NOT FOR CONSTRUCTION INFORMATION ONLY

NOV 26 1962

STATE OF OHIO
DEPARTMENT OF HIGHWAYS
HAM - 25 - 1.63
MILL CREEK EXPRESSWAY
CITY OF CINCINNATI
HAMILTON COUNTY

MICROFILMED SEP 9 1966 GROUND PHOTO LAB

FED. RD. DIVISION	STATE	PROJECT	
2	OHIO	I-75-1(19)01	

1 / 486

I-75-1(19)01

HAMILTON COUNTY
HAM-25-1.63

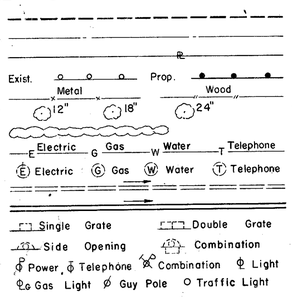
MICROFILMED SEP 9 1966 GROUND PHOTO LAB

232 Red 1-120

CONVENTIONAL SIGNS

Section Line
Center Line
Property Line
Guard Rail
Fence Line
Trees
Hedges
Exist Underground Utilities
Exist Manholes
Exist Sewers
Prop. Sewers
Inlets

Utility Poles



INDEX OF SHEETS

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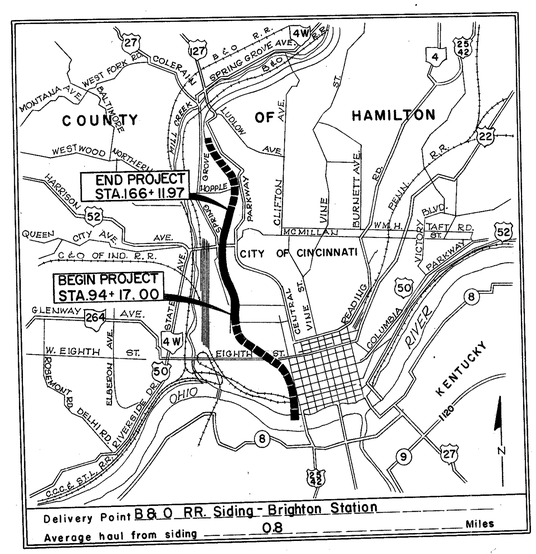
NOTE: Sheet No. 450 Omitted from plans.

Centerline Reference Plan ——— 25A, 25B, 25C

Sheets 25A, 25B & 25C added to plans 6-12-62 R.C.C.

LINE DATA

I-75-(19).01	Begin Project		Sta. 94+17	
	End Project		Sta. 166+11.97	
		Length of Project	7,194.97	Ft. or 1.362 Miles
	Add work	Sta. 93+10 to Sta. 94+17	107.00	Ft.
	Add work	Sta. 166+11.97 to {Sta. 166+56.81 = Sta. 166+44.84} to Sta. 177+47.8 ±	1,147.80	Ft.
	Add work	Liberty St.	569.	Ft.
	Add work	Findlay St.	803.	Ft.
	Add work	Bank St.	495.	Ft.
	Add work	Western Hills Viaduct	1,349.5	Ft.
		Length of Work	11,666.27	Ft. or 2.209 Miles
City of Cincinnati	Spring Grove Ave.		393.	Ft.
	Bank St.		212.	Ft.
		Length of Work 100% City	605.	Ft. or 0.114 Miles
		Total Length of Work	12,271.27	Ft. or 2.324 Miles



LOCATION MAP

SCALE OF MILES
0 1 2 3

Portion to be improved
Under Separate Contract
State Roads
Other Roads

SCALE

Plan	0 20 40	1" = 20'
Profile: Horizontal	0 5 10	1" = 5'
Profile: Vertical	0 10 20	1" = 10'
Cross Sections		

1961 SPECIFICATIONS

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.

The standard specifications of the State of Ohio, Department of Highways, including changes and supplemental specifications listed in the proposal shall govern this improvement.

The right of way for this improvement will be provided by the State of Ohio.

I hereby approve these plans and declare that the making of this improvement will not require the closing of the highway to traffic and that provisions for the maintenance and safety of traffic will be as set forth on the plans and estimates.

Approved Joseph M. Linger — Division Deputy Director
Date 5-19-61

Approved O.K. Overman — Engineer of Bridges
Date 7-14-61

Approved W.J. Freeman — Engineer of Location & Design
Date 7-25-61

Approved C.W. McCaughey — Deputy Director of Design & Construction
Date 7-25-61

Approved W.J. Dorn — Deputy Director of Right of Way
Date 7-18-61

Approved Guy E. Hooper — Deputy Director of Planning & Programming
Date 7-28-61

Approved W.A. Berry — First Assistant Director
Date 7-28-61

Approved E.S. Preston — Director of Highways
Date 7-28-61

Approved E.G. Farrell — City Manager
Date 4/25/61

PREPARED BY
VOGT, IVERS, SEAMAN & ASSOCIATES
ENGINEERS CINCINNATI, O.
ARCHITECTS CHICAGO, ILL.

	Supplemental	Prints	of	Standard	Construction		Drawings	
B-T-70-71	11-15-60	I-15 No.1	11-15-60	T-35	1-2-56	AR-1-57		12-12-60
B-T-71R	3-2-53	I-15 No.2-A	8-17-60	T.J.	9-12-60	AS-1-54		12-1-54
F-1	9-1-59	I-15 No.6	7-1-59	DR-1	1-3-55	RB-1-55		2-2-59
F-3	9-1-59	I-21-23	8-1-56	L-1	4-1-50	CSB-2-56, Sheet		
G-7.07	6-1-56	L-3	4-1-50			283 of 6		2-2-59
I-1	11-15-60	L-3-A	4-1-50			WSB-60		10-27-60
I-8 I.No.1	3-2-59	L.J.No.1	7-1-55					
I-12	7-1-54	RI-1	7-15-58					
I-14G.	1-22-52	HW-E	11-15-60					

Supplemental	Specifications
18	Rev. 6-15-59
I-129	Rev. 4-5-61
M-206.14	7-15-49
M-107.18	Rev. 4-3-61
S-207.10	4-25-61
I-212	Rev. 6-23-61

MICROFILMED SEP 9 1966 GROUND PHOTO LAB

DEPARTMENT OF COMMERCE
BUREAU OF PUBLIC ROADS

APPROVED:

DIVISION ENGINEER ——— DATE

MICROFILMED SEP 9 1966 GROUND PHOTO LAB

File No.
HAMILTON COUNTY HAM-25-1.63
Date of letting ——— 19—
Contract No. ———

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FED. RD. DIVISION	STATE	PROJECT	
2	OH10		

HAM-25-1.63

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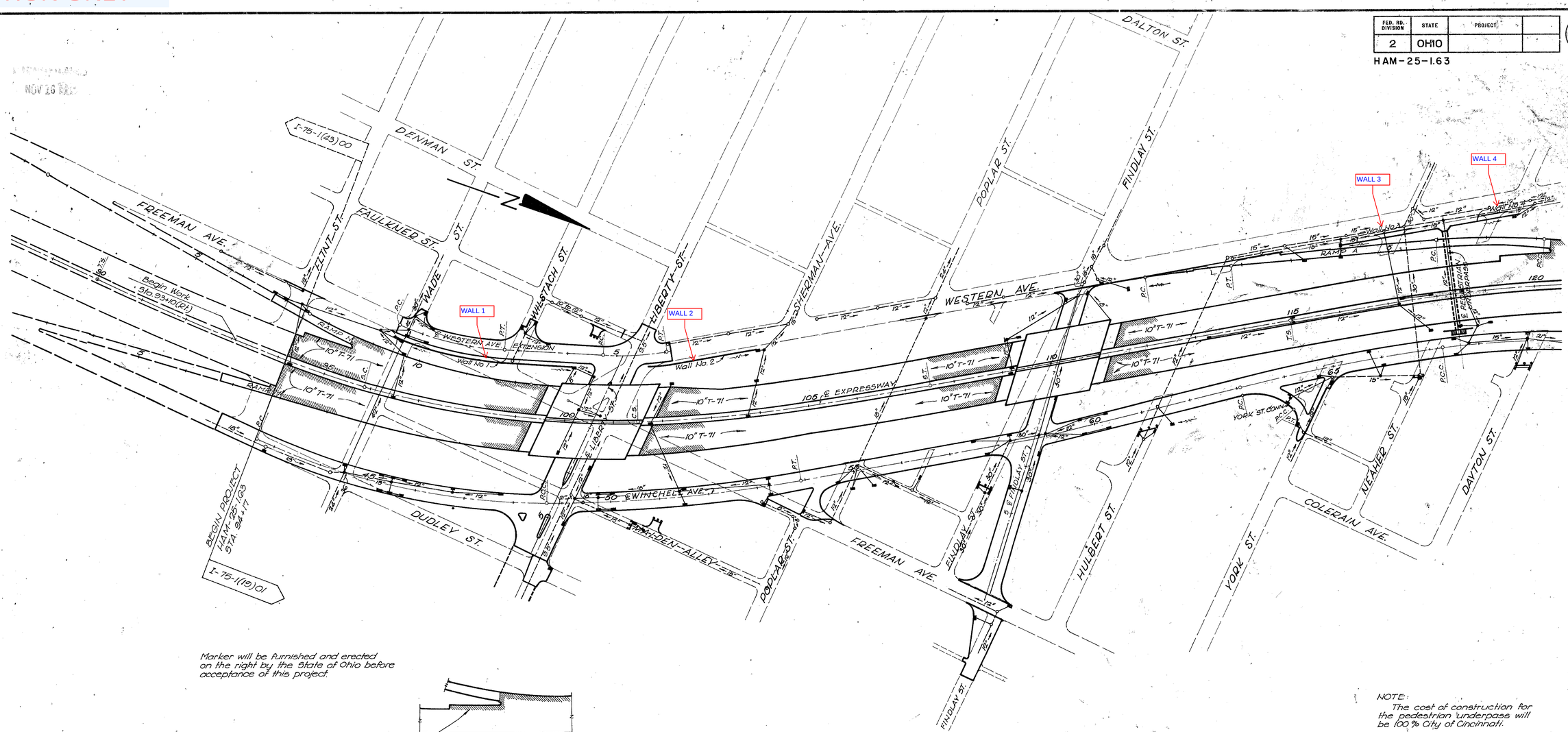
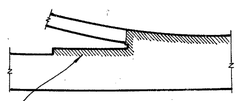
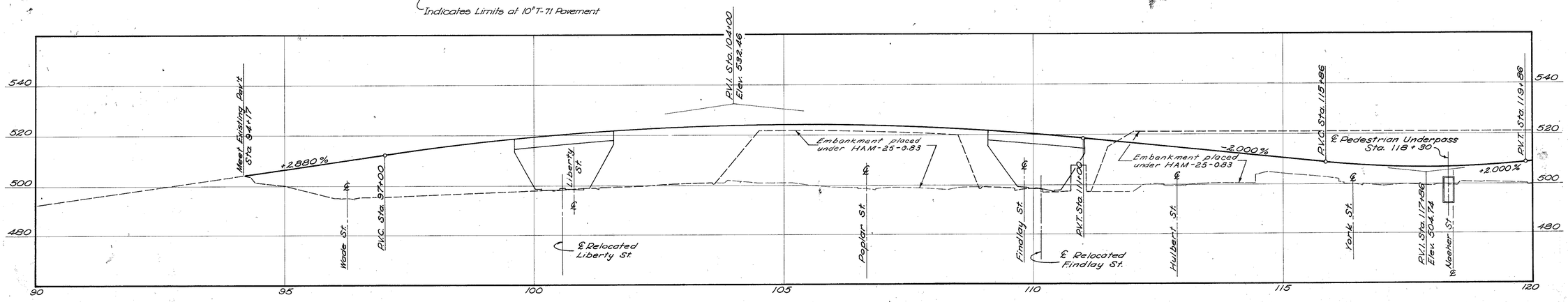


Marker will be furnished and erected on the right by the State of Ohio before acceptance of this project.



NOTE:
The cost of construction for the pedestrian underpass will be 100% City of Cincinnati.



GENERAL PLAN STA. 90+00 to STA. 120+00

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NOV 26 1983

FED. RD. DIVISION	STATE	PROJECT	
2	OHIO		

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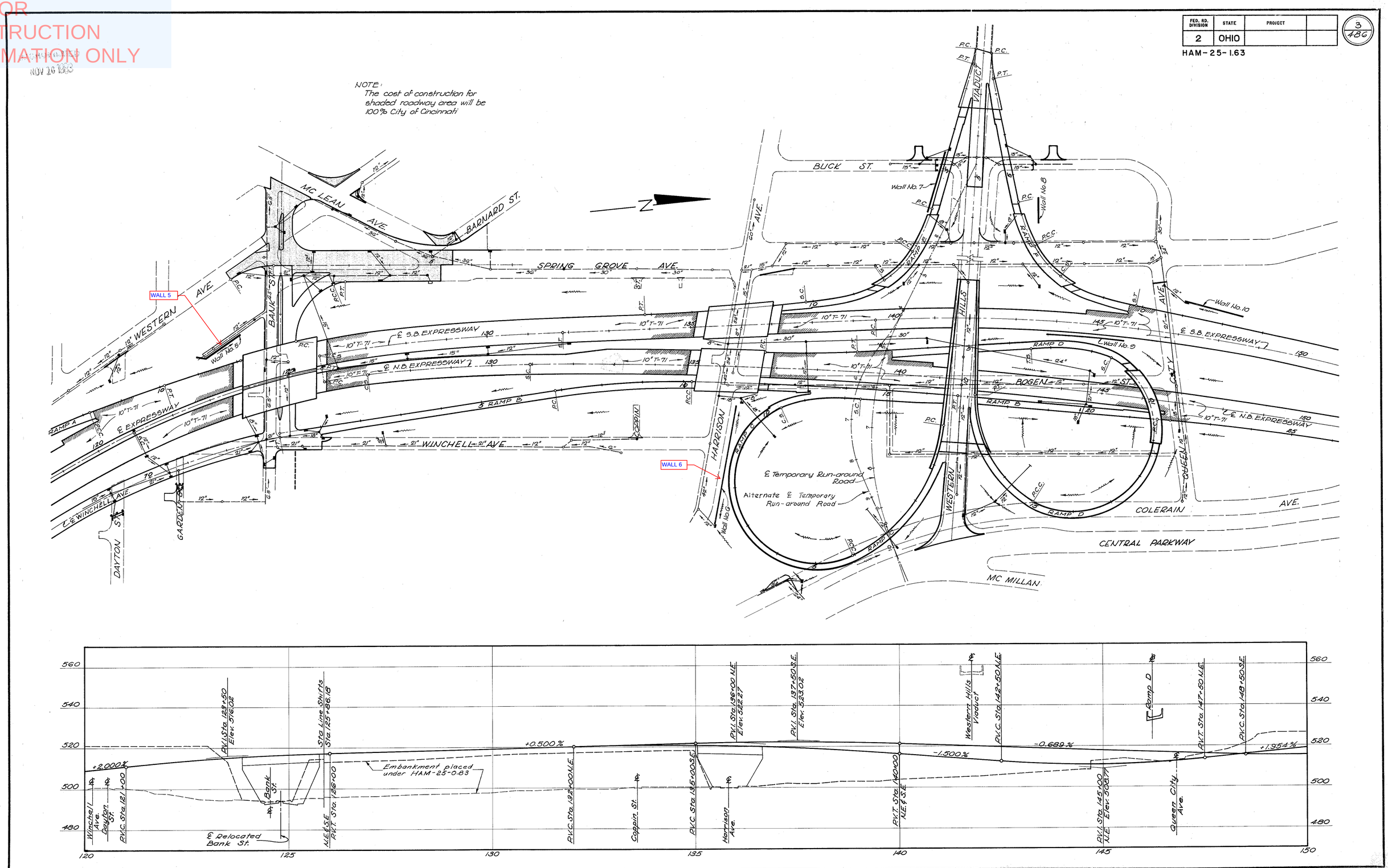

GENERAL PLAN STA. 120+00 to STA. 150+00

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FED. RD. DIVISION	STATE	PROJECT	
2	OHIO		

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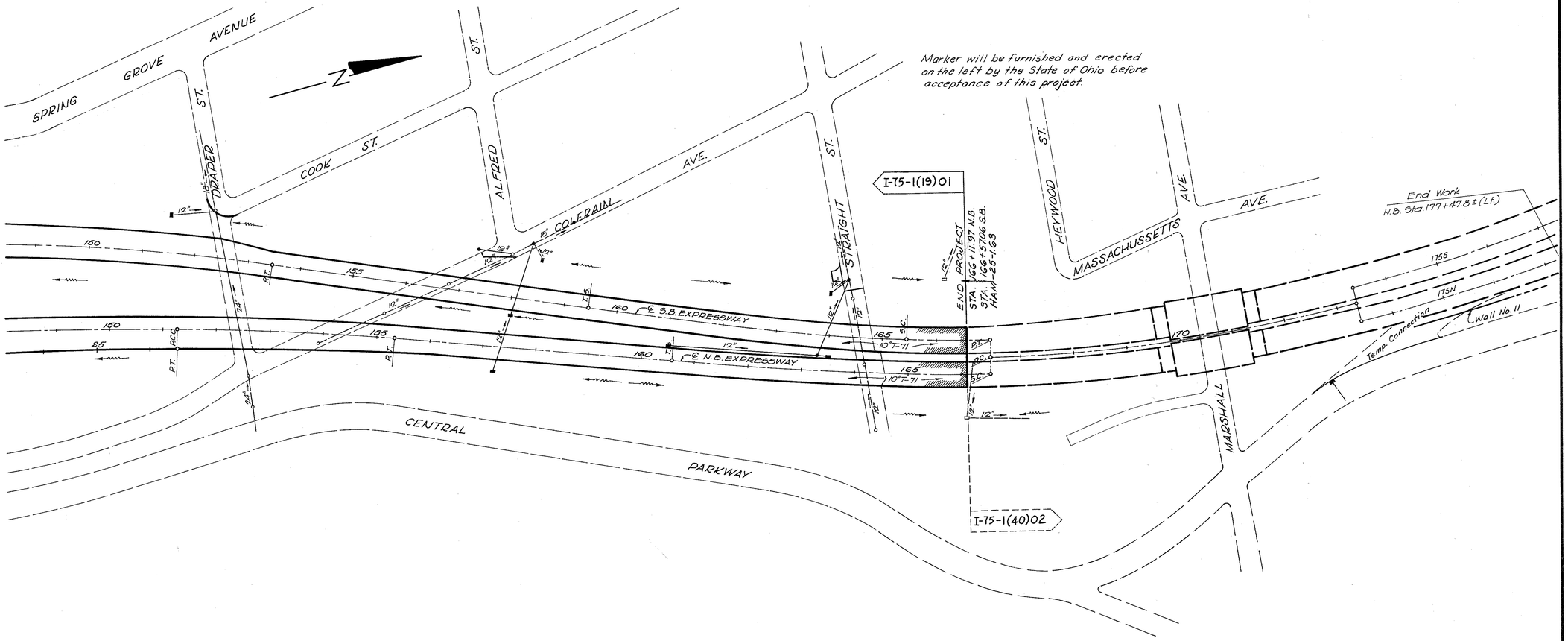

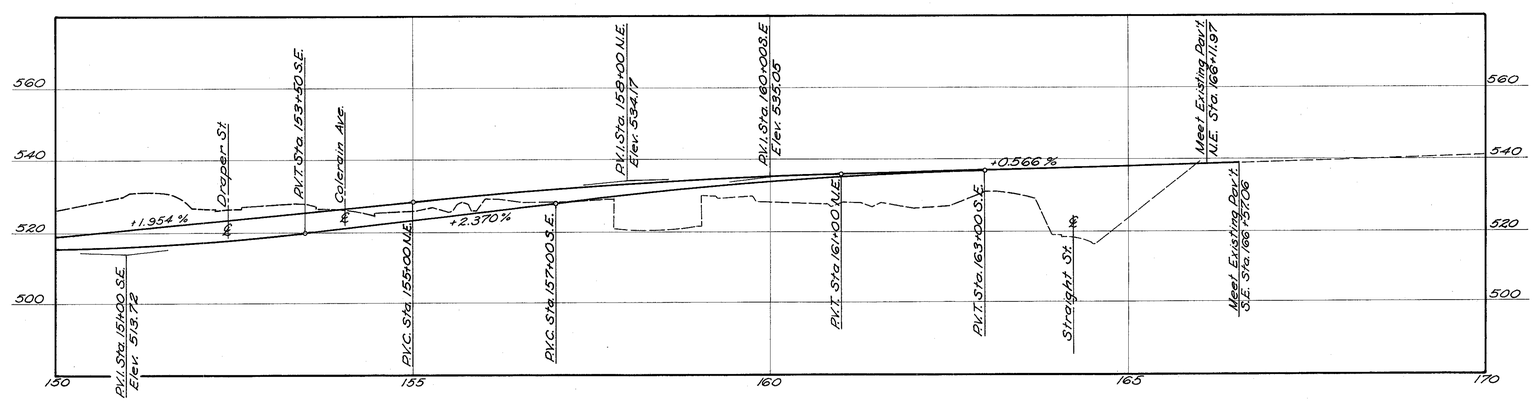

GENERAL PLAN STA. 150+00 to STA. 170+00

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FED. RD. DIVISION	STATE	PROJECT	
2	OHIO		

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TYPICAL SECTIONS

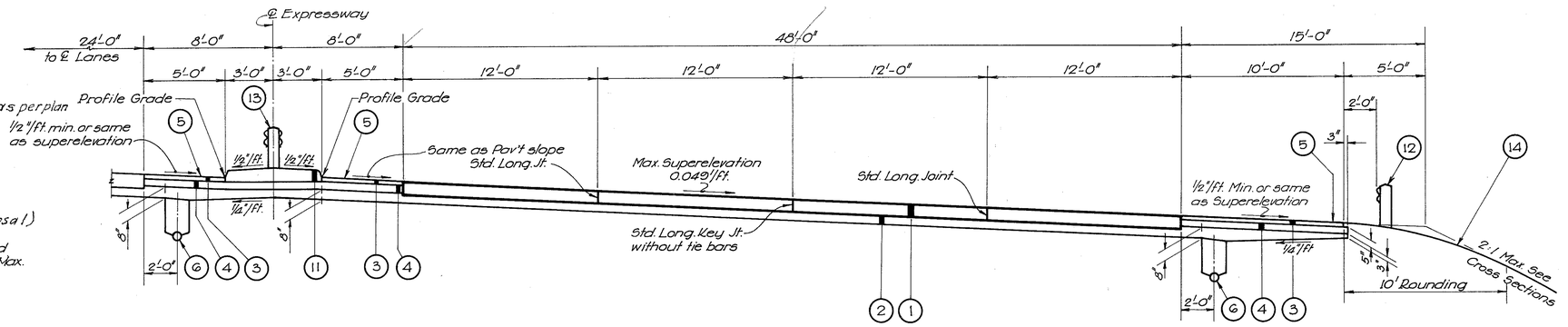
TYPE T-71

SCALE 1/4"= 1'-0"

LEGEND

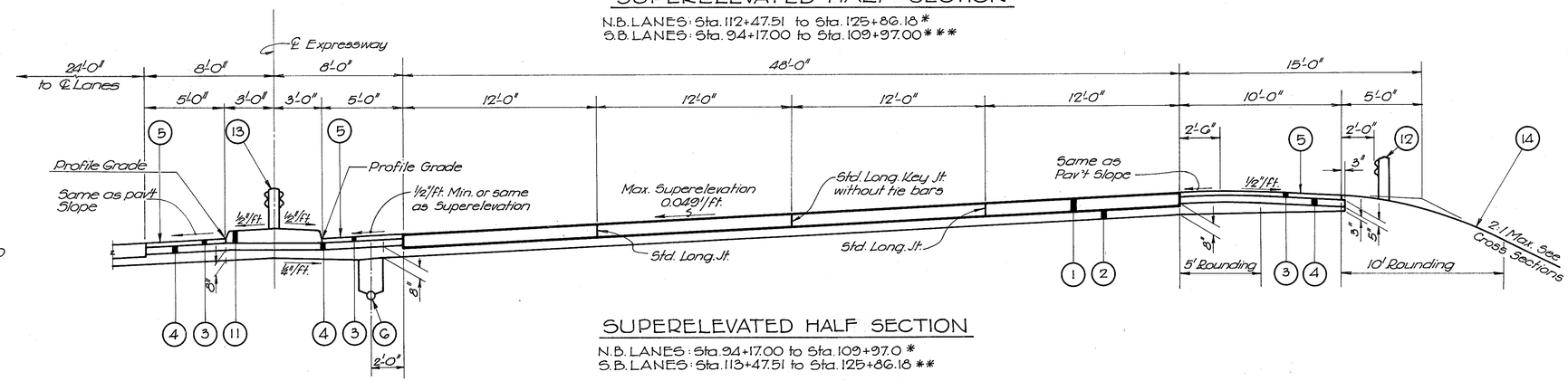
(1)	Item T-71	10" Reinforced Portland Cement Concrete Pavement.
(2)	Item I-22	6" Subbase (Unless otherwise noted) Grading A or B, as per plan
(3)	Item B-21	* 3" Waterproofed Aggregate Base Course
(4)	Item I-18	5' Stabilized Crushed Aggregate Shoulder
(5)	Item T-31	Bituminous Surface Treatment Single Seal, Using 0.008 cu.yd. No. 6 Aggregate per sq.yd. and 0.25 gal. Bituminous Material per sq.yd. (See note in proposal.)
(6)	Item I-1, Cl. I-3	6" Pipe Underdrain, For Line and Grade See Plan and Profile Sheets. Top of pipe to Subgrade 18" Min, 72" Max.
(7)	Item T-71	9" Reinforced Portland Cement Concrete Pavement
(8)	Item I-12	Standard Type 2-A Concrete Curb
(9)	Item I-12	Standard Type 6 Concrete Curb
(10)	Item I-12	Special Concrete Barrier Curb as per plan.
(11)	Item I-21	Type 2 (Modified) Portland Cement Concrete Median Pavement, as per plan. See Sheet No. 236
(12)	Item I-15	Guard Rail, Steel Beam Standard Type (Deep)
(13)	Item I-15	Guard Rail, Steel Beam Barrier Type (Deep), 6"x8" Pressure Treated Wood Posts.
(14)	Item L-9	Seeding and Protecting Roadway Areas
(15)	Item I-13	4" Portland Cement Concrete Sidewalk.
(16)	Item I-21	4" Portland Cement Concrete Median Pavement
(17)	Item I-22	6" Subbase (Unless otherwise noted) Grading C or D
(18)	Item T-70	8" Portland Cement Concrete Pavement.

* Thickness shown is "designed" thickness as described in Section B-21.01.



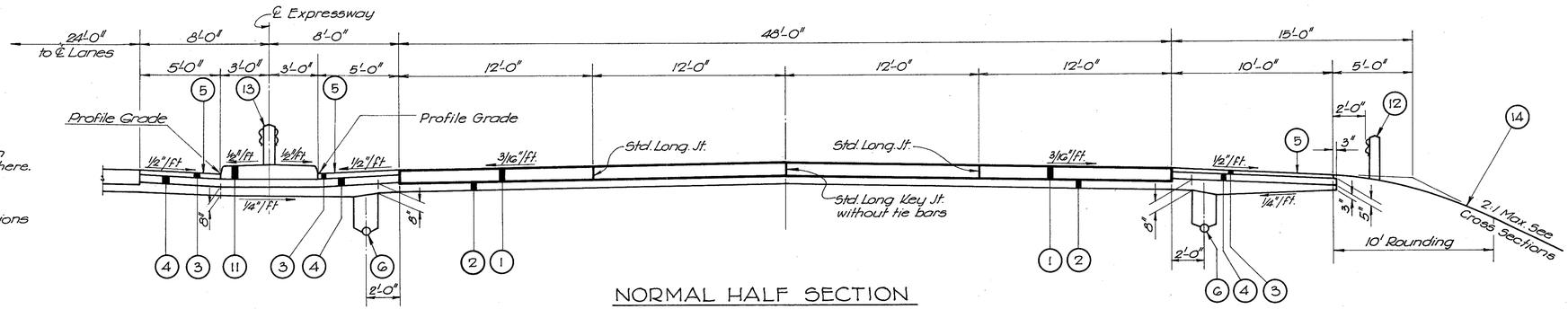
SUPERELEVATED HALF SECTION

N.B. LANES: Sta. 112+47.51 to Sta. 125+86.18 *
S.B. LANES: Sta. 94+17.00 to Sta. 109+97.00 * *



SUPERELEVATED HALF SECTION

N.B. LANES: Sta. 94+17.00 to Sta. 109+97.0 *
S.B. LANES: Sta. 113+47.51 to Sta. 125+86.18 * *



NORMAL HALF SECTION

N.B. LANES: Sta. 109+97.00 to Sta. 112+47.51
S.B. LANES: Sta. 109+97.00 to Sta. 113+47.51

NOTES

1. * Following the typical section stationing indicates that the section is modified for that particular run as indicated by sub-section elsewhere. Two or more asterisks indicate that two or more sub-sections apply in that run.

2. All sections are drawn in the direction of traffic, except sub-sections marked (O.H.) on Sht. 7 and the Bank St. Section on Sht. 11

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FED. RD. DIVISION	STATE	PROJECT	
2	OHIO		

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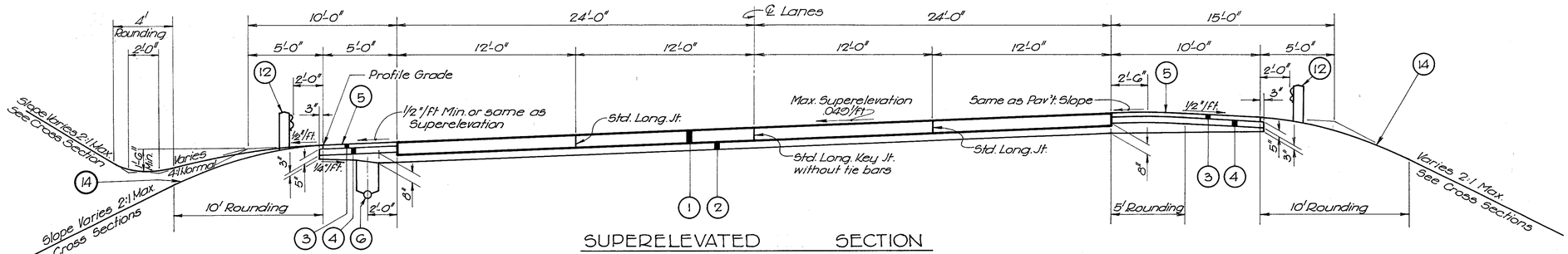
TYPICAL SECTIONS

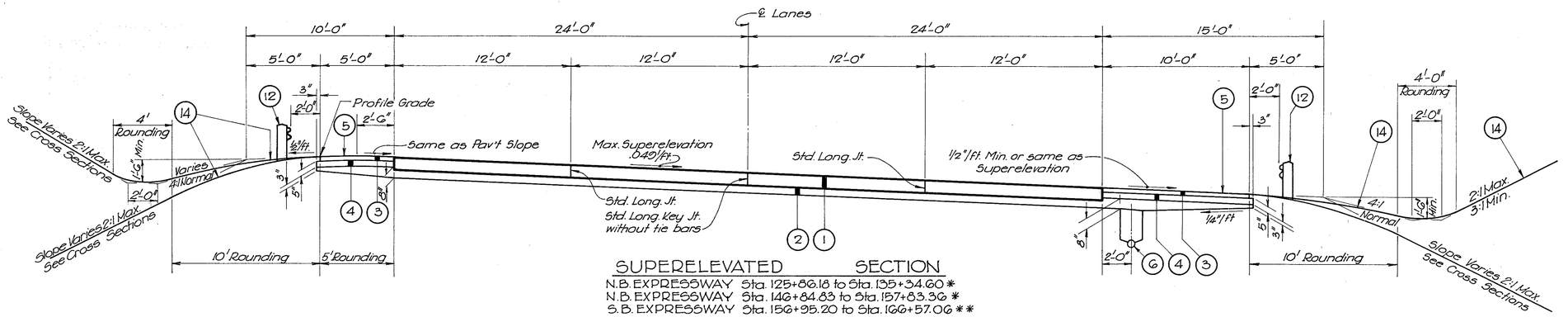
TYPE T-71

SCALE 1/4"= 1'-0"



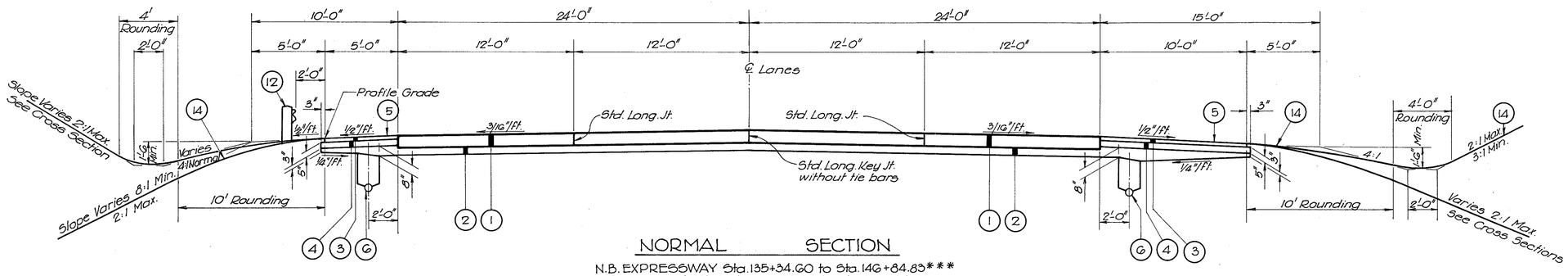
SUPERELEVATED SECTION

N.B. EXPRESSWAY Sta. 159+06.81 to Sta. 166+11.97 *
S.B. EXPRESSWAY Sta. 125+86.18 to Sta. 133+36.18 **
S.B. EXPRESSWAY Sta. 137+20.93 to Sta. 155+79.62 ******



SUPERELEVATED SECTION

N.B. EXPRESSWAY Sta. 125+86.18 to Sta. 135+34.60 *
N.B. EXPRESSWAY Sta. 146+84.83 to Sta. 157+83.36 *
S.B. EXPRESSWAY Sta. 156+95.20 to Sta. 166+57.06 **



NORMAL SECTION

N.B. EXPRESSWAY Sta. 135+34.60 to Sta. 146+84.83 ***
N.B. EXPRESSWAY Sta. 157+83.36 to Sta. 159+06.81
S.B. EXPRESSWAY Sta. 133+36.18 to Sta. 137+20.93 **
S.B. EXPRESSWAY Sta. 155+79.62 to Sta. 156+95.20

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FED. RD. DIVISION	STATE	PROJECT	
2	OHIO		

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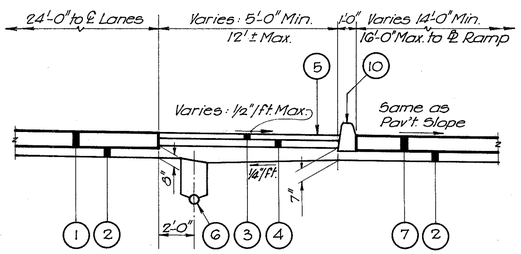
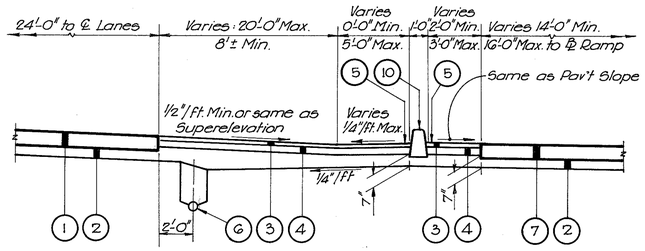
TYPICAL SECTIONS

TYPE T-71

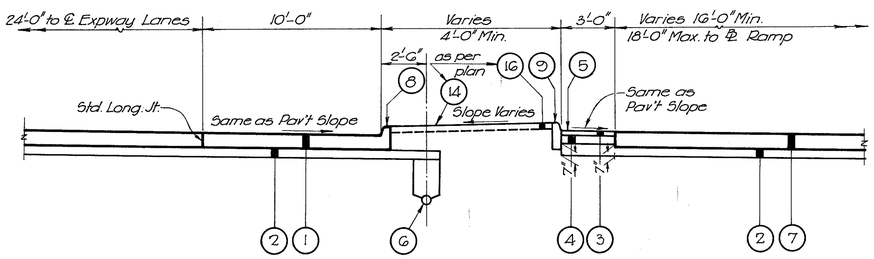
SCALE 1/4"=1'-0"



EXPRESSWAY N.B. LANES Sta. 93+07± to Sta. 94+04.3
N.B. EXPRESSWAY: Sta. 145+60.3 to Sta. 146+60.3
S.B. EXPRESSWAY: Sta. 137+11.0 to Sta. 138+11.0



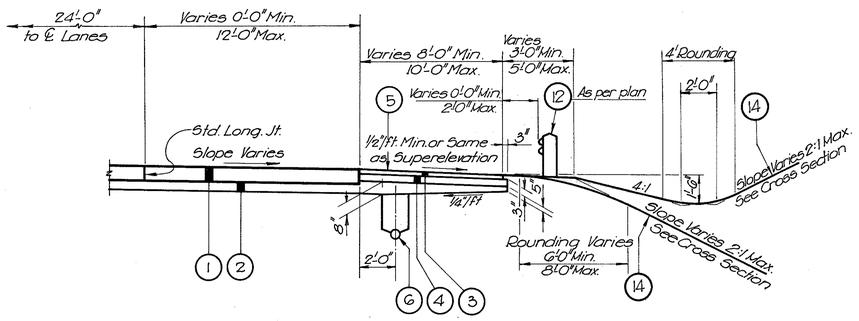
N.B. EXPRESSWAY Sta. 141+48.6 to Sta. 145+60.3
S.B. EXPRESSWAY Sta. 138+11.0 to Sta. 139+00.0



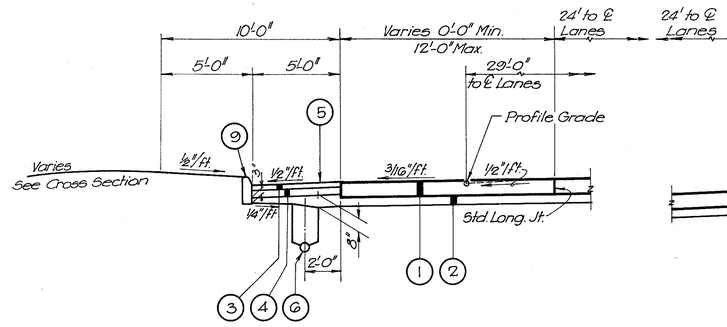
TYPICAL SECTION AT EXIT RAMPS

EXPRESSWAY Sta. 94+35.0 to Sta. 95+35.0
EXPRESSWAY Sta. 119+31.4 to Sta. 120+31.4
(O.H.) N.B. EXPRESSWAY Sta. 139+80.7 to Sta 140+80.7
S.B. EXPRESSWAY Sta. 144+70.2 to Sta. 145+70.2

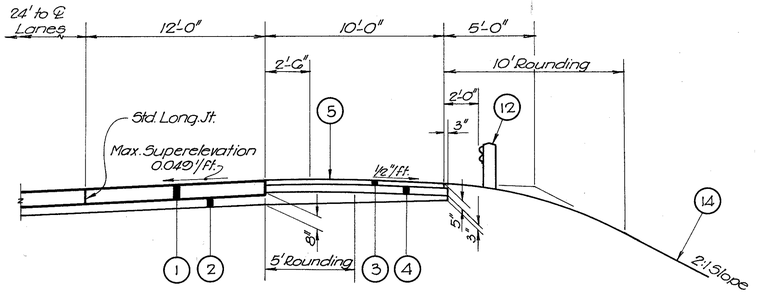
TYPICAL SECTIONS AT ENTRANCE RAMPS



EXPRESSWAY N.B. LANES: Sta. 95+86.58 to Sta. 105+00
EXPRESSWAY S.B. LANES: Sta. 99+99.25 to Sta. 103+25
N.B. EXPRESSWAY..... Sta. 151+26.10 to Sta. 156+00.0*
S.B. EXPRESSWAY..... Sta. 133+36.18 to Sta. 133+90.0*
S.B. EXPRESSWAY..... Sta. 150+01.46 to Sta. 153+45.38

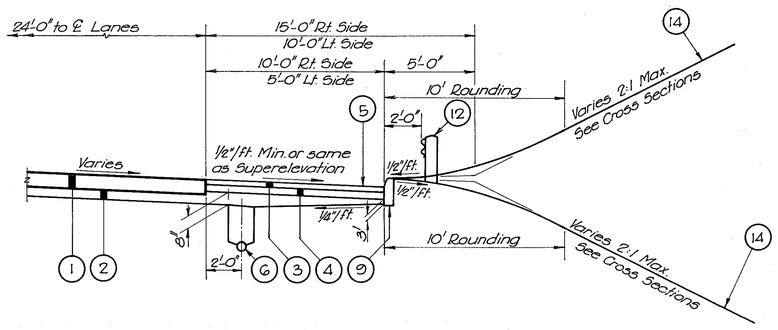


N.B. EXPRESSWAY Sta. 132+00 to Sta. 136+70.0

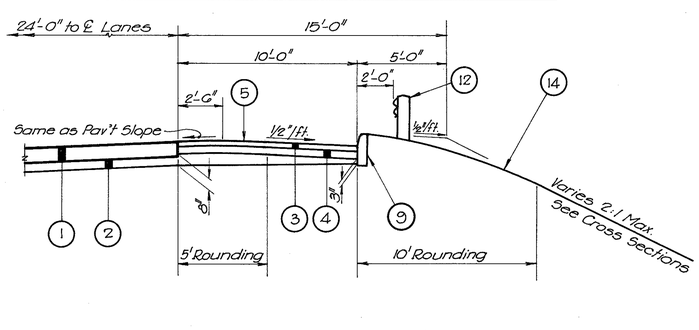


EXPRESSWAY S.B. LANES: Sta. 124+00.0 to Sta. 125+86.18
S.B. EXPRESSWAY..... Sta. 125+86.18 to Sta. 133+36.18*

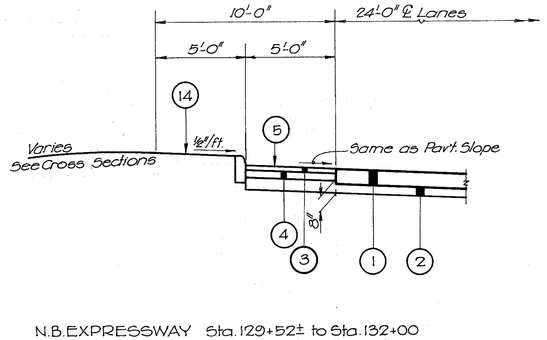
TYPICAL SECTIONS AT SPEED CHANGE LANES



Rt. Side	EXPRESSWAY: S.B. LANES	Sta. 103+25 to Sta. 109+50 ±
	EXPRESSWAY: N.B. LANES	Sta. 114+97.51 to Sta. 123+50±
	S.B. EXPRESSWAY.....	Sta. 154+29.6 to Sta. 156+00
	N.B. EXPRESSWAY.....	Sta. 156+00.0 to Sta. 157+00.0
(OH) Lt. Side	N.B. EXPRESSWAY.....	Sta. 161+58 ± to Sta. 162+78 ±
	S.B. EXPRESSWAY.....	Sta. 120+52 ± to Sta. 135+06 ±
	S.B. EXPRESSWAY.....	Sta. 143+50.0 to Sta. 146+00.0



S.B. EXPRESSWAY Sta. 153+75.0 to Sta. 154+29.62
S.B. EXPRESSWAY Sta. 133+25 to Sta. 133+90
N.B. EXPRESSWAY Sta. 153+50 to Sta. 156+00
N.B. EXPRESSWAY Sta. 173+50 to Sta. 176+40



N.B. EXPRESSWAY Sta. 129+52± to Sta. 132+00
S.B. EXPRESSWAY Sta. 162+10 ± to Sta. 163+29

EXPRESSWAY CURBED SECTIONS

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TYPICAL SECTIONS
TYPE T-71
SCALE 1/4"= 1'-0"

FED. RD. DIVISION	STATE	PROJECT	
2	OHIO		

HAM-25-1.63

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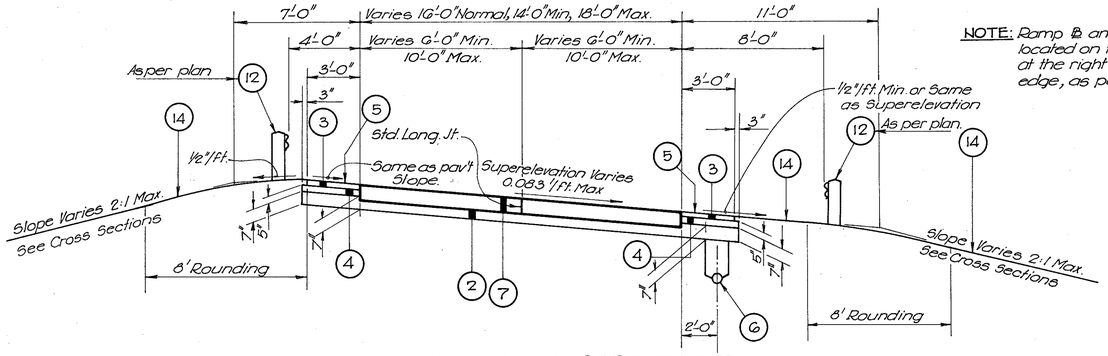
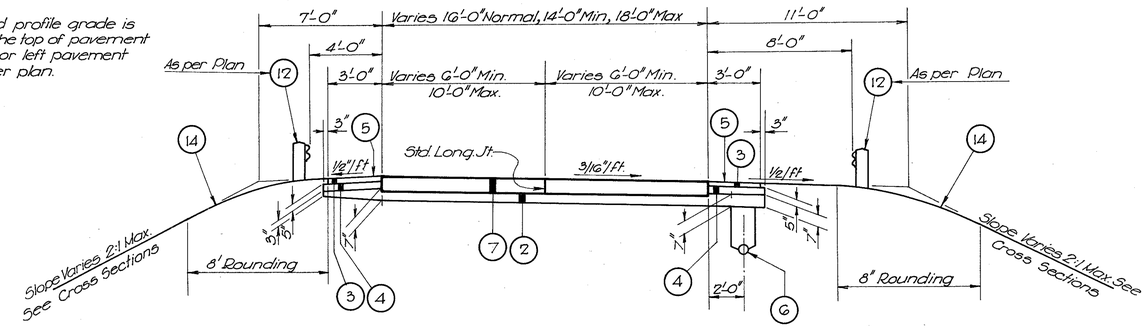


NOTE: Ramp B and profile grade is located on the top of pavement at the right or left pavement edge, as per plan.

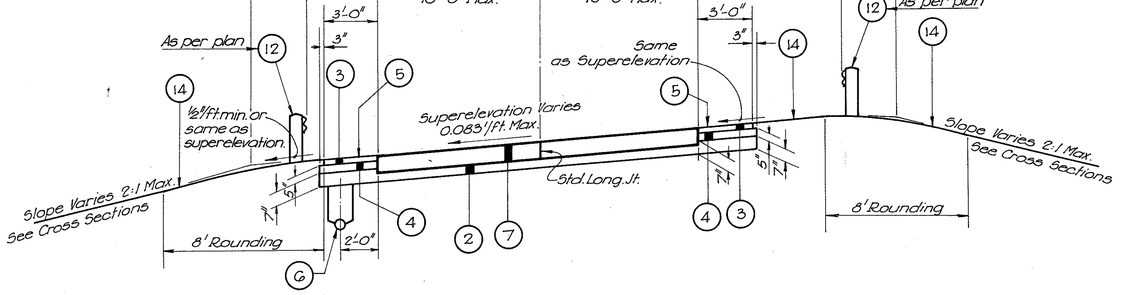
RAMP SECTION~ SUPERELEVATED

Ramp B : Sta. 2+50 to Sta. 3+00
Ramp C : Sta. 0+83.8 to Sta. 11+17.2**
Ramp D : Sta. 6+00 to Sta. 17+82.4***
Ramp E : Sta. 5+50 to Sta. 10+25 *
Ramp F : Sta. 5+25 to Sta. 9+66.2



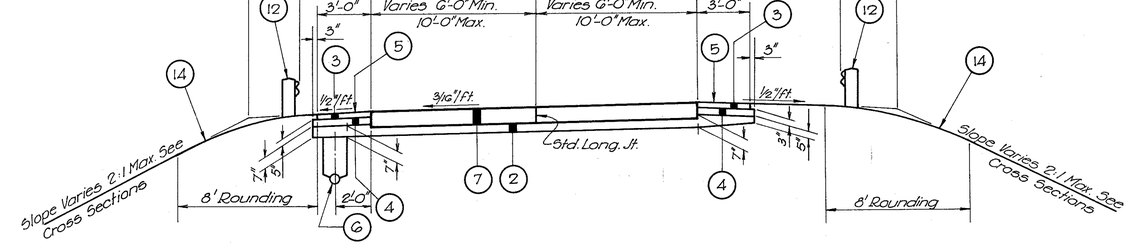
RAMP SECTION ~ NORMAL

Ramp B : Sta. 3+00 to Sta. 21+86.2***
Ramp E : Sta. 3+50 to Sta. 5+50
Ramp E : Sta. 10+25 to Sta. 10+76*
Ramp F : Sta. 3+00 to Sta. 5+25



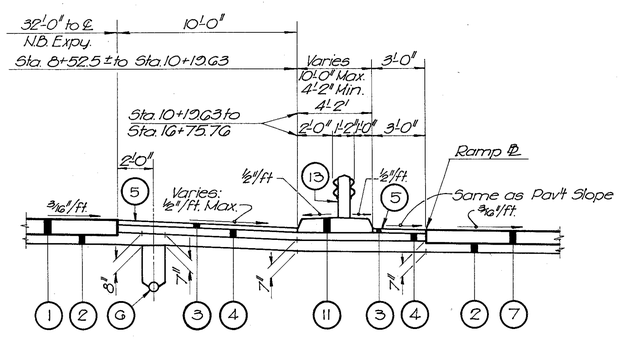
RAMP SECTION SUPERELEVATED

Ramp A: Sta. 5+25 to Sta. 8+20.4*
Ramp B: Sta. 2+00 to Sta. 2+50 *
Ramp D: Sta. 5+50 to Sta. 6+00

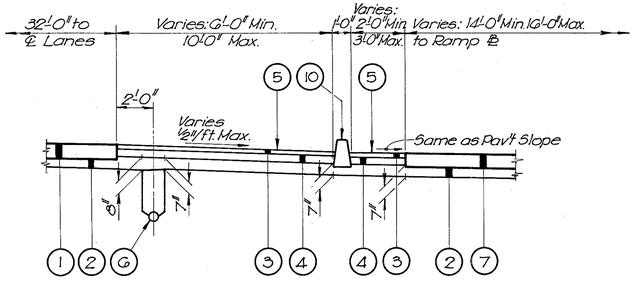


RAMP SECTION ~ NORMAL

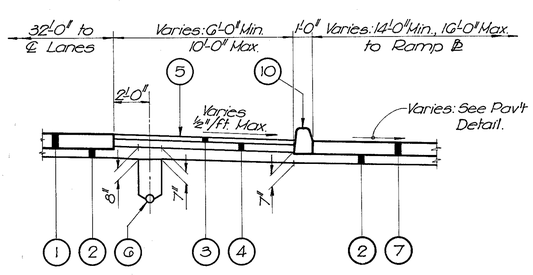
Ramp A : Sta. 2+83.8 to Sta. 5+25***
Ramp B : Sta. 1+01.9 to Sta. 2+00*
Ramp D : Sta. 3+10.1 to Sta. 5+50*



Ramp B : Sta. 8+52.5 to Sta. 16+75.76



Ramp B : Sta. 16+75.76 to Sta. 20+82.2
Ramp E : Sta. 8+24.8 to Sta. 9+24.8



Ramp B : Sta. 20+82.2 to Sta. 21+82.2
Ramp E : Sta. 9+24.8 to Sta. 10+24.8

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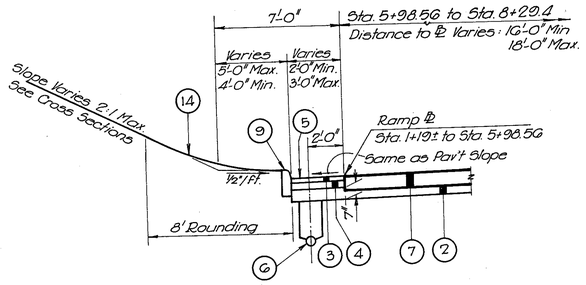
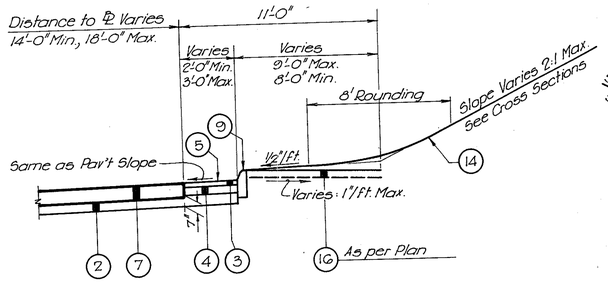
TYPICAL SECTIONS

TYPE T-71

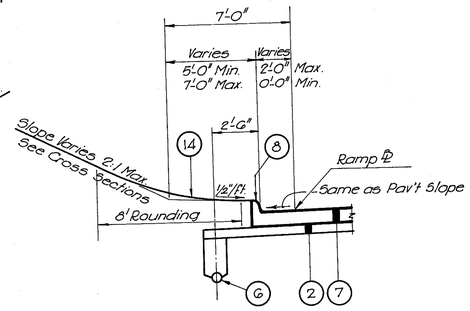
SCALE 1/4"= 1'-0"



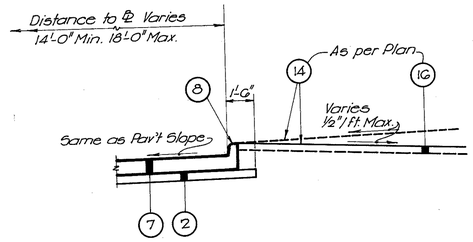
RAMP A Sta. 1+19± to Sta. 8+29.4



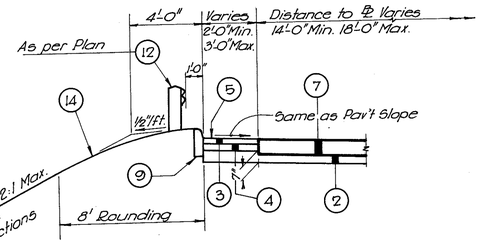
RAMP A - Sta. 3+83.8 to Sta. 4+83.8
RAMP B - Sta. 1+01.9 to Sta. 2+01.9
RAMP D - Sta. 3+10.1 to Sta. 4+10.1



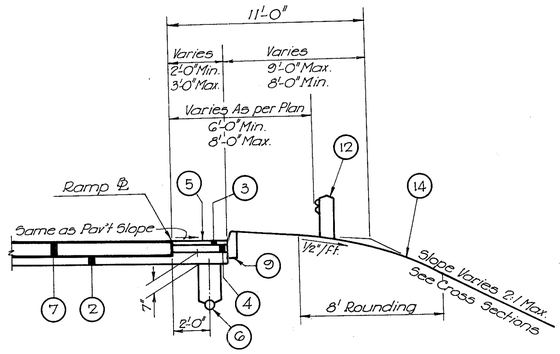
RAMP A - Sta. 0+00 to Sta. 1+19±
RAMP B - Sta. 0+50.3 to Sta. 1+01.9



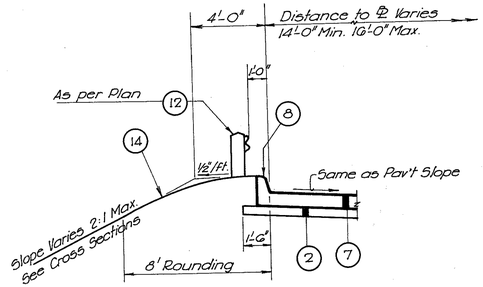
RAMP A - Sta. 2+83.8 to Sta. 3+83.8



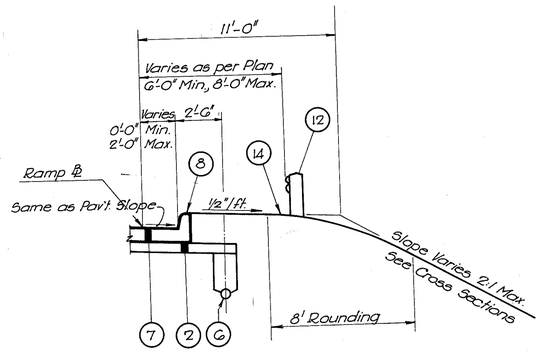
RAMP C - Sta. 0+83.8 to Sta. 1+83.8
RAMP C - Sta. 9+17.2 to Sta. 10+17.2
RAMP D - Sta. 15+82.4 to Sta. 16+72±
RAMP F - Sta. 8+08± to Sta. 9+66.2



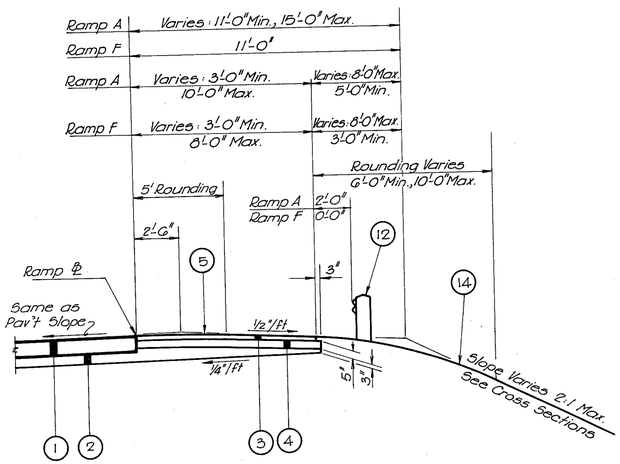
RAMP D - Sta. 15+82.4 to Sta. 16+10±



RAMP C - Sta. 10+17.2 to Sta. 11+17.2



RAMP D - Sta. 16+10± to Sta. 16+61±



RAMP A - Sta. 8+29.4 to Sta. 12+03.78
RAMP F - Sta. 9+66.2 to Sta. 14+00.18

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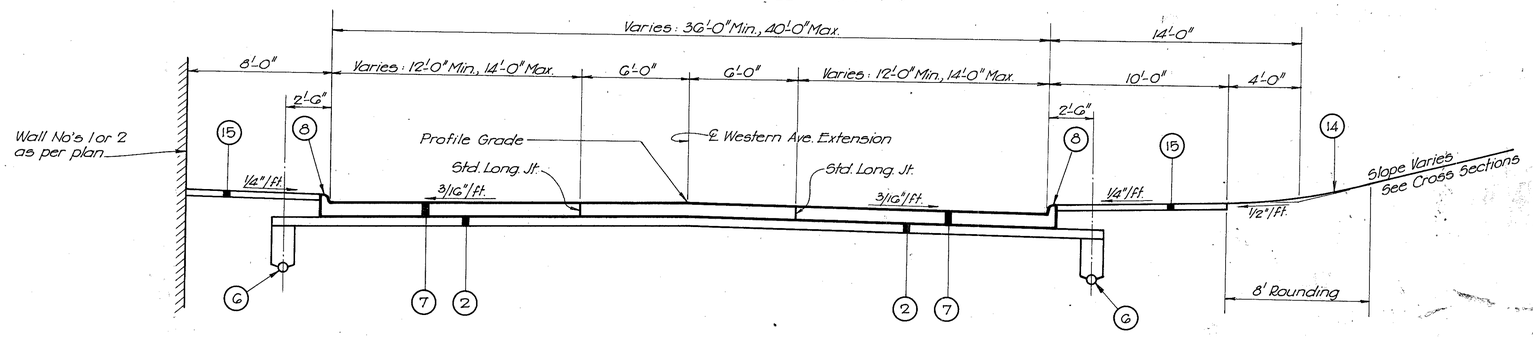
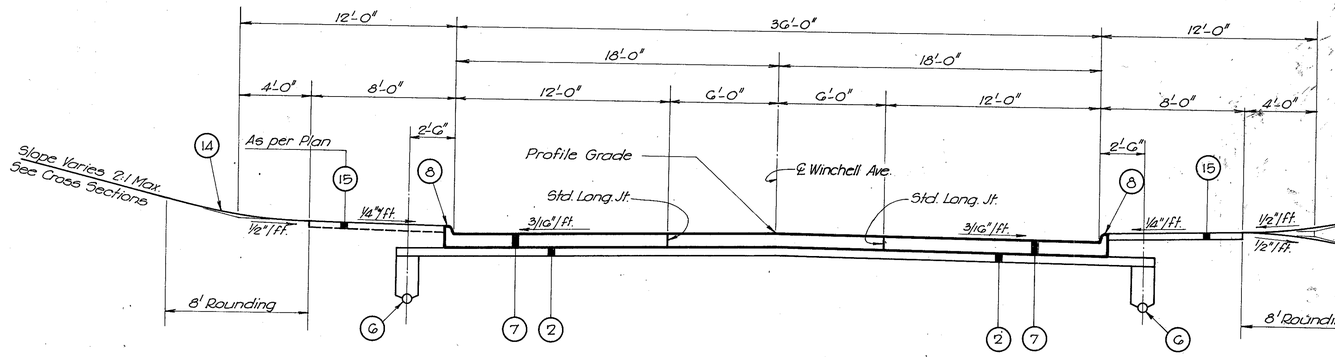
SCALE 1/4" = 1'-0"



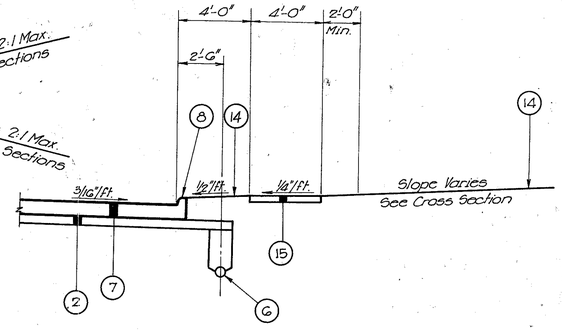
TYPICAL SECTION-WESTERN AVE. EXTENSION

Sta. 0+50 to Sta. 6+12

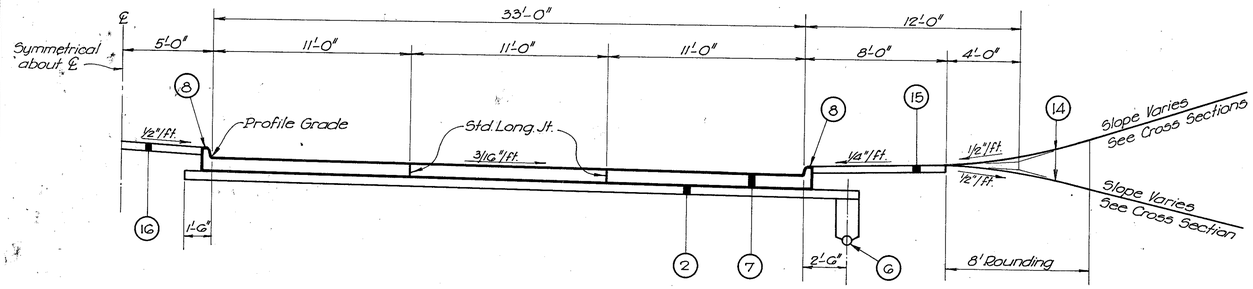


TYPICAL SECTION-WINCHELL AVE

Sta. 41+75 to Sta. 72+57.1 *

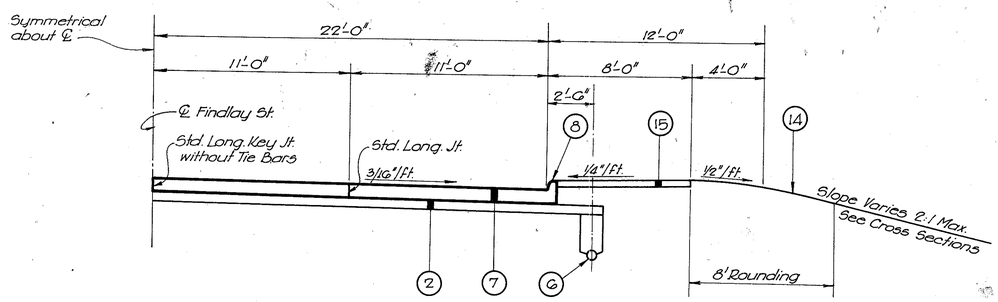


Winchell Ave. - Sta. 41+75 to Sta. 47+66.30



TYPICAL SECTION

Liberty St. Sta. 2+15.0 to Sta. 4+00.7
Bank St. Sta. 2+79.71 to Sta. 7+28.20



TYPICAL SECTION-FINDLAY ST.

Sta. 0+49.8 to Sta. 6+25.0

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TYPICAL SECTIONS

TYPE T-71

SCALE 1/4"=1'-0"

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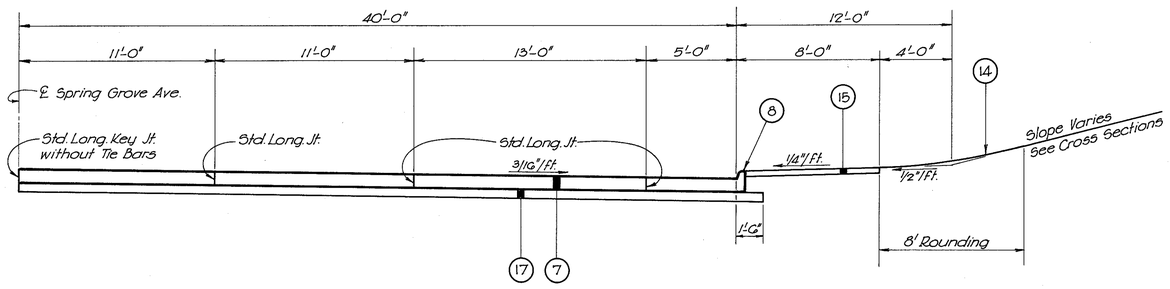
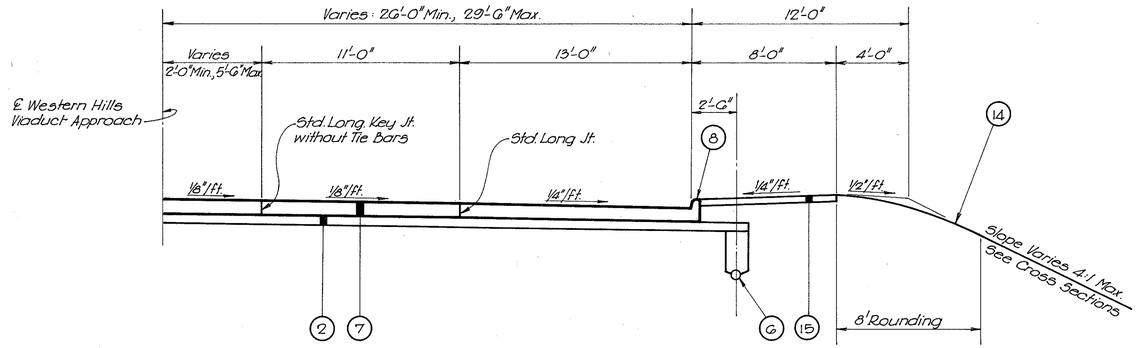


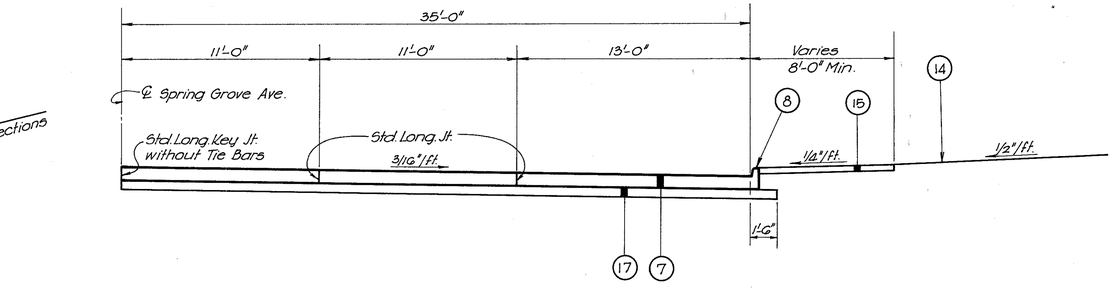
TYPICAL SECTION - SPRING GROVE AVE. N.B. LANES

Sta. 2+34.62 to Sta. 5+25



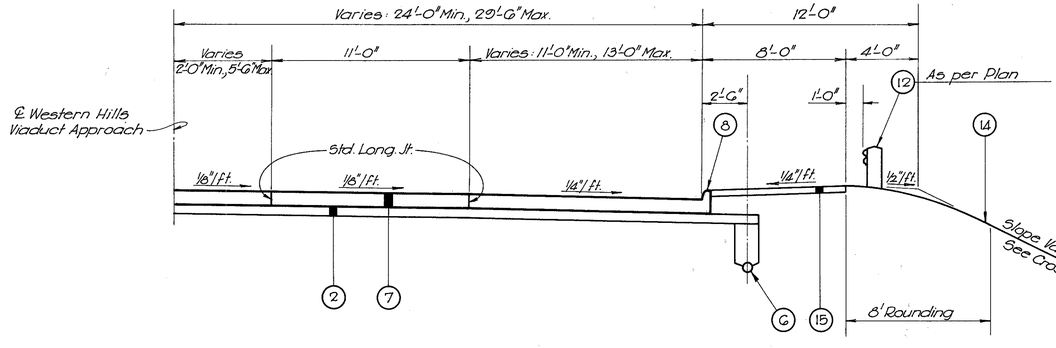
WESTERN HILLS VIADUCT APPROACH (East Bound)

Sta. 11+81.09 to Sta. 13+92.5±



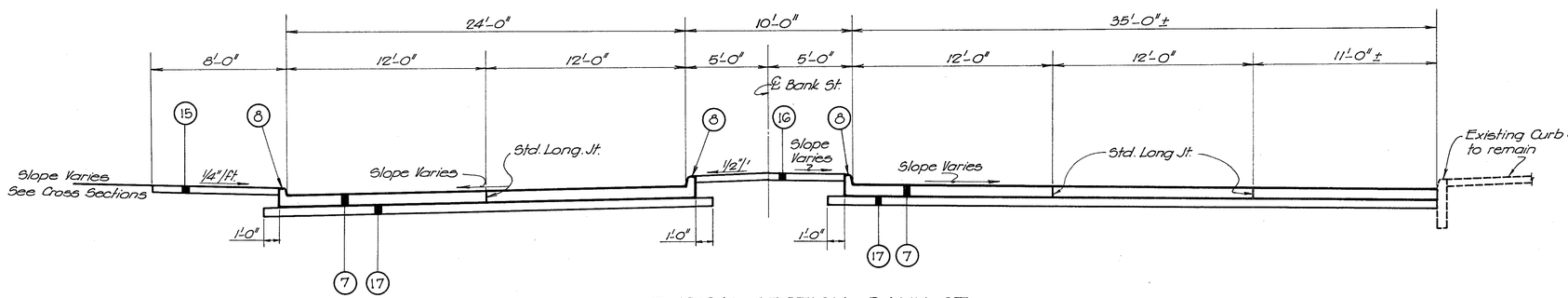
TYPICAL SECTION - SPRING GROVE AVE. S.B. LANES

Sta. 2+13.4 to Sta. 5+25



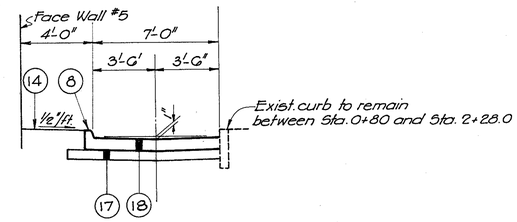
WESTERN HILLS VIADUCT APPROACH (West Bound)

Sta. 11+81.09 to Sta. 13+92.5±



TYPICAL SECTION - BANK ST.

Sta. 1+85.0 to Sta. 2+25±



HOLT ALLEY

Sta. 0+46.63 to Sta. 2+28.00

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MISCELLANEOUS

DESIGN SPEED

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

FIELD OFFICE

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

Contractor shall also install wiring and outlets suitable for connecting the electrical office equipment. He shall provide 110 volt alternating current during the construction of this project.

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 by this operation, including all structures which are 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.

R/W MONUMENTS, FEDERAL PROJECT MARKERS AND SECTION MARKERS

Existing R/W Monuments, Bench Marks, Federal Project Markers and Section Markers that will be removed by construction, shall be protected by the Contractor as per Section G-7.09 until they can be witnessed, referenced and reset by the Construction Crew.

ELEVATION DATUM

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

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 that they are essentially correct, but the State of Ohio makes no guarantees as to their accuracy or completeness.

ESTIMATED QUANTITIES

Specific locations and usage of estimated quantities set up in the plans 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.

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 the 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, castings, parking meters, street signs, street lighting standards and angle iron basement guard rail which are to be removed from their location and stock piled by the Contractor.

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

PARKING

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

CONSTRUCTION LAYOUT STAKES

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

MISCELLANEOUS

COOPERATION BETWEEN CONTRACTORS

The Contractor of this project is required to cooperate and coordinate his work with the Contractors of the overlapping projects to the north and south which are now under construction.

The Contractor of the project now under construction immediately to the south of this project is to place certain permanent embankment and do permanent drainage work on a portion of this project. He will also store excess excavation material in certain areas of this project, to be re-excavated and used in embankment. Construction to be performed by the other Contractors is shown on these plans as existing.

The Contractor for this project shall not perform any work in the areas of overlapping work being performed by the other Contractors prior to the completion and measurement of such work unless specifically permitted to do so in writing by the Director.

WATER WORKS ITEMS

Water works items are to be constructed in accordance with the provisions of the City of Cincinnati General Construction and Material Specifications for Highways 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 bids.

Copies of these specifications are on file at the office of the Administrator of Contract Sales of the State Highway Department and at the office of the City Engineer of Cincinnati, Ohio.

For the Water Works plans of this project see Sheets 413 - 449

ROADWAY

ROUNDING OF CORNERS ON CROSS SECTIONS

The rounded corners, shown on Standard Drawing R1-1, apply to all cross sections even though otherwise shown in these plans.

NON-RIGID PAVEMENT REMOVAL

The removal of non-rigid pavement is to be paid for under Item E-1, Roadway Excavation.

EMBANKMENT OVER EXISTING PAVEMENT OR SIDEWALK

When embankment is to be placed over an existing pavement or sidewalk, the existing pavement or sidewalk shall be removed if the fill is less than three feet. For fills over three feet in depth the existing pavement or sidewalk shall be broken in portions not to exceed one square foot in surface area. Where the pavement or sidewalk removal is not specifically paid for under a separate item the above removals and all operations necessary to conform to the above shall be included for payment in the unit price bid for Roadway Excavation, Item E-1.

ITEM S-24 REMOVAL OF EXISTING STRUCTURES

This item includes only the removal and disposal of the 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-10, I-1, E-2, E-3, I-2, I-8 or I-16 shall be considered miscellaneous removals as per Sec. E-1.03 (c) and shall be included for payment in the unit price bid for Roadway Excavation, Item E-1.

ITEM 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 Sec. I-22.02 except that, for either grading, no more than 10 percent of the material shall pass a No. 200 sieve.

L-9 COMMERCIAL FERTILIZER

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

ROADWAY

SEEDING AND PROTECTING FOR AREAS WITHIN LA R/W LINES

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)

SEEDING AND PROTECTING (FOR AREA OUTSIDE L.A. RIGHT OF WAY LINES)

Quantities for Seeding Item L-9 are calculated for the soil areas between lines ten (10') feet outside the work limits as shown on the Cross Sections or to the Right-of-Way line if such line is less than ten (10') feet from the work limits, and for all areas surrounded by Ramps or proposed pavement. 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 area shall be in accordance with the following:

40% Kentucky Bluegrass (Poa pratensis)
40% Illahee Fescue (Festuca Rubra var. Illahee)
15% Red Top (Agrostis alba)
5% White Clover (Trifolium repens)

AGRICULTURAL LIMING MATERIALS

Agricultural Liming Material, L-9.02 shall be applied to all seeded or sodded areas at the rate of 100 pounds per 1000 sq. ft., as per specifications.

FLARING GUARD RAIL AT BRIDGES

Guard Rail shall be flared to meet the bridge railing in such a manner that the change in alignment of the Guard Rail shall not exceed 1:10.

GUARD RAIL POST ANCHORS

At locations where pier footings interfere with installation of full length guard rail posts, short posts shall be provided and shall be anchored as shown on Std. Dwg. I-15 No. 6. Cost of providing and installing necessary anchors shall be included in the unit price bid per lineal foot for guard rail.

REMOVAL OF TREES AND STUMPS

All trees and stumps lying within the construction limits of this project shall be removed under the Lump Sum Bid for Removal of Trees and Stumps, Item E-9, unless work is indicated in these plans to preserve same.

The following is an approximate estimate of the number of trees and stumps to be removed.

Sizes	No. Trees	No. Stumps
12" - 18"	28	
18" - 24"	6	
24" - 30"	6	
30" - 36"	2	
Over 36"	3	

The above estimate is only approximate and the State of Ohio reserves the right to order the removal of additional trees or stumps outside of the limits of construction but within Right-of-Way lines. Payment for the removal of these additional trees or stumps is included in the Lump Sum Bid under Item E-9, Removal of Trees and Stumps. All trees and (or) stumps to be removed shall be marked as per the requirements of Sec. E-9.02 of the Construction and Material Specifications.

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ROADWAY

WEED CONTROL WITHIN CONSTRUCTION AREA

It shall be the responsibility of the Contractor to cut all pollen producing weeds 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 newly seeded and sodded areas free from pollen producing weeds at the time of the final inspection. Payment for the above described weed control shall be included in the contract price bid for the various items in this contract.

ITEM T-10 USING #2 SIZE AGGREGRATE AS PER PLAN

The weights to be used in calculating the yardage to be paid for under this item shall be the same as those indicated in the Construction and Material Specification for crusher - run or bank-run materials.

REMOVAL OF EXISTING SIDEWALKS AND DRIVES

Payment for the removal of existing sidewalk and drives is included in the price bid for Item E-1 Roadway Excavation.

Wherever the proposed concrete sidewalk adjoins or abuts an existing sidewalk the existing walk shall be sawed to a neat line as shown on the plans. Payment for sawing shall be included in the contract unit price bid per square foot for Item 1-13, Concrete Sidewalks.

GUARD RAIL REMOVAL

The removal of any Guard Rail or Guard Rail Posts lying within the limits of Roadway Excavation or Embankment (and not specifically paid for under separate item) is included in the Contract unit price bid for Item E 1, Roadway Excavation. All resulting materials shall become the property of the Contractor, and shall be disposed of by him at no extra cost to the State, except that the steel rail on all existing steel beam type or steel cable on steel cable type Guard Rails shall be stored on the Right-of-Way at the disposal of the State.

ITEM 1-15 GUARD RAIL

If the Contractor so elects, new guard rail used in temporary guard rails may, subject to the approval of the Engineer, be removed and rebuilt in place of new permanent guard rail called for on the plans. Rebuilt guard rail shall conform to the requirements of Item 1-15 except that removed posts meeting the approval of the Engineer may be reset in the new guard rail. Acceptable guard rail rebuilt as described above shall be measured and paid for at the contract unit price bid for Item 1-15 Guard Rail.

EMBANKMENT CONSTRUCTION - WESTERN HILLS VIADUCT - STA. 10+80 to 13+80

Embankment within these limits shall be constructed in strict compliance with the provisions of Section E-1.08. Work shall be suspended on the fill long enough to permit procurement of undisturbed samples by State Highway Testing Laboratory personnel when the fill has reached elevation 515 and again at elevations 530 and 545. The Engineer shall be notified sufficiently in advance of the fill reaching the above levels to allow him to notify the Chief Engineer, Bureau of Construction, Columbus, and to make arrangements for collecting the samples.

ROADWAY

CENTERLINE REFERENCE MONUMENTS

Monuments shall be constructed of Class "C" concrete-cast-in-place in a circular hole eight (8") inches in diameter and forty-four (44") inches in depth. Top of concrete shall be finished at a depth of two (2") inches below ground level and the upper six (6") inch portion of the concrete shall be formed. One-half (1/2") inch Brass Rods six (6") inches long shall be embedded in the wet concrete as directed by the Engineer to mark the Centerline and Station. For location, see Sheet No. 451

RIGHT-OF-WAY FENCE

Fence shall be Type "C". For location, see Right-of-Way Plans.

EXISTING WATER WELLS & FIRE CISTERNS

Dug wells & fire cisterns encountered within the work limits shall be filled with rock or granular material. The Cincinnati Fire Department shall be notified prior to the initiation of any work on fire cisterns. Drilled well casing shall be removed to an elevation approximately three (3') feet below finished grade and covered with a precase concrete slab or approved large rock. Prior to construction of embankment, the Contractor shall remove any masonry surrounding a well or cistern within three (3') feet of finished grade. Pumps and other appurtenances shall become the property of the Contractor and shall be disposed of by him. The cost of filling or capping of wells shall be included in the unit price bid per cubic yard of Roadway Excavation, Item E-1, for payment.

REPLACEMENT

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

PART WIDTH CONSTRUCTION FOR RIGID BASE OR PAVEMENT

Because of the necessity of building this project under traffic, part width construction methods on pavement, earthwork and structures will be allowed in the areas indicated in the "Maintenance of Traffic" note.

When pavement is to be poured part width, the Subgrade shall be built and compacted for minimum width of the proposed pour plus eight (8') feet (four feet on each side). The Subbase shall be placed and compacted for a minimum width of the proposed pour plus four (4') feet (two feet on each side). Temporary slopes shall not be steeper than 1 1/2 to 1. Adjoining earthwork and pavement shall be built and the section completed immediately after traffic is routed over the part width construction allowed by this note.

EXPANSION AND CONTRACTION JOINTS

Where transverse joints are located closer than ten (10') feet to the regular blockout joints around catch basins, the blockout joints shall be continued to the transverse joints. Similarly where longitudinal joints are located closer than two (2') feet to the regular blockout joints around catch basins, the blockout joints shall be continued to the longitudinal joints.

Although specific location of certain expansion and contraction joints have been detailed in these plans, no waiver of the Specifications is intended. Standard expansion joints shall be provided at the major structures and the maximum spacing between contraction joints shall in all cases be in accordance with Standard Drawing T J.

CURB TRANSITIONS ADJACENT TO APPROACH SLABS

The height and face of curbs on approach pavement shall be transitioned from the standard section used on approach pavement to the section used on the approach slab and bridge curbing within the last twenty feet (20') of approach pavement.

REMOVAL OF BASEMENT FILLS

Some of the basements in the project area have been filled in a temporary manner that will not meet the requirements of roadway embankment. The Contractor shall remove these basement fills as directed by the Engineer. A quantity of Roadway Excavation Item E-1 and embankment for back-filling these basements has been included in the earthwork calculations.

ROADWAY

LIGHTS, SIGNS AND BARRICADES

The Contractor shall in addition to the general requirements of Sec. G-7.07 on this project perform the following:

Provide, erect and maintain movable gates on intersecting roads closed to traffic at all points where local traffic movement terminates. Provide, erect and maintain lights, signs and barricades at the work limits on all intersection roads which remain open to traffic.

Provide, erect and maintain standard "Road Closed" signs, sign supports and lights at the following locations during periods in which the affected roads are closed to traffic:

Wade St. - east of Faulkner St.
Wilstach St. - east of Faulkner St.
Faulkner St. - north of Wilstach St.
Liberty St. - east of Denman St.
Freeman Ave - south of Findlay St.
York St. - west of Colerain Ave.

Lights, barricades and danger and warning signs shall be provided at locations shown above in accordance with Sec. G-7.07. Barricades and gates shall be as detailed on Standard Construction Drawing No. G-7.07. "Road Closed" signs shall be 40" x 24" size, and sign supports and lights shall be as detailed in the Ohio Manual of Uniform Traffic Control Devices.

Payment for providing, erecting, maintaining and removing barricades, lights and signs is included in the lump sum bid for "Maintaining Traffic".

DRAINAGE

HORIZONTAL DRAINS

A quantity of "Item Special, Horizontal Drains" and of "Item Special, Drilling Holes for Horizontal Drains" has been provided to drain water bearing strata in cut sections at locations specified by and under the direction of the Engineer. Outlet treatment shall be in accordance with the "Outlet Detail for 2 inch Perforated Galvanized Subdrain" shown on Sheet No 256. This item shall be non-performed if not required by the Engineer.

The following items and quantities are included in the General Summary for this work:

Item Special	2" Horizontal Drains	500 Lin. Ft.
Item Special	Drilling Holes for Horizontal Drains	1000 Lin. Ft.
Item L-10	Sodding	50 Sq. Yd.

CONTINGENT ITEMS

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:

300' - 6" 1-1 Pipe: Class B-1
150' - 8" 1-1 Pipe: Class B-1
100' - 12" 1-1 Pipe: Class B-1
5 ea. - 6" 1-5 Pipe Specials for Pipe: Class B-1
3 ea. - 8" 1-5 Pipe Specials for Pipe: Class B-1
2 ea. - 12" 1-5 Pipe Specials for Pipe: Class B-1

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DRAINAGE

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 Item I-1, Pipe.

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.

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 the pertinent Pipe Item.

CONNECTION TO EXISTING MANHOLES OR INLETS

Payment for connecting proposed sewers to existing manholes or inlets shall be included in the contract unit price bid per linear foot for Item I-1, Pipe.

UNRECORDED CONNECTIONS

Any unrecorded active connections to the sewer through existing catch basins or manholes to be removed or abandoned 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 for Item I-1, Pipe.

TOP ELEVATIONS - MANHOLES & CATCH BASINS

Top elevations of manholes, catch basins and inlets have been shown to tenths of a foot only to permit adjustment to the pavement, gutter or ditch as finally constructed.

DRAINAGE

SEWER HOUSE DRAINS

EXISTING HOUSE DRAINS. All existing house drains, which includes 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 included in the contract unit price bid per linear foot for Item I-1, Pipe and the contract unit price bid per each, for Item I-5 Pipe Specials. 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 above.

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.

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 exisiting 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 sewer items.

ITEM I-1 CAST IRON PIPE CLASS B-1

Where called for in these plans this item shall be constructed in accordance with Item S-5 Cast Iron Storm Sewers of the City of Cincinnati Dep't of Public Works General Construction and Material Specifications for Highways and Sewers

DISPOSAL OF CASTINGS

Castings of inlets which are to be abandoned or removed shall be removed and stored on the right of way at the disposal of the City of Cincinnati Maintenance Forces. Castings of manholes which are to be abandoned or removed shall be stored and accounted for by the Contractor for use on the manholes that are to be adjusted to grade. Castings of manholes which are to be adjusted to grade shall be similarly stored and accounted for by the Contractor. Surplus manhole castings shall be stored on the right of way at the disposal of the City of Cincinnati Maintenance Forces 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.

DRAINAGE

TILE FOR SUBGRADE DRAINAGE

6" Drain Tile, Sections 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 the price bid per "Each" for manholes, catch basins and inlets.

PIPE CUT-OFFS

When bell 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. The cost of the joint and collar shall be included in the Contract Unit Price bid for the pertinent pipe item.

For collar detail see Sheet No. 254

PLUGGING PIPE ENDS

Both ends of all pipe lines or tile lines intercepted by earthwork operations shall be effectively blocked and covered. 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" made of concrete, flat stone 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 E-1, Roadway Excavation.

REMOVAL OF EXISTING HOUSE DRAINS

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

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 centerline of the water main. Payment for this work shall be included in the unit price bid for the pertinent pipe item.

SPECIAL DITCHES

For special ditch grades, see Cross Sections.

ITEM L-10 SODDING, I-10 DUMPED ROCK CHANNEL PROTECTION

These items are provided on the plans for erosion control. The Engineer shall check and make adjustment in the location and quantities for these items where indicated by field conditions during construction. Should rock of a stable nature be encountered at flow line of any of these items, they may be non-performed.

PLACING SOD IN DITCHES

Sodding, unless otherwise indicated on the plans, shall be placed in accordance with the Ditch Sodding Detail shown on Sheet No. 251

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LIGHTING & SIGNING

SCOPE

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 foundations, foundations for securing the standards, pull boxes, ballasts, lamp current transformers, conduits, cables, cable supports and wires and necessary accessories all ready to function and in accordance with the plans and specifications.

Lighting and sign circuits shall be supplied with electrical energy by the Cincinnati Gas and Electric Co. Switches, contactors, photo electric control devices, and other necessary appurtenances as required to control power to the lighting and sign circuits shall be installed as shown on the plans. Along the roadway, lamp ballasts shall be installed in pull boxes adjacent to the standards or as shown on the plans.

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. This shall include the installation of various sign support brackets, switch boxes, foundations, pull boxes, conduits, cables, cable supports and wires and necessary accessories capable of supporting the desired sign loads and furnishing power to the switch boxes at each sign support in accordance with the plans and specifications.

CABLE #8 AWG (SERIES CIRCUITS PRIMARY)

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 non-grounded circuits of 5000 Volts.

B. INSULATION

The insulation shall be 10/64" thick and be low water-absorptive synthetic rubber compound designed to combine outstanding resistance to heat, oxidation, and ozone with the greatest possible stability of properties during long periods of exposure to water.

C. JACKET

The jacket shall be durable vulcanized neoprene compound suitable for outside covering or sheath on insulated electrical cables for heavy duty direct burial service and not less than 4/64" thick. Cable jacket shall be embossed or color coded so that cable identification may be rapid and positive when two cables occupy the same trench or conduit.

CABLE (SERIES CIRCUITS SECONDARY)

The secondary cable between ballast and the luminaire shall be #12 AWG stranded copper wire insulated for 600 volt service and covered with a neoprene compound jacket.

CABLE (MULTIPLE CURCUITS)

In general the cable shall meet applicable specifications of IPCEA, NEMA and ASTM for direct burial service.

Cable for the 120/240 volt portions of these circuits shall be #2, 4, 6 or 8, as indicated on the plans, stranded copper wire insulated for 600 volt service. Cables shall be color coded for identification and color coding shall be continuous throughout the length of each circuit.

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 may injure cable insulation.

Cable shall be installed with slack and be a minimum of 18" deep. In no case shall cable be pulled into trench from a reel.

In areas where 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 handholes.

When cables are run parallel with the roadway from standard to standard no markers are necessary. However, when a cable run is not parallel with the roadway, concrete markers or pull boxes shall be installed at points of departure. Concrete markers, when required, shall be of 6" hexagonal cross section and 36" long and buried 24" ± deep and shall not be over 100' apart. Arrows shall be inscribed on each marker to indicate the route of the cable.

PAINTING

All lamp standards, bracket arms, sign standards, and sign supports, except those constructed of aluminum, shall be hot galvanized after fabrication, then etched and provided with ground coat before delivery. After erection the contractor shall paint the above structures with two (2) coats of aluminum enamel, conforming to Sec. M-9.12.

Relay and switch boxes shall be cast metal or stainless steel, suitable for outdoor mounting.

Exposed anchor bolts and anchoring nuts shall be cadmium plated and painted with one coat of red lead before lamp and sign standards are erected.

SUBSTITUTIONS

In general, materials and equipment are called for on the drawings with reference to a manufactured item or equal. For substitutions for specified materials see paragraph S-25.16 of State Highway Specifications. All applications for substitutions must be accompanied by a catalogue cut, drawing or other suitable descriptive material which fully identifies the material to be substituted.

METHOD OF MEASUREMENT

Cable length shall be considered as the length from center to center of the pull boxes and from top of the ballast to lamp plus an additional ten (10) percent for slack, waste and installation requirements. Direct burial cable items shall include trench excavation and backfill and route markers.

Conduit length shall be considered as the length from center to center of the pull boxes and shall include the concrete encasement.

BASIS OF PAYMENT

The various items listed in the summary shall be paid for at the unit price bid per linear foot or per item as 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 the pertinent item to which they apply.

TESTS

The contractor shall furnish all necessary test equipment and appliances for testing the underground cable circuits after installation.

The contractor shall test and demonstrate to the satisfaction of the operating division engineer the following:

a. That all lighting, power and control circuits are continuous and free from short circuits, and unspecified grounds
b. That the resistance to ground of all non-grounded series circuits is not less than 10 megohms.
c. That the resistance to ground of all non-grounded conductors of multiple circuits is not less than 10 megohms.
d. That all circuits are connected in accordance with applicable wiring diagrams.
e. 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 test period of not less than one-half hour.

BALLASTS FOR SERIES CIRCUITS

All ballasts shall have an Epoxy coating to provide protection against severe corrosion or water and saline conditions. The Epoxy coating shall be applied uniformly to provide a minimum thickness of ten (10) mils. The coating shall provide a finish which will be smooth, hard and abrasive resistant. It shall be able to withstand a salt fog test in accordance with ASTM-B 117, But for a minimum of 2000 hours without indication of corrosion or deterioration of coating.
All ballasts shall be equipped with moulded rubber connectors on primary leads. Primary current shall be G.E.A. Ballast shall be similar to Jefferson Elec. 400 W. ballast, catalogue #340-703-007 or equal and equipped with molded Joy connectors on primary leads. One additional male & one additional female Joy connector with an 18" pigtail of 5 KV. #8 street lighting cable shall be supplied for connection to the 5 KV. street lighting circuit.

ELECTRICAL GROUNDS FOR STRUCTURES

A stranded No.0 gage bare copper wire electrical ground shall be embedded in the outside footing and column on each side of the structure at the fixed pier. The lower ends of the wires shall be brazed to the top of a pile or where piles are not required, it shall terminate in a 25 ft. length of coiled wire under the footing and separated from the concrete by two layers of tar paper. The upper ends of the wires shall extend sufficiently above the top of pier cap to provide for a suitable connection to the superstructure.

For structures on Ramps E and F and for Bridge No. HAM-25-0261 only one #0 bare copper wire shall be embedded in the fixed pier. (See structure details) For grounding of standards on Western Hills Viaduct (Lower deck sect. 2) see structure details.

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TRAFFIC

TRAFFIC

Traffic on existing Route 25 will not be disturbed by the construction of this project.

The construction schedule and requirements for maintaining traffic are intended to provide minimum inconvenience to traffic during the construction of this project. The construction schedule where shown indicates the order in which various phases of work shall be undertaken and completed. Some of the operations can be carried on simultaneously and every effort shall be made to complete the project at the earliest possible date. Any modifications of the construction schedule or the requirements for maintaining traffic must be approved by the city manager of the City of Cincinnati and the Director in writing.

The contractor shall restrict his earth moving operations to within the Right-of-Way Lines except for the acquiring of borrow.

On all streets, temporary detours, and run-arounds on which through traffic is to be maintained, no interruption in traffic will be permitted by the contractors earth moving operations during the hours of 7AM to 9 AM and 3 PM to 6 PM. At all other times the contractor will conduct his operations in such a manner as to limit the interruption of traffic to 1 minute in every 4 minutes. Payment for providing flagmen and/or a signal system to provide this control shall be included in the Lump Sum bid for Maintaining Traffic.

The contractor shall be permitted only one crossing point for his earth moving operations at each existing street, temporary detour or run-around on which traffic is to be maintained. It shall be the contractors responsibility to maintain the crossing points in a neat and safe condition.

The contractor shall maintain the existing pavement within the limits of the work by making necessary repairs with bituminous material and shall construct temporary pavement where required and as directed by the Engineer for the purpose of maintaining traffic. Temporary pavement shall be constructed of Item T-35 and B-19. An estimated amount of Asphaltic Concrete Surface Course Item T-35 and Aggregate Base Course Item B-19 have been included in the General Summary for this purpose.

Traffic compacted surface course, Item T-10, and calcium chloride, Item M-10, shall be applied on temporary roadways, construction access roadways, haulroads and any other portions of the construction area as directed and in the amounts requested by the Engineer. (See General Summary of Quantities.) The hardness and soundness requirements of the Specifications shall be waived on all of the T-10 materials used for Maintenance of Traffic.

Payment for all the above, including construction, temporary drainage, maintenance, and subsequent removal, where required, of temporary roadways, except Traffic Compacted Surface Course Item T-10, Calcium Chloride Item M-10, Asphaltic Concrete Item T-35, Temp. Runaround, Item S-15, and Aggregate Base Course Item B-19, shall be included in the Lump Sum bid for Maintaining Traffic.

In addition to the above, Section G-4.05, Maintenance of Local Traffic, and Section G-7.07, Barricades, Danger and Warning Signs, shall be in force during the entire life of the contract.

CONSTRUCTION SCHEDULE

The construction schedules shown elsewhere in these notes are for maintaining traffic of specific locations. In order to minimize the interference to traffic throughout the construction area, the contractor shall give priority in his overall schedule to complete the following as quickly as possible.

1. Complete and open to traffic Bank Street and Spring Grove Avenue.
2. Complete and open to traffic the Western Avenue Extension.
3. Complete and open to traffic the northbound and southbound through lanes of the expressway pavement from beginning of the project to the end of project.

TRAFFIC

FREEMAN AVENUE - WESTERN AVENUE

In the area of the proposed Western Avenue Extension from Wade Street to Liberty Street, two way traffic in a north-south direction shall be maintained on 36 feet of existing, proposed or temporary pavement.

LIBERTY STREET

Two way traffic shall be maintained from east of Dudley Street to the Western Avenue Extension on a minimum of 30 feet of existing, proposed or temporary pavement. Liberty Street west of the Western Avenue Extension may be closed to traffic during the construction of this intersection. The contractor shall complete his work at this intersection as rapidly as possible. The detour for Liberty Street traffic west of the Western Avenue Extension shall be as follows: West on Liberty Street to Western Avenue, north to Sherman Avenue, west to Dalton Avenue, then south to Liberty Street.

WILSTACH STREET and WADE STREET (west of Freeman Avenue)

These streets may be closed to traffic during construction of their intersections with the Western Avenue Extension. Traffic shall be detoured to Freeman Avenue by way of Denman Street and Flint Street.

CONSTRUCTION SCHEDULE

WESTERN AVENUE EXTENSION AND LIBERTY STREET AREA

1. Construct the Western Avenue Extension including west side intersections at Liberty Street, Wilstach Street and Wade Street.
2. Provide temporary pavement as necessary to connect existing Liberty Street from the east, with the Western Avenue Extension.
3. Construct Wall #1.
4. Begin construction of piers for structure over Liberty Street.
5. Construct eastbound lanes of Liberty Street while maintaining traffic on existing Liberty Street pavement.
6. Route traffic to the eastbound lanes at Dudley Street and construct the westbound lanes of Liberty Street.
7. Complete structure while maintaining two way traffic on Liberty Street on either the eastbound or westbound lanes during the erection of structural steel, and complete all other work in this area.

FINDLAY STREET

Two way traffic shall be maintained at all times on a minimum of 22 feet of existing or proposed pavement. The contractor will be permitted to close Findlay Street to traffic for one week end from midnight Friday to 5 AM Monday for the purpose of erecting structural steel. The week end selected shall be coordinated with the City of Cincinnati and the City shall be given two weeks' advance notice of the closing.

TRAFFIC

CONSTRUCTION SCHEDULE

FINDLAY STREET

1. Construct pier No. 2 of the structure over Findlay Street.
2. Construct the westbound lanes from Western Avenue to the Northbound Service Road and full width pavement from the Northbound Service Road to Freeman Avenue, while maintaining traffic on the existing pavement.
3. Route traffic to the proposed westbound lanes and construct pier No. 1 and the eastbound lanes from Western Avenue to the Northbound Service Road.

BANK STREET

Two way traffic shall be maintained on a minimum of 24 feet of existing or proposed pavement, except that during the construction of the eastbound lanes between Sta. 6+60 and Sta. 7+75 two way traffic may be restricted to one lane operation on a minimum of 15' of pavement. The contractor shall complete his work in this area as rapidly as possible in order to minimize the inconvenience to traffic at this point.

SPRING GROVE AVE. - McLEAN ST. - WESTERN AVE.

Two way north-south traffic on these streets shall be maintained on a minimum of 40 feet of existing or proposed pavement, except that during the construction of the proposed pavement on Western Avenue south of Bank Street two way traffic may be restricted to 20 feet of pavement. The contractor shall complete his work in this area as rapidly as possible in order to minimize the inconvenience to traffic at this point.

CONSTRUCTION SCHEDULE

BANK STREET AREA

1. Construct the westbound lanes of Bank Street from Sta. 2+79.71 to Sta. 7+30.20, the right turn lane from Bank Street to Spring Grove Avenue, the northbound lanes of Spring Grove Avenue from Sta. 1+33.12 to Sta. 5+25, and the southbound lanes of Spring Grove Avenue from Sta. 1+33.12 to Sta. 4+50. During this work north-south traffic shall be maintained on the existing pavement of Spring Grove Avenue, McLean Street and Western Avenue. East-west traffic shall be maintained on the existing pavement of Bank Street.
2. Construct the eastbound lanes of Bank Street from Sta. 6+60 to Sta. 7+75.
3. Construct the eastbound lanes of Bank Street from Sta. 2+79.71 to Sta. 6+60 while maintaining traffic over the proposed westbound lanes and the right turn lane to Spring Grove Avenue.
4. Construct proposed pavement west of the Spring Grove Avenue base line between Sta. 0+00 and Sta. 1+33.12 while maintaining north-south traffic on 20 feet of the existing pavement of Western Avenue in this area. The contractor shall complete this work as rapidly as possible to minimize the inconvenience to traffic at this point.
5. Construct the westbound lanes of Bank Street from Sta. 0+75± to Sta. 2+45± after routing north-south traffic from the existing pavement of Western Avenue and McLean Street to the proposed northbound lanes of Spring Grove Avenue.
6. Construct the southbound lanes of Spring Grove Avenue from Sta. 4+50 to Sta. 5+55.
7. Complete all other pavement work in this area.
8. Complete structure over Bank Street while maintaining two way traffic on either the eastbound or westbound lanes during the erection of structural steel.

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HARRISON AVENUE

Harrison Avenue shall remain open to traffic for the full width of existing pavement except during the erection of structural steel. For this purpose the contractor will be permitted to close Harrison Avenue to traffic for one week end for each structure from 1:30 AM Saturday to 4 AM Monday. The week ends selected shall be coordinated with the City of Cincinnati and the City shall be given two weeks' advance notice of the closing. The closing of Harrison Avenue will not be permitted until the proposed pavement on existing Winchell Street, Bank Street pavement, the right turn lane from Bank Street to Spring Grove Avenue, and Spring Grove Avenue pavement are complete and open to traffic.

During the erection of structural steel traffic shall be detoured from Harrison Avenue to south on Winchell Street to west on Bank Street, to north on Spring Grove Avenue.

SPRING GROVE AVENUE (between Harrison Avenue and Queen City Avenue)

This street shall remain open to traffic for the full width of existing pavement except as follows:

1. The most westerly 10 foot lane may be closed to traffic during the erection of structural steel for the west end spans of Ramp E and Ramp F structures over Spring Grove Avenue.
2. The most easterly 10 foot lane may be closed to traffic during the erection of structural steel for the east end spans of Ramp E and Ramp F structures over Spring Grove Avenue.
3. The street may be closed to traffic, south of the Western Hills Viaduct, for one period on Sunday from 5 AM to 12 Noon for the erection of structural steel for the center span of the Ramp E structure.
4. The street may be closed to traffic, north of the Western Hills Viaduct, for one period on Sunday from 5 AM to 12 Noon for the erection of structural steel for the center span of the Ramp F structure.
5. While the temporary run-around bridge is in place and during the construction of the foundation for Bent #4, two lanes for northbound traffic shall be maintained on the most easterly 24 feet of existing pavement and two lanes for southbound traffic shall be maintained on the most westerly 24 feet of existing pavement.
6. For the purpose of erecting and removing Bent #4 of the temporary run-around bridge the contractor may restrict two way traffic to the most westerly 24 feet of existing pavement for one week end each, from 1:30 AM Saturday to 4:00 AM Monday.
7. For the purpose of erecting and removing structural steel on the spans of the run-around bridge over Spring Grove Avenue the contractor may restrict two way traffic to 24 feet of existing pavement for one week end each from 1:30 AM Saturday to 4:00 AM Monday. The most easterly 24 feet shall be maintained during the erection and removal of the structural steel between Bent #3 and Bent #4. The most westerly 24 feet shall be maintained during the erection and removal of the structural steel between Bent #4 and Bent #5.

The period selected for closing Spring Grove Avenue shall be coordinated with the City of Cincinnati and the City shall be given two weeks' advance notice of the closing.

TRAFFIC

WESTERN HILLS VIADUCT (lower deck)

Two way traffic shall be maintained on a minimum of 24 feet of pavement except as follows:

1. The lower deck may be closed to traffic for short periods on week ends only from 1:30 AM Saturday to 4 AM Monday, during the erection of falsework bents. The week ends selected and the time of closing shall be coordinated with the City of Cincinnati and the City shall be given two weeks' advance notice of each closing.
2. The resurfacing of the lower deck shall be constructed under traffic. Between the hours of 10 AM and 3 PM two way traffic may be restricted to one lane operation on a minimum of 15 feet of pavement.

WESTERN HILLS VIADUCT (upper deck)

Two way traffic shall be maintained at all times on a minimum of 40 feet of existing pavement, proposed pavement, or temporary run-around bridge and approaches, except as follows:

1. The upper deck may be closed to traffic for short periods during the erection and removal of falsework bents, and the removal of the existing columns supporting the upper deck. These periods of closing will coincide with the restrictions as noted on the lower deck.
2. During the placing and removal of the temporary resurfacing at the intersection of the upper deck and the temporary run-around bridge, two way traffic shall be maintained on a minimum of 24 feet of pavement. The contractor shall complete this work as rapidly as possible to minimize the inconvenience to traffic at this point.

CENTRAL PARKWAY

No interruption to traffic on Central Parkway will be permitted by the contractor's operations except for the construction at the intersection of the Western Hills Viaduct approach and Central Parkway and at the intersection of the Western Hills Viaduct temporary run-around road and Central Parkway. For this purpose the most westerly 10 foot lane may be closed between the hours of 10 AM and 3 PM.

CONSTRUCTION SCHEDULE

WESTERN HILLS VIADUCT AREA

1. The following work may be performed simultaneously:
   a. Ramp E and Ramp F Connections to the lower deck of the viaduct.
   b. The Ramp F structure over Spring Grove Avenue.
   c. The Temporary Run-around Bridge and Approaches between the upper deck of the viaduct and Central Parkway.
2. Remove existing viaduct east of Spring Grove Avenue after routing traffic to the Temporary Run-around Bridge and Approaches.
3. Construct proposed Western Hills Viaduct and proposed pavement from the west end of the proposed structure to Central Parkway.
4. Route traffic to the proposed Western Hills Viaduct and remove the Temporary Run-around Bridge and Approaches.
5. Construct Ramp E structure over Spring Grove Avenue and complete all other work in this area.

TRAFFIC

TEMPORARY CONNECTION AT FLINT STREET (constructed under HAM-25-0.83)

The temporary pavement between Freeman Avenue and Dudley Street at Sta. 94+00 shall remain open to traffic for its full width until all expressway pavement is complete and open to traffic.

TEMPORARY CONNECTION AT MARSHALL AVENUE (constructed under HAM-25-2.99)

The temporary pavement between the Expressway and Central Parkway shall remain open to traffic for its full width until all expressway pavement on this project is complete and open to traffic.

MILL CREEK EXPRESSWAY

During the construction of project work and the removal of existing pavement in the area of the existing temporary connections of Flint Street and Marshall Avenue, the contractor shall maintain traffic on a minimum of 36 feet of width for traffic in each direction on existing or proposed pavement. The contractor shall complete his work in these areas as rapidly as possible in order to minimize the inconvenience to expressway traffic.

PEDESTRIAN TRAFFIC

Pedestrian traffic shall be maintained at all times at the following locations:

1. On Freeman Ave. between Wade St. and Liberty St.
2. On Liberty St. between Dudley St. and Western Ave.
3. On Findlay St. between Freeman Ave. and Western Ave.
4. On Bank St. between Winchell St. and Spring Grove Ave.
5. On Spring Grove Ave. between Bank St. and Barnard St.
6. On Harrison Ave. between Winchell St. and Spring Grove Ave.
7. On Spring Grove Ave. between Harrison Ave. and Queen City Ave.
8. On the upper deck of Western Hills Viaduct between west of Spring Grove Ave. and Central Parkway.

Pedestrian traffic shall be maintained on existing walks, proposed walks or temporary walks, where necessary. Temporary walks shall be at least 8 feet wide and may be constructed of 2 in. wood, 6 in. asphaltic concrete, or 4 in. concrete. The location of temporary walks shall be subject to the approval of the engineer. The walks shall be properly lighted, barricaded and kept in clean and safe condition to the satisfaction of the engineer. Payment for this work shall be included in the lump sum bid for Maintaining Traffic.

PROTECTION OF TRAFFIC AT OVERHEAD BRIDGE CONSTRUCTION

The Contractor shall safeguard the traveling public on by providing platforms, nets, or other suitable protection above the travelled lanes. Payment for this protection shall be included in the lump sum price bid for Maintaining Traffic.

NOT FOR CONSTRUCTION INFORMATION ONLY

GENERAL SUMMARY

FED. RD. DIVISION	STATE	PROJECT	
2	OHIO		

HAM-25-1.63

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Item	General Notes	Sh. No 22&22A	Sh. No 35	Sh. No. 3G	Sh. No. 4G	Sh. No. 47	Sh. No. 57	Sh. No. 58	Sh. No. G8	Sh. No. G9	Sh. No. 9G&97	Sh. No. 98	Sh. No. 113	Sh. No. 114	Sh. No 116A	Item	100% City	Full Project Participation	Grand Total	Unit	CODE TYPE 7221 Description
																					Roadway
E-1		136,790													75,452	E-1	152	212,090	212,242	Cu. Yd.	Roadway Excavation, Method D, As per plan.
E-1		125,887													3584	E-1	4945	124,526	129,471	Sq. Yd.	Compacted Subgrade.
E-4		524,730														E-4		524,730	524,730	Cu. Yd.	Borrow
E-8		32,925													3584	E-8	4497	32,012	36,509	Sq. Yd.	Removal and Disposal of Existing Pavement.
E-8		1,504													115	E-8	25	1,684	1,709	Lin. Ft.	Removal and Disposal of Existing Curb
E-8					20		50									E-8		70	70	Sq. Yd.	Removal and Disposal of Existing Wearing Course.
E-11		200														E-11		200	200	M. Gal.	Water for Dust Control
E-9	Lump															E-9		Lump	Lump	Lump	Removal of Trees and Stumps
E-11		3,106													38	E-11	9	3,135	3,144	M.Gal.	Water
I-8		30														I-8		30	30	Each	Centerline Reference Monuments, As per plan
I-13			14,522		27,556		19,539		19,507		19,077		2,578		4110	I-13	11,885	95,004	106,889	Sq. Ft.	4" Concrete Sidewalk
I-13											421					I-13		421	421	Sq. Ft.	6" Reinforced Concrete Sidewalk, As per plan
I-13			24		35		105									I-13		164	164	Lin. Ft.	Concrete Steps
I-15			1112.5		2050.0		2312.5		2712.5		7687.5		3987.5			I-15		19,862.5	19,862.5	Lin. Ft.	Guard Rail, Steel Beam Standard Type (Deep), as per plan
I-15			650.0		975.0		1037.5		925.0		487.5		537.5			I-15		4612.5	4612.5	Lin. Ft.	Guard Rail, Steel Beam Barrier Type (Deep) Using 6"x8" sawed Wood Posts as per plan
I-15															1350	I-15		1350	1350	Lin. Ft.	Guard Rail, Steel Beam Standard Type (Deep), Temporary
I-15															1350	I-15		1350	1350	Lin. Ft.	Guard Rail Removed and Disposed of, as per plan.
L-9		164,958														L-9	1922	163,036	164,958	Sq. Yd.	Seeding and Protecting, As per plan.
L-9		15.12														L-9	0.17	14.95	15.12	Tons	Commercial Fertilizer (12-12-12)
L-9		75.59														L-9	0.87	74.72	75.59	Tons	Agricultural Liming Material.
L-10	50			111		62		139		362		887		1,207		L-10		2908	2908	Sq. Yd.	Sodding
L-10										55		114				L-10		169	169	Sq. Yd.	Sodding for Special Berm and Slope Protection, As per plan.
M-10		10														M-10		10	10	Tons	Calcium Chloride Furnished and Applied for Maintaining Traffic
M-10		60														M-10		60	60	Tons	Calcium Chloride for Dust Control
S-1											5.3					S-1		5.3	5.3	Cu. Yd.	Class "E" Concrete for Plugging of Vents in Rapid Transit Tube Walls.
S-14													12			S-14		12	12	Lin. Ft.	Concrete Railing, As per plan.
S-14															102	S-14		102	102	Lin. Ft.	Special Concrete Railing Including Reconstruction of Portion of Existing Wall, as per plan.
S-14			9		16		20									S-14		54	54	Lin. Ft.	Railing Steel Pipe as per plan.
S-22		Lump													Lump	S-22		Lump	Lump	Lump	Removal of Portions of Existing Structures, As per plan.
S-24		Lump														S-24		Lump	Lump	Lump	Removal of Existing Structures, As per plan.
SS-18					6											SS-18		6	6	Lin. Ft.	Remove, Repair and Reset Existing Ornamental Iron Fence, As per plan.
SS-18		13,706			5											SS-18		13,711	13,711	Lin. Ft.	Fence, Type "C", As per plan.
SS-18		11														SS-18		11	11	Each	Fence Gate Assembly, Type "C" As per plan.
T-10	390															T-10		390	390	Cu.Yd.	Traffic Compacted Surface Course for Maintaining Traffic.
T-10	210															T-10		210	210	Cu.Yd.	Traffic Compacted Surface Course, Using Size No.2 Material, for Maintaining Traffic, as per Plan
T-35	100															T-35		100	100	Cu.Yd.	Asphaltic Concrete Surface Course or an Approved Bituminous Premixed Surface Course for Maintaining Traffic.
B-19	300															B-19		300	300	Cu.Yd.	Aggregate Base Course for Maintaining Traffic.
																					Drainage
E-12			101				13									E-12		114	114	Lin. Ft.	Pipe Removed, 15" and Under
I-1	300		27		18		12		12		3					I-1		372	372	Lin. Ft.	6" Pipe Sec. M-6.6(b) or Sec. M-6.8(b) Class B-1
I-1	150						55				24		100			I-1		329	329	Lin. Ft.	8" Pipe Sec. M-6.6(b) or Sec. M-6.8(b) Class B-1
I-1	100		1413		1707		1565		972		526		455			I-1	544	6,264	6,808	Lin. Ft.	12" Pipe Sec. M-6.6(a) or Sec. M-6.8(b) Class B-1
I-1					75		130		145				228			I-1		578	578	Lin. Ft.	12" Pipe Sec. M-6.6(b) or Sec. M-6.8(b) Class B-1
I-1					22		128						156			I-1		306	306	Lin. Ft.	12" Pipe Sec. M-6.6(c) Class B-1
I-1			46		156						126					I-1		328	328	Lin. Ft.	12" Pipe Sec. M-6.6(d) Class B-1
I-1							24									I-1		24	24	Lin. Ft.	12" Cast Iron Pipe Class B-1, As per plan
I-1					15		120		372							I-1		507	507	Lin. Ft.	15" Pipe Sec. M-6.6(a) or Sec. M-6.8(b) Class B-1
I-1			156						93		48					I-1		297	297	Lin. Ft.	15" Pipe Sec. M-6.6(b) or Sec. M-6.8(b) Class B-1
I-1									146		138					I-1		286	286	Lin. Ft.	15" Pipe Sec. M-6.6(d) Class B-1
I-1											36					I-1		36	36	Lin. Ft.	15" Cast Iron Pipe Class B-1, As per plan
I-1			170								48					I-1		218	218	Lin. Ft.	18" Pipe Sec. M-6.6(a) or Sec. M-6.8(b) Class B-1
I-1			46						72		50		145			I-1		313	313	Lin. Ft.	18" Pipe Sec. M-6.6(b) or Sec. M-6.8(b) Class B-1
I-1					9											I-1		9	9	Lin. Ft.	18" Pipe Sec. M-6.6(c) Class B-1
I-1											124					I-1		124	124	Lin. Ft.	18" Pipe Sec. M-6.6(d) Class B-1
I-1			8				382		147		150					I-1		687	687	Lin. Ft.	21" Pipe Sec. M-6.6(b) or Sec. M-6.8(b) Class B-1
I-1											211					I-1		211	211	Lin. Ft.	21" Pipe Sec. M-6.6(d) Class B-1
I-1							19									I-1		19	19	Lin. Ft.	24" Pipe Sec. M-6.6(b) or Sec. M-6.8(b) Class B-1
I-1											407		315			I-1		722	722	Lin. Ft.	24" Pipe Sec. M-6.6(c) Class B-1
I-1					722											I-1		722	722	Lin. Ft.	30" Pipe Sec. M-6.6(b) or Sec. M-6.8(b) Class B-1
I-1											194					I-1		194	194	Lin. Ft.	30" Pipe Sec. M-6.6(d) Class B-1
I-1			26													I-1		26	26	Lin. Ft.	36" Pipe Sec. M-6.6(b) or Sec. M-6.8(b) Class B-1
I-1			32													I-1		32	32	Lin. Ft.	42" Pipe Sec. M-6.6(b) Class B-1
I-1			315													I-1		315	315	Lin. Ft.	42" Pipe Sec. M-6.6(d) Class B-1
I-1											65					I-1		65	65	Lin. Ft.	8" Pipe Sec. M-6.4(c) Class C-1
I-1											62					I-1		62	62	Lin. Ft.	12" Pipe Sec. M-6.4(c) Class C-1
I-1			32		68		56				77					I-1		233	233	Lin. Ft.	8" Pipe Sec. M-6.4(c) Class D-1
I-1					165						190					I-1		355	355	Lin. Ft.	12" Pipe Sec. M-6.4(c) Class D-1
I-1											59					I-1		59	59	Lin. Ft.	8" Pipe Class E-1
I-1			283		20		27		30		134					I-1		494	494	Lin. Ft.	12" Pipe Class E-1
I-1													10			I-1		10	10	Lin. Ft.	15" Pipe Class E-1
I-1											296					I-1		296	296	Lin. Ft.	30" Pipe Sec. M-6.6(d) Class E-1
I-1			42		110		146		50		127		80			I-1		555	555	Lin. Ft.	8" Pipe Class F-1
I-1			10		10						10					I-1		30	30	Lin. Ft.	6" Pipe Class F-3
I-1			4779		5831		4849		4209		7,682		5,386			I-1		32,736	32,736	Lin. Ft.	6" Pipe Class I-3
I-2			7.7				1.2				6.7		9.6			I-2		25.2	25.2	Cu. Yd.	Masonry,

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GENERAL SUMMARY

FED. RD. DIVISION	STATE	PROJECT	
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Item	General Notes	Sh. No. 22&22A	Sh. No. 35	Sh. No. 36	Sh. No. 46	Sh. No. 47	Sh. No. 57	Sh. No. 58	Sh. No. 68	Sh. No. 69	Sh. No. 96&97	Sh. No. 98	Sh. No. 113	Sh. No. 114	Sh. No. 264	Sh. No. 116A		Item	100% City	Full Project Participation	Grand Total	Unit	CODE TYPE 7221 Description
																						Drainage (Continued)
I-5	5			9		6		5		4		1		2				I-5		32	32	Ea.	6" Pipe Specials for Sec. M-6.6(b) or Sec. M-6.8(b) Class B-1 Pipe
I-5	3							2				1		1				I-5		7	7	Ea.	8" Pipe Specials for Sec. M-6.6(b) or Sec. M-6.8(b) Class B-1 Pipe
I-5	2																	I-5		2	2	Ea.	12" Pipe Specials for Sec. M-6.6(a) or Sec. M-6.8(b) Class B-1 Pipe
I-5												2						I-5		2	2	Ea.	8" Pipe Specials for Sec. M-6.4(c) Class C-1 Pipe
I-5						2		2				2						I-5		6	6	Ea.	8" Pipe Specials for Sec. M-6.4(c) Class D-1 Pipe
I-5												3						I-5		3	3	Ea.	12" Pipe Specials for Sec. M-6.4(c) Class D-1 Pipe
I-5										2								I-5		2	2	Ea.	15" Pipe Specials for Sec. M-6.4(c) Class D-1 Pipe
I-5												1						I-5		1	1	Ea.	8" Pipe Specials for Class E-1 Pipe
I-5				9		13		12		5		22		6				I-5		67	67	Ea.	6" Pipe Specials for Class I-3 Pipe
I-8				17		16		19		11		2						I-8	7	58	65	Ea.	Type A Catch Basins, as per plan
I-8				6		12		3		3		1		3				I-8	1	27	28	Ea.	Type A-2 Catch Basins, as per plan
I-8				9		7		12		11		4						I-8	7	36	43	Ea.	Type C Catch Basins, as per plan
I-8				2		3		3		2		12		4				I-8		26	26	Ea.	Type D Catch Basins, as per plan
I-8										1		2		3				I-8		6	6	Ea.	Type D-2 Catch Basins, as per plan
I-8				1						3								I-8	3	1	4	Ea.	Catch Basins, adjusted to grade, as per plan
I-8				10		12		12		7		14		6				I-8	1	60	61	Ea.	Type A or P Manholes, as per plan
I-8										1								I-8		1	1	Ea.	Type A or P Manhole with grate cover, as per plan
I-8				2		2				1								I-8		5	5	Ea.	Type B Manholes, as per plan
I-8										1								I-8	1		1	Ea.	Type A Manhole, with offset dome, as per plan
I-8								1		1		1						I-8		3	3	Ea.	Type D Manholes as per plan
I-8				7		2		4		8		3		2				I-8	6	20	26	Ea.	Manholes adjusted to grade, as per plan
I-8						3		1		2								I-8	1	5	6	Ea.	Manholes reconstructed to grade as per plan
I-8										1								I-8		1	1	Ea.	Manhole reconstructed to grade with offset dome, as per plan
I-8						2												I-8		2	2	Ea.	Std. No.1 Side Ditch Inlets with Flat grate, as Per Plan
I-8						1												I-8		1	1	Ea.	Lamphole adjusted to grade, as per plan
I-10												1		35				I-10		36	36	Cu.Yd.	Dumped Rock Channel Protection
I-14												331						I-14		331	331	Lin. Ft.	Paved Gutter, Standard Type I
I-16				11		5		6		4		27		12				I-16	2	63	65	Ea.	Manholes Abandoned
I-16				24		10		16		21		15		9				I-16	10	85	95	Ea.	Catch Basins Abandoned
Special	500																	Special		500	500	Lin. Ft.	2" Horizontal Drains, as per plan.
Special	1000																	Special		1000	1000	Lin. Ft.	Drilling Holes for Horizontal Drains, as per plan.
																							Pavement
B-21				156		267		304		314		496		576				B-21		2113	2113	Cu.Yd.	Waterproofed Aggregate Base Course
B-35						14		2		16								B-35	15	17	32	Cu.Yd.	Asphaltic Concrete Leveling Course (70-85)
B-70						184				284								B-70	284	184	468	Sq.Yd.	8" Portland Cement Concrete Base Course, As per plan
I-7				667		533		303		678		1002						I-7		3183	3183	Sq.Yd.	Reinforced Concrete Approach Slabs, As per plan (T=13")
I-7																	68	I-7		68	68	Sq.Yd.	Reinforced Concrete Approach Slab, (T=10")
I-12				4178		3660		2664		2943		1256		60			723	I-12	1148	14,345	15,493	Lin. Ft.	Concrete Curb, Standard Type 2A
I-12						122				710								I-12	710	122	832	Lin. Ft.	Concrete Curb, Standard Type 2B
I-12				997		1186		2338		1775		2319		2242				I-12		10,857	10,857	Lin. Ft.	Concrete Curb, Standard Type 6
I-12				100								699						I-12		799	799	Lin. Ft.	Concrete Curb, Special Barrier Type, As per plan
I-12						11												I-12		11	11	Lin. Ft.	Concrete Curb Wall, As per plan.
I-12																	115	I-12		115	115	Lin. Ft.	Concrete Curb, Standard Type 6, modified as per plan.
I-18				257		449		506		537		862		985				I-18		3506	3506	Cu.Yd.	Stabilized Crushed Aggregate Shoulders & Approaches
I-21				386		262		388		786		108						I-21	80	1850	1930	Sq.Yd.	4" Portland Cement Concrete Median Pavement, Standard Type 1
I-21				426		650		690		415		226		427				I-21		2834	2834	Sq.Yd.	Portland Cement Concrete Median Pavement, Standard Type 2, Modified as per plan.
I-21				29						43								I-21	43	29	72	Sq.Yd.	6" Portland Cement Concrete Traffic Island Pavement, As per plan.
I-22				3750		4095		3900		3827		4786		4935				I-22		25,293	25,293	Cu.Yd.	Subbase, Grading A or B, as per plan
I-22										870							609	I-22	870	609	1,479	Cu.Yd.	Subbase, Grading C or D
T-30						18				29								T-30	29	18	47	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
T-31				459		801		903		945		1495		1729				T-31		6332	6332	Gal.	Bituminous Surface Treatment - Bituminous Material, As per plan.
T-31				15		26		28		30		48		55				T-31		202	202	Cu.Yd.	Bituminous Surface Treatment - No. 6 Aggregate
T-35						19		6		26								T-35	23	28	51	Cu.Yd.	Asphaltic Concrete Surface Course, Type "C" (70-85)
T-70				418				252		174		242		47				T-70	10	1123	1133	Sq.Yd.	8" Portland Cement Concrete Pavement.
T-70																	3516	T-70		3516	3516	Sq.Yd.	9" Temporary Portland Cement Concrete Pavement, as per plan.
T-71				7522		10,200		11,739		11,061		11,796		23,045				T-71		75,363	75,363	Sq.Yd.	10" Reinforced Portland Cement Concrete Pavement.
T-71				10,146		8397		5822		10,503		8926						T-71	4738	39,056	43,794	Sq.Yd.	9" Reinforced Portland Cement Concrete Pavement.
																							Overhead Sign Supports
I-129															1			I-129		1	1	Each	Overhead Sign Support No. 1 as per plan
I-129															1			I-129		1	1	Each	Overhead Sign Support No. 2 as per plan
I-129															1			I-129		1	1	Each	Overhead Sign Support No. 3 as per plan
I-129															1			I-129		1	1	Each	Overhead Sign Support No. 4 as per plan
I-129															1			I-129		1	1	Each	Overhead Sign Support No. 5 as per plan
I-129															1			I-129		1	1	Each	Overhead Sign Support No. 6 as per plan
I-129															1			I-129		1	1	Each	Overhead Sign Support No. 7 as per plan
I-129															1			I-129		1	1	Each	Overhead Sign Support No. 8 as per plan
I-129															1			I-129		1	1	Each	Overhead Sign Support No. 9 as per plan
I-129															1			I-129		1	1	Each	Overhead Sign Support No. 10 as per plan
I-129															1			I-129		1	1	Each	Overhead Sign Support No. 11 as per plan
I-129															140			I-129		140	140	Cu.Yd.	Concrete for Sign Support foundations, Class E
I-129															31,900			I-129		31,900	31,900	Lbs.	Steel Reinforcing Bars

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GENERAL SUMMARY

FED. RD. DIVISION	STATE	PROJECT	
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Sh. No. 116A	Sh. No. 22	Sh. No. 262	Item	100% City	Full Project Participation	Grand Total	Unit	CODE TYPE 7221 Description
								Retaining Walls
	3534		E-2		3534	3534	Cu.Yd.	Excavation for Structures, Unclassified
	1344		E-2		1344	1344	Sq.Ft.	Steel Sheet Piling Left in Place
	2817		S-1		2817	2817	Cu.Yd.	Concrete for Structures, Class E
	653		S-3		653	653	Lin.Ft.	Waterproofing, Premolded Sealing Strip
	134,771		S-4		134,771	134,771	Lbs.	Reinforcing Steel
	455		S-9		455	455	Sq.Ft.	1" Preformed Expansion Joint Filler Sec. M-10.02
	160		S-14		160	160	Lin.Ft.	Guard Rail, I-15.11, Single Faced with Galvanized Steel Post and Bolts
	Lump		S-16		Lump	Lump	Lump	First Test Pile
	10937		S-18		10937	10937	Lin.Ft.	Bearing Piles, 12" Cast-in-place Reinforced Concrete
	3612		S-18		3612	3612	Lin.Ft.	Steel H Piles 12" BP 53
	1009		S-29		1009	1009	Cu.Yd.	Porous Backfill
	87		S-29		87	87	Lin.Ft.	Drainage of Structures, 8" Bituminous Coated Corrugated Metal Pipe, Sec. M-6.4 (c)
	1118		S-29		1118	1118	Lin.Ft.	Drainage of Structures, 8" Perforated Bituminous Coated Corrugated Metal Pipe Sec. M-6.4(f), as per Plan
								Structures over 20 Foot Span
			For Quantities see Sheet No.			290		Bridge No. HAM-25-0173 Mill Creek Expressway over Liberty St.
			For Quantities see Sheet No.			304		Bridge No. HAM-25-0191 Mill Creek Expressway over Findlay St.
			For Quantities see Sheet No.			313		Bridge No. HAM-25-0219 Mill Creek Expressway over Bank St.
			For Quantities see Sheet No.			327		Bridge No. HAM-25-0240 N.B. Mill Creek Expressway Northbound over Harrison Ave.
			For Quantities see Sheet No.			327		Bridge No. HAM-25-0240 S.B. Mill Creek Expressway Southbound over Harrison Ave.
			For Quantities see Sheet No.			350		Bridge No. HAM-25-0252 Mill Creek Expressway under Western Hills Viaduct
			For Quantities see Sheet No.			376,378,393		Western Hills Viaduct, Lower Deck
			For Quantities see Sheet No.			342		Bridge Ramp E over Spring Grove Ave.
			For Quantities see Sheet No.			395		Bridge Ramp F over Spring Grove Ave.
			For Quantities see Sheet No.			404		Bridge No. HAM-25-0261 Mill Creek Expressway Northbound under Ramp D
								Lighting
		84	S-25		84	84	Each	Light Standard & Foundation with 15' Mast Arm (30' Mounting Height)
		62	S-25	3	59	62	Each	Light Standard & Foundation with 10' Mast Arm (30' Mounting Height)
		1	S-25		1	1	Each	Light Standard & Foundation with Double Mast Arms: one 10' & one 15' (30' Mounting Heights)
		1	S-25		1	1	Each	Light Standard with 15' Mast Arm, Anchor Bolts & Conduit (Mounted on Wall)
		2	S-25		2	2	Each	Light Standard with 10' Mast Arm, Anchor Bolts & Conduit (Mounted on Wall)
		1	S-25		1	1	Each	Central Parkway type Light Standard Luminaire including Lamp, Foundation, Transformer & Cable
		4	S-25		4	4	Each	Relocating Light Standard and providing new Foundation, anchor bolts & conduit
		28	S-25		28	28	Each	700 W Luminaire with 700 W Mercury Vapor Lamp
		97	S-25		97	97	Each	400 W Luminaire with 400 W Mercury Vapor Lamp
		1	S-25		1	1	Each	250 W Luminaire with 250 W Mercury Vapor Lamp
		25	S-25	3	22	25	Each	400 W Luminaire with built in reactor type ballast (240V) and 400 W Mercury Vapor Lamp
Lump			S-25		Lump	Lump	Lump	Temporary Lighting, as per plan
		28	S-25		28	28	Each	Ballast for 700 W Lamp - G.E. A Series
		97	S-25		97	97	Each	Ballast for 400 W Lamp - G.E. A Series
		1	S-25		1	1	Each	Ballast for 250 W Lamp - G.E. A Series
		254	S-25	5	249	254	Each	Pull Box complete with Frame & Cover
		6	S-25		6	6	Each	Pull Box without frame & cover (use salvaged frame & cover)
		156	S-25	3	153	156	Each	Grounding System for Light Standard & Sign Support
		5290	S-25	190	5100	5290	Lin. Ft.	3" Asbestos Cement Conduit Sec. M-206.14, Concrete Encased
		23,225	S-25		23225	23,225	Lin. Ft.	6000 V Single Conductor #8 A.W.G. Direct Burial Cable (Plain)
		9200	S-25		9200	9200	Lin. Ft.	6000 V Single Conductor #8 A.W.G. Direct Burial Cable (Identifiable)
		15,400	S-25	300	15,100	15,400	Lin. Ft.	600 V Single Conductor #12 A.W.G. Luminaire Wire
		610	S-25		610	610	Lin. Ft.	3000 V Single Conductor #4 A.W.G. Direct Burial Cable (Plain)
		610	S-25		610	610	Lin. Ft.	3000 V Single Conductor #4 A.W.G. Direct Burial Cable (Identifiable)
		1	S-25		1	1	Each	Oil filled, pole mounting controller for Western Hills Viaduct Lighting Control (2400 V)
		9	S-25		9	9	Each	30 Amp Controller for Sign Circuits
		2	S-25		2	2	Each	60 Amp Controller for Sign Circuits
		11	S-25		11	11	Each	Photoelectric Cell and Pole Top Adapter with locking type receptacle
		1	S-25		1	1	Each	Photoelectric Cell with mounting bracket & locking type receptacle
		2215	S-25		2,215	2215	Lin. Ft.	600 V Single Conductor #8 A.W.G. Direct Burial Cable (Plain)
		1700	S-25		1,700	1700	Lin. Ft.	600 V Single Conductor #8 A.W.G. Direct Burial Cable (Identifiable)
		1400	S-25	500	900	1400	Lin. Ft.	600 V Single Conductor #6 A.W.G. Direct Burial Cable (Plain)
		1190	S-25	500	690	1190	Lin. Ft.	600 V Single Conductor #6 A.W.G. Direct Burial Cable (Identifiable)
		4580	S-25		4,580	4580	Lin. Ft.	600 V Single Conductor #4 A.W.G. Direct Burial Cable (Plain)
		3580	S-25		3580	3580	Lin. Ft.	600 V Single Conductor #4 A.W.G. Direct Burial Cable (Identifiable)
		2288	S-25		2288	2288	Lin. Ft.	600 V Single Conductor #2 A.W.G. Direct Burial Cable (Plain)
		1144	S-25		1144	1144	Lin. Ft.	600 V Single Conductor #2 A.W.G. Direct Burial Cable (Identifiable)
		3	S-25		3	3	Each	30 Amp, 2 Pole SN, 250 V Switch & Enclosure & Fuses
		5	S-25		5	5	Each	60 Amp, 2 Pole SN, 250 V Switch & Enclosure & Fuses
		2	S-25		2	2	Each	100 Amp, 2 Pole SN, 250 V Switch & Enclosure & Fuses
					Lump	Lump	Lump	Construction Layout Stakes
ALTERNATE BID ITEMS								
			SS18		13,711	13,711	Lin. Ft.	Fence, Aluminum Type "C" As per plan
			SS18		11	11	Each	Fence Gate Assembly, Aluminum Type "C" As per plan

7-29-61

NOT FOR CONSTRUCTION INFORMATION ONLY

FED. RD. DIVISION	STATE	PROJECT	
2	OHIO		

HAM-25-1.63

20A 486

GENERAL SUMMARY

CODE TYPE 7221

ITEM	QUANTITY	UNIT	PARCEL NO.	ADDRESS	DESCRIPTION	FULL PROJECT PARTICIPATION	100 % CITY
E-10	Lump	Lump Sum	1195-LA	1537 Dudley St.	3½ Story Brick Building	Lump Sum	
E-10	Lump	Lump Sum	1196-LA		2½ Story Brick Building, 1 Story Frame Addition	Lump Sum	
E-10	Lump	Lump Sum	1197-LA	1539 Dudley St.	2 Story Brick Garage	Lump Sum	
E-10	Lump	Lump Sum	1198-LA	1541 Dudley St.	2½ Story Brick; 2 Story Brick with 1 Story Frame Addition and Attached 2 Story Brick Garage	Lump Sum	
E-10	Lump	Lump Sum	1200-LA	1545 Dudley St.	3½ Story Brick Building with a Detached Concrete Block Garage	Lump Sum	
E-10	Lump	Lump Sum	1206-LA	1557-1563 Dudley St.	3 Story Brick Building, three 2 Story Brick Additions and three 1 Story Frame Additions, detached Frame Garage and detached Concrete Block Garage	Lump Sum	
E-10	Lump	Lump Sum	1207	1564 Dudley St.	Part 2½ Story Brick and part 2 Story Brick Building with one Story Frame Addition and Detached Frame Garage	Lump Sum	
E-10	Lump	Lump Sum	1208	1567 Dudley St	Part 2½ Story Brick and part 2 Story Brick Building with a Detached Concrete Block Garage	Lump Sum	
E-10	Lump	Lump Sum	1209	1569 Dudley St.	3 Story Brick with a 1 Story Frame Addition, 1 Story Concrete Block Addition, Attached Frame Shed and Attached Concrete Block Garage	Lump Sum	
E-10	Lump	Lump Sum	1223	1519 Freeman Ave.	Part 3 Story Brick, part 2½ Story Brick and part 2 Story Brick Building	Lump Sum	
E-10	Lump	Lump Sum	1224	1521-23 Freeman Ave.	3 Story Brick Building with a 1 Story Brick Addition	Lump Sum	
E-10	Lump	Lump Sum	1225	1527-29 Freeman Ave.	Part 3 Story Brick and part 2½ Story Brick Building with a 1 Story Concrete Block Addition	Lump Sum	
E-10	Lump	Lump Sum	1317-LA	1614-1616 Freeman Ave.	3 Story Brick Building with a 1 Story Frame Addition and a Detached Brick Garage	Lump Sum	
E-10	Lump	Lump Sum	1318	1618 Freeman Ave.	2 Story Brick Building	Lump Sum	
E-10	Lump	Lump Sum	1319	1620 Freeman Ave.	Part 2½ Story Brick and part 2 Story Brick Building with an Attached Frame Shed	Lump Sum	
E-10	Lump	Lump Sum	1320	1624 Freeman Ave.	2 Story Brick Building	Lump Sum	
E-10	Lump	Lump Sum	1369-LA	1732 Freeman Ave.	Part 3 Story Brick and part 2 Story Brick Building with a 1 Story Brick Addition	Lump Sum	
E-10	Lump	Lump Sum	1370	1701-1705 Freeman Ave.	Two Frame Sheds	Lump Sum	
E-10	Lump	Lump Sum	1395	1011 Findlay St.	Concrete Block Garage	Lump Sum	
E-10	Lump	Lump Sum	1412	1801 Freeman Ave.	3 Story Brick Building with an Attached Concrete Block Garage	Lump Sum	
E-10	Lump	Lump Sum	1413	1805 Freeman Ave.	2½ Story Brick Building with a 2 Story Brick Addition	Lump Sum	
E-10	Lump	Lump Sum	1414	1807 Freeman Ave.	2½ Story Brick Building	Lump Sum	
E-10	Lump	Lump Sum	1459-LA	1127 Dayton St.	Brick Garage	Lump Sum	
E-10	Lump	Lump Sum	1478	1144 Dayton St.	2½ Story Brick Building with a 1 Story Frame Addition	Lump Sum	
E-10	Lump	Lump Sum	1479	1146 Dayton St.	2 Story Brick Building with a Detached Frame Garage	Lump Sum	
E-10	Lump	Lump Sum	1480	1148 Dayton St.	2 Story Brick Building with a Detached Frame Garage	Lump Sum	
E-10	Lump	Lump Sum	1508	2028 Western Ave.	3 Story Brick Building		Lump Sum
E-10	Lump	Lump Sum	1509	2030-2032 Western Ave.	3 Story Brick Building		Lump Sum
E-10	Lump	Lump Sum	1672-LA	1100 Harrison Ave.	Part 2 Story and part 1 Story Brick Building	Lump Sum	
E-10	Lump	Lump Sum	1673-LA	1150-1162 Harrison Ave.	Part 2 Story Brick, part 2 Story Frame and part 1 Story Brick Building	Lump Sum	
E-10	Lump	Lump Sum	1674-LA	1164 Harrison Ave.	3 Story Brick Building with a 1 Story Brick Addition	Lump Sum	
E-10	Lump	Lump Sum	1675-LA	1166 Harrison Ave.	3 Story Brick Building with a 1 Story Frame Addition	Lump Sum	
E-10	Lump	Lump Sum	1677-LA	2210-2228 Bogen St.	Part 3 Story Brick, part 2 Story Brick and part 1 Story Brick Building with a 1 Story Metal Addition; Part 2 Story Brick, part 1 Story Brick and part 1 Story Frame Building	Lump Sum	
E-10	Lump	Lump Sum	1679-LA	2240 Bogen St.	Part 4 Story Brick, part 2 Story Brick, part 2 Story Frame and part 1 Story Frame Building	Lump Sum	
E-10	Lump	Lump Sum	1680-LA	1172 Harrison Ave.	3½ Story Brick Building	Lump Sum	
E-10	Lump	Lump Sum	1681-LA	1174 Harrison Ave.	3½ Story Brick Building with a 1 Story Brick Addition and a Detached Brick Garage	Lump Sum	
E-10	Lump	Lump Sum	1682-LA	1176 Harrison Ave.	3½ Story Brick Building with a 1 Story Frame Addition	Lump Sum	
E-10	Lump	Lump Sum	1684-LA	1180-1184 Harrison Ave.	Part 4 Story Brick and Concrete and part 1 Story Brick and Concrete Building 2209-2211 Bogen St. and part 2½ Story Brick, part 2 Story Br. & Frame and part 1 Story Frame Building	Lump Sum	
E-10	Lump	Lump Sum	1685-LA	1186-1188 Harrison Ave.	4 Story Brick Building and one 3 Story Brick Building	Lump Sum	
E-10	Lump	Lump Sum	1698-LA	2235-2241 Buck St.	2 Story Brick Building	Lump Sum	
E-10	Lump	Lump Sum	1701 LA	2287-2289 Colerain Ave.	3 Story Brick Building	Lump Sum	
E-10	Lump	Lump Sum	1703-LA	2293-2295 Colerain Ave.	4 Story Brick Building	Lump Sum	
E-10	Lump	Lump Sum	1708-LA	2305 Colerain Ave.	Part 4 Story Brick and part 3 Story Brick Building	Lump Sum	
E-10	Lump	Lump Sum	1710-LA	2309 Colerain Ave.	Part 4½ Story Brick and part 3½ Story Brick Building	Lump Sum	
E-10	Lump	Lump Sum	1711-LA	2311 Colerain Ave.	Part 4½ Story Brick and part 3½ Story Brick Building	Lump Sum	
E-10	Lump	Lump Sum	1715-LA	2321 Colerain Ave.	Part 2 Story Frame and part 1 Story Frame Building	Lump Sum	
E-10	Lump	Lump Sum	1716-LA	2325 Colerain Ave.	2 Story Brick Building with a Detached Brick Garage	Lump Sum	
E-10	Lump	Lump Sum	1717-LA	2248 Bogen St.	3 Story Brick Building	Lump Sum	
E-10	Lump	Lump Sum	1718-LA	2250-2260 Bogen St.	3 Story Brick Building with an Attached Frame Shed	Lump Sum	
E-10	Lump	Lump Sum	1720-LA	2264-2266 Bogen St.	Part 2 Story Brick and part 3 Story Frame Building with a 1 Story Brick Addition and a 1 Story Concrete Block Addition	Lump Sum	
E-10	Lump	Lump Sum	1721-LA	2268 Bogen St.	3 Story Brick Building	Lump Sum	
E-10	Lump	Lump Sum	1722-LA	2271-2273 Zinck St.	1 Story Concrete Block Building	Lump Sum	
E-10	Lump	Lump Sum	1727-LA	1113 Queen City Ave.	3 Story Brick Building with a Detached Brick Garage	Lump Sum	
E-10	Lump	Lump Sum	1728-LA	1115 Queen City Ave.	3½ Story Brick Building	Lump Sum	
E-10	Lump	Lump Sum	1730-LA	2292 Bogen St.	3½ Story Brick Building	Lump Sum	
E-10	Lump	Lump Sum	1732-LA	2255 Bogen St.	1 Story Frame Building	Lump Sum	

NOT FOR CONSTRUCTION INFORMATION ONLY

FED. RD. DIVISION	STATE	PROJECT	
2	OHIO		

20B 46G

HAM-25-1.63

GENERAL SUMMARY

CODE TYPE 7221

ITEM	QUANTITY	UNIT	PARCEL NO.	ADDRESS	DESCRIPTION	FULL PROJECT PARTICIPATION	100 % CITY
E-10	Lump	Lump Sum	1733-LA	2257 Bogen St.	1 Story Frame Building		
E-10	Lump	Lump Sum	1734-LA	2259 Bogen St.	1 Story Frame Building	Lump Sum	
E-10	Lump	Lump Sum	1735-LA	2261 Bogen St.	1 Story Frame Building	Lump Sum	
E-10	Lump	Lump Sum	1736-LA	2263 Bogen St.	1 Story Frame Building	Lump Sum	
E-10	Lump	Lump Sum	1737-LA	2265 Bogen St.	1 Story Frame Building	Lump Sum	
E-10	Lump	Lump Sum	1742-LA	2279 Bogen St.	3 Story Brick Building with a 1 Story Frame Addition	Lump Sum	
E-10	Lump	Lump Sum	1744-LA	1129 Queen City Ave.	2 Story Brick Building with a 1 Story Frame Addition	Lump Sum	
E-10	Lump	Lump Sum	1745-LA	1131 Queen City Ave.	2 Story Brick Building with a 1 Story Frame Addition	Lump Sum	
E-10	Lump	Lump Sum	1746-LA	1133 Queen City Ave.	2 Story Brick Building with a 1 Story Frame Addition	Lump Sum	
E-10	Lump	Lump Sum	1747-LA	1135 Queen City Ave.	2 Story Brick Building with a 1 Story Frame Addition	Lump Sum	
E-10	Lump	Lump Sum	1751-LA	2252 Spring Grove Ave.	3 Story Brick Building	Lump Sum	
E-10	Lump	Lump Sum	1754-LA	2260 Spring Grove Ave.	2½ Story Brick Building with a Detached Frame Garage	Lump Sum	
E-10	Lump	Lump Sum	1756-LA	2264-2266 Spring Grove Ave.	Part 2½ Story Brick and part 2 Story Frame Building	Lump Sum	
E-10	Lump	Lump Sum	1757-LA	2268 Spring Grove Ave.	2 Story Brick Building	Lump Sum	
E-10	Lump	Lump Sum	1758-LA	2270-2272 Spring Grove Ave.	2 Story Brick Building with a Detached Concrete Block Garage	Lump Sum	
E-10	Lump	Lump Sum	1759-LA	2276 Spring Grove Ave.	Part 2½ story Brick, part 2 Story Brick and part 2 Story Frame Building	Lump Sum	
E-10	Lump	Lump Sum	1760-LA	2278-2282 Spring Grove Ave.	2 Story Brick Building, and part 2 Story Frame and part 1 Story Frame Building	Lump Sum	
E-10	Lump	Lump Sum	1762-LA	2253 Spring Grove Ave.	2½ Story Brick Building with a Detached Frame Garage	Lump Sum	
E-10	Lump	Lump Sum	1763-LA	2255-2257 Spring Grove Ave.	Part 2½ Story Brick and part 2 Story Brick Building With a 1 Story Frame Addition	Lump Sum	
E-10	Lump	Lump Sum	1769-WD	2401 Colerain Ave.	3½ Story Brick Building	Lump Sum	
E-10	Lump	Lump Sum	1770-WD	2405 Colerain Ave.	3 Story Brick Building	Lump Sum	
E-10	Lump	Lump Sum	1771-LA	2409-2411 Colerain Ave.	3 Story Brick Building	Lump Sum	
E-10	Lump	Lump Sum	1773-LA	1110 Queen City Ave.	3½ Story Brick Building	Lump Sum	
E-10	Lump	Lump Sum	1782-LA	1130-1132 Queen City Ave.	3½ Story Brick Building with a 1 Story Frame Addition	Lump Sum	
E-10	Lump	Lump Sum	1784-LA	2400-2402 Spring Grove Ave.	3 Story Brick Building	Lump Sum	
E-10	Lump	Lump Sum	1786-LA	2406 Spring Grove Ave.	1 Story Frame Building	Lump Sum	
E-10	Lump	Lump Sum	1791-LA	2414 Spring Grove Ave.	2 Story Brick Building	Lump Sum	
E-10	Lump	Lump Sum	1792-LA	2416 Spring Grove Ave.	2 Story Brick Building	Lump Sum	
E-10	Lump	Lump Sum	1810-LA	1115 Draper St.	3½ Story Brick Building with a 1 Story Brick Addition	Lump Sum	
E-10	Lump	Lump Sum	1811-LA	2431 Colerain Ave.	3½ Story Brick Building	Lump Sum	
E-10	Lump	Lump Sum	1812-LA	2433 Colerain Ave.	2½ Story Brick Building with a Detached Frame and Concrete Garage	Lump Sum	
E-10	Lump	Lump Sum	1816-LA	2520 Colerain Ave.	Two 1 Story Frame Buildings	Lump Sum	
E-10	Lump	Lump Sum	1817-LA	2524 Colerain Ave.	1 Story Frame Building	Lump Sum	
E-10	Lump	Lump Sum	1821-LA	2616 Colerain Ave.	Part 1 Story Brick and part 1 Story Frame Building	Lump Sum	
E-10	Lump	Lump Sum	1822-LA	2622 Colerain Ave.	Part 1 Story Frame and part 1 Story Concrete Block Building	Lump Sum	
E-10	Lump	Lump Sum	1823-LA	2624 Colerain Ave.	4 Story Brick Building with a Detached Frame Garage and a Detached Brick Garage	Lump Sum	
E-10	Lump	Lump Sum	1831-LA	1027 Straight St.	2½ Story Frame Building with a 1 Story Frame Addition	Lump Sum	
E-10	Lump	Lump Sum	1832-LA	1031 Straight St.	2½ Story Brick Building	Lump Sum	
E-10	Lump	Lump Sum	1833-LA	1029 Straight St.	1 Story Brick Building	Lump Sum	
E-10	Lump	Lump Sum	1840-LA	1116 Draper St.	1 Story Brick Building	Lump Sum	

For Quantities for Pedestrian Underpass See Sheet No. 267

For Quantities for Water Works See Sheet No. 21

NOT FOR CONSTRUCTION INFORMATION ONLY

WATER WORKS SUMMARY
100% PROJECT PARTICIPATION

TYPE CODE Y060

FED. RD. DIVISION	STATE	PROJECT	
2	OHIO		

21
486

HAM. 25-1.63

ITEM	TOTAL	UNIT	DESCRIPTION	CITY OF CINCINNATI SPECIFICATION ITEM NO.
SPECIAL	30	LIN. FT.	LAYING 4" CAST IRON PIPE WITH RESTORATION CL. 3 PAV'T.	W-1
"				
"	275	LIN. FT.	LAYING 6" CAST IRON PIPE WITH RESTORATION CL. 9 PAV'T.	W-1
"	70	LIN. FT.	LAYING 6" CAST IRON PIPE WITH RESTORATION CL. 6 PAV'T.	W-1
"	130	LIN. FT.	LAYING 6" CAST IRON PIPE CL. 8	W-1
"	150	LIN. FT.	LAYING 6" CAST IRON PIPE WITH RESTORATION CL. 3 PAV'T.	W-1
"	55	LIN. FT.	LAYING 8" CAST IRON PIPE WITH RESTORATION CL. 3 PAV'T.	W-1
"	50	LIN. FT.	LAYING 8" CAST IRON PIPE CL. 8	W-1
"	45	LIN. FT.	LAYING 10" CAST IRON PIPE WITH RESTORATION CL. 3 PAV'T.	W-1
"	30	LIN. FT.	LAYING 10" CAST IRON PIPE CL. 8	W-1
"	6	LIN. FT.	LAYING 12" CAST IRON PIPE WITH RESTORATION CL. 6 PAV'T.	W-1
"	50	LIN. FT.	LAYING 12" CAST IRON PIPE WITH RESTORATION CL 3 PAV'T.	W-1
"	3035	LIN. FT.	LAYING 12" CAST IRON PIPE CL. 8	W-1
"	10	LIN. FT.	LAYING 16" CAST IRON PIPE WITH RESTORATION CL. 3 PAV'T.	W-1
"	35	LIN. FT.	LAYING 16" CAST IRON PIPE WITH RESTORATION CL. 6 PAV'T.	W-1
"	420	LIN. FT.	LAYING 16" CAST IRON PIPE CL. 8	W-1
"	15	LIN. FT.	LAYING 20" CAST IRON PIPE WITH RESTORATION CL. 3 PAV'T.	W-1
"	35	LIN. FT.	LAYING 24" CAST IRON PIPE WITH RESTORATION CL. 3 PAV'T.	W-1
"	10	LIN. FT.	LAYING 36" CAST IRON PIPE WITH RESTORATION CL. 3 PAV'T.	W-1
"	20	LIN. FT.	LAYING 12" CAST IRON PIPE WITH SPECIAL RESTORATION - 9" CONC. BASE ONLY TO TOP OF EX. PAVING	W-1
"	8	LIN. FT.	LAYING 10" CAST IRON PIPE WITH COMPLETE REMOVAL OF TRACTION CO. RAILS, BASE & TIES & RESTORATION CL. 3 PAV'T.	W-1
"	35	LIN. FT.	LAYING 24" REINF. CONC. PIPE WITH REMOVAL OF TRACTION CO. TIES & BASE WHERE REQUIRED WITH RESTORATION CL. 3 PAV'T.	W-7
"	433	LIN. FT.	LAYING 24" REINF. CONC. PIPE WITH RESTORATION CL. 3 PAV'T.	W-7
"	470	LIN. FT.	LAYING 24" REINF. CONC. PIPE WITH RESTORATION CL 4 PAV'T.	W-7
"	660	LIN. FT.	LAYING 24" REINF. CONC. PIPE CL. 8	W-7
"	1253	LIN. FT.	LAYING 24" REINF CONC. PIPE WITH COMPLETE REMOVAL OF TRACTION CO. RAILS, TIES & BASE & RESTORATION CL. 3 PAV'T.	W-7
"	35	LIN. FT.	LAYING 36" REINF. CONC. PIPE WITH RESTORATION CL. 6 PAV'T.	W-7
"	65	LIN. FT.	LAYING 36" REINF. CONC. PIPE WITH RESTORATION CL. 3 PAV'T.	W-7
"	430	LIN. FT.	LAYING 36" REINF. CONC. PIPE CL. 8	W-7
"	7	LIN. FT.	LAYING 42" REINF CONC. PIPE WITH RESTORATION CL. 6 PAV'T.	W-7
"	9	LIN. FT.	LAYING 42" REINF. CONC. PIPE WITH RESTORATION CL. 3 PAV'T.	W-7
"	30	LIN. FT.	LAYING 42" REINF. CONC. PIPE WITH RESTORATION CL. 4 PAV'T.	W-7
"	812	LIN. FT.	LAYING 42" REINF. CONC. PIPE CL. 8	W-7
"	95	LIN. FT.	LAYING 48" REINF. CONC. PIPE WITH RESTORATION CL. 3 PAV'T.	W-7
"	86	LIN. FT.	LAYING 48" REINF. CONC. PIPE CL. 8	W-7
"	269	LIN. FT.	LAYING 48" REINF. CONC. PIPE IN 84" TUNNEL LINER	W-7
"	269	LIN. FT.	FURNISHING & INSTALLING 84" TUNNEL-LINER-CL.8	W-8
"	11	EACH	HAULING AND SETTING FIRE HYDRANTS - CL. 8	W-11
"	10	EACH	HAULING AND SETTING FIRE HYDRANTS WITH RESTORATION CL. 6 PAV'T.	W-11
"	1	EACH	HAULING AND SETTING FIRE HYDRANT WITH RESTORATION CL. 9 PAV'T.	W-11
"	1	EACH	RESETTING EX. FIRE HYDRANT	W-12
"	23	EACH	REMOVING ABANDONED FIRE HYDRANTS	W-13
"	3	EACH	REMOVING ABANDONED FIRE HYDRANTS WITH RESTORATION CL. 6 PAV'T.	W-13
"	225	LIN. FT.	REMOVING EX. WATER MAINS - CAST IRON - 12" & UNDER	W-15
"	160	LIN. FT.	REMOVING EX. WATER MAINS - CAST IRON - 16" THRU 24"	W-15
"	115	LIN. FT.	REMOVING EX. WATER MAINS - CAST IRON - 30" THRU 42"	W-15
"	120	LIN. FT.	REMOVING EX. 48" REINF. CONC. WATER MAINS	W-16
"	5	EACH	PLUGGING EX. MAINS & TEES - 12" & UNDER - CL. 8	W-21
"	4	EACH	PLUGGING EX. MAINS & TEES - 12" & UNDER - WITH RESTORATION CL. 3 PAV'T.	W-21
"	1	EACH	PLUGGING EX. MAINS & TEES - OVER 12" - CL. 8	W-22
"	1	EACH	PLUGGING EX. MAINS & TEES - OVER 12" - WITH RESTORATION CL. 3 PAV'T.	W-22
"	175	LIN. FT.	LOWERING EX. WATER MAINS - 4" THRU 12" - CL. 8	W-23
"	40	LIN. FT.	LOWERING EX. WATER MAINS - 4" THRU 12" - WITH RESTORATION CL. 6 PAV'T.	W-23
"	40	LIN. FT.	LOWERING EX. WATER MAINS - 4" THRU 12" - WITH RESTORATION CL. 3 PAV'T.	W-23
"	40	LIN. FT.	LOWERING EX. WATER MAINS - 4" THRU 12" - WITH RESTORATION CL. 1 PAV'T.	W-23
"	40	LIN. FT.	LOWERING EX. WATER MAINS - 16" THRU 24" - CL. 8	W-24
"	40	LIN. FT.	LOWERING EX. WATER MAINS - 24" THRU 42" - CL. 8	W-24
"	40	LIN. FT.	LOWERING EX. SERVICE BRANCHES - 3/4" THRU 2"	W-25
"	1	EACH	RECONNECTING EX. SERVICE BRANCHES - 3/4" THRU 2"	W-27
"	155	LIN. FT.	HAULING & INSTALLING 3/4" SERVICE PIPE & FITTINGS - CL. 8	W-28
"	70	LIN. FT.	HAULING & INSTALLING 3/4" SERVICE PIPE & FITTINGS - WITH RESTORATION CL. 3 PAV'T.	W-28
"	15	LIN. FT.	HAULING & INSTALLING 3/4" SERVICE PIPE & FITTINGS - WITH RESTORATION CL. 6 PAV'T.	W-28
"	100	LIN. FT.	HAULING & INSTALLING 1" SERVICE PIPE & FITTINGS - CL. 8	W-29
"	15	LIN. FT.	HAULING & INSTALLING 1" SERVICE PIPE & FITTINGS - WITH RESTORATION - CL. 3 PAV'T.	W-29
"	5	LIN. FT.	HAULING & INSTALLING 1" SERVICE PIPE & FITTINGS - WITH RESTORATION CL. 6 PAV'T.	W-29
"	12	EACH	HAULING & INSTALLING CURB BOXES	W-39
"	21	EACH	INSTALLING VALVE BOXES	W-41
"	1	EACH	INSTALLING 10" VALVE ON EX. WATER MAIN - CL.8	W-9

ITEM	TOTAL	UNIT	DESCRIPTION	CITY OF CINCINNATI SPECIFICATION ITEM NO.
SPECIAL	1	EACH	RESETTING EX. CURB BOXES	W-42
"	1	EACH	RESETTING EX. ROADWAY BOX	W-43
"	1	EACH	RESETTING EX. VALVE BOX	W-44
"	100	CU. YD.	ROCK EXCAVATION	W-45
"	100	CU. YD.	ADDITIONAL EXCAVATION	W-46
"	144	CU. YD.	BRICK MASONRY	W-47
"	50	CU. YD.	CONCRETE MASONRY - 1 : 12 MIX	W-48
"	406	CU. YD.	CONCRETE MASONRY - 1 : 5 MIX	W-49
"	235	TONS	HAULING WATER WORKS MATERIAL	W-52
"	64	EACH	REMOVING EX. M.H.C.& C. & VALVE BOXES - CL. 8	W-54
"	22	EACH	REMOVING EX. M.H.C.& C. & VALVE BOXES - WITH RESTORATION CL. 3 PAV'T	W-54
"	62	EACH	WELDING TIED JOINTS - REINF. CONC. PIPE - 24"	W-63
"	29	EACH	WELDING TIED JOINTS - REINF. CONC. PIPE - 36"	W-63
"	48	EACH	WELDING TIED JOINTS - REINF. CONC. PIPE - 42"	W-63
"	17	EACH	WELDING TIED JOINTS - REINF. CONC. PIPE - 48"	W-63
"	1	EACH	REMOVING 36" X 36" TEE	W-64
"	1	EACH	REMOVING & REINSTALLING EX. 36" - 90° BEND	W-65
"	32,400	LBS.	REINFORCING STEEL	C-3
"	30	CU. YD.	SPECIAL FILL MATERIAL	E-9
"	250	LIN. FT.	CHANGING 6" PIPE SEWERS	S-20
"	50	LIN. FT.	CHANGING 8" PIPE SEWERS	S-20
"	60	LIN. FT.	CHANGING 12" PIPE SEWERS	S-3
"	50	LIN. FT.	CHANGING 15" PIPE SEWERS	S-3
"	50	LIN. FT.	CHANGING 18" PIPE SEWERS	S-3
"	50	LIN. FT.	CHANGING 24" PIPE SEWERS	S-3
"	50	LIN. FT.	CHANGING 36" PIPE SEWERS	S-3
"	50	LIN. FT.	CHANGING 36" BRICK SEWERS	S-3
"	3	EACH	ADJUSTING EX. VALVE CHAMBERS	S-11
"	10	M.BD.FT.	SHEETING & BRACING (ORDERED LEFT IN PLACE)	S-25

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.

