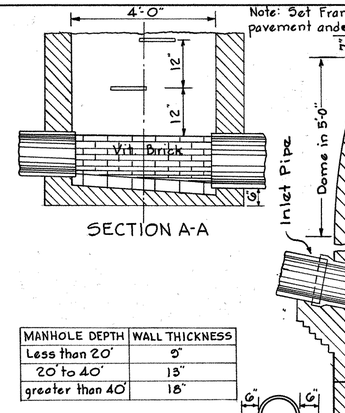


COMPUTED WEIGHTS

Frame	332 lbs.
Cover	155 lbs.
Total	487 lbs.

City of Cincinnati Acc. No. 49005

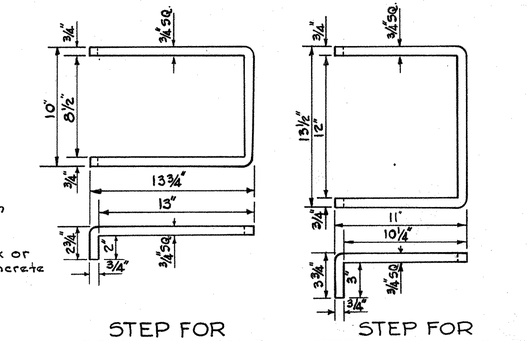
STANDARD MANHOLE FRAME AND COVER



Channels and benches shall be of vitrified brick or formed concrete.

City of Cincinnati Acc. No. 49000

Manhole shall be built in accordance with Item 3-7 City of Cincinnati Construction & Material Specifications.



STEP FOR BRICK MANHOLE

STEP FOR PRECAST MANHOLE

Bends shall be made hot.

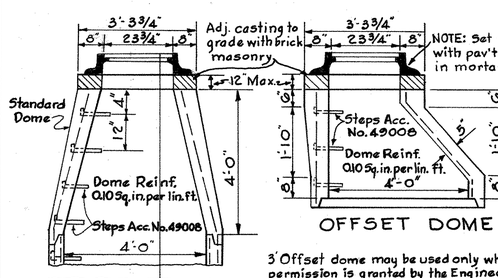
Steps shall be made of Wrought Iron, which meets the requirements and tests of the A.S.T.M. Specifications for single refined Wrought Iron.

Steps shall bear the stamp of the manufacturer and be thoroughly coated with red lead.

Computed Weight - 6 lbs.

City of Cincinnati Acc. No. 49008

STANDARD MANHOLE STEPS



3' Offset dome may be used only where permission is granted by the Engineer.

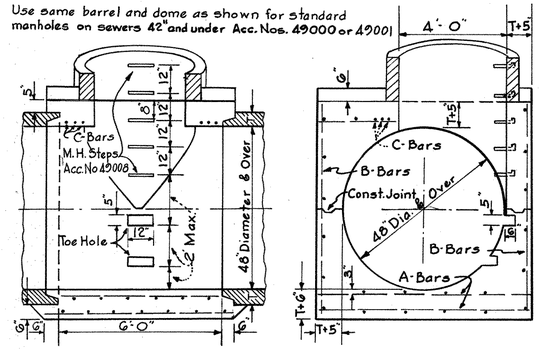
No holes for inlet connections shall be cut in 1 or 2 foot sections of manhole barrel. Not more than 2 inlet connections spaced 2± feet apart horizontally permitted in 3 or 4 foot M.H. sections.

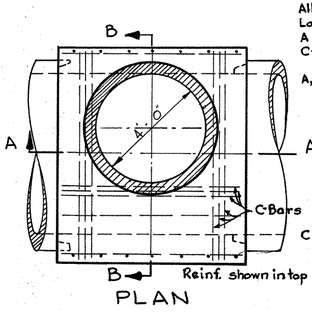
PRECAST CONCRETE BARREL
Sec. M-6.6(a) pipe, 0 to 20 Ft. Depth
Sec. M-6.6(b) pipe, 20 to 40 Ft. Depth
Sec. M-6.6(c) pipe, Over 40 Ft. Depth

City of Cincinnati Acc. No. 49001

STANDARD MANHOLE TYPE P

Use same barrel and dome as shown for standard manholes on sewers 42" and under Acc. Nos. 49000 or 49001



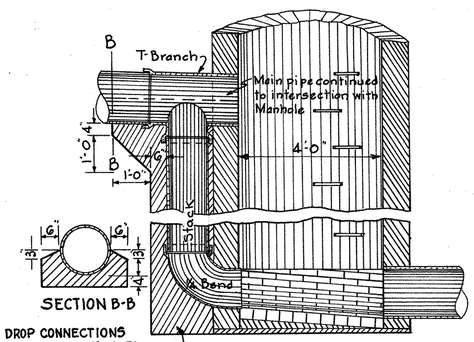


All concrete to be Class "E".
All steel to have 2" cover except where noted.
Longitudinal steel - No. 5 Bars @ 18" o.c.
A and B bars - 12" o.c. as shown.
C-Bars - 3" o.c. as shown.
A, B, and C bars { No. 5 bars on 48" to 60" Srs. / No. 6 bars on 66" to 78" Srs. / No. 7 bars on 84" to 108" Srs.

City of Cincinnati Acc. No. 49002

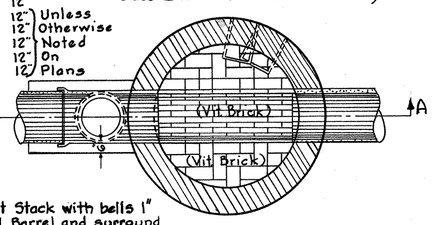
STANDARD MANHOLE TYPE D

STANDARD MANHOLE TYPE A



DROP CONNECTIONS

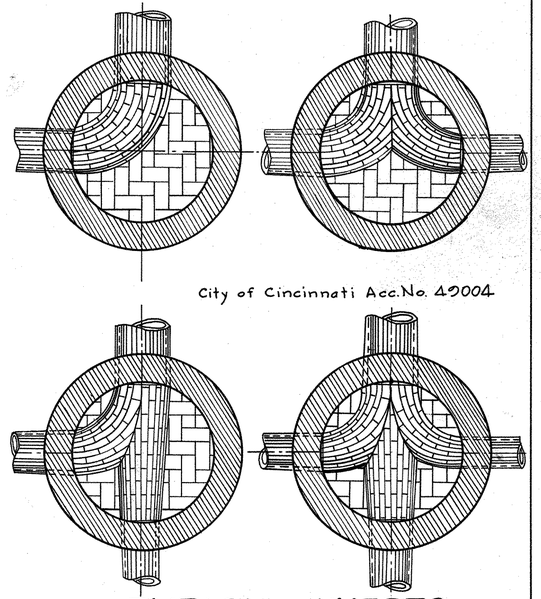
Sewer Size	Stack Size
8"	8"
10"	10"
12"	12"
15"	12" Unless
18"	12" Otherwise
20"	12" Noted
22"	12" On
24"	12" Plans



NOTE: Set Stack with bells 1" from M.H. Barrel and surround with concrete or brick masonry. Other characteristics similar to Standard Manhole.

City of Cincinnati Acc. No. 49003

STANDARD DROP MANHOLE



City of Cincinnati Acc. No. 49004

TYPICAL INVERTS

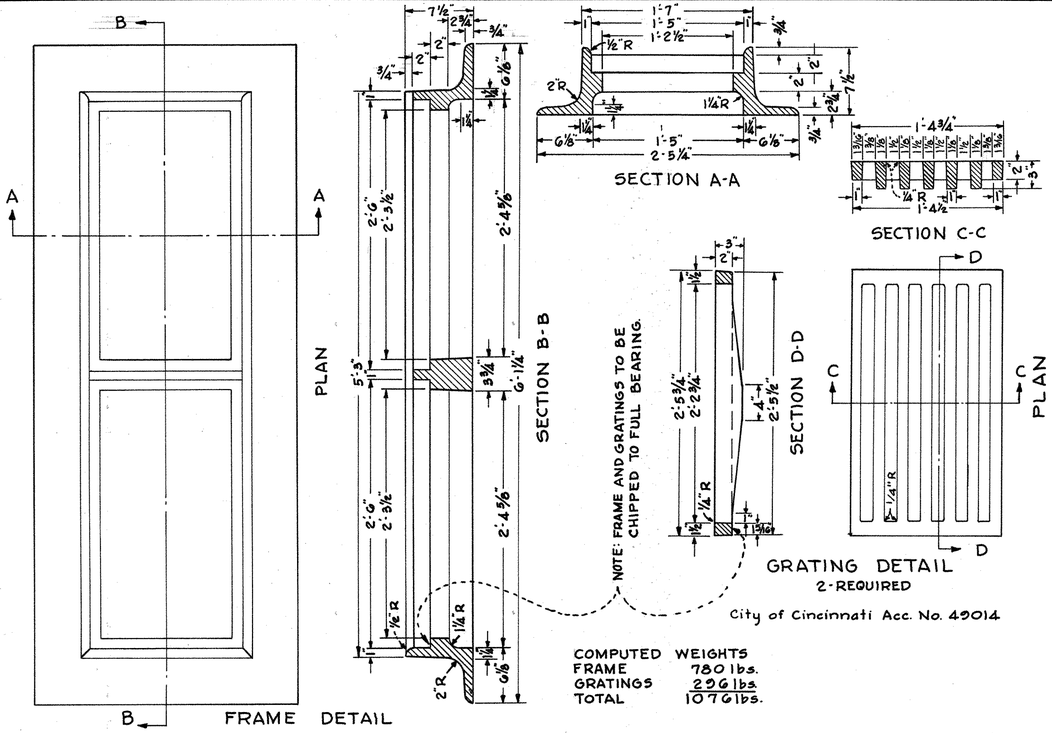
Note: All Acc. No's shown are City of Cincinnati Acc. No's.

SEWER DETAILS

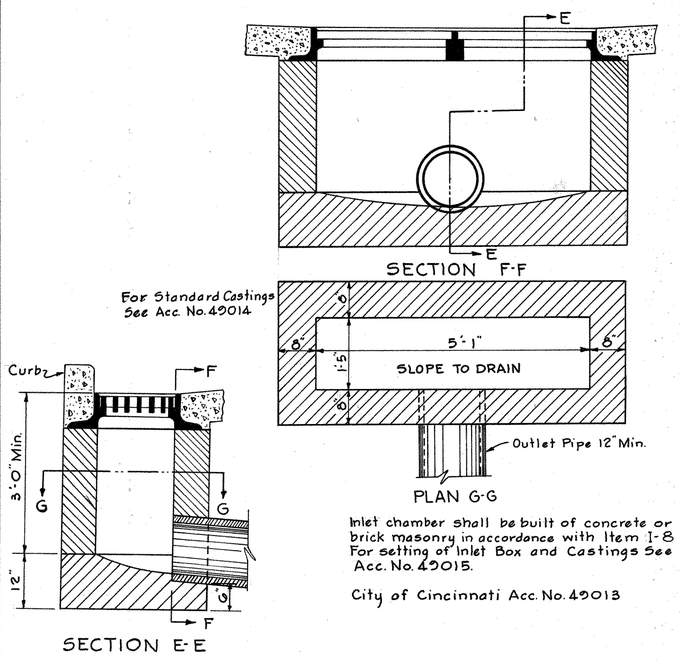
FED. RD. DIV.	STATE	PROJECT	FISCAL YEAR
2	OHIO		

HAM-50-19.76

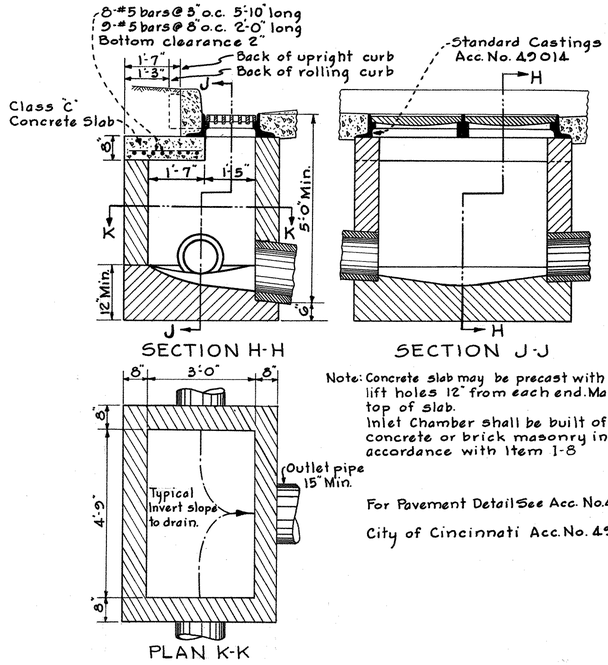
177
464



STANDARD CASTINGS FOR TYPE A-2 OR K CATCH BASIN

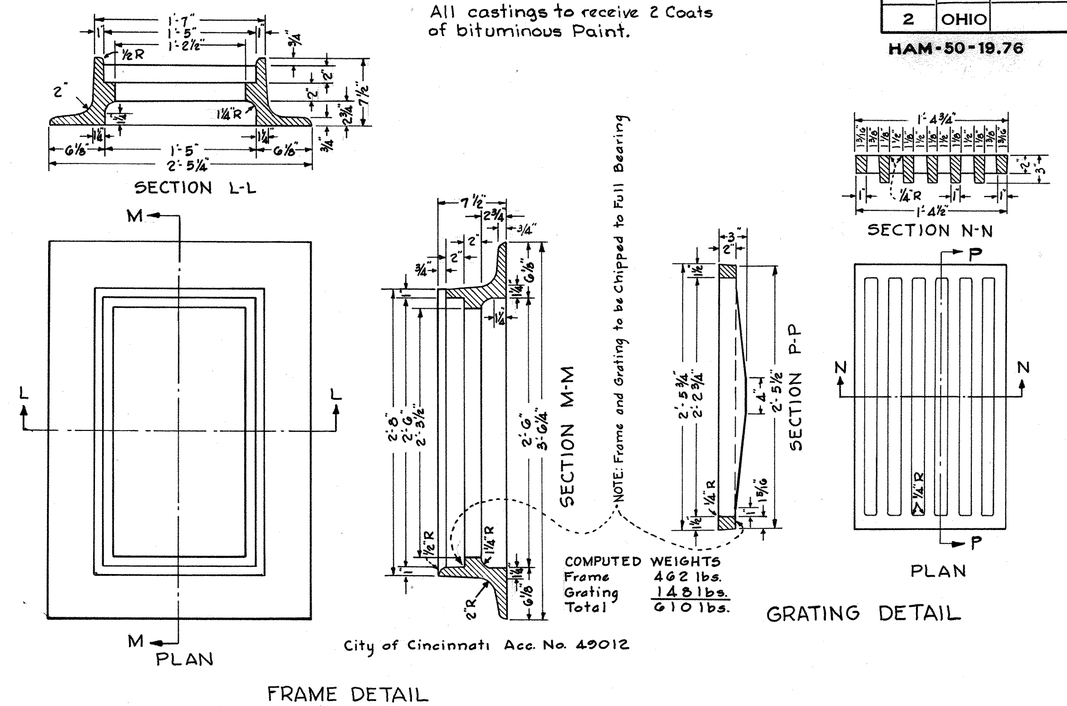


TYPE A-2 CATCH BASIN

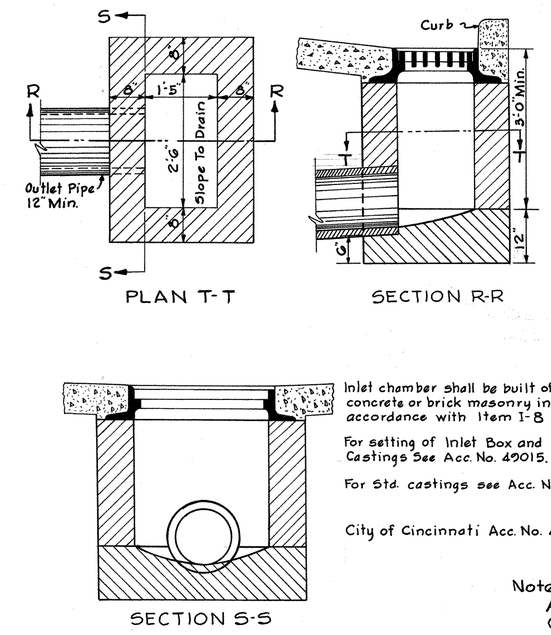


TYPE K CATCH BASIN

Note:
All castings to receive 2 Coats of bituminous Paint.



STANDARD CASTINGS FOR TYPE A CATCH BASIN



TYPE A CATCH BASIN

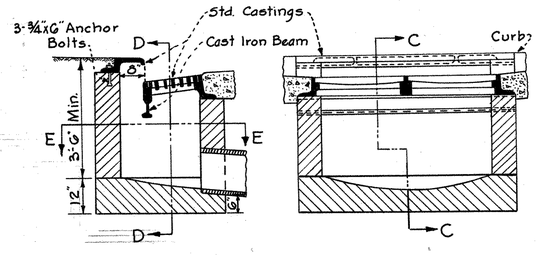
Note:
All Acc. No's shown are City of Cincinnati Acc. No's.

SEWER DETAILS

FED. RD. DIV.	STATE	PROJECT	FISCAL YEAR
2	OHIO		

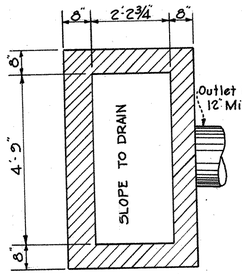
HAM-50-19.76

178
464



SECTION C-C

SECTION D-D



PLAN E-E

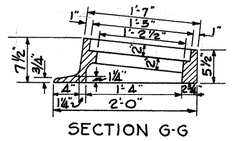
Inlet Chamber shall be built of concrete or brick masonry in accordance with Item 1-8

For Standard Castings See Acc. No. 49017

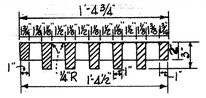
For setting of Inlet Box and Casting See Acc. No. 49018

City of Cincinnati Acc. No. 49016

TYPE C CATCH BASIN

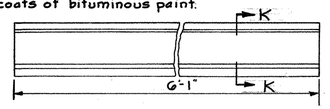


SECTION G-G

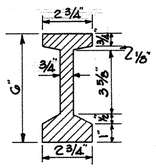


SECTION H-H

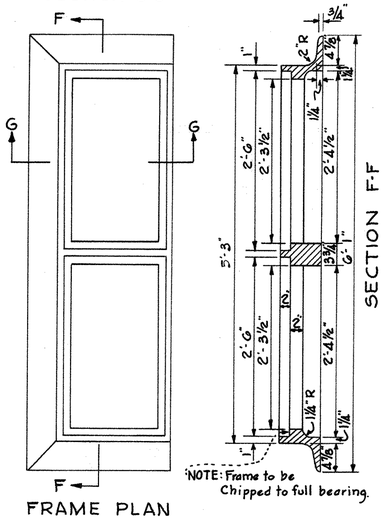
Note: All castings to receive 2 coats of bituminous paint.



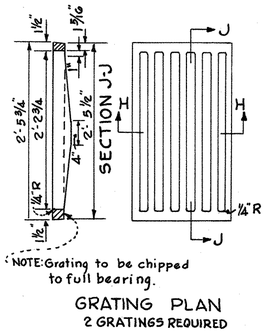
GRAY CAST IRON BEAM



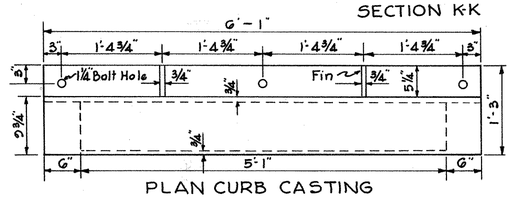
SECTION K-K



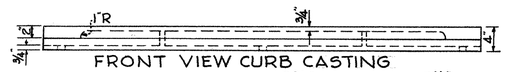
FRAME PLAN



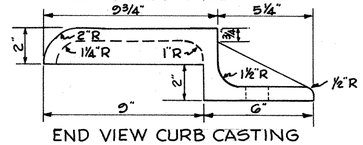
GRATING PLAN
2 GRATINGS REQUIRED



PLAN CURB CASTING



FRONT VIEW CURB CASTING



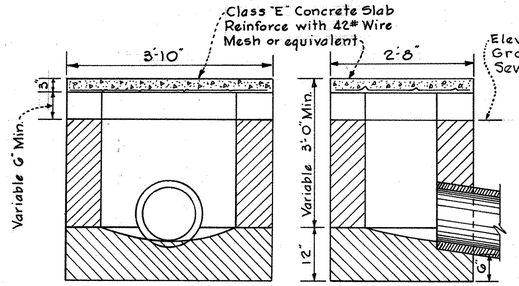
END VIEW CURB CASTING

COMPUTED WEIGHTS

Frame	680 lbs.
Gratings	296 lbs.
Curb Casting	305 lbs.
Cast Iron Beam	162 lbs.
Total	1443 lbs.

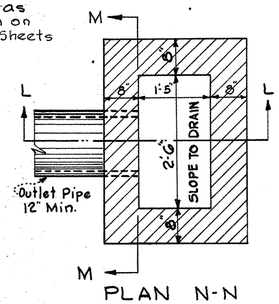
City of Cincinnati Acc. No. 49017

STANDARD CASTING FOR TYPE C CATCH BASIN

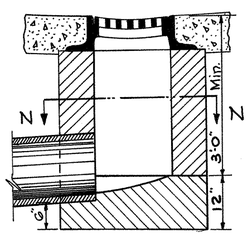


SECTION A-A

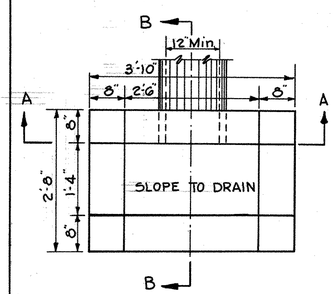
SECTION B-B



PLAN N-N



SECTION L-L



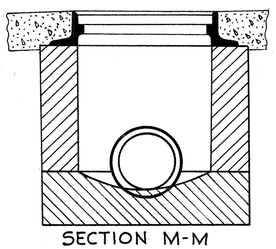
PLAN - TOP REMOVED

NOTE:
The Inlet is shown open on four sides. Any of these openings may be closed as directed by the engineer.

Inlet shall be built of brick or concrete in accordance with Item I-8

City of Cincinnati Acc. No. 49023

TYPE D CATCH BASIN



SECTION M-M

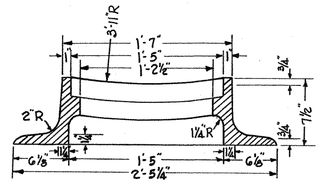
Inlet chamber shall be built of concrete or brick masonry in accordance with Item 1-8

For Std. castings see Acc. No. 49020.

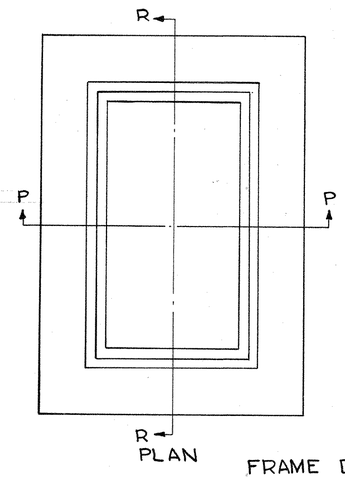
City of Cincinnati Acc. No. 49019

TYPE V CATCH BASIN

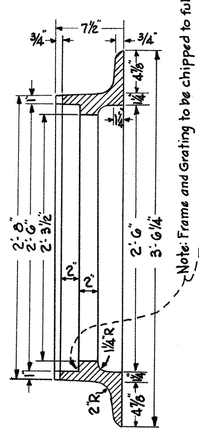
Note:
All castings to receive 2 coats of Bituminous Paint.



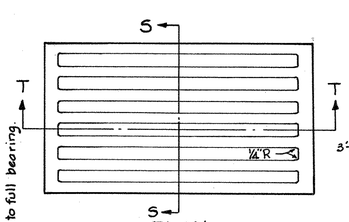
SECTION P-P



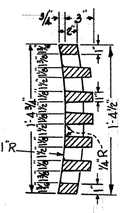
PLAN



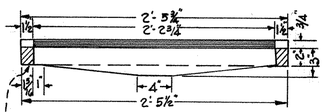
SECTION R-R



PLAN



SECTION S-S



SECTION T-T

GRATING DETAIL

Note: Frame and Grating to be chipped to full bearing.

FRAME DETAIL

COMPUTED WEIGHTS

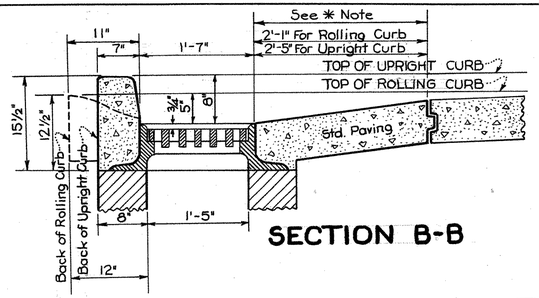
Frame	464 lbs.
Grating	148 lbs.
Total	612 lbs.

City of Cincinnati Acc. No. 49020

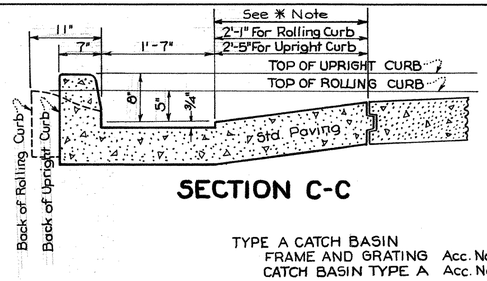
Note:
All Acc. No's shown are City of Cincinnati Acc. No's.

STANDARD CASTINGS FOR TYPE V CATCH BASIN

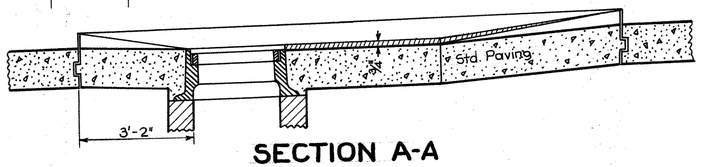
SEWER DETAILS



SECTION B-B



SECTION C-C

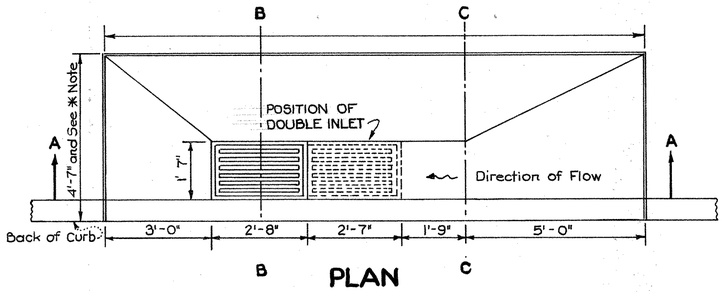


SECTION A-A

TYPE A CATCH BASIN
FRAME AND GRATING Acc. No. 49012
CATCH BASIN TYPE A Acc. No. 49011

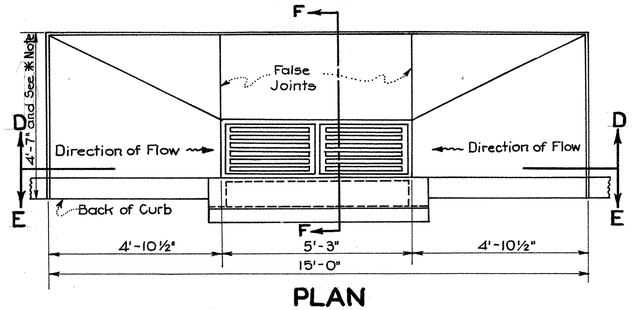
TYPE A-2 CATCH BASIN
FRAME AND GRATING Acc. No. 49014
CATCH BASIN TYPE A-2 Acc. No. 49013

TYPE K CATCH BASIN
FRAME AND GRATING Acc. No. 49014
CATCH BASIN TYPE K Acc. No. 49010

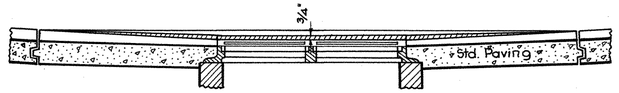


PLAN

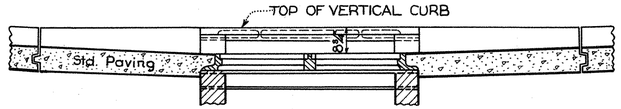
* NOTE: Alter this dimension to meet Edge of Concrete Paving for Bituminous paved shoulder of 5' width & under. Otherwise construct as shown.



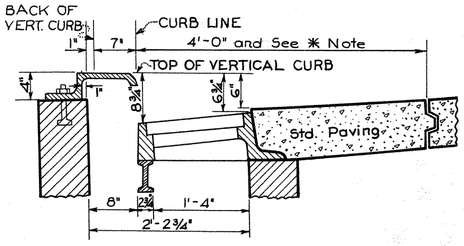
PLAN



SECTION D-D



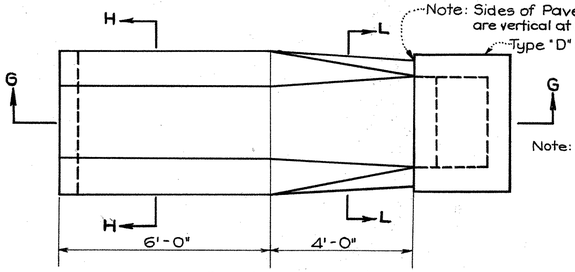
SECTION E-E



SECTION F-F

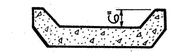
TYPE C CATCH BASIN
FRAME AND GRATING Acc. No. 49017
CATCH BASIN TYPE C Acc. No. 49016

STANDARD PAVEMENT DETAIL FOR TYPE A, A-2 & K CATCH BASINS

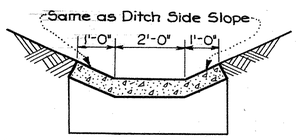


PLAN

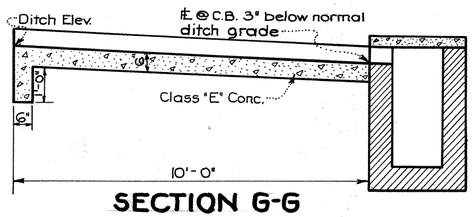
Note: Cost of Paved Gutter as shown for one or more sides of Type D Catch Basin shall be included in unit Price bid for Item I-8 Type D Catch Basin, As per Plan.



SECTION L-L

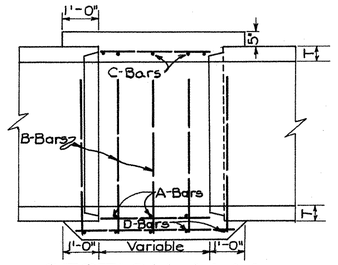


SECTION H-H

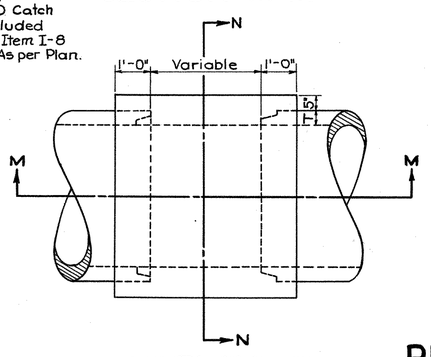


SECTION G-G

PAVED GUTTER DETAIL FOR TYPE D CATCH BASIN



SECTION M-M

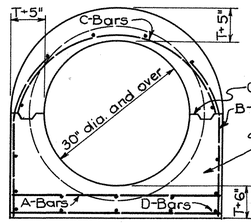


PLAN

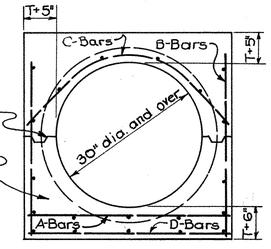
Note:
All Acc. No's. shown are City of Cincinnati Acc. No's.

STANDARD PAVEMENT DETAIL FOR TYPE C CATCH BASIN

Invert Steel - 3" cl.
All other Steel - 2" cl.
Bar Lap - 30 times the bar diameter



OPTIONAL SECTION N-N



SECTION N-N

A-B-C and D Bars @ 12" o.c.
A-B-C { *5 Bars for 30" to 60" Sewer
*6 Bars for 66" to 78" Sewer
*7 Bars for 84" to 108" Sewer
D-Bar *5 Bars for 30" to 108" Sewer
Not less than 3 transverse bars in any gap.
All longitudinal steel - *5 Bars @ 18" o.c.

REINF. CONCRETE COLLAR ON REINF. CONCRETE PIPE SEWER

FED. RD. CIV.	STATE	PROJECT	FISCAL YEAR
2	OHIO		

180
464

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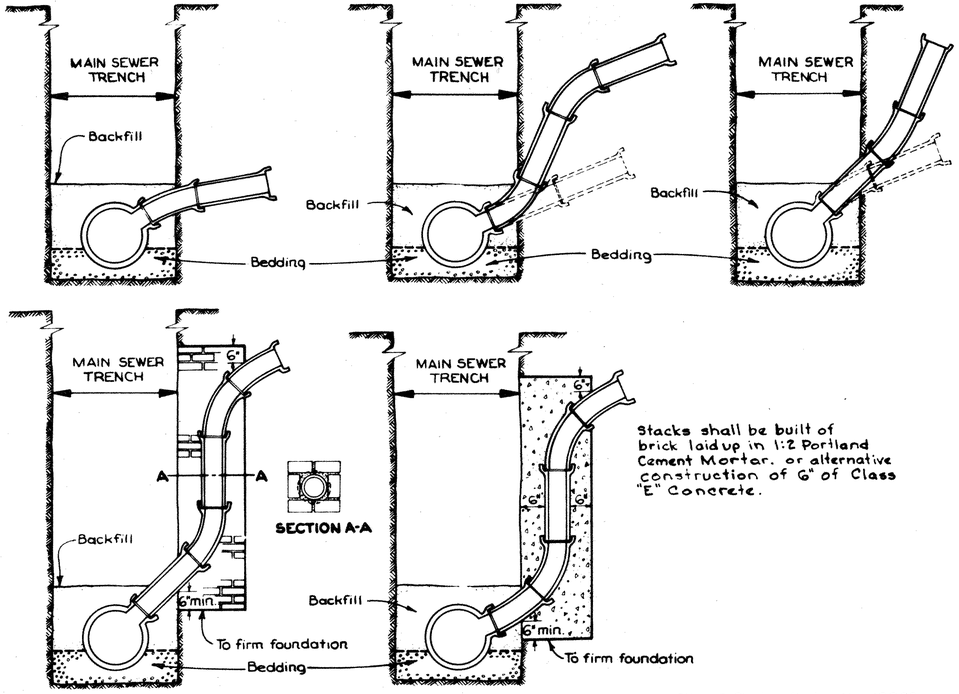
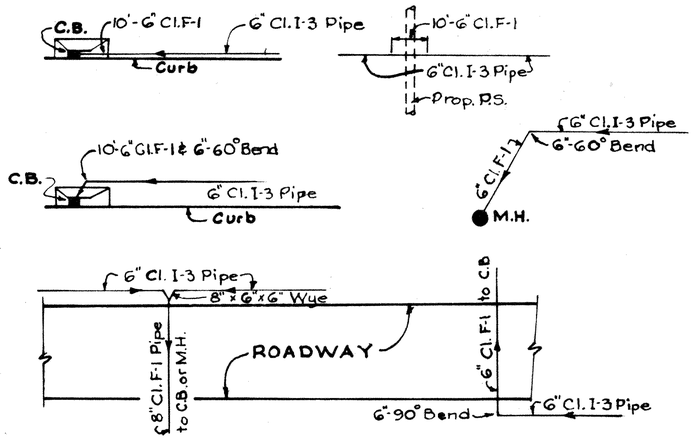


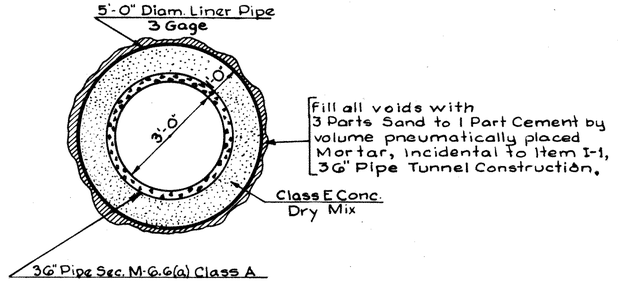
Stacks shall be built of brick laid up in 1:2 Portland Cement Mortar, or alternative construction of 6" of Class "E" Concrete.

City of Cincinnati Acc. No. 49033

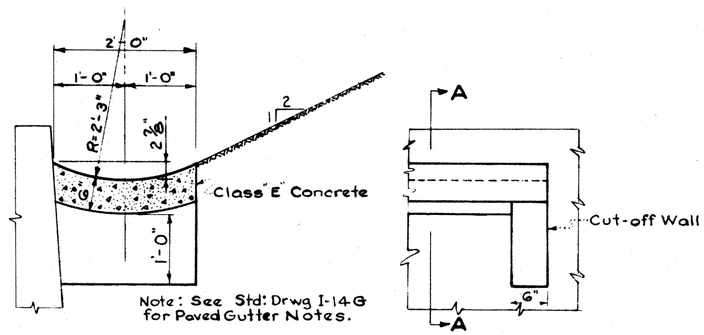
TYPICAL HOUSE DRAINS AND STACKS



UNDERDRAIN DETAILS

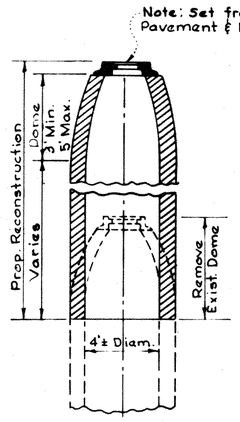


TUNNEL SECTION DETAIL



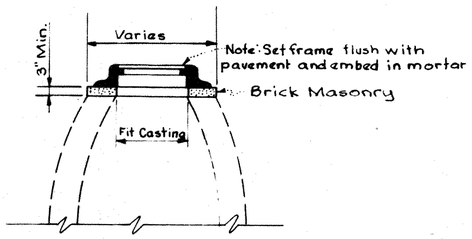
SECTION A-A SIDE VIEW

TYPE 2 MODIFIED PAVED GUTTER



TYPICAL SECTION

MANHOLE RECONSTRUCTED TO GRADE



TYPICAL SECTION

MANHOLE ADJUSTED TO GRADE

Note:
All Acc. No's shown are City of Cincinnati Acc. No's.

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SEWER DETAILS

FED. RD. DIV.	STATE	PROJECT	FISCAL YEAR
2	OHIO		

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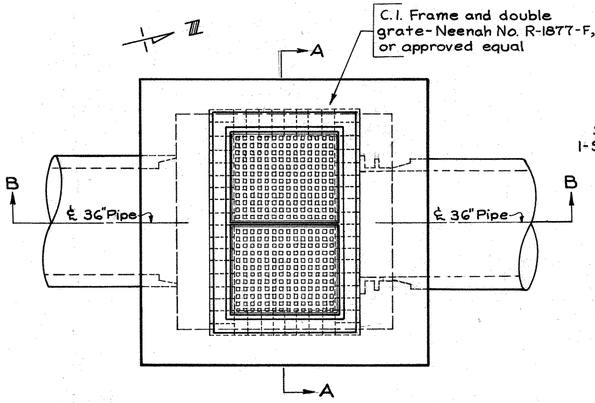
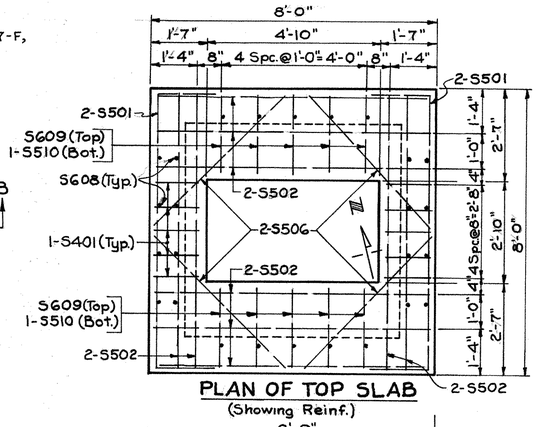
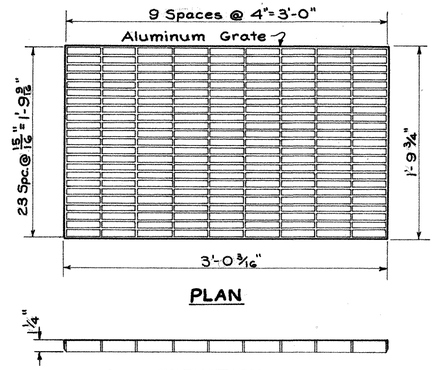


PLAN

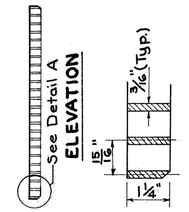


PLAN OF TOP SLAB
(Showing Reinf.)



PLAN

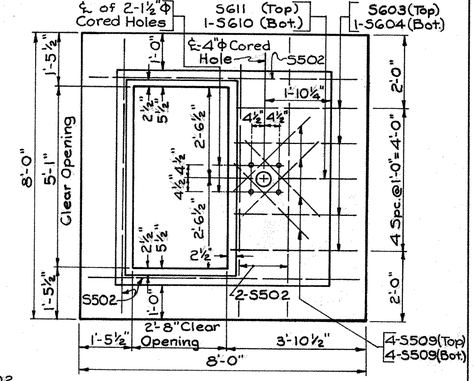
ELEVATION



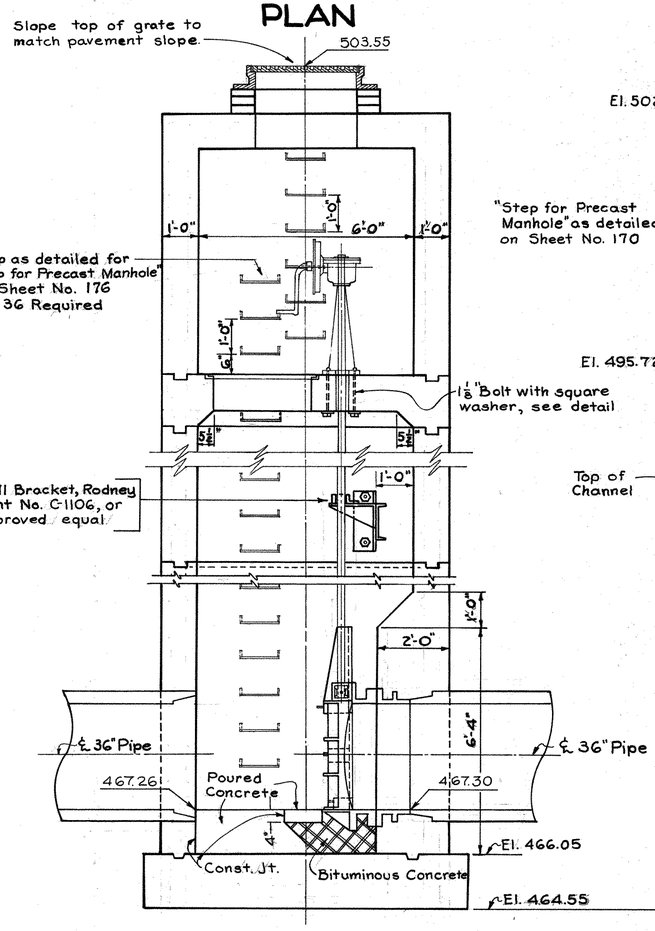
DETAIL A

Note:
See Sheet No. 182
for Detail of Frame

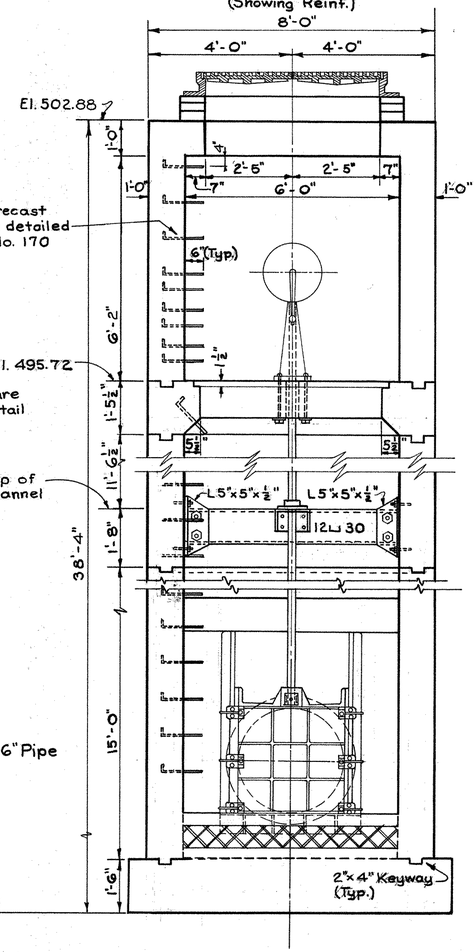
DETAILS OF HOIST FLOOR GRATES
3 REQUIRED



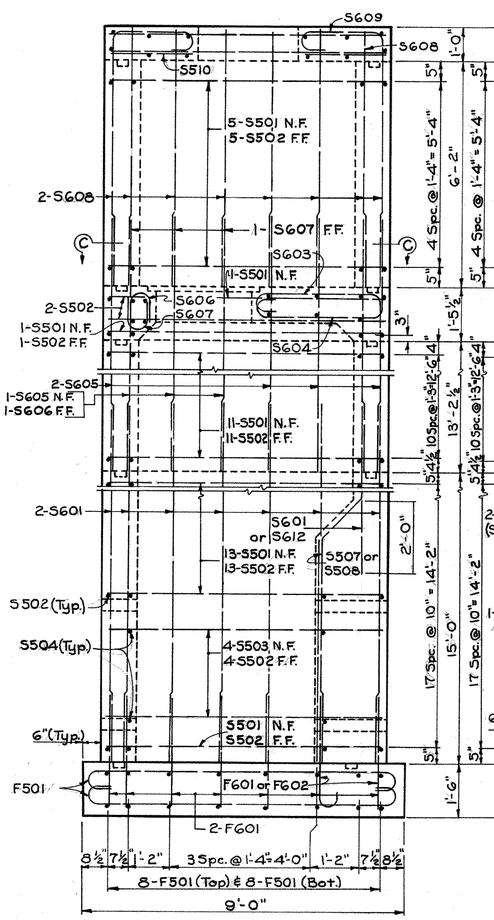
SECTION C-C



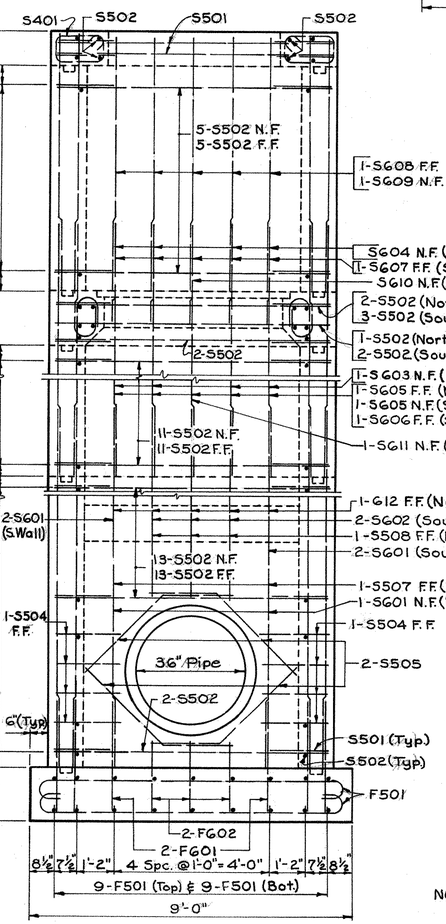
SECTION B-B



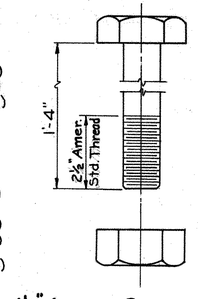
SECTION A-A



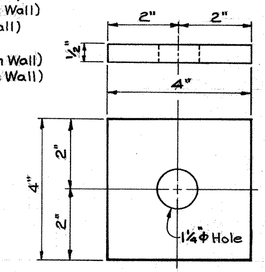
ELEVATION OF EAST WALL
(West Wall same, except opp. hand)



ELEVATION OF NORTH WALL
(South Wall same, excluding thickening of bottom 6' of Wall)



1⅛" ANCHOR BOLT WITH NUT
4 REQ'D.



4"x4"x½" WASHER
4 REQ'D.

NOTE:
Work this sheet with Sheet #182
N.F indicates Near Face.
F.F. indicates Far Face.

SEWER DETAILS

FED. RD. DIV.	STATE	PROJECT	FISCAL YEAR
2	OHIO		

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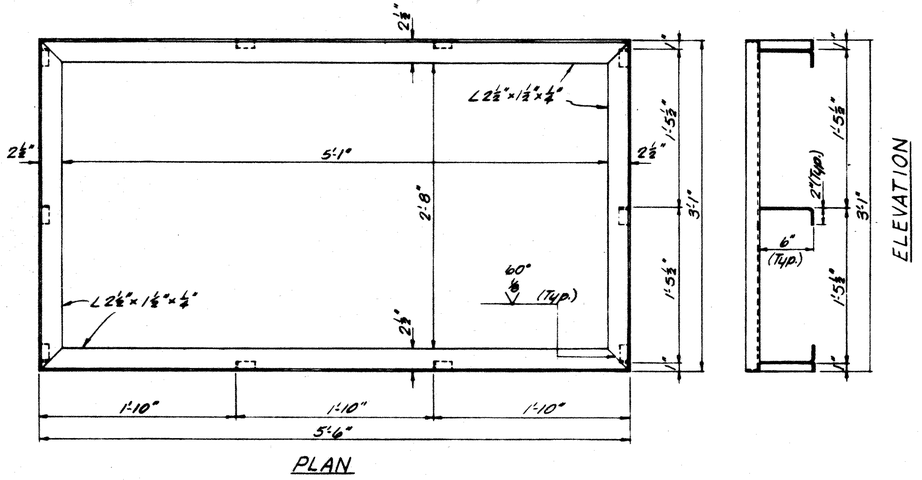
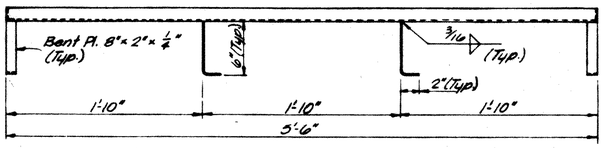


PLAN

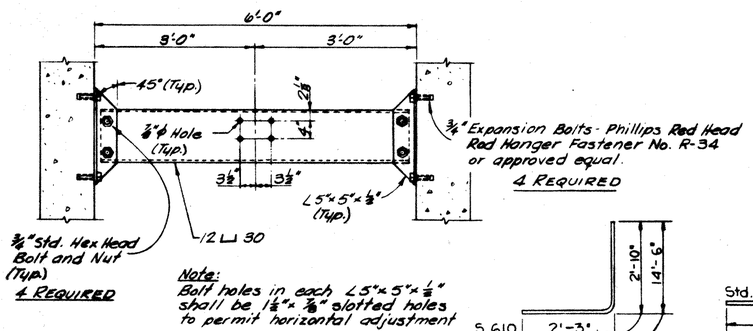
ELEVATION



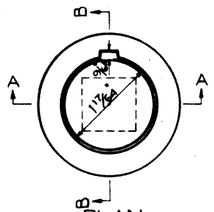
ELEVATION

DETAILS OF GRATING FRAME AT HOIST FLOOR

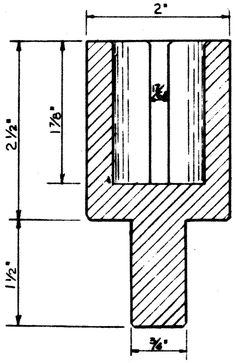
(All Members to be Structural Aluminum)



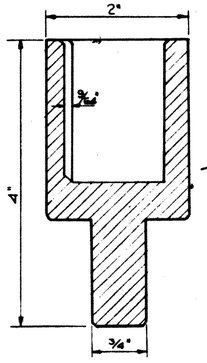
DETAIL OF BRACKET SUPPORT



PLAN



SECTION A-A



SECTION B-B

ADAPTER DETAILS
1-REQ'D

Notes:
Concrete shall be Class C

Backfill shall be Class I Backfill

Provide 3" clearance to reinforcing steel in the footing and 2" clearance to reinforcing steel in walls hoist floor and top slab. (Minimum)

The structural steel and the aluminum frame and grate shall be painted in accordance with State of Ohio, Department of Highways, Construction and Material Specifications dated January 1, 1961.

~~ESTIMATED QUANTITIES~~

Excavation	92 Cu. Yds.
Concrete	45.6 Cu. Yds.
Reinforcing Steel	6771 Lbs.
Backfill, Class I	44 Cu. Yds.

MARK	SHAPE	LGTH.	No. BARS	TOTAL WT.
S 401	Bent	4'-4"	10	27
S 501	Bent	10'-8"	68	757
S 502	Str.	7'-8"	234	1872
S 503	Bent	11'-4"	8	95
S 504	Str.	1'-11"	16	32
S 505	Bent	5'-4"	16	89
S 506	Str.	5'-0"	8	42
S 507	Bent	9'-2"	2	19
S 508	Bent	4'-3"	3	13
S 509	Str.	3'-0"	8	25
S 510	Str.	2'-3"	10	23
S 601	Str.	17'-0"	36	919
S 602	Str.	12'-0"	12	216
S 603	Bent	18'-6"	4	111
S 604	Bent	6'-10"	4	41
S 605	Str.	16'-8"	36	901
S 606	Bent	15'-2"	11	251
S 607	Bent	3'-10"	11	63
S 608	Str.	7'-0"	42	442
S 609	Bent	9'-9"	10	146
S 610	Bent	4'-11"	1	7
S 611	Bent	16'-7"	1	25
S 612	Str.	11'-8"	5	88
F 501	Bent	9'-8"	34	343
F 601	Bent	3'-11"	36	200
F 602	Bent	2'-8"	6	24

SPECIFICATIONS FOR SLUICE GATE AND CRANK OPERATED FLOOR STAND

The Sluice gate shall be cast iron, flush bottom closure, flange framed gate with a 36" diameter circular opening. The seating faces of the frame and slide shall be bronze. The seating wedges shall be bronze. The rising stem, stem extension, operating nut, stem coupling, studs, nuts, anchor bolts, and stem thrust cap shall be bronze. The disk and guides shall be cast iron. The stem and stem extension shall be 2-½" diameter. The sluice gate shall be designed to withstand seating and unseating heads of not less than 50 feet. The gate furnished shall be Rodney Hunt Series 360 or equal of 36" diameter circular opening. A cast iron type F thimble 12" long and a diameter equal to the gate diameter shall be provided. The front flange of the thimble shall be faced, drilled and tapped to receive the gate flange. The thimble shall be Type F Rodney Hunt or equal. The stem guide shall be bronze bushed Rodney Hunt F-4455-9 or equal. The wall bracket shall be cast iron two way adjustable Rodney Hunt C-1106 or equal of the range 6" to 15". A waterproof clear plastic stem pipe cover shall be provided.

A crank-operated geared floor stand shall be furnished with the sluice gate. The floor stand shall have two speeds with a 4:1 ratio and a 12:1 ratio. The floor stand shall have a weatherproof housing designed for occasional submergence mounted on a cast iron pedestal and shall contain solid bronze operating gears accurately machined. The crank shaft and bearings shall be bronze sleeve type accurately machined. The tapered roller thrust bearings shall be protected by double thickness platings of nickel chrome. All bearings shall be protected with mechanical seals. Lubrication fittings shall be provided. The crank shall be a sufficient size to provide a maximum crank effort not to exceed 40 pounds. The crank-operated floor stand shall be Rodney Hunt S5012A modified as described above or approved equal.

An adaptor shall be provided with the crank operated floor stand, and shall be machined from cold rolled steel of the dimension shown or called for in the plans.

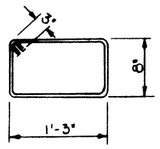
The cost of furnishing and placing the gate, floor stand, adaptor, thimble, grates, grate frame, manhole frames, covers and all necessary nuts, bolts, washers and miscellaneous hardware shall be included in the cost bid for Item I-8, Sluice Gate Chamber No. 1.

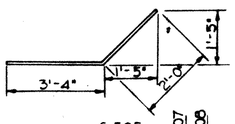
SPECIFICATIONS FOR USE WITH SLUICE GATE CHAMBER NO. 1

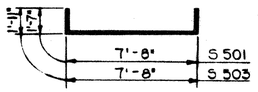
The manhole frame and double lid cover furnished and placed shall be Neenah No. R-1877-F or equal.

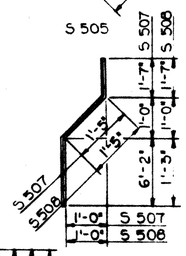
The aluminum grates furnished and placed shall be of the dimensions shown on the plans and Type CC Irving "X-Bar" grating or equal.

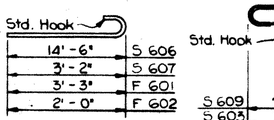
The cost of concrete, reinforcement, structural Steel, Bituminous concrete, excavation and backfill shall be included in the cost bid for Item I-8, Sluice Gate Chamber No. 1.

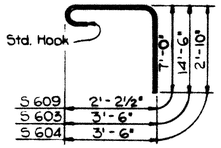


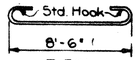












BAR BENDING DIAGRAMS

Rev. 11-3-62

SEWER DETAILS

FED. RD. DIV.	STATE	PROJECT	FISCAL YEAR
2	OHIO		

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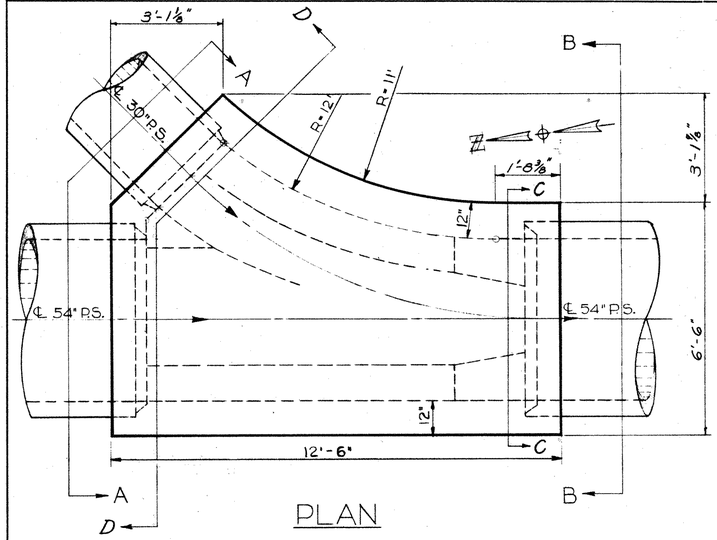
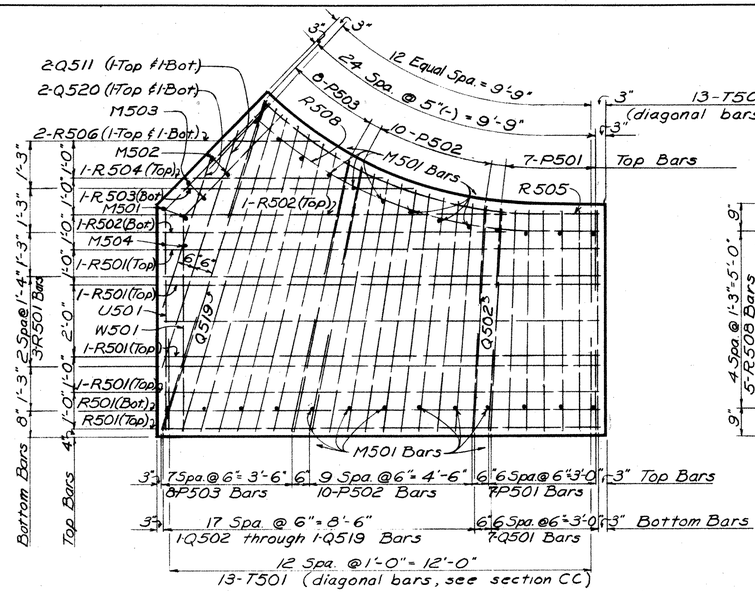
HAM-50-19.76

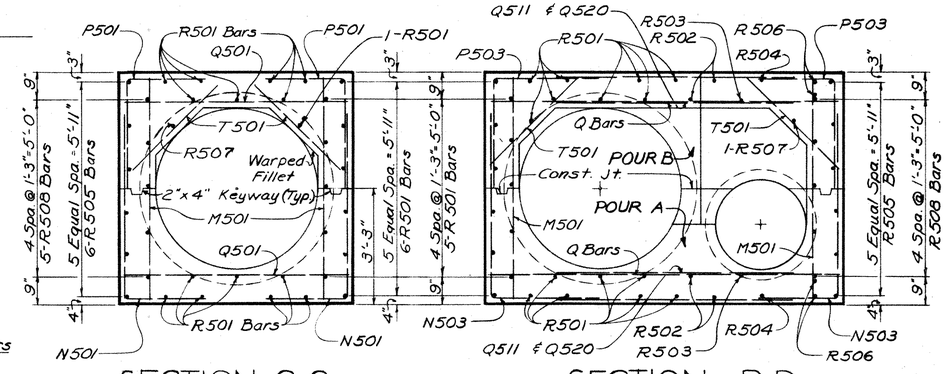


PLAN

JUNCTION CHAMBER No. 1

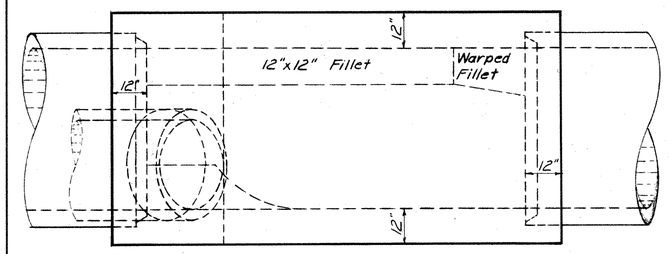


TOP SLAB PLAN

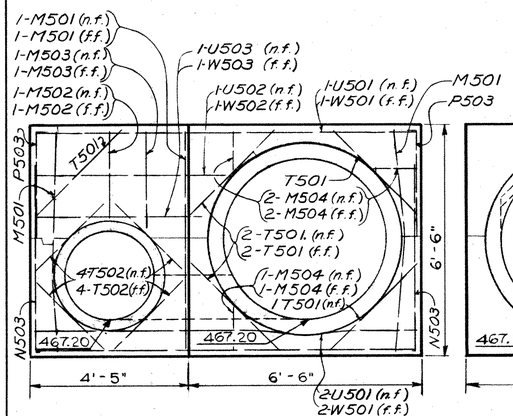


SECTION C-C

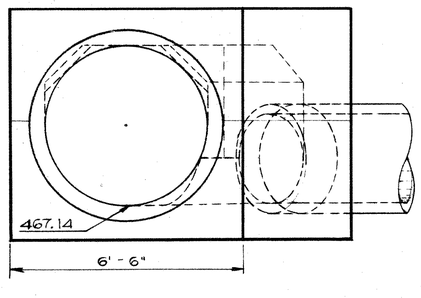
SECTION D-D



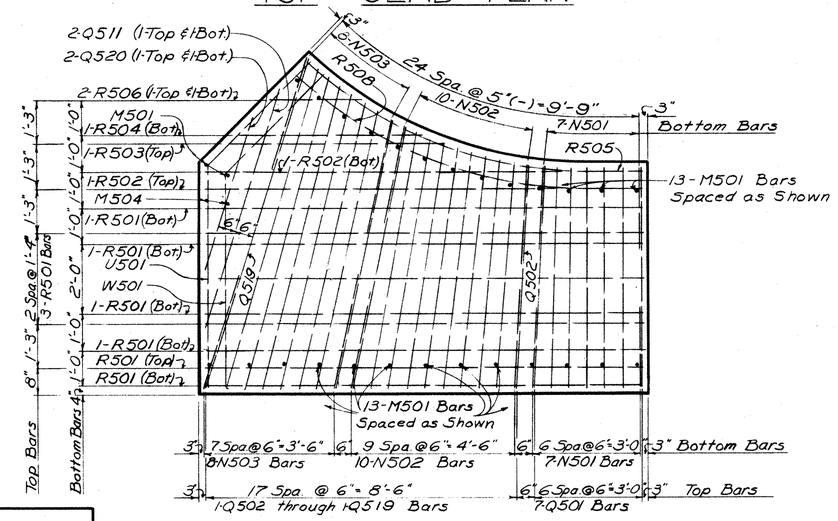
ELEVATION



SECTION AA



SECTION BB



BOTTOM SLAB PLAN

NOTES:

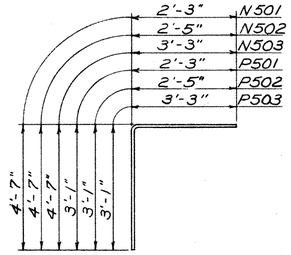
n.f. denotes near face, f.f. denotes far face.

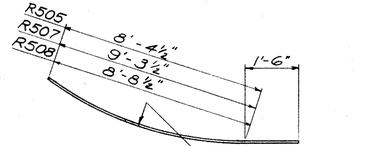
Concrete to be Class "E"

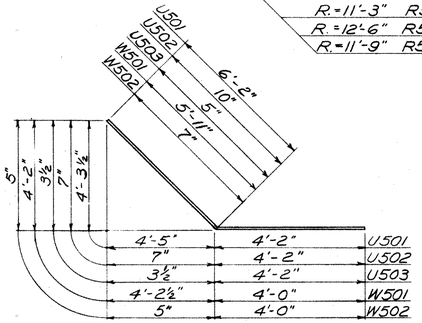
Excavation, backfill, weight of reinforcement, and concrete yardage for Junction Chamber No. 1 is included in Item I-8 Junction Chamber No. 1, as per plan, for payment.

All reinforcing bars are ⅝" ϕ

Provide 3" clearance to reinforcing steel in the footing and 2" clearance to reinforcing steel in the walls and top slab (minimum).







CONCRETE	QUANTITIES
Pour A	6.2 Cu. Yds.
Pour B	6.0 Cu. Yds.
Total	12.2 Cu. Yds

REINFORCING STEEL

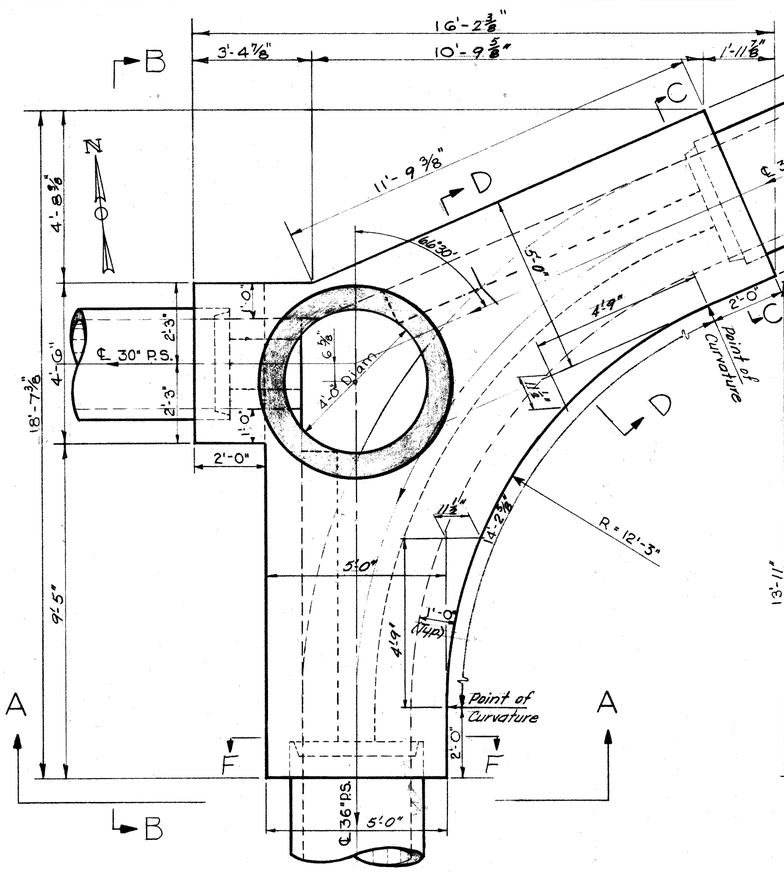
MARK	SHAPE	LENGTH	No.	WEIGHT
M501	Str.	6'-1"	28	178
M502	Str.	2'-4"	2	5
M503	Str.	2'-9"	2	6
M504	Str.	1'-1"	6	7
N501	Bent	6'-9"	14	99
N502	Bent	6'-11"	20	144
N503	Bent	7'-9"	16	129
P501	Bent	5'-3"	14	77
P502	Bent	5'-5"	20	113
P503	Bent	6'-3"	16	104
Q501	Str.	6'-2"	14	90
Q502	Str.	6'-3"	2	13
Q503	Str.	6'-4"	2	13
Q504	Str.	6'-5"	2	13
Q505	Str.	6'-6"	2	14
Q506	Str.	6'-8"	2	14
Q507	Str.	6'-10"	2	14
Q508	Str.	7'-0"	2	15
Q509	Str.	7'-2"	2	15
Q510	Str.	7'-4"	2	15
Q511	Str.	7'-6"	6	47
Q512	Str.	7'-9"	2	16
Q513	Str.	8'-0"	2	17
Q514	Str.	8'-3"	2	17
Q515	Str.	8'-6"	2	18
Q516	Str.	8'-9"	2	18
Q517	Str.	9'-1"	2	19
Q518	Str.	9'-5"	2	20
Q519	Str.	9'-8"	2	20
Q520	Str.	5'-0"	4	21
R501	Str.	12'-2"	26	330
R502	Str.	10'-0"	4	42
R503	Str.	5'-11"	2	12
R504	Str.	5'-3"	2	11
R505	Bent	10'-1"	6	63
R506	Str.	2'-5"	4	10
R507	Bent	11'-1"	1	12
R508	Bent	10'-6"	5	55
T501	Str.	3'-8"	31	119
T502	Str.	2'-8"	8	22
U501	Bent	10'-4"	3	32
U502	Bent	5'-0"	1	5
U503	Bent	4'-7"	1	5
W501	Bent	9'-11"	3	31
W502	Bent	4'-7"	1	5
W503	Str.	4'-0"	1	4
Total				2035

SEWER DETAILS

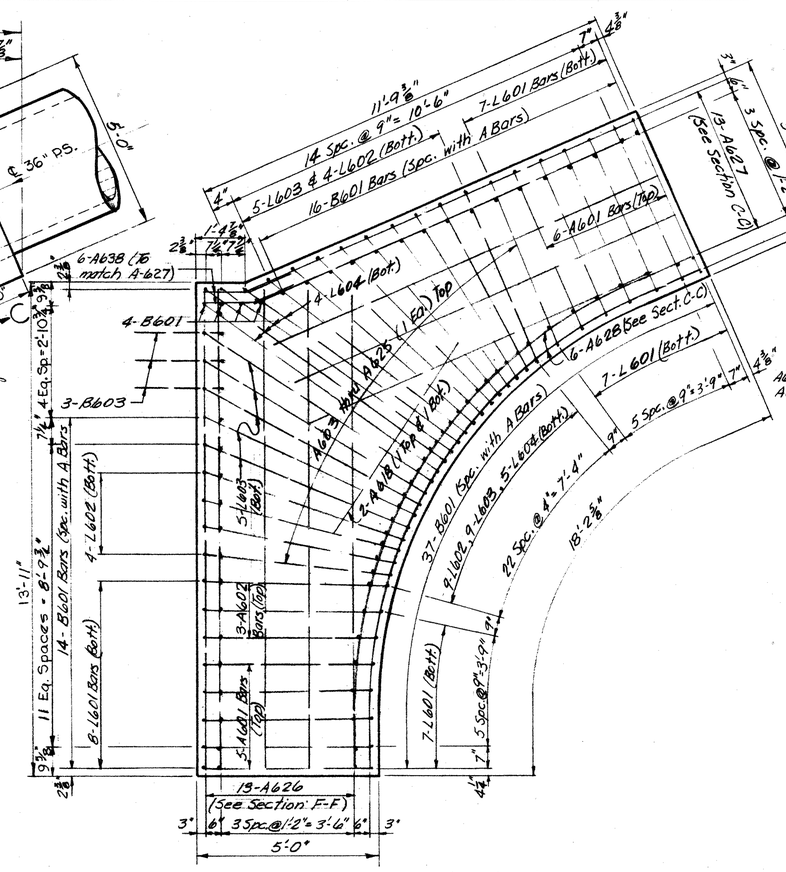
FED. RD. DIV.	STATE	PROJECT	FISCAL YEAR
2	OHIO		

184/464

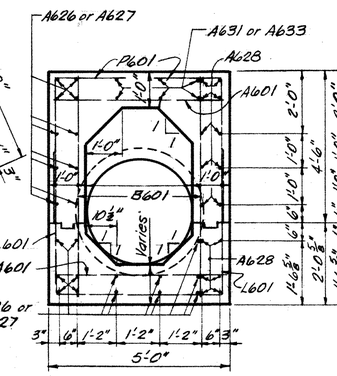
HAM-50-19.76



PLAN

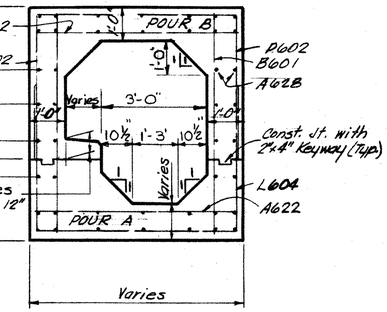


BOTTOM SLAB PLAN

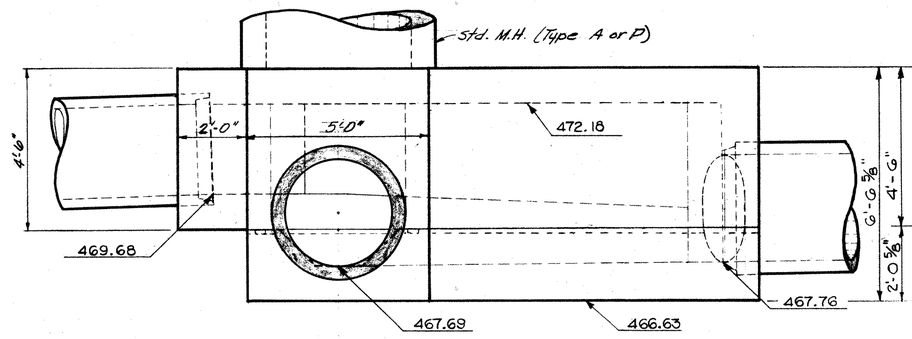


SECTION C-C

SECTION F-F OPPOSITE HAND

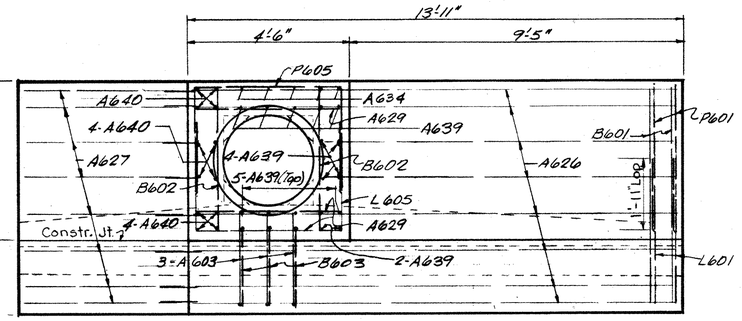


SECTION D-D



ELEVATION A-A

JUNCTION CHAMBER No. 2



ELEVATION B-B

Notes:
Manhole Frame, Cover, Barrel, Dome, Steps and any and all other incidental materials or labor to complete the manhole portion of the Junction Chamber shall be incidental to and included in the unit price bid for Item I-8 Junction Chamber No. 2, As Per Plan.

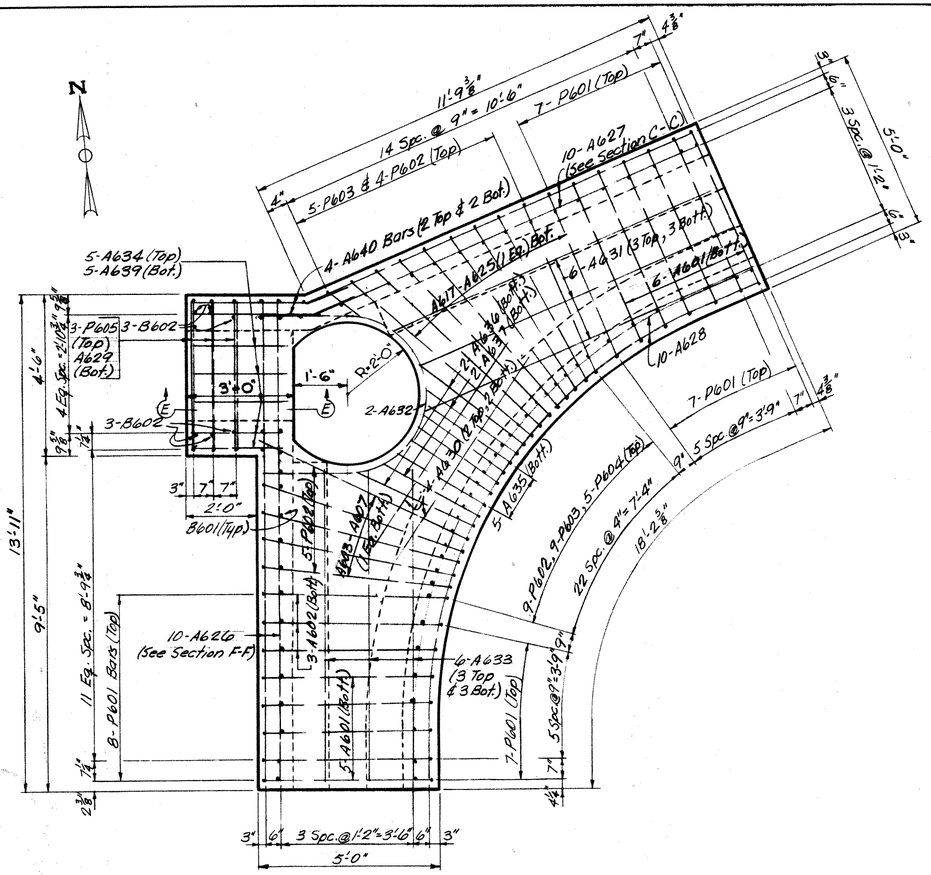
Notes:
Concrete to be Class "E".
Excavation, backfill, weight of reinforcement and concrete yardage for Junction Chamber No. 2 are included in Item I-8 Junction Chamber No. 2, as per plan, for payment.
All reinforcing bars are ⅜" ϕ.
Provide 3" clearance to reinforcing steel in footing and 2" clearance to reinforcing steel in the walls and top slab (minimum).

SEWER DETAILS

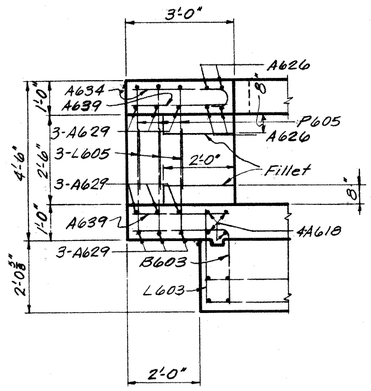
FED. RD. DIV.	STATE	PROJECT	FISCAL YEAR
2	OHIO		

185/464

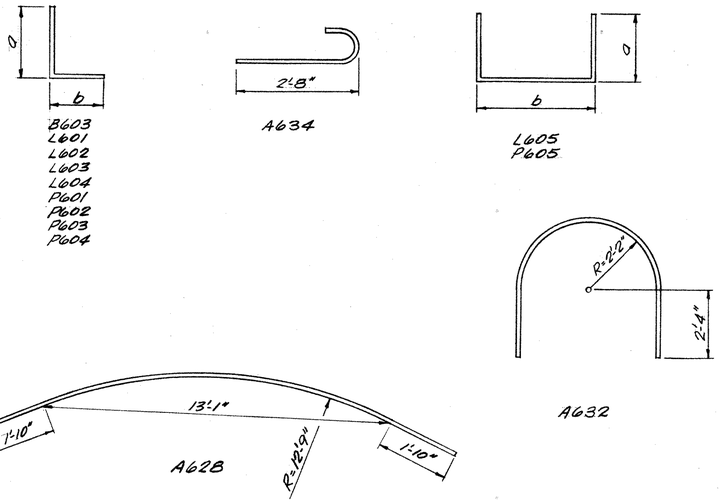
HAM-50-19.76



TOP SLAB PLAN



SECTION E-E



BAR BENDING DIAGRAMS

REINFORCING STEEL LIST

MARK	NUMBER	SHAPE	a	b	LENGTH	WEIGHT
L601	29	Bent	3'-9"	2'-0"	5'-7"	248
L602	17	↓	3'-9"	2'-4"	5'-11"	151
L603	19	↓	3'-9"	2'-8"	6'-3"	178
L604	9	↓	3'-9"	3'-0"	6'-7"	89
L605	3	Bent	3'-0"	4'-2"	10'-0"	45
P601		Bent	4'-4"	2'-0"	6'-2"	269
P602		↓	4'-4"	2'-4"	6'-6"	176
P603		↓	4'-4"	2'-8"	6'-10"	144
P604		↓	4'-4"	2'-9"	6'-11"	52
P605		Bent	3'-0"	4'-2"	10'-0"	45
A601	22	Str.			4'-8"	154
A602	5	↓			4'-10"	36
A603	2				5'-3"	16
A604	2				5'-6"	16
A605	2				5'-8"	17
A606	2				5'-11"	18
A607	2				6'-3"	19
A608	1				6'-7"	10
A609	1				6'-11"	10
A610	1				7'-4"	11
A611	1				7'-8"	11
A612	1				8'-2"	12
A613	1				8'-5"	13
A614	1				7'-11"	12
A615	1				7'-5"	11
A616	1				7'-1"	11
A617	2				6'-8"	20
A618	8				6'-4"	76
A619	2				6'-1"	18
A620	2				5'-9"	17
A621	2				5'-7"	17
A622	2				5'-5"	16
A623	2				5'-3"	16
A624	2				5'-1"	15
A625	2				4'-11"	15
A626	23				13'-5"	464
A627	23				11'-7"	400
A628	16				17'-8"	425
A629	6				4'-2"	38
A630	4				6'-9"	41
A631	6	Str.			9'-7"	86
A632	2	Bent			11'-6"	34
A633	6	Str.			8'-8"	78
A634	5	Bent			3'-4"	25
A635	5	Str.			2'-9"	21
A636	2	Str.			3'-8"	11
A637	2	Str.			3'-1"	9
A638	6	Bent			3'-3"	29
A639	6	Str.			2'-8"	24
A640	12	Bent			5'-3"	95
B601	1	Str.			6'-1"	648
B602	6	Str.			4'-2"	37
B603	3	Bent	2'-1"	2'-8"	4'-7"	21
				Total=		4465

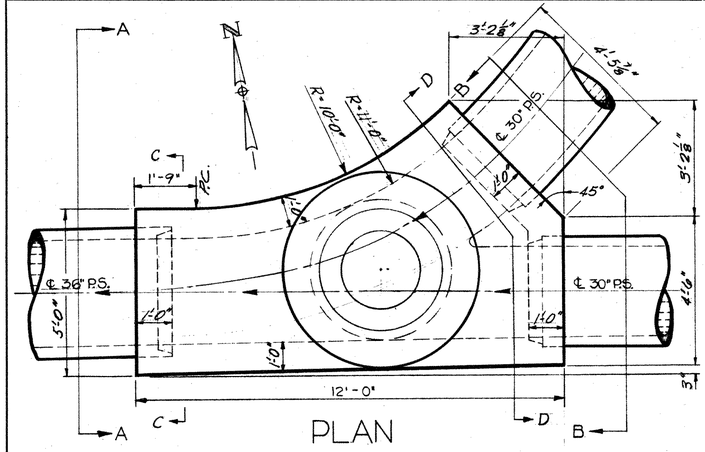
JUNCTION CHAMBER No. 2

SEWER DETAILS

FED. RD. DIV.	STATE	PROJECT	FISCAL YEAR
2	OHIO		

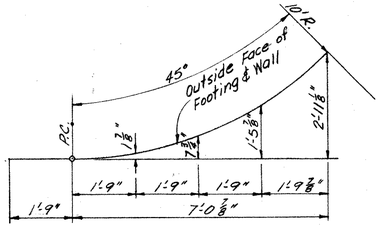
186/464

HAM-50-19.76

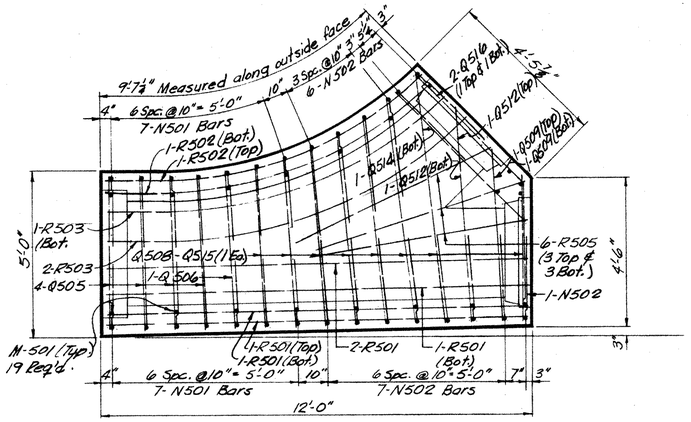


PLAN

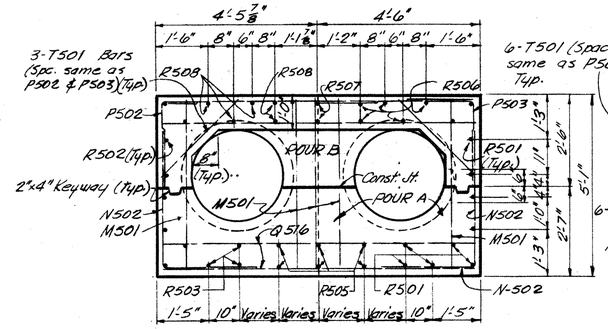
JUNCTION CHAMBER No. 3



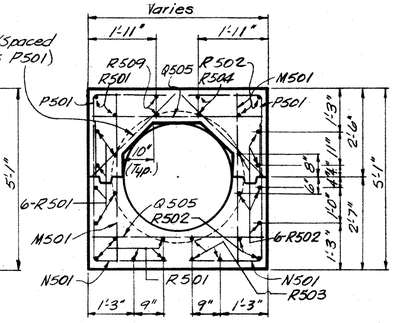
LAYOUT DIAGRAM FOR CURVED EDGE OF FOOTING



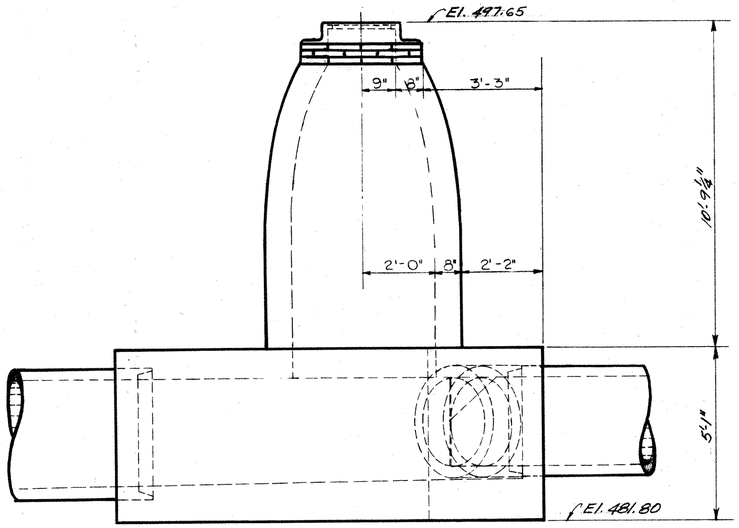
FOOTING PLAN



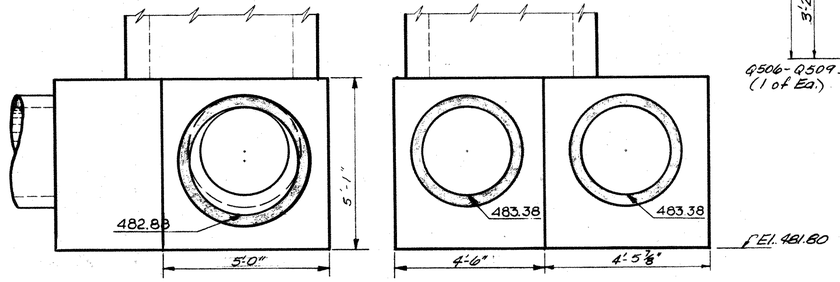
SECTION D-D



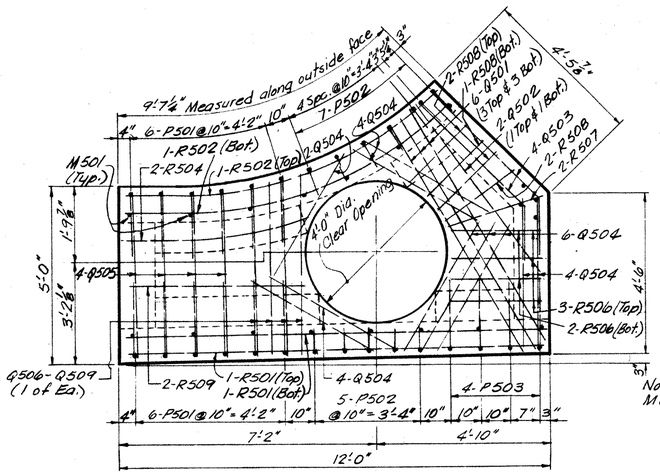
SECTION C-C



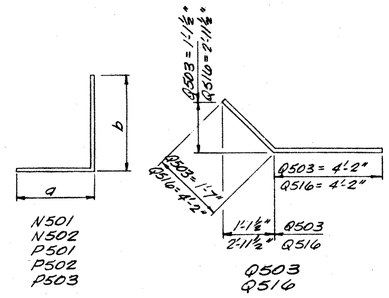
ELEVATION



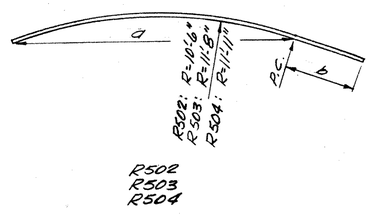
SECTION AA SECTION BB



TOP SLAB PLAN



Q503
Q516



R502
R503
R504

BAR BENDING DIAGRAMS

REINFORCING STEEL LIST

MARK	NUMBER	SHAPE	a	b	LENGTH	WEIGHT
M501	19	Str.			4'-8"	92
N501	14	Bent	2'-0"	4'-0"	5'-11"	86
N502	14	Bent	2'-6"	4'-0"	6'-5"	94
P501	12	Bent	2'-0"	2'-4"	4'-3"	53
P502	12	Bent	10"	2'-4"	3'-1"	39
P503	4	Bent	2'-6"	2'-4"	4'-9"	20
Q501	6	Str.			7'-3"	45
Q502	2	Str.			5'-10"	12
Q503	4	Bent			5'-9"	24
Q504	20	Str.			4'-0"	83
Q505	8	↑			4'-7"	38
Q506	2				4'-9"	10
Q507	1				4'-10"	5
Q508	2				4'-11"	10
Q509	4				5'-2"	22
Q510	1				5'-6"	6
Q511	1				5'-10"	6
Q512	2				6'-4"	13
Q513	2				6'-10"	14
Q514	2				7'-2"	15
Q515	1	Str.			4'-2"	4
Q516	2	Bent			8'-4"	17
R501	13	Str.			11'-8"	158
R502	10	Bent	7'-10"	1'-6"	9'-6"	99
R503	3	Bent	8'-7"	1'-6"	10'-3"	32
R504	2	Bent	3'-3"	1'-6"	4'-9"	10
R505	6	Str.			6'-0"	38
R506	5	↑			2'-6"	13
R507	2				2'-8"	6
R508	5				2'-3"	12
R509	2	Str.			5'-0"	10
T501	18	Str.			2'-11"	55
					Total =	1141

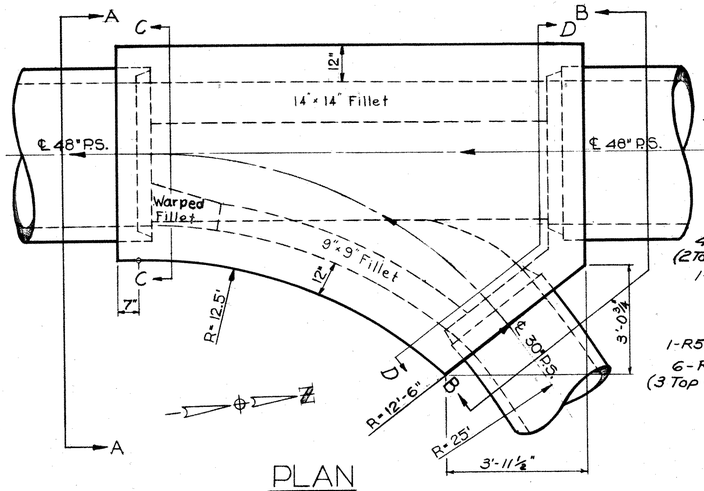
Notes:
Manhole Frame, Cover, Barrel, Dome, Steps and any and all other incidental materials or labor to complete the manhole portion of the Junction Chamber, shall be incidental to and included in the unit price bid for Item I-8 Junction Chamber No 3, As Per Plan.
Concrete to be Class "E"
Excavation, backfill, weight of reinforcement, and concrete yardage for Junction Chamber No. 3 are included in Item I-8, Junction Chamber No.3, as per plan, for payment.
All reinforcement bars are ⅝"ϕ.
Provide 3" clearance to reinforcing steel in the footing and 2" clearance to reinforcing steel in the walls and top slab (minimum).

SEWER DETAILS

FED. RD. DIV.	STATE	PROJECT	FISCAL YEAR
2	OHIO		

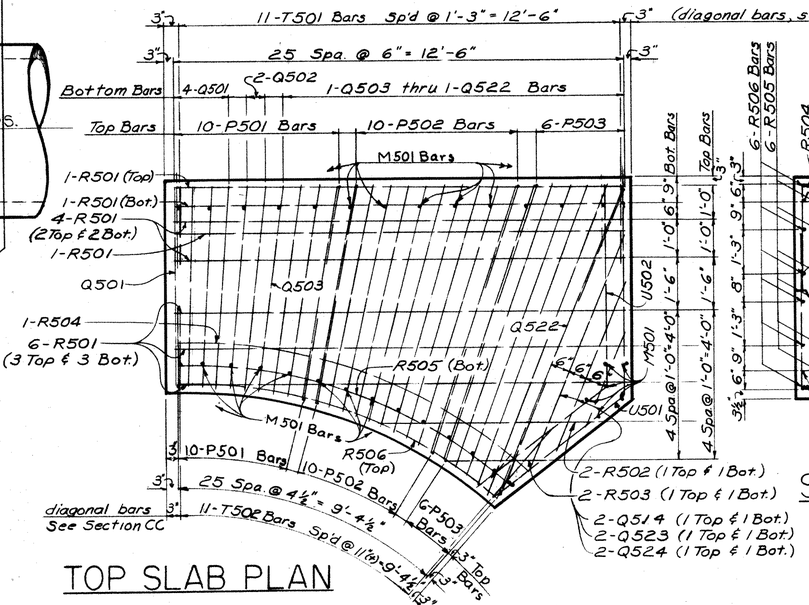
187/464

HAM-50-19.76



PLAN

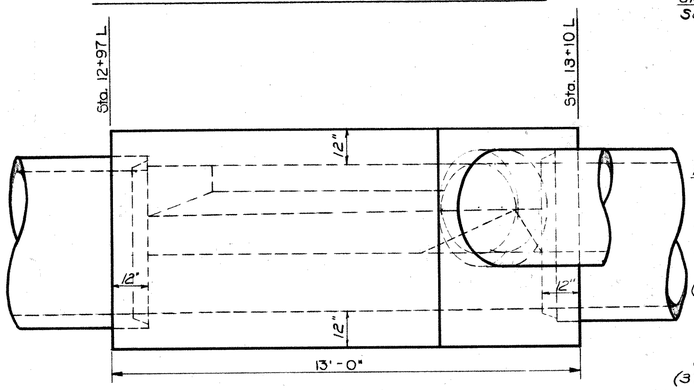
JUNCTION CHAMBER No. 4



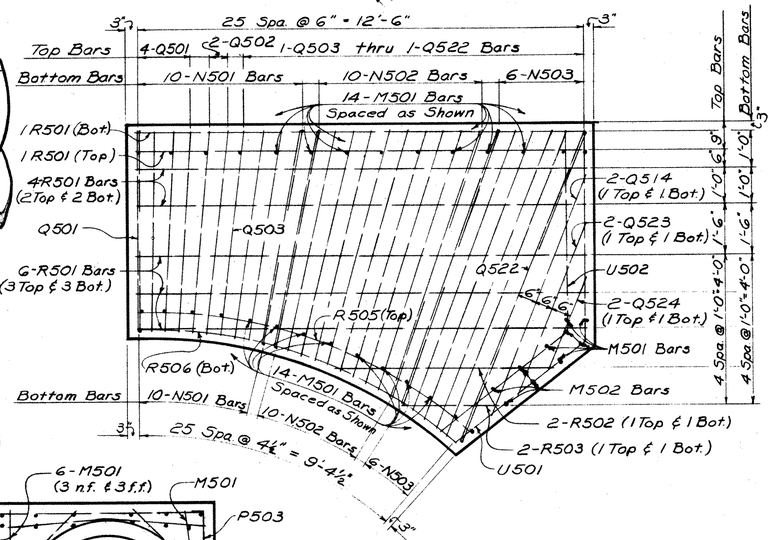
TOP SLAB PLAN

SECTION CC

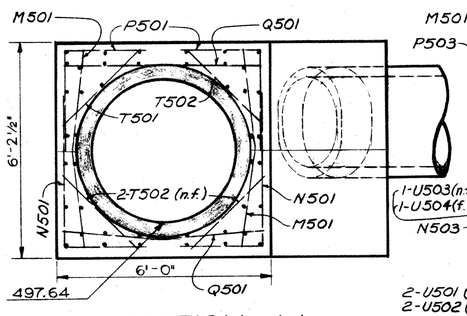
SECTION DD



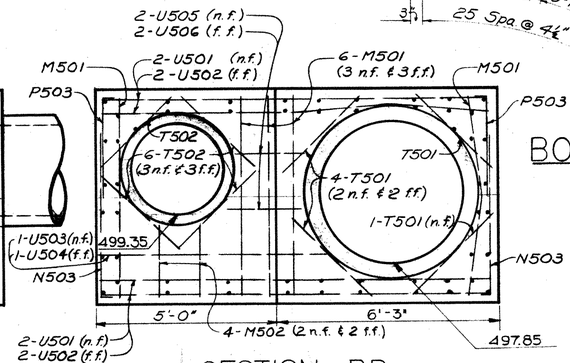
ELEVATION



BOTTOM SLAB PLAN



SECTION AA



SECTION BB

NOTES:

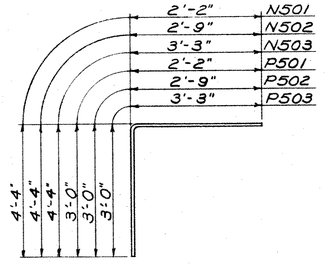
n.f. denotes near face, f.f. denotes far face.

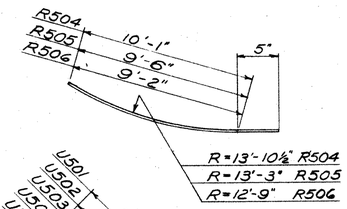
Concrete to be class 'E'

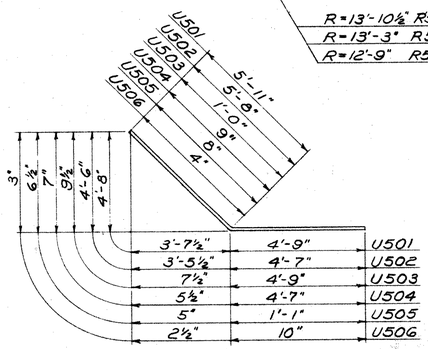
Excavation, backfill, weight of reinforcement, and concrete yardage for Junction Chamber No. 4 is included in Item 1-8 Junction Chamber No. 4, as per plan, for payment.

All reinforcement bars are ⅝" ϕ.

Provide 3" clearance to reinforcing steel in footing and 2" clearance to reinforcing steel in the walls and top slab (minimum).







CONCRETE QUANTITIES	
Pour A	7.2 Cu. Yds.
Pour B	5.9 Cu. Yds.
Total	13.1 Cu. Yds.

REINFORCING STEEL				
MARK	SHAPE	LENGTH	No.	WEIGHT
M501	Str.	5'-9"	34	204
M502	Str.	2'-1"	4	9
N501	Bent	6'-4"	20	132
N502	Bent	6'-11"	20	144
N503	Bent	7'-5"	12	93
P501	Bent	5'-0"	20	104
P502	Bent	5'-7"	20	116
P503	Bent	6'-1"	12	76
Q501	Str.	5'-8"	8	47
Q502	Str.	5'-9"	4	24
Q503	Str.	5'-10"	2	12
Q504	Str.	5'-11"	2	12
Q505	Str.	6'-0"	2	13
Q506	Str.	6'-2"	2	13
Q507	Str.	6'-3"	2	13
Q508	Str.	6'-5"	2	13
Q509	Str.	6'-7"	2	14
Q510	Str.	6'-9"	2	14
Q511	Str.	6'-11"	2	14
Q512	Str.	7'-1"	2	15
Q513	Str.	7'-3"	2	15
Q514	Str.	7'-6"	6	47
Q515	Str.	7'-8"	2	16
Q516	Str.	7'-11"	2	17
Q517	Str.	8'-2"	2	17
Q518	Str.	8'-6"	2	18
Q519	Str.	8'-9"	2	18
Q520	Str.	9'-0"	2	19
Q521	Str.	9'-4"	2	19
Q522	Str.	9'-8"	2	20
Q523	Str.	5'-6"	4	23
Q524	Str.	3'-5"	4	14
R501	Str.	12'-8"	33	436
R502	Str.	6'-9"	4	28
R503	Str.	3'-6"	4	15
R504	Bent	10'-8"	1	11
R505	Bent	10'-2"	6	64
R506	Bent	9'-9"	6	61
T501	Str.	3'-6"	16	58
T502	Str.	3'-0"	19	59
U501	Bent	10'-8"	4	45
U502	Bent	10'-3"	4	43
U503	Bent	5'-9"	1	6
U504	Bent	5'-4"	1	6
U505	Bent	1'-9"	2	4
U506	Bent	1'-2"	2	2
Total				2163

SEWER DETAILS

FED. RD. DIV.	STATE	PROJECT	FISCAL YEAR
2	OHIO		

188
464

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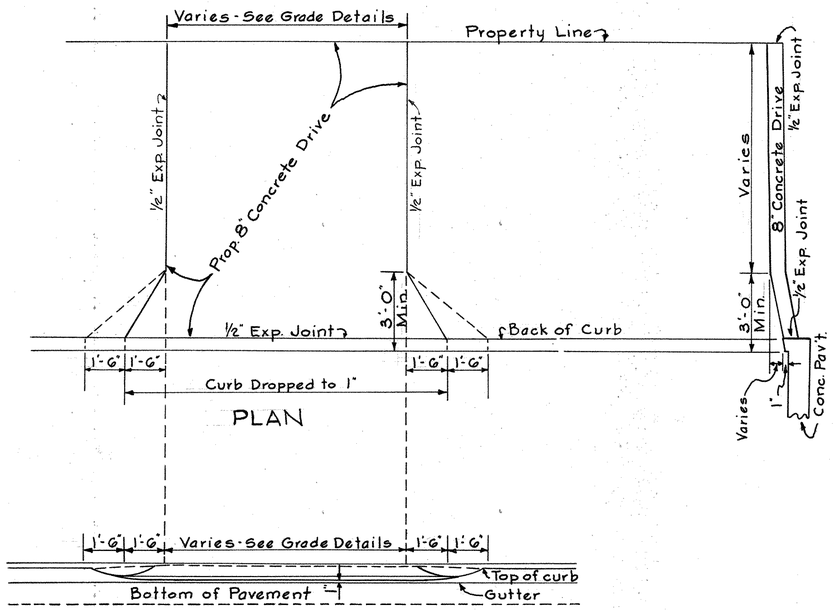
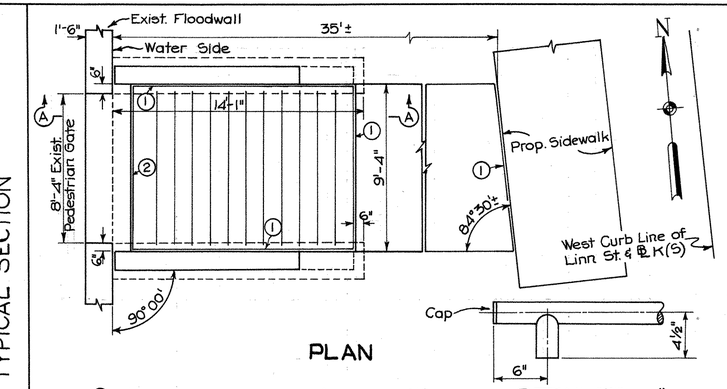


TYPICAL ELEVATION

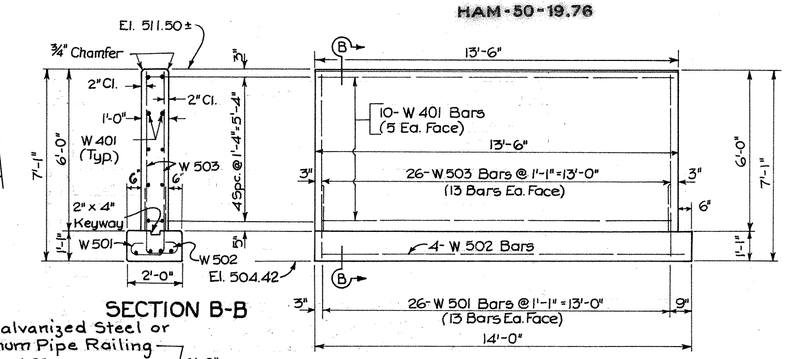
TYPICAL DRIVE DETAIL

TYPICAL SECTION



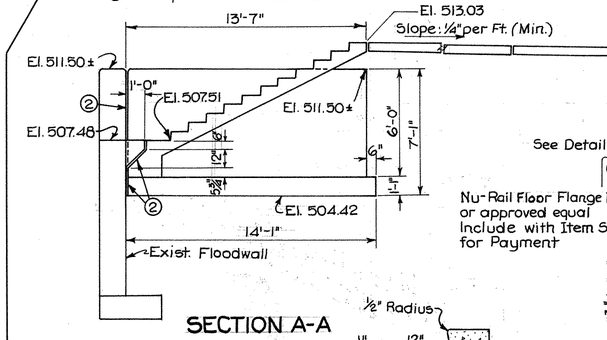
PLAN

DETAIL "B"



SECTION B-B

① - ½" Expansion Jt. Material (See ** Note)
② - 1" Expansion Jt. Material

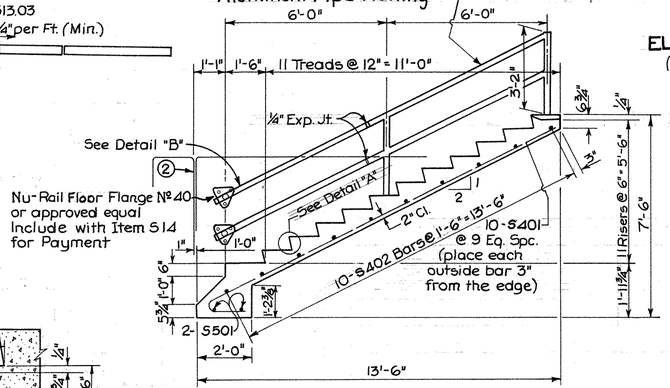


SECTION A-A

DETAIL "A"

** Note:
½" Expansion Joint Material shall be incidental to and included in the unit price bid for Item I-13, Concrete Steps, As Per Plan.

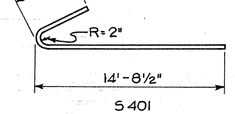
2" I.D. Galvanized Steel or Aluminum Pipe Railing



ELEVATION OF WALL
(Typical for Both Walls)

MARK	SHAPE	LGTH.	NO.	WEIGHT
W 401	Str.	13'-2"	20	176
W 501	Bent	4'-0"	52	217
W 502	Str.	13'-6"	8	113
W 503	Str.	5'-10"	52	316
S 401	Bent	16'-5"	10	110 *
S 402	Str.	8'-11"	10	60 *
S 403	Bent	3'-3"	2	4 *
S 501	Str.	8'-11"	2	19 *

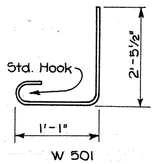
* Incidental to & included in Item I-13, Conc. Steps



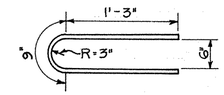
S 401

ELEVATION OF STEPS & RAILING
Drawn for North Side, South Side Similar.

Note:
For Typical Anchorage Detail for railing posts and Typical Expansion Joint Detail for railing see Sheet No. 251



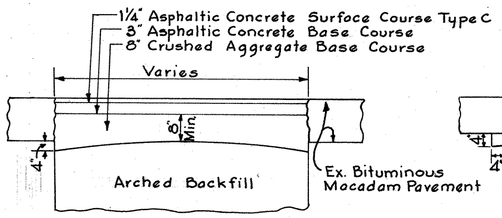
W 501



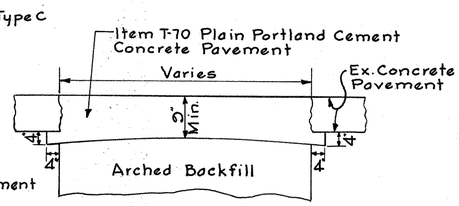
S 403
See Typical Anchorage Detail for location. See Sheet No. 251

BAR BENDING DIAGRAMS

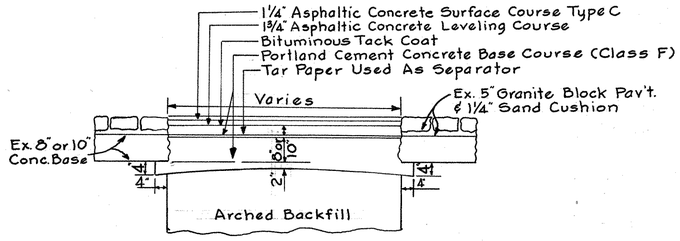
WALL № 12 & STEP DETAILS AT LINN STREET



BITUMINOUS PAVEMENT



CONCRETE PAVEMENT



GRANITE BLOCK PAVEMENT

PAVEMENT RESTORATION

TOTALS TO GENERAL SUMMARY

ITEM	QUANTITY	UNIT	DESCRIPTION
			ROADWAY
I-13	112	Lin. Ft.	Concrete Steps, As Per Plan
S-14	28	Lin. Ft.	Handrail for Steps, As Per Plan
			WALL № 12
S-1	2	Cu. Yd.	Class "E" Concrete, Footings, As Per Plan
S-1	6	Cu. Yd.	Class "E" Concrete, Wall Shafts, As Per Plan
S-4	822	Lb	Reinforcing Steel, As Per Plan
S-9	39	Sq. Ft.	1" Preformed Expansion Joint Filler (Gray Sponge Rubber)
E-2	15	Cu. Yd	Unclassified Excavation

Note: Quantities shown for items under Wall No. 12 are the total estimated quantities for both (north & south) sections of the wall adjacent to the Concrete Steps.

WALL №. 12, STEPS & MISCELLANEOUS DETAILS

FED. RD. DIV.	STATE	PROJECT	FISCAL YEAR
2	OHIO		

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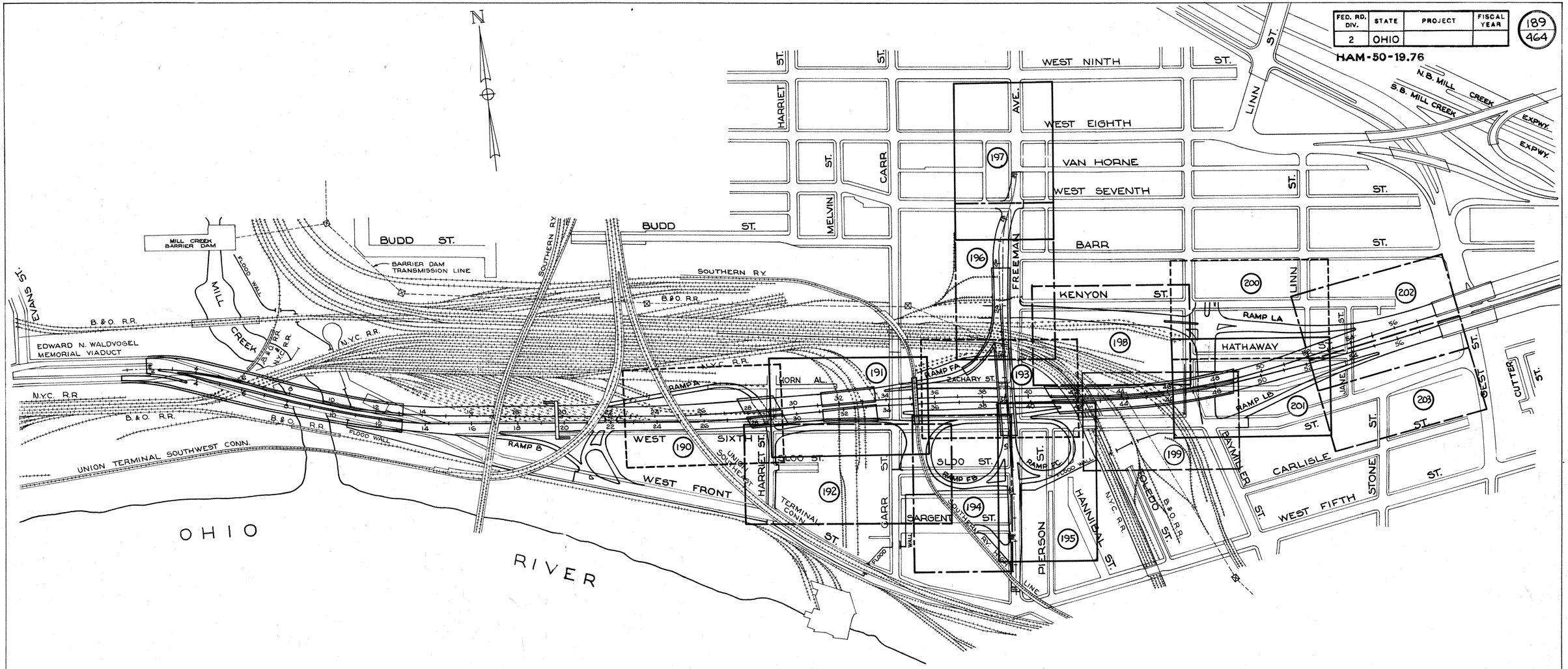

JOINT LEGEND

Standard Longitudinal Joint	L
Longitudinal Key Joint Without Dowels With Thickened Edge	LT
Standard Expansion Joint	E
Expansion Joint Without Dowels With Thickened Edge	ET
Standard Longitudinal Key Joint Without Tie Bars	KJ
Standard Hook Bolt and Key Joint	HK

GRADE DETAIL INDEX

FED. RD. DIV.	STATE	PROJECT	FISCAL YEAR
2	OHIO		

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Note: Transition from Standard Type 6 Curb to Type 10 Curb to be paid for as Type 10 Curb.
Transition from Type 9 Curb to Standard Type 6 Curb to be paid for as Type 9 Curb.

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RAMP A

WESTBOUND EXPRESSWAY

EASTBOUND EXPRESSWAY

Type 9 Curb
20' Transition Type 9 Curb to Std. Type 6 Curb (Sta. 23+20A-23+40A)
Change Base Line A (16' Rt.) 23+17.5 A
Std. Type 6 Curb
2:1 Slope
Sod
Level
Drainage Ditch
Berm Line
Base Line A
PT. 24+71.72 W.B. (N)
POC. 24+72.88 (41.15' Lt.)
Exist. Pier
Std. Type 6 Curb
PI 27+22.29 WB (N)
POC 27+25 (48' Lt.)
20' Transition Std. Type 6 Curb to Type 10 Curb
+5.54% ~ 84.55'
+5.53% ~ 84.70'
+5.51% ~ 84.85'
+5.50% ~ 8.5'
+6.50% ~ 85.06'
PCC 26+14.46
Exist. Pier
Std. Type 2-A Curb
Std. Type 6 Curb
Ret. Wall No. 5
4:1 Slope
Std. Type 4A Curb
20' Transition Std. Type 6 to Type 10 Curb
Ex. Wire Fence with Gates
4 St. Br. *1243-1247
Ex. Br. Drive
Ex. Conc. Dr.
1 St. Met.
Std. Type 4A Curb
3 St. Br. Foundry *1237-1241
Prop. Conc. Walk
1 St. Met.
Ex. Conc. Drive
Ex. Wood Gate
Ex. 9" Wall
Ex. Wood Fence
20' Transition Type 10 to Std. Type 6 Curb
Exist. Pier
Berm Line
Std. Type 6 Curb
Sod
2:1 Slope
20' Transition Std. Type 6 to Type 10 Curb
Drainage Ditch
2:1 Slope
Ex. Gravel Drive
Ex. Metal Bldg.
2:1 Slope
Ex. Conc. Wall
Drainage Ditch
Sod
Std. Type 6 Curb
20' Transition Type 10 to Std. Type 6 Curb
Type 7A Curb
2:1 Slope
Std. Type 6 Curb
BRIDGE NO. HAM.50-1987L
Approach Slab
BRIDGE NO. HAM.50-1987R
Approach Slab
Type 7A Curb
Ret. Wall No. 3
Type 7A Curb
Prop. 6' Conc. Walk
Prop 3' Conc. Walk
HARRIET ST.
31.92'

POC. 30+08.15A
P.O.T. 3+99.605
P.C. 9+98.915(S)
P.T. 30+87.65A
POC 29+57.79A (19' Rt.)
POC 29+94.28 S (N)
PRC 29+38.71A

GRADE DETAIL - EXPWY. STA. 23+00 TO STA. 29+00

FED. RD. DIV.	STATE	PROJECT	FISCAL YEAR
2	OHIO		

191
464

HAM-50-19.76

Note: Transition from Standard Type 6 Curb to Type 10 Curb to be paid for as Type 10 Curb
Transition from Standard Type 6 Curb to Type 9 Curb to be paid for as Type 9 Curb.

GRADE DETAIL - EXPWY. STA. 29+00 TO STA. 35+50

FED. RD. DIV.	STATE	PROJECT	FISCAL YEAR
2	OHIO		

192
464

HAM-50-19.76

SIXTH ST.

CARR ST.

HARRIET ST.

FRONT ST.

SLOO AL

SLOO ST.

SLOO ST.

P.O.C. 30+08.15A
P.O.T. 9+99.60S

Type 7A Curb

P.T. 12+33.42(S)

P.C. 10+66.05(S)
P.O.T. 10+62.94S (13RT)

P.C. 10+79.55(S)

Pc. 9+98.91S(S)

31.92'

P.T. 30+87.85A

Prop. 3' Conc. Walk

Meet Existing Pavement

Meet Exist. Pavement & Walk

Type 7A Curb

Prop 6' Conc. Walk

Type 7A Curb

PC. 33+08.A

Meet Ex. Walk

PC. 33+26.26A

Meet Exist. Pav't Jt. Sta. 33+43 A

Type 7B Curb

PC. 15+07.59S(S)

PT. 15+18.00S(N)

Existing Parking Area

Vary Slope to Meet Exist. Ground

Drop Curb for Future 35' Drives as shown on Sh. No. 9 and 188

16+88S(N)

PC. 17+38.68S(N)

Meet Exist. Pavement

Grade to Drain

Sod

2:1 Slope

Bridge Pier

35+85 FB

34 FB

35 FB

34+75 FB

33+71.84 PC.C.

RAMP

Drainage Ditch

Berm Line

Conc. Flood Wall

GRADE DETAIL - HARRIET ST. & CARR ST.

FED. RD. DIV.	STATE	PROJECT	FISCAL YEAR
2	OHIO		

193
464

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Note: Transition from Standard Type 6 Curb to Type 10 Curb or to Type 9 Curb to be paid for Type 10 or Type 9 Curb. Transition from Standard Type 2-A Curb to Type 10-A Curb to be paid for as Type 10-A Curb.

GRADE DETAIL - EXPWY. STA. 35+50 TO STA. 41+50

FED. RD. DIV.	STATE	PROJECT	FISCAL YEAR
2	OHIO		

194
464

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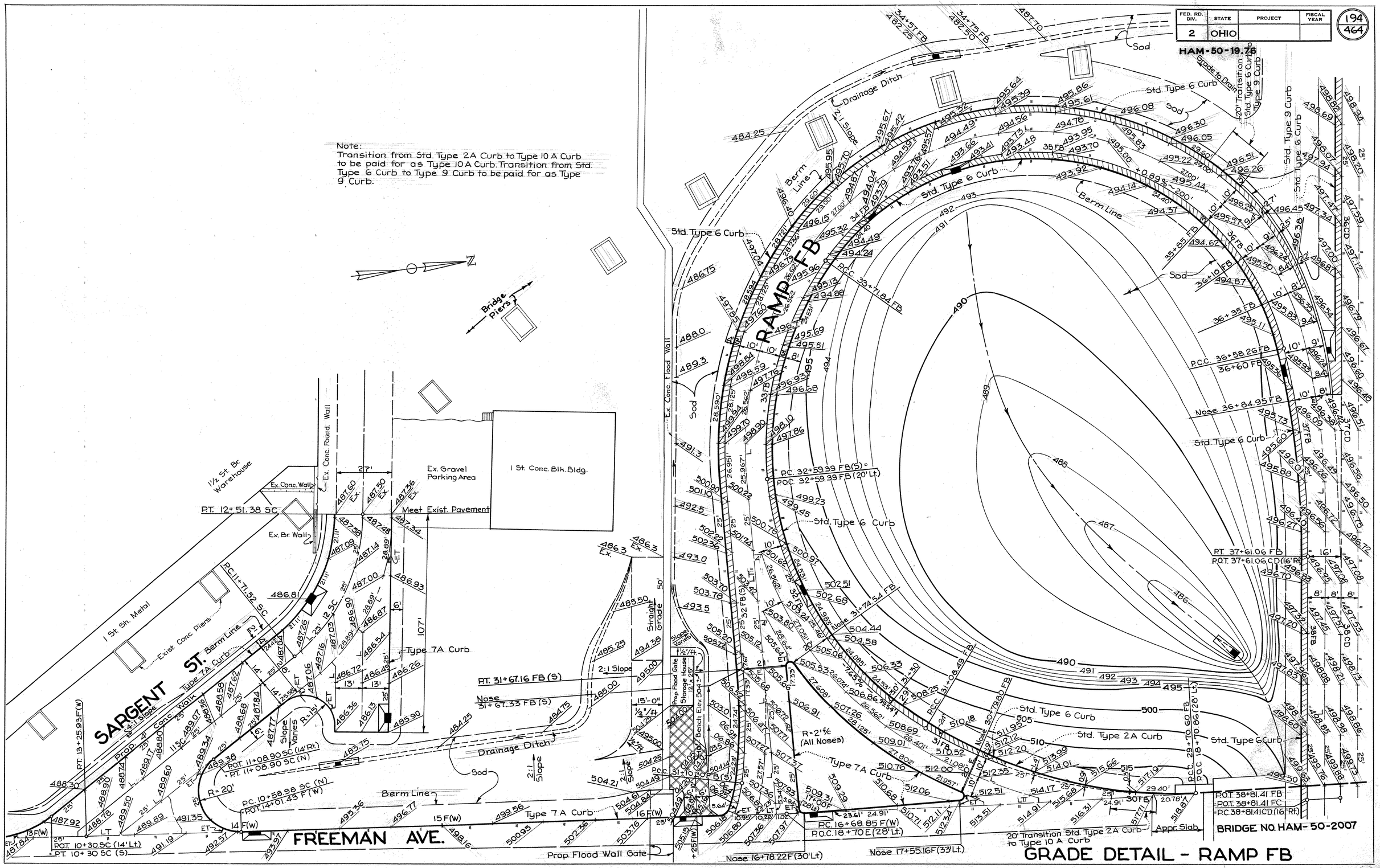
Note:
Transition from Std. Type 2A Curb to Type 10 A Curb to be paid for as Type 10 A Curb. Transition from Std. Type 6 Curb to Type 9 Curb to be paid for as Type 9 Curb.



BRIDGE NO. HAM-50-2007

GRADE DETAIL - RAMP FB

FED. RD. DIV.	STATE	PROJECT	FISCAL YEAR
2	OHIO		

195/464

HAM-50-19.76

FREEMAN AVE.

BRIDGE NO. HAM-50-2007

Note:
Transition from Std. Type 2-A Curb to Type 10A Curb to be paid for as Type 10 A Curb

RAMP FC

GRADE DETAIL - FREEMAN AVE. STA. 11+00 TO STA. 19+00

FED. RD. DIV.	STATE	PROJECT	FISCAL YEAR
2	OHIO		

196
464

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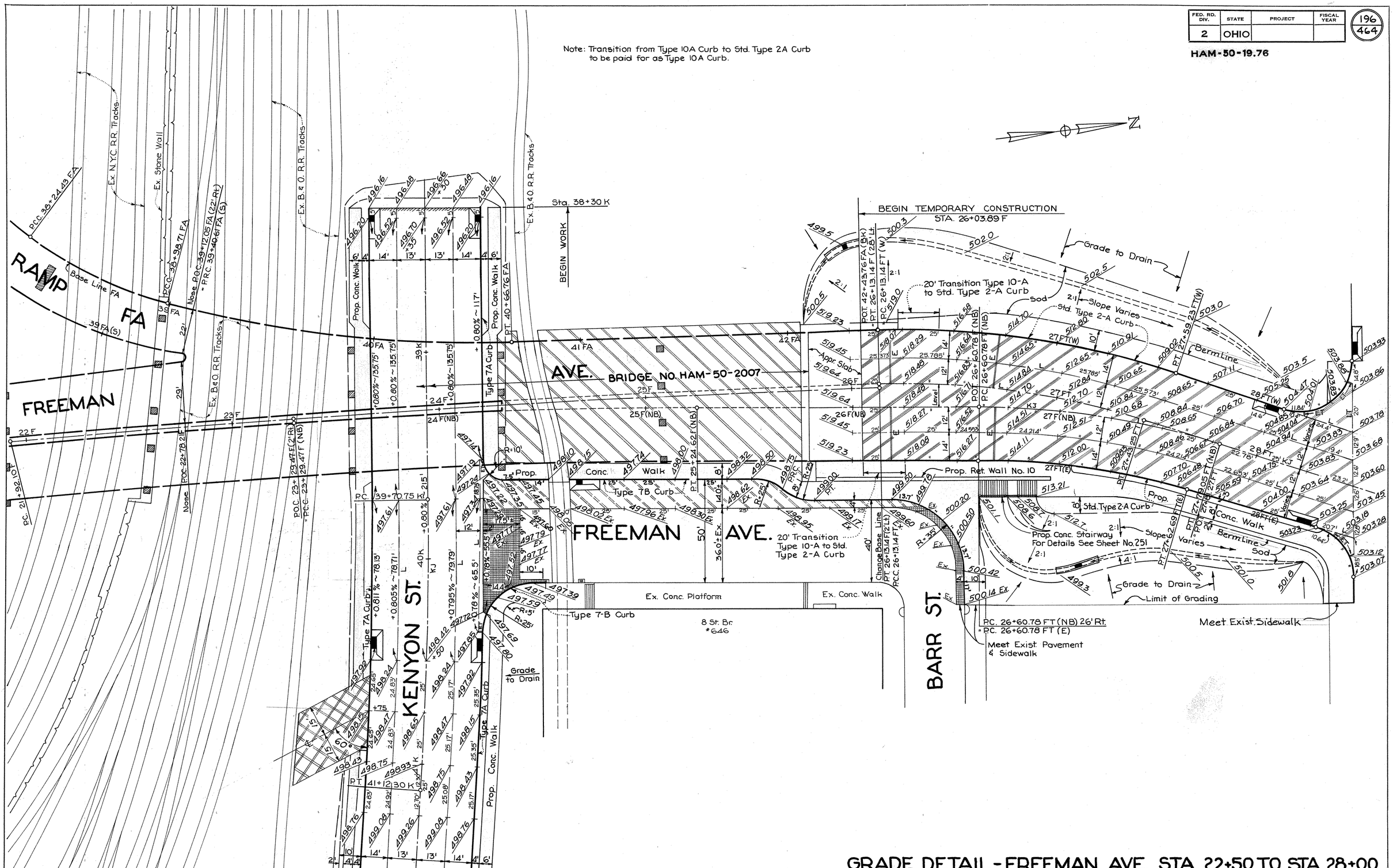
Note: Transition from Type 10A Curb to Std. Type 2A Curb to be paid for as Type 10A Curb.



GRADE DETAIL - FREEMAN AVE. STA. 22+50 TO STA. 28+00

9

FED. RD. DIV.	STATE	PROJECT	FISCAL YEAR
2	OHIO		

197
464

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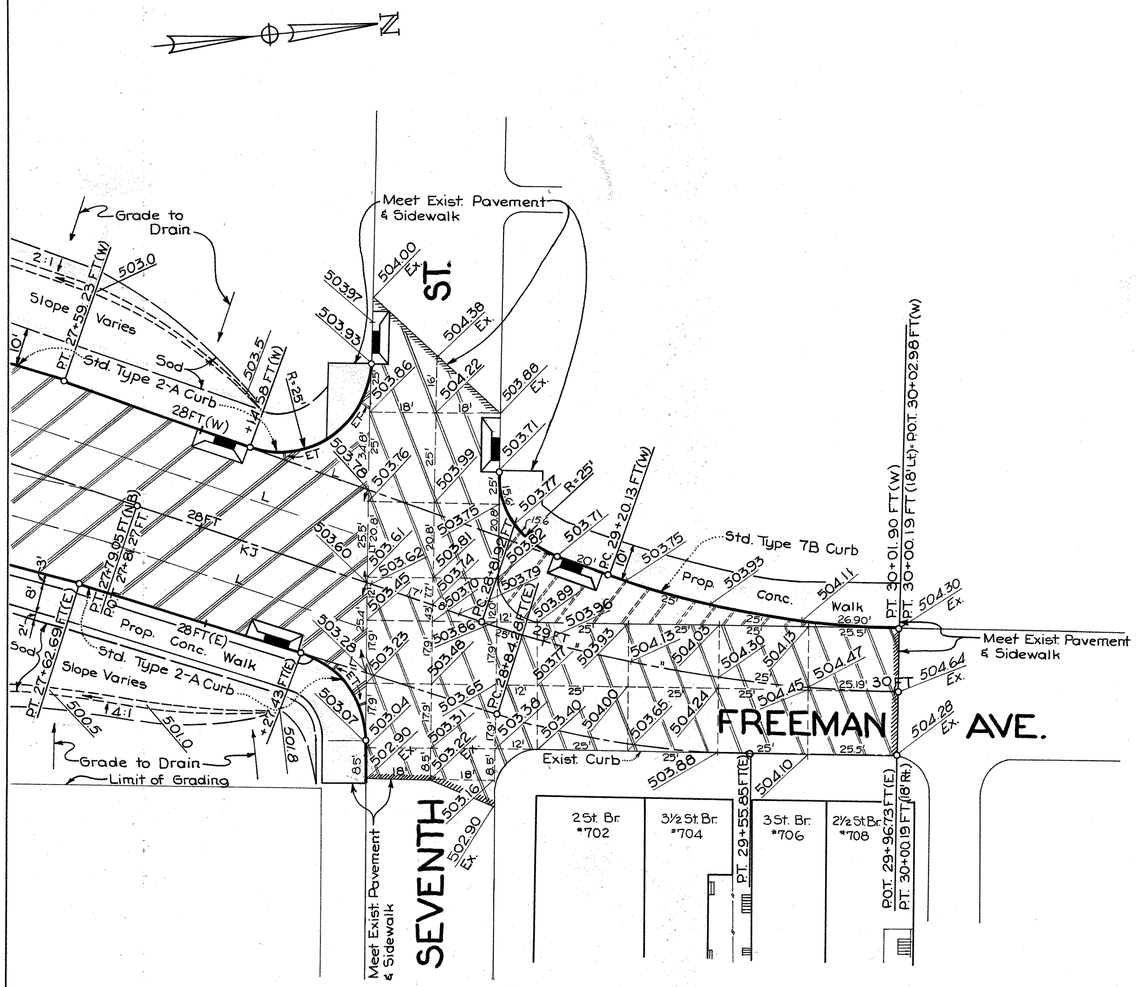

GRADE DETAIL - FREEMAN AVE. STA. 28+00 TO STA. 30+00

FED. RD. DIV.	STATE	PROJECT	FISCAL YEAR
2	OHIO		

198
464

HAM-50-19.76

8 St. Br.
*646

Ex. R.R. Tracks inside building

Grade to Drain

Type 7A Curb

Slope Varies

Limit of Grading (N. R/W Line) Ex. Kenyon St.

Straight Grade

Slope Varies

1/2" /Ft. Slope

1/2" /Ft. Slope

Prop. Conc. Walk

+2.48% ~ 420'

+2.48% ~ 420'

+2.48% ~ 194.96'

+2.48% ~ 194.96'

PROPOSED KENYON ST.

Type 7A Curb

Type "A" Conc. Traffic Island

Nose

No Joint

+2.44% ~ 87.58'

+2.46% ~ 87.58'

+2.47% ~ 47.5'

+2.47% ~ 47.7'

Type 7A Curb

Berm Line

2:1 Slope

Sod

Limit of Grading

Prop. Conc. Walk

Limit of Grading

Berm Line

2:1

Sod

Ex. B. & O. R.R. Tracks

Retaining Wall No. 11

P.O.T. 44+44.96K(EB)
= P.C. 44+44.96K(EB)

P.T. 45+35.04K(EB)

P.O.T. 46+22.62K(EB)
= P.C. 46+22.62K(S)

P.C.C. 46+80.85K(S)

P.T. 41+12.30K

1 St. Sh. Met. Warehouse

Ex. Cinder Dr.

Ex. B. & O. R.R. Tracks

Ex. NYC R.R. Tracks

Ex. Stone Wall

Ex. B. & O. R.R. Tracks

Ex. B. & O. R.R. Tracks

1 St. Fr.

1 St. Corr. Met.

Ex. Bituminous Dr.

GRADE DETAIL-KENYON ST. STA. 41+00 TO STA. 46+95

FED. RD. DIV.	STATE	PROJECT	FISCAL YEAR
2	OHIO		

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464

WESTBOUND EXPRESSWAY

EASTBOUND EXPRESSWAY

PROPOSED SIXTH ST.

PROPOSED LINN ST.

P.C.C. 42+98.45

P.C.C. 43+35.66

P.C. 43+91.64 CD

Meet Exist Pav't Sta. 25+85 ST

P.C. 25+94.25 ST

P.T. 26+22.87 ST

P.C. 26+90.74 ST

P.T. N. Curb P.O.T. 27+69.28 ST (13.23' Lt.)

P.C. N. Curb = P.O.T. 27+95.47 ST (14.73' Lt.)

P.T. 27+76.47 ST

P.C. 28+04.93 ST

P.T. 28+40.00 ST

P.T. S. Curb = POC. 27+55.37 ST (13' Rt.)

P.C. S. Curb = POC. 28+10.99 ST (15' Rt.)

P.T. 10+17.30 L(W)
P.O.T. 10+03.17 L(36' Lt.)

P.T. 9+84.63 L

P.O.T. 9+70.51 L(E)

P.T. 9+51.97 L(E)

P.O.C. 8+48.92 L
P.O.T. 30+25.64 ST

Proposed Barrier Dam Transmission Tower (By others) (Appx. location)

Flood Wall

Flood Gate No. 13

* 605 Conc. Gate House

Prop. Conc. Walk

Prop. Conc. Walk

Type 7A Curb

Type 7A Curb

Type 7A Curb

Prop. Conc. Walk

Traverse Line

Type 7A Curb (21' R)

Std. Type 6 Curb (10' R)

Meet Exist. Sidewalk

Meet Exist. Pavement

Berm Line

Exist Asphalt Pavement to remain

Reloc R.R. Tracks (By Others)

Ex. R.R. Tracks

Conc. Gate House

FLOOD WALL

FLOOD GATE NO. 12

FLOOD GATE NO. 11A

FLOOD GATE NO. 11

Std. Type 6 Curb

Forward Tangent Linn St.

Ex. Curb Remains

Traverse Line

Existing Pavement

Base Line L(E)

Base Line L(W)

P.C. Joint Produced

P.C. Joint P.C. 6+85.41 L (W)

P.C. 6+64.37 L

P.C. 6+43.33 L (E) = P.O.T. 6+43.33 L (27' Rt.)

P.C. Joint 6+38.29 L (13' Rt.)

POT 6+64.37 L (W) = PC. 6+64.37 L (27' Lt.)

P.C. Joint Produced 6+36.62 L

Future Curb Line

EX. BAYMILLER ST.

S. 83° 13' 20" E.

S. 85° 23' E.

S. 69° 37' E.

GRADE DETAIL - SIXTH ST. - WEST OF LINN ST.

FED. RD. DIV.	STATE	PROJECT	FISCAL YEAR
2	OHIO		

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GRADE DETAIL - RAMP LA STA. 47+00 TO STA. 53+00

FED. RD. DIV.	STATE	PROJECT	FISCAL YEAR
2	OHIO		

201-264
206 Red

206

201
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Transition from Type 10 Curb to Std. Type 6 Curb to be paid for as Type 10 Curb.

GRADE DETAIL - EXPWY. STA. 46+50 TO STA. 52+50

FED. RD. DIV.	STATE	PROJECT	FISCAL YEAR
2	OHIO		

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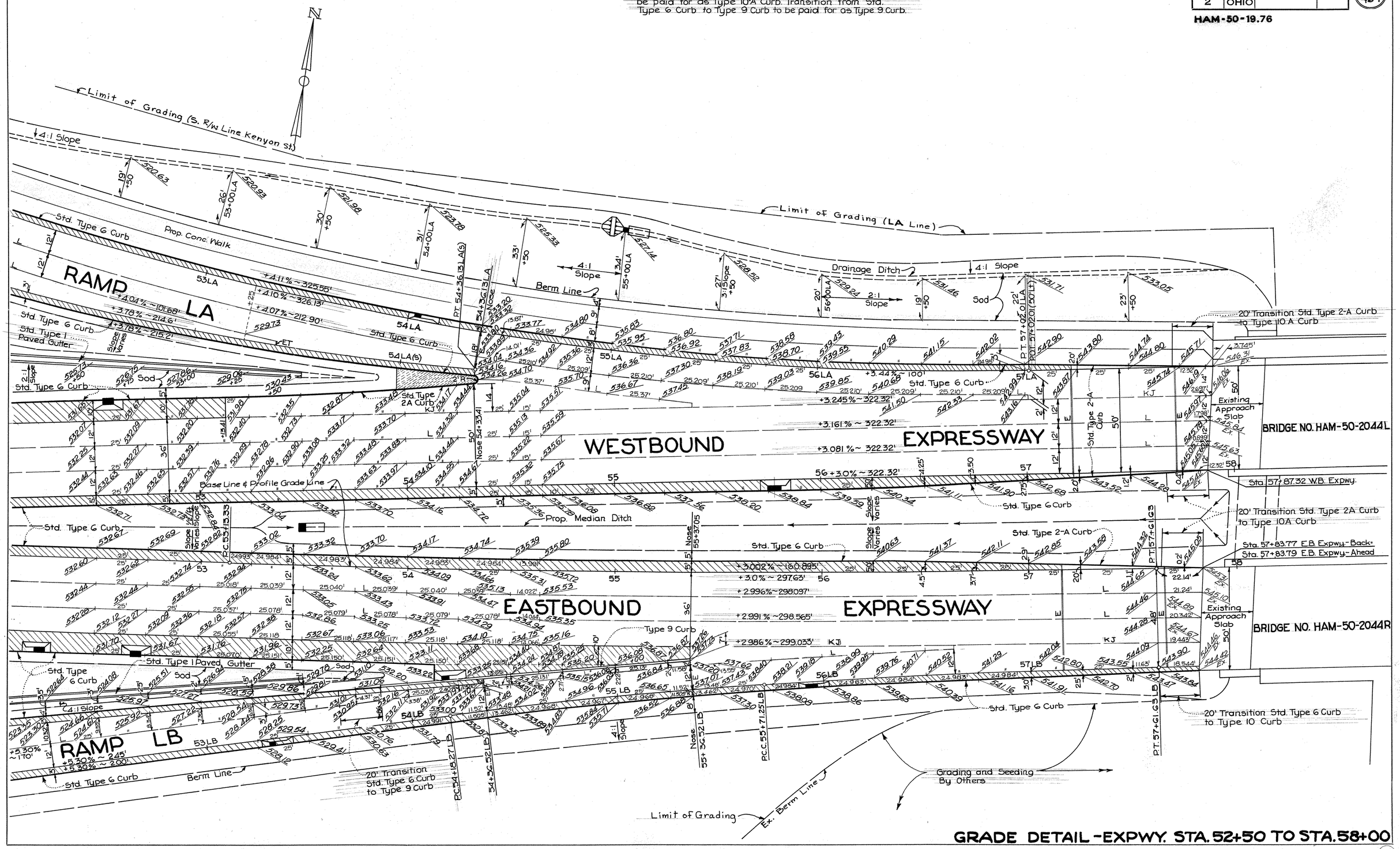
Note:
Transition from Std. Type 2-A Curb to Type 10-A Curb to be paid for as Type 10-A Curb. Transition from Std. Type 6 Curb to Type 9 Curb to be paid for as Type 9 Curb.



GRADE DETAIL - EXPWY. STA. 52+50 TO STA. 58+00

FED. RD. DIV.	STATE	PROJECT	FISCAL YEAR
2	OHIO		

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Std. Type 6 Curb
P.C. 53+13.33
53
54
55
56
Std. Type 6 Curb
Std. Type 2-A Curb
P.T. 57+61.63
57
20' Transition Std. Type 2-A to Type 10 Curb
58
L
L
For Elevations see Sheet # 196
E
L
E
Existing Approach Slab
BRIDGE NO. HAM-50-2044 R
LK
L
LK
Std. Type 1 Pav. Gutter
Sod
20' Transition Std. Type 6 to Type 9 Curb
Std. Type 6 Curb
Type 9 Curb
E
L
Type 9 Curb
55LB
56LB
57LB
Std. Type 6 Curb
RAMP
LB
53LB
54LB
10'
Nose 55+36.52 LB
P.C.C. 55+71.25 LB
P.T. 57+61.63 LB
20' Transition Std. Type 6 to Type 10 Curb
Std. Type 6 Curb
Berm Line
4:1 Slope
P.C. 54+18.27 LB
54+36.52 LB
Straight Grade Slope Varies
Ex. Berm Line
Grading and Seeding By Others
Limit of Grading
N
ST.
Ex. C.W.
Std. Type 6 Curb
Ex. Curb
14'
½'/Ft.
Std. Type 6 Curb
Ex. Curb
Ex. Curb
Ex. C.B.
SIXTH ST.
Ex. C.B.
4 St. Br.
3 St. Br.
3 St. Br.
3 St. Br.
STONE ST.
Ex. Br. wk.
GEST

GRADE DETAIL - SIXTH ST. - STONE ST. TO GEST ST.

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WESTBOUND SIXTH ST. EXPRESSWAY

EASTBOUND SIXTH ST. EXPRESSWAY

RAMP A

RAMP B

RAMP FA

SIXTH ST.

EXISTING FRONT ST.

HARRIET ST.

SLOO ST.

CARR ST.

End Sheet

BRIDGE NO. HAM.50-1987L
See Sheet No. 213
For Lighting Details

BRIDGE NO. HAM.50-1992L
See Sheet No. 213
For Lighting Details

BRIDGE NO. HAM.50-1987R
See Sheet No. 213
For Lighting Details

BRIDGE NO. HAM.50-1992R
See Sheet No. 213
For Lighting Details

Transformer No.4
See Sheet No.210

Transformer No.5
See Sheet No.210

Existing Power Supply Pole

Sign by Others
Opp. Sta. 33+20A

LEGEND

- Ground or Bridge Mount Sign Support
- Overhead Sign Support Type A
- or Overhead Sign Support Type B
- LD — Three(3) Street Lighting Circuit Cables in 2" Metal Conduit attached to Structure
- LSD — Five (5) Street and Sign Lighting Cables in 2" Metal Conduit attached to Structure
- PE — Two (2) Primary Cables placed in Existing 3" Asbestos Cement Conduit encased in Concrete
- PB — Two(2) Primary Cables in 3" Asbestos Cement Conduit encased in Structure
- PC — Two(2) Primary Cables in 3" Asbestos Cement Conduit encased in Concrete
- L — Three(3) Street Lighting Circuit Cables buried directly in Trench
- LM — Three(3) Street Lighting Circuit Cables in 3" Metal Conduit attached to Structure
- LB — Three(3) Street Lighting Circuit Cables in 3" Asbestos Cement Conduit encased in Structure
- LC — Three(3) Street Lighting Circuit Cables in 3" Asbestos Cement Conduit encased in Concrete
- SC — Three(3) Sign Lighting Circuit Cables in 3" Asbestos Cement Conduit encased in Concrete
- L5M — Five (5) Street and Sign Lighting Circuit Cables in 3" Metal Conduit attached to Structure
- L5B — Five (5) Street and Sign Lighting Circuit Cables in 3" Asbestos Cement Conduit encased in Structure
- L5C — Five (5) Street and Sign Lighting Circuit Cables in 3" Asbestos Cement Conduit encased in Concrete
- Transformer Mounted on Pad
- Fluorescent Luminaire mounted under Bridge
- or or Lamp Standard Type "A"
- Photoelectric Control
- Pull Box, Type A
- Handhole, 10"x18"
- Handhole, 8" x 8"
- Junction Box
- Flush Mount Island Light

CIRCUIT AND LIGHT IDENTIFICATIONS:

L4 - 8 F	No. of Circuit - Light No. (Fluorescent Luminaire)
28+45 A	Station where Located
L4-3A-10	No. of Circuit - No. & Type of Lamp Standard - Length in Feet of Bracket Arm
26+40 A	Station where Located
L8 - 7 I	No. of Circuit - Light No. (Incandescent Floodlight Cluster)
26+80FT	Station where Located
L7 - 9FI	No. of Circuit - Light No. (Flush Mounted Island Light)
40+54.18CD	Station

NOTE: See Circuit Diagrams for Size of Luminaires, Type of Light Distribution, and Size and Type of Cable.

LIGHTING & SIGNING PLAN

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EXIST. FRONT ST.
Sign No. S6-4
11+40 F
Match Line
Pull Box No. B6-7
12+05 F
Proposed Power Supply Pole
L6-7A-10
20+00 S(N)
Pull Box BP-12
19+85 S(N)
L6-6A-10
18+20 S(N)
Begin Sheet
L5-9A-12
33+00 CD
L5-19A-10
14+65 S
Sign No. S7-1
33+90
L4-13A-12
33+15 FA
Begin Sheet
L4-14A-12
34+65 FA
Pull Box BP-13
18+70 S(N)
Pull Box B6-2
18+20 S(N)
Pull Box B6-1
34+35 FB
L5-20A-10
16+00 S(N)
L7-6A-10
34+52.44 CD
Pull Box B7-2
35+00 CD
L7-5 FI
34+58.21 EB
L8-21A-10
36+20 FA
L8-20A-15
36+39 WB
FA RAMP
Pull Box BP-14
Opp. Sta. 33+50 FB
L6-4A-10
34+50 FB
L6-5A-10
35+90 FB
L7-4A-15
L7-3A-15
36+30 EB
L8-19A-15
38+00 WB
L8-15A-10
37+89.45 FA
L8-17A-10
20+99.12 F
Sign No. S8-1
22+60 F
L8-13 FI
22+78.21 F
L8-14A-10
39+50.75 FA
L8-14-10
38+30 K
Pull Box B8-1
39+45 K
Transformer No. 8
See Sheet No. 210
L8-8A-10
25+75.24 F
End of Permanent Construction
Pull Box B8-3
26+77 FT
L8-11A-10
28+00 FT
SEVENTH ST.
L6-3A-10
32+90 FB
RAMP
Pull Box BP-15
32+00 FB (S)
Transformer No. 6
See Sheet No. 210
Pull Box B6-5
31+75 FB (S)
Pull Box B6-3
31+20 FB
L6-1A-10
15+75 F
L6-10A-15
L6-11A-15
31+50 FB
Pull Box BP-16
31+50 FB
L7-2A-15
L7-1A-15
38+00 EB
Transformer No. 7
See Sheet No. 210
Pull Box BP-17
38+50 CD
L6-9 FI
30+79.80 FB
Pull Box B7-1
38+25 EB
Pull Box BP-19
39+30 WB
Match Line
Pull Box B6-7
12+05 F
SARGENT ST.
Flood Wall
Sign No. S6-1
17+15 F
L6-8A-15
30+20 FB
COLLECTOR - DISTRIBUTOR RDWY.
Pull Box B8-4
39+40 WB
AVE.
L8-22A-12
39+80 WB
L8-12A-10
24+32.57 F (NB)
TEMPORARY CONNECTION 28FT
Pull Box No. B8-2
40+35 K
L8-2A-10
41+70 K
L8-3A-10
44+40 K
Pull Box B6-6
15+65 F
FREEMAN
L6-2A-15
14+20 F
Sign No. S6-2
16+90 F
L6-15A-10
45+00 FC (S)
Sign No. S6-3
44+50 FC (S)
L6-14 FI
44+17.62 FC
Pull Box BP-18
39+25 FC
L6-12A-15
L6-13A-15
17+25 F
L7-7A-15
L7-8A-15
39+90 EB
L7-9-FI
40+54.18 CD
Pull Box B7-3
40+90 CD
Pull Box B6-4
44+70 FC
L8-18A-10
19+63.59 F
L8-23A-10
41+59.19
L8-24A-10
43+38.35
L6-16A-10
43+20 FC
RAMP FC
L6-17A-10
41+70 FC
Sign No. S7-2
40+95 CD
L7-10A-10
41+52.99 CD
EASTBOUND SIXTH ST. EXPRESSWAY
WESTBOUND SIXTH ST. EXPRESSWAY
End Sheet
L7-11A-10
43+38.85 CD
L10-6A-10
45+08.05
L9-14A-10
45+11.98 WB
L8-7A-10
45+70 K
L8-6A-10
43+00 K
KENYON ST.
BARR ST.
L8-10A-10
L8-9 I
26+77 FT
EXISTING
BRIDGE NO. HAM-50-2012R
See Sheet No. 212
for Lighting Details
BRIDGE NO. HAM-50-2012L
See Sheet No. 212
for Lighting Details
BRIDGE NO. HAM-50-2007
See Sheet No. 212
for Lighting Details

Note: See Sheet No. 211 for special treatment of conduit under Freeman Avenue Floodwall Gate.

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N

Begin Sheet

L8-3A-10 44+40 K

L8-4A-10 46+95 K

Pull Box B9-2 47+60 K

Two (2) 3" Asbestos Cement Conduits Encased in Concrete

L9-7A-10 13+40 L

Sign No. S9-1 48+55 LA

Pull Box B9-3 48+75 LA (S)

L9-6A-10 49+15 LA

L9-5 FI 49+28.28 LA

RAMP LA

L9-8A-10 50+60 LA

L9-9A-10 52+05 LA

L9-20A-10 53+50 LA

Pull Box B9-5 54+30 LA

Sign No. S9-2 54+40 LA

L9-19 FI 54+33.41 WB

L9-21A-10 54+95 LA

L9-22A-10 56+45 LA

Ex. Light Standard 58+00

L8-6A-10 43+00 K

KENYON ST.

L8-7A-10 45+70 K

L9-4 FI 47+22.62 K (EB)

L9-2A-10 L9-3A-10 12+20 L

BRIDGE NO HAM-50-2012L
See Sheet No. 212
for Lighting Details

WESTBOUND SIXTH ST. EXPRESSWAY

L8-24A-10 43+38.25 WB

L9-14A-10 45+11.98 WB

L9-13A-10 46+93.83 WB

L9-12F 47+30 WB

L9-10F 47+80 WB 12L

Pull Box B9-1 12+20 L

L9-1A-10 11+20 L

Transformer No. 9 See Sheet No. 210

L9-15A-10 48+67.56 WB

L9-16A-15 50+50 WB

L9-17A-15 52+20 WB

L9-18A-15 54+00 WB

Pull Box B9-4 51+10 EB

Transformer No. 10 See Sheet No. 210

L10-3F 47+30 EB

L10-4F 47+30 EB

L10-1A-10 48+44.86 EB

Sign No. S9-3 51+00 EB

L9-11F 47+75 WB

Pull Box B10-1 9+70 L

L10-7A-10 9+10 L

L9-24A-15 50+20 EB

Pull Box B10-4 49+35 LB

L9-23A-15 52+10 EB

L9-26A-10 54+80 LB

L9-27A-10 56+30 LB

Existing Light Standard 57+97.65

L7-11A-10 43+38.85

L10-6A-10 45+08.05

L10-5A-10 46+68.61

EASTBOUND SIXTH ST. EXPRESSWAY

Begin Sheet

L10-2F 47+65 EB

Sign by Others 8+95 L (LT.) Pull Box B10-3 8+90 L (LT.)

BRIDGE NO HAM-50-2012R
See Sheet No. 212
for Lighting Details

L10-9A-10 8+00 L

Sign by Others 8+95 L (RT.) Pull Box B10-2 8+90 L (RT.)

LINN ST.

L10-8A-10 Rt. 48+05 LB

L10-10 FI 49+00 FB

Sign No. S10-1 49+30 FB

EXISTING

Pull Box B10-5 Opp. 49+35 LB

L10-11A-10 49+40 LB

L10-12A-10 51+20 LB

Pull Box B10-6 51+95 LB

Sign by Others 52+00 LB

L9-25A-10 52+95 LB

RAMP LB

SIXTH ST.

L9-26A-10 54+80 LB

L9-27A-10 56+30 LB

EXISTING GEST ST.

EXIST. BAYMILLER ST.

CARLISLE AVE

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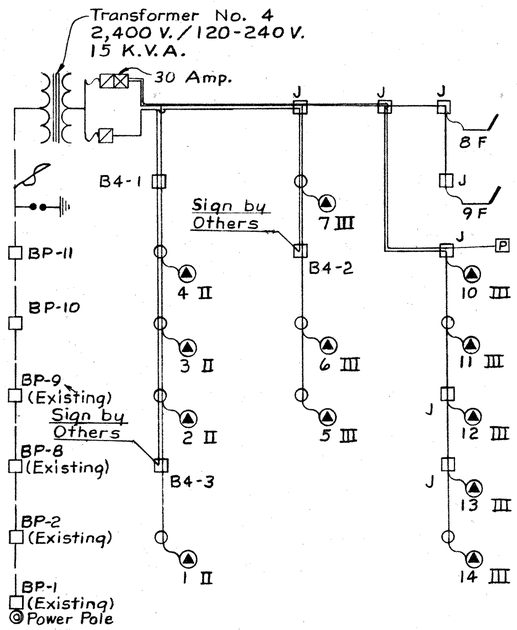
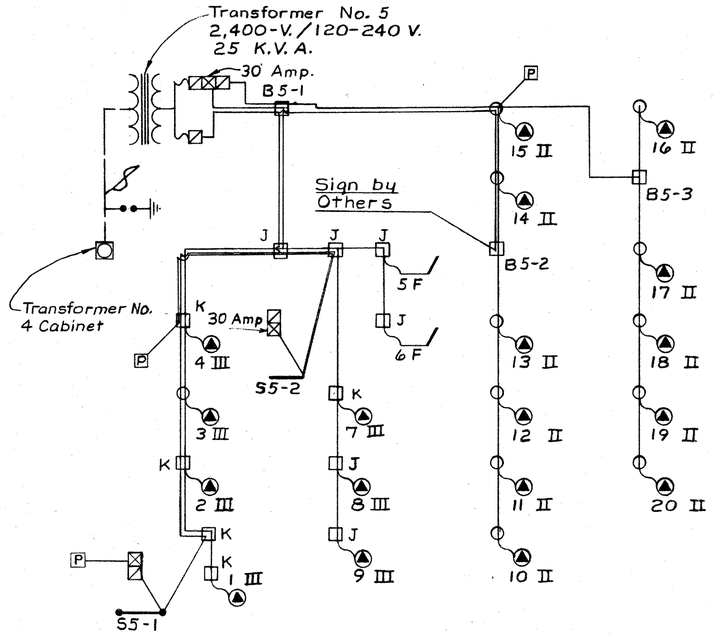


CIRCUIT NO. 4



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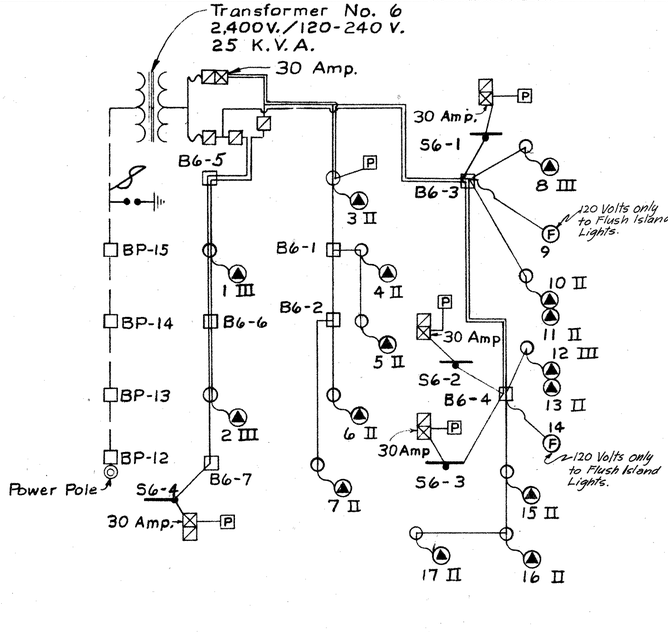

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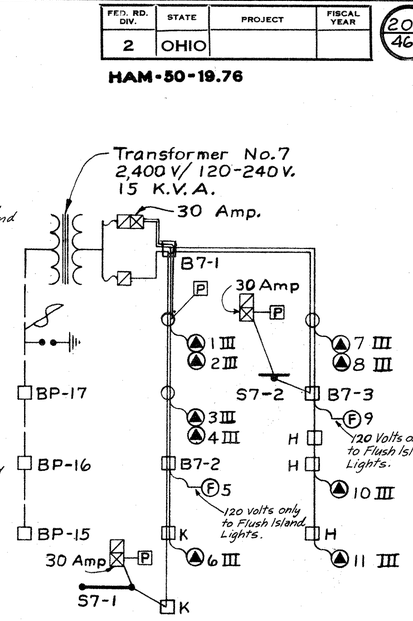

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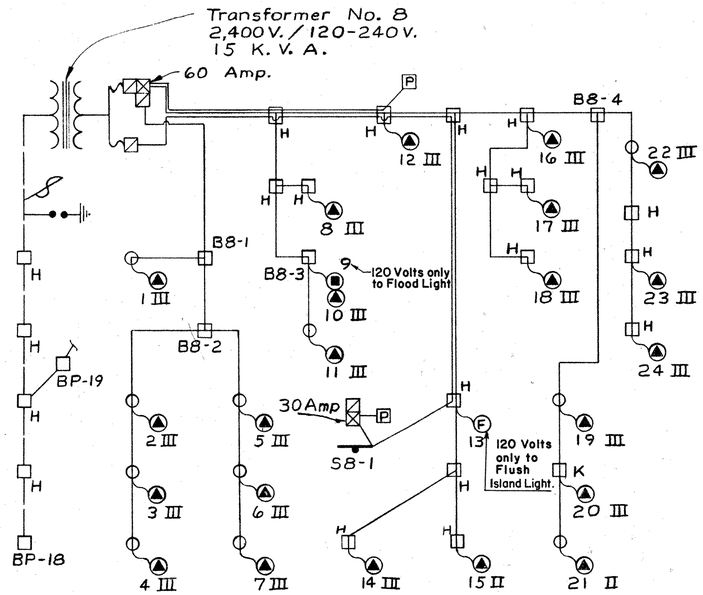

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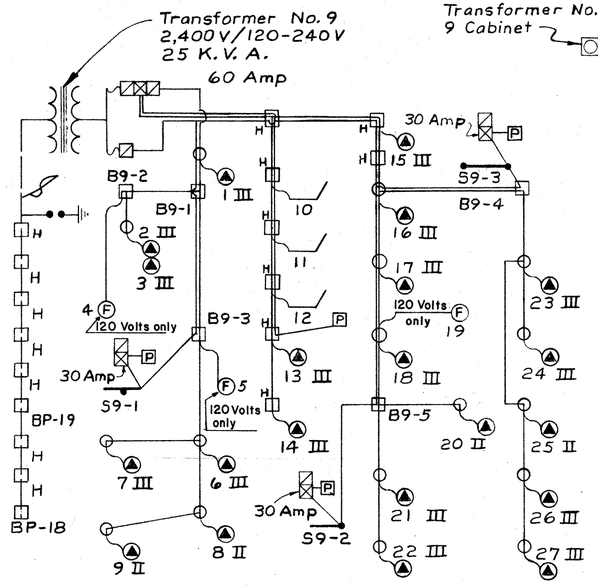
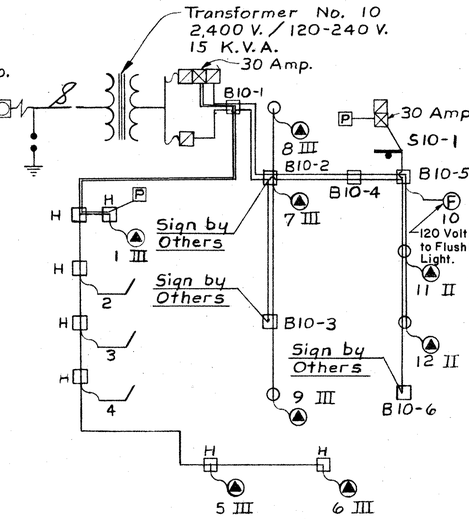


CIRCUIT NO. 9



CIRCUIT NO. 10

LEGEND

- Primary Fused Disconnect
- Lightning Arrestor
- Secondary Fuse
- Secondary Switch
- Contactor
- (P) Photoelectric Control
- J Junction Box
- B Pull Box Type A
- H Handhole, 10" x 18"
- K Handhole, 8" x 8"
- Overhead Sign Support Type A
- Overhead Sign Support Type B
- Ground or Bridge Mount Sign Support

- (F) Flush Mount Island Light (120 Volt Service Only.)
- Three 150-Watt Sealed Beam Floodlights
- 200-Watt Fluorescent Luminaire
- II 400-Watt Mercury Vapor Luminaire with Type II Light Distribution
- III 400-Watt Mercury Vapor Luminaire with Type III Light Distribution
- One 1c 5KV Cable, Plain, and One 1c 5 KV Cable, Identifiable
- One 1c 600-V Cable, Plain, and Two 1c 600-V Cables, Identifiable
- One 1c 600-V Cable, Plain, and Four 1c 600-V Cables, Identifiable
- One 1c 600-V Cable, Plain, and Six 1c 600-V Cables, Identifiable

CIRCUIT DIAGRAMS

Rev. 8-30-62 J.R.W.

LIGHTING TABULATION

Rev. 11-3-62

Circuit No.	Primary	4	5	6	7	8	9	10	Roadway	Bridges	Totals
15 KVA Distribution Transformer and Cabinet for Pad Mounting. Item S-25. Each		1							4		4
25 KVA Distribution Transformer and Cabinet for Pad Mounting. Item S-25. Each			1	1			1		3		3
Transformer Mounting Pad, Single Item S-25. Each				1	1	1			3		3
Transformer Mounting Pad, Twin Item S-25. Each		1					1		2		2
400-Watt Mercury Vapor Luminaire, I.E.S. Type II or III Distribution. Item S-25. Each		12	18	15	9	22	21	8	82	23	105
200-Watt Fluorescent Luminaire Item S-25. Each		2	2				3	3		10	10
3-Light Incandescent Floodlight Assembly. Item S-25. Each						1			1		1
Flush Mount Island Light Item S-25. Each				2	2	1	3	1	8	1	9
Primary Fused Controller Item S-25. Each	1								1		1
Lighting Circuit Controller 30 Amp Item S-25. Each		1	1	1	1	1		1	5		5
Lighting Circuit Controller 60 Amp Item S-25. Each						1	1		2		2
Photoelectric Control for Lighting Circuit. Item S-25. Each		1	1	1	1	1	1	1	3	4	7
Lighting Sub-Circuit Switch Item S-25. Each			1	1		1	1	1	5		5
15 Amp Fuse Block Item S-25. Each		14	20	15	8	23	26	12	84	34	118
Electrical Grounding System for Bridges Item S-25. Lump Sum										Lump Sum	Lump Sum
1c #6 Primary Cable, Plain. Item S-25. Lin. Ft.	3,280								1,685	1,595	3,280
1c #6 Primary Cable, Identifiable Item S-25 Lin. Ft.	3,280								1,685	1,595	3,280
1c #6 Secondary Cable, Plain Item S-25. Lin. Ft.		1,975	3,085	2,320	1,145	3,905	3,240	1,385	13,470	3,585	17,055
1c #6 Secondary Cable, Identifiable Item S-25. Lin. Ft.		4,300	6,170	4,940	2,460	8,020	6,640	2,770	27,420	7,880	35,300
3c #12 Secondary Cable Item S-25. Lin. Ft.		530	800	570	390	925	1,000	400	3,415	1,200	4,615
Lamp Standard Type A w/10' Bracket Arm. Item S-25 Each		4	10	8		9	11	5	47		47
Lamp Standard Type A Modified w/10' Bracket Arm. Item S-25. Each			1	1					2		2
Lamp Standard Type A w/Twin 10' Bracket Arms 135° Apart. Item S-25. Each							1		1		1
Lamp Standard Type A w/12' Bracket Arm. Item S-25. Each		2				1			3		3
Lamp Standard Type A w/15' Bracket Arm. Item S-25. Each		3	1	2		1	5		12		12
Lamp Standard Type A w/Twin 15' Bracket Arms 180° Apart. Item S-25. Each					2				2		2
Lamp Standard Type A Modified w/Twin 15' Bracket Arms 180° Apart. Item S-25. Each					1				1		1
Lamp Standard Type A (Structure) w/10' Bracket Arm. Item S-25. Each					3	8	2	2	1	14	15
Lamp Standard Type A (Structure) Modified w/10' Bracket Arm. Item S-25. Each						2	1	1	1	3	4
Lamp Standard Type A (Structure) w/12' Bracket Arm. Item S-25. Each		2	1							3	3
Lamp Standard Type A (Structure) Modified w/12' Bracket Arm. Item S-25. Each		1								1	1
Lamp Standard Type A (Structure) w/15' Bracket Arm. Item S-25 Each			4	6	3	1	5	5	4	1	5
Pull Box Type A Item S-25 Each	10	1	2	6	3	4	5	5	36		36
Junction Box, as per Plan Item S-25 Each		7	6							13	13
Handhole Frame and Cover 10"x 18" Item S-25 Each	9				3	16	8	7		43	43
Handhole Frame and Cover 8" x 8" Item S-25 Each			4		1	1			5	1	6
3" Asbestos Cement Conduit Encased in Concrete-Type I- Fed. Spec. W-C-571b Item S-25 Lin. Ft.	1,530	1,300	1,890	1,370	800	2,230	1,795	870	11,785		11,785
3" Asbestos Cement Conduit (Structure) Type I- Fed. Spec. W-C-571b Item S-25 Lin. Ft.	1,345	12	9		240	1,075	400	340		3421	3,421
3" Rigid Metallic Conduit with Accessories. Item S-25. Lin. Ft.		405	340							745	745
2" Electric Metallic Conduit with Accessories. Item S-25. Lin. Ft.	100	90	80			260	125	120		775	775
Conduit Support Assembly Item S-25. Each		83	82							165	165
Cable Trench 9" Wide, Including Markers. Item S-25. Lin. Ft.			485	740			990		2,215		2,215
Lamp Standard Type A w/Twin 15' Bracket Arms 135° Apart. Item S-25 Each				2					2		2

Circuit No.	5	Roadway	Bridges	Totals
Lamp Standard Type A (Structure) Modified w/15' Bracket Arm Item S-25 Each	1		1	1

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Circuit No.	Overhead Sign Support Type A Span 55' Item I-129 Each	Overhead Sign Support Type A Span 62' Item I-129 Each	Overhead Sign Support Type A Span 76' Item I-129 Each	Overhead Sign Support Type B Twin Beam Item I-129 Each	Overhead Sign Support Type B Single Beam Item I-129 Each	Concrete, Class C, for Sign Support Foundations, Type A Item I-129 Cu. Yds.	Concrete, Class C, for Sign Support Foundations, Type B Item I-129 Cu. Yds.	Steel Reinforcing Bars Item I-129 Lbs.	3" Asbestos Cement Conduit Encased in Concrete-Type 1-Fed. Spec. W-C-571b Item S-25 Lin. Ft.	2" Electric Metallic Conduit with Accessories Item S-25 Lin. Ft.	1-Conductor #6 Secondary Cable, Plain Item S-25 Lin. Ft.	1-Conductor #6 Secondary Cable, Identifiable Item S-25 Lin. Ft.	Sign Circuit Switch Item S-25 Each	Sign Sub-Circuit Switch Item S-25 Each	Sign Circuit Control Assembly 30 Amp. Item S-25 Each	Pull Box Type A Item S-25 Each	Handhole Frame and Cover 8"x8" Item S-25 Each	
4												1,500	1			2		
5	1					7.0		1,310		10	165	2,365	1	1	2	1	1	
6				3	1		21.0	4,660	370		410	2,000	1	1	4	1		
7			1	1		7.0	5.3	2,475	65		70	1,720	1		2		1	
8				1							10	750	1		1			
9		1		1	1	14.0	10.5	4,950	40		50	2,210	1	1	3			
10				1			5.2	1,165	80		175	1,630	1	1	1	1		
Totals, Roadway	1	1	1	6	2	28.0	42.0	14,560	555		770	10,645	7	4	11	5	2	
Totals, Bridges				1						10	110	1,530			2			
Signing Totals	1	1	1	7	2	28.0	42.0	14,560	555	10	880	12,175	7	4	13	5	2	

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SPECIAL NOTES - SIGNING

The Signing Work shown on these Drawings and described in the General Notes shall be furnished and installed in accordance with the applicable provisions of the State of Ohio Department of Highways Construction and Materials Specifications Item S-25 and Supplemental Specification Item I-129.

The Items listed in the Summary of Quantities are arranged in accordance with Payment Items which shall constitute full compensation for performing the Excavation and Backfill, and furnishing all Materials, Labor, Equipment, Tools and Incidentals necessary to install the completed Signing System with the exception of the Signs themselves, the Sign Lighting Luminaires, and the Wiring between the Sign Lighting Control Contactor and the Luminaires; which are to be erected by others. All signing work is included in one or more of the Signing Items. Quantities for the various Signing Items are included in the Summary of Quantities for the Signing Items.

The Overhead Sign Supports as shown on the Plans have been designed to support Signs of 10-Foot Height and Areas as shown in the Tabulation. When these Signs are centered on the Overhead Support there is to be a 16-Foot clearance between the Roadway and the lower edge of the Sign.

Payment for each of the various Signing Items shall include the following:

Overhead Sign Supports Types "A" and "B"
These Items shall include the furnishing of all the necessary Materials, Labor, and Equipment to erect the Sign Supports complete as indicated on Sheets No. 215 and 216, including all other necessary accessories except the Photoelectric Control, Wiring Connections, Switch and Contactor, and Pull Box and Foundation, where used; all of which will be included in other Items of work.

Sign Circuit Control Assembly
This Item shall include the furnishing of all the necessary Materials, Labor, and Equipment to install the combination Fusible Switch-Contactor and Enclosure, and the No. 12 Cable connecting the Contactor with the Photoelectric Control, and the connection to the No. 6 Cables, as shown on Sheet No. 214

Cable Items
These Items shall include the furnishing of all the necessary Materials, Labor, and Equipment to install the Cables connecting the Sign Contactor with the Transformer, as required by the Plans.
The slack wire required to be provided in the Pull Boxes and at the Contactors is included in the 10 per cent additional to the wire quantities. The Pay Quantity of Cable will be the measured distance between points connected, plus 10 per cent, times the number of Cables connecting the points.
The additional 10 per cent allowed for payment is to take care of the extra wire and waste in approaching and making connections.

SIGNING TABULATION AND SPECIAL NOTES

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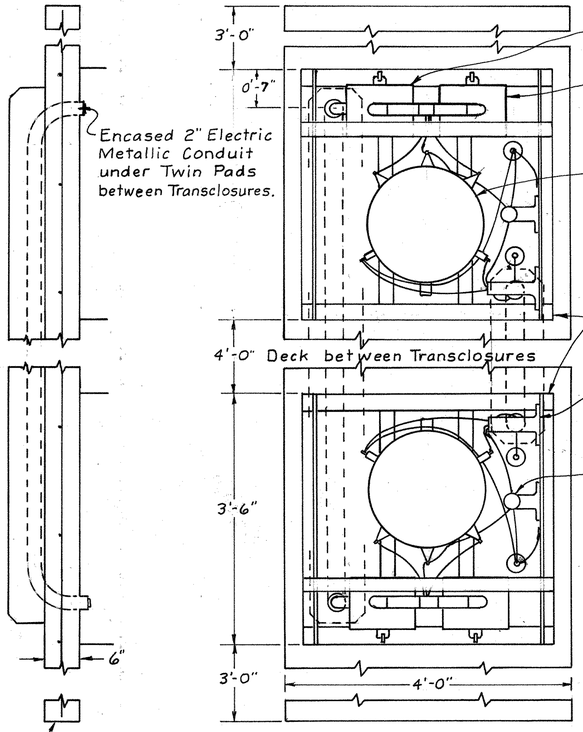


Street Lighting Circuit Controller- Shall conform to requirements given on Sheet No. 214

Sign Lighting Circuit Switch and Enclosure only, identical with those in Street Lighting Circuit Controller. Space in Enclosure to be used for additional switching equipment required.

Single Phase Distribution Transformer
2,400 V/120-240 V, 15 or 25 K.V.A.
General Electric Type HS, Catalog No. 2701AB7115 or equal.
or No. 2701AB7125 or equal.
Westinghouse Type S, Catalog No. E2312N15C or equal.
or No. E2312N25C or equal.

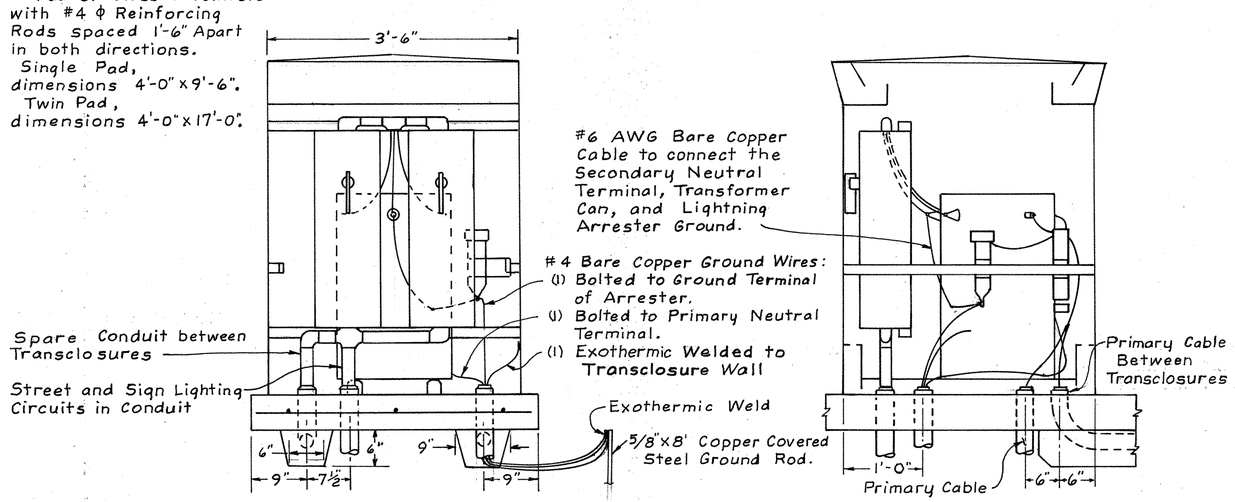
Transclosure -
Line Material Catalog No. DU8E2 or equal.

Fuse Cutout - 5,200-Volt, 50-Amp, Small Box.
Line Material Dropout Type PVD Catalog No. AV1A6 or equal.
with Mounting Bracket FH1A1 or equal.

Lightning Arrester - 6 KV Arrester
Line Material Type E3, Catalog No. AV1A6 or equal.

TRANSFORMER LOCATIONS *		
Transf. No.	Station	Offset
4	28+25 A	28' Rt.
5	28+32 A	29' Rt.
6	31+90 FB(S)	15' Lt.
7	38+25 CD	28' Rt.
8	39+45 K	105' Lt.
9	10+61 L	60' Rt.
10	10+53.5L	60' Rt.

* Subject to adjustment by the Engineer.



TRANSFORMER AND CABINET MOUNTED ON PAD

Payment shall be made at the price bid for "Item S-25, 15 KVA Transformer and Cabinet For Pad Mounting", "Item S-25, 25 KVA Transformer and Cabinet For Pad Mounting", "Item S-25, Transformer Mounting Pad, Single", and "Item S-25, Transformer Mounting Pad, Twin". The above price and payment shall constitute full compensation for the furnishing of all Material, Labor and Equipment necessary in installing the Pad, Transformer and Transclosure; including the Ground Wires, Ground Rod, Fused Cutout and Lightning Arrester, with the necessary Wiring, Metallic Conduits, etc., as shown above.

The Lighting Circuit Controller, Sign Circuit Switch, Primary and Secondary Cables, and Asbestos Cement Conduit are to be included in the Summaries of Quantities for Lighting and Signing Items.

SPECIAL NOTES - LIGHTING

The lighting work shown on these Drawings and described in the General Notes shall be furnished and installed in accordance with the applicable provisions of the State of Ohio Department of Highways Construction and Materials Specifications Item S-25.

The Items listed in the Summary of Quantities are arranged in accordance with Payment Items, which shall constitute full compensation for performing the excavation and backfill, and furnishing all materials, labor, equipment, tools and incidentals necessary to install a completed lighting system in accordance with the Plans and Specifications. All lighting work is included in one or more of the Lighting Items.

Payment for the various Lighting Items shall include the following:

Lamp Standard Type A with 10' Bracket Arm
Lamp Standard Type A Modified with 10' Bracket Arm
Lamp Standard Type A with Twin 10' Bracket Arms 135° Apart
Lamp Standard Type A with 12' Bracket Arm
Lamp Standard Type A with 15' Bracket Arm
Lamp Standard Type A with Twin 15' Bracket Arms 135° Apart
Lamp Standard Type A with Twin 15' Bracket Arms 180° Apart
Lamp Standard Type A Modified with Twin 15' Bracket Arms 180° Apart

These Items shall include the furnishing of all the necessary materials, labor, and equipment to erect the Standards as indicated on the Plan and Detail Drawings; including foundation and other necessary accessories except the Luminaires, Wiring Connections, and Fuse Blocks, all of which will be included in the Summary of Quantities for the Lighting Items.

Lamp Standard Type A (Structure) with 10' Bracket Arm
Lamp Standard Type A (Structure) Modified with 10' Bracket Arm
Lamp Standard Type A (Structure) with 12' Bracket Arm
Lamp Standard Type A (Structure) Modified with 12' Bracket Arm
Lamp Standard Type A (Structure) with 15' Bracket Arm

These Items shall include the furnishing of all the necessary material, labor, and equipment to erect the Lamp Standards as indicated on the Plan and Detail Drawings; including Anchor Bolt Assemblies, 2" Metallic Conduit at the base of the Standard, and all other necessary accessories except the Luminaires, Wiring Connections, Fuse Blocks, Handhole Frames and covers, and other Items to be included in the Summary of Quantities for the Lighting Items.

2" Electric Metallic Conduit with Accessories
3" Rigid Metallic Conduit with Accessories
3" Asbestos Cement Conduit (Structure)

These Items shall include the furnishing of all the necessary material, labor and equipment to install the Conduit between the ends of structure, Boxes, or Handholes in Bridges or Walls, as provided in the Electrical and Structural Plans and Details. Payment shall include the actual length of Conduit installed.

3" Asbestos Cement Conduit Encased in Concrete

This Item shall include the furnishing of all the necessary material, labor and equipment to install the Conduit as shown on the Plan and Detail Drawings; including the excavation and backfill, the concrete encasement, and the provision of conduit drainage at the lowest point of each line of Conduit. Payment shall include the actual length of Conduit installed.

Cable Trench 9" Wide, as per Plan.

This Item shall include the furnishing of all material, labor and equipment to excavate the trench to the required grade, fill and compact to the required surface grade above the cable, and install markers as shown on the Plan and Detail Drawings. Payment shall include the actual length of Trench.

Cable Items

These Items shall include the Electric Cables used in the Primary Lines between the Power Co. Poles and the Transformers; the Secondary Lines between the Transformers and the Lamp Standards or Island Light units; and the cables used in wiring the Lamp Standards and Control Circuits. Payment for Cables shall include the actual distance between Lamp Standards, Boxes, etc., where Cable terminates, plus ten per cent; and in the Lamp Standard, the actual length between the terminals connected, plus ten per cent. The additional 10% allowed for payment is to take care of the extra wire and waste in approaching and making connections.

Luminaires

All Fluorescent and Mercury Vapor Luminaires shall be equipped with built-in ballasts and lamps, as recommended by the luminaire manufacturer, or equal. The mercury vapor lamp shall be clear, A S A Code H33-1-CD, and the lamp and luminaire shall give an I.E.S. Type II or Type III light distribution as specified in the Circuit Diagram.

The mercury vapor ballast shall be a 400-Watt, 240-Volt, reactor type ballast without capacitors, and the reactor ballast losses shall not exceed 25 Watts.

LIGHTING EQUIPMENT AND SPECIAL NOTES

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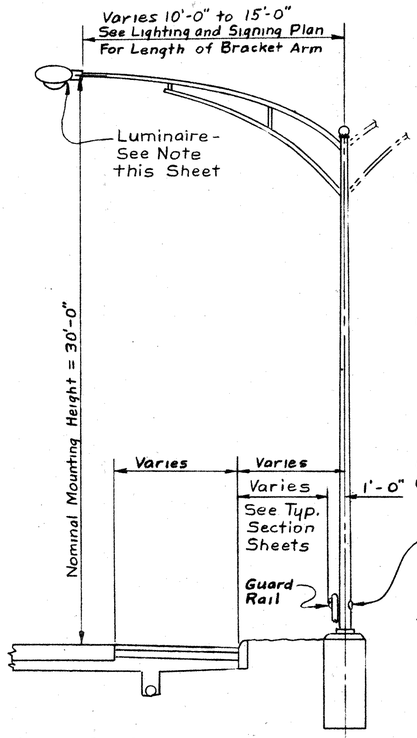
LUMINAIRES:
400 WATT—Mercury Vapor Luminaire and Lamp, With Ballast Enclosed in Luminaire.
IES Type II or III Distribution
(See Circuit Diagrams)
General Electric Type M-400 or equal
Westinghouse Type OV-25 or equal
Joslyn Type J-141 or equal
Line Material Type 2A2 or equal

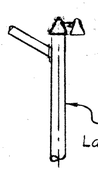
Lamp Standard Type A- ~~Union Metal Mfg. Co. Design No. 440A or equal:~~
(r) ~~Catalog No. 7J-270-F2,~~ with 15' Bracket arm and Structure Mounting Base
(a) ~~Catalog No. 7H-270-D2,~~ with 10' Bracket Arm.
(b) ~~Cat. No. 7H-270-D2,~~ with 10' Bracket Arm and Base for mounting on Structure.
(c) ~~Cat. No. 7H-270-D2,~~ with 10' Bracket Arm, and Modified Pole Top.
(d) ~~Cat. No. 7H-270-D2,~~ with 10' Bracket Arm, Structure Mounting Base, and Modified Pole Top.
(e) ~~Cat. No. 7H-270-D2,~~ with Twin 10' Bracket Arms, 135° Apart.
(f) ~~Cat. No. 7H-270-E2,~~ with 12' Bracket Arm.
(g) ~~Cat. No. 7H-270-E2,~~ with 12' Bracket Arm and Structure Mounting Base
(h) ~~Cat. No. 7H-270-E2,~~ 12' Brkt. Arm, Structure mounting Base, and Modified Pole Top.
(j) ~~Cat. No. 7J-270-F2,~~ with 15' Brkt. Arm.
(k) ~~Cat. No. 7J-270-F2,~~ W/ 15' Brkt. Arm & Structure Mounting Base.
(l) ~~Cat. No. 7J-270-F2,~~ w/Twin 15' Brkt. Arms, 135° Apart.
(m) ~~Cat. No. 7J-270-F2~~ w/Twin 15' Brkt. Arms, 180° Apart.
(p) ~~Cat. No. 7J-270-F2,~~ w/Twin 15' Brkt. Arms, 180° Apart, and Modified Pole Top.



LAMP STANDARD - TYPE "A"
SHOWN ABOVE WITH GUARD RAIL

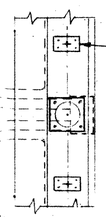
Each Standard is to be equipped with one 4"x6½" Reinforced Handhole Frame and Cover No. 2Y-B57 or equal. On Poles mounted on Standard Foundations, the Handhole shall be on the opposite side from the Bracket Arm. On Poles mounted on Bridges or Walls, the Handhole shall be on the same side as the Bracket Arm.

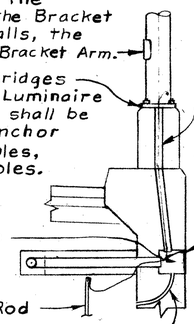
NOTE: All Lamp Standards mounted on Bridges or Walls shall be shortened to provide a Luminaire height of 30 Ft. above the Roadway, and shall be equipped with Base Plates having an Anchor Bolt Circle of 11 Inches for No. 7-H Poles, and 11½ Inches for No. 7-J Poles.



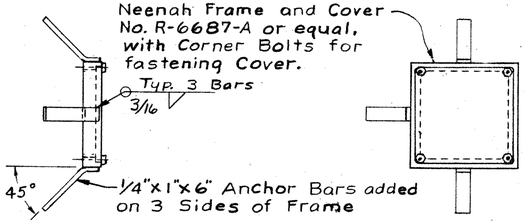
Lamp Holder: Steberlite No. S-333 with 6" Arm, or equal.
Slip Fitter and Cluster Box: Steber Catalog No. S-345, or equal.
Slip Fitter Mount: 1¼" Steel Pipe Sleeve welded to removable Pole Top.
Equip Lamp Holder with Three 150 Watt Par-Flood Lamps.

FLOODLIGHT MOUNTING
Rt. Sta. 26+80 FT

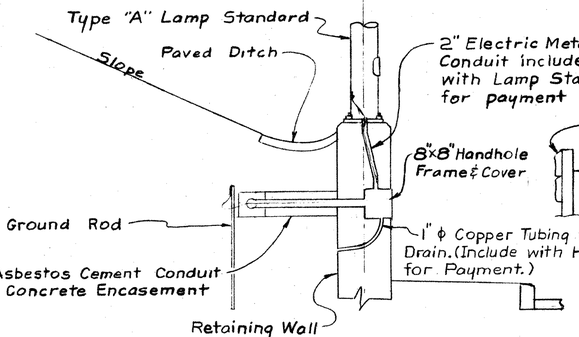




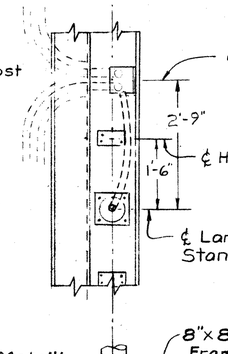
TYPICAL RETAINING WALL MOUNTING
(EXCEPT AS NOTED)



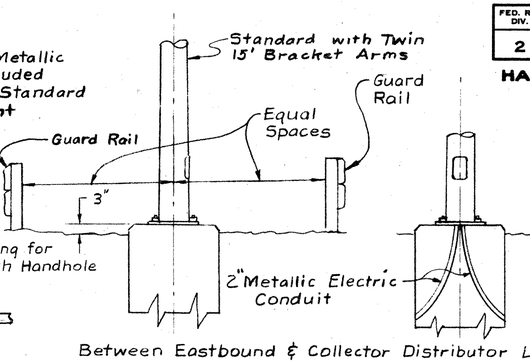
8"x8" HANDHOLE FRAME AND COVER



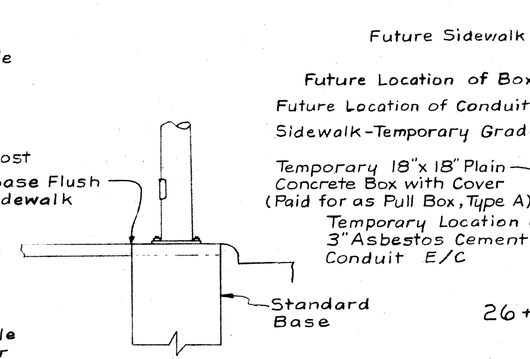
STATION 36+39 W. B., LEFT



STA. 23+36.88 RT.
STA. 27+92.40 RT.

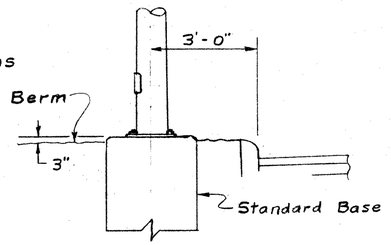


Between Eastbound & Collector Distributor Lanes
STA. 36+30, 38+00, & 39+90 E.B.

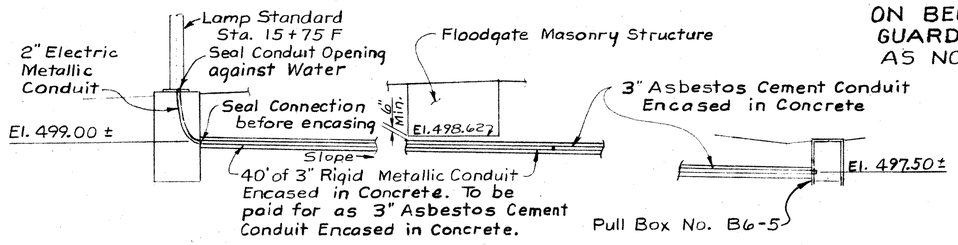


TYPICAL INSTALLATION
WHERE SIDEWALK ADJOINS
CURB. WITH NO GUARD RAIL
See Typical Sections for Locations

26+77 FT



TYPICAL INSTALLATION ON BERM WITH NO GUARD RAIL, EXCEPT AS NOTED.



CONDUIT THROUGH FREEMAN AVE. FLOODGATE AREA

LIGHTING DETAILS

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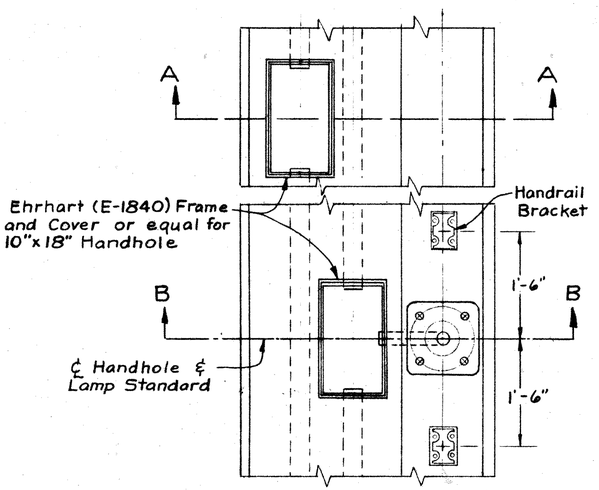
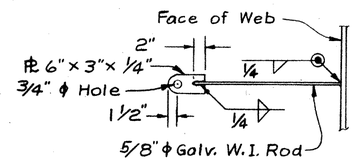
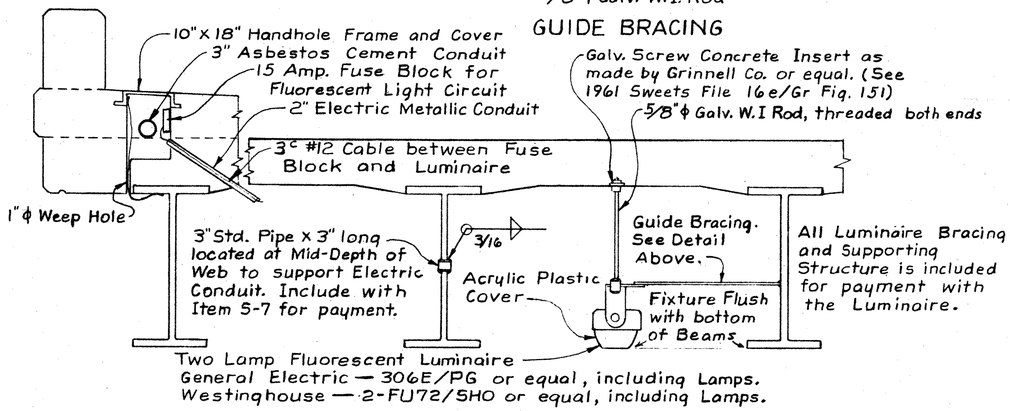


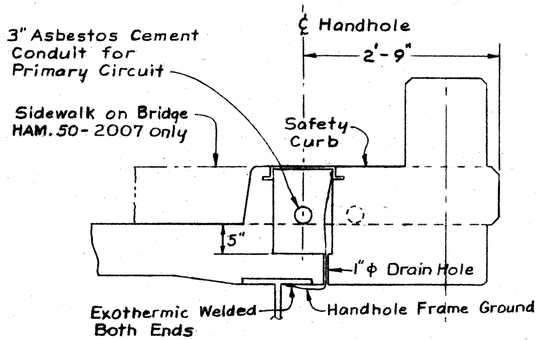
PLAN WITH HANDHOLE COVERS REMOVED



GUIDE BRACING

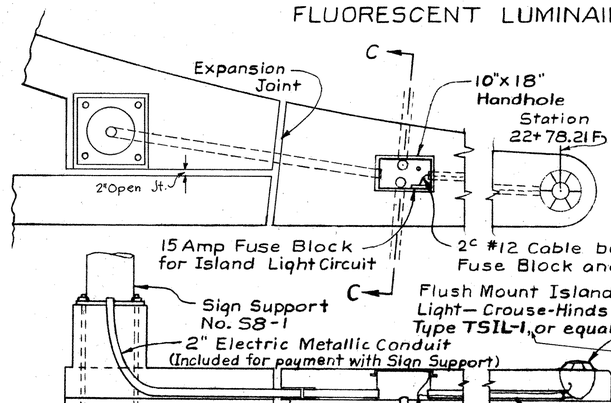


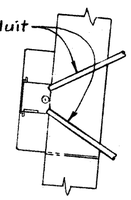
FLUORESCENT LUMINAIRE MOUNTING



SECTION A-A

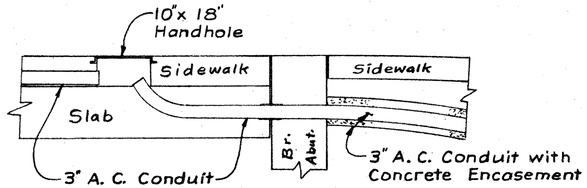
Typical East Side of Bridge HAM. 50-2007 and North Side of Bridge HAM. 50-2012L



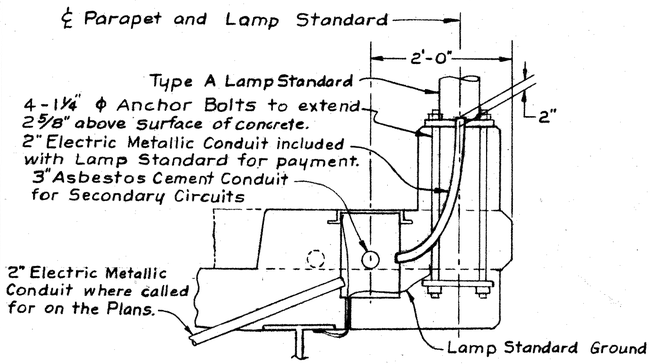


SECTION C-C

ISLAND INSTALLATION ON BRIDGE HAM. 50-2007

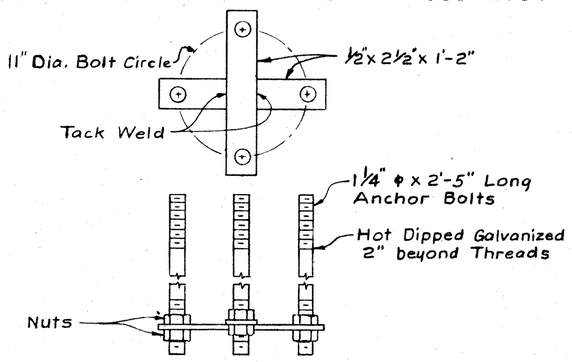


CONDUIT INSTALLATION AT NORTH END OF BRIDGE NO. HAM. 50-2007



SECTION B-B

Typical Bridges HAM. 50-2007 and HAM. 50-2012 R&L



LAMP STANDARD ANCHOR BOLT ASSEMBLY

ELECTRICAL GROUNDS

A stranded No. 0 gage bare copper wire electrical ground shall be embedded in the outside column (or on one end of the shaft if a shaft type pier is used) of the piers listed in the box below. (One electrical ground wire required at each pier listed. The lower ends of the wires shall be exothermic welded to one of the steel piles and the upper end shall extend above the top of the concrete to the superstructure and be exothermic welded to a beam or girder flange.

A No. 0 gage bare copper wire shall span expansion joints on both sides of the bridge and be exothermic welded to the outside beams or girders.

At the base of the lamp standards a tinned No. 4 gage copper wire shall be exothermic welded to one anchor bolt, and the other end of the wire shall be exothermic welded to the outside beam or girder flange.

Payment for the complete electrical grounding system for each bridge, including the grounding connections for the lamp standards and the sign support, shall be paid for at the contract lump sum price bid for "Item S-25 Electrical Grounding System for Bridge."

PIERS TO BE GROUNDED

BRIDGE NO. HAM.50-1987 R&L	BRIDGE NO. HAM.50-1992 R&L	BRIDGE NO. HAM.50-2007	BRIDGE NO. HAM.50-2012 R&L
Pier No.	Pier No.	Pier No.	Pier No.
2N	2N	3	
2S	2S		
			5N
		10	5S
		5A	

ELECTRICAL DETAILS — BRIDGES 2007 AND 2012 R & L

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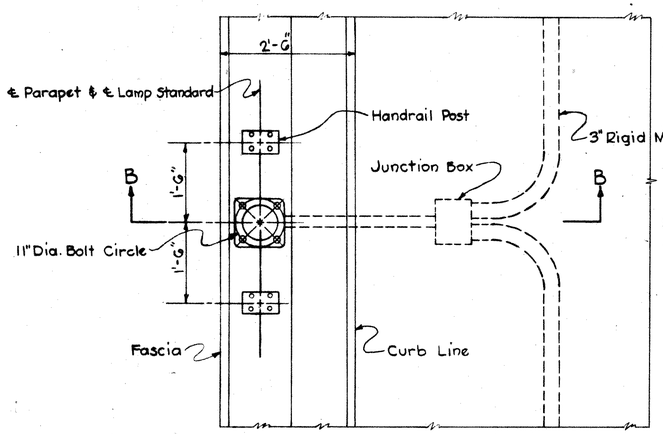
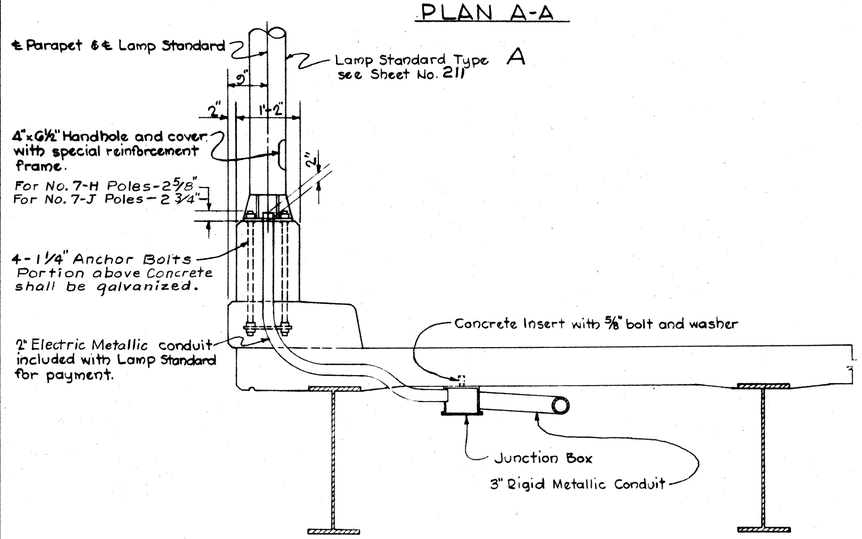
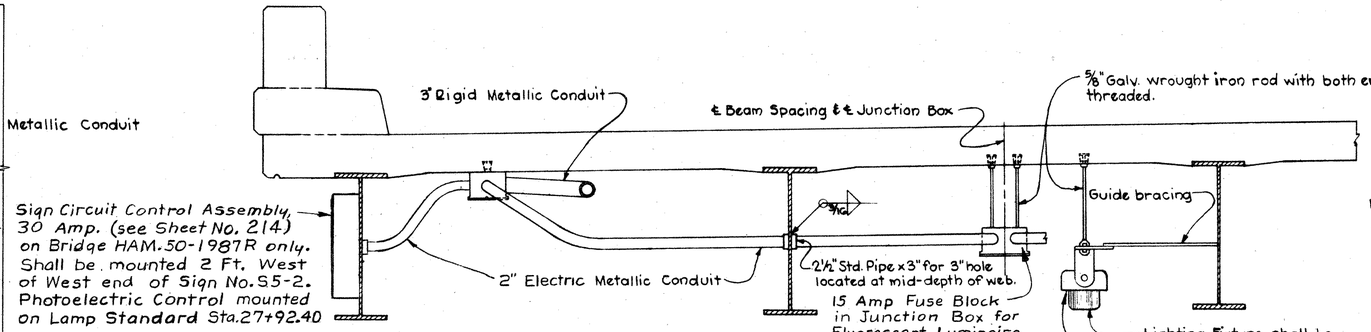


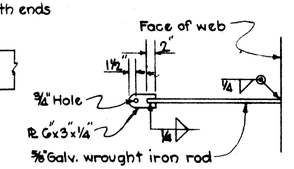
PLAN A-A



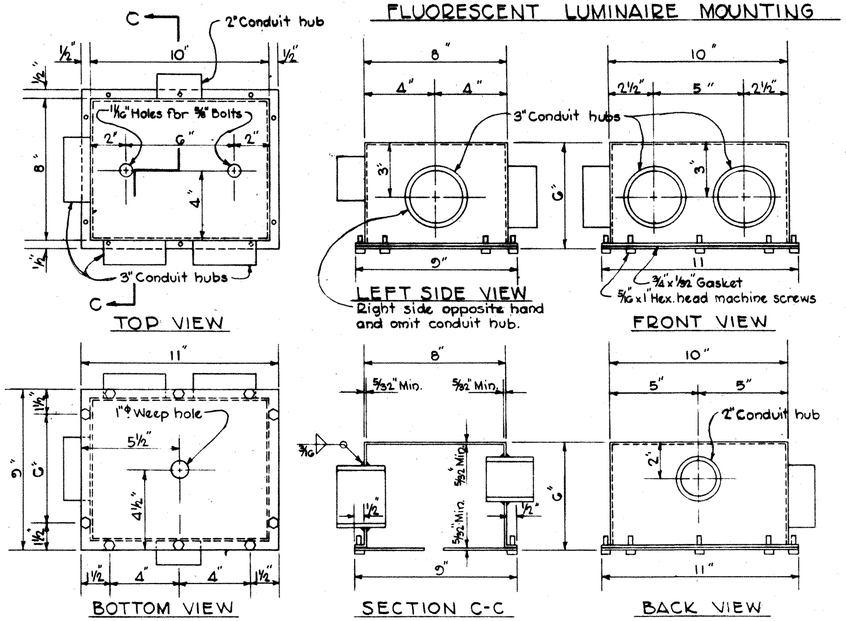
SECTION B-B



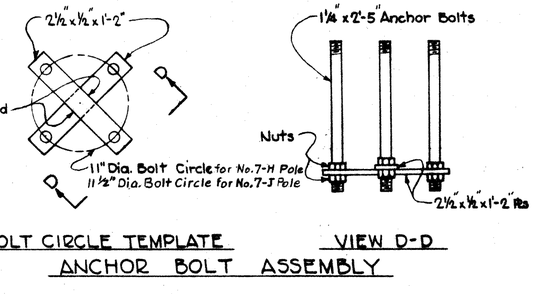
FLUORESCENT LUMINAIRE MOUNTING



PLAN - GUIDE BRACING
(Included with Fluorescent Luminaire for payment.)

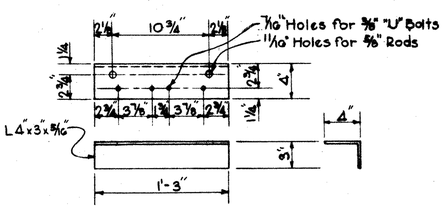


DETAILS OF JUNCTION BOX

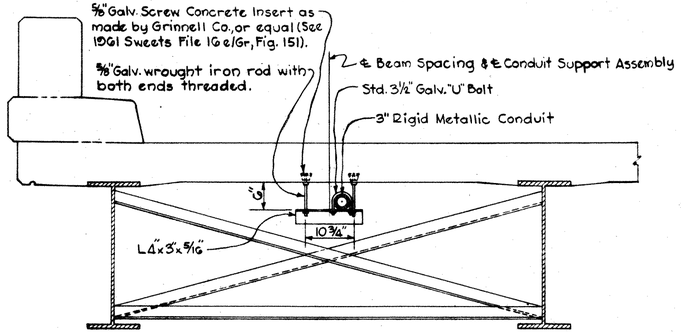


BOLT CIRCLE TEMPLATE

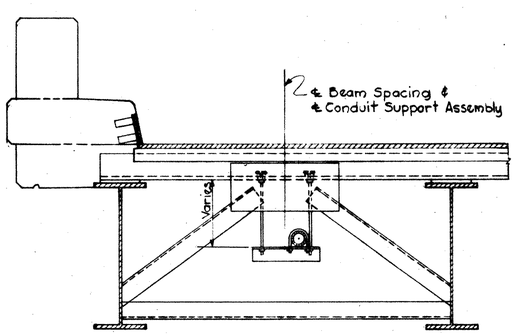
VIEW D-D
ANCHOR BOLT ASSEMBLY

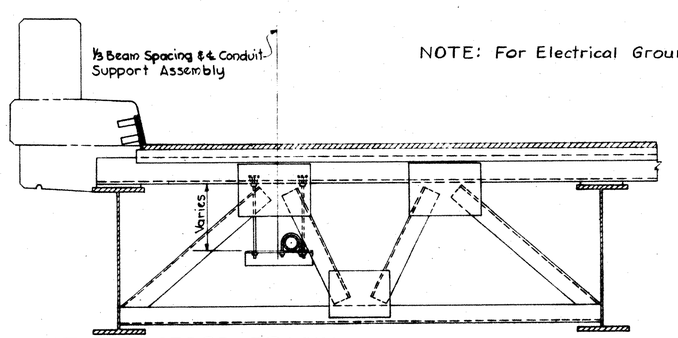


CONDUIT SUPPORT ASSEMBLY
ANGLE DETAIL



CONDUIT SUPPORT ASSEMBLY
AT INTERMEDIATE CROSS BRACING





CONDUIT SUPPORT ASSEMBLY AT END CROSS BRACING

NOTE: For Electrical Grounds See Sheet No. 212

ELECTRICAL DETAILS - BRIDGES 1987R & L AND 1992R & L

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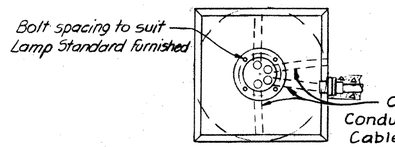
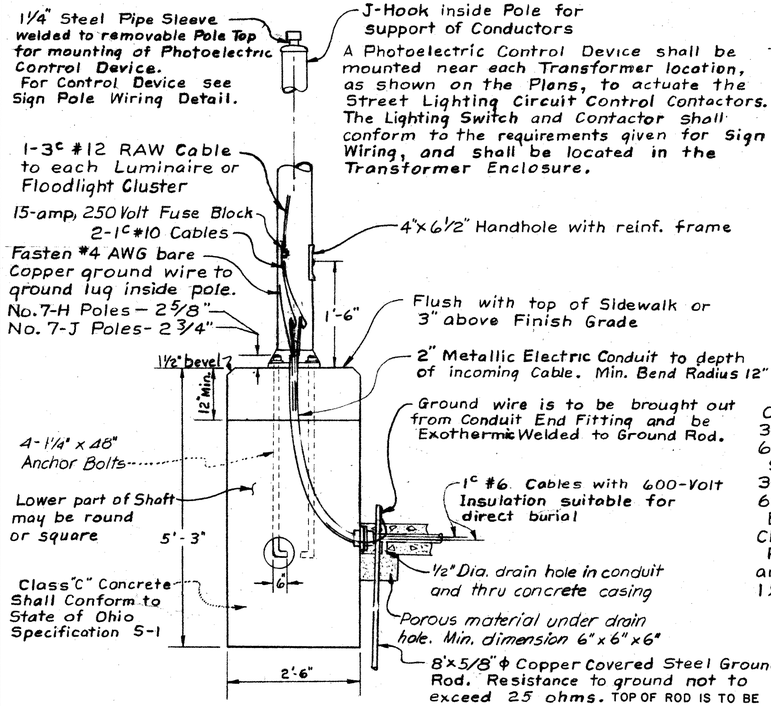
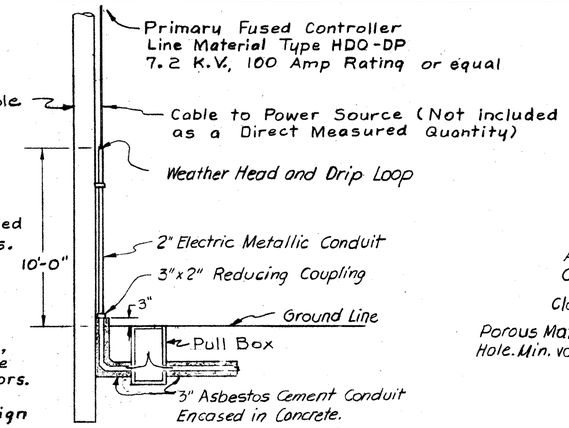


PLAN



A Photoelectric Control Device shall be mounted near each Transformer location, as shown on the Plans, to actuate the Street Lighting Circuit Control Contactors. The Lighting Switch and Contactor shall conform to the requirements given for Sign Wiring, and shall be located in the Transformer Enclosure.

CONCRETE BASE AND TYPICAL WIRING DETAIL OF LAMP STANDARD

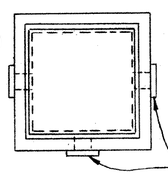


CONNECTION DETAIL TO POWER SUPPLY

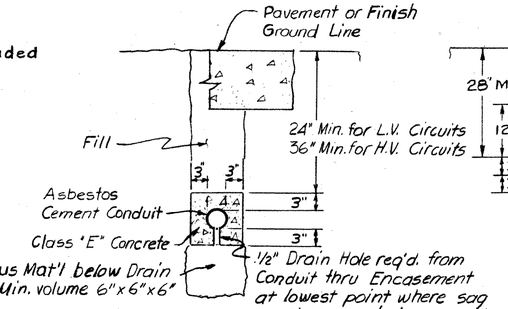
1¼" Steel Pipe Sleeve welded to removable Pole Top for mounting of Photoelectric Control Device. Photoelectric Control shall be Fisher-Pierce Co. Model 6602A or equal. Must conform to EEI-NEMA Standards for Twistlock Photoelectric Controls. Must have an operating range of 0.3 to 5.0 Foot-candles. Must be mounted for exposure to northern sky light.

1-3c #12 RAW Cable to Photoelectric Control.

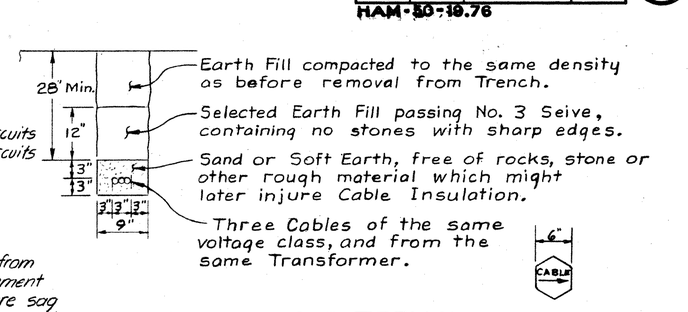
Controllers shall be 30 or 60 Amp, 3 Pole; as Square "D"
30 A-3P Type W939FA609-B or equal; or
60A-3P Type W939FA610-B or equal.
Switches shall be Square "D"
30A-3P (Fused) Type W939FA 2218 or equal; or
60A-3P (Fused) Type 50312 or equal.
Enclosure shall be stainless steel Square "D" Class 8903 NEMA Type IV, waterproof, or equal.
Provision shall be made to permit wiring to and from the Controller Enclosure through a 1½" Insulated Chase Nipple.



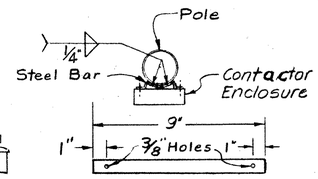
All steel Hardware must conform to the applicable provisions of the State of Ohio Department of Highways Construction and Material Specifications.



CONCRETE ENCASED CONDUIT

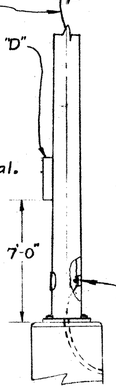


TYPICAL CABLE TRENCH



¼"x3" Steel Bar. Drill and Form to fit Pole and Box. Weld each Bar to Pole in Two Places.

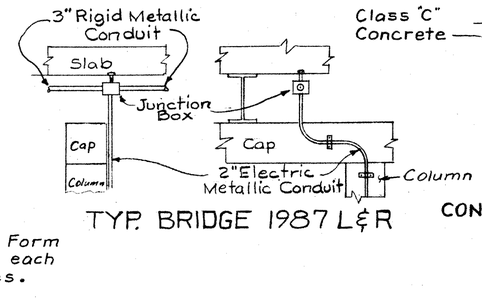
The Contactor shall be mounted on the side of the Pole away from the oncoming Traffic.



The Sign Circuit Control Assembly shall include the Photoelectric Control Unit, Switch, Contactor, Enclosure, Connecting Wiring, and Mounting Details.

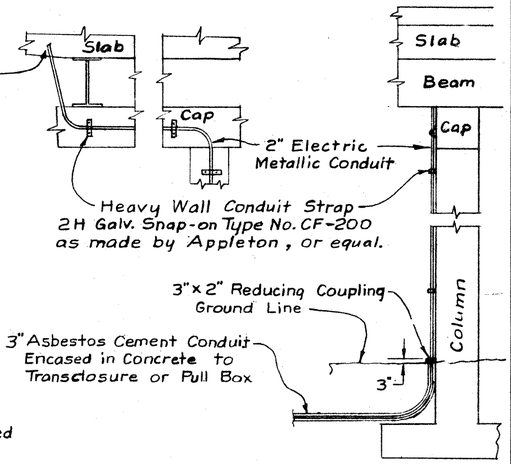
30 Amp. Fuse Block. To be used only on Pole without Fusible Switch-Contactor.

SIGN POLE WIRING DETAIL

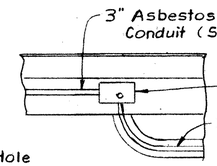


TYP. BRIDGE 1987 L & R

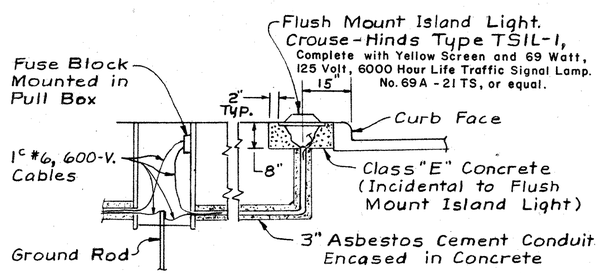
CONCRETE MARKER



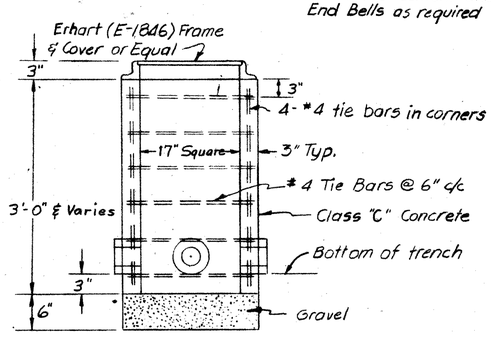
CABLE ROUTING UP PIER



CONDUIT AT EAST AND WEST APPROACHES BRIDGE NO. HAM. 50-2012 R & L



FLUSH MOUNT ISLAND LIGHT INSTALLATION



DETAIL—PULL BOX, TYPE A

LIGHTING AND SIGNING DETAILS

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2	OHIO		

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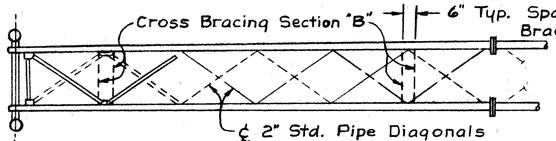
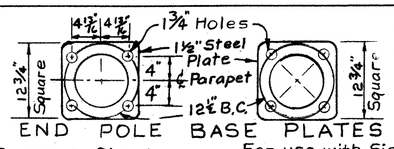


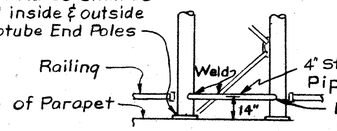


END POLE BASE PLATES

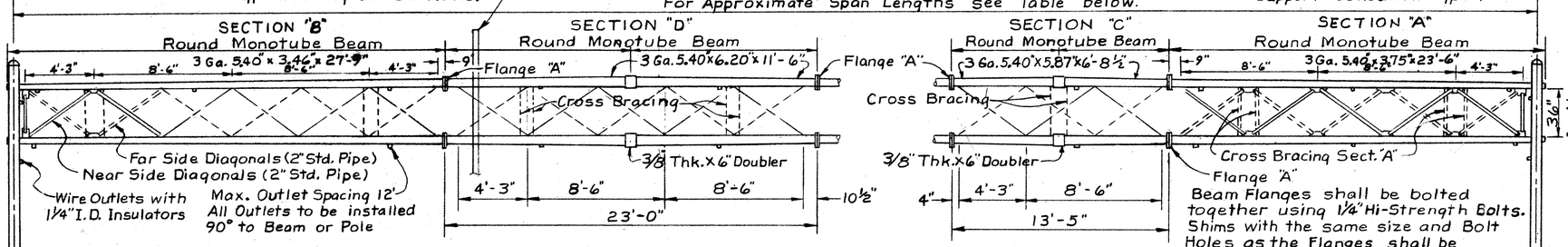
For use on Structures

For use with Sign Support Foundation Type "A"

All Base Plates shall be welded inside & outside to Monotube End Poles



Note! Pipe to line up with Face of Pole.



Max. Span 76'
For Approximate Span Lengths see Table below.

Sign Bracket Assembly. For details and number of Brackets see elsewhere on this Sheet.

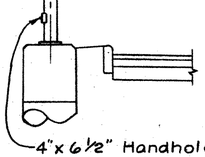
All Overhead Sign Supports shall be made of steel. The material shall meet the applicable provisions of the State of Ohio Dept. of Highways Construction and Material Specifications.

All Sign Support Structures shall be designed in accordance with "Specifications for the Design and Construction of Structural Supports for Highway Signs" as published by the American Association of State Highway Officials and dated November, 1960.

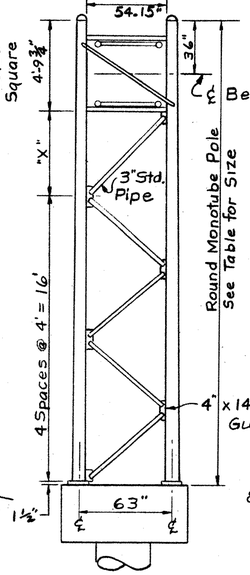
Beam Flanges shall be bolted together using 1¼" Hi-Strength Bolts. Shims with the same size and Bolt Holes as the Flanges shall be inserted at the Top Beam Joints to give the desired arch.

OVERHEAD SIGN SUPPORT TYPE "A"

SIGN NUMBER	SQ. FT. SIGN AREA	APPROX SPAN LENGTH	LEFT END POLE ASSEMBLY				RIGHT END POLE ASSEMBLY				BOX TRUSS SECTIONS				
			LOCATION ℄ of END PANEL	ROUND MONOTUBE END POLE	DIMENSION "X"	ELEVATION BASE PLATE	LOCATION ℄ of END PANEL	ROUND MONOTUBE END POLE	DIMENSION "X"	ELEVATION BASE PLATE	LEFT END	LEFT CENTER	CENTER	RIGHT CENTER	RIGHT END
S5-1	360	55'	24+07.5 E.B. 8.00 Lt.	36a.8.85x7.12x24'-9"	3'-9¾"	488.05	24+07.5 EB Retaining Wall	36a.8.85x7.16x22'-9"	1'-9¾"	490.10	B	—	—	—	B
S7-1	480	76'	33+90 E B 9.50 Lt.	36a.8.85x7.19"x23'-9"	2'-9¾"	507.54	33+90 E B Retaining Wall	36a.8.85x7.19"x23'-9"	2'-9¾"	507.60	B	—	D	—	B
S9-3	480	62'	51+00 EB 11.00 Lt.	36a.8.85x7.19"x23'-9"	2'-9¾"	534.80	51+00 EB 51.00 Rt.	36a.8.85x7.15"x24'-5"	3'-5¾"	533.65	A	—	C	—	B

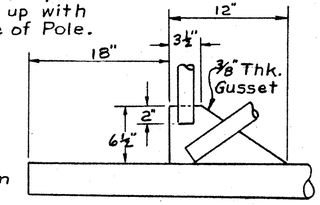


For Type "A" Foundation Details see Sheet No. 216

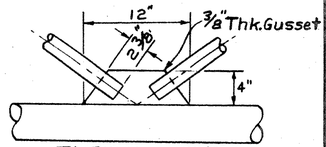


TYPICAL END PANEL ASSEMBLY

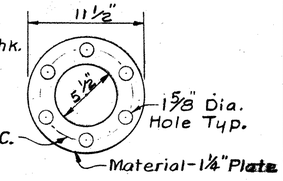
DETAIL SHOWING PIPE RAILING TO BE ADDED TO ALL END PANELS LOCATED ON STRUCTURES



END JOINT DETAIL

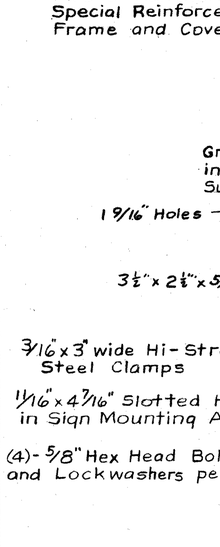


TYPICAL JOINT DIAGONAL TRUSS MEMBERS



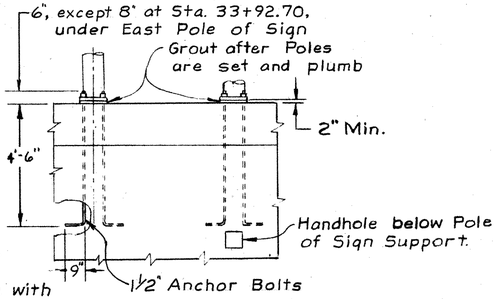
BEAM FLANGE "A"

All Flanges shall be welded inside and outside to Monotube Beams.

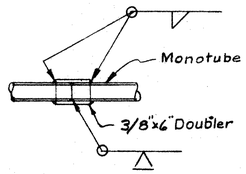


SIGN BRACKET ASSEMBLY FOR OVERHEAD SIGN SUPPORTS TYPE A & B

3 Brackets to be furnished for each 120 Sq. Ft. of Sign Area. All Material to be Hot Galvanized.

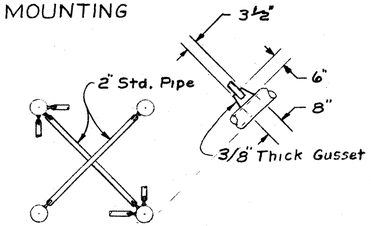


TYPICAL RETAINING WALL MOUNTING

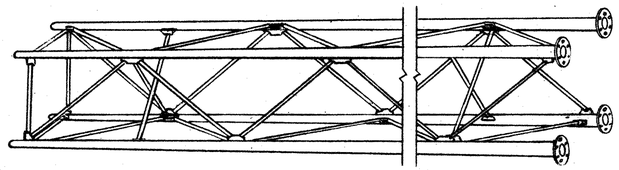


WELDING DETAIL

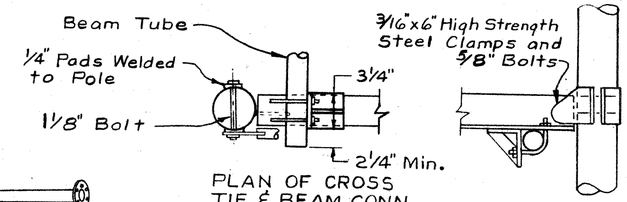
Sections C and D



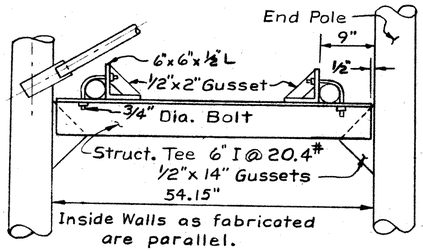
DETAIL-CROSS BRACES



TYPICAL CONSTRUCTION-END SECTION



PLAN OF CROSS TIE & BEAM CONN.



BOTTOM BEAM SUPPORT AND END POLE FRAME TIE

SIGN SUPPORT DETAILS - TYPE A

FED. RD. DIV.	STATE	PROJECT	FISCAL YEAR
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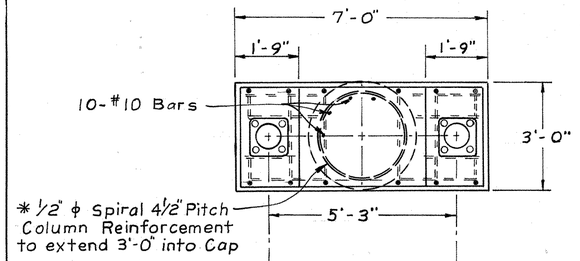
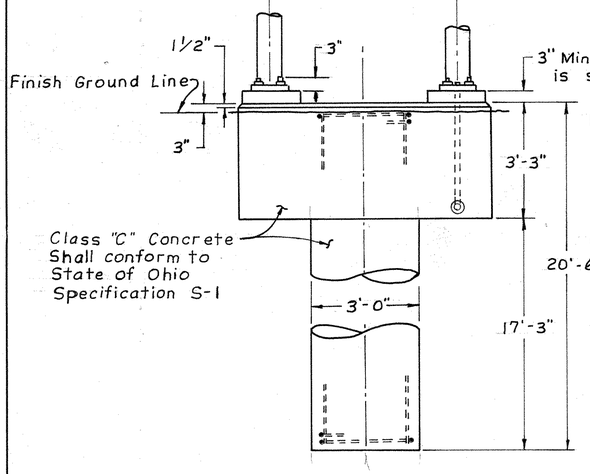
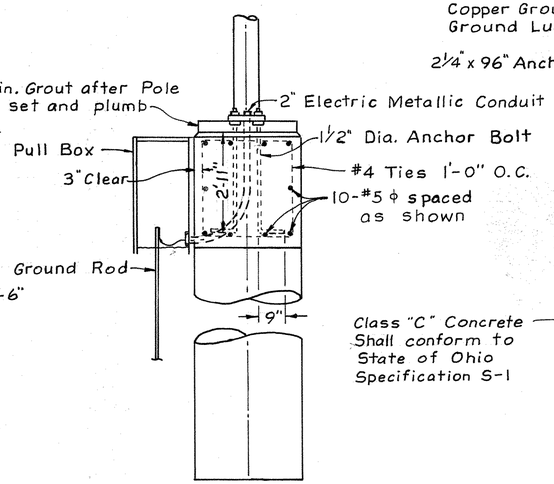


* Spiral Reinforcement shall be ½" ϕ Cold Drawn Wire with a 4½" Pitch. One and one-half closed coils shall be provided at the ends of each spiral unit. Three steel channel, tee or angle spacers shall be provided for each spiral unit, and shall be equally spaced along the periphery of the coil. The weight of the spacers provided for above shall be 0.68 Lb./Lin. Ft.





OVERHEAD SIGN SUPPORT FOUNDATION - TYPE "A"

All shafts shall be installed from the ground surface after grading operations are completed. The maximum variation of the center of any shaft from the required location at ground surface shall be two (2) inches. A line passing through the center of the top and bottom of the shaft shall not be out of plumb more than five (5) per cent. If these tolerances are exceeded proper additional construction, as required by the Engineer, shall be provided without additional cost to the State.

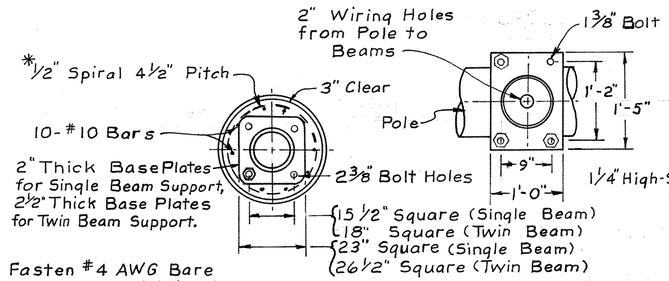
A shaft of 36 In. diameter shall be drilled from the ground surface to the required depth. Material excavated shall be removed and disposed of as directed by the Engineer. A casing shall be installed in the hole if necessary to protect personnel and to prevent cave-ins. Before any concrete is poured the hole shall be cleaned out and inspected. After inspection the reinforcing steel, anchor bolts and conduit shall be installed so as to remain accurately in place until the concrete has set.

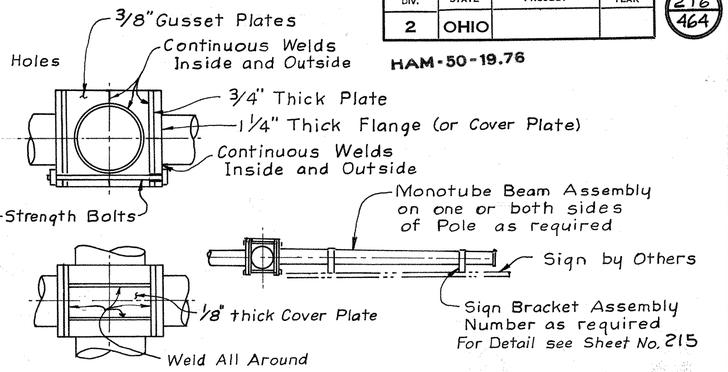
The shafts shall be filled with concrete as specified below and a sufficient head of concrete shall be maintained to prevent a reduction in shaft diameter by earth pressure from the sides. The concrete pouring shall be stopped at the cutoff elevation shown on the detail within a tolerance of one (1) inch. The remaining portion of the concrete shall be grouted in place after the sign supports are set and plumb. All concrete shall be placed in a way that will prevent the separation of its constituent materials. If an inflow of water occurs the concrete shall be placed in still water by means of a tremis or bottom dump bucket to a height above such inflow. If steel cylinders are used for lining, they may be withdrawn; maintaining a sufficient head of concrete above the lower end to prevent contamination.

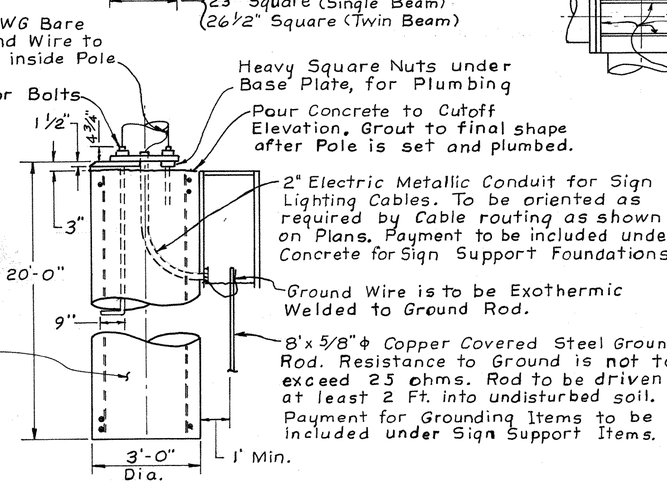
The depth of the Sign Support Foundations, Types A and B, will be not less than as shown on the plans; but may be greater if conditions so require.

The Contractor will be paid for the actual number of Cubic Yards placed of "Item I-129 Concrete for Overhead Sign Support Foundations"; and the actual number of Pounds of "Item I-129 Steel Reinforcing Bars".

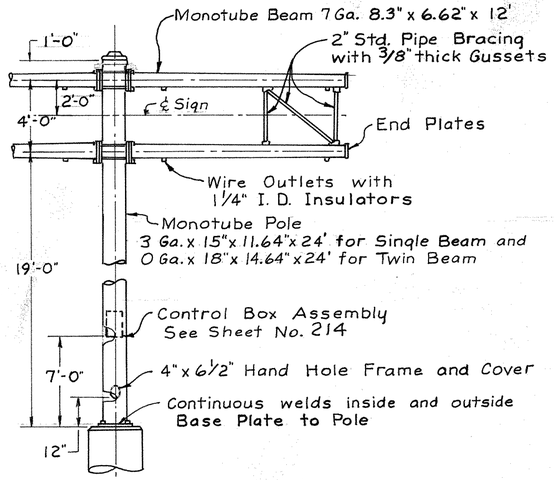
This price and payment shall include the locating, excavating, forming where required, placing reinforcing steel, installing anchor bolt assemblies and conduit, the protective casing where required, and finishing.







OVERHEAD SIGN SUPPORT FOUNDATION — TYPE "B"



OVERHEAD SIGN SUPPORT — TYPE "B"

Sign No.	Location	Sq. Ft. Sign Area	Single or Twin Beam
S6-1	Lt. 17+15 F	240	Twin
S6-2	Rt. 16+90 F	240	Twin
S6-3	Rt. 44+50 FC(S)	240	Twin
S6-4	Lt. 11+40 F	120	Single
S7-2	Rt. 40+95 CD	240	Twin
S8-1	Lt. 22+60 F	240	Twin
S9-1	Rt. 48+55 LA	240	Twin
S9-2	Lt. 54+40 LA	120	Single
S10-1	Rt. 49+30 LB	240	Twin

All Overhead Sign Supports shall be made of steel. The materials shall meet the applicable provisions of the State of Ohio Department of Highways Construction and Materials Specifications.

All Sign Support Structures shall be designed in accordance with "Specifications for the Design and Construction of Structural Supports for Highway Signs" as published by the American Association of State Highway Officials and dated November, 1960.

SIGN SUPPORT AND FOUNDATION DETAILS

FED. RD. DIV.	STATE	PROJECT	FISCAL YEAR
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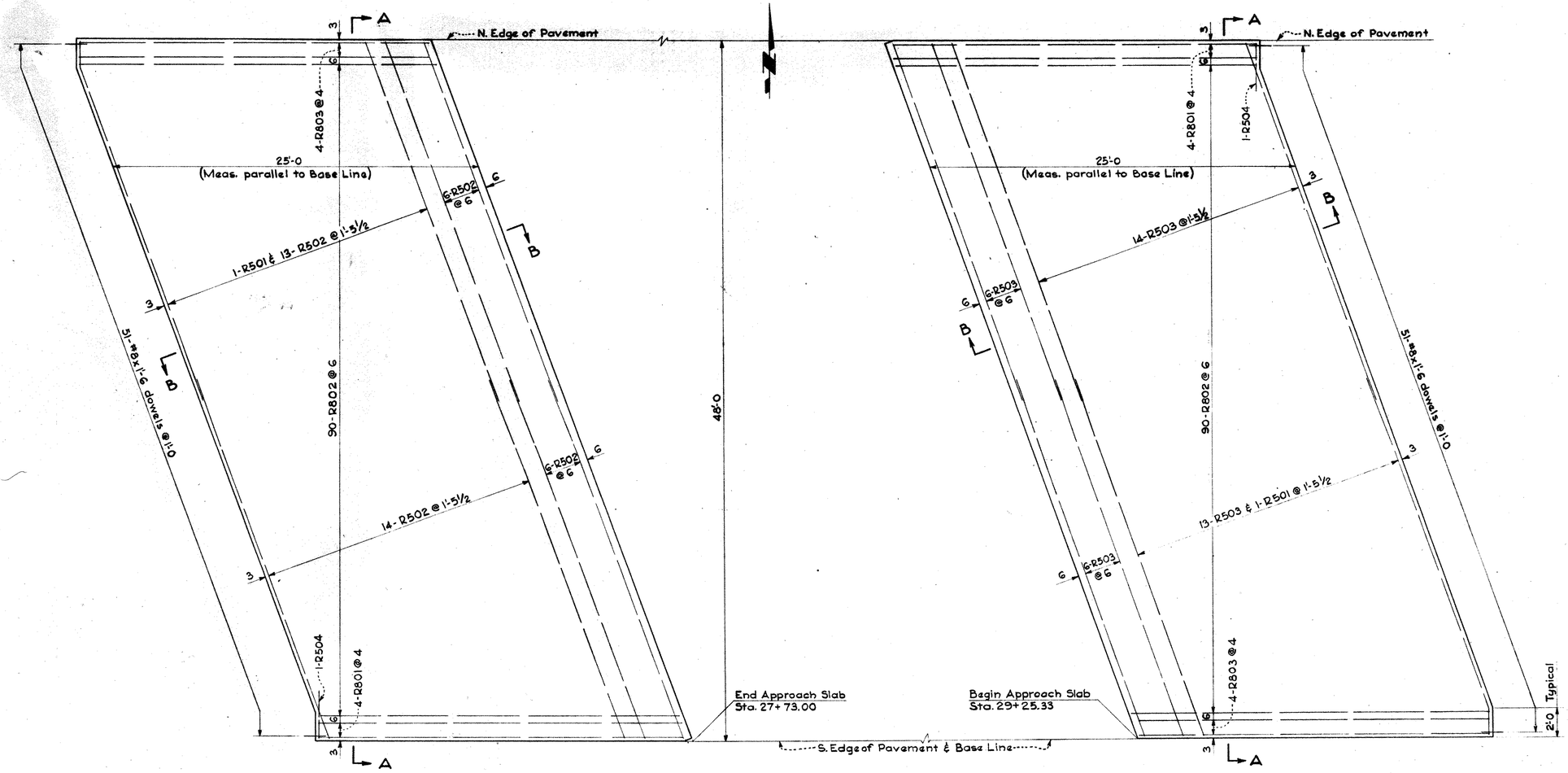
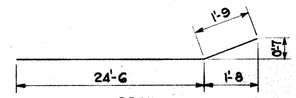


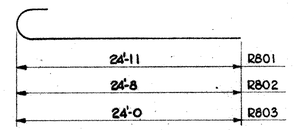
PLAN
WEST APPROACH SLAB

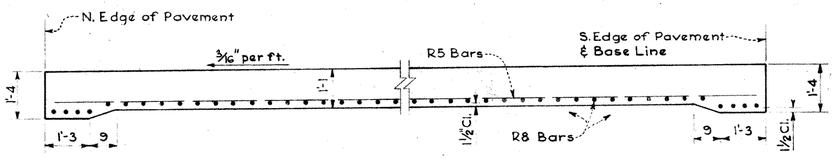
PLAN
EAST APPROACH SLAB

REINFORCING STEEL LIST

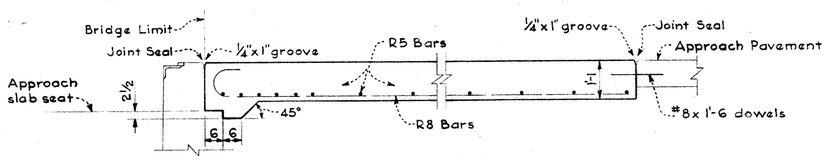
MARK	NO.	LENGTH	SHAPE
R501	2	26'-3	Bt.
R502	39	26'-1	Str.
R503	39	26'-3	Str.
R504	2	3'-3	Str.
R801	8	26'-0	Bt.
R802	180	25'-9	Bt.
R803	8	25'-1	Bt.
102-#8 x 1'-6 dowels			







SECTION A-A



SECTION B-B

CITY OF CINCINNATI
DEPARTMENT OF PUBLIC WORKS
DIVISION OF ENGINEERING

APPROACH SLABS

BRIDGE NO. HAM-50-1987-L

WESTBOUND
6TH ST. EXPRESSWAY BRIDGE
OVER RAMP A

CINCY BRIDGE NO. 3L

DESIGNED	DRAWN	TRACED	CHECKED	REVIEWED	DATE	REVISED
JDA	JDA		W.W.	W.W.	8-1-62	

FED. RD. DIV.	STATE	PROJECT	FISCAL YEAR
2	OHIO		

HAM-50-19.76

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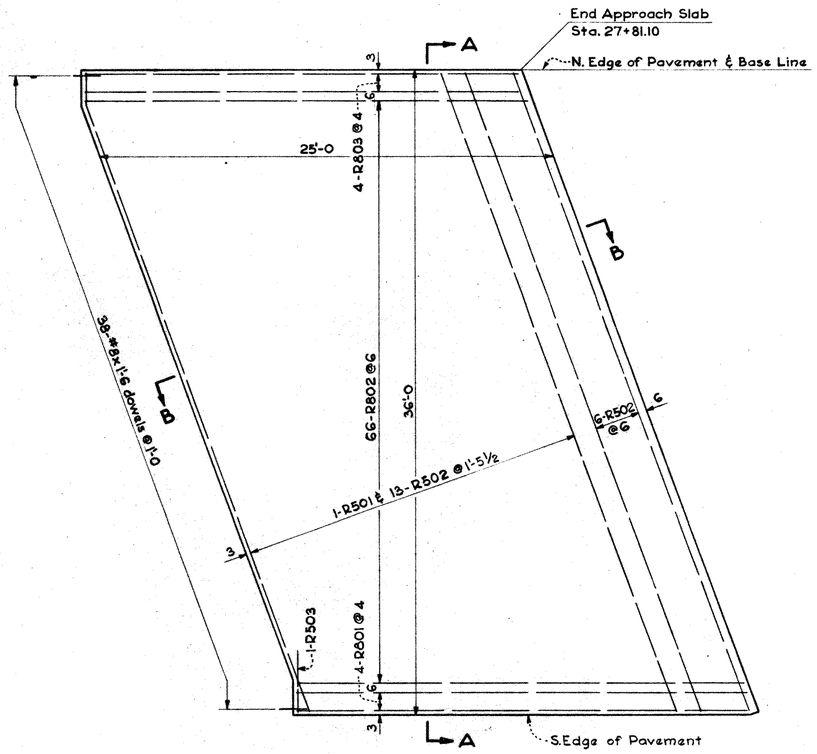
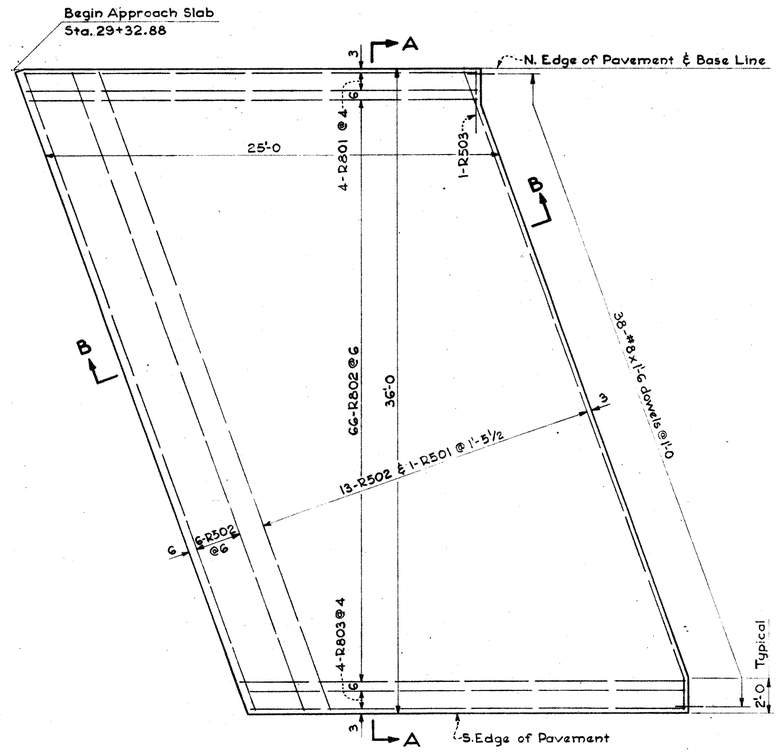
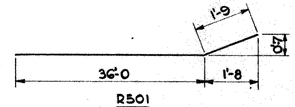


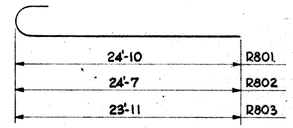
PLAN
WEST APPROACH SLAB

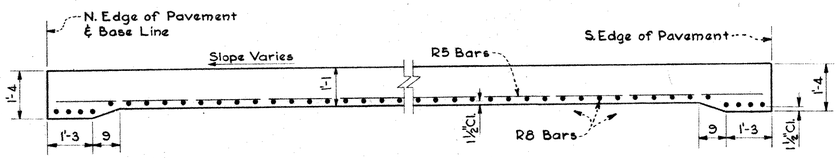


PLAN
EAST APPROACH SLAB

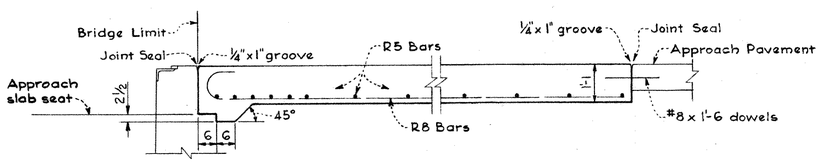
REINFORCING STEEL LIST			
MARK	NO.	LENGTH	SHAPE
R501	2	37'-9	Bt.
R502	38	37'-10	Str.
R503	2	3'-5	Str.
R801	8	25'-11	Bt.
R802	132	25'-8	Bt.
R803	8	25'-0	Bt.
76-#8x1'-6 dowels			







SECTION A-A



SECTION B-B

CITY OF CINCINNATI
DEPARTMENT OF PUBLIC WORKS
DIVISION OF ENGINEERING

APPROACH SLABS

BRIDGE NO. HAM-50-1987-R

EASTBOUND
6TH ST. EXPRESSWAY BRIDGE
OVER RAMP A

CINCY BRIDGE NO. 3R

DESIGNED	DRAWN	TRACED	CHECKED	REVIEWED	DATE	REVISED
JDA	JDA		W.W.	W.W.	8-1-62	

FED. RD. DIV.	STATE	PROJECT	FISCAL YEAR
2	OHIO		

HAM-50-19.76

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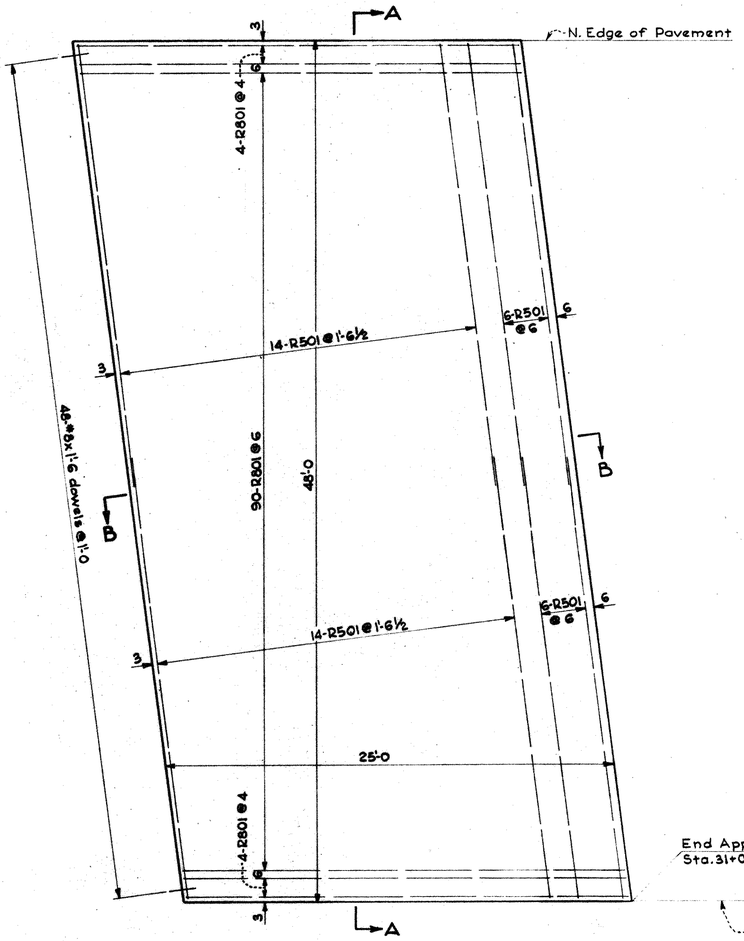
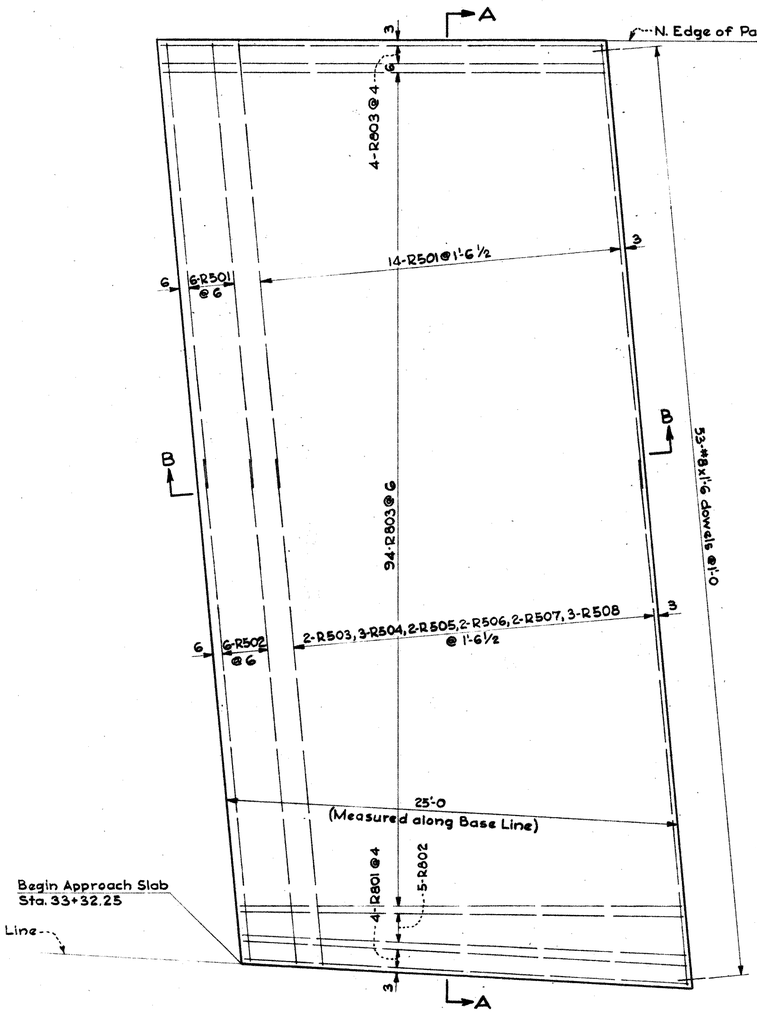


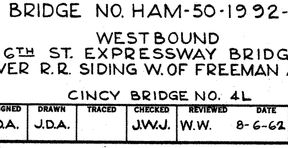
PLAN
WEST APPROACH SLAB

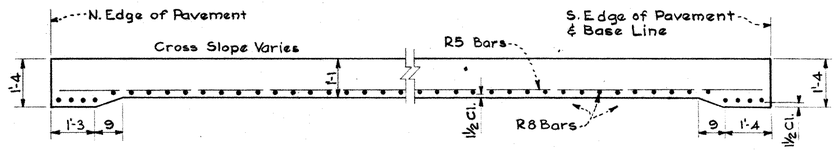


PLAN
EAST APPROACH SLAB

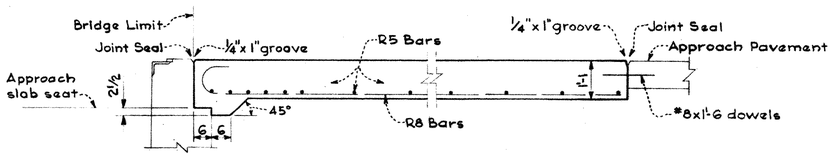
REINFORCING STEEL LIST

MARK	NO.	LENGTH	SHAPE
R501	60	24'-10	Str.
R502	6	28'-6	"
R503	2	28'-8	"
R504	3	28'-11	"
R505	2	29'-1	"
R506	2	29'-3	"
R507	2	29-6	"
R508	3	29'-9	Str.
R801	102	25'-9	Bt.
R802	5	25'-8	Bt.
R803	98	25'-7	Bt.
101-#8 x 1'-6 dowels			





SECTION A-A



SECTION B-B

CITY OF CINCINNATI
DEPARTMENT OF PUBLIC WORKS
DIVISION OF ENGINEERING

APPROACH SLABS

BRIDGE NO. HAM-50-1992-L

WESTBOUND
6TH ST. EXPRESSWAY BRIDGE
OVER R.R. SIDING W. OF FREEMAN AVE.