ITEM W-63 WELDING TIED JOINTS - REINF. CONC. PIPE
W-63.01 DESCRIPTION. WELDING OF TIED JOINTS OF REINFORCED CONCRETE PRESSURE PIPE SHALL BE DONE IN ACCORDANCE WITH SECTION C-4.23 OF THE CITY OF CINCINNATI GENERAL CONSTRUCTION AND MATERIAL SPECIFICATIONS.
W-63.02 PAYMENT. PAYMENT FOR THE ITEM "WELDING TIED JOINTS - REINF. CONC. PIPE" WILL BE MADE AT THE PRICE BID PER JOINT PER SIZE AS DESIGNATED. THE PAYMENT FOR THIS ITEM SHALL COVER ALL LABOR, EQUIPMENT AND MATERIAL NECESSARY TO PERFORM THE OPERATION.

ITEM W-64 REMOVE EXISTING 36" X 36" CAST IRON PIPE TEE AND SOLID SLEEVE.
W-64.01 DESCRIPTION. THIS ITEM SHALL COVER THE REMOVAL OF AN EXISTING 36" X 36" CAST IRON TEE AND SOLID SLEEVE, AS SHOWN ON SHEET NO. 429, INTACT WITHOUT DAMAGE TO EXISTING 36" CAST IRON PIPE WITHIN THE RUN. ALL JOINTS ARE TO BE CAREFULLY BURNED OUT IN SUCH A FASHION THAT THE EXISTING CAST IRON PIPE WITHIN THE RUN WILL NOT BE DAMAGED IN ANY WAY.
W-64.02 PAYMENT. PAYMENT FOR THE ITEM "REMOVE EXISTING 36" X 36" CAST IRON PIPE TEE AND SOLID SLEEVE" WILL BE MADE AT THE TOTAL BID PRICE FOR THIS ITEM WHICH SHALL COVER ALL LABOR, EQUIPMENT AND MATERIAL NECESSARY OR INCIDENTAL TO PERFORM THIS OPERATION.

ITEM W-65 REMOVING AND REINSTALLING 36" CAST IRON VERTICAL 90° BEND.
W-65.01 DESCRIPTION. THIS ITEM SHALL COVER THE REMOVAL AND REINSTALLING (OR RESETTING) OF ONE 36" CAST IRON VERTICAL 90° BEND, AS SHOWN ON SHEET NO. 429, INTACT WITHOUT DAMAGE TO THE CAST IRON PIPE RISER OR BEND. THE BEND TO BE RESET OR REINSTALLED TO MEET THE NEW ALIGNMENT OF PROPOSED MAIN.
W-65.02 PAYMENT. PAYMENT FOR THE ITEM "REMOVING AND REINSTALLING 36" CAST IRON VERTICAL 90° BEND" SHALL BE MADE AT THE TOTAL BID PRICE WHICH SHALL COVER ALL LABOR, EQUIPMENT AND MATERIAL NECESSARY TO EXCAVATE, SUPPORT, REMOVE AND REINSTALL THE BEND AS SPECIFIED IN THE PROPOSAL.

ITEM W-62 SPECIAL FILL.
W-62.01 DESCRIPTION. THIS ITEM SHALL COVER ANY SPECIAL FILL AND GRADING WORK REQUIRED WHERE WATER MAINS ARE TO BE INSTALLED OUTSIDE OF THE PROPOSED STREET RIGHTS OF WAY. IT SHALL CONSIST OF ALL CLEARING, GRUBBING AND SCALPING; EXCAVATING TO PROPOSED GRADES SHOWN ON THE PLANS; FILLING ALL CELLARS AND LOW AREAS TO CONFORM WITH THE GRADES SHOWN ON THE PLANS; DISPOSING OF UNSUITABLE AND SURPLUS MATERIAL; REMOVAL OF OLD PAVEMENT, CURBS, WALLS, STEPS, WALKS, DRIVES, FENCES, TREES AND STUMPS.
WORK PERFORMED UNDER THIS ITEM SHALL BE DONE IN ACCORDANCE WITH THE SPECIFICATIONS SET FORTH IN ITEM E-1 OF THE CITY OF CINCINNATI GENERAL CONSTRUCTION AND MATERIAL SPECIFICATIONS; EXCEPT THAT ALL WALLS SHALL BE REMOVED TO A LEVEL TWO FEET BELOW THE BOTTOM OF THE PROPOSED WATER MAINS FOR A WIDTH OF THREE FEET ON EACH SIDE OF THE CENTER LINE OF THE MAINS AND THE REMOVAL OF ALL TREES, REGARDLESS OF SIZE, SHALL BE COVERED BY THIS ITEM.
W-62.02 PAYMENT. PAYMENT FOR THIS ITEM WILL BE MADE AT UNIT PRICE BID PER CUBIC YARD WHICH SHALL COVER ALL LABOR, MATERIAL AND EQUIPMENT TO PERFORM ALL OF THE REQUIREMENTS SET FORTH IN THE DESCRIPTION OF THIS ITEM.

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-8 FURNISHING & INSTALLING 84" TUNNEL LINER - CL. 8
W-8.01 DESCRIPTION. THIS ITEM SHALL COVER THE FURNISHING & INSTALLING OF 84" TUNNEL LINER. TUNNEL LINER SHALL BE TRUSCON OR APPROVED EQUAL, PLATES 3/16" THICK, 16" WIDE, 37 1/16" LONG, PANELS FORMED OUT, GALVANIZED AND FULLY BITUMINOUS COATED.
W-8.02 PAYMENT. PAYMENT FOR THIS ITEM WILL BE MADE AT THE UNIT PRICE BID PER LINEAL FOOT WHICH SHALL COVER ALL LABOR, MATERAL AND EQUIPMENT TO FURNISH & INSTALL 84" TUNNEL LINER.

CINCINNATI WATER WORKS

Drawing No. S-529
Sheet No. 38 of 38

WATER WORKS SUMMARY

NOT FOR CONSTRUCTION INFORMATION ONLY

FED. RD. DIVISION	STATE	PROJECT	
2	OHIO		

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EXCAVATION & EMBANKMENT

Station to Station	Total	Full Project Participation			100% City		
		E-1 & E-8 Excavation	Embankment	Embankment +15%	E-1 & E-8 Excavation	Embankment	Embankment +15%
	Cu. Yd.						
Expressway 93+08 to 102+00		776	58,590	67,378			
Expressway 102+00 to 113+50		5,725	46,093	53,007			
Expressway 113+50 to 124+50		60,327	9,527	10,956			
Expressway 124+50 to 135+00		684	13,642	15,688			
N.B. Expressway 135+00 to 147+00		9,319	68,827	79,151			
S.B. Expressway 135+50 to 147+00		122	110,824	127,448			
N.B. Expressway 147+00 to 160+1.97		26,104	63,075	72,536			
S.B. Expressway 147+00 to 160+00		14,503	38,080	43,792			
Western Ave. Ext. 0+50 to 6+12		1,171	7,324	8,423			
Winchell Ave. 41+75 to 51+00		2,861	5,734	6,594			
Winchell Ave. 51+00 to 63+00		3,087	4,899	5,634			
Winchell Ave. 63+00 to 72+50		5,953	2,056	2,364			
Liberty St. 1+62 to 6+35		2,571	8,960	10,304			
Findlay St. 0+25 to 6+70		2,337	9,208	10,589			
Bank St. 0+74.5 to 7+50		6,436	4,739	5,450	880	414	476
Harrison Ave. 0+75 to 4+25		131	11,234	12,919			
Spring Grove Ave. 2+50 to 6+31					790	550	633
Western Hills Via. Appro. 11+77 to 13+76		8	25,464	29,284			
Ramp B 1+00 to 10+00		1,209	11,014	12,666			
Ramp C 1+00 to 10+00		777	46,170	53,095			
Ramp D 11+21 to 16+50		762	20,424	23,488			
Ramp E 3+51 to 6+39		43	10,191	11,720			
Ramp F 3+46 to 6+34		18	11,916	13,703			
Temp. Connection 172+00 to 177+47		357	497	572			
Excavation of uncompacted Basement Fills.		2,000	2,000	2,300			
Sub-Totals		147,291	590,488	679,061	1,670	964	1109
Totals to Water Calculations	591,452		590,488			964	
Total E-1 & E-8 Excavation	148,961	147,291			1,670		
Total E-2 Surplus*	6,479						
Total Excavation	155,440						
Total Embankment	680,170			679,061			1109
Total E-4 Borrow to the General Summary	524,730						
Total E-8 Excavation	12,171	10,653			1,518		
Total E-1, B Excavation to the General Summary	136,790	136,638			152		

*E-2 Surplus estimated at 44% of total E-2 Excavation.

COMPACTED SUBGRADE CALCULATIONS

Item E-1	Full Project Participation	100% City
Payment Areas	Sq. yd.	Sq. yd.
T-71	114,390	4738
T-70	1,063	–
B-70	184	207
B-21	2,113	–
I-7	3,183	–
Totals to General Summary	120,942	4,945

FENCING CALCULATIONS

Item 55-18 (Full Project Participation)		Type C Fence Gate	
Station to	Station	Lin.Ft.	Ea.
6+96 Rt. ℄ Ramp M	99+36 Rt. ℄ U.S. 25	685	
50+33 Lt. ℄ Winchell	108+89 Rt. ℄ U.S. 25	861	1
60+08.50 Lt. ℄ Winchell	72+53 Lt. ℄ Winchell Ave.	1318	1
1+03 Lt. ℄ Ramp B	2+50 Lt. ℄ Ramp B	210	
1+92 Rt. ℄ Ramp B	10+26 Rt. ℄ Ramp B	867	
10+14 Lt. ℄ Ramp C	5+25 Lt. ℄ Ramp C	730	1
1+25 Lt. ℄ Ramp C	4+08 Lt. ℄ Ramp C	303	
0+60 Rt. ℄ Ramp C	1+75 Rt. ℄ Ramp C	115	
16+25 Rt. ℄ Ramp D	16+70 Rt. ℄ Ramp D	49	
14+10 Lt. ℄ Ramp D	17+00 Lt. ℄ Ramp D	310	
163+55 Rt. ℄ N.B. U.S. 25	164+81.78 Rt. ℄ N.B. U.S. 25	160	
5+99 Rt. ℄ Ramp N	6+25 Rt. ℄ Ramp N	26	
5+75 Lt. ℄ Ramp N	3+87.50 Rt. ℄ W.A.E.	723	
102+02 Lt. ℄ U.S. 25	109+60 Lt. ℄ U.S. 25	811	1
111+42 Lt. ℄ U.S. 25	4+50 Rt. ℄ Ramp A	564	
4+00 Lt. ℄ Ramp A	124+06 Lt. ℄ U.S. 25	882	
125+92 Lt. ℄ S.B. U.S. 25	12+57 Rt. ℄ Ramp E	1089	1
8+59 Rt. ℄ Ramp E	10+96 Rt. ℄ Ramp E	266	1
8+18 Lt. ℄ Ramp E	7+82 Rt. ℄ Ramp F	542	2
8+38 Lt. ℄ Ramp F	164+66.62 Lt. ℄ S.B. U.S. 25	2101	2
4+82.00 Rt. ℄ Ramp E	6+10 Lt. ℄ Ramp F	655	1
172+03 Rt. ℄ U.S. 25	176+28 Rt. ℄ U.S. 25	439	
Totals to General Summary		13,706	11

CENTERLINE REFERENCE MONUMENTS

Item I-8	Each
Monuments using Class "C" Concrete, cast-in-place (As per plan)	30

CALCIUM CHLORIDE

Item M-10	Tons
For Maintaining Traffic	10
For Dust Control	60

WATER CALCULATIONS

Item E-11		Gallons per Cu. Yd.	Full Project Participation	100% City	Total
	Cu. Yd.		M.gals.	M.gals	M.gals
Roadway Embankment	591,452	5	2,952	5	2,957
I-22 Subbase	26,163	5	127	4	131
I-18 Stabilized Crushed Agg. Shoulder	3,596	5	18	–	18
Dust Control	–	–	200	–	200
Totals to General Summary			3,297	9	3,306

SEEDING CALCULATIONS

	Full Project Participation		100% City		Total
	Sq. yds.	Tons.	Sq. yds.	Tons.	
Net area to be seeded & soded	166,063		1,922		167,985
Commercial Fertilizer - applied at 20 lbs. per 1000 sq. Ft.		14.95		0.17	15.12
Agricultural liming material - applied at 100 lbs. per 1000 sq. ft.		73.72		0.87	75.59

Retaining Walls

	Excavation for Structures Item E-2	Steel Sheet Piling Left in Place Item E-2	Concrete for Structures Class E Item S-1	Premolded Sealing Strip Item S-3	Reinforcing Steel Item S-4	1" Pref. Expansion Joint Filler Item S-9	Guard Rail single faced with Galv. Posts Item S-14	First Test Pile Item S-16	12" C.I.P. Bearing Piles Item S-18	Steel H Piles 12 B 53 Item S-18	Porous Backfill Item S-29	8" Bit. Coated C.M.P. Item S-29	8" Perforated Bit. Coated C.M.P. Item S-29	
	Cu. Yd.	Sq. Ft.	Cu. Yd.	Lin. Ft.	Lbs.	Sq. Ft.	Lin. Ft.	Lump	Lin. Ft.	Lin. Ft.	Cu. Yd.	Lin. Ft.	Lin. Ft.	
Wall No. 1	583		427	105	12,641	54		Lump	2720		180		364	
Wall No. 2	330		196	43	5,665	10		Lump	1160		75		226	
Wall No. 3	164		152	44	3,875	31					47	28	168	
Wall No. 4	126		94	26	2,289	21					30	32	92	
Wall No. 5	300		217	37	11,050	25		Lump	1850		63			
Wall No. 6	750	1344	780	169	58,897	171		Lump	1302	3612	304	27	268	
Wall No. 7	346		363	91	24,158	74	160	Lump	3905		183			
Wall No. 8	64		46	8	1,257						9			
Wall No. 9	220		178	44	5,130	29					55			
Wall No. 10	329		214	43	6,225	19					63			
Wall No. 11	322		150	43	3,584	21								
Totals to General Summary	3,534	1,344	2,817	653	134,771	455	160	Lump	10,937	3612	1,009	87	1118	

QUANTITIES

NOT FOR CONSTRUCTION INFORMATION ONLY

FED. RD. DIVISION	STATE	PROJECT	
2	OHIO		

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ITEM E-8 PAVEMENT AND CURB REMOVAL

STREET ALLEY ETC.	LOCATION	PAVEMENT REMOVAL SQ.YD.		CURB REMOVAL LIN.FT.	
		FULL PROJECT PARTICIPATION	100% CITY	FULL PROJECT PARTICIPATION	100% CITY
Temporary Conn.	48' Rt. of Sta. 94+00	489.4			
Temporary Conn.	48' Lt. of Sta. 94+00	501.7			
Dudley St.	160' Rt. of Sta. 93+35 to N. line of Liberty St.	2652.3			
Wade St.	105' Rt. of Sta. 96+00 to W. edge of Dudley St.	259.7			
Wade St.	W. edge of Freeman Ave. to 29' West	107.3			
Freeman Ave.	S. line of Wade St. to S. line of Wilstach St.	730.1			
Wilstach St.	W. edge of Freeman Ave. to 103' West	253.1			
Liberty St.	Area E. of Dudley St.	59.1			
Liberty St.	W. edge of Dudley St. to E. edge of Freeman Ave.	973.6			
Liberty St.	Western Ave. Intersection	1888.2			
Faulkner St.	S. edge of Liberty St. to 28' South	66.7			
Freeman Ave.	90' S. of ℄ Liberty St. to 35' North	513.9			
Malden Al.	118' S. of ℄ Liberty St. to 137' North	453.3			
Freeman Ave.	115' Rt. of Sta. 103+00 to S. edge of Poplar St.	668.9			
Poplar St.	W. edge of Freeman Ave. to 130' West	453.1			
Kent Al.	N. edge of Poplar St. to 80' North	73.0			
Kelly Al.	30' W. of ℄ Kent Al. to 90' West	73.3			
Poplar St.	E. edge of Western Ave. to 6' East	34.7			
Kelly Al.	E. edge of Western Ave. to 20' East	28.9			
Findlay St.	64' W. edge of Kent Al. to Western Ave.	1584.6			
Hulbert St.	110' Rt. of Sta. 112+20 to 81' East	279.0			
Western Ave.	168' S. of Hulbert St. to 116' N. of Hulbert St.	78.9			
Hulbert St.	E. edge of Western Ave. to 22' East	75.8			
York St.	212' Rt. of Sta. 114+70 to 98' Rt. of Sta. 115+90	378.3			
York St.	E. edge of Western Ave. to 54' East.	204.7			
Naeher St.	155' Rt. of Sta. 117+30 to 85' Rt. of Sta. 117+95	198.3			
Naeher St.	E. edge of Western Ave. to 13' East	36.1			
Dayton St.	155' Rt. of Sta. 119+45 to 90' Rt. of Sta. 120+20	266.9			
Garden St.	Winchell St. to 63' East	133.0			
Winchell St.	Garden St. to 115' N. of Bank St.	895.6			
Dayton St.	Sta. 121+15 ~ 127' Lt. to Western Ave.	209.1			
Turner Al.	26' South of Bank St. to 30' North	82.5			
Holt Al.	Bank St. to 30' South	35.9			
Bank St.	7' E. of Winchell Ave. to W. edge of Spring Grove Ave.	1612.0			
Bank St.	W. edge of Spring Grove Ave. to E. line of Mc. Lean St.		496.8		
Western Ave.	120' S. of Bank St. to Mc. Lean St.		996.9		
Mc. Lean St.	Western Ave. to Spring Grove Ave.		1876.2		
Spring Grove Ave.	Bank St. to Mc. Lean St.		1127.1		
Spring Grove Ave.	Bank St. Intersection	498.0			
Coppin St.	W. edge of Winchell St. to 76' W. of Winchell St.	104.1			
Coppin St.	E. line Spring Grove Ave. to 24' East	36.6			
Harvie Al.	E. line Spring Grove Ave. to 21' East	20.6			
Turner Al.	S. line Harrison Ave. to 27' South	55.8			
Bogan St.	N. line Harrison Ave. to 40' North	142.2			
Spring Grove Ave	40' N. of Harrison Ave. to 100' North	59.6			
Zinc St.	90' Rt. of Sta. 139+80 N.B. to 200' Rt.	151.1			
Zinc St.	375' S. of Queen City Ave. to 80' S. of Queen City Ave.	452.7			
Bogan St.	305' S. of Queen City Ave. to Queen City Ave.	893.0			
Queen City Ave.	Colerain Ave. to Bogan St.	1347.7			
Queen City Ave.	42' E. of Spring Grove Ave. to 66' East	96.0			
Colerain Ave.	Between Western Hills Viaduct & Ramp "D"	287.1			
Colerain Ave.	120' S. of Queen City Ave. to Sta. 156+00 S.B.	4139.9			
Colerain Ave.	40' Lt. of Sta. 5+50 Ramp "C" to 15' Rt. of Sta. 3+60 Ramp "C"	575.6			
Draper St.	Colerain Ave. to Cook St.	1027.8			
Straight St.	75' Lt. to 95' Lt. of Sta. 164+40 S.B.	82.2			
Straight St.	65' Rt. to 115' Rt. of Sta. 164+50 N.B.	156.2			
Buck St.	N. & S. of Western Hills Viaduct	619.6			
Central Parkway	at Western Hills Viaduct	150.0			
Temporary Conn.	at Marshall St.	1084.7			
Faulkner St.	Cul-de-sac S. of Liberty St.			38	
Malden Al.	Cul-de-sac N of Liberty St.			38	
Western Ave.	N. of Findlay Ave.			95	
Findlay Ave.	at Freeman Ave.			272	
Western Ave.	S. of York St. & N. of York St.			350	
Spring Grove Ave.	at Barnard St.				25
Spring Grove Ave.	between Coppin St. & Harvie Al.			80	
Spring Grove Ave.	N. of Harrison Ave. to Queen City Ave.			517	
Colerain Ave.	Cul-de-sac N. of Harrison Ave.			65	
Buck St.	Cul-de-sac N. & S of Western Hills Viaduct			76	
Colerain Ave.	S. of Alfred St.	96.0			
Straight St.	Cul-de-sac		7.0	38	
	Totals	28,427.5	4497.0	1569	25

ITEM S-22
REMOVAL OF PORTIONS OF EXISTING STRUCTURES

SHEET	DESCRIPTION	LOCATION	QUANTITY
45	Concrete Curb Wall (1809 Freeman)	40' Lt Sta. 6+60 Findlay	Lump
92	Reinf. Concrete Stairway	Sta. 7+80 Western Hills Viaduct	Lump

ITEM S-24
REMOVAL OF EXISTING STRUCTURES

SHEET	DESCRIPTION	LOCATION	QUANTITY
39	Misc. Conc. Foundation & Retaining Walls	Lt. & Rt. Sta. 110+00 to Sta. 112+00	Lump
45	Concrete Retaining Wall	Findlay Sta. 5+15 (45' Rt.) to Sta. 5+28 (52' Lt.)	Lump
71	Concrete Bin Walls	W.H.V. Sta. 11+35 to Sta. 11+60 (6' Lt. & 8' Rt.)	Lump
74	Reinf. Concrete Stairway	Sta. 148+44 (N.B.) to Sta. 148+88 (N.B.) Rt.	Lump
93	Reinf. Concrete Stairway	Sta. 13+65 Western Hills Viaduct (70' to 105' Lt.)	Lump
93	Reinf. Concrete Pylons & Railing	Sta. 13+65 W.H.V. (Lt.) & Sta. 14+00 W.H.V. (Rt.)	Lump
99	Misc. Conc. Retaining Walls	Sta. 140+92 (N.B.) to Sta. 148+70 (N.B.) Lt. & Rt.	Lump
100	Misc. Conc. Retaining Walls	Sta. 150+98 (S.B.) to 152+29 (S.B.) Rt.	Lump
100	Concrete Stairway & Walls	Sta. 152+45 (N.B.) to 152+80 (N.B.) Rt.	Lump

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EXISTING PAVEMENT DATA

FED. RD. DIVISION	STATE	PROJECT	
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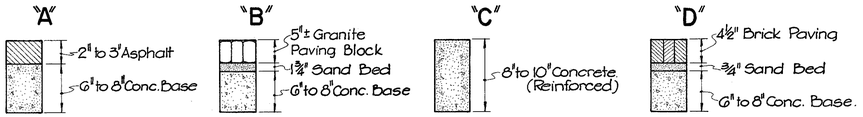
TYPICAL SECTIONS



NOTES

1. Section letters shown with a subscript 1 (such as "B_1") have an asphaltic concrete surface course of indeterminate thickness.
2. Section letters shown with a subscript 2 (such as "B_2" or "B_{1-2}") have granite "boulder paving instead of granite block.
3. Section letters shown with a subscript 3 (such as "A_3") have wood block paving in the street car track area.
4. Curb type designations shown with an asterisk (such as Granite*) indicate a curb & gutter section of the same material.

STREET	FROM	TO	WIDTH BETWEEN CURBS	CURB	SECTION	STREET CAR RAIL EMBEDDED
	EAST ~ WEST STREETS					
Wade St.	Dudley St.	Faulkner St.	30'	Granite	A	None
Wilstach St.	Freeman Ave	Faulkner St.	24'	Limestone	D	None
West Liberty St.	Dudley St.	Faulkner St.	Varies	Granite	B	Double
Poplar St.	Dudley St.	Western Ave.	30'	Granite	A	None
Findlay St.	Baymiller St.	Freeman Ave.	30'	Granite*	A	None
Findlay St.	Freeman Ave.	Western Ave.	30'	Limestone*	B_{1-2}	None
Hulbert Ave.	Freeman Ave.	Western Ave.	30'	Granite	D_1	None
York St.	Colerain Ave.	Western Ave.	30'	Limestone*	B_1	None
Naeher St.	Colerain Ave.	Western Ave.	20'	None	D	None
Dayton St.	Colerain Ave.	Western Ave.	30'	Granite	A	None
Garden St.	Colerain Ave.	Winchell Ave.	18'	Granite	B_1	None
Bank St.	Colerain Ave.	Western Ave.	30'	Granite	B_1	None
Bank St.	Western Ave.	McLean Ave.	30'	Granite	Granite Block & brick w/Asph.Cover	None
Coppin St.	Winchell Ave.	Spring Grove Ave.	12'	Limestone*	B_1	None
Harrison Ave.	Patterson St.	Spring Grove Ave.	40'	Granite	B	Double
Queen City Ave.	Colerain Ave.	Spring Grove Ave.	Varies	Limestone	Granite Boulder w/Asph. Cover	None
Queen City Ave.	Spring Grove Ave.	Buck St.	Varies	Conc & Limestone	C & Gran. Boulder	None
Draper St.	Colerain Ave.	Cook St.	36'	Granite	B_1	None
Straight St.	Central Parkway.	Colerain Ave.	36'	Granite	B_1	None
Buck St.	Spring Grove Ave. - West		20'	Concrete	C	None
	NORTH ~ SOUTH STREETS					
Dudley St.	Armory Ave.	Wade St.	30'	Granite	A	None
Dudley St.	Wade St.	West Liberty St.	30'	Granite	B_1	None
Freeman Ave.	Flint St.	West Liberty St.	36'	Granite	B_3	Double
Freeman Ave.	West Liberty St.	Hulbert St.	36'	Granite	B_3	Single
Faulkner St.	Wilstach St.	West Liberty St.	18'	Granite	D	None
Winchell Ave.	Naeher St.	Bank St.	30'	Granite	D	None
Winchell Ave.	Bank St.	Harrison Ave.	30'	Granite	B_1	Single
Western Ave.	West Liberty St.	McLean Ave.	40'	Granite	B_1	Double
Western Ave.	Mc Lean Ave.	Lowry St.	36'	Granite	B_1	None
Mc Lean Ave.	Spring Grove Ave.	Western Ave.	70'	Granite	B_1	Double
McLean Ave.	Western Ave.	Bank St.	30'	Concrete	C	None
Barnard St.	Mc Lean Ave.	Lowry St.	30'	Granite	B_1	None
Spring Grove Ave.	Bank St.	Mc Lean Ave.	30'	Granite	B_1	None
Spring Grove Ave.	Mc Lean Ave.	Harrison Ave.	75'-70'	Granite	B_1	Double
Buck St.	Harrison Ave.	Spring Grove Ave.	24'	Granite	B_1	None
Buck St.	Spring Grove Ave.	Queen City Ave.	36'	Granite	B_1	None
Bogen St.	Harrison Ave.	Queen City Ave.	30'-33'	Conc C & G	B_1	50% Single
Zinck St.	Bogen St.	Queen City Ave.	10'-13.5'	Granite	B	None
Colerain Ave.	Harrison Ave.	Alfred St.	36'	Granite	B_1	Double
Central Parkway	At Western Hills Viaduct.		~	Conc. C & G	A_1	None
	ALLEYS					
Malden (Betts) Al.	Armary Ave.	Poplar St.	15'	Granite	D	
Kent Al.	Poplar St.	Findlay St.	7'	Granite	D	
Kelly Al.	Western Ave.	Kent Al.	10'	None	D	
Holt Al.	Dayton St.	Bank St.	7'	Granite	D	
Turner Al.	Coppin St.	Harrison Ave.	14'	Granite	C	
Harvie Al.	Turner Al.	Spring Grove Ave.	7'	Granite	D	

PAVEMENT SYMBOLS

Item T-71 9" or 10" Reinforced Portland Cement Concrete Pavement (See General Plan & appropriate typical section.)

Item T-31 Bituminous surface treatment, single seal, using 0.008 C.Y. No.6 Aggregate per sq. yd. and 0.25 gal. bituminous material, as per plan. (See Note 1 in proposal)
Item B-21 * 3" Waterproofed aggregate base course.

Item I-13 4" Portland Cement Concrete Sidewalk.

Item I-21 4" Portland Cement Concrete Median Pavement.

Item T-70 8" Portland Cement Concrete Pavement.

Item T-35 * 1½" Asphaltic concrete surface course, type "C" (70-85)
Item B-35 * 1¾" Asphaltic concrete leveling course (70-85)
Item T-30 bituminous Tack Coat, Sec. M-5.5, M5-2 or R5-1 or Sec. M-5.2, RC-1 or RC-2 applied at rate of 0.10 gal. per sq. yd.
Item B-70 8" Portland Cement Concrete base course.
Item I-22 6" Subbase (Type C & D Grading.)

Item T-35 Asphaltic concrete surface course type "C" (70-85) variable thickness.
Item B-35 Asphaltic concrete leveling course, (70-85) variable thickness.
Use Leveling course only where total thickness exceeds 2".

Item E-8 Removal of portion of existing wearing surface.
Item T-35 * 1" Asphaltic concrete surface course, type "C" (70-85)
Item B-35 Asphaltic concrete leveling course, variable thickness. (70-85)

Item I-21 6" Portland Cement Concrete Traffic Island Pavement (see Sh. 23G

Item I-21 Portland Cement Concrete Median Pavement Type 2 (Modified) See Sh. 23G

* Thicknesses shown are "designed" thicknesses as described in Sections T-35.01, B-35.01 and B-21.01.

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CURVE DATA SUMMARY

CURVE Nº	LOCATION	P.I. STA.	Δ	Dc	Rc	Lc	T1	T2	Ls1	Ls2	Θs1	Θs2	E
1	Expressway	98+89.58	34°-55'-25"	3°-00'-00"	1909.86	564.12	903.00	903.00	600.00	600.00	9°-00'-00"	9°-00'-00"	100.49
2	Expressway	121+79.39	23°-39'-37"	3°-00'-00"	1909.86	488.67	681.88	419.59	600.00	———	9°-00'-00"	———	———
NE-1	N.B. Expressway	127+83.67	10°-32'-09"	3°-03'-04"	1877.86	111.17	197.49	315.01	———	400.00	———	7°-08'-38"	———
NE-2	N.B. Expressway	141+14.61	10°-33'-59"	0°-31'-15"	11000.79	2028.74	1017.26	1017.26	———	———	———	———	46.93
NE-3	N.B. Expressway	153+29.81	4°-08'-26"	1°-01'-00"	5635.65	407.27	203.72	203.72	———	———	———	———	3.68
NE-4	N.B. Expressway	164+57.04	5°-56'-01"	1°-58'-41"	2896.79	———	400.23	200.21	600.00	———	5°-56'-01"	———	———
SE-1	S.B. Expressway	127+86.64	8°-51'-06"	2°-57'-02"	1941.86	———	200.46	400.50	———	600.00	———	8°-51'-06"	———
SE-2	S.B. Expressway	146+57.20	19°-41'-41"	1°-25'-00"	4044.41	1390.21	702.03	702.03	———	———	———	———	60.48
SE-3	S.B. Expressway	164+41.40	9°-14'-14"	2°-01'-21"	2832.79	156.70	496.20	261.81	600.00	———	6°-04'-04"	———	———
W-1	Western Ave. Ext.	1+61.41	22°-00'-26"	10°-00'00"	572.96	220.07	111.41	111.41	———	———	———	———	10.73
W-2	Western Ave. Ext.	5+37.90	13°-03'-19"	10°-00'-00"	572.96	130.55	65.56	65.56	———	———	———	———	3.74
WL-1	Winchell Ave.	45+68.62	24°-20'20"	4°-00'-00"	1432.39	608.47	308.90	308.90	———	———	———	———	32.93
WL-2	Winchell Ave.	51+29.75	10°26'00"	2°00'-00"	2864.79	521.67	261.56	261.56	———	———	———	———	11.92
WL-3	Winchell Ave.	65+17.12	6°-17'-33"	1°-30'-00	3819.72	419.50	209.96	209.96	———	———	———	———	5.77
WL-4	Winchell Ave.	70+34.45	21°17'-48"	3°-30'-00"	1637.02	608.48	307.79	307.79	———	———	———	———	28.68
Y-1	York St. Conn.	0+60.75	57°-49'14"	52°05-13"	110.00	111.01	60.75	60.75	———	———	———	———	15.66
Y-2	York St. Conn.	1+32.56	71°22'-45"	190°-59-09"	30.00	37.37	21.55	21.55	———	———	———	———	6.94
S-1	Spring Grove Ave.	0+62.96	34°-56'-46"	28°-38'52	200.00	121.98	62.96	62.96	———	———	———	———	9.67
S-2	Spring Grove Ave. Connection	1+49.00	89°-37'-05"	38°11'-50"	150.00	234.62	149.00	149.00	———	———	———	———	61.43
S-3	Spring Grove Ave. Connection	1+94.99	18°-11'-42"	114°-35'30"	50.00	15.88	8.01	8.01	———	———	———	———	0.64
N-1	Ramp N	9+98.65	23°-43'-58"	5°-00'-00"	1145.92	474.66	240.78	240.78	———	———	———	———	25.02
A-1	Ramp A	0+89.33	5°21'-21"	3°00'-00"	1909.86	178.52	89.33	89.33	———	———	———	———	2.09
A-2	Ramp A	7+08.89	8°-48'-33"	4°-00'-00"	1432.39	220.22	110.33	110.33	———	———	———	———	4.24
A-3	Ramp A	10+14.36	3°-54'-36"	1°-00'-00"	5729.58	391.00	195.58	195.58	———	———	———	———	3.34
B-1	Ramp B	8+52.74	10°02'-21"	3°00'-00"	1909.86	334.64	167.75	167.75	———	———	———	———	7.45
B-2	Ramp B	13+47.79	3°25'-49"	0°-31'-22"	10959.62	656.13	328.16	328.16	———	———	———	———	4.91
B-3	Ramp B	24+01.09	5°-05'-28"	1°-01'-24"	5599.65	497.57	248.95	248.95	———	———	———	———	5.53
C-1	Ramp C	2+21.63	56°52'31"	14°-00'-00"	409.26	406.25	221.63	221.63	———	———	———	———	56.16
C-2	Ramp C	———	209°-59'-14"	28°30'-00"	201.04	634.96	———	———	———	———	———	———	———
D-1	Ramp D	1+12.99	5°-25'-09"	2°-24'-00"	2387.32	225.80	112.99	112.99	———	———	———	———	2.67
D-2	Ramp D	———	214°-56'38"	28°-30'-00"	201.04	654.19	———	———	200.00	———	28°-30'-00"	———	———
D-3	Ramp D	16+77.55	59°-08'-08"	19°-00'-00"	301.56	311.24	171.08	171.08	———	———	———	———	45.15
E-1	Ramp E	2+18.65	12°-15'53"	33°-00'-00"	173.62	37.17	18.65	18.65	———	———	———	———	1.00
E-2	Ramp E	6+59.34	16°16'-39"	14°-00'-00"	409.26	116.27	58.53	58.53	———	———	———	———	4.16
E-3	Ramp E	8+37.08	51°-17'-51"	25°-00'-00"	229.18	101.19	120.00	199.12	———	200.00	———	26°-00'-00"	———
E-4	Ramp E	12+16.89	3°58-15"	1°-00'-00"	5729.58	397.07	198.62	198.62	———	———	———	———	3.44
F-1	Ramp F	2+31.39	15°36'-00"	25°00'-00"	229.18	62.40	31.39	31.39	———	———	———	———	2.14
F-2	Ramp F	6+26.46	16°16'-55"	14°-00'-00"	409.26	116.30	58.54	58.54	———	———	———	———	4.17
F-3	Ramp F	7+99.34	49°-29'07	25°00'-00"	229.18	97.94	115.12	198.82	———	200.00	———	25°-00'-00"	———

PLAN SHEET INDEX

PLAN SHEET	STATION to STATION		SHEET NO.
Expressway	91+50	95+00	26
Expressway	95+00	98+50	27
Expressway	98+50	102+00	28
Expressway	102+00	105+50	37
Expressway	105+50	109+50	38
Expressway	109+50	113+50	39
Expressway	113+50	117+50	48
Expressway	117+50	121+00	49
Expressway	121+00	124+50	50
Expressway	124+50	128+00	59
Expressway	128+00	131+50	60
Expressway	131+50	135+50	61
Expressway	135+50	139+50	70
Expressway	139+50	143+50	71
Expressway	143+50	147+00	72
Expressway	147+00	150+50	99
Expressway	150+50	154+50	100
Expressway	154+50	160+00	101
Expressway	160+00	165+00	102
Expressway	165+00	166+12	103
Existing Temporary Conn.	173+50	177+40	104
Ramp - A	0+00	1+25	39
Ramp - A	1+25	5+25	48
Ramp - A	5+25	9+00	49
Ramp - A	9+00	12+10	50
Ramp - B	0+00	1+00	66
Ramp - B	1+00	3+25	59
Ramp - B	3+25	6+75	60
Ramp - B	6+75	10+75	61
Ramp - B	10+75	14+75	70
Ramp - B	14+75	18+50	71
Ramp - B	18+50	21+75	72
Ramp - B	21+75	25+25	99
Ramp - B	25+25	26+50	100
Ramp - C	0+00	3+00	93
Ramp - C	3+00	8+50	73
Ramp - C	8+50	12+41	70
Ramp - D	0+00	2+50	70
Ramp - D	2+50	6+50	71
Ramp - D	6+50	12+00	72
Ramp - D	12+00	15+00	74
Ramp - D	15+00	17+00	93
Ramp - D	17+00	18+18	92

PLAN SHEET	STATION to STATION		SHEET NO.
Ramp - E	2+00	6+75	86
Ramp - E	6+75	8+25	71
Ramp - E	8+25	12+50	70
Ramp - E	12+50	14+15	61
Ramp - F	2+00	6+50	86
Ramp - F	6+50	11+00	71&72
Ramp - F	11+00	14+01	99
Winchell Ave.	41+75	43+50	26
Winchell Ave.	43+50	47+25	27
Winchell Ave.	47+25	51+00	28
Winchell Ave.	51+00	54+75	37
Winchell Ave.	54+75	58+75	38
Winchell Ave.	58+75	62+75	39
Winchell Ave.	62+75	66+75	48
Winchell Ave.	66+75	70+00	49
Winchell Ave.	70+00	73+35	50&66
Western Ave. Extension	0+50	2+50	27
Western Ave. Extension	2+50	5+75	28
Western Ave. Extension	5+75	6+12	37
Liberty St.	0+65	6+35	28
Findlay St.	0+00	3+00	39
Findlay St.	3+00	6+75	45
Bank St.	0+57	3+00	67
Bank St.	3+00	7+75	66
Spring Grove Ave.	0+00	5+55	67
Western Hills Viaduct	0+00	6+50	86
Western Hills Viaduct	6+50	11+50	92
Western Hills Viaduct	11+50	13+97	93
Temporary Run-around Road	0+00	10+20	115

CURVE DATA SUMMARY & PLAN SHEET INDEX

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NOTES:
1. For Curve Data see Sh. 24
2. Station flags shown thus: Sta. ———● indicate the limit of work for the alignment so shown.

GEOMETRIC LAYOUT

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FED. RD. DIVISION	STATE	PROJECT	
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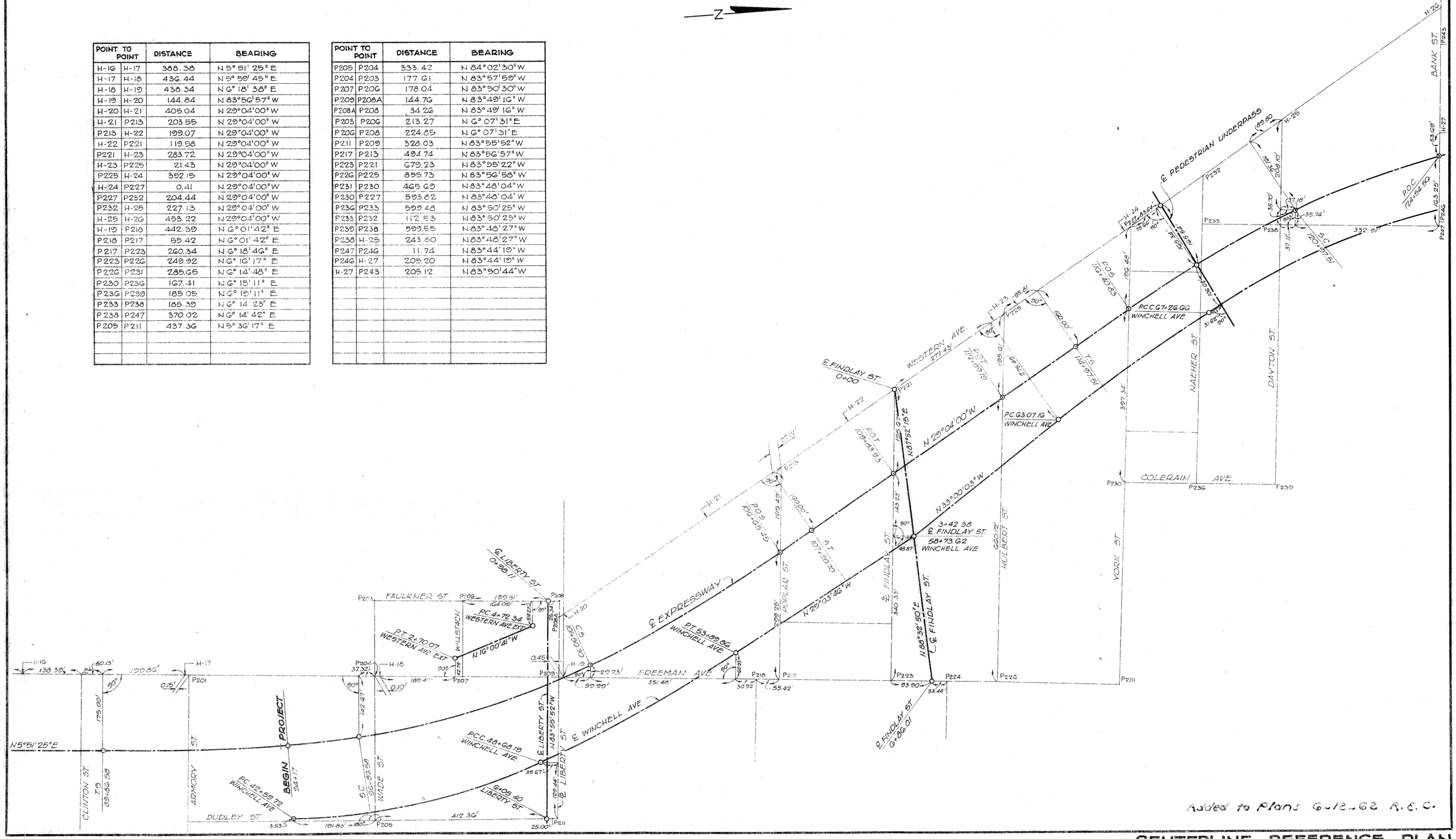
POINT TO POINT		DISTANCE	BEARING
H-16	H-17	388.38	N 5° 51' 25" E
H-17	H-18	436.44	N 5° 59' 45" E
H-18	H-19	436.34	N 6° 18' 38" E
H-19	H-20	144.84	N 83°56'57" W
H-20	H-21	405.04	N 29°04'00" W
H-21	P218	203.55	N 29°04'00" W
P218	H-22	199.07	N 29°04'00" W
H-22	P221	119.58	N 29°04'00" W
P221	H-23	283.72	N 29°04'00" W
H-23	P225	21.43	N 29°04'00" W
P225	H-24	352.15	N 29°04'00" W
H-24	P227	0.41	N 29°04'00" W
P227	P232	204.44	N 29°04'00" W
P232	H-25	227.13	N 29°04'00" W
H-25	H-26	453.22	N 29°04'00" W
H-19	P218	442.39	N 6°01'42" E
P218	P217	55.42	N 6°01'42" E
P217	P223	260.34	N 6° 18' 46" E
P223	P226	249.92	N 6° 16' 17" E
P226	P231	285.65	N 6° 14' 48" E
P230	P236	167.41	N 6° 15' 11" E
P236	P239	185.05	N 6° 15' 11" E
P233	P238	185.39	N 6° 14' 23" E
P238	P247	370.02	N 6° 14' 42" E
P205	P211	437.36	N 5° 36' 17" E

POINT TO POINT		DISTANCE	BEARING
P205	P204	333.42	N 84°02'30" W
P204	P203	177.61	N 83°57'59" W
P207	P206	178.04	N 83°50'30" W
P209	P208A	144.76	N 83°49'16" W
P208A	P208	34.26	N 83°49'16" W
P203	P206	213.27	N 6° 07' 31" E
P206	P208	224.85	N 6° 07' 31" E
P211	P209	328.03	N 83°55'52" W
P217	P213	494.74	N 83°56'57" W
P223	P221	679.23	N 83°55'22" W
P226	P225	855.73	N 83°56'58" W
P231	P230	465.60	N 83°48'04" W
P230	P227	593.62	N 83°48'04" W
P236	P233	599.48	N 83°50'25" W
P233	P232	112.53	N 83°50'25" W
P239	P238	593.55	N 83°48'27" W
P238	H-25	243.80	N 83°48'27" W
P247	P246	11.74	N 83°44'19" W
P246	H-27	205.20	N 83°44'19" W
H-27	P243	205.12	N 83°50'44" W



Added to Plans 6-12-62 A.E.C.

CENTERLINE REFERENCE PLAN

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FED. RD. DIVISION	STATE	PROJECT	
2	OHIO		

25B
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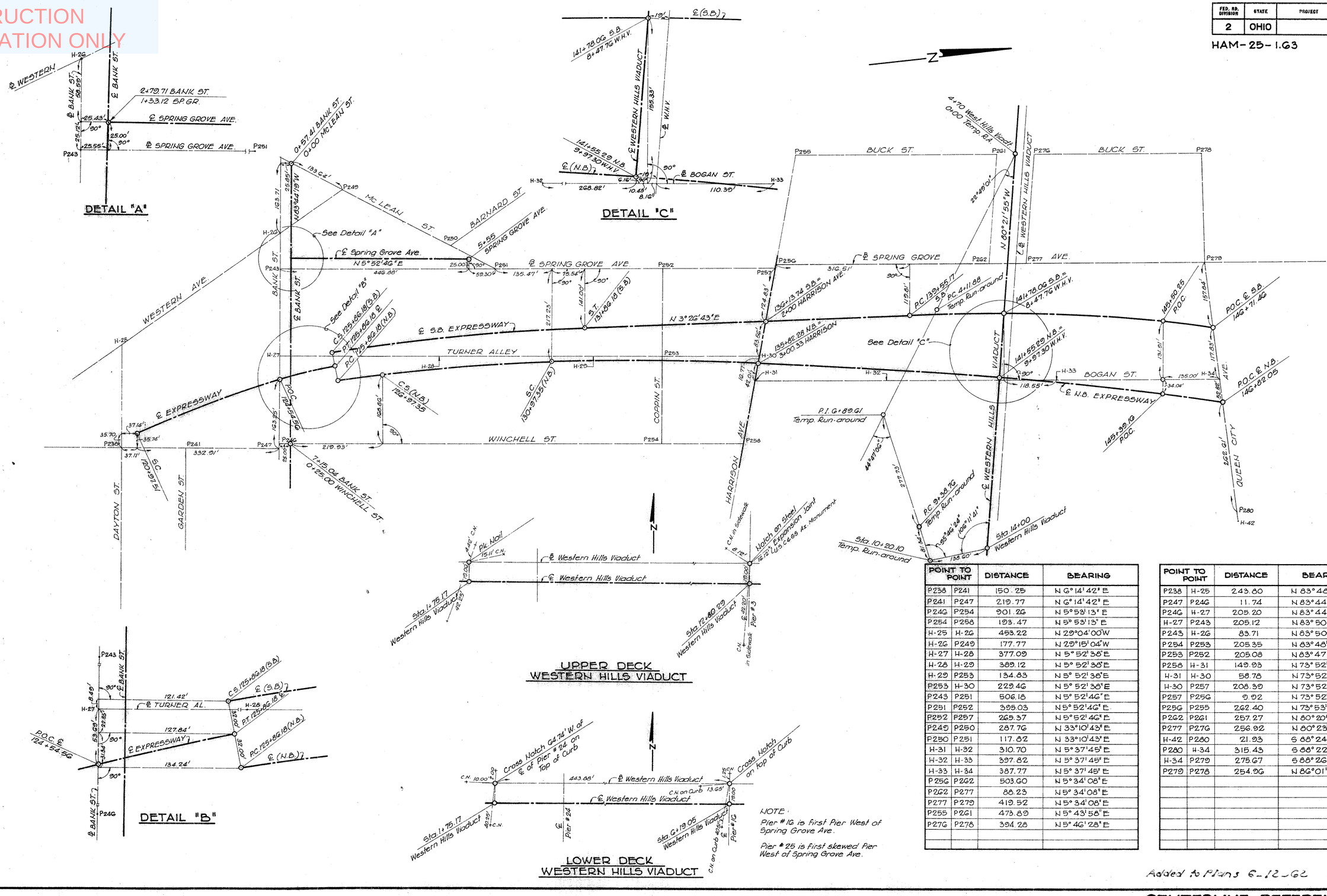


POINT TO POINT		DISTANCE	BEARING
P238	P241	150.25	N 6° 14' 42" E
P241	P247	219.77	N 6° 14' 42" E
P246	P254	901.26	N 5° 53' 13" E
P254	P258	193.47	N 5° 53' 13" E
H-25	H-26	453.22	N 29° 04' 00" W
H-26	P249	177.77	N 29° 15' 04" W
H-27	H-28	377.09	N 5° 52' 36" E
H-28	H-29	389.12	N 5° 52' 36" E
H-29	P253	134.83	N 5° 52' 36" E
P253	H-30	229.46	N 5° 52' 36" E
P243	P251	506.18	N 5° 52' 46" E
P251	P252	395.03	N 5° 52' 46" E
P252	P257	265.37	N 5° 52' 46" E
P249	P250	287.76	N 33° 10' 43" E
P250	P251	117.82	N 33° 10' 43" E
H-31	H-32	310.70	N 5° 37' 45" E
H-32	H-33	397.82	N 5° 37' 45" E
H-33	H-34	387.77	N 5° 37' 45" E
P256	P262	503.60	N 5° 34' 08" E
P262	P277	88.23	N 5° 34' 08" E
P277	P279	419.52	N 5° 34' 08" E
P255	P261	473.89	N 5° 43' 58" E
P276	P278	394.28	N 5° 46' 28" E

POINT TO POINT		DISTANCE	BEARING
P238	H-25	243.80	N 83° 46' 27" W
P247	P246	11.74	N 83° 44' 19" W
P246	H-27	205.20	N 83° 44' 19" W
H-27	P243	205.12	N 83° 50' 44" W
P243	H-26	83.71	N 83° 50' 44" W
P254	P253	205.35	N 83° 48' 08" W
P253	P252	205.08	N 83° 47' 48" W
P258	H-31	149.93	N 73° 52' 32" W
H-31	H-30	58.78	N 73° 52' 32" W
H-30	P257	208.39	N 73° 52' 32" W
P257	P256	2.92	N 73° 52' 32" W
P256	P255	262.40	N 73° 53' 02" W
P262	P261	257.27	N 80° 20' 52" W
P277	P276	256.92	N 80° 23' 12" W
H-42	P280	21.93	S 88° 24' 50" W
P280	H-34	315.43	S 88° 22' 44" W
H-34	P279	275.67	S 88° 26' 55" W
P279	P278	254.96	N 86° 01' 52" W

Added to Plans 6-12-62 R.E.C.

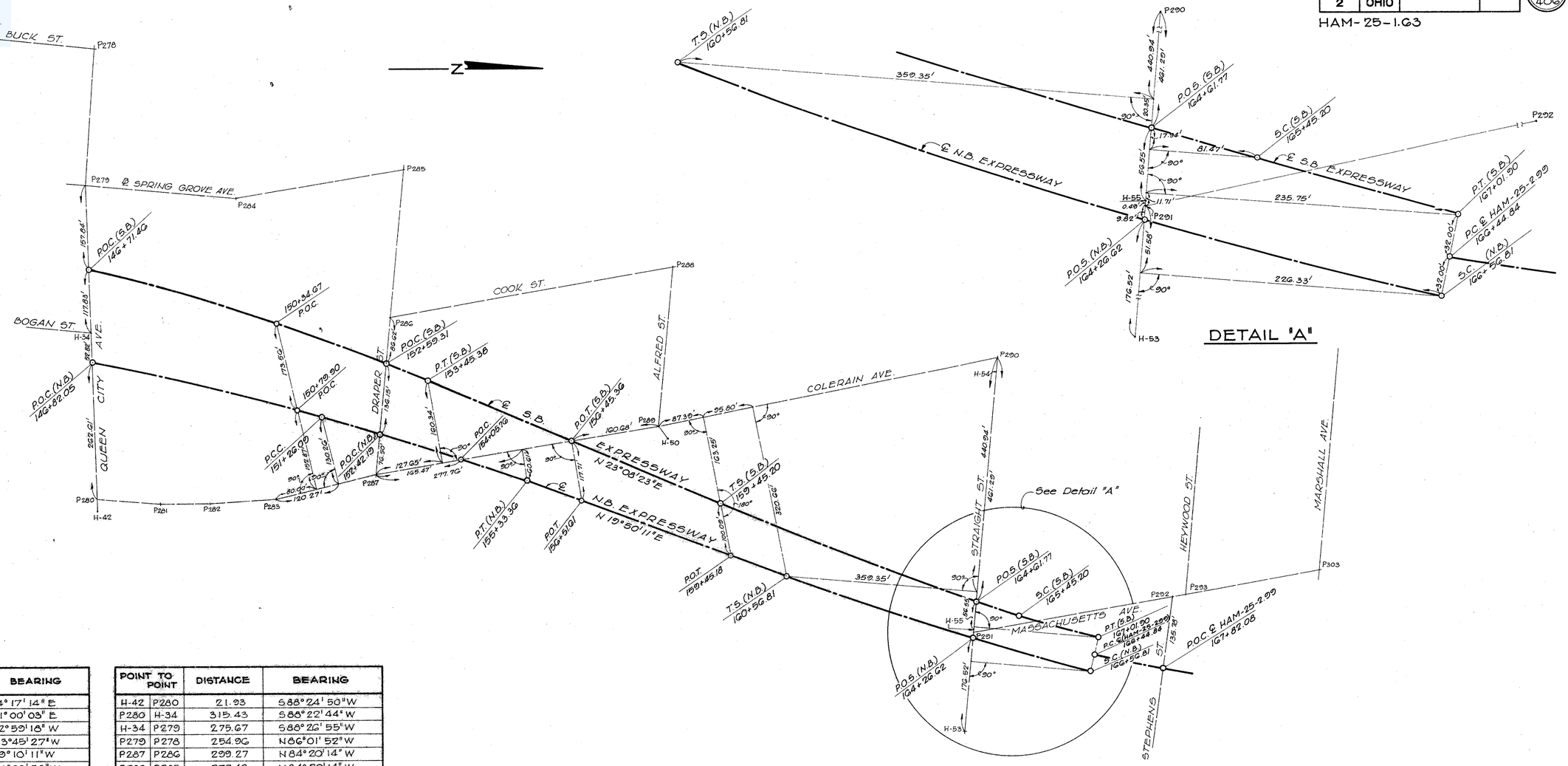
CENTERLINE REFERENCE PLA

NOT FOR CONSTRUCTION INFORMATION ONLY

FED. RD. DIVISION	STATE	PROJECT	
2	OHIO		

HAM-25-1.63

25C
486



POINT TO POINT		DISTANCE	BEARING
P280	P281	119.15	N 4° 17' 14" E
P281	P282	94.06	N 1° 00' 03" E
P282	P283	123.85	N 2° 59' 18" W
P283	P287	195.34	N 13° 45' 27" W
P287	P289	541.86	N 9° 10' 11" W
P289	P290	652.99	N 11° 03' 53" W
P279	P284	284.10	N 5° 31' 30" E
P284	P285	321.14	N 9° 27' 18" W
P286	P288	543.63	N 9° 26' 14" W
P291	P292	383.92	N 9° 29' 09" W
P292	P293	24.65	N 9° 29' 09" W
P293	P303	255.93	N 9° 29' 09" W

POINT TO POINT		DISTANCE	BEARING
H-42	P280	21.93	S 88° 24' 50" W
P280	H-34	315.43	S 88° 22' 44" W
H-34	P279	275.67	S 88° 26' 55" W
P279	P278	254.96	N 86° 01' 52" W
P287	P286	299.27	N 84° 20' 14" W
P286	P285	277.46	N 84° 20' 14" W
H-50	P289	28.01	S 48° 26' 05" W
P289	P288	302.17	N 84° 08' 14" W
H-53	P291	186.34	N 84° 33' 37" W
P291	H-55	0.49	N 84° 33' 37" W
H-55	H-54	492.90	N 84° 33' 37" W
H-54	P290	24.94	N 84° 33' 37" W

Added to Plans 6-12-62 R.C.C.

CENTERLINE REFERENCE PLA

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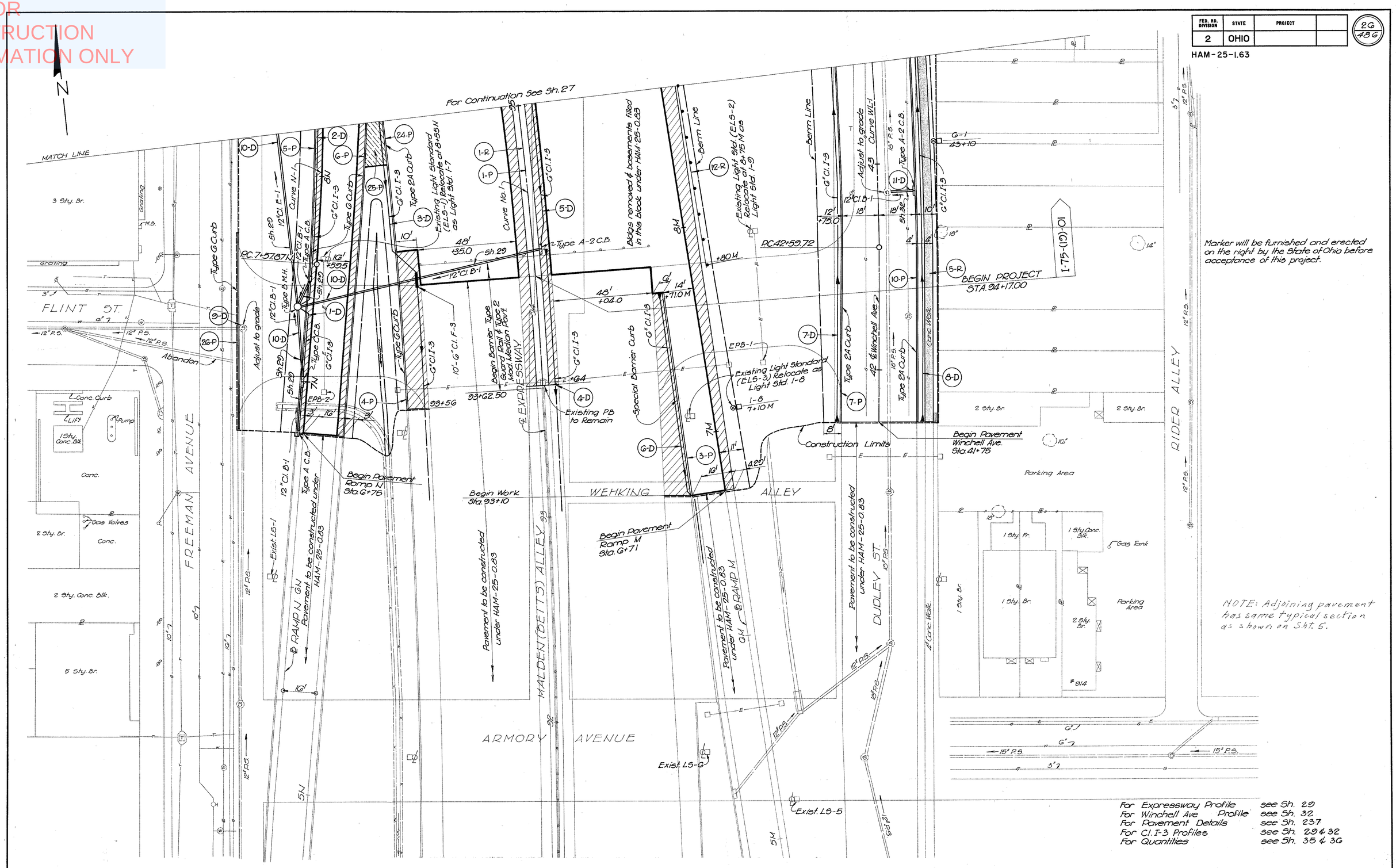
FED. RD. DIVISION	STATE	PROJECT	
2	OHIO		

26/486

HAM-25-1.63



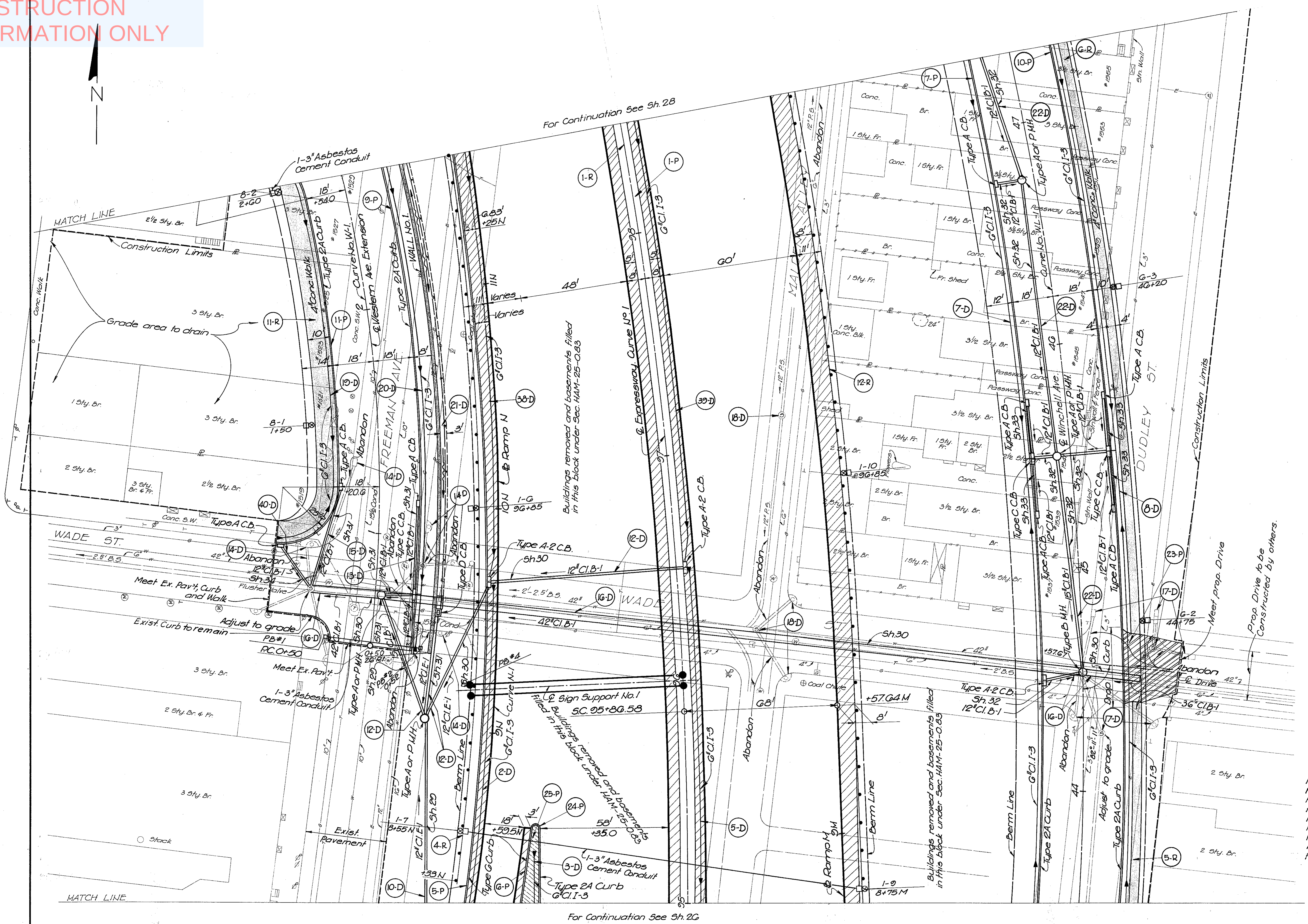
For Expressway Profile	see Sh. 29
For Winchell Ave Profile	see Sh. 32
For Pavement Details	see Sh. 237
For Cl. I-3 Profiles	see Sh. 29 & 32
For Quantities	see Sh. 35 & 36

STA. 91+50 to STA. 95+00

NOT FOR CONSTRUCTION INFORMATION ONLY

FED. RD. DIVISION	STATE	PROJECT	
2	OHIO		

HAM-25-1.63



For Expressway Profile see Sh. 29 & 30
For Western Ave. Ext. Profile see Sh. 31
For Winchell Ave. Profile see Sh. 32 & 33
For Pavement Details see Sh. 237, 238, 239
For Cl. I-3 Profile see Sh. 29 thru 32
For Quantities see Sh. 35 & 36
For Wall No. 1. see Sh. 270 & 271
For Driveway Details see Sh. 236
For Water Works see Sh. 416 & 418

STA. 95+00 to STA. 98+50

NOT FOR CONSTRUCTION INFORMATION ONLY

FED. RD. DIVISION	STATE	PROJECT	
2	OHIO		

28
486

HAM-25-1.63

BM #1 Elev. 498.07

Spike in Power Pole #N7-208.E NW Cor. Western Ave. & Liberty St. 38' Lt. Sta. 5+85 Western Ave. Ext.

N

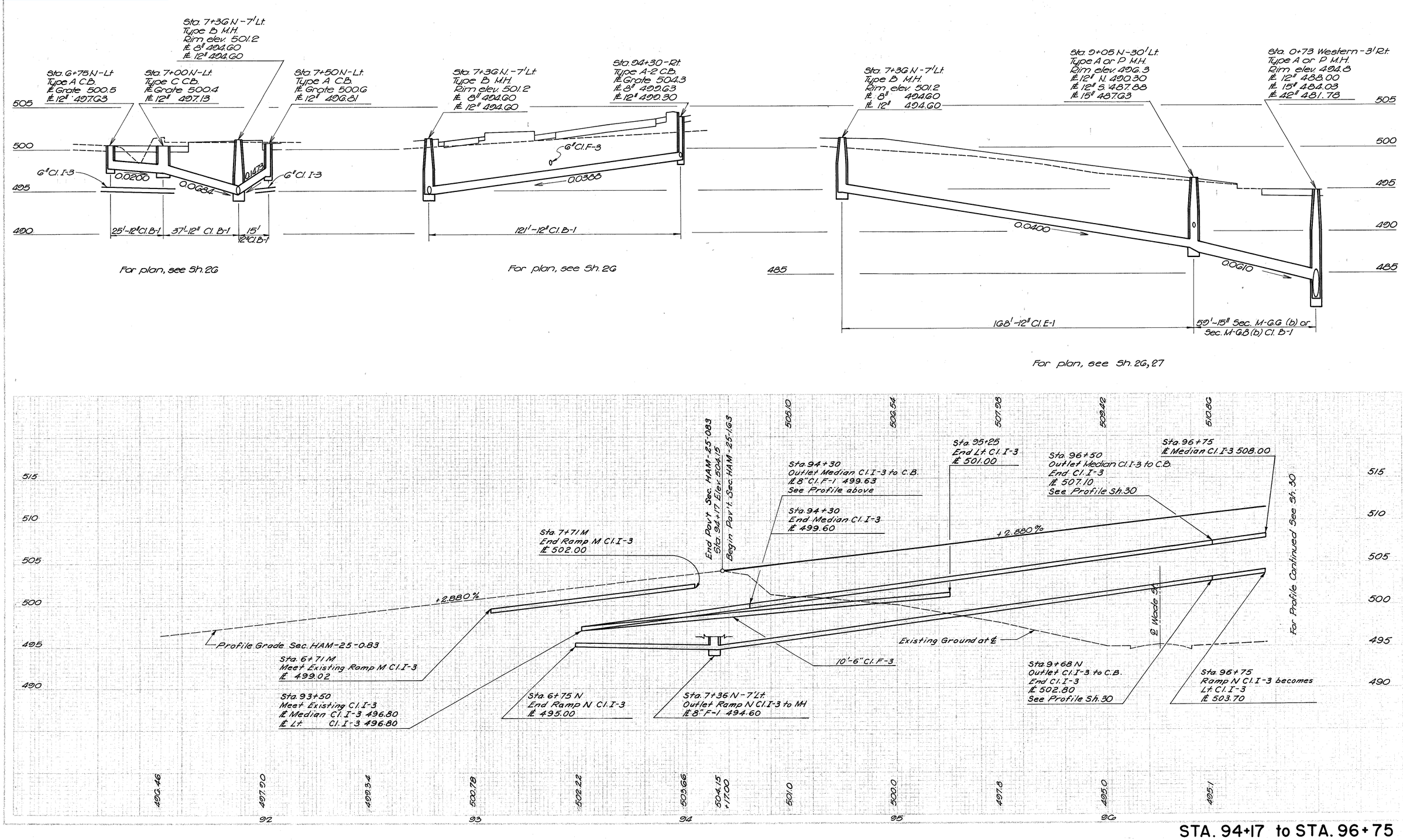
For Expressway Profile see Sh. 30
For Western Ave. Ext. Profile see Sh. 31
For Winchell Ave. Profile see Sh. 33 & 42
For Liberty St. Plan & Profile see Sh. 34
For Bridge No. HAM-25-0173 see Sh. 289 thru 302
For Pavement Details see Sh. 239
For Cl. I-3 Profiles see Sh. 30, 31, 33, 34 & 42
For Quantities see Sh. 35 & 36
For Wall No. 1 see Sh. 270 & 271
For Wall No. 2 see Sh. 272 & 273
For Railing on Conc. Steps see Sh. 49
For Water Works see Sh. 416 thru 419

For Continuation See Sh. 37

For Continuation See Sh. 27

STA. 98+50 to STA. 102+00

NOT FOR
CONSTRUCTION
INFORMATION ONLY



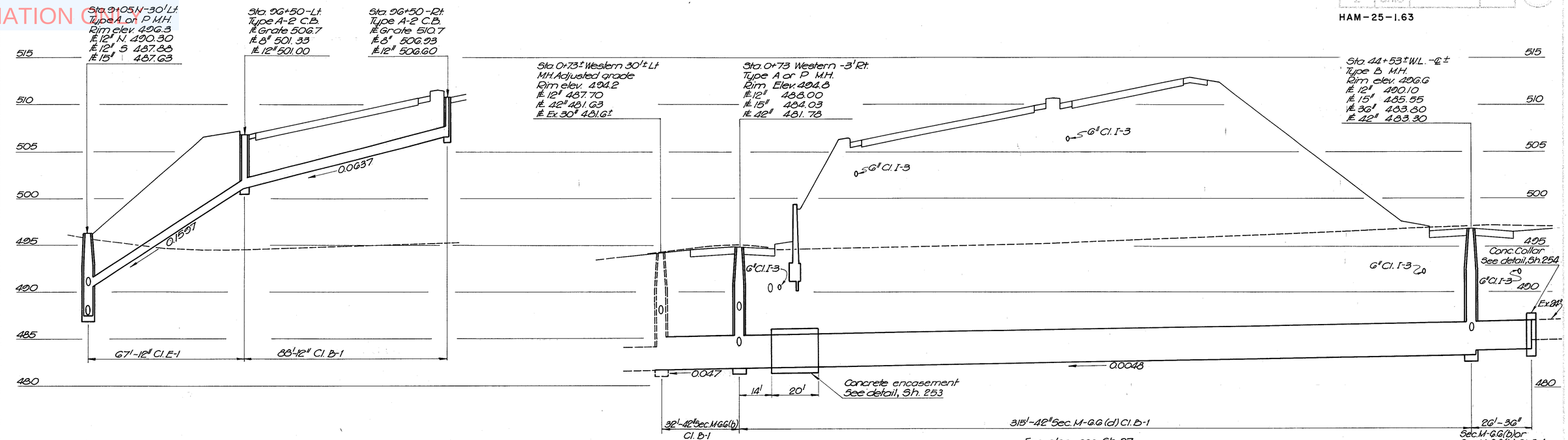
STA. 94+17 to STA. 96+75

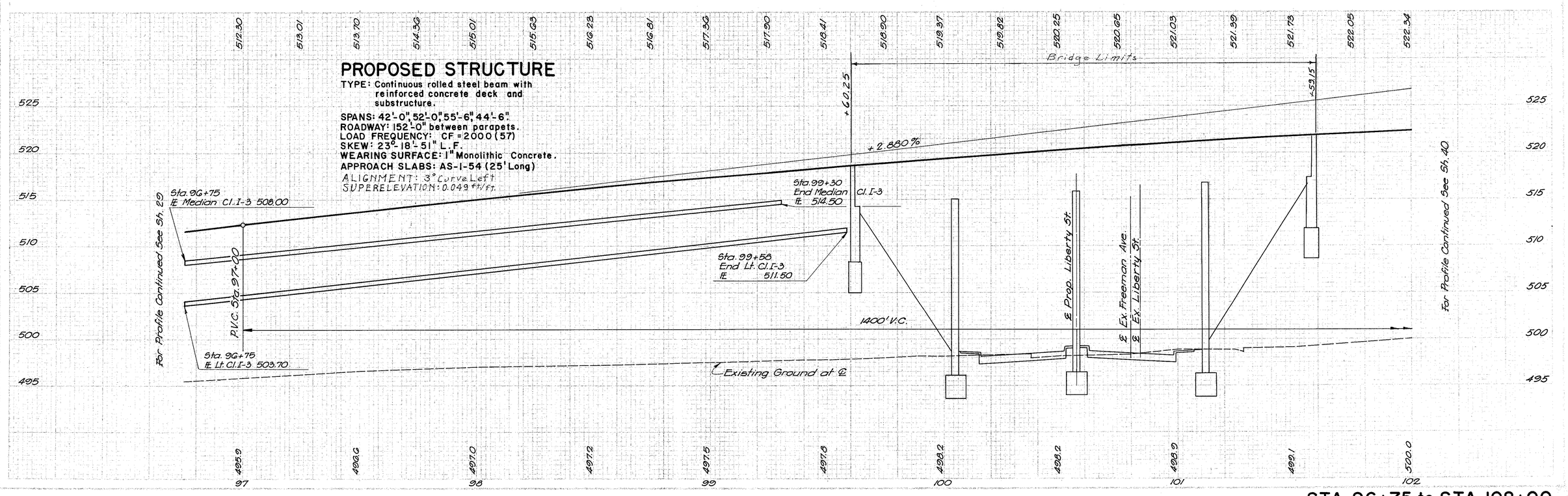
NOT FOR CONSTRUCTION INFORMATION ONLY

SHEET NO.	STATE	PROJECT	
2	OHIO		

30
486

HAM-25-I.63





STA. 96+75 to STA. 102+00

NOT FOR
CONSTRUCTION
INFORMATION ONLY

Sta. 9+05 N -30' Lt.
Type A or P M.H.
Rim elev. 496.3
℄ 12" N. 490.30
℄ 12" S. 487.88
℄ 15" 487.63

Sta. 0+68 Western -20'± Rt.
Type D C.B.
℄ Slot 498.50
Connect to wall drainage
See Sh. 270 & 271
℄ 8" 494.70
℄ 12" 494.70

Sta. 0+73 Western -3' Rt.
Type A or P M.H.
Rim elev. 494.8
℄ 12" 488.00
℄ 15" 484.03
℄ 42" 481.78

Sta. 0+75 Western -Rt.
Type C C.B.
℄ Grate 494.4
℄ 6" 490.25
℄ 12" 490.00

Sta. 1+13 Western -Rt.
Type A C.B.
℄ Grate 494.6
℄ 12" 491.73

Sta. 0+73± Western -30'± Lt.
M.H. Adjusted to grade
Rim elev. 494.2
℄ 12" N. 484.94
℄ 42" 481.63
℄ ex. 30" 481.63±

Sta. 1+21 Western -Lt.
Type A C.B.
℄ Grate 494.6
℄ 6" 489.00
℄ 12" 485.99

Sta. 3+13 Western -36'± Lt.
Type A or P M.H. on ex. 12"
Rim elev. 496.7
℄ 12" N. 489.26
℄ ex. 12" 487.85±

Sta. 3+60 Western -Lt.
Type A C.B.
℄ Grate 496.9
℄ 6" 491.60
℄ 12" 490.41

Sta. 0+46± Western -Rt.
Ex. C.B.

Sta. 0+75 Western -Rt.
Type C C.B.
℄ Grate 494.4
℄ 6" 490.25
℄ 12" 490.00

500
495
490
485
480

0.0017
48'-12" Cl. E-1
0.0420
0.0432
14'
12" Cl. B-1
40'-12" Cl. B-1
0.0224
47'-12" Cl. B-1
0.0226
51'-12" Cl. B-1
20'-12" Cl. B-1

For plan, see Sh. 27
For plan, see Sh. 27
For plan, see Sh. 27
For plan, see Sh. 28
For plan, see Sh. 27

494.76 494.88 495.38 495.88 496.38 496.63 496.85 497.02 497.15 497.43 497.71 497.81 497.89 497.90 497.78 497.50 497.20

Sta. 0+50
Meet Existing Pav't
Grade Varies, See Pavement Detail
℄ Wade St.
+1.000%
Pv't. Sta. 3+00
Elev. 496.88
Sta. 3+00 ± - 50' ± Lt.
End Lt. Cl. I-3
℄ 492.40
℄ Willabch St.
P.V.C. Sta. 2+75
50' V.C.
P.V.T. Sta. 3+25
+0.550%
Existing Ground at ℄
℄ West Liberty
Sta. 4+51 ± - 42' ± Rt.
End Rt. Cl. I-3
℄ 493.70
Sta. 5+58 ± - 64' ± Lt.
End Lt. Cl. I-3
℄ 492.70
Sta. 6+12
End Rt. Cl. I-3
℄ 492.70
Meet Existing Pav't
Sta. 6+12
Sta. 5+57
Western Rt. Cl. I-3 becomes
Liberty Lt. Cl. I-3
℄ 492.50
See sh. 34
Grade Varies
See Pavement Detail
Sta. 0+50
End Rt. Cl. I-3
℄ 490.70
Sta. 0+75
Outlet Rt. Cl. I-3 to C.B.
℄ 6" Cl. B-1 490.25
See profile above
Sta. 1+21
Outlet Lt. Cl. I-3 to C.B.
℄ 6" Cl. B-1 489.00
See profile above
Sta. 0+94 ± - 45' ± Lt.
End Lt. Cl. I-3
℄ 489.50
Sta. 3+60
Outlet Lt. Cl. I-3 to C.B.
℄ 6" Cl. B-1 491.60
See profile above
Sta. 3+34 ± - 58' ± Lt.
End Lt. Cl. I-3
℄ 492.00

500
495
490

495.0 495.2 495.2 496.0 496.4 496.6 497.3 498.0 498.3 497.8 497.4 497.1 +12

1 2 3 4 5 6

WESTERN AVE. EXTENSION STA. 0+50 to STA. 6+12

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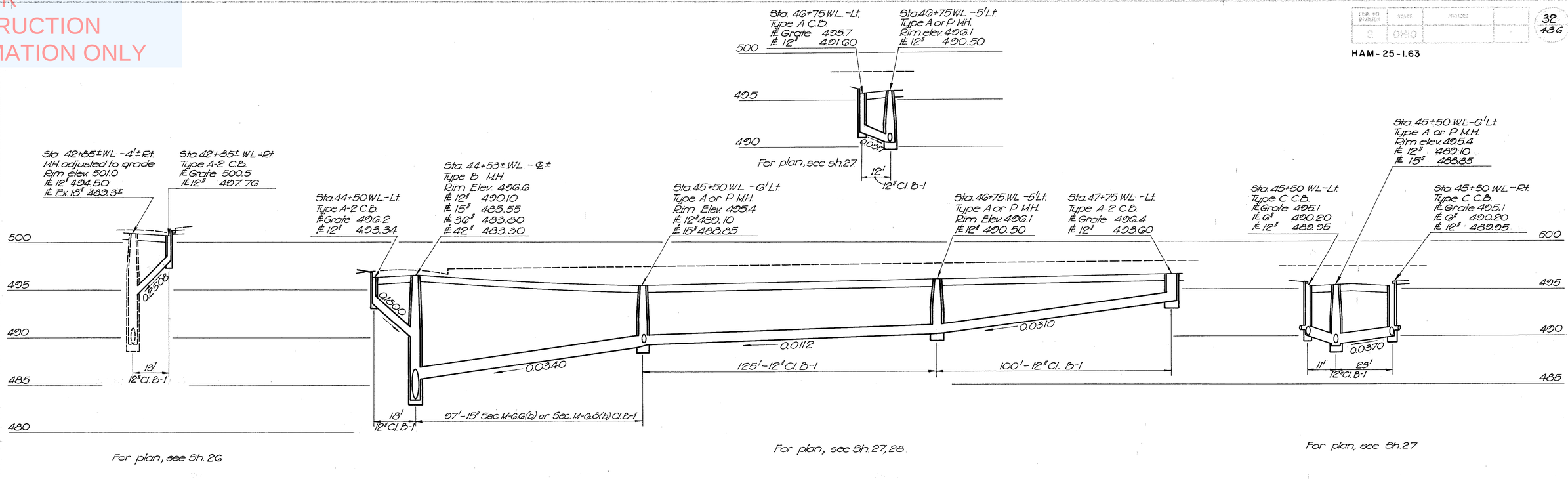
CONSTRUCTION
INFORMATION ONLY



WINCHELL AVE. STA. 41+75 to STA. 45+25

NOT FOR CONSTRUCTION INFORMATIONAL ONLY

STA. NO. OMISSION	STATE	PROJECT	
2	OHIO		

33
486

HAM-25-1.63

Sta. 45+25 W.L.-Lt.
Type A C.B.
℄ Grate 495.2
℄ 12" 492.32

Sta. 45+50 W.L.-Lt.
Type C C.B.
℄ Grate 495.1
℄ G" 490.20
℄ 12" 489.95

Sta. 45+75 W.L.-Lt.
Type A C.B.
℄ Grate 495.2
℄ 12" 492.32

Sta. 45+25 W.L.-Rt.
Type A C.B.
℄ Grate 495.2
℄ 12" 492.32

Sta. 45+50 W.L.-Rt.
Type C C.B.
℄ Grate 495.1
℄ G" 490.20
℄ 12" 489.95

Sta. 45+75 W.L.-Rt.
Type A C.B.
℄ Grate 495.2
℄ 12" 492.32

495
490
0.0048
0.0048
25'
25'
12" Cl. B-1.

For Plan, see Sh. 27

0.0048
0.0048
25'
25'
12" Cl. B-1

For plan, see Sh. 27

Sta. 4+00± Western-50'±Rt.
Connect to bridge drainage
See Sh. 201
℄ 8" 504.2 ±

Sta. 4+13± Western 20'±Rt.
Type D C.B.
℄ Slot 498.2
℄ 8" 496.03
℄ 12" 495.70
Connect to wall drainage
See Sh. 270 & 271

Sta. 2+06 Liberty-34'Rt.
Type A or P.M.H.
Rim elev. 498.1
℄ 12" 491.10

Sta. 2+77 Liberty-34'Rt.
Type A or P.M.H.
Rim Elev. 498.3
℄ 12" N 487.30
℄ 12" E & W 490.27

Sta. 3+75 Liberty-Rt.
Type C C.B.
℄ Grate 497.4
℄ G" 491.50
℄ 12" 491.25

500
495
490
0.27±
0.1022
0.0117
0.0100
32'-8"
Sec. M-6.4(c) Cl. D-1
45'-12" Cl. B-1
71'-12" Cl. B-1.
98'-12" Cl. B-1

For Plan, see Sh. 28

Sta. 2+60± Liberty-11'Lt.
Type A or P.M.H. on ex. 12"
Rim elev. 498.7
℄ 12" 486.84
℄ ex. 12" 484.3±

Sta. 2+77 Liberty-34'Rt.
Type A or P.M.H.
Rim elev. 498.3
℄ 12" 487.30

500
495
490
485
0.0100
46'-12" Sec. M-6.6 (d) Cl. B-1

For Plan, see Sh. 28

Sta. 3+75 Liberty-Lt.
Type C C.B.
℄ Grate 497.4
℄ G" 491.50
℄ 12" 491.25

Sta. 5+00 Liberty St.
Type A C.B.
℄ Grate 498.2
℄ 12" 492.60

Sta. 49+29 W.L.-0'±Lt.
Type A or P.M.H.
Rim elev. 498.2
℄ 12" W. 489.91
℄ 12" E. 491.00
℄ ex. 15" 488±
℄ 18" 487.96
℄ 21" 487.71

0.0200
0.0276
67'-12" Cl. B-1
58'-12" Cl. B-1.

For Plan, see Sh. 28

Sta. 50+03±W.L.-03'±Rt.
Ex. M.H.
℄ 12" 494.50
℄ Ex. 15" 488.8±

Sta. 50+46±W.L.-45'±Rt.
Type C C.B.
℄ Grade 501.2±
℄ 12" 498.00

505
500
495
490
485
0.13.46
26'-12" Cl. B-1

For Plan, See Sh. 28

495.60 495.53 495.60 495.73 496.00 496.27 496.41 496.60 496.90 497.31 497.83 498.05 498.35 498.61 498.57 498.41 498.27 498.01 497.95 498.07 498.38 498.78

150' V.C.
100' V.C.
80' V.C.

Sta. 45+50
Outlet Lt. & Rt. Cl. I-3
℄ G" Cl. B-1 490.20
See Profile above

P.V.T. Sta. 45+75

P.V.C. Sta. 47+25

Existing Ground at ℄

P.V.T. Sta. 48+25

P.V.I. Sta. 48+74.35
Elev. 498.97

℄ Proposed Liberty St.
Sta. 48+84.35

℄ Ex. Liberty St.

P.V.C. Sta. 49+25

Sta. 48+08± 87'± Rt.
End Rt. Cl. I-3
℄ 493.20

+0.542 %
+2.300 %
-1.393 %
+1.611 %

Elev. 21" at
Ex. 05 Brick 487.40
See detail, Sh. 253

Sta. 48+50±-34'±Lt.
End Lt. Cl. I-3
℄ 493.90

Sta. 49+07±-41'± Rt.
Winchell Rt. Cl. I-3
becomes Liberty Lt. Cl. I-3
℄ 494.00
See Sh. 34

Sta. 49+29 W.L.-0'±Lt.
Type A or P.M.H.
Rim elev. 498.2
℄ 12" W. 488.01
℄ 12" E. 491.00
℄ Ex. 15" 488.±
℄ 18" 487.96
℄ 21" 487.71

Sta. 49+75 W.L.-0'Lt.
Type A or P.M.H.
Rim elev. 497.8
℄ 12" 491.40
℄ 18" 489.07

℄ Halden Alley

Sta. 49+45±-31'±Lt.
End Lt. Cl. I-3
℄ 493.70

Sta. 49+75
Outlet Lt. & Rt. Cl. I-3 to C.B.
℄ G" Cl. B-1 493.30
See profile Sh. 42

Sta. 50+50
℄ Lt. & Rt. Cl. I-3 494.50

Sta. 45+25
℄ Lt. & Rt. Cl. I-3 490.50

Sta. 46+50
℄ Lt. & Rt. Cl. I-3 490.90

Sta. 47+50
℄ Rt. Cl. I-3 492.30

P.V.I. Sta. 47+75
Elev. 496.68

P.V.C. Sta. 48+34.35

0.0241

46'-18" Sec. M-6.6 (b) or Sec. M-6.8 (b) Cl. B-1

18" Cl. B-1

8'-21" Sec. M-6.6 (b) or Sec. M-6.8 (b) Cl. B-1

P.V.I. Sta. 49+75
Elev. 497.57

For Plan, see Sh. 28

For Profile Continued See Sh. 32

For Profile Continued See Sh. 42

505
500
495
490

497.7 498.3 498.3 498.4 498.3 498.5 498.4 498.1 498.8 501.1 501.3

46 47 48 49 50

WINCHELL AVE. STA. 45+25 to STA. 50+50

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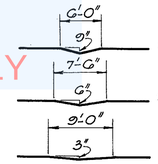
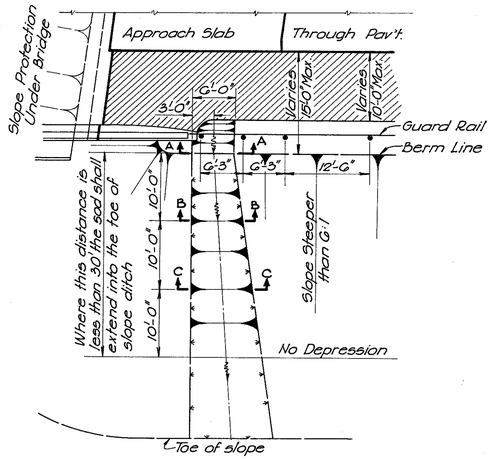




APPROACH SLAB EROSION CONTROL

Scale: 3/32" = 1'-0"

Special Berm & Slope Protection

Prior to placement of sod in the berm and slope, galvanized poultry fence shall be placed on the finished grade in strands which shall be at right angles to the direction of flow. Each strand shall be staked securely on top and bottom with stakes spaced at four foot intervals and attached in rows four feet apart.

Stakes shall be 1"×1"×8" wood stakes and shall be perpendicular to the ground, and flush with the finished grade.

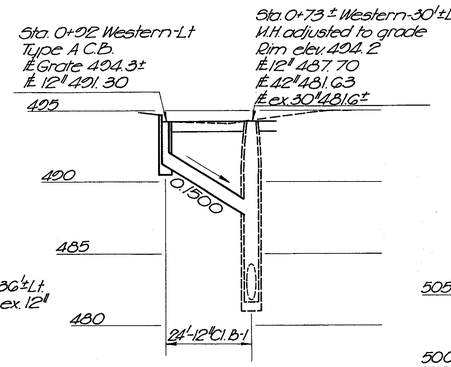
The fence shall be Straight Line Poultry Fence or Equivalent with strand width of four feet, having a two inch mesh and all wires No. 20 Gauge.

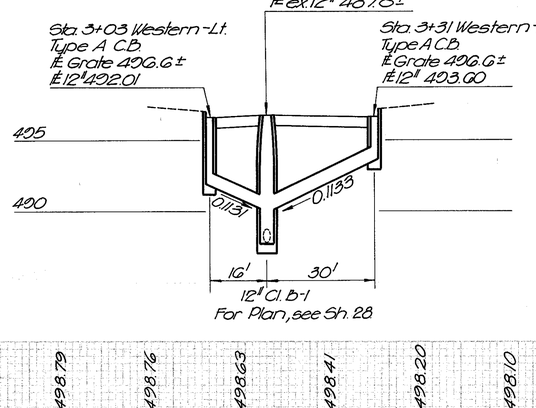
Each strand of fencing shall be fastened together at twelve inch intervals by hog rings.

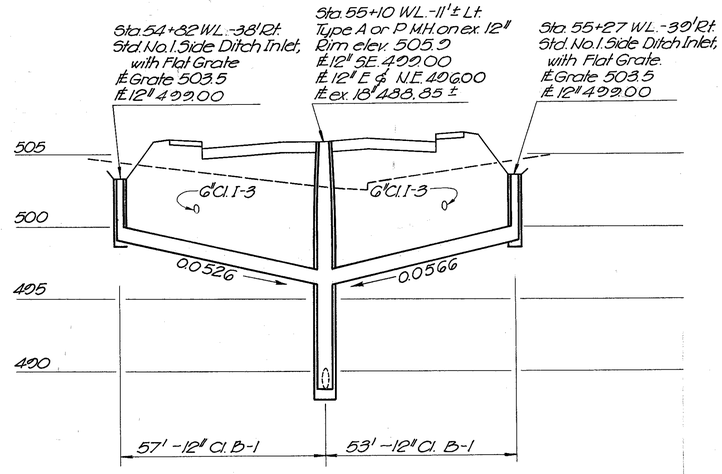
The fence shall be secured to the wood stakes by metal staples.

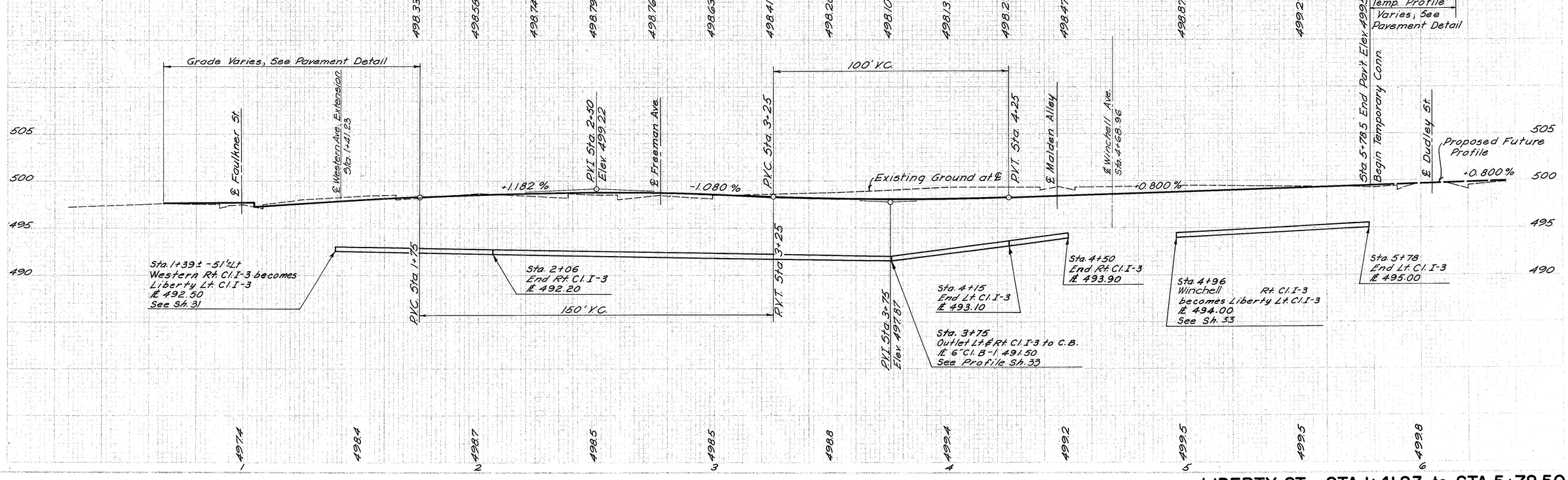
Sod shall be laid in accordance with Construction and Material Specifications Section L-10.07.

Payment for all the above is included in the unit price bid for Item L-10 Sodding for Special Berm and Slope Protection.









LIBERTY ST. STA. 1+41.23 to STA. 5+78.50

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ESTIMATED QUANTITIES

FED. RD. DIVISION	STATE	PROJECT	
2	OHIO		

35
486

HAM-25-1.63

Station to Station or Reference No.	Item T-71 Reinforced Portland Cement Concrete Pavement		Item I-22 Subbase		Item T-31 Bituminous Surface Treatment		Item B-21 Water-proofed Aggregate Base Course Type B	Item I-18 Stabilized Crushed Aggregate Shoulders and Approaches	Item T-70 Portland Cement Concrete Pavement	Item I-7 Reinforced Concrete Approach Slabs	Item I-21 Portland Cement Concrete Median and Traffic Island Pavement			Item I-12 Concrete Curb				Item S-14 Railing Steel Pipe as per plan	Item I-13 4 Inch Concrete Sidewalk	Item I-15 Guard Rail		Item I-13 Concrete Steps	Item T-35 Asphaltic Concrete Surface Course Type C	Item B-35 Asphaltic Concrete Leveling Course	Item B-70 8 Inch Portland Cement Concrete Base Course	Item I-13 6 Inch Reinforced Concrete Sidewalk	Item T-30 Bituminous Prime and Tack Coats		Sheet No.
	10 Inch	9 Inch	Grading A or B	Grading C or D	Bituminous Material	Aggregate No. 6			8 Inch		4" Median Pavt.	Type 2 Modified Median Pavt.	6" Traffic Island Pavt.	Type 2A	Type 2B	Type 6	Special Barrier			Standard	Barrier							Prime Coat	Tack Coat	
	Sq. Yd.	Sq. Yd.	Cu. Yd.	Cu. Yd.	Gal.	Cu. Yd.	Cu. Yd.	Cu. Yd.	Sq. Yd.	Sq. Yd.	Sq. Yd.	Sq. Yd.	Sq. Yd.	Lin. Ft.	Lin. Ft.	Lin. Ft.	Lin. Ft.	Lin. Ft.	Sq. Ft.	Lin. Ft.	Lin. Ft.	Lin. Ft.	Cu. Yd.	Cu. Yd.	Sq. Yd.	Sq. Ft.	Gal.	Gal.	
Expressway (N.B.) 93+64 to 102+00	3,758.2		926.9		237	7.6	80.5	133.9		340.0																			26, 27, 28
Expressway (S.B.) 93+64 to 102+00	3,763.4		851.7		175	5.6	59.5	97.3		326.7																			26, 27, 28
Winchell Ave.		3,611.0	689.3																										26, 27, 28
Liberty Street		3,405.5	600.6																										28
Western Ave. Extension		2,623.1	487.2																										26, 27, 28
Ramp M		166.7	59.8		14	0.4	4.7	8.0																					26, 27
Ramp N		339.2	134.9		33	1.0	11.0	17.9																					26, 27
1-P												398.5																	26, 27, 28
2-P												27.2																	28
3-P																	100												26
4-P																77													26
5-P																60.6													26, 27, 28
6-P																18.6													26, 27
7-P														68.1															26, 27, 28
8-P														27.7															28
9-P														40.5															27, 28
10-P														60.6															26, 27, 28
11-P														23.3															27, 28
12-P														20.9															28
13-P														28.2															28
14-P														16.8															28
15-P														5.6															28
16-P														20.3															28
17-P														10.4															28
18-P														11.3															28
19-P														46.8															28
20-P											218.9																		28
21-P											125.1																		28
22-P													29.2																28
23-P									76.2																				27
24-P														10.4															26, 27
25-P											41.9																		26, 27
26-P																9.4													26
27-P									46.5					3.1															28
28-P																1.8													28
29-P														5.7															28
30-P									249.0																				28
31-P									46.5					3.1															28
32-P																1.6													28
1-R																			1070	600.0									26, 27, 28
2-R																			1875	50.0									28
3-R																			2205	62.5									28
4-R																			2587	450.0									27, 28
5-R																			2418										26, 27
6-R																			2017										27, 28
7-R																			1915										28
8-R																				525.0									28
9-R																			402										28
10-R																		9				24							28
11-R																				25.0									28
12-R																				12.5									28
13-R																				25.0									28
14-R																				12.5									28
15-R																			33										28
16-R																													
17-R																													
18-R																													
19-R																													
Totals to General Summary	7521.6	10,145.5	3750.4		459	14.6	155.7	257.1	418.2	666.7	385.9	425.7	29.2	417.8		99.7	100	9	14,522	1112.5	650.0	24							

QUANTITIES

NOT FOR CONSTRUCTION INFORMATION ONLY

ESTIMATED QUANTITIES

FED. RD. DIVISION	STATE	PROJECT	
2	OHIO		

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REF. NO.	STATION TO STATION	SIDE	I-5 Pipe Specials Class I-3 Each: 6" 30° Bend	6" 45° Bend	6" 60° Bend	B-1 6" Tee	I-1 Pipe Culverts, Sewers and Drains Class B-1 Linear Feet: 6"	12"	12" G.6(f)	15" G.6(b) G.8(b)	18"	18" G.6(b) G.8(b)	21" G.6(b) G.8(b)	30" G.6(b) G.8(b)	42" G.6(b)	42" G.6(f)	D-1 8" G.4(c)	E-1 12"	F-1 8"	F-3 6"	I-3 6" shallow	I-2 Pipe Collar Cu. Yd.	Concrete Encasement	Erosion Control Cl. "E"	I-8 Catch Basins Each: A	A-2	C	D	Adjusted to Grade	I-8 Manholes Each: A or P	B	Adjusted to Grade	I-16 Manholes Abandoned Each	Catch Basins Abandoned Each	E-12 Pipe Removal 15" and Under Lin. Ft.	L-10 Sod Sq. Yd.	SEE SHEET NO.
	Drainage																																					
1-D	G+75 N to 7+36 N	Lt.			1														G		53																
2-D	7+36 N to 9+68 N	Lt.			1														G		227																
3-D	93+50 to 95+25	Lt.		2																10	166																
4-D	93+50 to 94+30	Rt.																			80																
5-D	94+30 to 96+50	Rt.	1																10		220																
6-D	G+71 M to 7+71 M	Lt.		2																	101																
7-D	41+75 W.L. to 48+56± W.L.	Lt.				1	3														678																
8-D	41+75 W.L. to 48+08± W.L.	Rt.				1	3														691																
9-D	7+24± N	Lt.																																			
10-D	G+75 N to 9+05 N	Lt. & Rt.						198										168							2	1	1				1						
11-D	42+85± W.L.	Rt.						13																		1											
12-D	9+05 N to 96+50	Lt. & Rt.						88		59								115								2		1		1						
13-D	0+50 Western to 1+13 Western	Rt.						63																	1		1									
14-D	0+45± Western to 1+32± Western	Lt. & Rt.																																2	6		
15-D	0+73± Western to 1+21 Western	Lt.						47																	1												
16-D	0+73± Western to 44+53± W.L.	Lt. & Rt.						18						26	32	315						1.3	5.5			1				1	1	1					
17-D	44+31± W.L. to 44+80± W.L.	Lt. & Rt.																																2	5		
18-D	96+00± to 97+15±	Rt.																																2	2		
19-D	0+94± Western to 3+00± Western	Lt.				1	3														227																
20-D	0+50 Western to 4+51± Western	Rt.				1	3														455																
21-D	0+78± Western to 4+02± Western	Rt.																																			111
22-D	44+53± W.L. to 47+75 W.L.	Lt. & Rt.						371		97															5	1	2			2							
23-D	3+03 Western to 3+60 Western	Lt.						97																	3					1							
24-D	3+34± Western to 5+58± Western	Lt.				1	3														263																
25-D	2+77± Western to 3+11± Western	Rt.																																1	3	18	
26-D	5+34± Western to 5+47± Western	Lt.																																	1	12	
27-D	4+00± Western to 3+75 Liberty	Rt.						214	46								32										1	1		3				1			
28-D	2+06 Liberty to 4+50 Liberty	Rt.				1	3														244																
29-D	0+12 Western to 4+15 Liberty	Lt. & Rt.				1	3														334																
30-D	2+52± Liberty to 3+12± Liberty	Lt.																													1			2	4	55	
31-D	4+38± Liberty to 4+56± Liberty	Lt.																													1			1	2	16	
32-D	49+45± W.L. to 51+39 W.L.	Lt.				1	3														205																
33-D	5+76 Liberty to 51+12 W.L.	Lt. & Rt.				1	3														295																
34-D	49+24± W.L. to 51+45 W.L.	Lt. & Rt.						219				170	46	8											3		3			2							
35-D	5+88± Liberty to 6+27± Liberty	Lt.						15														0.5			1			1			2			1			
36-D	50+46± W.L. to 50+63± W.L.	Rt.						26																			1										
37-D	5+60± Western	Rt.																					0.4														
38-D	9+68 N to 99+55	Lt.	1																10		285																
39-D	96+50 to 99+30	Rt.	1																10		270																
40-D	0+73± Western to 0+92 Western	Lt.						24																	1												
TOTALS			3	4	2	9	27	1413	46	156	170	46	8	26	32	315	32	283	42	10	4779	1.8	5.5	0.4	17	6	9	2	1	10	2	7				11	24	101	111	

QUANTITIES

NOT FOR CONSTRUCTION INFORMATION ONLY

FED. RD. DIVISION	STATE	PROJECT	
2	OHIO		

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N

MATCH LINE

For Continuation See Sh. 38

SHERMAN AVE

WESTERN AVE

WOLF ALLEY

FREEMAN AVE

POPLAR ST.

MALDEN ALLEY

Grade area to drain

Meet Ex. Walk

Existing Curb to remain

adjust to grade

@ Western Ave Extension.

Meet Ex. Pvt. and curb

WALL NO. 2

abandon

Berm Line

@ Expressway Curve No. 1.

Buildings removed and basements filled in this block under Sec. HAM-25-0.83

Limit of Earthwork Performed Under Sec. HAM-25-0.83

Tomahawk adjust to grade

Construction Limits

Grade area to drain

Type A-2 C.B.-S

Type A-2 C.B.

Type A or P MH

Type A2 C.B.

Type A C.B.

Type 4 C.B.

Type 2A Curb

Type G Curb

Type D C.B.

Type B MH

Curve No. W1.2

Curve No. W1.3

1-1 105+05

1-2 103+45

1-14 103+45

1-15 105+05

54+27.66 Winchell Ave.
0+00.00 Poplar St.

52+80.21 Winchell Ave.
0+00.00 Freeman Ave.

0+82.66 Poplar St.
1+21.24 Freeman Ave.

P.T. 53+89.86

P.T. 6+02.89

PB #102 102+16

PB #103 52+63

G-9 52+00

G-10 53+35

G-11 1+75

G-12 64+80

For Expressway Profile see Sh. 40
For Winchell Ave. Profile see Sh. 42
For Pavement Details see Sh. 238 & 240
For C.I.-3 Profiles see Sh. 40 & 42
For Quantities see Sh. 46 & 47
For Wall No. 2. see Sh. 272 & 273
For Water Works see Sh. 419

For Continuation See Sh. 28

STA. 102 + 00 to STA. 105 + 50

NOT FOR CONSTRUCTION INFORMATION ONLY

FED. RD. DIVISION	STATE	PROJECT	
2	OHIO		

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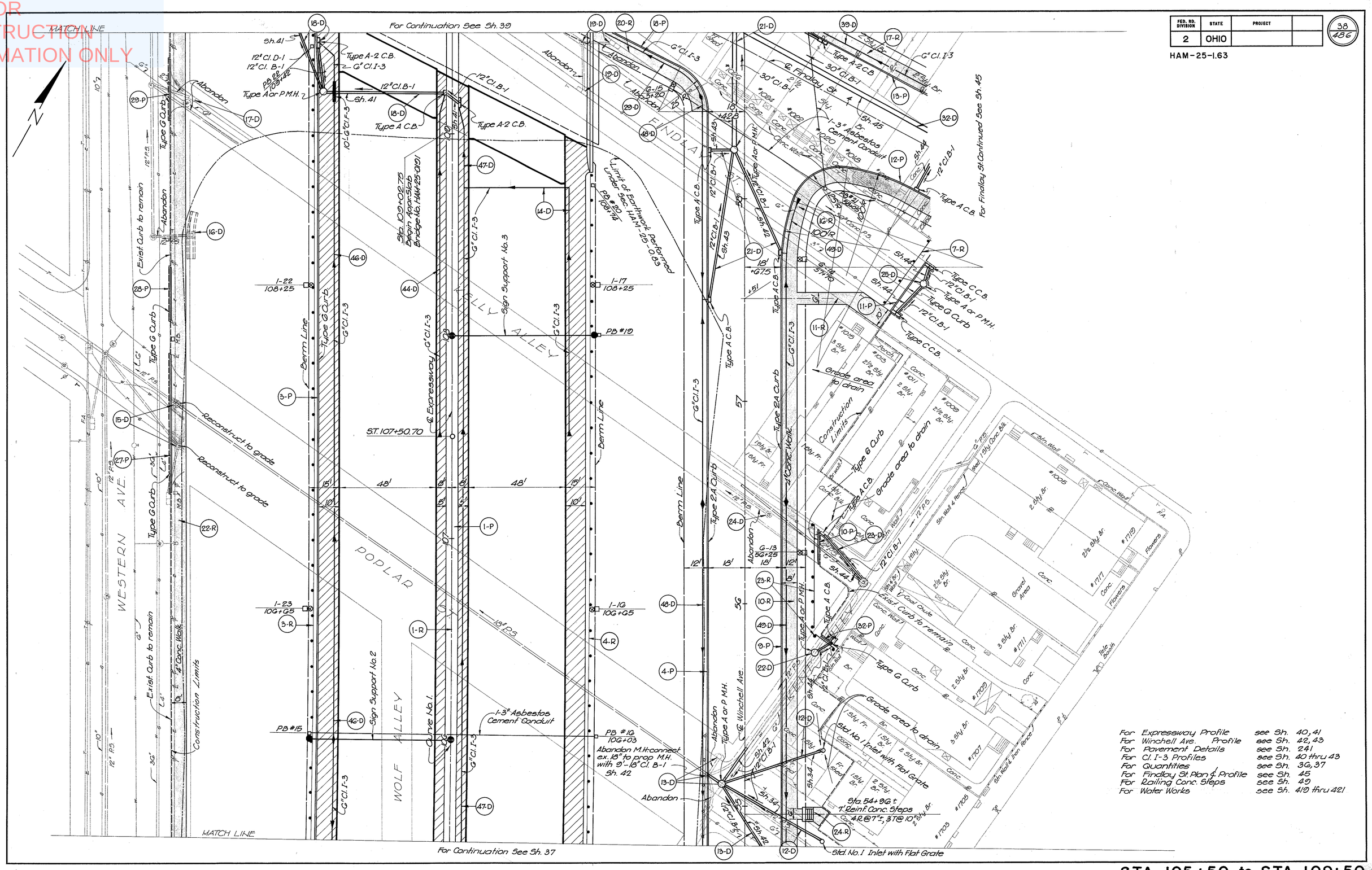
HAM-25-1.63

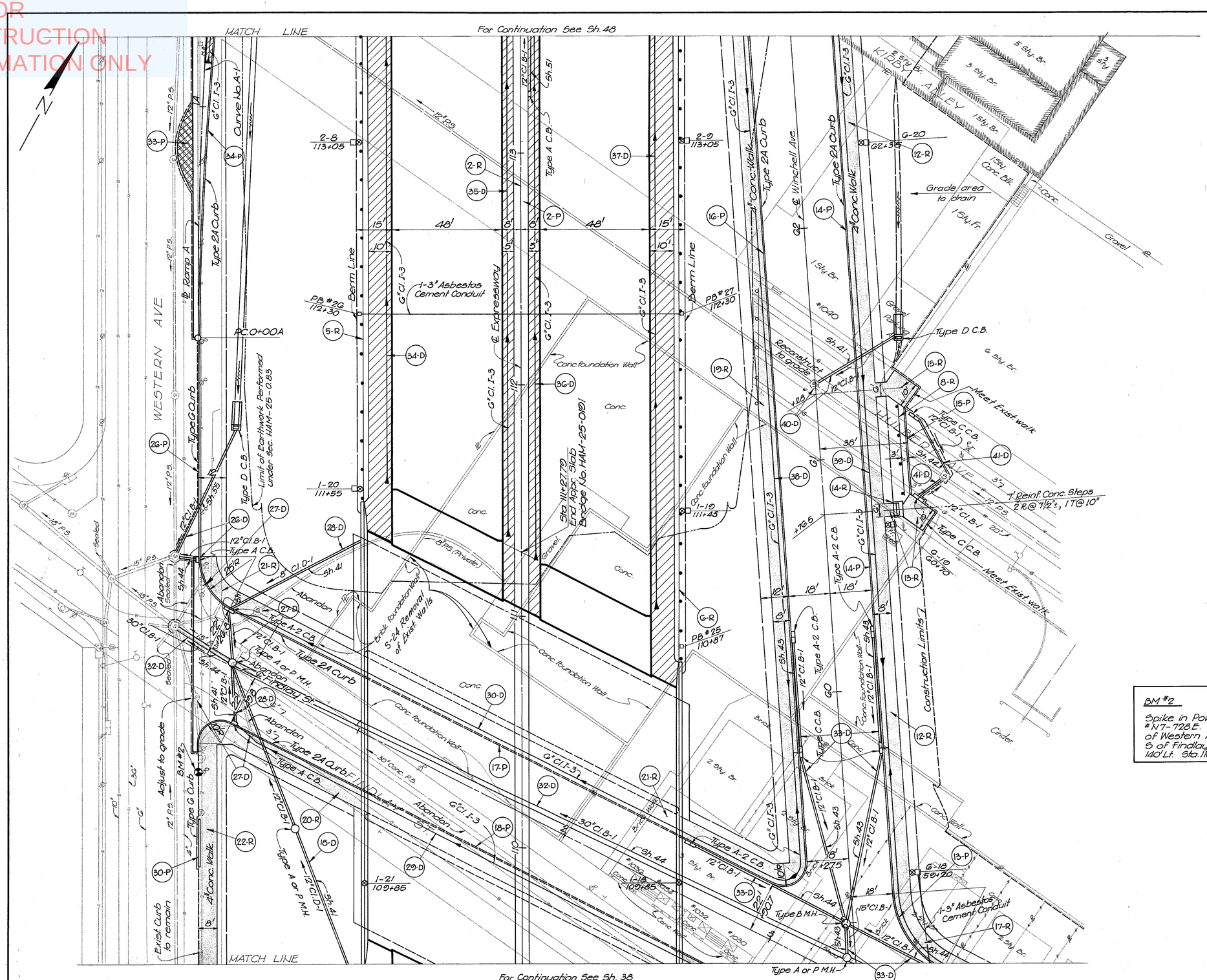


For	Expressway Profile	see Sh. 40, 41
For	Winchell Ave. Profile	see Sh. 42, 43
For	Pavement Details	see Sh. 241
For	Cl. I-3 Profiles	see Sh. 40 thru 43
For	Quantities	see Sh. 36, 37
For	Findlay St. Plan & Profile	see Sh. 45
For	Railing Conc. Steps	see Sh. 49
For	Water Works	see Sh. 419 thru 421

NOT FOR CONSTRUCTION INFORMATION ONLY

FED. RD. DIVISION	STATE	PROJECT	
2	OHIO		

HAM-25-1.63



BM #2 Elev. 494.00

Spike in Power Pole #N7-728E. East Side of Western Ave. S of Findlay St. 140' Lt. Sta. 110+35 Expway.

For Expressway Profile	see Sh. 41
For Winchell Ave. Profile	see Sh. 43-53
For Findlay St. Plan & Profile	see Sh. 44-45
For Bridge No. HAM-25-0191	see Sh. 303 thru 311
For Pavement Details	see Sh. 241
For Cl. I-3 Profiles	see Sh. 41, 43, 44, 45, 53
For Quantities	see Sh. 46, 47
For Railing on Conc. Steps	see Sh. 49
For Water Works	see Sh. 420 & 421

STA. 109+50 to STA. 113+50

NOT FOR CONSTRUCTION INFORMATION ONLY

Sta. 102+23 -Lt.
Type A-2 C.B.
℄ Grate 519.3
℄ 8" 515.80
℄ 12" 515.47

Sta. 101+75 -Rt.
Type C C.B.
℄ Grate 521.9
℄ 8" 518.20
℄ 12" 513.65

0.0200

91'-12" Cl. B-1

0.1287

Sta. 51+45 W.L. -8' Lt.
Type B M.H.
Rim elev. 500.2
℄ 12" 493.70
℄ 18" 493.20

150'-12" Sec. M-G.G (d) Cl. B-1

For Plan, see Sh. 28, 37

Sta. 53+20 W.L. -5' Lt.
Type A or D M.H.
Rim elev. 503.0
℄ 12" 496.00

Sta. 53+25 W.L. -Lt.
Type A-2 C.B.
℄ Grate 502.8
℄ 6" 493.90
℄ 12" 493.40

Sta. 53+20 W.L. -Rt.
Type A C.B.
℄ Grate 502.6
℄ 8" 498.73
℄ 12" 498.40

Sta. 53+06 W.L. -37' Rt.
Type A C.B.
℄ Grate 502.3
℄ 12" 499.30

0.1000

0.0391

13' 12" Cl. B-1

24'-12" Cl. B-1

23'-12" Cl. B-1

For Plan, see Sh. 37

Sta. 7+87 ± Western -31' ± Rt.
Type D C.B.
℄ Slot 407.0
℄ 8" 404.75
Connect to wall drainage
See Sh. 272 & 273
℄ 12" 492.00

Sta. 7+06 Western -31' Rt.
Type A or P M.H.
Rim elev. 497.1
℄ 12" 490.50

9'-12" Cl. E-1

Sta. 8+38 ± Western 12' ± Lt.
Ex. M.H.
℄ 12" 488.50
℄ Ex. 15" 483.4 ±

Sta. 7+06 Western -31' Rt.
Type A or P M.H.
Rim Elev. 497.1
℄ 12" 490.50

0.0263

70'-12" Cl. B-1

For Plan, see Sh. 37

Sta. 104+00 Lt.
Type A-2 C.B.
℄ Grate 521.8
℄ 8" 516.83
℄ 12" 516.50

Sta. 103+75 -Rt.
Type A C.B.
℄ Grate 523.6
℄ 8" 518.83
℄ 12" 518.50

0.0270

74'-12" Cl. B-1

0.4104

67'-12" Sec. M-G.4(c) Cl. D-1

For Plan, see Sh. 37

522.34 | 522.62 | 522.87 | 523.10 | 523.31 | 523.49 | 523.66 | 523.80 | 523.92 | 524.02 | 524.10 | 524.15 | 524.19 | 524.20 | 524.19 | 524.16 | 524.10 | 524.03 | 523.93 | 523.81 | 523.67 | 523.51 | 523.33 | 523.12

PVI Sta. 104+00
Elev. 538.46

Sta. 101+75
Outlet Rt. Median Cl. I-3 to C.B.
℄ 8" Cl. F-1 518.20

+2.880 %

Sta. 103+75
End Rt. Median Cl. I-3
℄ 519.50

-2.000 %

Sta. 107+75
℄ Lt. & Rt. Median Cl. I-3 518.40
℄ Lt. & Rt. Cl. I-3 518.40

For Profile Continued See Sh. 30

For Profile Continued See Sh. 41

Sta. 102+23
Outlet Lt. Cl. I-3 to C.B
℄ 8" Cl. F-1 515.80
See profile above

Sta. 103+77
Outlet Rt. Median Cl. I-3 to C.B.
℄ 8" Cl. F-1 518.83
See profile above

Sta. 104+02
Outlet Lt. Cl. I-3 to C.B.
℄ 8" Cl. F-1 516.83
See profile above

Sta. 103+96
End Lt. Cl. I-3
℄ 517.40

1400' V.C.

Sta. 105+00
℄ Rt. Median Cl. I-3 520.40

Sta. 106+00
℄ Lt. Cl. I-3 519.40

Grade of embankment to be placed under HAM-25-0.83

Sta. 107+50
End Lt. Median Cl. I-3
End Rt. Cl. I-3
℄ 518.50

Existing Ground at ℄

Original Ground at ℄

℄ Poplar St.

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

500.0 | 500.5 | 501.1 | 501.2 | 521.4 | 521.6 | 521.8 | 521.9 | 521.8 | 521.5 | 521.2 | 521.0

102 | 103 | 104 | 105 | 106 | 107

STA. 102+00 to STA. 107+75

NOT FOR CONSTRUCTION INFORMATION ONLY

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Sta. 109+20-G3'Lt.
Type A or P.M.H.
Rim elev. 421.7
℄ 12" 514.00

Sta. 109+20-Lt.
Type A C.B.
℄ Grate 521.3
℄ 8" 517.10
℄ 12" 516.69

Sta. 109+15-Rt.
Type A-2 C.B.
℄ Grate 521.4
℄ 8" 517.20
℄ 12" 516.87

0.0045

6"=G" Cl. F-3

0.0448

10'

12" Cl. B-1

60'-12" Cl. B-1

Sta. 0+95 Findlay-50'Rt.
Type A or P.M.H. with offset dome
Rim elev. 495.5
℄ 12" 490.50

Sta. 0+39 Findlay-℄
Type A or P.M.H.
Rim elev. 492.9
℄ 12" N. ℄ 5.485.90
℄ 12" S.E. 485.00
℄ 30" 481.98

0.2474

6" Cl. I-3

0.0724

98'-12" Sec. M-G4(c) Cl. D-1

76'-12" Cl. B-1

For Plan, see Sh. 38, 39

Sta. G1+33 ± W.L. -℄ ±
MH reconstructed to grade
Rim elev. 506.4
℄ 12" 499.00
℄ Ex. 12" 493.2±

Sta. G1+50 W.L. -37' Rt.
Type D C.B.
℄ Slot 504.2
℄ 12" 501.70

0.0643

42'-12" Cl. B-1

For Plan, see Sh. 39

Sta. 109+20-G3'-Lt.
Type A or P.M.H.
Rim elev. 421.7
℄ 12" 514.00

Sta. 109+45-Lt.
Type A-2 C.B.
℄ Grate 521.0
℄ 8" 517.00
℄ 12" 516.67

0.1068

25'-12" Cl. B-1

For Plan, see Sh. 38

Sta. 111+33 ± -70' ± Lt.
8" × 30° Bend
Connect to bridge drainage
See Sh. 30.5
℄ 8" × 30° Bend 508.5 ±

Sta. 0+27 Findlay-Lt.
Type A-2 C.B.
℄ Grate 492.7
℄ 8" N. 489.50
℄ 8" E. 487.35
℄ 12" 485.38

Sta. 0+39 Findlay-℄
Type A or P.M.H.
Rim elev. 492.9
℄ 12" N. 484.26 S. 485.90
℄ 12" S.E. 485.00
℄ 30" 481.98

Sta. 0+50 Findlay-Rt.
Type A C.B.
℄ Grate 492.5
℄ 8" 488.36
℄ 12" 488.03

0.2419

Sta. 111+13-107' Lt.
8" × 30° Bend

0.200

0.0819

0.0487

68'-8" Sec. M-G4(c) Cl. D-1

23'-12" Cl. B-1

26'-12" Cl. B-1

For Plan, see Sh. 39

PROPOSED STRUCTURE

TYPE: Continuous rolled steel beam with reinforced concrete deck and substructure.
SPANS: 49'-6", 71'-0", 49'-6".
ROADWAY: 136'-0" between parapets.
LOAD FREQUENCY: CF = 2000 (57)
SKEW: 26°-56'-15" L.F.
WEARING SURFACE: 1" Monolithic Concrete.
APPROACH SLABS: AS-1-54 (25' Long)

523.12 528.89 522.64 522.37 522.08 521.76 521.43 521.07 520.69 520.29 519.82 519.42 518.95 518.46 517.46 516.46 515.46 514.46 513.46

Sta. 108+74
Outlet Rt. Cl. I-3 to Median Cl. I-3
℄ 6" x 90° Bend 518.00
℄ 6" Tee Branch 517.60

10'-6" Cl. F-3

Sta. 109+45
Outlet Lt. Cl. I-3 to C.B.
℄ 8" F-1 517.00

-2.000 %

+2.77.75

℄ Bridge Limits

Sta. 111+25
End Rt. Median Cl. I-3
℄ 514.10

Sta. 111+35
End Lt. Median Cl. I-3
℄ 513.90

Grade of embankment to be placed under HAM-25-0.83

Sta. 109+15
Outlet Rt. Median Cl. I-3 to C.B.
℄ 8" Cl. F-1 517.20
See Profile above

Sta. 107+75
℄ Lt. & Rt. Median Cl. I-3 518.40
℄ Lt. & Rt. Cl. I-3 518.40

1400' V.C.

PVI Sta. 111+00

Sta. 111+03
End Rt. Cl. I-3
℄ 514.50

Sta. 111+58
End Lt. Cl. I-3
℄ 513.40

Grade of embankment to be placed under HAM-25-0.83

Sta. 109+20
Outlet Lt. Median Cl. I-3 to C.B.
℄ 8" Cl. F-1 517.10
See Profile above

Original Ground at ℄

℄ Ex. Findlay St.

℄ Prop. Findlay St.

Existing Ground at ℄

Original Ground at ℄

℄ Hulbert St.

Sta. 113+50
℄ Lt. & Rt. Median Cl. I-3 509.70
℄ Lt. & Rt. Cl. I-3 509.70

For Profile Continued See Sh. 40

For Profile Continued See Sh. 51

530 525 520 515 510 505 500 495

520.6 520.0 499.3 498.8 498.0 497.1 497.5 } 497.74 501.8 501.8 } 501.06 501.8 515.1 521.0 521.0 521.0 521.0

108 109 110 111 112 113

STA. 107+75 to STA. 113+50

NOT FOR CONSTRUCTION INFORMATION ONLY

DIST.	STATE	PROJECT		
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Sta. 50+05 WL. -Lt.
Type A C.B.
℄ Grate 497.7
℄ 12" 494.85

Sta. 49+75 WL. -9'Lt.
Type A or P MH
Rim Elev. 497.8
℄ 12" 491.40
℄ 18" 489.07

Sta. 49+75 WL. -Lt.
Type C C.B.
℄ Grate 497.5
℄ 6" 493.30
℄ 12" 493.05

Sta. 50+05 WL. -Rt.
Type A C.B.
℄ Grate 497.7
℄ 12" 494.85

Sta. 49+75 WL. -Rt.
Type C C.B.
℄ Grate 497.5
℄ 6" 493.30
℄ 12" 493.08

505
500
495
490
485

0.0600
0.0690
0.0640
30'-12" Cl. B-1
30'-12" Cl. B-1
8'
26'
12" Cl. B-1

For Plan, See Sh. 28

Sta. 51+50 WL. -Lt.
Type A-2 C.B.
℄ Grate 500.9
℄ 6" 496.00
℄ 12" 495.00

Sta. 51+45 WL. -8'Lt.
Type B MH
Rim Elev. 500.2
℄ 12" 493.70
℄ 18" 493.20

Sta. 51+50 WL. -Rt.
Type A-2 C.B.
℄ Grate 500.9
℄ 12" 497.11

6" Cl. I-3
0.1300
0.1312
6" Cl. I-3
10'
26'
12" Cl. B-1

For Plan, See Sh. 37

Sta. 0+75 Poplar -Rt.
Type A C.B.
℄ Grate 503.8
℄ 12" 500.98

Sta. 1+82± Freeman -10± Lt.
Ex. MH
℄ 12" 499.00
℄ Ex. 12" 492.8±

6" Cl. I-3
0.0330
60'-12" Cl. B-1

For Plan, See Sh. 37

Sta. 54+65 W.L. -Rt.
Type A C.B.
℄ Grate 505.0
℄ 12" 502.13

0.0580
54'-12" Cl. B-1

For Plan, See Sh. 37, 38

Sta. 55+10 WL. -11± Lt.
Type A or P MH Ex. 12"
Rim Elev. 505.9
℄ 12" S.E. 499.00
℄ 12" E & NE 497.50
℄ Ex. 18" 488.85±

Sta. 55+15± W.L. -18'± Lt.
Abandon Ex. MH

Ex. 18"
Connect Ex. 18" with 9'-18"
Sec. M-6.6 (C)
Cl. B-1

Sta. 57+75 WL. -Rt.
Type A C.B.
℄ Grate 505.0
℄ 6" 499.45
℄ 12" 499.20

0.036 ±
Ex. 12"
22'-12"
Sec. M-GG(C)
Cl. B-1
Connect Ex. 12" to MH

For Plan, See Sh. 38

Sta. 58+25 WL. -5'± Lt.
Type A or P MH on Ex. 30"
Rim Elev. 504.6
℄ 12" W. & S.E. 497.50
℄ 12" S. 493.50
℄ Ex. 30" 489.4±
℄ 30" 489.31

0.0309
55'-12" Cl. B-1

For Plan, See Sh. 38, 45

498.78 499.58 500.39 501.19 502.00 502.81 503.61 504.42 505.22 505.59 505.90 506.13 506.30 506.41 506.45 506.42

Sta. 51+39
End Lt. Cl. I-3
℄ 495.80

Sta. 51+43
End Lt. Cl. I-3
℄ 496.30

Sta. 51+45 WL. -8'Lt.
Type B C.B.
Rim Elev. 500.2
℄ 12" 493.70
℄ 18" 493.20

Existing Ground at ℄

℄ Freeman Ave.

Sta. 53+20 WL. -5'Lt.
Type A or P M.H.
Rim elev. 503.0
℄ 12" 496.00

Sta. 53+23
End Lt. Cl. I-3
℄ 498.95

+1.611%

℄ Popular St.

℄ Alley

P.V.I. Sta. 55+50
Elev. 506.83

-0.500%

Sta. 54+50
℄ Lt. & Rt. Cl. I-3 500.90

Sta. 56+25
℄ Lt. & Rt. Cl. I-3 501.60

Sta. 50+50
℄ Lt. & Rt. Cl. I-3 494.50

0.0243

170'-18" Cl. B-1

175'-12" Cl. B-1

0.0132

Sta. 51+50 - Lt.
Outlet Lt. Cl. I-3 to C.B.
℄ 6" Cl. B-1, 496.00
See profile above

Sta. 53+00
End Rt. Cl. I-3
℄ 498.50

Sta. 53+25
Outlet Lt. Cl. I-3 to C.B.
℄ 6" Cl. B-1 498.90
See profile, Sh. 40

Sta. 53+20
Outlet Rt. Cl. I-3 to C.B.
℄ 8" Cl. F-1 498.73
See profile, Sh. 40

P.V.C. Sta. 54+50

200' V.C.

510 505 500 495 490

For Profile Continued See Sh. 33

For Profile Continued See Sh. 43

For plan, See Sh. 37

501.3 502.7 502.2 502.0 502.0 502.8 503.3 503.5 503.5 503.2 503.0 503.7

51 52 53 54 55 56

WINCHELL AVE. STA. 50+50 to STA. 56+25

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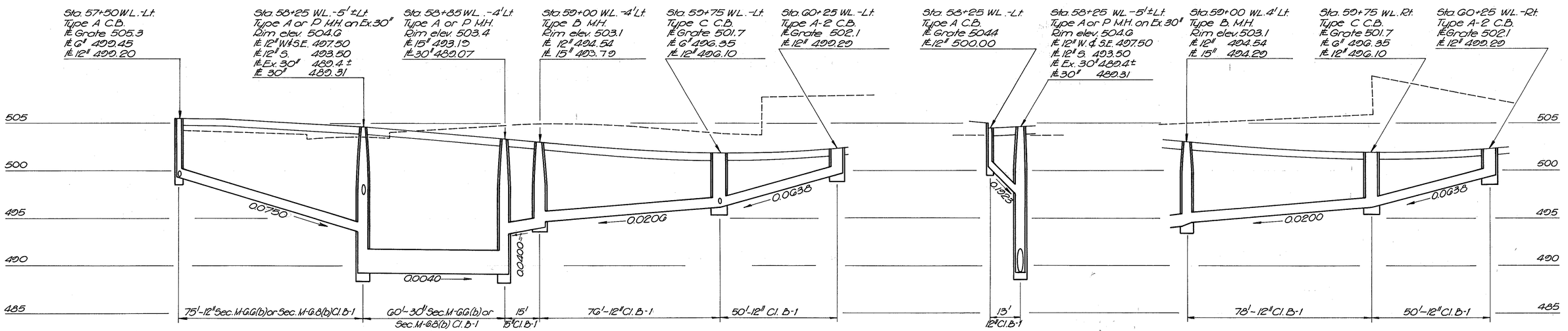
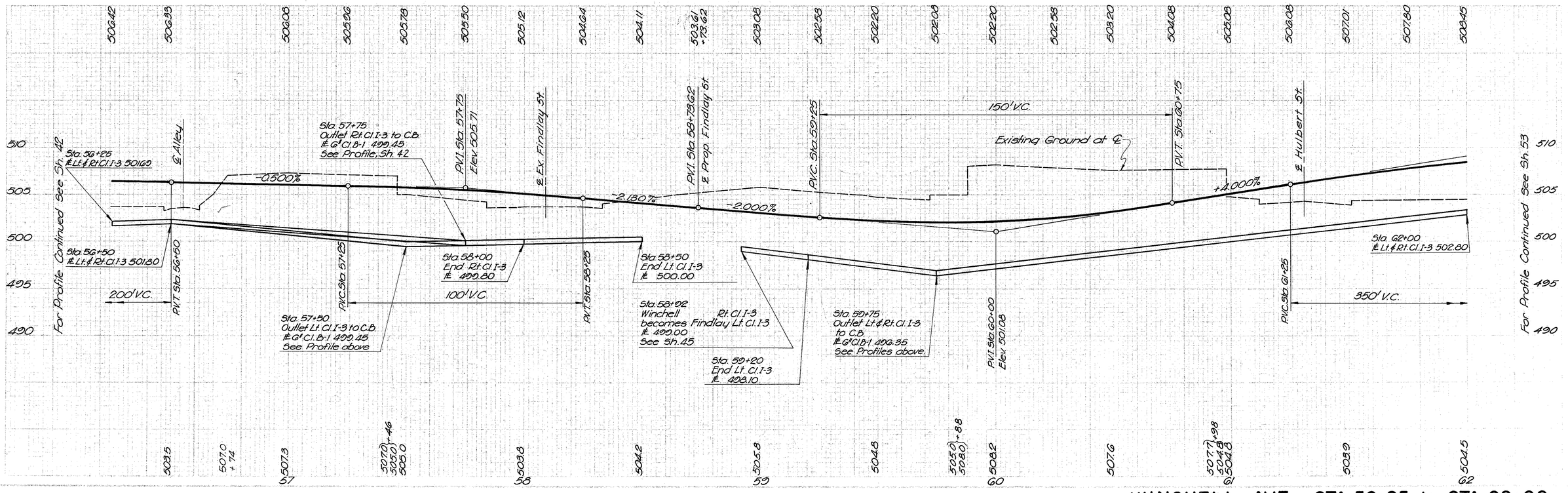


For Plan, see Sh. 38, 39, 45

For Plan, see Sh. 38, 45

For Plan, see Sh. 39, 45



WINCHELL AVE. STA. 56+25 to STA. 62+00

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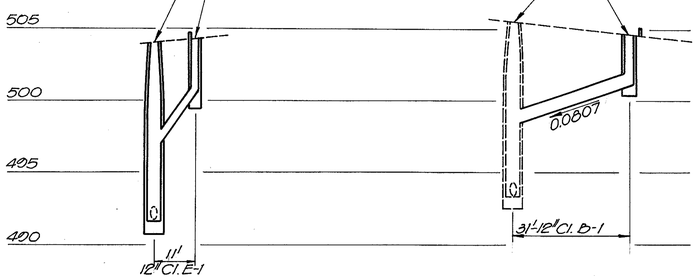
Sta. 55+76 W.L. -35'± Rt.
Type A or P. M.H. on Ex. 12"
Rim elev. 504.1
℄ 12" 497.00
℄ Ex. 12" 491.7±

Sta. 55+82 ± W.L. -44'± Rt.
Type A C.B.
℄ Grade 504.2±
℄ 12" 500.00

Sta. 56+12 ± W.L. -60'± Rt.
Exist. M.H.
℄ 12" 498.50
℄ Ex. 12" 493.3±

Sta. 56+35 ± W.L. -38'± Rt.
Type A C.B.
℄ Grade 504.4 ±
℄ 12" 501.00



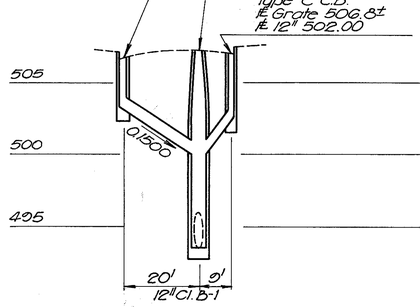
For Plan, see Sh. 38

For Plan, see Sh. 38

Sta. 57+43 ± W.L. -75'± Rt.
Type C C.B.
℄ Grade 506.3±
℄ 12" 503.00

Sta. 57+58 ± W.L. -80'± Rt.
Type A or P. M.H.
Rim elev. 507.2
℄ 12" 500.00
℄ Ex. 30" 492.5±

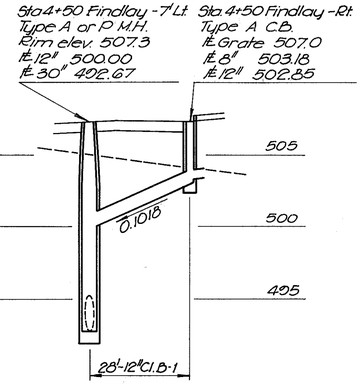
Sta. 57+67 ± W.L. 92'± Rt.
Type C C.B.
℄ Grade 506.8±
℄ 12" 502.00



For Plan, see Sh. 38

Sta. 4+50 Findlay -7' Lt.
Type A or P. M.H.
Rim elev. 507.3
℄ 12" 500.00
℄ 30" 492.67

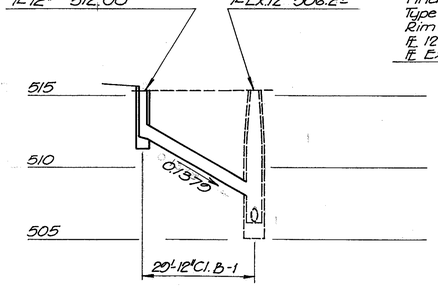
Sta. 4+50 Findlay -Rt.
Type A C.B.
℄ Grade 507.0
℄ 8" 503.18
℄ 12" 502.85



For Plan, see Sh. 38, 45

Sta. 6+76 ± Findlay -51' ± Lt.
Type A C.B.
℄ Grade 515.1±
℄ 12" 512.00

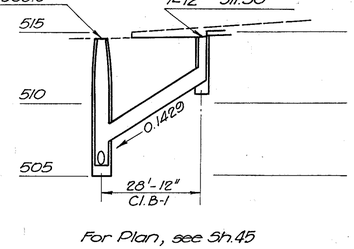
Sta. 7+00 ± Findlay -37' ± Lt.
Exist. M.H.
℄ 12" 508.00
℄ Ex. 12" 506.2±



For Plan, see Sh. 45

Sta. 0+10 ± Existing Findlay 38' ± Rt.
Type A or P.M.H. on Exist. 12"
Rim elev. 514.0
℄ 12" 507.5
℄ Ex. 12" 505.8

Sta. 0+38 Existing Findlay 39' ± Rt.
Type A C.B.
℄ Grade 512.4
℄ 12" 511.50

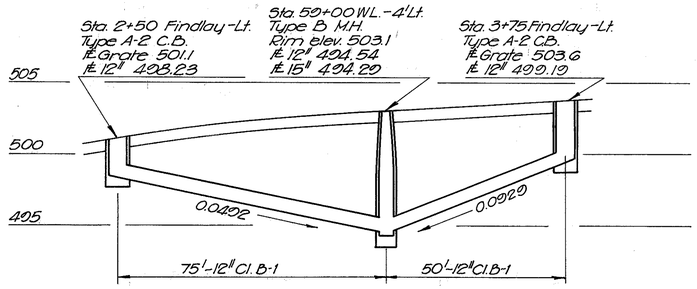


For Plan, see Sh. 45

Sta. 2+50 Findlay -Lt.
Type A-2 C.B.
℄ Grade 501.1
℄ 12" 498.23

Sta. 50+00 W.L. -4' Lt.
Type B M.H.
Rim elev. 503.1
℄ 12" 494.54
℄ 15" 494.20

Sta. 3+75 Findlay -Lt.
Type A-2 C.B.
℄ Grade 503.6
℄ 12" 499.19

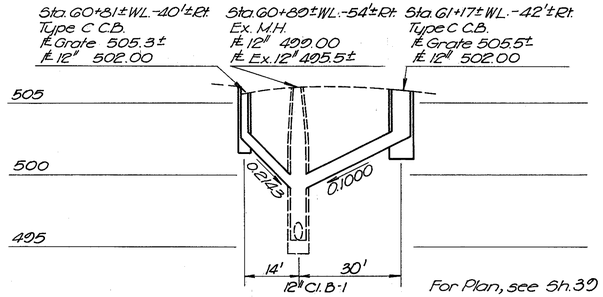


For Plan, see Sh. 39, 45

Sta. 60+81 ± W.L. -40' ± Rt.
Type C C.B.
℄ Grade 505.3 ±
℄ 12" 502.00

Sta. 60+80 ± W.L. -54' ± Rt.
Ex. M.H.
℄ 12" 499.00
℄ Ex. 12" 495.5±

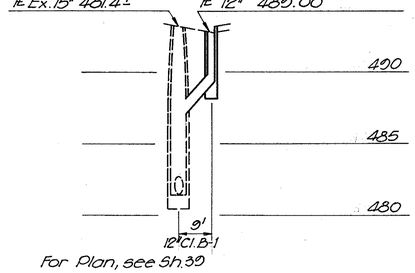
Sta. 61+17 ± W.L. -42' ± Rt.
Type C C.B.
℄ Grade 505.5±
℄ 12" 502.00



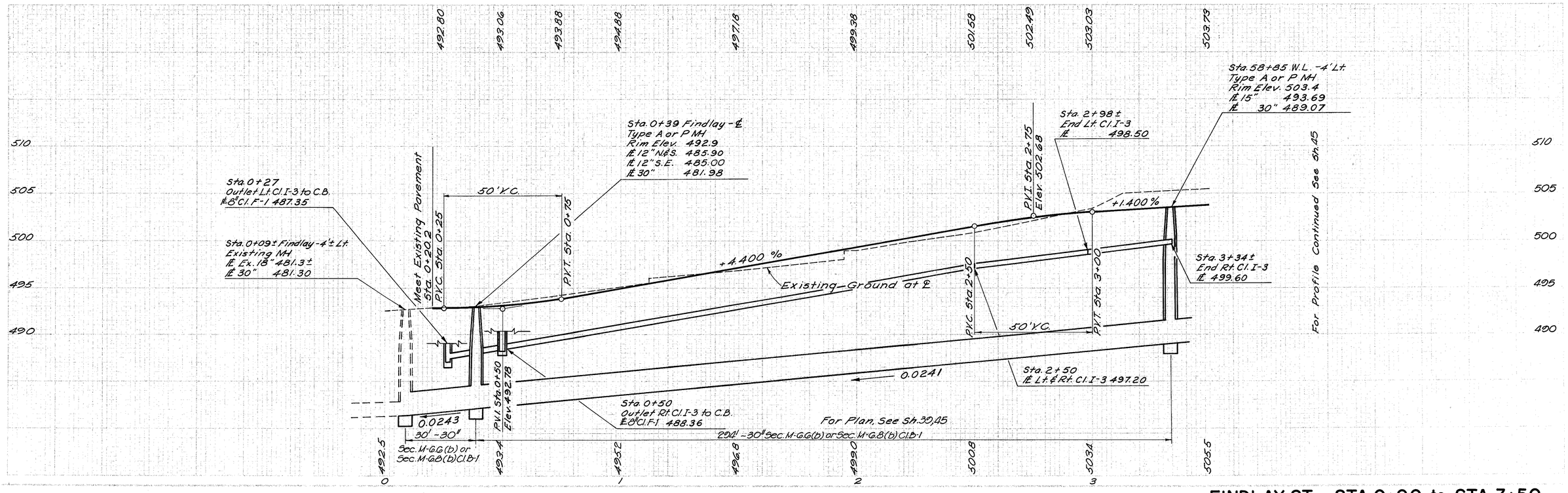
For Plan, see Sh. 39

Sta. 111+26 ± -151' ± Lt.
Exist. M.H.
℄ 12" 486.50
℄ Ex. 15" 481.4±

Sta. 0+05 ± Findlay -34' ± Lt.
Type A C.B.
℄ Grade 492.5±
℄ 12" 480.00



For Plan, see Sh. 39



FINDLAY ST. STA. 0+00 to STA. 3+50

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FINDLAY ST. STA. 3+50 to STA. 6+76.0

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ESTIMATED QUANTITIES

FED. RD. DIVISION	STATE	PROJECT	
2	OHIO		

HAM-25-1.63

AG ABG

STATION to STATION or REFERENCE NO.	Item T-71 Reinforced Portland Cement Concrete Pavement		Item I-22 Subbase		Item T-31 Bituminous Surface Treatment		Item B-21 Water proofed Aggregate Base Course Type B	Item I-18 Stabilized Crushed Aggregate Shoulders and Approaches	Item I-13 Concrete Steps	Item I-17 Reinforced Concrete Approach Slabs	Item I-21 Portland Cement Concrete Median and Traffic Island Pavement			Item I-12 Concrete Curb				Item 55-18 Type "C" Fence	Item I-15 Guard Rail		Item E-8 Removal and Disposal Existing Wearing Course	Item T-38 Asphaltic Concrete Surface Course Type C	Item B-35 Asphaltic Concrete Leveling Course	Item B-70 8" Portland Cement Concrete Base Course	Item 55-18 Remove, Repair, Reset Existing Ornamental Iron Fence	Item S-14 Railing Steel Pipe as per plan	Item I-13 4 Inch Concrete Sidewalk	Item T-30 Bituminous Tack Coat	Sheet No.
	10 inch	9 inch	Grading A or B	Grading C or D	Bit. Material	Aggregate No. 6	Type B				4" Median Pav't	Type 2 Modified Median Pav't	6" Traffic Island Pav't	Type 2A	Type 2B	Type 6	Curb Wall As per Plan		Standard	Barrier									
	Sq. Yd.	Sq. Yd.	Cu. Yd.	Cu. Yd.	Gal.	Cu. Yd.	Cu. Yd.	Cu. Yd.	Lin. Ft.	Sq. Yd.	Sq. Yd.	Sq. Yd.	Sq. Yd.	Lin. Ft.	Lin. Ft.	Lin. Ft.	Lin. Ft.	Lin. Ft.	Lin. Ft.	Lin. Ft.	Sq. Yd.	Cu. Yd.	Cu. Yd.	Sq. Yd.	Lin. Ft.	Lin. Ft.	Sq. Ft.	Gal.	
Expressway (N.B.) 102+00 to 113+50	5137.1		1267.9		403	12.9	134.1	227.3		266.7																			37, 38, 39
Expressway (S.B.) 102+00 to 113+50	5063.1		1255.2		398	13.4	132.7	222.0		266.7																			37, 38, 39
Winchell Ave. 51+00 to 62+82.5		5050.1	946.6																										37, 38, 39
Findlay Street		3347.1	625.1																										38, 39, 45
Ramp A 0+00 to 1+19																													
1-P												485.2																	37, 38
2-P												164.8																	39
3-P																730													37, 38
4-P														741															37, 38, 45
5-P														213															37
6-P														157															37
7-P																72													37
8-P																45													37
9-P														382															37, 38
10-P																18													38
11-P																30													38
12-P														334															38, 45
13-P														358															38, 39, 45
14-P														371															39, 45
15-P																38													39
16-P														355															39, 45
17-P														311															39, 45
18-P														319															38, 39, 45
19-P															122														45
20-P																						3.5	1.0						37
21-P											262.2																		37
22-P																						4.3	1.5						45
23-P																						4.2	1.5						45
24-P																						6.4	8.9	183.4				18.3	45
25-P																6													45
26-P																95													39
27-P																69													38
28-P																26													38
29-P																30													38
30-P																20													39
31-P																	11	5								6			45
32-P																7													38
33-P																					20	1.0	1.0						39
34-P														119															39
1-R																			737.5										37, 38
2-R																			250.0										39
3-R																		737.5											37, 38
4-R																		700.0											37, 38
5-R																		200.0											39
6-R																		275.0											39
7-R																		37.5											38
8-R																		37.5											39
9-R																											1570		37
10-R																											3270		37, 38, 45
11-R																											342		38, 45
12-R																											2782		39, 45
13-R																											147		39
14-R									14																	7			39
15-R																											154		39
16-R																											2455		38, 45
17-R																											2641		38, 39, 45
18-R																											985		45
19-R																											2663		39, 45
20-R																											2282		38, 39, 45
21-R																											2247		39, 45
22-R																											5962		37, 39, 39
23-R																		62.5											38
24-R									21																	9	56		38
Totals to General Summary	10,200.2	8,397.2	4,094.8		801	26.3	266.8	449.3	35	533.4	262.2	650.0		3,660	122	1,186	11	5	2050.0	975.0	20	19.4	13.9	183.4	6	16	27,556	18.3	

QUANTITIES

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47 486

REF. NO.	STATION TO STATION	SIDE	I-5 Pipe Specials Class Each: I-3 G° 30° Bend; I-3 G° 45° Bend; I-3 G° 90° Bend; B-1 G° Tee; B-1 G° 90° Bend; B-1 G° Tee; D-1 8" 30° G.4(C)	I-1 Pipe Culverts, Sewers and Drains Class Linear Feet: G°; 12"	B-1 12" G.G(b) G.8(b); B-1 12" G.G(c); B-1 12" G.G(d); B-1 15"; B-1 18" G.G(c); B-1 30" G.G(b) G.8(b); D-1 8" G.4(C); D-1 12" G.4(C); E-1 12"; F-1 8"; F-3 G°; I-3 G° shallow	I-8 Catch Basins: A; A-2; C; D	I-8 Manholes: A or P; B; Adjusted to Grade; Recon. to Grade	I-8 Lampholes Adjusted to Grade; I-8 Inlets Std. No.1 Side Ditch with flat grate	I-10 Manholes Abandoned; I-10 Catch Basins Abandoned	L-10 Sod Sq.Yd.	SEE SHEET NO.
	Drainage												
1-D	102+23 to 103+26	Lt.	1		10 / 163								
2-D	101+75 to 103+77	Rt.	1		10 / 191								
3-D	51+43 W.L. to 53+23 W.L.	Lt.	1	3 / 181									
4-D	51+12 W.L. to 53+00 W.L.	Rt.		195									
5-D	103+75 to 8+58± Western	Lt. & Rt.		150 / G7 / 9	1 / 1 / 1 / 1								
6-D	5+92 Western to 7+76 Western	Rt.										G2	
7-D	6+10± Western	Lt.											
8-D	101+75 to 53+25 W.L.	Lt. & Rt.		362 / 156	2 / 4 / 1 / 1 / 1 / 1								
9-D	102+50±	Rt.									1		
10-D	53+00 W.L.	Rt.						1					
11-D	0+74 Poplar to 1+82± Freeman	Lt.		60	1								
12-D	54+82 W.L. to 55+27 W.L.	Lt. & Rt.		110				2					
13-D	54+65 W.L. to 55+15± W.L.	Lt. & Rt.		54 / 22 / 9	1 / 1				1 / 1				
14-D	107+50 to 108+74	Rt.	1	176			2						
15-D	107+45± to 107+65±	Lt.									1		
16-D	108+50±	Lt.									1		
17-D	109+20±	Lt.											
18-D	109+15 to 0+39 Findlay	Lt. & Rt.		171 / 98	1 / 2 / 2				1 / 2				
19-D	109+20± to 109+45±	Rt.											
20-D													
21-D	57+50 W.L. to 58+85 W.L.	Lt. & Rt.		68 / 75 / 60	3 / 1								
22-D	55+76 W.L. to 55+82± W.L.	Rt.		11	1 / 1								
23-D	56+12 W.L. to 56+35± W.L.	Rt.		31	1								
24-D	56+45± W.L.	Rt.									1		
25-D	57+43± W.L. to 57+67± W.L.	Rt.		29	2 / 1								
26-D	0+05± Findlay to 111+82	Lt.		73	1 / 1								
27-D	0+10± Findlay to 0+60± Findlay	Lt. & Rt.					1				1	4	
28-D	0+50 Findlay to 111+33±	Lt. & Rt.	2	49 / G8	1 / 1								
29-D	0+50 Findlay to 3+34± Findlay	Rt.	1	10 / 276									
30-D	0+27 Findlay to 2+98± Findlay	Lt.	1	10 / 262									
31-D													
32-D	0+09± Findlay to 6+55 Findlay	Lt.		28 / 662	1 / 3								
33-D	58+85 W.L. to 60+25 W.L.	Lt. & Rt.		379 / 15	4 / 2 / 1								
34-D	111+58 to 113+50	Lt.		192									
35-D	111+35 to 113+50	Lt.		215									
36-D	111+25 to 113+50	Rt.		225	1								
37-D	111+03 to 113+50	Rt.		247									
38-D	59+20 W.L. to 62+83 W.L.	Lt.	1 / 3	365									
39-D	6+72± Findlay to 62+83 W.L.	Lt. & Rt.	1 / 3	723									
40-D	61+33± W.L. to 61+50 W.L.	℄ & Rt.		42	1 / 1								
41-D	60+81± W.L. to 61+17± W.L.	Rt.		44	2								
42-D	6+76± Findlay to 7+00± Findlay	Lt.		29	1								
43-D	0+10± Ex. Findlay to 0+38 Ex. Findlay	Rt.		28	1 / 1 / 1								
44-D	107+50 to 109+20	Lt.	1	10 / 160									
45-D	4+50 Findlay to 6+58± Findlay	Rt.	1	10 / 215									
46-D	104+02 to 109+45	Lt.	1 / 1	20 / 10 / 513									
47-D	103+77 to 109+15	Rt.	2 / 1	20 / 521									
48-D	53+25 W.L. to 58+50 W.L.	Lt.	1 / 1 / 6	525									
49-D	58+20 W.L. to 58+00 W.L.	Rt.	1 / 1 / 3	10 / 480									
TOTALS			10 / 1 / 1 / 1 / 1 / 5 / 2	18 / 1707 / 75 / 22 / 156 / 15 / 9 / 722 / 68 / 165 / 20 / 110 / 10	5831	16 / 12 / 7 / 3 / 12 / 2	2	3	1	2	5	10	62	

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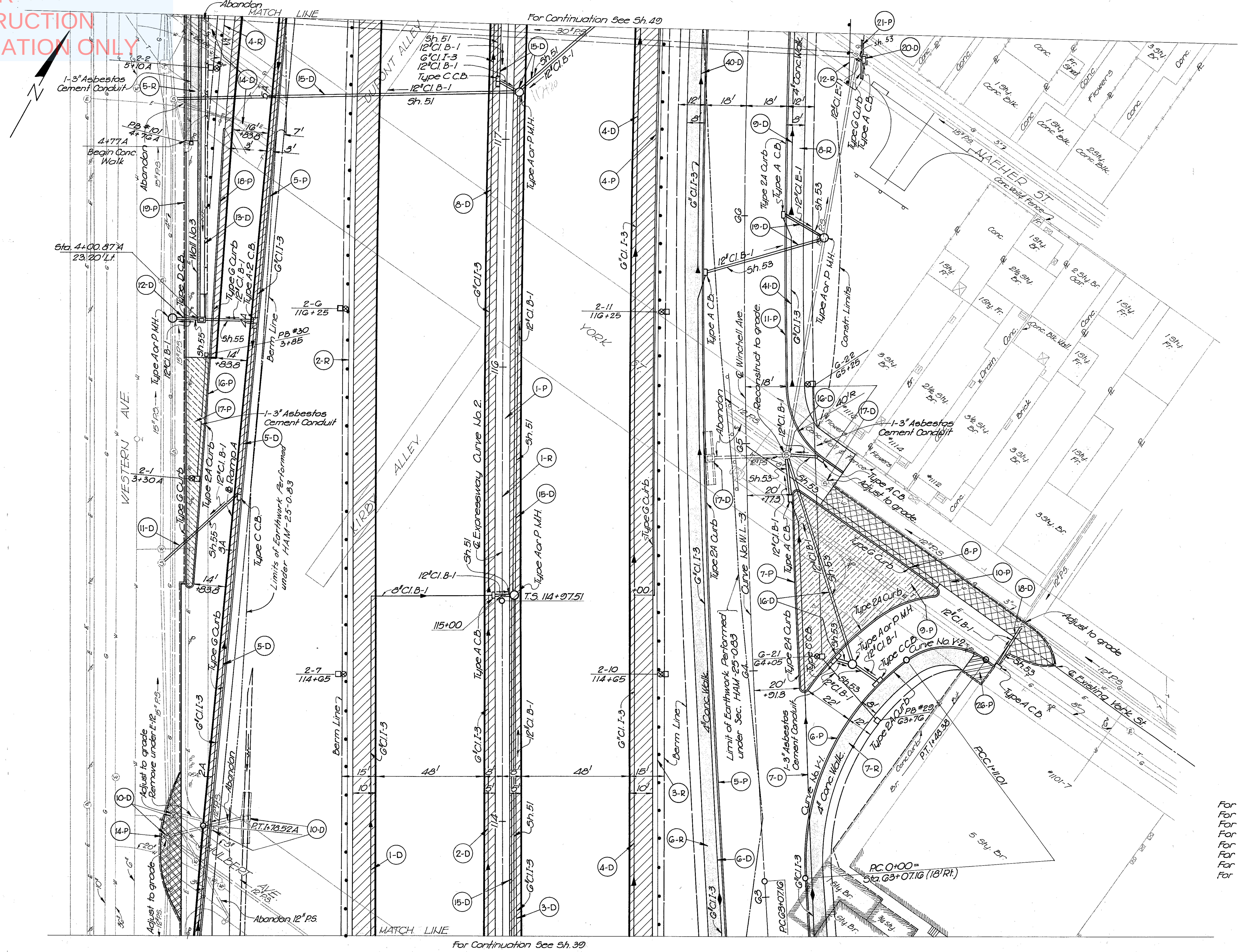

For Expressway Profile see Sh. 51
For Winchell Ave. Profile see Sh. 53
For Ramp A Profile see Sh. 55
For Pavement Details see Sh. 240, 242
For Cl. I-3 Profiles see Sh. 51, 53, 55
For Quantities see Sh. 57, 58
For Wall No. 3. see Sh. 274
For Water Works see Sh. 422

STA. 113+50 to STA. 117+50

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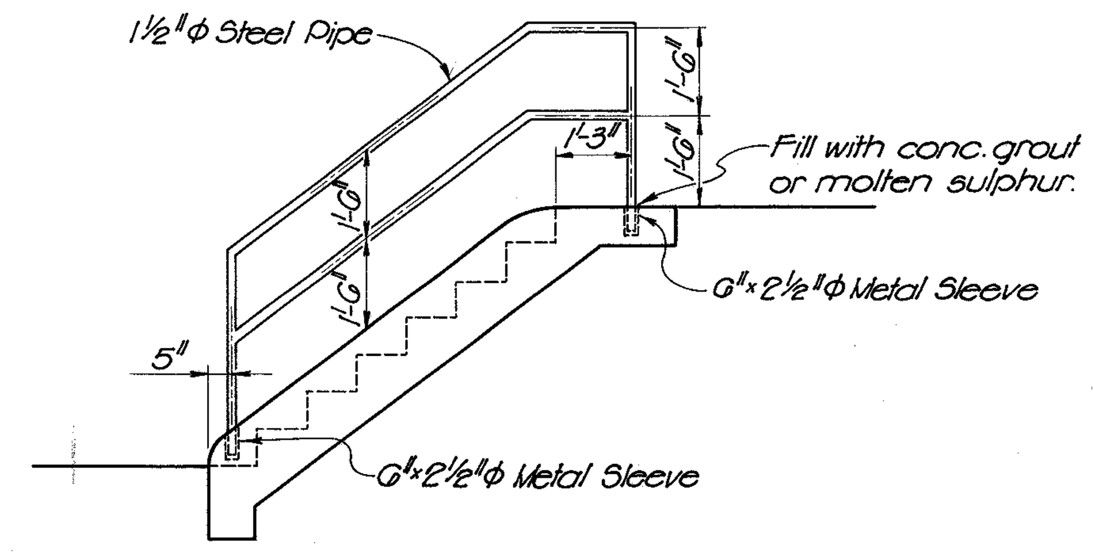


TYPICAL RAILING DETAIL FOR CONC. STEPS

Scale 3/8"=1'-0"

NOTES:

1. Railing to be provided on each side of all concrete steps.
2. Railing and railing posts to be 1½"ϕ Steel pipe with welded joints. Railing, railing posts, metal sleeves, welding and concrete grout or molten sulphur are to be included in the unit price bid for Item 5-14 Railing, Steel Pipe as per plan.

BM #3	Elev. 494.53
Spike in Power Pole #7-675C NW Cor. York St. & Western Ave. 208' Lt. Sta. 118+00 Expway.	

For Expressway Profile see Sh. 51 & 52
For Winchell Ave. Profile see Sh. 53 & 54
For Ramp A Profile see Sh. 55 & 56
For Pavement Details see Sh. 242
For Cl. I-3 Profiles see Sh. 51 thru 56
For Quantities see Sh. 57 & 58
For Pedestrian Underpass see Sh. 267 thru 269
For Wall No. 3 & 4 see Sh. 274 & 275
For Water Works see Sh. 422 thru 424

STA. 117+50 to STA. 121+00

NOT FOR CONSTRUCTION INFORMATION ONLY

FED. RD. DIVISION	STATE	PROJECT	
2	OHIO		

50
456

HAM-25-1.63

MATCH LINE

℄ Western Ave.

Curve No. 5-1

Meet exist. pavement, curb & walk

P.C. 0+00

WESTERN AVE.

DAYTON ST.

Item I-2, 5'-7"-G" pad Class E Conc.

Exist. curb to remain

℄ Holt Alley

Wall No. 5

2+28.50 Abandoned

HOLT — ALLEY

Varies

℄ Ramp A

Curve No. A-3

Limit of Earthwork Performed Under Sec. HAM-25-0.03

Construction Limits

Berm Line

Type G Curb

Type D C.B.

MATCH LINE

For Continuation See Sh. 49

For Continuation See Sh. 59

P.T. 12+02.78 A

℄ Expressway, Curve No. 2

G1 C1.1-3

TURNER ALLEY

Sta. 123+00.92 Bear Appr. Slab, Bridge No. HAM-25-0219

Type A C.B.

Type C C.B.

Type A.42 C.B.

Type A or P.M.H.

Curve No. WL-4

Type 2A Curb

4' Conc. Walk

℄ Winchell Ave.

WINCHELL AVE.

Abandon ℄ Winchell Ave.

Abandon

Type D M.H.

P.T. 73+35.14 W.L. 7+00.50 Bank St.

℄ Bank St.

BANK ST.

Type C.B.

Type G Curb

G-27 0+31 Winchell

Stone Wall

Bituminous Parking Lot

Conc. Slab

G-26 12+05

1 Sty. Conc. Blk.

1-3" Asbestos Cement Conduit

Type A.or P.M.H.

Type C.C.B.

Type A.42 C.B.

Type A C.B.

Type 2A Curb

Grade to drain N

Shed

Construction Limits

PORTER ALLEY

GARDEN ST.

4.45 W.L. 70.18 ℄

Type A or P.M.H.

Type C.C.B.

For Expressway Profile	see Sh.	52
For Winchell Ave. Profile	see Sh.	54
For Bank St. Plan & Profile	see Sh.	GG
For Pavement Details	see Sh.	242 & 243
For C1.13 Profiles	see Sh.	52, 54 & GG
For Bridge No. HAM-25-0219	see Sh.	312 thru 324
For Quantities	see Sh.	57 & 58
For Water Works	see Sh.	424

STA. 121+00 to STA. 124+50

NOT FOR CONSTRUCTION INFORMATION ONLY

Existing ground line

Sta. 4+95 ± A -43' Lt.
Ex. MH
℄ 12" 486.00
℄ Ex. 18" N. 486.0 ±

Sta. 117+20 -5' Rt.
Type A or P MH
Rim Elev. 507.1
℄ 12" W. 500.00
℄ 12" S.W., S.E. & N. 497.86

6" Cl. I-3

Original ground line

0.0200

0.0780

82'-12" Cl. B-1

Concrete Collar
See Detail Sh. 254

24'-12" C.I.P. Cl. B-1

128'-12" Sec. M-G.G (c) Cl. B-1

Sta. 115+00 -5' Rt.
Type A or P MH
Rim Elev. 510.6
℄ 8" 504.33
℄ 12" 503.96

Sta. 117+75 Rt.
Type A C.B.
℄ Grade 505.0
℄ 8" 499.83
℄ 12" 499.50

Existing ground line

Sta. 115+00 -Lt.
Type A C.B.
℄ Grade 510.3
℄ 8" 505.90
℄ 12" 505.40

Original ground line

2'
12" Cl. B-1

For Plan, See Sh. 48

Existing ground line

Sta. 113+25 - Rt.
Type A C.B.
℄ Grade 513.8
℄ 12" 510.96

Sta. 115+00 -5' Rt.
Type A or P MH
Rim Elev. 510.6
℄ 8" 504.33
℄ 12" 503.96

Sta. 117+20 -5' Rt.
Type A or P MH
Rim Elev. 507.1
℄ 12" W. 500.00
℄ 12" S.W., S.E. & N. 497.86

Sta. 117+25 -Lt.
Type C C.B.
℄ Grade 506.8
℄ 12" 500.20

Sta. 117+85 -Lt.
Type C C.B.
℄ Grade 506.6
℄ 6" 501.90
℄ 12" 501.40

0.0400

Original ground line

175'-12" Cl. B-1

0.0277

0.0200

220'-12" Cl. B-1

70'-12" Cl. B-1

For Plan, See Sh. 48, 49

For Plan, See Sh. 39, 48, 49

513.46 | 512.46 | 511.46 | 510.46 | 509.46 | 508.74 +86 | 508.47 | 508.04 | 507.66 | 507.36 | 507.11 | 506.93 | 506.80 | 506.75 | 506.75 | 506.82 | 506.94 | 507.14 | 507.39

For Profile Continued See Sh. A1

Sta. 113+50
℄ Lt. & Rt. Median Cl. I-3 509.70
℄ Lt. & Rt. Cl. I-3 509.70

Sta. 114+75
℄ Rt. Median Cl. I-3 506.60

Sta. 115+00
Outlet Lt. & Lt. Median Cl. I-3 to C.B.
℄ 6" x 90° Bend 507.00
℄ 6" x 8" Tee Branch 506.00
℄ 8" Cl. B-1 505.90
See profile above

Sta. 115+02
End Lt. Median Cl. I-3
℄ 506.60

-2.000 %

Sta. 115+00
Outlet Rt. Median Cl. I-3 to MH.
℄ Cl. F-1 504.38

P.V.C. Sta. 115+86

Sta. 116+00
℄ Lt. Median Cl. I-3 504.60

Sta. 116+00
℄ Rt. Cl. I-3 508.50

℄ York St.

Original Ground at ℄

Grade of embankment to be placed under HAM-25-0.83

400' V.C.

Sta. 117+75
Outlet Rt. Cl. I-3 to C.B.
℄ 6" Tee Branch 500.00
See profile above

Sta. 117+85
℄ 6" Tee Branch 502.00
Outlet Lt. Median Cl. I-3 to C.B.
See profile above

P.V.I. Sta. 117+86
Elev. 504.74

℄ Pedestrian Under pass Sta. 118+30

℄ Wagner St.

Sta. 118+50
℄ 6" Tee Branch 502.10
Outlet Lt. Median Cl. I-3 to C.B.
See profile sh. 52

Sta. 118+22
End Lt. Median Cl. I-3
℄ 502.50

+2.000 %

Sta. 118+40
℄ 6" x 90° Bend 500.50
Outlet Rt. Cl. I-3 to C.B.
See profile sh. 52

Sta. 118+38
End Lt. Median Cl. I-3
℄ 503.00

Sta. 118+22
End Rt. Cl. I-3
℄ 500.20

Sta. 119+00
℄ Lt. Median Cl. I-3 503.00

Sta. 119+00
℄ Rt. Cl. I-3 501.00

For Profile Continued See Sh. 52

525 | 520 | 515 | 510 | 505 | 500 | 495 | 490

521.0

114 | 115 | 116 | 117 | 118 | 119

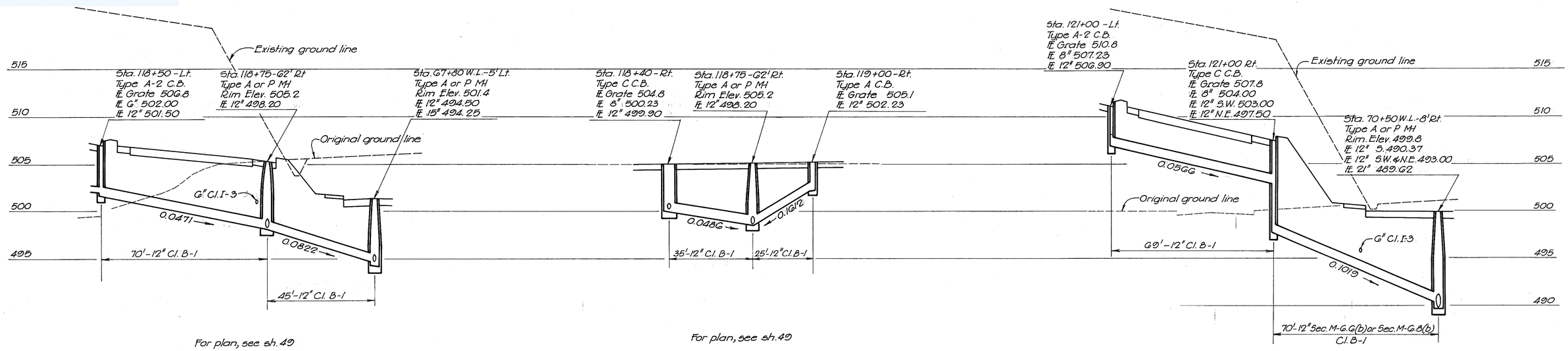
STA. 113+50 to STA. 119+00

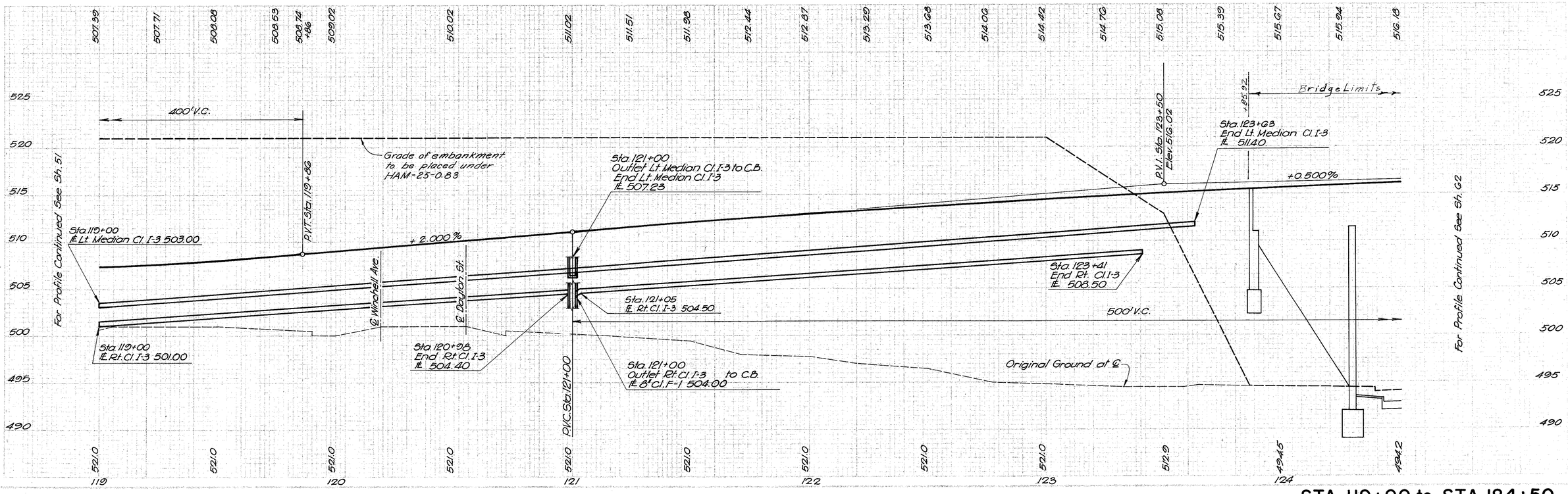
NOT FOR
CONSTRUCTION
INFORMATION ONLY

P.I.D. NO.	SHEET NO.	STATE	PROJECT	
	2	OHIO		

52
486

HAM-25-1.63





STA. 119+00 to STA. 124+50

NOT FOR CONSTRUCTION INFORMATION ONLY

Sta. 1+45± York -7'± Lt.
M.H. adjusted to grade
℄ 12" 503.50
℄ Ex. 12" 497.3±

Sta. 1+46 York -12' Rt.
Type A C.B.
℄ Grade 509.8±
℄ 12" 506.00

0.1136

22'
12" Cl. B-1

Sta. 0+90 Rt. York-Lt.
Type C C.B.
℄ Grade 508.2
℄ 12" 504.00

0.2500

0.2270

8' 15'
12" Cl. B-1

Sta. 0+95 Rt. York-15' Lt.
Type A or P M.H.
Rim Elev. 508.5
℄ 12" 502.00

Sta. 0+95 Rt. York-℄
Type C C.B.
℄ Grade 508.2
℄ 12" 505.41

Sta. 0+31 York - Lt.
Type A C.B.
℄ Grade 505.2
℄ 12" 499.2

Sta. G4+94± W.L. -17'± Rt.
M.H. Reconstructed to grade.
Rim Elev. 505.4
℄ 12" E. & S.E. 496.30
℄ 12" S. 499.87
℄ Ex. 12" E. 493.3±
℄ Ex. 15" 493.05±

0.0588

0.1035

97'-12" Cl. B-1.

15'
12" Cl. B-1

Sta. GG+00 W.L.-Rt.
Type A C.B.
℄ Grade 502.2
℄ 8" 497.50
℄ 12" 497.17

Sta. G5+90 W.L. -35' Rt.
Type A or P M.H. on Ex. 15"
Rim Elev. 505.7
℄ 12" S.W. 495.00
℄ 12" N.W. 496.50
℄ Ex. 15" 491.35±

Sta. G5+75 W.L. -Lt.
Type A C.B.
℄ Grade 502.7
℄ 8" 498.33
℄ 12" 498.00

0.0546

6" Cl. I-3

0.0310

55'-12" Cl. B-1

21'-12"
Cl. E-1

Sta. GG+72± W.L. -48'± Rt.
Ex. M.H.
℄ 12" 502.50

Sta. GG+70± W.L. -52'± Rt.
Type A C.B.
℄ Grade 506.8±
℄ 12" 503.00

6'-12" Cl. E-1

Sta. G4+76 W.L. Rt.
℄ Grade 506.1
℄ 8" 500.60
℄ 12" 500.27

0.0200

Sta. G4+94± W.L. -17'± Rt.
M.H. reconstructed to grade
Rim Elev. 505.4
℄ 12" E. & S.E. 496.30
℄ 12" S. 499.87
℄ Ex. 12" E. 493.3±
℄ Ex. 15" 493.05±

20'-12"
Cl. B-1

510 505 500 495 490

For Plan, see Sh. 48 | For Plan, see Sh. 48 | For Plan, see Sh. 48 | For Plan, see Sh. 48 | For Plan see Sh. 48 | For Plan, see Sh. 48.

508.45 508.96 509.33 509.55 509.64 509.59 509.40 509.07 508.59 507.98 507.22 506.33 505.96 504.47 503.71 503.10 502.63 502.29 502.10 501.85 501.60

P.V.I. Sta. G3+00
Elev. 513.08

+4.000%

150' V.C.

Sta. G5+75
Outlet Lt. Cl. I-3 to C.B.
End Lt. I-3
℄ 498.33
See Profile above

P.V.C. Sta. G5+00

-3.858%

Existing Ground at ℄

℄ Keefner St.

P.V.T. Sta. GG+50

-0.495%

Sta. GG+00
End Rt. Cl. I-3
℄ 497.60

Sta. GG+00
℄ Lt. Cl. I-3 497.60
Outlet Rt. Cl. I-3 to C.B.
℄ 8" Cl. F-1 497.50

Sta. G7+50
℄ Lt. & Rt. Cl. I-3 496.90

Sta. G2+00
℄ Lt. & Rt. Cl. I-3 502.80

Sta. G3+00
℄ Lt. & Rt. Cl. I-3 505.30

Sta. G4+76
Outlet Rt. Cl. I-3 to C.B.
℄ 8" Cl. F-1 500.60

P.V.T. Sta. G4+75

350' V.C.

℄ York St.

Sta. G5+25
End Rt. Cl. I-3
℄ 499.60

P.V.I. Sta. G5+75
Elev. 502.47

515 510 505 500 495

For Profile Continued See Sh. 43

For Profile Continued See Sh. 54

504.5 504.9 511.4 511.4 507.3 +2.1 506.9 505.1 504.7 504.5 506.0 +66 505.3 504.8 504.9 506.0 504.8 507.0 +27 507.1

G2 G3 G4 G5 G6 G7

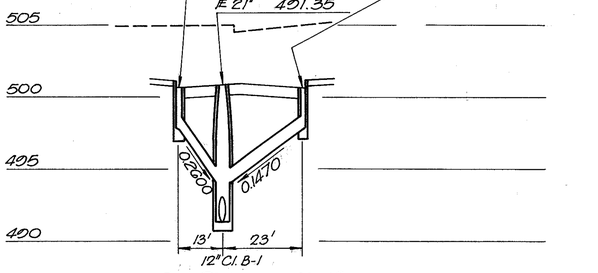
WINCHELL AVE. STA. 62+00 to STA. 67+50

NOT FOR CONSTRUCTION INFORMATION ONLY

Sta. G9+00 W.L.-Lt.
Type A C.B.
℄ Grate 500.4
℄ 12" 497.58

Sta. G9+00 W.L.-5' Lt.
Type A or P.M.H.
Rim elev. 500.8
℄ 12" E 492.10
℄ 12" N.E.&S.W. 494.20
℄ 15" 491.85
℄ 21" 491.35

Sta. G9+00 W.L.-Rt.
Type A C.B.
℄ Grate 500.4
℄ 12" 497.58

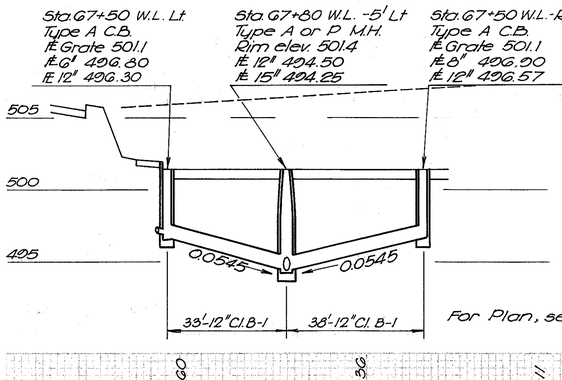


For Plan, see Sh. 49

Sta. G7+50 W.L. Lt.
Type A C.B.
℄ Grate 501.1
℄ 6" 496.80
℄ 12" 496.30

Sta. G7+80 W.L. -5' Lt.
Type A or P. M.H.
Rim elev. 501.4
℄ 12" 494.50
℄ 15" 494.25

Sta. G7+50 W.L.-Rt.
Type A C.B.
℄ Grate 501.1
℄ 8" 496.90
℄ 12" 496.57

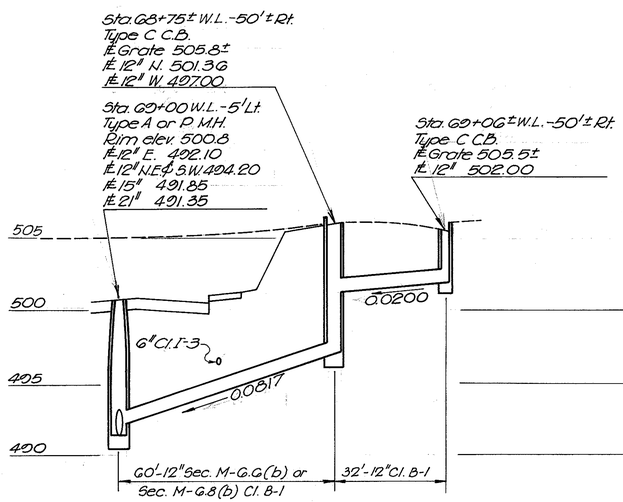


For Plan, see Sh. 49

Sta. G8+75± W.L.-50'± Rt.
Type C C.B.
℄ Grate 505.8±
℄ 12" N. 501.36
℄ 12" W. 497.00

Sta. G9+00 W.L.-5' Lt.
Type A or P.M.H.
Rim elev. 500.8
℄ 12" E. 492.10
℄ 12" N.E.&S.W. 494.20
℄ 15" 491.85
℄ 21" 491.35

Sta. G9+06± W.L.-50'± Rt.
Type C C.B.
℄ Grate 505.5±
℄ 12" 502.00

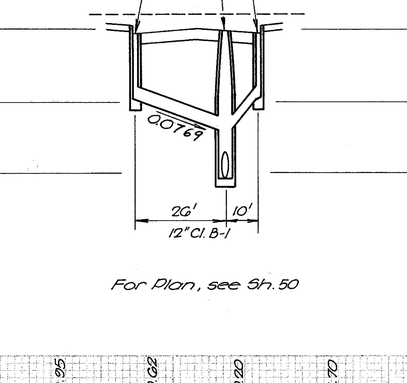


For Plan, see Sh. 49

Sta. 70+50 W.L.-Lt.
Type A C.B.
℄ Grate 490.5
℄ 8" 495.40
℄ 12" 495.00

Sta. 70+50 W.L.-8' Rt.
Type A or P.M.H.
Rim elev. 490.8
℄ 12" S. 490.37
℄ 12" S.W.& N.E. 493.00
℄ 21" 489.62

Sta. 70+50 W.L.-Rt.
Type A C.B.
℄ Grate 490.5
℄ 8" 495.40
℄ 12" 495.00

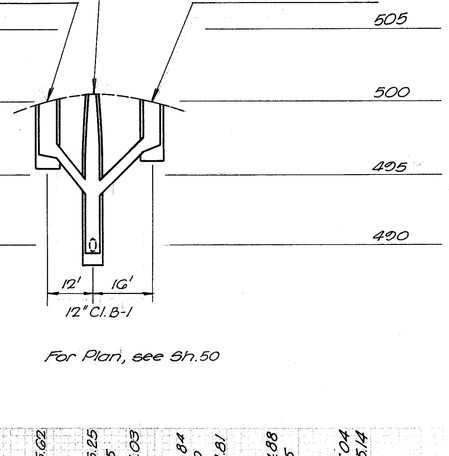


For Plan, see Sh. 50

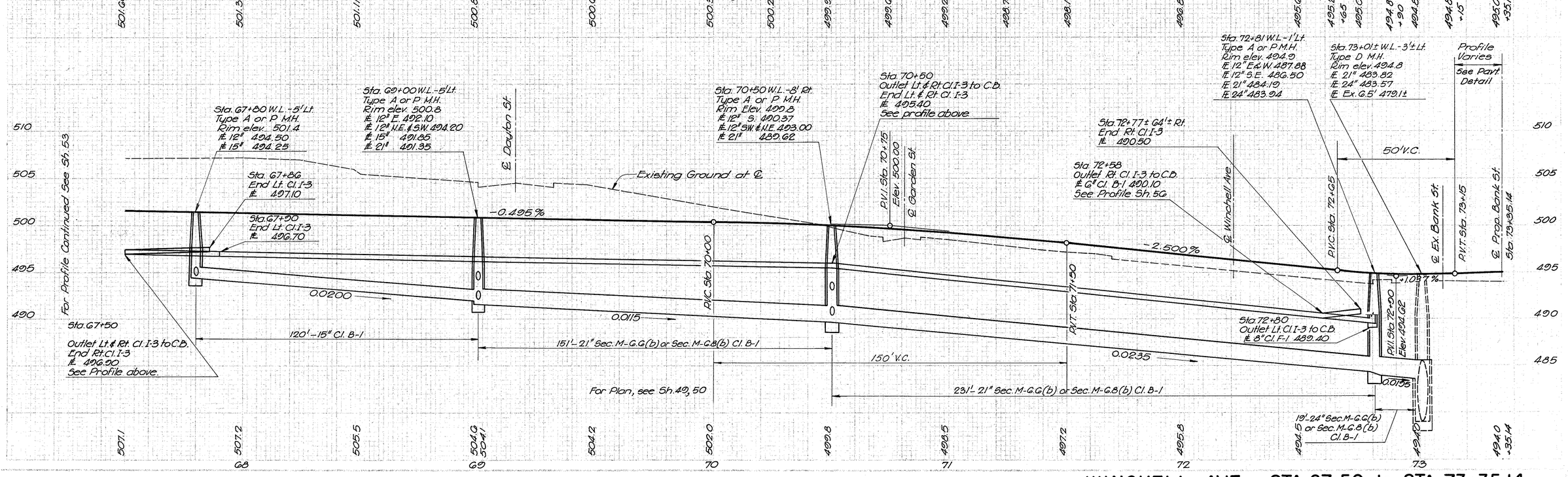
Sta. 70+56 ± W.L.-54' Rt.
Type A or P.M.H. on Ex. 12"
Rim elev. 500.5
℄ 12" 493.50
℄ Ex. 12" 489.4±

Sta. 70+57± W.L.-42'± Rt.
Type C C.B.
℄ Grate 499.8±
℄ 12" 496.00

Sta. 70+70± W.L.-47'± Rt.
Type C C.B.
℄ Grate 499.8±
℄ 12" 496.50

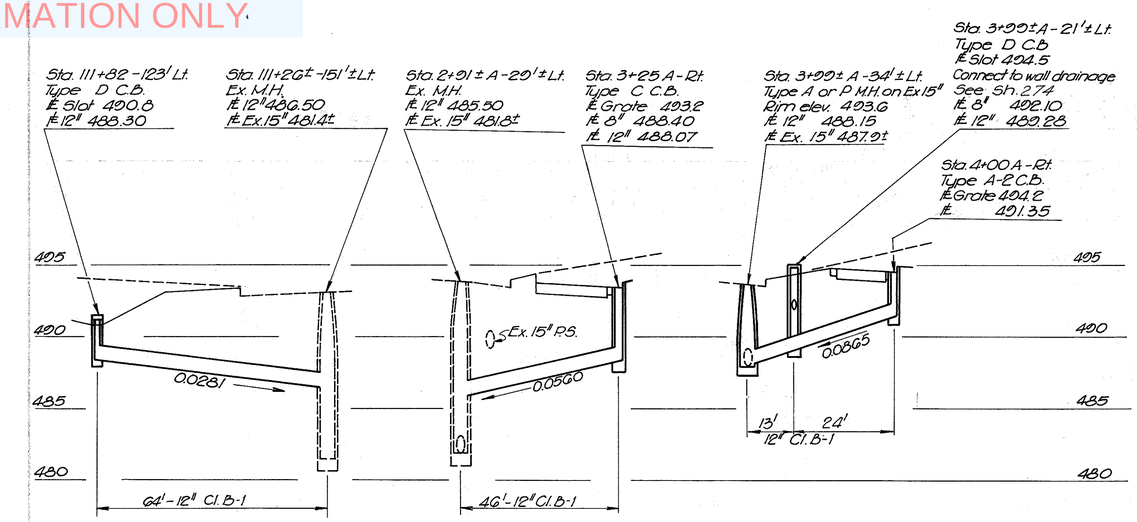


For Plan, see Sh. 50



WINCHELL AVE. STA. 67+50 to STA. 73+35.14

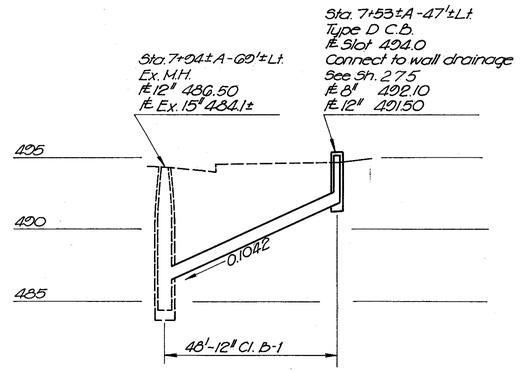
NOT FOR
CONSTRUCTION
INFORMATION ONLY



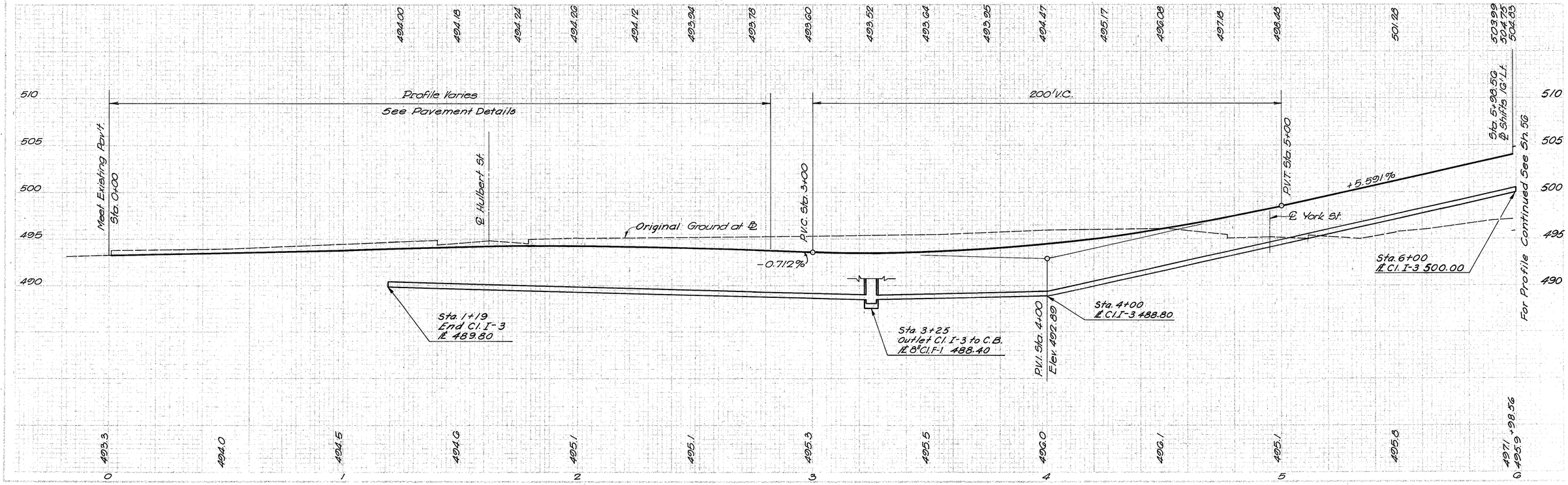
For Plan, see Sh. 30

For Plan, see Sh. 48

For Plan, see Sh. 48

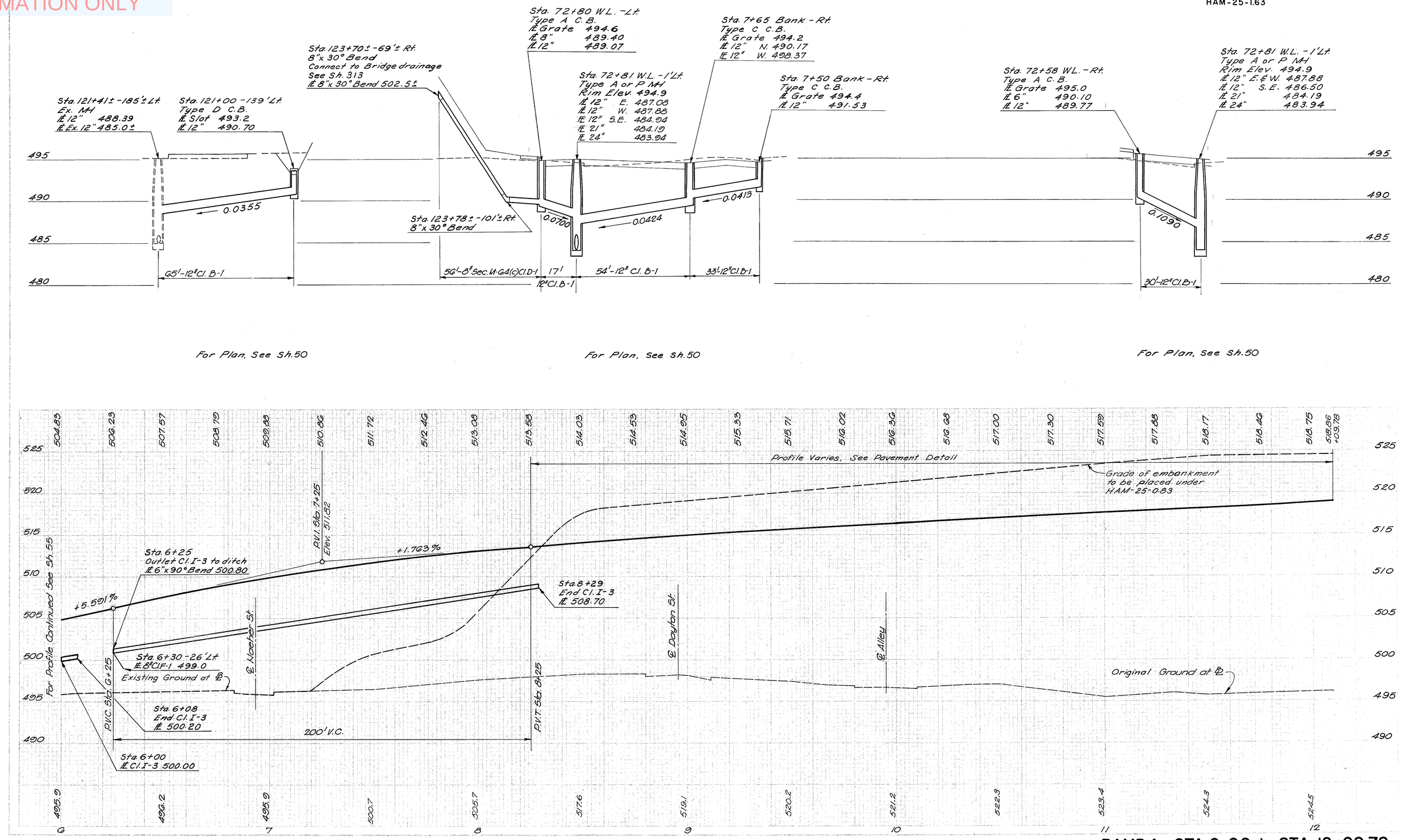


For Plan, see Sh. 49



RAMP A STA. 0+00 to STA. 6+00

NOT FOR
CONSTRUCTION
INFORMATION ONLY



RAMP A STA. 6+00 to STA. 12+09.78

NOT FOR CONSTRUCTION INFORMATION ONLY

ESTIMATED QUANTITIES

FED. RD. DIVISION	STATE	PROJECT	
2	OHIO		

57
486

HAM-25-1.63

STATION to STATION or REFERENCE NO.	Item T-71 Reinforced Portland Cement Concrete Pavement		Item I-22 Subbase		Item T-31 Bituminous Surface Treatment		Item B-21 Water-proofed Aggregate Base Course Type B	Item I-18 Stabilized Crushed Aggregate Shoulders and Approaches	Item T-70 Portland Cement Concrete Pavement	Item I-7 Reinforced Concrete Approach Slabs	Item I-21 Portland Cement Concrete Median and Traffic Island Pavement			Item I-12 Concrete Curb				Item G-14 Railing Steel Pipe As per plan	Item I-13 4" Concrete Sidewalk	Item I-15 Guard Rail		Item I-19 Concrete Steps	Item T-38 Asphaltic Concrete Surface Course Type C	Item B-38 Asphaltic Concrete Leveling Course	Item B-32 8" Portland Cement Concrete Base Course	Item I-8 Removal and Disposal Existing Wearing Course	Item T-30 Bituminous Prime and Tack Coats		Sheet No.
	10 Inch	9 Inch	Grading A or B	Grading C or D	Bit. Material	Aggregate No. 6			8 Inch		4" Median Pav't	Type 2 Modified Median Pav't	6" Traffic Island Pav't	Type 2A	Type 2B	Type 6	Special Barrier			Standard	Barrier						Prime Coat	Tack Coat	
	Sq. Yd.	Sq. Yd.	Cu. Yd.	Cu. Yd.	Gal.	Cu. Yd.	Cu. Yd.	Cu. Yd.	Sq. Yd.	Sq. Yd.	Sq. Yd.	Sq. Yd.	Sq. Yd.	Lin. Ft.	Lin. Ft.	Lin. Ft.	Lin. Ft.	Lin. Ft.	Sq. Ft.	Lin. Ft.	Lin. Ft.	Lin. Ft.	Cu. Yd.	Cu. Yd.	Sq. Yd.	Sq. Yd.	Gal.	Gal.	
Expressway (N.B.) 113+50 to 124+50	5306.5		1292.8		421	13.5	143.4	234.4		133.3																			48,49,50
Expressway (S.B.) 113+50 to 124+50	6432.4		1421.4		386	11.0	128.6	218.4		170.0																			48,49,50
Winchell Ave. 62+82.5 to 72+95.78		4553.7	843																										48,49,50
Ramp A 1+19 to 12+09.78		1268.3	342.3		96	3.1	32.0	53.4																					48,49,50
1-P												690.0																	48,49,50
2-P														110															49
3-P											27.1																		49
4-P																831													48,49,50
5-P														1041															48,49,50
6-P														177															48
7-P														186															48
8-P																64													48
9-P											288.9																		48
10-P																							4.6	1.0					48
11-P														782															48,49,50
12-P																34													49
13-P																15													50
14-P																							1.7	0.5		50			48
15-P																707													48,49
16-P														107															48
17-P											72.2																		48
18-P																100													48
19-P																454													48,49
20-P																66													50
21-P																17													48
22-P																50													50
23-P									83.3					105															49
24-P														156															50
25-P									158.2																				50
26-P									10.6																				48
1-R																				1037.5									48,49,50
2-R																					462.5								48,49
3-R																					975.0								48,49,50
4-R																					762.5								48,49,50
5-R																			2057										48,49,50
6-R																			7992										48,49,50
7-R																			1190										48
8-R																			7182										48,49,50
9-R																		29	142			105							49
10-R																					250								49
11-R																					500								50
12-R																					250								48
13-R																			76										49
14-R																					125								50
Totals to General Summary	11,738.9	5822.0	3899.5		903	27.6	304.0	506.2	252.1	303.3	388.2	690.0		2664		2358		29	19,539	2312.5	1037.5	105	6.3	1.5		50			

QUANTITIES

NOT FOR CONSTRUCTION INFORMATION ONLY

ESTIMATED QUANTITIES

FED. RD. DIVISION	STATE	PROJECT	
2	OHIO		

58
486

HAM-25-1.63

REF. NO.	STATION TO STATION	SIDE	I-5 Pipe Specials Class B-1 Each: 6" Tee	6"x8" Tee	6"x8" Increaser	8" 30° G.4(C)	D-1 I-3: 6" 30° Bend	6" 60° Bend	6" 90° Bend	I-1 Pipe Culverts, Sewers and Drains Class B-1 Linear Feet: 6"	8"	12"	12" G.6(b) or G.8(b)	12" G.6(c)	12" C.I.P.	15"	21" G.6(b) or G.8(b)	24" G.6(b) or G.8(b)	E-1: 12"	F-1: 8"	D-1: 6" G.4(c)	I-3: 6" Shallow	I-8 Catch Basins Each: A	A-2	C	D		Manholes: A or P	D	Adjusted to Grade	Recon to Grade	I-12: Concrete Collar Cl. "C" Cu. Yd.	Erosion Control Cl. "E" Cu. Yd.	I-16: Manholes Abandoned Each	Catch Basins Abandoned Each	E-12: Pipe Removal 15" and under Lin. Ft.	L-10: Sod Sq. Yd.	SEE SHEET NO.
	Drainage																																				
1-D	113+50 to 115+00	Lt.			1				1		52											150															
2-D	113+50 to 115+00	Lt.		1							3											150															
3-D	113+50 to 115+00	Rt.																		10		140															
4-D	113+50 to 118+22	Rt.	1																	8		470															
5-D	1+12 A to G+00 A	Rt.																		20		469															
G-D	G2+83 W.L. to G5+75 W.L.	Lt.					1													10		283															
7-D	G2+83 W.L. to G4+7G W.L.	Rt.					1													10		185															
8-D	115+02 to 118+22	Lt.	1								3											320															
9-D	GG+00 W.L. to G7+50	Rt.					1													10		140															
10-D	1+80± A	Rt.																											2								
11-D	2+91± A to 3+25 A	Lt. & Rt.										46												1													
12-D	3+00± A to 4+00 A	Lt. & Rt.										37												1		1		1									
13-D	4+00A to G+05A	Lt.																																			
14-D	4+85± A to 5+30± A	Lt.																																	2		
15-D	113+25 to 117+85	Lt. & Rt.										55G		128	24								3		2			2				0.5				
1G-D	0+95 Rt. York to G4+94± W.L.	Lt. & Rt.										155											2		2			1			1					
17-D	G4+95± W.L.	Lt. & Rt.																												1					1		
18-D	1+41 York to 1+45± York	Lt. & Rt.										22											1							1							
19-D	G5+75 W.L. to GG+00 W.L.	Lt. & Rt.										55							21				2					1									
20-D	GG+70± W.L. to GG+72± W.L.	Rt.																	G				1														
21-D	G+25 A to 8+29 A	Lt. & Rt.						1												10		23G															
22-D	118+38 to 121+21	Lt.	1								3											222															
23-D	118+40 to 120+98 W.L.	Rt.						1												8		252															
24-D	G7+90 W.L. to 70+50 W.L.	Lt.					1													10		255															
25-D	G+27 A to 7+52± A	Lt.																																	40		
2G-D	7+05 ± A	Lt.																																	1		
27-D	7+53± A to 7+84± A	Lt.										48																1								
28-D	G7+50 W.L. to G9+00 W.L.	Lt. & Rt.										24G				120							3	1	1			2								
29-D	G8+75± W.L. to 70+50 W.L.	Lt. & Rt.										G8	GO				151						2		2			1								
30-D	121+00 to 72+81 W.L.	Lt. & Rt.										105	70				231						3	1				1								
31-D	70+5G± W.L. to 70+70± W.L.	Rt.										28													2			1								
32-D	70+75± W.L. to 70+95± W.L.	Lt. & Rt.																																1	1		
33-D	71+45± W.L.	Lt.																																1			
34-D	72+58 W.L. to 7+50 Bank	Lt. & Rt.				2						134						19			5G		2		2			1	1							
35-D	72+75± W.L. to 73+40± W.L.	Lt. & Rt.																																3	G		
3G-D	123+90±	Rt.																																1	1		
37-D	121+00 to 121+41±	Lt.										G5																1								
38-D	9+10± A to 9+50± A	Lt.																																	2		
39-D	123+27± to 124+25±	Lt.																																			
40-D	G5+75 W.L. to G7+83 W.L.	Lt.	1								3											Z14											0.7				35
41-D	G5+25 W.L. to GG+00 W.L.	Rt.					1													10		GG															
42-D	118+30	Lt.																																			
43-D	70+50 W.L. to 72+80 W.L.	Lt.					1													10		225															
44-D	70+50 W.L. to 72+77± W.L.	Rt.	1								3											2G2															
45-D	121+00 to 123+G3	Lt.					1													10		253															
46-D	G7+50 W.L. to 70+50 W.L.	Rt.					1													10		232															
47-D	121+00 to 123+41	Rt.						1												10		228															
TOTALS			5	1	1	2	8	1	3		12	55	15G5	130	128	24	120	382	19	27	14G	5G		4849		19	3	12	3		12	1	4	1		0.5	0.7			G	1G		13		139			

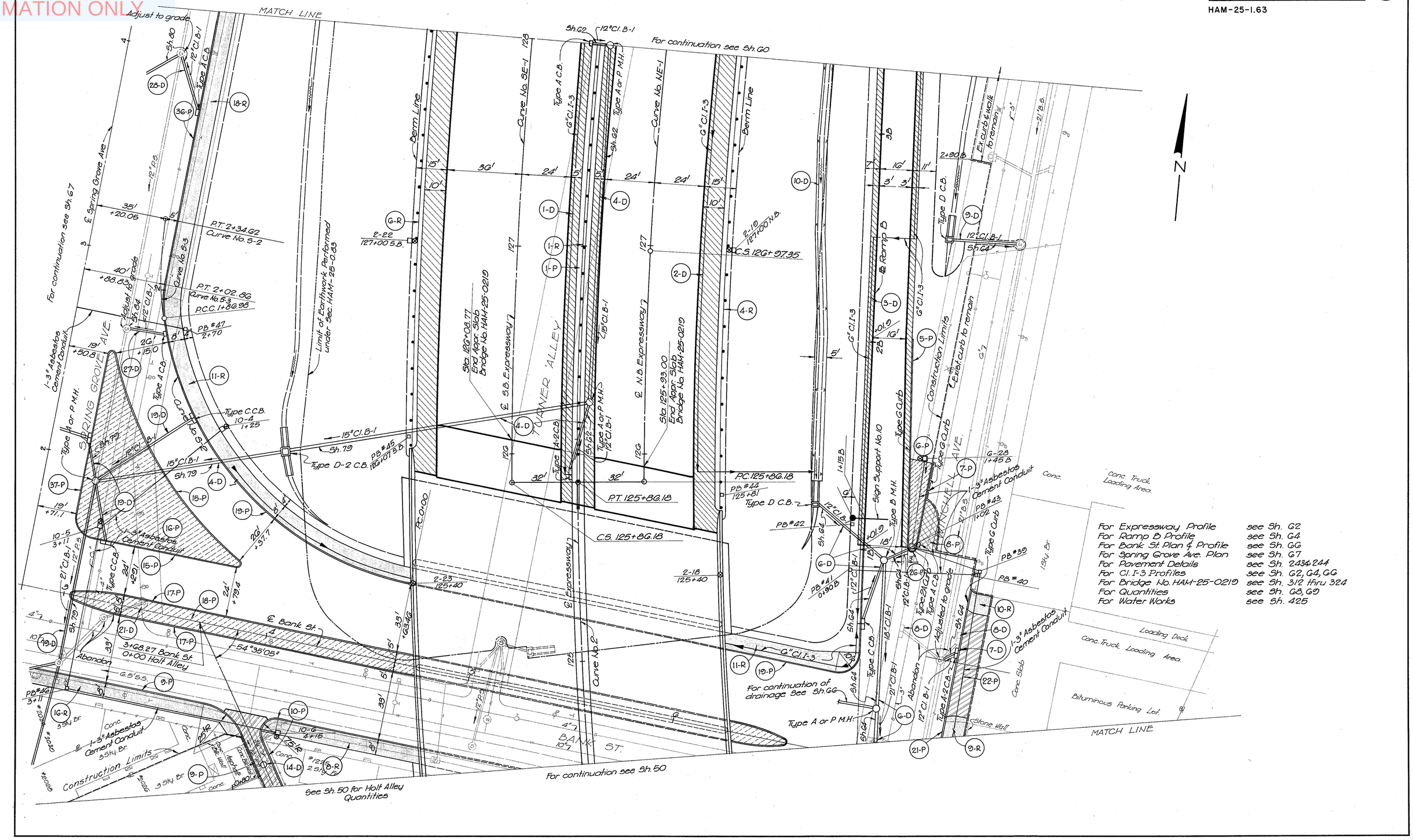
QUANTITIES

NOT FOR CONSTRUCTION INFORMATION ONLY

FED. RD. DIVISION	STATE	PROJECT	
2	OHIO		

59
486

HAM-25-1.63



For Expressway Profile	see Sh. G2
For Ramp B Profile	see Sh. G4
For Bank St. Plan & Profile	see Sh. GG
For Spring Grove Ave. Plan	see Sh. G7
For Pavement Details	see Sh. 243 & 244
For Cl. I-3 Profiles	see Sh. G2, G4, GG
For Bridge No. HAM-25-0219	see Sh. 312 thru 324
For Quantities	see Sh. G8, G9
For Water Works	see Sh. 425

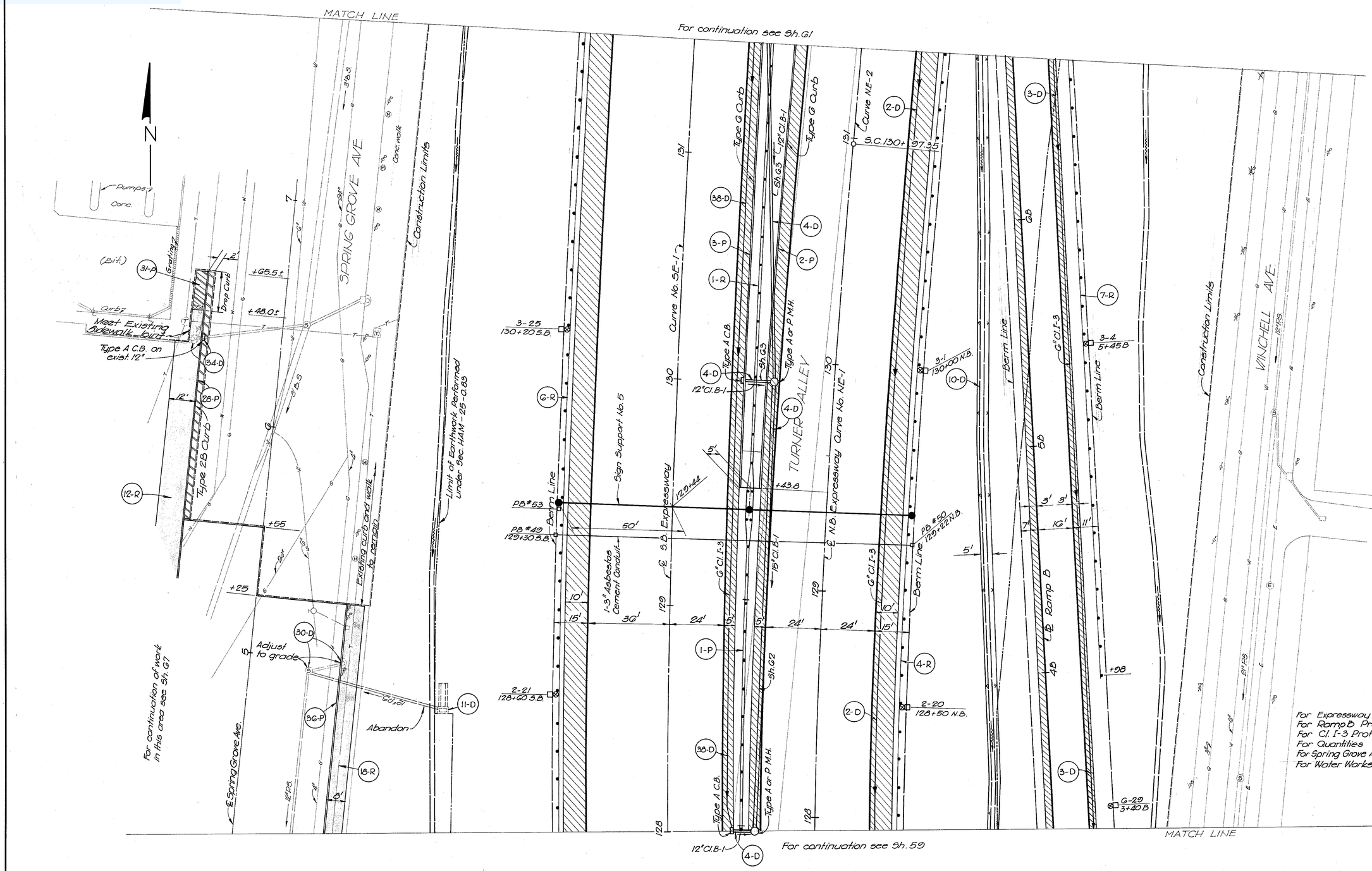
STA. 124+50 to STA. 128+00

NOT FOR CONSTRUCTION INFORMATION ONLY

FED. RD. DIVISION	STATE	PROJECT	
2	OHIO		

GO 486

HAM-25-1.63



STA. 128+00 to STA. 131+50

NOT FOR CONSTRUCTION INFORMATION ONLY

FED. RD. DIVISION	STATE	PROJECT	
2	OHIO		

G1
186

HAM-25-1.63

For continuation see Sh. 70

MATCH LINE

N

HARRISON AVE.

WINCHELL AVE.

SPRING GROVE AVE

HARVIE

ALLEY

COPPIN ST.

TURNER ALLEY

Reconstruct to grade using offset dome

Abandon

Type G Curb

Type C Curb

Ramp E Curve No E-4

Sta. 135+10.43 Begin Appr. Slab Bridge No. HAM-25-0240

Sta. 134+90.00 Begin Appr. Slab Bridge No. HAM-25-0240

Sta. 10+03.5 Ramp B Begin Appr. Slab Bridge No. HAM-25-0240

Curve No. B-2

Curve No. B-1

Curve No. NE-2

Curve No. SE-1

℄ S.B. Expressway

℄ N.B. Expressway

℄ Ramp B

1-3" Asbestos Cement Conduit

Berm Line

Construction Limits

Limit of Earthwork Performed under Sec. HAM-25-0.85

Existing Concrete walk to remain

Abandoned

Parking Area

Brick

Conc.

Cinder

Conc. walk

3 Sty. Br.

2 Sty. Br.

1 Sty. Br.

#1165

#1163

M.B.

F.A.

P.C. 10+19.63 B

P.T. 14+15.34 E

S.T. 131+80.18

P.C. G+84.09 B

PB# 57 12+74 E

PB# 56 134+98 N.B.

PB# 55 10+08 B

PB# 54 8+31 B

3-22 135+00 S.B.

3-21 134+55 N.B.

3-23 133+40 S.B.

3-24 131+80 S.B.

3-3 133+00 N.B.

3-2 131+50 N.B.

3-G 9+40 B

3-5 7+40 B

5h.34

5h.G3

41.17'

+90.00

+25

+29

+23

For Expressway Profiles	see Sh. G3
For Ramp B Profile	see Sh. G5
For Pavement Details	see Sh. 245, 246, 247
For C.I. I-3 Profiles	see Sh. G3, G5
For Bridge No. HAM-25-0240	see Sh. 325-340
For Quantities	see Sh. G8, G9

For continuation see Sh. G0

MATCH LINE

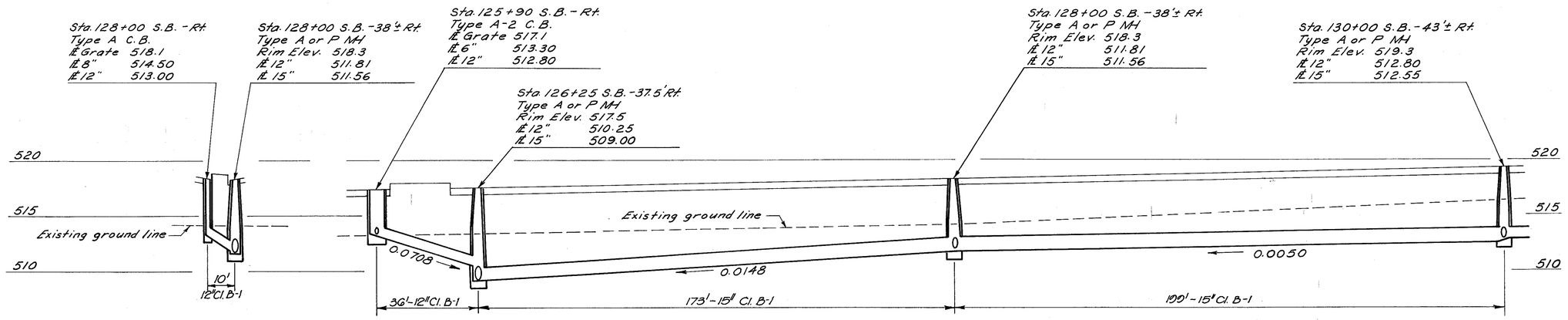
STA. 131+50 to STA. 135+50

NOT FOR
CONSTRUCTION
INFORMATION ONLY

FED. AID PROJECT	STATE	PROJECT	
2	OHIO		

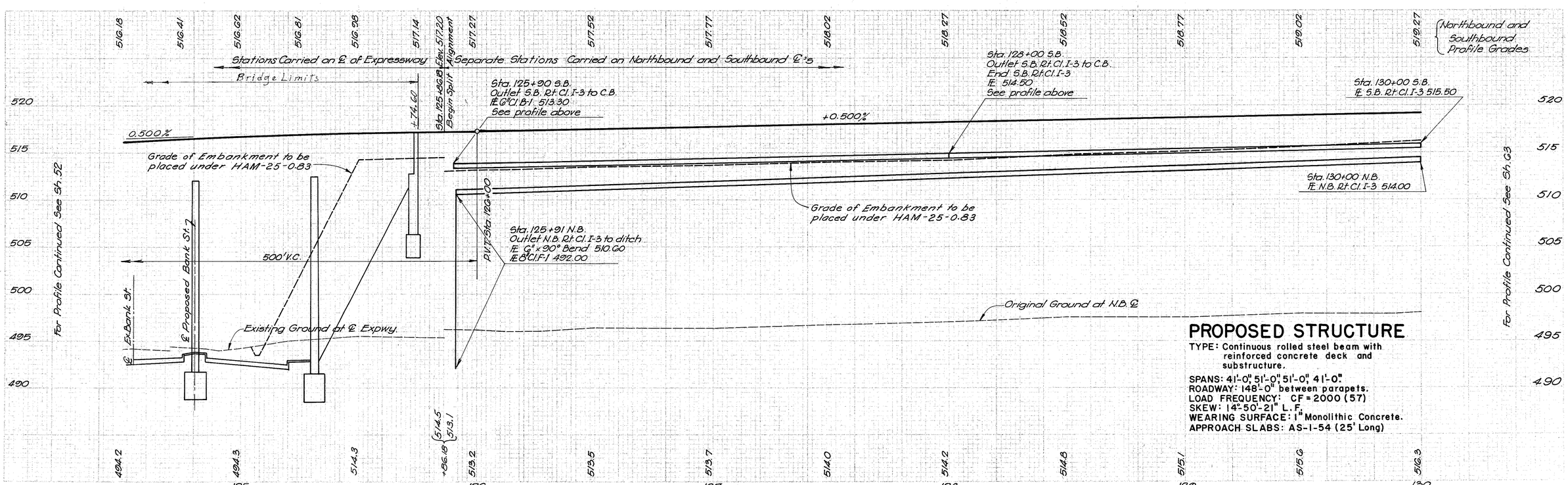
62
486

HAM-25-1.63



For Plan, See Sh. 59, 60

For Plan, See Sh. 59, 60



PROPOSED STRUCTURE

TYPE: Continuous rolled steel beam with reinforced concrete deck and substructure.
SPANS: 41'-0", 51'-0", 51'-0", 41'-0"
ROADWAY: 148'-0" between parapets.
LOAD FREQUENCY: CF = 2000 (57)
SKEW: 14°-50'-21" L.F.
WEARING SURFACE: 1" Monolithic Concrete.
APPROACH SLABS: AS-1-54 (25' Long)

N.B. and S.B. EXPRESSWAY STA. 124+50 to STA. 130+00

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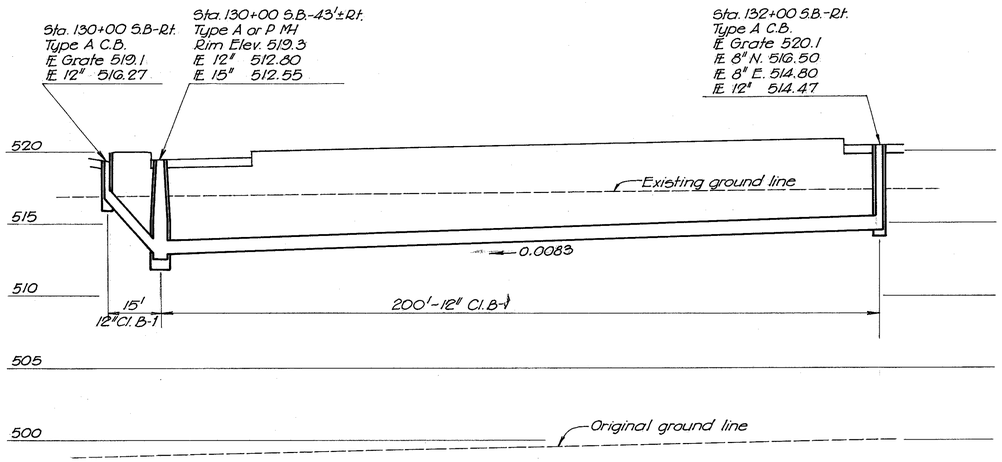
CONSTRUCTION
INFORMATION ONLY

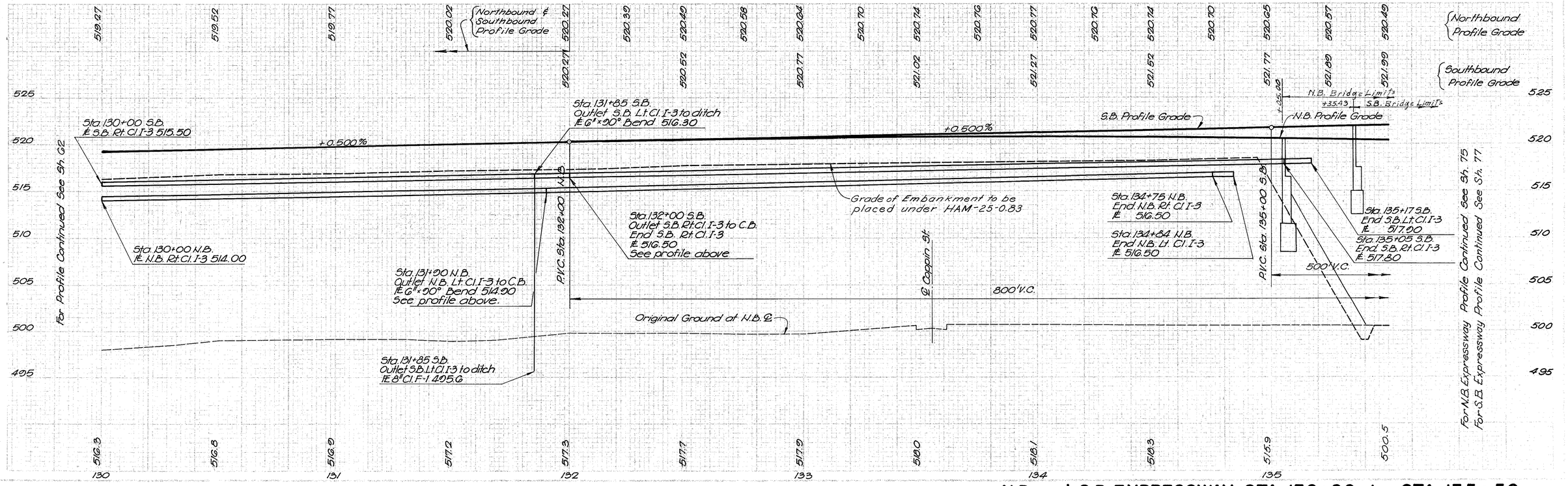
SEA. NO.	STATE	PROJECT	
2	OHIO		

G3
486

HAM-25-1.63

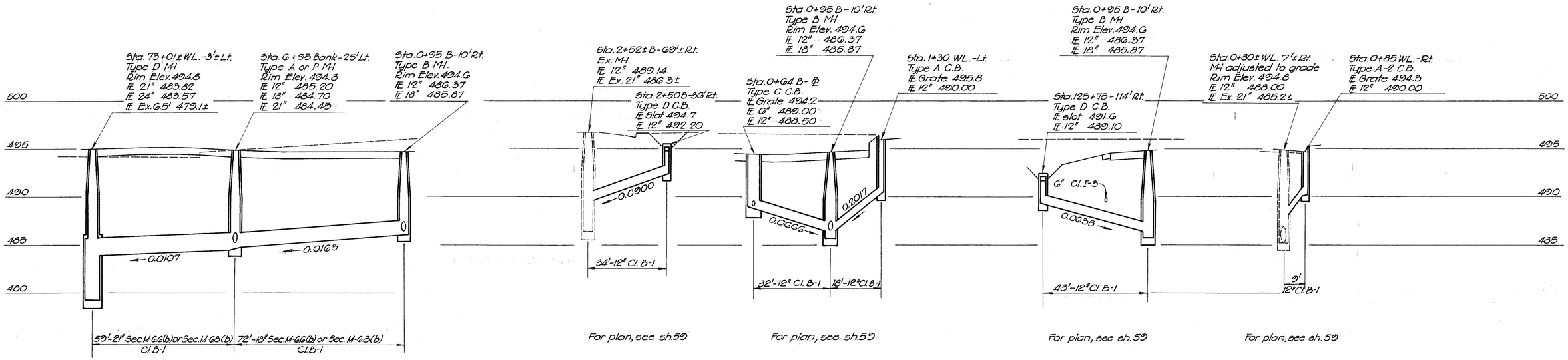


For plan, see sh. 60, 61



N.B. and S.B. EXPRESSWAY STA. 130+00 to STA. 135+50

NOT FOR
CONSTRUCTION
INFORMATION ONLY



RAMP B STA. 0+00 to STA. 5+25

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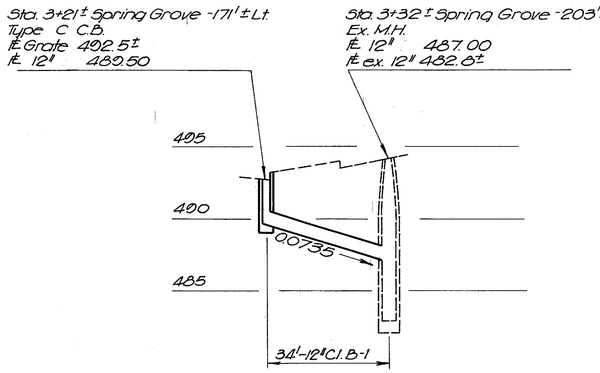
INFORMATION ONLY

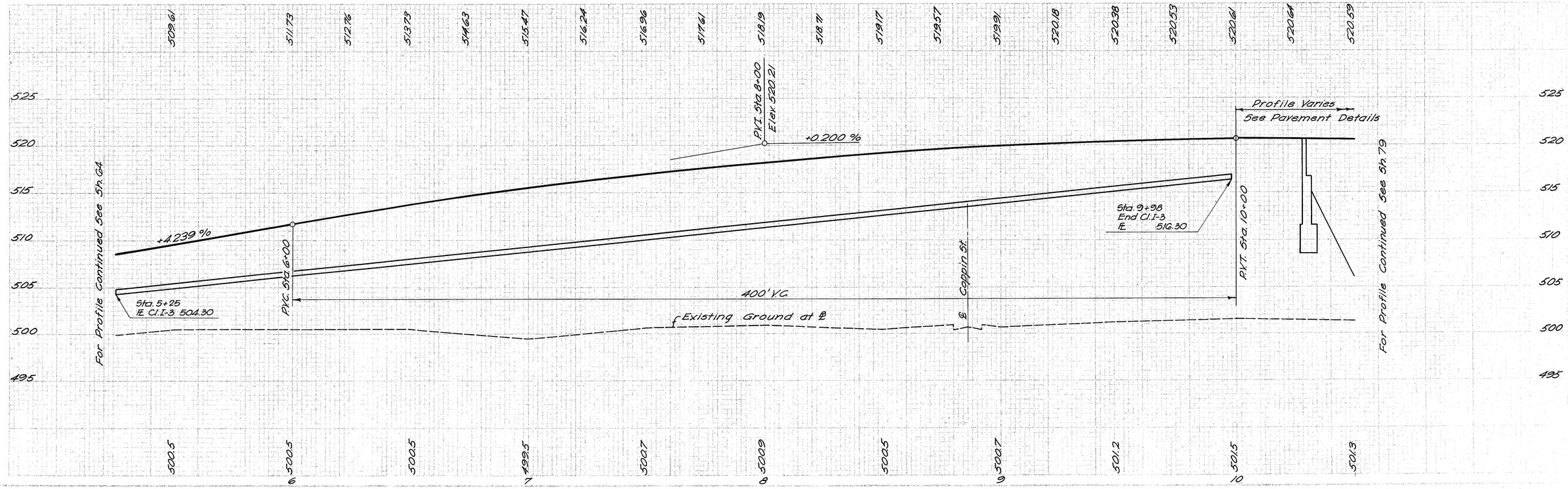
FED. RD. DIVISION	STATE	PROJECT		
2	OHIO			

G5
486

HAM-25-1.63

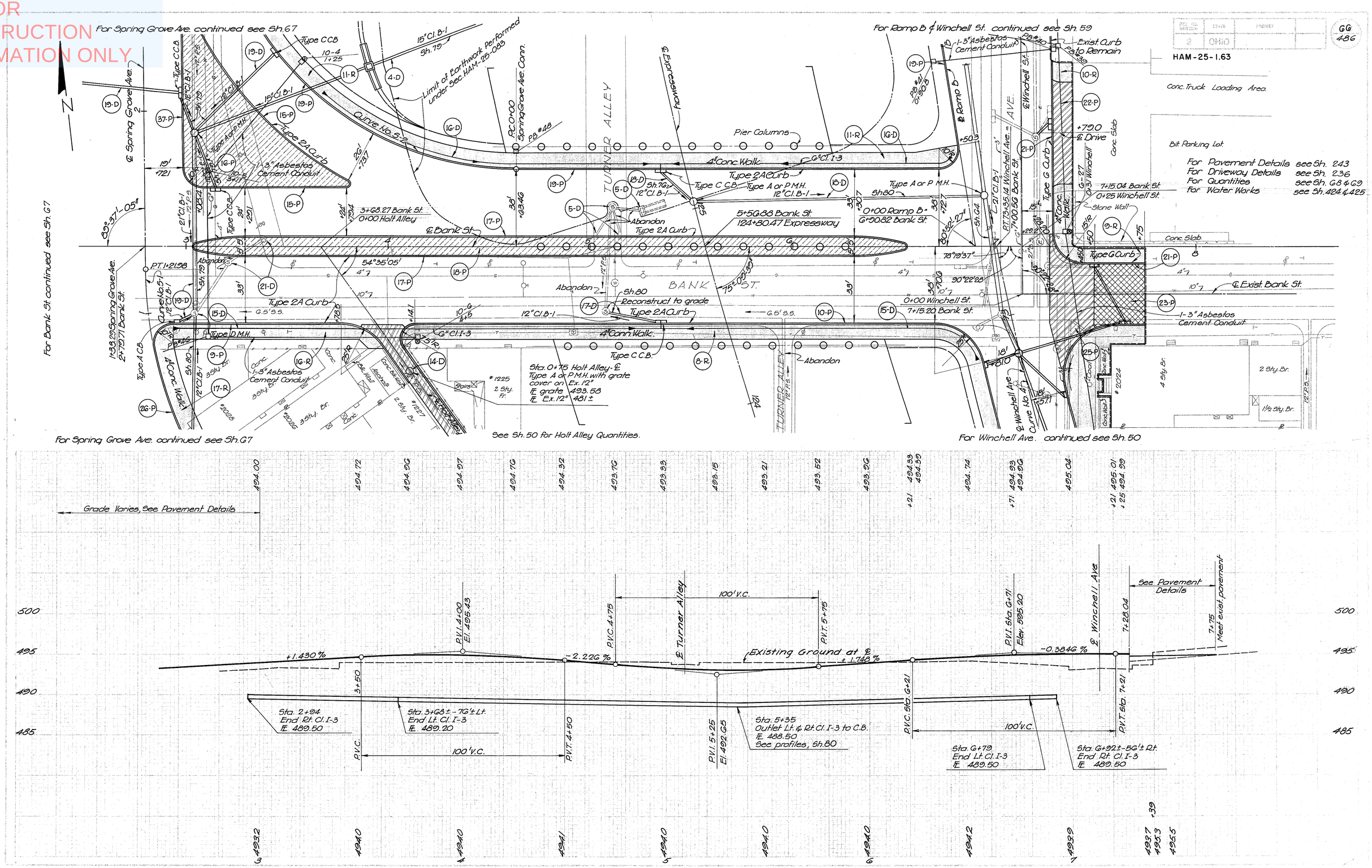


For Plan, see Sh. G7



RAMP B STA.5+25 to STA.10+50

NOT FOR CONSTRUCTION INFORMATION ONLY



BANK ST. STA. 2+79.71 to STA. 7+75

NOT FOR CONSTRUCTION INFORMATION ONLY

FED. RD. DIVISION	STATE	PROJECT	
2	OHIO		

HAM - 25 - 1.63

G7 486

BANK ST. & SPRING GROVE AVE.

BM #4 Elev. 494.36
Spike in Power Pole #N8-800E East side Western Ave. 5 of Bank St. 120'Rt. Sta. 3+23 Bank

For Curve Data see Sh. 24 & 244
For Pavement Details see Sh. 244
For Water Works see Sh. 425
For Quantities see Sh. 68 & 69

For Western Ave. continued see Sh. 50

For Bank St. continued see Sh. GG

For continuation see Sh. GO

NOT FOR CONSTRUCTION INFORMATION ONLY

ESTIMATED QUANTITIES

FED. RD. DIVISION	STATE	PROJECT	
2	OHIO		

HAM-25-1.63

GB 4.86

STATION to STATION or REFERENCE NO.	Item T-71 Reinforced Portland Cement Concrete Pavement 10 inch Sq. Yd.	Item T-71 Reinforced Portland Cement Concrete Pavement 9 inch Sq. Yd.	Item T-22 Subbase Grading A or B Cu. Yd.	Item T-22 Subbase Grading C or D Cu. Yd.	Item T-31 Bituminous Surface Treatment Bit. Material Gal.	Item T-31 Bituminous Surface Treatment Aggregate No. 6 Cu. Yd.	Item B-21 Water-proofed Aggregate Base Course Type B Cu. Yd.	Item I-18 Stabilized Crushed Aggregate Shoulders and Approaches Cu. Yd.	Item T-70 Portland Cement Concrete Pavement 8 Inch Sq. Yd.	Item I-7 Reinforced Concrete Approach Slabs Sq. Yd.	Item I-21 Portland Cement Concrete Median and Traffic Island Pavement 4" Median Pav't. Sq. Yd.	Item I-21 Portland Cement Concrete Median and Traffic Island Pavement Type 2 Modified Median Pav't. Sq. Yd.	Item I-21 Portland Cement Concrete Median and Traffic Island Pavement 6" Traffic Island Pav't. Sq. Yd.	Item I-12 Concrete Curb Type 2A Lin. Ft.	Item I-12 Concrete Curb Type 2B Lin. Ft.	Item I-12 Concrete Curb Type 6 Lin. Ft.	Item I-12 Concrete Curb Special Barrier Lin. Ft.	Item I-13 4" Concrete Sidewalk Sq. Ft.	Item I-15 Guard Rail Standard Lin. Ft.	Item I-15 Guard Rail Barrier Lin. Ft.	Item I-13 Concrete Steps Lin. Ft.	Item T-35 Asphaltic Concrete Surface Course Type C Cu. Yd.	Item B-35 Asphaltic Concrete Leveling Course Cu. Yd.	Item B-70 8" Portland Cement Concrete Base Course Sq. Yd.	Item T-30 Bituminous Prime and Tack Coats Tack Coat Gal.	Item T-30 Bituminous Prime and Tack Coats Prime Coat Gal.	Sheet No.
Expressway (N.B.) 124+50 to 135+50	5032.7		1253.7		390	12.5	128.6	219.5		300.0																		59,GO,G1
Expressway (S.B.) 124+50 to 135+50	6027.8		1404.8		400	12.8	133.2	224.0		333.3																		59,GO,G1
Ramp B 1+01.9 to 10+00.5		1206.3	412.4		155	5.0	51.7	92.2		44.4																		59,GO,G1
Bank Street 2+79.71 to 7+28.2		4158.6	756.5																									59,GG,G7
Spring Grove Avenue		*3142.8		* 536.4																								59,GO,G7
Bank Street 0+57.41 to 2+79.71		*1595.6		* 272.9																								G7
1-P												297.2																59,GO
2-P																561												GO,G1
3-P																567												GO,G1
4-P												117.4																G1
5-P																100												59
6-P											30.7				5													59
7-P																42												59
8-P																								0.5	0.2			59
9-P															130													59,GG,G7
10-P															288													59,GG
11-P															* 517													G7
12-P															* 185													G7
13-P											* 79.7																	G7
14-P													* 43.1															G7
15-P															200													59,GG,G7
16-P											335.6																	59,GG,G7
17-P															710													59,GG,G7
18-P											340.3																	59,GG,G7
19-P															453													59,GG,G7
20-P																								* 0.8				G7
21-P																136												59,GG
22-P									53.3																			59,GG
23-P																								2.3	1.0			GG
24-P																212												G1
25-P									111.1																			GG
26-P															* 91													GG,G7
27-P																127												G1
28-P				* 6.1													* 110							* 0.9	* 1.2	* 24.4	* 2.4	GO,G7
29-P				* 26.1													* 470							* 3.6	* 5.1	* 104.0	* 10.4	G7
30-P				* 8.2													* 76							* 1.4	* 2.0	* 40.4	* 4.0	G7
31-P									* 9.7																			GO
32-P																								* 4.3	* 1.0			G7
33-P				* 3.7													* 54							* 0.6	* 0.8	* 16.5	* 1.7	G7
34-P																								* 8.0		*		G7
35-P				* 16.5																				* 3.4	* 4.8	* 28.8	* 2.9	G7
36-P															* 263													59,GO,G7
37-P															* 92													59,GG,G7
38-P																30												G1
1-R																						750.0						59,GO,G1
2-R																					200.0							G1
3-R																					200.0							G1
4-R																					750.0							59,GO,G1
5-R																						175.0						G1
6-R																					950.0							59,GO,G1
7-R																					612.5							GO,G1
8-R																			1963									59,GG
9-R																			601									59,GG
10-R																			72									59,GG
11-R																			2945									59,GG,G7
12-R																			* 8056									GO,G7
13-R																			* 700									G7
14-R																			947									G1
15-R																			285									G1
16-R																			809									59,GG,G7
17-R																			* 799									GG,G7
18-R																			* 1958									59,GO,G7
19-R																			* 372									
* 100% City Participation		*4738.4		* 869.9					* 9.7		* 79.7		* 43.1	* 1148	* 710				* 11,885				* 23.0	* 14.9	* 284.1	* 28.4		
Totals to General Summary	11,060.5	10,503.3	3827.4	869.9	945	30.3	313.5	536.6	174.1	677.7	786.3	414.6	43.1	2943	710	1775			19,507	2712.5	925.0		25.8	16.1	284.1	28.4		

QUANTITIES

NOT FOR CONSTRUCTION INFORMATION ONLY

ESTIMATED QUANTITIES

FED. RD. DIVISION	STATE	PROJECT	
2	OHIO		

69 486

HAM-25-1.63

REF. NO.	STATION TO STATION	SIDE	I-5 Pipe Specials Class B-1 Each: G" 90° Bend	G" Tee	D-1 15" 30° G.4(c)	I-3 G" 90° Bend	I-1 Pipe Culverts, Sewers and Drains Class B-1 Linear Feet: G"	12"	12" G.6(b) G.8(b)	15"	15" G.6(b) G.8(b)	15" G.6(d)	18" G.6(b) G.8(b)	21" G.6(b) G.8(b)	E-1 12"	F-1 8"	I-3 G" shallow	I-8 Catch Basins Each: A	A-2	C	D	D-2		Adjusted to Grade	I-8 Manholes Each: A or P	B	A with offset dome	D		A or P with grate cover	Adjusted to Grade	Recon. to Grade	Recon to Grade with offset dome	I-16 Each: Manholes Abandoned	Catch Basins Abandoned	L-10 Sq. Yd.: Sod	Berm and Slope Protection	SEE SHEET NO.
	Drainage																																					
1-D	125+90± S.B. to 128+00 S.B.	Rt.	1				3										208																					
2-D	125+91 N.B. to 134+75 N.B.	Rt.				1										10	925																					
3-D	0+42± B. to 9+98 B.	Lt. & Rt.		1		2	3										975	3	1		1			3														
4-D	122+00 S.B. to 132+00 S.B.	Lt. & Rt.			2			261		372	93	148																							1	3			
5-D	124+95± to 125+05±	Lt.																1		1	1				1	1												
6-D	73+01± N.S. to 125+75	Lt. & Rt.						93					72	59					1																			
7-D	0+80± Winchell to 0+85 Winchell	Rt.						9																												2		
8-D	0+55± B	Rt.																																				
9-D	2+50B to 2+52± B	Rt.						34													1															3G2		
10-D	125+85 to 132+50 N.B.	Rt.																																		1		
11-D	128+50± S.B.	Lt.																																				
12-D	134+80± S.B.	Lt.																																				
13-D	131+90 N.B. to 134+84 N.B.	Lt.				1										10	308																					
14-D	0+75 Holt Alley	℄																																				
15-D	2+94 Bank to G+92± Bank	Rt.		1			3										405																					
16-D	3+68± Bank to G+79± Bank	Lt.		1			3										20																					
17-D	5+09± Bank to 5+35 Bank	Rt.						27												1																		
18-D	5+35 Bank to G+95 Bank	Lt.						21	145											1					1													
19-D	0+25 Spring Grove to 2+16 Spring Grove	Lt. & Rt.						213						88	30			1	1	4					1		1											
20-D	0+75± Spring Grove to 1+30± Spring Grove	Lt.																																	1	5		
21-D	3+25± Bank to 3+40± Bank	Lt. & Rt.																																	1	1		
22-D	1+95± Bank to 2+10 Bank	Rt.																						2							1							
23-D	1+39 Bank to 2+00 Bank	Lt. & Rt.						94												2											1					2		
24-D	1+75± Bank	℄ & Rt.																																		1		
25-D	0+80± Bank to 1+10± Bank	Lt.																													1					1		
26-D	2+76± Spring Grove to 3+02± Spring Grove	Lt.						26										1				1																
27-D	1+75 Rt. Turn In. to 2+05± Spring Grove	Rt.						21										1													1							
28-D	3+50 Spring Grove to 4+01± Spring Grove	Lt. & Rt.						107										2													1							
29-D	4+15± Spring Grove	Lt.																																				
30-D	4+95± Spring Grove	Rt.																						1							1							
31-D	5+00 Spring Grove to 5+04± Spring Grove	Lt.						13										1													1							
32-D	5+30± Spring Grove	Lt.																																	1	1		
33-D	5+55± Spring Grove to 5+65± Spring Grove	Lt.						19												1					1													
34-D	G+35± Spring Grove	Lt.																1																		1		
35-D	133+G5± S.B.	Lt.																																		1		
36-D	131+85 S.B. to 135+17 S.B.	Lt.				1										10	385																			2		
37-D	3+21± Spring Grove to 3+32± Spring Grove	Lt.						34												1																		
38-D	128+00 S.B. to 132+00 S.B.	Rt.														10	388																					
39-D	132+00 S.B. to 135+05 S.B.	Rt.														10	295																				55		
40-D	133+25 S.B.	Lt.																																				
TOTALS			1	3	2	5	12	972	145	372	93	148	72	147	30	50	4209	11	3	11	2	1		3	7	1	1	1		1	8	2	1		4	21		362	55	

NOT FOR CONSTRUCTION INFORMATION ONLY

FED. RD. DIVISION	STATE	PROJECT	
2	OHIO		

70 486

HAM-25-1.63

For continuation see Sh. 71

MATCH LINE 7

N

Sta. 8+66.61 E
End Appr. Slab
Ramp E Bridge

SPRING GROVE AVE.

Type G Curb

Berm Line

℄ Ramp E Curve No. E-3

Parking Area

24'

℄ S.B. Expressway

Special Barrier Curb

Brick Wall

Parking

Passage way

Drain & Hydrant

PB #60
137+27.5 B.

Sh. 34

Steel Stairway

Drain

Sta. 137+21.05
End Approach Slab
Bridge No. HAM-25-0240

Sta. 136+88.55
End Approach Slab
Bridge No. HAM-25-0240

Gravel

Shed

℄ N.B. Expressway Curve No. NE-2

Abandon

Type A or P.U.H.

CONC. ALLEY

Coal Chute

Sign Support No. G1

Curve No. B-2

Type A C.B.

Conc. S.W.

Type 24 Curb

Type G Curb

℄ Ramp B

℄ Ramp D

Curve No. D-1

P.T. 2+25.80 D

Sh. 75

+87.5 D

Varies

℄ Ramp C

Curve No. C-2

Type D-2 C.B.

Type D C.B.

Type D M.H.

Wall No. G

Existing curb to remain

Construction Limits

HARRISON AVE.

Sta. 135+82.23 (N.B.)
5+00.33 Harrison

Sta. 136+88.55
5+00.00 Harrison

Sta. 135+82.8 S.B.

Sta. 136+13.74 (S.B.)
2+00.00 Harrison

PC 0+00.00 D

+70.00

Alternate & Temporary Run-Around Road

℄ Temp. Run-Around Road

1-3" Asbestos Cement Conduit

Conc. Wall

Bit. Drive

Trans. Former

Overhead Walkway

Open

Loft.

Shed

Gravel

Abandon

Inlet

Conc. Outhouse

Ramp C Curve No. C-2

Type G Curb

Wall No. G

Existing curb to remain

For Ramp C Continued see Sh. 73

For N.B. Expressway Profile	see Sh. 75
For S.B. Expressway Profile	see Sh. 77
For Ramp B Profile	see Sh. 79
For Ramp C Profile	see Sh. 82
For Ramp E Profile	see Sh. 89
For Pavement Details	see Sh. 245, 246, 247
For Bridge No. HAM-25-0240	see Sh. 325 thru 340
For Wall No. 6	see Sh. 277 thru 279
For Quantities	see Sh. 96, 97, 98
For Ramp D Profile	see Sh. 83
For C.I.-3 Profiles	see Sh. 75, 77, 79, 82, 83, 89
For Water Works	see Sh. 42G

B.M. #5 Elev. 499.58

Spike in Power Pole #N 8-62 E. on East Side Spring Grove Ave. South of Harrison Ave. 112' Lt. Sta. 135+82 S.B.

For continuation see Sh. 61

MATCH LINE

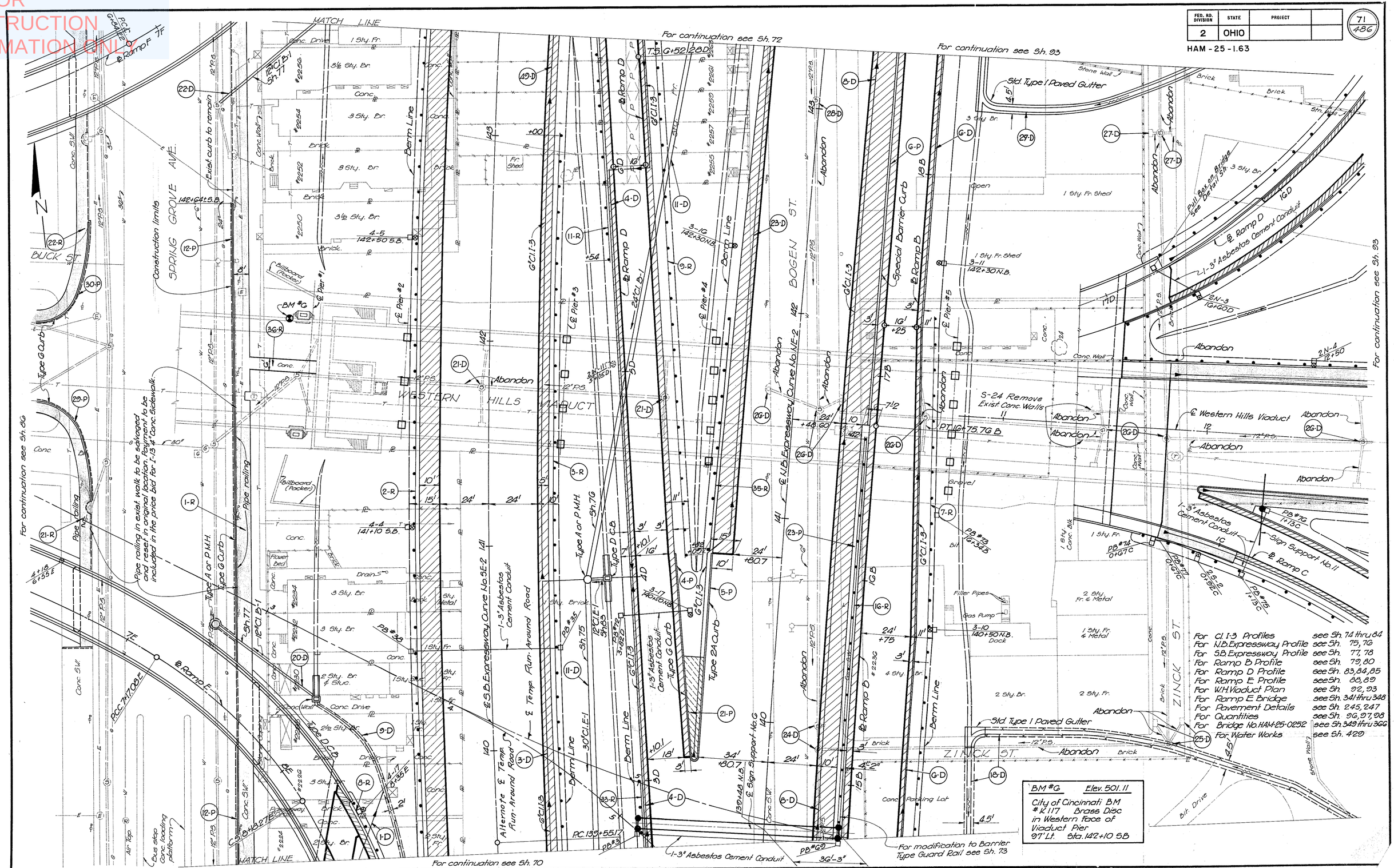
STA. 135+50 to STA. 139+50

NOT FOR CONSTRUCTION INFORMATION ONLY

FED. RD. DIVISION	STATE	PROJECT	
2	OHIO		

71
486

HAM - 25 - 1.63



For Cl. I-3 Profiles	see Sh. 74 thru 84
For N.B. Expressway Profile	see Sh. 75, 76
For S.B. Expressway Profile	see Sh. 77, 78
For Ramp B Profile	see Sh. 79, 80
For Ramp D Profile	see Sh. 83, 84, 85
For Ramp E Profile	see Sh. 88, 89
For W.H. Viaduct Plan	see Sh. 92, 93
For Ramp E Bridge	see Sh. 341 thru 348
For Pavement Details	see Sh. 245, 247
For Quantities	see Sh. 96, 97, 98
For Bridge No. HAM-25-0252	see Sh. 349 thru 366
For Water Works	see Sh. 429

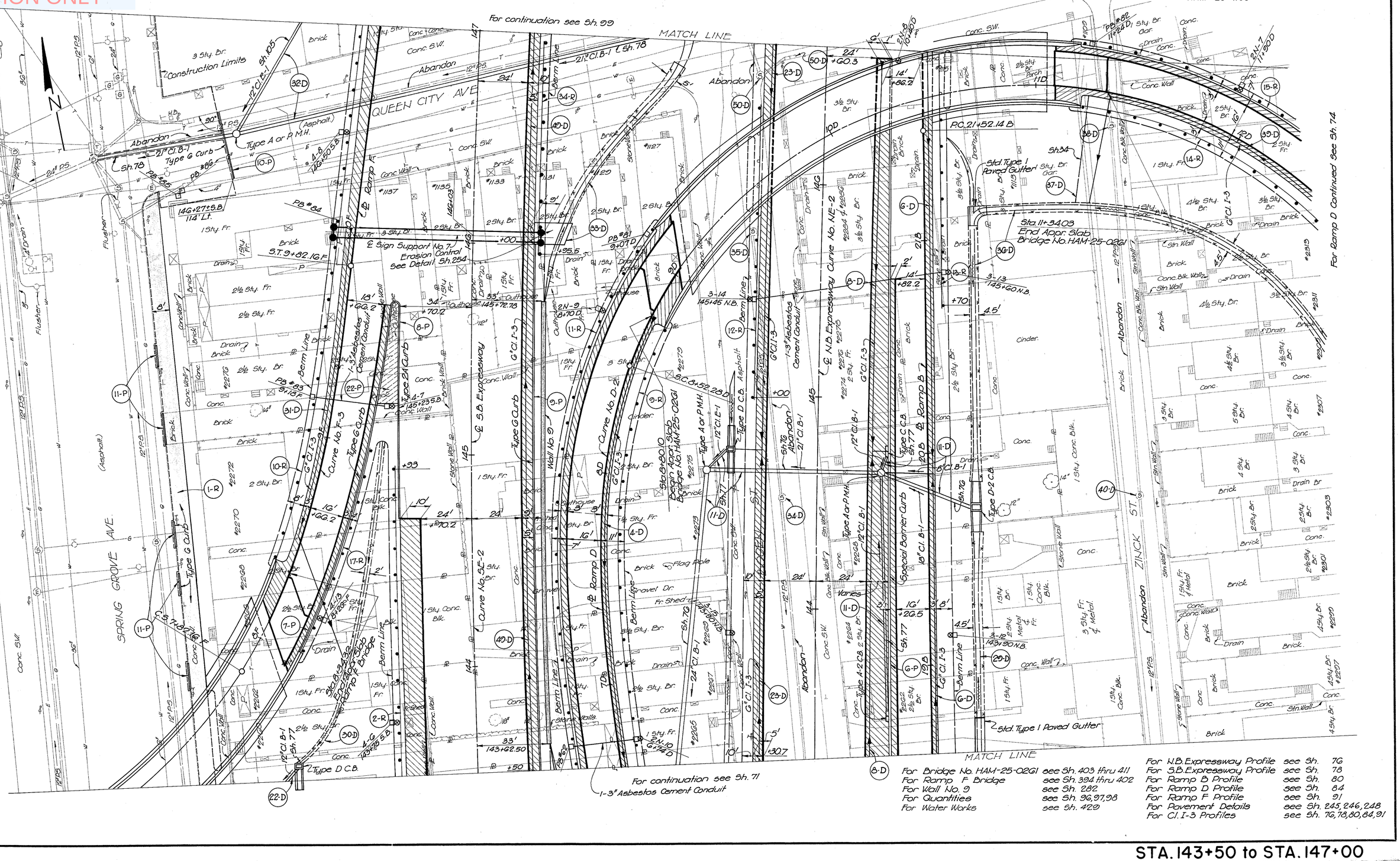
STA. 139+50 to STA. 143+50

NOT FOR CONSTRUCTION INFORMATION ONLY

FED. RD. DIVISION	STATE	PROJECT	
2	OHIO		

HAM - 25 - 1.63

72 / 486



For Bridge No. HAM-25-0261	see Sh. 403 thru 411	For N.B. Expressway Profile	see Sh. 76
For Ramp F Bridge	see Sh. 394 thru 402	For S.B. Expressway Profile	see Sh. 78
For Wall No. 9	see Sh. 282	For Ramp B Profile	see Sh. 80
For Quantities	see Sh. 96, 97, 98	For Ramp D Profile	see Sh. 84
For Water Works	see Sh. 429	For Ramp F Profile	see Sh. 91
		For Pavement Details	see Sh. 245, 246, 248
		For C.I. 1-3 Profiles	see Sh. 76, 78, 80, 84, 91

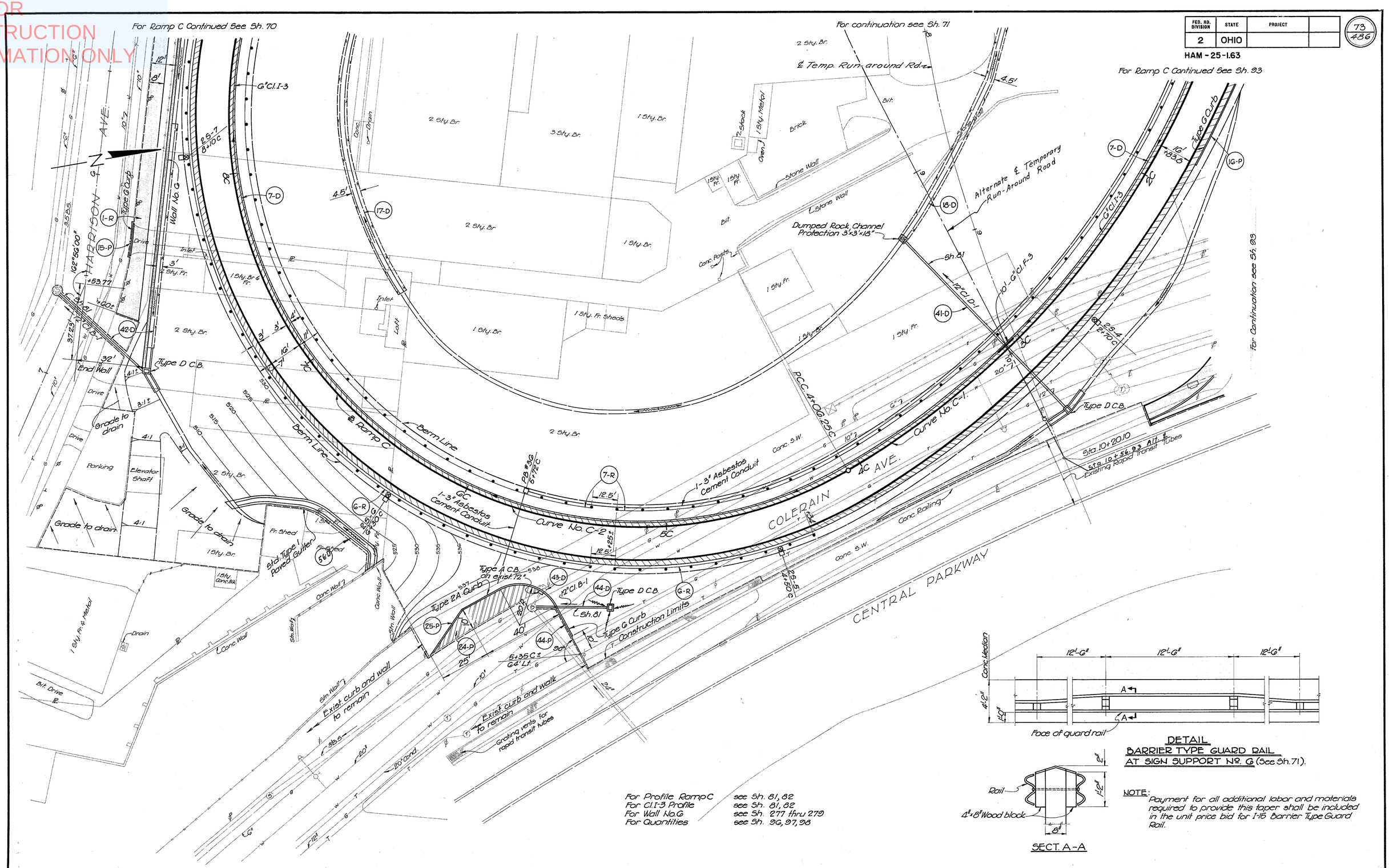
STA. 143+50 to STA. 147+00

NOT FOR CONSTRUCTION INFORMATION ONLY

FED. RD. DIVISION	STATE	PROJECT	
2	OHIO		

HAM - 25 - 1.63

73
486



DETAIL
BARRIER TYPE GUARD RAIL
AT SIGN SUPPORT No. G (See Sh. 71).

NOTE: Payment for all additional labor and materials required to provide this taper shall be included in the unit price bid for I-15 Barrier Type Guard Rail.