CINCY BRIDGE NO. 4L

DESIGNED	DRAWN	TRACED	CHECKED	REVIEWED	DATE	REVISED
J.D.A.	J.D.A.		J.W.J.	W.W.	8-6-62	

FED. RD. DIV.	STATE	PROJECT	FISCAL YEAR
2	OHIO		

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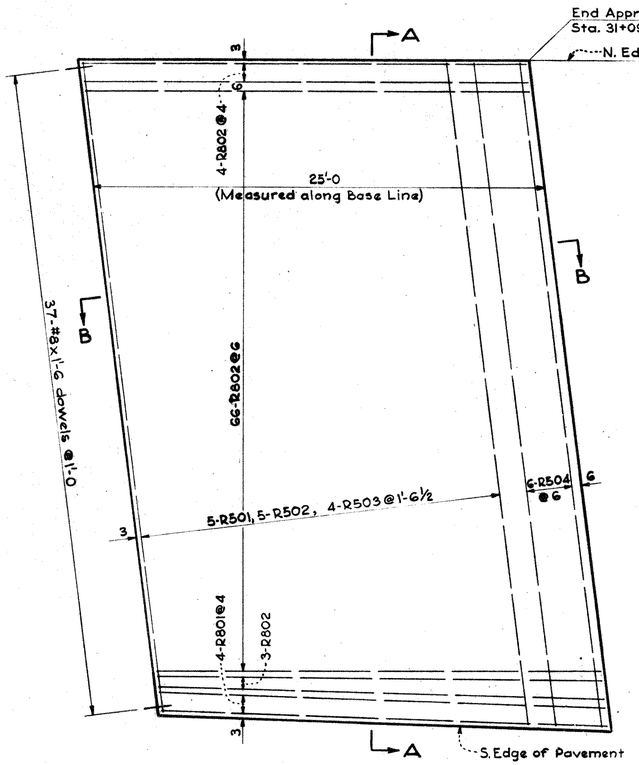
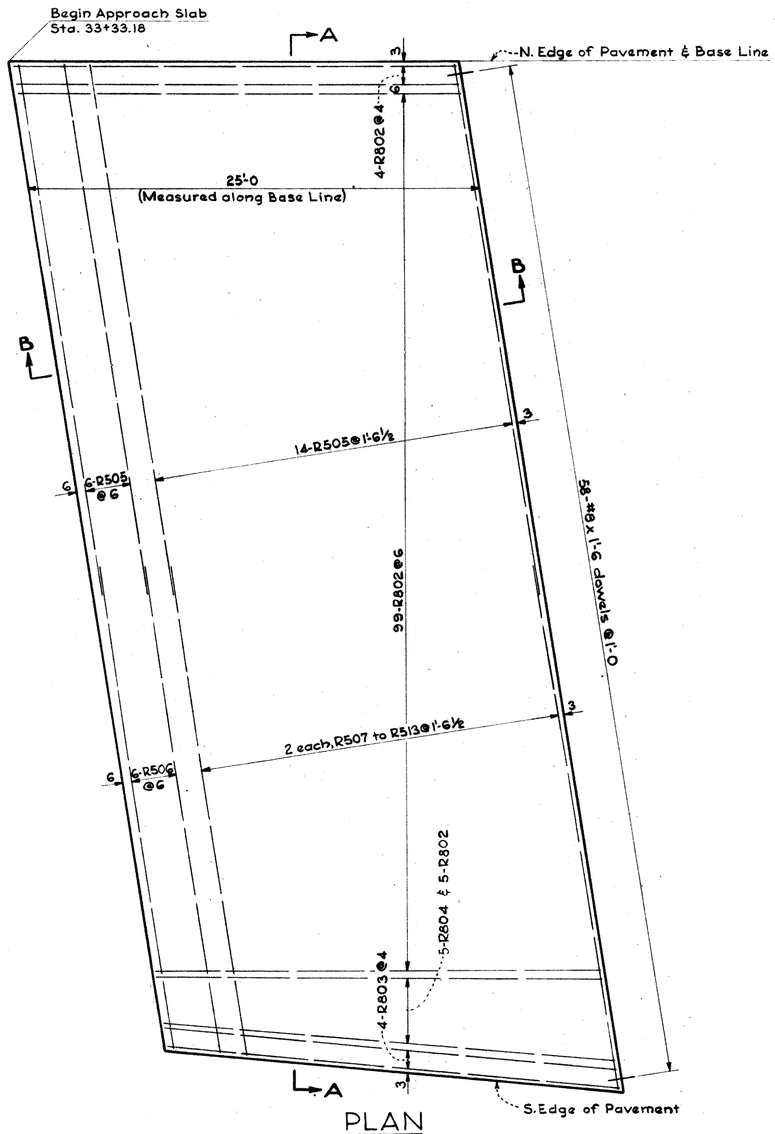
HAM-50-19.76



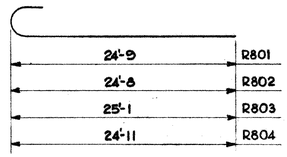
PLAN
WEST APPROACH SLAB

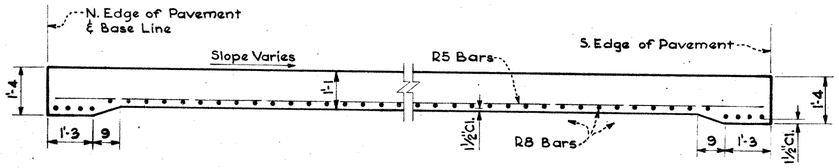


PLAN
EAST APPROACH SLAB

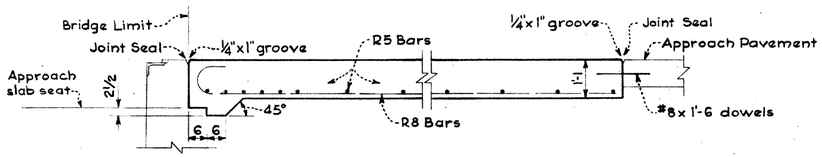
REINFORCING STEEL LIST

MARK	NO.	LENGTH	SHAPE
R501	5	36'-6	Str.
R502	5	36'-9	"
R503	4	37'-0	"
R504	6	37'-3	"
R505	20	30'-0	"
R506	6	27'-6	"
R507	2	27'-9	"
R508	2	28'-1	"
R509	2	28'-5	"
R510	2	28'-9	"
R511	2	29'-1	"
R512	2	29'-5	"
R513	2	29'-8	Str.
R801	4	25'-10	Bt.
R802	181	25'-9	"
R803	4	26'-2	"
R804	5	26'-0	Bt.
95-#8x1'-6 dowels			





SECTION A-A



SECTION B-B

CITY OF CINCINNATI
DEPARTMENT OF PUBLIC WORKS
DIVISION OF ENGINEERING

APPROACH SLABS

BRIDGE NO. HAM-50-1992-R

EASTBOUND
6TH ST. EXPRESSWAY BRIDGE
OVER R.R. SIDING W. OF FREEMAN AVE.

CINCY BRIDGE NO. 4R

DESIGNED	DRAWN	TRACED	CHECKED	REVIEWED	DATE	REVISED
J.D.A.	J.D.A.		J.W.J.	W.W.	8-6-62	

FED. RD. DIV.	STATE	PROJECT	FISCAL YEAR
2	OHIO		

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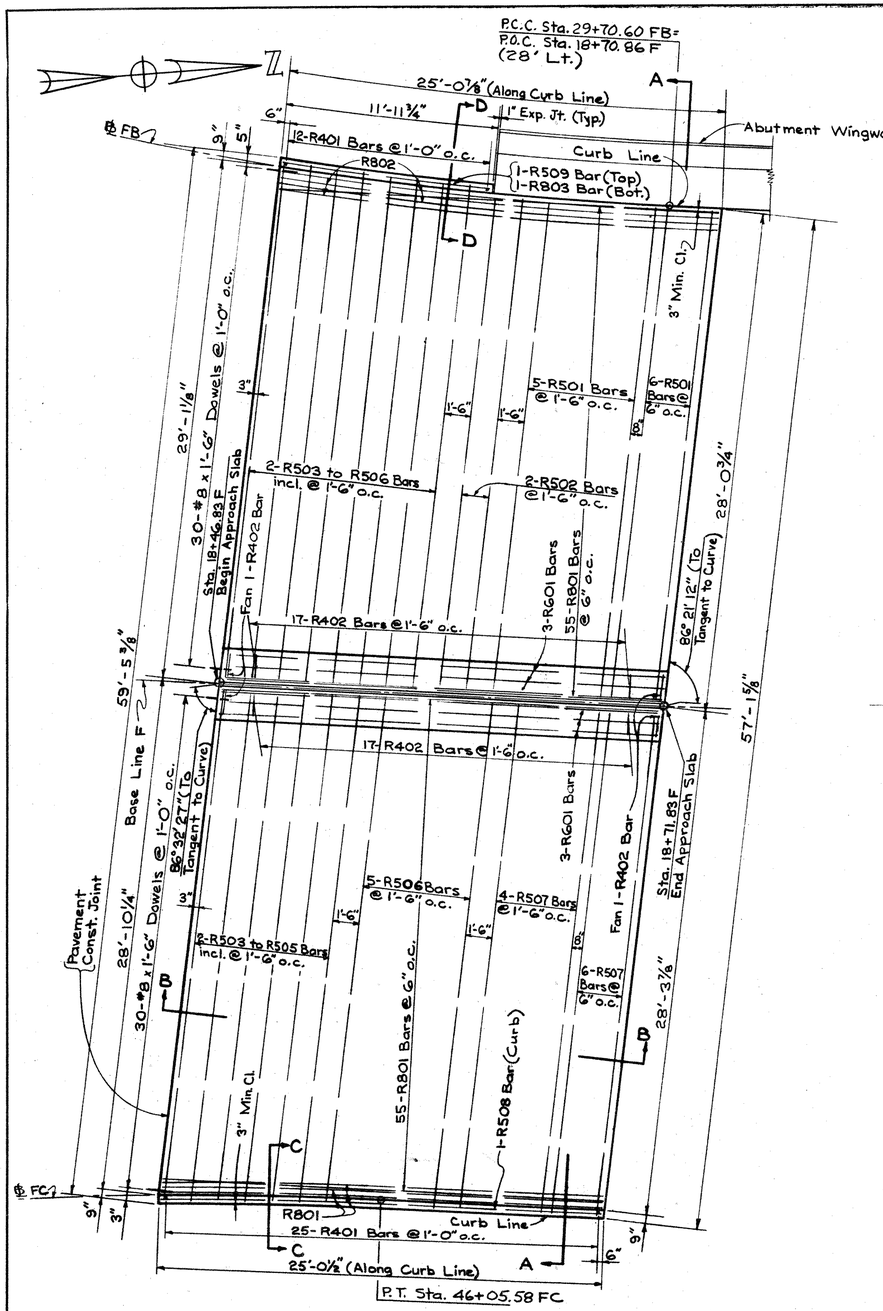
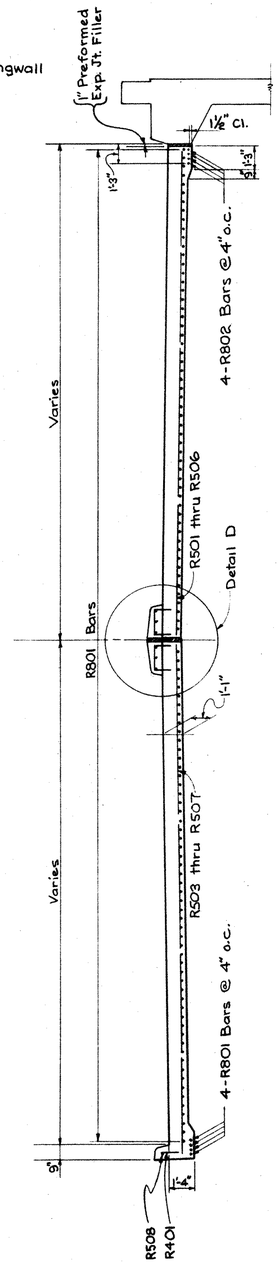
HAM-50-19.76

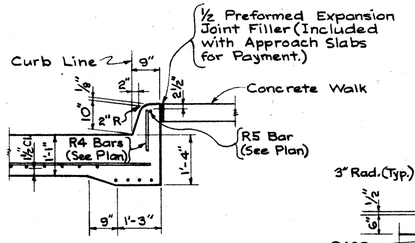


PLAN

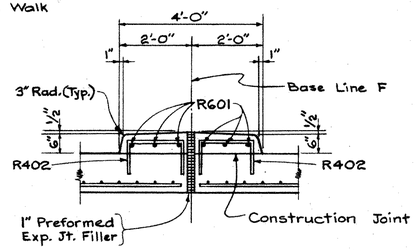


SECTION A-A

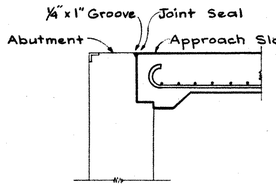
NOTE:
1" Preformed Exp. Jt. Filler Material included with Approach Slab quantities for payment.



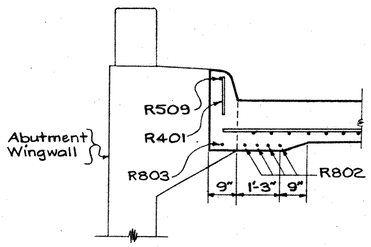
SECTION C-C
(10" Curb Detail)



DETAIL D



DETAIL F



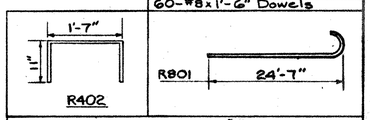
SECTION D-D
10" Curb (Typ.)
For dimensions of 10" Curb see Sect C-C this sheet.

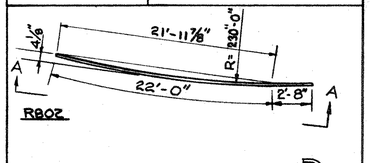
DETAIL E

SECTION B-B

MARK	NO.	LENGTH	SHAPE
R401	37	1'-1"	Str.
R402	34	3'-4"	Bent
R501	11	27'-7"	Str.
R502	2	27'-9"	
R503	7	29'-0"	
R504	4	28'-10"	
R505	4	28'-8"	
R506	4	28'-6"	
R507	10	28'-4"	
R508	1	24'-7"	
R509	1	11'-7"	Str.
R601	6	24'-7"	Str.
R801	114	25'-8"	Bent
R802	4	25'-9"	Bent
R803	1	11'-7"	Str.

60-#8 x 1'-6" Dowels





SECTION A-A

HAZELET & ERDAL
CONSULTING ENGINEERS
CINCINNATI, OHIO

SOUTH APPROACH SLAB
BRIDGE NO. HAM-50-2007

H. & E. BRIDGE NO. 6

DESIGNED	DRAWN	TRACED	CHECKED	REVIEWED DATE	REVISED
	R.E.M. 7-20-61		MY 5-22-62	M.A.Z. 8-1-62	

FED. RD. DIV.	STATE	PROJECT	FISCAL YEAR
2	OHIO		

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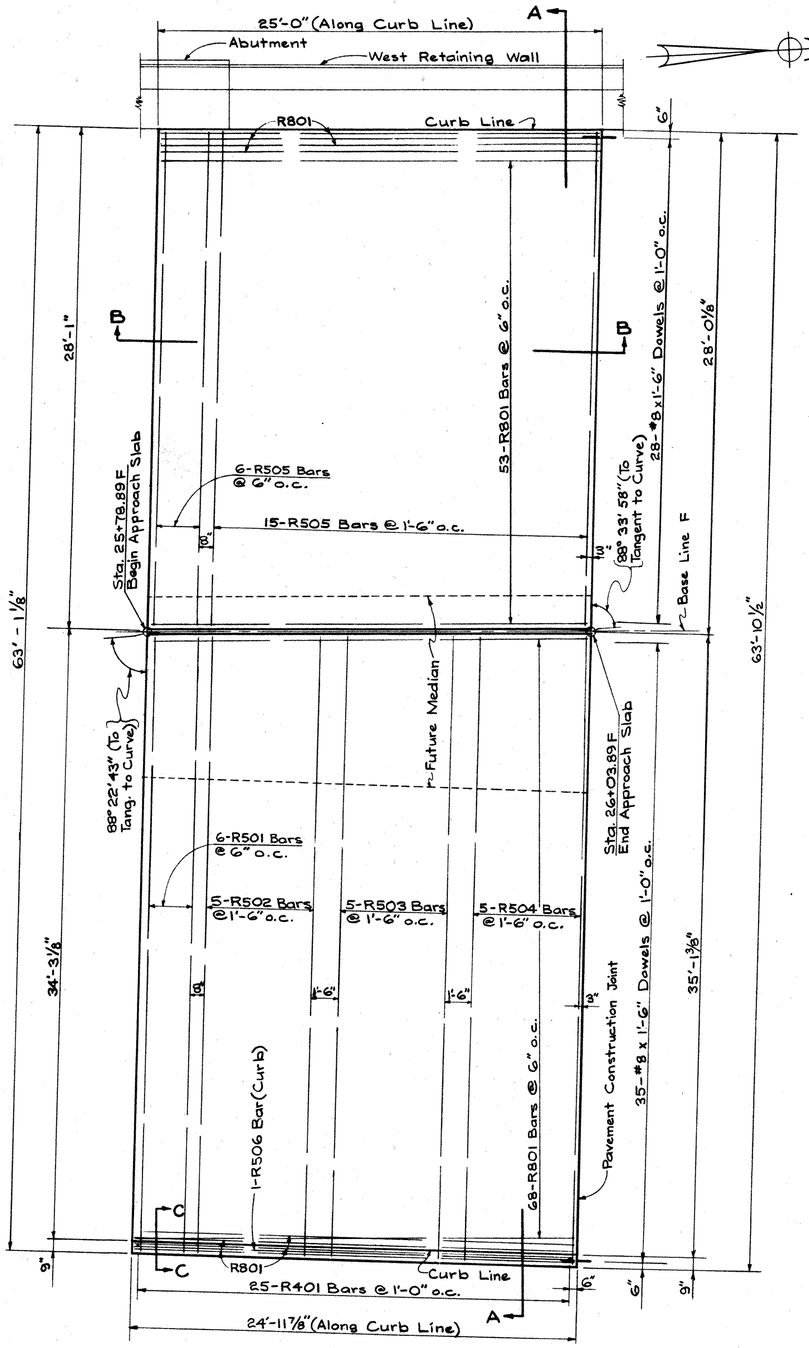
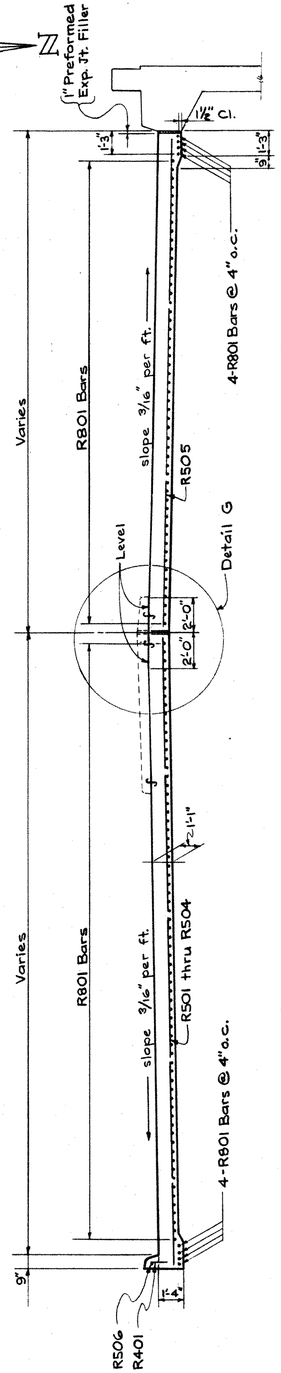
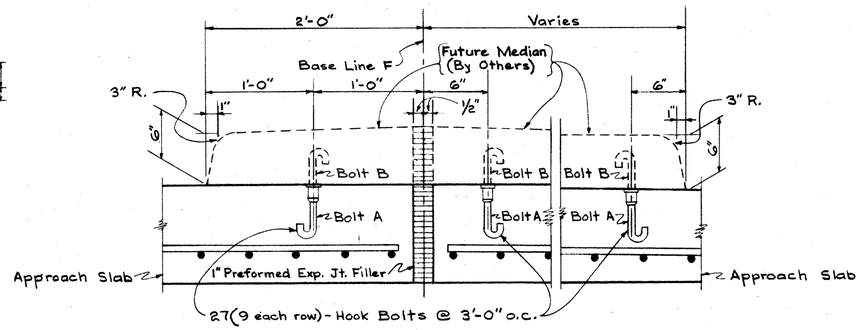


PLAN



SECTION A-A



NOTE:
Bolt A shall be furnished and placed by the Contractor.

Bolt B shall be furnished and placed with future median by Others.

Contractor shall provide means of protecting the open end of the socket from damage until the Median is poured at that location.

Bolt A to be included with Approach Slab for payment.

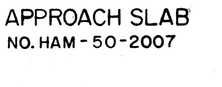
For Detail of Hook Bolts see Sheet No. 14

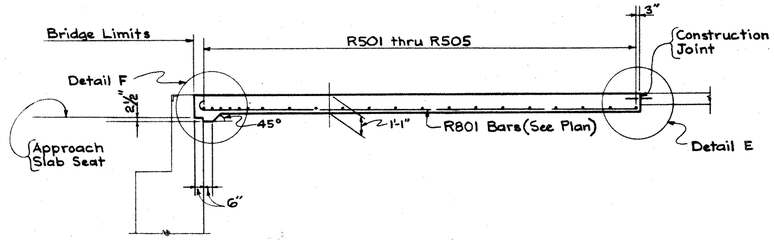
DETAIL G

MARK	NO.	LENGTH	SHAPE
R401	25	1'-1"	Str.
R501	6	34'-7"	Str.
R502	5	34'-9"	
R503	5	35'-0"	
R504	5	35'-4"	
R505	21	27'-6"	
R506	1	24'-7"	Str.
R801	129	25'-8"	Bent

63-#8 x 1'-6" Dowels

BENDING





SECTION B-B

NOTE:
For Sec. C-C, Detail E, and Detail F, see Sh. No. 221
1" Preformed Exp. Jt. Filler Material included with Approach Slab quantities for payment.

HAZELET & ERDAL
CONSULTING ENGINEERS
CINCINNATI, OHIO

NORTH APPROACH SLAB
BRIDGE NO. HAM-50-2007

H.&E. BRIDGE NO. 6

DESIGNED	DRAWN	TRACED	CHECKED	REVIEWED DATE	REVISED
	7-25-61 R.E.M.		MY 8-22-61	8-1-62	

FED. RD. DIV.	STATE	PROJECT	FISCAL YEAR
2	OHIO		

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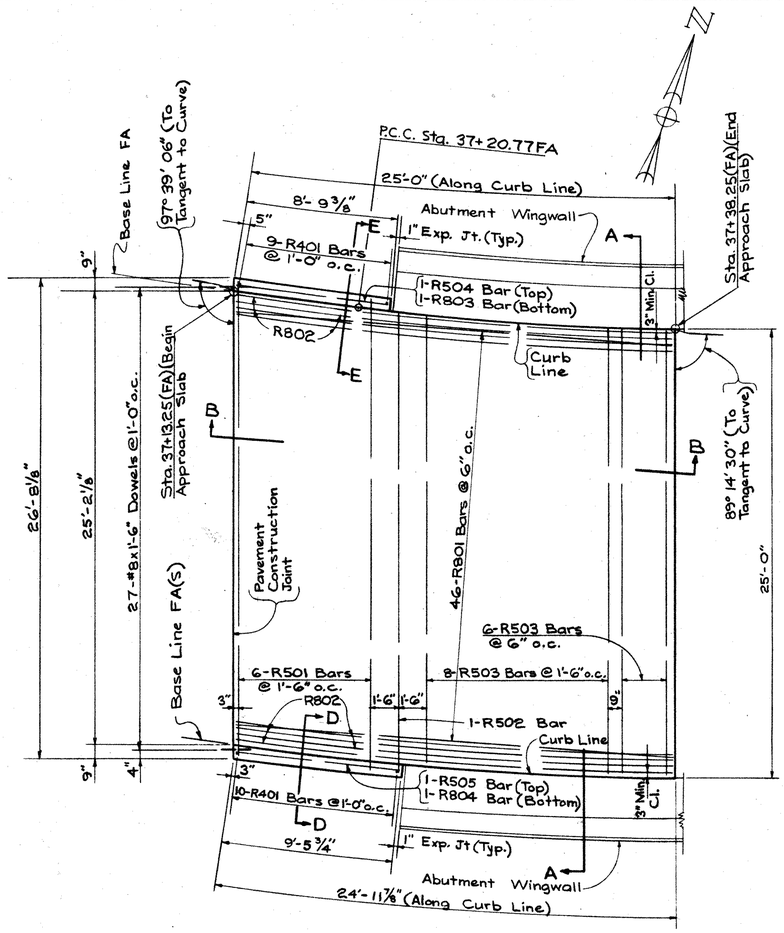
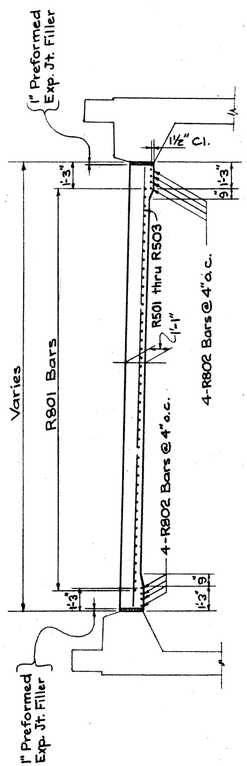
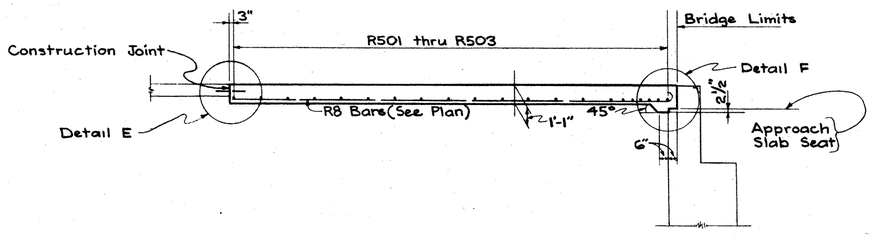


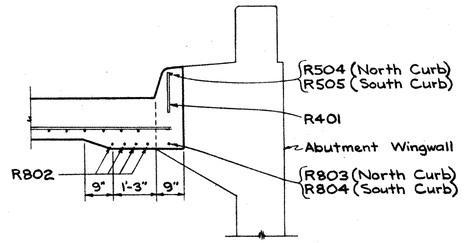
PLAN



SECTION A-A



SECTION B-B

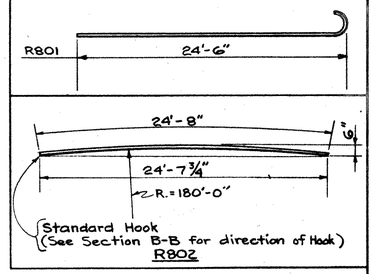


SECTION D-D
SECTION E-E (Opposite Hand)
10" Curb (Typ.)
For dimensions see Sh.# 221

NOTE:
For Detail E and Detail F see Sheet No. 221
1" Preformed Exp. Jt. Filler Material included with Approach Slab quantities for payment.

MARK	NO.	LENGTH	SHAPE
R401	19	1'-1"	Str.
R501	6	26'-2"	Str.
R502	1	25'-4"	Str.
R503	14	24'-6"	Str.
R504	1	8'-4"	Str.
R505	1	9'-0"	Str.
R801	46	25'-7"	Bent
R802	8	25'-9"	Bent
R803	1	8'-4"	Str.
R804	1	9'-0"	Str.
27-#8x1'-6" Dowels			

BENDING



HAZELET & ERDAL
CONSULTING ENGINEERS
CINCINNATI, OHIO

WEST APPROACH SLAB
BRIDGE NO. HAM-50-2007

H & E BRIDGE NO. 6

DESIGNED	DRAWN	TRACED	CHECKED	REVIEWED DATE	REVISED
	R.E.M. 7-28-61		MY 8-22-61	M.A.Z. 8-1-62	

FED. RD. DIV.	STATE	PROJECT	FISCAL YEAR
2	OHIO		

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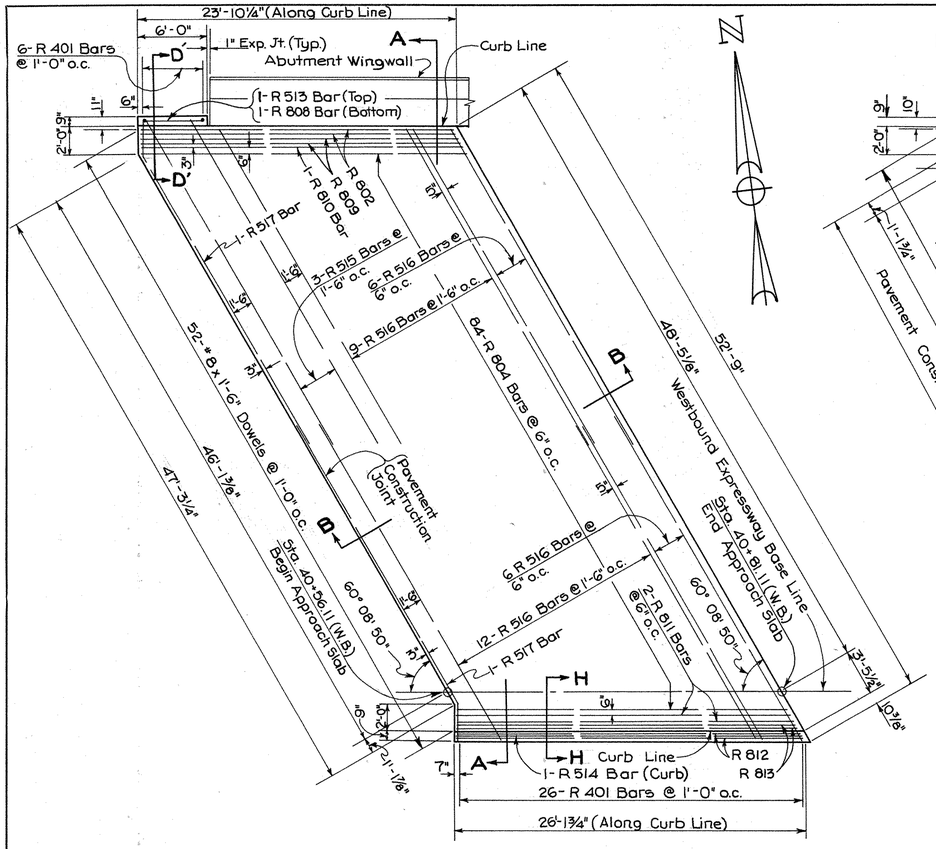
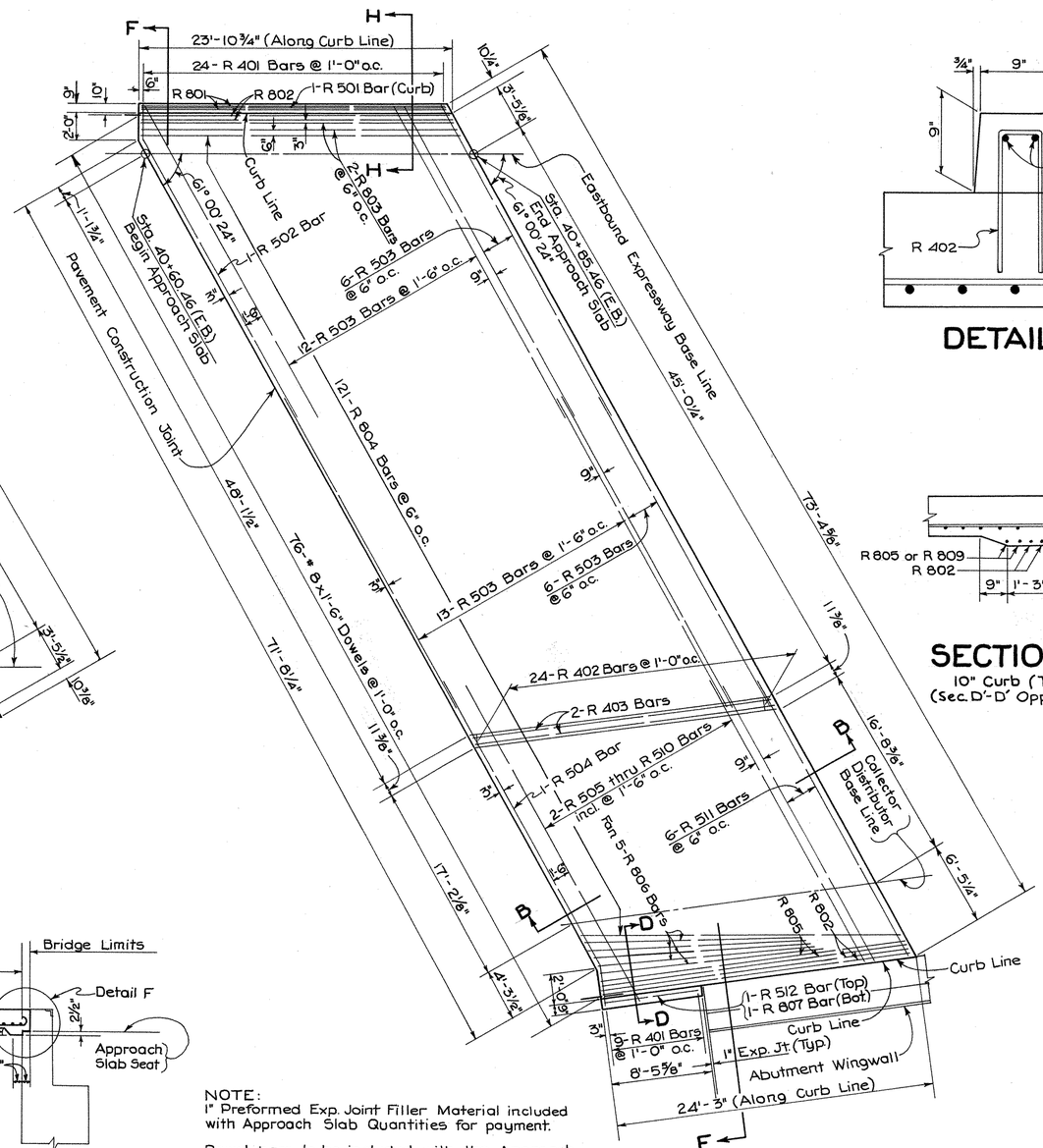
MARK	NO.	LENGTH	SHAPE
R 401	65	1'-1"	Str.
R 402	24	2'-11"	Bent
R 403	2	23'-3"	Str.
R 501	1	23'-2"	Str.
R 502	1	26'-3"	Bent
R 503	37	26'-10"	Str.
R 504	1	26'-9"	Bent
R 505	2	27'-6"	Str.
R 506		26'-10"	
R 507		25'-5"	
R 508		24'-10"	
R 509		24'-2"	
R 510	2	23'-7"	
R 511	6	23'-1"	
R 512	1	8'-1"	
R 513	1	5'-8"	
R 514	1	26'-0"	
R 515	3	27'-10"	
R 516	33	27'-0"	Str.
R 517	2	27'-0"	Bent
R 801	2	24'-4"	Bent
R 802	6	24'-9"	
R 803	2	25'-0"	
R 804	205	25'-8"	
R 805	2	24'-6"	Bent
R 806	5	16'-6"	Str.
R 807	1	8'-1"	Str.
R 808	1	5'-8"	Str.
R 809	2	25'-1"	Bent
R 810	1	25'-4"	
R 811	2	26'-4"	
R 812	2	26'-11"	
R 813	2	26'-8"	Bent
128-#8x1'-6" Dowels			

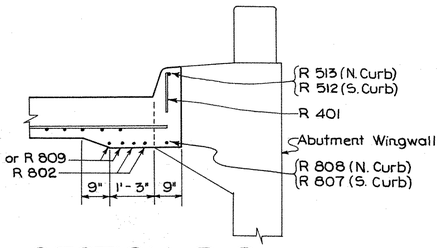


PLAN



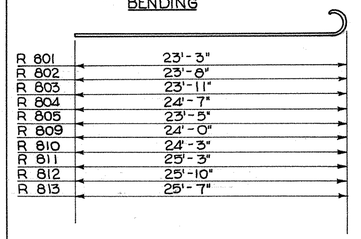
PLAN

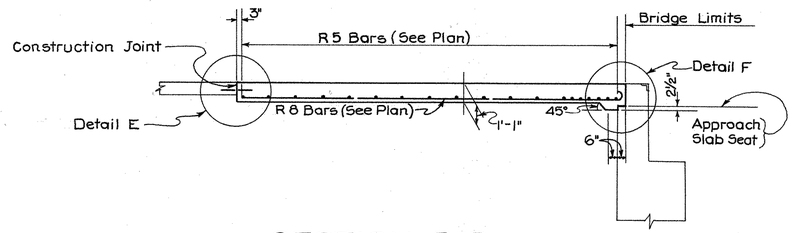
DETAIL M



SECTION D-D
10" Curb (Typical)
(Sec. D'-D' Opposite Shown)

BENDING

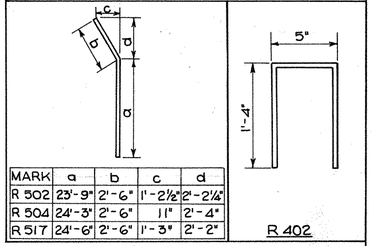




SECTION B-B

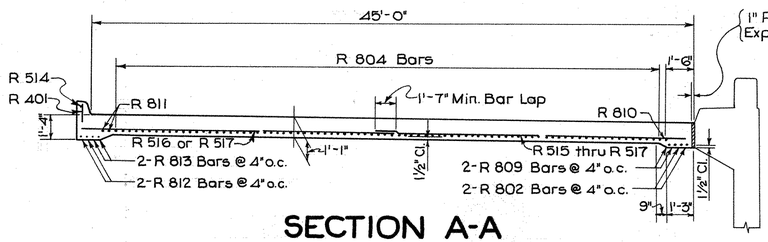
NOTE:
1" Preformed Exp. Joint Filler Material included with Approach Slab Quantities for payment.

Dowel bars to be included with the Approach Pavement Quantities for payment.

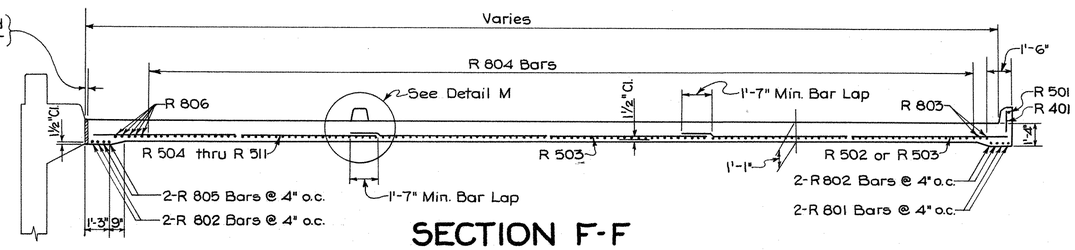


MARK	a	b	c	d
R 502	23'-9"	2'-6"	1'-2½"	2'-2½"
R 504	24'-3"	2'-6"	11"	2'-4"
R 517	24'-6"	2'-6"	1'-3"	2'-2"

R 402



SECTION A-A



SECTION F-F

NOTE:
For Detail E and Detail F, see Sh. # 221
For Section H-H, see Sh. # 225

HAZELET & ERDAL
CONSULTING ENGINEERS
CINCINNATI, OHIO

WEST APPROACH SLABS
BRIDGE NO. HAM-50-2012 R. & L.

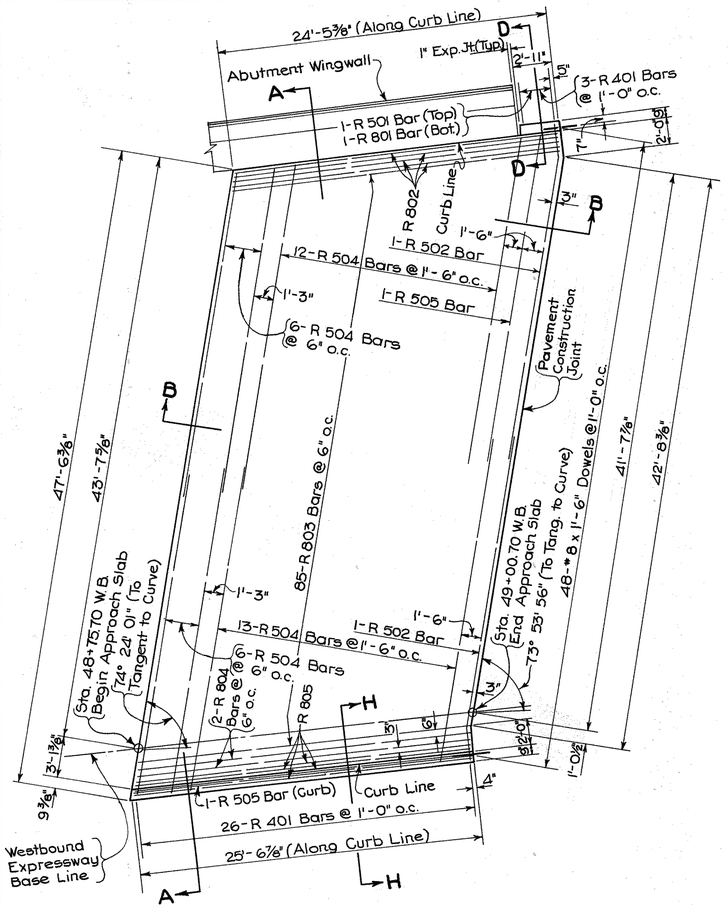
H. & E. BRIDGE NO. 7

DESIGNED	DRAWN	TRACED	CHECKED	REVIEWED DATE	REVISED
	R.E.M. 8-7-61	B.S. 5-11-62	D.W.L. 10-11-61	M.H.E. 8-1-62	

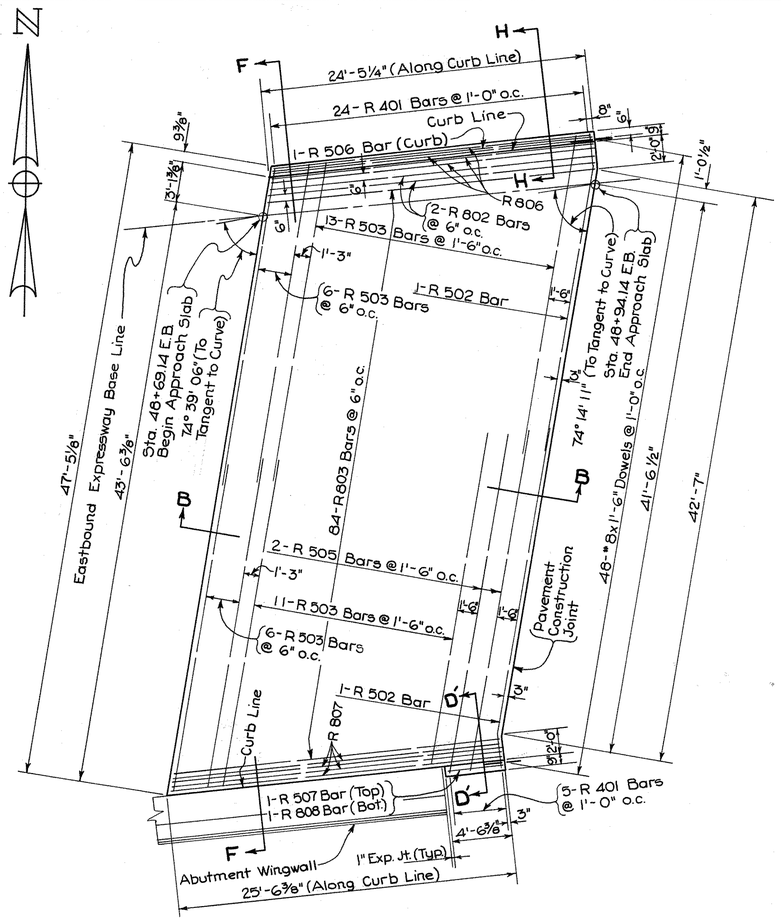
FED. RD. DIV.	STATE	PROJECT	FISCAL YEAR
2	OHIO		

225
464

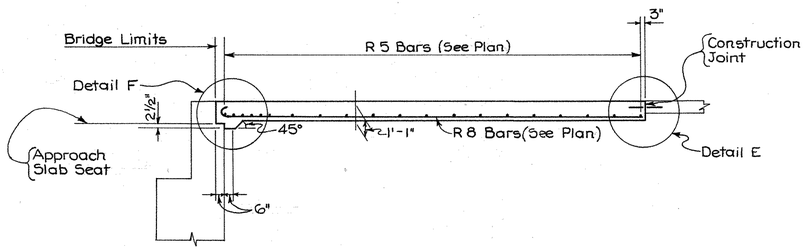
HAM-50-19.76



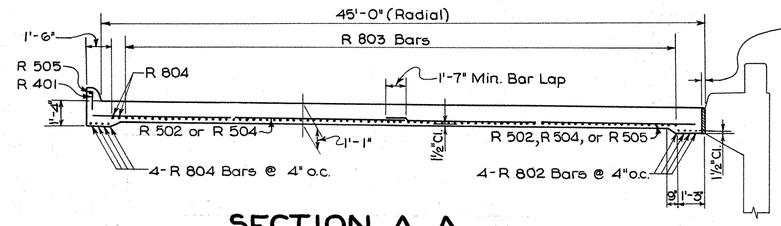
PLAN



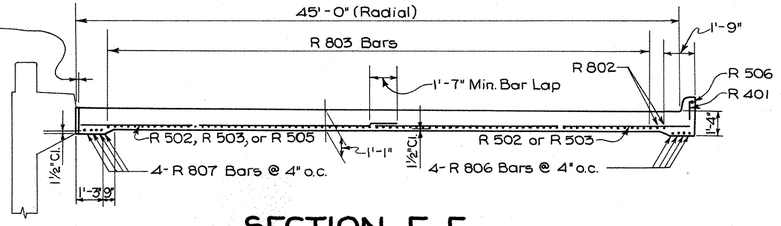
PLAN



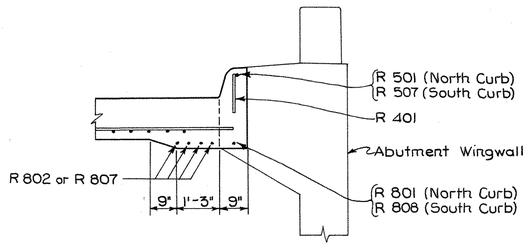
SECTION B-B



SECTION A-A

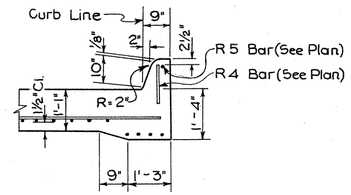


SECTION F-F



SECTION D-D

10" Curb (Typical)
(Sec. D'-D' Opposite Shown)



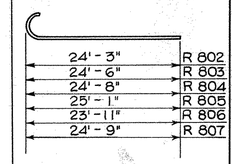
SECTION H-H

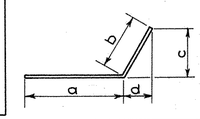
(10" Curb Detail)

MARK	NO.	LENGTH	SHAPE
R 401	58	1'-1"	Str.
R 501	1	2'-6"	Str.
R 502	4	24'-9"	Bent
R 503	36	24'-5"	Str.
R 504	37	24'-7"	↕
R 505	4	25'-3"	↕
R 506	1	24'-0"	↕
R 507	1	4'-2"	↕
R 801	1	2'-6"	Str.
R 802	6	25'-4"	Bent
R 803	169	25'-7"	↕
R 804	2	25'-9"	↕
R 805	4	26'-2"	↕
R 806	4	25'-0"	↕
R 807	4	25'-10"	Bent
R 808	1	4'-2"	Str.
96-"8 x 1'-6" Dowels			

NOTE:
For Detail E and Detail F see Sh. # 221
1" Preformed Expansion Joint Filler Material included with Approach Slab Quantities for payment.
Dowel Bars to be included with Approach Pavement Quantities for payment.

BENDING





MARK	a	b	c	d
R 502	22'-3"	2'-6"	8½"	2'-4¾"

HAZELET & ERDAL
CONSULTING ENGINEERS
CINCINNATI, OHIO

EAST APPROACH SLABS
BRIDGE NO. HAM-50-2012 R. & L.

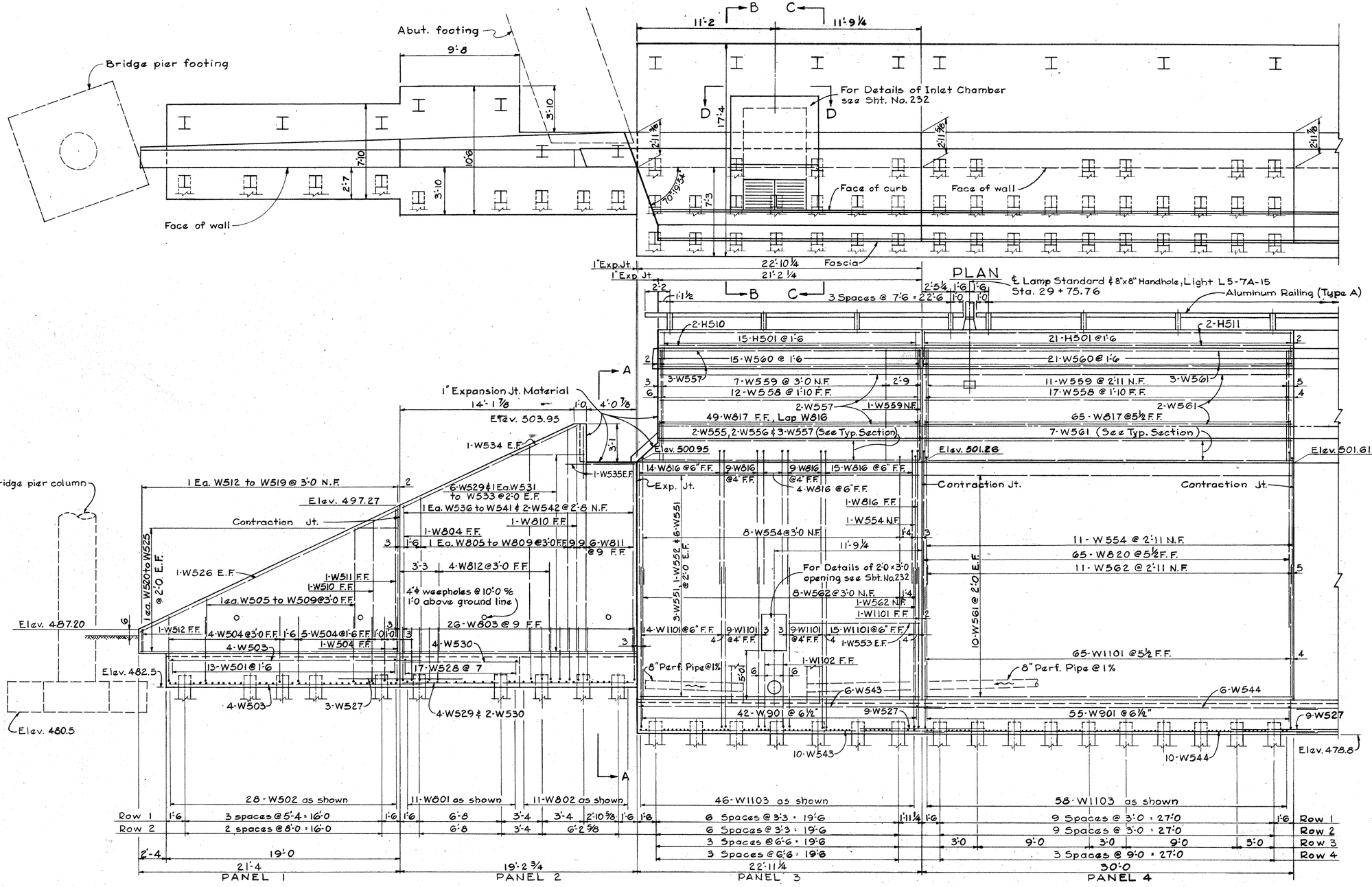
H. & E. BRIDGE NO. 7

DESIGNED	DRAWN	TRACED	CHECKED	REVIEWED DATE	REVISED
	R.E.M. 8-7-61	B.S. 5-16-62	D.W.L. 10-11-61	H.I.B. 8-1-62	

FED. RD. DIV.	STATE	PROJECT	FISCAL YEAR
2	OHIO		

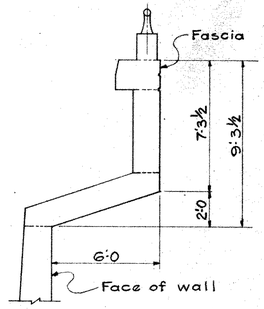
226
464

HAM-50-19.76



ELEVATION

Panel lengths and pile spacing shall be measured along face of wall.



NOTE:

Work Sheet No's. 226 through 234 together.

F.F. denotes far face. N.F. denotes near face. E.F. denotes each face.

½" Minimum separation shall be provided between ends of lengths of railing tubes.

For Aluminum Railing Details, see Standard Drawing AR-1-57.

Railing dimensions are measured along ℄ parapet.

Piles shall be 12BP53 driven with a hammer of not less than 11000 ft. lbs. per blow to firm contact with rock and shale. Firm contact shall be considered as attained when the capacity according to the formula in Sec. S-18.05 (Construction and Material Specifications) is not less than the following value for a pile hammer of the indicated energy rating:

60 tons per pile using a 11000 ft. lb. hammer.
50 tons per pile using a 15000 ft. lb. hammer.

If the energy rating of the hammer is between the ratings as shown above, the required formula capacity shall be determined by interpolation. The design load is 40 tons per pile.

For Estimated Quantities, see Sheet No. 234

CITY OF CINCINNATI
DEPARTMENT OF PUBLIC WORKS
DIVISION OF ENGINEERING

RETAINING WALL NO. 3

EASTBOUND 6TH ST. EXPRESSWAY

DESIGNED	DRAWN	TRACED	CHECKED	REVIEWED	DATE	REVISED
J.R.S.	J.R.S.		J.W.J.	W.W.	7-31-62	

FED. RD. DIV.	STATE	PROJECT	FISCAL YEAR
2	OHIO		

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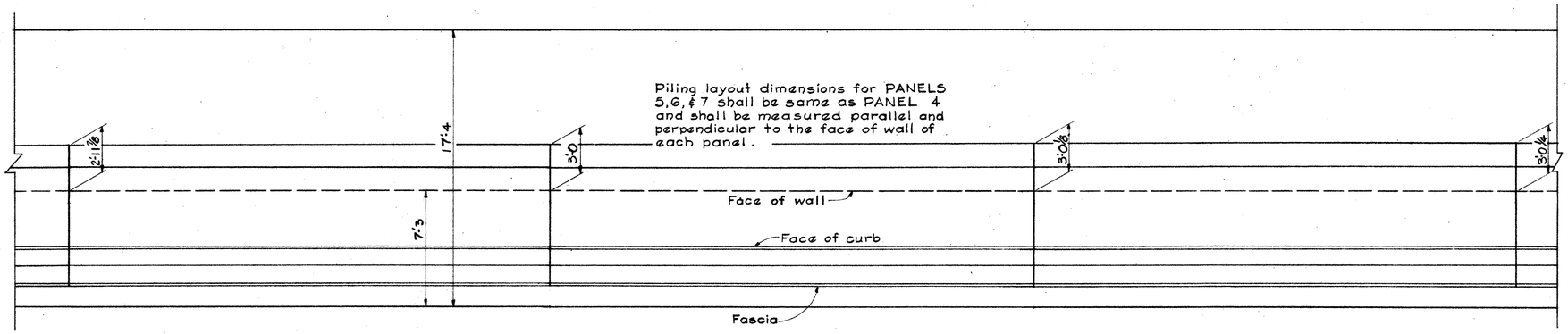
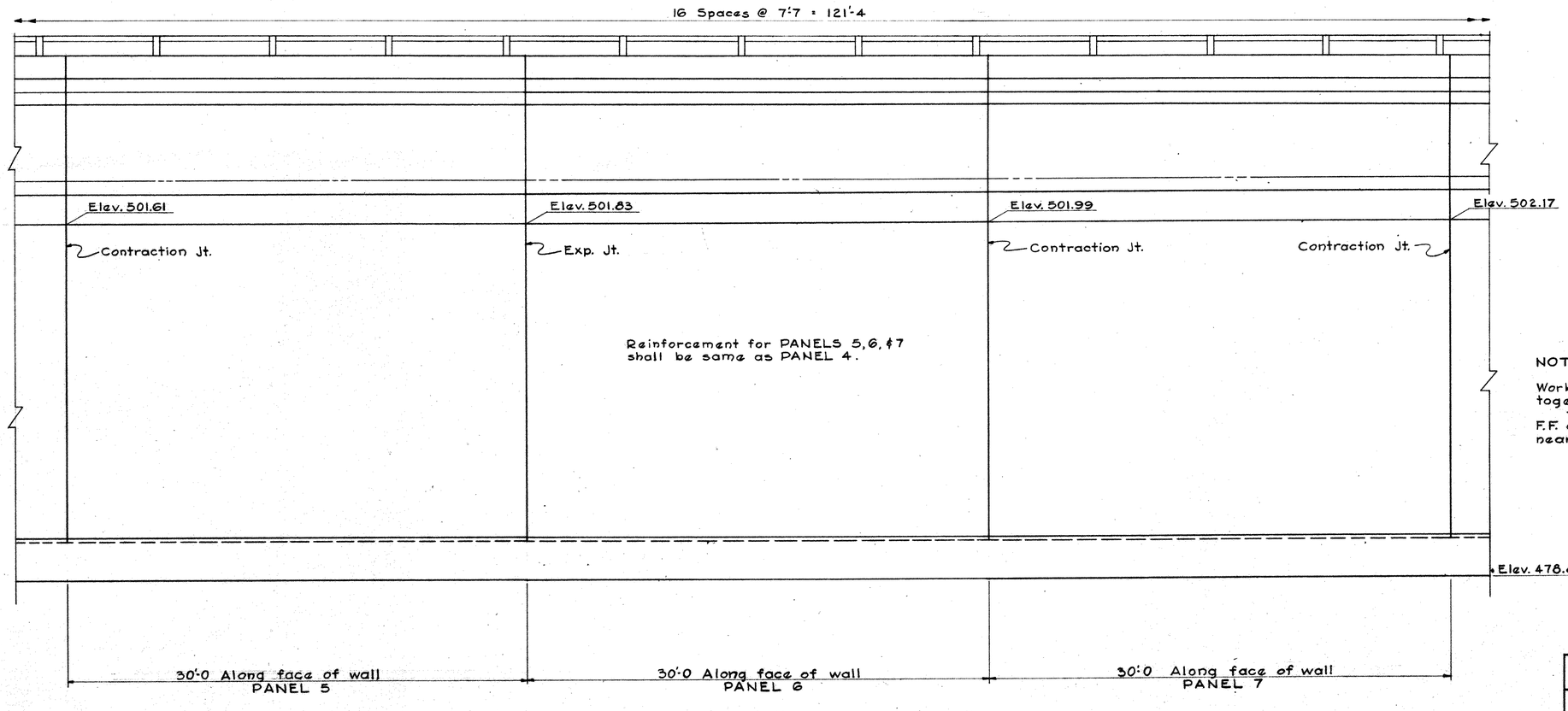
464

HAM-50-19.76



PLAN



ELEVATION

NOTE:

Work Sheet No's. 226 through 234 together.

F.F. denotes far face. N.F. denotes near face. E.F. denotes each face.

CITY OF CINCINNATI
DEPARTMENT OF PUBLIC WORKS
DIVISION OF ENGINEERING

RETAINING WALL NO. 3

EASTBOUND 6TH ST. EXPRESSWAY

DESIGNED	DRAWN	TRACED	CHECKED	REVIEWED	DATE	REVISED
J.R.S.	J.R.S.		J.W.J.	W.W.	7-31-62	

FED. RD. DIV.	STATE	PROJECT	FISCAL YEAR
2	OHIO		

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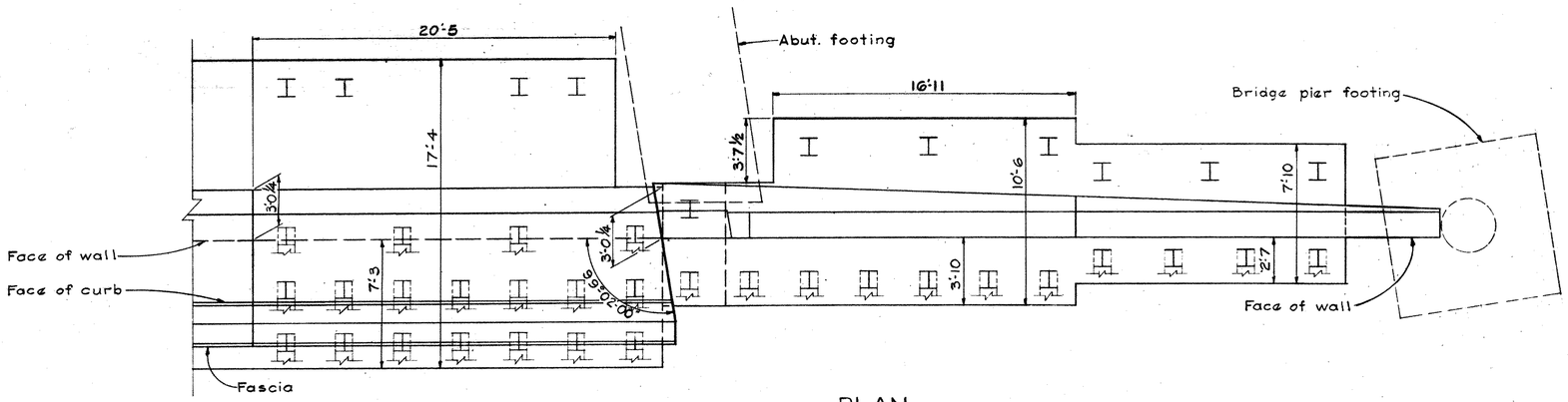
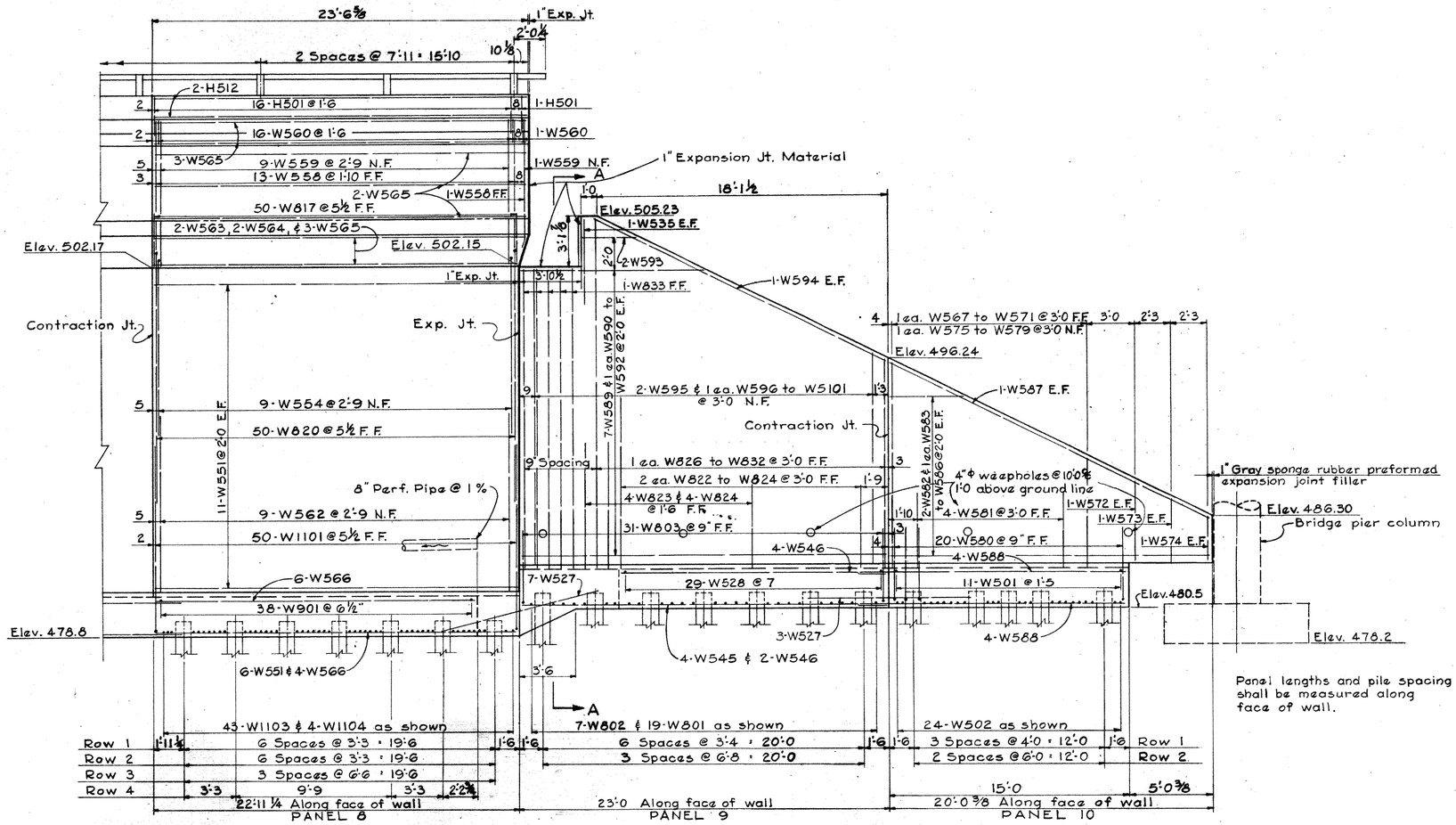
464

HAM-50-19.76



PLAN



ELEVATION

NOTE :

Work Sheet No's. 226 through 234 together.

F.F. denotes far face. N.F. denotes near face. E.F. denotes each face.

CITY OF CINCINNATI
DEPARTMENT OF PUBLIC WORKS
DIVISION OF ENGINEERING

RETAINING WALL NO. 3

EASTBOUND 6TH ST. EXPRESSWAY

DESIGNED	DRAWN	TRACED	CHECKED	REVIEWED	DATE	REVISED
J.R.S.	J.R.S.		J.W.J.	W.W.	7-31-62	

FED. RD. DIV.	STATE	PROJECT	FISCAL YEAR
2	OHIO		

HAM-50-19.76

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Proposed 30" Gas Main

Existing 6'-0 Diameter Ohio River Interceptor Sewer

Abutment Footing

6'-5

3'-10¼

7'-10

10'-6

2'-7

3'-10

Face of wall

2'-8⅛

15'-5¾

2'-7⅞

4'-6

12" Reinforced concrete sewer pipe Sec. M-6.6(a)

Batter 1:3

2'-6½

Batter 1:3

2'-5¾

6

Face of wall

Face of Curb

6'-5

90°

Fascia

℄ East pole of Sign Support and 8"x8" Handhole Sta. 33+92.70. Sign S7-1

PLAN

1" Exp. Joint

27'-3

26'-5⅞

2-1⅜

1-1⅜

5 Spaces @ 8'-2 = 40'-10

1'-8 5'-3 1'-8

1'-1 1'-1

7 Spaces @ 8'-1 = 56'-7

G

2-H513

18-H501 @ 1'-6

3-W5154

18-W560 @ 1'-6

2-H514

19-H501 @ 1'-6

3-W5150

19-W560 @ 1'-6

1" Expansion joint material

A

15-W5155 @ 1'-10 F.F.

10-W5156 @ 2'-10½ N.F.

10-W5156 @ 3'-0 N.F.

16-W5155 @ 1'-9 F.F.

2-W5154

29-W851 @ 11 F.F.

2-W5150

30-W851 @ 11 F.F.

1" Gray sponge rubber preformed expansion joint filler.

10'-6⅞

Elev. 501.49

1'-0

4'-0⅛

1-W5144 E.F.

2'-11⅛

1-W851 F.F.

1-W851 F.F.

Reinforcement for Panel 15 shall be same as for Panel 14 except as shown.

1'-6

2 2'-8½ 2'-8½ 1 ea. W5127 to W5131 @ 3'-0 F.F. 1 ea. W5132 to W5136 @ 3'-0 N.F. 4

Elev. 496.53

Elev. 498.65

2-W5151, 2-W5152, & 3-W5153

Elev. 497.67

7-W5150

Elev. 496.57

Elev. 495.54

Contraction Jt.

Contraction Joint

Contraction Joint

Exp. Jt.

29-W852 @ 11 F.F.

30-W852 @ 11 F.F.

30-W854 @ 11 F.F.

28-W853 @ 11 F.F.

29-W853 @ 11 F.F.

30-W855 @ 11 F.F.

5½

5½

5½

3-W5118 & 1 ea. W5119 to W5122 @ 2'-0 E.F.

Bridge Pier Column

1-W5137 E.F.

4" ϕ Weepholes @ 10'-0, 1'-0 above ground line.

1-W849 F.F.

7-W5145 & 1 ea. W5146 to W5147 @ 2'-0 E.F.

1-W5148 E.F.

1-W5143 E.F.

1-W5158, 3-W5159, 3-W5160, & 3-W5161 @ 2'-10½ N.F.

1-W5162, 3-W5163, 3-W5164, & 3-W5165 @ 3'-0 N.F.

1-W5166, 3-W5167, 3-W5168, 3-W5169 @ 3'-0 N.F.

7½

1-W5157 N.F.

1-W856 F.F.

9-W5150 @ 2'-0 E.F.

Invert Elev. 482.05 Front
Invert Elev. 482.15 Back

1-W852 F.F.

1-W852 F.F.

8-W5150 @ 2'-0 E.F.

Elev. 487.98

1-W5126 E.F.

3'-0

1'-6

1 ea. W5138 to W5141 @ 2-W5142 @ 3'-0 N.F.

1 ea. W845 to W848 @ 3'-0 F.F.

1'-6

6-W850 @ 9 F.F.

1-W5125 E.F.

1-W5124 F.F.

1'-6

3-W844 @ 3'-0 F.F.

60-W1003 @ 5½ F.F.

60-W1004 @ 5½ F.F.

8" Perf. pipe @ 1%

8" Perf. pipe @ 1%

No. 5 bars

1-W5123 F.F.

5-W5123 @ 1'-6 F.F.

9

8-W5123 @ 9 F.F.

4

10-W842 @ 9 F.F.

9

11-W843 @ 9 F.F.

4-W5110

1

9-W5114 @ 1'-6

3-W5115 @ 6

4-W5117

7-W5113

6-W5149

28-W1002 @ 1'-0

6-W5149

28-W1002 @ 1'-0

9-W5113

9-W5113

Elev. 480.3

Elev. 478.3

4-W5110

3-W5113

2-W5111 & 4-W5116

10-W5149

9-W5113

10-W857

57-W1001 as shown

1'-0 2 Spaces @ 3'-6 = 7'-0 8'-10 3 Spaces @ 3'-0 = 9'-0 1'-6 Row 1 & 2

1'-0 7'-0 8'-10 9'-0 1'-6 Row 3

27'-4 Along face of wall PANEL 15

G

22-W5112 as shown

9-W840 & 11-W841 as shown

55-W1001 as shown

57-W1001 as shown

Row 1	1'-6	3 Spaces @ 3'-6 = 10'-6	1'-6	1'-6	3 Spaces @ 3'-1 = 9'-3	3'-1⅝	1'-8½	2'-0	7 Spaces @ 3'-4 = 23'-4	2'-0	2'-0	5 Spaces @ 3'-4 = 16'-8	6'-8	2'-0	Row 1
Row 2	10'-6		3'-1	3'-1	6'-2⅝				7 Spaces @ 3'-4 = 23'-4			5 Spaces @ 3'-4 = 16'-8	6'-8		Row 2
	6'-8		10'-0		6'-8				6'-8		10'-0		6'-8		Row 3

4'-5 13'-6

17'-11 Along face of wall PANEL 11

15'-7⅛ Along face of wall PANEL 12

27'-4 Along face of wall PANEL 13

27'-4 Along face of wall PANEL 14

A

ELEVATION

NOTES:

1. Work Sheet No's. 226 through 234 together.
2. F.F. denotes far face. N.F. denotes near face. E.F. denotes each face.

CITY OF CINCINNATI
DEPARTMENT OF PUBLIC WORKS
DIVISION OF ENGINEERING

RETAINING WALL NO. 4

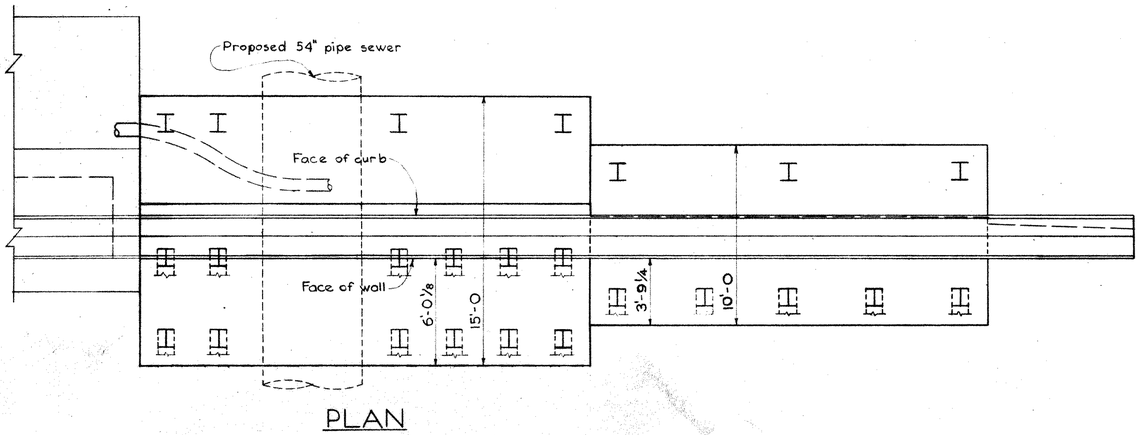
EASTBOUND 6TH ST. EXPRESSWAY

DESIGNED	DRAWN	TRACED	CHECKED	REVIEWED	DATE	REVISED
J.R.S.	H.H.A.		J.W.J.	W.W.	7-31-62	

FED. RD. DIV.	STATE	PROJECT	FISCAL YEAR
2	OHIO		

HAM-50-19.76

230
464



PLAN

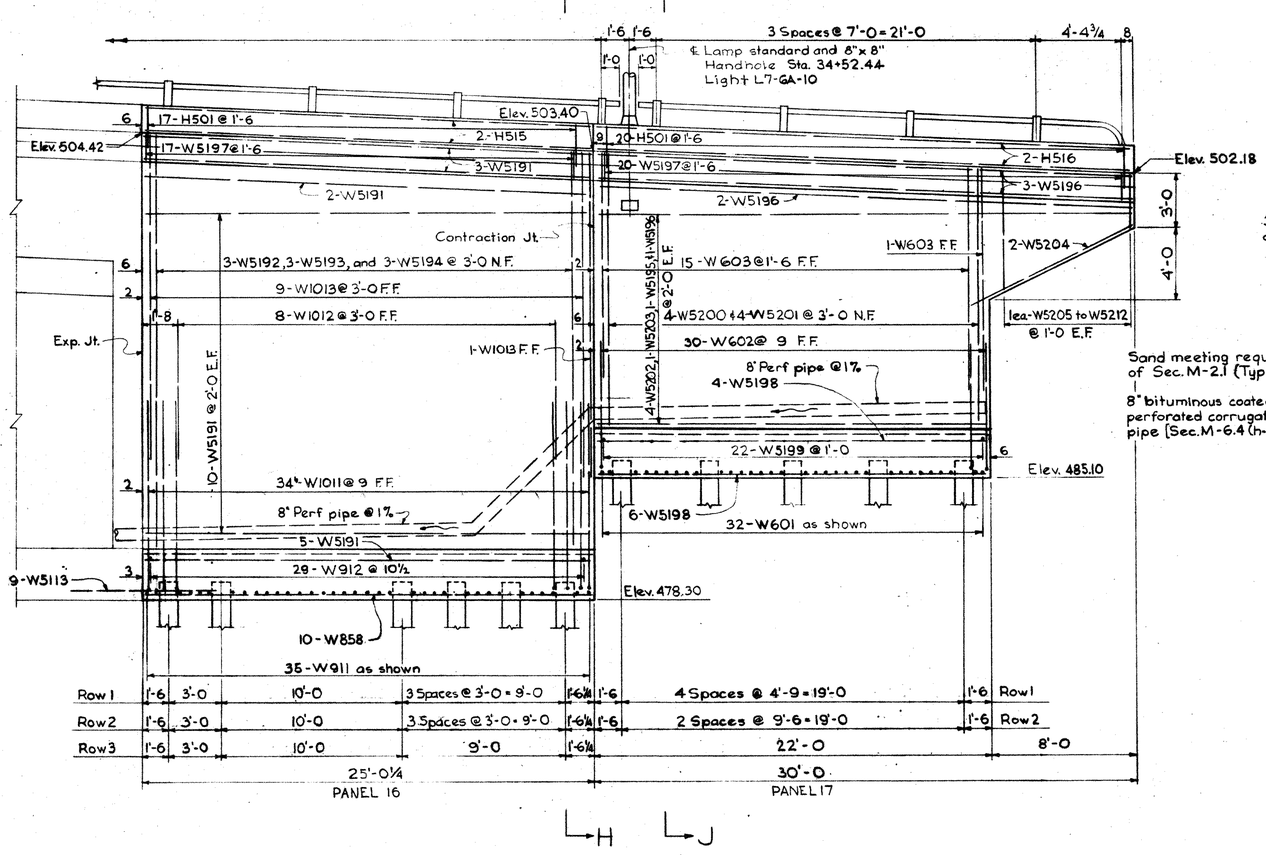
NOTES:

1. Work Sheet No's. 226 through 234 together.

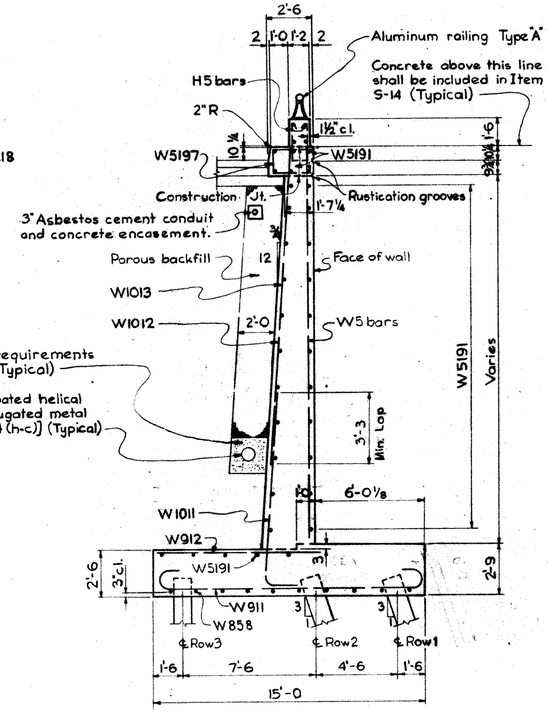
2. F.F. denotes far face. N.F. denotes near face. E.F. denotes each face.

3. Steel Sheet Piling with a min. sec. mod. of 5.4 in.³ per ft. of wall shall be driven into the ground at the offset in the wall footings between Panels 16 and 17 prior to excavation for footings. This sheet piling shall be driven a minimum of 5'-0 below the bottom of the lower footing and shall extend to the bottom of the higher footing. This sheet piling is to be braced adequately at the top and is to be left in place. Payment will be made at the price bid per square foot measured on the bottom at a point 5'-0 below the bottom of the lower footing, on the top at the bottom of the higher footing, and on the sides 1'-0 outside the outer edge of the lower footing.

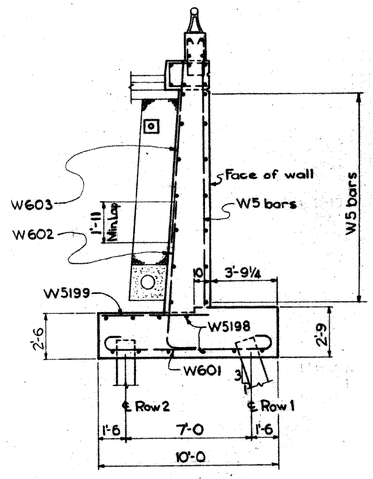
4. Porous backfill as shown shall extend full length of wall.



ELEVATION



SECTION H-H



SECTION J-J

For details not shown see SECTION H-H at left.

CITY OF CINCINNATI
DEPARTMENT OF PUBLIC WORKS
DIVISION OF ENGINEERING

RETAINING WALL NO. 4

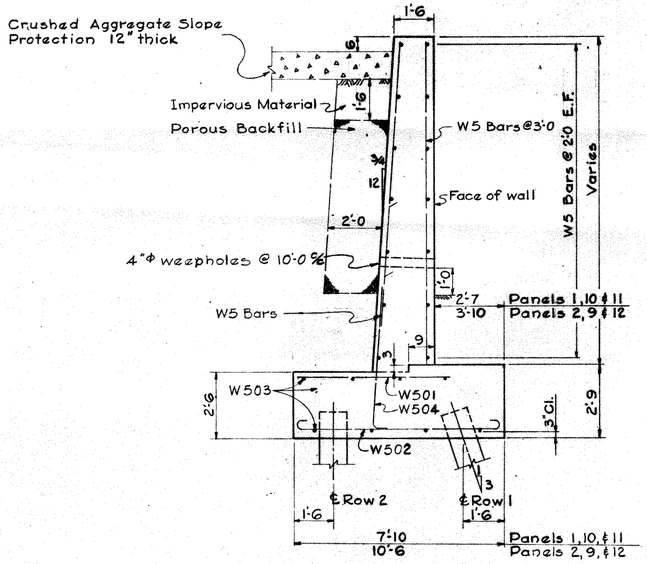
EASTBOUND 6TH ST. EXPRESSWAY

DESIGNED	DRAWN	TRACED	CHECKED	REVIEWED	DATE	REVISED
H.H.A.	H.H.A.		J.W.J.	W.W.	7-31-62	

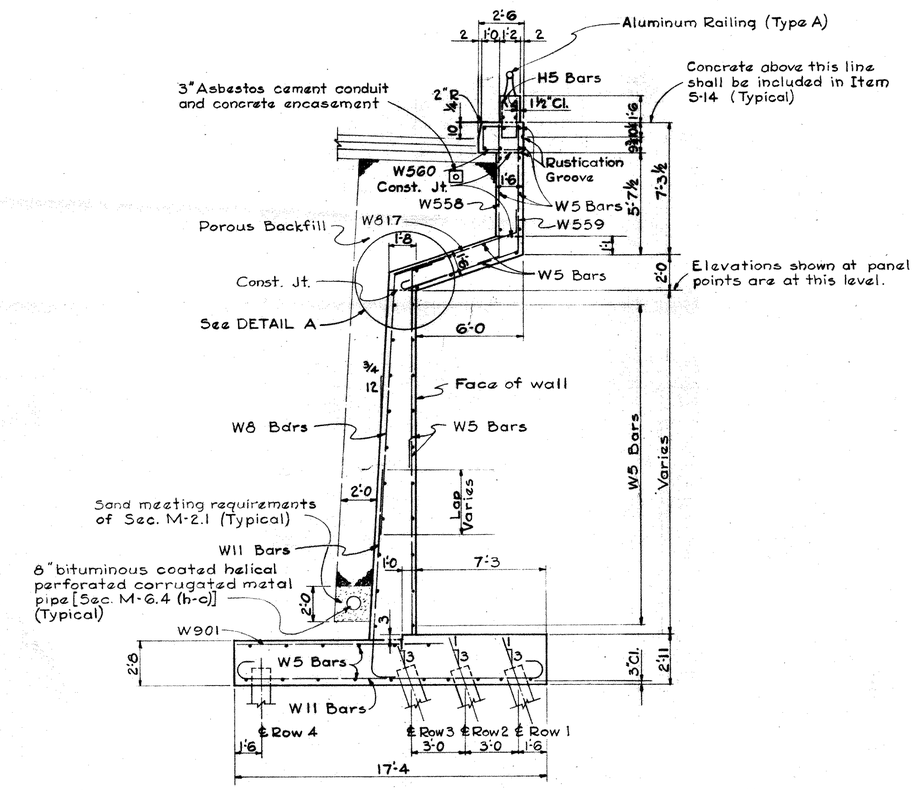
FED. RD. DIV.	STATE	PROJECT	FISCAL YEAR
2	OHIO		

HAM-50-19.76

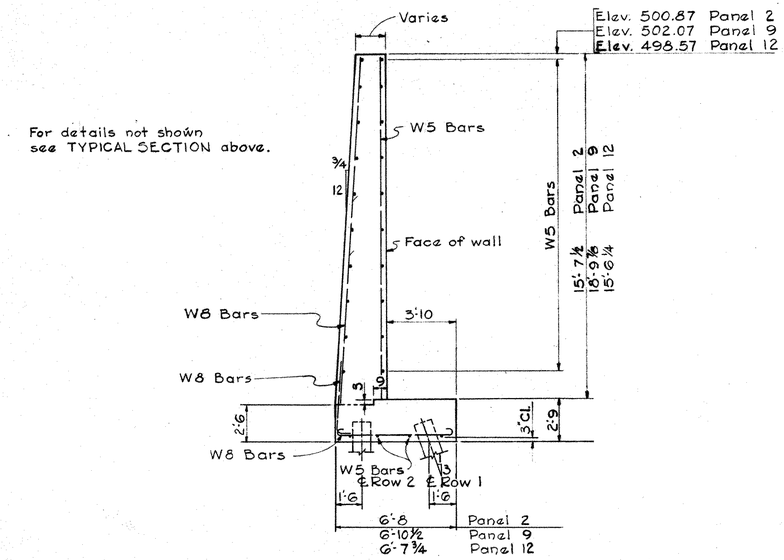
231
464



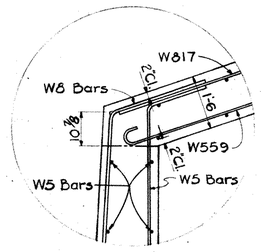
TYPICAL SECTION
Panels 1, 2, 9, 10, 11, & 12
Reinf. shown above is for Panel 1 only.



TYPICAL SECTION
Panels 3, 4, 5, 6, 7, & 8



SECTION A-A



DETAIL A

NOTE:

Work Sheet No's. 226 through 234 together.

Porous backfill as shown shall extend full length of wall.

CITY OF CINCINNATI
DEPARTMENT OF PUBLIC WORKS
DIVISION OF ENGINEERING

RETAINING WALLS NO'S. 3 & 4

EASTBOUND
6TH ST. EXPRESSWAY

DESIGNED	DRAWN	TRACED	CHECKED	REVIEWED	DATE	REVISED
J.R.S.	J.R.S.		J.W.J.	W.W.	7-31-62	

FED. RD. DIV.	STATE	PROJECT	FISCAL YEAR
2	OHIO		

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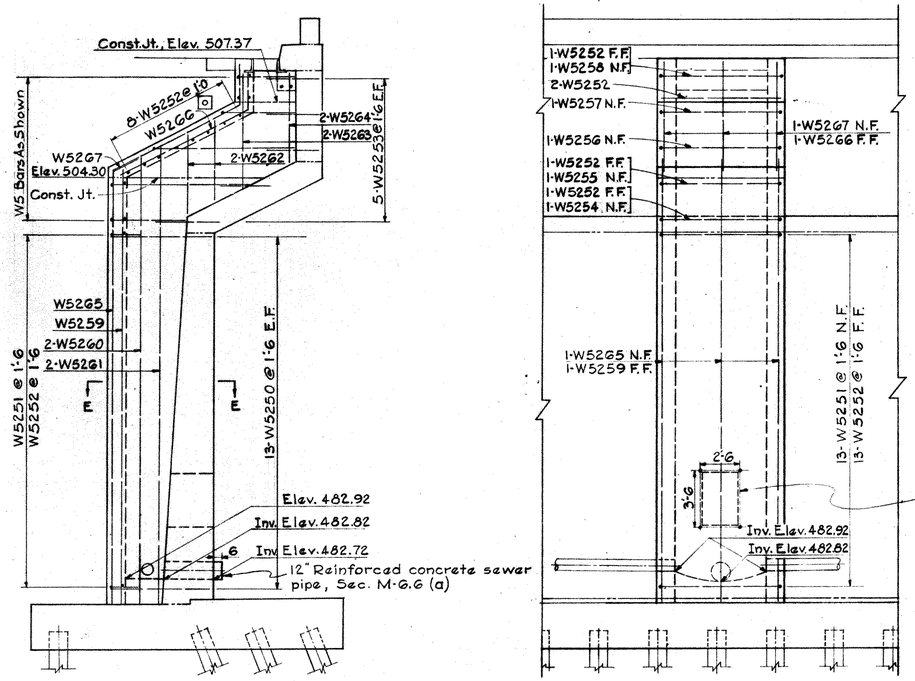
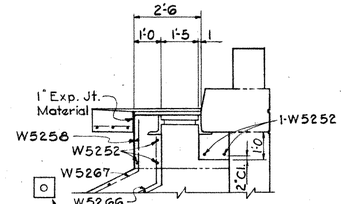


SECTION B-B
SECTION C-C (similar to opposite hand)

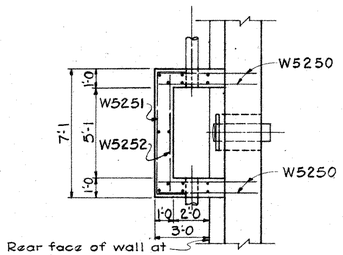
SECTION D-D



3" Asbestos cement conduit and concrete encasement

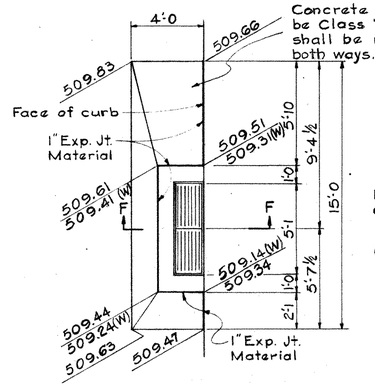
SECTION F-F

Provide 2'10 x 3'10 x ¼" galvanized steel plate as cover for 2'0 x 3'0 cleanout opening. Bolt to face of wall with four ½" diameter galvanized steel bolts set in galvanized screw concrete inserts as made by Grinnell Co. or equal. (See 1961 Sweets File, 16e/Gr, Fig. 151)



Rear face of wall at top of footing

SECTION E-E



Concrete paving around inlet shall be Class "D". It shall be 9" thick and shall be reinforced with #3 bars at 8" both ways. (Include with Item T-71 for payment).

For details of frame and grating see City of Cincinnati Acc. No. 49014

(W) indicates elevation at top of chamber wall.

SPECIAL PAVEMENT DETAIL

NOTE:

Work Sheet Nos. 226 through 234 together.

F.F. denotes far face. N.F. denotes near face. E.F. denotes each face.

CITY OF CINCINNATI
DEPARTMENT OF PUBLIC WORKS
DIVISION OF ENGINEERING

RETAINING WALL NO. 3

EASTBOUND 6TH ST. EXPRESSWAY

DESIGNED	DRAWN	TRACED	CHECKED	REVIEWED	DATE	REVISED
J.R.S.	J.R.S.		J.W.J.	W.W.	7-31-62	

FED. RD. DIV.	STATE	PROJECT	FISCAL YEAR
2	OHIO		

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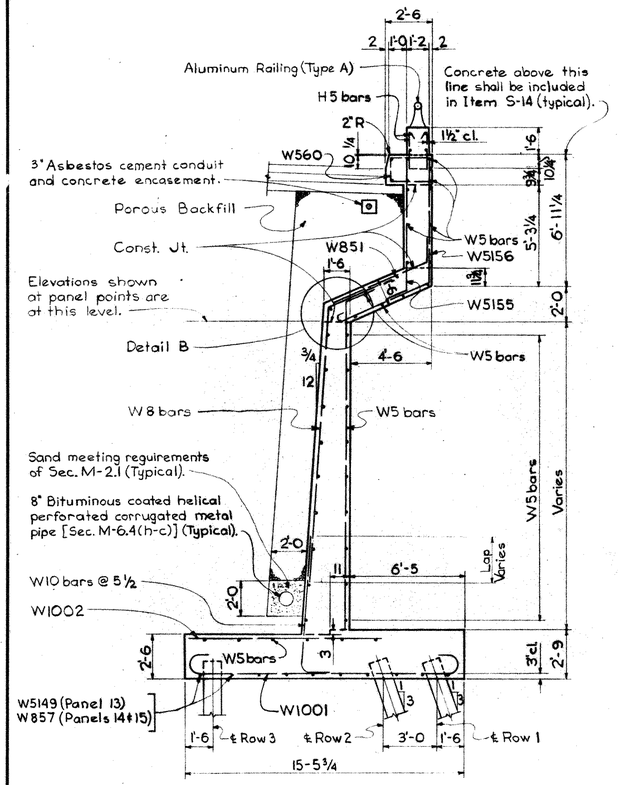
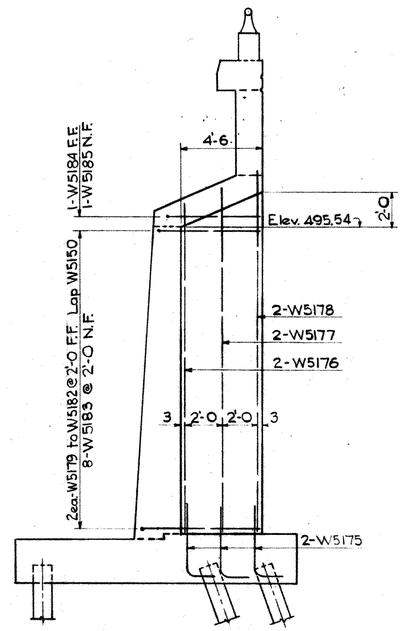


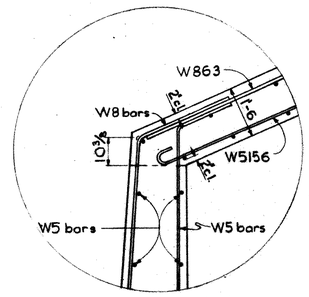
TYPICAL SECTION

Panels 13, 14, & 15

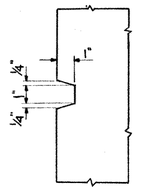


SECTION G-G

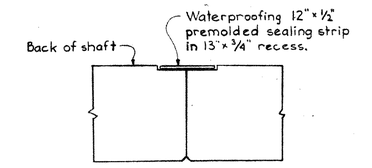
For details not shown see TYPICAL SECTION at left.



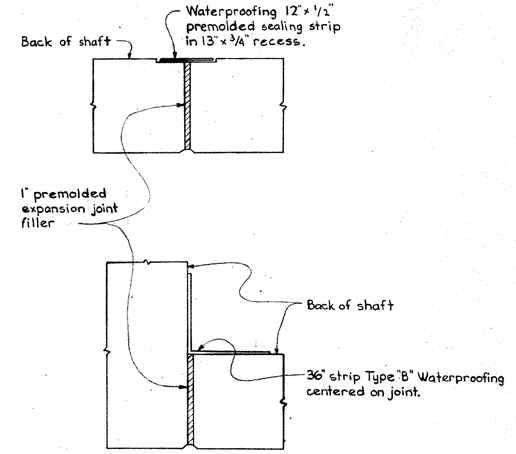
DETAIL B



RUSTICATION GROOVE DETAIL

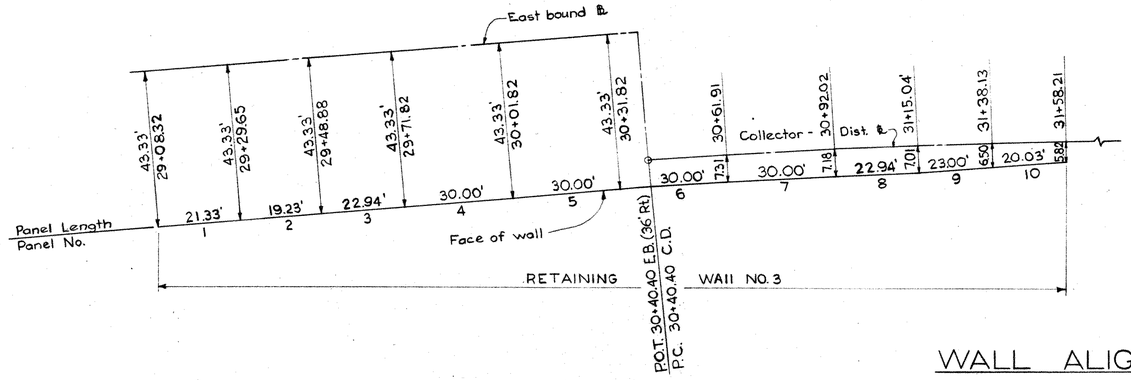


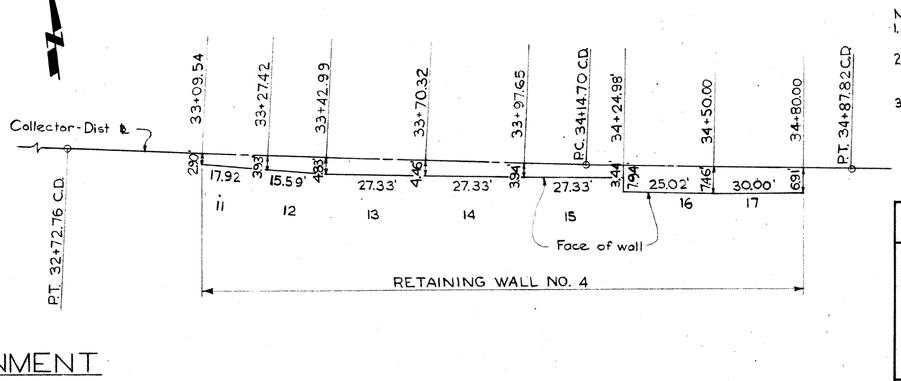
CONTRACTION JOINT DETAIL



EXPANSION JOINT DETAILS

NOTE: For curb and portion of shaft cantilevered beyond face of wall, the premolded expansion joint filler shall be permanently anchored by use of epoxy cement applied to entire surface.





WALL ALIGNMENT

Offsets are measured normal to ℄.

NOTES:
1. Work Sheet No's. 226 through 234 together.
2. F.F. denotes far face. N.F. denotes near face. E.F. denotes each face.
3. Porous backfill as shown shall extend full length of walls.

CITY OF CINCINNATI
DEPARTMENT OF PUBLIC WORKS
DIVISION OF ENGINEERING

RETAINING WALLS NO'S. 3 & 4

EASTBOUND 6TH ST. EXPRESSWAY

DESIGNED	DRAWN	TRACED	CHECKED	REVIEWED	DATE	REVISED
H.H.A.	H.H.A.		J.W.J.	W.W.	7-31-62	

FED. RD. DIV.	STATE	PROJECT	FISCAL YEAR
2	OHIO		

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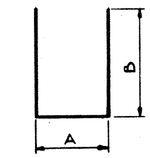
MARK	NO	LENGTH	WEIGHT	SHP
WALL NO.3				
W501	24	5'-6	138	Str.
W502	52	8'-8	470	Bt.
W503	8	20'-7	172	Str.
W504	11	6'-4	73	Bt.
W505	1	3'-1	3	Str.
W506	1	4'-6	5	"
W507	1	5'-11	6	"
W508	1	7'-4	8	"
W509	1	8'-9	9	"
W510	1	9'-5	10	"
W511	1	10'-4	11	"
W512	2	1'-8	3	"
W513	1	3'-3	3	"
W514	1	4'-8	5	"
W515	1	6'-1	6	"
W516	1	7'-6	8	"
W517	1	8'-11	9	"
W518	1	10'-4	11	"
W519	1	11'-10	12	"
W520	2	21'-0	44	"
W521	2	20'-2	42	"
W522	2	15'-11	33	"
W523	2	11'-9	25	"
W524	2	7'-6	16	"
W525	2	3'-4	7	"
W526	2	23'-0	48	"
W527	58	10'-0	605	"
W528	46	7'-0	336	"
W529	16	18'-10	314	"
W530	6	9'-4	58	"
W531	2	18'-3	38	"
W532	2	14'-2	30	"
W533	2	5'-10	12	"
W534	2	15'-7	33	"
W535	6	5'-6	34	"
W536	1	11'-11	12	"
W537	1	13'-1	14	"
W538	1	14'-4	15	"
W539	1	15'-7	16	"
W540	1	16'-11	18	"
W541	1	18'-2	19	"
W542	2	15'-5	32	"
W543	16	24'-6	409	"
W544	64	31'-7	2108	"
W545	4	22'-8	95	"
W546	6	16'-7	104	"
W547	—	—	—	—
W548	—	—	—	—
W549	—	—	—	—
W550	—	—	—	—
W551	46	22'-6	1080	"
W552	2	9'-9	20	"
W553	2	10'-5	22	"
W554	62	13'-6	873	Bt.
W555	2	22'-6	47	Str.
W556	2	21'-7	45	"
W557	15	20'-10	326	"
W558	94	8'-8	850	Bt.
W559	62	14'-7	943	"
W560	116	5'-4	645	"
W561	156	29'-7	4813	Str.
W562	62	11'-0	711	"
W563	2	22'-6	47	"
W564	2	22'-10	48	"
W565	15	23'-2	362	"
W566	10	20'-1	209	"
W567	1	12'-10	13	"
W568	1	11'-5	12	"
W569	1	9'-11	10	"
W570	1	8'-5	9	"
W571	1	6'-11	7	"
W572	2	5'-0	10	"
W573	2	3'-11	8	"
W574	2	2'-10	6	"
W575	1	12'-7	13	"
W576	1	11'-2	12	"
W577	1	9'-8	10	"
W578	1	8'-2	9	"

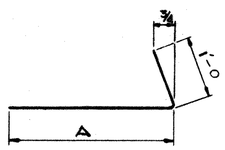
MARK	NO	LENGTH	WEIGHT	SHP
W579	1	6'-8	7	Str.
W580	20	4'-9	99	Bt.
W581	4	4'-9	20	Str.
W582	4	19'-8	82	"
W583	2	16'-6	34	"
W584	2	12'-6	26	"
W585	2	8'-6	18	"
W586	2	4'-6	9	"
W587	2	22'-0	46	"
W588	8	16'-7	138	"
W589	14	22'-7	330	"
W590	2	19'-2	40	"
W591	2	15'-2	32	"
W592	2	11'-2	23	"
W593	2	3'-3	7	"
W594	2	20'-2	42	"
W595	2	18'-7	39	"
W596	1	21'-10	23	"
W597	1	19'-4	20	"
W598	1	17'-11	19	"
W599	1	16'-5	17	"
W5100	1	14'-11	16	"
W5101	1	13'-5	14	"
W5250	52	5'-7	303	"
W5251	13	9'-11	134	Bt.
W5252	28	6'-9	197	Str.
W5253	20	3'-0	63	"
W5254	1	14'-5	15	Bt.
W5255	1	23'-11	25	"
W5256	1	24'-5	25	"
W5257	1	15'-5	16	"
W5258	1	13'-5	14	"
W5259	3	23'-3	73	Str.
W5260	4	23'-10	99	"
W5261	4	24'-2	101	"
W5262	8	4'-0	33	"
W5263	4	5'-0	21	"
W5264	4	4'-3	18	"
W5265	3	24'-10	78	Bt.
W5266	3	8'-9	27	"
W5267	3	9'-3	29	"
W801	30	12'-4	988	Bt.
W802	18	8'-6	409	"
W803	57	5'-8	862	"
W804	1	12'-3	33	Str.
W805	1	12'-11	34	"
W806	1	14'-4	38	"
W807	1	15'-9	42	"
W808	1	17'-2	46	"
W809	1	18'-6	49	"
W810	1	18'-9	50	"
W811	6	15'-7	250	"
W812	4	7'-8	82	"
W813	—	—	—	—
W814	—	—	—	—
W815	—	—	—	—
W816	52	16'-0	2221	Bt.
W817	359	8'-11	8547	"
W818	—	—	—	—
W819	—	—	—	—
W820	310	17'-1	14,140	Bt.
W821	—	—	—	—
W822	2	10'-9	57	Str.
W823	6	8'-0	128	"
W824	6	5'-5	87	"
W825	—	—	—	—
W826	1	22'-0	59	"
W827	1	20'-6	55	"
W828	1	19'-0	51	"
W829	1	17'-6	47	"
W830	1	16'-0	43	"
W831	1	14'-6	39	"
W832	1	13'-0	35	"
W833	5	18'-10	251	"

MARK	NO.	LENGTH	WEIGHT	SHP.
W901	300	11'-3	11,475	Str.
W1101	358	13'-6	25,678	Bt.
W1102	2	8'-3	88	"
W1103	321	20'-2	34,394	"
W1104	4	13'-0	276	"
H501	116	6'-1	736	Bt.
H510	4	20'-10	——	Str.
H511	16	29'-7	——	"
H512	4	23'-2	——	"
TOTAL WEIGHT 120, 302#				
WALL NO.4				
W560	56	5'-4	312	Bt.
W5110	8	15'-1	126	Str.
W5111	2	6'-1	13	"
W5112	22	8'-8	199	Bt.
W5113	37	10'-0	386	Str.
W5114	9	5'-7	52	"
W5115	13	7'-0	95	"
W5116	4	15'-3	64	"
W5117	4	6'-1	25	"
W5118	3	17'-7	55	"
W5119	1	14'-8	15	"
W5120	1	10'-5	11	"
W5121	1	6'-2	6	"
W5122	1	2'-0	2	"
W5123	14	6'-3	91	Bt.
W5124	2	3'-11	8	Str.
W5125	2	4'-8	10	"
W5126	2	5'-11	12	"
W5127	1	6'-2	6	"
W5128	1	7'-6	8	"
W5129	1	8'-11	9	"
W5130	1	10'-4	11	"
W5131	1	11'-9	12	"
W5132	1	7'-4	8	"
W5133	1	8'-10	9	"
W5134	1	10'-3	11	"
W5135	1	11'-8	12	"
W5136	1	13'-1	14	"
W5137	2	19'-5	41	"
W5138	1	13'-5	14	"
W5139	1	14'-9	15	"
W5140	1	16'-2	17	"
W5141	1	17'-7	18	"
W5142	2	15'-4	32	"
W5143	2	5'-7	12	"
W5144	2	11'-8	24	"
W5145	14	15'-3	223	"
W5146	2	13'-8	29	"
W5147	2	5'-7	12	"
W5148	2	4'-7	10	"
W5149	28	28'-11	844	"
W5150	90	26'-11	2527	"
W5151	2	26'-11	56	"
W5152	2	26'-6	55	"
W5153	3	26'-2	82	"
W5154	12	26'-2	328	"
W5155	47	8'-3	404	Bt.
W5156	30	12'-8	396	"
W5157	1	18'-0	19	Str.
W5158	1	20'-4	21	Bt.
W5159	3	20'-0	63	Bt.
W5160	3	19'-8	62	"
W5161	3	19'-5	61	"
W5162	1	19'-4	20	"
W5163	3	19'-0	59	"
W5164	3	18'-8	58	"
W5165	3	18'-4	57	"
W5166	1	18'-3	19	"
W5167	3	17'-11	56	"
W5168	3	17'-6	55	"
W5169	3	17'-2	54	"
TOTAL WEIGHT 53,077#				

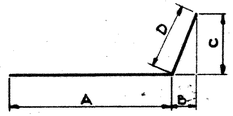
MARK	NO.	LENGTH	WEIGHT	SHP.
W5175	6	5'-0	31	Bt.
W5176	2	15'-11	33	Str.
W5177	2	16'-10	35	"
W5178	2	17'-9	37	"
W5179	2	8'-2	17	Bt.
W5180	2	7'-11	17	"
W5181	2	7'-8	16	"
W5182	2	7'-5	15	"
W5183	8	5'-9	48	Str.
W5184	1	7'-4	8	Bt.
W5185	1	5'-8	6	Str.
W5191	33	24'-8	849	Str.
W5192	3	22'-11	72	"
W5193	3	22'-6	70	"
W5194	3	22'-1	69	"
W5195	2	27'-4	57	"
W5196	10	29'-8	309	"
W5197	37	5'-4	206	Bt.
W5198	10	21'-8	226	Str.
W5199	22	7'-0	161	"
W5200	4	15'-0	63	"
W5201	4	14'-6	60	"
W5202	8	21'-8	181	"
W5203	2	23'-4	49	"
W5204	2	10'-0	21	"
W5205	2	6'-6	14	"
W5206	2	5'-11	12	"
W5207	2	5'-5	11	"
W5208	2	4'-10	10	"
W5209	2	4'-4	9	"
W5210	2	3'-9	8	"
W5211	2	3'-2	7	"
W5212	2	2'-8	6	"
W601	32	11'-0	529	Bt.
W602	30	8'-8	391	"
W603	15	12'-1	272	Str.
W840	9	12'-4	296	Bt.
W841	11	8'-5	247	"
W842	10	6'-2	165	"
W843	11	7'-8	225	"
W844	3	5'-0	40	Str.
W845	1	13'-2	35	"
W846	1	14'-6	39	"
W847	1	15'-11	42	"
W848	1	15'-10	42	"
W849	1	16'-6	44	"
W850	6	13'-7	218	"
W851	92	7'-4	1801	Bt.
W852	61	18'-8	3040	"
W853	57	12'-6	1902	Str.
W854	30	17'-7	1408	Bt.
W855	30	11'-4	908	Str.
W856	1	16'-0	43	"
W857	20	29'-10	1593	"
W858	10	24'-8	659	"
W911	35	17'-2	2043	Bt.
W912	29	10'-2	1002	Str.
W1001	169	17'-11	13029	Bt.
W1002	84	10'-6	3795	Str.
W1003	60	8'-5	2173	Bt.
W1004	120	7'-5	3830	"
W1011	34	11'-1	1622	Bt.
W1012	8	7'-9	267	Str.
W1013	9	18'-10	729	"
H501	93	6'-1	590	Bt.
H513	4	26'-2	——	Str.
H514	8	27'-0	——	"
H515	4	24'-8	——	"
H516	4	29'-8	——	"



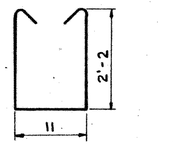
MARK	A	B
W560	1'-4	2'-0
W5197	1'-4	2'-0
W5251	6'-9	1'-7
W5252	6'-9	3'-10
W5255	6'-9	8'-7
W5256	6'-9	8'-10
W5257	6'-9	4'-4
W5258	6'-9	3'-4



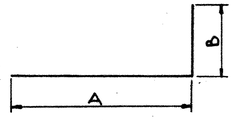
MARK	A
W502	7'-6
W5112	7'-6
W601	9'-8
W801	10'-2
W802	6'-4
W840	10'-2
W841	6'-3
W911	14'-8
W1001	15'-1
W1103	17'-0
W1104	9'-10



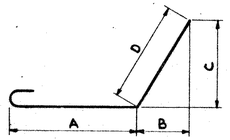
MARK	A	B	C	D
W554	11'-11	6	1'-6	1'-7
W558	7'-4	5	1'-3	1'-4
W5155	7'-0	6	1'-2	1'-3
W5158	18'-7	9	1'-7	1'-9
W5159	18'-3	9	1'-7	1'-9
W5160	17'-11	9	1'-7	1'-9
W5161	17'-8	9	1'-7	1'-9
W5162	17'-7	9	1'-7	1'-9
W5163	17'-3	9	1'-7	1'-9
W5164	16'-11	9	1'-7	1'-9
W5165	16'-7	9	1'-7	1'-9
W5166	16'-6	9	1'-7	1'-9
W5167	16'-2	9	1'-7	1'-9
W5168	15'-9	9	1'-7	1'-9
W5169	15'-5	9	1'-7	1'-9
W5265	23'-3	6	1'-6	1'-7
W5266	7'-2	6	1'-6	1'-7
W5267	7'-2	8	2'-0	2'-1
W816	13'-2	1'-1	2'-7	2'-10
W817	7'-7	5	1'-3	1'-4
W820	14'-3	1'-1	2'-7	2'-10
W851	6'-1	6	1'-2	1'-3
W852	16'-0	1'-3	2'-4	2'-8
W854	14'-11	1'-3	2'-4	2'-8



H501



MARK	A	B
W5175	4'-0	1'-0
W5179	6'-5	1'-9
W5180	6'-2	1'-9
W5181	5'-11	1'-9
W5182	5'-8	1'-9
W5184	5'-7	1'-9



Mark	A	B	C	D
W559	7'-0	2'-3	6'-8	7'-0
W5156	5'-6	2'-8	6'-0	6'-7

REPLACEMENT BARS			
MARK	NO	LENGTH	SHP
RE501	2	5'-7	Str.
RE601	1	5'-11	"
RE801	2	6'-6	"
RE901	1	6'-10	"
RE1001	2	7'-3	"
RE1101	4	7'-7	"

ESTIMATED QUANTITIES

ITEM	UNIT	DESCRIPTION	WALL 3	WALL 4
E-2	Lump Sum	Cofferdams, cribs and sheeting	Lump	Lump
E-2	Sq. Ft.	Steel sheet piling, left in place (min. sec. mod. 5.4 in³ per ft. of wall)	——	200
E-2	Cu. Yds.	Unclassified excavation	830	540
S-1	Cu. Yds.	Class "E" concrete, footing	358	205
S-1	Cu. Yds.	Class "E" concrete, wall shafts	509	274
S-3	Lin. Ft.	Waterproofing, premolded sealing strip	250	102
S-3	Sq. Yds.	Type "B" waterproofing	——	11
S-4	Lb.	Reinforcing steel	120,302	53,077
S-9	Sq. Ft.	1" preformed expansion joint filler (gray sponge rubber)	268	125
S-14	Lin. Ft.	Railing, Type "A" (Aluminum rail and supports, concrete parapet)	165	136
S-18	Lin. Ft.	Steel piles, 12 BP53	6,860	3,100
S-29	Cu. Yds.	Porous backfill	494	253
S-29	Lin. Ft.	8" bituminous coated helical perforated corrugated metal pipe, Sec. M-6.4 (h-c), including specials and sand	160	132
S-29	Lin. Ft.	12" reinforced concrete sewer pipe, Sec. M-6.6 (a)	4	4
I-8	Each	Inlet frame and grating	1	——
T-71	Sq. Yds.	9" reinforced concrete pavement, as per plan	5	——

NOTE: The above quantities are carried to Summary of Quantities, Sheet No. 30

For lighting and signing Items, see Sheet Nos. 41 and 42.

NOTE:

Work Sheet Nos. 226 through 234 together.

H bars listed without weights shall be included with item S-14 for payment.

If reinforcing bars are fabricated from stock which has previously been tested and approved by the Ohio Highway Testing Laboratory, test samples as provided in Sec. S-4.02 need not be furnished and replacement bars will not be required.

Bar size is indicated in the bar mark. The first digit indicates the bar size number except when the first digit is one (1). In this case the first two digits indicate the bar size number.

CITY OF CINCINNATI
DEPARTMENT OF PUBLIC WORKS
DIVISION OF ENGINEERING

REINFORCING STEEL LIST AND ESTIMATED QUANTITIES RETAINING WALLS NO'S 3 & 4

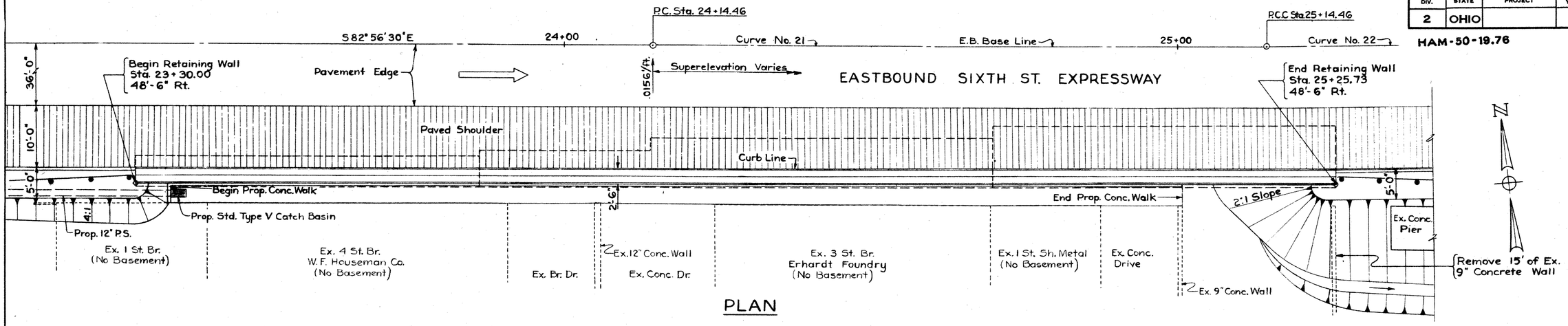
EASTBOUND
6TH ST. EXPRESSWAY

DESIGNED	DRAWN	TRACED	CHECKED	REVIEWED	DATE	REVISED
	J.A.A.		J.W.J.	W.W.	7-31-62	

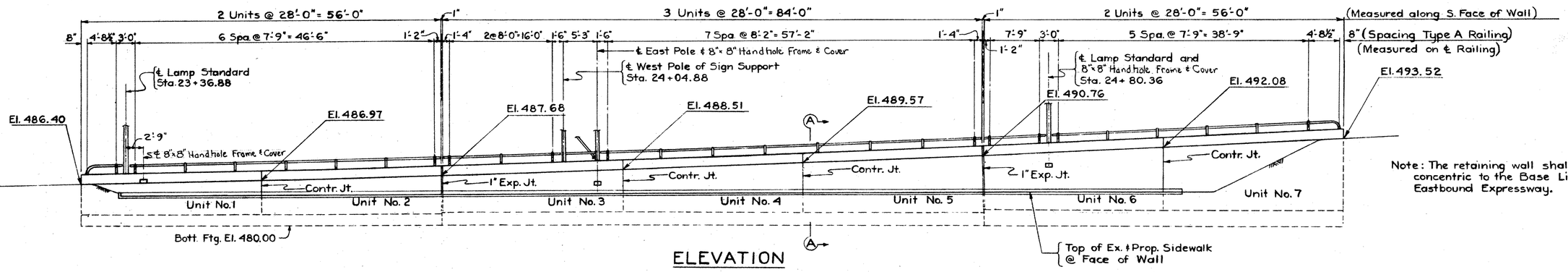
FED. RD. DIV.	STATE	PROJECT	FISCAL YEAR
2	OHIO		

235/464

HAM-50-19.76

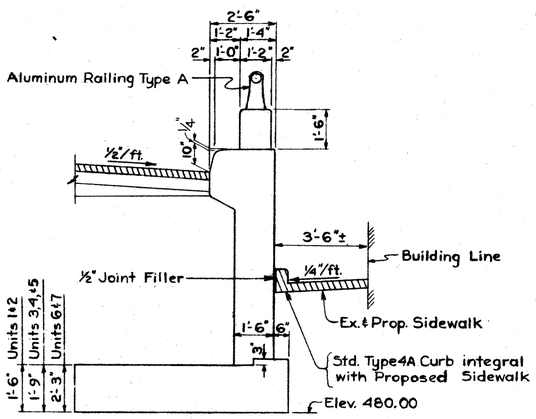


PLAN



ELEVATION

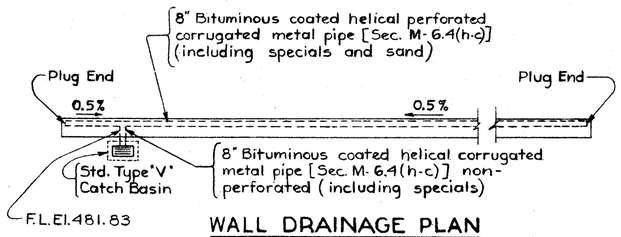
Note: The retaining wall shall be built concentric to the Base Line for the Eastbound Expressway.



SECTION A-A

ESTIMATED QUANTITIES			
ITEM	TOTAL	UNIT	DESCRIPTION
E-2	Lump	Sum	Cofferdams, cribs & sheeting
E-2	400	Cu. Yds.	Unclassified excavation
S-1	104	Cu. Yds.	Class "E" Concrete, footing
S-1	94	Cu. Yds.	Class "E" Concrete, wall shafts
S-3	38	Lin. Ft.	Waterproofing, premolded sealing strip
S-4	10,333	Lbs.	Reinforcing steel
S-9	27	Sq. Ft.	1" preformed expansion joint filler (gray sponge rubber)
S-14	196	Lin. Ft.	Railing, Type A (aluminum rail and supports, conc. parapet)
S-29	52	Cu. Yds.	Porous Backfill
S-29	196	Lin. Ft.	8" Bituminous coated helical perforated corrugated metal pipe [Sec. M-6.4(h-c)] (including specials and sand)
S-29	4	Lin. Ft.	8" Bituminous coated helical corrugated metal pipe [Sec. M-6.4(h-c)] non-perforated (including specials)

Note: The above quantities are carried to the Summary of Quantities, Sh. No. 30
Payment of S-25 Items are included in Roadway Quantities shown on Sheet No. 42



WALL DRAINAGE PLAN

NOTE A

Copper tubing having an inside diameter of 1" shall meet the material requirements of Sec. S-29.07. Cost of the necessary labor, material, and equipment for installing the copper tubing shall be included in the price bid, each for Item S 25, 8"x 8" Handhole Frame & Cover.

HAZELET & ERDAL
CONSULTING ENGINEERS
CINCINNATI, OHIO

GENERAL PLAN & ELEVATION RETAINING WALL NO. 5

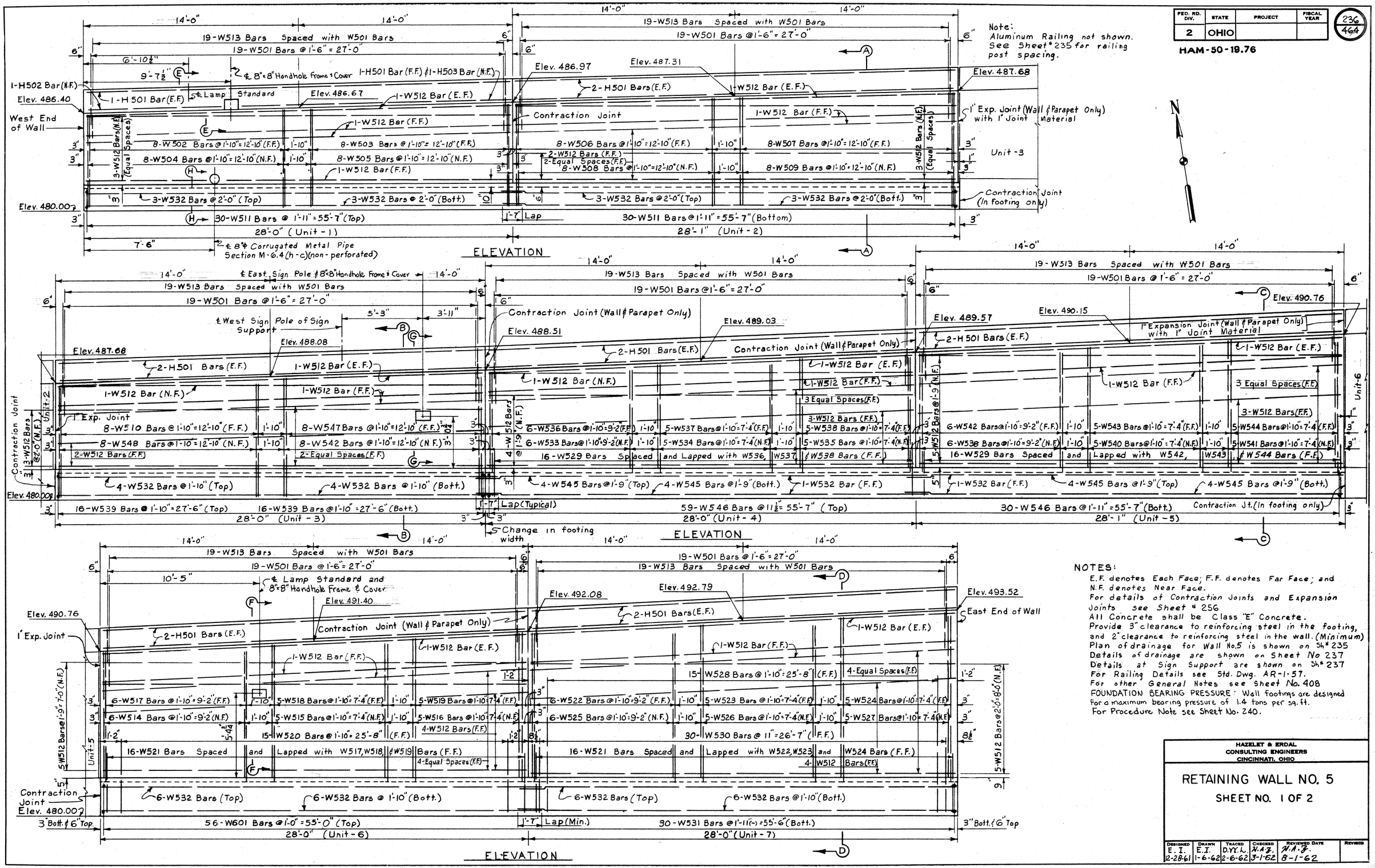
DESIGNED	DRAWN	TRACED	CHECKED	REVIEWED DATE	REVISED
	HLL 12-29-61		M.A.Z. 2-5-62	M.A.Z. 8-1-62	

FED. RD. DIV.	STATE	PROJECT	FISCAL YEAR
2	OHIO		

236
464

HAM-50-19.76

Note:
Aluminum Railing not shown.
See Sheet # 235 for railing post spacing.



NOTES:

E.F. denotes Each Face; F.F. denotes Far Face; and N.F. denotes Near Face.
For details of Contraction Joints and Expansion Joints see Sheet # 256
All Concrete shall be Class "E" Concrete.
Provide 3" clearance to reinforcing steel in the footing, and 2" clearance to reinforcing steel in the wall. (Minimum)
Plan of drainage for Wall No. 5 is shown on Sh# 235
Details of drainage are shown on Sheet No 237
Details at Sign Support are shown on Sh# 237
For Railing Details see Std. Dwg. AR-1-57.
For other General Notes see Sheet No. 408
FOUNDATION BEARING PRESSURE: Wall footings are designed for a maximum bearing pressure of 1.4 tons per sq. ft.
For Procedure Note see Sheet No. 240.

HAZELET & ERDAL
CONSULTING ENGINEERS
CINCINNATI, OHIO

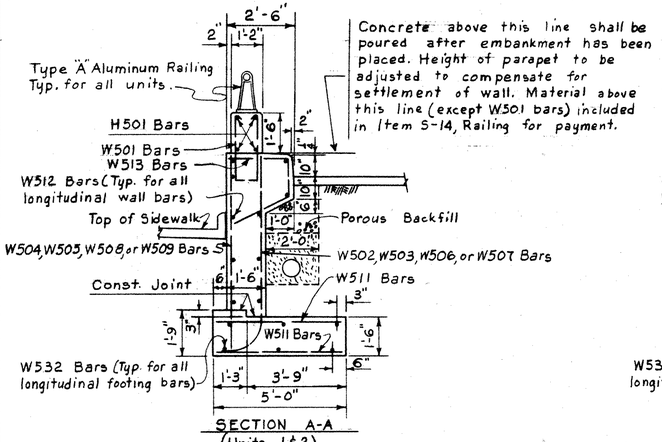
RETAINING WALL NO. 5

SHEET NO. 1 OF 2

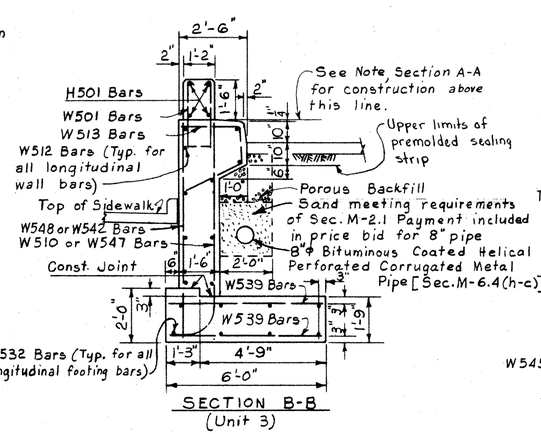
DESIGNED	DRAWN	TRACED	CHECKED	REVIEWED DATE	REVISED
E. I. 12-28-61	E.I. 1-6-62	D.Y.L. 2-6-62	W.A.Z. 3-1-62	W.A.Z. 8-1-62	

FED. RD. DIV.	STATE	PROJECT	FISCAL YEAR
2	OHIO		

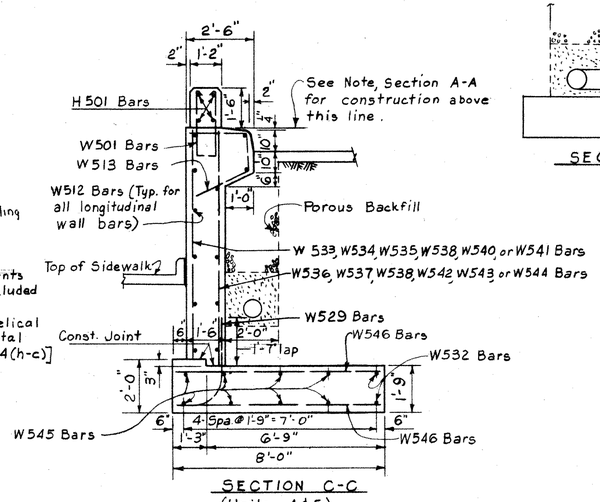
237
464



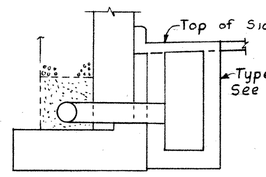
SECTION A-A
(Units 1 & 2)



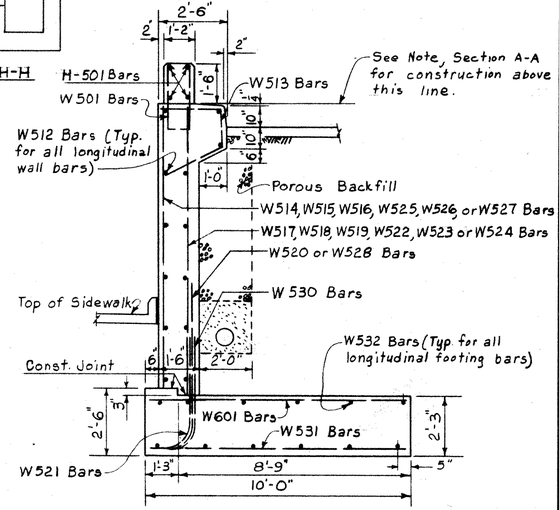
SECTION B-B
(Unit 3)



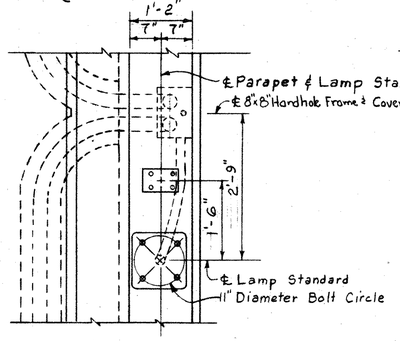
SECTION C-C
(Units 4 & 5)



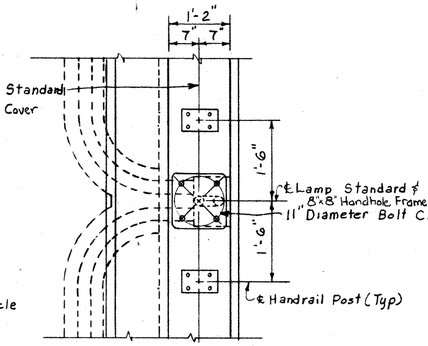
SECTION H-H



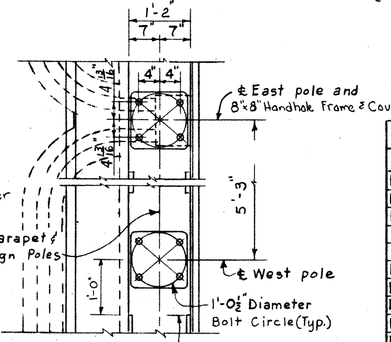
SECTION D-D
(Units 6 & 7)



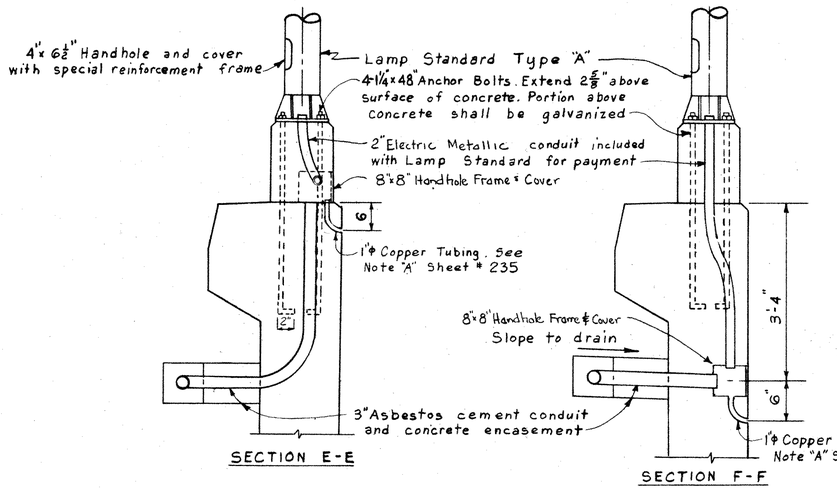
PLAN
For Section E-E



PLAN
For Section F-F



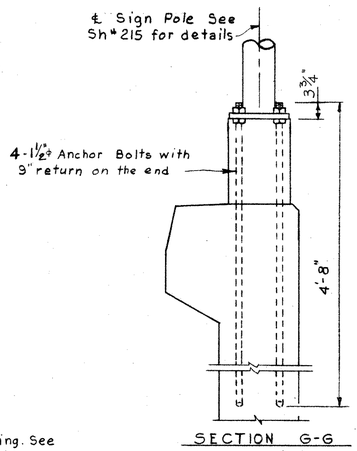
PLAN
For Section G-G



SECTION E-E

SECTION F-F

LAMP STANDARD DETAILS



SECTION G-G

SIGN POLE DETAILS
(Conduit & 8"x8" Handhole Frame & Cover details for East pole not shown. Same as for Section F-F)

REINFORCING BAR SCHEDULE

Mark	Length	Shape	No.	Weight	Mark	Length	Shape	No.	Weight
H501	27'- 8"	Str.	27	*	W526	10'- 0"	Str.	5	52
H502	8'-10"	Str.	1	*	W527	10'- 6"	Str.	5	55
H503	17'- 7"	Str.	1	*	W528	7'- 3"	Bent	15	113
					W529	4'- 3"	Bent	32	142
					W530	5'- 3"	Bent	30	164
W501	6'- 3"	Bent	133	867	W531	9'- 6"	Str.	30	297
W502	7'- 1"	Bent	8	59	W532	28'- 7"		48	1431
W503	7'- 5"	Bent	8	62	W533	6'- 4"		6	40
W504	6'- 0"	Str.	8	50	W534	6'- 9"		5	35
W505	6'- 3"	Str.	8	52	W535	7'- 2"		5	37
W506	7'- 9"	Bent	8	65	W536	6'- 7"		6	41
W507	8'- 0"	Bent	8	67	W537	7'- 0"		5	37
W508	6'- 6"	Str.	8	54	W538	7'- 5"		11	85
W509	6'-11"	Str.	8	58	W539	5'- 6"		32	184
W510	8'- 5"	Bent	8	70	W540	7'-11"		5	41
W511	4'- 6"	Str.	60	282	W541	8'- 3"		5	43
W512	27'- 8"	Str.	77	2222	W542	7'- 8"		14	112
W513	5'- 8"	Bent	133	786	W543	8'- 2"		5	43
W514	8'- 1"	Str.	6	51	W544	8'- 6"		5	44
W515	8'- 8"	Str.	5	45	W545	29'- 1"		16	485
W516	9'- 1"	Str.	5	47	W546	7'- 6"	Str.	89	696
W517	8'- 4"	Str.	6	52	W547	8'-10"	Bent	8	74
W518	8'-11"	Str.	5	47	W548	7'- 3"	Str.	8	60
W519	9'- 4"	Str.	5	49					
W520	6'- 0"	Bent	15	94					
W521	4'- 9"	Bent	32	159					
W522	9'- 8"	Str.	6	60	W601	9'- 6"	Str.	56	555
W523	10'- 3"	Str.	5	53					
W524	10'- 9"	Str.	5	56					
W525	9'- 5"	Str.	6	59	Total Wgt. of Reinf. Steel = 10,333#				

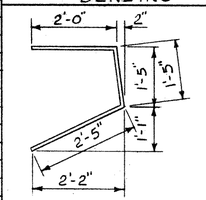
REPLACEMENT BARS

Mark	Length	Shape	No.
RE501	5'- 7"	Str.	1
RE601	5'-11"	Str.	1

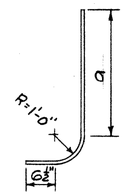
Bar size is included in the bar mark. The first digit indicates the bar size number. For example W501 is a No. 5 size bar. *Reinforcing Bars marked H501, H502, and H503 are included in Item S-14 (Railing) for payment.

REPLACEMENT BARS: If reinforcing bars are fabricated from stock which has previously been tested and approved by the Ohio Highway Testing Laboratory, test samples as provided in Section S-4.02 need not be furnished and replacement bars will not be required.

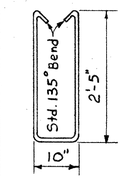
BENDING DIAGRAMS



W513 BAR



Mark	a	Mark	a
W502	4'-11"	W521	2'- 7"
W503	5'- 3"	W528	5'- 1"
W506	5'- 7"	W529	2'- 1"
W507	5'-10"	W530	3'- 1"
W510	6'- 3"	W547	6'- 8"
W520	3'-10"		



W501 BAR

HAZELET & ERDAL
CONSULTING ENGINEERS
CINCINNATI, OHIO

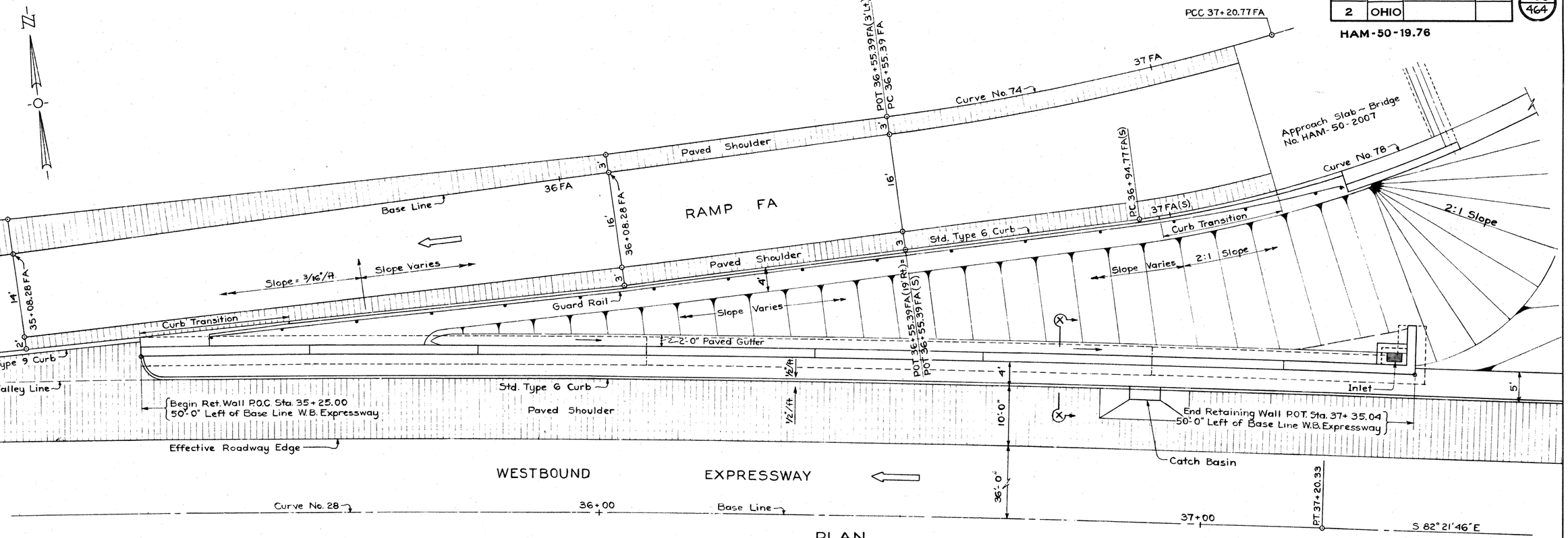
RETAINING WALL NO. 5
SHEET NO. 2 OF 2

DESIGNED	DRAWN	TRACED	CHECKED	REVIEWED DATE	REVISED
E.I. 12-28-61	E.I. 1-11-62	DYL 2-6-62	N.A.Z. 3-7-62	N.A.Z. 8-1-62	

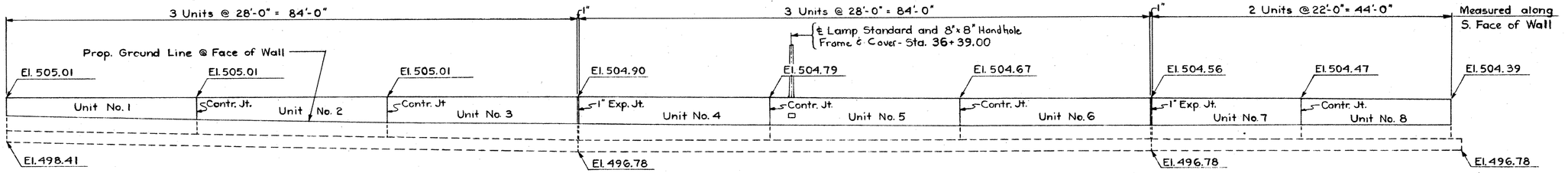
FED. RD. DIV.	STATE	PROJECT	FISCAL YEAR
2	OHIO		

238
464

HAM-50-19.76

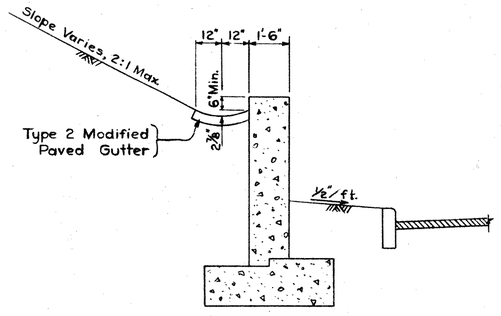


PLAN



ELEVATION

Note: Retaining Wall to be built concentric to the base line for the Westbound Expressway.



SECTION X-X

ESTIMATED QUANTITIES

ITEM	TOTAL	UNIT	DESCRIPTION
E-2	225	Cu.Yds.	Unclassified excavation
I-8	1	Each	Type "V" Grating and Frame, as per Plan
S-1	64	Cu.Yds.	Class "E" Concrete, footing
S-1	75	Cu.Yds.	Class "E" Concrete, wall shafts
S-3	36	Lin.Ft.	Waterproofing, premolded sealing strip
S-4	4395	Lbs.	Reinforcing steel
S-9	19	Sq.Ft.	1" preformed expansion joint filler (gray sponge rubber)
S-29	50	Cu.Yds.	Porous Backfill
S-29	206	Lin.Ft.	8" Bituminous coated helical perforated corrugated metal pipe [Sec. M-6.4(h-c)] (including specials and sand)
S-29	4	Lin.Ft.	12" Reinforced Concrete Sewer Pipe [Sec. M-6.6(a)]

Note: The above quantities are carried to the Summary of Quantities, Sh. No. 30
Payment for S-25 Items are included in Roadway Quantities shown on Sh. No. 42

FOUNDATION BEARING PRESSURE: Wall footings are designed for a maximum bearing pressure of 1.0 ton per sq. ft.

HAZELET & ERDAL
CONSULTING ENGINEERS
CINCINNATI, OHIO

GENERAL PLAN & ELEVATION

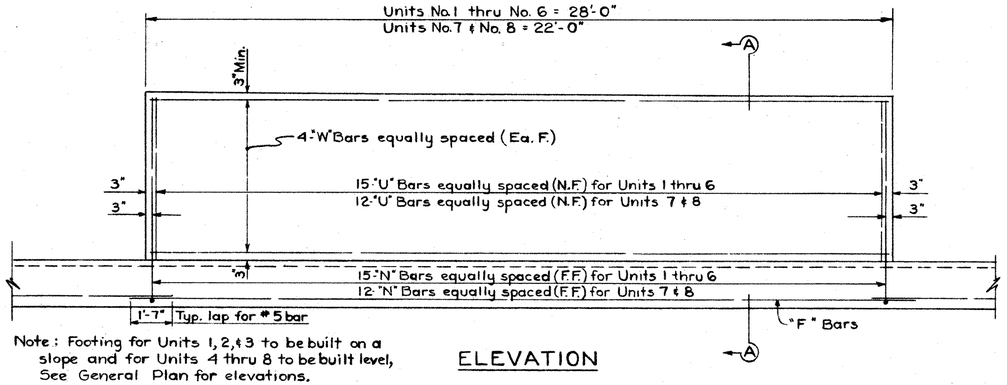
RETAINING WALL NO. 6

DESIGNED	DRAWN	TRACED	CHECKED	REVIEWED DATE	REVISED
	H.L.L. 2-22-61		H.A.Z. 2-5-62	H.A.Z. 8-1-62	

FED. RD. DIV.	STATE	PROJECT	FISCAL YEAR
2	OHIO		

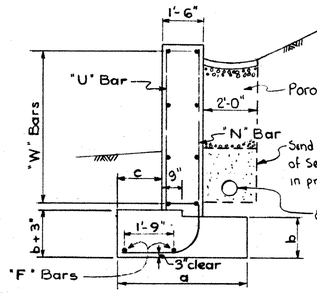
239
464

HAM-50-19.76

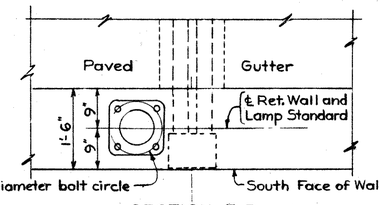


Note: Footing for Units 1, 2, & 3 to be built on a slope and for Units 4 thru 8 to be built level, See General Plan for elevations.

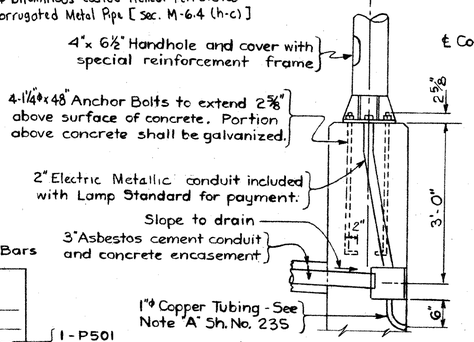
ELEVATION



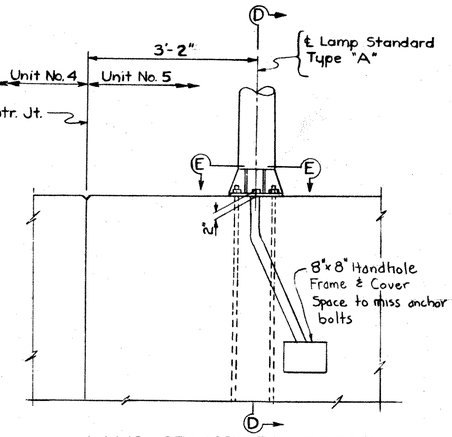
SECTION A-A



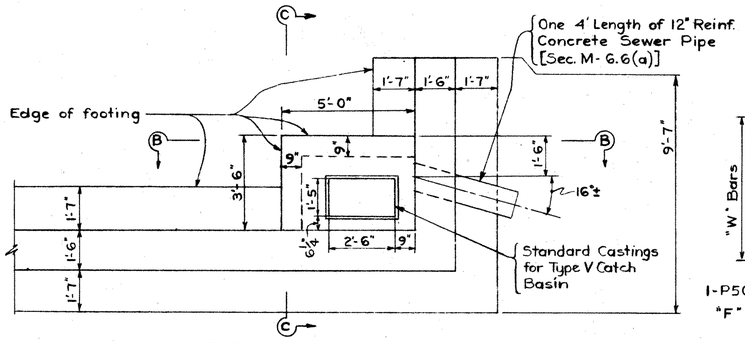
SECTION E-E



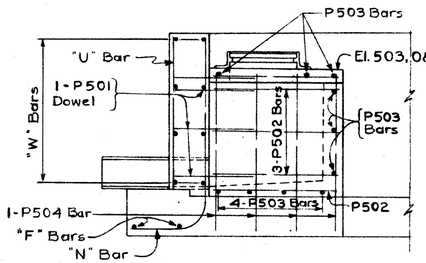
SECTION D-D



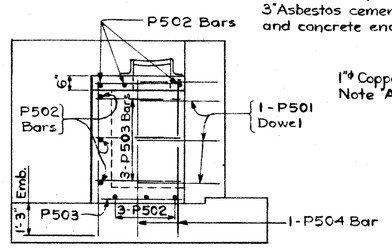
LAMP STANDARD DETAIL



END PLAN - UNIT NO. 8

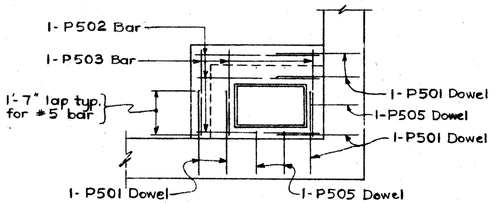


SECTION B-B

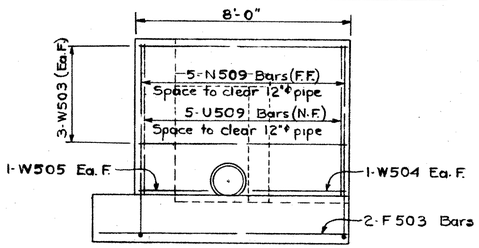


SECTION C-C

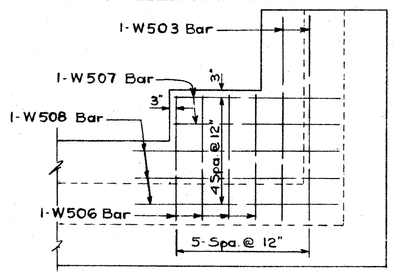
Contraction Joint and Expansion Joint Details are shown on Sheet No. 256



TOP SLAB REINFORCING PLAN



END WALL ELEVATION



ADDITIONAL FOOTING REINF.

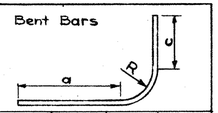
REINFORCING STEEL

Unit No.	Dimensions a	b	c	Footing Steel "N" Bars Mark	Lgth.	Shp.	No.	Wt.	Stem Steel "U" Bars Mark	Lgth.	Shp.	No.	Wt.	Longitudinal Steel "F" & "W" Bars Mark	Lgth.	Shp.	No.	Wt.
1	4'-10"	1'-6"	1'-8"	N501*	8'-5"	Bent	8	70	U501*	4'-8"	Str.	8	39	W501	27'-8"	Str.	8	231
1				N502	8'-9"	"	7	64	U502	5'-0"	"	7	37					
2	4'-10"	1'-6"	1'-8"	N503*	9'-0"	"	8	75	U503*	5'-2"	"	8	43	W501	27'-8"	Str.	8	231
2				N504	9'-4"	"	7	68	U504	5'-6"	"	7	40					
3	4'-10"	1'-6"	1'-8"	N505*	9'-7"	"	8	80	U505*	5'-9"	"	8	48	W501	27'-8"	Str.	8	231
3				N506	9'-10"	"	7	72	U506	6'-0"	"	7	44					
1,2,&3														F 501	29'-0"	Str.	6	181
4	4'-10"	1'-6"	1'-8"	N507	9'-11"	Bent	15	155	U507	6'-1"	Str.	15	95	W501	27'-8"	"	8	231
5	4'-10"	1'-6"	1'-8"	N506	9'-10"	"	15	154	U508	5'-11"	"	15	93	W501	27'-8"	"	8	231
6	4'-10"	1'-6"	1'-8"	N510	9'-8"	"	15	151	U510	5'-10"	"	15	91	W501	27'-8"	"	8	231
4,5,&6														F 501	29'-0"	"	6	181
7	4'-8"	1'-6"	1'-7"	N508	9'-6"	Bent	12	119	U505	5'-9"	Str.	12	72	W502	21'-8"	"	8	181
8	4'-8"	1'-6"	1'-7"	N509	9'-5"	"	12	118	U509	5'-8"	"	12	71	W502	21'-8"	"	8	181
7&8														F 502	22'-8"	"	4	95

End Wall & Inlet Steel

Mark	Lgth.	Shp.	No.	Wt.
N509	9'-5"	Bent	5	49
U509	5'-6"	Str.	5	29
W503	7'-8"	"	8	64
W504	3'-7"	"	2	7
W505	2'-3"	"	2	5
F503	9'-3"	"	2	19
W506	4'-8"	"	4	19
W507	6'-2"	"	2	13
W508	7'-11"	"	3	25
P501	3'-1"	"	12	39
P502	4'-10"	"	9	45
P503	3'-4"	"	10	35
P504	5'-10"	"	6	37
P505	1'-8"	"	3	5

Bent Bars



Mark	R	a	c
N501	1'-0"	5'-1"	1'-9"
N502	"	5'-5"	1'-9"
N503	"	5'-8"	1'-9"
N504	"	6'-0"	1'-9"
N505	"	6'-3"	1'-9"
N506	"	6'-6"	1'-9"
N507	"	6'-7"	1'-9"
N508	"	6'-3"	1'-8"
N509	"	6'-2"	1'-8"
N510	"	6'-4"	1'-9"

* These bars to be placed in west portion of unit

Total Wgt. of Reinf. Steel = 4,395#

REPLACEMENT BARS			
Mark	Length	Shape	No.
RE501	5'-7"	Str.	1

All reinforcing bars are size No. 5

REPLACEMENT BARS: If reinforcing bars are fabricated from stock which has previously been tested and approved by the Ohio Highway Testing Laboratory, test samples as provided in Section S-4.02 need not be furnished and replacement bars will not be required.

NOTES

All Concrete shall be Class "E" Concrete For Procedure Note see Sheet No. 240. Provide 3" clearance to reinforcing steel in the footing and 2" clearance to reinforcing steel in the wall (Minimum)

Frame and grate details for Standard Castings for Type V Catch Basins are shown on Sheet No. 178.

Concrete for the Inlet walls and top shall be included in Item 51, Class "E" Concrete, Wall Shafts

Concrete for bottom of Inlet shall be included in Item 51, Class "E" Concrete, Footings

F.F. denotes far face, N.F. denotes near face, and E.F. denotes each face.

For other General Notes see Sheet No. 408

HAZELET & ERDAL
CONSULTING ENGINEERS
CINCINNATI, OHIO

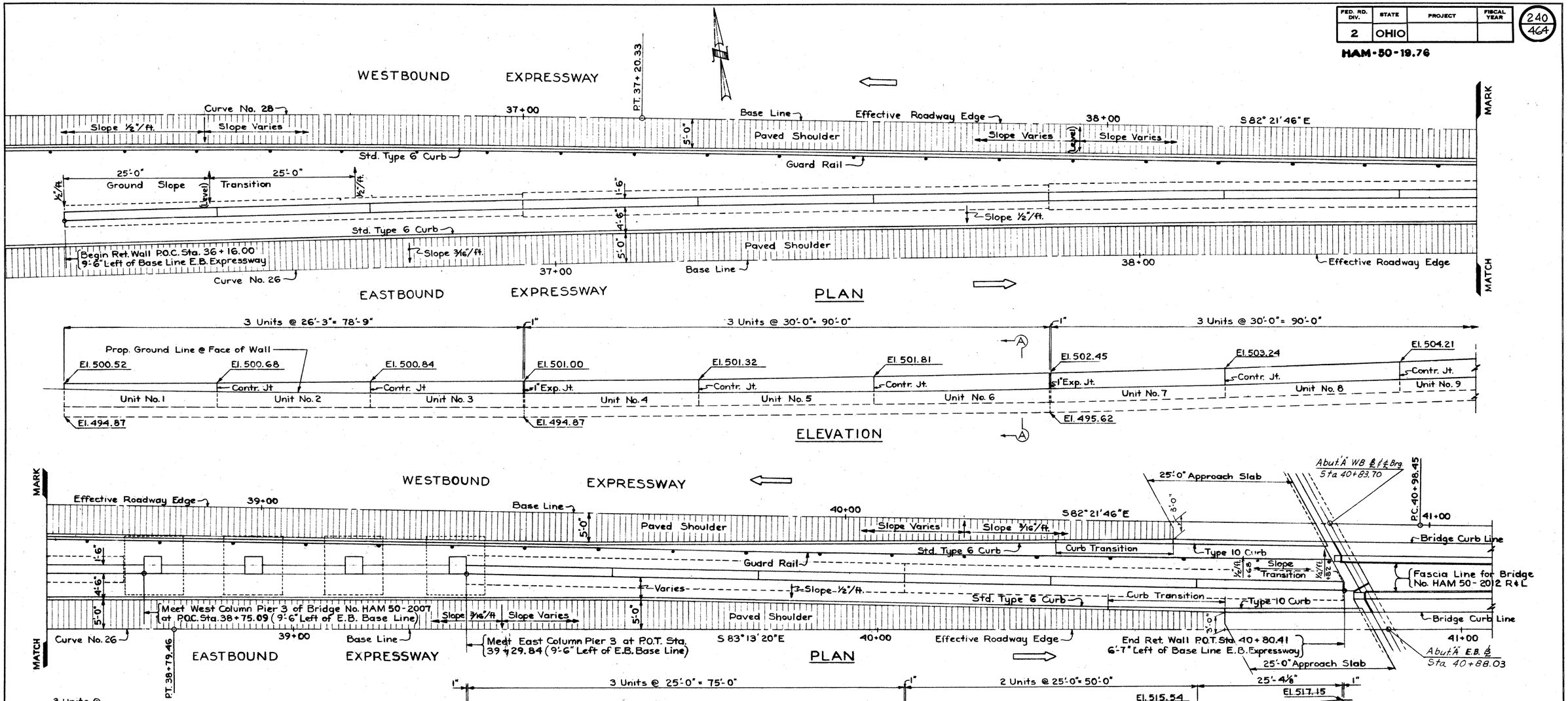
RETAINING WALL NO. 6

DESIGNED	DRAWN	TRACED	CHECKED	REVIEWED DATE	REVISED
HLL 2-21-61	HLL 2-28-61		H.L.Z. 2-5-62	H.L.Z. 8-1-62	

FED. RD. DIV.	STATE	PROJECT	FISCAL YEAR
2	OHIO		

240
464

HAM-50-19.76



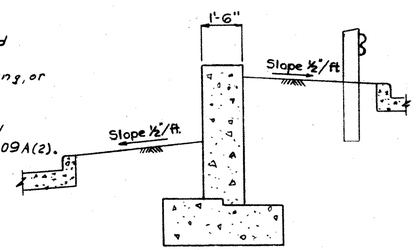
For Table of Estimated Quantities, See Sht. 241

General Notes: Wall Sections between pier columns are detailed with the pier.

The retaining wall West of Sta. 38+75.09 to be built concentric to the Base Line for the Eastbound Expressway, and the retaining wall East of Sta. 39+29.84 to be built to a straight line.

PROCEDURE: Embankment shall be placed and compacted to the lower of;
(1) A height of one foot above the top of retaining wall footing, or
(2) The elevation of finished subgrade in front of the wall (approximately 2.25 feet below top of curb), after which excavation shall be made for the footing. Removal of fill material shall be paid for as excavation according to Sec. E-2.09A(2).

FOUNDATION BEARING PRESSURE:
Wall footings are designed for a maximum bearing pressure of 1.0 ton per sq. ft.



SECTION A-A

HAZELET & ERDAL
CONSULTING ENGINEERS
CINCINNATI, OHIO

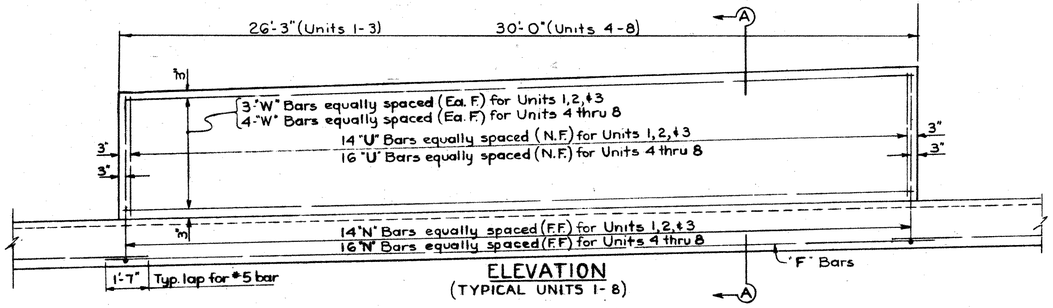
GENERAL PLAN & ELEVATION
RETAINING WALL NO. 7

Designed	Drawn	Traced	Checked	Reviewed Date	Revised
	HLL 2-20-62		G.J.T. 11-16-61	W.A.B. 8-1-62	

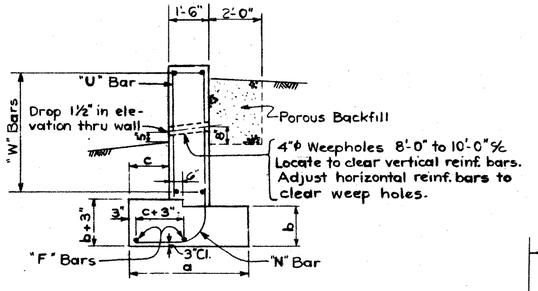
FED. RD. DIV.	STATE	PROJECT	FISCAL YEAR
2	OHIO		

241
464

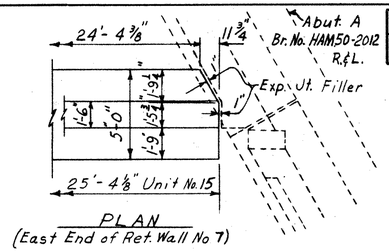
HAM-50-19.76



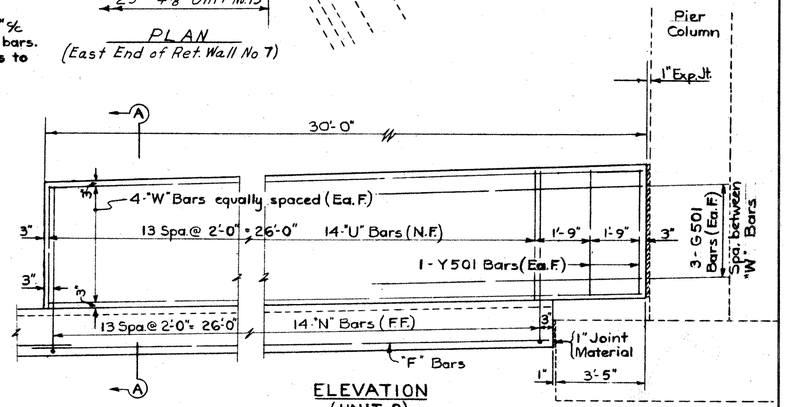
ELEVATION
(TYPICAL UNITS 1-8)



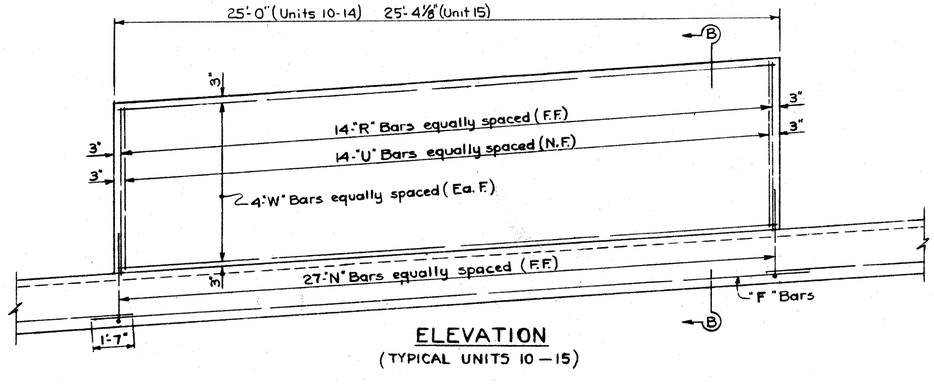
SECTION A-A



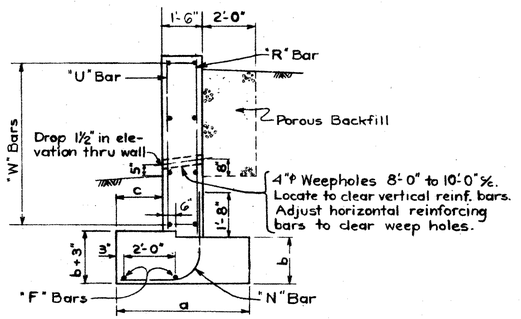
PLAN
(East End of Ret. Wall No. 7)



ELEVATION
(UNIT 9)



ELEVATION
(TYPICAL UNITS 10—15)



SECTION B-B

ESTIMATED QUANTITIES

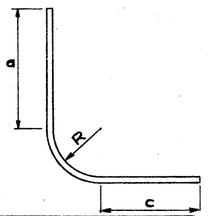
ITEM	TOTAL	UNIT	DESCRIPTION
E-2	Lump	Sum	Cofferdams, cribs & sheeting
E-2	215	Cu. Yds.	Unclassified excavation
S-1	115	Cu. Yds.	Class "E" Concrete, footing
S-1	123	Cu. Yds.	Class "E" Concrete, wall shafts
S-3	82	Lin. Ft.	Waterproofing, premolded sealing strip
S-4	7,932	Lbs.	Reinforcing steel
S-9	57	Sq. Ft.	1" preformed expansion joint filler (gray sponge rubber)
S-29	79	Cu. Yds.	Porous Backfill

NOTE : The above quantities are carried to the Summary of Quantities, Sh. No. 30

REINFORCING STEEL

Unit No.	Dimensions a	b	c	Footing Steel "N" Bars Mark	Lgth.	Shp.	No.	Wt.	Stem Steel "Y" & "R" Bars Mark	Lgth.	Shp.	No.	Wt.	Stem Steel "G" & "U" Bars Mark	Lgth.	Shp.	No.	Wt.	Longitudinal Steel "F" & "W" Bars Mark	Lgth.	Shp.	No.	Wt.
1	3'-8"	1'-6"	1'-1"	N501	7'-0"	Bent	14	102						U501	3'-9"	Str.	14	55	W501	25'-11"	Str.	6	162
2	3'-8"	1'-6"	1'-1"	N502	7'-2"	"	14	105						U502	3'-11"	"	14	57	W501	25'-11"	"	6	162
3	3'-8"	1'-6"	1'-1"	N503	7'-4"	"	14	107						U503	4'-1"	"	14	60	W501	25'-11"	"	6	162
1,2&3																			F 502	27'-3"	"	6	171
4	4'-2"	1'-6"	1'-4"	N504	7'-8"	Bent	16	128						U504	4'-2"	Str.	16	70	W503	29'-8"	"	8	248
5	4'-2"	1'-6"	1'-4"	N505	7'-9"	"	16	129						U504	4'-2"	"	16	70	W503	29'-8"	"	8	248
6	4'-2"	1'-6"	1'-4"	N506	8'-0"	"	16	134						U505	4'-6"	"	16	75	W503	29'-8"	"	8	248
4,5&6																			F 503	31'-0"	"	6	194
7	4'-6"	1'-6"	1'-6"	N507	8'-7"	Bent	16	143						U506	4'-11"	Str.	16	82	W503	29'-8"	"	8	248
8	4'-6"	1'-6"	1'-6"	N507	8'-7"	"	16	143						U506	4'-11"	"	16	82	W503	29'-8"	"	8	248
9	4'-6"	1'-6"	1'-6"	N508	8'-9"	"	14	128						U507	5'-1"	"	14	74	W503	29'-8"	"	8	248
7&8																			F 503	31'-0"	"	4	129
10	5'-0"	1'-9"	1'-9"	N509	5'-7"	Bent	27	157	R501	6'-0"	Str.	14	88	U508	5'-9"	Str.	14	84	W504	24'-8"	"	8	206
11	5'-0"	1'-9"	1'-9"	N509	5'-7"	"	27	157	R501	6'-0"	"	14	88	U508	5'-9"	"	14	84	W504	24'-8"	"	8	206
12	5'-0"	1'-9"	1'-9"	N509	5'-7"	"	27	157	R502	6'-2"	"	14	90	U509	5'-11"	"	14	86	W504	24'-8"	"	8	206
10,11&12																			F 504	26'-0"	"	6	163
13	5'-0"	1'-9"	1'-9"	N509	5'-7"	Bent	27	157	R503	6'-5"	Str.	14	94	U510	6'-2"	Str.	14	90	W504	24'-8"	"	8	206
14	5'-0"	1'-9"	1'-9"	N509	5'-7"	"	27	157	R503	6'-5"	"	14	94	U510	6'-2"	"	14	90	W504	24'-8"	"	8	206
15	5'-0"	1'-9"	1'-9"	N509	5'-7"	"	27	157	R503	6'-5"	"	14	94	U510	6'-2"	"	14	90	W502	25'-0"	"	8	209
13&15																			F 504	26'-0"	"	6	163
9	(Additional reinforcing)								Y501	4'-11"	Str.	4	21	G501	10'-0"	Str.	6	63	F 501	27'-6"	Str.	2	57

Total Wgt of Reinf Steel = 7,932#



MARK	R	a	c
N501	1'-0"	4'-3"	1'-2"
N502	"	4'-5"	1'-2"
N503	"	4'-7"	1'-2"
N504	"	4'-8"	1'-5"
N505	"	4'-9"	1'-5"
N506	"	5'-0"	1'-5"
N507	"	5'-5"	1'-7"
N508	"	5'-7"	1'-7"
N509	"	2'-1"	1'-10"

REPLACEMENT BARS			
Mark	Length	Shape	No.
RE501	5'-7"	Str.	1

REPLACEMENT BARS: If reinforcing bars are fabricated from stock which has previously been tested and approved by the Ohio Highway Testing Laboratory, test samples as provided in Section S-4.02 need not be furnished and replacement bars will not be required.

All bars are No. 5 reinforcing bars.

NOTES:
Ea. F. denotes Each Face; N. F. denotes Near Face; and F. F. denotes Far Face.
For details of Contraction Joints and Expansion Joints see Sheet No. 256 .
All concrete shall be Class "E" Concrete.
Provide 3" clearance to reinforcing steel in the footing, and 2" clearance to reinforcing steel in the wall. (Minimum)
Units 13, 14 and 15 to be constructed after abutments have been completed for Bridge No. HAM. 50-2012 R&L.
All 1" Expansion Joints as noted on Sheet No. 240 are included with retaining wall #7 quantities for payment.

HAZELET & ERDAL
CONSULTING ENGINEERS
CINCINNATI, OHIO

RETAINING WALL NO. 7

DESIGNED	DRAWN	TRACED	CHECKED	REVIEWED DATE	REVISED
HLL 2-18-61	HLL 2-20-61		G.J.T. 11-16-61	W.A.F. 8-1-62	

FED. RD. DIV.	STATE	PROJECT	FISCAL YEAR
2	OHIO		

242
464

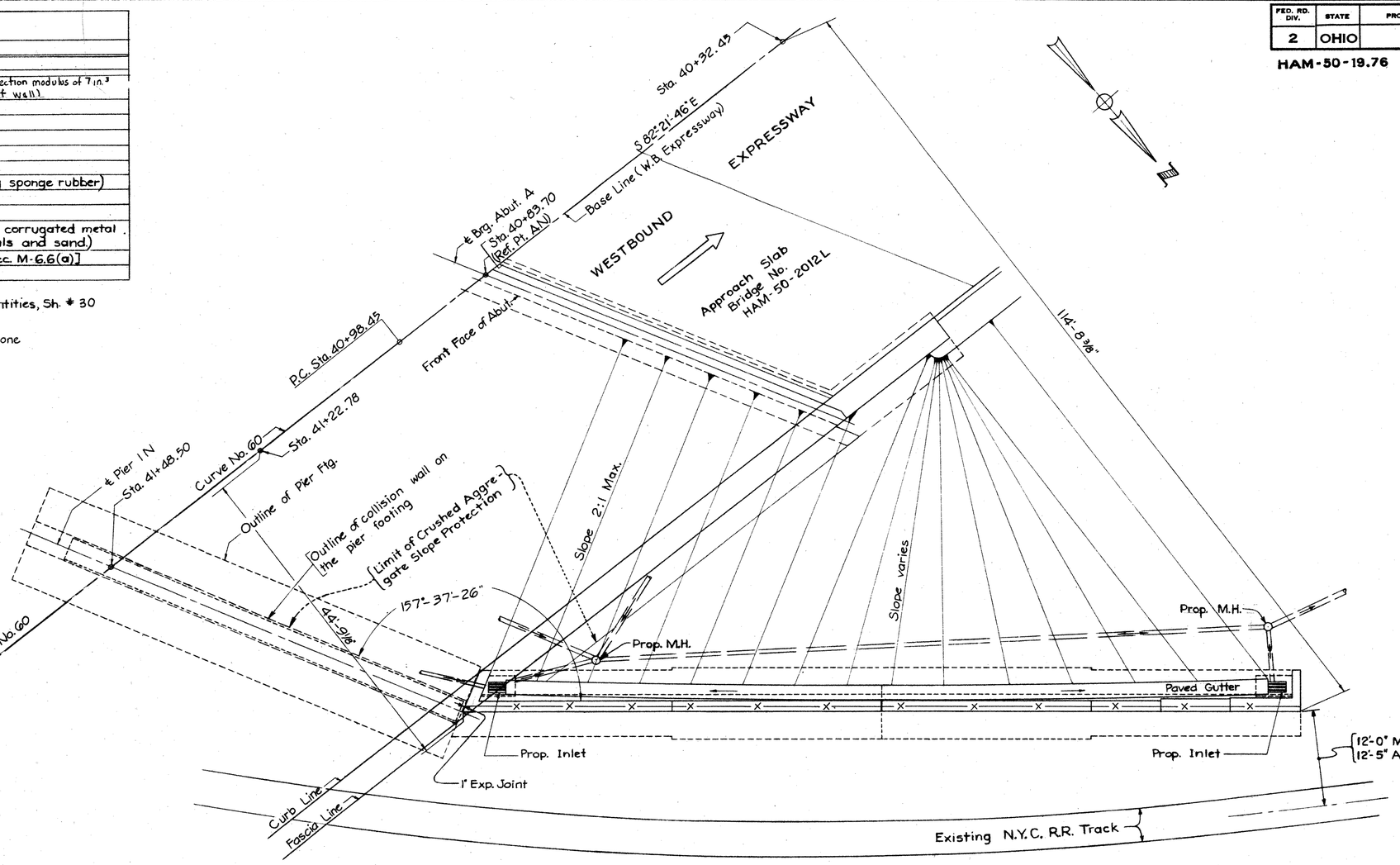
HAM-50-19.76

ESTIMATED QUANTITIES

ITEM	TOTAL	UNIT	DESCRIPTION
E-2	Lump	Sum	Cofferdams, cribs and sheeting
E-2	385	Cu.Yds.	Unclassified Excavation
E-2	400	Sq.Ft.	Steel sheet piling, left in place per foot of wall (minimum section modulus of 7 in.³)
I-8	2	Each	Type V Grating and Frame as per plan
S-1	105	Cu.Yds.	Class E Concrete, Footing
S-1	125	Cu.Yds.	Class E Concrete, Wall Shafts
S-3	55	Lin.Ft.	Waterproofing, premolded sealing strip
S-4	13507	Lbs.	Reinforcing Steel
S-9	56	Sq.Ft.	1" Preformed expansion joint filler (gray sponge rubber)
S-16	Lump	Sum	First test pile
S-18	960	Lin.Ft.	Steel Piles, (10BP42)
S-29	108	Lin.Ft.	8" Bituminous coated helical perforated corrugated metal pipe [Sec. M-6.4(h-c)] (including specials and sand.)
S-29	12	Lin.Ft.	12" Reinforced Concrete Sewer Pipe [Sec. M-6.6(a)]
S-29	75	Cu.Yds.	Porous Backfill

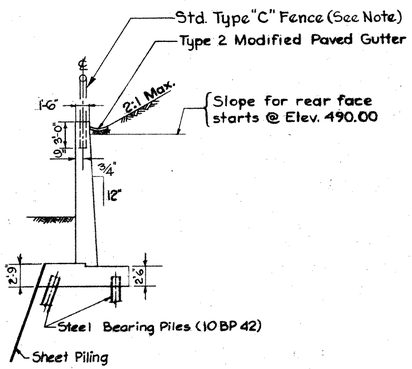
Note: The above quantities are carried to the Summary of Quantities, Sh. # 30

FIRST TEST PILE: Payment will be made for only one first test pile. It may be driven at either Walls No. 8, 9, 10 or 11.

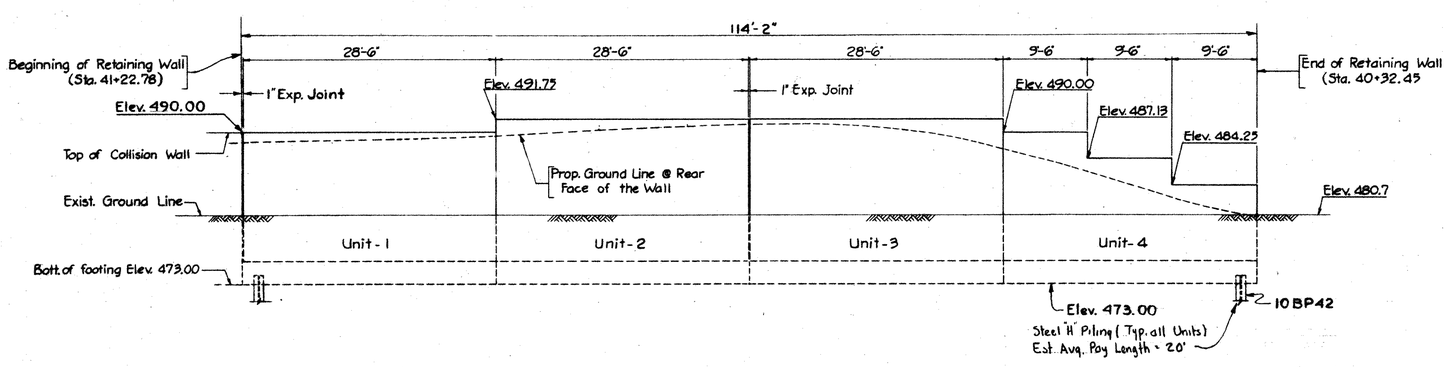


PLAN

NOTE:
Recesses for Fence Posts Shall be Satisfactorily Protected to Prevent Water Accumulation During Freezing Weather Prior to Erection of Fence. Payment for this Work shall be included in Unit Price's Bid for the Various Wall Items. Std. Type "C" Fence is included with Item S.S-18 for Payments. (See Sh. 35)



TYPICAL WALL SECTION



ELEVATION

HAZELET & ERDAL
CONSULTING ENGINEERS
CINCINNATI, OHIO

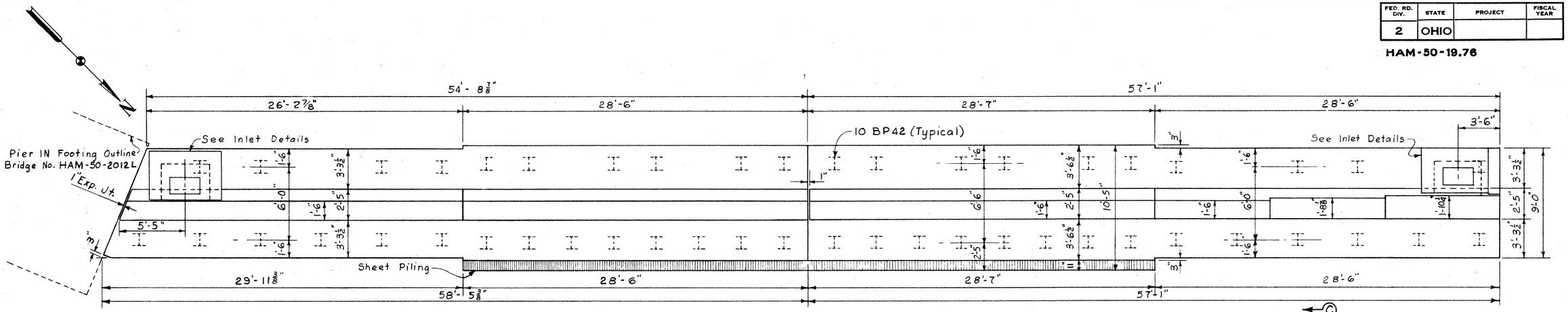
GENERAL PLAN & ELEVATION
RETAINING WALL NO. 8

DESIGNED	DRAWN	TRACED	CHECKED	REVIEWED DATE	REVISED
	E.I. 1-23-62		H.A.J. 2-5-62	H.A.J. 8-1-62	

FED. RD. DIV.	STATE	PROJECT	FISCAL YEAR
2	OHIO		

243
464

HAM-50-19.76



NOTES:

E.F. denotes Each Face, F.F. denotes Far Face, and N.F. denotes Near Face.
For details of Contraction Joints and Expansion Joints see Sheet No. 256.
All Concrete shall be Class "E" Concrete.
Provide 3" clearance to reinforcing steel in the footing and 2" clearance to reinforcing steel in the walls. (Minimum)
Batter all piles in row 1
All piles shall be 10 BP42 Steel H Piles.
The design load is 30 Tons per pile for Retaining Wall No. 8.
Steel Pile note is shown on Sheet No. 253.
Plan of drainage for Wall No. 8 is shown on Sheet No. 404
Details of drainage are shown on Sheet No. 244
Frame and grate details for Standard Castings for Type V Catch Basins are shown on Sheet No. 178
For other General Notes see Sheet No. 408
For Procedure Note see Sheet No. 240

HAZELET & ERDAL
CONSULTING ENGINEERS
CINCINNATI, OHIO

RETAINING WALL NO. 8

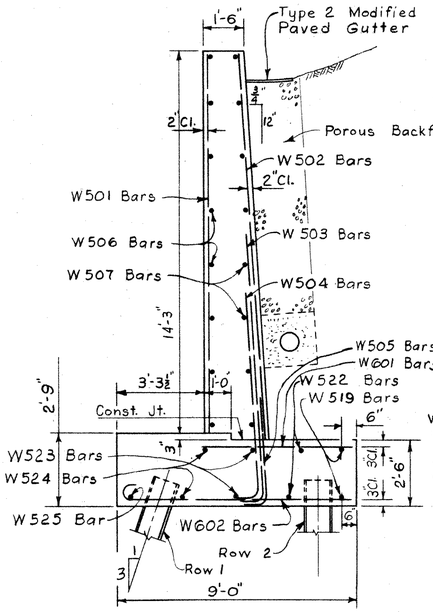
SHEET NO. 1 OF 2

DESIGNED	DRAWN	TRACED	CHECKED	REVIEWED DATE	REVISED
G.J.T. 1-8-62	D.W.L. 2-17-62		M.A.E. 3-6-62	M.A.E. 8-1-62	

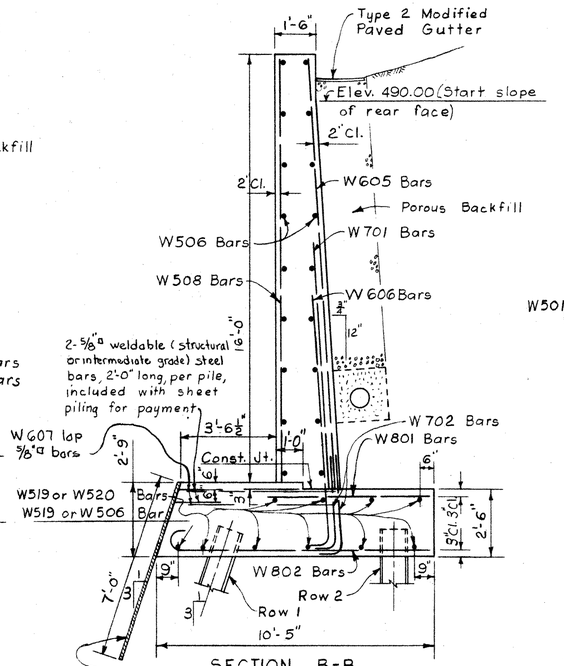
FED. RD. DIV.	STATE	PROJECT	FISCAL YEAR
2	OHIO		

244/464

HAM-50-19.76

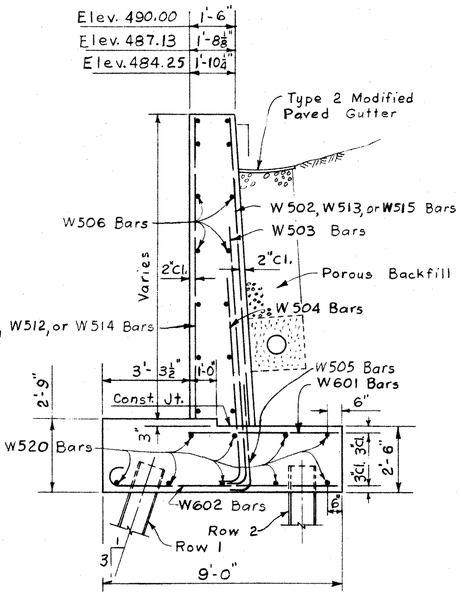


SECTION A-A



SECTION B-B

Steel sheet piling left in place shall have a minimum section modulus of 7in³ per foot of wall. Used piling in good condition may be used. Mill test reports are not required. (Typ.)



SECTION C-C

REPLACEMENT BARS			
Mark	Length	Shape	No.
RE401	5'-3"	Str.	1
RE501	5'-7"	Str.	1
RE601	5'-11"	Str.	1
RE701	6'-3"	Str.	1
RE801	6'-6"	Str	1

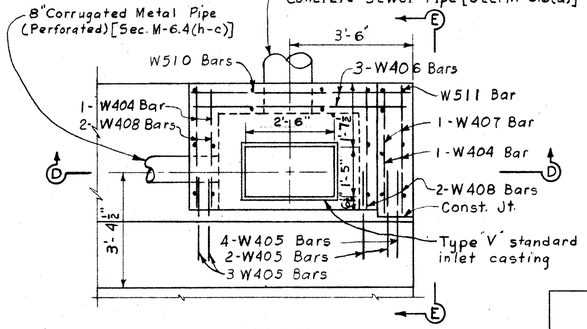
Bar size is included in the bar mark. The first digit indicates the bar size number. For example W802 is a No.8 size bar.

REPLACEMENT BARS: If reinforcing bars are fabricated from stock which has previously been tested and approved by the Ohio Highway Testing Laboratory, test samples as provided in Section S-4.02 need not be furnished and replacement bars will not be required.

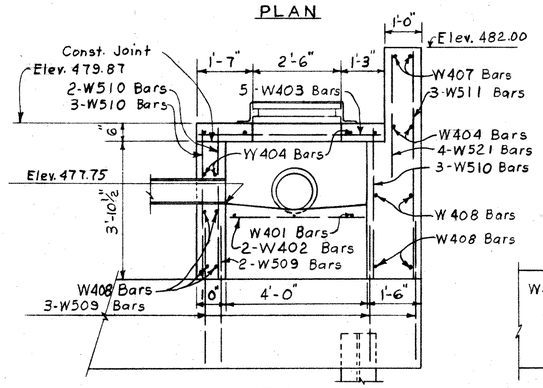
REINFORCING BAR SCHEDULE

Mark	Length	Shape	No.	Weight	Mark	Length	Shape	No.	Weight
W401	2'- 3"	Str.	3	5	W518	18'- 8"	Str.	2	39
W402	3'- 8"	↑	15	37	W519	28'- 0"	↑	12	350
W403	5'- 0"		5	17	W520	29'- 1"		18	546
W404	3'- 5"		12	27	W521	3'- 6"		4	15
W405	2'- 8"		26	46	W522	28'-10"		2	60
W406	6'- 0"		6	24	W523	29'- 8"		2	62
W407	3'- 6"		6	14	W524	30'- 6"	↓	2	64
W408	3'- 2"		8	17	W525	31'- 4"	Str.	1	33
W409	5'- 4"	↓	11	39					
W410	4'-10"	Str.	4	13					
W411	7'- 2	Bent	4	19	W601	5'- 7"	Str.	76	637
					W602	9'- 2"	Bent	56	771
					W603	9'- 9"	Bent	1	15
W501	14'- 1"	Str.	21	308	W604	8'- 2"	Bent	2	25
W502	14'- 4"	Str.	21	314	W605	16'- 1"	Str	30	725
W503	11'- 5"	Bent	28	333	W606	9'- 2"	Bent	56	771
W504	9'- 5"	Bent	56	550	W607	6'- 0"	Str	86	775
W505	5'- 6"	Bent	31	178					
W506	28'- 1"	Str.	55	1611					
W507	27'- 4"	↑	8	228					
W508	15'-10"		30	495	W701	8'- 3"	Str	28	472
W509	3'-10"		15	60	W702	6'- 1"	Bent	58	721
W510	4'- 2"		12	52					
W511	6'- 4"		3	20					
W512	11'- 2"		5	58					
W513	11'- 5"		5	60	W801	6'- 0"	Str.	58	929
W514	8'- 4"		5	43	W802	10'- 8"	Bent	64	1823
W515	8'- 7"		5	45					
W516	9'- 2"	↓	4	38					
W517	10'-11"	Str.	2	23					

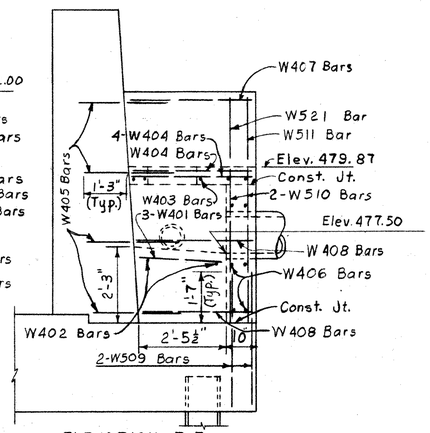
Total Wgt of Reinf Steel = 13,507#



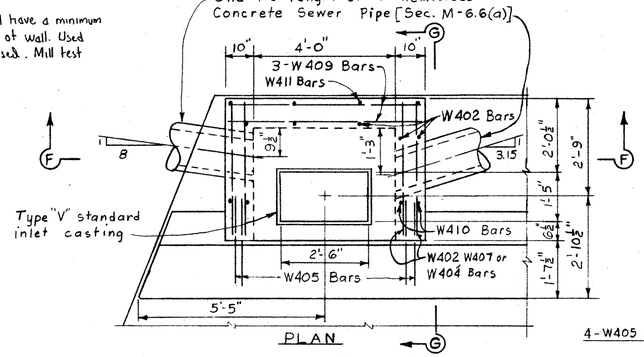
PLAN



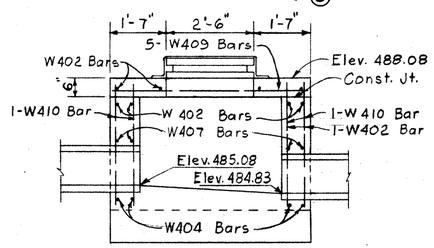
SECTION D-D



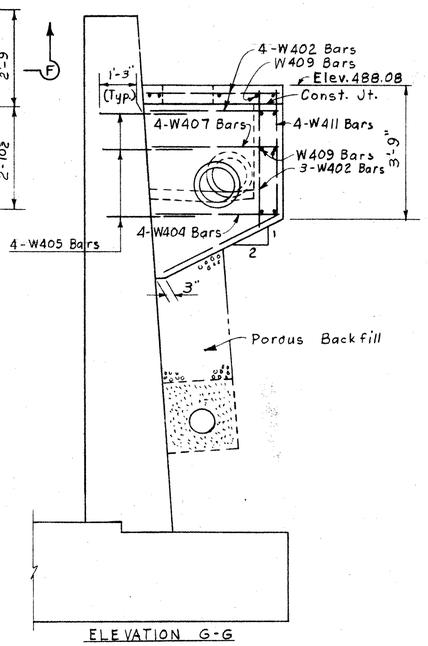
ELEVATION E-E



PLAN

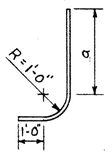


SECTION F-F

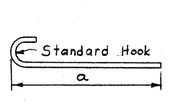


ELEVATION G-G

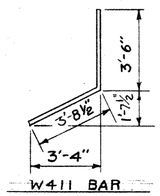
BENDING DIAGRAMS



Mark	a
W503	8'-9½"
W504	6'-9½"
W505	2'-10½"
W606	6'-6½"
W702	3'-5½"



Mark	a
W602	8'-6"
W603	9'-1"
W604	7'-6"
W802	9'-7"



W411 BAR

HAZELET & ERDAL
CONSULTING ENGINEERS
CINCINNATI, OHIO

RETAINING WALL NO. 8

SHEET NO. 2 OF 2

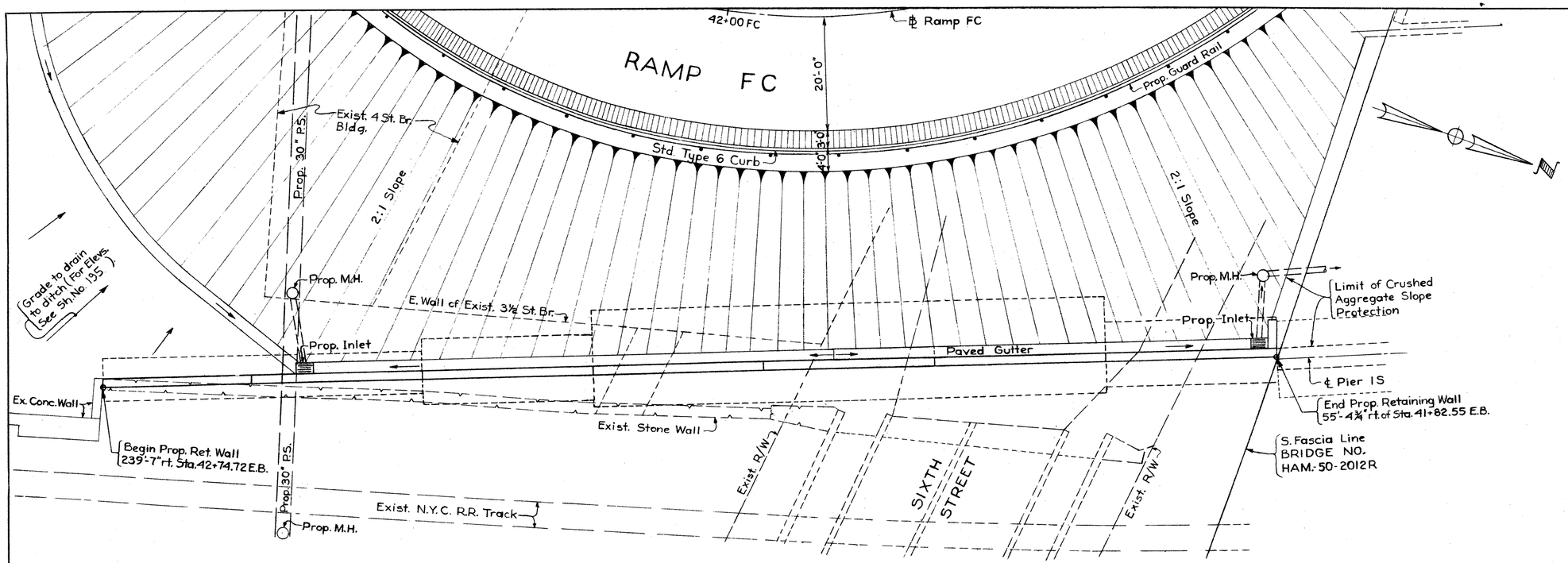
DESIGNED	DRAWN	TRACED	CHECKED	REVIEWED DATE	REVISED
G.J.T. 1-8-62	DYL 2-16-62		N.A.E. 3-7-62	N.A.E. 3-1-62	

INLET DETAILS

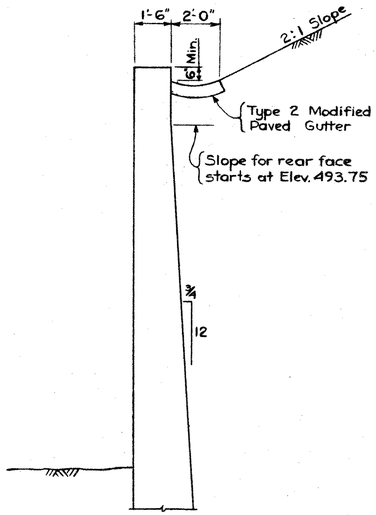
FED. RD. DIV.	STATE	PROJECT	FISCAL YEAR
2	OHIO		

245
464

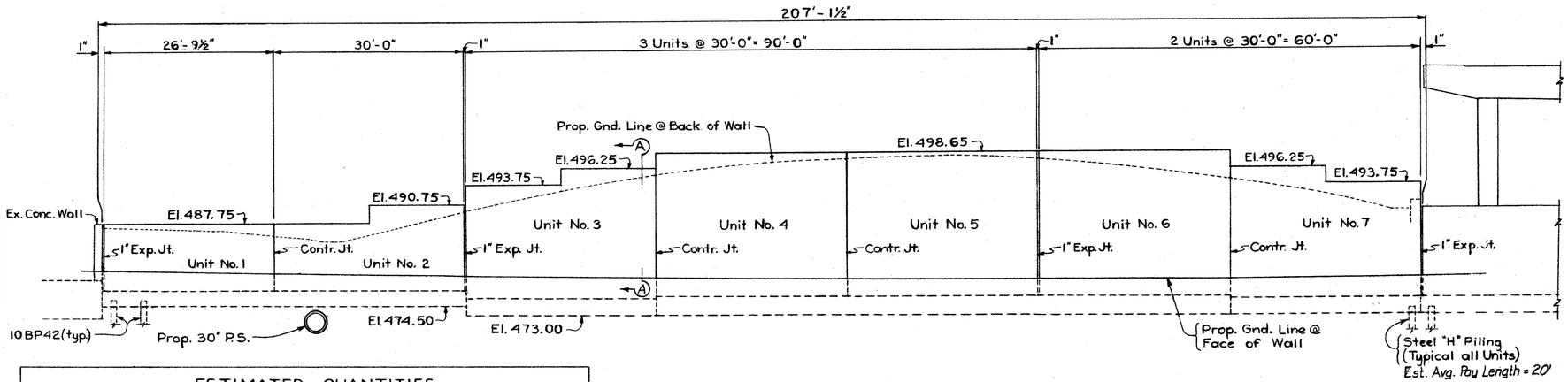
HAM-50-19.76



PLAN



SECTION A-A



ELEVATION

ESTIMATED QUANTITIES

ITEM	TOTAL	UNIT	DESCRIPTION
E-2	Lump	Sum	Cofferdams, cribs, & sheeting
E-2	2116	Cu.Yds.	Unclassified excavation
E-2	1245	Sq. Ft.	Steel sheet piling, left in place (minimum section modulus of 7 in.³ per foot of wall)
I-8	2	Each	Type "V" Grating and Frame, as per plan
S-1	298	Cu.Yds.	Class "E" Concrete, footing
S-1	292	Cu.Yds.	Class "E" Concrete, wall shafts
S-3	127	Lin. Ft.	Waterproofing, premolded sealing strip
S-4	52180	Lbs.	Reinforcing Steel
S-9	130	Sq. Ft.	1" preformed expansion joint filler (gray sponge rubber)
S-18	3320	Lin. Ft.	Steel Piles, 10 BP 42
S-29	200	Cu.Yds.	Porous Backfill
S-29	200	Lin. Ft.	8" Bituminous coated, helical perforated, corrugated metal pipe [Sec. M-6.4 (h-c)] (including specials and sand)
S-29	8	Lin. Ft.	12" Reinforced Concrete Sewer Pipe [Sec. M-6.6(a)]
S-3	2	Sq.Yds.	Type B Waterproofing.

Note: The Estimated Quantities are carried to the Summary of Quantities, Sh. No. 30

HAZELET & ERDAL
CONSULTING ENGINEERS
CINCINNATI, OHIO

GENERAL PLAN & ELEVATION
RETAINING WALL NO. 9

DESIGNED	DRAWN	TRACED	CHECKED	REVIEWED DATE	REVISED
	H.L.L. 1-27-62		H.A.Z. 2-9-62	H.A.Z. 8-14-62	

FED. RD. DIV.	STATE	PROJECT	FISCAL YEAR
2	OHIO		

246
464

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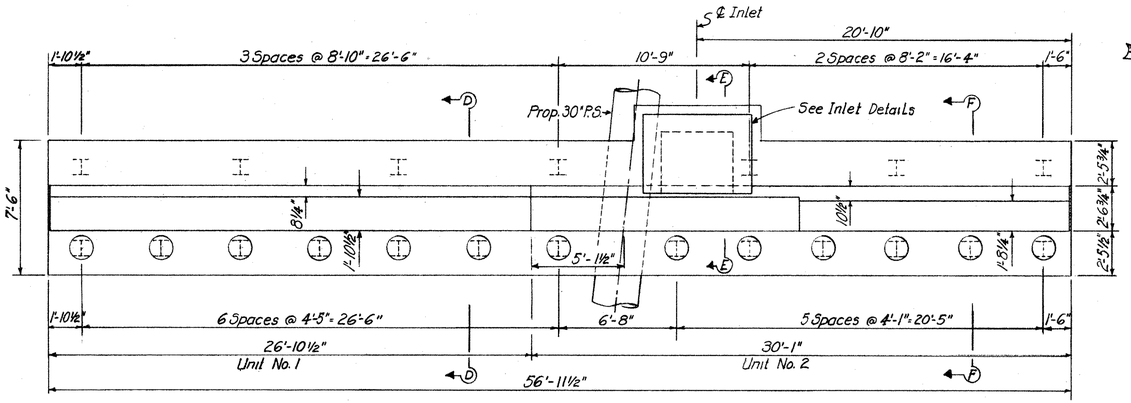
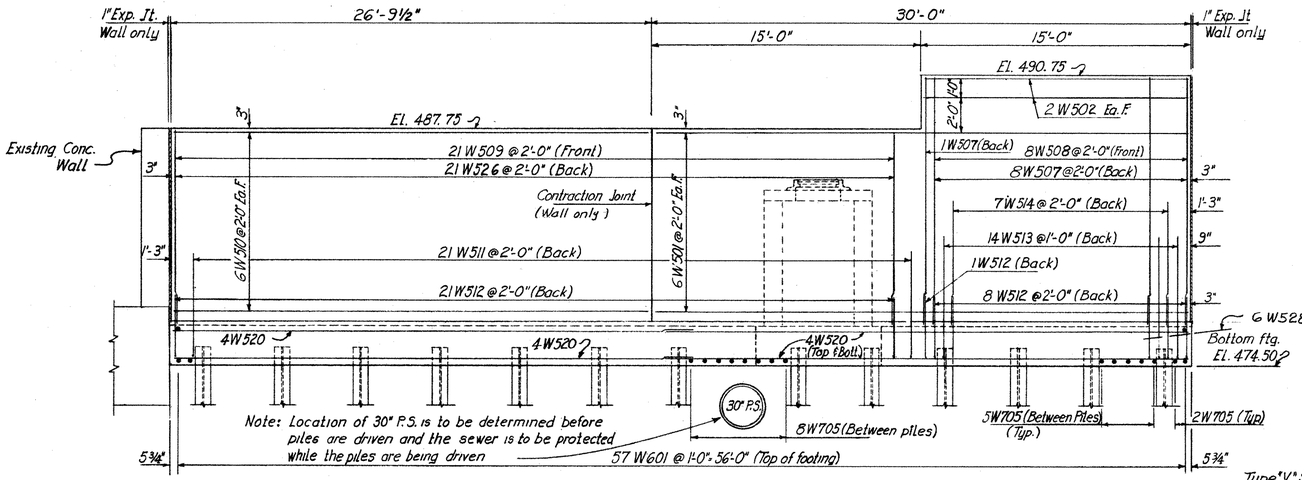
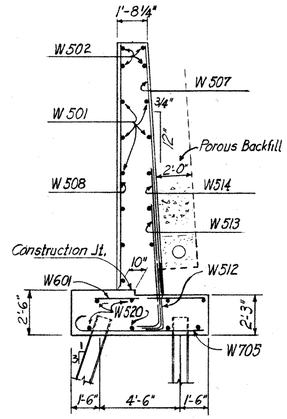
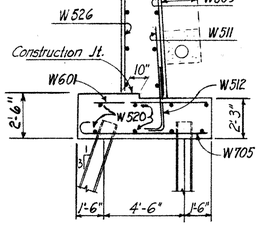


PLAN



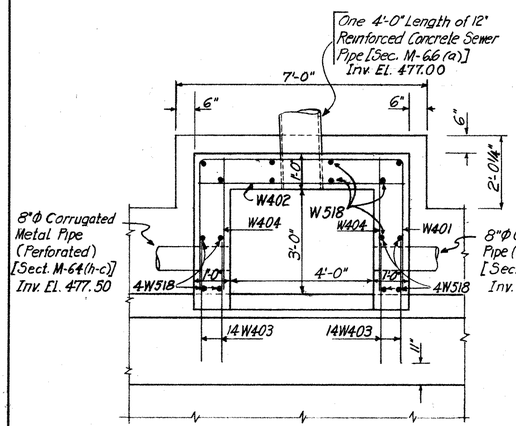


SECTION F-F



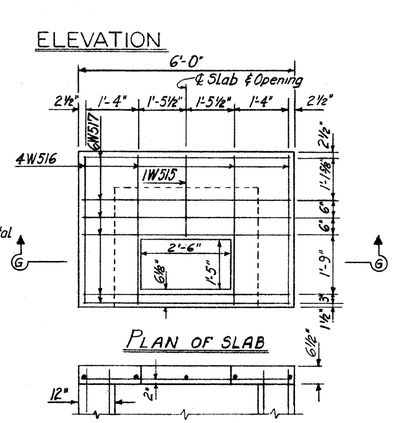
SECTION D-D

NOTES:
Ea. F Denotes Each Face
For details of Contraction Joints and Expansion Joints See Sh. No. 256
All concrete shall be Class "E" Concrete
Provide 3" clearance to reinforcing steel in the footing and 2" clearance to reinforcing steel in the walls (Min.)
(B) Denotes Batter Piles (Battered 1:3)
(V) Denotes Vertical Piles
All piles shall be 10BP42 Steel H Piles
The design load is 30 Tons per pile for Retaining Wall No. 9
Steel pile note is shown on Sh. No. 253
Plan of drainage for Wall No. 9 is Shown on Sh. No. 404
Details of drainage are shown on Sh. No. 237
Frame and grate details For Standard Castings to Type "V" Catch Basins are shown on Sh. No. 178
For other General Notes see Sh. No. 408
For Procedure Note see Sh. No. 240



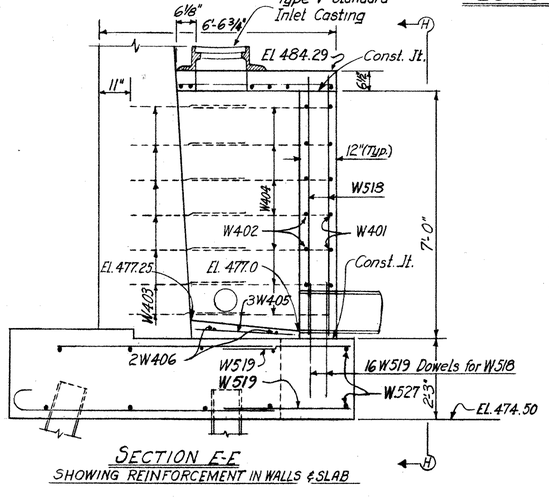
PLAN OF INLET
Top slab not shown

ELEVATION

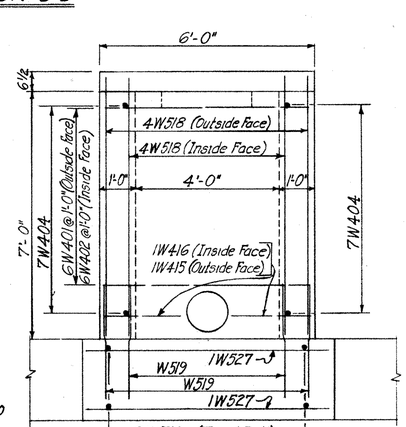


PLAN OF SLAB

SECTION G-G



SECTION E-E
SHOWING REINFORCEMENT IN WALLS & SLAB



ELEVATION H-H

HAZELET & ERDAL
CONSULTING ENGINEERS
CINCINNATI, OHIO

RETAINING WALL NO. 9

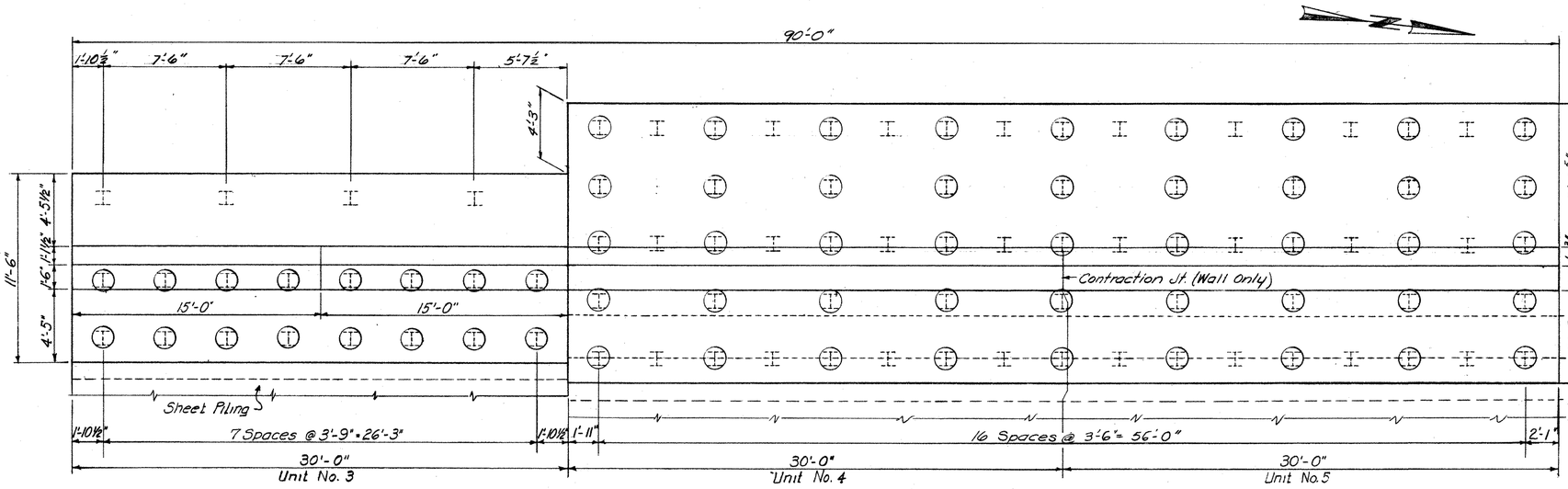
SHEET NO. 1 OF 3

DESIGNED	DRAWN	TRACED	CHECKED	REVIEWED DATE	REVISED
G.J.T. 2-20-62	O.E. 2-10-62		G.J.T. 3-1-62	H.A.Z. 8-14-62	

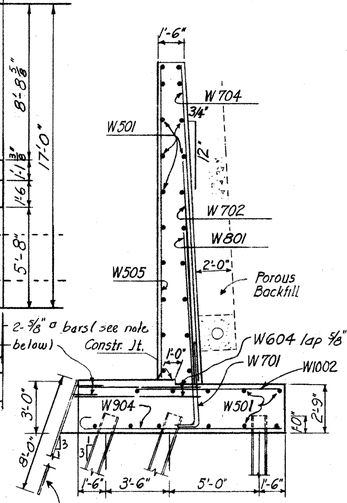
FED. RD. DIV.	STATE	PROJECT	FISCAL YEAR
2	OHIO		

247
464

HAM-50-19.76

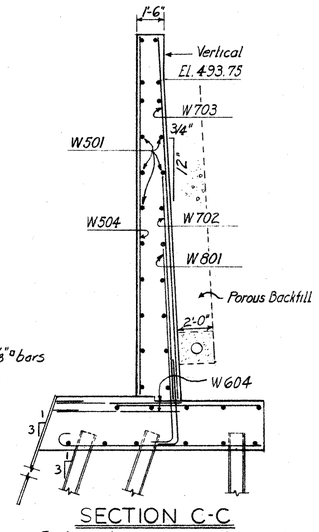


PLAN



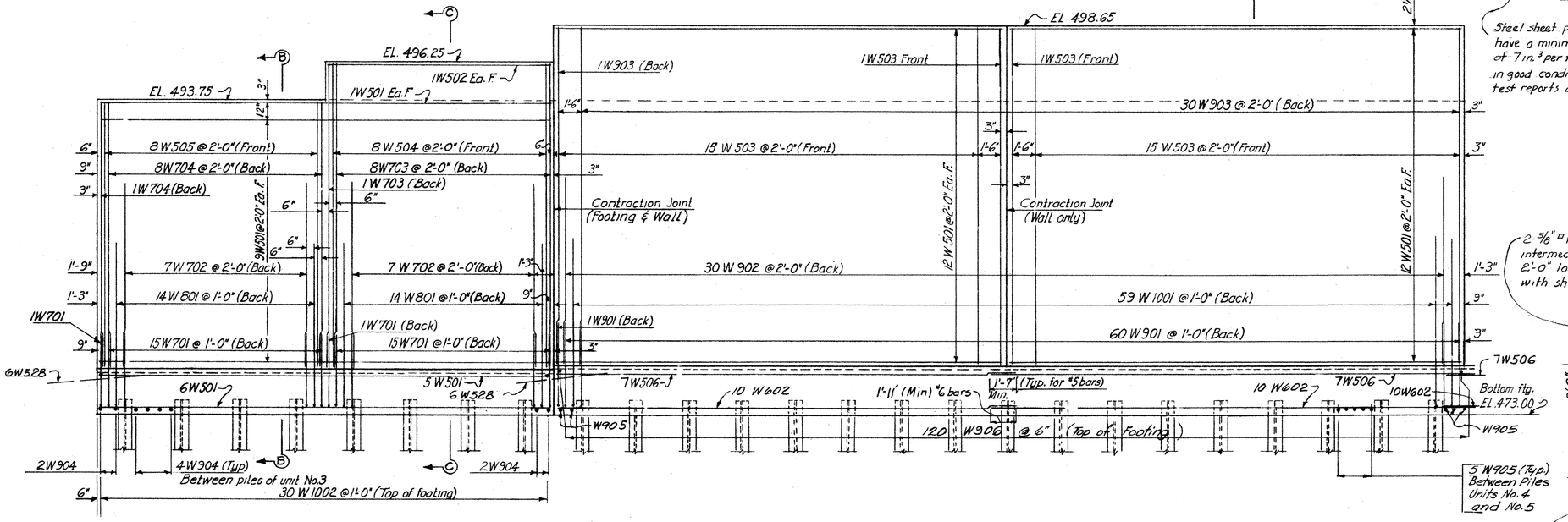
SECTION B-B

Steel sheet piling left in place shall have a minimum section modulus of 7 in.³ per foot of wall. Used piling in good condition may be used. Mill test reports are not required. (Typ.)

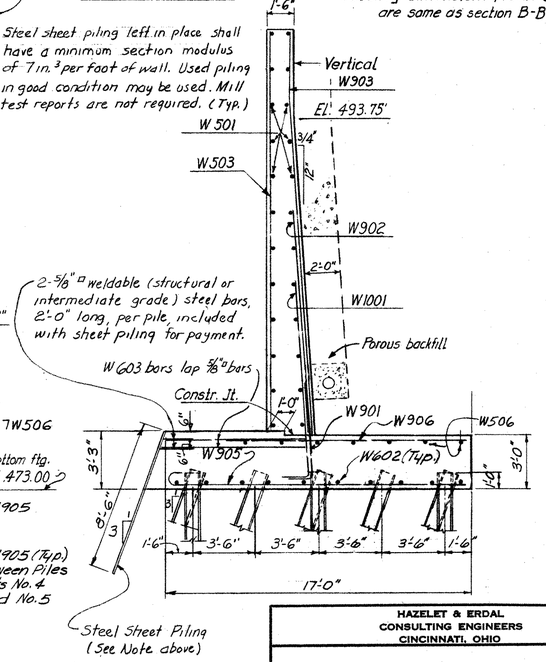


SECTION C-C

Footing dimensions & reinforcement are same as section B-B



ELEVATION



SECTION A-A

Units No. 4, No. 5, No. 6

HAZELET & ERDAL
CONSULTING ENGINEERS
CINCINNATI, OHIO

RETAINING WALL NO. 9

SHEET NO. 2 OF 3

DESIGNED	DRAWN	TRACED	CHECKED	REVIEWED DATE	REVISED
G.J.T. 2-20-62	OE 2-7-62		G.J.T. 3-1-62	W.M.E. 8-14-62	

FED. RD. DIV.	STATE	PROJECT	FISCAL YEAR
2	OHIO		

248
464

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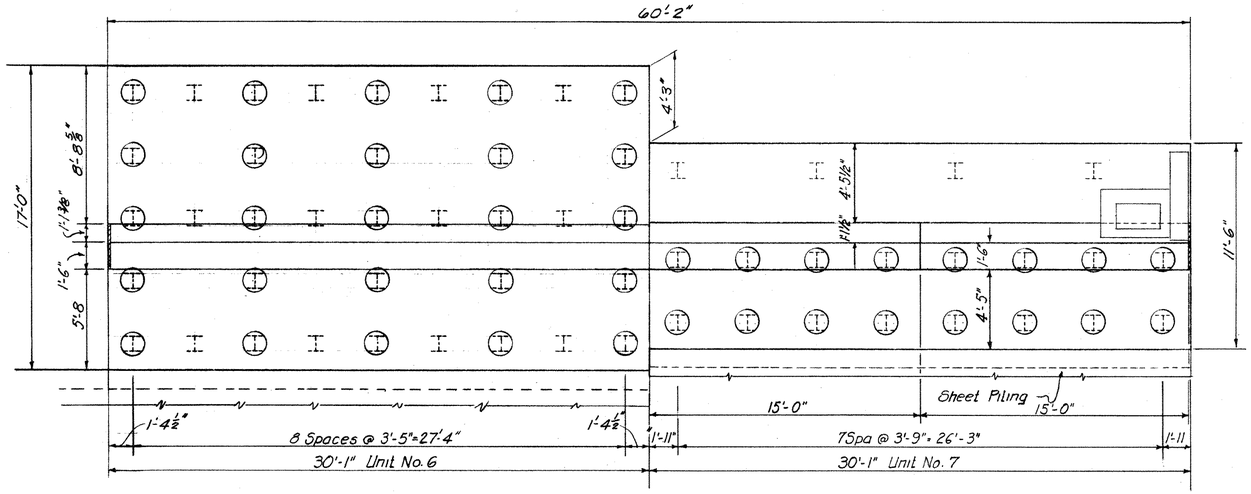
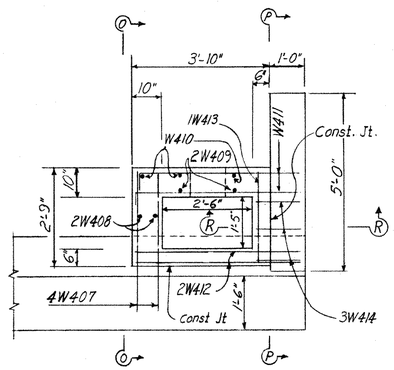


PLAN

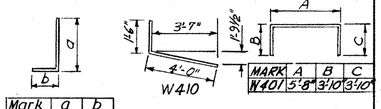


PLAN OF INLET

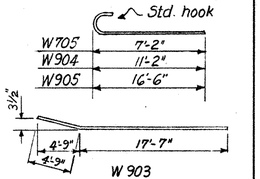
RETAINING WALL NO. 9				
Mark	Shape	Length	Total	Wgt.
W401	Bent	13'-2"	6	53
W402	Str.	5'-8"	6	23
W403		3'-0"	28	56
W404		3'-10	14	36
W405		2'-8"	3	5
W406		3'-8"	3	7
W407		4'-2"	4	11
W408		2'-1"	3	4
W409	Str.	1'-8	2	2
W410	Bent	5'-5	3	11
W411	Bent	4'-11	4	13
W412	Str.	4'-6	2	6
W413	Str.	2'-5"	1	2
W414	Bent	1'-3	3	3
W415	Bent	5'-11	2	8
W416	Str.	2'-2"	2	3
W501	Str.	29'-8"	146	4518
W502		14'-8	8	122
W503		22'-2"	48	1110
W504		20'-0"	16	334
W505		17'-6"	16	292
W506		30'-11"	21	677
W507		13'-10"	9	130
W508		13'-7"	8	113
W509		10'-7"	21	232
W510	Str.	26'-5"	12	331
W511	Bent	6'-10"	21	150
W512	Bent	4'-6"	30	141
W513	Bent	7'-8"	14	112
W514	Bent	9'-8"	7	71
W515	Str.	2'-2"	1	2
W516		4'-2"	4	17
W517		5'-8"	6	35
W518		7'-4"	16	122
W519		3'-7"	32	120
W520		29'-2"	16	487
W521		6'-3"	6	39
W522		4'-0"	2	8
W523		4'-9"	2	10
W524		3'-9"	2	8
W525		2'-9"	2	6
W526		10'-10"	21	237
W527	Str.	6'-8"	2	14
W528	Str.	6'-0"	18	113
W601	Str.	6'-0"	57	514
W602	Str.	31'-2"	30	1404
W603	Str	8'-0"	136	1634
W604	Str	7'-0"	90	946

RETAINING WALL NO. 9				
Mark	Shape	Length	Total	Wgt.
W701	Bent	5'-7	64	730
W702	Str.	11'-6	28	658
W703	Str.	20'-3"	18	745
W704	Str	17'-9"	18	653
W705	Bent	8'-0"	67	1096
W801	Bent	13'-4"	56	1994
W901	Bent	6'-4"	92	1981
W902	Str.	11-11"	45	1823
W903	Bent	22'-5"	47	3582
W904	Bent	12'-5"	64	2702
W905	Bent	17'-9"	129	7785
W906	Str	12'-0"	180	7344
W1001	Bent	12'-10"	88	4859
W1002	Str	7'-6"	60	1936

Total Wgt of Reinf Steel = 52, 180 #



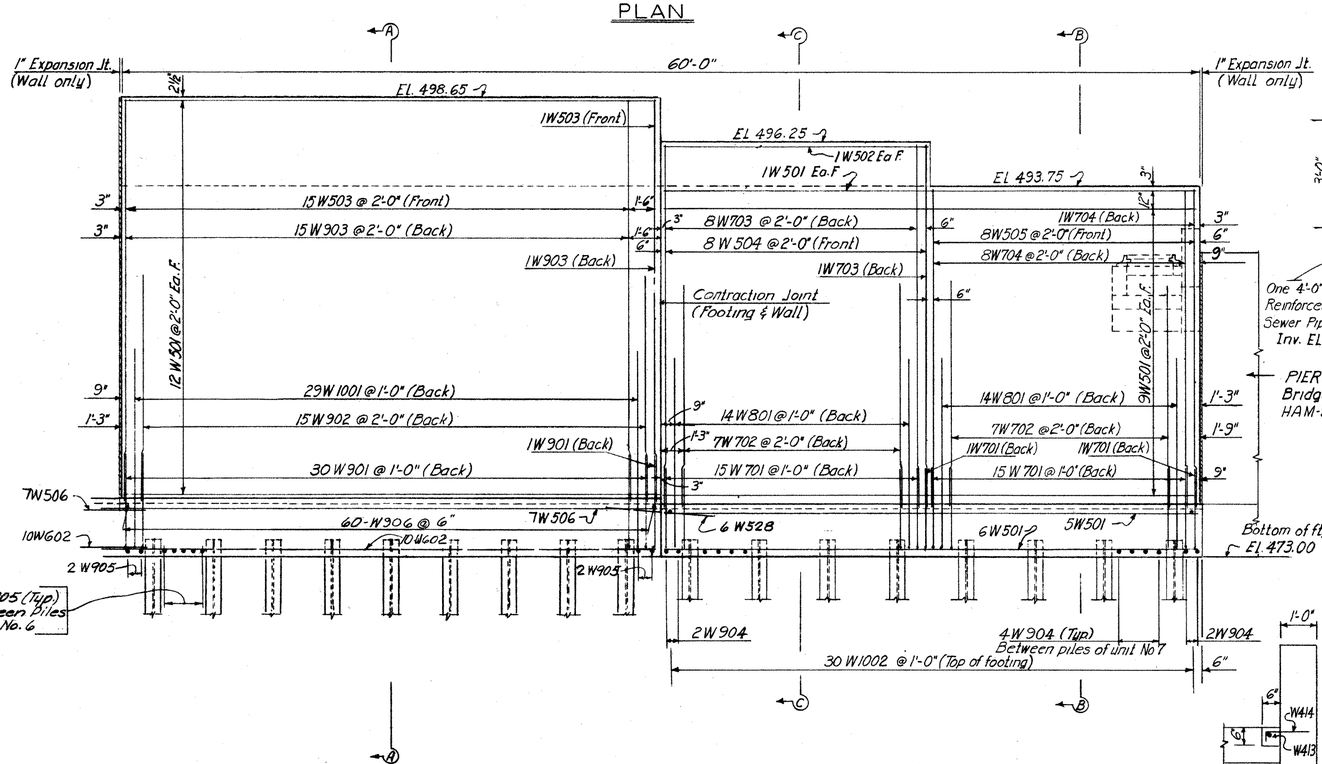
Mark	a	b
W411	4'-6"	0'-6"
W414	1'-2"	0'-2"
W415	2'-2"	3'-10"
W511	3'-11"	1'-0"
W512	3'-7"	1'-0"
W513	6'-9"	1'-0"
W514	8'-9"	1'-0"
W701	4'-9"	1'-0"
W801	12'-6"	1'-0"
W901	5'-7"	1'-0"
W1001	12'-1"	1'-0"



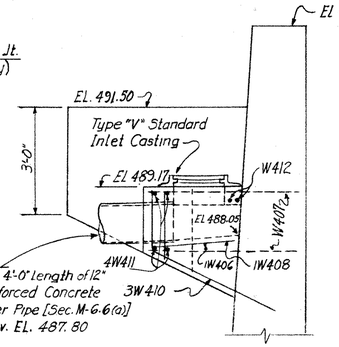
REPLACEMENT BARS			
Mark	Length	Shape	No
RE401	5'-3"	Str.	1
RE501	5'-7"		1
RE601	5'-11"		1
RE701	6'-3"		1
RE801	6'-6"		1
RE901	6'-10"		1
RE1001	7'-3"	Str.	1

REPLACEMENT BARS : If reinforcing bars are fabricated from stock which has previously been tested and approved by the Ohio Highway Testing Laboratory, test samples as provided in section 5-4.02 need not be furnished and replacement bars will not be required.

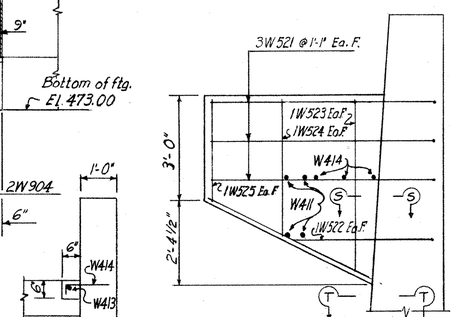
Bar size is indicated in the bar mark. The first digit where three digits are used, and the first two digits where four are used, indicate the bar size number. For example W501 is a No. 5 size, and W1001 is a No. 10 size



ELEVATION



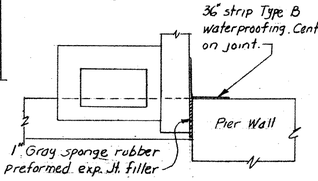
SECTION O-O



SECTION P-P

For Section T-T, see Expansion Joint Detail Sh. No. 256

SECTION R-R



SECTION S-S

HAZELET & ERDAL
CONSULTING ENGINEERS
CINCINNATI, OHIO

RETAINING WALL NO. 9

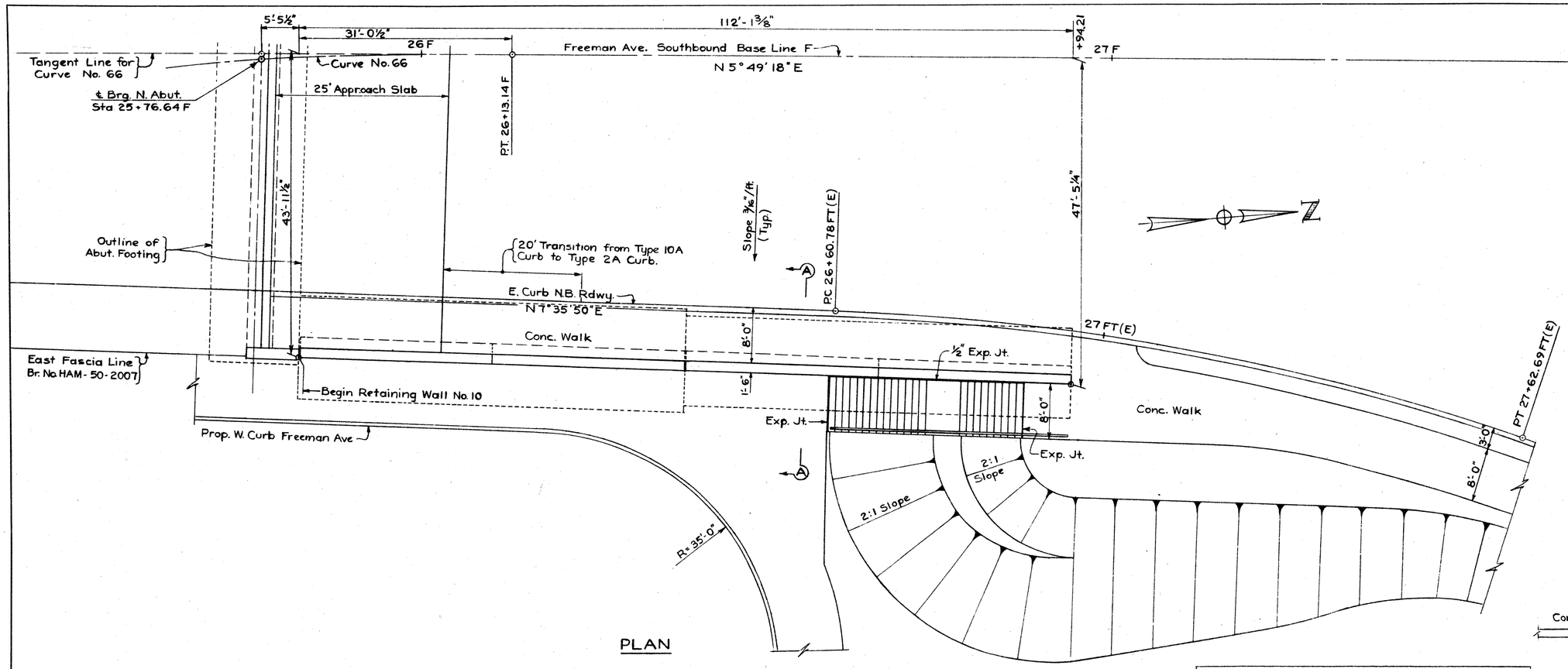
SHEET NO. 3 OF 3

DESIGNED	DRAWN	TRACED	CHECKED	REVIEWED DATE	REVISED
G.J.T. 2-20-62	O.E. 2-22-62		G.J.T. 3-1-62	A.I.S.E. 8-14-62	

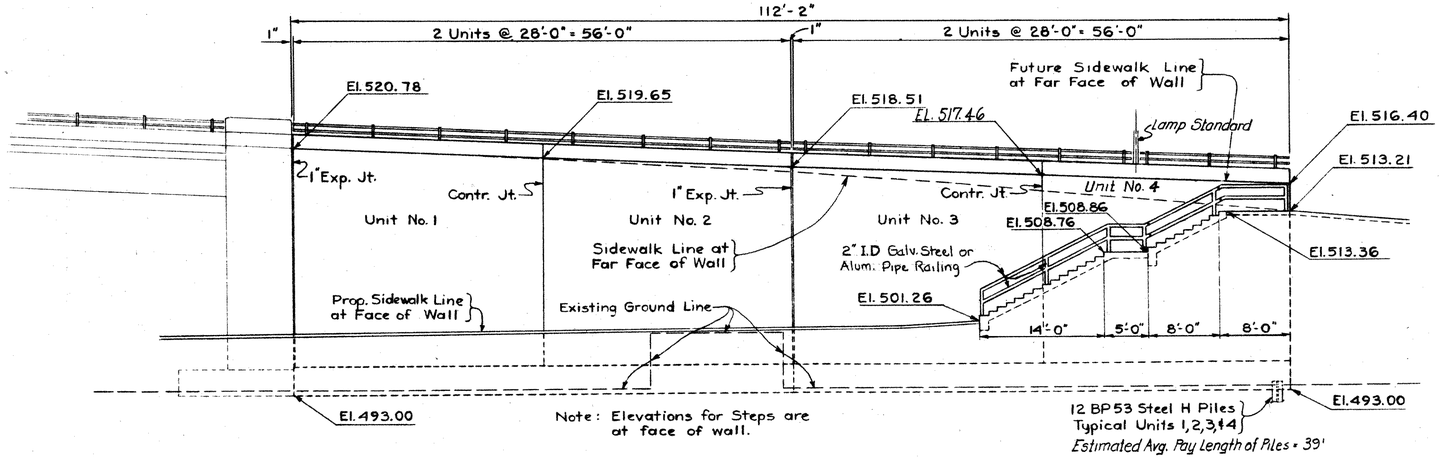
FED. RD. DIV.	STATE	PROJECT	FISCAL YEAR
2	OHIO		

249/464

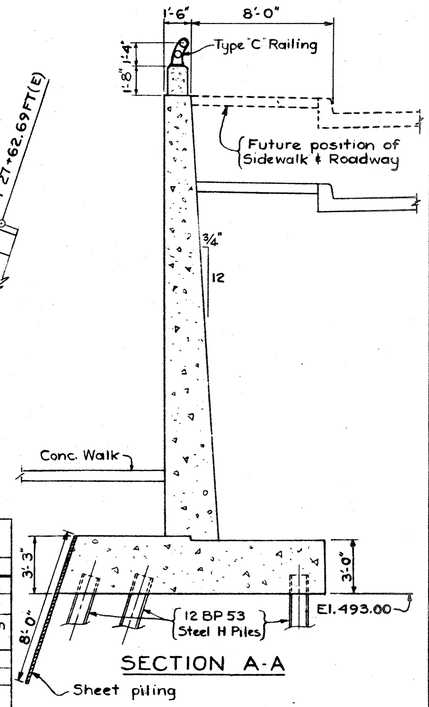
HAM-50-19.76



PLAN



ELEVATION



SECTION A-A

Note: Retaining Wall to be built to a straight line.

ESTIMATED QUANTITIES (WALLS)

ITEM	TOTAL	UNIT	DESCRIPTION
E-2	Lump	Sum	Cofferdams, cribs, & sheeting
E-2	501	Cu. Yds.	Unclassified excavation
E-2	897	Sq. Ft.	Steel sheet piling, left in place (minimum section modulus of 7 in.³ per foot of wall)
S-1	181	Cu. Yds.	Class "E" Concrete, Footing
S-1	207	Cu. Yds.	Class "E" Concrete, Wall Shafts
S-3	87	Lin. Ft.	Waterproofing, premolded sealing strip.
S-4	27,868	Lbs.	Reinforcing steel
S-9	106	Sq. Ft.	1" preformed expansion joint filler (gray sponge rubber)
S-14	112	Lin. Ft.	Railing, Type C (aluminum rail and supports, concrete parapet).
S-18	2574	Lin. Ft.	Steel Piles, 12 BP 53
S-29	150	Cu. Yds.	Porous Backfill
S-29	112	Lin. Ft.	8" Bituminous coated helical perforated corrugated metal pipe [Sec. M-6.4 (h-c)] (including specials and sand.)

NOTE: The above quantities are carried to the Summary of Quantities Sheet No. 30
Payment for S-25 Items are included in Roadway Quantities shown on Sh. No. 42.

ESTIMATED QUANTITIES (RDWY.)

ITEM	TOTAL	UNIT	DESCRIPTION
I-13	192	Lin. Ft.	Concrete Steps, As Per Plan
S-14	38	Lin. Ft.	Handrail for Steps, As Per Plan

NOTE: The above quantities are carried to the Summary of Quantities Sheet No. 33

HAZELET & ERDAL
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CINCINNATI, OHIO

GENERAL PLAN and ELEVATION RETAINING WALL NO. 10

DESIGNED	DRAWN	TRACED	CHECKED	REVIEWED DATE	REVISED
	H.L.L. 6-21-61		G.J.T. 11-10-61	H.A.B. 8-1-62	

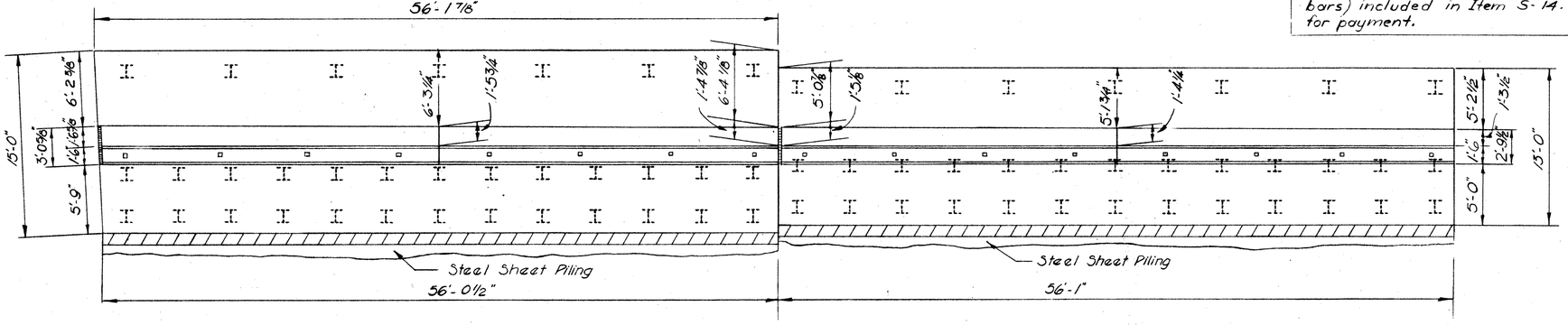
FED. RD. DIV.	STATE	PROJECT	FISCAL YEAR
2	OHIO		

250
464

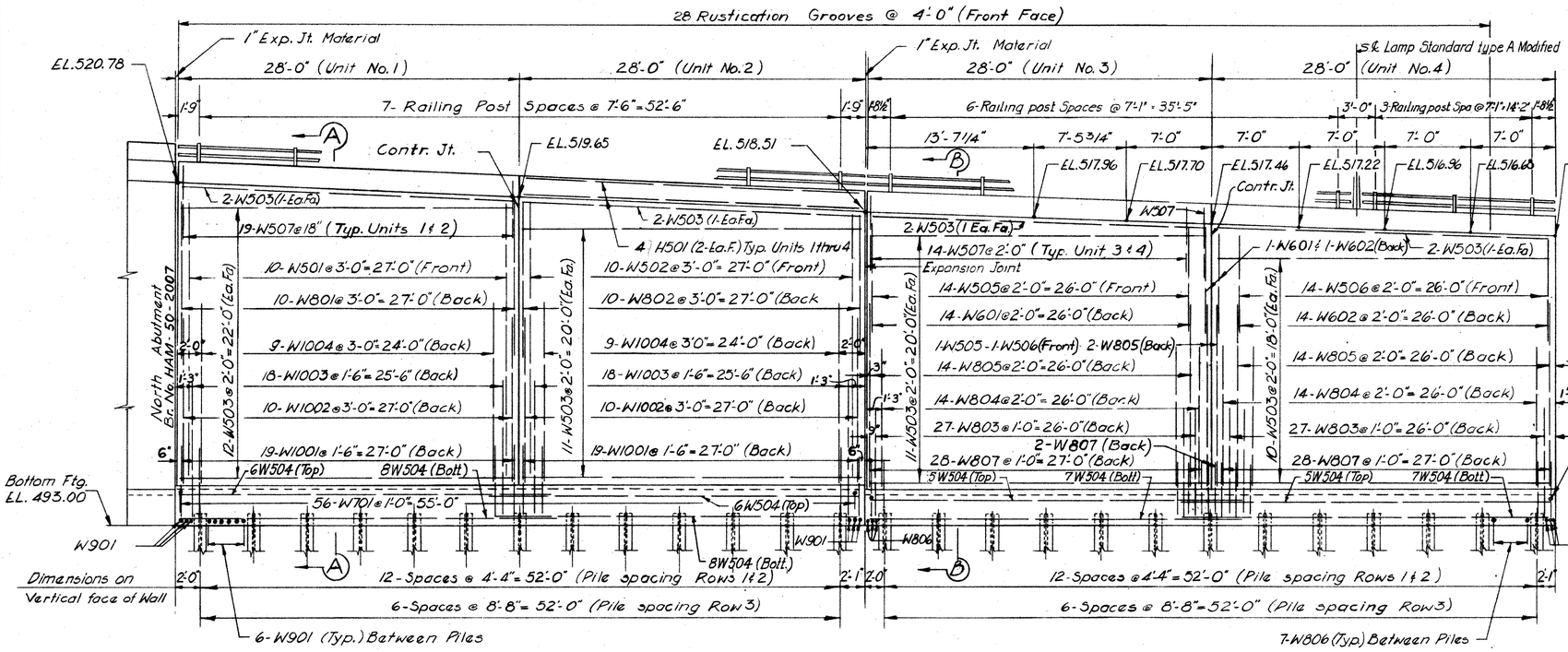
HAM-50-19.76

Concrete above this line to be poured after embankment has been placed. Height of parapet to be adjusted to compensate for settlement of wall. Material above this line (except W507 bars) included in Item S-14. Railing for payment.

For Parapet & Railing Details not shown, see Sect. A-A.

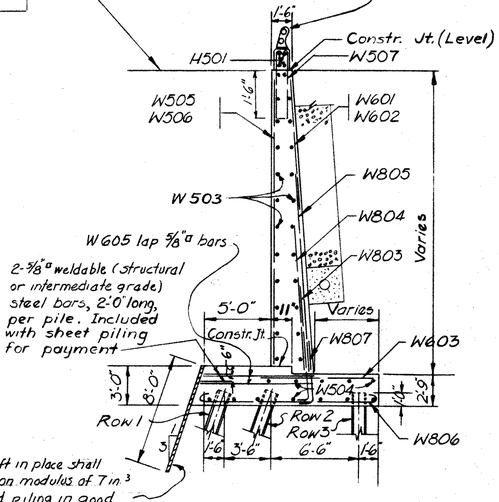


PLAN



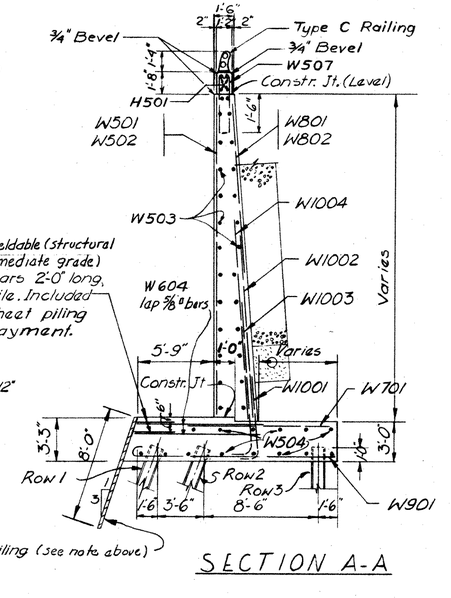
ELEVATION

Provide 3" clearance to reinforcing steel in the footing, and 2" clearance to reinforcing steel in wall. (Minimum)
Ea.Fa. denotes Each Face.



Steel sheet piling left in place shall have a minimum section modulus of 7 in.³ per foot of wall. Used piling in good condition may be used. Mill test reports are not required.

SECTION B-B



SECTION A-A

NOTES
All concrete shall be class "E" concrete.
For General Notes see Sh No. 408
For drainage details, See Sh. No. 237
For detail of rustication grooves see Sh No. 233
For detail of Contraction joint & expansion joint see Sh. No. 256
For Procedure Note see Sh No. 240.
Railing Details are shown on Std. Dwg. AR-1-57
Plan of drainage for Wall No. 10 is shown on Sh. No. 357

PILE NOTES:
All piles should be 12 BP 53 Steel H Piles
Batter all piles in rows 1 & 2 (3:1)
The design load is 40 Tons per pile for Retaining Wall No 10
For note on steel piles see Sh No. 253

HAZELET & ERDAL
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RETAINING WALL NO. 10

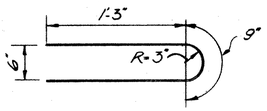
SHEET 1 OF 2

DESIGNED	DRAWN	TRACED	CHECKED	REVISED DATE	REVISED
M.Y. 7-14-61	M.Y. 7-21-61		G.J.T. 11-10-61	M.A.B. 8-1-62	

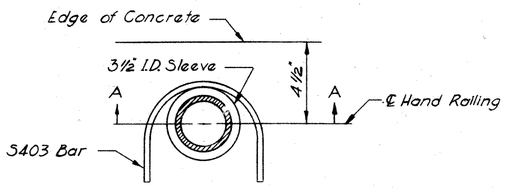
FED. RD. DIV.	STATE	PROJECT	FISCAL YEAR
2	OHIO		

251
464

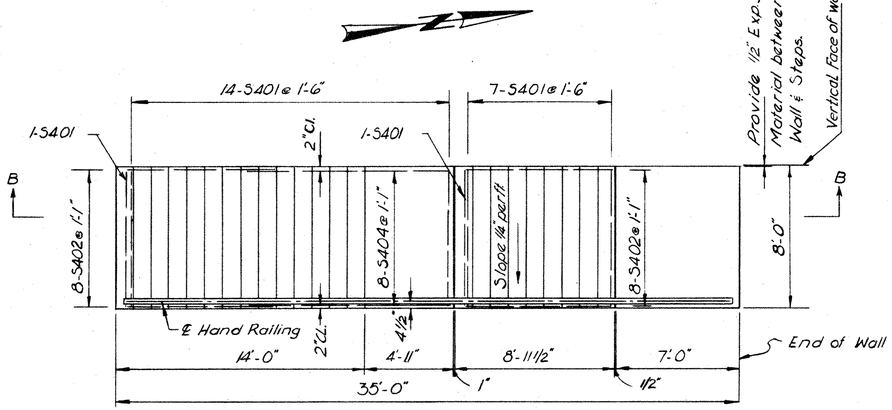
HAM-50-19.76



5403

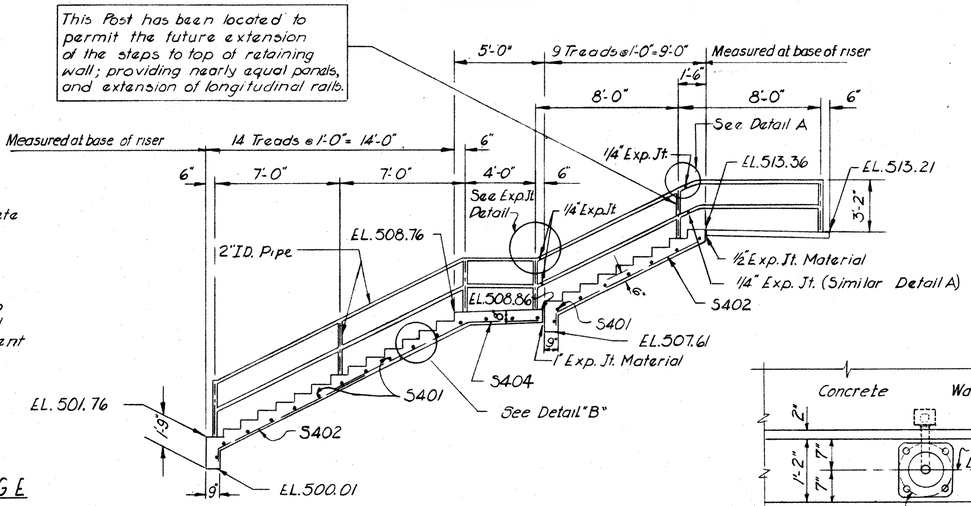


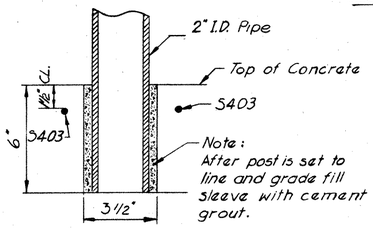
PLAN



PLAN

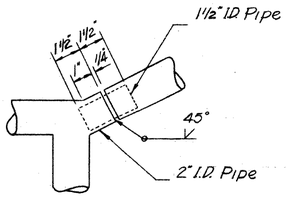
This Post has been located to permit the future extension of the steps to top of retaining wall; providing nearly equal panels, and extension of longitudinal rails.





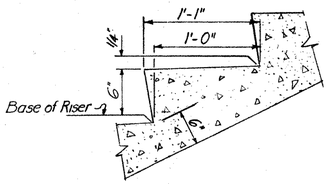
SECTION A-A

TYPICAL ANCHORAGE



TYPICAL EXPANSION JOINT DETAIL

(Make as detailed or approved equal)

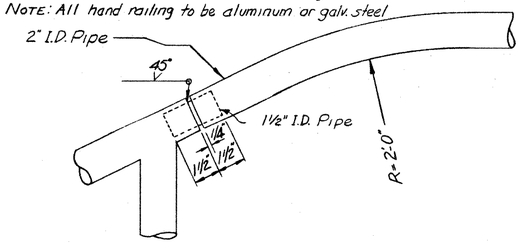


DETAIL "B"

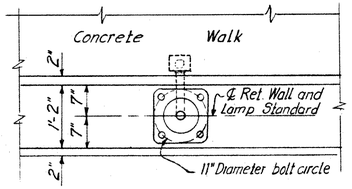
SECTION B-B

(Showing Elevation of Hand Railing)

Note: All hand railing to be aluminum or galv. steel



DETAIL -A-

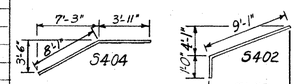


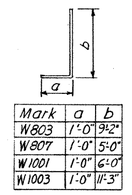
SECTION D-D

RETAINING WALL NO. 10				
Mark	Shape	Length	Total	Weight
W501	Str.	23'-4"	10	243
W502		22'-3"	10	232
W503		27'-8"	96	2770
W504		28'-8"	52	1555
W505		21'-3"	15	332
W506	Str	20'-3"	15	317
W507	Bent	7'-5"	38	294
W601	Str.	12'-0"	15	270
W602	Str	11'-0"	15	248
W603	Str.	9'-0"	56	757
W604	Str	7'-3"	84	915
W605	Str	6'-6"	84	820
W701	Str.	10'-6"	56	1202
W801	Str.	13'-6"	10	360
W802	Str	13'-0"	10	347
W803	Bent	10'-0"	54	1442
W804	Str.	11'-0"	28	822
W805	Str.	12'-6"	30	1001
W806	Bent	14'-1"	90	3384
W807	Bent	5'-10"	58	903
W901	Bent	16'-3"	78	4309
W1001	Bent	6'-9"	38	1104
W1002	Str.	13'-6"	20	1162
W1003	Bent	12'-0"	36	1859
W1004	Str	15'-9"	18	1220
H501	Str.	27'-8	16	

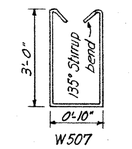
Total Wgt. of Reinf. Steel = 27,868#

STEPS				
Mark	Shape	Length	Total	Weight
5401	Str.	7'-7"	23	
5402	Bent	10'-1"	16	
5403	Bent	3'-3"	6	
5404	Bent	12'-0"	8	



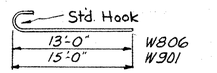


Mark	a	b
W803	1'-0"	9½"
W807	1'-0"	5'-0"
W1001	1'-0"	6'-0"
W1003	1'-0"	11'-3"



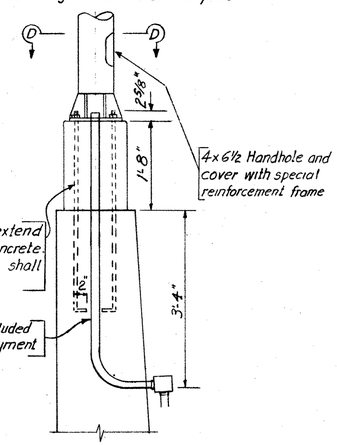
REPLACEMENT BARS			
Mark	Length	Shape	No
RE 401	5'-7"	Str.	1
RE 501	5'-7"		1
RE 601	5'-11"		1
RE 701	6'-3"		1
RE 801	6'-6"		1
RE 901	6'-10"		1
RE 1001	7'-3"	Str.	1

REPLACEMENT BARS. If reinforcing bars are fabricated from stock which has previously been tested and approved by the Ohio Highway Testing Laboratory, test samples as provided in section S-4.02 need not to be furnished and replacement bars will not be required.



Bar size is indicated in the bar mark. The first digit where three digits are used and the first two digits where four digits are used indicate the the bar size number. For example W801 is a No.8 size bar, and W1001 is a No. 10 size bar.
Reinforcing bar marked H501 is included in item S-14 (Railing) for payment

NOTES:
Elevations shown are at face of wall
Cost of expansion joint material and reinforcing steel for concrete steps shall be included in item 1-13 for payment
Nosing on all steps shall have ½" radius
Concrete for steps shall be class "C"
For the purpose of estimating, the 5'-0" landing shall be considered as a tread.



LAMP STANDARD DETAIL

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CINCINNATI, OHIO

RETAINING WALL NO. 10

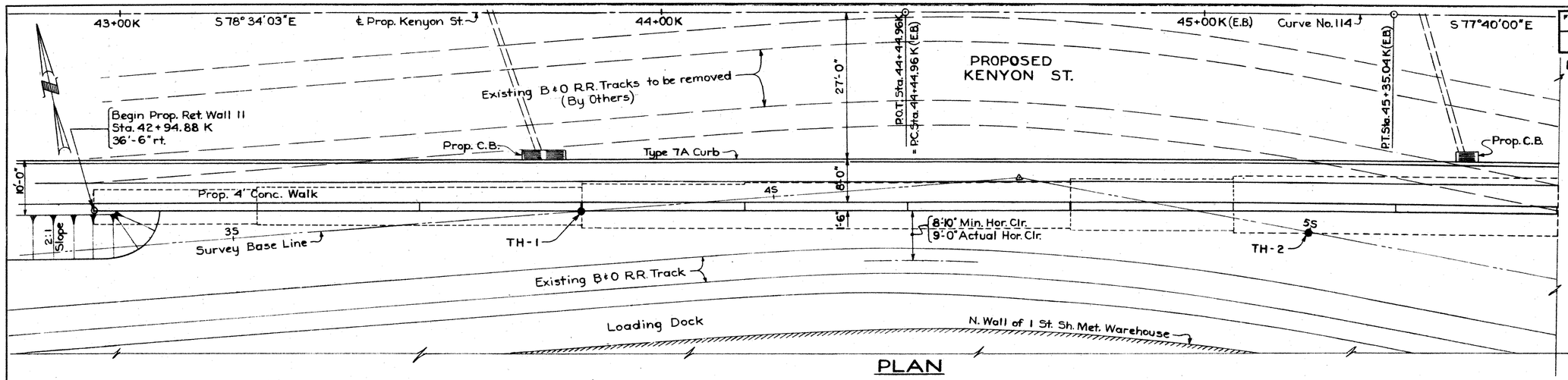
SHEET 2 OF 2

DESIGNED	DRAWN	TRACED	CHECKED	REVIEWED DATE	REVISED
	M.Y. 7-24-61		G.J.T. 11-10-61	M.A.Z. 8-1-62	

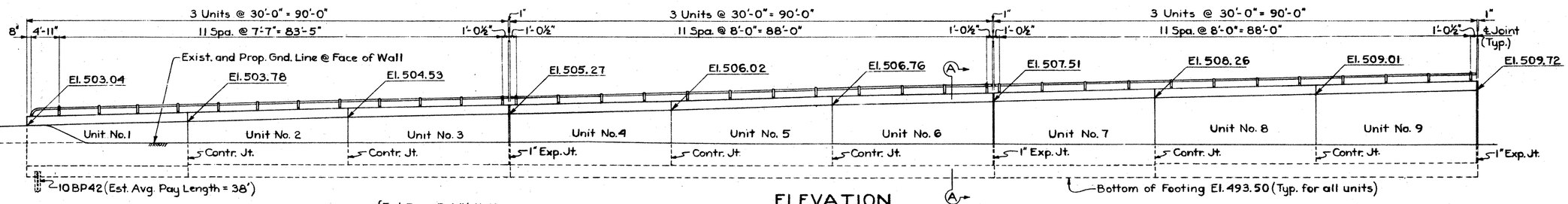
FED. RD. DIV.	STATE	PROJECT	FISCAL YEAR
2	OHIO		

252
464

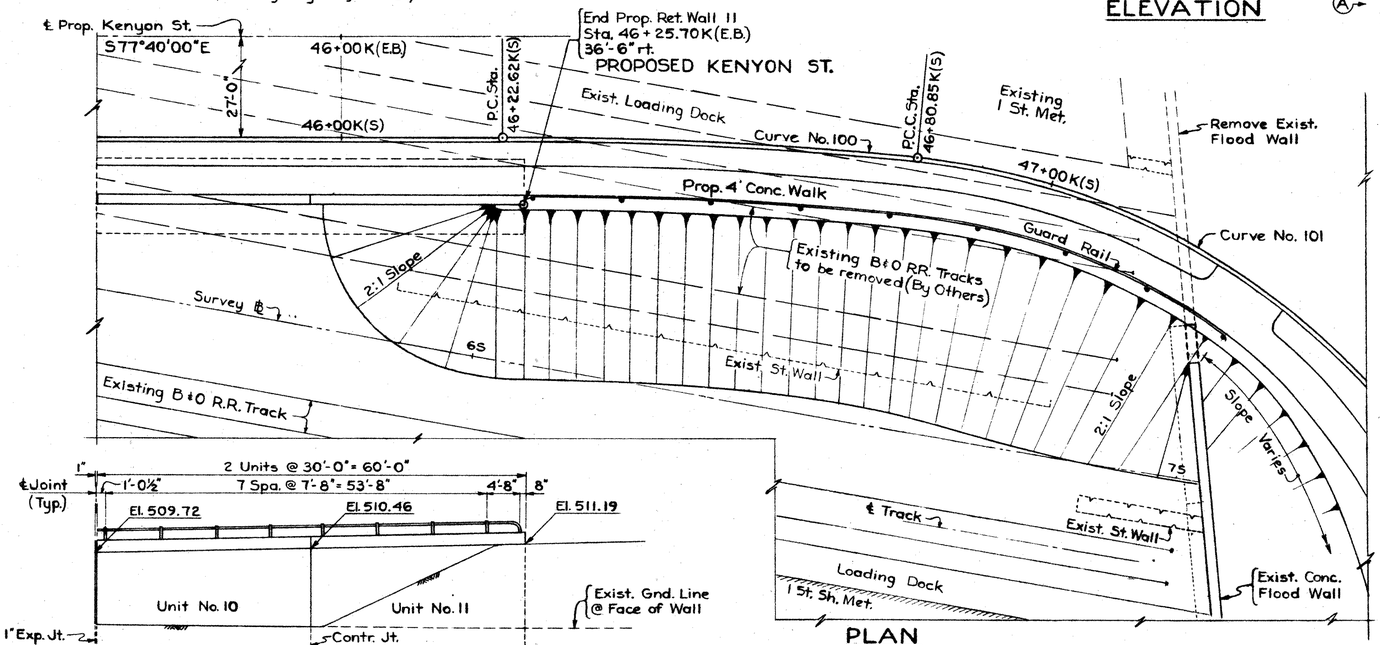
HAM-50-19.76



PLAN

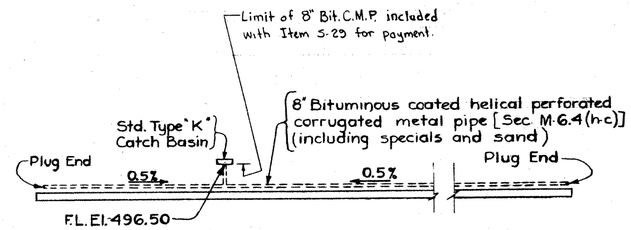


ELEVATION



PLAN

ELEVATION



WALL DRAINAGE PLAN

CURVE No. 114

P.I. Sta. 44+90.00 K (E.B.)
Δ = 0° 54' 03"
D = 1° 00'
R = 5729.58'
L = 90.08'
T = 45.04'

WALL 11

NOTE: The retaining wall West of Sta. 44+44.96 K (E.B.) to be built to a straight line, and the retaining wall East of Sta. 44+44.96 K (E.B.) to be built concentric to the Base Line for Eastbound Kenyon St. [K (E.B.)].