For Profile Ramp C	see Sh. 81, 82
For Cl. I-3 Profile	see Sh. 81, 82
For Wall No. G	see Sh. 277 thru 279
For Quantities	see Sh. 96, 97, 98

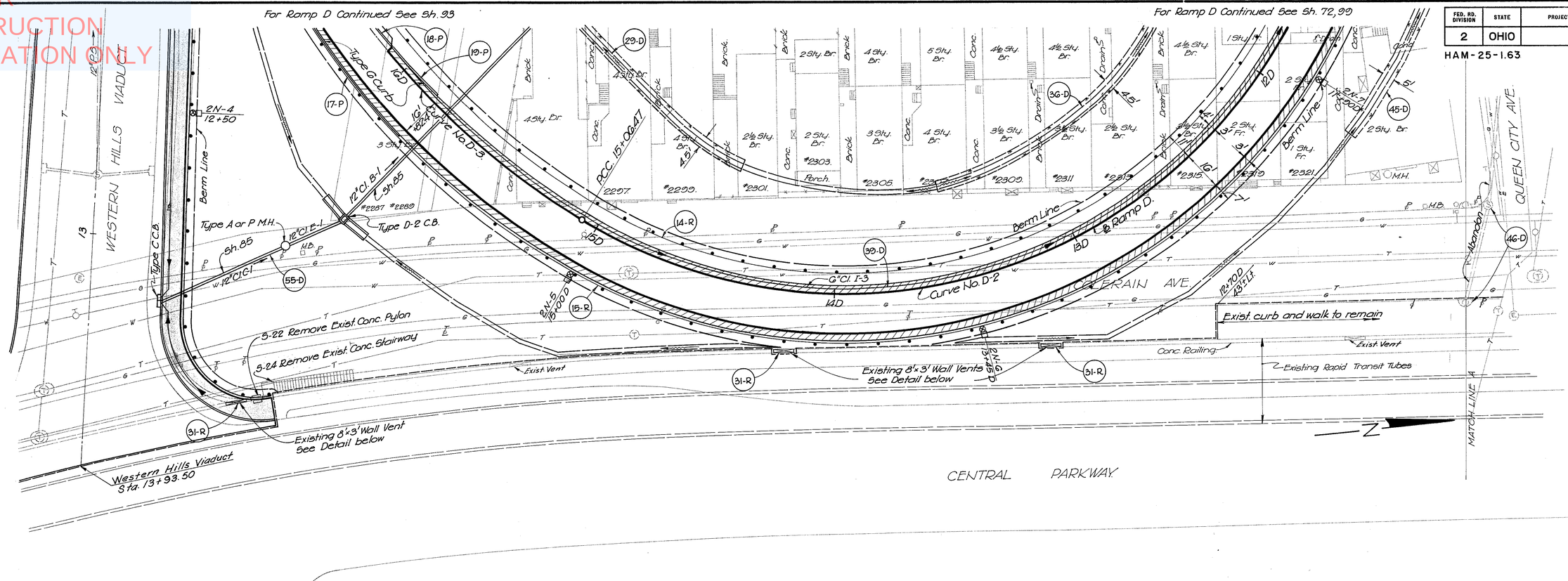
RAMP C STA. 1+50 to STA. 8+50

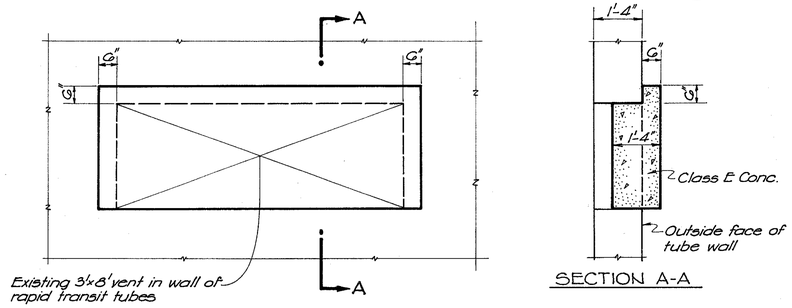
NOT FOR CONSTRUCTION INFORMATION ONLY

FED. RD. DIVISION	STATE	PROJECT	
2	OHIO		

74
486

HAM-25-1.63

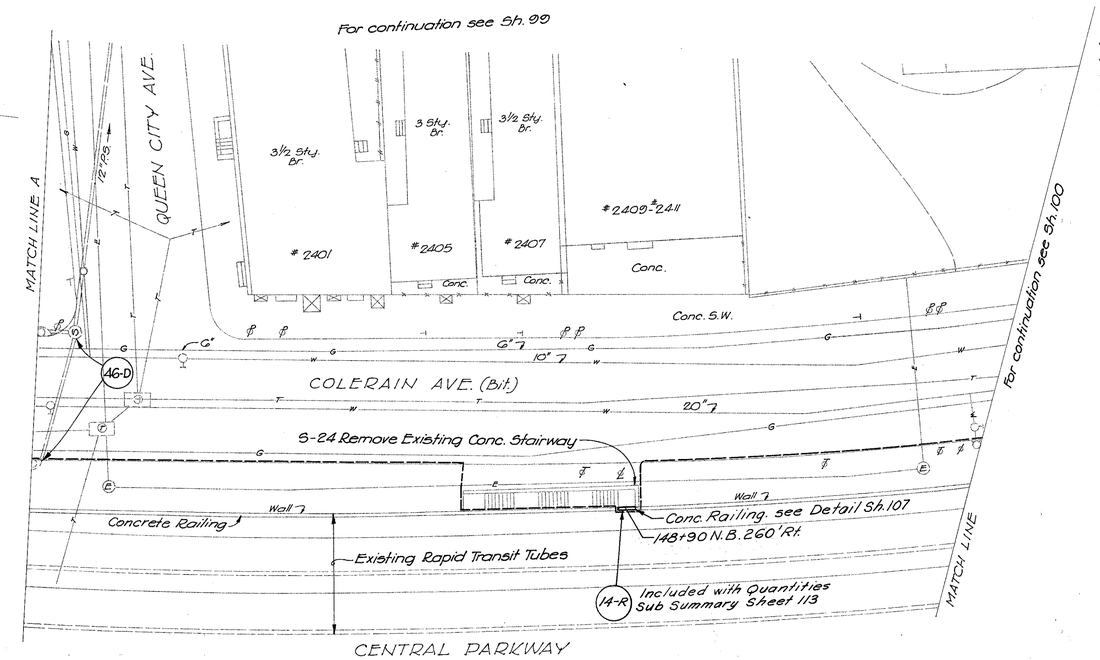




DETAIL FOR PLUGGING VENTS IN TRANSIT TUBE WALLS

Scale: 1/2" = 1'-0"

4 Vents to be plugged See Sh. 74 & 93 for location



For Ramp D Profile	see Sh. 85
For W.H. Viaduct Plan	see Sh. 93
For Cl. I-3 Profiles	see Sh. 85
For Pavement Details	see Sh. 249
For Quantities	see Sh. 96, 97, 98

RAMP D STA. 12+00 to STA. 16+00

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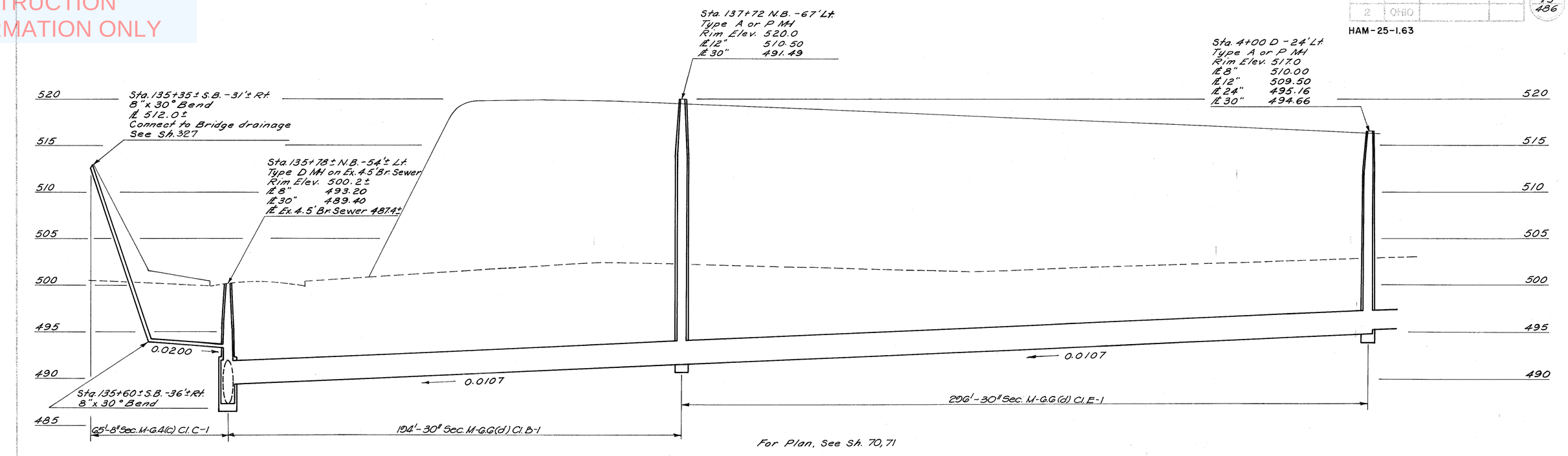
CONSTRUCTION
INFORMATION ONLY



PROPOSED STRUCTURE

TYPE: Continuous rolled steel beam with reinforced concrete deck and substructure.

SPANS: 45'-0", 64'-0", 45'-0".
ROADWAY: 107'-2" between parapets.
LOAD FREQUENCY: CF = 2000 (57)
SKEW: 8°-28'-09" L.F.
WEARING SURFACE: 1" Monolithic Concrete.
APPROACH SLABS: AS-1-54 (25' Long)

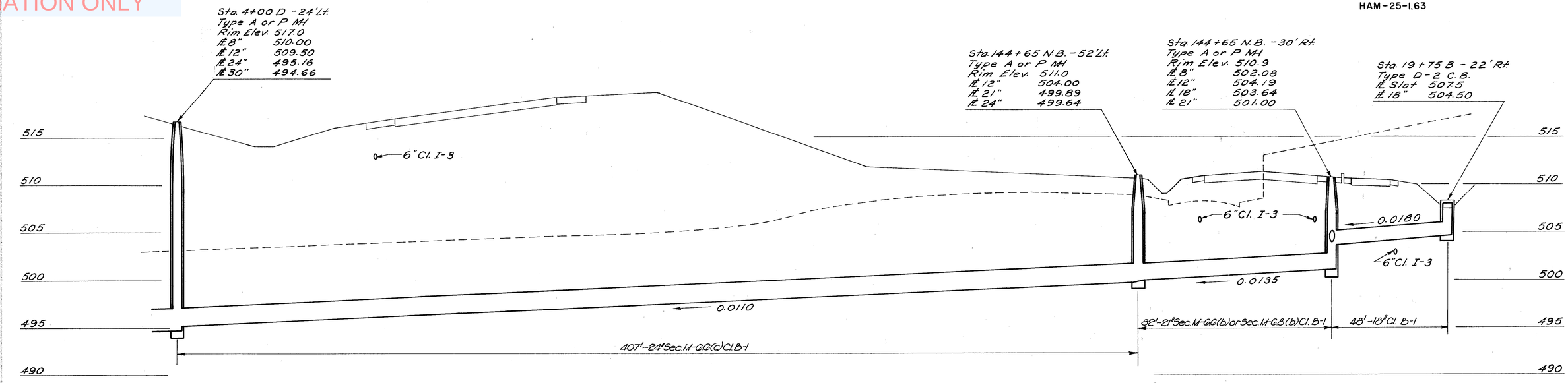
N.B. EXPRESSWAY STA. 135+50 to STA. 141+25

NOT FOR
CONSTRUCTION
INFORMATION ONLY

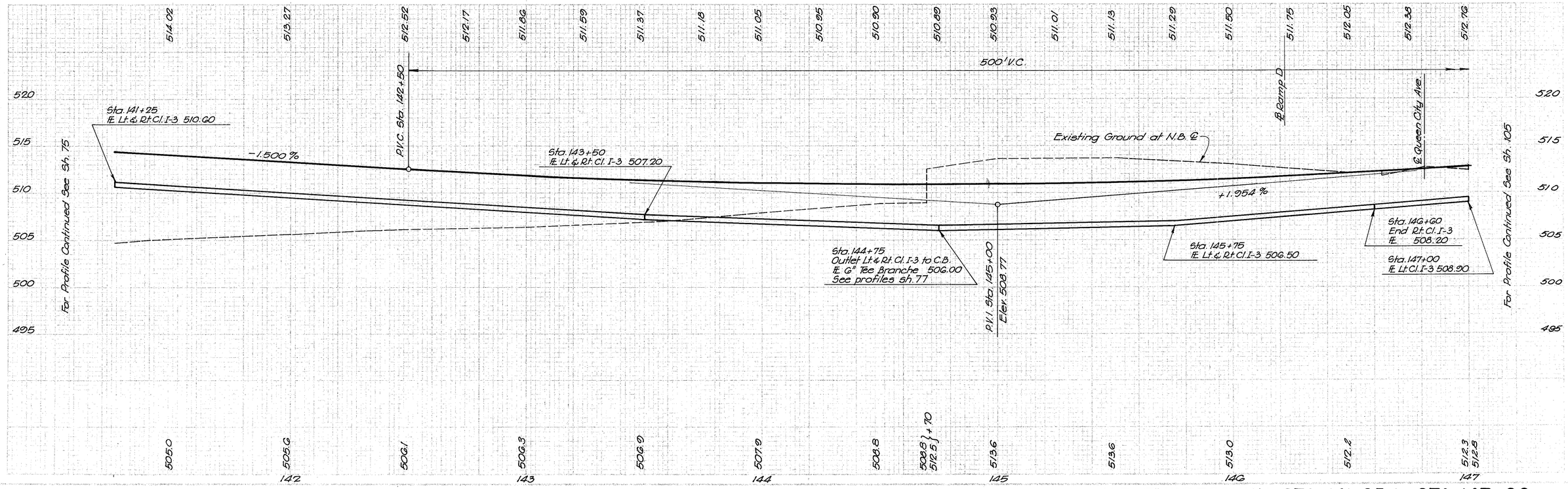
FED. AID PROJECT	STATE	PROJECT	
2	OHIO		

76
486

HAM-25-1.63



For Plan, See Sh. 71, 72



N.B. EXPRESSWAY STA. 141+25 to STA. 147+00

NOT FOR CONSTRUCTION INFORMATION ONLY

FED. AID DIVISION	STATE	PROJECT	
2	OHIO		

77
486

HAM-25-1.63

Sta. 137+72 N.B. - 67' Lt.
Type A or P MH
Rim Elev. 520.0
℄ 12" 510.50
℄ 30" 491.49

6" Cl. I-3

0.0205

122'-12" Cl. B-1

For Plan, See Sh. 70

Sta. 13+10.8 - Rt.
Type A C.B.
℄ Grate 518.3
℄ 8" 514.30
℄ 12" 513.00

Sta. 143+50 N.B. - Rt.
Type A-2 C.B.
℄ Grate 511.0
℄ 12" 508.16

Sta. 144+65 N.B. - 30' Rt.
Type A or P MH
Rim Elev. 510.9
℄ 8" 502.08
℄ 12" 504.19
℄ 18" 503.64
℄ 21" 501.00

Sta. 144+75 N.B. - Rt.
Type C C.B.
℄ Grate 510.6
℄ 6" 505.90
℄ 12" 505.40

0.0345

0.1210

115'-12" Cl. B-1

15' 12" Cl. B-1

For Plan, See Sh. 72

Sta. 144+65 N.B. - 52' Lt.
Type A or P MH
Rim Elev. 511.0
℄ 12" 504.00
℄ 21" 499.89
℄ 24" 499.64

Sta. 144+75 N.B. - 41' Lt.
Type D C.B.
℄ Slot 509.00
℄ 8" 505.63
℄ 12" 505.30

0.0867

15' 12" Cl. E-1

For Plan, See Sh. 72

Sta. 140+28 S.B. - 86' Lt.
Type D C.B.
℄ Slot 499.6
℄ 12" 497.10

Sta. 140+65 S.B. - 134'± Lt.
Type A or P MH on Ex. 12"
Rim Elev. 499.9
℄ 12" 492.79
℄ Ex. 12" 488.4±

0.0695

GE'-12" Cl. B-1

For Plan, See Sh. 71

Sta. 143+10± S.B. - 136'± Lt.
Ex. MH
℄ 12" 491.83
℄ Ex. 12" 486.5±

Sta. 143+56 S.B. - 84' Lt.
Type D C.B.
℄ Slot 498.4
℄ 12" 495.90

0.0565

72'-12" Cl. B-1

For Plan, See Sh. 71, 72

521.99 522.08 522.15 522.21 522.25 522.28 522.29 522.29 522.28 522.25 522.20 522.14 522.06 521.97 521.87 521.75 521.61 521.49 521.30 520.95 520.61

Bridge Limits

+32.03

+0.500%

P.V.I. Sta. 137+50
Elev. 523.02

Sta. 137+28
End Lt. Cl. I-3
℄ 518.40

Sta. 137+18
End Rt. Cl. I-3
℄ 518.50

500' V.C.

℄ Harrison Ave

Sta. 138+71
Outlet Lt. Cl. I-3 to Ramp E. Cl. I-3
℄ 6"x90° Bend 517.90
See sh. 80

Sta. 140+00
℄ Rt. Cl. I-3 517.50

P.V.T. Sta. 140+00

-0.680%

Sta. 140+82
Outlet Rt. Cl. I-3 to MH
℄ E. Cl. I-3 517.10
℄ E. 8" Cl. F-1 510.00
See profile, sh. 75, 83

Sta. 140+84
End Rt. Cl. I-3
℄ 517.00

Sta. 141+25
℄ Rt. Cl. I-3 516.65

Existing Ground at S.B. ℄

For Profile Continued See Sh. 63

For Profile Continued See Sh. 78

500.2 499.9 499.9 500.3 501.0 501.5 500.5 501.0 501.3 501.7 501.8 501.9

130 137 138 139 140 141

520 515 510 505 500 495 490 485

525

PROPOSED STRUCTURE

TYPE: Continuous rolled steel beam with reinforced concrete deck and substructure.

SPANS: 45'-6", 65'-0", 45'-6"

ROADWAY: Varies 80'-0" to 85'-9" between parapets.

LOAD FREQUENCY: CF = 2000 (57)

SKEW: 12°-40'-45" L. F.

WEARING SURFACE: 1" Monolithic Concrete.

APPROACH SLABS: AS-1-54 (25' Long)

S.B. EXPRESSWAY STA. 135+50 to STA. 141+25

NOT FOR
CONSTRUCTION
INFORMATION ONLY

FED. ROAD DIVISION	STATE	PROJECT		
2	OHIO			

78
486

HAM-25-1.63

Sta. 147+05 S.B. -90' Rt.
Type A or P. M.H.
Rim elev. 509.7
℄ 8" 502.70
℄ 15" 502.70
℄ 18" 500.42
℄ 21" 500.17

Sta. 147+00 S.B. -99' Rt.
Type D-2 C.B.
℄ Slot 508.4
℄ 15" 503.50

Sta. 146+35 ± S.B. -180' ± Lt.
Ex. M.H.
℄ 21" 484.35
℄ Ex. 24" 484.1

Sta. 146+48 S.B. -113' Lt.
Type A or P. M.H.
Rim elev. 499.7
℄ 12" 492.30
℄ 21" 488.21

Sta. 147+05 S.B. -90' Rt.
Type A or P. M.H.
Rim elev. 500.7
℄ 8" 502.70
℄ 15" 502.70
℄ 18" 500.42
℄ 21" 500.17

Sta. 147+00 N.B. -67' Rt.
Type D-2 C.B.
℄ Slot 509.7
℄ 8" 506.33
℄ 18" 505.50

6" Cl. I-3

0.0350

10'
15" Cl. E-1

For Plan, see Sh. 99

0.056-7

0.056-7

68'-21" Sec. M-6.6(b) or Sec. M-6.8(b) Cl. B-1

211'-21" Sec. M-6.6(d) Cl. B-1

145'-18" Sec. M-6.6(b) or Sec. M-6.8(b) Cl. B-1

For Plan, see Sh. 72, 99

520 515 510 505 500 495 490 485 480

520.26 519.92 519.58 519.23 518.89 518.54 518.20 517.85 517.51 517.16 516.82 516.48

502.9 503.5 504.0 504.1 504.4 504.4+61 508.0+61 508.1 509.6 510.1 509.6+35 507.5+35 507.1 505.0 503.9 504.8

142 143 144 145 146 147

525 520 515 510 505 500

-0.689 %

Sta. 141+25
℄ Rt. Cl. I-3 516.65

Existing Ground at S.B. ℄

℄ Queen City Ave.

Sta. 147+00
Outlet Rt. Cl. I-3 to M.H.
℄ 6" x 90° Bend 512.70
See profile above

for Profile Continued See Sh. 77

for Profile Continued See Sh. 100

S.B. EXPRESSWAY STA. 141+25 to STA. 147+00

NOT FOR CONSTRUCTION INFORMATION ONLY

SEC. NO.	STATE	PROJECT	
2	OHIO		

HAM-25-1.63

Sta. 126+25 S.B. -37.5' Rt.
Type A or P MH
Rim Elev. 517.5
℄ 12" 510.25
℄ 15" 509.00

6" Cl. I-3

Sta. 3+05± Bank -34'± Rt.
Type D MH on Ex. 6.5'
Rim Elev. 493.7
℄ 12" 487.00
℄ 21" 479.35
℄ Ex. 6.5' 474.6±

Sta. 2+95 Bank -Rt.
Type A C.B.
℄ Grate 493.3
℄ 12" 489.00

Sta. 1+89 Spring Grove -25'± Rt.
Type A or P MH on Ex. 12"
Rim Elev. 494.9
℄ Ex. 12" 482.1±
℄ 12" 487.50
℄ 15" 481.80
℄ 21" 481.30

Sta. 126+00 S.B. -109' Lt.
Type D-2 C.B.
℄ Slot 491.5
℄ 15' 480.00

0.1351

0.0774

0.0222

10'

10-12" Cl. B-1

88'-21" Sec. M-G.G(b) or Sec. M-G.B(b) Cl. B-1

98'-15" Sec. M-G.G(b) or Sec. M-G.B(b) Cl. B-1

148'-15" Sec. M-G.G(d) Cl. B-1

For Plan, See Sh. 59, G7

Sta. 2+15 Spring Grove-Lt.
Type A-2 C.B.
℄ Grate 493.7
℄ 12" 490.85

Sta. 1+89 Spring Grove -25'± Rt.
Type A or P MH on Ex. 12"
Rim Elev. 494.9
℄ Ex. 12" 482.1±
℄ 12" 487.50
℄ 15" 481.80
℄ 21" 481.30

Sta. 2+10 Spring Grove-Rt.
Type C C.B.
℄ Grate 493.9
℄ 12" 488.45

Sta. 3+15 Bank-Lt.
Type C C.B.
℄ Grate 493.8
℄ 12" 491.00

0.0453

0.0453

0.1167

53'-12" Cl. B-1

21'-12" Cl. B-1

30'-12" Cl. E-1

For Plan, See Sh. G7

Sta. 1+89 Spring Grove -25'± Rt.
Type A or P MH on Ex. 12"
℄ Ex. 12" 482.1±
℄ 12" 487.50
℄ 15" 481.80
℄ 21" 481.30

Sta. 1+37 Rt. Turn Lane -℄
Type C C.B.
℄ Grate 493.4
℄ 12" 490.58

0.0550

50'-12" Cl. B-1

For Plan, See Sh. G7

520.59 520.51 520.41 520.29 520.17 520.02 519.83 519.59 519.31 519.03 518.78 518.54 518.29 518.02 517.73 517.43 517.12 516.76 516.42 516.04 515.68 515.30 514.92 514.54 514.17

Profile Varies
See Pavement Details

For Profile Continued See Sh. G5

℄ Harrison Ave

Sta. 12+12
End Cl. I-3
℄ E. 516.40

Sta. 13+10
Outlet Cl. I-3 to C.B.
R-8 Cl. F-1 514.30

Existing Ground at ℄

Sta. 13+96.8
Ramp B Cl. I-3 becomes
Ramp C Cl. I-3 Sta. 12+00 C
℄ E. 513.20
See sh. 82

℄ Alley

Sta. 16+00
℄ E. Cl. I-3 510.50

Sta. 16+50
℄ E. Cl. I-3 507.80

For Profile Continued See Sh. 80

501.3 500.8 500.9 501.3 501.7 502.2 502.5 502.8 503.3 503.8 504.2 504.7 505.1

11 12 13 14 15 16

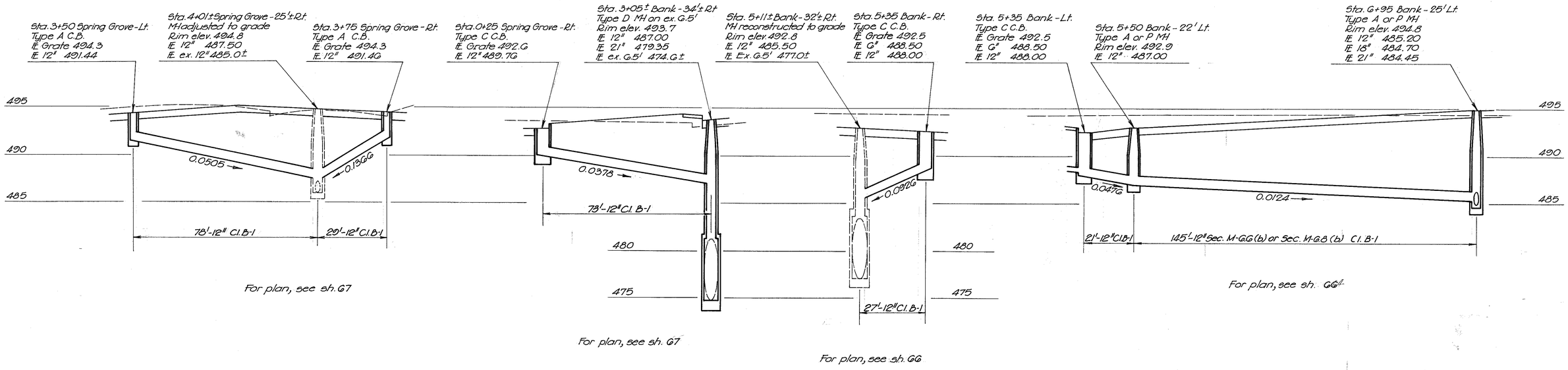
RAMP B STA. 10+50 to STA. 16+50

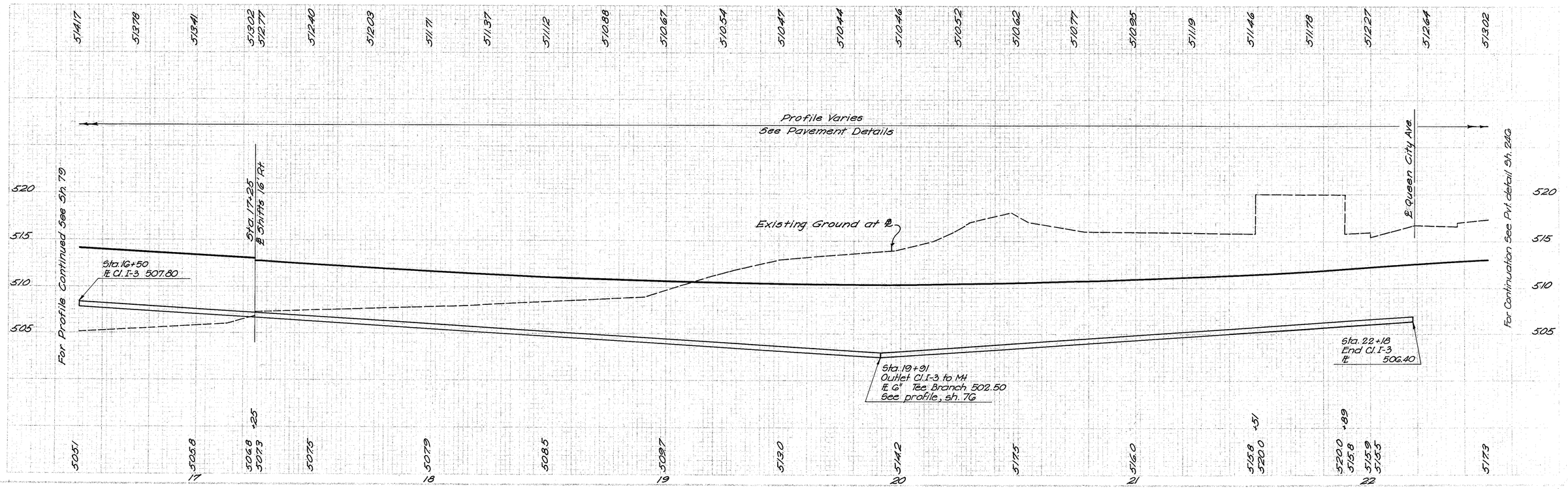
NOT FOR
CONSTRUCTION
INFORMATION ONLY

FED. ROUTE NUMBER	STATE	PROJECT	
2	OHIO		

80
486

HAM-25-1.63





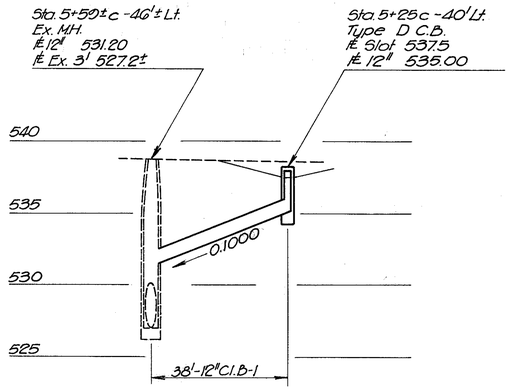
RAMP B STA. 16+50 to STA. 22+50

NOT FOR CONSTRUCTION INFORMATION ONLY

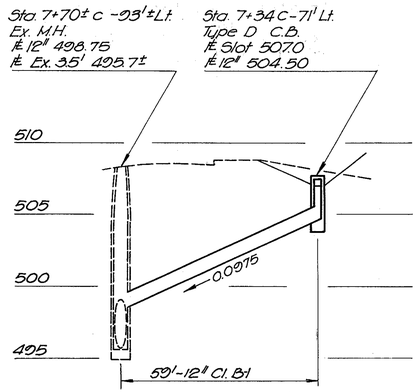
FED. ROAD DIVISION	STATE	PROJECT		
2	OHIO			

81
486

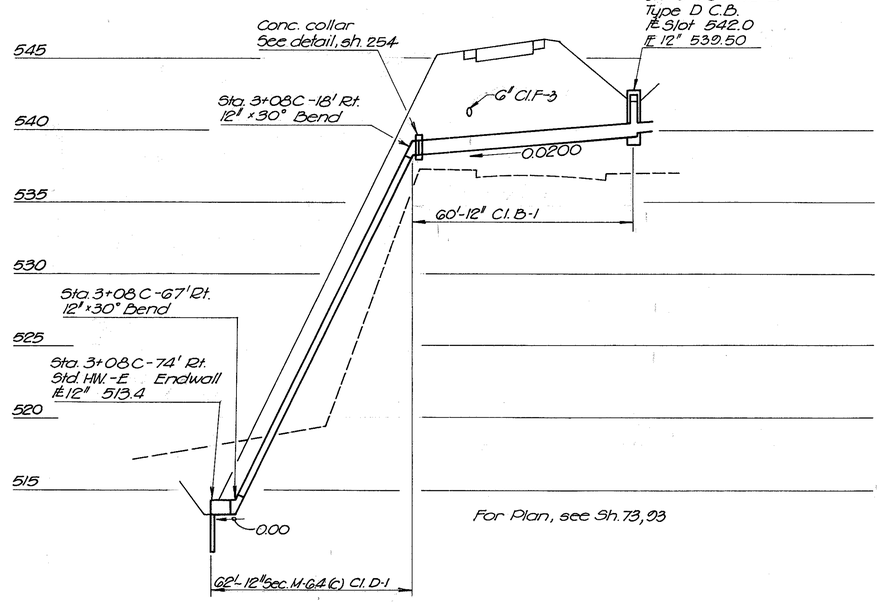
HAM-25-1.63



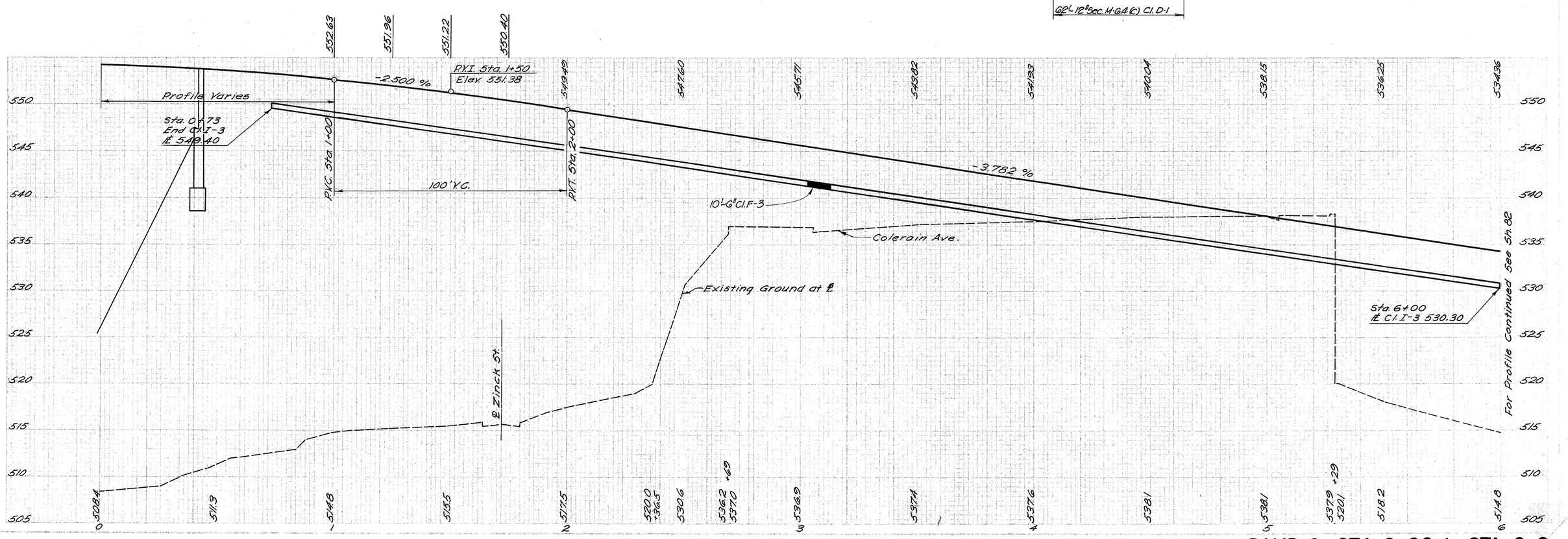
For Plan, see Sh. 73



For Plan, see Sh. 73



For Plan, see Sh. 73, 93



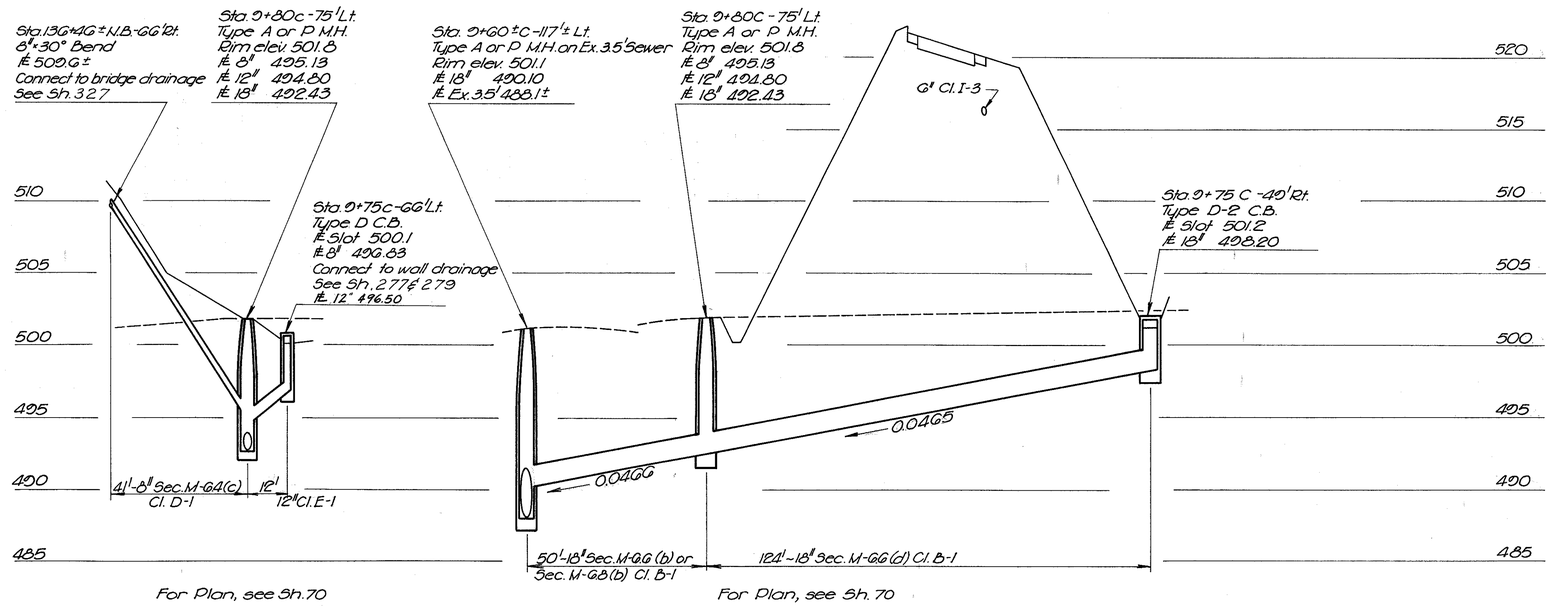
RAMP C - STA. 0+00 to STA. 6+0

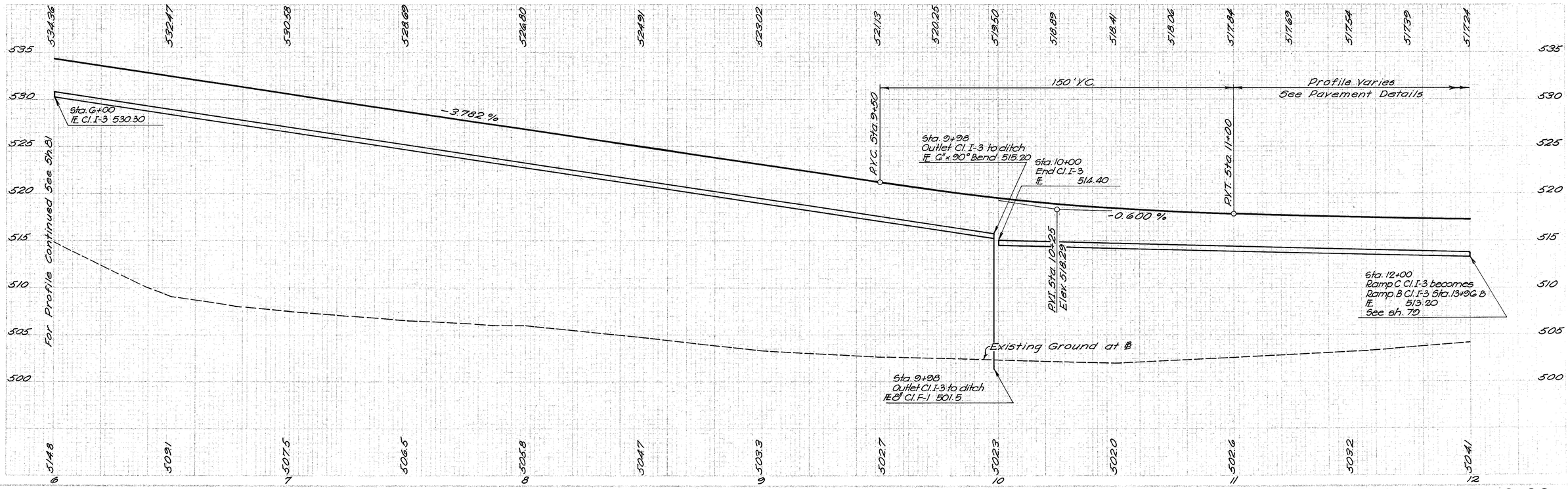
NOT FOR
CONSTRUCTION
INFORMATION ONLY

SEQ. NO. DIVISION	STATE	PROJECT		
2	OHIO			

82
486

HAM-25-1.63





RAMP C STA. 6+00 to STA. 12+00

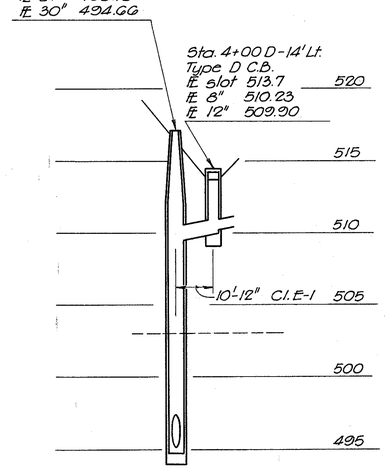
NOT FOR
CONSTRUCTION
INFORMATION ONLY

FED. ROAD DIVISION	STATE	PROJECT		SHEET NO.	TOTAL SHEETS
2	OHIO			83	486

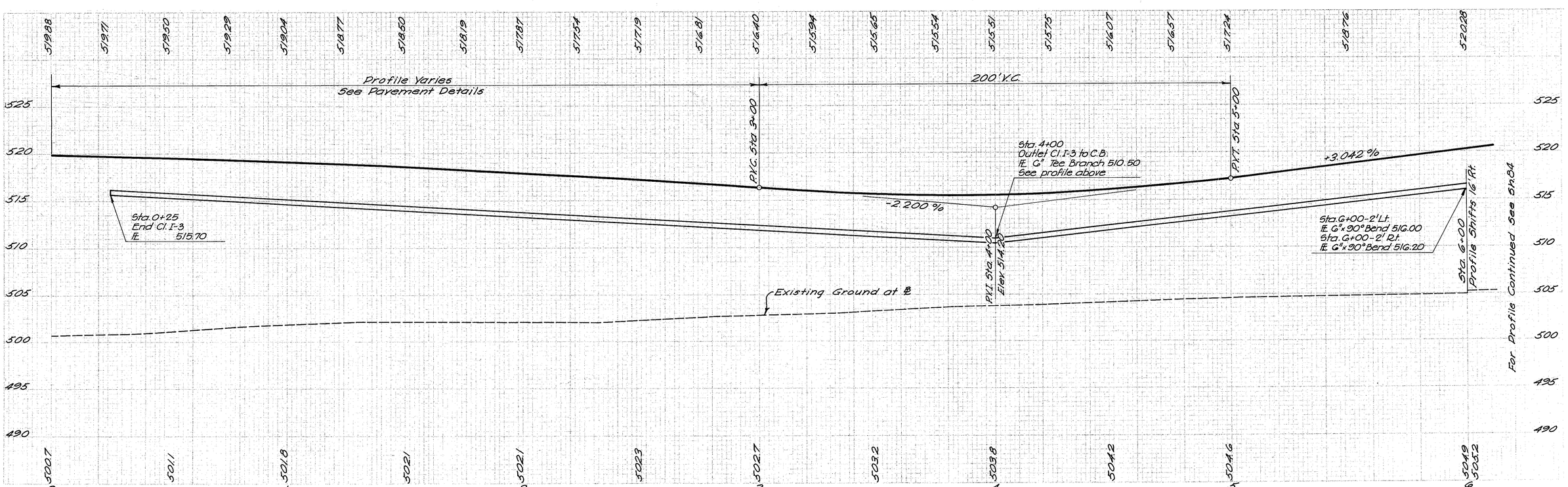
HAM-25-1.63

Sta. 4+00 D-24' Lt.
Type A or P MH.
Rim Elev. 517.0
IE 8" 510.00
IE 12" 509.50
IE 24" 495.16
IE 30" 494.66

Sta. 4+00 D-14' Lt.
Type D C.B.
IE slot 513.7
IE 8" 510.23
IE 12" 509.90



For plan, see sh. 71



For Profile Continued See Sh. 84

RAMP D STA. 0+00 to STA. 6+00

NOT FOR CONSTRUCTION INFORMATION ONLY

STATE	PROJECT
OHIO	HAM-25-1.63

Sta. 5+55± Spring Grove -78'± Lt.
Type C C.B.
℄ Grade 494.7
℄ 12" 491.60

Sta. 5+65 ± Spring Grove - 61'± Lt.
Type A or P MH on Ex.15"
Rim Elev. 494.9
℄ 12" 487.90
℄ Ex. 15" 482.5±

Sta. 5+00 Spring Grove - Lt.
Type A C.B.
℄ Grade 494.9
℄ 12" 492.07

Sta. 5+04± Spring Grove - 21'± Lt.
MH adjusted to grade
Rim Elev. 495.3
℄ 12" 489.00

Replace Ex. MH with Type A
with offset dome on Ex. 36"
Sta. 2+77± Spring Grove 130'± Lt.
Rim Elev. 493.9±
℄ 12" 487.00
℄ ex. 36" 478.4±

Sta. 2+69 ± Spring Grove - 114' Lt.
Type A C.B.
℄ Grade 493.5±
℄ 12" 490.50

Sta. 1+39 Bank - 39'± Lt.
Type C C.B.
℄ Grade 492.3
℄ 12" 489.51

Sta. 1+85± Bank - 12"± Rt.
MH adjusted to grade
Rim Elev. 492.6
℄ 12" 487.10
℄ Ex. 12" 487.05±

Sta. 2+00 Bank - Lt.
Type C C.B.
℄ Grade 492.5
℄ 12" 489.66

Sta. 1+79 Rt. Turn Lane - ℄
Type A C.B.
℄ Grade 493.8
℄ 12" 490.90

Sta. 2+65± Spring Grove - 25'± Rt.
MH adjusted to grade
Rim Elev. 494.3
℄ 12" 487.25
℄ Ex. 12" 483.6±

495
490
485
480

0.1947
0.0961
0.0354
0.0985
0.1138

10' 12" Cl. B-1
13' 12" Cl. B-1
20' - 12" Cl. B-1
68' - 12" Cl. B-1
26' 12" Cl. B-1
21' 12" Cl. B-1

For Plan, See Sh. G7
For Plan, See Sh. G7
For Plan, See Sh. G7
For Plan, See Sh. G7
For Plan, See Sh. G7

520+28 521+81 523+33 524+85 526+37 527+89 529+41 530+93 532+45 533+98 535+50 537+02 538+54

540 535 530 525 520 515 510 505 500

Continued See Sh. 83

Sta. 6+00 - 2' Lt.
℄ 6" x 90° Bend 516.00
Sta. 6+00 - 2' Rt.
℄ 6" x 90° Bend 516.20

For Profile
Sta. 6+00 ℄ Rt.
Profile Shifts 16' Rt.

Sta. 8+79
End Cl. I-3
℄ 524.70

Existing Ground at ℄

Bridge Limits
+25.10
+09.13
+3.042 %

℄ Bogen St.
℄ N.B. Millcreek Exp.
℄ Ramp "B"
℄ Zinck St.

Sta. 12+00
℄ Cl. I-3 534.50

Sta. 11+36
Outlet Cl. I-3 to ditch
℄ 6" x 90° Bend 532.50
℄ 8" Cl. F-1 514.0

For Profile Continued See Sh. 85

PROPOSED STRUCTURE

TYPE: Combination cantilever and span rolled beam with reinforced concrete deck and substructure.
SPANS: 47'-0", 104'-6", 47'-1".
ROADWAY: 28'-0" face to face of parapets.
LOAD FREQUENCY: CF = 2000 (57)
SKEW: 30°-30'-41" L.F. at ℄ N.B. Millcreek Expressway.
WEARING SURFACE: 1" Monolithic Concrete.
APPROACH SLABS: AS-1-54 (25' Long)

5049 505.2 505.3 508.9 509.5 509.7 509.1 509.1 509.4 510.7 512.8 516.0 521.5 522.0 523.0 525.8 525.9 529.8
+.75 +.45 +.39
6 7 8 9 10 11 12

RAMP D STA. 6+00 to STA. 12+00

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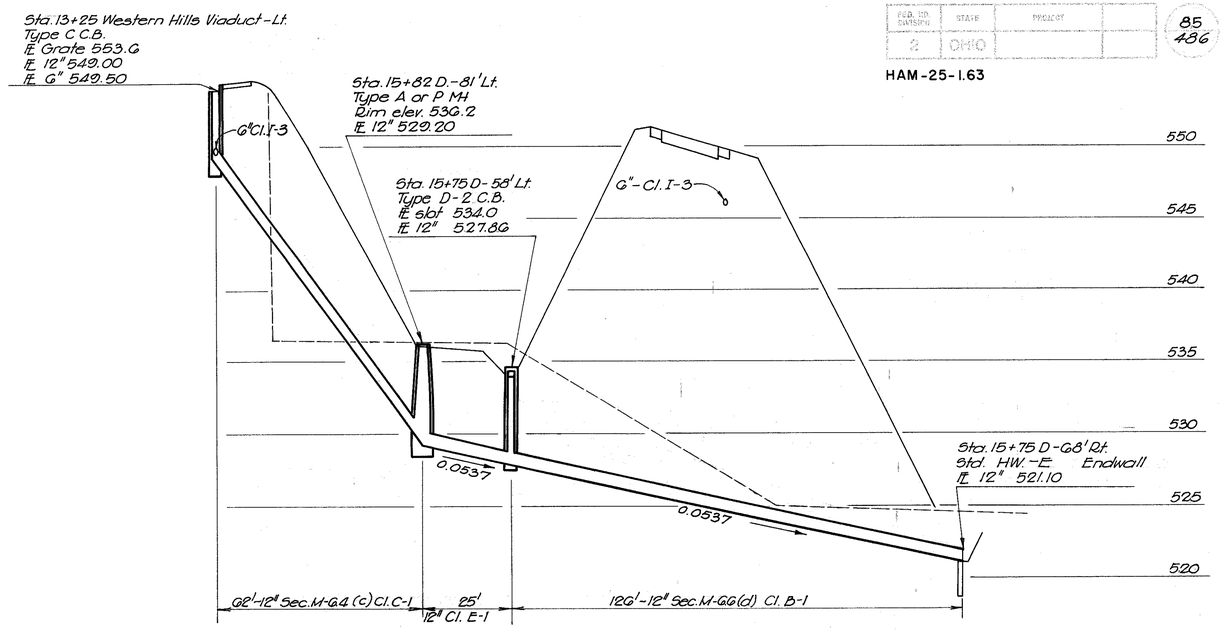
CONSTRUCTION
INFORMATION ONLY

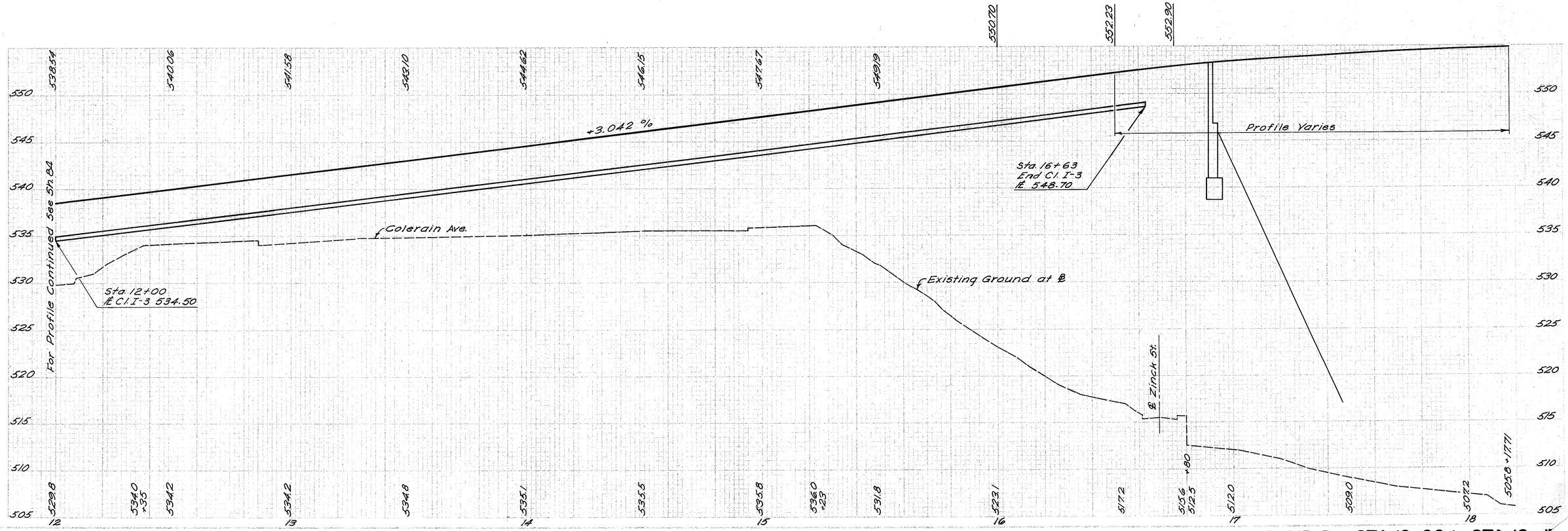
FED. RD. DIST.NO.	STATE	PROJECT	
2	OHIO		

85
486

HAM-25-1.63



For Plan, See Sh. 74, 93



RAMP D STA. 12+00 to STA. 18+

NOT FOR CONSTRUCTION INFORMATION ONLY

FED. RD. DIVISION	STATE	PROJECT	
2	OHIO		

HAM - 25 - 1.63

80 486

BM #7 Elev. 559.50
Western Hills Viaduct Triang. Station. Brass Disc. in N. Sidewalk near Center of Viaduct Near Railing Light #60

For continuation see Sh. 90

℄ Proposed Water Main see Sh. 420

Cinder area

4.7'dia. tank
Conc. Tank
1 Sty. Fr.
Fr. Shed
Dock
Ramp
2.5' dia. tank
Underground oil storage
Filler pipe

Conc. Sand Storage
Conc. post
Signal bridge
Extended steam line
Chain sign
Wood post

Type A or P M.H.
15" C.I.P. I
41-P
28-R
61-D
33-P
Abandon
4-15 4+25 F
Conc. Slab
Sta. 5+60.87 Begin Appr. Slab Ramp F Bridge
Curve No. F-2
Curve No. F-3
Curve No. F-4
Bill board (Norton)
PB #90 3+92 R
Wall No. 8
Outhouse
Brick
Conc. Bit.
Conc. Slab
Meet Ex. Walk
Type G Curb
95'
Sh. 90
Sh. 88
Sta. 3+63.72 End Appr. Slab Lower Deck Ramp F
PB #89 3+55 F
Type C.C.B.
Type G Curb
Type 2A Curb
4-10 3+22 F
4F
34-P
24-R
59-D
Cinder
Pull Box on Bridge See Detail Sh.
1-3" Asbestos Cement Conduit
Type D C.B.
Bill board (Packer)
Brick wall
Flusher
Abandon
52-D
BUCK ST.
Δ=24°21'04"
100' R
Δ=69°42'53"
48-D
22-R
30-P
Type A or P M.H.
Existing C.B. to remain
For Ramp F continued see Sh. 71
PC Sta 6+84.22
PC 2+00.00 F
PT 2+62.40 F
℄ Ramp F
3F
3N-1
3N-2
3N-3
3C-1
3C-2
3G-1
3G-2
3G" Water Main
Curve No. F-1
℄ Western Hills Viaduct
3 WESTERN HILLS VIADUCT 4
Adjust to grade
12" P.S.
15" P.S.
18" P.S.
Sta. 5+25 Meet Exist. Pav't
Sta. 0+44.00 Meet Ex. Pav't.
8-4½" ℄ F.D. 7
12-4" ℄ F.D. 7
35-1
35-2
35-3
G2-D
36-3
Steel bay
S.W. Std.
30" Gas Main
Curve No. E-1
PB #78 5+62 E
5" ℄ Ramp E
PC 2+00.00 E
PT 2+37.17 E
4-20 3+30 E
Pull Box on Bridge See Detail Sh.
Sta. 3+69.88 End Appr. Slab Lower Deck Ramp E
37-P
30-R
36-P
38-P
39-P
Type 2A Curb
Type G Curb
Type C.C.B.
Sh. 84
Sh. 88
Type A or P M.H.
12" C.I.P. I
57-D
51-D
Abandon
PB #87 4+92 E
1-3" Asbestos Cement Conduit
29-R
Conc. Wall
Conc. BUCK ST.
Sh. 90
℄ Temp. Run-around Rd.
Δ=69°19'44"
100' R
Type D C.B.
Δ=19°36'19"
PB #88 5+97 E
47-D
21-R
Pipe railing
Ex. Curb to remain
Sta. 5+25.33 Begin Appr. Slab Ramp E Bridge
WALL No. 7
Curve No. E-2
4-16 6+55 E
40-P
31-P
20' R
Type G Curb
Type A or P M.H.
Bituminous Drive
Gate
Electric power sub station
PC Sta 6+00.81
End Walk at Limit of Pier Construction
3'
2'
14" per ft.
20'
35'
25-R
38-R
Type 2A Curb
Meet exist. curb & walk
Conc. Wall
2 Sty. Br.
1 Sty. Br. Shed
Inspection pit (Conc.)
Conc. walk
Signal Bridge
SW. Std.
3" elevated steam line
SPRING GROVE AVE.
For Western Hills Viaduct continued see Sh. 92
For Ramp E continued see Sh. 71
TN

For Ramp E Profile	see	Sh. 88
For Ramp F Profile	see	Sh. 90
For Pavement Details	see	Sh. 250
For Cl. I-3 Profiles	see	Sh. 88, 90
For Western Hills Viaduct Profile	see	Sh. 87
For Lower Deck Western Hills Via Bridge	see	Sh. 375 thru 393
For Ramp E Bridge	see	Sh. 341 thru 348
For Ramp F Bridge	see	Sh. 394 thru 402
For Wall No. 7	see	Sh. 280
For Quantities	see	Sh. 96, 97, 98
For Wall No. 8	see	Sh. 281
For Water Works	see	Sh. 420

WESTERN HILLS VIADUCT STA. 0+00 to STA. 6+50

NOT FOR CONSTRUCTION INFORMATION ONLY

525.50 | +85 525.06 | 524.84 | 524.35 | 523.71 | +60 523.41 | 522.91 | 521.96 | 520.85 | +35 520.36 | 519.67 | 517.11 | 515.86 | 514.56 | 513.18 | 511.70 | 510.13 | 508.56 | 507.10 | 505.74

560 555 550 545 540 535 530 525 520 515 510 505 500 495 490 485

℄ Existing Profile (Upper Deck)

Meet Existing Pavement Sta. 0+44

-1.268 %

P.V.I. Sta 1+60 Elev. 524.11

P.V.C. Sta 0+85

P.V.T. Sta 2+35

150' V.C.

-5.000 %

Existing Profile (Lower Deck)

P.V.I. Sta 3+75 Elev. 513.36

P.V.C. Sta 3+25

P.V.T. Sta 4+25

100' V.C.

-6.470 %

P.V.C. Sta 4+25

P.V.T. Sta 5+25 Meet Existing Pavement

-4.800 %

P.V.I. Sta 4+75 Elev. 506.89

100' V.C.

Railroad Yard Tracks

Existing Ground at ℄

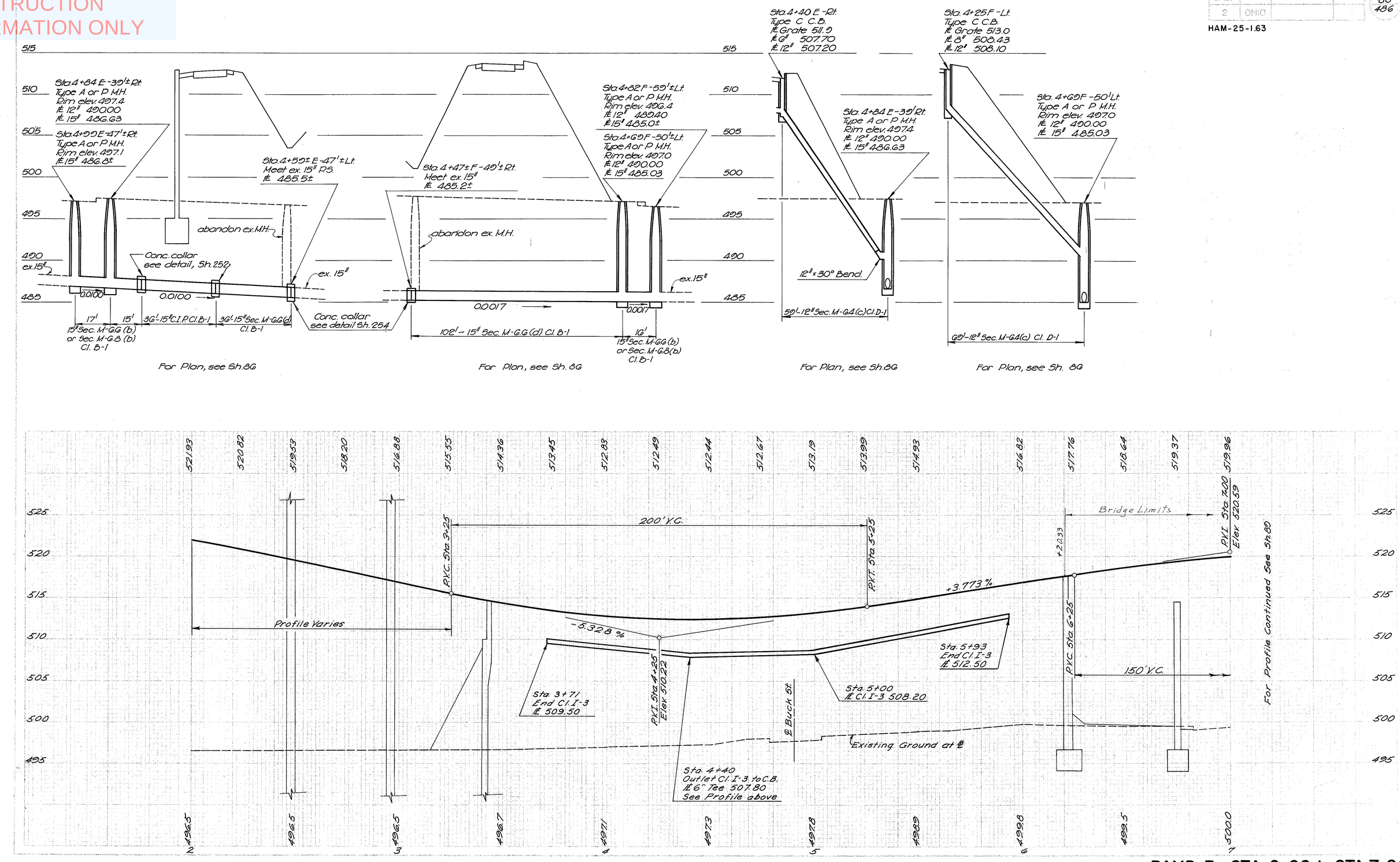
For Profile Continued See Sh. 94

Note: For existing and proposed Bridge Data see Sheet 137S.

558.7	558.7	558.4	558.3	558.1	558.0	557.9	557.8	557.6	557.5	557.3	557.2	Existing Elevations (Upper Deck)
526.2	525.5	524.6	523.0	520.9	518.5	515.9	514.2+34	513.3	510.6	508.2	505.7	503.3	Existing Elevations (Lower Deck)
499.5	499.0	498.4	497.3	496.1	496.1	496.1	496.2+32	513.3	512.6	508.2	505.7	503.3	Existing Ground Elevations
0		1		2		3	5+42		4		5		

WESTERN HILLS VIADUCT STA. 0+44 to STA. 5+50

NOT FOR
CONSTRUCTION
INFORMATION ONLY



RAMP E STA. 2+00 to STA. 7+00

NOT FOR
CONSTRUCTION
INFORMATION ONLY

DIV. OF HIGHWAYS	STATE	PROJECT	
2	OHIO		

89
486

HAM-25-1.63

PROPOSED STRUCTURE

TYPE: cantilever rolled beam with reinforced concrete deck and substructure.

SPANS: 50'-0", 108'-4", 57'-0".

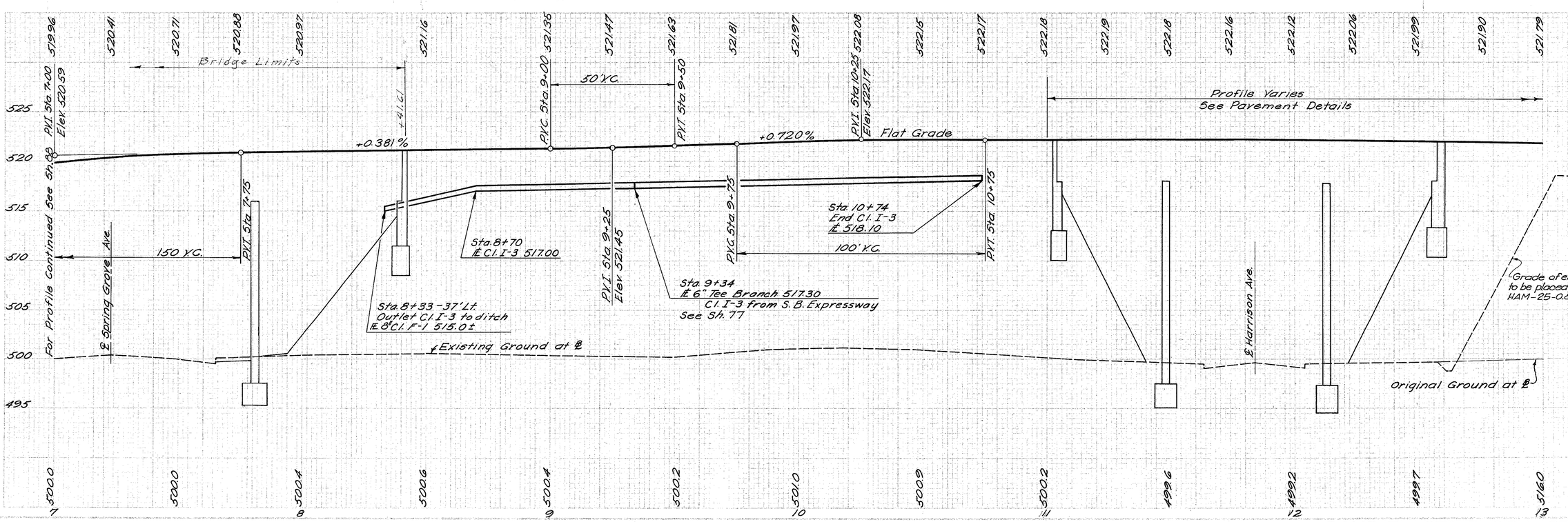
ROADWAY: 28'-0" face to face of parapets.

LOADING FREQUENCY: CF = 2000(57)

SKEW: 33°-46'-24" at ℄ of Spring Grove Avenue.

WEARING SURFACE: 1" Monolithic Concrete.

APPROACH SLABS: AS-1-54(25' Long)



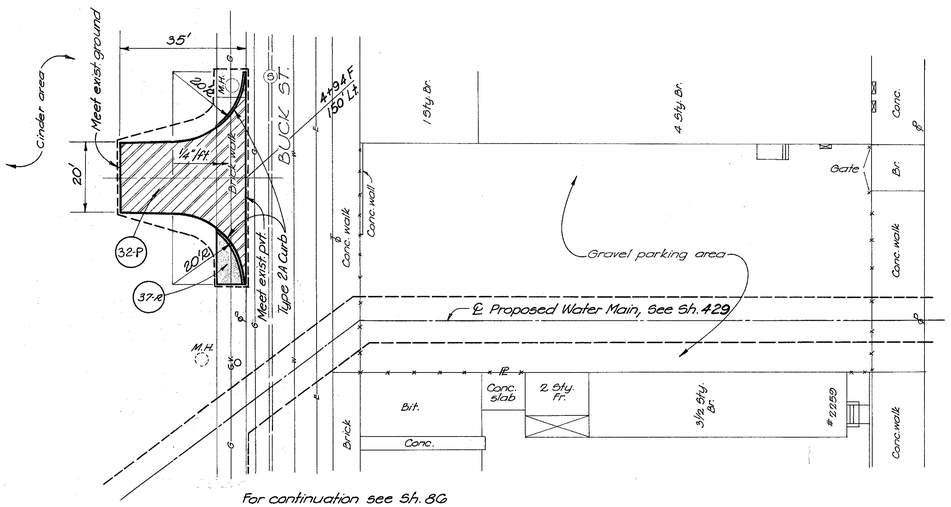
RAMP E STA. 7+00 to STA. 13+00

NOT FOR CONSTRUCTION INFORMATION ONLY

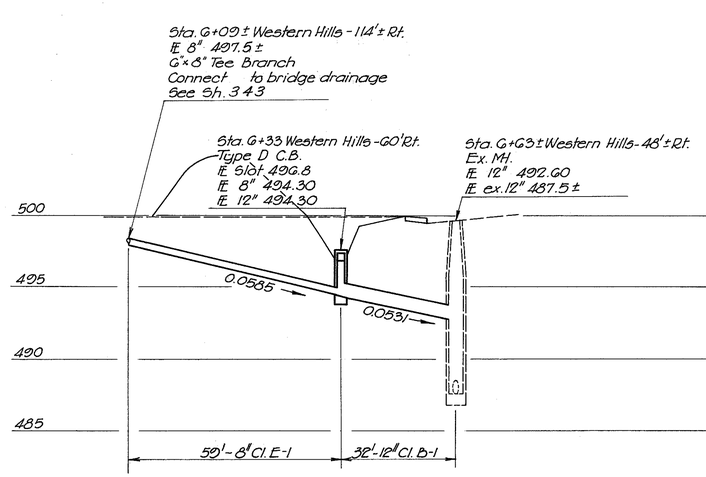
FED. ROAD DIVISION	STATE	PROJECT	
2	OHIO		

20
486

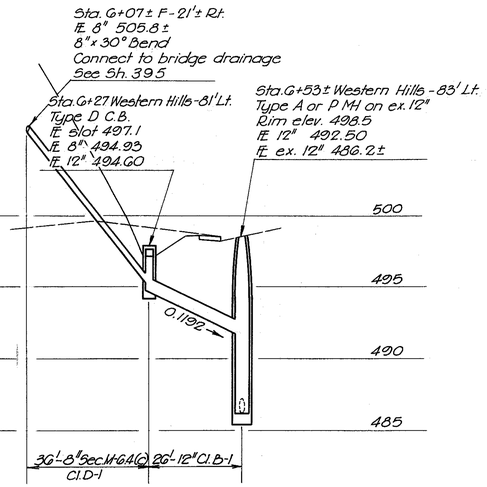
HAM-25-1.63



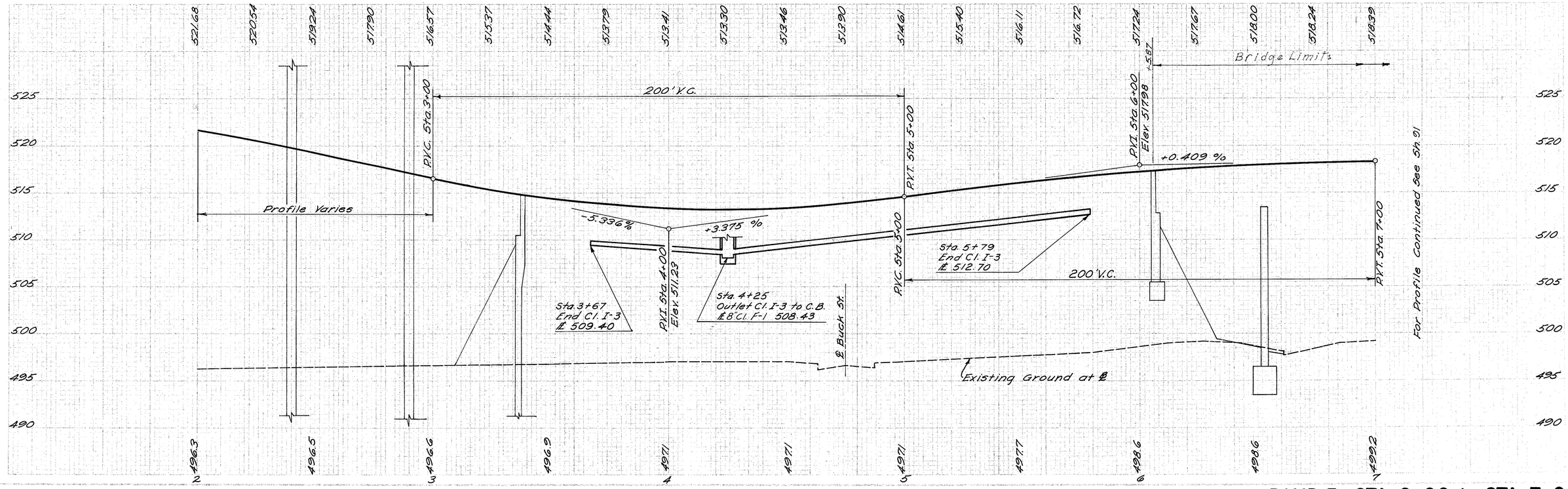
For continuation see Sh. 8G



For plan, See Sh. 8G



For plan, See Sh. 8G



RAMP F STA. 2+00 to STA. 7+00

NOT FOR
CONSTRUCTION
INFORMATION ONLY

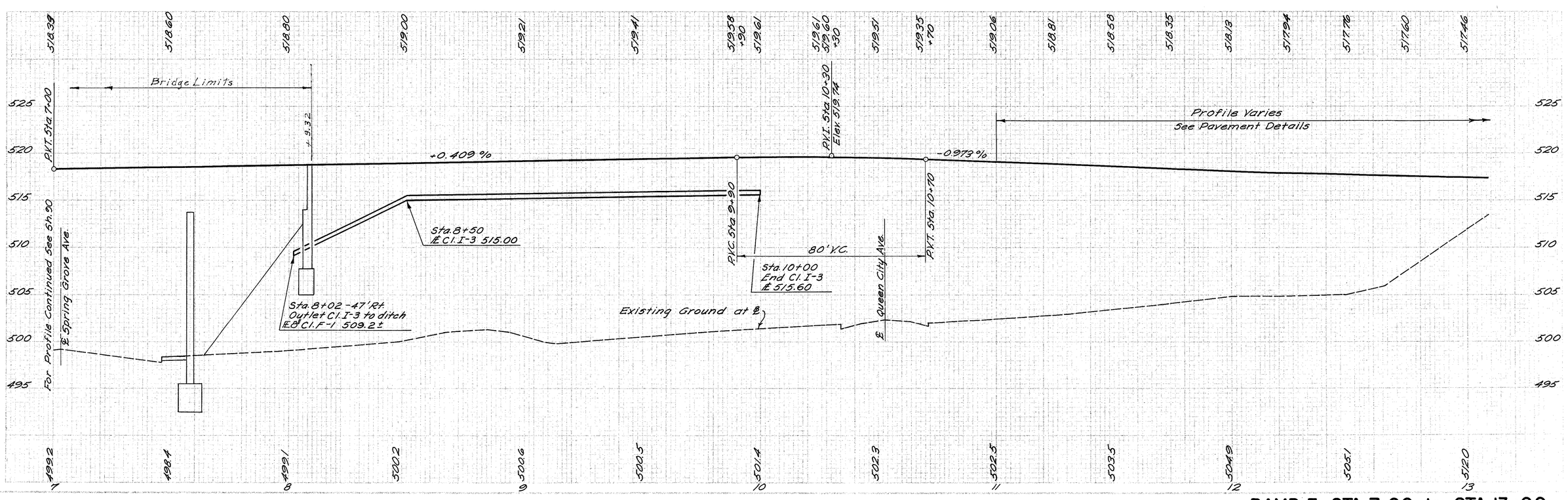
FED. ROAD DIVISION	STATE	PROJECT	
2	OHIO		

91
486

HAM-25-1.63

PROPOSED STRUCTURE

TYPE: Three span cantilever rolled steel beam with reinforced concrete deck and substructure.
SPANS: 44'-11¾", 104'-7½", 47'-5 3/16".
ROADWAY: 28'-0" face to face of parapets.
LOAD FREQUENCY: CF = 2000(57)
SKEW: 32°-01'-13"
WEARING SURFACE: 1" Monolithic Concrete.
APPROACH SLABS: AS-1-54 (25' Long)



RAMP F STA. 7+00 to STA. 13+00

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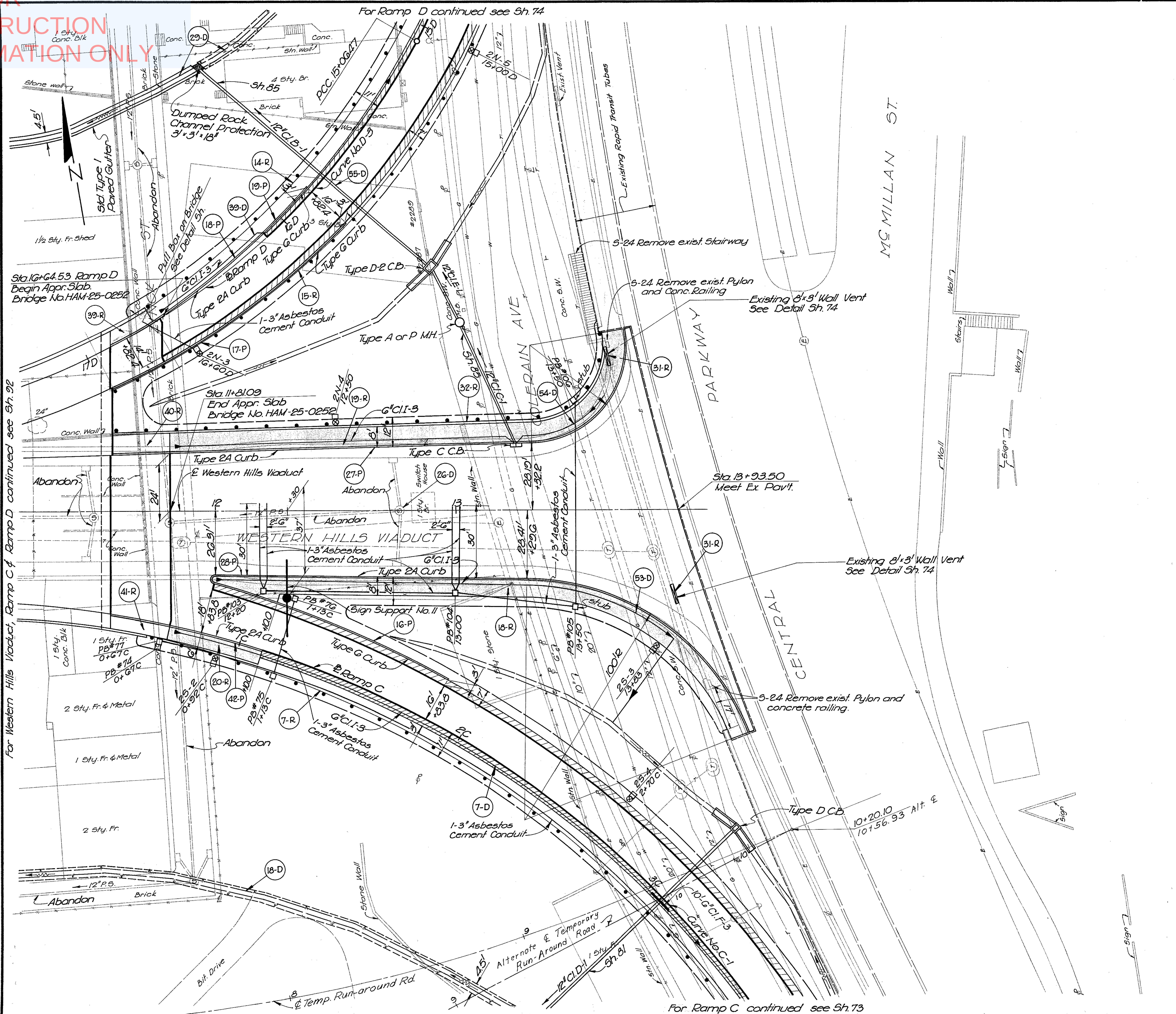
For Western Hills Viaduct, Ramp E & Ramp F continued see Sh. 86
For Western Hills Viaduct continued see Sh. 93
For Western Hills Viaduct Profile see Sh. 94
For Bridge No. HAM-25-0252 see Sh. 349 thru 366
For Quantities see Sh. 96, 97, 98
For Pavement Details see Sh. 249

WESTERN HILLS VIADUCT STA. 6+50 to STA. 11+50

NOT FOR CONSTRUCTION
INFORMATION ONLY

FED. RD. DIVISION	STATE	PROJECT	
2	OHIO		

HAM - 25 - 1.63

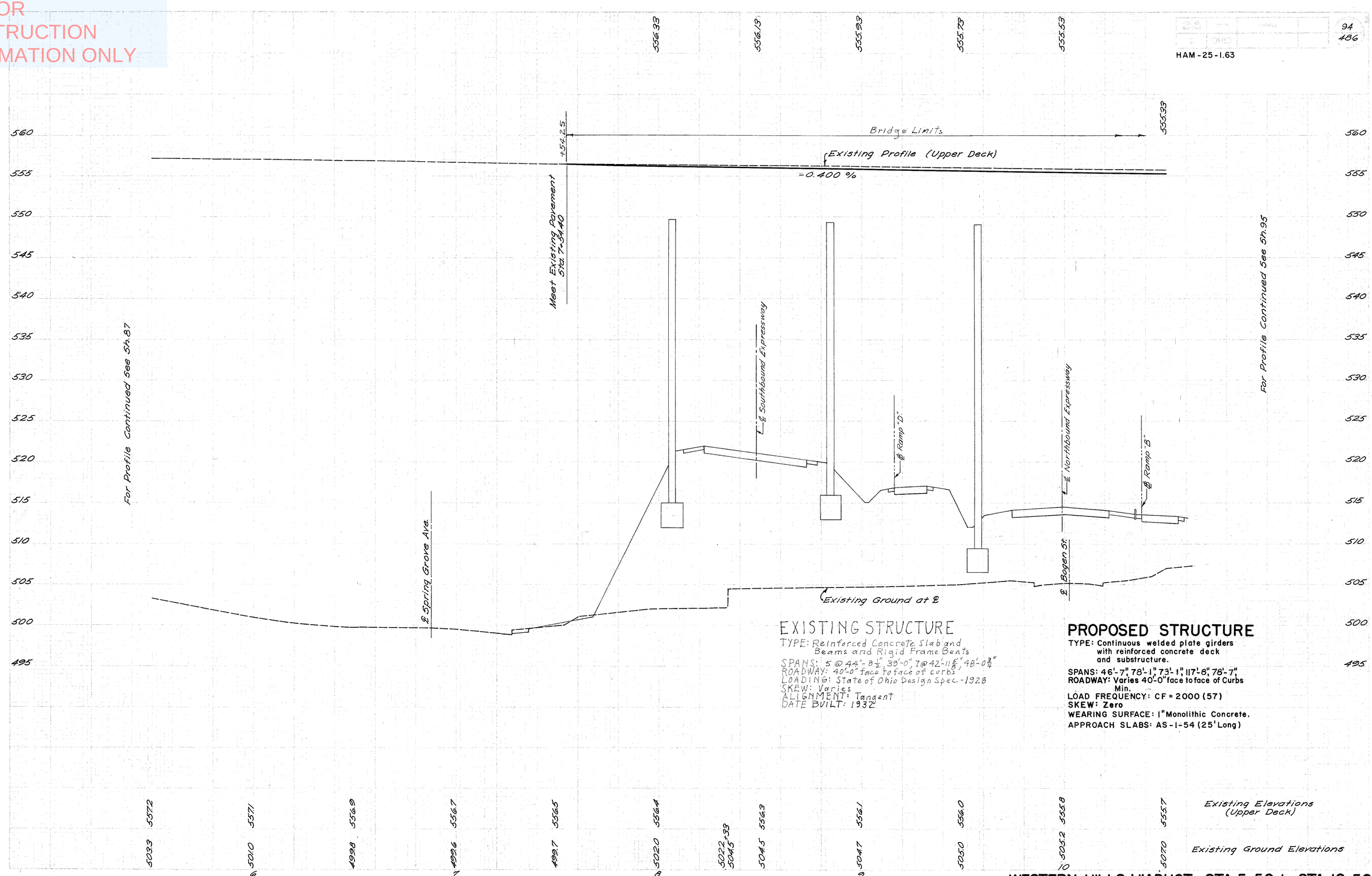


For Western Hills Viaduct Profile see Sh. 95
For Ramp C Profile see Sh. 81
For Ramp D Profile see Sh. 85
For Pavement Details see Sh. 249
For Cl. I-3 Profiles see Sh. 95
For Bridge No. HAM-25-0252 see Sh. 349 thru 366
For Quantities see Sh. 96, 97, 98

WESTERN HILLS VIADUCT STA. 11+50 to STA. 13+96.84

NOT FOR CONSTRUCTION INFORMATION ONLY

HAM-25-1.63



EXISTING STRUCTURE

TYPE: Reinforced Concrete Slab and Beams and Rigid Frame Bents
SPANS: 5 @ 44'-8½", 39'-0", 7 @ 42'-11⅝", 48'-0¾"
ROADWAY: 40'-0" face to face of curbs
LOADING: State of Ohio Design Spec.-1928
SKEW: Varies
ALIGNMENT: Tangent
DATE BUILT: 1932

PROPOSED STRUCTURE

TYPE: Continuous welded plate girders with reinforced concrete deck and substructure.
SPANS: 46'-7", 78'-1", 73'-1", 117'-8", 78'-7"
ROADWAY: Varies 40'-0" face to face of Curbs Min.
LOAD FREQUENCY: CF = 2000 (57)
SKEW: Zero
WEARING SURFACE: 1" Monolithic Concrete.
APPROACH SLABS: AS-1-54 (25' Long)

5033	5572	5010	5571	4998	5569	4996	5567	4997	5565	5020	5564	5022+33	5045	5563	5047	5561	5050	5560	5052	5558	5070	5557	Existing Elevations (Upper Deck)
		6				7				8					9				10				Existing Ground Elevations

WESTERN HILLS VIADUCT STA. 5+50 to STA. 10+50

NOT FOR
CONSTRUCTION
INFORMATION ONLY

335.33 | 335.13 | 334.93 | 334.73 | 334.53 | 334.33 | 334.13 | 334.03 +.75

560 555 550 545 540 535 530 525 520 515 510 505 500

Bridge Limits

+56.03

(Existing Profile (Upper Deck)

-0.400 %

Sta. 13+61 ± - 47'± Lt.
End Lt. Cl. I-3
℄ 550.00

Sta. 13+25 Lt.
Outlet Lt. Cl. I-3 E.&W. to C.B.
℄ 549.75

Profile Varies - See Pavement Details

Sta. 13+50
℄ Rt. Cl. I-3 549.70

Sta. 12+00
End Rt. Cl. I-3
℄ 550.30

Sta. 11+84
End Lt. Cl. I-3
℄ 550.40

℄ Colerain Ave.

Sta. 13+92.7
West Existing Pavement

Sta. 13+90± - 54'± Rt.
Outlet Rt. Cl. I-3 to Ditch
℄ Cl. I-3, 548.70

Sta. 13+65 - 87' Rt.
Outlet Rt. Cl. I-3
℄ Cl. F-1, 544.9

— For Profile Continued See Sh. 94

℄ Ramp "B"

℄ Zinck St.

Existing Ground at ℄

335.7 | 335.5 | 335.4 | 335.2 | 335.0 | 334.7 | 334.4 | 334.1

507.0 | 508.2 | 511.2 | 514.2 +.69 5140 | 514.7 | 519.2 | 522.4 | 528.3 +.11 5383 | 536.5 | 537.3 +.79 5340 | 541

11 | 12 | 13 | 14

Existing Elevations (Upper Deck)

Existing Ground Elevations

WESTERN HILLS VIADUCT - STA. 10+50 to STA. 13+92.7

NOT FOR CONSTRUCTION INFORMATION ONLY

ESTIMATED QUANTITIES

FED. RD. DIVISION	STATE	PROJECT	
2	OHIO		

HAM-25-1.63

DG 486

STATION to STATION or REFERENCE NO.	Item T-71 Reinforced Portland Cement Concrete Pavement		Item I-22 Subbase		Item T-31 Bituminous Surface Treatment		Item B-21 Water-proofed Aggregate Base Course Type B	Item I-18 Stabilized Crushed Aggregate Shoulders and Approaches	Item T-10 Portland Cement Concrete Pavement	Item I-7 Reinforced Concrete Approach Slabs	Item I-21 Portland Cement Concrete Median and Traffic Island Pavement			Item I-12 Concrete Curb				Item I-13 4" Concrete Sidewalk	Item I-15 Guard Rail		Item I-13 Concrete Steps	Item T-35 Asphaltic Concrete Surface Course Type C	Item B-35 Asphaltic Concrete Leveling Course	Item B-70 8" Portland Cement Concrete Base Course	Item T-30 Bituminous Prime and Tack Coats		Item S-1 Class "E" Conc. for Plugging of Wall Vents	Item I-13 6" Reinforced Concrete Sidewalk	Sheet No.
	10 inch	9 inch	Grading A or B	Grading C or D	Bit. Material	Aggregate No.G	Type B		8 Inch		4" Median Pavt.	Type 2 Modified Median Pavt.	6" Traffic Island Pavt.	Type 2A	Type 2B	Type G	Special Barrier		Standard	Barrier					Tack Coat	Prime Coat.			
	Sq. Yd.	Sq. Yd.	Cu. Yd.	Cu. Yd.	Gal.	Cu. Yd.	Cu. Yd.	Cu. Yd.	Sq. Yd.	Sq. Yd.	Sq. Yd.	Sq. Yd.	Sq. Yd.	Lin. Ft.	Lin. Ft.	Lin. Ft.	Lin. Ft.	Sq. Ft.	Lin. Ft.	Lin. Ft.	Lin. Ft.	Cu. Yd.	Cu. Yd.	Sq. Yd.	Gal.	Gal.	Cu. Yd.	Sq. Ft.	
Expressway (N.B.) 135+50 to 140+64	5757.9		1364.6		370	11.9	123.4	208.8		166.8																		70, 71, 72
Expressway (S.B.) 135+50 to 147+00	6038.5		1250.1		353	11.3	115.1	201.5		191.7																		70, 71, 72
Ramp B 12+11.89 to 21+89		1696.0	402.8		152	4.9	50.5	88.0		44.4																		70, 71, 72
Ramp C to 12+41.21		2257.1	404.9		176	5.6	58.5	104.9																				70, 73, 93
Ramp D 0+00 to		2032.8	523.6		222	7.1	74.1	132.0		138.6																		70, 71, 72, 74, 93
Ramp E to 11+00		794.7	256.8		133	4.3	44.4	75.9		139.0																		70, 71, 86, 92
Ramp F to 10+95		658.6	189.6		89	2.9	29.7	50.4		132.8																		72, 86, 92
Western Hills Viaduct		1487.0	303.4							188.9																		86, 92, 93
1-P																	188											70
2-P																82												70
3-P														151														70
4-P																100												71
5-P														106														71
6-P																	511											71, 72
7-P																171												72
8-P														107														72
9-P																248												72
10-P																32												72
11-P																60												72
12-P																584												70, 71
13-P																34												70
14-P																57												70
15-P																16												73
16-P																105												73, 93
17-P																98												74, 93
18-P														57														74, 93
19-P																26												74, 93
20-P											36.1																	70
21-P											36.8																	71
22-P											34.7																	72
23-P												225.5																70, 71
24-P									48.2																			73
25-P														72														73
26-P																107												70
27-P														218														93
28-P														253														93
29-P																62												71, 86, 92
30-P																62												71, 86, 92
31-P									96.9					113														86
32-P									96.9					36														86, 90
33-P																170												86
34-P														64														86
35-P																100												86
36-P																64												86
37-P														18														86
38-P																33												86
39-P														21														86
40-P																35												86
41-P																24												86
42-P														40														93
43-P																12												70
44-P																28												73
1-R																		11,765										70, 71, 72
2-R																			575.0									70, 71, 72
3-R																			600.0									70, 71
4-R																			212.5									70
5-R																			50.0									70
6-R																			675.0									70, 73
7-R																			1425.0									70, 71, 93
8-R																			62.5									70, 71
9-R																			462.5									71, 72
10-R																			250.0									72
Subtotal to sheet 97	11,796.4	8926.2	4785.8		1495	48.0	495.7	861.5	242.0	1002.2	107.6	225.5		1256		2319	699	11,765	4312.5									

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ESTIMATED QUANTITIES

FED. RD. DIVISION	STATE	PROJECT	
2	OHIO		

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STATION to STATION or REFERENCE NO.	Item T-71 Reinforced Portland Cement Concrete Pavement		Item I-22 Subbase		Item T-31 Bituminous Surface Treatment		Item B-21 Water-proofed Aggregate Base Course Type B	Item I-18 Stabilized Crushed Aggregate Shoulders and Approaches	Item T-10 Portland Cement Concrete Pavement	Item I-7 Reinforced Concrete Approach Slabs	Item I-21 Portland Cement Concrete Median and Traffic Island Pavement			Item I-12 Concrete Curb				Item I-13 4" Concrete Sidewalk	Item I-15 Guard Rail		Item I-13 Concrete Steps	Item T-35 Asphaltic Concrete Surface Course Type C	Item B-35 Asphaltic Concrete Leveling Course	Item B-10 8" Portland Cement Concrete Base Course	Item T-30 Bituminous Prime and Tack Coats		Item S-1 Class E Conc. for Plugging of Wall Vents	Item I-13 6" Reinforced Concrete Sidewalk	Sheet No.
	10 inch	9 inch	Grading A or B	Grading C or D	Bit. Material	Aggregate No. 6	Type B		8 Inch		4" Median Pavt.	Type 2 Modified Median Pavt.	6" Traffic Island Pavt.	Type 2A	Type 2B	Type G	Special Barrier		Standard	Barrier					Tack Coat	Prime Coat			
	Sq. Yd.	Sq. Yd.	Cu. Yd.	Cu. Yd.	Gal.	Cu. Yd.	Cu. Yd.	Cu. Yd.	Sq. Yd.	Sq. Yd.	Sq. Yd.	Sq. Yd.	Sq. Yd.	Lin. Ft.	Lin. Ft.	Lin. Ft.	Lin. Ft.	Sq. Ft.	Lin. Ft.	Lin. Ft.	Lin. Ft.	Cu. Yd.	Cu. Yd.	Sq. Yd.	Gal.	Gal.	Cu. Yd.	Sq. Ft.	
Subtotal from sheet 96	11,796.4	8926.2	4785.8		1495	480	495.7	861.5	242.0	1002.2	107.6	225.5		1256		2319	699	11,765	4312.5										96
11-R																			375.0										71, 72
12-R																			137.5										72
13-R																			137.5										72
14-R																			525.0										72, 74, 93
15-R																			625.0										72, 74, 93
16-R																				487.5									70, 71
17-R																			100.0										72
18-R																		1798											93
19-R																		1584											93
20-R																		220											93
21-R																		704											71, 86, 92
22-R																		878											71, 86, 92
23-R																			250.0										86
24-R																			250.0										86
25-R																			25.0										86
26-R																			25.0										86
27-R																		1688											70
28-R																			25.0										86
29-R																			250.0										86
30-R																			100.0										86
31-R																												5.3	74, 93
32-R																			225.0										93
33-R																			112.5										70, 71
34-R																			100.0										72
35-R																			112.5										71
36-R																		192											71
37-R																		124											90
38-R																		124											86
39-R																												99.0	93
40-R																												187.5	93
41-R																												134.8	93
Totals to General Summary	11,796.4	8926.2	4785.8		1495	480	495.7	861.5	2420	1002.2	107.6	225.5		1256		2319	699	19,077	7687.5	487.5								5.3	421.3	

QUANTITIES

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ESTIMATED QUANTITIES

REF. NO.	STATION to STATION	SIDE	I-5 Pipe Specials Class											I-1 Pipe Culverts, Sewers and Drains Class																									I-2		I-8 Catch Basins					I-8 Manholes			I-2	I-10	I-14	I-16		L-10		SEE SHEET NO.
			B-1		C-1	D-1		E-1		I-3				B-1														C-1		D-1		E-1			F-1	F-3	I-3																			
			6"x8" increaser	6" Tee	8" 30° 6.4(c)	8" 30° 6.4(c)	12" 30° 6.4(c)	6"x8" Tee	8" Tee	6" 30° Bend	6" 45° Bend	6" 90° Bend	6" Tee	6"	8"	12"	12" 6.6(d)	15" 6.6(b) or 6.8(b)	15" 6.6(d)	15" C.I.P.	18"	18" 6.6(b) 6.8(b)	18" 6.6(d)	21" 6.6(b) 6.8(b)	21" 6.6(d)	24" 6.6(c)	30" 6.6(d)	8" 6.4(c)	12" 6.4(c)	8" 6.4(c)	12" 6.4(c)	8"	12"	30" 6.6(d)	8"	6"	6" shallow	6" deep	End Walls Cl."C"	Concrete Collar Cl."C"	A	A-2	C	D	D-2	A or P	D	Adj. to Grade	Erosion Control Cl. "E"	Dumped Rock Channel Protection	Std. Type I Paved Gutter	Manholes Abandoned	Catch Basins Abandoned	Sod	Berm and Slope Protection	
			Each											Linear Feet																									Cu. Yd.		Each								Cu.Yd.	Cu. Yd.	L.F.	Each		Sq. Yd.		
	Drainage																																																							
1-D	8+33 E to 10+74 E	Lt. & Rt.									1		1																						10		250																			
2-D	137+28 S.B. to 138+71 S.B.	Lt.										1																									177																			
3-D	137+18 S.B. to 140+82 S.B.	Rt.										1																							10		376																			
4-D	0+25 D to 8+79 D	Lt.& Rt.										2	1																						10		877																			
5-D	12+12 B to 13+10 B	Rt.								1																									10		89																			
6-D	10+00 C to 22+18 B	Rt.	1	1											24																						455	568																		
7-D	0+73 C to 9+98 C	Rt.										1																							10	10	948																			
8-D	136+89 N.B. to 146+60 N.B.	Rt.											1																						7		973																			
9-D	139+13 S.B. to 140+30 S.B.	Lt.																																																				28		
10-D	10+82 E	Rt.																																																					56	
11-D	135+78± N.B. to 19+75 B	Lt. & Rt.			2											247					48			82		407	194	65					25	296							1	1	1	2	1	4	1									
12-D	136+05± N.B. to 136+15± N.B.	Rt.																																																		1	2			
13-D	9+60±C to 10+65±C	Lt.				1																50	124							41			12											1	1	2								65		
14-D	137+50± N.B.	Rt.																																																		1				
15-D	10+30±C	Lt.																																																		1				
16-D	9+55±C	Rt.																																																			1			
17-D	7+00C to 9+65 C	Rt.																																																				94		
18-D	9+85C to 3+08 C	Rt.																																																20			270		
19-D	138+50± N.B.	Rt																																																		1				
20-D	140+28 S.B. to 140+65 S.B.	Lt.														62																												1		1										
21-D	141+70± S.B to 141+80± S.B.	Lt. & Rt.																																																		2				
22-D	143+10± S.B. to 143+56 S.B.	Lt.														72																												1												
23-D	139+81 N.B. to 146+65 N.B.	Lt.									2		1																						10		698																			
24-D	139+90± N.B. to 140+00± N.B.	Rt.																																																		2				
25-D	140+10± N.B.	Rt.																																																		1	2			
26-D	141+50± N.B. to 141+65± N.B.	Lt.& Rt.																																																		5	2			
27-D	142+95± N.B.	Rt.																																																		1	2			
28-D	143+05± N.B.	Lt.																																																		1				
29-D	14+50D to 19+65 B	Rt.																																																161			93		
30-D	143+55 S.B. to 145+05 S.B.	Lt.																																																				36		
31-D	8+02 F to 10+00 F	Lt.& Rt.								1																									10		206																			
32-D	146+35± S.B. to 147+05 S.B	Lt.& Rt.																						68	211								72											1		1							1				
33-D	146+00 S.B. to 146+87 S.B.	Rt.																																															3.3					46		
34-D	144+50± N.B.	Lt.																																																		1				
35-D	145+75± N.B.	Lt.																																																		1				
36-D	19+85 B to 13+50 D	Rt.																																																20			164		
37-D	11+25 D	Rt.																																																					58	
38-D	11+40± D	Rt.																																																		1				
39-D	11+36 D to 16+63 D	Rt.									2	1																							10		572																			
40-D	144+55± N.B.	Rt.																																																		1				
41-D	3+08 C	Lt. & Rt.					2									60															62								0.23	0.5				1						0.5						
42-D	7+34C to 7+70±C	Lt.														59																												1										37		
43-D	5+55±C	Lt.																																							1															
44-D	5+25C to 5+59±C	Lt.														38																												1												
45-D	10+80D to 12+00 D	Lt.																																																44			54		
46-D	11+95± D to 12+20± D	Lt.																																																		1	1			
47-D	6+09± West Hills to 6+63± West Hills	Rt.						1								32																59												1												
48-D	6+27 West Hills to 6+53± West Hills	Lt.				1										26														36														1		1										
49-D	140+84 S.B. to 147+00 S.B.	Rt.										1																							10		667																			
50-D	146+50± N.B. to 146+60± N.B.	Lt.																																																		1	1			
51-D	4+60±E to 5+00±E	Lt.																																																		2	2			
52-D	4+45±F to 4+95±F	Rt.																																																		2	2			
53-D	12+00 West Hills to 13+90 West Hills	Rt.										1																							10		229																			
54-D	11+84 West Hills to 13+61 West Hills	Lt.									2																										183																			
55-D	15+75 D	Lt. & Rt.															126												62				25						0.23				1	1		1				0.5						
56-D	6+20±C to 6+80±C	Lt.																																																86					
57-D	4+40 E to 4+99 E	Rt.					1											32	36	36											59									1.8			1			2										
58-D	3+71 E to 5+93 E	Rt.											1	3																							222																			
59-D	4+25 F to 6+00 F	Lt.																16	102												69									0.6			1			2										
60-D	4+25 F to 5+79 F	Lt.																																	10		144																			
61-D	3+67 F to 4+25 F	Lt.																																	10		48																			
62-D	4+25± West Hills to 5+20± West Hills	℄																																													3								
TOTALS			1	1	2	2	3	1		2	7	8	5	3	24	596	126	48	138	36	48	50	124	150	211	407	194	65	62	77	190	59	134	296	127	10	7114	568	0.46	2.9	2	1	4	12	2	14	1	3	3.3	1.0	331	27	15	887	114	

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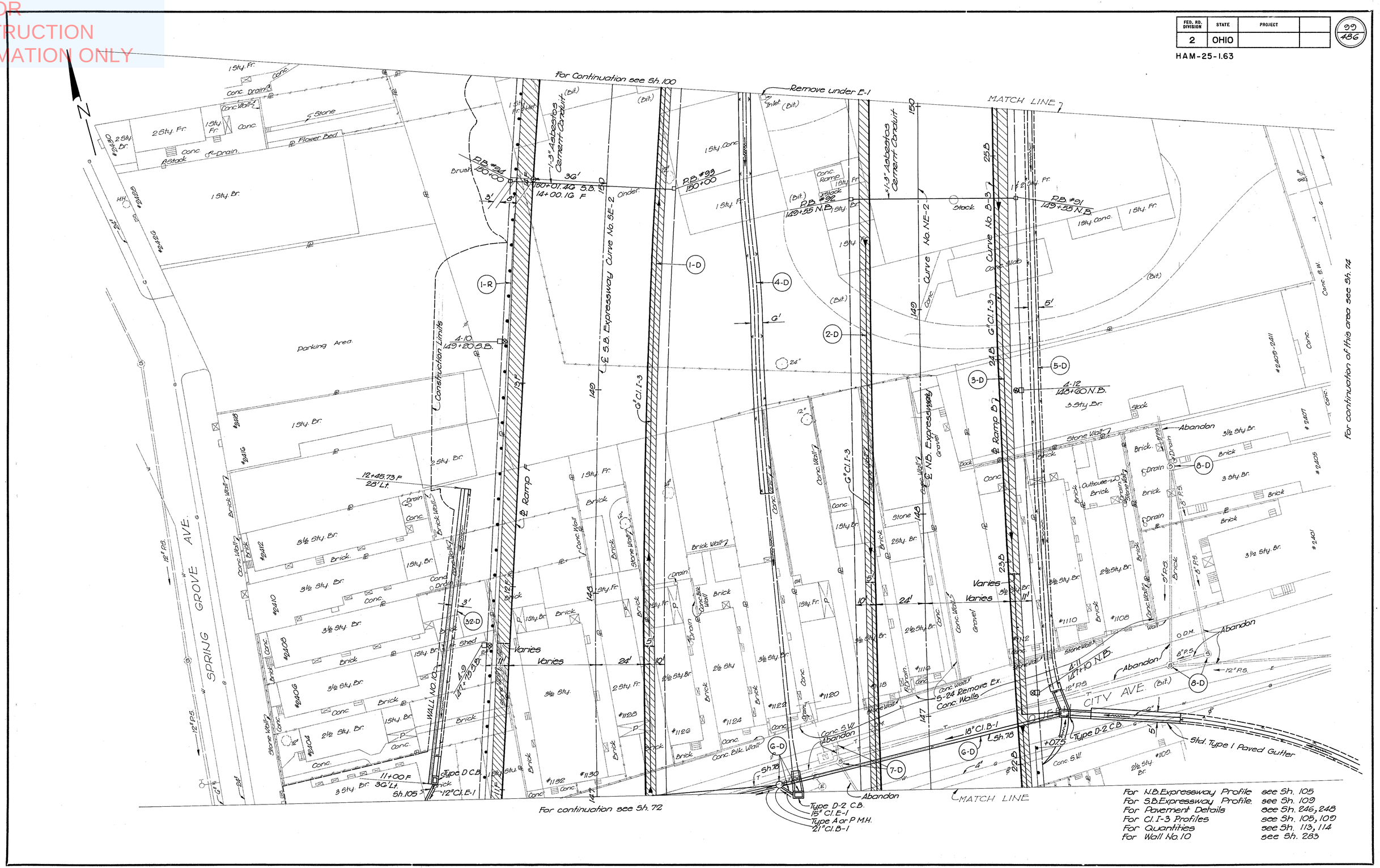

For N.B. Expressway Profile	see Sh. 105
For S.B. Expressway Profile	see Sh. 109
For Pavement Details	see Sh. 246, 248
For Cl. I-3 Profiles	see Sh. 105, 109
For Quantities	see Sh. 113, 114
For Wall No. 10	see Sh. 283

STA. 147+00 to STA. 150+50

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FED. RD. DIVISION	STATE	PROJECT	
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For continuation see Sh. 101

MATCH LINE

CENTRAL PARKWAY

COLERAIN AVE.

COOK ST. (Asphalt)

DRAPER (Asphalt)

Curve No. NE-3

Curve No. NE-2

Curve No. SE-2

Ramp B

Ramp D

Type G Curb

Type A or P Mtr.

Type D C.B.

Erosion Control See Detail Sh. No. 256

Concrete Railing See Detail Sh. 107

Remove Existing Stairways Item 5-24

Construction Limits

Swale Erosion Control Dumped Rock Channel Protection. See Detail Sh. No. 256

Meet exist. curb and walk

Meet Exist. walk and curb

Adjust to grade

Abandon

Grade area to drain

Remove under E-1

Fill under & Gravel. S-24 Remove Exist. Conc. Walls

Existing walk and curb to remain

Existing Rapid Transit Tubes

Billboard (Packer)

Flag Pole

Flower Bed

Stone Wall

Conc. Wall

Conc. Blk. Wall

Conc. Curb

Conc. Sidewalk

Conc. Slab

Conc. Railing

Iron Railing

Brick

Stone

Cinder

Gravel

Bit.

Dock

Tank

Porch

Shed

Drain

Inlet

Manhole

Abandon

Remove

Bridge

Sta. 153+80 S.B.

Sta. 153+35 N.B.

Sta. 152+75 N.B. (145' Rt.)

Sta. 151+75 N.B.

Sta. 151+26.09 B.C.C.

Sta. 150+90 N.B. 187'± Rt.

Sta. 150+80.38 S.B.

Sta. 150+15 N.B.

P.T. 2G+49.71 B

P.I. 153+45.38

+00

+50

+75

+45.38

+80.38

+90

+30.09

+26.09

+15

5-1

5-2

5-3

5-4

5-5

5-6

5-7

5-8

5-9

For N.B. Expressway Profile see Sh. 105, 106
For S.B. Expressway Profile see Sh. 109, 110
For Pavement Detail see Sh. 246, 248
For Cl. 1-3 Profiles see Sh. 105, 106, 109, 110
For Quantities see Sh. 113, 114
For Water Works see Sh. 430 & 431

For continuation see Sh. 99

For continuation this area see Sh. 74

STA. 150+50 to STA. 154+50

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STA. 154+50 to STA. 160+00

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MATCH LINE A

Gravel Drive
1 Sty. Fr. & Steel Frame
1 Sty. Br.
Gravel
Brick
Stack
Loading Dock
Construction Limits
Berm Line
5-19 160+20 S.B.
5-18 161+80 S.B.
5-17 163+20 S.B.
1-R
15-D
1 Sty. Conc. Blk. & Steel Frame
24-D
Erosion Control See Details Sh. 256
Type G Curb
4-R
3-P
3-R
Type A-2 C.B.
12"Cl. B-1
6"Cl. I-3
Type A or P M.H.
4-P
7-P
35-D
17-D
23-D
Swale Erosion Control Dumped Rock Channel Protection. See Detail Sh. No. 256
5-12 159+75 N.B.
TS 160+50.81
Underground Vault
Conc. Slab
Stone Wall ?
Gravel Drive
Construction Limits
Gate
Conc. Retaining Wall ?
Ex. R/W ?
Conc. S.W.
CENTRAL PKWY.
MATCH LINE
For Continuation see Sh. 101
For continuation see Sh. 103
2½ Sty. Br.
3½ Sty. Fr.
Drain
Conc.
Brick
Porch
Conc. Walk
Slope ¼" per Ft.
6-P
8-R
5-P
164+13.5 ℄ S.B. 118' Lt.
164+21.5 ℄ S.B. 90' Lt.
Type G Curb
Conc. S.W.
2½ Sty. Fr. Res.
#1028
#1027
#1025
#1023
#1022
#1020
#1013
Ex. R/W
12"Cl. B-1
5h. 111
25-D
29-D
7-R
Abandon
4"?
STRAIGHT ST.
12" P.S.
15-D
Type D C.B.
2½ Sty. Br.
Conc. Walk
Conc. Blk. Wall
Stone Wall
Porch
Drain
1 Sty. Br.
2 Sty. Fr.
1 Sty. Fr.
Curve No. SE-3
℄ S.B. Expressway
℄ N.B. Expressway
Curve No. NE-4
Asphalt
MASSACHUSETTS AVE.
Abandon
12" P.S.
28-D
36-D
3 Sty. Br.
5-R
20-D
27-D
Abandon
12" P.S.
Ex. R/W
Gravel Drive
Conc. Retaining Wall ?
Ex. R/W ?
Conc. S.W.
CENTRAL PKWY.
MATCH LINE
Sta. 160+00
Sta. 161+00
Sta. 162+00
Sta. 163+00
Sta. 164+00
Sta. 165+00
IG0
IG1
IG2
IG3
IG4
IG5
Ex. R/W
COLERAIN AVE.
15" P.S.
#2022
#2020
#2016
#2018
1 Sty. Fr. & Steel Frame
Gravel Drive
Conc.
Gravel
MATCH LINE A
See Sh. 101, 102

For N.B. Expressway Profile see Sh. 107, 108
For S.B. Expressway Profile see Sh. 111, 112
For C.I. I-3 Profiles see Sh. 107, 108, 111, 112
For Quantities see Sh. 113, 114
For Water Works see Sh. 432

STA. 160+00 to STA. 165+00

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2	OHIO		

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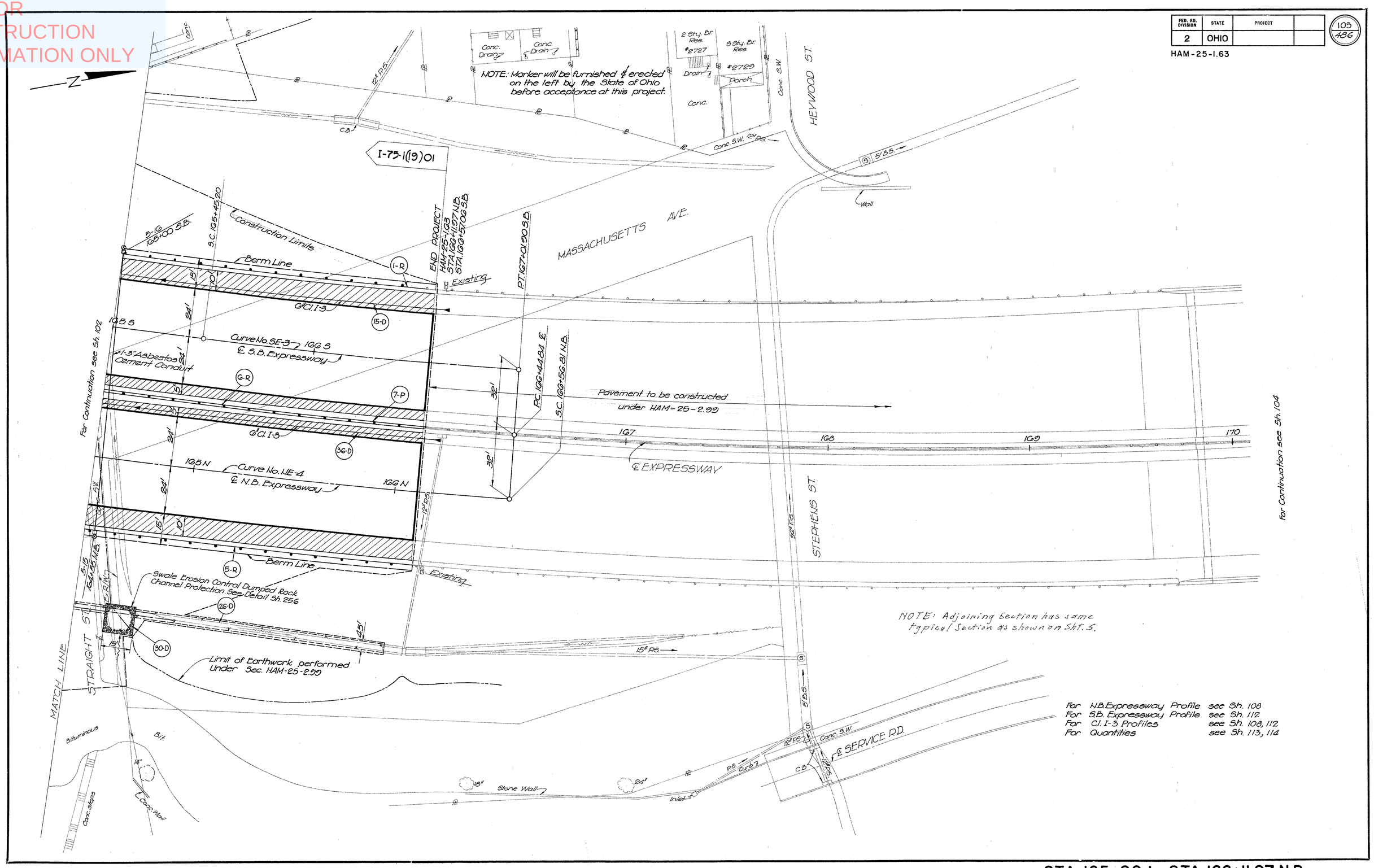
486

HAM-25-1.63



For N.B. Expressway Profile see Sh. 108
For S.B. Expressway Profile see Sh. 112
For Cl. I-3 Profiles see Sh. 108, 112
For Quantities see Sh. 113, 114

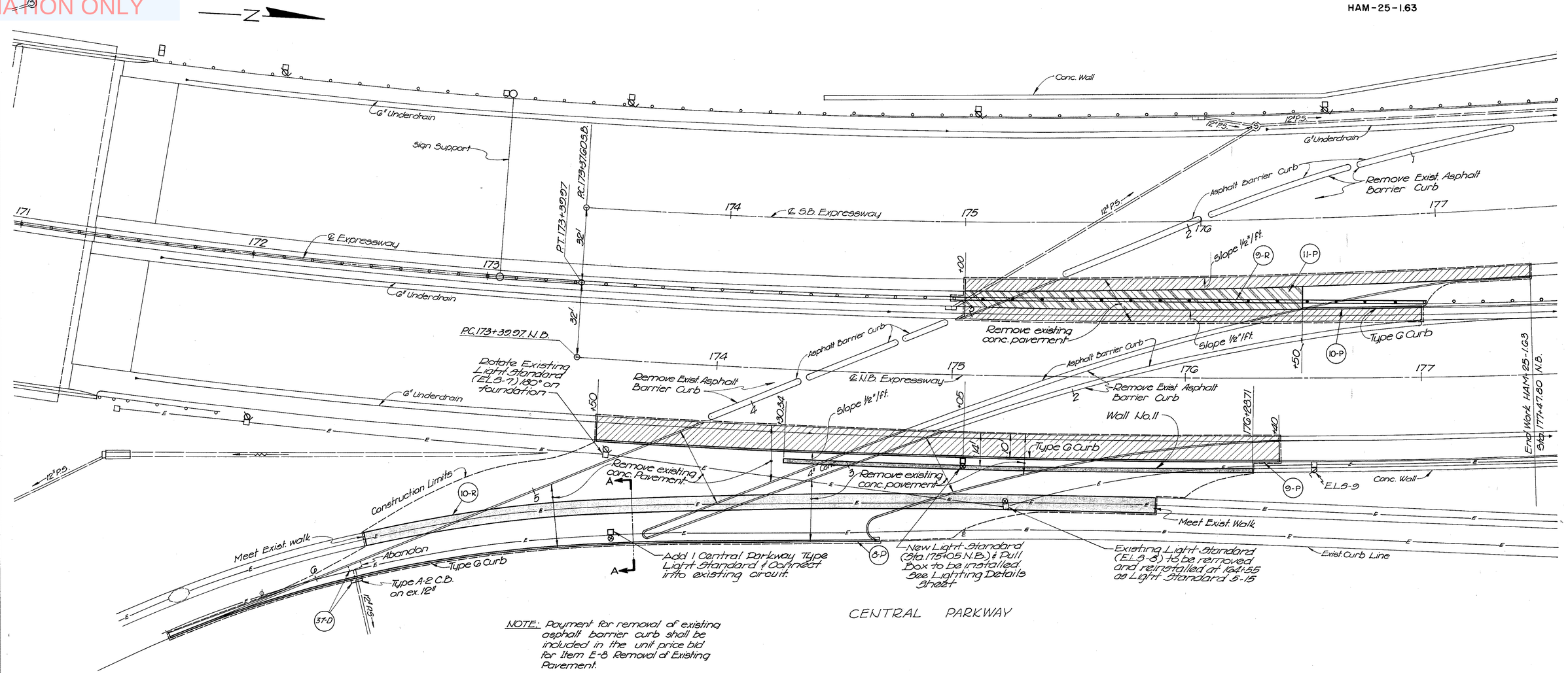
STA. 165+00 to STA. 166+11.97 N.B.

NOT FOR CONSTRUCTION INFORMATION ONLY

FED. RD. DIVISION	STATE	PROJECT	
2	OHIO		

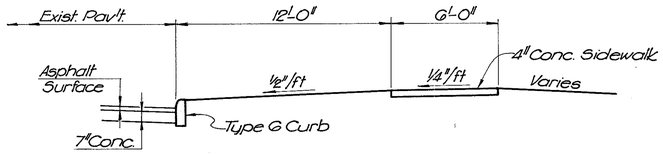
104
486

HAM-25-1.63



CENTRAL PARKWAY

NOTE: Payment for removal of existing asphalt barrier curb shall be included in the unit price bid for Item E-8 Removal of Existing Pavement.



SECTION A-A
Scale: ¼"=1'-0"

For Wall No. 11 see Sh. 284
For Quantities see Sh. 113, 114

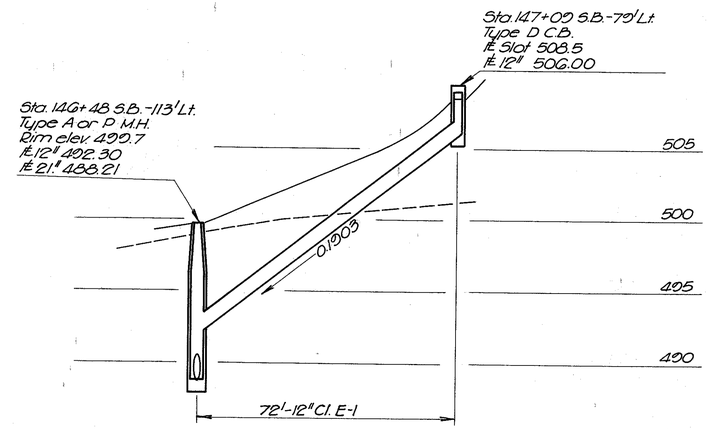
REMOVAL OF EXISTING TEMPORARY CONNECTION

NOT FOR
CONSTRUCTION
INFORMATION ONLY

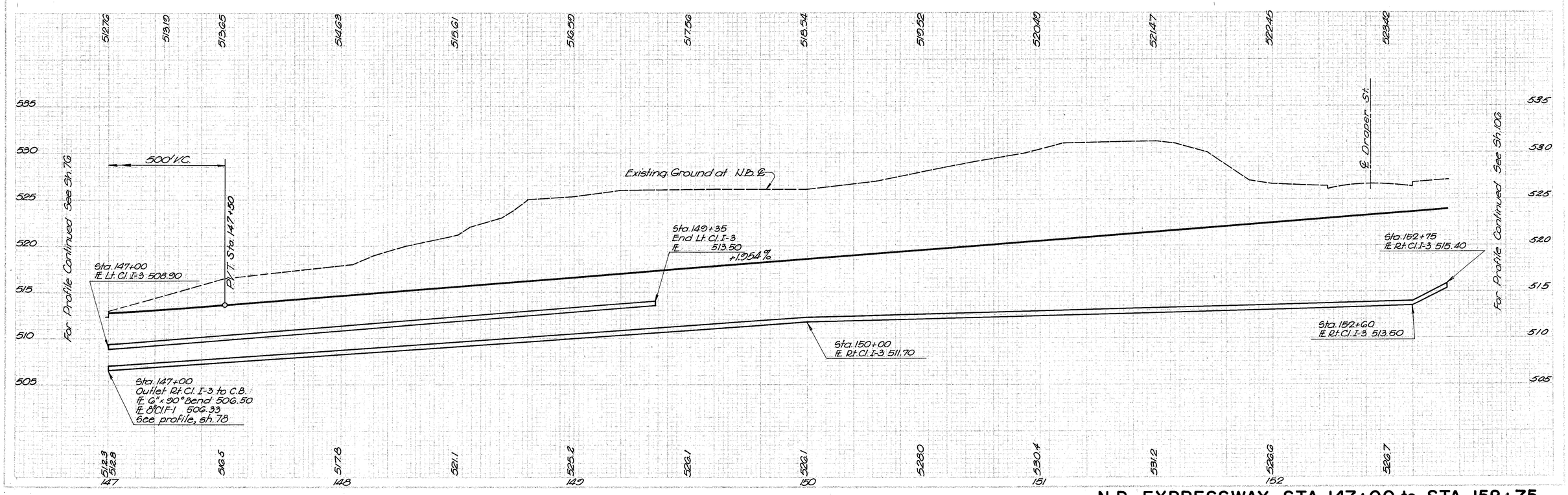
FED. AID PROJECT	STATE	PROJECT	
2	OHIO		

105
486

HAM-25-1.63

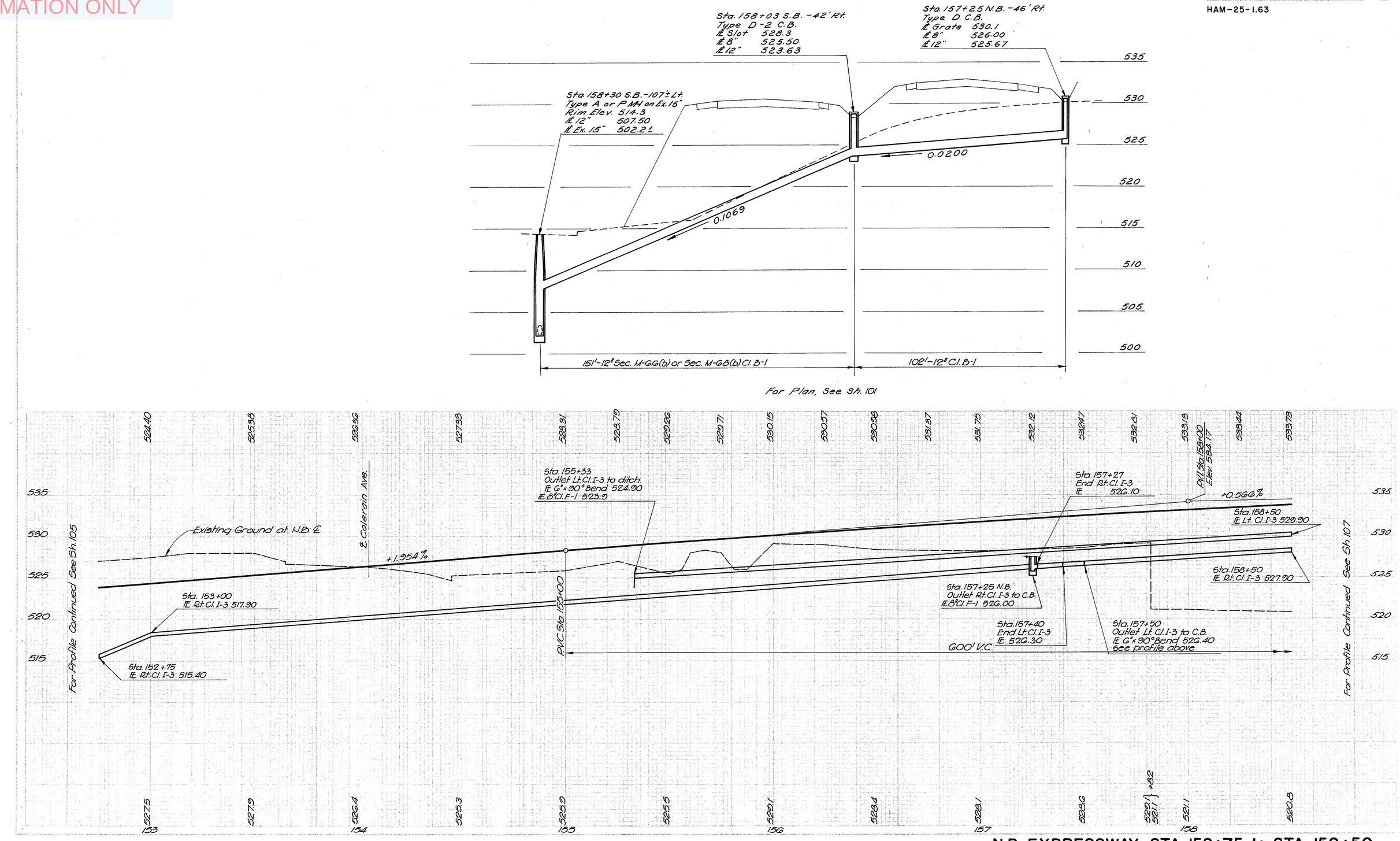


For Plan, see Sh. 72, 99



N.B. EXPRESSWAY STA. 147+00 to STA. 152+75

NOT FOR
CONSTRUCTION
INFORMATION ONLY



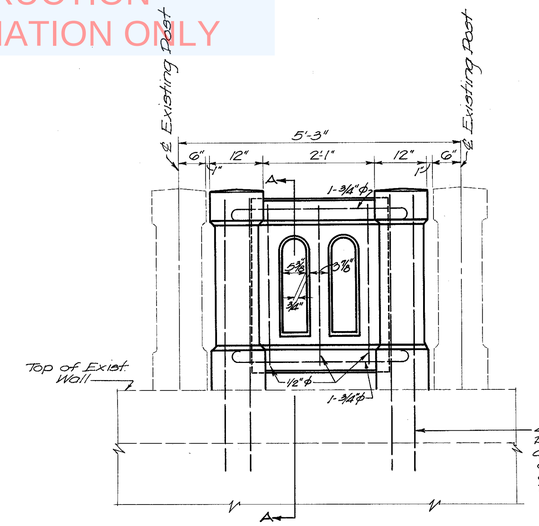
N.B. EXPRESSWAY STA. 152+75 to STA. 158+50

NOT FOR CONSTRUCTION INFORMATION ONLY

FED. ROAD PROJECT	STATE	PROJECT	
2	OHIO		

107
486

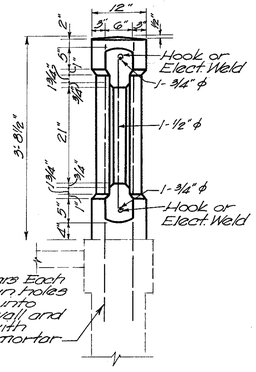
HAM-25-1.63



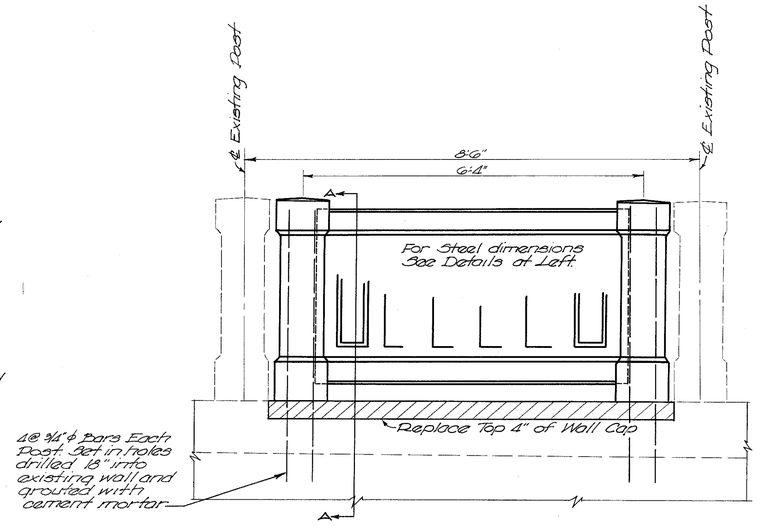
DETAIL CONCRETE RAILING

Scale 3/4" = 1'-0"

STA. 148 + 90 (N.B.) 260' RT.
(See Sheet 74)
(S-14 4.25 Lin. Ft.)



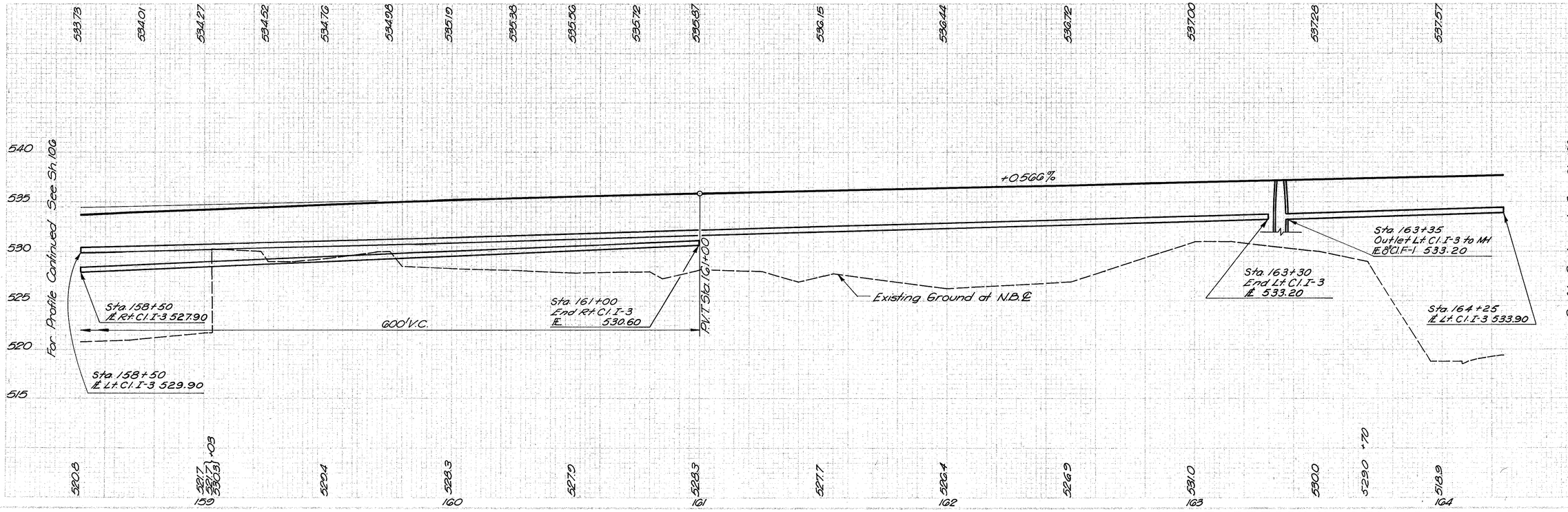
SECTION "A-A"



DETAIL CONCRETE RAILING

Scale: 3/4" = 1'-0"

STA. 152 + 75 (N.B.) 145' RT.
(See Sheet 100)
(S-14 7.50 Lin. Ft.)