For Estimated Quantities, Wall No. 11, See Sh. # 253
For Log of Borings, See Sh. # 253
For Section A-A, See Sh. # 253

HAZELET & ERDAL
CONSULTING ENGINEERS
CINCINNATI, OHIO

GENERAL PLAN & ELEVATION
RETAINING WALL NO. 11

DESIGNED	DRAWN	TRACED	CHECKED	REVIEWED DATE	REVISED
	H.L.L. 2-20-62		W.A.B. 2-26-62	W.A.B. 8-1-62	

FED. RD. DIV.	STATE	PROJECT	FISCAL YEAR
2	OHIO		

253
464

HAM-50-19.76

ELEV. 500.2

4	3.0'	Fill - Cinders & Brick
5	2.5'	Brown silt, trace of coarse sand, little fine sand, little clay
6	5.0'	Brown silt and fine sand, trace of coarse sand, trace of clay.
4		
7	2.5'	Brown silt, trace of coarse and fine sand, some clay.
15		
45	4.0'	Brown sandy silt and gravel, little clay.
15	3.5'	Brown fine sand, trace of coarse sand, little silt.
20		
23	7.0'	Brown fine sand, trace of silt, some gravel and coarse sand
17		
15	14.0'	Brown gravelly sand, little silt.
22		
90% Rec.	5.0'	Gray limestone and shale - limestone fossiliferous, ½" to 4" beds, approximately 70 to 75 % of interval - shale soft, interbedded with limestone.

ELEV. 453.7
DEPTH 46.5'

BORING NO. 1

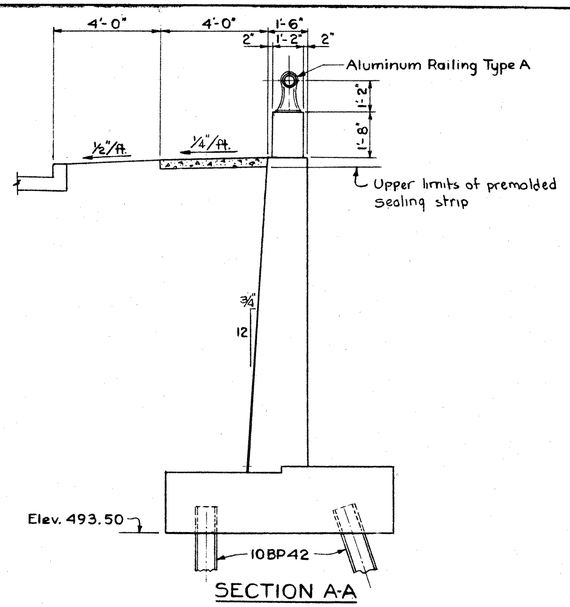
ELEV. 499.4

5	3.0'	Fill - Cinders & Brick
3		
2	15.0'	Brown sandy silt, some clay
3		
2		
4		
15	2.0'	Brown fine sand, trace of coarse sand, little silt.
9		
9	3.0'	Brown sandy silt, little clay.
8		
11	8.5'	Brown fine sand, trace of coarse sand, little silt.
11		
10	10.5'	Brown gravelly sand, little silt.
19		
80% Rec.	5.0'	Gray limestone and shale - limestone fossiliferous, ½" to 4" beds, approximately 45 to 50 % of interval - shale soft, interbedded with limestone.

ELEV. 452.4
DEPTH 47.0'

BORING NO. 2

NOTE : Figures at left of borings indicate number of hammer blows per foot of penetration of 2" split spoon sampler with 140 lb. hammer and 30" fall.



SECTION A-A

ESTIMATED QUANTITIES			
ITEM	TOTAL	UNIT	DESCRIPTION
E-2	Lump	Sum	Cofferdams, cribs, & sheeting
E-2	750	Cu.Yds.	Unclassified excavation
S-1	263	Cu.Yds.	Class "E" Concrete, footing
S-1	241	Cu.Yds.	Class "E" Concrete, wall shafts
S-3	110	Lin.Ft.	Waterproofing, premolded sealing strip
S-4	23,359	Lbs.	Reinforcing steel
S-9	63	Sq. Ft.	1" preformed expansion joint filler (gray sponge rubber)
S-14	330	Lin.Ft.	Railing, Type A (aluminum rail and supports, conc. parapet)
S-18	3724	Lin.Ft.	Steel Piles, 10 BP 42
S-29	200	Cu.Yds.	Porous Backfill
S-29	338	Lin.Ft.	8" Bituminous coated helical perforated corrugated metal pipe [Sec. M-6.4(h-c)] (including specials and sand)

Note : The above quantities are carried to the Summary of Quantities, Sh. No. 30

NOTES:
N.F. denotes Near Face
F.F. denotes Far Face
E.F. denotes Each Face
All piles shall be 10BP42 Steel H Piles
Batter all piles in row 1
Steel Pile note is shown below.
The design load is 35 Tons per pile for Retaining Wall No. 11
All concrete shall be Class "E" Concrete
Provide 3" clearance to reinforcing steel in the footing and 2" clearance to reinforcing steel in the wall. (Minimum)
Details for Contraction Joint and Expansion Joint are shown on Sheet No. 256
Plan of drainage for Wall No. 11 is shown on Sheet No. 252
Details of drainage are shown on Sheet No. 237
For Railing Details, see Std. Dwg. AR-1-57
For other General Notes, see Sheet No. 408
For Procedure Note see Sheet No. 240
PILES shall be driven with a hammer of not less than 11,000 ft. lbs per blow to firm contact with rock. If the length of penetration is approximately equal to the depth of rock according to the bridge foundation investigation report, the firm contact shall be considered as attained when the capacity according to the formula in Sec. S-18.05 is not less than the following value for a pile hammer of the indicated energy rating :
55 tons per pile for Retaining Walls #8, #9 & #10 using a 11,000 ft. lb. hammer, or 45 tons per pile using a 15,000 ft. lb. hammer.
50 tons per pile for Retaining Wall #11 using a 11,000 ft. lb. hammer or 40 tons per pile using a 15,000 ft. lb. hammer.
If the energy rating of the hammer is between the rating as shown above, the required formula capacity shall be determined by interpolation.

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CINCINNATI, OHIO

ESTIMATE OF QUANTITIES NOTES & LOG OF BORINGS

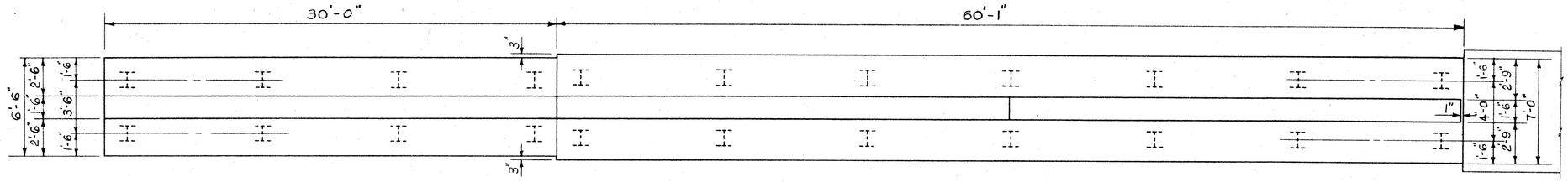
RETAINING WALL NO. 11

DESIGNED	DRAWN	TRACED	CHECKED	REVIEWED DATE	REVISED
	H.L.L. 2-24-62		N.J. 2-28-62	N.J. 8-1-62	

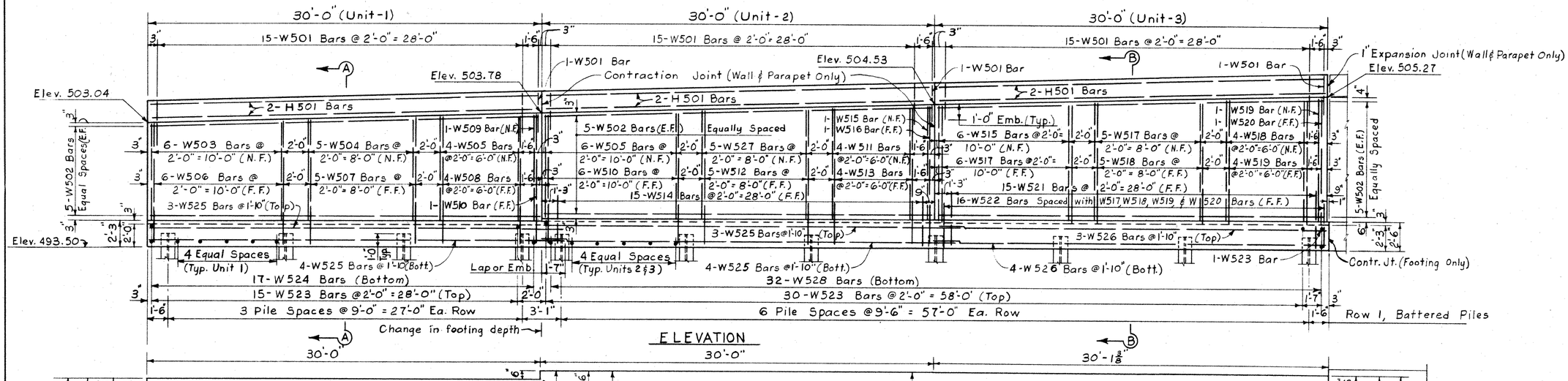
FED. RD. DIV.	STATE	PROJECT	FISCAL YEAR
2	OHIO		

254
464

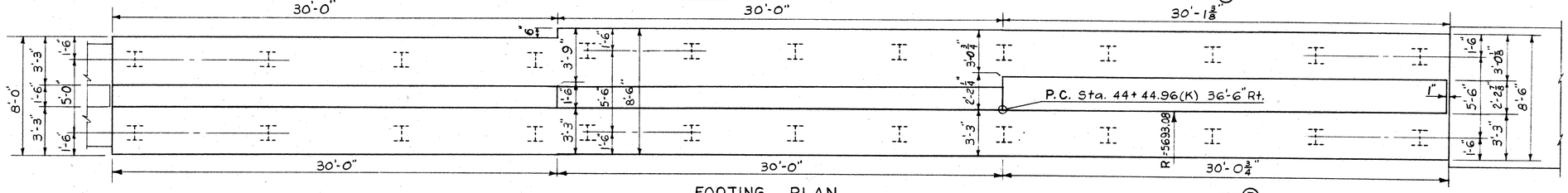
HAM-50-19.76



FOOTING PLAN



ELEVATION



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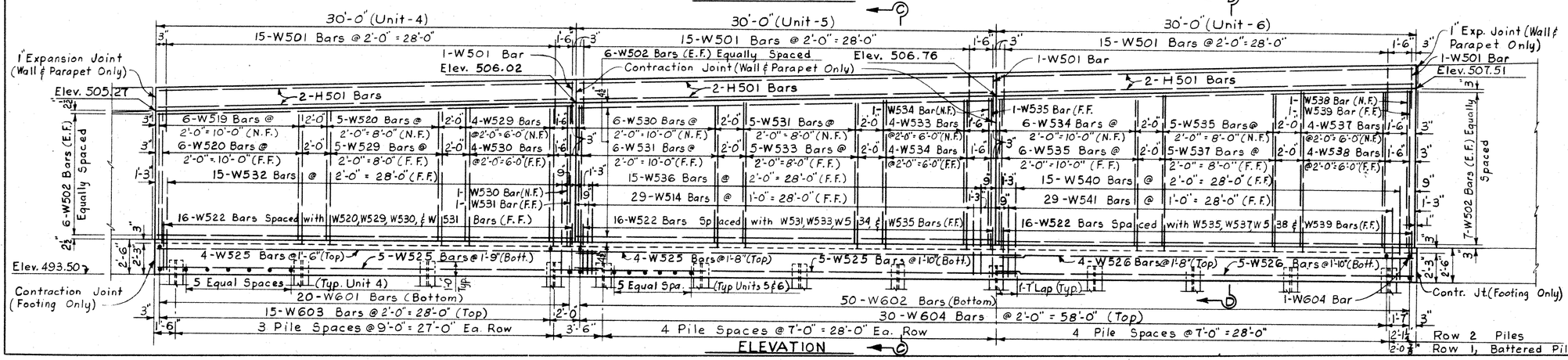

ELEVATION

For Notes see Sheet No. 253
For Sections A-A, B-B, C-C, & D-D see Sheet No. 255

HAZELET & ERDAL
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CINCINNATI, OHIO

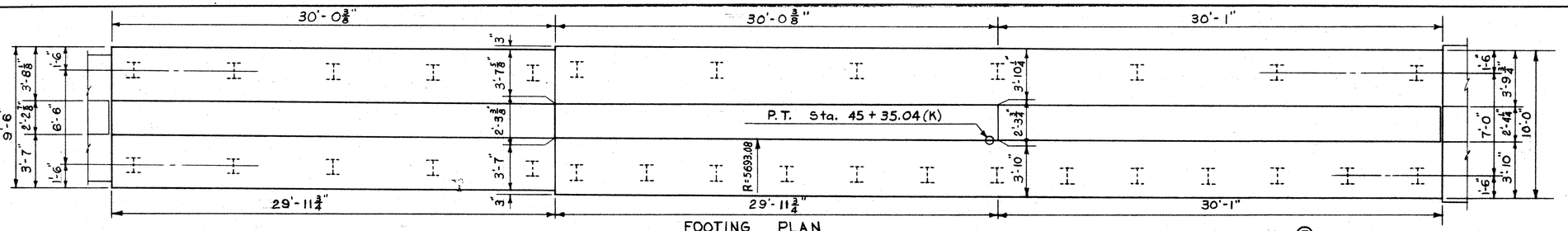
RETAINING WALL NO. 11
SHEET NO. 1 OF 3

DESIGNED	DRAWN	TRACED	CHECKED	REVIEWED DATE	REVISED
DYL 2-20-62	DYL 2-23-62		W.A.E. 3-7-62	W.H.S. 8-1-62	

FED. RD. DIV.	STATE	PROJECT	FISCAL YEAR
2	OHIO		

255/464

HAM-50-19.76



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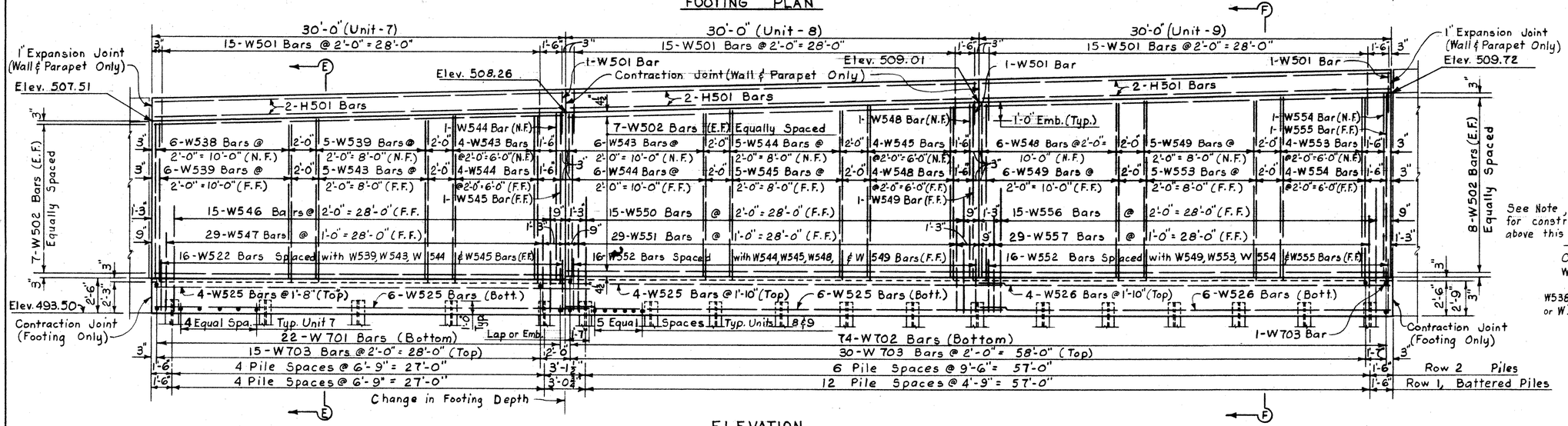
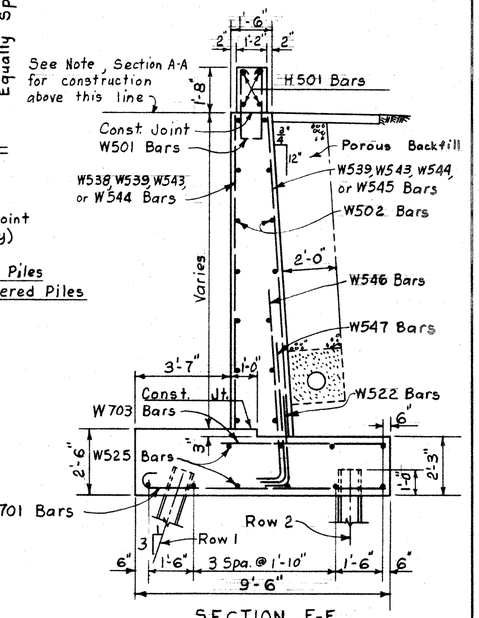
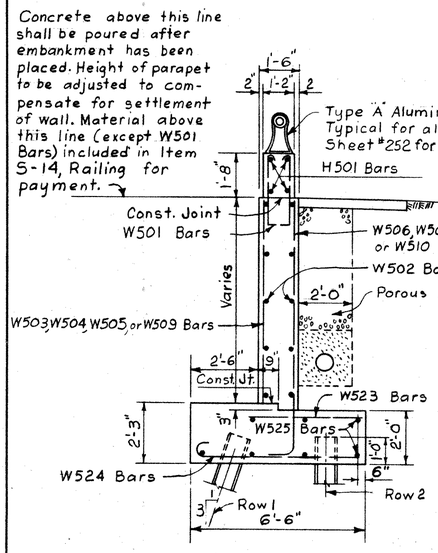


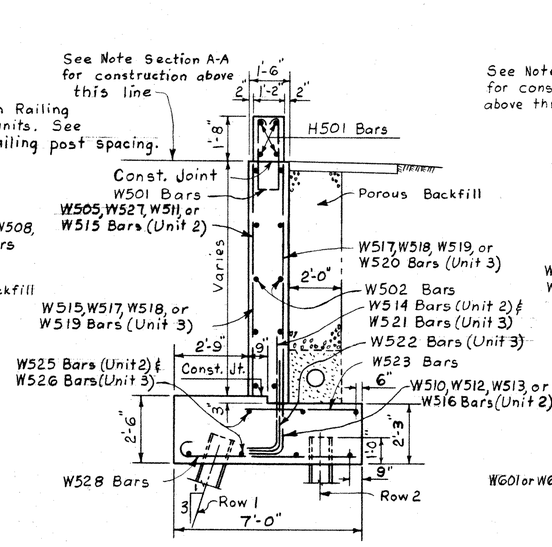
ELEVATION



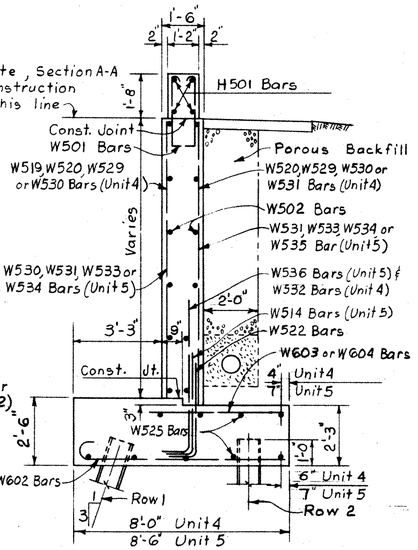
SECTION E-E



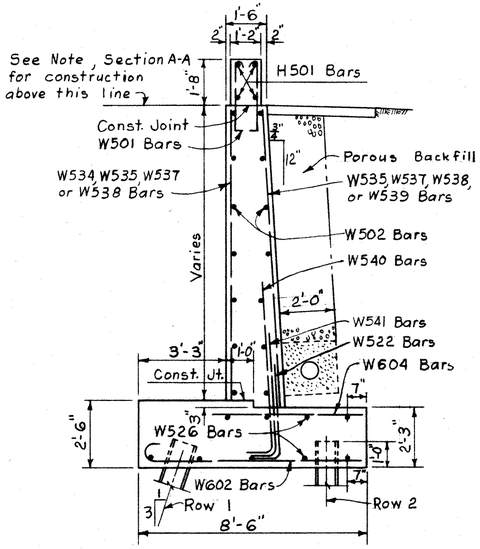
SECTION A-A



SECTION B-B



SECTION C-C



SECTION D-D

For Notes see Sheet No. 253
For Section F-F see Sheet No. 256

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CONSULTING ENGINEERS
CINCINNATI, OHIO

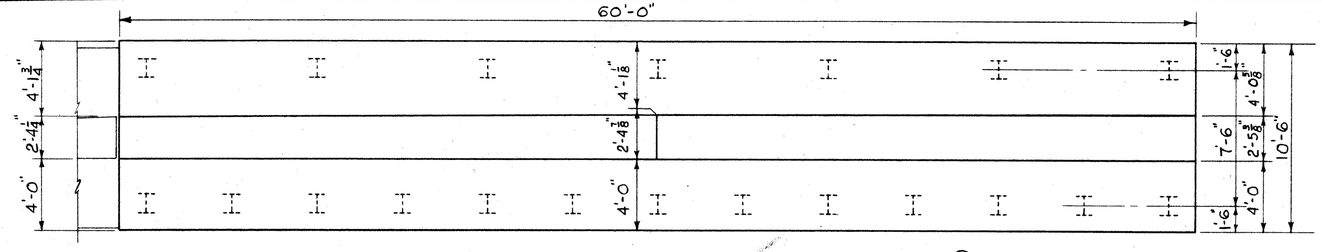
RETAINING WALL NO. 11
SHEET NO. 2 OF 3

DESIGNED	DRAWN	TRACED	CHECKED	REVIEWED DATE	REVISED
DYY 2-20-62	DYY 2-26-62		N.A.S. 3-7-62	N.A.S. 8-1-62	

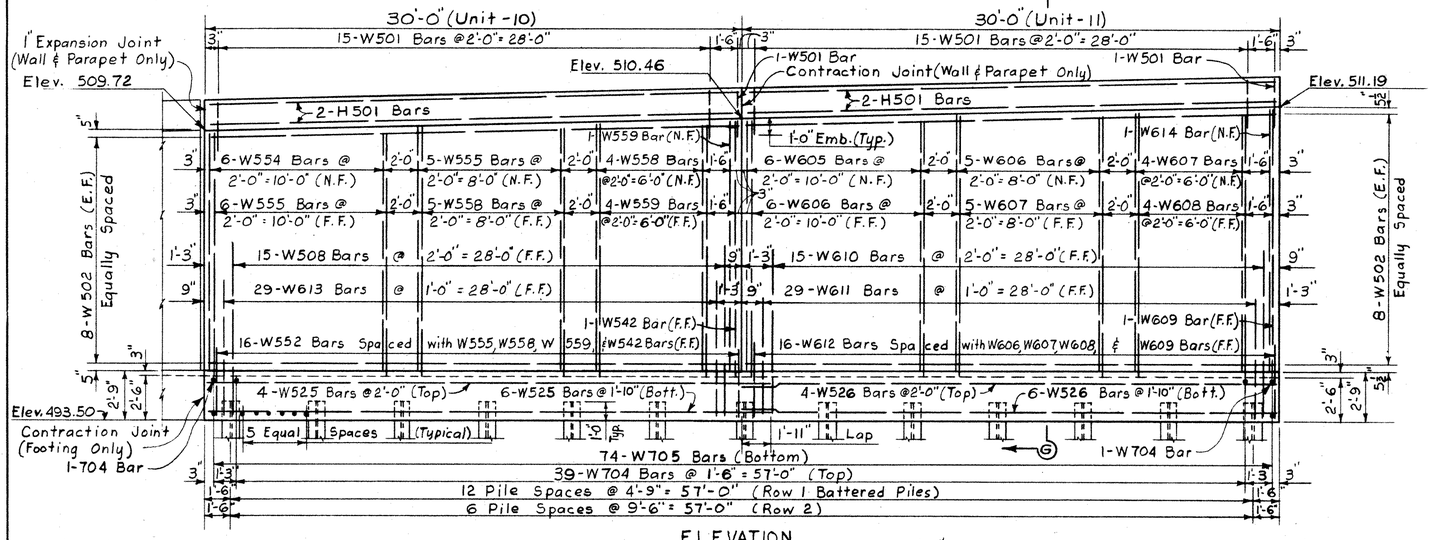
FED. RD. DIV.	STATE	PROJECT	FISCAL YEAR
2	OHIO		

256
464

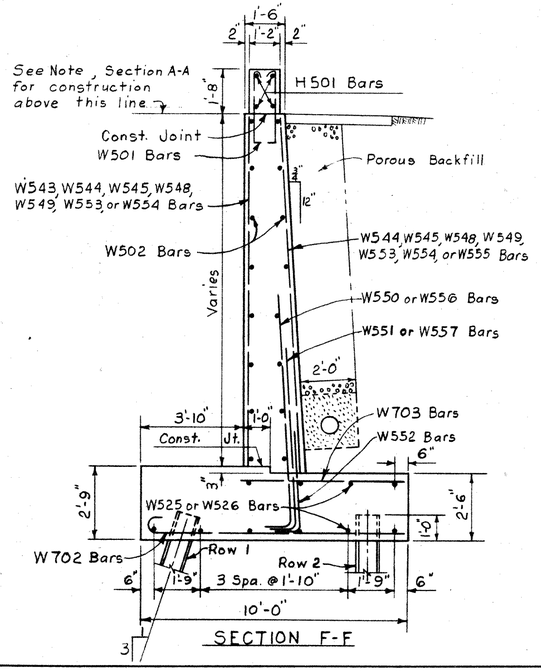
HAM-50-19.76

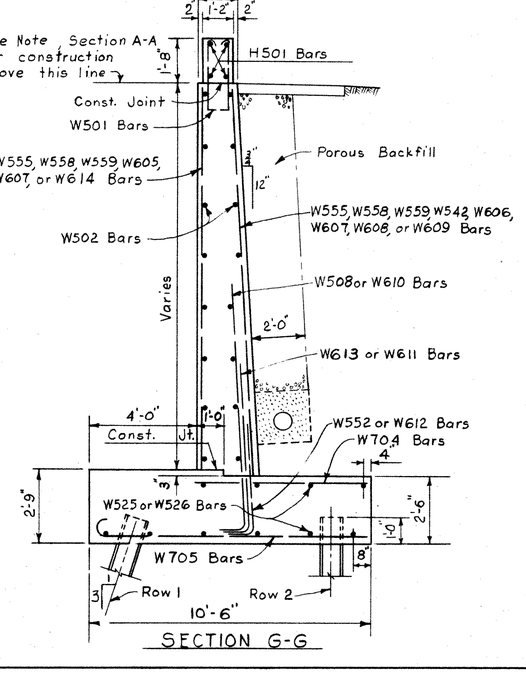


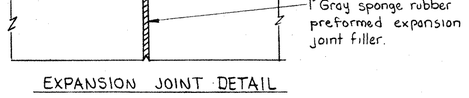
FOOTING PLAN



ELEVATION

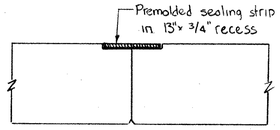






EXPANSION JOINT DETAIL

Note: The 1" Gray sponge rubber preformed expansion joint filler shall be carried up thru the concrete parapet. The joint filler within the cross-section of the parapet shall be included in Item S-14 for payment. Lower limits: Top of higher footing.



CONTRACTION JOINT DETAIL

Note: Lower limits of premolded sealing strip - Top of higher footing.
Upper limits of premolded sealing strip - Bottom of subgrade unless noted otherwise

REPLACEMENT BARS			
Mark	Length	Shape	No.
RE501	5'-7"	Str.	1
RE601	5'-11"	Str.	1
RE701	6'-3"	Str.	1

REPLACEMENT BARS: If reinforcing bars are fabricated from stock which has previously been tested and approved by the Ohio Highway Testing Laboratory, test samples as provided in Section S-4.02 need not be furnished and replacement bars will not be required.

Bar size is included in the bar mark. The first digit indicates the bar size number. For example W601 is a No.6 size bar.

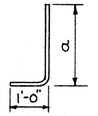
Reinforcing bars marked H501 are included in Item S-14 (Railing) for payment.

REINFORCING BAR SCHEDULE

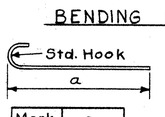
Mark	Length	Shape	No.	Weight
H501	29'-8"	Str.	44	
W501	6'-5"	Bent	176	1178
W502	29'-8"	Str.	144	4456
W503	7'-2"	Str.	6	45
W504	7'-5"	Str.	5	39
W505	7'-8"	Str.	10	80
W506	10'-0"	Bent	6	63
W507	10'-3"	Bent	5	53
W508	10'-7"	Bent	19	210
W509	7'-10"	Str.	1	8
W510	10'-9"	Bent	7	78
W511	8'-2"	Str.	4	34
W512	11'-0"	Bent	5	57
W513	11'-3"	Bent	4	47
W514	4'-11"	Bent	44	226
W515	8'-5"	Str.	7	61
W516	11'-6"	Bent	1	12
W517	8'-7"	Str.	11	98
W518	8'-11"	Str.	9	84
W519	9'-1"	Str.	11	104
W520	9'-4"	Str.	12	117
W521	5'-5"	Bent	15	85
W522	4'-6"	Bent	80	375
W523	4'-1"	Str.	46	196
W524	6'-7"	Bent	17	117
W525	31'-4"	Str.	62	2026
W526	30'-1"	Str.	36	1130
W527	7'-11"	Str.	5	41
W528	7'-1"	Bent	32	236
W529	9'-8"	Str.	9	91
W530	9'-10"	Str.	11	113
W531	10'-1"	Str.	12	126
W532	6'-2"	Bent	15	96
W533	10'-5"	Str.	9	98
W534	10'-7"	Str.	11	121
W535	10'-10"	Str.	12	136
W536	6'-11"	Bent	15	108
W537	11'-2"	Str.	9	105
W538	11'-4"	Str.	11	130
W539	11'-7"	Str.	12	145
W540	7'-8"	Bent	15	120
W541	5'-8"	Bent	29	171
W542	14'-4"	Str.	1	15
W543	11'-10"	Str.	15	185
W544	12'-1"	Str.	16	202
W545	12'-4"	Str.	10	129
W546	8'-5"	Bent	15	132
W547	6'-5"	Bent	29	194
W548	12'-7"	Str.	11	144
W549	12'-10"	Str.	12	161
W550	9'-2"	Bent	15	143
W551	7'-2"	Bent	29	217
W552	4'-9"	Bent	48	238
W553	13'-2"	Str.	9	124
W554	13'-4"	Str.	11	153
W555	13'-7"	Str.	12	170
W556	9'-11"	Bent	15	155
W557	7'-11"	Bent	29	239
W558	13'-10"	Str.	9	130
W559	14'-1"	Str.	5	73
W601	8'-2"	Bent	20	245
W602	8'-8"	Bent	50	651
W603	4'-11"	Str.	15	111
W604	5'-8"	Str.	31	264
W605	14'-1"	Str.	6	127
W606	14'-4"	Str.	11	237
W607	14'-7"	Str.	9	197
W608	14'-10"	Str.	4	89
W609	15'-0"	Str.	1	23
W610	10'-3"	Bent	15	231
W611	7'-3"	Bent	29	316
W612	5'-0"	Bent	16	120
W613	8'-7"	Bent	29	374
W614	14'-9"	Str.	1	22
W701	9'-10"	Bent	22	442
W702	10'-4"	Bent	74	1563
W703	6'-0"	Str.	46	564
W704	6'-3"	Str.	41	524
W705	10'-10"	Bent	74	1639

Total Wgt of Reinf. Steel = 23,359#

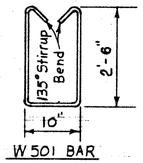
BENDING DIAGRAMS



Mark	a	Mark	a
W506	9'-1½"	W541	4'-9½"
W507	9'-4½"	W546	7'-6½"
W508	9'-8½"	W547	5'-6½"
W510	9'-10½"	W550	8'-3½"
W512	10'-1½"	W551	6'-3½"
W513	10'-4½"	W552	3'-10½"
W514	4'-0½"	W556	9'-0½"
W516	10'-7½"	W557	7'-0½"
W521	4'-6½"	W610	9'-5"
W522	3'-7½"	W611	6'-5"
W532	5'-3½"	W612	4'-2"
W536	6'-0½"	W613	7'-9"
W540	6'-9½"		



Mark	a
W524	6'-0"
W528	6'-6"
W601	7'-6"
W602	8'-0"
W701	9'-0"
W702	9'-6"
W705	10'-0"



For Notes see Sheet No. 253

HAZELET & ERDAL
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CINCINNATI, OHIO

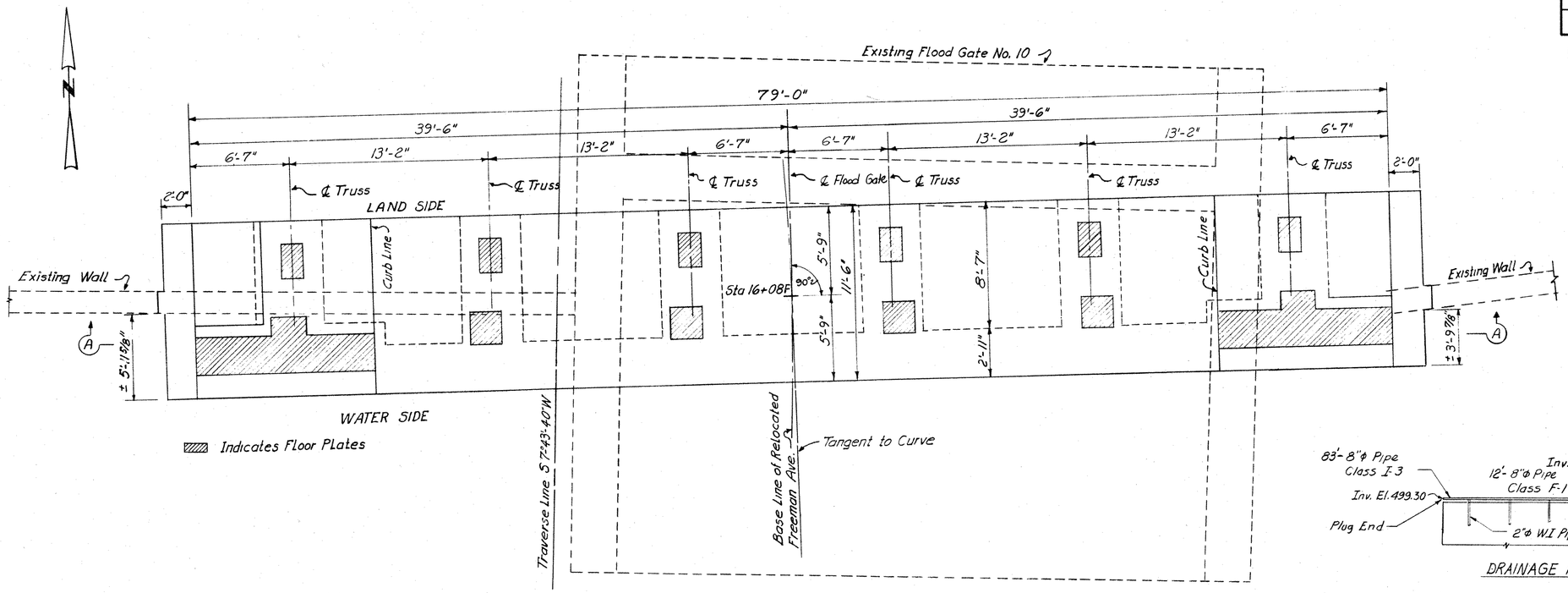
RETAINING WALL NO. 11
SHEET NO. 3 OF 3

DESIGNED	DRAWN	TRACED	CHECKED	REVIEWED DATE	REVISED
DYY 2-20-62	DYY 2-27-62		M.A.Z. 3-8-62	M.A.Z. 8-1-62	

FED. RD. DIV.	STATE	PROJECT	FISCAL YEAR
2	OHIO		

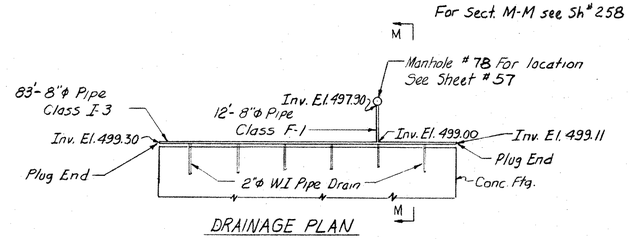
257
464

HAM-50-19.76

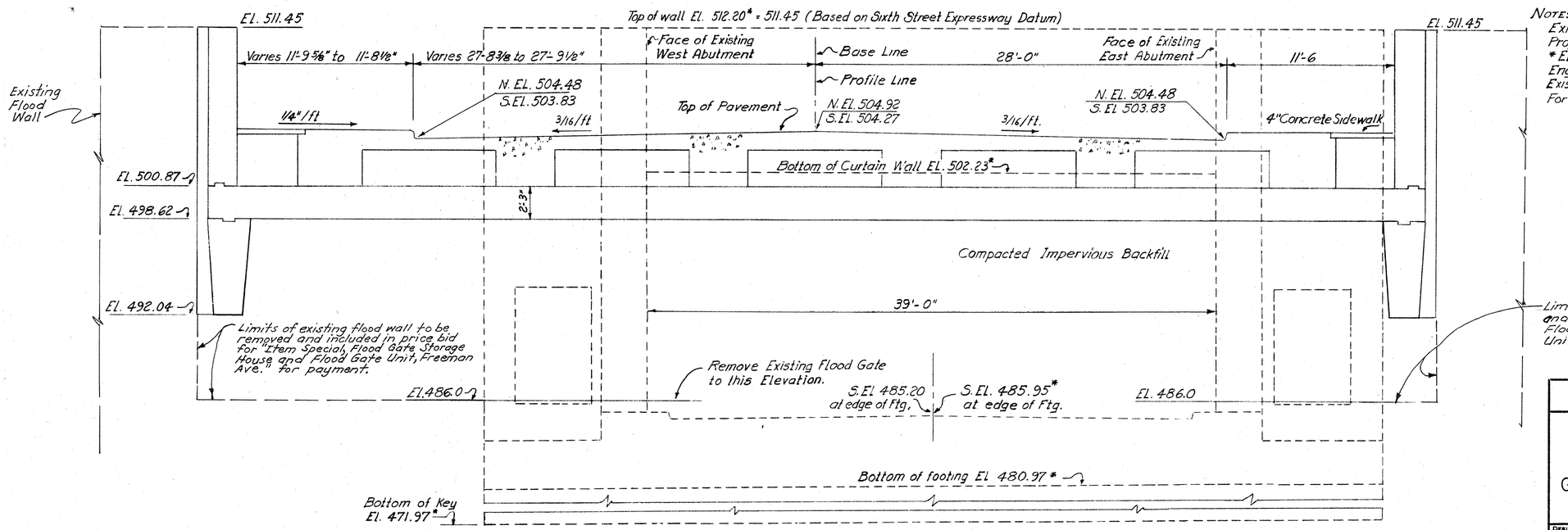


PLAN

For Sect. M-M see Sh# 258



DRAINAGE PLAN



SECTION A-A

NOTES:
Existing shown dashed
Proposed shown solid
*Elevation referring to Corp of Engineer drawings.
Existing Flood Wall not shown in Sect. A-A
For General Notes See Sh. No. 264.

Limits of existing flood wall to be removed and included in price bid for "Item Special, Flood Gate Storage House and Flood Gate Unit, Freeman Ave" for payment

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FLOOD GATE AT FREEMAN AVE.

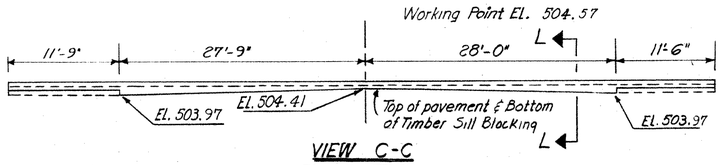
GENERAL PLAN & ELEVATION

DESIGNED	DRAWN	TRACED	CHECKED	REVIEWED DATE	REVISED
	O.E 6-30-61		G.J.T. 8-14-61	W.A.J. 8-8-62	

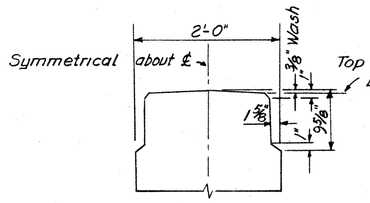
FED. RD. DIV.	STATE	PROJECT	FISCAL YEAR
2	OHIO		

258
464

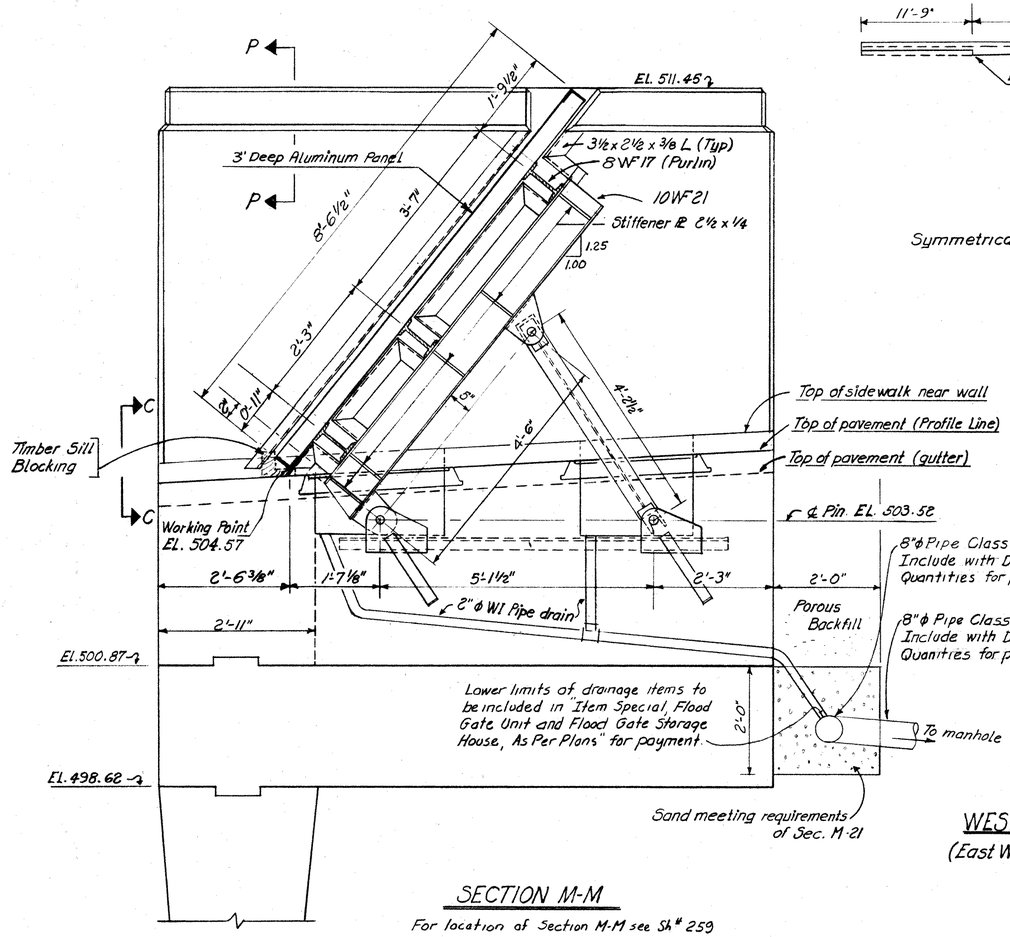
HAM-50-19.76



VIEW C-C
Showing Timber Sill Blocking

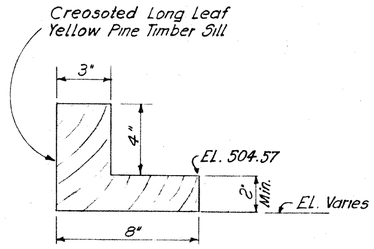


SECTION P-P

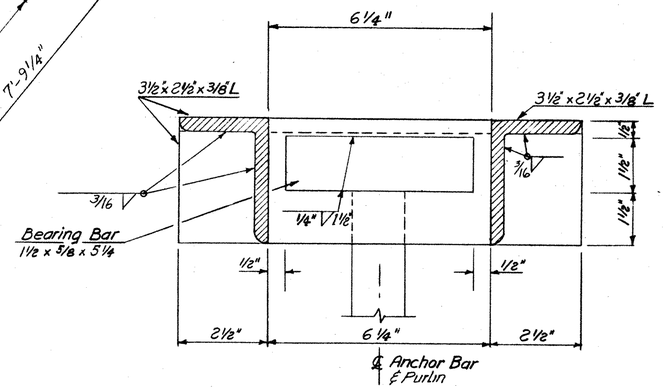


SECTION M-M
For location of Section M-M see Sh # 259

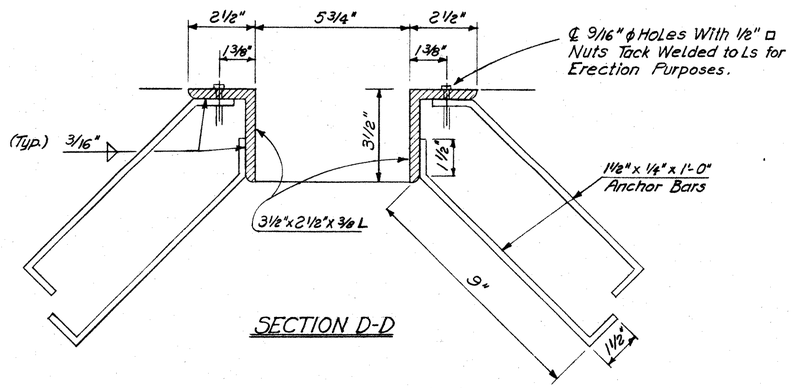
WEST WALL FRAME
(East Wall Frame Opposite Hand)



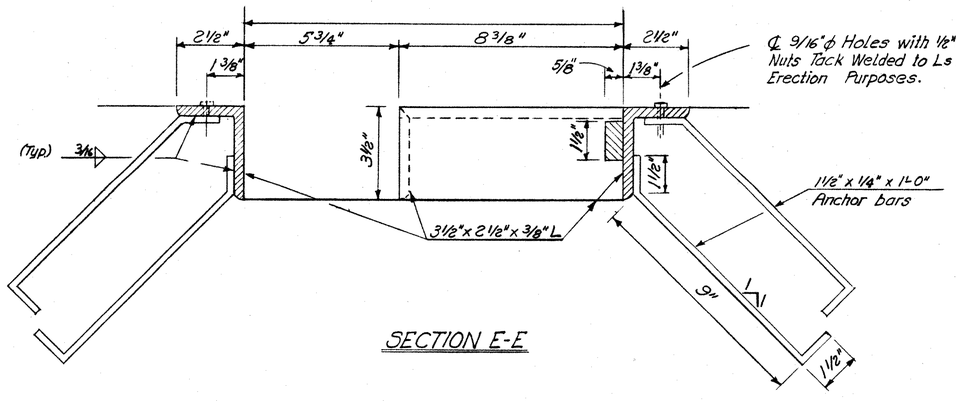
SECTION L-L



SECTION F-F



SECTION D-D



SECTION E-E

Note:
For general location of Flood Gate Unit See Sheet No. 57
For General notes See Sheet No. 264

HAZELET & ERDAL
CONSULTING ENGINEERS
CINCINNATI, OHIO

FLOOD GATE AT FREEMAN AVE.

FIXED METAL DETAILS

DESIGNED	DRAWN	TRACED	CHECKED	REVIEWED DATE	REVISED
O.E. 6-6-61	O.E. 8-7-61		G.J.T. 8-14-61	N.A.T. 8-8-62	

FED. RD. DIV.	STATE	PROJECT	FISCAL YEAR
2	OHIO		

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Connection to Existing Wall
See detail P on Sheet No 262

79'-0"

2'-0" | 6'-7" | ℄ Truss | 13'-2" | ℄ Truss | 13'-2" | 4 GF 502 @ 2'-0" (Typ.) | ℄ Truss | 6'-7" | 6'-7" | ℄ Truss | 13'-2" | ℄ Truss | 13'-2" | ℄ Truss | 2'-0" | 6'-7" | 2'-0"

11'-8½" | 27'-9½" | 11'-8½"

GF 510 | 4 GF 511 | ℄ Flood Gate | 2'-0" 2'-0" | 3 GF 803 @ 10" (Bot) typ. | 3 GF 705 (Top) typ. | 2'-0" 2'-0" | 2'-0" 2'-6"

3" | 3" | 5 GF 503 | Typical Sidewalk Reinforcing | Curb Line | 4 GF 506 | Neenah R-1880-A4 Manhole cover and Frame or equal Heavy Duty (6 Req.) | Neenah R-1880-D Manhole cover and frame or equal Heavy Duty (4 Req.) | Tangent to Curve | Base Line of Relocated Freeman Ave. | Sta 16+08 F | 90° | 7½" | 11'-6" | 5'-9" | 5'-9" | 7½" | 7½" | 10 Spa @ 9½" = 7'-11" | 8" 8" | 2'-4" | 1'-6" | 7½" | 1'-5½" | Curb Line | 9" | 9" | 7½" | 1'-3" | 4 GF 504 @ 2'-0" (Typ.) | 4'-6" | 9" | Connection to Existing wall. See Detail P on Sheet No. 262

A | 12 GF 709 @ 1'-0" (Each face) | ± 5'-11⅝" | 3" | 4 GF 605 | 4 GF 605 spliced to GF 607 | For cover and Frame detail see sheet No 262 | 4 GF 607 tied to GF 604 | GF 604 | GF 603 | 5 GF 501 bars (Typ) | 2'-6" | 1'-6" | 2'-11" | 1 GF 805 or 1 GF 806 (Bot) | 1 GF 707 or 1 GF 708 (Top) | 2 GF 805 @ 10" (Bot) | 2 GF 707 (Top) | 3 Rows of 5 GF 804 (Bot) | 3 Rows of 5 GF 706 (Top) | 11'-6" | ± 3'-9⅞" | A

Y | Y | X | X | 3" | 11'-9⅝" | 5 GF 508 @ 1'-0" (Typ.) | 12" | 12" | 5 GF 508 @ 1'-0" (Typ) | 2 GF 503 (Typ) | 3" | 27 GF 507 @ 1'-0" = 26'-0" (Typ.) | 27'-8⅜" | 6" | 28'-0" | M | M | B | B

PLAN

For Section B-B See Sh. 262
For Section M-M See Sh. 258
For Elevation X-X See Sh. 262
For Elevation Y-Y See Sh. 262

2'-0" | 6'-7" | 13'-2" | 13'-2" | 6'-7" | 6'-7" | 13'-2" | 13'-2" | 6'-7" | 2'-0"

2½" Clear | Varies | 8" Clear | ℄ Truss | ℄ Truss | ℄ Truss | ℄ Truss | ℄ Truss | ℄ Truss | 11'-6" | EL. 511.45

3" | 9" | GF 709 bars | 1'-5" | 3 GF 802 @ 20" (Bot) | 1'-6" | 4 GF 801 @ 20" (Bot) | 1'-9" | 1'-5" | 7 GF 801 @ 20" (Bot) | 7 GF 701 @ 20" (Top) | 1'-9" | 1'-7" | 7 GF 801 @ 20" (Bot.) | 7 GF 701 @ 20" (Top) | 1'-7" | 1'-9" | 7 GF 801 @ 20" (Bot) | 7 GF 701 @ 20" (Top) | 1'-5" | 1'-9" | 4 GF 801 @ 20" (Bot) | 3 GF 802 @ 10" (Bot) | 1'-5" | 2'-6" | 20" | 5"

10'-7" | 6 GF 501 @ 2'-0" (Each Face) | GF 702 Dowels | 3 GF 704 @ 20" (Top) | 3 GF 503 (Curb) | 9" Min. Slab Thickness | 4 GF 701 @ 20" (Top) | 4 GF 701 @ 20" (Top) | 3 GF 704 @ 20" (Top) | 7½" | 1'-5½" | GF 503 | 1" open Jt. with Jt. Filler (Typ) | 4" Slab

GF 506 bars | DETAIL "A" | N.El. 504.48 | S.El. 503.83 | 2'Cl. | N.El. 504.92 | S.El. 504.27 | El. 502.75 (Typ.) GF 803, 804, 805 | 7½" (Typ.) | 1'-5½" (Typ.) | GF 506 bars | N.El. 504.48 | S.El. 503.83 | GF 503 bars | GF 505 bars | 1/2" open Jt. with Jt. Filler (Typ)

GF 503 | GF 505 | Const. Jt | El. 500.87 | Bank Run Gravel (Typ) | 4'-6" | GF 501 bars | GF 705, 706, 707 | GF 502 Bars (Typ.) | GF 805, 804, 803, 806 | GF 705, 706, 707, 708 | GF 504 (Typ) | 2'-3" Min Lap

Const. Jt. (Typ) | 8" x 2" Keyway (Typ) | 10" x 2" Keyway (Typ) | Const. Jt (Typ) | El. 498.62 | 2'-3" | Lap (Min. for #7 bars) Typ. | 2'Cl. | 3'Cl. | GF 703 bars

2'-3" | 6" | 42 G F 701 @ 2'-0" (Top and Bottom) | 6"

6'-7" | For Cut off wall Reinforcing & Detail See Sheet No 262 | 2'-0" | 2'-11"

SECTION A-A

1¼"/ft. | 1" | 3" Radius | 6"

DETAIL "A"

NOTES:
All splices of Reinforcing Bars to be 30 bar diameters
For general location of Flood Gate Unit see Sheet No. 57
Contact surfaces between Frames & Covers of Roadway Recesses shall be machined so that full bearing is obtained on all sides.
For Reinforcement tabulation See Sh. 264

HAZELET & ERDAL
CONSULTING ENGINEERS
CINCINNATI, OHIO

FLOOD GATE AT FREEMAN AVE.

MASONRY PLAN & ELEVATION

DESIGNED	DRAWN	TRACED	CHECKED	REVIEWED DATE	REVISED
O.E. 6-3-61	O.E. 7-5-61		G.J.T. 8-14-61	W.A.J. 8-8-62	

FED. RD. DIV.	STATE	PROJECT	FISCAL YEAR
2	OHIO		

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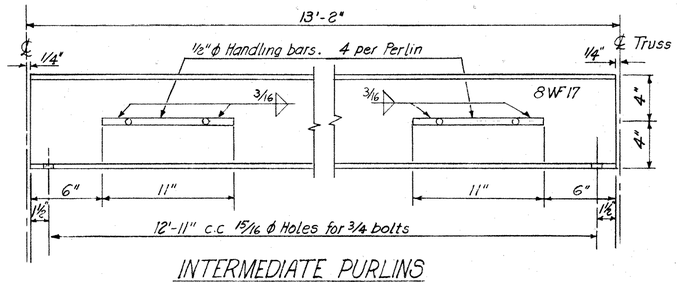
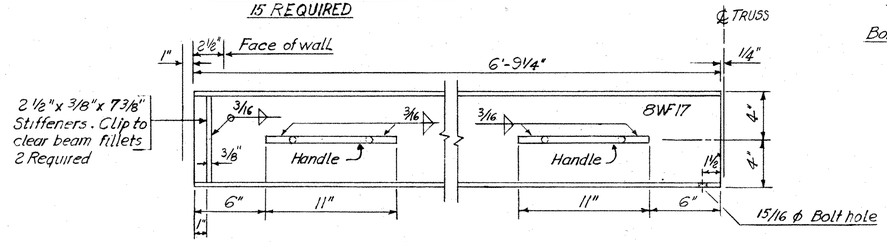
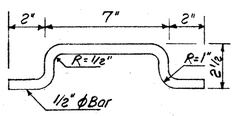


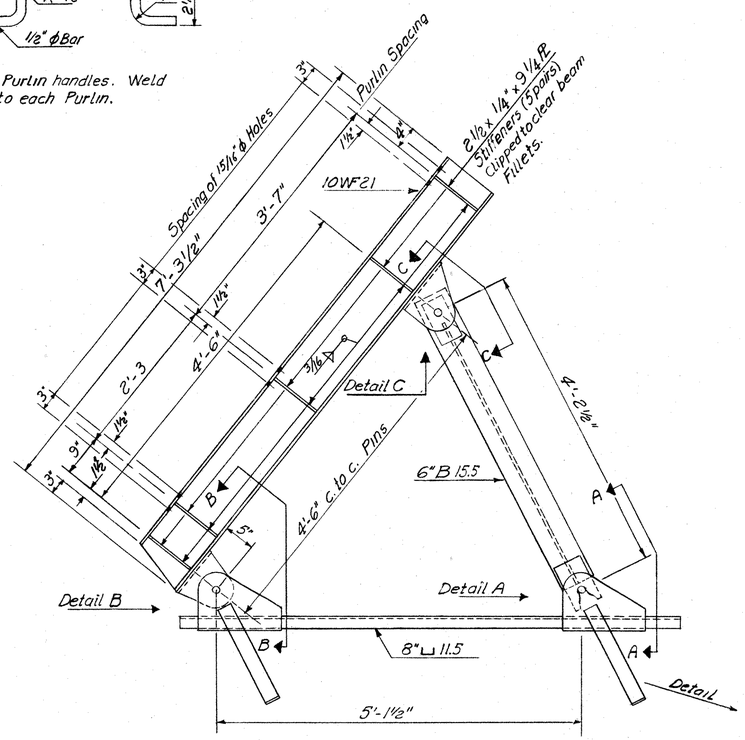
INTERMEDIATE PURLINS
15 REQUIRED



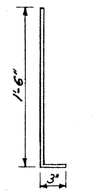
END PURLINS
6 REQUIRED



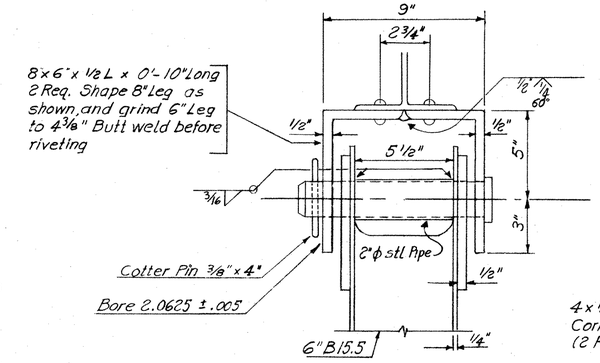
84 Purlin handles. Weld 4 to each Purlin.



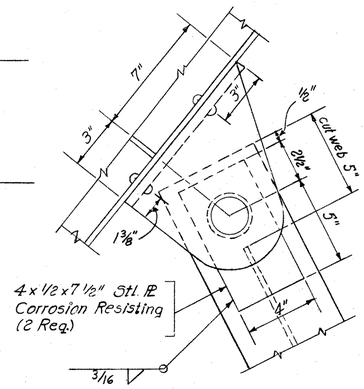
TRUSS ASSEMBLY
6 REQUIRED



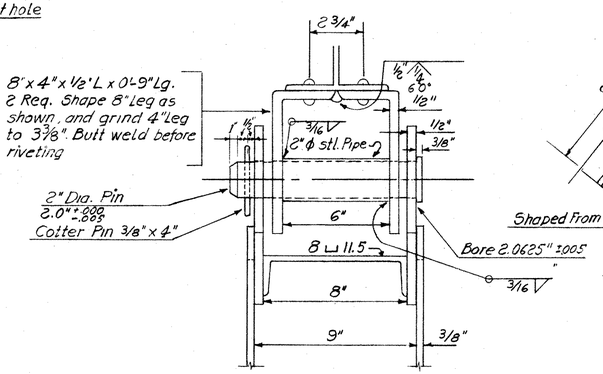
Corr. Resist Stl. Anchors
2 1/2" x 3/8" Bar 1'-9" Long
(4 Req Per truss Assembly)



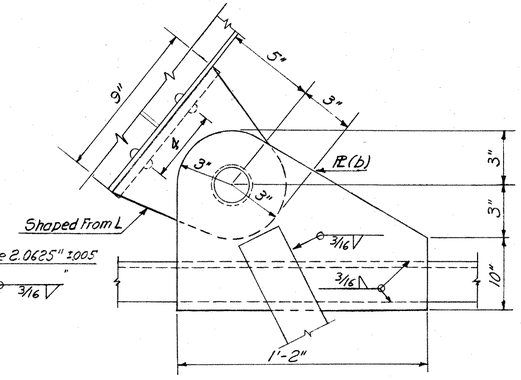
SECTION C-C



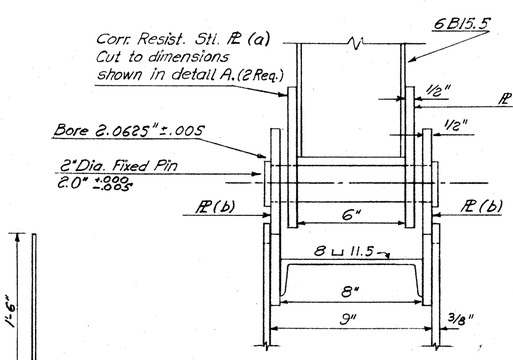
DETAIL C



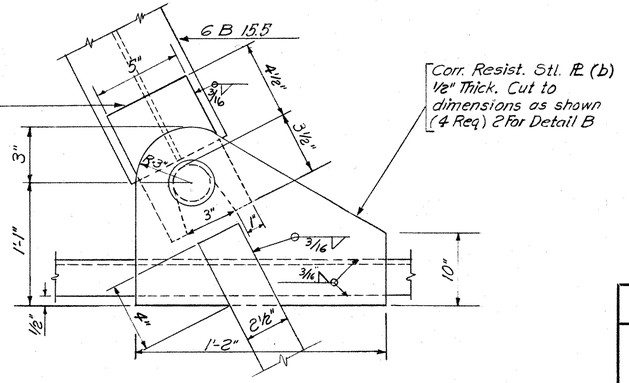
SECTION B-B



DETAIL B



SECTION A-A



DETAIL A

Notes:
- All shapes and plates to be Structural Steel unless otherwise noted.
- Aluminum surfaces in contact with Structural Steel shall be coated with Zinc Chromate Primer Sec. M 9.21 or equivalent.
- Structural Steel surfaces in contact with Aluminum shall have a coat of Aluminum paint, in addition to primer.
- All aluminum to be 6061-T6 Alloy or equivalent.
- Furnish 72 square head bolts 3/4" x 2 1/2 with nuts. Furnish 72 - 3/4" washers
- Painting of Structural Steel per Ohio Spec. S-8.04 & S-8.05

HAZELET & ERDAL
CONSULTING ENGINEERS
CINCINNATI, OHIO

FLOOD GATE AT FREEMAN AVE.
REMOVABLE METAL DETAILS

DESIGNED	DRAWN	TRACED	CHECKED	REVIEWED DATE	REVISED
O.E. 5-20-61	O.E. 7-13-61		G.J.T. 8-14-61	N.A.B. 8-8-62	

FED. RD. DIV.	STATE	PROJECT	FISCAL YEAR
2	OHIO		

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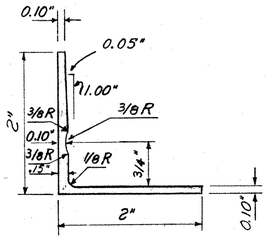
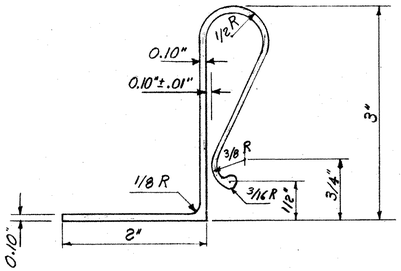
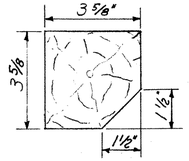


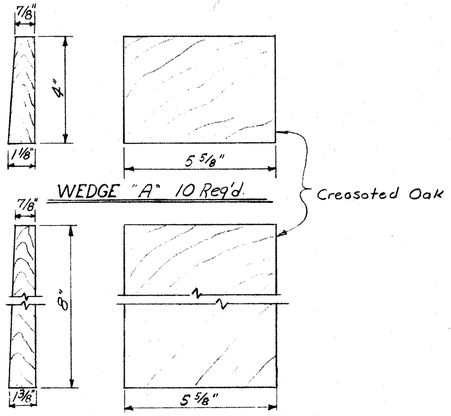
EXTRUSION "E1"



EXTRUSION "E-2"

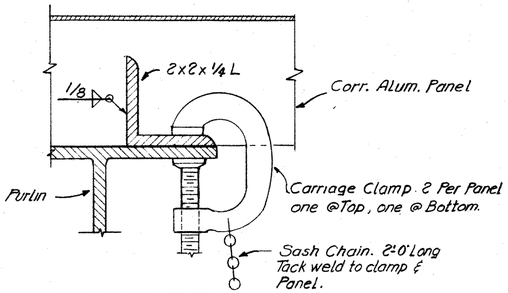


CREOSOTED L.L.Y.P. BLOCKING
2 REQ. (7'-6" Long each)

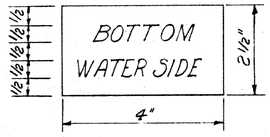


WEDGE "A" 10 Req'd.

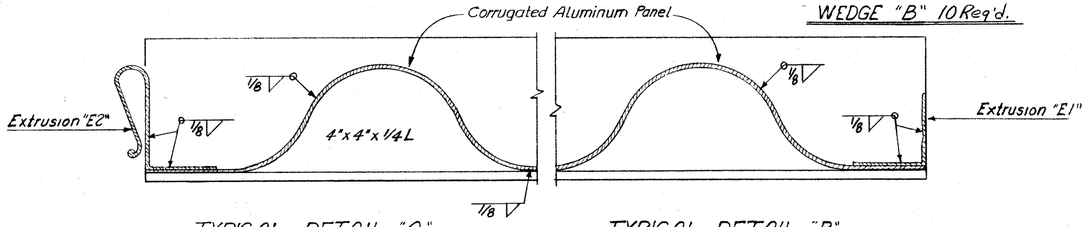
WEDGE "B" 10 Req'd.



SECTION B-B

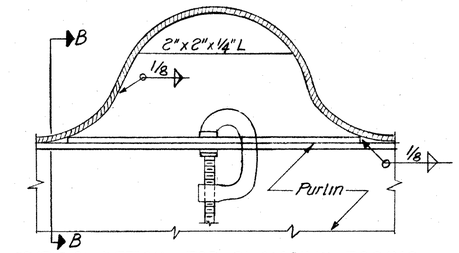


DETAIL "C"

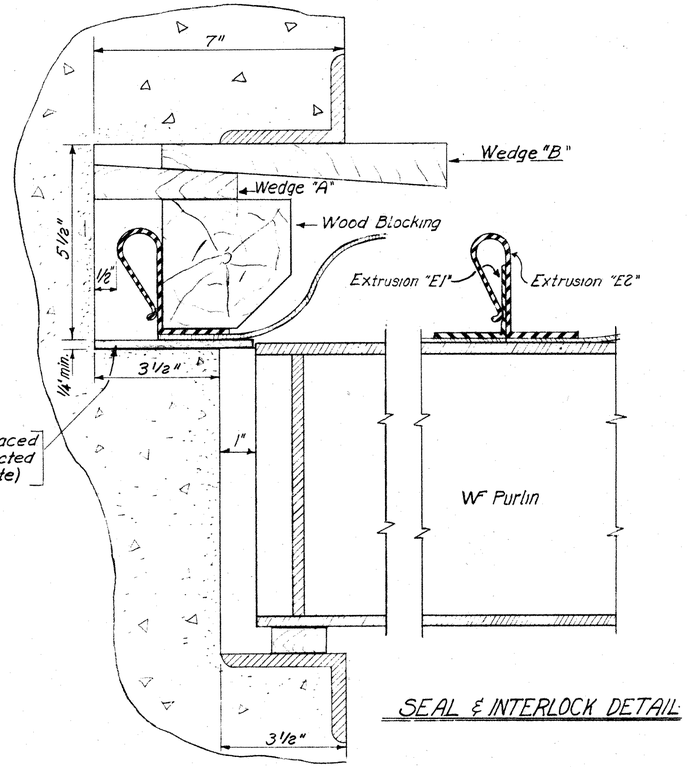


TYPICAL DETAIL "A"

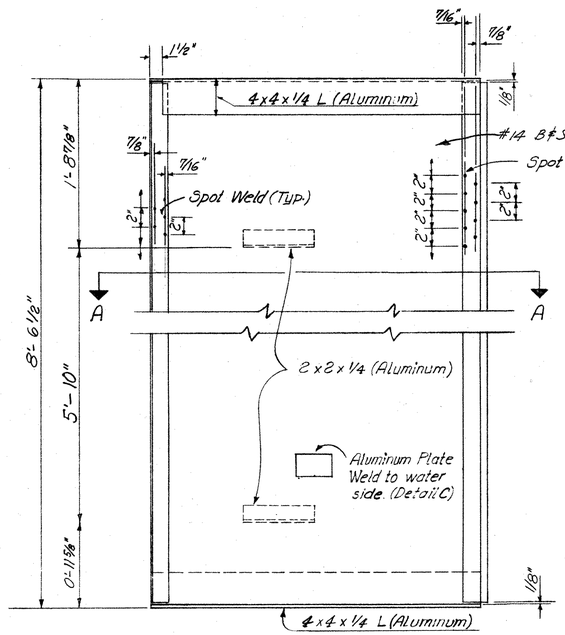
TYPICAL DETAIL "B"



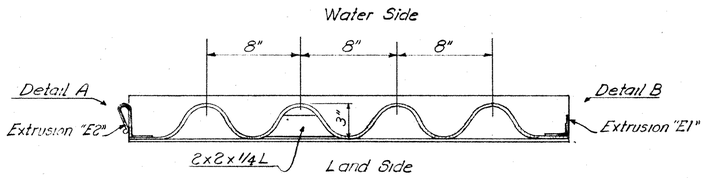
TYPICAL DETAIL FOR CLAMPING FACING TO PURLINS



SEAL & INTERLOCK DETAIL



TYPICAL PANEL ELEVATION
LOOKING AT WATER SIDE
26 REQUIRED



SECTION A-A

Notes:
All aluminum to be 6061-T6 alloy, or equivalent
For painting notes see Sheet No. 264
Welding shall conform to standards of the American Welding Society for Fusion Welding & Gas Cutting in Building Construction Latest revision.

Extrusion dies for seal clips "E1" and "E2" on the closure panels are held by the Aluminum Company of America and are available to the contractor when required for production of the seal clips.

HAZELET & ERDAL
CONSULTING ENGINEERS
CINCINNATI, OHIO

FLOOD GATE AT FREEMAN AVE.

GATE PANELS & MISCELLANEOUS DETAILS

DESIGNED	DRAWN	TRACED	CHECKED	REVIEWED DATE	REVISED
O.E. 6-5-61	O.E. 8-8-61		G.J.T. 8-14-61	W.A.Z. 8-8-62	

FED. RD. DIV.	STATE	PROJECT	FISCAL YEAR
2	OHIO		

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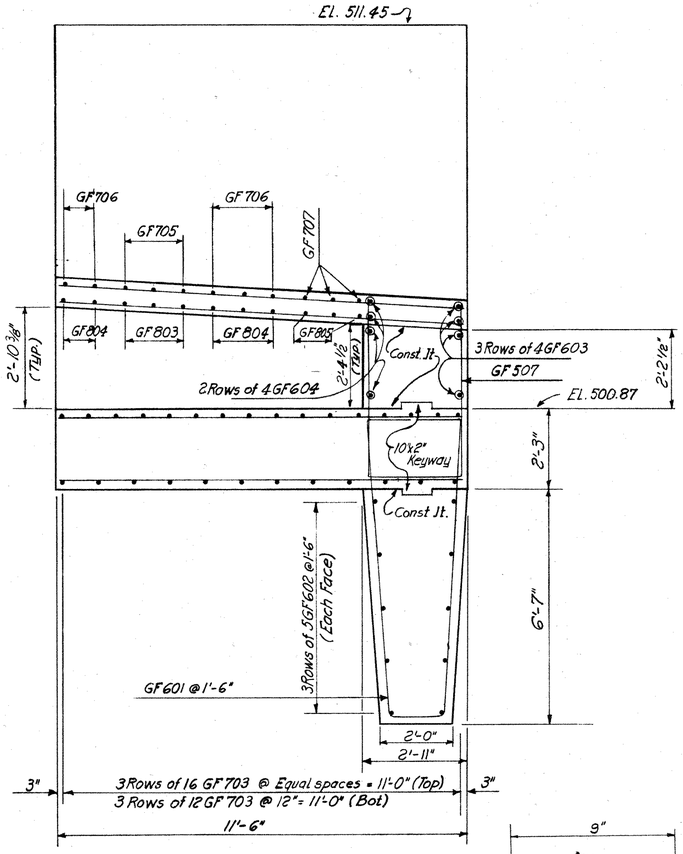
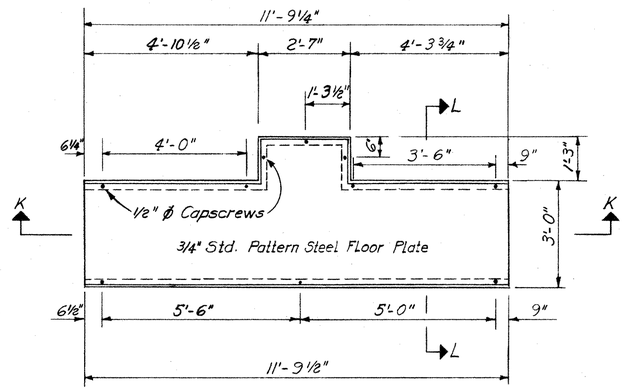


SECTION B-B

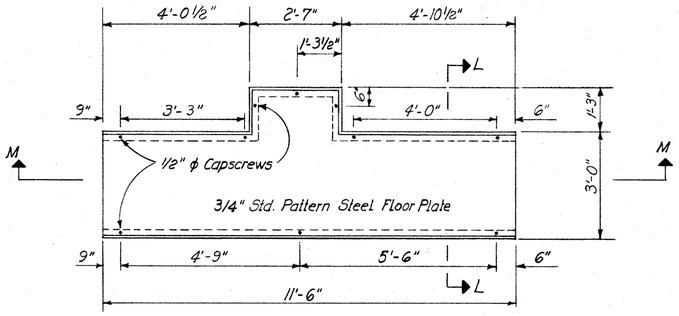
RUBBER WATER STOP

Rubber water stop (Gates Rubber Company or approved equal)

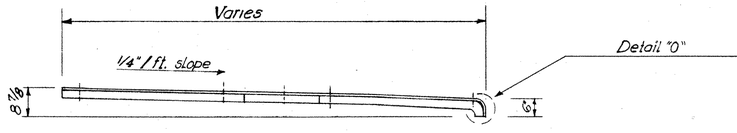
PLAN OF CUTOFF WALL



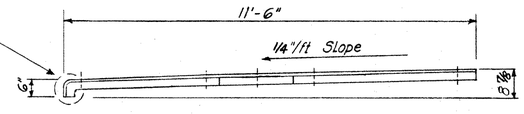
FRAME & COVER DETAIL WEST



FRAME & COVER DETAIL EAST

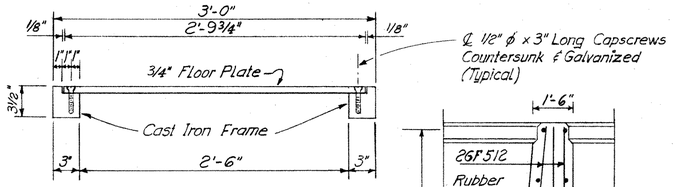


SECTION K-K



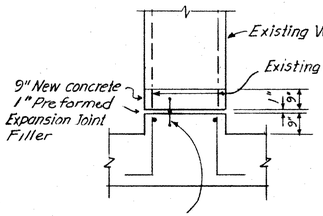
SECTION M-M

Detail "O"



℄ 1/2" ϕ x 3" Long Capscrews Countersunk & Galvanized (Typical)

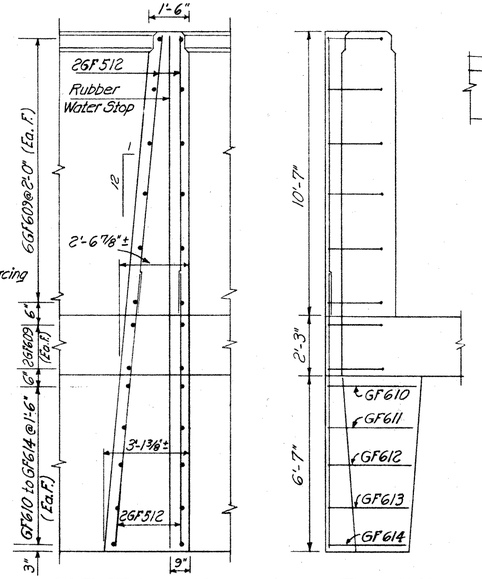
SECTION L-L



Rubber Water Stop. See detail this sheet

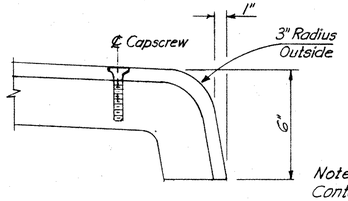
DETAIL-P.

Detail of the Joint between Flood Gate walls and existing Flood Walls



ELEVATION Y-Y

ELEVATION X-X



DETAIL "O"

Notes:
Contact surfaces between Frames and covers shall be machined so that full bearing is obtained on all sides.
For Elevation X-X & Y-Y See Sheet No 259
For Detail P & Section B-B See Sheet No 259

HAZELET & ERDAL
CONSULTING ENGINEERS
CINCINNATI, OHIO

FLOOD GATE AT FREEMAN AVE.

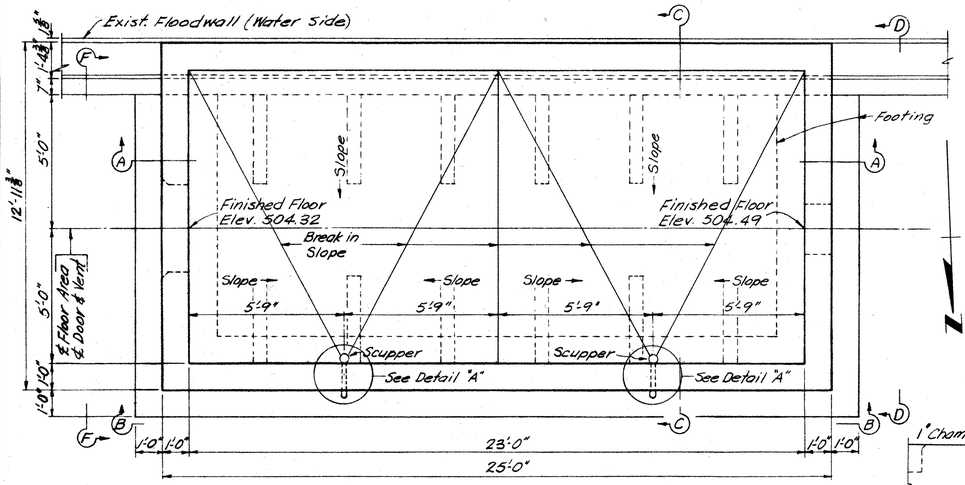
MASONRY DETAILS
FRAME & COVER DETAILS

DESIGNED	DRAWN	TRACED	CHECKED	REVIEWED DATE	REVISED
O.E. 6-6-61	O.E. 7-10-61		G.J.T 8-14-61	N.A.Z. 8-8-62	

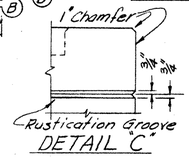
FED. RD. DIV.	STATE	PROJECT	FISCAL YEAR
2	OHIO		

263
464

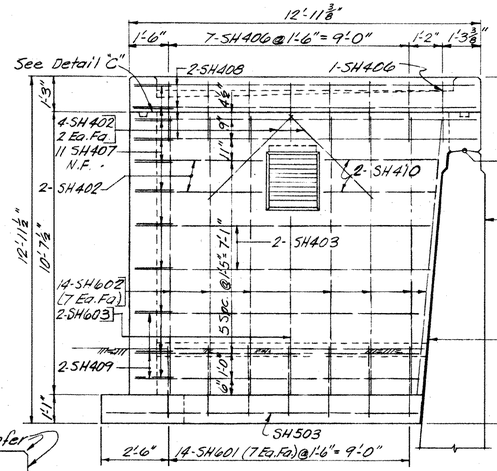
HAM-50-19.76



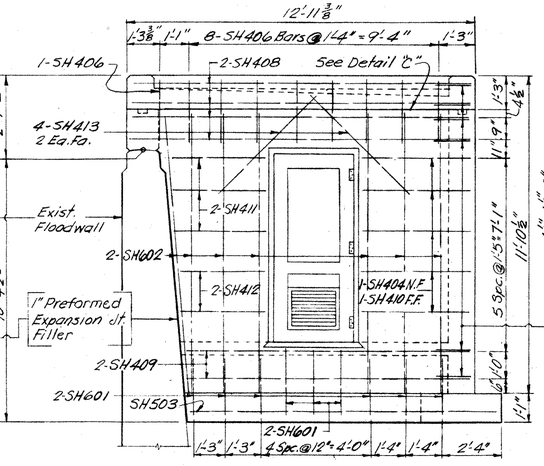
PLAN



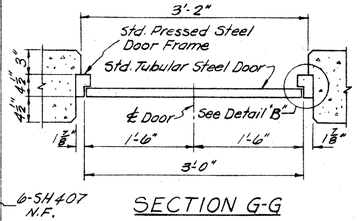
DETAIL "C"



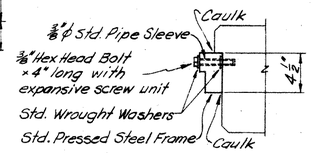
ELEVATION D-D



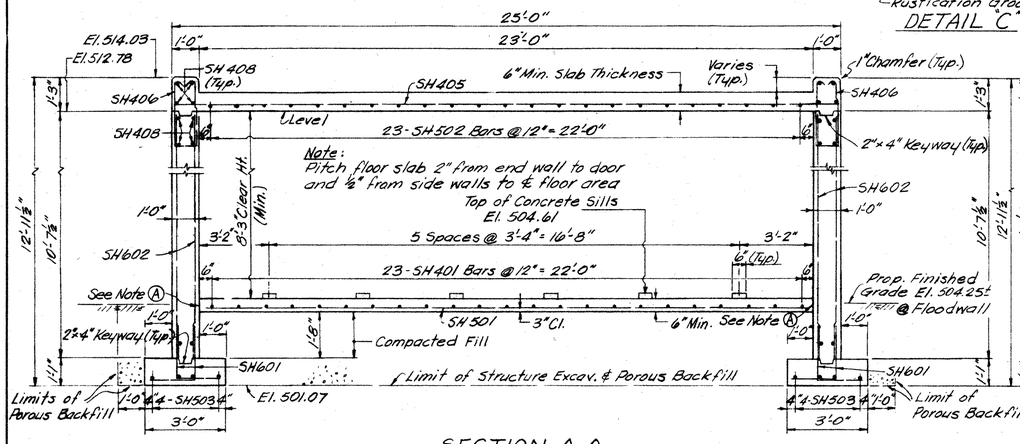
ELEVATION F-F



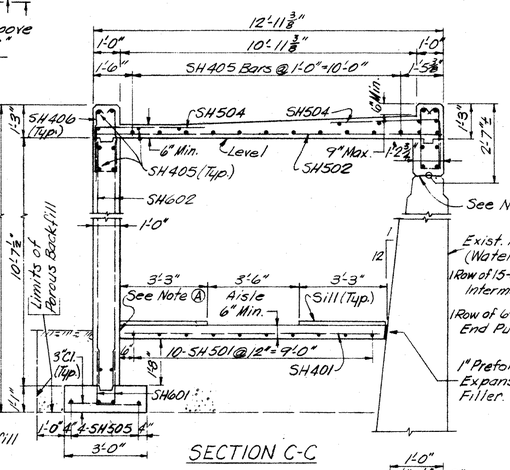
SECTION G-G



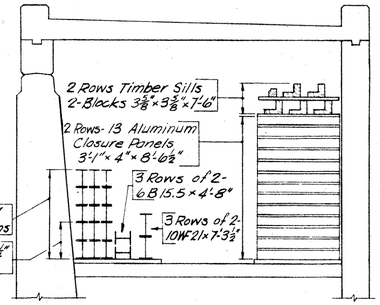
DETAIL "B"



SECTION A-A

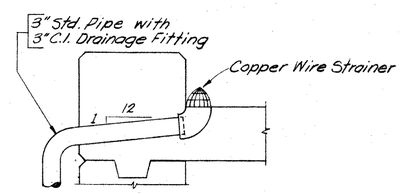


SECTION C-C

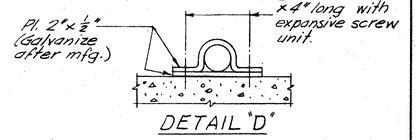


SECTION SHOWING STACKING ARRANGEMENT

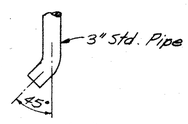
Note: 1" Boards to be placed between each layer of material



DETAIL "A"

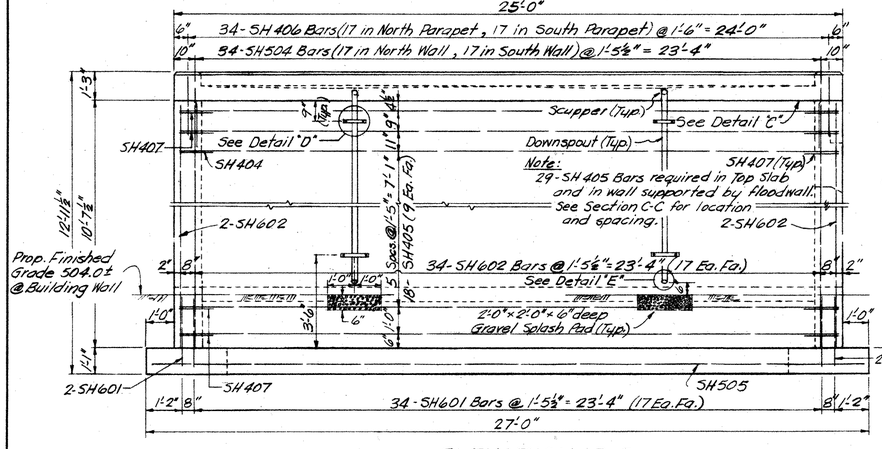


DETAIL "D"

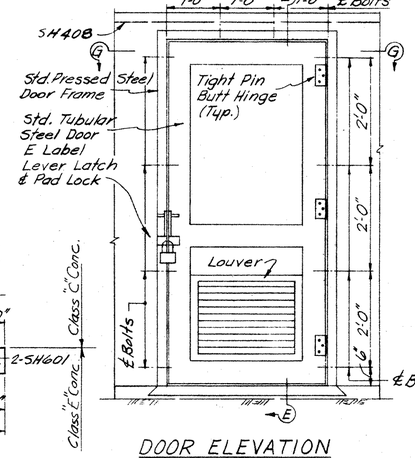


DETAIL "E"

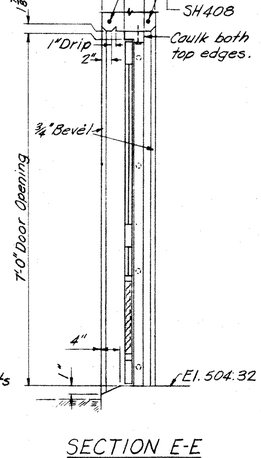
Note Ⓐ: Break bond with one coat of bituminous cement.



ELEVATION B-B

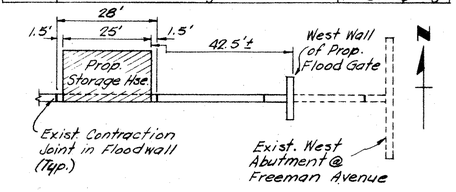


DOOR ELEVATION



SECTION E-E

MATERIAL SCHEDULE		
QUANT.	ITEM	SIZE
26	Aluminum Closure Panel	3'-1" × 8'-6 1/2"
15	Intermediate Purlin	8WF17 × 13'-2"
6	End Purlin	8WF17 × 6'-9 1/2"
6	Face Beam with Pins & Cotters	10WF21 × 7'-3 1/2"
6	Strut	6B15.5 × 4'-8"
2	L.L.Y.P. Blocking	3 5/8" × 3 5/8" × 7'-6"
10	Oak Wedge	1 1/8" × 4" × 5 5/8"
10	Oak Wedge	1 3/8" × 8" × 5 3/8"
79 L.F.	L.L.Y.P. Sill Timber	6" × 8"
72	Square Head Bolts	3/4" × 2 1/2"
72	Square Nuts	for 3/4" Bolt
72	Washers	for 3/4" Bolt
1	Roll Rubber Belting	1/8" × 4 1/2" × Req'd. Lg.



SITE PLAN

Note: For Schedule of Reinforcing Steel and General Notes see Sheet No. 264
For details of louvered vent see Sheet No. 264

Work this sheet with Sheet No. 264.

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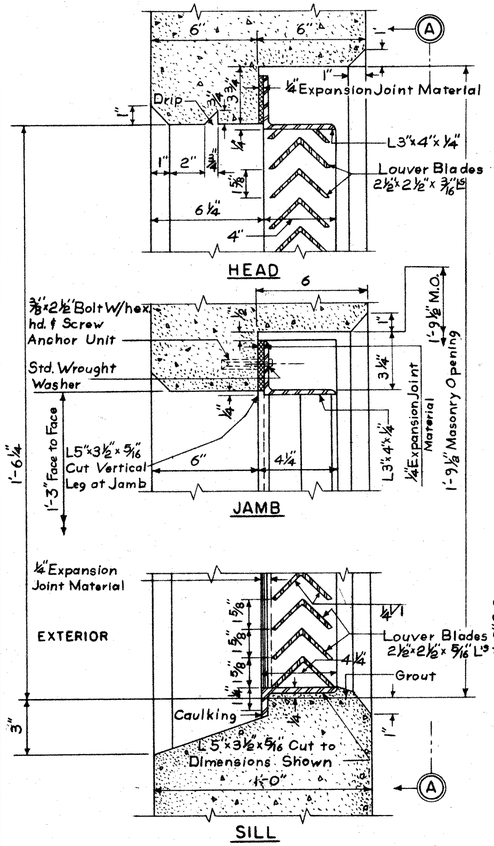
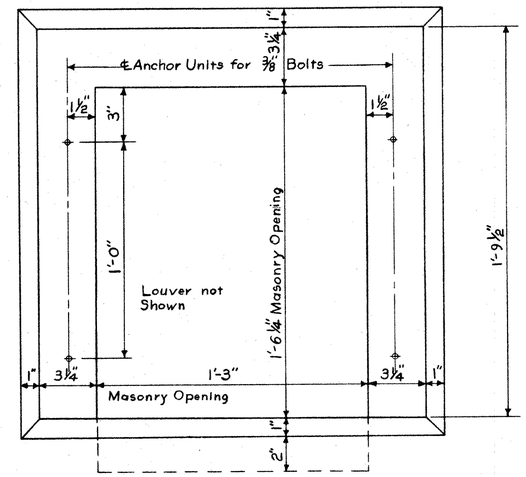
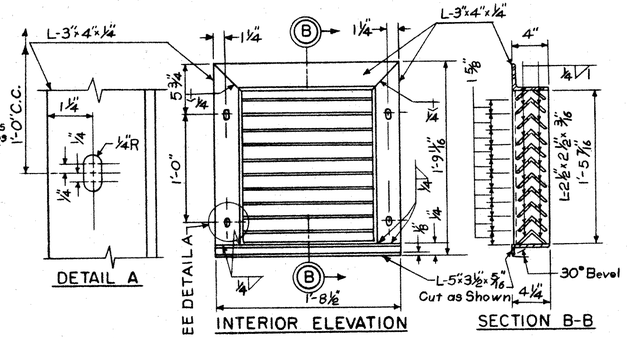
CONSULTING ENGINEERS
CINCINNATI, OHIO

FLOOD GATE STORAGE HOUSE

DESIGNED	DRAWN	TRACED	CHECKED	REVIEWED DATE	REVISED
B.O.G. 2-10-62	B.O.G. 2-13-62		W.A.Z. 3-1-62	W.A.Z. 8-8-62	







FLOOD GATE UNIT

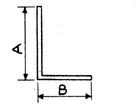
MARK	SHP	LGTH.	TOTAL	WGT.
GF501	Str.	11'- 2"	54	629
GF502	Bent	15'- 6"	16	259
GF503	Str.	7'- 2"	10	75
GF504	Bent	16'- 6"	8	138
GF505	Bent	3'- 4"	14	49
GF506	Bent	4'- 9"	8	40
GF507	Bent	11'-10"	54	666
GF508	Bent	14'- 3"	20	297
GF509	Bent	10'- 2"	4	42
GF510	Str.	6'- 0"	2	13
GF511	Bent	7'- 5"	8	62
GF512	Str.	10'- 4"	8	86
GF601	Bent	17'-10"	62	1660
GF602	Str.	28'-10"	30	1299
GF603	Str.	27'- 6"	12	495
GF604	Str.	28'- 8"	8	344
GF605	Str.	4'- 9"	16	114
GF606	Str.	9'- 0"	10	135
GF607	Bent	3'-10"	8	46
GF608	Str.	6'-10"	10	103
GF609	↑	3'- 1"	32	148
GF610		2'- 5"	4	15
GF611		2'- 3"	4	14
GF612		2'- 1"	4	13
GF613		1'-10"	4	11
GF614	Str.	1'- 8"	4	10
GF701	Str.	11'- 2"	113	2580
GF702	Bent	5'- 1"	48	499
GF703	Str.	29'- 1"	84	4996
GF704	↑	7'- 2"	6	88
GF705		11'- 5"	15	350
GF706		24'- 8"	15	757
GF707		10'- 8"	13	284
GF708		6'- 5"	2	26
GF709	Str.	10'- 4"	48	1014

GF801	Str.	11'- 2"	29	864
GF802	↑	7'- 2"	6	115
GF803		11'- 5"	15	457
GF804		24'-10"	15	993
GF805		10'- 8"	13	370
GF806	Str.	6'- 5"	2	34

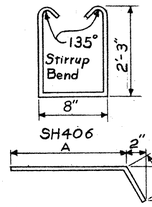
FLOOD GATE STORAGE HOUSE

MARK	SHR	LGTH.	TOTAL	WGT.
SH401	Str.	9'- 8"	23	149
SH402	Str.	4'- 8"	8	25
SH403	Str.	10'-10"	4	29
SH404	Bent	5'- 2"	5	17
SH405	Str.	24'- 8"	47	774
SH406	Bent.	5'-10"	51	199
SH407	Bent	2'- 5"	17	27
SH408	Str.	12'- 7"	16	134
SH409	↑	10'- 6"	10	70
SH410		4'- 0"	9	24
SH411		3'- 3"	6	13
SH412		3'- 0"	4	8
SH413	Str.	5'- 3"	4	14
SH501	Str.	22'- 8"	10	236
SH502	Str.	12'- 7"	23	302
SH503	Str.	11'- 3	8	94
SH504	Bent	5'- 8"	34	201
SH505	Str.	26'- 6"	4	111
SH601	Bent	4'- 2"	70	438
SH602	Str.	10'- 6"	66	1041
SH603	Str.	6'-10"	2	21

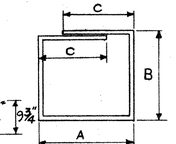
Total Wgt. of Reinforcing Steel: 24,117#



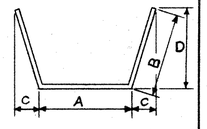
MARK	A	B
GF505	2'-9"	0'-8"
GF509	5'-3"	5'-0"
GF607	2'-0"	2'-0"
GF609	2'-9"	0'-6"
GF702	4'-3"	1'-0"
SH404	4'-0"	1'-3"
SH407	1'-3"	1'-3"
SH601	2'-9"	1'-7"
SH504	1'-9"	4'-0"



MARK	A
GF506	4'-0"
GF511	6'-8"



MARK	A	B	C
GF502	3'-6"	3'-8"	2'-7"
GF504	4'-0"	3'-8"	2'-10"



MARK	A	B	C	D
GF507	2'-7"	4'-9"	0"	4'-9
GF508	4'-0"	5'-3"	0"	5'-3"
GF601	1'-6"	8'-4	5"	8-3¾"

FED. RD. DIV.	STATE	PROJECT	FISCAL YEAR
2	OHIO		

264
464

HAM-50-19.76

GENERAL NOTES

CONCRETE — Concrete to be in accordance with Item S-1 of the Specifications and to be Class E except a portion of the Flood Gate Storage House which is to be Class C, as indicated on Sheet No. 263

PROCEDURE — Embankment shall be placed and compacted to height of one foot above the top of flood wall footing, after which excavation shall be made for the footing. Removal of material shall be paid for as excavation according to Sec. E-2.09.

RUBBER WATER STOP — Water stop shall be installed so as to form a continuous water tight diaphragm in each joint. Adequate provisions shall be made to support and completely protect the water stop during progress of the work. The contractor shall replace or repair, at his expense any water stops damaged before final acceptance of the work.

Rubber water left exposed for 30 days or longer shall be protected by wooden coverings, secured firmly in place. The coverings shall be light proof and water proof.

1" PREFORMED EXPANSION JOINT FILLER

1" Gray Sponge Rubber Preformed Expansion Joint Filler shall meet the requirements of Section M-10.02 Type 1.

Structural steel shall be in accordance with Item S-7 of the Specifications.

Door & Frame to be of 16 gauge steel, Truscon Steel Company's Industrial Steel Door - Series 31 or approved equal.

Wrought Iron pipe to be in accordance with Item M-6 of the Specifications.

FLOOD GATE UNIT GENERAL NOTES ONLY

The Flood unit shall be constructed as indicated on the preceding drawing. All fixed metal parts of the opening shall be accurately installed to line and grade to insure accurate fitting together of the component parts of the gate. The gate closure at the opening shall be installed to assure the proper fitting together and interchangeability of the several parts. If proper closure is not provided, the contractor shall make any necessary adjustments and then re-assemble the gate closure at no additional cost to the State. Following this test, all items shall be dismantled and stored in the Gate Storage House. Any items which became damaged during the test through the fault of the contractor shall be replaced by new material satisfactory to the Project Engineer at no additional cost to the State.

Payment shall be included in the lump sum "Item Special, Flood Gate Storage House and Flood Gate Unit, As Per Plans."

BASIS OF PAYMENT — Payment shall be made at the Lump Sum price bid for "Item Special, Flood Gate Storage House and Flood Gate Unit, Freeman Ave." which lump sum price and payment shall constitute full compensation for the construction of the Flood Gate Storage House and Flood Gate Unit complete as per plans; erecting, dismantling and storage of flood gate truss assemblies and gate panels, removal of existing Flood Gate Storage House, removal of portion of existing Flood Gate Unit and all materials, tools and labor necessary to complete this Item.

SPECIFICATIONS

Reinforcing steel to be in accordance with Item S-4 of the Specifications.

Porous Backfill to be in accordance with Item S-29 of the Specifications.

All metal surfaces to be painted as specified in Item S-8 of the Specifications.

HAZELET & ERDAL
CONSULTING ENGINEERS
CINCINNATI, OHIO

FLOOD GATE STORAGE HOUSE AND FLOOD GATE UNIT

DESIGNED	DRAWN	TRACED	CHECKED	REVIEWED DATE	REVISED
	J.T.C. 3/6/62		W.B.S. 5-7-62	W.B.S. 8-8-62	

MICROFILMED
JUN 11 1984

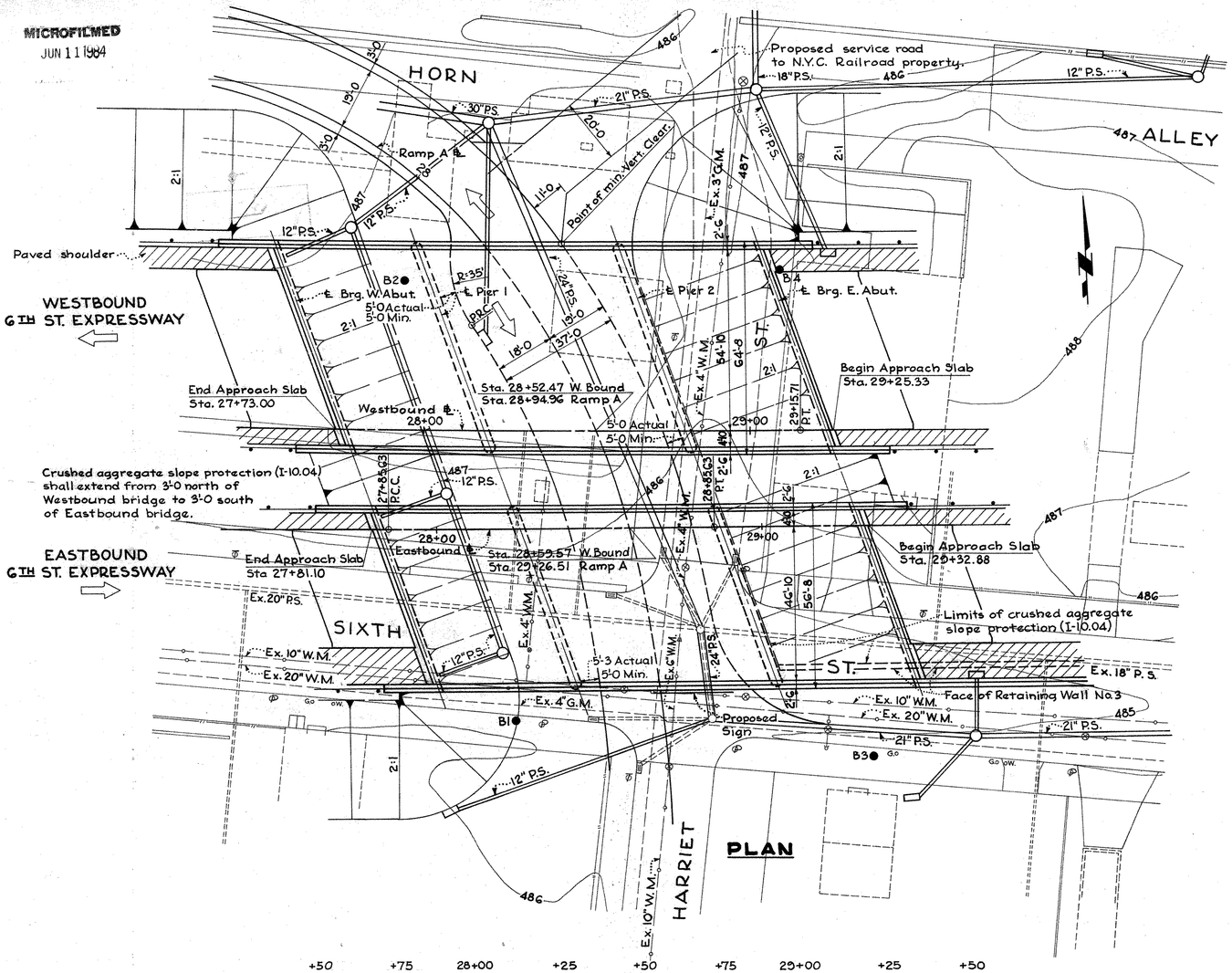
207 Red

FED. RD. DIV.	STATE	PROJECT	FISCAL YEAR
2	OHIO		

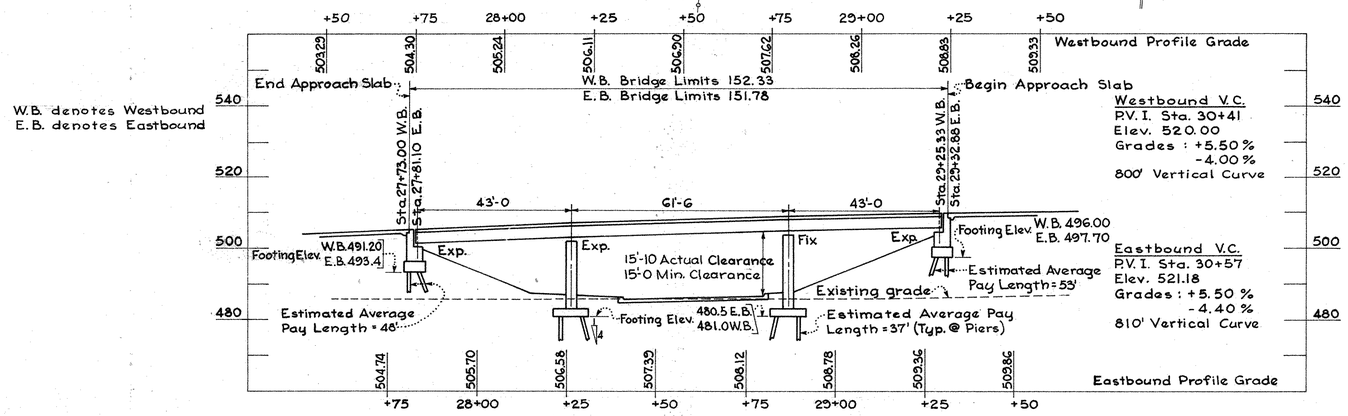
HAM-50-19.76

265 / 464

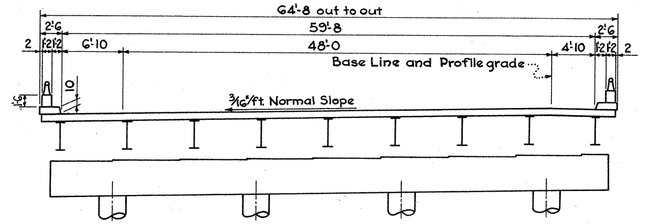
207 Red
265-365



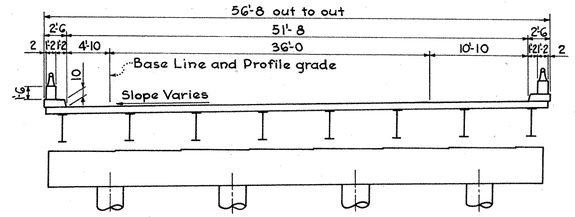
PLAN



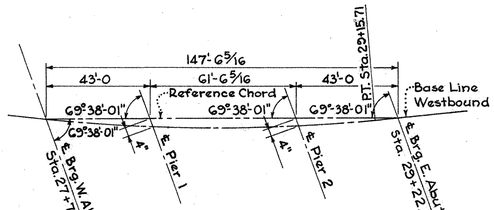
PROFILE ON BASE LINE



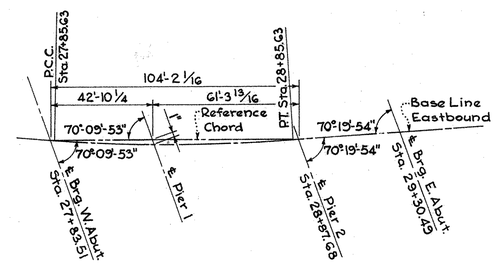
SECTION WESTBOUND



SECTION EASTBOUND



WESTBOUND REFERENCE CHORD LAYOUT



EASTBOUND REFERENCE CHORD LAYOUT

EXPRESSWAY CURVE DATA

℄ WESTBOUND	℄ EASTBOUND
P.I. Sta. 25+62.64	P.I. Sta. 28+35.63
P.C. Sta. 22+08.94	P.C.C. Sta. 27+85.63
P.T. Sta. 29+15.71	P.T. Sta. 28+85.63
Δ : 5° 53'-23"	Δ : 0° 20'
D : 0° 50'	D : 0° 20'
R : 6,875.50	R : 17,188.74'
L : 706.77'	L : 100.00'
T : 353.70'	T : 50.00'

Bridge No. HAM-50-1987 L is Westbound
Bridge No. HAM-50-1987 R is Eastbound

PROPOSED STRUCTURES

TYPE : Three span continuous rolled beam with concrete deck and substructure
SPANS: 43.00', 61.50', 43.00' ℄ bearing
ROADWAY : Westbound - 59'-8" ℄ curbs
Eastbound - 51'-8" ℄ curbs
SIDEWALK : 1'-2 Curbs
LOAD FREQUENCY: CF - 2000 (57) Adequate for AASHO alternate loading
SKEW-Westbound - 20°21'-55" R.F.
Eastbound - 19°50'-07" RF. and 19°-40'-06" R.F.
WEARING SURFACE : 1" Monolithic concrete

APPROACH SLABS : AS-1-54 (25' long)
ALIGNMENT: Westbound - 0°50' Curve left and tangent
Eastbound - 0°20' Curve left and tangent
SUPERELEVATION: Westbound - 3/16 "/ft.
Eastbound - Varies

NOTE: Design Specifications: This structure conforms to the requirements of "Design Specifications for Highway Structures" of the State of Ohio, Department of Highways, dated 9-1-57 together with revisions thereof dated 2-21-58.

Piles shall be 12BP53 driven with a hammer of not less than 11000 ft. lbs. per blow to firm contact with rock and shale. Firm contact shall be considered as attained when the capacity according to the formula in Sec. 5-18.05 (Construction and Material Specifications) is not less than the following value for a pile hammer of the indicated energy rating:
60 tons per pile using a 11000 ft. lb. hammer
50 tons per pile using a 15000 ft. lb. hammer
If the energy rating of the hammer is between the ratings as shown above, the required formula capacity shall be determined by interpolation. The design load is 40 tons per pile.

● Symbol denotes Test Boring.

For logs of borings see Sheet No. 268

For General Notes see Sheet No. 408

CITY OF CINCINNATI
DEPARTMENT OF PUBLIC WORKS
DIVISION OF ENGINEERING

SITE PLAN

BRIDGE NO. HAM-50-1987-(R & L)

EASTBOUND & WESTBOUND 6TH ST. EXPRESSWAY BRIDGES OVER RAMP A

CINCY BRIDGE NOS. 3R & 3L

DESIGNED	DRAWN	TRACED	CHECKED	REVIEWED	DATE	REVISED
J.R.S. J.A.A.	J.R.S. J.A.A.	J.D.A.	W.W.	W.W.	8-1-62	

FED. RD. DIV.	STATE	PROJECT	FISCAL YEAR
2	OHIO		

HAM-50-19.76

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MICROFILMED
JUN 11 1984

ESTIMATED QUANTITIES

ITEM	TOTAL (U) WEST BOUND	TOTAL (U) EASTBOUND	UNIT	DESCRIPTION	WESTBOUND BRIDGE SUPER-STRUCT.	WEST ABUT.	EAST ABUT.	PIER 1	PIER 2	GENERAL			EASTBOUND BRIDGE SUPER-STRUCT.	WEST ABUT.	EAST ABUT.	PIER 1	PIER 2	GENERAL		
S-25			Each	Handhole frame and cover (8"x8")																
E-2	726	610	Cu.Yds.	Unclassified excavation		255	255	108	108					220	190	100	100			
S-1	286	253	Cu.Yds.	Class "C" concrete, superstructure	286								253							
S-1	90	88	Cu.Yds.	Class "C" concrete, pier caps and columns				44	46							43	45			
S-1	155	127	Cu.Yds.	Class "E" concrete, abutments above footings		78	77							67	60					
S-1	174	151	Cu.Yds.	Class "E" concrete, footings		57	57	30	30					49	42	30	30			
S-3	18	18	Lin. Ft.	Waterproofing, premolded sealing strip		9	9							9	9					
S-3		4	Sq. Yds.	Type "D" waterproofing											4					
S-4	131,909	112,986	Lbs.	Reinforcing steel	83,669	9,537	9,658	14,262	14,783				73,190	7,910	8,490	11,510	11,886			
S-7	231,375	205,930	Lbs.	Structural steel	231,375								205,930							
S-8	231,375	205,930	Lbs.	Field painting of structural steel	231,375								205,930							
S-14	365	343	Lin. Ft.	Railing, Type "A" (aluminum rail and supports, concrete parapet)	299	30	36						298	28	17					
S-16		Lump	Lump Sum	First test pile														Lump		
S-18	3493	3291	Lin. Ft.	Steel piles 12BP53		816	901	888	888					720	795	888	888			
S-25			Each	400-Watt Mercury Vapor Luminaire I.E.S. Type II or III Distribution		—														
S-25			Each	200-Watt Fluorescent Luminaire																
S-25			Each	Photoelectric Control for Lighting Circuit																
S-25			Each	15 Amp. Fuse Block																
S-25			Lump Sum	Electric Grounding System for Bridge																
S-25			Lin. Ft.	Single Conductor #6 Secondary Cable, Plain																
S-25			Lin. Ft.	Single Conductor #6 Secondary Cable, Identifiable																
S-25			Lin. Ft.	Three Conductor #12 Secondary Cable																
S-25			Each	Lamp Standard Type A (Structure) modified with 12' Bracket Arm																
S-25			Each	Lamp Standard Type A (Structure) modified with 15' Bracket Arm																
S-25			Each	Junction Box, as per plan																
S-25			Lin. Ft.	3" Asbestos Cement Conduit (Structure) Type 1																
S-25			Lin. Ft.	3" Rigid Metallic Conduit with Accessories																
S-25			Lin. Ft.	2" Electric Metallic Conduit with Accessories																
S-25			Each	Conduit Support Assembly																
S-25			Each	Sign Circuit Control Assembly, 30 Amp.																
S-29	50	44	Cu. Yds.	Porous backfill		25	25							23	21					
S-29	1	2	Each	Drain inlets, including support lugs	1								2							
S-29	5	10	Lin Ft.	8" std. pipe downspout, galvanized steel or wrought iron, including specials		5								10						
I-10	650	540	Sq. Yds.	Crushed aggregate slope protection		285	365							255	285					
Special	286	253	Each	Water-reducing, set-retarding admixture *	286								253							
S-407	2754	2448	Each	Welded Stud Shear Connectors **	2754								2448							

Note: FIRST TEST PILE. Payment will be made for only one first test pile. (* See proposal note)
It may be driven for either the Eastbound or Westbound Bridge.

** No Federal Participation

For S-25 Items, see lighting and signing General Summary, Sheet Nos. 41 and 42.

CITY OF CINCINNATI
DEPARTMENT OF PUBLIC WORKS
DIVISION OF ENGINEERING

ESTIMATED QUANTITIES

BRIDGE NO. HAM-50-1987-(R&L)

EASTBOUND & WESTBOUND
6TH ST. EXPRESSWAY BRIDGES
OVER RAMP A

CINCY BRIDGE NOS. 3R & 3L

DESIGNED	DRAWN	TRACED	CHECKED	REVIEWED	DATE	REVISED
J.G.T.	J.D.A.		J.A.A.	W.W.	8-1-62	

MICROFILMED
JUN 11 1984

FED. RD. DIV.	STATE	PROJECT	FISCAL YEAR
2	OHIO		

HAM-50-19.76

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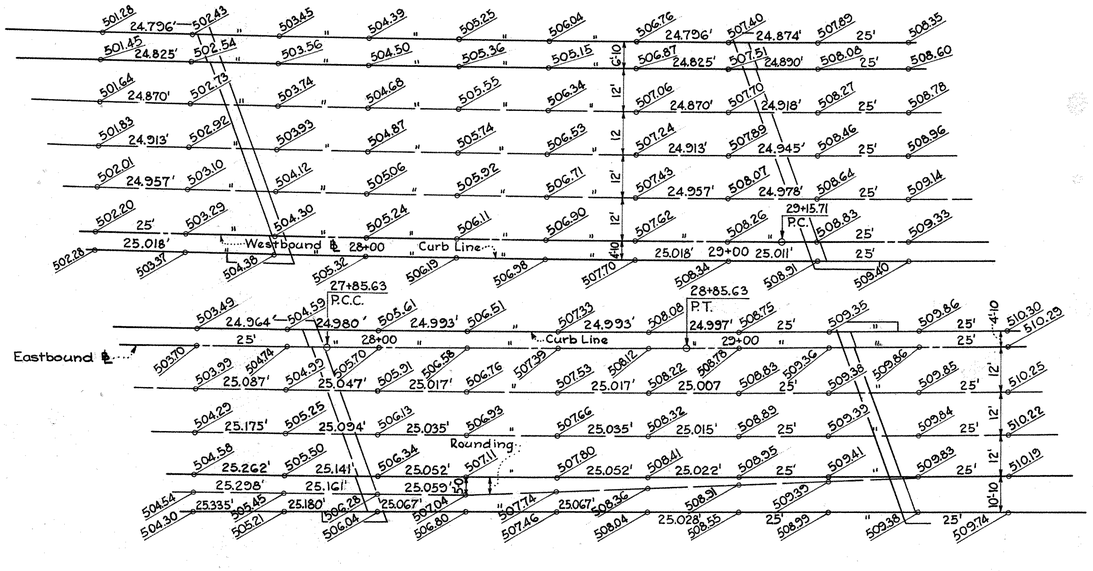
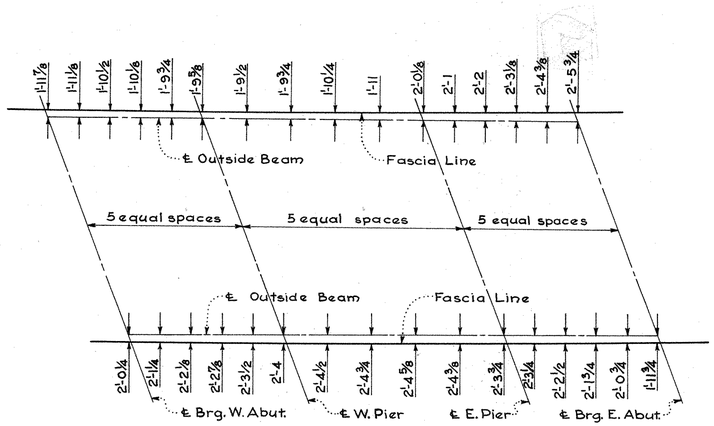
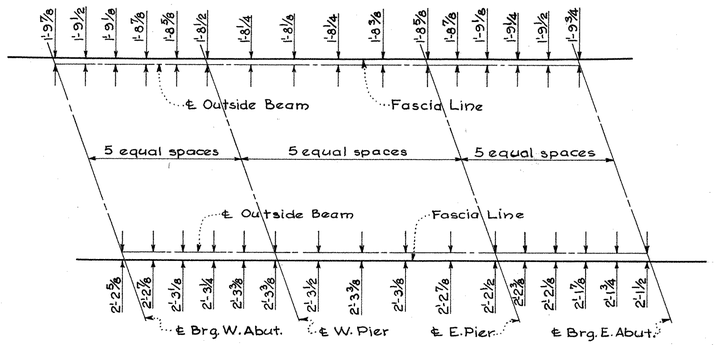
464



GRADE DETAIL



WESTBOUND FASCIA OFFSETS



EASTBOUND FASCIA OFFSETS

CITY OF CINCINNATI
DEPARTMENT OF PUBLIC WORKS
DIVISION OF ENGINEERING

GRADE DETAIL & FASCIA OFFSETS

BRIDGE NO. HAM-50-1987(R&L)

EASTBOUND & WESTBOUND 6TH ST. EXPRESSWAY BRIDGES OVER RAMP A

CINCY BRIDGE NOS. 3R & 3L

DESIGNED	DRAWN	TRACED	CHECKED	REVIEWED	DATE	REVISED
J.A.A.	J.D.A.	J.D.A.	W.W.	W.W.	8-1-62	

MICROFILMED
JUN 11 1984

FED. RD. DIV.	STATE	PROJECT	FISCAL YEAR
2	OHIO		

HAM-50-19.76

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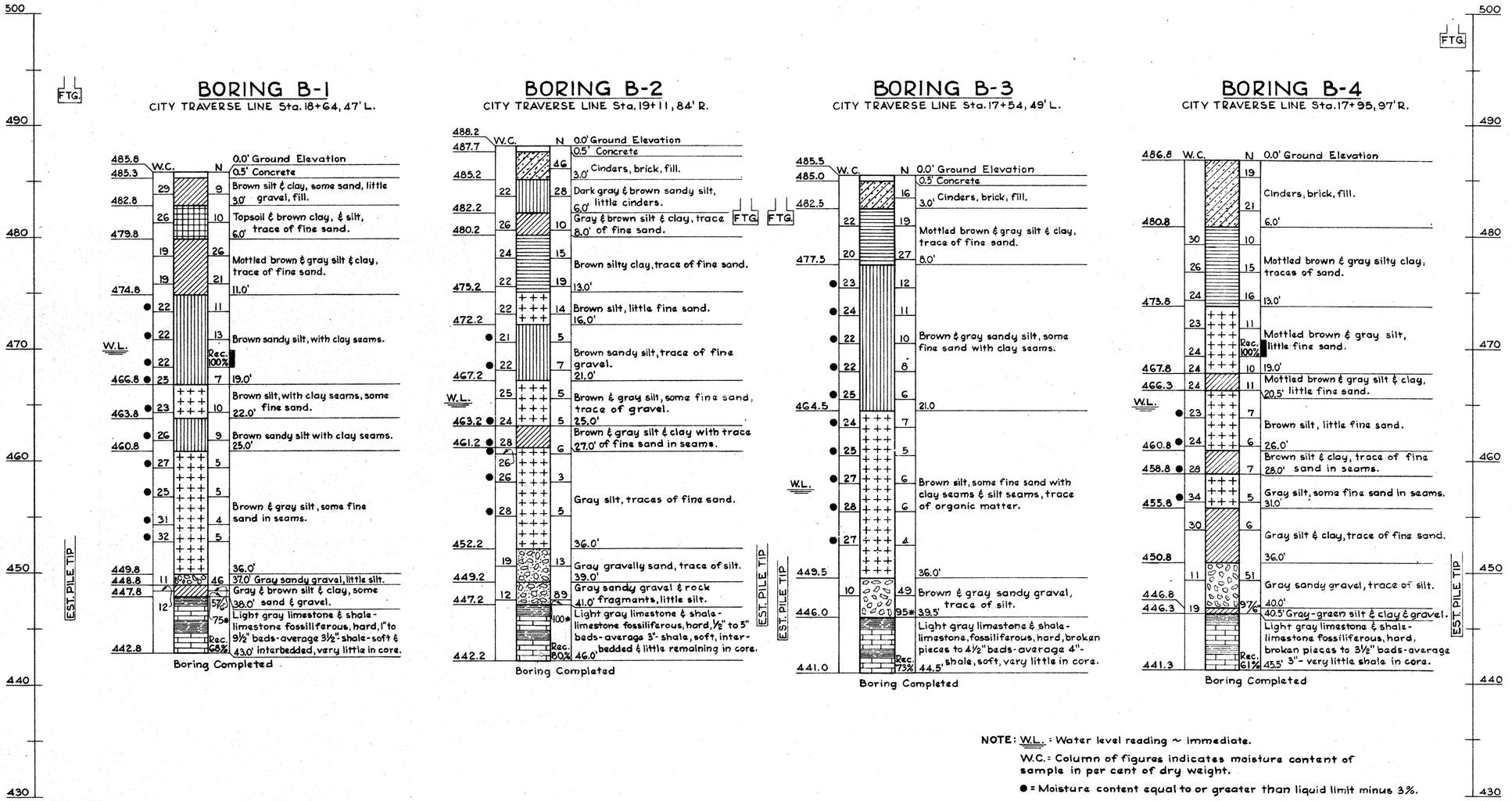
464



NOTE: W.L. = Water level reading ~ immediate.

W.C. = Column of figures indicates moisture content of sample in per cent of dry weight.

● = Moisture content equal to or greater than liquid limit minus 3%.

N = Column of figures indicates number of blows required to drive 2" O.D. Split Spoon the last 12" of a sample run using 140 lb. weight falling 30 inches.

PANM Core Barrel was used for the last 5 ft. of each boring.

Description of material is based on laboratory test data and visual examination. Representative samples only were tested.

Modifying descriptions in per cent of dry weight : trace 1-10% ; little 10-20% ; some 20-35% ; and 35-50%.

Borings taken between April 26, 1961 and May 2, 1961.

For location of borings see Sheet No. 265.

▮ = 3" O.D. Shelby Tube sample taken at elevation of symbol.

* = No penetration.

CITY OF CINCINNATI
DEPARTMENT OF PUBLIC WORKS
DIVISION OF ENGINEERING

LOG OF BORINGS

BRIDGE NO. HAM-50-1987-(R & L)

EASTBOUND & WESTBOUND
6TH ST EXPRESSWAY BRIDGES
OVER RAMP A

CINCY BRIDGE NOS. 3R & 3L

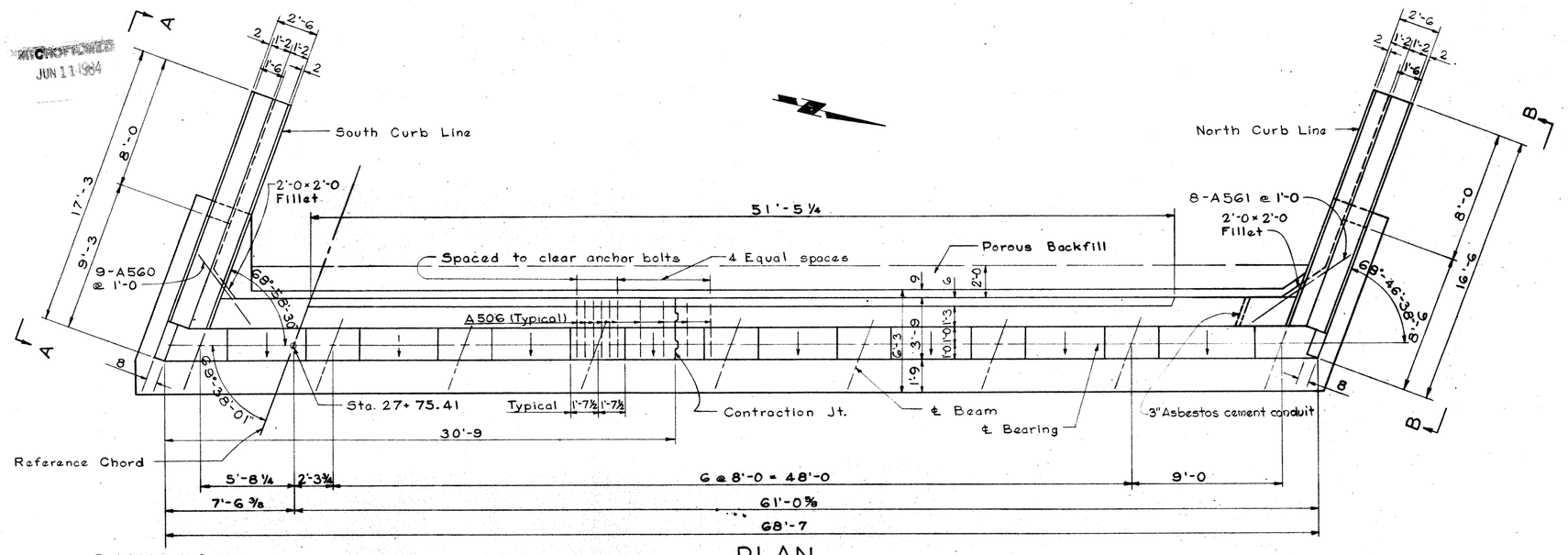
DESIGNED	DRAWN	TRACED	CHECKED	REVIEWED	DATE	REVISED
	J.D.A.		W.W.	W.W.	8-1-62	

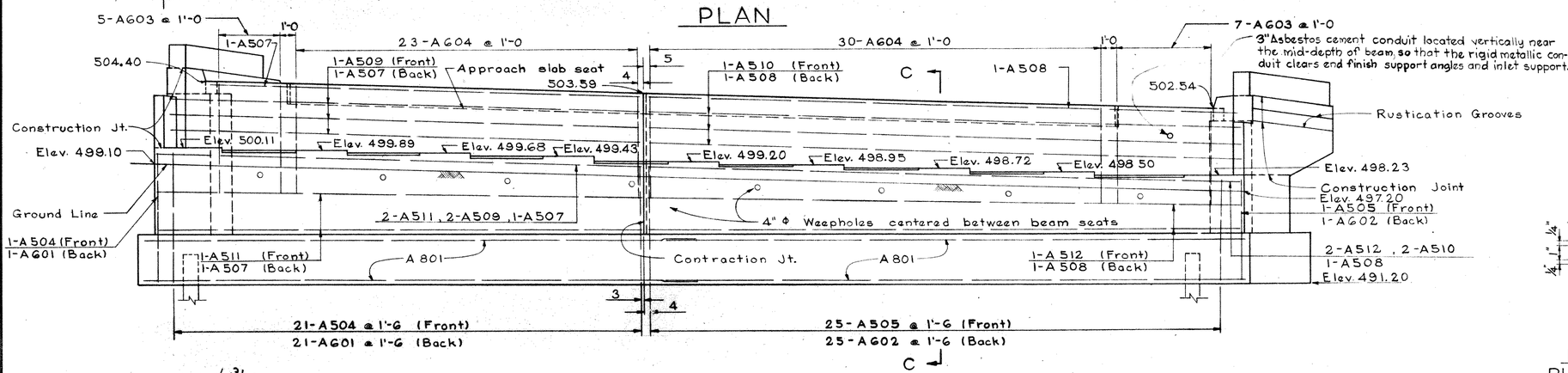
FED. RD. DIV.	STATE	PROJECT	FISCAL YEAR
2	OHIO		

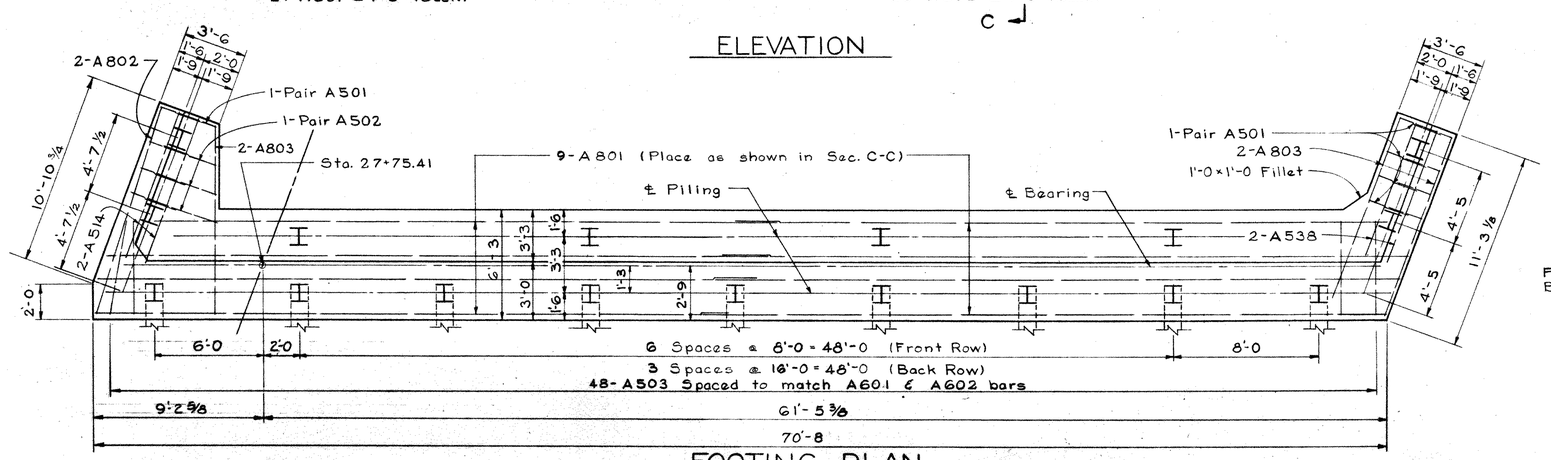
269
464

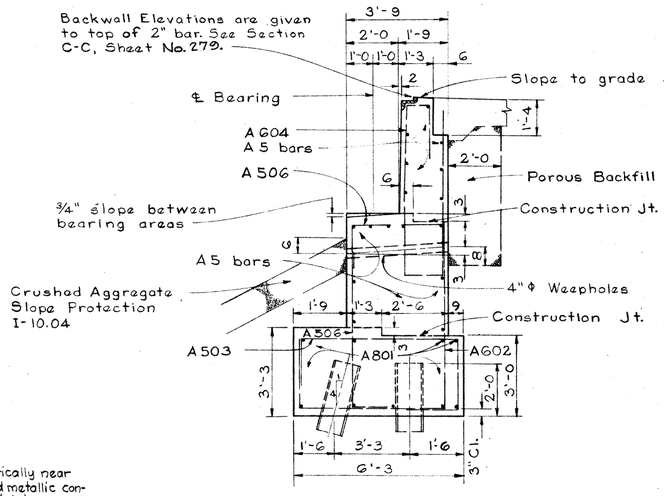
HAM-50-19.76

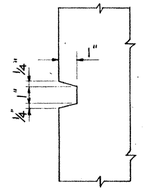
MICROFILMED
JUN 11 1984



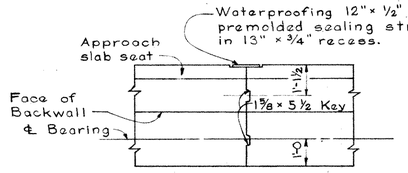








DETAIL OF RUSTICATION GROOVE



CONTRACTION JOINT

NOTES:

Work this sheet with Sheet Nos. 270 and 271.

For anchor bolt layout see Sheet No. 277.

The embankment shall be placed and compacted up to the finished spillthru slope and to the level of the subgrade for a distance of 200 feet back of the abutments, after which excavation shall be made for the abutment.

All piles shall be steel 12 BP 53.

For end finish details, see Sheet No. 270 and Std. Drawing CSB-2-56 Sheet No. 2, Revised 2-2-59

For curb plate details, see Sheet No. 279.

Porous backfill 2 ft. thick, full length of the abutment shall extend up to the underside of the approach slab and shoulder pavement.

CITY OF CINCINNATI
DEPARTMENT OF PUBLIC WORKS
DIVISION OF ENGINEERING

WEST ABUTMENT

BRIDGE NO. HAM-50-1987-L

WESTBOUND
6TH ST. EXPRESSWAY BRIDGE
OVER RAMP A

CINCY BRIDGE NO. 3L

DESIGNED	DRAWN	TRACED	CHECKED	REVIEWED	DATE	REVISED
J.G.T.	J.G.T.		W.W.	W.W.	8-1-62	

MICROFILMED
JUN 11 1984

FED. RD. DIV.	STATE	PROJECT	FISCAL YEAR
2	OHIO		

HAM-50-19.76

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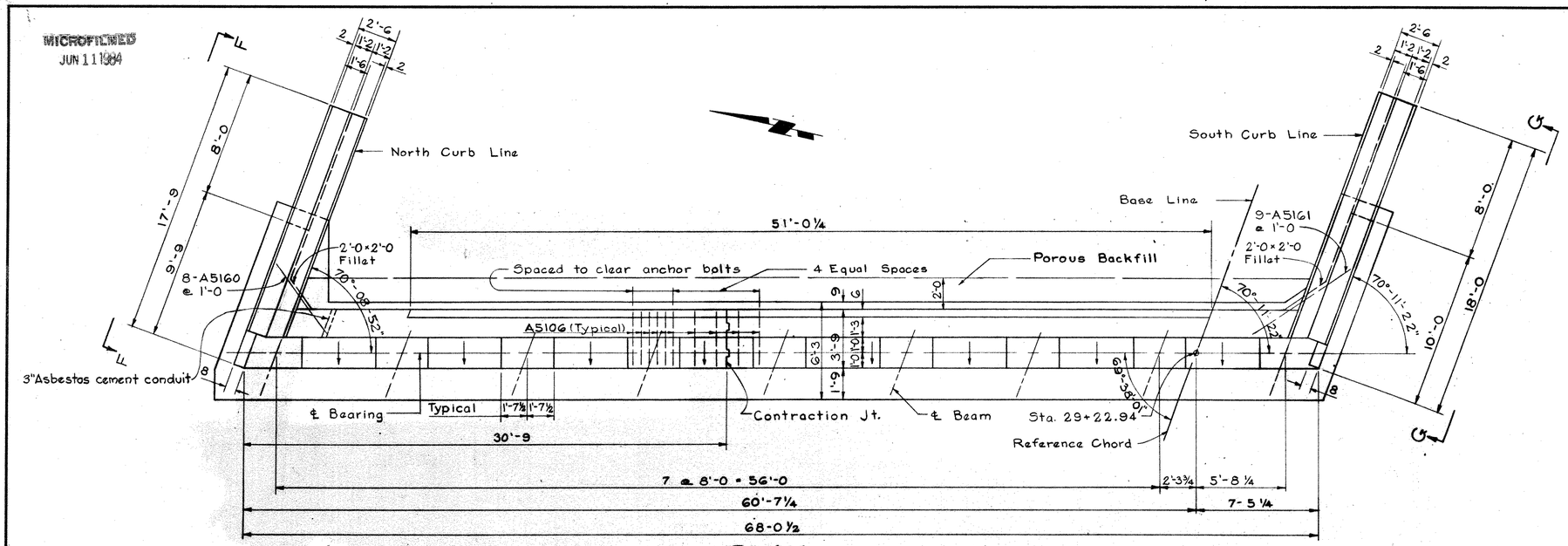
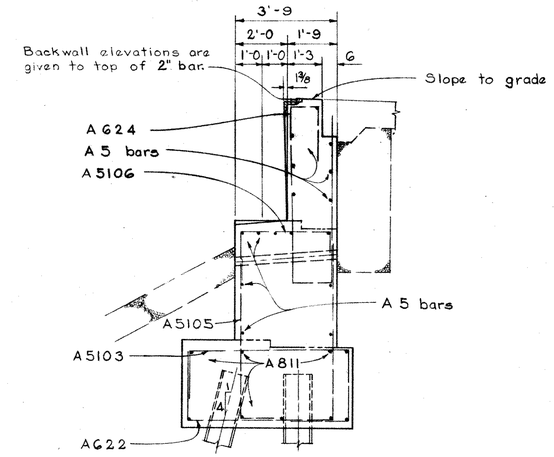
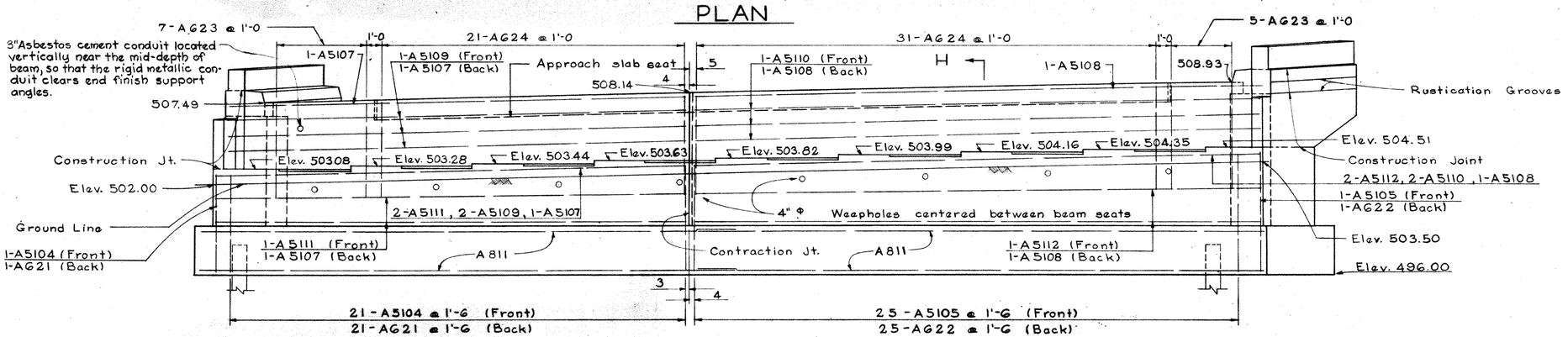
464

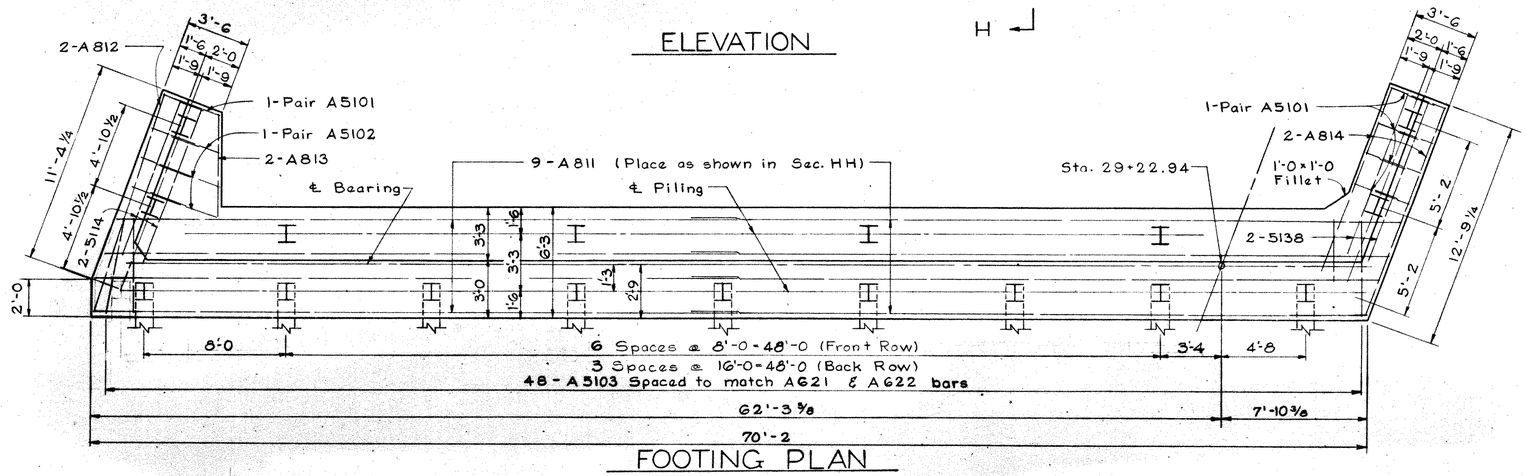


PLAN





ELEVATION



FOOTING PLAN

SECTION H-H

For details not shown see Sections C-C, Sheet Nos. 269 and 279.

NOTES:

Work this sheet with Sheet Nos. 269 and 271.

For anchor bolt layout see Sheet No. 277.

The embankment shall be placed and compacted up to the finished spillthru slope and to the level of the subgrade for a distance of 200 feet back of the abutments, after which excavation shall be made for the abutment.

All piles shall be steel 12 BP 53.

For end finish details, see Sheet No. 279 and Std. Drawing CSB-2-56 Sheet No. 2, Revised 2-2-59.

For curb plate details, see Sheet No. 279.

Porous backfill 2 ft. thick, full length of the abutment shall extend up to the underside of the approach slab and shoulder pavement.

For contraction joint details, see Sheet No. 269.

CITY OF CINCINNATI
DEPARTMENT OF PUBLIC WORKS
DIVISION OF ENGINEERING

EAST ABUTMENT

BRIDGE NO. HAM-50-1987-L

WESTBOUND
6TH ST. EXPRESSWAY BRIDGE
OVER RAMP A

CINCY BRIDGE NO. 3L

DESIGNED	DRAWN	TRACED	CHECKED	REVIEWED	DATE	REVISED
J.G.T.	J.G.T.		W.W.	W.W.	8-1-62	

MICROFILMED
JUN 11 1984

FED. RD. DIV.	STATE	PROJECT	FISCAL YEAR
2	OHIO		

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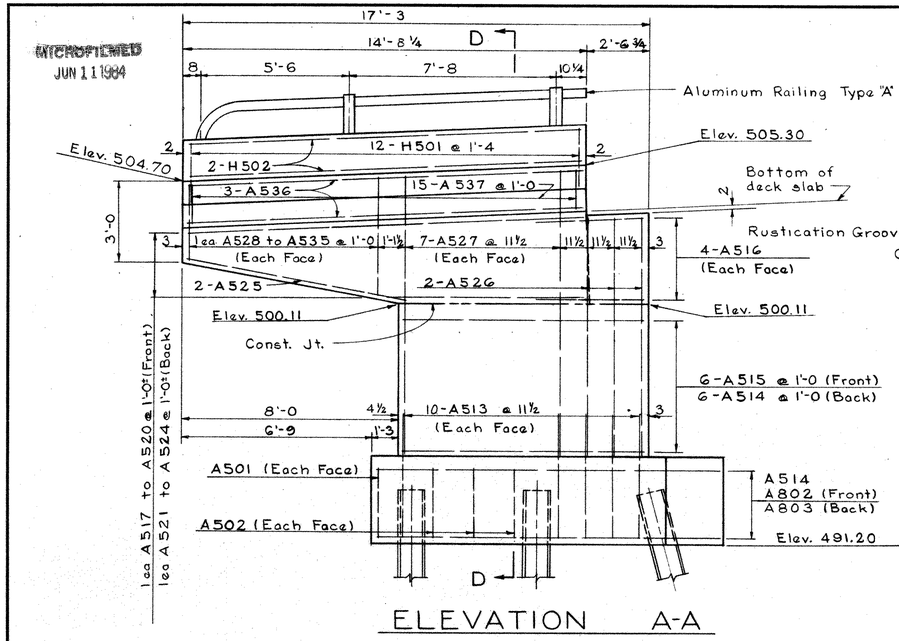
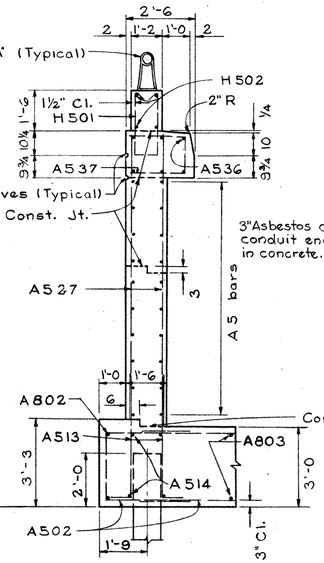
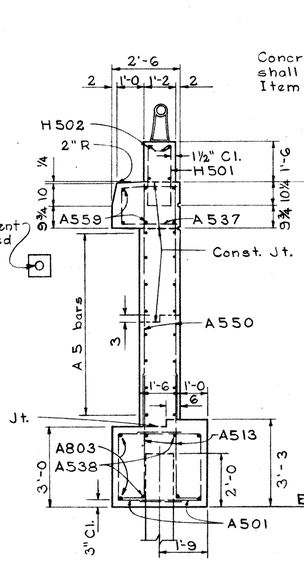
HAM-50-19.76



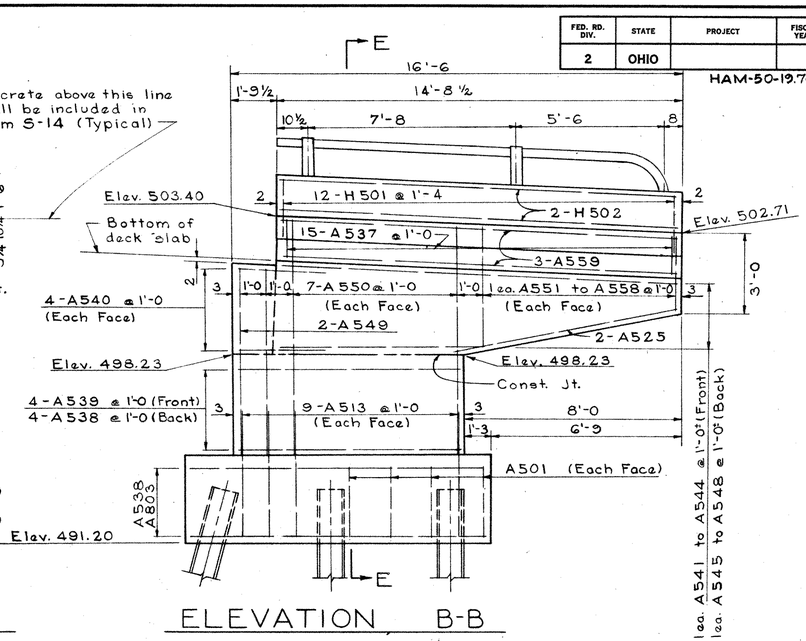
ELEVATION A-A



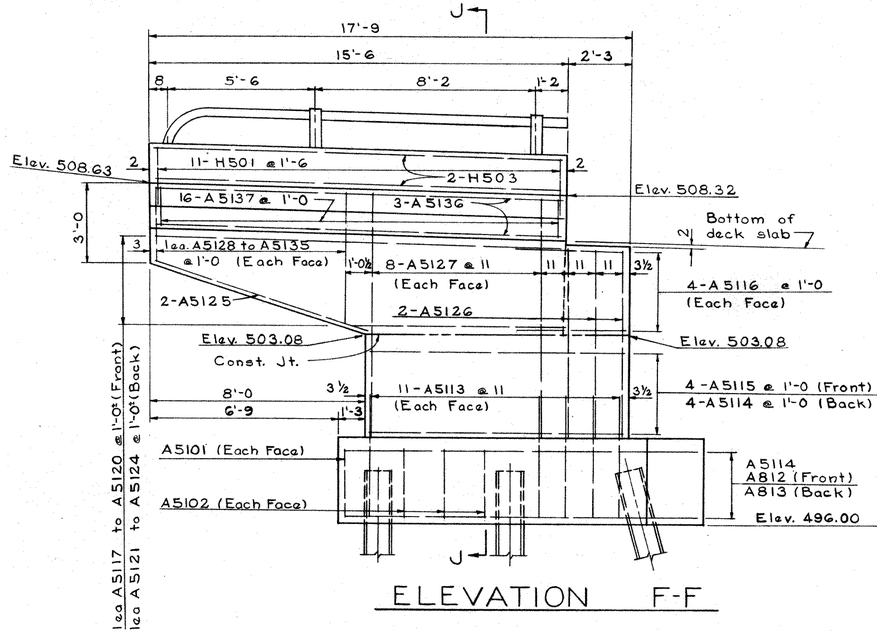
SECTION D-D



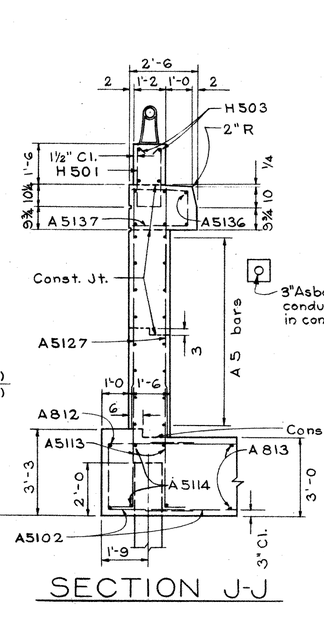
SECTION E-E



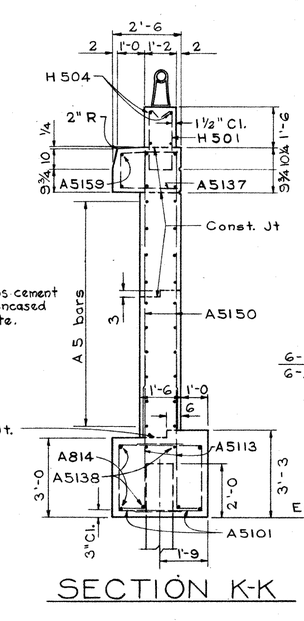
ELEVATION B-B



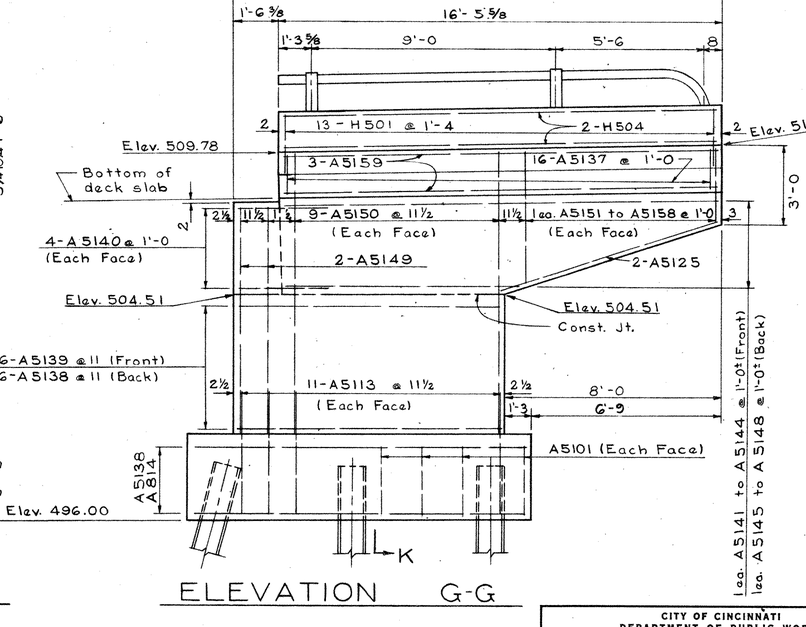
ELEVATION F-F



SECTION J-J



SECTION K-K



ELEVATION G-G

NOTES:

Work this sheet with Sheet Nos. 269 and 270.

Aluminum Railing shall be continuous for full length of wingwall.

For railing details see Std. Drwg. AR-1-57, Revised 12-12-60

For lighting details see Sheet Nos. 213 and 282.

CITY OF CINCINNATI
DEPARTMENT OF PUBLIC WORKS
DIVISION OF ENGINEERING

ABUTMENT DETAILS

BRIDGE NO. HAM-50-1987-L

WESTBOUND
6TH ST. EXPRESSWAY BRIDGE
OVER RAMP A

CINCY BRIDGE NO. 3L

DESIGNED	DRAWN	TRACED	CHECKED	REVIEWED	DATE	REVISED
J.G.T.	J.G.T.		W.W.	W.W.	8-1-62	

MICROFILMED
JUN 11 1964

FED. RD. DIV.	STATE	PROJECT	FISCAL YEAR
2	OHIO		

HAM-50-19.76

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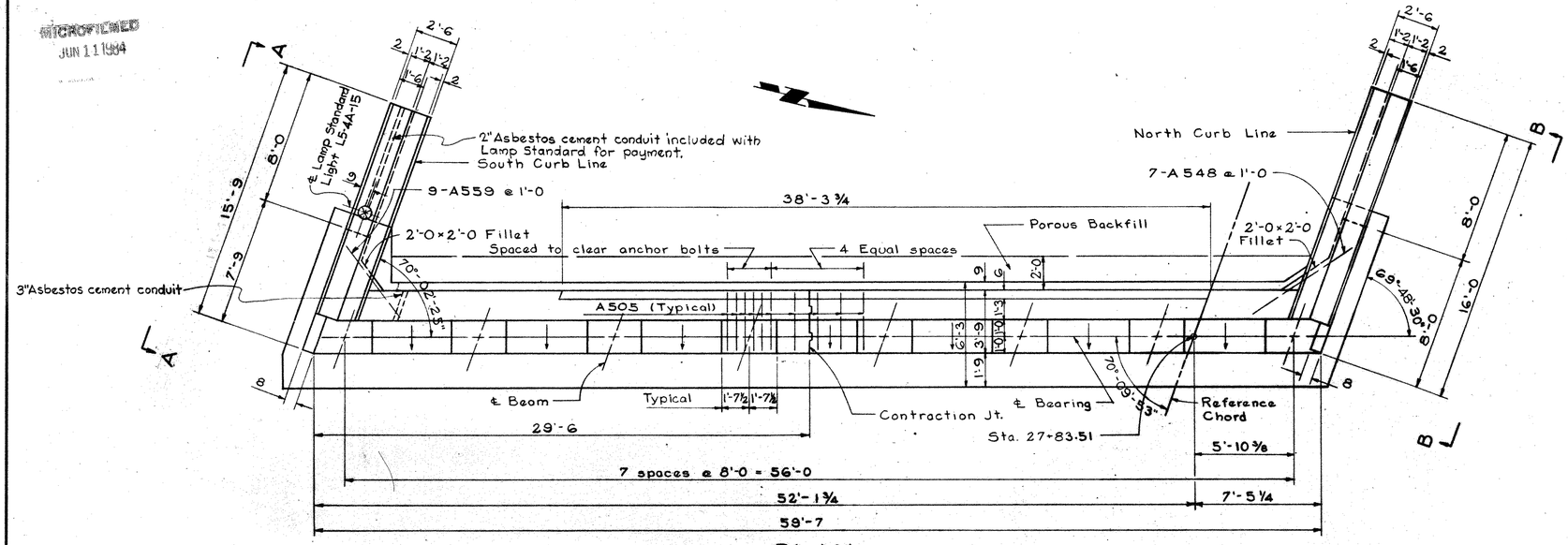
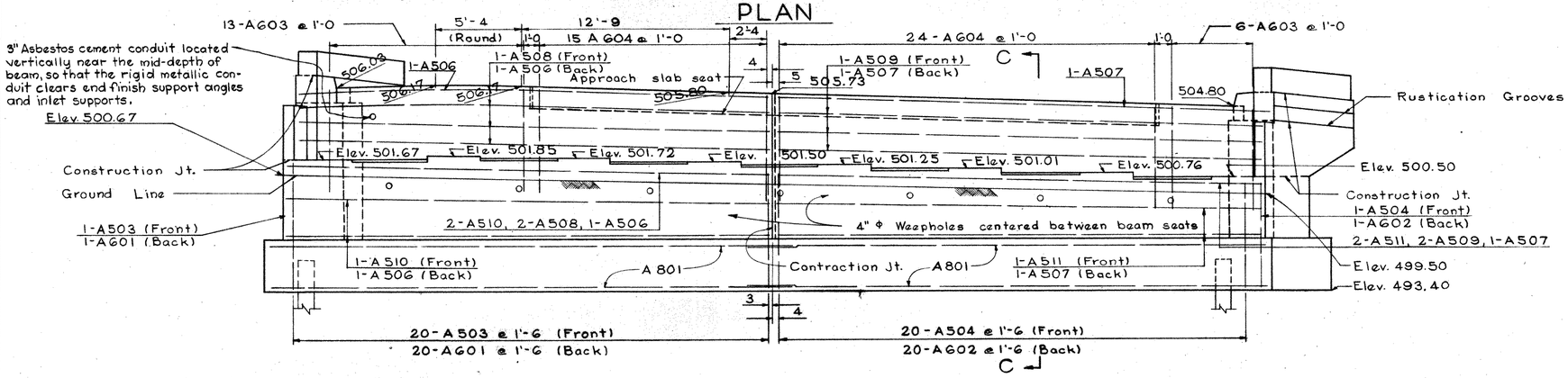
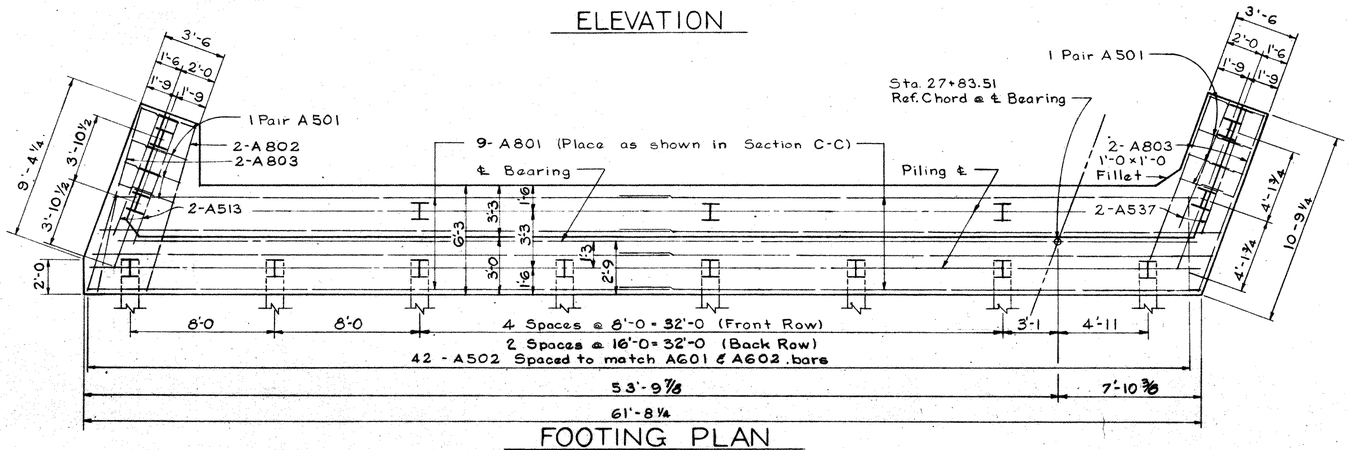


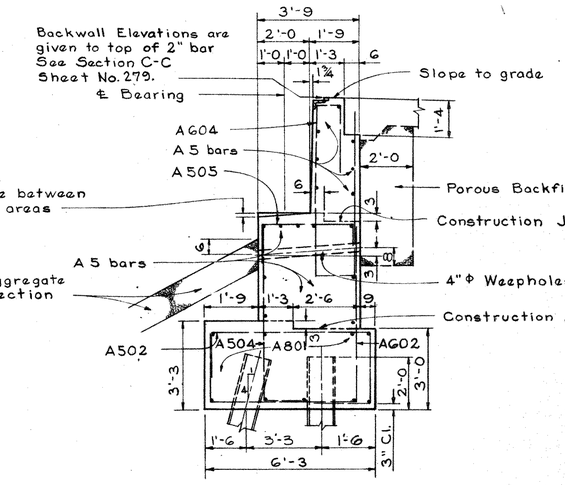
PLAN



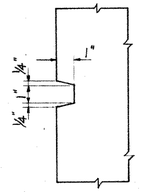
ELEVATION



FOOTING PLAN



SECTION C-C



DETAIL OF RUSTICATION GROOVE

NOTES:

Work this sheet with Sheet Nos. 273 and 274.

For anchor bolt layout, see Sheet No. 278

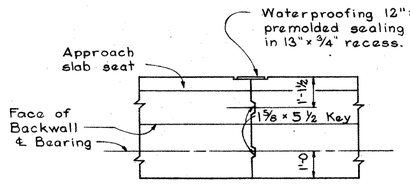
The embankment shall be placed and compacted up to the finished spill-thru slope and to the level of the subgrade for a distance of 200 feet back of the abutments, after which excavation shall be made for the abutment.

All piles shall be steel 12 BP 53.

For end finish details, see Sheet No. 279 and Std. Drawing CSB-2-56 Sheet No. 2, Revised 2-2-59

For curb plate details, see Sheet No. 279.

Porous backfill 2 ft. thick, full length of the abutment shall extend up to the underside of the approach slab and shoulder pavement.



CONTRACTION JOINT

CITY OF CINCINNATI
DEPARTMENT OF PUBLIC WORKS
DIVISION OF ENGINEERING

WEST ABUTMENT

BRIDGE NO. HAM-50-1987-R

EASTBOUND 6TH ST. EXPRESSWAY BRIDGE OVER RAMP A

CINCY BRIDGE NO. 3R

DESIGNED	DRAWN	TRACED	CHECKED	REVIEWED	DATE	REVISED
J.G.T.	J.G.T.		W.W.	W.W.	8-1-62	

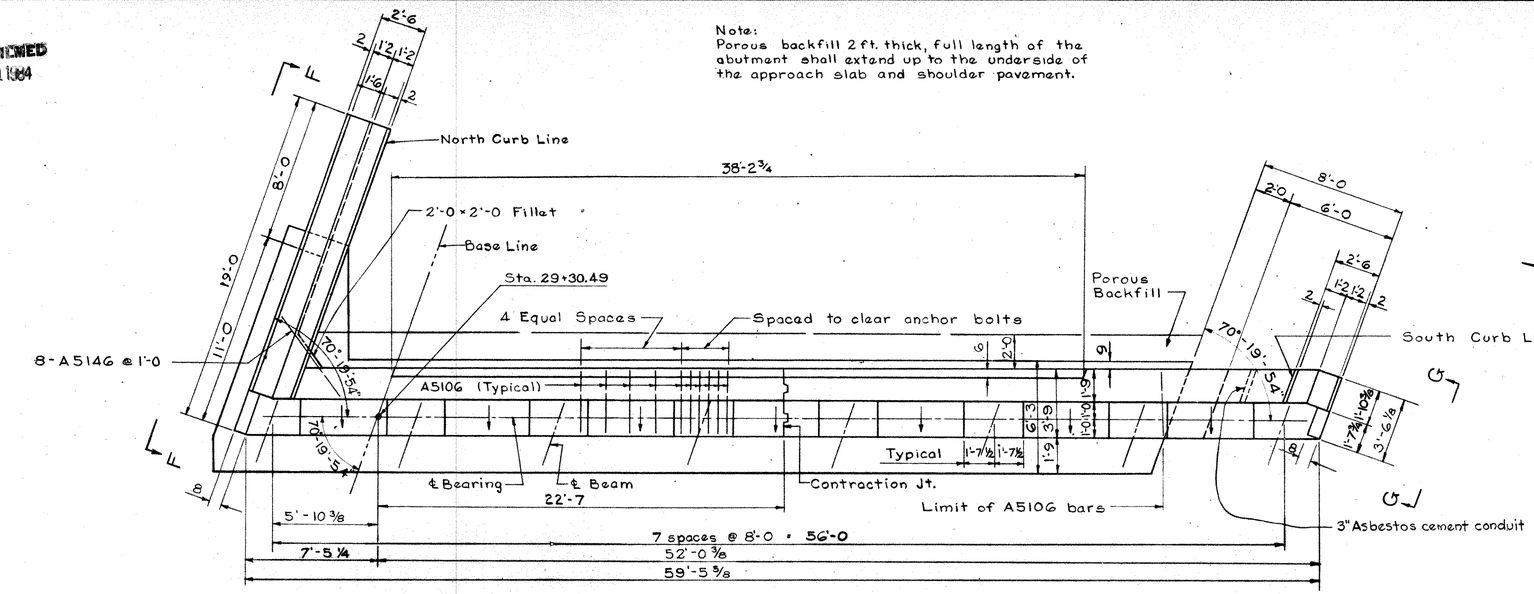
MICROFILMED
JUN 11 1984

FED. RD. DIV.	STATE	PROJECT	FISCAL YEAR
2	OHIO		

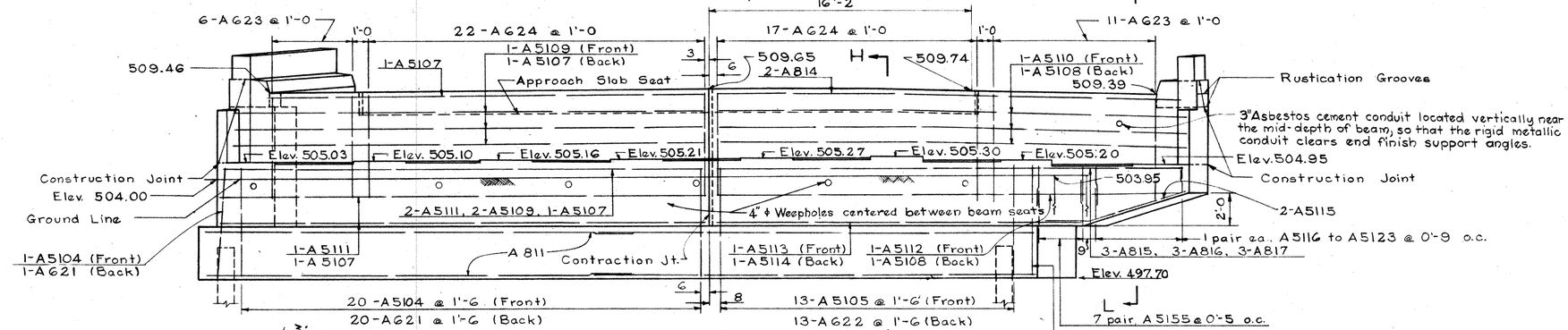
HAM-50-19.76

273
464

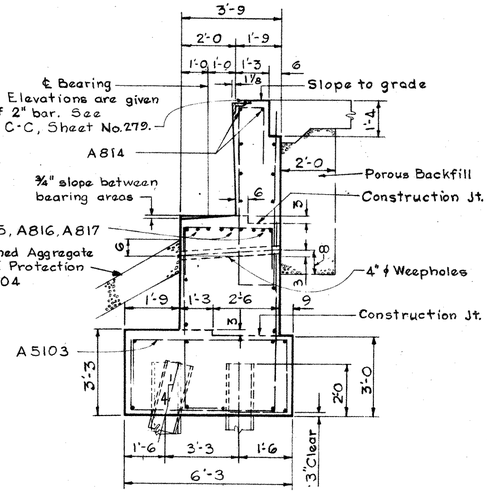
Note:
Porous backfill 2 ft. thick, full length of the abutment shall extend up to the underside of the approach slab and shoulder pavement.



PLAN

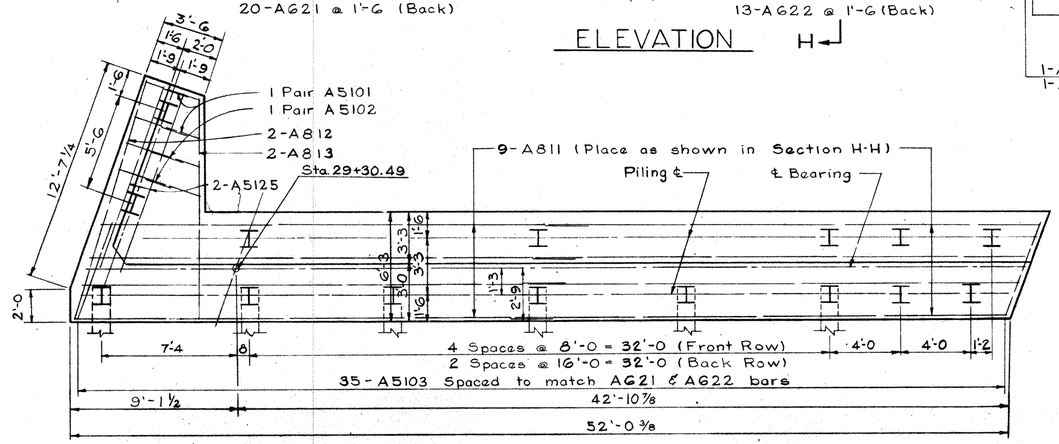


ELEVATION

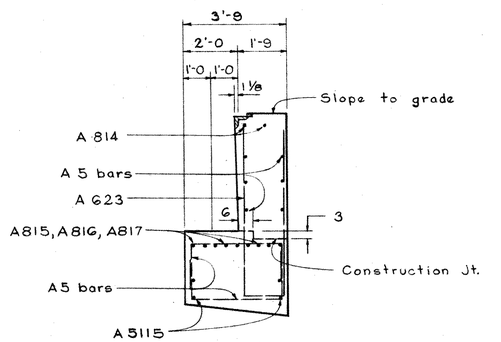


SECTION H-H

For details not shown see Section C-C, Sheet No. 272.



FOOTING PLAN



SECTION L-L

NOTES:

Work this sheet with Sheet Nos. 272 and 274.

For anchor bolt layout see Sheet No. 278.

The embankment shall be placed and compacted up to the finished spill-thru slope and to the level of the subgrade for a distance of 200 feet back of the abutments, after which excavation shall be made for the abutment.

All piles shall be steel 12 BP 53.

For end finish details, see Sheet No. 279 and Std. Drawing CSB-2-56 Sheet No. 2, Revised 2-2-59

For curb plate details, see Sheet No. 279.

For expansion joint detail at retaining wall No. 3, see Sheet No. 233.

CITY OF CINCINNATI
DEPARTMENT OF PUBLIC WORKS
DIVISION OF ENGINEERING

EAST ABUTMENT

BRIDGE NO. HAM-50-1987-R

EASTBOUND
6TH ST. EXPRESSWAY BRIDGE
OVER RAMP A

CINCY BRIDGE NO. 3R

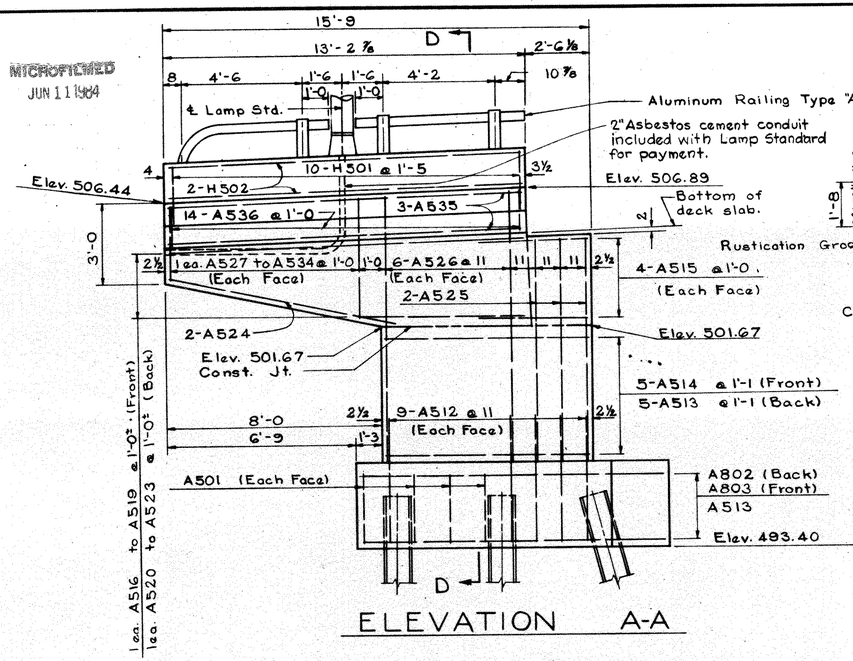
DESIGNED	DRAWN	TRACED	CHECKED	REVIEWED	DATE	REVISED
J.G.T.	J.A.A.		W.W.	W.W.	8-1-62	
J.A.A.	J.G.T.					

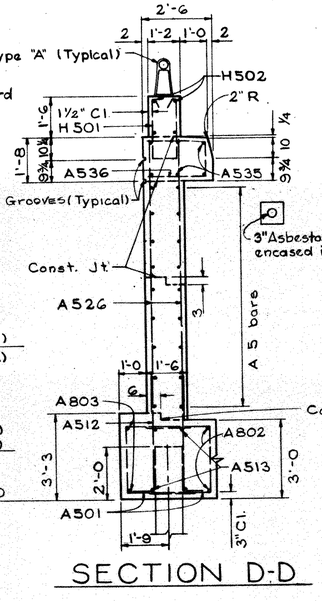
MICROFILMED
JUN 11 1964

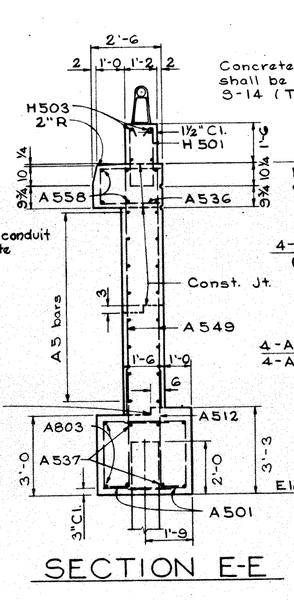
FED. RD. DIV.	STATE	PROJECT	FISCAL YEAR
2	OHIO		

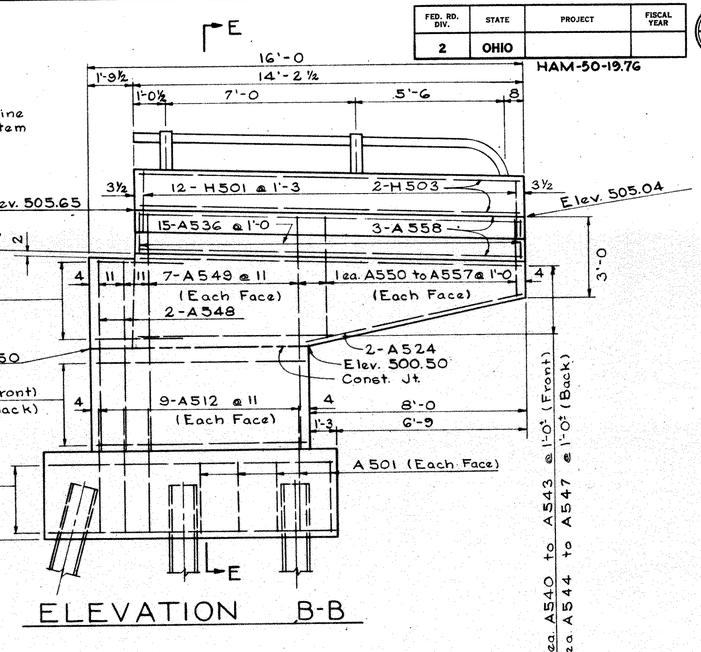
HAM-50-19.76

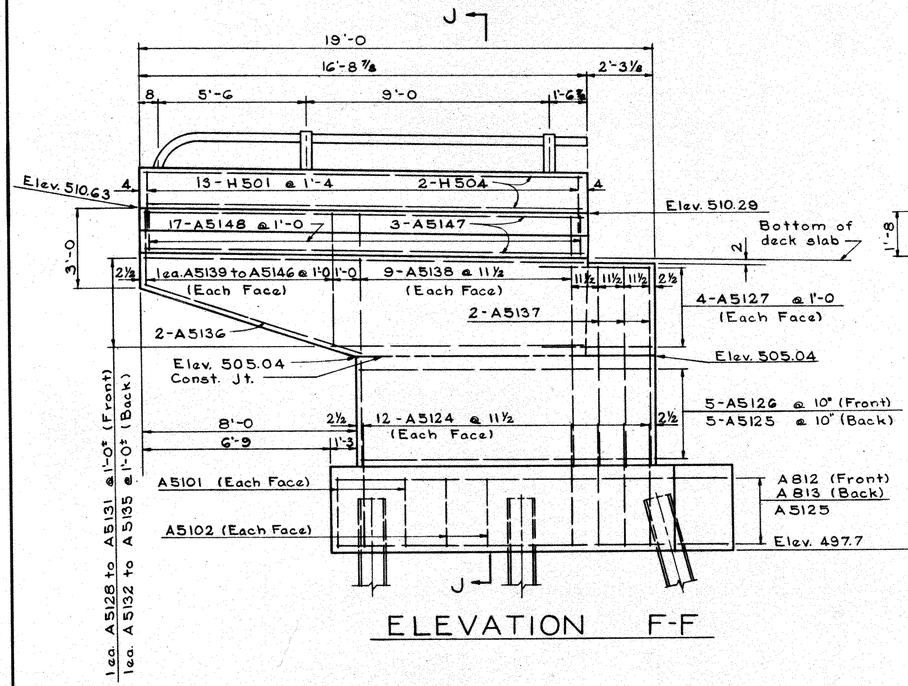
274
464

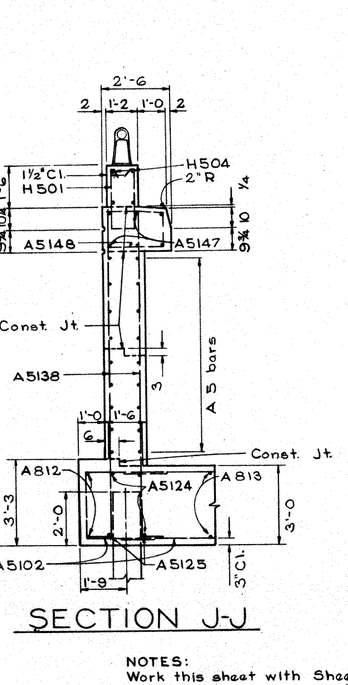


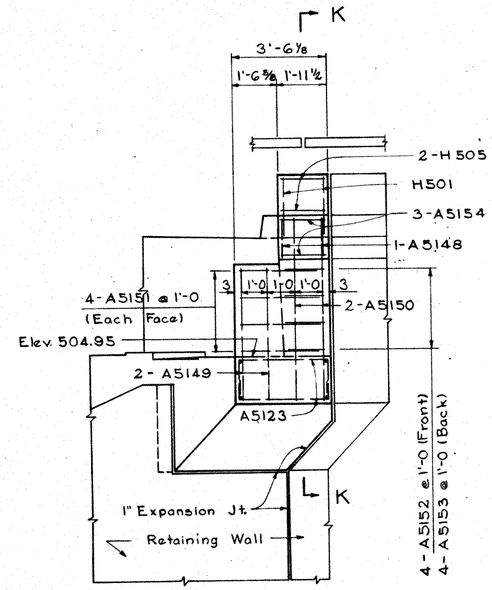


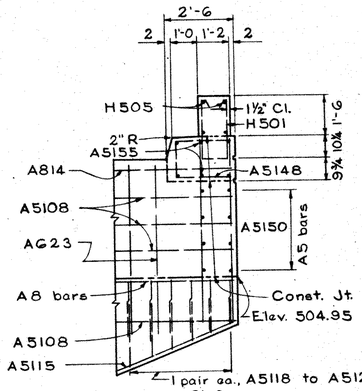












NOTES:
Work this sheet with Sheet Nos. 272 and 273.
For railing details see Std. Drwg. AR-1-57.
For lighting details see Sheet Nos. 283 and 213.
Aluminum Railing shall be continuous for full length of wingwall.
For details of expansion joints between south end of East Abutment and adjacent retaining walls see Sheet No. 233.

CITY OF CINCINNATI,
DEPARTMENT OF PUBLIC WORKS
DIVISION OF ENGINEERING

ABUTMENT DETAILS

BRIDGE NO. HAM-50-1987-R

EASTBOUND
6TH ST. EXPRESSWAY BRIDGE
OVER RAMP A

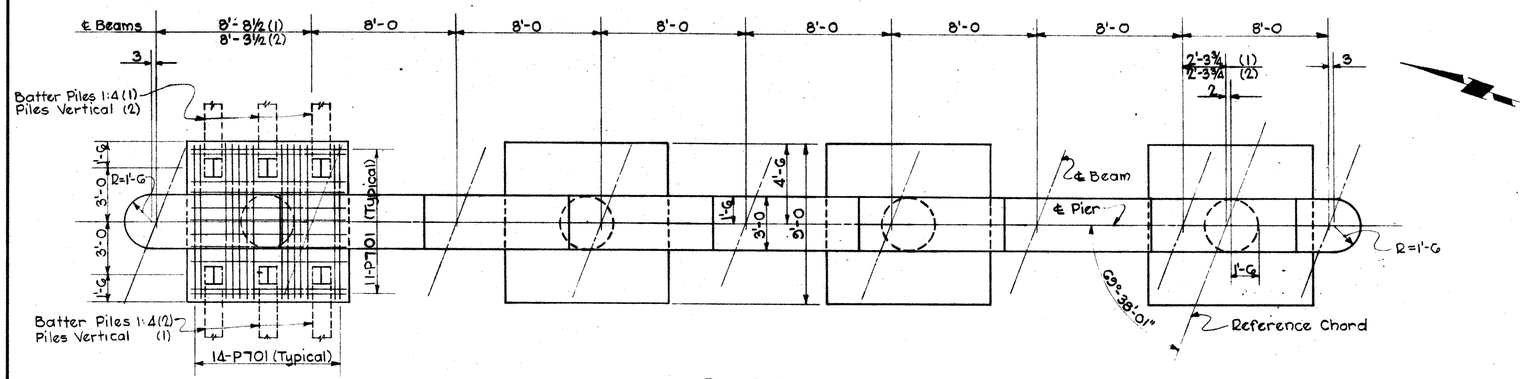
CINCY BRIDGE NO. 3R

DESIGNED	DRAWN	TRACED	CHECKED	REVIEWED	DATE	REVISED
J.G.T.	J.G.T.		W.W.	W.W.	8-1-62	

FED. RD. DIV.	STATE	PROJECT	FISCAL YEAR
2	OHIO		

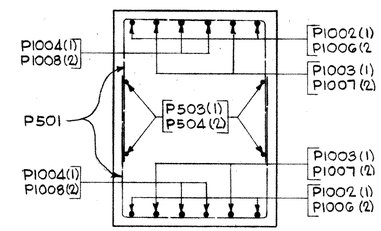
HAM-50-19.76

275
464

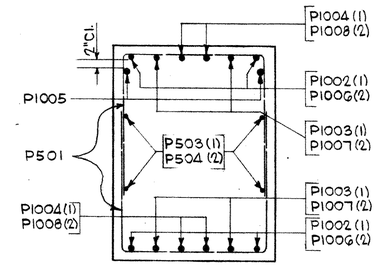


PLAN

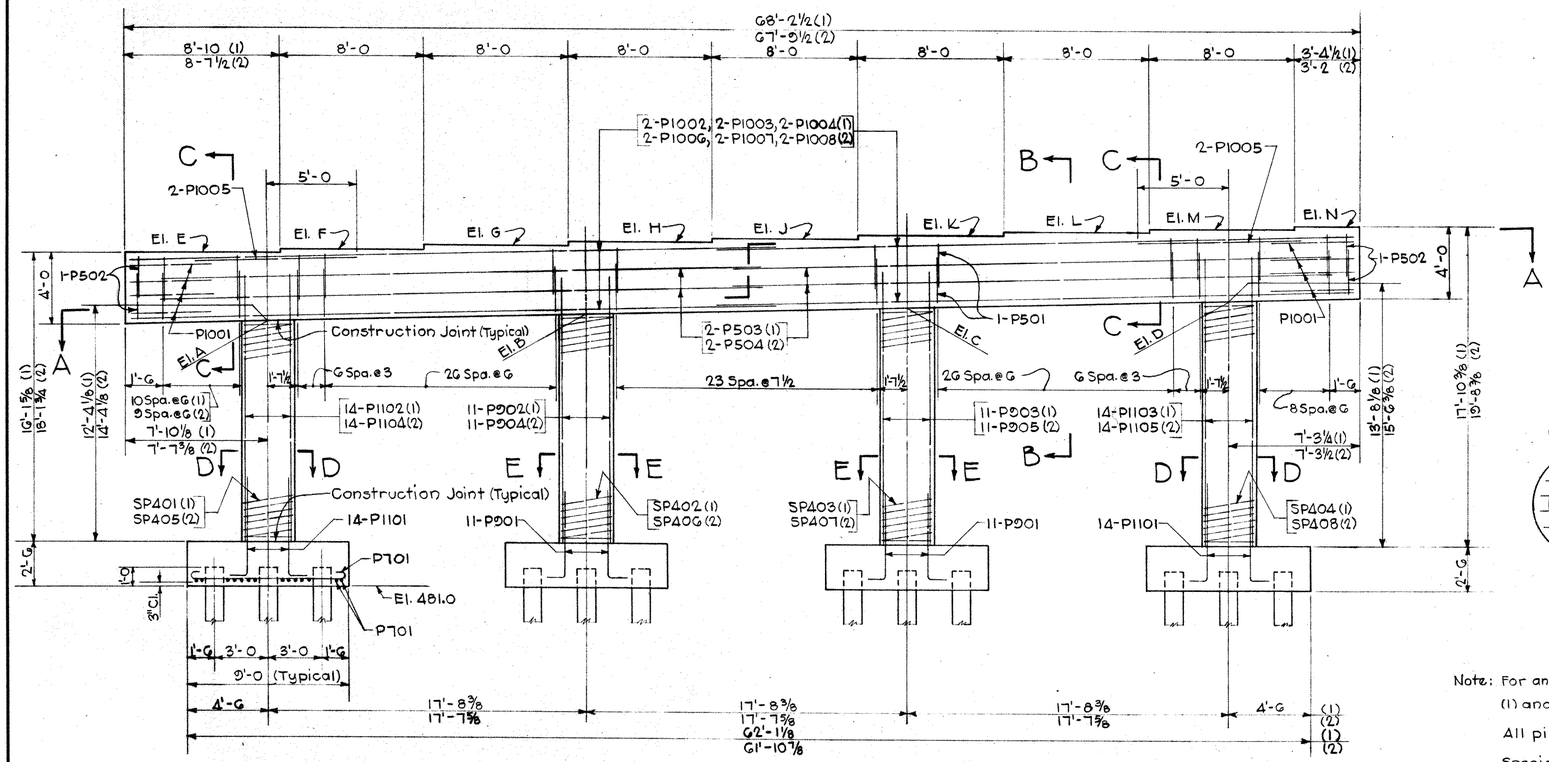
MICROFILMED
JUN 12 1984



SECTION B-B

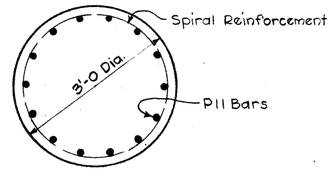


SECTION C-C

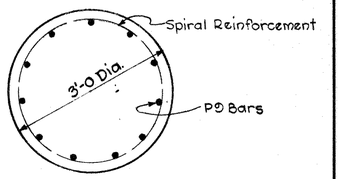


ELEVATION

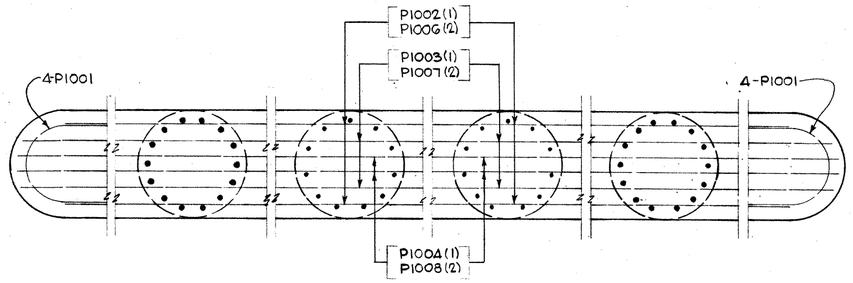
PIER	ELEVATION												
	A	B	C	D	E	F	G	H	J	K	L	M	N
1	495.84	496.28	496.73	497.18	499.64	499.88	500.00	500.30	500.52	500.73	500.94	501.15	501.36
2	497.83	498.23	498.63	499.03	501.65	501.87	502.00	502.26	502.47	502.65	502.85	503.03	503.20



SECTION D-D



SECTION E-E



SECTION A-A

Note: For anchor bolt layout, see Sheet No. 277.

(1) and (2) denote pier number.

All piles shall be steel 12 BP53.

Special care shall be taken in placing reinforcing steel in the pier cap so that it will not interfere with the bearing plate anchor bolts.

For installation of electrical ground wires in Pier 2, see Sheet No. 212.

For location of piers, see Sheet No. 265.

The embankment shall be placed and compacted up to the finished spill-thru slope and to the level of the subgrade for a distance of 200 feet back of the abutments, after which excavation shall be made for the abutments and for the piers.

CITY OF CINCINNATI
DEPARTMENT OF PUBLIC WORKS
DIVISION OF ENGINEERING

PIERS

BRIDGE NO. HAM-50-1987-L

WESTBOUND
6TH ST. EXPRESSWAY BRIDGE
OVER RAMP A

CINCY BRIDGE NO. 81

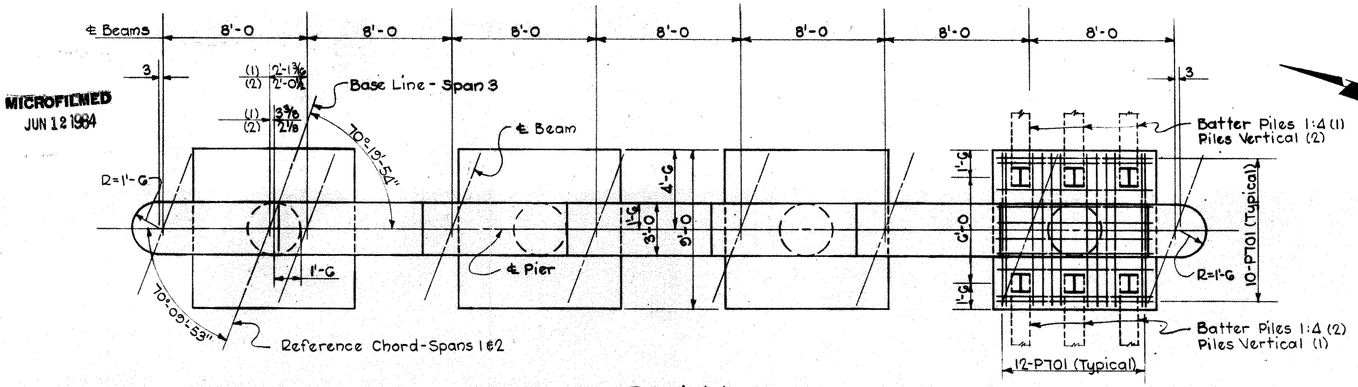
DESIGNED	DRAWN	TRACED	CHECKED	REVIEWED	DATE	REVISED
W.W.	H.E.W.		W.W. E.M.B.	W.W.	8-1-62	

FED. RD. DIV.	STATE	PROJECT	FISCAL YEAR
2	OHIO		

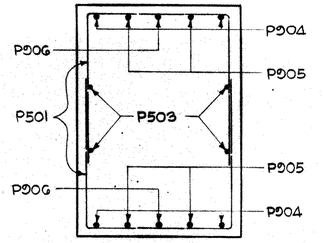
HAM-50-19.76

27
464

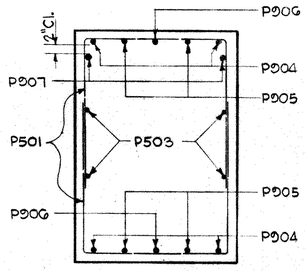
MICROFILMED
JUN 12 1984



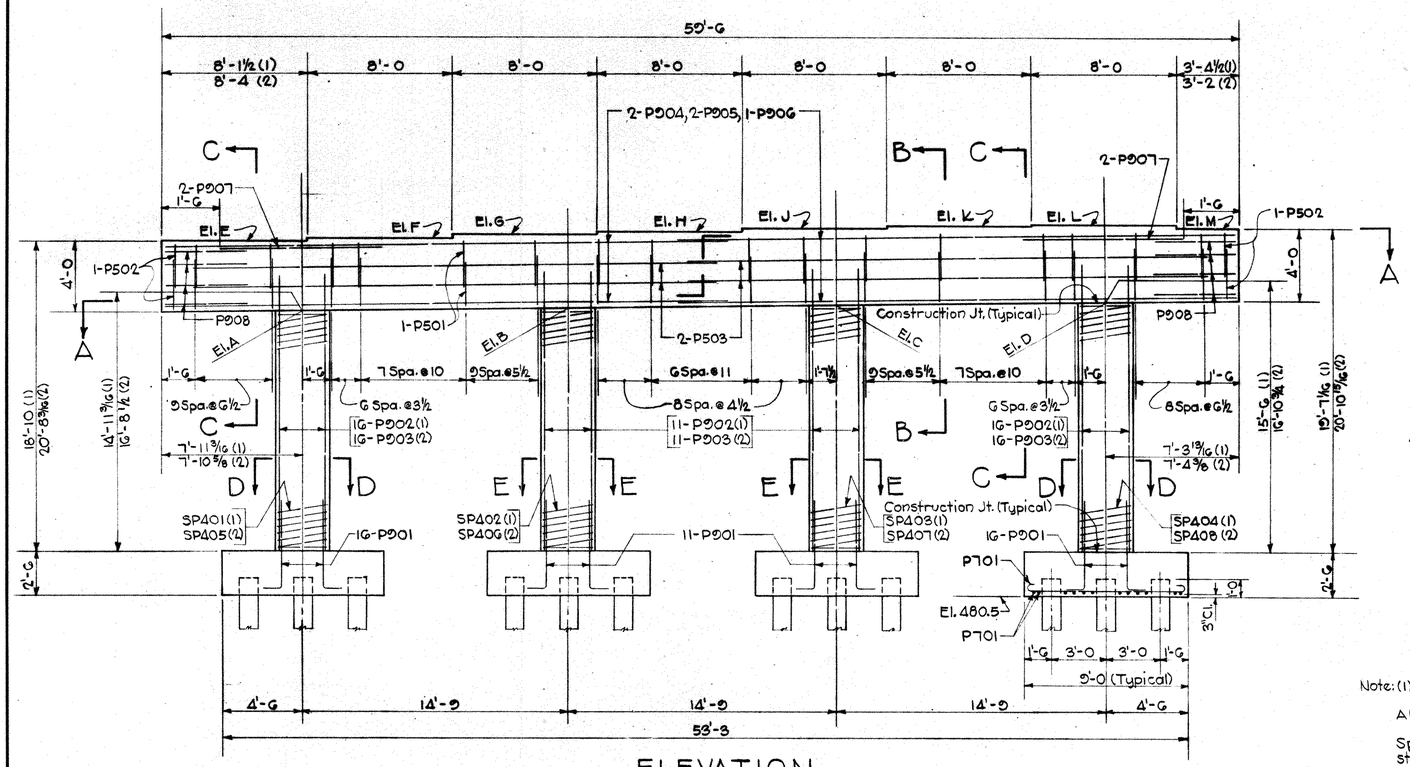
PLAN



SECTION B-B

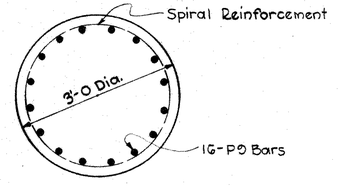


SECTION C-C

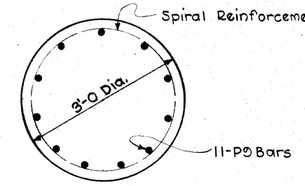


ELEVATION

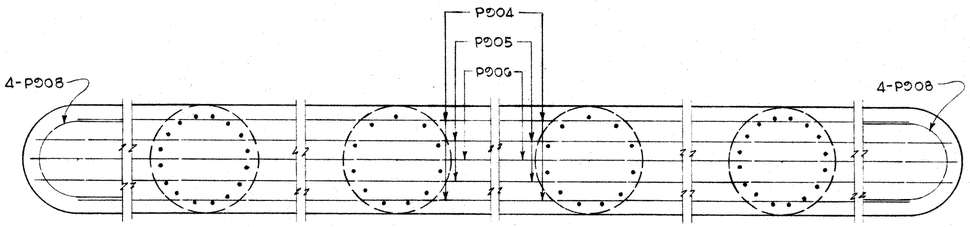
PIER	ELEVATION											
	A	B	C	D	E	F	G	H	J	K	L	M
1	497.93	498.12	498.31	498.50	501.83	502.01	502.22	502.41	502.60	502.76	502.84	502.59
2	499.71	499.78	499.83	499.90	503.68	503.82	503.92	504.03	504.13	504.24	504.21	503.91



SECTION D-D



SECTION E-E



SECTION A-A

Note: (1) and (2) denote pier number.

All piles shall be steel 12 BP 53.

Special care shall be taken in placing reinforcing steel in the pier cap so that it will not interfere with the bearing plate anchor bolts.

For installation of electrical ground wires in Pier 2, see Sheet No. 212.

For location of piers, see Sheet No. 265.

The embankment shall be placed and compacted up to the finished spill-thru slope and to the level of the subgrade for a distance of 200 feet back of the abutments, after which excavation shall be made for the abutments and for the piers.

For anchor bolt layout, see Sheet No. 278.

CITY OF CINCINNATI
DEPARTMENT OF PUBLIC WORKS
DIVISION OF ENGINEERING

PIERS

BRIDGE NO. HAM-50-1987-R

EASTBOUND
6TH ST. EXPRESSWAY BRIDGE
OVER RAMP A

CINCY BRIDGE NO. 3R

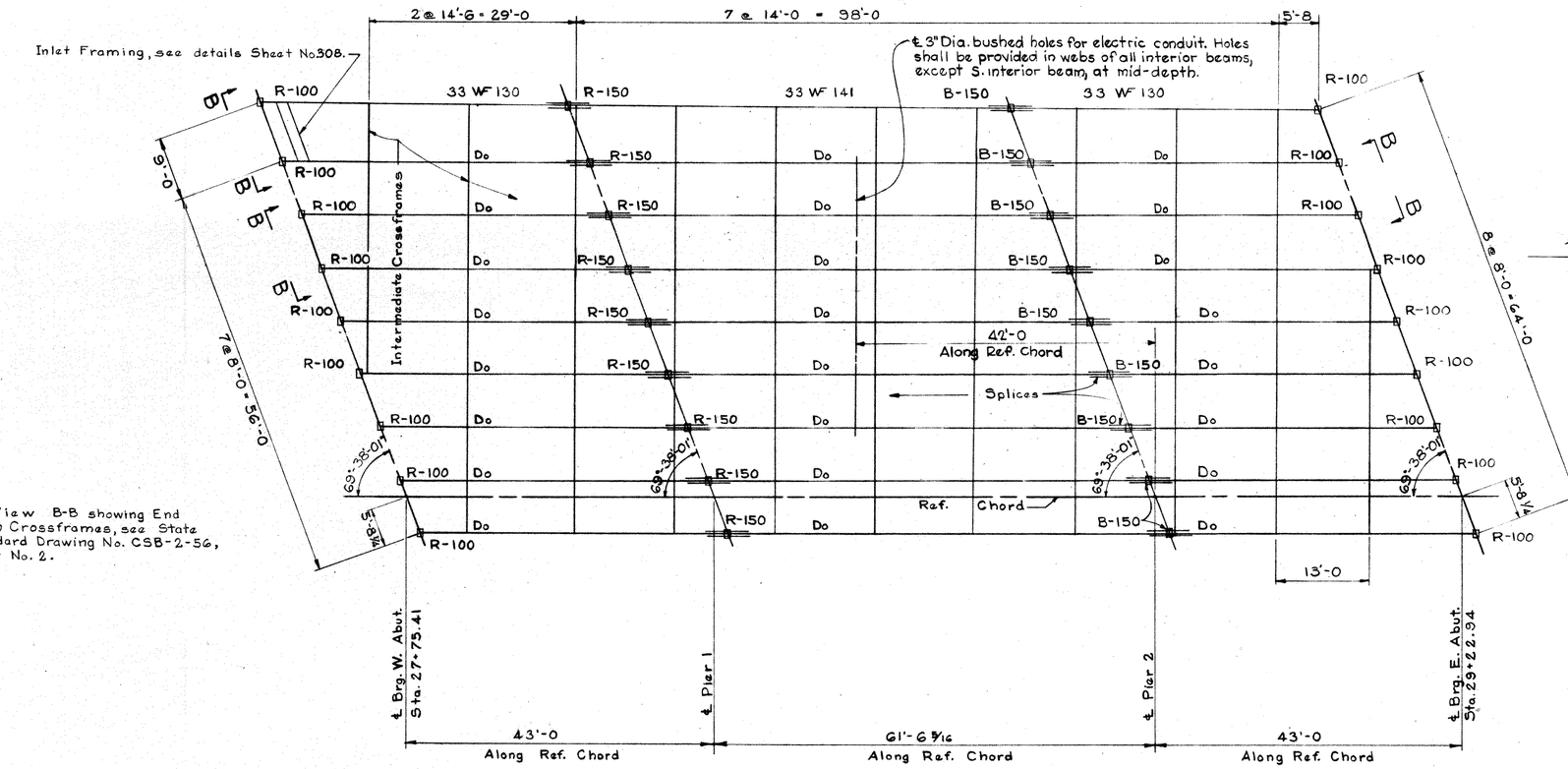
DESIGNED	DRAWN	TRACED	CHECKED	REVIEWED	DATE	REVISED
W.W.	H.E.W.		W.W. R.M.B.	W.W.	8-1-62	

MICROFILMED
JUN 12 1984

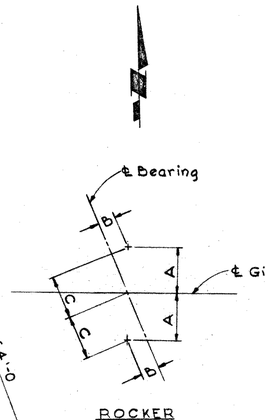
FED. RD. DIV.	STATE	PROJECT	FISCAL YEAR
2	OHIO		

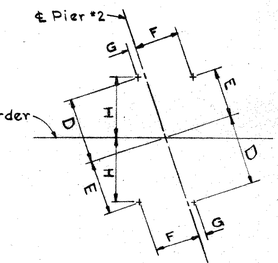
277
464

HAM-50-19.76



Note: For View B-B showing End Finish Crossframes, see State Standard Drawing No. CSB-2-56, Sheet No. 2.





ANCHOR BOLT LAYOUT

GIRDER	R100			R150			B150				
	A	B	C	A	B	C	D	E	F	G	H
N. Exterior	10 1/2	3 3/4	9 13/16	11 1/2	4 1/16	10 3/4	9 13/16	7	6 15/16	0 9/16	9
Interior	10 1/2	3 11/16	9 7/8	11 1/2	4	10 7/16	9 7/8	7	6 7/8	0 5/8	9
S. Exterior	10 1/2	3 11/16	9 7/8	11 1/2	4	10 7/16	9 7/8	7	6 7/8	0 5/8	9

FRAMING PLAN

DEFLECTION & CAMBER OF BEAMS

LOCATION	INSIDE BEAMS			OUTSIDE BEAMS		
	SPAN 1	SPAN 2	SPAN 3	SPAN 1	SPAN 2	SPAN 3
Deflection due to weight of steel.	0	1/16	0	0	1/16	0
Deflection due to remaining dead load.	1/16	5/16	1/16	1/16	5/16	1/16
Convexity required for vert. and horiz. curves.	0	3/8	1/8	1/4	3/4	1/8
Sum of deflection and convexity.	1/16	3/4	3/16	5/16	1	3/16
Required camber - inches.	0	1	0	0	1	0

BEAM SPLICE WELDING PROCEDURE

1. Raise the abutment end of the beams 5/8".
2. Butt-weld beam flanges and webs at Piers 1 and 2 using the following sequence: make two passes on each flange then two on the web, repeat using one pass at each location, until welds are completed.
3. Weld top and bottom flange moment plates at Piers 1 and 2.
4. Lower ends of beams to final position.

SHOP PAINTING STEEL: The surface preparation of all steel, requiring shop painting as per the Plans and Specifications, shall be accomplished by blast cleaning or power tool cleaning, except as noted in the Specifications regarding the use of Chromate Primers.

SHEAR CONNECTORS: See Sheet No. 408.

NOTES

Work this sheet with Sheet No. 279.

For details of rockers and bolsters, see Standard Drawing RB-1-55, revised 2-2-59 and Sheet No. 279.

For details of Intermediate Crossframes, see Sheet No. 280.

For details not shown see Standard Drawing CSB-2-56, Sheet No. 2.

BEAM WEB WELDS: Butt welds in webs of beams may have convex reinforcement in accordance with Sect. 5.7.22. Finishing flush by grinding is not required.

CITY OF CINCINNATI
DEPARTMENT OF PUBLIC WORKS
DIVISION OF ENGINEERING

STRUCTURAL STEEL DETAILS

BRIDGE NO. HAM-50-1987-L

WESTBOUND
6TH ST. EXPRESSWAY BRIDGE
OVER RAMP A

CINCY BRIDGE NO. 3L

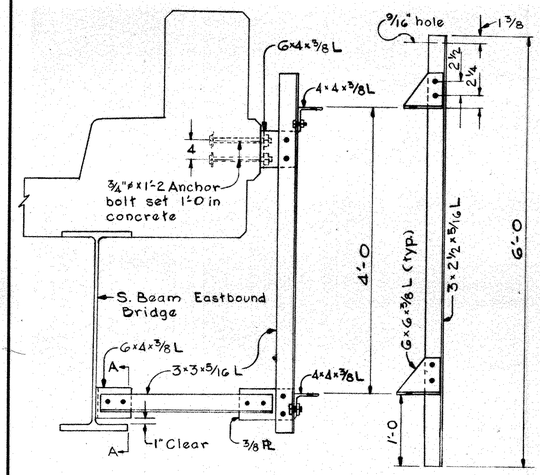
DESIGNED	DRAWN	TRACED	CHECKED	REVIEWED	DATE	REVISED
J.A.A. W.W.	J.G.T.		W.W. J.R.S.	W.W.	8-1-62	

MICROFILMED
JUN 12 1984

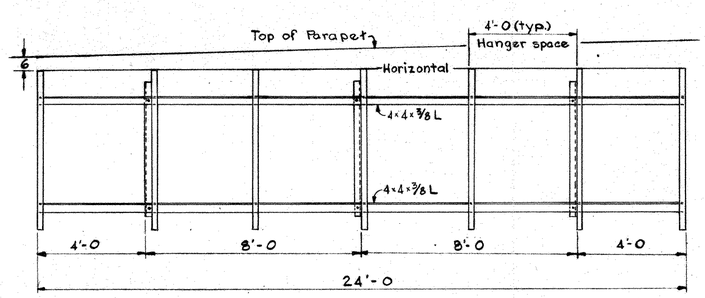
FED. RD. DIV.	STATE	PROJECT	FISCAL YEAR
2	OHIO		

278
464

HAM-50-19.76



SIGN SUPPORT SIGN HANGER (7 Required)

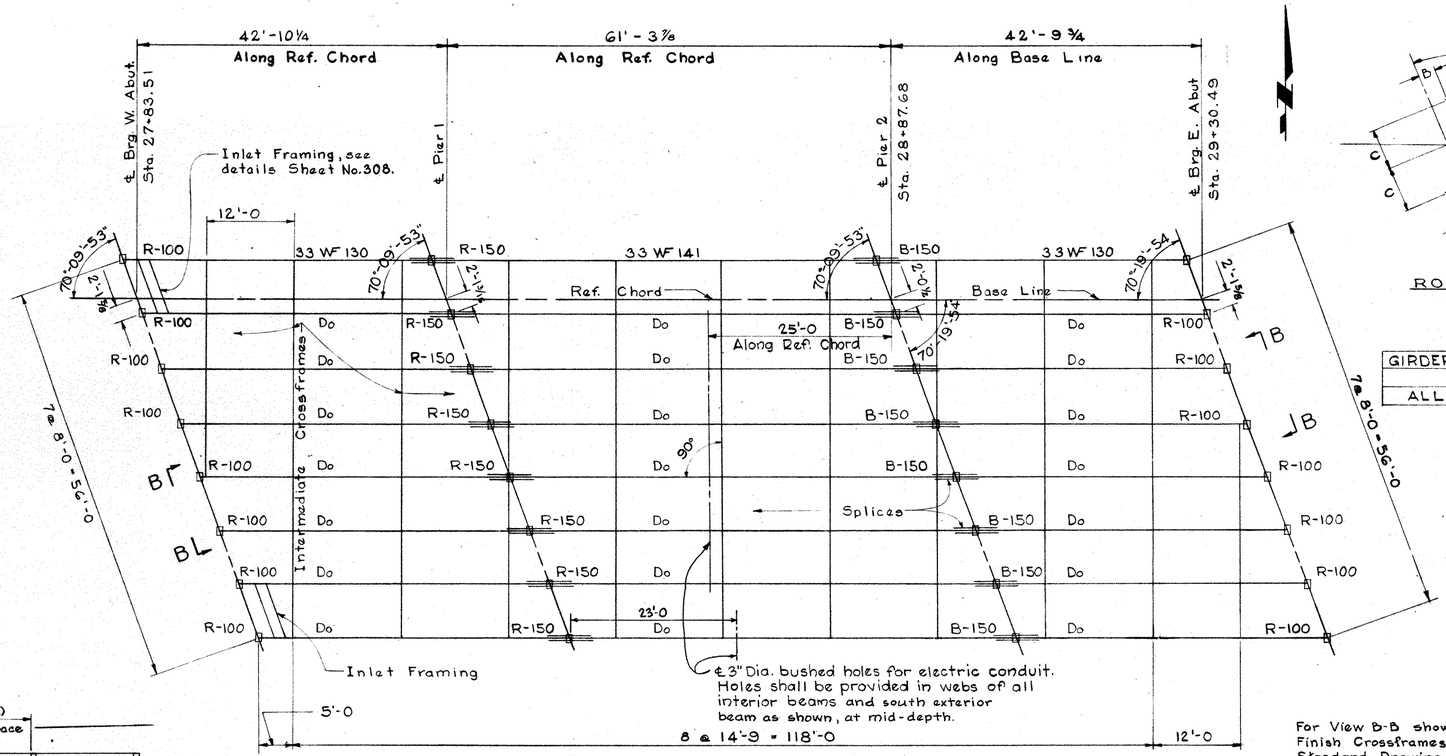


SIGN SUPPORT FRAMEWORK

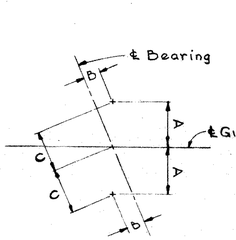
NOTE:
All connections to be ¾" High Strength Bolts.

Sign supports and sign hangers are included in Item S-7

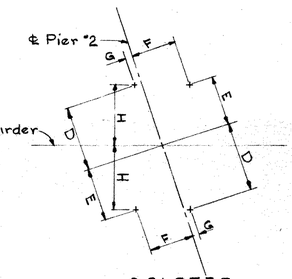
For Sign Support Location, See Sheet No. 281.



For View B-B showing End Finish Crossframes, See State Standard Drawing No. CSB-2-56 Sheet No. 2.



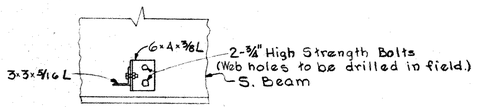
ROCKER



BOLSTER

ANCHOR BOLT LAYOUT

GIRDER	R 100			R150			B150				
	A	B	C	A	B	C	D	E	F	G	H
ALL	10½	3 9/16	9 7/8	11½	3 7/8	10 13/16	9 13/16	7 1/8	6 13/16	1 1/16	9



SECTION A-A

FRAMING PLAN

DEFLECTION & CAMBER OF BEAMS

LOCATION	INSIDE BEAMS			OUTSIDE BEAMS		
	SPAN 1	SPAN 2	SPAN 3	SPAN 1	SPAN 2	SPAN 3
Deflection due to weight of steel.	0	1/16	0	0	1/16	0
Deflection due to remaining dead load.	1/16	5/16	1/16	1/16	5/16	1/16
Convexity required for vert. and horiz. curves.	0	1/2	1/8	1/4	5/8	1/4
Sum of deflection and convexity.	1/16	7/8	3/16	5/16	1	5/16
Required camber - inches.	0	1	0	0	1	0

BEAM SPLICE WELDING PROCEDURE

1. Raise the abutment end of the beams 3/8".
2. Butt-weld beam flanges and webs at Piers 1 and 2 using the following sequence: make two passes on each flange then two on the web; repeat, using one pass at each location, until welds are completed.
3. Weld top and bottom flange moment plates at Piers 1 and 2.
4. Lower ends of beams to final position.

SHOP PAINTING STEEL: The surface preparation of all steel, requiring shop painting as per the Plans and Specifications, shall be accomplished by blast cleaning or power tool cleaning, except as noted in the Specifications regarding the use of Chromate Primers.

NOTES

Work this sheet with Sheet No. 279.

For details of rockers and bolsters see Standard Drawing RB-1-55 revised 2-2-59 and Sheet No. 279.

For details of Intermediate Crossframes, see Sheet No. 281.

For details not shown, see Standard Drawing CSB-2-56, Sheet No. 2.

SHEAR CONNECTORS: See Sheet No. 408.

CITY OF CINCINNATI
DEPARTMENT OF PUBLIC WORKS
DIVISION OF ENGINEERING

STRUCTURAL STEEL DETAILS

BRIDGE NO. HAM-50-1987-R

EASTBOUND
6TH ST. EXPRESSWAY BRIDGE
OVER RAMP A

CINCY BRIDGE NO. 3R

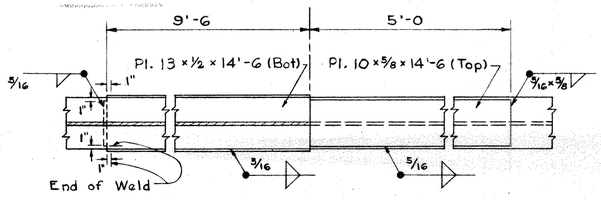
DESIGNED	DRAWN	TRACED	CHECKED	REVIEWED	DATE	REVISED
J.A.A. W.W.	J.A.A J.G.T.		J.R.S. W.W.	W.W.	8-1-62	

MICROFILMED
JUN 12 1964

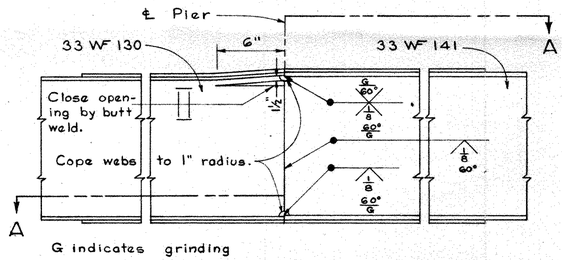
FED. RD. DIV.	STATE	PROJECT	FISCAL YEAR
2	OHIO		

HAM-50-19.76

275
464

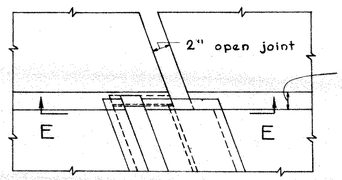


SECTION A-A

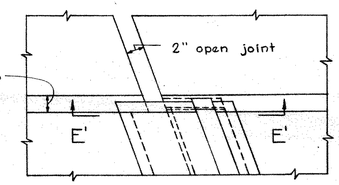


ELEVATION

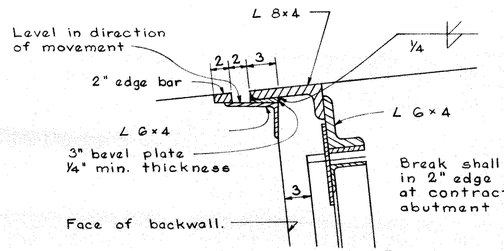
BEAM SPLICE DETAILS



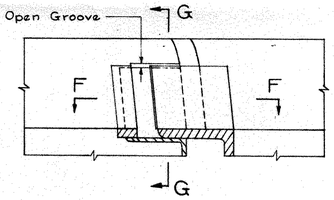
PART PLAN
AT WEST END OF BRIDGE



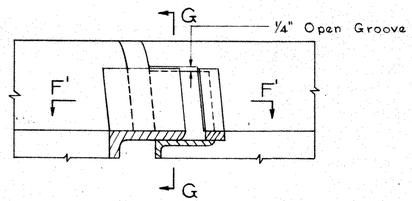
PART PLAN
AT EAST END OF BRIDGE



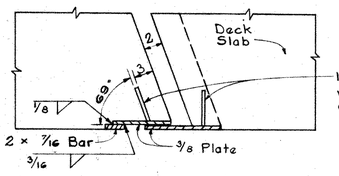
SECTION C-C
(Std. Drwg. CSB-2-56 Sh. 2)
ROADWAY END DAM



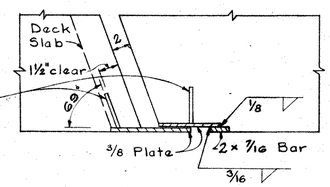
SECTION E-E



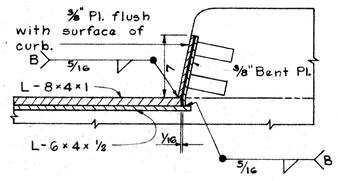
SECTION E'-E'



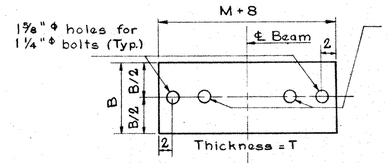
SECTION F-F



SECTION F'-F'



SECTION G-G



Holes for dowels
For details see Std. Dwg. RB-1-55 revised 2-2-59

Corners shall be beveled where necessary to provide a minimum distance of 3" from plate to edge of concrete.

For lettered dimensions see Std. Dwg. RB-1-55

DETAIL OF MASONRY PLATE FOR STANDARD ROCKER

Masonry Plate of Standard Rockers shall be revised as shown above to provide for 1¼" ϕ × 1'-8" swedge anchor bolts with steel washers and hex nuts. Bolts set 1'-3" into concrete.

CURB PLATE DETAILS

NOTES

Work this sheet with Sheet Nos. 277 & 278.

For details not shown, see Std. Drwg. CSB-2-56 Sheets 2 and 3, revised 2-2-59.

CITY OF CINCINNATI
DEPARTMENT OF PUBLIC WORKS
DIVISION OF ENGINEERING

STRUCTURAL STEEL DETAILS

BRIDGE NO. HAM-50-1987-(R & L)

EASTBOUND & WESTBOUND
6TH ST. EXPRESSWAY BRIDGES
OVER RAMP A

CINCY BRIDGE NOS. 3R & 3L

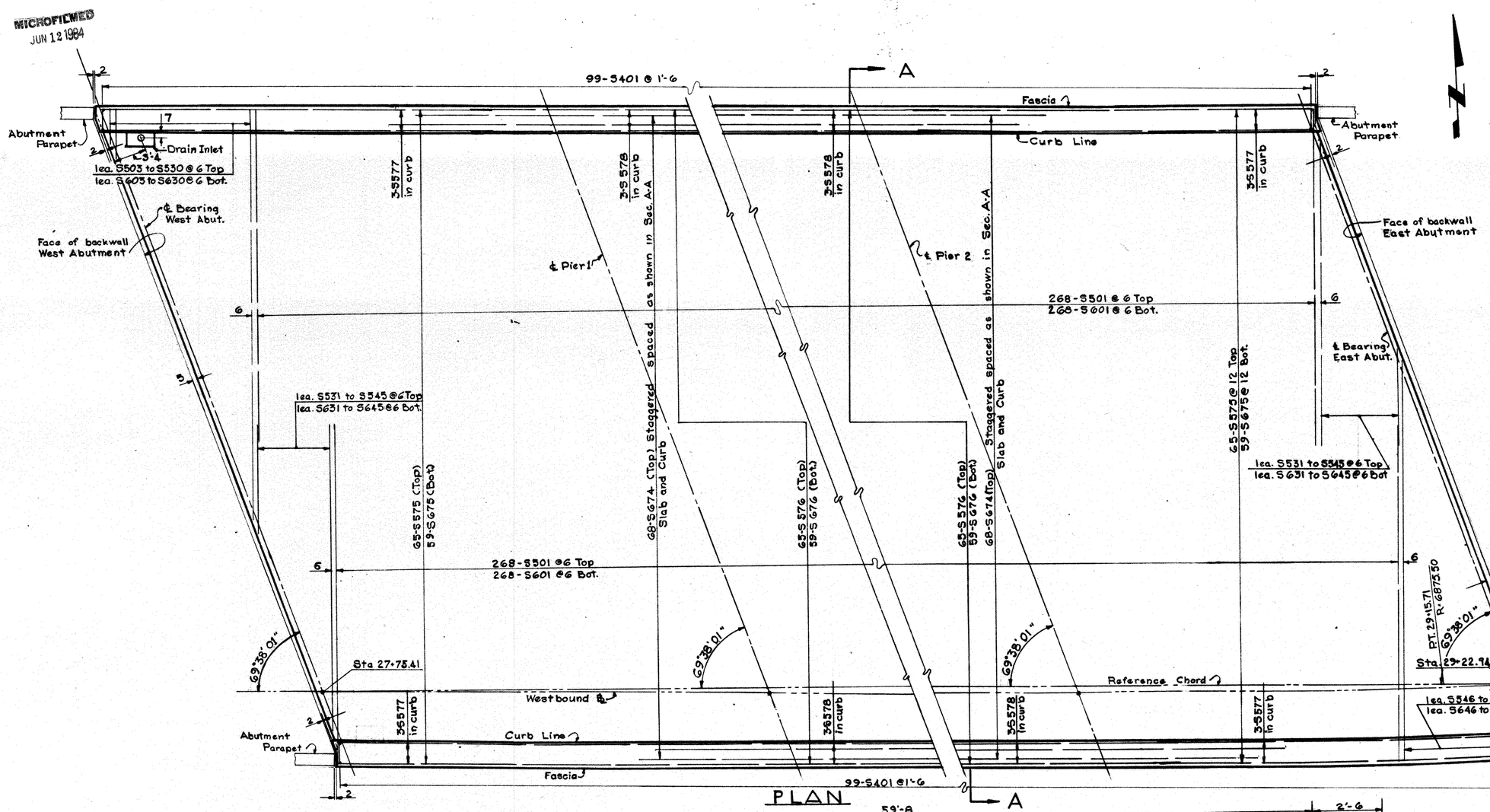
DESIGNED	DRAWN	TRACED	CHECKED	REVIEWED	DATE	REVISED
J.G.T.	J.G.T.		W.W.	W.W.	8-1-62	

MICROFILMED
JUN 12 1984

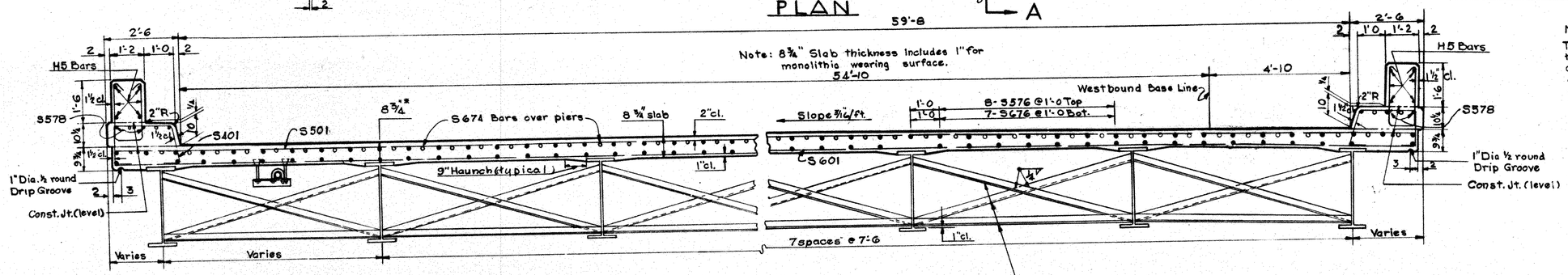
FED. RD. DIV.	STATE	PROJECT	FISCAL YEAR
2	OHIO		

HAM-50-19.76

280
464



PLAN



TRANSVERSE SECTION A-A

* This is the nominal dimension. The quantity of deck concrete to be paid for shall be based on this dimension, even though deviation from it may be necessary because the top flange of the beam may not have the exact camber or conformation required to place it parallel to the finished grade.

Intermediate crossframe angles 3"x3"x5/16". Weld both sides of vertical leg and top side of horizontal leg to beam with 1/4" continuous fillet weld.

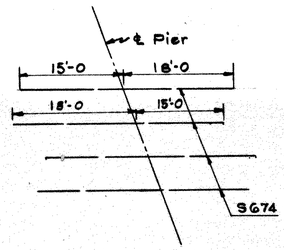


DIAGRAM SHOWING STAGGER OF S674 BARS OVER PIERS

Note: For Handrail Details and details of H5 bars in Handrail Parapet see Sheet Nos. 282 & 285

For End Finish Details see Sheet No. 279.

For Lighting Details see Sheet No. 282.

For Drainage Details see Sheet No. 308

Downspout size shall be 8".

At Inlets cut reinforcing steel to fit.

For Grade Detail and Fascia Offsets see Sheet No. 267.

NOTE:

The haunch in the deck slab adjacent to the top of the steel beams, which is shown as 9" wide, may vary from this dimension with a minimum of 6" and maximum of 12". Maximum slope of haunch shall be one vertical to four horizontal. Payment for deck slab concrete shall be based on the 9" width.

CITY OF CINCINNATI
DEPARTMENT OF PUBLIC WORKS
DIVISION OF ENGINEERING

SUPERSTRUCTURE DETAILS

BRIDGE NO. HAM-50-1987-L

WESTBOUND 6TH ST. EXPRESSWAY BRIDGE OVER RAMP A

CINCY BRIDGE NO. 3L

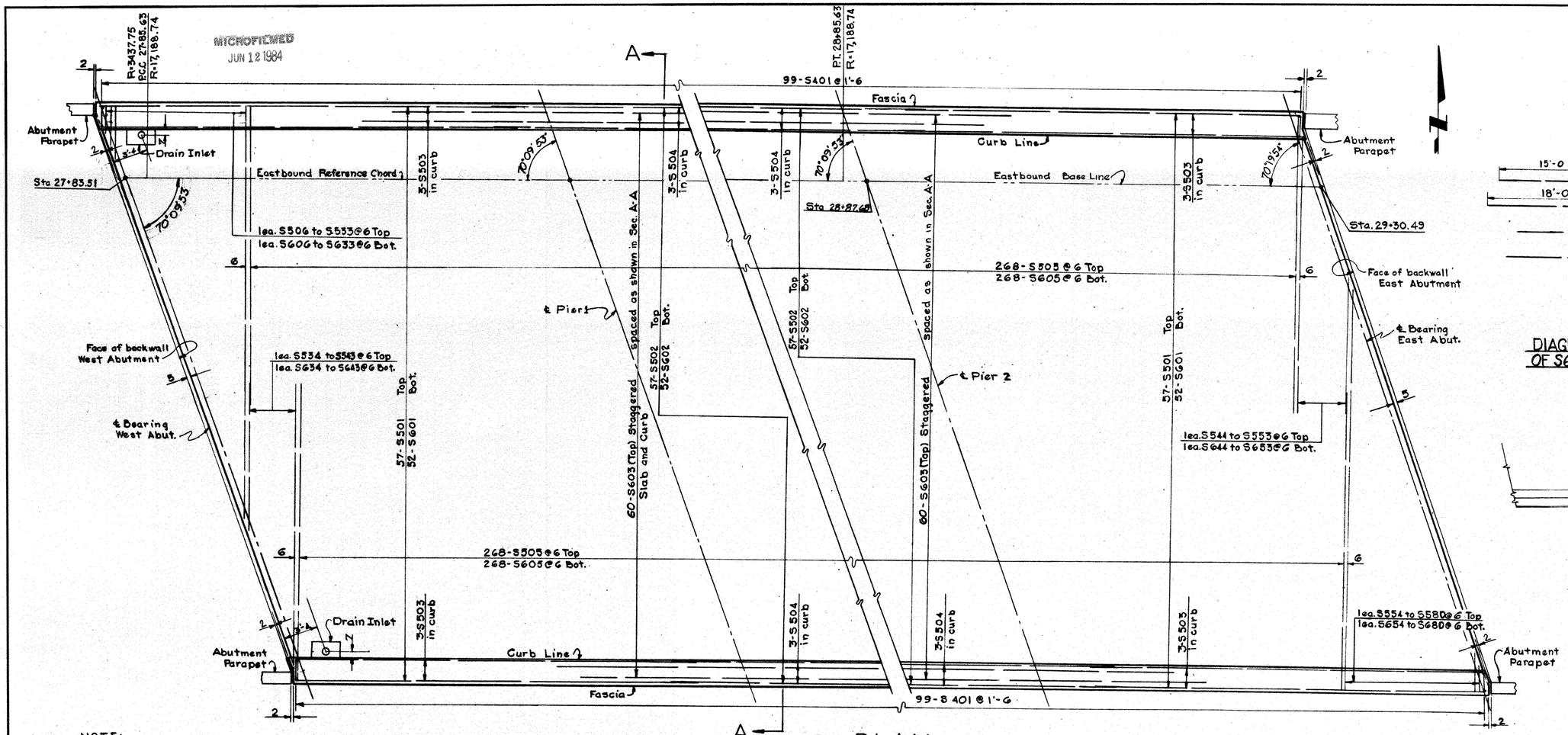
DESIGNED	DRAWN	TRACED	CHECKED	REVIEWED	DATE	REVISED
J.A.A.	J.A.A.		W.W.	W.W.	8-1-62	

MICROFILMED
JUN 12 1984

FED. RD. DIV.	STATE	PROJECT	FISCAL YEAR
2	OHIO		

HAM-50-19.76

281
464



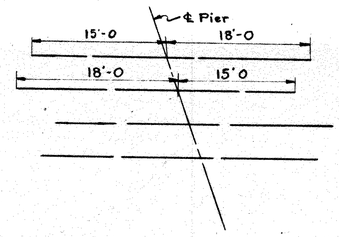
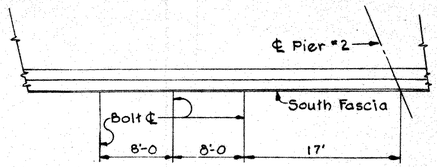


DIAGRAM SHOWING STAGGER OF S603 BARS OVER PIERS

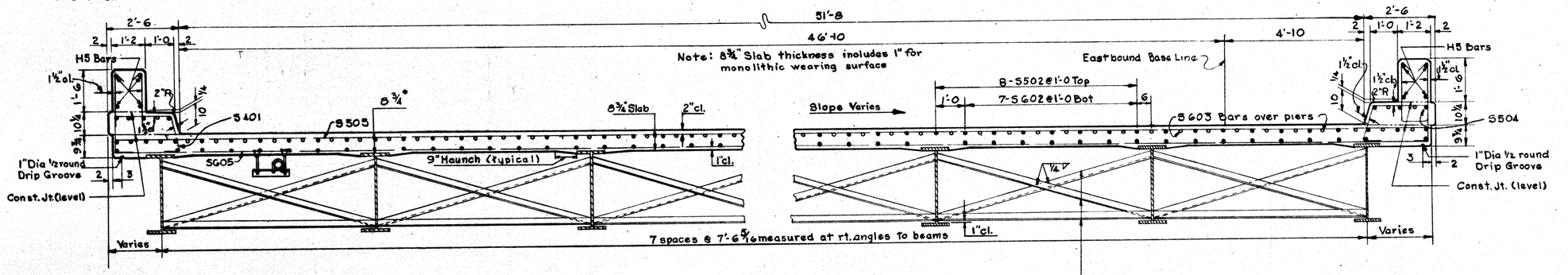


SIGN ANCHOR BOLT LOCATION DIAGRAM

For length, size and position of Anchor Bolts See Sheet No. 278.

NOTE:

The haunch in the deck slab adjacent to the top of the steel beams, which is shown as 9" wide, may vary from this dimension with a minimum of 6" and a maximum of 12". Maximum slope of haunch shall be one vertical to four horizontal. Payment for deck slab concrete shall be based on the 9" width.



TRANSVERSE SECTION A-A

* This is the nominal dimension. The quantity of deck concrete to be paid for shall be based on this dimension, even though deviation from it may be necessary because the top flange of the beam may not have the exact camber or conformation required to place it parallel to the finished grade.

Note: For Handrail Details and details of H5 Bars in Handrail Parapet see Sheet Nos. 283 & 285

For End Finish Details see Sheet No. 279.

For Lighting Details see Sheet No. 283.

For Drainage Details see Sheet No. 308

Downspout size shall be:
8" at N.W. corner of deck
8" at S.W. corner of deck

At Inlets, cut reinforcing steel to fit.

For Grade Detail and Fascia offsets see Sheet No. 267.

CITY OF CINCINNATI
DEPARTMENT OF PUBLIC WORKS
DIVISION OF ENGINEERING

SUPERSTRUCTURE DETAILS

BRIDGE NO. HAM-50-1987-R

EASTBOUND 6TH ST. EXPRESSWAY BRIDGE OVER RAMP A

CINCY BRIDGE NO. 3R

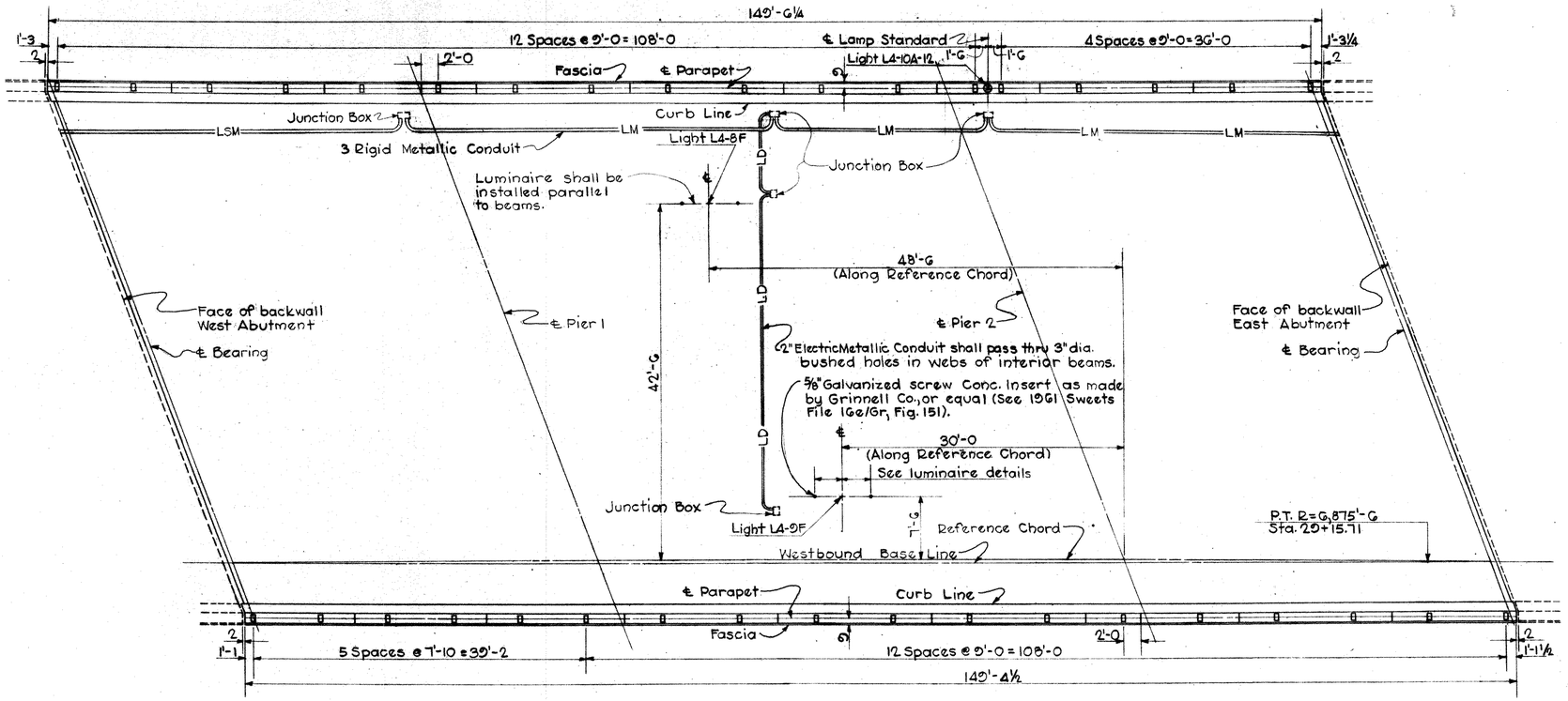
DESIGNED	DRAWN	TRACED	CHECKED	REVIEWED	DATE	REVISED
J.A.A.	J.A.A.		W.W.	W.W.	8-1-62	

MICROFILMED
JUN 12 1984

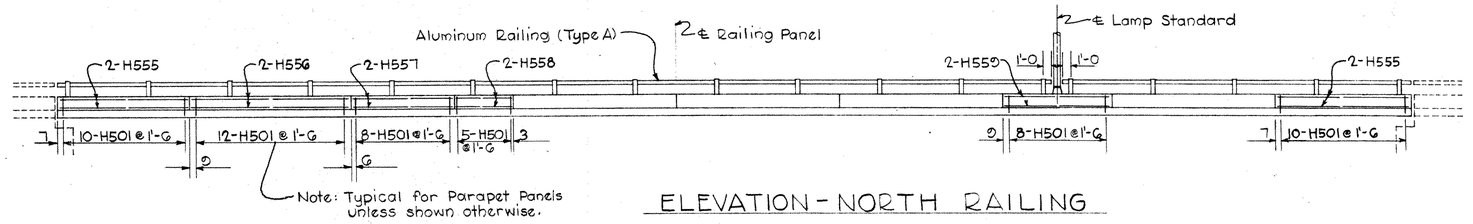
FED. RD. DIV.	STATE	PROJECT	FISCAL YEAR
2	OHIO		

HAM-50-19.76

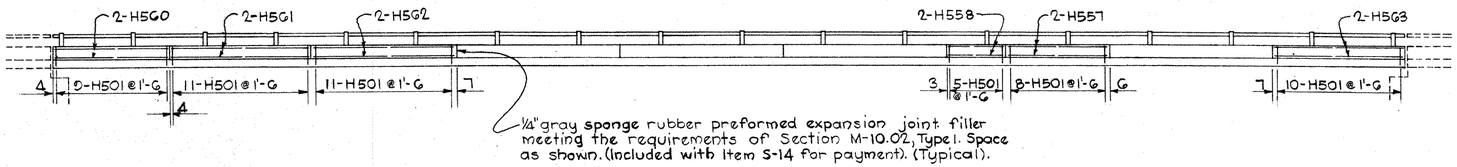
282
464



PLAN



ELEVATION - NORTH RAILING



ELEVATION - SOUTH RAILING

Note: The location of railing posts and lamp standards is measured along ℄ of parapet.

For Typical Railing Details, see Std. Dwg. AR-1-57.

For Typical Lighting Details, see Sheet Nos. 213 & 214.

For Legend of Lighting Items, see Sheet No. 204.

For parapet details, see Sheet No. 280.

CITY OF CINCINNATI
DEPARTMENT OF PUBLIC WORKS
DIVISION OF ENGINEERING

DECK RAILING & LIGHTING

BRIDGE NO. HAM-50-1987-L

WESTBOUND
6TH ST. EXPRESSWAY BRIDGE
OVER RAMP A

CINCY BRIDGE NO. 3L

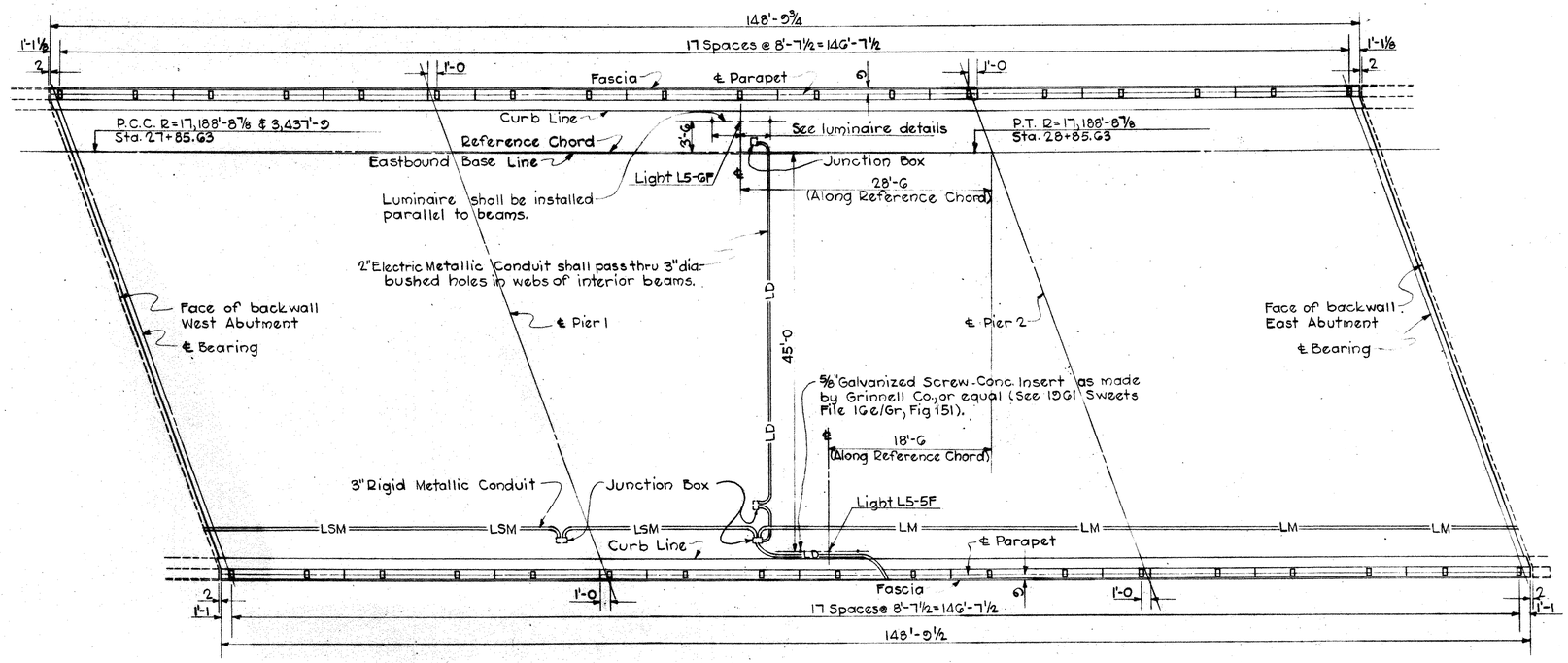
DESIGNED	DRAWN	TRACED	CHECKED	REVIEWED	DATE	REVISED
H.E.W.	H.E.W.		W.W.	W.W.	8-1-62	

MICROFILMED
JUN 12 1984

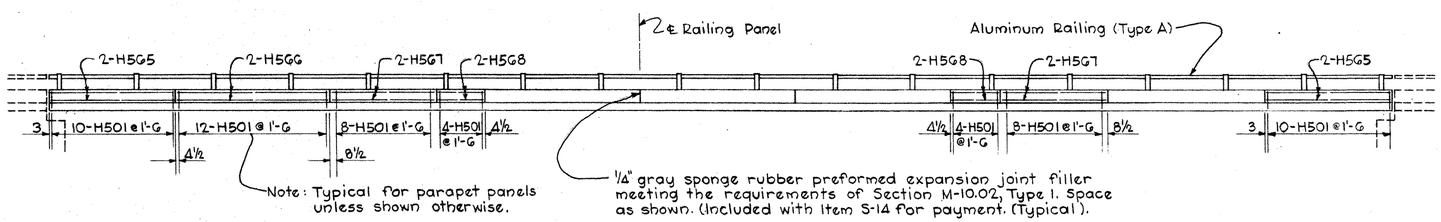
FED. RD. DIV.	STATE	PROJECT	FISCAL YEAR
2	OHIO		

HAM-50-19.76

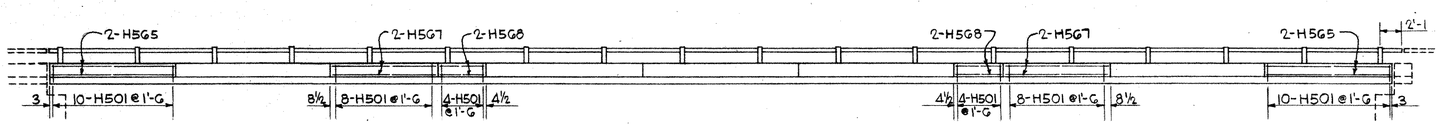
283
464



PLAN



ELEVATION - NORTH RAILING



ELEVATION - SOUTH RAILING

Note: The location of railing posts is measured along ℄ of parapet.

For Typical Railing Details, see Std. Dwg. AR-1-57.

For Typical Lighting Details, see Sheet Nos. 213 & 214.

For Legend of Lighting Items, see Sheet No. 204.

For parapet details, see Sheet No. 281.

CITY OF CINCINNATI
DEPARTMENT OF PUBLIC WORKS
DIVISION OF ENGINEERING

DECK RAILING & LIGHTING

BRIDGE NO. HAM-50-1987-R

EASTBOUND
6TH ST. EXPRESSWAY BRIDGE
OVER RAMP A

CINCY BRIDGE NO. 3R

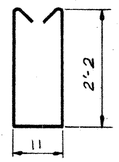
DESIGNED	DRAWN	TRACED	CHECKED	REVIEWED	DATE	REVISED
H.E.W.	H.E.W.		W.W.	W.W.	8-1-62	

MICROFILMED
JUN 12 1964

FED. RD. DIV.	STATE	PROJECT	FISCAL YEAR
2	OHIO		

285/464

HAM-50-19.76



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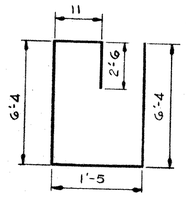
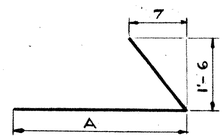
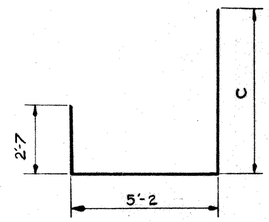


A604 , A624



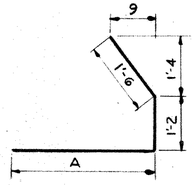
EASTBOUND	
MARK	A
A514	7'-4
A5126	10'-8

WESTBOUND	
MARK	A
A515	8'-11
A5115	9'-5



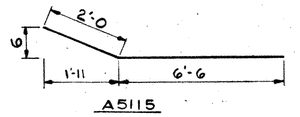
EASTBOUND	
MARK	C
A601	7'-3
A602	6'-7
A621	6'-9
A622	6'-9

WESTBOUND	
MARK	C
A601	7'-4
A602	6'-4
A621	6'-5
A622	7'-0

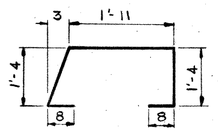


EASTBOUND	
MARK	A
A516	6'-0
A517	10'-6
A518	13'-0
A519	13'-0
A5128	9'-2
A5129	12'-5
A5130	15'-6
A5131	16'-3

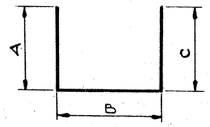
WESTBOUND	
MARK	A
A517	7'-0
A518	11'-4
A519	14'-6
A520	14'-6
A5117	7'-9
A5118	11'-2
A5119	14'-4
A5120	15'-0



A5115

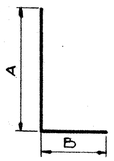


S401



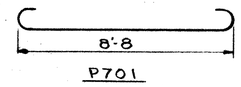
EASTBOUND			
MARK	A	B	C
A603	6'-4	1'-5	6'-4
A623	6'-4	1'-5	6'-4
A501	2'-4	2'-7	2'-4
A505	2'-4	3'-5	2'-4
A536	2'-0	1'-4	2'-0
A5101	2'-8	2'-7	2'-8
A5102	3'-4	2'-7	3'-4
A5106	1'-7	3'-5	1'-7
A5116	2'-5	3'-5	2'-5
A5117	2'-3	3'-5	2'-3
A5118	2'-2	3'-5	2'-2
A5119	2'-0	3'-5	2'-0
A5120	1'-11	3'-5	1'-11
A5121	1'-9	3'-5	1'-9
A5122	1'-8	3'-5	1'-8
A5123	1'-6	3'-5	1'-6
A5148	2'-0	1'-4	2'-0
P501	2'-8	2'-8	2'-8
P502	2'-8	2'-0	2'-8
A5155	2'-7	3'-5	2'-7

WESTBOUND			
MARK	A	B	C
A603	6'-4	1'-5	6'-4
A623	6'-4	1'-5	6'-4
A501	2'-4	2'-7	2'-4
A502	3'-2	2'-7	3'-2
A506	2'-7	3'-5	2'-7
A537	2'-0	1'-3	2'-0
A5101	2'-4	2'-7	2'-4
A5102	3'-2	2'-7	3'-2
A5106	2'-6	3'-5	2'-6
A5137	2'-0	1'-3	2'-0
P501	2'-8	2'-8	2'-8
P502	2'-8	2'-0	2'-8



EASTBOUND		
MARK	A	B
A503	7'-3	1'-3
A504	6'-7	1'-3
A512	4'-7	0'-9
A538	7'-7	1'-7
A540	7'-3	2'-0
A541	11'-6	2'-0
A542	14'-0	2'-0
A543	14'-0	2'-0
A5104	6'-9	1'-3
A5105	6'-9	1'-3
A5124	4'-7	0'-9
A5152	1'-6	2'-0
P901	5'-0	1'-0

WESTBOUND		
MARK	A	B
A504	7'-4	1'-3
A505	6'-4	1'-3
A513	4'-7	0'-9
A539	8'-2	1'-7
A541	7'-6	2'-0
A542	11'-6	2'-0
A543	14'-6	2'-0
A544	14'-6	2'-0
A5104	6'-5	1'-3
A5105	7'-0	1'-3
A5113	4'-7	0'-9
A5139	9'-8	1'-7
A5141	8'-6	2'-0
A5142	11'-4	2'-0
A5143	14'-5	2'-0
A5144	16'-0	2'-0
P901	5'-0	1'-0
P1101	5'-9	1'-0



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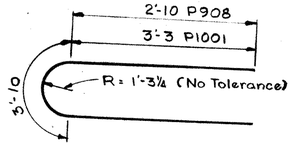

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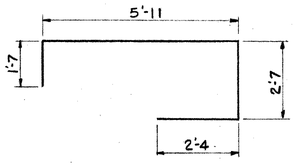

A503, A5103, A502

SPIRAL REINFORCEMENT						
MARK	NO	Core Dia. % Spiral	LENGTH	PITCH	NO. TURNS	WEIGHT
EASTBOUND						
SP401	1	32"	14'-11⅛	4½"	43	278
SP402	1	32"	15'-1½	4½"	43	278
SP403	1	32"	15'-3¾	4½"	44	284
SP404	1	32"	15'-6	4½"	44	284
SP405	1	32"	16'-8½	4½"	48	310
SP406	1	32"	16'-9⅜	4½"	48	310
SP407	1	32"	16'-10	4½"	48	310
SP408	1	32"	16'-10⅜	4½"	48	310
WESTBOUND						
SP401	1	32"	12'-4⅛	4½"	36	232
SP402	1	32"	12'-9⅜	4½"	37	239
SP403	1	32"	13'-2¾	4½"	38	245
SP404	1	32"	13'-8⅛	4½"	40	258
SP405	1	32"	14'-4⅛	4½"	41	265
SP406	1	32"	14'-8¾	4½"	42	271
SP407	1	32"	15'-1½	4½"	43	278
SP408	1	32"	15'-6⅜	4½"	45	290

REPLACEMENT BARS			
MARK	NO	LENGTH	SHP
RE401	1	5'-3	Str.
RE501	5	5'-7	"
RE601	6	5'-11	"
RE701	1	6'-3	"
RE801	1	6'-6	"
RE901	1	6'-10	"
RE1001	1	7'-3	"
RE1101	1	7'-7	"

NOTE

The "Length" shown in the steel list for the spiral bars is the distance from the top of the footing to the bottom of the pier cap.
The "No of Turns" shown in the steel list for the spiral bars is the "Length" divided by the pitch, plus 3 turns (total number of closed coils), expressed as the nearest whole number.
Spiral reinforcing bars shall not have deformations but shall in other respects conform to item S-4.
1½ closed coils shall be provided at the ends of each spiral unit.
Four steel channels, tee or angle spacers, weighing approximately 0.68 lb. per lin.ft. of spacer, shall be provided for each spiral unit. They shall be equally spaced along the periphery of the coil. The number of pounds of these spacers, based on 0.68 lb. per lin. ft., will be paid for as reinforcing steel and is included in the tabulated quantity of spiral bars.