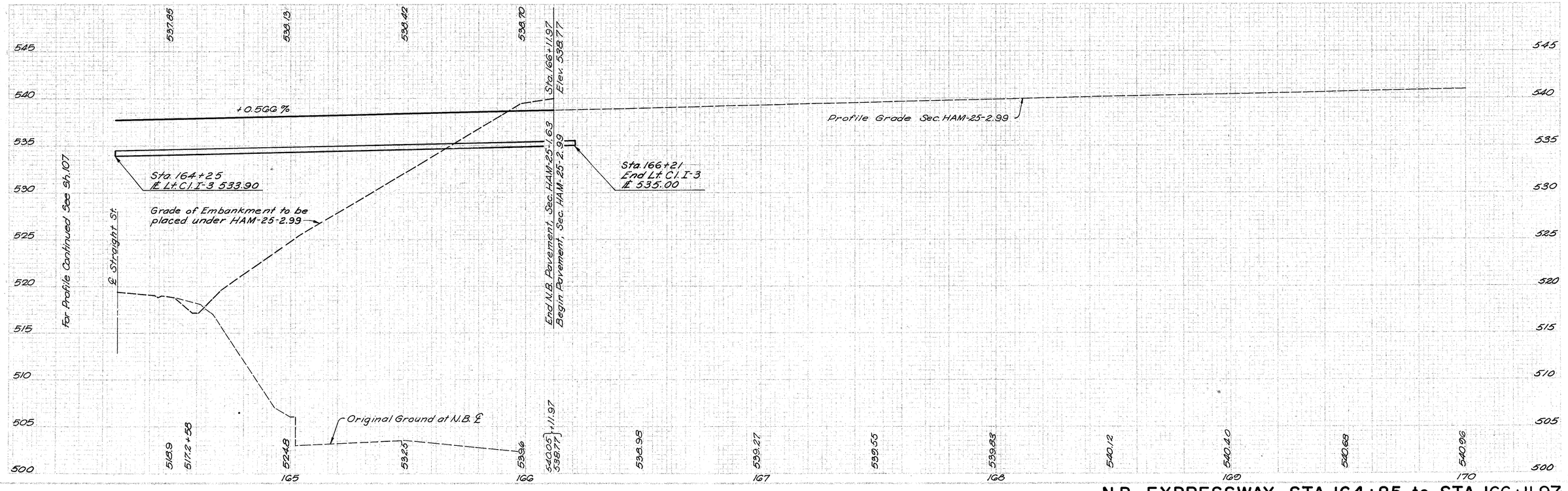
N.B. EXPRESSWAY STA. 158+50 to STA. 164+25

NOT FOR
CONSTRUCTION
INFORMATION ONLY

PROJ. NO. SECTION	STATE	PROJECT	
2	OHIO		

108
486

HAM-25-1.63



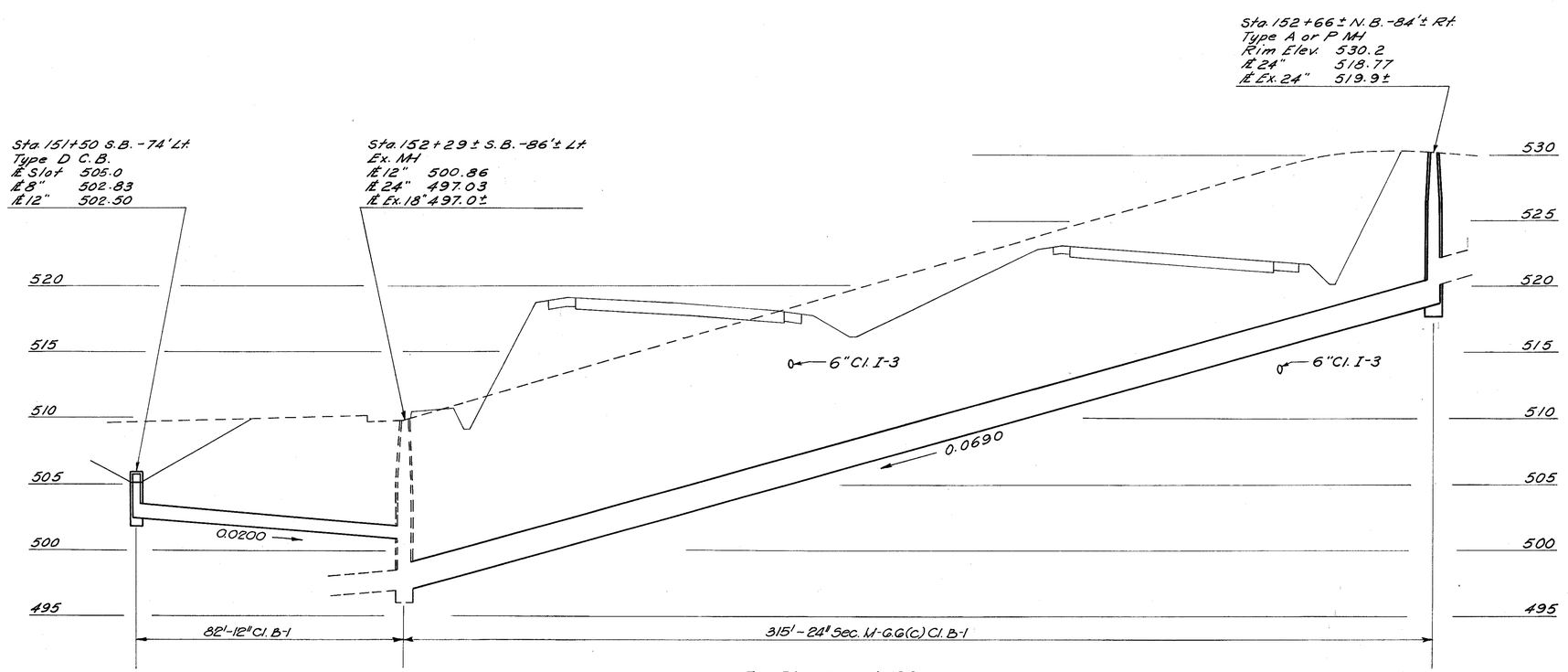
N.B. EXPRESSWAY STA. 164+25 to STA. 166+11.97

NOT FOR CONSTRUCTION INFORMATION ONLY

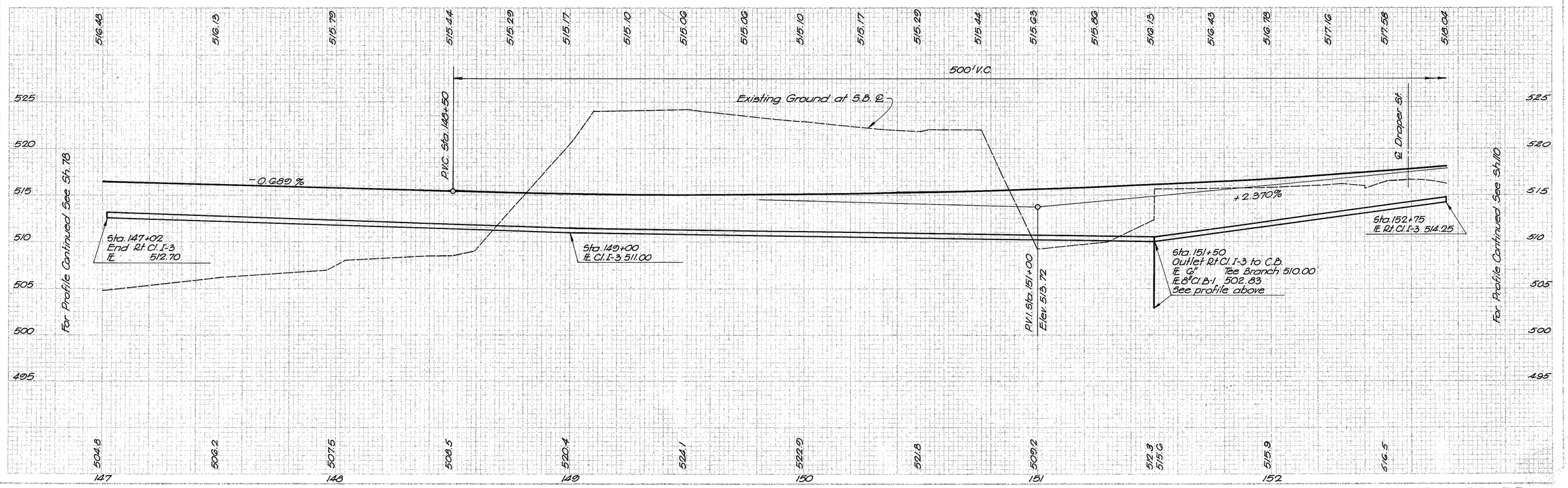
FED. RD. DIV.NO.	STATE	PROJECT	
2	OHIO		

109
486

HAM-25-1.63



For Plan, See Sh. 100



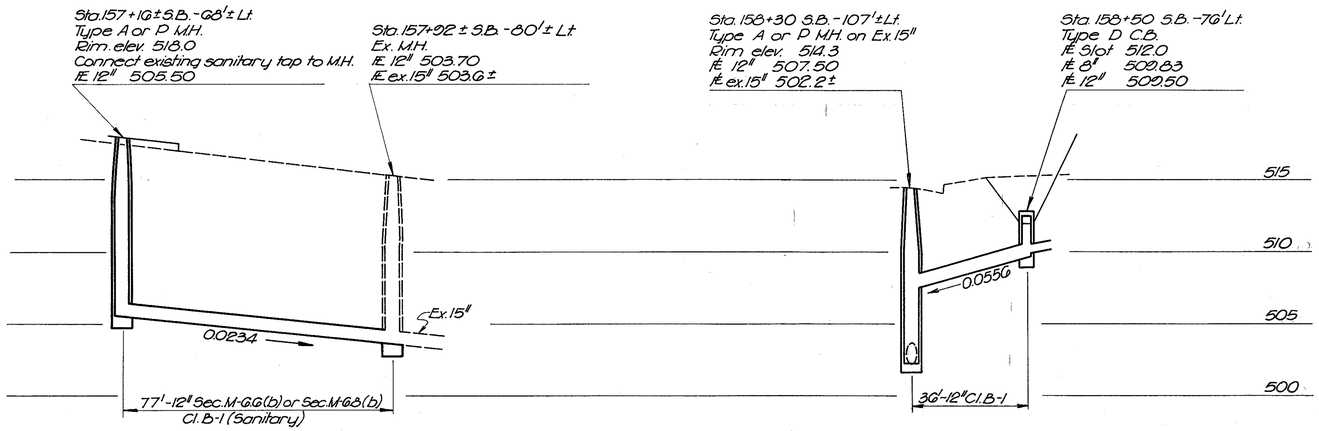
S.B. EXPRESSWAY STA. 147+00 to STA. 152+75

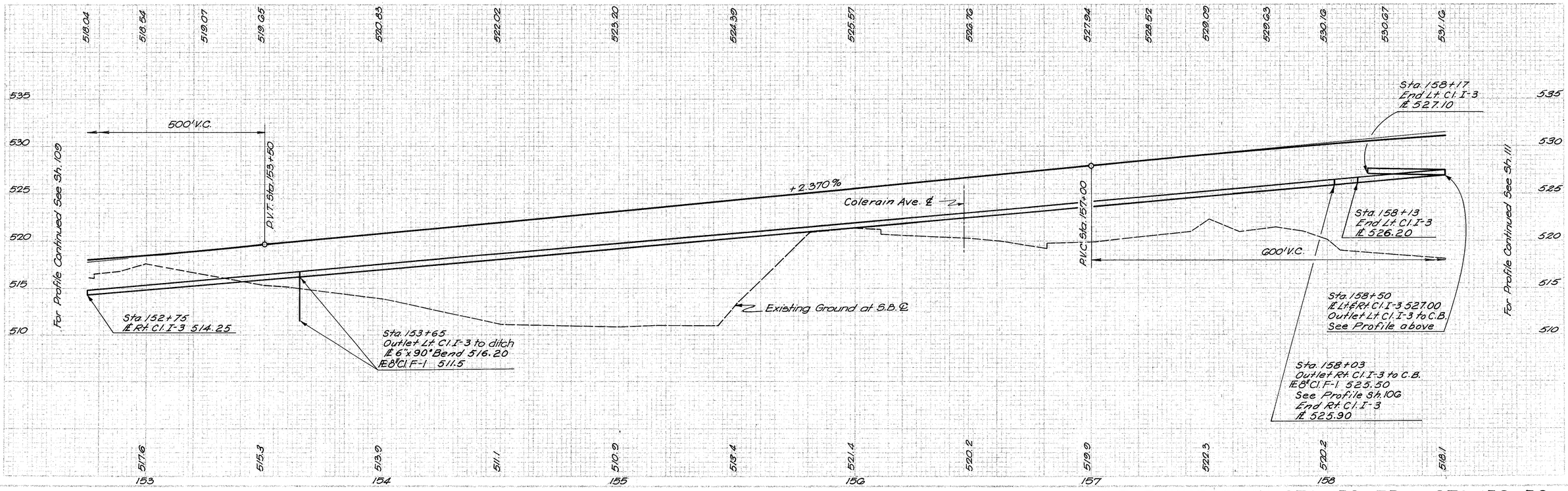
NOT FOR
CONSTRUCTION
INFORMATION ONLY

FED. ROAD DIVISION	STATE	PROJECT	
2	OHIO		

110
486

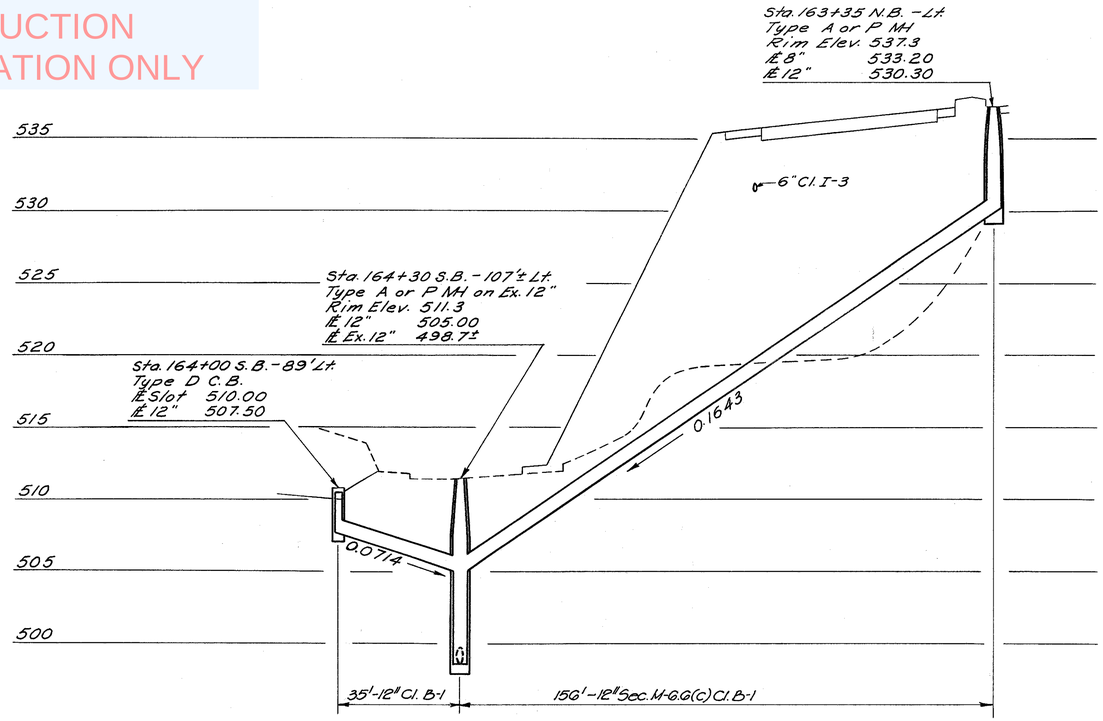
HAM-25-1.63



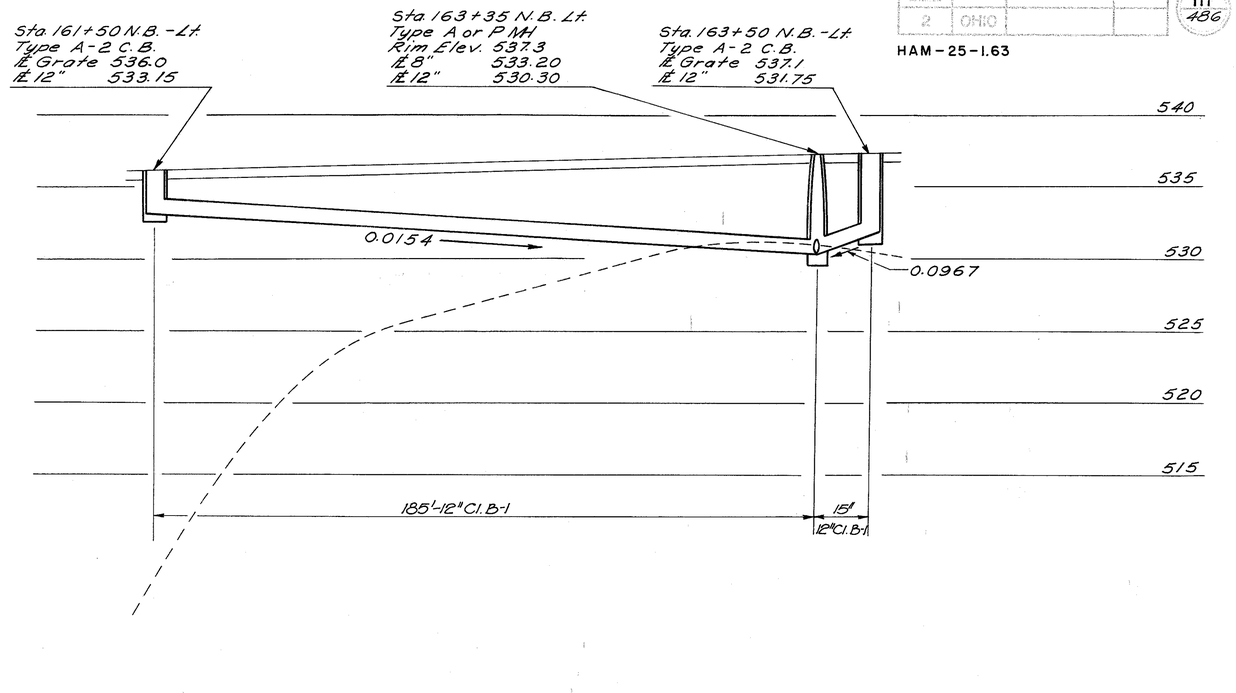


S.B. EXPRESSWAY STA. 152+75 to STA. 158+50

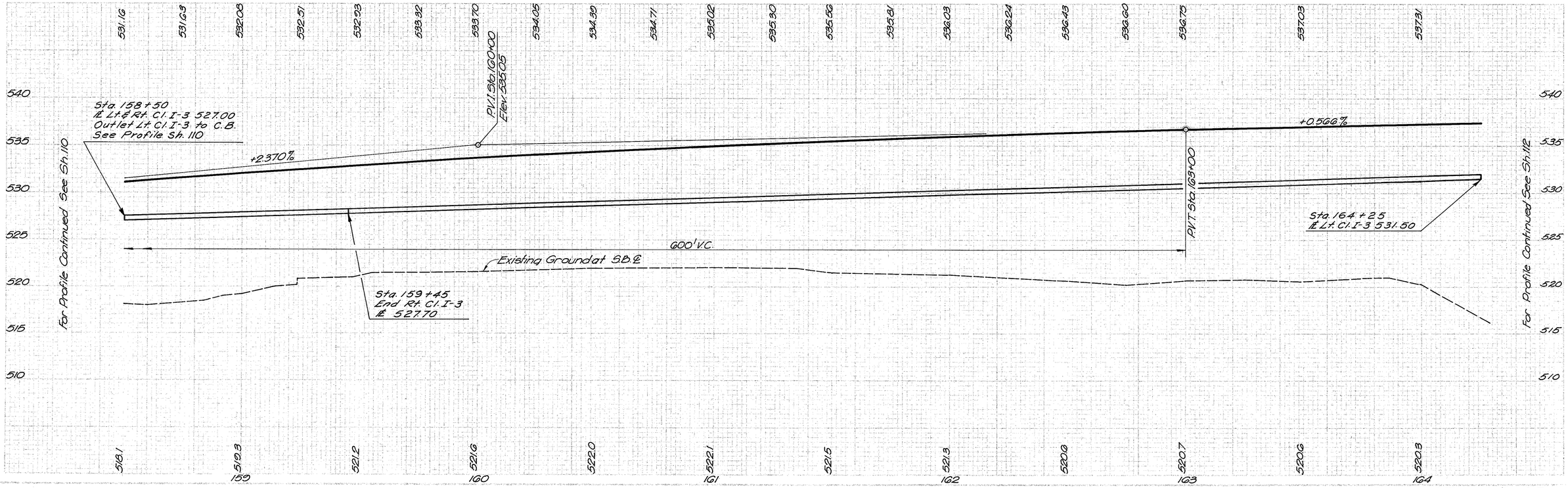
NOT FOR CONSTRUCTION INFORMATION ONLY



For Plan, See Sh. 102



For Plan, See Sh. 102



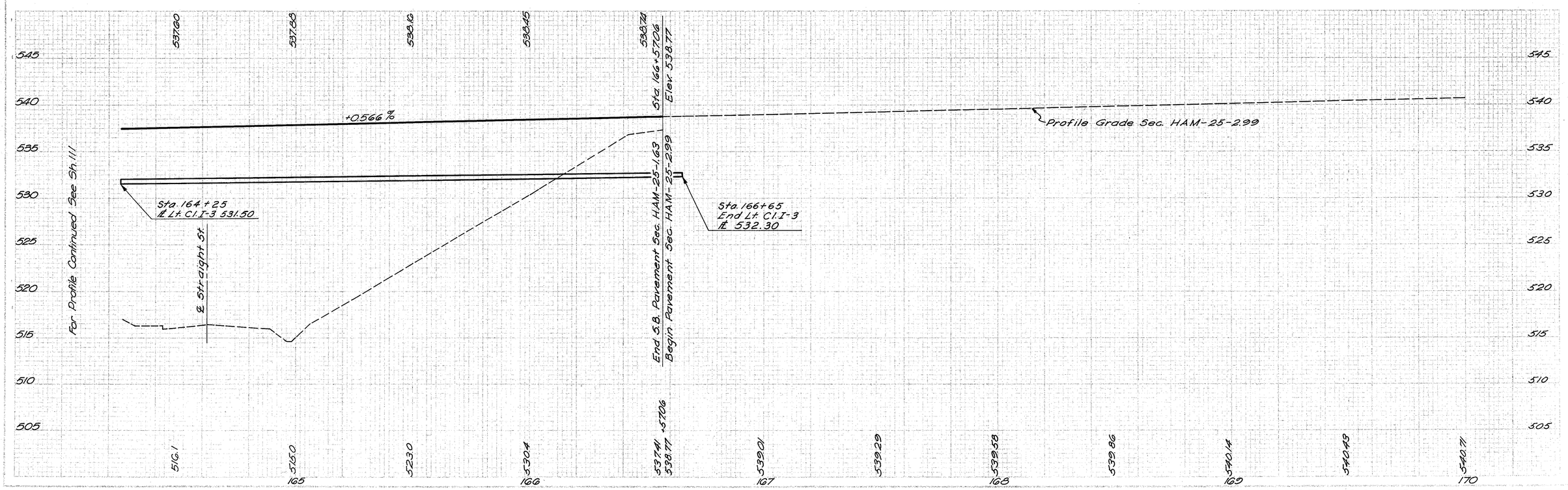
S.B. EXPRESSWAY STA. 158+50 to STA. 164+25

NOT FOR
CONSTRUCTION
INFORMATION ONLY

BUR. OF PR. DIVISION	STATE	PROJECT	
2	OHIO		

112
~~136~~

HAM-25-I.63



S.B. EXPRESSWAY STA. 164+25 to STA. 166+57.06

NOT FOR CONSTRUCTION INFORMATION ONLY

ESTIMATED QUANTITIES

FED. RD. DIVISION	STATE	PROJECT	
2	OHIO		

HAM-25-1.63

113
486

STATION to STATION or REFERENCE NO.	Item T-71 Reinforced Portland Cement Concrete Pavement		Item I-22 Subbase		Item T-31 Bituminous Surface Treatment		Item B-21 Water proofed Aggregate Base Course Type B	Item I-18 Stabilized Crushed Aggregate Shoulders and Approaches	Item T-10 Portland Cement Concrete Pavement	Item I-7 Reinforced Concrete Approach Slabs	Item I-21 Portland Cement Concrete Median and Traffic Island Pavement			Item I-12 Concrete Curb				Item I-13 4" Concrete Sidewalk	Item I-15 Guard Rail		Item I-13 Concrete Steps	Item T-35 Asphaltic Concrete Surface Course Type C	Item B-10 Asphaltic Concrete Leveling Course	Item I-13 8" Portland Cement Concrete Base Course	Item T-30 Bituminous Prime and Tack Coats		Item 3-14 Concrete Railing as per plan	Sheet No.
	10 inch	9 inch	Grading A or B	Grading C or D	Brt. Material	Aggregate No. 6	Type B		8 Inch		4" Median Pavt.	Type 2 Modified Median Pavt.	6" Traffic Island Pavt.	Type 2A	Type 2B	Type 6	Special Barrier		Standard	Barrier					Tack Coat	Prime Coat		
	Sq. Yd.	Sq. Yd.	Cu. Yd.	Cu. Yd.	Gal.	Cu. Yd.	Cu. Yd.	Cu. Yd.	Sq. Yd.	Sq. Yd.	Sq. Yd.	Sq. Yd.	Sq. Yd.	Lin. Ft.	Lin. Ft.	Lin. Ft.	Lin. Ft.	Sq. Ft.	Lin. Ft.	Lin. Ft.	Lin. Ft.	Cu. Yd.	Cu. Yd.	Sq. Yd.	Gal.	Gal.	Lin. Ft.	
Expressway (N.B.) 140+64 to 160+11.97	11,605.2		2470.2		799	25.6	266.4	454.2																				99,100,101,102,103
Expressway (S.B.) 147+00 to 160+57.06	11,440.2		2464.4		789	25.2	262.9	451.1																				99-103
Expressway at Temporary Conn.					141	4.5	46.9	79.7																				104
1-P																348												100,101
2-P																83												100
3-P																426												101, 102
4-P																254												102
5-P																36												102
6-P									46.5					69														102
7-P												295.1																102, 103
8-P																307												104
9-P																291												104
10-P																50												104
11-P												132.0																104
12-P																375												100,101
13-P																72												101
1-R																			1062.5									99,100,101,102,103
2-R																		485										100
3-R																			987.5									100, 101, 102
4-R																			425.0									101, 102
5-R																			312.5									102, 103
6-R																				337.5								102, 103
7-R																			25.0									102
8-R																		71										102
9-R																				200.0								104
10-R																		2022										104
11-R																			75.0									101
12-R																			100.0									101
13-R																			100.0									101
14-R																											4.25	74
15-R																											7.50	100
Totals to General Summary	23045.4		4934.6		1729	55.3	576.2	985.0	46.5			427.1		69		2242		2578	3987.5	537.5							11.75	

QUANTITIES

NOT FOR CONSTRUCTION INFORMATION ONLY

ESTIMATED QUANTITIES

FED. RD. DIVISION	STATE	PROJECT	
2	OHIO		

HAM-25-1.63

114
486

REF. NO.	STATION TO STATION	SIDE	I-5 Pipe Specials Class I-3 Each: 6" 60° Bend	8" 90° Bend		6" Tee	6"x8" Increaser	I-1 Pipe Culverts, Sewers and Drains Class B-1 Linear Feet: 8"	12"	12" GG(b) G.8(b)	12" GG(c)	18" GG(b) G.8(b)	24" GG(c)	E-1 15"	F-1 8"	I-3 6" shallow	6" deep	I-8 Catch Basins Each: A-2	D	Manholes: D-2	A or P	Adjusted to Grade	I-2 Erosion Control Cl. "E" Cu.Yd.	I-10 Concrete Slope Protection Sq.Yd.	Dumped Rock Channel Protection Cu.Yd.	I-16 Manholes Abandoned Each	Catch Basins Abandoned	L-10 Sod Sq.Yd.	SEE SHEET NO.
	Drainage																												
1-D	147+02 S.B. to 158+03 S.B.	Rt.				1	1	100								1101													
2-D	146+65 N.B. to 149+35 N.B.	Lt.														272													
3-D	147+00 N.B. to 157+27 N.B.	Rt.		1											10		1037												
4-D	148+50 S.B. to 158+25 S.B.	Rt.																										688	
5-D	147+11 N.B. to 158+40 N.B.	Rt.																										348	
6-D	147+00 S.B. to 147+00 N.B.	Rt.									145			10					2	1									
7-D	146+85± N.B.	Lt.																								1	1		
8-D	147+20± N.B. to 148+20 N.B.	Rt.																								3			
9-D	153+05 S.B. to 156+13 S.B.	Lt.		1											10	468													
10-D	151+50 S.B. to 152+66± N.B.	Lt. & Rt.							82				315						1		1	1							
11-D	152+25± S.B. to 152+60± S.B.	Lt.																				1					2		
12-D	152+70± S.B.	Rt.																								1			
13-D	152+25± N.B. to 152+50± N.B.	Rt.																								1	1		
14-D	153+45 N.B.	Rt.																					2.0	16					
15-D	158+17 S.B. to 166+65 S.B.	Lt.				1									10	884													
16-D	155+33 N.B. to 157+40 N.B.	Lt.		1											10	235													
17-D	157+25 N.B to 161+00 N.B.	Rt.	1												10	375													
18-D	153+95± N.B.	Rt.																								1			
19-D	155+15± N.B.	Lt.																								1	1		
20-D	156+80± S.B.	Lt.																								1			
21-D	157+25 N.B. to 158+50 S.B.	Lt. & Rt.							138	151									2	1	1								
22-D	158+45 N.B.	Lt.																					4.2	23	8				
23-D	159+95± N.B.	Rt.																					2.5	13					
24-D	160+70 S.B.	Rt.																											
25-D	161+50 N.B. to 164+30 S.B.	Lt.							235		156								2	1		2						177	
26-D	162+75 N.B. to 166+00± N.B.	Rt.																								1			
27-D	164+45± N.B.	Rt.																								1	1		
28-D	164+20± N.B. to 164+45± N.B.	Lt. & Rt.																								1	1		
29-D	164+35± S.B.	Lt.																											
30-D	164+75± N.B.	Rt.																							12				
31-D	151+61± S.B. to 152+50± S.B.	Lt.																										40	
32-D	147+20± S.B. to 148+50± S.B.	Lt.																										44	
33-D	153+70 S.B.	Lt.																							15				
34-D	158+03 S.B. to 159+45 S.B.	Rt.	1												10	142													
35-D	157+50 N.B. to 163+30 N.B.	Lt.		1											10	596													
36-D	163+35 N.B. to 166+21 N.B.	Lt.													10	276													
37-D	6+17± Temporary Connection	Rt.																	1								1		
38-D	157+16± S.B. to 157+92± S.B.	Lt.								77											1						1		
39-D	157+80± S.B.	Lt.																											
TOTALS			2	4		2	1		100	455	228	156	145	315	10	80	4349	1037		3	4	3	6	2	9.6	52	35		12	9		1207	

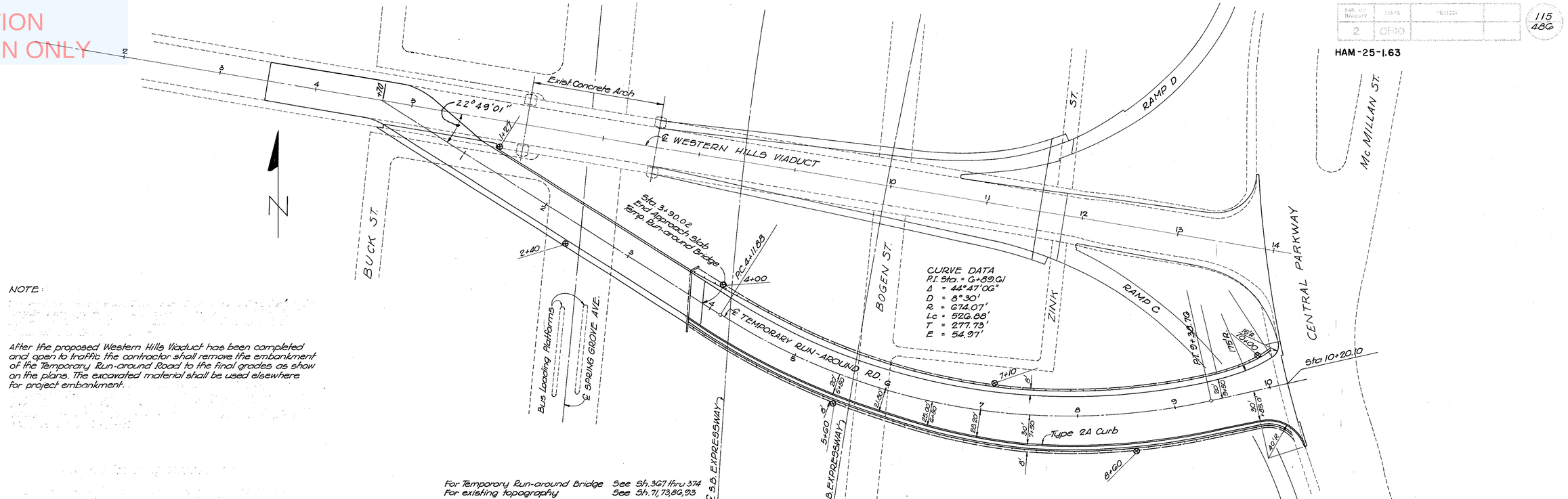
QUANTITIES

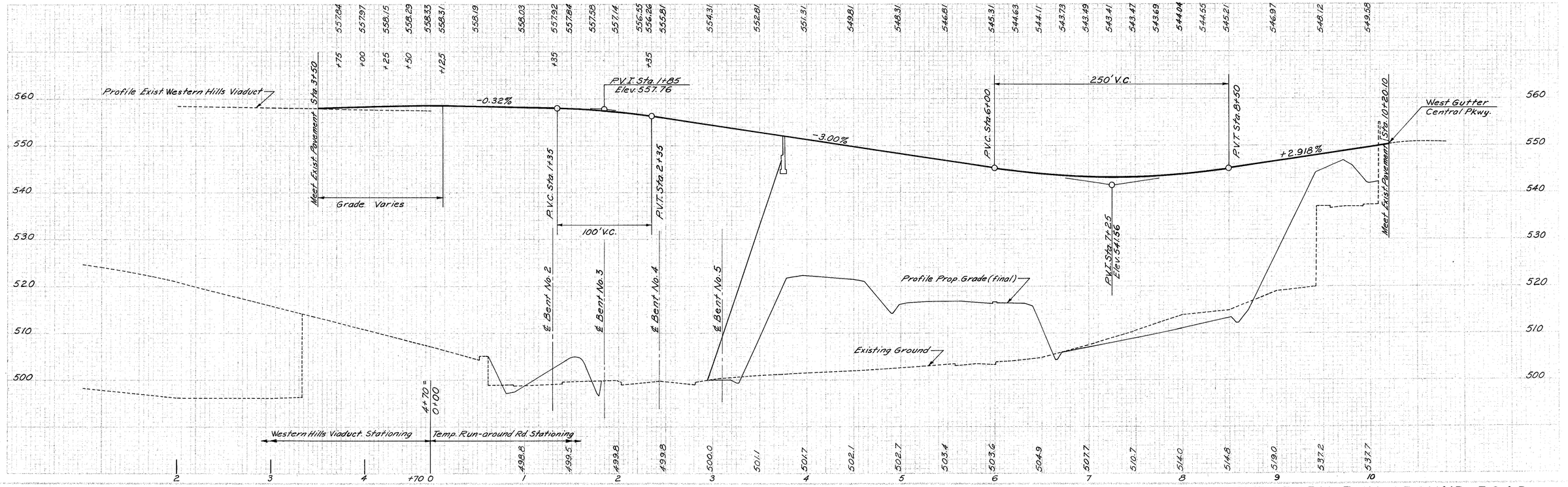
NOT FOR CONSTRUCTION INFORMATION ONLY

SHEET NO.	TOTAL SHEETS	PROJECT	
2	6510		

115
486

HAM-25-1.63





TEMPORARY RUN-AROUND ROAD

NOT FOR CONSTRUCTION INFORMATION ONLY

FED. RD. DIVISION	STATE	PROJECT	
2	OHIO		

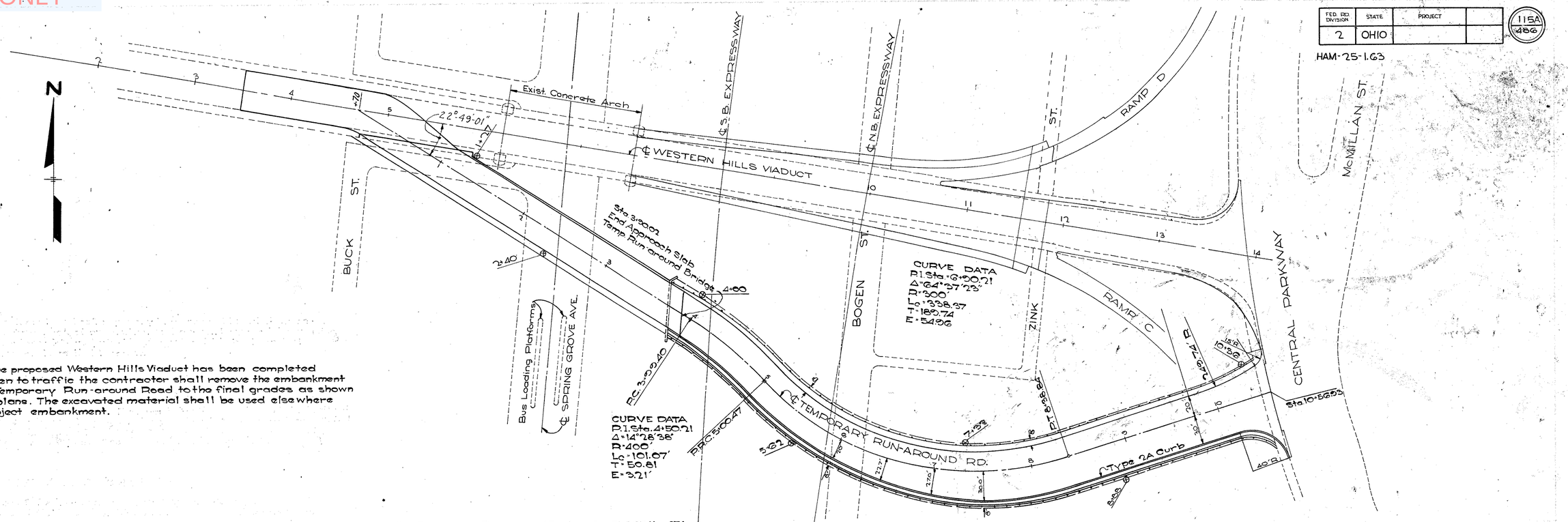
115A 486

HAM-25-1.63

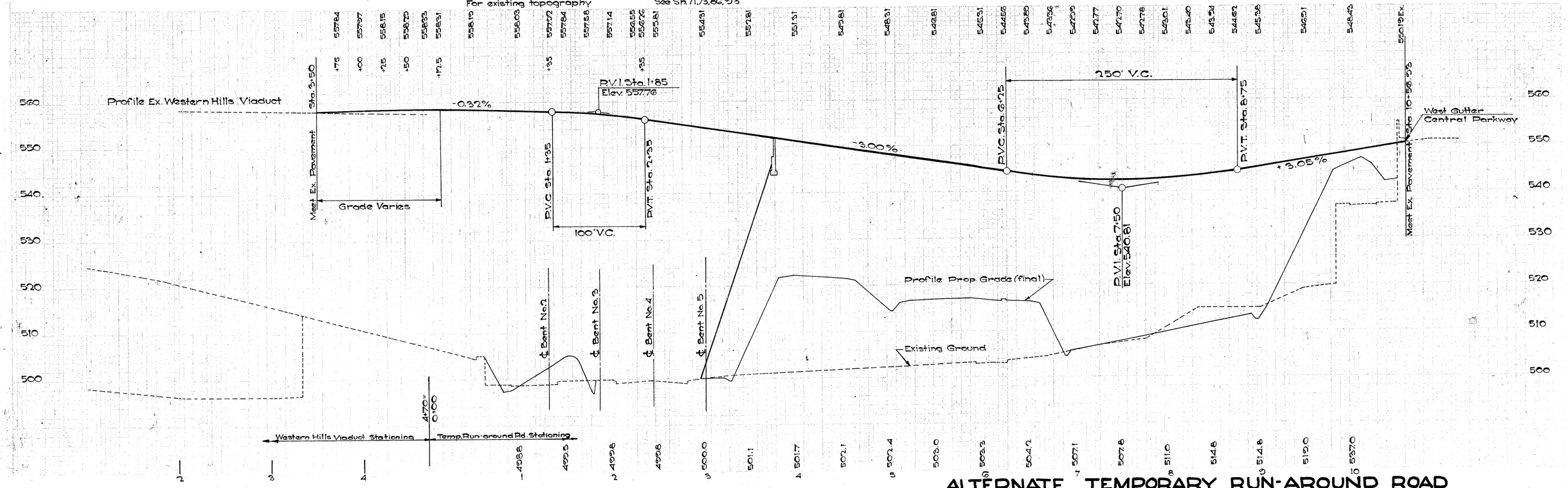
N

NOTE:

After the proposed Western Hills Viaduct has been completed and open to traffic the contractor shall remove the embankment of the Temporary Run-around Road to the final grades as shown on the plans. The excavated material shall be used elsewhere for project embankment.



For Temporary Run-around Bridge See Sh. 367 thru 374
For existing topography See Sh. 71, 73, 86, 93



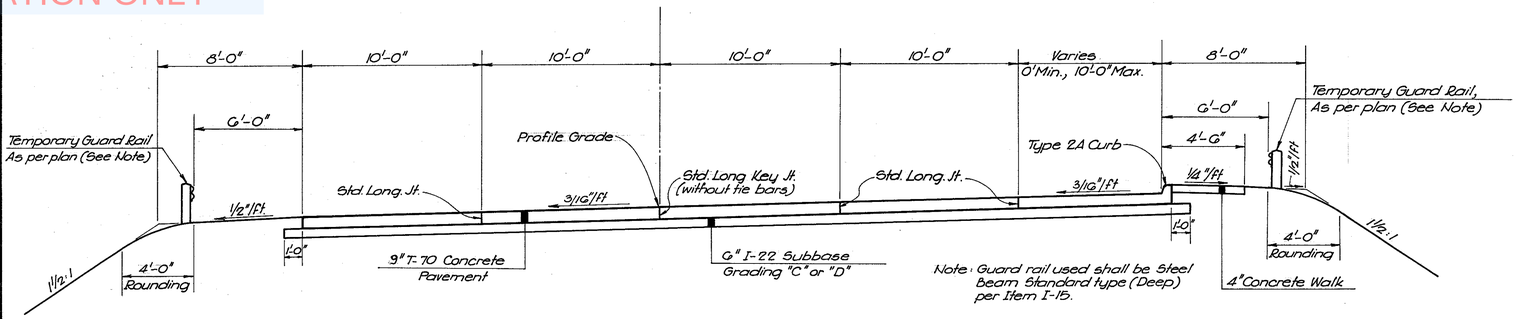
ALTERNATE TEMPORARY RUN-AROUND ROAD

NOT FOR CONSTRUCTION INFORMATION ONLY

FED. RD. DIVISION	STATE	PROJECT	
2	OHIO		

116
486

HAM-25-1.63



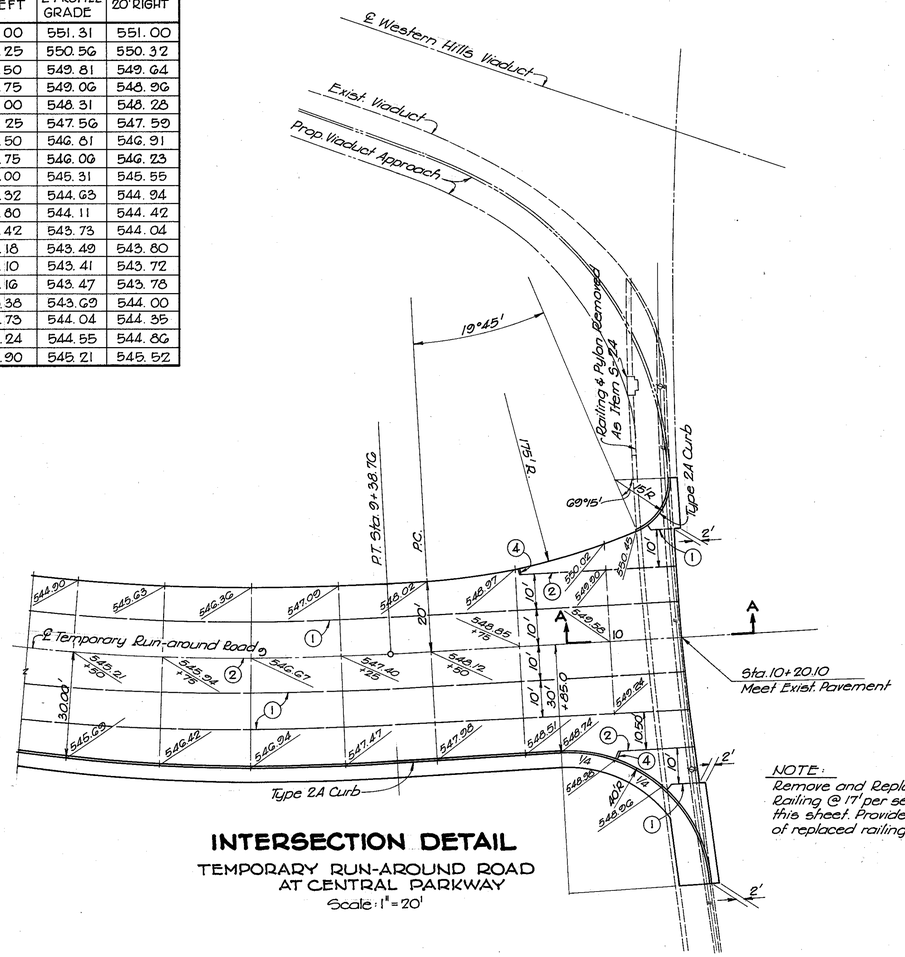
TYPICAL SECTION

TEMPORARY RUN-AROUND ROAD
AT WESTERN HILLS VIADUCT

TYPE T-70

Scale: 1/4" = 1'-0"

PAVEMENT ELEVATIONS			
STATION	20' LEFT	℄ PROFILE GRADE	20' RIGHT
4+00	551.00	551.31	551.00
+25	550.25	550.56	550.32
+50	549.50	549.81	549.64
+75	548.75	549.06	548.96
5+00	548.00	548.31	548.28
+25	547.25	547.56	547.59
+50	546.50	546.81	546.91
+75	545.75	546.06	546.23
6+00	545.00	545.31	545.55
+25	544.32	544.63	544.94
+50	543.80	544.11	544.42
+75	543.42	543.73	544.04
7+00	543.18	543.49	543.80
+25	543.10	543.41	543.72
+50	543.16	543.47	543.78
+75	543.38	543.69	544.00
8+00	543.73	544.04	544.35
+25	544.24	544.55	544.86
+50	544.90	545.21	545.52



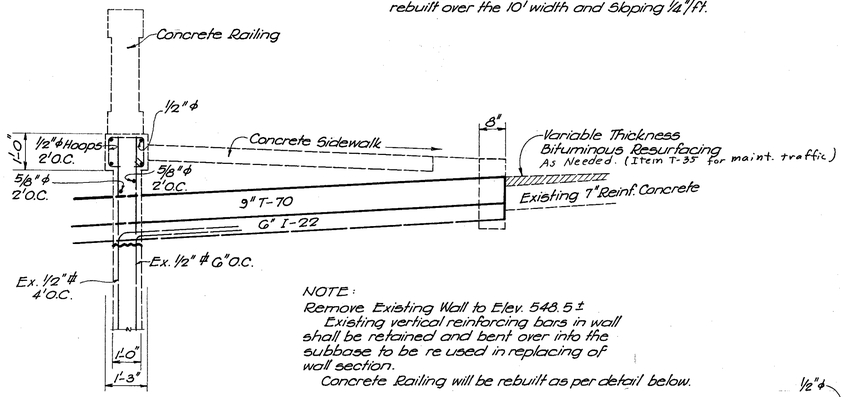
INTERSECTION DETAIL

TEMPORARY RUN-AROUND ROAD
AT CENTRAL PARKWAY

Scale: 1" = 20'

NOTE:
Remove and Replace 6 Sections of Concrete Railing @ 17' per section for 102 Lin.Ft. as per detail this sheet. Provide one expansion joint at mid point of replaced railing as per expansion post detail.

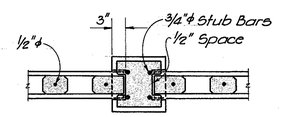
NOTE:
Remove Existing 8" Concrete Curb and Concrete Sidewalk.
Curb will be rebuilt and a 4" Sidewalk rebuilt over the 10' width and Sloping 1/4"/Ft.



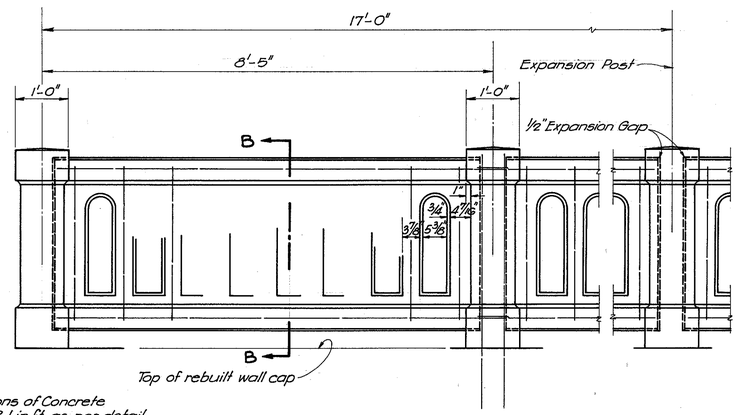
SECTION A-A

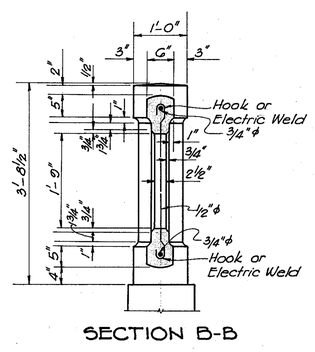
Scale: 1/2" = 1'-0"

NOTE:
Existing vertical reinforcing bars in wall shall be retained and bent over into the subbase to be re used in replacing of wall section.
Concrete Railing will be rebuilt as per detail below.



SECTION THRU EXPANSION POST





SECTION B-B

DETAIL

OF CENTRAL PARKWAY CONCRETE RAILING
TO BE REMOVED AND REBUILT

Scale: 3/4" = 1'-0"

NOT FOR CONSTRUCTION INFORMATION ONLY

FED. RD. DIVISION	STATE	PROJECT	
2	OHIO		

HAM-25-1.63

11.1 QA 486

NOTES:

Two different alignments are detailed in this plan for the temporary run-around road. Quantities have been tabulated and carried to the General Summary for the alignment labled "Alternate Temporary Run-Around Road". The exact alignment to be used shall be determined by the Engineer at the time of construction and the quantities adjusted at the time of final measurement.

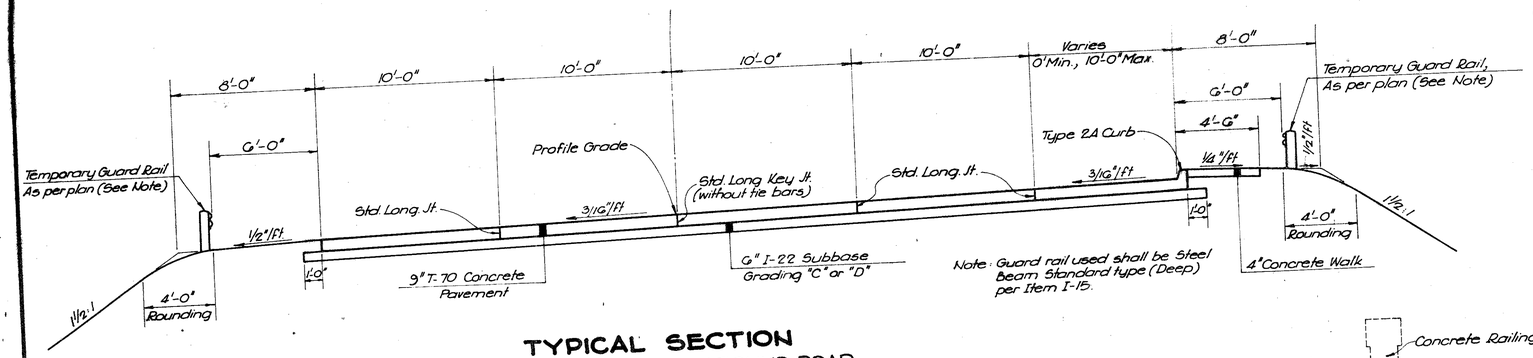
All materials, labor and equipment necessary to build, maintain and remove the temporary run-around road, including any temporary drainage work necessary, except for the work included in the seperately listed items, shall be included for payment in the lump sum price bid for Maintaining Traffic.

For details of lighting see Sheet No. 261

The provisions of Sec. 5-15.06 shall apply to "Item T-70, 9" Portland Cement Concrete Pavement, As Per Plan"

ITEM-I-12 STD. TYPE 6 CURB, MODIFIED

This item is intended to replace the existing curb along Central Parkway which is removed to build the temporary run-around road. This curb shall be built as nearly as practicable to the dimensions of the existing curb.

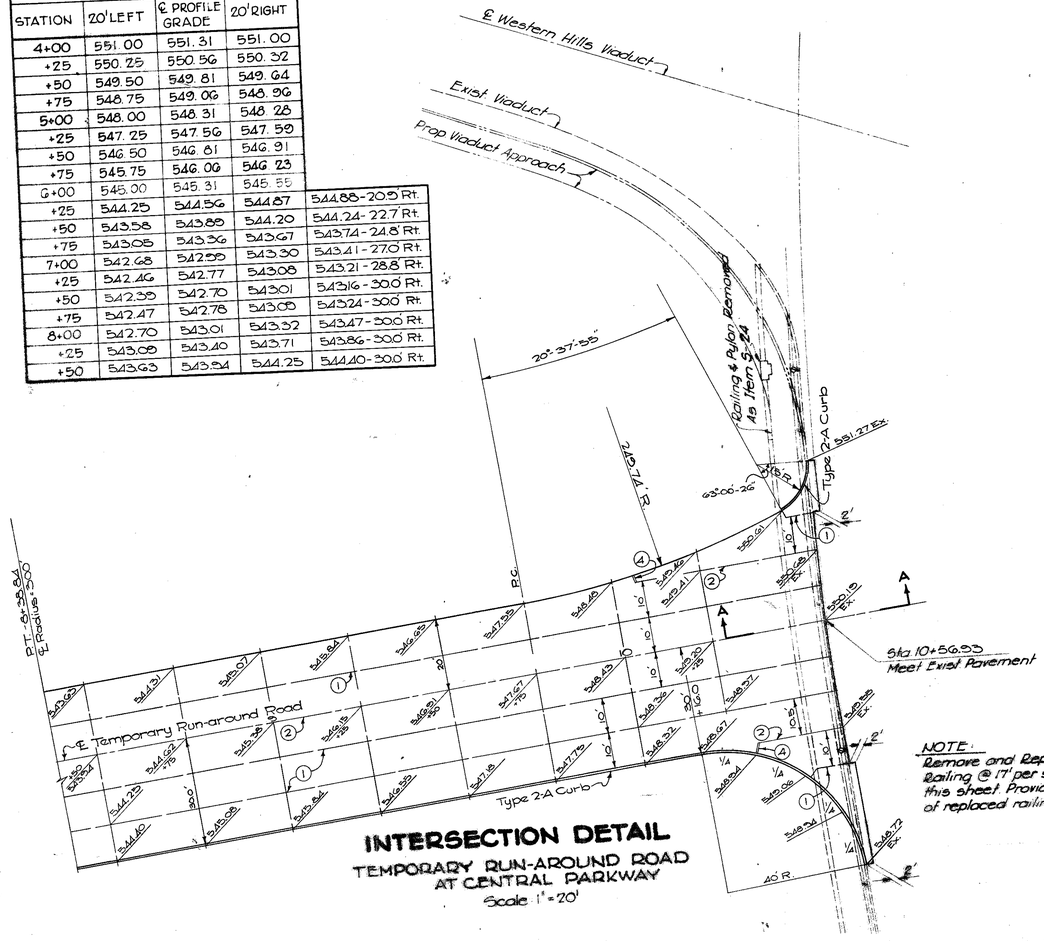


Note: Guard rail used shall be Steel Beam Standard Type (Deep) per Item I-15.

TYPICAL SECTION
TEMPORARY RUN AROUND ROAD
AT WESTERN HILLS VIADUCT
TYPE T-70
Scale: 1/4" = 1'-0"

PAVEMENT ELEVATIONS			
STATION	20'LEFT	℄ PROFILE GRADE	20'RIGHT
4+00	551.00	551.31	551.00
+25	550.25	550.56	550.32
+50	549.50	549.81	549.64
+75	548.75	549.06	548.96
5+00	548.00	548.31	548.28
+25	547.25	547.56	547.59
+50	546.50	546.81	546.91
+75	545.75	546.06	546.23
6+00	545.00	545.31	545.55
+25	544.25	544.56	544.87
+50	543.58	543.88	544.20
+75	543.08	543.36	543.67
7+00	542.68	542.99	543.30
+25	542.46	542.77	543.08
+50	542.38	542.70	543.01
+75	542.47	542.78	543.09
8+00	542.70	543.01	543.32
+25	543.09	543.40	543.71
+50	543.63	543.94	544.25

544.88-20.9 Rt.
544.24-22.7 Rt.
543.74-24.8 Rt.
543.41-27.0 Rt.
543.21-28.8 Rt.
543.16-30.0 Rt.
543.24-30.0 Rt.
543.47-30.0 Rt.
543.86-30.0 Rt.
544.40-30.0 Rt.

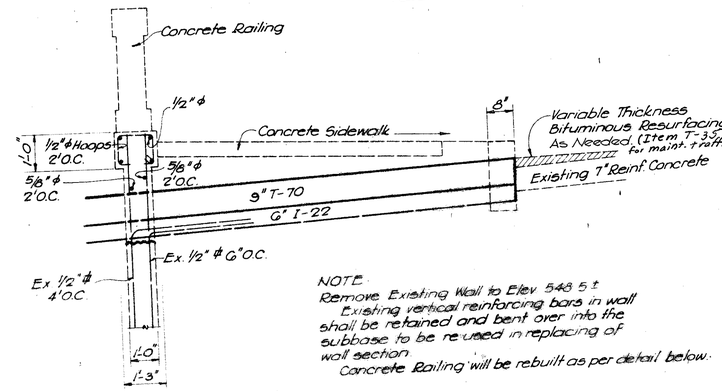


INTERSECTION DETAIL
TEMPORARY RUN-AROUND ROAD
AT CENTRAL PARKWAY
Scale: 1" = 20'

NOTE:
Remove Existing 8" Concrete Curb and Concrete Sidewalk.
Curb will be rebuilt and a 4" Sidewalk rebuilt over the 10' width and Sloping 1/4"/Ft.

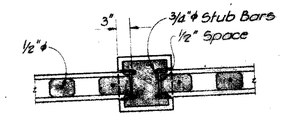
ESTIMATED QUANTITIES - ALTERNATE R.A.R.

ITEM	QUANT	UNIT	DESCRIPTION
-			
T-70	3516	Sq.Yd.	9" Temporary Portland Cement Conc. Bypas per plan.
I-12	723	Lin. Ft.	Std. Type 2-A Concrete Curb
I-22	609	Cu. Yd.	Subbase, grading C or D
I-13	4110	Sq. Ft.	4" Concrete Sidewalk
I-15	1350	Lin. Ft.	Guard Rail, Steel Beam Std. Type (Deep), Temp
I-12	115	Lin. Ft.	Std. Type 6 Conc. Curb, modified as per plan
E-1	3,584	Sq. Yd.	Compacted Subgrade
E-1	75,452	Cu. Yd.	Roadway Excavation Method B (removing Run-aro
I-15	1350	Lin. Ft.	Guard Rail Removed and Disposed of, as per pl
E-8	3584	Sq. Yd.	Pavement Removal
E-8	115	Lin. Ft.	Curb Removal
S-22	Lump	Lump	Removal of portion of ex. wall and conc. railing
S-25	Lump	Lump	Temporary Lighting, as per plan.
S-14	102	Lin. Ft.	Special conc. railing including reconstruction of portion of existing wall
E-11	38	M. Gal.	Water
I-7	68	Sq. Yd.	Reinforced Concrete Approach Slab (T=10")

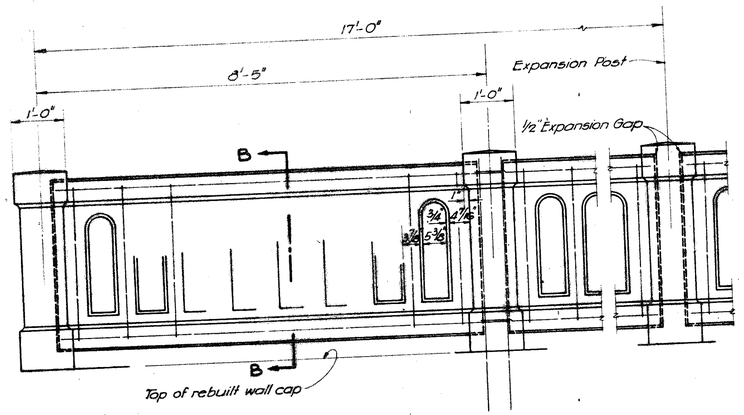


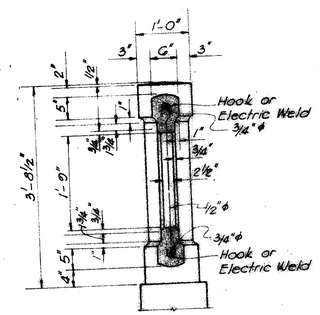
NOTE:
Remove Existing Wall to Elev 548.5 ± Existing vertical reinforcing bars in wall shall be retained and bent over into the subbase to be re-used in replacing of wall section.
Concrete Railing will be rebuilt as per detail below.

SECTION A-A
Scale: 1/2" = 1'-0"



SECTION THRU EXPANSION POST





SECTION B-B

NOTE:
Remove and Replace 6 Sections of Concrete Railing @ 17' per section for 102 Lin. Ft. as per detail this sheet. Provide one expansion joint at mid point of replaced railing as per expansion post detail.

DETAIL
OF CENTRAL PARKWAY CONCRETE RAILING
TO BE REMOVED AND REBUILT
Scale: 3/4" = 1'-0"

ALTERNATE TEMPORARY RUN-AROUND ROAD

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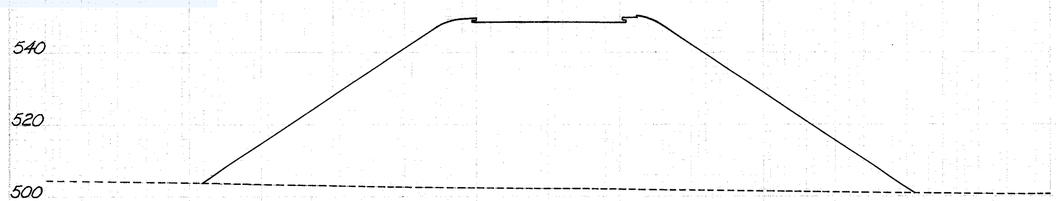
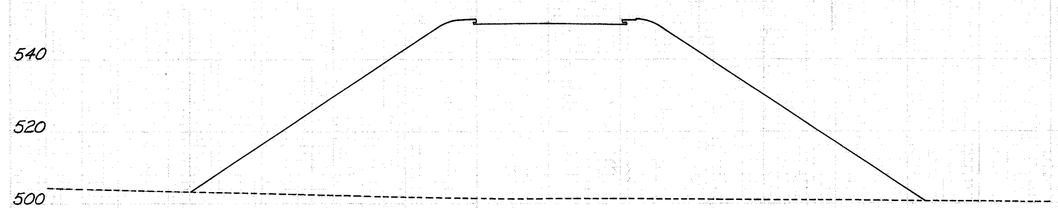
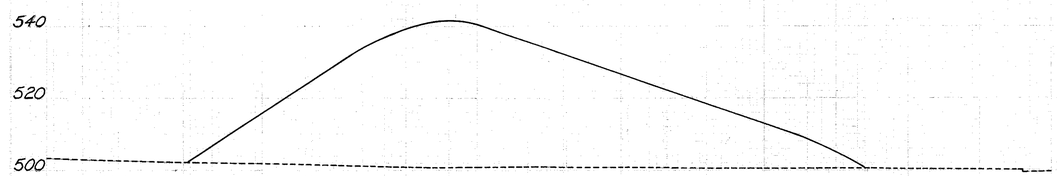


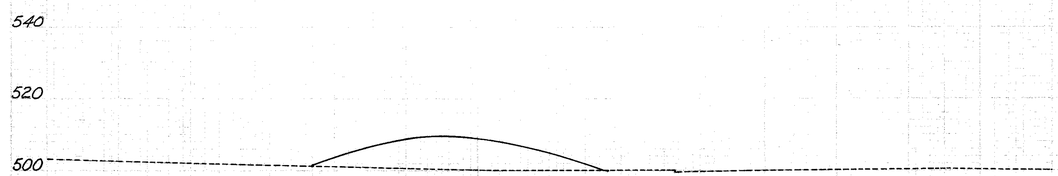
549.81
4+50
502.1



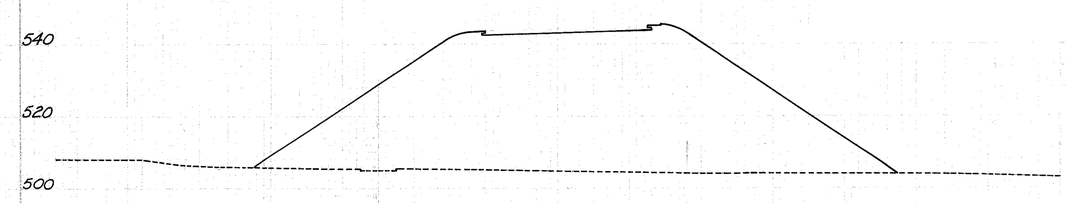
551.31
4+00
501.7



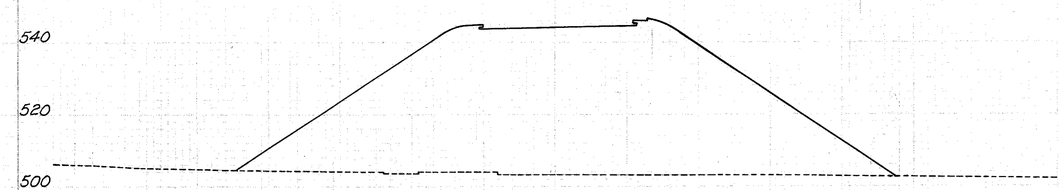
552.81
3+50
501.1



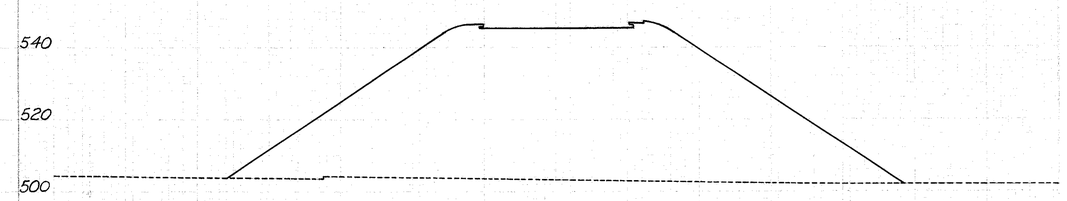
554.31
3+00
500.0



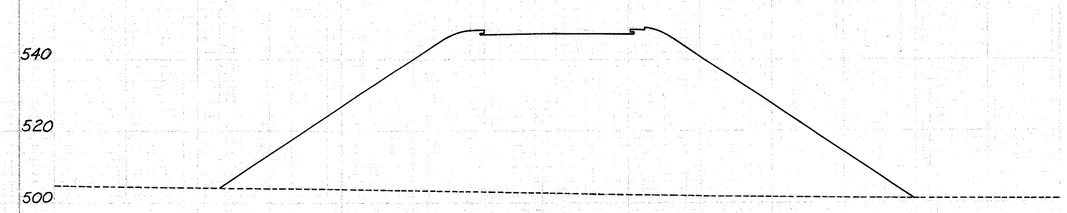
544.11
6+50
504.9



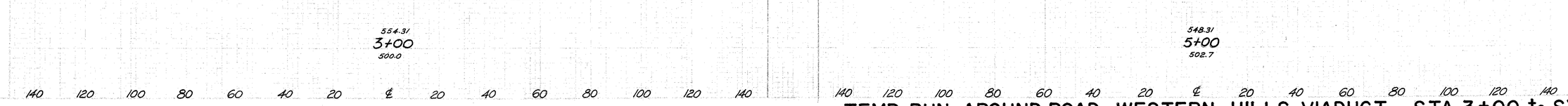
545.31
6+00
503.6



546.81
5+50
503.4



548.31
5+00
502.7



TEMP. RUN-AROUND ROAD WESTERN HILLS VIADUCT STA. 3+00 to STA. 6+50

NOT FOR CONSTRUCTION INFORMATION ONLY

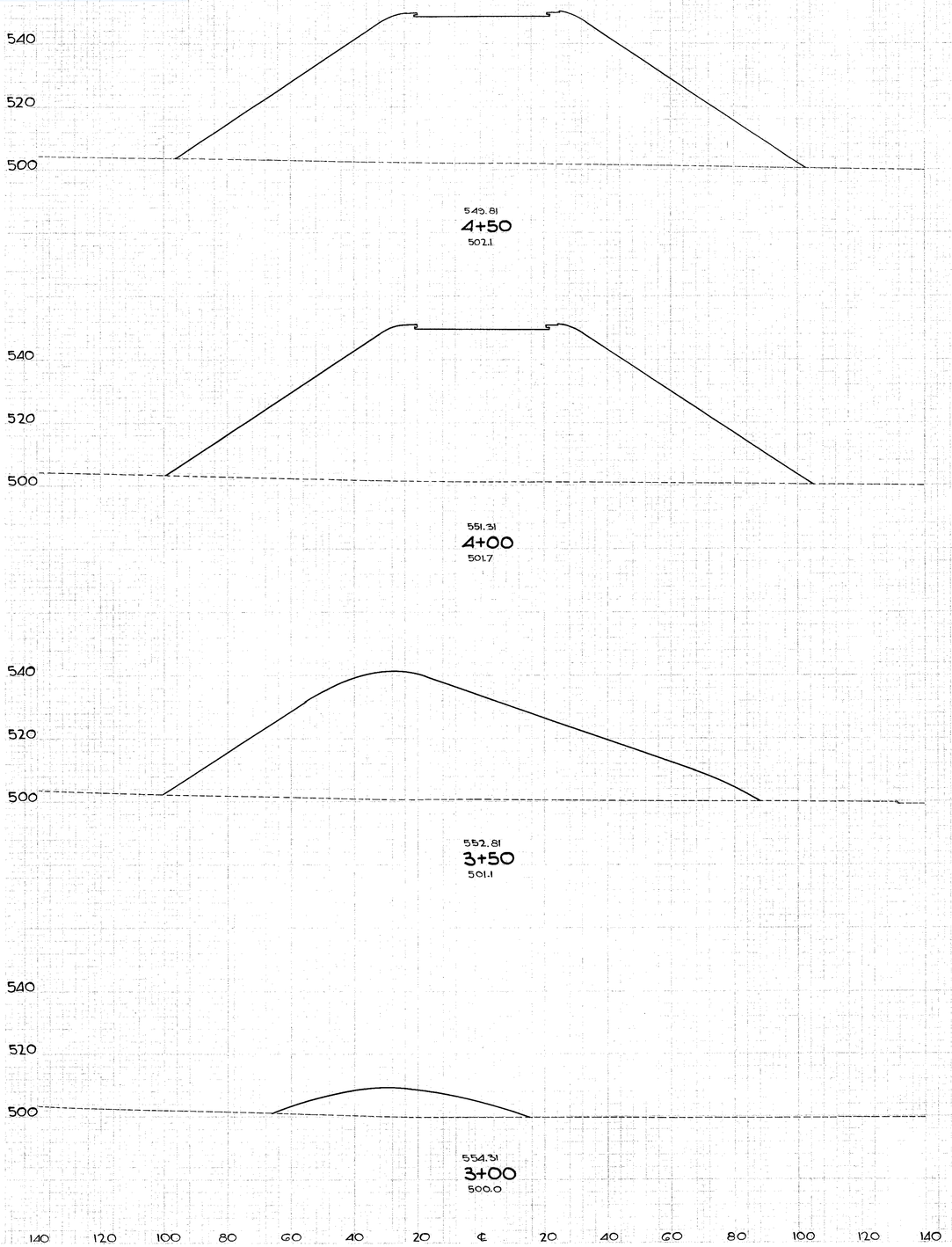
SEEDING	
END WIDTH	SQ YDS.

FED. RD. DIVISION	STATE	PROJECT	
2	OHIO		

117 A
486

HAM-25-1.63

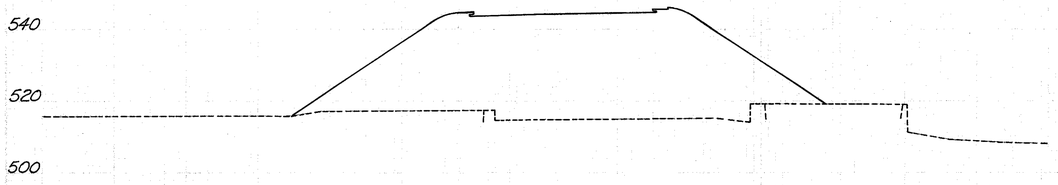
END AREA		VOLUME	
CUT	FILL	CUT	FILL



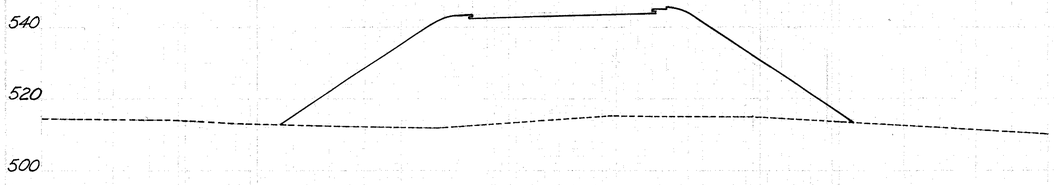
ALTERNATE (TEMP. RUN-AROUND ROAD WESTERN HILLS VIADUCT STA. 3+00 to STA. 6+50

NOT FOR
CONSTRUCTION
INFORMATION ONLY

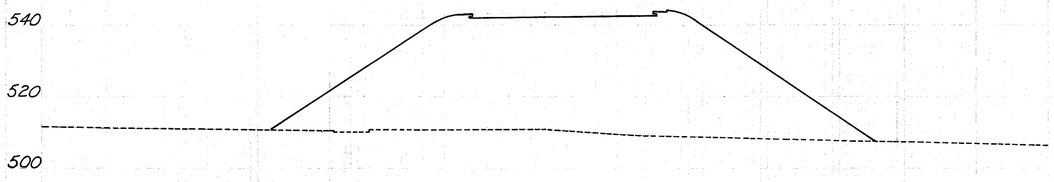
HAM-25-1.63



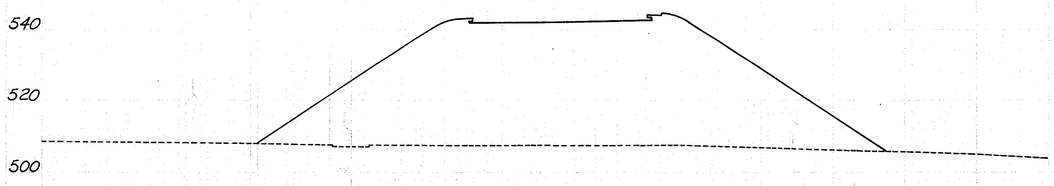
545.21
8+50
514.8



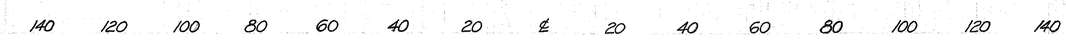
544.04
8+00
514.00

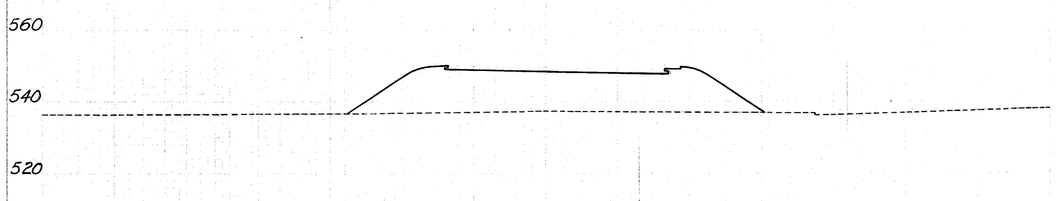


543.47
7+50
510.7

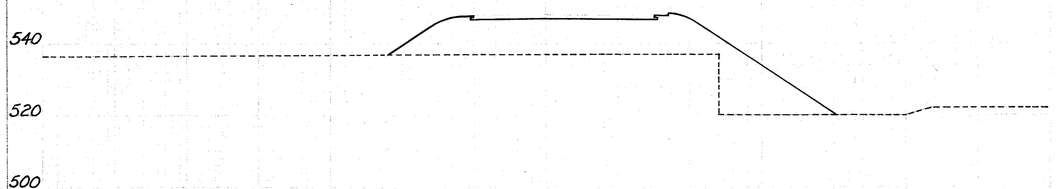


543.49
7+00
507.7

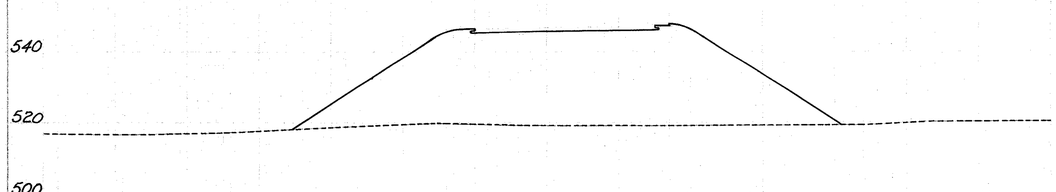




549.58
10+00
537.7



548.12
9+50
537.2



546.67
9+00
519.00

TEMP. RUN-AROUND ROAD WESTERN HILLS VIADUCT STA. 7+00 to STA. 10+00

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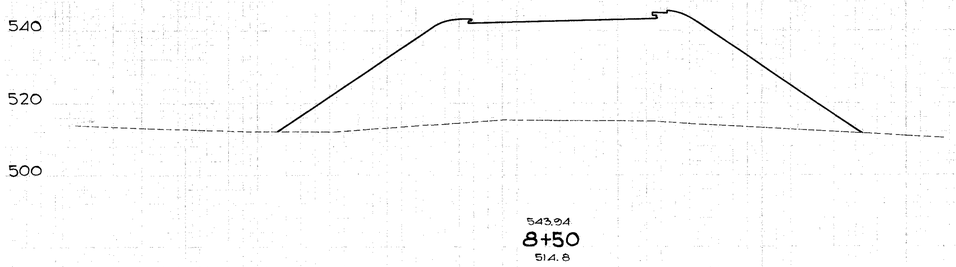
FED. RD DIVISION	STATE	PROJECT	
2	OHIO		

HAM-25-1.63

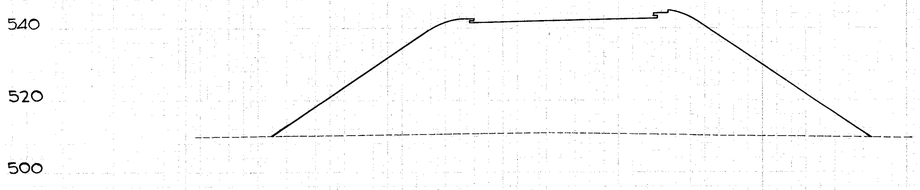
118A / 186

SEEDING

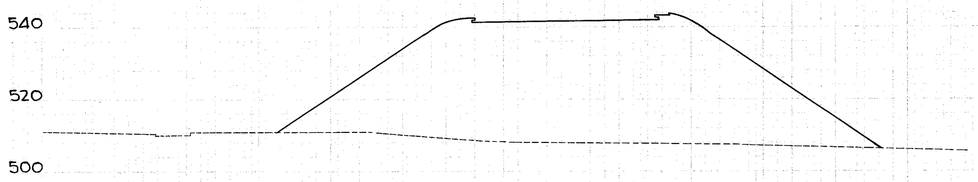
END WIDTH	SQ. YDS.



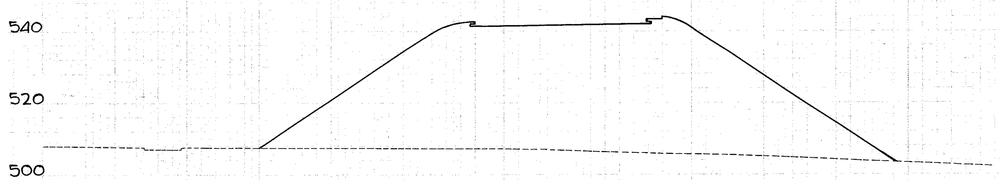
543.94
8+50
514.8



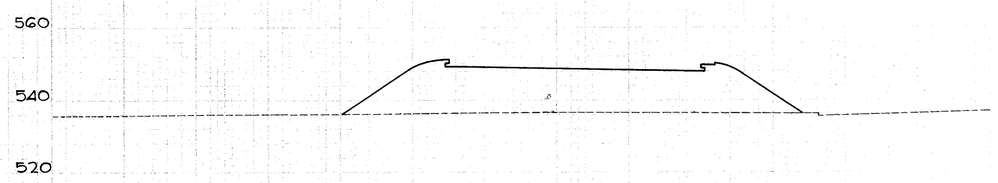
543.01
8+00
511.0



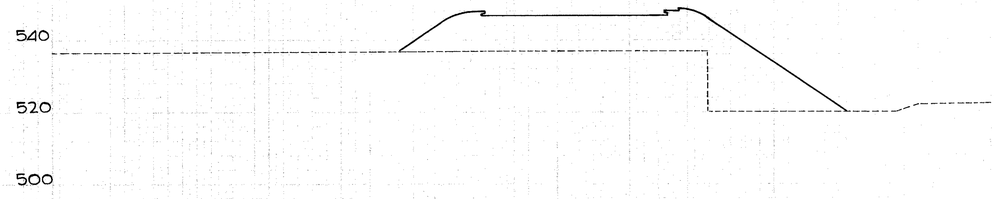
542.70
7+50
507.8



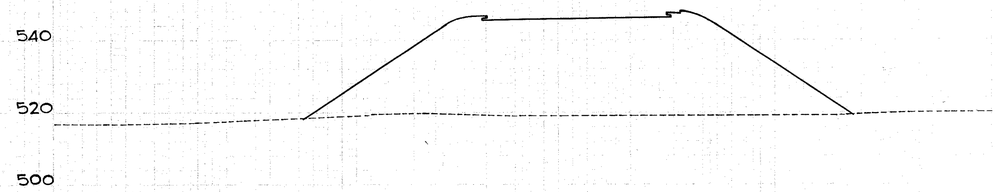
542.99
7+00
507.1



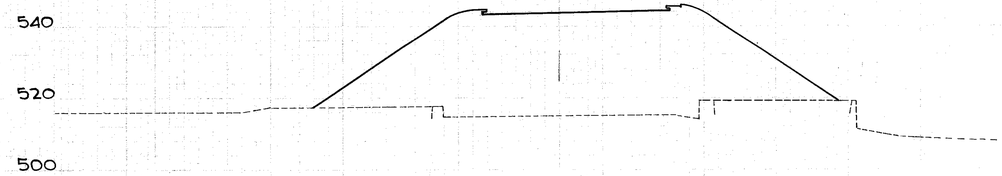
543.81
10+48 (Back)
537.2



548.43
10+00
537.0



546.81
9+50
513.0



545.38
9+00
514.8

END AREA		VOLUME	
CUT	FILL	CUT	FILL

140 120 100 80 60 40 20 ℄ 20 40 60 80 100 120 140

140 120 100 80 60 40 20 ℄ 20 40 60 80 100 120 140

ALTERNATE (TEMP RUN-AROUND ROAD WESTERN HILLS VIADUCT STA. 7+00 to STA. 10+

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FED. RD. DIVISION	STATE	PROJECT	
2	OHIO		

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486

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EXPRESSWAY CURVE № 1

T.S. = 89+86.58
S.C. = 95+86.58
C.S. = 101+50.70

S.T. = 107+50.70
P.I. = 98+89.58
D.C. = 3°00'00"

STATION	Profile Grade 3' Rt & Lt.	SOUTHBOUND LANES Pav't. Edge 56' Lt.	SOUTHBOUND LANES ℄ 32' Lt.	SOUTHBOUND LANES Pav't. Edge 8' Lt.	NORTHBOUND LANES Pav't. Edge 8' Rt.	NORTHBOUND LANES ℄ 32' Rt.	NORTHBOUND LANES Pav't Edge 56' Rt.
94+17.00	504.15	502.29	503.13	503.90	504.36	505.27	506.18
+25	504.38	502.48	503.34	504.20	504.59	505.51	506.43
+50	505.10	503.09	504.00	504.91	505.31	506.27	507.24
+75	505.82	503.71	504.66	505.62	506.03	507.04	508.04
95+00	506.54	504.32	505.32	506.33	506.76	507.80	508.85
+25	507.26	504.93	505.98	507.04	507.49	508.57	509.65
+50	507.98	505.54	506.65	507.75	508.21	509.33	510.45
+75	508.70	506.15	507.31	508.46	508.94	510.10	511.26
S.C. +86.58	509.03	506.44	507.61	508.79	509.28	510.45	511.63
96+00	509.42	506.82	508.00	509.18	509.67	510.84	512.02
+25	510.14	507.54	508.72	509.90	510.39	511.56	512.74
+50	510.86	508.26	509.44	510.62	511.11	512.28	513.46
+75	511.58	508.98	510.16	511.34	511.83	513.00	514.18
97+00	512.30	509.70	510.88	512.06	512.55	513.72	514.90
+25	513.01	510.41	511.59	512.76	513.25	514.43	515.61
+50	513.70	511.10	512.28	513.45	513.94	515.12	516.29
+75	514.36	511.77	512.94	514.12	514.61	515.78	516.96
98+00	515.01	512.41	513.59	514.76	515.25	516.43	517.60
+25	515.63	513.03	514.21	515.38	515.87	517.05	518.23
+50	516.23	513.63	514.81	515.98	516.47	517.65	518.83
+75	516.81	514.21	515.39	516.56	517.05	518.23	519.40
99+00	517.36	514.77	515.94	517.12	517.61	518.78	519.96
+25	517.90	515.30	516.48	517.65	518.14	519.32	520.50
+50	518.41	515.81	516.99	518.17	518.66		
+75	518.90	516.31					
100+00	519.37						
+25	519.82		BRIDGE STRUCTURE				
+50	520.25						
+75	520.65		HAM-25-0173				
101+00	521.03						
+25	521.39						
+50	521.73					523.15	524.33
C.S. +50.70	521.74					523.16	524.33
+75	522.05			521.81	522.29	523.42	524.56
102+00	522.34	519.96	521.04	522.12	522.57	523.67	524.78
+25	522.62	520.34	521.37	522.40	522.84	523.90	524.96
+50	522.87	520.70	521.68	522.66	523.08	524.11	525.13
+75	523.10	521.04	521.97	522.90	523.31	524.29	525.28
103+00	523.31	521.36	522.24	523.12	523.51	524.46	525.40
+25	523.49	521.65	522.48	523.32	523.70	524.60	525.50
+50	523.66	521.92	522.71	523.49	523.86	524.72	525.58
+75	523.80	522.17	522.91	523.65	524.01	524.83	525.64
104+00	523.92	522.40	523.09	523.78	524.13	524.90	525.68
+25	524.02	522.61	523.25	523.89	524.23	524.96	525.70
+50	524.10	522.79	523.38	523.97	524.30	525.00	525.69
+75	524.15	522.96	523.50	524.04	524.36	525.01	525.66
105+00	524.19	523.10	523.59	524.08	524.39	525.00	525.61
+25	524.20	523.22	523.66	524.11	524.41	524.97	525.54
+50	524.19	523.32	523.71	524.11	524.40	524.92	525.45
+75	524.16	523.37	523.74	524.08	524.36	524.85	525.33
106+00	524.10	523.37	523.75	524.04	524.31	524.75	525.19
+25	524.03	523.36	523.73	523.98	524.24	524.64	525.03
+50	523.93	523.32	523.69	523.89	524.14	524.51	524.85
+75	523.81	523.26	523.63	523.76	524.02	524.40	524.65
107+00	523.67	523.18	523.55	523.65	523.88	524.25	524.43
+25	523.51	523.07	523.45	523.50	523.72	524.09	524.18
+50	523.33	522.95	523.32	523.33	523.53	523.91	523.91
S.T. +50.70	523.32	522.95	523.32	523.32	523.53	523.90	523.90
+75	523.12	522.80	523.18	523.13	523.33	523.70	523.67
108+00	522.89	522.63	523.01	522.91	523.10	523.47	523.40
+25	522.64	522.44	522.82	522.67	522.85	523.23	523.11
+50	522.37	522.23	522.61	522.41	522.58	522.95	522.80
+75	522.08	522.00	522.37	522.13	522.29	522.66	522.47
109+00	521.76	521.74	522.12	521.82	521.97	522.35	
+25	521.43	521.46	521.84	521.50			
+50	521.07	521.17		BRIDGE STRUCTURE			
+75	520.69						
+97.00	519.34			HAM-25-0191			

EXPRESSWAY CURVE № 2

T.S. = 114+97.51
S.C. = 120+97.51
P.T. = 125+86.18

P.I. = 121+79.39
Dc = 3°00'00"

STATION	Profile Grade 3' Rt & Lt.	SOUTHBOUND LANES Pav't. Edge 56' Lt.	SOUTHBOUND LANES ℄ 32' Lt.	SOUTHBOUND LANES Pav't. Edge 8' Lt.	NORTHBOUND LANES Pav't. Edge 8' Rt.	NORTHBOUND LANES ℄ 32' Rt.	NORTHBOUND LANES Pav't. Edge 56' Rt.
112+47.51	515.51	——	——	——	515.72	516.09	515.72
+50	515.46	——	——	——	515.66	516.04	515.66
+75	514.96	——	——	——	515.10	515.48	515.10
113+00	514.46	——	——	——	514.55	514.92	514.55
+25	513.96	——	——	——	514.03	514.36	513.99
113+47.51	513.51	513.72	514.09	513.72	——	——	——
+50	513.46	513.68	514.04	513.67	513.52	513.80	513.43
+75	512.96	513.24	513.54	513.17	513.01	513.25	512.87
114+00	512.46	512.80	513.04	512.67	512.50	512.69	512.31
+25	511.96	512.36	512.54	512.17	511.99	512.13	511.75
+50	511.46	511.93	512.04	511.67	511.48	511.57	511.20
+75	510.96	511.49	511.54	511.17	510.97	511.01	510.64
T.S. +97.51	510.51	511.09	511.09	510.72	510.51	510.51	510.14
115+00	510.46	511.05	511.04	510.67	510.46	510.45	510.08
+25	509.96	510.64	510.54	510.17	509.95	509.90	509.52
+50	509.46	510.22	510.04	509.67	509.44	509.34	508.96
+75	508.96	509.80	509.54	509.17	508.93	508.78	508.40
116+00	508.47	509.40	509.04	508.68	508.43	508.23	507.85
+25	508.04	509.05	508.65	508.25	507.98	507.73	507.36
+50	507.67	508.76	508.32	507.88	507.60	507.30	506.93
+75	507.36	508.54	508.05	507.57	507.28	506.94	506.56
117+00	507.11	508.37	507.85	507.32	507.03	506.63	506.23
+25	506.93	508.27	507.70	507.14	506.83	506.39	505.94
+50	506.81	508.24	507.62	507.02	506.70	506.21	505.71
+75	506.75	508.26	507.61	506.96	506.63	506.09	505.55
118+00	506.75	508.35	507.65	506.96	506.63	506.03	505.44
+25	506.82	508.50	507.76	507.03	506.69	506.04	505.40
+50	506.95	508.71	507.93	507.16	506.80	506.11	505.42
+75	507.14	508.99	508.17	507.35	506.98	506.24	505.50
119+00	507.39	509.32	508.46	507.60	507.23	506.44	505.65
+25	507.71	509.72	508.82	507.92	507.53	506.69	505.86
+50	508.09	510.19	509.24	508.30	507.90	507.01	506.13
+75	508.53	510.71	509.72	508.74	508.33	507.40	506.46
120+00	509.02	511.29	510.26	509.23	508.82	507.83	506.85
+25	509.52	511.87	510.81	509.74	509.31	508.27	507.24
+50	510.02	512.46	511.35	510.25	509.79	508.71	507.63
+75	510.52	513.04	511.90	510.76	510.28	509.15	508.02
S.C. +97.51	510.97	513.57	512.39	511.22	510.73	509.55	508.37
121+00	511.02	513.62	512.44	511.27	510.78	509.60	508.42
+25	511.51	514.11	512.93	511.76	511.27	510.09	508.91
+50	511.98	514.58	513.40	512.23	511.74	510.56	509.39
+75	512.44	515.03	513.86	512.68	512.19	511.02	509.84
122+00	512.87	515.47	514.29	513.12	512.63	511.45	510.27
+25	513.29	515.88	514.71	513.53	513.04	511.87	510.69
+50	513.68	516.28	515.10	513.93	513.44	512.26	511.09
+75	514.06	516.66	515.48	514.31	513.82	512.64	511.46
123+00	514.42	517.02	515.84	514.67	514.18	513.00	511.82
+25	514.76	517.36	516.18	515.01	514.52	513.34	512.16
+50	515.08	517.68	516.50	515.33	514.84	513.66	512.49
+75	515.39	517.98	516.81	515.63	515.14	513.97	
124+00	515.67	518.27					
+25	515.94						
+50	516.18		BRIDGE STRUCTURE				
+75	516.41						
125+00	516.62		HAM-25-0219				
+25	516.81						
+50	516.98						
+75	517.14				516.89	515.72	514.54
P.T. +86.18	517.20	519.80	518.62	517.44	516.95	517.78	514.60

STATION	NORTHBOUND EXPRESSWAY CURVE NE-1 P.C. = 125+86.18 C.S. = 126+97.35 S.C. = 130+97.35 P.I. = 127+83.67 Dc = 3°03'04" Profile Grade 29' Lt.	Pav't. Edge 24' Lt.	℄	Pav't. Edge 24' Rt.	SOUTHBOUND EXPRESSWAY CURVE SE-1 C.S. = 125+86.18 S.T. = 131+86.18 P.I. = 127+86.64 Dc = 2°57'02" Profile Grade 29' Rt.	Pav't. Edge 36' Lt.	℄	Pav't. Edge 24' Rt.
P.C.(N.B.)								
C.S.(S.B.)+86.18	517.20	516.95	515.78	514.60	517.20	520.39	518.62	517.44
126+00	517.27	517.03	515.85	514.67	517.27	520.40	518.67	517.51
+25	517.40	517.15	515.97	514.80	517.40	520.42	518.75	517.63
+50	517.52	517.27	516.10	514.92	517.52	520.44	518.82	517.75
+75	517.65	517.40	516.22	515.05	517.65	520.46	518.90	517.86
C.S.(N.B.) +97.35	517.76	517.51	516.34	515.16	——	——	——	——
127+00	517.77	517.53	516.35	515.19	517.77	520.48	518.98	517.98
+25	517.90	517.66	516.54	515.42	517.90	520.50	519.07	518.10
+50	518.02	517.80	516.73	515.66	518.02	520.52	519.15	518.23
+75	518.15	517.93	516.91	515.89	518.15	520.54	519.23	518.35
128+00	518.27	518.07	517.10	516.13	518.27	520.56	519.31	518.48
+25	518.40	518.20	517.28	516.36	518.40	520.58	519.40	518.60
+50	518.52	518.34	517.47	516.60	518.52	520.60	519.48	518.73
+75	518.65	518.47	517.65	516.83	518.65	520.62	519.56	518.85
129+00	518.77	518.61	517.84	517.07	518.77	520.64	519.65	518.98
+25	518.90	518.75	518.03	517.31	518.90	520.66	519.73	519.10
+50	519.02	518.88	518.21	517.54	519.02	520.68	519.81	519.23
+75	519.15	519.02	518.40	517.78	519.15	520.70	519.89	519.35
130+00	519.27	519.15	518.58	518.01	519.27	520.72	519.98	519.48
+25	519.40	519.29	518.77	518.25	519.40	520.74	520.06	519.60
+50	519.52	519.42	518.95	518.48	519.52	520.76	520.14	519.73
+75	519.65	519.56	519.14	518.72	519.65	520.78	520.23	519.85
S.C.(N.B.) +97.35	519.76	519.68	519.30	518.93	——	——	——	——
131+00	519.77	519.69	519.32	518.95	519.77	520.78	520.35	519.98
+25	519.90	519.83	519.51	519.13	519.90	520.78	520.48	520.10
+50	520.02	519.96	519.69	519.32	520.02	520.78	520.60	520.23
+75	520.15	520.10	519.88	519.51	520.15	520.78	520.73	520.35
S.T.(S.B.) +86.18	——	——	——	——	520.20	520.78	520.78	520.41
132+00	520.27	520.23	520.07	519.69	520.27	520.79	520.85	520.48
+25	520.39	520.36	520.24	519.87	520.40	520.83	520.98	520.60
+50	520.49	520.47	520.41	520.03	520.52	520.86	521.10	520.73
+75	520.58	520.57	520.55	520.18	520.65	520.90	521.23	520.85
133+00	520.65	520.65	520.68	520.31	520.77	520.93	521.34	520.98
+25	520.70	520.72	520.79	520.42	520.90	520.95	521.48	521.10
(S.B.) +36.18	——	——	——	——	520.95	520.97	521.53	521.16
+50	520.74	520.77	520.89	520.52	——	——	——	——
+75	520.76	520.80	520.97	520.60	——	——	——	——
134+00	520.77	520.82	521.04	520.66	——	——	——	——
+25	520.76	520.82	521.09	520.71	——	——	——	——
+50	520.74	520.81	521.13	520.75	——	——	——	——
+75	520.70	520.78	521.14	520.77	——	——	——	——
135+00	520.65	520.77	521.15	520.77	——	——	——	——
+25	520.58				——	——	——	——
(N.B.) +34.60	520.54		BRIDGE STRUCTURE					
			HAM-25-0240					

SUPERELEVATION TABLES

NOT FOR CONSTRUCTION INFORMATION ONLY

FED. RD. DIVISION	STATE	PROJECT	
2	OHIO		

120 / 486

HAM-25-1.63

NORTHBOUND EXPRESSWAY
CURVE NE-3

P.C.=151+26.09 P.T.=155+33.36 P.I.=153+29.81 Dc = 1°-01'-00"

STATION	Profile Grade 29'Lt.	24' Lt.	℄	24' Rt.
146+84.83	512.53	512.74	513.11	512.74
147+00	512.76	512.94	513.31	512.94
+25	513.19	513.30	513.68	513.30
+50	513.65	513.73	514.09	513.71
+75	514.14	514.21	514.51	514.14
148+00	514.63	514.68	514.95	514.57
+25	515.12	515.16	515.37	515.00
+50	515.61	515.64	515.81	515.43
+75	516.10	516.12	516.24	515.86
149+00	516.59	516.60	516.67	516.29
+25	517.07	517.07	517.10	516.72
+50	517.56	517.56	517.53	517.15
+75	518.05	518.03	517.95	517.58
150+00	518.54	518.51	518.39	518.01
+25	519.03	518.99	518.81	518.44
+50	519.52	519.47	519.24	518.87
+75	520.00	519.95	519.67	519.30
151+00	520.49	520.43	520.10	519.73
+25	520.98	520.90	520.53	520.16
P.C.C. +26.09	521.00	520.92	520.55	520.17
+50	521.47	521.38	520.96	520.54
+75	521.96	521.86	521.39	520.92
152+00	522.45	522.34	521.82	521.30
+25	522.94	522.82	522.25	521.68
+50	523.42	523.31	522.75	522.20
+75	523.91	523.81	523.30	522.80
153+00	524.40	524.31	523.85	523.39
+25	524.89	524.80	524.40	523.99
+50	525.38	525.30	524.94	524.57
+75	525.87	525.80	525.49	525.11
154+00	526.35	526.30	526.04	525.66
+25	526.84	526.80	526.59	526.21
+50	527.33	527.30	527.13	526.76
+75	527.82	527.80	527.68	527.31
155+00	528.31	528.29	528.23	527.85
+25	528.79	528.79	528.77	528.39
P.T. +33.36	528.95	528.95	528.95	528.57
+50	529.26	529.26	529.29	528.92
+75	529.71	529.73	529.81	529.43
156+00	530.15	530.17	530.30	529.93
+25	530.57	530.61	530.78	530.41
+50	530.98	531.03	531.25	530.87
+75	531.37	531.43	531.70	531.33
157+00	531.75	531.82	532.14	531.77
+25	532.12	532.20	532.57	532.19
+50	532.47	532.60	532.98	532.60
+75	532.81	532.99	533.37	532.99
+83.36	532.92	533.13	533.50	533.13

NORTHBOUND EXPRESSWAY
CURVE NE-4

T.S.=160+56.81 S.C.=166+56.81 P.I. = 164+57.04 Dc.= 1°-58'-41"

STATION	Profile Grade 20'Lt.	24' Lt.	℄	24' Rt.
159+06.81	534.34	534.55	534.92	534.55
+25	534.52	534.73	535.11	534.78
+50	534.76	534.97	535.34	535.07
+75	534.98	535.19	535.56	535.36
160+00	535.19	535.39	535.77	535.63
+25	535.38	535.59	535.96	535.88
+50	535.56	535.77	536.14	536.12
T.S. +56.81	535.59	535.80	536.18	536.18
+75	535.72	535.93	536.30	536.36
161+00	535.87	536.08	536.45	536.59
+25	536.01	536.22	536.59	536.81
+50	536.15	536.36	536.73	537.03
+75	536.29	536.50	536.87	537.25
162+00	536.43	536.64	537.06	537.47
+25	536.57	536.78	537.24	537.69
+50	536.72	536.93	537.42	537.91
+75	536.86	537.07	537.60	538.13
163+00	537.00	537.21	537.78	538.36
+25	537.14	537.35	537.96	538.58
+50	537.28	537.49	538.14	538.80
+75	537.42	537.63	538.33	539.02
164+00	537.57	537.77	538.51	539.24
+25	537.71	537.91	538.69	539.46
+50	537.85	538.06	538.87	539.68
+75	537.99	538.20	539.05	539.90
165+00	538.13	538.34	539.23	540.12
+25	538.27	538.48	539.41	540.35
+50	538.41	538.62	539.59	540.57
+75	538.56	538.77	539.78	540.79
166+00	538.70	538.91	539.96	541.00
+11.97	538.77	538.92	540.05	541.11
S.C. +56.81				

RAMP D
CURVE D-2

T.S.=6+52.28 S.C.=8+52.28 Dc=28°-30'-00" P.T.=15+06.47 P.I.=———

STATION	Profile Grade	Right Pav't. Edge	Left Pav't. Edge
5+50	518.76	519.01	Profile Grade
+75	519.52	519.64	
6+00	520.28	520.28	520.28
+25	521.05		521.18
+50	521.81		522.07
T.S. +52.28	521.88	Profile Grade	522.16
+75	522.57		522.97
7+00	523.33		523.86
+25	524.09		524.75
+50	524.85		525.64
+75	525.61		526.53
8+00	526.37		527.43
+25	527.13		528.32
+50	527.89		529.21
S.C. +52.28	527.96		529.29
+75	528.65		529.98
9+00	529.41		530.74

SOUTHBOUND EXPRESSWAY
CURVE SE-2

P.C.=139+55.17 P.T.=153+45.38 P.I.= 146+57.20 Dc.= 1°-25'-00"

STATION	Profile Grade 20'Rt.	24' Lt.	℄	24' Rt.
137+20.93	522.29	522.50	522.88	522.50
+25	522.29	522.51	522.88	522.50
+50	522.28	522.56	522.86	522.49
+75	522.25	522.59	522.83	522.46
138+00	522.20	522.61	522.78	522.41
+25	522.14	522.61	522.72	522.35
+50	522.06	522.59	522.65	522.27
+75	521.97	522.58	522.56	522.18
139+00	521.87	522.58	522.45	522.08
+25	521.75	522.57	522.33	521.96
+50	521.61	522.55	522.19	521.82
P.C. +55.17	521.58	522.54	522.17	521.79
+75	521.46	522.51	522.09	521.67
140+00	521.30	522.46	521.98	521.51
+25	521.13	522.39	521.87	521.33
+50	520.95	522.33	521.75	521.16
+75	520.78	522.27	521.63	520.99
141+00	520.61	522.21	521.51	520.82
+25	520.44	522.15	521.40	520.65
+50	520.26	522.09	521.28	520.47
+75	520.09	521.93	521.12	520.30
142+00	519.92	521.76	520.95	520.13
+25	519.75	521.59	520.77	519.96
+50	519.58	521.42	520.60	519.79
+75	519.40	521.24	520.43	519.61
143+00	519.23	521.07	520.26	519.44
+25	519.06	520.90	520.08	519.27
+50	518.89	520.73	519.91	519.10
+75	518.71	520.55	519.74	518.92
144+00	518.54	520.38	519.57	518.75
+25	518.37	520.21	519.39	518.58
+50	518.20	520.04	519.22	518.41
+75	518.03	519.87	519.05	518.23
145+00	517.85	519.69	518.88	518.06
+25	517.68	519.52	518.71	517.89
+50	517.51	519.35	518.53	517.72
+75	517.34	519.18	518.36	517.55
146+00	517.16	519.01	518.19	517.37
+25	516.99	518.83	518.02	517.20
+50	516.82	518.66	517.85	517.03
+75	516.65	518.49	517.67	516.86
147+00	516.48	518.32	517.50	516.69
+25	516.30	518.14	517.33	516.51
+50	516.13	517.97	517.16	516.34
+75	515.96	517.80	516.98	516.17
148+00	515.79	517.63	516.81	516.00
+25	515.61	517.45	516.64	515.82
+50	515.44	517.28	516.47	515.65
+75	515.29	517.13	516.31	515.50
149+00	515.17	517.01	516.20	515.38
+25	515.10	516.94	516.12	515.31
+50	515.06	516.90	516.08	515.27
+75	515.06	516.90	516.08	515.27
150+00	515.10	516.94	516.12	515.31
+25	515.17	517.01	516.20	515.38
+50	515.29	517.13	516.31	515.50
+75	515.44	517.28	516.47	516.65
151+00	515.63	517.47	516.66	515.84
+25	515.86	517.70	516.89	516.07
+50	516.13	517.95	517.15	516.34
+75	516.43	518.15	517.39	516.64
152+00	516.78	518.38	517.69	516.99
+25	517.16	518.65	518.01	517.37
+50	517.58	518.96	518.38	517.79
+75	518.04	519.31	518.78	518.25
153+00	518.54	519.70	519.22	518.75

SOUTHBOUND EXPRESSWAY
CURVE SE-2 (CONTINUED)

STATION	Profile Grade 20'Rt.	24' Lt.	℄	24' Rt.
153+25	519.07	520.12	519.70	519.28
P.T. +45.38	519.55	520.51	520.13	519.76
+50	519.65	520.58	520.23	519.85
+75	520.24	521.07	520.82	520.45
154+00	520.83	521.55	521.41	521.04
+25	521.42	522.03	522.01	521.63
+50	522.02	522.55	522.60	522.22
+75	522.61	523.08	523.19	522.82
155+00	523.20	523.61	523.78	523.41
+25	523.79	524.14	524.38	524.00
+50	524.39	524.67	524.97	524.59
+75	524.98	525.20	525.56	525.19
+79.62	525.09	525.30	525.67	525.30

SOUTHBOUND EXPRESSWAY
CURVE SE-3

T.S.=159+45.20 S.C.=165+45.20 Dc.= 2°-01'-21" P.T.= 167+01.90 P.I.= 164+41.40

STATION	Profile Grade 29'Rt.	24'Lt.	℄	24' Rt.
156+95.20	527.84	528.05	528.42	528.05
157+00	527.94	528.14	528.51	528.14
+25	528.52	528.66	529.04	528.66
+50	529.09	529.17	529.55	529.17
+75	529.63	529.66	530.03	529.70
158+00	530.16	530.13	530.50	530.22
+25	530.67	530.57	530.95	530.72
+50	531.16	531.01	531.38	531.20
+75	531.63	531.42	531.79	531.66
159+00	532.07	531.80	532.18	532.09
+25	532.51	532.19	532.56	532.52
T.S. +45.20	532.63	532.25	532.63	532.63
+50	532.93	532.54	532.92	532.92
+75	533.32	532.88	533.25	533.31
160+00	533.70	533.20	533.57	533.68
+25	534.06	533.50	533.87	534.03
+50	534.40	533.78	534.16	534.35
+75	534.72	534.05	534.42	534.66
161+00	535.02	534.29	534.66	534.95
+25	535.30	534.51	534.89	535.23
+50	535.56	534.71	535.10	535.48
+75	535.81	534.85	535.29	535.72
162+00	536.03	534.97	535.45	535.93
+25	536.24	535.06	535.60	536.13
+50	536.43	535.16	535.74	536.31
+75	536.60	535.23	535.85	536.47
163+00	536.75	535.28	535.94	536.61
+25	536.89	535.31	536.03	536.74
+50	537.03	535.35	536.11	536.87
+75	537.17	535.39	536.20	537.01
164+00	537.32	535.43	536.28	537.14
+25	537.46	535.46	536.37	537.27
+50	537.60	535.50	536.45	537.40
+75	537.74	535.54	536.53	537.53
165+00	537.88	535.58	536.62	537.66
+25	538.02	535.61	536.71	537.79
S.C. +45.20	538.14	535.65	536.77	537.90
+50	538.16	535.67	536.80	537.93
+75	538.31	535.81	536.94	538.07
166+00	538.45	535.96	537.08	538.21
+25	538.59	536.10	537.23	538.35
+50	538.73	536.24	537.37	538.49
+57.06	536.77	536.28	537.41	538.53

RAMP C
CURVES C-1 & C-2

P.C.C. =4+06.25 Dc(1) =14°00'00" CS=10+41.21 Dc(2)=28°30'00"

STATION	PROFILE GRADE RIGHT EDGE	LEFT PAV'T EDGE
2+00	549.49	550.82
+25	548.54	549.87
+50	547.60	548.93
+75	546.65	547.98
3+00	545.71	547.04
+25	544.76	546.09
+50	543.82	545.15
+75	542.87	544.20
4+00	541.93	543.26
+25	540.98	542.31
+50	540.03	541.36
+75	539.09	540.42
5+00	538.14	539.47
+25	537.20	538.53
+50	536.25	537.58
+75	535.31	536.64
6+00	534.36	535.69
+25	533.42	534.75
+50	532.47	533.80
+75	531.53	532.86
7+00	530.58	531.91
+25	529.64	530.97
+50	528.69	530.02
+75	527.74	529.07
8+00	526.80	528.13
+25	525.85	527.18
+50	524.91	526.24
+75	523.96	525.29
9+00	523.02	524.35

RAMP D
CURVES D-2 & D-3

P.C.C. 15+06.47 Dc(2) = 28°30'00" SC = 8+52.28 Dc(3) = 19°00'00"

STATION	PROFILE GRADE RIGHT EDGE	LEFT PAV'T EDGE
11+25	536.26	537.59
+50	537.02	538.35
+75	537.78	539.11
12+00	538.54	539.87
+25	539.30	540.63
+50	540.06	541.39
+75	540.82	542.15
13+00	541.58	542.91
+25	542.34	543.67
+50	543.10	544.43
+75	543.86	545.19
14+00	544.62	545.95
+25	545.38	546.71
+50	546.15	547.48
+75	546.91	548.24
15+00	547.67	549.00
P.C.C. +06.47		
+25	548.43	549.76
+50	549.19	550.52

SUPERELEVATION TABLES

NOT FOR
CONSTRUCTION
INFORMATION ONLY

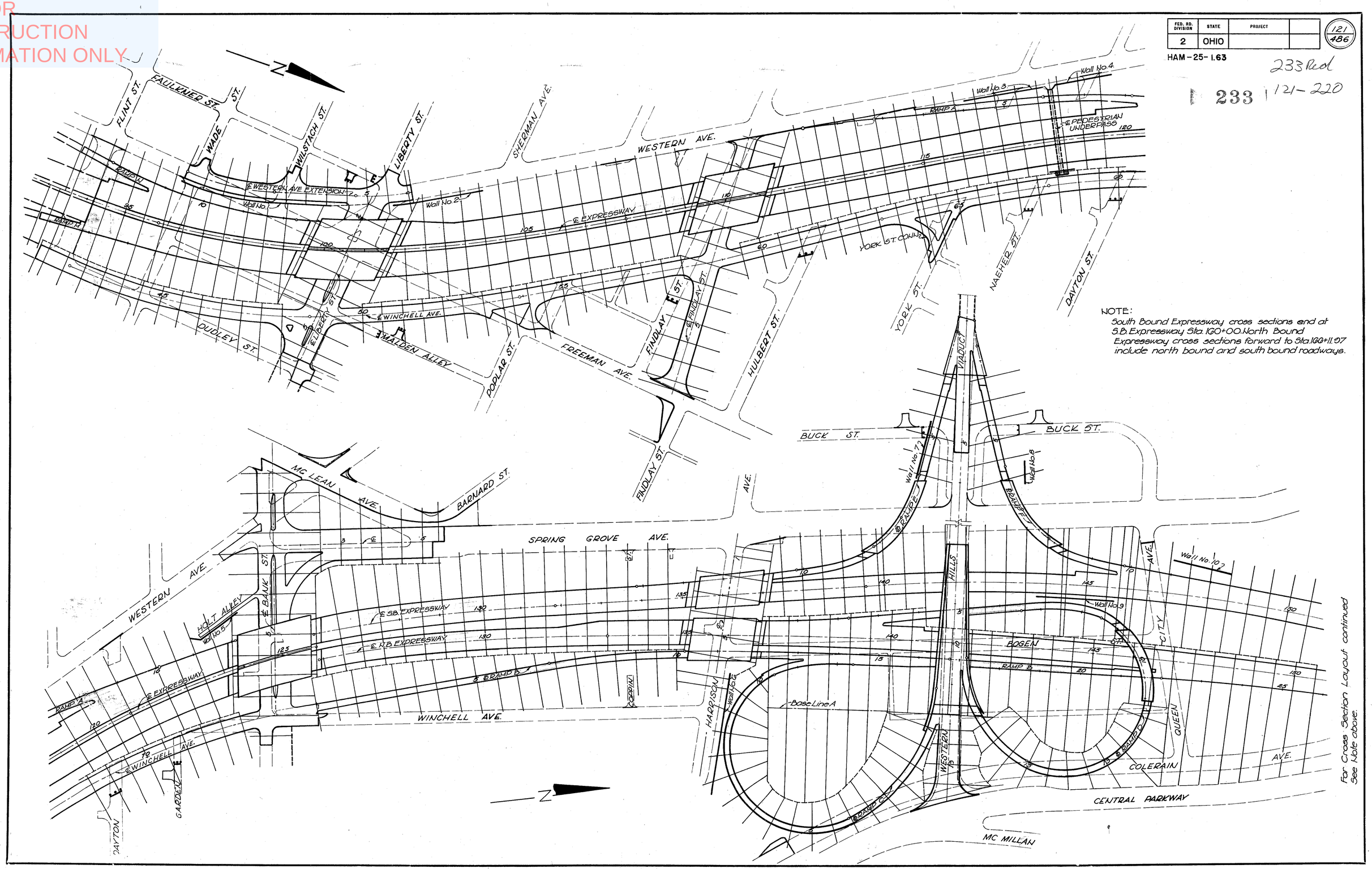
FED. RD. DIVISION	STATE	PROJECT	
2	OHIO		

121/486

HAM-25-1.63

233 Red

233 121-220

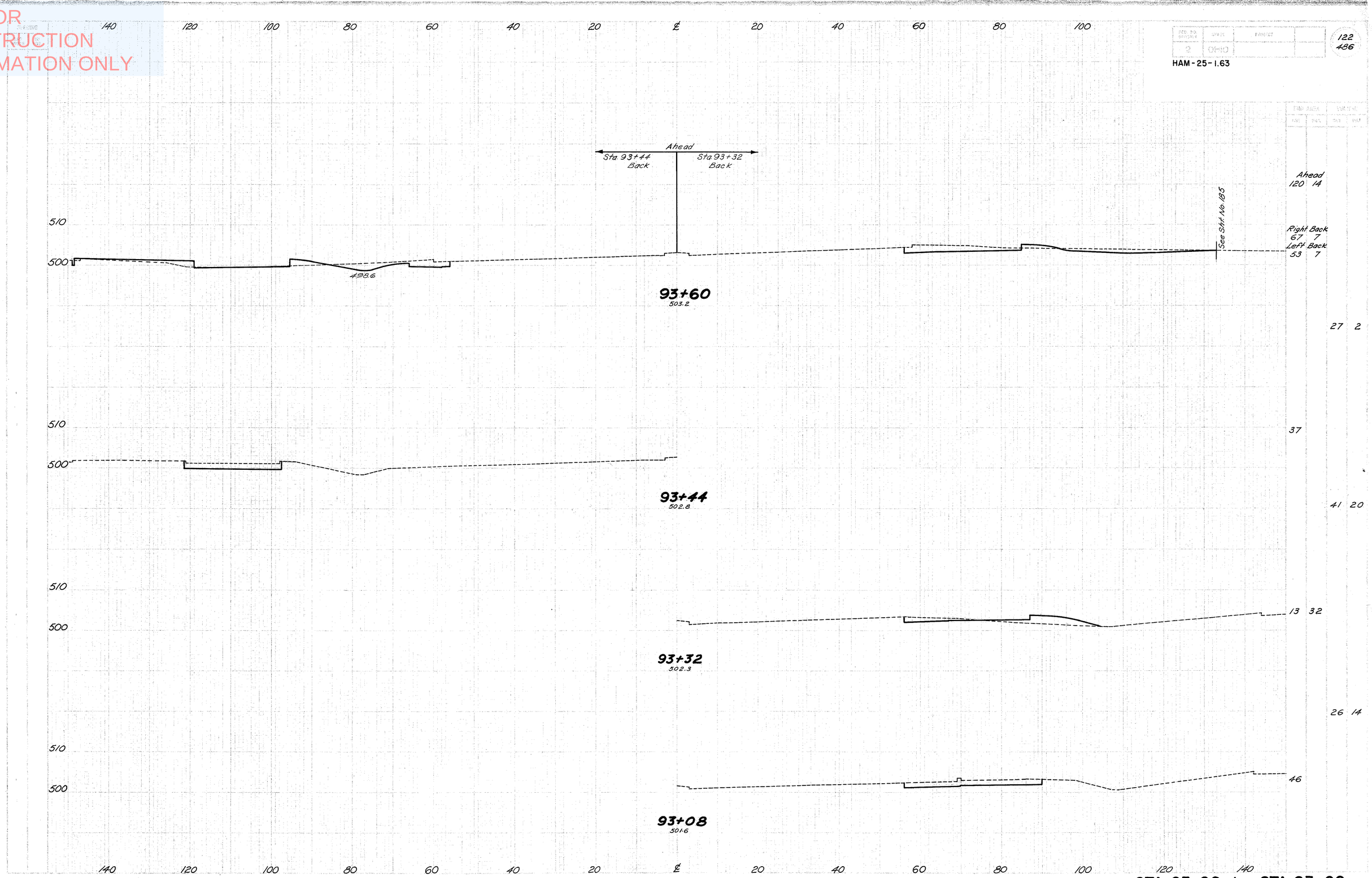


NOTE:
South Bound Expressway cross sections end at S.B. Expressway Sta. 160+00. North Bound Expressway cross sections forward to Sta. 166+11.97 include north bound and south bound roadways.

For Cross Section Layout continued See Note above.

CROSS SECTION LAYOUT

NOT FOR
CONSTRUCTION
INFORMATION ONLY



STA. 93+08 to STA. 93+60

NOT FOR CONSTRUCTION INFORMATION ONLY

140 120 100 80 60 40 20 ℄ 20 40 60 80 100

510
500
490

507.98
95+50
497.8

See Sht. No. 185

1920

2935

510
500
490

506.54
95+00
500.0

See Sht. No. 185

2 1772

510
500
490

2 664

505.10
94+50
501.0

147 414

510
500
490

See Sht. No. 185

510.1

237 13

504.15
94+17
501.0

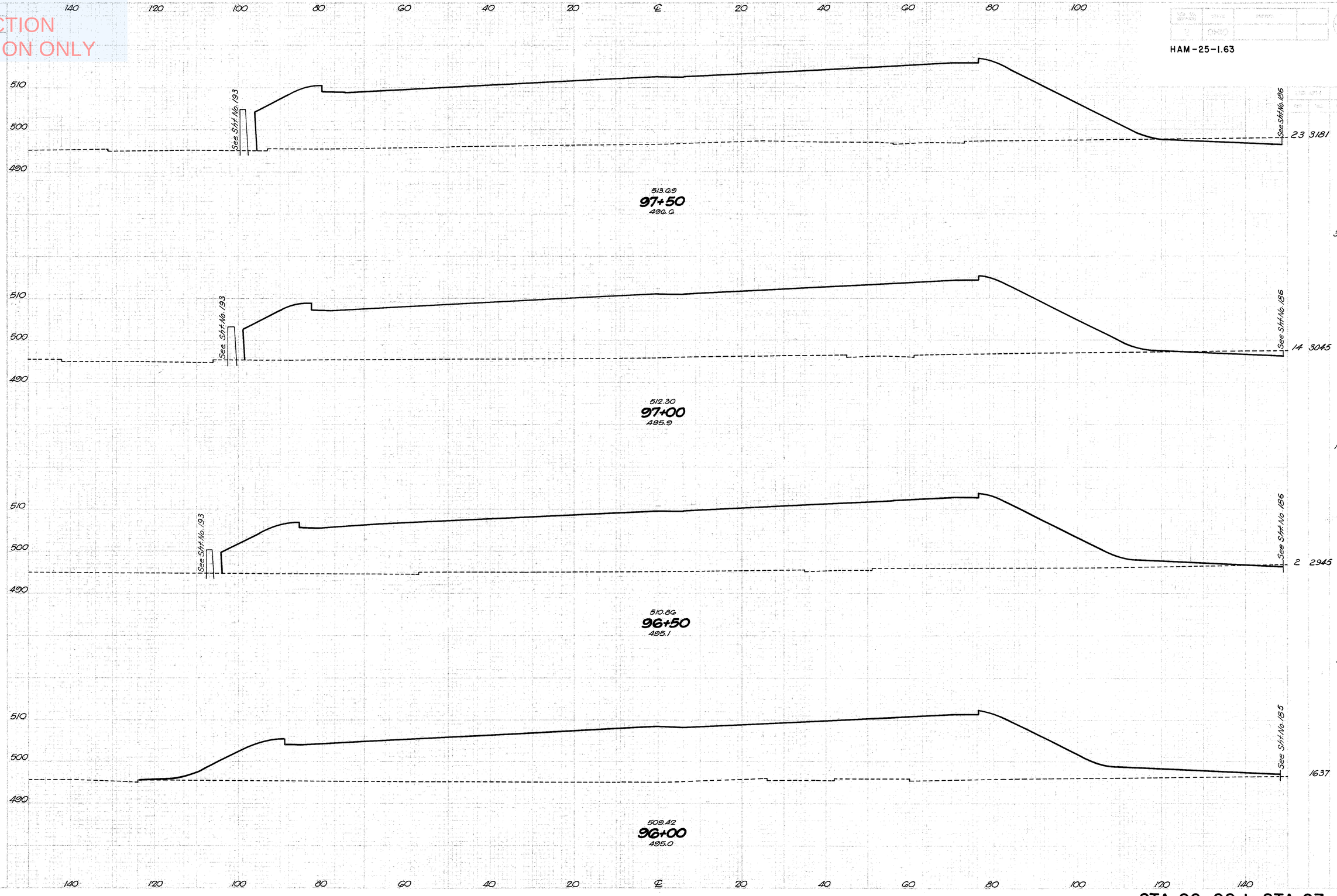
377 29

140 120 100 80 60 40 20 ℄ 20 40 60 80 100 120 140

STA. 94+17 to STA. 95+50

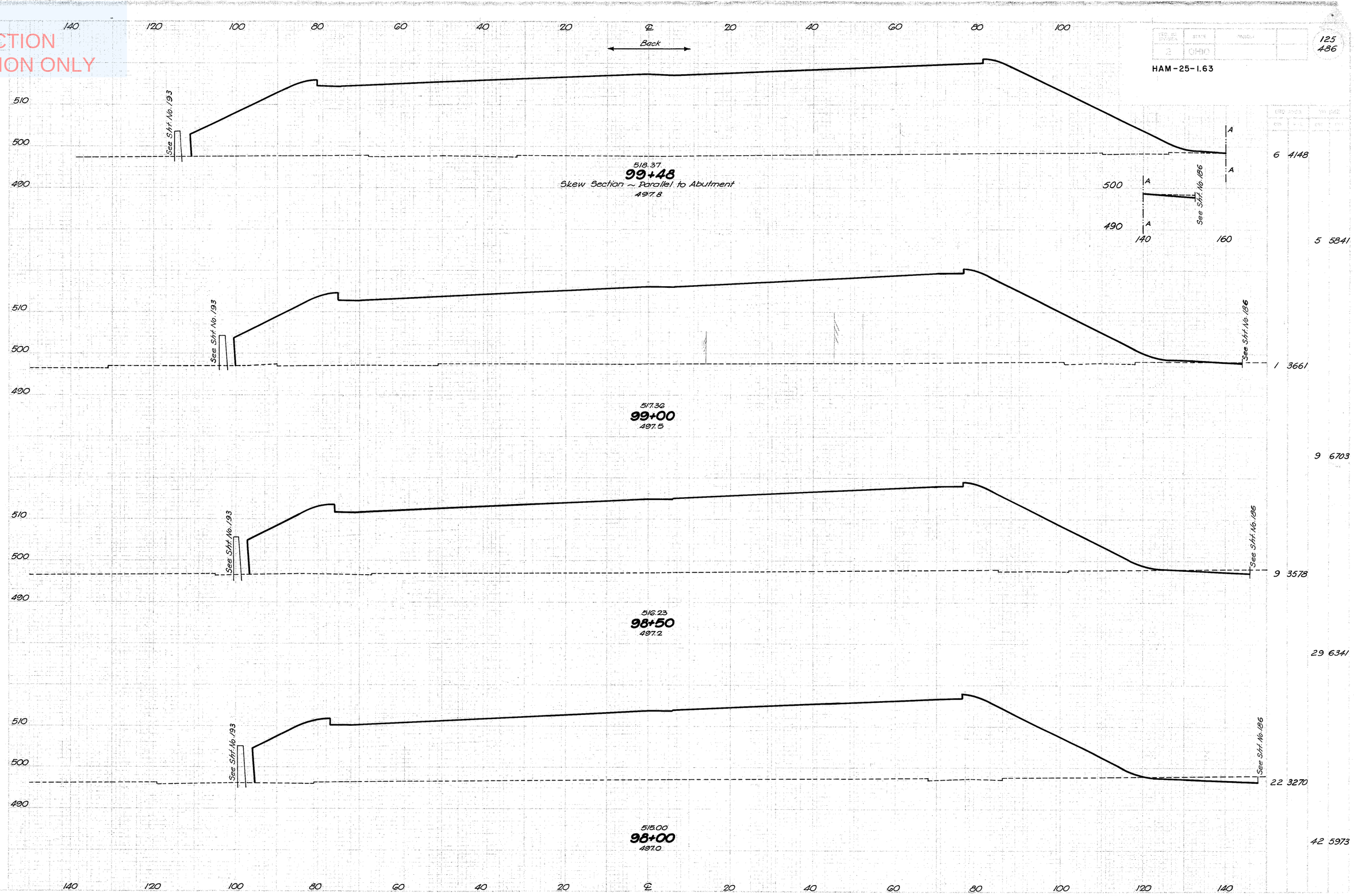
NOT FOR CONSTRUCTION INFORMATION ONLY

HAM-25-1.63



STA. 96+00 to STA. 97+50

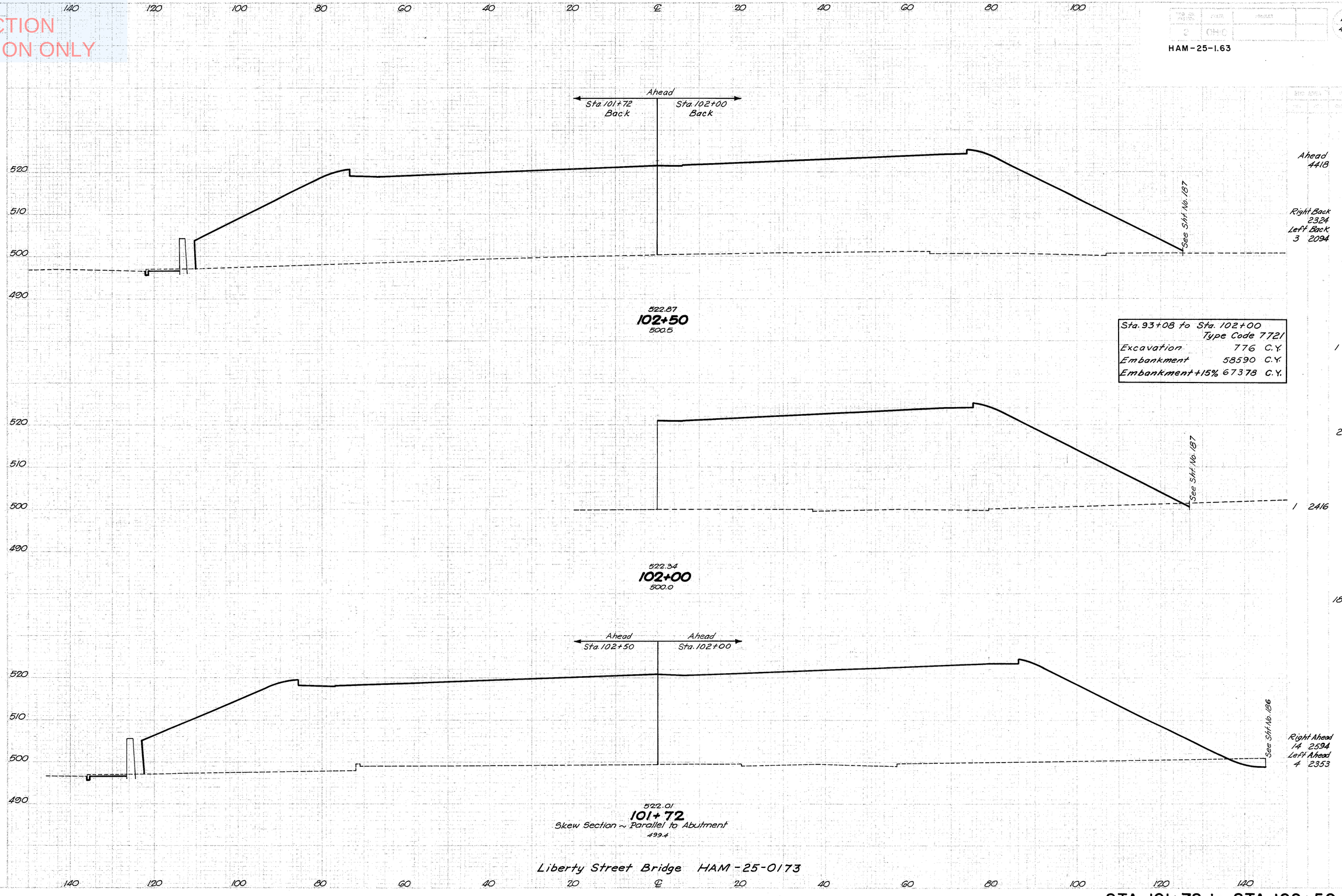
NOT FOR
CONSTRUCTION
INFORMATION ONLY



STA. 98+00 to STA. 99+48

NOT FOR CONSTRUCTION INFORMATION ONLY

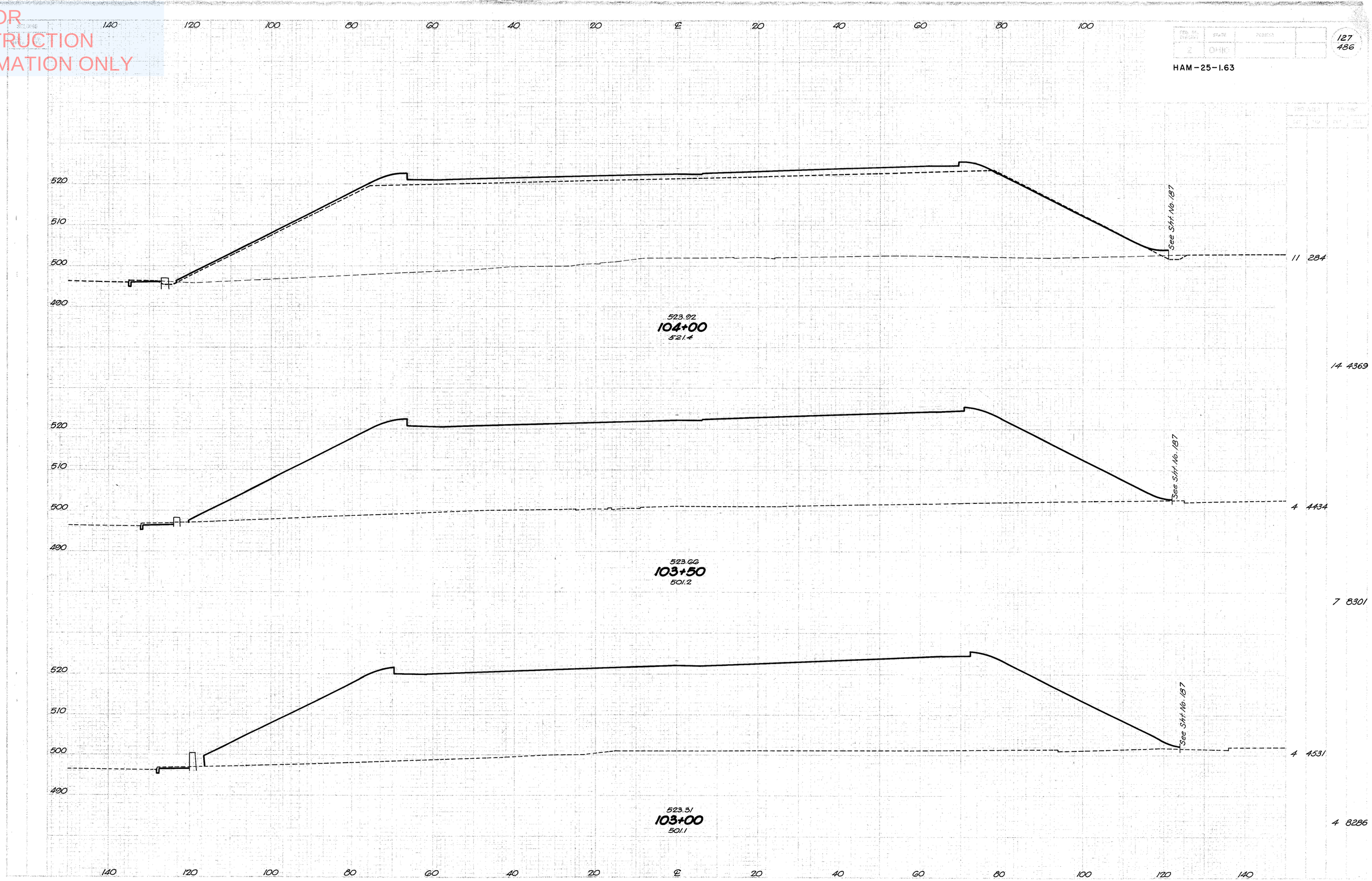
HAM-25-1.63



Liberty Street Bridge HAM-25-0173

STA. 101+72 to STA. 102+50

NOT FOR
CONSTRUCTION
INFORMATION ONLY



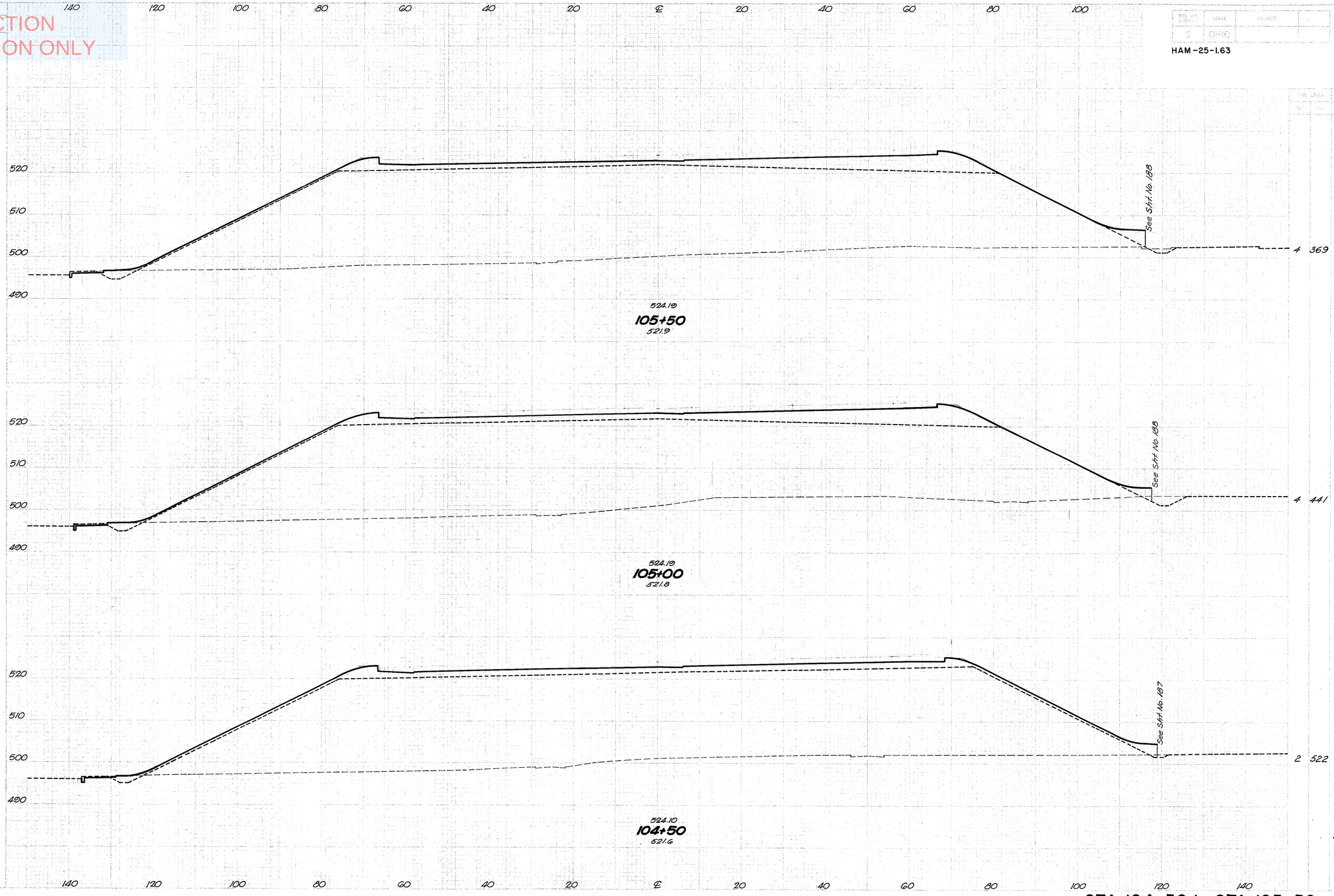
STA. 103+00 to STA. 104+00

NOT FOR CONSTRUCTION INFORMATION ONLY

FED. PROJ. NUMBER	STATE	PROJECT	SHEET NO.
2	OHIO		

128
486

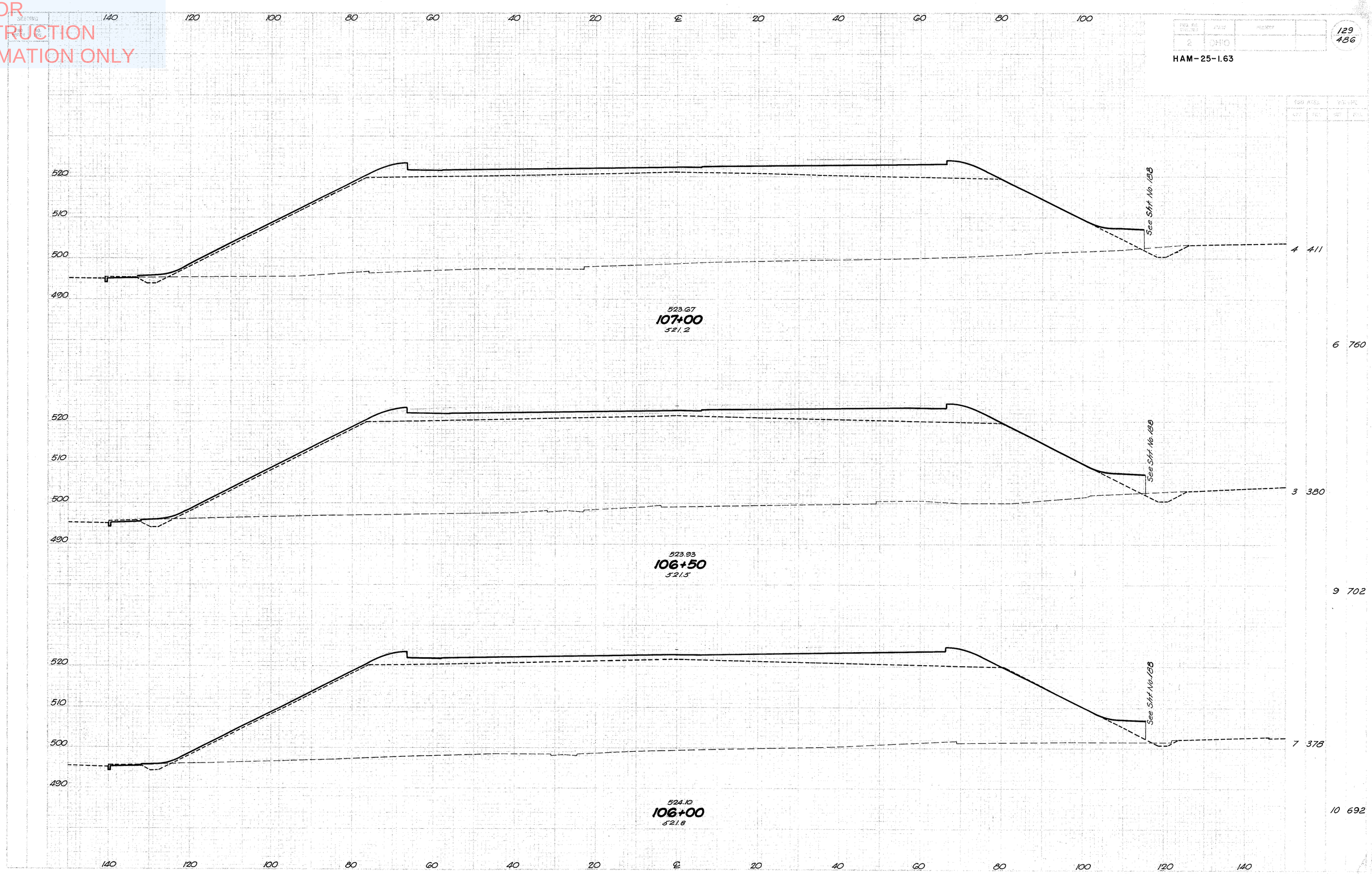
HAM-25-1.63



STA. 104+50 to STA. 105+50

NOT FOR
CONSTRUCTION
INFORMATION ONLY

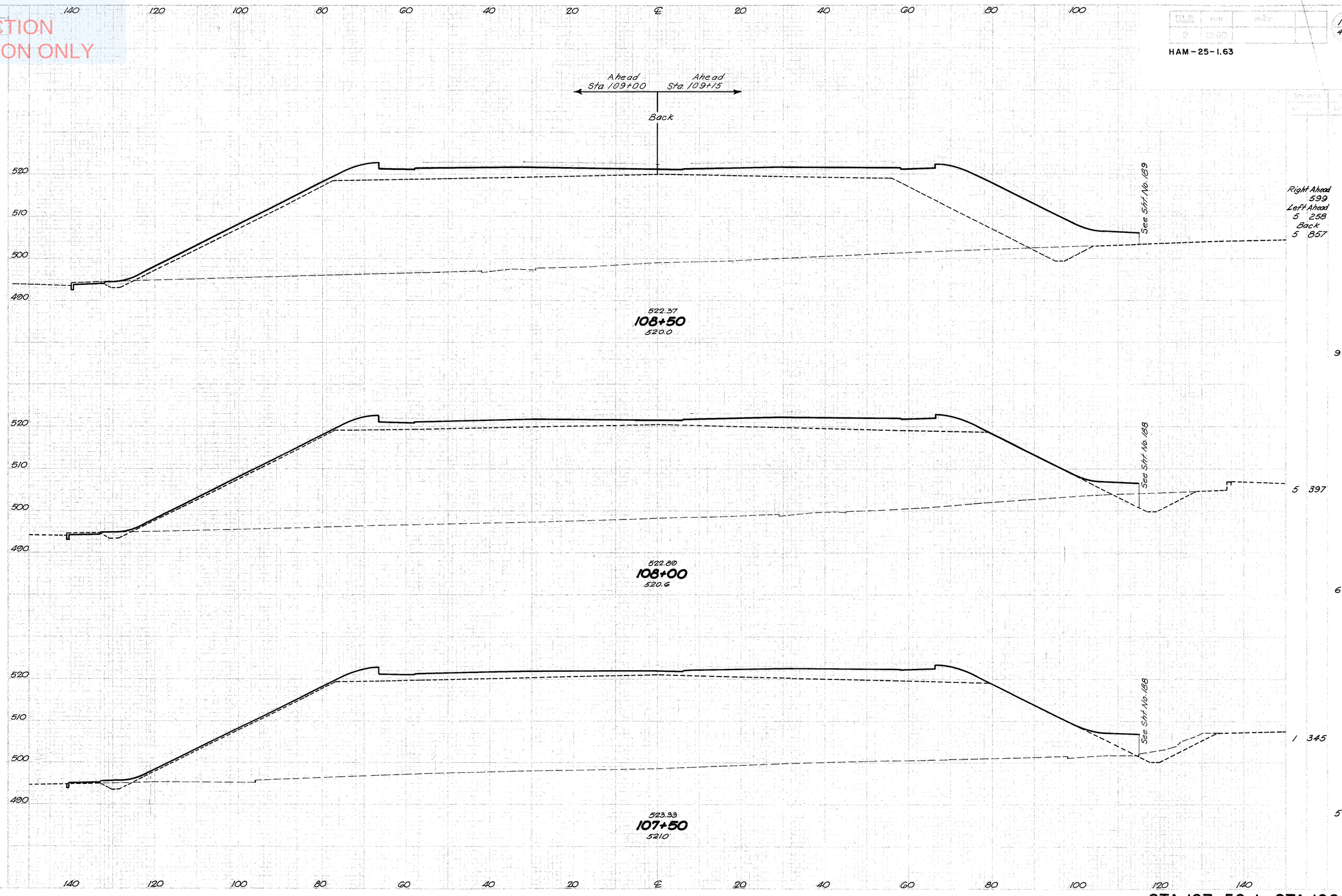
HAM-25-1.63



STA. 106+00 to STA. 107+00

NOT FOR CONSTRUCTION INFORMATION ONLY

HAM – 25 – 1.63



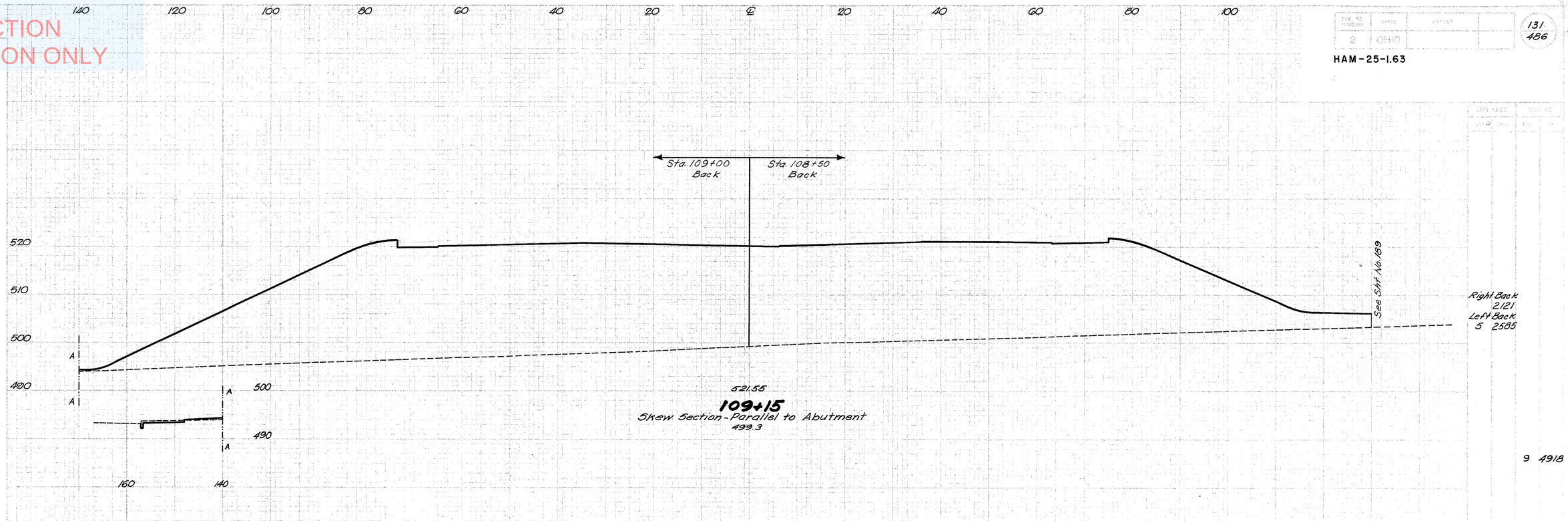
STA. 107+50 to STA. 108+50

NOT FOR CONSTRUCTION INFORMATION ONLY

SHEET NO.	STATE	PROJECT	
2	OHIO		

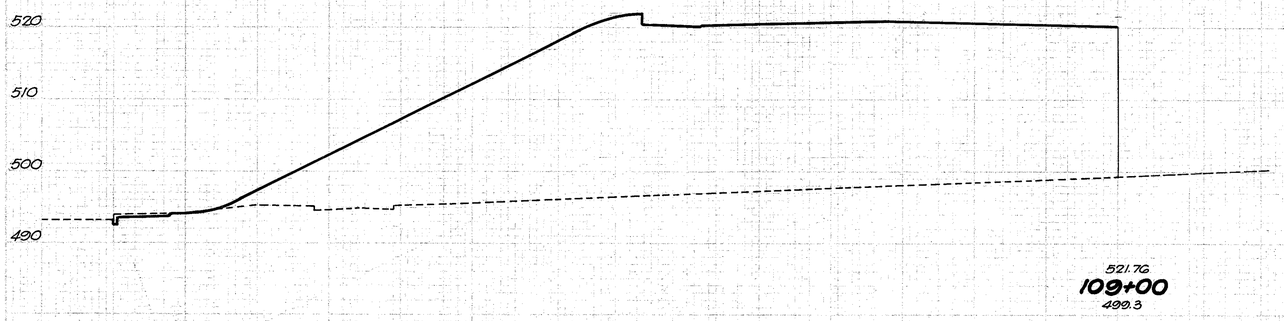
131
486

HAM-25-1.63



9 4918

1616

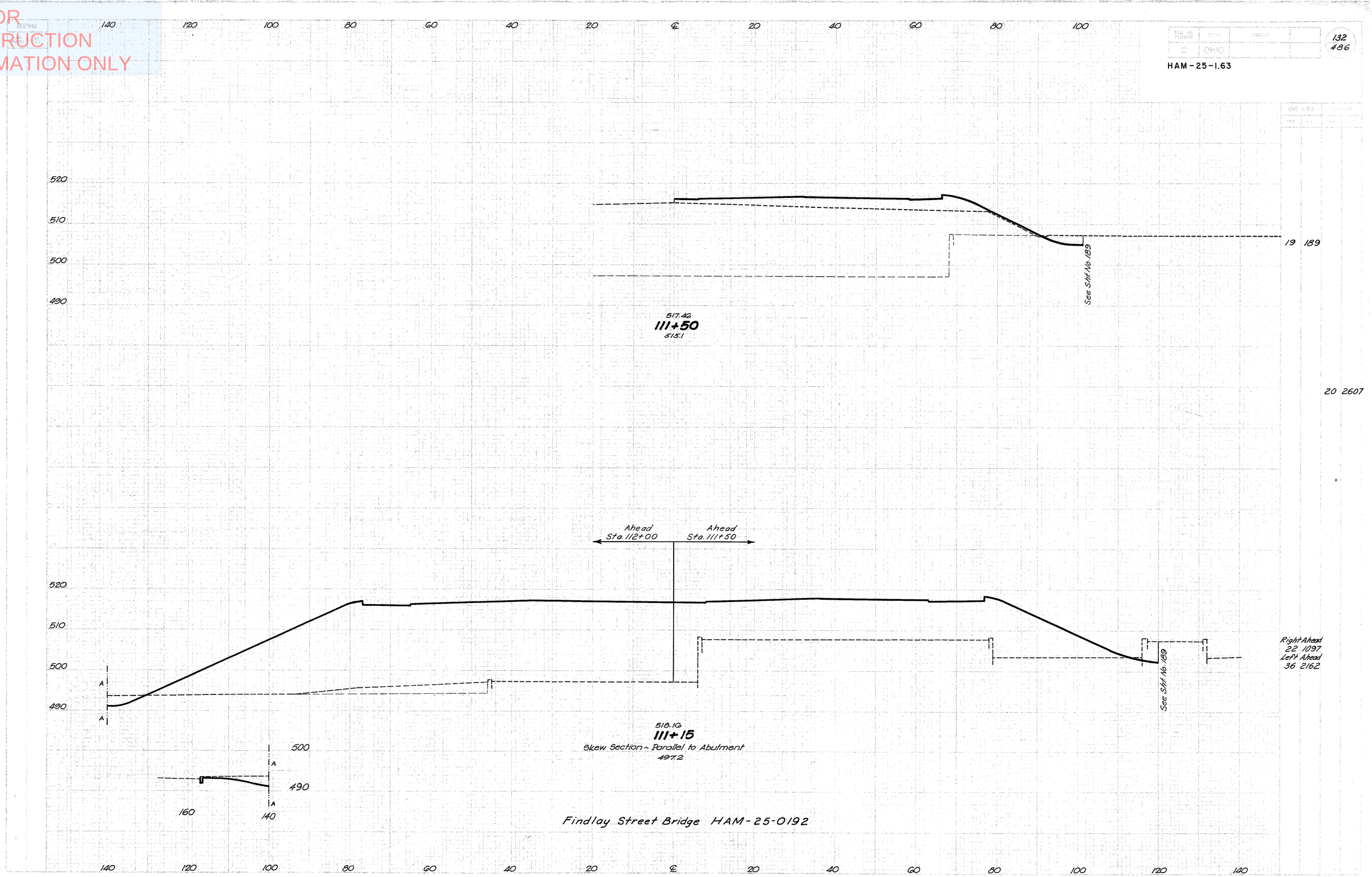


5 2329

9 2395

STA. 109+00 to STA. 109+15

NOT FOR CONSTRUCTION INFORMATION ONLY



STA. 111+15 to STA. 111+50

NOT FOR CONSTRUCTION INFORMATION ONLY

HAM-I.63

140 120 100 80 60 40 20 ℄ 20 40 60 80 100

520
510
500
490

491.5

514.4G
113+00
521.0

See Sht. No. 189

939 30

1622 62

520
510
500
490

491.3

515.4G
112+50
521.0

See Sht. No. 189

813 37

1364 56

Ahead
Sta. 111+15 Back
Sta. 111+50 Back

520
510
500
490

491.1

516.4G
112+00
521.0

See Sht. No. 189

Ahead
660 24
Right Back
328 24
Left Back
314

321 197

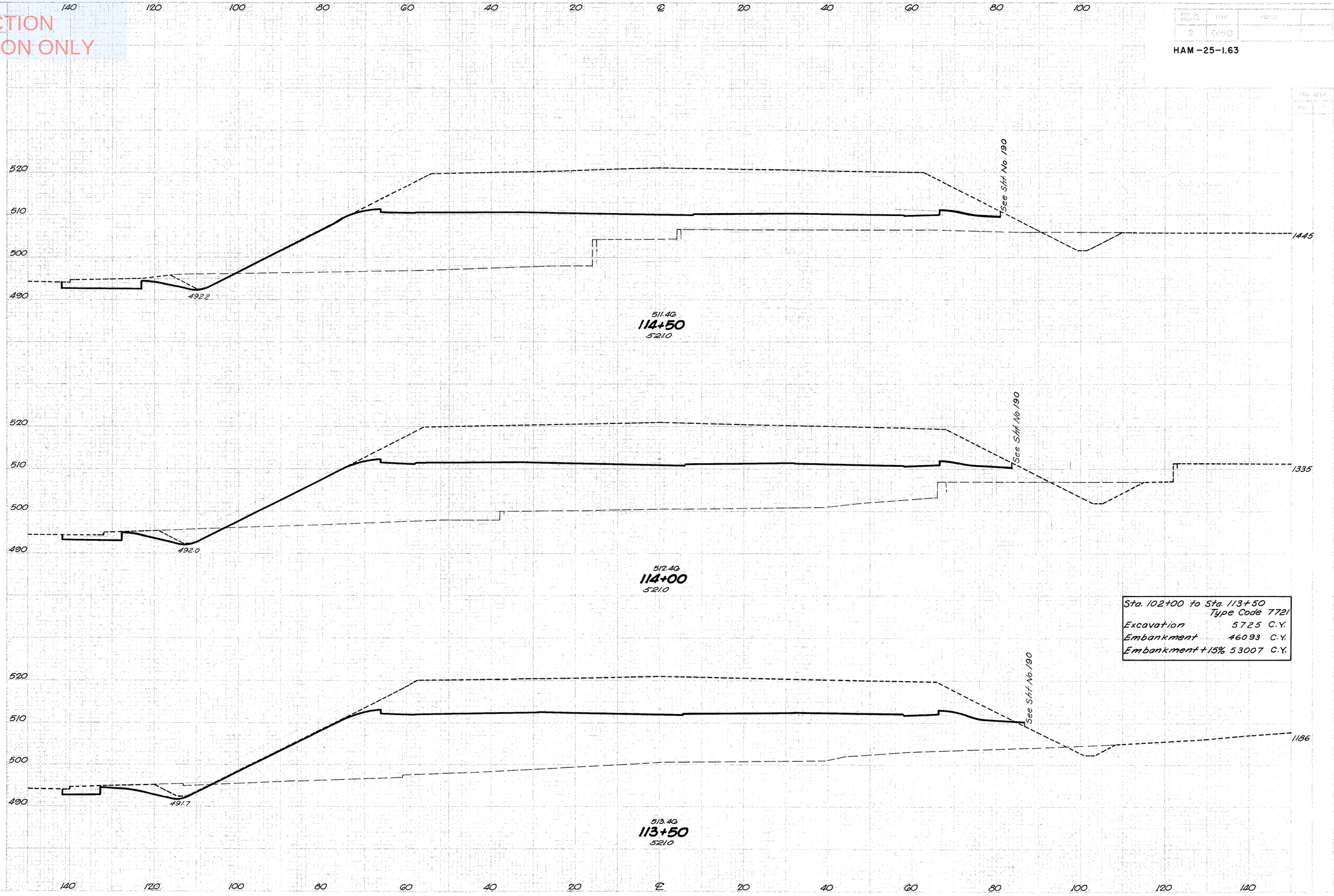
316 1750

140 120 100 80 60 40 20 ℄ 20 40 60 80 100 120 140

STA. 112+00 to STA. 113+00

NOT FOR CONSTRUCTION INFORMATION ONLY

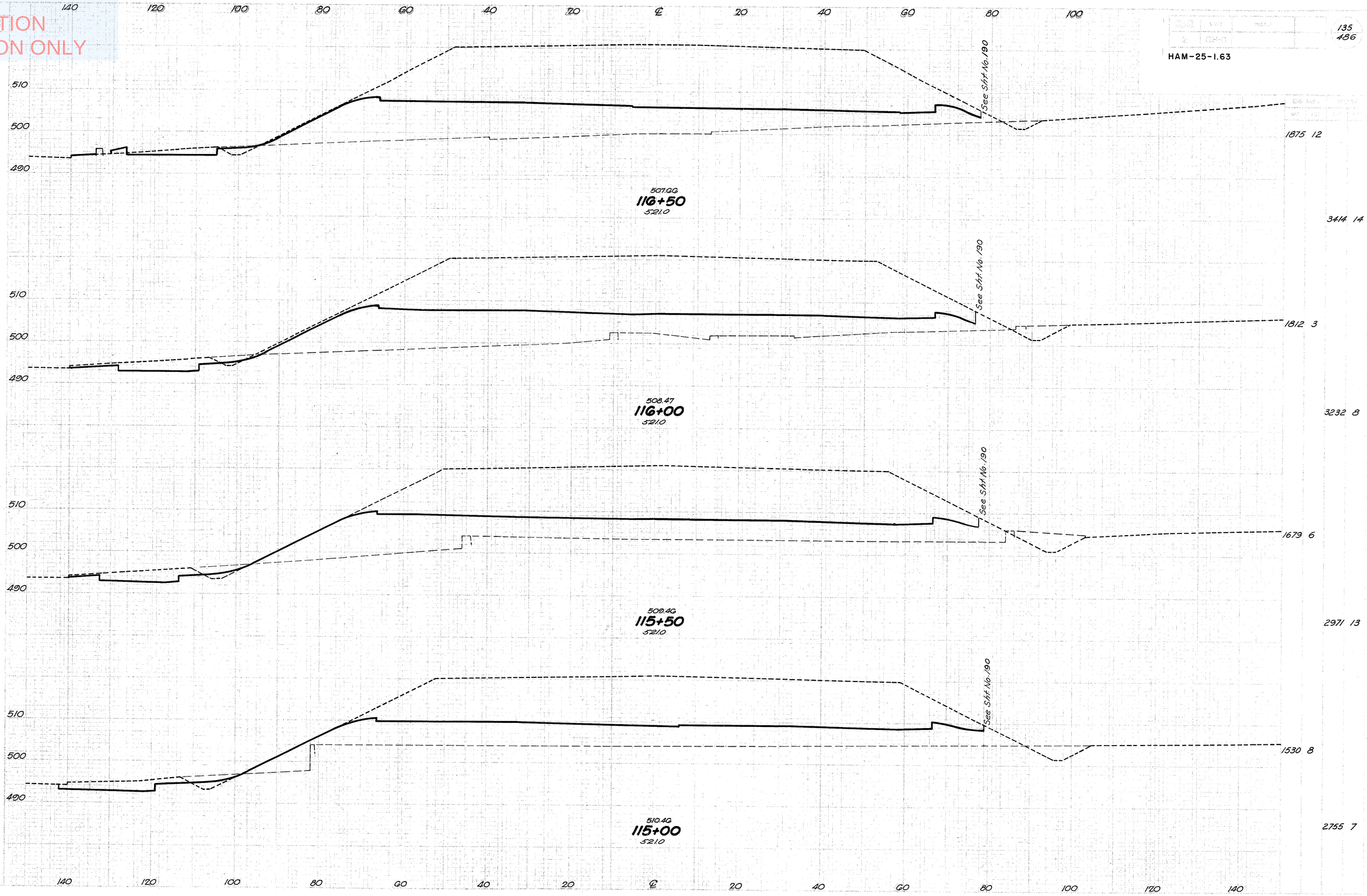
HAM-25-1.63



Sta. 102+00 to Sta. 113+50	Type Code 7721
Excavation	5725 C.Y.
Embankment	46093 C.Y.
Embankment +15%	53007 C.Y.

STA. 113+50 to STA. 114+50

NOT FOR CONSTRUCTION INFORMATION ONLY



STA. 115+00 to STA. 116+50

NOT FOR CONSTRUCTION INFORMATION ONLY

HAM-25-1.63

180 160 140 120 100 80 60 40 20 ℄ 20 40 60 80

510
500
490

See Sht No.190

1762 474

506.94
118+50
52.10

3336 751

510
500
490

See Sht No.190

1841 337

506.75
118+00
52.10

3432 536

510
500
490

See Sht No.190

1866 242

506.80
117+50
52.10

3482 406

510
500
490

See Sht No.190

1895 196

507.11
117+00
52.10

3491 193

180 160 140 120 100 80 60 40 20 ℄ 20 40 60 80 100

STA.117+00 to STA.118+50

NOT FOR CONSTRUCTION INFORMATION ONLY

HAM-25-I.63

180 160 140 120 100 80 60 40 20 ℄ 20 40 60 80

510
500
490

493.8

See Sht. No. 19

1946 60

510.02
120+50
521.0

3457 485

510
500
490

494.0

See Sht. No. 19

1788 464

509.02
120+00
521.0

3383 927

510
500
490

See Sht. No. 19

1866 537

508.08
119+50
521.0

3383 1065

510
500
490

See Sht. No. 19

1788 613

507.38
119+00
521.0

3287 1006

180 160 140 120 100 80 60 40 20 ℄ 20 40 60 80 100

STA. 119+00 to STA. 120+50

NOT FOR CONSTRUCTION INFORMATION ONLY

SHEET NO.	STATE	PROJECT
2	OHIO	

138
486

HAM-25-I.63

180 160 140 120 100 80 60 40 20 ℄ 20 40 60 80

510
500
490

494.5

1205 48

See Sht No. 192

513.68
122+50
52.10

2409 92

510
500
490

494.4

1397 51

See Sht No. 192

512.87
122+00
52.10

2873 103

510
500
490

494.4

1706 60

See Sht No. 192

511.98
121+50
52.10

3363 92

510
500
490

493.2

1926 39

See Sht No. 191

511.02
121+00
52.10

3585 92

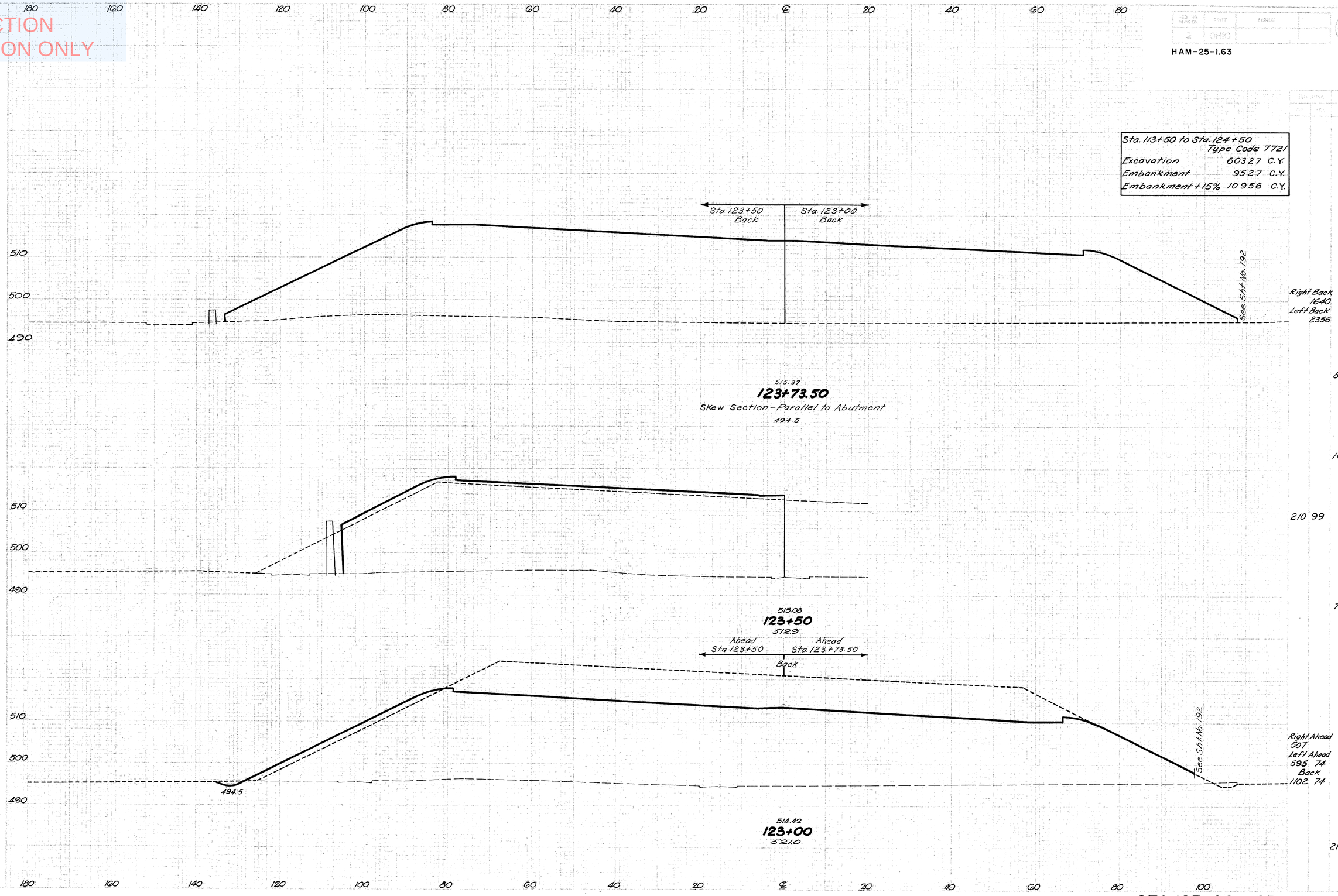
180 160 140 120 100 80 60 40 20 ℄ 20 40 60 80 100

STA. 121+00 to STA. 122+50

NOT FOR CONSTRUCTION INFORMATION ONLY

HAM-25-1.63

Sta. 113+50 to Sta. 124+50	Type Code 7721
Excavation	60327 C.Y.
Embankment	9527 C.Y.
Embankment +15%	10956 C.Y.



516 1584

169 1879

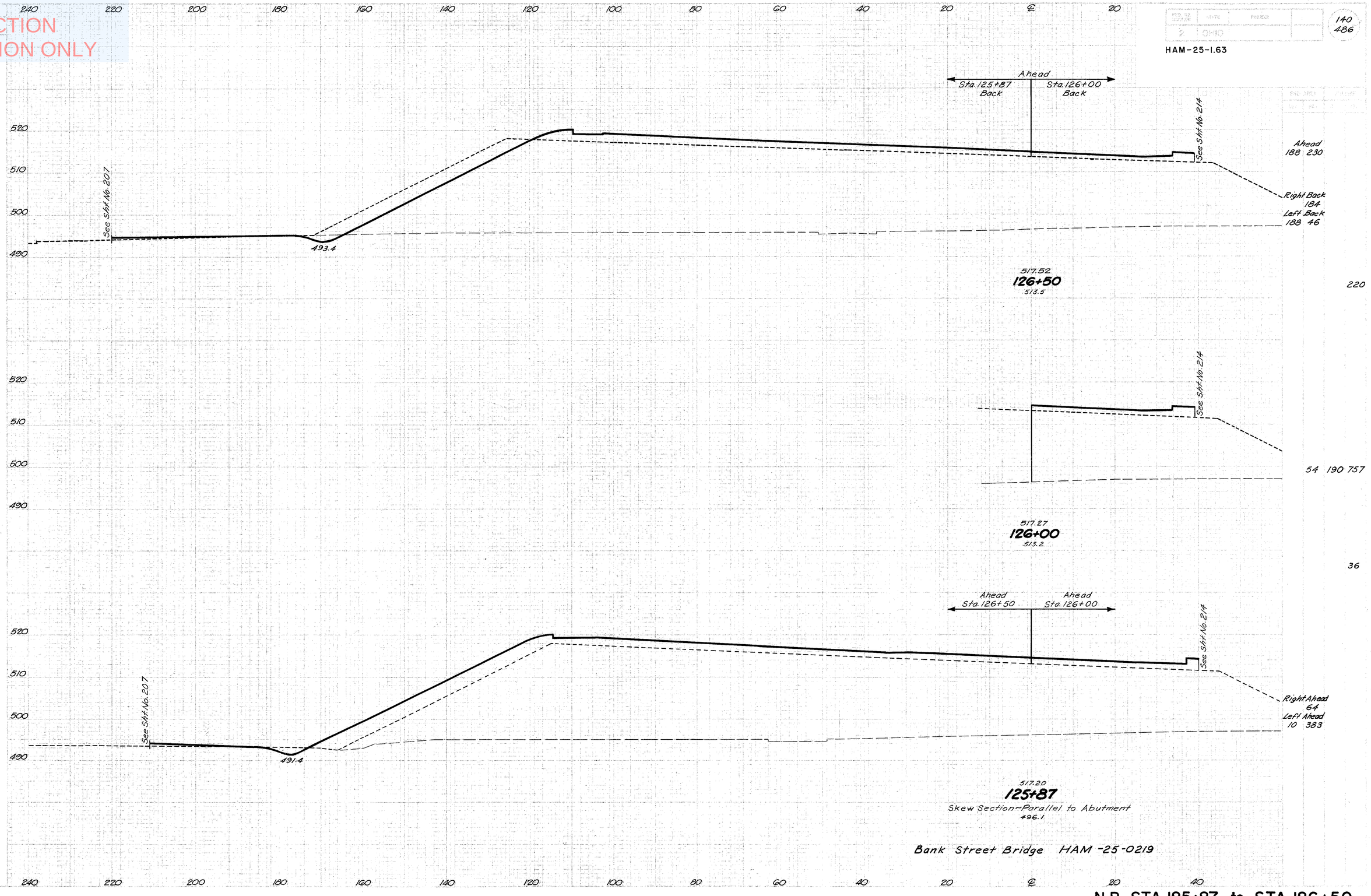
210 99

745 160

2136 113

STA. 123+00 to STA. 123+73.50

NOT FOR CONSTRUCTION INFORMATION ONLY



N.B. STA.125+87 to STA.126+50

NOT FOR CONSTRUCTION INFORMATION ONLY

HAM-25-1.63

240 220 200 180 160 140 120 100 80 60 40 20 ℄ 20

520
510
500
490

See Sht No. 207

494.0

See Sht No. 214

13 344

518.27
128+00
514.2

25 651

520
510
500
490

See Sht No. 207

493.8

See Sht No. 214

14 359

518.02
127+50
514.0

27 625

520
510
500
490

See Sht No. 207

493.6

See Sht No. 214

15 316

517.77
127+00
513.7

188 506

240 220 200 180 160 140 120 100 80 60 40 20 ℄ 20 40

N.B. STA. 127+00 to STA. 128+00

NOT FOR CONSTRUCTION INFORMATION ONLY

SHEET NO.	STATE	PROJECT
2	OHIO	

142
486

HAM-25-1.63

240 220 200 180 160 140 120 100 80 60 40 20 ℄ 20

520
510
500
490

494.6

See Sht No 215

11 414

519.02
129+50
515.6

29 706

520
510
500
490

494.4

See Sht No 215

20 348

518.77
129+00
515.1

28 640

520
510
500
490

See Sht No 208

494.2

See Sht No 215

10 343

518.52
128+50
514.8

21 636

240 220 200 180 160 140 120 100 80 60 40 20 ℄ 20 40

N.B. STA. 128+50 to STA. 129+50

NOT FOR CONSTRUCTION INFORMATION ONLY

HAM-25-1.63

240 220 200 180 160 140 120 100 80 60 40 20 ℄ 20

520
510
500
490

See Sht No. 2/6

495.2

10 378

519.77
131+00
516.9

18 682

520
510
500
490

See Sht No. 2/6

495.0

9 359

519.52
130+50
516.8

19 849

520
510
500
490

See Sht No. 2/5

494.8

12 558

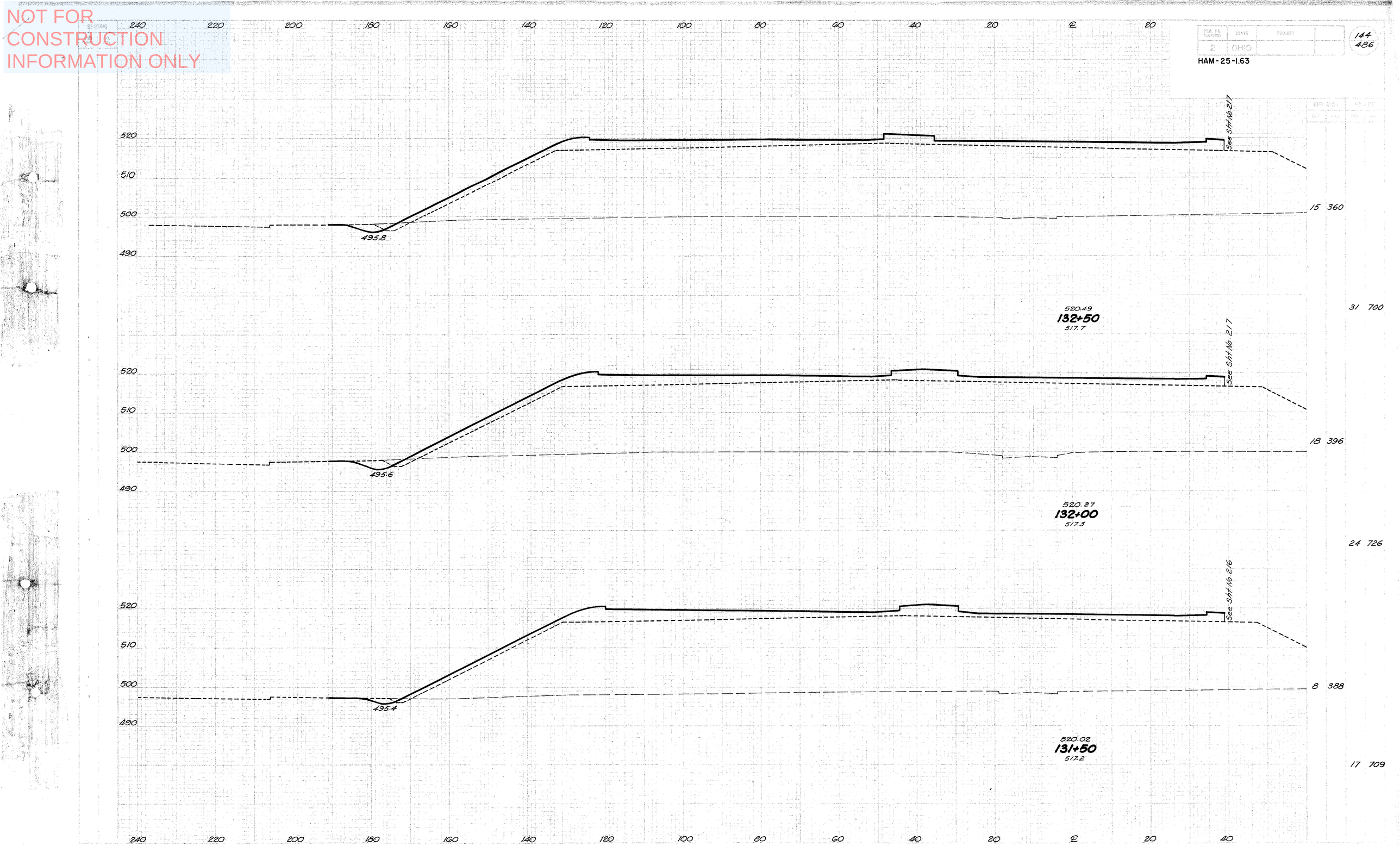
519.27
130+00
516.3

21 900

240 220 200 180 160 140 120 100 80 60 40 20 ℄ 20 40

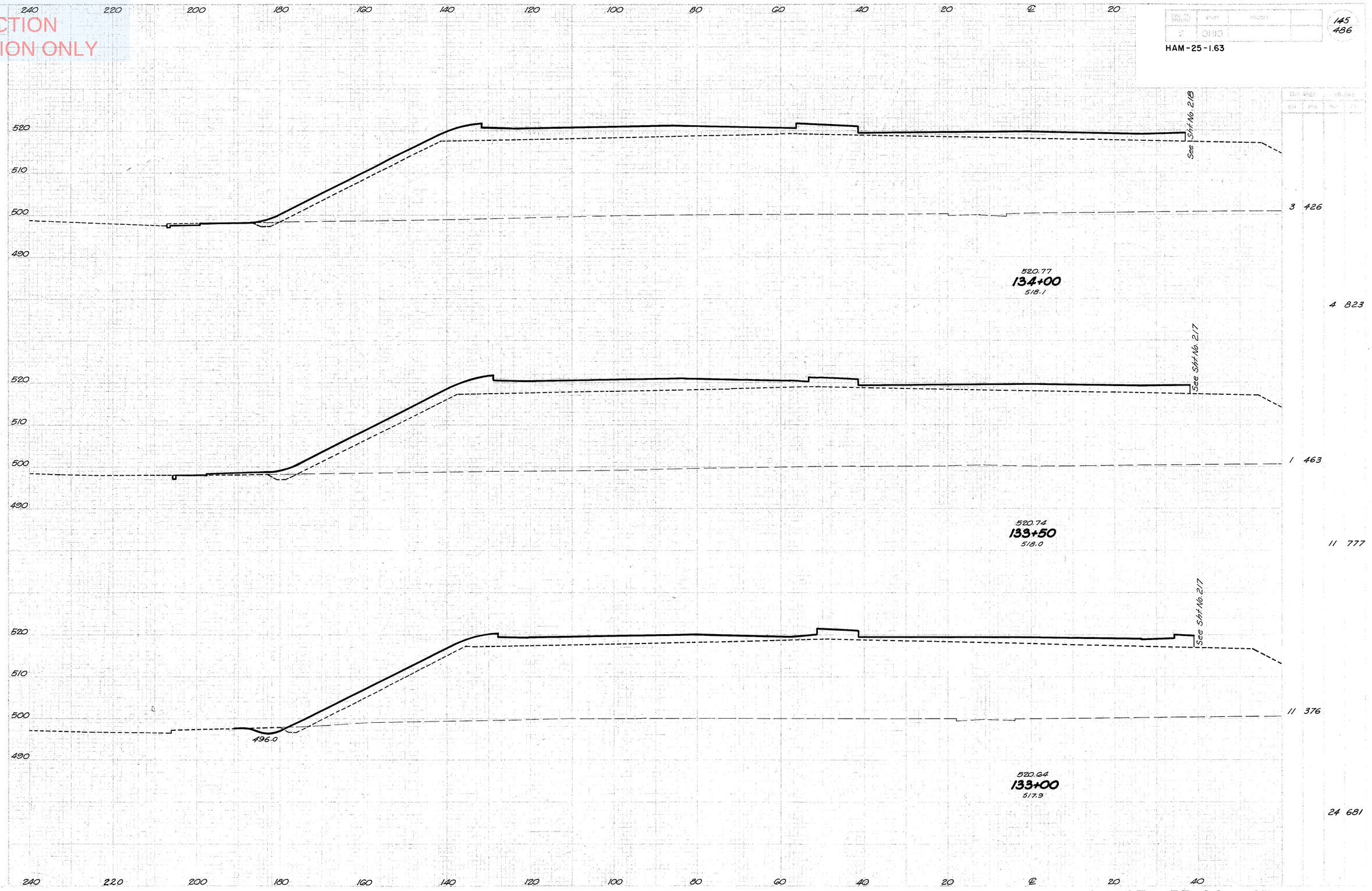
N.B. STA. 130+00 to STA. 131+00

NOT FOR
CONSTRUCTION
INFORMATION ONLY



N.B. STA. 131+50 to STA. 132+50

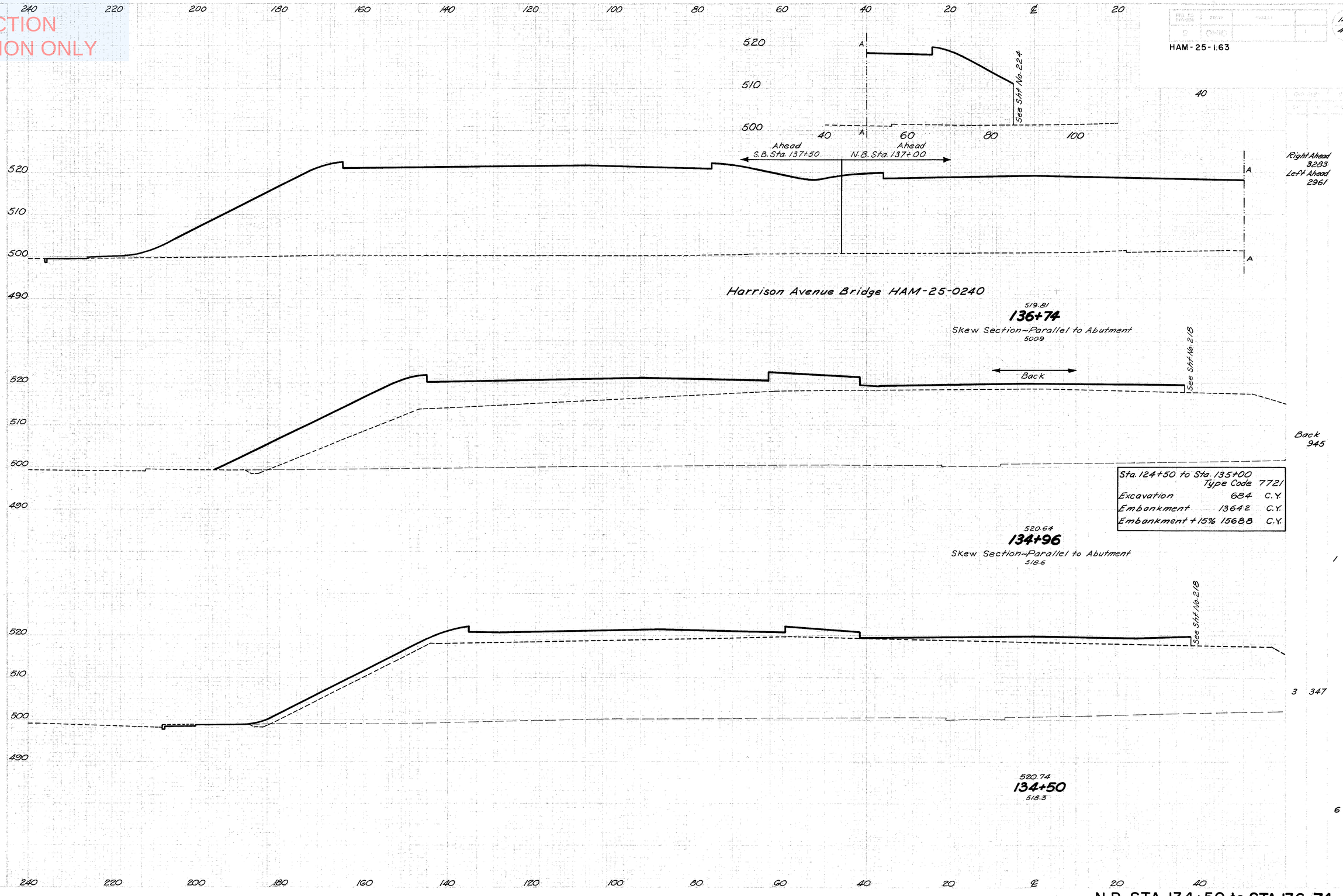
NOT FOR
CONSTRUCTION
INFORMATION ONLY



N.B. STA. 133+00 to STA. 134+00

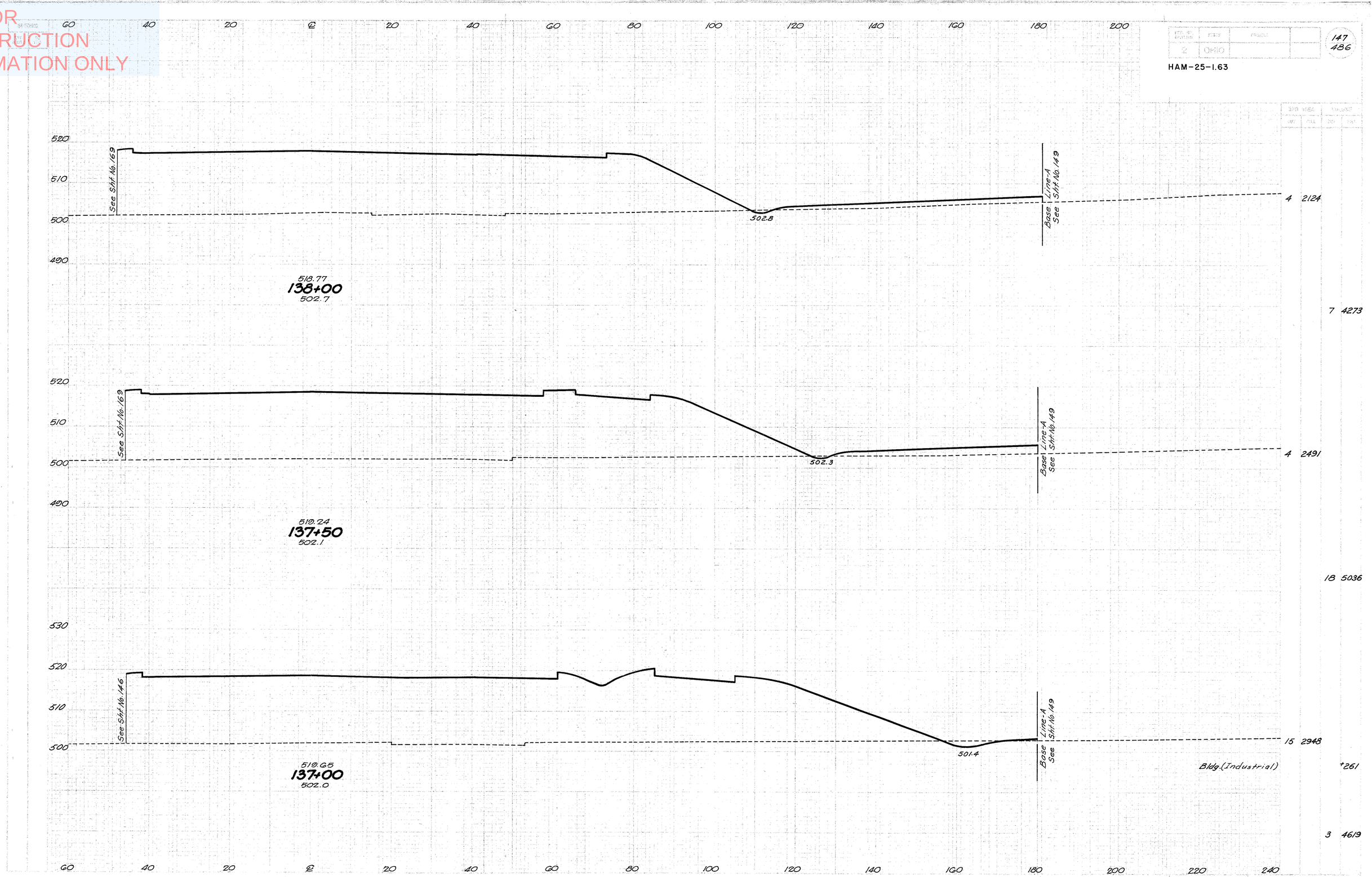
NOT FOR CONSTRUCTION INFORMATION ONLY

HAM-25-1.63



N.B. STA. 134+50 to STA. 136+74

NOT FOR CONSTRUCTION INFORMATION ONLY



N.B. STA. 137+00 to STA. 138+00

NOT FOR CONSTRUCTION INFORMATION ONLY

N.B. STA. 138+50 to STA. 140+00

NOT FOR CONSTRUCTION INFORMATION ONLY

"O" Section

HAM - 25 - 1.63

149
486

180 200 220 240 260 280 300 320 340 360 380 400 420

139+98

510
500

See Sht No. 148 Base Line - A

See Sht No. 220

139+50

510
500

See Sht No. 148 Base Line - A

See Sht No. 220

139+00

510
500

See Sht No. 148 Base Line - A

See Sht No. 221

138+50

510
500

See Sht No. 147 Base Line - A

See Sht No. 221

138+00

510
500

See Sht No. 147 Base Line - A

See Sht No. 222

137+50

510
500

See Sht No. 147 Base Line - A

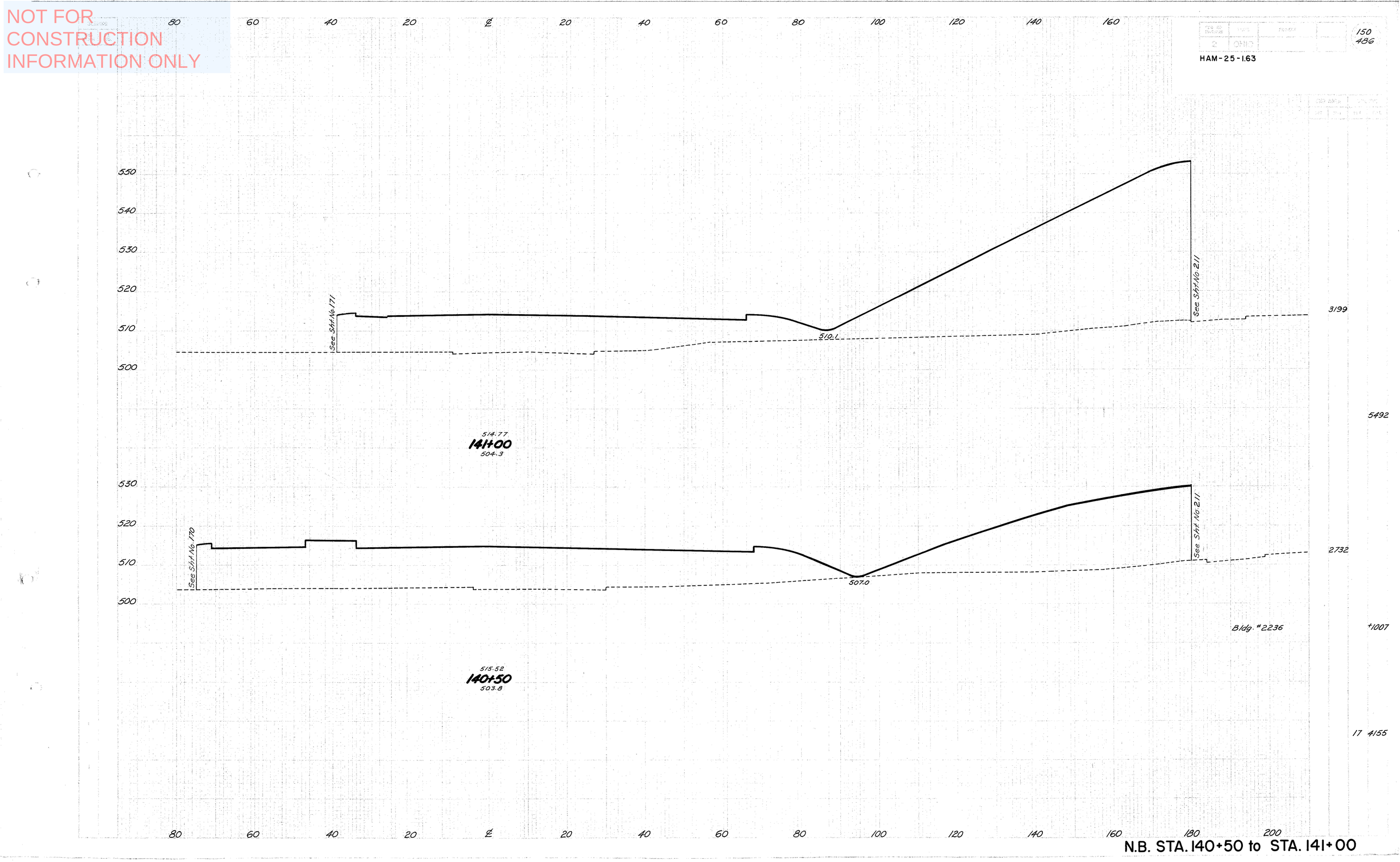
See Sht No. 223

137+00

END AREA		VOLUME	
CUT	FILL	CUT	FILL
0	0		
		234	
263			
		796	31
597	33		
		556	673
3	694		
		3	1617
		1052	
		1850	
		946	
		1314	
		473	

BASE LINE - A N.B. STA. 137+00 to STA. 139+98

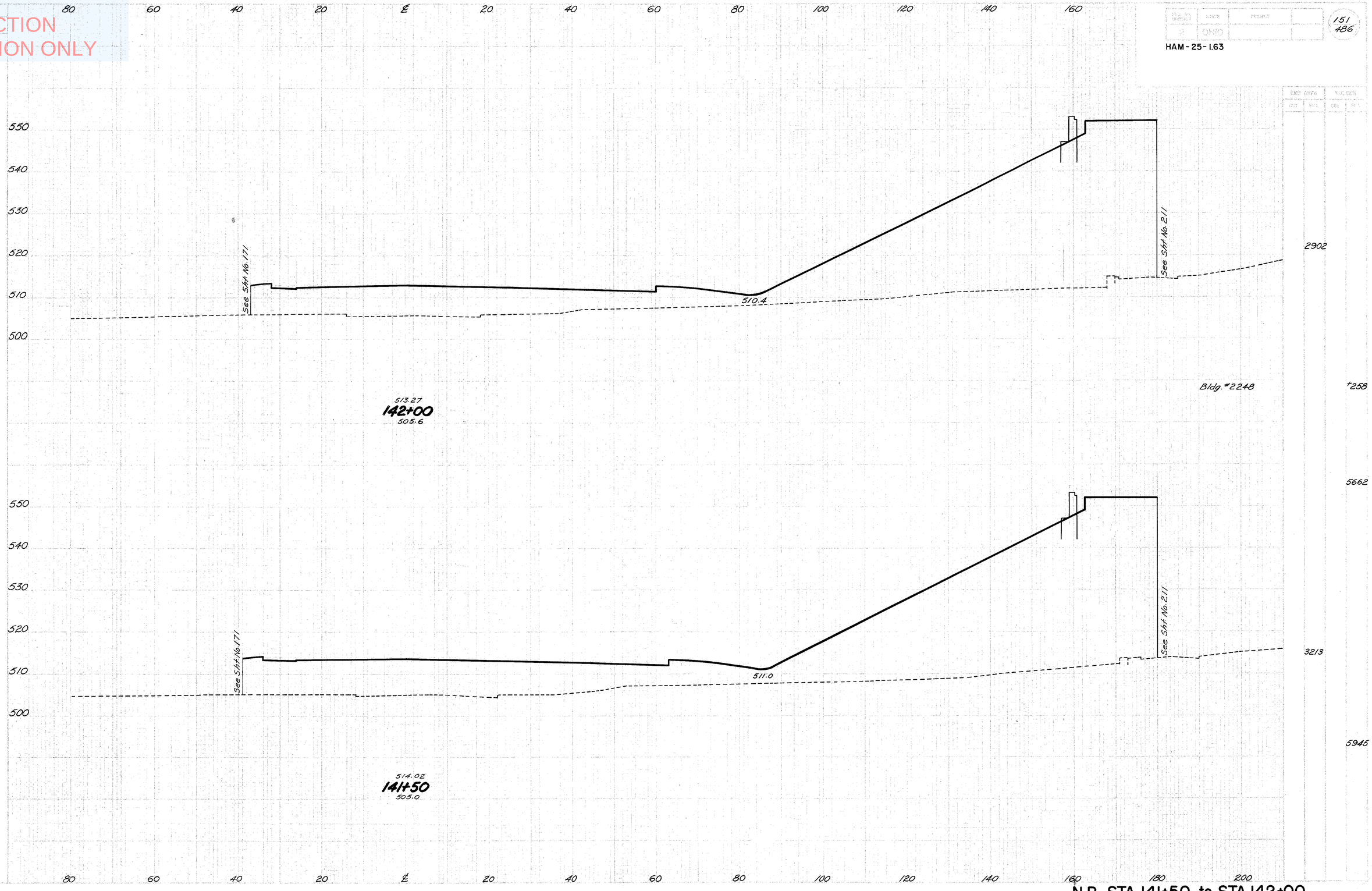
NOT FOR
CONSTRUCTION
INFORMATION ONLY



N.B. STA. 140+50 to STA. 141+00

NOT FOR CONSTRUCTION INFORMATION ONLY

HAM - 25 - 1.63



N.B. STA. 141+50 to STA. 142+00

NOT FOR CONSTRUCTION INFORMATION ONLY

FED. PROJECT	STATE	PROJECT	
	OHIO		

152
486

HAM-25-1.63

40 20 ℄ 20 40 60 80 100 120 140 160 180 200

530
520
510
500

See Sht. No. 172

See Sht. No. 228

507.9

511.37
143+50
506.9

Bldg. #2262

END AREA		VOLUME	
CUT	FILL	CUT	FILL
22	336		
		+230	
23	1041		

530
520
510
500

See Sht. No. 172

See Sht. No. 228

508.4

511.86
143+00
506.3

3	788		
		3	2830

530
520
510
500

See Sht. No. 172

See Sht. No. 211

509.4

512.52
142+50
406.1

		2268	
			4787

40 20 ℄ 20 40 60 80 100 120 140 160 180 200 220 240

N.B. STA. 142+50 to STA. 143+50

NOT FOR CONSTRUCTION INFORMATION ONLY

FED. ROAD DIV. NO.	STATE	PROJECT		SHEET NO.	TOTAL SHEETS
2	OHIO			153	486

HAM-25-1.63

40 20 ℄ 20 40 60 80 100 120 140 160 180 200

530 520 510 500

See Sht No. 175

510.93
145+00
513.6

507.6

See Sht No. 226

1259 56

Bldg. #2272 #2274 #2276 #2278

-893 *80

1958 130

530 520 510 500

See Sht No. 175

510.90
144+50
508.8

507.5

856 84

240

Bldg. #2268

-257

540 530

See Sht No. 227

1019 496

240 260

530 520 510 500

See Sht No. 173

511.05
144+00
507.9

507.6

See Sht No. 227

245 452

247 730

40 20 ℄ 20 40 60 80 100 120 140 160 180 200 220 240

N.B. STA. 144+00 to STA. 145+00

NOT FOR CONSTRUCTION INFORMATION ONLY

SHEET NO.	STATE	PROJECT	
2	OHIO		

154
486

HAM-25-1.63

40 20 ℄ 20 40 60 80 100 120 140 160 180 200

530
520
510
500

See Sht. No. 176

See Sht. No. 225

422 324

Bldg. #1109 #1119

-248+679

1175 319

512.05
146+50
512.2

530
520
510
500

See Sht. No. 175

See Sht. No. 225

508.2

847 20

Bldg. #1113 #1115 #2284 #2286

-670+88

1954 57

511.50
146+00
513.0

530
520
510
500

See Sht. No. 174

See Sht. No. 226

507.8

1263 42

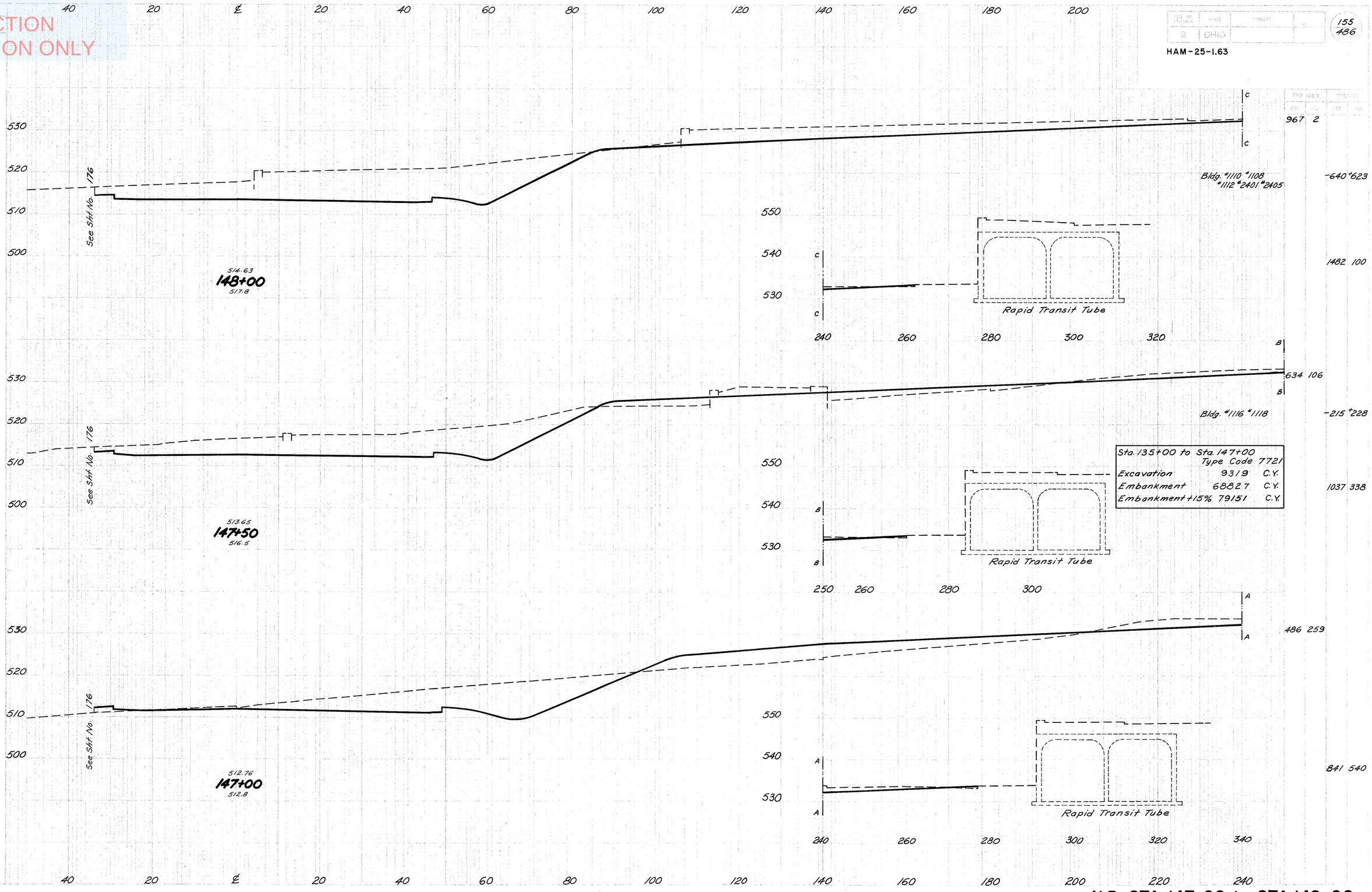
2335 91

511.13
145+50
513.6

40 20 ℄ 20 40 60 80 100 120 140 160 180 200 220 240

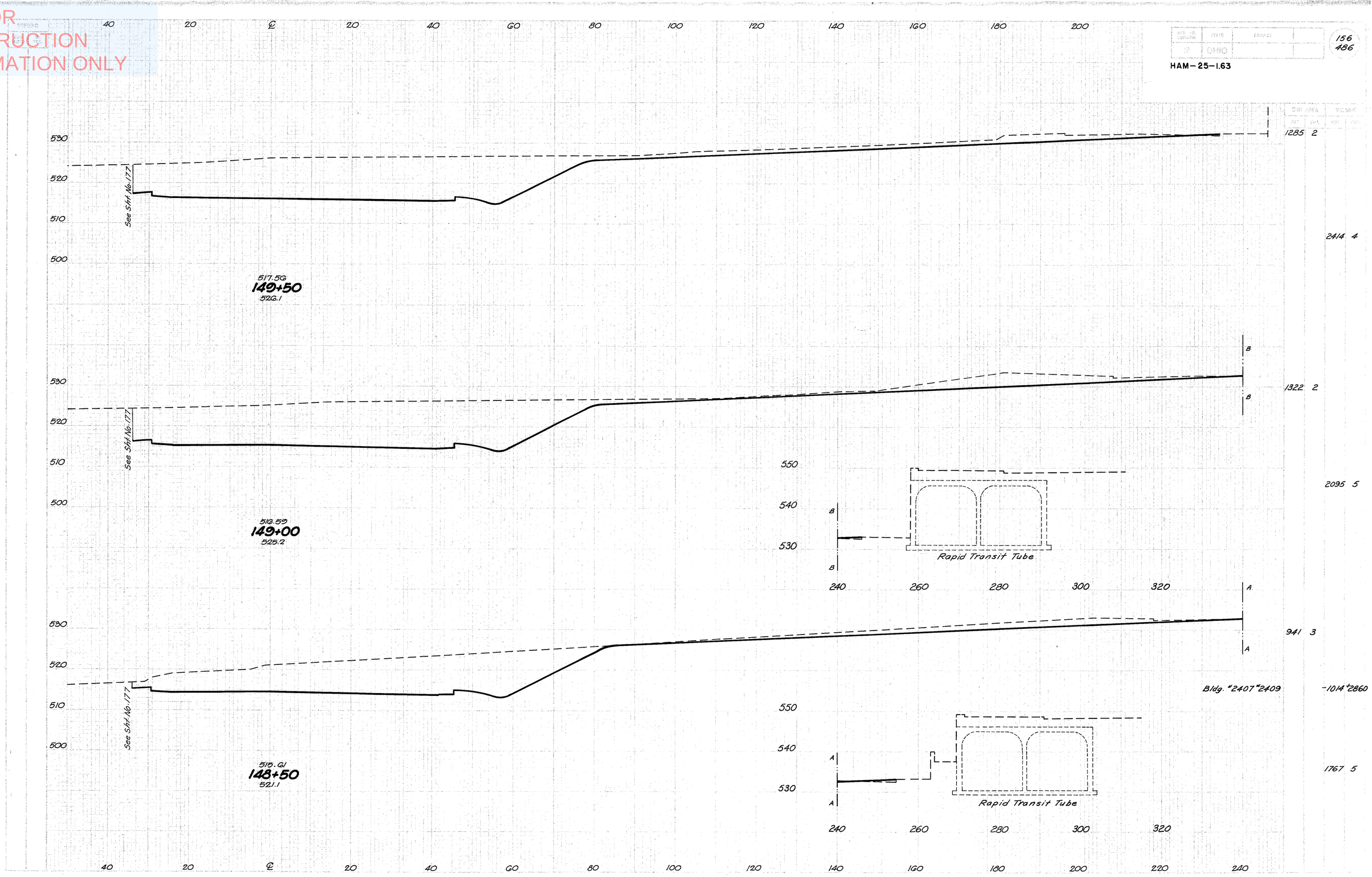
N.B. STA. 145+50 to STA. 146+50

NOT FOR CONSTRUCTION INFORMATION ONLY



N.B. STA. 147+00 to STA. 148+00

NOT FOR
CONSTRUCTION
INFORMATION ONLY



N.B. STA. 148+50 to STA. 149+50

NOT FOR CONSTRUCTION INFORMATION ONLY

STATE	YEAR	SHEET	
OHIO			

157
486

HAM-25-1.63

40 20 ℄ 20 40 60 80 100 120 140 160 180 200

550
540
530
520
510

See Sht. No. 178

520.49
151+00
530.4

Rapid Transit Tube

Bldg. #2425

1410 3

-634

2525 5

1316 2

Rapid Transit Tube

2343 4

See Sht. No. 178

519.51
150+50
528.0

1214 2

Rapid Transit Tube

2314 4

See Sht. No. 178

518.54
150+00
526.1

40 20 ℄ 20 40 60 80 100 120 140 160 180 200 220 240

N.B. STA. 150+00 to STA. 151+00

NOT FOR CONSTRUCTION INFORMATION ONLY

158
486

HAM – 25 – 1.63

40 20 ℄ 20 40 60 80 100 120 140 160 180 200

550
540
530
520
510

See Sht. No. 179

522.42
152+50
526.7

Rapid Transit Tube

667 71

1355 146

550
540
530
520
510

See Sht. No. 179

522.45
152+00
526.6

Rapid Transit Tube

796 87

Bldg. "2235 "2239

-624

1924 115

550
540
530
520
510

See Sht. No. 179

521.47
151+50
531.2

Rapid Transit Tube

1282 37

Bldg. "2431

-388 "98

2493 37

40 20 ℄ 20 40 60 80 100 120 140 160 180 200 220 240

N.B. STA. 151+50 to STA. 152+50

NOT FOR
CONSTRUCTION
INFORMATION ONLY

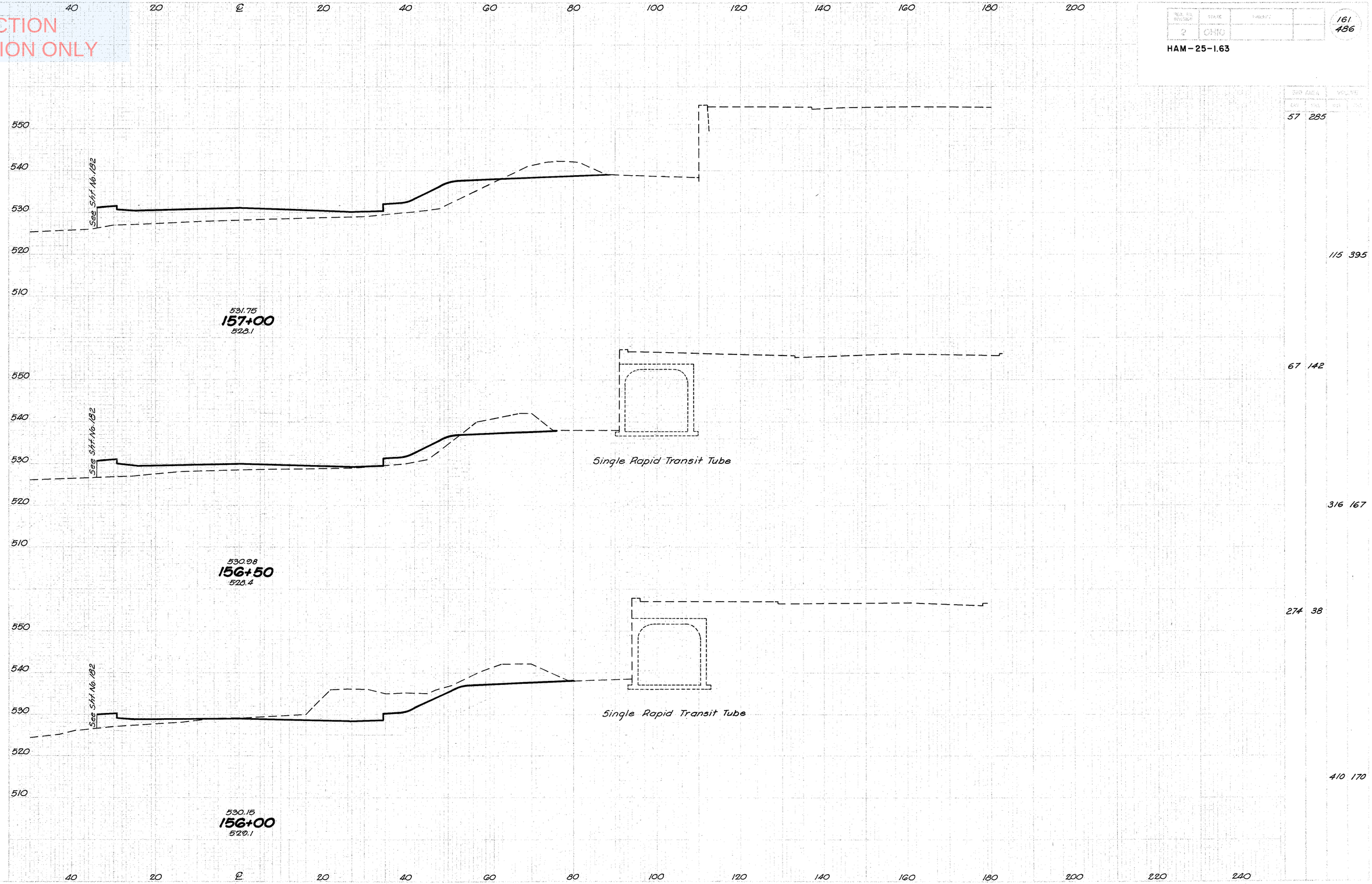
N.B. STA. 153+00 to STA. 154+00

NOT FOR CONSTRUCTION INFORMATION ONLY

N.B. STA. 154+50 to STA. 155+50

NOT FOR
CONSTRUCTION
INFORMATION ONLY

2 OHIO
HAM-25-1.63
161
486



N.B. STA. 156+00 to STA. 157+00

NOT FOR CONSTRUCTION INFORMATION ONLY

SHEET NO.	STATE	FAIRLY	
2	OHIO		

162
486

HAM-25-1.63

93 901

231 1721

156 958

215 1130

76 262

123 506

40 20 ℄ 20 40 60 80 100 120 140 160 180 200

550 540 530 520 510

See Sht No. 183

533.73
158+50
520.6

550 540 530 520 570

See Sht No. 183

533.13
158+00
521.1

550 540 530 520 510

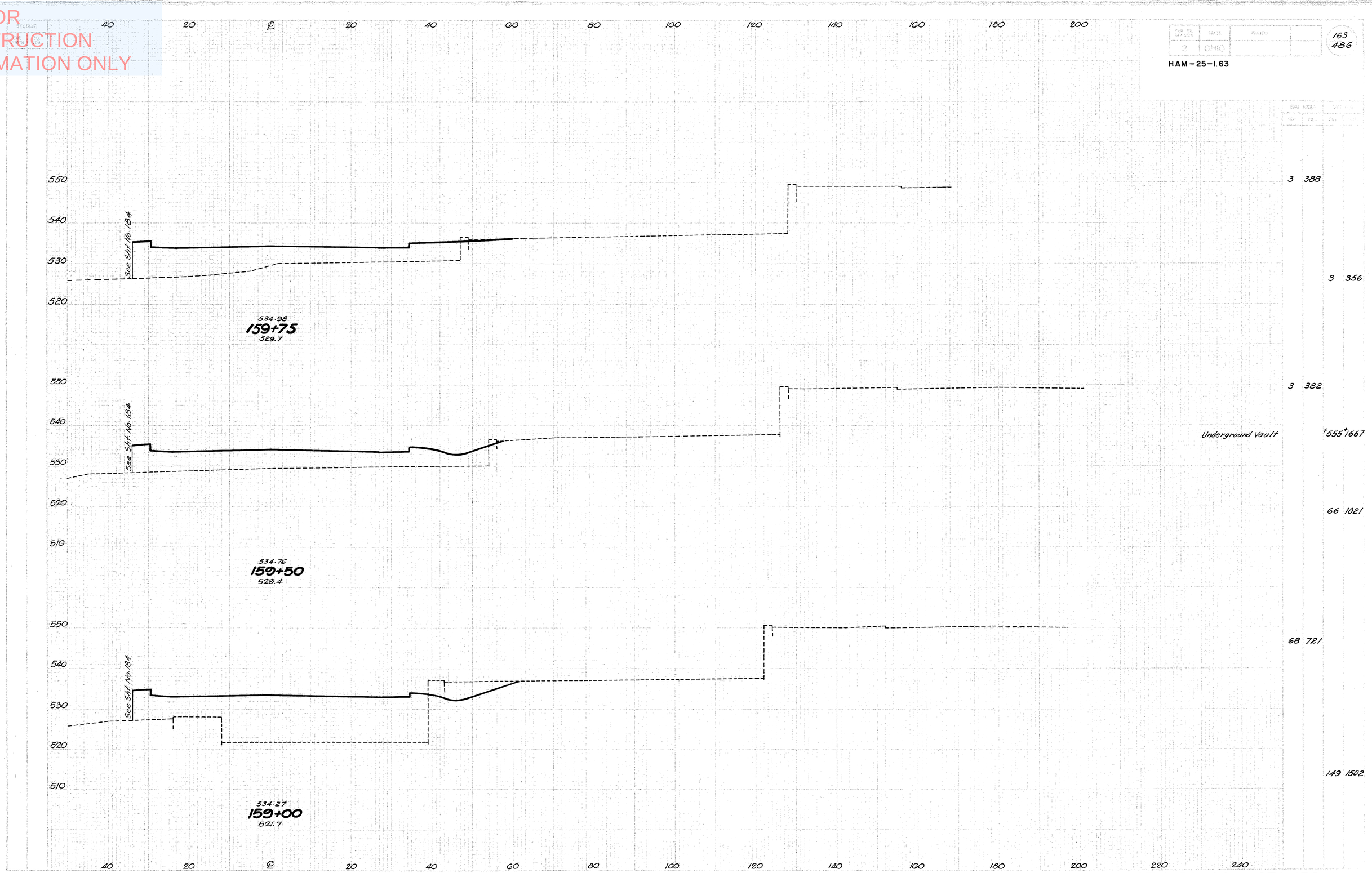
See Sht No. 183

532.47
157+50
528.6

40 20 ℄ 20 40 60 80 100 120 140 160 180 200 220 240

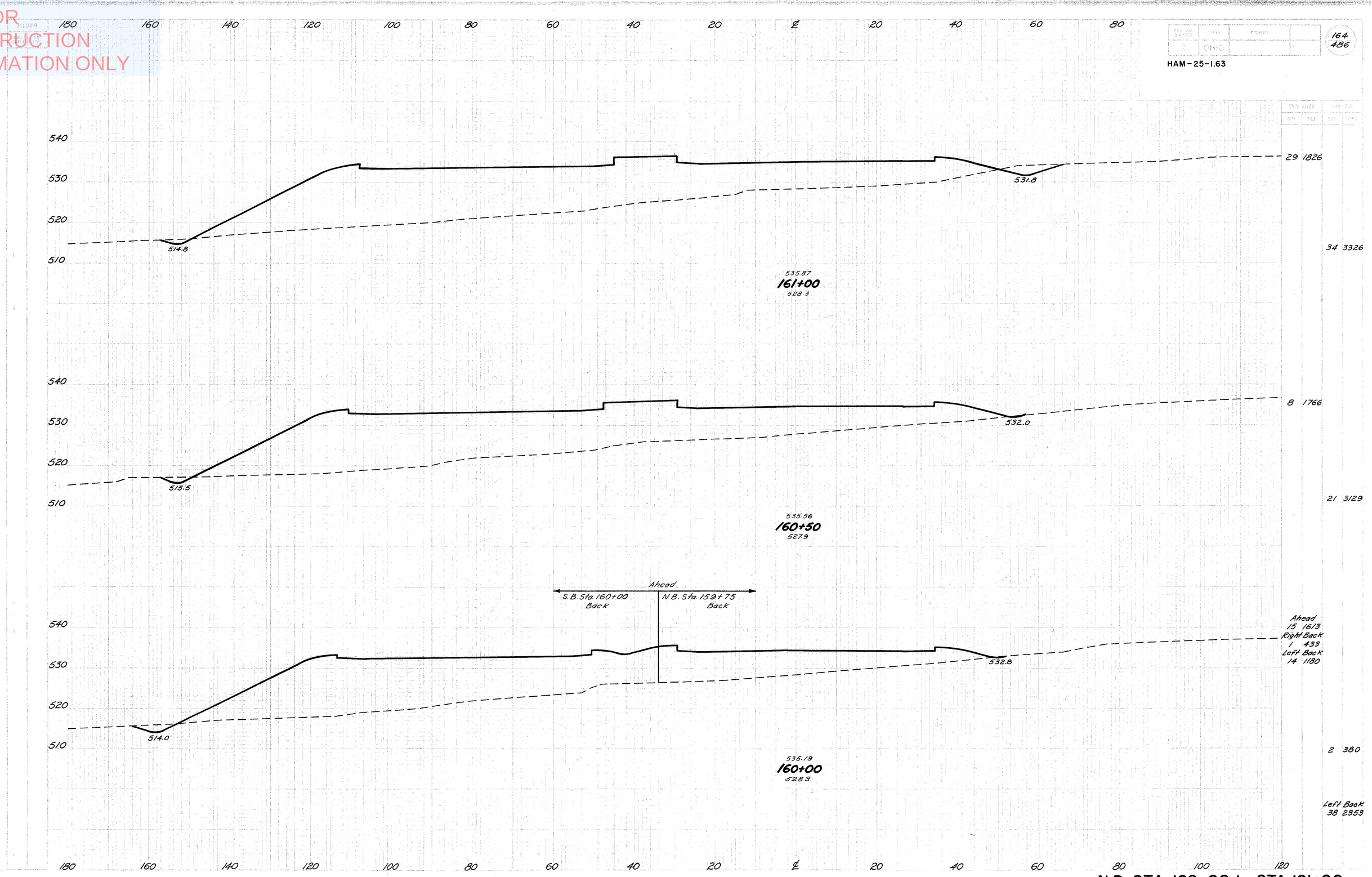
N.B. STA. 157+50 to STA. 158+50

NOT FOR CONSTRUCTION INFORMATION ONLY



N.B. STA. 159+00 to STA. 159+75

NOT FOR
CONSTRUCTION
INFORMATION ONLY



N.B. STA. 160+00 to STA. 161+00

NOT FOR CONSTRUCTION INFORMATION ONLY

FED. ROAD NUMBER	STATE	PROJECT	
2	OHIO		

165
486

HAM-25-1.63

180 160 140 120 100 80 60 40 20 ℄ 20 40 60 80

540
530
520
510
500

511.0

531.2

39 2041

81 3792

536.72
162+50
526.9

540
530
520
510
500

511.5

531.4

49 2054

Bldg. (Commercial) *20

73 3682

536.43
162+00
526.4

540
530
520
510
500

513.2

531.6

30 1923

Bldg. (Industrial) *333

55 3471

536.15
161+50
527.7

180 160 140 120 100 80 60 40 20 ℄ 20 40 60 80 100

N.B. STA. 161+50 to STA. 162+50

NOT FOR CONSTRUCTION INFORMATION ONLY

SECTION	PAGE	PROJECT	
2	OHIO		

166
486

HAM-25-1.63

SYD. AREA		VOLUME	
CUT	FILL	CUT	FILL

180 160 140 120 100 80 60 40 20 ℄ 20 40 60 80

540 530 520 510 500

527.0

40 3248

197 4644

537.57
164+00
518.9

540 530 520 510 500

A A 510.0

529.0

173 1768

Bldg. #1013 #1019
#1021 #1029

+1531

226 3290

520 510 500

A A

200 180 160

537.28
163+50
530.0

540 530 520 510 500

510.5

530.5

71 1785

Bldg. #1023 #1025
#1027

+593

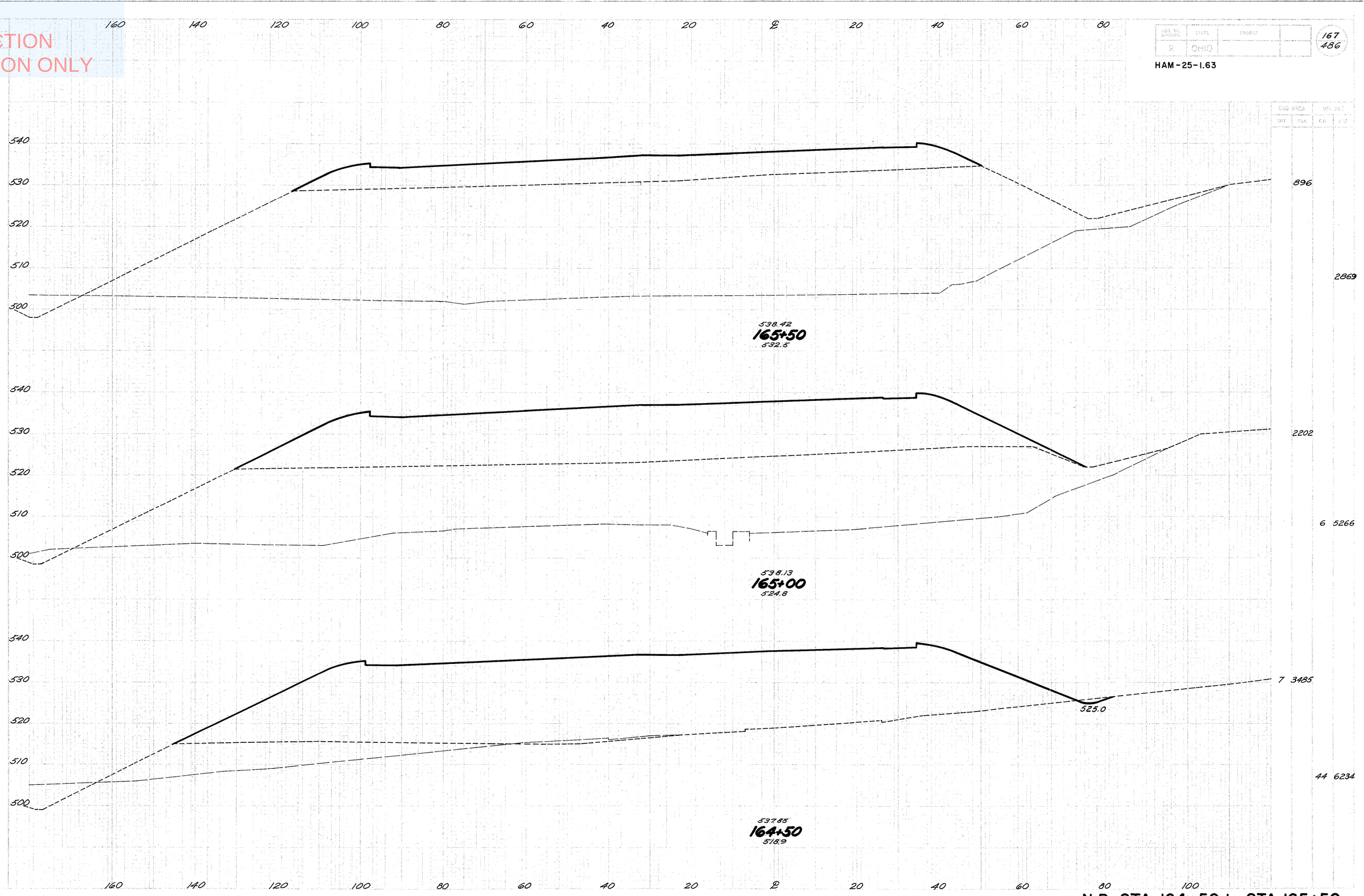
537.00
163+00
531.0

102 3543

180 160 140 120 100 80 60 40 20 ℄ 20 40 60 80 100

N.B. STA. 163+00 to STA. 164+00

NOT FOR
CONSTRUCTION
INFORMATION ONLY



N.B. STA. 164+50 to STA. 165+50

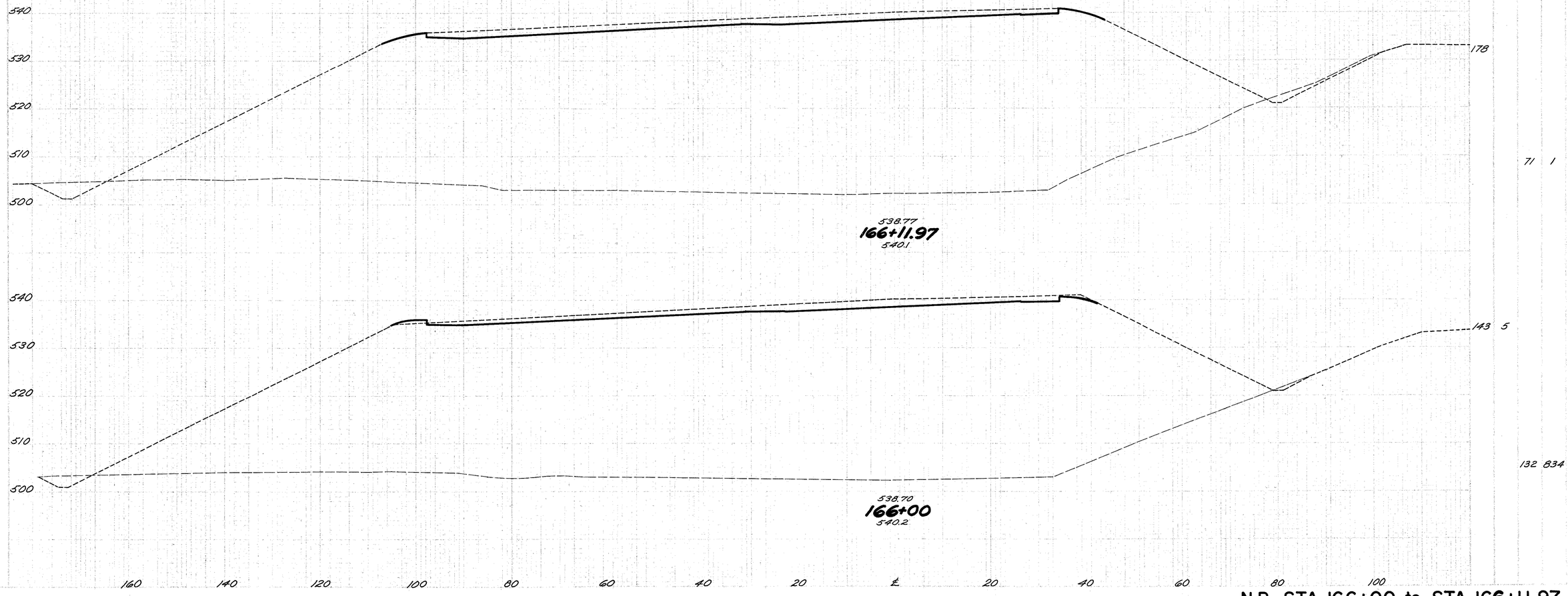
NOT FOR CONSTRUCTION INFORMATION ONLY

FED. AID PROJ. NO.	STATE	PROJECT	
2	OHIO		

168
486

HAM-25-1.63

Sta. 147+00 to Sta. 166+11.97	Type Code 7721
Excavation	26104 C.Y.
Embankment	63075 C.Y.
Embankment +15%	72536 C.Y.



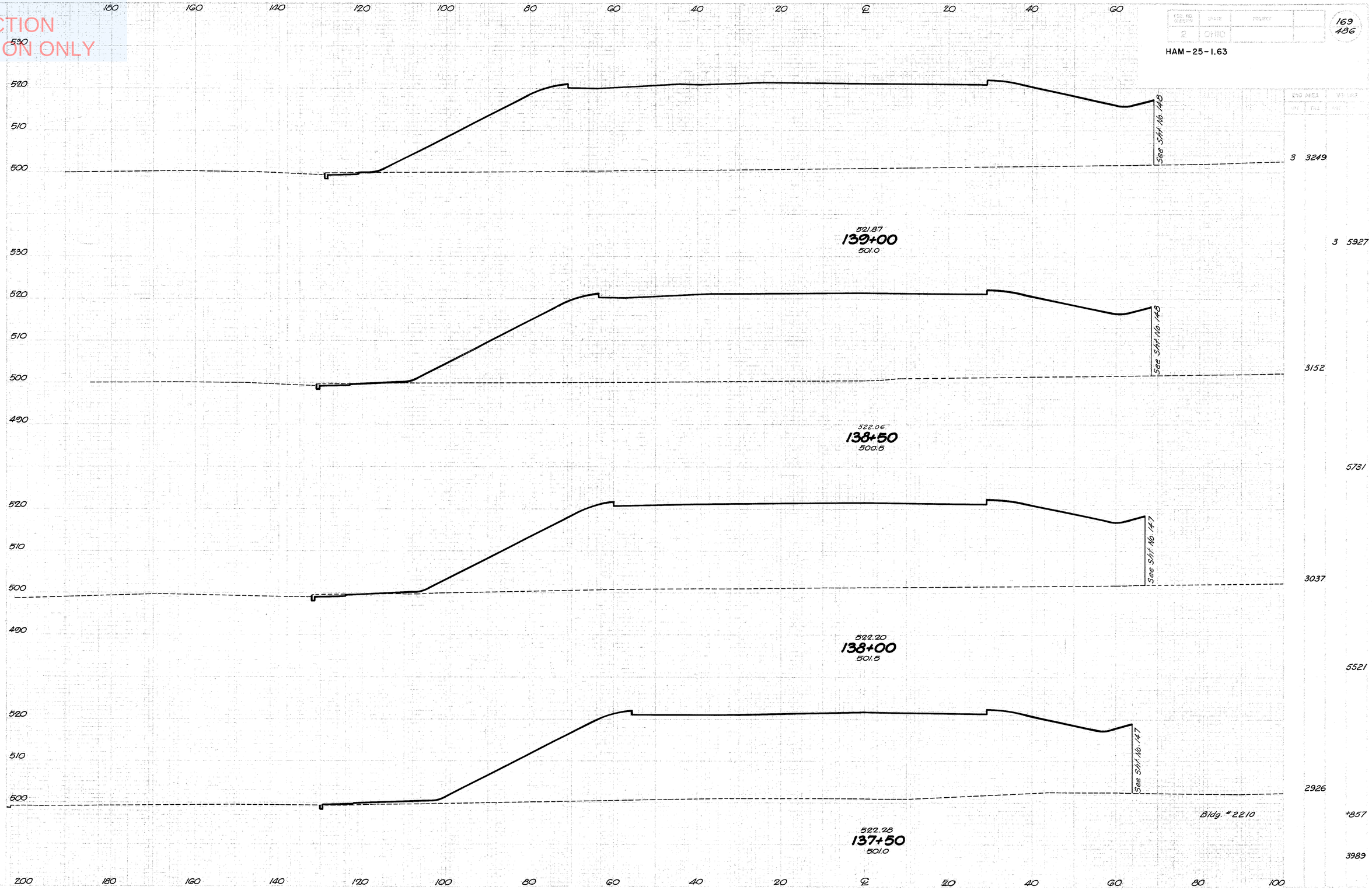
N.B. STA. 166+00 to STA. 166+11.97

NOT FOR CONSTRUCTION INFORMATION ONLY

SEQ. NO.	STATE	PROJECT	
2	OHIO		

169
486

HAM-25-1.63



S.B. STA. 137+50 to STA. 139+00

NOT FOR CONSTRUCTION INFORMATION ONLY

STATE DIVISION	STATE	PROJECT	
2	OHIO		

170
486

HAM - 25 - 1.63

200 180 160 140 120 100 80 60 40 20 ℄ 20 40 60

520
510
500
490

499.4

See Sht. No. 150

520.95
140+50
501.9

ENG. AREA		VOLUME	
CUT	FILL	CUT	FILL
11	2250		
			+492
14	4544		

Bldg. #2230 #2232
" 2234

512.3

See Sht. No. 148

521.30
140+00
501.8

4	2657		
			+453
2	1335		

Bldg. #2226 #2228

530
520
510
500
490

514.8

See Sht. No. 148

521.38
139+87
501.7

4	2889		
5	4157		

518.3

See Sht. No. 148

521.61
139+50
501.3

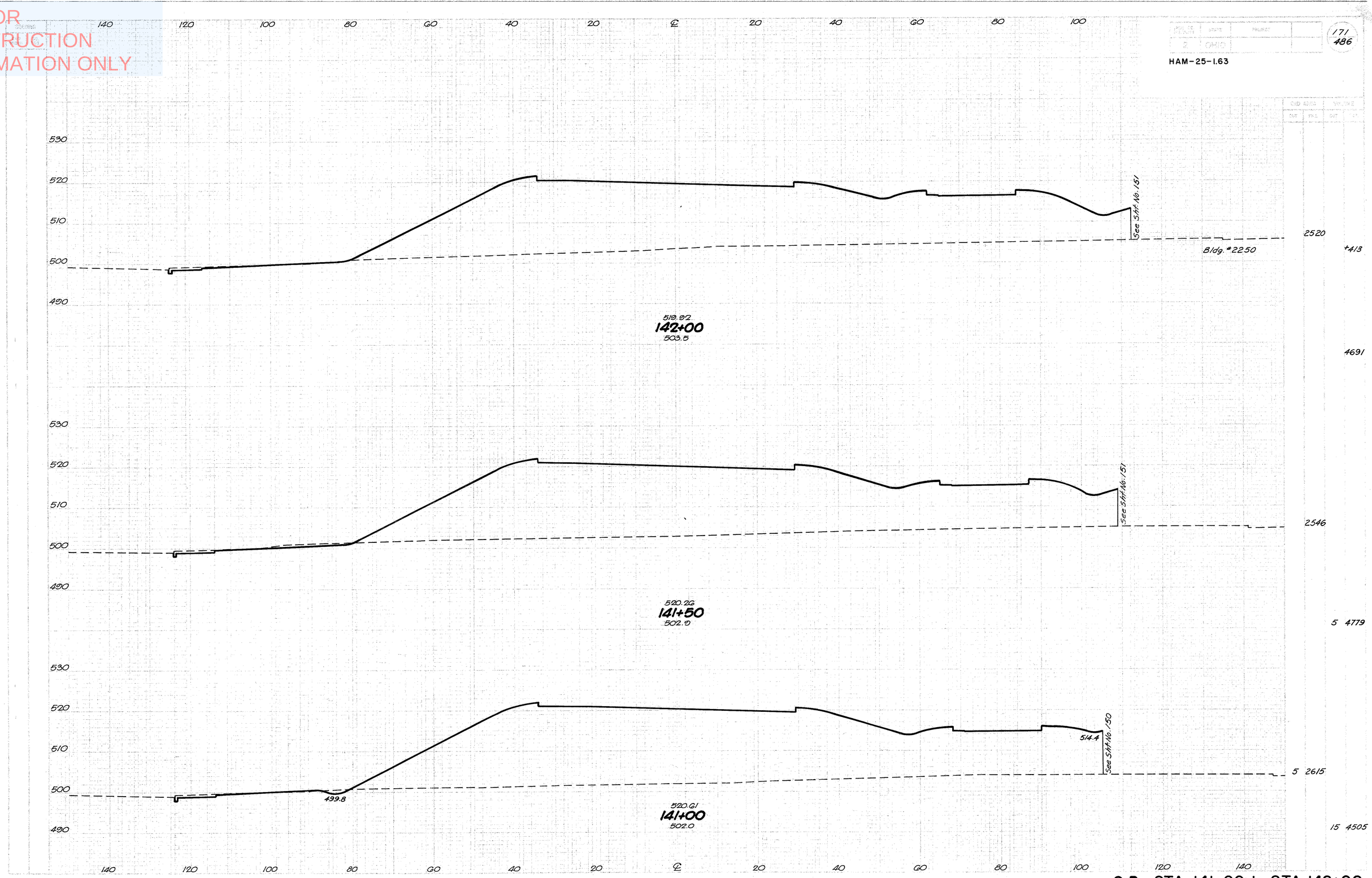
4	3178		
			+542
6	5951		

Bldg. #2222 #2224

200 180 160 140 120 100 80 60 40 20 ℄ 20 40 60 80

S.B. STA. 139+50 to STA. 140+50

NOT FOR
CONSTRUCTION
INFORMATION ONLY



S.B. STA. 141+00 to STA. 142+00

NOT FOR CONSTRUCTION INFORMATION ONLY

HAM-25-1.63

140 120 100 80 60 40 20 ℄ 20 40 60 80 100

530 520 510 500 490

498.5

518.2

518.80
143+50
504.4

See Sht No. 152

9 2587

Bldgs. #2255 #2256 #2257 #2259 #2261 #2263 #2265

+833

13 4823

530 520 510 500 490

498.7

517.8

510.23
143+00
504.1

See Sht No. 152

5 2622

Bldg. #2252 #2254

+523

8 4789

530 520 510 500 490

499.0

510.58
142+50
504.0

See Sht No. 152

4 2550

4 4694

140 120 100 80 60 40 20 ℄ 20 40 60 80 100 120 140

S.B. STA. 142+50 to STA. 143+50

NOT FOR CONSTRUCTION INFORMATION ONLY

HAM – 25 – 1.63

140 120 100 80 60 40 20 ℄ 20 40 60 80 100 120 140

520
510
500
490

515.5

See Sht. No. 153

4 3056

Bldg. #2266 #2268 #2273

+925

518.20
144+50
509.6

2 1253

520
510
500
490

514.4

See Sht. No. 153

4 3096

518.27
144+39
508.5

5 4223

520
510
500
490

510.5

See Sht. No. 153

3 2751

Bldg. #2260 #2262 #2267 #2269

+825

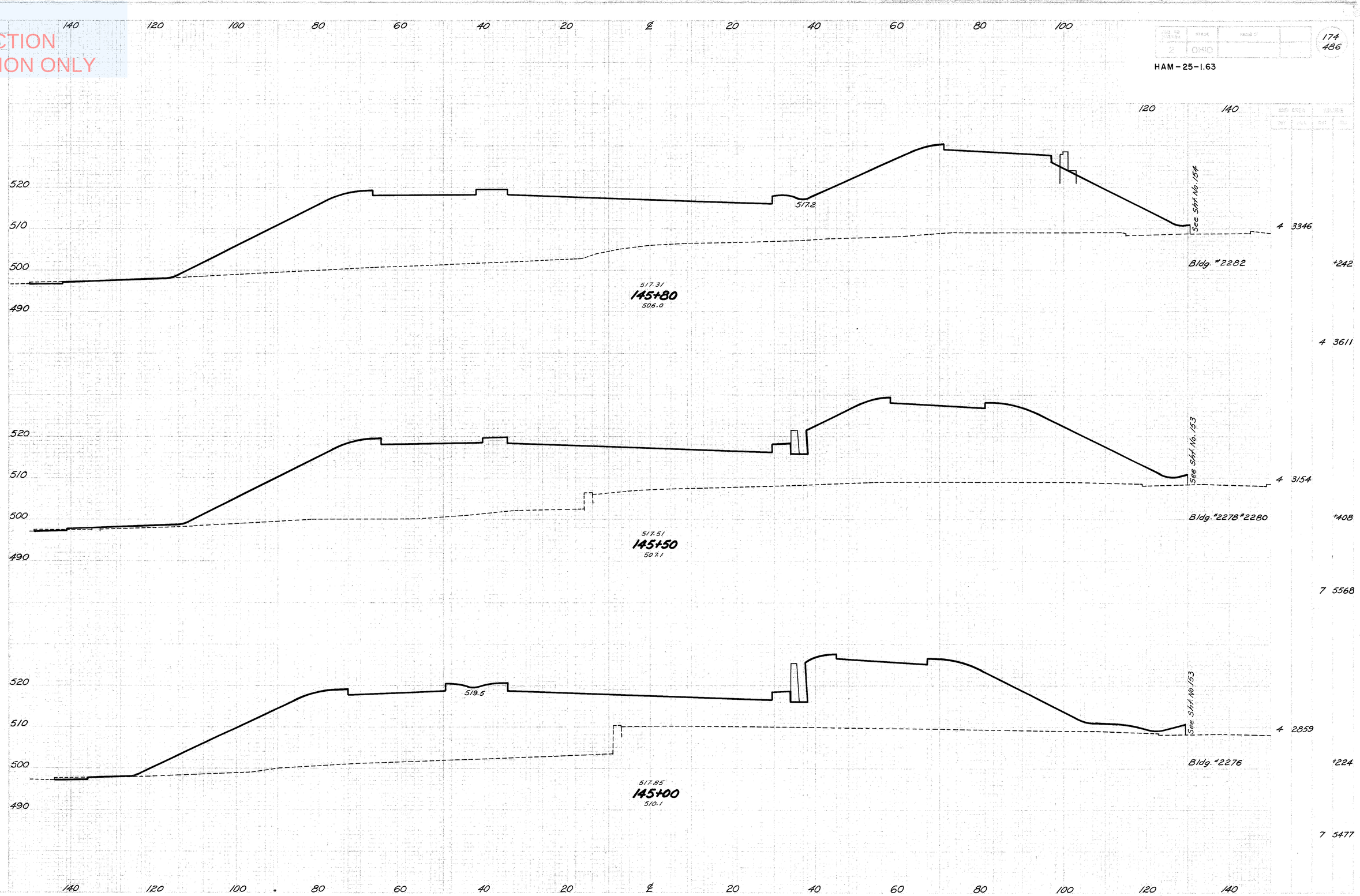
518.54
144+00
508.1

11 4943

140 120 100 80 60 40 20 ℄ 20 40 60 80 100 120 140

S.B. STA. 144+00 to STA. 144+50

NOT FOR
CONSTRUCTION
INFORMATION ONLY



S.B. STA. 145+00 to STA. 145+80

NOT FOR CONSTRUCTION INFORMATION ONLY

HAM – 25 – 1.63

140 120 100 80 60 40 20 ℄ 20 40 60 80 100 120 140

520
510
500
490

516.82
146+50
503.9

511.0

See Sht. No. 154

1 2426

3 3447

520
510
500
490

517.06
146+15
504.4

514.3

See Sht. No. 154

3 2892

Bldg. #1127 #1129 #1131

+374

2 1646

520
510
500
490

517.16
146+00
505.0

516.0

See Sht. No. 154

4 3032

Bldg. #1133 #1135 #1137

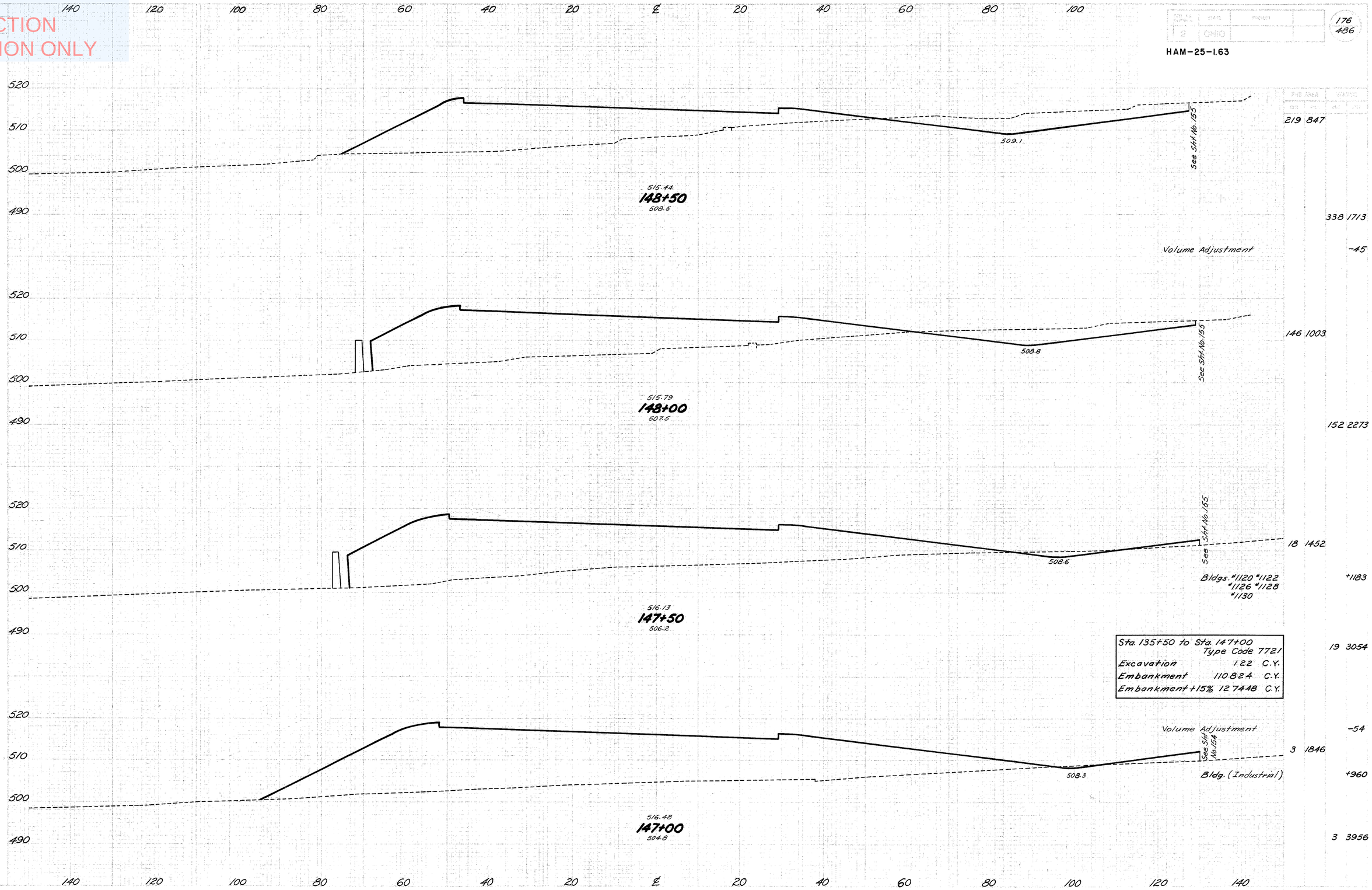
+831

3 2362

140 120 100 80 60 40 20 ℄ 20 40 60 80 100 120 140

S.B. STA. 146+00 to STA. 146+50

NOT FOR CONSTRUCTION INFORMATION ONLY



S.B. STA. 147+00 to STA. 148+50

NOT FOR CONSTRUCTION INFORMATION ONLY

HAM-25-1.63

140 120 100 80 60 40 20 ℄ 20 40 60 80 100

530
520
510
500
490

515.10
150+00
522.9

511.0

See Sht. No. 156

1605

3005 80

530
520
510
500
490

515.06
149+50
524.1

510.1

See Sht. No. 156

1640 86

2281 396

530
520
510
500
490

515.17
149+00
520.4

509.8

See Sht. No. 156

824 342

Bldg. #2416

+1021

966 1101

140 120 100 80 60 40 20 ℄ 20 40 60 80 100 120 140

S.B. STA. 149+00 to STA. 150+00

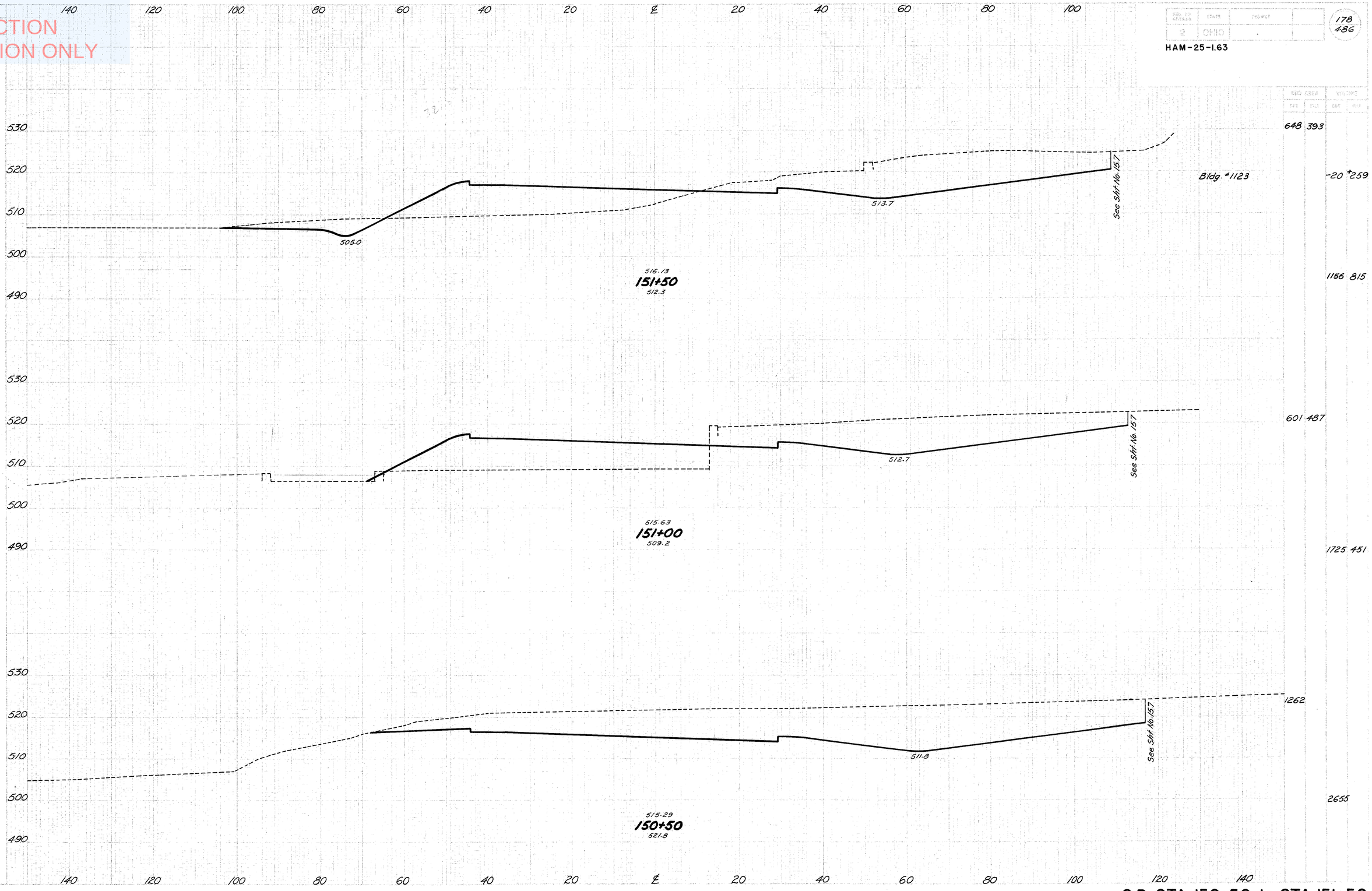
NOT FOR CONSTRUCTION INFORMATION ONLY

PID NO.	STATE	PROJECT	
2	OHIO		

178
486

HAM-25-I.63

ENG AREA		VOLUME	
CUT	FILL	CUT	FILL
648	393		
		-20	+259
1156	815		
601	487		
1725	451		
1262			
2655			



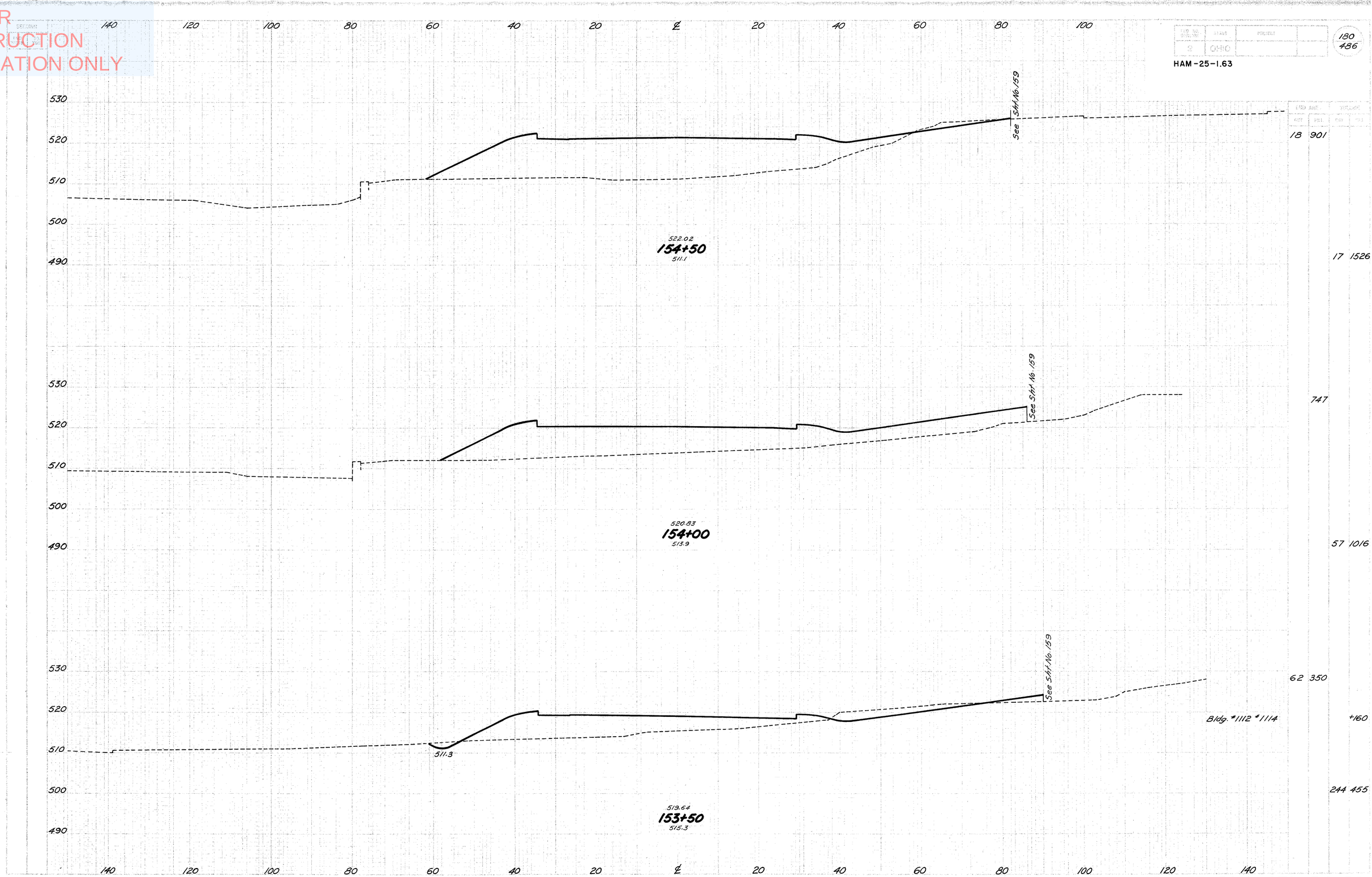
S.B. STA. 150+50 to STA. 151+50

NOT FOR CONSTRUCTION INFORMATION ONLY

202 141
-27 +1242
400 316
230 200
-233
711 375
538 205
-200 +558
1098 554

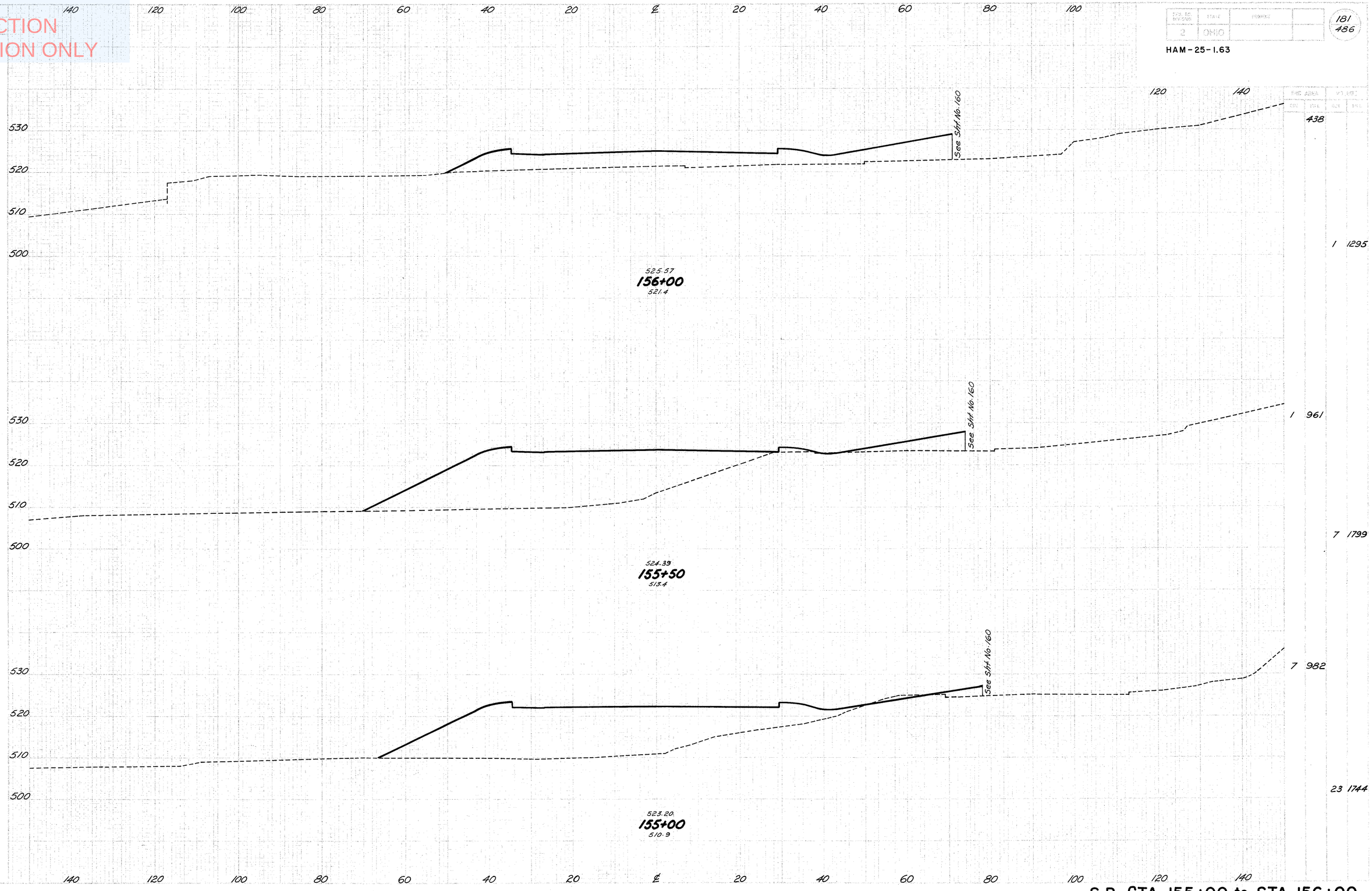
S.B. STA. 152+00 to STA. 153+00

NOT FOR CONSTRUCTION INFORMATION ONLY



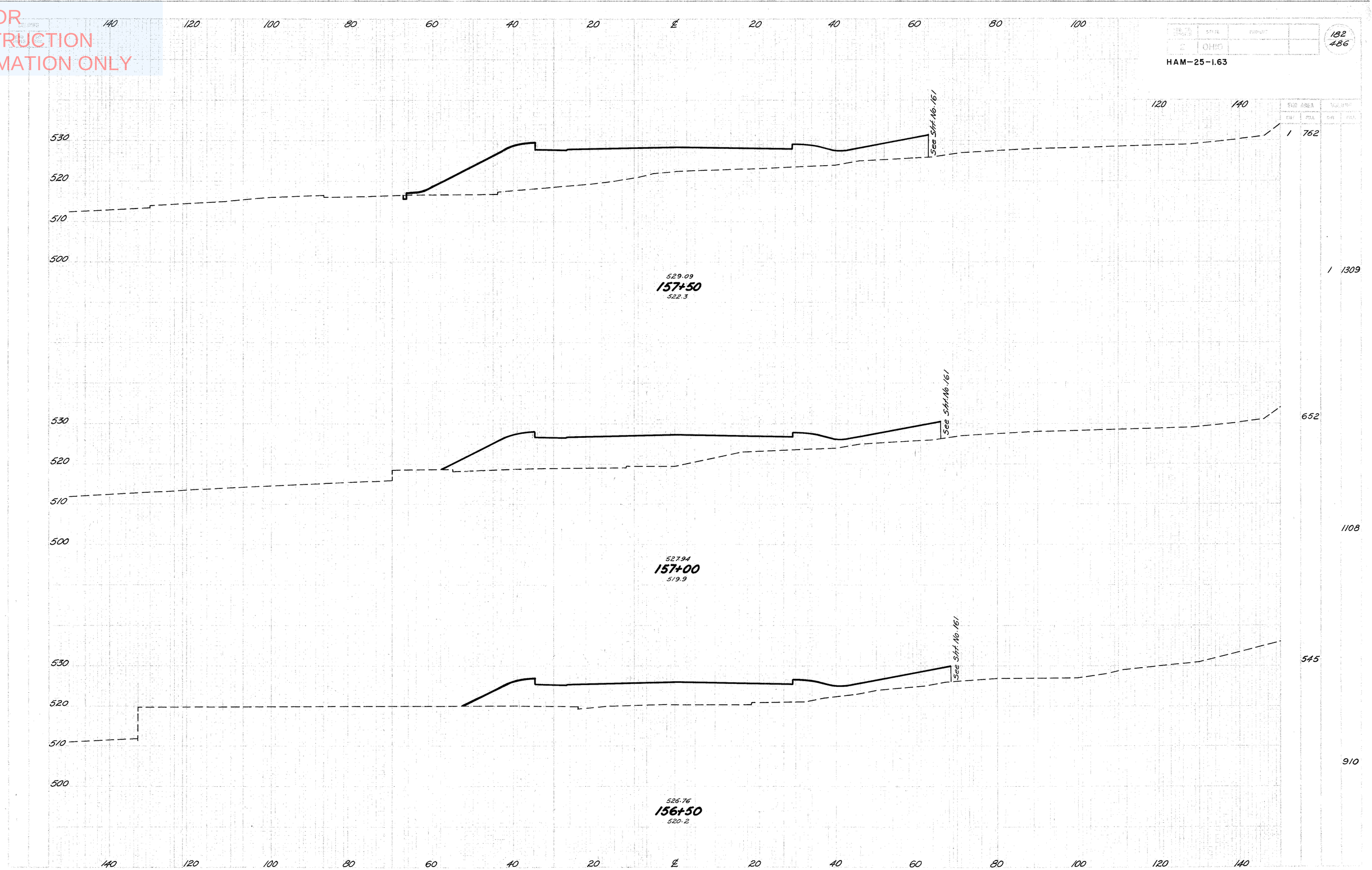
S.B. STA. 153+50 to STA. 154+50

NOT FOR CONSTRUCTION INFORMATION ONLY



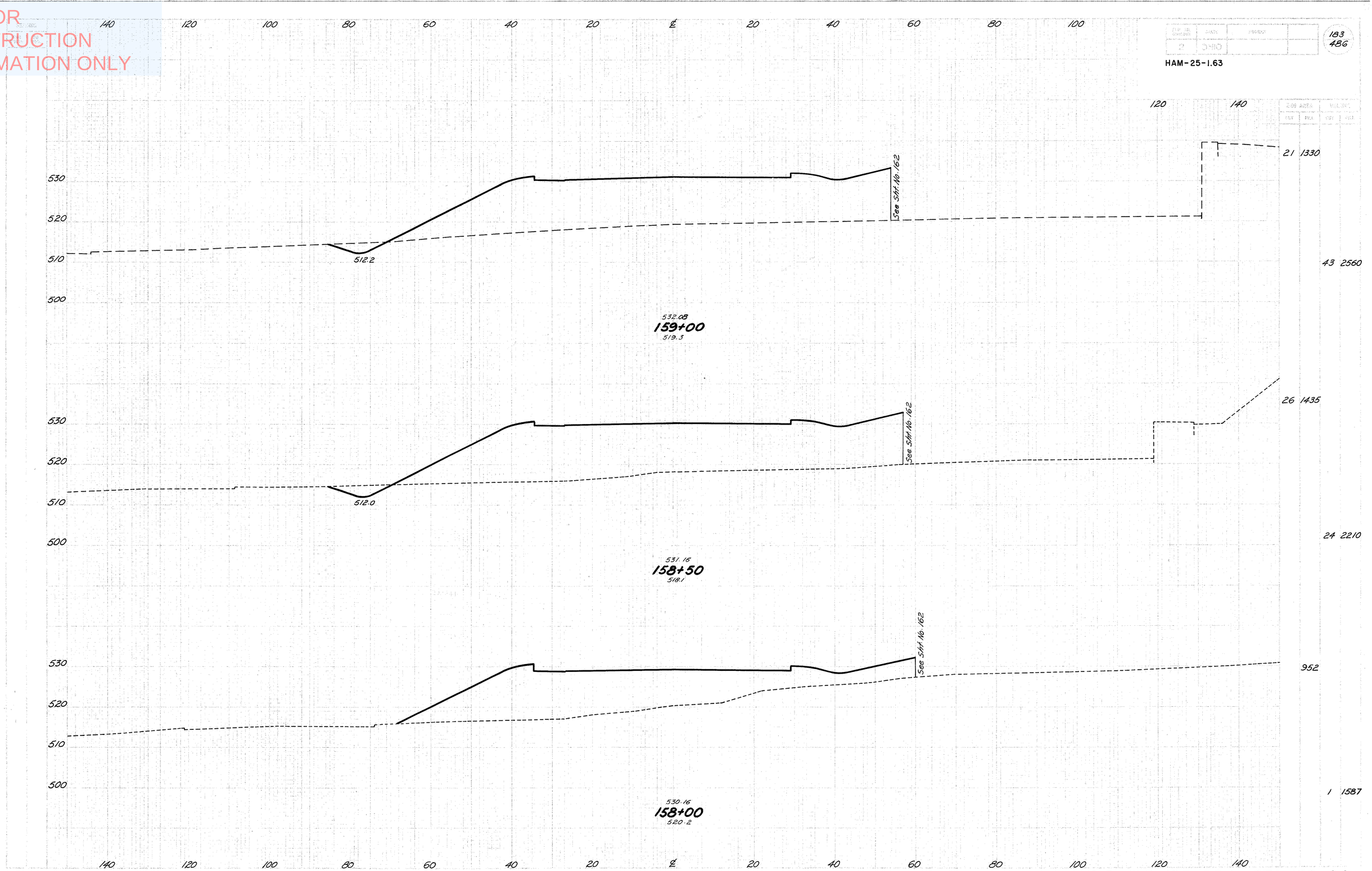
S.B. STA. 155+00 to STA. 156+00

NOT FOR
CONSTRUCTION
INFORMATION ONLY



S.B. STA. 156+50 to STA. 157+50

NOT FOR
CONSTRUCTION
INFORMATION ONLY



S.B. STA. 158+00 to STA. 159+00

NOT FOR CONSTRUCTION INFORMATION ONLY

SHEETS	STATE	PROJECT	
2	OHIO		

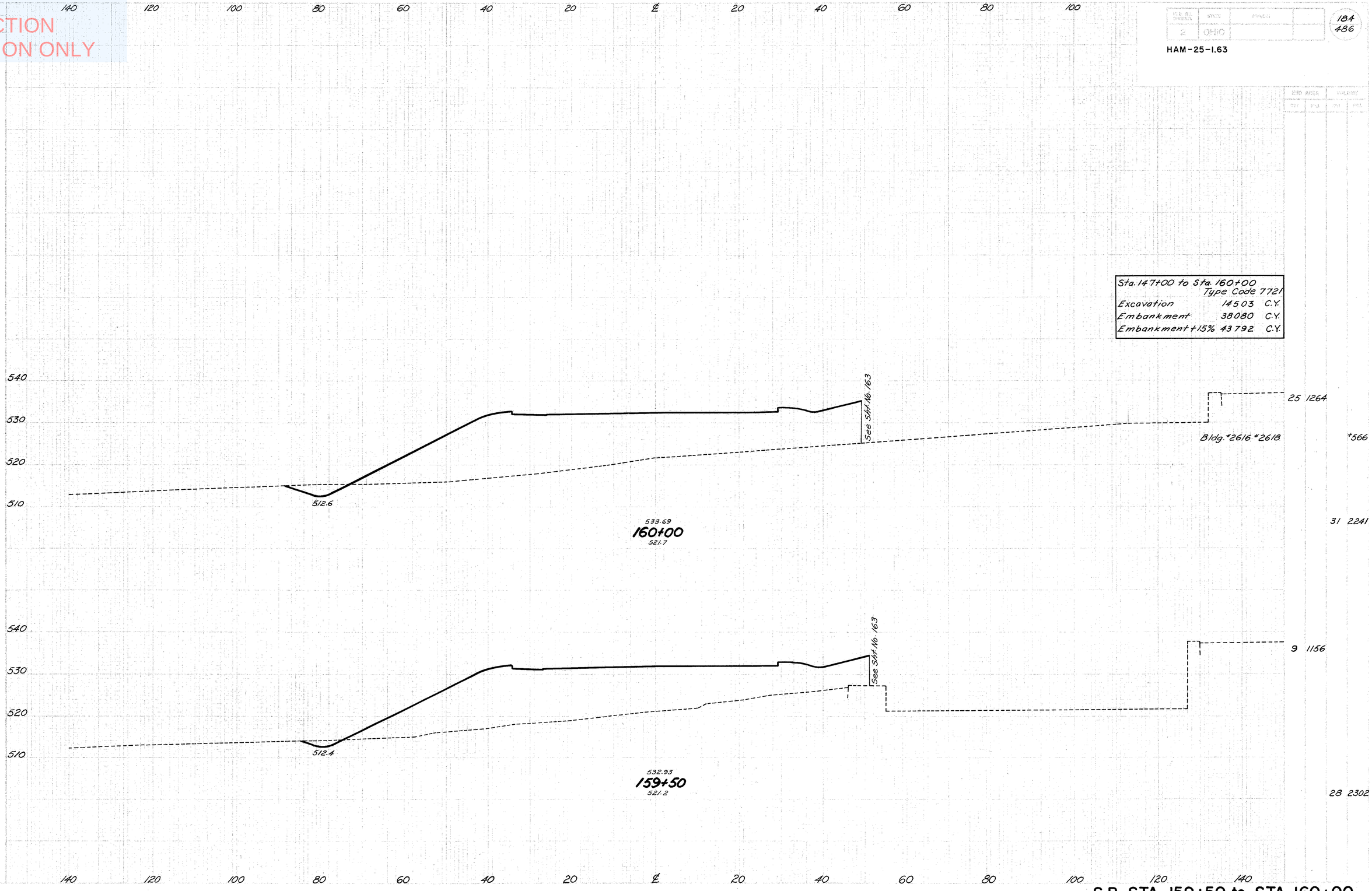
184
486

HAM-25-1.63

END AREA		VOLUME	
CUT	FILL	CUT	FILL

Sta. 147+00 to Sta. 160+00
Type Code 7721

Excavation	14503	C.Y.
Embankment	38080	C.Y.
Embankment +15%	43792	C.Y.