H bars listed without weights shall be included with item S-14 for payment.

Bar size is indicated in the bar mark. The first digit indicates the bar size number except when the first digit is one (1). In this case the first two digits indicate the bar size number.

CITY OF CINCINNATI
DEPARTMENT OF PUBLIC WORKS
DIVISION OF ENGINEERING

BAR BENDING DETAILS

BRIDGE NO. HAM-50-1987(R&L)

EASTBOUND & WESTBOUND
6TH ST. EXPRESSWAY BRIDGES
OVER RAMP A

CINCY BRIDGE NOS. 3R & 3L

DESIGNED	DRAWN	TRACED	CHECKED	REVIEWED	DATE	REVISED
	J.A.A.		W.W.	W.W.	8-1-62	

MICROFILMED
JUN 12 1984

FED. RD. DIV.	STATE	PROJECT	FISCAL YEAR
2	OHIO		

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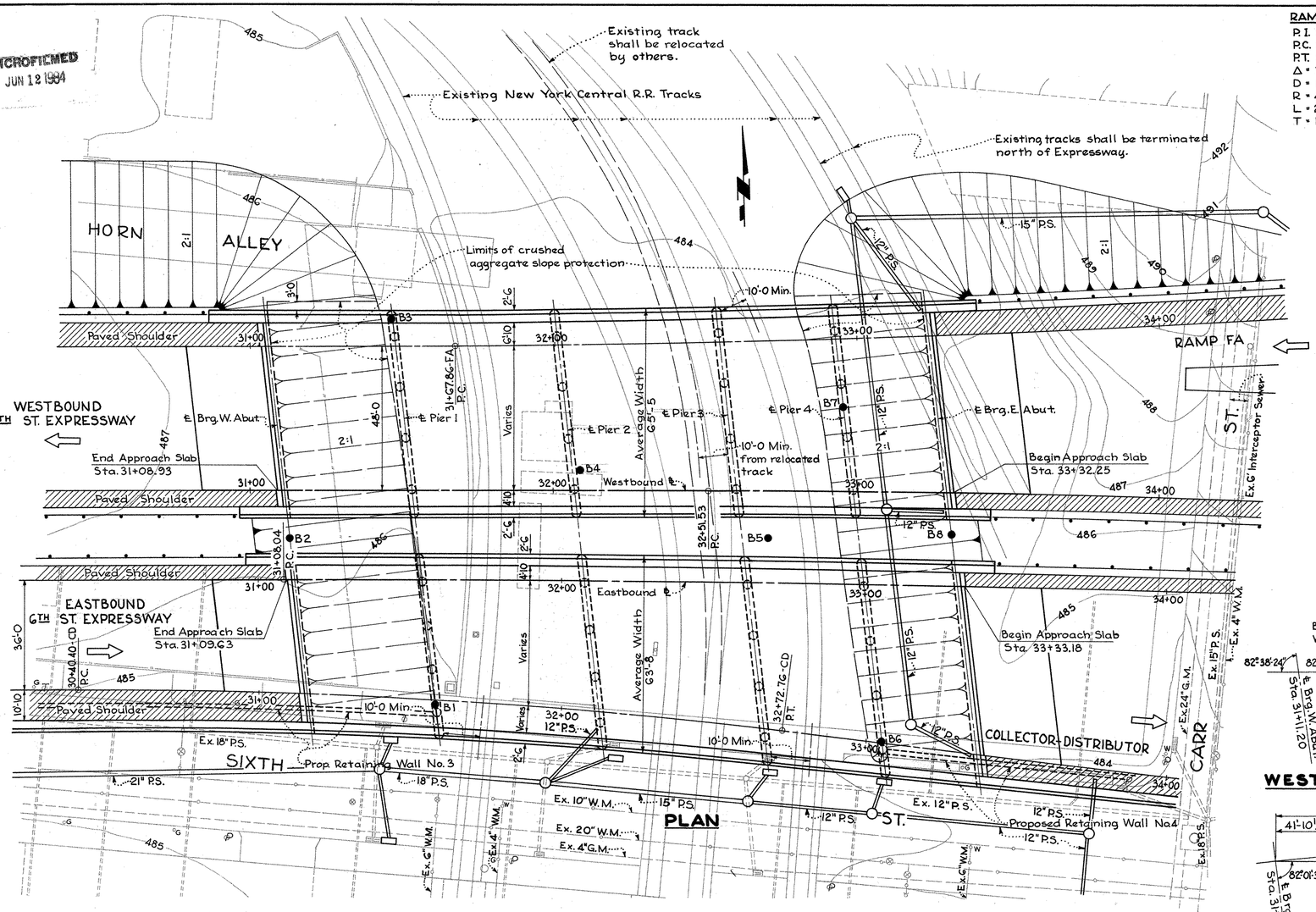
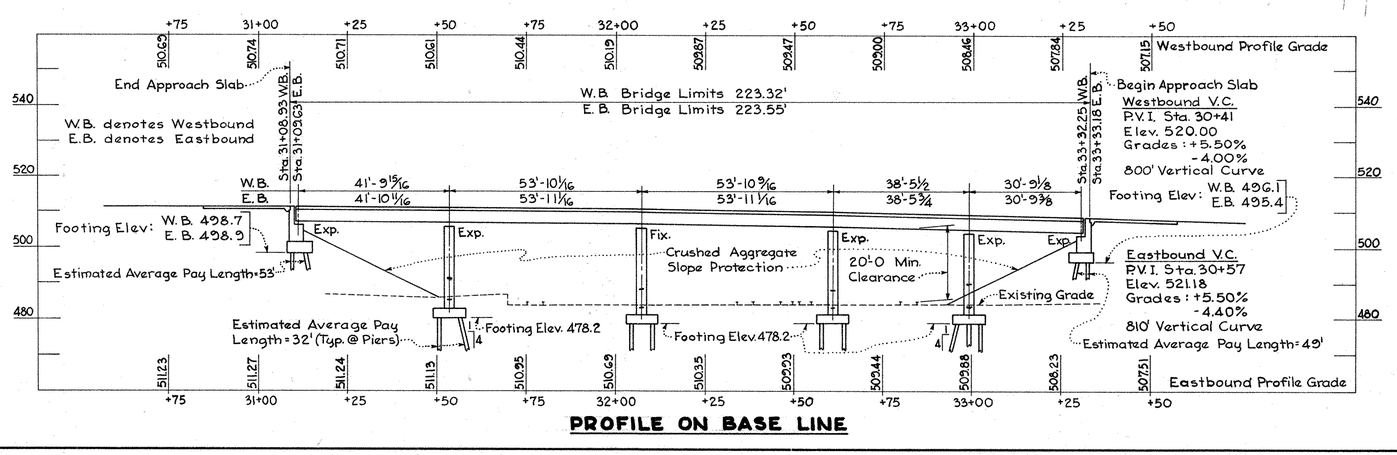
HAM-50-19.76





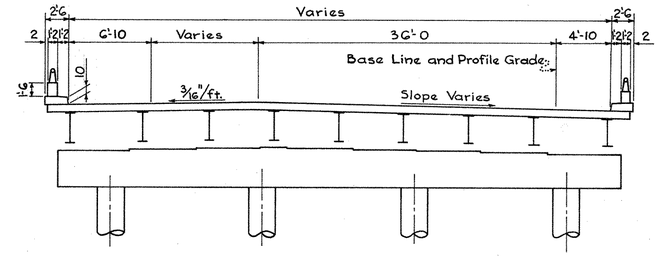
PROFILE ON BASE LINE

RAMP FA CURVE DATA

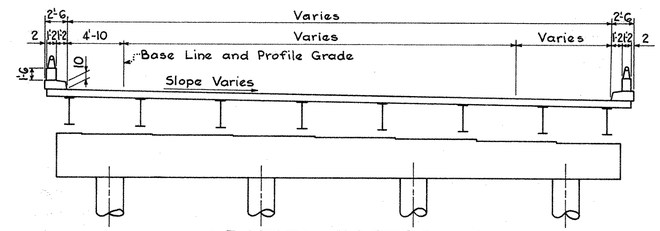
P.I. Sta. 33+15.04 - FA
P.C. Sta. 31+67.86 - FA
P.T. Sta. 34+62.13 - FA
Δ = 3°-40'-42"
D = 1°-15'
R = 4583.66'
L = 294.27'
T = 147.18'

COLLECTOR-DISTRIBUTOR CURVE DATA

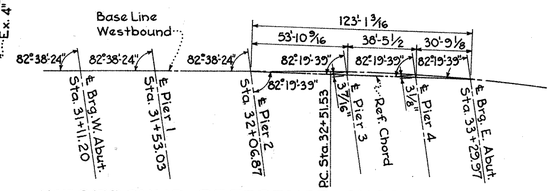
P.I. Sta. 31+56.72 - C D
P.C. Sta. 30+40.40 - C D
P.T. Sta. 32+72.76 - C D
Δ = 6°-58'-15"
D = 3°-00'
R = 1909.86'
L = 232.36'
T = 116.32'



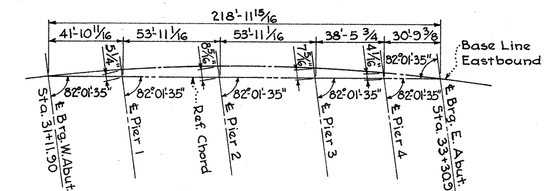
SECTION WESTBOUND



SECTION EASTBOUND



WESTBOUND REFERENCE CHORD LAYOUT



EASTBOUND REFERENCE CHORD LAYOUT

Bridge No. HAM-50-1992 L is Westbound.
Bridge No. HAM-50-1992 R is Eastbound.

EXPRESSWAY CURVE DATA

℄ WESTBOUND	℄ EASTBOUND
P.I. Sta. 34+86.13	P.I. Sta. 34+94.01
P.C. Sta. 32+51.53	P.C. Sta. 31+08.04
P.T. Sta. 37+20.33	P.T. Sta. 38+79.46
Δ = 5°-51'-36"	Δ = 5°-08'-34"
D = 1°-15'	D = 0°40'
R = 4583.66'	R = 8594.37'
L = 468.80'	L = 771.42'
T = 234.60'	T = 385.97'

PROPOSED STRUCTURES

TYPE: Five span continuous rolled beam with concrete deck and substructure.
SPANS: Westbound - 41.83', 53.84', 53.88', 38.46', 30.76' ℄ brg.
Eastbound - 41.83', 53.92', 53.92', 38.48', 30.78' ℄ brg.
ROADWAY: Westbound - Varies
Eastbound - Varies
SIDEWALK: 1'-2 Curbs.
LOAD FREQUENCY: C.F. = 2000 (57) Adequate for AASHO alternate loading.
SKEW: Westbound - 7°-21'-36" R.F. and 7°-40'-21" R.F.
Eastbound - 7°-58'-25" R.F.
WEARING SURFACE: 1" Monolithic concrete.
APPROACH SLABS: AS-1-54 (25' long).
ALIGNMENT: Westbound - Tangent & 1°-15' Curve right.
Eastbound - 0°-40' Curve right.
SUPERELEVATION: Westbound - Varies
Eastbound - Varies

NOTE: Design Specifications: This structure conforms to the requirements of "Design Specifications for Highway Structures" of the State of Ohio, Department of Highways, dated 9-1-57 together with revisions thereof dated 2-21-58.

Construction clearance 17'-0 vertically above the top of the railroad rails and 8'-0 horizontally from the center of tracks shall be maintained at all times.

Piles shall be 12BP53 driven with a hammer of not less than 11000 ft. lbs. per blow to firm contact with rock and shale. Firm contact shall be considered as attained when the capacity according to the formula in Sec. S-18.05 (Construction and Material Specifications) is not less than the following value for a pile hammer of the indicated energy rating:

60 tons per pile using a 11000 ft. lb. hammer
50 tons per pile using a 15000 ft. lb. hammer

If the energy rating of the hammer is between the ratings as shown above, the required formula capacity shall be determined by interpolation. The design load is 40 tons per pile.

● Symbol denotes Test Boring.

For logs of borings see Sheet Nos. 289 and 290.

For General Notes see Sheet No. 408

CITY OF CINCINNATI
DEPARTMENT OF PUBLIC WORKS
DIVISION OF ENGINEERING

SITE PLAN

BRIDGE NO. HAM-50-1992-(R&L)

EASTBOUND & WESTBOUND 6TH ST. EXPRESSWAY BRIDGES OVER R.R. SIDING W. OF FREEMAN AVE.

CINCY BRIDGE NOS. 4R & 4L

DESIGNED	DRAWN	TRACED	CHECKED	REVIEWED	DATE	REVISED
H.H.A.	H.H.A.	J.D.A.	J.W.J.	W.W.	8-G-62	

MICROFILMED
JUN 12 1984

FED. RD. DIV.	STATE	PROJECT	FISCAL YEAR
2	OHIO		

HAM-50-19.76

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464

ESTIMATED QUANTITIES

ITEM	TOTAL (UG) WEST BOUND	TOTAL (UG) EASTBOUND	UNIT	DESCRIPTION	WESTBOUND BRIDGE SUPER-STRUCT.	WEST ABUT.	EAST ABUT.	PIER 1	PIER 2	PIER 3	PIER 4	GENERAL	EASTBOUND BRIDGE SUPER-STRUCT.	WEST ABUT.	EAST ABUT.	PIER 1	PIER 2	PIER 3	PIER 4	GENERAL
E-2	Lump	Lump	Lump Sum	Cofferdams, cribs and sheeting								Lump								Lump
E-2	902	857	Cu.Yds.	Unclassified excavation		173	177	147	111	111	183			149	164	161	111	111	161	
S-1	435	430	Cu.Yds.	Class "C" concrete, superstructure	435								430							
S-1	352	338	Cu.Yds.	Class "C" concrete, piers above footings				87	88	89	88					81	82	86	89	
S-1	142	131	Cu.Yds.	Class "E" concrete, abutments above footings		68	74							60	71					
S-1	228	211	Cu.Yds.	Class "E" concrete, footings		53	55	30	30	30	30			40	51	30	30	30	30	
S-3	18	18	Lin. Ft.	Waterproofing, premolded sealing strip		9	9							9	9					
S-3		8	Sq. Yds.	Type "B" waterproofing										4	4					
S-4	199,530	197,893	Lbs.	Reinforcing steel	127,827	8913	9251	13,770	13,721	13,559	12,489		126,145	7,800	9,284	13,711	13,724	13,798	13,433	
S-7	319,900	310,600	Lbs.	Structural steel	319,900								310,600							
S-8	319,900	310,600	Lbs.	Field painting of structural steel,	319,900								310,600							
S-14	500	477	Lin. Ft.	Railing, Type "A" (aluminum rail and supports, concrete parapet)	441	30	29						444	17	16					
S-18	4678	4572	Lin. Ft.	Steel piles 12BP53		901	833	768	768	768	640			795	833	768	768	768	640	
S-25			Each	400-Watt Mercury Vapor Luminaire I.E.S. Type II or III Distribution																
S-25			Lump Sum	Electric Grounding System for Bridge																
S-25			Lin. Ft.	Single Conductor #6 Secondary Cable, Plain																
S-25			Lin. Ft.	Single Conductor #6 Secondary Cable, Identifiable																
S-25			Lin. Ft.	Three Conductor #12 Secondary Cable																
S-25			Each	Lamp Standard Type A (Structure) with 12' Bracket Arm																
S-25			Each	Lamp Standard Type A (Structure) with 15' Bracket Arm																
S-25			Each	Junction Box, as per plan																
S-25			Lin. Ft.	3" Asbestos Cement Conduit (Structure) Type 1																
S-25			Lin. Ft.	3" Rigid Metallic Conduit with Accessories																
S-25			Each	15 Amp. Fuse Block																
S-25			Each	Conduit Support Assembly																
S-29	50	44	Cu. Yds.	Porous backfill		23	27							19	25					
S-29	2	2	Each	Drain Inlets, including support lugs	2								2							
S-29	8	26	Lin. Ft.	8" std. pipe downspout, galvanized steel or wrought iron, including specials			8								4		22			
I-10	728	586	Sq. Yds.	Crushed aggregate slope protection		364	364							266	320					
S-16		Lump	Lump Sum	First test pile																Lump
Special	435	430	Each	Water-reducing, set-retarding admixture*	435								430							
S-407	4032	3584	Each	Welded stud shear connectors **	4032								3584							

Note: S-25 Items are carried to lighting and signing General Summary, Sheet Nos. 41 and 42.

FIRST TEST PILE. Payment will be made for only one first test pile. It may be driven for either the Eastbound or Westbound Bridge.

* See proposal note.

** No Federal participation.

CITY OF CINCINNATI
DEPARTMENT OF PUBLIC WORKS
DIVISION OF ENGINEERING

ESTIMATED QUANTITIES

BRIDGE NO. HAM-50-19 92-(R&L)

EASTBOUND & WESTBOUND
6TH ST. EXPRESSWAY BRIDGES
OVER R.R. SIDING W. OF FREEMAN AVE.

CINCY BRIDGE NOS. 4R & 4L

DESIGNED	DRAWN	TRACED	CHECKED	REVIEWED	DATE	REVISED
J.G.T. J.D.A.	J.D.A.		J.W.J. J.A.A.	W.W.	8-6-82	

MICROFILMED
JUN 12 1984

FED. RD. DIV.	STATE	PROJECT	FISCAL YEAR
2	OHIO		

HAM-50-19.76

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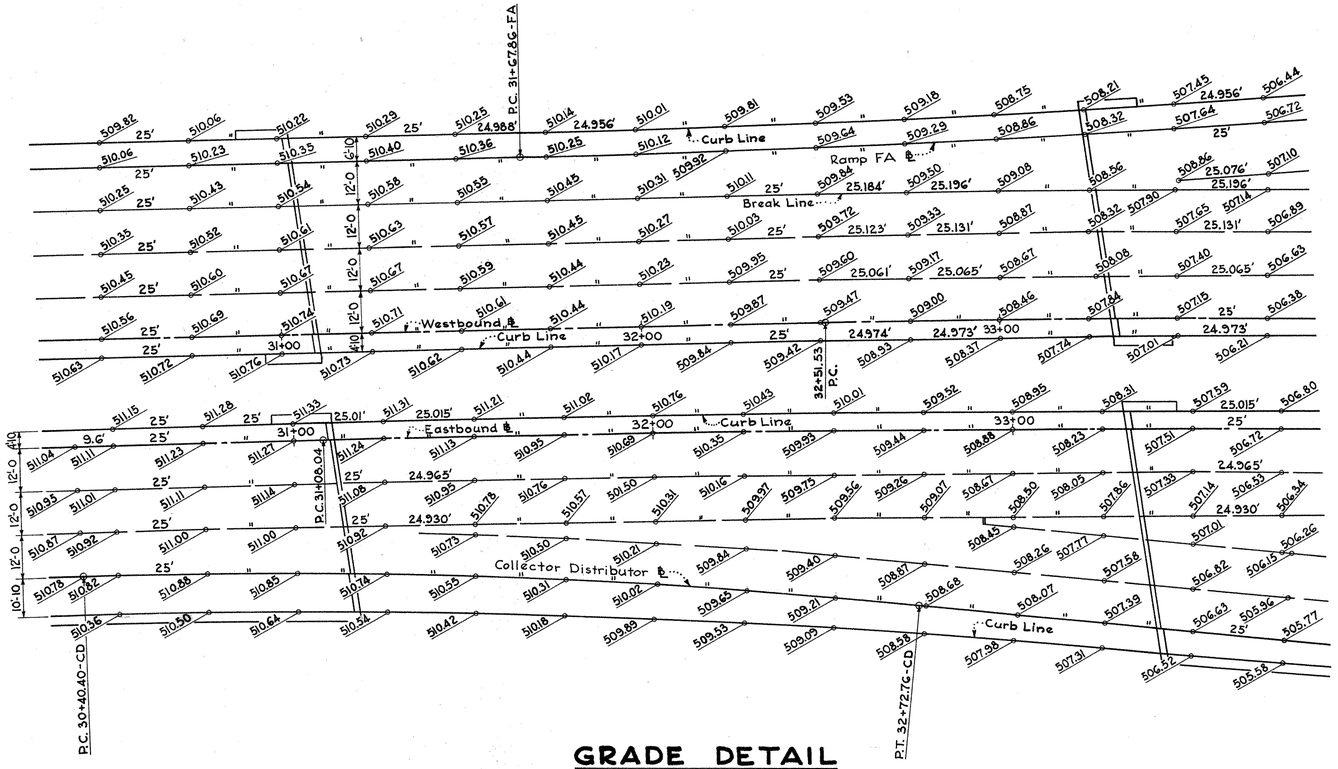
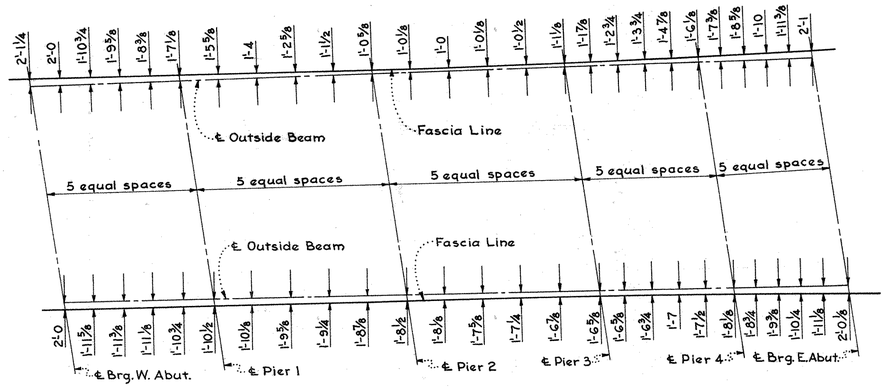
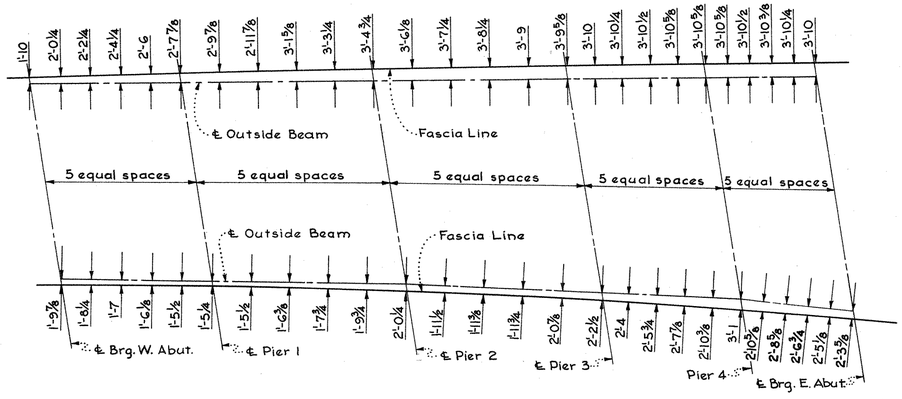


GRADE DETAIL



WESTBOUND FASCIA OFFSETS



EASTBOUND FASCIA OFFSETS

CITY OF CINCINNATI
DEPARTMENT OF PUBLIC WORKS
DIVISION OF ENGINEERING

GRADE DETAIL & FASCIA OFFSETS

BRIDGE NO. HAM-50-1992-(R&L)

EASTBOUND & WESTBOUND
6TH ST. EXPRESSWAY BRIDGES
OVER R.R. SIDING W. OF FREEMAN AVE.

CINCY BRIDGE NOS. 4R & 4L

DESIGNED	DRAWN	TRACED	CHECKED	REVIEWED	DATE	REVISED
H.H.A. J.G.T.	J.D.A.	J.D.A.	J.W.J.	W.W.	8-6-62	

MICROFILMED
JUN 12 1964

FED. RD. DIV.	STATE	PROJECT	FISCAL YEAR
2	OHIO		

HAM-50-19.76

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464

FTG.

BORING B-1

CITY TRAVERSE LINE Sta. 15+45.5, 6.0' R.

	W.C.		N	
484.7				0.0' Ground Elevation
484.0				0.7' Concrete
482.2			15	2.5' Sand & gravel, brick, cinders, & clay, fill.
	23		16	
	22		19	Mottled brown & gray silt & clay, trace of sand.
475.7	22		15	9.0'
	21		14	
●	22		8	Mottled brown & gray silt, trace of fine sand.
	23		9	
				16.0'
●	25		5	
●	26		10	Mottled brown & gray silt, little fine sand lenses.
W.L.				21.0'
●	29		4	Gray silt, trace of fine sand.
●	30		4	25.0'
459.7				
●	29		3	Gray silt & clay, trace of fine sand lenses.
454.7				30.0'
●	27		4	Gray silt, some fine sand lenses.
449.7	18		100	35.0'
449.2				35.5' Gray silt & clay
		Rec.	73%	Gray shale, soft, 1" to 2" pieces & broken fragments, trace of 1" beds of gray, fossiliferous, hard limestone.
444.2				40.5'

EST. PILE TIP

Boring Completed

BORING B-2

CITY TRAVERSE LINE Sta. 15+86.5, 52.0' R.

	W.C.		N	
486.3				0.0' Ground Elevation
			12	Cinders, fill
482.3			14	4.0'
23			17	
21			21	Mottled brown & gray silt & clay, little fine sand.
21			18	
21			13	14.0'
24				15.5' Brown silt, little fine sand.
22			10	Mottled brown & gray silt & clay, trace
				18.0' of fine sand.
24			15	
25			12	Mottled brown & gray silt, little fine sand.
462.3				24.0'
● 28			6	26.0' Brown & gray sandy silt, some fine sand.
● 27			7	Brown & gray silt, little fine sand.
WL. 457.3				29.0'
● 27			8	
25			15	Gray sandy silt, some fine sand, little gravel, with sand seams.
450.3				36.0'
449.3	12		100/4"	37.0' Gray clay shale, some gravel, little sand.
		Rec.	93%	Gray calcareous shale, friable to firm, 1/8" to 2 1/2" pieces, averaging 3/4", with 15" of gray, fossiliferous, hard limestone in 3 pieces near bottom of run.
444.3				42.0'

EST. PILE TIP

Boring Completed

BORING B-3

CITY TRAVERSE LINE Sta. 15+59, 128.0' R.

	W.C.		N	
486.6				0.0' Ground Elevation
			19	Cinders, fill
483.6				3.0'
			17	Brown sandy clay with fine to
480.6				6.0' Coarse gravel, fill.
	20		13	8.0' Mottled brown & gray silt, some fine sand.
●	23		10	
	22		7	Brown sandy silt, some fine sand, trace of gravel.
	20		8	15.0'
	20		9	Brown silt, some fine sand.
468.6				18.0'
	11		18	Brown coarse & fine sand, little silt,
465.6				21.0' trace of gravel.
463.6	15		25	23.0' Brown gravelly sand, trace of silt.
	24		10	Brown sandy silt, little gravel with
	26		10	clay seams.
WL. 459.6				27.0'
	15		80	Brown sandy gravel, trace of silt.
455.6				31.0'
	19		27	Brown fine sand, trace of organic matter.
450.6				36.0'
		Rec.	95%	Gray Calcareous shale, firm to friable, 1/2" to 3 1/2" pieces, averaging 3", with 10 1/2" of gray, fossiliferous, hard limestone in one piece
445.6				41.0' at bottom of the run.

EST. PILE TIP

Boring Completed

BORING B-4

CITY TRAVERSE LINE Sta. 14+92, 101.5' R.

	W.C.		N	
484.3				0.0' Ground Elevation
			37	Cinders, gravel, broken stone
			73/4"	fragments, fill.
479.8				4.5'
	20		10	Mottled brown & gray silt,
	19		10	little fine sand.
				9.0'
●	21		9	Brown sandy silt.
				12.5'
	20		9	14.0' Brown silt, some fine sand.
●	20		8	Brown & gray sandy silt, trace of gravel.
				17.0'
	21		7	Brown & gray silt, little fine sand.
464.3				20.0'
	15		24	Brown gravely sand, little silt,
	14		26	broken stone fragments.
				25.0'
	18		45	27.0' Brown silty sand & gravel.
457.3				
	19		40	Gray gravelly sand, little silt.
	20		40	
				35.0'
449.3			50/6"	35.1' Gray clay shale.
		Rec.	57%	Gray calcareous shale, friable to firm, 1/2" to 3" pieces, averaging 1", with 13" of gray, fossiliferous, hard limestone in 3 pieces
444.2				40.1' at bottom of the run.

EST. PILE TIP

Boring Completed

490 480 470 460 450 440

NOTE: W.L. = Water level reading ~ Immediate.

W.C. = Column of figures indicates moisture content of sample in per cent of dry weight.

● = Moisture content equal to or greater than liquid limit minus 3%.

N = Column of figures indicates number of blows required to drive 2" O.D. Split Spoon the last 12" of a sample run using 140 lb. weight falling 30 inches.

▮ = 3" O.D. Shelby Tube sample taken at elevation of symbol.

PANM Core Barrel was used for the last 5 ft. of each boring.

Description of material is based on laboratory test data and visual examination. Representative samples only were tested.

Modifying descriptions in per cent of dry weight: trace 1-10%; little 10-20%; some 20-35%; and 35-50%.

Borings taken between March 14, 1961 and July 28, 1961.

For additional borings see Sheet No. 290.

For location of borings see Sheet No. 286.

CITY OF CINCINNATI
DEPARTMENT OF PUBLIC WORKS
DIVISION OF ENGINEERING

LOG OF BORINGS

BRIDGE NO. HAM-50-1992-(R & L)

EASTBOUND & WESTBOUND
6TH ST. EXPRESSWAY BRIDGES
OVER R.R. SIDING W. OF FREEMAN AVE.

CINCY BRIDGE NOS. 4R & 4L

DESIGNED	DRAWN	TRACED	CHECKED	REVIEWED	DATE	REVISED
	J.D.A.		W.W.	W.W.	8-6-62	

MICROFILMED
JUN 12 1984

FED. RD. DIV.	STATE	PROJECT	FISCAL YEAR
2	OHIO		

HAM-50-19.76

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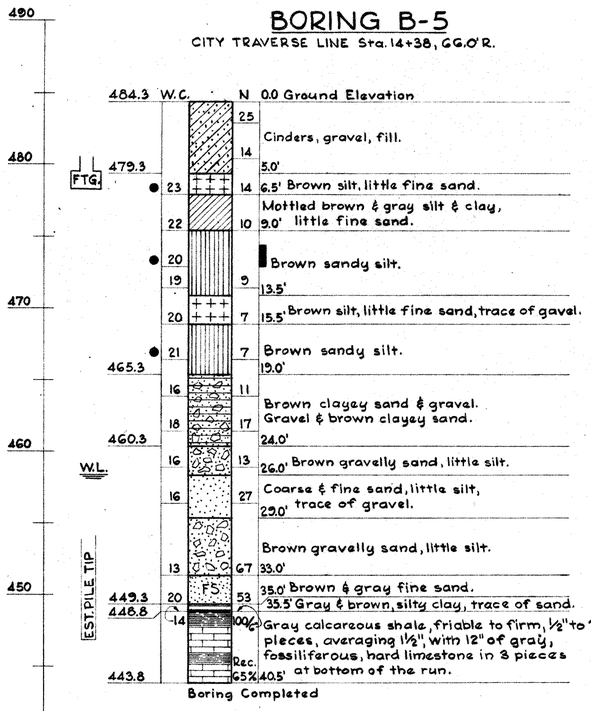
FTG.

BORING B-5

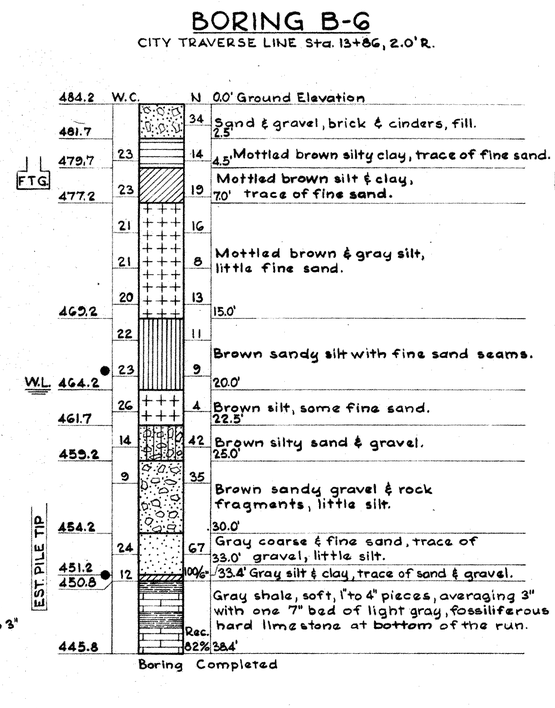
CITY TRAVERSE LINE Sta. 14+38, 66.0' R.



Boring Completed

BORING B-6

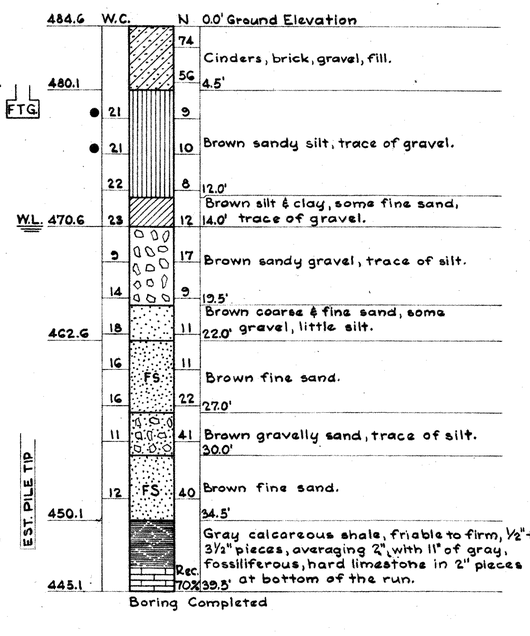
CITY TRAVERSE LINE Sta. 13+86, 2.0' R.



Boring Completed

BORING B-7

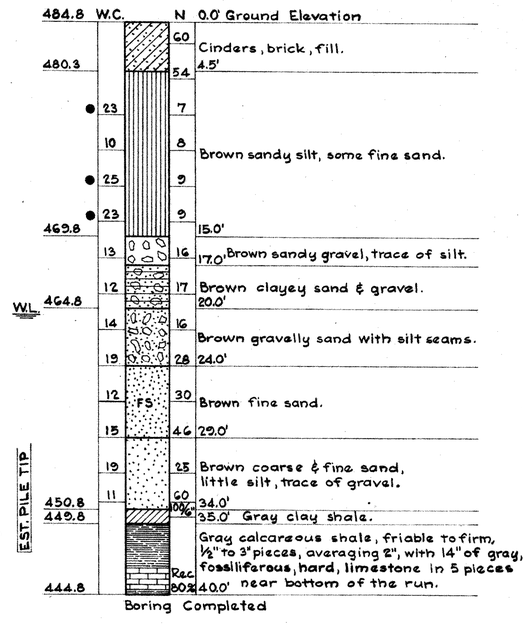
CITY TRAVERSE LINE Sta. 14+08.5, 110.0' R.



Boring Completed

BORING B-8

CITY TRAVERSE LINE Sta. 13+68.5, 72.5' R.



Boring Completed

NOTE: For Legend see Sheet No. 289.
For additional borings see Sheet No. 289.
For location of borings see Sheet No. 286.

CITY OF CINCINNATI
DEPARTMENT OF PUBLIC WORKS
DIVISION OF ENGINEERING

LOG OF BORINGS

BRIDGE NO. HAM-50-1992-(R & L)

EASTBOUND & WESTBOUND
6TH ST. EXPRESSWAY BRIDGES
OVER R.R. SIDING W. OF FREEMAN AVE.

CINCY BRIDGE NOS. 4R & 4L

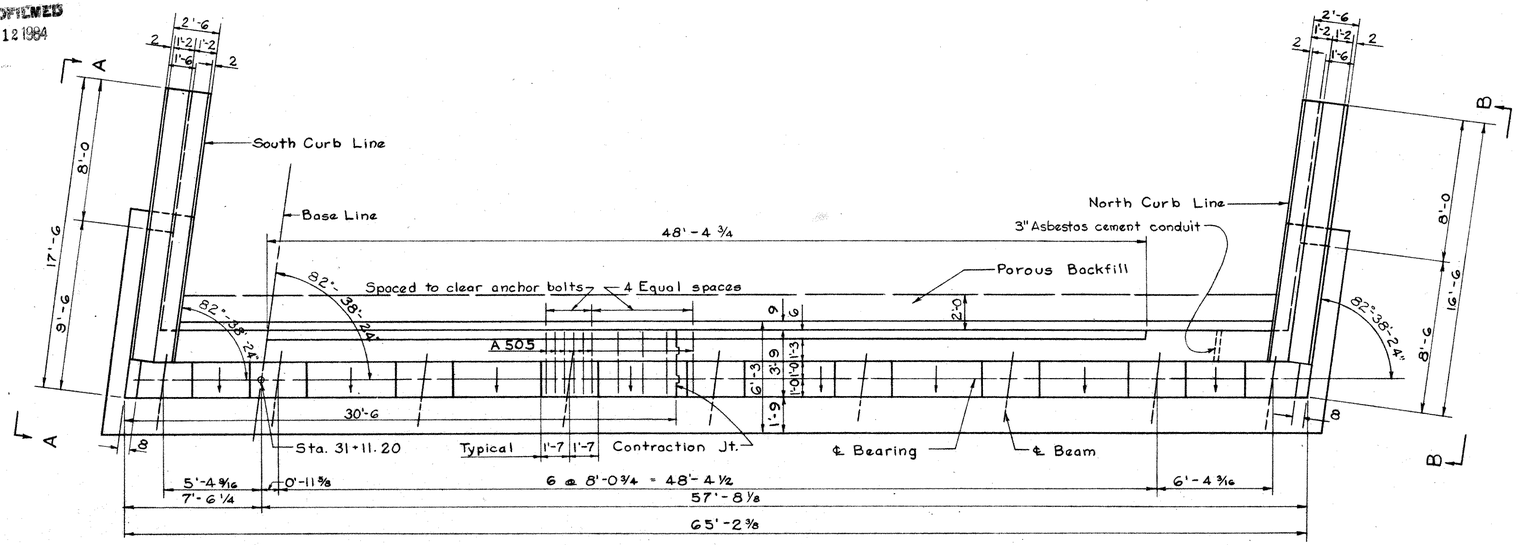
DESIGNED	DRAWN	TRACED	CHECKED	REVIEWED	DATE	REVISED
	J.D.A.		W. W.	W.W.	8-6-62	

MICROFILMED
JUN 12 1984

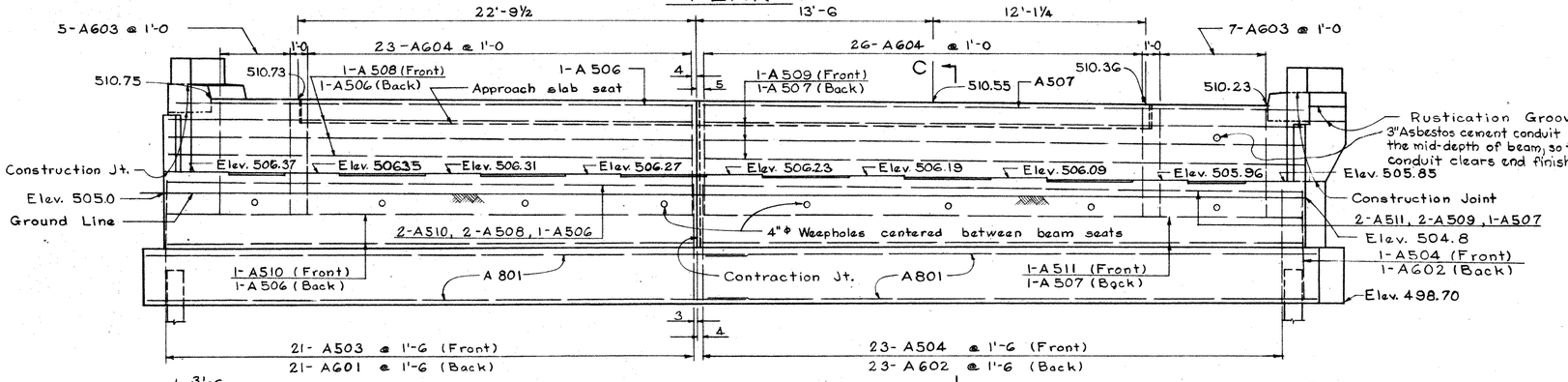
FED. RD. DIV.	STATE	PROJECT	FISCAL YEAR
2	OHIO		

HAM-50-19.76

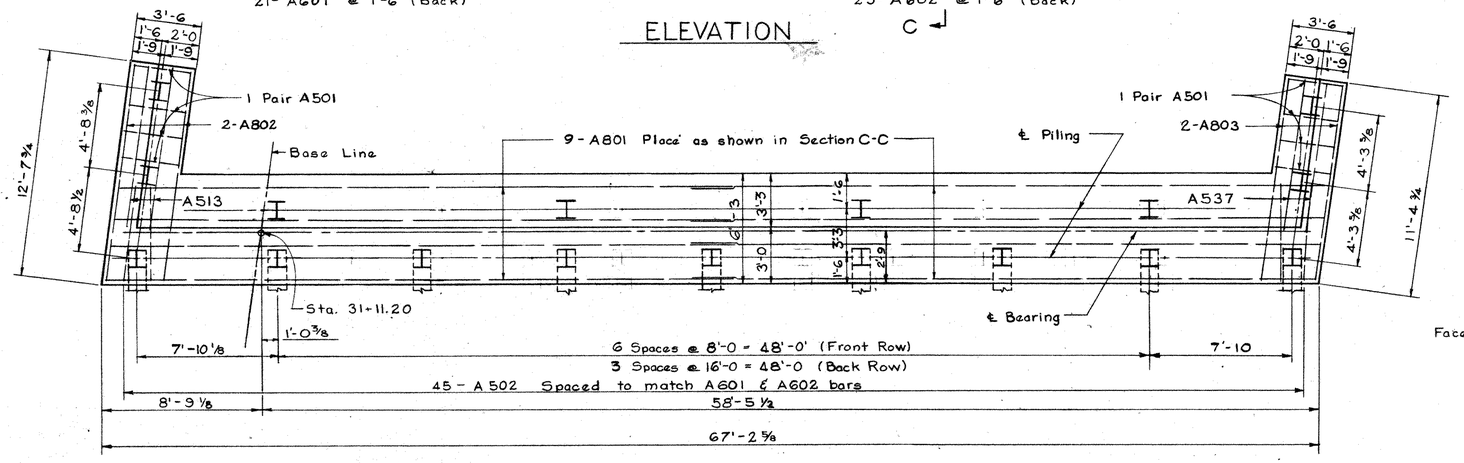
291
464



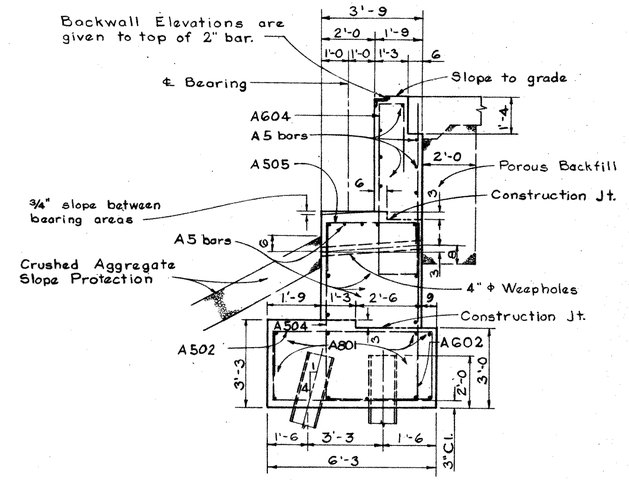
PLAN



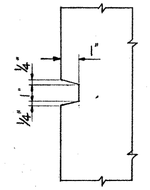
ELEVATION



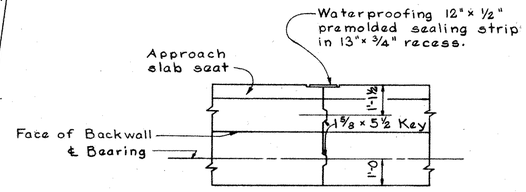
FOOTING PLAN



SECTION C-C



DETAIL OF RUSTICATION GROOVE



CONTRACTION JOINT

NOTES:

Work this sheet with Sheet Nos. 292 and 293.

The embankment shall be placed and compacted up to the finished spill-thru slope and to the level of the subgrade for a distance of 200 feet back of the abutments, after which excavation shall be made for the abutment.

All piles shall be steel 12 BP 53.

For end finish details, see Sheet No. 302 and Std. Drawing CSB-2-56 Sheet No. 2.

For curb plate details, see Sheet No. 302.

Porous backfill 2 ft. thick, full length of the abutment shall extend up to the underside of the approach slab and shoulder pavement.

For anchor bolt layout, see Sheet No. 299.

CITY OF CINCINNATI
DEPARTMENT OF PUBLIC WORKS
DIVISION OF ENGINEERING

WEST ABUTMENT

BRIDGE NO. HAM-50-19 92-L
WESTBOUND
6TH ST. EXPRESSWAY BRIDGE
OVER R.R. SIDING W. OF FREEMAN AVE.
CINCY BRIDGE NO. 4L

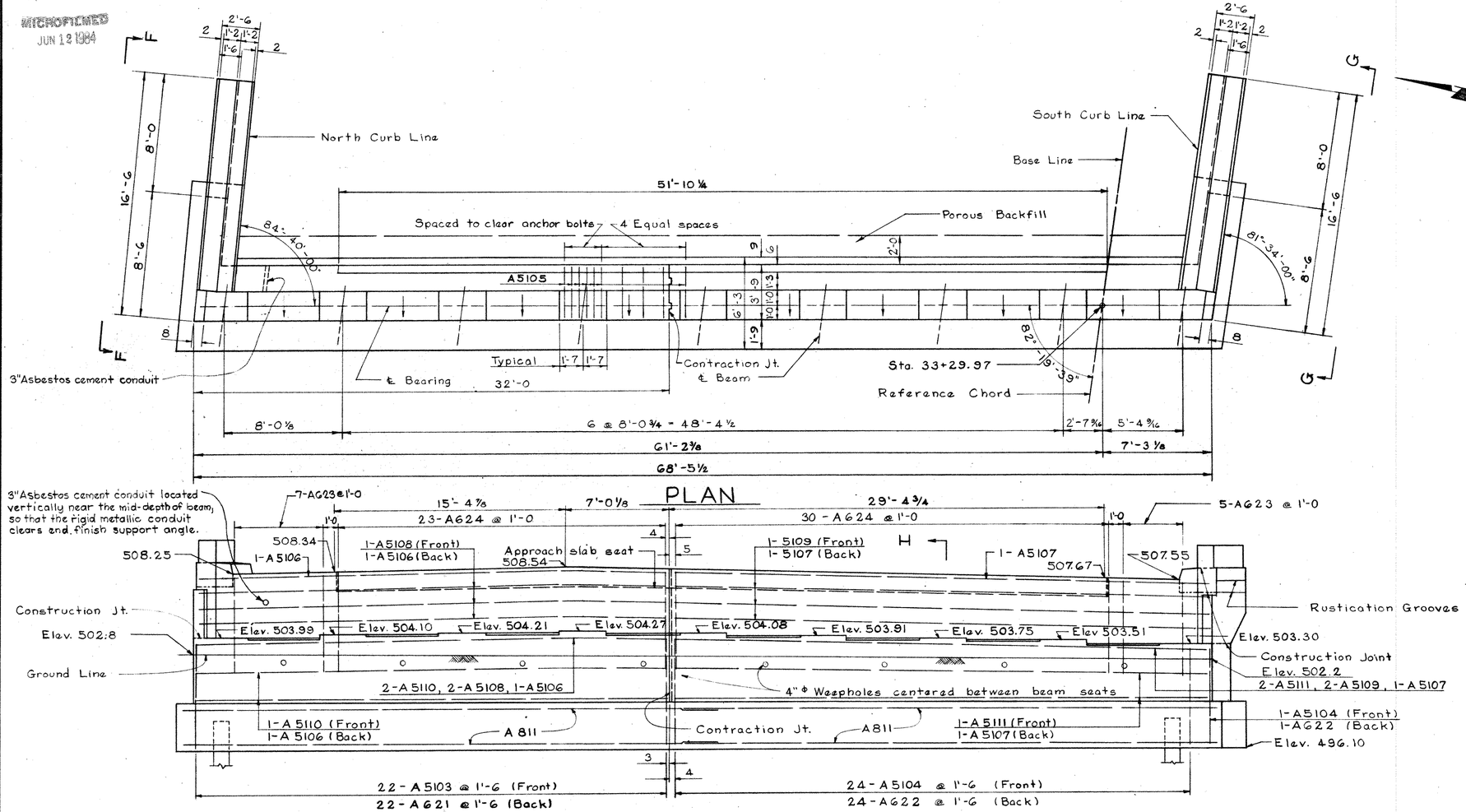
DESIGNED	DRAWN	TRACED	CHECKED	REVIEWED	DATE	REVISED
J.G.T.	J.G.T.		J.W.J.	W.W.	8-6-62	

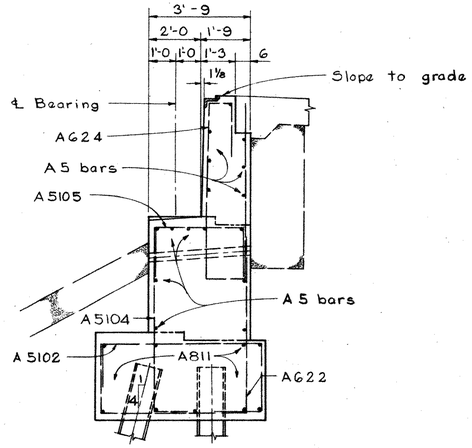
MICROFILMED
JUN 12 1984

FED. RD. DIV.	STATE	PROJECT	FISCAL YEAR
2	OHIO		

HAM-50-19.76

292
464





SECTION H-H

For details not shown see Section C-C.

NOTES:

Work this sheet with Sheet Nos. 291 and 293.

The embankment shall be placed and compacted up to the finished spill-thru slope and to the level of the subgrade for a distance of 200 feet back of the abutments, after which excavation shall be made for the abutment.

All piles shall be steel 12 BP53.

For end finish details, see Sheet No. 302 and Std. Drawing CSB-2-56 Sheet No. 2.

For curb plate details, see Sheet No. 302.

Porous backfill 2 ft. thick, full length of the abutment shall extend up to the underside of the approach slab and shoulder pavement.

For anchor bolt layout, see Sheet No. 295.

CITY OF CINCINNATI
DEPARTMENT OF PUBLIC WORKS
DIVISION OF ENGINEERING

EAST ABUTMENT

BRIDGE NO. HAM-50-1992-L
WEST BOUND
6TH ST. EXPRESSWAY BRIDGE
OVER R.R. SIDING W. OF FREEMAN AVE.
CINCY BRIDGE NO. 4L

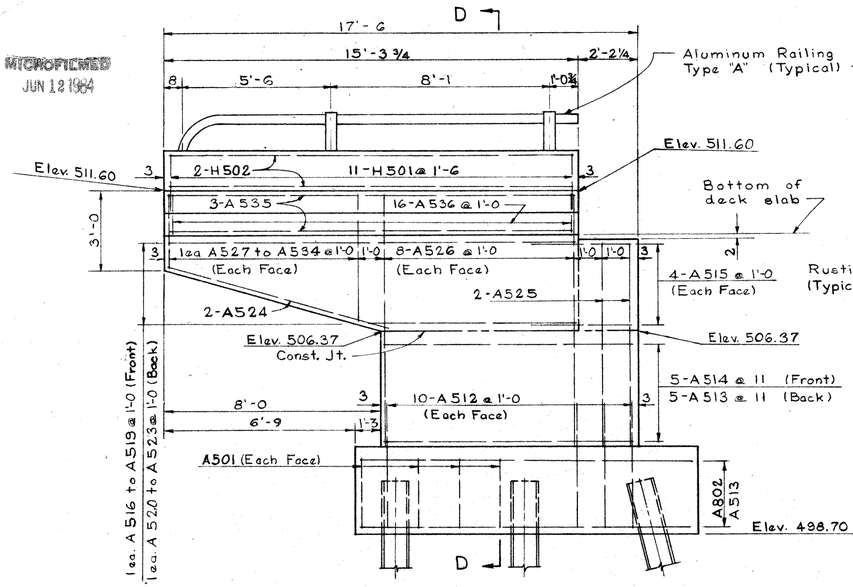
DESIGNED	DRAWN	TRACED	CHECKED	REVIEWED	DATE	REVISED
J.G.T.	J.G.T.		J.W.J.	W.W.	8-6-62	

MICROFILMED
JUN 12 1964

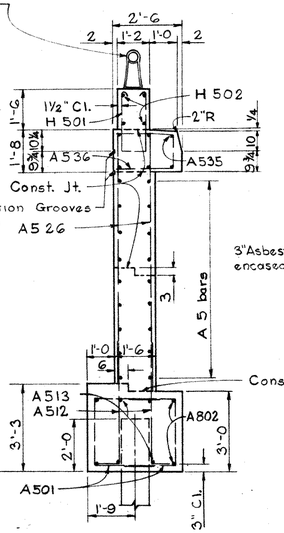
FED. RD. DIV.	STATE	PROJECT	FISCAL YEAR
2	OHIO		

203
464

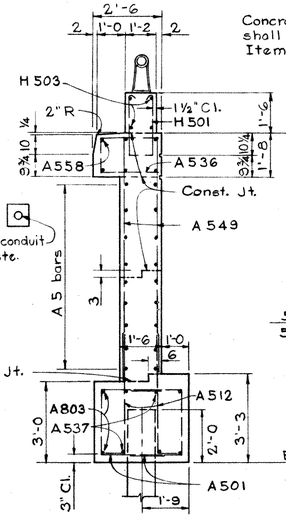
HAM-50-19.76



ELEVATION A-A

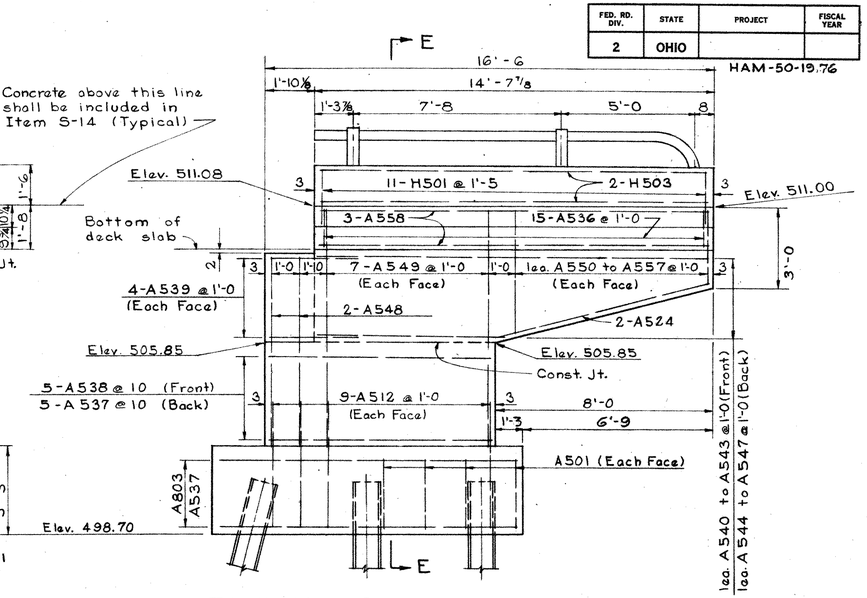


SECTION D-D

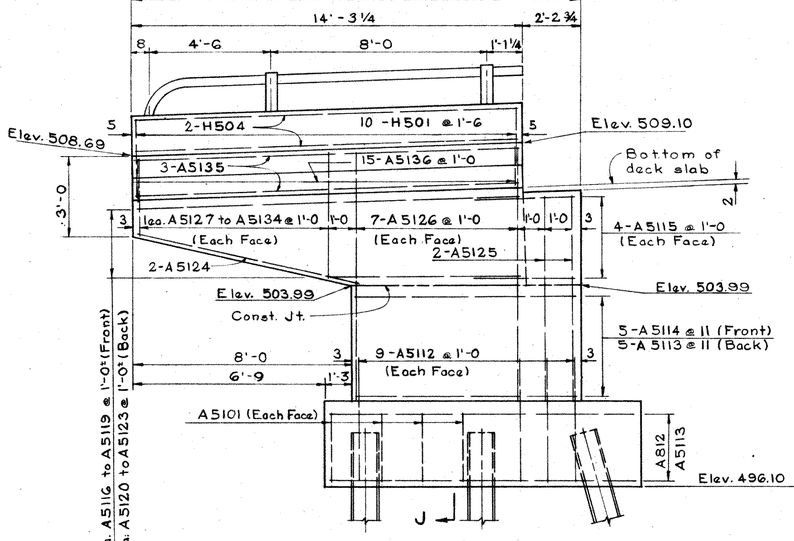


SECTION E-E

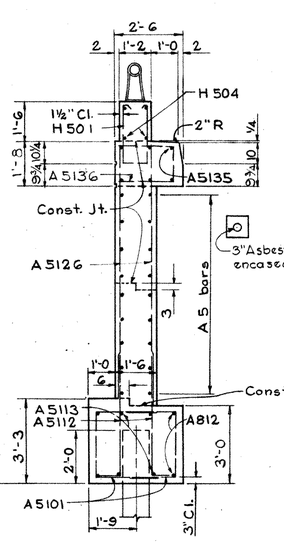
Concrete above this line shall be included in Item S-14 (Typical)



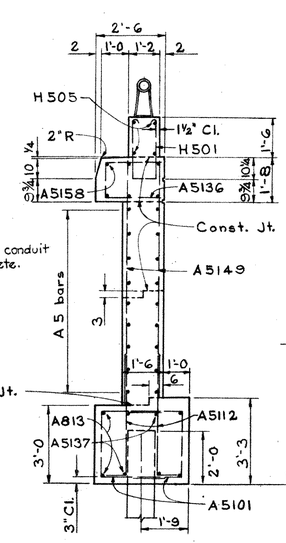
ELEVATION B-B



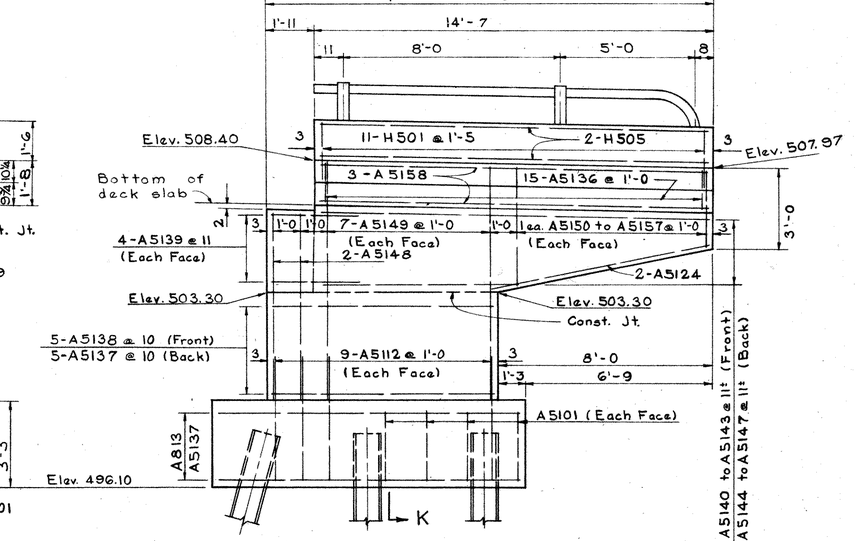
ELEVATION F-F



SECTION J-J



SECTION K-K



ELEVATION G-G

NOTES:

Work this sheet with Sheet Nos. 291 and 292.

Aluminum Railing shall be continuous for full length of wingwall.

For railing details, see Std. Drwg. AR-1-57.

CITY OF CINCINNATI
DEPARTMENT OF PUBLIC WORKS
DIVISION OF ENGINEERING

ABUTMENT DETAILS

BRIDGE NO. HAM-50-1992-L

WESTBOUND
6TH ST. EXPRESSWAY BRIDGE
OVER R.R. SIDING W. OF FREEMAN AVE.

CINCY BRIDGE NO. 4L

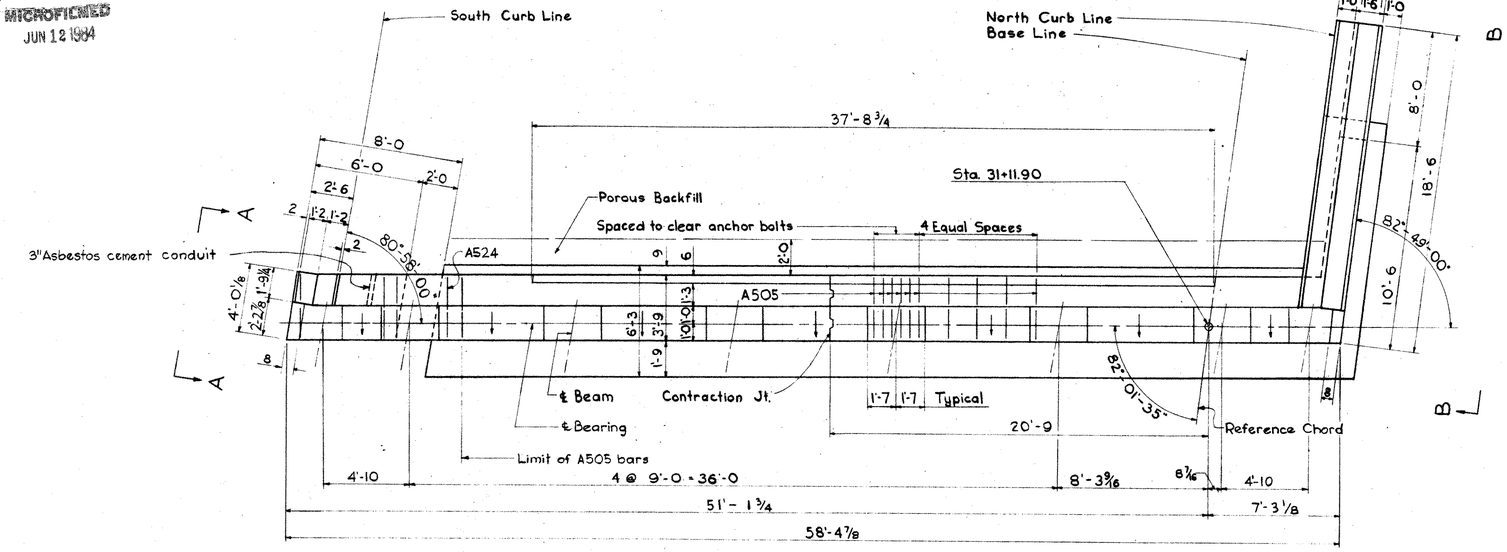
DESIGNED	DRAWN	TRACED	CHECKED	REVIEWED	DATE	REVISED
J.G.T.	J.G.T.		J.W.J.	W.W.	8-6-62	

MICROFILMED
JUN 12 1984

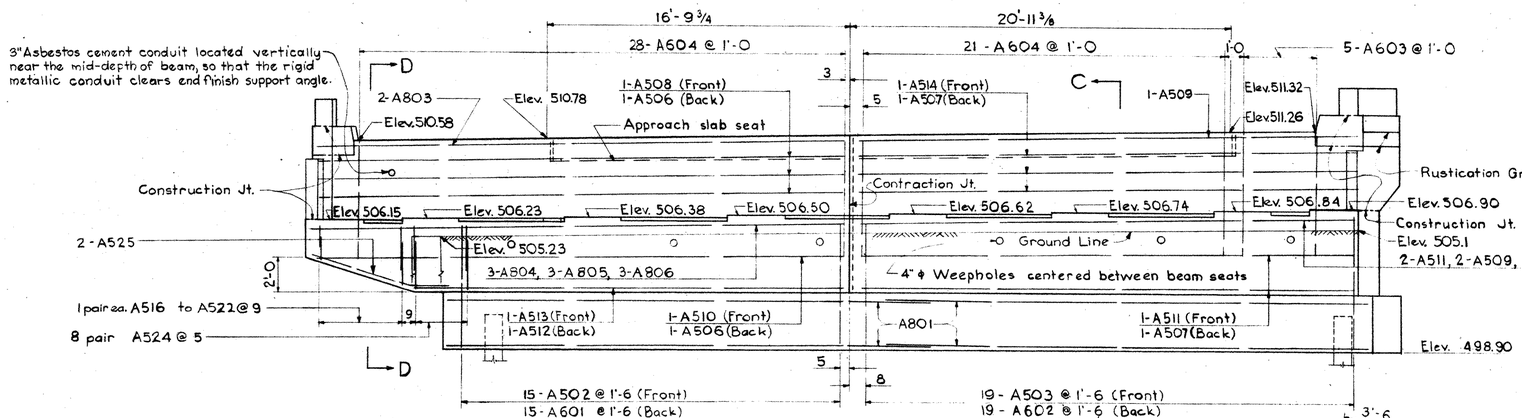
FED. RD. DIV.	STATE	PROJECT	FISCAL YEAR
2	OHIO		

HAM-50-19.76

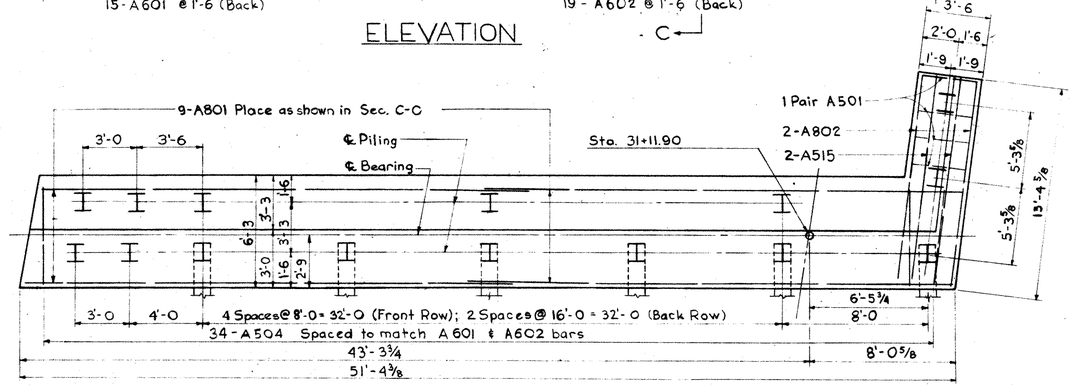
294
464



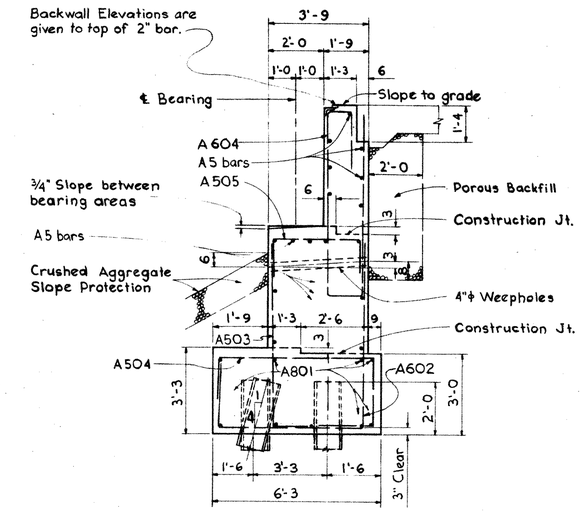
PLAN



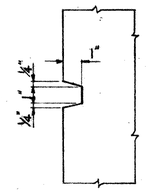
ELEVATION



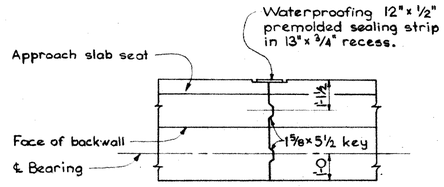
FOOTING PLAN



SECTION C-C



RUSTICATION GROOVE



CONTRACTION JOINT

NOTES:
Work this sheet with Sheet No's. 295 and 296.

The embankment shall be placed and compacted up to the finished spill-thru slope and to the level of the subgrade for a distance of 200 feet back of the abutments, after which excavation shall be made for the abutment.

For end finish details, see Sheet No. 302 and Std. Drawing CSB-2-56 Sheet No. 2.

For curb plate details, see Sheet No. 302.

Porous backfill 2 ft. thick, full length of the abutment shall extend up to the underside of the approach slab and shoulder pavement.

All piles shall be steel 12BP53.

For anchor bolt layout, see Sheet No. 295.

CITY OF CINCINNATI
DEPARTMENT OF PUBLIC WORKS
DIVISION OF ENGINEERING

WEST ABUTMENT

BRIDGE NO. HAM-50-19.92-R

EASTBOUND
6TH ST. EXPRESSWAY BRIDGE
OVER R.R. SIDING W. OF FREEMAN AVE.

CINCY BRIDGE NO. 4R

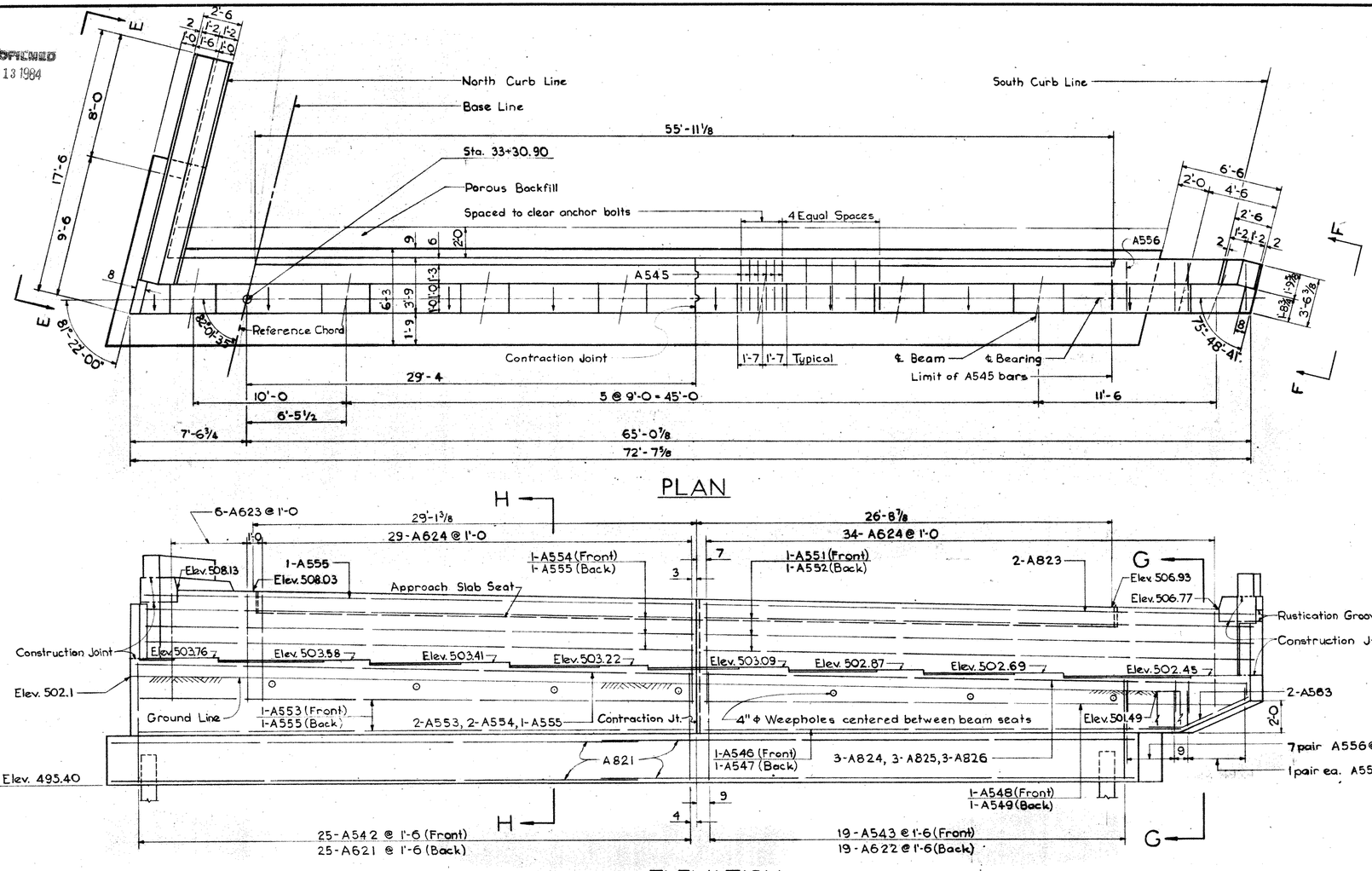
DESIGNED	DRAWN	TRACED	CHECKED	REVIEWED	DATE	REVISED
H.H.A.	H.H.A.		J.W.J.	W.W.	8-6-62	

MICROFILMED
JUN 13 1984

FED. RD. DIV.	STATE	PROJECT	FISCAL YEAR
2	OHIO		

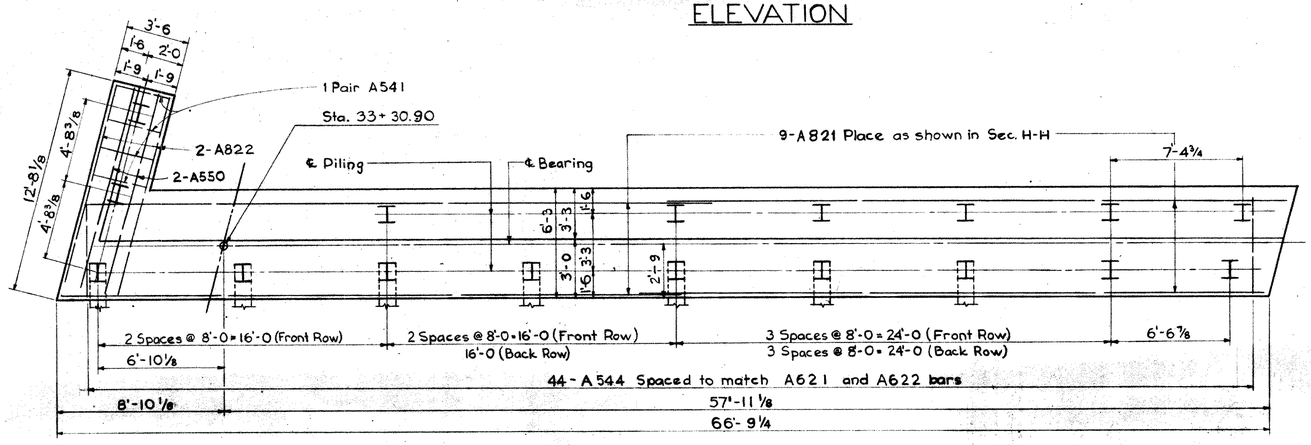
HAM-50-19.76

295
464

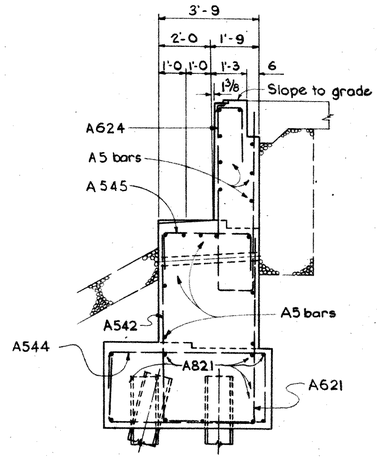


PLAN

ELEVATION



FOOTING PLAN



SECTION H-H

For details not shown see Section C-C.

NOTES:

Work this sheet with Sheet No's. 294 and 296.

The embankment shall be placed and compacted up to the finished spill-thru slope and to the level of the subgrade for a distance of 200 feet back of the abutments, after which excavation shall be made for the abutment.

For end finish details, see Sheet No. 302. and Std. Drawing CSB-2-56 Sheet No. 2.

For curb plate details, see Sheet No. 302.

Porous backfill 2 ft. thick, full length of the abutment shall extend up to the underside of the approach slab and shoulder pavement.

All piles shall be steel 12 BP53.

For anchor bolt layout, see Sheet No. 290.

CITY OF CINCINNATI
DEPARTMENT OF PUBLIC WORKS
DIVISION OF ENGINEERING

EAST ABUTMENT

BRIDGE NO. HAM-50-1992-R

EAST BOUND
6TH ST. EXPRESSWAY BRIDGE
OVER R.R. SIDING W. OF FREEMAN AVE.

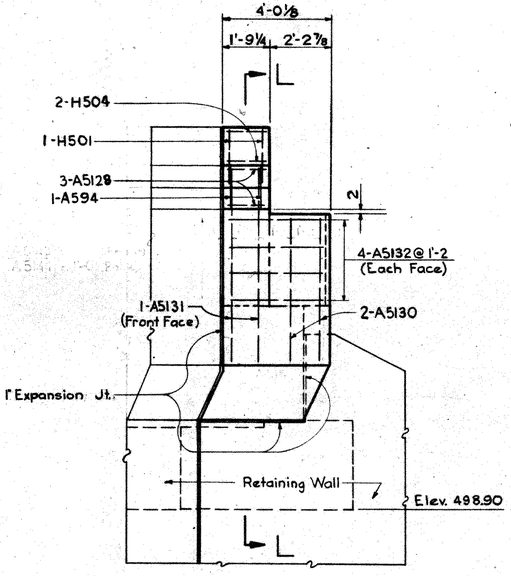
CINCY BRIDGE NO. 4R

DESIGNED	DRAWN	TRACED	CHECKED	REVIEWED	DATE	REVISED
H.H.A.	H.H.A.		J.W.J.	W.W.	8-6-62	

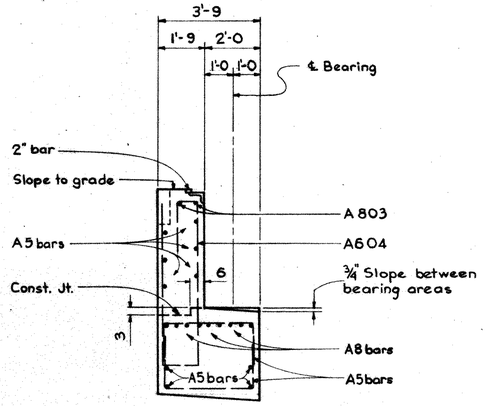
MICROFILMED
JUN 13 1984

FED. RD. DIV.	STATE	PROJECT	FISCAL YEAR
2	OHIO		

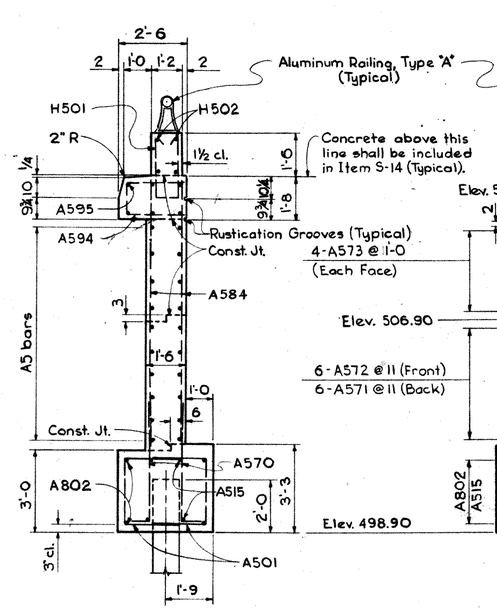
HAM-50-19.76



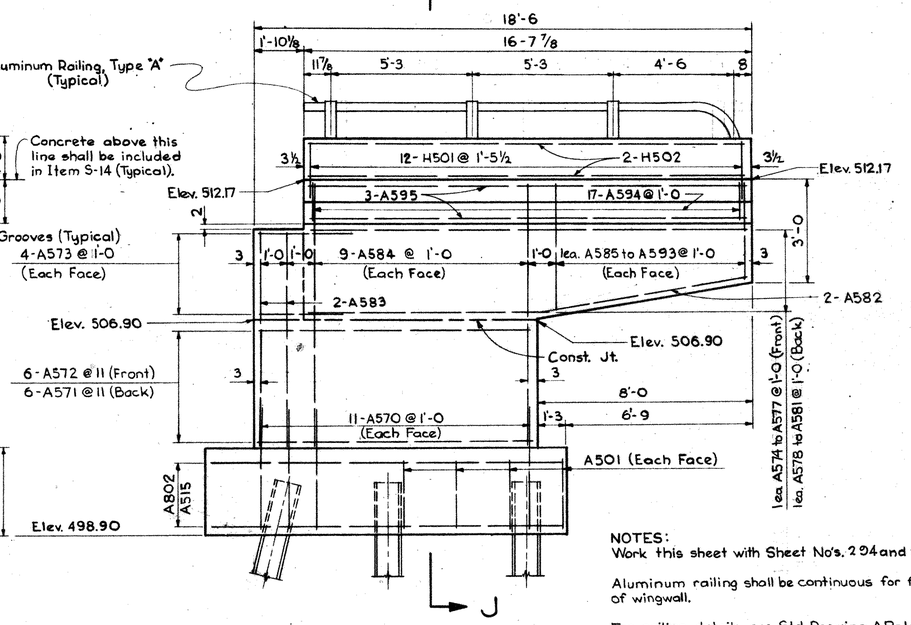
ELEVATION A-A



SECTION D-D



SECTION J-J



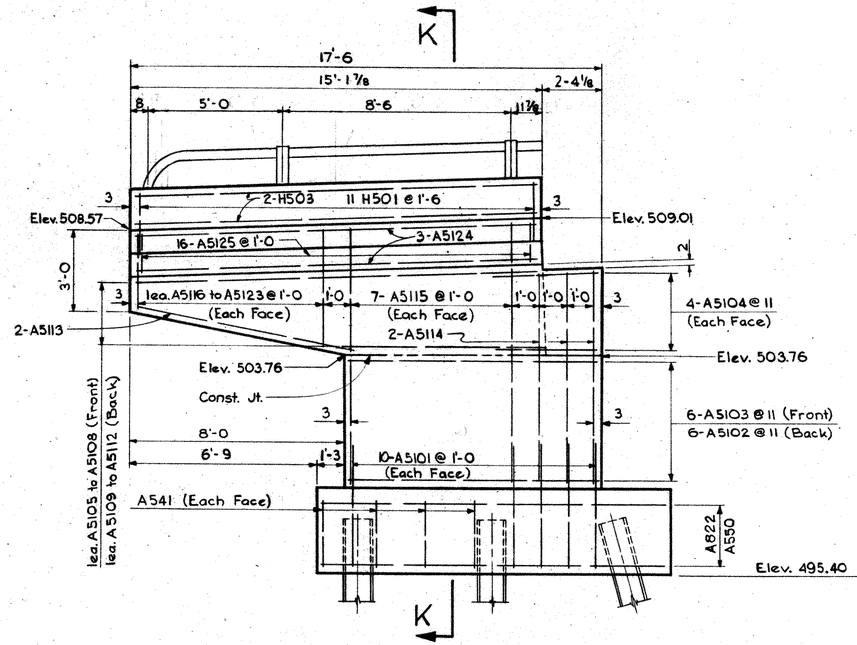
ELEVATION B-B

NOTES:
Work this sheet with Sheet No's. 294 and 295.

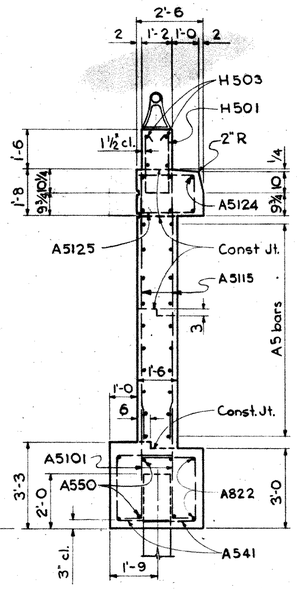
Aluminum railing shall be continuous for full length of wingwall.

For railing details, see Std. Drawing AR-1-57.

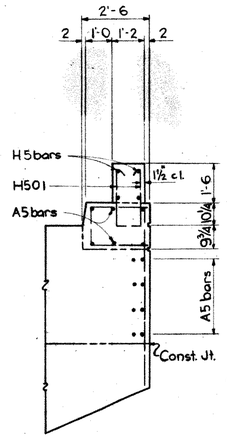
For details of expansion joint see Sheet No. 233.



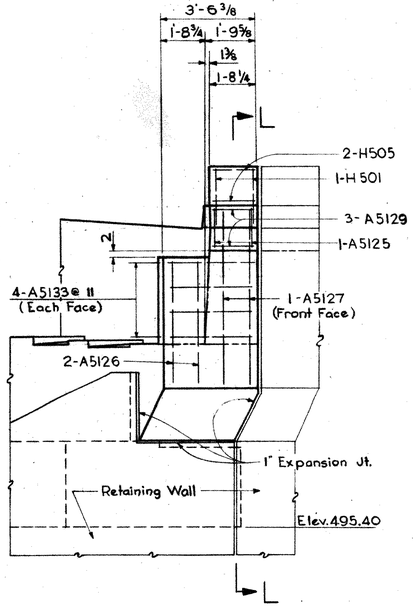
ELEVATION E-E



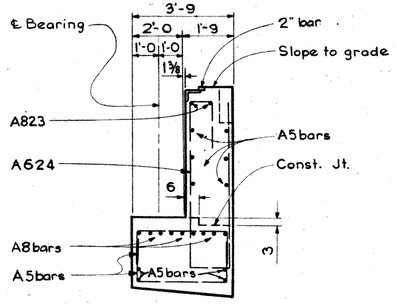
SECTION K-K



SECTION L-L



ELEVATION F-F



SECTION G-G

CITY OF CINCINNATI
DEPARTMENT OF PUBLIC WORKS
DIVISION OF ENGINEERING

ABUTMENT DETAILS

BRIDGE NO. HAM-50-19.92-R

EASTBOUND
6TH ST. EXPRESSWAY BRIDGE
OVER R.R. SIDING W. OF FREEMAN AVE.

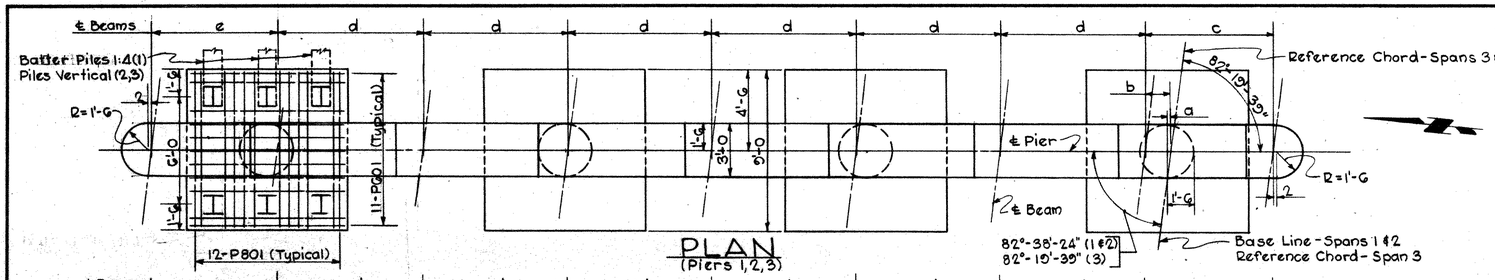
CINCY BRIDGE NO. 412

DESIGNED	DRAWN	TRACED	CHECKED	REVIEWED	DATE	REVISED
H.H.A.	H.H.A.		J.W.J	W.W.	8-6-82	

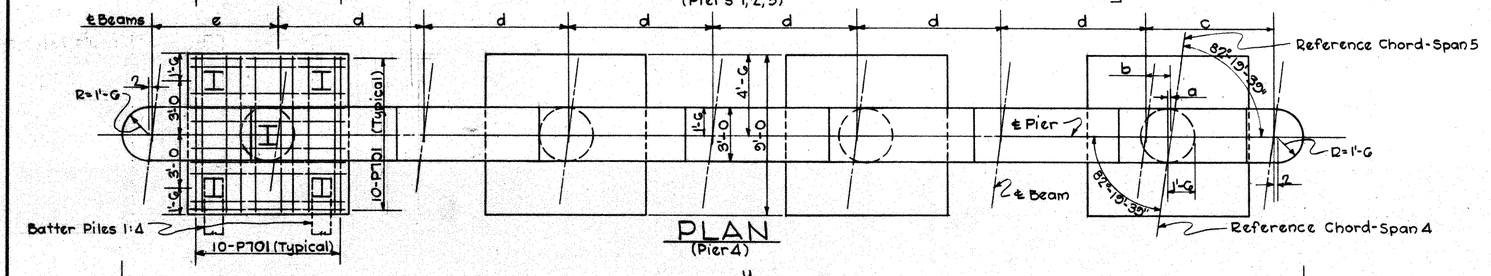
FED. RD. DIV.	STATE	PROJECT	FISCAL YEAR
2	OHIO		

HAM-50-19.76

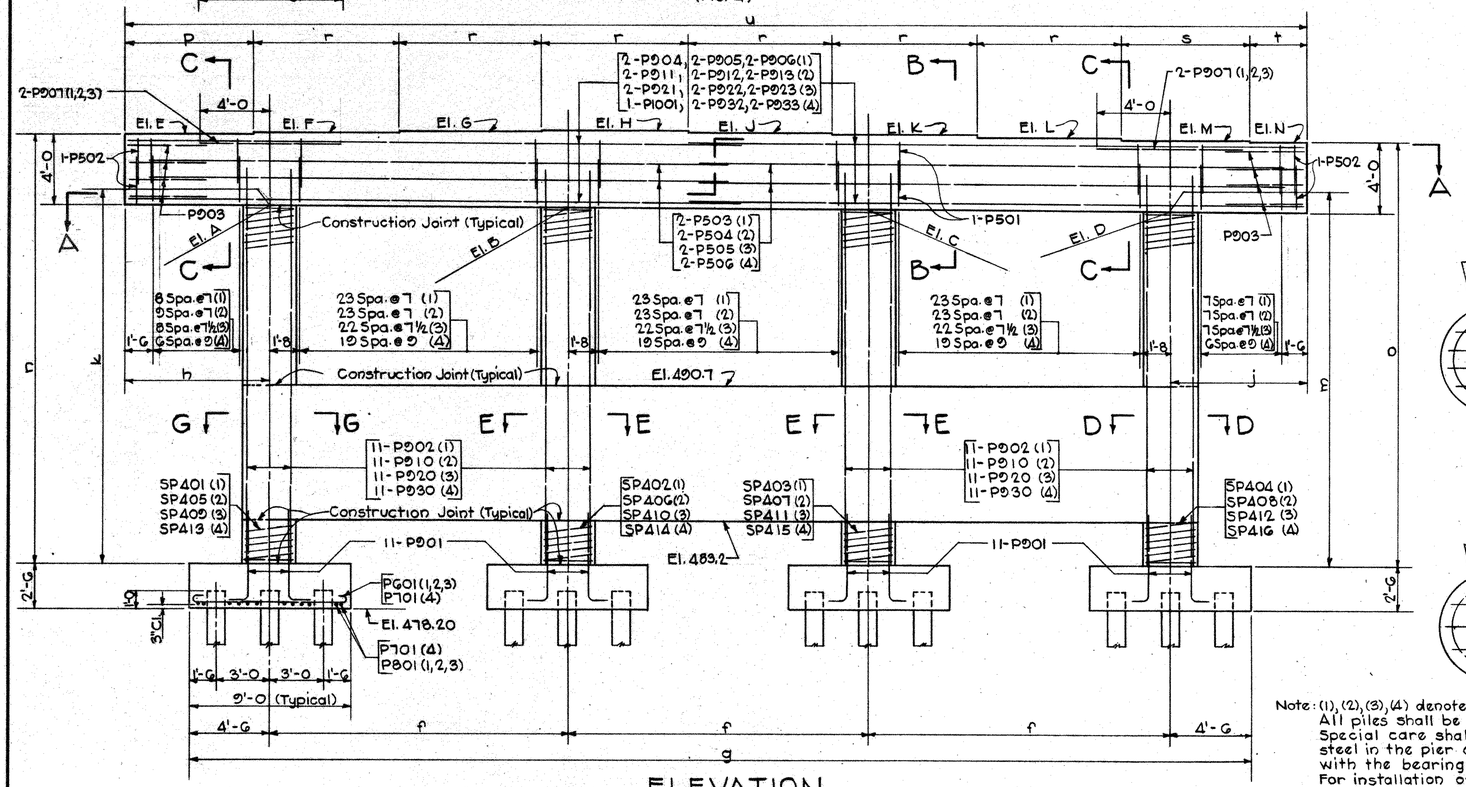
297



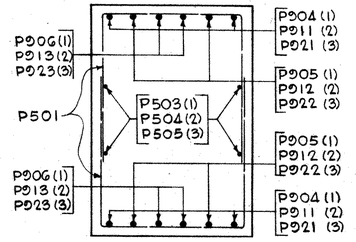
PLAN
(Piers 1, 2, 3)



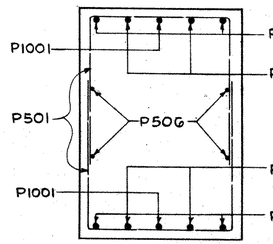
PLAN
(Pier 4)



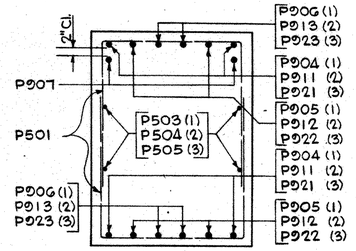
ELEVATION



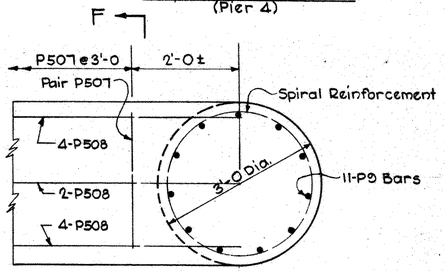
SECTION B-B
(Piers 1, 2, 3)



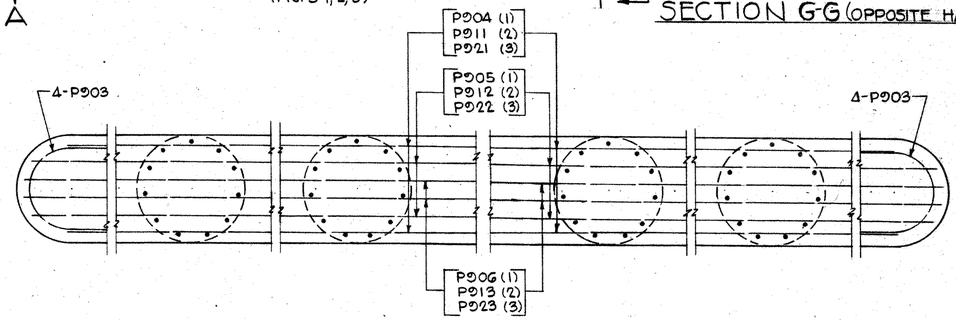
SECTION B-B
(Pier 4)



SECTION C-C
(Piers 1, 2, 3)



F
SECTION D-D
SECTION G-G (OPPOSITE HAND)



SECTION A-A
(Piers 1, 2, 3)

SECTION A-A
(Pier 4)

Note: (1), (2), (3), (4) denote pier number.
All piles shall be steel 12 BP 53.
Special care shall be taken in placing reinforcing steel in the pier cap so that it will not interfere with the bearing plate anchor bolts.
For installation of electrical ground wires in Pier 2, see Sheet No. 212
For location of piers, see Sheet No. 286.
The embankment shall be placed and compacted up to the finished spill-thru slope and to the level of the subgrade for a distance of 200 feet back of the abutments, after which excavation shall be made for the abutments and for piers adjacent to the embankment.

For anchor bolt layout, see Sheet No. 295.

For Sections E-E and F-F, see Sheet No. 298.

PIER	DIMENSION																	
	a	b	c	d	e	f	g	h	j	k	m	n	o	p	r	s	t	u
1	2	1'-1⅞	6'-8	8'-0¾	6'-8	16'-8⅝	59'-1	7'-7⅞	7'-4⅛	20'-11⅝	21'-2⅜	24'-10⅞	25'-2⅞	6'-8½	8'-0¾	6'-8	3'-3½	65'-0½
2	2	1'-4 15/16	7'-0 15/16	8'-0¾	7'-0 15/16	16'-8¾	59'-2⅝	8'-1⅞	7'-6⅛	20'-8	20'-8⅝	24'-7⅛	24'-8¾	7'-2 15/16	8'-0¾	7'-0 15/16	3'-2	65'-10⅜
3	5½	1'-11¼	7'-5 15/16	8'-0¾	7'-5 15/16	16'-11⅜	59'-10⅞	8'-1 3/16	7'-8 1/16	20'-1⅛	19'-10½	24'-1½	23'-10¼	7'-6 5/16	8'-0¾	7'-5 13/16	3'-3½	66'-8½
4	5⅛	2'-3⅞	7'-9 5/16	8'-0¾	7'-9 5/16	17'-4⅛	61'-0⅜	7'-8 3/16	7'-6 3/16	19'-7¼	19'-2⅝	23'-7⅞	23'-1⅞	7'-10 13/16	8'-0¾	7'-9 5/16	3'-2½	67'-3⅛

PIER	ELEVATION													
	A	B	C	D	E	F	G	H	J	K	L	M	N	
1	501.65	501.73	501.82	501.90	505.61	505.65	505.82	505.90	505.92	505.93	505.93	505.94	505.94	
2	501.37	501.39	501.40	501.42	505.36	505.45	505.56	505.63	505.60	505.55	505.51	505.46	505.43	
3	500.80	500.72	500.65	500.58	504.83	504.92	505.03	505.07	504.98	504.87	504.76	504.64	504.55	
4	500.30	500.17	500.04	499.92	504.36	504.47	504.51	504.61	504.48	504.32	504.17	503.99	503.86	

CITY OF CINCINNATI
DEPARTMENT OF PUBLIC WORKS
DIVISION OF ENGINEERING

PIERS

BRIDGE NO. HAM-50-19.92-L

WESTBOUND
6TH ST. EXPRESSWAY BRIDGE
OVER R.R. SIDING W. OF FREEMAN AVE.

CINCY BRIDGE NO. 4L

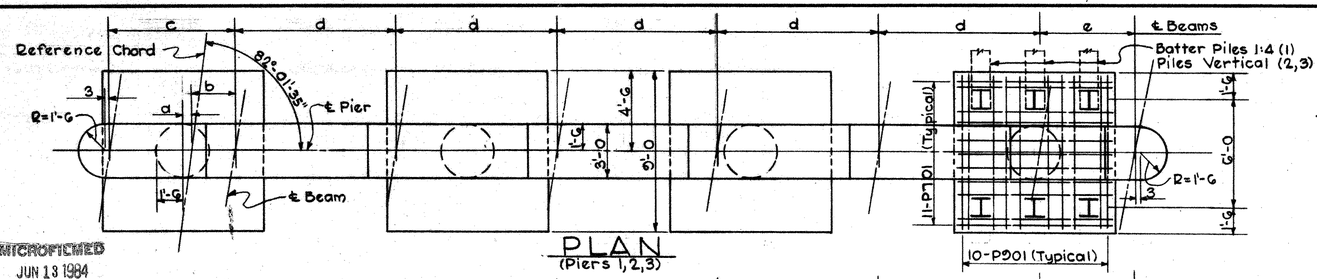
DESIGNED	DRAWN	TRACED	CHECKED	REVIEWED	DATE	REVISED
W.W.	H.E.W.		J.W.S. D.W.B. R.G.W.	W.W.	8-6-62	

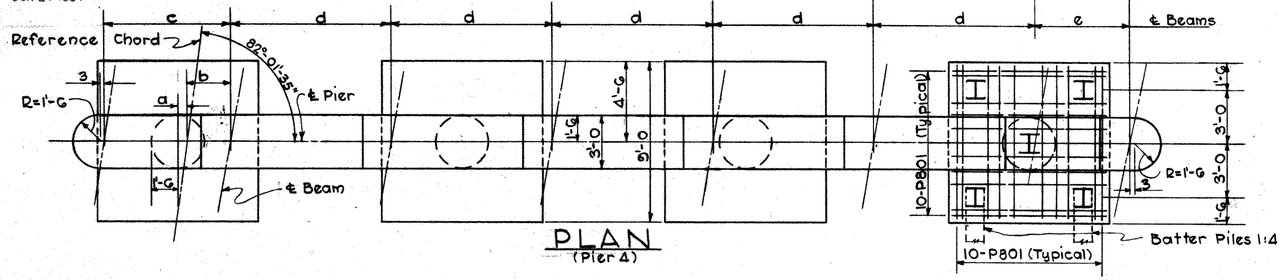
FED. RD. DIV.	STATE	PROJECT	FISCAL YEAR
2	OHIO		

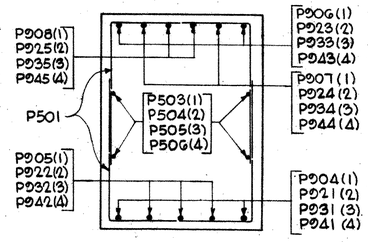
HAM-50-19.76

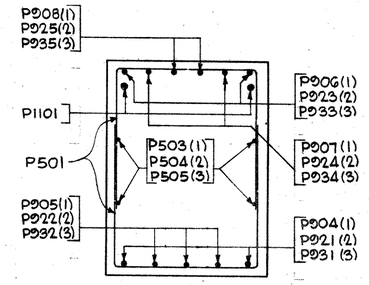
298

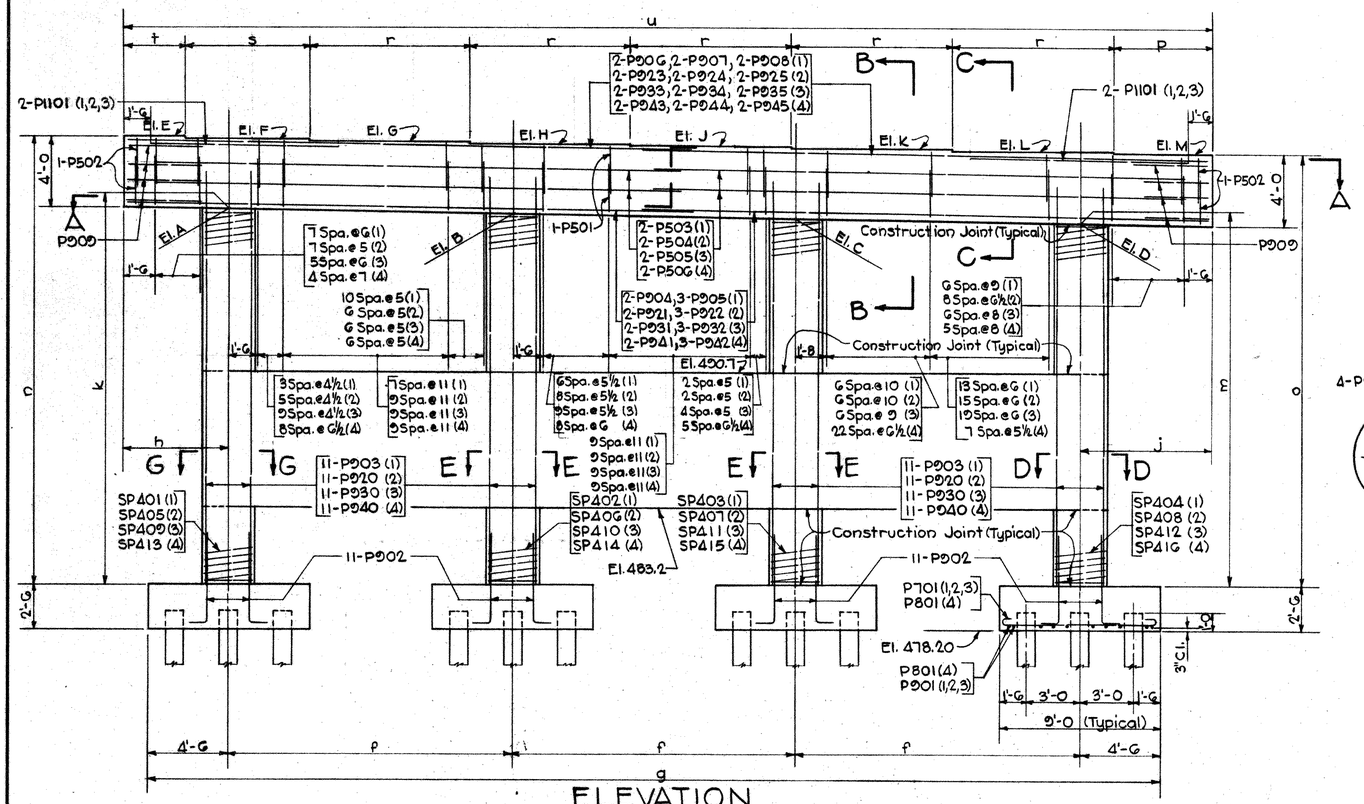
MICROFILMED
JUN 13 1984

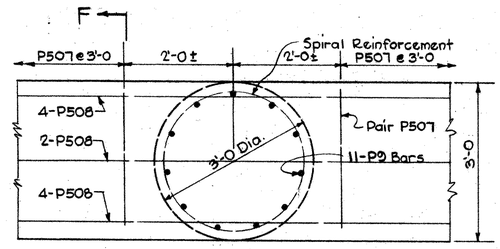


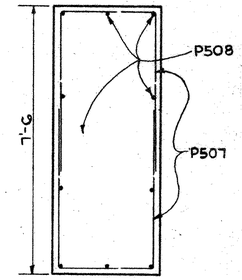


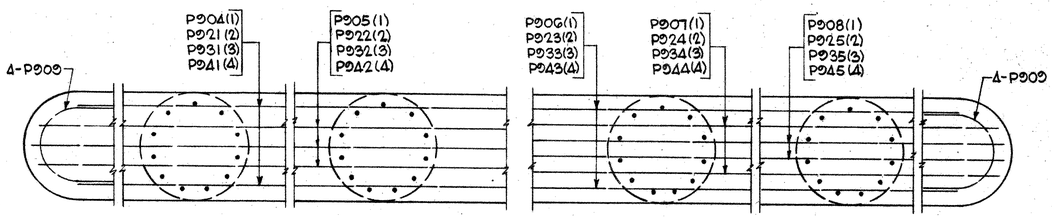












Note: For anchor bolt layout, see Sheet No. 299.

(1), (2), (3), (4) denote pier number.

All piles shall be steel 12 BP53.

Special care shall be taken in placing reinforcing steel in the pier cap so that it will not interfere with the bearing plate anchor bolts.

For installation of electrical ground wires in Pier 2, see Sheet No. 212.

For location of piers, see Sheet No. 286.

The embankment shall be placed and compacted up to the finished spill-thru slope and to the level of the subgrade for a distance of 200 feet back of the abutments, after which excavation shall be made for the abutments and for piers adjacent to the embankment.

For Sections D-D and G-G, see Sheet No. 297.

PIER	DIMENSION																	
	a	b	c	d	e	f	g	h	j	k	m	n	o	p	r	s	t	u
1	3⅛	8	5'-9⅞	9'-0	5'-0⅜	14'-11⅞	53'-9½	6'-7¾	7'-10⅜	21'-8⅛	21'-0¼	25'-9⅜	24'-10¾	5'-1⅛	9'-0	5'-9⅞	3'-4½	59'-4½
2	6¼	2'-5⅛	7'-1⅛	9'-0	5'-3	15'-10⅞	56'-7¼	5'-10¾	7'-4⅛	21'-0⅛	20'-3	25'-1⅛	24'-1½	5'-6	9'-0	7'-1⅜	3'-3	60'-10⅛
3	5¼	4'-2⅝	8'-4⅜	9'-0	7'-1⅝	17'-1¼	60'-3¾	5'-5⅜	7'-2⅛	20'-3⅜	19'-4⅜	24'-4½	23'-3⅜	7'-2⅜	9'-0	8'-4⅜	3'-4½	63'-11⅛
4	2⅛	5'-5⅜	9'-3⅜	9'-0	8'-5¼	18'-2⅛	63'-6¼	5'-4⅝	6'-3½	19'-7⅛	18'-7½	23'-8⅛	22'-6¼	8'-6¾	9'-0	9'-3⅝	3'-4½	66'-2⅝

PIER	ELEVATION											
	A	B	C	D	E	F	G	H	J	K	L	M
1	502.38	502.16	501.94	501.72	506.48	506.38	506.24	506.10	505.95	505.80	505.66	505.60
2	501.71	501.45	501.20	500.95	505.80	505.68	505.53	505.38	505.22	505.06	504.90	504.83
3	500.98	500.69	500.39	500.10	505.01	504.92	504.76	504.61	504.45	504.28	504.11	503.98
4	500.29	499.97	499.65	499.33	504.36	504.21	504.03	503.87	503.71	503.54	503.38	503.22

CITY OF CINCINNATI
DEPARTMENT OF PUBLIC WORKS
DIVISION OF ENGINEERING

PIERS

BRIDGE NO. HAM-50-19.92-R

EASTBOUND
6TH ST. EXPRESSWAY BRIDGE
OVER R.R. SIDING W. OF FREEMAN AVE.

CINCY BRIDGE NO. 4R

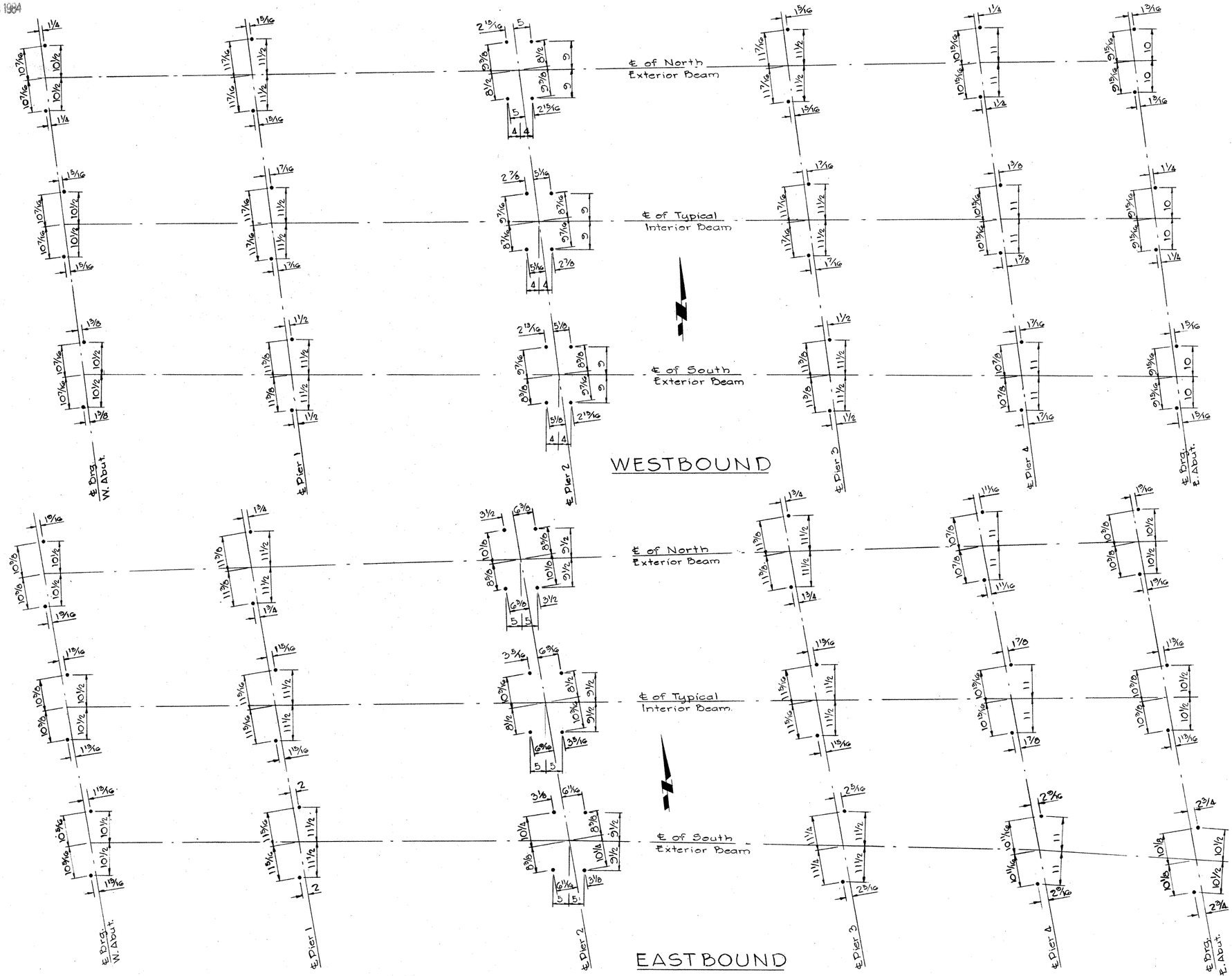
DESIGNED	DRAWN	TRACED	CHECKED	REVIEWED	DATE	REVISED
J.R.S.	H.E.W.		J.W.J. R.M.S.	W.W.	8-6-62	

MICROFICHED
JUN 13 1994

FED. RD. DIV.	STATE	PROJECT	FISCAL YEAR
2	OHIO		

HAM-50-19.76

202
464



CITY OF CINCINNATI
DEPARTMENT OF PUBLIC WORKS
DIVISION OF ENGINEERING

ANCHOR BOLT PLAN

BRIDGE NO. HAM-50-1992(R&L)

EASTBOUND & WESTBOUND
6TH ST. EXPRESSWAY BRIDGES
OVER R.R. SIDING W. OF FREEMAN AVE.

CINCY BRIDGE NOS. 4R & 4L

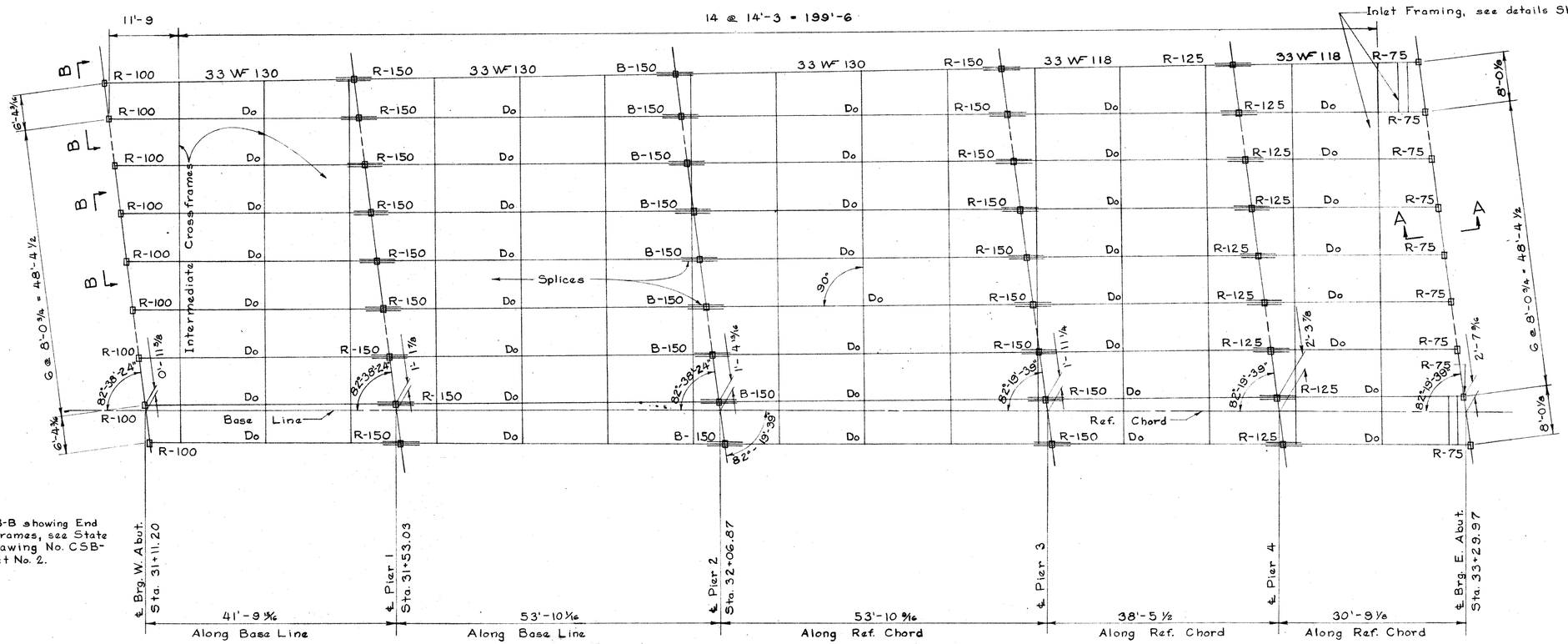
DESIGNED	DRAWN	TRACED	CHECKED	REVIEWED	DATE	REVISED
J.G.T. H.H.A	D.E.W.		J.W.J.	W.W.	8-6-62	

MICROFILMED
JUN 13 1994

FED. RD. DIV.	STATE	PROJECT	FISCAL YEAR
2	OHIO		

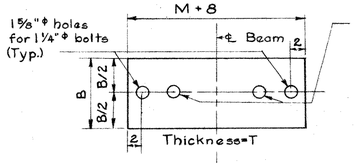
HAM-50-19.76

300
464



Note: For Section B-B showing End Finish Crossframes, see State Standard Drawing No. CSB-2-56, Sheet No. 2.

FRAMING PLAN



Holes for dowels. For details see Std. Dwg. RB-1-55.

Corners shall be beveled where necessary to provide a minimum distance of 3" from plate to edge of concrete.

For lettered dimensions see Std. Dwg. RB-1-55.

DETAIL OF MASONRY PLATE FOR STANDARD ROCKER

Masonry Plate of Standard Rockers shall be revised as shown above to provide for 1¼"ϕ x 1'-8 swedge anchor bolts with steel washers and hex nuts. Bolts set 1'-3 into concrete.

DEFLECTION & CAMBER OF BEAMS

LOCATION	INSIDE BEAMS SPAN 1	SPAN 2	SPAN 3	SPAN 4	SPAN 5	OUTSIDE BEAMS SPAN 1	SPAN 2	SPAN 3	SPAN 4	SPAN 5
Deflection due to weight of steel.	0	0	1/16	0	0	0	0	1/16	0	0
Deflection due to remaining dead load.	1/8	3/16	1/4	0	1/16	1/16	1/8	3/16	1/16	1/16
Convexity required for vert. and horiz. curves.	1/4	7/16	3/8	1/4	1/4	7/16	3/8	7/16	1/4	1/4
Sum of deflection and convexity.	3/8	5/8	11/16	1/4	5/16	1/2	1/2	11/16	5/16	5/16
Required camber - inches.	0	0	0	0	0	0	0	0	0	0

BEAM SPLICE WELDING PROCEDURE

1. Raise ends of beams at Pier 1, 15/16" and at Pier 4, 3/8".
2. Butt-weld beam flanges and webs at Pier 2 and Pier 3 using the following sequence: make two passes on each flange, then two on the web; repeat, using one pass at each location, until welds are completed.
3. Weld top and bottom flange moment plates at Pier 2 and Pier 3.
4. Lower ends of beams to final position.
5. Raise ends of beams at west abutment, 3/8" and at east abutment, 0.
6. Weld at Pier 1 and Pier 4, same as in step 2 above.
7. Weld top and bottom flange moment plates at Pier 1 and Pier 4.
8. Lower ends of beams to final position.

NOTES

- Work this sheet with Sheet No. 302.
- For details of rockers and bolsters, see Standard Drawing RB-1-55.
- For details of Intermediate Crossframes, see Sheet No. 303.
- For details not shown, see Standard Drawing CSB-2-56, Sheet No. 2.

BEAM WEB WELDS: Butt welds in webs of beams may have convex reinforcement in accordance with Section S-7.22. Finishing flush by grinding is not required.

SHEAR CONNECTORS: See Sheet No. 408.

CITY OF CINCINNATI
DEPARTMENT OF PUBLIC WORKS
DIVISION OF ENGINEERING

STRUCTURAL STEEL DETAILS

BRIDGE NO. HAM-50-19 92-L

WESTBOUND
6TH ST. EXPRESSWAY BRIDGE
OVER R.R. SIDING W. OF FREEMAN AVE.

CINCY BRIDGE NO. 4 L

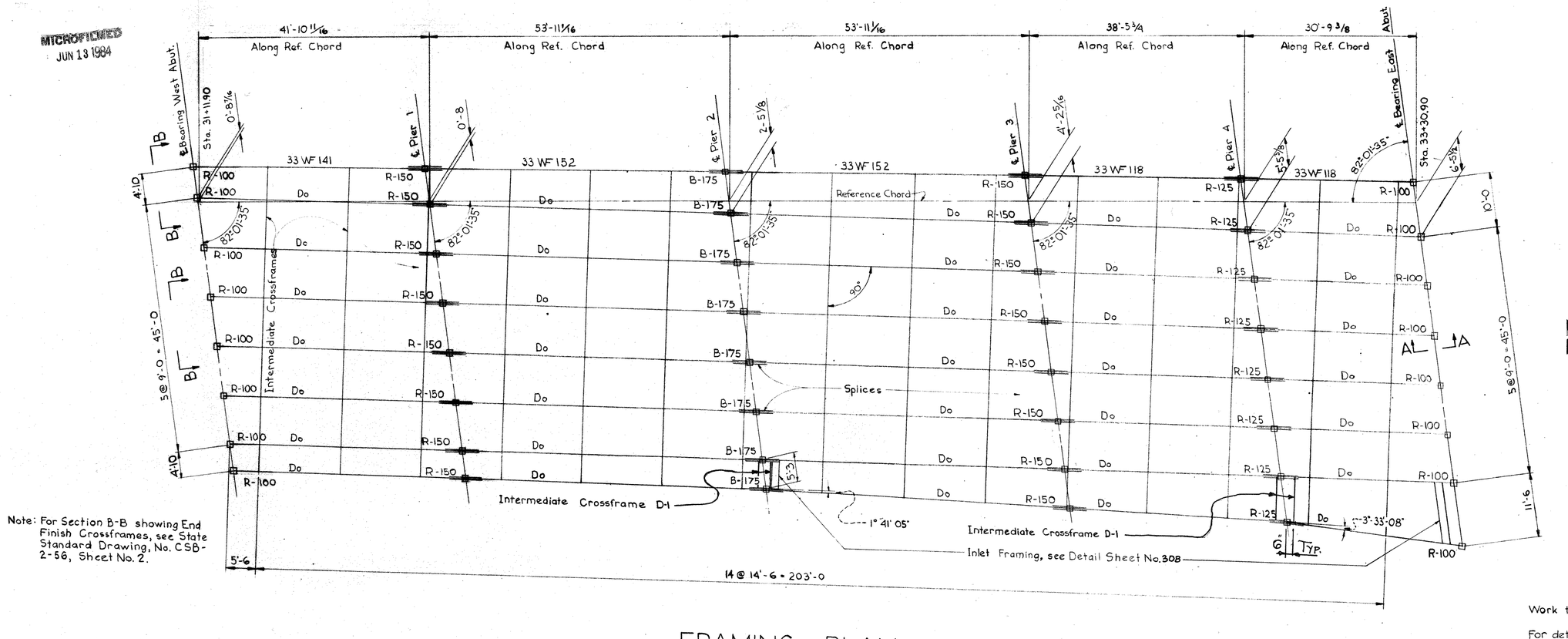
DESIGNED	DRAWN	TRACED	CHECKED	REVIEWED	DATE	REVISED
W.W.	J.G.T.		R.M.B. J.W.J.	W.W.	8-6-62	

MICROFILMED
JUN 13 1984

FED. RD. DIV.	STATE	PROJECT	FISCAL YEAR
2	OHIO		

301
464

HAM-50-19.76



Note: For Section B-B showing End Finish Crossframes, see State Standard Drawing, No. CSB-2-56, Sheet No. 2.

FRAMING PLAN

DEFLECTION & CAMBER OF BEAMS

LOCATION	INSIDE BEAMS					OUTSIDE BEAMS				
	SPAN 1	SPAN 2	SPAN 3	SPAN 4	SPAN 5	SPAN 1	SPAN 2	SPAN 3	SPAN 4	SPAN 5
Deflection due to weight of steel.	0	0	1/16	0	0	0	0	1/16	0	0
Deflection due to remaining dead load.	1/8	3/16	3/16	0	1/16	1/16	1/8	1/4	1/16	1/16
Convexity required for vert. and horiz. curves.	5/16	5/16	7/16	1/4	1/8	7/16	3/8	3/8	1/4	1/8
Sum of deflection and convexity.	7/16	1/2	11/16	1/4	3/16	1/2	1/2	11/16	5/16	3/16
Required camber - inches.	0	0	0	0	0	0	0	0	0	0

BEAM SPLICE WELDING PROCEDURE

1. Raise ends of beams 13/16" at Pier 1 and 3/8" at Pier 4.
2. Butt-weld beam flanges and webs at Pier 2 and Pier 3 using the following sequence: make two passes on each flange, then two on the web; repeat, using one pass at each location until welds are complete.
3. Weld top and bottom flange moment plates at Pier 2 and Pier 3.
4. Lower ends of beams to final position.
5. Raise ends of beams 3/8" at west abutment and 0" at east abutment.
6. Weld at Pier 1 and Pier 4, same as in step 2 above.
7. Weld top and bottom flange moment plates at Pier 1 and Pier 4.
8. Lower ends of beams to final position.

NOTES

Work this sheet with Sheet Nos. 300 and 302.

For details of rockers and bolsters, see Standard Drawing RB1-55.

For details of Intermediate Crossframes see Sheet No. 304.

For details of Inlet Framing at East Abutment, Eastbound Bridge, see Sheet No. 308.

SHEAR CONNECTORS: See Sheet No. 408.

CITY OF CINCINNATI
DEPARTMENT OF PUBLIC WORKS
DIVISION OF ENGINEERING

STRUCTURAL STEEL DETAILS

BRIDGE NO. HAM-50-19.92-R

EASTBOUND
6TH ST. EXPRESSWAY BRIDGE
OVER R.R. SIDING W. OF FREEMAN AVE.

CINCY BRIDGE NO. 4R

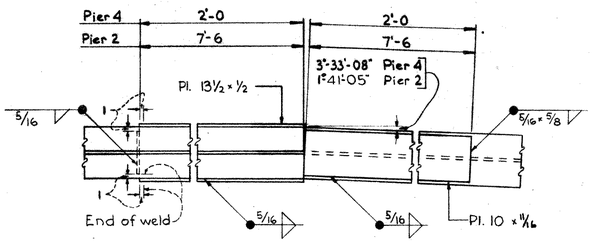
DESIGNED	DRAWN	TRACED	CHECKED	REVIEWED	DATE	REVISED
J.R.S.	H.H.A.		R.M.B. J.W.J.	W.W.	8-6-62	

MICROFILMED
JUN 13 1984

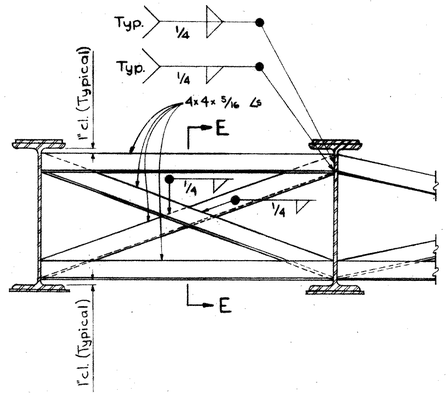
FED. RD. DIV.	STATE	PROJECT	FISCAL YEAR
2	OHIO		

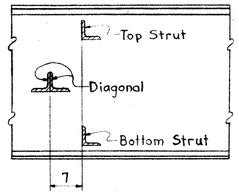
HAM-50-19.76

302
464



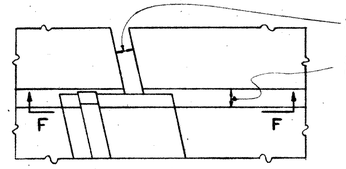
SECTION C-C
(South Exterior Girder at Pier 2 and Pier 4)



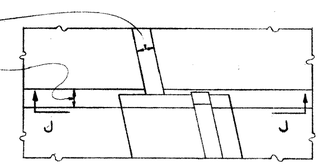


SECTION E-E

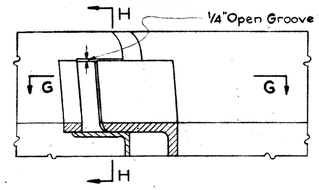
INTERMEDIATE CROSSFRAME D-1



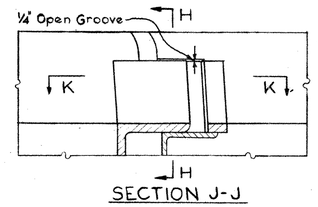
PART PLAN



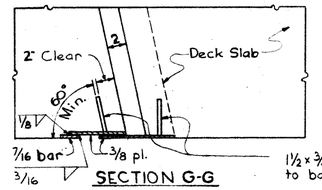
PART PLAN



SECTION F-F

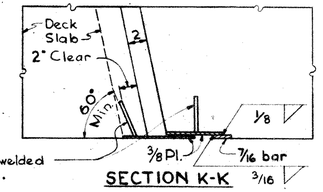


SECTION J-J

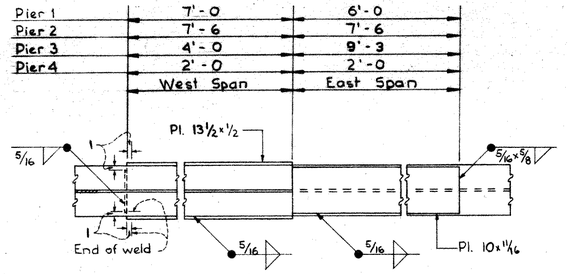


SECTION G-G

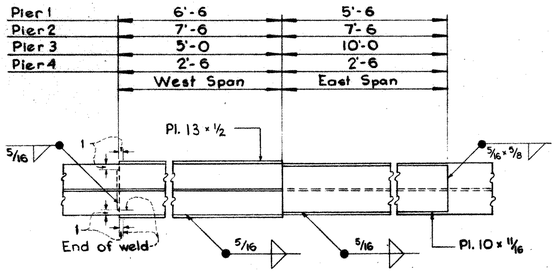
1½ x ⅜ x 4 bar anchors welded to back of curb plate.



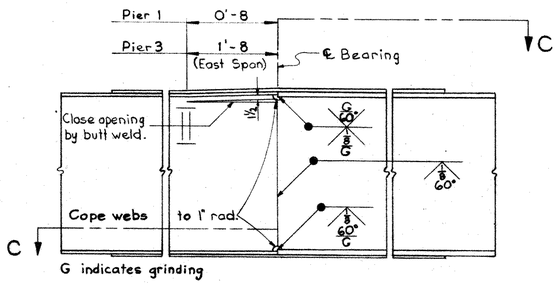
SECTION K-K



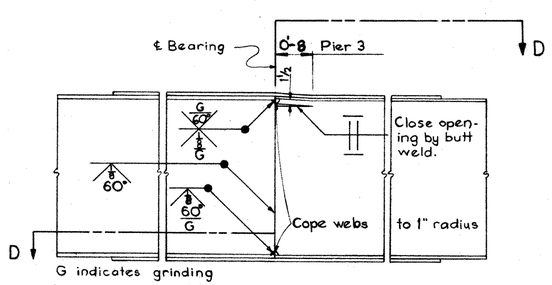
SECTION C-C



SECTION D-D



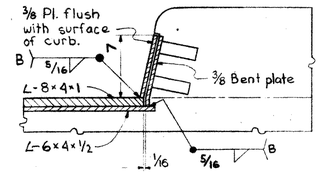
ELEVATION
EASTBOUND BRIDGE



ELEVATION
WESTBOUND BRIDGE

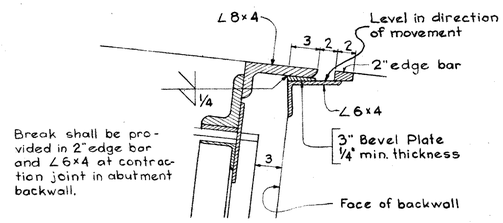
BEAM SPLICE DETAILS

(Where beams are of the same depth, the portion of above detail showing the split below the top flange shall be omitted.)



SECTION H-H

CURB PLATE DETAILS



SECTION A-A

NOTES

Work this sheet with Sheet Nos. 300 and 301.

For details not shown, see Standard Drawing CSB-2-56, Sheet No. 2.

The surface preparation of all steel, requiring shop painting as per the Plans and Specifications, shall be accomplished by blast cleaning or power tool cleaning, except as noted in the Specifications regarding the use of Chromate Primers.

CITY OF CINCINNATI
DEPARTMENT OF PUBLIC WORKS
DIVISION OF ENGINEERING

STRUCTURAL STEEL DETAILS

BRIDGE NO. HAM-50-19.92-(R&L)

EASTBOUND & WESTBOUND 6TH ST. EXPRESSWAY BRIDGES OVER R.R. SIDING W. OF FREEMAN AVE.

CINCY BRIDGE NOS. 4R & 4L

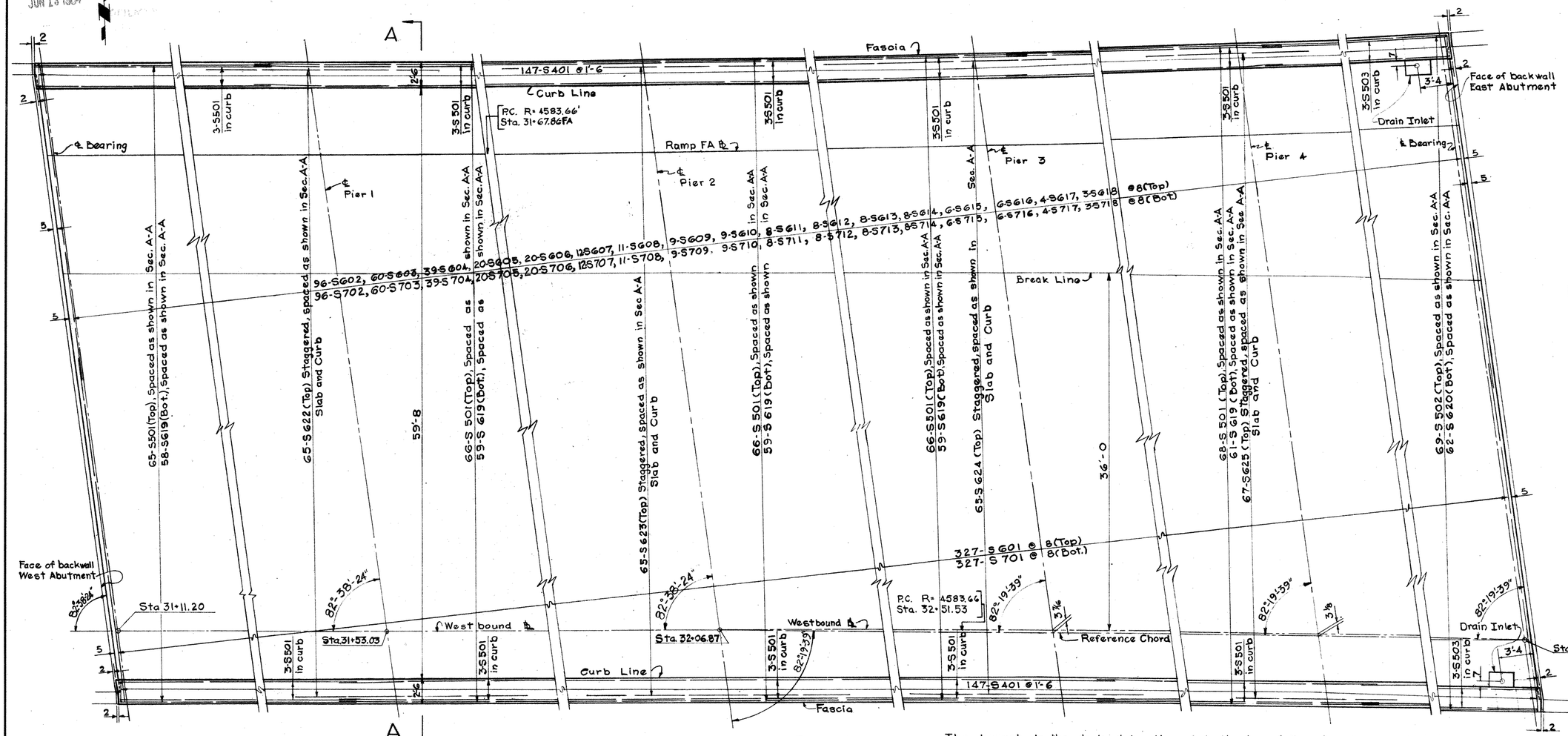
DESIGNED	DRAWN	TRACED	CHECKED	REVIEWED	DATE	REVISED
H.H.A.	H.H.A.		J.W.J.	W.W.	8-6-62	

MICROFILMED
JUN 13 1984

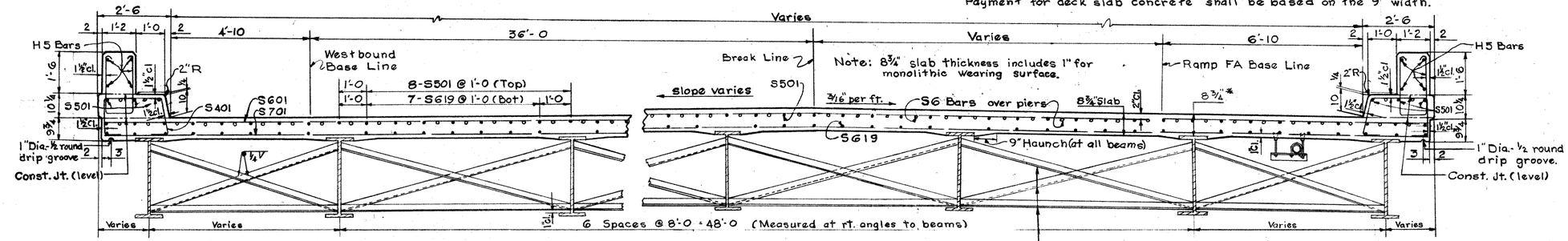
FED. RD. DIV.	STATE	PROJECT	FISCAL YEAR
2	OHIO		

HAM-50-19.76

303
464



PLAN



TRANSVERSE SECTION A-A

* This is the nominal dimension. The quantity of deck concrete to be paid for shall be based on this dimension, even though deviation from it may be necessary because the top flange of the beam may not have the exact camber or conformation required to place it parallel to the finished grade.

The haunch in the deck slab adjacent to the top of the steel beams, which is shown as 9" wide, may vary from this dimension with a minimum of 6" and maximum of 12". Maximum slope of haunch shall be one vertical to four horizontal. Payment for deck slab concrete shall be based on the 9" width.

Intermediate crossframe angles 3"×3"×⅜". Weld both sides of vertical leg and top side of horizontal leg to beam with ¼" continuous fillet weld.

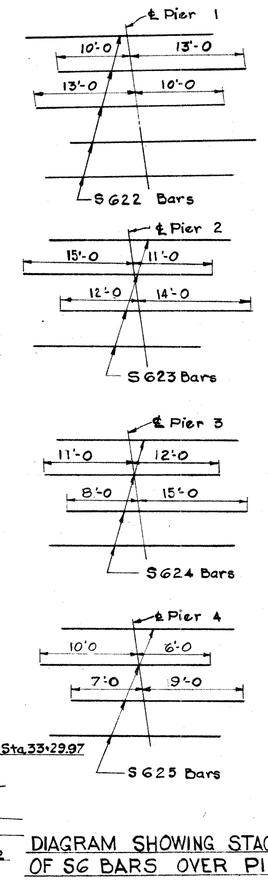


DIAGRAM SHOWING STAGGER OF S6 BARS OVER PIERS

Note: For Grade Detail and Fascia Offsets, see Sheet No. 288.

For Handrail Details and details of H5 bars in Handrail Parapet, see Sheet Nos. 306 and 310.

For End Finish Details, see Sheet No. 302.

For Lighting Details, see Sheet No. 306.

For Drainage Details, see Sheet No. 308. Downspout size shall be 8".

At Inlets, reinforcing steel shall be cut to fit.

CITY OF CINCINNATI
DEPARTMENT OF PUBLIC WORKS
DIVISION OF ENGINEERING

SUPERSTRUCTURE DETAILS

BRIDGE NO. HAM-50-1992-L

WEST BOUND
6TH ST. EXPRESSWAY BRIDGE
OVER R.R. SIDING W. OF FREEMAN AVE.

CINCY BRIDGE NO. 4L

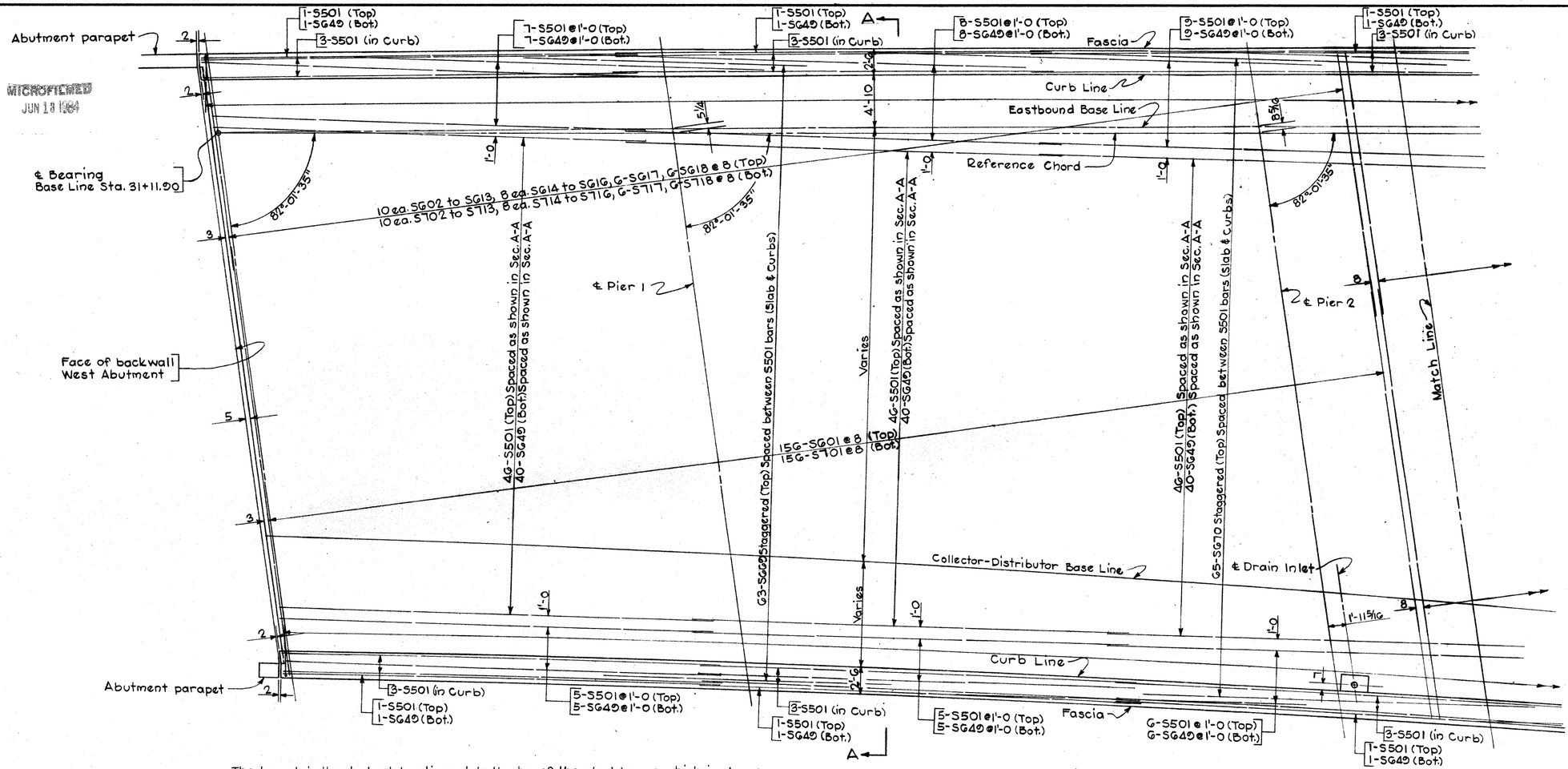
DESIGNED	DRAWN	TRACED	CHECKED	REVIEWED	DATE	REVISED
J.A.A.	J.A.A.		J.W.J.	W.W.	8-6-62	

MICROFILMED
JUN 18 1964

FED. RD. DIV.	STATE	PROJECT	FISCAL YEAR
2	OHIO		

HAM-50-19.76

304
464



PLAN

The haunch in the deck slab adjacent to the top of the steel beams, which is shown as 9" wide, may vary from this dimension with a minimum of 6" and maximum of 12". Maximum slope of haunch shall be one vertical to four horizontal. Payment for deck slab concrete shall be based on the 9" width.

Work this Sheet with Sheet No. 305.

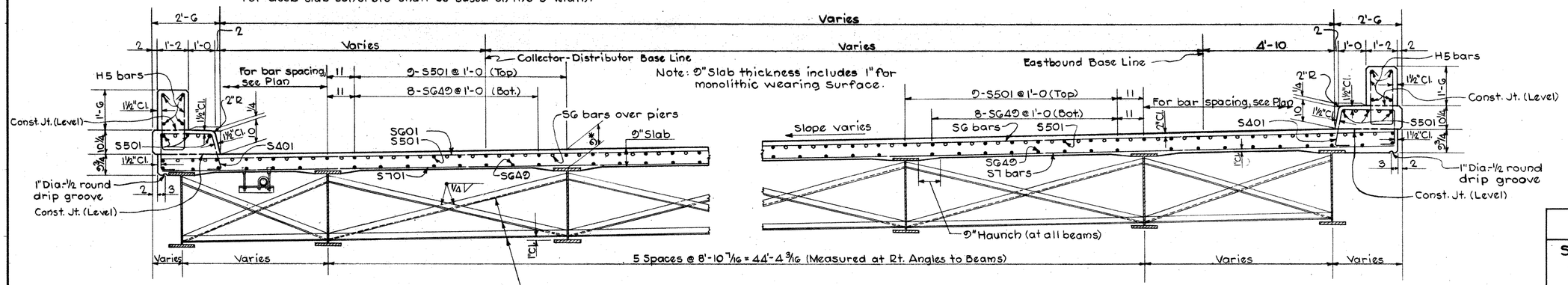
Note: For Handrail Details and details of H5 bars in Handrail Parapet, see Sheet Nos. 307 and 310.
For End Finish Details, see Sheet No. 302.

For Lighting Details, see Sheet No. 307.

For Drainage Details, see Sheet No. 308. Downspout size shall be 8".

At Inlets, reinforcing steel shall be cut to fit.

For Grade Detail and Fascia Offsets, see Sheet No. 288.



Note: 9" Slab thickness includes 1" for monolithic wearing surface.

Intermediate crossframe angles 3 x 3 x 5/16. Weld both sides of vertical leg and top side of horizontal leg to beam with ¼" continuous fillet weld.

*This is the nominal dimension. The quantity of deck concrete to be paid for shall be based on this dimension, even though deviation from it may be necessary because the top flange of the beam may not have the exact camber or conformation required to place it parallel to the finished grade.

TRANSVERSE SECTION A-A

CITY OF CINCINNATI
DEPARTMENT OF PUBLIC WORKS
DIVISION OF ENGINEERING

SUPERSTRUCTURE DETAILS

BRIDGE NO. HAM-50-1992-R

EASTBOUND
6TH ST. EXPRESSWAY BRIDGE
OVER R.R. SIDING W. OF FREEMAN AVE.

CINCY BRIDGE NO. 4R

DESIGNED	DRAWN	TRACED	CHECKED	REVIEWED	DATE	REVISED
H.E.W.	H.E.W.		J.W.J.	W.W.	8-6-62	

FED. RD. DIV.	STATE	PROJECT	FISCAL YEAR
2	OHIO		

HAM-50-19.76

305
464

MICROFILMED
JUN 18 1964

10-S501 @ 1'-0 (Top)
10-SG49 @ 1'-0 (Bot.)
1-S501 (Top)
1-SG49 (Bot.)
3-S501 (in Curb)
1-S501 (Top)
1-SG49 (Bot.)
3-S501 (in Curb)
11-S501 @ 1'-0 (Top)
11-SG49 @ 1'-0 (Bot.)
Fascia
1-S501 (Top)
1-SG49 (Bot.)
1-S520 (Top)
1-SG68 (Bot.)
3-S521 (in Curb)
6-S510, 1 ea. S511 to S516 @ 1'-0 (Top)
6-SG58, 1 ea. SG59 to SGG4 @ 1'-0 (Bot.)
Abutment parapet
148-S401 @ 1'-G
Curb Line
Eastbound Base Line
Reference Chord
82°-01'-35"
1-S518 (Top) Lapped to S514
1-SGGG (Bot) Lapped to SGG2
1-S519 (Top) Lapped to S513
1-SGG7 (Bot) Lapped to SGG1
℄ Bearing
Base Line Sta. 33+30.90
6 ea. SG19 to SG38, 5 ea. SG39 to SG47, 7-SG48 @ 8 (Top)
6 ea. S719 to S738, 5 ea. S739 to S747, 7-S748 @ 8 (Bot.)
℄ Pier 3
℄ Pier 4
Face of backwall
East Abutment
Match Line
46-S501 (Top) Spaced as shown in Sec. A-A
40-SG49 (Bot.) Spaced as shown in Sec. A-A
68-SG71 Staggered (Top) Spaced between S501 bars (Slab & Curbs)
71-SG72 Staggered (Top) Spaced between S501 bars (Slab & Curbs)
172-SG01 @ 8 (Top)
172-S701 @ 8 (Bot.)
46-S510 (Top) Spaced as shown in Sec. A-A
40-SG58 (Bot.) Spaced as shown in Sec. A-A
1-S502 to S509, 5-S510 @ 1'-0 (Top)
1-SG50 to SG57, 5-SG58 @ 1'-0 (Bot.)
P.T. R = 1909.86'
Sta. 32+72.76-CD
Collector-Distributor Base Line
140-S401 @ 1'-G
Curb Line
℄ Drain Inlet
7-S501 @ 1'-0 (Top)
7-SG49 @ 1'-0 (Bot.)
3-S501 (in Curb)
1-S501 (Top)
1-SG49 (Bot.)
8-S501 @ 1'-0 (Top)
8-SG49 @ 1'-0 (Bot.)
3-S501 (in Curb)
1-S501 (Top)
1-SG49 (Bot.)
Fascia
3-S501 @ 1'-0 (Top)
3-SG49 @ 1'-0 (Bot.)
1-S501 (Top)
1-SG49 (Bot.)
3-S522 (in Curb)
1-S517 (Top)
1-SGG5 (Bot.)
Abutment parapet

Work this Sheet with Sheet No. 304.

PLAN

℄ Pier 1
10'-0 | 13'-0
13'-0 | 10'-0
SGG0

℄ Pier 2
12'-0 | 14'-0
15'-0 | 11'-0
SG70

℄ Pier 3
8'-0 | 15'-0
11'-0 | 12'-0
SG71

℄ Pier 4
7'-0 | 9'-0
10'-0 | 6'-0
SG72

DIAGRAM SHOWING STAGGER OF SG BARS OVER PIERS

CITY OF CINCINNATI
DEPARTMENT OF PUBLIC WORKS
DIVISION OF ENGINEERING

SUPERSTRUCTURE DETAILS

BRIDGE NO. HAM-50-1992-R
EASTBOUND
6TH ST. EXPRESSWAY BRIDGE
OVER R.R. SIDING W. OF FREEMAN AVE.
CINCY BRIDGE NO. 42

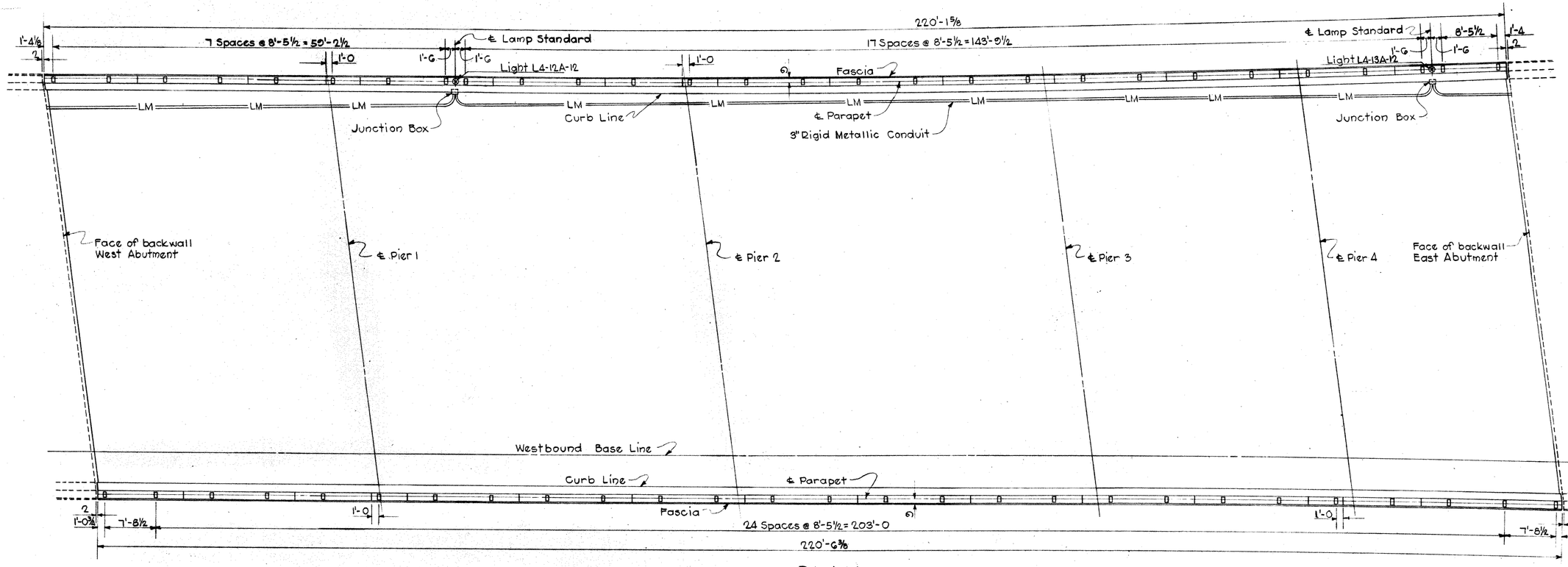
DESIGNED	DRAWN	TRACED	CHECKED	REVIEWED	DATE	REVISED
H.E.W.	H.E.W.		J.W.J.	W.W.	8-6-62	

MICROFILMED
JUN 13 1984

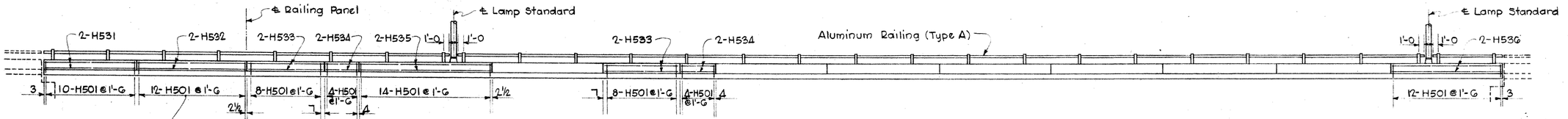
FED. RD. DIV.	STATE	PROJECT	FISCAL YEAR
2	OHIO		

HAM-50-19.76

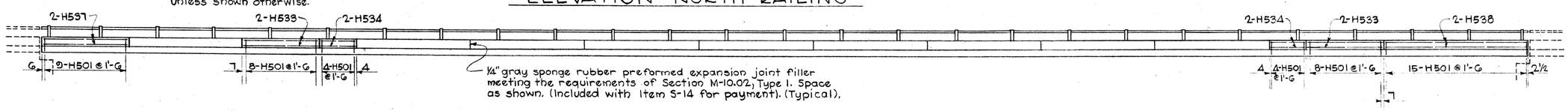
306
464



PLAN



ELEVATION - NORTH RAILING



ELEVATION - SOUTH RAILING

Note: The location of railing posts and lamp standards is measured along ℄ of parapet.

For Typical Railing Details, see Std. Dwg. AR-1-57.

For Typical Lighting Details, see Sheet No. 213.

For Legend of Lighting Items, see Sheet No. 204.

For parapet details, see Sheet No. 303.

CITY OF CINCINNATI
DEPARTMENT OF PUBLIC WORKS
DIVISION OF ENGINEERING

DECK RAILING & LIGHTING

BRIDGE NO. HAM-50-1992-L

WESTBOUND
6TH ST. EXPRESSWAY BRIDGE
OVER R.R. SIDING W. OF FREEMAN AVE.

CINCY BRIDGE NO. 4L

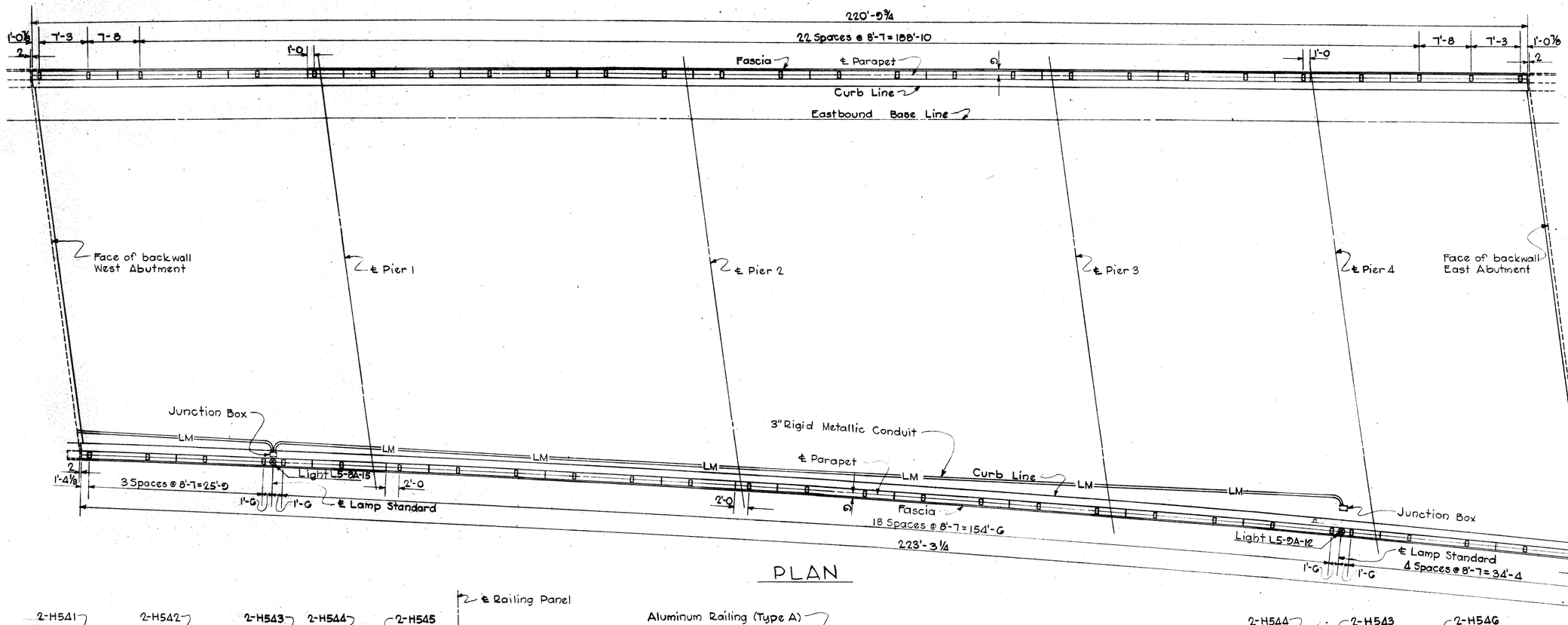
DESIGNED	DRAWN	TRACED	CHECKED	REVIEWED	DATE	REVISED
H.E.W.	H.E.W.		J.W.J. W.W.	W.W.	8-6-62	

MICROFILMED
JUN 13 1984

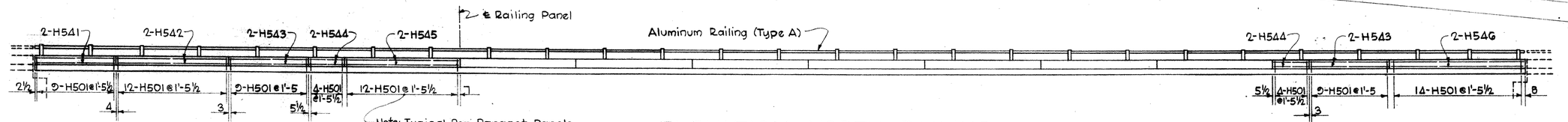
FED. RD. DIV.	STATE	PROJECT	FISCAL YEAR
2	OHIO		

HAM-50-19.76

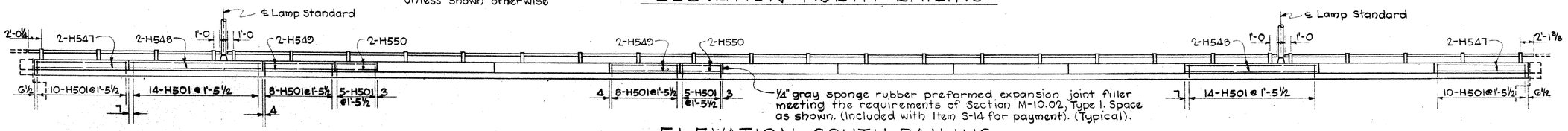
307
464



PLAN



ELEVATION - NORTH RAILING



ELEVATION - SOUTH RAILING

Note: The location of railing posts and lamp standards is measured along ℄ of parapet.

For Typical Railing Details, see Std. Dwg. AR-1-57.

For Typical Lighting Details, see Sheet No. 213.

For Legend of Lighting Items, see Sheet No. 204.

For parapet details, see Sheet No. 304.

CITY OF CINCINNATI
DEPARTMENT OF PUBLIC WORKS
DIVISION OF ENGINEERING

DECK RAILING & LIGHTING

BRIDGE NO. HAM-50-19.92-R

EASTBOUND
6TH ST. EXPRESSWAY BRIDGE
OVER R.R. SIDING W. OF FREEMAN AVE.

CINCY BRIDGE NO. 4R

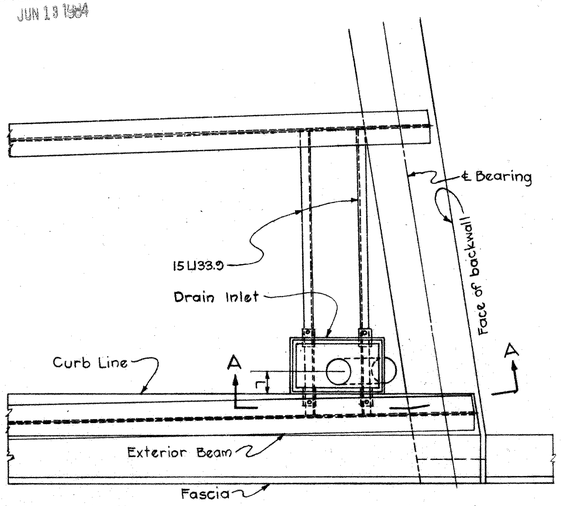
DESIGNED	DRAWN	TRACED	CHECKED	REVIEWED	DATE	REVISED
H.E.W.	H.E.W.		W.W.	W.W.	8-6-62	

MICROFILMED
JUN 19 1964

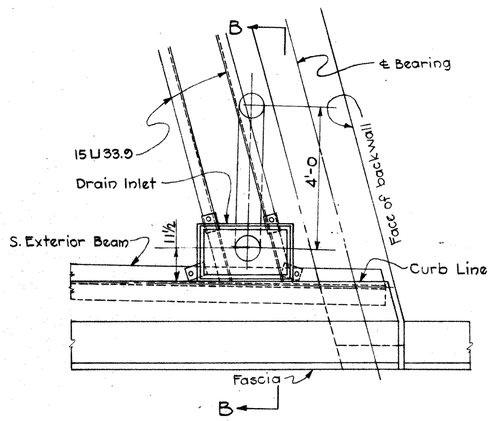
FED. RD. DIV.	STATE	PROJECT	FISCAL YEAR
2	OHIO		

HAM-50-19.76

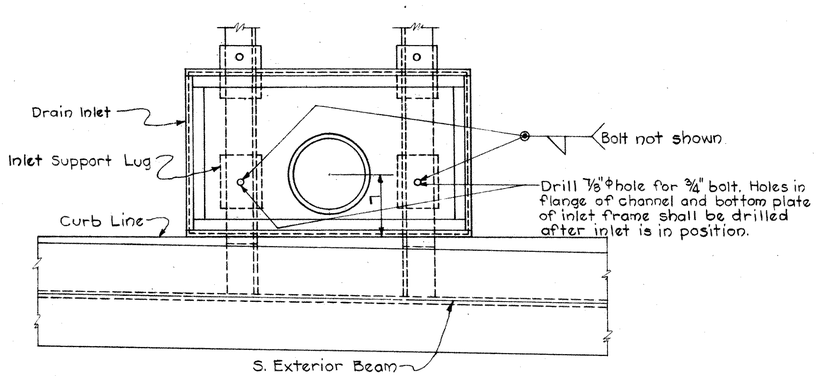
308
464



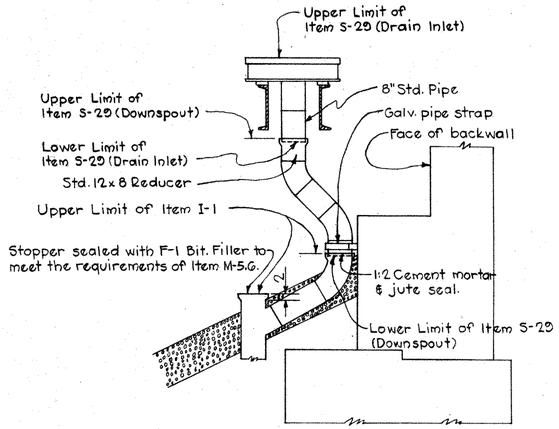
TYPICAL PLAN



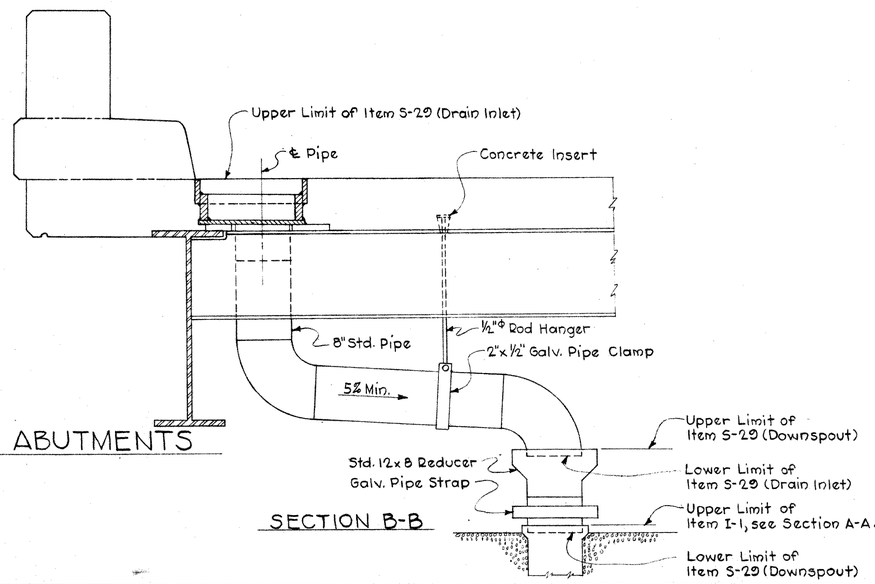
PLAN
EAST ABUTMENT- EASTBOUND



INLET FRAME
PIER 2- EASTBOUND



SECTION A-A



SECTION B-B

DRAINAGE DETAILS AT ABUTMENTS

Note: For location of Drain Inlets, see Superstructure Details.

For details not shown, see Sheet No. 412.

CITY OF CINCINNATI
DEPARTMENT OF PUBLIC WORKS
DIVISION OF ENGINEERING

DRAINAGE DETAILS

BRIDGE NO. HAM-50-1992-(R&L)

EASTBOUND & WESTBOUND
6TH ST. EXPRESSWAY BRIDGES
OVER R.R. SIDING W. OF FREEMAN AVE.

CINCY BRIDGE NOS. 4R & 4L

DESIGNED	DRAWN	TRACED	CHECKED	REVIEWED	DATE	REVISED
J.A.A. H.E.W.	H.E.W.		J.W.J.	W.W.	8-6-62	

MICROFILMED
JUN 13 1969

WESTBOUND

MARK	NO.	LENGTH	WEIGHT	SHP.
WEST ABUTMENT				
A501	16	7'-3	121	Bt.
A502	45	12'-5	583	"
A503	21	8'-5	184	"
A504	24	8'-1	202	"
A505	78	7'-5	603	"
A506	7	29'-7	216	Str.
A507	7	34'-10	254	"
A508	5	29'-10	156	"
A509	5	34'-7	180	"
A510	4	30'-0	125	"
A511	4	34'-4	143	"
A512	38	5'-4	211	Bt.
A513	9	8'-11	84	Str.
A514	5	10'-9	56	Bt.
A515	8	3'-9	31	Str.
A516	1	10'-0	10	Bt.
A517	1	13'-6	14	"
A518	1	17'-0	18	"
A519	1	17'-4	18	"
A520	1	7'-7	8	Str.
A521	1	11'-1	12	"
A522	1	14'-7	15	"
A523	1	14'-11	16	"
A524	4	8'-4	35	"
A525	4	7'-7	32	"
A526	16	9'-6	159	"
A527	2	2'-8	6	"
A528	2	3'-0	6	"
A529	2	3'-3	7	"
A530	2	3'-6	7	"
A531	2	3'-10	8	"
A532	2	4'-1	9	"
A533	2	4'-4	9	"
A534	2	4'-8	10	"
A535	6	18'-10	93	"
A536	31	5'-3	170	Bt.
A537	9	8'-4	78	Str.
A538	5	9'-9	51	Bt.
A539	8	3'-5	29	Str.
A540	1	8'-9	9	Bt.
A541	1	12'-3	13	"
A542	1	15'-9	16	"
A543	1	16'-3	17	"
A544	1	6'-9	7	Str.
A545	1	10'-3	11	"
A546	1	13'-9	14	"
A547	1	14'-3	15	"
A548	4	7'-0	29	"
A549	14	8'-11	130	"
A550	2	4'-7	10	"
A551	2	4'-3	9	"
A552	2	4'-0	8	"
A553	2	3'-9	8	"
A554	2	3'-6	7	"
A555	2	3'-3	7	"
A556	2	3'-0	6	"
A557	2	2'-8	6	"
A558	6	14'-3	89	"
A601	21	14'-7	460	Bt.
A602	24	14'-3	514	"
A603	12	13'-9	248	"
A604	49	17'-2	1263	"
A801	18	34'-8	1666	Str.
A802	4	11'-9	125	"
A803	4	11'-0	117	"
H501	22	6'-1	140	Bt.
H502	4	14'-11		Str.
H503	4	14'-3		"
TOTAL WEIGHT 8913#				
EAST ABUTMENT				
A5101	16	7'-3	121	Bt
A5102	47	12'-5	609	"
A5103	22	8'-9	201	"
A5104	25	7'-9	202	"
A5105	98	8'-7	698	"

MARK	NO	LENGTH	WEIGHT	SHP.
A5106	7	31'-3	228	Str.
A5107	7	36'-7	267	"
A5108	5	31'-5	164	"
A5109	5	36'-3	189	"
A5110	4	31'-7	132	"
A5111	4	36'-1	151	"
A5112	36	5'-4	200	Bt.
A5113	9	8'-0	75	Str.
A5114	5	9'-9	51	Bt.
A5115	8	3'-9	31	Str.
A5116	1	9'-5	10	Bt.
A5117	1	12'-8	13	"
A5118	1	16'-4	17	"
A5119	1	16'-4	17	"
A5120	1	7'-0	7	Str.
A5121	1	10'-3	11	"
A5122	1	13'-11	15	"
A5123	1	13'-11	15	"
A5124	4	8'-4	35	"
A5125	4	7'-9	32	"
A5126	14	9'-4	136	"
A5127	2	2'-8	6	"
A5128	2	2'-10	6	"
A5129	2	3'-1	6	"
A5130	2	3'-4	7	"
A5131	2	3'-7	7	"
A5132	2	3'-10	8	"
A5133	2	4'-1	9	"
A5134	2	4'-4	9	"
A5135	6	13'-10	87	"
A5136	30	5'-3	164	Bt.
A5137	9	8'-4	78	Str.
A5138	5	9'-9	51	Bt
A5139	8	3'-5	29	Str.
A5140	1	9'-3	10	Bt.
A5141	1	13'-0	14	"
A5142	1	16'-3	17	"
A5143	1	16'-3	17	"
A5144	1	7'-3	8	Str.
A5145	1	11'-0	11	"
A5146	1	14'-3	15	"
A5147	1	14'-3	15	"
A5148	4	7'-0	29	"
A5149	14	8'-8	127	"
A5150	2	4'-3	9	"
A5151	2	4'-1	9	"
A5152	2	3'-10	8	"
A5153	2	3'-7	7	"
A5154	2	3'-4	7	"
A5155	2	3'-2	7	"
A5156	2	2'-11	6	"
A5157	2	2'-8	6	"
A5158	6	14'-3	89	"
A621	22	15'-3	504	Bt.
A622	25	14'-3	535	"
A623	12	13'-7	245	"
A624	53	17'-0	1353	"
A811	18	36'-3	1742	Str.
A812	4	10'-11	117	"
A813	4	11'-0	117	"
H501	21	6'-1	133	Bt.
H504	4	13'-11		Str.
H505	4	14'-3		"
TOTAL WEIGHT 9251#				
PIER #1				
P501	178	8'-0	1485	Bt
P502	4	7'-4	31	"
P503	8	31'-9	265	Str.
P601	44	10'-0	661	Bt.
P801	48	10'-10	1388	"
P901	44	6'-0	898	Bt.
P902	44	23'-3	3478	Str.
P903	8	9'-6	258	Bt
P904	8	32'-6	884	Str.
P905	8	33'-7	913	"
P906	8	33'-10	920	"
P907	4	8'-0	109	"

MARK	NO	LENGTH	WEIGHT	SHP.
P507	30	11'-6	360	Bt.
P508	20	28'-1	586	Str.
TOTAL WEIGHT 12,236				
PIER #2				
P501	180	8'-0	1502	Bt.
P502	4	7'-4	31	"
P504	8	32'-3	269	Str.
P601	44	10'-0	661	Bt.
P801	48	10'-10	1388	"
P901	44	6'-0	898	Bt
P903	8	9'-6	258	"
P907	4	8'-0	109	Str.
P910	44	22'-9	3405	Str.
P911	8	32'-11	895	"
P912	8	34'-0	925	"
P913	8	34'-3	932	"
P507	30	11'-6	360	Bt
P508	20	28'-1	586	Str.
TOTAL WEIGHT 12,217				
PIER #3				
P501	172	8'-0	1435	Bt
P502	4	7'-4	31	"
P503	8	32'-8	273	Str.
P601	44	10'-0	661	Bt.
P801	48	10'-10	1388	"
P901	44	6'-0	898	Bt.
P903	8	9'-6	258	Bt.
P907	4	8'-0	109	Str.
P920	44	22'-2	3316	Str.
P921	8	33'-4	907	"
P922	8	34'-5	936	"
P923	8	34'-8	943	"
P507	30	11'-6	360	Bt
P508	20	28'-1	586	Str.
TOTAL WEIGHT 12,101				
PIER #4				
P501	148	8'-0	1235	Bt
P502	4	7'-4	31	"
P506	8	32'-10	274	Str.
P701	80	10'-4	1690	Bt.
P901	44	6'-0	898	Bt
P903	8	9'-6	258	"
P930	44	21'-8	3241	Str
P932	8	34'-8	943	"
P933	8	34'-11	950	"
P1001	4	36'-2	605	"
P507	30	11'-6	360	Bt
P508	20	28'-1	586	Str.
TOTAL WEIGHT 11,071				
SUPERSTRUCTURE				
S401	294	5'-11	1,162	Bt.
S601	361	40'-0	15,061	Str.
S602	69	27'-6	1979	"
S603	6	28'-0	175	"
S601	327	35'-0	17,190	Str.
S602	96	31'-6	4,542	"
S603	60	31'-9	2,861	"
S604	39	32'-0	1,874	"
S605	20	32'-3	969	"
S606	20	32'-6	976	"
S607	12	32'-9	590	"
S608	11	33'-0	545	"
S609	9	33'-3	449	"
S610	9	33'-6	453	"
S611	8	33'-9	406	"

MARK	NO	LENGTH	WEIGHT	SHP.
S612	8	34'-0	409	Str.
S613	8	34'-3	412	"
S614	8	34'-6	415	"
S615	6	34'-8	312	"
S616	6	34'-10	314	"
S617	4	35'-0	210	"
S618	3	35'-2	158	"
S619	296	40'-0	17,784	"
S620	62	29'-2	2716	"
S701	327	35'-0	23,394	Str
S702	96	31'-10	6,246	"
S703	60	32'-1	3,955	"
S704	39	32'-4	2,577	"
S705	20	32'-7	1,332	"
S706	20	32'-10	1,342	"
S707	12	33'-1	811	"
S708	11	33'-4	749	"
S709	9	33'-7	618	"
S710	9	33'-10	622	"
S711	8	34'-1	557	"
S712	8	34'-4	561	"
S713	8	34'-7	566	"
S714	8	34'-10	570	"
S715	6	35'-0	429	"
S716	6	35'-2	431	"
S717	4	35'-4	289	"
S718	3	35'-6	218	"
H501	312	6'-1	1980	Bt.
H531	4	13'-8		Str
H532	68	16'-7		"
H533	16	11'-4		"
H534	16	4'-10		"
H535	4	19'-7		"
H536	4	16'-8		"
H537	4	12'-8		"
H538	4	21'-1		"
S622	65	23'-0	2245	"
S623	65	26'-0	2538	"
S624	65	23'-0	2245	"
S625	67	16'-0	1610	"
TOTAL WEIGHT 127,827#				

EASTBOUND

MARK	NO	LENGTH	WEIGHT	SHP.
WEST ABUTMENT				
A501	8	7'-3	60	Bt
A502	15	7'-11	124	"
A503	19	8'-2	162	"
A504	34	12'-5	440	"
A505	54	7'-3	408	"
A506	4	29'-5	123	Str.
A507	6	28'-1	176	"
A508	3	29'-7	93	"
A509	3	27'-10	87	"
A510	1	30'-0	31	"
A511	4	27'-8	115	"
A512	1	23'-5	24	"
A513	1	24'-1	25	"
A514	3	27'-11	87	"
A515	4	13'-0	54	"
A516	2	6'-9	14	Bt
A517	2	6'-11	14	"
A518	2	7'-1	15	"
A519	2	7'-5	15	"
A520	2	7'-9	16	"
A521	2	7'-11	17	"
A522	2	8'-1	17	"
A524	16	8'-5	140	"
A525	2	7'-7	16	"
A570	22	5'-4	122	"
A571	6	10'-2	64	Str.
A572	6	11'-9	74	Bt.
A573	8	3'-5	29	Str.
A574	1	10'-9	11	Bt.
A575	1	14'-4	15	"
A576	1	18'-2	19	"
A577	1	18'-2	19	"
A578	1	8'-9	9	Str.
A579	1	12'-4	13	"
A580	1	16'-2	17	"
A581	1	16'-2	17	"
A582	2	7'-8	16	"
A583	4	7'-11	33	"
A584	18	9'-10	185	"
A585	2	4'-8	10	"
A586	2	4'-5	9	"
A587	2	4'-2	9	"
A588	2	3'-11	8	"
A589	2	3'-8	8	"
A590	2	3'-5	7	"
A591	2	3'-2	7	"
A592	2	2'-11	6	"
A593	2	2'-8	6	"
A594	19	5'-3	104	Bt.
A595	6	16'-3	102	Str.
A601	15	14'-8	325	Bt.
A602	19	14'-8	419	"
A603	5	14'-3	107	"
A604	49	17'-8	1300	"
A801	18	26'-9	1286	Str.
A802	4	13'-0	139	"
A803	2	29'-5	157	"
A804	3	29'-9	238	"
A805	3	29'-7	237	"
A806	3	29'-5	236	"
H501	14	6'-1	89	Bt
H502	4	16'-3		Str.
H504	4	1'-5		"
A5128	6	1'-5	9	Str.
A5130	4	5'-0	21	"
A5131	2	6'-10	14	"
A5132	8	3'-8	31	"
TOTAL WEIGHT 7800#				
EAST ABUTMENT				
A541	8	7'-3	60	Bt
A542	25	8'-3	215	"
A543	19	7'-8	152	"

MARK	NO	LENGTH	WEIGHT	SHP.
A544	44	12'-5	570	Bt.
A545	65	7'-11	537	"
A546	1	30'-8	32	Str.
A547	1	31'-2	33	"
A548	1	34'-0	35	"
A549	1	34'-3	36	"
A550	4	12'-1	50	"
A551	3	35'-3	110	"
A552	3	35'-9	112	"
A553	4	36'-5	152	"
A554	5	36'-2	189	"
A555	7	35'-11	262	"
A556	14	8'-3	120	Bt
A557	2	7'-11	17	"
A558	2	7'-7	16	"
A559	2	7'-3	15	"
A560	2	6'-11	14	"
A561	2	6'-7	14	"
A562	2	6'-3	13	"
A563	2	6'-3	13	"
A5101	20	5'-4	111	"
A5102	6	8'-11	56	Str.
A5103	6	10'-9	67	Bt.
A5104	8	3'-9	31	Str.
A5105	1	10'-2	11	Bt.
A5106	1	13'-8	14	"
A5107	1	17'-2	18	"
A5108	1	17'-3	18	"
A5109	1	7'-6	8	Str.
A5110	1	11'-0	11	"
A5111	1	14'-6	15	"
A5112	1	14'-7	15	"
A5113	2	7'-8	16	"
A5114	6	8'-4	52	"
A5115	7	9'-11	72	"
A5116	2	2'-8	6	"
A5117	2	2'-10	6	"
A5118	2	3'-0	6	"
A5119	2	3'-3	7	"
A5120	2	3'-6	7	"
A5121	2	3'-9	8	"
A5122	2	4'-0	8	"
A5123	2	4'-3	9	"
A5124	6	14'-8	92	"
A5125	18	5'-3	99	Bt.
A5126	4	4'-9	20	Str.
A5127	2	6'-7	14	"
A5129	6	1'-5	9	"
A5133	8	3'-2	26	"
A621	26	14'-9	554	Bt.
A622	19	14'-2	404	"
A623	6	14'-3	128	"
A624	63	17'-8	1672	"
A821	18	34'-9	1670	Str.
A822	4	12'-1	129	"
A823	2	35'-9	191	"
A824	3	35'-4	283	"
A825	3	35'-7	285	"
A826	3	35'-10	287	"
H501	13	6'-1	82	Bt.
H503	4	14'-10		Str.
H505	4	1'-5		"
TOTAL WEIGHT 9284#				
PIER #1				
P501	148	8'-0	1235	Bt.
P502	4	7'-4	31	"
P503	8	29'-0	242	Str.
P701	44	10'-4	929	Bt.
P901	40	11'-2	1519	Bt
P902	44	6'-0	898	"
P903	44	23'-9	3553	Str.
P904	4	29'-8	403	"
P905	6	31'-0	632	"

MARK	NO	LENGTH	WEIGHT	SHP.
P906	4	29'-8	403	"
P907	4	30'-10	419	"
P908	4	31'-0	422	"
P909	8	9'-6	258	Bt
P1101	4	12'-6	266	Str.
P507	30	11'-6	360	Bt
P508	20	28'-1	586	St
TOTAL WEIGHT 12,156				
PIER #2				
P501	160	8'-0	1335	Bt.
P502	4	7'-4	31	"
P504	8	29'-9	248	Str.
P701	44	10'-4	929	Bt.
P901	40	11'-2	1519	Bt.
P902	44	6'-0	898	Bt.
P909	8	9'-6	258	"
P920	44	23'-1	3453	Str.
P921	4	30'-5	414	"
P922	6	31'-9	648	"
P923	4	30'-5	414	"
P924	4	31'-7	430	"
P925	4	31'-9	432	"
P1101	4	12'-6	266	Str.
P507	30	11'-6	360	Bt
P508	20	28'-1	586	Str
TOTAL WEIGHT 12,221				
PIER #3				
P501	174	8'-0	1452	Bt
P502	4	7'-4	31	"
P505	8	31'-4	261	Str.
P701	44	10'-4	929	Bt.
P901	40	11'-2	1519	Bt.
P902	44	6'-0	898	Bt.
P909	8	9'-6	258	"
P930	44	22'-4	3341	Str.
P931	4	31'-11	434	"
P932	6	33'-3	678	"
P933	4	31'-11	434	"
P934	4	33'-1	450	"
P935	4	33'-3	452	"
P1101	4	12'-6	266	Str.
P507	30	11'-6	360	Bt
P508	20	28'-1	586	Str.
TOTAL WEIGHT 12,349				
PIER #4				
P501	176	8'-0	1469	Bt
P502	4	7'-4	31	"
P506	8	32'-5	270	Str.
P801	80	10'-10	2314	Bt.
P902	44	6'-0	898	Bt.
P909	8	9'-6	258	"
P940	44	21'-8	3241	Str.
P941	4	33'-1	450	"
P942	6	34'-5	702	"
P943	4	33'-1	450	"
P944	4	34'-3	466	"
P945	4	34'-5	469	"
P507	36	11'-6	432	Bt
P508	20	28'-1	586	Str.
TOTAL WEIGHT 12,036				

MARK	NO	LENGTH	WEIGHT	SHP.
SUPERSTRUCTURE				
S401	297	5'-11	1174	Bt
S501	351	40'-0	14,644	Str.
S502	1	5'-5	6	"
S503	1	18'-2	19	"
S504	1	33'-0	34	"
S505	1	9'-11	10	"
S506	1	28'-11	30	"
S507	1	10'-8	11	"
S508	1	37'-6	39	"
S509	1	13'-8	14	"
S510	57	28'-11	1,719	"
S511	1	17'-2	18	"
S512	1	31'-5	33	"
S513	1	40'-0	42	"
S514	1	40'-0	42	"
S515	1	20'-2	21	"
S516	1	25'-7	27	"
S517	1	30'-7	32	"
S518	1	11'-2	12	"
S519	1	3'-11	4	"
S520	1	28'-5	30	"
S521	3	28'-4	89	"
S522	3	30'-7	96	"
S601	328	40'-0	19,706	Str.
S602	10	19'-11	299	"
S603	10	20'-2	303	"
S604	10	20'-5	307	"
S605	10	20'-8	310	"
S606	10	20'-11	314	"
S607	10	21'-2	318	"
S608	10	21'-6	323	"
S609	10	21'-10	328	"
S610	10	22'-2	333	"
S611	10	22'-6	338	"
S612	10	22'-10	343	"
S613	10	23'-2	348	"
S614	8	23'-6	282	"
S615	8	23'-10	286	"
S616	8	24'-1	289	"
S617	6	24'-4	219	"
S618	6	24'-7	222	"
S619	6	24'-11	225	"
S620	6	25'-2	227	"
S621	6	25'-6	230	"
S622	6	25'-10	233	"
S623	6	26'-1	235	"
S624	6	26'-4	237	"
S625	6	26'-7	240	"
S626	6	26'-11	243	"
S627	6	27'-2	245	"
S628	6	27'-6	248	"
S629	6	27'-10	251	"
S630	6	28'-2	254	"
S631	6	28'-6	257	"
S632	6	28'-10	260	"
S633	6	29'-2	263	"
S634	6	29'-6	266	"
S635	6	29'-10	269	"
S636	6	30'-2	272	"
S637	6	30'-6	275	"
S638	6	30'-10	278	"
S639	5	31'-2	234	"
S640	5	31'-6	237	"
S641	5	31'-9	238	"
S642	5	32'-1	241	"
S643	5	32'-5	243	"
S644	5	32'-9	246	"
S645	5	33'-1	248	"
S646	5	33'-5	251	"
S647	5	33'-9	253	"
S648	7	34'-2	359	"
S649	291	40'-0	17,483	"
S650	1	5'-5	8	"
S651	1	18'-2	27	"
S652	1	35'-0	50	"
S653	1	10'-3	15	"
S654	1	29'-3	44	"

MARK	NO	LENGTH	WEIGHT	SHP.
S655	1	11'-4	17	Str.
S656	1	38'-2	57	"
S657	1	15'-0	23	"
S658	51	30'-7	2343	"
S659	1	18'-10	28	"
S660	1	32'-9	49	"
S661	1	40'-0	60	"
S662	1	40'-0	60	"
S663	1	20'-10	31	"
S664	1	25'-11	39	"
S665	1	32'-3	48	"
S666	1	12'-2	18	"
S667	1	5'-3	8	"
S668	1	30'-1	45	"
S669	63	23'-0	2176	"
S670	65	26'-0	2558	"
S671	68	23'-0	2349	"
S672	71	16'-0	1706	"
S701	328	40'-0	24,817	Str
S702	10	20'-3	414	"
S703	10	20'-6	419	"
S704	10	20'-9	424	"
S705	10	21'-0	429	"
S706	10	21'-3	434	"
S707	10	21'-6	439	"
S708	10	21'-10	446	"
S709	10	22'-2	453	"
S710	10	22'-6	460	"
S711	10	22'-10	467	"
S712	10	23'-2	474	"
S713	10	23'-6	480	"
S714	8	23'-10	390	"
S715	8	24'-2	395	"
S716	8	24'-5	399	"
S717	6	24'-8	303	"
S718	6	24'-11	306	"
S719	6	25'-3	310	"
S720	6	25'-6	313	"
S721	6	25'-10	317	"
S722	6	26'-2	321	"
S723	6	26'-5	324	"
S724	6	26'-8	327	"
S725	6	26'-11	330	"
S726	6	27'-3	334	"
S727	6	27'-6	337	"
S728	6	27'-10	341	"
S729	6	28'-2	345	"
S730	6	28'-6	350	"
S731	6	28'-10	354	"
S732	6	29'-2	358	"
S733	6	29'-6	362	"
S734	6	29'-10	366	"
S735	6	30'-2	370	"
S736	6	30'-6	374	"
S737	6	30'-10	378	"
S738	6	31'-2	382	"
S739	5	31'-6	322	"
S740	5	31'-10	325	"

MARK	NO	LENGTH	WEIGHT	SHP.
S741	5	32'-1	328	Str
S742	5	32'-5	331	"
S743	5	32'-9	385	"
S744	5	33'-1	338	"
S745	5	33'-5	342	"
S746	5	33'-9	345	"
S747	5	34'-1	348	"
S748	7	34'-6	494	"
H501	315	6'-1	1999#	Bt
H541	4	11'-10		Str
H542	4	16'-4		"
H543	8	11'-6		"
H544	8	4'-11		"
H545	60	16'-10		"
H546	4	19'-11		"
H547	8	13'-10		"
H548	8	19'-10		"
H549	8	10'-6		"
H550	8	5'-11		"
TOTAL WEIGHT 126,143#				

For notes and bar details not shown see Sheet No. 310.

FED. RD. DIV.	STATE	PROJECT	FISCAL YEAR
2	OHIO		

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HAM-50-19.76

CITY OF CINCINNATI
DEPARTMENT OF PUBLIC WORKS
DIVISION OF ENGINEERING

REINFORCING STEEL LIST

BRIDGE NO. HAM-50-1992-(R&L)

EASTBOUND & WESTBOUND
6TH ST. EXPRESSWAY BRIDGES
OVER R.R. SIDING W. OF FREEMAN AVE.

CINCY BRIDGE NOS. 4R & 4L

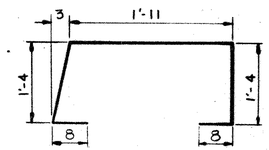
DESIGNED	DRAWN	TRACED	CHECKED	REVIEWED	DATE	REVISED
	J.A.A.		W.W.	W.W.	8-6-62	

MICROFILMED
JUN 13 1964

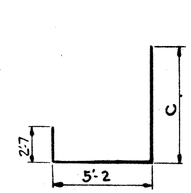
FED. RD. DIV.	STATE	PROJECT	FISCAL YEAR
2	OHIO		

HAM-50-19.76

310
464

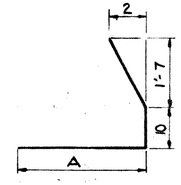


S401



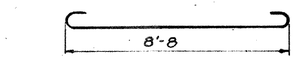
EASTBOUND	
MARK	C
AG01	6'-8
AG02	6'-11
AG21	7'-0
AG22	6'-5

WESTBOUND	
MARK	C
AG01	6'-10
AG02	6'-6
AG21	7'-6
AG22	6'-6

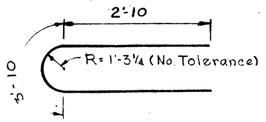


EASTBOUND	
MARK	A
A5105	7'9
A5106	11'3
A5107	14'9
A5108	14'10

WESTBOUND	
MARK	A
A516	7'-7
A517	11'-1
A518	14'-7
A519	14'-11
A5116	7'-0
A5117	10'-3
A5118	13'-11
A5119	13'-11



(Westbound) P601 P801
P701 P901 (Eastbound)



P903 W.bound P909

NOTE:
The "Length" shown in the steel list for the spiral bars is the distance from the top of the footing to the bottom of the pier cap.

The "No of Turns" shown in the steel list for the spiral bars is the "Length" divided by the pitch, plus 3 turns (total number of closed coils), expressed as the nearest whole number.

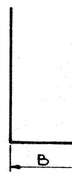
Spiral reinforcing bars shall not have deformations but shall in other respects conform to Item S-4.

1½ closed coils shall be provided at the ends of each spiral unit.

Four steel channel, tee or angle spacers, weighing approximately 0.68 lb. per lin. ft. of spacer, shall be provided for each spiral unit. They shall be equally spaced along the periphery of the coil. The number of pounds of these spacers, based on 0.68 lb. per lin. ft., will be paid for as reinforcing steel and is included in the tabulated quantity of spiral bars.

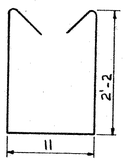
H bars listed without weights shall be included with Item S-14 for payment.

Bar size is indicated in the bar mark. The first digit indicates the bar size number except when the first digit is one (1). In this case the first two digits indicate the bar size number.

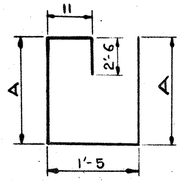


EASTBOUND		
MARK	A	B
A501	2'-4	2'-7
A505	1'-11	3'-5
A516	1'-8	3'-5
A517	1'-9	3'-5
A518	1'-10	3'-5
A519	2'-0	3'-5
A520	2'-2	3'-5
A521	2'-3	3'-5
A522	2'-4	3'-5
A524	2'-6	3'-5
A541	2'-4	2'-7
A545	2'-3	3'-5
A556	2'-5	3'-5
A557	2'-3	3'-5
A558	2'-1	3'-5
A559	1'-11	3'-5
A560	1'-9	3'-5
A561	1'-7	3'-5
A562	1'-5	3'-5
A594	2'-0	1'-3
A5125	2'-0	1'-3
A603	6'-5	1'-5
A623	6'-5	1'-5
P501	2'-8	2'-8
P502	2'-8	2'-0
P507	4'-5	2'-8

WESTBOUND		
MARK	A	B
A501	2'-4	2'-7
A505	2'-0	3'-5
A536	2'-0	1'-3
A5101	2'-4	2'-7
A5105	2'-7	3'-5
A5136	2'-0	1'-3
A603	6'-2	1'-5
A623	6'-1	1'-5
P501	2'-8	2'-8
P502	2'-8	2'-0
P507	4'-5	2'-8

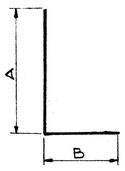


H501



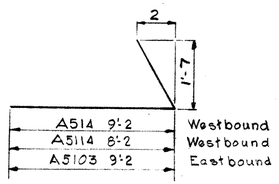
EASTBOUND	
MARK	A
AG04	6'-5
AG24	6'-5

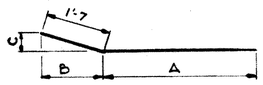
WESTBOUND	
MARK	A
AG04	6'-2
AG24	6'-1



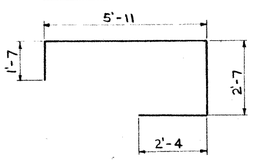
EASTBOUND		
MARK	A	B
A502	6'-8	1'-3
A503	6'-11	1'-3
A542	7'-0	1'-3
A543	6'-5	1'-3
A570	4'-7	0'-9
A572	10'-2	1'-7
A574	8'-9	2'-0
A575	12'-4	2'-0
A576	16'-2	2'-0
A577	16'-2	2'-0
A5101	4'-7	0'-9
P902	5'-0	1'-0

WESTBOUND		
MARK	A	B
A503	6'-10	1'-3
A504	6'-6	1'-3
A512	4'-7	0'-9
A538	8'-2	1'-7
A540	6'-9	2'-0
A541	10'-3	2'-0
A542	13'-9	2'-0
A543	14'-3	2'-0
A5103	7'-6	1'-3
A5104	6'-6	1'-3
A5112	4'-7	0'-9
A5138	8'-2	1'-7
A5140	7'-3	2'-0
A5141	11'-0	2'-0
A5142	14'-3	2'-0
A5143	14'-3	2'-0
P901	5'-0	1'-0





MARK	A	B	C
A525	6'-0	1'-6	0'-6
A563	4'-8	1'-5	0'-8



EASTBOUND A504, A544

WESTBOUND A502, A5102

SPIRAL REINFORCEMENT						
MARK	NO	Core Dia % Spiral	LENGTH	PITCH	NO. TURNS	WEIGHT
EASTBOUND						
SP401	1	32"	21'8⅛"	4½"	61	395
SP402	1	32"	21' 5½"	4½"	60	389
SP403	1	32"	21' 2⅞"	4½"	60	389
SP404	1	32"	21' 0¼"	4½"	59	382
SP405	1	32"	21' 0⅛"	4½"	59	382
SP406	1	32"	20'-9	4½"	58	376
SP407	1	32"	20'-6	4½"	58	376
SP408	1	32"	20'-3	4½"	57	369
SP409	1	32"	20'-3⅜	4½"	57	369
SP410	1	32"	19'-11⅞	4½"	56	362
SP411	1	32"	19'-8¼	4½"	56	362
SP412	1	32"	19'-4¾	4½"	55	356
SP413	1	32"	19'-7⅛	4½"	55	356
SP414	1	32"	19'-3½	4½"	54	349
SP415	1	32"	18'-11⅞	4½"	54	349
SP416	1	32"	18'-7½	4½"	53	343
WESTBOUND						
SP401	1	32"	20'-11⅞	4½"	59	382
SP402	1	32"	21'-0⅜	4½"	59	382
SP403	1	32"	21'-1⅞	4½"	59	382
SP404	1	32"	21'-2⅜	4½"	60	388
SP405	1	32"	20'-8	4½"	58	376
SP406	1	32"	20'-8¼	4½"	58	376
SP407	1	32"	20'-8½	4½"	58	376
SP408	1	32"	20'-8⅝	4½"	58	376
SP409	1	32"	20'-1⅛	4½"	57	369
SP410	1	32"	20'-0¼	4½"	56	363
SP411	1	32"	19'-11⅞	4½"	56	363
SP412	1	32"	19'-10⅛	4½"	56	363
SP413	1	32"	19'-7⅛	4½"	55	356
SP414	1	32"	19'-5⅝	4½"	55	356
SP415	1	32"	19'-4⅛	4½"	55	356
SP416	1	32"	19'-2⅝	4½"	54	350

REPLACEMENT BARS			
MARK	NO	LENGTH	SHP
RE401	1	5'-3	STR
RE501	4	5'-7	"
RE601	7	5'-11	"
RE701	5	6'-3	"
RE801	1	6'-6	"
RE901	4	6'-10	"
RE1001	1	7'-3	"
RE1101	1	7'-7	"

CITY OF CINCINNATI
DEPARTMENT OF PUBLIC WORKS
DIVISION OF ENGINEERING

BAR BENDING DETAILS

BRIDGE NO. HAM-50-1992-(R&L)

EASTBOUND & WESTBOUND
6TH ST. EXPRESSWAY BRIDGES
OVER R.R. SIDING W. OF FREEMAN AVE.

CINCY BRIDGE NOS. 4R & 4L

DESIGNED	DRAWN	TRACED	CHECKED	REVIEWED	DATE	REVISED
	J.A.A.		W.W.	W.W.	8-6-62	

FED. RD. DIV.	STATE	PROJECT	FISCAL YEAR
2	OHIO		

311
464

HAM-50-19.76

MICROFILMED
JUN 13 1984

NOTE:
Station at Pier No.31 is ℄ track as shown on Cincinnati Union Terminal Co. drawing "Relocation of C.N.O.℄ T.P. High Line", Contract No.79, Sheet 28 of 30, dated Dec.30, 1929.
Stations at other Piers are based on chord distances c.to c. piers at ℄ Track.

PLAN

PROFILE

SIXTH ST. EXPRESSWAY PROFILES

SECTION OF PROPOSED BRIDGE

PROPOSED STRUCTURE
Type: Closed Deck Steel Thru Girder Superstructure & Reinforced Concrete Substructure.
Spans: 102.77, 91.62 and 50.1' (Chord Lengths)
Live Load: Cooper E-72 with 55% Impact.
Skew: Varies, see Plan.
Alignment: Varies, see Plan.
Design Specifications: Current A.R.E.A

EXISTING STRUCTURE
Type: Open Deck Steel Girder Superstructure and Reinforced Concrete Substructure.
Spans: 83.58', 83.57' and 77.38' (Chord Lengths)
Specifications: Queen & Cresent Route 1903 except live load.
Live Load: Cooper E-60
Impact: $\frac{L}{L+100}$ (= 55% ± for existing spans to be replaced)
L = Length of loaded distance in feet which produces the maximum stress in the member considered.
Material: Class B Steel
Class B Steel;
Process - Open Hearth
Ultimate Strength - 62,000 to 70,000 P.S.I.
Elastic Limit - Not less than 35,000 P.S.I.
Basic Allowable Unit Design Stress - 14,000 P.S.I

CURVE No.28 DATA
P.I.Sta. 34+86.13
Δ = 5° 31' 36"
D = 1° 15' 00"
R = 4,583.66'
L = 468.80'
T = 234.60'
Superelevation = 0.021'/ft.

CURVE No.26 DATA
P.I.Sta. 34+94.01
Δ = 5° 06' 34"
D = 0° 40' 00"
R = 8,594.37'
L = 771.42'
T = 385.97'
Slope = 0.0156'/ft.

For Profile of Existing Track see Sheet No. 314
For Temporary Sixth St. Detour at C.N.O.& T.P. Railway see Sheet No. 89
For Bench Marks, see Sheet No. 48
● Symbol denotes drill hole. See Sheet No. 313 for test boring data.
For track alignment see Plan of Structure Sheet No. 312

HAZELET & ERDAL
CONSULTING ENGINEERS
CINCINNATI, OHIO

SITE PLAN
BRIDGE No. HAM-50-2000
C.N.O.& T.P. RAILWAY

H&E BRIDGE No. 5

DESIGNED	DRAWN	TRACED	CHECKED	REVIEWED DATE	REVISED
	M.DeC. W.W.C.		N.A.G. 7-18-62	N.A.G. 7-31-62	

MICROFILMED JUN 13 1984

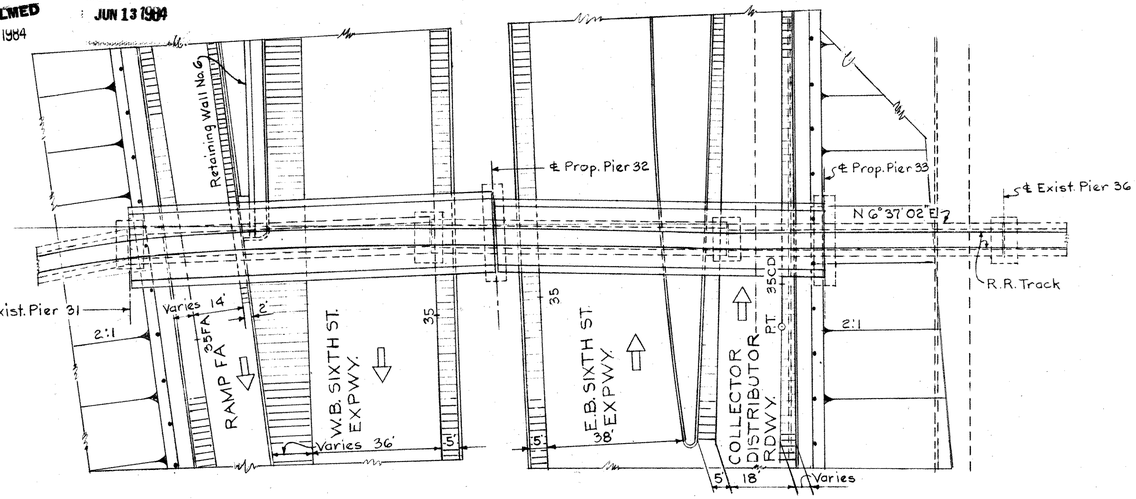
MICROFILMED JUN 13 1984

FED. RD. DIV.	STATE	PROJECT	FISCAL YEAR
2	OHIO		

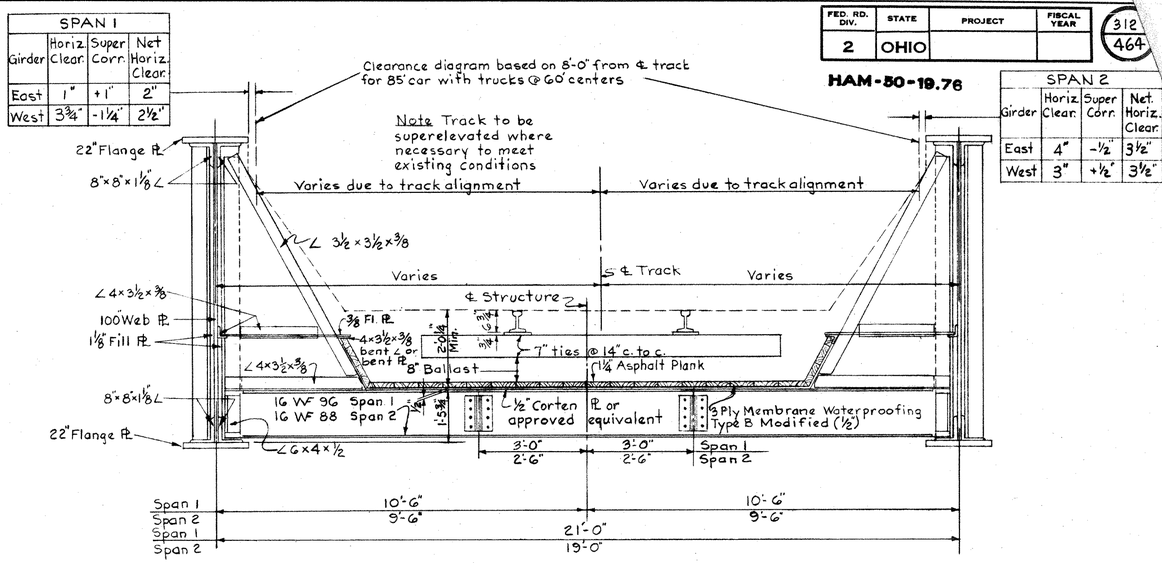
HAM-50-19.76

SPAN 1			
Girder	Horiz. Clear.	Super Corr.	Net Horiz. Clear.
East	1"	+1"	2"
West	3¾"	-1¼"	2½"

SPAN 2			
Girder	Horiz. Clear.	Super Corr.	Net Horiz. Clear.
East	4"	-½"	3½"
West	3"	+½"	3½"

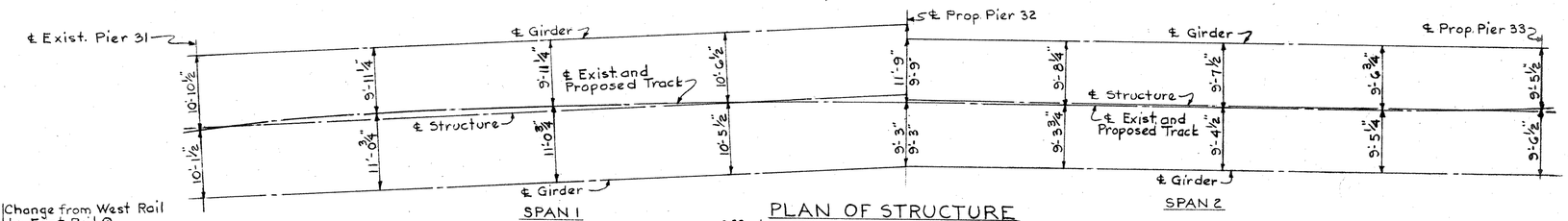


PLAN



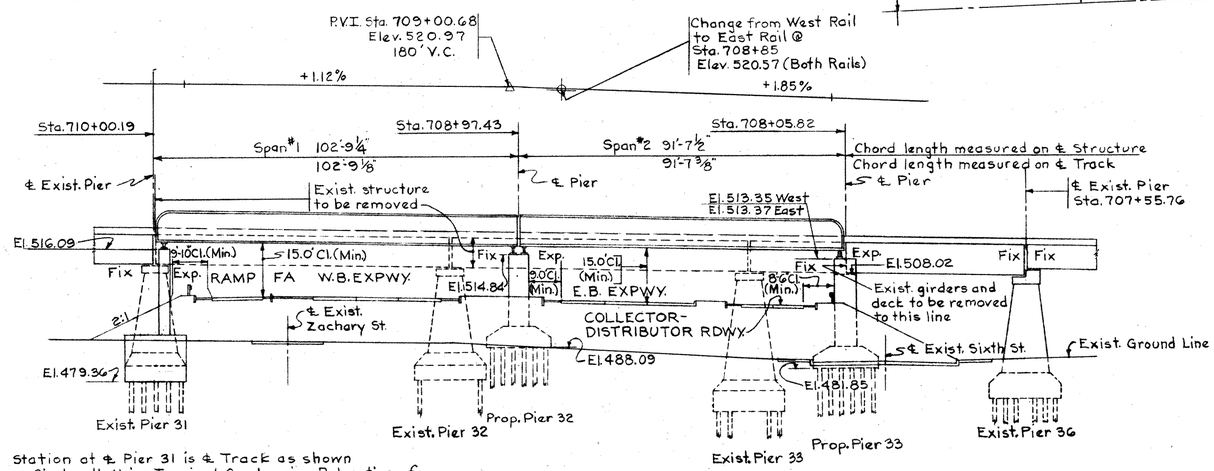
TYPICAL CROSS-SECTION

Symmetrical about ℄ structure (except for track)



PLAN OF STRUCTURE

Offsets are measured perpendicular to ℄ girder from ℄ Track



ELEVATION

Note: Station at ℄ Pier 31 is ℄ Track as shown on Cincinnati Union Terminal Co. drawing, Relocation of C.N.O. & T.P. High Line, Contract No. 79 Sheet 28 of 30 dated Dec. 30, 1929.
Stations at other Piers are based on chord distances c. to c. Piers at ℄ Track
For profile of existing track see Sheet No. 314

HAZELET & ERDAL
CONSULTING ENGINEERS
CINCINNATI, OHIO

GENERAL PLAN & ELEVATION

BRIDGE NO. HAM-50-2000
C.N.O. & T.P. RAILWAY

H. & E. BRIDGE NO. 5

DESIGNED	DRAWN	TRACED	CHECKED	REVIEWED DATE	REVISED
	G. J. T. 1-2-62		H.A.Z. 7-17-62	H.A.Z. 7-31-62	

MICROFILMED
JUN 13 1984

ESTIMATED QUANTITIES UG

ITEM	TOTAL	UNIT	DESCRIPTION	SUPER-STRUCTURE	PIER 31	PIER 32	PIER 33	
E-2	310	Cu.Yds.	Unclassified Excavation		242	22	46	
E-2		LumpSum	Cofferdams, Cribs and Sheeting					
S-1	270	Cu.Yds.	Class "C" Concrete - Pier Shafts		48	103	119	
S-1	297	Cu.Yds	Class "E" Concrete - Pier Footings		98	105	94	
S-103	332	Sq.Yds.	Waterproofing-Type "B" Modified	332				
			(including Asphalt Plank Protective Cover.)					
S-4	42,466	Lbs.	Reinforcing Steel					
S-107	650,000	Lbs.	Structural Steel	650,000				
S-107	62,500	Lbs.	Structural Steel - Corten or Equal (Deck)	62,500				
S-8	712,500	Lbs.	Field Painting of Structural Steel					
S-18	2,686	Lin.Ft.	Steel Piles, 12 BP 53			1,470	1,216	
S-18	300	Lin.Ft.	Steel Piles, 12 BP 74		300			
S-22		LumpSum	Removal of Existing Structure (portions)					
S-23	96	Each	Dowel Holes		96			
S-29	4	Each	Inlet with Grating	4				
S-29	36	Lin.Ft	4" Std. Pipe Downspout Galvanized Steel or			19	17	
			Wrought Iron, Including Specials and Supports					
S-29	29	Lin.Ft.	6" Std. Pipe Downspout, Galvanized Steel or			14	15	
			Wrought Iron, Including Specials and Supports					
Special		LumpSum	Temporary Falsework and Moving Spans					
			into position					
S-16		LumpSum	First test pile					

CONSTRUCTION PROCEDURE

(C) Indicates Construction to be done by the Contractor.

(R) Indicates Construction to be done by the C.N.O.&T.P. Railway Company on a Force Account Basis.

C1 Construct new Piers 32 and 33 and enlarge existing Pier 31. Back fill to existing ground level.

C2 Construct falsework.

C3 Erect Spans 1 and 2 complete on falsework.

R4 Furnish and place ballast to bottom of ties.

R5 Remove existing track from Pier 31 to a point about 32' south of existing Pier 33, amounting to approximately 200 lineal feet.

C6 Remodel existing span north of Pier 36. Remove the two existing spans south of Pier 31. Move new Spans 1 and 2 into final position; adjust, align, position and complete all bearings.

R7 Replace track, about 200 lineal feet; complete ballasting; line, surface, and tamp track.

C8 Remove dismantled structural steel.

C9 Install downspouts.

C10 Field paint structural steel.

C11 Remove existing Piers 32 and 33.

GENERAL NOTES

DESIGN SPECIFICATIONS: Current A.R.E.A. Specifications.

CONSTRUCTION SPECIFICATIONS: State of Ohio, Department of Highways, Construction and Material Specifications dated January 1, 1961, also Supplemental Specifications No. S-103 and S-107 both revised February 16, 1955, shall govern this project; except as otherwise noted on the plans.

SHEETING AND BRACING: Before construction is started, eight sets of prints showing details of any sheeting and bracing to be used for excavation shall be submitted to the Director for approval by the Department of Highways and by the Railway Company.

STEEL PILES shall be driven with a hammer of not less than 11,000 ft. lbs. per blow to firm contact with rock and shale. If the length of penetration is approximately equal to the depth of rock and shale according to the bridge foundation investigation report, the firm contact shall be considered as attained when the capacity according to the formula in Section S-18.05 is not less than the following value for a pile hammer of the indicated energy rating.

60 tons per pile for Piers 32 and 33 using a 11,000 ft. lb. hammer, or 50 tons per pile using a 15,000 ft. lb. hammer.

80 tons per pile for Pier 31 using a hammer, rated at not less than 15,000 ft. lb.

If the energy rating of the hammer is between the rating as shown above, the required formula capacity shall be determined by interpolation. The design load is as follows:

80 tons per pile for Pier 31
40 tons per pile for Piers 32 and 33

TEMPORARY FALSEWORK: The Contractor shall provide temporary supports for the erection of Spans 1 and 2 as shown on Sheet No.323. Cost of the necessary labor, material, equipment, moving the erected spans into final polition, and the removal of the Falsework shall be included in the lump sum price bid for Item Special "Temporary Falsework and Moving Spans into Polition."

WELDING of structural steel shall be Class "A" except as otherwise shown.

FIELD CONNECTIONS: All field connections shall be made with High Strength Bolts.

WATERPROOFING-TYPE "B" MODIFIED: Shall be in accordance with the supplemental Specification No. S-103 "Waterproofing For Superstructures Carrying Railroad Traffic" except that the protective cover shall be asphalt plank. Three layers of waterproofing fabric shall be used.

The asphalt plank shall meet the requirements of ASTM Specifications, designation D517-50. Asphalt plank used for protection of the waterproofing membrane shall be plain and have a minimum thickness of 1-1/4 inches. The A.R.E.A. Specifications for Membrane Waterproofing, Section C, Construction, shall be complied with in the installation of the asphalt plank. Cost of the necessary labor, material and equipment for installing the asphalt plank shall be included in the price bid per square yard for Item S-103 "Waterproofing - Type "B" Modified (Including Asphalt Plank Protective Cover)".

DECK WATERTIGHTNESS: The deck of the two new through girder spans shall be watertight up to the bottom of the floor plates between the knee braces.

FIELD PAINTING: The third paragraph of Section S-8.05 shall read as follows: The field paint shall consist of 1 coat of the same type of paint as used for the shop coat, and 2 coats of graphite paint meeting the requirements of Section M-9.11.

PAINTING EXISTING STEEL: Where existing paint is damaged by the Contractor in the reconstruction of a part of the existing structure, it shall be repainted in accordance with provisions of Section S-8.06. Such work shall be incidental to Item S-8 "Field Painting of Structural Steel."

REMOVAL OF PORTIONS OF EXISTING STRUCTURE: After the new spans have been completed on the falsework, then the two existing spans south of Pier 31, and north end of the third span south of Pier 31 as called for on the Plans shall be removed. The removed structural steel shall become the property of the Contractor. Piers 32 and 33 shall be removed to the extent as covered by Item S-24, but no blasting will be permitted.

GENERAL NOTES (Cont.)

MAINTAINING TRAFFIC: Uninterrupted movement of railway traffic shall be permitted at all times, except for a period of 5 hours as scheduled with the C.N.O.&T.P. Railway Company for the movement of the new spans into place.

Vehicular traffic shall be maintained on Sixth Street and the detour shown on Sheet 89.

UTILITY LINES: All labor and expense involved in relocating (installing) the affected utility lines shall be borne by the Owners. The Contractor and Owners are requested to cooperate by arranging their work in such a manner that inconvenience to either will be held to a minimum.

FOUNDATION SOUNDINGS: Foundation design and foundation quantities are based on a study of the soil sampling soundings made at the site. This sounding information may be inspected in the office of the Bureau of Bridges in Columbus or in the Division office, but the State assumes no responsibility for the accuracy thereof.

DOWNSPOUTS shall be 4 inch and 6 inch standard wrought iron pipe or hot-dipped galvanized steel pipe. Joints shall be made by welding or by the use of a clamp-type coupling with a ring gasket. All welding shall be done before galvanizing. Straps or clamps for attaching downspouts shall be wrought iron or hot-dipped galvanized steel. On bolts, galvanizing as called for in Section M-10.30 will be considered sufficient.

SHOP DRAWINGS: Upon completion of the bridge structure the C.N.O.&T.P. Railway Company shall be furnished with reproduced tracings on linen, of all construction drawings for the bridge as well as shop details of the steel work.

FALSEWORK AND MOVING SPANS INTO POSITION: Wood piles shall be driven to carry safely 50,000 lbs. each, derived from the following formulae:

P = Bearing resistance of pile in pounds,

W = Weight of hammer in pounds,

H = Height of free fall in feet,

S = Average of final set in inches under each of last 3 blows of drop hammer or last 10 blows of steam hammer.

$P = \frac{2WH}{S+1}$ for drop hammer

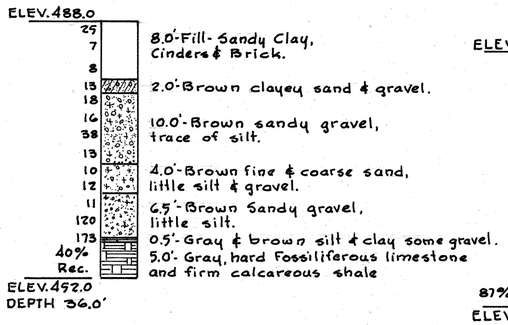
$P = \frac{2WH}{S+0.3}$ for steam hammer

Piles shall be unpeeled and untreated pine 12" diameter 3' from butt, 7" minimum point. All piles shall be cut from soundclive trees reasonably straight, free from wind shakes, large and unsound knots or other defects which would impair their strength.

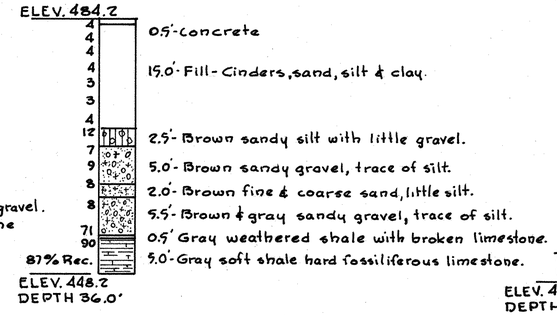
Span 1 total weight one end = 153 Tons
Span 2 total weight one end = 124 Tons

The capacity of jacks used in landing the spans shall be not less than twice the load to be handled. The plan of the falsework to support spans during erection, waterproofing and ballast placement in so far as possible as well as the plan for sliding spans into place are suggestions only. If used, the Contractor shall furnish and install all materials and assume full responsibility for safety of falsework and the sliding of spans into place.

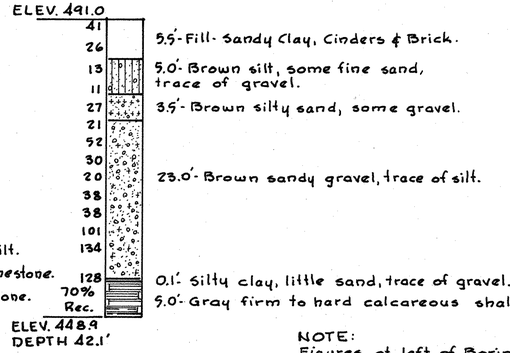
The State of Ohio and the C.N.O.&T.P. Railway Company assume no liability for the safety of the falsework and/or the scheme for sliding the spans into place. If the Contractor desires to use another scheme for supporting and moving spans into place, he must submit eight sets of plans to the Director for approval by the Department of Highways and by the C.N.O.&T.P. Railway Company before installation of falsework is started.



BORING NO. 5-1



BORING NO. 5-2



BORING NO. 5-3

NOTE:
Figures at left of Borings indicate number of hammer blows per foot of penetration of 2" split spoon sampler with 140 lb. hammer and 30" fall.

For additional notes see Sheet 321.

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CINCINNATI, OHIO

ESTIMATE OF QUANTITIES GENERAL NOTES & LOG OF BORINGS

BRIDGE NO. HAM-50-2000
C.N.O. & T.P. RAILWAY
H.&E. BRIDGE NO. 5

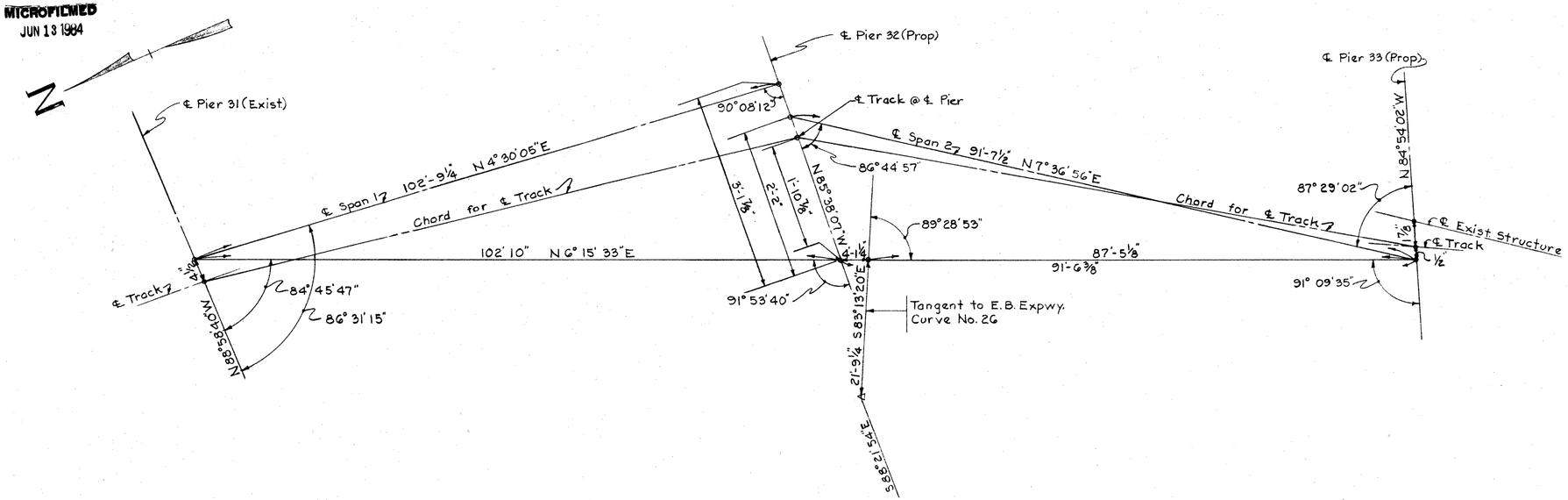
DESIGNED	DRAWN	TRACED	CHECKED	REVIEWED DATE	REVISED
		J.T.C. 1-22-62	N.A.Z. 7-20-62	N.A.Z. 7-31-62	

MICROFILMED
JUN 13 1984

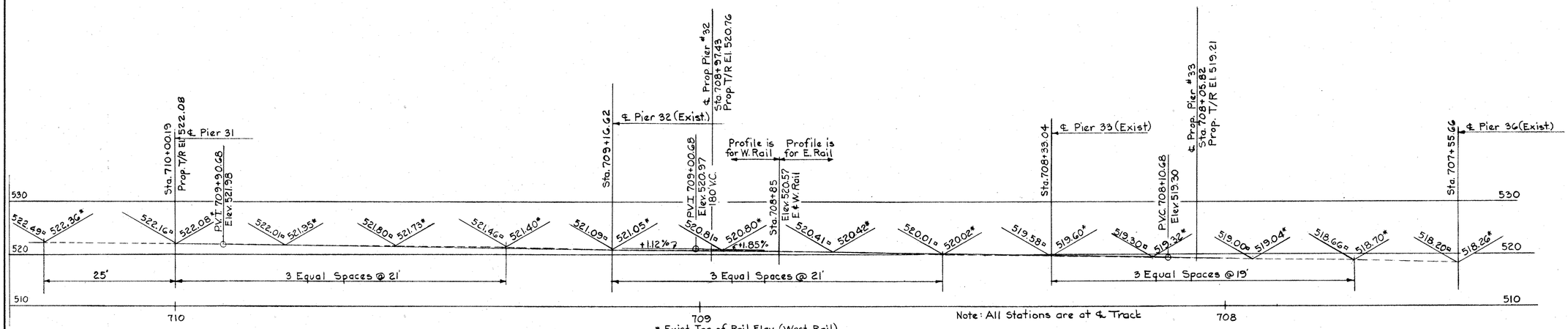
FED. RD. DIV.	STATE	PROJECT	FISCAL YEAR
2	OHIO		

314/464

HAM-50-19.76



STAKE-OUT DIAGRAM



Note: All Stations are at ℄ Track

* Exist. Top of Rail Elev. (West Rail)
□ Exist. Top of Rail Elev. (East Rail)
----Exist Profile
——Prop. Profile

TRACK PROFILE (Proposed and Existing)

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CINCINNATI, OHIO

STAKE-OUT DIAGRAM

BRIDGE No. HAM-50-2000
C.N.O. & T.P. RAILWAY

H.& E. BRIDGE No. 5

DESIGNED	DRAWN	TRACED	CHECKED	REVIEWED DATE	REVISED
	G.J.T. 1-8-62		MAZ 7-17-62	M.A.Z. 7-31-62	

MICROFILMED
JUN 13 1984

FED. RD. DIV.	STATE	PROJECT	FISCAL YEAR
2	OHIO		

315
464

HAM-50-19.76

PLAN

SECTION A-A

DETAIL "A"

DETAIL "B"

NOTCH DETAILS

ELEVATION

END ELEVATION

SECTION C-C
SECTION D-D

SECTION B-B

LONG. SECTION

NOTES:

——— Denotes outline of existing pier.
All piles shall be 12 BP 74 Steel H Piles and shall be driven to a minimum bearing capacity of 80 tons per pile.
Anchor bolts shall be set accurately to a template prior to placing concrete.
For Anchor Bolt details see Sheet 319
Anchor bolts shall be included with Item 5-7, Structural Steel, for payment.
Notching of existing pier shall be included in Item S-22, Removal of Portions of Existing Structure, for payment.

HAZELET & ERDAL
CONSULTING ENGINEERS
CINCINNATI, OHIO

PIER 31 DETAILS
BRIDGE NO. HAM-50-2000
C.N.O. & T.P. RAILWAY

H & E. BRIDGE NO. 5

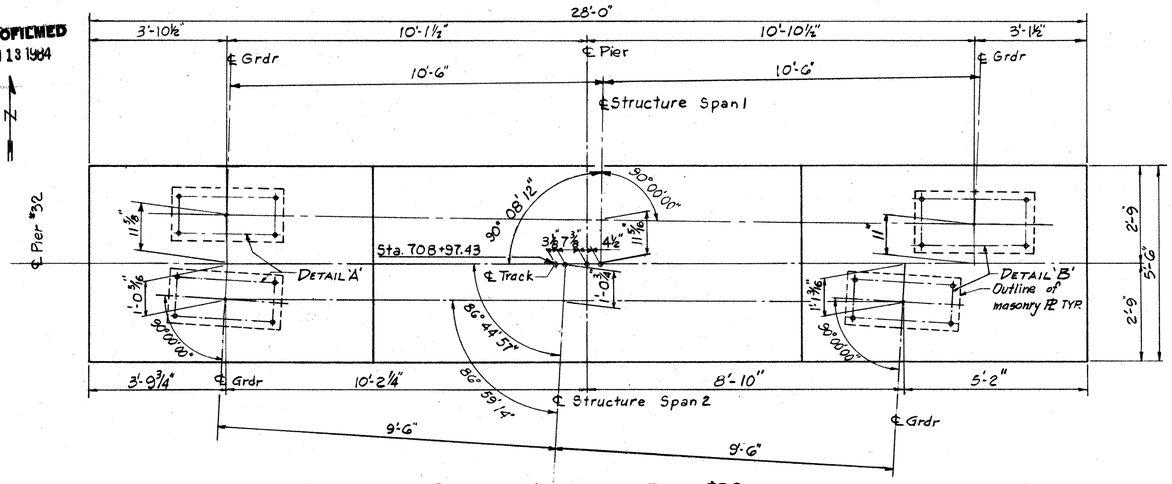
DESIGNED	DRAWN	TRACED	CHECKED	REVIEWED DATE	REVISED
M.W.E.	D.W.L. 12-29-61		N.A.Z. 1-17-62	N.A.Z. 7-3-62	11-1-62

MICROFILMED
JUN 13 1984

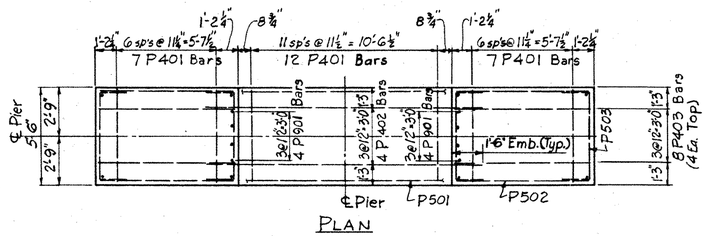
FED. RD. DIV.	STATE	PROJECT	FISCAL YEAR
2	OHIO		

316/464

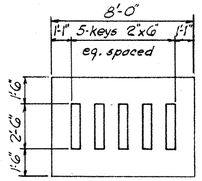
HAM-50-19.76



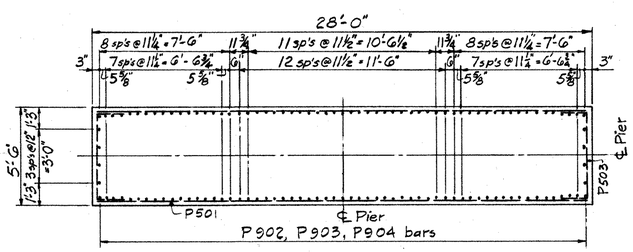
BEARING LAYOUT AT PIER #32



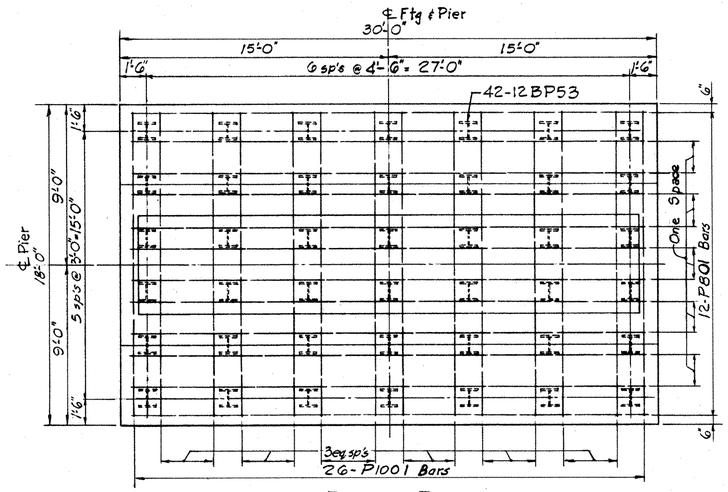
PLAN



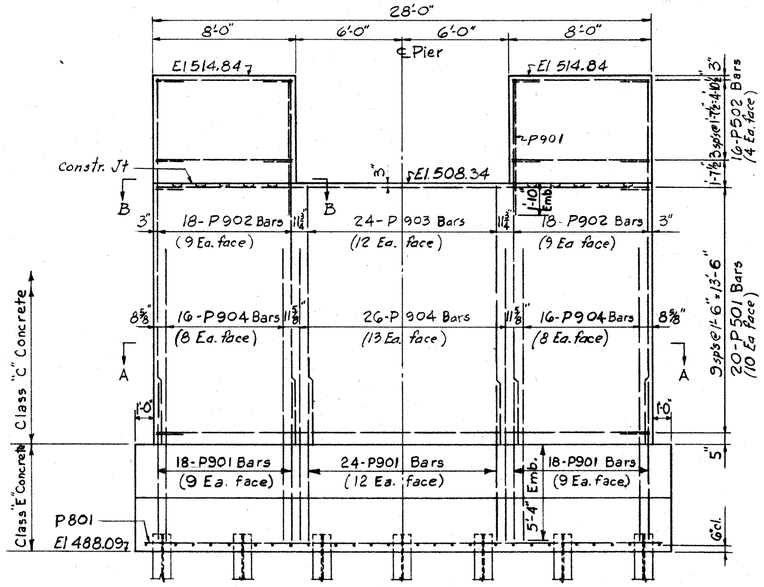
SECTION B-B



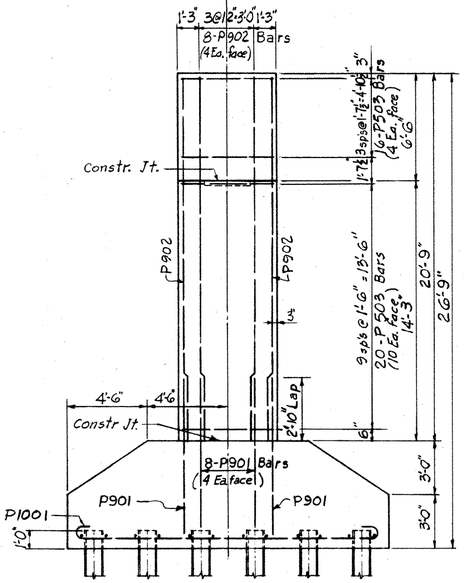
SECTION A-A



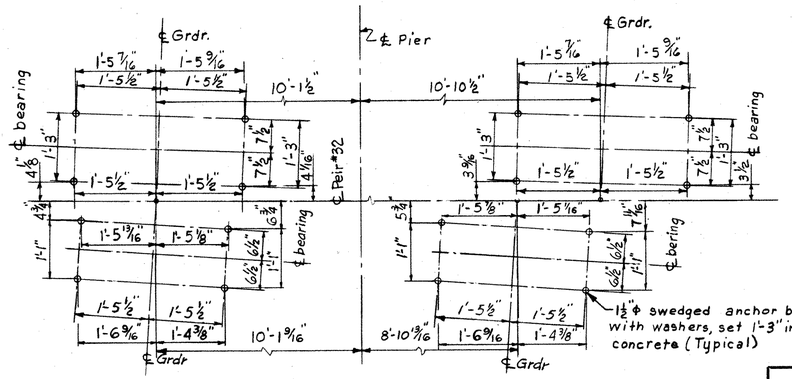
FOOTING PLAN



ELEVATION



END VIEW



DETAIL 'A'

DETAIL 'B'

NOTES:
All piles shall be 12BP53 'H' piles and shall be driven to a minimum bearing capacity of 40 tons per pile.
Anchor bolts to be set accurately to a template prior to placing concrete
For Anchor bolt details see Sheet 319
For connection of downspout to pier see Sheet 322

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CINCINNATI, OHIO

PIER 32 DETAILS

BRIDGE NO. HAM-50-2000
C.N.O.& T.P. RAILWAY

H.&E. BRIDGE NO. 5

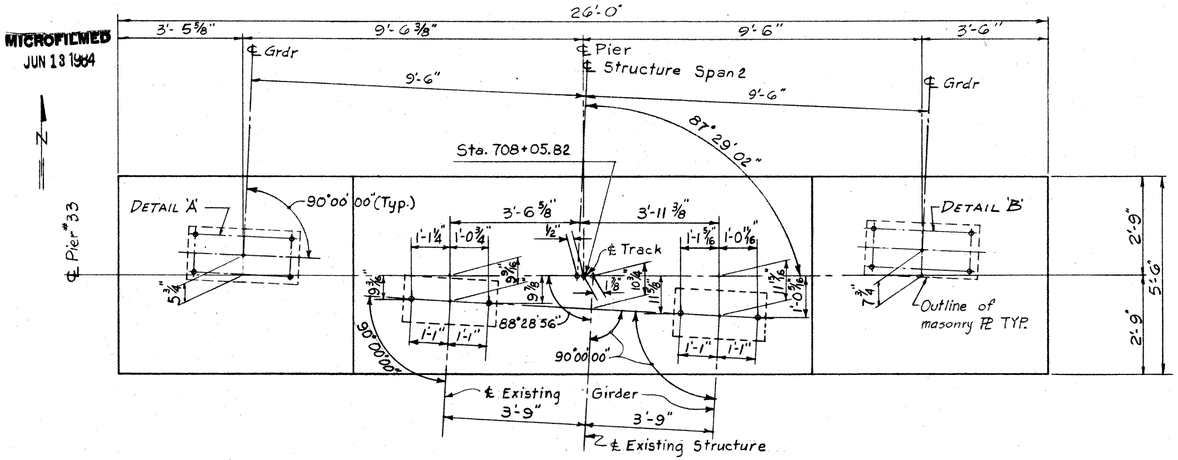
DESIGNED	DRAWN	TRACED	CHECKED	REVIEWED DATE	REVISED
M.W.E.	W.O.C. 10-24-61		M.A.B. 7-17-62	M.M.Z. 7-31-62	

MICROFILMED
JUN 18 1984

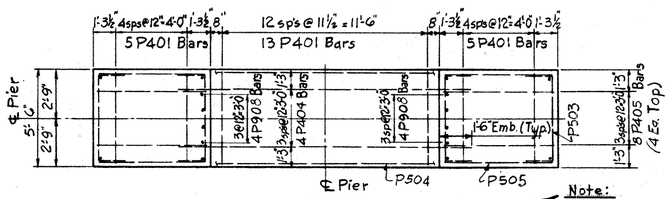
FED. RD. DIV.	STATE	PROJECT	FISCAL YEAR
2	OHIO		

317
464

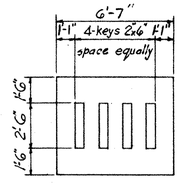
HAM-50-19.76



BEARING LAYOUT AT PIER 33

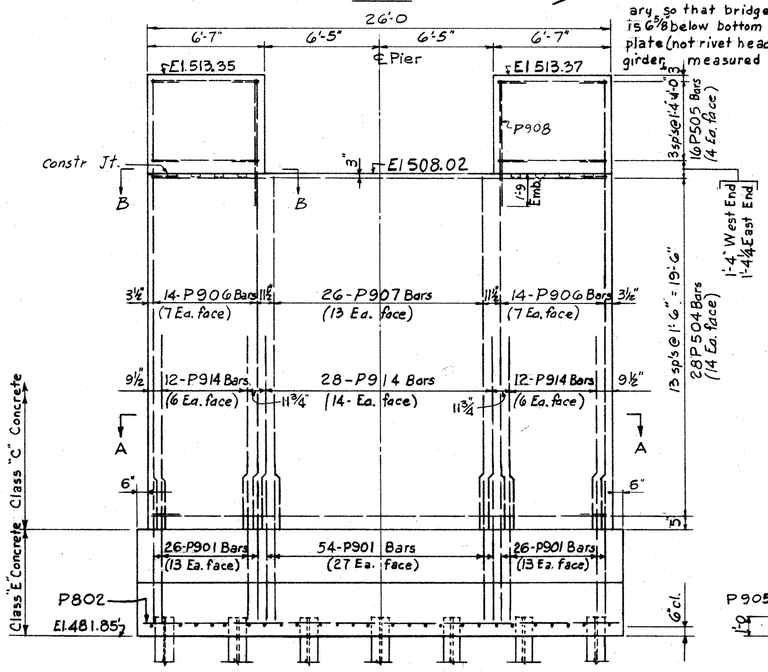


PLAN

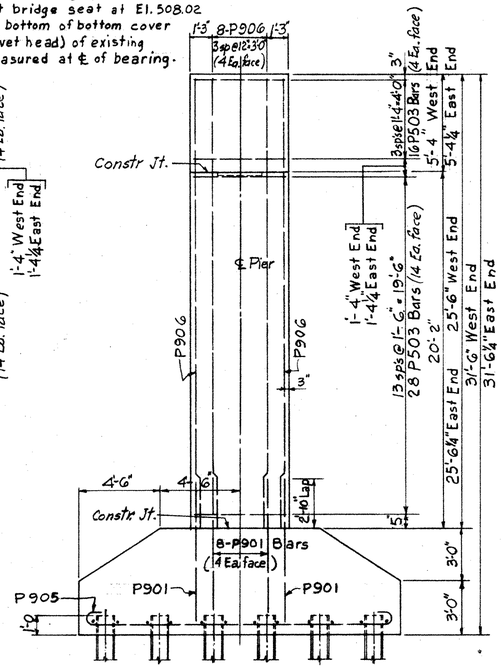


SECTION B-B

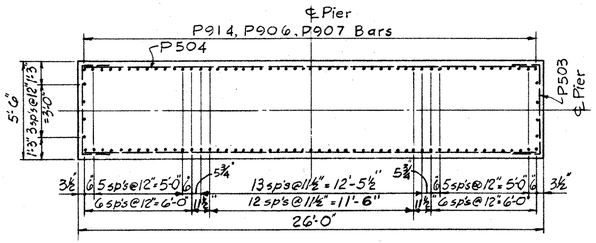
Note:
Field check and adjust if necessary so that bridge seat at El. 508.02 is 6⅞ below bottom of bottom cover plate (not rivet head) of existing girder, measured at ℄ of bearing.



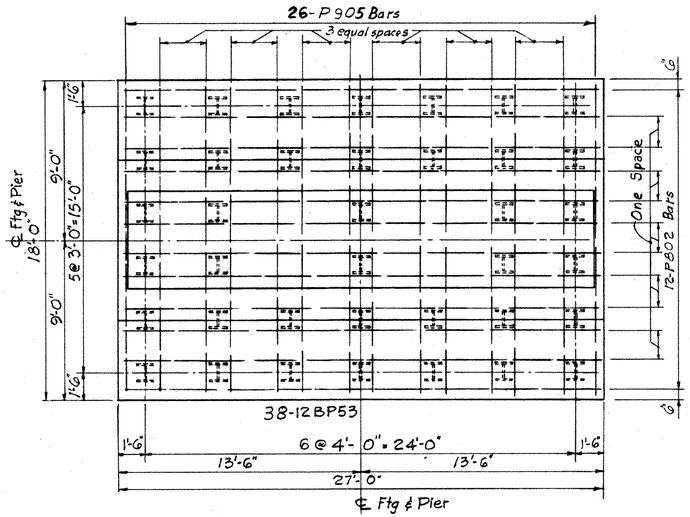
ELEVATION



END VIEW

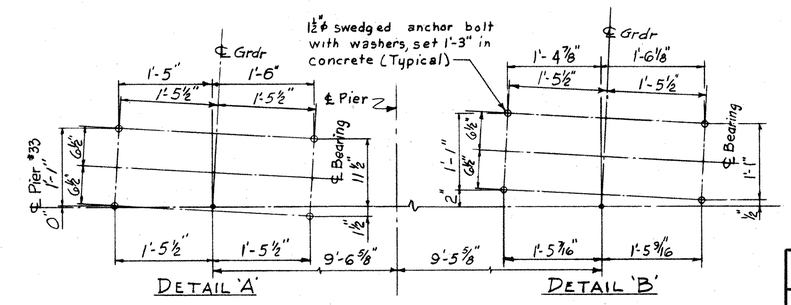


SECTION A-A



FOOTING PLAN

NOTE: For pile capacity see sheet 316
Anchor bolts to be set accurately to a template prior to placing concrete.
For Anchor Bolt details see Sheet 319 & 321
For connection of downspout to pier see Sheet 322



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CINCINNATI, OHIO

PIER 33 DETAILS

BRIDGE NO. HAM-50-2000
C.N.O. & T.P. RAILWAY

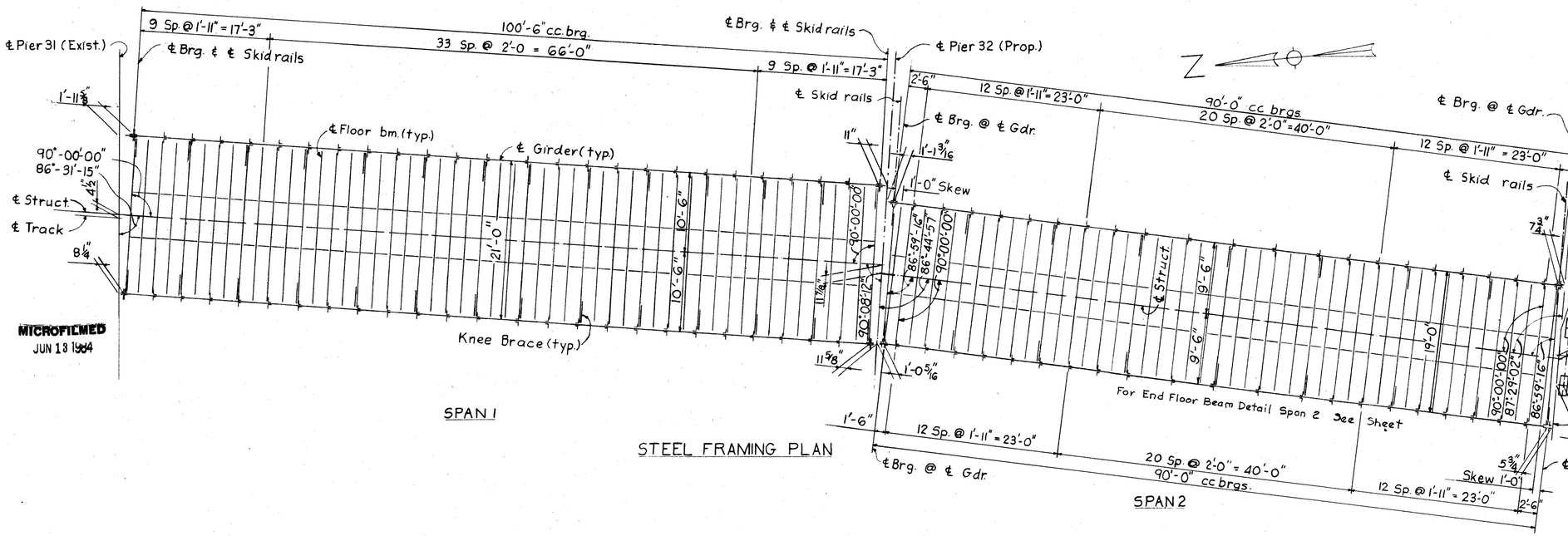
H.&E. BRIDGE NO. 5

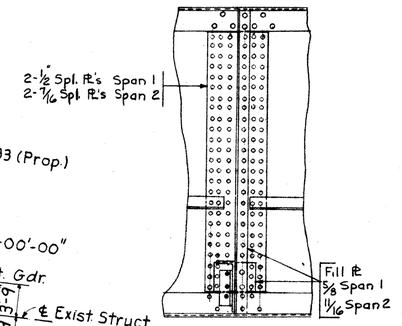
DESIGNED	DRAWN	TRACED	CHECKED	REVIEWED DATE	REVISED
M.W.E.	W.O.C. 10-24-61		W.I.Z. 7-17-62	W.I.Z. 7-31-62	

FED. RD. DIV.	STATE	PROJECT	FISCAL YEAR
2	OHIO		

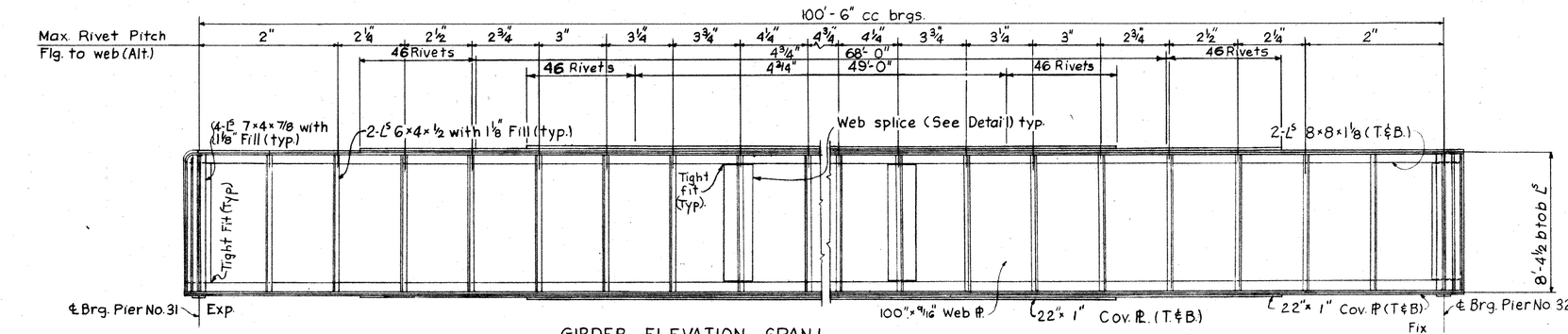
318
464

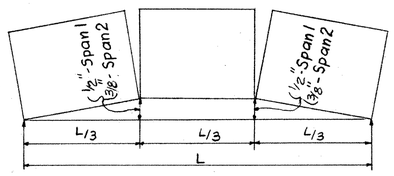
HAM-50-19.76



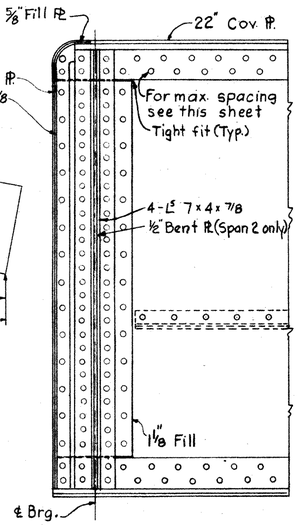


WEB SPLICE
(Cov. Pl's not shown)





CAMBER DIAGRAM



SOUTH & NORTH END OF BRIDGE
Same for Girder ends at Pier 32 except top corner is not rounded

GENERAL NOTES - STEEL SUPERSTRUCTURE

Live Load: Coopers E-72 with 55% Impact
Material: Current ASTM Specification, Designation A7 with 0.2% copper content.
Design, plans and fabrication: Current AREA Specifications for Steel Railway Bridges
Rivets: ⅞" ϕ
Bolts: ¾" ϕ and ⅞" ϕ High Strength as noted on plans
Field connections to be High Strength Bolts
Shop connections to be Rivets

Work this Sheet with Sheets 319 & 320

HAZELET & ERDAL
CONSULTING ENGINEERS
CINCINNATI, OHIO

STRUCTURAL STEEL DETAILS
BRIDGE NO. HAM-50-2000
C.N.O. & T.P. RAILWAY

H.&E. BRIDGE NO. 5

DESIGNED	DRAWN	TRACED	CHECKED	REVIEWED DATE	REVISED
M.W.E.	N.H.S. 12-19-61		M.W.E. 7-11-62	M.M.E. 7-31-62	

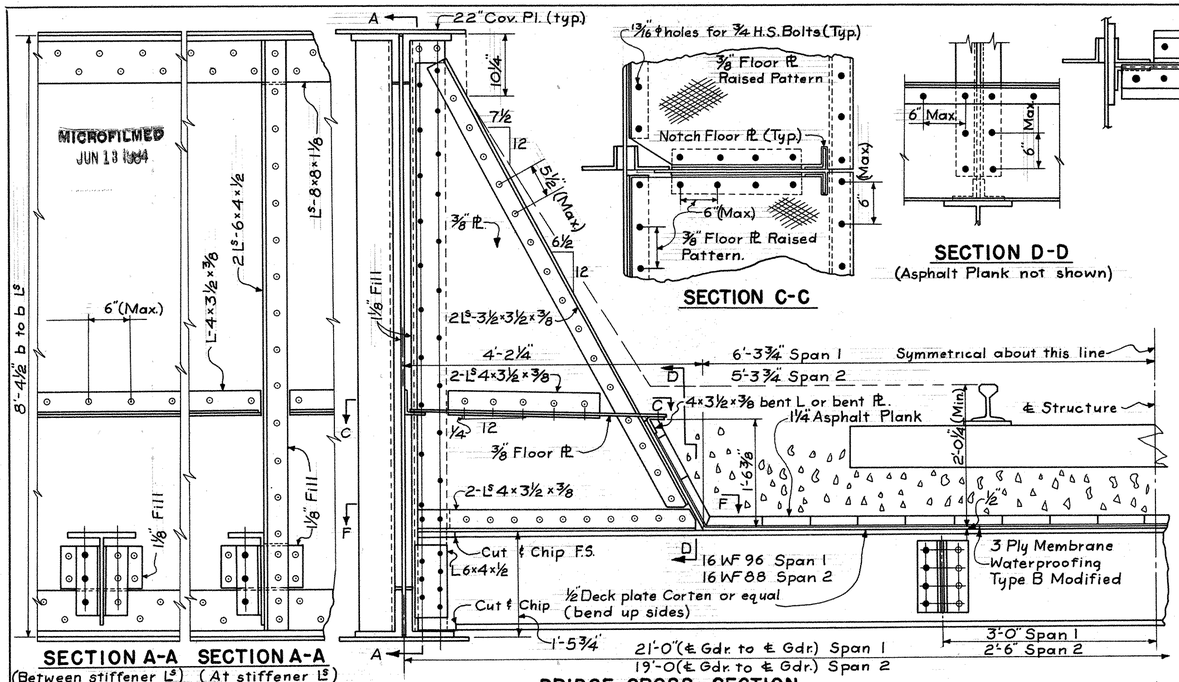
MICROFILMED
JUN 18 1964

FED. RD. DIV.	STATE	PROJECT	FISCAL YEAR
2	OHIO		

319
464

HAM-50-19.76

MICROFILMED
JUN 13 1964



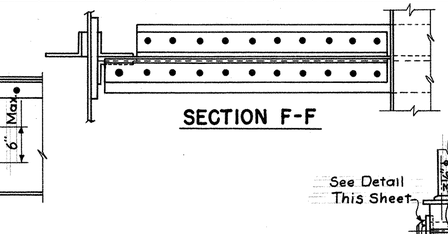
SECTION A-A (Between stiffener Ls)

SECTION A-A (At stiffener Ls)

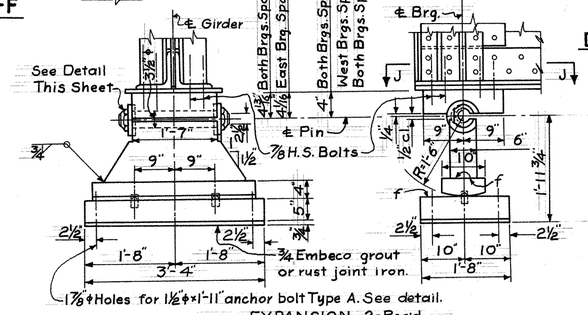
SECTION C-C

SECTION D-D (Asphalt Plank not shown)

BRIDGE CROSS-SECTION (At interior knee brace)

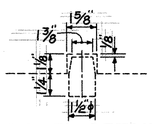


SECTION F-F

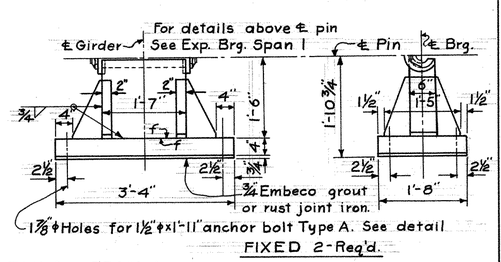


EXPANSION 2-Req'd.