S.B. STA. 159+50 to STA. 160+00

NOT FOR CONSTRUCTION INFORMATION ONLY

END AREA		VOLUME	
CUT	FILL	CUT	FILL
68	3		
		146	6
90	3		
		152	3
74			
		59	
54			
		131	6
59	3		
		121	4
72	1		
		130	4
83	3		

185
436

HAM-25-I.63

40 20 ℄ 20 40 60 80

510
500
490

See Sht No. 123

500.63
43+00
500.7

See Sht No. 123

501.99
42+50
502.5

See Sht No. 122

503.35
42+00
503.7

See Sht No. 123

504.03
41+75
504.0

See Sht No. 124

499.62
44+50
497.1

See Sht No. 123

497.91
44+00
498.0

See Sht No. 123

499.27
43+50
498.3

40 20 ℄ 20 40 60 80

WINCHELL AVE. STA. 41+75 to STA. 44+50

NOT FOR CONSTRUCTION INFORMATION ONLY

END AREA		VOLUME	
CUT	FILL	CUT	FILL

HAM-25-1.63

186
486

40 20 ℄ 20 40 60 80

510
500
490

See Sht No. 125

496.00
46+50
498.3

223 3

Bldg. #1549 #1551

-287 #254

See Sht No. 124

495.73
46+00
498.3

274

Bldg. #1545 #1547

-233 #247

See Sht No. 124

495.53
45+50
497.7

196

Bldg. #1539 #1541 #1543

-138 #662

See Sht No. 124

495.70
45+00
497.0

152

Bldg. #1537

460 3

435

322

218 3

Ahead

See Sht No. 126

498.07
50+00
501.1

226 1

Bldg. #1602 #1604 #934 #936

-184 #1643

Back

See Sht No. 125

497.31
48+00
498.5

149 25

327 26

Bldg. #1559 #1561 #1563

-87 #597

See Sht No. 125

496.90
47+50
498.3

204 3

420 3

Bldg. #1557

-47 #223

See Sht No. 125

496.27
47+00
498.4

250

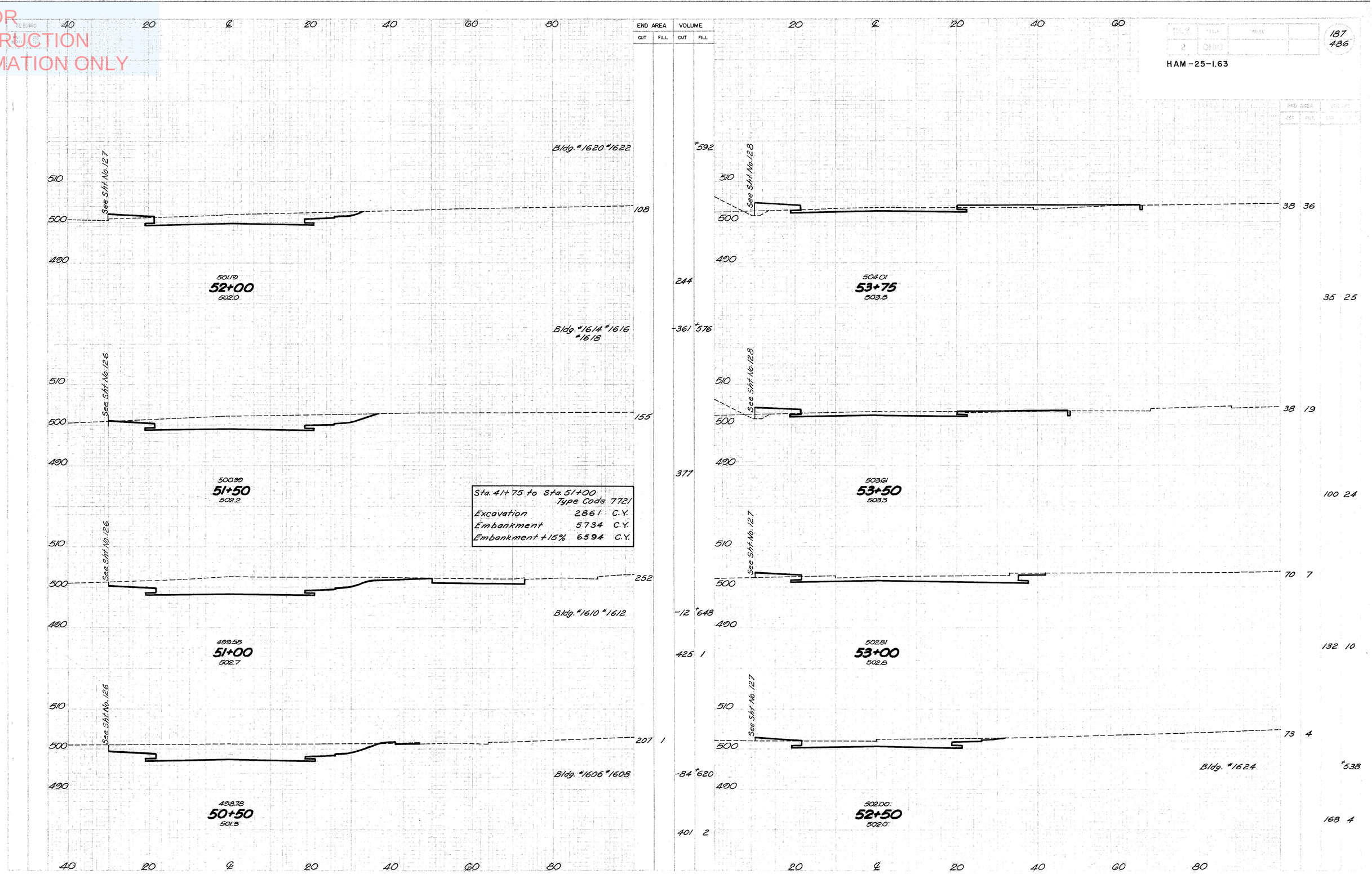
438 3

Bldg. #1553 #1555

-210 #321

WINCHELL AVE. STA. 45+00 to STA. 50+00

NOT FOR CONSTRUCTION INFORMATION ONLY

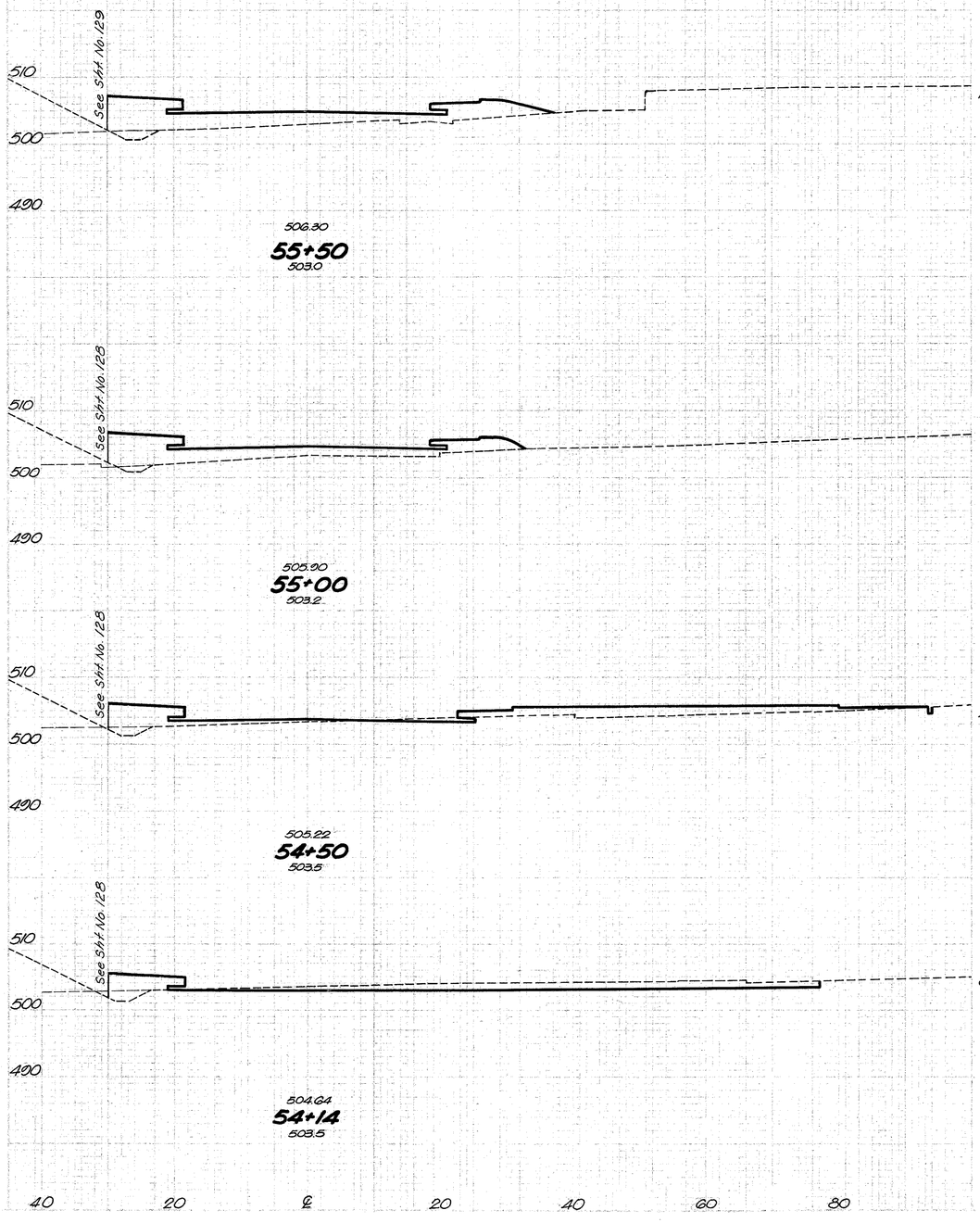


WINCHELL AVE. STA. 50+50 to STA. 53+75

NOT FOR CONSTRUCTION INFORMATION ONLY

END AREA		VOLUME	
CUT	FILL	CUT	FILL

HAM-25-1.63

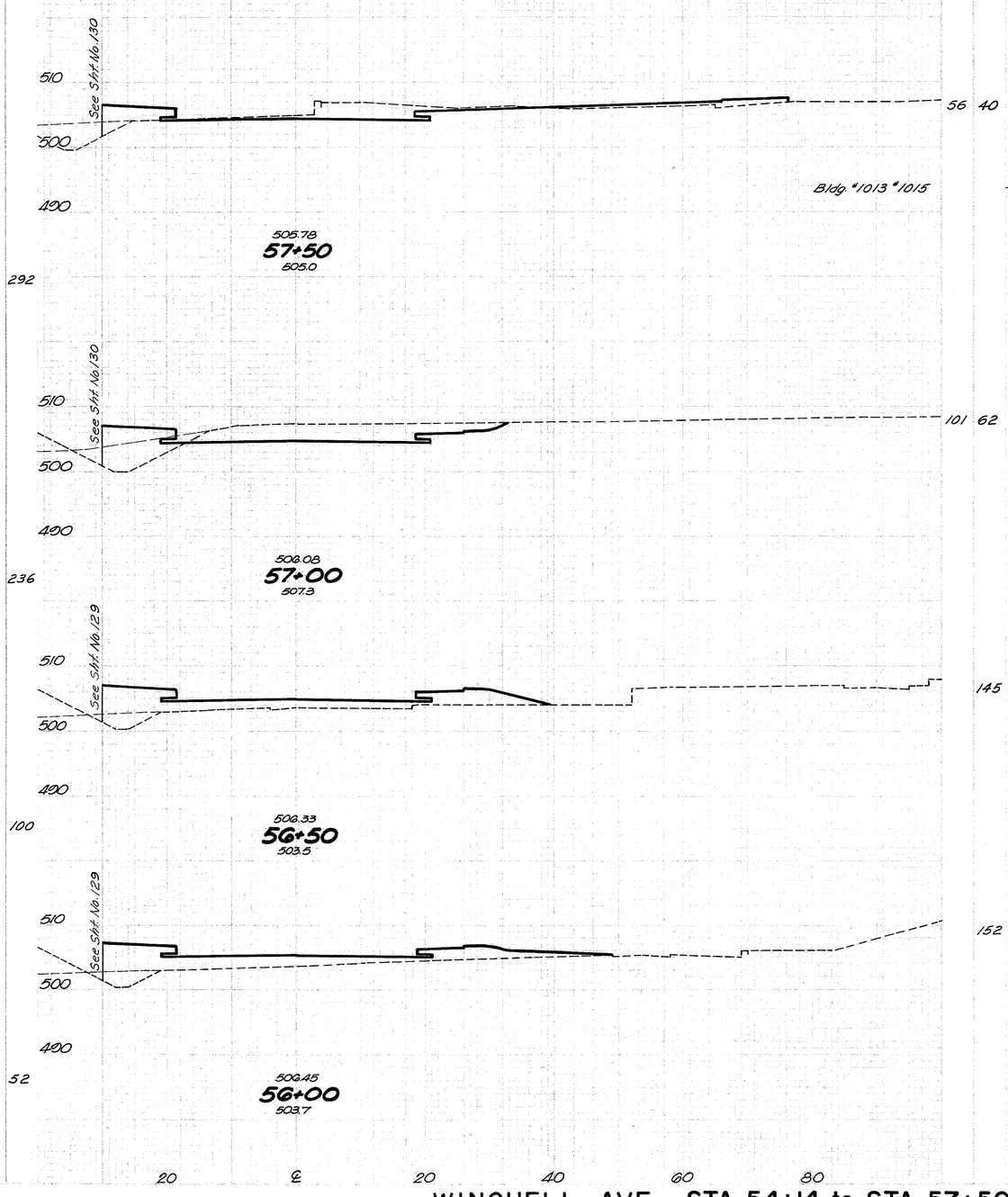


11 292

4 236

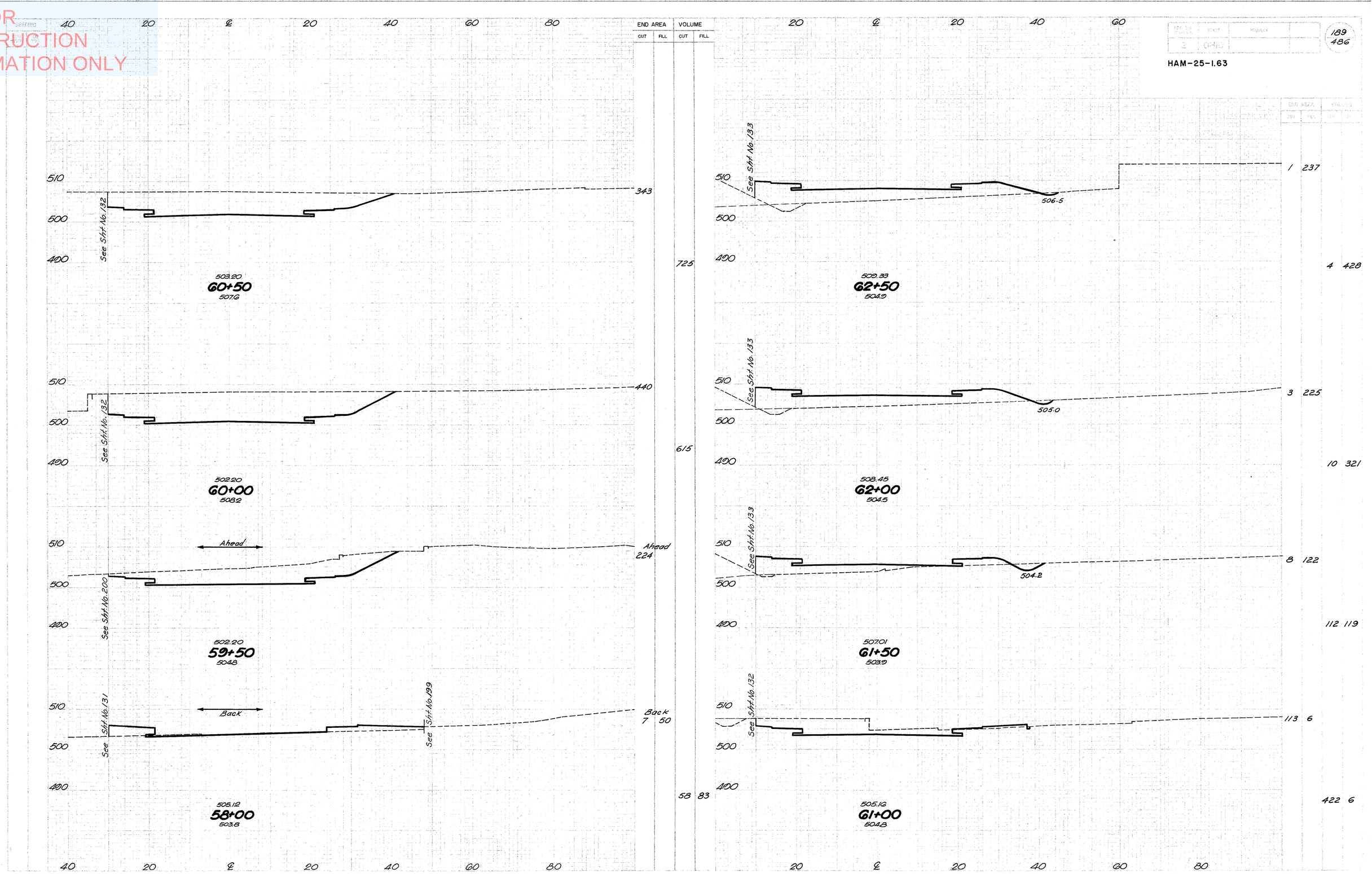
43 100

71 52



WINCHELL AVE. STA. 54+14 to STA. 57+50

NOT FOR CONSTRUCTION INFORMATION ONLY



HAM-25-1.63

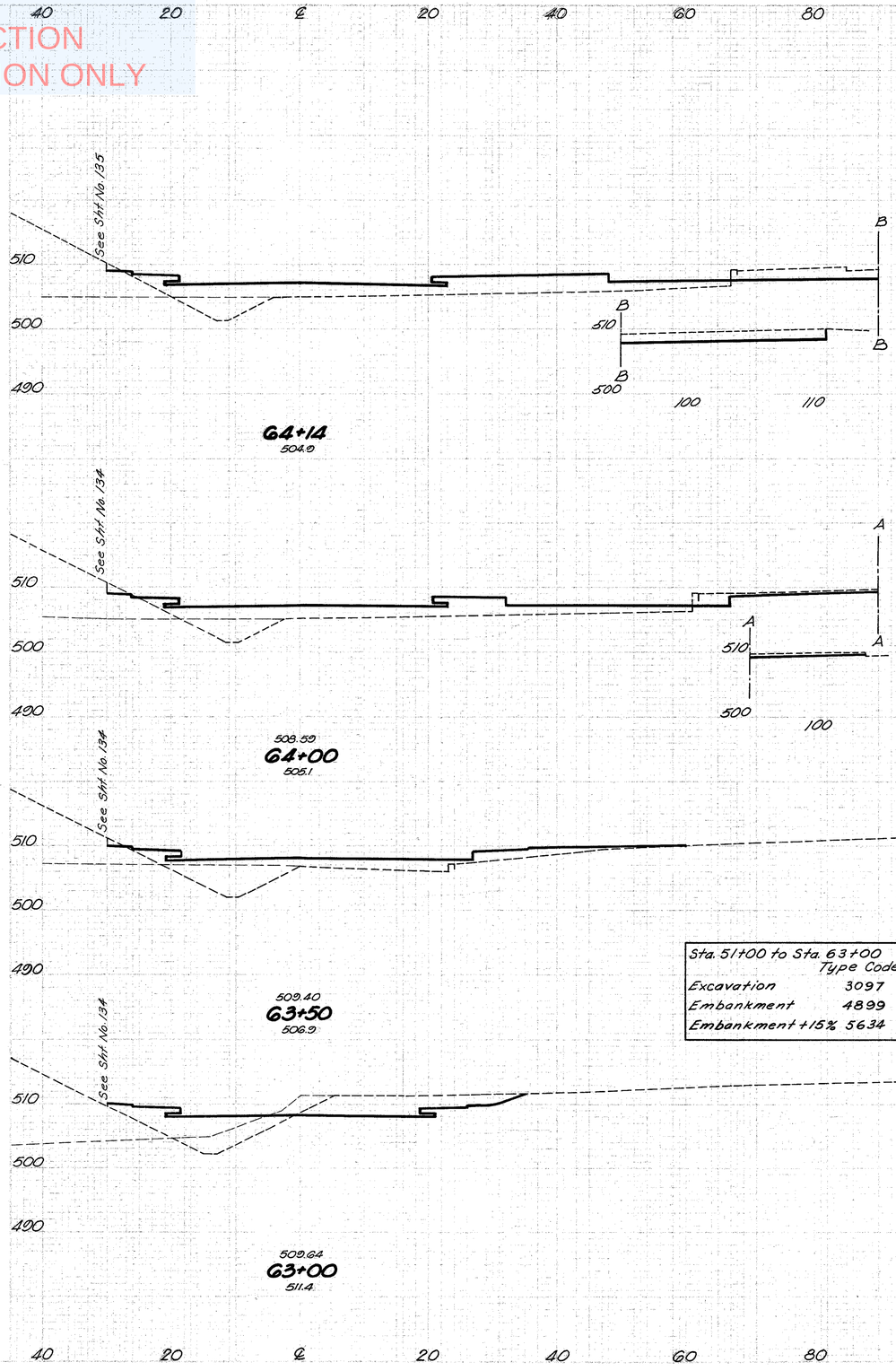
189
486

WINCHELL AVE. STA. 58+00 to STA. 62+50

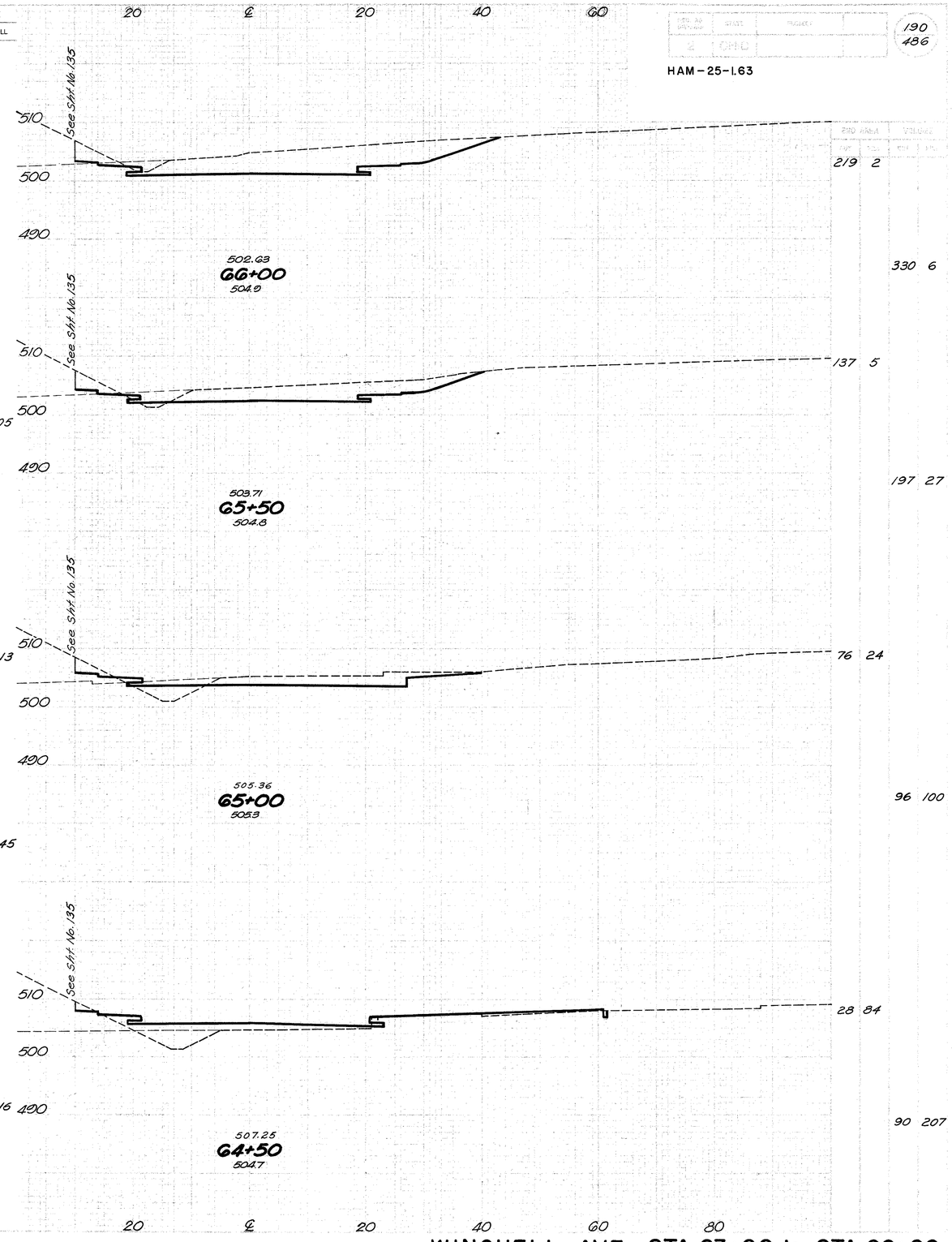
NOT FOR CONSTRUCTION INFORMATION ONLY

HAM-25-1.63

END AREA		VOLUME	
CUT	FILL	CUT	FILL
	227	107	
	105	43	
	177	59	
	313	66	
	245	110	
	316	100	



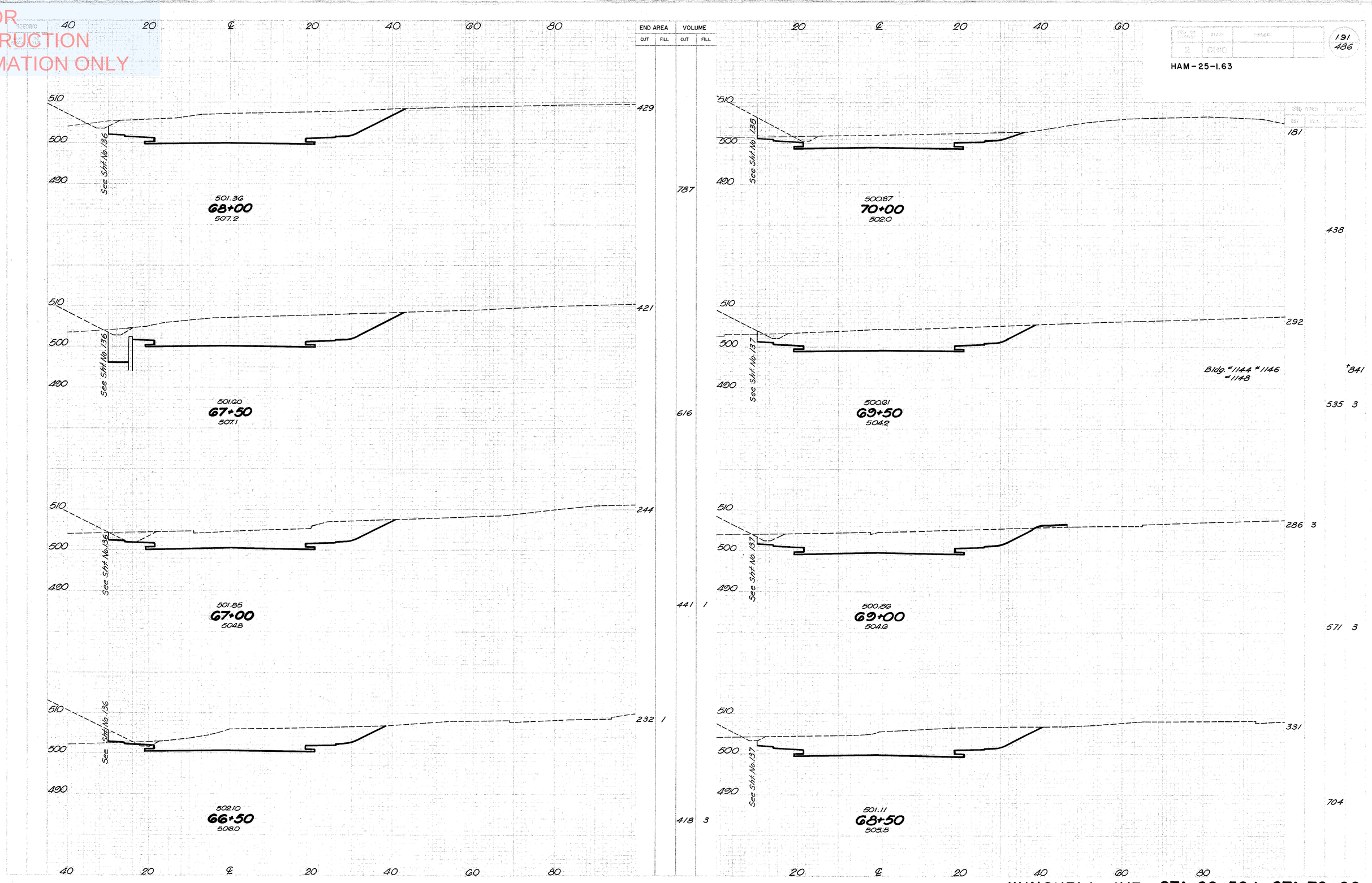
Sta. 51+00 to Sta. 63+00	Type Code 7721	
Excavation	3097	C.Y.
Embankment	4899	C.Y.
Embankment +15%	5634	C.Y.



219	2
330	6
137	5
197	27
76	24
96	100
28	84
90	207

WINCHELL AVE. STA.63+00 to STA.66+00

NOT FOR CONSTRUCTION INFORMATION ONLY

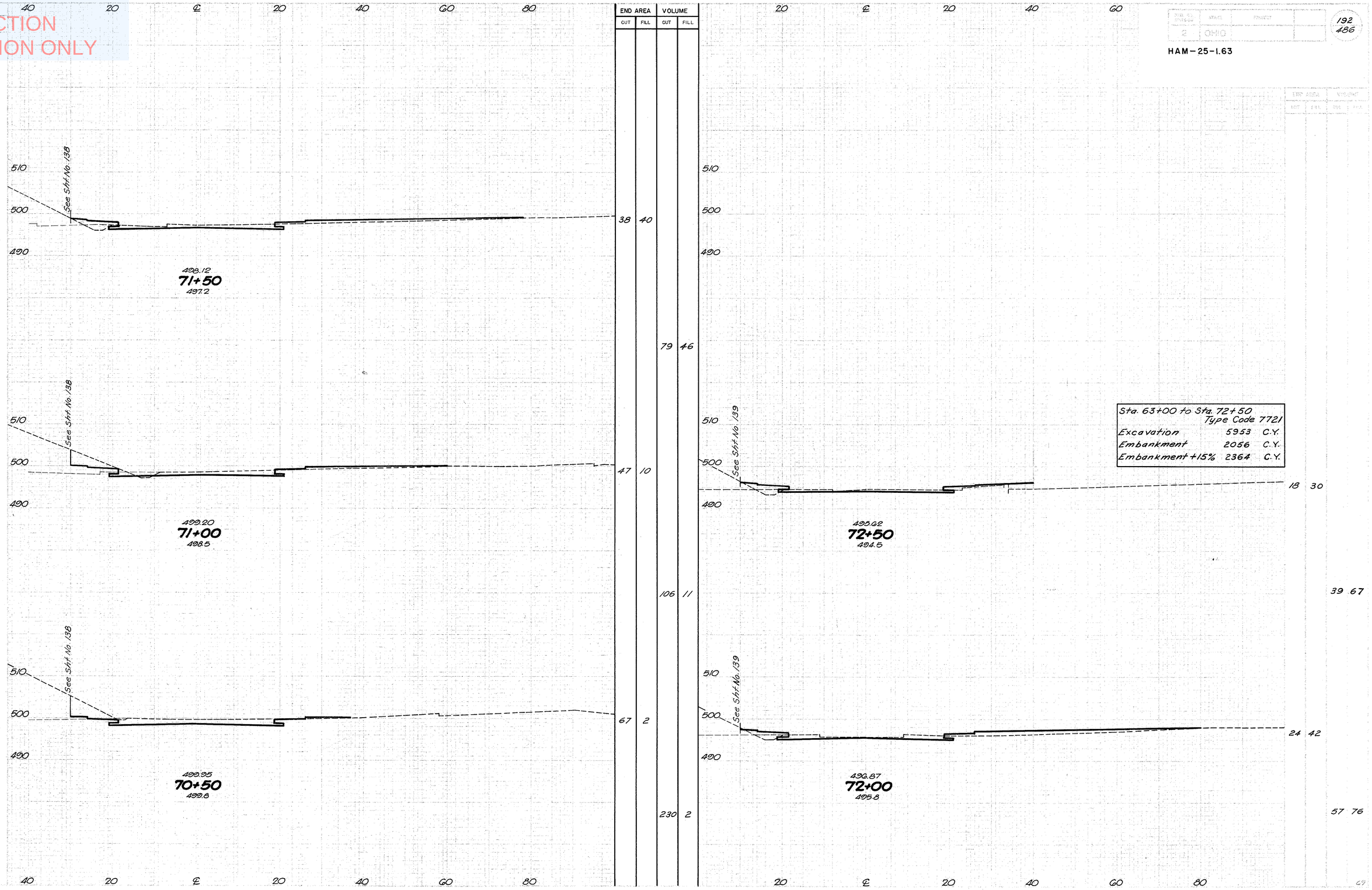


HAM-25-1.63

191
486

WINCHELL AVE. STA. 66+50 to STA. 70+00

NOT FOR
CONSTRUCTION
INFORMATION ONLY



Sta. 63+00 to Sta. 72+50	Type Code 7721	
Excavation	5953	C.Y.
Embankment	2056	C.Y.
Embankment +15%	2364	C.Y.

WINCHELL AVE. STA. 70+50 to STA. 72+50

NOT FOR CONSTRUCTION INFORMATION ONLY

STATE	PROJECT	SHEET	TOTAL SHEETS
OHIO		193	486

HAM-25-I.63

	END AREA		VOLUME	
	CUT	FILL	CUT	FILL
100				
80				
60				
40				
20				
℄				
20				
40				
60				
80				
100				
120				
140				
160				
180				
200				
220				
240				
260				
280				
300				
320				
340				
360				
380				
400				
420				
440				
460				
480				
500				
520				
540				
560				
580				
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620				
640				
660				
680				
700				
720				
740				
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840				
860				
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900				
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960				
980				
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1900				
1920				
1940				
1960				
1980				
2000				
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9900				
9920				
9940				
9960				
9980				
10000				

Bldg. #1523

See Sht. No. 125

500
490

77 2

495.88
2+00
496.0

See Sht. No. 124

500
490

50 8

495.38
1+50
495.2

Bldg. #1519

118 9

See Sht. No. 124

500
490

79 2

494.88
1+00
494.9

See Sht. No. 124

500
490

54 2

494.99
0+50
495.0

-21 +171

Bldg. #1535 #1539 #1537

See Sht. No. 125

500
490

93 1

Bldg. #1006 #1531 #1533

497.43
4+00
498.0

See Sht. No. 125

500
490

66 3

497.15
3+50
497.3

+1100

119 9

See Sht. No. 125

500
490

70 3

Bldg. #1527 #1529

496.85
3+00
496.6

123 4

See Sht. No. 125

500
490

65 5

496.38
2+50
496.4

-123 +483

-82 +842

147 4

126 6

-63 +143

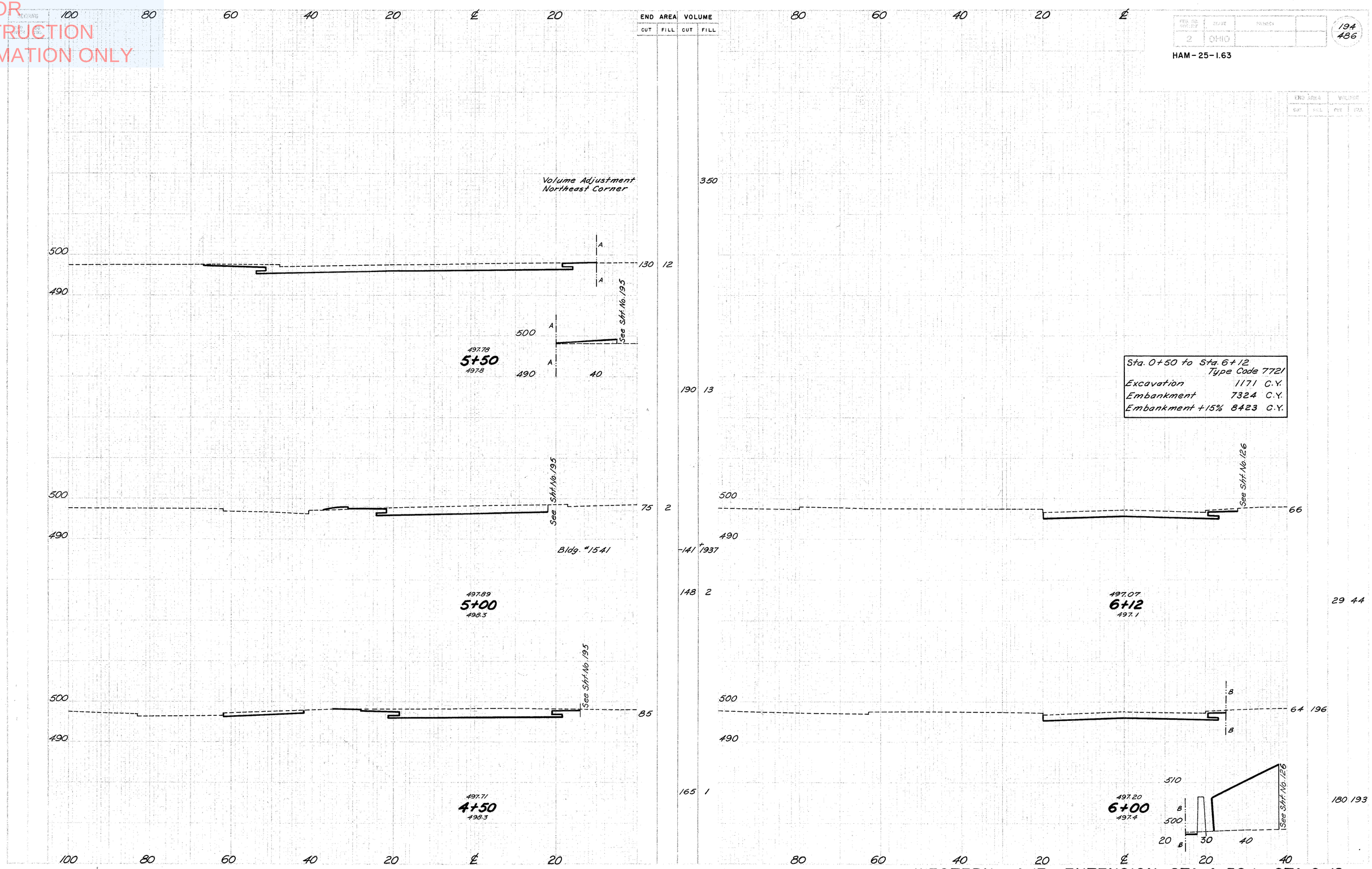
125 7

131 6

WESTERN AVE. EXTENSION STA. 0+50 to STA. 4+00

NOT FOR CONSTRUCTION INFORMATION ONLY

FED. RD. DIVISION 2 | STATE OHIO | PROJECT
194
486
HAM-25-1.63



Sta. 0+50 to Sta. 6+12 Type Code 7721		
Excavation	1171	C.Y.
Embankment	7324	C.Y.
Embankment +15%	8423	C.Y.

WESTERN AVE. EXTENSION STA. 4+50 to STA. 6+12

NOT FOR CONSTRUCTION INFORMATION ONLY

STATE	PROJECT
OHIO	

195
486

HAM-25-1.63

140 120 100 80 60 40 20 ℄ 20 40 60 80 100

520
510
500
490

See Sht. No. 126

See Sht. No. 125

70 1013

498.79
2+50
498.5

167 1453

520
510
500
490

See Sht. No. 126

See Sht. No. 194

110 556

498.58
2+00
498.7

108 778

520
510
500
490

See Sht. No. 126

See Sht. No. 194

44 550

498.18
1+62
498.5

140 120 100 80 60 40 20 ℄ 20 40 60 80 100 120 140

LIBERTY ST. STA. 1+62 to STA. 2+50

NOT FOR CONSTRUCTION INFORMATION ONLY

SHEET NO.	STATE	PROJECT	
2	OHIO		

196
486

HAM-25-1.63

140 120 100 80 60 40 20 ℄ 20 40 60 80 100

520
510
500
490

See Sht No. 126

See Sht No. 125

283 633

498.13
4+00
499.1

398 1475

520
510
500
490

See Sht No. 126

See Sht No. 125

147 960

498.20
3+50
498.8

230 1970

520
510
500
490

See Sht No. 126

See Sht No. 125

101 1168

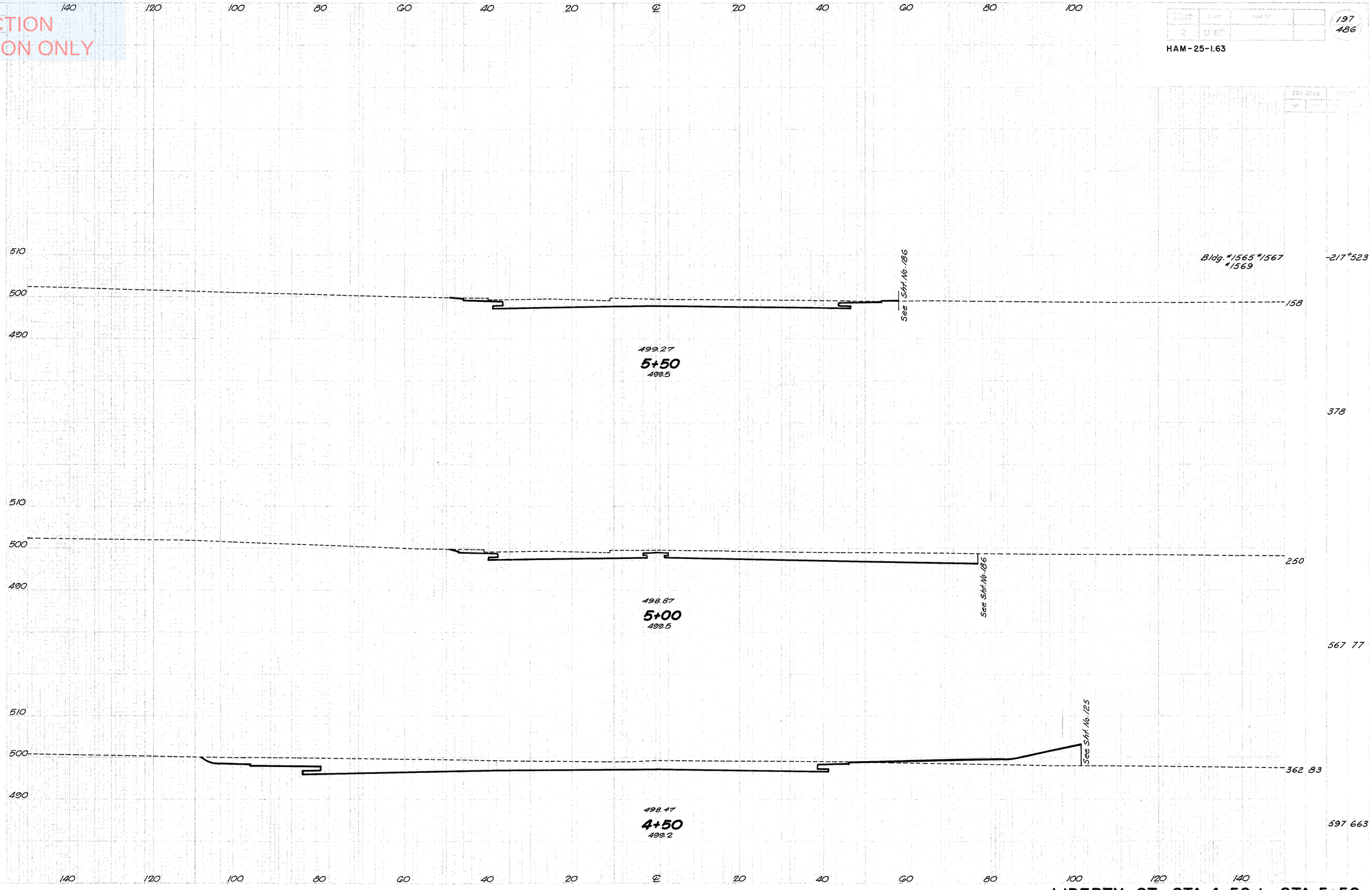
498.63
3+00
498.5

158 2019

140 120 100 80 60 40 20 ℄ 20 40 60 80 100 120 140

LIBERTY ST. STA. 3+00 to STA. 4+00

NOT FOR
CONSTRUCTION
INFORMATION ONLY



LIBERTY ST. STA. 4+50 to STA. 5+50

NOT FOR CONSTRUCTION INFORMATION ONLY

198
486

HAM-25-1.63

Sta. 1+62 to Sta. 6+35	Type Code 7721	
Excavation	2571	C.Y.
Embankment	8960	C.Y.
Embankment +15%	10304	C.Y.

140 120 100 80 60 40 20 ℄ 20 40 60 80 100

510
500
490

6+35
499.8

10

16

510
500
490

See Sht. No. 186

6+00
499.8

15

28

Ahead
Sta 6+00
Back

510
500
490

See Sht. No. 186

Left Ahead
56
Back
110 3

499.50
5+78.50
499.4

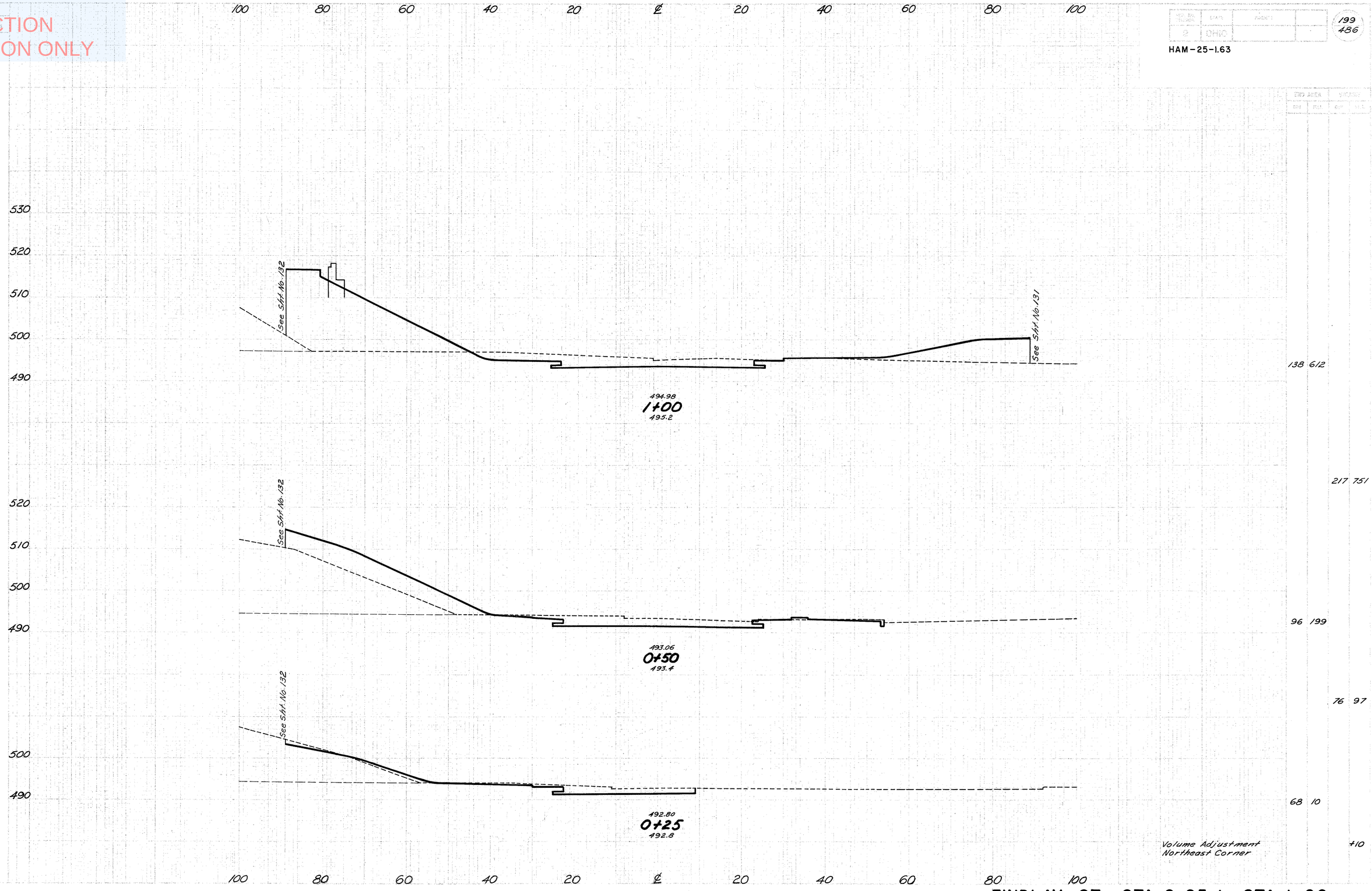
141 2

140 120 100 80 60 40 20 ℄ 20 40 60 80 100 120 140

LIBERTY ST. STA. 5+78.50 to STA. 6+35

NOT FOR
CONSTRUCTION
INFORMATION ONLY

2 OHIO
HAM-25-1.63
199
486



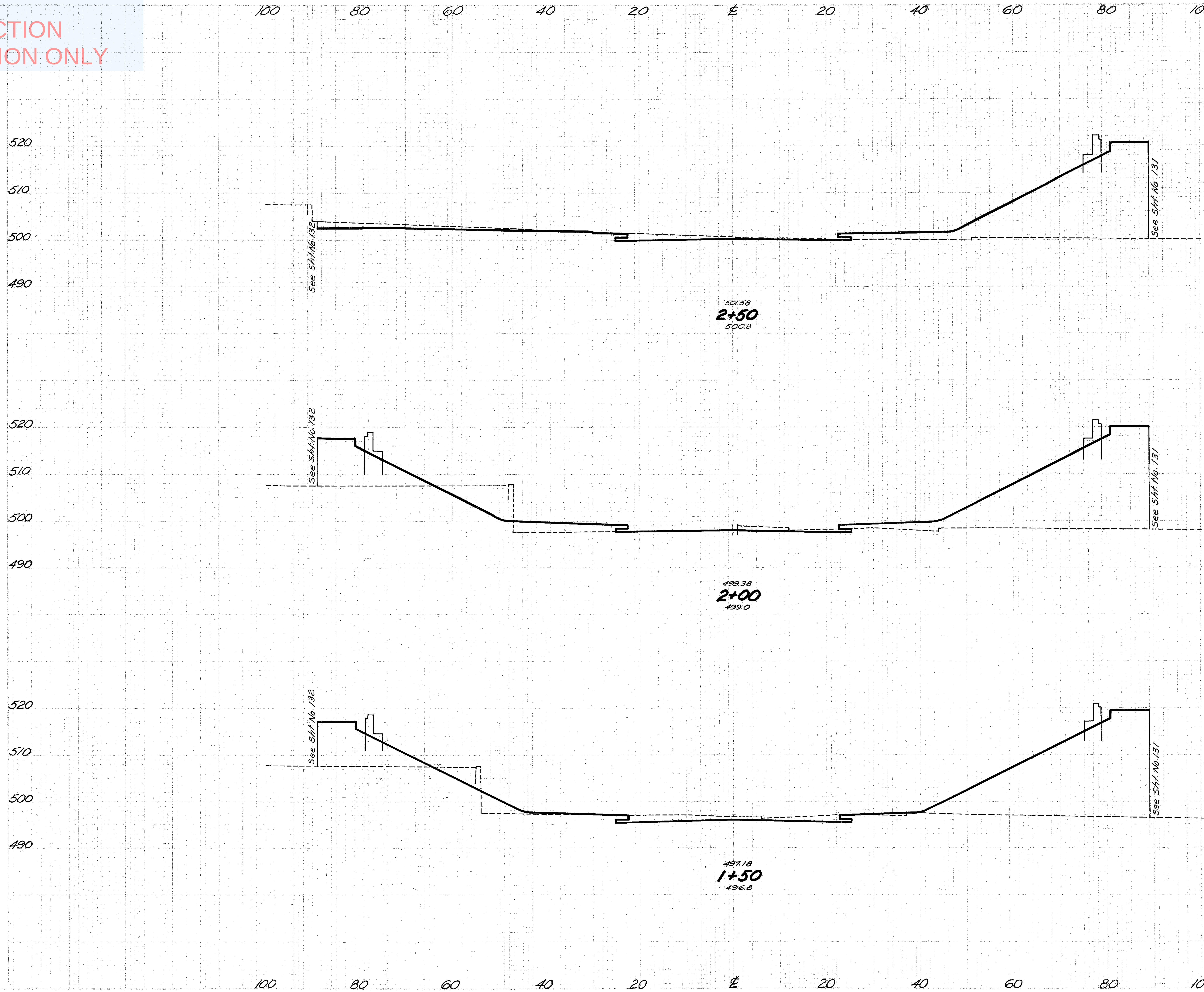
FINDLAY ST. STA. 0+25 to STA. 1+00

NOT FOR CONSTRUCTION INFORMATION ONLY

2	OHIO		

200
486

HAM-25-1.63

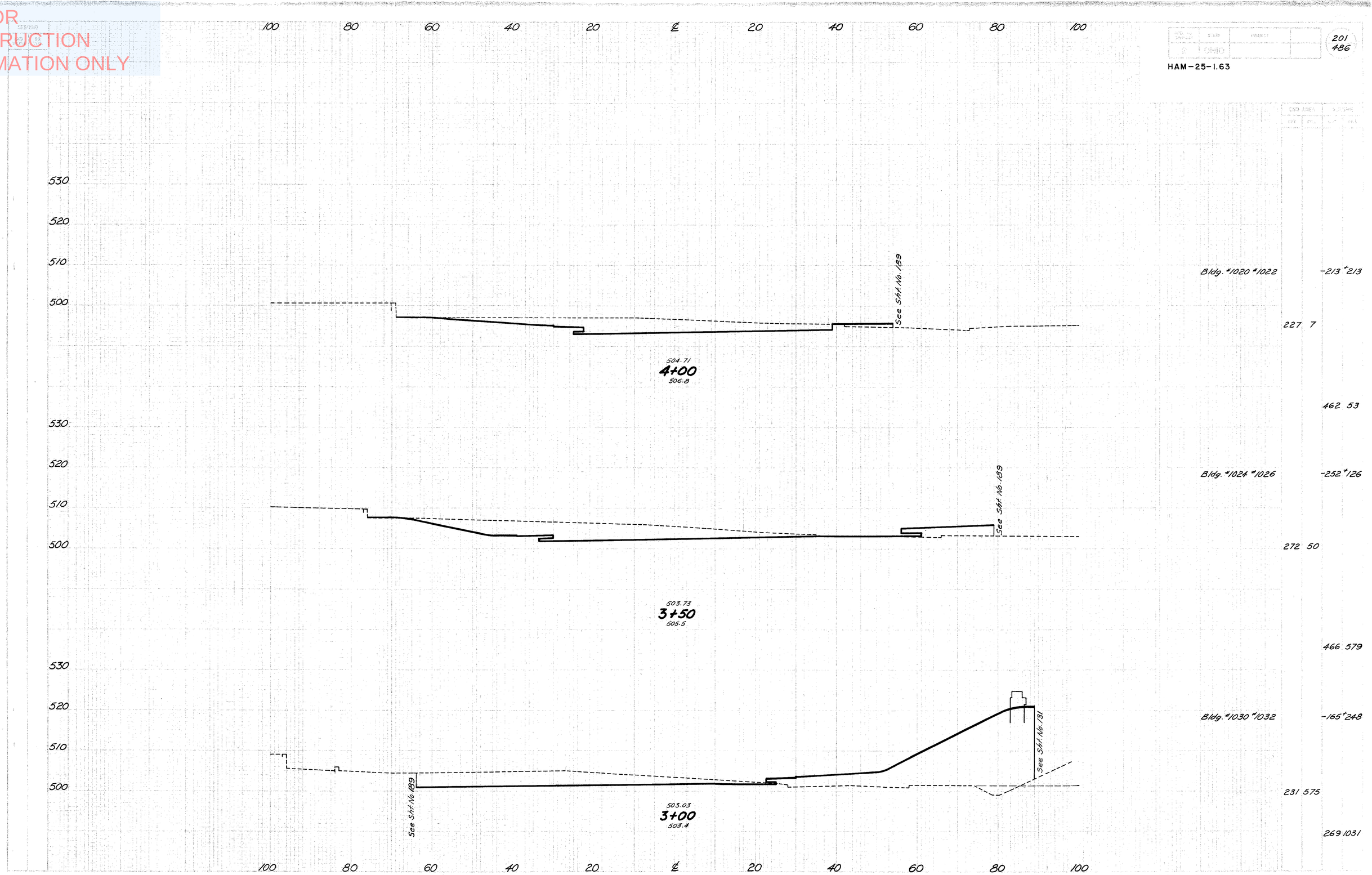


Bldg. #1034 #1036

		-165	+248
60	539		
		132	1244
83	805		
		139	1486
67	800		
		190	1307

FINDLAY ST. STA. 1+50 to STA. 2+50

NOT FOR
CONSTRUCTION
INFORMATION ONLY



FINDLAY ST. STA. 3+00 to STA. 4+00

NOT FOR
CONSTRUCTION
INFORMATION ONLY

HAM-25-I.63

202
486

100 80 60 40 20 ℄ 20 40 60 80 100

520
510
500

512.29
5+50
514.0

214 3

296 21

Bldg. #1012 #1014 -157 +550

520
510
500

510.24
5+00
511.0

106 20

306 56

Bldg. #1016 #1018 -294 +126

520
510
500

See Sht No. 108

244 41

507.39
4+50
510.0

436 44

100 80 60 40 20 ℄ 20 40 60 80 100

FINDLAY ST. STA. 4+50 to STA. 5+50

NOT FOR CONSTRUCTION INFORMATION ONLY

HAM-25-1.63

100 80 60 40 20 ℄ 20 40 60 80 100

520
510
500

514.07
6+70
513.8

520
510
500

513.94
6+50
514.2

520
510
500

513.51
6+00
514.3

100 80 60 40 20 ℄ 20 40 60 80 100

Sta. 0+25 to Sta. 6+70	Type Code 7721	
Excavation	2337	C.Y.
Embankment	9208	C.Y.
Embankment +15%	10,589	C.Y.

48

Volume Adjustment
Southeast Corner

+37

56

103

199 3

Bldg. #1803 #1805 #1807

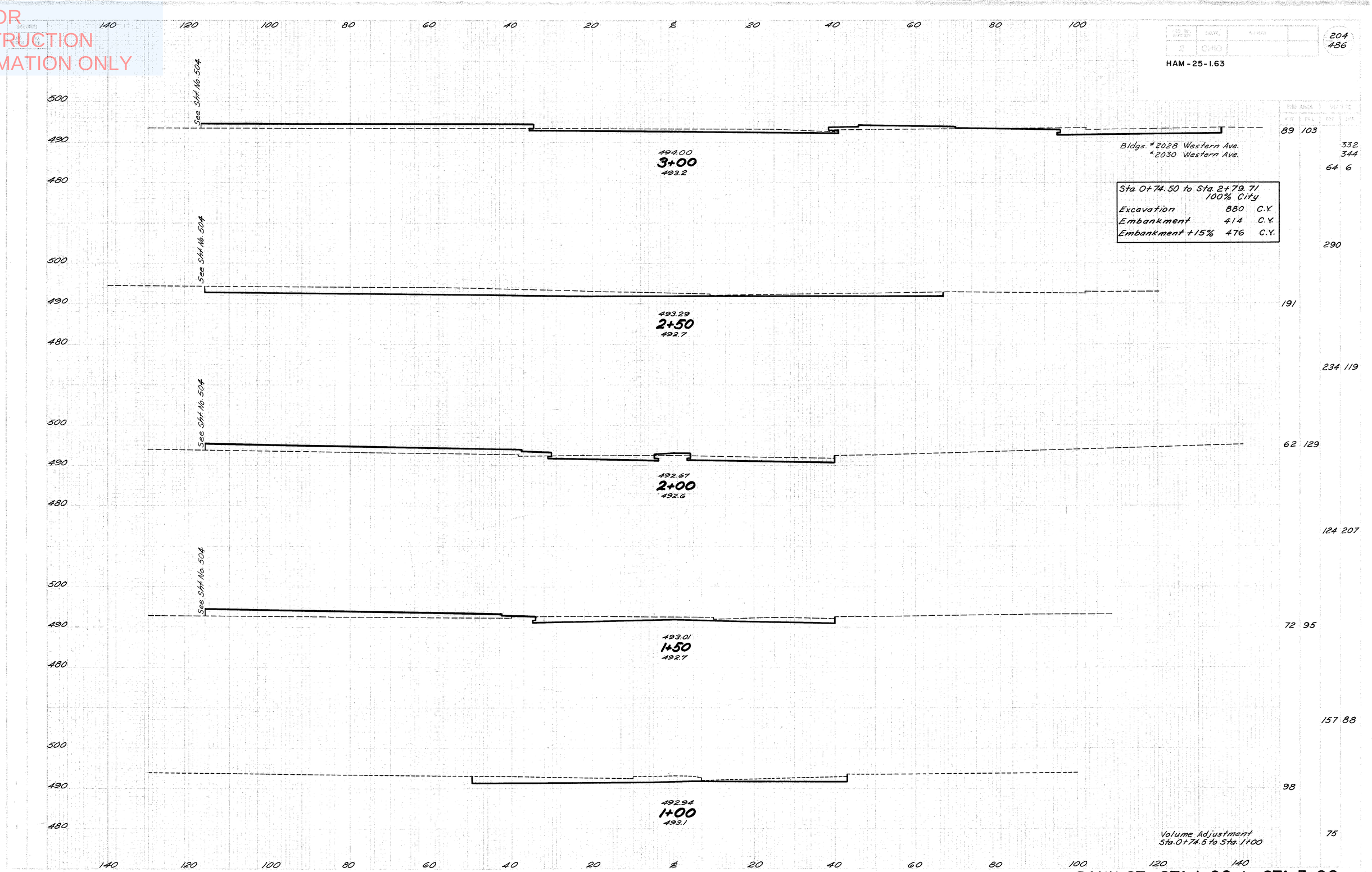
+1009

112 3

302 6

FINDLAY ST. STA.6+00 to STA.6+70

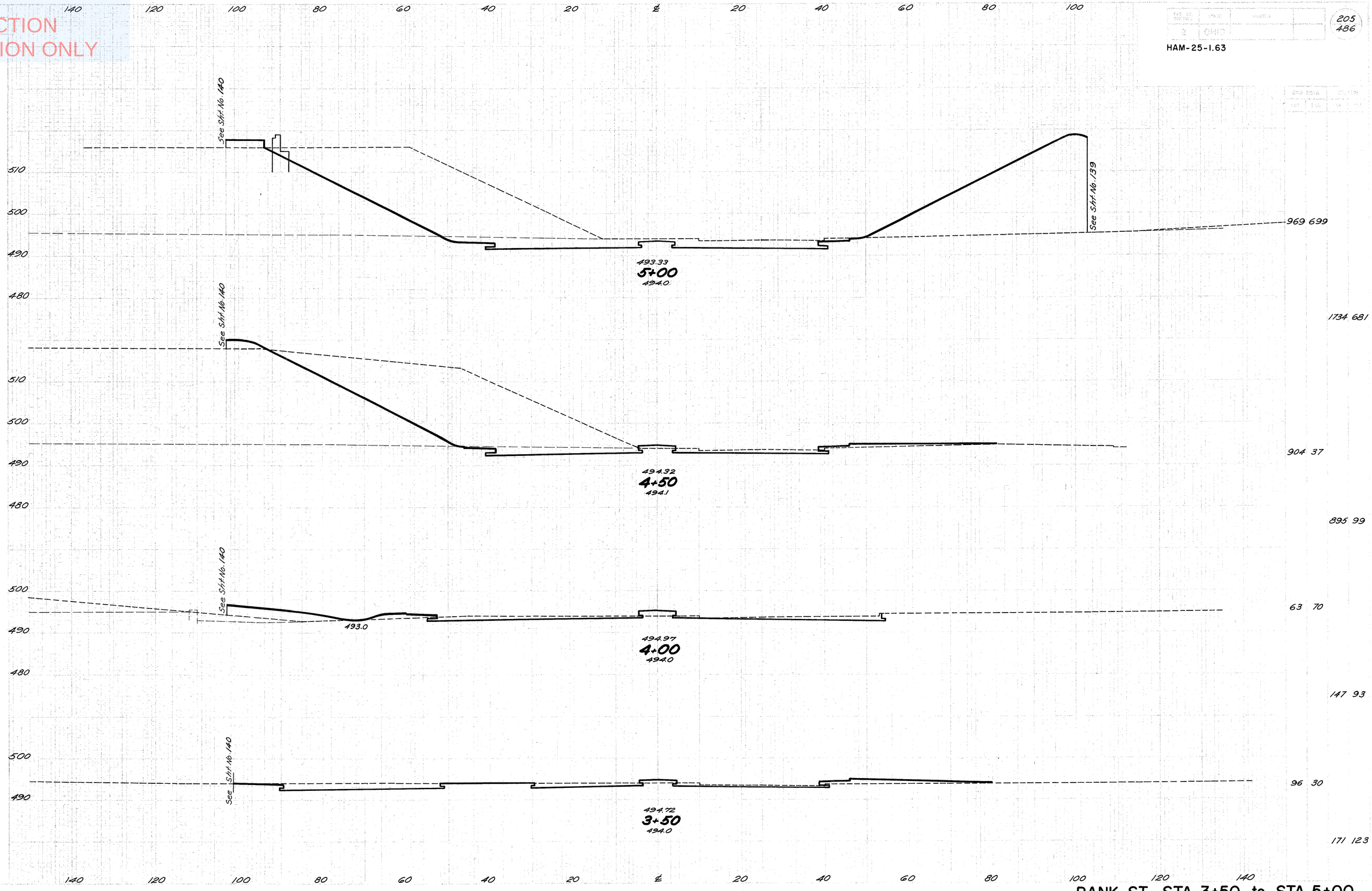
NOT FOR CONSTRUCTION INFORMATION ONLY



BANK ST. STA. 1+00 to STA. 3+00

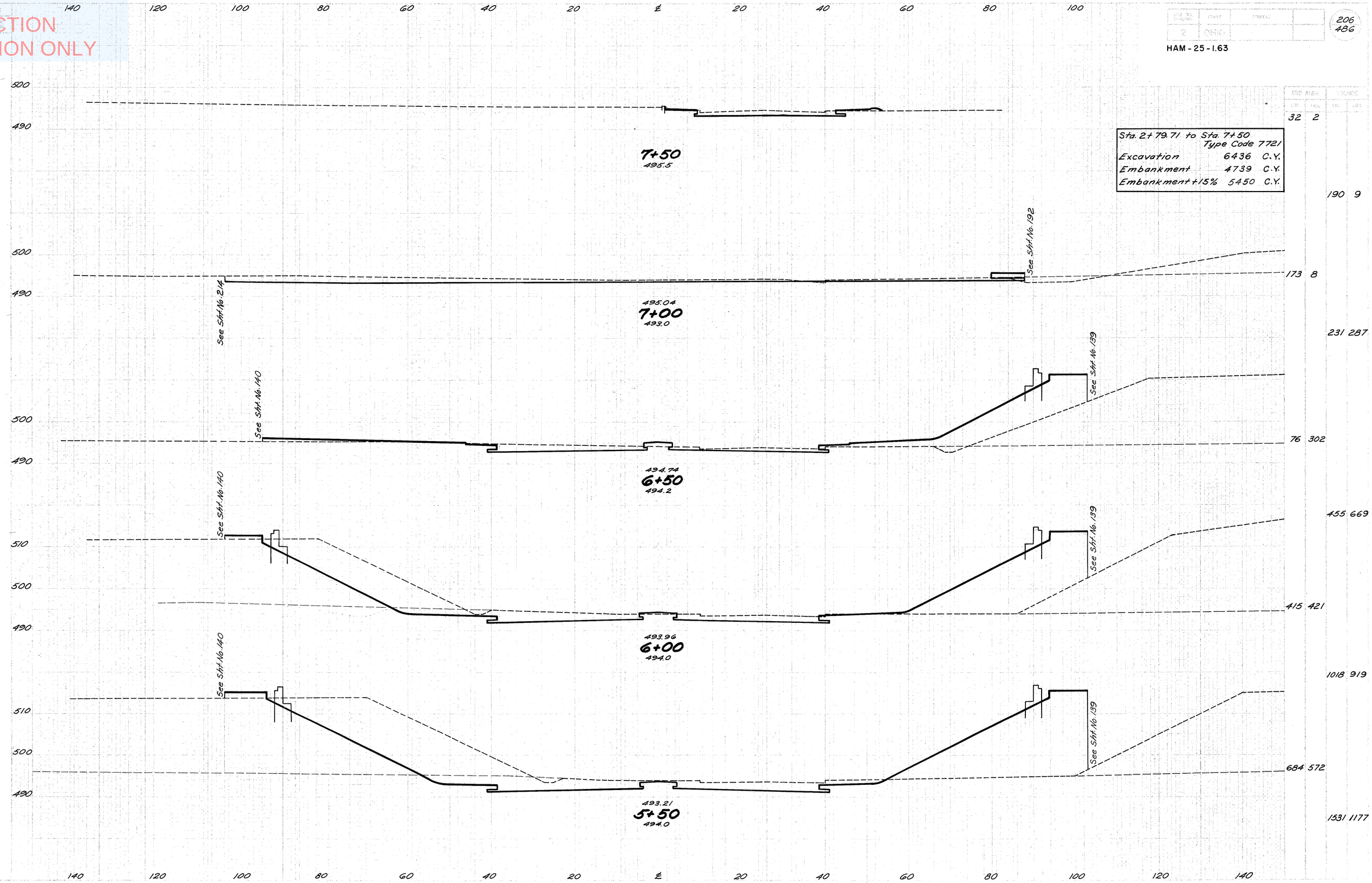
NOT FOR CONSTRUCTION INFORMATION ONLY

HAM-25-I.63



BANK ST. STA. 3+50 to STA. 5+00

NOT FOR CONSTRUCTION INFORMATION ONLY



Sta. 2+79.71 to Sta. 7+50		
	Type Code	7721
Excavation	6436	C.Y.
Embankment	4739	C.Y.
Embankment +15%	5450	C.Y.

BANK ST. STA. 5+50 to STA. 7+50

NOT FOR CONSTRUCTION INFORMATION ONLY

HAM-25-1.63

160 140 120 100 80 60 40 20 ℄ 20 40 60 80 100

500
490

495.40
4+50
494.6

See Sht. No. 141

63 8

125 42

500
490

495.19
4+00
494.7

See Sht. No. 141

72 37

133 74

500
490

494.99
3+50
494.4

See Sht. No. 141

72 43

129 124

500
490

494.78
3+00
494.3

See Sht. No. 141

67 91

131 230

500
490

494.58
2+50
494.2

See Sht. No. 140

74 157

160 140 120 100 80 60 40 20 ℄ 20 40 60 80 100 120

SPRING GROVE AVE. STA. 2+50 to STA. 4+50

NOT FOR CONSTRUCTION INFORMATION ONLY

HAM-25-1.63

140 120 100 80 60 40 20 ℄ 20 40 60 80 100

500
490

495.75
5+40
495.5

495.57
5+00
495.4

See Sht No. 142

Sta. 2+50 to Sta. 6+31 100% City		
Excavation	790	C.Y.
Embankment	550	C.Y.
Embankment +15%	633	C.Y.

Volume Adjustment
Sta. 5+40 to Sta. 6+31

70
51
116 1
105 2
156 9

140 120 100 80 60 40 20 ℄ 20 40 60 80 100 120 140

SPRING GROVE AVE. STA.5+00 to STA.5+40

NOT FOR CONSTRUCTION INFORMATION ONLY

HAM-25-I.63

100 80 60 40 20 ℄ 20 40 60 80 100

510
500
490
500
490
500
490
500
490

See Sht. No. 146

2+50
500.4

2+00
500.0

1+50
499.9

1+00
499.3

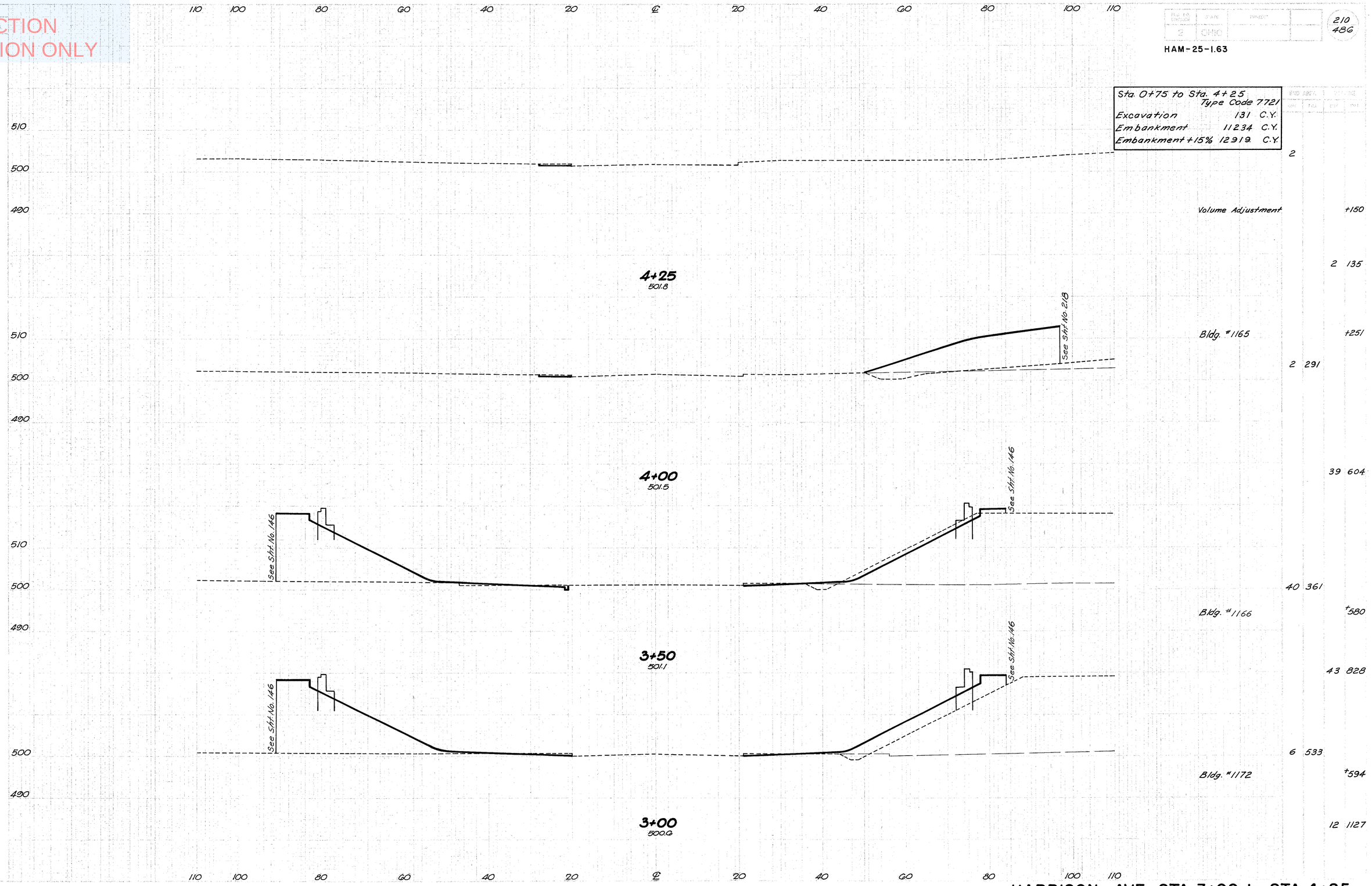
0+75
499.1

7	684		
		Bldg. #1174	*323
12	1550		
6	989		
		Bldg. #1176 #1178 #1180	*1230
11	1856		
6	1015		
6	1249		
1	334		
		Bldg. #1184	*587
6	157		
12	6		
		Volume Adjustment Northeast Corner	13

HARRISON AVE. STA. 0+75 to STA. 2+50

NOT FOR CONSTRUCTION INFORMATION ONLY

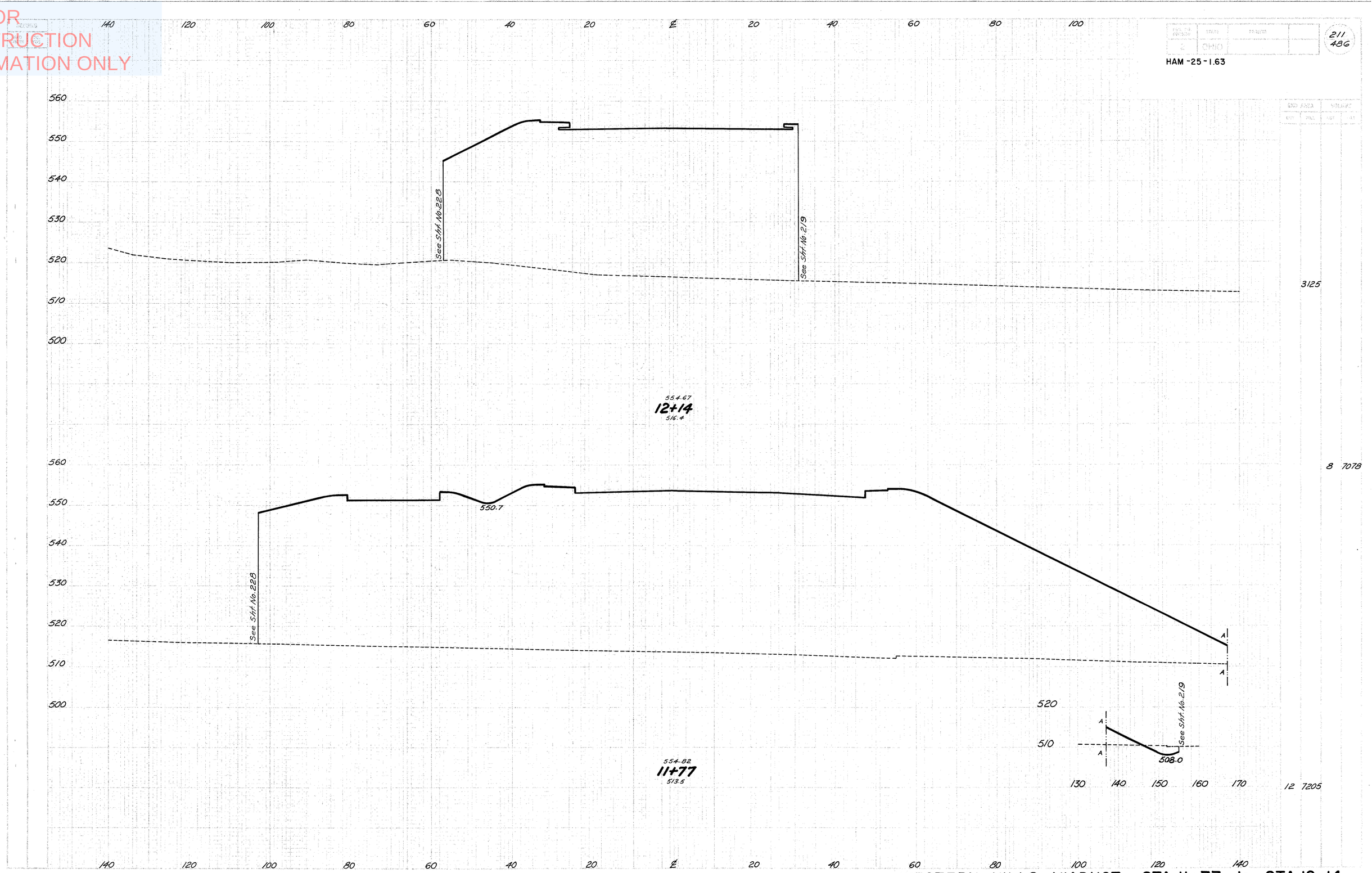
2 OHIO
210
486
HAM-25-1.63



Sta. 0+75 to Sta. 4+25 Type Code 7721	
Excavation	131 C.Y.
Embankment	11234 C.Y.
Embankment +15%	12919 C.Y.

HARRISON AVE. STA. 3+00 to STA. 4+25

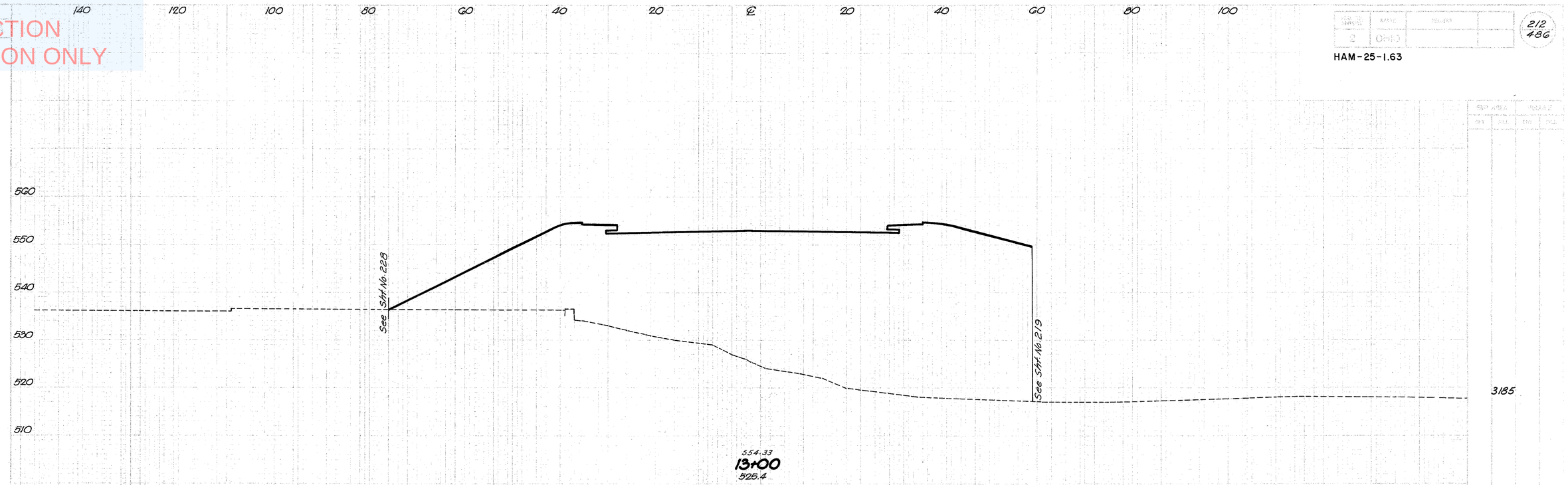
NOT FOR CONSTRUCTION INFORMATION ONLY



WESTERN HILLS VIADUCT STA. 11+77 to STA. 12+14

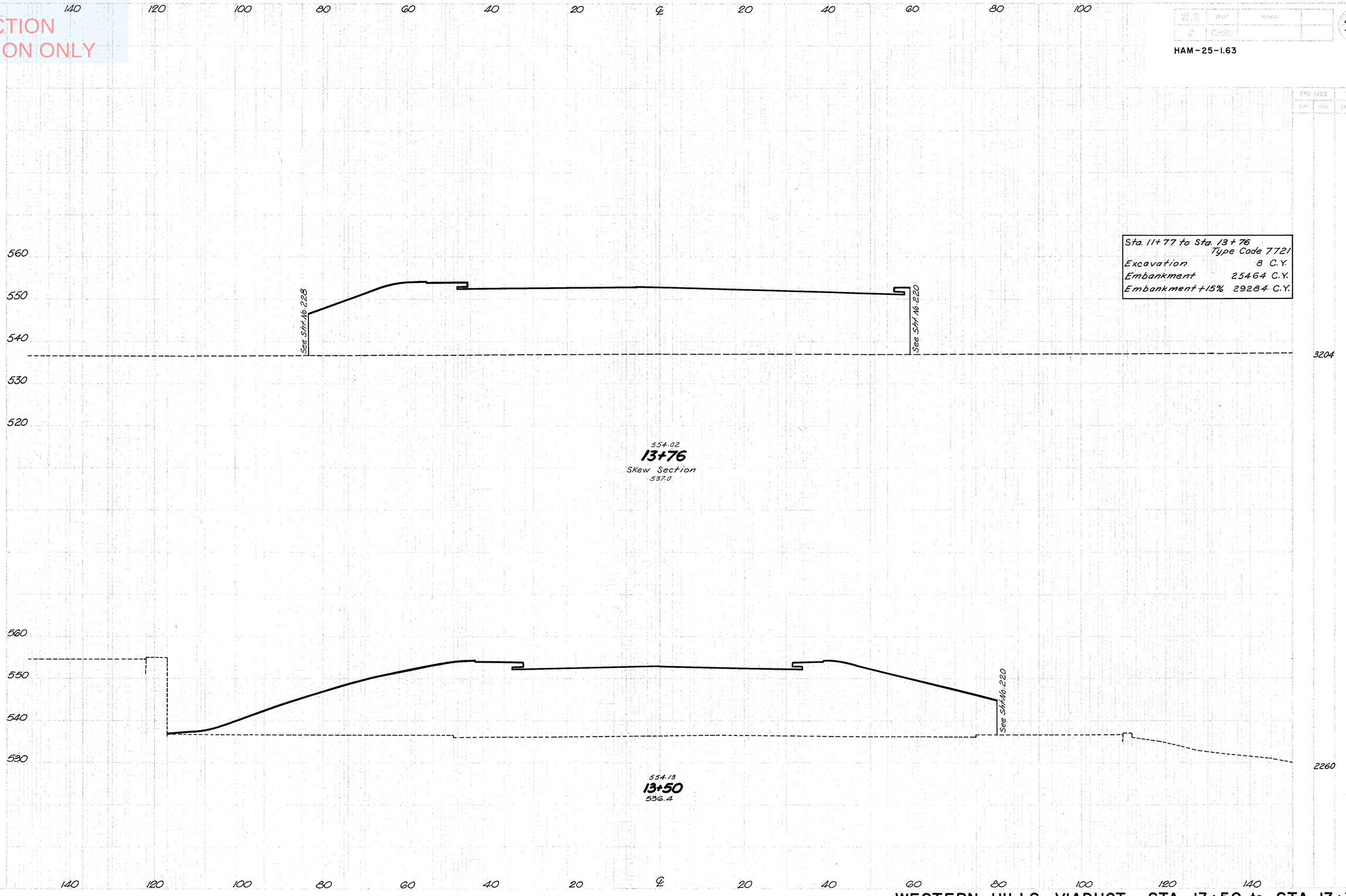
NOT FOR
CONSTRUCTION
INFORMATION ONLY

HAM-25-1.63



WESTERN HILLS VIADUCT STA. 12+50 to STA. 13+00

NOT FOR CONSTRUCTION INFORMATION ONLY



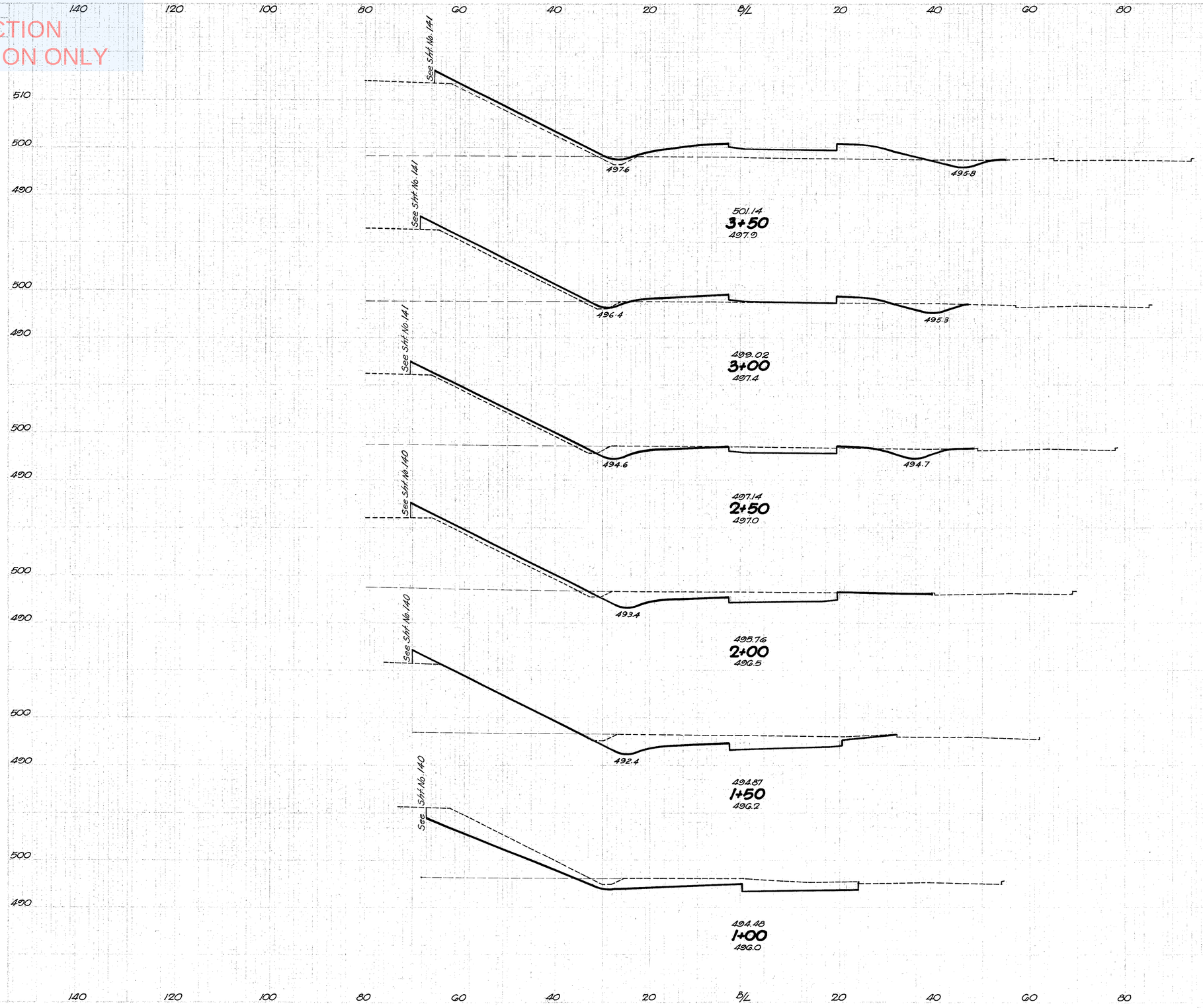
Sta. 11+77 to Sta. 13+76
Type Code 7721

Excavation	8 C.Y.
Embankment	25464 C.Y.
Embankment +15%	29284 C.Y.

WESTERN HILLS VIADUCT STA. 13+50 to STA. 13+76

NOT FOR CONSTRUCTION INFORMATION ONLY

HAM-25-1.63



9	178
	24 225
17	65
	73 93
62	35
	156 78
106	49
	231 62
143	18
	324 17
	207

RAMP B STA. 1+00 to STA. 3+50

NOT FOR CONSTRUCTION INFORMATION ONLY

HAM-25-1.63

140 120 100 80 60 40 20 B/L 20 40 60 80 100

510
500
490

See Sht. No. 143

506.0

498.0

509.61
5+50
499.4

See Sht. No. 142

503.3

497.4

501.49
5+00
499.4

See Sht. No. 142

501.0

497.0

505.37
4+50
499.3

See Sht. No. 142

498.7

496.5

503.26
4+00
498.8

EXC. AREA		VOLUME	
CUT	FILL	CUT	FILL
		26	447
		41	791
		18	407
		26	689
		10	337
		19	540
		10	246
		18	393

140 120 100 80 60 40 20 B/L 20 40 60 80 100 120 140

RAMP B STA. 4+00 to STA. 5+50

NOT FOR CONSTRUCTION INFORMATION ONLY

HAM-25-1.63

140 120 100 80 60 40 20 B/L 20 40 60 80 100

520
510
500
490

See Sht. No. 144

513.8

498.6

19 599

515.47
7+00
508.1

34 1111

See Sht. No. 143

511.3

498.4

18 601

513.73
6+50
503.9

33 1040

See Sht. No. 143

508.8

498.2

18 522

511.73
6+00
499.8

41 897

140 120 100 80 60 40 20 B/L 20 40 60 80 100 120 140

RAMP B STA. 6+00 to STA. 7+00

NOT FOR CONSTRUCTION INFORMATION ONLY

HAM-25-I.63

140 120 100 80 60 40 20 B/L 20 40 60 80 100

520
510
500

See Sht. No. 145

519.91
9+00
517.0

499.4

9 401

19 807

519.17
8+50
516.8

See Sht. No. 144

517.4

499.2

12 471

29 899

518.19
8+00
515.3

See Sht. No. 144

516.0

499.0

19 500

33 981

516.96
7+50
512.8

498.8

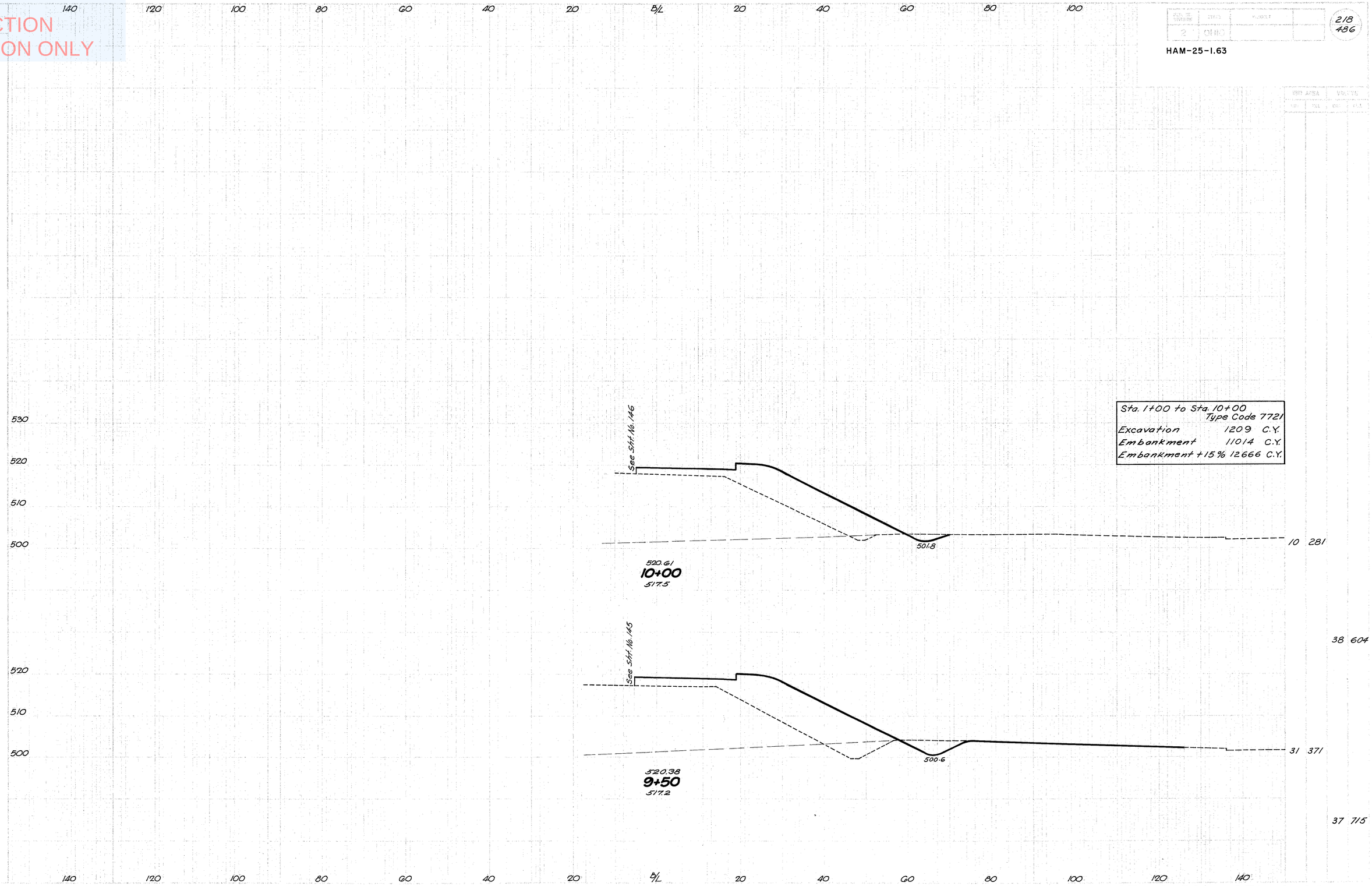
17 559

33 1072

140 120 100 80 60 40 20 B/L 20 40 60 80 100 120 140

RAMP B STA. 7+50 to STA. 9+00

NOT FOR CONSTRUCTION INFORMATION ONLY



Sta. 1+00 to Sta. 10+00	Type Code 7721
Excavation	1209 C.Y.
Embankment	11014 C.Y.
Embankment +15%	12666 C.Y.

RAMP B STA. 9+50 to STA. 10+00

NOT FOR CONSTRUCTION INFORMATION ONLY

HAM-25-1.63

140 120 100 80 60 40 20 ℄ 20 40 60 80 100

550 540 530 520 510

548.3

See Sht No 2/2

549.49
2+00
517.5

510.8

See Sht No. 1/49

30 2452

39 4579

550 540 530 520 510

See Sht No 2/2

551.22
1+50
515.5

509.3

See Sht No. 1/49

25 2699

550 540 530 520 510

See Sht No 2/1

532.63
1+00
514.8

508.2

See Sht No. 1/49

17 2996

30 5062

Volumes Adjusted for Curvature

140 120 100 80 60 40 20 ℄ 20 40 60 80 100 120 140

RAMP C STA. 1+00 to STA. 2+00

NOT FOR CONSTRUCTION INFORMATION ONLY

HAM-25-1.63

140 120 100 80 60 40 20 ℄ 20 40 60 80 100

560 550 540 530 520

Rapid Transit Tube

542.2

543.82
3+50
537.4

514.7

See Sht No. 149

50 571

560 550 540 530 520

Rapid Transit Tube

542.9

545.71
3+00
536.9

513.2

See Sht No. 149

80 1553

55 1106

560 550 540 530 520

Rapid Transit Tube

544.9

547.60
2+50
530.6

512.1

See Sht No. 149

96 2817

75 1936

78 4063

Volumes Adjusted for Curvature

140 120 100 80 60 40 20 ℄ 20 40 60 80 100 120 140

RAMP C STA. 2+50 to STA. 3+50

NOT FOR CONSTRUCTION INFORMATION ONLY

140 120 100 80 60 40 20 ℄ 20 40 60 80 100

540 530 520 510

Vent Space

Rapid Transit Tube

See Sht No. 149

515.0

10 385

538.15
5+00
538.1

77 558

540 530 520 510

Rapid Transit Tube

See Sht. No. 149

515.3

540.04
4+50
536.0

73 218

550 540 530 520 510

542.5

Rapid Transit Tube

515.1

See Sht No. 149

541.93
4+00
537.6

138 477

96 297

119 804

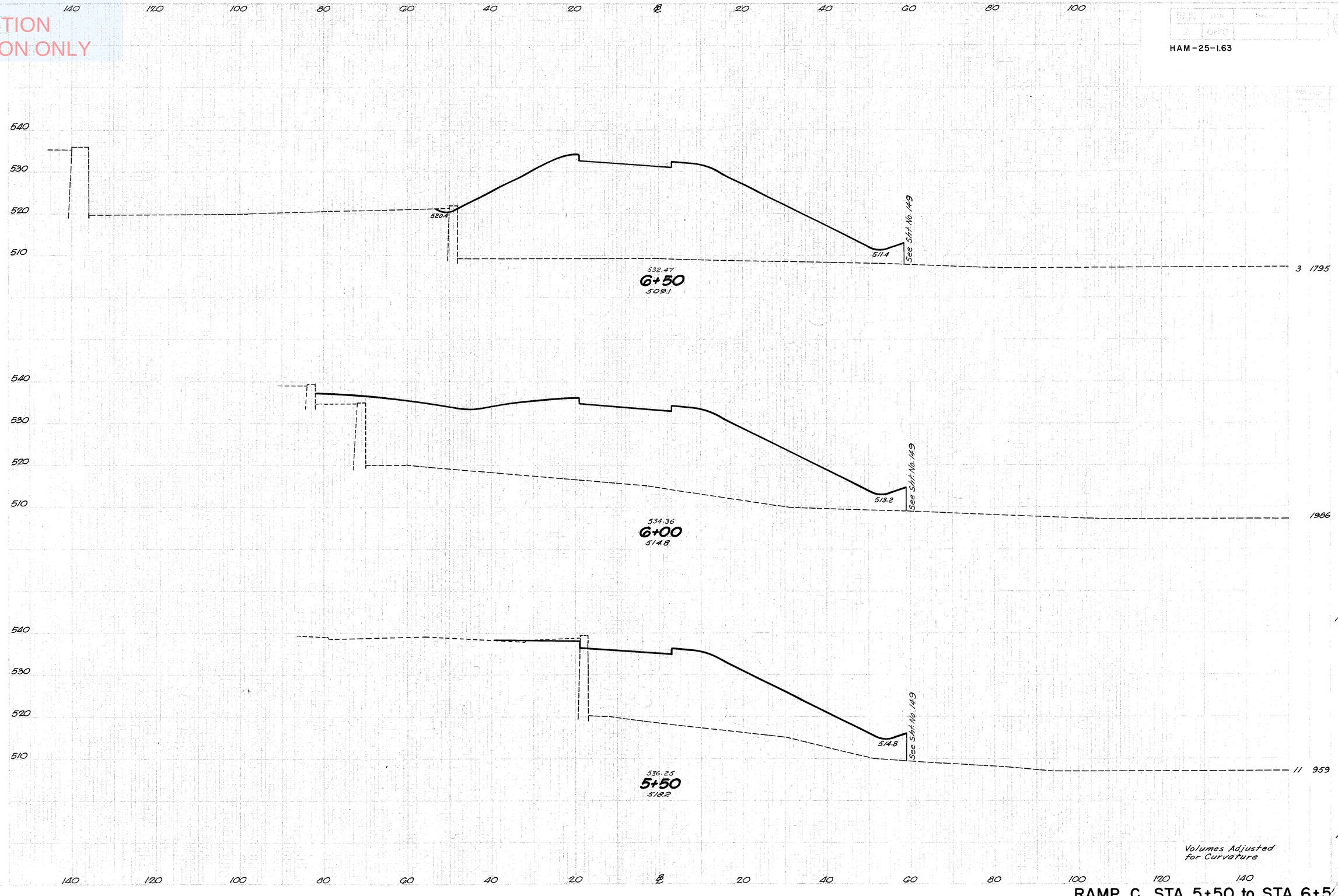
Volumes Adjusted for Curvature

140 120 100 80 60 40 20 ℄ 20 40 60 80 100 120 140

RAMP C STA. 4+00 to STA. 5+00

NOT FOR CONSTRUCTION INFORMATION ONLY

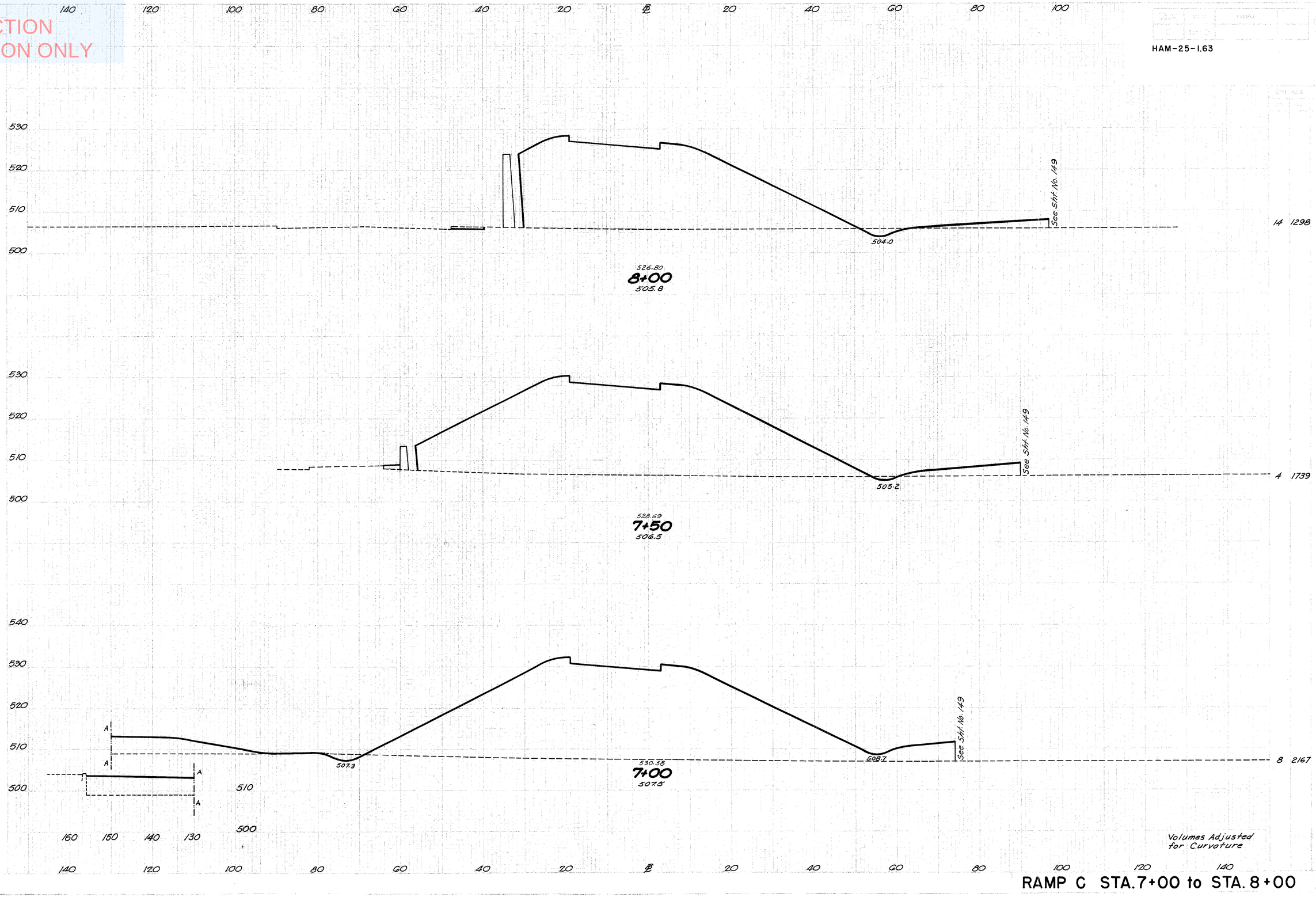
HAM-25-1.63



RAMP C STA. 5+50 to STA. 6+5

NOT FOR CONSTRUCTION INFORMATION ONLY

HAM-25-1.63



14 1298

12 2812

4 1739

11 3617

8 2167

10 3669

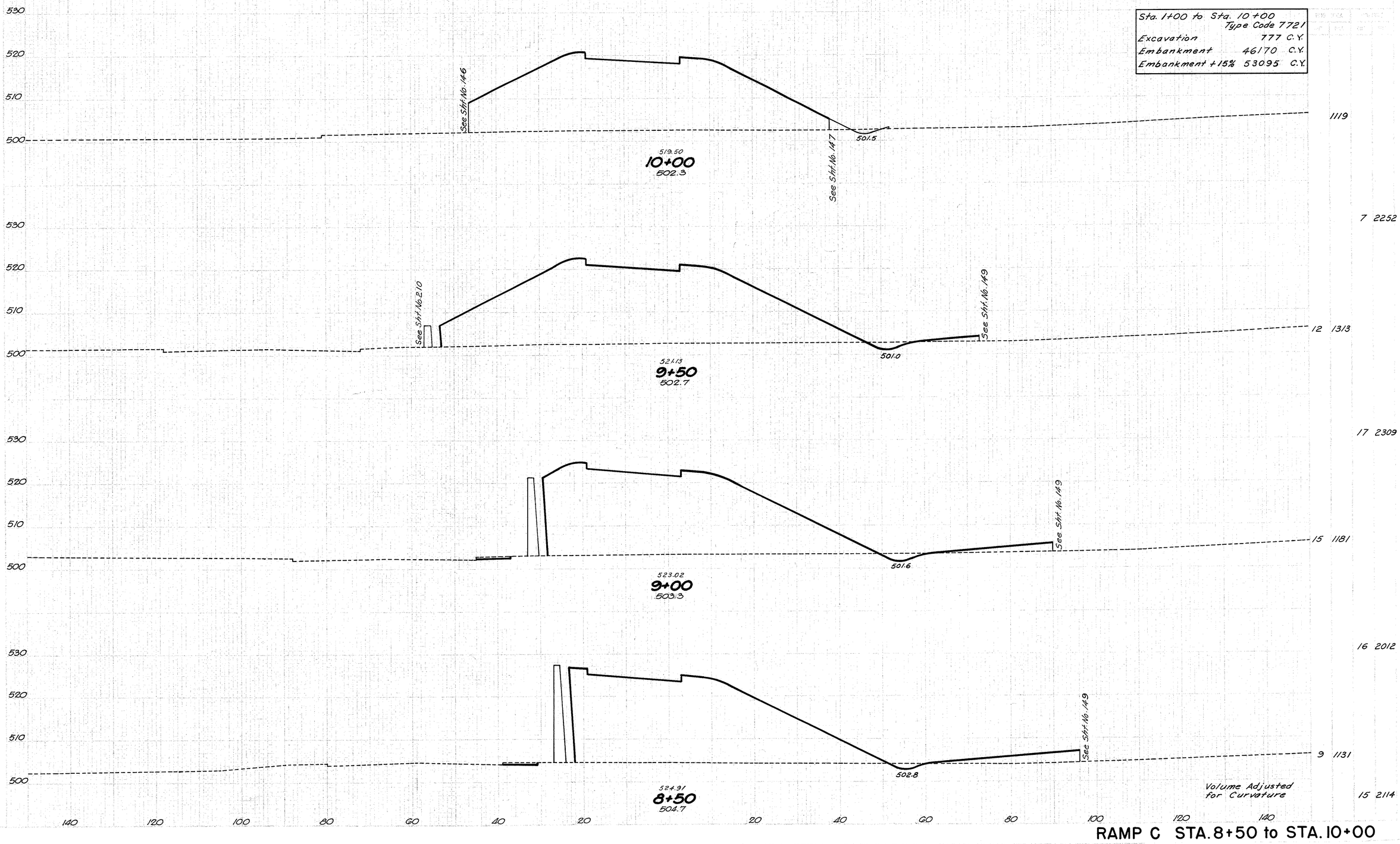
Volumes Adjusted for Curvature

RAMP C STA. 7+00 to STA. 8+00

NOT FOR CONSTRUCTION INFORMATION ONLY

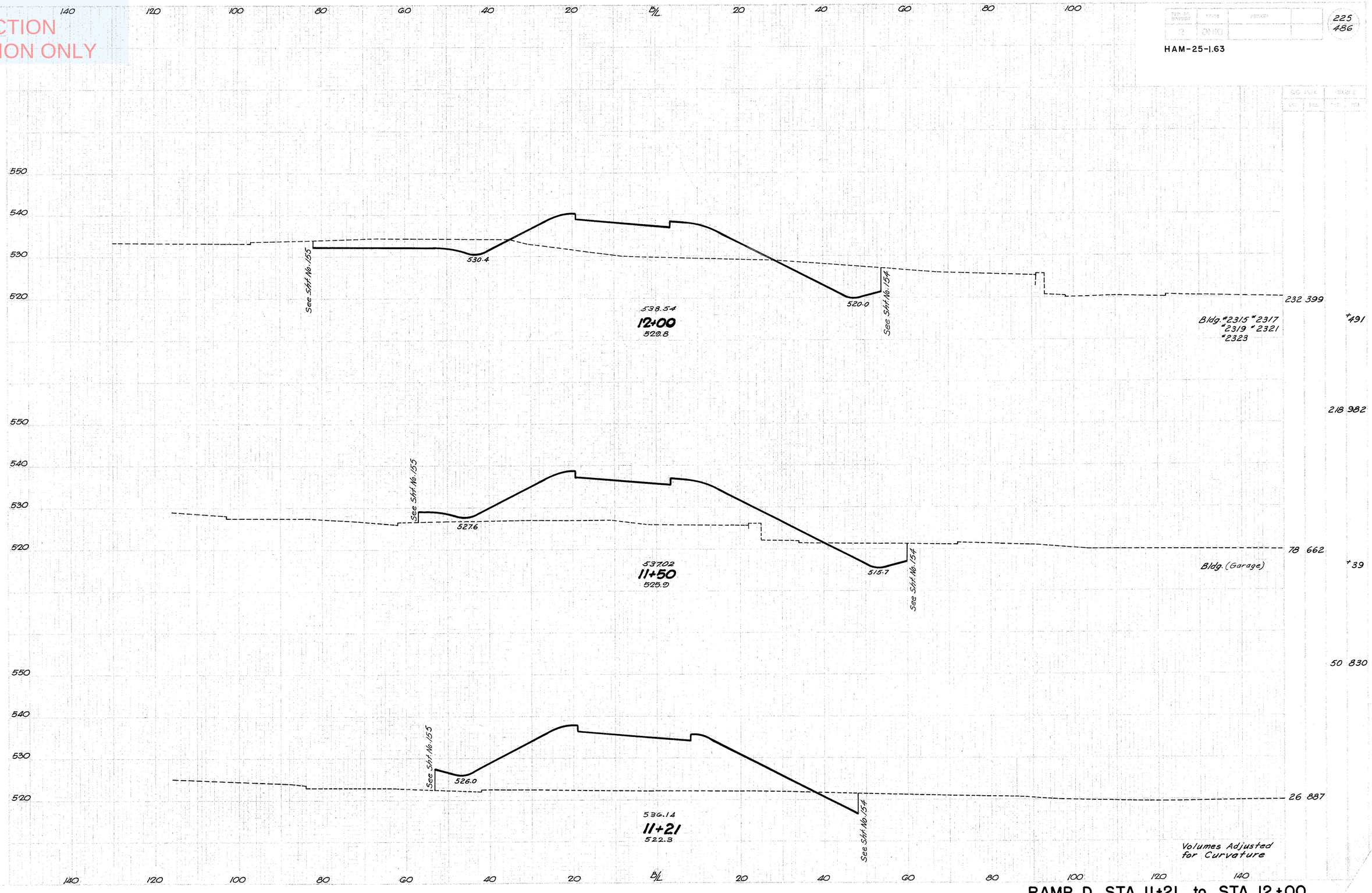
HAM-25-I.63

Sta. 1+00 to Sta. 10+00 Type Code 7721	
Excavation	777 C.Y.
Embankment	46170 C.Y.
Embankment +15%	53095 C.Y.



RAMP C STA. 8+50 to STA. 10+00

NOT FOR
CONSTRUCTION
INFORMATION ONLY



RAMP D STA. 11+21 to STA. 12+00

NOT FOR CONSTRUCTION INFORMATION ONLY

HAM-25-1.63

226
486

140 120 100 80 60 40 20 B/L 20 40 60 80 100

560
550
540
530
520

544.0
529.9
See Sht. No. 153
Rapid Transit Tube
543.10
13+50
534.8

Bldg. #2307 #2309 -139 +261
58 373
Bldg. #2311 -54 +78

560
550
540
530
520

534.0
527.0
See Sht. No. 153
Rapid Transit Tube
541.58
13+00
534.2

129 669
116 349
Bldg. #2313 -6 +145

550
540
530
520

532.5
524.0
See Sht. No. 154
Rapid Transit Tube
540.06
12+50
534.2

155 594
88 292

Volumes Adjusted for Curvature 231 640

140 120 100 80 60 40 20 B/L 20 40 60 80 100 120 140

RAMP D STA. 12+50 to STA. 13+50

NOT FOR CONSTRUCTION INFORMATION ONLY

140 120 100 80 60 40 20 B/L 20 40 60 80 100

227
486

HAM-25-1.63

560
550
540
530
520
510

Rapid Transit Tube

534.6

526.0

See Sht. No. 153

Bldg. #2297

+121

31 772

547.67
15+00
535.8

69 1229

560
550
540
530
520
510

Rapid Transit Tube

544.8

529.0

See Sht. No. 153

67 555

Bldg. #2299 #2301

-21 +179

546.15
14+50
535.5

560
550
540
530
520
510

Rapid Transit Tube

529.3

See Sht. No. 153

107 851

77 364

Bldg. #2303 #2305

-144

544.62
14+00
535.1

Volumes Adjusted for Curvature

103 682

140 120 100 80 60 40 20 B/L 20 40 60 80 100 120 140

RAMP D STA. 14+00 to STA. 15+00

NOT FOR CONSTRUCTION INFORMATION ONLY

HAM-25-I.63

140 120 100 80 60 40 20 B/L 20 40 60 80 100

550 540 530 520 510

545.5

See Sht. No. 211

See Sht. No. 152

516.7

Sta. 11+21 to Sta. 16+50	Type Code 7721
Excavation	762 C.Y.
Embankment	20424 C.Y.
Embankment +15%	23488 C.Y.

2954

332.23

16+50

517.2

Bldg. "2287" "2289"

+2180

560 550 540 530 520 510

See Sht. No. 212

535.9

See Sht. No. 152

519.0

4882

330.71

16+00

523.1

2319

560 550 540 530 520 510

Rapid Transit Tube

See Sht. No. 213

534.4

See Sht. No. 152

523.2

18 3344

Bldg. "2293" "2295"

+316

349.19

15+50

531.8

19 1292

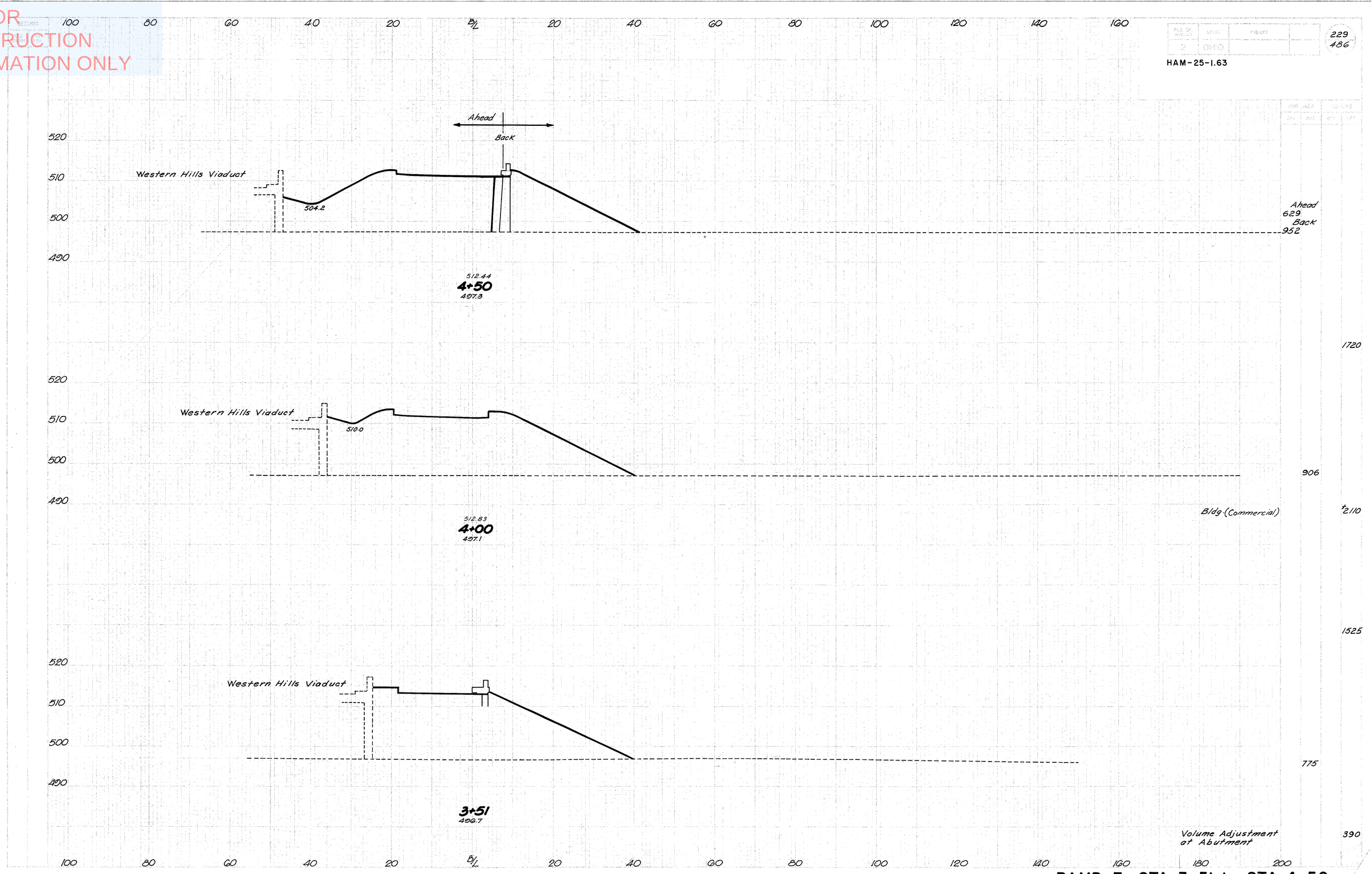
Volumes Adjusted for Curvature

46 1911

140 120 100 80 60 40 20 B/L 20 40 60 80 100 120 140

RAMP D STA. 15+50 to STA. 16+50

NOT FOR CONSTRUCTION INFORMATION ONLY



RAMP E STA. 3+51 to STA. 4+50

NOT FOR CONSTRUCTION INFORMATION ONLY

HAM-25-I.63

100 80 60 40 20 ℄ 20 40 60 80 100 120 140 160

"O" Section
6+39

520
510
500
490

Western Hills Viaduct

497.0

Sta. 3+51 to Sta. 6+39	Type Code 7721	
Excavation	43	C.Y.
Embankment	10191	C.Y.
Embankment +15%	11720	C.Y.

0 0

10 419

18 754

517.16
6+09
499.8

27 1578

520
510
500
490

Western Hills Viaduct

497.4

514.93
5+50
498.9

7 690

6 1253

520
510
500
490

Western Hills Viaduct

499.8

663

513.19
5+00
497.8

1196

100 80 60 40 20 ℄ 20 40 60 80 100 120 140 160 180 200

RAMP E STA. 5+00 to STA. 6+39

NOT FOR CONSTRUCTION INFORMATION ONLY

HAM-25-1.63

200 180 160 140 120 100 80 60 40 20 B/L 20 40 60

520
510
500
490

Western Hills Viaduct
501.1

513.46
4+50
497.1

1078

1896

520
510
500
490

Western Hills Viaduct
507.0

513.41
4+00
497.1

970

1769

520
510
500
490

Western Hills Viaduct
513.0

514.58
3+46
496.9

799

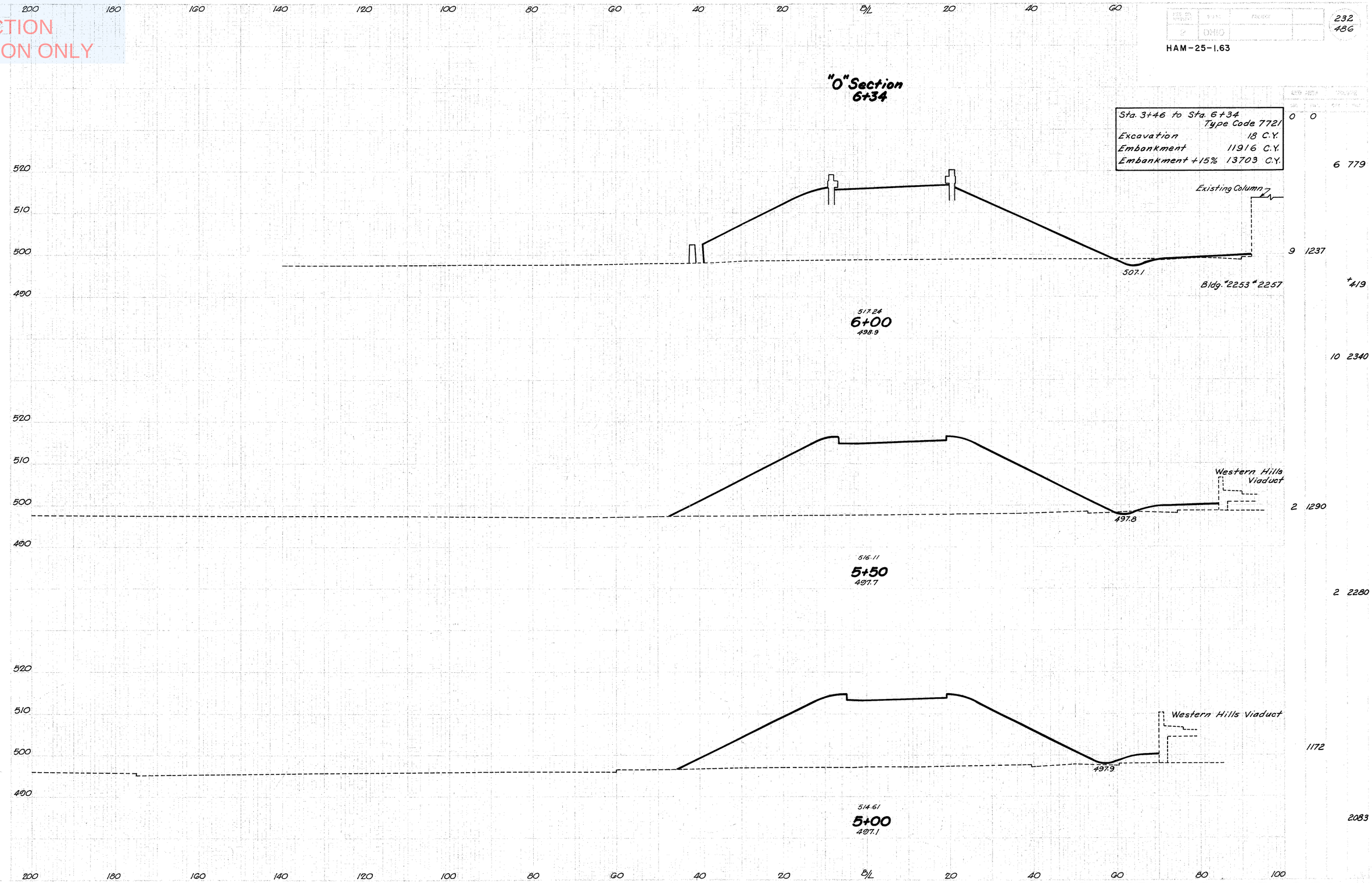
Volume Adjustment at Abutment

350

200 180 160 140 120 100 80 60 40 20 B/L 20 40 60 80 100

RAMP F STA. 3+46 to STA. 4+50

NOT FOR CONSTRUCTION INFORMATION ONLY



RAMP F STA. 5+00 to STA. 6+34

NOT FOR
CONSTRUCTION
INFORMATION ONLY

HAM-25-1.63

80 60 40 20 ℄ 20 40 60 80 100 120 140 160

550
540
530

173+39.97
541.2

1 38

550
540
530

173+00
541.4

2 15

550
540
530

172+50
541.6

1 4

2 4

550
540
530

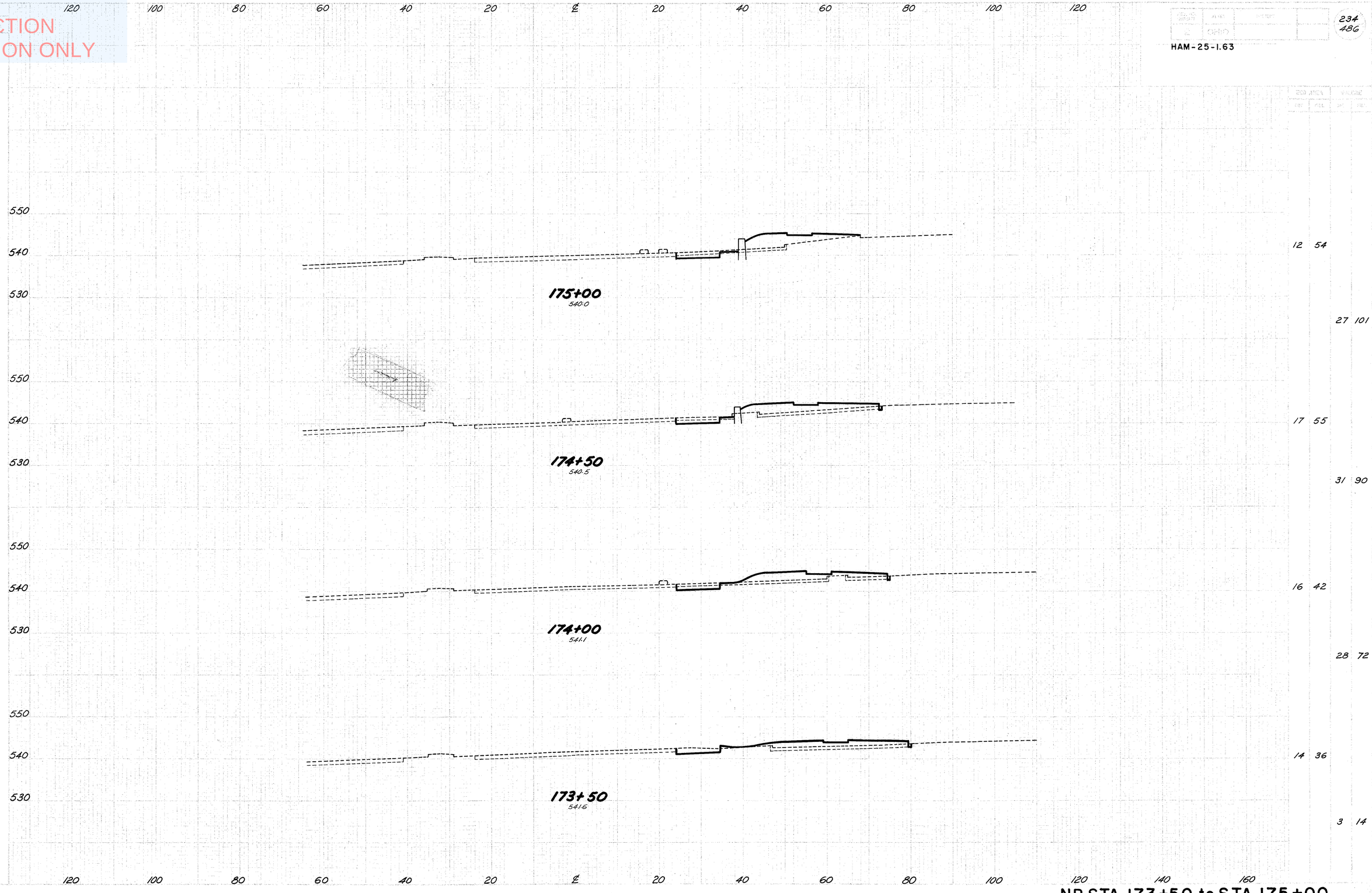
172+00
541.7

1

80 60 40 20 ℄ 20 40 60 80 100 120 140 160 180 200

STA. 172+00 to STA. 173+39.97

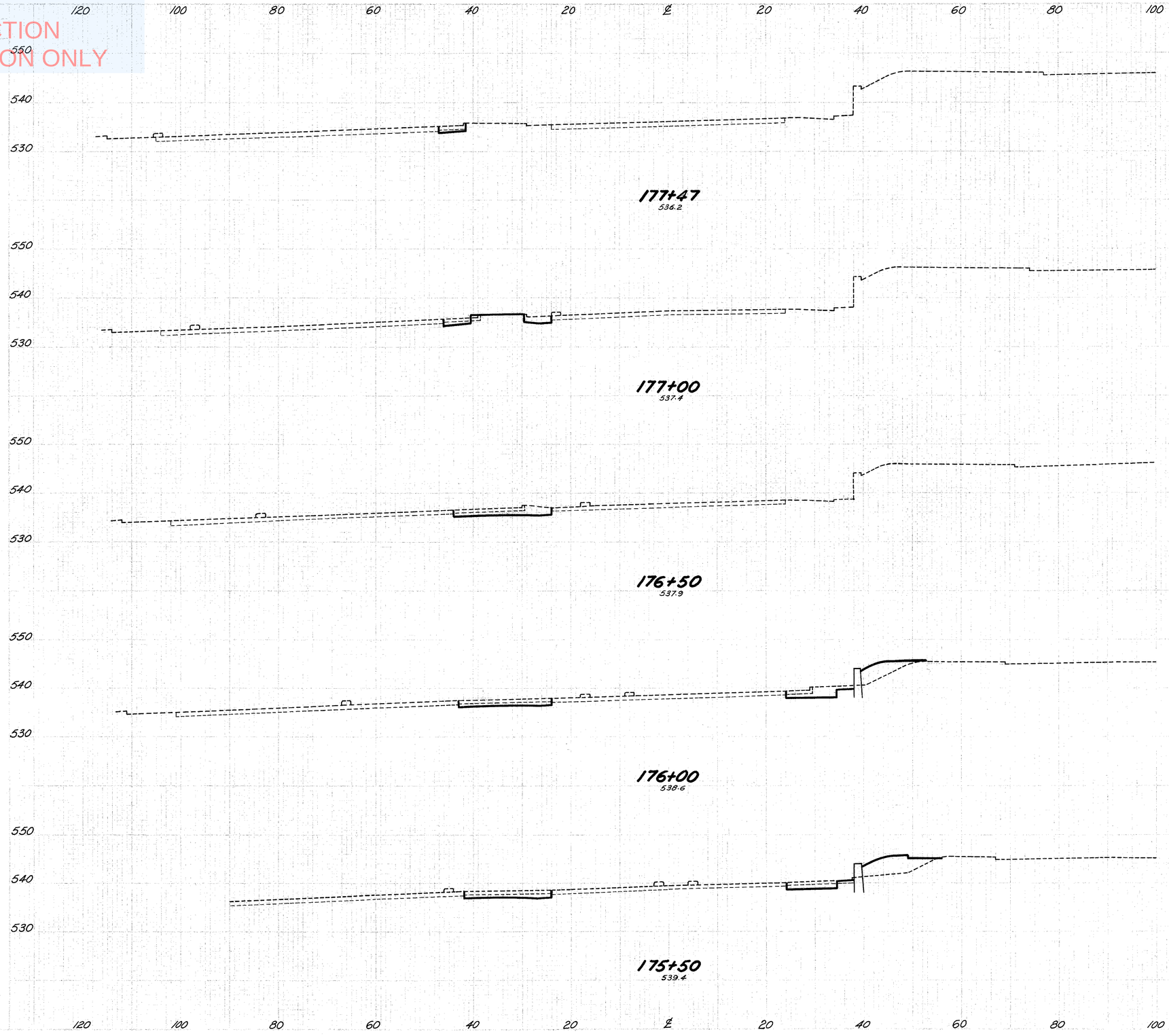
NOT FOR
CONSTRUCTION
INFORMATION ONLY



N.B. STA. 173+50 to STA. 175+00

NOT FOR CONSTRUCTION INFORMATION ONLY

HAM-25-1.63



Sta. 172+00 to Sta. 177+47 Type Code 7721		
Excavation	357	C.Y.
Embankment	497	C.Y.
Embankment+15%	572	C.Y.

SB AREA		AHEAD	
FILL	CUT	FILL	CUT
			6
		17	1
		13	1
		41	1
		31	
		71	21
		46	23
		82	56
		43	38
		51	85

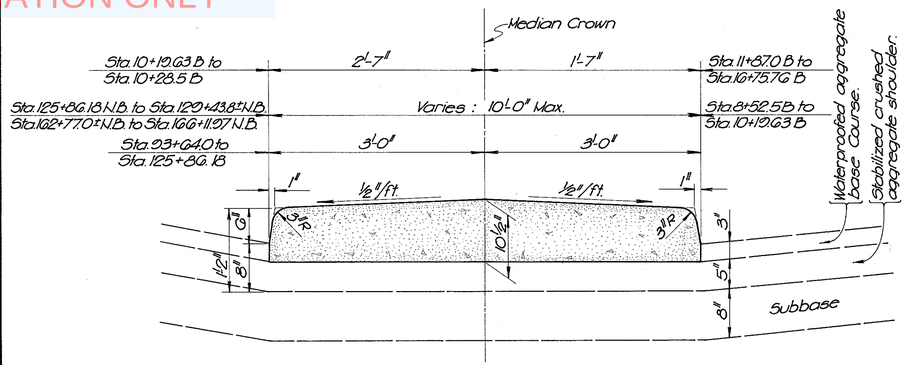
N.B. STA.175+00 to STA.177+47

NOT FOR CONSTRUCTION INFORMATION ONLY

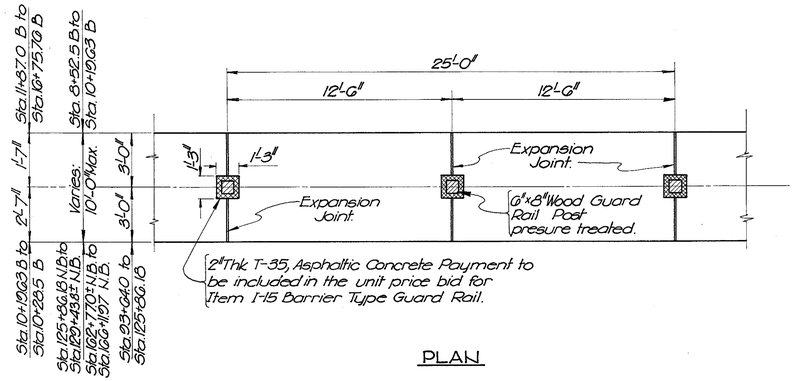
FED. RD. DIVISION	STATE	PROJECT	
2	OHIO		

HAM-25-1.63

23G
16G

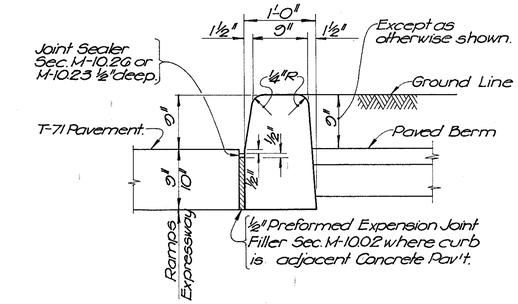


TYPICAL SECTION



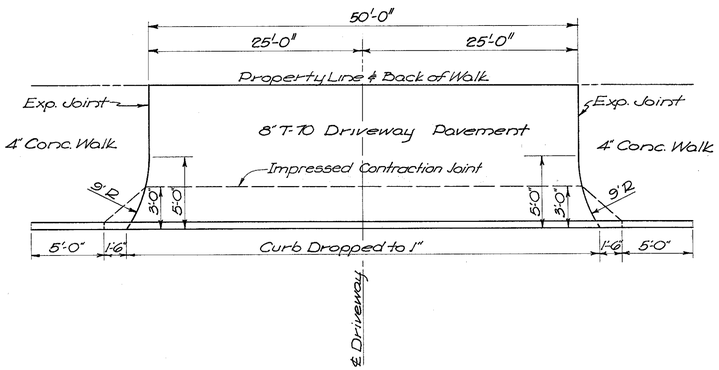
PLAN

TYPE 2 MODIFIED MEDIAN DETAILS.



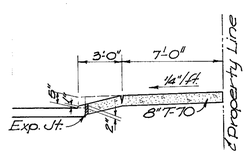
NOTE: Price bid per lin. ft. Item 1-12, Special Barrier Curb, as per plan, shall include the cost of Joint Sealer & Preformed Expansion Joint Filler.

SPECIAL BARRIER CURB DETAIL.



PLAN

ELEVATION

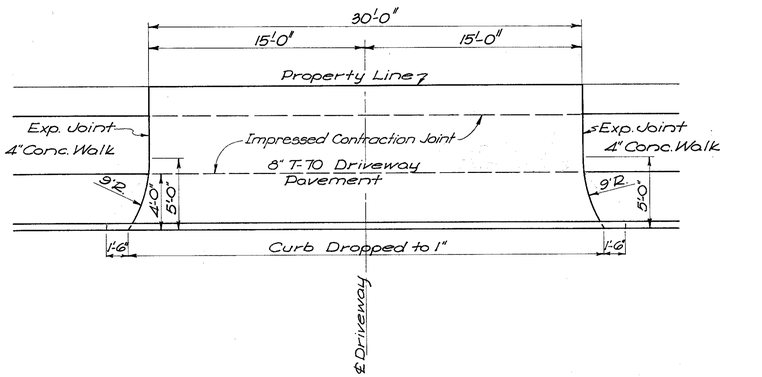


SECTION

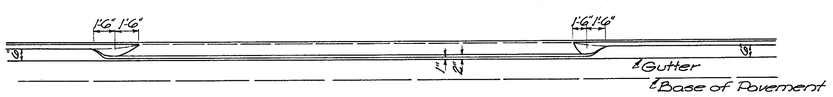
STA. 0+79.0 WINCHELL AVE.

DRIVEWAY DETAILS

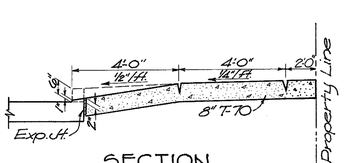
STA. 44+57.67 WINCHELL AVE.



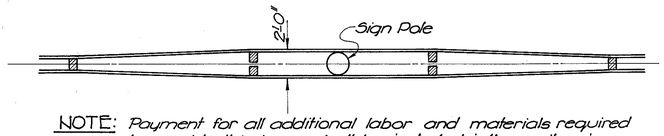
PLAN



ELEVATION

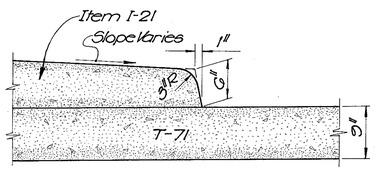


SECTION

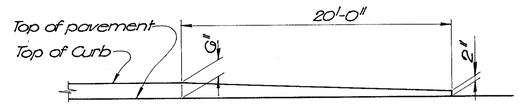


NOTE: Payment for all additional labor and materials required to provide this taper shall be included in the unit price bid for 1-15 Barrier Type Guard Rail.

TYPICAL GUARD RAIL AROUND SIGNS



TRAFFIC ISLAND CURB DETAIL



CURB PROFILE AT NOSE ENDING

(To be paid for as Type 2A or Type G Curb.)

PAVEMENT DETAILS

NOT FOR CONSTRUCTION INFORMATION ONLY

FED. RD. DIVISION	STATE	PROJECT	
2	OHIO		

237
486

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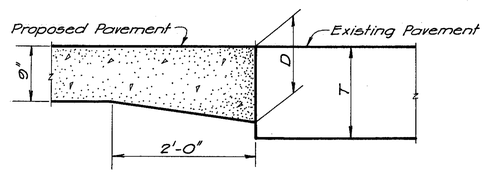
JOINT LEGEND

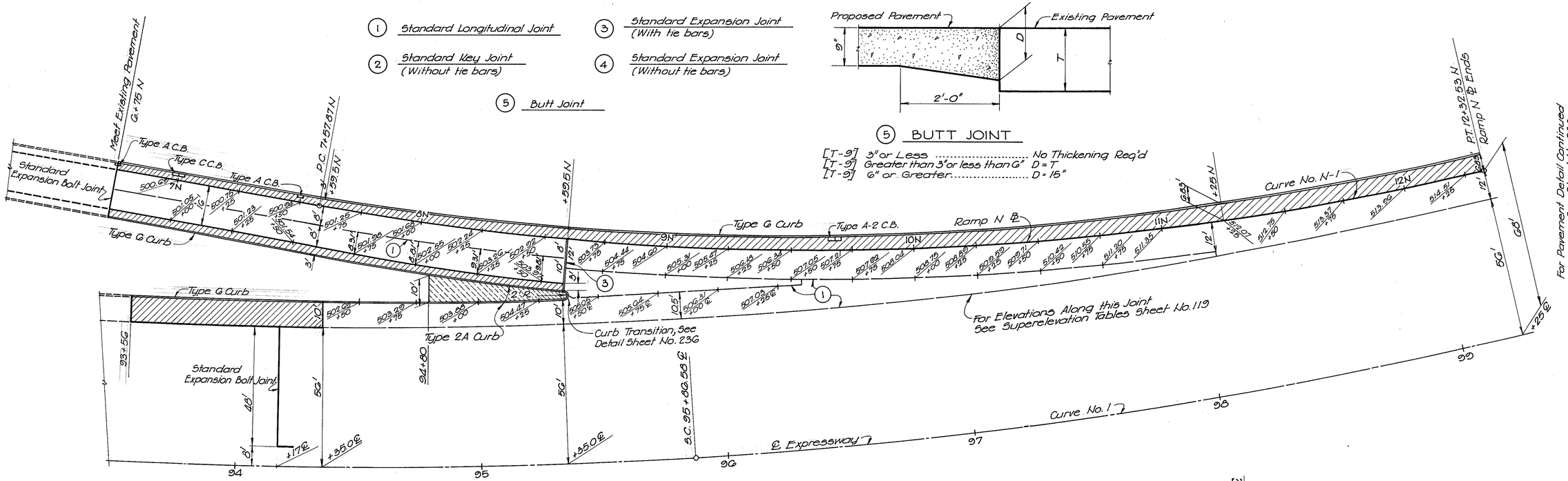
Note: For Joint Details See Standard Drawings L.J. No.1

1. Standard Longitudinal Joint
2. Standard Key Joint (Without tie bars)
3. Standard Expansion Joint (With tie bars)
4. Standard Expansion Joint (Without tie bars)
5. Butt Joint

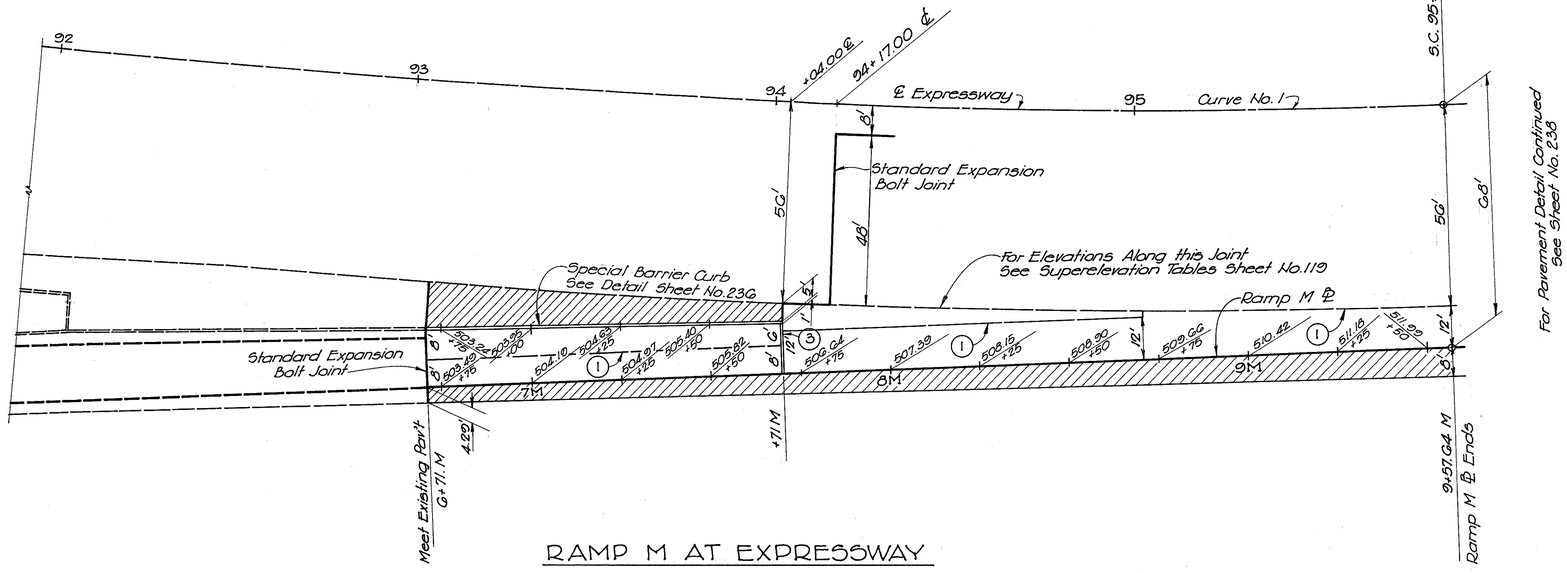


5 BUTT JOINT

[T-9] 3" or Less ..... No Thickening Req'd
[T-9] Greater than 3" or less than 6" D = T
[T-9] 6" or Greater ..... D = 15"



RAMP N AT EXPRESSWAY



RAMP M AT EXPRESSWAY

Notes:

1. For Curve Data See Sh. No. 24
2. Elevations shown adjacent Type 2A Curb are on the Pavement Grade at the back of Curb.