SECTION J-J

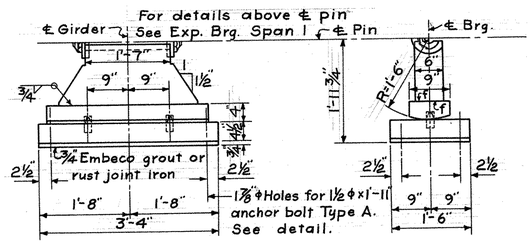


DOWEL DETAIL

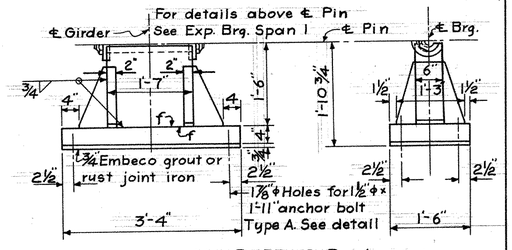


FIXED 2-Req'd.

BEARING DETAILS - SPAN 1

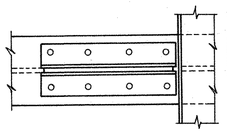


EXPANSION 2-Req'd.

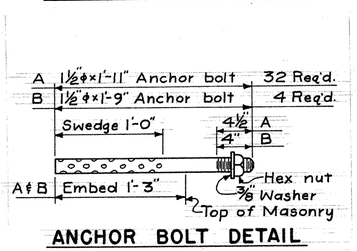


FIXED 2-Req'd.

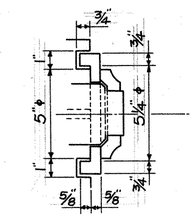
BEARING DETAILS SPAN 2



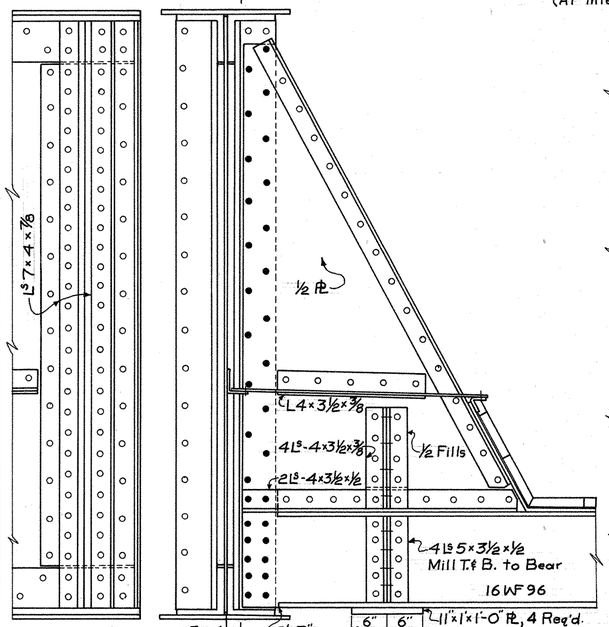
SECTION G-G



ANCHOR BOLT DETAIL



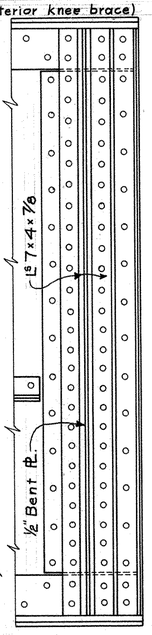
DETAIL OF LOMAS OR RECESSED NUT



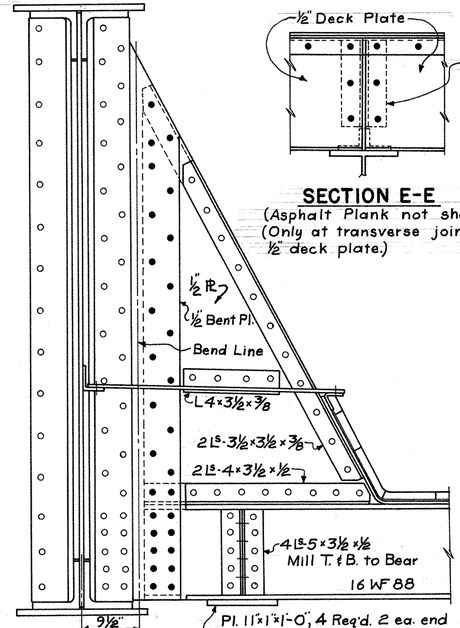
SECTION B-B (Drawn for Girder end at Prop. Pier No. 32, Span 1)

Note A: For details not noted see Bridge Cross-section for interior knee brace.

BRIDGE CROSS-SECTION Span 1 (At end knee brace)



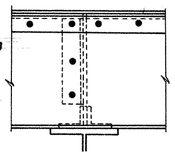
SECTION H-H (Drawn for Span 2 Girder end at Prop. Pier No. 32).



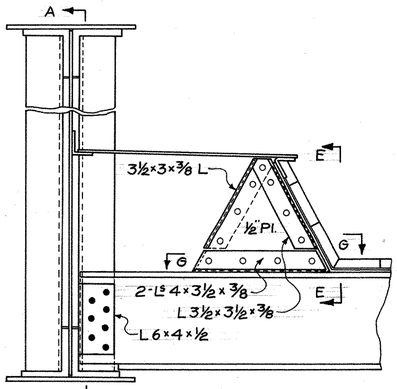
See Note A

BRIDGE CROSS-SECTION Span 2 (At end knee brace)

SECTION E-E (Asphalt Plank not shown) (Only at transverse joint in ½" deck plate.)

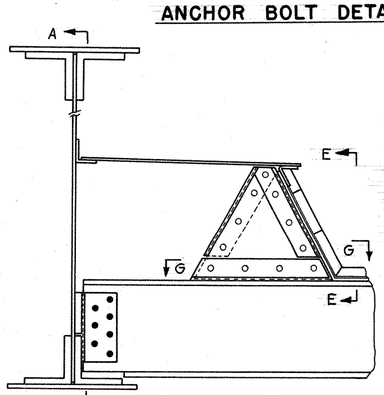


SECTION E-E (Asphalt Plank not shown)



See Note A

BRIDGE CROSS-SECTION (At stiffener Ls)



Note: See Note A & Bridge Cross-Section (At stiffener Ls) for details not noted.

BRIDGE CROSS-SECTION (Between stiffener Ls)

Note
All field connections are ⅞" H.S. Bolts except for ¾ H.S. connecting walkway plates.
Embeco grout or rust iron shall be included with Item S-107 Structural Steel for payment.

Work this Sheet with Sheets 318 & 320

HAZELET & ERDAL
CONSULTING ENGINEERS
CINCINNATI, OHIO

STRUCTURAL STEEL DETAILS

BRIDGE NO. HAM-50-2000
C.N.O. & T.P. RAILWAY

H.&E. BRIDGE NO. 5

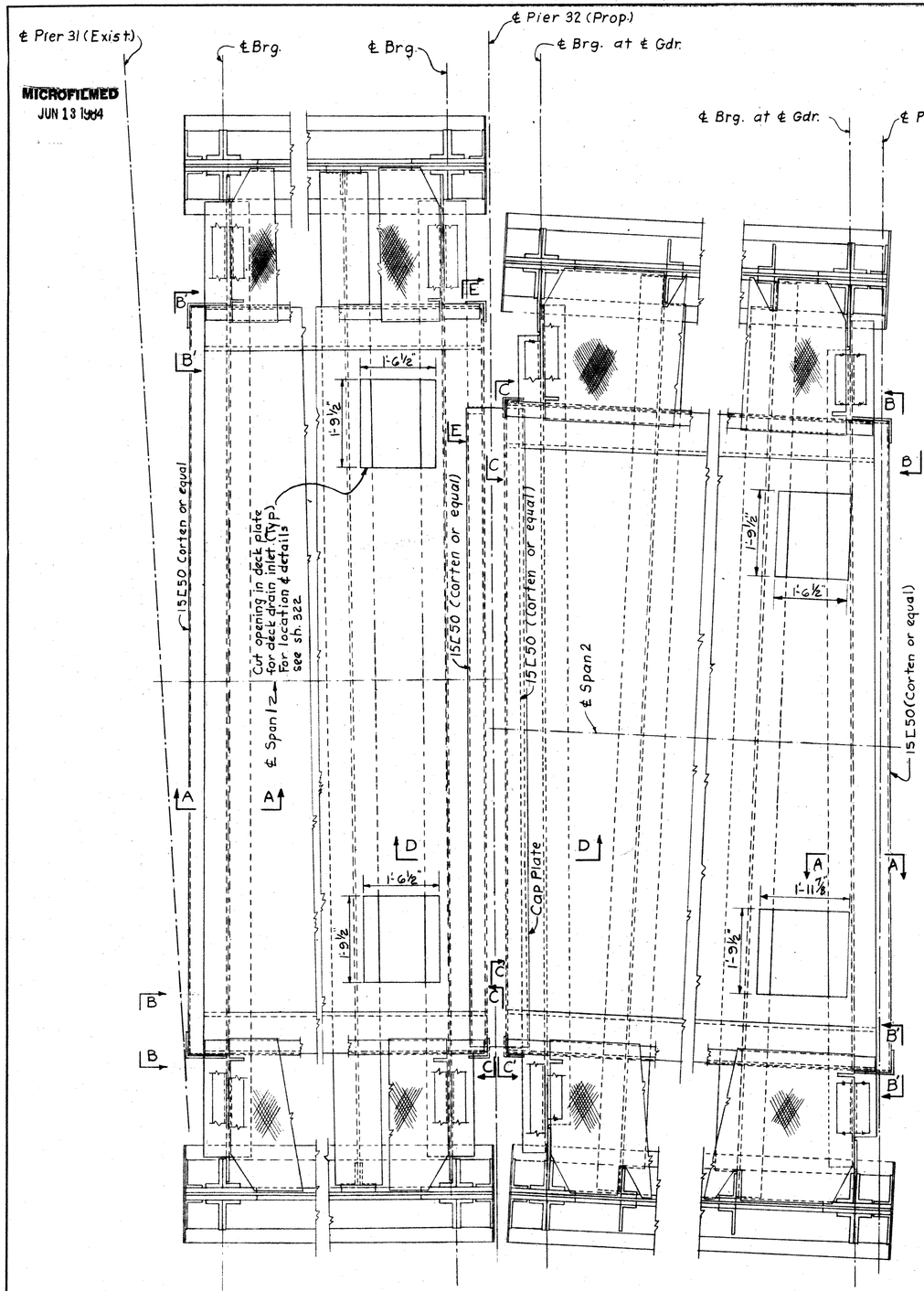
DESIGNED	DRAWN	TRACED	CHECKED	REVIEWED DATE	REVISED
M.W.E.	N.H.S. 12-30-61	J.T.C. 7/12/62	N.J.S. 7/13/62	N.J.S. 7-31-62	

MICROFILMED
JUN 13 1964

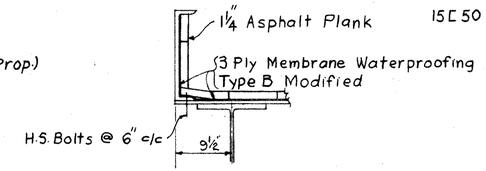
FED. RD. DIV.	STATE	PROJECT	FISCAL YEAR
2	OHIO		

320
464

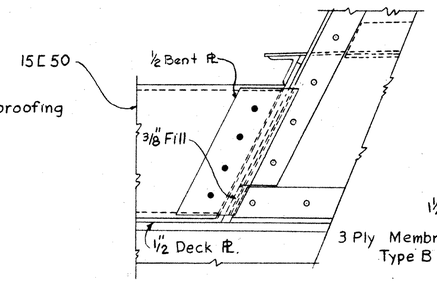
HAM-50-19.76



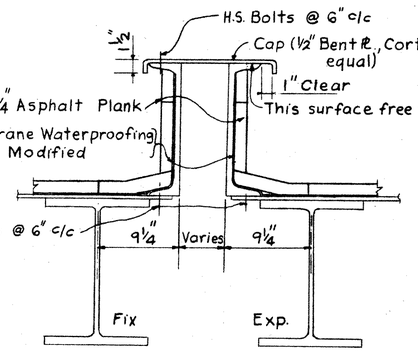
PART PLAN



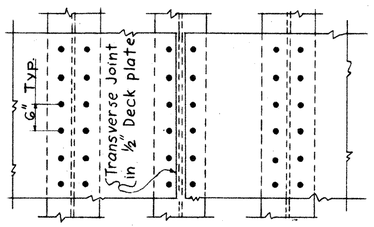
SECTION A-A



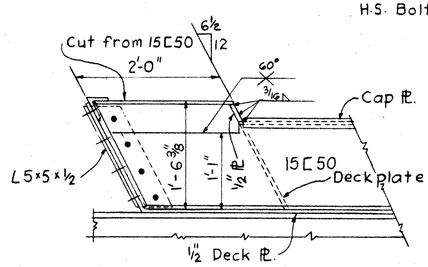
SECTION B-B (As shown)
SECTION B'-B' (Opp. hand)



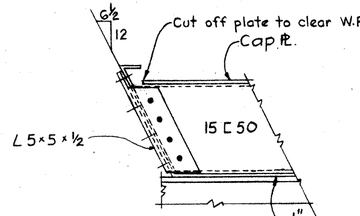
SECTION D-D



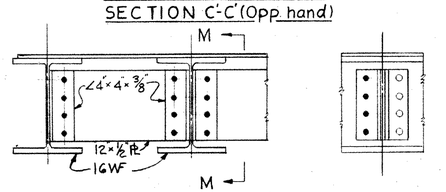
DETAIL SHOWING FASTENING OF DECK PLATE TO FLOOR BEAMS



SECTION E-E

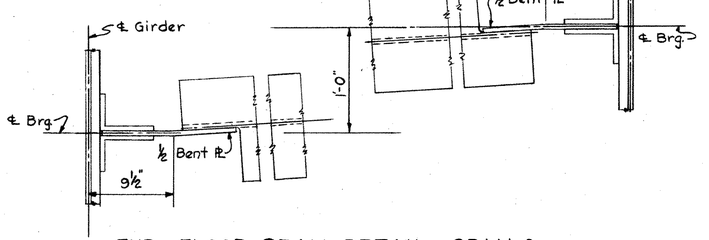


SECTION C-C (As shown)
SECTION C'-C' (Opp hand)



DIAPHRAGM DETAIL (Typical)

SECTION M-M



END FLOOR BEAM DETAIL - SPAN 2

Note: All field connections are ⅞ ϕ H.S. Bolts except walkway plates

DESIGN DATA

ASSUMED DEAD LOADS

	SPAN 1	SPAN 2
TRACK	100# P.L.F.	100# P.L.F.
BALLAST	900# do	845# do
WATERPROOFING	197# do	182# do
STEEL	1803# do	1573# do
TOTAL (PER GIRDER)	3000# P.L.F.	2700# P.L.F.

IMPACT = 55%

GIRDERS	SPAN 1	SPAN 2
BACK TO BACK ANGLES	100½"	100½"
SHEAR: DEAD LOAD	150,800 Lbs.	122,900 Lbs.
LIVE LOAD	283,000	256,000
IMPACT 55%	155,700	141,000
TOTAL	589,500 Lbs	519,900 Lbs.
WEB REQUIRED @ 11000	53.6 Sq. In.	47.3 Sq. In.
WEB USED	100 x 9/16 56.25 Sq. In	100 x ½ 50.0 Sq. In.
END RIVET PITCH	2 In.	2 In.
END STIFFENERS ON FILL	4 ℓ 7"x4"x⅞"	4 ℓ 7"x4"x⅞"
INT. STIFFENERS ON FILL	2 ℓ 6"x4"x½"	2 ℓ 6"x4"x½"
BEARING ON MASONRY @ 750#/□"	786 Sq. In.	693 Sq. In.
MOMENT: DEAD LOAD	3,788,000 Lb. Ft.	2,734,000 Lb. Ft.
LIVE LOAD	6,160,000	4,958,000
IMPACT	3,390,000	2,727,000
TOTAL	13,338,000 Lb. Ft.	10,419,000 Lb. Ft.
REQUIRED GROSS S.M. @ 17,900#	8941 in.³	6980 in.³
GROSS S.M. USED	10,401 in.³	8,159 in.³
FLANGE ℓ 2 ℓ 8"x8"x1⅛"		
COVER PLATES SPAN 1 - 3 Pls. 28"x1" U.M. SPAN 2 - 2 Pls. 22"x1" U.M.		
NET S.M. REQUIRED @ 18000	8892 in.³	6946 in.³
NET S.M. USED	8948	6957

Work this Sheet with Sheets 318 & 319

HAZELET & ERDAL
CONSULTING ENGINEERS
CINCINNATI, OHIO

STRUCTURAL STEEL DETAILS
BRIDGE NO. HAM-50-2000
C.N.O. & T.P. RAILWAY

H. & E. BRIDGE NO. 5

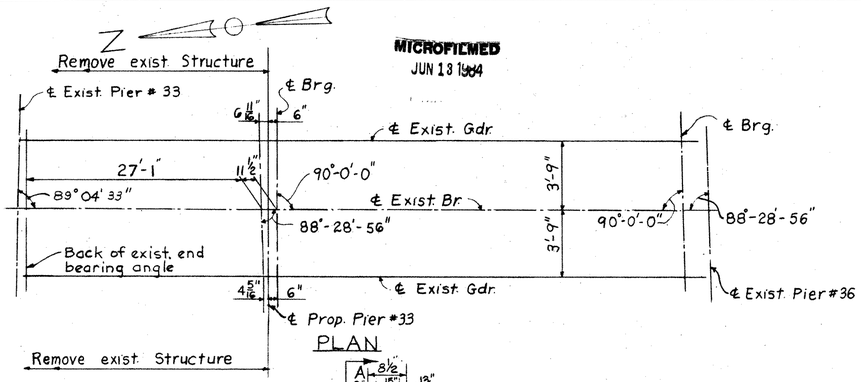
DESIGNED	DRAWN	TRACED	CHECKED	REVIEWED DATE	REVISED
M.W.E.	N.H.S. 1-9-62		H.A.B. 7-11-62	H.A.B. 7-31-62	

MICROFILMED
JUN 18 1964

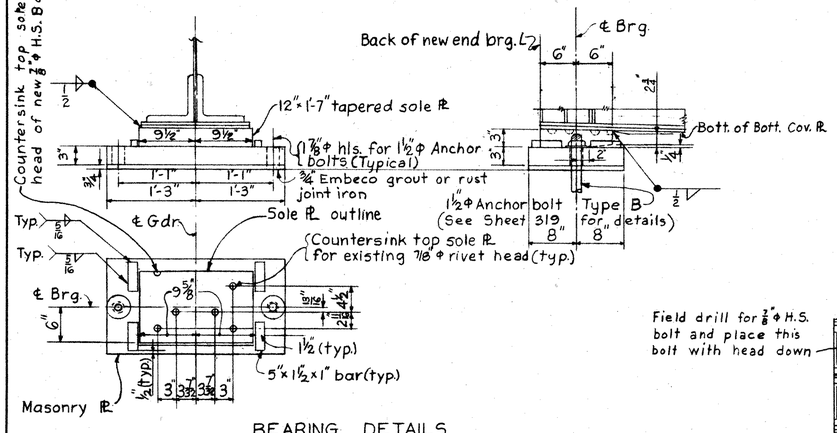
FED. RD. DIV.	STATE	PROJECT	FISCAL YEAR
2	OHIO		

321
464

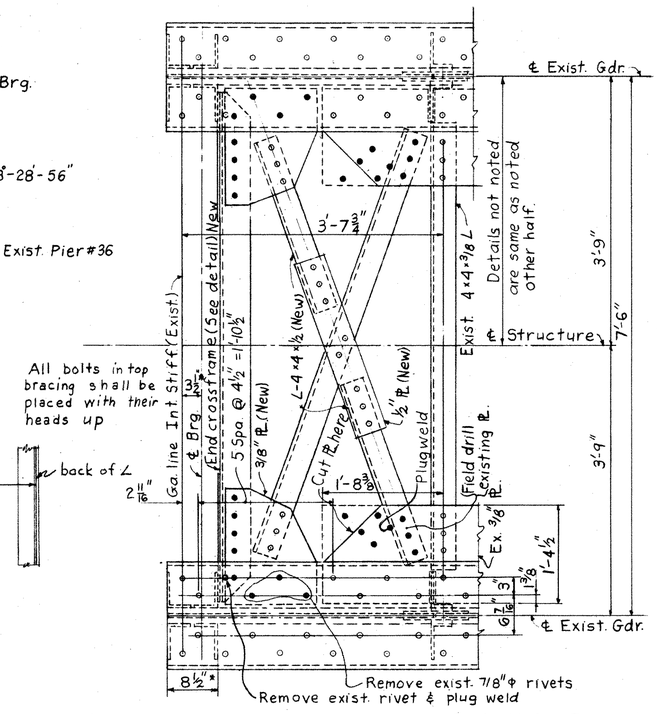
HAM-50-19.76



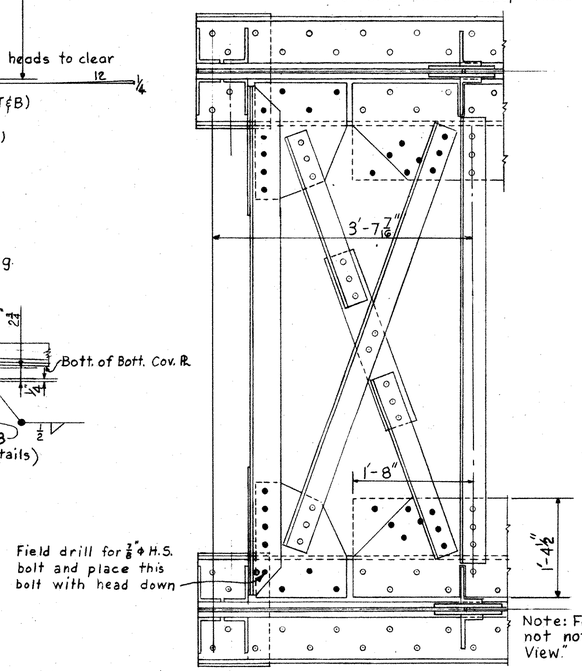
DETAILS AT EXISTING AND PROPOSED PIER 33



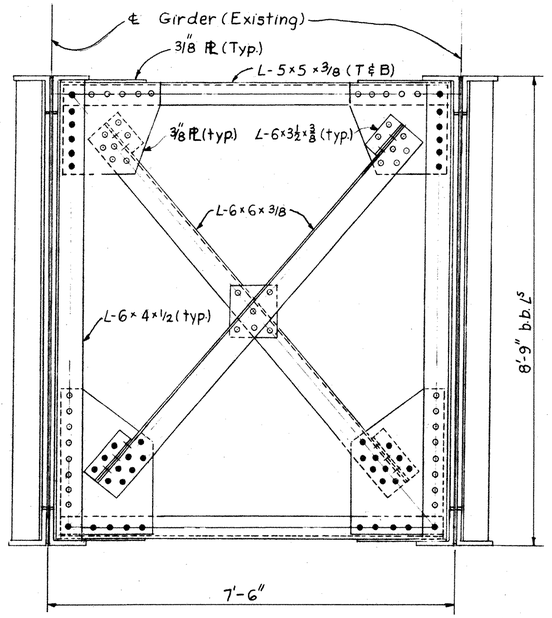
BEARING DETAILS
(2 - Req'd.)



ALTERATIONS TO EXISTING BRACING AT PIER NO. 33 (Top view)
All dimensions taken from Shop Details for Exist. Girders except those marked with an *

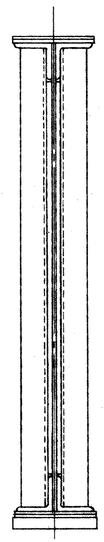


ALTERATIONS TO EXISTING BRACING AT PIER NO. 33 (Bottom view)



Note: T&B. Cov. Pls not shown

END CROSSFRAME DETAIL
(1-Req'd.)



ELEVATION A-A

Original steel details of this span

Cincinnati Southern Railway
Connection Track Vine St. Terminal
Deck Girder Span
Piers 33 & 36

Riter Conley Mfg. Co.
Pittsburg
Dated 1909

Contract A-9478-2
Sheet No. 17 Dwg. 47866
and
Sheet No. 18 Dwg. 47867

NOTES:

New end stiffeners, top and bottom laterals, and end crossframe, all as shown, shall be installed previous to cutting off the old girders.

If the webs of that portion of the old girders to be removed are adequately stiffened, and temporary bearing pads placed on new Pier 33 as approved by the Railway Company, the girders may be cut in advance of the date of superstructure installation.

Cuts shall be smooth and exactly made. No part of the old girders shall be removed until the new material is on hand, its fit assured, and its installation immediately thereafter made.

7/8" ϕ H.S. bolts shall be used in making all field connections and assemblies to existing span. All other connections are 7/8" ϕ shop rivets.

The Contractor shall exercise care in removing existing rivets to prevent damage to cover plates, flange L's, and web, nor shall he enlarge or distort rivet holes in the removal of rivets.

Paint, grease, oil, and dirt shall be removed from that part of existing steel that will be in contact with new steel, and the area shall be wire brushed prior to making field connections.

The remaining existing span for a distance of 4 ft. south of ℄ bearing at Proposed Pier 33 shall be painted in accordance with the provisions of Item S-8.06. The second and third field coats shall be a graphite paint meeting the requirements of Sec. M-9.11.

HAZELET & ERDAL
CONSULTING ENGINEERS
CINCINNATI, OHIO

STRUCTURAL STEEL DETAILS

BRIDGE NO. HAM-50-2000
C.N.O. & T.P. RAILWAY

H, B & E. BRIDGE NO. 5

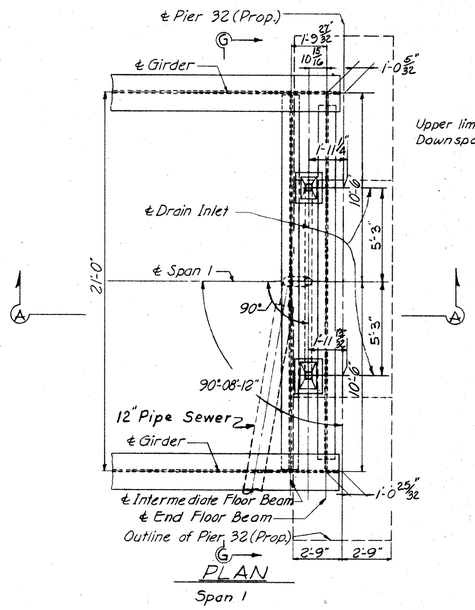
DESIGNED	DRAWN	TRACED	CHECKED	REVIEWED DATE	REVISED
M.W.E.	N.H.S.		M.A.Z. 7-11-62	M.A.Z. 7-31-62	

MICROFILMED
JUN 18 1984

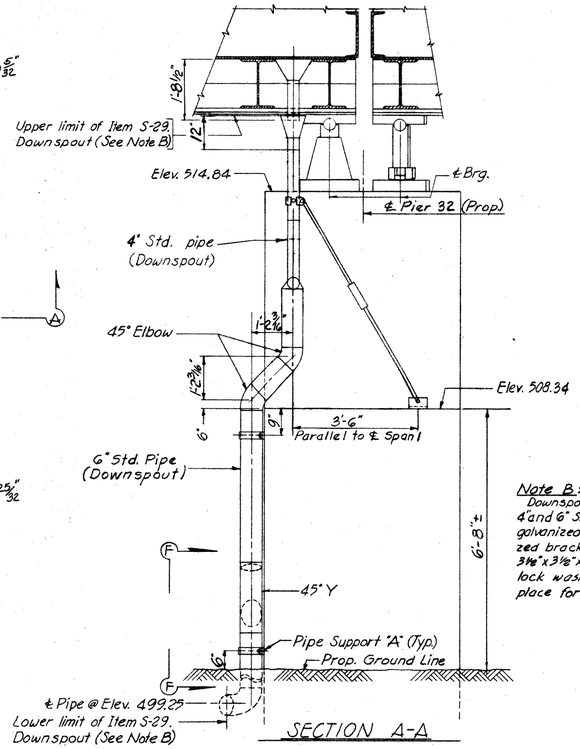
FED. RD. DIV.	STATE	PROJECT	FISCAL YEAR
2	OHIO		

322/464

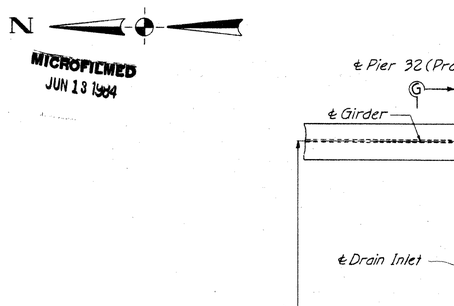
HAM-50-19.76



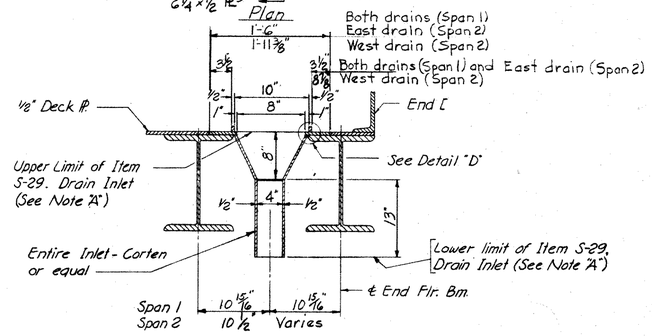
PLAN
Span 1



SECTION A-A

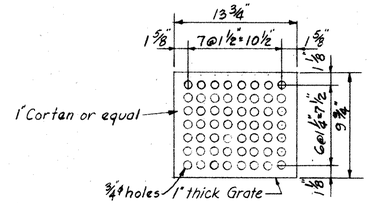


Plan

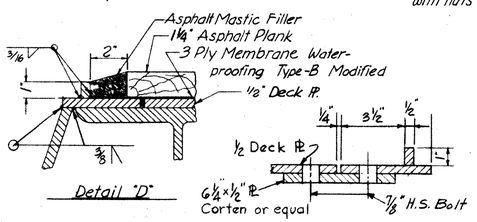


Section C-C (4 Req'd)

DECK DRAIN INLET DETAIL



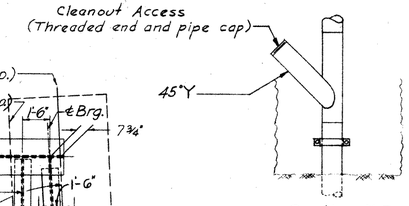
Grate Detail
(4 Req'd)



Detail "D"

SECTION E-E

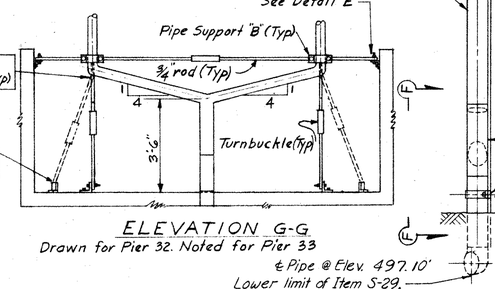
Note A:
Drain inlets shall include inlet grating and inlet frame for payment. Item S-29.



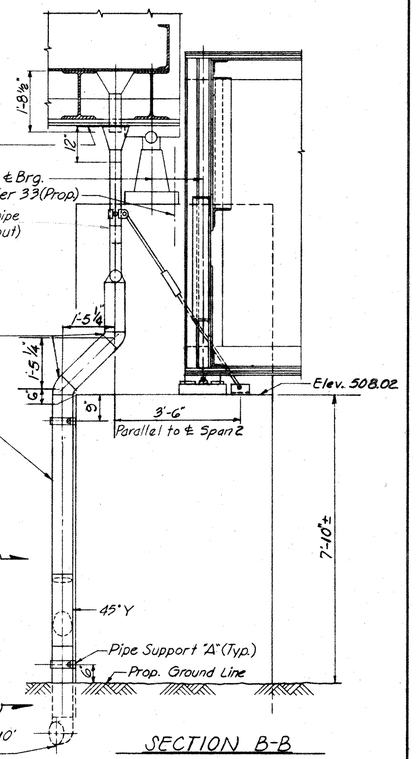
Section F-F

PLAN
Span 2

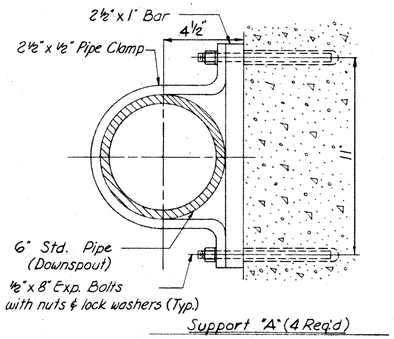
Note B:
Downspouts including supports shall include 4" and 6" Std. pipe with elbows and funnel, galvanized pipe clamp with bar, galvanized bracket, 3/4" rods with turnbuckle, 3 1/2" x 3 1/2" x 1/2" angles, bolts, washers, lock washers and expansion bolts in place for payment. (Item S-29.)



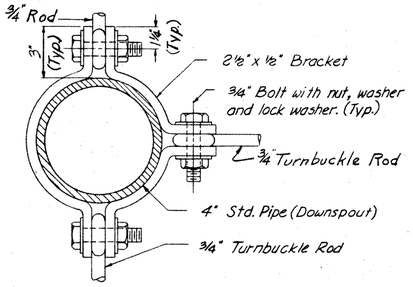
ELEVATION G-G
Drawn for Pier 32. Noted for Pier 33



SECTION B-B

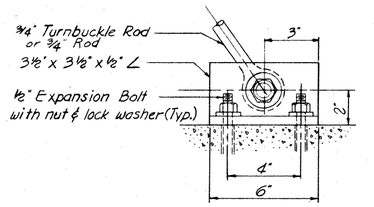


Support "A" (4 Req'd)

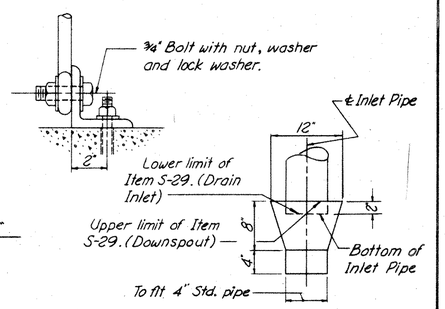


Support "B" (4 Req'd)

PIPE SUPPORT DETAILS



Detail "E"



REDUCER DETAIL

Notes:
Fabricator shall test fit grate to frame, to be sure it is a loose fit, bears without rocking, and that the top of grate is flush with top of frame.
Steel pipe, specials and accessories used in the drainage system shall be galvanized in accordance with Section M-7.4(d) after all bends and welds have been completed. On bolts, galvanizing as called for in Sec. M-10.30 will be considered sufficient.
Asphalt Mastic Filler shall be in accordance the AREA Specifications, 1961 and included with Item S-109 Waterproofing Type-B Modified for payment.

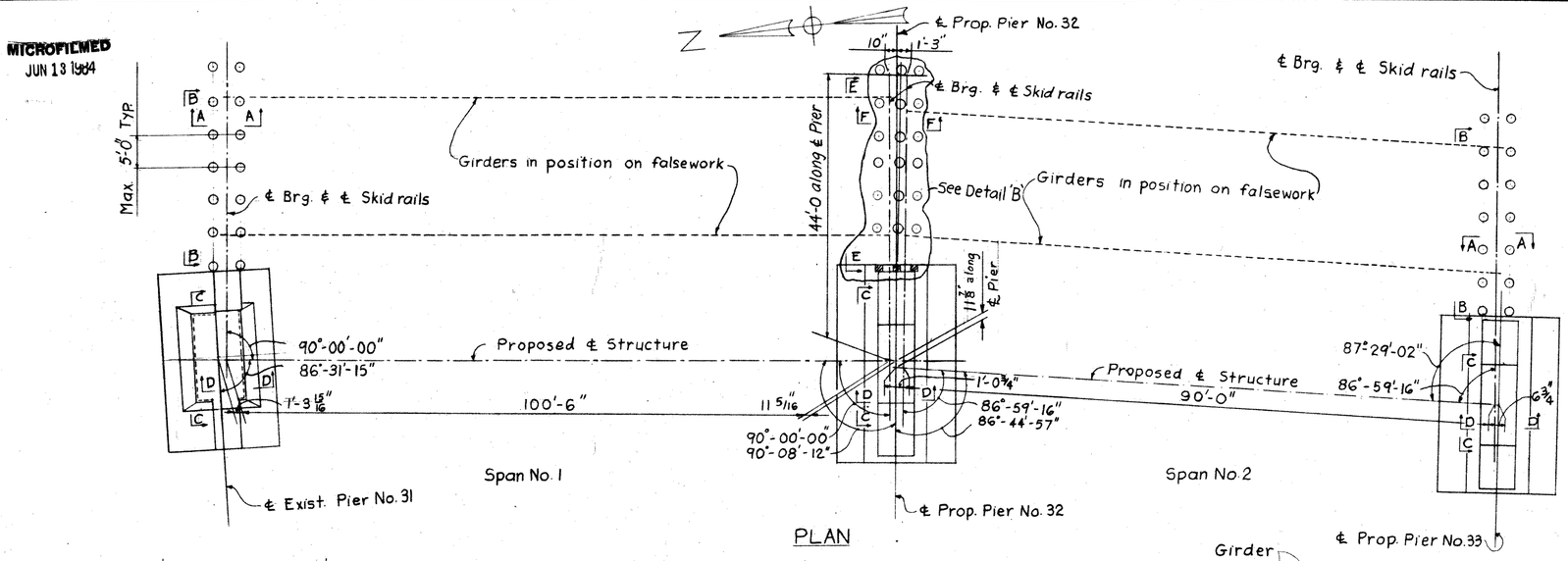
HAZELET & ERDAL
CONSULTING ENGINEERS
CINCINNATI, OHIO

DRAINAGE DETAILS
BRIDGE NO. HAM-50-2000
C.N.O. & T.P. RAILWAY

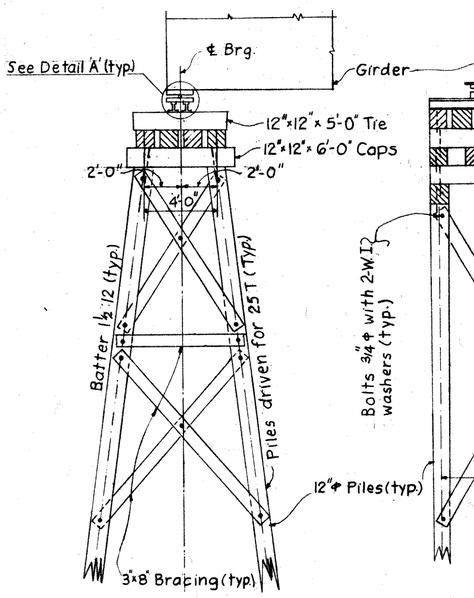
H.& E. BRIDGE NO. 5

DESIGNED	DRAWN	TRACED	CHECKED	REVIEWED DATE	REVISED
	E.I. 12-19-61		N.I.B. 7-17-62	N.I.B. 7-31-62	

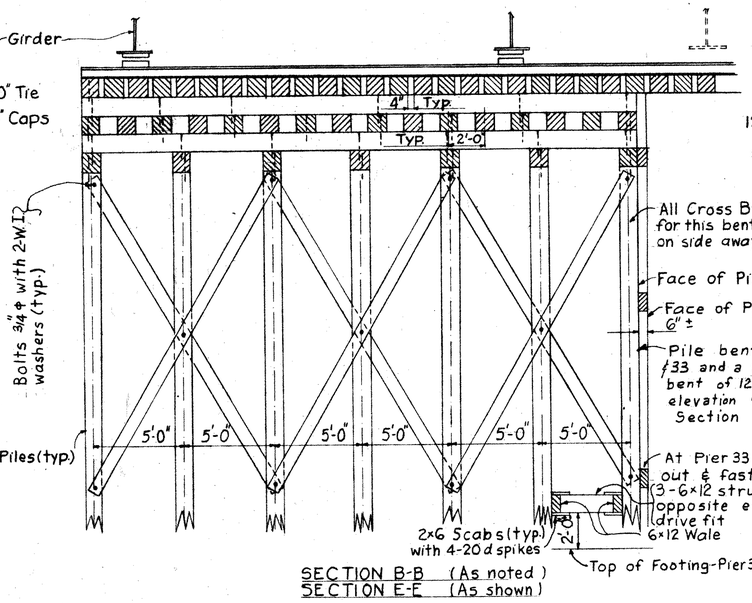
MICROFILMED
JUN 13 1984



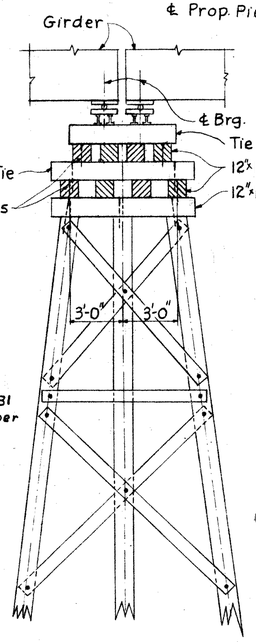
PLAN



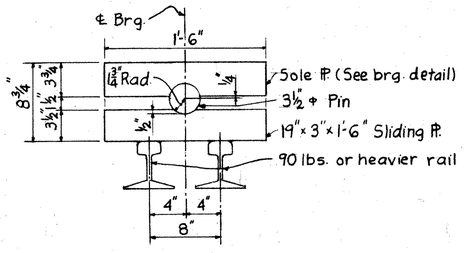
SECTION A-A



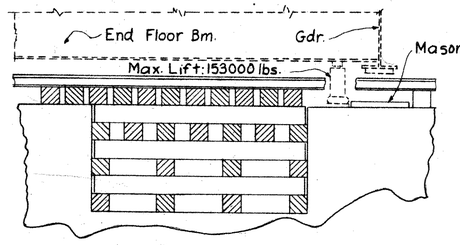
SECTION B-B (As noted)
SECTION E-E (As shown)



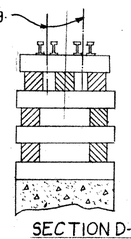
SECTION F-F



DETAIL 'A'

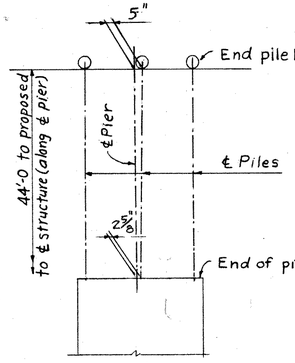


SECTION C-C



SECTION D-D

Note: Use 12"×12" Blocks Sec. D-D shown for Pier No. 32. Same for Pier No. 31 except one pair of rail.



Detail B

Bar size is indicated in the bar mark. The first digit where three digits are used, and the first two digits where four are used, indicate the bar size number. For example, P601 is a No. 6 bar and P1001 is a No. 10 size.

Total wgt. of reinforcing steel = 42,466#

For Notes on Falsework see Sheet 313

REINFORCING BAR SCHEDULE

MARK	SHP.	LGTH.	PIERS 31	32	33	TOTAL NO. BARS	TOTAL WGT.
P1101	Str.	16'-6"	18			18	1,578
P1102	Bnt.	31'-11"	18			18	3,052
P1103	Str.	26'-3"	24			24	3,347
P1001	Bnt.	20'-4"		26		26	2,275
P901	Str.	8'-2"		76	114	190	5,276
P902	Str.	20'-7"		44		44	3,079
P903	Str.	14'-1"		24		24	1,149
P904	Str.	16'-4"		58		58	3,221
P905	Bnt.	20'-0"			26	26	1,768
P906	Str.	25'-4"			36	36	3,101
P907	↑	20'-0"			26	26	1,768
P908		6'-11"			8	8	188
P909		18'-10"	4			4	256
P910		15'-0"	8			8	408
P911		5'-8"	18			18	947
P912		23'-5"	22			22	1,752
P913	↓	7'-2"	6			6	146
P914	Str.	16'-10"			52	52	2,976
P801	Str.	29'-6"		12		12	945
P802	Str.	26'-6"			12	12	849
P601	Bnt.	9'-8"	20			20	290
P602	Str.	5'-0"	14			14	105
P603	Str.	4'-7"	14			14	96
P604	Str.	4'-0"	76			76	457
P501	Str.	27'-8"		20		20	577
P502	Str.	7'-8"		16		16	128
P503	Bnt.	8'-1"		36	44	80	674
P504	Str.	25'-8"			28	28	750
P505	Str.	6'-3"			16	16	104
P506	Bnt.	20'-11"	7			7	153
P507	Bnt.	18'-9"	7			7	137
P508	Str.	2'-4"	20			20	49
P509	Str.	11'-9"	8			8	98
P510	Str.	16'-6"	10			10	172
P511	Bnt.	19'-3"	6			6	121
P512	Bnt.	20'-3"	10			10	211
P513	Bnt.	22'-5"	10			10	234

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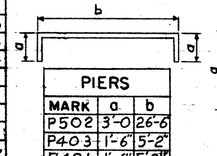
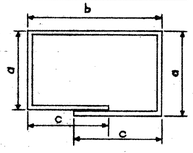
REINFORCING BAR SCHEDULE

MARK	SHP.	LGTH.	PIERS 31	32	33	TOTAL NO. BARS	TOTAL WGT.
P401	Bnt.	8'-0"		26	23	49	262
P402	Str.	15'-0"		4		4	40
P403	Bnt.	10'-6"		8		8	56
P404	Str.	15'-10"			4	4	42
P405	Bnt.	9'-1"			8	8	49
P406	Bnt.	7'-6"	18			18	90
P407	Bnt.	5'-7"	24			24	90
							42,466



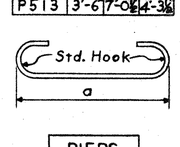
PIERS		
MARK	a	b
P502	3'-0	26-6
P403	1'-6"	5'-2"
P401	1'-6"	5-0½"
P403	1'-6"	7-6½"
P405	1'-6"	6-1½"
P406	1'-0"	5'-7"
P407	1'-0"	3'-8"



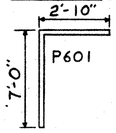
PIERS			
MARK	a	b	c
P511	3'-6	5'-6	3'-6"
P512	3'-6	5'-11½	3'-9"
P513	3'-6	7'-0	4'-3½



PIERS			
MARK	a	b	c
P506	5'-9"	11'-9"	3'-6"
P507	4'-8"	11'-9"	2'-5"



PIERS	
MARK	a
P1001	17'-6
P905	17'-6



REPLACEMENT BARS

MARK	LGTH.	SHP.	NO.
RE401	5'-3"	Str.	
RE501	5'-7"	↑	
RE601	5'-11"		
RE801	6'-6"		
RE901	6'-10"		
RE1001	7'-3"	↓	
RE1101	7'-7"	Str.	

HAZELET & ERDAL
CONSULTING ENGINEERS
CINCINNATI, OHIO

FALSE WORK & REINFORCING STEEL LIST

BRIDGE NO. HAM-50-2000
C.N.O. & T.P. RAILWAY

H.& E. BRIDGE NO. 5

DESIGNED	DRAWN	TRACED	CHECKED	REVISED DATE	REVISED
M.W.E.	N.H.S. 12-19-61		W.A.F. 7-17-62	W.A.F. 7-31-62	

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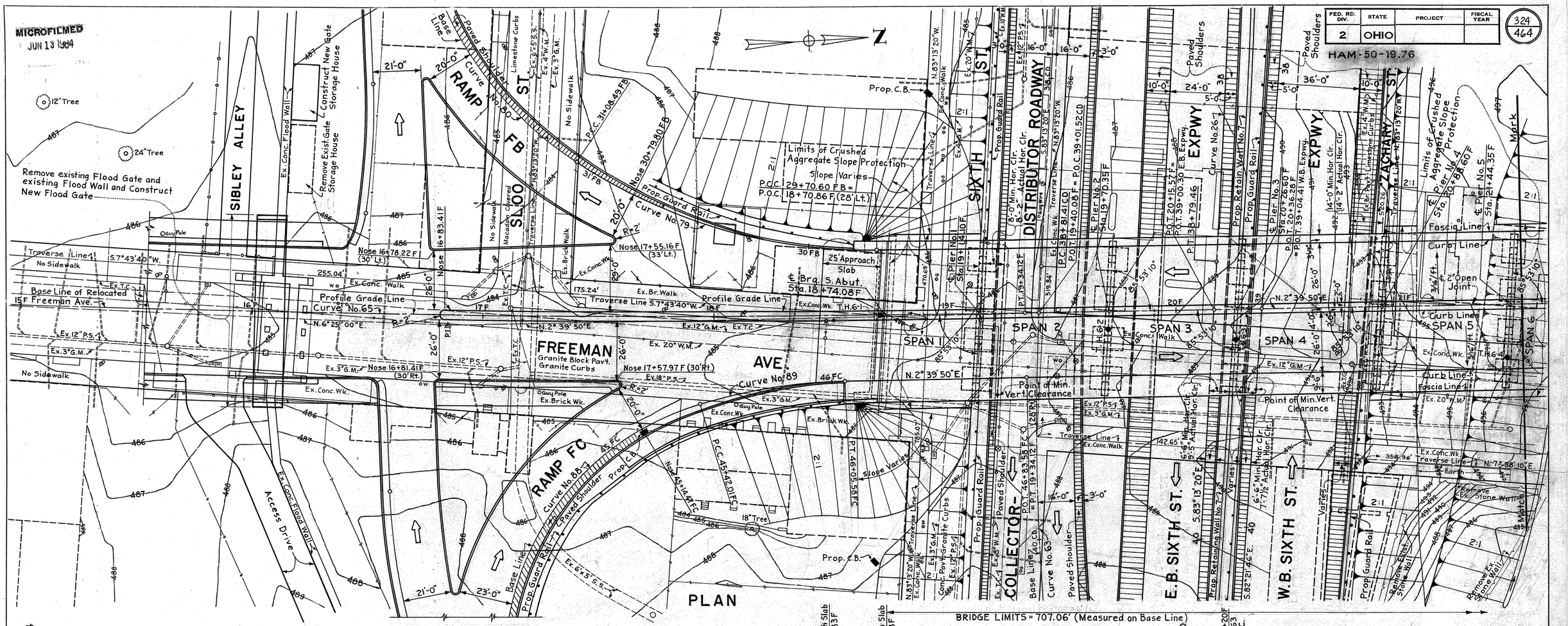
SIBLEY ALLEY
Remove existing Flood Gate and existing Flood Wall and Construct New Flood Gate
Construct New Gate Storage House
Remove Exist. Gate Storage House
Ex. Conc. Flood Wall
Access Drive
Ex. Conc. Flood Wall
12" Tree
24" Tree
Base Line of Relocated 15F Freeman Ave.
Traverse Line 1
No Sidewalk
S.7°43'40"W.
255.04'
Ex. Conc. Walk
Ex. T.C.
Profile Grade Line
Curve No. 65
N.6°25'00"E.
R=2
P.I. 16+84.02
Ex. 12" P.S.
Ex. 3" G.M.
Nose 16+81.41 F (30' Rt.)
Ex. Conc. Wk.
Ex. Brick Wk.
Ex. 20" W.M.
FREEMAN AVE.
Granite Block Pavt.
Granite Curbs
Nose 17+57.97 F (30' Rt.)
Curve No. 89
R=2
46 FC
N.2° 39' 50"E.
Nose 16+83.41 F
Nose 16+78.22 F (30' Lt.)
Nose 17+55.16 F (33' Lt.)
Curve No. 80
Curve No. 79
Base Line
Paved Shoulder
Limestone Curbs
Ex. 8"S.S.
Ex. 4" W.M.
Ex. 3" G.M.
No Sidewalk
Macadam Guard
Traverse Line
Ex. Brick Walk
Ex. Conc. Wk.
P.C.C. 31+08.49 FB
31 FB
Nose 30+79.80 FB
Prop. Guard Rail
Curve No. 79
R=2
20'-0"
21'-0"
23'-0"
175.24'
Ex. Br. Walk
Traverse Line S.7°43'40"W.
18 F
Ex. 12" G.M.
Ex. T.C.
Ex. 20" W.M.
Ex. 18" P.S.
Ex. Brick Wk.
Ex. Conc. Wk.
Ex. 3" G.M.
Ramp FC
Curve No. 88
Paved Shoulder
Prop. C.L.
Base Line
Prop. Guard Rail
Ex. 6"x 3'-7" S.S.
P.C.C. 45+42.01 FC
Nose 45+14.47 FC
18" Tree
Prop. C.B.
Limits of Crushed Aggregate Slope Protection
Slope Varies
P.C.C. 29+70.60 FB =
P.O.C. 18+70.86 F (28' Lt.)
Prop. C.B.
N.83°13'20"W.
Ex. Conc. Walk
Ex. 20" W.M.
Ex. 3" G.M.
Ex. 12" P.S.
Ex. Conc. Pav't. Granite Curbs
Ex. 10" W.M.
Ex. 12" P.S.
Ex. 3" G.M.
Traverse Line
Prop. Guard Rail
Paved Shoulder
SIXTH ST.
DISTRIBUTOR ROADWAY
COLLECTOR-
8'-0" Min. Hor. Clr.
8'-2" Actual Hor. Clr.
Ex. 16" W.M.
Ex. 12" S.S.
Ex. 20" W.M.
Prop. Guard Rail
Ex. Conc. Wk.
Traverse Line
Gaugware
S.83°13'20"E.
34.40
P.C. 38+81.41 CD
P.O.T. 19+40.08 F = P.O.C. 39+01.52 CD
Pier No. 1
Sta. 19+14.10 F
Pier No. 2
Sta. 19+70.35 F
Ex. 12" G.M.
Ex. Conc. Walk
Ex. 3" G.M.
Ex. 12" P.S.
Ex. 3" G.M.
Point of Min. Vert. Clearance
Ex. Conc. Wk.
Ex. Brick Wk.
Ex. 3" G.M.
Ex. 12" P.S.
Ex. 3" G.M.
Ex. Conc. Walk
Ex. 12" G.M.
Ex. T.C.
Ex. 20" W.M.
Ex. Conc. Wk.
Ex. 12" G.M.
Ex. 20" W.M.
Ex. Conc. Wk.
Traverse Line
Ex. Earth
Remove Ex. Stone Wall
Match
Prop. Guard Rail
Paved Shoulders
Prop. Retaining Wall No. 1
Prop. Retaining Wall No. 2
Curve No. 63
Base Line
Paved Shoulder
Prop. C.B.
P.O.T. 46+33.55 FC =
P.I. 19+34.12 F
16'-0"
3'-0"
Ex. 16" W.M.
Ex. 12" S.S.
Ex. 20" W.M.
Ex. Conc. Wk.
Traverse Line
Prop. Guard Rail
Paved Shoulders
Prop. Retaining Wall No. 1
Prop. Retaining Wall No. 2
Curve No. 26
Pier No. 3
Sta. 20+26.28 F
Pier No. 4
Sta. 20+88.60 F
Pier No. 5
Sta. 21+44.35 F
P.O.T. 20+15.57 F=
P.O.T. 39+00.30 E.B. Expwy.
P.I. 38+79.46
P.O.T. 20+36.28 F
=P.O.T. 39+04.41 W.B. Expwy.
EXPWY
EXPWY
ZACHARY ST.
Ex. 14" W.M.
Ex. Pav't. Limestone Curbs
Ex. 8" S.S.
Ex. 3" G.M.
Ex. 20" W.M.
Ex. 12" S.S.
Ex. 3" G.M.
Ex. 20" W.M.
Ex. Conc. Wk.
Traverse Line
Limits of Crushed Aggregate Slope Protection
Sta. P.O.T. 88.60 F
Fascia Line
Curb Line
2" Open Joint
Curb Line
Fascia Line
Ex. 20" W.M.
Ex. Conc. Wk.
Traverse Line
Ex. Earth
Remove Ex. Stone Wall
Match
Mark
E.B. SIXTH ST.
W.B. SIXTH ST.
Varies
Prop. Guard Rail
Remove Ex. Stone Wall
Match
Remove Ex. Stone Wall
Match
Ex. Conc. Wk.
Traverse Line
Ex. Earth

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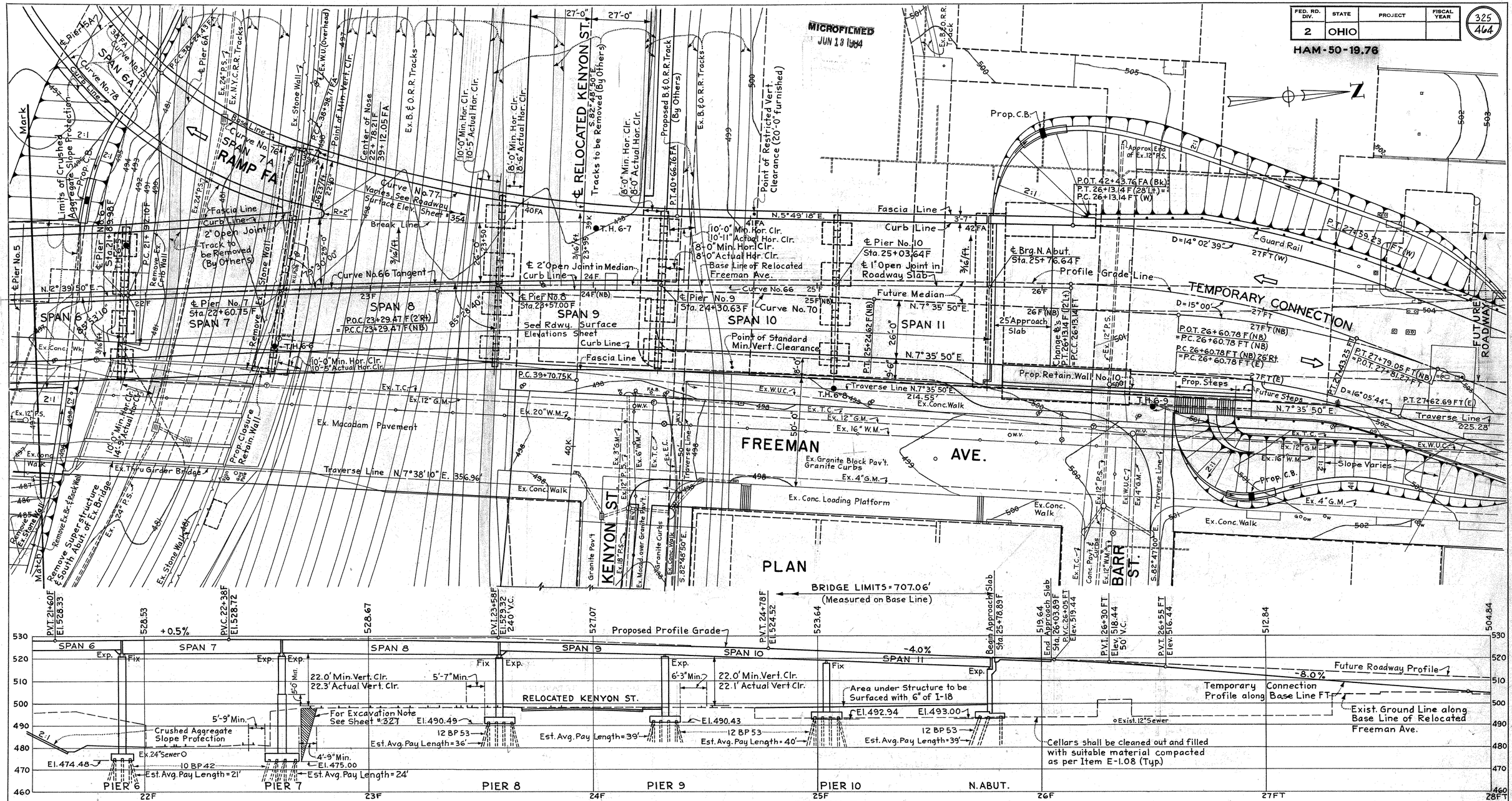
℄ RELOCATED KENYON ST.
Tracks to be Removed (By Others)
℄ FREEMAN AVE.
KENYON ST.
BARR ST.
SPAN 6
SPAN 6A
SPAN 7
SPAN 7A
RAMP FA
SPAN 8
SPAN 9
SPAN 10
SPAN 11
℄ Pier No.5
℄ Pier No.6
℄ Pier No.7
℄ Pier No.8
℄ Pier No.9
℄ Pier No.10
Curve No.66 Tangent
Curve No.66
Curve No.70
Curve No.74
Curve No.75
Curve No.76
Curve No.77
Curve No.78
Traverse Line N.7°38'10" E. 356.96'
Traverse Line N.7°35'50" E. 214.55'
Traverse Line 225.28
Ex. Macadam Pavement
Ex. Granite Block Pav't. Granite Curbs
Ex. Conc. Loading Platform
Ex. Conc. Walk
Ex. Thru Girder Bridge
Remove Superstructure & South Abut. of Ex. Bridge
Remove Ex. Stone Wall
Ex. Stone Wall
Ex. Stone Wall
Ex. Conc. Wk.
Ex. Conc. Wall
Remove Ex. Conc. Wall
Remove Ex. Rock Wall
Ex. Rock Wall
Ex. Bk. & Rock Wall
Ex. Bridge Structure
Limits of Crushed Aggregate Slope Protection
Prop. C.B.
Prop. Retain. Wall No. 10
Prop. Steps
Future Steps
Prop. Closure Retain. Wall
Ex. Shed
Ex. Bldg.
Ex. Bldg. to be Removed
Ex. Bldg. to be Removed (By Others)
Ex. Bldg. to be Removed (By Others)
Ex. Bldg. to be Removed (By Others)

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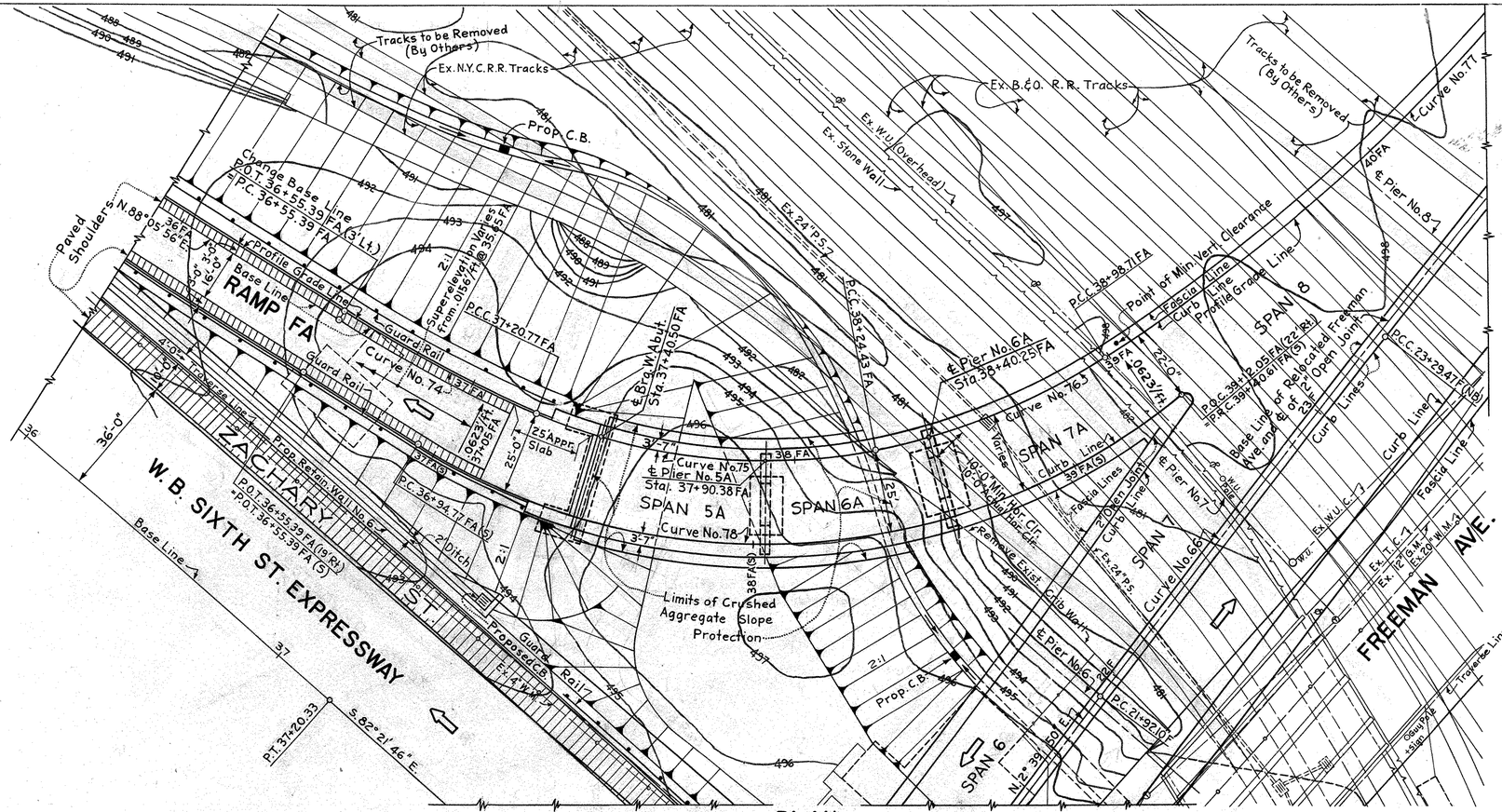
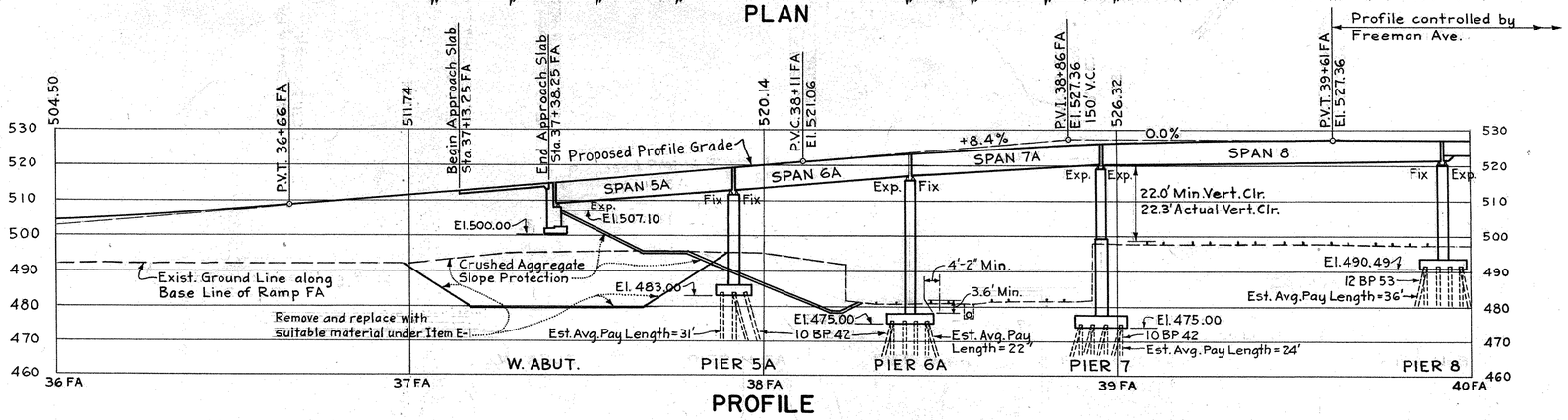


PLAN



PROFILE

NOTES:
℄ Brg. W. Abut., ℄ Piers 5A and 6A are radial lines.
For Proposed Structure and Span Length Tabulation see Sheet No. 324
For note on drill hole, see Sheet No. 324
For Bench Marks see Sheet No. 48
For Ramp Curve Data see Sheet No. 325

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CONSULTING ENGINEERS
CINCINNATI, OHIO

SITE PLAN
BRIDGE No. HAM-50-2007
SHEET 3 OF 3

H & E BRIDGE No. 6

DESIGNED	DRAWN	TRACED	CHECKED	REVIEWED DATE	REVISED
	M. DeC. W.W.C.		H.A.S. 11-16-61	H.A.E. 8-7-62	

MICROFILMED
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ESTIMATED QUANTITIES

ITEM	TOTAL	UNIT	DESCRIPTION	SUPER STRUC TURE	NORTH ABUT.	SOUTH ABUT.	WEST ABUT.	PIERS NO.1	NO.2	NO.3	NO.4	NO.5	NO.6	NO.7	NO.8	NO.9	NO.10	NO.5A	NO.6A	GENERAL	TOTAL U	TOTAL U G
E-2	Lump	Sum	Cofferdams, Cribs & Sheeting																		Lump	Lump
E-2	3240	Cu. Yds.	Unclassified Excavation		420	240	135	260	325	155	160	190	130	500	205	210	155	80	75		3035	205
S-1	1953	Cu. Yds.	Class "C" Concrete, Superstructure	1953																	1723	230
S-1	83.9	Cu. Yds.	Class "C" Concrete, Pier Caps & Columns					74.7	76.2	60.0	62.9	82.6	89.0	79.0	74.0	68.2	62.4	46.6	63.4		765	74
S-1	78.5	Cu. Yds.	Class "E" Concrete, Abutment & Pier Walls		273.8	94.0	66.3			13.1				397.8							785	
S-1	973	Cu. Yds.	Class "E" Concrete, Footings		171.1	45.0	30.3	60.0	60.0	44.4	44.4	44.4	44.4	196.3	60.0	60.0	60.0	22.7	30.0		913	60
S-3	152	Lin. Ft.	Waterproofing, Premolded Sealing Strip		100	12	14							26							152	
S-4	816,231	Lbs.	Reinforcing Steel	503,856	32,673	8649	6142	264,911													723,717	92,514
S-7	1,919,000	Lbs.	Structural Steel	1,919,000																	1,606,300	312,700
S-8	1,919,000	Lbs.	Field Painting of Structural Steel	1,919,000																	1,606,300	312,700
S-9	242	Sq. Ft.	1" Preformed Expansion Joint Filler (M-10.02, Type 1)		120	33								89							242	
S-14	1851	Lin. Ft.	Railing Type "C" (Aluminum Rail & Supports, Concrete Parapet & End Post)	1734	55	28	34														1660	191
S-16	Lump	Sum	First Test Pile																		Lump	Lump
S-18	7802	Lin. Ft.	Steel Piles, 10 BP 42					1232	1320			816	714	2784				496	440		7802	
S-18	10,626	Lin. Ft.	Steel Piles, 12 BP 53		3198					1440	1230				1440	1638	1680				9186	1440
S-22	Lump	Sum	Removal of Portions of Existing Structure																		Lump	
S-25	★		400 Watt Mercury Vapor Luminaire, IES Type II or III Distribution																			
S-25	★		Flush Mount Island Light																			
S-25	★		Photoelectric Control for Lighting Circuit																			
S-25	★		Electrical Grounding System for Bridge																			
S-25	★		1c #6 Primary Cable, Plain																			
S-25	★		1c #6 Primary Cable, Identifiable																			
S-25	★		1c #6 Secondary Cable, Plain																			
S-25	★		1c #6 Secondary Cable, Identifiable																			
S-25	★		3c #12 Secondary Cable																			
S-25	★		15 Amp. Fuse Block																			
S-25	★		Lamp Standard Type A (Structure) with 10' Bracket Arm																			
S-25	★		Lamp Standard Type A (Structure) Modified with 10' Bracket Arm																			
S-25	★		Handhole Frame and Cover 10" x 18"																			
S-25	★		3" Asbestos Cement Conduit (Structure), Type 1																			
S-25	★		2" Metallic Conduit with Accessories																			
S-25	★		Sign Circuit Control Assembly 30 Amp.																			
S-29	358	Cu. Yds.	Porous Backfill		178	35	25							120							358	
S-29	Lump	Sum	Drain Inlets, Including Supports and Horizontal Collector System																		Lump	Lump
S-29	492	Lin. Ft.	6" Standard Pipe Downspout, Wrought Iron or Hot-Dip Galvanized Steel, Including Specials			11	6		50		50		95	30	60	60	55	30	45		432	60
S-29	38	Lin. Ft.	8" Bituminous Coated Helical Corrugated Metal Pipe [Sec. M-6.4 (h-c)] Non Perforated (Including Specials)		38																38	
S-29	48	Lin. Ft.	8" Bituminous Coated Helical Perforated Corrugated Metal Pipe [Sec. M-6.4 (h-c)] (Including Specials)		48																48	
S-29	265	Lin. Ft.	8" Bituminous Coated Helical Perforated Corrugated Metal Pipe [Sec. M-6.4 (h-c) (Including Specials and Sand)		164									101							265	
S-29	12	Lin. Ft.	12" Reinforced Concrete Sewer Pipe [Sec. M-6.6 (a)]		12																12	
I-10	1280	Sq. Yds	Crushed Aggregate Slope Protection			365	470				145	300									1280	
I-129	★		Overhead Sign Support Type B, twin beam																			
Special	1953	Each	Water-Reducing, Set-Retarding Admixture *	1953																	1723	230
S-107	15688	Each	Welded Stud Shear Connectors **	15688																	13,270	2,418

* See Proposal Note
★ "See General Lighting & Signing Summary, Sheets No. 41 & 42. For Detail Description, Unit and Quantity."

** No Federal Participation.

MICROFILMED
JUN 1 1984

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GENERAL NOTES

PILES shall be driven with a hammer of not less than 11,000 ft. lbs. per blow to firm contact with rock. If the length of penetration is approximately equal to the depth of rock according to the bridge foundation investigation report, the firm contact shall be considered as attained when the capacity according to the formula in Sec. S-18.05 is not less than the following value for a pile hammer of the indicated energy rating:

50 tons per pile for Piers 1, 2, 5, & 5A using a 11,000 ft. lb. hammer, or 40 tons per pile using a 15,000 ft. lb. hammer.
55 tons per pile for Piers 6, 7, 8, 9, 10 & 6A, N Abut., & Ret. Wall #10 using a 11,000 ft. lb. hammer, or 45 tons per pile using a 15,000 ft. lb. hammer.
60 tons per pile for Piers 3 & 4 using a 11,000 ft. lb. hammer, or 50 tons per pile using a 15,000 ft. lb. hammer.

If the energy rating of the hammer is between the rating as shown above, the required formula capacity shall be determined by interpolation. The design load is as follows:
35 tons per pile for Piers 1, 2, 5, 6, 7, 5A & 6A
40 tons per pile for Piers 3 & 4, 8, 9, 10, N. Abut. & Ret. Wall #10

CONSTRUCTION CLEARANCE of 21'-0" (for New York Central R.R.) and 19'-0" (for B & O R.R.) vertically above the top of the railroad rails and 8'-0" (for New York Central R.R.) & 8'-0" (for B & O R.R.) horizontally from the center of tracks shall be maintained at all times.

SHOP PAINTING STEEL The surface preparation of all Steel, requiring shop painting as per the Plans and Specifications, shall be accomplished by blast cleaning or power tool cleaning, except as noted in the Specifications regarding the use of Chromate Primers.

EXCAVATION for the purpose of driving battered piles at Pier No. 7 (shown hatched on Sheet No. 325) shall be included with "Unclassified Excavation" for payment.

SHEET LEAD shall conform to the requirements of ASTM Designations B 29 without restriction to the common Desilverized type.

CONTINUOUS BEAM SPLICES If beams having depths differing by more than 1/8" are to be spliced by butt welding, the depth of the smaller-depth beam shall be increased by splitting the web longitudinally at a distance of 1 1/2" below the bottom of the top flange and for a distance sufficient to allow the flange to be bent up at a slope of not more than 1/8" per foot, after which the split in the web shall be completely welded with full depth penetration and ground flush. (See Detail E Sheet No. 345)

REMOVAL OF PORTIONS OF EXISTING STRUCTURE When no longer needed to maintain traffic the existing Freeman Avenue structure over the NYCRR Ditch Tracks between Sta 21+65 ± F and Sta 22+50 ± F, except the North Abutment shall be removed in accordance with the provisions of Section S-24. Cost of all removals including the existing stone masonry wall (necessary for the construction of Pier No. 7) on the north side of the NYCRR Ditch Tracks, 63 ± Left Sta 22+72 ± F to 36 ± Right Sta 22+46 ± F (as shown on Site Plan Sheet No. 325) shall be included in the contract lump sum price bid for Item S-22, "Removal of Portions of Existing Structure." Removal of exist. crib wall to be included in Item E-1 (Rdwy.).

ADDITIONAL NOTES For additional notes see Sh. No. 408

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CINCINNATI, OHIO

ESTIMATED QUANTITIES AND GENERAL NOTES

BRIDGE NO. HAM-50-2007

H.B.E BRIDGE NO. 6

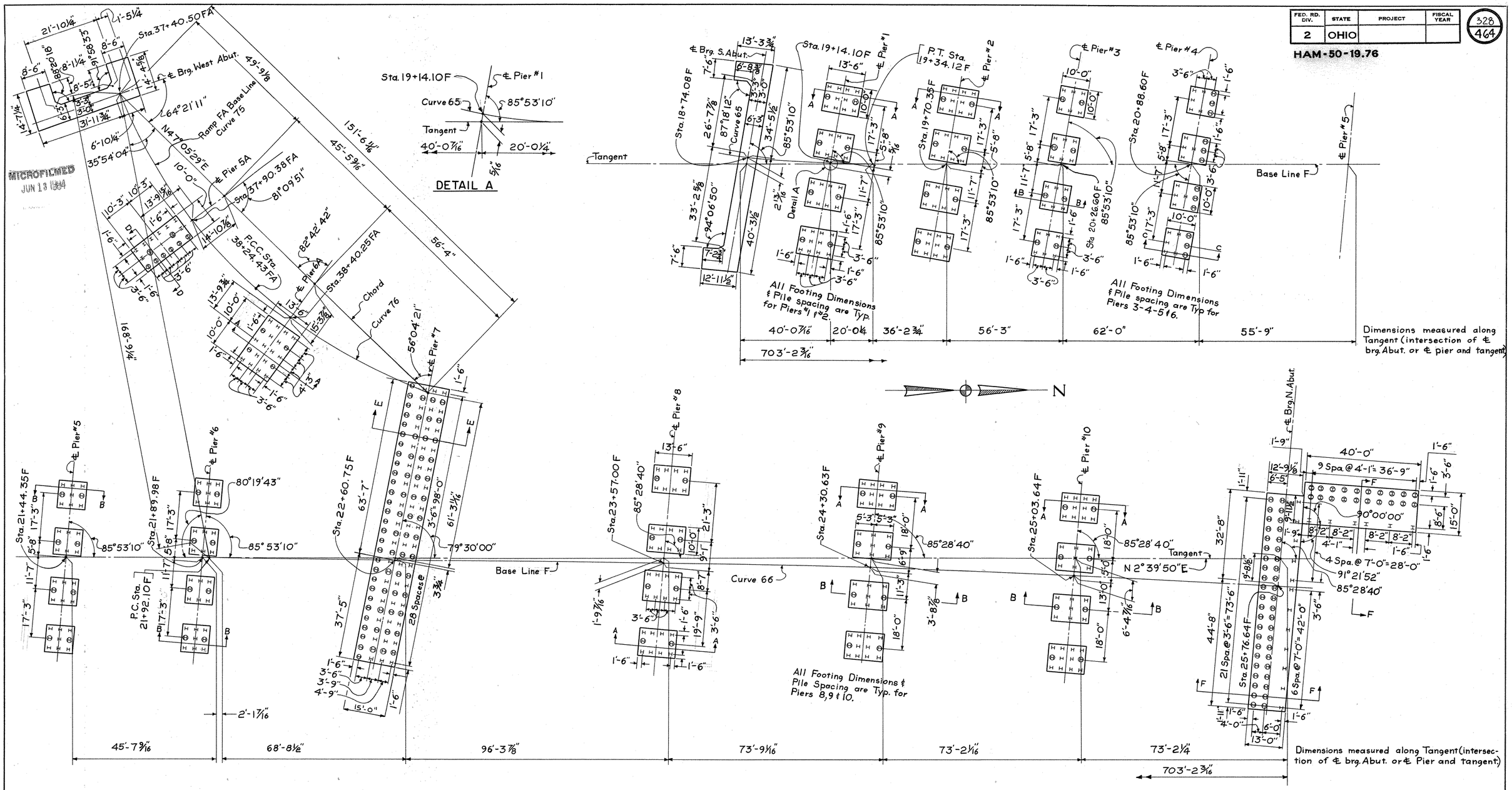
DESIGNED	DRAWN	TRACED	CHECKED	REVIEWED DATE	REVISED
	J.T.C. 2-8-62	J.B. 5-4-62	J.H.O. 5/22/62	H.A.J. 8-7-62	10-10-62

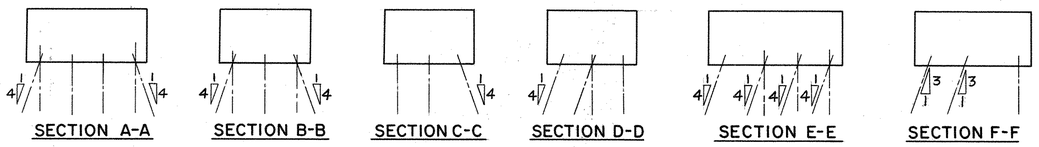
Rev. 9-10-62

FED. RD. DIV.	STATE	PROJECT	FISCAL YEAR
2	OHIO		

328/464

HAM-50-19.76





BATTER DIAGRAM

Note:
H - Indicates Vertical Piles.
Ⓗ - Indicates Batter Piles.
All Piles shall be steel H piles as follows.
12BP53 - Piers 3, 4, 8, 9 & 10 & N. Abut.
All others 10BP42.

Work this sheet with Sheets 330 to 342

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CONSULTING ENGINEERS
CINCINNATI, OHIO

STAKE-OUT- DIAGRAM

BRIDGE NO. HAM-50-2007

H.&E. BRIDGE NO. 6

DESIGNED	DRAWN	TRACED	CHECKED	REVIEWED DATE	REVISED
	J.T.C.	J.T.C. 5/3/62	JHO 5/7/62	H.A.Z. 8-7-62	

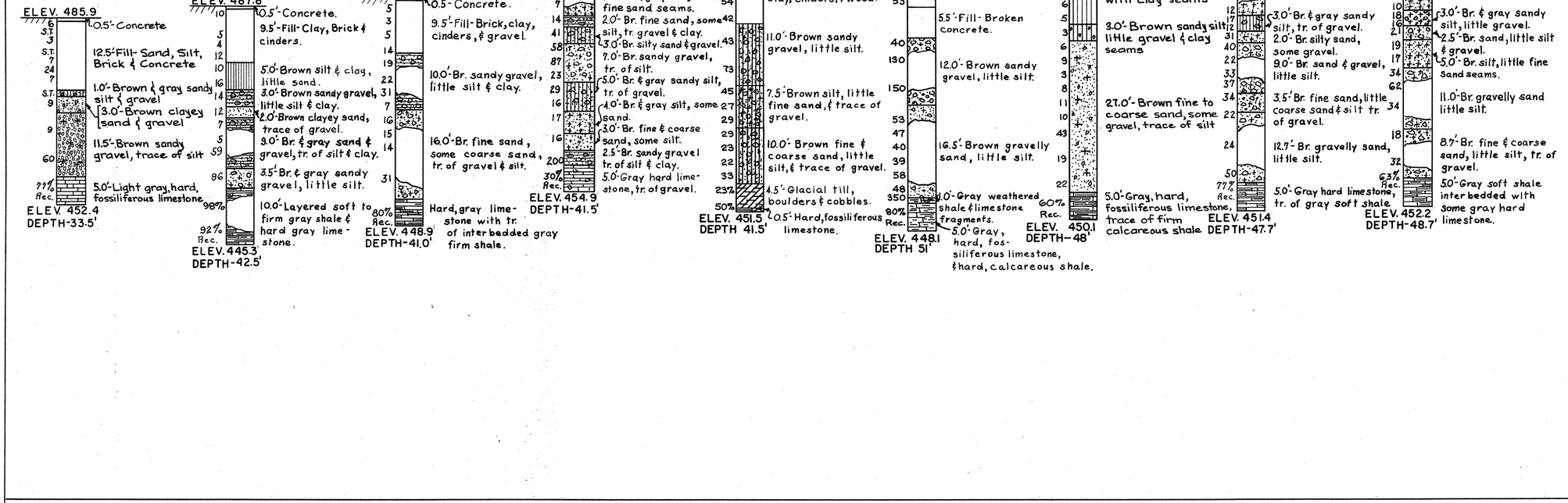
MICROFILMED JUN 13 1984

MICROFILMED
JUN 13 1964

FED. RD. DIV.	STATE	PROJECT	FISCAL YEAR
2	OHIO		

329
464

HAM-50-19.76



NOTE:
FIGURES AT LEFT OF BORINGS INDICATE NUMBER OF HAMMER BLOWS PER FOOT OF PENETRATION OF 2" SPLIT SPOON SAMPLER WITH 140 LB. HAMMER AND 30" FALL.

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LOG OF BORINGS
BRIDGE No. HAM-50-2007

H.&E. BRIDGE NO.6

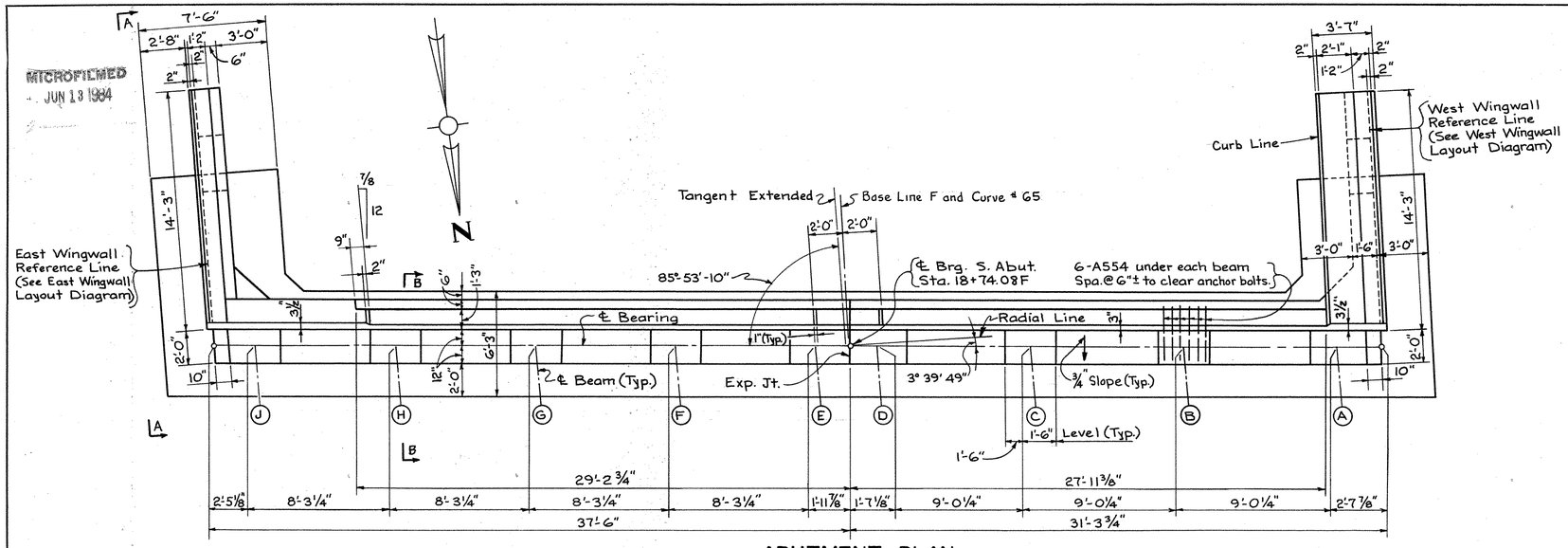
DESIGNED	DRAWN	TRACED	CHECKED	REVIEWED DATE	REVISED
	A.C.B. 9-29-61	A.C.B. 10-2-61	W.W.C. 10-3-61	W.A.J. 8-7-62	

FED. RD. DIV.	STATE	PROJECT	FISCAL YEAR
2	OHIO		

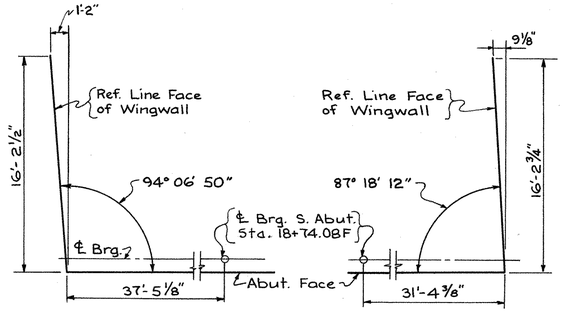
330
464

HAM-50-19.76

MICROFILMED
JUN 13 1984

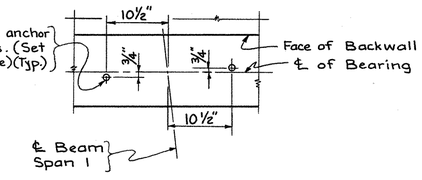


ABUTMENT PLAN

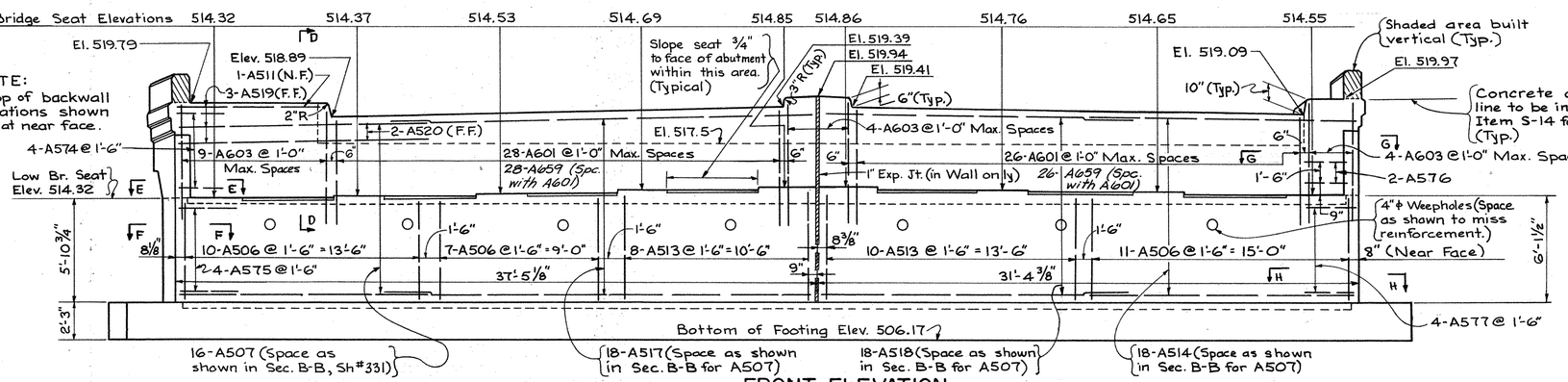


EAST WINGWALL LAYOUT DIAGRAM

WEST WINGWALL LAYOUT DIAGRAM

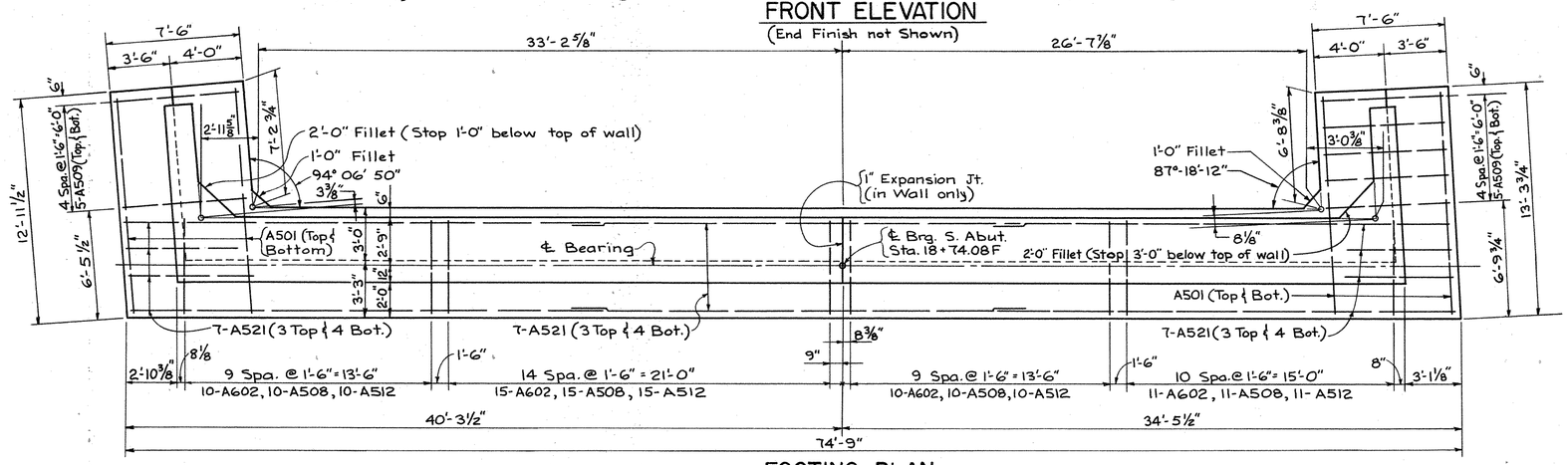


ANCHOR BOLT PLAN



NOTE:
Top of backwall elevations shown are at near face.

FRONT ELEVATION
(End Finish not Shown)



FOOTING PLAN

NOTES:
Provide 3" clearance to reinforcing steel in footing and 2" clearance to reinforcing steel in wall (minimum).
For roadway and curb end finish details see Sh.# 347
Special care shall be taken in placing reinforcing in abutment seat so that it will not interfere with the masonry plate anchor bolts.
Concrete above bridge seat construction joint shall not be placed until after superstructure steel is in place.
Foundation Bearing Pressure: Abutment footing is designed for a maximum bearing pressure of 1.5 tons per sq. ft.
Procedure: The existing miscellaneous fill material shall be excavated as shown on Sheet # 324, then replaced and compacted with embankment material. The embankment shall be placed and compacted up to the temporary spill-thru slope and to the level of the subgrade for a distance of 200 feet back of the abutments, after which excavation shall be made for the abutment.
For railing details see Std. Dwg. AR-1-57
N. F. = Near Face
F. F. = Far Face
Ea. Fa. = Each Face
For detail of 1" Expansion Joint see Sh. No. 411

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CINCINNATI, OHIO

SOUTH ABUTMENT
BRIDGE NO. HAM.-50-2007

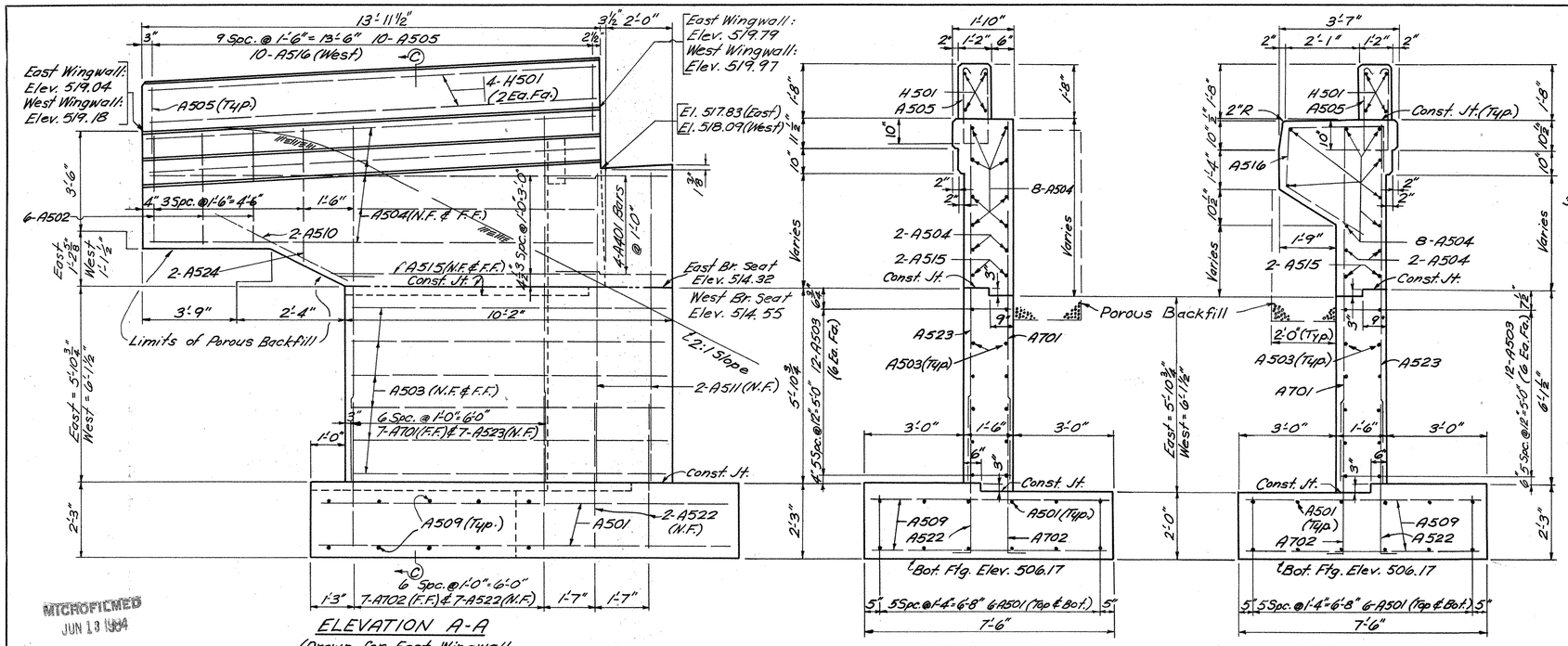
H.&E. BRIDGE NO. 6

DESIGNED	DRAWN	TRACED	CHECKED	REVIEWED DATE	REVISED
B.O.G.	B.O.G.	R.E.M.	W.W.O.	W.A.Z.	
4-26-61	5-6-61	5-5-62	7-6-61	8-7-62	

FED. RD. DIV.	STATE	PROJECT	FISCAL YEAR
2	OHIO		

331
464

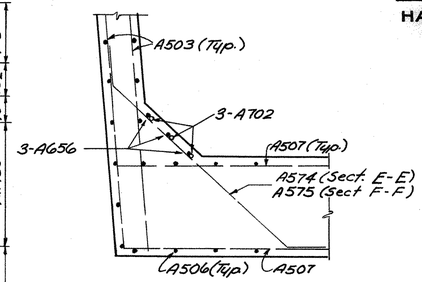
HAM-50-19.76



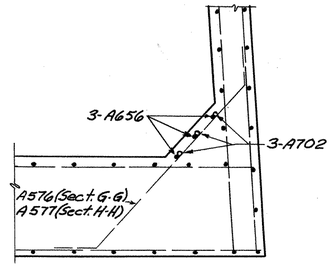
ELEVATION A-A
(Drawn for East Wingwall, West Wingwall opposite hand.)

SECTION C-C
(for East Wingwall)

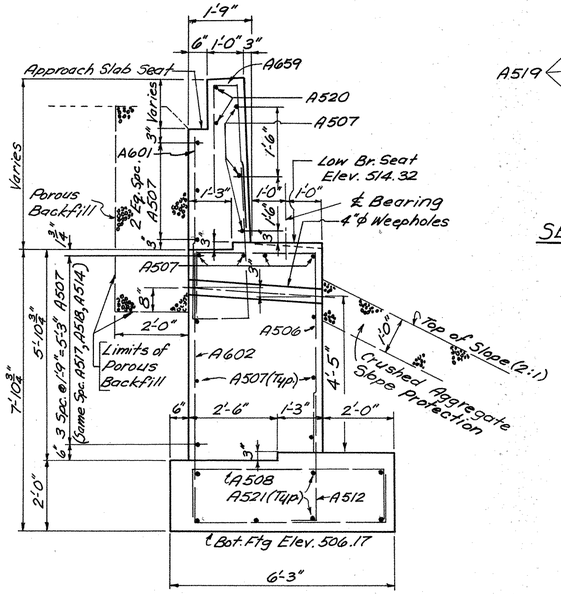
SECTION C-C
(for West Wingwall)



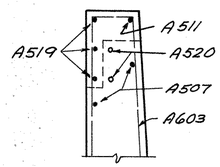
SECTION E-E
& SECTION F-F



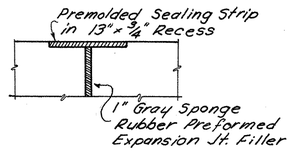
SECTION G-G
& SECTION H-H



SECTION B-B

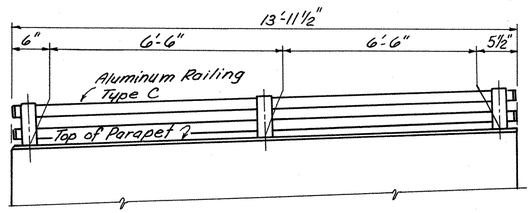


SECTION D-D

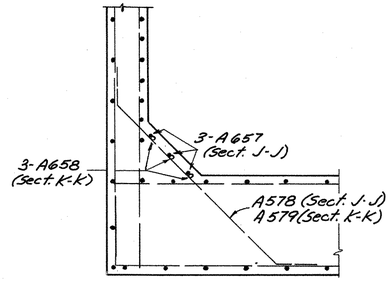


EXPANSION JOINT DETAILS

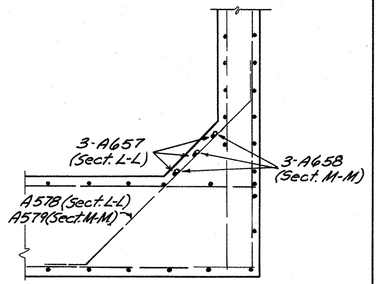
Lower limit of premolded sealing strip: Top of ftg.
Upper limit of premolded sealing strip: Underside of approach slab.



PARAPET ELEVATION
(Showing Railing Details)



SECTION J-J
& SECTION K-K



SECTION L-L
& SECTION M-M

Note: For location of Sections J-J, K-K, L-L, M-M see Sh. # 334

MICROFILMED
JUN 13 1984

HAZELET & ERDAL
CONSULTING ENGINEERS
CINCINNATI, OHIO

SOUTH ABUTMENT
BRIDGE No. HAM-50-2007

H. & E. BRIDGE NO. 6

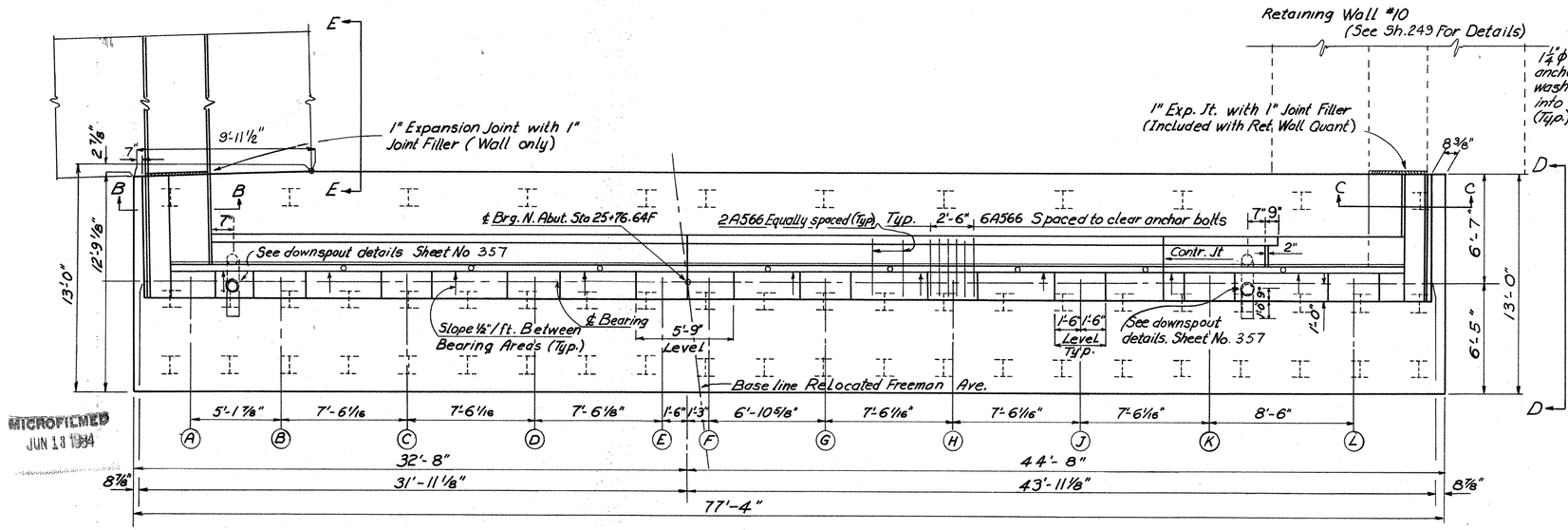
DESIGNED	DRAWN	TRACED	CHECKED	REVIEWED DATE	REVISED
B.O.G. 4-26-61	B.O.G. 5-6-61	JB 4/29/62	W.W.C. 7-6-61	H.A.E. 8-7-62	

FED. RD. DIV.	STATE	PROJECT	FISCAL YEAR
2	OHIO		

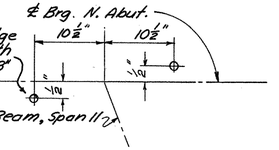
332
464

HAM-50-19.76

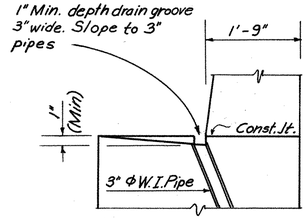
MICROFILMED
JUN 18 1964



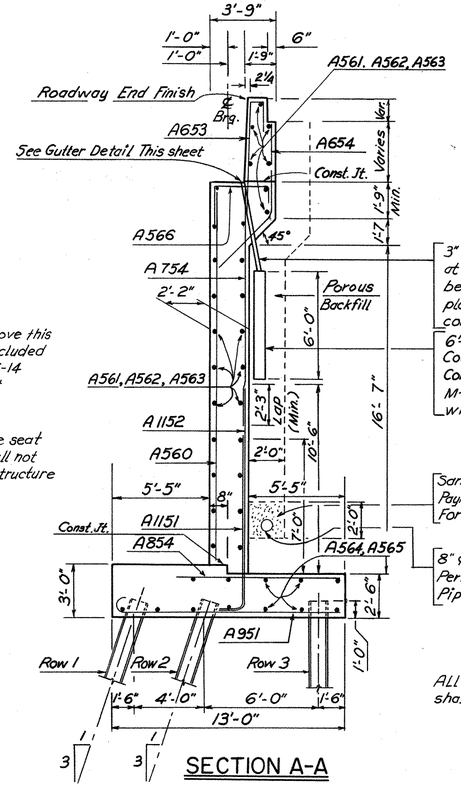
PLAN



ANCHOR BOLT PLAN



GUTTER DETAIL



SECTION A-A

3" W.I. Pipe 5'-0" Long. Located at center of distance between bearing areas as shown on plan, included with abutment concrete for Payment.

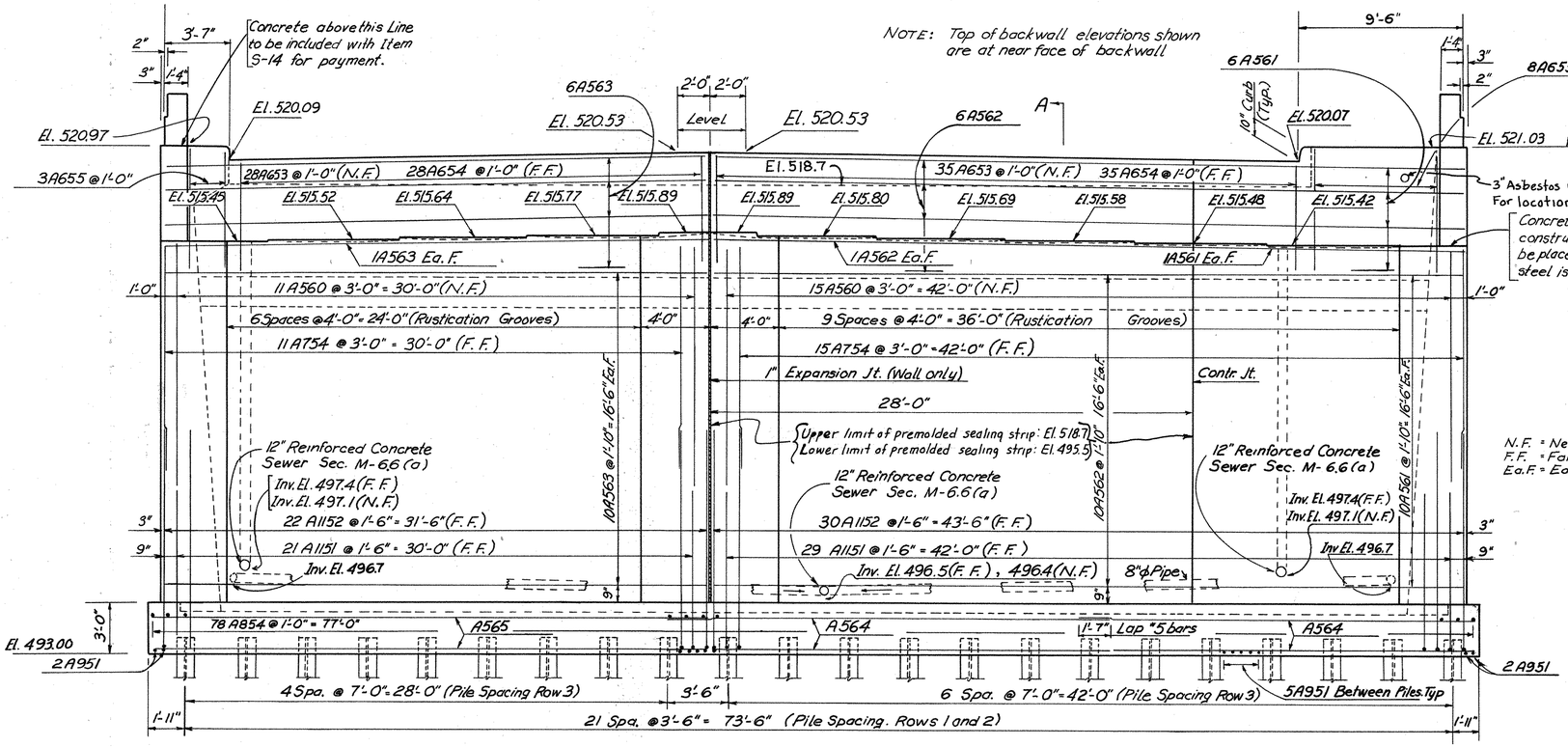
6'-0" Length of 8" Bituminous Coated Helical Perforated Corrugated Metal pipe [Sec M-6.4 (h-c)] Provide cap with 3½" ϕ Hole (Item 5-29)

Sand meeting req of Sec. M-2.1 Payment included in price bid For 8" Pipe

8" ϕ Bituminous coated Helical Perforated Corrugated Metal Pipe [Sec. M-6.4 (h-c)]

ALL piles in rows 1 and 2 shall be battered as shown

NOTE: Top of backwall elevations shown are at near face of backwall



ELEVATION

N.F. = Near Face
F.F. = Far Face
Ea.F. = Each Face

Note:
All piles should be 12 BP53 Steel H Piles
For details of expansion Joint See Sht. No. 411
For details of contraction Joint See Sht. No. 411
For details of rustication Groove See Sht. No. 411
For roadway and curb end Finish details See Sht. No. 348
Special care shall be taken in placing steel in the abutment seat so that it will not interfere with the masonry plate anchor bolts
Provide 3" clearance to reinforcing steel in the footing, and 2" clearance to reinforcing steel in wall. (minimum.)
See Drainage Plan at North Abutment Sh. No. 357

Procedure: Before the backwall is placed at the Abutment the embankment shall be placed and compacted up to the level of the subgrade, with a 1:1 slope from the bridge seat to the subgrade for a distance of 200 feet back of the abutment.

Work this Sheet with Sheet No. 333

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CONSULTING ENGINEERS
CINCINNATI, OHIO

NORTH ABUTMENT

BRIDGE No. HAM-50-2007

H. & E. BRIDGE NO. 6

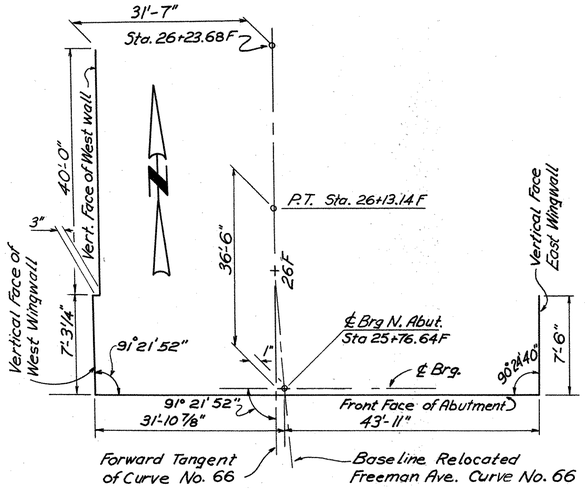
DESIGNED	DRAWN	TRACED	CHECKED	REVIEWED DATE	REVISED
CE 7-6-1961	CE. 7-6-1961	JB 5/1/62	W.W.C. 7-20-61	N.A.Z. 8-7-62	

MICROFILMED
JUN 13 1984

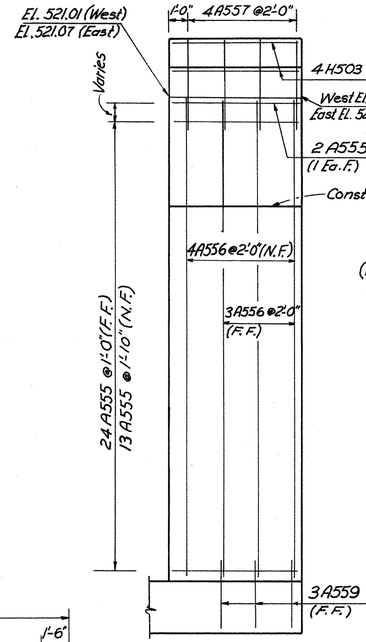
FED. RD. DIV.	STATE	PROJECT	FISCAL YEAR
2	OHIO		

333
464

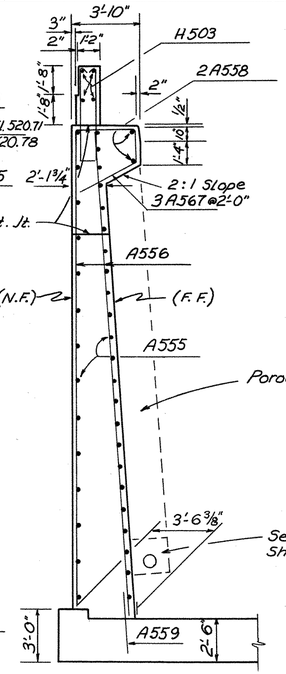
HAM-50-19.76



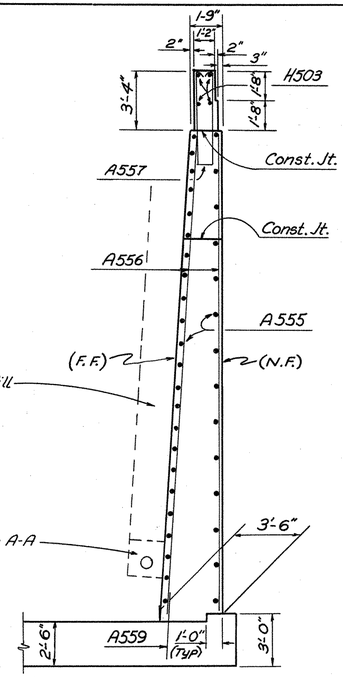
LAYOUT DIAGRAM OF NORTH ABUTMENT & WEST WALL



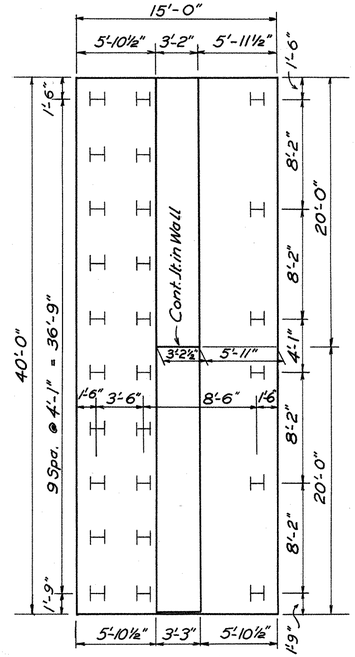
ELEVATION D-D
(Drawn For East Wingwall
West Wingwall Opposite Hand)



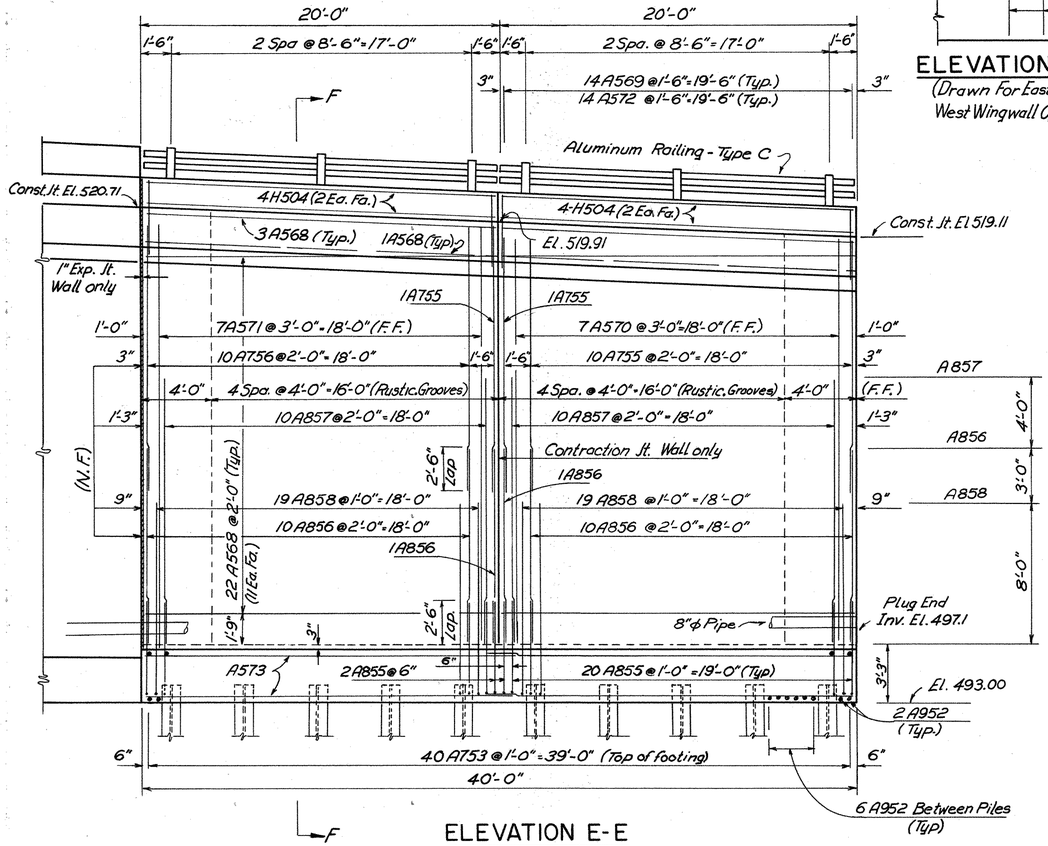
SECTION B-B



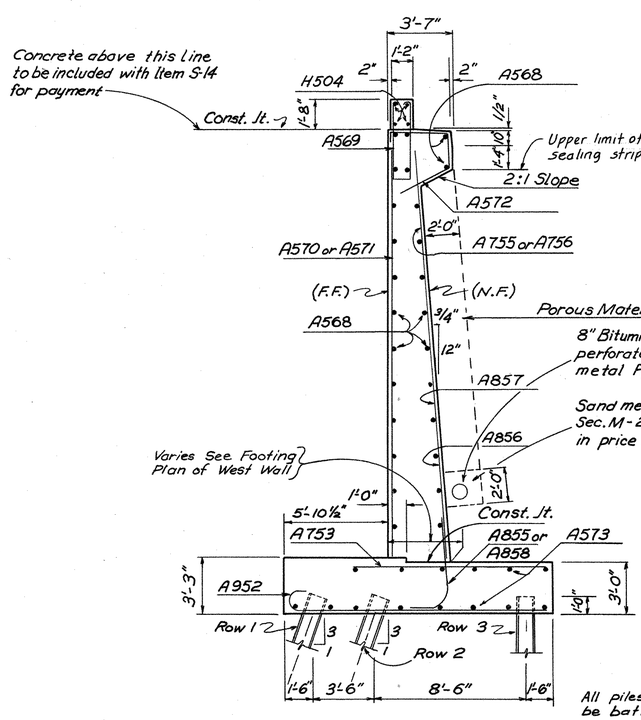
SECTION C-C



FOOTING PLAN OF WEST WALL



ELEVATION E-E



SECTION F-F

All piles in rows 1 and 2 shall be battered as shown

Note:
For details of Aluminum Railing See Std. Dwg. AR-1-57

Work this Sheet with Sheet No. 332

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CONSULTING ENGINEERS
CINCINNATI, OHIO

NORTH ABUTMENT

BRIDGE No. HAM-50-2007

H.&E. BRIDGE No. 6

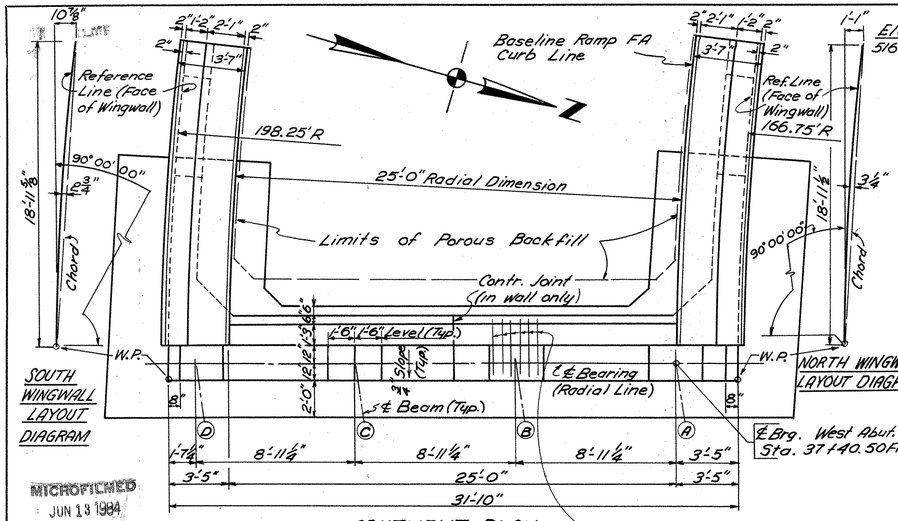
DESIGNED	DRAWN	TRACED	CHECKED	REVIEWED DATE	REVISED
O.E. 6-28-61	O.E. 6-29-61	JB 5/3/62	W.W.C. 7-20-61	M.J.Z. 8-7-62	

FED. RD. DIV.	STATE	PROJECT	FISCAL YEAR
2	OHIO		

334
464

HAM-50-19.76

MICROFILMED
JUN 13 1984

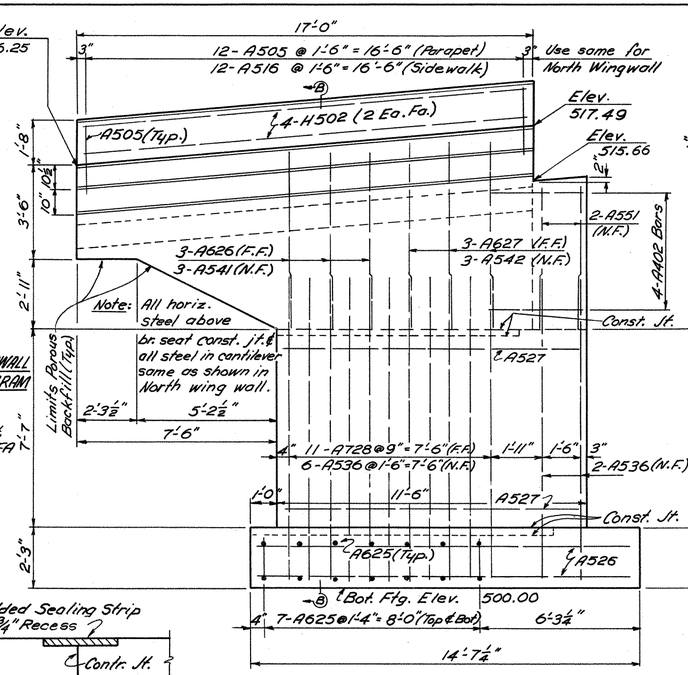


SOUTH WINGWALL LAYOUT DIAGRAM

NORTH WINGWALL LAYOUT DIAGRAM

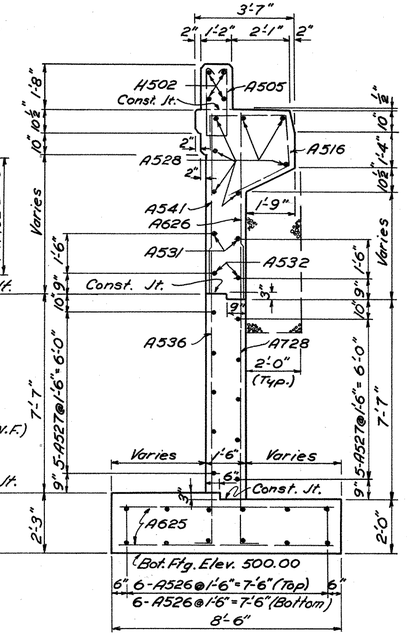
ABUTMENT PLAN

6-A554 under each girder Spa @ 6" ± to clear anchor bolts.

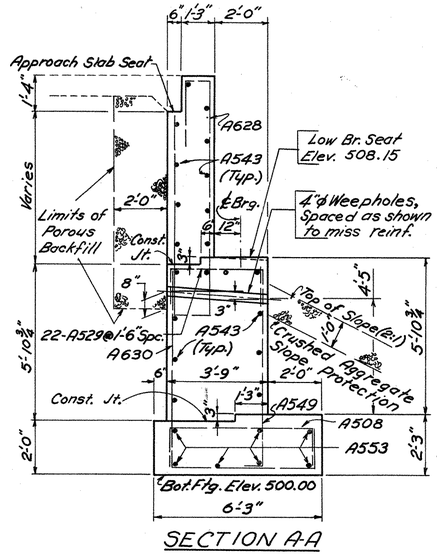


SOUTH WINGWALL ELEVATION

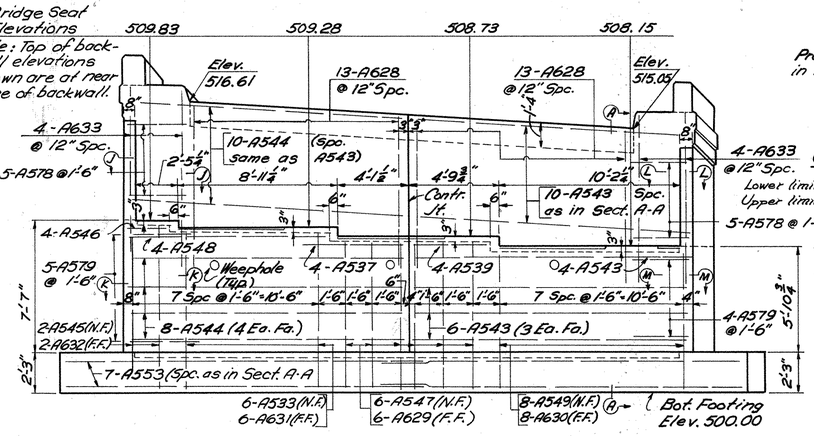
Note: For Sections J-J, K-K, L-L, & M-M see Sh. # 331



SECTION B-B



SECTION A-A



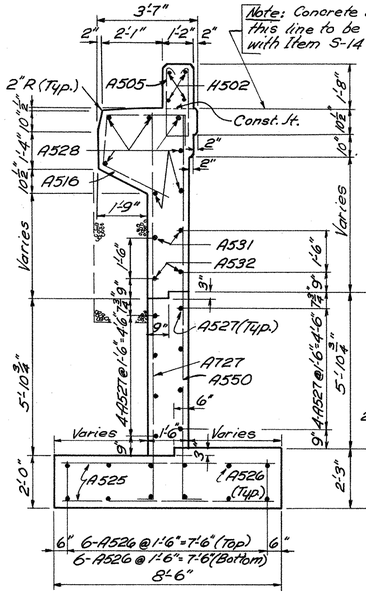
FRONT ELEVATION
(End Finish Not Shown)

Premolded Sealing Strip in 13"x¾" Recess

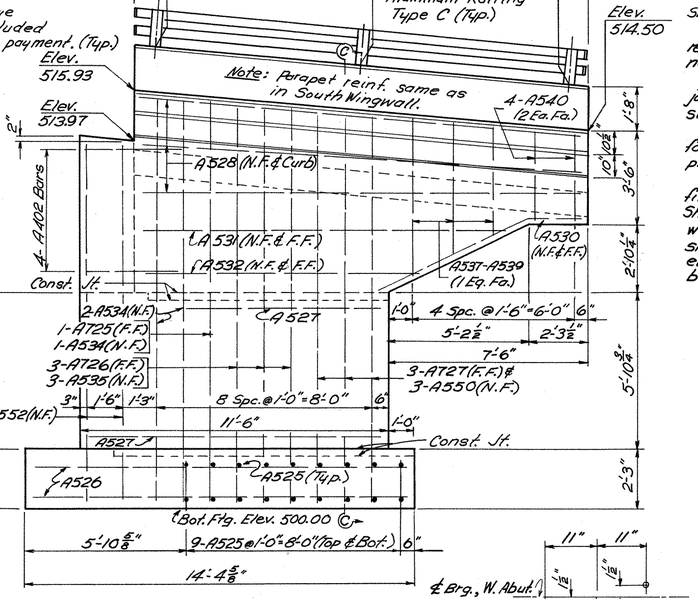
Contr. Jt.

CONTRACTION JT. DETAIL

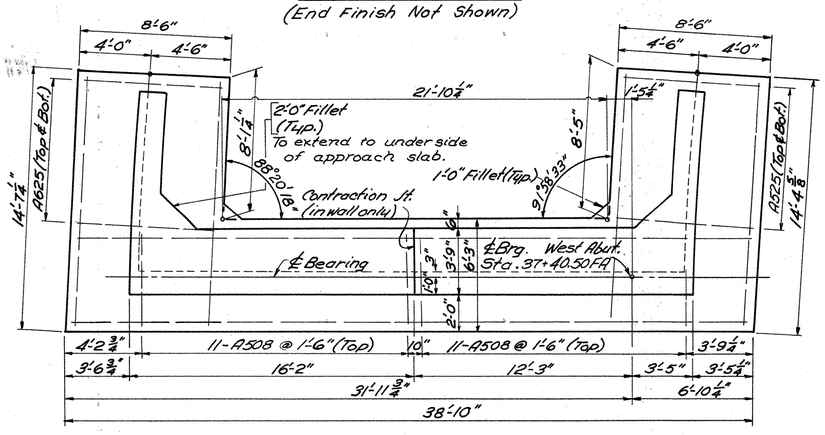
Lower limit of premolded sealing strip: Top of footing.
Upper limit of premolded sealing strip: Underside of approach slab.



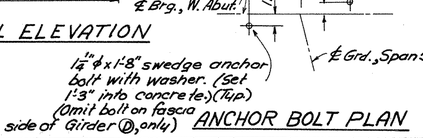
SECTION C-C



NORTH WINGWALL ELEVATION



FOOTING PLAN



½"ϕ x 1'-8" swedge anchor bolt with washer. (Set 1'-3" into concrete) (Typ.) (Omit bolt on fascia side of Girder ①, only)

ANCHOR BOLT PLAN

NOTES:

Provide 3" clearance to reinforcing steel in footing and 2" clearance to reinforcing steel in wall (minimum).

For roadway and curb end finish details, see Sheet 348

Special care shall be taken in placing reinforcing in abutment seat so that it will not interfere with the masonry plate anchor bolts.

Concrete above bridge seat construction joint shall not be placed until after superstructure steel is in place.

Foundation Bearing Pressure: Abutment footing is designed for a maximum bearing pressure of 2.9 Tons per Sq. Ft.

Procedure: The existing miscellaneous fill material shall be excavated as shown on Sheet No. 326, then replaced and compacted with embankment material. The embankment shall be placed and compacted up to elevation 507.1, after which excavation shall be made for the abutment.

For railing details see Std. Dwg. AR-1-57

N.F. = Near Face
F.F. = Far Face
Ea. Fa. = Each Face

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CINCINNATI, OHIO

WEST ABUTMENT

BRIDGE No. HAM-50-2007

H. & E. BRIDGE No. 6

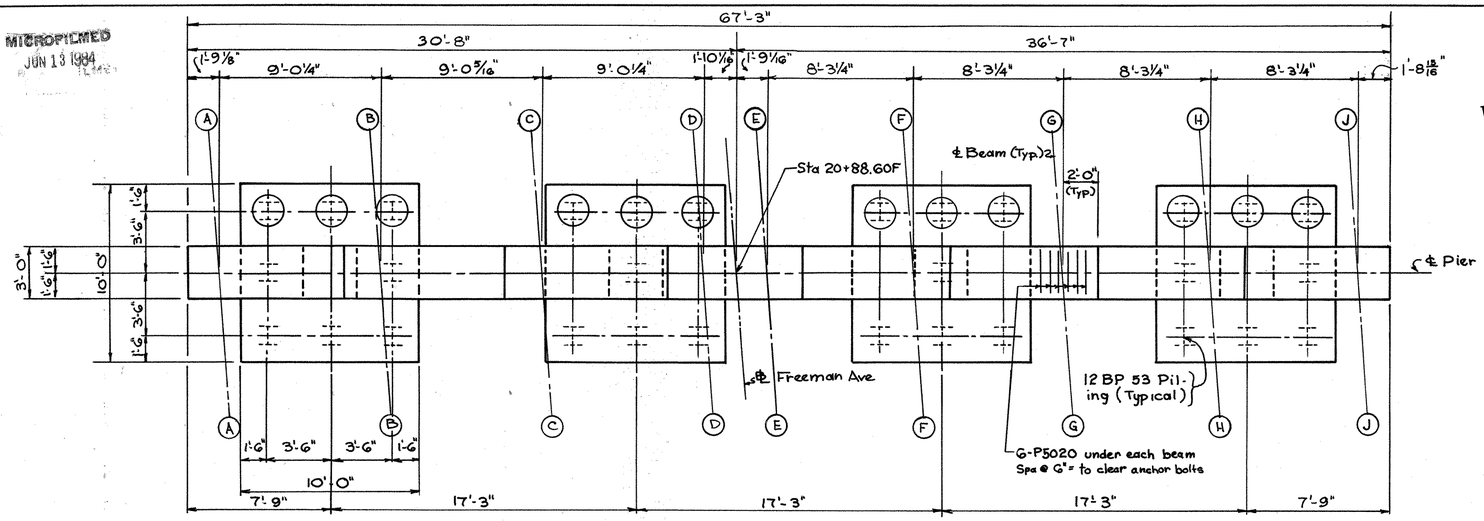
DESIGNED	DRAWN	TRACED	CHECKED	REVIEWED	DATE	REVISED
B.O.C.	B.O.C.	JB	W.W.C.	M.A.E.	8-7-62	
5-12-61	5-22-61	5-8-62	7-6-61			

MICROFILMED
JUN 13 1994

FED. RD. DIV.	STATE	PROJECT	FISCAL YEAR
2	OHIO		

335
464

HAM-50-19.76

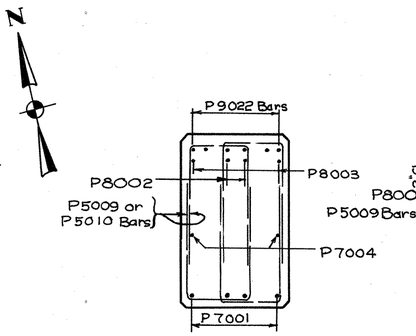


PLAN - PIER 4

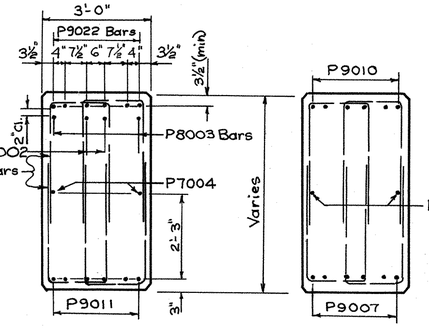
(For Plan View Piers 1, 2, 5, & 6 See Sheet No. 336)

(I) - Indicates battered pile

Bridge Seat Elevations									
Pier 1	516.22	516.32	516.43	516.53	516.53	516.38	516.22	516.07	516.01
Pier 2	518.72	518.82	518.94	519.05	519.05	518.90	518.75	518.60	518.55
Pier 4	522.03	522.14	522.27	522.40	522.40	522.27	522.13	521.99	521.95
Pier 5	522.79	522.91	523.05	523.18	523.18	523.05	522.91	522.78	522.75
Pier 6	521.16	521.28	521.42	521.56	521.56	521.44	521.31	521.16	521.16

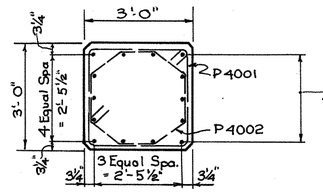


SECTION A-A



SECTION B-B

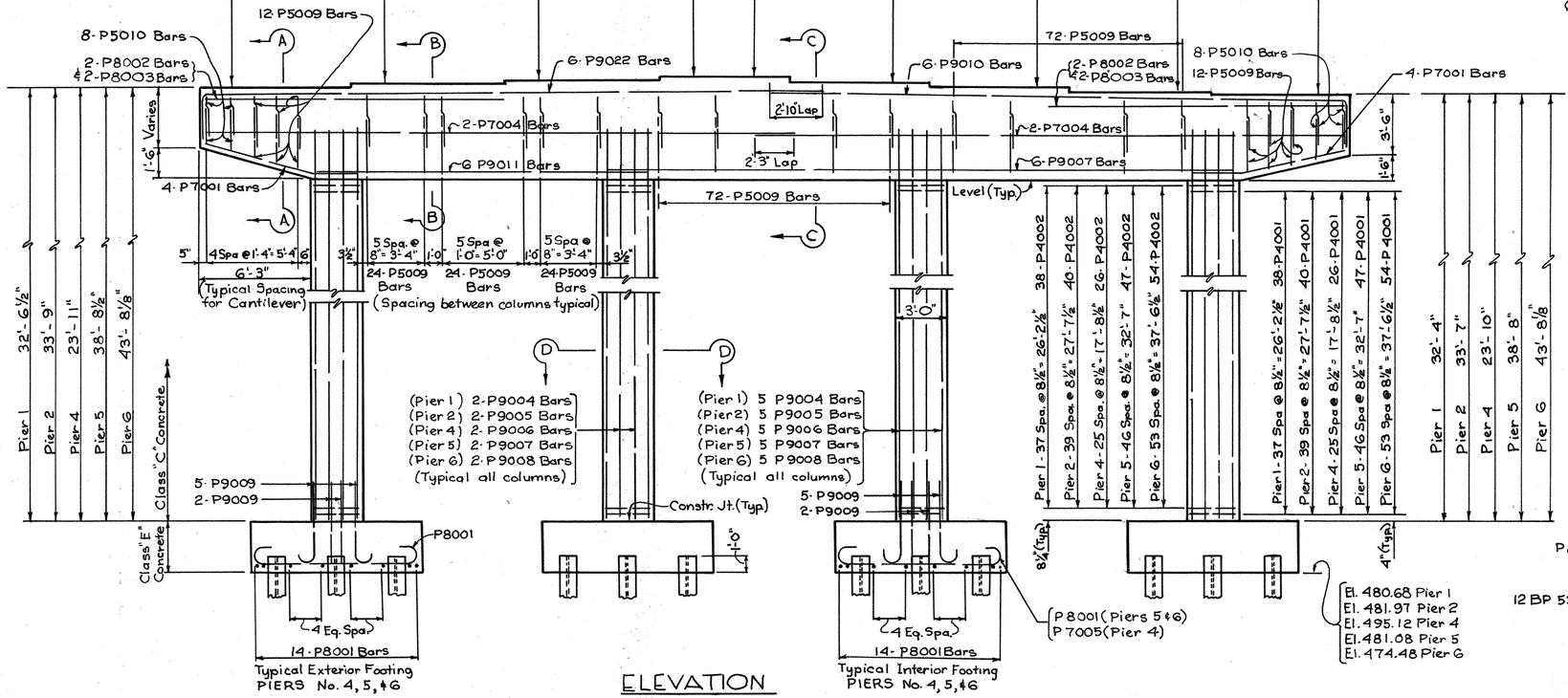
SECTION C-C



P 9004 - Pier 1
P 9005 - Pier 2
P 9006 - Pier 4
P 9007 - Pier 5
P 9008 - Pier 6

SECTION D-D

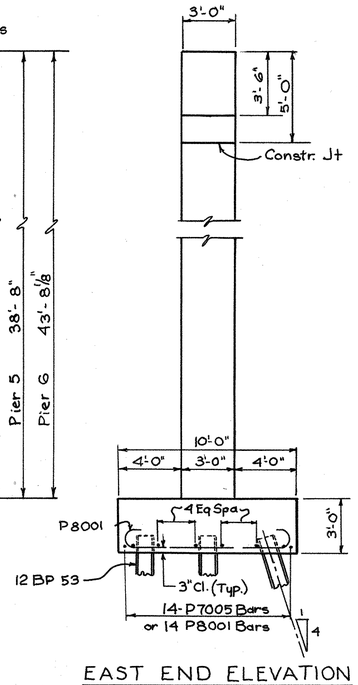
(Typical) Column Section



ELEVATION

(Pier Cap Reinforcing Typical for all Piers)

Note: For Footing Reinf. Details-Piers 1 & 2, See Sheet No. 336



EAST END ELEVATION

(Footing Details for Pier 4 only)

Procedure: The embankment shall be placed as indicated on Site Plan Sheet No. 324 (for Stage Construction No. 1) after which excavation shall be made for Piers 1, 2 & 4.

NOTE "A":

(1) Special care shall be taken in placing steel in the pier cap so that it will not interfere with the masonry plate anchor bolts.

(2) All piles shall be Steel H Piles as follows:
10 BP 42 - Piers 1, 2, 5, & 6
12 BP 53 - Pier 4

(3) Ea-Fa. denotes each face

For connection of lighting conduit to East Column Piers Nos 1 & 4 see Sheet No. 214

For connection of downspouts to Pier see Sheet # 357 & 412

~~For installation of electrical ground wires in Pier 6 see Sheet # ???~~

Work this sheet with Sh. No. 336

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PIERS NOS. 1, 2, 4, 5 & 6

BRIDGE NO. HAM-50-2007

H. & E. BRIDGE NO. 6

DESIGNED	DRAWN	TRACED	CHECKED	REVIEWED DATE	REVISED
MKK	J.I.M. 7-20-61	JTB	JHO 5/11/62	M.K.K. 8-7-62	

MICROFILMED
JUN 13 1984

FED. RD. DIV.	STATE	PROJECT	FISCAL YEAR
2	OHIO		

HAM-50-19.76

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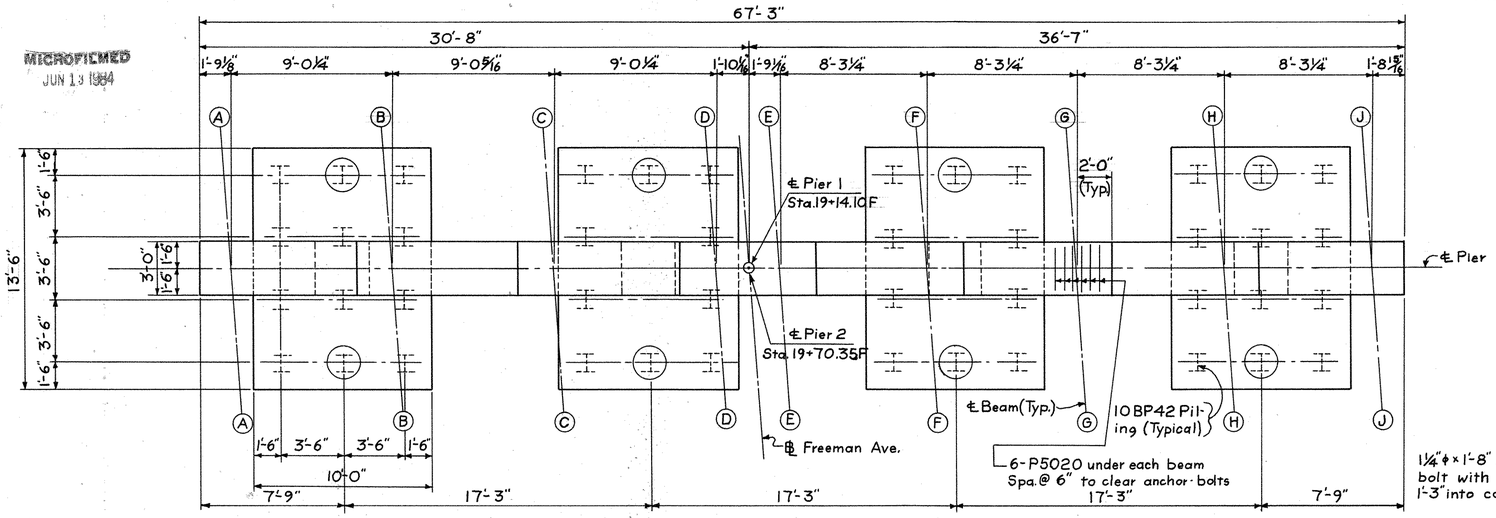
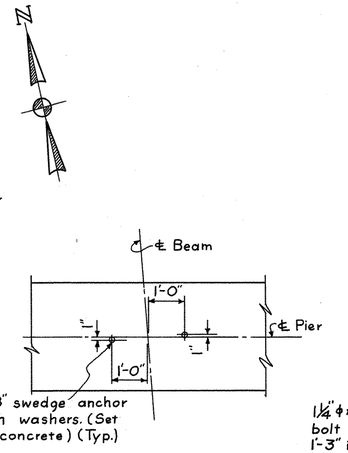
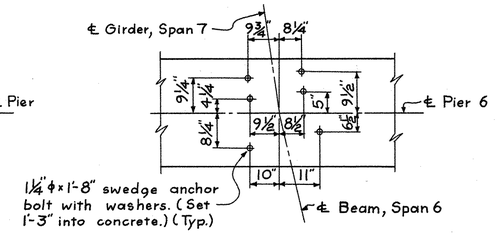


PLAN - PIERS 1&2

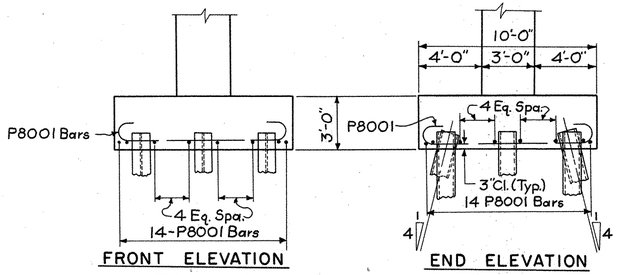
Ⓘ - Indicates batter pile.



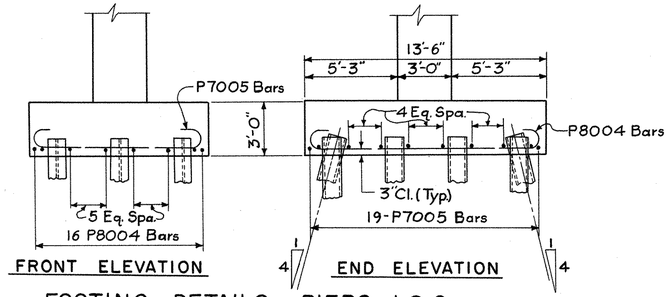
ANCHOR BOLT PLAN
PIERS 1, 2, 4, 5



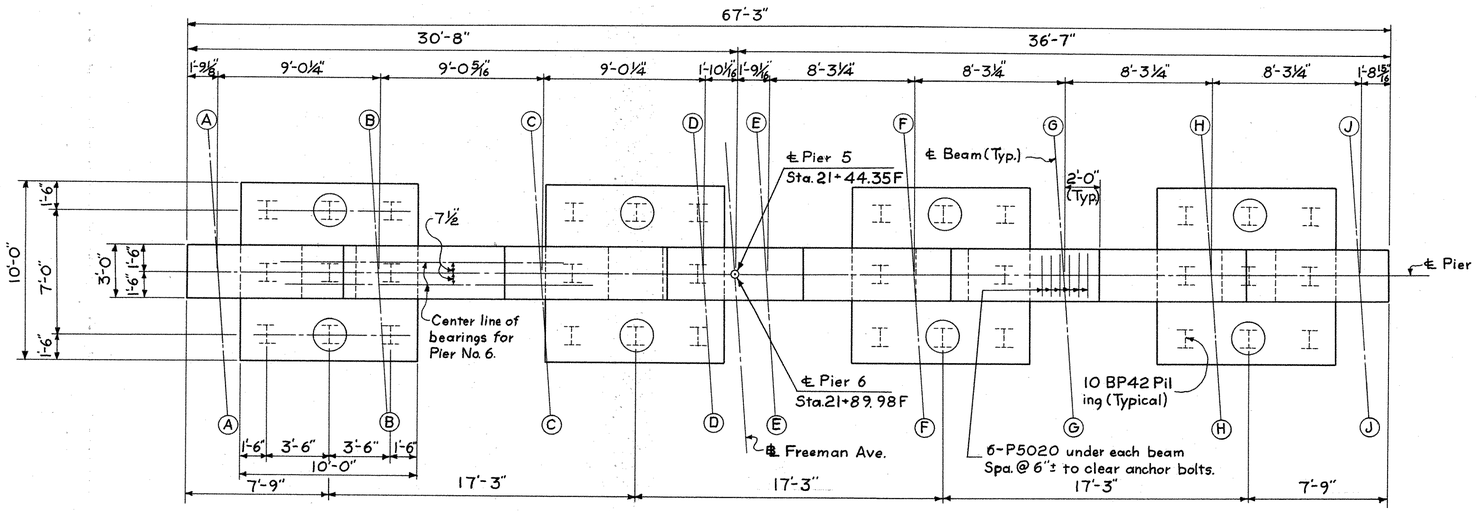
ANCHOR BOLT PLAN
PIER 6



FOOTING DETAILS ~ PIERS 5&6



FOOTING DETAILS ~ PIERS 1&2



PLAN PIERS 5&6

Work this sheet with Sh. No 335

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PIERS NOS. 1 2 4 5 & 6
BRIDGE NO. HAM-50-2007

H. & E. BRIDGE NO. 6

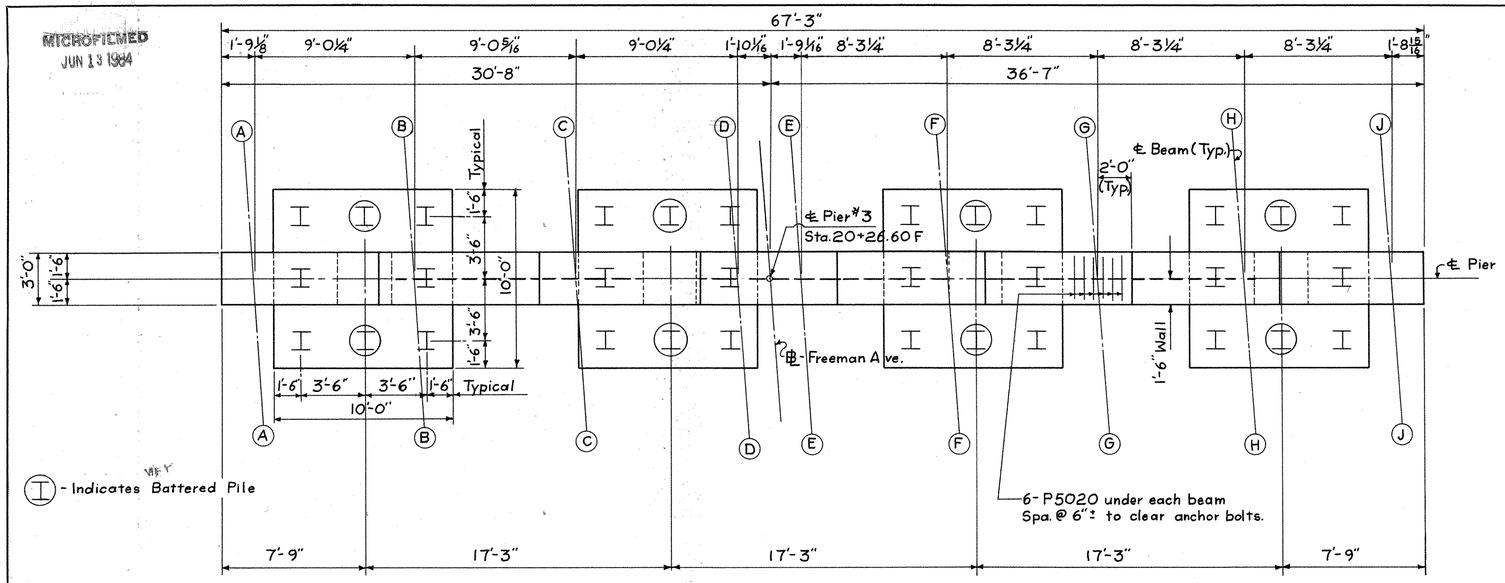
DESIGNED	DRAWN	TRACED	CHECKED	REVIEWED DATE	REVISED
MKK	HLL 10-30-61	J.T.C. 5/7/62	J.H.O 5/18/62	M.A.Z. 8-7-62	

MICROFILMED
JUN 13 1964

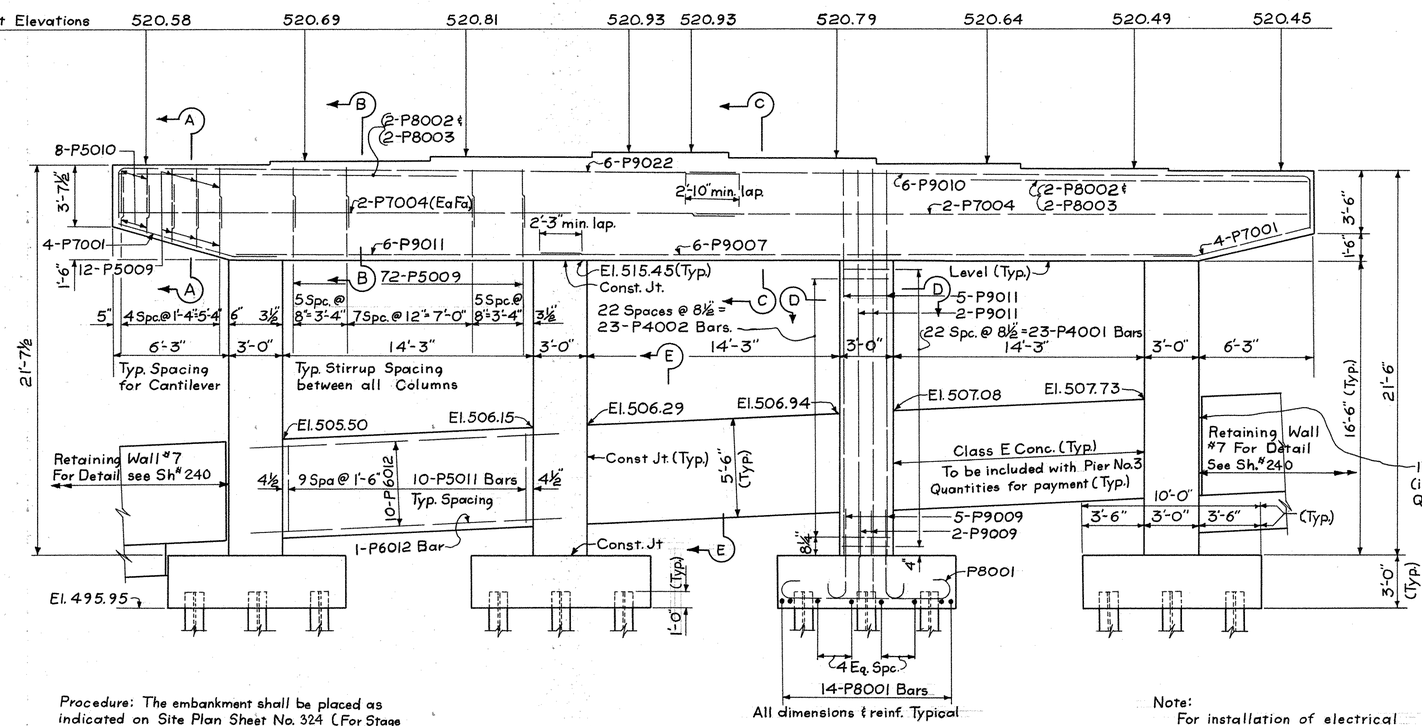
FED. RD. DIV.	STATE	PROJECT	FISCAL YEAR
2	OHIO		

337
464

HAM-50-19.76



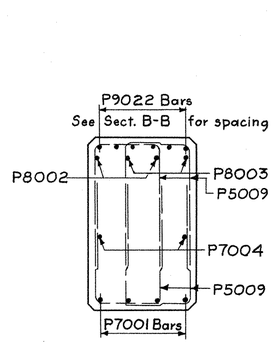
PLAN



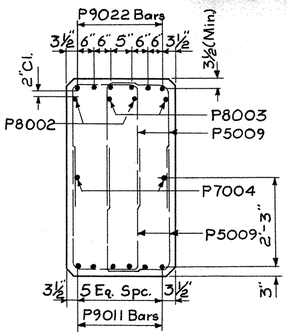
ELEVATION

Procedure: The embankment shall be placed as indicated on Site Plan Sheet No. 324 (For Stage Construction No. 1), after which excavation shall be made for Pier No. 3.

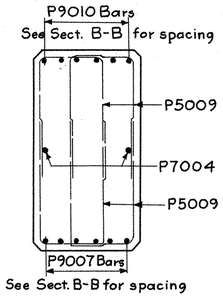
Note:
For installation of electrical ground wire in Pier, see Sh.# 212



SECTION A-A

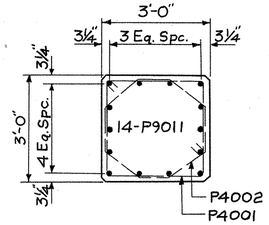


SECTION B-B

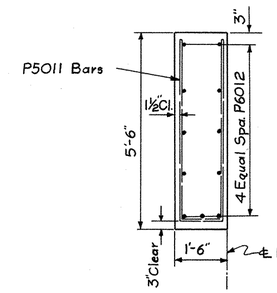


See Sect. B-B for spacing

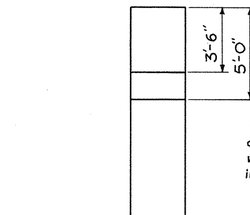
SECTION C-C



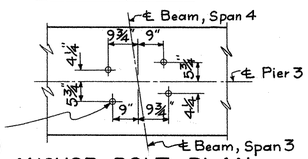
SECTION D-D
(Typical) Column Section



SECTION E-E



EAST
END ELEVATION



ANCHOR BOLT PLAN

NOTES:
1. See Note "A" Sheet # 335
2. Special care shall be taken in placing steel in the pier cap so that it will not interfere with the masonry plate anchor bolts.
3. All piles shall be 12 BP53 Steel H-Piles.

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CONSULTING ENGINEERS
CINCINNATI, OHIO

PIER NO. 3
BRIDGE NO. HAM-50-2007

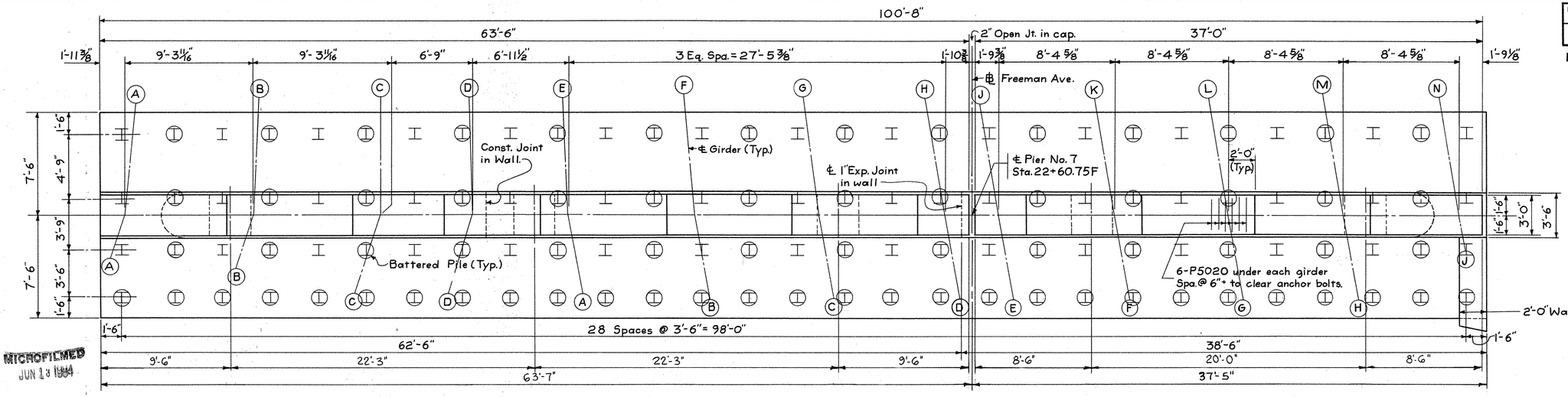
H. & E. BRIDGE NO. 6

DESIGNED	DRAWN	TRACED	CHECKED	REVIEWED DATE	REVISED
MKK	JIM 7-26-61	J.T.C. 5/8/62	JHO 5/11/62	N.A.E. 8-7-62	

FED. RD. DIV.	STATE	PROJECT	FISCAL YEAR
2	OHIO		

338
464

HAM-50-19.76



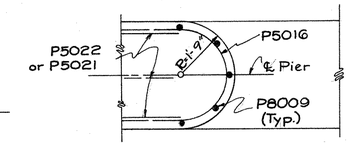
NOTE:
See Note "A" Sheet # 335

MICROFILMED
JUN 13 1984

PLAN

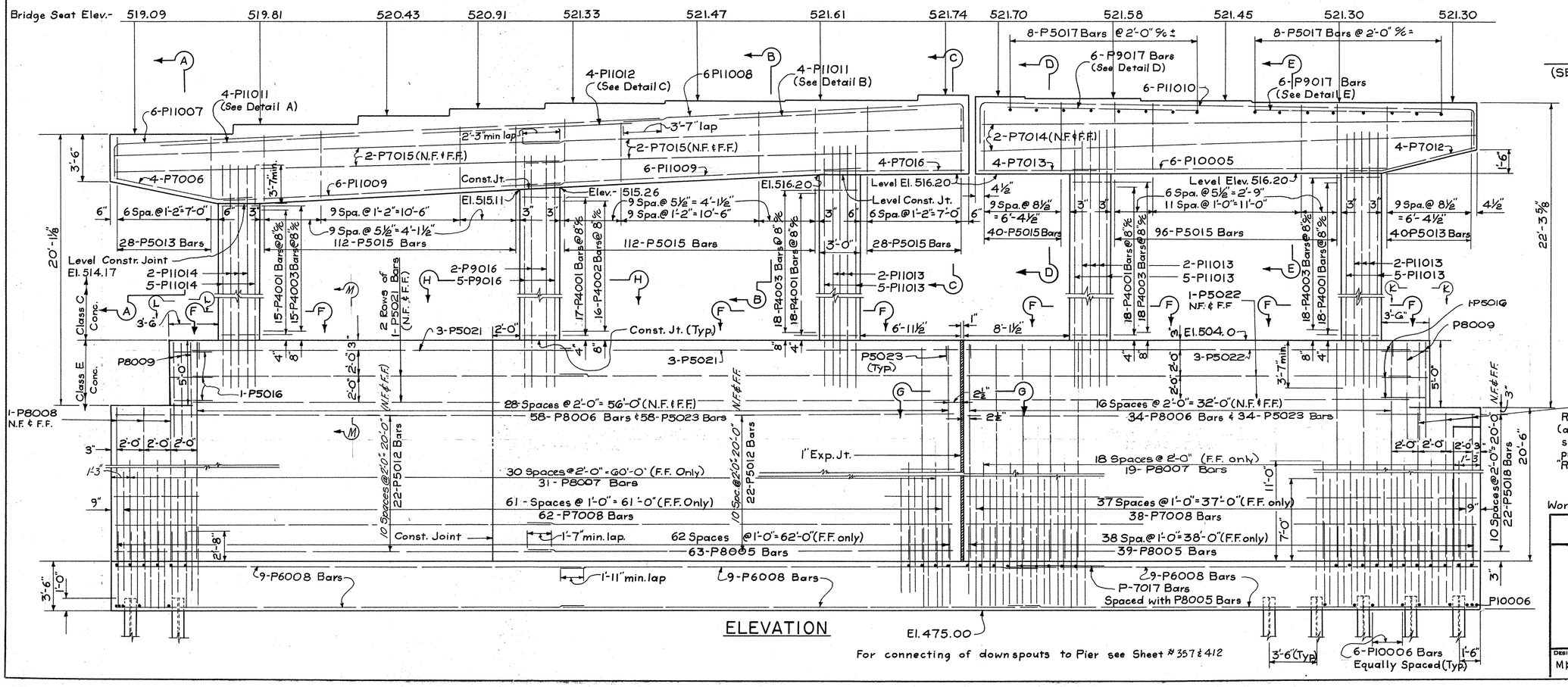
All Piles are 10BP42

West end of pier above Elev. 499.0 to be poured against the cut section of the existing wall. Dimensions to this edge of pier to be considered plus or minus.



SECTION K-K

(SECTION L-L OPPOSITE HAND)



ELEVATION

For connecting of downspouts to Pier see Sheet # 357 & 412

For Section G-G see Exp. Jt. Detail Sheet # 411

Removal of existing retaining wall (as shown on Site Plan Sheet No. 325) shall be payed for at the contract unit price bid per lump sum for Item S-22, "Removal of Portions of Existing Structure."

Work this Sheet with Sheet No. 339

HAZELET & ERDAL
CONSULTING ENGINEERS
CINCINNATI, OHIO

PIER NO. 7

BRIDGE NO. HAM-50-2007

H.&E. BRIDGE NO. 6

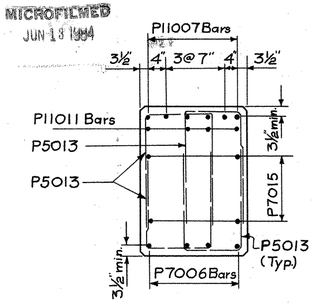
DESIGNED	DRAWN	TRACED	CHECKED	REVIEWED DATE	REVISED
MKK	JIM	J.T.C. 5/10/62	JHO 5/18/62	H.A.Z. 8-7-62	11-1-62

MICROFILMED
JUN 13 1964

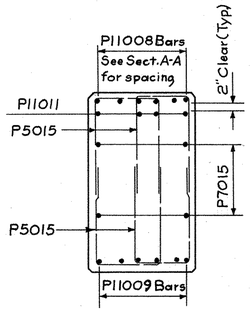
FED. RD. DIV.	STATE	PROJECT	FISCAL YEAR
2	OHIO		

339
464

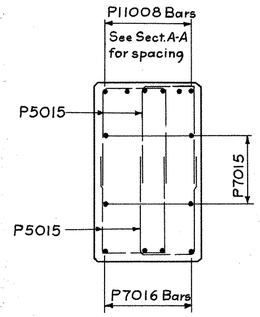
HAM-50-19.76



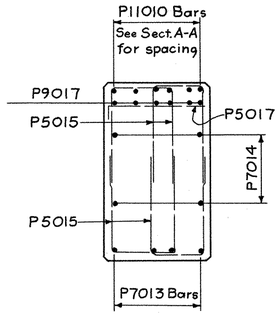
SECTION A-A



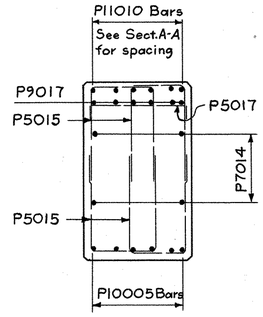
SECTION B-B



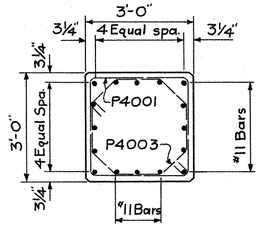
SECTION C-C



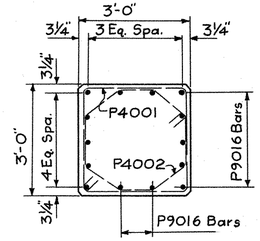
SECTION D-D



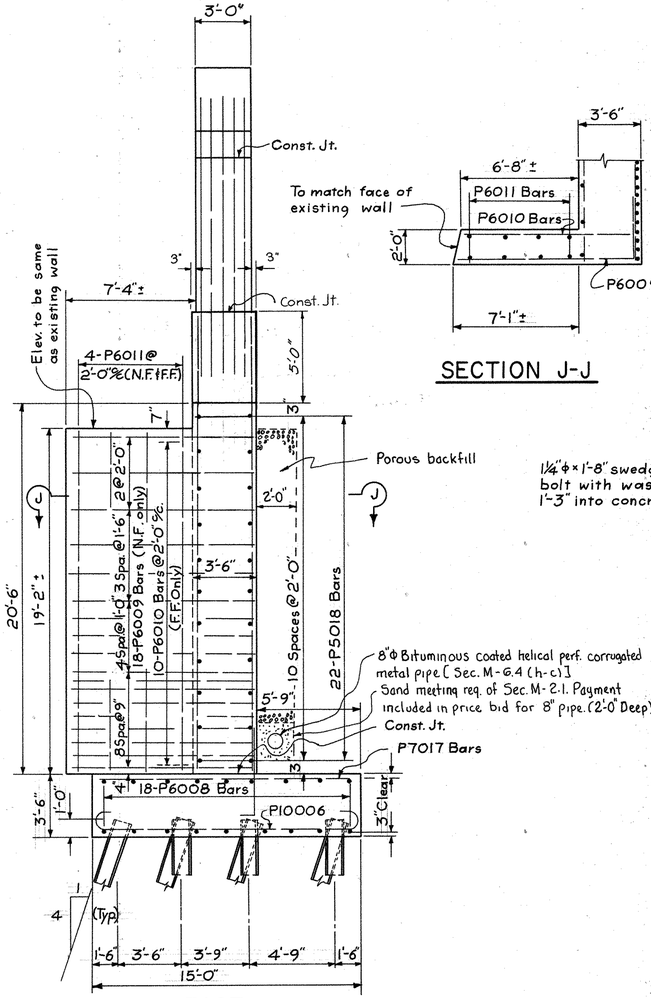
SECTION E-E



SECTION F-F

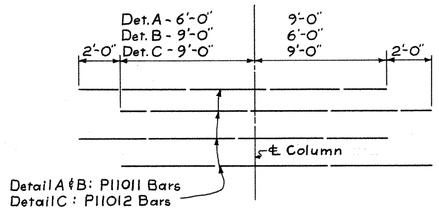


SECTION H-H

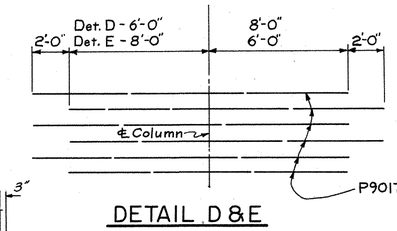


EAST END ELEVATION

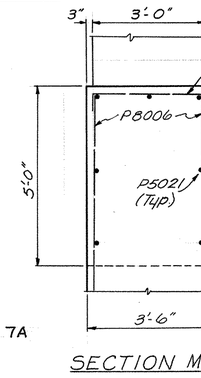
SECTION J-J



DETAIL A,B,C



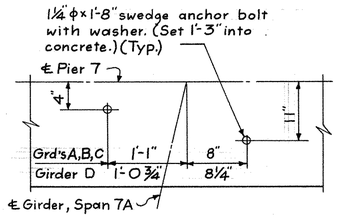
DETAIL D & E



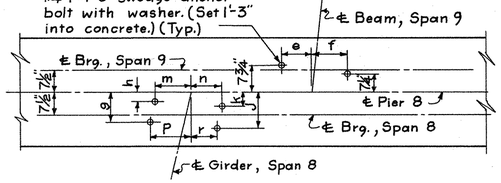
SECTION M-M

ANCHOR BOLT PLAN
PIER 7, SPANS 7&8

SPAN	GIRDER	a	b
8	A	11"	1'-0¼"
8	B	11¼"	11¾"
8	C	11½"	11½"
8	D	11¾"	11¼"
8	E	11¾"	11¼"
8	F	1'-0⅛"	11"
8	G	1'-0⅛"	10¾"
8	H	1'-1"	10½"
8	J	1'-1"	10½"
8	K	1'-1"	10½"
8	L	1'-1"	10½"
8	M	1'-1"	10¼"
8	N	1'-1"	10½"

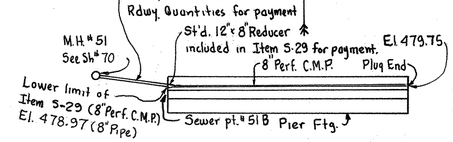


ANCHOR BOLT PLAN
PIER 7, SPAN 7A



ANCHOR BOLT PLAN
PIER 8

SPAN	Bm. or Girder	e	f	g	h	j	k	m	n	p	r
8&9	A	10¾"	11¼"	8¼"	3¾"	1'-0¾"	5¾"	1'-0"	10¼"	1'-0¾"	8¾"
do	B	10¾"	11¼"	9"	4"	1'-1"	5¼"	11¾"	10¼"	1'-0¼"	9¼"
do	C	11"	11"	9"	4"	1'-0¾"	4¾"	11½"	10½"	1'-0"	9¾"
do	D	11"	10¾"	9"	4¼"	1'-0⅛"	4½"	11¼"	10¾"	11¾"	10"
do	E	11¼"	10¾"	9"	3¾"	8¾"	4¼"	11¼"	11"	11½"	10½"
do	F	11½"	10½"	8¾"	3¾"	8¾"	4¼"	11¼"	11"	11¼"	10¾"
do	G	11¼"	10¾"	9"	3¾"	8¾"	4¼"	11"	11"	10¾"	11¼"
do	H			1'-0¼"	4¼"	8¾"	4¼"	10¾"	11¼"	10¼"	11½"
do	J			↑	↑	↑	↑	↑	11½"	↑	11½"
do	K			↓	↓	↓	↓	↓	↓	↓	11½"
8&9	L	11¼"	10¾"								11½"
8	M	—	—								11¾"
8	N	—	—	1'-0¼"	4¼"	8¾"	4¼"	10¾"	11½"	10¼"	11½"



DRAINAGE PLAN AT PIER NO. 7

Work this Sheet with Sheet No. 338

HAZELET & ERDAL
CONSULTING ENGINEERS
CINCINNATI, OHIO

PIER NO. 7
BRIDGE NO. HAM-50-2007

H. & E. BRIDGE NO. 6

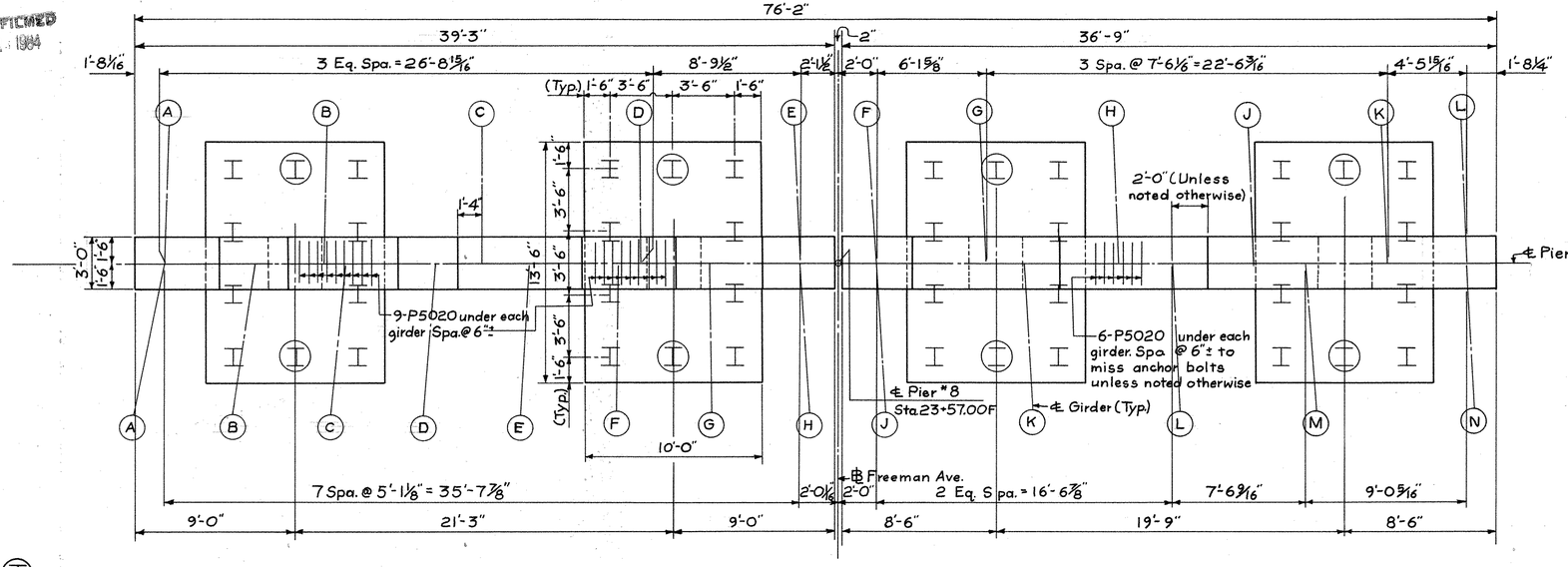
DESIGNED	DRAWN	TRACED	CHECKED	REVIEWED DATE	REVISED
MKK JIM	JIM	JTC 5/11/62	JHO 5/18/62	W.A.J. 8-7-62	10-30-62

MICROFILMED
JUN 1 - 1964

FED. RD. DIV.	STATE	PROJECT	FISCAL YEAR
2	OHIO		

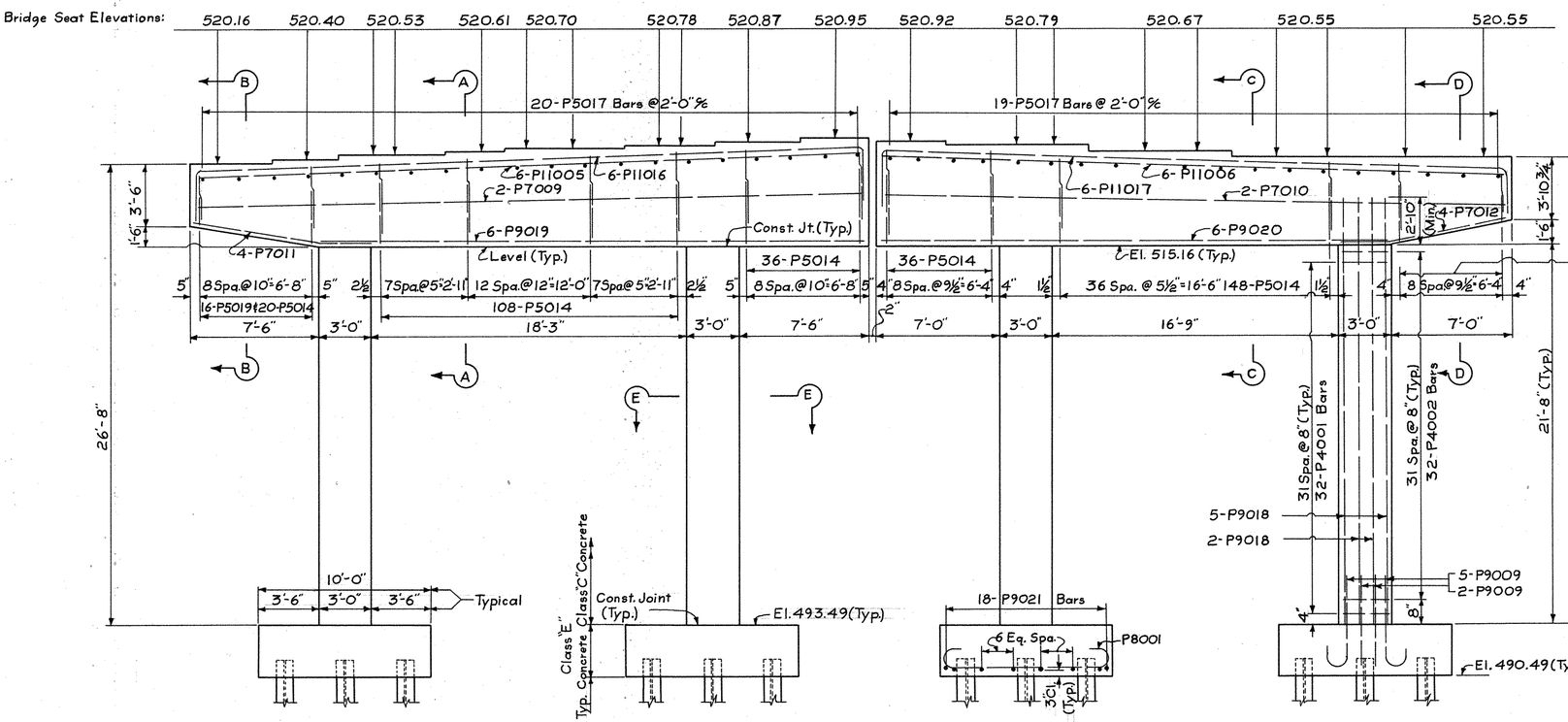
340
464

HAM-50-19.76



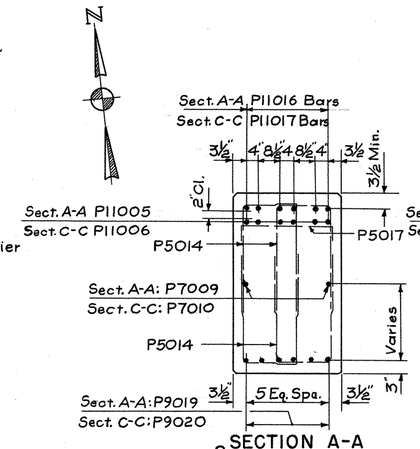
Ⓘ Indicates Battered Pile

PLAN

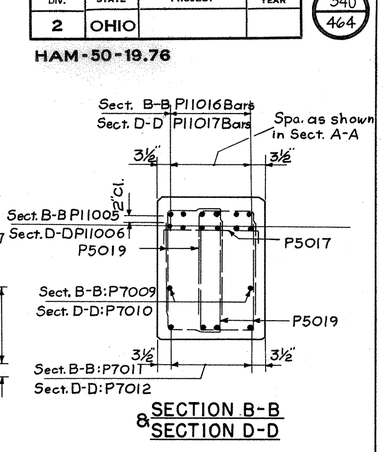


ELEVATION

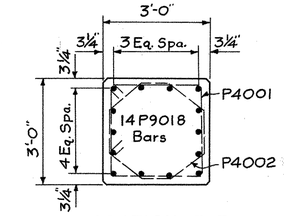
For installation of electrical ground wires in Pier see Sheet # 212



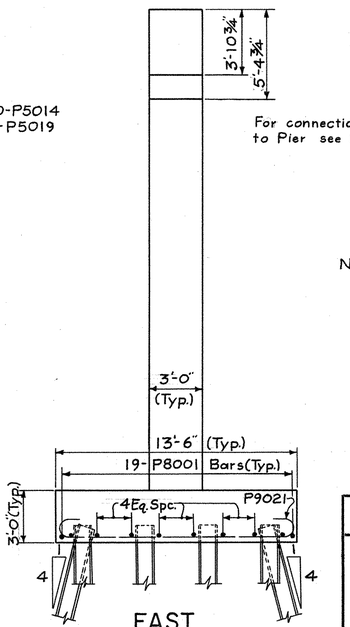
SECTION A-A
SECTION C-C



SECTION B-B
SECTION D-D



SECTION E-E



EAST END ELEVATION

Notes:

1 See Note "A" Sheet # 335
2 Special care shall be taken in placing steel in the pier cap so that it will not interfere with the masonry plate anchor bolts.
3 All piles shall be 12 BP53 Steel H-Piles.
4 For anchor bolt plan see Pier 7 Detail, Sheet # 339

HAZELET & ERDAL
CONSULTING ENGINEERS
CINCINNATI, OHIO

PIER NO. 8

BRIDGE NO. HAM-50-2007

H. & E. BRIDGE NO. 6

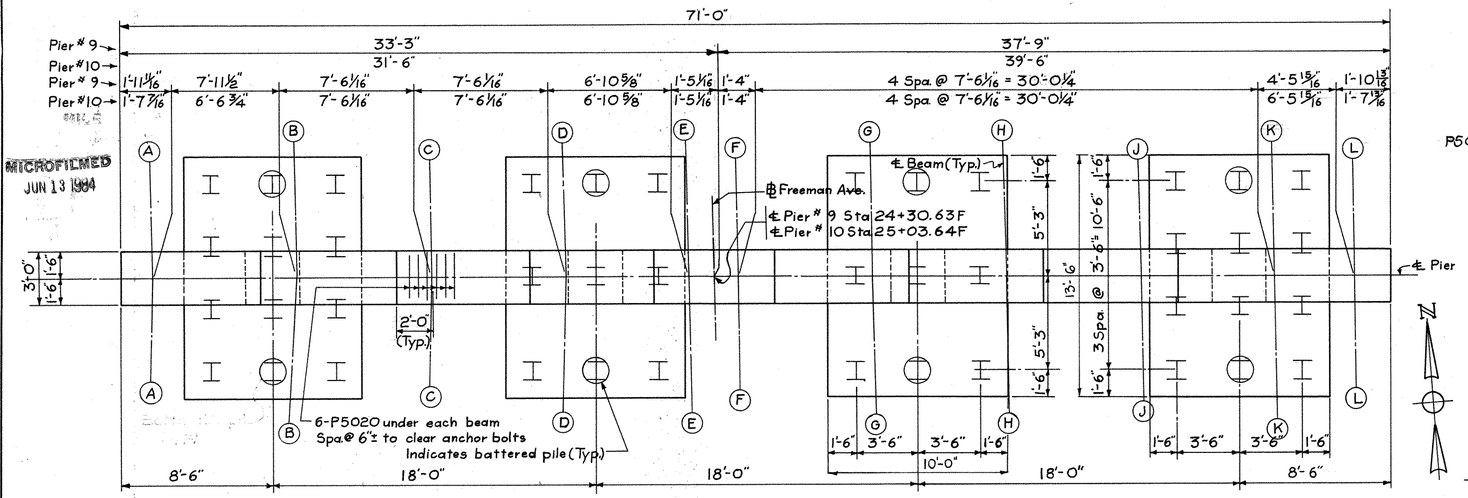
DESIGNED	DRAWN	TRACED	CHECKED	REVIEWED DATE	REVISED
MKK	JHA 7-29-61	J.T.C. 5/14/62	JHO 5/19/62	H.A.Z. 8-7-62	

FED. RD. DIV.	STATE	PROJECT	FISCAL YEAR
2	OHIO		

341
464

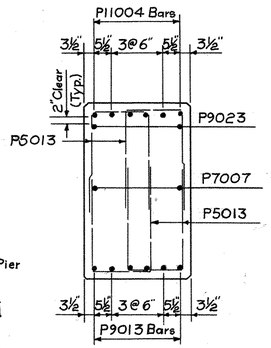
HAM-50-19.76

MICROFILMED
JUN 13 1964

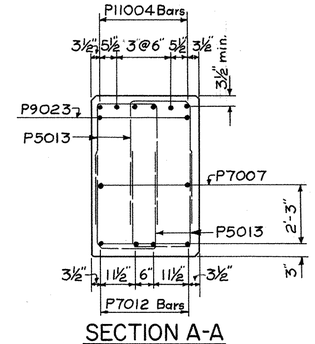


PLAN

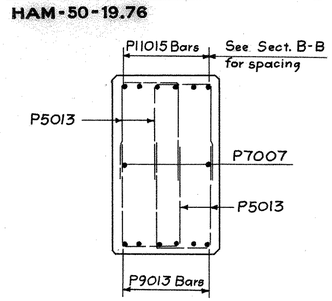
(All piles shall be 12BP53)



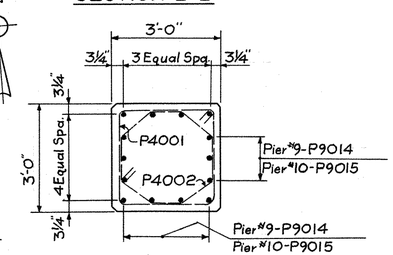
SECTION B-B



SECTION A-A

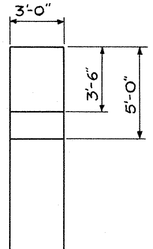


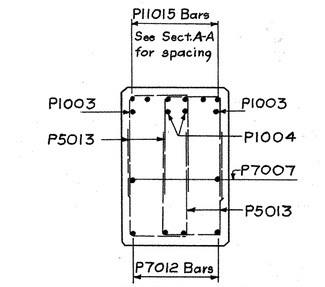
SECTION C-C



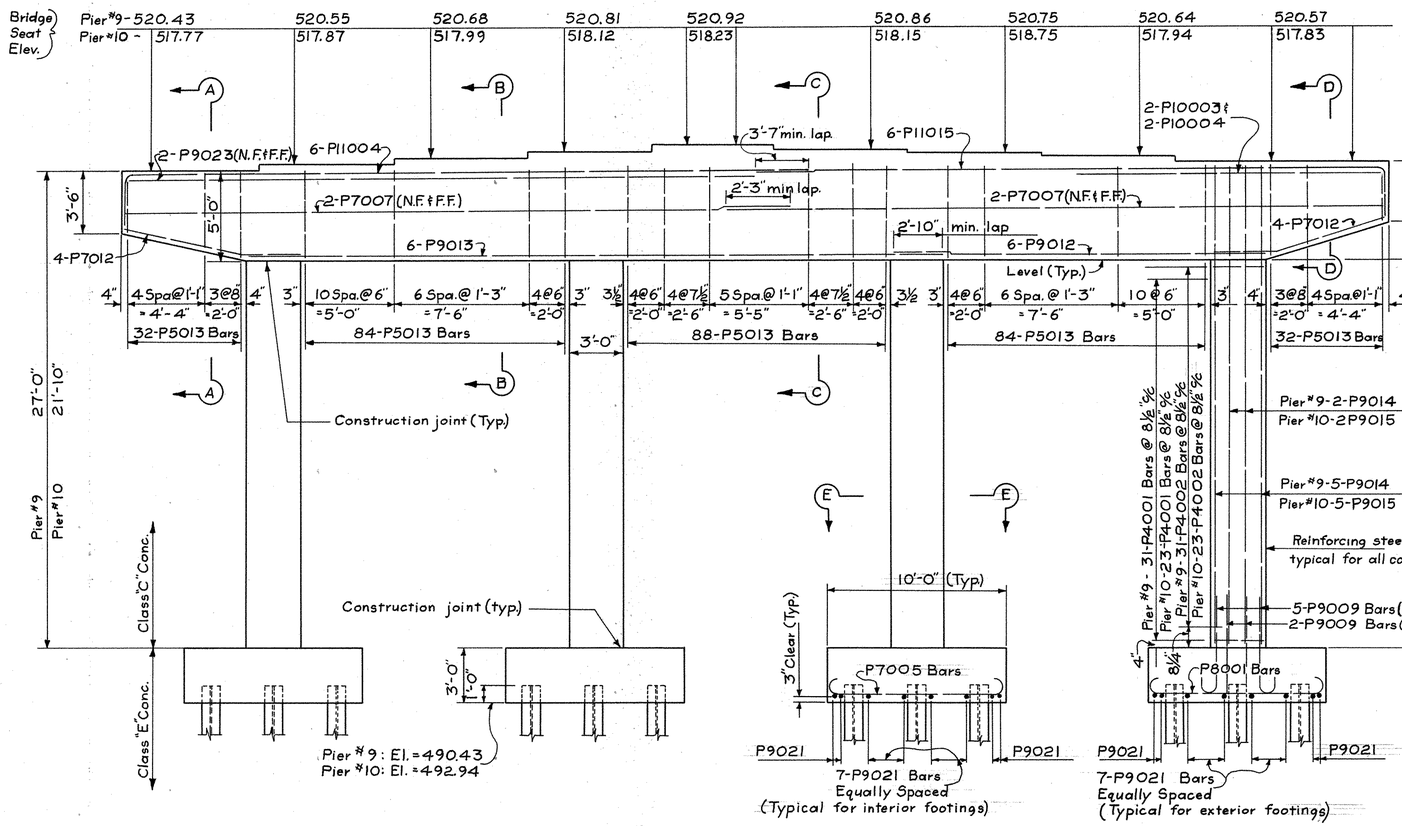
SECTION E-E

(Typical Column Section)



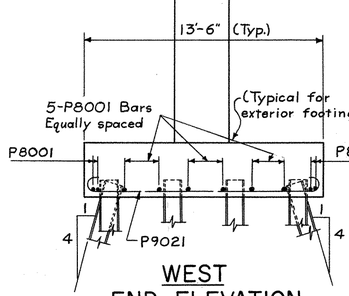


SECTION D-D

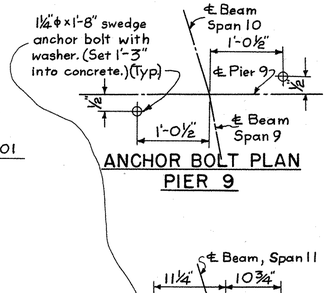


ELEVATION

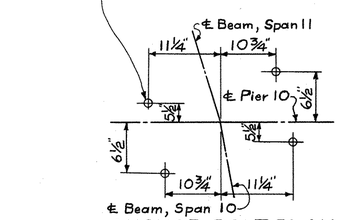
For installation of electrical ground wires in Pier #10 see Sheet # 212
For connection of downspout to Piers #9 and #10 see Sheet # 357 & 412
For connection of lighting conduit to East Column Pier No. 10 see Sh No. 214



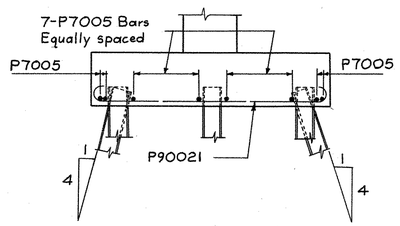
WEST
END ELEVATION



ANCHOR BOLT PLAN
PIER 9



ANCHOR BOLT PLAN
PIER 10



TYPICAL ELEVATION
INTERIOR FOOTING

See Note "A", Sheet # 335
N. F. denotes Near Face.
F. F. denotes Far Face.

HAZELET & ERDAL
CONSULTING ENGINEERS
CINCINNATI, OHIO

PIERS NOS. 9 & 10

BRIDGE NO. HAM - 50 - 2007

H. & E. BRIDGE NO. 6

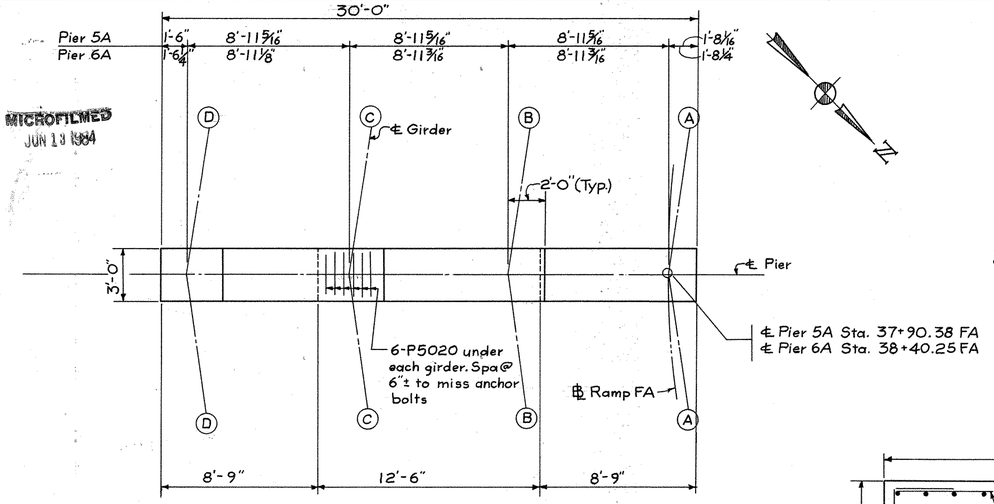
DESIGNED	DRAWN	TRACED	CHECKED	REVIEWED DATE	REVISED
MKK	JIM	J.TC. 5/18/62	JHO 5/19/62	N.A.T. 8-7-62	

FED. RD. DIV.	STATE	PROJECT	FISCAL YEAR
2	OHIO		

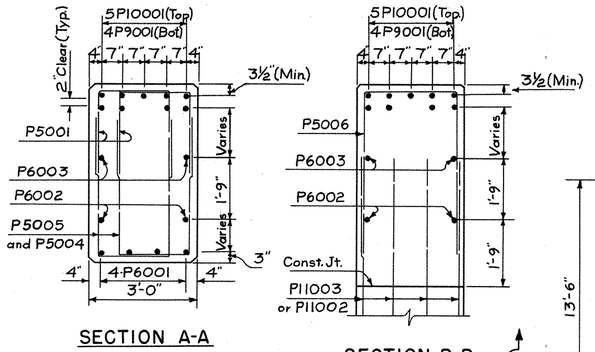
342
464

HAM-50-19.76

MICROFILMED
JUN 13 1984

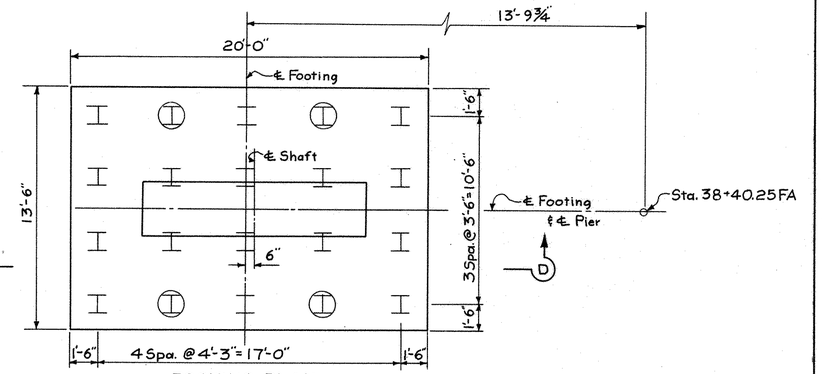


PLAN

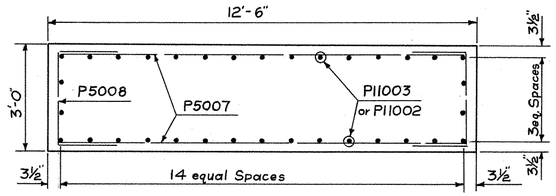


SECTION A-A

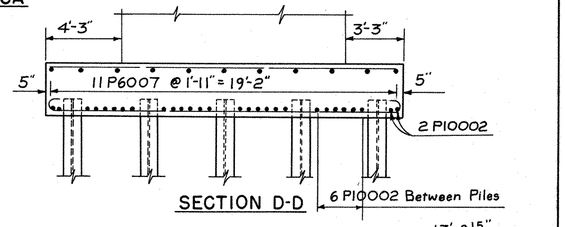
SECTION B-B



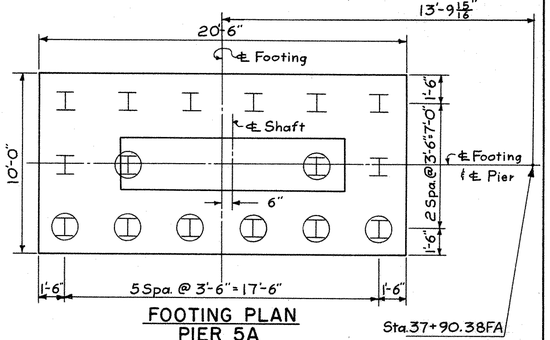
FOOTING PLAN
PIER 6A



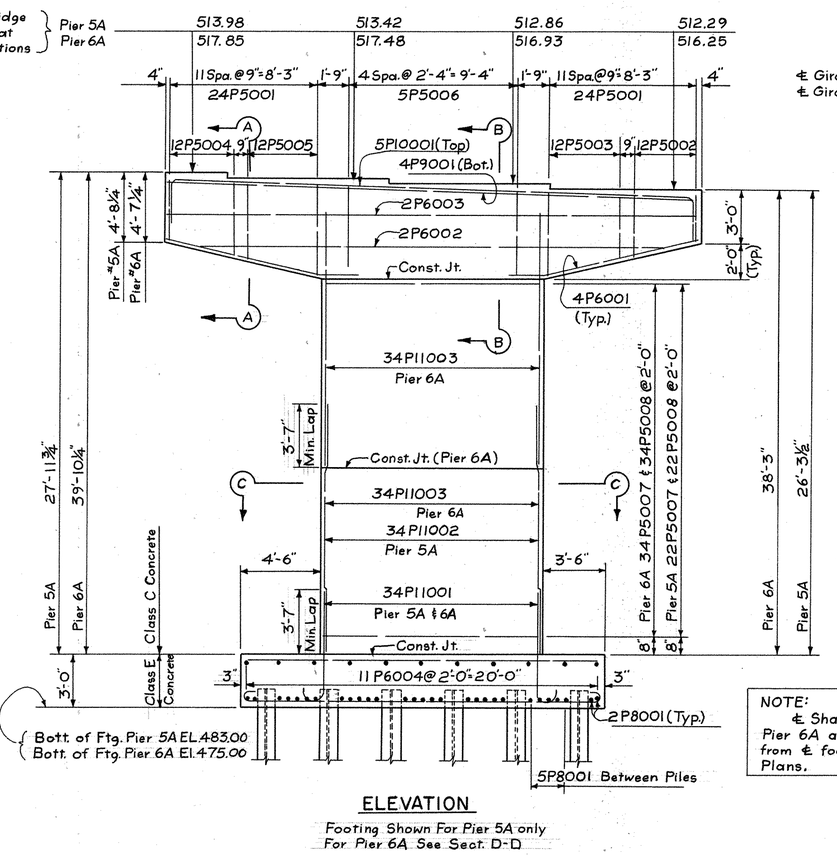
SECTION C-C



SECTION D-D

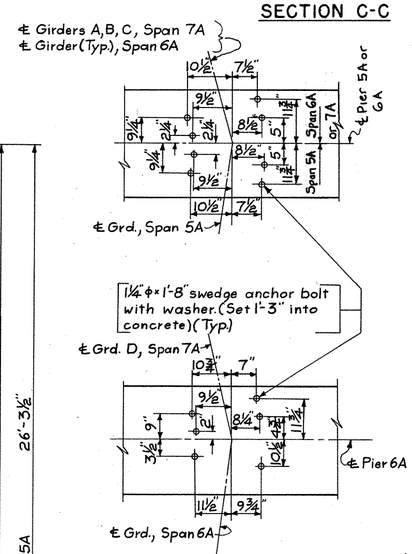


FOOTING PLAN
PIER 5A



ELEVATION

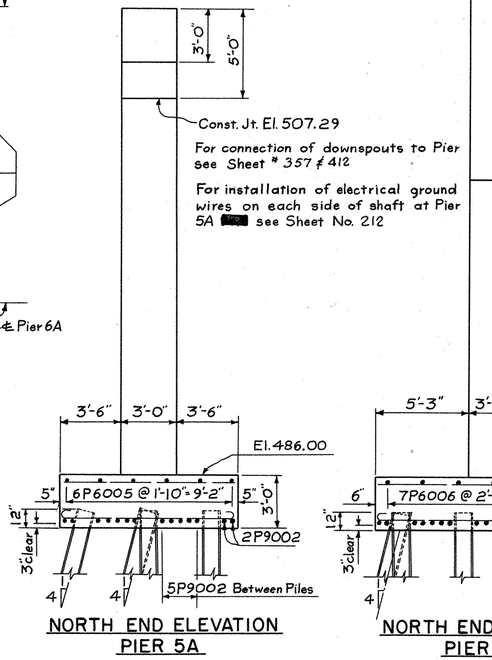
Footing Shown For Pier 5A only
For Pier 6A See Sect. D-D



ANCHOR BOLT PLANS

NOTE:
℄ Shaft of Pier 5A and Pier 6A are offset 6" North from ℄ footing. See footing Plans.

IMPORTANT



NORTH END ELEVATION
PIER 5A

NORTH END ELEVATION
PIER 6A

NOTE:
See Note "A" Sheet # 335

Ⓘ Denotes Batter Piles
All Piles to be 10BP42

HAZELET & ERDAL
CONSULTING ENGINEERS
CINCINNATI, OHIO

PIERS NOS. 5A & 6A

BRIDGE NO. HAM - 50 - 2007

H. & E. BRIDGE NO. 6

DESIGNED	DRAWN	TRACED	CHECKED	REVIEWED DATE	REVISED
O.E. 8-7-61	O.E. 8-10-61	J.T.C. 5/15/62	JHO 5/19/62	H.A.Z. 8-7-62	

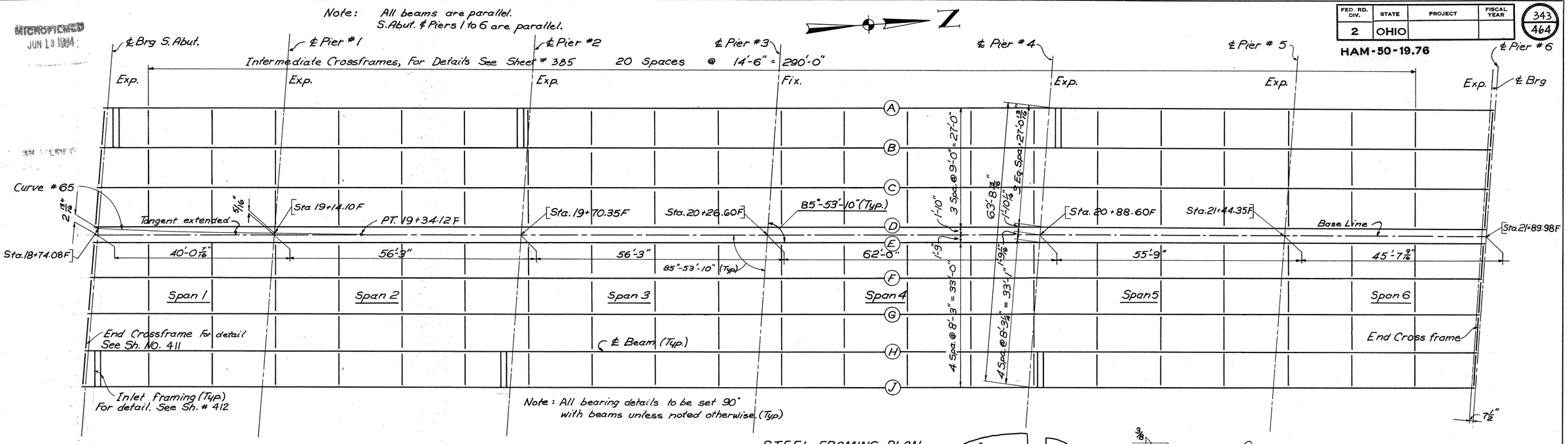
MICROFILMED
JUN 13 1984

FED. RD. DIV.	STATE	PROJECT	FISCAL YEAR
2	OHIO		

343
464

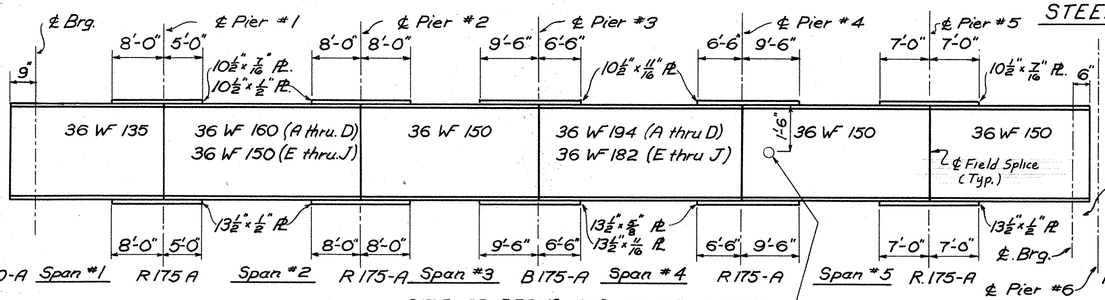
HAM-50-19.76

Note: All beams are parallel.
S.Abut. & Piers 1 to 6 are parallel.



Note: All bearing details to be set 90° with beams unless noted otherwise. (Typ)

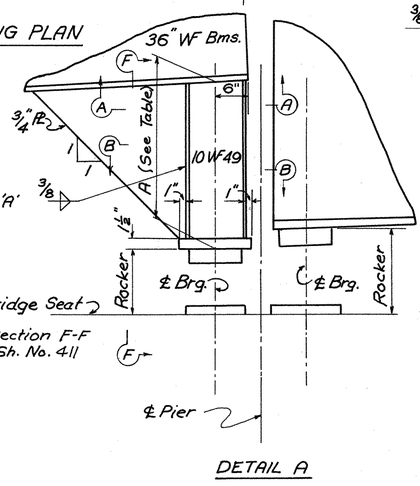
STEEL FRAMING PLAN



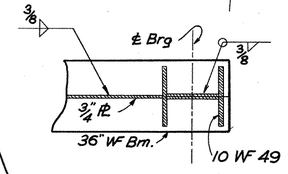
SIZE OF BEAMS AND COVER PLATES

For brg. details see sh. # 409
For bm. splice details, see detail E. sh. # 345
Shear Connectors: See sheet No. 408

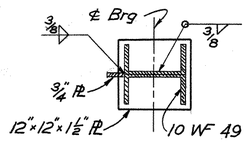
3"ϕ Bushed Holes For location see Sh. No. 355
For detail see Sh. No. 212



DETAIL A



SECTION A-A



SECTION B-B

BEAM SPLICE WELDING PROCEDURE (Span 1 to 6)

(1) Raise the ends of beams in Span 2 at Pier 1 3/4", and the ends of beams in Span 4 of Pier 4 7/8".
(2) Butt-weld the beam flanges and web at Piers 2 and 3 using the following sequence: make two passes on each flange, then two on the web; repeat, using one pass of each location, until welds are complete.
(3) Weld the bottom and top moment plates at Piers 2 and 3.
(4) Lower beams to their final positions.
(5) Raise the ends of beams in Span 1 at S. Abut. 3/8", and the ends of beams in Span 5 at Pier 5 3/4".
(6) Repeat step 2 at Piers 1 and 4.
(7) Weld the bottom and top moment plates at Piers 1 and 4.
(8) Lower beams to their final positions.
(9) Raise the ends of beams in Span 6 at Pier 6 by 1/2".
(10) Repeat step 2 at Pier 5.
(11) Weld the bottom and top moment plates at Pier 5.
(12) Lower beams to their final positions.

DEFLECTION AND CAMBER

SPAN	SPAN 1									SPAN 2									SPAN 3								
BEAM	A	B	C	D	E	F	G	H	J	A	B	C	D	E	F	G	H	J	A	B	C	D	E	F	G	H	J
A	0	0	0	0	0	0	0	0	0	1/16	1/16	1/16	1/16	1/16	1/16	1/16	1/16	1/16	0	0	0	0	0	0	0	0	0
B	1/16	1/16	1/16	1/16	1/16	1/16	1/16	1/16	1/8	3/16	3/16	3/16	1/8	1/8	3/16	3/16	3/16	3/16	1/8	1/8	1/8	1/8	1/8	1/8	1/8	1/8	3/16
C	7/16	7/16	7/16	7/16	7/16	7/16	7/16	7/16	3/8	7/8	7/8	7/8	7/8	7/8	7/8	7/8	7/8	7/8	7/8	7/8	7/8	7/8	7/8	7/8	7/8	7/8	7/8
D	1/2	1/2	1/2	1/2	1/2	1/2	1/2	1/2	1/2	1 1/8	1 1/8	1 1/8	1 1/16	1 1/16	1 1/8	1 1/8	1 1/8	1 1/8	1	1	1	1	1	1	1	1	1 1/16
E	0"	0"	0"	0"	0"	0"	0"	0"	0"	1 1/8"	1 1/8"	1 1/8"	1 1/8"	1 1/8"	1 1/8"	1 1/8"	1 1/8"	1 1/8"	1"	1"	1"	1"	1"	1"	1"	1"	1"

SPAN	SPAN 4									SPAN 5									SPAN 6								
BEAM	A	B	C	D	E	F	G	H	J	A	B	C	D	E	F	G	H	J	A	B	C	D	E	F	G	H	J
A	1/16	1/16	1/16	1/16	1/16	1/16	1/16	1/16	1/16	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
B	1/4	1/4	1/4	3/16	3/16	1/4	1/4	1/4	5/16	1/8	3/16	3/16	1/8	1/8	1/8	1/8	1/8	3/16	3/16	3/16	3/16	1/8	1/8	3/16	3/16	3/16	3/16
C	1/16	1 1/16	1 1/16	1 1/16	1 1/16	1 1/16	1 1/16	1 1/16	1 1/16	7/8	7/8	7/8	7/8	7/8	7/8	7/8	7/8	7/8	1/8	1/8	1/8	1/8	1/8	1/8	3/16	3/16	3/16
D	1 3/8	1 3/8	1 3/8	1 5/16	1 5/16	1 3/8	1 3/8	1 3/8	1 7/16	1	1 1/16	1 1/16	1	1	1	1	1	1 1/16	5/16	5/16	5/16	1/4	1/4	5/16	3/8	3/8	3/8
E	1 3/8"	1 3/8"	1 3/8"	1 3/8"	1 3/8"	1 3/8"	1 3/8"	1 3/8"	1 3/8"	1"	1"	1"	1"	1"	1"	1"	1"	1"	0"	0"	0"	0"	0"	0"	0"	0"	0"

A = Deflection due to weight of steel
B = Deflection due to remaining dead load
C = Convexity
D = Sum of deflection and Convexity
E = Required Camber

SPAN 6		SPAN 9	
BEAM	A	BEAM	A
A	2'-3 3/8"	A	2'-3 5/8"
B	2'-3 1/2"	B	2'-1 7/8"
C	2'-3 1/2"	C	2'-1 3/4"
D	2'-3 3/8"	D	2'-2 5/8"
E	2'-3 3/8"	E	2'-2 1/4"
F	2'-3 1/4"	F	2'-3"
G	2'-3 1/4"	G	2'-3 1/2"
H	2'-3 3/8"	H	2'-3 5/8"
J	2'-3 1/4"	J	2'-3 5/8"
		K	2'-2 3/4"
		L	2'-3"

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CINCINNATI, OHIO.

STRUCTURAL STEEL DETAILS
BRIDGE No. HAM-50-2007

H.&E. BRIDGE No. 6

DESIGNED	DRAWN	TRACED	CHECKED	REVIEWED DATE	REVISED
JHO	NHS	JB 5/9/62	JHO 5/14/62	H.A.E. 8-7-62	

FED. RD. DIV.	STATE	PROJECT	FISCAL YEAR
2	OHIO		

344/464

HAM-50-19.76

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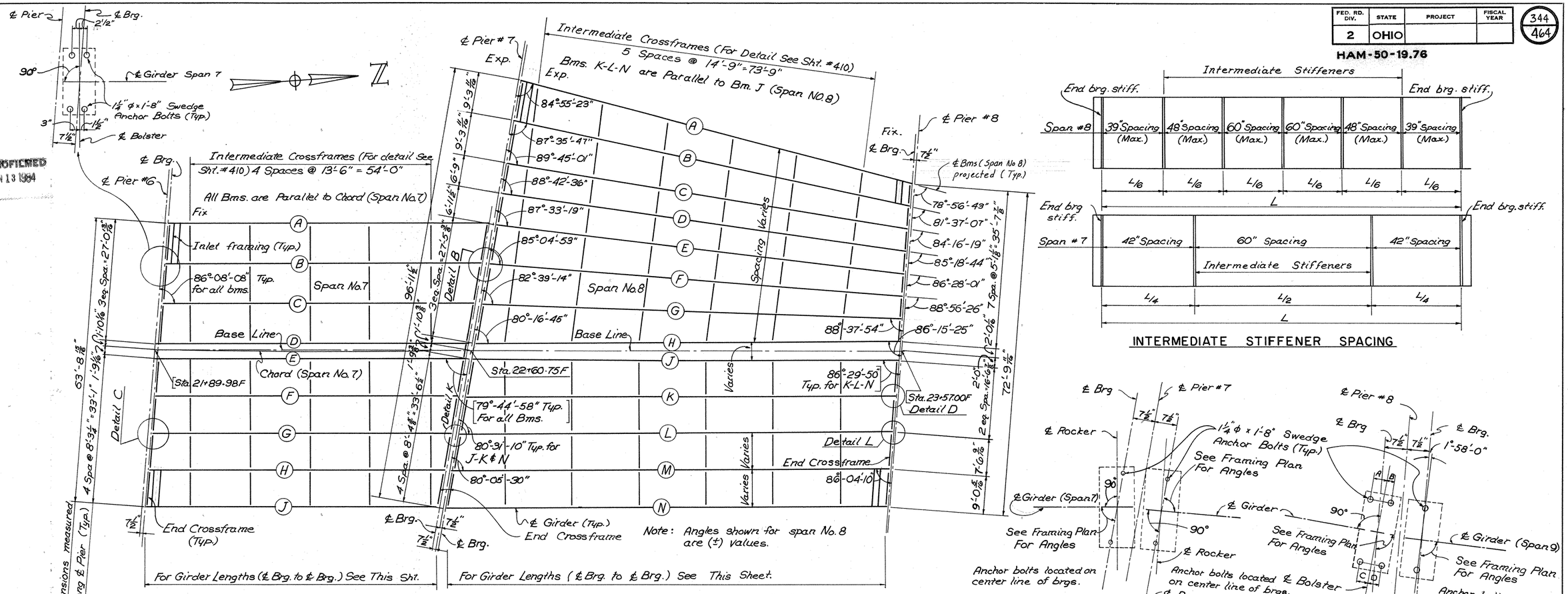
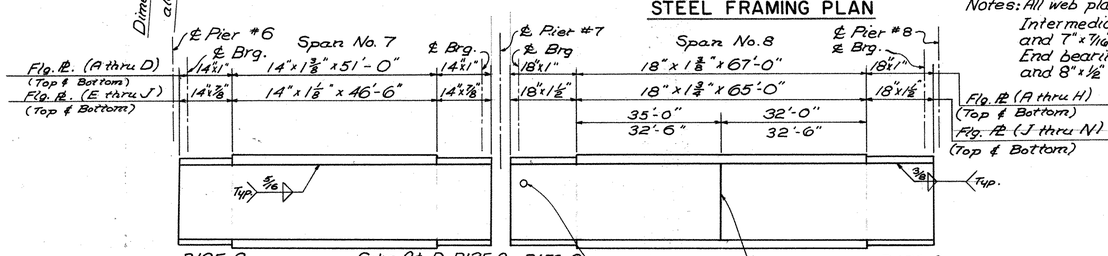
JUN 13 1994



STEEL FRAMING PLAN



For brg. details see sh # 409
For typ. gdr. elevs. see sh # 410

Notes: All web plates are 60"x⅜"
Intermediate stiffeners are 5"x⅜" (Span 7) and 7"x7/16" (Span 8)
End bearing stiffeners are 6½"x½" (Span 7) and 8"x½" (Span 8)

TABLE OF FLANGE PLATES AND WELD SIZE

TABLE OF GIRDER LENGTHS		
GIRDER	SPAN 7	SPAN 8
A	72'-9 5/16"	90'-0 15/16"
B	71'-9 1/16"	90'-3 15/16"
C	70'-8 13/16"	90'-9 3/8"
D	69'-8 9/16"	91'-4"
E	69'-3 1/16"	91'-11⅛"
F	68'-4½"	92'-8⅝"
G	67'-5¼"	93'-8⅛"
H	66'-6 1/16"	94'-9 1/16"
J	65'-6 13/16"	95'-1 15/16"
K		96'-0 7/16"
L		96'-10 15/16"
M		97'-10"
N		98'-7 15/16"

	DEFLECTION AND CAMBER																					
	Span No. 7									Span No. 8												
GIRDER	A	B	C	D	E	F	G	H	J	A	B	C	D	E	F	G	H	J	K	L	M	N
Deflection due to Weight of Steel	1/8"	1/8"	1/8"	1/8"	1/8"	1/8"	1/16"	1/16"	1/16"	1/4"	1/4"	5/16"	5/16"	5/16"	5/16"	5/16"	5/16"	5/16"	5/16"	5/16"	3/8"	3/8"
Deflection due to remaining Dead Load	5/8"	3/8"	7/16"	5/16"	5/16"	3/8"	7/16"	7/16"	1/2"	15/16"	3/4"	11/16"	11/16"	3/4"	1"	7/8"	13/16"	11/16"	7/8"	15/16"	1"	1¼"
Convexity	3/8"	3/8	5/16"	5/16"	1/4"	1/4"	3/16"	3/16"	1/8"	6 1/16"	4 11/16"	4 7/16"	4 3/16"	2 3/8"	2 7/16"	2½"	2½"	2 9/16"	2 9/16"	2 5/8"	2 1/16"	2 3/4"
Sum of Deflection and Convexity	1⅛"	7/8"	7/8"	3/4"	11/16"	9/4"	11/16"	11/16"	11/16"	7¼"	5 11/16"	5 7/16"	5 3/16"	3 7/16"	3¾"	3 11/16"	3 5/8"	3 9/16"	3¾"	3 7/8"	4 1/16"	4 3/8"
Required Camber★	1⅛"	1"	1"	1"	0"	0"	0"	0"	0"	7¼"	5¾"	5½"	5 1/4"	3½"	3¾"	3¾"	3¾"	3¾"	3¾"	4"	4"	4½"

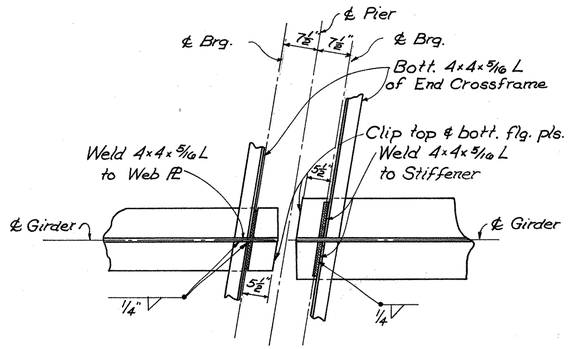
★ See Camber Diagram Sheet No. 410

INTERMEDIATE STIFFENER SPACING

DETAIL K

DETAIL L

Girder	A	B	C	D
A	3	1½	3	4
B	3	2	4	4
C	2½	2½	4	4
D	2½	2½	4	4
E	2	3	½	4
F	1½	3½	1	3½
G	1	4	1½	3
H	4	4	2	2½
J	4	4	2	2½
K	4	4	2	2½
L	4	4	2	2½
M	4	4	2	2½
N	4	4	2	2½



DETAIL B

Detail B shown
Detail C & D similar

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STRUCTURAL STEEL DETAILS
BRIDGE No. HAM-50-2007

H.&E. BRIDGE No. 6

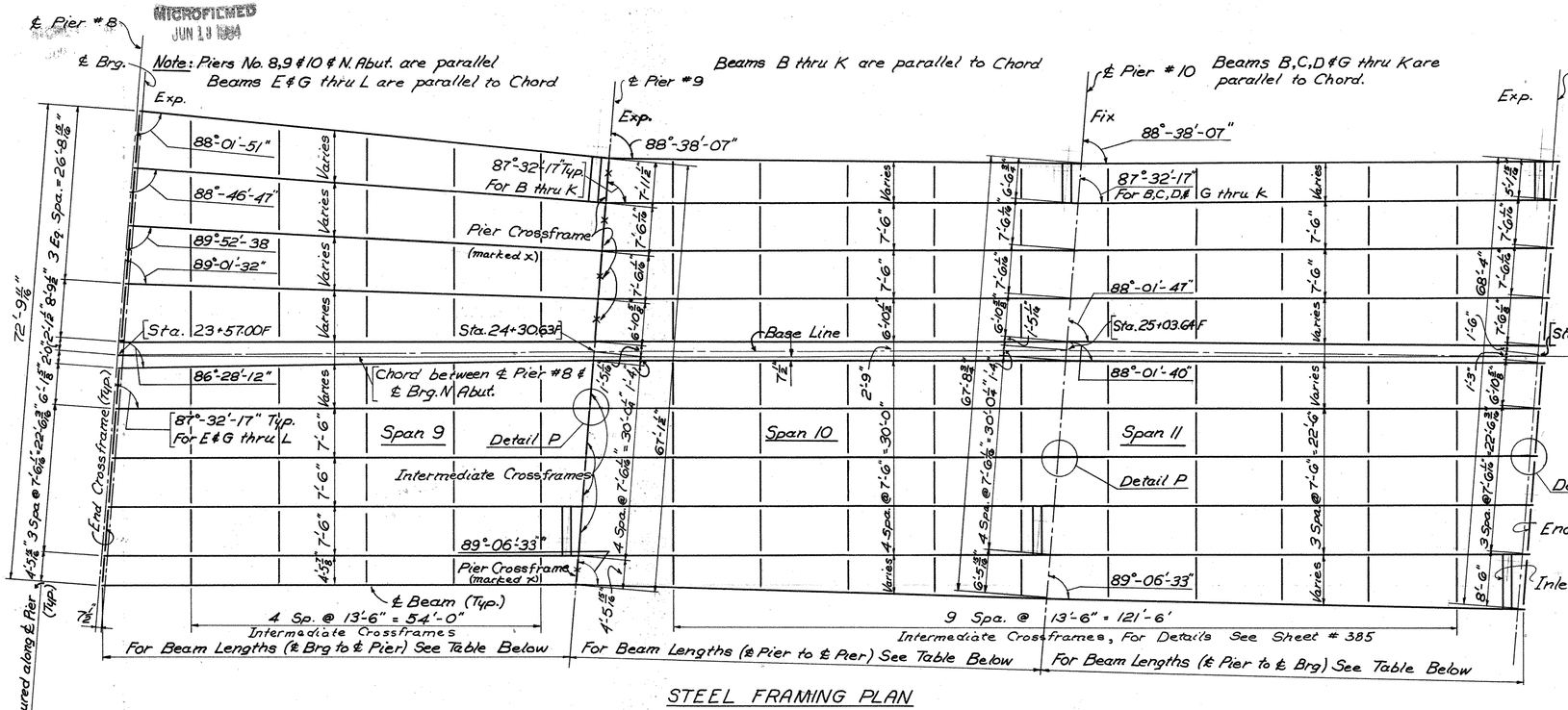
DESIGNED	DRAWN	TRACED	CHECKED	REVIEWED DATE	REVISED
JHO	NHS	JB 5/14/62	JHO 5/19/62	J.H.O. 8-7-62	

MICROFILMED
JUN 19 1964

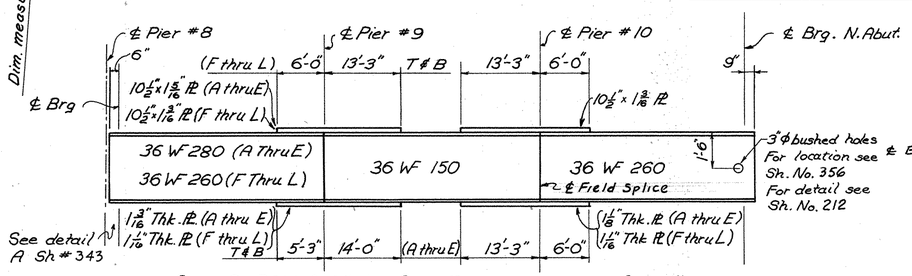
FED. RD. DIV.	STATE	PROJECT	FISCAL YEAR
2	OHIO		

345
464

HAM-50-19.76



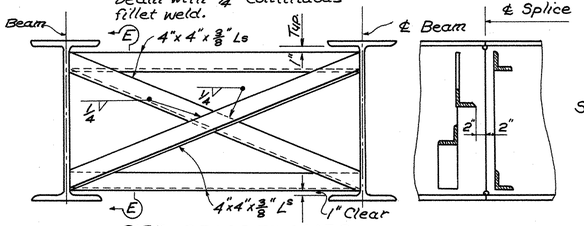
STEEL FRAMING PLAN



SIZE OF BEAMS AND COVER PLATES

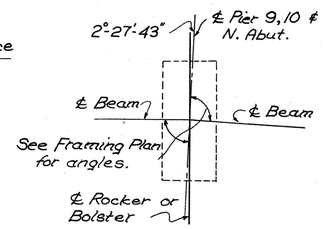
For brg. details see sh. # 409

Note: On crossframe angles, weld both sides of vertical leg, and top side of horizontal leg to beam with ¼" continuous fillet weld.

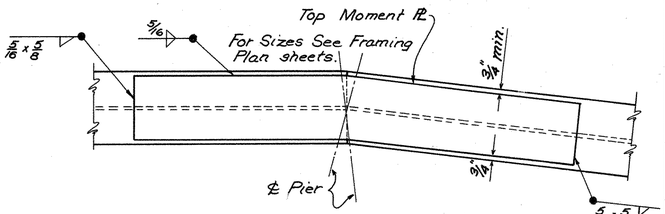


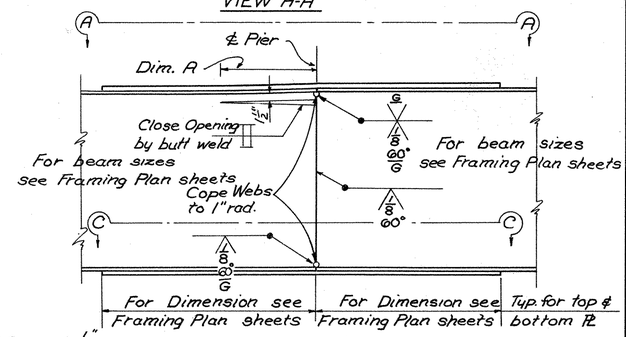
PIER CROSSFRAMES (ROLLED BEAMS)

SEC. E-E



DETAIL P
(Piers 9,10 & N. Abut.)

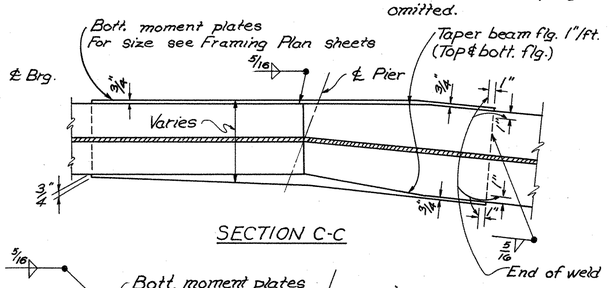




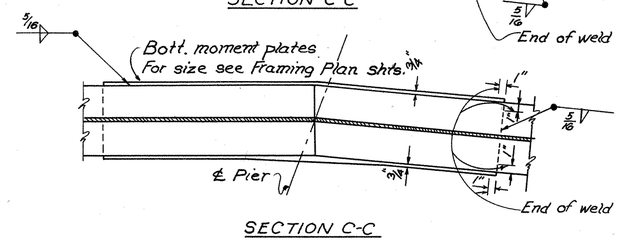
Dim. A = 4" for each ⅛" difference in depth of beams.

DETAIL E
(Beam Splice Detail)

Note
Where beams are of same depth, the portion of Detail E showing the cut in web below the top flg. is omitted.



SECTION C-C



SECTION C-C

	DEFLECTION AND CAMBER																																		
	Span No. 9											Span No. 10											Span No. 11												
Beam	A	B	C	D	E	F	G	H	J	K	L	A	B	C	D	E	F	G	H	J	K	L	A	B	C	D	E	F	G	H	J	K	L
Deflection due to Weight of Steel	¼	¼	¼	¼	¼	¼	¼	¼	¼	¼	¼	-1/16	-1/16	-1/16	-1/16	-1/16	-1/16	-1/16	-1/16	-1/16	-1/16	-1/16	¼	¼	¼	¼	¼	¼	¼	¼	¼	¼	¼
Deflection due to Remaining Dead Load	¾	5/8	5/8	5/8	½	½	9/16	9/16	9/16	½	5/8	3/16	3/16	3/16	3/16	1/16	1/16	3/16	3/16	3/16	3/16	3/16	5/8	9/16	9/16	9/16	7/16	7/16	9/16	9/16	9/16	½	1
Convexity	2¼	1½	1½	1½	1½	1½	1½	1½	1½	1½	1½	1⅛	1⅛	1⅛	1⅛	1⅛	1⅛	1⅛	1⅛	1⅛	1⅛	1⅜	0	0	0	0	0	0	0	0	0	0	0
Sum of Deflection and Convexity	3¼	2⅜	2⅜	2⅜	2¼	2¼	2 5/16	2 5/16	2 5/16	2 3/16	2 7/16	1¼	1¼	1¼	1¼	1⅛	1⅛	1¼	1¼	1¼	1 5/16	1 5/16	7/8	13/16	13/16	13/16	11/16	11/16	13/16	13/16	13/16	9/16	1¼
Required Camber	3¼"	2¼"	2¼"	2¼"	2¼"	2¼"	2¼"	2¼"	2¼"	2¼"	2¼"	1¼"	1¼"	1¼"	1¼"	1¼"	1¼"	1¼"	1¼"	1¼"	1¼"	1¼"	1"	1"	1"	1"	1"	1"	1"	1"	1"	1"	1"

TABLE OF BEAM LENGTHS			
BEAM	SPAN 9	SPAN 10	SPAN 11
A	72'-11 2/8"	72'-11 9/16"	72'-11 3/4"
B	72'-11 1/16"	73'-0 1/8"	73'-0 5/16"
C	72'-10 13/16"		73'-0 5/16"
D	72'-10 15/16"		73'-0 5/16"
E	72'-11 5/8"		73'-0"
F	73'-0 2/8"		73'-0"
G,H,J,K	72'-11 5/8"	73'-0 2/8"	73'-0 5/16"
L	72'-11 5/8"	72'-11 7/16"	72'-11 5/8"

BEAM SPLICE WELDING PROCEDURE (Span 9 to 11)

(1) Raise the ends of beams in Span 9 at Pier 8 2¼", and the ends of beams in Span 11 at N. Abut. 2¼".
(2) Butt-weld the beam flanges and web at Piers 9 and 10, using the following sequence: make two passes on each flange, then two on the web; repeat, using one pass at each location, until welds are completed.
(3) Weld the bottom and top moment plates at Piers 9 and 10
(4) Weld all Pier crossframes at Pier 9 into place.
(5) Lower beams to their final positions.

HAZELET & ERDAL
CONSULTING ENGINEERS
CINCINNATI, OHIO

STRUCTURAL STEEL DETAILS
BRIDGE No. HAM-50-2007

H. & E. BRIDGE No. 6

DESIGNED	DRAWN	TRACED	CHECKED	REVIEWED DATE	REVISED
JHO	NHS	5/11/62	JHO 5/14/62	7-17-62 8-7-62	

MICROFILMED
JUN 18 1964

FED. RD. DIV.	STATE	PROJECT	FISCAL YEAR
2	OHIO		

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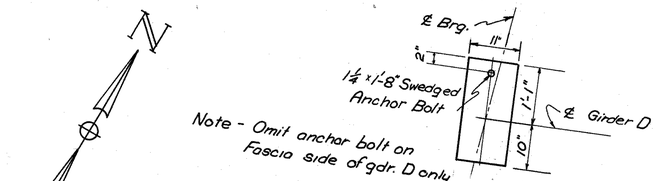
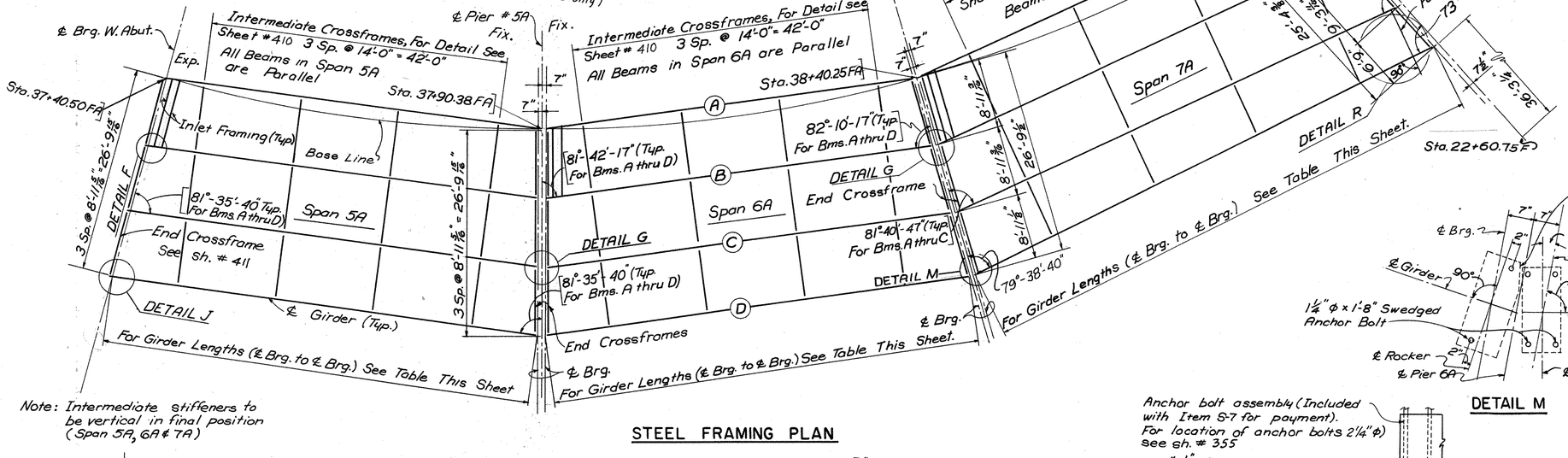
464

HAM-50-19.76



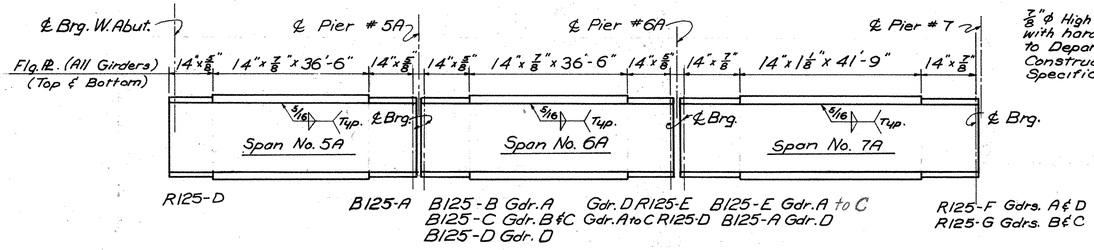
Note - Omit anchor bolt on Fascia side of gdr. D only

DETAIL J
(Masonry ℞ at Gdr. D only)



Note: Intermediate stiffeners to be vertical in final position (Span 5A, 6A & 7A)

STEEL FRAMING PLAN



⅞"ϕ High-Strength Bolts and Nuts with hardened washers according to Department of Highways Construction and Material Specifications.

For brg. details see sh. # 409
For Typ. girder elev. see sh. # 410

TABLE OF FLANGE PLATES AND WELD SIZE

Notes: All web plates are 60"x⅜
Int. stiffeners are 5"x⅜
End brg. stiffeners are 6½"x½"

TABLE OF GIRDER LENGTHS.				
GIRDER	A	B	C	D
SPAN 5A	49'-1 5/16"	51'-8 1/16"	54'-4 1/16"	56'-11 7/16"
SPAN 6A	48'-6 5/16"	51'-0 3/8"	53'-6 7/16"	56'-0 1/2"
SPAN 7A	55'-2 5/16"	59'-4 1/16"	63'-7 9/16"	67'-1 1/16"

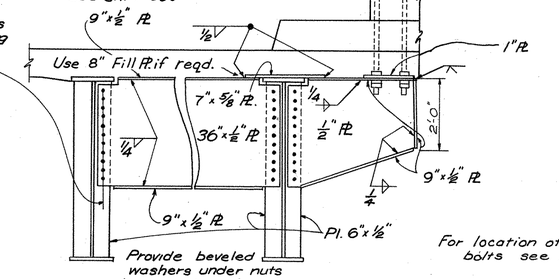
Note: Convexity includes variations due to vertical curvature, super-elevation and horizontal curvature.

DEFLECTION AND CAMBER												
	Span 5A				Span 6A				Span 7A			
Girder	A	B	C	D	A	B	C	D	A	B	C	D
Deflection due to Weight of Steel	0	1/16	1/16	1/16	0	1/16	1/16	1/16	1/16	1/16	1/16	1/16
Deflection due to Remaining Dead Load	3/16	3/16	1/4	5/16	3/16	3/16	3/16	5/16	3/16	3/16	3/8	9/16
Convexity (See Note)	0	-1 7/16	-1 1/2	-1/4	1 5/16	-1/16	-3/16	1 1/16	2 9/16	1 1/8	1 1/8	3 1/16
Sum of Deflection and Convexity	3/16	-1 3/16	-1 3/16	1/8	1 1/2	3/16	1/16	1 7/16	2 13/16	1 3/8	1 9/16	3 11/16
Required Camber ★	0"	0"	0"	0"	1½"	0"	0"	1½"	2¾"	1⅜"	1½"	3¾"

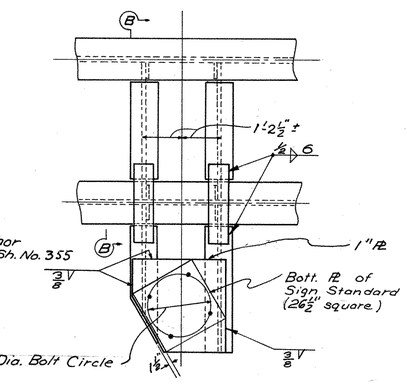
★ For Camber Diagram see Sh. No. 410

DETAIL M

DETAIL N

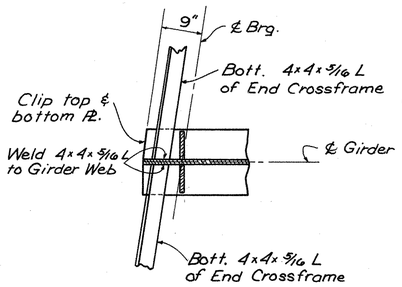


VIEW B-B

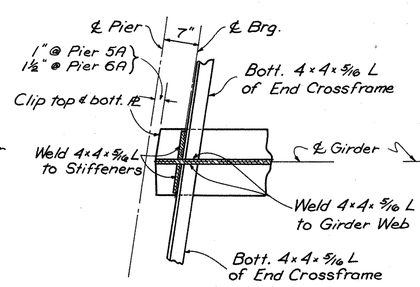


For location of pl. & anchor bolts see Detail C Sh. No. 355

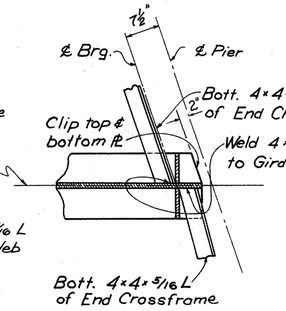
DETAIL R



DETAIL F
End Crossframe Connection at W. Abut.



DETAIL G
End Crossframe Connection at Pier No. 5A & 6A



DETAIL H
End Crossframe Connection at Pier No. 7

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STRUCTURAL STEEL DETAILS
BRIDGE No. HAM-50-2007

H.&E. BRIDGE No. 6

DESIGNED	DRAWN	TRACED	CHECKED	REVIEWED DATE	REVISED
JHO	NHS	B 5/16/62	JHO 5/19/62	N. A. B. 8-7-62	2-15-63

MICROFILMED
JUN 18 1964

FED. RD. DIV.	STATE	PROJECT	FISCAL YEAR
2	OHIO		

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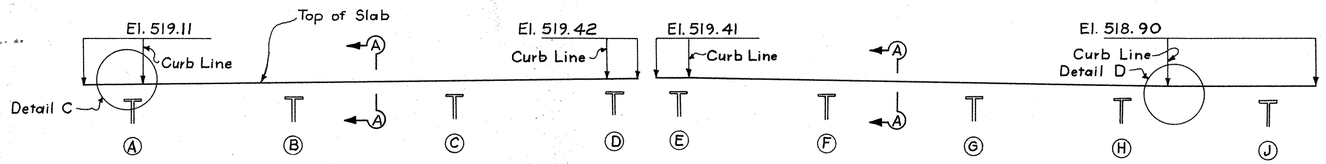
HAM-50-19.76

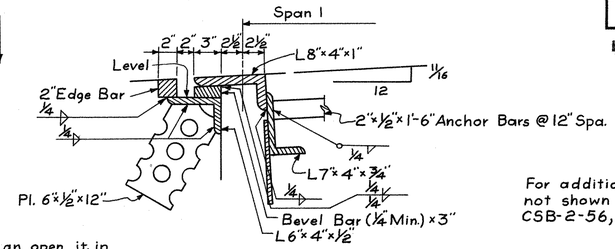


Note:
Elevations given are at the intersection of ℄ Beam or curb line and ℄ joint, unless noted otherwise.

Elevations given only at curb lines means top of slab is a straight line between curb lines.

Roadway expansion joint to be bent in shop to conform to contour of top of slab.

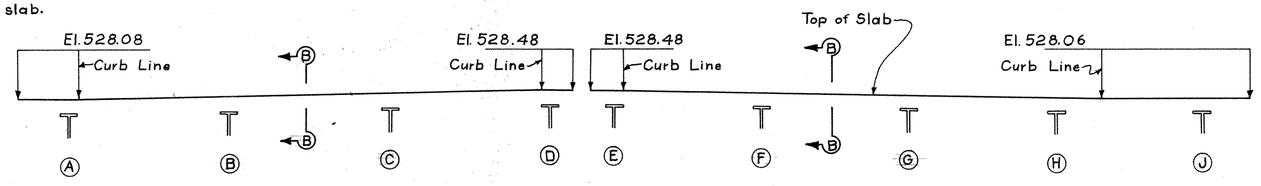
EXPANSION JOINT CROSS SECTION AT SOUTH ABUTMENT



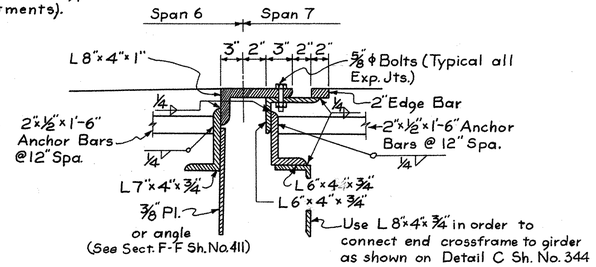
Note:
Provide an open jt. in the 2" edge bar and the L 6"x4"x½" at the contraction joints in the back wall (Typ. at all abutments).

SECTION A-A

For additional information not shown see Std. Dwg. No. CSB-2-56, Sheet No. 2.

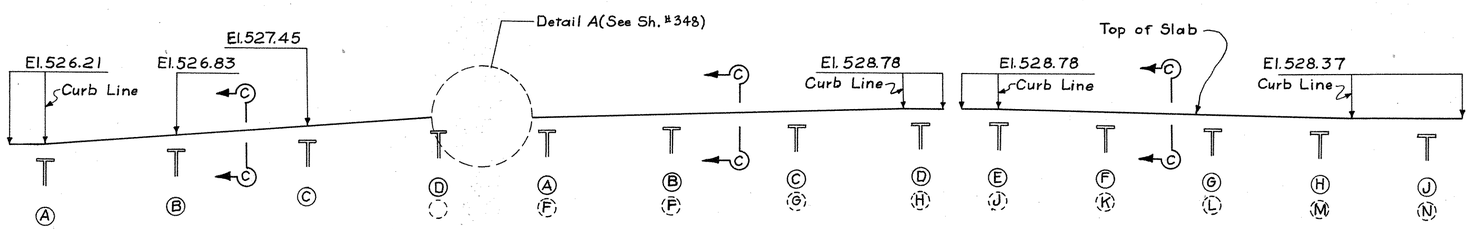


EXPANSION JOINT CROSS SECTION AT PIER NO.6

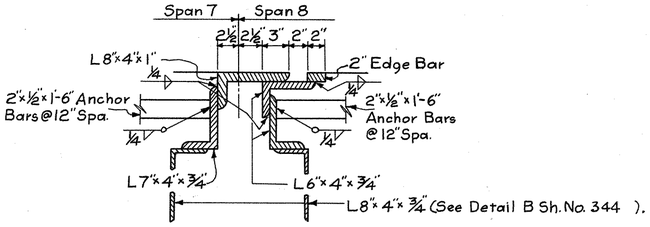


SECTION B-B

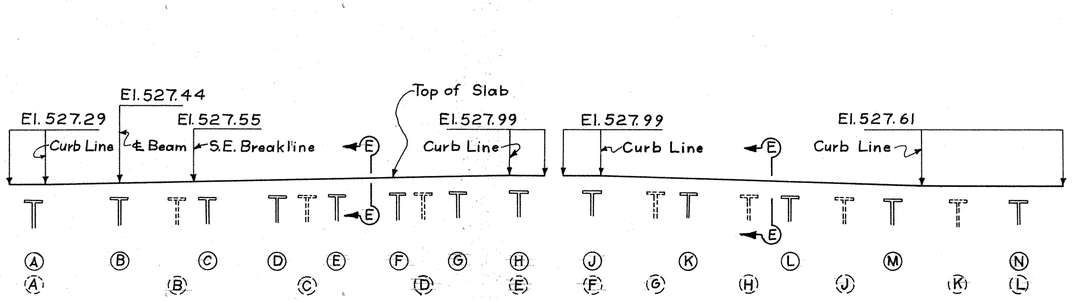
End crossframes to be set vertical (Spans 7 & 8); therefore vertical leg of 8"x4"x¾" L which connects end crossframe to end dam shall be vertical.



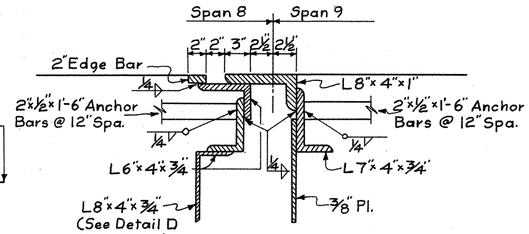
EXPANSION JOINT CROSS SECTION AT PIER NO. 7



SECTION C-C



EXPANSION JOINT CROSS SECTION AT PIER NO. 8



SECTION E-E

NOTE: For Detail C see Typical End Crossframe showing Safety Curb Detail Sheet No. 411
For Detail D See Typical End Crossframe Showing Sidewalk Detail Sheet No. 411

HAZELET & ERDAL
CONSULTING ENGINEERS
CINCINNATI, OHIO

STRUCTURAL STEEL DETAILS

BRIDGE No. HAM-50-2.007

H. & E. BRIDGE NO. 6

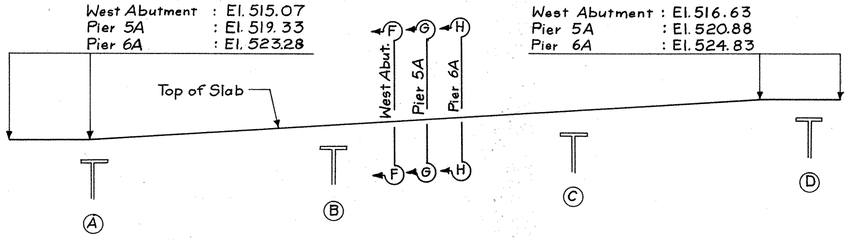
DESIGNED	DRAWN	TRACED	CHECKED	REVIEWED DATE	REVISED
	B.O.G. 6-13-61	J.T.C. 5/21/62	J.H.O. 5/22.62	A.A.J. 8-7-62	

MICROFILMED
JUN 13 1964

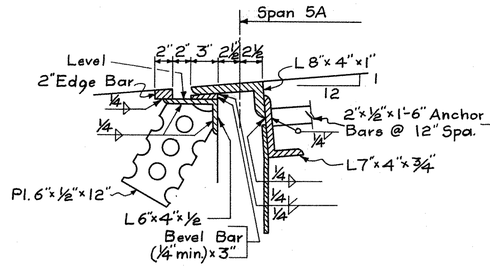
FED. RD. DIV.	STATE	PROJECT	FISCAL YEAR
2	OHIO		

348
464

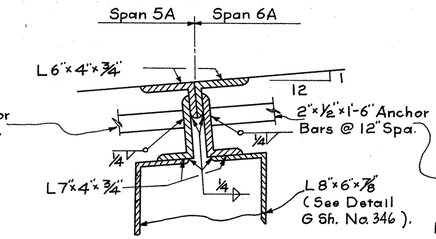
HAM-50-19.76



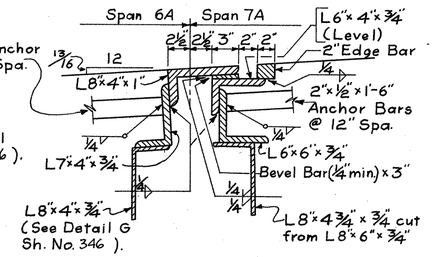
EXPANSION JOINT CROSS SECTION AT WEST ABUTMENT, PIER 5A, PIER 6A



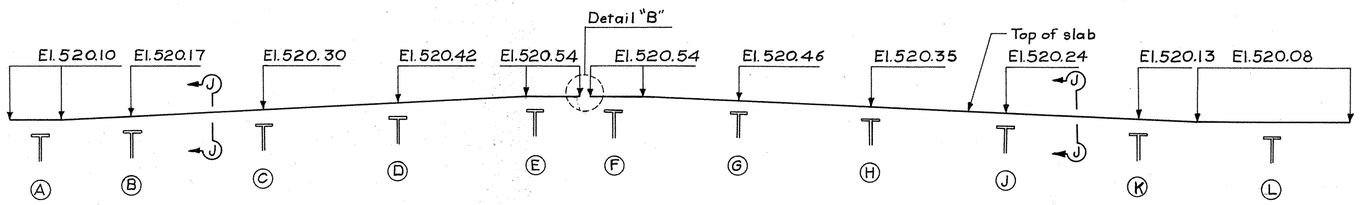
SECTION F-F



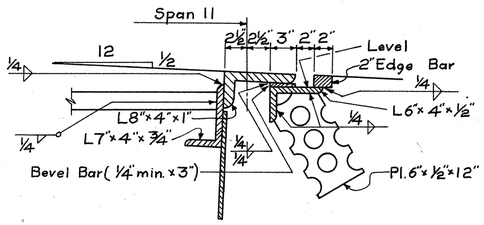
SECTION G-G
(End Metal joint 6" from Fascia)



SECTION H-H

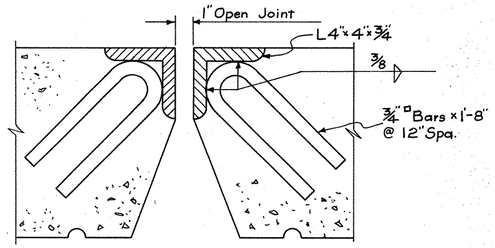


EXPANSION JOINT CROSS SECTION AT NORTH ABUTMENT

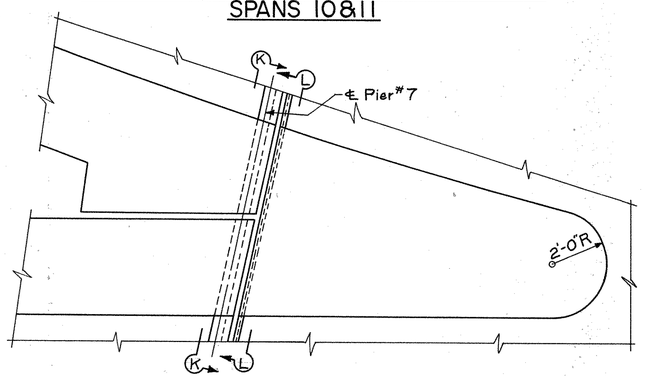


SECTION J-J

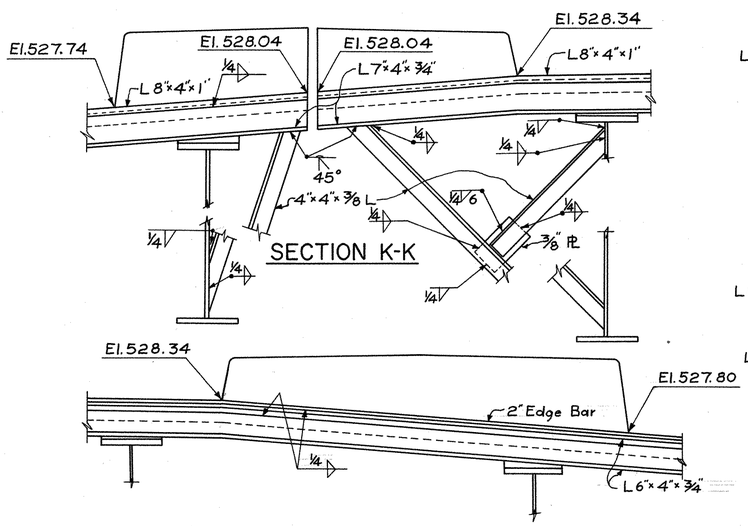
End crossframes to be set vertical (Spans 5A, 6A & 7A); therefore vertical leg of angle or ⅜ PL which connect end crossframe to end dam shall be vertical.



SECTION THRU LONGITUDINAL OPEN JT. SPANS 10&11

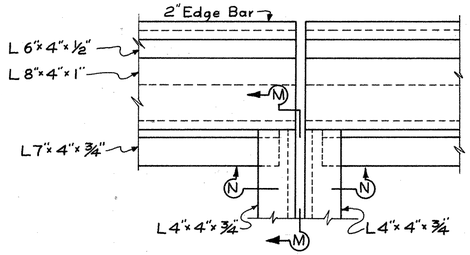


PLAN DETAIL "A"

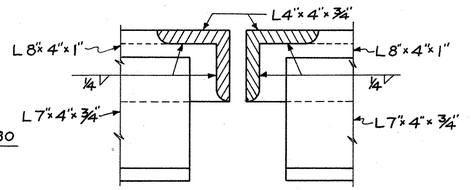


SECTION K-K

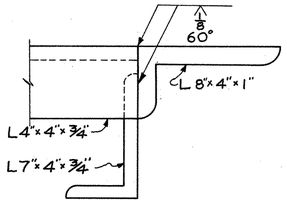
SECTION L-L



PLAN DETAIL B
(Showing connection of longt. L's @ open jt. to expansion dam @ North Abutment.).



SECTION N-N



SECTION M-M

HAZELET & ERDAL
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CINCINNATI, OHIO

STRUCTURAL STEEL DETAILS
BRIDGE NO. HAM-50-2007

H.&E. BRIDGE NO. 6

DESIGNED	DRAWN	TRACED	CHECKED	REVIEWED DATE	REVISED
	B.O.G. 7-12-61	J.T.C. 5/22/62	J.H.O 5/24/62	M.A.Z. 8-7-62	

MICROFILMED
JUN 19 1964

FED. RD. DIV.	STATE	PROJECT	FISCAL YEAR
2	OHIO		

HAM-50-19.76

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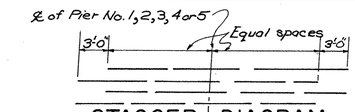
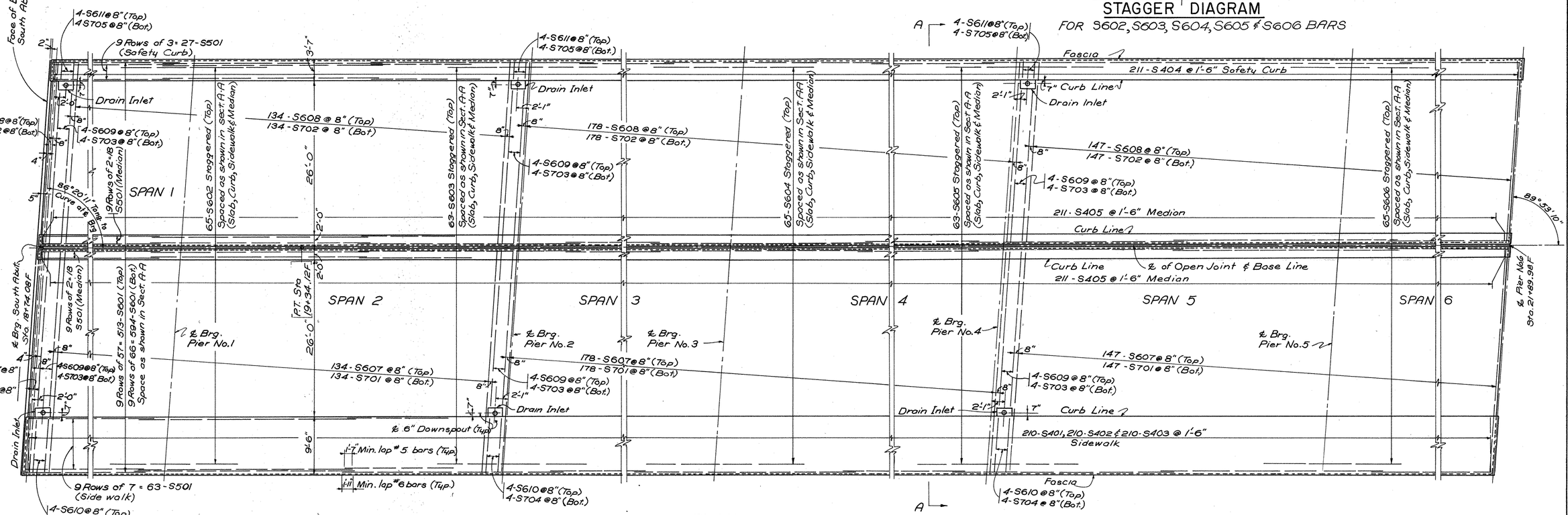
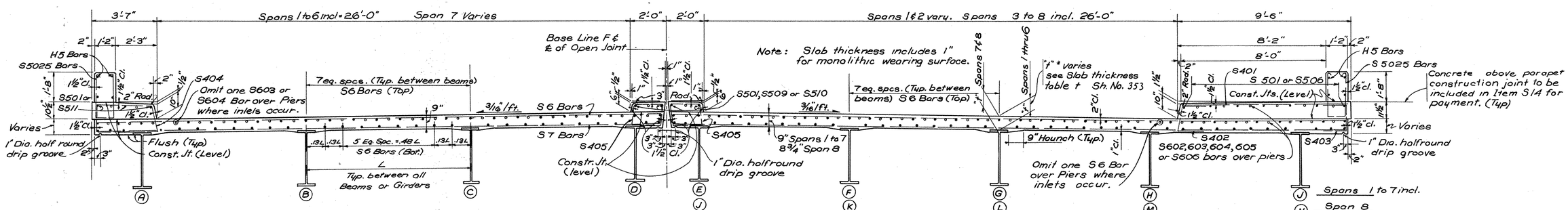


STAGGER DIAGRAM FOR S602, S603, S604, S605 & S606 BARS



PLAN

Paropet not shown



TRANSVERSE SECTION A-A

TYPICAL FOR SPANS 1 TO 7 INCL. AND NORTHBOUND ROADWAY ONLY SPAN 8

* This is the nominal dimension. The quantity of deck concrete to be paid for shall be based on this dimension, even though deviation from it may be necessary because the top flange of the beam may not have the exact camber or conformation required to place it parallel to the finished grade.

• indicates bar in section.
o indicates bar over pier. (Piers No.1 to No.5 incl. only)

NOTE:
For end finish details see sheet No. 347
For drainage details see sheet No. 357
For lighting details see sheet No. 212
For railing details and spacing of bars in parapet see sheet No. 355
Field bend or cut longitudinal bars where necessary to miss inlets.

DECK SLAB HAUNCH: The haunch in the deck slab adjacent to the top of the steel beams, which is shown as 9" wide, may vary from this dimension with a minimum of 6" and a maximum of 12". Maximum slope of haunch shall be one vertical to four horizontal. Payment for deck slab concrete shall be based on the 9" width.

HAZELET & ERDAL
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CINCINNATI, OHIO

SUPERSTRUCTURE DETAILS
BRIDGE No. HAM-50-2007

H & E. BRIDGE No. 6

DESIGNED	DRAWN	TRACED	CHECKED	REVIEWED DATE	REVISED
	J.C.D. 5-11-61	JB 5-18-62	W.W.C. 8-24-61	M.A.Z. 8-7-62	

MICROFILMED
JUN 13 1964

FED. RD. DIV.	STATE	PROJECT	FISCAL YEAR
2	OHIO		

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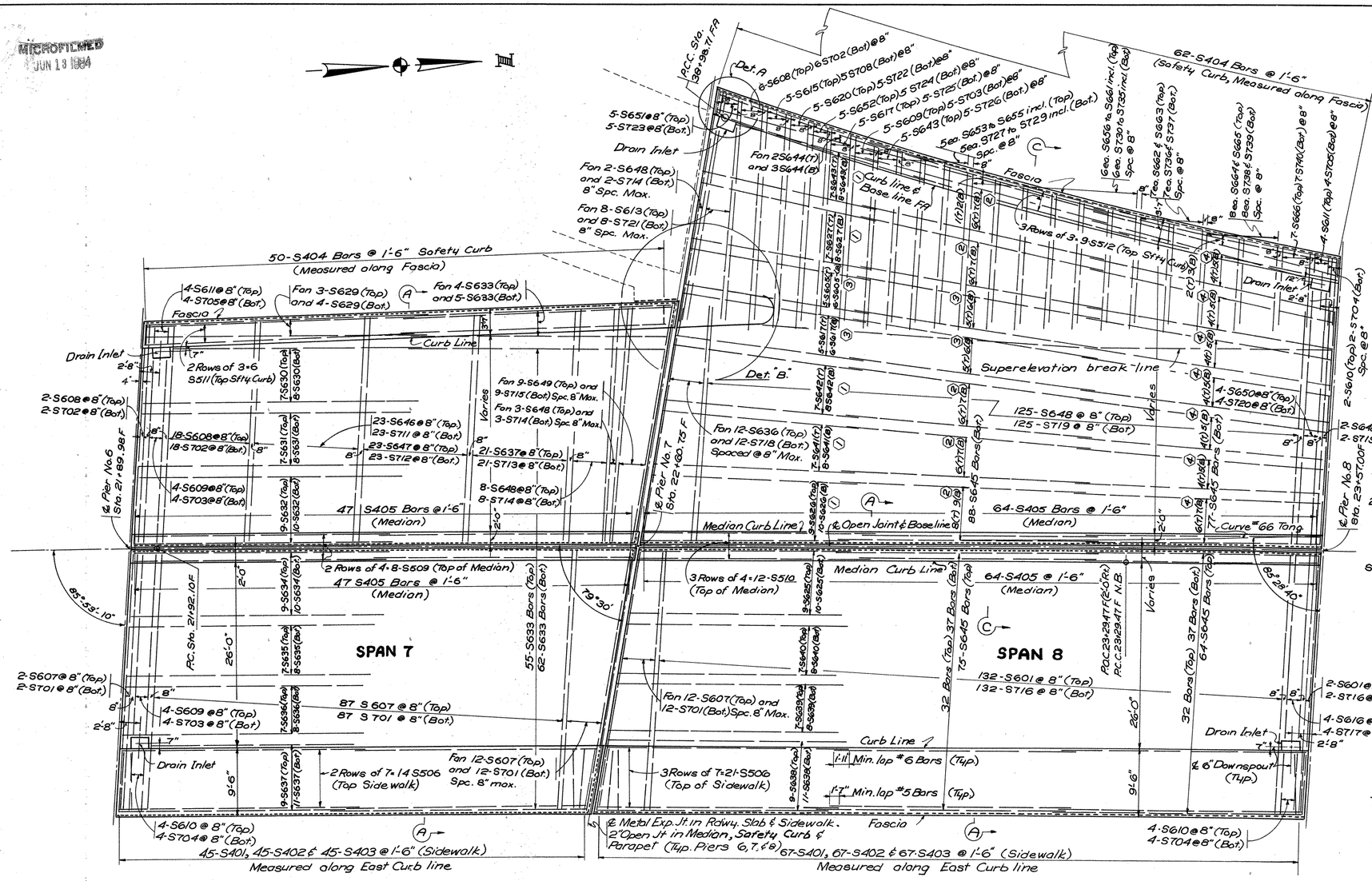
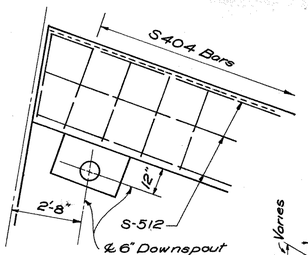
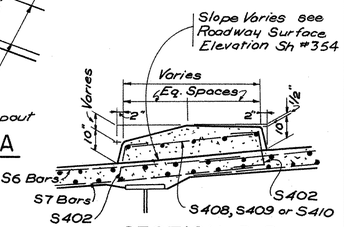
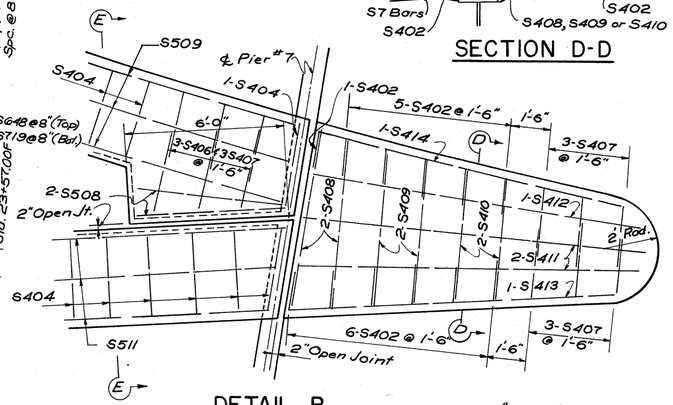




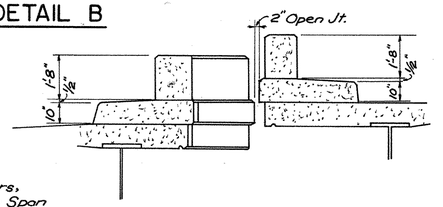
DETAIL A



SECTION D-D

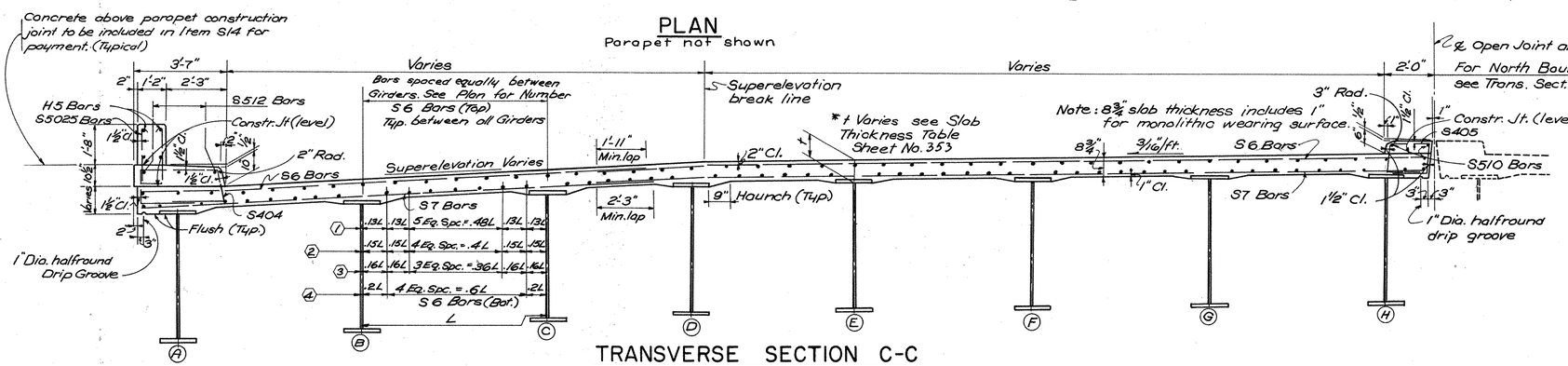


DETAIL B



SECTION E-E

NOTE: All transverse bars, except those fanned, in Span No. 7 are placed parallel to ℄ of Pier No. 6 and in Span No. 8 are placed parallel to Pier No. 8.



TRANSVERSE SECTION C-C

See Deck Slab Haunch Note on Sheet No. 349

NOTES:
For Expansion Joint details see Sh. No. 347
For drainage details see Sh. No. 357
For lighting details see Sh. No. 212
For railing details and spacing of bars in parapet see Sh. No. 355 & 356
Field bend or cut longitudinal bars where necessary to miss inlets.
*See sheet No. 349 for note.

HAZELET & ERDAL
CONSULTING ENGINEERS
CINCINNATI, OHIO

SUPERSTRUCTURE DETAILS

BRIDGE No. HAM.-50-2007

H. & E. BRIDGE No. 6

DESIGNED	DRAWN	TRACED	CHECKED	REVIEWED DATE	REVISED
	J.C.D. 5-11-61	JB 5-21-62	W.W.C. 8-24-61	H.A.E. 8-7-62	

MICROFICHED
JUN 11 1984

FED. RD. DIV.	STATE	PROJECT	FISCAL YEAR
2	OHIO		

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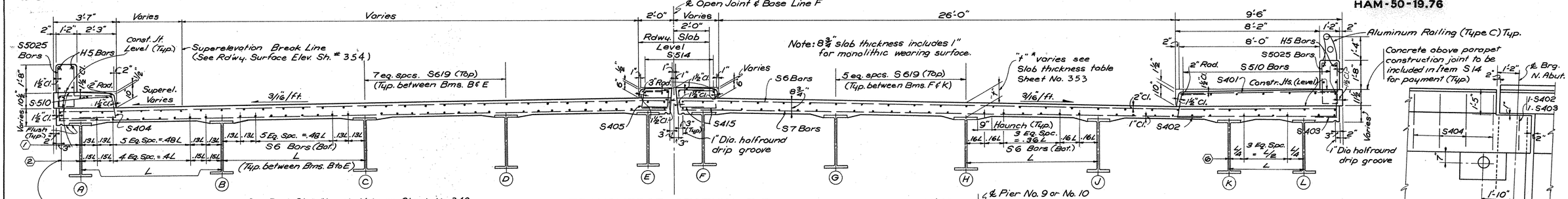
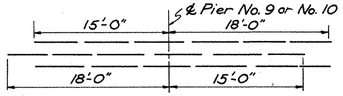
HAM-50-19.76



TRANSVERSE SECTION F-F



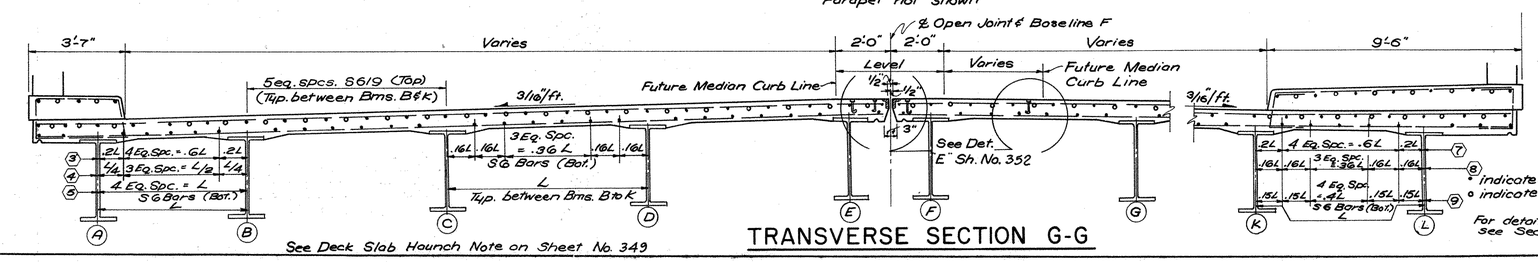
STAGGER DIAGRAM FOR S648 BARS

NOTE:
Field bend or cut longitudinal bars where necessary to miss inlets.

DETAIL "C"

PLAN

Parapet not shown

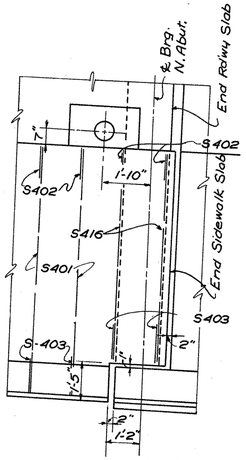


TRANSVERSE SECTION G-G

NOTES:
For end finish detail see Sh. No. 347 & 348
For drainage details see Sh. No. 357
For lighting details see Sh. No. 212
For railing details and spacing of bars in parapet see Sh. No. 355 & 356
* See Sh. No. 349 for note.

* indicates bars in section
° indicates bars over (Piers 9 & 10 only)

For details not shown see Sect. F-F



DETAIL "D"

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CONSULTING ENGINEERS
CINCINNATI, OHIO

SUPERSTRUCTURE DETAILS

BRIDGE No. HAM-50-20Q7

H. & E. BRIDGE No. 6

DESIGNED	DRAWN	TRACED	CHECKED	REVIEWED DATE	REVISED
	JC-D 5-11-61	J.P.B. 5-23-62	W.W.C. 8-21-61	M.A.Z. 8-7-62	

MICROFILMED
JUN 14 1984

FED. RD. DIV.	STATE	PROJECT	FISCAL YEAR
2	OHIO		

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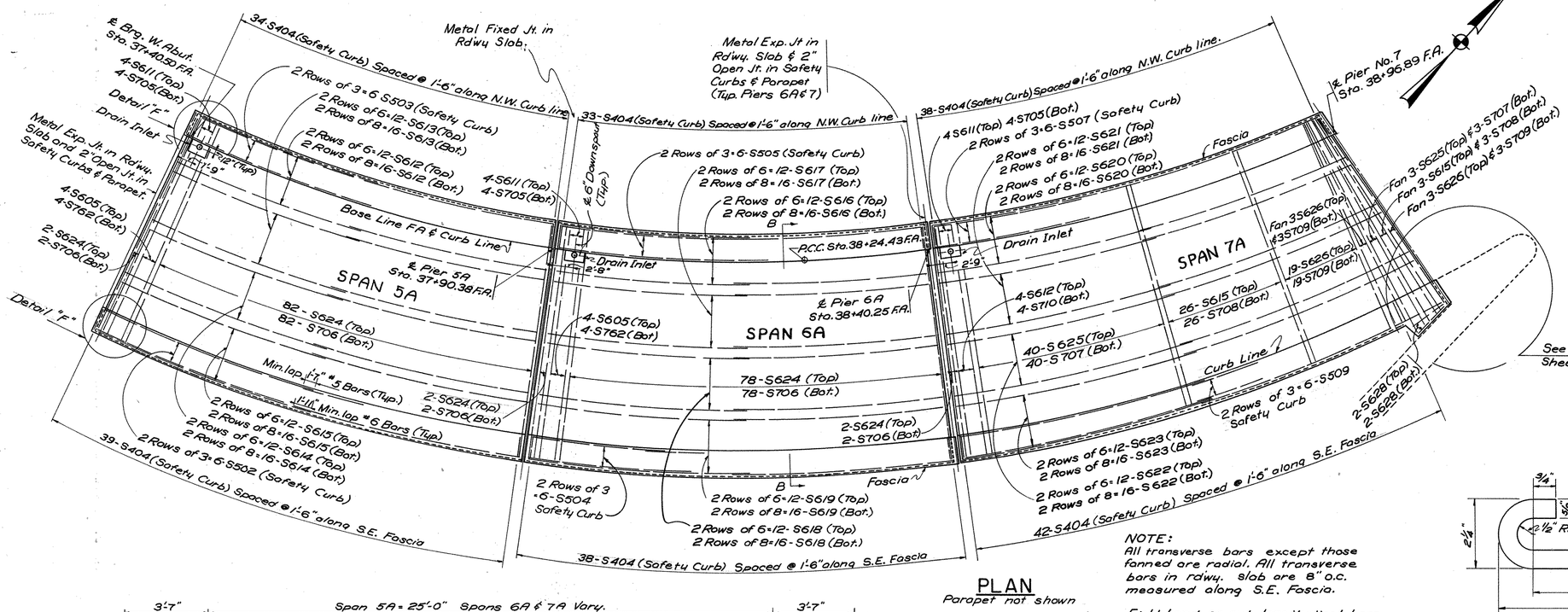
HAM-50-19.76

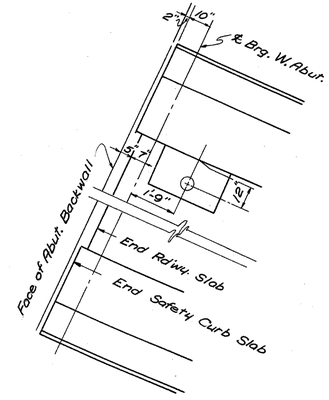


PLAN

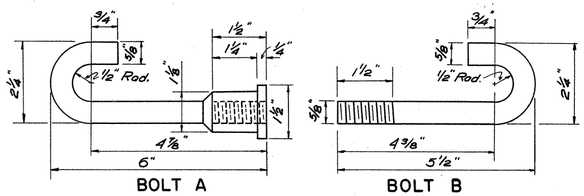
Parapet not shown

NOTE:
All transverse bars except those fanned are radial. All transverse bars in rdwy. slab are 8" o.c. measured along S.E. Fascia.

Field bend or cut longitudinal bars where necessary to miss inlets.



DETAIL "F"



Material for hook bolts shall be steel and shall meet the requirements of Sec. M 7.1 or M 7.2 of the Construction and Materials Specifications.

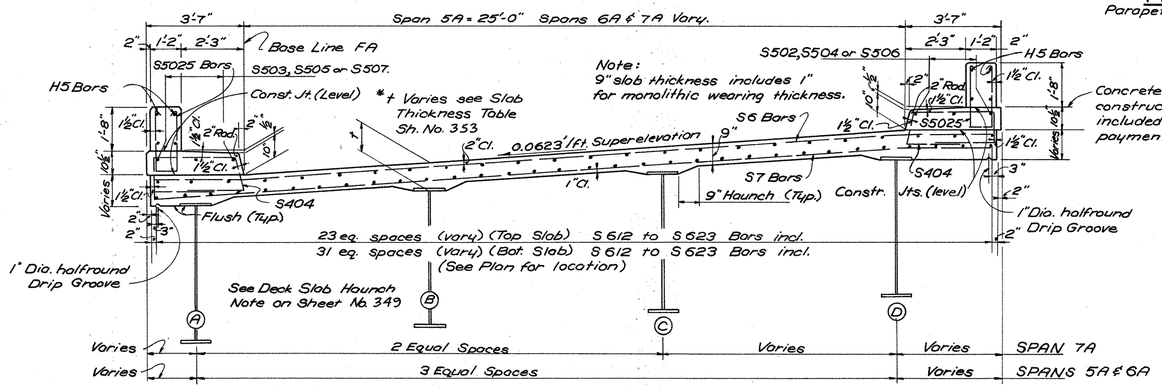
Cost of hook bolt A shall be included in Item S-1 "Class C Conc. Superstr."

2 PIECE HOOK BOLT

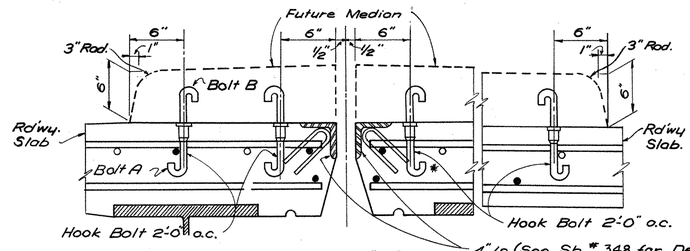
NOTE:
Bolt A shall be furnished and placed by the Contractor.

Bolt B shall be furnished and placed with future median by others.

Contractor shall provide a means of protecting the open socket of Bolt A from damage until the median is poured at that location.



TRANSVERSE SECTION B-B



DETAIL "E"

NOTES:
For end finish detail see Sh. No. 348
For drainage details see Sh. No. 357
For lighting details see Sh. No. 212
For railing details and spacing bars in parapet see Sh. No. 356
* See sheet No. 349 for note.

HAZELET & ERDAL
CONSULTING ENGINEERS
CINCINNATI, OHIO

SUPERSTRUCTURE DETAILS
BRIDGE No. HAM-50-2007

H.& E. BRIDGE No. 6

DESIGNED	DRAWN	TRACED	CHECKED	REVIEWED DATE	REVISED
	J.C.D. 5-11-61	J.P.B. 5-24-62	W.W.C. 8-22-61	H.A.Z. 8-7-62	

FED. RD. DIV.	STATE	PROJECT	FISCAL YEAR
2	OHIO		

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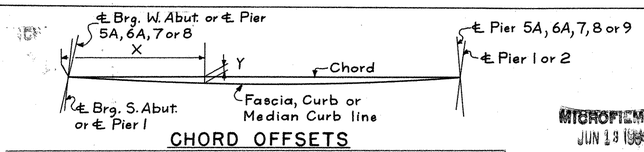
HAM-50-19.76



MICROFILMED JUN 19 1964

CHORD LENGTHS

SPAN	W. Fascia	W. Curb	W.Med.Crb	E. Med.Crb	E. Curb	E. Fascia
1	40'-0¼"	40'-0¼"	40'-0¼"	40'-0¼"		
2	56'-3"	56'-3"	56'-3"	56'-3"		
7			71'-0"	70'-6½"	67'-7¼"	66'-6 ⅜"
8	90'-11½"	91'-4"	96'-0½"	96'-5½"	99'-2⅝"	100'-2⅝"
9	73'-7⅜"	73'-7⅜"	73'-8"	73'-7"	73'-7"	73'-7⅛"
10					72'-11⅝"	72'-11⅝"
11					72'-11⅜"	73'-0"
5A	48'-7⅞"	49'-8⅜"			57'-0⅛"	58'-0⅝"
6A	48'-8⅜"	49'-8⅜"			56'-8⅜"	57'-2½"
7A	54'-9⅜"	56'-5¼"			67'-4⅝"	69'-0½"

CHORD OFFSETS

SPAN 1

W. Fascia		W. Curb		W.Median Curb		E.Median Curb	
Dist. X	Offset Y	Dist. X	Offset Y	Dist. X.	Offset Y	Dist. X	Offset Y
10'-0"	¼"	10'-0"	¼"	10'-0"	¼"	10'-0"	¼"
20'-0⅛"	⅜"	20'-0⅛"	⅜"	20'-0⅛"	⅜"	20'-0⅛"	⅜"
30'-0⅛"	¼"	30'-0⅛"	¼"	30'-0⅛"	¼"	30'-0⅛"	¼"

SPAN 2

W. Fascia		W. Curb		W.Median Curb		E.Median Curb	
Dist. X	Offset Y	Dist. X	Offset Y	Dist. X	Offset Y	Dist. X	Offset Y
9'-4½"	⅛"	9'-4½"	⅛"	9'-4½"	⅛"	9'-4½"	⅛"
18'-9"	⅛"	18'-9"	⅛"	18'-9"	¼"	18'-9"	¼"
28'-1½"	⅛"	28'-1½"	⅛"	28'-1½"	⅛"	28'-1½"	⅛"
37'-6"	⅛"	37'-6"	⅛"	37'-6"	⅛"	37'-6"	⅛"
46'-10½"	0"	46'-10½"	0"	46'-10½"	0"	46'-10½"	0"

SPAN 5A

W. Fascia		W. Curb		E. Curb		E. Fascia	
Dist. X	Offset Y	Dist. X	Offset Y	Dist. X	Offset Y	Dist. X	Offset Y
9'-8 ¾"	1'-1¾"	9'-11¼"	1'-2"	9'-6"	1'-2"	9'-8⅛"	1'-2¼"
19'-5½"	1'-8⅝"	19'-10⅝"	1'-9"	19'-0"	1'-10⅜"	19'-4¼"	1'-10¾"
29'-2¼"	1'-8⅝"	29'-9⅞"	1'-9"	28'-6"	2'-1⅛"	29'-0⅜"	2'-1⅝"
38'-11⅛"	1'-1¾"	39'-9⅛"	1'-2"	38'-0"	1'-10⅜"	38'-8½"	1'-10¾"
				47'-6⅛"	1'-2"	48'-4½"	1'-2¼"

SPAN 6A

W. Fascia		W. Curb		E. Curb		E. Fascia	
Dist. X	Offset Y	Dist. X	Offset Y	Dist. X	Offset Y	Dist. X	Offset Y
9'-8 ¾"	1'-1½"	9'-11¼"	1'-1⅞"	9'-5⅜"	1'-1⅞"	9'-6⅜"	1'-1⅞"
19'-5½"	1'-8⅛"	19'-10⅛"	1'-8⅝"	18'-10¾"	1'-10⅛"	19'-0⅞"	1'-10⅛"
29'-2¼"	1'-8"	29'-9¾"	1'-8⅜"	28'-4¼"	2'-0⅞"	28'-7¼"	2'-0⅞"
38'-11½"	1'-1"	39'-9¼"	1'-1¼"	37'-9⅝"	1'-10⅛"	38'-1⅝"	1'-10⅛"
				47'-3"	1'-1⅞"	47'-8⅛"	1'-1⅞"

SPAN 7A

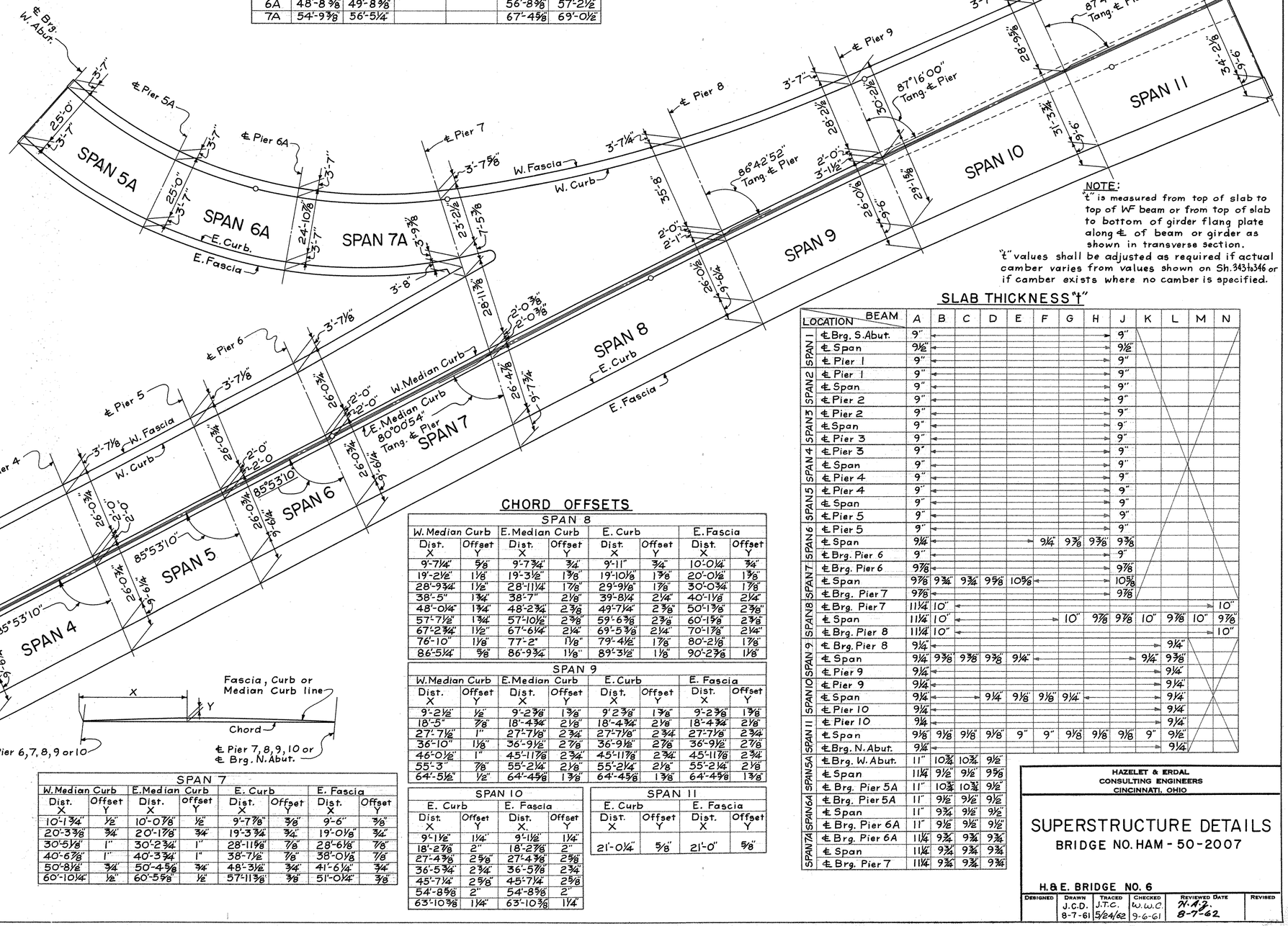
W. Fascia		W. Curb		E. Curb		E. Fascia	
Dist. X	Offset Y	Dist. X	Offset Y	Dist. X	Offset Y	Dist. X	Offset Y
10'-11½"	1'-3⅛"	11'-3½"	1'-3¾"	9'-7½"	1'-5¼"	9'-10⅜"	1'-5⅞"
21'-10⅞"	1'-10¾"	22'-6⅞"	1'-11⅝"	19'-3"	2'-4⅜"	19'-8¾"	2'-5⅝"
32'-10⅜"	1'-10¾"	33'-10⅜"	1'-11⅝"	28'-10½"	2'-10⅛"	29'-7⅛"	2'-11½"
43'-9⅞"	1'-3⅛"	45'-1⅛"	1'-3¾"	38'-6⅛"	2'-10⅛"	39'-5⅜"	2'-11½"
				48'-1⅝"	2'-4¾"	49'-3¾"	2'-5⅜"
				57'-9⅛"	1'-5¼"	59'-2⅛"	1'-5⅞"

SPAN 8

W. Fascia		W. Curb	
Dist. X	Offset Y	Dist. X	Offset Y
18'-2¼"	1'-2"	18'-3¼"	1'-2"
36'-4⅝"	1'-9"	36'-6⅞"	1'-9"
54'-6⅞"	1'-9"	54'-9⅝"	1'-9"
72'-9¼"	1'-2"	73'-0¾"	1'-2"

SPAN 9

W. Fascia		W. Curb	
Dist. X	Offset Y	Dist. X	Offset Y
14'-8⅝"	9⅛"	14'-8⅝"	9⅛"
29'-5⅜"	1'-1⅞"	29'-5⅜"	1'-1⅝"
44'-2"	1'-1¾"	44'-2"	1'-1⅝"
58'-10¾"	9⅛"	98'-10¾"	9⅛"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℄ Brg. N. Abut.
℄ Brg. S. Abut.
℄ Pier 1
℄ Pier 2
℄ Pier 3
℄ Pier 4
℄ Pier 5
℄ Pier 6
℄ Pier 7
℄ Pier 8
℄ Pier 9
℄ Pier 10
℄ Pier 5A
℄ Pier 6A
SPAN 1
SPAN 2
SPAN 3
SPAN 4
SPAN 5
SPAN 6
SPAN 7
SPAN 8
SPAN 9
SPAN 10
SPAN 11
SPAN 5A
SPAN 6A
SPAN 7A
86°02'11" Tang. ℄ Pier
85°53'10"
80°00'54" Tang. ℄ Pier
86°42'52" Tang. ℄ Pier
87°16'00" Tang. ℄ Pier
87°48'52" Tang. ℄ Pier
88°21'43" Tang. ℄ Pier
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E. Fascia
W. Fascia
W. Curb
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E. Median Curb
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22'-6"
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MICROFILMED
JUN 19 1964

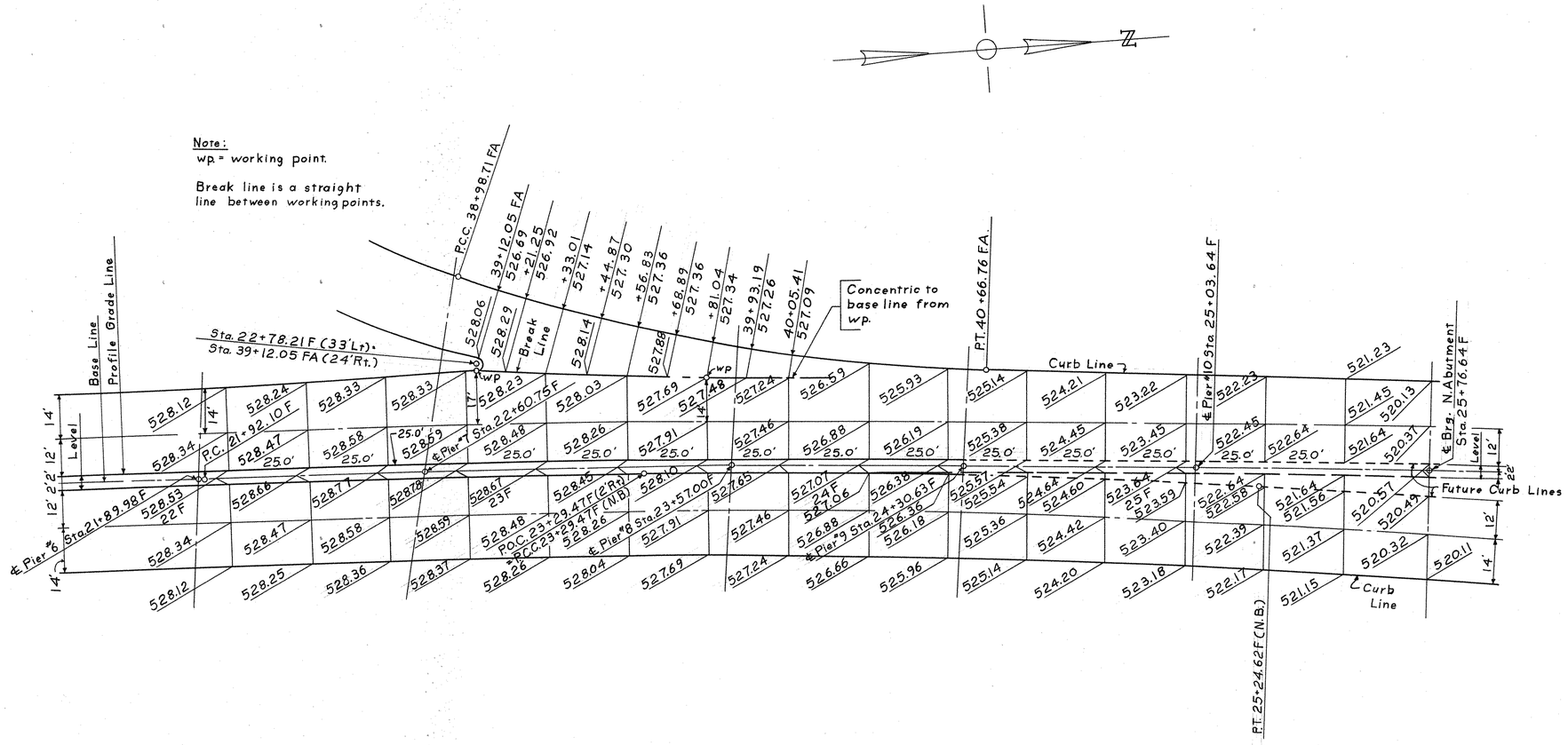
FED. RD. DIV.	STATE	PROJECT	FISCAL YEAR
2	OHIO		

354
464

HAM-50-19.76

Note:
wp = working point.

Break line is a straight line between working points.



HAZELET & ERDAL
CONSULTING ENGINEERS
CINCINNATI, OHIO

ROADWAY SURFACE ELEVATION

BRIDGE NO. HAM.-50-2007

H. & E. BRIDGE NO. 6

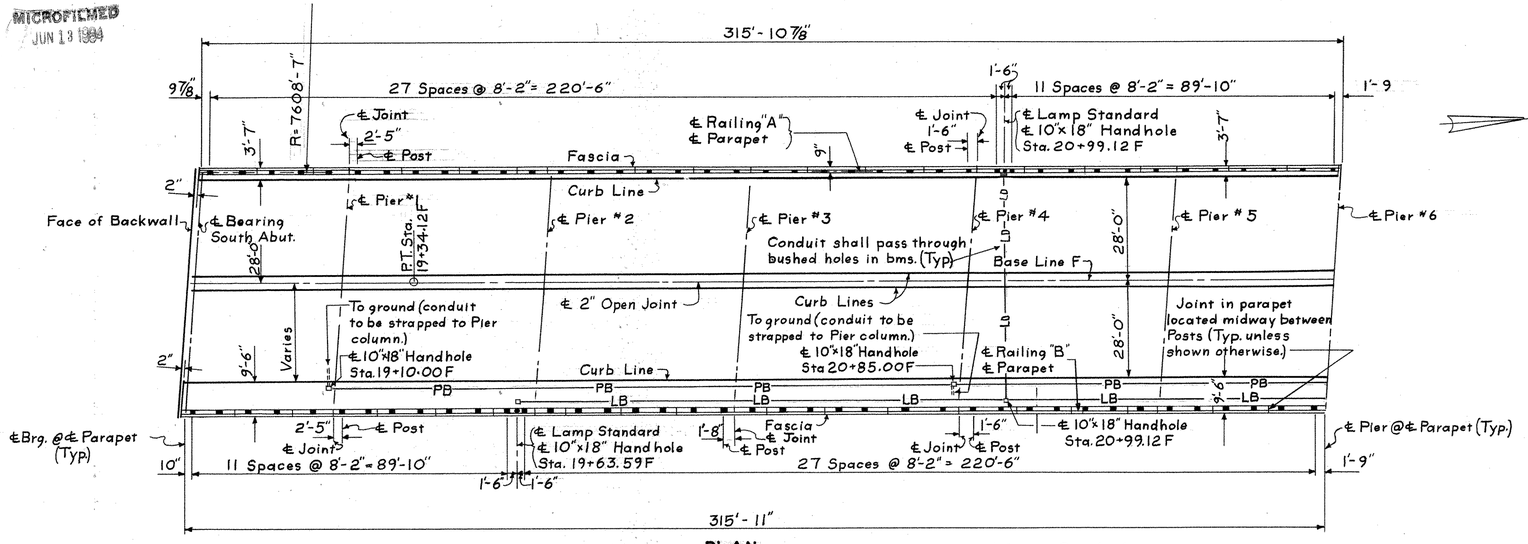
DESIGNED	DRAWN	TRACED	CHECKED	REVIEWED DATE	REVISED
	B.O.G. 6-7-61	J.T.C. 2/15/62	W.W.C. 8-1-61	W.A.Z. 8-7-62	

MICROFILMED
JUN 13 1984

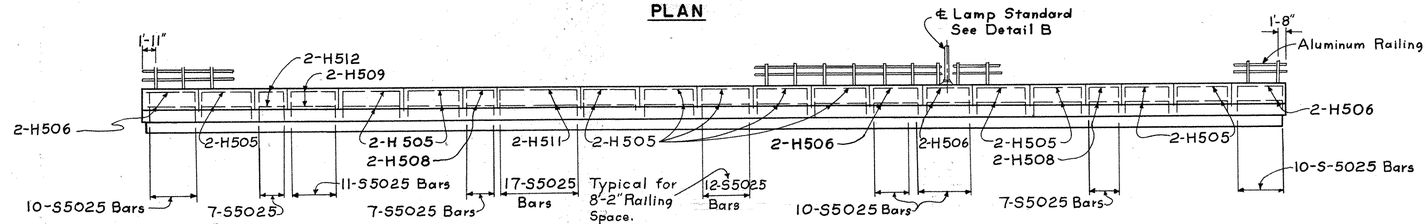
FED. RD. DIV.	STATE	PROJECT	FISCAL YEAR
2	OHIO		

355
464

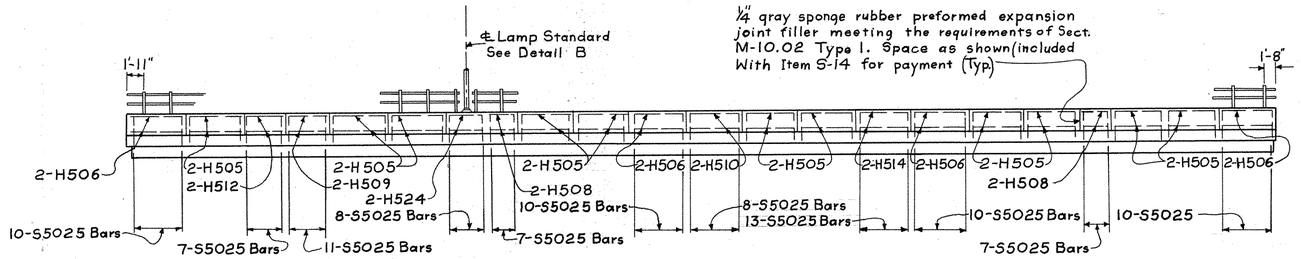
HAM-50-19.76



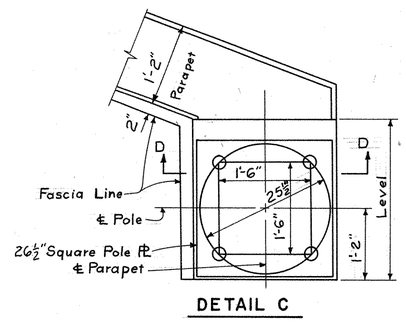
PLAN



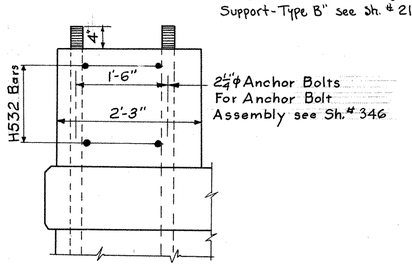
ELEVATION RAILING "A"



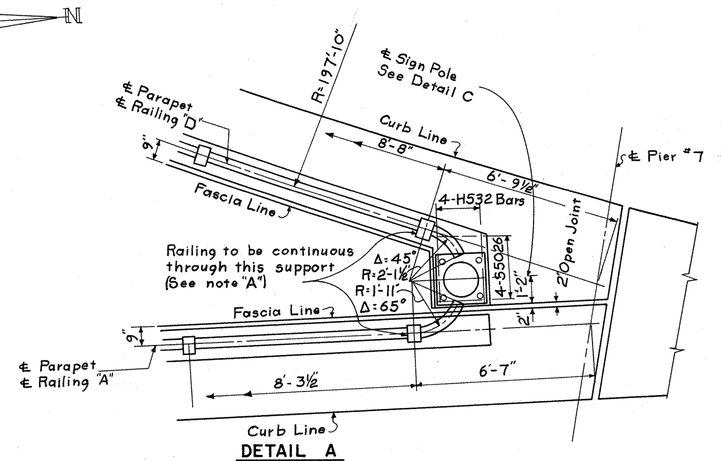
ELEVATION RAILING "B"



DETAIL C

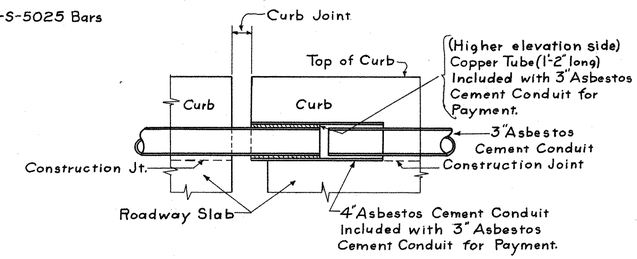


SECTION D-D

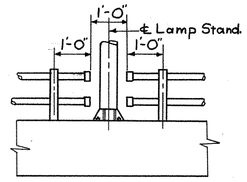


DETAIL A

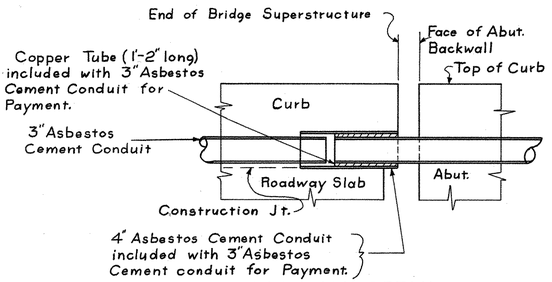
Note: "A": Drill and tap aluminum tube for ½" aluminum set screws to match holes in post. Set screws at this location to be ½" longer than standard.



CONDUIT EXPANSION DETAIL FOR SUPERSTRUCTURE



DETAIL B



CONDUIT EXPANSION DETAIL AT ABUTMENT

NOTE:
The location of reinforcing steel, railing posts and lamp standards is measured along ℄ of parapet.
For typical railing details see Standard Drawing No. AR-1-57.
For typical lighting details see Sh.# 212
For legend of Lighting Items, see Sh.# 204

HAZELET & ERDAL
CONSULTING ENGINEERS
CINCINNATI, OHIO

RAILING & LIGHTING DETAILS

BRIDGE No. HAM-50-2007

H.&E. BRIDGE NO. 6

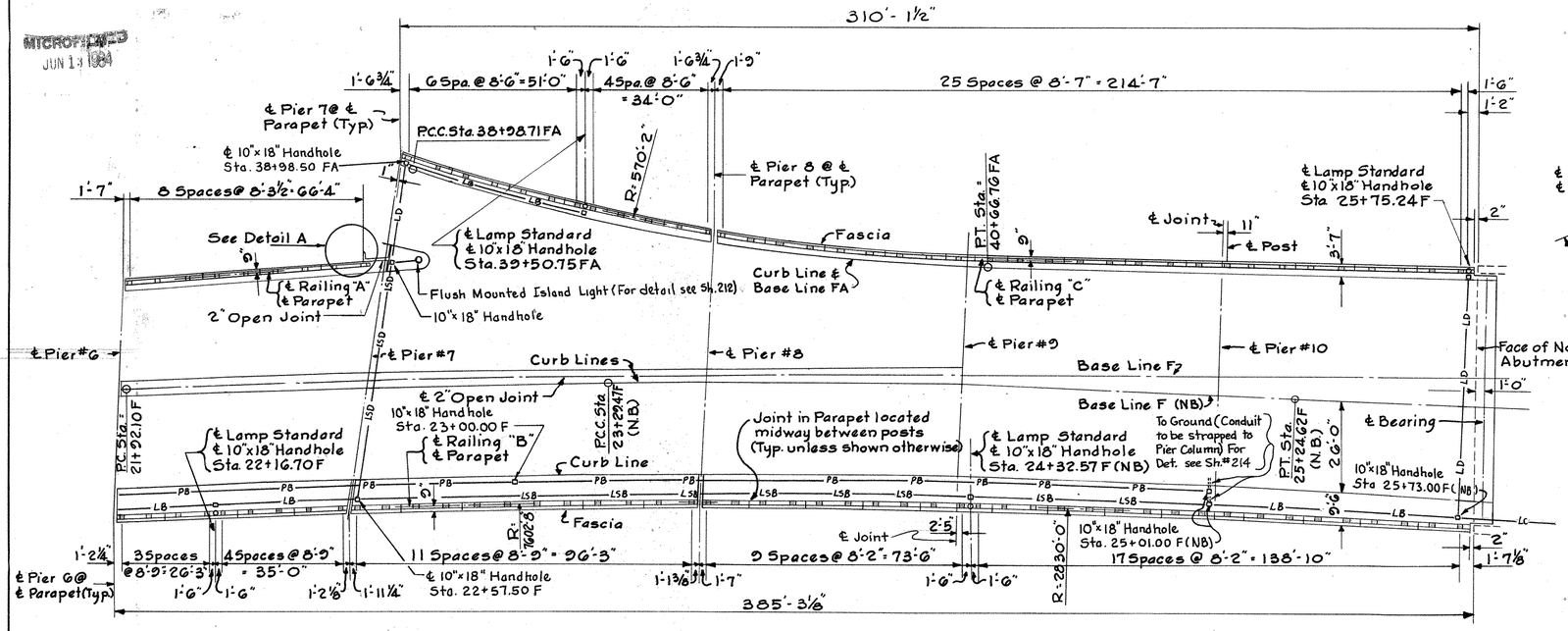
DESIGNED	DRAWN	TRACED	CHECKED	REVIEWED DATE	REVISED
	J.I.M. 6-61	J.T.C. 3-19-62	W.W.E. 8-1-61	W.A.T. 8-7-62	

MICROFILMED
JUN 13 1984

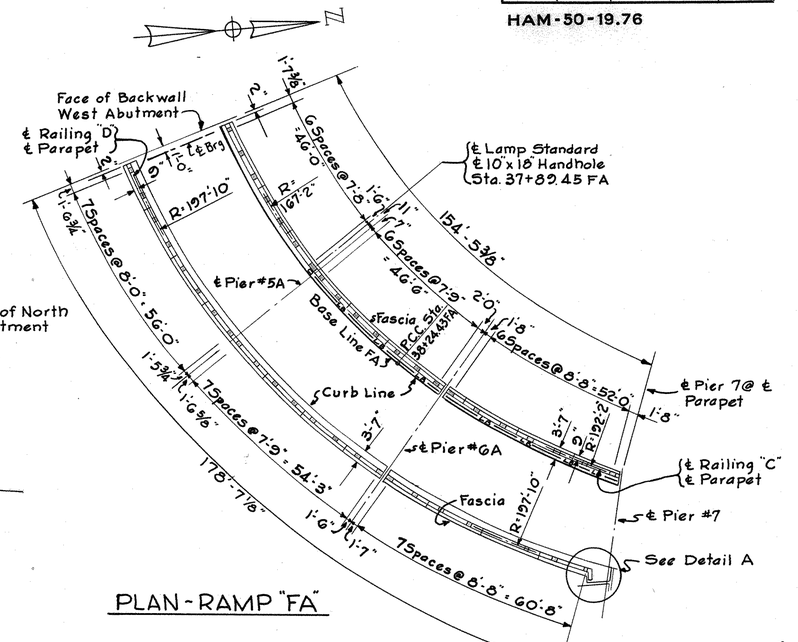
FED. RD. DIV.	STATE	PROJECT	FISCAL YEAR
2	OHIO		

356/464

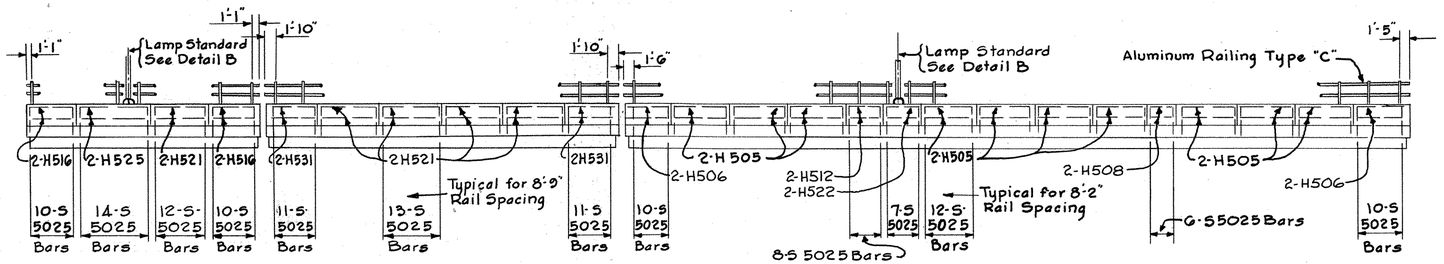
HAM-50-19.76



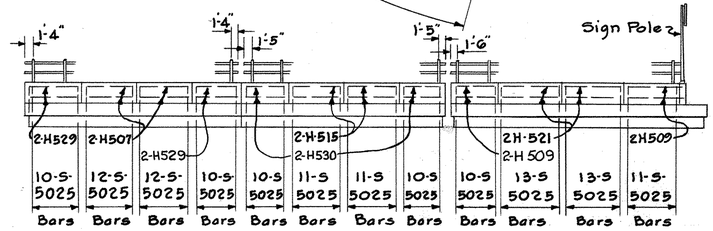
PLAN



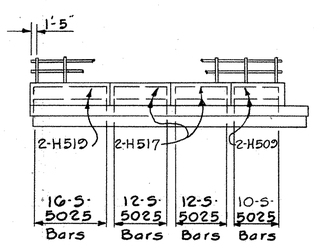
PLAN - RAMP "FA"



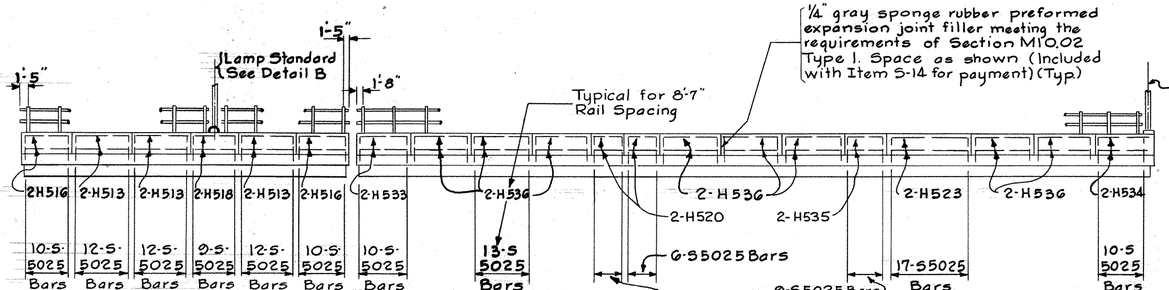
ELEVATION RAILING "B"



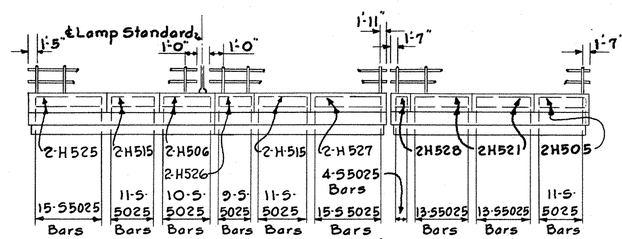
ELEVATION RAILING "D"



ELEVATION RAILING "A"



ELEVATION RAILING "C"



ELEVATION RAILING "C"

Note:
For Detail A See Sheet #355
For Notes See Sheet #355
All Railing Dimensions are measured along ℄ railing

HAZELET & ERDAL
CONSULTING ENGINEERS
CINCINNATI, OHIO

RAILING & LIGHTING DETAILS

BRIDGE No. HAM-50-2007

H. & E. BRIDGE No. 6

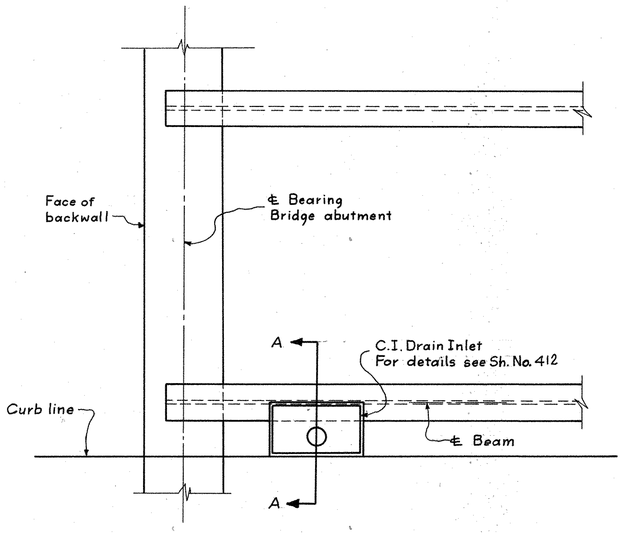
DESIGNED	DRAWN	TRACED	CHECKED	REVIEWED DATE
	J.I.M. 6-61	L.J.W. 3-6-62	W.W.C. 8-1-61	W.A.T. 8-7-62

MICROFILMED
JUN 18 1964

FED. RD. DIV.	STATE	PROJECT	FISCAL YEAR
2	OHIO		

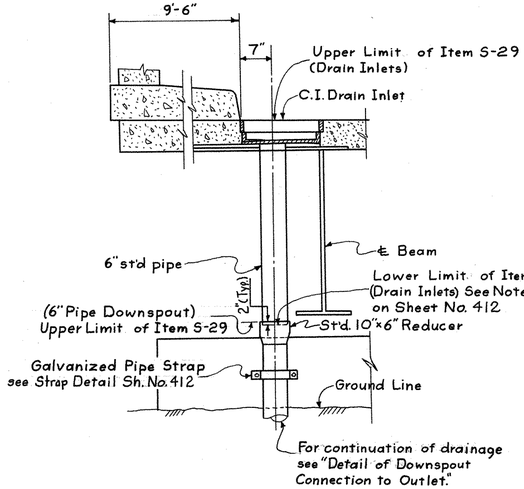
357
464

HAM-50-19.76

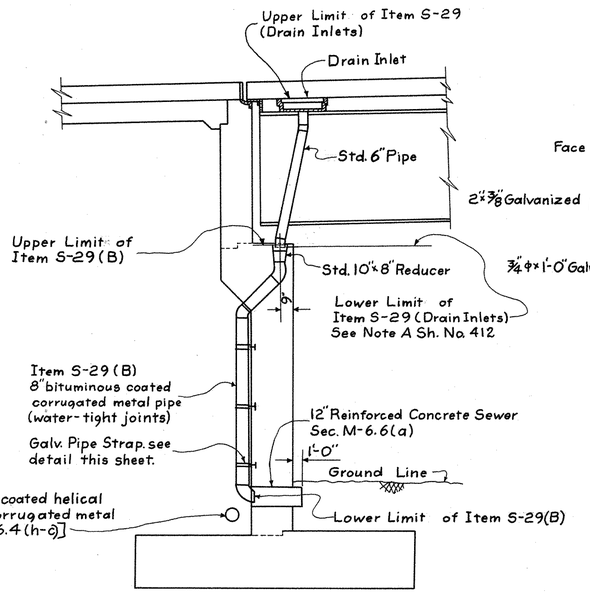


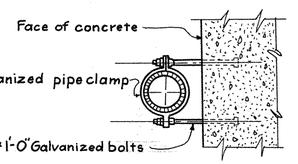
PLAN OF DRAIN INLET AT SOUTH ABUT.

Shown for East Drain
West Drain Similar
Similar Detail required at West Abutment

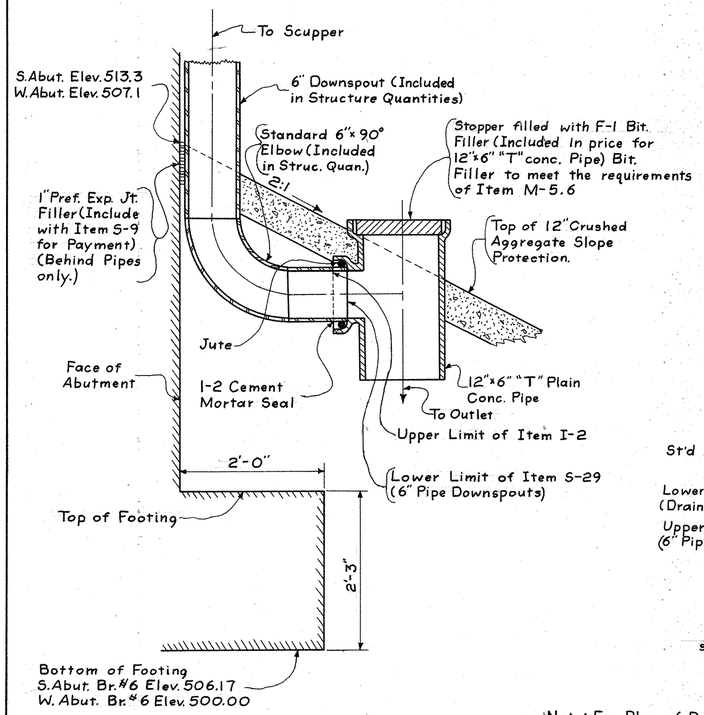


SECTION A-A

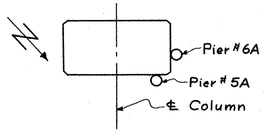




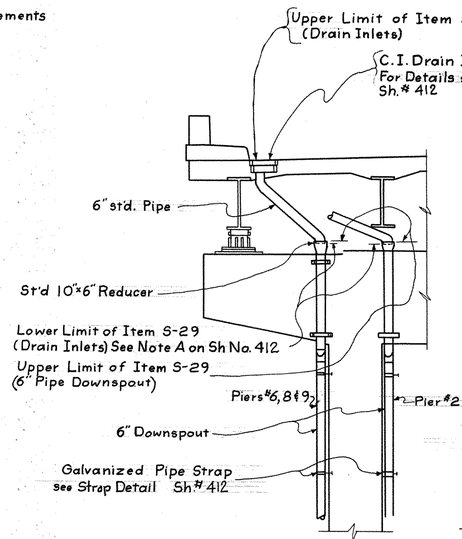
PIPE STRAP DETAIL AT HIGH ABUTMENTS



DETAIL OF DOWNSPOUT CONNECTION TO OUTLET

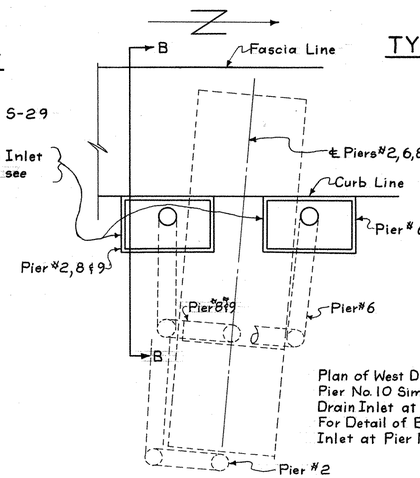


DETAIL SHOWING LOCATION OF DOWNSPOUTS ON COLUMN



Note: For Plan of Drain Inlets at other Piers see Sheet # 412

VIEW B-B

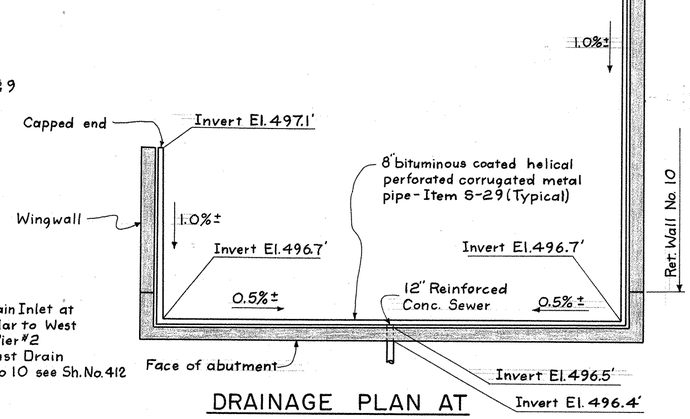


Plan of West Drain Inlet at Pier No. 10 Similar to West Drain Inlet at Pier # 2
For Detail of East Drain Inlet at Pier No 10 see Sh. No. 412

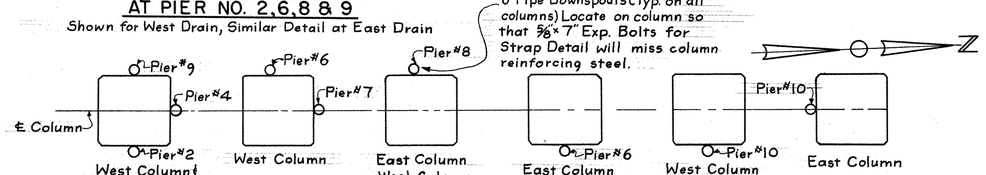
PLAN OF DRAIN INLET AT PIER NO. 2, 6, 8 & 9

Shown for West Drain, Similar Detail at East Drain

TYPICAL DRAINAGE DETAILS AT HIGH ABUTMENTS



DRAINAGE PLAN AT NORTH ABUT.



DETAIL SHOWING LOCATION OF DOWNSPOUTS ON COLUMN

Work this sheet with Sheet No. 412

HAZELET & ERDAL
CONSULTING ENGINEERS
CINCINNATI, OHIO

DRAINAGE DETAILS
BRIDGE NO. HAM-50-2007

H. & E. BRIDGE NO. 6

DESIGNED	DRAWN	TRACED	CHECKED	REVIEWED DATE
	R.E.M. 8-29-61	J.T.C. 4/25/62	J.H.O 4/30/62	W.A.J. 8-7-62

MICROFILMED
JUN 13 1964

FED. RD. DIV.	STATE	PROJECT	FISCAL YEAR
2	OHIO		

358
464

HAM-50-19.76

SOUTH ABUTMENT

MARK	LGTH.	SHP.	TOTAL	WGT.
A-401	6'-10"	Bent	8	37
A-501	12'-6"	Str.	24	313
A-502	3'-2"		12	40
A-503	9'-10"		24	246
A-504	13'-8"	↓	20	285
A-505	6'-1"	Bent	20	127
A-506	10'-4"	Bent	28	302
A 507	14'-7"	Str.	16	243
A 508	8'-2"	Bent	46	392
A-509	7'-0"	Str.	20	146
A-510	6'-1"	Bent	4	25
A-511	9'-0"	Str.	5	47
A-512	4'-2"	Bent	46	200
A-513	10'-9"	Bent	18	202
A-514	15'-5"	Str.	18	289
A-515	7'-9"	Str.	4	32
A-516	8'-6"	Bent	10	89
A-517	24'-0"	Str.	18	451
A-518	17'-0"		18	319
A-519	8'-3"		3	26
A-520	7'-6"		2	16
A-521	25'-9"	↓	21	564
A-522	4'-2"	Bent	18	78
A-523	10'-9"	Str.	14	157
A-524	4'-0"	Str.	4	17
A-554	5'-2"	Bent	54	291
A-574	9'-0"	Bent	4	38
A-575	11'-10"		4	49
A-576	8'-9"		4	49
A-577	11'-3"	↓	4	47
A-601	11'-1"	Bent	54	899
A-602	14'-1"		46	973
A-603	17'-0"	↓	17	434
A-656	10'-8"	Str.	6	96
A-659	*8'-3"*	*Bent*	*54*	*669*
A-701	10'-8"	Str.	14	305
A-702	4'-7"	Bent	20	187
H-501	13'-8"	Str.	8	

Total Wgt. Reinf. Steel
(South Abut.) = 8649

NORTH ABUTMENT

MARK	LGTH.	SHP.	TOTAL	WGT.
A 555	7'-1"	Str.	78	576
A 556	24'-4"	Str.	14	355
A 557	10'-11"	Bent	8	41
A 558	5'-0"	Str.	2	10
A 559	3'-10"		6	24
A 560	19'-2"		26	520
A 561	15'-7"		28	455
A 562	27'-8"		28	808
A 563	31'-6"		28	920
A 564	24'-0"		24	601
A 565	32'-3"	↓	12	404
A 566	6'-4"	Bent	84	555
A 567	10'-6"	Bent	3	33
A 568	19'-8"	Str.	52	1067
A 569	9'-3"	Bent	28	270
A 570	22'-7"	Str.	7	165
A 571	23'-5"	Str.	7	171
A 572	9'-9"	Bent	28	285
A 573	20'-8"	Str.	28	604
A653	9'-11"	Bent	63	938
A654	8'-4"		63	789
A655	17'-6"	↓	11	289
A753	11'-0"	Str.	40	899
A754	12'-0"		26	638
A755	14'-2"		11	319
A756	15'-0"	↓	11	337
A854	9'-0"	Str.	78	1874
A855	7'-0"	Bent	42	785
A856	11'-0"	Str.	22	646
A857	15'-0"	Str.	20	801
A858	12'-6"	Bent	38	1268
A951	13'-11"	Bent	110	5204
A952	15'-11"	Bent	58	3139
A1151	10'-11"	Bent	50	2900
A1152	14'-5"	Bent	52	3983
H503	7'-1"	Str.	8	
H504	19'-8"	Str.	8	

Total Wgt. Reinf. Steel
(North Abut.) = 32,673

WEST ABUTMENT

MARK	LGTH.	SHP	TOTAL	WGT.
A402	6'-8"	Bent	8	36
A505	6'-1"	Bent	24	152
A508	8'-2"	Bent	22	187
A516	8'-6"	Bent	24	213
A525	8'-0"	Str.	18	150
A526	13'-10"		24	346
A527	11'-2"		18	210
A528	16'-8"	↓	14	243
A529	6'-5"	Bent	22	147
A530	7'-11"	Bent	4	33
A531	13'-6"	Str.	4	56
A532	10'-0"	Str.	4	42
A533	9'-1"	Bent	6	57
A534	15'-6"		3	48
A535	15'-3"		3	48
A536	11'-8"	↓	8	97
A537	5'-9"	Str.	8	48
A538	4'-10"		4	20
A539	3'-11"		8	33
A540	3'-2"		8	26
A541	6'-10"		3	21
A542	7'-2"		3	22
A543	15'-4"		20	320
A544	15'-10"	↓	18	297
A545	9'-7"	Bent	2	20
A546	2'-4"	Str.	4	10
A547	8'-7"	Bent	6	54
A548	11'-2"	Str.	4	47
A549	8'-1"	Bent	8	67
A550	15'-0"	Bent	3	47
A551	5'-7"	Str.	2	12
A552	14'-0"	Bent	2	29
A553	20'-0"	Str.	14	292
A554	5'-2"	Bent	24	129
A578	9'-0"	Bent	10	94
A579	11'-4"	Bent	9	106
AG25	8'-0"	Str.	14	168
AG26	6'-7"	↓	3	30
AG27	6'-11"	↓	3	31
AG28	20'-0"	Bent	26	781
AG29	14'-7"		6	131
AG30	14'-1"		8	169
AG31	15'-1"		6	136
AG32	15'-7"		2	47
AG33	21'-3"	↓	8	255
AG57	5'-0"	Str.	6	45
AG58	12'-0"	Bent	6	108
A725	15'-5"	Bent	1	32
A726	15'-2"		3	93
A727	14'-11"		3	91
A728	11'-10"	↓	11	266
H502	16'-8"	Str.	8	

Total Wgt. Reinf. Steel
(West Abut.) = 6142

SUPERSTRUCTURE

MARK	LGTH.	SHP.	TOTAL	WGT.
S401	9'-1"	Str.	467	2,834
S402	3'-8"	Bent	482	1,181
S403	3'-9"		470	1177
S404	9'-2"		694	4250
S405	5'-6"		693	2,546
S406	8'-1"		3	16
S407	6'-8"	↓	9	40
S408	6'-4"	Str.	2	8
S409	5'-4"	↓	2	7
S410	4'-6"		2	6
S411	12'-9"		2	17
S412	12'-6"		1	8
S413	12'-0"		1	8
S414	11'-6"	↓	1	8
S415	4'-5"	Bent	98	289
S416	7'-8"	Str.	2	10
S501	36'-6"	Str.	126	4,797
S502	30'-0"		6	188
S503	26'-0"		6	163
S504	29'-1"		6	182
S505	25'-2"		6	157
S506	34'-3"		35	1,250
S507	28'-9"		6	180
S508	5'-5"		2	11
S509	35'-10"		14	523
S510	32'-10"		80	2,740
S511	37'-10"		6	237
S512	31'-3"		9	293
S513	30'-10"		2	64
S514	37'-4"	↓	10	389
S601	36'-10"	Str.	124	68,657
S602	21'-8"		65	2,115
S603	25'-4"		63	2,397
S604	26'-8"		69	2,764
S605	26'-6"		86	3,423
S606	22'-10"		65	2,229
S607	36'-11"		574	31,828
S608	31'-0"		555	25,842
S609	26'-0"		41	1,601
S610	9'-1"		33	450
S611	3'-1"		43	199
S612	26'-5"		32	1,270
S613	27'-2"		36	1469
S614	28'-10"		28	1,213
S615	30'-0"		62	2,794
S616	25'-11"		32	1,246
S617	27'-0"		44	1,784
S618	28'-2"		28	1,185
S619	29'-3"		936	41,122
S620	29'-0"		37	1,612
S621	31'-1"		28	1,307
S622	33'-2"		28	1,395
S623	35'-3"		28	1,482
S624	31'-6"		166	7,854
S625	30'-6"		62	2840
S626	29'-9"		46	2,055
S627	25'-7"		15	576
S628	5'-5"		4	33
S629	39'-6"		29	1,721
S630	39'-0"		38	2,226
S631	38'-0"		59	3,367
S632	37'-0"		79	4,390
S633	36'-0"		133	7,192
S634	35'-6"		27	1,440
S635	34'-6"	Str.	24	1,244

SUPERSTRUCTURE

MARK	LGTH.	SHP.	TOTAL	WGT.
S636	33'-6"	Str.	41	2,063
S637	32'-6"		78	3,803
S638	33'-2"		20	996
S639	32'-2"		15	725
S640	31'-4"		15	706
S641	28'-6"		15	642
S642	27'-10"		15	627
S643	25'-0"		20	751
S644	24'-4"		5	183
S645	35'-0"		313	16,454
S646	31'-6"		70	3,312
S647	32'-0"		67	3,220
S648	33'-0"		282	13,978
S649	34'-0"		19	970
S650	36'-3"		4	218
S651	3'-3"		5	24
S652	28'-0"		9	379
S653	24'-0"		5	180
S654	23'-0"		5	173
S655	22'-0"		5	165
S656	21'-0"		6	189
S657	20'-0"		6	180
S658	19'-0"		6	171
S659	18'-0"		6	162
S660	17'-0"		6	153
S661	16'-0"		6	144
S662	15'-0"		7	158
S663	14'-0"		7	147
S664	13'-0"		8	156
S665	12'-0"		8	144
S666	11'-0"		7	116
S667	27'-6"		4	165
S668	40'-0"		16	961
S669	38'-6"		24	1,388
S670	37'-6"		56	3,154
S671	43'-3"		3	195
S672	42'-9"		18	1,156
S673	42'-3"		17	1079
S674	41'-9"		20	1,254
S675	41'-3		15	929
S676	40'-9"		14	857
S677	40'-3"	↓	20	1,209
S678	36'-6"	Str.	6	329
S701	36'-11"	Str.	574	43,313
S702	31'-0"		555	35,167
S703	26'-0"		41	2,179
S704	9'-1"		33	613
S705	3'-1"		43	271
S706	31'-6"		166	10,688
S707	30'-6"		43	2,681
S708	30'-0"		34	2,085
S709	29'-6"		27	1628
S710	26'-5"		4	217
S711	31'-6"		70	4,507
S712	32'-0"		67	4,382
S713	32'-6"		58	3,853
S714	33'-0"		40	2,698
S715	34'-0"		19	1,320
S716	36'-10"		134	10,088
S717	25'-11"		4	212
S718	33'-10"		12	830
S719	33'-4"		127	8653
S720	36'-3"		4	296
S721	27'-2"		8	444
S722	29'-0"		9	533
S723	3'-3"		5	33
S724	28'-0"		9	515
S725	27'-0"	Str.	5	276

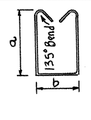
SUPERSTRUCTURE

MARK	LGTH.	SHP.	TOTAL	WGT.
S726	25'-0"	Str.	5	256
S727	24'-0"		5	245
S728	23'-0"		5	235
S729	22'-0"		5	225
S730	21'-0"		6	258
S731	20'-0"		6	245
S732	19'-0"		6	233
S733	18'-0"		6	221
S734	17'-0"		6	208
S735	16'-0"		6	196
S736	15'-0"		7	215
S737	14'-0"		7	200
S738	13'-0"		8	213
S739	12'-0"		8	196
S740	11'-0"		7	157
S741	40'-0"		16	1308
S742	39'-6"		22	1776
S743	39'-0"		23	1833
S744	38'-6"		24	1889
S745	38'-0"		44	3418
S746	37'-6"		56	4292
S747	43'-3"		3	265
S748	42'-9"		18	1573
S749	42'-3"		17	1468
S750	41'-9"		20	1707
S751	41'-3"		15	1265
S752	40'-9"		14	1166
S753	40'-3"		20	1645
S754	37'-0"		60	4538
S755	36'-6"		6	448
S756	36'-0"		7	515
S757	35'-6"		8	580
S758	35'-0"		9	644
S759	34'-6"		9	635
S760	33'-6"		14	959
S761	26'-8"	↓	4	218
S762	26'-6"	Str.	12	650
S5025	6'-4"	Bent	1269	8383
S5026	7'-5"	Bent	4	30

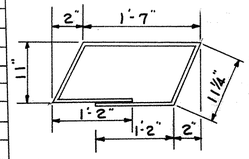
Total Wgt. Reinf. Steel
(Superstructure) = 503,856

HANDRAILS

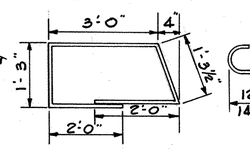
MARK	LGTH.	SHP.	TOTAL	WGT.
H505	16'-0"	Str.	132	
H506	13'-6"		44	
H507	15'-6"		8	
H508	7'-10"		20	
H509	14'-2"		24	
H510	10'-3"		4	
H511	24'-2"		4	
H512	9'-6"		12	
H513	16'-8"		12	
H514	18'-6"		4	
H515	15'-0"		16	
H516	13'-11"		16	
H517	16'-4"		8	
H518	11'-2"		4	
H519	22'-0"		4	
H520	8'-4"		8	
H521	17'-0"		36	
H522	9'-2"		4	
H523	22'-0"		4	
H524	10'-11"		4	
H525	20'-3"		8	
H526	11'-10"		4	
H527	20'-11"		4	
H528	5'-7"		4	
H529	13'-0"		8	
H530	12'-8"		8	
H531	14'-9"		8	
H532	2'-3"		4	
H533	14'-0"		4	
H534	15'-0"		4	
H535	11'-7"		4	
H536	16'-10"	↓	32	



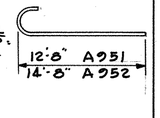
Mark	a	b
A505	2'-4"	0'-10"
A557	4'-9"	0'-10"
A569	3'-11"	0'-10"
S5025	2'-5"	0'-11"
S5026	2'-5"	2'-0"



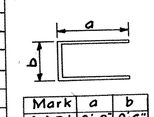
S405



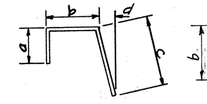
S404



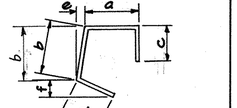
A951 - A952



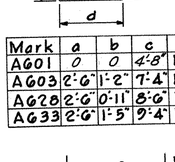
Mark	a	b
A401	3'-3"	0'-6"
A402	3'-3"	0'-4"
A554	1'-0"	3'-5"
A508	1'-6"	5'-4"
A529	1'-7"	3'-5"
S403	1'-3"	1'-5"
S406	3'-6"	1'-3"



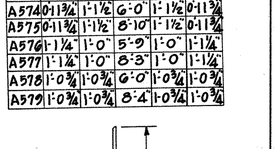
Mark	a	b	c	d
A506	1'-7"	3'-5"	5'-6"	0
A513	1'-7"	3'-5"	5'-11"	0
A566	1'-0"	3'-5"	2'-2"	0
AG02	1'-6"	5'-4"	7'-6"	0
AG29	1'-6"	5'-4"	8'-0"	0
AG30	1'-6"	5'-4"	7'-6"	0
AG31	1'-6"	5'-4"	8'-6"	0
AG32	1'-6"	5'-4"	9'-0"	0
AG33	2'-4"	0'-9"	7'-1"	0
AG59	*3'-10"*	*8"*	*4'-0"*	*2½"*



Mark	a	b	c	d	e	f
A516	2'-10	1'-10	1'-7	2'-7	2"	1'-2"
A567	3'-4	1'-10	1'-7	4'-0	2"	1'-9"
A572	3'-1"	1'-10	1'-7	3'-6	2	1'-7"
A655	1'-3"	7'-0	6'-1	3'-6	0	2'-6"



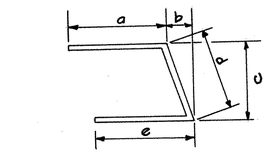
Mark	a	b	c	d	e	f
AG01	0	0	4'-8"	1'-6"	5'-2"	2"
AG03	2'-6"	1'-2"	7'-4"	1'-5"	5'-2"	3"
AG28	2'-6"	0'-11"	8'-6"	1'-5"	7'-2"	0"
AG33	2'-6"	1'-5"	9'-4"	1'-5"	7'-2"	0"



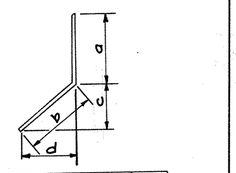
Mark	a	b	c	d	e
A574	0'-11¾"	1'-1½"	6'-0"	1'-1½"	0'-11¾"
A575	0'-11¾"	1'-1½"	8'-10"	1'-1½"	0'-11¾"
A576	1'-1¼"	1'-0"	5'-9"	1'-0"	1'-1¼"
A577	1'-1¼"	1'-0"	8'-3"	1'-0"	1'-1¼"
A578	1'-0¾"	1'-0¾"	6'-0"	1'-0¾"	1'-0¾"
A579	1'-0¾"	1'-0¾"	8'-4"	1'-0¾"	1'-0¾"



Mark	a	b
A512	3'-7"	8"
A522	3'-7"	8"
A533	8'-6"	8"
A534	14'-11"	8"
A535	14'-8"	8"
A536	11'-1"	8"
A545	9'-0"	8"
A547	8'-0"	8"
A549	7'-6"	8"
A550	14'-5"	8"
A552	13'-5"	8"
AG58	11'-6"	8"
A702	4'-0"	8"
A725	14'-11"	8"
A726	14'-8"	8"
A727	14'-5"	8"
A728	11'-4"	8"
A855	5'-3"	2'-0"
A858	10'-9"	2'-0"
A1151	9'-3"	2'-0"
A1152	12'-9"	2'-0"



Mark	a	b	c	d	e
S402	1'-3"	0'-4"	1'-3"	1'-3⅜"	1'-3"
S407	2'-7"	0'-4"	1'-3"	1'-3⅜"	2'-11"
S415	1'-10"	0'-2"	0'-11"	0'-11¼"	1'-10"



Mark	a	b	c	d
A510	1'-7"	4'-6	4'-0"	2'-0"
A530	5'-10"	2'-1"	1'-10⅜"	0'-11½"
AG54	4'-10	3'-6"	2'-6	2'-6"

Reinforcement bars mark H501 thru H536 are included in Item S-14 (Railing) for payment.

Bar size is indicated in the bar mark. The first digit where three digits are used, and the first two digits where four are used, indicate the bar size number. For example AG01 is a No. 6 size bar and A1151 is a No.11 size.

Work this sheet with Sh.# 359

HAZELET & ERDAL
CONSULTING ENGINEERS
CINCINNATI, OHIO

STEEL REINFORCEMENT LIST

BRIDGE NO. HAM-50-2007

H. & E. BRIDGE NO. 6

DESIGNED	DRAWN	TRACED	CHECKED	REVIEWED DATE
	G.L.B.	L.J.W.	JHO 1/4/62	11-1-62 8-7-62

MICROFILMED
JUN 13 1984

FED. RD. DIV.	STATE	PROJECT	FISCAL YEAR
2	OHIO		

359
464

HAM-50-19.76

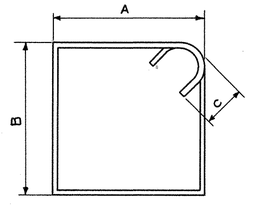
PIERS

MARK	LGTH.	SHP.	NUMBER 1	2	3	4	5	6	7	8	9	10	5A	6A	TOTAL	WGT.
P4001	11'-7"	Bent	152	160	92	104	188	216	86	124	124	92			1338	10,353
P4002	10'-4"	Bent	152	160	92	104	188	216	16	120	124	92			1264	8,725
P4003	10'-4"	Bent							69						69	476
P5023	31'-11"	Bent							92						92	376
P5022	32'-9"	Str.							7						7	239
P5001	6'-3"	Bent											48	48	96	626
P5002	6"-11"	Bent											12	12	24	173
P5003	9'-5"	Bent											12	12	24	236
P5004	9'-11"	Bent											12	12	24	248
P5005	11'-5"	Bent											12	12	24	286
P5006	10'-9"	Bent											5	5	10	112
P5007	12'-0"	Str.											22	34	56	701
P5008	5'-7"	Bent											22	34	56	326
P5009	8'-1"	Bent	240	240	240	240	240	240							1440	12,140
P5010	6'-11"	Bent	16	16	16	16	16	16							96	693
P5011	11'-2"	Bent			30										30	349
P5012	31'-11"	Str.							44						44	1,465
P5013	7'-11"	Bent							68			320	320		708	5,846
P5014	8'-6"	Bent								368					368	3,263
P5015	8'-3"	Bent							388						388	3,339
P5016	7'-11"	Bent							6						6	50
P5017	3'-9"	Bent							16	39					55	215
P5018	38'-1"	Str.							22						22	874
P5019	6'-10"	Bent								32					32	228
P5020	4'-5"	Bent	54	54	54	54	54	54	78	114	66	66	24	24	696	3206
P5021	28'-11"	Str.							14						14	422
P6001	10'-9"	Bent											8	8	16	258
P6002	26'-0"	Str.											2	2	4	156
P6003	29'-8"	Str.											2	2	4	178
P6004	9'-6"	Str.											11		11	157
P6005	20'-0"	Str.											6		6	180
P6006	19'-6"	Str.												7	7	205
P6007	13'-0"	Str.												11	11	215
P6008	34'-10"	Str.							54						54	2,825
P6009	11'-11"	Bent							18						18	322
P6010	8'-6"	Str.							10						10	128
P6011	18'-10"	Str.							8						8	226
P6012	17'-3"	Str.			33										33	855
P7001	9'-5"	Bent	8	8	8	8	8	8							48	924
P7004	34'-8"	Str.	4	4	4	4	4	4							24	1,701
P7005	11'-2"	Bent	76	76		28					36	36			252	5,752
P7006	10'-10"	Bent							4						4	89
P7007	36'-6"	Str.									4	4			8	597
P7008	11'-4"	Bent							100						100	2,316
P7009	38'-11	Str.								2					2	159
P7010	36'-5"	Str.								2					2	149
P7011	10'-4"	Bent								4					4	84
P7012	9'-10"	Bent							4	4	8	8			24	482
P7013	9'-6"	Str.							4						4	78
P7014	36'-8"	Str.							4						4	300
P7015	32'-2"	Str.							8						8	526
P7016	10'-6"	Str.							4						4	86
P7017	14'-6"	Str.							102						102	3,023
P8001	11'-8"	Bent			112	84	112	112		76	38	38	29		601	18,721
P8002	15'-7"	Str.	4	4	4	4	4	4							24	999
P8003	17'-7"	Str.	4	4	4	4	4	4							24	1,127
P8004	15'-2"	Bent	64	64											128	5,183
P8005	7'-2"	Bent							102						102	1,952
P8006	25'-2"	Str.							92						92	6,182
P8007	11'-0"	Str.							50						50	1,469
P8008	20'-2"	Str.							12						12	646
P8009	7'-6"	Str.							10						10	200
P9001	29'-8"	Str.											4	4	8	807
P9002	22'-6"	Bent											14		14	1071
P9003	22'-0"	Bent												19	19	1421
P9004	30'-2"	Str.	56												56	5744
P9005	31'-5"	Str.		56											56	5982
P9006	21'-8"	Str.				56									56	4125
P9007	36'-6"	Str.	6	6	6	6	62	6							92	11,417
P9008	41'-6"	Str.						56							56	7,902
P9009	7'-0"	Bent	56	56	56	56	56	56		56	56	56			504	11,995

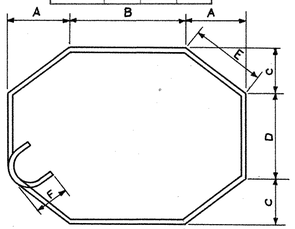
PIERS

MARK	LGTH.	SHP.	NUMBER 1	2	3	4	5	6	7	8	9	10	5A	6A	TOTAL	WGT.
P9010	34'-9"	Bent	6	6	6	6	6	6							36	4,253
P9011	19'-4"	Str.	6	6	62	6	6	6							92	6,047
P9012	21'-0"	Str.									6	6			12	857
P9013	39'-0"	Str.									6	6			12	1,591
P9014	24'-10"	Str.									56				56	4,728
P9015	19'-8"	Str.										56			56	3,745
P9016	17'-0"	Str.							14						14	809
P9017	16'-0"	Str.							12						12	653
P9018	24'-6"	Str.								56					56	4,665
P9019	31'-6"	Str.								6					6	643
P9020	29'-6"	Str.								6					6	602
P9021	15'-6"	Bent								72	72	72			216	11,383
P9022	40'-6"	Bent	6	6	6	6	6	6							36	4,957
P9023	35'-6"	Str.								2	2				4	483
P10001	34'-1"	Bent											5	5	10	1,467
P10002	15'-10"	Bent												28	28	1,908
P10003	17'-6"	Str.									2	2			4	301
P10004	19'-6"	Str.									2	2			4	336
P10005	23'-3"	Str.							6						6	600
P10006	17'-4"	Bent							174						174	12,978
P11001	7'-8"	Bent											34	34	68	2,770
P11002	26'-11"	Str.											34		34	4,862
P11003	20'-3"	Str.												68	68	7,316
P11004	41'-11"	Bent									6	6			12	2,672
P11005	38'-11"	Str.								6					6	1,241
P11006	36'-5"	Str.								6					6	1,161
P11007	42'-8"	Bent							6						6	1,360
P11008	29'-3"	Bent							6						6	932
P11009	25'-10"	Str.							12						12	1,647
P11010	42'-0"	Bent							6						6	1,339
P11011	17'-0"	Str.							8						8	723
P11012	20'-0"	Str.							4						4	425
P11013	19'-5"	Str.							48						48	4,952
P11014	17'-5"	Str.							16						16	1,481
P11015	37'-8"	Bent									6	6			12	2,401
P11016	44'-3"	Bent								6					6	1,411
P11017	41'-9"	Bent								6					6	1,331

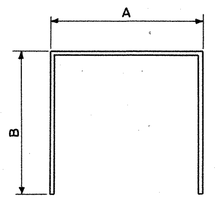
Total Wgt. Of Reinforcing Steel (Piers) = 264,911



MARK	A	B	C
P4001	2'-8"	2'-8"	0'-8"

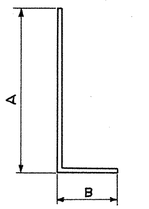


MARK	A	B	C	D	E	F
P4002	0'-10	1'-0"	0'-8"	1'-4"	1'-1"	0'-8"
P4003	0'-8"	1'-4"	0'-8"	1'-4"	0'-11	0'-8"

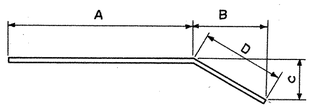


MARK	A	B
P5001	2'-0"	2'-3"
P5002	2'-0"	2'-7"
P5003	2'-0"	3'-10"
P5004	2'-0"	4'-1"
P5005	2'-0"	4'-10"
P5006	2'-0"	4'-6"
P5008	2'-8"	1'-7"
P5009	1'-8"	3'-4"
P5010	1'-8"	2'-9"
P5011	1'-3"	5'-1"
P5013	1'-8"	3'-3"
P5014	1'-7"	3'-7"
P5015	1'-8"	3'-5"
P5023	3'-2"	0'-6"
P5017	2'-8"	0'-8"
P5019	1'-7"	2'-9"
P5020	2'-8"	1'-0"
P11010	36'-8	3'-0"
P11016	38'-11	3'-0"
P11017	36'-5	3'-0"
P10001	29'-8	2'-6"

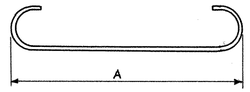
Total Wgt. Of Reinforcing Steel = 816,231 #



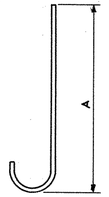
MARK	A	B
P8005	5'-11"	1'-5"
P7008	10'-3"	1'-2½
P6009	10'-1"	2'-0"
P9010	32'-0	3'-0"
P9022	37'-9	3'-0"
P11007	40'-0	3'-0"
P11008	26'-7	3'-0"
P11004	39'-3	3'-0"
P11015	35'-0	3'-0"



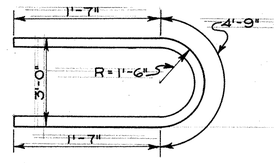
MARK	A	B	C	D
P6001	8'-10"	1'-10"	0'-5"	1'-11"
P7001	6'-5"	2'-11½	0'-8"	3'-0"
P7006	7'-10"	2'-11½	0'-6"	3'-0"
P7011	7'-4"	2'-11"	0'-7"	3'-0"
P7012	6'-10"	2'-11"	0'-8"	3'-0"



MARK	A
P8001	9'-6"
P8004	13'-0"
P7005	9'-6"
P9002	20'-0
P9003	19'-6"
P9021	13'-0"
P10002	13'-0"
P10006	14'-6"



MARK	A
P11001	6'-1"
P9009	5'-9"



P 5016

REPLACEMENT BARS			
MARK	LGTH.	SHP.	NO.
RE401	5'-3"	Str.	2
RE501	5'-7"	↑	4
RE601	5'-11"		16
RE701	6'-3"		10
RE801	6'-6"		2
RE901	6'-10"		6
RE1001	7'-3"	↓	1
RE1101	7'-7"	Str.	3

Work this sheet with Sh# 358

HAZELET & ERDAL
CONSULTING ENGINEERS
CINCINNATI, OHIO

STEEL REINFORCEMENT LIST

BRIDGE NO. HAM-50-2007

H.&E. BRIDGE NO. 6

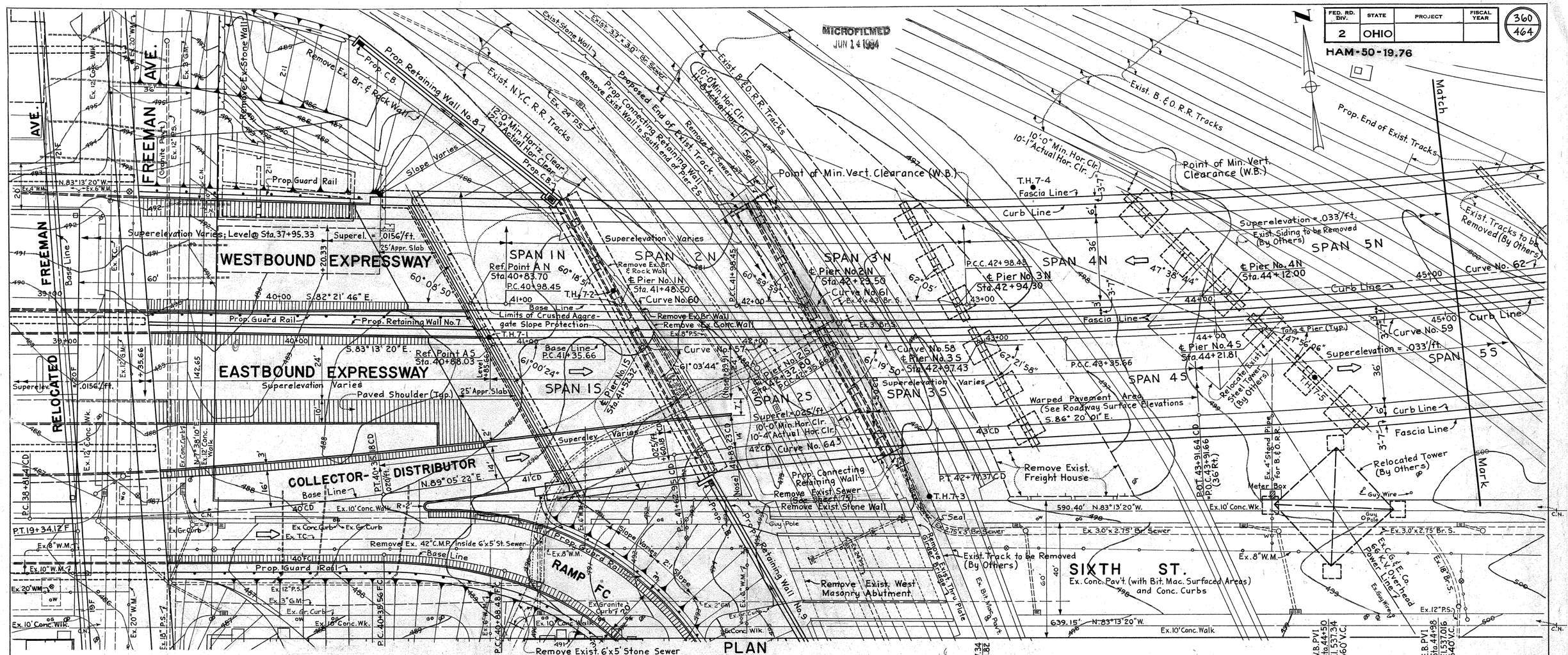
DESIGNED	DRAWN	TRACED	CHECKED	REVIEWED DATE	REVISED
	J.T.C. 12-20-61	J.T.C. 5/25/62	J.H.O 5/25/62	H.A.F. 8-7-62	10-30-62

FED. RD. DIV.	STATE	PROJECT	FISCAL YEAR
2	OHIO		

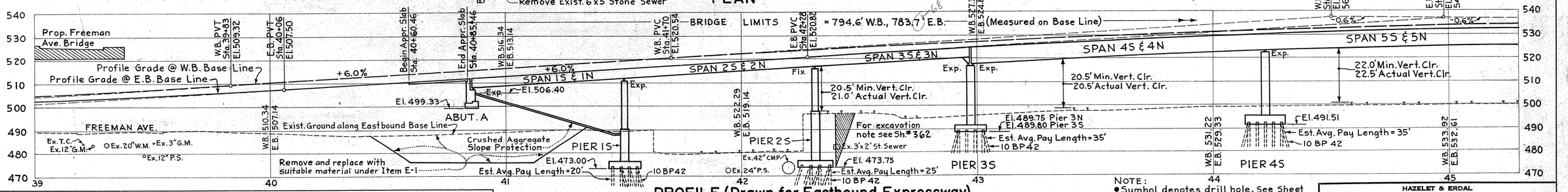
360
464

HAM-50-19.76

MICROFILMED
JUN 14 1994



PLAN



PROFILE (Drawn for Eastbound Expressway)

PROPOSED STRUCTURE

Type of Structure: Spans 1N thru 3N and 1S thru 3S continuous rolled beams. Spans 4N, 5N, 5AN, 6N, 7N, 8N and 4S, 5S, 6S, 7S, 8S continuous plate girders, with concrete deck and substructure.
Span: 9 of varying length for W.B. Structure and 8 of varying length for E.B. (See Table for length.)
Roadway: Westbound; 36'-0" Effective Roadway, 45'-0" f/f curbs with two 3'-7" safety curbs.
Eastbound; Variable (See Plan) - 36'-0" Effect. Rdwy., 45'-0" f/f curbs with two 3'-7" safety curbs.
Load Frequency: CF 2000 (57), adequate for AASHO alternate loading.
Skew: Varies (See Plan)
Wearing Surface: 1" Monolithic Concrete.
Approach Slab: AS-1-54 (25' long)
Alignment: Compound Curves.
Superelevation: Varies (See Plan)

Curve No. 60	Curve No. 61	Curve No. 62	Curve No. 57	Curve No. 58	Curve No. 64
P.I. Sta. 41+48.45	P.I. Sta. 42+48.45	P.I. Sta. 46+45.85	P.I. Sta. 41+85.66	P.I. Sta. 42+85.66	P.I. Sta. 42+20.19 CD
Δ = 0° 20' 00"	Δ = 1° 40' 20"	Δ = 13° 52' 00"	Δ = 0° 20' 00"	Δ = 1° 39' 40"	Δ = 4° 34' 37"
D = 0° 20'	D = 1° 40' 20"	D = 2° 00' 20"	D = 0° 20'	D = 1° 39' 40"	D = 4° 00'
R = 17,188.74'	R = 3,426.33'	R = 2856.85'	R = 17,188.74'	R = 3449.25'	R = 1432.39'
L = 100.00'	L = 100.00'	L = 691.41'	L = 100.00'	L = 100.00'	L = 114.42'
T = 50.00'	T = 50.00'	T = 347.40'	T = 50.00'	T = 50.00'	T = 57.24'

DESIGN SPECIFICATIONS: This structure conforms to the requirements of "Design Specifications for Highway Structures" of the State of Ohio, Department of Highways, dated 9-1-57 with revision thereof dated 2-21-58.

NOTE:
- Symbol denotes drill hole. See Sheet No. 364 for test boring data and Sheet No. 408 for Foundation Soundings note.

For Bench Mark List, See Sheet No. 48
For Table of Span Lengths, See Sheet No. 361
For Data, Curve No. 59, See Sheet No. 361
Abutment A and Piers 1N & 1S thru 3N & 3S are parallel.
Piers 4N & 4S and 5N & 5S are parallel.

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CONSULTING ENGINEERS
CINCINNATI, OHIO

SITE PLAN
BRIDGE No. HAM-50-2012 R&L
SHEET 1 OF 2

H&E BRIDGE No. 7

DESIGNED	DRAWN	TRACED	CHECKED	REVIEWED	DATE	REVISED
	HLL 12-16-60		N.A.Z. 11-30-61	N.A.Z. 8-6-62		11-1-62

MICROFILMED
JUN 14 1984

FED. RD. DIV.	STATE	PROJECT	FISCAL YEAR
2	OHIO		

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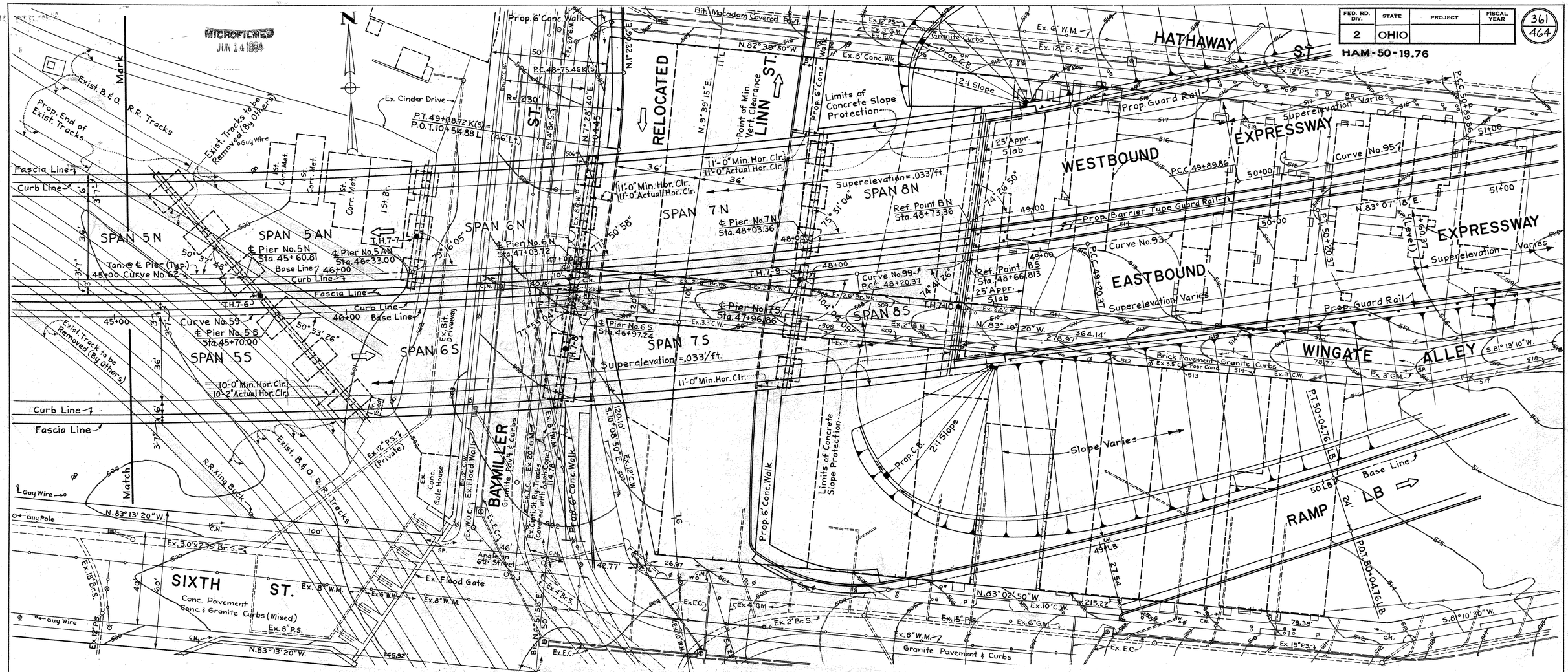
N
Prop. 6' Conc. Walk
Bit. Macadam Covered Rd.
HATHAWAY ST.
Ex. 8' Conc. Wk.
Ex. Granite Curbs
Ex. 12" P.S.
Ex. G.W.M.
Ex. 12" P.S.
Ex. 2" G.M.
Ex. 8" W.M.
Ex. 20" C.W.
Ex. 8" C.W.
Ex. 4" Br. S.
Ex. 3.5" C.W.
Ex. 3" G.M.
Ex. 2.6" C.W.
Ex. 2.6" Br. Wk.
Ex. 3.3" C.W.
Ex. 2" G.M.
Ex. T.C.
Ex. 12" P.S.
Ex. 3" C.W.
Ex. 3" G.M.
Ex. 8" W.M.
Ex. 6" W.M.
Ex. 4" Br. S.
Ex. 2" Br. S.
Ex. 15" P.S.
Ex. 10" C.W.
Ex. 6" G.M.
Ex. E.C.
Ex. 8" W.M. Granite Pavement & Curbs
Ex. Cinder Drive
Exist. Tracks to be Removed (By Others)
Exist. B. & O. R.R. Tracks
Guy Wire
Guy Pole
Prop. End of Exist. Tracks
Exist. Tracks to be Removed (By Others)
Match
Fascia Line
Curb Line
Base Line
Tan. @ ℄ Pier (Typ.)
45+00 Curve No. 62
Curve No. 59
℄ Pier No. 5S
Sta. 45+70.00
50° 53' 26"
Curve No. 95
Curve No. 93
Curve No. 99
P.C.C. 48+20.37
P.T. 50+20.37
Ref. Point BS
Sta. 48+66.813
25' Appr. Slab
Ref. Point BN
Sta. 48+73.36
℄ Pier No. 7N
Sta. 48+03.36
℄ Pier No. 7S
Sta. 47+96.86
℄ Pier No. 6N
Sta. 47+03.72
℄ Pier No. 6S
Sta. 46+97.24
℄ Pier No. 5N
Sta. 45+60.81
℄ Pier No. 5AN
Sta. 46+33.00
P.C.C. 49+89.86
P.C.C. 49+20.37
P.T. 50+20.37
P.T. 50+04.76
Point of Min. Vert. Clearance
Limits of Concrete Slope Protection
Prop. Guard Rail
Prop. Barrier Type Guard Rail
Superelevation Varies
Superelevation = .033'/ft.
Slope Varies
2:1 Slope
Prop. C.B.
Prop. 6' Conc. Walk
Brick Pavement Granite Curbs
Ex. 3.5" C.W. Floor Cond.
Ex. 3" C.W.
Ex. 3" G.M.
Ex. 12" P.S.
Ex. 8" W.M.
Ex. 8" C.W.
Ex. 4' Br. S.
Ex. 2" Br. S.
Ex. 15" P.S.
Ex. 8" W.M. Granite Pavement & Curbs
Ex. E.C.
Ex. Bit. Driveway
Ex. Flood Gate
Ex. Concrete Gate House
Ex. Flood Wall
Ex. W.U.C.
Ex. Int. St. Rly. Tracks (Covered with Asphalt Conc.)
Ex. 3.0' x 2.25' Br. S.
Ex. 18" C.S.P.
Ex. 12" P.S. (Private)
Ex. 12" P.S.
Ex. 8" W.M.
Ex. 6" W.M.
Ex. 8" W.M.
Ex. 20" G.M.
Ex. 8" W.M.
Ex. T.C.
Ex. 20" C.W.
Ex. 8" C.W.
Ex. 4" Br. S.
Ex. 2" Br. S.
Ex. 15" P.S.
Ex. 10" C.W.
Ex. 6" G.M.
Ex. E.C.
Ex. 8" W.M. Granite Pavement & Curbs
Ex. E.C.
Ex. 12" P.S.
Ex. 8" W.M.
Ex. 8" W.M.
Ex. 8" W.M

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ESTIMATED QUANTITIES

ITEM	TOTAL	UNIT	DESCRIPTION	SUPER STRUCTURE	ABUT A	ABUT B	PIERS 1N	1S	2N	2S	3N	3S	4N	4S	5AN	5N	5S	6N	6S	7N	7S	GENERAL	TOTAL U	TOTAL U G
E-2	Lump	Sum	Cofferdams, Cribs & Sheeting																					Lump
E-2	5577	Cu. Yds.	Unclassified Excavation		358	454	468	700	1071	1001	119	118	253	245	80	175	192	80	103	80	80		160	5417
S-1	2956	Cu. Yds.	Class "C" Concrete, Superstructure	2956																			450	2506
S-1	993	Cu. Yds.	Class "C" Concrete Pier Caps & Columns & Pier Walls				50.4	55.7	47.6	48.4	63.4	63.8	130.8	85.6	51.3	85.0	130.1	44.4	47.0	43.2	46.3		89.5	903.5
S-1	1028	Cu. Yds.	Class "E" Concrete, Abutment & Pier Walls		216.3	210.0	115.2	128.4	182.4	175.7														1028
S-1	1222	Cu. Yds.	Class "E" Concrete, Footings		85.2	95.3	95.3	106.1	104.6	104.6	45.0	45.0	102.0	102.0	33.3	75.6	75.6	33.3	52.5	33.3	33.3		66.6	1155.4
S-3	136	Lin. Ft.	Waterproofing, Premolded Sealing Strip		56	45	14		21															136
S-4	1,164,938	Lbs.	Reinforcing Steel	759,001	15032	15821								375,084									145,490	1,019,448
S-7	3,475,000	Lbs.	Structural Steel	3,475,000																			347 500	3,127,500
S-8	3,475,000	Lbs.	Field Painting of Structural Steel	3,475,000																			347 500	3 127 500
S-9	220	Sq. Ft.	1" Preformed Expansion Joint Filler (M-10.02, Type 1)		26	44	49		73											14	14		28	192
S-14	3224	Lin. Ft.	Railing, Type A (Aluminum Rail & Supports, Concrete Parapet)	3142	37	45																	399	2825
S-16	Lump	Sum	First Test Pile																				Lump	Lump
S-18	12,430	Lin. Ft.	Steel Piles, 10 BP 42				1360	1520	1800	1800	1015	1015	1960	1960										12,430
S-18	8510	Lin. Ft.	Steel Piles, 12 BP 53												880	1140	1140	1250	1400	1350	1350		2700	5810
S-22	Lump	Sum	Removal of Portions of Existing Structure																					Lump
S-25	★		400 Watt Mercury Vapor Luminaire, IES Type II or III Distribution.																					
S-25	★		200 Watt Fluorescent Luminaire																					
S-25	★		Photoelectric Control For Lighting Circuit																					
S-25	★		Electrical Grounding System for Bridge																					
S-25	★		1c #6 Primary Cable, Plain																					
S-25	★		1c #6 Primary Cable, Identifiable																					
S-25	★		1c #6 Secondary Cable, Plain																					
S-25	★		1c #6 Secondary Cable, Identifiable																					
S-25	★		3c #12 Secondary Cable																					
S-25	★		15 Amp. Fuse Block																					
S-25	★		Lamp Standard Type A (Structure) with 10' Bracket Arm																					
S-25	★		Lamp Standard Type A (Structure) Modified with 10' Bracket Arm.																					
S-25	★		Handhole Frame and Cover 10"×18"																					
S-25	★		3" Asbestos Cement Conduit (Structure), Type 1																					
S-25	★		2" Metallic Conduit with Accessories																					
S-29	261	Lin. Ft.	8" Bituminous Coated Helical Perforated Corrugated Metal Pipe [Sec: M-6.4 (h-c)], (Including Specials and Sand)				64	71	63	63														261
S-29	10	Lin. Ft.	8" Bituminous Coated Helical Corrugated Metal Pipe [Sec. M-6.4 (h-c)] Non Perforated (Including Specials)							10														10
S-29	Lump	Sum	Drain Inlets, Including Supports and Horizontal Collector System.																					Lump
S-29	447	Cu. Yds.	Porous Backfill		78	74	56	63	88	88														447
S-29	337	Lin. Ft.	8" Standard Pipe Downspouts, Wrought Iron or Hot-Dip Galvanized Steel, Including Specials		20	13	40	30			30	30	30	30		32	32			25	25		50	287
S-29	5	Lin. Ft.	12" Reinforced Concrete Sewer Pipe [Sec. M-6.6(a)]							5														5
I-10	993	Sq. Yds.	Crushed Aggregate Slope Protection		993																			993
I-10	958	Sq. Yds.	Concrete Slope Protection			958																		958
Special	2956	Each	Water Reducing, Set Retarding Admixture *																				450	2506
S-407	19604	Each	Welded Stud Shear Connectors **	19604																			2,376	17,228

* See Proposal Note

★ "See General Lighting & Signing Summary, sheets #41 & 42, For Detail Description, Unit and Quantity."

** No Federal Participation

GENERAL NOTES

PILES shall be driven with a hammer of not less than 11,000 ft. lbs. per blow to firm contact with rock. If the length of penetration is approximately equal to the depth of rock according to the bridge foundation investigation report, the firm contact shall be considered as attained when the capacity according to the formula in Sec. S-18.05 is not less than the following value for a pile hammer of the indicated energy rating:

50 tons per pile for Piers 3N, 3S, 4N, & 4S using a 11,000 ft. lb. hammer, or 40 tons per pile using a 15,000 ft. lb. hammer.

55 tons per pile for Piers 1N, 1S, 2N, 2S & Ret. Walls #8 & 9 using a 11,000 ft. lb. hammer, or 45 tons per pile using a 15,000 ft. lb. hammer.

65 tons per pile for Piers 5AN, 6N, 6S, 7N & 7S using a 11,000 ft. lb. hammer, or 55 ton per pile using a 15,000 ft. lb. hammer

70 tons per pile for Piers 5N & 5S using a 11,000 ft. lb. hammer, or 60 tons per pile using a 15,000 ft. lb. hammer.

If the energy rating of the hammer is between the rating as shown above, the required formula capacity shall be determined by interpolation. The design loads are as follows.

30 tons per pile for Piers 1N, 1S, 2N, 2S & Ret. Walls #8 & 9

35 tons per pile for Piers 3N, 3S, 4N, 4S.

45 tons per pile for Piers 5N, 5S, 5AN, 6N, 6S, 7N & 7S.

CONSTRUCTION CLEARANCE of 21-0 (for New York Central R.R.) and 19-0 (for B & O R.R.) vertically above the top of the railroad rails and 8-0 (for New York Central R.R.) & 8-0 (for B & O R.R.) horizontally from the center of tracks shall be maintained at all times.

SHOP PAINTING STEEL The surface preparation of all Steel, requiring shop painting as per the Plans and Specifications, shall be accomplished by blast cleaning or power tool cleaning, except as noted in the Specifications regarding the use of Chromate Primers.

EXCAVATION for the purpose of driving battered piles at Piers No. 2N & 2S (shown hatched on sheet No. 360) shall be included with "Unclassified Excavation" for payment.

SHEET LEAD shall conform to the requirements of ASTM Designations B 29 without restriction to the common Desilverized type.

REMOVAL OF PORTIONS OF EXISTING STRUCTURE When no longer needed to maintain traffic the exist. Sixth St. Str. over the NYCRR Ditch Tracks between Sta 42+00± CD and Sta 42+80± CD, except the East Abutment shall be removed in accordance with the provisions of Sect. S-24. Cost of all removals including the exist. stone masonry wall (necessary for the construction of Piers 2N & 2S), on the east side of the NYCRR Ditch Tracks, 40'± Left of Sta 41+95± WB to 67'± Right of Sta 42+60± WB (see Site Plan Sh. No 360), the existing brick and rock wall, on the west side of the NYCRR Ditch Tracks, 128'± Left of Sta 39+75± WB to 240'± Right of Sta 42+74± EB (see Sh. No 360) and the substructure of the exist. steel tower at Sta 44+00± EB shall be included in the contract lump sum price bid for Item S-22, "Removal of Portions of Existing Structure."

CONTINUOUS BEAM SPLICES If beams having depths differing by more than 1/8" are to be spliced by butt welding, the depth of the smaller-depth beam shall be increased by splitting the web longitudinally at a distance of 1½ below the bottom of the top flange and for a distance sufficient to allow the flange to be bent up at a slope of not more than 3/8" per foot, after which the split in the web shall be completely welded with full depth penetration and ground flush.

ADDITIONAL NOTES For additional notes see Sh. No. 408.

HAZELET & ERDAL
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CINCINNATI, OHIO

ESTIMATED QUANTITIES AND GENERAL NOTES

BRIDGE NO. HAM-50-2012 R.&L.

H.&E. BRIDGE NO. 7

DESIGNED	DRAWN	TRACED	CHECKED	REVIEWED DATE	REVISED
	J.T.C. 2-13-62	J.P.B. 6-14-62	JHO 6/15/62	W.H.E. 8-6-62	10-30-62

Rev. 9-10-62

FED. RD. DIV.	STATE	PROJECT	FISCAL YEAR
2	OHIO		

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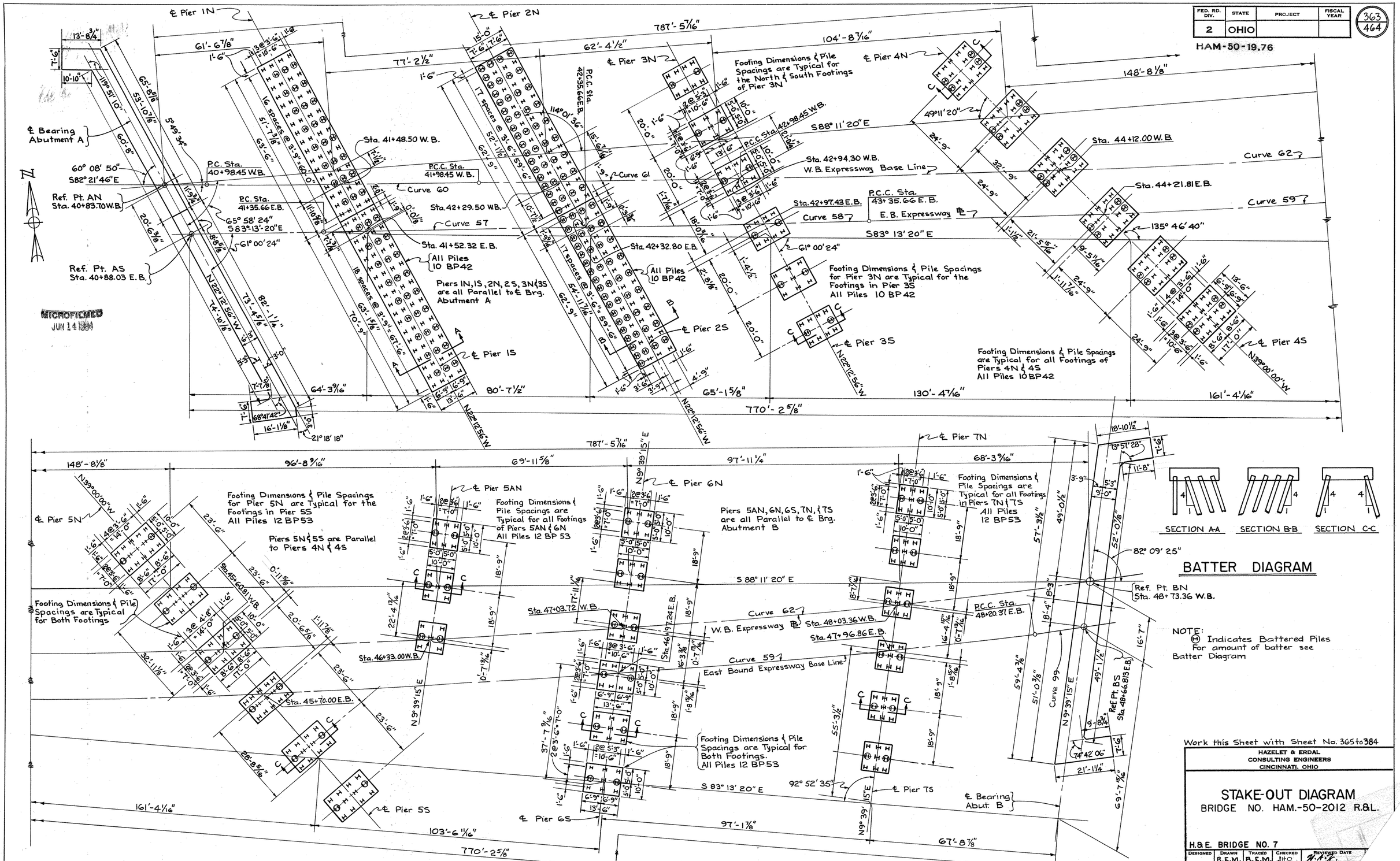

NOTE:
Ⓗ Indicates Battered Piles
For amount of batter see Batter Diagram

Work this Sheet with Sheet No. 365 to 384

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STAKE-OUT DIAGRAM
BRIDGE NO. HAM.-50-2012 R.&L.

H.&E. BRIDGE NO. 7

DESIGNED	DRAWN	TRACED	CHECKED	REVIEWED DATE
	R.E.M. 11-22-61	R.E.M. 6-2-62	JHO 6/21/62	H.A.F. 8-6-62

MICROFILMED JUN 14 1984

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JUN 14 1984

FED. RD. DIV.	STATE	PROJECT	FISCAL YEAR
2	OHIO		

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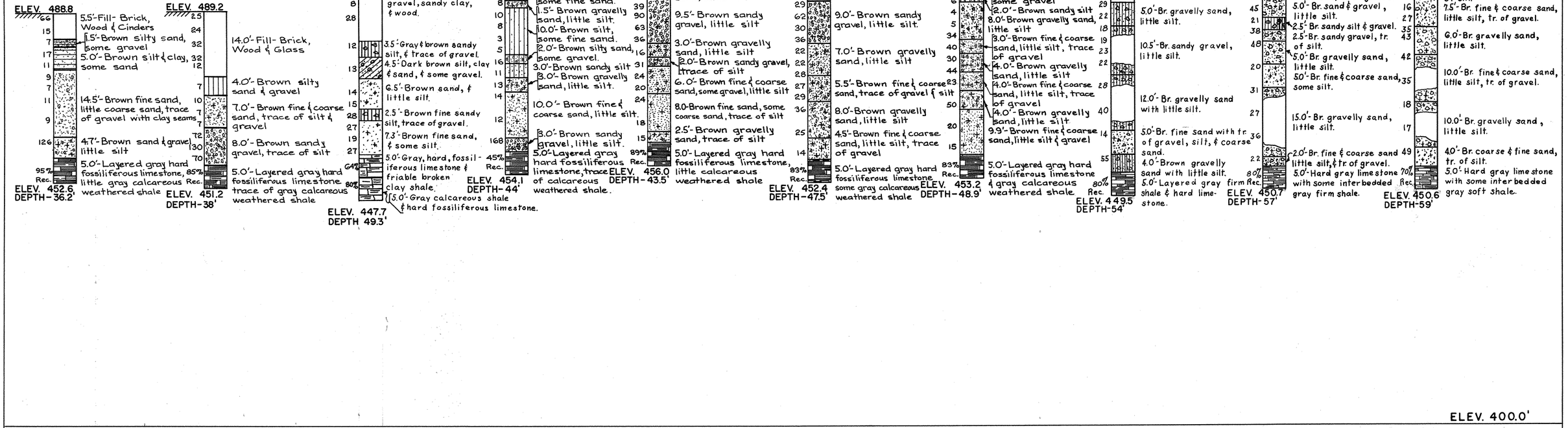

ELEV. 400.0'

BORING NO. 7-1 | BORING NO. 7-2 | BORING NO. 7-3 | BORING NO. 7-4 | BORING NO. 7-5 | BORING NO. 7-6 | BORING NO. 7-7 | BORING NO. 7-8 | BORING NO. 7-9 | BORING NO. 7-10

NOTE:
FIGURES AT LEFT OF BORINGS INDICATE NUMBER OF HAMMER BLOWS PER FOOT OF PENETRATION OF 2" SPLIT SPOON SAMPLER WITH 140 LB. HAMMER AND 30" FALL.

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LOG OF BORINGS
BRIDGE No. HAM-50-2012

H.&E. BRIDGE NO.7

DESIGNED	DRAWN	TRACED	CHECKED	REVIEWED DATE	REVISED
			W.W.C. 10-3-61	W.F.E. 8-6-62	

MICROFILMED
JUN 14 1962

FED. RD. DIV.	STATE	PROJECT	FISCAL YEAR
2	OHIO		

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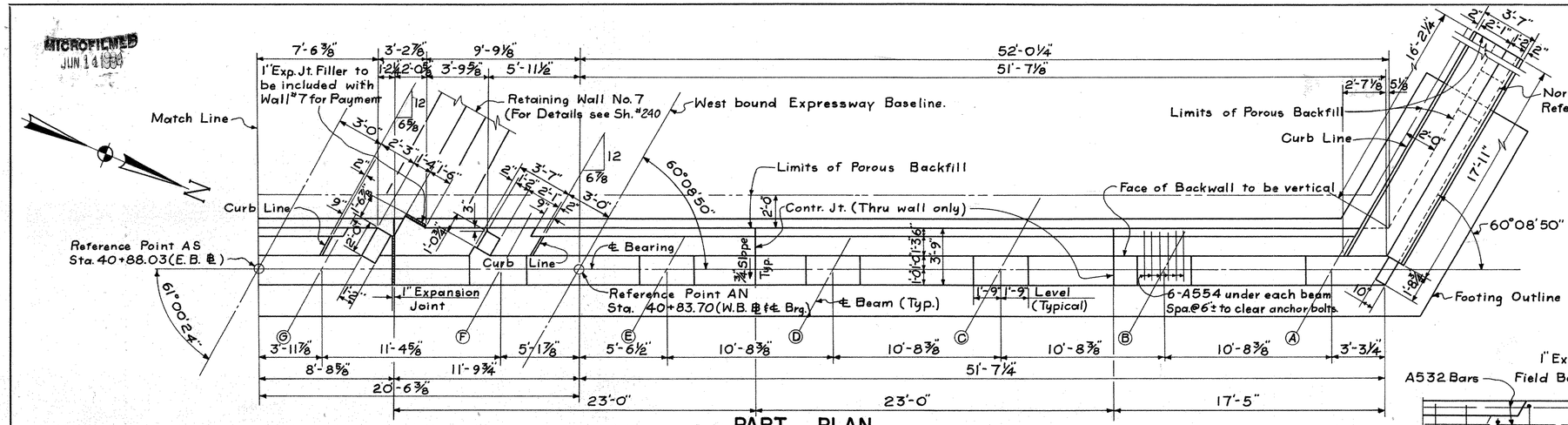
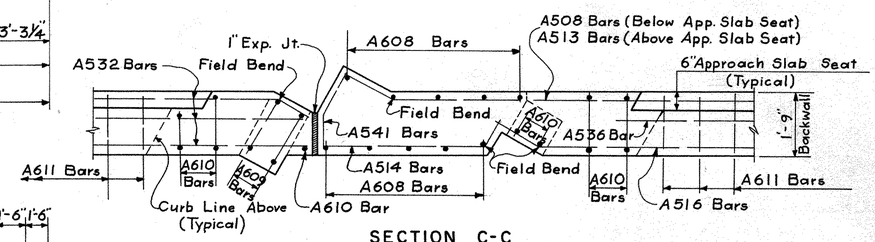
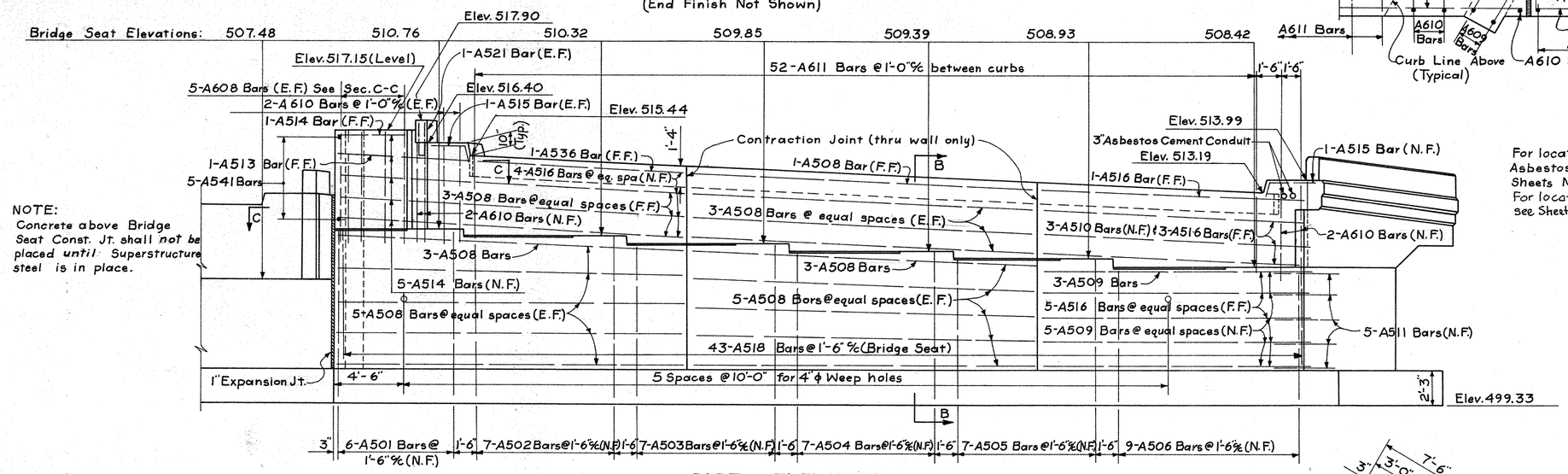


PART PLAN
(End Finish Not Shown)



SECTION C-C

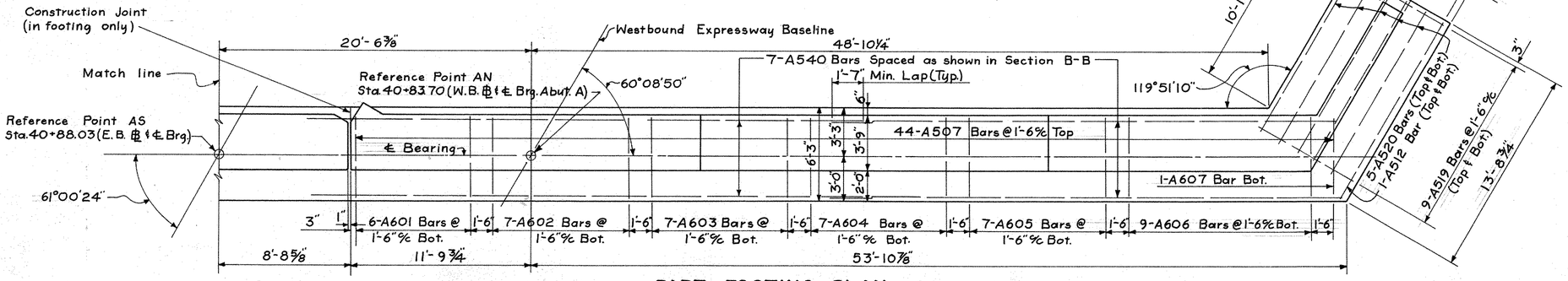


PART ELEVATION
(End Finish Not Shown)

For location and length of 3" Asbestos Cement Conduit see Sheets Nos. 212 & 214
For location of 10"x 18" handhole see Sheets Nos. 205 & 214

NOTE:
Concrete above Bridge Seat Const. Jt. shall not be placed until Superstructure steel is in place.

Foundation Bearing Pressure:
Abutment footing is designed for a maximum soil bearing pressure of 1.56 tons per sq. ft.



PART FOOTING PLAN

NOTES:
For Railing details see Std. Dwg. AR-1-57
For Detail of Expansion & Contraction Jts. see Sheet No. 411
N.F. is near face; F.F. is far face; E.F. is each face.
For roadway and curb end finish details see Sheet No. 391 & 392
Provide 3" clearance to reinforcing steel in footing, and 2" clearance to reinforcing steel in wall, minimum.
Special care shall be taken in placing steel in the Abutment Seat, so that it will not interfere with masonry plate anchor bolts.
Top of backwall elevations shown are at the near face of backwall.
Procedure: The existing miscellaneous fill material shall be excavated as shown on Sheet No. 360 then replaced and compacted with embankment material. The embankment shall be placed and compacted up to the finished spill-thru slope and to the level of the subgrade for a distance of 200 ft. back of the abutment, after which excavation shall be made for the abutment.

Work this sheet with sheets nos. 366 & 367

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CINCINNATI, OHIO

ABUTMENT A
BRIDGE NO. HAM-50-2012 R&L.

H.&E. BRIDGE NO. 7

DESIGNED	DRAWN	TRACED	CHECKED	REVIEWED DATE	REVISED
D.W.L.	D.W.L. 5-11-61	J.T.C. 6/23/62	W.W.C. 8-18-61	N.I.Z. 8-6-62	

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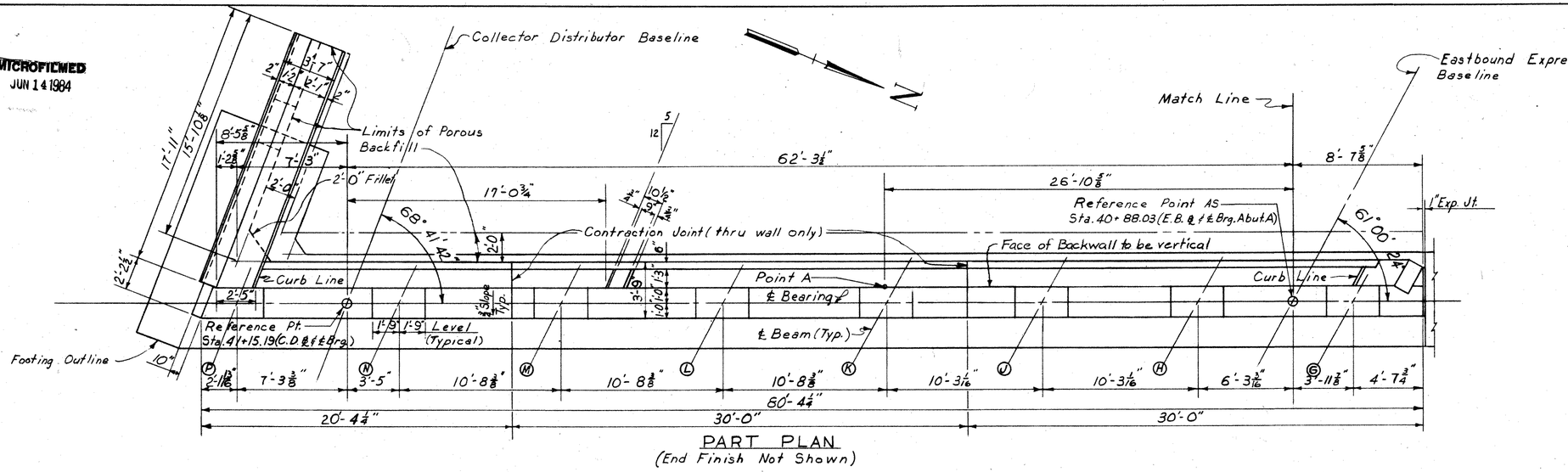
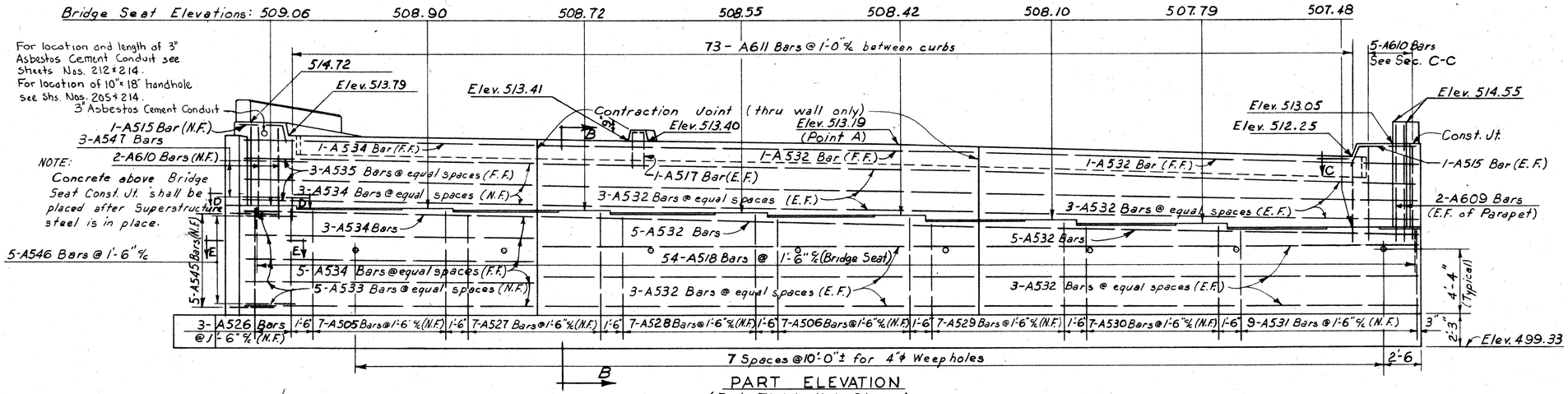
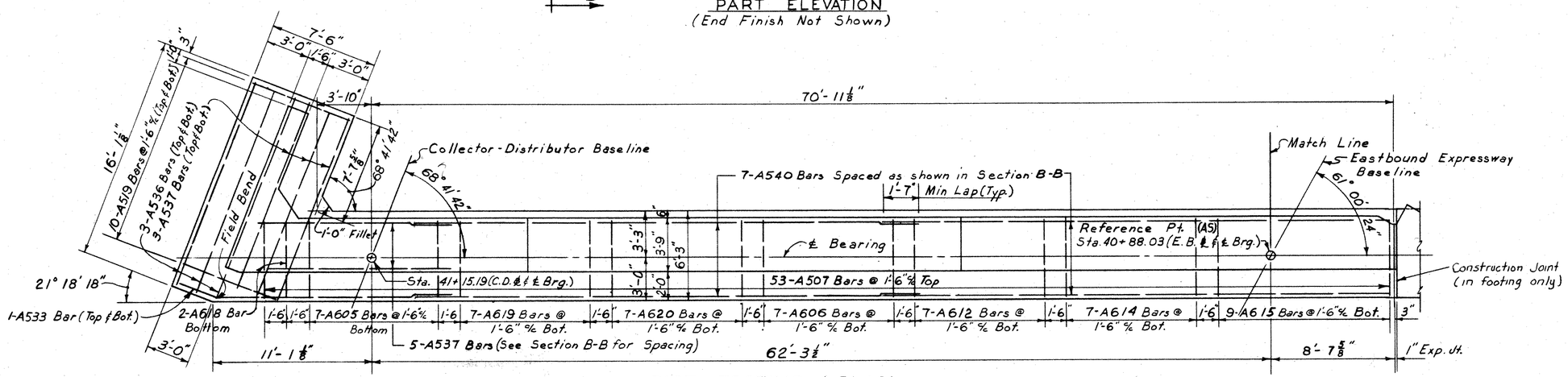


PART PLAN
(End Finish Not Shown)



PART ELEVATION
(End Finish Not Shown)



PART FOOTING PLAN

Work this sheet with sheets 365 & 367

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CINCINNATI, OHIO

ABUTMENT A
BRIDGE NO. HAM-50-2012 R.&L.

H. & E. BRIDGE NO. 7

DESIGNED	DRAWN	TRACED	CHECKED	REVISED DATE	REVISED
DWL	DWL 5-11-61		W.W.C. 8-18-61	W.A.Z. 8-6-62	

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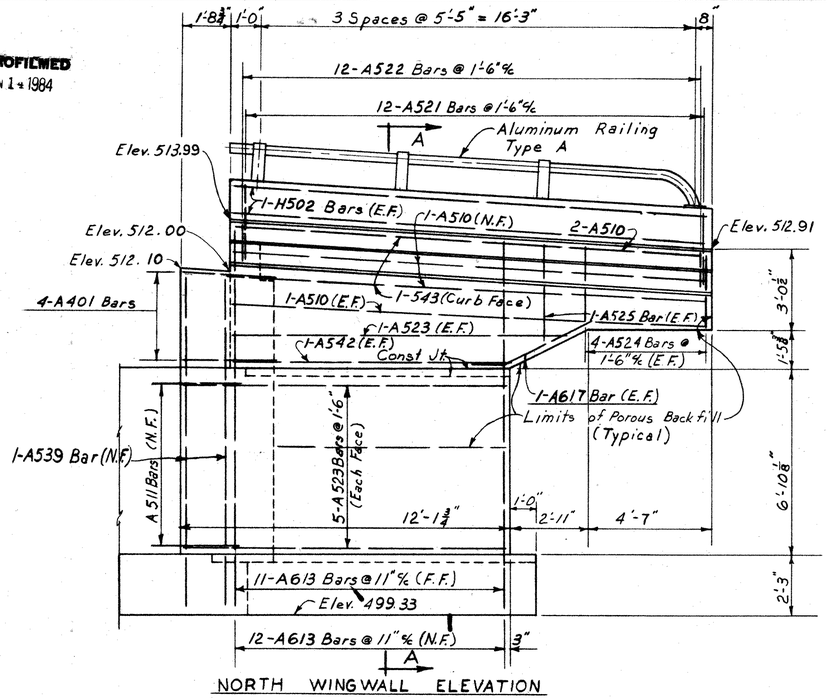
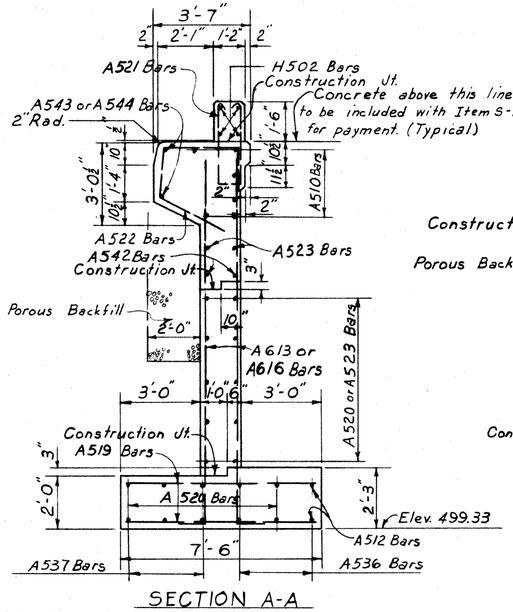
HAM-50-19.76



NORTH WINGWALL ELEVATION



SECTION A-A
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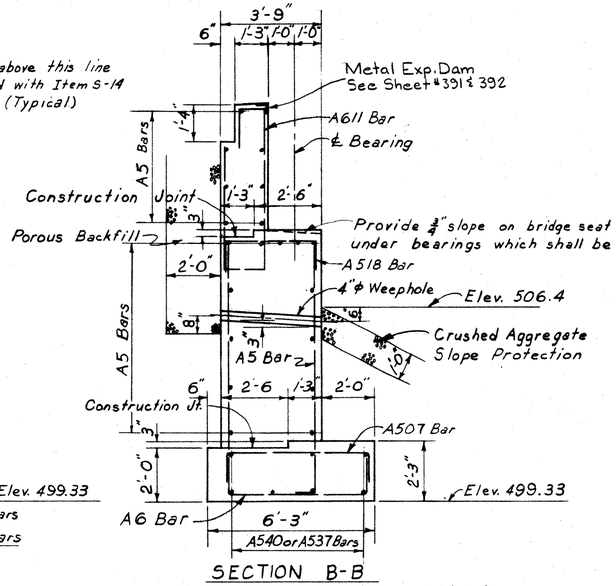
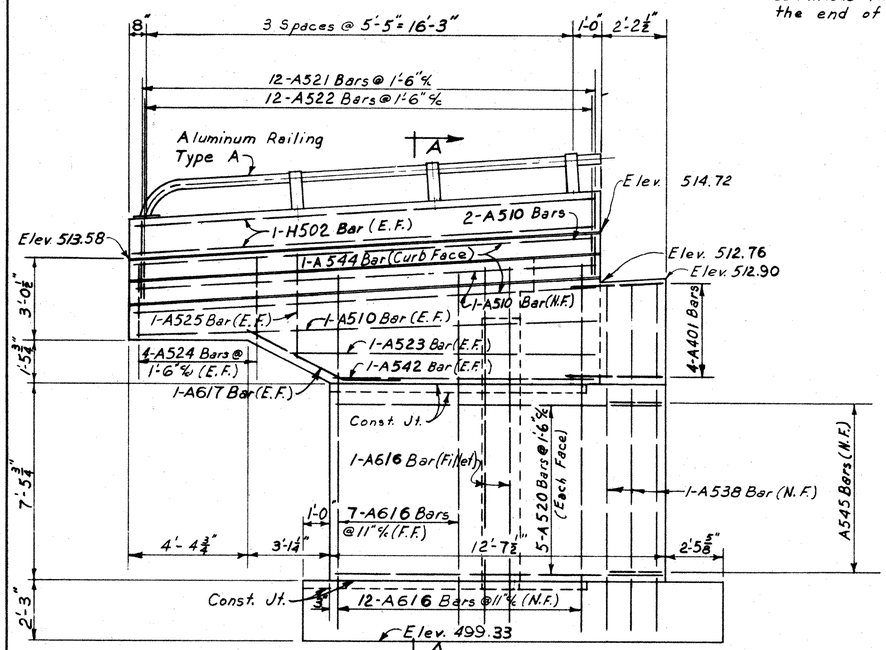
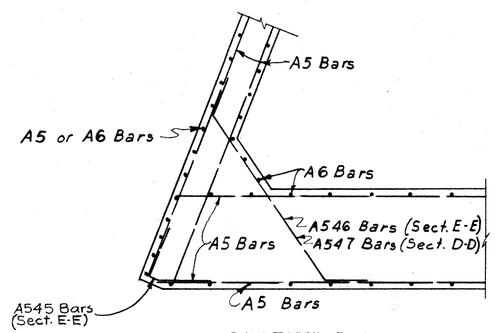


SECTION B-B
(Drawn for Westbound, Eastbound Similar)

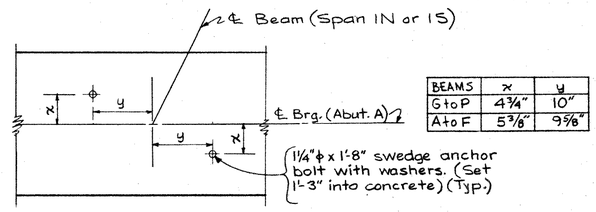
Note:
Aluminum Pipe Railing shall be continuous through first support on the end of the Wingwall..



SOUTH WINGWALL ELEVATION



SECTION D-D
℄ SECTION E-E
Drawn for Sect E-E, noted for Seat. D-D)



BEAMS	x	y
G to P	4¾"	10"
A to F	5⅜"	9⅝"

Anchor Bolt Plan (Abut. A)

Work this sheet with Sh. #365 & 366

HAZELET & ERDAL
CONSULTING ENGINEERS
CINCINNATI, OHIO

ABUTMENT A
BRIDGE NO HAM-50-2012 R&L.

H. & E. BRIDGE No. 7

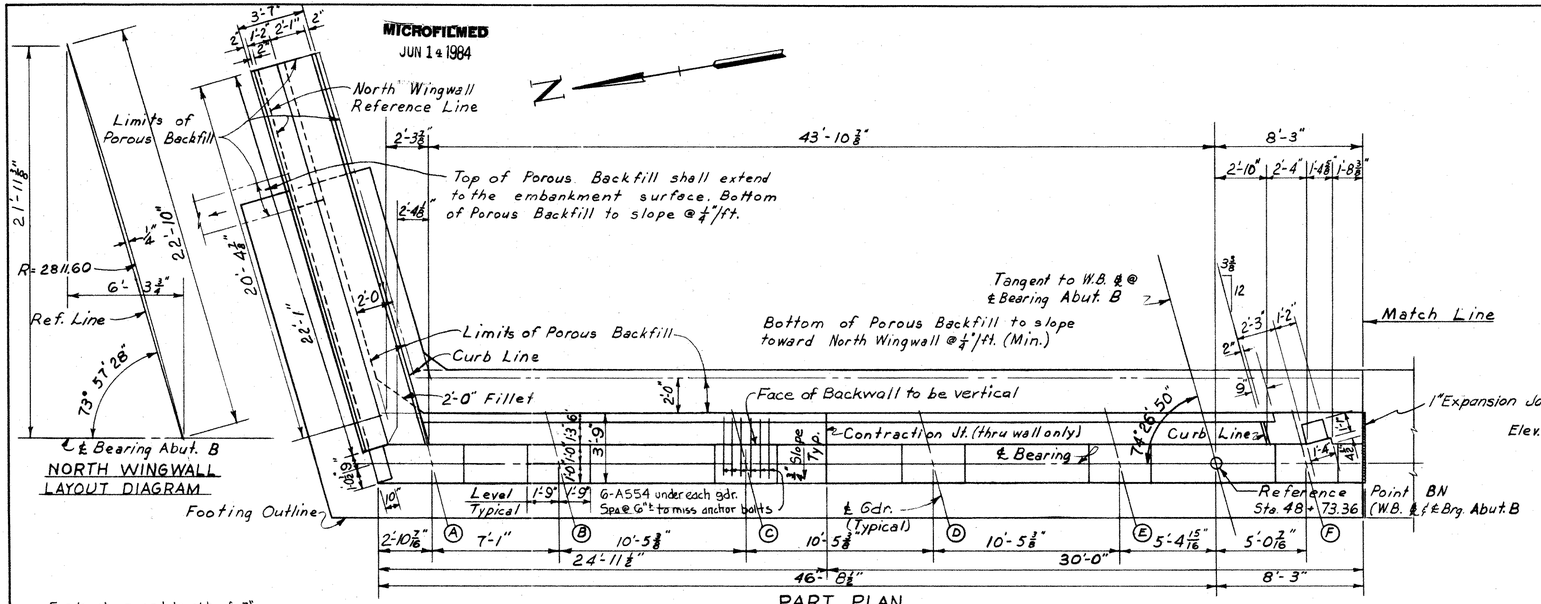
DESIGNED	DRAWN	TRACED	CHECKED	REVISED DATE	REVISED
DWL	DWL 5-12-61		W.W.C. 8-18-61	W.N.J. 8-6-62	

MICROFILMED
JUN 14 1984

FED. RD. DIV.	STATE	PROJECT	FISCAL YEAR
2	OHIO		

368
464

HAM-50-19.76



NOTES:

For Railing details see Std. Dwg AR-1-57.
For Detail of Expansion and Contraction Joint see Sh # 411
N.F. is near face; F.F. is far face; E.F. is each face
For roadway and curb end finish details see Sh #391 & 392
Special care shall be taken in placing steel in the Abutment Seat, so that it will not interfere with masonry plate anchor bolts.
Provide 3" clearance to reinforcing steel in footing, and 2" clearance to reinforcing steel in wall, minimum.
Top of Backwall elevations shown are at the near face of backwall.
Procedure: The existing miscellaneous fill material shall be excavated as shown on Sheet No. 361 then replaced and compacted with embankment material. The embankment shall be placed and compacted up to the finished spill-thru slope and to the level of the subgrade for a distance of 200 feet back of the abutments, after which excavation shall be made for the abutment.

Foundation Bearing Pressure:
Abutment footing is designed for a maximum soil bearing pressure of 2.27 tons per sq. ft.

Work this sheet with Sh #369 & 370

HAZELET & ERDAL
CONSULTING ENGINEERS
CINCINNATI, OHIO

ABUTMENT B
BRIDGE NO. HAM-50-2012 R & L.

H. & E. BRIDGE NO. 7

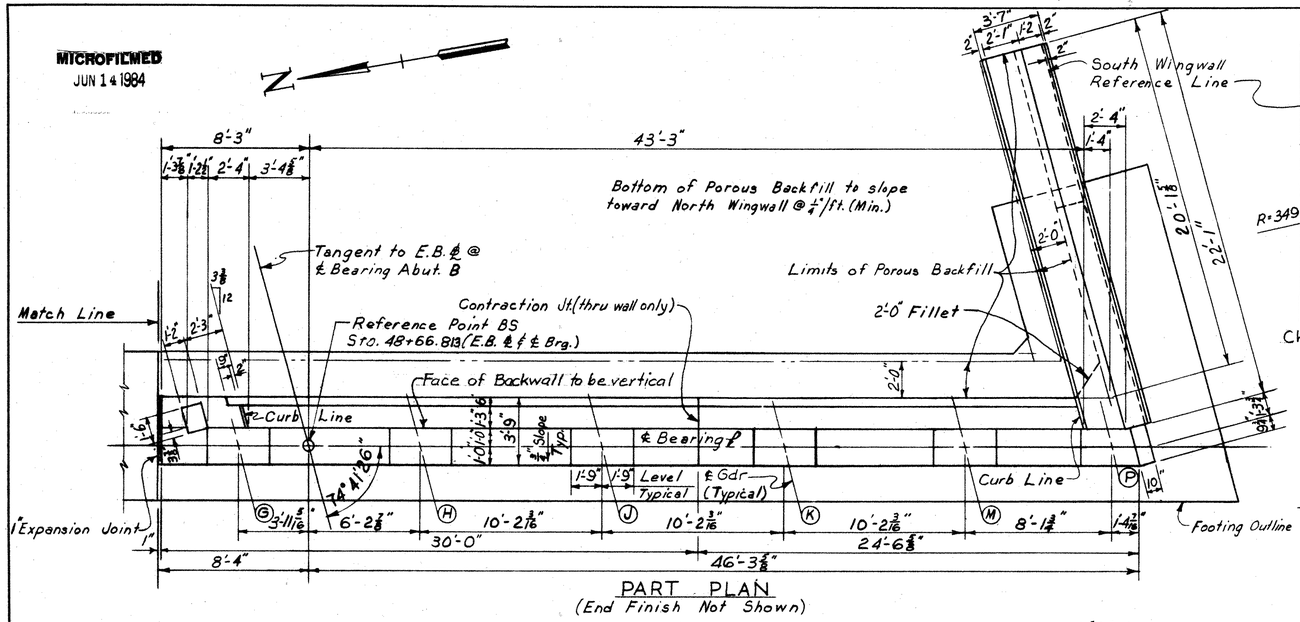
DESIGNED	DRAWN	TRACED	CHECKED	REVIEWED DATE	REVISED
DWL	DWL 5-27-61		W.W.C. 8-17-61	W.A.Z. 9-6-62	

MICROFILMED
JUN 14 1984

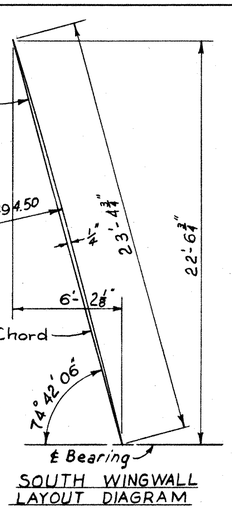
FED. RD. DIV.	STATE	PROJECT	FISCAL YEAR
2	OHIO		

369
464

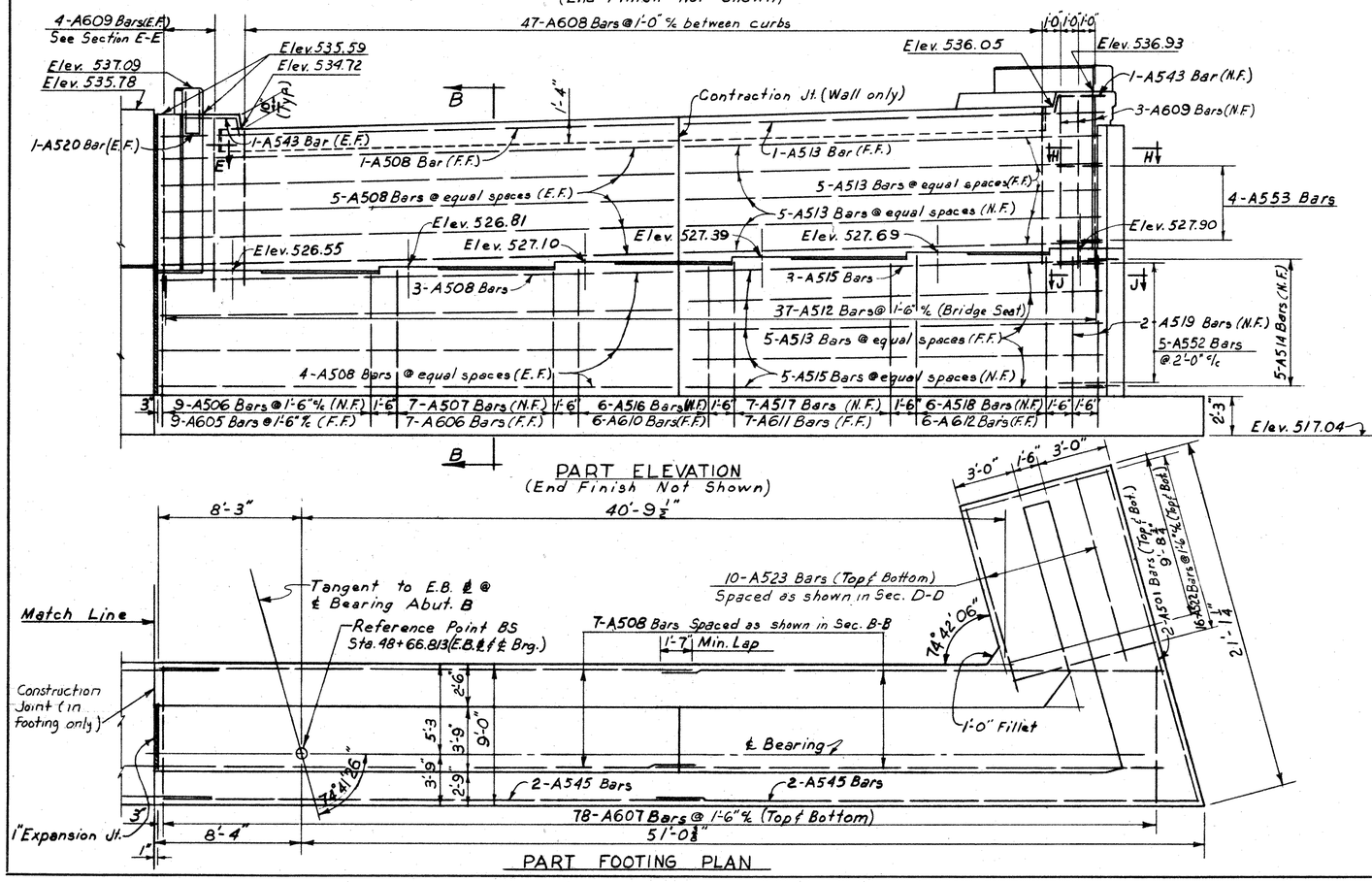
HAM-50-19.76



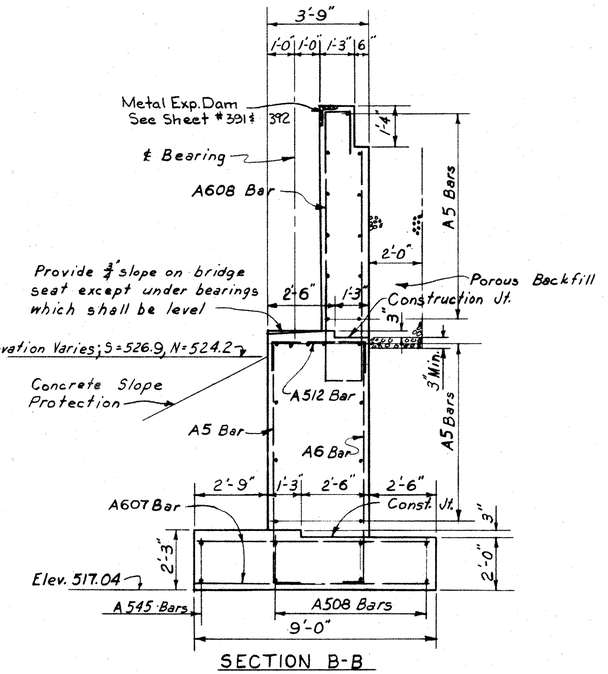
PART PLAN
(End Finish Not Shown)



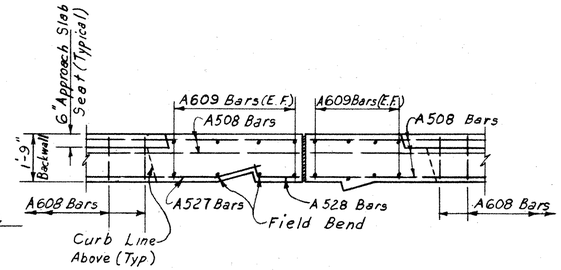
SOUTH WINGWALL LAYOUT DIAGRAM



PART ELEVATION
(End Finish Not Shown)



SECTION B-B



SECTION E-E

PART FOOTING PLAN

Work this sheet with Sh # 368 ∦ 370

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CINCINNATI, OHIO

ABUTMENT B
BRIDGE NO. HAM-50-2012 R&L.

H.B.E. BRIDGE NO. 7

DESIGNED	DRAWN	TRACED	CHECKED	REVIEWED DATE	REVISED
DWL	D.W.L. 5-26-61		W.W.C. 8-17-61	W.A.Z. 8-6-62	

MICROFILMED
JUN 14 1984

FED. RD. DIV.	STATE	PROJECT	FISCAL YEAR
2	OHIO		

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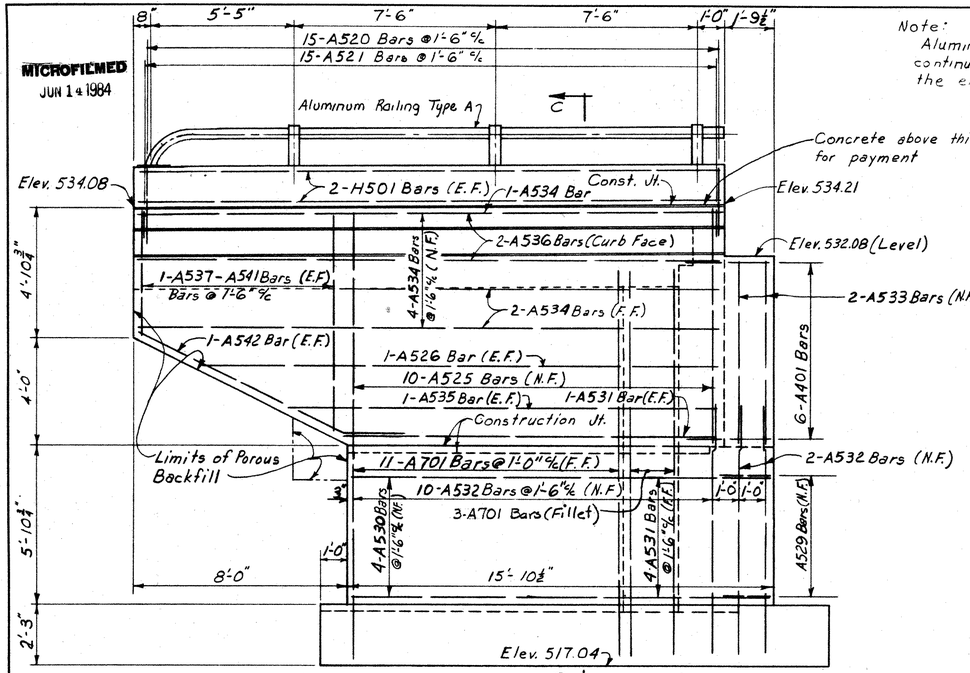
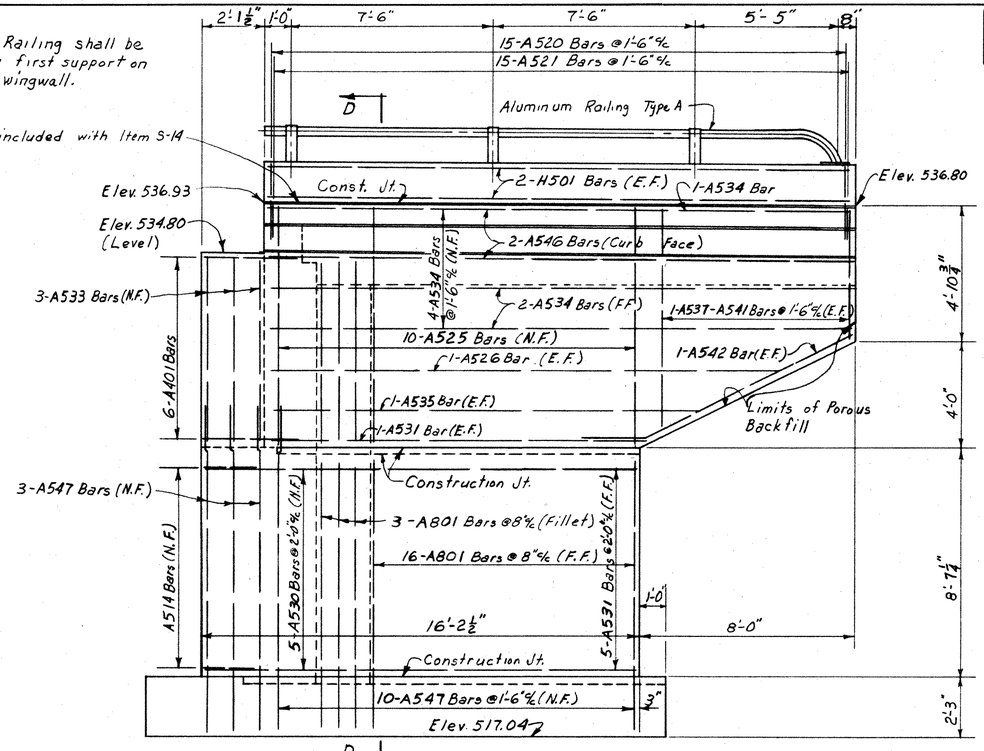
464

HAM-50-19.76

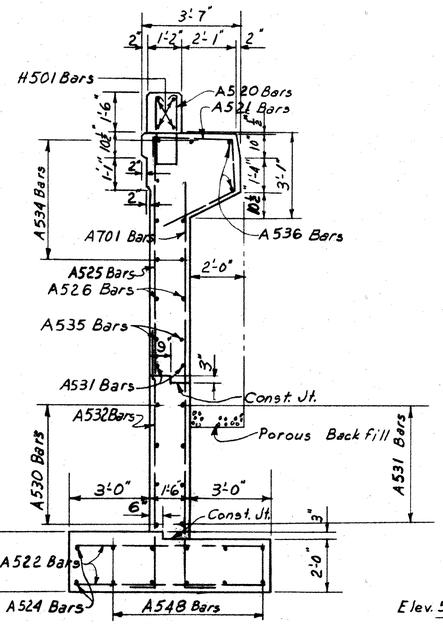
Note:
Aluminum Pipe Railing shall be continuous through first support on the end of the wingwall.



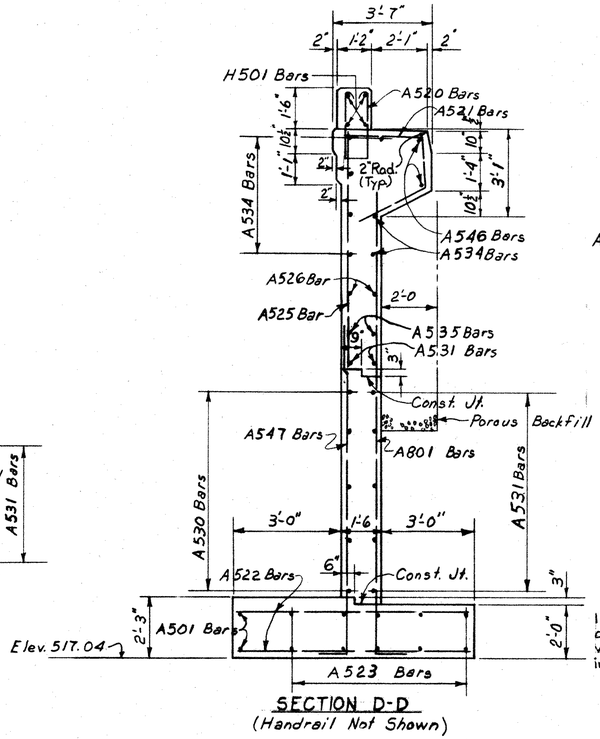
NORTH WINGWALL ELEVATION



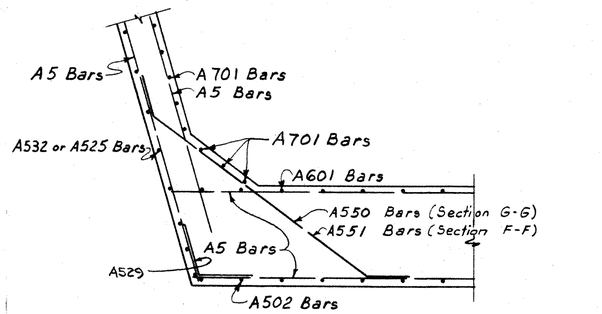
SOUTH WINGWALL ELEVATION



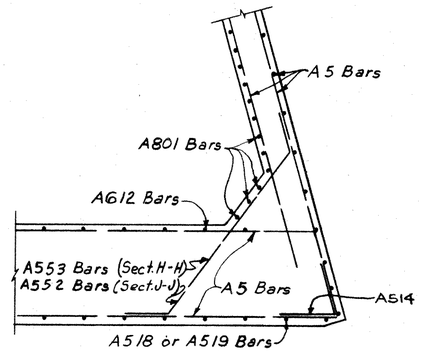
SECTION C-C
(Handrail Not Shown)



SECTION D-D
(Handrail Not Shown)



SECTION F-F
& SECTION G-G
(Drawn for Sect. G-G, noted for Sect. F-F)



SECTION H-H
& SECTION J-J
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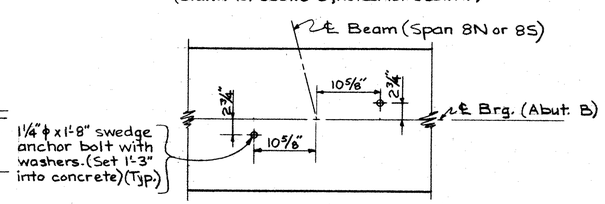
Work this sheet with Sh. #368 & 369



Anchor Bolt Plan (Abut. B)

HAZELET & ERDAL
CONSULTING ENGINEERS
CINCINNATI, OHIO

ABUTMENT B

BRIDGE NO. HAM-50-2012 R.&L.

H. & E. BRIDGE NO. 7

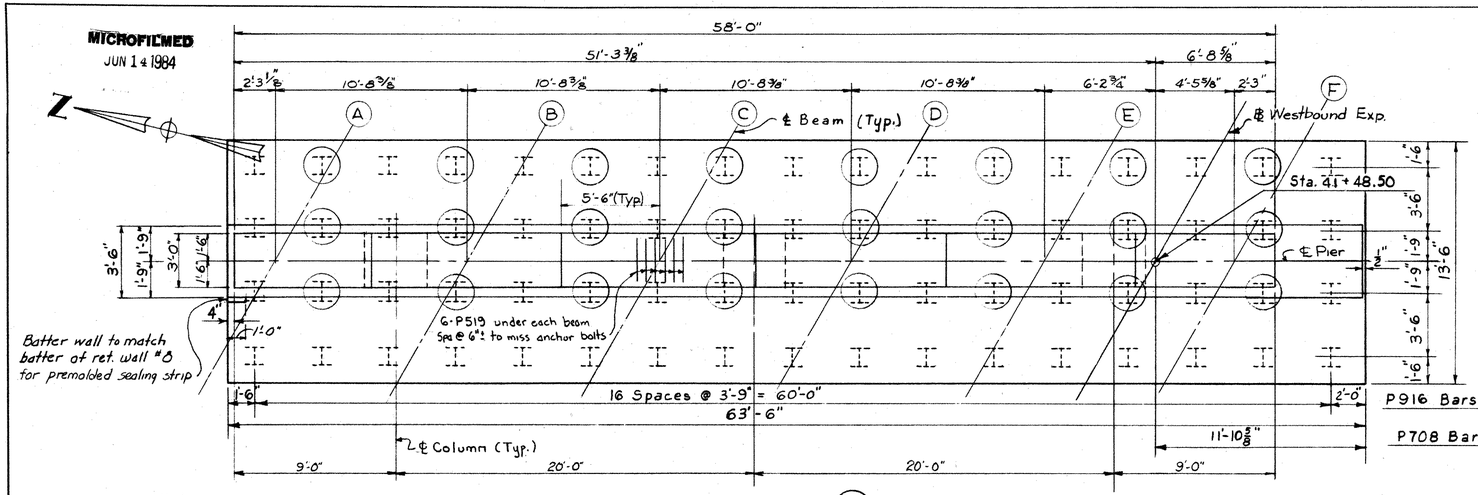
DESIGNED	DRAWN	TRACED	CHECKED	REVISED DATE	REVISED
DWL	DWL 5-2661		W.W.C. 8-17-61	W.A.E. 8-6-62	

MICROFILMED
JUN 14 1984

FED. RD. DIV.	STATE	PROJECT	FISCAL YEAR
2	OHIO		

371
464

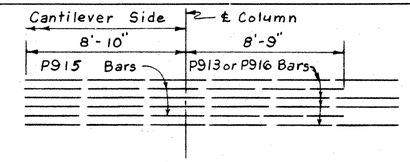
HAM-50-19.76



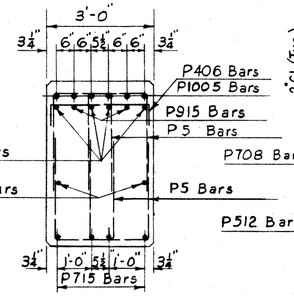
Note
All piles are 10BP42 Steel H Piles

PLAN

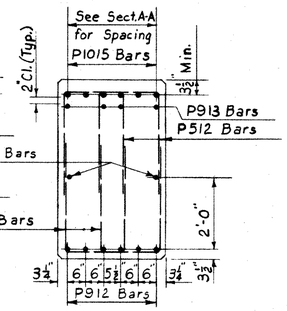
(A) - Indicates Battered Piles



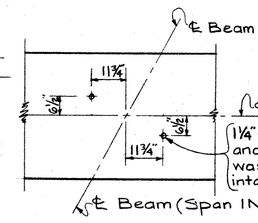
DETAIL A



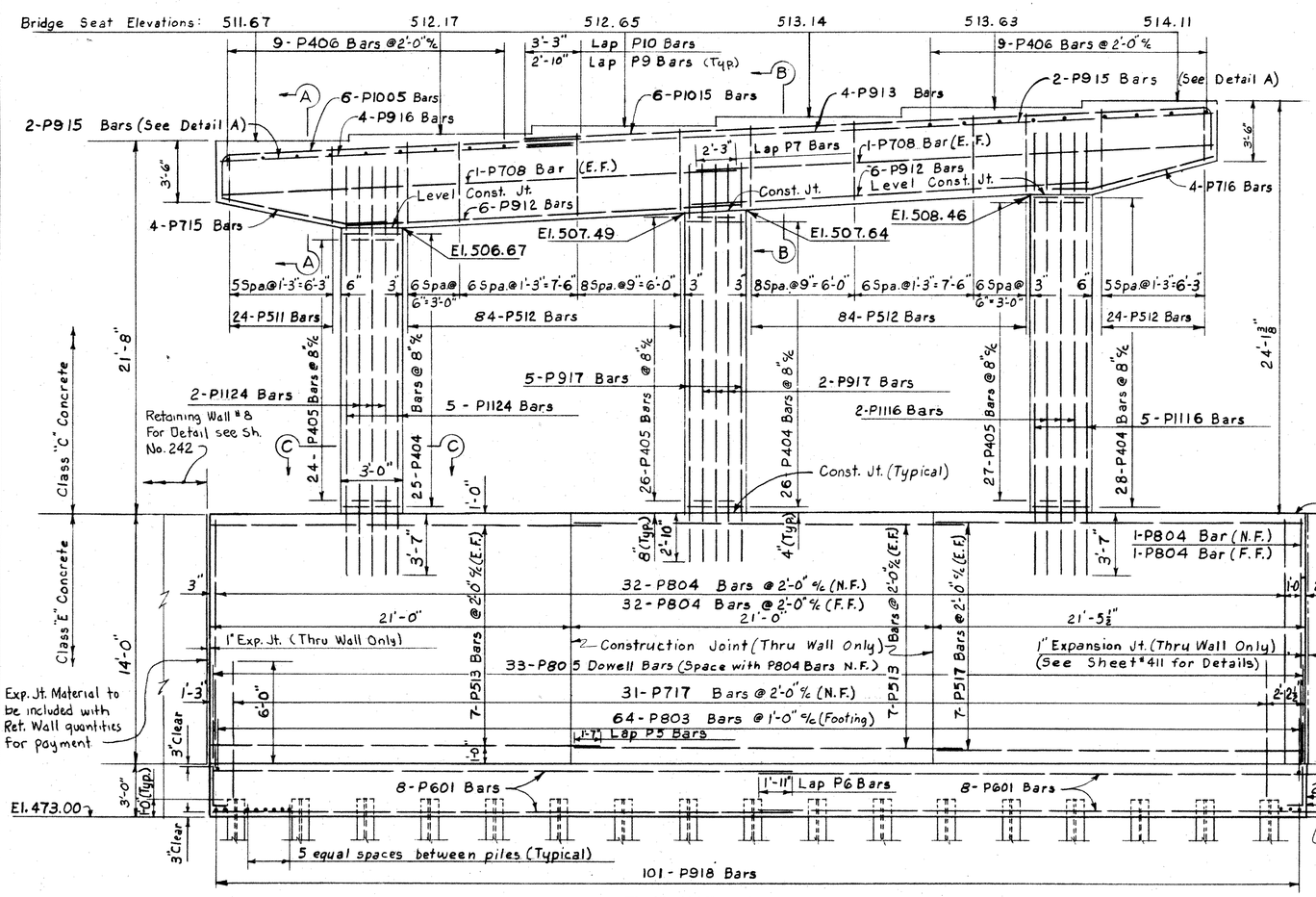
SECTION A-A



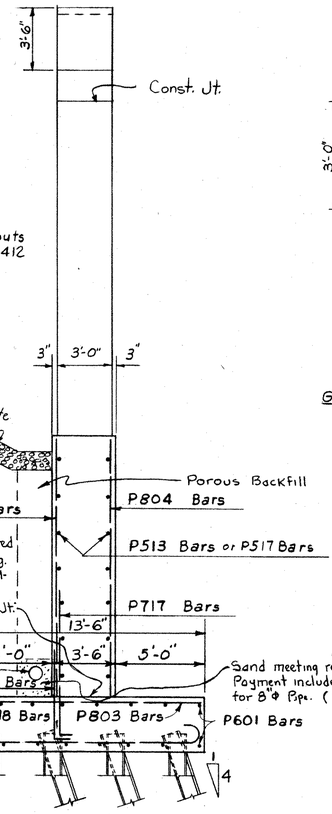
SECTION B-B



Anchor Bolt Plan

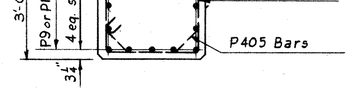


ELEVATION



SOUTH END ELEVATION

Note:
For connection of downspouts to pier see Sheet #404 & 412



SECTION C-C
Typical Column Section

GENERAL NOTES:

Special care shall be taken in placing steel in the pier cap so that it will not interfere with the masonry plate anchor bolts.

E.F., N.F., & F.F. denotes each face, near face and far face.

For drainage plan at Pier No 1 See Sh. No. 404

HAZELET & ERDAL
CONSULTING ENGINEERS
CINCINNATI, OHIO

PIER NO. IN

BRIDGE NO. HAM-50-2012 R.&L.

H.&E. BRIDGE NO. 7

DESIGNED	DRAWN	TRACED	CHECKED	REVIEWED DATE	REVISED
MPS	DWL. 11-22-61		JHO 11/24/61	A.A.J. 8-6-62	

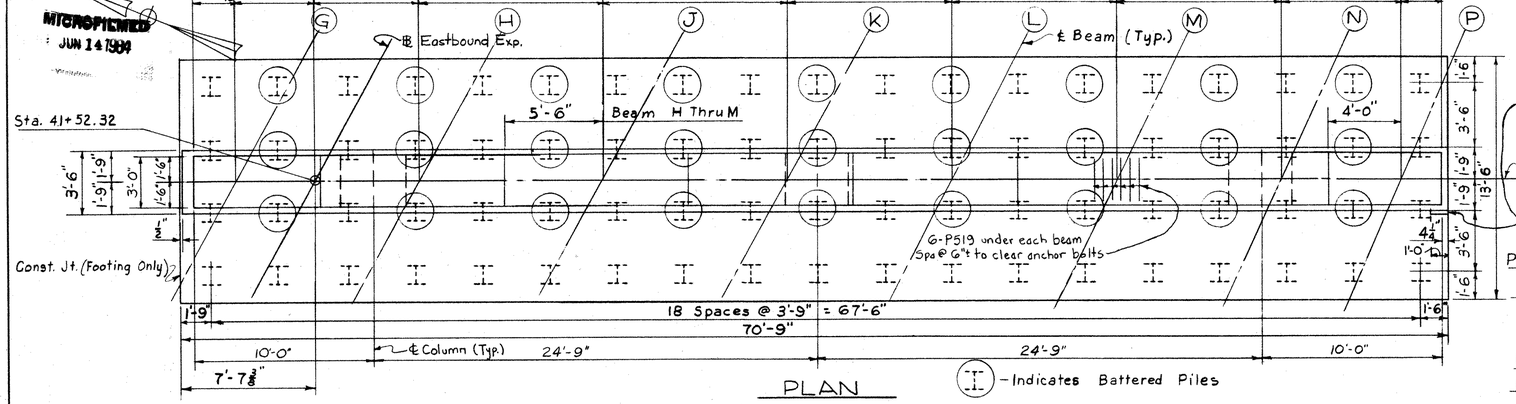
MICROFILMED
JUN 14 1984

MICROFILMED
JUN 14 1984

FED. RD. DIV.	STATE	PROJECT	FISCAL YEAR
2	OHIO		

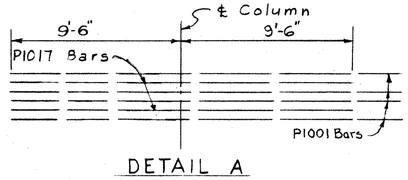
372/464

HAM-50-19.76

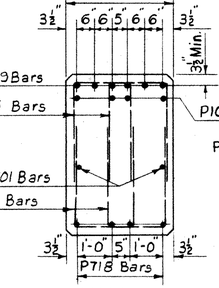


PLAN

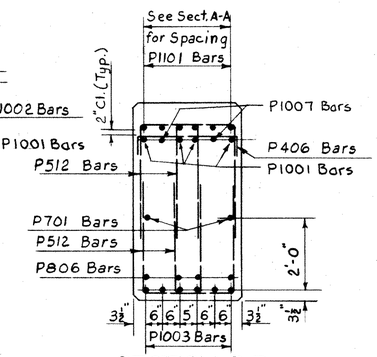
(1) – Indicates Battered Piles



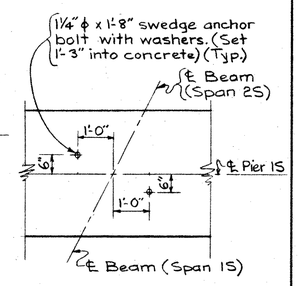
DETAIL A



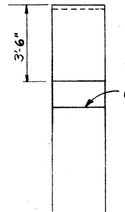
SECTION A-A

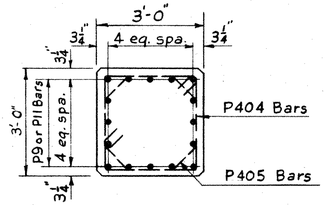


SECTION B-B

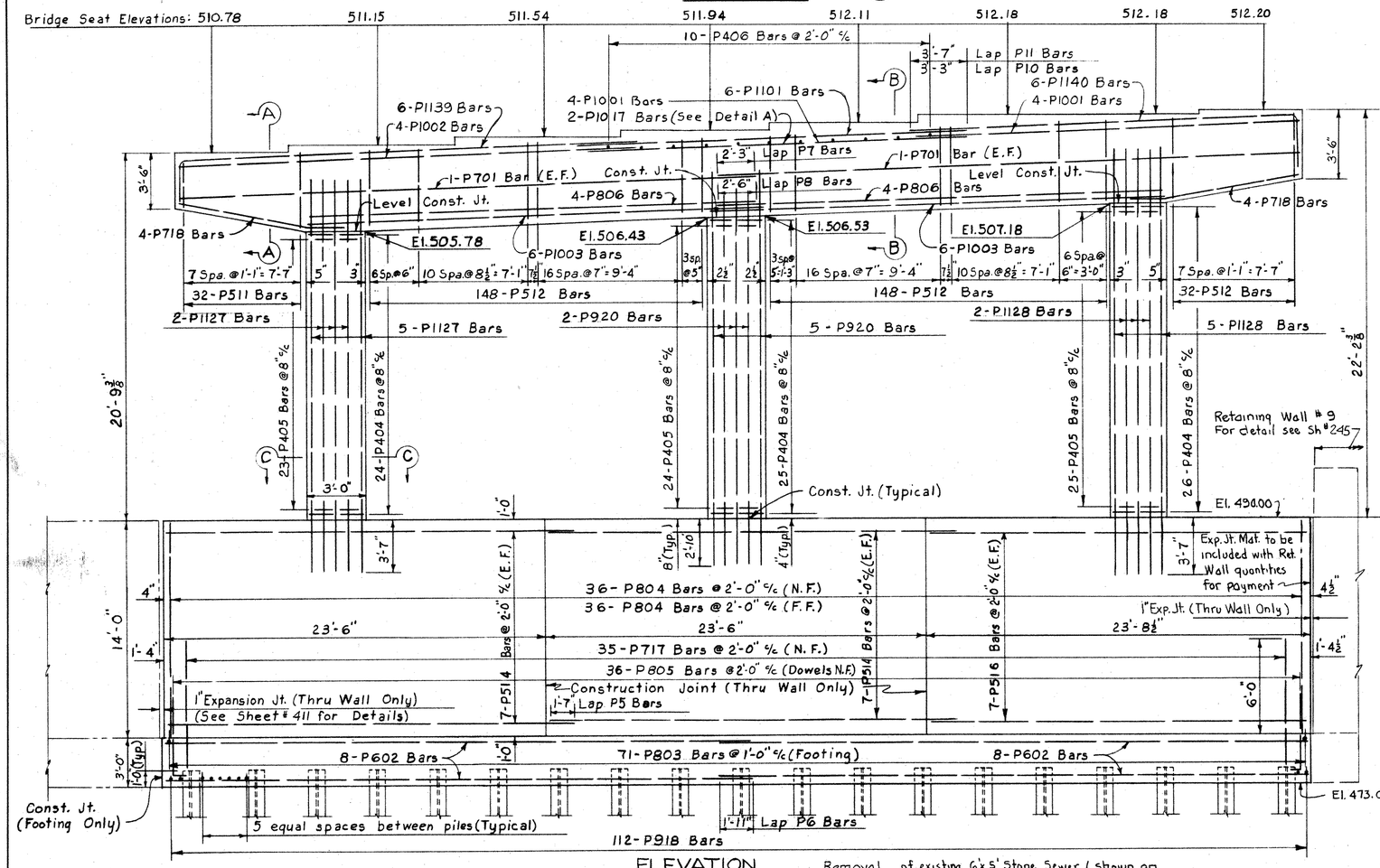


Anchor Bolt Plan



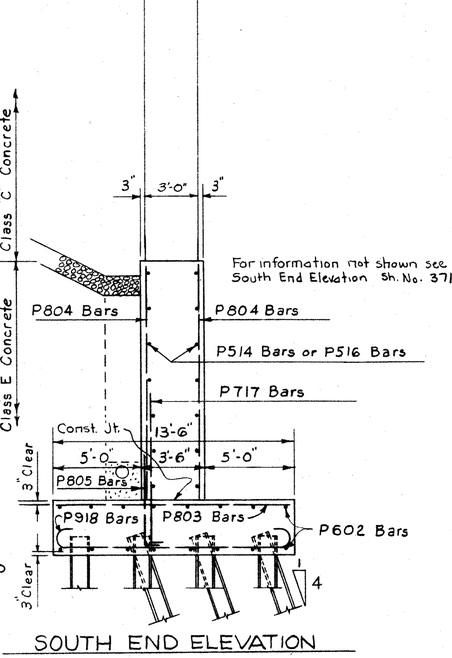


SECTION C-C
Typical Column Section



ELEVATION

Removal of existing 6'x5' Stone Sewer (shown on Site Plan Sheet No 360) within limits of Pier Footing, to be included in Item E-2, "Unclassified Excavation" for payment.



SOUTH END ELEVATION

NOTES:
For General Notes see Sheet # 371
All piles shall be 10BP42 Steel H Piles.
For connection of downspouts to pier see Sheet # 404 & 412
For drainage plan at Pier No. 1 See Sh. No. 404

HAZELET & ERDAL
CONSULTING ENGINEERS
CINCINNATI, OHIO

PIER NO. 1S

BRIDGE NO. HAM-50-2012 R.& L.

H.& E. BRIDGE NO. 7

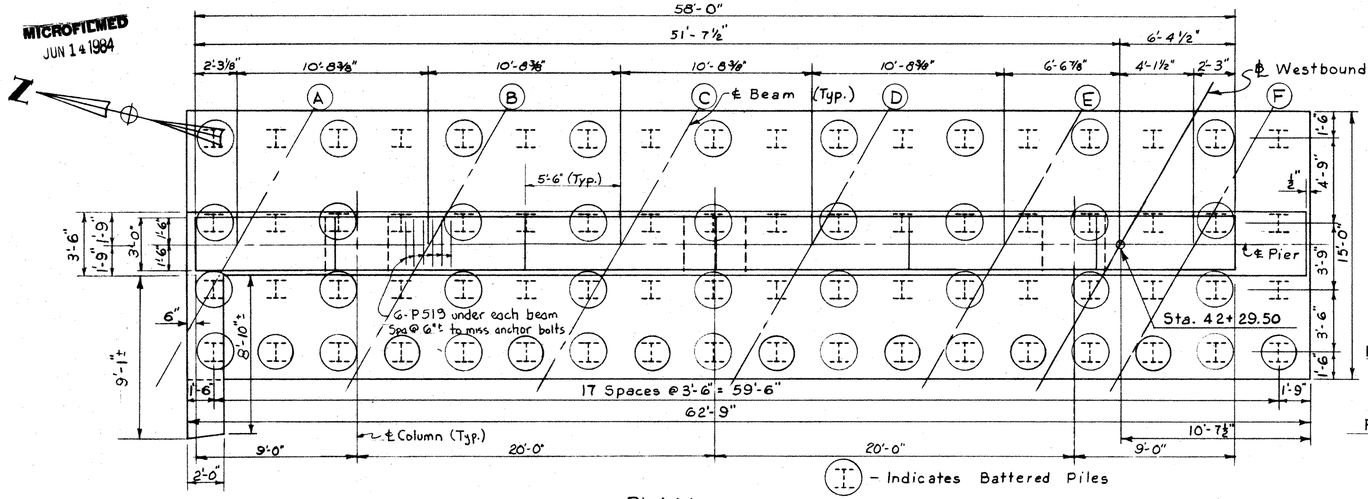
DESIGNED	DRAWN	TRACED	CHECKED	REVIEWED DATE	REVISED
MPS	DWL 11-22-61		JHO 11/25/61	5-5-62	

MICROFILMED
JUN 14 1984

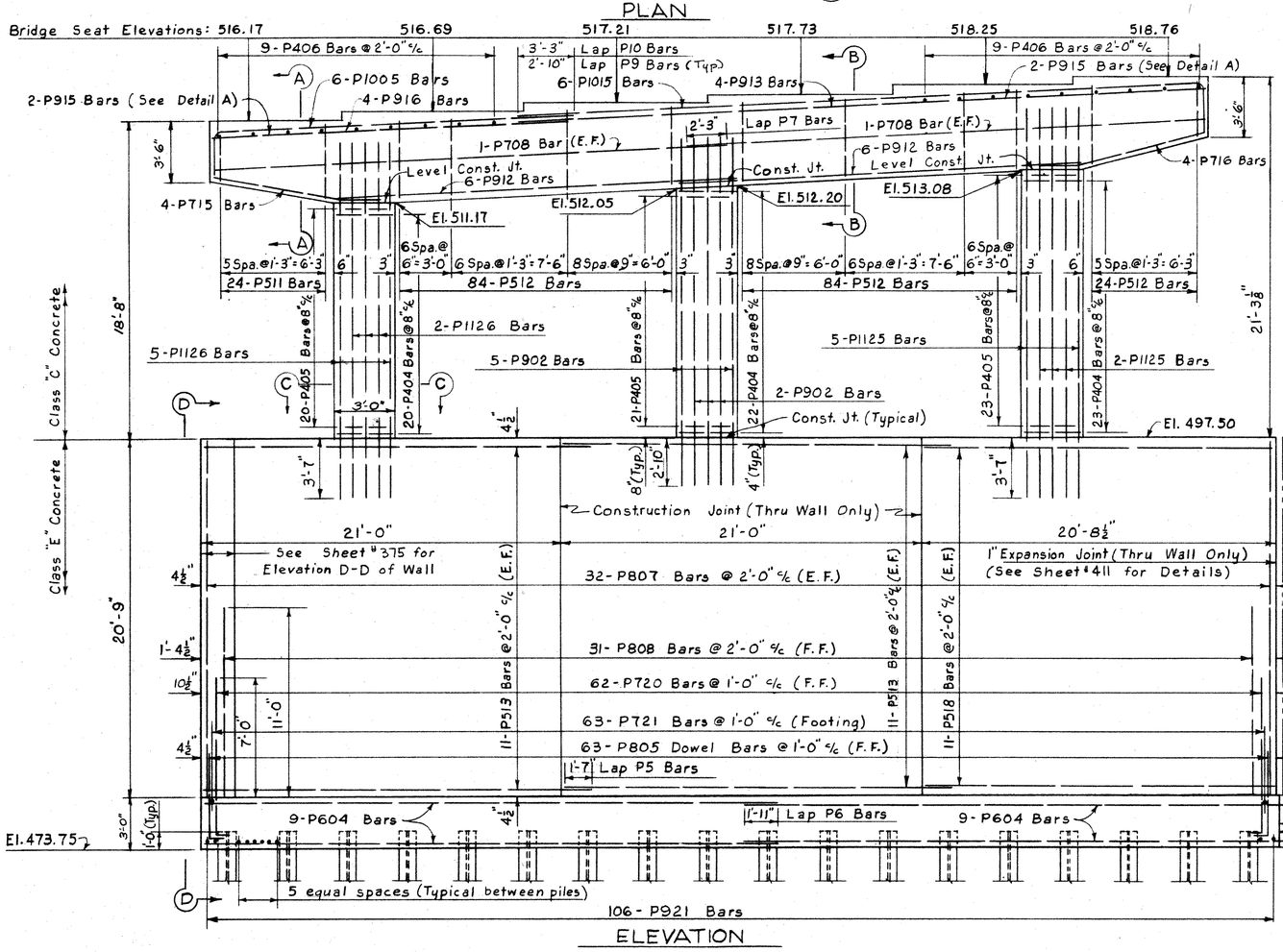
FED. RD. DIV.	STATE	PROJECT	FISCAL YEAR
2	OHIO		

373
464

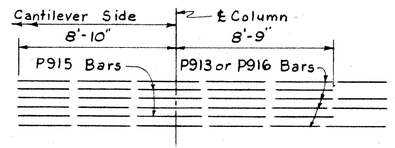
HAM-50-19.76



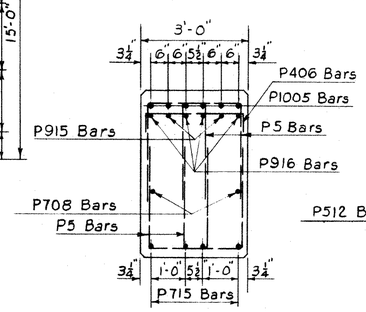
PLAN



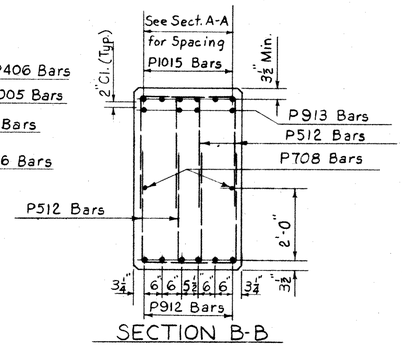
ELEVATION



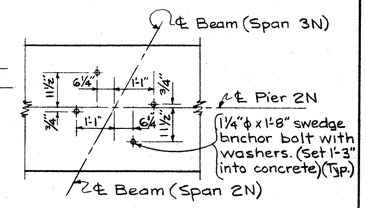
DETAIL A



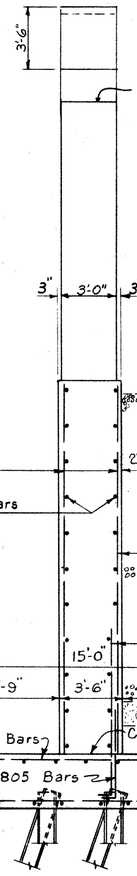
SECTION A-A



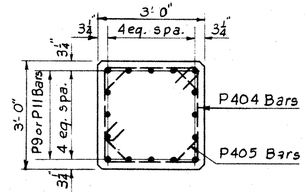
SECTION B-B



Anchor Bolt Plan



SOUTH END ELEVATION



SECTION C-C
Typical Column Section

NOTES:
For General Notes see Sheet # 371
All piles shall be 10BP42 Steel H Piles.
~~For installation of electrical grounds see Sheet # 411~~.
Removal of existing retaining wall (as shown on Site Plan Sheet No 360) to be included in Item S-22 "Removal of Portions of Existing Str." for payment
Removal of existing sewer (shown on Site Plan Sheet No. 360) within limits of Pier Footing to be included in Item E-2, "Unclassified Excavation" for payment.
For Drainage Plan at Pier No 2 see Sh No 404

HAZELET & ERDAL
CONSULTING ENGINEERS
CINCINNATI, OHIO

PIER NO. 2N

BRIDGE NO. HAM-50-2012 R.&L.

H.&E. BRIDGE NO. 7

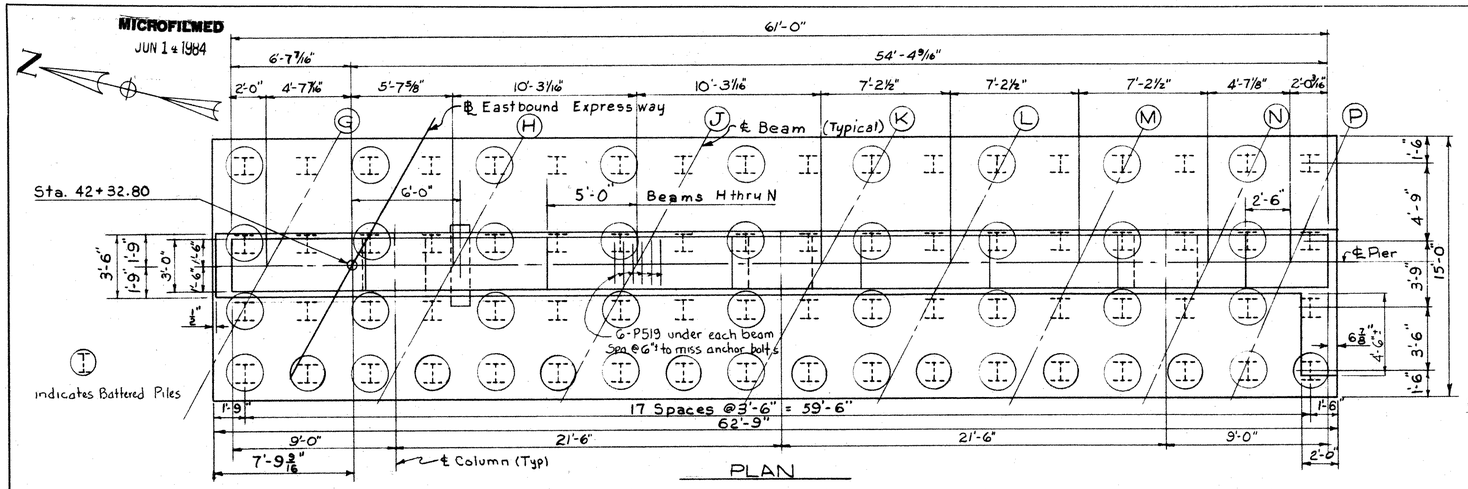
DESIGNED	DRAWN	TRACED	CHECKED	REVIEWED DATE	REVISED
MPS	D.W.L. 11-24-61		JHO 11/25/61	W.A.Z. 8-6-62	

MICROFILMED
JUN 1 4 1984

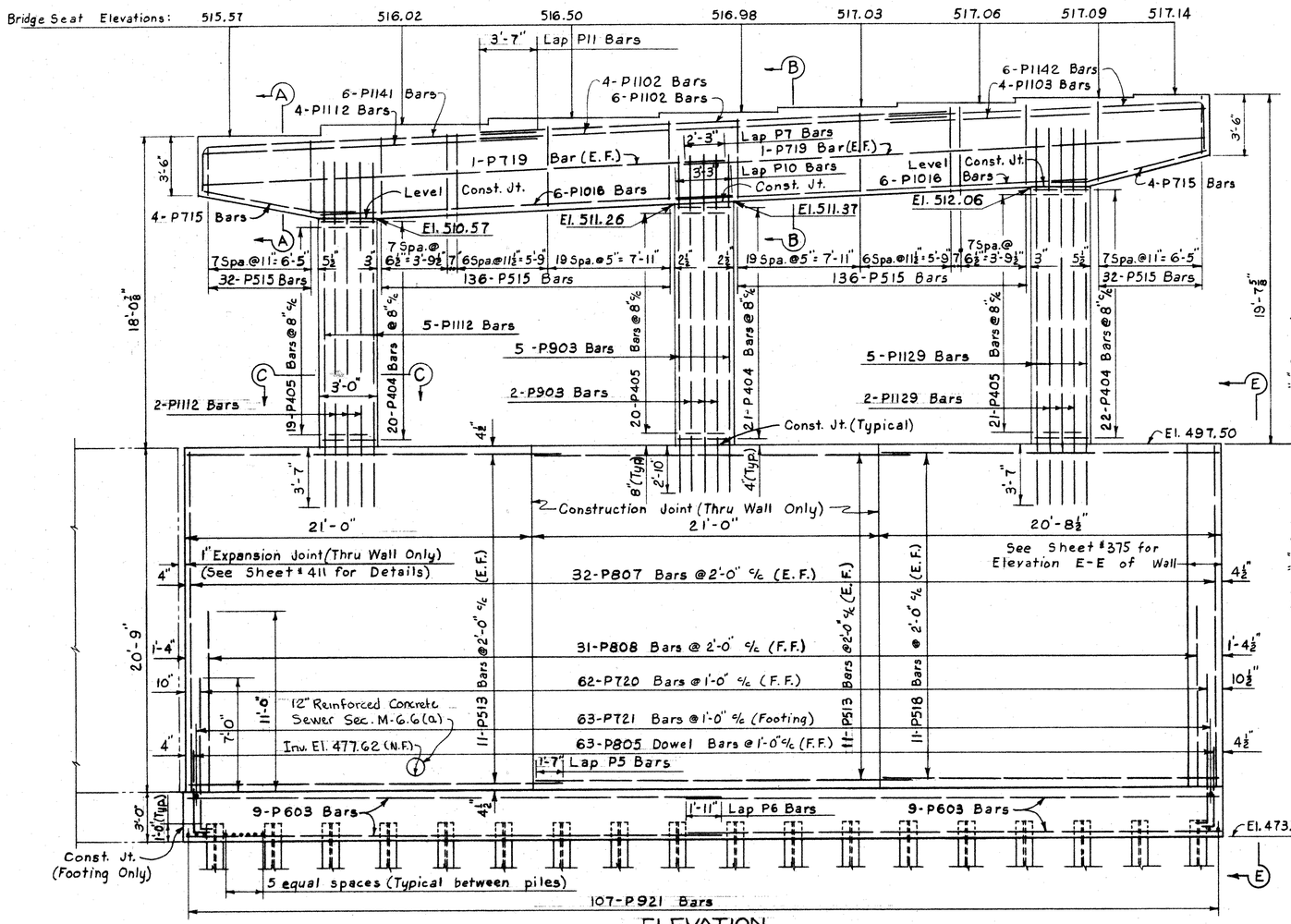
FED. RD. DIV.	STATE	PROJECT	FISCAL YEAR
2	OHIO		

374
464

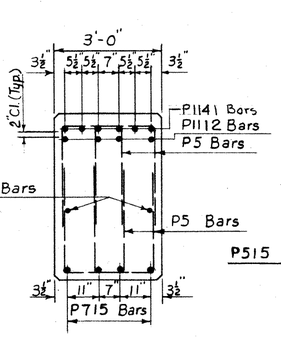
HAM-50-19.76



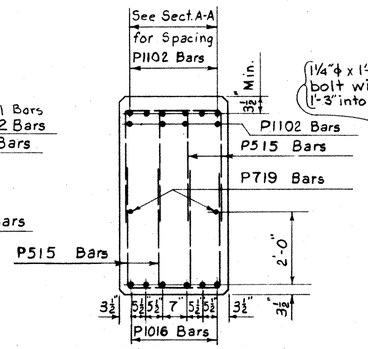
PLAN



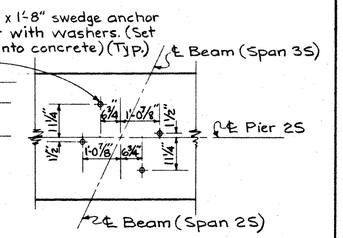
ELEVATION



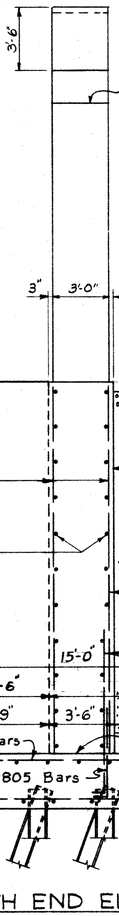
SECTION A-A

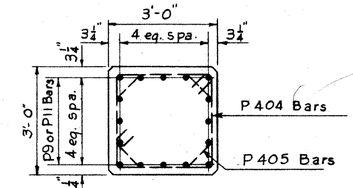


SECTION B-B



Anchor Bolt Plan





SECTION C-C
Typical Column Section

SOUTH END ELEVATION

For additional drainage information see South End Elevation sh # 373.

NOTES:
For General Notes see Sheet # 371.
All piles shall be 10BP42 Steel H Piles.
~~For installation of electrical ground wires on pier c-c Sheet 2 of 2~~
Removal of existing retaining wall (as shown on Site Plan Sheet No. 360) to be included in Item S-22 "Removal of Portions of Existing Structure" for payment
Removal of existing sewer (shown on Site Plan Sheet No. 360) within limits of Pier Footing to be included in Item E-2, Unclassified Excavation" for payment.
For Drainage Plan at Pier No. 2 see Sh. No. 404

HAZELET & ERDAL
CONSULTING ENGINEERS
CINCINNATI, OHIO

PIER NO. 2S

BRIDGE NO. HAM-50-2012 R.&L.

H.&E. BRIDGE NO. 7

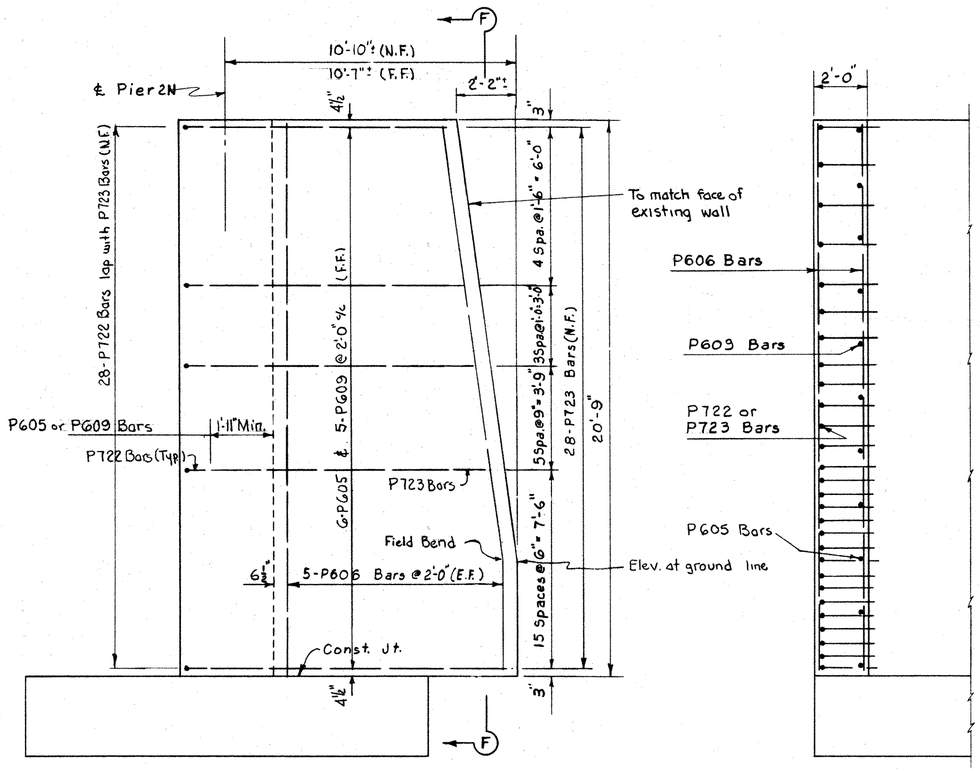
DESIGNED	DRAWN	TRACED	CHECKED	REVISED DATE	REVISED
M.P.S. 11-1-61	D.W.L. 11-22-61		JHO 11/25/61	M.A.F. 8-6-62	

MICROFILMED
JUN 14 1984

FED. RD. DIV.	STATE	PROJECT	FISCAL YEAR
2	OHIO		

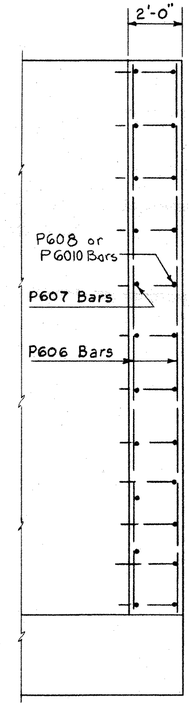
375
464

HAM-50-19.76

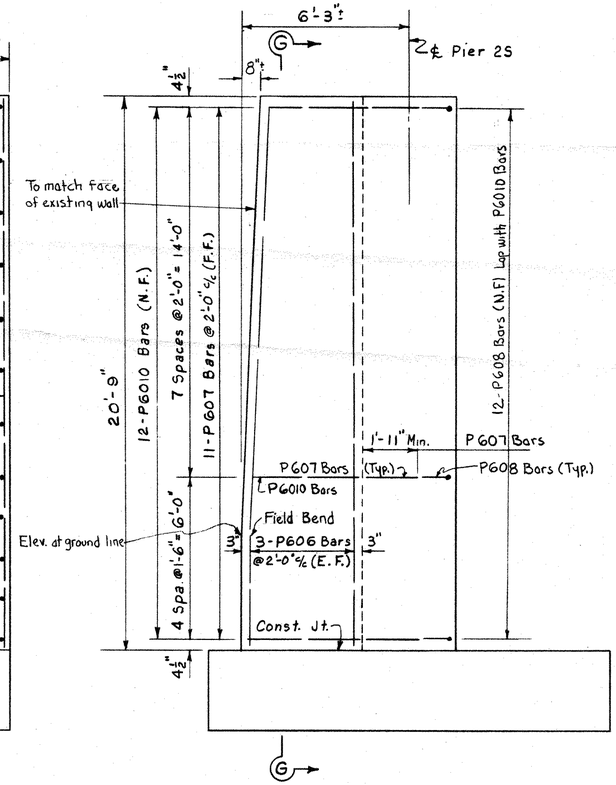


ELEVATION D-D

SECTION F-F



SECTION G-G



ELEVATION E-E

HAZELET & ERDAL
CONSULTING ENGINEERS
CINCINNATI, OHIO

PIERS. NOS. 2N & 2S

BRIDGE NO. HAM-50-2012 R&L

H.&E. BRIDGE NO. 7

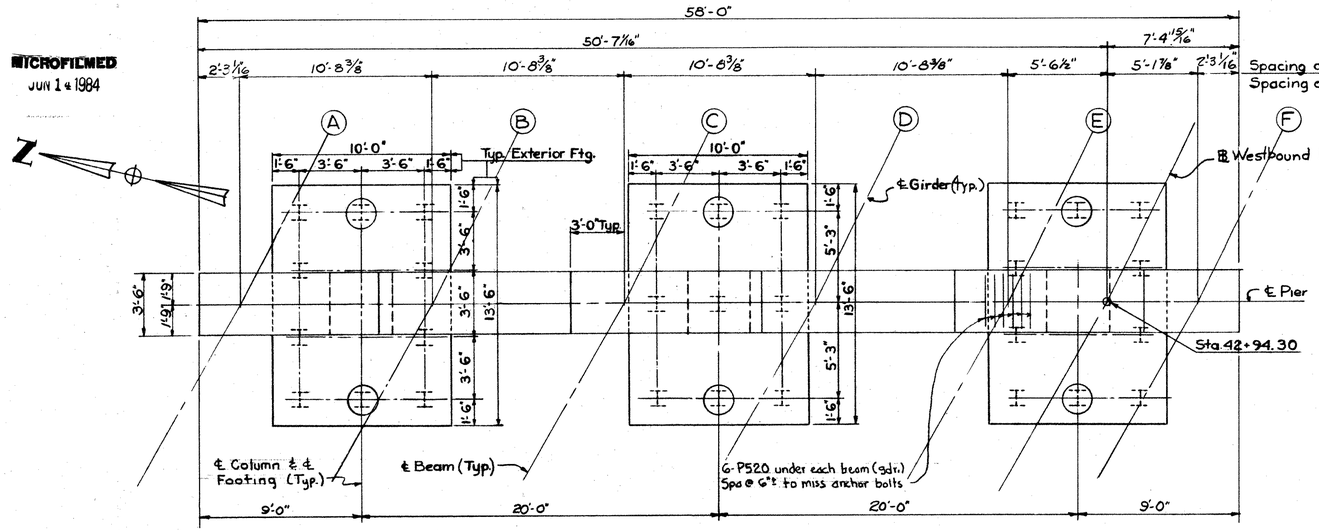
DESIGNED	DRAWN	TRACED	CHECKED	REVIEWED DATE	REVISED
M.P.S.	D.W.L. 11-18-61		JNO 11/25/61	N.A.B. 3-6-62	

MICROFILMED
JUN 1 4 1984

FED. RD. DIV.	STATE	PROJECT	FISCAL YEAR
2	OHIO		

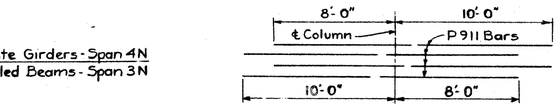
HAM-50-19.76

376
464

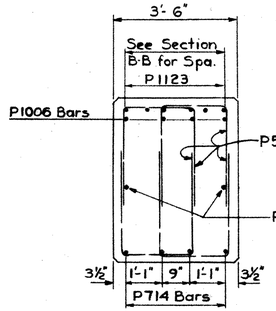


PLAN

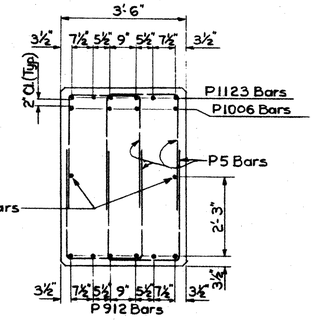
Ⓘ - Indicates Battered Piles



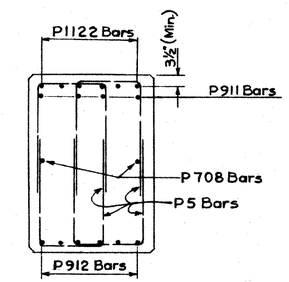
DETAIL A



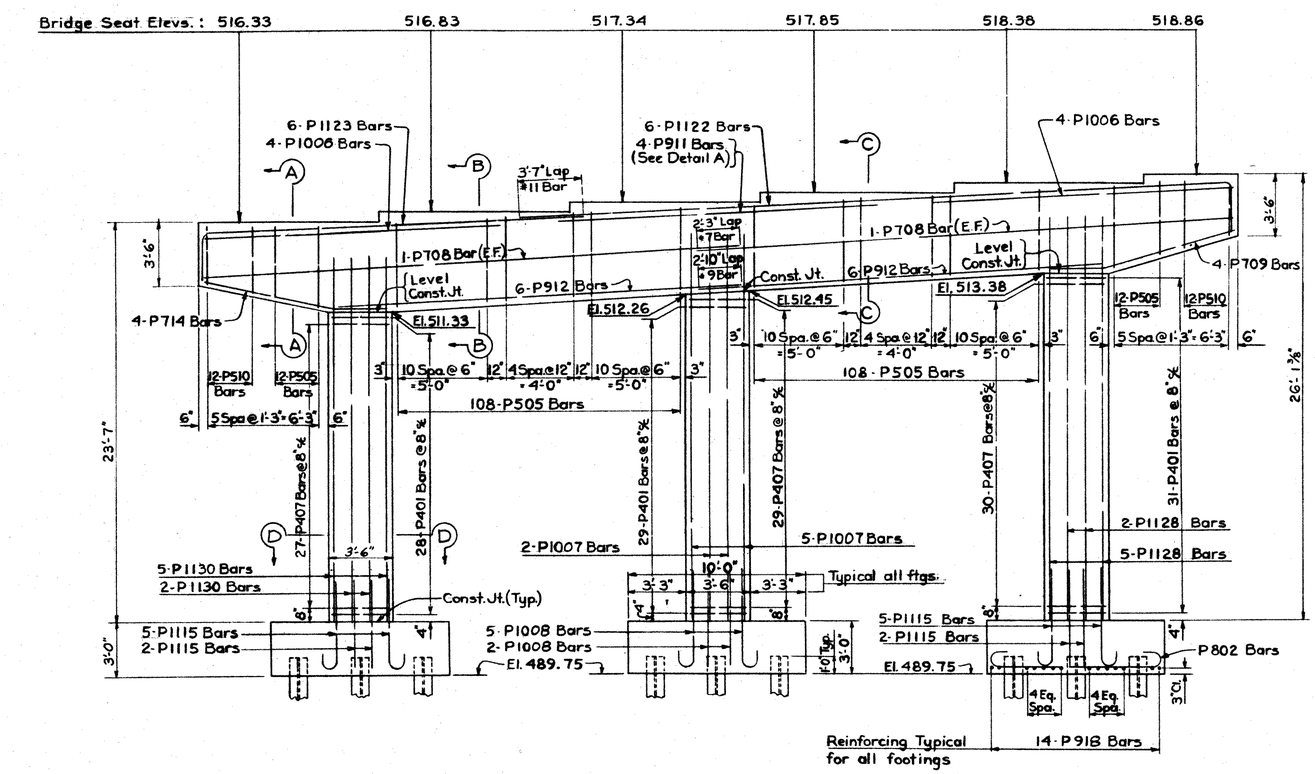
SECTION A-A



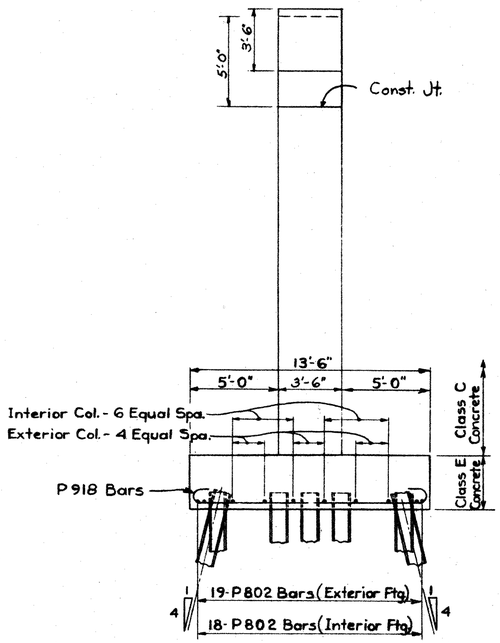
SECTION B-B



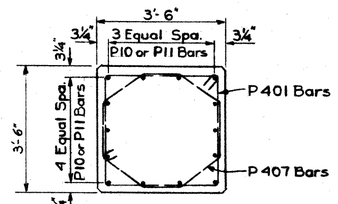
SECTION C-C



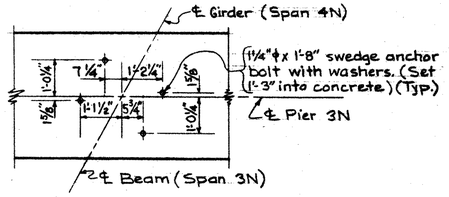
ELEVATION



SOUTH END ELEVATION



SECTION D-D
(Typical) Column Section



Anchor Bolt Plan

NOTES:
For General Notes, See Sh. # 371
All piles shall be 10 BP 42
For connection of downspouts to pier, see Sh. # 404 & 412

HAZELET & ERDAL
CONSULTING ENGINEERS
CINCINNATI, OHIO

PIER NO. 3N

BRIDGE NO. HAM-50-2012 R.&L.

H&E. BRIDGE NO. 7

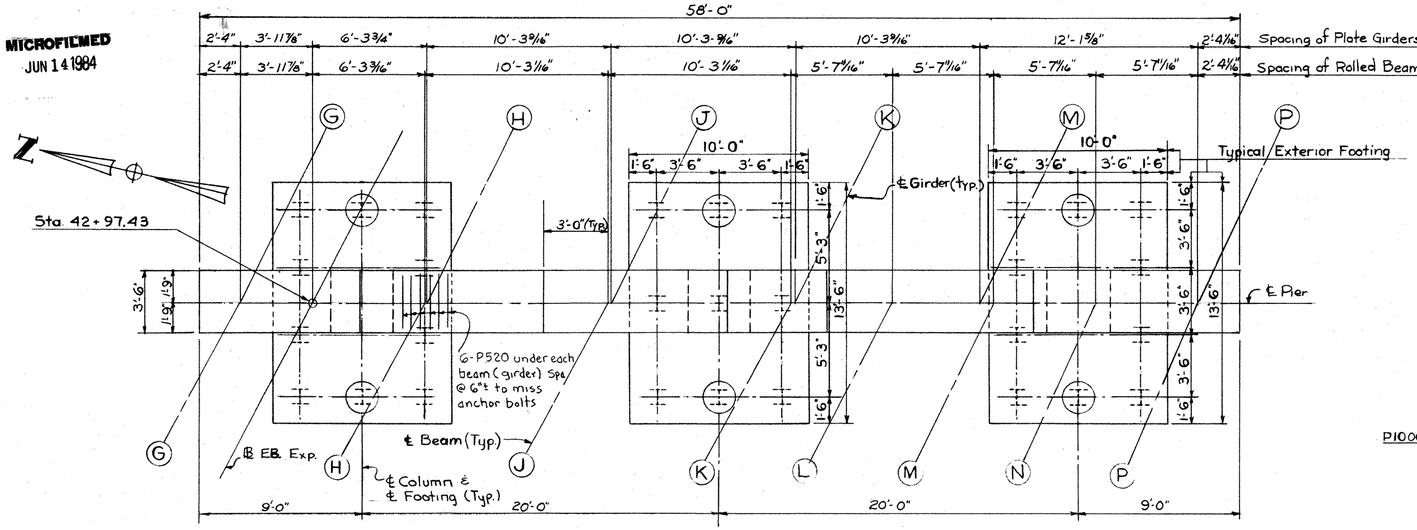
DESIGNED	DRAWN	TRACED	CHECKED	REVISED DATE	REVISED
NPS	DRS 6-23-61		JHO 11/18/61	7-17-62 8-6-62	

MICROFILMED
JUN 14 1984

FED. RD. DIV.	STATE	PROJECT	FISCAL YEAR
2	OHIO		

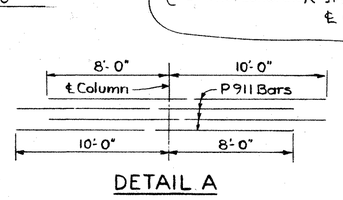
377
464

HAM-50-19.76

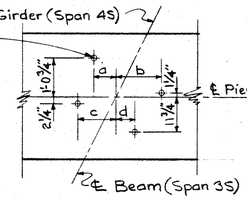


PLAN

⊥ - Indicates Battered Piles

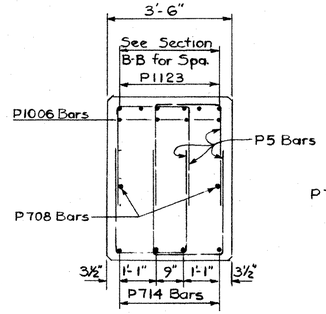


DETAIL A

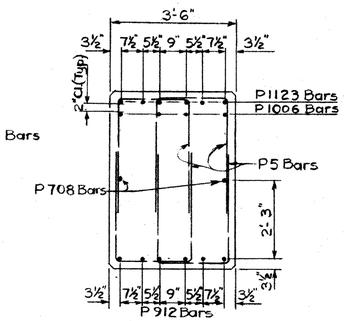


BEAM	a	b	c	d
G-K	8"	1'-3⅛"	1'-1⅝"	6⅛"
L	8"	1'-3⅛"	1'-1⅝"	6⅜"
N			1'-1"	6¾"
P	8¼"	1'-2⅞"	1'-0¾"	7"

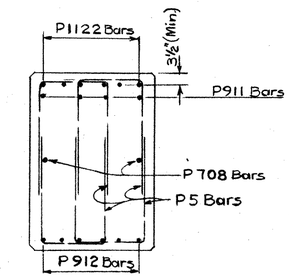
Anchor Bolt Plan
(Beams G-L, N & P)



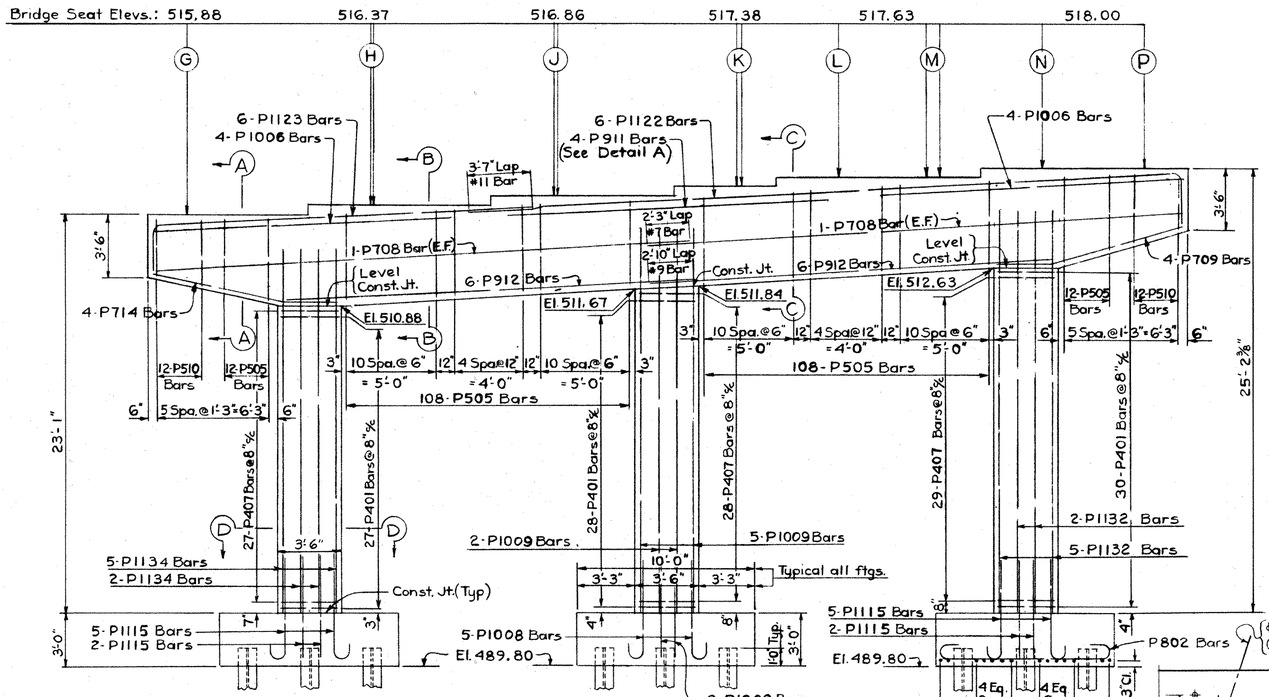
SECTION A-A



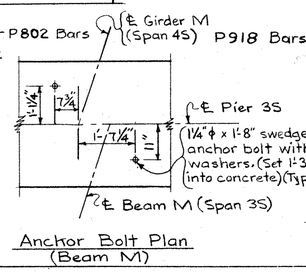
SECTION B-B



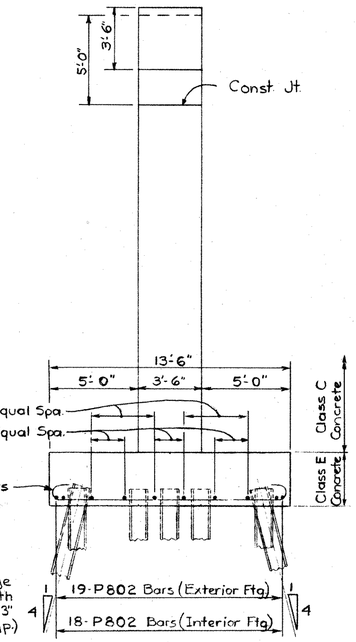
SECTION C-C



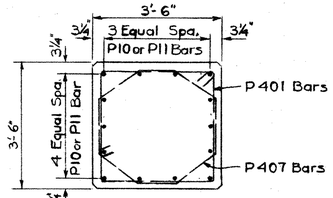
ELEVATION



Anchor Bolt Plan
(Beam M)



SOUTH END ELEVATION



SECTION D-D
Typical Column Section

NOTES:
For General Notes, See Sh. #371
All piles shall be 10 BP 42
For connection of downspouts to pier, see Sh. #404 & 412

HAZELET & ERDAL
CONSULTING ENGINEERS
CINCINNATI, OHIO

PIER NO. 3S
BRIDGE NO. HAM-50-2012 R&L.

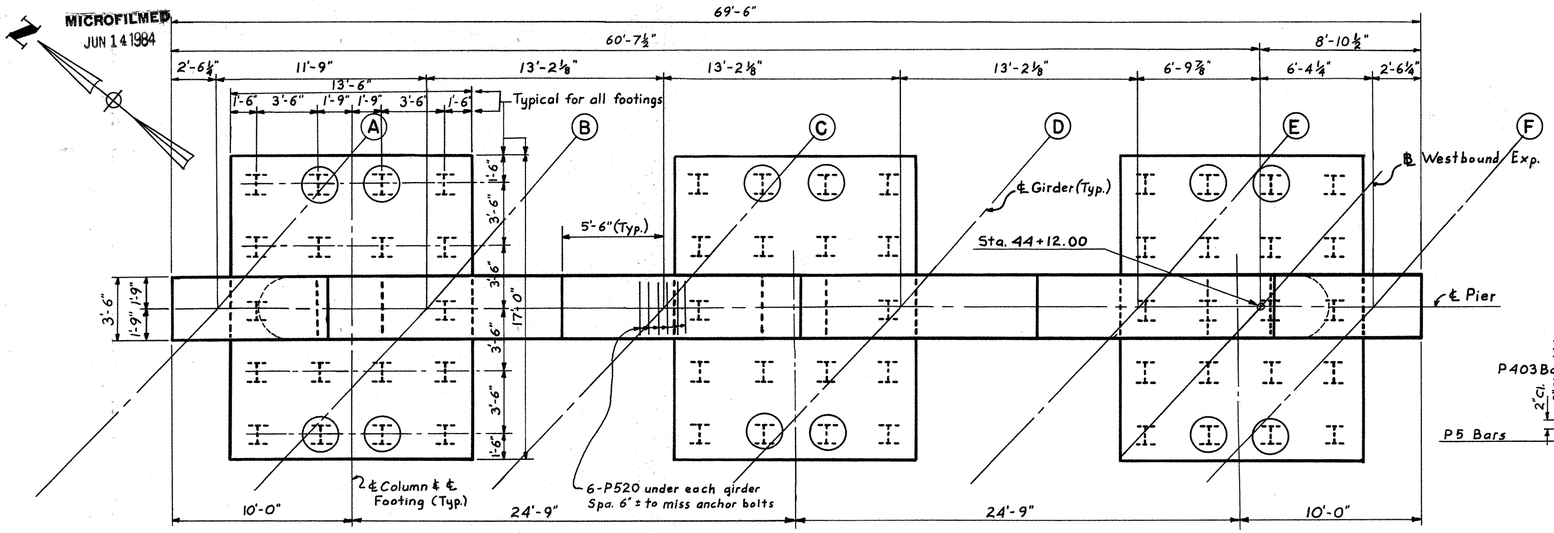
H. & E. BRIDGE NO. 7

DESIGNED	DRAWN	TRACED	CHECKED	REVISED DATE	REVISED
MPS	D.R.S. 6-23-61		JHO 11-9-61	H.A.Z. 5-6-62	

MICROFILMED
JUN 14 1984

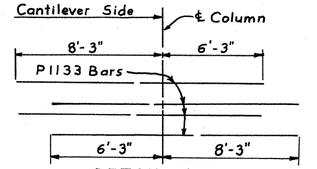
FED. RD. DIV.	STATE	PROJECT	FISCAL YEAR
2	OHIO		

HAM-50-19.76

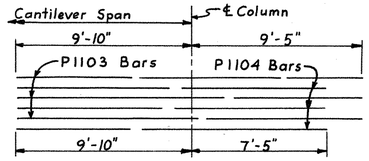


PLAN

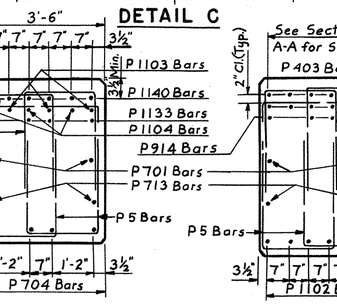
(A) – Indicates Battered Piles



DETAIL A

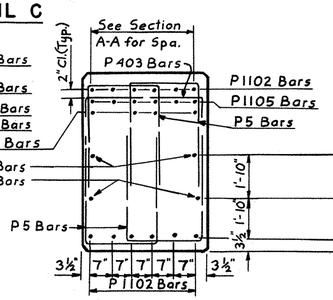


DETAIL B

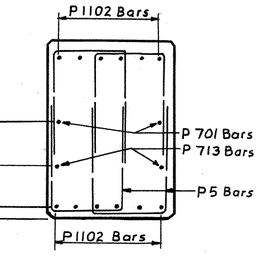


DETAIL C

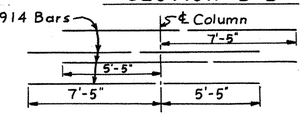
SECTION A-A



SECTION B-B



SECTION C-C



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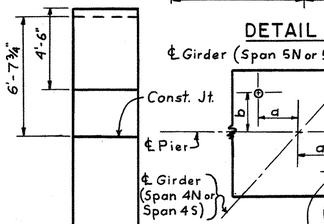
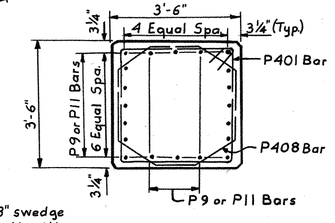
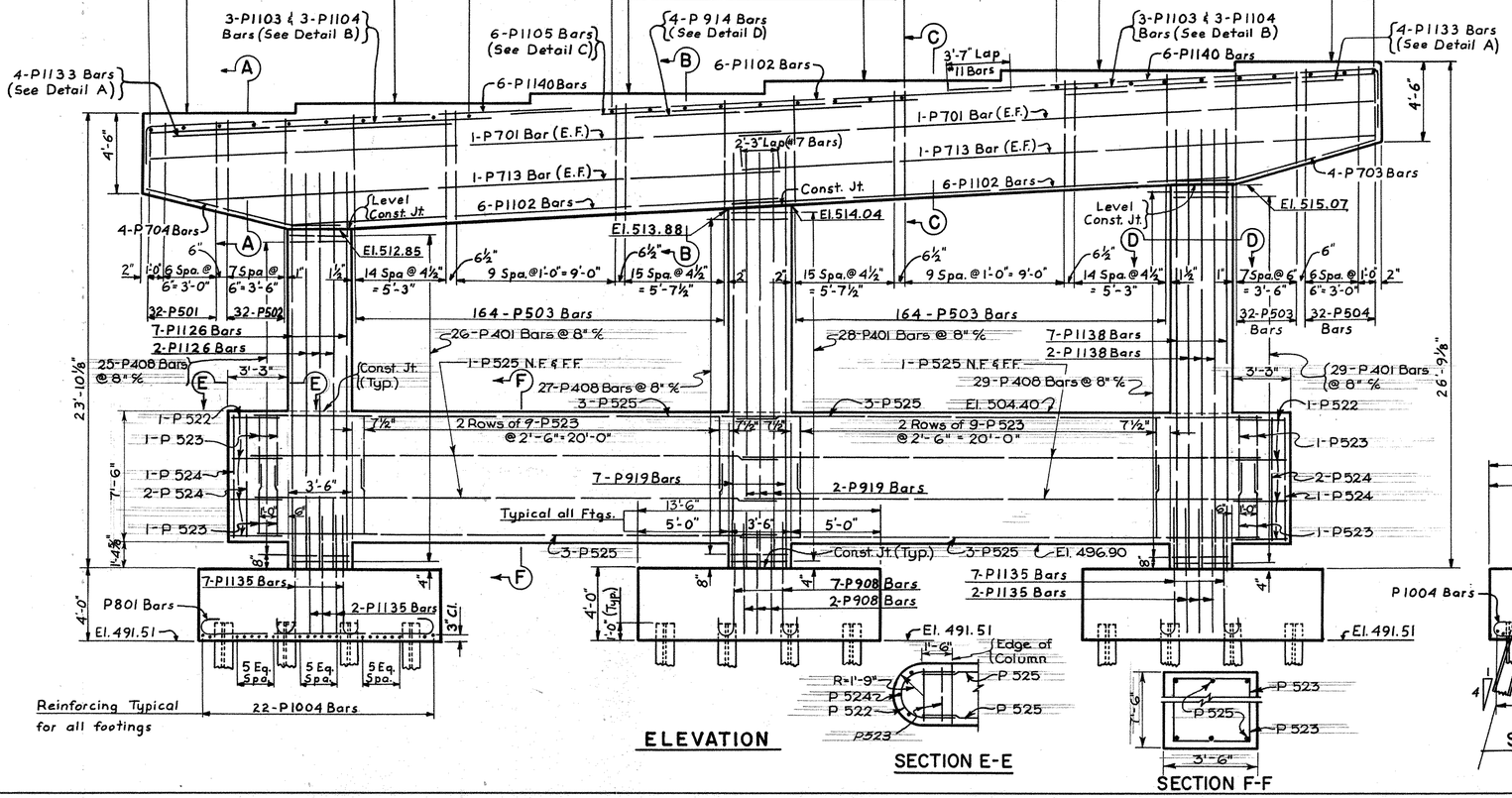


PIER	a	b
4N	1'-1¾"	1'-0 3/8"
4S	1'-2"	1'-0¾"

Anchor Bolt Plan
(Pier 4N & 4S)



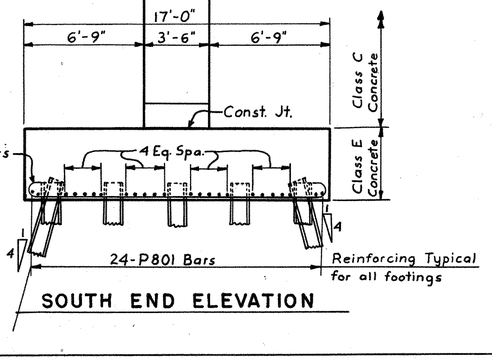
SECTION D-D
Typical Column Section



ELEVATION

SECTION E-E

SECTION F-F



SOUTH END ELEVATION

NOTES:

For General Notes, See Sh. # 371
For connection of downspouts to pier see Sh. # 404 & 412

All piles shall be 10 BP 42

Removal of existing steel tower footings at Piers 4N & 4S to the extent necessary to avoid interference with the new construction including driving of piles to be included in Item 5-22, Removal of Portions of Exist. Str.".

HAZELET & ERDAL
CONSULTING ENGINEERS
CINCINNATI, OHIO

PIER NO. 4N

BRIDGE NO. HAM-50-2012 R.& L.

H. & E. BRIDGE NO. 7

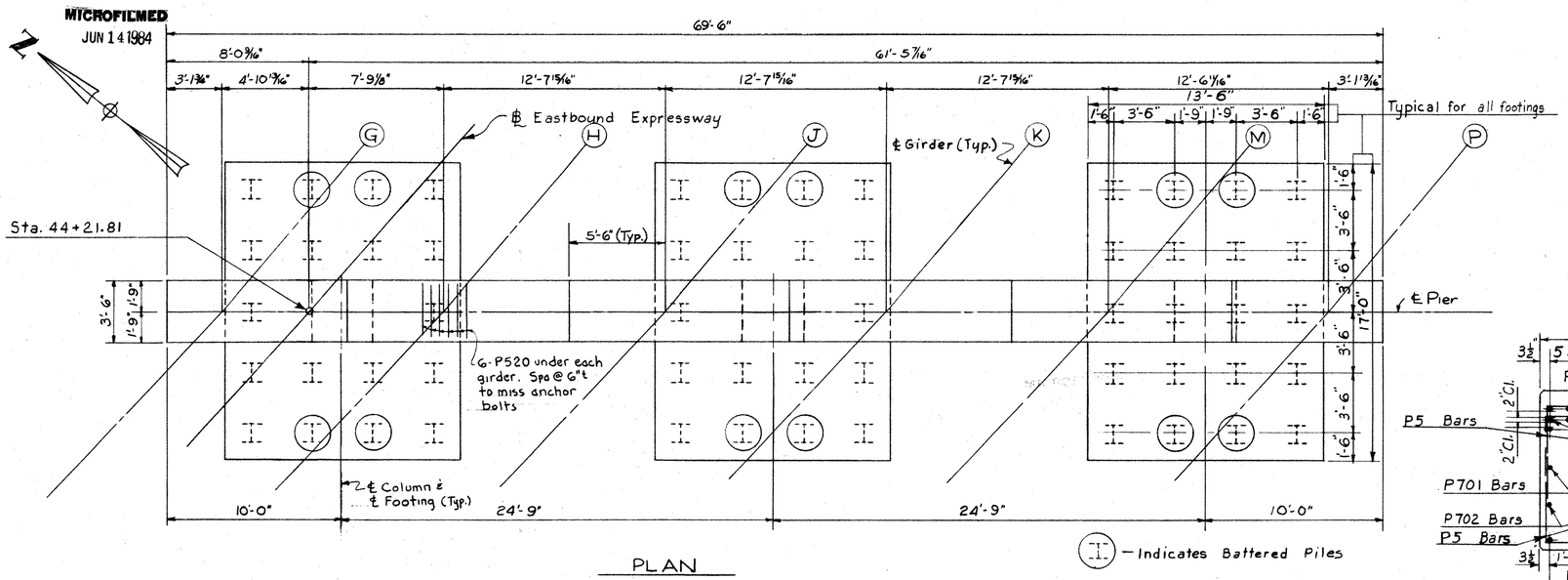
DESIGNED	DRAWN	TRACED	CHECKED	REVIEWED DATE	REVISED
MPS	D.R.S. 6-26-61	J.D.C. 6-25-62	JHO 11-25-61	K.A.Z. 8-6-62	10-30-62

MICROFILMED
JUN 14 1984

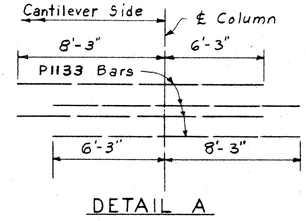
FED. RD. DIV.	STATE	PROJECT	FISCAL YEAR
2	OHIO		

379
464

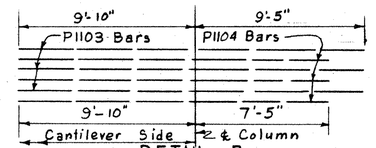
HAM-50-19.76



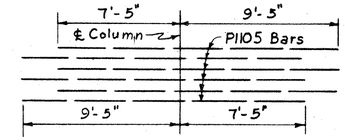
PLAN



DETAIL A

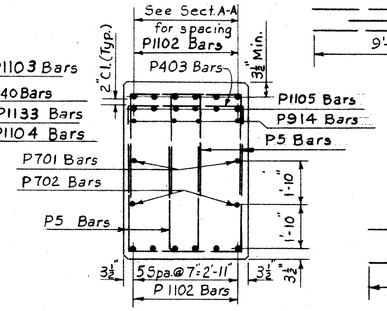


DETAIL B

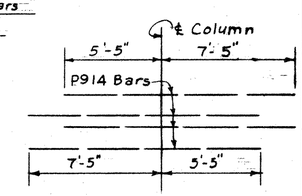


DETAIL C

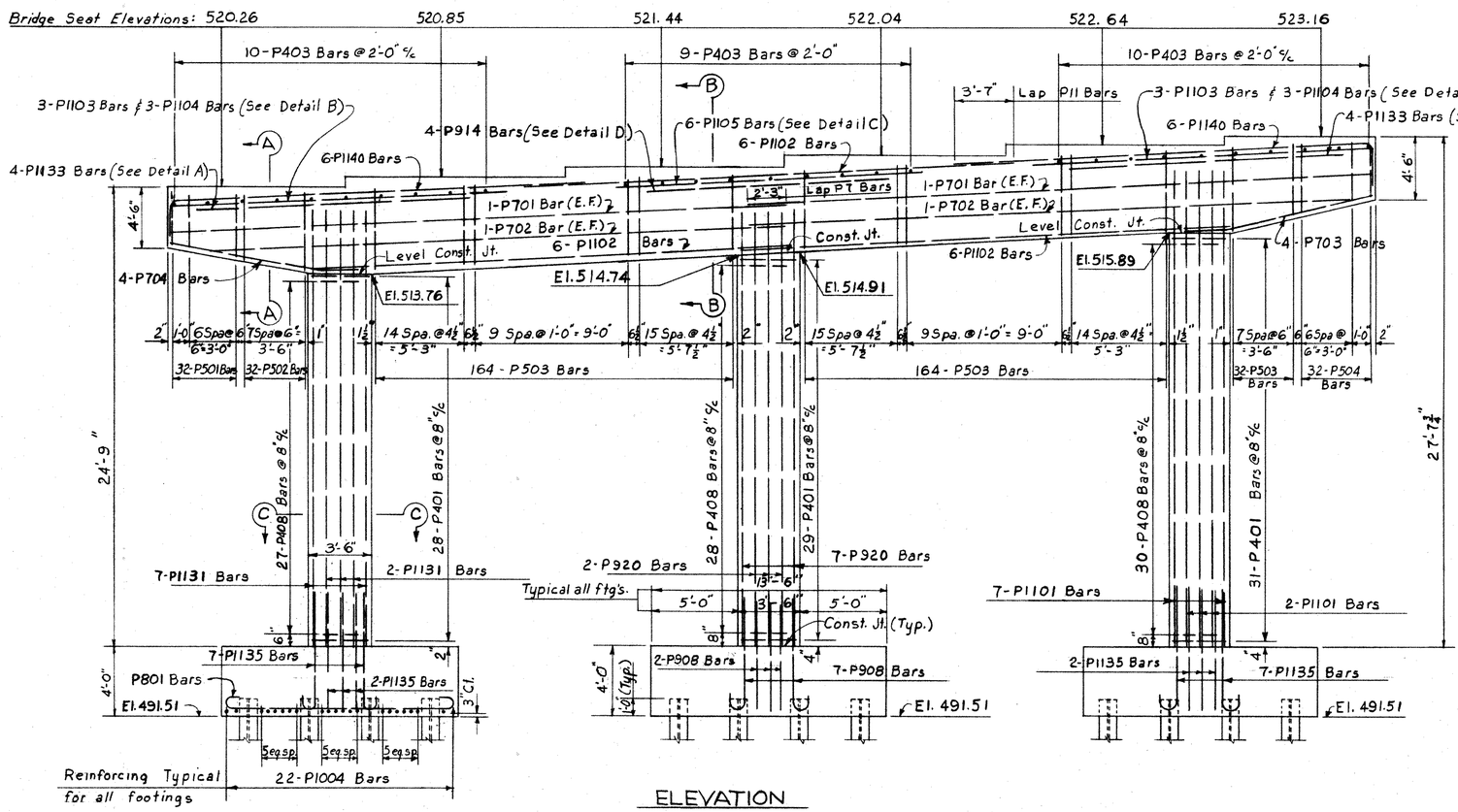
SECTION A-A



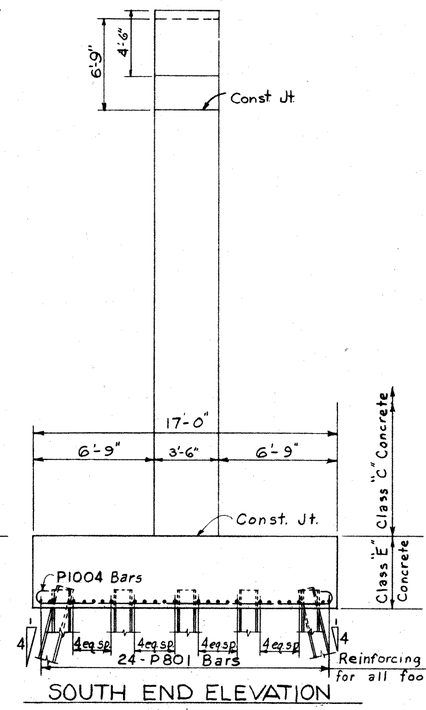
SECTION B-B



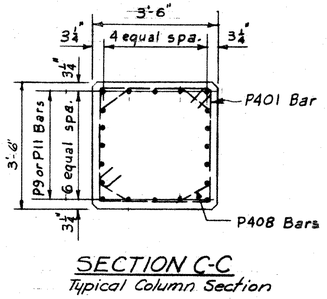
DETAIL D



ELEVATION



SOUTH END ELEVATION



SECTION C-C
Typical Column Section

NOTES:
For General Notes see Sheet # 371
For connection of down spouts to pier see sheet # 404 & 412
All piles shall be 10 BP 42
For Anchor Bolt Plan see sheet # 378

HAZELET & ERDAL
CONSULTING ENGINEERS
CINCINNATI, OHIO

PIER NO. 4S
BRIDGE NO. HAM-50-2012 R.&L.

H.&E. BRIDGE NO. 7

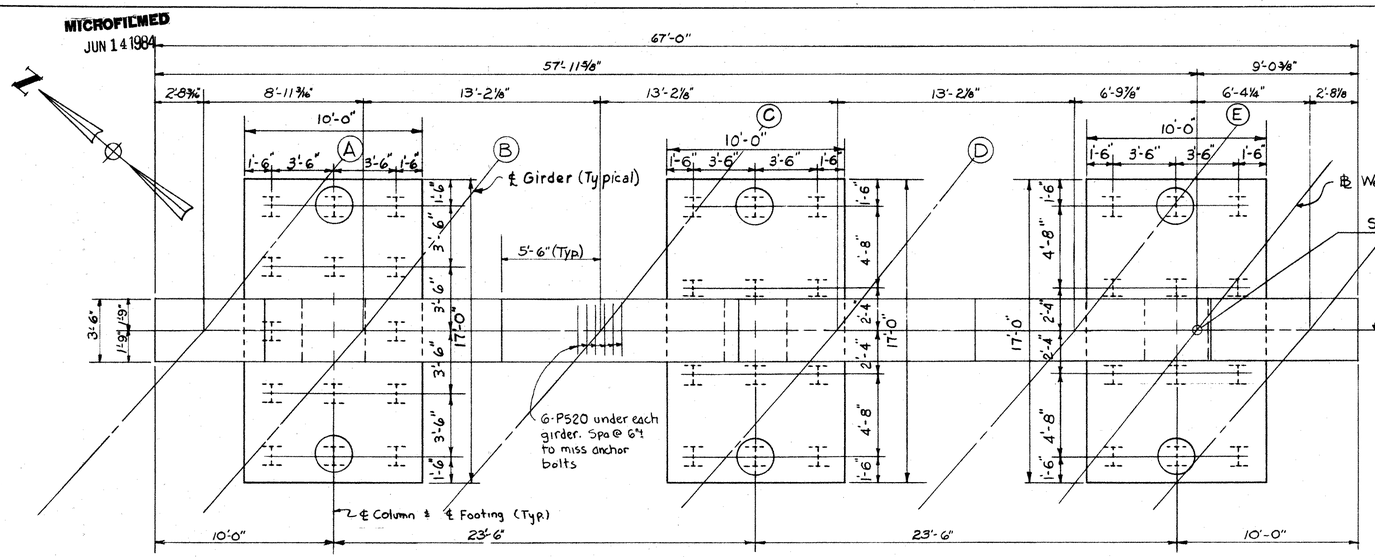
DESIGNED	DRAWN	TRACED	CHECKED	REVISED DATE	REVISED
MPS	D.W.L. 11-21-61		JHO 11/25/61	2-1-62 8-6-62	

MICROFILMED
JUN 14 1984

FED. RD. DIV.	STATE	PROJECT	FISCAL YEAR
2	OHIO		

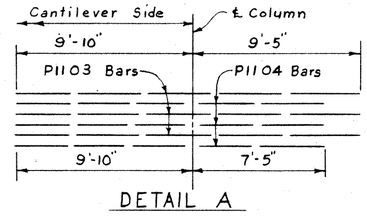
380
464

HAM-50-19.76

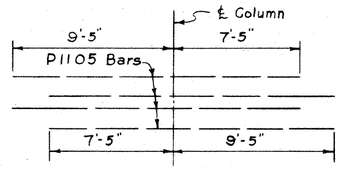


PLAN

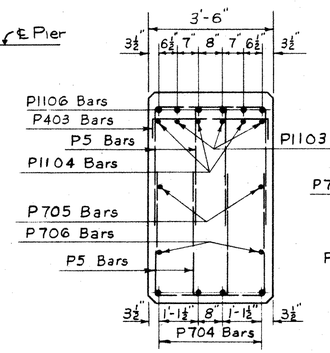
(A) — Indicates Battered Piles



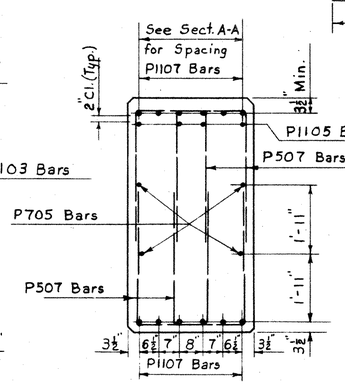
DETAIL A



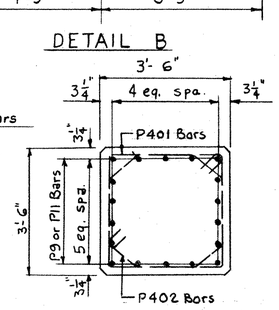
DETAIL B



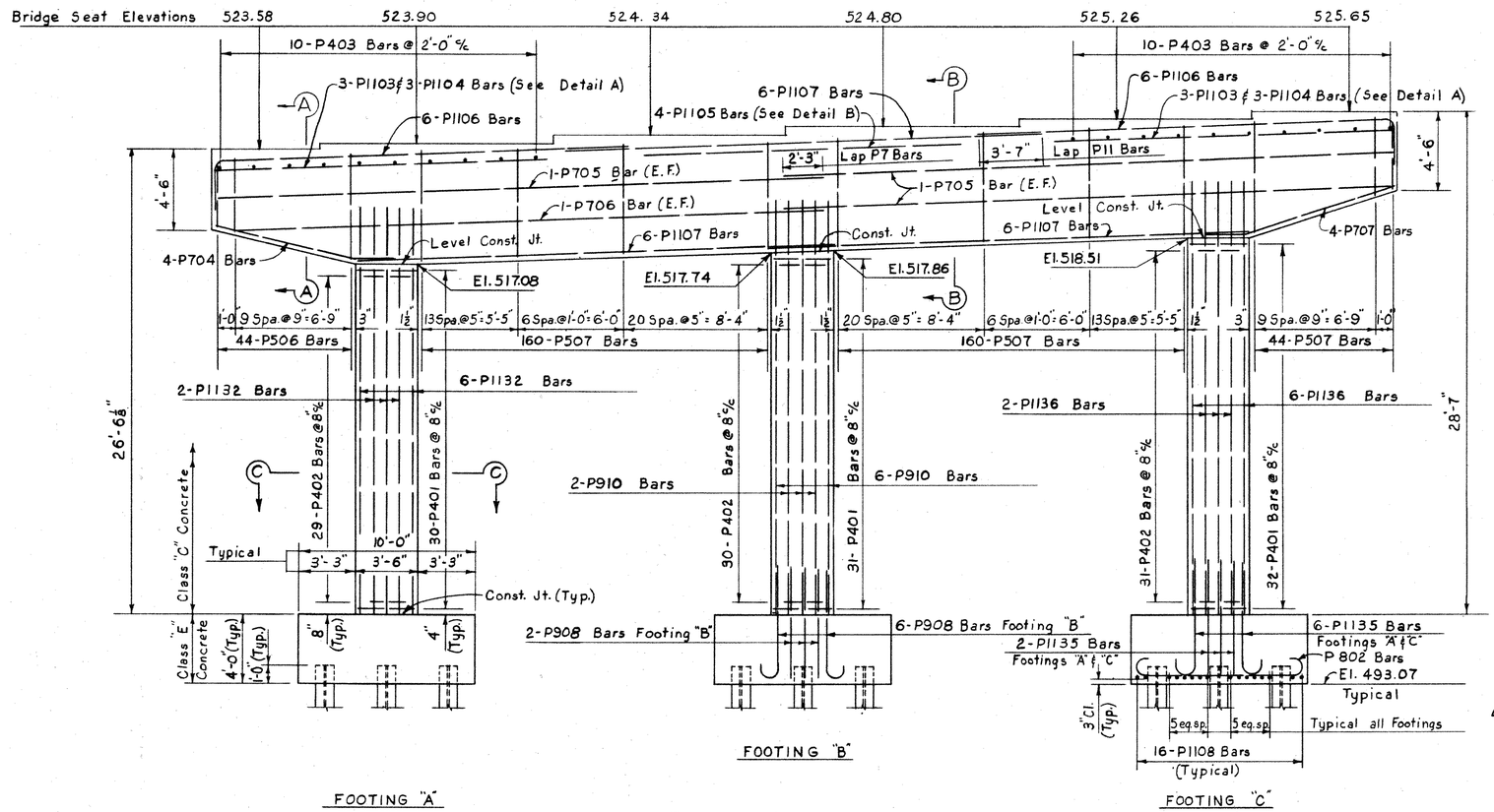
SECTION A-A



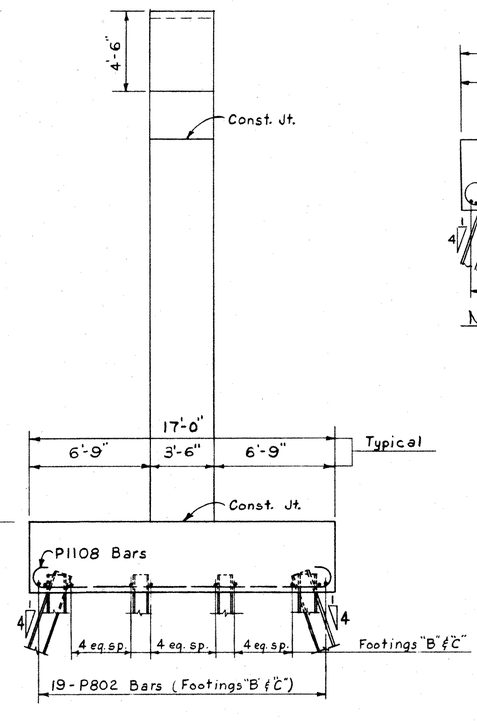
SECTION B-B



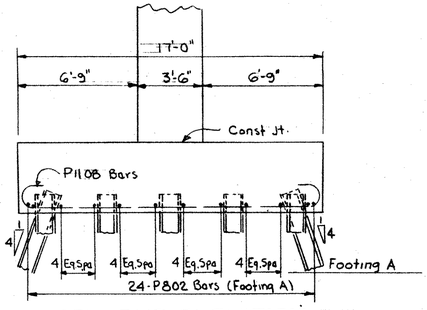
SECTION C-C
Typical Column Section



ELEVATION



SOUTH END ELEVATION



NORTH END ELEVATION

NOTES:
For General Notes see Sheet # 371
All piles shall be 12 BP 53
For installation of electrical ground wires in pier see Sheet 212
For connection of downspouts to pier see Sheet # 404 & 412
For Anchor Bolt Plan see sheet # 381

HAZELET & ERDAL
CONSULTING ENGINEERS
CINCINNATI, OHIO

PIER NO. 5 N

BRIDGE NO. HAM-50-2012 R&L.

H.&E. BRIDGE NO. 7

DESIGNED	DRAWN	TRACED	CHECKED	REVIEWED DATE	REVISED
MPS	D.W.L. 11-21-61		JHO 11/25/61	A.A.B. 8-6-62	

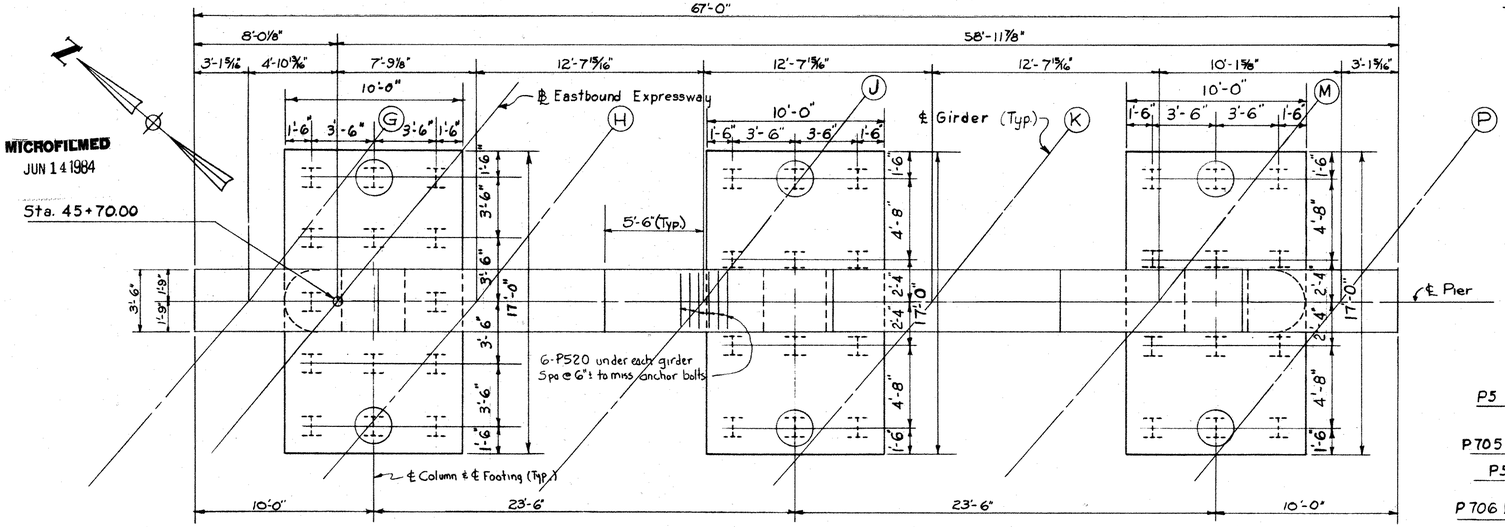
FED. RD. DIV.	STATE	PROJECT	FISCAL YEAR
2	OHIO		

381
464

HAM-50-19.76

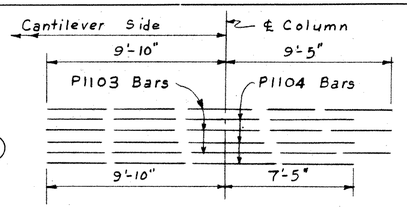
MICROFILMED
JUN 14 1984

Sta. 45+70.00

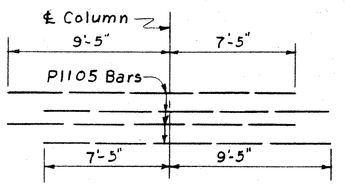


PLAN

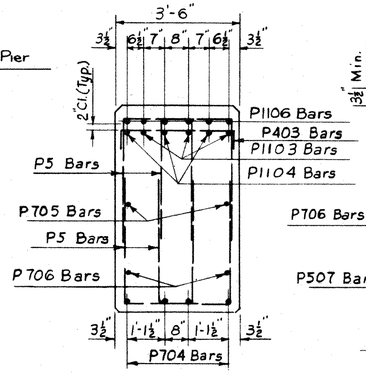
(H) — Indicates Battered Piles



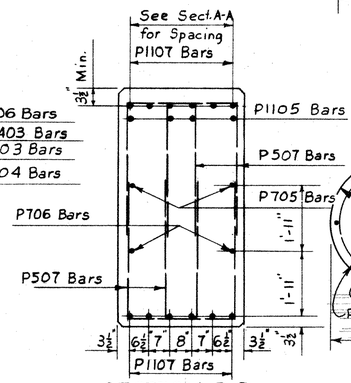
DETAIL A



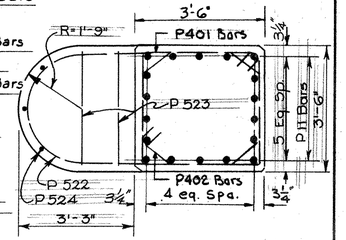
DETAIL B



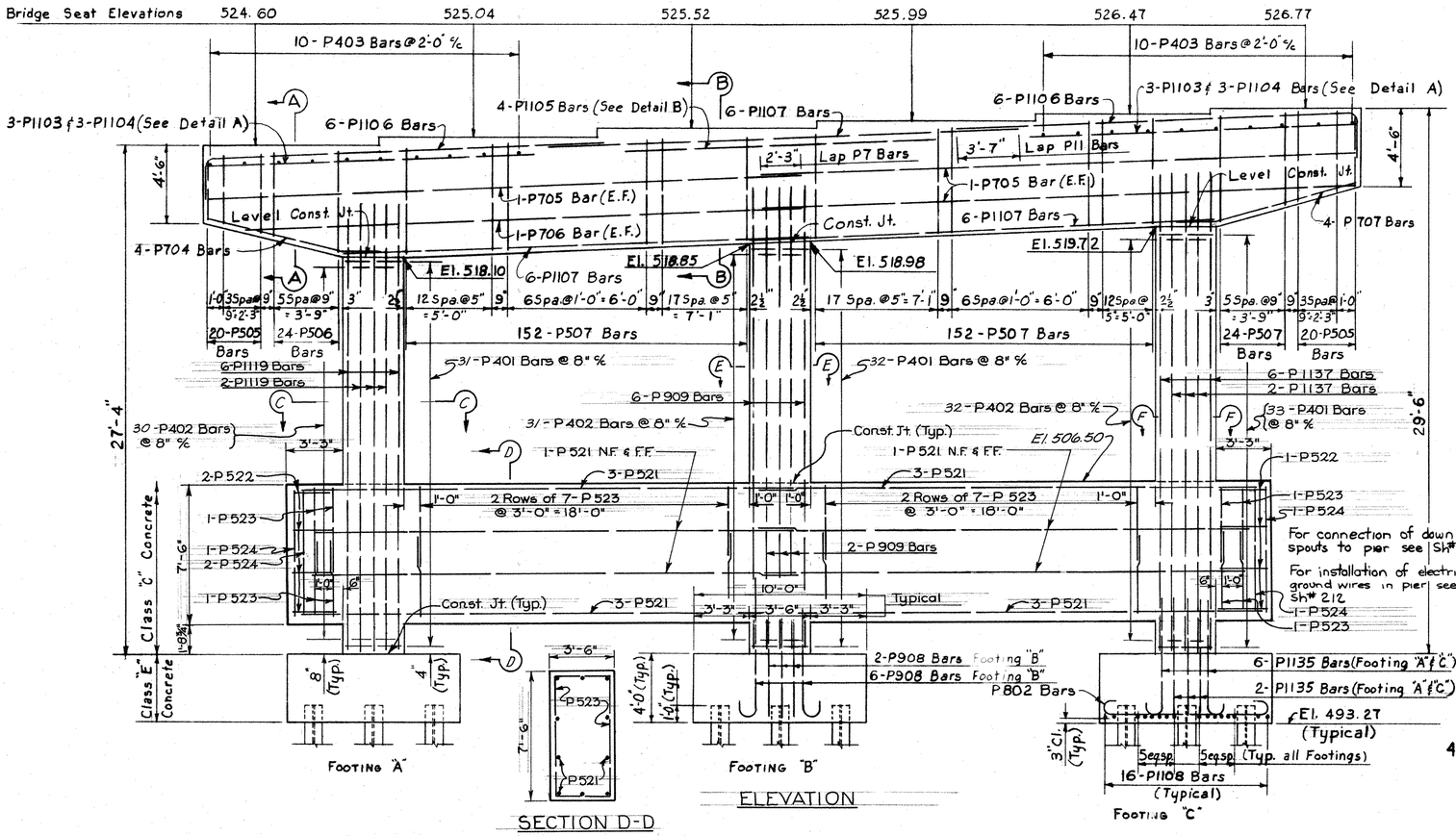
SECTION A-A



SECTION B-B

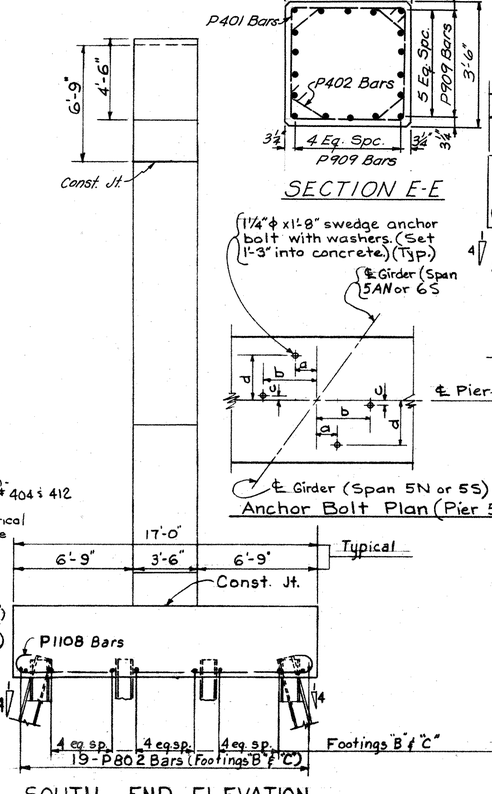


SECTION C-C
(SECTION F-F OPP. HAND)



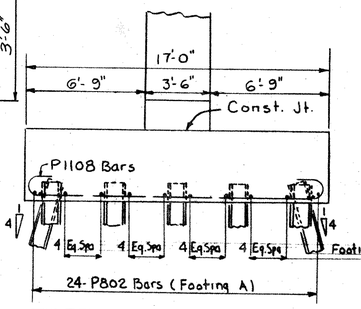
ELEVATION

SECTION D-D



SOUTH END ELEVATION

SECTION E-E



NORTH END ELEVATION

Anchor Bolt Plan (Pier 5N & 5S)

PIER	a	b	c	d
5N	7¼"	1'-6½"	2"	1'-3¼"
5S	6½"	1'-5⅛"	1¼"	1'-2¾"

NOTES:
For General Notes see Sheet # 371
All piles shall be 12 BP 53

HAZELET & ERDAL
CONSULTING ENGINEERS
CINCINNATI, OHIO

PIER NO. 5S

BRIDGE NO. HAM-50-2012 R&L.

H.&E. BRIDGE NO. 7

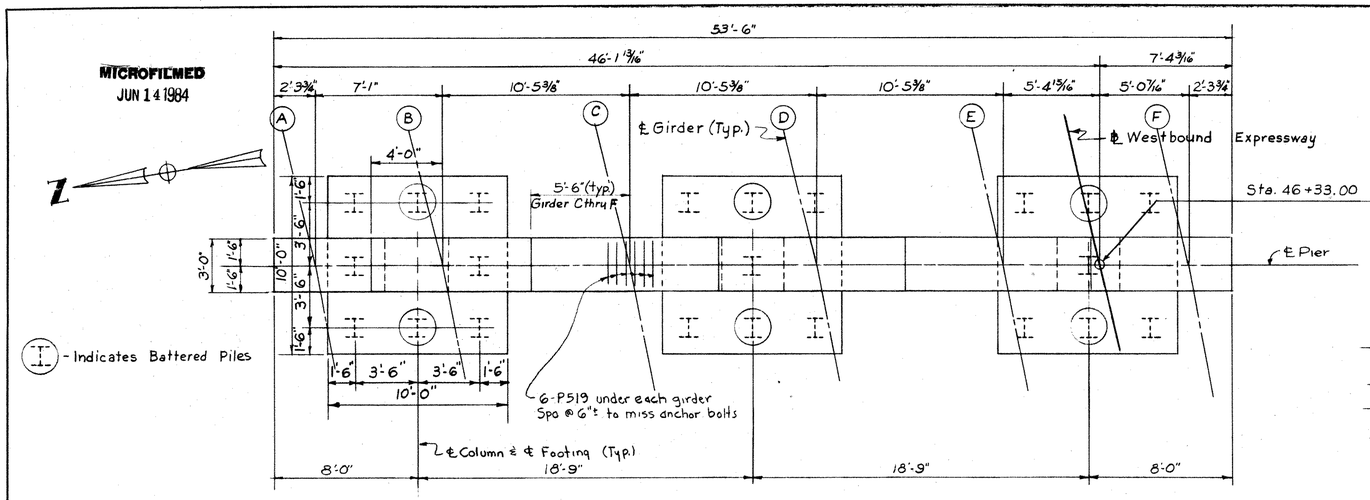
DESIGNED	DRAWN	TRACED	CHECKED	REVIEWED DATE	REVISED
MPS	D.W.L. 11-21-61		JHO 11/25/61	7-1-62, 8-8-62	10-30-62

MICROFILMED
JUN 14 1984

FED. RD. DIV.	STATE	PROJECT	FISCAL YEAR
2	OHIO		

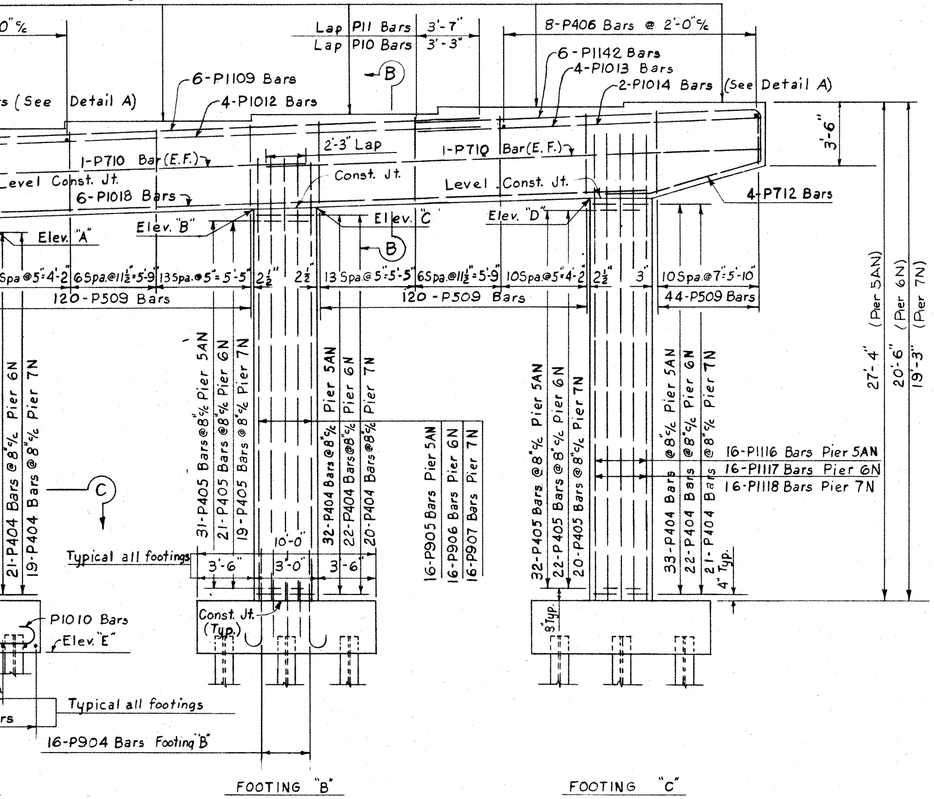
382
464

HAM-50-19.76



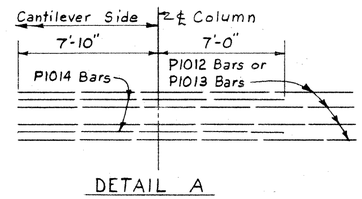
PLAN - PIER 5AN

(For Plan View Piers 6N and 7N see Sheet 383)

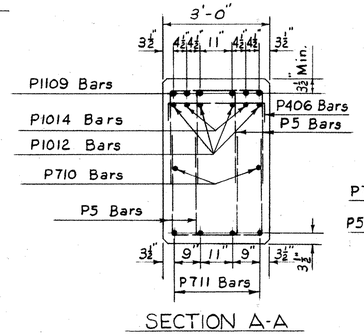


ELEVATION

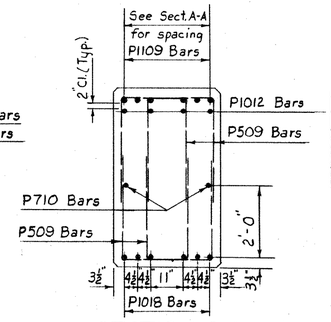
Note:
Dimensions and reinforcement typical for all three piers unless shown otherwise.



DETAIL A

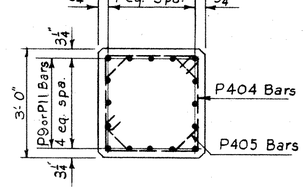


SECTION A-A

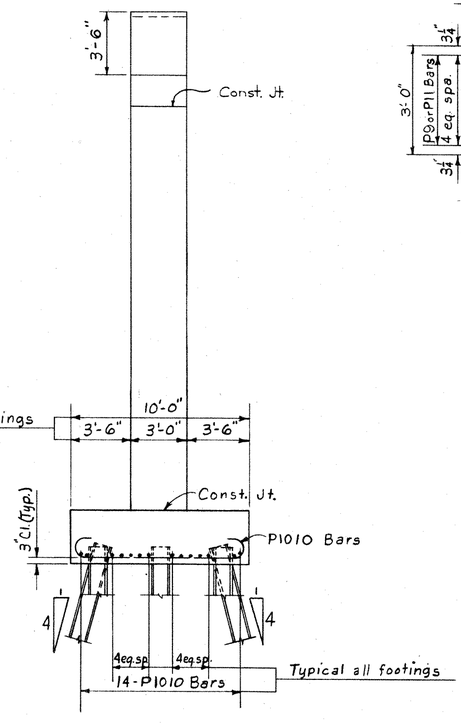


SECTION B-B

TOP OF COLUMN AND FOOTING ELEVATIONS					
Pier	Elev. "A"	Elev. "B"	Elev. "C"	Elev. "D"	Elev. "E"
5AN	520.38	520.84	520.93	521.38	496.48
6N	520.34	520.82	520.92	521.40	503.35
7N	519.66	520.16	520.25	520.75	503.95



SECTION C-C
Typical Column Section



SOUTH END ELEVATION

NOTES:
For General Notes see Sheet # 371
All piles shall be 12 BP 53
For connection of downspouts to Pier 7N see Sheet # 404 & 412
For Anchor Bolt Plan see Sheet No. 384

For connection of lighting conduit to north column Pier No. 7N see Sheet No 214

HAZELET & ERDAL
CONSULTING ENGINEERS
CINCINNATI, OHIO

PIERS 5AN, 6N, 7N

BRIDGE NO. HAM-50-2012 R&L.

H.&E. BRIDGE NO. 7

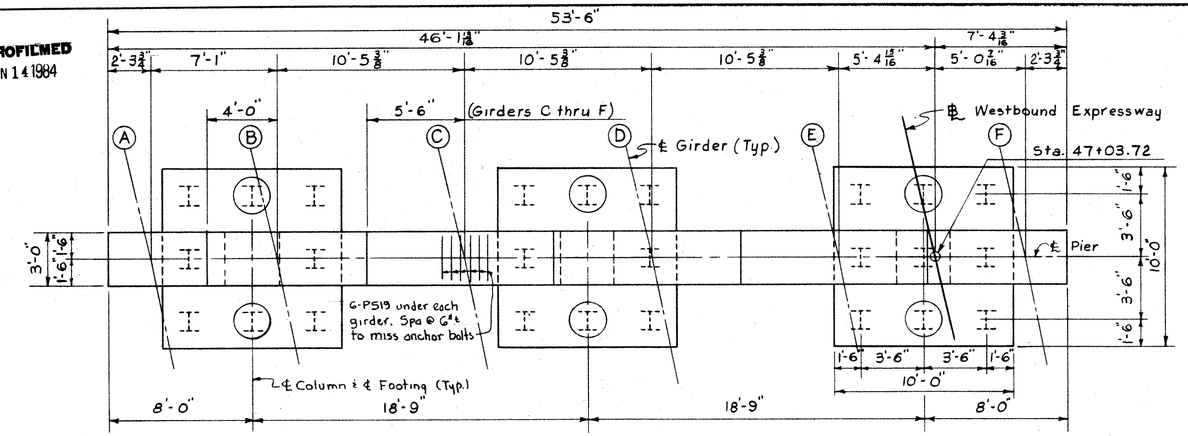
DESIGNED	DRAWN	TRACED	CHECKED	REVIEWED DATE	REVISED
MPS	DWL 11-2061		JHO 11/25/61	W.A.Z. 8-6-62	

MICROFILMED
JUN 14 1984

FED. RD. DIV.	STATE	PROJECT	FISCAL YEAR
2	OHIO		

383
464

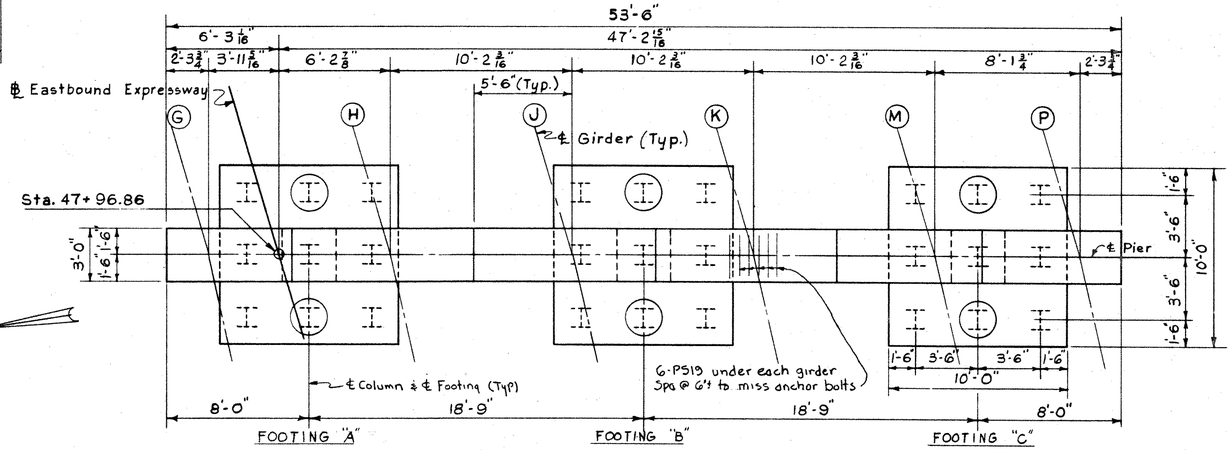
HAM-50-19.76



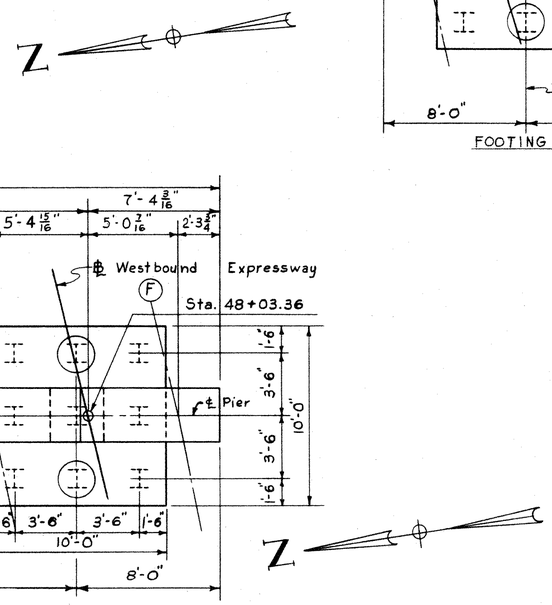
PLAN- PIER 6N

(11) – Indicates Battered Piles

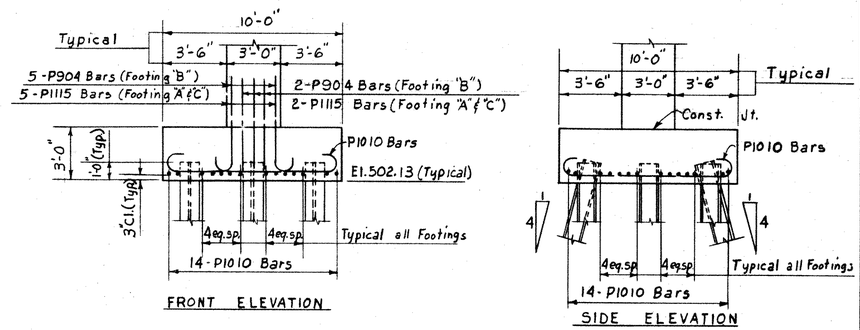




PLAN - PIER 7S



PLAN - PIER 7N



FOOTING DETAILS - PIER 7S

Work this Sheet with Sheet No. 382 for Piers 6N & 7N and with Sheet No. 384 for Pier 7S

HAZELET & ERDAL
CONSULTING ENGINEERS
CINCINNATI, OHIO

PIERS NOS. 6N, 7N & 7S
BRIDGE NO. HAM-50-2012 R&L

H. & E. BRIDGE NO. 7

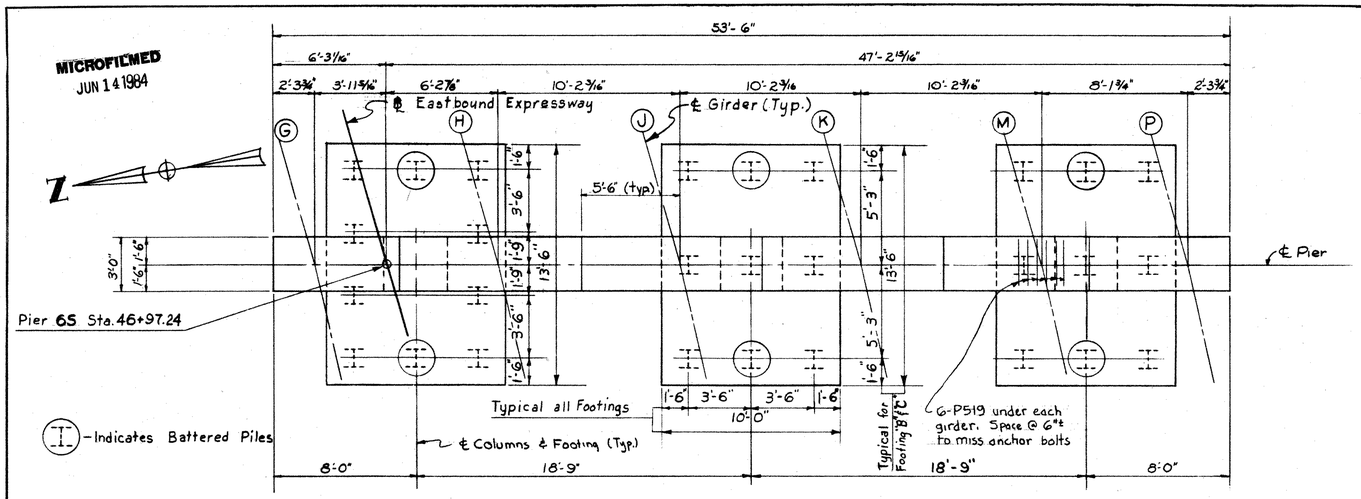
DESIGNED	DRAWN	TRACED	CHECKED	REVIEWED DATE	REVISED
MPS	D.W.L. 11-20-61		JHO 11/27/61	N.A.F. 8-6-62	

MICROFILMED
JUN 14 1984

FED. RD. DIV.	STATE	PROJECT	FISCAL YEAR
2	OHIO		

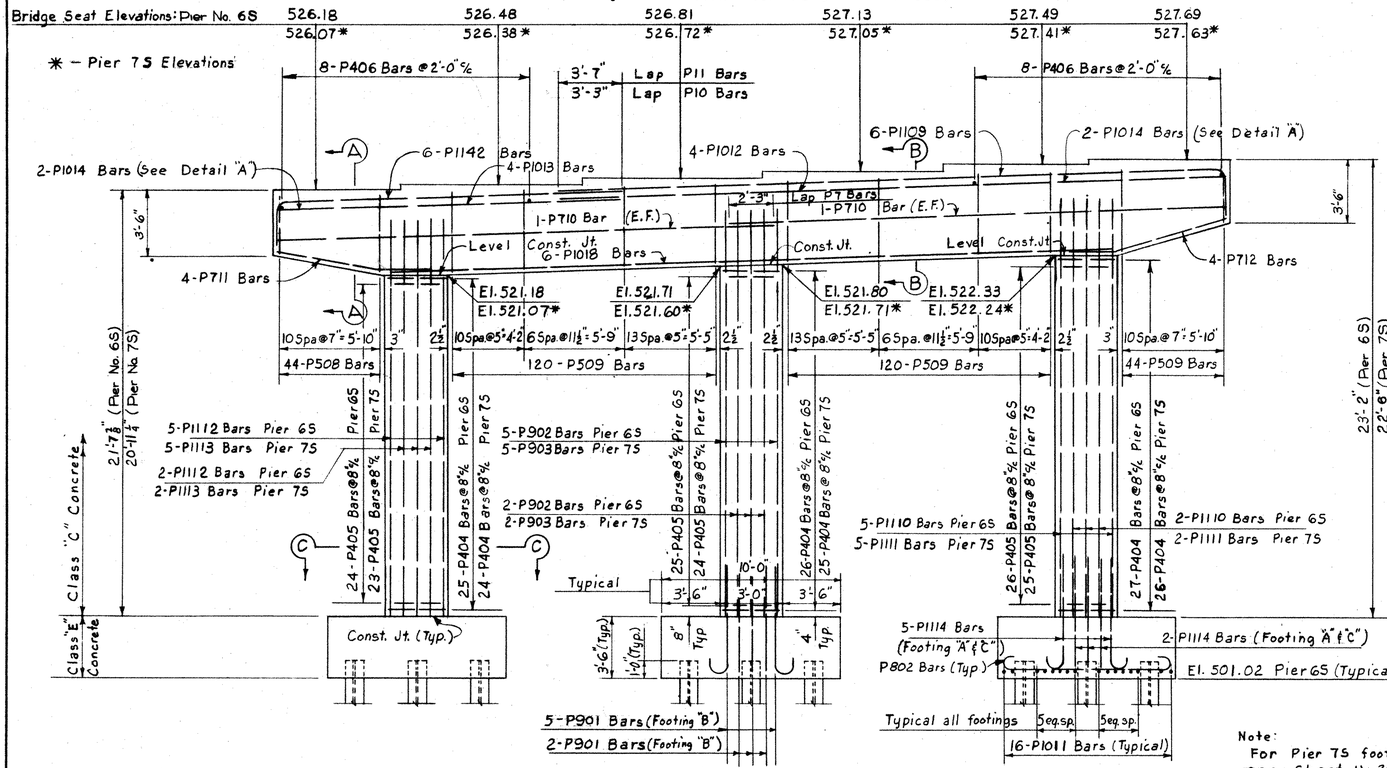
384/464

HAM-50-19.76



PLAN - PIER 6S

(For Plan View Pier 7S see Sheet 383)

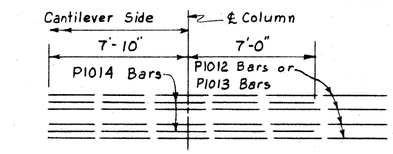


FOOTING "A" FOOTING "B" FOOTING "C"

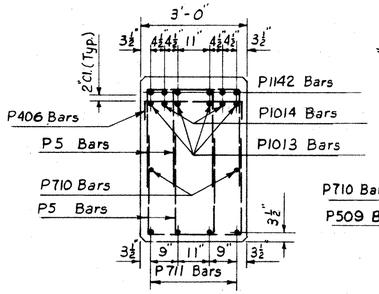
ELEVATION

(Pier Cap reinforcement typical for Pier 6S and 7S)
(Footing shown for Pier 6S only)

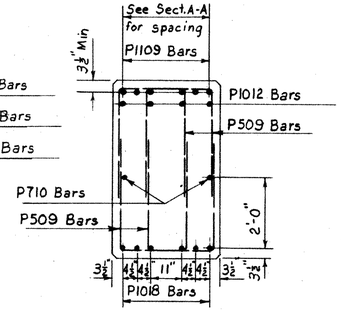
Note:
For Pier 7S footing and reinforcement see Sheet No 383



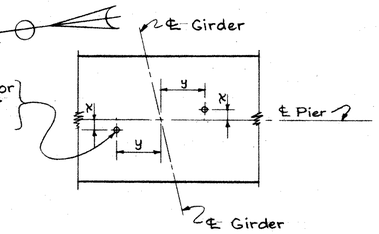
DETAIL A



SECTION A-A



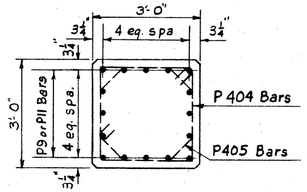
SECTION B-B



PIER	x	y
5AN	2¾"	1'-2¼"
6N	3⅛"	1'-2⅝"
6S	3¼"	1'-3½"
7N	3¾"	1'-3"
7S	3⅝"	1'-2⅞"

Anchor Bolt Plan

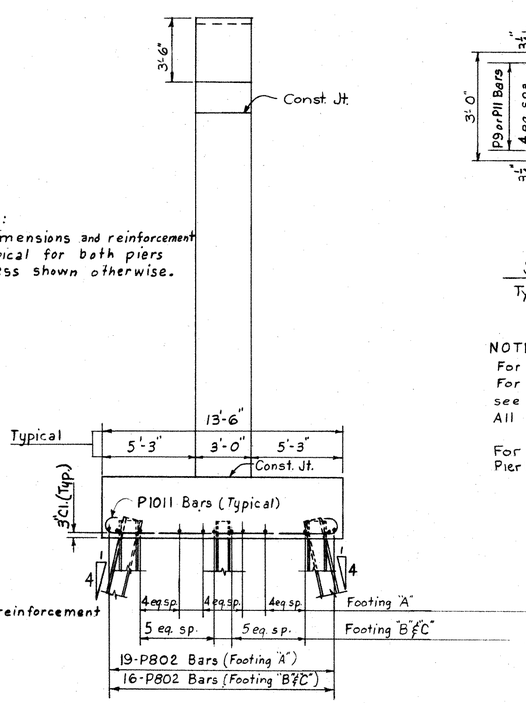
(Piers 5AN, 6N, 6S, 7N, & 7S)



SECTION C-C

Typical Column Section

Note:
Dimensions and reinforcement typical for both piers unless shown otherwise.



SOUTH END ELEVATION

(Footing shown for Pier 6S only)

NOTES:
For General Notes see Sheet No 371
For connection of downspouts to Pier 7S see Sheet No 404 & 412
All piles shall be 12 BP 53

For connection of lighting conduit to south column Pier No. 7S see Sheet No 214

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CINCINNATI, OHIO

PIERS NOS. 6S & 7S

BRIDGE NO. HAM-50-2012 R&L.

H. & E. BRIDGE NO. 7

DESIGNED	DRAWN	TRACED	CHECKED	REVIEWED DATE	REVISED
MPS	D.W.L. 11-20-61		JHO 11/27/61	A.A.B. 8-6-62	

FED. RD. DIV.	STATE	PROJECT	FISCAL YEAR
2	OHIO		

385
464

HAM-50-19.76

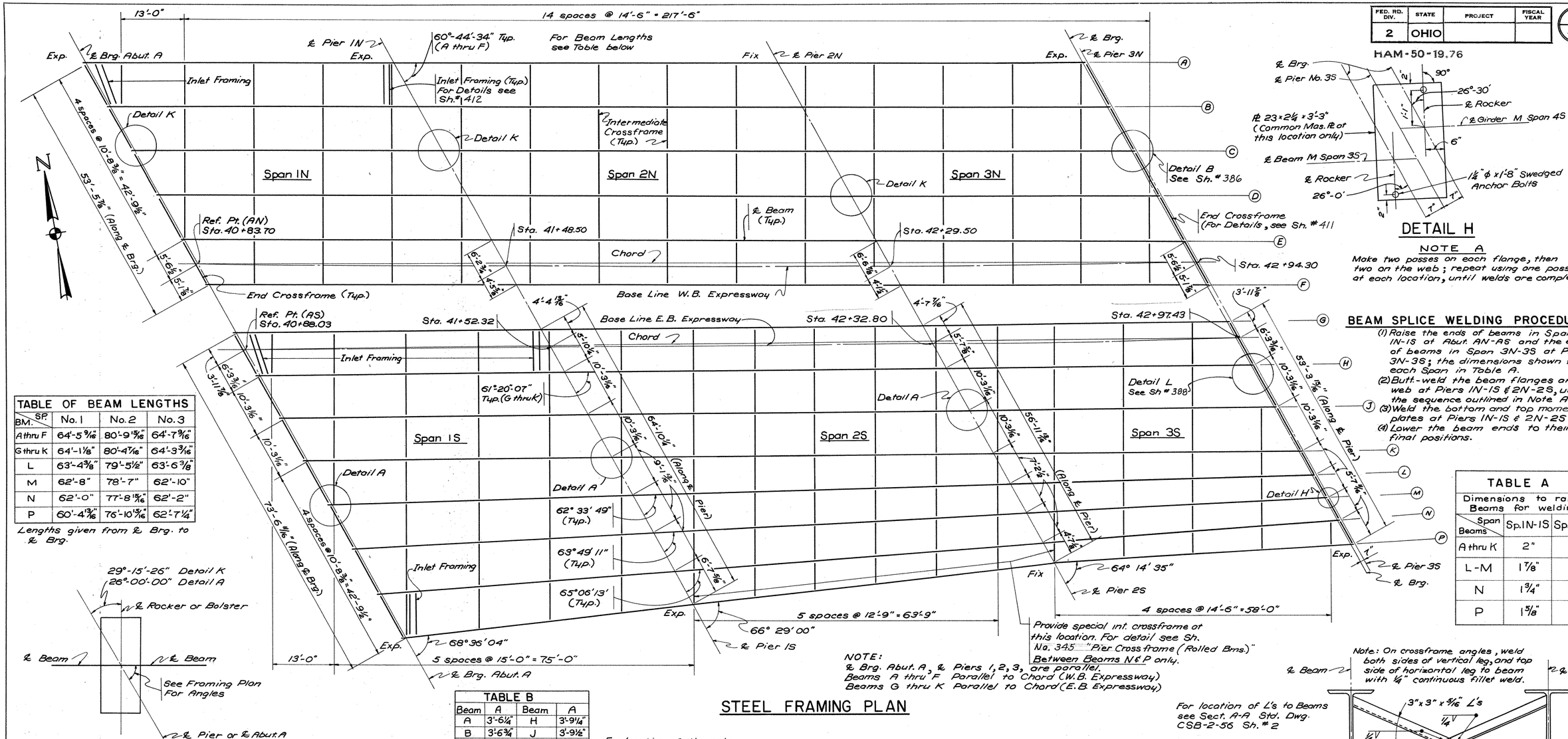


TABLE OF BEAM LENGTHS			
BM. / SP.	No. 1	No. 2	No. 3
A thru F	64'-5 9/16"	80'-9 15/16"	64'-7 9/16"
G thru K	64'-1 1/8"	80'-4 7/16"	64'-3 3/16"
L	63'-4 3/8"	79'-5 1/2"	63'-6 3/8"
M	62'-8"	78'-7"	62'-10"
N	62'-0"	77'-8 15/16"	62'-2"
P	60'-4 13/16"	76'-10 15/16"	62'-7 1/4"

Lengths given from ℄ Brg. to ℄ Brg.

DETAIL A
DETAIL K

TABLE B			
Beam	A	Beam	A
A	3'-6 1/4"	H	3'-9 1/4"
B	3'-6 3/4"	J	3'-9 1/2"
C	3'-7"	K	3'-9 3/8"
D	3'-7 1/8"	L	3'-8 1/8"
E	3'-7 1/8"	M	3'-9 1/8"
F	3'-7 1/8"	N	3'-7 1/4"
G	3'-9 1/4"	P	3'-9 1/2"

For location of dimension A in Table B see Detail A on Sheet No. 343

NOTE:
℄ Brg. Abut. A, ℄ Piers 1, 2, 3, are parallel.
Beams A thru F Parallel to Chord (W.B. Expressway)
Beams G thru K Parallel to Chord (E.B. Expressway)

STEEL FRAMING PLAN

DETAIL H

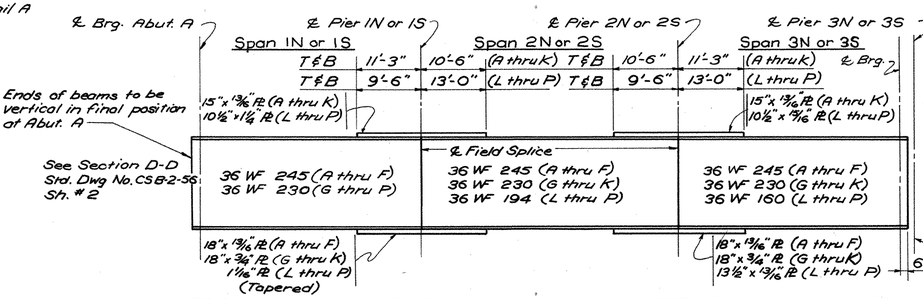
NOTE A

Make two passes on each flange, then two on the web; repeat using one pass at each location, until welds are completed.

BEAM SPLICE WELDING PROCEDURE

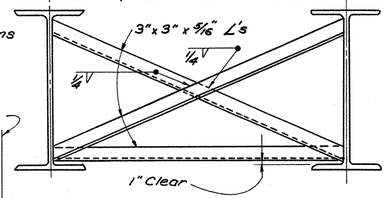
(1) Raise the ends of beams in Span 1N-1S at Abut. AN-AS and the ends of beams in Span 3N-3S at Pier 3N-3S; the dimensions shown for each Span in Table A.
(2) Butt-weld the beam flanges and web at Piers 1N-1S & 2N-2S, using the sequence outlined in Note A.
(3) Weld the bottom and top moment plates at Piers 1N-1S & 2N-2S
(4) Lower the beam ends to their final positions.

TABLE A		
Dimensions to raise Beams for welding		
Span / Beams	Sp. 1N-1S	Sp. 3N-3S
A thru K	2"	2"
L-M	1 7/8"	1 7/8"
N	1 3/4"	1 3/4"
P	1 5/8"	1 3/4"



SIZES OF BEAMS AND COVER PLATES

For location of L's to Beams see Sect. A-A Std. Dwg. CSB-2-56 Sh. # 2



TYPICAL INTERMEDIATE CROSSFRAME FOR ROLLED BEAMS

* Convexity includes variations due to vertical curvature, superelevation, and horizontal curvature.

DEFLECTION AND CAMBER																																							
Span	Span No. 1N-1S														Span No. 2N-2S														Span No. 3N-3S											
Beam	A	B	C	D	E	F	G	H	J	K	L	M	N	P	A	B	C	D	E	F	G	H	J	K	L	M	N	P	A	B	C	D	E	F	G	H	J	K	L	M	N	P
Deflection due to Weight of Steel	1/16	1/16	1/16	1/16	1/16	1/16	1/16	1/16	1/16	1/16	1/16	1/16	1/16	1/16	1/8	1/8	1/8	1/8	1/8	1/8	1/8	1/8	1/8	1/8	1/8	1/8	1/8	1/8	1/16	1/16	1/16	1/16	1/16	1/16	1/16	1/16	1/16	1/16	1/16	1/16
Deflection due to Remaining Dead Load	7/16	5/16	3/8	3/8	3/8	5/16	7/16	5/16	3/8	3/8	3/8	3/8	5/16	5/16	7/16	7/16	7/16	7/16	9/16	7/16	7/16	7/16	7/16	7/16	5/16	5/16	5/16	5/16	3/8	3/8	3/8	3/8	3/8	5/16	3/8	3/8	3/8	1/4	1/4	3/16	7/16
Convexity *	3/8	5/16	1/4	1/8	1/16	0	0	0	0	0	1/8	9/16	1/4	-1/4	7/16	9/16	11/16	13/16	15/16	1/16	0	0	1/16	1/8	3/16	3/16	-3/16	-1/16	3/4	1/16	11/16	11/16	11/16	11/16	3/4	3/4	11/16	11/16	11/16	3/16	3/8	1/2	1/2
Sum of Deflection and Convexity	7/8	11/16	11/16	9/16	1/2	3/8	1/2	3/8	7/16	7/16	9/16	1	5/8	1/8	1	1 1/8	1 1/4	1 3/8	1 1/2	1 3/4	9/16	7/16	5/8	1/16	3/4	3/8	1/4	5/16	1 3/16	1 1/8	1 1/8	1 1/8	1 1/8	1 3/16	1 1/8	1 1/8	1 1/8	1 1/8	1 1/16	3/4	1
Required Camber	1	0	0	0	0	0	0	0	0	0	0	1	0	0	1	1 1/4	1 1/4	1 1/4	1 1/2	1 3/4	0	0	0	0	0	0	0	0	1 1/8	1 1/8	1 1/8	1 1/8	1 1/8	1 1/8	1 1/8	1 1/8	1 1/8	0	0	0	1

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CINCINNATI, OHIO

STRUCTURAL STEEL DETAILS
BRIDGE NO. HAM-50-2012 R. & L.

H. & E. BRIDGE NO. 7

DESIGNED	DRAWN	TRACED	CHECKED	REVIEWED DATE	REVISED
H.L.L.	R.E.M. 9-6-61	J.P.B. 5-25-62	J.H.O. 5/28/62	A.F.E. 8-6-62	

For Shear Connectors See Sheet No. 409
For Bearing Details see Sh. No. 409
For Beam Splice Details see Detail E, Sh. No. 345

FED. RD. DIV.	STATE	PROJECT	FISCAL YEAR
2	OHIO		

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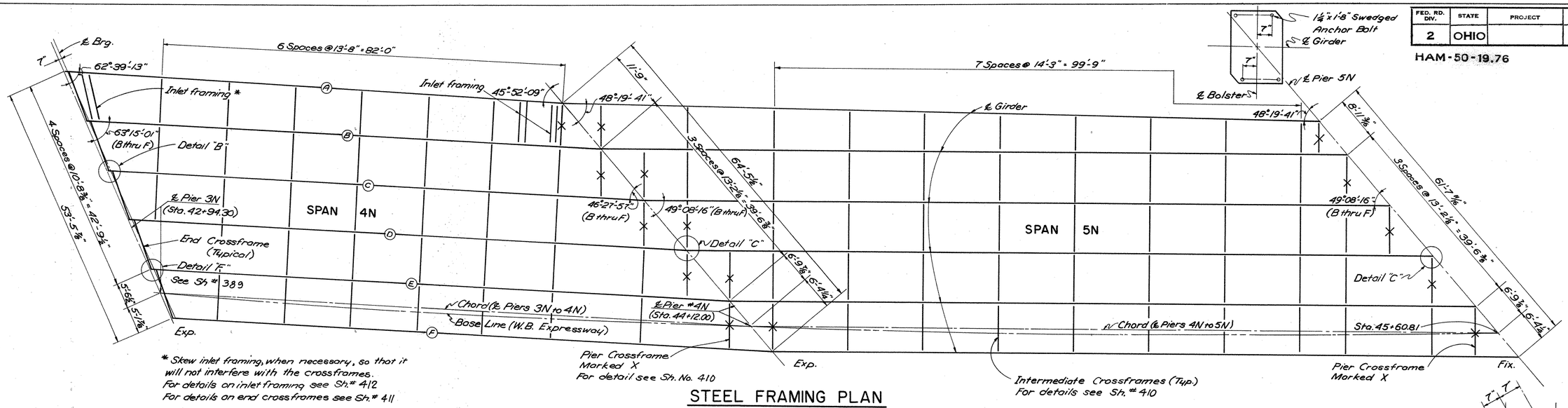
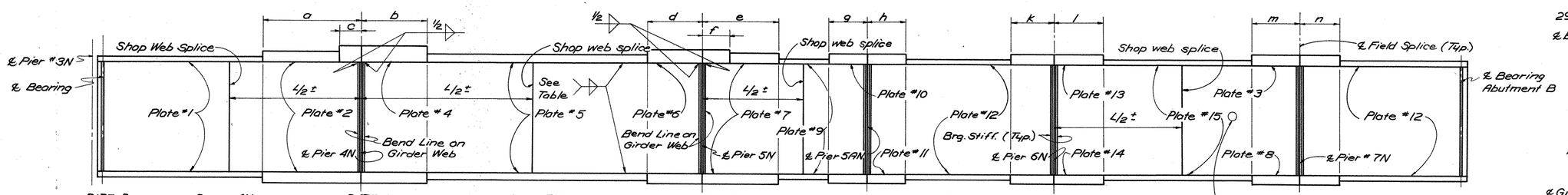
HAM-50-19.76



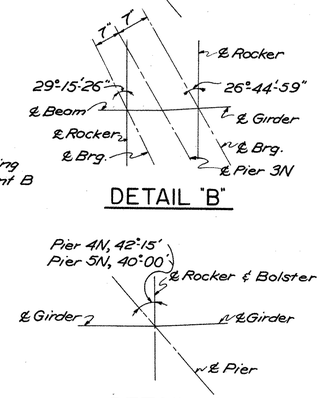
* Skew inlet framing, when necessary, so that it will not interfere with the crossframes.
For details on inlet framing see Sh.# 412
For details on end crossframes see Sh.# 411

STEEL FRAMING PLAN



For bearing details see Sh.# 409
For typical girder elevations see Sh.# 410

FLANGE PLATES (ELEVATION)



DETAIL "B"

DETAIL C

TABLE OF GIRDER LENGTHS

Girder \ Span	No. 4N	No. 5N	No. 5AN	No. 6N	No. 7N	No. 8N
A	98'-9¼"	150'-7 13/16"	114'-4 1/16"	70'-8 5/8"	99'-7 5/8"	70'-0"
B	102'-0 5/8"	148'-9½"	107'-6 5/16"	do	do	do
C	106'-3¾"	do	97'-5¾"	do	do	do
D	110'-6 7/8"	do	87'-5¼"	do	do	do
E	114'-10"	do	77'-4 1/16"	do	do	do
F	119'-1 1/8"	do	67'-4 1/16"	do	do	do

Lengths given are from ℄ bearing to ℄ bearing

End bearing stiffeners are: 8"x 3/4" (Pier 3N & 3S)
8"x 1 1/4 (Pier 4N & 4S)
8"x 1" (Piers 5N-5AN-6N-7N-5S-6S-7S)
8"x 3/4" (Abutments BN & SN)

TABLE OF FLANGE PLATE THICKNESSES

℄ No. \ Girder	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15
A	1"	2¼"	1"	3½"	2"	3"	2"	1"	⅞"	⅞"	⅞"	¾"	⅞"	⅞"	⅞"
B	1"	2¼"	1"	3½"	2"	3"	2"	1"	⅞"	⅞"	⅞"	¾"	⅞"	⅞"	⅞"
C	1⅛"	2⅝"	1¼"	3¾"	2⅜"	3⅛"	2⅜"	1¼"	⅞"	⅞"	⅞"	¾"	1⅛"	1⅛"	⅞"
D	1⅜"	2¾"	1¼"	4"	2½"	2⅞"	2½"	1¼"	1"	⅞"	⅞"	¾"	1⅛"	1⅛"	⅞"
E	1⅜"	2¾"	1¼"	4"	2½"	2⅞"	2½"	1¼"	1"	⅞"	⅞"	¾"	1⅛"	1⅛"	⅞"
F	1⅜"	2¾"	1¼"	4"	2½"	2⅞"	2½"	1¼"	1"	⅞"	⅞"	¾"	1⅛"	1⅛"	⅞"

TABLE OF FLANGE PLATE LENGTHS

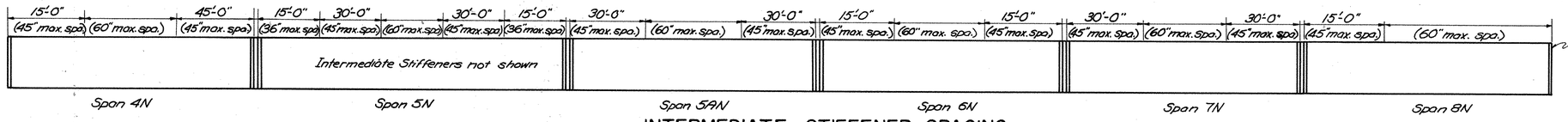
Flng. \ Girder	a	b	c	d	e	f	g	h	k	l	m	n
A	32'-0	12'-0"	6'-6"	8'-0"	29'-6	6'-0"	5'-0"	12'-0"	13'-0"	9'-0"	10'-0"	16'-0"
B	32'-0	12'-0"	6'-6"	8'-0"	29'-6	6'-0"	5'-0"	12'-0"	13'-0"	9'-0"	10'-0"	16'-0"
C	31'-0"	11'-6"	6'-0"	5'-0"	31'-0"	6'-0"	5'-0"	12'-0"	13'-0"	9'-0"	10'-0"	16'-0"
D	28'-6	12'-0"	5'-0"	5'-0"	31'-6	6'-0"	5'-0"	12'-0"	13'-0"	9'-0"	10'-0"	16'-0"
E	26'-0"	11'-6"	5'-0"	5'-0"	29'-6	6'-0"	5'-0"	12'-0"	12'-6"	9'-0"	10'-0"	16'-0"
F	26'-0"	12'-0"	5'-0"	5'-0"	29'-6	6'-0"	5'-0"	12'-0"	12'-6"	9'-0"	10'-0"	16'-0"

TABLE OF WELD SIZES

℄ No. \ Girder	1	2	3	4 to 7	8 to 11	12	13	14 to 15
A thru F	5/16	½"	5/16	½"	5/16"	¼"	5/16"	5/16"

NOTE:
(1.) All web plates are 72" x 7/16" and intermediate stiffeners are 7" x 7/16".
(2.) Flange plate width are 18".

(3.) Girders B thru F in spans 4N & 5N are parallel to chords in their respective spans.



INTERMEDIATE STIFFENER SPACING

3"ø bushed holes. For location see Sh.# 402.
For girder splice welding procedure see Sh.# 390

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STRUCTURAL STEEL DETAILS

BRIDGE NO. HAM-50-2012 R & L.

H. & E. BRIDGE NO. 7

DESIGNED	DRAWN	TRACED	CHECKED	REVIEWED DATE	REVISED
M.K.K.	E. I. 8-7-61	J.R.B. 5-28-62	JHO 5/29/62	W.M.J. 8-6-62	

FED. RD. DIV.	STATE	PROJECT	FISCAL YEAR
2	OHIO		

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464

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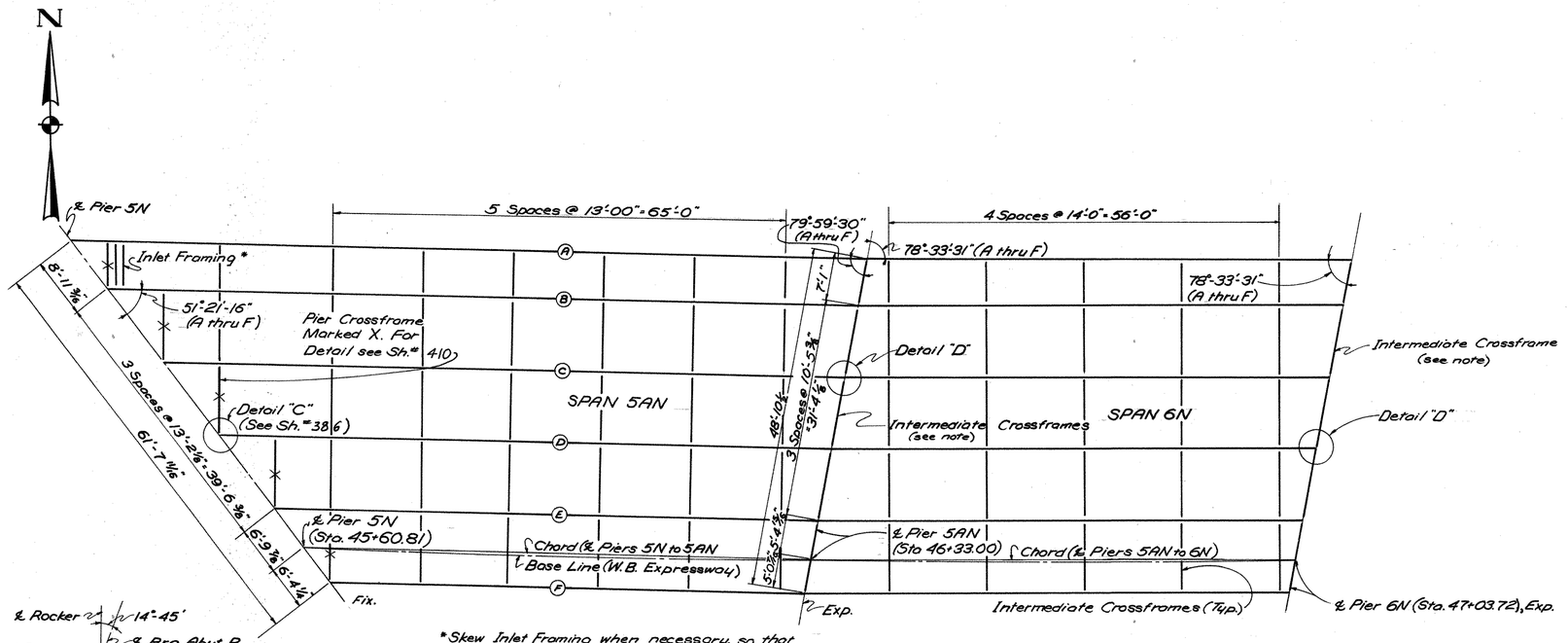
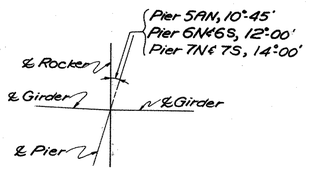


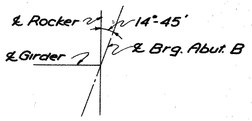
*Skew Inlet Framing when necessary, so that it will not interfere with crossframe.

STEEL FRAMING PLAN
(SPANS 5AN & 6N)

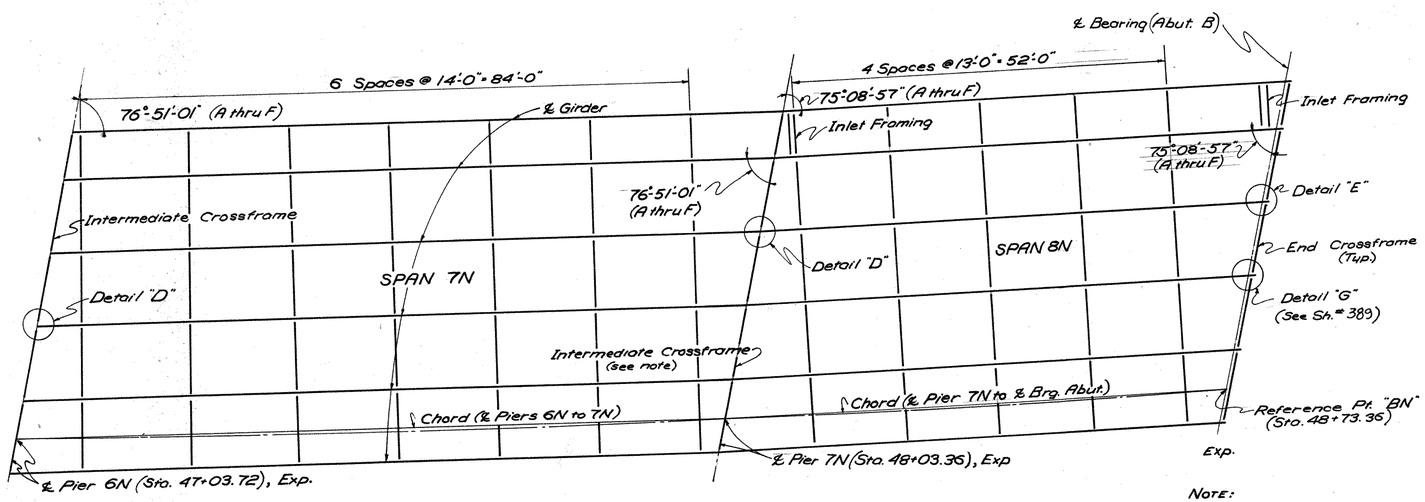
Note: Provide a top horizontal 4"×4"×3/8" L for the Intermediate Crossframes along ℄ Piers 5AN, 6N & 7N.



DETAIL "D"



DETAIL "E"



Girders A thru F in Span 5AN, 6N, 7N & 8N are parallel to chord's in their respective spans.

STEEL FRAMING PLAN
(SPANS 7N & 8N)

NOTE:
Dimensions along ℄ Pier 6N & 7N and ℄ Brg. Abut B, are same as along ℄ Pier 5AN
For details on Intermediate and Pier Crossframes see Sh.# 410
For details on End Crossframes see Sh.# 411
For details on Inlet Framing see Sh.# 412

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CINCINNATI, OHIO

STRUCTURAL STEEL DETAILS

BRIDGE NO. HAM-50-2012 R & L.

H & E. BRIDGE NO. 7

DESIGNED	DRAWN	TRACED	CHECKED	REVIEWED DATE	REVISED
M.K.K.	E.I. 8-9-61	J.P.B. 6-13-62	JHO 6/13/62	H.A.Z. 8-6-62	

FED. RD. DIV.	STATE	PROJECT	FISCAL YEAR
2	OHIO		

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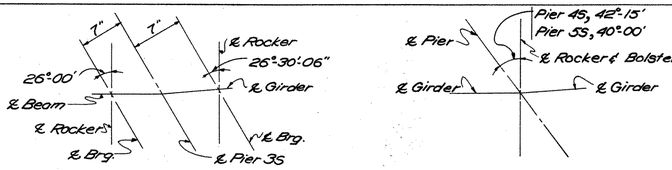
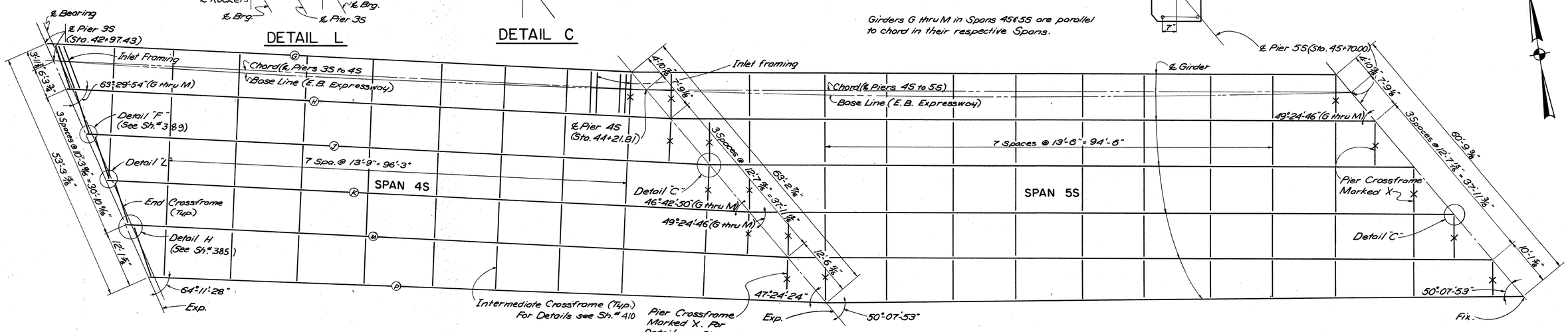
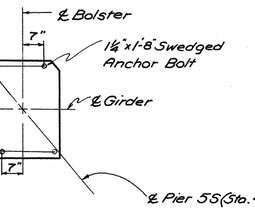


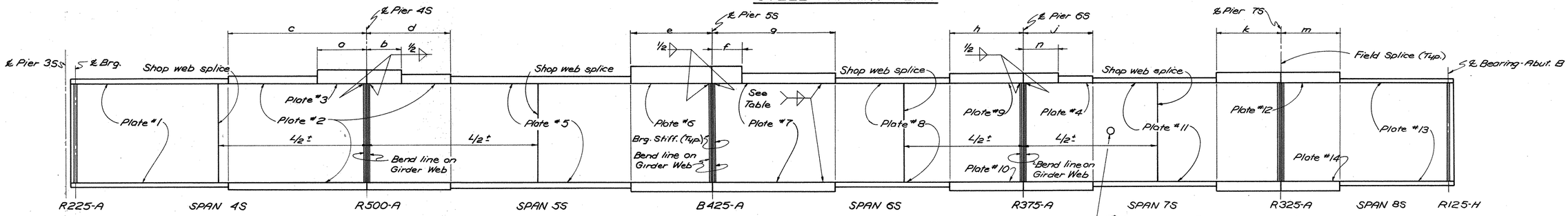
DETAIL L

DETAIL C



STEEL FRAMING PLAN





FLANGE PLATES
(ELEVATION)

For bearing details see Sh.# 409
For typical girder elevations see Sh.# 410

3⅞" bushed holes. For location see Sh.# 402
For girder splice welding procedure see Sh.# 390

TABLE OF GIRDER LENGTHS					
Span / Girder	No. 4S	No. 5S	No. 6S	No. 7S	No. 8S
G	122'-1 5/8"	148'-2 1/16"	130'-11 3/4"	99'-7 3/8"	69'-11 7/16"
H	126'-2 5/8"	do	121'-3 9/16"	do	do
J	130'-3 11/16"	do	111'-7 1/16"	do	do
K	134'-4 11/16"	do	101'-11 9/16"	do	do
M	138'-5 3/8"	do	92'-3 9/16"	do	do
P	141'-8 5/16"	146'-7 5/16"	84'-6 1/4"	do	do

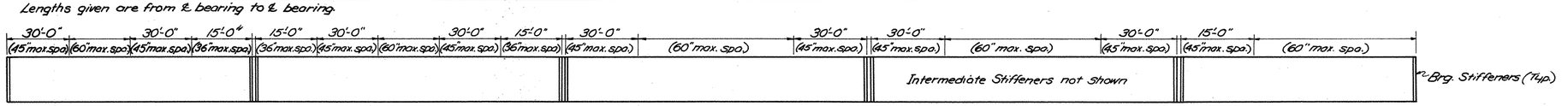
Lengths given are from ℄ bearing to ℄ bearing.

TABLE OF FLANGE PLATE THICKNESSES														
Pl. No. / Girder	1	2	3	4	5	6	7	8	9	10	11	12	13	14
G	2"	3 1/8"	3½"	1 5/8"	1⅞"	3 5/8"	2⅛"	1¼"	2⅜"	1⅝"	⅞"	1¼"	¾"	1¼"
H	2"	3 1/8"	3½"	1 5/8"	1⅞"	3 5/8"	2⅛"	1¼"	2⅜"	1⅝"	⅞"	1¼"	¾"	1¼"
J	2⅛"	3⅜"	4"	1½"	2"	3⅜"	2¼"	1"	2¼"	1½"	⅞"	1¼"	¾"	1¼"
K	2⅛"	3⅜"	4"	1½"	2"	3"	2⅛"	¾"	2"	1½"	⅞"	1¼"	¾"	1¼"
M	2½"	3¼"	3⅞"	1⅝"	1¾"	2½"	1⅝"	¾"	1⅝"	1"	⅞"	1⅛"	¾"	1⅛"
P	2½"	3¼"	3⅞"	1⅝"	1¾"	2½"	1⅝"	¾"	1⅝"	1"	⅞"	1⅛"	¾"	1⅛"

TABLE OF FLANGE PLATE LENGTHS												
Flng. / Girder	a	b	c	d	e	f	g	h	n	j	k	m
G	6'-9"	9'-3"	23'-3"	19'-9"	15'-9"	6'-6"	27'-0"	11'-6"	5'-0"	21'-3"	8'-9"	14'-0"
H	6'-9"	9'-3"	23'-3"	19'-9"	15'-9"	6'-6"	27'-0"	11'-6"	5'-0"	21'-3"	8'-9"	14'-0"
J	5'-0"	8'-0"	20'-3"	20'-0"	11'-9"	6'-6"	28'-0"	13'-3"	7'-9"	17'-0"	9'-9"	16'-0"
K	5'-3"	9'-3"	21'-6"	21'-0"	9'-0"	6'-0"	30'-9"	15'-0"	8'-6"	13'-3"	9'-9"	16'-0"
M	10'-3"	9'-9"	16'-0"	23'-0"	5'-6"	6'-0"	30'-6"	12'-3"	11'-0"	11'-0"	9'-9"	16'-0"
P	10'-3"	9'-9"	16'-0"	23'-0"	5'-6"	6'-0"	30'-6"	12'-3"	11'-0"	11'-0"	9'-9"	16'-0"

TABLE OF WELD SIZE									
Pl. No. / Girder	1 to 3	4 & 5	6 & 7	8	9	10	11	12	13	14
G thru P	½"	⅜"	½"	5/16"	⅜"	⅜"	5/16"	5/16"	¼"	5/16"

Note:
(1.) All web plates are 72" x 7/16" and intermediate stiffeners are 7" x 7/16".
(2.) Flange plate width are 18" except 12" 3 which is 22" wide.



INTERMEDIATE STIFFENER SPACING

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STRUCTURAL STEEL DETAILS
BRIDGE NO. HAM-50-2012 R.& L.

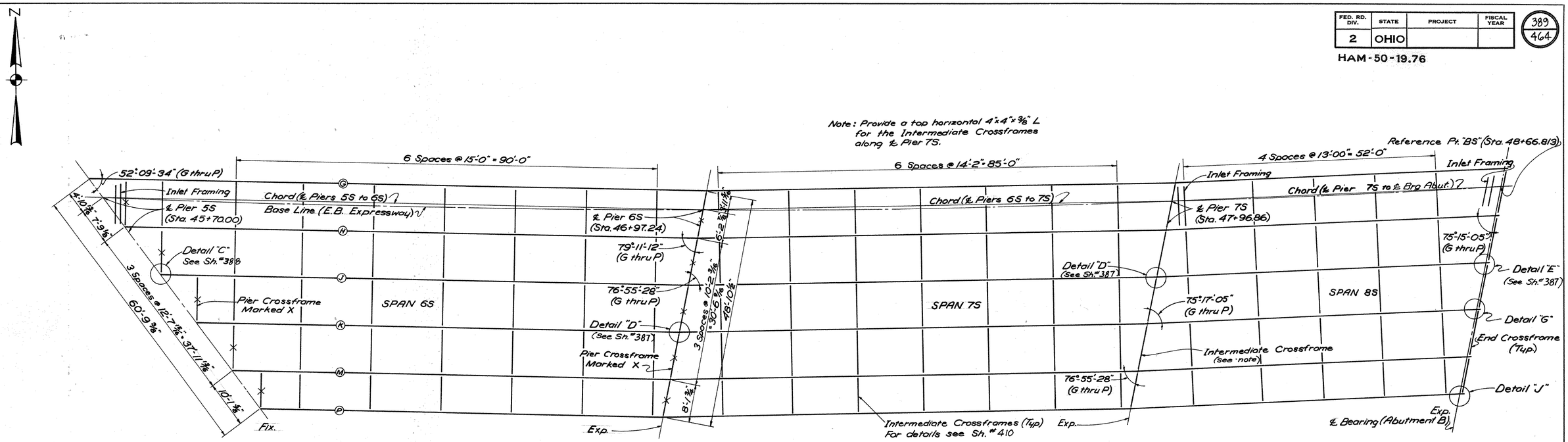
H.& E. BRIDGE NO. 7

DESIGNED	DRAWN	TRACED	CHECKED	REVIEWED	DATE	REVISED
M.K.K.	E.I. 8-10-61	J.P.B. 5-29-62	J.H.O. 5/31/62	M.K.K.	8-6-62	

FED. RD. DIV.	STATE	PROJECT	FISCAL YEAR
2	OHIO		

389
464

HAM-50-19.76



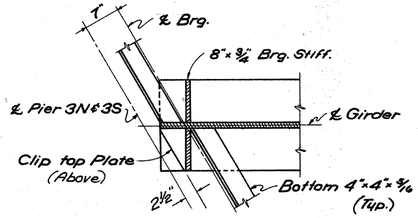
Note: Provide a top horizontal 4"x4"x 3/8" L for the Intermediate Crossframes along ℄ Pier 7S.

STEEL FRAMING PLAN

Girders G thru P in spans 6S, 7S, and 8S are parallel to chords in their respective spans.

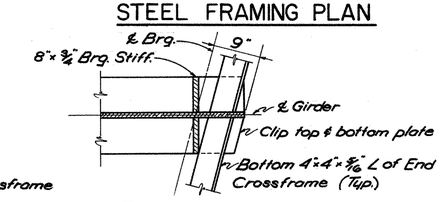
Skew Bearing Stiffeners if necessary, for End Crossframe to miss Stiffener (For Detail "G" only)

Note:
Dimensions along ℄ Pier 7S & ℄ Brg. Abut. B are same as along ℄ Pier 6S
For details on Intermediate and Pier Crossframes see Sh.# 410
For details on End Crossframes see Sh.# 411
For details on Inlet Framing see Sh.# 412



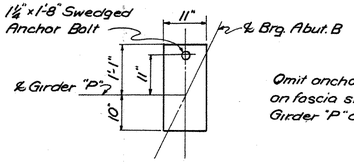
DETAIL "F"

End Crossframe connection @ Pier 3N & 3S Span 4N & 4S



DETAIL "G"

End Crossframe connection @ Abut. B



DETAIL "J"

Omit anchor bolt on fascia side of Girder "P" only.

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STRUCTURAL STEEL DETAILS

BRIDGE NO. HAM-50-2012 R.& L.

H. & E. BRIDGE NO. 7

DESIGNED	DRAWN	TRACED	CHECKED	REVIEWED DATE	REVISED
M.K.K.	E.I. 8-9-61	J.P.B. 6-12-62	JHO 6/13/62	M.A.Z. 8-6-62	

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Note:
Convexity includes variations due to vertical curvature, superelevation and horizontal curvature.

DEFLECTION AND CAMBER

SPAN 4N-4S

GIRDER	A			B			C			D			E			F		
PT.	1/4	1/2	3/4	1/4	1/2	3/4	1/4	1/2	3/4	1/4	1/2	3/4	1/4	1/2	3/4	1/4	1/2	3/4
A	1/16	1/16	0	1/16	1/16	0	1/16	1/16	0	1/16	1/16	0	1/8	1/8	0	1/16	1/8	0
B	3/16	3/16	0	1/4	3/16	0	5/16	1/4	1/16	3/8	3/8	1/8	3/8	3/8	1/8	3/8	5/16	1/8
C	3/4	1 3/16	1 1/16	7/8	1 5/16	1 1/16	1 1/8	1 5/8	1 1/4	1 5/16	1 7/8	1 7/16	1 9/16	2 1/16	1 9/16	1 7/8	2 1/2	1 7/8
D	1	1 7/16	1 1/16	1 3/16	1 9/16	1 1/16	1 1/2	1 15/16	1 5/16	1 3/4	2 5/16	1 9/16	2 1/16	2 9/16	1 11/16	2 5/16	2 15/16	2
E	1 1/2			1 1/2			2			2 1/4			2 1/2			3		

GIRDER	G			H			J			K			M			P		
PT.	1/4	1/2	3/4	1/4	1/2	3/4	1/4	1/2	3/4	1/4	1/2	3/4	1/4	1/2	3/4	1/4	1/2	3/4
A	1/4	1/4	1/8	1/4	5/16	1/8	5/16	3/8	3/16	3/8	7/16	3/16	3/8	1/2	1/4	7/16	1/2	1/4
B	1/2	5/8	5/16	9/16	5/8	5/16	5/8	3/4	5/16	3/4	7/8	7/16	13/16	15/16	1/2	15/16	1 3/16	5/8
C	1 15/16	2 5/8	2	2 1/16	2 13/16	2 1/16	2 5/8	3 3/16	2 1/4	2 15/16	3 7/16	2 7/16	3 7/8	4 3/4	3 3/8	5	6 5/8	4 1/4
D	2 11/16	3 1/2	2 7/16	2 7/8	3 3/4	2 1/2	3 9/16	4 5/16	2 3/4	4 1/16	4 3/4	3 1/16	5 1/16	6 3/16	4 1/8	6 3/8	8 5/16	5 5/8
E	3 1/2			3 3/4			4 1/4			4 3/4			6 1/4			8 1/4		

SPAN 5N-5S

GIRDER	A			B			C			D			E		
PT.	1/4	1/2	3/4	1/4	1/2	3/4	1/4	1/2	3/4	1/4	1/2	3/4	1/4	1/2	3/4
A	1/4	3/8	1/4	1/4	3/8	1/4	1/4	3/8	1/4	1/4	3/8	1/4	1/4	3/8	1/4
B	3/4	1 1/4	3/4	11/16	1 3/16	3/4	11/16	1 3/16	3/4	11/16	1 1/8	3/4	5/8	1 1/16	3/4
C	3 1/8	4 1/8	3 1/8	2 11/16	3 5/8	2 11/16	2 11/16	3 9/16	2 11/16	2 11/16	3 9/16	2 11/16	2 5/8	3 9/16	2 11/16
D	4 1/8	5 3/4	4 1/8	3 5/8	5 3/16	3 11/16	3 5/8	5 1/8	3 11/16	3 5/8	5 1/16	3 11/16	3 1/2	5	3 11/16
E	5 3/4			5 1/4			5 1/4			5 1/4			5 1/4		

GIRDER	F			G			H			J			K		
PT.	1/4	1/2	3/4	1/4	1/2	3/4	1/4	1/2	3/4	1/4	1/2	3/4	1/4	1/2	3/4
A	3/16	3/8	1/4	3/16	5/16	3/16	3/16	3/8	1/4	3/16	3/8	1/4	3/16	3/8	1/4
B	5/8	1	11/16	3/8	11/16	7/16	7/16	13/16	1/2	7/16	13/16	9/16	7/16	7/8	5/8
C	2 15/16	3 7/8	2 15/16	3	4 1/16	3	2 3/4	3 5/8	2 3/4	2 11/16	3 5/8	2 11/16	2 11/16	3 9/16	2 11/16
D	3 3/4	5 1/4	3 7/8	3 9/16	5 1/16	3 5/8	3 3/8	4 13/16	3 1/2	3 5/16	4 13/16	3 1/2	3 5/16	4 13/16	3 9/16
E	5 1/4			5			5			5			5		

SPAN	SPAN 5N-5S						SPAN 5AN																	
GIRDER	M			P			A			B			C			D			E			F		
PT.	1/4	1/2	3/4	1/4	1/2	3/4	1/4	1/2	3/4	1/4	1/2	3/4	1/4	1/2	3/4	1/4	1/2	3/4	1/4	1/2	3/4	1/4	1/2	3/4
A	3/16	3/8	1/4	1/8	3/8	1/4	0	1/16	1/16	0	1/16	1/16	0	0	0	0	0	0	0	0	0	0	0	0
B	3/8	13/16	5/8	3/8	13/16	5/8	1/16	5/16	1/4	-1/16	1/8	1/8	-1/8	1/16	1/16	-1/8	-1/16	0	-3/16	-1/8	-1/16	-3/16	-3/16	-1/16
C	2 11/16	3 9/16	2 11/16	2 7/8	3 13/16	2 7/8	1 13/16	2 3/8	1 13/16	1 7/16	1 7/8	1 7/16	1 3/16	1 9/16	1 3/16	15/16	1 1/4	15/16	3/4	15/16	3/4	5/8	13/16	5/8
D	3 1/4	4 3/4	3 9/16	3 3/8	5	3 3/4	1 7/8	2 3/4	2 1/8	1 3/8	2 1/16	1 5/8	1 1/16	1 5/8	1 1/4	13/16	1 3/16	15/16	9/16	13/16	11/16	7/16	5/8	9/16
E	5			5			2 3/4			2			1 3/4			1 1/4			1			1		

SPAN 6N-6S

GIRDER	A			B			C			D			E			F		
PT.	1/4	1/2	3/4	1/4	1/2	3/4	1/4	1/2	3/4	1/4	1/2	3/4	1/4	1/2	3/4	1/4	1/2	3/4
A	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
B	-1/16	-1/16	-1/16	0	0	-1/16	0	0	-1/16	1/16	1/16	0	1/16	1/16	0	1/16	1/16	0
C	11/16	15/16	11/16	5/8	13/16	5/8	5/8	13/16	5/8	5/8	13/16	5/8	5/8	13/16	5/8	11/16	7/8	11/16
D	5/8	7/8	5/8	5/8	13/16	9/16	5/8	13/16	9/16	11/16	7/8	5/8	11/16	7/8	5/8	3/4	15/16	11/16
E	1			1			1			1			1			1		

SPAN	SPAN 6N-6S																		SPAN 7N-7S					
GIRDER	G			H			J			K			M			P			A			B		
PT.	1/4	1/2	3/4	1/4	1/2	3/4	1/4	1/2	3/4	1/4	1/2	3/4	1/4	1/2	3/4	1/4	1/2	3/4	1/4	1/2	3/4	1/4	1/2	3/4
A	1/8	3/16	1/8	1/16	1/8	1/16	0	1/16	1/16	0	0	0	-1/16	0	0	-1/16	-1/16	0	1/16	1/8	1/16	1/16	1/8	1/16
B	1/4	5/8	7/16	1/8	3/8	5/16	1/16	1/4	1/8	-1/16	1/16	1/16	-1/8	-1/8	-1/16	-1/8	-1/16	-1/8	5/16	7/16	1/4	1/4	3/8	1/4
C	2 3/8	3 1/8	2 3/8	1 13/16	2 7/16	1 13/16	1 9/16	2 1/16	1 9/16	1 1/4	1 11/16	1 1/4	1 1/16	1 3/8	1 1/16	15/16	1 1/4	15/16	1/8	1/8	1/16	1/16	-1/16	-1/16
D	2 3/4	3 15/16	2 15/16	2	2 15/16	2 3/16	1 5/8	2 3/8	1 3/4	1 3/16	1 3/4	1 5/16	7/8	1 1/4	1	3/4	1 1/8	13/16	1/2	11/16	3/8	3/8	7/16	1/4
E	4			3			2 1/2			1 3/4			1 1/4			1 1/4			0			0		

SPAN 7N-7S

GIRDER	C			D			E			F			G		
PT.	1/4	1/2	3/4	1/4	1/2	3/4	1/4	1/2	3/4	1/4	1/2	3/4	1/4	1/2	3/4
A	1/16	1/16	1/16	1/16	1/16	1/16	1/16	1/16	1/16	1/16	1/16	1/16	0	1/16	1/16
B	5/16	1/2	1/4	5/16	1/2	1/4	1/4	1/2	1/4	1/4	7/16	1/4	1/8	3/16	1/8
C	1/8	0	-1/16	1/8	0	-1/16	3/16	1/16	0	3/8	1/4	1/8	1 3/16	1 1/2	7/8
D	1/2	9/16	1/4	1/2	9/16	1/4	1/2	5/8	5/16	11/16	3/4	7/16	1 5/16	1 3/4	1 1/16
E	0			0			0			0			2		

GIRDER	H			J			K			M			P		
PT.	1/4	1/2	3/4	1/4	1/2	3/4	1/4	1/2	3/4	1/4	1/2	3/4	1/4	1/2	3/4
A	1/16	1/16	1/16	1/16	1/16	1/16	1/16	1/8	1/16	1/16	1/8	1/16	1/16	1/8	1/16
B	1/8	5/16	3/16	3/16	3/8	3/16	1/4	3/8	1/4	5/16	7/16	1/4	5/16	3/8	1/4
C	1 1/8	1 3/8	13/16	1 1/8	1 3/8	7/8	1 1/8	1 7/16	15/16	1 1/8	1 7/16	1	1 1/4	1 5/8	1 1/8
D	1 5/16	1 3/4	1 1/16	1 3/8	1 13/16	1 1/8	1 7/16	1 15/16	1 1/4	1 1/2	2	1 15/16	1 5/8	2 1/8	1 7/16
E	2			2			2			2			2		

SPAN 8N-8S

GIRDER	A			B			C			D			E			F		
PT.	1/4	1/2	3/4	1/4	1/2	3/4	1/4	1/2	3/4	1/4	1/2	3/4	1/4	1/2	3/4	1/4	1/2	3/4
A	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
B	0	1/8	1/8	0	1/16	1/16	0	1/8	1/8	0	1/8	1/8	0	1/8	1/8	0	1/8	1/8
C	0	0	0	-1/16	-1/16	-1/16	-1/16	-1/16	-1/16	-1/16	-1/16	-1/16	-1/16	-1/16	-1/16	0	0	0
D	0	1/8	1/8	-1/16	0	0	-1/16	1/16	1/16	-1/16	1/16	1/16	-1/16	1/16	1/16	0	1/8	1/8
E	0			0			0			0			0			0		

GIRDER	G			H			J			K			M			P		
PT.	1/4	1/2	3/4	1/4	1/2	3/4	1/4	1/2	3/4	1/4	1/2	3/4	1/4	1/2	3/4	1/4	1/2	3/4
A	0	1/16	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
B	1/8	1/8	3/16	1/16	3/16	1/8	1/16	1/8	1/8	0	1/8	1/16	0	0	1/8	0	1/8	1/8
C	-1/16	-1/16	0	0	1/16	0	3/16	3/16	1/8	5/16	3/8	1/4	7/16	9/16	3/8	9/16	3/4	9/16
D	1/16	1/8	3/16	1/16	1/4	1/8	1/4	5/16	1/4	5/16	1/2	5/16	7/16	9/16	1/2	9/16	7/8	11/16
E	0			0			0			0			0			0		

A indicates Deflection due to weight of steel
B indicates Deflection due to remaining dead load
C indicates Convexity (See Note)
D indicates Sum of deflection & convexity
E indicates Required camber (For Camber Diagram see Sh. No. 410)

GIRDER SPLICE WELDING PROCEDURE (WESTBOUND)

1. Raise the ends of girders in Span 4N at Pier 3N and the ends of girders in Span 5AN at Pier 5AN, the dimensions shown for each Span in Table B.
2. Butt-weld the girder flanges and web at Piers 4N & 5N using the sequence outlined in Note A.
3. Weld all Pier crossframes at Piers 4N & 5N into place.
4. Lower the girder ends to their final positions.
5. Raise the ends of girders in Span 6N at Pier 6N, the dimension shown in Table B.
6. Repeat step 2 at Pier 5AN.
7. Weld all Pier crossframes at Pier 5AN into place.
8. Lower the girder ends to their final positions.
9. Raise the ends of girders in Span 7N at Pier 7N, the dimension shown in Table B.
10. Repeat step 2 at Pier 6N.
11. Weld all Pier crossframes at Pier 6N into places.
12. Lower the girder ends to their final positions.
13. Raise the ends of girders in Span 8N at Abut. B, the dimension shown in Table B.
14. Repeat step 2 at Pier 7N.
15. Weld all Pier crossframes into place.
16. Lower the girder ends to their final positions.

GIRDER SPLICE WELDING PROCEDURE (EASTBOUND)

1. Raise the ends of girders in Span 5S at Pier 4S and the ends of girders in Span 7S at Pier 7S, the dimensions shown for each Span in Table C.
2. Butt-weld the girder flanges and web at Piers 5S & 6S using the sequence outlined in Note A.
3. Weld all Pier crossframes at Piers 5S & 6S into place.
4. Lower the girder ends to their final positions.
5. Raise the girders in Span 4S at Pier 3S, and the ends of girders in Span 8S at ℄ Brg. Abut. B, the dimensions shown for each Span in Table C.
6. Repeat step 2 at Piers 4S & 7S.
7. Weld all Pier crossframes into place.
8. Lower the girder ends to their final positions.

Note A: Make two passes on each flange, then two on the web; repeat using one pass at each location, until welds are completed.

TABLE B

Pier \ Gdr.	A	B	C	D	E	F
@Pier 3N	3 7/8	4	4 3/16	4 7/16	4 11/16	5 1/16
@Pier 5AN	5 3/16	4 1/2	3 1/2	2 15/16	2 7/16	2
@Pier 6N	5/8	1/2	5/16	1/4	1/8	1/16
@Pier 7N	1 5/16	←			→	1 5/16
@Abut. B	3/4	←			→	3/4

TABLE C

Pier \ Gdr.	G	H	J	K	M	P
@Pier 3S	4 1/8	4 9/16	4 15/16	5 1/2	5 13/16	6 1/16
@Pier 4S	7 1/2	6 7/8	6 5/16	6	5 5/8	5 1/8
@Pier 7S	3 1/4	2 13/16	2 9/16	2 5/16	2 1/16	1 7/8
@Abut. B	11/16	11/16	3/4	13/16	7/8	7/8

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CINCINNATI, OHIO

STRUCTURAL STEEL DETAILS
BRIDGE NO. HAM-50-2012 R.&L.

H. & E. BRIDGE NO. 7

DESIGNED	DRAWN	TRACED	CHECKED	REVIEWED DATE	REVISED
NHS	NHS	J.T.C. 5/31/62	JHO 5/31/62	N.A.Z. 8-6-62	

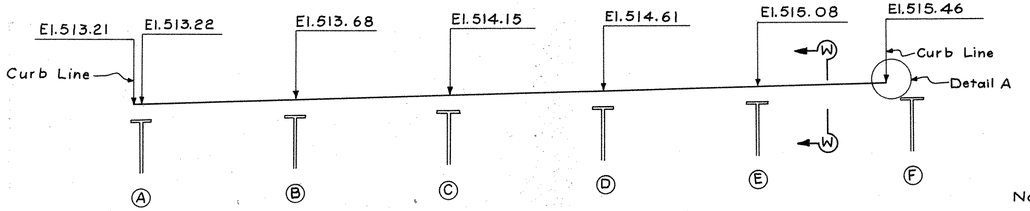
MICROFILMED
JUN 14 1984

FED. RD. DIV.	STATE	PROJECT	FISCAL YEAR
2	OHIO		

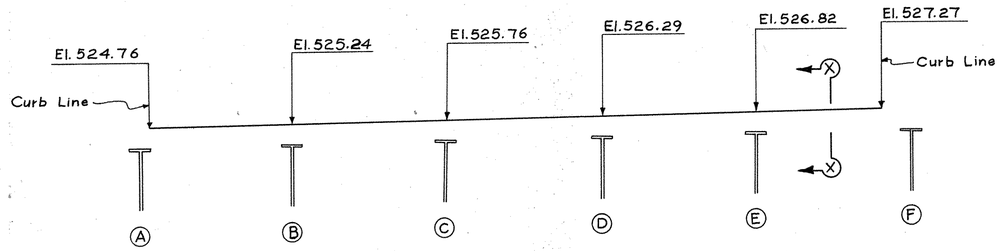
391
464

HAM-50-19.76

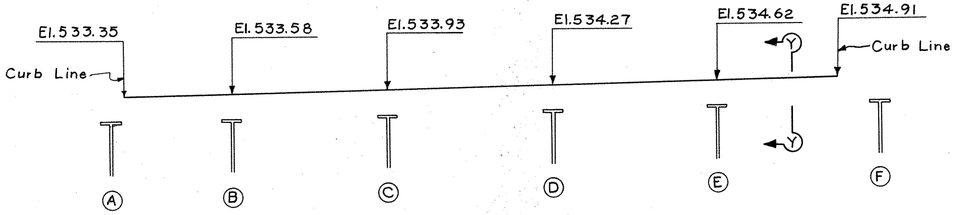
For detail A see Typical End Crossframe Showing Safety Curb Detail Sh. No. 411



EXPANSION JOINT CROSS SECTION @ ABUT. A



EXPANSION JOINT CROSS SECTION @ PIER 3N

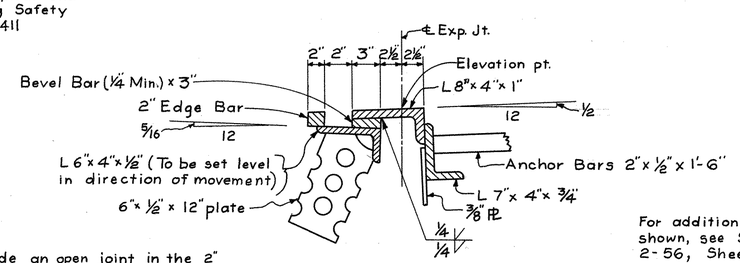


EXPANSION JOINT CROSS SECTION @ ABUT. B

Note: Elevations given are at the intersection of ℄ beam (girder) or curb line and ℄ expansion joint (shown on sections)

Roadway expansion joint to be bent in shop to conform to contour of top of slab.

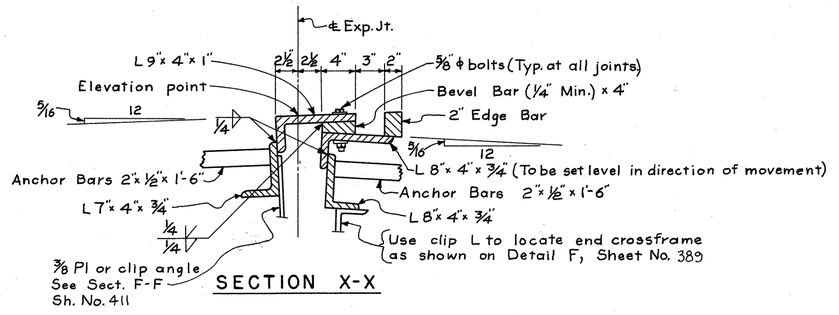
Note: Provide an open joint in the 2" edge bar and the L 6"x 4"x ½" at the contraction joints in the backwall (Typ. at all abutments).



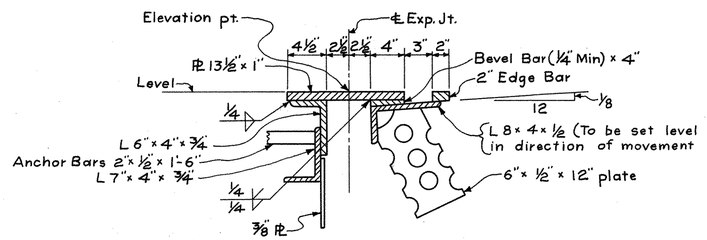
SECTION W-W

For additional information not shown, see Std. Dwg. No. CSB-2-56, Sheet No. 2.

Note: End Crossframes to be set vertical in Spans 4N & 8N; therefore vertical leg of angle or ⅜" Pl which connect end crossframe to end dam shall be vertical. (Typ.)



SECTION X-X



SECTION Y-Y

HAZELET & ERDAL
CONSULTING ENGINEERS
CINCINNATI, OHIO

STRUCTURAL STEEL DETAILS

BRIDGE NO. HAM-50-2012 R.&L.

H.&E. BRIDGE NO. 7

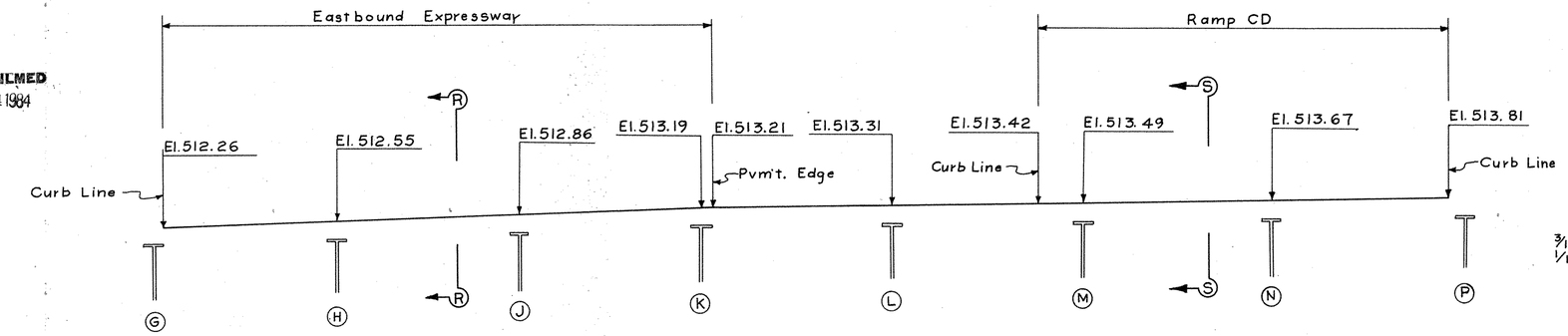
DESIGNED	DRAWN	TRACED	CHECKED	REVIEWED DATE	REVISED
	H.L.L. 6-3-61	J.T.C. 5/28/62	J.H.O 5/31/62	M.J. 8-6-62	

MICROFILMED
JUN 14 1984

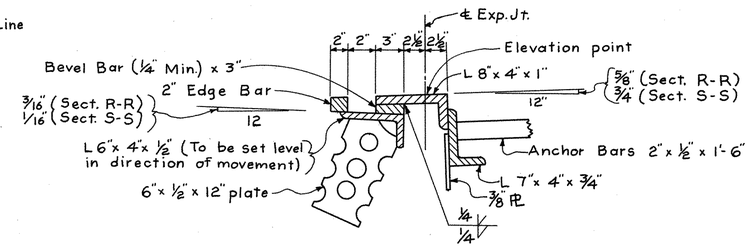
FED. RD. DIV.	STATE	PROJECT	FISCAL YEAR
2	OHIO		

392
464

HAM-50-19.76

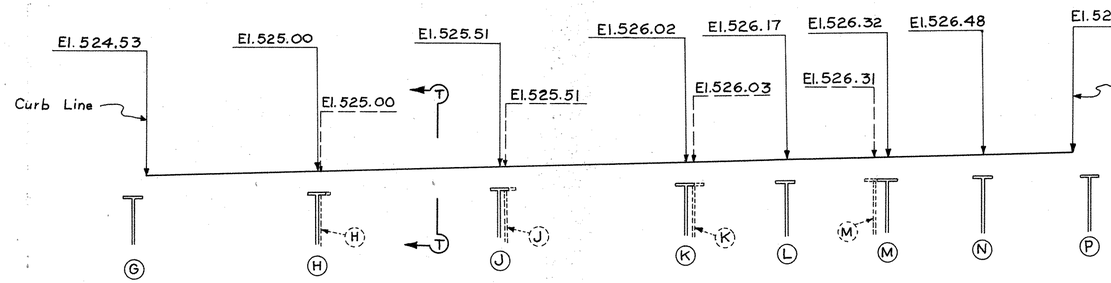


EXPANSION JOINT CROSS SECTION @ ABUT. A

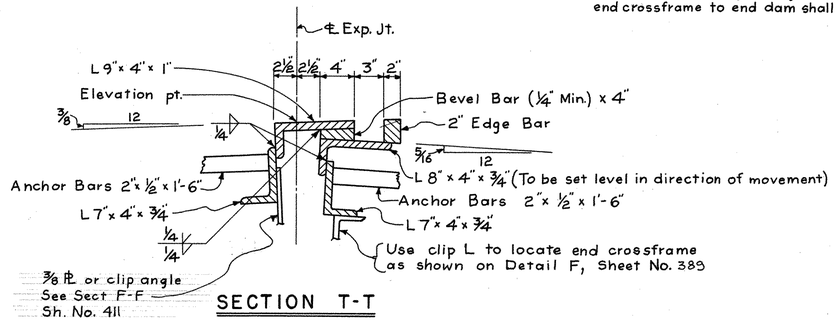


SECTION R-R
SECTION S-S

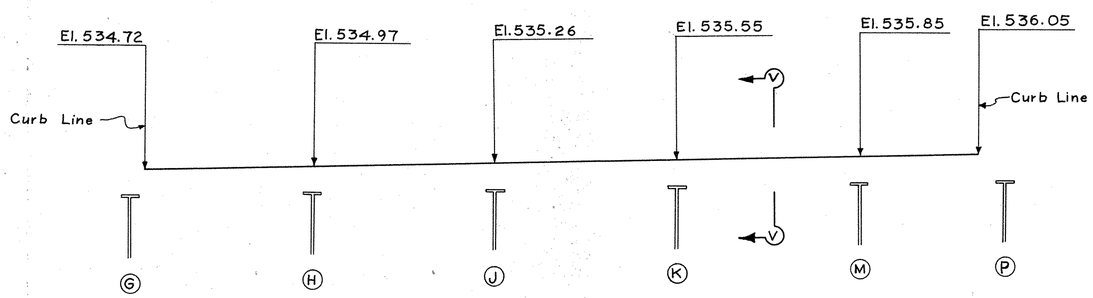
Note: End Crossframes to be set vertical in Spans 4S & 8S; therefore vertical leg of angle or ⅜ Pl. which connect end crossframe to end dam shall be vertical, (Typ.)



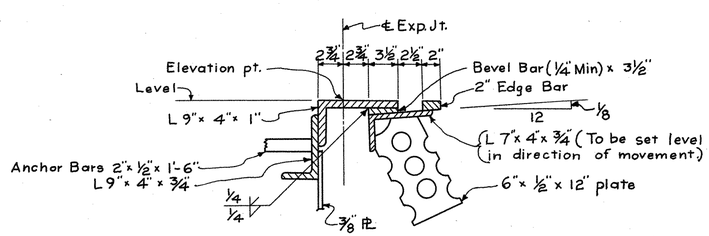
EXPANSION JOINT CROSS SECTION @ PIER 3S



SECTION T-T



EXPANSION JOINT CROSS SECTION @ ABUT. B



SECTION V-V

HAZELET & ERDAL
CONSULTING ENGINEERS
CINCINNATI, OHIO

STRUCTURAL STEEL DETAILS

BRIDGE NO. HAM-50-2012 R.&L.

H. & E. BRIDGE NO. 7

DESIGNED	DRAWN	TRACED	CHECKED	REVIEWED DATE	REVISED
	H.L.L. 7-13-61	J.T.C. 5/29/62	J.H.O. 5/31/62	W.H.E. 8-6-62	

FED. RD. DIV.	STATE	PROJECT	FISCAL YEAR
2	OHIO		

393
464

HAM-50-19.76

MICROFILMED
JUN 14 1984

N

℄ Pier 1N ℄ 2N

3'-0" 14'-6" 14'-6" 3'-0"

S6003

DIAGRAM SHOWING STAGGER S6003 BARS OVER PIERS

Detail A
3-S6045@8"(Top)
3-S7053@8"(Bot.)
Fan 5S6047(Bot.)
Fan 5S7052(Top)
2'-0"
3-S6044(Top)
3-S7051(Bot.)
S7034 Bar thru S7042 Bar(Bot)
S7026 Bar thru S7049 Bar(Bot)
S6023 Bar thru S6042 Bar(Top)
Metal Exp. joint in Roadway slab, ℄ 2" open joint in Parapet & Safety Curb.
℄ Brg. Abut. A
60°0850"
1'-8"
Detail B
Sta. 40+83.70 Ref Pt. AN
7 Rows of 3=21 S5001 (Safety Curb)

1'-11½" (Typ)
3-S6045@8"(Top)
3-S7053@8"(Bot)
7S6002(Top)
S6022 Bar thru S6031 Bar(Top)
7 Rows of 40=280 S6001(Top)
7 Rows of 46=322 S6001(Bot)
Spaced as shown in sect. A-A
7S7001(Bot.)
3-S6046@8"(Top)
3-S7003@8"(Bot.)
P.C. Sta. 40+98.45
min. 2'-3" Lap Bot.
Min. 1'-11" Lap Top
SPAN 1N
℄ Pier No. 1N
1'-7" Min Lap for #5 Bars
1'-11" min lap for #6 Bars

Fascia
142 S4001@1'-6" Safety curb
Drain inlet (Typ.)
22 0S6002(Top)
22 0S7001(Bot.)
42 S6003 staggered(Top) Spaced as shown in sect. A-A (Slab & Curb)
NOTE: All roadway slab transverse bars are placed radially @8" spacing along South fascia.
SPAN 2N
P.C.C. Sta. 41+98.45
292 S7002@8(Bot.)
296 S6002@8"(Top)
Base Line
Curb Line
142 S4001@1'-6" Safety curb
7 Rows of 3=21 S5001 (Safety Curb)
43 S6003 staggered(Top) Spaced as shown in sect. A-A
℄ Pier No. 2N

7 Rows of 3=21 S5001 (Safety Curb)
Detail C
Metal Exp. Joint in Roadway slab ℄ 3" open Joint in parapet & Safety Curb
S7012 Bar thru S7025 Bar.(Bot)
℄ Pier No. 3N
52'-2"
SPAN 3N
S6004 Bar thru S6021 Bar(Top)
8"
8"
62°0506"
Sta. 42+94.30 ℄ Pier No. 3N
P.C.C. Sta. 42+98.45
14'-0"
3S6043(Bot)
3S7050(Top)
Curb Line
Fascia
S6004 Bar thru S6021 Bar(Top)
Detail D
S7004 Bar thru S7025 Bar(Bot)

PLAN

WESTBOUND EXPRESSWAY

(Parapet Not Shown)

52'-2"
45'-0"
3'-7"
2" 11'-2" 2'-1" 2"
3'-0"
½" (Typ)
10"
Base line W.B. Exp.
Const. Jt(level)
1" dia. halfround dip groove. 2" (Typ.)
3"
7 eq. spcs. (Typ. between beams)
S6 Bars (Top)
9" Haunch (Typ.)
S7002
S6002
1'-11" min. lap
2'-3" min. lap
Eq. Spc.
5 Eq. Spc. = ½-9"
S6 Bars (Bot.)
L
(Typ. between Bms. or Girders)
S7001
Superelevation .033 from Sta. 42+98.45 through Span #8N (Westbound) and .033 from Sta. 43+91.66 to Sta. 48+20.37 (Eastbound.) Varies at other locations.
Note: Slab thickness includes 1" for monolithic wearing surface.
Base line E.B. Exp.
2" 3'-0" 2'-1" 1'-2" 2"
3'-7"
Radial Dimensions
"t" * Varies see slab thickness table Sh. No. 398 & 399
2'-0"
DETAIL E
Omit one S6 bar over piers where inlets occur.
1'-6" (Typ)
Const. Jt.(level)
(F)(P) (E)(M) (D)(K) (C)(J) (B)(H) (A)(G)

For Deck Slab Haunch Note see Sh. No. 395

• Indicates bar in section
○ Indicates bar over pier

SAFETY CURB DETAIL

H Bars
Concrete above this line to be included with item S-14 for payment (Typ.) S5002
2" Radius
S4001
1½" Cl.
1½" cl.
Level
Flush (Typ.)

DETAIL-E

9½" Slab Span 4 thru 8 (N & S)
"t" For Spans 4 thru 8 (N & S)

DETAIL-E

9¼" Slab Spans 1 thru 3 (N & S)
"t" For Spans 1 thru 3 (N & S)

* This is the nominal dimension. The quantity of deck concrete to be paid for shall be based on this dimension, even though deviation from it may be necessary because the top flange of the beam may not have the exact camber or conformation required to place it parallel to the finished grade.

TRANSVERSE SECTION A-A

Typical for Spans 1N thru 8N W.B. Exp. & From Sta. 43+91.66 thru Span 8S E.B. Exp.

NOTE:
For end finish details see sheet No. 391 & 392
For drainage details see sheet No. 404 & 412
For lighting details see sheet No. 212
For railing details and spacing of bars in parapet see Sh. No. 401, 402 & 403
Field bend or cut longitudinal bars where necessary to miss inlets.
For Details A, B, C & D see sheet No. 394

HAZELET & ERDAL
CONSULTING ENGINEERS
CINCINNATI, OHIO

SUPERSTRUCTURE DETAILS

BRIDGE NO. HAM-50-2012 R & L.

H & E. BRIDGE NO. 7

DESIGNED	DRAWN	TRACED	CHECKED	REVIEWED DATE	REVISED
	O. E. 8-10-61	J.T.C. 6/4/62	W.W.C. 9-19-61	M.T.E. 8-6-62	

MICROFILMED
JUN 14 1984

FED. RD. DIV.	STATE	PROJECT	FISCAL YEAR
2	OHIO		

394
464

HAM-50-19.76

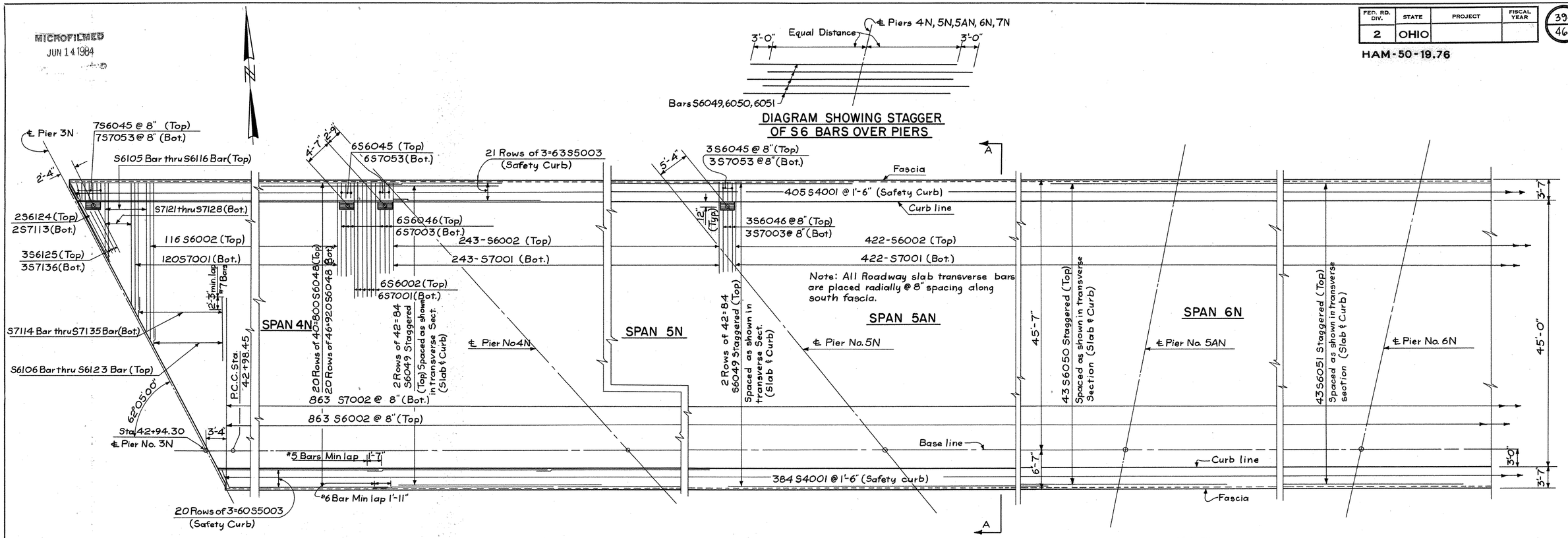
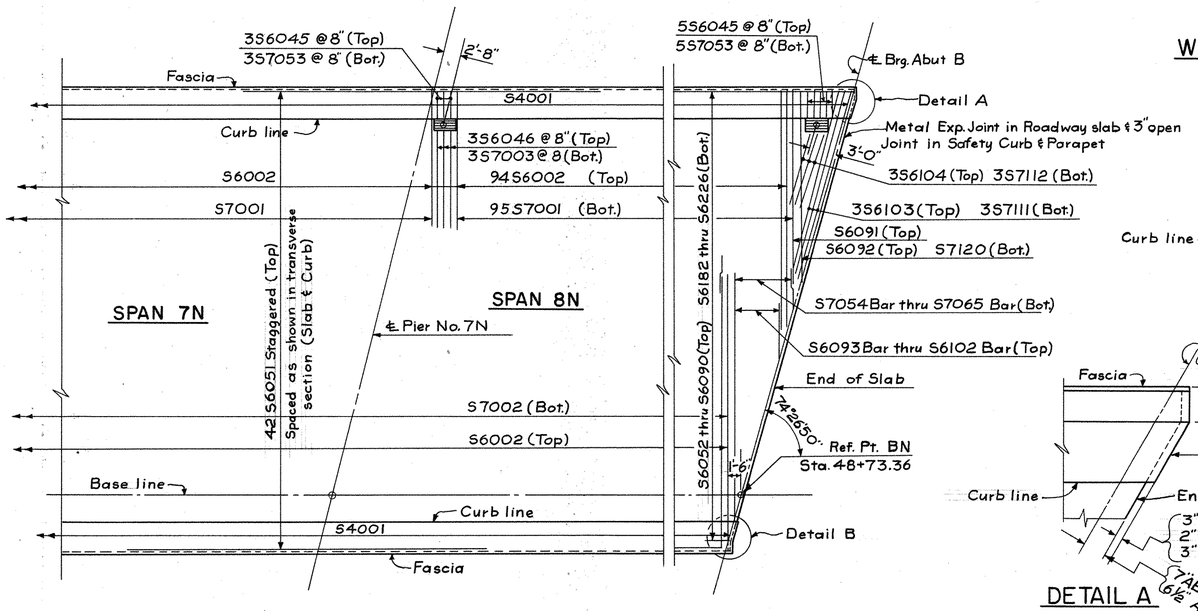
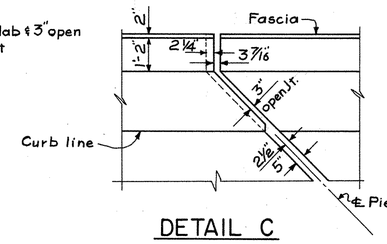


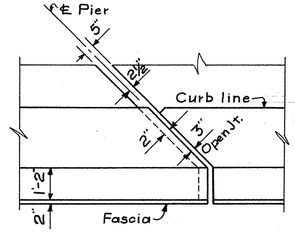
DIAGRAM SHOWING STAGGER OF S6 BARS OVER PIERS

PLAN
WESTBOUND EXPRESSWAY
(Parapet not Shown)

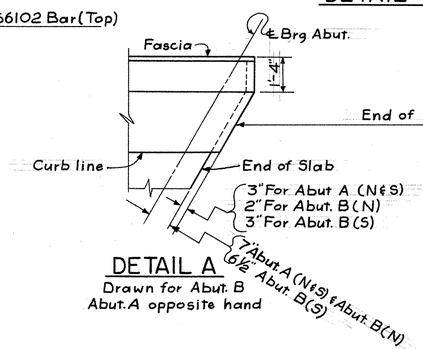




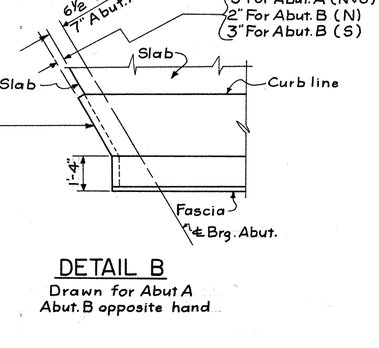
DETAIL C



DETAIL D



DETAIL A
Drawn for Abut. B
Abut. A opposite hand



DETAIL B
Drawn for Abut. A
Abut. B opposite hand

For Section A-A see Sheet No. 393

HAZELET & ERDAL
CONSULTING ENGINEERS
CINCINNATI, OHIO

SUPERSTRUCTURE DETAILS

BRIDGE NO. HAM-50-2012 R.&L.

H.&E. BRIDGE NO. 7

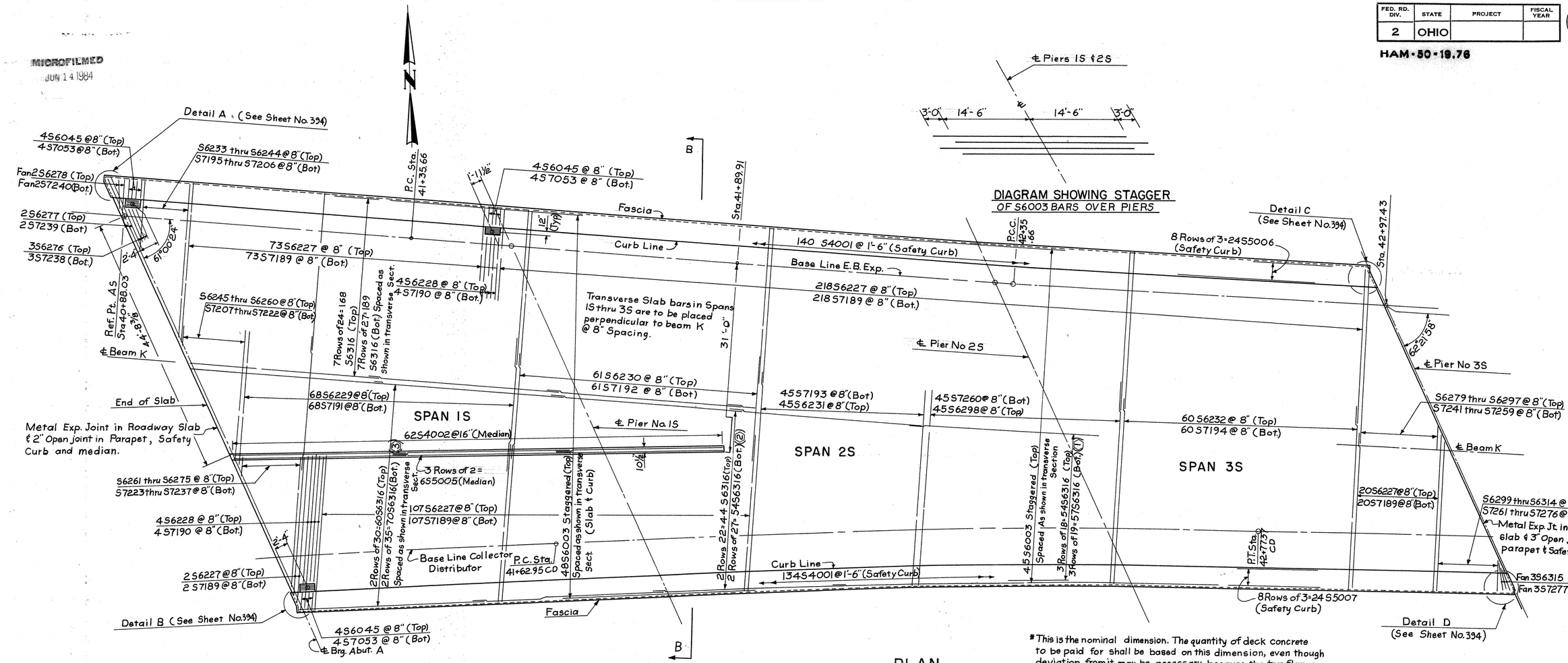
DESIGNED	DRAWN	TRACED	CHECKED	REVIEWED DATE	REVISED
	O.E.	J.T.C. 6/6/62	W.W.C. 9-19-61	W.A.Z. 8-6-62	

MICROFILMED
JUN 14 1984

FED. RD. DIV.	STATE	PROJECT	FISCAL YEAR
2	OHIO		

395/464

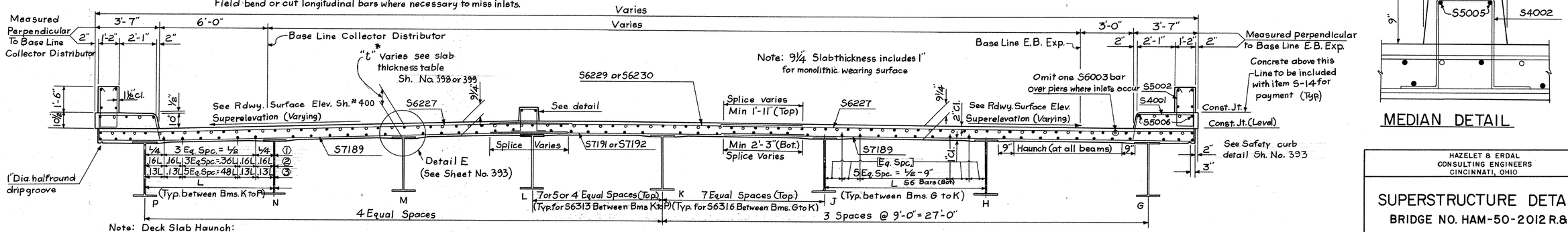
HAM-50-19.76



NOTE: For end finish details see sheet No. 391 & 392
For drainage details see sheet No. 404 & 412
For lighting details see sheet No. 212
For railing details and spacing of bars in parapet see sheet No. 401, 402 & 403
Field bend or cut longitudinal bars where necessary to miss inlets.

PLAN
EASTBOUND EXPRESSWAY
(Parapet not Shown)

* This is the nominal dimension. The quantity of deck concrete to be paid for shall be based on this dimension, even though deviation from it may be necessary because the top flange of the beam may not have the exact camber or conformation required to place it parallel to the finished grade.



Note: Deck Slab Haunch:
The haunch in the deck slab adjacent to the top of the steel beams, which is shown as 9" wide, may vary from this dimension with a minimum of 6" and maximum of 12". Maximum slope of haunch shall be one vertical to four horizontal. Payment for deck slab concrete shall be based on the 9" width.

TRANSVERSE SECTION B-B
(Typ For Spans 1S thru 3S)

• Indicates bar in section
○ Indicates bar over pier

MEDIAN DETAIL

HAZELET & ERDAL
CONSULTING ENGINEERS
CINCINNATI, OHIO

SUPERSTRUCTURE DETAILS
BRIDGE NO. HAM-50-2012 R.&L.

H.&E. BRIDGE NO. 7

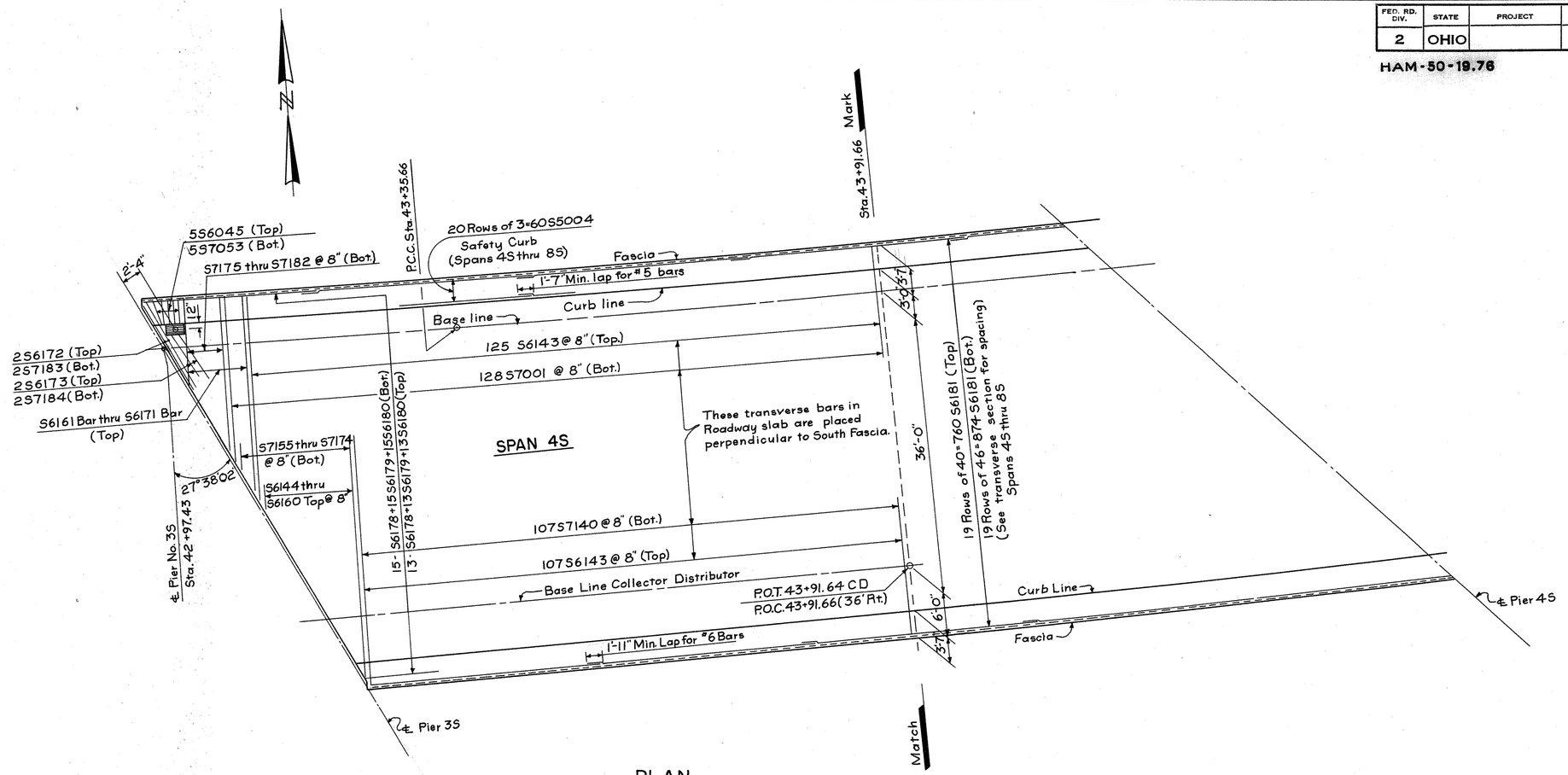
DESIGNED	DRAWN	TRACED	CHECKED	REVIEWED DATE	REVISED
	O.E.	J.T.C. 6/1/62	W.W.C. 9-20-61	M.F. 8-6-62	

MICROFILMED
JUN 14 1984

FED. RD. DIV.	STATE	PROJECT	FISCAL YEAR
2	OHIO		

396
464

HAM-50-19.76



PLAN
EASTBOUND EXPRESSWAY
(Parapet Not Shown)

HAZELET & ERDAL
CONSULTING ENGINEERS
CINCINNATI, OHIO

SUPERSTRUCTURE DETAILS

BRIDGE NO. HAM-50-2012 R.&L.

H.&E. BRIDGE NO. 7

DESIGNED	DRAWN	TRACED	CHECKED	REVIEWED DATE	REVISED
	O. E.	J.T.C. 6/5/62	W.W.E. 9-20-61	N.A.Z. 8-6-62	

MICROFILMED
JUN 14 1984

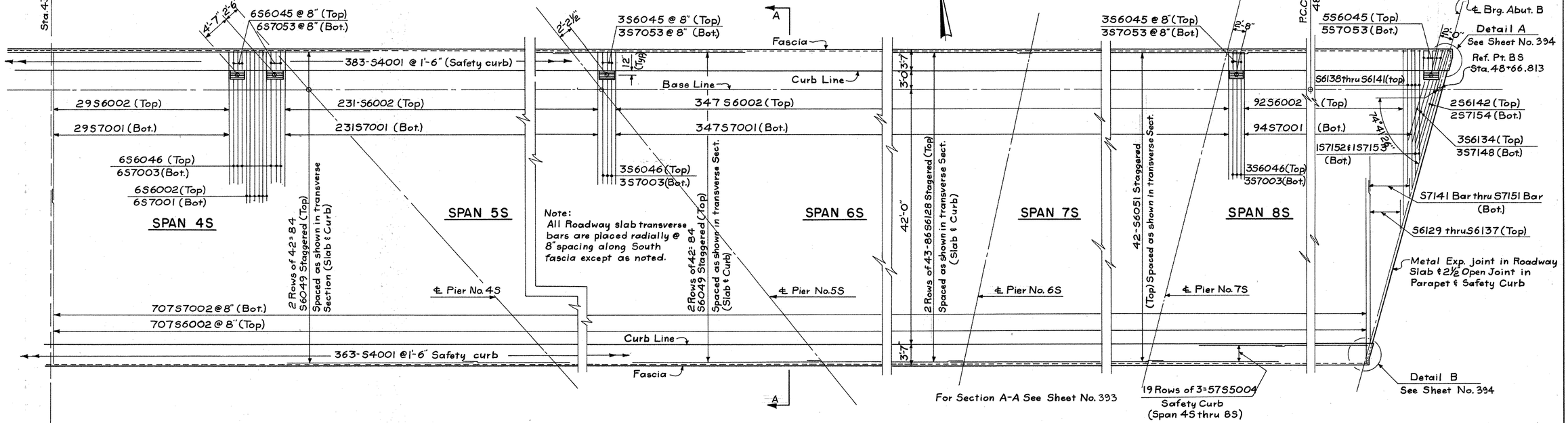
FED. RD. DIV.	STATE	PROJECT	FISCAL YEAR
2	OHIO		

397/464

HAM-50-19.76

MARK

Sta. 43+91.66



PLAN
EASTBOUND EXPRESSWAY
Parapet Not Shown

MATCH

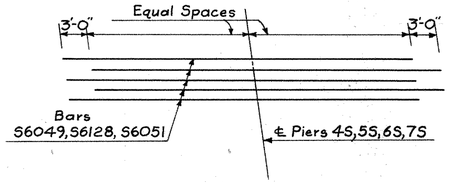


DIAGRAM SHOWING STAGGERED OF S6 BARS OVER PIERS

HAZELET & ERDAL
CONSULTING ENGINEERS
CINCINNATI, OHIO

SUPERSTRUCTURE DETAILS

BRIDGE NO. HAM-50-2012 R.&L.

H.& E. BRIDGE NO. 7

DESIGNED	DRAWN	TRACED	CHECKED	REVIEWED DATE	REVISED
	O.E. 9-1-61	J.T.C. 6/7/62	W.W.C. 9-20-61	W.A.Z. 8-6-62	

MICROFILMED
JUN 14 1984

FED. RD. DIV.	STATE	PROJECT	FISCAL YEAR
2	OHIO		

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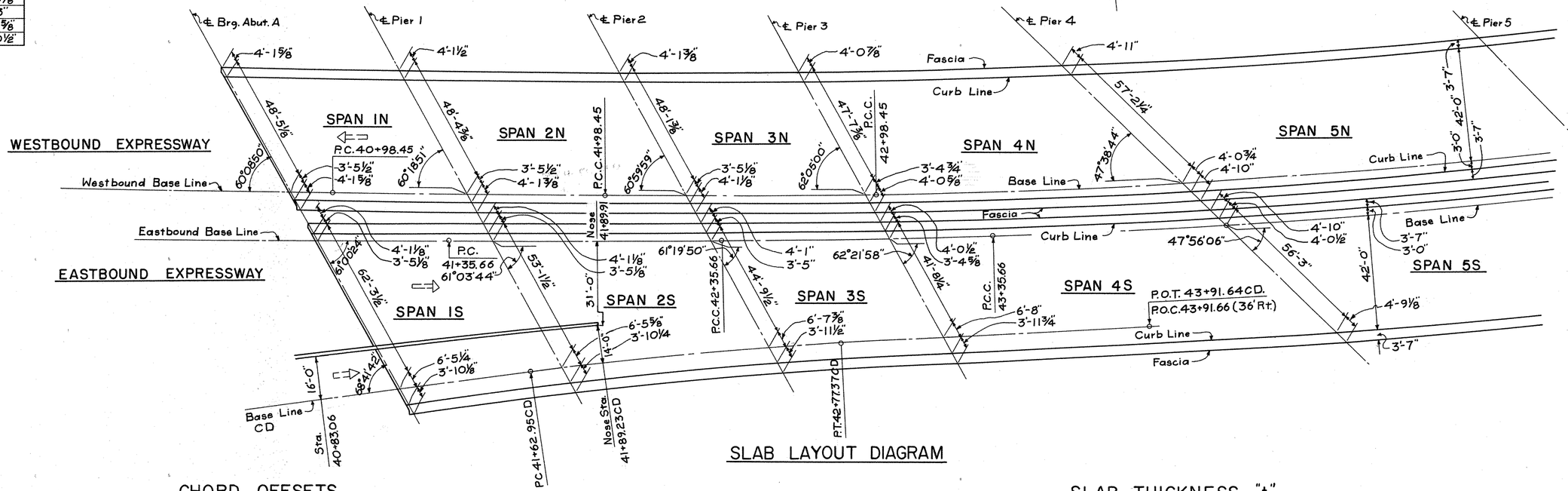
CHORD LENGTHS

SPAN	N. FASCIA	S. FASCIA
1N	64'-10"	64'-9½"
1S	64'-3½"	60'-4¾"
2N	81'-1⅝"	80'-11⅞"
2S	80'-5⅞"	76'-11"
3N	65'-0¾"	64'-9⅛"
3S	64'-7⅞"	63'-3"
4N	98'-2¼"	120'-5⅜"
4S	121'-7¼"	142'-10½"



SLAB LAYOUT DIAGRAM

CHORD OFFSETS

SPAN IN			
N. Fascia		S. Fascia	
Dist. X	Offset Y	Dist. X	Offset Y
10'-9⅝"	0	10'-9⅝"	⅛"
21'-7¼"	⅛"	21'-7⅛"	¼"
32'-5"	⅛"	32'-4¾"	⅜"
43'-2¾"	⅛"	43'-2⅜"	¼"
54'-0⅜"	⅛"	54'-0"	¼"

SPAN 2N			
N. Fascia		S. Fascia	
Dist. X	Offset Y	Dist. X	Offset Y
10'-1¾"	¼"	10'-1½"	½"
20'-3⅜"	⅜"	20'-2⅞"	⅞"
30'-5⅛"	½"	30'-4⅜"	1⅛"
40'-6¾"	⅝"	40'-5¾"	1⅜"
50'-8½"	½"	50' 7¼"	1⅝"
60'-10⅛"	½"	60'-8¾"	1⅜"
70'-11⅞"	¼"	70'-10¼"	⅞"

SPAN 3N			
N. Fascia		S. Fascia	
Dist. X	Offset Y	Dist X	Offset Y
10'-10⅛"	1"	10'-9½"	1"
21'-8¼"	1⅛"	21'-7"	1⅛"
32'-6⅜"	1⅞"	32'-4⅝"	1⅞"
43'-4½"	1⅝"	43'-2⅛"	1⅝"
54'-2⅝"	1"	53'-11⅝"	1"

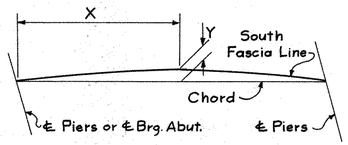
SPAN 4N			
N. Fascia		S. Fascia	
Dist. X	Offset Y	Dist. X	Offset Y
9'-9⅞"	1¾"	10'-0½"	2⅜"
19'-7⅝"	3⅛"	20'-1"	4¼"
29'-5½"	4⅛"	30'-1⅜"	5¾"
39'-3¼"	4¾"	40'-1⅞"	6¾"
49'-1⅛"	5"	50'-2⅜"	7⅜"
58'-10⅞"	4⅞"	60'-2⅞"	7⅝"
68'-8¾"	4¼"	70'-3¼"	7⅜"
78'-6⅝"	3¼"	80'-3¾"	6¾"
88'-4⅜"	1⅞"	90'-4¼"	5¾"
		100'-4¾"	4¼"
		110'-5⅛"	2⅜"

SPAN 1S	
S. Fascia	
Dist. X	Offset Y
10'-0¾"	¼"
20'-1⅝"	⅜"
30'-2⅜"	⅝"
40'-3⅛"	¾"
50'-4"	¾"

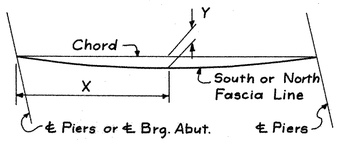
SPAN 2S			
N. Fascia		S. Fascia	
Dist. X	Offset Y	Dist. X	Offset Y
10'-0¾"	¼"	9'-7⅜"	2¾"
20'-1½"	⅜"	19'-2¾"	4⅝"
30'-2¼"	½"	28'-10⅛"	5⅞"
40'-2⅞"	⅝"	38'-5½"	6¼"
50'-3⅝"	½"	48'-0⅞"	5⅞"
60'-4⅜"	⅜"	57'-8¼"	4⅝"
70'-5⅛"	¼"	67'-3⅝"	2¾"

SPAN 3S			
N. Fascia		S. Fascia	
Dist. X	Offset Y	Dist X	Offset Y
10'-9⅞"	1"	10'-6½"	1
21'-6⅝"	1⅝"	21'-1"	1⅛"
32'-4"	1¾"	31'-7½"	⅞"
43'-1¼"	1⅝"	42'-2"	⅝"
53'-10⅝"	1"	52'-8½"	¼"

SPAN 4S			
N. Fascia		S. Fascia	
Dist. X	Offset Y	Dist. X	Offset Y
10'-1⅝"	2⅛"	10'-2½"	¾"
20'-3¼"	4"	20'-4⅞"	1½"
30'-4¾"	5⅜"	30'-7⅜"	2¼"
40'-6⅜"	6½"	40'-9⅞"	3"
50'-8"	7⅛"	51'-0¼"	3¾"
60'-9⅝"	7½"	61'-2¾"	4½"
70'-11¼"	7¼"	71'-5¼"	5¼"
81'-0⅞"	6⅝"	81'-7⅝"	5¾"
91'-2⅜"	5⅝"	91'-10⅛"	5⅞"
101'-4"	4¼"	102'-0⅝"	5⅝"
111'-5⅝"	2⅜"	112'-3½"	4⅞"
		122'-5⅝"	3⅝"
		132'-8⅛"	2"



SPAN IS, 2S, 3S



SPAN 1 THRU 4 EXCEPT SPAN IS, 2S, 3S SOUTH FASCIA

SLAB THICKNESS "t"

Beam Location	A	B	C	D	E	F		G	H	J	K	L	M	N	P
SPAN 1N ℄ Brg. Abut. A	10"	9½"	←			9½"	SPAN 1S	9¾"	←						9¾"
SPAN 1N ℄ Span	9⅞"	10⅛"	→	10⅛"	10"	9⅞"	SPAN 1S	10¼"	10⅛"	↔	10⅛"	10¼"	9¾"	10⅜"	9⅞"
SPAN 1N ℄ Pier 1	10"	9½"	←			9½"	SPAN 1S	9¾"	←						9¾"
SPAN 2N ℄ Pier 1	10"	9½"	←			9½"	SPAN 2S	9¾"	←						9¾"
SPAN 2N ℄ Span	10"	9⅜"	9½"	9⅝"	9½"	9½"	SPAN 2S	10¼"	10¼"	10⅜"	10⅜"	10½"	10⅛"	10"	10"
SPAN 2N ℄ Pier 2	10"	9½"	←			9½"	SPAN 2S	9¾"	←						9¾"
SPAN 3N ℄ Pier 2	10"	9½"	←			9½"	SPAN 3S	9¾"	←						9¾"
SPAN 3N ℄ Span	10"	9½"	←			9½"	SPAN 3S	9¾"	←		9¾"	10¼"	10½"	10½"	9¾"
SPAN 3N ℄ Pier 3	10"	9½"	←			9½"	SPAN 3S	9¾"	←						9¾"
SPAN 4N ℄ Pier 3	1'-1"	←				1'-1"	SPAN 4S	1'-1"	←		1'-1"		1'-1"		1'-1"
SPAN 4N ¼ Span	1'-0⅞"	1'-1⅛"	1'-1"	1'-1⅛"	1'-1¼"	1'-1⅛"	SPAN 4S	1'-1⅛"	1'-1⅛"	1'-1⅜"	1'-1½"		1'-1⅜"		1'-1¼"
SPAN 4N ℄ Span	1'-1"	1'-1⅛"	1'-1"	1'-1⅛"	1'-1⅛"	1'-1"	SPAN 4S	1'-1"	1'-1"	1'-1⅛"	1'-1"		1'-1"		1'-1⅛"
SPAN 4N ¾ Span	1'-1"	1'-1"	1'-0⅞"	1'-0⅞"	1'-0⅞"	1'-0¾"	SPAN 4S	1'-0⅞"	1'-0¾"	1'-0⅝"	1'-0½"		1'-0½"		1'-0"
SPAN 4N ℄ Pier 4	1'-1"	←				1'-1"	SPAN 4S	1'-1"	←		1'-1"		1'-1"		1'-1"

NOTE:
"t" is measured from top of slab to top of WF beam or from top of slab to bottom of girder flange plate along ℄ of beam or girder as shown in transverse sections. (see Detail E Sh.# 393)
"t" values shall be adjusted as required if actual camber varies from values shown on Sh.# 385 or 390 or if camber exists where no camber is specified.

HAZELET & ERDAL
CONSULTING ENGINEERS
CINCINNATI, OHIO

SUPERSTRUCTURE DETAILS

BRIDGE NO. HAM-50-2012 R.&L.

H. & E. BRIDGE NO. 7

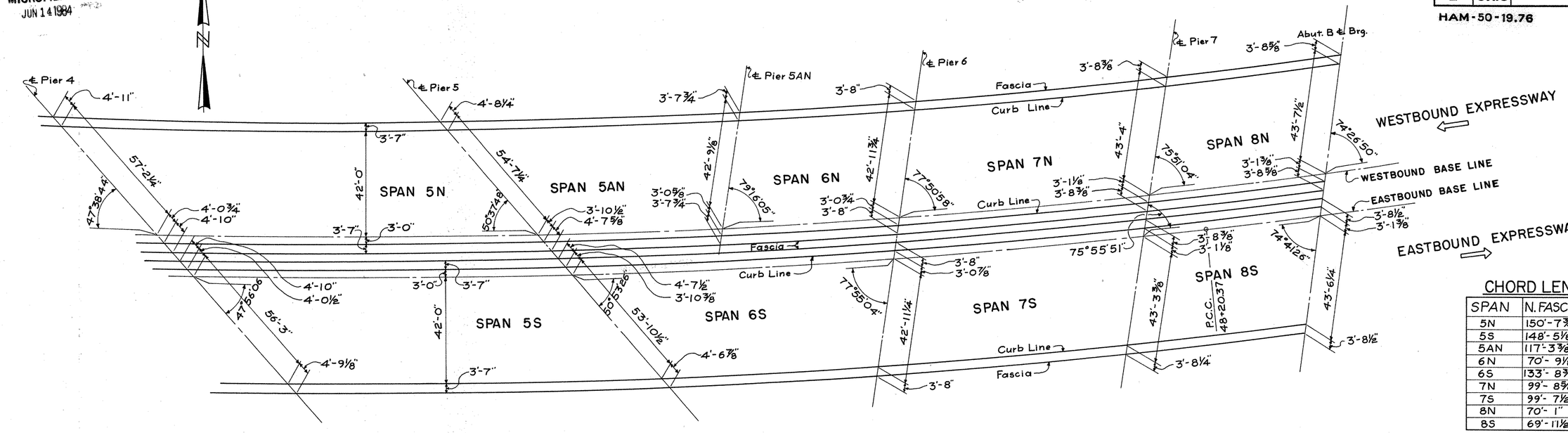
DESIGNED	DRAWN	TRACED	CHECKED	REVIEWED DATE	REVISED
	O.E. 8-26-61	J.T.C. 6/8/62	W.W.C. 9-20-61	W.H.E. 8-6-62	

MICROFILMED
JUN 14 1984

FED. RD. DIV.	STATE	PROJECT	FISCAL YEAR
2	OHIO		

399
464

HAM-50-19.76



SLAB LAYOUT DIAGRAM

CHORD LENGTHS

SPAN	N. FASCIA	S. FASCIA
5N	150'-7¾"	148'-6½"
5S	148'-5⅛"	146'-6⅛"
5AN	117'-3⅜"	65'-8½"
6N	70'-9⅛"	70'-8½"
6S	133'-8⅜"	82'-7⅞"
7N	99'-8⅝"	99'-7½"
7S	99'-7½"	99'-6⅜"
8N	70'-1"	69'-11⅞"
8S	69'-11½"	69'-10⅝"

CHORD OFFSETS

SPAN 5N

N. Fascia Dist. X	N. Fascia Offset Y	S. Fascia Dist. X	S. Fascia Offset Y
10'-0½"	3"	9'-10⅞"	2⅞"
20'-1"	5⅝"	19'-9⅝"	5⅜"
30'-1½"	7¾"	29'-8½"	7⅜"
40'-2⅛"	9½"	39'-7⅜"	9"
50'-2⅝"	10¾"	49'-6⅛"	10¼"
60'-3⅛"	11⅝"	59'-5"	11⅛"
70'-3⅝"	1'-0"	69'-3¾"	11½"
80'-4⅛"	1'-0"	79'-2⅝"	11½"
90'-4⅝"	11⅝"	89'-1½"	11⅛"
100'-5¼"	10¾"	99'-0¼"	10¼"
110'-5¾"	9½"	108'-11⅛"	9"
120'-6¼"	7¾"	118'-10"	7⅜"
130'-6¾"	5⅝"	128'-8¾"	5⅜"
140'-7¼"	3"	138'-7⅝"	2⅞"

SPAN 6N

N. Fascia Dist. X	N. Fascia Offset Y	S. Fascia Dist. X	S. Fascia Offset Y
10'-1¼"	1¼"	10'-1¼"	1¼"
20'-2⅝"	2⅛"	20'-2⅛"	2⅛"
30'-3⅞"	2⅝"	30'-3⅝"	2⅝"
40'-5¼"	2⅝"	40'-4⅞"	2⅝"
50'-6½"	2⅛"	50'-6⅛"	2⅛"
60'-7⅞"	1¼"	60'-7⅜"	1¼"

SPAN 7N

N. Fascia Dist. X	N. Fascia Offset Y	S. Fascia Dist. X	S. Fascia Offset Y
9'-11⅝"	1⅞"	9'-11½"	1⅞"
19'-11⅜"	3⅜"	19'-11⅛"	3⅜"
29'-11"	4½"	29'-10⅝"	4⅜"
39'-10⅝"	5⅛"	39'-10⅛"	5"
49'-10⅜"	5¼"	49'-9¾"	5¼"
59'-10"	5⅛"	59'-9¼"	5"
69'-9⅝"	4½"	69'-8⅞"	4⅜"
79'-9⅜"	3⅜"	79'-8⅜"	3⅜"
89'-9"	1⅞"	89'-7⅞"	1⅞"

SPAN 8N

N. Fascia Dist. X	N. Fascia Offset Y	S. Fascia Dist. X	S. Fascia Offset Y
10'-0⅛"	1¼"	10'-0"	1¼"
20'-0¼"	2⅛"	20'-0"	2⅛"
30'-0⅜"	2⅝"	29'-11⅞"	2½"
40'-0½"	2⅝"	39'-11⅞"	2½"
50'-0⅝"	2⅛"	49'-11⅞"	2⅛"
60'-0¾"	1¼"	59'-11⅞"	1¼"

SPAN 5AN

N. Fascia Dist. X	N. Fascia Offset Y	S. Fascia Dist. X	S. Fascia Offset Y
9'-9¼"	2¼"	9'-4⅝"	1⅛"
19'-6½"	4⅛"	18'-9¼"	1⅞"
29'-3⅞"	5½"	28'-1⅞"	2¼"
39'-1⅛"	6½"	37'-6⅝"	2¼"
48'-10⅜"	7⅛"	46'-11¼"	1⅞"
58'-7¾"	7⅜"	56'-3⅞"	1⅛"
68'-5"	7⅛"		
78'-2¼"	6½"		
87'-11½"	5½"		
97'-8⅞"	4⅛"		
107'-6⅛"	2¼"		

SPAN 5S

N. Fascia Dist. X	N. Fascia Offset Y	S. Fascia Dist. X	S. Fascia Offset Y
9'-10¾"	2⅞"	9'-9¼"	2¾"
19'-9½"	5⅜"	19'-6⅜"	5⅛"
29'-8¼"	7⅜"	29'-3⅝"	7"
39'-7"	9"	39'-0⅞"	8⅝"
49'-5¾"	10¼"	48'-10"	9¾"
59'-4⅜"	11⅛"	58'-7¼"	10⅝"
69'-3⅛"	11½"	68'-4⅛"	11"
79'-1⅞"	11½"	78'-1¾"	11"
89'-0⅝"	11⅛"	87'-10⅞"	10⅝"
98'-11⅜"	10¼"	97'-8⅛"	9¾"
108'-10⅛"	9"	107'-5⅜"	8⅝"
118'-8⅞"	7⅜"	117'-2½"	7"
128'-7⅝"	5⅜"	126'-11¾"	5⅛"
138'-6⅜"	2⅞"	136'-9"	2¾"

SPAN 6S

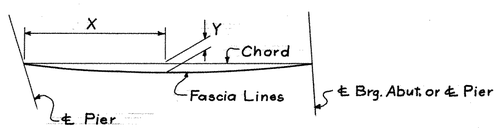
N. Fascia Dist. X	N. Fascia Offset Y	S. Fascia Dist. X	S. Fascia Offset Y
10'-3⅜"	2⅝"	10'-4"	1½"
20'-6⅞"	4⅞"	20'-7⅞"	2⅝"
30'-10¼"	6⅝"	30'-11⅞"	3¼"
41'-1⅝"	8"	41'-3¾"	3½"
51'-5⅛"	8⅞"	51'-7¾"	3¼"
61'-8½"	9¼"	61'-11¾"	2⅝"
71'-11⅞"	9¼"	72'-3⅝"	1½"
82'-3⅜"	8⅞"		
92'-6¾"	8"		
102'-10⅛"	6⅝"		
113'-1⅝"	4⅞"		
123'-5"	2⅝"		

SPAN 7S

N. Fascia Dist. X	N. Fascia Offset Y	S. Fascia Dist. X	S. Fascia Offset Y
9'-11½"	1⅞"	9'-11⅜"	1⅞"
19'-11⅛"	3⅜"	19'-10⅞"	3¼"
29'-10⅝"	4⅜"	29'-10⅜"	4¼"
39'-10¼"	5"	39'-9¾"	4⅞"
49'-9¾"	5¼"	49'-9¼"	5⅛"
59'-9⅜"	5"	59'-8⅝"	4⅞"
69'-8⅞"	4⅜"	69'-8⅛"	4¼"
79'-8⅜"	3⅜"	79'-7½"	3¼"
89'-8"	1⅞"	89'-7"	1⅞"

SPAN 8S

N. Fascia Dist. X	N. Fascia Offset Y	S. Fascia Dist. X	S. Fascia Offset Y
10'-0"	1⅛"	9'-11⅞"	1⅛"
19'-11⅞"	1⅞"	19'-11⅝"	1⅞"
29'-11⅞"	2⅛"	29'-11½"	2¼"
39'-11¾"	2⅛"	39'-11¼"	2¼"
49'-11⅝"	1¾"	49'-11"	1⅞"
59'-11⅝"	1⅛"	59'-10⅞"	1⅛"



SLAB THICKNESS "t"

Beam Location		A	B	C	D	E	F		G	H	J	K	M	P
SPAN 5N	℄ Pier 4	1'-1"	←				→	SPAN 5S	1'-1"	←				→
	¼ Span	1'-0⅞"	1'-0¾"	1'-0¾"	1'-0¾"	1'-0⅝"	1'-0⅞"		1'-0⅞"	1'-0⅝"	1'-0⅝"	1'-0⅝"	1'-0½"	1'-0⅝"
	℄ Span	1'-1"	1'-1"	1'-0⅞"	1'-0⅞"	1'-0¾"	1'-1"		1'-1⅛"	1'-0⅞"	1'-0⅞"	1'-0⅞"	1'-0¾"	1'-1"
	¾ Span	1'-0⅞"	1'-0¾"	1'-0¾"	1'-0¾"	1'-0¾"	1'-1"		1'-0⅞"	1'-0¾"	1'-0¾"	1'-0¾"	1'-0⅞"	1'-1"
	℄ Pier 5	1'-1"	←				→		1'-1"	←				→
SPAN 5AN	℄ Pier 5	1'-1"	←				→							
	¼ Span	1'-0⅞"	1'-0⅞"	1'-0¾"	1'-0⅞"	1'-0⅞"	1'-0¾"							
	℄ Span	1'-1"	1'-1⅛"	1'-0⅞"	1'-1"	1'-0⅞"	1'-0⅝"							
	¾ Span	1'-1⅛"	1'-1⅛"	1'-1"	1'-1"	1'-1"	1'-0⅞"							
	℄ Pier 5AN	1'-1"	←				→							
SPAN 6N	℄ Pier 5AN	1'-1"	←				→	SPAN 6S	1'-1"	←				→
	℄ Span	1'-0⅞"				1'-0⅞"	1'-1"		1'-1"	1'-1"	1'-0⅞"	1'-1"	1'-1"	1'-0⅞"
	℄ Pier 6	1'-1"	←				→		1'-1"	←				→
SPAN 7N	℄ Pier 6	1'-1"	←				→	SPAN 7S	1'-1"	←				→
	¼ Span	1'-1½"	1'-1⅜"	1'-1½"	1'-1½"	1'-1½"	1'-1¾"		1'-0⅞"	1'-0⅞"	1'-0⅞"	1'-1"	1'-1"	1'-1⅛"
	℄ Span	1'-1¾"	1'-1½"	1'-1⅝"	1'-1⅝"	1'-1⅝"	1'-1¾"		1'-0¾"	1'-0¾"	1'-0⅞"	1'-1"	1'-1"	1'-1⅛"
	¾ Span	1'-1⅜"	1'-1¼"	1'-1¼"	1'-1¼"	1'-1⅜"	1'-1½"		1'-0⅝"	1'-0⅝"	1'-0⅝"	1'-0¾"	1'-0⅞"	1'-1"
	℄ Pier 7	1'-1"	←				→		1'-1"	←				→
SPAN 8N	℄ Pier 7	1'-1"	←				→	SPAN 8S	1'-1"	←				→
	℄ Span	1'-1⅛"	1'-1"	1'-1⅛"	1'-1⅛"	1'-1⅛"	1'-1⅛"		1'-1⅛"	1'-1¼"	1'-1⅜"	1'-1½"	1'-1⅝"	1'-1⅞"
	℄ Brg. Abut.	1'-1"	←				→		1'-1"	←				→

Note:
For slab thickness "t" notes see sheet No. 398

HAZELET & ERDAL
CONSULTING ENGINEERS
CINCINNATI, OHIO

SUPERSTRUCTURE DETAILS

BRIDGE NO. HAM-50-2012 R.&L.

H.&E. BRIDGE NO. 7

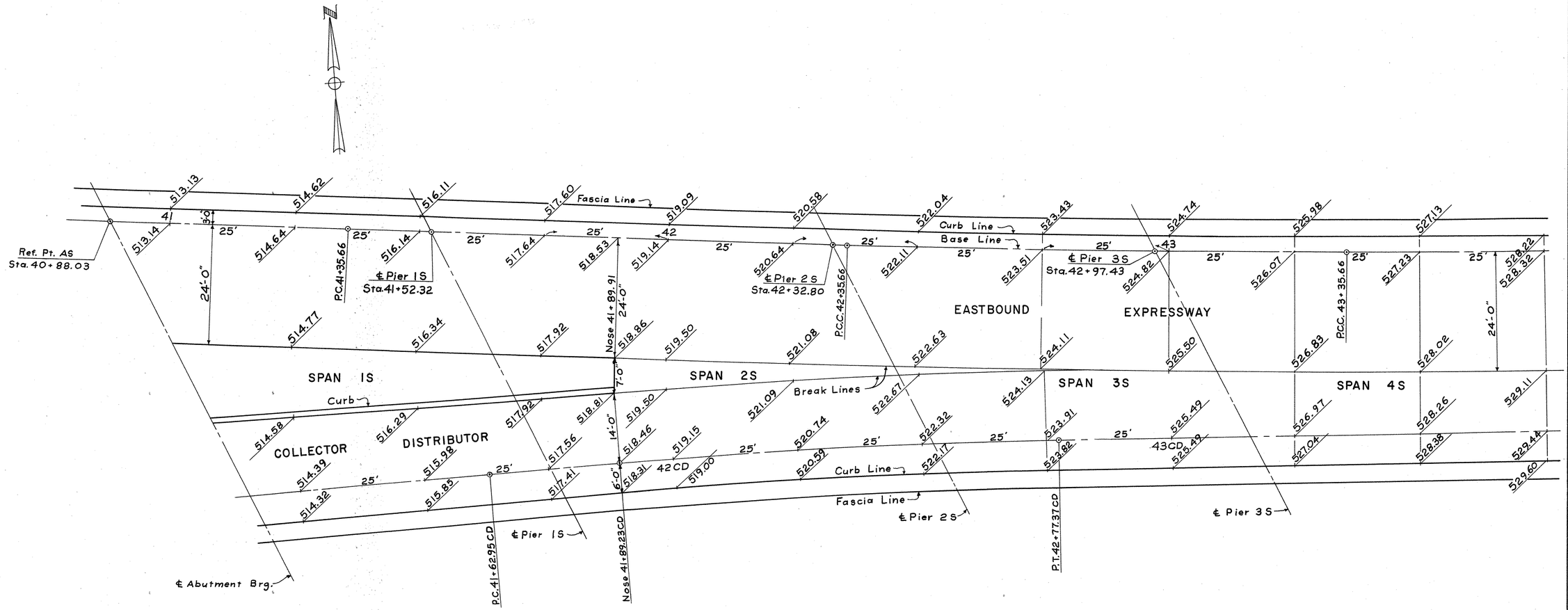
DESIGNED	DRAWN	TRACED	CHECKED	REVIEWED DATE	REVISED
	O.E. 8-28-61	J.T.C. 6/11/62	W.W.C. 9-20-61	M.A.J. 8-6-62	

MICROFILMED
JUN 14 1984

FED. RD. DIV.	STATE	PROJECT	FISCAL YEAR
2	OHIO		

400/464

HAM-50-19.76



HAZELET & ERDAL
CONSULTING ENGINEERS
CINCINNATI, OHIO

ROADWAY SURFACE ELEVATION
BRIDGE NO. HAM-50-2012 R.&L.

H.&E. BRIDGE NO. 7

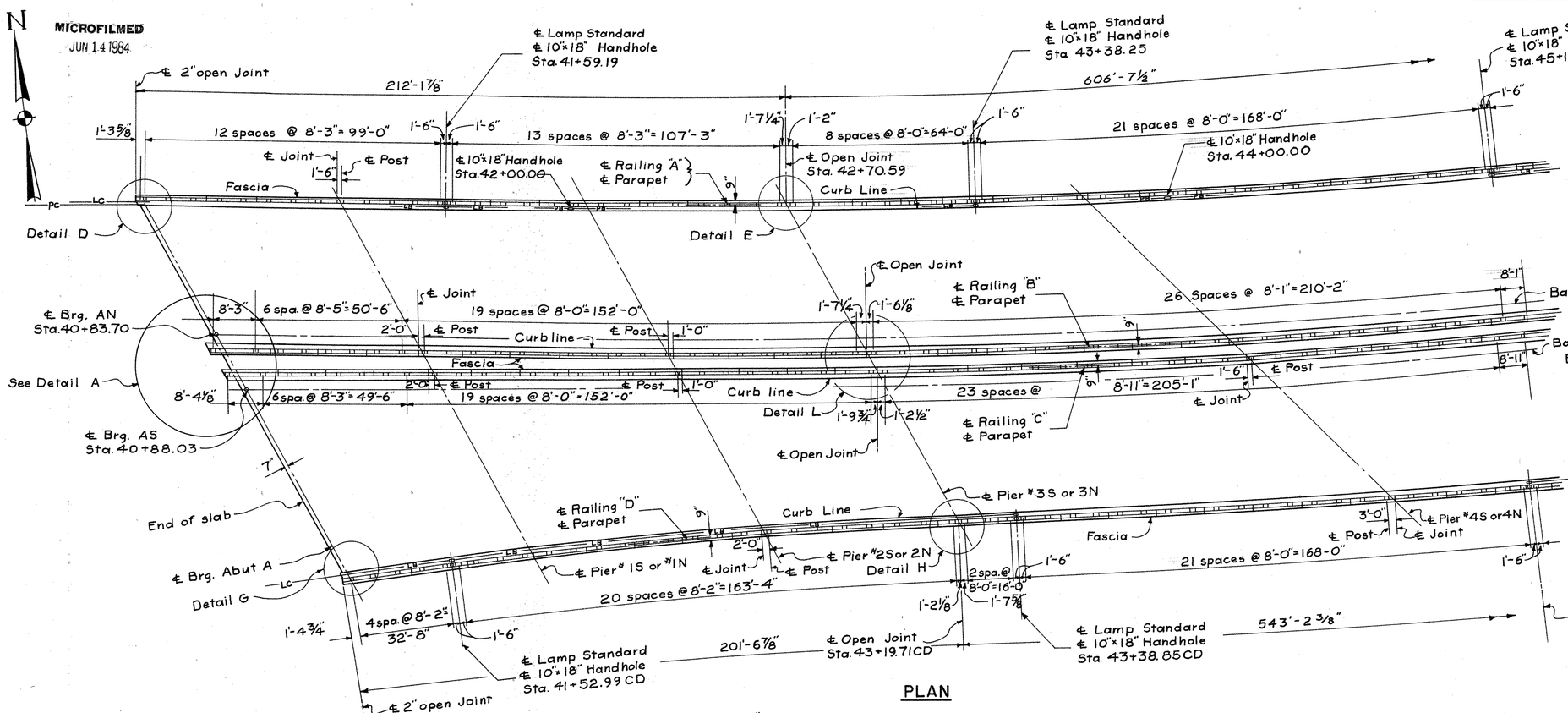
DESIGNED	DRAWN	TRACED	CHECKED	REVIEWED DATE	REVIS
	H.L.L. 6-7-61	J.T.C. 2-20-62	W.W.C. 10-6-61	N.I.J. 8-6-62	

MICROFILMED
JUN 14 1984

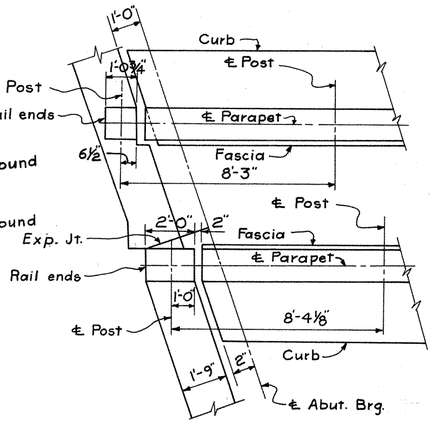
FED. RD. DIV.	STATE	PROJECT	FISCAL YEAR
2	OHIO		

401
464

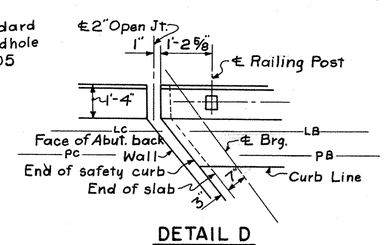
HAM-50-19.76



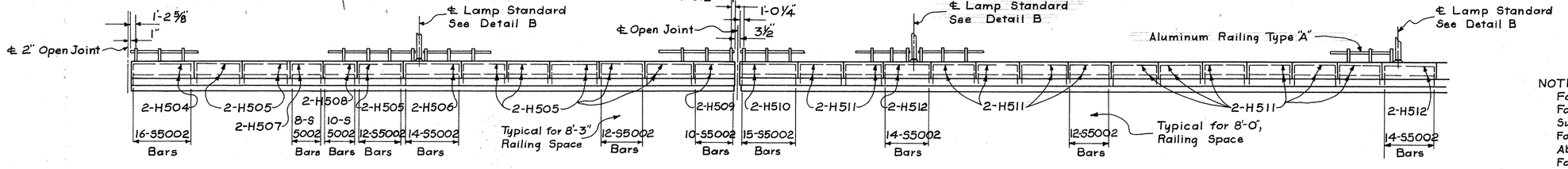
PLAN



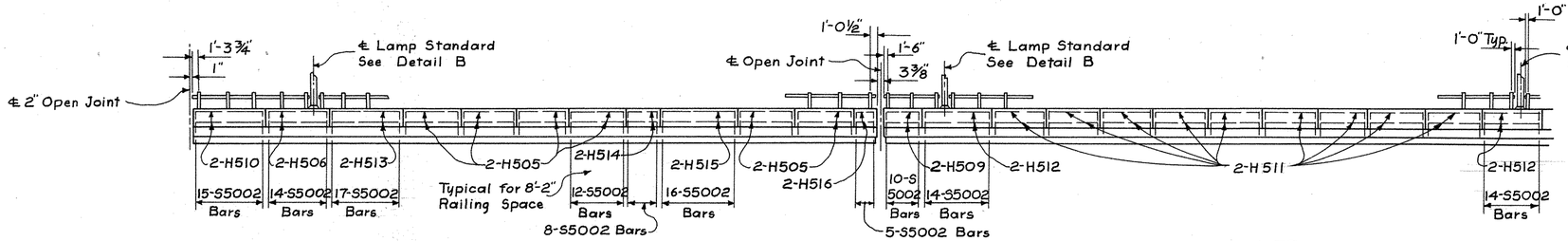
DETAIL A



DETAIL D



ELEVATION RAILING "A"



ELEVATION RAILING "D"

NOTES:
For Detail B see Sh. No. 355
For Conduit expansion detail for Superstructure see Sh. No. 355
For conduit expansion detail at Abutment see Sh. No. 355
For Details G, E, L & H see Sh. No. 403
For legend of lighting items, see Sh. No. 204
For typical railing details see Std. Dwg. No. AR-1-57.
For typical lighting details see Sh. No. 212

NOTE:
The location of reinforcing steel, railing posts, and lamp standard is measured along the ℄ of parapet.

HAZELET & ERDAL
CONSULTING ENGINEERS
CINCINNATI, OHIO

RAILING & LIGHTING DETAILS

BRIDGE NO. HAM-50-2012 R.&L.

H.&E. BRIDGE NO. 7

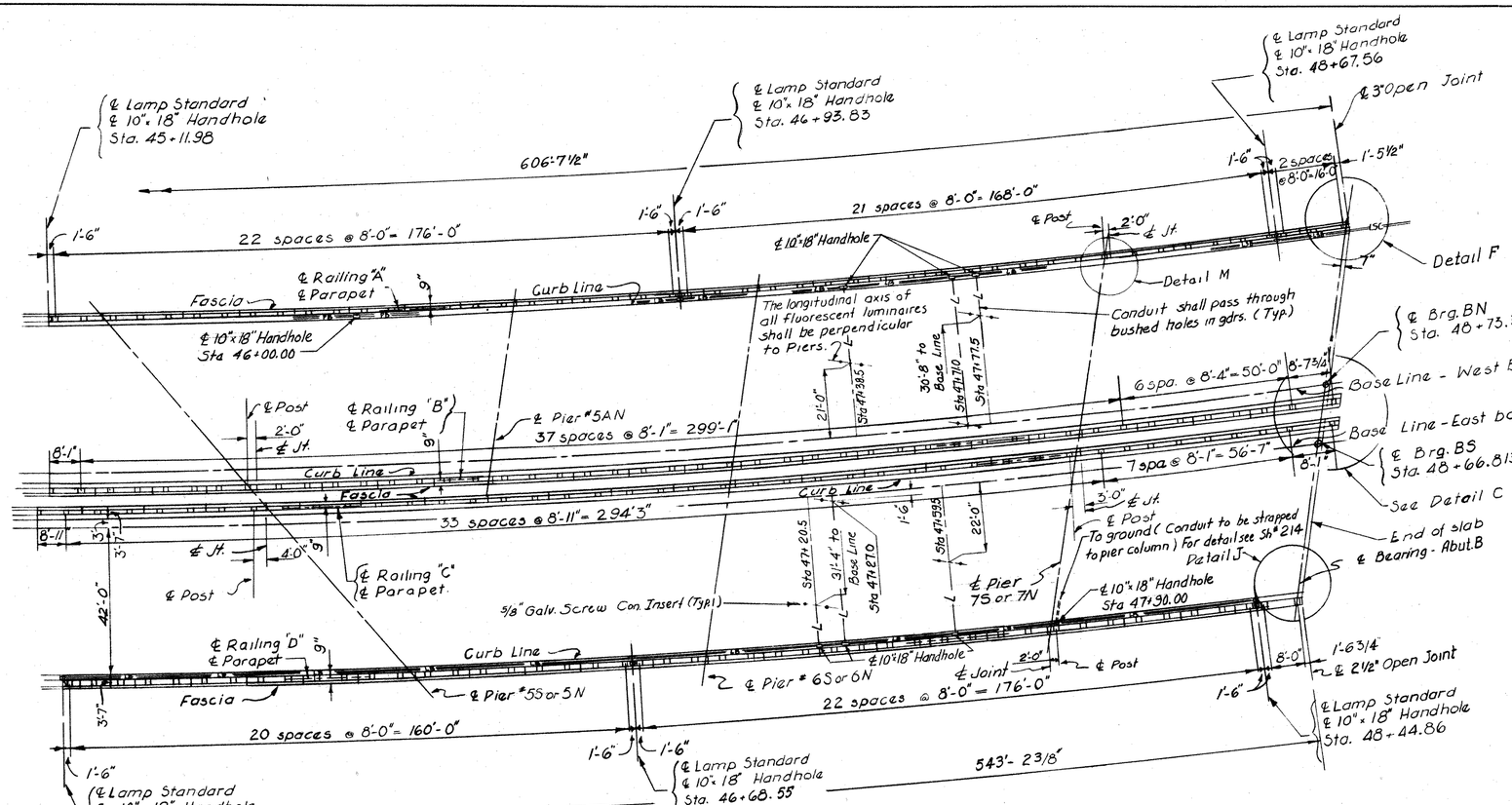
DESIGNED	DRAWN	TRACED	CHECKED	REVIEWED DATE	REVISED
	M.Y.	J.T.C. 6/27/62		8-6-62	

MICROFILMED
JUN 14 1984

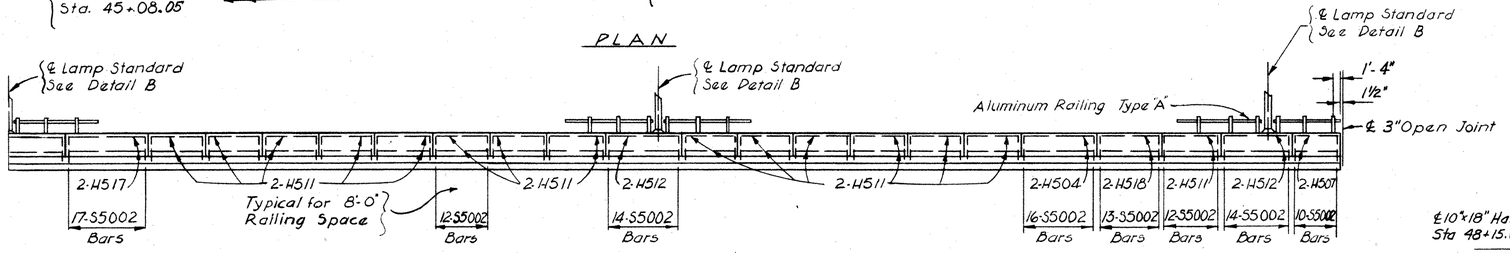
FED. RD. DIV.	STATE	PROJECT	FISCAL YEAR
2	OHIO		

402
464

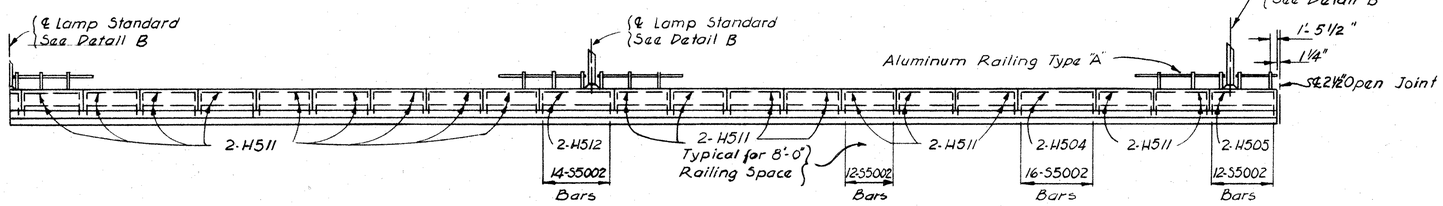
HAM-50-19.76



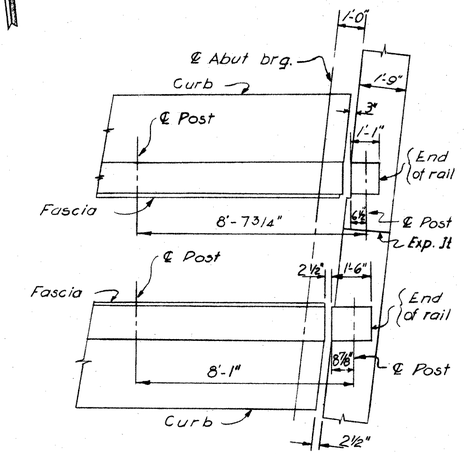
PLAN



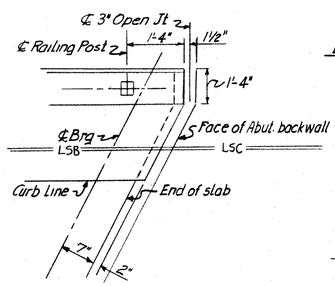
ELEVATION RAILING "A"



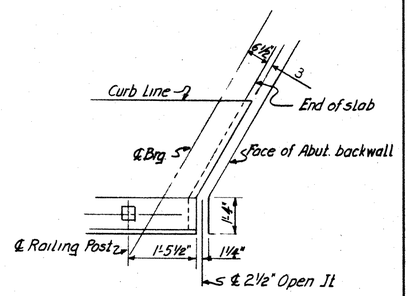
ELEVATION RAILING "D"



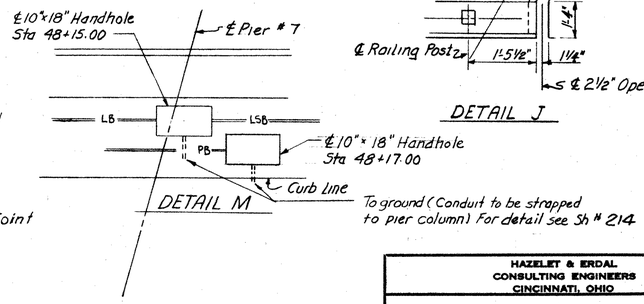
DETAIL C



DETAIL F



DETAIL J



DETAIL M

HAZELET & ERDAL
CONSULTING ENGINEERS
CINCINNATI, OHIO

BRIDGE RAILING & LIGHTING
BRIDGE NO. HAM-50-2012 R.&L.

H. & E. BRIDGE NO. 7

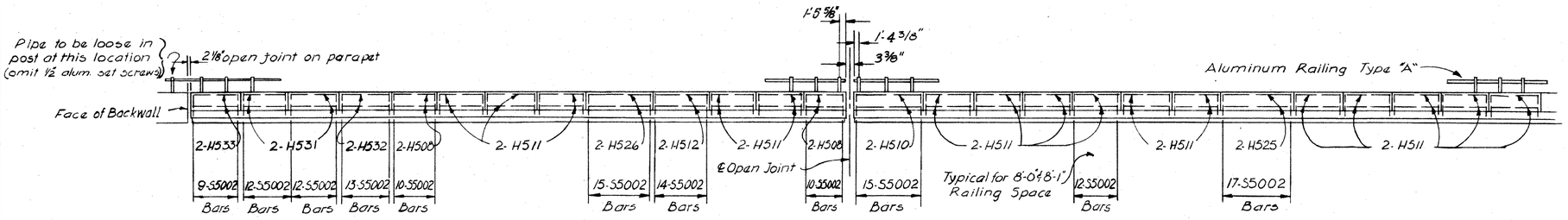
DESIGNED	DRAWN	TRACED	CHECKED	REVIEWED DATE	REVISED
	M.Y.		O.E.	8-6-62	

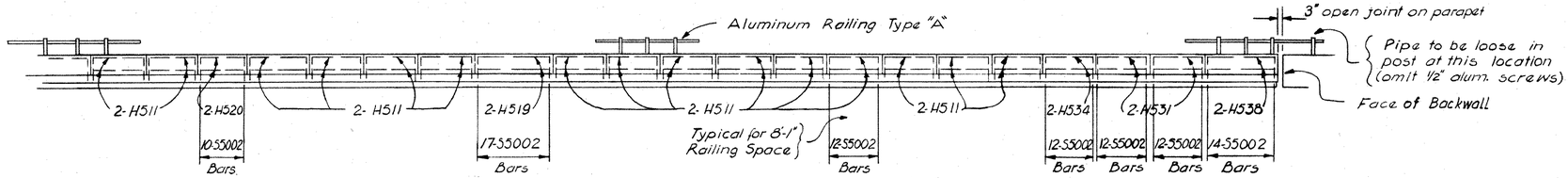
MICROFILMED
JUN 14 1984

FED. RD. DIV.	STATE	PROJECT	FISCAL YEAR
2	OHIO		

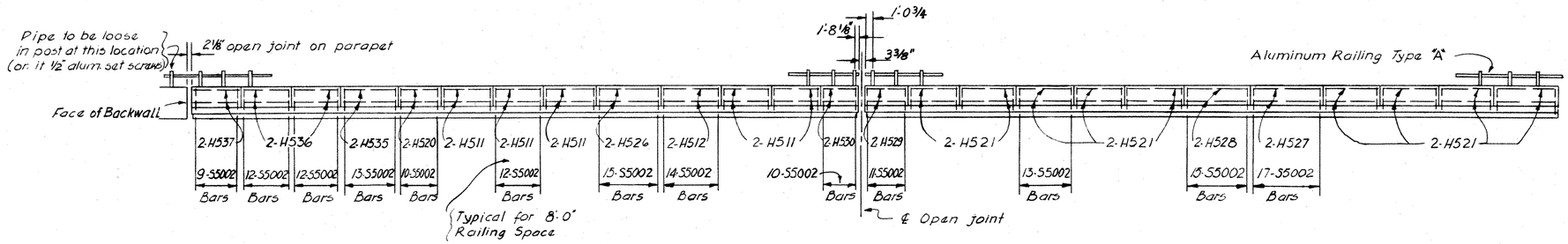
403
464

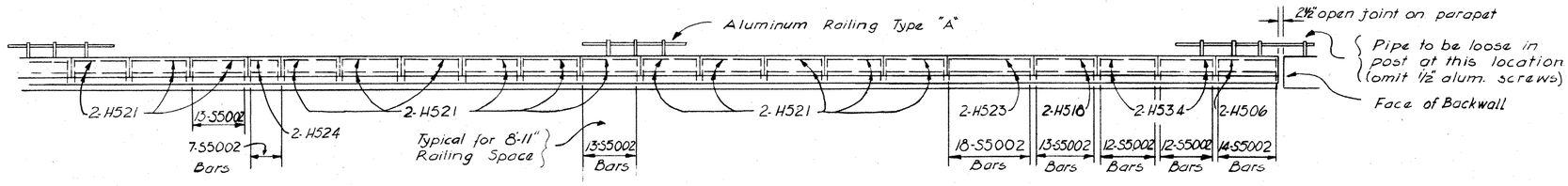
HAM-50-19.76



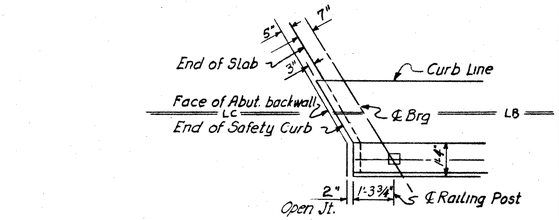


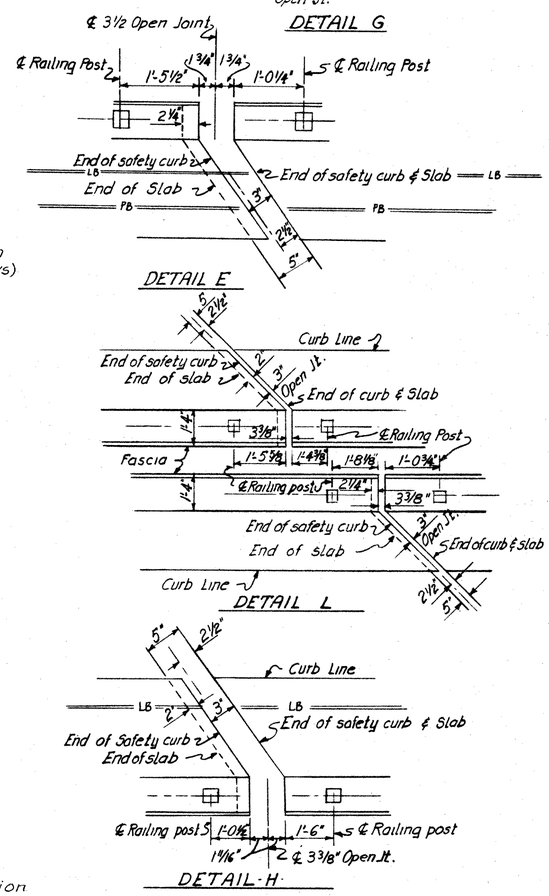
ELEVATION RAILING "B"





ELEVATION RAILING "C"





HAZELET & ERDAL
CONSULTING ENGINEERS
CINCINNATI, OHIO

BRIDGE RAILING & LIGHTING
BRIDGE NO. HAM-50-2012 R.&L.

H. & E. BRIDGE NO. 7

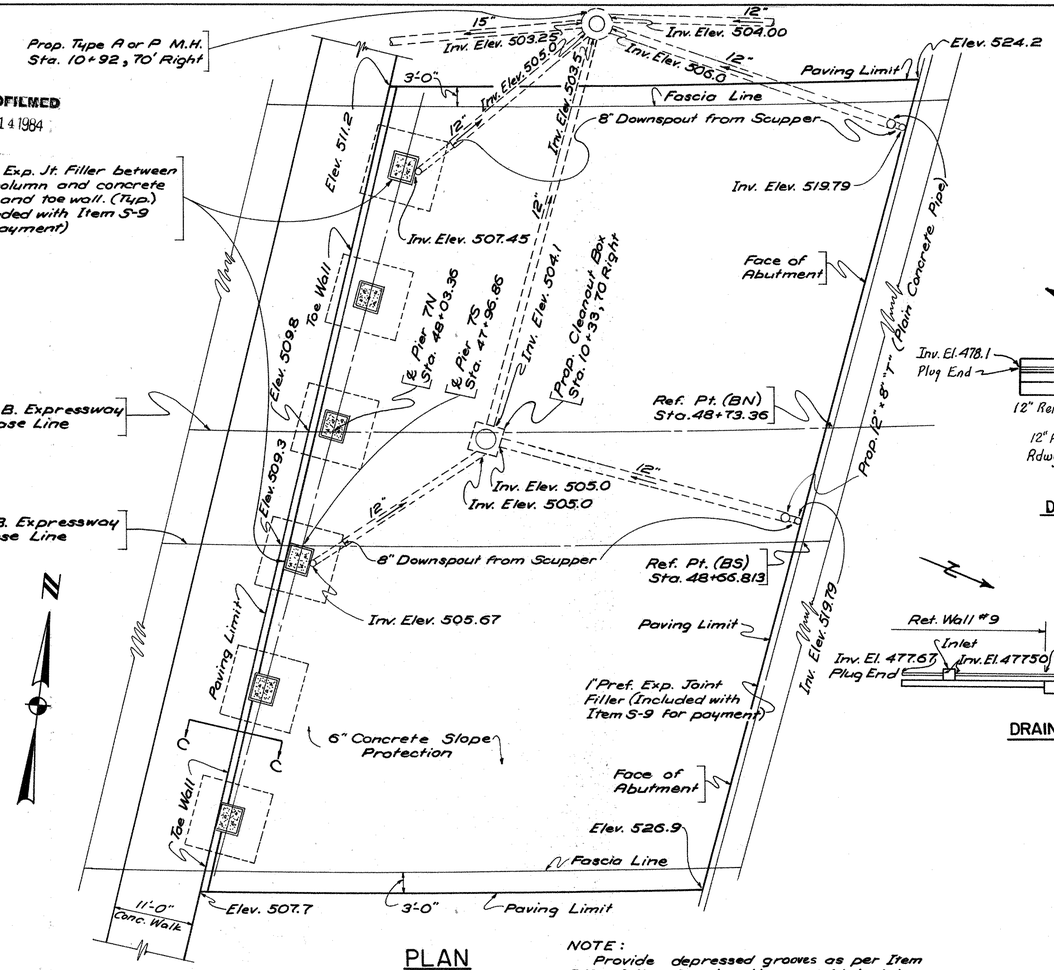
DESIGNED	DRAWN	TRACED	CHECKED	REVIEWED DATE	REVISED
	M.Y.		O.E.	8-6-62	

FED. RD. DIV.	STATE	PROJECT	FISCAL YEAR
2	OHIO		

404/464

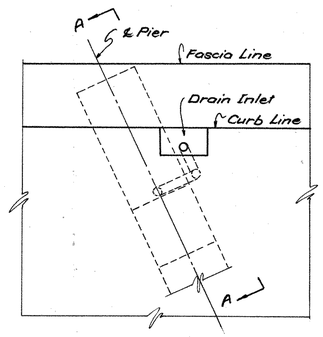
HAM-50-19.76

MICROFILMED
JUN 14 1984



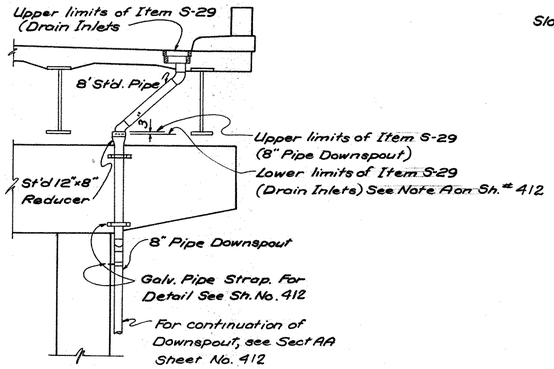
PLAN
(Abut. B)

NOTE:
Provide depressed grooves as per Item I-10 of the Construction and Material Specifications. Finish in accordance with Item S-1.24.



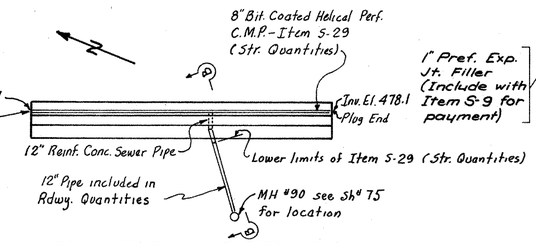
PLAN OF DRAIN INLET AT PIER NO. 3

Shown for Drain at Pier 3N, Drain at Pier 3S, Similar

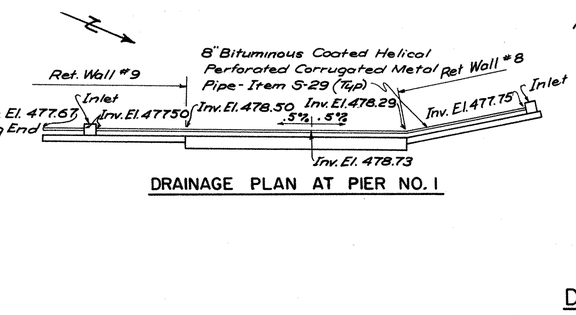


VIEW A-A

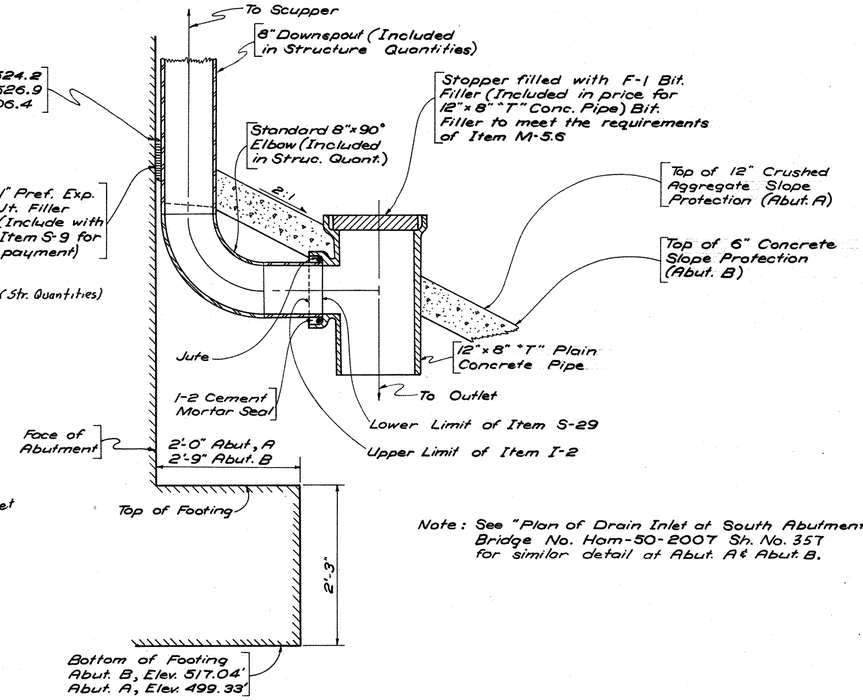
Note: For Plan of Drain Inlets at other Piers see Sh. No. 412



DRAINAGE PLAN AT PIER NO 2

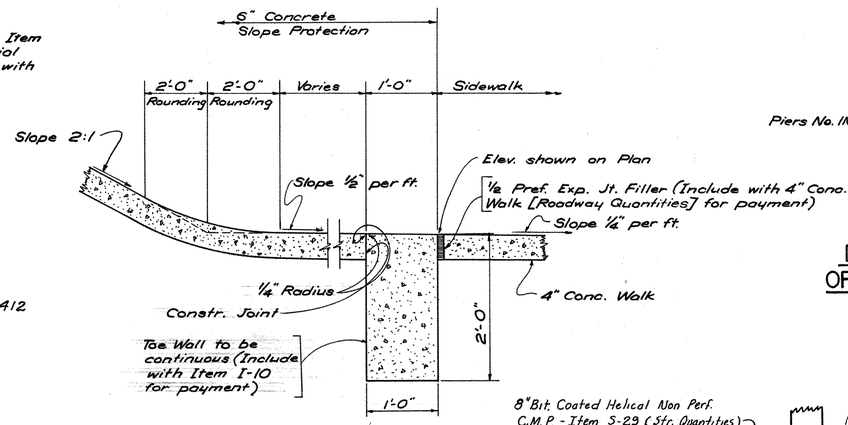


DRAINAGE PLAN AT PIER NO. I

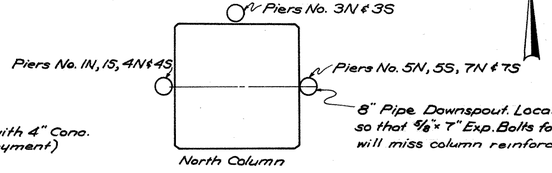


Note: See "Plan of Drain Inlet at South Abutment," Bridge No. Ham-50-2007 Sh. No. 35T for similar detail at Abut. A & Abut. B.

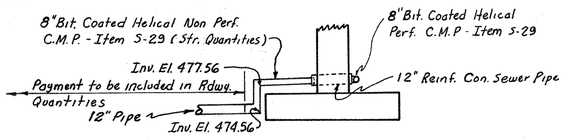
DETAIL OF DOWNSPOUT CONNECTION TO OUTLET



SECTION C-C
TOE WALL DETAIL



DETAIL SHOWING LOCATION OF DOWNSPOUTS ON COLUMN



SECTION B-B

HAZELET & ERDAL
CONSULTING ENGINEERS
CINCINNATI, OHIO

SLOPE PAVING & DRAINAGE DETAILS

BRIDGE NO. HAM-50-2012 R.&L.

H. & E. BRIDGE NO. 7

DESIGNED	DRAWN	TRACED	CHECKED	REVIEWED DATE	RE
	REM 8-25-61	J.P.B. 6-15-62	JHO 6/15/62	N.A.Z. 8-6-62	

MICROFILMED
JUN 14 1984

FED. RD. DIV.	STATE	PROJECT	FISCAL YEAR
2	OHIO		

405
464

HAM-50-19.76

ABUTMENT B

MARK	LENGTH	SHP.	NO.	WEIGHT
A401	6'-10"	Bent	12	55
A501	20'-7"	Str.	2	43
A502	8'-3"	Bent	5	43
A503	8'-6"		7	62
A504	8'-10"		7	64
A505	9'-3"		7	68
A506	9'-7"		16	160
A507	9'-11"	Bent	11	114
A508	29'-8"	Str.	53	1640
A509	24'-9"	Str.	7	181
A510	25'-0"	Str.	5	130
A511	25'-6"	Str.	10	266
A512	6'-4"	Bent	74	489
A513	23'-6"	Str.	16	392
A514	4'-6"	Bent	5	23
A515	24'-3"	Str.	8	202
A516	10'-2"	Bent	6	64
A517	10'-5"		7	76
A518	10'-9"		6	67
A519	11'-0"		2	23
A520	6'-5"		34	228
A521	8'-11"	Bent	30	279
A522	7'-0"	Str.	34	248
A523	10'-6"		10	110
A524	18'-5"		2	38
A525	8'-9"		20	183
A526	19'-9"		4	82
A527	28'-3"		5	147
A528	2'-0"	Str.	5	10
A529	4'-0"	Bent	4	17
A530	15'-6"	Str.	9	145
A531	13'-6"	Str.	13	183
A532	10'-5"	Bent	12	130
A533	6'-9"	Str.	5	35
A534	21'-9"		14	318
A535	16'-3"		4	68
A536	22'-5"		2	47
A537	4'-8"		4	19
A538	5'-7"			23
A539	6'-6"			27
A540	7'-5"			31
A541	8'-4"	Str.		35
A542	10'-6"	Bent		44
A543	4'-2"	Bent	4	17
A544	5'-11"	Bent	2	12
A545	30'-2"	Str.	4	126
A546	21'-2"	Str.	2	44
A547	13'-2"	Bent	13	179
A548	12'-6"	Str.	10	130
A549	30'-0"	Str.	18	563
A550	13'-7"	Bent	4	57
A551	10'-3"		4	43
A552	11'-2"		5	58
A553	8'-8"	Bent	4	36
A554	5'-2"	Bent	72	388
A601	8'-2"	Bent	5	61
A602	8'-5"		7	88
A603	8'-9"		7	92
A604	9'-2"		7	96
A605	9'-6"		16	228
A606	9'-10"	Bent	11	162
A607	8'-6"	Str.	156	1992
A608	20'-2"	Bent	94	2847
A609	10'-9"	Str.	21	339
A610	10'-1"	Bent	6	91
A611	10'-4"	Bent	7	109
A612	10'-8"	Bent	6	96
A701	15'-10"	Bent	14	453
A801	17'-10"	Bent	19	905
H501	21'-9"	Str.	8	

Total Wgt. of Reinf.
Steel (Abut. B) = 15,821

ABUTMENT A

MARK	LENGTH	SHP.	NO.	WEIGHT
A401	7'-0"	Bent	8	37
A501	11'-9"	Bent	6	74
A502	11'-4"		7	83
A503	10'-10"		7	79
A504	10'-4"		7	75
A505	9'-11"		14	145
A506	9'-5"		16	157
A507	8'-2"	Bent	97	826
A508	22'-6"	Str.	36	845
A509	17'-0"	Str.	8	142
A510	17'-6"	Str.	15	274
A511	4'-0"	Bent	5	21
A512	13'-3"	Str.	2	28
A513	8'-2"	Str.	1	9
A514	5'-3"	Str.	6	33
A515	4'-2"	Bent	6	26
A516	18'-0"	Str.	13	244
A517	4'-9"	Bent	2	10
A518	6'-4"	Bent	97	641
A519	7'-0"	Str.	38	277
A520	12'-3"	Str.	20	256
A521	6'-5"	Bent	26	174
A522	8'-11"	Bent	24	223
A523	11'-10"	Str.	14	173
A524	2'-9"	Str.	16	46
A525	3'-9"	Str.	4	16
A526	10'-1"	Bent	3	32
A527	9'-9"		7	71
A528	9'-7"		7	70
A529	9'-1"		7	66
A530	8'-9"		7	64
A531	8'-6"	Bent	9	80
A532	29'-8"	Str.	36	1114
A533	20'-0"		7	146
A534	19'-6"		12	244
A535	19'-3"		3	60
A536	15'-7"		7	114
A537	13'-6"	Str.	11	155
A538	13'-11"	Bent	3	44
A539	13'-2"	Bent	2	27
A540	34'-6"	Str.	28	1008
A541	2'-6"	Bent	5	13
A542	10'-0"	Str.	4	42
A543	18'-9"	Str.	2	39
A544	16'-9"	Str.	2	35
A545	4'-6"	Bent	5	23
A546	10'-10"	Bent	5	56
A547	8'-5"	Bent	3	26
A554	5'-2"	Bent	84	453
A601	17'-5"	Bent	6	157
A602	17'-0"		7	179
A603	16'-6"		7	173
A604	16'-0"		7	168
A605	15'-7"		14	328
A606	15'-1"		16	362
A607	8'-2"	Bent	1	12
A608	8'-0"	Str.	10	120
A609	8'-6"	Str.	4	51
A610	7'-2"	Str.	15	161
A611	13'-7"	Bent	125	2550
A612	14'-9"		7	155
A613	14'-5"		23	498
A614	14'-5"		7	152
A615	14'-2"		9	192
A616	15'-1"		21	476
A617	5'-5"		4	33
A618	15'-9"		2	47
A619	15'-5"		7	162
A620	15'-3"	Bent	7	160
H502	17'-7"	Str.	8	

Total Wgt. of Reinf.
Steel (Abut. A) = 15,032

SUPERSTRUCTURE

MARK	LENGTH	SHP.	NO.	WEIGHT
S4001	9'-2"	Bent	2093	12,816
S4002	3'-8"	Bent	62	152
S5001	31'-6"	Str.	42	1380
S5002	6'-0"	Bent	2305	14,425
S5003	30'-5"	Str.	123	3902
S5004	30'-3"		117	3691
S5005	28'-0"		6	175
S5006	27'-7"		24	690
S5007	26'-6"	Str.	24	663
S6001	31'-10"	Str.	602	28,784
S6002	26'-9"		3747	150,549
S6003	32'-0"		178	8555
S6004	25'-3"		2	76
S6005	24'-0"			72
S6006	22'-9"			68
S6007	21'-6"			65
S6008	20'-3"			61
S6009	19'-0"			57
S6010	17'-9"			53
S6011	16'-6"			50
S6012	15'-3"			46
S6013	14'-0"			42
S6014	12'-9"			38
S6015	11'-6"			35
S6016	10'-3"			31
S6017	9'-0"			27
S6018	7'-9"			23
S6019	6'-6"			20
S6020	5'-3"			16
S6021	4'-0"		2	12
S6022	25'-7"		1	38
S6023	24'-5"		2	73
S6024	23'-3"			70
S6025	22'-1"			66
S6026	20'-11"			63
S6027	19'-9"			59
S6028	18'-6"			56
S6029	17'-3"			52
S6030	16'-1"			48
S6031	14'-11"			45
S6032	13'-9"			41
S6033	12'-7"			38
S6034	11'-5"		2	34
S6035	10'-5"		1	16
S6036	9'-5"			14
S6037	8'-4"			13
S6038	7'-4"			11
S6039	6'-4"			10
S6040	5'-3"			8
S6041	4'-3"			6
S6042	3'-3"		1	5
S6043	5'-0"		3	23
S6044	6'-0"		3	27
S6045	3'-2"		64	304
S6046	21'-11"		27	889
S6047	7'-0"		5	53
S6048	30'-7"		1720	79,010
S6049	31'-0"		336	15,645
S6050	36'-0"		43	2325
S6051	38'-0"		127	7249
S6052	3'-0"		1	5
S6053	3'-10"			6
S6054	4'-8"			7
S6055	5'-5"			8
S6056	6'-3"			9
S6057	7'-1"			11
S6058	7'-11"			12
S6059	8'-9"			13
S6060	9'-6"			14
S6061	10'-4"			16
S6062	11'-2"			17
S6063	12'-0"	Str.	1	18

SUPERSTRUCTURE

MARK	LENGTH	SHP.	NO.	WEIGHT
S6064	12'-9"	Str.	1	19
S6065	13'-7"			20
S6066	14'-5"			22
S6067	15'-3"			23
S6068	16'-1"			24
S6069	16'-10"			25
S6070	17'-8"			27
S6071	18'-6"			28
S6072	19'-4"			29
S6073	20'-2"			30
S6074	20'-11"			31
S6075	21'-9"			33
S6076	22'-7"			34
S6077	23'-5"			35
S6078	24'-2"			36
S6079	25'-0"			38
S6080	25'-10"			39
S6081	26'-8"			40
S6082	27'-6"			41
S6083	28'-4"			43
S6084	29'-1"			44
S6085	29'-11"			45
S6086	30'-9"			46
S6087	31'-7"			47
S6088	32'-4"			49
S6089	33'-2"			50
S6090	34'-0"			51
S6091	23'-6"			35
S6092	21'-6"			32
S6093	24'-7"			37
S6094	22'-2"			33
S6095	19'-10"			30
S6096	17'-5"			26
S6097	15'-1"			23
S6098	12'-8"			19
S6099	10'-3"			15
S6100	7'-10"			12
S6101	5'-5"			8
S6102	3'-0"		1	5
S6103	21'-0"		3	95
S6104	9'-0"		3	41
S6105	25'-9"		1	39
S6106	24'-6"		2	74
S6107	23'-3"			70
S6108	22'-0"			66
S6109	20'-9"			62
S6110	19'-6"			59
S6111	18'-3"			55
S6112	17'-0"			51
S6113	15'-9"			47
S6114	14'-6"			44
S6115	13'-3"			40
S6116	12'-0"		2	36
S6117	10'-9"		1	16
S6118	9'-6"			14
S6119	8'-3"			12
S6120	7'-0"			11
S6121	5'-9"			9
S6122	4'-6"			7
S6123	3'-3"		1	5
S6124	15'-0"		2	45
S6125	8'-0"	Str.	3	36
S6128	26'-0"	Str.	86	3358
S6129	23'-0"		1	35
S6130	20'-8"			31
S6131	18'-4"			28
S6132	16'-0"			24
S6133	13'-8"		1	21
S6134	11'-3"		4	68
S6135	8'-11"		1	13
S6136	6'-7"			10
S6137	4'-3"			6
S6138	24'-0"			36
S6139	22'-1"			33
S6140	20'-2"			30
S6141	18'-3"		1	27
S6142	17'-0"	Str.	2	51

SUPERSTRUCTURE

MARK	LENGTH	SHP.	NO.	WEIGHT
S6143	27'-3"	Str.	232	9496
S6144	25'-0"		1	38
S6145	23'-7"			35
S6146	22'-3"			33
S6147	20'-10"			31
S6148	19'-6"			29
S6149	18'-1"			27
S6150	16'-9"			25
S6151	15'-4"			23
S6152	14'-0"			21
S6153	12'-7"			19
S6154	11'-3"			17
S6155	9'-10"			15
S6156	8'-6"			13
S6157	7'-1"			11
S6158	5'-9"			9
S6159	4'-4"			7
S6160	3'-0"			5
S6161	26'-0"			39
S6162	24'-4"			37
S6163	23'-3"			35
S6164	21'-10"			33
S6165	20'-6"			31
S6166	19'-1"			29
S6167	17'-9"			27
S6168	16'-4"			25
S6169	15'-0"			23
S6170	13'-7"			21
S6171	12'-3"		1	18
S6172	13'-0"		2	39
S6173	6'-6"	Str.	2	20
S6178	28'-5"	Str.	28	1195
S6179	19'-0"		28	799
S6180	9'-6"		28	400
S6181	30'-8"		1634	75,264
S6182	3'-0"		1	5
S6183	3'-8"			6
S6184	4'-5"			7
S6185	5'-1"			8
S6186	5'-10"			9
S6187	6'-6"			10
S6188	7'-3"			11
S6189	7'-11"			12
S6190	8'-8"			13
S6191	9'-4"			14
S6192	10'-1"			15
S6193	10'-9"			16
S6194	11'-6"			17
S6195	12'-2"			18
S6196	12'-10"			19
S6197	13'-7"			20
S6198	14'-3"			21
S6199	15'-0"			23
S6200	15'-8"			24
S6201	16'-5"			25
S6202	17'-1"			26
S6203	17'-10"			27
S6204	18'-6"			28
S6205	19'-2"			29
S6206	19'-11"			30
S6207	20'-7"			31
S6208	21'-4"			32
S6209	22'-0"			33
S6210	22'-9"			34
S6211	23'-5"			35
S6212	24'-2"			36
S6213	24'-10"			37
S6214	25'-7"			38
S6215	26'-3"			39
S6216	27'-0"			41
S6217	27'-8"			42
S6218	28'-4"			43
S6219	29'-1"			44
S6220	29'-9"			45
S6221	30'-6"			46
S6222	31'-2"			47
S6223	31'-11"	Str.	1	48

SUPERSTRUCTURE

MARK	LENGTH	SHP.	NO.	WEIGHT
S6224	32'-7"	Str.	1	49
S6225	33'-4"		1	50
S6226	34'-0"		1	51
S6227	26'-0"		418	16,324
S6228	21'-4"		8	256
S6229	23'-3"		68	2375
S6230	17'-6"		61	1603
S6231	36'-11"		45	2495
S6232	31'-5"		60	2831
S6233	25'-8"		1	39
S6234	24'-5"			37
S6235	23'-2"			35
S6236	22'-0"			33
S6237	20'-10"			31
S6238	19'-8"			30
S6239	18'-1"			27
S6240	17'-3"			26
S6241	16'-0"			24
S6242	14'-10"			22
S6243	13'-7"			20
S6244	12'-5"			19
S6245	22'-0"			33
S6246	20'-10"			31
S6247	19'-7"			29
S6248	18'-5"			28
S6249	17'-2"			26
S6250	16'-0"			24
S6251	14'-10"			22
S6252	13'-7"			20
S6253	12'-5"			19
S6254	11'-2"			17
S6255	10'-0"			15
S6256	8'-10"			13
S6257	7'-7"			11
S6258	6'-5"			10
S6259	5'-2"			8
S6260	4'-0"			6
S6261	21'-10"			33
S6262	20'-6"			31
S6263	19'-3"			29
S6264	17'-11"			27
S6265	16'-7"			25
S6266	15'-3"			23
S6267	14'-0"			21
S6268	12'-8"			19
S6269	11'-4"			17
S6270	10'-0"			15
S6271	8'-9"			13
S6272	7'-5"			11
S6273	6'-1"			9
S6274	4'-10"			7
S6275	3'-6"		1	5
S6276	5'-0"		3	23
S6277	13'-6"		2	41
S6278	4'-6"		2	14
S6279	26'-9"		1	40
S6280	25'-7"			38
S6281	24'-3"			36
S6282	22'-11"			34
S6283	21'-7"			32
S6284	20'-4"			31
S6285	19'-0"			29
S6286	17'-8"			27
S6287	16'-4"			25
S6288	15'-0"			23
S6289	13'-8"			21
S6290	12'-4"			19
S6291	11'-1"			17
S6292	9'-9"			15
S6293	8'-5"			13
S6294	7'-2"			11
S6295	5'-10"			9
S6296	4'-6"			7
S6297	3'-2"		1	5
S6298	34'-2"		45	2309
S6299	24'-10"		1	37
S6300	23'-6"		1	35
S6301	22'-3"	Str.	1	33

SUPERSTRUCTURE

MARK	LENGTH	SHP.	NO.	WEIGHT
S6302	21'-0"	Str.	1	32
S6303	19'-9"		1	30
S6304	18'-6"			28
S6305	17'-3"			26
S6306	16'-0"			24
S6307	14'-9"			22
S6308	13'-6"			20
S6309	12'-3"			18
S6310	11'-0"			17
S6311	9'-9"			15
S6312	8'-6"			13
S6313	7'-3"			11
S6314	6'-0"		1	9
S6315	4'-6"		3	20
S6316	31'-9"	Str.	696	33,191
S7001	22'-3"	Str.	2020	91,868
S7002	31'-8"		1862	120,521
S7003	17'-4"		27	957
S7004	30'-3"		1	62
S7005	29'-0"			59
S7006	27'-9"			57
S7007	26'-6"			54
S7008	25'-3"			52
S7009	24'-0"			49
S7010	22'-9"			47
S7011	21'-6"		1	44
S7012	20'-3"		2	83
S7013	19'-0"			78
S7014	17'-9"			73
S7015	16'-6"			67
S7016	15'-3"			62
S7017	14'-0"			57
S7018	12'-9"			52
S7019	11'-6"			47
S7020	10'-3"			42
S7021	9'-0"			37
S7022	7'-9"			32
S7023	6'-6"			27
S7024	5'-3"			21
S7025	4'-0"	Str.	2	16

ABUTMENT A

MARK	a	b
A501	10'-10"	1'-0"
A502	10'-5"	
A503	9'-11"	
A504	9'-5"	
A505	9'-0"	
A506	8'-6"	
A507	8'-2"	
A527	8'-10"	1'-0"

MARK	a	b
A528	8'-8"	1'-0"
A529	8'-2"	
A530	7'-10"	
A531	7'-7"	
A538	13'-0"	
A539	12'-3"	
A613	13'-7"	
A616	14'-3"	1'-0"

ABUTMENT B

MARK	a	b
A502	7'-4"	1'-0"
A503	7'-7"	
A504	7'-11"	
A505	8'-4"	
A506	8'-8"	
A507	9'-0"	
A516	9'-3"	
A517	9'-6"	1'-0"

MARK	a	b
A518	9'-10"	1'-0"
A519	10'-1"	
A532	9'-6"	
A547	12'-3"	
A601	7'-4"	
A602	7'-7"	
A603	7'-11"	
A604	8'-4"	1'-0"

MARK	a	b
A605	8'-8"	1'-0"
A606	9'-0"	
A610	9'-3"	
A611	9'-6"	
A612	9'-10"	
A701	15'-0"	
A801	17'-0"	1'-0"

ABUTMENT A

MARK	a	b	c	d
A511	2'-0"	2'-0"	1'-0"	1'-8¾"
A515	3'-3"	1'-0"	2"	11½"
A541	1'-3"	1'-3"	1'-1"	7½"
A617	2'-0"	3'-5"	3'-1"	1'-6¼"

ABUTMENT B

MARK	a	b	c	d
A529	2'-0"	2'-0"	6"	1'-11"
A542	8'-6"	2'-0"	1'-9½"	11"
A543	3'-3"	1'-0"	2"	11½"
A544	5'-0"	1'-0"	2"	11½"

ABUTMENT A

MARK	a	b
A401	3'-4"	6"
A507	1'-7"	5'-3"
A517	2'-3"	6"
A518	1'-7"	3'-5"
A554	1'-0"	3'-5"
A607	1'-7"	5'-3"

ABUTMENT B

MARK	a	b
A401	3'-3"	6"
A512	1'-7"	3'-5"
A554	1'-0"	3'-5"

ABUTMENTS A & B

MARK	a	b	c	d	e
A514	2'-0"	7"	2'-0"	6¾"	2" (B)
A545	2'-0"	7"	2'-0"	6½"	2½" (A)

ABUTMENT A

MARK	a	b	c
A601	1'-7"	5'-3"	10'-10"
A602			10'-5"
A603			9'-11"
A604			9'-5"
A605			9'-0"
A606	1'-7"	5'-3"	8'-6"

MARK	a	b	c
A612	1'-7"	5'-3"	8'-2"
A614			7'-10"
A615			7'-7"
A618			9'-2"
A619			8'-10"
A620	1'-7"	5'-3"	8'-8"

ABUTMENT B

MARK	a	b	c	d	e
A550	11½"	1'-3"	10'-5"	1'-3"	11½"
A551	11½"	1'-3"	7'-1"	1'-3"	11½"
A552	1'-3"	11½"	8'-0"	11½"	1'-3"
A553	1'-3"	11½"	5'-6"	11½"	1'-3"

ABUTMENT A

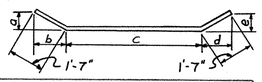
MARK	a	b	c	d	e
A546	1'-3½"	11"	7'-8"	11"	1'-3½"
A547	1'-3½"	11"	5'-3"	11"	1'-3½"

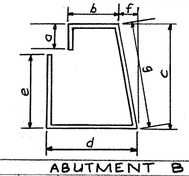
ABUTMENT B

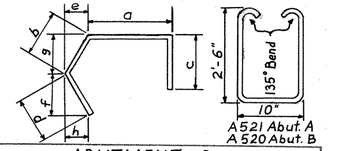
MARK	a	b	c	d	e	f	g
A608	1'-6"	11"	9'-2"	1'-5"	7'-8"	0"	9'-2"

ABUTMENT A

MARK	a	b	c	d	e	f	g
A611	1'-6"	11"	5'-10"	1'-5"	4'-6"	0"	5'-10"







A521 Abut. A
A520 Abut. B

ABUTMENT B

MARK	a	b	c	d	e	f	g	h
A521	2'-11"	2'-0"	1'-7"	2'-9"	4"	1'-3"	1'-11½"	2'-5½"

ABUTMENT A

MARK	a	b	c	d	e	f	g	h
A522	2'-11"	2'-0"	1'-7"	2'-9"	4"	1'-3"	1'-11½"	2'-5½"

Work this sheet with Sh. #406 & 407

HAZELET & ERDAL
CONSULTING ENGINEERS
CINCINNATI, OHIO

STEEL REINFORCEMENT LIST

BRIDGE NO. HAM-50-2012 R&L.

H&E. BRIDGE NO. 7

DESIGNED	DRAWN	TRACED	CHECKED	REVIEWED DATE	REVISED
	R.E.M. 9-23-61	J.O.C. 6-21-62	W.W.C. 10-19-61	A.M.Z. 8-6-62	

FED. RD. DIV.	STATE	PROJECT	FISCAL YEAR
2	OHIO		

406
464

HAM-50-19.76

SUPERSTRUCTURE

MARK	SHP.	LGTH.	TOTAL	WGT.
S7026	Str.	29'-7"	1	60
S7027	↑	28'-5"	↑	58
S7028		27'-3"		56
S7029		26'-1"		53
S7030		24'-11"		51
S7031		23'-10"		49
S7032		22'-9"	↑	47
S7033		21'-8"	1	44
S7034		20'-7"	2	84
S7035		19'-5"	↑	79
S7036		18'-3"		75
S7037		17'-1"		70
S7038		15'-11"		65
S7039		14'-9"		60
S7040		13'-7"		56
S7041		12'-6"	↓	51
S7042		11'-5"	2	47
S7043		10'-3"	1	21
S7044		9'-1"	↑	19
S7045		7'-11"		16
S7046		6'-9"		14
S7047		5'-7"		11
S7048		4'-5"	↓	9
S7049		3'-3"	1	7
S7050		5'-0"	3	31
S7051		6'-0"	3	37
S7052		7'-0"	5	72
S7053		3'-2"	64	414
S7054		29'-6"	1	60
S7055		27'-2"	↑	56
S7056		24'-10"		51
S7057		22'-6"		46
S7058		20'-1"		41
S7059		17'-8"		36
S7060		15'-4"		31
S7061		13'-0"		27
S7062		10'-7"		22
S7063		8'-3"		17
S7064	↓	5'-11"	↓	12
S7065	Str.	3'-6"	1	7
S7111	Str.	21'-0"	3	129
S7112	↑	9'-0"	3	55
S7113		15'-0"	2	61
S7114		29'-6"	1	60
S7115		28'-3"	↑	58
S7116		27'-0"		55
S7117		25'-9"		53
S7118		24'-6"	↓	50
S7119		23'-3"	1	48
S7120		22'-0"	2	90
S7121		20'-9"	↑	85
S7122		19'-6"		80
S7123		18'-3"		75
S7124		17'-0"		69
S7125		15'-9"		64
S7126		14'-6"		59
S7127		13'-3"	↓	54
S7128		12'-0"	2	49
S7129		10'-9"	1	22
S7130		9'-6"	↑	19
S7131		8'-3"		17
S7132		7'-0"		14
S7133		5'-9"		12
S7134		4'-6"	↓	9
S7135	↓	3'-3"	1	7
S7136	Str.	8'-0"	3	49
S7140	Str.	32'-6"	107	7108
S7141	↑	28'-2"	1	58
S7142		25'-9"	↑	53
S7143		23'-4"		48
S7144		20'-11"		43
S7145	↓	18'-6"	↓	38
S7146	Str.	16'-2"	1	33

SUPERSTRUCTURE

MARK	SHP.	LGTH.	TOTAL	WGT.
S7147	Str.	13'-9"	1	28
S7148	↑	11'-4"	4	93
S7149		9'-0"	1	18
S7150		6'-7"	↑	13
S7151		4'-2"		9
S7152		20'-6"	↓	42
S7153		18'-3"	1	37
S7154		17'-0"	2	69
S7155		30'-2"	1	62
S7156		28'-9"	↑	59
S7157		27'-4"		56
S7158		26'-0"		53
S7159		24'-7"		50
S7160		23'-3"		48
S7161		21'-10"		45
S7162		20'-6"		42
S7163		19'-1"		39
S7164		17'-9"		36
S7165		16'-5"		34
S7166		15'-0"		31
S7167		13'-8"		28
S7168		12'-3"		25
S7169		10'-11"		22
S7170		9'-6"		19
S7171		8'-2"		17
S7172		6'-9"		14
S7173		5'-5"		11
S7174		4'-0"		8
S7175		21'-10"		45
S7176		20'-6"		42
S7177		19'-1"		39
S7178		17'-9"		36
S7179		16'-4"		33
S7180		15'-0"		31
S7181		13'-7"	↓	28
S7182		12'-3"	1	25
S7183	↓	13'-0"	2	53
S7184	Str.	6'-6"	2	27
S7189	Str.	26'-0"	420	22,320
S7190	↑	21'-4"	8	349
S7191		23'-3"	68	3232
S7192		17'-6"	61	2182
S7193		37'-3"	45	3426
S7194		31'-9"	60	3894
S7195		25'-8"	1	52
S7196		24'-5"	↑	50
S7197		23'-2"		47
S7198		22'-0"		45
S7199		20'-10"		43
S7200		19'-8"		40
S7201		18'-5"		38
S7202		17'-3"		35
S7203		16'-0"		33
S7204		14'-10"		30
S7205		13'-7"		28
S7206		12'-5"		25
S7207		22'-0"		45
S7208		20'-10"		43
S7209		19'-7"		40
S7210		18'-5"		38
S7211		17'-2"		35
S7212		16'-0"		33
S7213		14'-10"		30
S7214		13'-7"		28
S7215		12'-5"		25
S7216		11'-2"		23
S7217		10'-0"		20
S7218		8'-10"		18
S7219		7'-7"		16
S7220		6'-5"		13
S7221		5'-2"		11
S7222		4'-0"		8
S7223		21'-10"		45
S7224		20'-6"		42
S7225	↓	19'-3"	↓	39
S7226	Str.	17'-11"	1	37

SUPERSTRUCTURE

MARK	SHP.	LGTH.	TOTAL	WGT.
S7227	Str.	16'-7"	1	34
S7228	↑	15'-3"	↑	31
S7229		14'-0"		29
S7230		12'-8"		26
S7231		11'-4"		23
S7232		10'-0"		20
S7233		8'-9"		18
S7234		7'-5"		15
S7235		6'-1"		12
S7236		4'-10"	↓	10
S7237		3'-6"	1	7
S7238		5'-0"	3	31
S7239		13'-6"	2	55
S7240		4'-6"	2	18
S7241		27'-3"	1	56
S7242		25'-11"	↑	53
S7243		24'-7"		50
S7244		23'-3"		48
S7245		21'-11"		45
S7246		20'-8"		42
S7247		19'-4"		40
S7248		18'-0"		37
S7249		16'-8"		34
S7250		15'-4"		31
S7251		14'-0"		29
S7252		12'-8"		26
S7253		11'-5"		23
S7254		10'-1"		21
S7255		8'-9"		18
S7256		7'-6"		15
S7257		6'-2"		13
S7258		4'-10"	↓	10
S7259		3'-6"	1	7
S7260		34'-6"	45	3173
S7261		24'-10"	1	51
S7262		23'-6"	↑	48
S7263		22'-3"		45
S7264		21'-0"		43
S7265		19'-9"		40
S7266		18'-6"		38
S7267		17'-3"		35
S7268		16'-0"		33
S7269		14'-9"		30
S7270		13'-6"		28
S7271		12'-3"		25
S7272		11'-0"		22
S7273		9'-9"		20
S7274		8'-6"		17
S7275		7'-3"	↓	15
S7276		6'-0"	1	12
S7277	Str.	4'-6"	3	28

Total Wgt of Reinforcing Steel (Superstructure) = 759001#

HANDRAILS

MARK	SHP.	LGTH.	TOTAL	WGT.
H504	Str.	21'-8"	12	
H505	↑	16'-0"	60	
H506		19'-0"	12	
H507		10'-4"	8	
H508		13'-4	12	
H509		13'-0"	8	
H510		21'-1"	12	
H511		15'-8"	360	
H512		18'-8"	36	
H513		24'-2"	4	
H514		9'-11"	↑	
H515		22'-1"		
H516		5'-0"	↓	
H517		23'-8	4	
H518		17'-8"	8	
H519		23'-11"	4	
H520		13'-8"	8	
H521		17'-6"	92	
H523		25'-0"	4	
H524		9'-0"	4	
H525		23'-11"	4	
H526		20'-8"	8	
H527		23'-5"	4	
H528		20'-5"	4	
H529		14'-5"	4	
H530		13'-3"	4	
H531		16'-4"	16	
H532		18'-3"	4	
H533		11'-4"	4	
H534		15'-10"	12	
H535		18'-0"	4	
H536		16'-2"	8	
H537	↓	10'-11"	4	
H538	Str.	19'-9"	4	

MICROFILMED
JUN 14 1984

PIERS

MARK	SHP.	LGTH.	1 N	1 S	2 N	2 S	3 N	3 S	4 N	4 S	5 N	5AN	5 S	6 N	6 S	7 N	7 S	TOTAL	WGT.
P401	Bent	13'-7"					88	85	83	88	93		96					533	4836
P402	↑	12'-1"									90		93					183	1477
P403		4'-0"							29	29	20		20					98	262
P404		11'-7"	79	75	65	63						96		65	78	60	75	656	5076
P405		10'-3"	77	72	64	60						94		63	75	58	72	635	4348
P406		3'-6"	18	10	18							16		16	16	16	16	126	295
P407	↓	11'-9"					86	84										170	1334
P408	Bent	12'-3"							81	85								166	1358
P501	Bent	8'-1"							32	32								64	540
P502	↑	9'-1"							32	32								64	606
P503		9'-5"							360	360								720	7072
P504		8'-5"							32	32								64	562
P505		8'-4"					240	240					40					520	4520
P506		9'-4"									44		24					68	662
P507		9'-8"									364		328					692	6977
P508		7'-8"										44		44	44	44	44	220	1759
P509		8'-0"										284		284	284	284	284	1420	11,849
P510		6'-10"					24	24										48	342
P511	↓	7'-5"	24	32	24													80	619
P512	Bent	7'-9"	192	328	192													712	5755
P513	Str.	22'-7"	28		44	44												116	2732
P514	Str.	25'-0"		28														28	730
P515	Bent	7'-8"				336												336	2687
P516	Str.	23'-5"		14														14	342
P517	Str.	21'-1"	14															14	308
P518	Str.	20'-4"			22	22												44	933
P519	Bent	4'-5"	36	48	36	48						36		36	36	36	36	348	1603
P520	Bent	4'-11"					36	48	36	36	36		36					228	1169
P521	Str.	27'-7"											20					20	575
P522	Bent	8'-1"							8				8					16	135
P523	Bent	12'-5"							44				36					80	1036
P524	Str.	7'-0"							6				6					12	88
P525	Str.	28'-10							20									20	601
P601	Str.	33'-8"	32															32	1618
P602	↑	36'-1"		32														32	1734
P603		32'-1"				36												36	1735
P604		33'-4"			36													36	1802
P605		10'-10"			6													6	98
P606	↓	20'-5"			10	6												16	491
P607	Str.	6'-6"				11												11	107
P608	Bent	6'-10"				12												12	123
P609	Str.	9'-10"			5													5	74
P610	Str.	4'-8"				12												12	84
P701	Str.	35'-9"		4					4	4								12	877
P702	Str.	33'-8"								4								4	275
P703	Bent	10'-10"							4	4								8	177
P704	Bent	10'-6"							4	4	4		4					16	343
P705	Str.	34'-6"									6		6					12	846
P706	Str.	32'-9"									2		2					4	268
P707	Bent	10'-9"									4		4					8	176
P708	Str.	30'-0"	4		4		4	4										16	981
P709	Bent	9'-8"					4	4										8	158
P710	Str.	27'-10"										4		4	4	4	4	20	1138
P711	Bent	8'-9"										4		4	4	4	4	20	358
P712	Bent	8'-11"										4		4	4	4	4	20	365
P713	Str.	34'-10"							4									4	285
P714	Bent	9'-6"					4	4										8	155
P715	↑	9'-9"	4		4	8												16	319
P716		9'-9"	4		4													8	159
P717	↓	9'-10"	31	35														66	1327
P718	Bent	10'-9"		8														8	176
P719	Str.	31'-6"				4												4	258
P720	Bent	10'-10"			62	62												124	2746
P721	Str.	14'-6"			63	63												126	3734
P722	Bent	9'-10"			28													28	563
P723	Str.	6'-3"			28													28	358
P801	Bent	15'-2"							72	72								144	5831
P802	Bent	11'-8"					56	56			62		62		51			287	8940
P803	Str.	13'-0"	64	71														135	4686
P804	Str.	13'-10"	66	72														138	5097
P805	Bent	6'-6"	33	36	63	63												195	3384
P806	Str.	27'-6"		8														8	587
P807	Str.	20'-7"			64	64												128	7035
P808	Str.	11'-0"			31	31												62	1821

Work this sheet with Sh.# 405 & 407

HAZELET & ERDAL
CONSULTING ENGINEERS
CINCINNATI, OHIO

STEEL REINFORCEMENT LIST

BRIDGE NO. HAM-50-2012 R.& L.

H.&E. BRIDGE NO. 7

DESIGNED	DRAWN	TRACED	CHECKED	REVIEWED DATE	REVISED
	J.T.C. 12-28-61	J.D.C. 7-27-62	J.H.D. 1/4/62	H.A.Z. 8-6-62	10-30-62

FED. RD. DIV.	STATE	PROJECT	FISCAL YEAR
2	OHIO		

407
464

HAM-50-19.76

PIERS

MARK	SHP.	LGTH.	IN	IS	2N	2S	3N	3S	4N	4S	5N	5AN	5S	6N	6S	7N	7S	TOTAL	WGT.
P901	Bent	7'-4"													16			16	399
P902	Str.	20'-2"			16										16			32	2194
P903	Str.	19'-5"				16											16	32	2113
P904	Bent	6'-10"										16		16		16	16	64	1487
P905	Str.	24'-3"										16						16	1319
P906	Str.	17'-5"												16				16	947
P907	Str.	16'-2"														16		16	879
P908	Bent	7'-10"							20	20	18		18					76	2024
P909	Str.	24'-7"											18					18	1504
P910	Str.	23'-7"									18							18	1443
P911	↕	18'-0"					4	4										8	490
P912		23'-0"	12		12		12	12										48	3754
P913		40'-0"	4		4													8	1088
P914		12'-10"							4	4								8	349
P915		17'-7"	4		4													8	478
P916	↕	20'-6"	4		4													8	558
P917	Str.	23'-4"	16															16	1269
P918	Bent	15'-6"	101	112			42	42										297	15,652
P919	Str.	21'-5"							20									20	1456
P920	Str.	22'-2"		16						20								36	2713
P921	Bent	17'-0"			106	107												213	12,311
P1001	Str.	23'-8"		8														8	815
P1002	Str.	28'-4"		4														4	488
P1003	Str.	27'-10"		12														12	1437
P1004	Bent	19'-4"							66	66								132	10,981
P1005	Bent	23'-9"	6		6													12	1226
P1006	Str.	16'-10"					8	8										16	1159
P1007	Str.	23'-0"					14											14	1386
P1008	Bent	7'-5"					14	14										28	894
P1009	Str.	22'-3"						14										14	1340
P1010	Bent	12'-4"										84		84		84	84	336	17,831
P1011	Bent	15'-10"													48			48	3270
P1012	Str.	37'-6"										4		4	4	4	4	20	3227
P1013	Str.	18'-11"										4		4	4	4	4	20	1628
P1014	Str.	14'-10"										4		4	4	4	4	20	1277
P1015	Bent	42'-9"	6		6													12	2207
P1016	Str.	24'-8"				12												12	1274
P1017	Str.	19'-0"		2														2	164
P1018	Str.	40'-0"										6		6	6	6	6	30	5164
P1101	Str.	24'-0"		6						20								26	3315
P1102	↕	28'-4"				10			18	18								46	6925
P1103		19'-3"				4			6	6	6		6					28	2864
P1104	↕	17'-3"							6	6	6		6					24	2200
P1105	Str.	16'-10"							6	6	4		4					20	1789
P1106	Bent	26'-1"									12		12					24	3326
P1107	Str.	27'-0"									18		18					36	5164
P1108	Bent	19'-8"									48		48					96	10,031
P1109	Bent	40'-2"										6		6	6	6	6	30	6402
P1110	Str.	21'-5"													16			16	1821
P1111	↕	20'-8"															16	16	1757
P1112		20'-3"				20									16			36	3873
P1113	Str.	19'-7"															16	16	1665
P1114	Bent	8'-5"													32			32	1431
P1115	Bent	7'-11"					28	28				32		32		32	32	184	7739
P1116	Str.	25'-6"	16									16						32	4335
P1117	Str.	18'-7"												16				16	1580
P1118	↕	17'-5"														16		16	1481
P1119		24'-6"										16	18					34	4426
P1120	↕	17'-7"												16				16	1495
P1121	Str.	16'-4"														16		16	1388
P1122	Bent	42'-8"					6	6										12	2720
P1123	Bent	23'-11"					6	6										12	1525
P1124	Str.	23'-10"	16															16	2026
P1125	↕	22'-9"			16													16	1934
P1126		20'-11"			16				20									36	4001
P1127		22'-11"		16														16	1948
P1128		24'-4"		16			14											30	3878
P1129		21'-9"				16												16	1849
P1130		22'-2"					14											14	1649
P1131		21'-10"								20								20	2320
P1132		23'-7"						14			18							32	4009
P1133	↕	14'-6"							8	8								16	1233
P1134	Str.	21'-8"						14										14	1612

PIERS

MARK	SHP.	LGTH.	IN	IS	2N	2S	3N	3S	4N	4S	5N	5AN	5S	6N	6S	7N	7S	TOTAL	WGT.
P1135	Bent	8'-11"							40	40	36		36					152	7201
P1136	Str.	25'-0"									18							18	2391
P1137	Str.	26'-0"											18					18	2486
P1138	Str.	23'-2"							20									20	2462
P1139	Bent	31'-0"		6														6	988
P1140	Bent	26'-8"		6					12	12								30	4250
P1141	Bent	22'-11"				6												6	731
P1142	Bent	21'-11"				6						6		6	6	6	6	36	4192

Total Wgt. of Reinforcing Steel (Piers) = 375,084#

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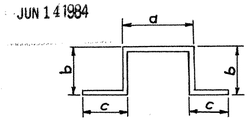
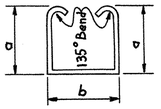
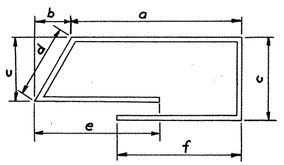
JUN 14 1984



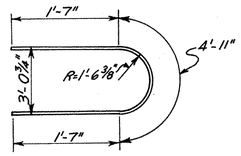
SUPERSTRUCTURE			
MARK	a	b	c
S4002	0'-7"	1'-3"	0'-6"



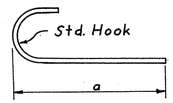
SUPERSTRUCTURE		
MARK	a	b
S5002	2'-3"	0'-11"



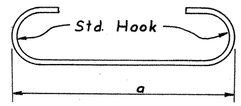
SUPERSTRUCTURE						
MARK	a	b	c	d	e	f
S4001	3'-0"	0'-4"	1'-3"	1'-3½"	2'-0"	2'-0"



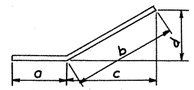
P522



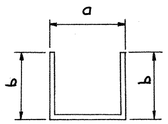
PIERS	
MARK	a
P901	6'-1"
P904	5'-7"
P908	6'-7"
P1008	6'-0"
P1114	6'-10"
P1115	6'-4"
P1135	7'-4"



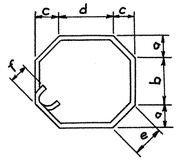
PIERS	
MARK	a
P801	13'-0"
P802	9'-6"
P918	13'-0"
P921	14'-6"
P1004	16'-6"
P1011	13'-0"
P1010	9'-6"
P1108	16'-6"



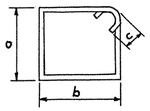
PIERS				
MARK	a	b	c	d
P703	2'-3"	8'-7"	8'-1"	2'-9"
P704	↕	8'-3"	8'-1"	2'-0"
P707		8'-6"	8'-1"	2'-6"
P711		6'-6"	6'-4"	1'-6"
P712		6'-8"	6'-4"	1'-11"
P714		7'-3"	7'-1"	1'-6"
P709		7'-5"	7'-1"	2'-0"
P715		7'-6"	7'-4"	1'-6"
P716	↕	7'-6"	7'-4"	2'-1"
P718	2'-3"	8'-6"	8'-4"	1'-6"



PIERS		
MARK	a	b
P403	0'-6"	3'-2"
P406	0'-6"	2'-8"
P501	3'-2"	2'-0"
P502	3'-8"	2'-0"
P503	3'-10"	2'-0"
P504	3'-4"	2'-0"
P505	3'-3"	2'-0½"
P506	3'-9"	2'-0½"
P507	3'-11"	2'-0½"
P508	3'-0"	1'-11"
P509	3'-2"	1'-11"
P510	2'-6"	2'-0½"
P511	3'-0"	1'-8"
P512	3'-2"	1'-8"
P515	3'-1"	1'-9"
P519	2'-8"	1'-0"
P520	3'-2"	1'-0"
P523	3'-2"	4'-9"



PIERS						
MARK	a	b	c	d	e	f
P402	0'-8"	1'-10"	0'-9½"	1'-7"	1'-0½"	0'-8"
P405	0'-8"	1'-4"	0'-8"	1'-4"	0'-11½"	0'-8"
P408	0'-6½"	2'-1"	0'-9½"	1'-7"	0'-11½"	0'-8"
P407	9'-0"	1'-8"	1'-0½"	1'-1"	1'-3½"	0'-8"



PIERS			
MARK	a	b	c
P401	3'-2"	3'-2"	0'-8"
P404	2'-8	2'-8"	0'-8"



PIERS		
MARK	a	b
P717	8'-9"	1'-2½"
P805	5'-3"	1'-5"
P720	9'-9"	1'-2½"
P722	8'-0"	2'-0"
P608	5'-0"	2'-0"
P1005	21'-0"	3'-0"
P1015	40'-0"	↕
P1109	37'-6"	
P1139	28'-4"	
P1140	24'-0"	
P1141	20'-3"	
P1142	19'-3"	
P1122	40'-0"	
P1123	21'-3"	↕
P1106	23'-5"	3'-0"

REPLACEMENT BARS			
MARK	LGTH.	SHAPE	NO.
RE 401	5'-3"	Str.	2
RE 501	5'-7"	↕	5
RE 601	5'-11"		24
RE 701	6'-3"		15
RE 801	6'-6"		2
RE 901	6'-10"		3
RE 1001	7'-3"	↕	3
RE 1101	7'-7"	Str.	7

Bar size is indicated in the bar mark:
Superstructure –
The first digit indicates bar size No.
Piers and Abutments –
The first digit where three digits are used, and the first two digits where four are used, indicate the bar size number. For example, P601 is a No. 6 bar and P1001 is a No. 10 size.

Reinforcement bar mark H501 thru H538 are included in item S-14 (railing) for payment.

Total wgt. of reinforcing steel = 1,164,938#

Work this sheet with Sh # 405 & 406

HAZELET & ERDAL
CONSULTING ENGINEERS
CINCINNATI, OHIO

STEEL REINFORCEMENT LIST

BRIDGE NO. HAM-50-2012 R.&L.

H.&E. BRIDGE NO. 7

DESIGNED	DRAWN	TRACED	CHECKED	REVIEWED DATE	REVISED
	J.T.C. 12-28-61	J.D.C. 7-31-62	J.H.O. 1/4/62	N.A.Z. 8-6-62	10-30-62

MICROFILMED
JUN 14 1984

REFERENCE shall be made to standard Drawings AR-1-57 "Revised 4-2-62", C.S.B-2-56, Sheets 2 & 3 "Revised 2-2-59", RB-1-55 "Revised 2-2-59", Supplemental Specification No. I-129 "Revised 4-5-61", Supplemental Specification No. S-307 dated 8-23-60, Supplemental Specification No. 207.10 dated 4-25-61 and S-407 dated 4-19-62.

PILES: Since the structures of this project are to be constructed in a metropolitan area where there are numerous areas in which buildings have been dismantled and the existing basements filled with boulders, gravel, bricks and other random debris, the Contractor shall use augering, spudding or whatever means are necessary to permit the piles to be driven without damaging them whenever the above conditions are encountered.

WELDING of structural steel shall be Class "A" except as otherwise shown. Welds shown as field welds may, at the option of the Contractor, be made in the shop.

POROUS BACKFILL (where called for in the plans) shall be 2 ft. thick and shall extend up to the underside of the approach slab or sidewalk unless otherwise noted.

DECK CONSTRUCTION PROCEDURE: In order to facilitate water curing of the concrete deck slab, the placing of concrete shall progress upgrade. The slab may be placed in sections, between transverse construction joints which are parallel to transverse reinforcing steel and are located near the center of any span.

FOUNDATION SOUNDINGS: Foundation design and foundation quantities are based on a study of the soil sampling soundings made at the site. This sounding information may be inspected in the office of the Bureau of Bridges in Columbus or in the Division office, but the State assumes no responsibility for the accuracy thereof.

UTILITY LINES: All labor and expense involved in relocating (installing) the affected utility lines shall be borne by the owners. The Contractor and Owners are requested to cooperate by arranging their work in such a manner that inconvenience to either will be held to a minimum.

SHEETING AND BRACING: Before construction is started, eight sets of prints showing details of the sheeting and bracing to be used for excavation adjacent to the railroad tracks shall be submitted to the Director for approval by the Department of Highways and by the Railroad Company. Eight sets of prints will be required for each railroad involved.

ALIGNING RAILROAD TRACKS: After the Contractor has completed all excavation and backfill adjacent to the railroad tracks in compliance with Sec. E-2.04 and E-2.08 of the Construction and Material Specifications, subject to the supervision of the Railroad Company, nothing in Sec. E-2.04, E-2.08 or G-8.07 of the Specifications shall be construed to hold the Contractor liable for aligning and re-surfacing the railroad tracks.

EXCAVATION AND BACKFILL: Excavation quantity includes the removal of fill material between the surface of proposed embankment and the bottom of footings.

LIGHTING AND SIGNING: For special notes for Lighting and Signing see Sheet No. 209 & 210.

Welded Stud Shear Connectors (4" × $\frac{3}{4}$") shall be placed in pairs at 12" centers for the full length of beams or girders and shall conform to Supplemental Specification No. S-407 adopted April 19, 1962.

HAZELET & ERDAL
CONSULTING ENGINEERS
CINCINNATI, OHIO

GENERAL NOTES

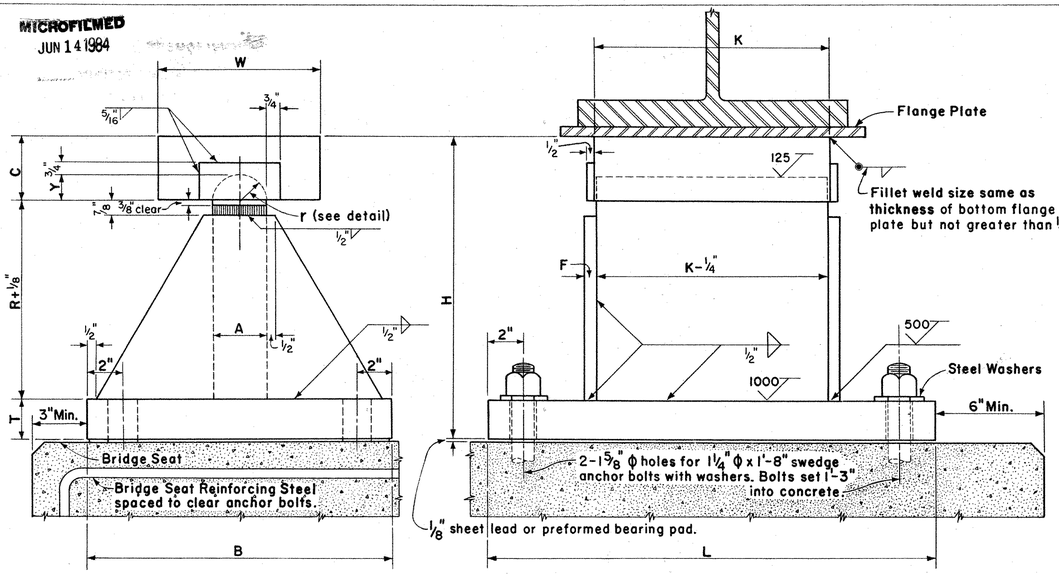
DESIGNED	DRAWN	TRACED	CHECKED	REVIEWED DATE	REVISED
			JHO 3/23/62	W.A.Z. 8-7-62	

MICROFILMED
JUN 14 1984

FED. RD. DIV.	STATE	PROJECT	FISCAL YEAR
2	OHIO		

409
464

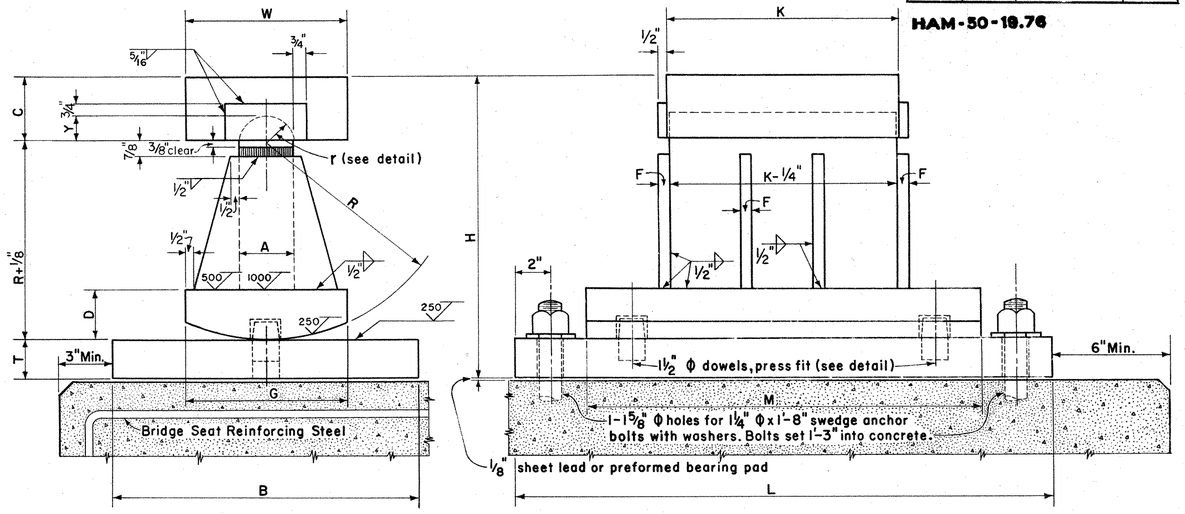
HAM-50-18.76



STRUCTURAL STEEL BOLSTER

See Table below for additional dimensions.

No.	A	B	C	D	F	G	H	K	L	M	R	T	W	Y
R100-A	2½	10	2½	2	½	7½	10⅝	9	25	17	6½	1½	9	1 3/16
R125-A	3	11	3	2	½	8	13½	12½	26	18	8⅞	1½	9	1 7/16
R125-B	3	11	3	2	½	8	14⅛	12½	26	18	9½	1½	9	1 7/16
R125-C	3	11	3	2	½	8	12⅛	10½	26	18	7½	1½	9	1 7/16
R125-D	3	11	3	2	½	8	12⅛	12½	26	18	7½	1½	9	1 7/16
R125-E	3	11	3	2	½	8	13⅛	12½	26	18	8½	1½	9	1 7/16
R125-F	3	11	3	2	½	8	13	12½	26	18	8⅜	1½	9	1 7/16
R125-G	3	11	3	2	½	8	13¼	12½	26	18	8⅝	1½	9	1 7/16
R125-H	3	11	3	2	½	8	12⅛	16½	26	18	7½	1½	9	1 7/16
B125-A	3	11	3		½		12⅛	12½	22		7½	1½	9	1 7/16
B125-B	3	11	3		½		13¼	12½	22		8⅝	1½	9	1 7/16
B125-C	3	11	3		½		14½	12½	22		9⅞	1½	9	1 7/16
B125-D	3	11	3		½		13⅛	12½	22		8½	1½	9	1 7/16
B125-E	3	11	3		½		12½	12½	22		7⅞	1½	9	1 7/16
R150-A	3	12	3	2¼	½	8½	13⅜	16½	27	19	8½	1¾	9	1 7/16
B150-A	3	12	3		½		13⅜	16½	26		8½	1¾	9	1 7/16
R175-A	3	14	3½	2½	½	9	15⅛	12	28	20	9½	2	9	1 7/16



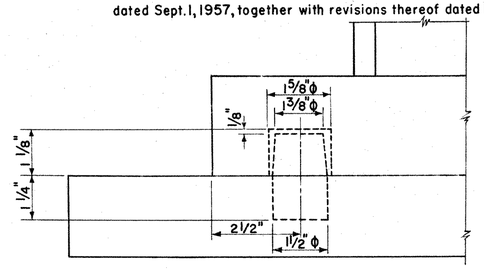
STRUCTURAL STEEL ROCKER

See Table below for additional dimensions.

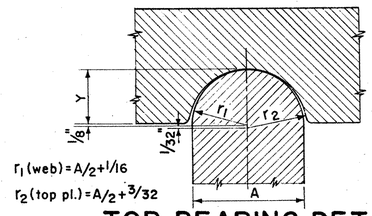
No.	A	B	C	D	F	G	H	K	L	M	R	T	W	Y
R175-B	3	14	3½	2½	½	9	15⅛	16½	28	20	9½	2	9	1 7/16
B175-A	3	14	3½		½		15⅛	12	23		9½	2	9	1 7/16
R200-A	3	16	3½	2¾	⅝	9	16⅜	12	29	21	10½	2¼	9	1 7/16
R200-B	3	16	3½	2¾	⅝	9	16¾	12	29	21	10⅞	2¼	9	1 7/16
B200-A	3	16	3½		⅝		16⅜	12	26		10½	2¼	9	1 7/16
R225-A	3	17	3½	2¾	⅝	9	16⅞	16½	30	22	11	2¼	9	1 7/16
R250-A	3½	18	3½	2¾	¾	10	17⅝	13	31	23	11½	2½	9	1 1/16
B250-A	3½	18	3½		¾		17⅝	13	26		11½	2½	9	1 1/16
R300-A	3½	20	6	3¼	¾	12	21⅝	16½	33	25	12½	3	16	1 1/16
R325-A	4	21	6	3½	¾	13	22⅜	16½	34	26	13	3¼	16	1 5/16
R350-A	4	22	6¼	3½	¾	14	23⅜	16½	35	27	13½	3½	16	1 5/16
R375-A	4½	23	6½	3¾	⅞	14	24⅛	16½	36	28	14	3½	16	2 3/16
B425-A	4½	25	6½		⅞		25⅝	16½	33		15	4	16	2 3/16
B450-A	4½	25	6¾		1		26⅜	16½	35		15½	4	16	2 3/16
R475-A	4½	26	6¾	4½	1	16	27⅛	19½	41	33	16	4¼	16	2 3/16
R500-A	5	27	7	4½	1	16	27⅞	20½	42	34	16½	4¼	16	2 7/16

Note: Masonry plates have been revised from dimension shown at certain locations. For location of revised masonry plates see structural steel details. Corners of masonry plates shall be clipped where necessary to provide a minimum distance of 3" from plate to edge of concrete.

Design Specifications: This drawing conforms to the requirements of "Design Specifications for Highway Structures" of the State of Ohio, Department of Highways, dated Sept. 1, 1957, together with revisions thereof dated Feb. 21, 1958.



DOWEL DETAIL



TOP BEARING DETAIL

HAZELET & ERDAL
CONSULTING ENGINEERS
CINCINNATI, OHIO

ROCKERS AND BOLSTERS

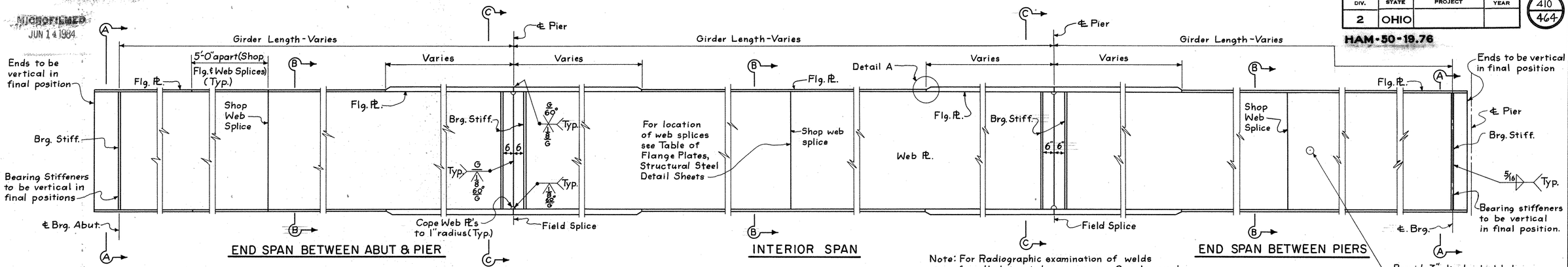
DESIGNED	DRAWN	TRACED	CHECKED	REVIEWED DATE	REVISED
		JTC	JHO 3/28/62	H.A.B. 8-7-62	

MICROFILMED
JUN 14 1984

FED. RD. DIV.	STATE	PROJECT	FISCAL YEAR
2	OHIO		

410
464

HAM-50-19.76

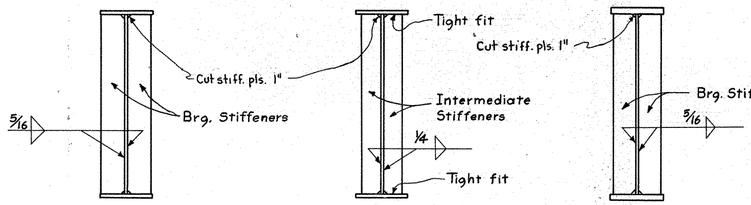


Note: For Radiographic examination of welds for all plate girder spans see Supplemental Specification No. S-307.

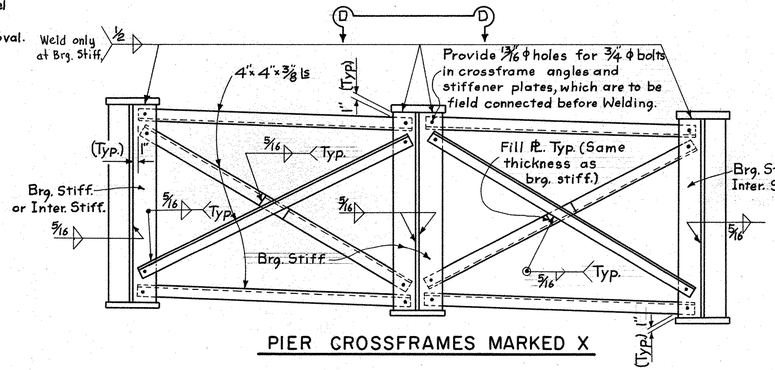
TYPICAL PLATE GIRDER ELEVATIONS

Bearing stiffeners over piers & abutments shall be grooved and fully butt-welded to the lower flange and fitted in close contact without welding at the upper flange, except as shown at the pier crossframes.

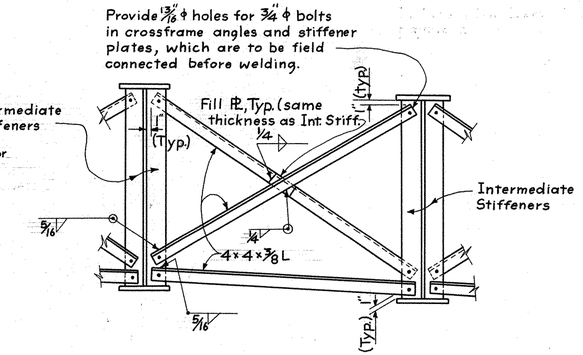
If additional web and flange shop splices are necessary other than those shown on the Table of Flange Plate, Structural Steel Details, their location and details shall be submitted to the Director for approval.



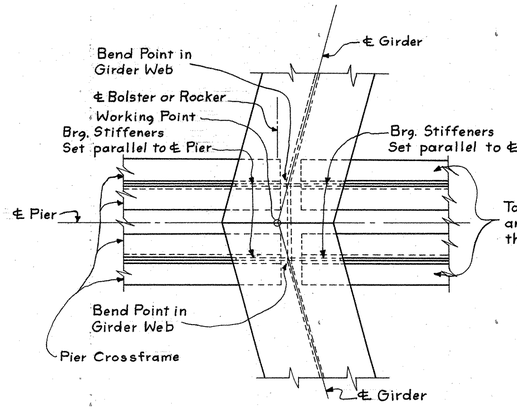
SECTION A-A SECTION B-B SECTION C-C



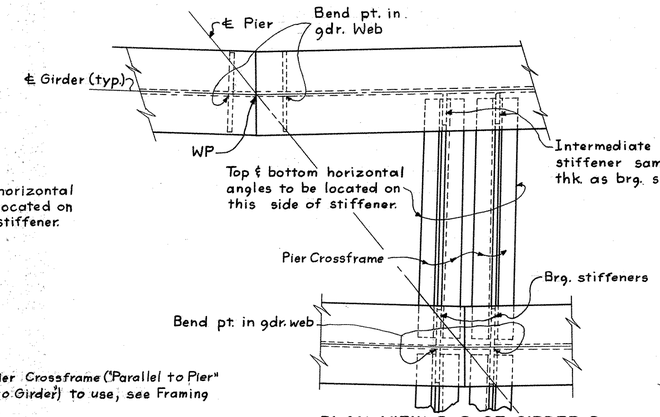
PIER CROSSFRAMES MARKED X



TYPICAL INTERMEDIATE CROSSFRAME

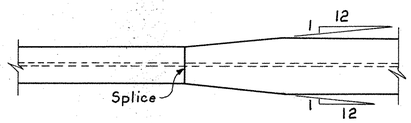


PLAN VIEW D-D OF GIRDER & PIER CROSSFRAME CONNECTION WITH CROSSFRAME PARALLEL TO PIER

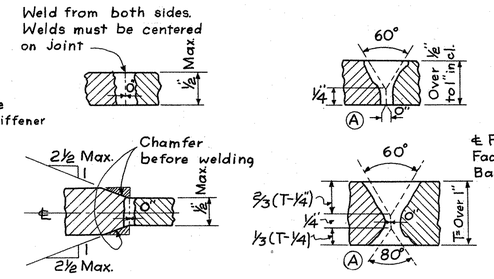


PLAN VIEW D-D OF GIRDER & PIER CROSSFRAME CONNECTION WITH CROSSFRAME NORMAL TO GIRDER

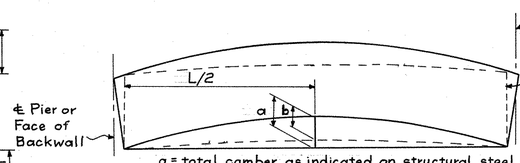
For type Pier Crossframe ("Parallel to Pier" or "Normal to Girder") to use, see Framing Plan Sheet.



DETAIL A
(Detail of splice with flanges of different widths)



TYPICAL WELDED JOINTS
Automatic Submerged Arc Process.



a = total camber as indicated on structural steel sheets.
b = total deflection when bridge is completed.

CAMBER DIAGRAM
Cut web plates to parabolic camber indicated by diagram.

HAZELET & ERDAL
CONSULTING ENGINEERS
CINCINNATI, OHIO

STRUCTURAL STEEL DETAILS

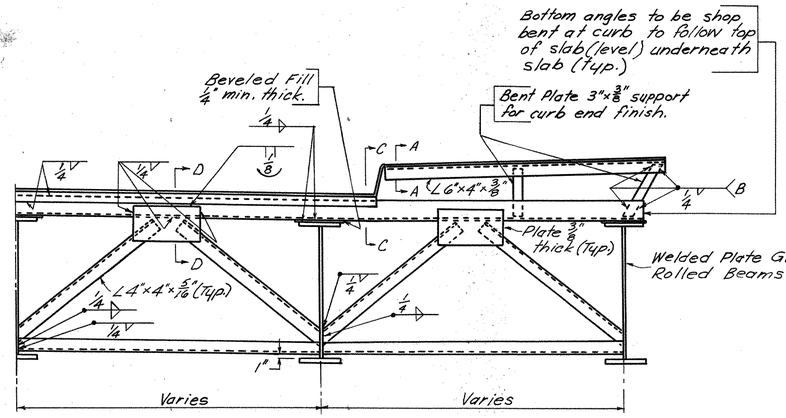
DESIGNED	DRAWN	TRACED	CHECKED	REVIEWED DATE	REVIS
	N.S.	J.T.C. 4/30/62	J.H.O 5/1/62	W.A.Z. 8-7-62	

MICROFILMED
JUN 14 1984

FED. RD. DIV.	STATE	PROJECT	FISCAL YEAR
2	OHIO		

HAM-50-19.76

4-11
464

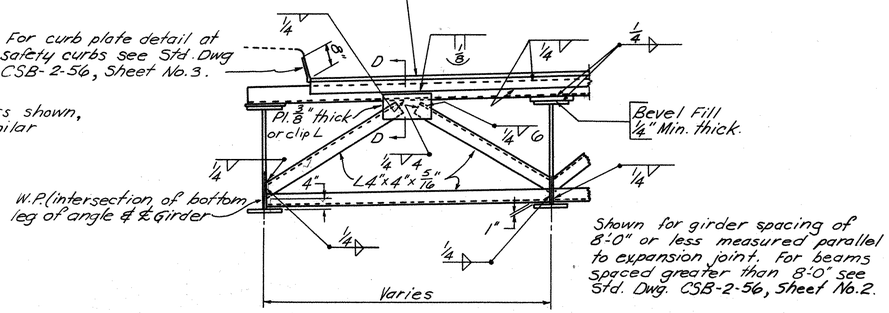


TYPICAL END CROSSFRAME
(SHOWING SIDEWALK DETAIL)

Note:
End sidewalk end finish 1'-5" from fascia line.

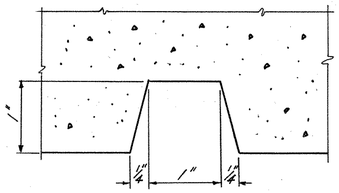
Note:
For Section D-D see Std Dwg. CSB-2-56 Sheet No. 2

Note:
Roadway expansion joint to be bent in shop to conform to contour of top of roadway slab

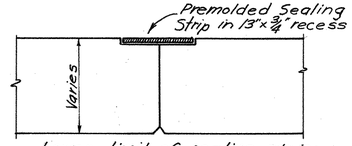


Shown for girder spacing of 8'-0" or less measured parallel to expansion joint. For beams spaced greater than 8'-0" see Std. Dwg. CSB-2-56, Sheet No. 2.

TYPICAL END CROSSFRAME
(SHOWING SAFETY CURB DETAIL)

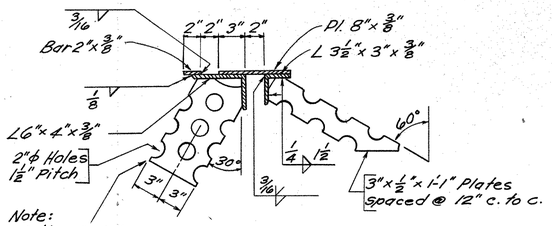


DETAIL OF RUSTICATION GROOVES



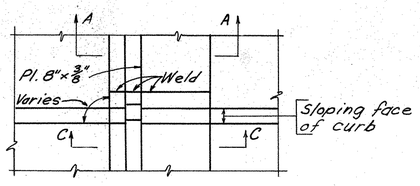
Lower limit of sealing strip: Top of footing

CONTRACTION JOINT DETAIL

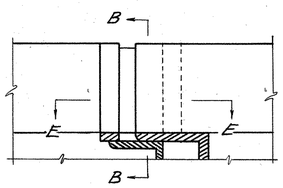


Note:
6"x½"x12" plates, spaced @ approx. 15" c. to c. except near joints in the angle, where the plates shall be placed within 6 inches of each side of the joint. The holes may be burned in the plate

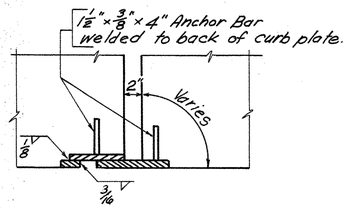
SECTION A-A
(For details not shown see section D-D Std. Dwg. CSB-2-56, Sheet No. 2)



PART PLAN

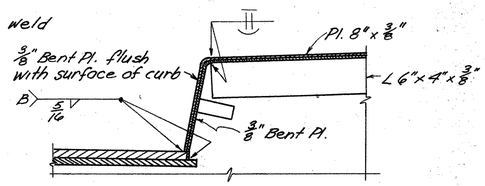


SECTION C-C

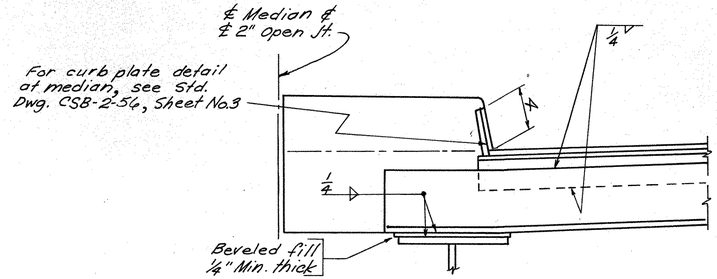


SECTION E-E

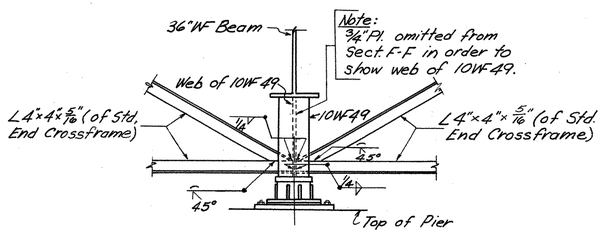
Note:
B denotes Class B weld



SECTION B-B

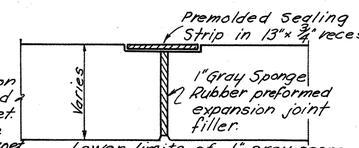


TYPICAL HALF SECTION THRU MEDIAN



SECTION F-F

Note:
The 1" gray sponge rubber preformed expansion joint filler shall be carried up thru the concrete parapet. The joint filler within the cross section of the parapet shall be included in item S-14 for payment.



Lower limits of 1" gray sponge rubber preformed expansion joint filler: top of footing

EXPANSION JOINT DETAIL

HAZELET & ERDAL
CONSULTING ENGINEERS
CINCINNATI, OHIO

MISCELLANEOUS DETAILS

DESIGNED	DRAWN	TRACED	CHECKED	REVIEWED DATE	REVISED
	BOB 7/13/61	JTB.	JHO 5/1162	N.A.Z. 8-7-62	

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JUN 14 1984

FED. RD. DIV.	STATE	PROJECT	FISCAL YEAR
2	OHIO		

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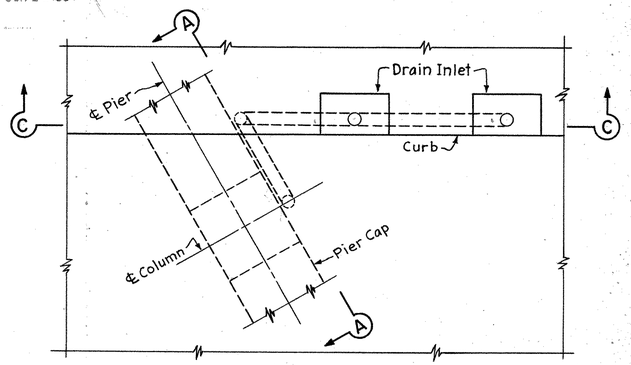
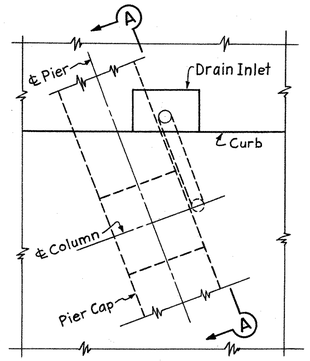
HAM-50-19.76

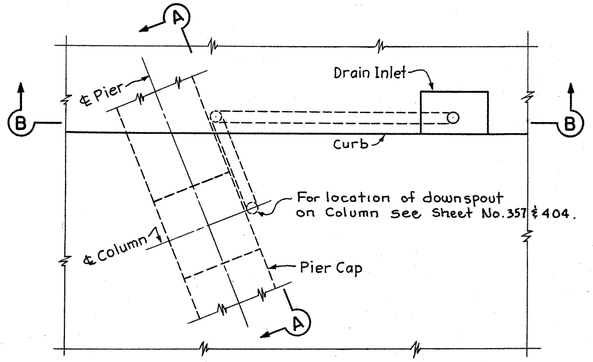
For location of drain inlets, see superstructure details.



PLAN

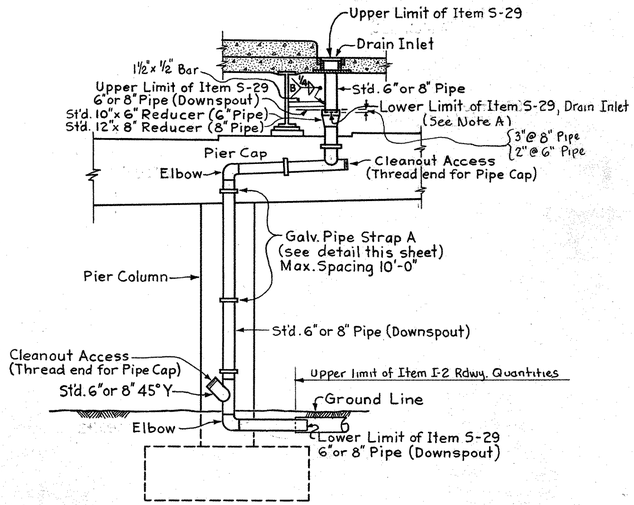


PLAN

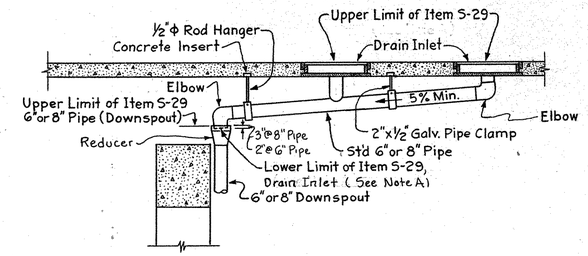


PLAN

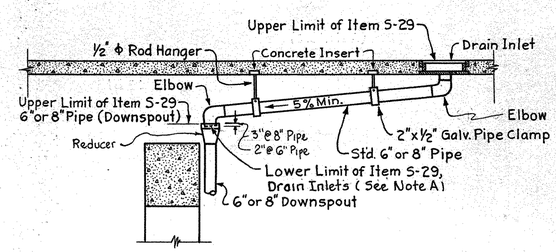
Note: Type of Plan to be used depends upon location of inlet with respect to pier.



SECTION A-A

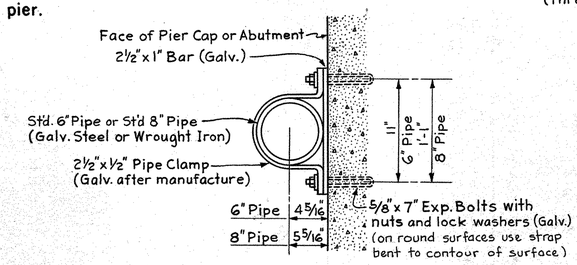


SECTION C-C

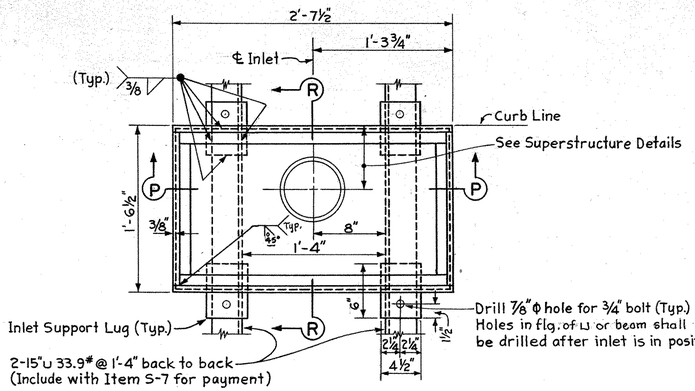


SECTION B-B

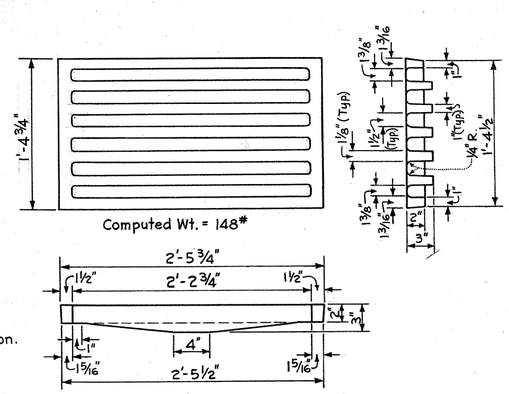
NOTE: Downspouts shall be 6"or 8" standard wrought iron pipe or hot-dipped galvanized steel pipe.
Joints shall be made by welding or by the use of a clamp type coupling with a ring gasket.
All welding shall be done before galvanizing.
Straps or clamps for attaching downspouts shall be wrought iron or hot-dipped galvanized steel.
On bolts, galvanizing as called for in SEC M-10.30 will be considered sufficient.



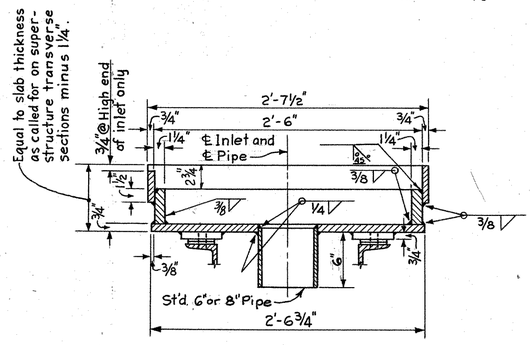
STRAP DETAIL "A"
For mounting on flat surface.



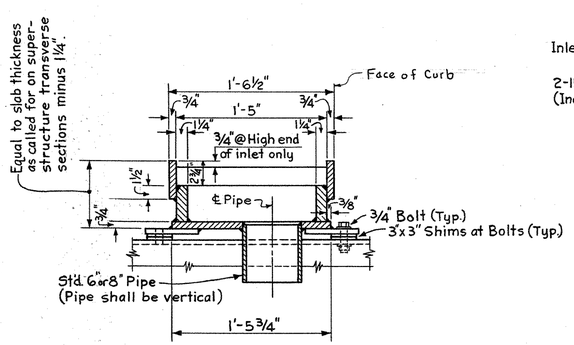
INLET FRAME



INLET GRATING
(City of Cincinnati Acc. No. 49012)



SECTION P-P



SECTION R-R

NOTES:-
For location of inlets, see superstructure details.
Inlet grating castings shall meet the requirements of Sec. M-7.8 of the Material Specifications of the State of Ohio.
Gratings and Inlets shall be fitted to each other without rattling by grinding grating casting as necessary.
Inlet frame to be welded structural steel plates and standard steel pipe, galvanized after fabrication.

Weld channels to beam with 5/16" continuous fillet weld. Weld to beam webs only.
Space lugs on inlets to permit bolting to supporting channels and beams.
Where drain inlet is located adjacent to beams without cover plates, cope channels so top of channel is flush with top of beams.
Where drain inlet is located adjacent to beams with cover plates, cope channels so that the distance from top of channel to top of slab is equal to the minimum slab thickness as called for on the superstructure transverse sections.

NOTE A:
"Drain Inlets including Supports and Horizontal Collector System" shall include inlet grating, inlet frame, lugs, concrete insert, ½" ϕ rod hanger, 2 x ½" galvanized pipe clamp, and 6" or 8" standard pipe for payment, Item S-29.

HAZELET & ERDAL
CONSULTING ENGINEERS
CINCINNATI, OHIO

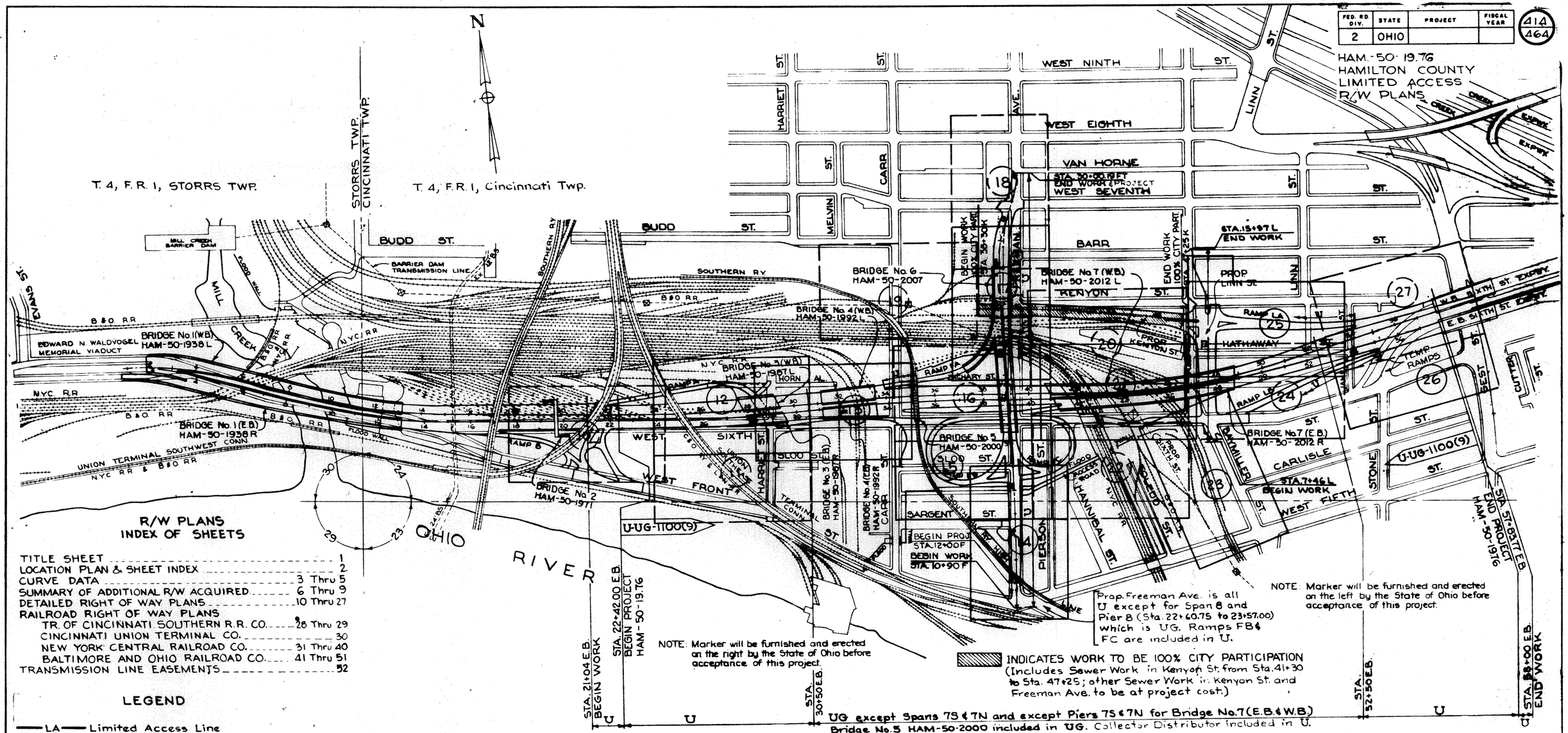
DRAINAGE DETAILS

DESIGNED	DRAWN	TRACED	CHECKED	REVIEWED DATE
	NS	M. DeC.	JHO 5/1/62	M.L.S. 8-7-62

FED. RD DIV.	STATE	PROJECT	FISCAL YEAR
2	OHIO		

414
464

HAM.-50-19.76
HAMILTON COUNTY
LIMITED ACCESS
R/W PLANS



R/W PLANS
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LEGEND

- ——LA—— Limited Access Line
- ——R/W—— Right of Way Line
- — — — Slope, Sewer, Utility Easement
- —x—x—●— Prop. Type "C" R/W Fence
- E.P.A. End Panel Assembly
- A.C. Abutment Connection
- (2450 WL) Typical Expressway Parcel No.
- (9-1277) Typical City of Cincinnati Urban Development Parcel No. Where 9 Denotes Block Number and 1277 Denotes Parcel Number

- WL - Warranty Deed Incl. Limitation of Access
- WD - Warranty Deed
- LA - Highway Easement Incl. Limitation of Access
- SL - Highway Easement - Slope
- S - Easement for Sewer Purposes
- WA - Work Agreement
- U - Utility Easement
- SA - Special Agreement (Access Road)

NOTE: Marker will be furnished and erected on the right by the State of Ohio before acceptance of this project.

NOTE: Marker will be furnished and erected on the left by the State of Ohio before acceptance of this project.

Prop. Freeman Ave. is all U except for Span 8 and Pier 8 (Sta. 22+60.75 to 23+57.00) which is UG. Ramps FB & FC are included in U.

INDICATES WORK TO BE 100% CITY PARTICIPATION (Includes Sewer Work in Kenyon St. from Sta. 41+30 to Sta. 47+25; other Sewer Work in Kenyon St. and Freeman Ave. to be at project cost.)

UG except Spans 7S & 7N and except Piers 7S & 7N for Bridge No.7(E.B. & W.B.) Bridge No.5 HAM-50-2000 included in UG. Collector Distributor included in U.

LENGTH OF APPROACHES AS SHOWN ON SH. 1

SIXTH ST. EXPR.
Sta. 21+04 to [illegible]+42 = 38.00
Sta. 57+83.77 to 58+00 = 16.23
Total = 154.23

FREEMAN AVE.
Sta. [illegible]+90 F to [illegible]+00 F = 110 Ft

LINN ST.
Sta. 7+46 L to 15+97 L = 851 Ft.

2
52

Scale: 1" = 200' | 8-3-62 R/W Plan Completed | M. M. D.

RIGHT OF WAY PLANS
SIXTH STREET EXPRESSWAY
600'± WEST OF HARRIET STREET TO GEST STREET
Acq. No. 21502

RIGHT OF WAY PLAN

FED. RD. DIV.	STATE	PROJECT	FISCAL YEAR
2	OHIO		

415
464

HAM-50-19.76
LIMITED ACCESS
R/W PLANS

N

(21)
P.I. Sta. 24+64.46
P.C. Sta. 24+14.46
P.C.C.Sta. 25+14.46
Δ = 0° 20' 00"
D = 0° 20' 00"
R = 17,188.74'
L = 100.00'
T = 50.00'

(22)
P.I. Sta. 25+64.46
P.C.C.Sta. 25+14.46
P.C.C.Sta. 26+14.46
Δ = 1° 40' 00"
D = 1° 40' 00"
R = 3,437.75'
L = 100.00'
T = 50.00'

(23)
P.I. Sta. 26+50.05
P.C.C. Sta. 26+14.46
P.C.C.Sta. 26+85.63
Δ = 1° 25' 24"
D = 2° 00' 00"
R = 2,864.79'
L = 71.17'
T = 35.59'

(24)
P.I. Sta. 27+35.63
P.C.C. Sta. 26+85.63
P.C.C. Sta. 27+85.63
Δ = 1° 40' 00"
D = 1° 40' 00"
R = 3,437.75'
L = 100.00'
T = 50.00'

(25)
P.I. Sta. 28+35.63
P.C.C. Sta. 27+85.63
P.T. Sta. 28+85.63
Δ = 0° 20' 00"
D = 0° 20' 00"
R = 17,188.74'
L = 100.00'
T = 50.00'

(26)
P.I. Sta. 34+94.01
P.C. Sta. 31+08.04
P.T. Sta. 38+79.46
Δ = 5° 08' 34"
D = 0° 40' 00"
R = 8,594.37'
L = 771.42'
T = 385.97'

(27)
P.I. Sta. 25+62.64
P.C. Sta. 22+08.94
P.T. Sta. 29+15.71
Δ = 5° 53' 23"
D = 0° 50' 00"
R = 6,875.50'
L = 706.77'
T = 353.70'

(118)
P.I. Sta. 23+59.16 WB(N)
P.C.C. Sta. 22+46.48 WB(N)
P.T. Sta. 24+71.72 WB(N)
Δ = 4° 30' 17"
D = 2° 00'
R = 2864.79'
L = 225.24'
T = 112.68'

(119)
P.C. Sta. 20+46.09 E.L.B.
P.T. Sta. 21+53.13 E.L.B.
Δ = 122° 39' 13"
R = 50.00'
L = 107.04'
T = 91.45'

(120)
P.I. Sta. 21+36.60 E.L.A.
P.C.C. Sta. 20+69.43 E.L.A.
P.O.C. Sta. 21+99.67 E.L.A.
Δ = 34° 32' 48"
R = 216.00'
L = 130.24'
T = 67.17'

(30)
P.I. Sta. 21+38.54 A
P.C. Sta. 20+11.35 A
P.T. Sta. 22+65.06 A
Δ = 10° 08' 54"
D = 4° 00' 00"
R = 1,432.40'
L = 253.71'
T = 127.19'

(28)
P.I. Sta. 34+86.13
P.C. Sta. 32+51.53
P.T. Sta. 37+20.33
Δ = 5° 51' 36"
D = 1° 15' 00"
R = 4,583.66'
L = 468.80'
T = 234.60'

(29)
P.I. Sta. 17+91.20 A
P.C. Sta. 17+41.17 A
P.T. Sta. 18+41.21 A
Δ = 2° 00' 03"
D = 2° 00' 00"
R = 2,864.79'
L = 100.04'
T = 50.03'

(31)
P.I. Sta. 26+94.97 A
P.C. Sta. 26+59.56 A
P.C.C. Sta. 27+29.83 A
Δ = 17° 30' 21"
D = 24° 54' 40"
R = 230.00'
L = 70.27'
T = 35.41'

(32)
P.I. Sta. 27+80.30 A
P.C.C. Sta. 27+29.83 A
P.C.C. Sta. 28+27.20 A
Δ = 37° 11' 40"
D = 38° 11' 50"
R = 150.00'
L = 97.37'
T = 50.47'

(33)
P.I. Sta. 28+84.07 A
P.C.C. Sta. 28+27.20 A
P.C.C. Sta. 29+38.71 A
Δ = 27° 46' 45"
D = 24° 54' 40"
R = 230.00'
L = 111.51'
T = 56.87'

(34)
P.I. Sta. 30+13.89 A
P.C.C. Sta. 29+38.71 A
P.T. Sta. 30+87.85 A
Δ = 17° 53' 47"
D = 12° 00' 00"
R = 477.46'
L = 149.14'
T = 75.18'

(35)
P.I. Sta. 27+07.40 A(N)
P.C. Sta. 26+79.04 A(N)
P.C.C. Sta. 27+35.33 A(N)
Δ = 17° 30' 21"
D = 31° 06' 01"
R = 184.23'
L = 56.29'
T = 28.36'

(36)
P.I. Sta. 19+02.57 B
P.C. Sta. 18+21.89 B
P.T. Sta. 19+79.00 B
Δ = 32° 08' 58"
D = 20° 27' 46"
R = 280.00'
L = 157.11'
T = 80.68'

(37)
P.I. Sta. 21+97.74 B
P.C. Sta. 21+31.21 B
P.T. Sta. 22+62.16 B
Δ = 25° 00' 33"
D = 19° 05' 55"
R = 300.00'
L = 130.95'
T = 66.53'

(39)
P.I. Sta. 23+29.32 TA
P.C. Sta. 22+66.92 TA
P.T. Sta. 23+85.19 TA
Δ = 45° 10' 37"
D = 38° 11' 50"
R = 150.00'
L = 118.27'
T = 62.40'

(40)
P.I. Sta. 21+91.72 TA
P.C.C. Sta. 21+63.01 TA
P.T. Sta. 22+20.35 TA
Δ = 7° 38' 26"
D = 13° 19' 29"
R = 430.00'
L = 57.34'
T = 28.71'

(41)
P.C.C. Sta. 20+37.35
P.C.C. Sta. 21+63.01 TA
Δ = 180° 00' 00"
R = 40.00'
L = 125.66'

(42)
P.I. Sta. 19+69.84 TA
P.C. Sta. 18+86.67 TA
P.C.C. Sta. 20+37.35 TA
Δ = 37° 32' 11"
D = 24° 54' 40"
R = 230.00'
L = 150.68'
T = 78.16'

(43)
P.I. Sta. 11+72.51 S
P.C. Sta. 10+76.95 S
P.C.C. Sta. 12+67.38 S
Δ = 11° 54' 07"
D = 6° 15'
R = 916.73'
L = 190.43'
T = 95.56'

(44)
P.I. Sta. 11+46.36 S(N)
P.C. Sta. 10+38.52 S(N)
P.C.C. Sta. 11+33.97 S(N)
Δ = 9° 32' 43"
D = 10° 00' 00"
R = 572.96'
L = 95.45'
T = 47.84'

(45)
P.I. Sta. 11+50.06 S (S)
P.C.C. Sta. 10+66.09 S (S)
P.T. Sta. 12+33.42 S (S)
Δ = 11° 54' 07"
D = 7° 06' 47"
R = 805.51'
L = 167.33'
T = 83.97'

(46)
P.I. Sta. 12+30.705 (N)
P.C.C. Sta. 11+33.97 S (N)
P.T. Sta. 12+67.38 S (N)
Δ = 4° 30'
D = 6° 07' 47"
R = 934.73'
L = 73.41'
T = 36.73'

(47)
P.C. Sta. 9+98.91 S(S)
P.C.C. Sta. 10+66.09 S (S)
Δ = 76° 58' 53"
R = 50.00'
L = 67.18'

(48)
P.C.C. Sta. 9+94.28 S (N)
P.T. Sta. 10+56.80 S (N)
Δ = 85° 35' 18"
R = 40.00'
L = 62.52'

(55)
P.I. Sta. 34+51.26 CD
P.C. Sta. 34+14.70 CD
P.T. Sta. 34+87.82 CD
Δ = 1° 49' 41"
D = 2° 30' 00"
R = 2,291.83'
L = 73.12'
T = 36.56'

(56)
P.I. Sta. 33+15.04 FA
P.C. Sta. 31+67.86 FA
P.T. Sta. 34+62.13 FA
Δ = 3° 40' 42"
D = 1° 15' 00"
R = 4583.66'
L = 294.27'
T = 147.18'

(53)
P.I. Sta. 15+84.285 (N)
P.C. Sta. 15+16.12 S (N)
P.T. Sta. 16+18.00 S (N)
Δ = 97° 17' 01"
R = 60.00'
L = 101.88'
T = 68.16'

(54)
P.I. Sta. 31+56.72 CD
P.C. Sta. 30+40.40 CD
P.T. Sta. 32+72.76 CD
Δ = 6° 58' 15"
D = 3° 00' 00"
R = 1,909.86'
L = 232.36'
T = 116.32'

3
52

Scale: 60 | 8-3-62 | R/W Plans Completed

RIGHT OF WAY PLANS
SIXTH STREET EXPRESSWAY
600'± WEST OF HARRIET STREET
TO GEST STREET
Acc. No. 21503

RIGHT OF WAY PLAN

FED. RD. DIV.	STATE	PROJECT	FISCAL YEAR
2	OHIO		

416
464

HAM-50-19.76
LIMITED ACCESS
R/W PLANS

49
P.I. Sta. 26+86.97 FT(W)
P.C. Sta. 26+13.14 FT (W)
P.T. Sta. 27+59.23 FT(W)
Δ = 20° 31' 00"
D = 14° 02' 39"
R = 407.97'
L = 146.09'
T = 73.83'

50
P.I. Sta. 26+78.83 FT
P.C.C. Sta. 26+13.14 FT
P.T. Sta. 27+43.25 FT
Δ = 19° 31' 00"
D = 15° 00' 00"
R = 381.97'
L = 130.11'
T = 65.69'

51
P.I. Sta. 27+20.39 FT (N.B.)
P.C. Sta. 26+60.78 FT (N.B.)
P.T. Sta. 27+79.05 FT (N.B.)
Δ = 17° 44' 28"
D = 15° 00' 00"
R = 381.97'
L = 118.27'
T = 59.61'

52
P.I. Sta. 27+12.09 FT (E)
P.C. Sta. 26+60.78 FT (E)
P.T. Sta. 27+62.69 FT (E)
Δ = 16° 24' 10"
D = 16° 05' 44"
R = 355.97'
L = 101.91'
T = 51.31'

57
P.I. Sta. 41+85.66
P.C. Sta. 41+35.66
P.C.C. Sta. 42+35.66
Δ = 0° 20' 00"
D = 0° 20' 00"
R = 17,188.74'
L = 100.00'
T = 50.00'

58
P.I. Sta. 42+85.66
P.C.C. Sta. 42+35.66
P.C.C. Sta. 43+35.66
Δ = 1° 39' 40"
D = 1° 39' 40"
R = 3,449.25'
L = 100.00'
T = 50.00'

60
P.I. Sta. 41+48.45
P.C. Sta. 40+98.45
P.C.C. Sta. 41+98.45
Δ = 0° 20' 00"
D = 0° 20' 00"
R = 17,188.74'
L = 100.00'
T = 50.00'

61
P.I. Sta. 42+48.45
P.C.C. Sta. 41+98.45
P.C.C. Sta. 42+98.45
Δ = 1° 40' 20"
D = 1° 40' 20"
R = 3,426.33'
L = 100.00'
T = 50.00'

63
P.I. Sta. 39+58.41 CD
P.C. Sta. 38+81.41 CD
P.T. Sta. 40+35.18 CD
Δ = 7° 41' 18"
D = 5° 00' 00"
R = 1,145.92'
L = 153.77'
T = 77.00'

64
P.I. 42+20.19 CD
P.C. 41+62.95 CD
P.T. 42+77.37 CD
Δ = 4° 34' 37"
D = 4° 00' 00"
R = 1,432.40'
L = 114.42'
T = 57.24'

65
P.I. Sta. 16+84.02 F
P.C.C. Sta. 14+33.75 F
P.T. Sta. 19+34.12 F
Δ = 3° 45' 10"
D = 0° 45' 00"
R = 7,639.44'
L = 500.37'
T = 250.27'

66
P.I. Sta. 24+02.67 F
P.C. Sta. 21+92.10 F
P.T. Sta. 26+13.14 F
Δ = 3° 09' 28"
D = 0° 45' 00"
R = 7,639.44'
L = 421.04'
T = 210.57'

67
P.I. Sta. 12+87.40 F (W)
P.C. Sta. 12+48.85 F (W)
P.T. Sta. 13+25.93 F (W)
Δ = 3° 04' 59"
D = 4° 00' 00"
R = 1,432.40'
L = 77.08'
T = 38.55'

68
P.I. Sta. 12+52.51 F (E)
P.C. Sta. 12+24.62 F (E)
P.T. Sta. 12+80.40 F (E)
Δ = 2° 13' 52"
D = 4° 00' 00"
R = 1,432.40'
L = 55.78'
T = 27.89'

69
P.I. Sta. 14+61.87 F (E)
P.C. Sta. 13+90.51 F (E)
P.C.C. Sta. 15+33.17 F (E)
Δ = 4° 16' 47"
D = 3° 00' 00"
R = 1,909.86'
L = 142.66'
T = 71.36'

70
P.I. Sta. 24+27.08 F (N.B.)
P.C.C. Sta. 23+29.47 F (N.B.)
P.T. Sta. 25+24.62 F (N.B.)
Δ = 3° 54' 11"
D = 2° 00' 00"
R = 2,864.79'
L = 195.15'
T = 97.61'

71
P.I. Sta. 29+61.39 FT (W)
P.C. Sta. 29+20.13 FT (W)
P.T. Sta. 30+01.90 FT (W)
Δ = 18° 44' 28"
D = 22° 55' 06"
R = 250.00'
L = 81.77'
T = 41.26'

72
P.I. Sta. 29+41.53 FT
P.C. Sta. 28+81.92 FT
P.T. Sta. 30+00.19 FT
Δ = 17° 44' 28"
D = 15° 00' 00"
R = 381.97'
L = 118.27'
T = 59.61'

73
P.I. Sta. 29+20.31 FT (E)
P.C. Sta. 28+84.28 FT (E)
P.T. Sta. 29+55.85 FT (E)
Δ = 16° 24' 10"
D = 22° 55' 06"
R = 250.00'
L = 71.57'
T = 36.03'

74
P.I. Sta. 36+88.15 FA
P.C. Sta. 36+55.39 FA
P.C.C. Sta. 37+20.77 FA
Δ = 8° 42' 44"
D = 13° 19' 29"
R = 430.00'
L = 65.38'
T = 32.76

75
P.I. Sta. 37+74.27 FA
P.C.C. Sta. 37+20.77 FA
P.C.C. Sta. 38+24.43 FA
Δ = 34° 56' 08"
D = 33° 42' 12"
R = 170.00'
L = 103.66'
T = 53.50'

76
P.I. Sta. 38+62.02 FA
P.C.C. Sta. 38+24.43 FA
P.C.C. Sta. 38+98.71 FA
Δ = 21° 49' 29"
D = 29° 22' 57"
R = 195.00'
L = 74.28'
T = 37.59'

77
P.I. Sta. 39+83.34 FA
P.C.C. Sta. 38+98.71 FA
P.T. Sta. 40+66.76 FA
Δ = 16° 48' 17"
D = 10° 00' 00"
R = 572.96'
L = 168.05'
T = 84.63'

78
P.I. Sta. 38+37.05 FA(S)
P.C. Sta. 36+94.77 FA(S)
P.R.C. Sta. 39+40.61 FA(S)
Δ = 72° 14' 01"
D = 29° 22' 57"
R = 195.00'
L = 245.84'
T = 142.28'

79
P.I. Sta. 30+41.69 F B
P.C.C. Sta. 29+70.60 FB
P.C.C. Sta. 31+08.49 FB
Δ = 34° 21' 02"
D = 24° 54' 40"
R = 230.00'
L = 137.89'
T = 71.09'

80
P.I. Sta. 32+80.99 FB
P.C.C. Sta. 31+08.49 FB
P.C.C. Sta. 33+71.84 FB
Δ = 94° 18' 25"
D = 35° 48' 36"
R = 160.00'
L = 263.35'
T = 172.50'

81
P.I. Sta. 36+47.94 FB
P.C.C. Sta. 33+71.84 FB
P.C.C. Sta. 36+58.26 FB
Δ = 131° 17' 05"
D = 45° 50' 12"
R = 125.00'
L = 286.42'
T = 276.10'

82
P.I. Sta. 37+09.90 FB
P.C.C. Sta. 36+58.26 FB
P.T. Sta. 37+61.06 FB
Δ = 13° 41' 50"
D = 13° 19' 29"
R = 430.00'
L = 102.80'
T = 51.64'

83
P.I. Sta. 31+38.83 FB (S)
P.C.C. Sta. 31+10.30 FB (S)
P.T. Sta. 31+67.16 FB (S)
Δ = 11° 22' 21"
D = 20° 00' 00"
R = 286.48'
L = 56.86'
T = 28.53'

84
P.I. Sta. 30+82.18 FB(S)
P.C.C. Sta. 30+38.50 FB(S)
P.C.C. Sta. 31+10.30 FB (S)
Δ = 82° 16' 41"
R = 50.00'
L = 71.80'
T = 43.68'

85
P.I. Sta. 40+62.14 FC
P.C. Sta. 40+35.56 FC
P.C.C. Sta. 40+88.48 FC
Δ = 13° 10' 56"
D = 24° 54' 40"
R = 230.00'
L = 52.92'
T = 26.58'

86
P.I. Sta. 41+55.06 FC
P.C.C. Sta. 40+88.48 FC
P.C.C. Sta. 42+08.22 FC
Δ = 62° 22' 15"
D = 52° 05' 14"
R = 110.00'
L = 119.74'
T = 66.58'

87
P.I. Sta. 42+60.71 FC
P.C.C. Sta. 42+08.22 FC
P.C.C. Sta. 43+03.26 FC
Δ = 60° 30' 10"
D = 63° 39' 43"
R = 90.00'
L = 95.04'
T = 52.49'

88
P.I. Sta. 44+88.02 FC
P.C.C. Sta. 43+03.26 FC
P.C.C. Sta. 45+42.01 FC
Δ = 113° 59' 36"
D = 47° 44' 47"
R = 120.00'
L = 238.75'
T = 184.76'

91
P.I. Sta. 40+81.53 FC(N)
P.C. Sta. 40+70.18 FC(N)
P.C.C. Sta. 40+92.77 FC(N)
Δ = 13° 10' 56"
D = 58° 20' 46"
R = 98.20'
L = 22.59'
T = 11.35'

92
P.I. Sta. 13+68.20 F
P.C. Sta. 13+02.64 F
P.C.C. Sta. 14+33.75 F
Δ = 1° 18' 40"
D = 1° 00' 00"
R = 5,729.58'
L = 131.11'
T = 65.56'

113
P.I. Sta. 40+41.56 K
P.C. Sta. 39+70.75 K
P.T. Sta. 41+12.30 K
Δ = 4° 14' 47"
D = 3° 00' 00"
R = 1,909.86'
L = 141.55'
T = 70.81'

121
P.I. Sta. 12+14.30 SC
P.C.C. Sta. 11+71.52 SC
P.T. Sta. 12+51.38 SC
Δ = 50° 50' 31"
D = 63° 39' 43"
R = 90.00'
L = 79.86'
T = 42.78'

122
P.I. Sta. 10+13.70 SC (S)
P.C.C. Sta. 9+96.03 SC (S)
P.T. Sta. 10+30.00 SC (S)
Δ = 38° 55' 37"
R = 50.00'
L = 33.97'
T = 17.67'

123
P.I. Sta. 11+18.75 SC (N)
P.C. Sta. 10+58.98 SC (N)
P.T. Sta. 11+05.96 SC (N)
Δ = 143° 00' 00"
R = 20.00'
L = 49.92'
T = 52.77'

4/52
Scale: 60 | 8-3-62 | R/W Plans Completed

RIGHT OF WAY PLANS
SIXTH STREET EXPRESSWAY
600'± WEST OF HARRIET STREET
TO GEST STREET
Acc. No. 21504

RIGHT OF WAY PLAN

FED. RD. DIV.	STATE	PROJECT	FISCAL YEAR
2	OHIO		

417
464

HAM-50-19.76
LIMITED ACCESS
R/W PLANS

N

BARR ST.
P.C.C.
R=200'
FUTURE
P.C.
P.T.
R=100'
CONN.
BAYMILLER ST.
3-4 Exist.
N.7° 09' 25" E.
Traverse Line W. Walk Baymiller St.
End Conc. Pav't.
Traverse Line N. Walk Kenyon St.
(AA-W)=691.91'
(DB-V)=784.91'
S.82° 48' 50" E.
221.02'
62.33'
43'
41'
49° 2'
R=50' DE
P.C. 47+08.68
P.T. 47+89.83
P.C.C. 47+68.85
P.C.C. 48+11.15
P.C. 48+13.24
P.T. 48+15.85
R=55'
R=50'
P.C.C.
P.T.
P.C.
Nose 49+28.28 LA (2' Rt.)
Nose 49+12.17 LA (27' Lt.)
Change Base Lines
P.O.T. 51+00 LA (24' Lt.)
=P.O.T. 51+00 LA
50+44.29 LA
Traverse Line S. Walk Kenyon St.
477.10'
S.82° 48' 50" E.
145.83'
1184.08'
P.T. 57+02.01 LA*
P.O.T. 57+02.01 (50' Lt.)
GEST ST.
N.5° 51' 24" W.
N.7° 12' 10" E.
Traverse Line E. Walk Cutler St.
27'
27'
S.78° 34' 03" E.
44K
KENYON ST.
Base Line Kenyon
Nose 47+22.62K (E.B.)
(16' Rt.)
46'
S.77° 40' 57" E.
46K(S)
E.B.
P.T.(E.B.)
P.C. 44+44.96K(E.B.)
=P.O.T. 44+44.96K
P.C. 46+22.62K(E.B.) 27' Rt.
=P.O.T. 46+22.62K(E.B.)
100
R=2'
R=80'
P.C.C.
40.70'
(2' Rt. 48')
Nose 47+14.38K(S)
(23' Lt.)
3.14'
Nose 47+71.82K(S)
(21' Lt.)
39.56'
(11°59'15")
P.T.
K(S)
48K(S)
P.C.C. 48+64.56 LA(S)
Base Line Ramp LA
S.79° 20' 00" E.
Nose 49+24.14 LA(S)
(18' Lt.)
P.T.
P.C.
35.42'
51+37.45 LA
RAMP LA
52 LA
LA(S)
52 LA(S)
104
103
54 LA
56 LA
Nose 54+36.13 LA
(23' Rt.)
P.T.
Exist. Approach Slab
P.O.T. 57+87.32
P.O.T. 57+83.77 Back*
P.O.T. 57+83.79 Ahead
SIXTH ST.
EXPRESSWAY
WESTBOUND
Base Line Westbound Expwy. 54
N.79° 45' 34" E.
Nose 54+33.41
(52' Lt.)
Nose 55+37.05
56
56 LB
107
P.T. 57+76.63 (48' Rt.) LB
P.T. 57+76.63 LB
48'
2'
88.71'
N.8° 54' 40" W.
173.30'
P.C.C.
P.T.
Base Line Linn St.
N.9° 39' 15" E.
484.18'
N.7° 28' 40" E.
102
P.T. 49+08.72 K(S)
=P.O.T. 10+54.88 L (36' Lt.)
=P.O.T. 10+03.17 L (36' Lt.)
P.T. 10+17.30 L (W)
36'
48
50
95
96
P.C.C.
P.T.
N.83° 07' 18" E.
Base Line Eastbound Expwy. 54
EASTBOUND
SIXTH ST.
52
54
56
108
Nose 55+36.52 LB
54 LB
Base Line Ramp LB
N.73° 33' 19" E.
P.C.
P.T.
52 LB
P.O.T. 52+05.46 LB (22.5' Lt.)
54+36.52 LB
162.30'
173.66'
144.71'
P.O.T. 51+60.03 LB (24' Lt.)
253.79'
262.22'
99.98'
171.18'
Traverse Line S. Walk Sixth St.
130.16'
N.81° 10' 30" E. 89T. 62'
312.38'
41.18'
SIXTH ST.
S.86° 20' 01" E.
P.O.T. 43+91.64 CD*
P.C.C. 43+91.66 (36' Rt)
24.50'
P.C. 25+90.74 ST
N.83° 13' 20" W.
HJ*-785.07'+
P.T.
P.C.C.
P.C.
P.T.
Trav. E. Walk Baymiller St.
134.28'
147.52'
8 (LW)
LINN
R=10'
N.6° 51' 55" E.
98
PROPOSED SIXTH ST. 117.41'
Trav. S. Walk Sixth St.
Meet Ex. 22+85 ST
Pav't.
250'
111.36'
116
115
117
118
S.83° 13' 20" E.
94.49'
28.91'
S.83° 13' 20" E.
32.10'
55.68'
Exist. Walk
Baymiller St.
Exist. Walk
Fifth St.
P.C. 28+40.00 ST
P.T. 28+40.00 ST
P.C.C.
P.T.
P.C.
R=10'
97
96
P.C.C.
P.T.
P.C.
P.C.C.
P.T.
P.C.C.
P.C.C.
P.T.
P.C.C.
P.C.C.
P.T.
P.C

FED. RD. DIV.	STATE	PROJECT	FISCAL YEAR
2	OHIO		

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464

HAM-50-19.76
HAMILTON COUNTY
LIMITED ACCESS
R/W PLANS

SUMMARY OF ADDITIONAL RIGHT OF WAY REQUIRED

Parcel No.	Owner	Deed Record Book	Deed Record Page	R/W Area To Be Acquired (Sq.Ft.) Total Area	To Be Acquired Land	To Be Acquired Bldg's	Residue Left	Residue Right	R/W Sheet No.	Remarks
2300 Thru 2319										Acquired For HAM-50-19.38
2320-WL	Elizabeth H Anderson - Base Fee CCC & St Louis R.R. Co. - Lessee New York Central RR Co-Lessee	WB.125 1303 LB.36	464 161 610	3046	350	No	0	3596	10	
				—	—	—	—	—		
2321-WL	Henry & Bertha J. Hils	2365	32	2018	250	Yes	0	2668	10	
2321-WA	do	do		—	—	—	—	—		
2322										Acquired For HAM-50-19.38
2323										Not Used
2324-LA	W.F. Hausman Co.	R.L.81	28284	13,086	0	No	0	13,086	10&11	Limited Access Only
2325-LA	The Bodmann Widow's Home-Base Fee Charles C. Erhardt et al. - Lessee The Chris Erhardt Foundry & Machine Co.	2525 1545 1009 2218	182 93 427 476	54,820	0	No	0	54,820	11	Limited Access Only
2326-LA	The Cincinnati Union Terminal Co.	1481 1642	343 452	31,900±	0	No	0	30,108	11	
2326-SL	do	do			1,802	No	—	—	11	
2327-WL	Dubois Chemicals Inc.	3175	351	21,566	4504	NO	0	17,062	11	
2328-WL	Ben Simkin	3122	181	3,750	775	Yes	0	2,975	11	
2328-WA	do	do		—	—	—	—	—	11	
2329-WL	The Morris Investment Co.	~~2332~~	~~328~~	8,114	1,457	No		6,251	11	
2329-WD	do	do		—	244	No	—	—	11	
2329-S	do	do		—	162	No	—	—	11	
2330 Thru 2333										Not Used
2334-WD	Loretta Monnig	2270 2013	394 640	9,750	1420	Yes	0	8,330	13	
2335-WD	Clara Monnig	1937	205	3,750	175	No	0	3,575	13	
2336-WD	Early & Daniel Co.	1947	96	23,400	70	No	0	23,330	13	
2337 2338										Not Used
2339-LA	H. Belmer Co.	1520 1772 2291 2333	355 455 121 586	9,810	0	No	0	7,212	15	
2339-WD	do	do		—	1439	No	—	—	15	
2339-SL	do	do		—	1240	Yes	—	—	15	
2339-T	do	do		—	226	No	—	—	15	
2339-WA	do	do		—	—	—	—	—	15	
2340-WL	The Tr. of the Cincinnati Southern R.R. Cincinnati, New Orleans & Texas Pacific Railway Co.	951 949 950 Case 131389 Comm. Pleas Ct.	486 591 531	5,230	446	No	0	0	15,28	
2340-SL	do	do		—	4784	—	—	—	15,28	
2341-WL	Clara G. & Benjamin M. Simkin "Ex"	2215	376	1000	1,000	No	0	0	15	
2342-WL	Abe Dennis	2917	569	21,188	21,188	Yes	0	0	15	
2343-WL	Anna L. Dennis	2237 2277	38 40	24,914	24,914	Yes	0	0	15	
2344-WL	Anna Warkans Kohn	~~1555~~ 1557	~~395~~ 97	3,000	3,000	Yes	0	0	15	
2345-WL	Abe & Anna Dennis	3066	500	3,700	3,700	Yes	0	0	15	
2346-S	City of Cincinnati	2172	359	10,700	1,398	No	0	10,700	15	
2347-WL	The Tr. of The Cincinnati Southern R.R. Cincinnati, New Orleans & Texas Pacific Railway Co.	952 949 951 950 947	290 590 485 530 589	6,080	193	No	0	2727	15,28	
2347-SL	do			—	3,160	—	—	—	15,28	
2347-S	do			—	518	—	—	—	15,28	

SUMMARY OF ADDITIONAL RIGHT OF WAY REQUIRED

Parcel No.	Owner	Deed Record Book	Deed Record Page	R/W Area To Be Acquired (Sq.Ft.) Total Area	To Be Acquired Land	To Be Acquired Bldg's	Residue Left	Residue Right	R/W Sheet No.	Remarks
2348-WL	City of Cincinnati	1945 2241 2141 2144 1146 1900 2151	186 506 455 546 537 660 336	18,334	6,437	No	0	11,703	15	
2348-WD	do	do		—	194	No	—	—	15	
2348-S	do	do		—	206	No	—	—	15	
2348-WA	do	do		—	—	Yes	—	—	15	
2349-WL	Pauline Strayhorne	3213	578	2,093	2,093	Yes	0	0	15	
2350-WL	Ben Robinson	1713	210	2,906	2,906	No	0	0	15	
2351-WL	Stanford Stillpass et al.	2864	295	6,167	6,167	Yes	0	0	15	
2352-WD	City of Cincinnati	2141	453	548	110	No	438	0	14	
2352-WA1	do	do		—	—	—	—	—	14	
2352-WA2	City of Cincinnati	2141 2181 2141	593 57 596	—	—	—	—	—	14	
2352A-QC	City of Cincinnati Mose Cohen & Sons, Inc. Valley Warehouse, Inc.	2141 2635 3130	453 153 376	25.5	25.5	No	0	0	14	
2353-WD	Valley Warehouse, Inc.	3130	376	1,457	276	No	132	0	14	
2353-SL	do	do		—	1,049	No	—	—	14	
2353A-SL	do	do		6,862	208	No	6,654	0	14	
2354-WD	Mose Cohen & Sons, Inc.	2474 2380 2635	538 462 153	4034	612	No	1,214	0	14	
2354-SL	do	do		—	2,208	No	—	—	14	
2354A-SL	Valley Warehouse, Inc. et al.	~~3130~~ ~~2638~~	~~376~~ ~~154~~	56	36	No	20	—	14	
2355-WD	Leonard kirschner	2500	533	1,076	134	No	406	0	14	
2355-SL	do	do		—	536	No	—	—	14	
2356-WD	Valley Warehouse, Inc.	3130 2492	376 566	10,040	10,040	Yes	0	0	14	
2357 2358										Not Used
2358-A Thru 2358-D										Acquired For HAM-50-19.38
2359-WD	Mose Cohen & Sons, Inc.	2918 2914 2914 2918 2916 2916 2914 2386 2957 2278 2891 2227	500 433 431 397 75 81 483 50 543 102 411 266	159,831	1,788	Yes	0	147,223	14	
2359-SL	do	do		—	10,855	Yes	—	—	14&22	
2359-S-1	do	do		—	630	—	—	—	14	
2359-S2	do	do		—	304	—	—	—	14	

8-3-62	R/W Plans Completed	G. E. M.

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RIGHT OF WAY PLANS
SIXTH STREET EXPRESSWAY
600 Ft. WEST OF HARRIET STREET
TO GEST STREET
Acc. No. 21506

RIGHT OF WAY PLAN

FED. RD. DIV.	STATE	PROJECT	FISCAL YEAR
2	OHIO		

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HAM-50-10.76
HAMILTON COUNTY
LIMITED ACCESS
R/W PLANS

SUMMARY OF ADDITIONAL RIGHT OF WAY REQUIRED

Parcel No.	Owner	Deed Record		R/W Area To Be Acquired (Sq.Ft)					R/W Sheet No.	Remarks
				Total Area	To Be Acquired		Residue			
		Book	Page		Land	Bldg's	Left	Right		
2360-WL-1	City of Cincinnati	2122 2183 2161 2035 2143 2146 2143 2036	146 25 64 134 513 600 582 65		88	No			22	
2360-WL-2	do	do			11	No	–	–	22	
2360-WL-3	do	do		–	3280	No	–	–	22	
2360-WD	do	do		–	177	No	–	–	22	
2360-WA	do	do		–	–	–	–	–	22	
2361-WL	Cecelia Hoffman & Bertha Greenbaum	2374	622	6640	6640	Yes	0	0	22	
2362-WL	Mose Cohen & Sons, Inc.	2451	96	1803	1803	Yes	0	0	22	
2363-WL	Cecelia Hoffman & Bertha Greenbaum	2641	135	953	953	No	0	0	22	
2364-WL	Queen City Industries, Inc.	2304	616	5,380	5,380	No	0	0	22	
2365-WL	Stanford Stillpass et al.	2864	295	6,750	6,750	Yes	0	0	22	
2366-WL	do	2850 2034	438 616	4,000	4,000	Yes	0	0	22	
2367										Not Used
2368-WL	Stanford Stillpass	2663 2683	538 104	1400	1,400	Yes	0	0	22	
2369-WL	Stanford Stillpass et al.	2850 2034	438 616	12,505	12,505	Yes	0	0	22	
2370-WL	Stanford Stillpass	2663 2683	556 94	3,750	3,750	Yes	0	0	22	
2371										Not Used
2372-LA	C.C.C. & St. Louis R.R.Co - Base Fee New York Central R.R. Co.-Lessee	Ohio Supreme Ct. 18-OS-169 Vac Ord. 369-1947 Vac Ord. 440-1952 See Note 2 * Unrecorded Agreements		–	683	No	–	–	22,38	
2372	do	do		–	934	No	–	–	22,40	
2372-S	do	do		–	1,272	No	–	–	22,40	
2373-WD-1	Baltimore & Ohio RR Co.	151	77	–	836	No			22,50	
2373-WD-2	do	do		–	8,420	No	–	–	23,50	
2373-SL	do	do		–	2,152	No	–	–	23,51	
2373-S	do	do		–	2,355	No	–	–	22,51	
2374 2375										Not Used
2376-WL	The Weyer Realty Co.	2192	87	32,124	19,317	Yes	0	12,807	24	See UD 23-1994-P.3
2377-WL	Helen R. Lane	2347	157	2,500	2,500	Yes	0	0	24	
2378-WL	The Weyer Realty Co.	2185	95	2,500	2,500	Yes	0	0	24	
2379-WL	David Levine	2046 2047 1818	133 232 95	13,100	13,100	Yes	0	0	24	
2380-WL	A.M. Tennenbaum et al. "Tr."	2000	499	12,318±	12,318±	Yes	0	0	24	
2381-WL	Grand Avenue Realty, Inc. et al.	3202 3203	268 266	25,277	25,277	Yes	0	0	24	
2382-WL	Grand Avenue Realty, Inc.	3203	162	5,573	5,573	Yes	0	0	24	
2383-WL	The Weyer Realty Co.	2218	120	20,604	20,604	Yes	0	0	24	
2384-WL	Walter L. Tarr et al.	2045	444	15,479	15,479	Yes	0	0	25	
2385-WL	Mose Cohen & Sons, Inc.	2727	258	6,375	6,375	Yes	0	0	25	
2386-WL	The Laiby Realty Co.	2624	295	4,250	4,250	Yes	0	0	25	
2387-WL	Eugene Klein et al.	3061	351	2,125	2,125	Yes	0	0	25	
2388-WL	Anna G. & Max Szyka	2760	325	5,366	5,366	Yes	0	0	25	
2389-WL	Mose Cohen & Sons, Inc.	2727	258	2,550	2,550	Yes	0	0	25	
2390-WL	Thomas Croft et al.	3028	145	1445	1445	Yes	0	0	25	
2391-WL	The Stanshar Investment Co.	2826	625	1,615	1,615	Yes	0	0	25	
2392-WL	Philip Oscherovitz et al.	3119	593	2,500	2,500	Yes	0	0	25	

SUMMARY OF ADDITIONAL RIGHT OF WAY REQUIRED

Parcel No.	Owner	Deed Record		R/W Area To Be Acquired (Sq.Ft)					R/W Sheet No.	Remarks
				Total Area	To Be Acquired		Residue			
		Book	Page		Land	Bldg's	Left	Right		
2393-WL	Claude & Tommy Lee Fulton	2850	459	2,125	2,125	Yes	0	0	25	
2394-WL	Mary Alice Wendell	2204	257	1,900	1,900	Yes	0	0	25	
2395-WL	James G. Bliss et al.	2931	561	1,900	1,900	Yes	0	0	25	
2396-WL	Marcia Schulzinger	1631	74	2,125	2,125	Yes	0	0	25	
2397-WL	Mary P. Jenkins Fulton	2560	268	2,125	2,125	Yes	0	0	25	
2398-WL	Sarah Edlin et al.	3085	6	2,125	2,125	Yes	0	0	25	
2399-WL	Elizabeth F. Rhodes	R.L.	17565	4.014	4.014	Yes	0	0	25	
2400-WL	Floyd & Carry Wilson	2237	607	1,500	1,500	Yes	0	0	25	
2401-WL	Jacob Richter et al.	1891	450	1,450	1,450	Yes	0	0	25	
2402-WL	Anna B. Tavel	1719	446	2,125	2,125	Yes	0	0	25	
2403-WL	Harry Tavel et al.	2227	207	2,125	2,125	Yes	0	0	25	
2404-WL	John F. Cooper	2162	153	2,050	2,050	Yes	0	0	25	
2405-WL	Walter Tarr et al.	2352	568	4,200	4,200	Yes	0	0	25	
2406										Not Used
2407-WL	Ida Freedman	1491	467	2,055	2,055	Yes	0	0	25	
2408-WL	James G. Bliss et al.	2931	561	2,045	2,045	Yes	0	0	25	
2409-WL	The Eliokum Investment Corp.	2319	96	1625	1,625	Yes	0	0	25	
2410-WL	Royal S. Martin	2911	630	5,313	5,313	Yes	0	0	25	
2410A-WL	Stewart Safdi	2823	192	3,188	3,188	Yes	0	0	25	
2411-WL	John H. Torbeck et al.	3152	303	1,825	1,825	Yes	0	0	25	
2412-WL	Gertrude Palmer et al.	2789	112	1,800	1,800	Yes	0	0	25	
2413-WL	Anna B. Tavel	1000	573	2,125	2,125	Yes	0	0	25	
2414-WL	First National Bank, ex, "Tr."	1500	262	2,125	2,125	Yes	0	0	25	
2415-WL	Jacob Richter	2350	604	1,800	1,800	Yes	0	0	25	
2416-WL	Dorthea Brueggeman Hoy	2525	172	2,000	2,000	Yes	0	0	25	
2417-WL	Eugene Aranburg	2166	315	36,000	36,000	Yes	0	0	25	
2418-WL	Nellie Harris	2934	387	4,250	4,250	Yes	0	0	25	
2419-WL	Edwin H. Gerdes	2487	73	2,125	2,125	Yes	0	0	25	
2420-WL	Flora B. Bradford Cooper	2651	246	1,800	1,800	Yes	0	0	25	
2421-WL	Ben Simkin	2672	86	1,800	1,800	Yes	0	0	25	
2422-WL	Benjamin M. Simkin	2548	609	2,700	2,700	Yes	0	0	25	
2423-WL	Bertha Sedaka	3002	384	2,375	2,375	Yes	0	0	25	

* See Page 9 for Notes

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8-3-62	R/W Plans Completed	G.E.M.

RIGHT OF WAY PLANS

SIXTH STREET EXPRESSWAY

600 Ft± WEST OF HARRIET STREET
TO GEST STREET

Acc. No. 21507

RIGHT OF WAY PLAN

FED. RD. DIV.	STATE	PROJECT	FISCAL YEAR
2	OHIO		

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HAM-50-19.76
HAMILTON COUNTY
LIMITED ACCESS
R/W PLANS

SUMMARY OF ADDITIONAL RIGHT OF WAY REQUIRED

Parcel No.	Owner	Deed Record Book	Deed Record Page	R/W Area To Be Acquired (Sq Ft.) Total Area	To Be Acquired Land	To Be Acquired Bldg's	Residue Left	Residue Right	R/W Sheet No.	Remarks
2424-AR	Baltimore & Ohio R.R. Co.	2079	409		49,709	Yes			21,48	
2424-1	do	do			144	No			21,49	
2424-2	do	do			144	Yes			21,49	
2424-3	do	do			144	Yes			21,49	
2424-4	do	do			228	No			21,49	
2424-5	do	do			228	No			21,49	
2424-6	do	do			228	No			21,49	
2424-7	do	do			228	No			21,49	
2424-8	do	do			228	No			21,49	
2424-9	do	do			228	No			21,49	
2424-10	do	do			295	No			21,49	
2424-11	do	do			295	No			21,49	
2424-12	do	do			295	No			21,49	
2424-13	do	do			295	No			21,49	
2424-14	do	do			295	No			21,49	
2424-15	do	do			295	No			21,49	
2424-16	do	do			186	Yes			21,49	
2424-17	do	do			186	Yes			21,49	
2424-18	do	do			186	Yes			21,49	
2424-19	do	do			186	Yes			21,49	
2424-20	do	do			186	Yes			21,49	
2424-21	do	do			186	Yes			21,49	
2424-22	do	do			1,810	No			21,49	
2424-S-1	do	do			1,383	Yes			21,49	
2424-S-2	do	do			1,722	No			21,49	
2424-S-3	do	do			2,236	No			21,49	
2424-U-1	do	do		-	-	-	-	-	21,49,52	*See Note 3 & Sheet 52
2424-U-2	do	do		-	-	-	-	-	21,48,52	do
2424-SA	do	do			10,055	No			20,47	
2424-WA	do	do		-	-	-	-	-	21	
2425-LA	C.C.C. & St. Louis R.R. Co - Base Fee New York Central RR Co - Lessee	18-05-169 533 1464	442 208		1,765	No			16,21,38	See Note 2 *
2425-AR	do	do			8,040	No			21,39	
2425-1	do	do			786	No			16,21,40	
2425-2	do	do			358	No			21,40	
2425-S	do	do			700	No			21,40	
2425-U	do	do							21,39,52	*See Note 3 & Sheet 52
2426-WL	City of Cincinnati	2561	14	27,460	27,460	No	0	0	21,16	
2427-WL	Alfred B. Katz	3011	308	4,480	4,480	No	0	0	16	
2428 Thru 2443										Not Used
2444-WD	Philip & Hyman Moskowitz "Tr."	2080 1427	391 252	10,000	10,000	Yes	0	0	18	
2445 Thru 2447										Not Used
2448-WL	National Lead Co.	2103 1303 1272 1283 1290 1255 2219 1227	335 428 463 408 419 582 581 251	122,704	21,695	Yes	92,430	-	17	
2448-SL	do	do			8,000	Yes			17	
2448-S	do	do			1,154	Yes			17	

SUMMARY OF ADDITIONAL RIGHT OF WAY REQUIRED

Parcel No.	Owner	Deed Record Book	Deed Record Page	R/W Area To Be Acquired (Sq Ft) Total Area	To Be Acquired Land	To Be Acquired Bldg's	Residue Left	Residue Right	R/W Sheet No.	Remarks
2449-WL	Standard Oil Co.	2108 1567 1974 2219 1795 1873	295 428 113 581 217 1265	11,100	10,255	Yes	0	0	18	
2449-WD	do	do		-	1,845	Yes	-	-	18	
2450-LA	Baltimore & Ohio R.R. Co. E. L. Hopkins H. R. Howe & R. Manley	2079 3006 Probate Court	409 16		6,960				17,42	
2450-AR1	do	do			2,562		-	-	17,43	
2450-AR2	Baltimore & Ohio R.R. Co.	2079	409		8,010		-	-	17,43	
2450-S	do	do			1,631		-	-	17,44	
2450-U	do	do		-	-	-	-	-	17,43,52	See Note 3 & Sheet 52
2450	do	do			1,134				17,44	
2451-LA	C.C.C. & St. Louis R.R. Co. - Base Fee New York Central RR Co - Lessee	Ohio Supreme Ct. 18-05-169 1361 1340 1381 1380 1277 1278 1368 1216 1378 1381 1528 1524 1982 1378 1402 343 343 1240 LB25	520 530 563 591 520 556 412 586 472 564 454 568 235 473 13 253 280 37 107 See Note 2 *		47,680	Yes			16,17,35	
2451-AR	do	do		-	5,705	No			17,36	
2451-1	do	do			64	No			17,37	
2451-2	do	do			429	No			17,37	
2451-S	do	do			841	No			17,37	
2452-WL	Phillip Moskowitz "Tr."	2381	392	1,073	1,073	Yes	0	0	16	
2453-WL	The Ohio Oil Co.	3047	664	12,318	12,318	Yes	0	0	16	
2454-WL	The University of Cincinnati	WB. 10	166	2,500	2,500	No	0	0	16	
2455-WL	Abe Dennis	1716	606	8,664	8,664	Yes	0	0	16	
2456-WL	The Joseph Horthorst Co.	2582	184	7,691	7,691	Yes	0	0	16	
2457-WL	Phillip Moskowitz	2206 2206	375 486	9,888	9,888	No	0	0	16	
2458-WL	Phillip & Hyman Moskowitz "Tr."	2514	324	963	963	No	0	0	16	
2451-U	Same as 2451-LA	Same as	2451-LA	-	-	-	-	-	17,36,52	*See Note 3 & Sheet 52

* See Page 9 for Notes

8
52

8-3-62	R/W Plans Completed	G. E. M.

RIGHT OF WAY PLANS

SIXTH STREET EXPRESSWAY

600 Ft. WEST OF HARRIET STREET
TO GEST STREET

Acc. No. 21508

RIGHT OF WAY PLAN

FED. RD. DIV.	STATE	PROJECT	FISCAL YEAR
2	OHIO		

421
464

HAM-50-19.76
HAMILTON COUNTY
LIMITED ACCESS
R/W PLANS

SUMMARY OF ADDITIONAL RIGHT OF WAY REQUIRED

Parcel No.	Owner	Deed Record Book	Deed Record Page	R/W Area To Be Acquired (Sq.Ft) Total Area	To Be Acquired Land	To Be Acquired Bldg's	Residue Left	Residue Right	R/W Sheet No.	Remarks
2458-WL	C.C.C.&St. Louis RR Co.-Base Fee New York Central R.R.Co.-Lessee	1345 1361	531 528	3,758	3,758	No	0	0	16,35	
2460-WL	Philip L. Moskowitz "Tr."	2561	614	2,008	2,008	No	0	0	16	
2461-WL	Philip J. Moskowitz	2436	285	600	600	No	0	0	16	
2462-LA	Trustees of The Cincinnati Southern R.R.	947 912 953 Common Pleas Ct. Case 131380	520 291 21	5,046	5,046	No	0	0	16,28	
2463-WL	C.C.C.&St.Louis R.R. Co.- Base Fee New York Central RR Co-Lessee	1359 1361	518 521	5,420	5,420	No	0	0	16,35	
2464-LA	Trustees of The Cincinnati Southern RR.	947	521	1,648	1,648	No	0	0	16,28	
2465									1	Not Used
2466-LA-1	C.C.C.&St. Louis Railway Co. (Base Fee) The Metropolitan Museum of Art in NYC (Base Fee) Mary McNear McNab et al. (Base Fee) The Title Guarantee and Trust Co. (Base Fee) C.C.C.&St. Louis Railway Co.-Lessee New York Central RR Co.	Deed Book 1152 2741 2822 337 2385 LB.150 LB.68	Page 468 247 238 521 111 456 135	Deed Book 2741 338 2441 W.B.185 LB. 96 LB. 68	Page 246 47 291 8 170 130		21,804	Yes		13,32	
2466-LA-2	C.C.C.&St.Louis Railway Co (Base Fee) Flora W. Young, et al. (Base Fee) Gregory G. Wright, et al. (Base Fee) C.C.C.&St. Louis Railway Co.-Lessee New York Central R.R.Co.	338 374 520 1569 338 2741 LB.120	42 199 256 391 36 98 68	337 1500 586 2580 2737 1773 WB.212	526 86 138 420 388 472 437		33,760	Yes		13,32	
2466-LA-3	C.C.C.&St.Louis Railway Co (Base Fee) Flora W. Young, et al. (Base Fee) May P. Stix Frieberg (Base Fee) Edw. D. Young Jr., et al. (Base Fee) C.C.C.&St.Louis Railway Co. New York Central R.R.Co.-Lessee	2398 530 338 2737 2764 2741 LB.54	102 225 35 388 114 98 97	529 2381 338 338 2764 1773 WB.212	256 524 36 616 117 472 437		4,830	Yes		13,32	
2466-AR	The Title Guarantee & Trust Co. Flora W. Young, et al. - Base Fee C.C.C.&St.Louis Railway Co. New York Central R.R.Co-Lessee	1152 2737 1773 WB.212	468 388 472 437	338 2741 LB.150	36 98 456		17,600	Yes		13,33	
2466-1							16	No		13,34	
2466-2							121	No		13,34	
2466-3							121	No		13,34	
2466-4							121	No		13,34	
2466-5							121	No		13,34	
2466-6							121	No		13,34	
2466-7							121	No		13,34	
2466-8	The Title Guarantee & Trust Co - Owner	1152	468				121	No		13,34	
2466-9	C.C.C.&St. Louis Railway Co. - Lessee	LB.150	456				46	No		13,34	
2466-10	New York Central R.R. Co.						121	No		13,34	
2466-11							121	No		13,34	
2466-12							121	No		13,34	
2466-13							121	Yes		13,34	
2466-14							121	Yes		13,34	
2466-15							121	No		13,34	
2466-16							121	No		13,34	
2466A-WL	Joseph Stillpass et al.	2928	471	3,366	3,366	Yes	0	0	13	
2467-LA	C.C.C.&St. Louis R.R. Co - Base Fee New York Central R.R. Co- Lessee									Acquired For HAM-50-19.38
2467AWD	Baltimore & Ohio R.R.Co.	2395	534		483	No			12,41	
2467B-LA	Baltimore & Ohio R.R. Co. et al	See Note 4			3,454	No			12,41	
2467C-LA	C.C.C.&St. Louis R.R.Co - Base Fee New York Central R.R.Co - Lessee	305	94		443	No			12,31	
2467D-LA	Baltimore & Ohio R.R.Co	2395	534		369	No			12,41	
2467E-LA 2467E-S-1 2467E-S-2										See Note 1

100% CITY PARTICIPATION

SUMMARY OF ADDITIONAL RIGHT OF WAY REQUIRED

Parcel No.	Owner	Deed Record Book	Deed Record Page	R/W Area To Be Acquired (Sq.Ft) Total Area	To Be Acquired Land	To Be Acquired Bldg's	Residue Left	Residue Right	R/W Sheet No.	Remarks
8-1316	Baltimore & Ohio R.R.Co								17,20,45,46	
E-1	do								17,20,45,46	Slope Easement
E-2	do								20,46	Retaining Wall Easement
E-3	do								20,46	Slope Easement
E-4	do								20,46	Retaining Wall Easement
8-1551	Merchant Ice & Cold Storage Co. of Delaware								17,20	To Remain
8-1552	Jac. R. Breese								20	
8-1553	Marian Tarr Martin								20	
8-1554	do								20	
8-1555	do								20	
8-1556	do								20	
8-1557	do								20	
8-1558	Vernon Spinks								20	
8-1559	Oliver Hardin								20	
8-1560	Ophelia W. Rice, et al.								20	
8-1561	Thomas Taney								20	
8-1562	Rita R. Lerner, et al.								20	
8-1563	do								20	
8-1564	Ruth F. Wise								20	
8-1317	Chobed, Inc								20	
9-277	Baltimore & Ohio R.R.Co.								17,19,45	
9-277A	do								17,19,45	
E-5	do								17,19,45	Slope Easement
3-1160	Calman Schneider								25	
3-1161	Annie Banks								25	
3-1162	Hildred B. Hoodin								25	
3-1198	Robert M. Phillips, et al.								25	
3-1200	Richard E. Callender								25	
23-1994	Weyer Realty Co.								24	Residue of Parcel 237GWL
8-1315	Wm. Von Rissen, Jr. et al.								18	
8-1534	Socony Vacuum Oil Co.								18	
8-1535	Lambert Transfer & Storage Co.								18	

Note 1: This Parcel is needed jointly for HAM-50-19.38 and HAM-50-19.76 but has been acquired in connection with HAM-50-19.38.

Note 2: The C.C.C. & St. Louis Railway leased all their property to the New York Central RR Co. by unrecorded lease dated January 30, 1930

Note 3: These parcels will be acquired by the Cincinnati Gas & Electric Co. jointly for the Cincinnati Gas & Electric Co. and the City of Cincinnati for the relocation of an aerial transmission line and towers 5 & 6 of said transmission line.

Note 4: Deed References for 2467B-LA - D.B. 1773 P. 472, D.B. 2741 P. 98, D.B. 2737 P. 338, D.B. 329 P. 455, D.B. 325 P. 154

9
52

8-3-62	R/W Plans Completed	G. E. M.

RIGHT OF WAY PLANS

SIXTH STREET EXPRESSWAY

600 Ft. WEST OF HARRIET STREET TO GEST STREET

Acc. No. 21509

RIGHT OF WAY PLAN

FED. RD. DIV.	STATE	PROJECT	FISCAL YEAR
2	OHIO		

422/464

HAM-50-19.76
HAMILTON COUNTY
LIMITED ACCESS
R/W PLANS

NOTE: Prop. R/W Fence, Type C to Connect to alignment of existing Cinti. Union Terminal Co. Bridge pier.

NATHANIEL ALLEN'S SUB.

ISRAEL LUDLOW'S SUB.

(VACATED) AL. SKAATS

C.C.C. & St. L. R.R. Co. Lessee

Cincinnati Museum Ass. - Fee
C.C.C. & St. L. R.R. Co. - Lessee

John W. Hudson - Fee

Frank Bittmeyer et al - Fee
C.C.C. & St. L. R.R. Co. - Lessee

Summer Home for the Aged - Fee
C.C.C. & St. L. R.R. Co. - Lessee

Cincinnati Museum Ass. - Fee
C.C.C. & St. L. R.R. Co. - Lessee

John B. Hollister et al - Fee
C.C.C. & St. L. R.R. Co. - Lessee

Wm. G. Baldemor et al - Fee
C.C.C. & St. L. R.R. Co. - Lessee

Cincinnati Museum Ass. - Fee
C.C.C. & St. L. R.R. Co. - Lessee

See Sheet 12

S 88°09'54" E - 118.07'

S 89°17'31" E - 118.81'

S 78°34'20" E - 194.50

Ex. R/W Fence (By Others)

Ex. R. R. Tracks

Ex. R R Tracks

Ex. R R Tracks

Ex. R. R. Tracks

Ex. R. R. Tracks

Ex. R. R.

FED. RD. DIV.	STATE	PROJECT	FISCAL YEAR
2	OHIO		

423
464

HAM-50-19.76
HAMILTON COUNTY
LIMITED ACCESS
R/W PLANS

See Sheet 12

SIXTH ST.

Ex. 10" W.M.
Ex. 4" G.M.
Ex. 20" W.M.

Prop. Ret. Wall No. 57
AC. at EPA
Court Note
2326 LA
2326 SL
2324 LA
2325 LA
2326 LA
2327 WL
2328 WL
2328 WA
2329 WL
2329 WD
2329 S
2334 WD

53.09'
25+94.88 EB
92.90'
S 82°56'30"E 162.31'
Ex. R/W
Ex. Cyclone Fence 12"x6" Boards
Ex. Conc. Bridge Fig.
Prop. Type C R/W Fence
86.80'
26+79.91 EB
87.00'
26+79.91 EB
78.84'
26+15.10 EB
98.50'
28+15.88 EB.
97.50
28+14.88 EB
53.33'
28+43.71 EB
28+44.71 EB
S 68°21'54"E 137.74' LA
See Fence Detail
3½ St. Br. #1211
Ex. Asph. Dr.
Ex. Steel Beam
Ex. Fence
Ex. Conc. Wall
5' Conc. Wk. for Traveling Crane
12" Conc. Wall
Ex. Wood Fence
Ex. Sign Board
Ex. Mac. Drive
Ex. Cyclone Fence
Ex. Limestone Pavt. Conc. Curb 2.5'
Ex. Gas Line
Ex. 3" G.M.
Ex. 6" G.M.
Ex. 12" W.M.
Ex. 18" P.S.
Ex. 15" P.S.
Ex. 12" P.S.
Ex. 3" W.M.
Ex. 16" W.M.
Plugged
Historical Marker
Old Stone Footing
Elec. Guy Pole
Sub. Line
Vacated Ord. 466-1931
Construction Limit
Ex. R/W
Ex. G.S.M.
Ex. 10" W.M.
Ex. 12" P.S.
Ex. 18" P.S.
Ex. Cyclone Fence
Ex. Wood Fence
Ex. Steel Bents
Ex. Mac. Drive
Ex. Sign Board
Ex. Limestone Pavt. Conc. Curb 2.5'
Ex. Asph. Dr.

FED. RD. DIV.	STATE	PROJECT	FISCAL YEAR
2	OHIO		

424
464

HAM-50-19.76
HAMILTON COUNTY
LIMITED ACCESS
R/W PLANS

BEGIN LIMITED ACCESS STA. 26+14.16 A

Limited Access Acquired in Connection With HAM-50-19.38

Ex. N.Y.C. RR. Tracks

Ex. Bridge Pier

Base Fee — Rachel Holmes Ingalls, Fifth Third Union Trust Co. Tr.
Lease — C.C.C. & St.L. RR Co., Cinti. Union Terminal Co.

Ex. N.Y.C. RR. Track

Construction Limit

Prop. Type "C" R/W Fence

CINCINNATI, LAWRENCEBURG & SOUTHEASTERN RR.

2467E LS-1

35' 24+66 A

N 85°27'29" E. - 494.69'

C 86°37'40" E. - 477.26'

N 87°31'07" E. - 253.80'

34' 24+65 A EPA

ISRAEL LUDLOW'S SUB'N. R-1 P. 174 D.B. "R" 2 P. 9, 234

EST. RAMP

R.O.

25A

XXIII

XXI

24A

Cinti. Union Terminal Underground Easement

Ex. Bridge Pier Exp. 5'

Ex. Cinder Rdwy.

Sub. Line

307±

RAMSEY D.B. 73 P. 382

43 44 45 46 47 A.C. 48

WADE'S SUBDIVISION

R.O.

49 4' 28+00 A EPA 50

R=192 R=272 51

42' 28+35.66 A

CH: S 36°43'40" E. 10.00' Arc = 10.00

42' 28+36.66 A EPA

A.C.

52

Ex. Old Conc Footings

Ex. Wooden Ice Box

Ex. Cinder Parking Area

POINT OF ACCESS STA. 28+23.20 A 28 FOOT WIDTH

1 St. Conc Mat.

Ex. Mat. Casting

Ex. R/W

Fr. Shed

Ex. Loaded Coal Box

Ex. Old 12" Conc Wall

Ex. 12" Conc Wall

2467A WD

120.39' 29+08.71 WB

1 St. Mat. 115.64' 29+63.70 WB

120.63' 29+64.13 WB

S 83°17'20" E. 114.64' EPA 29+64.70 WB

119.39' 29+08.71 WB EPA

119.63' 29+65.13 WB EPA

Prop. Type "C" R/W Fence

N. 6°42'40" E. ~ 5.00'

S. 88°38'35" E. ~ 146.80

HORN ALLEY

HORN AL.

Ex. R/W-1

N. 82°56'30" W.

0.68'

42.18' LA

N. 52°13'08" E. 25.94'

S. 7°53'40" W. 135.14'

HARRIET ST.

SEE DETAIL

DETAIL (Not to Scale)

2467D LA

2467C LA

2467B LA

Arc = 83.10'

CH: S 83°43'43" E. - 82.78'

41' 26+59.56 A EPA

42' 26+59.56 A

42' 27+29.83 A

41' 27+29.83 A EPA

R=272 R=192

S 56°22'42" E. - 122.46'

Arc = 124.64'

Ex. R/W

41' 28+12 A EPA

N 52°13'08" E. 25.94'

Ex. Conc. Chamber

Ex. Cinders & Mac. Rdwy.

End Ex. Gran. Curb

Ex. Gran. Curb

Ex. Mac. Rdwy. & Conc. Curbs

EXPRESSWAY

BRIDGE NO. HAM-50-19.38 L

BRIDGE NO. HAM-50-19.38 R

See Sheet 10

See Sheet 13

See Sheet 11

Wm. Bayard Hoge et al. - Fee
C.C.C. & St.L. R.R. Co. - Lease

Cincinnati Museum Assn. - Fee
C.C.C. & St.L. R.R. Co. - Lease
New York Central R.R. Co. - Lease
Cinti. Union Terminal Co. - Lease

Ex. 12" Conc. Wall

Cinti. Union Terminal Underground Easement

Ex. Bridge Pier Exp. 3.83

127.5

Ex. Billboard

CONN.

Serial Easement

PC 24+14.46 EB

PCC 25+14.46 EB

PCC 26+14.46 EB

PCC 26+85.63 EB

Ex. R.R. Track

Ex. R/W

Ex. 10" C.W.

Ex. 20" P.S.

Ex. 10" W.M.

Ex. 20" W.M.

Ex. 6" W.M.

Ex. 18" P.S.

SIXTH ST.

EASTBOUND

WESTBOUND

60'

Prop. Ret. Wall No. 5

Prop. Type "C" R/W Fence

Construction Limit

R/W

LA

24 WB 24 EB 25 WB 25 EB 26 WB 26 EB 27 WB 27 EB 28 WB 28 EB 29 EB 30 WB 30 EB

NOTE: For Details of Parcels 2467 A-WD, 2467 B-LA, 2467 C-LA, & 2467 D-LA See Special Railroad Plats-Sheet No's. 31 & 41.
Parcel 2467 E-LA was Acquired in Connection with Project HAM 50-1938

Sec. 24, T. 4, F.R. 1, Cincinnati Twp.

8-17-62	Chg. Bearing along LA line	J.S.G.
8-3-62	Added Pt. of Access-2467 E	M. M. D.
8-3-62	R/W Plans Completed	

12/52

Scale: 20

RIGHT OF WAY PLANS

SIXTH STREET EXPRESSWAY

600'± WEST OF HARRIET STREET TO GEST STREET

Acc. No. 21512

RIGHT OF WAY PLAN

FED. RD. DIV.	STATE	PROJECT	FISCAL YEAR
2	OHIO		

A75
AGA

HAM-50-19.76
HAMILTON COUNTY
LIMITED ACCESS "A"
R/W PLANS

See Sheet 12

See Sheet 16

See Sheet 11

See Sheet 15

See Detail #615 4 St. Br. Joseph Stillpass, et al. 2466A WL

MATCH LINE

MATCH LINE

DETAIL

Note: For Details of Parcels 2466 LA-1 Thru 2466 LA-3, 2466-1 Thru 2466-16 & 2466 AR See Special Railroad Plats Sheet No's 32, 33 & 34.

1 St. Conc. Met.

1 St. Met.

1 St. Conc. Bk. Gar.

1 St. Conc. Bl. Garage #1146

1 St. Met. #1132

2 St. Met. #2

1 St. Met. #1137

2 St. Metal

3 St. Conc.

4 St. Br. #615

4 St. Br. #1101-1107

7 St. Metal

Fr. Shed

Conc Slab

Ex. Conc. Area

Ex. Cinders

Ex. Conc. Dr.

Ex. Cinder Parking Lot

Ex. Gravel Dr. & Parking Lot

Ex. Lumber Piles

Ex. Pulley Conc. Base

Ex. Winching Pulleys

Ex. Chamber

Ex. Cont. Chamber

Ex. Cyclone Fence

Ex. Conc. Wall

Ex. Conc. Curb

Ex. Conc. Pav't. & Gran. Curbs

Ex. Bit. Mac. Pav't. & Conc. Curbs

Ex. Bit. Mac. Pav't.

Ex. Mac. Pav't. & Conc. Curbs

Ex. Scale Platform

Ex. Gravel

Ex. Conc.

Ex. Cinders & Mac.

Ex. Ramsey Wall

Ex. 12' Br. Wall

Ex. Scale

Ex. Cyclone Fence

Ex. Conc. Wall

Ex. Curb Walk

Ex. R.R. Tracks

Ex. R.R. Track

Ex. R.R. Tracks

Ex. 9" Conc. Wall

Ex. 4" W.M.

Ex. 6" W.M.

Ex. 10" W.M.

Ex. 20" W.M.

Ex. 10" C.W.

Ex. 6" C.W.

Ex. 4" C.W.

Ex. 15" P.S.

Ex. 20" P.S.

Ex. 18" P.S.

Ex. 12" P.S.

Ex. 6" W.M. CARR

Ex. 4" W.M. HARRIET

Ex. 4" W.M. ST.

Ex. 4" W.M. FRANCIS

Ex. 4" W.M.

Ex. 4" W.M.

Ex. 4" W.M.

FED. RD. DIV.	STATE	PROJECT	FISCAL YEAR
2	OHIO		

426
464

HAM-50-19.76
HAMILTON COUNTY
LIMITED ACCESS
R/W PLANS

See Sheet 15

See Sheet 15

See Sheet 22

FRONT ST.

FIFTH ST.

SARGENT ST.

SIBLEY AL.

SLOO ST.

FREEMAN AVE.

RAMP LA

RAMP FC

DAVID SARGENT'S SUB.
P.B. 1 - P. 191 - 192 - R.C.

PIERSON'S SUB. NO LOT NOS.

City of Cincinnati

W. L. Gross, et al.

Valley Warehouse, Inc.

Valley Warehouse Inc.

Trustees of Cinti. Southern R.R.

Leonard Kirschner

Mose Cohen & Sons, Inc.

Stanford Stillpass et al.

Cecelia Hoffman & Bertha Greenbaum

Queen City Industries, Inc.

Mose Cohen & Sons Inc.

Cohen & Sons, Inc.

Proposed 1st Conc. Blk. (Constructed By Others)

Prop. Flood Gate Storage House

Ex. Gravel Area

Ex. Scale

(UNRECORDED)

City of Cincinnati Flood Wall

Construction Limits

Ex. Wire Fence

Ex. Corr Wire Fence

Ex. Conc. Wk.

Ex. Br. Wk.

Ex. Conc. Piers

Ex. Conc. Blk.

Ex. Conc. Base

Ex. Gas Pump

Ex. Gas Valve

Ex. Conc. Posts

Ex. Steel Posts

Ex. Sign Posts

Ex. Guy Poles

Ex. Guy Wires

Ex. Manholes

Ex. Catch Basins

Ex. Inlets

Ex. Wood Wk.

Ex. Mac. Wk.

Ex. Conc. Piers

Ex. Conc. Pier

Ex. R/W

Ex. T.C.

Ex. 12" G.M.

Ex. 20" W.M.

Ex. 4" W.M.

Ex. 6" W.M.

Ex. 12" P.S.

Ex. 8" P.S.

Ex. 3" G.M.

Ex. 6" W.M.

Ex. 5" W.M.

Ex. R.R. Tracks

Ex. Wd. Wk.

Ex. Br. Wk.

Ex. Wire Fence

Ex. Conc. Wk.

Ex. Corr Wire Fence

Ex. Conc. Flood Wall

Ex. Conc. Pier

Ex. Conc. Piers

Ex. Conc. Blk.

Ex. Conc. Base

Ex. Gas Pump

Ex. Gas Valve

Ex. Conc. Posts

Ex. Steel Posts

Ex. Sign Posts

Ex. Guy Poles

Ex. Guy Wires

Ex. Manholes

Ex. Catch Basins

Ex. Inlets

Ex. Wood Wk.

Ex. Mac. Wk.

Ex. Conc. Piers

Ex. Conc. Pier

Ex. R/W

Ex. T.C.

Ex. 12" G.M.

Ex. 20" W.M.

Ex. 4" W.M.

Ex. 6" W.M.

Ex. 12" P.S.

Ex. 8" P.S.

Ex. 3" G.M.

Ex. 6" W.M.

Ex. 5" W.M.

Ex. R.R. Tracks

Ex. Wd. Wk.

Ex. Br. Wk.

Ex. Wire Fence

Ex. Conc. Wk.

Ex. Corr Wire Fence

Ex. Conc. Flood Wall

1st. Sh. Metal

1st. Br. Warehouse

1½ St. Br. #511

1st. Br. (Reconstruction By Others)

1st. Conc. Blk.

2 St. Conc. Blk.

1 St. Br.

2 St. Br.

2 St. Conc. Blk.

1st. Br. Gan.

1st. Sh. Met. Gan.

Vac. Ord. #427-1957

Construction Limits

Section 23

Section 24

2359 WD

2359 SL

2359 S-2

2359 S-1

2355 WD

2355 SL

2354 WD1

2354 SL

2353 WD

2353 SL

2353-A SL

2352 WD

2352 WA-1

2354-A SL

2352-A QC

2352 WA-1

2351 WL

2360 WL-1

2360 WD

2360 WA

2361 WL

2362 WL

2363 WL

2360 WL-2

FB

FC

14
52

Scale: 20

8-3-62 R/W Plans Completed M. M. D.

RIGHT OF WAY PLANS

SIXTH STREET EXPRESSWAY

600'± WEST OF HARRIET STREET TO GEST STREET

Acc. No. 21514

Sec. 23, T.4, F.R.1, Cincinnati Twp.

Sec. 24, T.4, F.R.1, Cincinnati Twp.

RIGHT OF WAY PLAN

FED. RD. DIV.	STATE	PROJECT	FISCAL YEAR
2	OHIO		

427
464

HAM-50-19.76
HAMILTON COUNTY
LIMITED ACCESS
R/W PLANS

Sec. 24, T.4, F.R.1, Cincinnati Twp.

SIXTH ST.

See Sheet 16

S. 83°13'20" E.

45.55'
35+68 FB

16.60'

33.74'

N. 2°58'48" W.
Ch = 5.07'
Arc = 5.07'
R = 68'
P.T. 16+18.00 SW

78.24'
N. 83°13'20" W. - 44.82'

Ex. Conc. Plz.

56.99'
35+61.79 FB

35+68 FB

Prop. Type "C" R/W Fence

1029-1023

2 St. Br.

Ex. Scale

1St Fr.

#1011 #1009
1St. Conc. Bl.

Anna Wartans

Ex. Wire Fence

Abe & Anna Dennis
30 FB
#1001
3 St. Br.

1 St. Br.
#1007

Ex. Conc. Wlk.

#570

Stanford Stillpass E.P. Al.

3 St. Br.
#546-66

1St. Br.

Ex. Wire Fence

Ex. Br. Area
1

G.E.E. Transformer

Ex. Conc. Area

Ex. Br. Wlk.

Ex. T.C.

Ex. 18" RS

Ex. 3" GM

Ex. 12" G.M.

Ex. 4" W.M.

Ex. 6" H x 5'V St. Sewer

Ex. Wire Fence

Ex. Br. Wk.

Ex. Br. Wlk.

Ex. Conc. Wlk.

Ex. Wire Fence

Ex. Wire Fence

Ex. Wire Fence

FED. RD. DIV.	STATE	PROJECT	FISCAL YEAR
2	OHIO		

428
464

HAM-50-19.76
HAMILTON COUNTY
LIMITED ACCESS
R/W PLANS

C.C.C. & St. L. R.R. Co.

See Sheet 17

FRANCIS CARR'S SUBDIVISION D.B. 39, P. 234 R.O.

Denotes area in which The Trustees of the Cincinnati Southern Railway Co. appropriated an easement as a result of Case 13,389, Common Pleas Court.

SOUTH CANAL ST. (VACATED)

Ch=N52°11'45"E 61.08'
Arc=62.27'
R=150.00'
D=23°47'00"
T.=31.73'
2451-S
P.C.C.
P.T.
2451-1
2451-AR
AVE.
S77°38'10"W
S77°29'03"E 58.17'
S73°21'50"E 65.00'
S69°14'12"E
Prop. Type "C" R/W Fence
Toe of Slope
Ex. R.R. Tracks
Construction Limit
Ex. R/W
Ex. 4 W.M.
Ex. 10" G.W.
Ex. 18" P.S.
Ex. 12" P.S.
Ex. 10" W.M.
Ex. 20" W.M.
Ex. T.C.
Ex. Guy Wire
Ex. Brick Wall
Ex. Stone Wall
Ex. 12" C.W.
Ex. 10" C.W.
Sealed
Ex. Guy Pole
Scale
Sec. 24, T. 4, F.R. 1, Cincinnati Twp.
See Sheet 13
See Sheet 15
See Sheet 2A

ZACHARY (TAYLOR) ST

CARR ST.

PROP. FREEMAN AVE.

2464 LA — Trustees of the Cincinnati Southern RR. LINE
2451 LA — C.C.C. & St. L. R.R. Co. — D.B. R-2 P. 9 & 234 R.O.
2451 WL — LUDLOW SUBDIVISION
Jane T. Ingalls, et al, Lessors to C.C.C. & St. L. R.R. Co. & New York Central R.R. Co. Lessee
2452 WL — Philip Moskowitz Tr.
2425 WL
2425 Z
2427 WL — Alfred B. Katz
2458 WL — WESTBOUND
2461 WL — Philip J. Moskowitz
2459 WL — Philip L. Moskowitz "Tr." SUB
2457 WL — Philip L. Moskowitz
2456 WL — Joseph Henhorst Co.
2455 WL — Abe Dennis
2453 WL — Ohio Oil Co. — EXPRESSWAY
2454 WL — University of Cincinnati — East Line Lot 3
2463 WL
2462 LA — Trustees of Cinti. Southern
2460 WL — Philip L. Moskowitz "Tr." SUB
EASTBOUND
2426 WL — The City of Cincinnati
RAMP
ELLIS & STURGES SUB. CASE 4805 SUP. CT.
SIXTH ST.

1st Metal Service Sta. #1000
1st Conc. Bk. #1011
1st Br. #1009
3 St. Br. #1001
2 St. Br. #1029-1023
2 St. Br. #1016-1020
2 St. Conc. Bk. #1010
1st Conc. Bk.
1st Metal
Pumps
#615 1 Sty. Conc. Bk.
#614 1 Sty. Brick Bldg. Torn Down
#612 3 Sty. Boarding House Torn Down

POT. 7.0+36.28 E
POT. 30+04.41 WB
POT. 38+81.41 FB & FC
PC 38+81.41 CD (16 Rt.)
POT. 40+83.58 FC
PC 39+34.12 F (28 Rt.)
POT. 20+15.57 F
POT. 35+00.30 EB
PT 38+72 EB
PC 37+61.18 CD
PT 34+87.82 CD
Nose 34+58.21 EB
3455.8 CD
Nose 36+67.18 CD
PC 37+61.0 F.B.
PC 37+61.0 CD
PC 37+61.0 F.C.
PT 40+05.58 F.C.
POC 18+70.86 F
28 Lf.
POC 56+84.25 F.B.
Nose 56+84.25 F.B.
POC 35+61.79 F.B.

NOTE: For Details of Parcels 2451-AR, 2451-LA, 2451-1, 2451-S, 2459-WL, 2462-LA 2463-WL, 2464-LA, 2425-WL & 2425-2 See Special Railroad Plats Sheet No's. 28, 35, 36, 37, 38 & 40

16
52

Scale: 20

8-17-62 Rev. Sta. & offsets on LA by M. M. D.
8-3-62 R/W Plans Completed M. M. D.

RIGHT OF WAY PLANS
SIXTH STREET EXPRESSWAY
600± WEST OF HARRIET STREET
TO GEST STREET
Acc. No. 21516
RIGHT OF WAY PLAN

FED. RD. DIV.	STATE	PROJECT	FISCAL YEAR
2	OHIO		

429
464

HAM-50-19.76
HAMILTON COUNTY
LIMITED ACCESS
R/W PLANS

See Sheet 15

LUDLOW'S SUBDIVISION
P.B. 2, P. 9 R.O.

South Line Queensgate Redevelopment Project

RAMP

St. Clair Fwy.

FREEMAN AVE.

KENYON ST.

BARR ST.

DAVID LONG'S SUB.
P.B. 5, P. 44 R.O.

Ex. Br. Smoke Stack

Sh. Met.

Ex. Conc. Area

3-St. Conc.

4-St. Conc.

Ex. R.R. Track

Ex. Wire Fence

1-St. Br.

Ex. Conc. Pav't.

Ex. Conc. Dr.

Ex. Crib Wall

Ex. Stone Wall

Ex. R.R. Tracks

Ex. Steel Plate Abutment

Ex. Steel Plate W.U.

Ex. Steel Plate Fence

Ex. Conc. Bumper

Ex. Conc. Platform

Ex. Conc. Wk.

Ex. Cinder Rdwy. Also Cinders

Ex. 3'x2.5' Stone Sta.

Ex. 12" P.S.

Ex. 16" W.M.

Ex. 20" W.M.

Ex. 4" G.M.

Ex. 3" G.M.

Ex. 8" P.S.

Ex. C.W.

Ex. R/W

Ex. T.C.

Ex. W.U.C.

Ex. Elec. C.

Edge of Ex. Mac. Pav't.

Aband.

Easement-1

Easement-5

£ 100' power line easement

Ohio R.R. Co. - Lessee

Baltimore & Ohio R.R. Co.

New York Central R.R. Co. - Lessee

C.C.C. & St. L. Rwy. Co. - Fee

Baltimore & Ohio R.R. Co. - Lessee

The National Lead Co.

The Merchant Ice & Cold Storage Co. of Delaware

WM. BARR'S EST. D.B. 85, P. 137 - D.B. 91, P. 396 & 397 R.O.

The Standard Oil Co.

1-St. Conc. Blk.

1-St. Conc. Metal

1-St. Sh. Metal Warehouse

2-St. Conc. Blk

8-St. Br.

8½ St. Br.

2451 LA

2451

2451 (2)

2450

2450 AR1

2450 LA

2450 AR2

2450 AR-1

2451 AR

2451 SA

2451 WL

2425 WL

2425 (2)

2424 SA

2448 SL

2448 S

2448 WL

S-977

S-974

8-1316

8-1315

8-1551

#974

#971

#409 #408 #407 #406 #405 #404

#546 #545 #544

#273 #272

Note: For details of parcels 2450AR1, 2450, 2450AR2, 2450LA, 2450S, 2451AR, 2451-1, 2451-2, 2451LA, 2451S, 2425WL, 2425-2, 2424SA, 8-1316, 8-1551 see special railroad plats - Sheet numbers 35 thru 38, 40 & 42 thru 47.

See Sheet 16

See Sheet 20

See Sheet 18

Sec. 24, T.4, F.R.1, Cincinnati Twp.

8-17-62	Added Rad. & Arc. to LA line	M. M. D.
8-17-62	Added Const. Limit & LA Sta.	M. M. D.
8-5-62	R/W Plans Completed	

17
52

Scale: 20

RIGHT OF WAY PLANS
SIXTH STREET EXPRESSWAY
600'± WEST OF HARRIET STREET
TO GEST STREET
Acc. No. 21517

RIGHT OF WAY PLAN

FED. RD. DIV.	STATE	PROJECT	FISCAL YEAR
2	OHIO		

430
464

HAM-50-19.76
HAMILTON COUNTY
LIMITED ACCESS
R/W PLANS

DAVID

The National Lead Co.

4 St. Conc

1 St. Br

Ex. Gravel Pav. Parking Area

Ex. Bit. Mac. Dr.

Ex. Conc. Pav.

Gravel Pav.

Ex. Conc. Wall

Ex. Wire Fence

Ex. Elec. C.

N5°49'18"E 50.00

N 11°19'23" E 213.68'

Limit of Construction

R=990'

PC N5°49'18"E

PRC N1°49'03"E

Ch = N 3°49'11" E 1669.17'

Arc = 69.19'

62.84'

N1°49'03"E - 118.45'

S 7°35'50" W - 100.00

Vac. Ord 12-1947

N1°49'03"E - 110.25'

Future West Curb

Future East Curb

S 7°35'50" W. ~ 238'

S 82°11'50" E 9.67'

N 2°15'12" E. 14.19'

R/W

28 FT (W)

Ex. Gas Intakes

Ex. Pump Island

Ex. Conc. Pad

Ex. Conc. Pave

Ex. Mac. Pavt.

Ex. Conc. Wk.

Ex. Conc. Flr.

Ex. Conc. Curb

Ex. Conc. Cond.

Ex. Wood Fence

Ex. Conc. Fence

Ex. Wire Fence

Ex. Elec. Cond.

Ex. Elec. C.

Ex. Elec. Pass.

Ex. Br. Pav.

Ex. Br. Gar.

Ex. Conc.

Ex. Wood Porch

Ex. Conc. Porch

Ex. Wood Deck

Ex. Wood Pl'k

Ex. Conc. Wk.

Ex. Conc. Pass.

Ex. Conc. Pav.

Ex. Wood Fence

Ex. Conc. Wk.

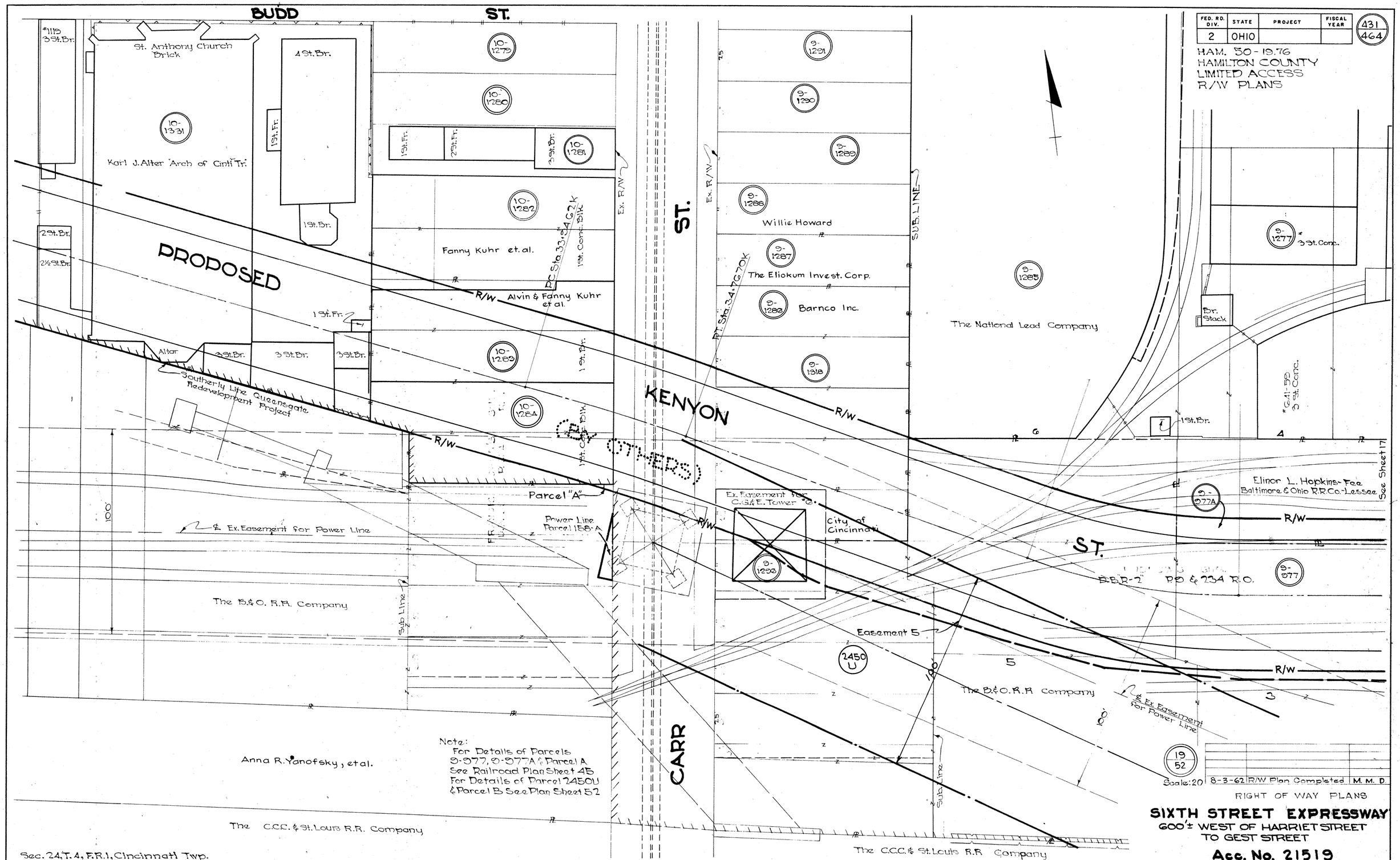
Ex. Conc. Wall

Ex. Wood Pl'k

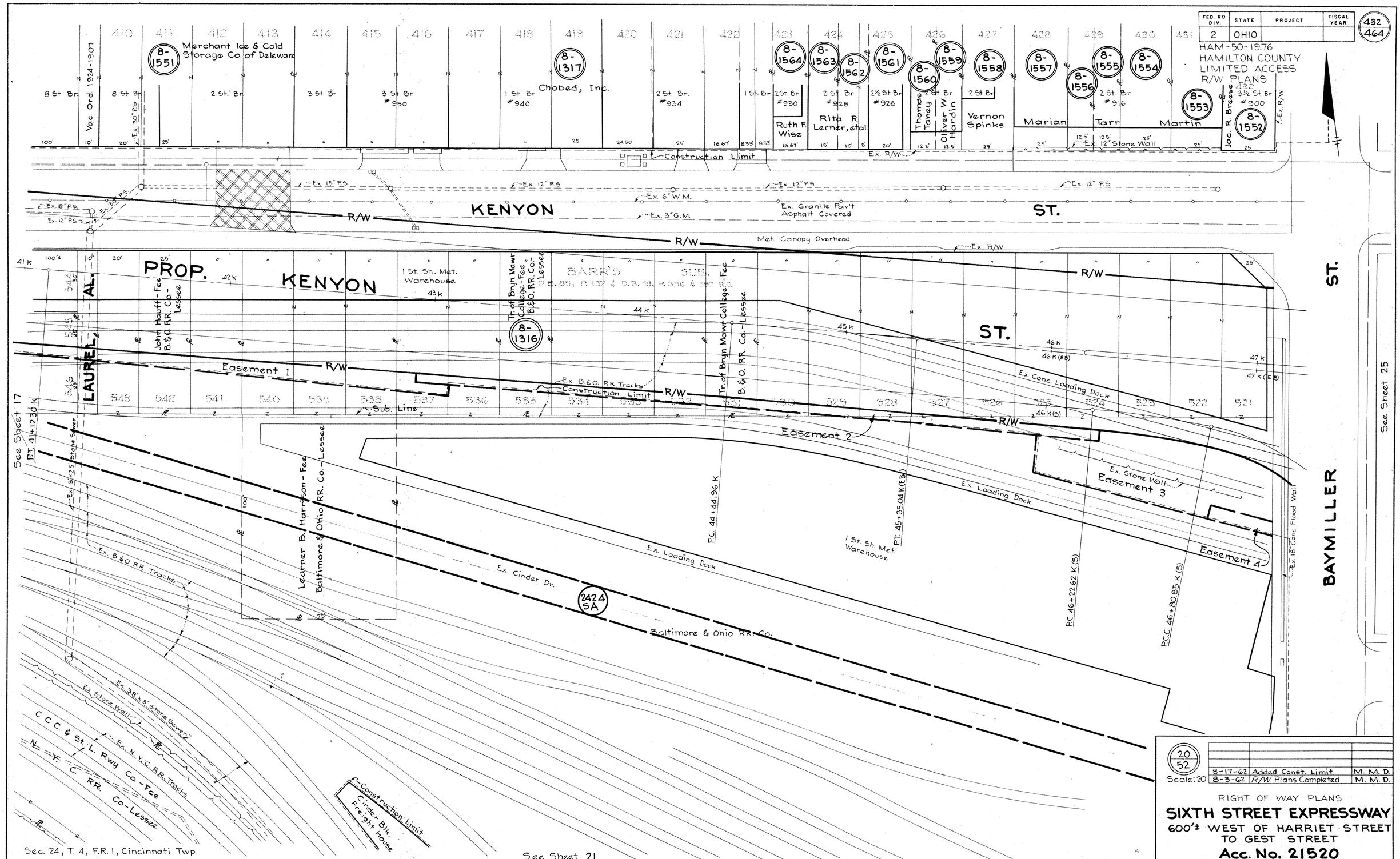
Ex. Conc. Wk.

Ex. Conc. Wk.

Ex. Conc. Wk.



FED. RD. DIV. 2
STATE OHIO
PROJECT
FISCAL YEAR
431
464
HAM. 50-19.76
HAMILTON COUNTY
LIMITED ACCESS
R/W PLANS
BUDD ST.
KENYON ST.
CARR ST.
PROPOSED
St. Anthony Church Brick
Karl J. Alter Arch of Cinti Tr.
Fanny Kuhr et. al.
Alvin & Fanny Kuhr et al.
Willie Howard
The Eliokum Invest. Corp.
Barnco Inc.
The National Lead Company
Southerly Line Queensgate Redevelopment Project
Parcel "A"
Power Line Parcel 158-A
Ex. Easement for Power Line
Ex. Easement for C.G.&E. Tower
City of Cincinnati
Elinor L. Hopkins-Fee
Baltimore & Ohio R.R. Co.-Lessee
See Sheet 17
The B.&O. R.R. Company
Easement 5
Anna R. Yanofsky, et al.
The C.C.C. & St. Louis R.R. Company
Note:
For Details of Parcels 9-977, 9-977A & Parcel A See Railroad Plan Sheet 45
For Details of Parcel 2450U & Parcel B See Plan Sheet 52
Sec. 24, T. 4, F.R. 1, Cincinnati Twp.
Scale: 20
8-3-62 R/W Plan Completed M. M. D.
RIGHT OF WAY PLANS
SIXTH STREET EXPRESSWAY
600'± WEST OF HARRIET STREET TO GEST STREET
Acc. No. 21519
RIGHT OF WAY PLAN



FED. RD. DIV. 2
STATE OHIO
PROJECT
FISCAL YEAR
432/464
HAM-50-19.76
HAMILTON COUNTY
LIMITED ACCESS
R/W PLANS
Merchant Ice & Cold Storage Co. of Deleware
Chobed, Inc.
Ruth F. Wise
Rita R. Lerner, et al.
Thomas Taney
Oliver W. Hardin
Vernon Spinks
Marian Tarr Martin
Jac. R. Breese
Construction Limit
KENYON ST.
Ex. Granite Pav't Asphalt Covered
Met. Canopy Overhead
PROP. KENYON ST.
LAUREL AL.
BARR'S SUB.
D.B. 85, P. 137 & D.B. 91, P. 396 & 397 R.C.
1 St. Sh. Met. Warehouse
John Hauff - Fee B.&O. RR. Co. - Lessee
Tr. of Bryn Mawr College - Fee B.&O. RR. Co. - Lessee
Easement 1
Easement 2
Easement 3
Easement 4
Ex. B.&O. RR Tracks
Sub. Line
Ex. Conc. Loading Dock
Ex. Stone Wall
Ex. Loading Dock
Learner B. Harrison - Fee
Baltimore & Ohio RR. Co. - Lessee
Ex. Cinder Dr.
2424 SA
Baltimore & Ohio RR. Co.
P.C. 44+44.96 K
P.T. 45+35.04 K (EB)
P.C. 46+22.62 K (S)
P.C.C. 46+80.85 K (S)
Ex. 18" Conc. Flood Wall
BAYMILLER ST.
See Sheet 17
See Sheet 25
See Sheet 21
Ex. 38'x3' Stone Sewer
Ex. Stone Wall
Ex. N.Y.C. RR. Tracks
C.C.C. & St. L. Rwy. Co. - Fee
N.Y.C. RR. Co. - Lessee
Construction Limit
Cinder Blk. Freight House
Sec. 24, T. 4, F.R. 1, Cincinnati Twp.
20/52
Scale: 20
8-17-62 Added Const. Limit M. M. D.
8-3-62 R/W Plans Completed M. M. D.
RIGHT OF WAY PLANS
SIXTH STREET EXPRESSWAY
600'± WEST OF HARRIET STREET TO GEST STREET
Acc. No. 21520
RIGHT OF WAY PLAN

FED. RD. DIV.	STATE	PROJECT	FISCAL YEAR
2	OHIO		

433
464

HAM-50-19.76
HAMILTON COUNTY
LIMITED ACCESS
R/W PLANS

See Sheet 20

N

1 St. Str. Met. Warehouse

Ex. Loading Dock

Baltimore & Ohio R.R. Co.

2424 SA

Construction Limit

PC. 48+75.46 KS(EB)

50.58'
41+18.35WB

50.58'
46+66.70 WB

Ex. Guy Wire

Ex. R.R. Tracks

Ex. Tracks Conc. with Asph. Conc.

Ex. Elec. C.

Ex. 2 C.W.

Ex. R/W

Ex. 8" W.M.

Ex. 6" W.M.

Ex. 8" P.S.

Ex. 3'-6" x 2'-5" Storm Sewer

Ex. Stone Wall

Ex. 10" C.W.

Ex. 3'0" x 2'5" Br Sewer

Ex. Guy Pole

Ex. Guy Wires

Ex. R.R. X-ing Buck

Ex. Elec. Manhole

Ex. Elec. Conduit

Ex. Elec. Transformer on Steel Wall

Ex. Elec. Transformer on Concrete Pad

Ex. Elec. Pole

Ex. Elec. Box

Ex. Elec. Meter Box

Ex. Elec. Cable

Ex. Elec. Duct

FED. RD. DIV.	STATE	PROJECT	FISCAL YEAR
2	OHIO		

434
464

HAM-50-19.76
HAMILTON COUNTY
LIMITED ACCESS
R/W PLANS

SIXTH ST. — See Sheet 21 — PIERSON ST. — RAMP — FREEMAN AVE. — HANNIBAL ST. — Ex. C.W. Baltimore & Ohio R.R. Co. — Ex. Niagaram Railway — Ex. Asphalt Pavm't. — Limit of Construction — Ex. 6" wooden Posts — Ex. Asphalt Pavm't. — Ex. 8" Collector Drain — Conc Gate House — FLOOD GATE NO. 12 — FLOOD GATE NO. 11A — FLOOD GATE NO. 11 — Ex. Mac. Pavt. — Ex. Wire Fence — Ex. Wire Gate — Ex. Hinged Gate — Ex. Conc Wall — Ex. Inlet — Ex. Sluice Gate — Ex. N.Y.C. R.R. Tracks — Ex. Stone Wall — Ex. B. & O. R.R. Track — See Sheet 23 — See Sheet 15 — See Sheet 14

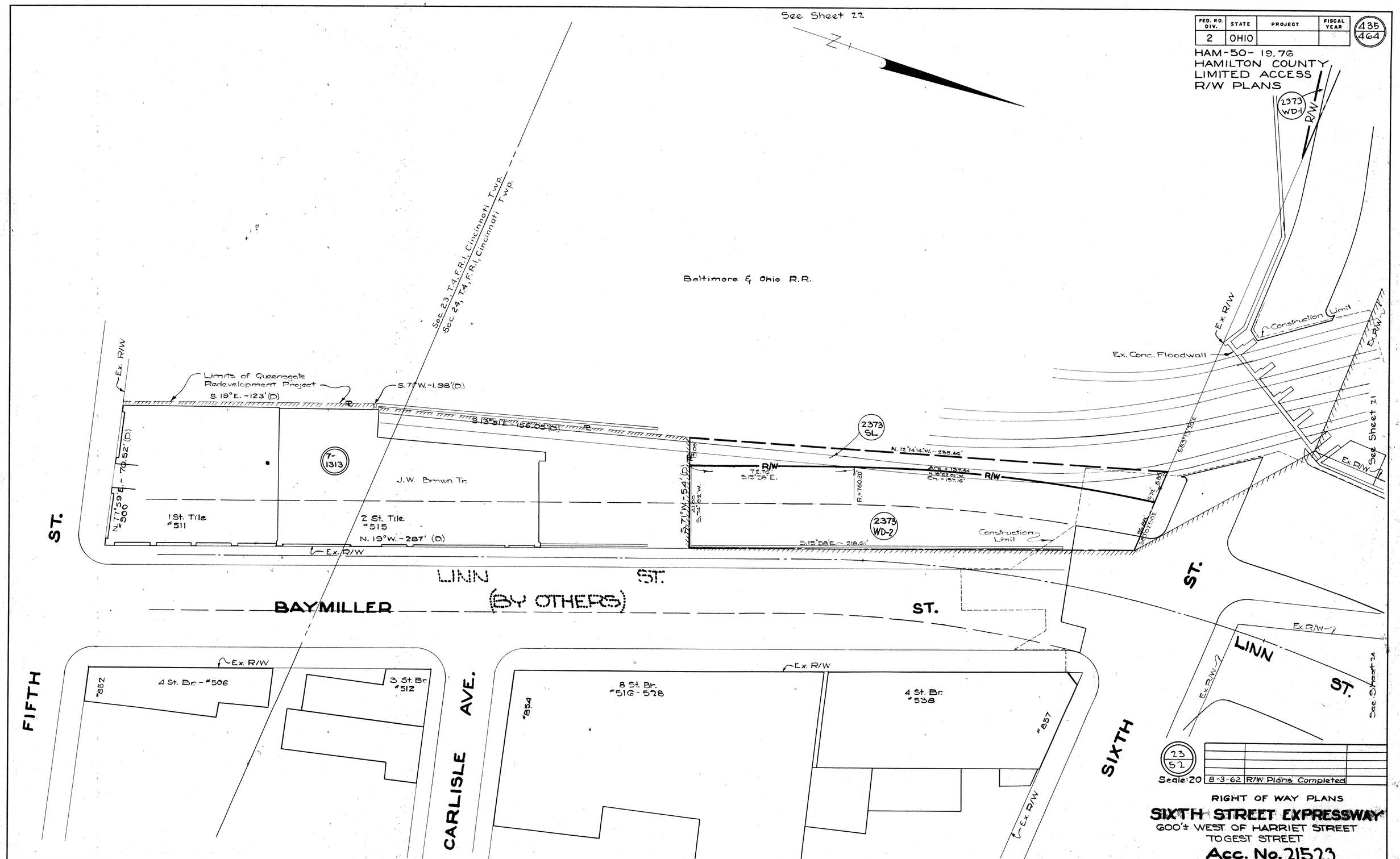
#959 3 St. Br. — Frame Shed — #951 3½ St. Br. 2 St. Br. — #947 2 St. Br. — #943 3½ St. Br. — #546-566 3 St. Br. 1 St. Br. — Stanford Stillpass, et al. — Ex. Conc. Pav't. — Ex. Wire Fence — Ex. 4" G.M. — Stone Sewer — 15" Tree — Machine — 1 St. Br. Gar. — 2 St. Br. Gar. — 4 St. Br. — Ex. Conc. Flr. — Vac. Ord. #358-1948 — Vac. Ord. #369-1947 — Vac. Ord. #427-1957 — Vac. Ord. #440-1952

Queen City Industries, Inc. — (SUBDIVISION UNRECORDED) — Cecelia Hoffman & Bertha Greenbaum — Mose Cohen & Sons Inc. — Cecelia Hoffman & Bertha Greenbaum — Mose Cohen & Sons, Inc. — City of Cincinnati — Ex. Conc. Flood Wall — Ex. Conc Wall — Ex. Conc Wk. — Ex. Conc Curb — Ex. Conc Apron — Ex. Conc Walk — Ex. Conc Drive — Ex. Conc Ramp — Ex. Conc Access Drive — Ex. Conc Wall — Ex. Conc Flr. — Ex. Conc Wall — Ex. Conc Wall — Ex. Conc Wall

FED. RD. DIV.	STATE	PROJECT	FISCAL YEAR
2	OHIO		

435
464

HAM-50- 19.76
HAMILTON COUNTY
LIMITED ACCESS
R/W PLANS



23
52

Scale: 20

8-3-62	R/W Plans Completed	

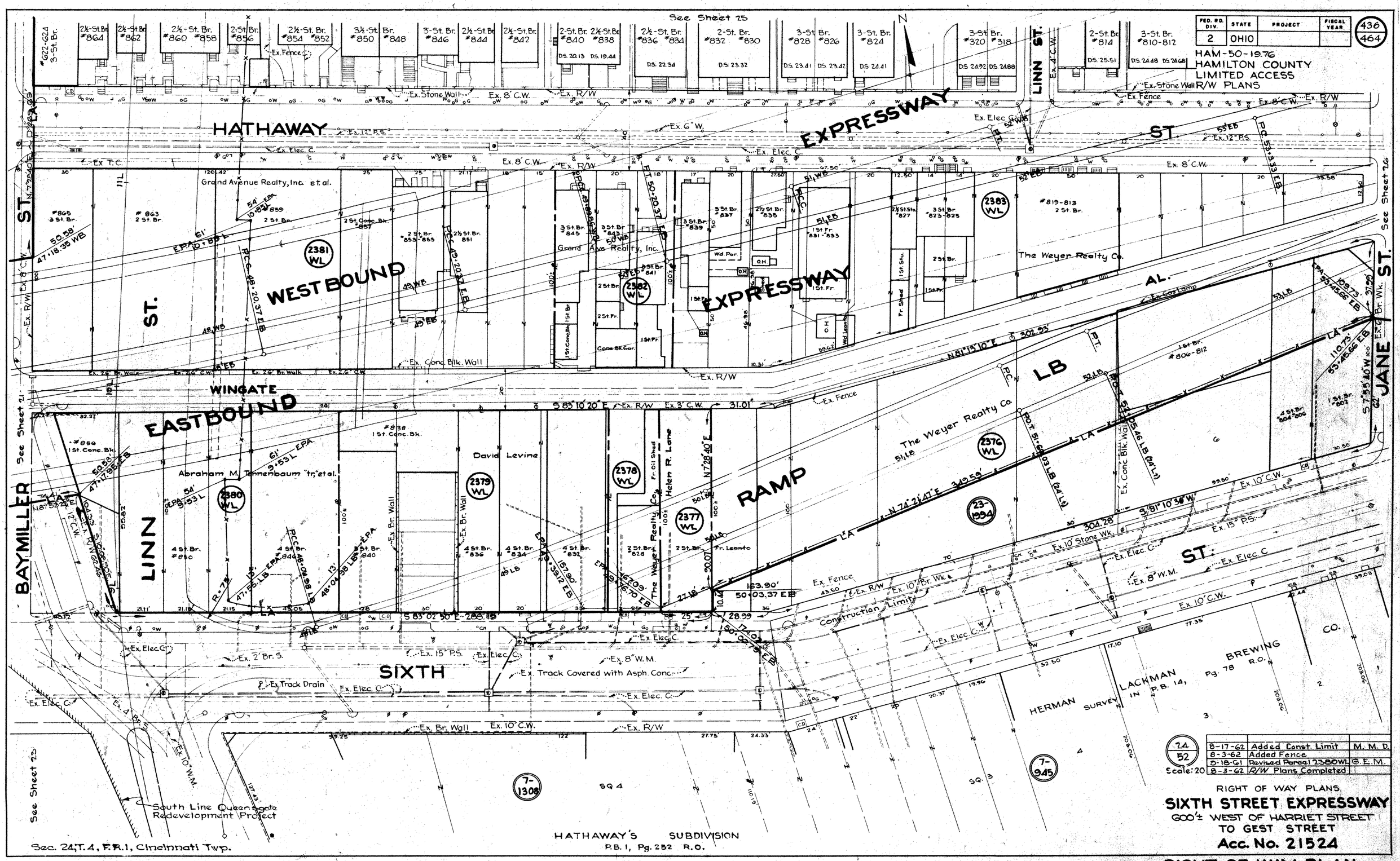
RIGHT OF WAY PLANS

SIXTH STREET EXPRESSWAY

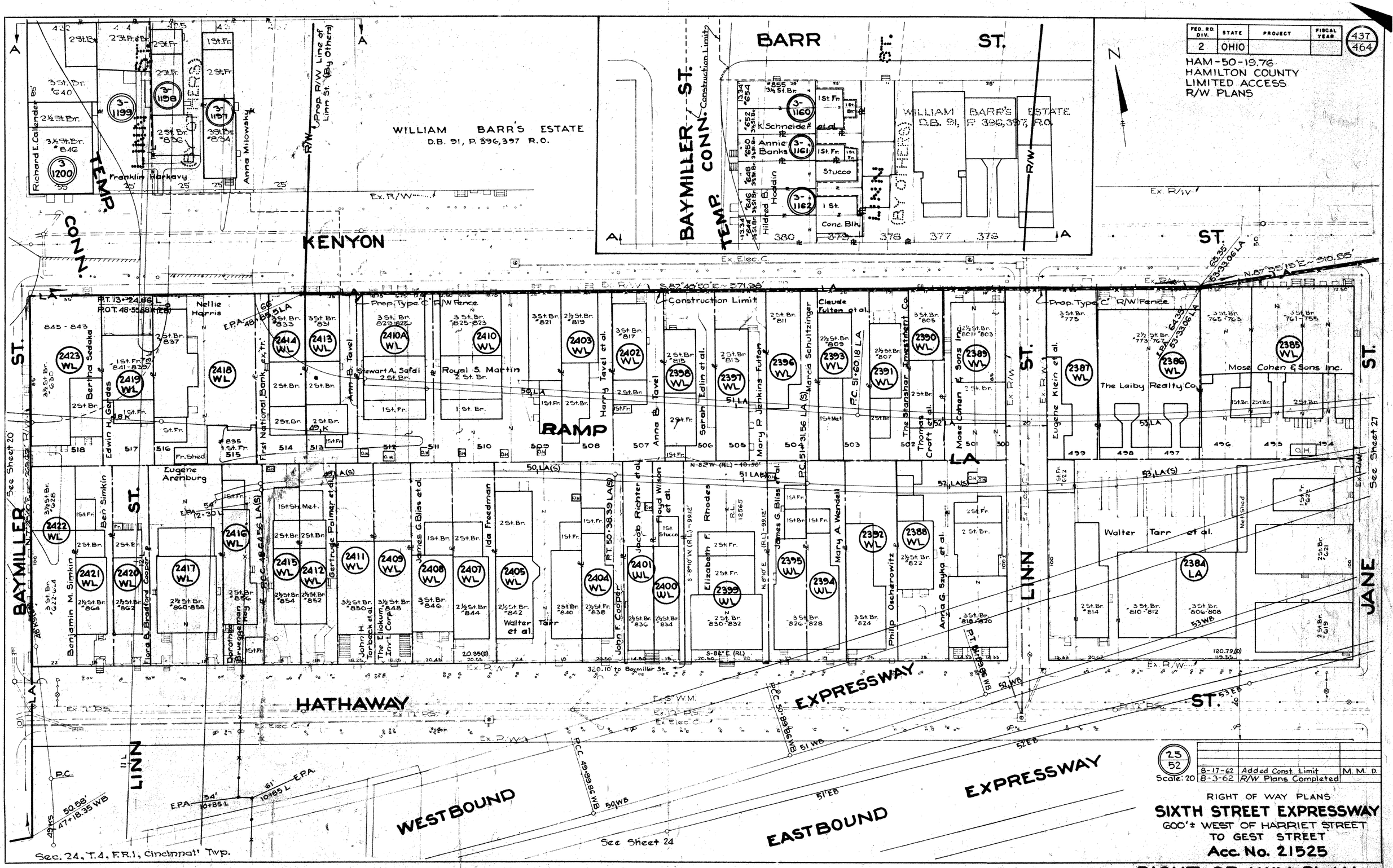
600'± WEST OF HARRIET STREET
TO GEST STREET

Acc. No. 21523

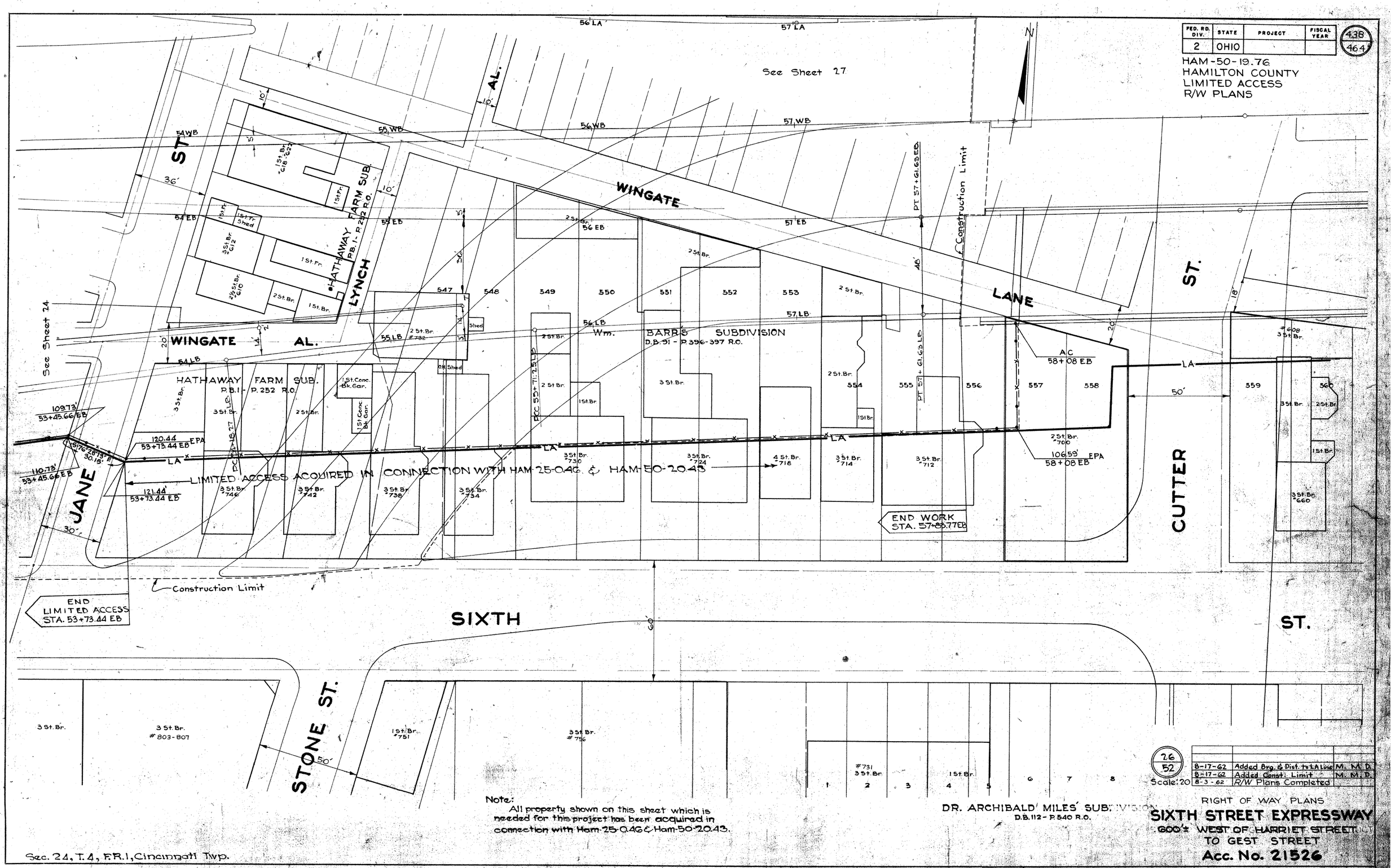
RIGHT OF WAY PLAN



FED. RD. DIV. 2
STATE OHIO
PROJECT
FISCAL YEAR
436/464
HAM-50-19.76
HAMILTON COUNTY
LIMITED ACCESS
R/W PLANS
See Sheet 25
See Sheet 26
See Sheet 21
See Sheet 23
HATHAWAY
EXPRESSWAY
ST.
LINN ST.
WESTBOUND
EASTBOUND
WINGATE
BAYMILLER
LINN
RAMP
LB
AL.
JANE ST.
SIXTH
ST.
Grand Avenue Realty, Inc. et al.
Grand Ave Realty, Inc.
The Weyer Realty Co.
Abraham M. Tennenbaum "tr." et al.
David Levine
Helen R. Lane
Construction Limit
HERMAN LACKMAN BREWING CO.
SURVEY IN P.B. 14, Pg. 78 R.O.
South Line Queensgate Redevelopment Project
HATHAWAY'S SUBDIVISION
P.B. 1, Pg. 252 R.O.
Sec. 24, T. 4, F.R. 1, Cincinnati Twp.
24/52
Scale: 20
8-17-62 Added Const. Limit M. M. D.
8-3-62 Added Fence
8-18-61 Revised Parcel 2380WL G. E. M.
8-3-62 R/W Plans Completed
RIGHT OF WAY PLANS
SIXTH STREET EXPRESSWAY
600'± WEST OF HARRIET STREET
TO GEST STREET
Acc. No. 21524
RIGHT OF WAY PLAN



FED. RD. DIV. 2
STATE OHIO
PROJECT
FISCAL YEAR
437/464
HAM-50-19.76
HAMILTON COUNTY
LIMITED ACCESS
R/W PLANS
BARR ST.
BAYMILLER ST.
CONN.
TEMP.
WILLIAM BARR'S ESTATE
D.B. 91, P. 396,397 R.O.
KENYON
RAMP
LA
LINN
JANE
HATHAWAY
EXPRESSWAY
WESTBOUND
EASTBOUND
Construction Limit
Prop. Type "C" R/W Fence
Ex. R/W
Ex. Elec. C.
Ex. 12" P.S.
See Sheet 20
See Sheet 24
See Sheet 27
Sec. 24, T.4, F.R.1, Cincinnati Twp.
Scale: 20
8-17-62 Added Const. Limit M. M. D.
8-3-62 R/W Plans Completed
RIGHT OF WAY PLANS
SIXTH STREET EXPRESSWAY
600'± WEST OF HARRIET STREET
TO GEST STREET
Acc. No. 21525
RIGHT OF WAY PLAN



FED. RD. DIV. 2
STATE OHIO
PROJECT
FISCAL YEAR
438
464
HAM-50-19.76
HAMILTON COUNTY
LIMITED ACCESS
R/W PLANS
See Sheet 27
See Sheet 24
WINGATE LANE
WINGATE AL.
LYNCH ST.
JANE
CUTTER ST.
SIXTH ST.
STONE ST.
HATHAWAY FARM SUB. P.B.1 - P.252 R.O.
BARR'S SUBDIVISION D.B.91 - P.396-397 R.O.
Wm.
LIMITED ACCESS ACQUIRED IN CONNECTION WITH HAM-25-0.46 & HAM-50-20.43
END WORK STA. 57+83.77 EB
END LIMITED ACCESS STA. 53+73.44 EB
Construction Limit
AC 58+08 EB
PT 57+61.63 EB
PT 57+61.63 LB
PCC 55+71.25 LB
109.73' 53+45.66 EB
110.73' 53+45.66 EB
120.44 53+73.44 EB EPA
121.44' 53+73.44 EB
106.59' 58+08 EB EPA
Note:
All property shown on this sheet which is needed for this project has been acquired in connection with Ham-25-0.46 & Ham-50-20.43.
DR. ARCHIBALD MILES' SUBDIVISION D.B.112 - P.540 R.O.
Sec. 24, T.4, F.R.1, Cincinnati Twp.
26
52
Scale: 20
8-17-62 Added Brg. & Dist. to LA Line M. M. D.
8-17-62 Added Const. Limit M. M. D.
8-3-62 R/W Plans Completed
RIGHT OF WAY PLANS
SIXTH STREET EXPRESSWAY
600'± WEST OF HARRIET STREET TO GEST STREET
Acc. No. 21526
RIGHT OF WAY PLAN

Note:
All property shown on this sheet which is needed for this project has been acquired in connection with Ham-25-0.46 & Ham-50-20.43.

FED. RD. DIV.	STATE	PROJECT	FISCAL YEAR
2	OHIO		

439
464

HAM.-50-19.76
HAMILTON COUNTY
LIMITED ACCESS
R/W PLANS

S.82°48'50"E.
571.98'
65.35'
53+33.06 LA
64.35'
53+33.06 LA E.P.A.
LA
N. 87°55'15"E. - 310.55'
KENYON
ST.
Construction Limit
See Sheet 25
RAMP LA
54' LA
54' LA(S)
PT. 54+36.13 LA (S)
3'
18'
55' LA
56' LA
57' LA
JANE
WESTBOUND
50'
54' WB
55' WB
5'
END
LIMITED ACCESS
STA. 56+59.20 LA
END WORK
STA. 57+87.32 WB
65.76'
56+59.20 LA
LIMITED ACCESS ACQUIRED IN CONNECTION WITH
HAM.-25-0.46 & HAM.-50-20.43
64.76'
56+59.20 LA E.P.A.
PT. 57+02.01 LA
P.O.T. 57+02.01 (50' Lt)
115.52'
58+18 WB E.P.A.
A.C.
58+18 WB
50'
GEST
AVE.
EXPRESSWAY
OFF RAMP
50'
Construction Limit
P.O.T. 57+87.32 WB
56 WB
57 WB
W.B.
TEMP.
P.T. 57+61.63 EB
P.O.T. 57+83.77 Back
P.O.T. 57+83.79 Ahead
5'
54' EB
55' EB
56' EB
57' EB
36'
10'
EAST BOUND
EX.
EXPRESSWAY
TEMP.
E.B.
ON RAMP
48'
7'
14'
PCC. 55+71.25 LB
55 LB
56 LB
57 LB
See Sheet 26
P.T. 57+61.63 LB
Sec. 24, T. 4, F.R.1, Cincinnati Twp.

27
52
Scale: 20

8-17-62	Added Const. Limit	M. M. D.
8-3-62	R/W Plans Completed	

RIGHT OF WAY PLANS
SIXTH STREET EXPRESSWAY
600'± WEST OF HARRIET STREET
TO GEST STREET
Acc. No. 21527

RIGHT OF WAY PLAN

FED. RD. DIV.	STATE	PROJECT	FISCAL YEAR
2	OHIO		

440
464

HAM-50-19.76
HAMILTON COUNTY
LIMITED ACCESS
R/W PLANS

PROPERTY PLAT

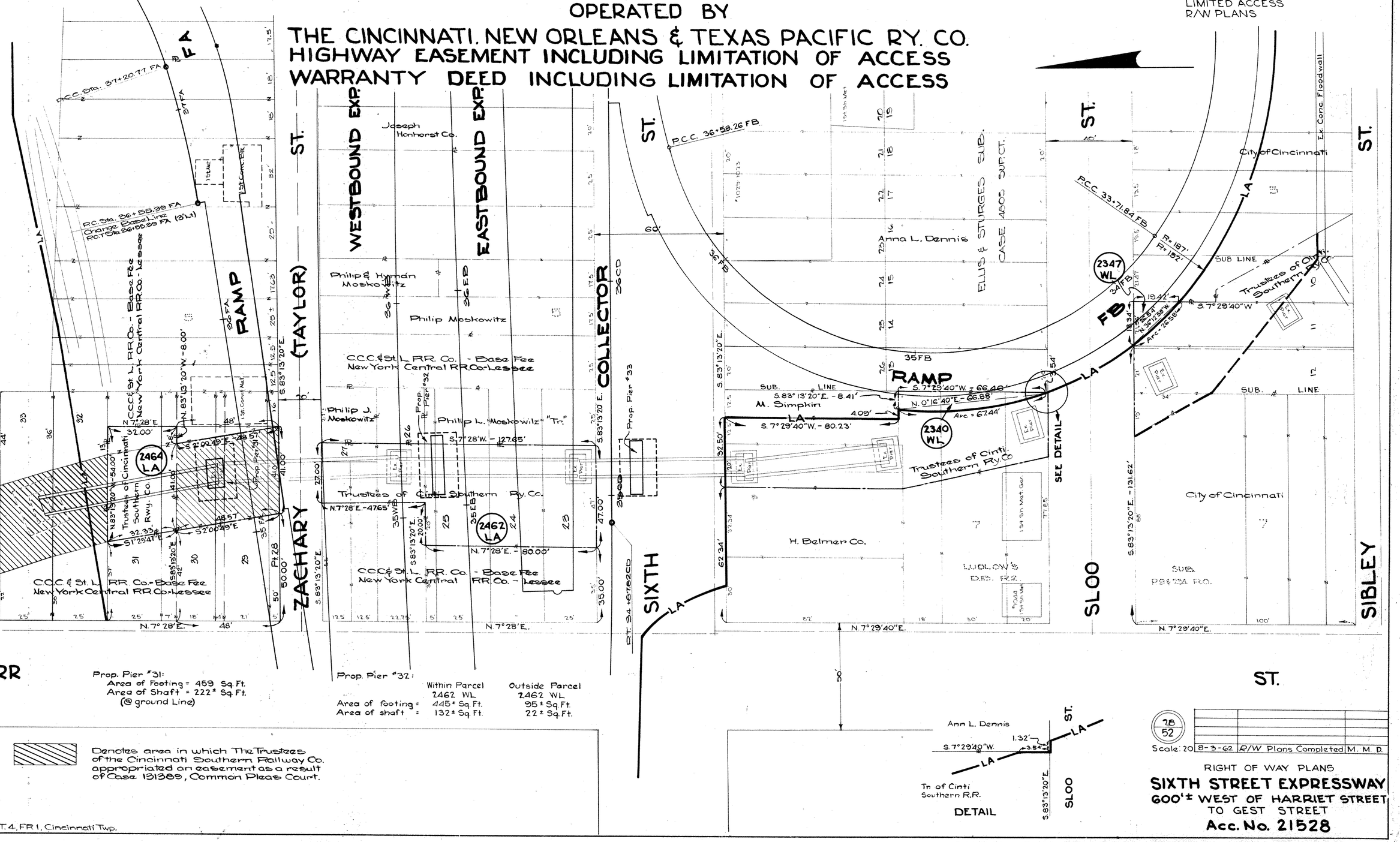
TRUSTEES OF THE CINCINNATI SOUTHERN RAILWAY CO.

OPERATED BY

THE CINCINNATI, NEW ORLEANS & TEXAS PACIFIC RY. CO.

HIGHWAY EASEMENT INCLUDING LIMITATION OF ACCESS

WARRANTY DEED INCLUDING LIMITATION OF ACCESS



Prop. Pier #31:
Area of Footing = 459 Sq. Ft.
Area of Shaft = 222 ± Sq. Ft.
(@ ground Line)

Prop. Pier #32:

	Within Parcel 2462 WL	Outside Parcel 2462 WL
Area of footing =	445 ± Sq. Ft.	95 ± Sq. Ft.
Area of shaft =	132 ± Sq. Ft.	22 ± Sq. Ft.

Denotes area in which The Trustees of the Cincinnati Southern Railway Co. appropriated an easement as a result of Case 131389, Common Pleas Court.

Sec. 24, T. 4, FR 1, Cincinnati Twp.

78
52

Scale: 20 | 8-3-62 | R/W Plans Completed | M. M. D.

RIGHT OF WAY PLANS

SIXTH STREET EXPRESSWAY

600'± WEST OF HARRIET STREET TO GEST STREET

Acc. No. 21528

CINTI. SOUTHERN RIGHT OF WAY PLAN

FED. RD. DIV.	STATE	PROJECT	FISCAL YEAR
2	OHIO		

441
464

HAM-50-19.76
HAMILTON COUNTY
LIMITED ACCESS
R/W PLANS

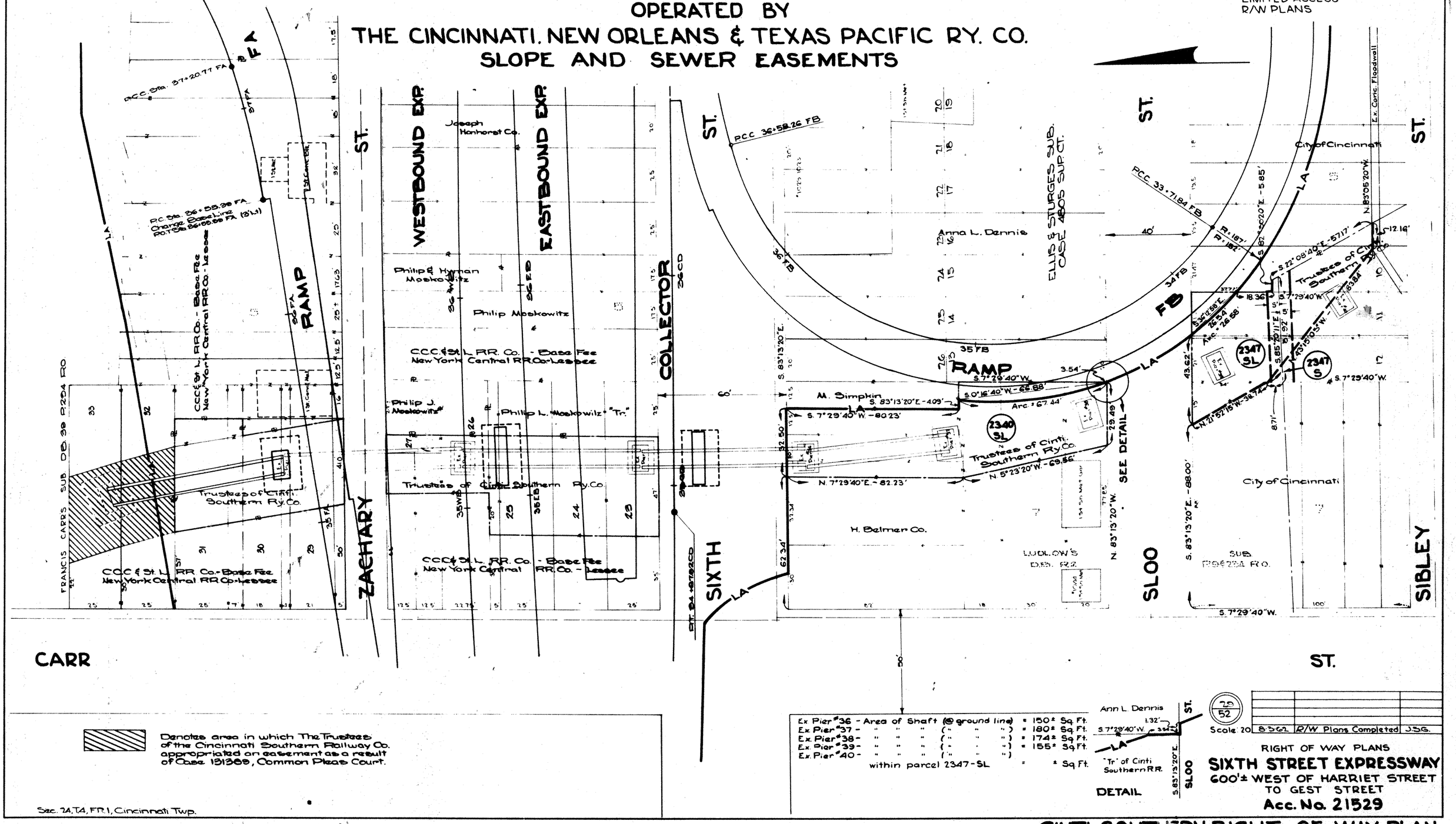
PROPERTY PLAT

TRUSTEES OF THE CINCINNATI SOUTHERN RAILWAY CO.

OPERATED BY

THE CINCINNATI, NEW ORLEANS & TEXAS PACIFIC RY. CO.

SLOPE AND SEWER EASEMENTS



Denotes area in which The Trustees of the Cincinnati Southern Railway Co. appropriated an easement as a result of Case 191369, Common Pleas Court.

Sec. 24, T4, FR 1, Cincinnati Twp.

Ex. Pier #36 - Area of Shaft (@ ground line)	=	150± Sq. Ft.
Ex. Pier #37 - " " " (" " ")	=	180± Sq. Ft.
Ex. Pier #38 - " " " (" " ")	=	174± Sq. Ft.
Ex. Pier #39 - " " " (" " ")	=	155± Sq. Ft.
Ex. Pier #40 - " " " (" " ")		
within parcel 2347-SL	=	± Sq. Ft.

DETAIL

28
52

Scale: 20 | 8-5-62 | R/W Plans Completed | J.S.G.

RIGHT OF WAY PLANS

SIXTH STREET EXPRESSWAY

600'± WEST OF HARRIET STREET TO GEST STREET

Acc. No. 21529

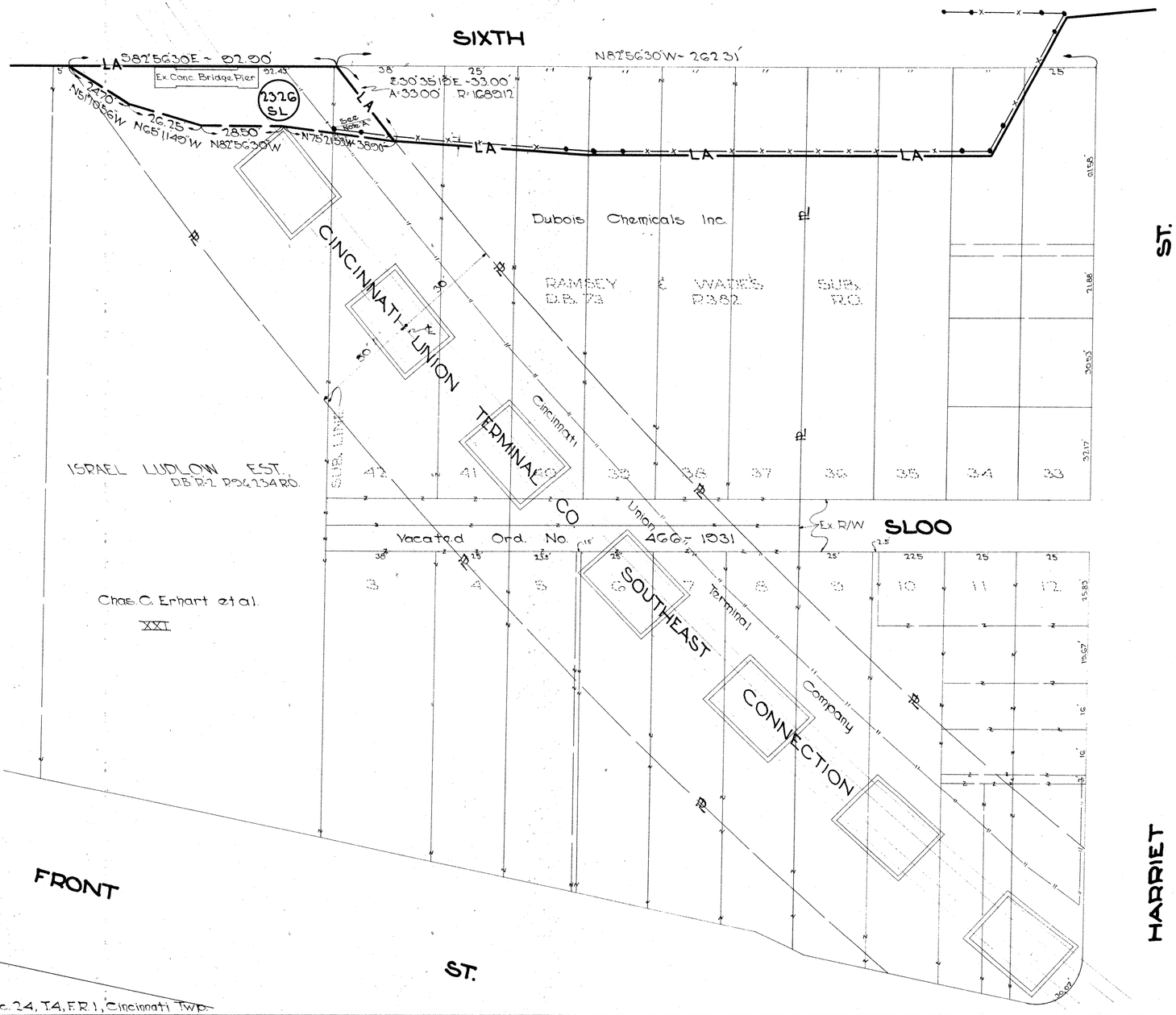
CINTI. SOUTHERN RIGHT OF WAY PLAN

FED. RD. DIV.	STATE	PROJECT	FISCAL YEAR
2	OHIO		

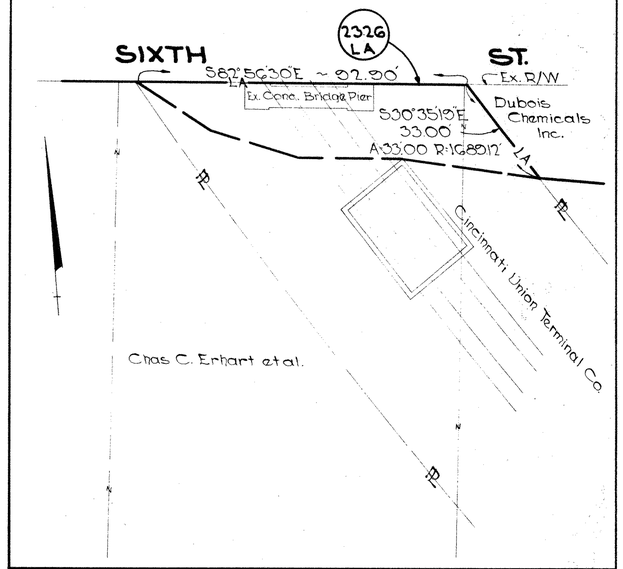
442
464

HAM-50-19.76
HAMILTON COUNTY
LIMITED ACCESS
R/W PLANS

PROPERTY PLAT
CINCINNATI UNION TERMINAL CO.
SLOPE EASEMENT



EASEMENT FOR LIMITATION OF ACCESS



Note "A":
Prop. Type "C" R/W Fence to Terminate at existing Cincinnati Union Terminal Company Fence.

30
52

Scale: 20 | 8-3-62 | R/W Plans Completed

RIGHT OF WAY PLANS
SIXTH STREET EXPRESSWAY
600'± WEST OF HARRIET STREET
TO GEST STREET
Acc. No. 21530

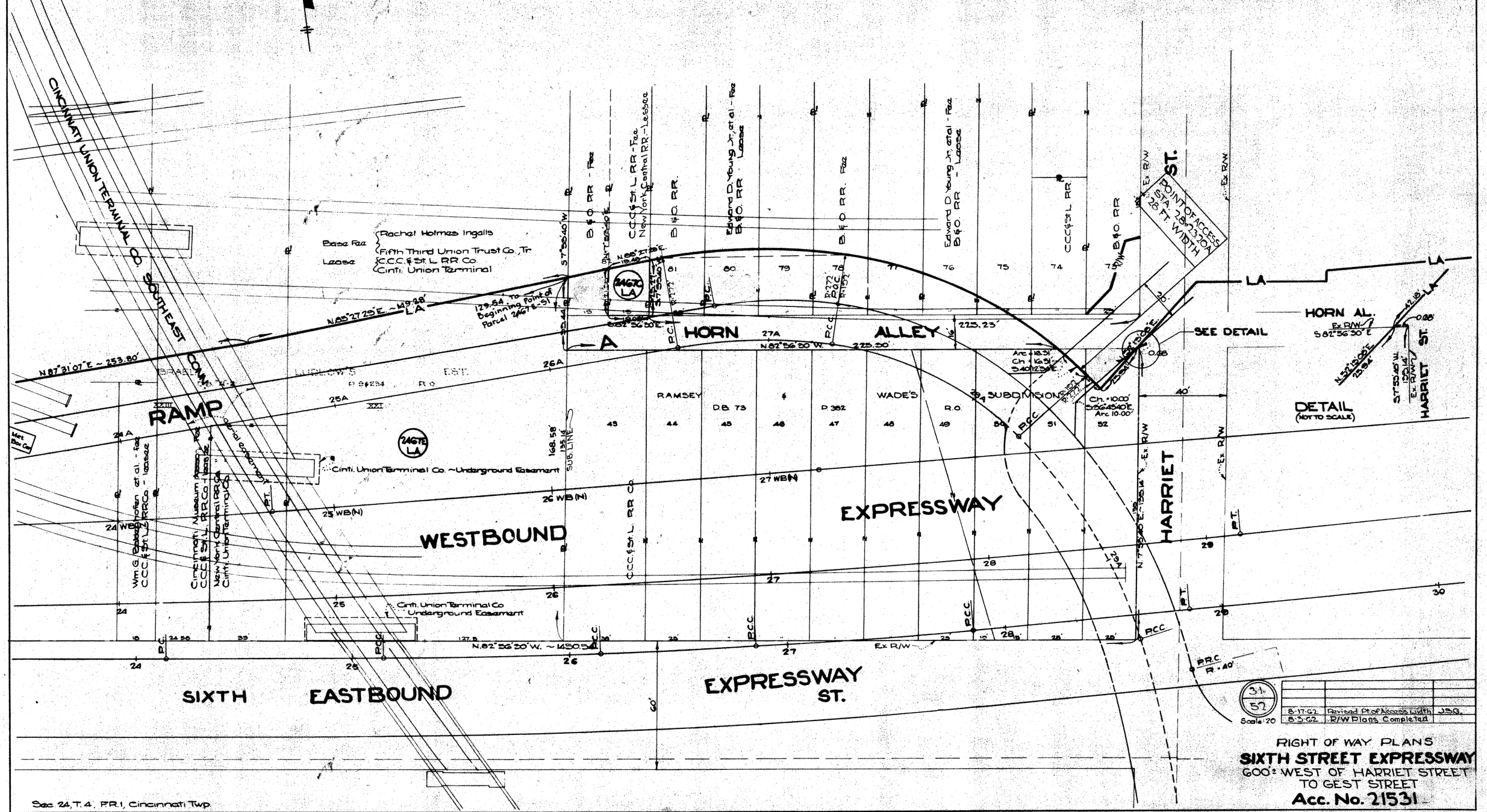
C.U.T. RIGHT OF WAY PLAN

FED. RD. DIV.	STATE	PROJECT	FISCAL YEAR
2	OHIO		

443
464

HAM-50-19.76
HAMILTON COUNTY
LIMITED ACCESS
R/W PLANS

PROPERTY PLAT
NEW YORK CENTRAL RAILROAD CO.
HIGHWAY EASEMENT INCLUDING LIMITATION OF ACCESS



8-17-62	Revised Pt. of Access Width	J.S.G.
8-3-62	R/W Plans Completed	

Scale: 20

RIGHT OF WAY PLANS
SIXTH STREET EXPRESSWAY
600'± WEST OF HARRIET STREET
TO GEST STREET
Acc. No. 21531

N.Y.C. RIGHT OF WAY PLAN

FED. RD. DIV.	STATE	PROJECT	FISCAL YEAR
2	OHIO		

444/464

HAM-50-19.76
HAMILTON COUNTY
LIMITED ACCESS
R/W PLANS

PROPERTY PLAT
NEW YORK CENTRAL RAILROAD CO.
HIGHWAY EASEMENT INCLUDING LIMITATION OF ACCESS

ST.

N 7°53'40"E 120'±

C.C.C. & St. L. Rwy. et al.- Lessee
Edward D. Young, Jr. et al.- Base Fee

N 6°42'40"E-5'

C.C.C. & St. L. Rwy. Co.
New York Central RR. Co. — Base Fee — Lessee

1 St Mat

S 83°17'20"E 44.00'

146.39'
S 88°39'39"E 132.12'
LA

13.94'

25'

175.18'
S 83°13'20"E
175.18'

216.57'
229.81'

HORN AL.

25.03'

N 7°53'40"E 14.2'

Mary P. Stix Freiberg - Base Fee
C.C.C. & St. L. Rwy. Co. & New York Central RR. Co.- Lessee

N 7°53'40"E

31.51'

C.C.C. & St. L. Rwy. Co. & New York Central RR. Co.- Lessee

Flora Wade Young, et al. - Base Fee

P.C. 31+67.86 FA.
= POT 31+67.86 (48'Lt.)

LINE 7

S 32°10'45"E 25.40'

16.36'

29.60'

S 88°13'22"E-17.33'

Arc = 107.61'
S 88°53'51"E-107.61'
LA

C.C.C. & St. L. Rwy. Co. &
New York Central RR. Co.- Lessee

The Title Guarantee & Trust Co.- Base Fee

Mary McNear McNab, et al. - Base Fee
C.C.C. & St. L. Rwy. Co. &
New York Central RR. Co.- Lessee

LINE 105

101.06'
S 87°14'54"E 99.23'
LA

1.83'

N 34°21'35"E 75.59'

10.06'

N 83°13'20"W 98.90'

Joseph Stillpass, et al.

34.03'

S 83°13'20"E 98.90'

1 St. Conc. Bl. Garage

50'

RAMSEY & WADE'S SUB.
D.B. 73 P. 382 R.O.

53 54 55 56 57 58 59 60 61 62

40'

RAMP A

HARRIET

2466 LA-2

WESTBOUND EXPRESSWAY

N 7°53'40"E 135.14'

C.C.C. & St. L. Rwy. Co. - Base Fee
New York Central RR. Co.- Lessee

1 St Conc Blk Garage #1120

1 St Mat #1132

N 7°53'40"E 135.14'

Gregory G. Wright, et al.- Base Fee

C.C.C. & St. L. Rwy. Co. & New York Central RR. Co.- Lessee

S 7°53'40"W 135.14'

C.C.C. & St. L. Rwy. Co. & New York Central RR. Co.- Lessee

Flora Wade Young, et al. - Base Fee

S 5°34'58"E 131.32'

Fr. Shed

ISRAEL LUBLOWITZ ET

D.B. R-2 P. 9 & 234 R.O.

32 FA

33 FA

34 FA

N 11°24'41"W 23.51'

N 11°24'41"W 73.68'

N 4°31'56"W 30.55'

N 0°29'37"E 50.21'

N 7°28'E 217.14'

C.C.C. & St. L. Rwy. Co.- Base Fee
New York Central RR. Co.- Lessee

S 7°28'W

175.18'

CARR'S SUB. 111

FRANCIS SUB. 112 113

2466 LA-1

C.C.C. & St. L. Rwy. Co. et al.- Lessee

Metropolitan Museum of Art in New York City - Base Fee

34

175.18'

"EASTBOUND" EXPRESSWAY

175.18' N 83°13'20"W 25.03' 65.88'

266.09'

38'±

PT 12+67.38 (18'Lt.)
= PT 12+67.38 S (N)

PCC

PC

SIXTH ST.

PC 30+40.40 CD
= POT 30+40.40 E (36'Rt.)

PT

PC

11 S 12 S 13 S 14 S 15 S

60'

POC 30+08.15 A
= POT 9+99.60 S

30 A

50'

#1137 1 St Fr.

2 St Mat

#1125 6 St Conc.

PC 12+67.38 S
= POT 12+67.38 S

Grain Elevator 7 St Mat

1 St Mat

Sec. 24, T. 4, F.R. 1, Cincinnati Twp.

PC CARR

PT

32 CD 127'

33 CD

24.69' 24.69' 24.71' 98.30' 24.71'

34 CD

32/52

Scale: 20 | 8-3-62 R/W Plans Completed | M. M. D.

RIGHT OF WAY PLANS
SIXTH STREET EXPRESSWAY
600'± WEST OF HARRIET STREET
TO GEST STREET
Acc. No. 21532

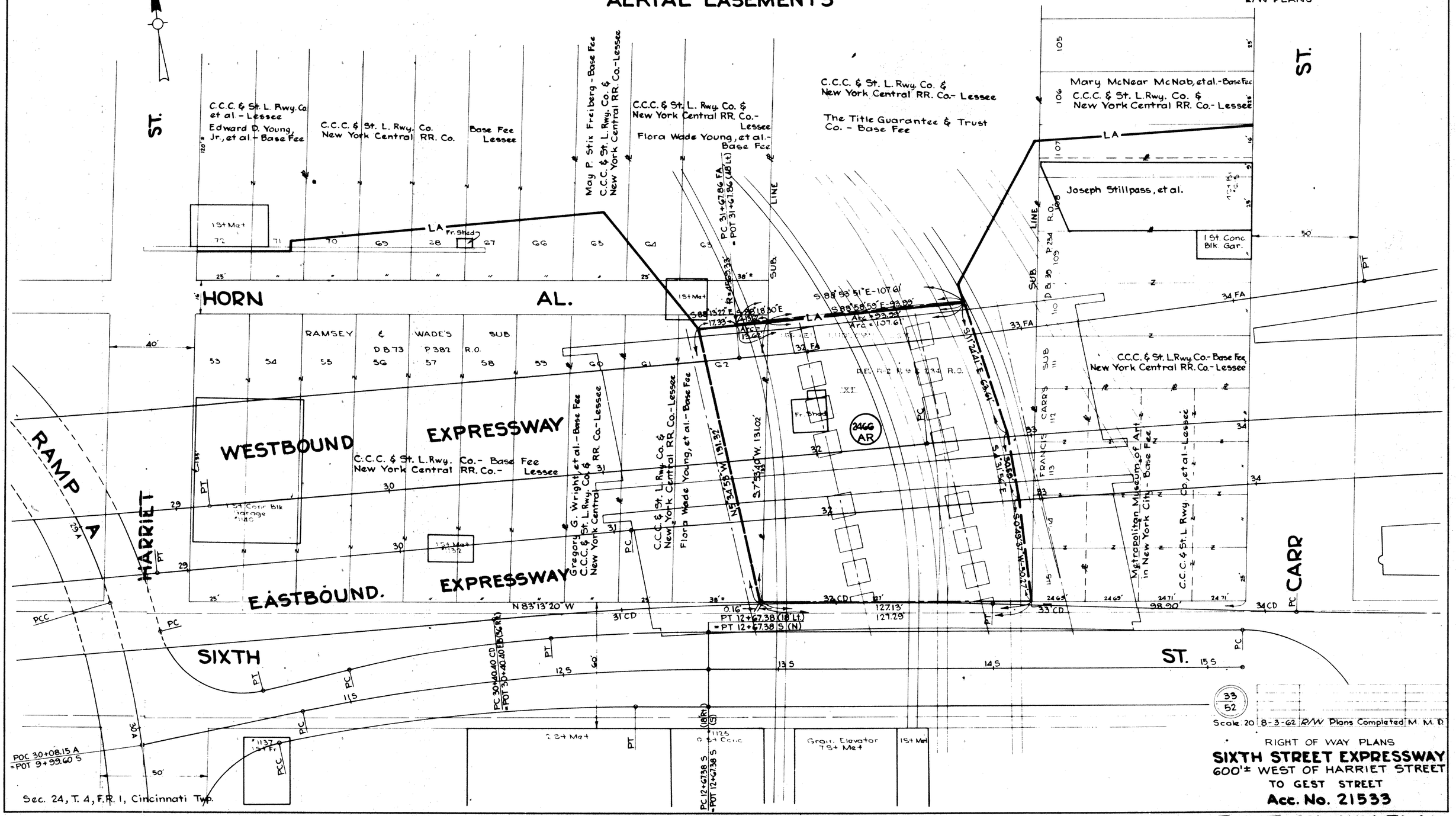
N. Y. C. RIGHT OF WAY PLAN

FED. RD. DIV.	STATE	PROJECT	FISCAL YEAR
2	OHIO		

445
464

HAM-50-19.76
HAMILTON COUNTY
LIMITED ACCESS
R/W PLANS

PROPERTY PLAT
NEW YORK CENTRAL RAILROAD CO.
AERIAL EASEMENTS



33
52

Scale 20 8-3-62 R/W Plans Completed M. M. D.

RIGHT OF WAY PLANS
SIXTH STREET EXPRESSWAY
600'± WEST OF HARRIET STREET
TO GEST STREET
Acc. No. 21533

N. Y. C. RIGHT OF WAY PLAN

FED. RD. DIV.	STATE	PROJECT	FISCAL YEAR
2	OHIO		

446
464

HAM-50-19.76
HAMILTON COUNTY
LIMITED ACCESS
R/W PLANS

PROPERTY PLAT
NEW YORK CENTRAL RAILROAD CO.
OCCUPATIONAL EASEMENTS

DETAIL "B"
Scale 1"=10'

DETAIL "A"
Scale 1"=10'

Note: All Parcels are Typical to Detail "A" Except Parcels Numbered 2466-1 & 2466-9 (See Detail "B")

RIGHT OF WAY PLANS
SIXTH STREET EXPRESSWAY
600'± WEST OF HARRIET STREET
TO GEST STREET
Acc. No. 21534

Scale 20 | 8-3-62 R/W Plans Completed | M. M. D.

34
52

Sec. 24, T. 4, F. R. 1, Cincinnati Twp.

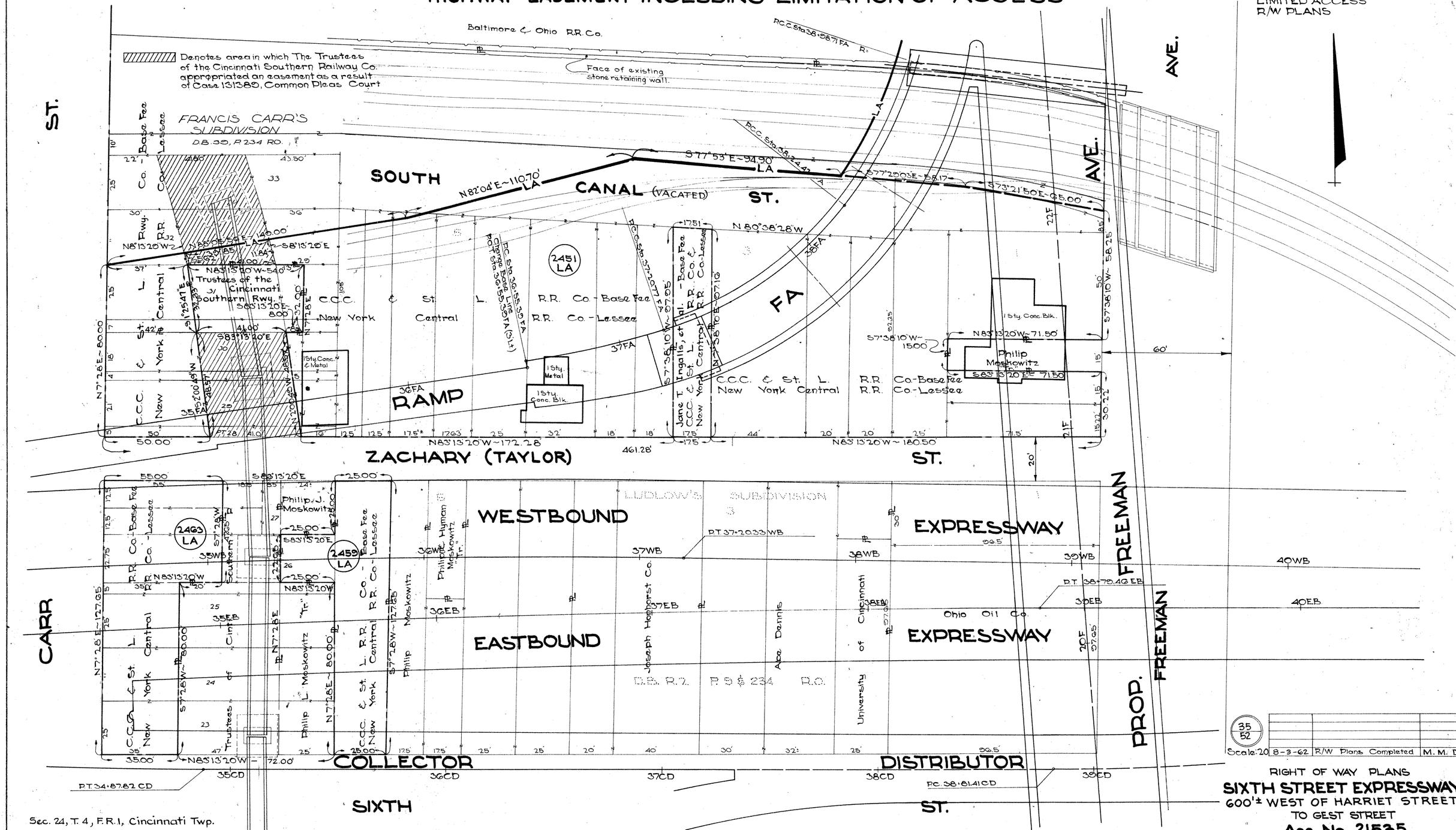
N. Y. C. RIGHT OF WAY PLAN

PROPERTY PLAT
NEW YORK CENTRAL RAILROAD CO.
HIGHWAY EASEMENT INCLUDING LIMITATION OF ACCESS

FED. RD. DIV.	STATE	PROJECT	FISCAL YEAR
2	OHIO		

447/464

HAM-50-19.76
HAMILTON COUNTY
LIMITED ACCESS
R/W PLANS



Sec. 24, T. 4, F.R.1, Cincinnati Twp.

35/52

Scale: 20	8-3-62	R/W Plans Completed	M. M. D.

RIGHT OF WAY PLANS
SIXTH STREET EXPRESSWAY
600'± WEST OF HARRIET STREET
TO GEST STREET
Acc. No. 21535

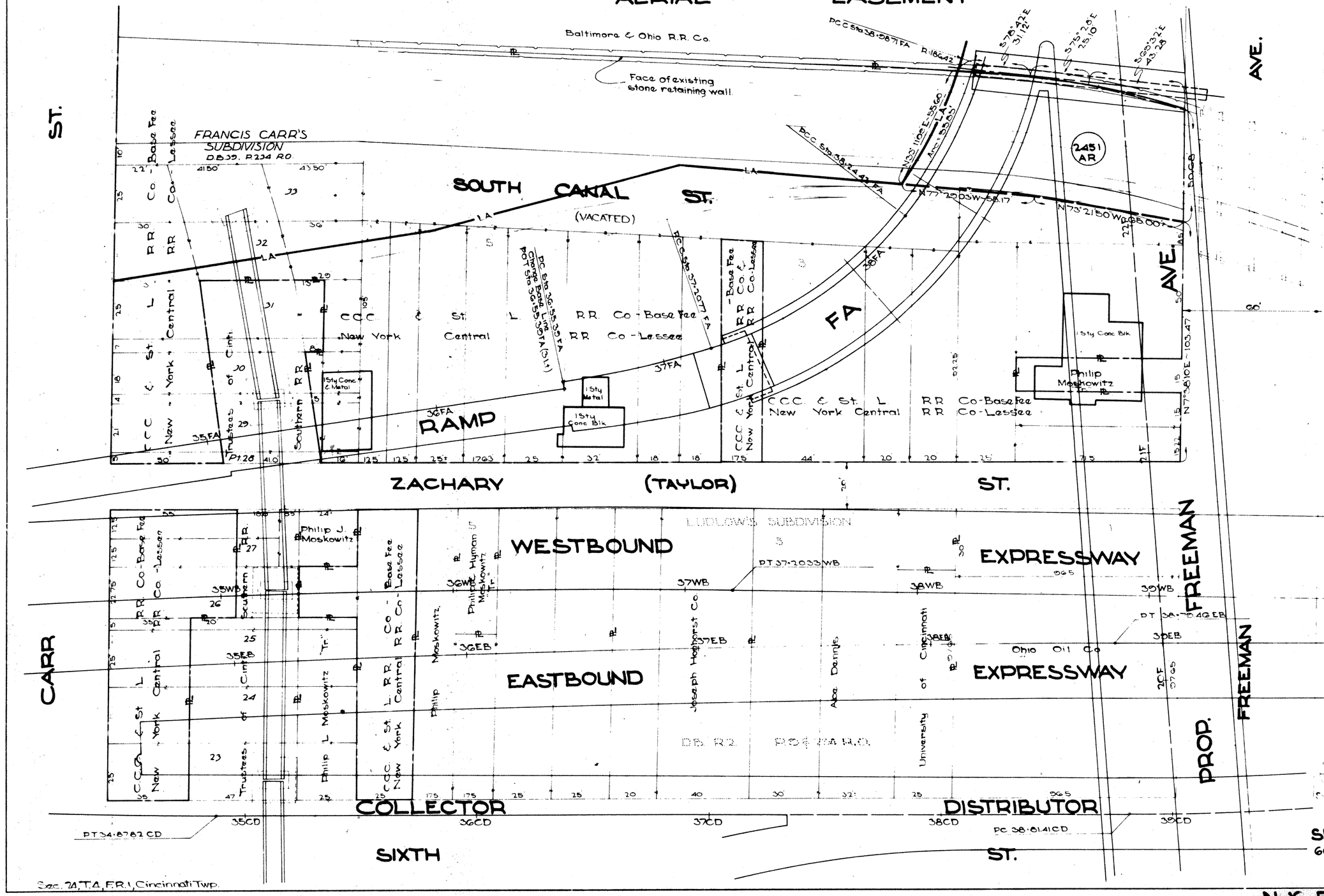
N. Y. C. RIGHT OF WAY PLAN

PROPERTY PLAT
NEW YORK CENTRAL RAILROAD CO.
AERIAL EASEMENT

FED RD DIV	STATE	PROJECT	FISCAL YEAR
2	OHIO		

448/464

HAM-50-1576
HAMILTON COUNTY
LIMITED ACCESS
R/W PLANS



Sec. 24, T.4, F.R.1, Cincinnati Twp.

Scale 20	8-13-62	2451-AR-31.29 To 31.12	M. M. D.
	8-3-62	R/W Plans Completed	

RIGHT OF WAY PLANS
SIXTH STREET EXPRESSWAY
600'± WEST OF HARRIET STREET
TO GEST STREET
Acc. No. 21536

NYC RIGHT OF WAY PLAN

PROPERTY PLAT
NEW YORK CENTRAL RAILROAD CO.
OCCUPATIONAL EASEMENTS

FED. RD DIV.	STATE	PROJECT	FISCAL YEAR
2	OHIO		

449/464

HAM-50-10.76
HAMILTON COUNTY
LIMITED ACCESS
R/W PLANS

Baltimore & Ohio R.R. Co.

Face of existing stone retaining wall

ACC Sta 38+68.71 FA

S 80°52'E 15.46

S 78°42'E 24.74

S 75°28'E 25.10

S 66°32'E 43.26

2451 S

2451 1

2451 2

N 13°00'50"E 5.57

N 76°50'10"W - 92.77

S 7°38'10"W 0.27

N 44°00'54"E 26.50

ACC Sta 38+68.71 EB

N 23°46'52"E 23.53

N 23°46'52"W 32.45

N 13°46'52"W 6.00 ACC

N 44°00'54"W

S 50°11'54"E 15.50

N 76°21'50"W - 65.00

N 7°25'03"W 17.85

SOUTH CANAL ST. (VACATED)

FRANCIS CARR'S SUBDIVISION
DB. 33, P. 234 R.O.

Base Fee Co. R.R. Co. Lessee

C.C.C. & St. L. R.R. Co - Base Fee
New York Central R.R. Co - Lessee

C.C.C. & St. L. New York Central R.R.

Trustees of Cincinnati Southern R.R.

PC Sta 36+33.30 FA
PT Sta 36+53.30 FA (S-L)

Deed 37+20.77 FA

35FA

36FA

37FA

38FA

RAMP

1 Sty Conc & Metal

1 Sty. Metal

1 Sty Conc Blk

Philip Moskowitz

PT 28

ZACHARY ST.

LUDLOW'S SUBDIVISION

WESTBOUND EXPRESSWAY

EASTBOUND EXPRESSWAY

35WB 36WB 37WB 38WB 39WB 40WB

PT 37+20.33 WB

PT 38+75.40 EB

35EB 36EB 37EB 38EB 39EB 40EB

Philip J. Moskowitz

Philip Human Moskowitz Tr.

Joseph Hegforst Co

Abe Dennis

Ohio Oil Co

University of Cincinnati

D.B. R.2. P. 54, 34 R.O.

CARR

FREEMAN

PROP.

FREEMAN AVE.

COLLECTOR

DISTRIBUTOR

35CD 36CD 37CD 38CD 39CD

PT 34+87.82 CD

PC 38+61.41 CD

SIXTH ST.

Sec. 24, T. 4, F.R. 1, Cincinnati Twp.

37/52

12-28-61	Revised Parcel 2451-S	G. E. M.
8-3-62	R/W Plans Completed	

Scale: 20

RIGHT OF WAY PLANS
SIXTH STREET EXPRESSWAY
600'± WEST OF HARRIET STREET
TO GEST STREET
Acc. No. 21537

N.Y.C. RIGHT OF WAY PLAN

FED. RD. DIV.	STATE	PROJECT	FISCAL YEAR
2	OHIO		

450
464

HAM-50-13.76
HAMILTON COUNTY
LIMITED ACCESS
R/W PLANS

PROPERTY PLAT
NEW YORK CENTRAL RAILROAD CO.
HIGHWAY EASEMENT INCLUDING LIMITATION OF ACCESS

Baltimore & Ohio R.R. Co.
Ex. Power Line Easement
& Prop. Power Line Easement
EXPRESSWAY
LA
PT. 42+77.27 CD
R=1417.82
ST.
Baltimore & Ohio R.R. Co.
Ex. Conc. Wall
Ex. Stone Wall
Ex. Hinged Gate
C. C. C. & St. L. Rwy. Co. - Base Fee
New York Central R.R. Co. - Lessee
S 70°30'20"W
13.26'
Vac. Ord. #440-1952
TOLEDO ST.
R=3375.75'
R=17136.16'
PCC 41+98.45 WB
Base Fee
Lessee
Co.
R.R.
Rwy.
St. Louis
Central
N 74°26'24"E
4.50'
S 15°33'10"E
18.00'
237.2 LA
S 20°33'17"E
104.46'
Vac. Ord.
R=2690-1047
N 15°33'30"W
47.15'
N 16°22'30"W - 76.45'
1935
Stanford Stillpass et al.
City of Cincinnati
Mosa Cohen & Sons, Inc.
Prop. Retaining Wall
PC. 41+62.95 CD
Ex. R/W
S 22°17'56"E
R=2711.98'
N 38°17'16"W - 23.26'
A=23.27' R=271.08'
S 48°15'41"W - 320'
St. Louis
Central
N 67°47'04"E
1.88'
30.02'
94.7'
LA
114.17'
2425 LA
SIXTH ST.
City of Cincinnati
R=436.70'
Prop. Retaining Wall
Alfred B. Katz
C.C.C.
New
York
S 44°35'30"E
104.60'
S 54°54'41"E - 67.56'
N 48°37'25"W
A=178.85'
R=436.70'
17.00'
14.08'
R=436.70'
N 7°38'10"E - 219.92'
60'
FREEMAN
WESTBOUND
EASTBOUND
AVE.
SIXTH ST.
COLLECTOR DISTRIBUTOR
41CD
40CD
Ex. R/W
Vac. Ord. #358-1948
FC
RAMP
41FC
40FC
SIXTH
Stanford Stillpass
Stanford Stillpass
43FC
PIERSON ST.
S 83°13'20"E - 258.06'
Ex. R/W
18.50'
47.50'
Ex. Stone Wall
Ex. Hinged Gate
Ex. Conc. Wall
Ex. Conc. Wall
Ex. Hinged Gate
Ex. R/W
Ex. R/W
Ex. R/W

FED. RD. DIV.	STATE	PROJECT	FISCAL YEAR
2	OHIO		

451
464

HAM-50-19.76
HAMILTON COUNTY
LIMITED ACCESS
R/W PLANS

PROPERTY PLAT
NEW YORK CENTRAL RAILROAD CO.
AERIAL EASEMENT

Baltimore & Ohio R.R. Co.

EXPRESSWAY

EXPRESSWAY

& Ex. Power Line Easement

& Prop. Power Line Easement

Base Fee

C.C.C. & St. L. Rwy. Co. - Lessee

Co. - Lessee

Rwy.

St Louis Central

2425 AR

2425 U

Baltimore & Ohio R.R. Co.

Ex Conc Wall

Ex Stone Wall

Ex Hinged Gate

Ex Conc Wall

Ex Stone Wall

FLOOD GATE NO. 11

C.C.C. & St. L. Rwy. Co. - Base Fee

New York Central R.R. Co. - Lessee

Ex Hinged Gate

Vac. Ord. 440-1052

TOLEDO ST.

Vac. Ord. 360-1047

Mosa Cohen & Sons, Inc.

City of Cincinnati

Stanford Stillpass et al

Prop. Retaining Wall

Vac. Ord. 358-1048

FC

RAMP

Stanford Stillpass

Ex Flood Wall

ACCESS ROAD

Stanford Stillpass

PIERSON ST.

SIXTH ST.

SIXTH ST.

SIXTH

Prop. Retaining Wall

Alfred B. Katz

City of Cincinnati

WESTBOUND AVE.

EASTBOUND

COLLECTOR DISTRIBUTOR

FREEMAN

C.C.C. & St. L. Rwy. Co. New York

PT. 42+77.27 CD
R = 1417.82

PC. 41+62.95 CD

Ex R/W

Ex R/W

Ex R/W

Ex R/W

Ex R/W

R = 3375.78'
R = 1738.18'

Arc = 110.45'
Ch = S 26°01'42" E 110.45'

Arc = 15.79'
Ch = N 66°30'20" W 15.78'

Arc = 10.14'
Ch = N 18°16'21" W 10.13'

R = 492.96'
R = 256'

R = 71.46'

R = 71.46'

N 42°27'19" W - 82.45'
A = 89.61' R = 432.50'

N 33°29'50" W
A = 27.08'
R = 247.96'

N 22°12'50" W
300.2'

S 67°47'04" W - 1.88'

N 44°35'30" W - 34.1'

S 85°13'20" E - 236.61'

Sec. 24, T.4, F.R.1, Cincinnati Twp.

NOTE:
For Details of Parcel 2425-U See Sheet #52

SD 52			
Scale: 20	8-3-62	R/W Plans Completed	M. M. D.

RIGHT OF WAY PLANS
SIXTH STREET EXPRESSWAY
600' WEST OF HARRIET STREET
TO GEST STREET
Acc. No. 21539

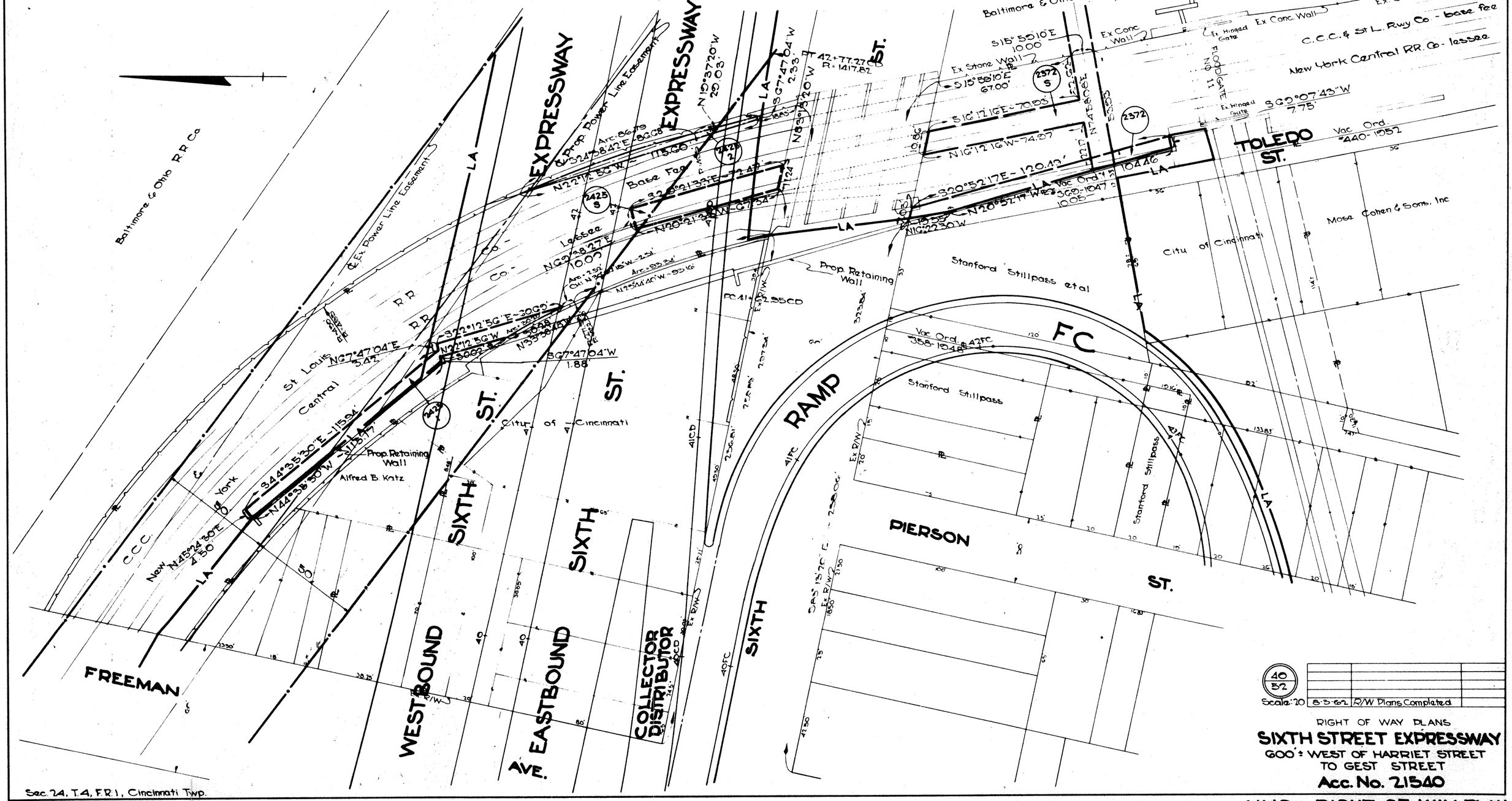
N. Y. C. RIGHT OF WAY PLAN

FED. RD. DIV.	STATE	PROJECT	FISCAL YEAR
2	OHIO		

457
464

HAM-50-19.76
HAMILTON COUNTY
LIMITED ACCESS
R/W PLANS

PROPERTY PLAT
NEW YORK CENTRAL RAILROAD CO.
OCCUPATIONAL AND SEWER EASEMENTS



40
52

Scale: 20

8-3-62	R/W Plans Completed	

RIGHT OF WAY PLANS
SIXTH STREET EXPRESSWAY
600' WEST OF HARRIET STREET
TO GEST STREET
Acc. No. 21540

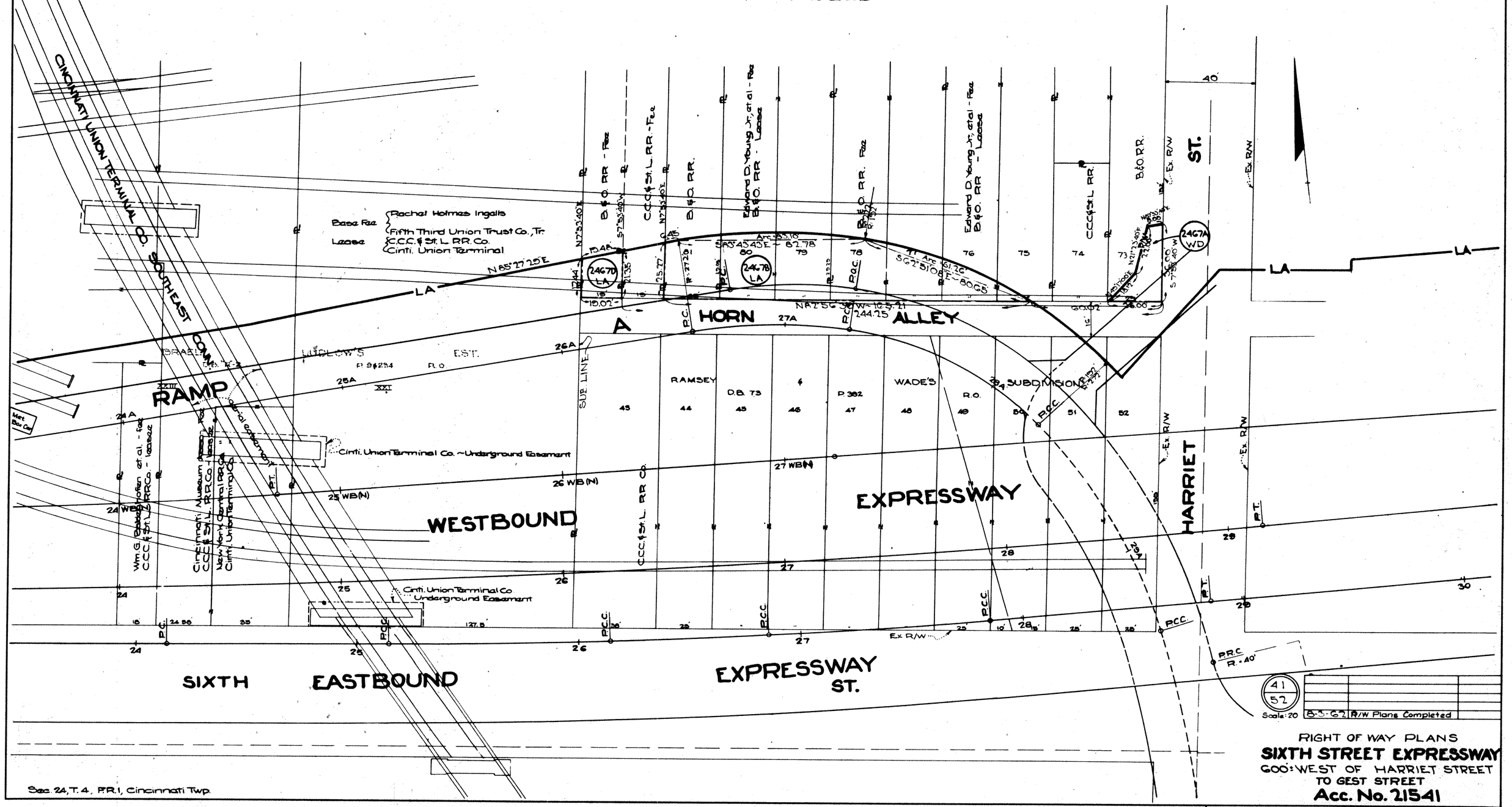
N.Y.C. RIGHT OF WAY PLAN

FED. RD. DIV.	STATE	PROJECT	FISCAL YEAR
2	OHIO		

463
464

HAM-50-19.76
HAMILTON COUNTY
LIMITED ACCESS
R/W PLANS

PROPERTY PLAT
THE BALTIMORE AND OHIO RAILROAD CO.
HIGHWAY EASEMENTS INCLUDING LIMITATION OF ACCESS
WARRANTY DEED



Sec. 24, T. 4, FR. 1, Cincinnati Twp.

41
52

Scale: 20 | 8-5-62 | R/W Plans Completed

RIGHT OF WAY PLANS
SIXTH STREET EXPRESSWAY
600' WEST OF HARRIET STREET
TO GEST STREET
Acc. No. 21541

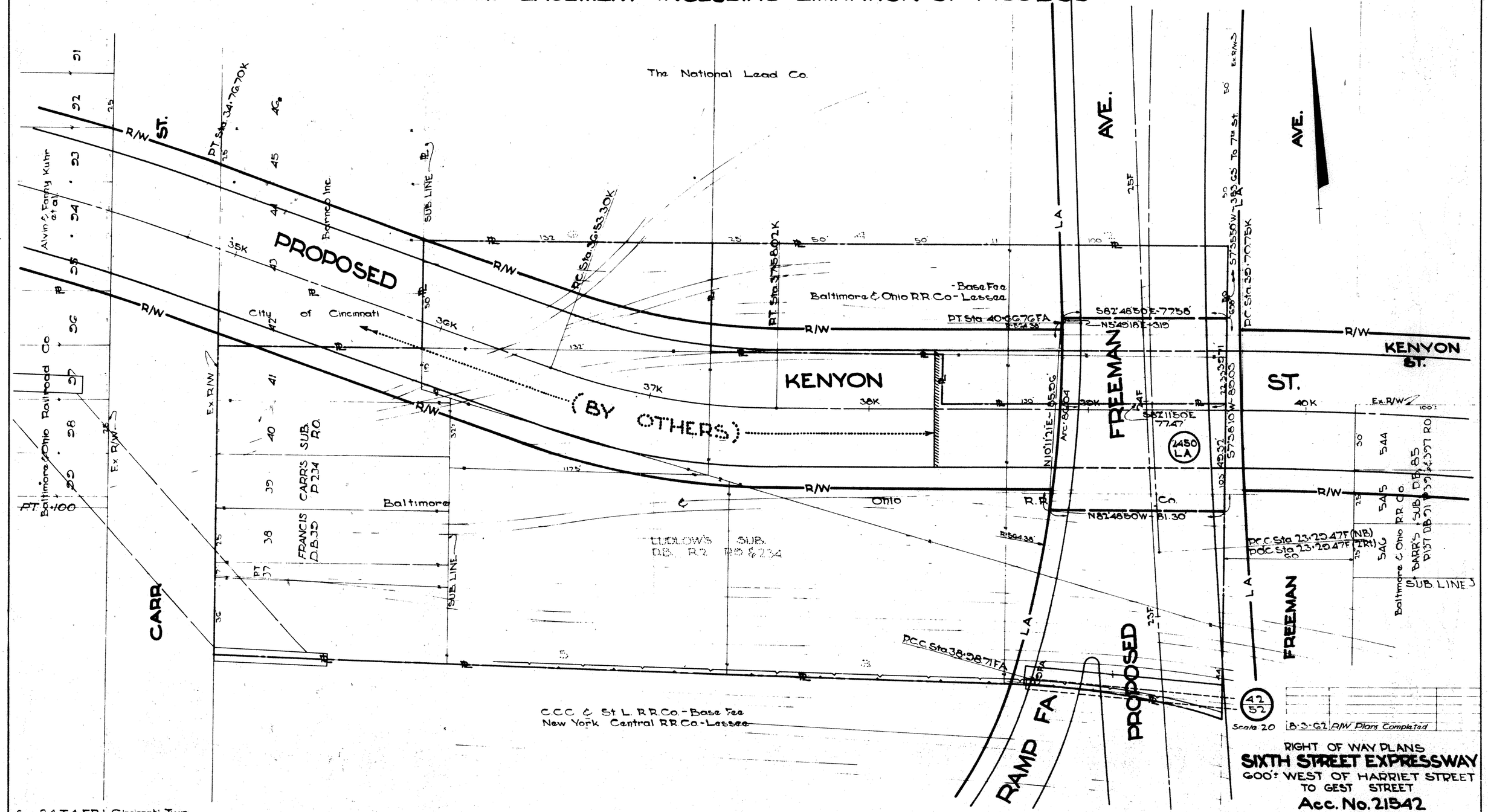
B&O RIGHT OF WAY PLAN

FED. RD. DIV.	STATE	PROJECT	FISCAL YEAR
2	OHIO		

454/464

HAM-50-19.76
HAMILTON COUNTY
LIMITED ACCESS
R/W PLANS

PROPERTY PLAT
THE BALTIMORE AND OHIO RAILROAD CO.
HIGHWAY EASEMENT INCLUDING LIMITATION OF ACCESS



C.C.C. & St. L. R.R. Co. - Base Fee
New York Central R.R. Co. - Lessee

RIGHT OF WAY PLANS
SIXTH STREET EXPRESSWAY
600'± WEST OF HARRIET STREET
TO GEST STREET
Acc. No. 21542

Sec. 24, T.4, F.R.1, Cincinnati Twp.

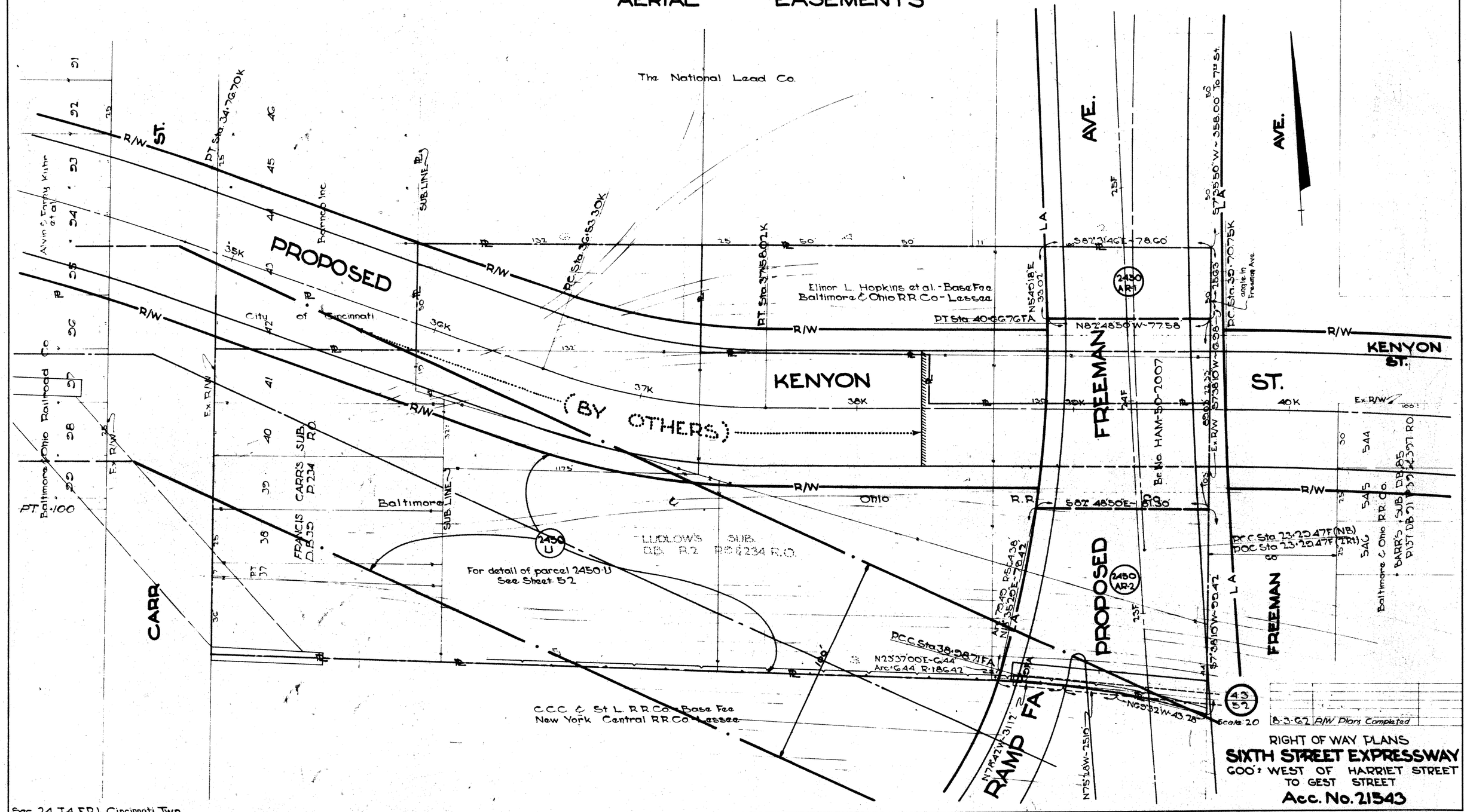
B.&O. RIGHT OF WAY PLAN

FED. RD. DIV.	STATE	PROJECT	FISCAL YEAR
2	OHIO		

455
464

HAM-50-19.76
HAMILTON COUNTY
LIMITED ACCESS
R/W PLANS

PROPERTY PLAT
THE BALTIMORE AND OHIO RAILROAD CO.
AERIAL EASEMENTS



RIGHT OF WAY PLANS
SIXTH STREET EXPRESSWAY
600' WEST OF HARRIET STREET
TO GEST STREET
Acc. No. 21543

Sec. 24, T.4, F.R.1, Cincinnati Twp.

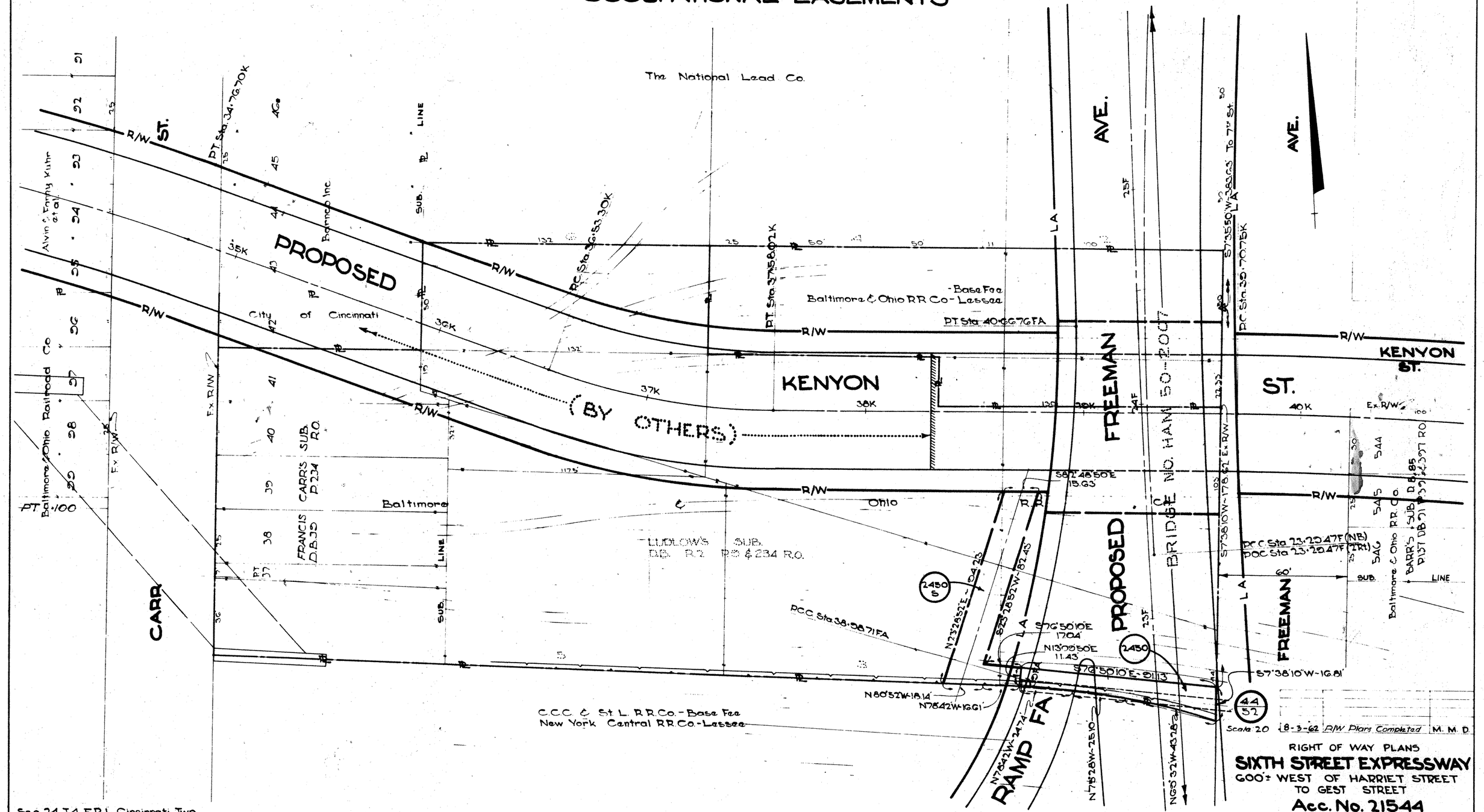
B&O RIGHT OF WAY PLAN

FED RD DIV	STATE	PROJECT	FISCAL YEAR
2	OHIO		

456
464

HAM-50-19.76
HAMILTON COUNTY
LIMITED ACCESS
R/W PLANS

PROPERTY PLAT
THE BALTIMORE AND OHIO RAILROAD CO.
OCCUPATIONAL EASEMENTS



RIGHT OF WAY PLANS
SIXTH STREET EXPRESSWAY
600'± WEST OF HARRIET STREET
TO GEST STREET
Acc. No. 21544

Sec. 24, T.4, F.R.1, Cincinnati Twp.

B. & O. RIGHT OF WAY PLAN

FED. RD. DIV.	STATE	PROJECT	FISCAL YEAR
2	OHIO		

457
464

HAM-50-10.76
HAMILTON COUNTY
LIMITED ACCESS
R/W PLANS

PROPERTY PLAT
THE BALTIMORE AND OHIO RAILROAD CO.
DEEDS & EASEMENTS TO BE ACQUIRED BY CITY OF CINCINNATI

The National Lead Co.

R/W ST.
P.T. Sta. 34+76.70K
Sub. Line
Alvin & Fanny Kuhr et al
Barnes Inc.
N7°27'15"E
S62°48'50"E-75.73'
P.C. Sta. 36+53.30K
S69°44'24"E 63.43 Arc: 63.55 R: 263'
N7°36'10"E
S79°44'24"E 28.21 Arc: 28.22' R: 263'
P.T. Sta. 37+58.02K
S82°35'50"E-6.75'
S7°27'15"W-2.18'
N24°36'56"W-709' Arc: 709' R: 1037'
PROPOSED
35K
City of Cincinnati
PARCEL "A"
S82°28'35"E-80.05'
N48°16'40"W 27.89'
N56°28'25"W 18.11'
Ex. R/W
N62°48'50"W-134.24'
N65°22'40"W-88.33'
Easement 5
N72°48'50"W-117.64' Arc: 117.64 R: 337'
N62°13'25"W-52.12'
N78°00'12"W-67.01'
R/W
Baltimore & Ohio Railroad Co.
P.T. 1.00
CARR
SUB. R.O. CARR'S D.234
FRANCIS D.B.35
LUDLOW'S EST. D.B. R.2 P.8 & 234, R.O.
Sub. Line
C.C.C. & St. L. R.R. Co.-Base Fee
New York Central R.R. Co.-Lessee
(BY OTHERS)
37K
38K
KENYON
99-977
Elinor L. Hopkins, et al.-Base Fee
Baltimore & Ohio R.R. Co.-Lessee
S82°48'50"E-128.47'
P.T. Sta. 40+66.76FA
R: 5643.38'
99-977A
N82°11'50"W-104.00'
57°50'25"W-31.62'
Arc: 31.62 R: 5643.38'
N82°11'50"W-52.53'
S11°36'13"W-42.51'
Arc: 42.52 R: 5643.38'
N82°48'50"W-124.83'
N82°48'50"W-124.30'
S14°44'12"W 4.04'
RAMP FA
P.C.C. Sta. 38+98.71FA
PROPOSED
L A
FREEMAN AVE.
25F
24F
23F
EXR/W
P.C. Sta. 39+70.75K
S7°35'50"W-383.63' to 7th St.
50'
60'
R/W
KENYON ST.
ST.
40K
S82°48'50"E-463.71'
99-1316
544
Baltimore & Ohio R.R. Co. D.B. 88 P. 399 R.O.
SAG
BARR'S D.157 D.B. 87
MATCH LINE
41.74'
S7°38'10"W
N7°36'10"E
P.C.C. Sta. 23+29.47F (NB)
P.O.C. Sta. 23+29.47F (RT.)
Easement 1
Sec. 24, T4, F.R. 1, Cincinnati Twp.

45
52

Scale: 20

8-3-62	R/W Plans Completed	M. M. D.

RIGHT OF WAY PLANS
SIXTH STREET EXPRESSWAY
600'± WEST OF HARRIET STREET
TO GEST STREET
Acc. No. 21545

B. & O. RIGHT OF WAY PLANS

FED. RD. DIV.	STATE	PROJECT	FISCAL YEAR
2	OHIO		

458
464

HAM-50-19.76
HAMILTON COUNTY
LIMITED ACCESS
R/W PLANS

PROPERTY PLAT

THE BALTIMORE AND OHIO RAILROAD CO.

DEEDS & EASEMENTS TO BE ACQUIRED BY CITY OF CINCINNATI

KENYON

ST.

R/W

P.T. Sta 41+12.30K

MATCH LINE

AL.

LAUREL

S82°48'50"E-463.71'

683.08'

P.C. Sta 44+44.30K

P.T. Sta 45+35.04K (EB)

S82°48'50"E-219.38'

1st Sh. Met. Warehouse

DEED BOOK 3837 & D.B. 01, P.396 & 3837 R.O.

PROPOSED

John Hauff - Fee
B & O. RR. - Lessee

Tr. of Bryn Mawr College - Fee
B & O. RR. - Lessee

Tr. of Bryn Mawr College - Fee
B & O. RR. - Lessee

8-1316

N70°53'14W-86.28'

N70°53'14W-85.96'

Rc=86.28'

R=1872.86'

N78°34'03W-181.76'

N77°07'08W-107.76'

Easement 1
(Sloping Fill)

S11°25'57W
475

39.72'

S11°25'51W
525

N78°34'03W-150.96'

Sub. Line

N78°07'02W-89.45'

Arc 89.50

N77°40'W-87.50'

S12°45'38W-4.78'

N77°40'W-91.78'

30.00'

Easement 2
(Retaining Wall & Footing)

R=5697.58'

N12°20' E
18.88'

S77°27'11"E-4.20' Arc 4.20'

24°32'41"E-5.00' Arc 5.02'

N24°44'18"W-5.18'
Arc 5.22'

N60°49'14"W-
34.42' Arc 34.63'

S22°01'40"W
6.50'

N67°58'20"W
30.50'

32.18'

Easement 3
(Sloping Fill)

N67°58'20"W-88.06'

P.C. Sta 46+22.62K (S)

P.C. Sta 46+65.65K (S)

Easement 4
(Retaining Wall & Footing)

6.72'

6.21'

48.70'

EASEMENT

EXISTING

193.23'

Ex. 18" Conc. Flood Wall

BAYMILLER

S77°28'40"W-106.86'

406.39'

Learner B. Harrison - Fee
Baltimore & Ohio RR. Co. - Lessee

Baltimore & Ohio RR Co.

1st Sh. Met. Warehouse

Cinder Blk. Freight House

Sec. 24, T. 4, F.R. 1, Cincinnati Twp.

46
52

Scale: 20 | 8-3-62 R/W Plans Completed M. M. D.

RIGHT OF WAY PLANS

SIXTH STREET EXPRESSWAY

600'± WEST OF HARRIET STREET TO GEST STREET

Acc. No. 21546

B & O. RIGHT OF WAY PLAN

PROPERTY PLAT
THE BALTIMORE AND OHIO RAILROAD CO.
SPECIAL AGREEMENT

FED. RD. DIV.	STATE	PROJECT	FISCAL YEAR
2	OHIO		

459
464

HAM-50-15.76
HAMILTON COUNTY
LIMITED ACCESS
R/W PLANS

8 St Br. | 8 St Br | 2 St. Br | 2 St Br #916 | 3½ St Br #900

Ex 30" P.S. | Ex 25" P.S. | Ex 15" P.S. | Ex 12" P.S. | Ex 6" W.M. | Ex 3" G.M. | Ex 12" Stone Wall | Ex R/W

Ex. Granite Pavt Asphalt Covered

KENYON ST.

Met Canopy Overhead

N82°48'50"W-631.37'

PROP. KENYON ST. TO BE ACQUIRED BY CITY OF CINCINNATI

B-1316

1 St Sh. Met. Warehouse

BARR'S SUB. D.B. 85, P. 137 & D.B. 91, P. 356 & 357

Tr. of Bryn Mawr College-Fee B&O RR Co. Lessee

John Hauff - Fee B&O RR. - Lessee

Tr. of Bryn Mawr College-Fee B&O RR. Co.-Lessee

Easement 1 | Easement 2 | Easement 3

Ex B&O RR Tracks | Ex Loading Dock | Ex Concrete Loading Dock | Ex Stone Wall

SUB LINE

Learner B. Harrison - Fee Baltimore & Ohio RR. Co.-Lessee

Ex Cinder Dr. S66°25'52"E-558.62'

Baltimore & Ohio RR. Co.

Ex 38"x 3' Stone Sewer

Cinder Blk. Freight House

2424 BA

PC 44+44.96 K

PT 45+35.04 K(Tan)

PC 46+22.62 K(S)

PCC 46+80.85 K(S)

1 St Sh Met. Warehouse

Δ = 46°44'41"
R = 25.00'
T = 10.80'
L = 20.39'

Δ = 73°54'32"
R = 25.00'
T = 18.81'
L = 32.25'

S10°18'40"W 43.86'

P.T. 41+12.30 K

S16°41'11"E 50.70'

S66°25'52"E 543 542 541 540 539 538 537 536 535 534 533 532 531 530 529 528 527 526 525 524 523 522 521

S52°15'34"E 12.24' Arc 12.37'

Ex Stone Wall

Ex 38"x 3' Stone Sewer

Ex B&O RR Tracks

Ex 18" Conc Flood Wall

BAYMILLER ST.

EXISTING

Sec. 24, T. 4, F.R. 1, Cincinnati Twp.

See Sheet 21

RIGHT OF WAY PLANS
SIXTH STREET EXPRESSWAY
600' WEST OF HARRIET STREET TO GEST STREET
Acc. No. 21547

47
52

Scale: 20 | 8-3-62 | R/W Plans Completed | M. M. D.

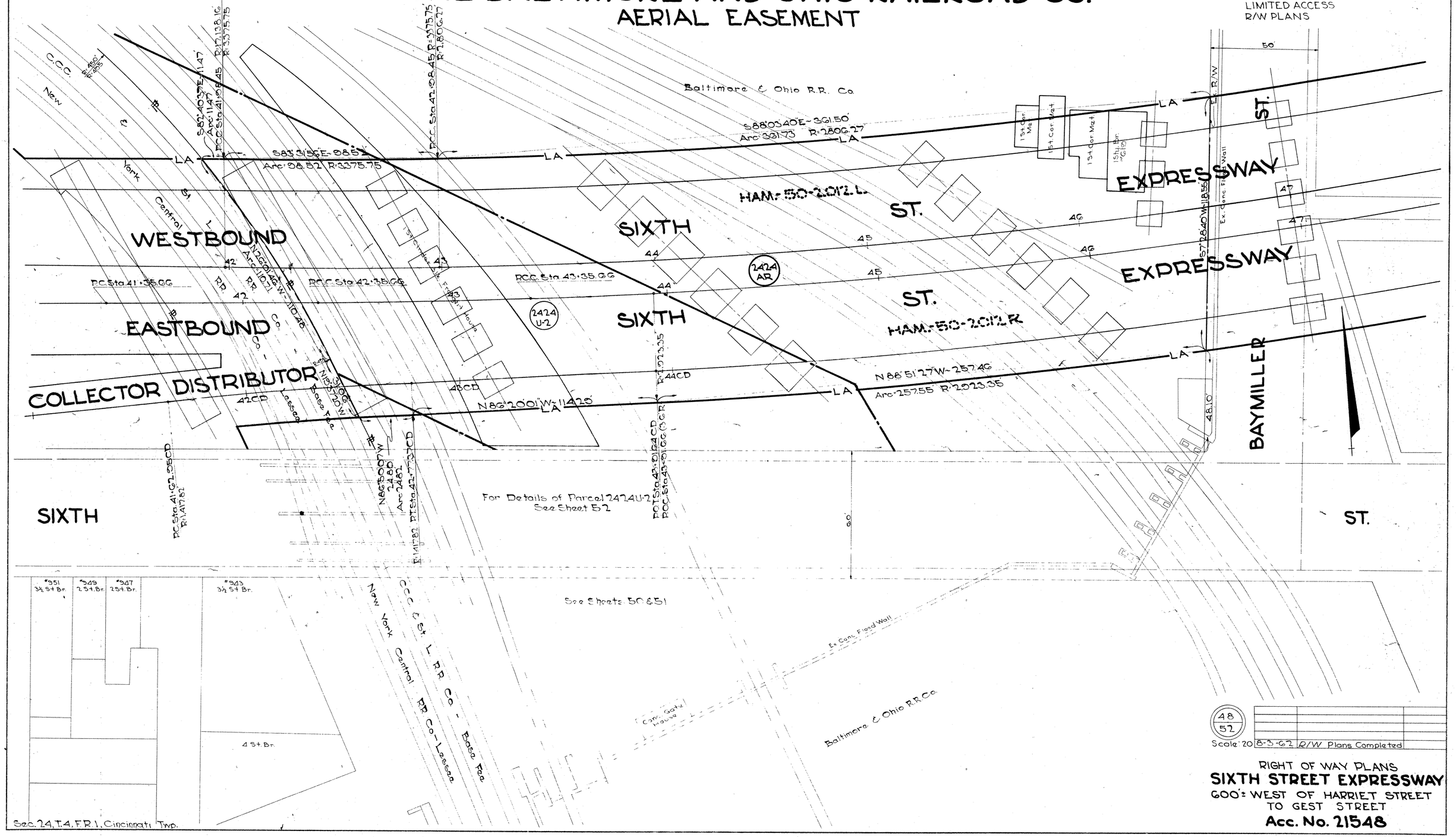
B. & O. RIGHT OF WAY PLAN

FED. RD. DIV.	STATE	PROJECT	FISCAL YEAR
2	OHIO		

460
464

HAM-50-19.76
HAMILTON COUNTY
LIMITED ACCESS
R/W PLANS

PROPERTY PLAT
THE BALTIMORE AND OHIO RAILROAD CO.
AERIAL EASEMENT



48
52

Scale: 20 | 8-3-62 | R/W Plans Completed

RIGHT OF WAY PLANS
SIXTH STREET EXPRESSWAY
600'± WEST OF HARRIET STREET
TO GEST STREET
Acc. No. 21548

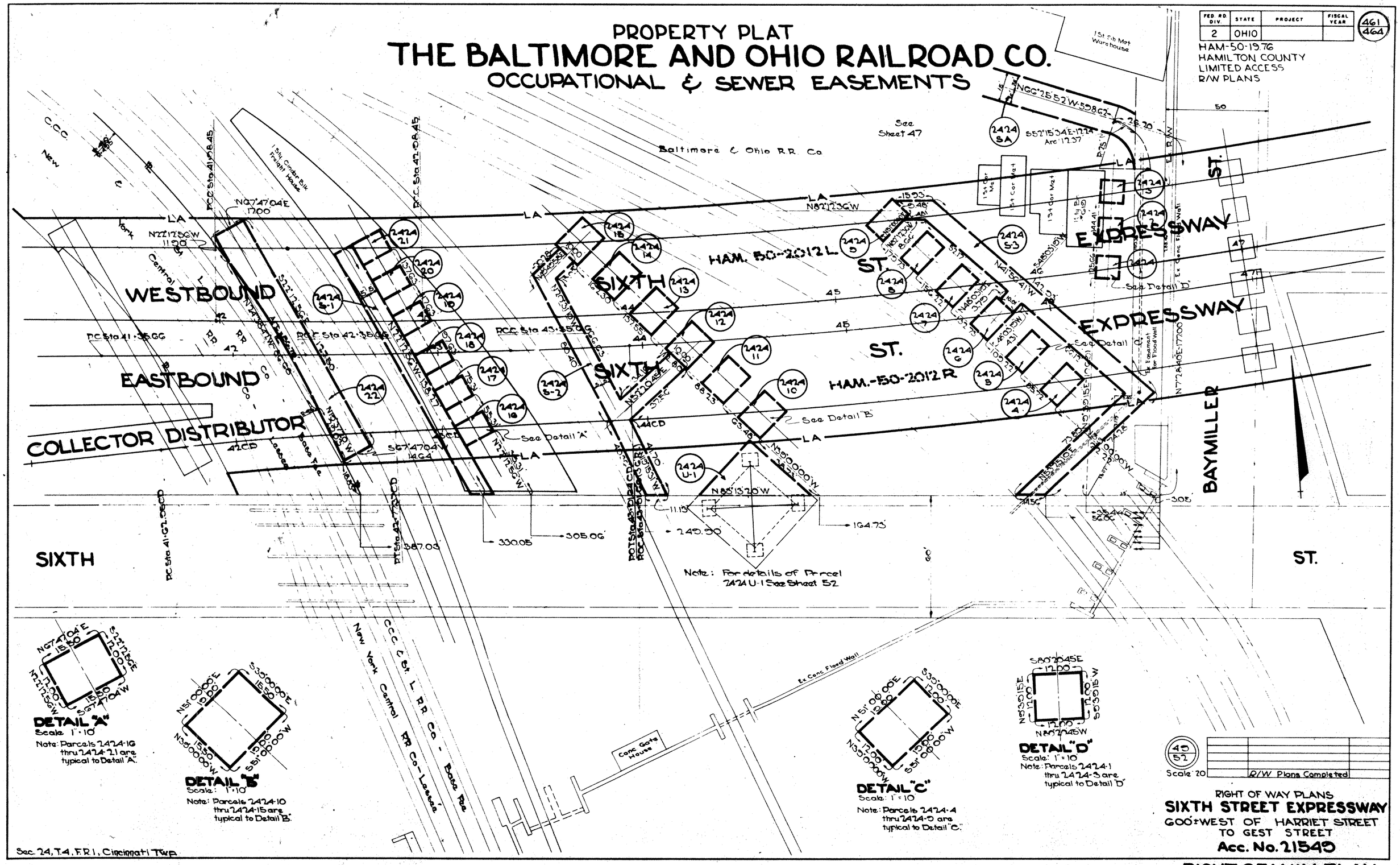
B&O RIGHT OF WAY PLAN

FED. RD DIV.	STATE	PROJECT	FISCAL YEAR
2	OHIO		

461
464

HAM-50-19.76
HAMILTON COUNTY
LIMITED ACCESS
R/W PLANS

PROPERTY PLAT
THE BALTIMORE AND OHIO RAILROAD CO.
OCCUPATIONAL & SEWER EASEMENTS

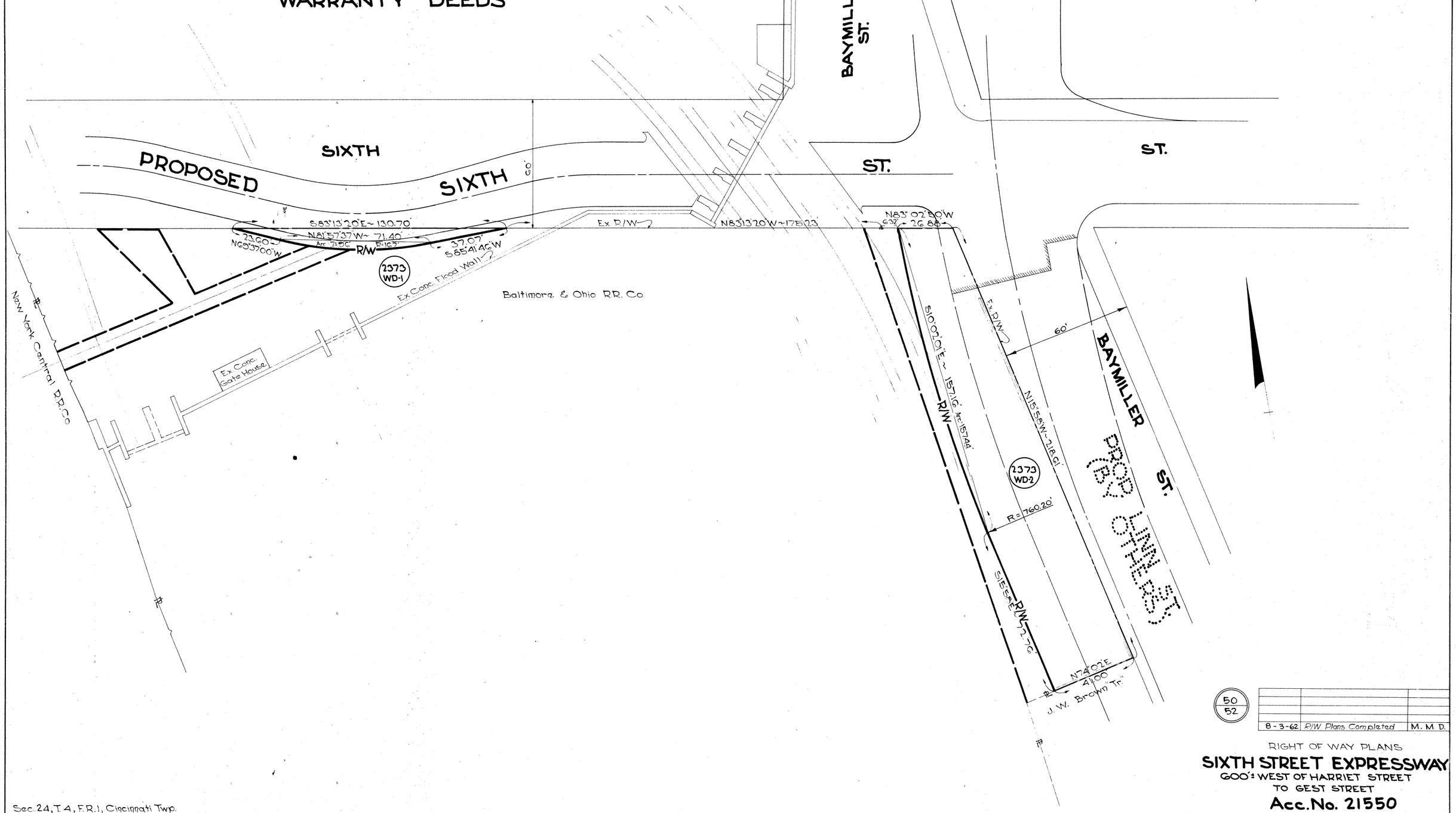

1 Sth Sth Met Warehouse
See Sheet 47
Baltimore & Ohio R.R. Co
1 Sth Cordon Blk Freight House
N66°25'52"W-598.62'
S52°15'34"E-1224' Arc 1237'
2424 SA
LA
N87°23'GW
HAM. 50-20.12 L
HAM.-50-20.12 R
SIXTH
ST.
EXPRESSWAY
WESTBOUND
EASTBOUND
COLLECTOR DISTRIBUTOR
42CD
44CD
See Detail "A"
See Detail "B"
See Detail "C"
See Detail "D"
See Detail "E"
N87°47'04"E 1700
S67°47'04"W 1464
N71°12'56"W 1120
PC Sta 41+39.45
PC Sta 42+08.45
PC Sta 41+67.35 CD
PT Sta 42+77.35 CD
POT Sta 42+01.84 CD
POC Sta 43+01.84 CD
N87°23'GW 1533
S87°23'GE 1320
N71°12'56"W 1320
N87°23'GW 1320
N87°23'GW 1320
N87°23'GW

FED. RD. DIV.	STATE	PROJECT	FISCAL YEAR
2	OHIO		

462
464

HAM-50-19.76
HAMILTON COUNTY
LIMITED ACCESS
R/W PLANS

PROPERTY PLAT
THE BALTIMORE AND OHIO RAILROAD CO.
WARRANTY DEEDS



50
52

8-3-62	R/W Plans Completed	M. M. D.

RIGHT OF WAY PLANS
SIXTH STREET EXPRESSWAY
600'± WEST OF HARRIET STREET
TO GEST STREET
Acc. No. 21550

Sec. 24, T. 4, F.R. 1, Cincinnati Twp.

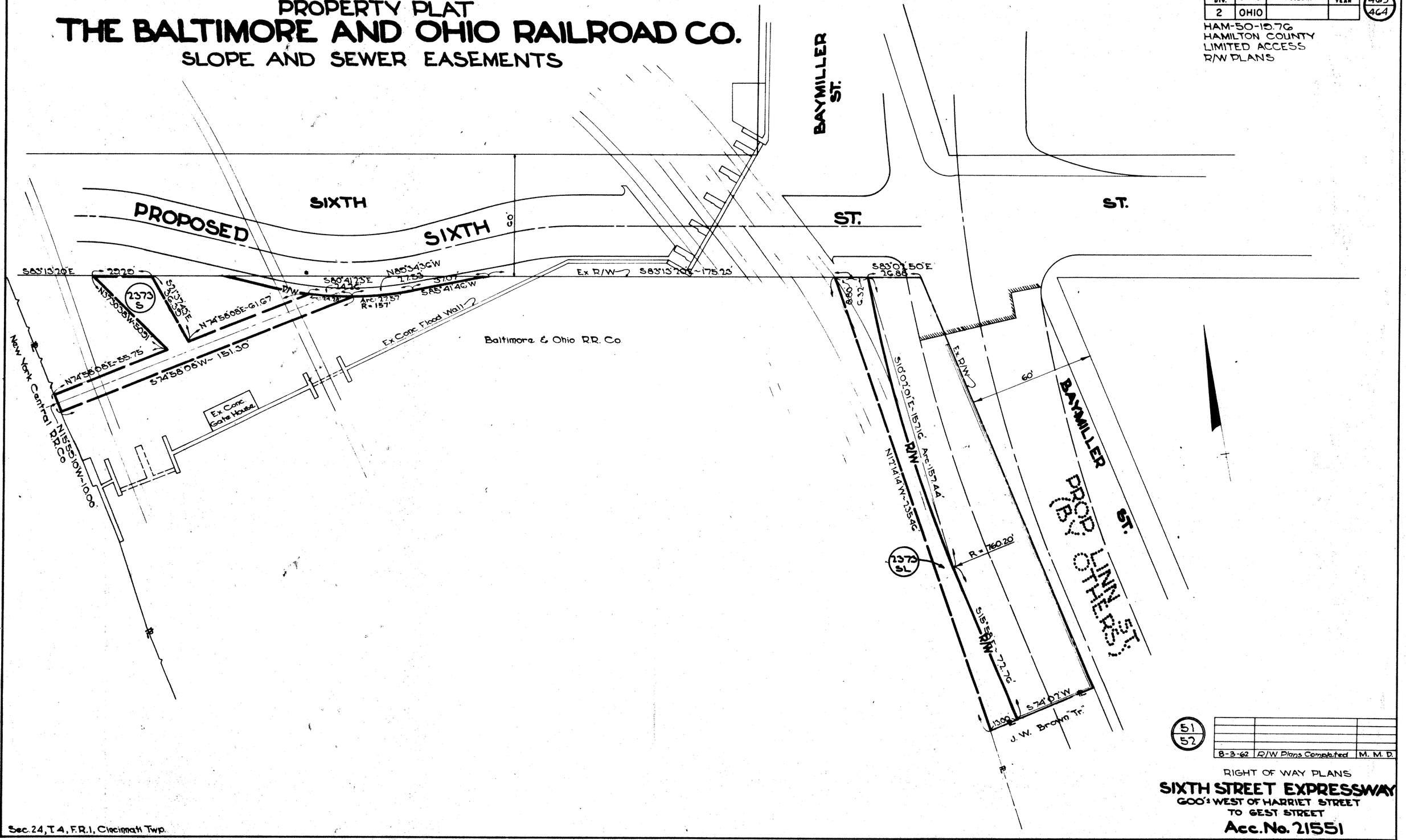
B. & O. RIGHT OF WAY PLAN

FED. RD. DIV.	STATE	PROJECT	FISCAL YEAR
2	OHIO		

463
464

HAM-50-19.76
HAMILTON COUNTY
LIMITED ACCESS
R/W PLANS

PROPERTY PLAT
THE BALTIMORE AND OHIO RAILROAD CO.
SLOPE AND SEWER EASEMENTS



Sec. 24, T. 4, F.R. 1, Cincinnati Twp.

8-3-62	R/W Plans Completed	M. M. D.

51
52

RIGHT OF WAY PLANS
SIXTH STREET EXPRESSWAY
600' WEST OF HARRIET STREET
TO GEST STREET
Acc. No. 21551

B. & O. RIGHT OF WAY PLAN

FED. RD. DIV.	STATE	PROJECT	FISCAL YEAR
2	OHIO		

4G4
4G4

HAM-50-19.76
HAMILTON COUNTY
LIMITED ACCESS
R/W PLANS

SUMMARY OF ADDITIONAL RIGHT OF WAY TO BE ACQUIRED JOINTLY BY CINCINNATI GAS & ELECTRIC COMPANY AND CITY OF CINCINNATI

Power Line Parcel No.	Expressway Parcel No.	Owner	Average Sq. Ft.	Remarks
195	2424 U-1	Baltimore + Ohio R.R. Co.	769	Tower Site
149	2424 U-2	do	25,196	Aerial Easement
150	2425 U	New York Central R.R. Co.	17,291	do
152	2451 U	do	17,116	do
153	2450 U	Baltimore + Ohio R.R. Co.	28,579	do
158 A	—	do	145	Tower Site

BUDD ST.
CARR ST.
FREEMAN AVE.
KENYON ST.
BAYMILLER ST.
HATHAWAY ST.
WINGATE AL.
ZACHARY ST.
SIXTH ST.

B.B. VANDERGRIFF DB. 88 - P. 241 RO.
DAVID LORING SUB. PB. 2 P. 44
CARR'S SUB. DB. 28 - P. 234 RO.
FRANCIS Barnco Inc.
The National Lead Co.
ISRAEL LUDLOW'S SUB. DB. R 2 P. 334 RO.
The Baltimore and Ohio RR. Co.
WM. BARR'S EST. DB. 85 P. 157 - DB. 91 - P. 396 & 397 RO.
The C.C.C. & St.L. RR. Co.
Alfred B. Katz
City of Cincinnati
Chill Southern RR.
SEE DETAIL
Baltimore + Ohio R.R. Co.

S.5°27'10"W. - 232.20
S.65°45'15"E.
N.18°06'18"E. 35.96
N.71°53'42"W. 80.7'
30.95'
36.85'
S.84°13'30"E. 15.16
N.62°48'33"E. 134.24
S.73°38'50"E. 81.37
81.69
S.60°02'06"E. - 263.12
S.82°54'E. 170.18
S.82°54'E. 56.68'
S.60°44'E. 21.55'
S.71°54'E. 25.10'
N.60°02'06"W. - 315.23'
R=436.70
S.60°02'06"E. - 421.09'
S.46°58'54"E. Ch. = 24.57' A = 24.58'
S.32°15'52"E. A = 182.55'
S.46°13'41"W. 3.20
S.71°38'20"E. 10.18'
N.60°02'06"W. 106.76'
N.27°16'05"E. 27.46'
S.62°18'57"E. 110.13'
N.55°14'40"W. - 145.10'
S.75°35'08"E.
N.5°36'10"E. 97.65'
S.5°36'10"E. 164.79'
N.5°36'10"E. 192.84'
S.5°36'10"E. 54.64'
150.71'
211.77'
89.25'
5.0'
6.0'
50'

158 | 158A | 153 | 152 | 149 | 150 | 195 | 2450 U | 2451 U | 2425 U | 2424 U-2 | 2424 U-1

NOTE: Bearings used on this plan are in conformance with the Mill Creek Flood Protection Plan "F" project.

Sec. 24, T.4, F.R.1, Cincinnati Twp.

DETAIL
Easement
S.60°02'06"E.
S.71°38'E.
0.84
0.90
0.18
N.5°36'10"E.
AVE.
FREEMAN

52
52

Scale: 30 | 8-3-62 | R/W Plans Completed

RIGHT OF WAY PLANS
SIXTH STREET EXPRESSWAY
600 Ft ± WEST OF HARRIET STREET TO GEST STREET
Acc. No. 21552

TRANSMISSION LINE RIGHT OF WAY PLAN