PAVEMENT DETAILS

NOT FOR CONSTRUCTION INFORMATION ONLY

FED. RD. DIVISION	STATE	PROJECT	
2	OHIO		

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4.86

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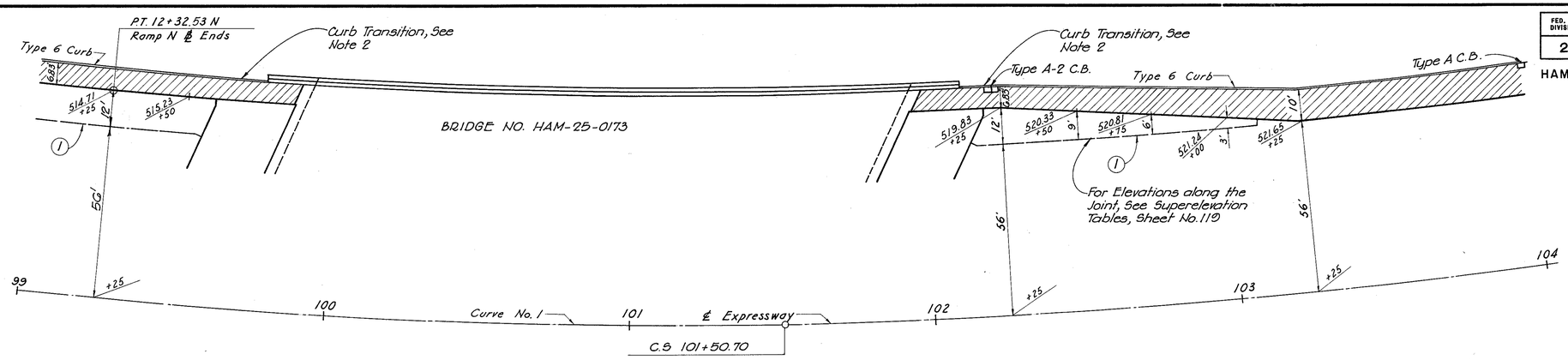
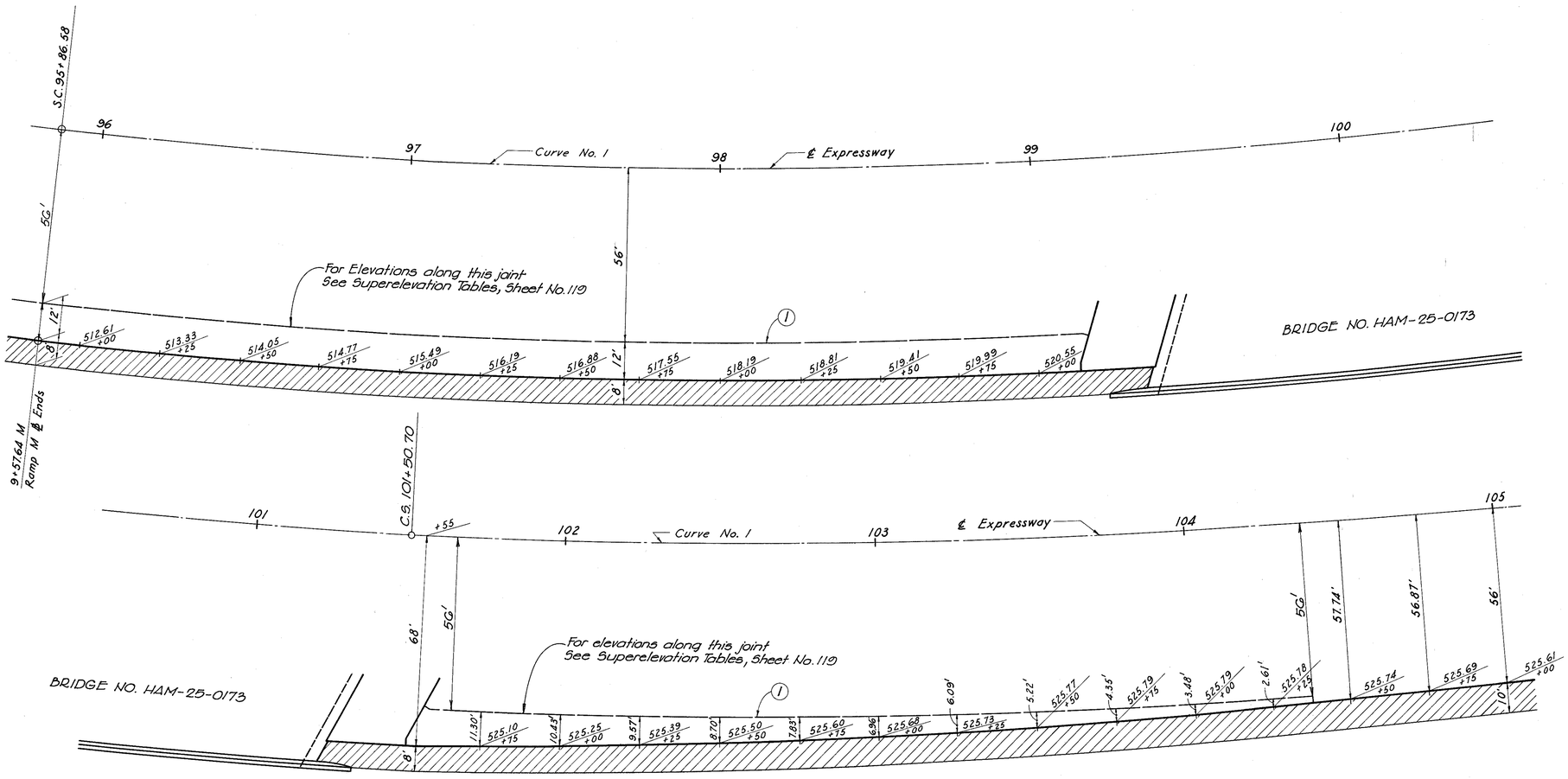


RAMP N- SPEED CHANGE LANE



RAMP M-SPEED CHANGE LANE

Notes:

1. For Curve Data See Sheet No. 24
2. In 20', Transition Curb Height from 6" to 10" at Approach Slabs.

PAVEMENT DETAILS

NOT FOR CONSTRUCTION INFORMATION ONLY

FED. RD. DIVISION	STATE	PROJECT	
2	OHIO		

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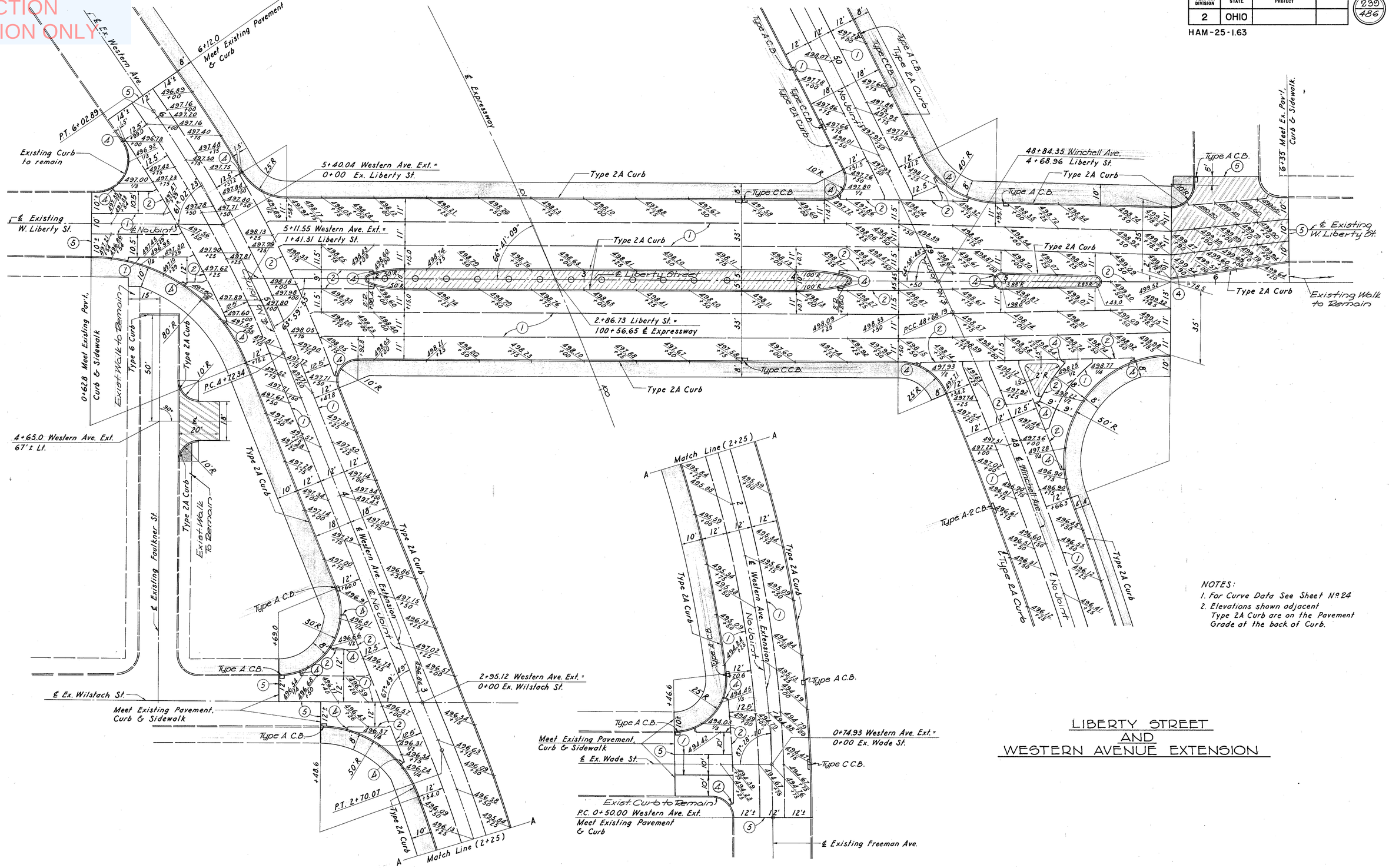

NOTES:
1. For Curve Data See Sheet No. 24
2. Elevations shown adjacent Type 2A Curb are on the Pavement Grade at the back of Curb.

LIBERTY STREET AND WESTERN AVENUE EXTENSION

PAVEMENT DETAILS

NOT FOR CONSTRUCTION INFORMATION ONLY

FED. RD. DIVISION	STATE	PROJECT	
2	OHIO		

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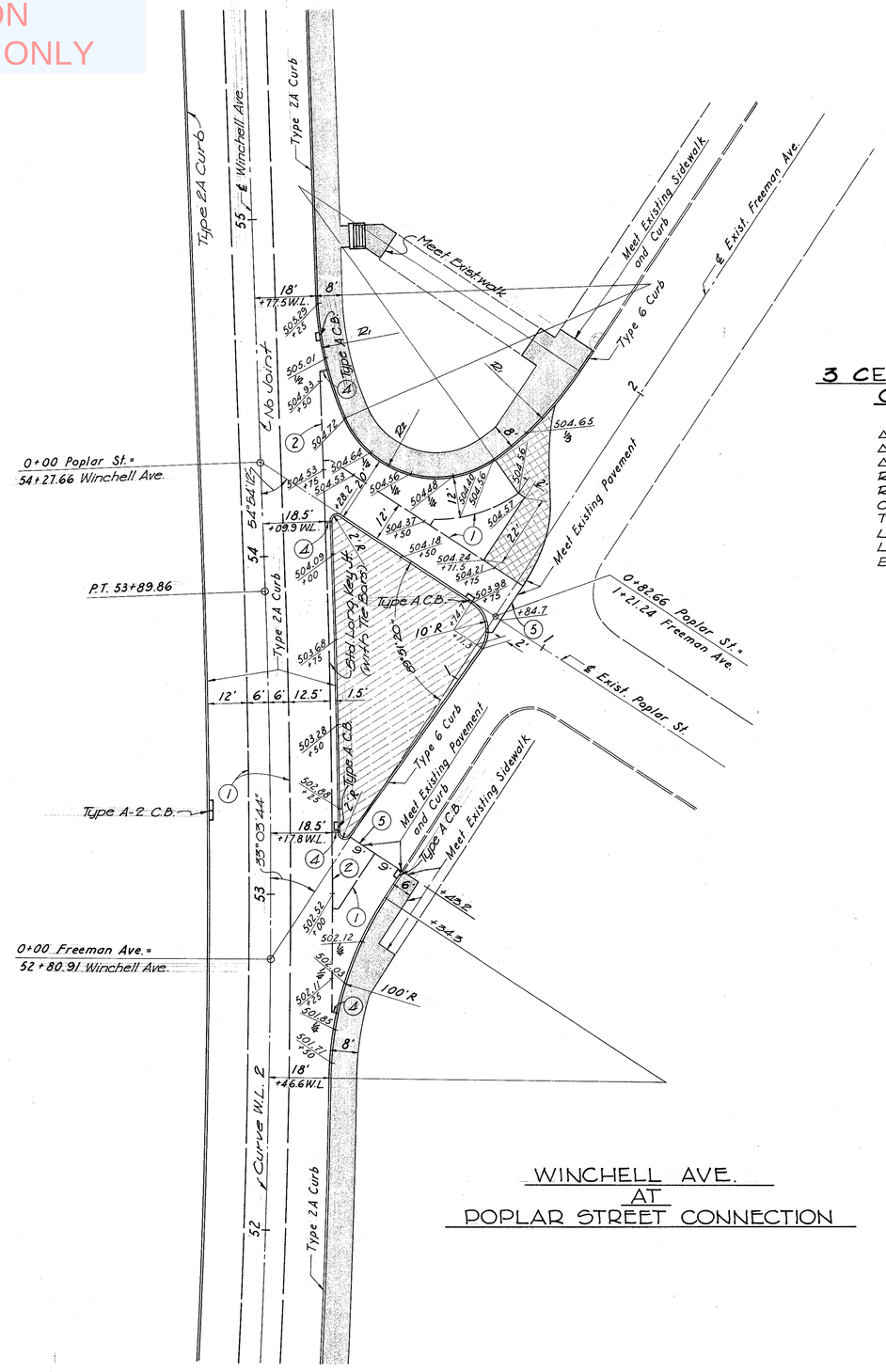
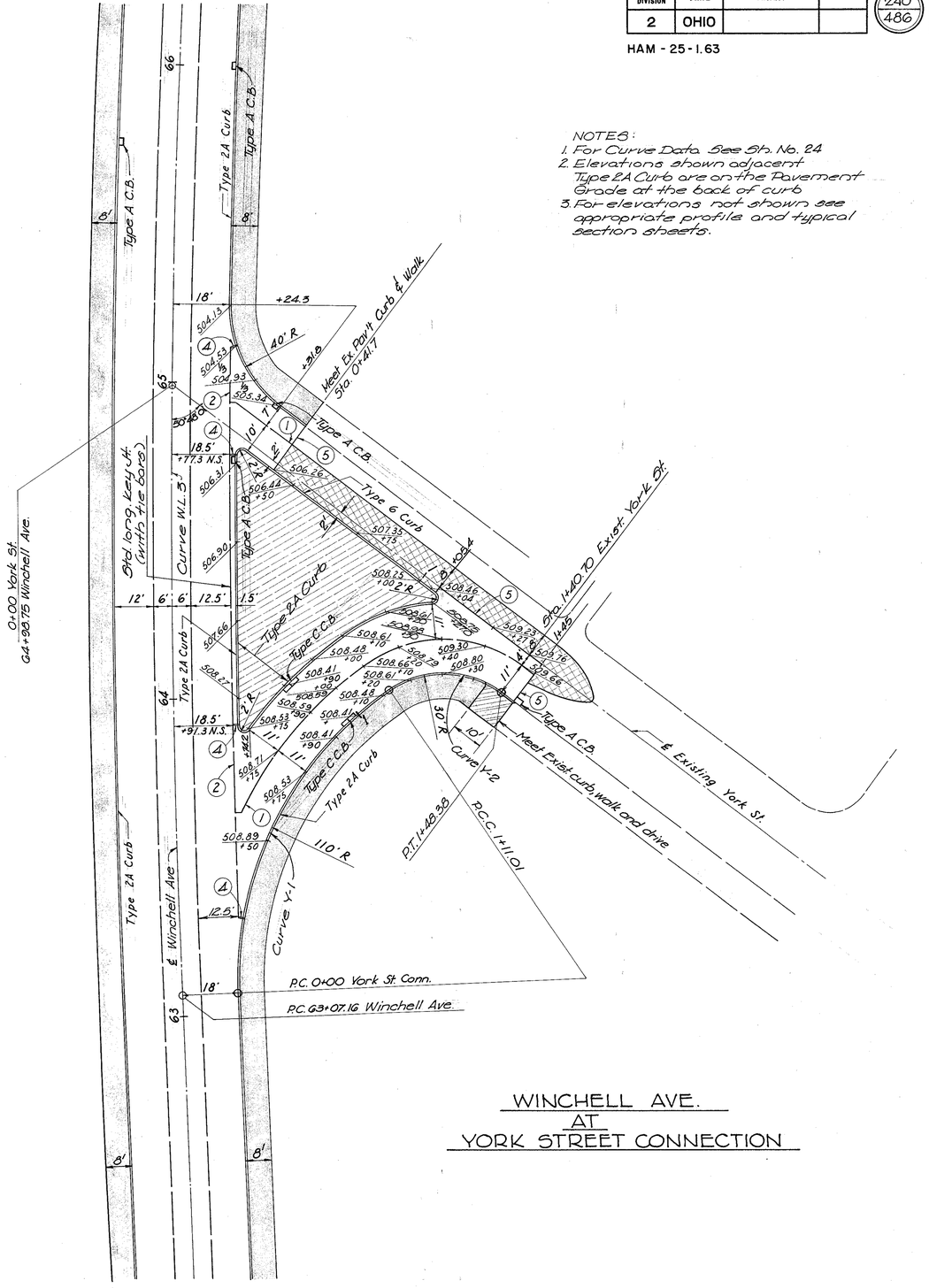
NOTES:
1. For Curve Data See Sh. No. 24
2. Elevations shown adjacent Type 2A Curb are on the Pavement Grade at the back of curb
3. For elevations not shown see appropriate profile and typical section sheets.



3 CENTER COMPOUND CURVE DATA

ΔT	=	144°37'31"
Δ1	=	21°47'12"
Δ2	=	101°03'07"
R1	=	100.00'
R2	=	30.00'
Offset	=	5.00'
T	=	135.74'
Lc1	=	38.02'
Lc2	=	52.91'
E	=	85.20

WINCHELL AVE. AT POPLAR STREET CONNECTION



WINCHELL AVE. AT YORK STREET CONNECTION

PAVEMENT DETAILS

NOT FOR CONSTRUCTION INFORMATION ONLY

FED. RD. DIVISION	STATE	PROJECT	
2	OHIO		

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PAVEMENT DETAILS

NOT FOR CONSTRUCTION INFORMATION ONLY

FED. RD. DIVISION	STATE	PROJECT	
2	OHIO		

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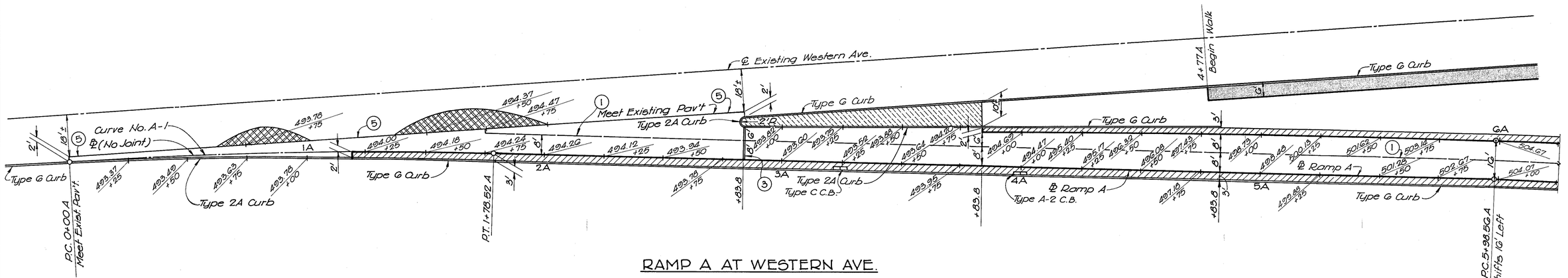
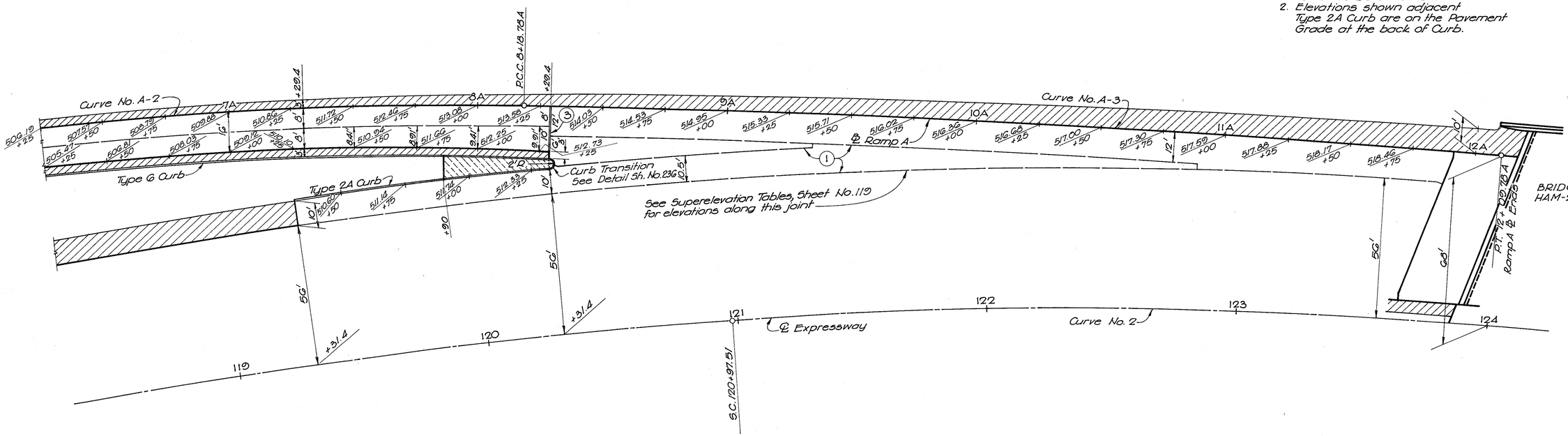
HAM-25-1.63



RAMP A AT WESTERN AVE.

NOTES:

1. For Curve Data See Sh. 24
2. Elevations shown adjacent Type 2A Curb are on the Pavement Grade at the back of Curb.



RAMP A AT EXPRESSWAY

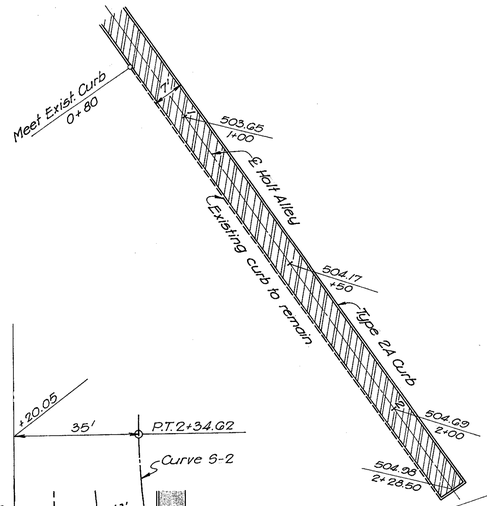
PAVEMENT DETAILS

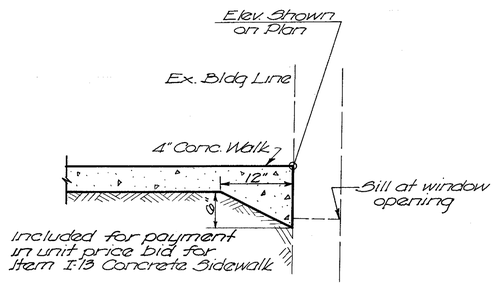
NOT FOR CONSTRUCTION INFORMATION ONLY

FED. RD. DIVISION	STATE	PROJECT	
2	OHIO		

243 / 486

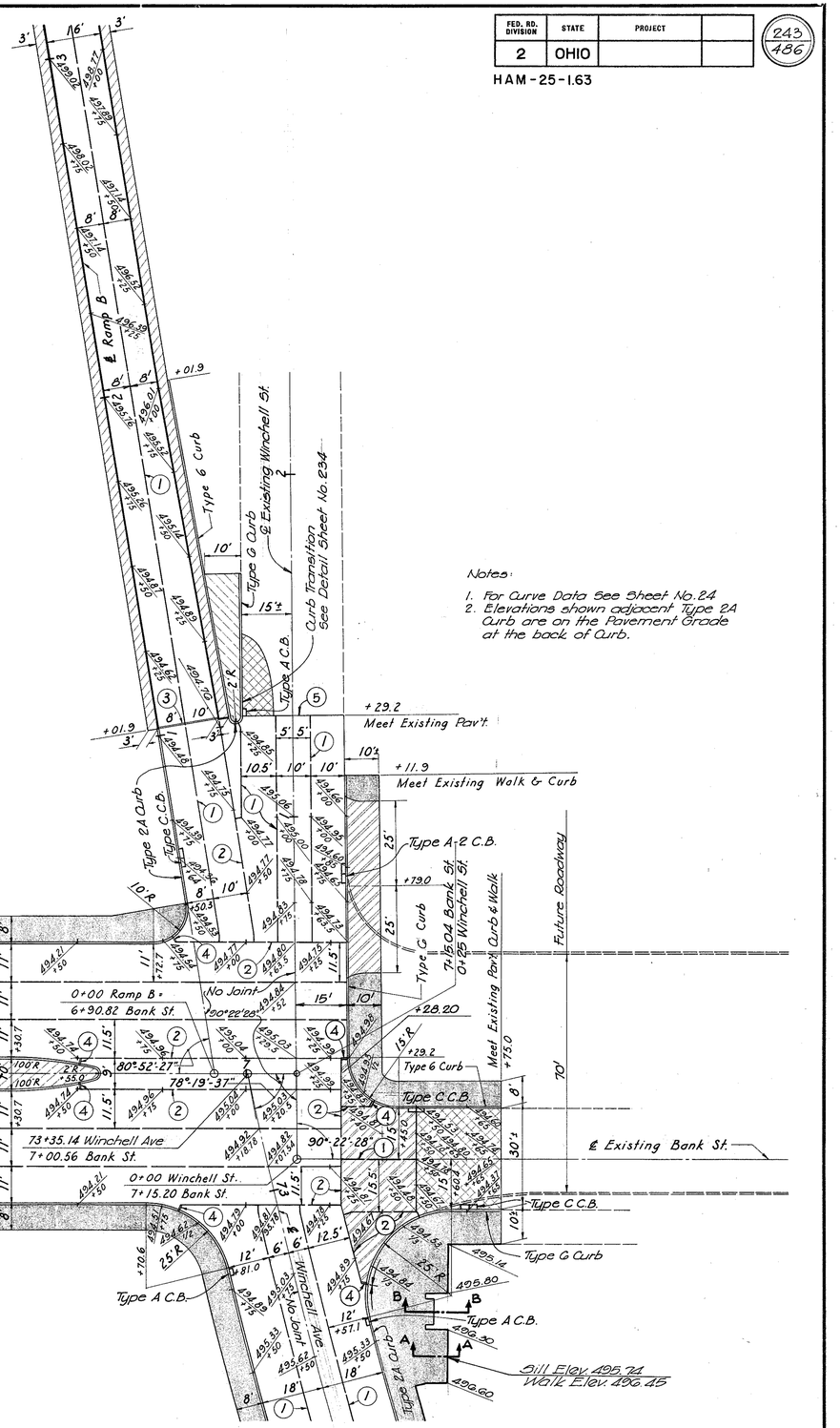
HAM-25-I.63

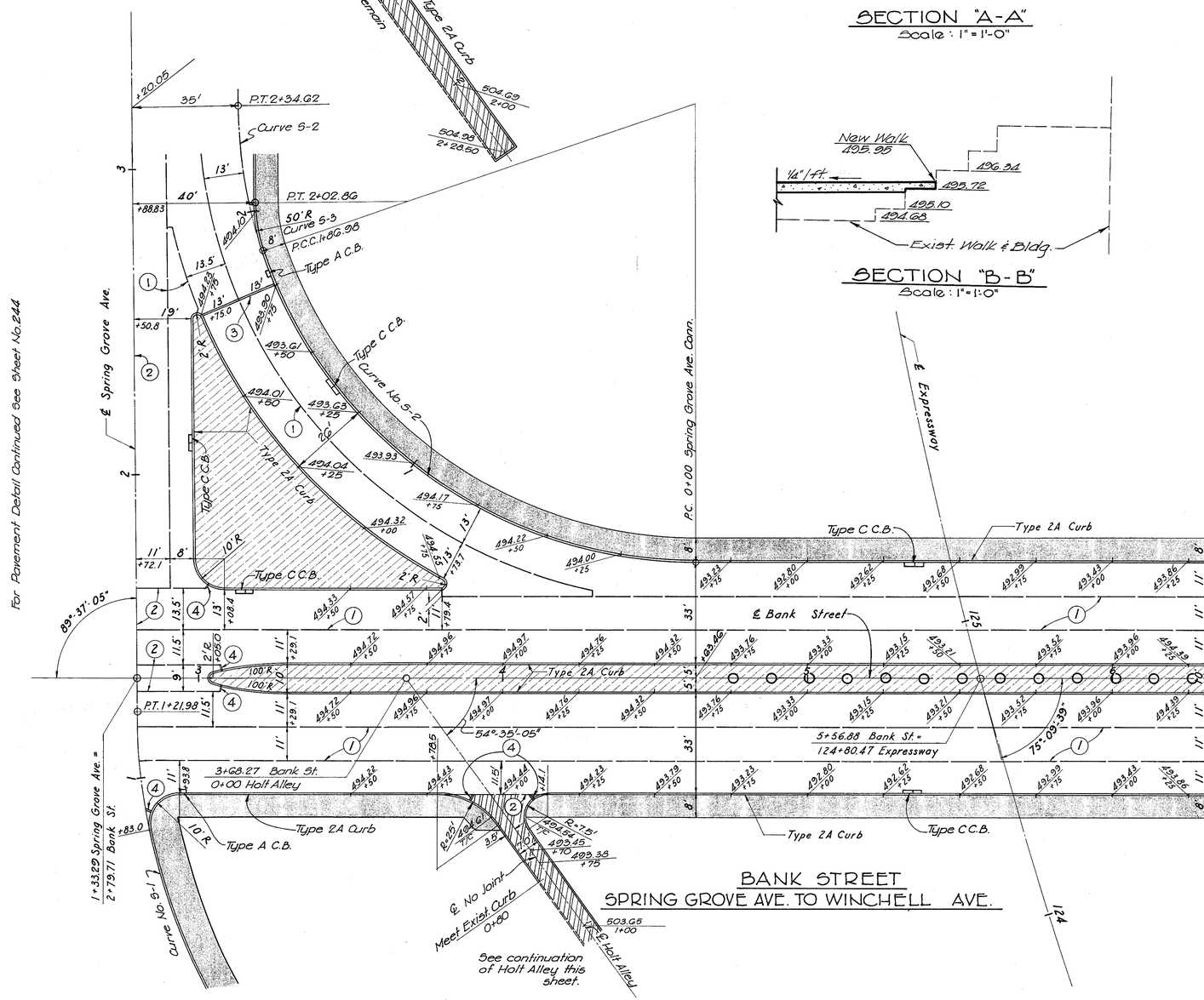




SECTION "A-A"
Scale: 1" = 1'-0"

SECTION "B-B"
Scale: 1" = 1'-0"





BANK STREET
SPRING GROVE AVE. TO WINCHELL AVE.

Notes:

1. For Curve Data See Sheet No. 24
2. Elevations shown adjacent Type 2A Curb are on the Pavement Grade at the back of Curb.

PAVEMENT DETAILS

NOT FOR CONSTRUCTION INFORMATION ONLY

FED. RD. DIVISION	STATE	PROJECT	
2	OHIO		

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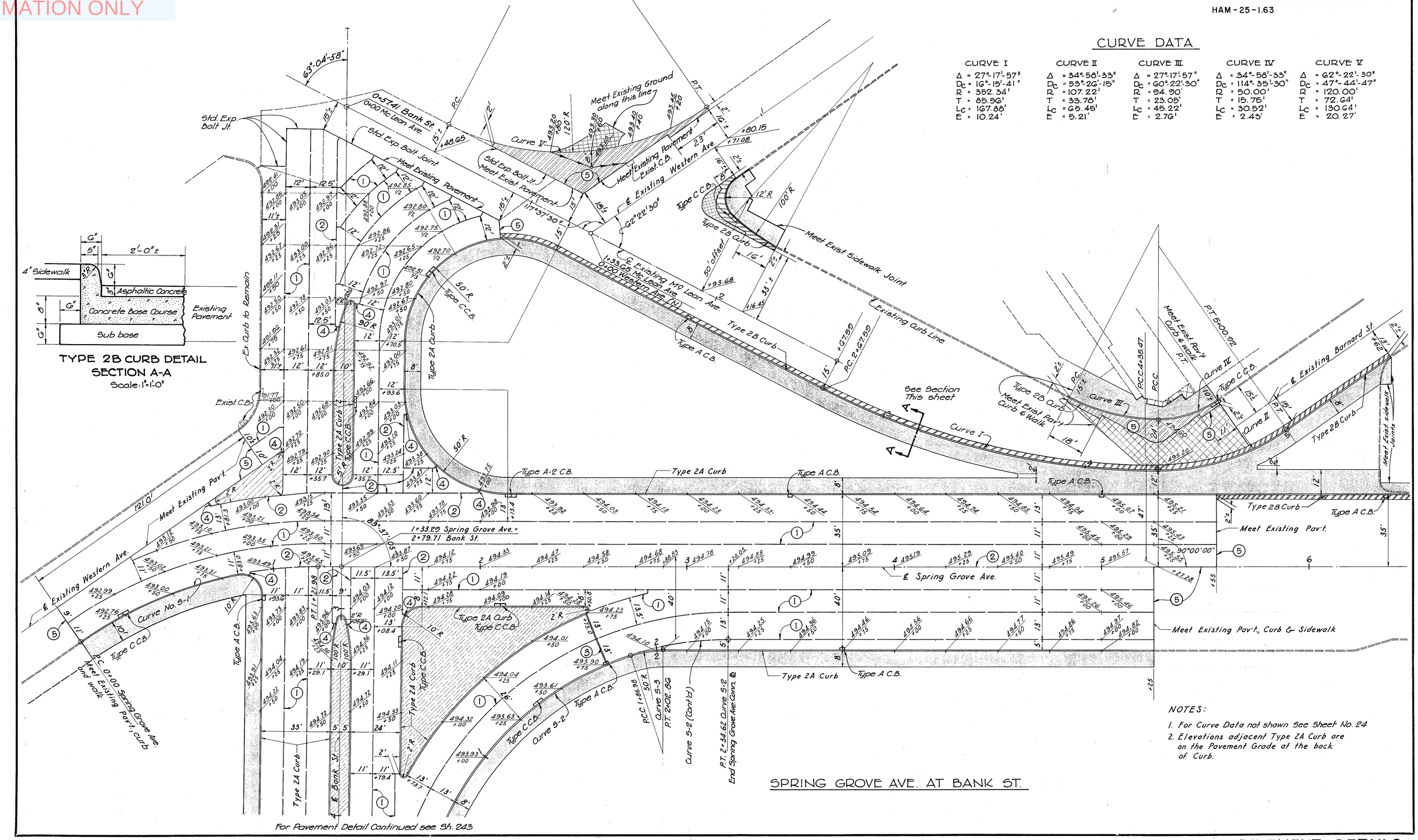
CURVE DATA

CURVE I	CURVE II	CURVE III	CURVE IV	CURVE V
Δ = 27°-17'-57"	Δ = 34°-58'-33"	Δ = 27°-17'-57"	Δ = 34°-58'-33"	Δ = 62°-22'-30"
Dc = 16°-15'-41"	Dc = 53°-26'-15"	Dc = 60°-22'-30"	Dc = 114°-35'-30"	Dc = 47°-44'-47"
R = 352.34'	R = 107.22'	R = 94.90'	R = 50.00'	R = 120.00'
T = 85.56'	T = 33.76'	T = 23.05'	T = 15.75'	T = 72.64'
Lc = 167.88'	Lc = 65.45'	Lc = 45.22'	Lc = 30.52'	Lc = 130.64'
E = 10.24'	E = 5.21'	E = 2.76'	E = 2.43'	E = 20.27'

TYPE 2B CURB DETAIL
SECTION A-A
Scale: 1"=1'-0"



SPRING GROVE AVE. AT BANK ST.

NOTES:

1. For Curve Data not shown See Sheet No. 24
2. Elevations adjacent Type 2A Curb are on the Pavement Grade at the back of Curb.

PAVEMENT DETAILS

NOT FOR CONSTRUCTION INFORMATION ONLY

FED. RD. DIVISION	STATE	PROJECT	
2	OHIO		

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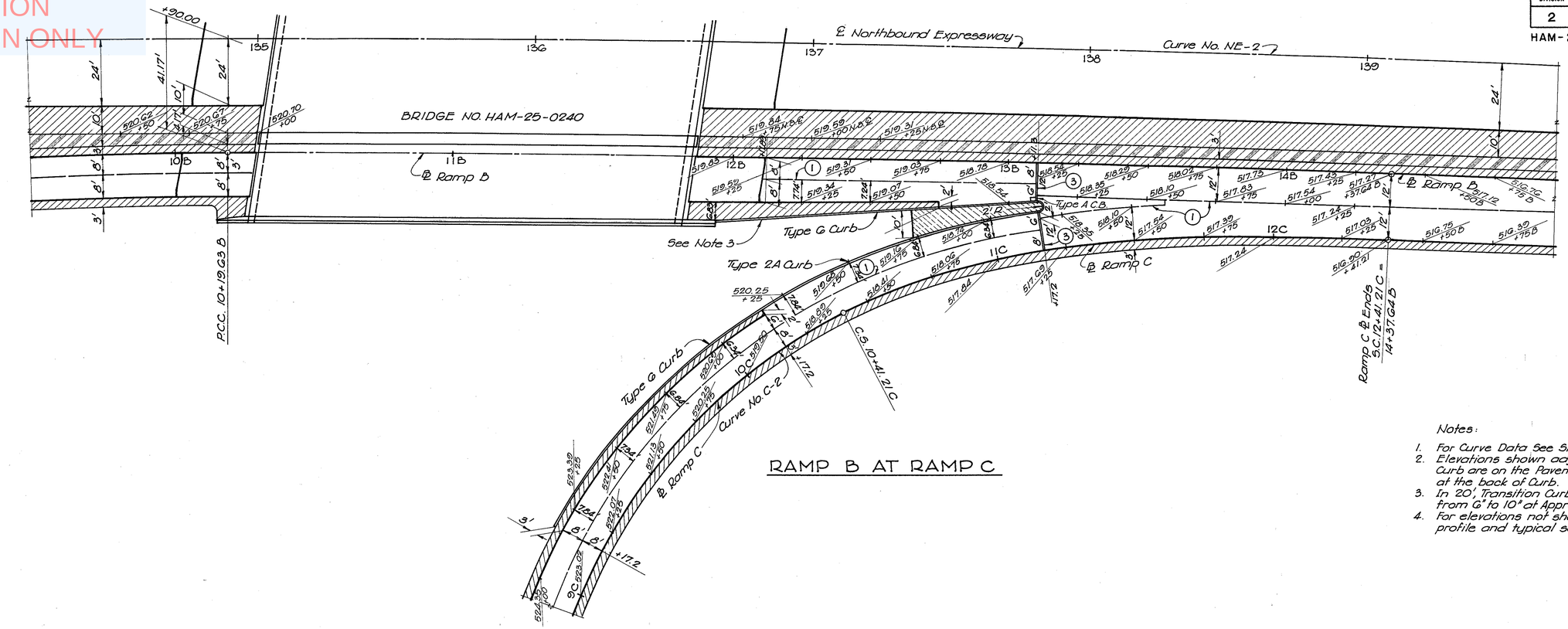

RAMP B AT RAMP C

RAMP B

Notes:

1. For Curve Data See Sheet No. 24
2. Elevations shown adjacent Type 2A Curb are on the Pavement Grade at the back of Curb.
3. In 20' Transition Curb Height from 6" to 10" at Approach Slabs.
4. For elevations not shown see appropriate profile and typical section sheets.

For Pavement Detail Continued See Sheet No. 24G

PAVEMENT DETAILS

NOT FOR CONSTRUCTION INFORMATION ONLY

FED. RD. DIVISION	STATE	PROJECT	
2	OHIO		

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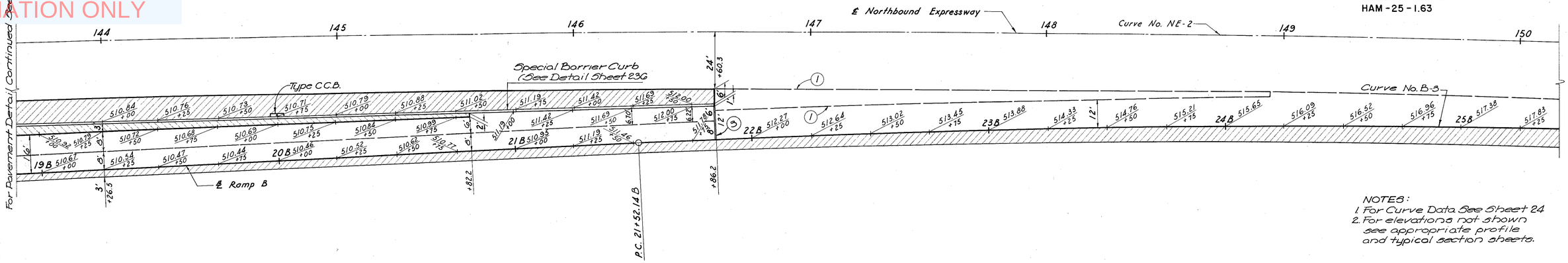
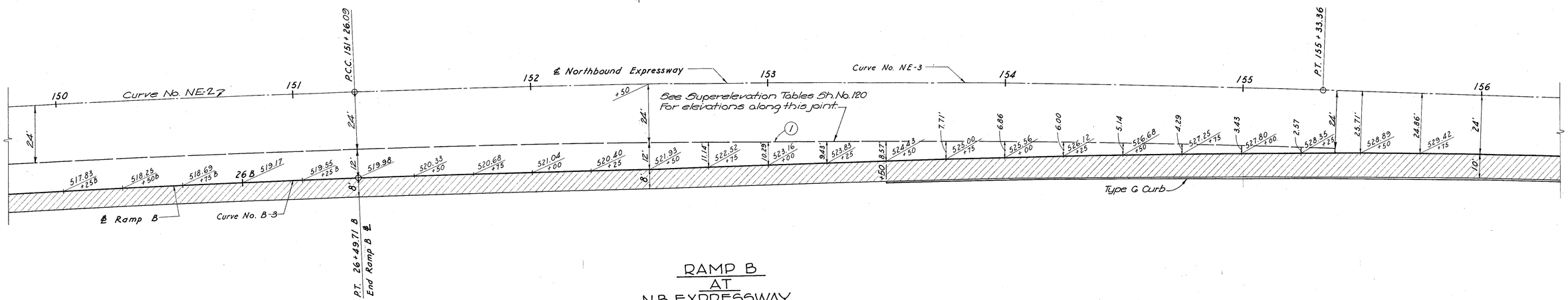
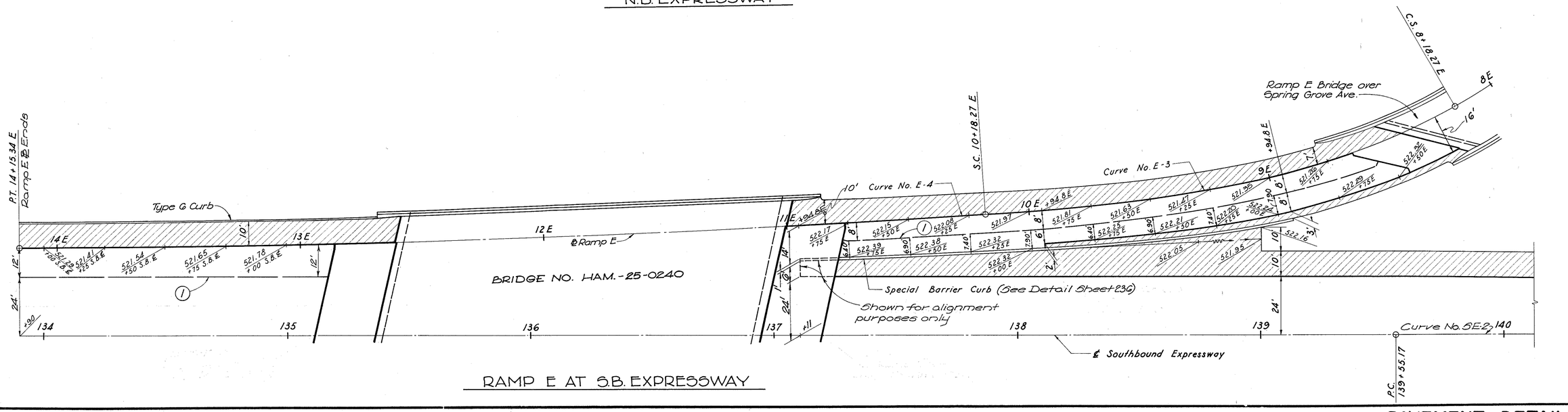
For Pavement Detail Continued See Sh. 243





RAMP B AT N.B. EXPRESSWAY



RAMP E AT S.B. EXPRESSWAY

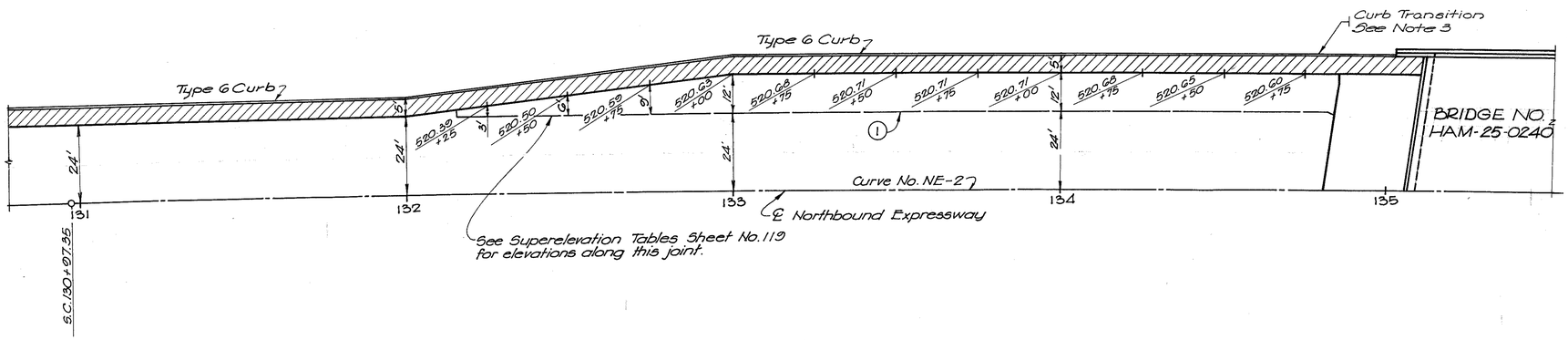
PAVEMENT DETAILS

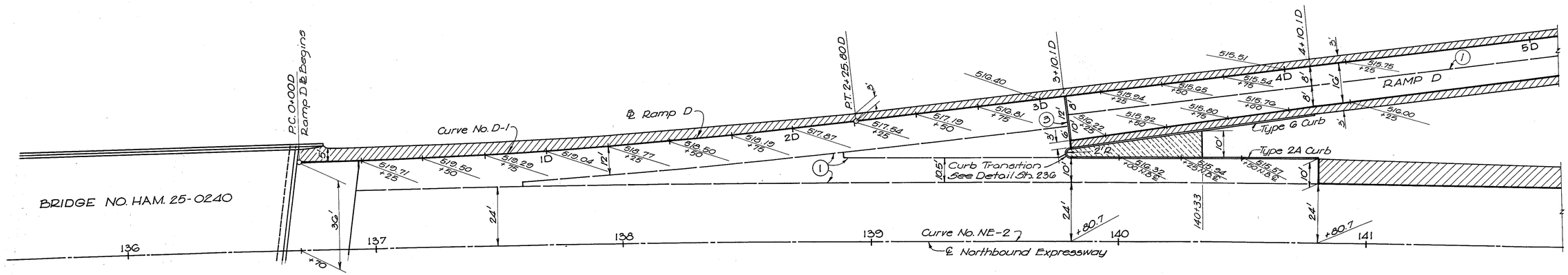
NOT FOR CONSTRUCTION INFORMATION ONLY

FED. RD. DIVISION	STATE	PROJECT	
2	OHIO		

247
486

HAM-25-1.63





RAMP D AT NORTHBOUND EXPRESSWAY

Notes:

1. For Curve Data See Sh. No. 24.
2. Elevations adjacent Type 2A Curb are on the Pavement Grade at the back of Curb.
3. In 20' Transition Curb Height from 6" to 10" at Approach Slabs
4. For elevations not shown see appropriate profile and typical section sheets

PAVEMENT DETAILS

NOT FOR CONSTRUCTION INFORMATION ONLY

FED. RD. DIVISION	STATE	PROJECT	
2	OHIO		

248
456

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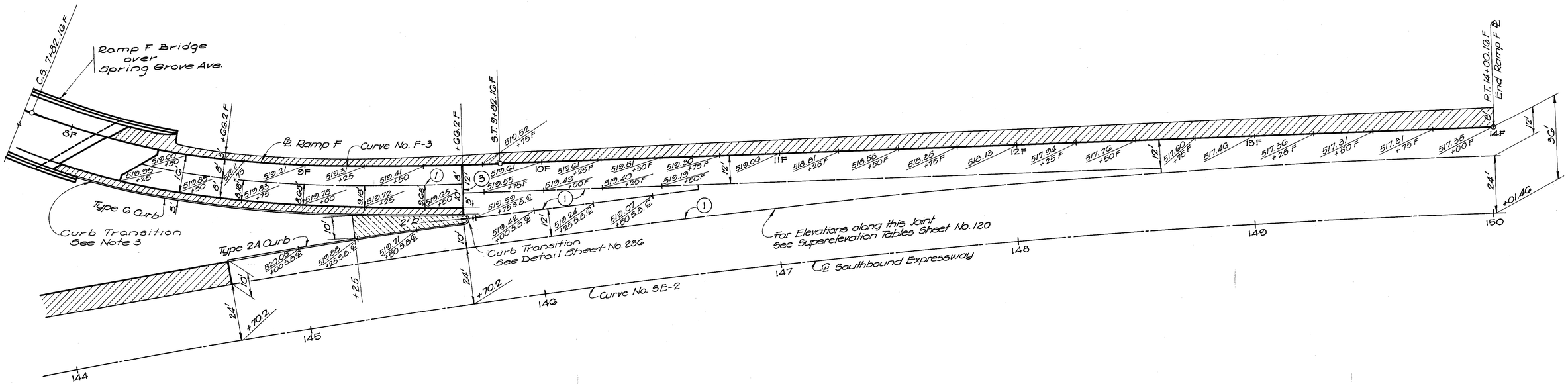
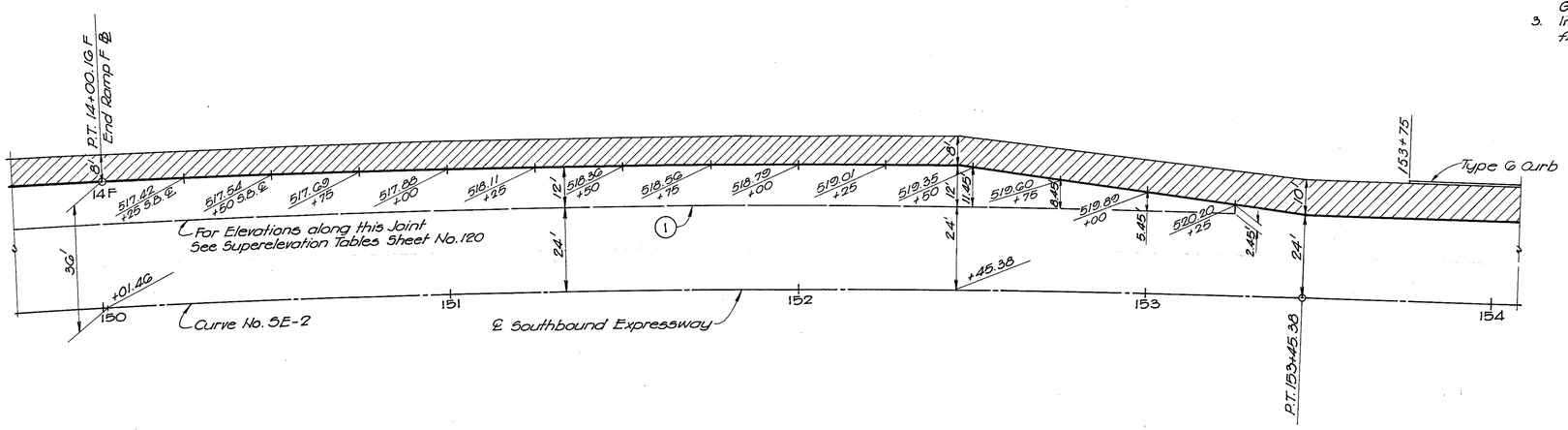




1. For Curve Data See Sh. No. 24
2. Elevations Shown Adjacent Type 2A Curb are on the Pavement Grade at the back of curb.
3. In 20' Transition Curb Height from 6" to 10" at Approach Slabs

RAMP F AT S.B. EXPRESSWAY

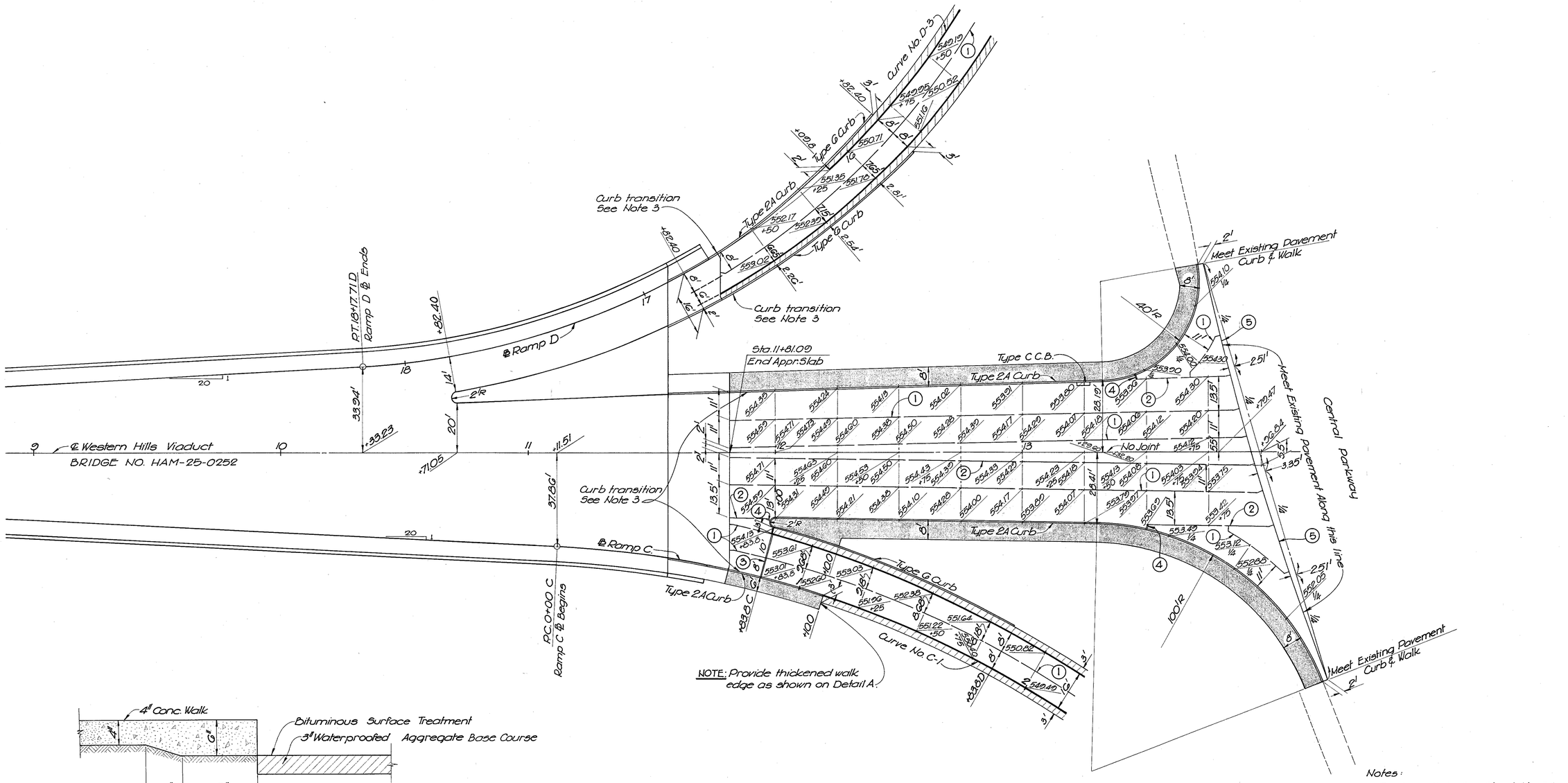
PAVEMENT DETAILS

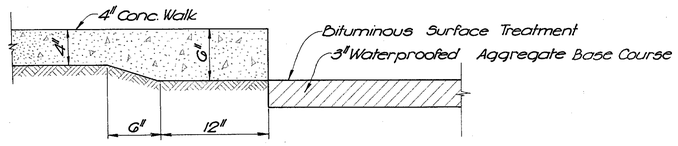
NOT FOR CONSTRUCTION INFORMATION ONLY

FED. RD. DIVISION	STATE	PROJECT	
2	OHIO		

242
486

HAM-25-1.63





DETAIL A

NOTE: Any additional cost required to provide this sidewalk edge thickening shall be included in the unit price bid for Item 1-13, 4" Conc. Sidewalk.

NOTE: Provide thickened walk edge as shown on Detail A.

WESTERN HILLS VIADUCT APPROACH AT CENTRAL PARKWAY

Notes:

1. For Curve Data See Sheet No. 24
2. Elevations adjacent Type 2A Curb are on the Pavement Grade at the back of Curb.
3. In 20' Transition Curb Height from 6" to 9" at Approach Slabs.

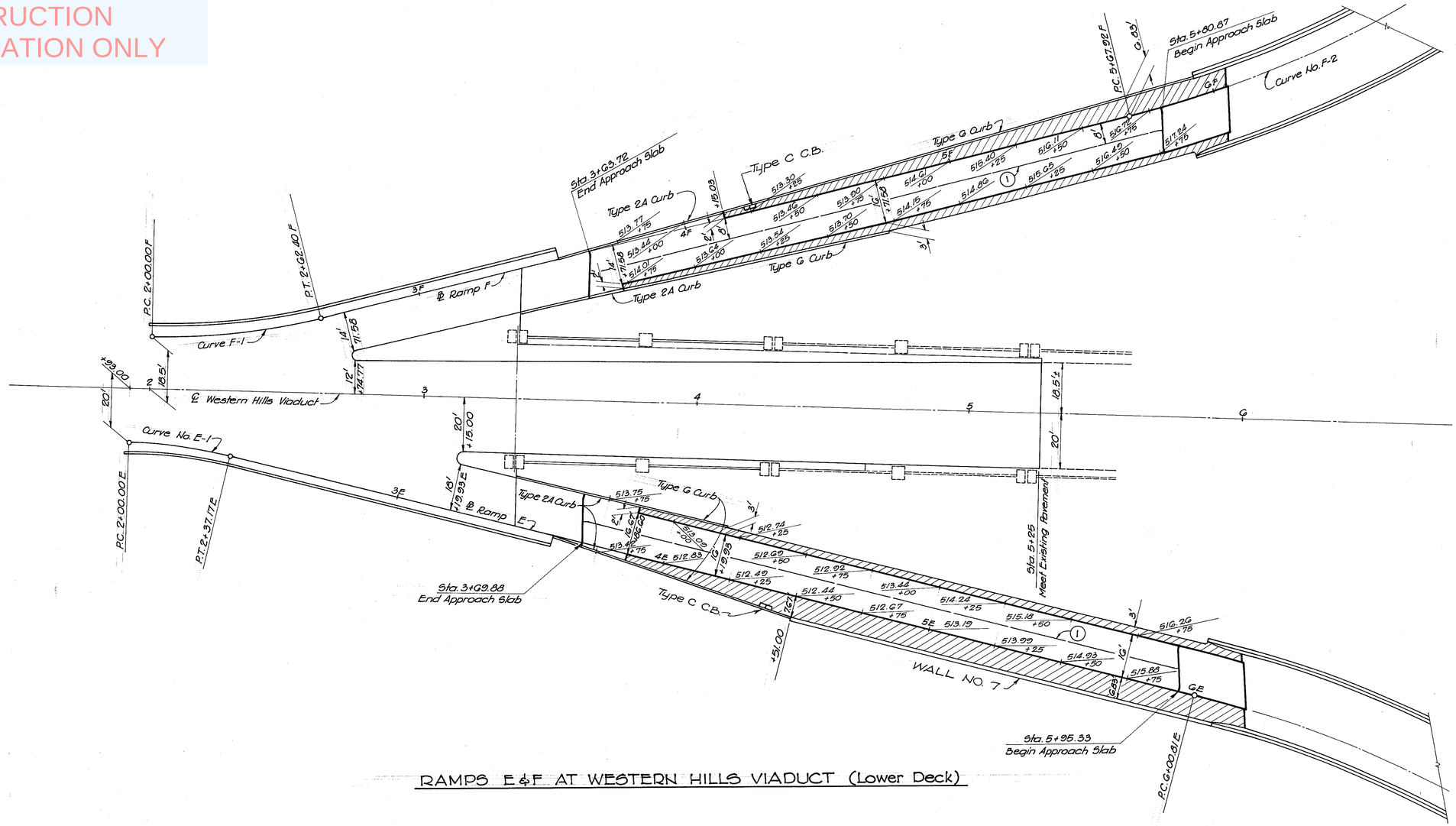
PAVEMENT DETAILS

NOT FOR CONSTRUCTION INFORMATION ONLY

FED. RD. DIVISION	STATE	PROJECT	
2	OHIO		

HAM-25-1.63

250
486



RAMPS E&F AT WESTERN HILLS VIADUCT (Lower Deck)

PAVEMENT DETAILS

NOT FOR CONSTRUCTION INFORMATION ONLY

FED. RD. DIVISION	STATE	PROJECT	
2	OHIO		

HAM-25-1.63

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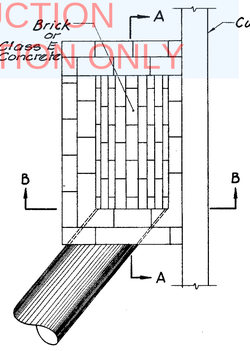
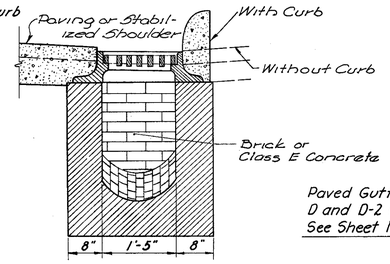
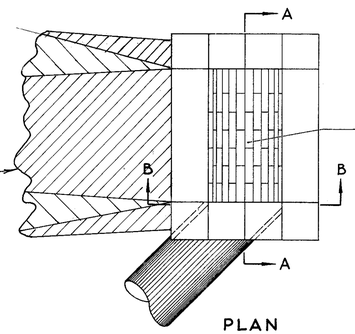


PLAN
CASTING REMOVED



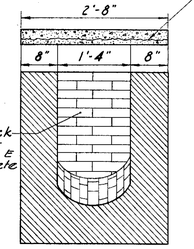
SECTION B-B

Paved Gutter for D and D-2 C.B. See Sheet No.256



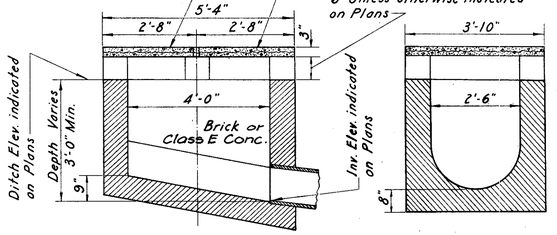
PLAN
TOP REMOVED

Class "C" Concrete Slab. Reinforce with 42" Wire Mesh or equivalent



SECTION B-B

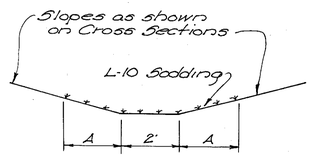
2 Slabs (2'-8"x3'-10") Class "C" conc. Reinforce with 42" Wire Mesh or equivalent



SECTION A-A

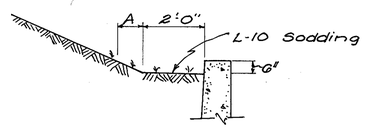
6" Unless otherwise indicated on Plans

SECTION B-B



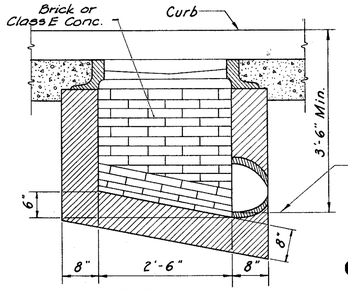
A-2' for Slopes 4:1 or less
=1'-6" for 3:1 Slopes
=1' for 2:1 Slopes

IN DITCH



BEHIND WALL

SODDING DETAILS



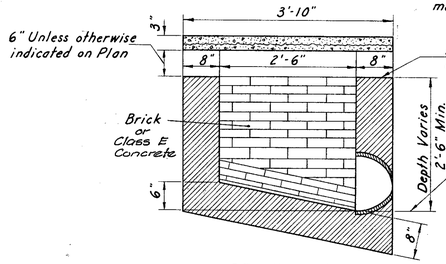
SECTION A-A

CASTINGS :
Frame See Sheet No. 255
Grate See Sheet No 255

INLET CHAMBER FOR CATCH BASIN TYPE A

Scale : 3/4" = 1'-0"

NOTE :
The inlet is shown open on four sides, Such of these openings shall be closed as the Engineer may direct.



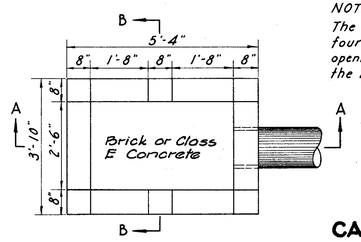
SECTION A-A

NOTE :
This Type to be used in roadside ditches and intercepting ditches at top of cuts.

CATCH BASIN TYPE D

Scale : 3/4" = 1'-0"

NOTE :
The inlet is shown open on four sides, Such of these openings shall be closed as the Engineer may direct.

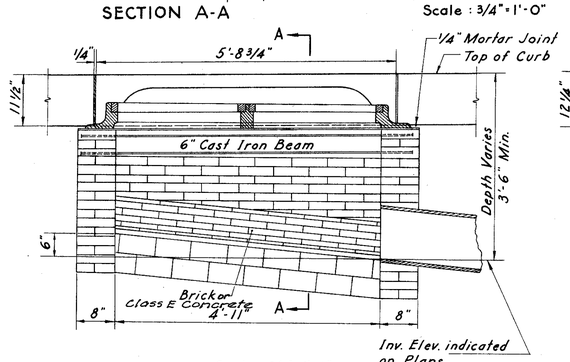


PLAN
TOP REMOVED

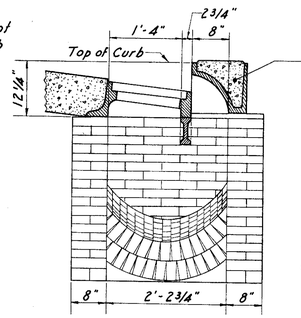
CATCH BASIN TYPE D-2

Scale : 1/2" = 1'-0"

Note: For Type D and Type D-2 C.B., provide paved gutter as per detail. See Sh. 254



Scale : 3/4" = 1'-0"

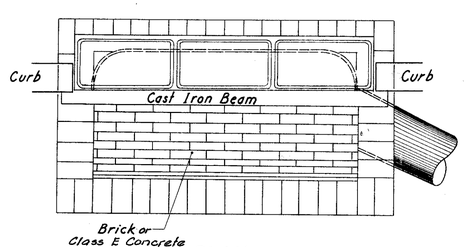


SECTION A-A
Scale : 3/4" = 1'-0"

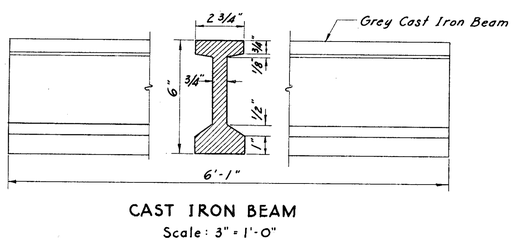
1 bar 7/8"ø - 5'-8 1/4" long to be slipped in place before casting is set.

CASTINGS
Curb See Sheet No.252
Frame & Grate See Sheet No.255

COMPUTED WEIGHT
Cast Iron Beam = 162#



PLAN
Scale : 3/4" = 1'-0"

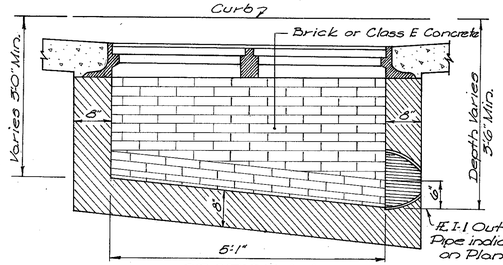


CAST IRON BEAM
Scale : 3" = 1'-0"

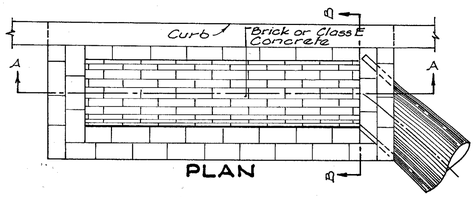
NOTE :
Casting to receive 2 coats of bituminous paint

INLET CHAMBER FOR CATCH BASIN TYPE C

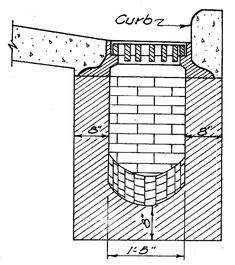
Scale : As Shown



SECTION A-A



PLAN



SECTION B-B

CASTINGS
Frame : See Sheet No.254
Grate : See Sheet No.255

TYPE A-2 CATCH BASIN (DOUBLE GRATE)

DRAINAGE DETAILS

NOT FOR CONSTRUCTION INFORMATION ONLY

FED. RD. DIVISION	STATE	PROJECT	
2	OHIO		

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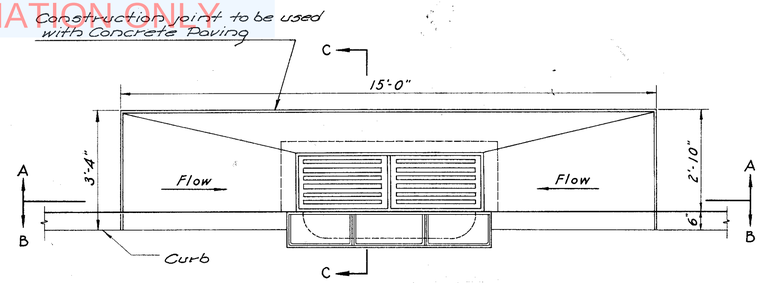
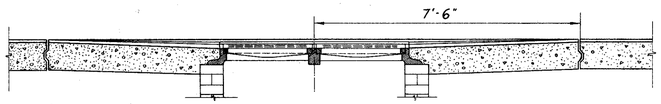
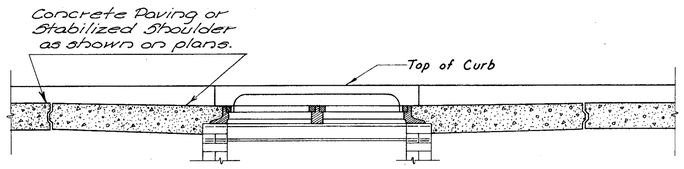


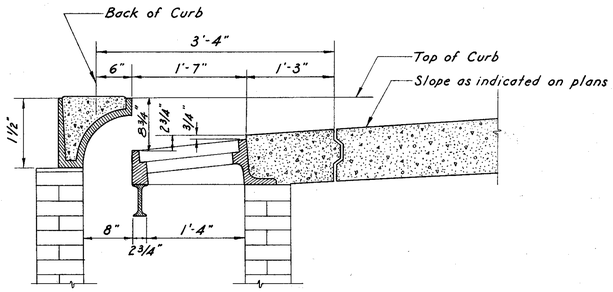
PLAN
Scale : 1/2" = 1'-0"



SECTION A-A
Scale : 1/2" = 1'-0"



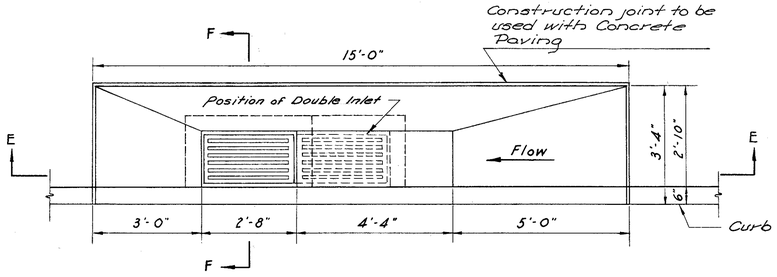
SECTION B-B
Scale : 1/2" = 1'-0"



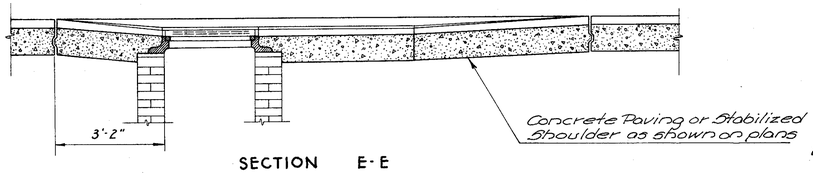
SECTION C-C
Scale : 1" = 1'-0"

PAVING DETAIL CATCH BASIN TYPE C

Scale : As Shown



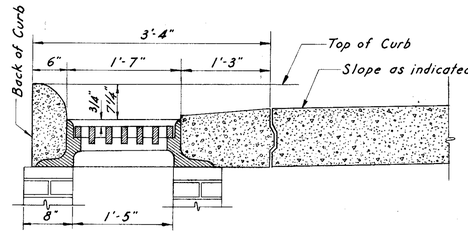
PLAN
Scale : 1/2" = 1'-0"



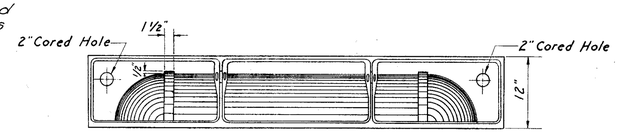
SECTION E-E
Scale : 1/2" = 1'-0"

PAVING DETAIL CATCH BASIN TYPE A OR A-2

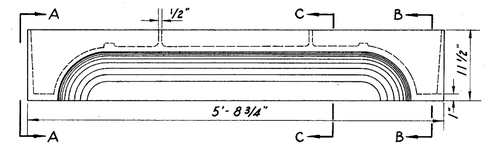
Scale : As Shown



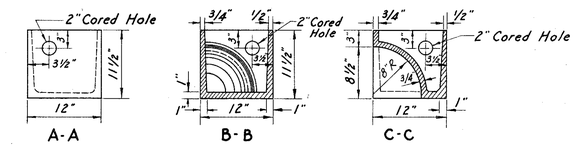
SECTION F-F
Scale : 1" = 1'-0"

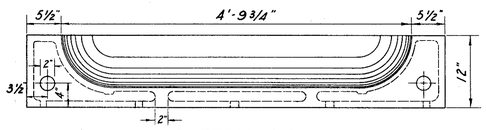


TOP VIEW

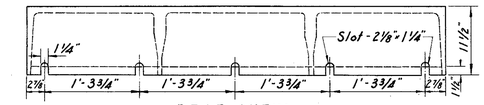


FRONT VIEW





BOTTOM VIEW



REAR VIEW

City of Cincinnati Standard Acc. No. 12434

COMPUTED WEIGHT : 530 Lbs.

Casting to receive 2 coats of bituminous paint.

STANDARD CURB CASTING FOR CATCH BASIN TYPE C

Scale : 1" = 1'-0"

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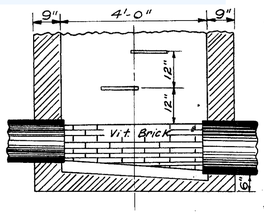
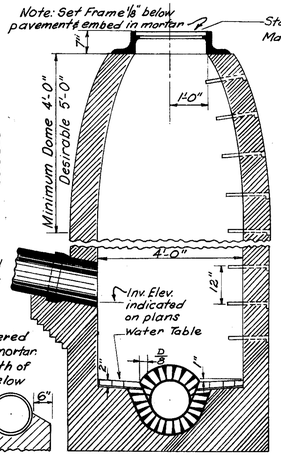


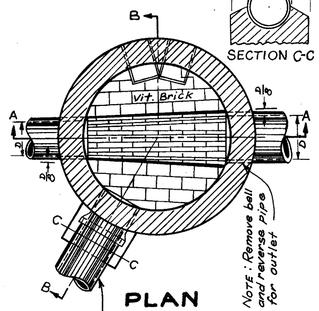
SECTION A-A

Manholes shall be built of brick laid up in 1:2 Portland Cement mortar; every seventh course shall be a "stretcher" course, the intervening courses being composed of "Headers."
Outside of brick Manholes to be plastered with a ½" Coat of 1:2 Portland Cement mortar.
Manholes to have 13" walls below a depth of 20 ft. from the surface and 18" walls below a depth of 40 ft..



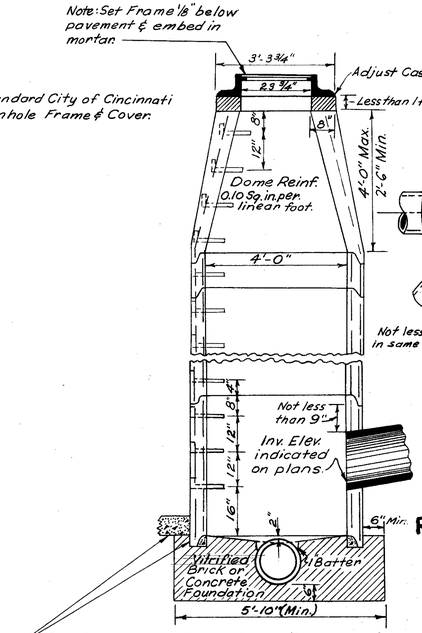
SECTION B-B

SECTION C-C



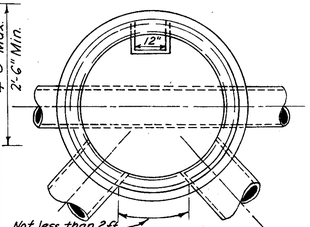
PLAN

MANHOLE TYPE A.
Scale ½" = 1'0"



Set pipe in mortar. Recess Foundation or Block Pipe to prevent movement.

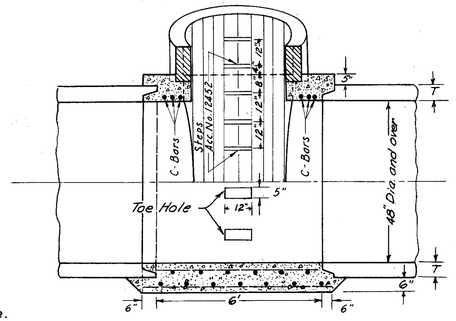
NOTE: (for Precast Manhole Type P)
Channel may be made of vitrified brick or formed of concrete class "C"
Where sewer does not change size or direction at MH, Channel Pipe may be used.



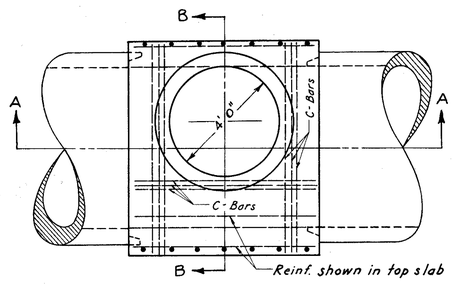
No holes for Inlet Connections shall be cut in 1 or 2 ft. Sections of Barrel Pipe.
Not more than 2 Inlet Connections permitted in any One 3 or 4 ft. Section.
Use Standard Manhole Frame and Standard Cover.
For Steps, See Sheet No. 255

Type Pipe	Depth
M-6.6(a)	0' - 20'
M-6.6(b)	20' - 40'
M-6.6(c)	over 40'

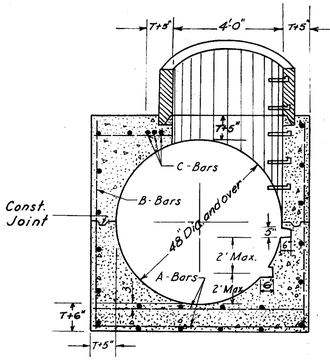
PRECAST MANHOLE TYPE P.
Scale: ½" = 1'-0"



SECTION A-A



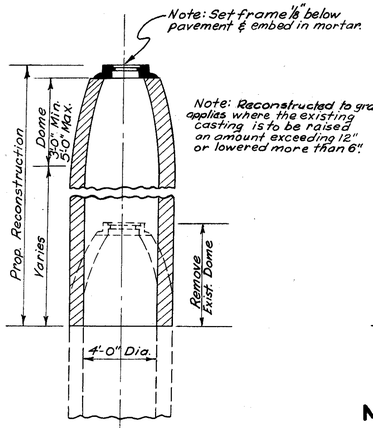
PLAN



SECTION B-B.

Concrete - "Class C"
Steel to have 2" cover except where specified otherwise
"A" Bars @ 12" as shown
"B" Bars @ 13" as shown
"C" Bars @ 3" as shown
"A"-"B"-"C" { ⅜" ϕ for 48" to 60" Sewers / ¼" ϕ for 66" to 78" Sewers
All other Longitudinal Steel ⅝" ϕ @ 18"
Splices - Shall not be less than 40 diameters.

MANHOLE - TYPE D
Scale - ⅜" = 1'-0"



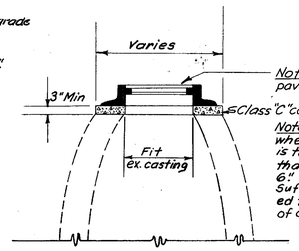
Note: Reconstructed to grade applies where the existing casting is to be raised an amount exceeding 12" or lowered more than 6".

Other characteristics similar to MH Type "A"

TYPICAL SECTION

MANHOLE RECONSTRUCTED TO GRADE

Scale ¼" = 1'-0"

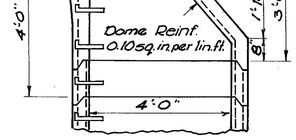


Note: Adjusted to grade applies where the existing casting is to be raised an amount less than 12" or lowered less than 6".
Sufficient brick shall be removed to permit a minimum thickness of concrete of 3".

TYPICAL SECTION

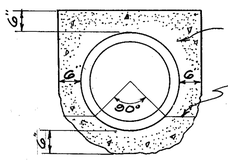
MANHOLE ADJUSTED TO GRADE

Scale ½" = 1'-0"

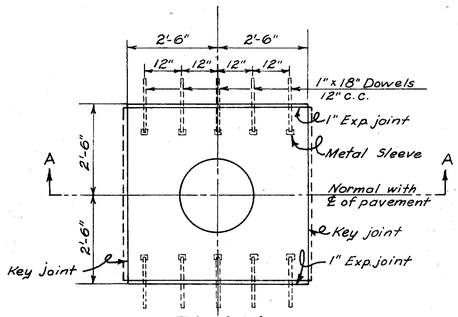


OFFSET DOME

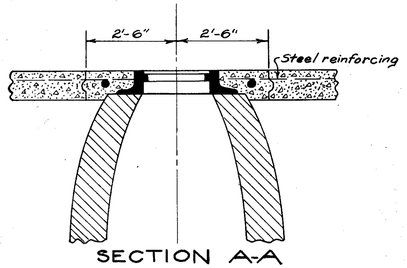
Offset Dome may be used only where specified or where permission is granted by the Engineer



CONCRETE ENCASEMENT DETAIL

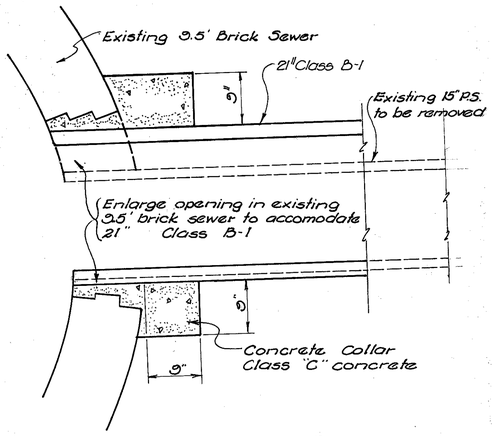


PLAN



SECTION A-A

DETAIL OF MANHOLE BLOCKOUT
Scale ½" = 1'-0"



CONNECTION OF 21" SEWER TO 9.5' SEWER - LIBERTY ST.

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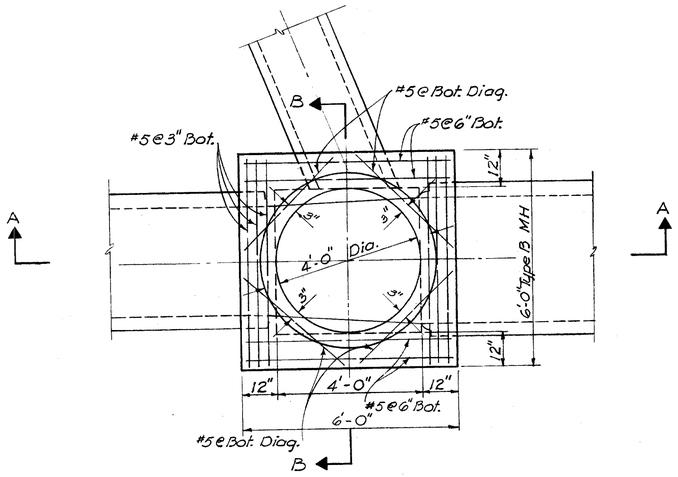
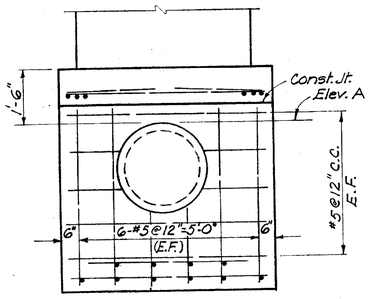
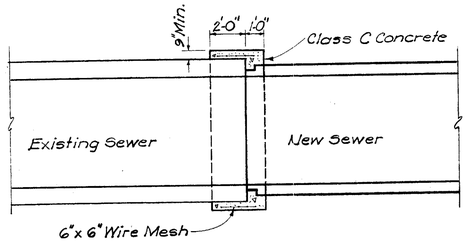


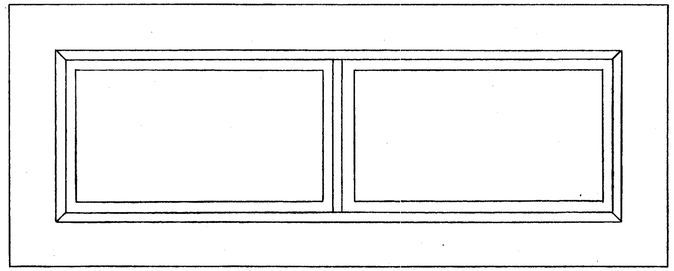
PLAN VIEW
SHOWING TOP SLAB REINFORCING

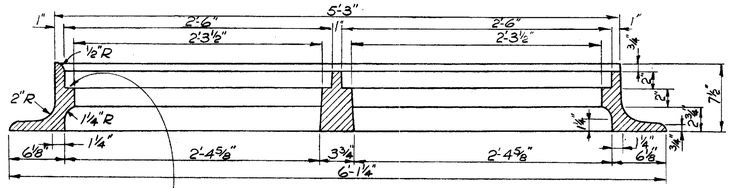


TYPICAL WALL
ELEVATION



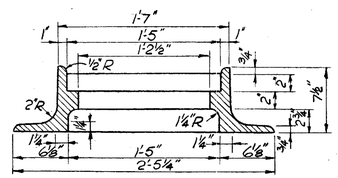
CONCRETE COLLAR





SECTION B-B

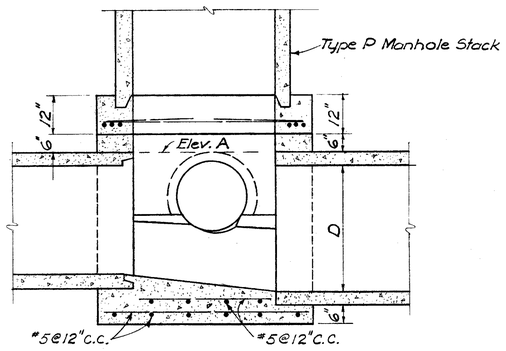
NOTE:
Frame and Grating to be Chipped to Full Bearing



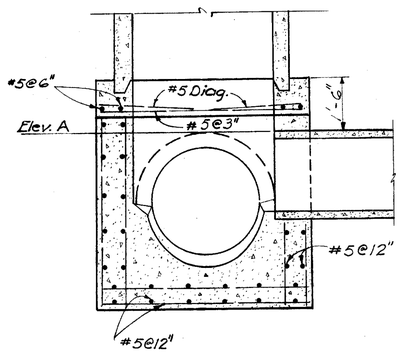
SECTION A-A

STANDARD FRAME CASTING FOR
CATCH BASIN TYPE A-2

COMPUTED WEIGHT
FRAME 780 lbs.



SECTION A-A



SECTION B-B

NOTES:
Reinforcing steel shall have 3" clearance except where otherwise specified.
D = diameter of the pipe.
t = the thickness of the pipe based on 1" for every ft. in diameter + 1".
Concrete-"Class C"

TYPE "B" MANHOLE

DRAINAGE DETAILS

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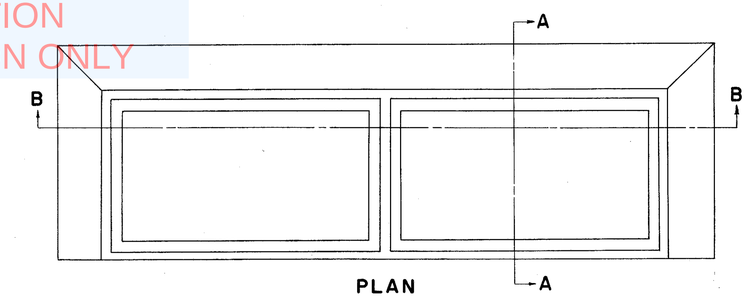
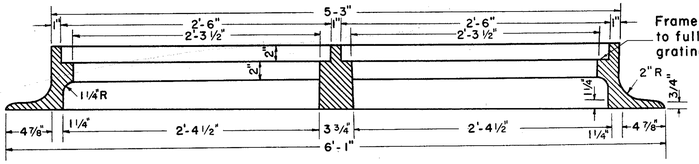
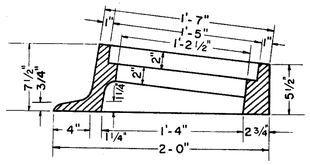


PLAN



Frame to be chipped to full bearing with grating.

SECTION B-B

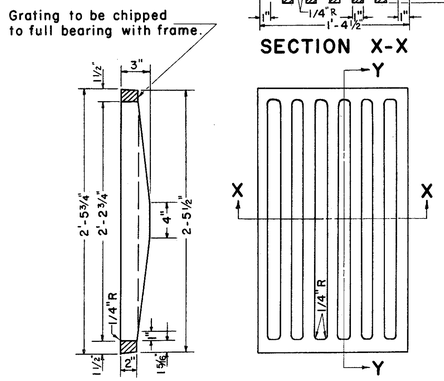


SECTION A-A

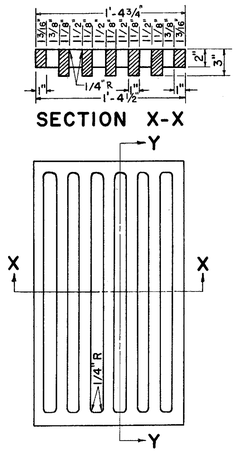
COMPUTED WEIGHT
Frame 680 Lbs.

STANDARD FRAME CASTING FOR CATCH BASIN TYPE C

SCALE: 1 1/2" = 1'-0"



SECTION Y-Y



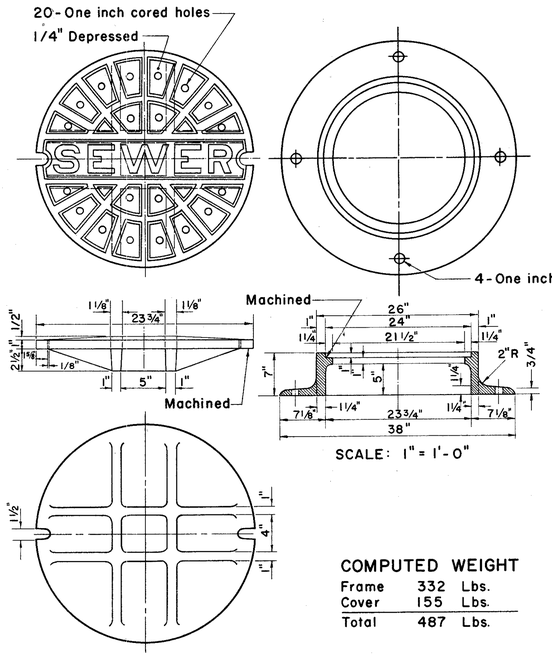
PLAN

SECTION X-X

COMPUTED WEIGHT
Grating 148 Lbs.

STANDARD GRATING FOR CATCH BASINS TYPES A, A-2 AND C

SCALE: 1 1/2" = 1'-0"



SCALE: 1" = 1'-0"

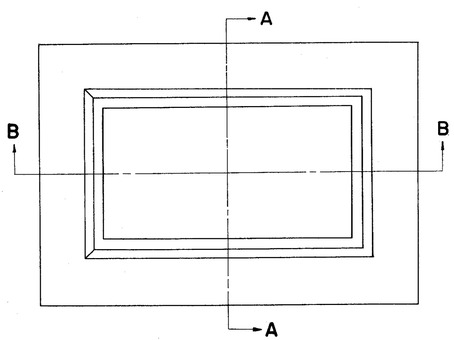
COMPUTED WEIGHT

Frame	332	Lbs.
Cover	155	Lbs.
Total	487	Lbs.

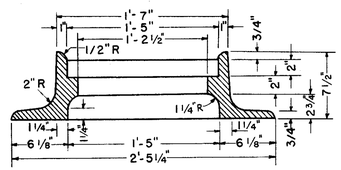
SCALE: 1 1/2" = 1'-0"

STANDARD MANHOLE FRAME AND COVER

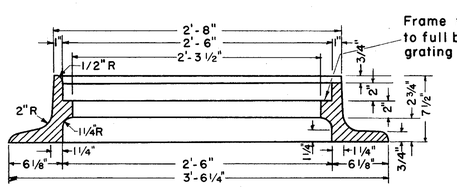
SCALE: As Shown



PLAN



SECTION A-A



Frame to be chipped to full bearing with grating

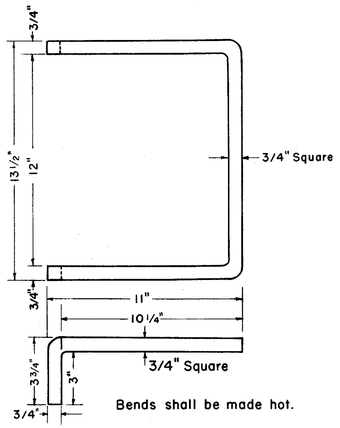
SECTION B-B

COMPUTED WEIGHT
Frame 462 Lbs.

For Grating detail See this Sheet

STANDARD FRAME CASTING FOR CATCH BASIN TYPE A

SCALE: 1 1/2" = 1'-0"



Bends shall be made hot.

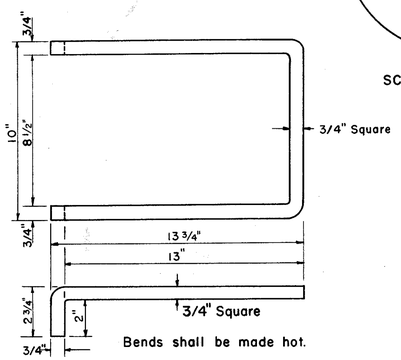
NOTES:
Steps shall be made of wrought iron which meets the requirements and tests of the A.S.T.M. specifications for single refined wrought iron.

Steps shall bear the stamp of the manufacturer and be thoroughly coated with red lead.

COMPUTED WEIGHT
6 Lbs.

STANDARD PRECAST MANHOLE STEP

SCALE: 3" = 1'-0"



Bends shall be made hot.

NOTES:
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.

STANDARD MANHOLE STEP

SCALE: 3" = 1'-0"

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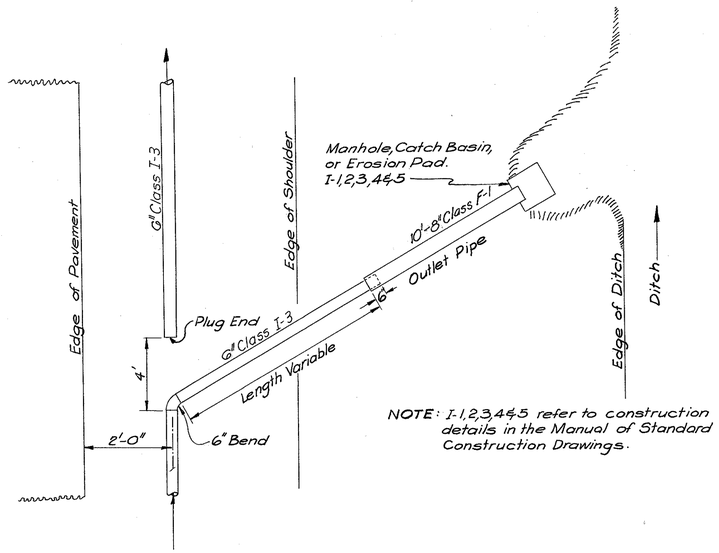
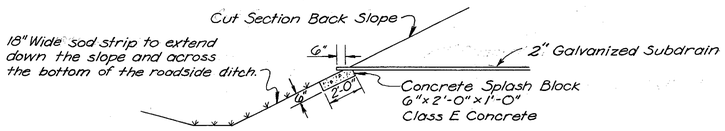


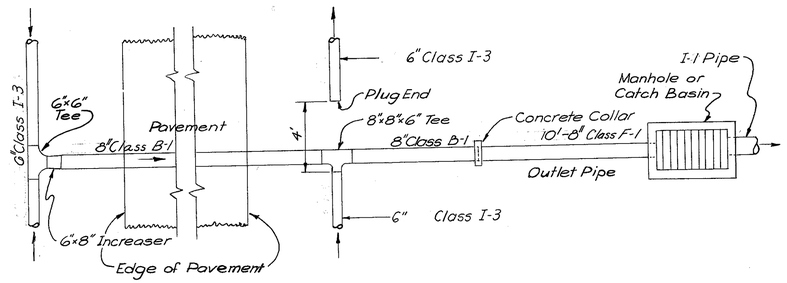
NOTE: I-1,2,3,4&5 refer to construction details in the Manual of Standard Construction Drawings.

UNDERDRAIN OUTLET DETAIL "A"

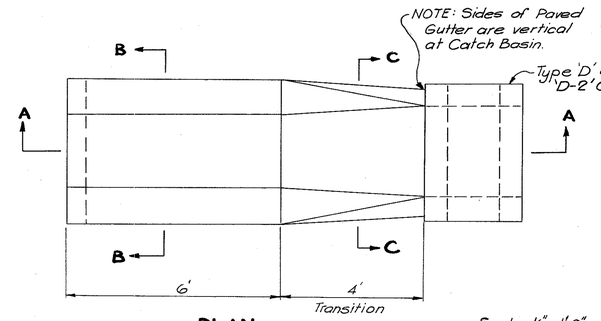


OUTLET DETAIL for 2 Inch PERFORATED GALVANIZED SUBDRAIN

Scale 1/4" = 1'-0"

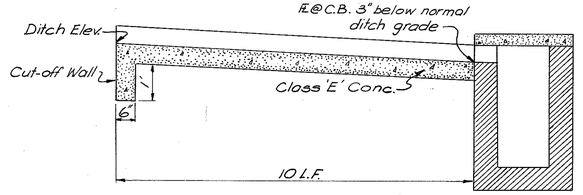


UNDERDRAIN OUTLET DETAIL "B"

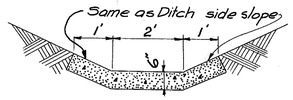


PLAN

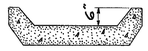
Scale : 1/2" = 1'-0"



SECTION A-A



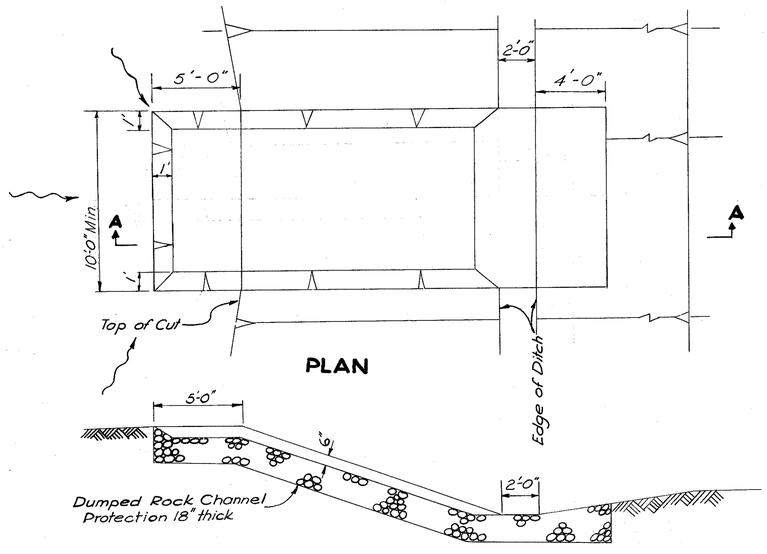
SECTION B-B



SECTION C-C

NOTE: The cost of paved gutter to be included in the unit price bid for catch basin.

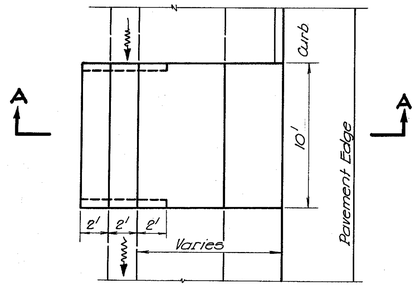
PAVED GUTTER DETAIL FOR TYPE D OR D-2 CATCH BASIN

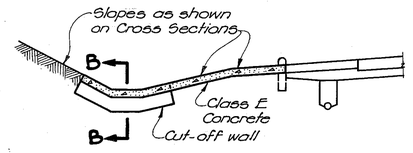


PLAN

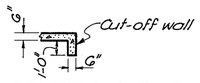
SECTION A-A

EROSION CONTROL AT SWALES DETAIL A



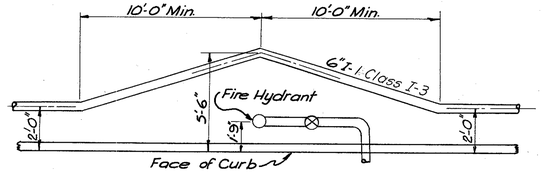


SECTION A-A



SECTION B-B

DETAIL FOR DRAINAGE OF CURB ENDINGS



UNDERDRAIN DETAIL AT FIRE HYDRANTS

NOT FOR CONSTRUCTION INFORMATION ONLY

FED. RD. DIVISION	STATE	PROJECT	
2	OHIO		

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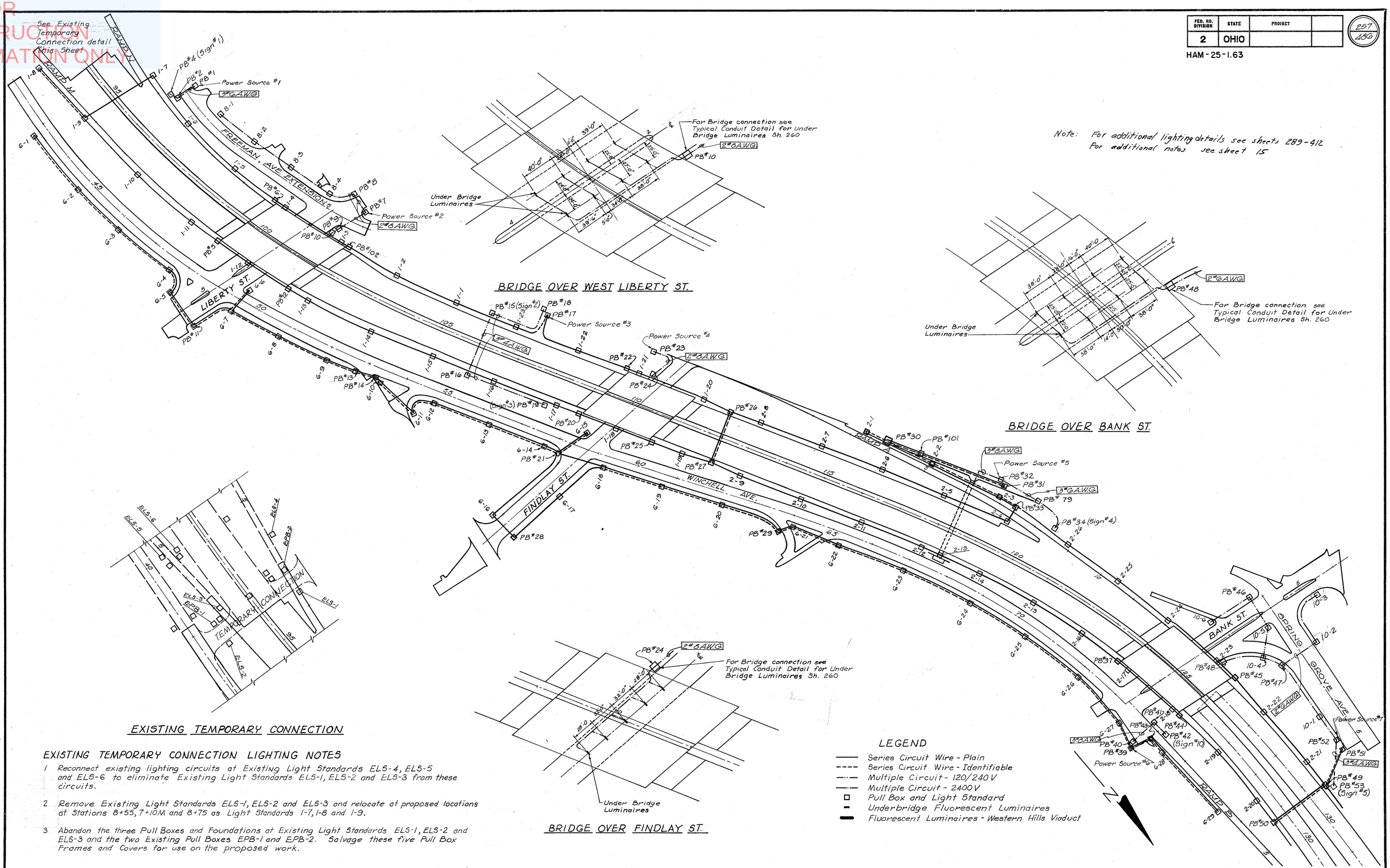

Note: For additional lighting details see sheets 289-412
For additional notes see sheet 15

EXISTING TEMPORARY CONNECTION LIGHTING NOTES

1. Reconnect existing lighting circuits at Existing Light Standards ELS-4, ELS-5 and ELS-6 to eliminate Existing Light Standards ELS-1, ELS-2 and ELS-3 from these circuits.
2. Remove Existing Light Standards ELS-1, ELS-2 and ELS-3 and relocate at proposed locations at Stations 8+55, 7+10M and 8+75 as Light Standards 1-7, 1-8 and 1-9.
3. Abandon the three Pull Boxes and Foundations at Existing Light Standards ELS-1, ELS-2 and ELS-3 and the two Existing Pull Boxes EPB-1 and EPB-2. Salvage these five Pull Box Frames and Covers for use on the proposed work.

LIGHTING DETAILS

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2	OHIO		

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Sign #12 mounted on Bent #1 and supplied by Western Hills Viaduct Lighting Circuits

Manhole openings to existing Pillars for access to existing Transformers 2N & 2S

Power Source #8

Power Source #9

Power Source #10

Power Source #11 See Detail Sh. 261

3 #8 AWG.

3 #2 AWG.

2 #4 AWG.

2 #8 AWG.

WESTERN HILLS VIADUCT

Lower Deck

Lights 33-1, 33-2, 33-3 to be connected in existing circuit 3S. Lights 3N-1, 3N-2, 3N-3 to be connected in existing circuit 3N. All existing bracket lights to be removed from Lower Deck.

EXISTING TEMPORARY CONNECTION LIGHTING NOTES

1. Install a new Light Standard, including Pull Box, Anchor Bolts and necessary wiring on Wall No. 11 at Station 175+05 N.B. Connect into existing circuit between existing Light Standards ELS-7 and ELS-8.
2. Remove existing Light Standard ELS-8 and relocate at proposed location 164+55 as Light Standard 5-15.
3. Abandon the Pull Box and Foundation at ELS-8 and Salvage the Pull Box Frame and Cover for use on proposed work.
4. Rotate existing Light Standard ELS-7 180° on its Foundation so that the Luminaire is over the Expressway.
5. Furnish and install one Central Parkway type Light Standard including Foundation, Transformer, Anchor Bolts and necessary wiring and connect into existing Central Parkway Lighting circuit. (See detail Sheet 260) Install a 15,000 Lumen Bulb.

NOTE: Circuits 2N & 2S shall be connected to existing transformers 2N & 2S, respectively, which are mounted in the east pylons of the Spring Grove Ave. Arch of the existing Western Hills Viaduct structure.

EXISTING TEMPORARY CONNECTION TO CENTRAL PARKWAY

New Central Parkway Light Standard (See detail Sh. 260)

New Light Standard On Wall (See detail Sheet 260)

Existing Central Parkway Light Standards

For Bridge connection see Typical Conduit Detail for Under Bridge Luminaires Sh. 260

Under Bridge Luminaires

BRIDGE OVER HARRISON AVE.

LIGHTING DETAILS

NOT FOR CONSTRUCTION INFORMATION ONLY

FED. RD. DIVISION	STATE	PROJECT	
2	OHIO		

259 ABC

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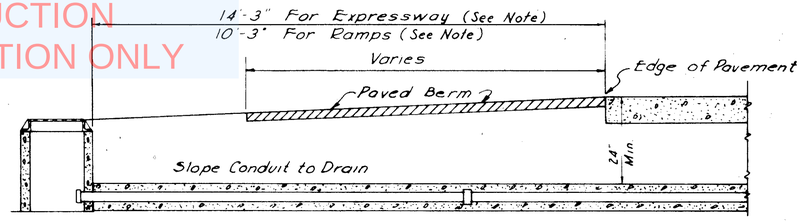
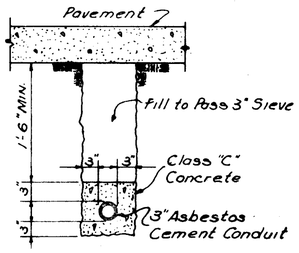


Pull Box Depth to Extend to Bottom of Concrete Encasement

UNDERPAVEMENT DUCT CROSSOVER

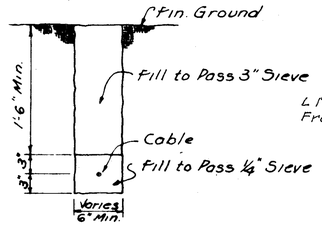
N.T.S.

NOTE
When Underpavement Duct is at a Light Standard, Pull Box shall be located in front of the Standard Foundation



UNDERPAVEMENT DUCT SECTION

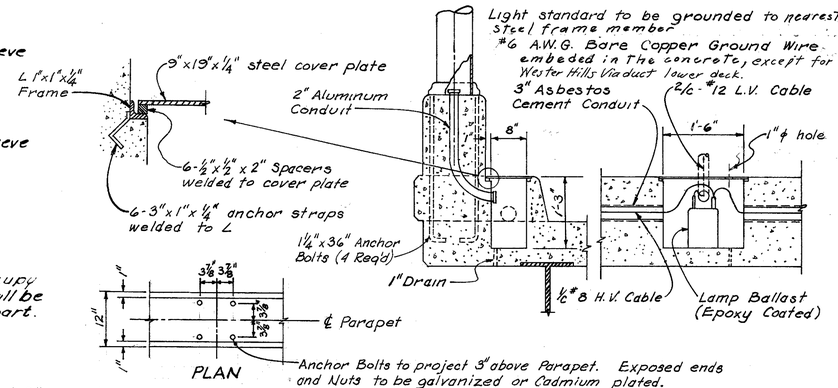
N.T.S.



TYPICAL CABLE TRENCH

N.T.S.

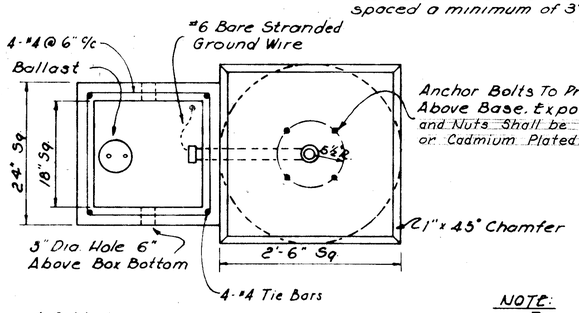
NOTE
When two or more cables occupy the same trench, cables shall be spaced a minimum of 3" apart.



TYPICAL WIRING DETAIL FOR BRIDGE STANDARDS

N.T.S

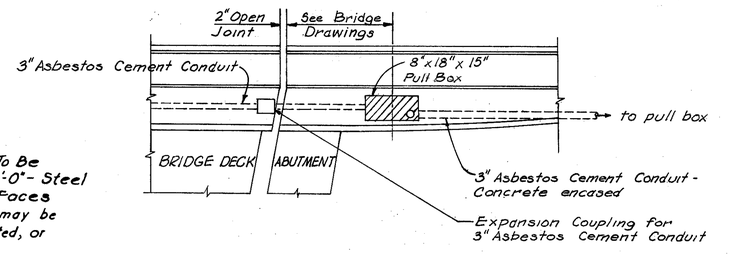
NOTE
Pull Box may be either precast or cast in place

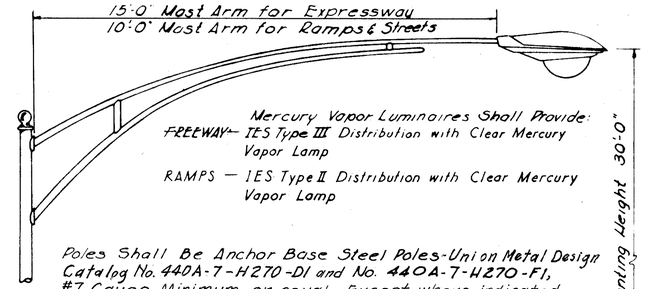


Wiring Note:
Leave Sufficient Cable In Pull Box With Ballast To Permit Ballast To Be Lifted Out And Placed On Ground Surface Without Disconnecting Cables.

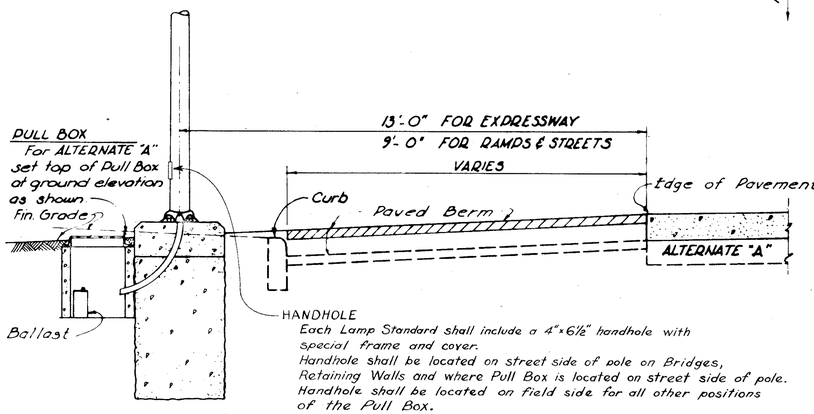
PLAN
(With Pull Box Cover & Frame Removed)

NOTE:
Top of Foundation To Be formed 2'-6"x2'-6"x1'-0"- Steel Trowel All formed Faces
Bottom of Foundation may be either round, as indicated, or square



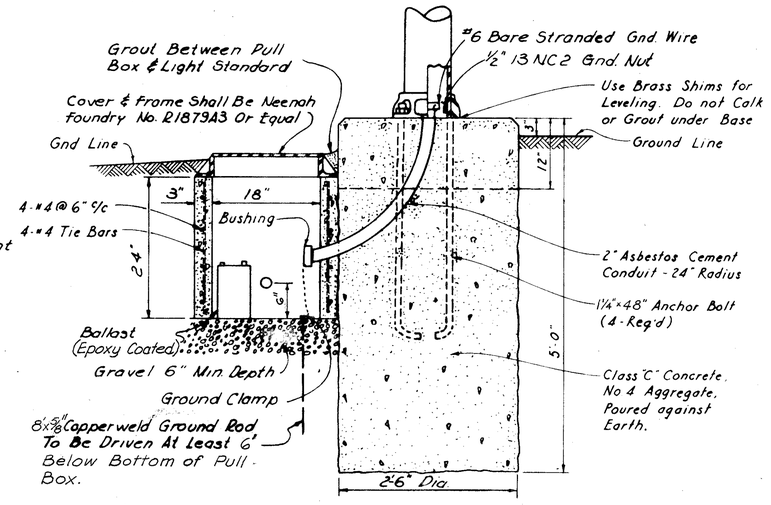


Poles Shall Be Anchor Base Steel Poles-Union Metal Design Catalog No. 440A-7-H270-DI and No. 440A-7-H270-FI, #7 Gauge Minimum, or equal, Except where indicated.



TYPICAL LIGHTING UNIT LOCATION

ALTERNATE "A" with Curb N.T.S.



SECTION

DETAIL OF LIGHTING STANDARD FOUNDATION & PULL BOX

N.T.S

Notes:

1. Roadway lighting is designed in accordance with "Design Criteria For Highway Lighting" published by the State of Ohio, Department of Highways. Illumination is 0.8-1.0 Footcandles on the pavement, circuits are 6.6 Amps series or 240 Volt multiple, as indicated, and lamp lumen ratings are; 700W-36,500 lumens, 400W-21,000 lumens, 250W-11,000 lumens.
2. All Light Standards shall have 400W Mercury Vapor Luminaires except as follows:
   Light Standards 1-3, 1-4, 1-5, 1-6, 1-7, 1-8, 1-9, 1-10, 1-11, 1-12, 1-13, 2-21, 2-22, 2-23, 2-24, 2-25, 2-26, 3-22, 3-23, 3-24, 3-25, 4-1, 4-2, 4-7, 4-8, 4-9, 4-10, 4-11, 4-12, 5-4 5-5, 5-6, 5-7, & 5-8 shall have 700W Mercury Vapor Luminaires. Light Standard 2-13 shall have a 250W Mercury Vapor Luminaires.
3. Mercury Vapor Luminaires shall be one of those listed below or equal: 700W Luminaires; Westinghouse type OV-50, or General Electric type M-1000 400W and 250W Luminaires; Westinghouse type OV-25, General Electric type M-400, Line Material type 2A2 or Joslyn type 400.
4. Fluorescent Luminaires for under the bridges on the Expressway shall be Westinghouse type FU-72 with 2-1.5 Amp Lamps, or equal.
5. Fluorescent Luminaires for mounting on the piers on the lower deck of Western Hills Viaduct shall be General Electric Form 206B with 2-1.5 Amp Lamps, or equal.
6. Light Standards along existing Temporary Connections shall be relocated along the Expressway as noted.
7. Lighting of the temporary connection at Western Hills Viaduct shall be accomplished as shown on Sheet 261.
8. At all times 240 Volt multiple circuits, 2400 volt multiple circuits and series circuits shall be carried in separate trenches, conduits and Pull Boxes.
9. Provide 2 layers of #55 Building Felt between lamp ballast and concrete on structures and between lamp ballast and ground in pull boxes.
10. Light Standards 4-16 and 4-20, on the Lower Deck of the Western Hills Viaduct shall be similar in design to the Light Standard as detailed except that they shall have 6 foot Mast Arms.

LIGHTING DETAILS

NOT FOR CONSTRUCTION INFORMATION ONLY

FED. RD. DIVISION	STATE	PROJECT	
2	OHIO		

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SIGN CIRCUIT CONTROLLERS

Sign Circuit Controller shall be a combination fusible switch and contactor consisting of:

1 - 30 or 60 amp., 3 pole, 250 volt fusible switch with front operating handle mechanism with provisions for padlocking in both the "On" and "Off" positions.

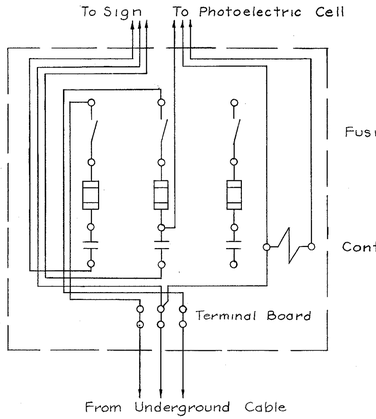
1 - 30 or 60 amp., 3 pole, 480 volt, tungsten rated, electrically held contactor.

1 - Terminal Board with 3 lugs suitable for wire sizes #14 AWG through #1/0 AWG on both line & load sides. Square D 100A terminal board class 9080 type U3, or equal.

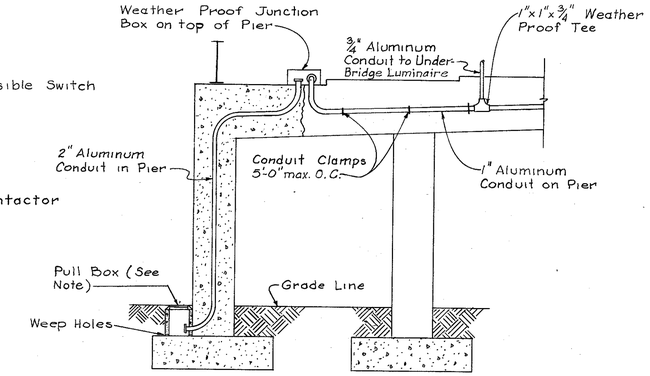
1 - NEMA type 4 watertight enclosure constructed of AISI 302 & 303 stainless steel.

The 30 amp. controller shall be equal to Square D class 8538, type CW-2, form Y56 without overload relays and substituting class 8903, type MO-2, 30 amp tungsten rated contactor in lieu of class 8502, type CO-2, 15 amp. tungsten rated contactor and including terminal board.

The 60 amp. controller shall be equal to Square D class 8538, type DW-2, form Y56 without overload relays and substituting class 8903, type PO-2, 60 amp. tungsten rated contactor in lieu of class 8502, type DO-2, 30 amp. tungsten rated contactor and including terminal board.

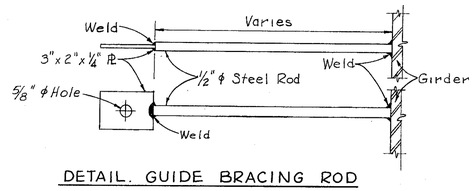


CONTROLLER WIRING DIAGRAM

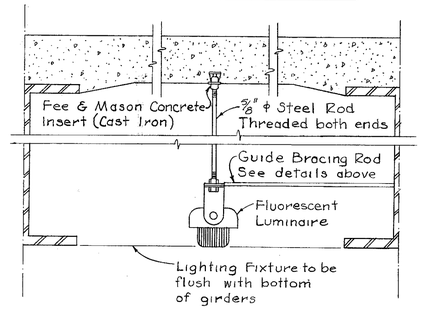


TYPICAL CONDUIT DETAIL FOR UNDER BRIDGE LUMINAIRES

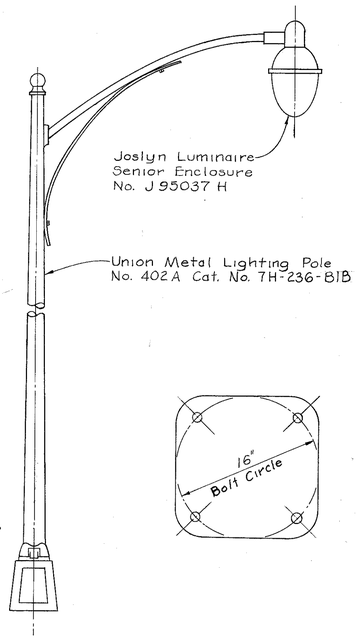
N.T.S.



DETAIL. GUIDE BRACING ROD



TYPICAL DETAIL OF UNDER BRIDGE FLUORESCENT LUMINAIRE MOUNTINGS

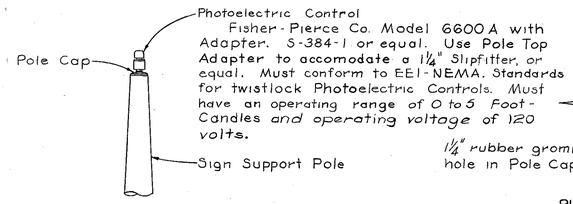


Transformer:
Jefferson No. 340-142-007
10,000/15,000 Lumens
10,500 volt series ckt.
6.6 amp. primary
20 amp. secondary

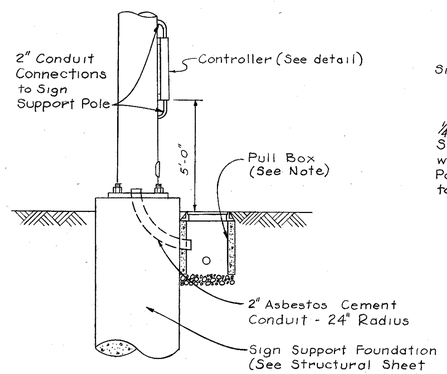
CENTRAL PARKWAY TYPE LIGHT STANDARD & LUMINAIRE

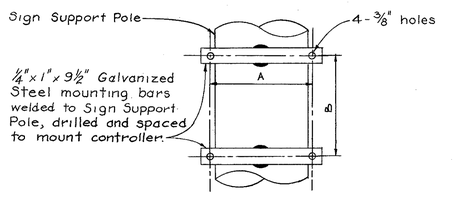
Not to Scale

See Insert on Sh. 25B for Location



PHOTOELECTRIC CELL DETAIL





CONTROLLER MOUNTING DETAIL

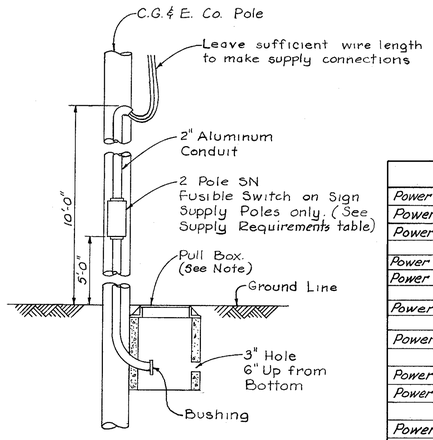
Controller Size	A	B
30 Amp.	7"	23 3/8"
60 Amp.	8"	29"

See detail above for Controller description

Sign No.	Controller Size
1	60
2	30
3	30
4	30
5	60
6	30
7	30
8	30
9	30
10	30
11	30

SIGN SUPPORT ELECTRICAL DETAILS

Not to Scale

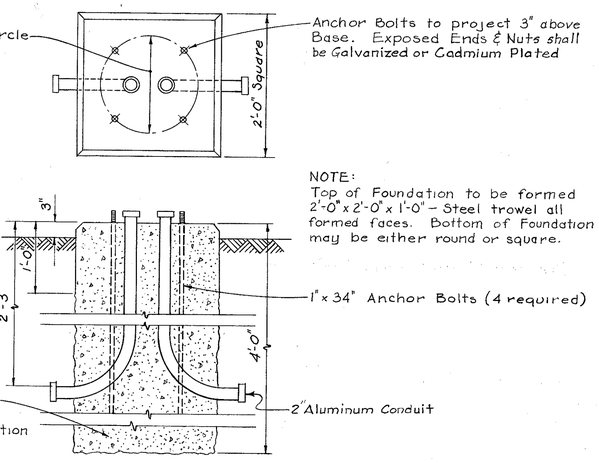


SUPPLY POLE DETAIL

Not to Scale

SUPPLY REQUIREMENTS				
Power Source #1	10 KVA	120/240 V	60A 5w.	50A Fuses
Power Source #2	6 KVA	240 V	30A 5w.	25A Fuses
Power Source #3	12 KVA	120/240 V	60A 5w.	50A Fuses
	25 KW	6.6A		
Power Source #4	1.5 KVA	240 V	30A 5w.	10A Fuses
Power Source #5	12 KVA	120/240 V	60A 5w.	50A Fuses
	25 KW	6.6A		
Power Source #6	2 KVA	120/240 V	30A 5w.	10A Fuses
	25 KW	6.6A		
Power Source #7	21 KVA	120/240 V	100A 5w.	90A Fuses
	25 KW	6.6A		
Power Source #8	17 KVA	120/240 V	100A 5w.	80A Fuses
Power Source #9	8 KVA	120/240 V	60A 5w.	35A Fuses
	15 KW	6.6A		
Power Source #10	12 KVA	120/240 V	60A 5w.	50A Fuses
	20 KW	6.6A		
Power Source #11	120 KVA	2400 V	See detail Sh. 26I	

NOTE:
Pull Box dimensions and details same as Light Standard Pull Box except as indicated.



NOTE:
Top of Foundation to be formed 2'-0" x 2'-0" x 1'-0" - Steel trowel all formed faces. Bottom of Foundation may be either round or square.

CENTRAL PARKWAY STANDARD FOUNDATION DETAIL

Not to Scale

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FED. RD. DIVISION	STATE	PROJECT	
2	OHIO		

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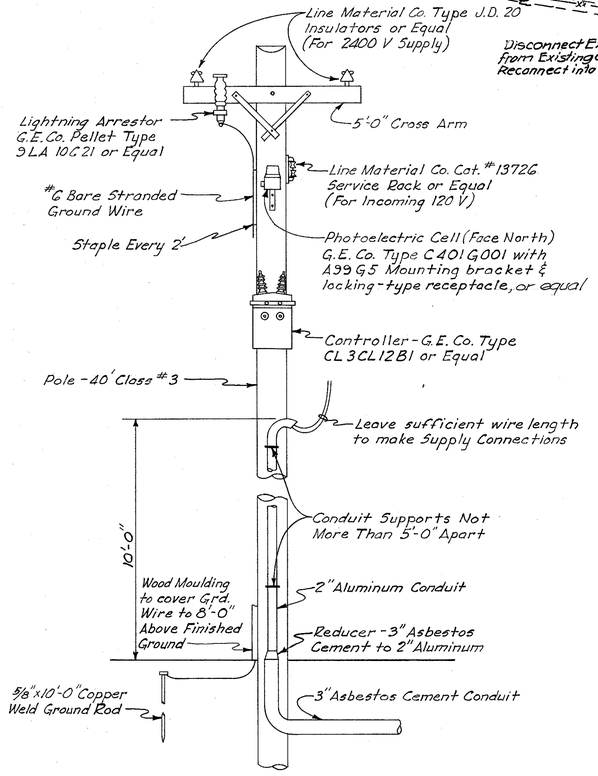
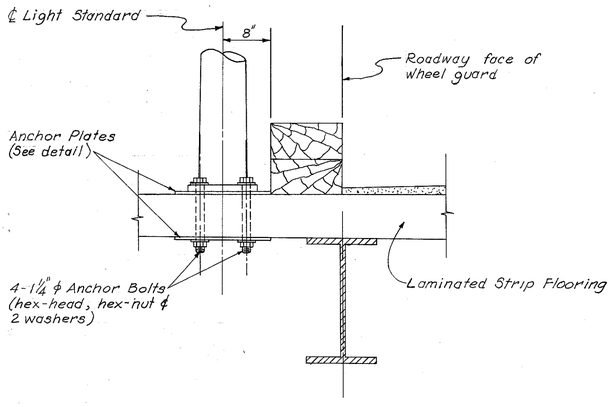
2G1 486

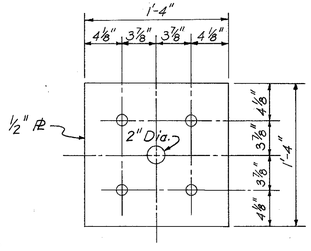


SUPPLY POLE DETAIL
POWER SOURCE #11
N.T.S.

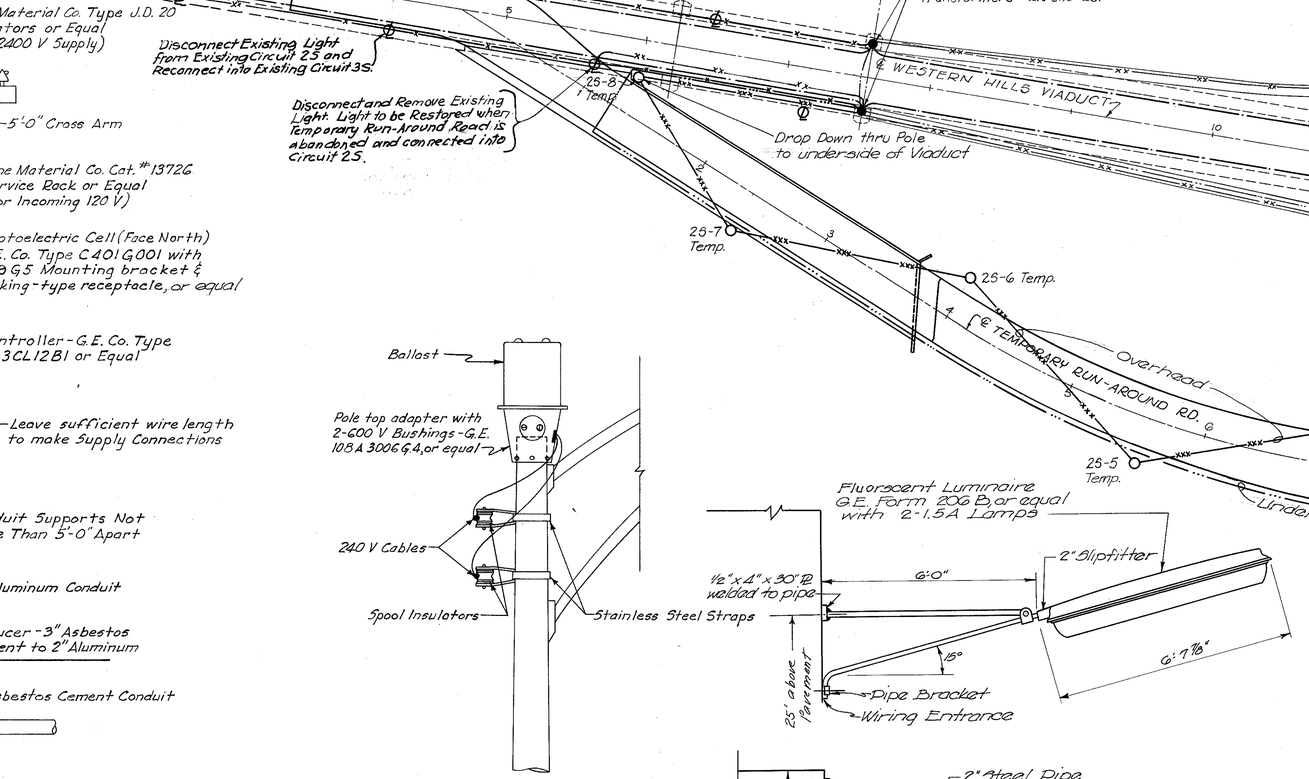
DETAIL OF LIGHT STANDARD FOR TEMPORARY CONNECTION
N.T.S.

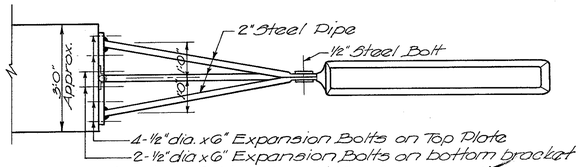


LIGHT STANDARD MOUNTING ON TEMPORARY BRIDGE



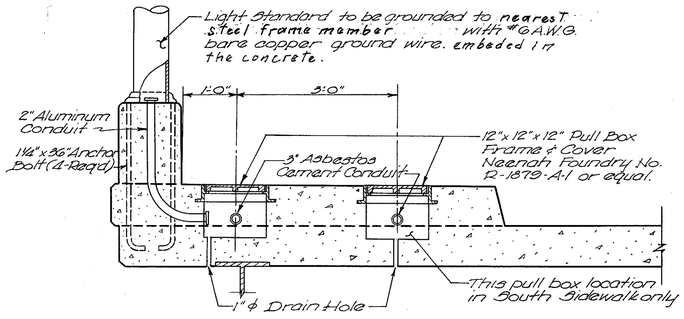
ANCHOR PLATE DETAIL





(Included in Bridge Quantities for payment)

LUMINAIRE DETAIL - WESTERN HILLS VIADUCT
(Lower Deck)
Not to Scale



PULL BOX DETAIL - WESTERN HILLS VIADUCT (UPPER DECK)
Not to Scale

LEGEND

- Existing 2400 Volt Cable
- Proposed 2400 Volt Cable
- Temporary 2400 Volt Cable
- Existing 120/240 Volt Cable
- Proposed 240 Volt Cable
- Temporary 240 Volt Cable

TEMPORARY RUN-AROUND LIGHTING NOTES

1. In the proposed construction plans, the Existing Switch House is to be abandoned. The Supply Pole, Power Source #11, shall replace the Switch House in supplying the 2400 V service to the Transformer primaries on the Viaduct. The equipment in the Existing Switch House shall be removed and turned over to the City of Cincinnati. It will be necessary to provide uninterrupted service to the Viaduct Lighting Circuits during construction. The necessary temporary wiring and connections shall be installed to accomplish this. Lighting of the Temporary Run-Around Road will also be required.
2. To accomplish the Lighting of the Temporary Run-Around Road, Light Standards 25-2, 25-3, 25-4, 25-5, 25-6, 25-7 and 25-8 shall be installed at the Temporary Locations indicated. The Light Standards shall be installed complete with Foundations, Anchor Bolts, Anchor Plates, Pole Top Adapters, Insulators and all necessary appurtenances required to provide a satisfactory lighting installation. (See Details this sheet.) Upon completion of the Western Hills Viaduct, these Light Standards shall be removed from the Temporary Locations and installed at the Permanent Locations along Ramp C.
3. All Temporary work required on the roadway shall be paid for under the Lump Sum price for Item 3-25, Temporary Lighting, as per plan.
4. All Temporary work required on the Bridges will be paid for under the Lump Sum price for Item 3-15, Temporary Run-Around Bridge at Western Hills Viaduct.

LIGHTING DETAILS

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FED. RD. DIVISION	STATE	PROJECT	
2	OHIO		

262
468

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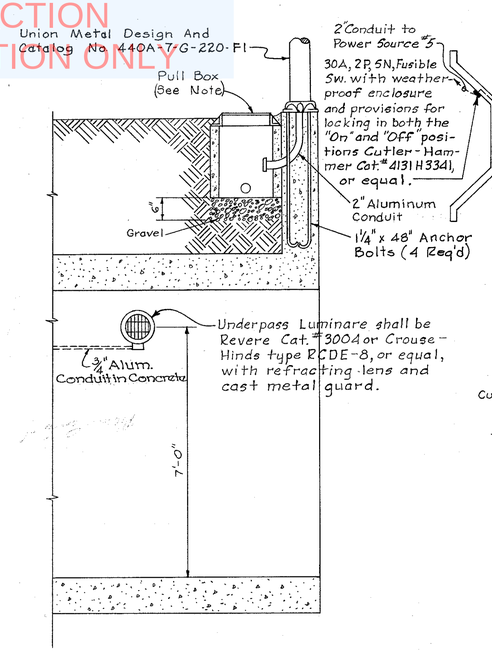
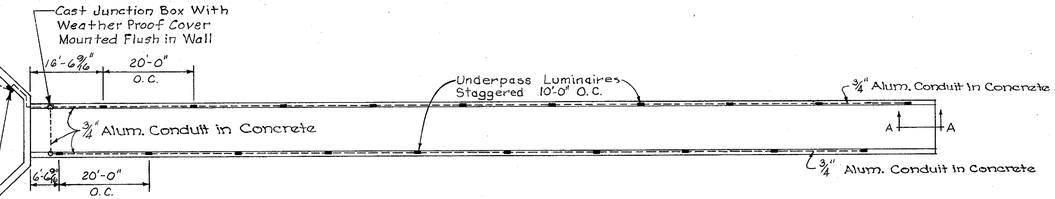
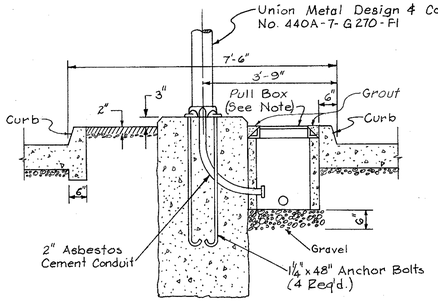


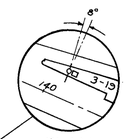
SECTION "A-A"
Scale: ½"=1'-0"



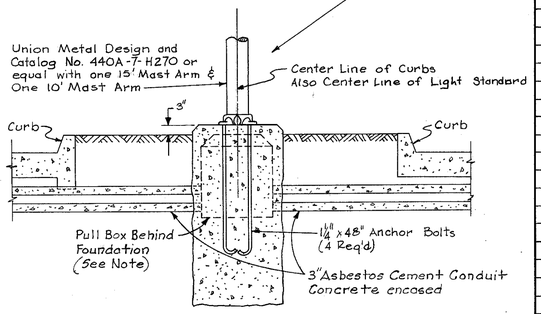
PLAN VIEW OF PEDESTRIAN UNDERPASS
Scale: 1/16"=1'-0"



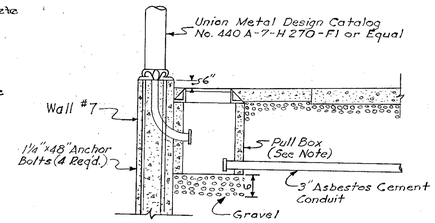
LOCATION DETAIL
Light Standard 2-1



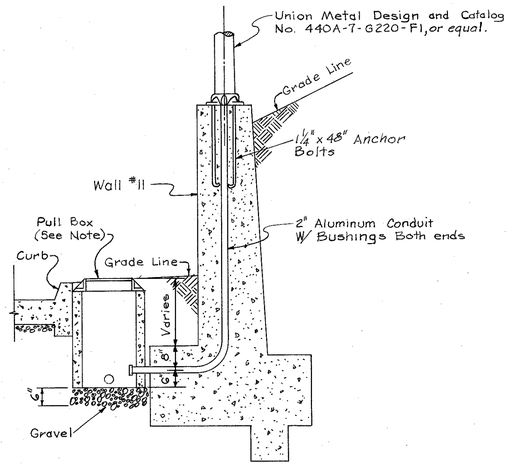
PLAN



LOCATION DETAIL
Light Standard 3-17

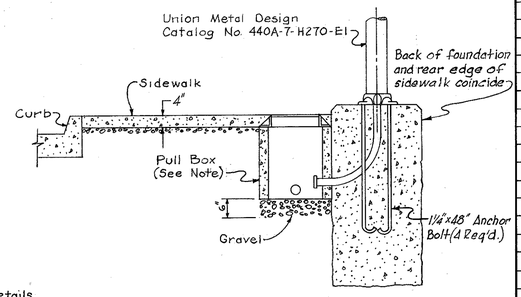


LOCATION DETAIL
LIGHT STANDARD 4-19
Mt'd.



LOCATION DETAIL
Light Standard at temporary connection, sta. 175+05 N.B.

NOTE:
Pull Box dimensions and details same as Light Standard Pull Box except as indicated.



LOCATION DETAIL
Light Standard 6-27

ROADWAY LIGHTING AND SIGNING QUANTITIES

100% City	Full Project Participation Code Type 7221	Grand Total	Unit	Description
	84	84	ea.	Light Standard & Foundation with 15' Mast Arm (30' Mounting Height)
3	59	62	ea.	Light Standard & Foundation with 10' Mast Arm (30' Mounting Height)
	1	1	ea.	Light Standard & Foundation with Double Mast Arms (1-10' & 1-15' - Mounting Heights)
	1	1	ea.	Light Standard with 15' Mast Arm, Anchor Bolts & Conduit (Mounted on Wall)
	2	2	ea.	Light Standard with 10' Mast Arm, Anchor Bolts & Conduit (Mounted on Wall)
	1	1	ea.	Central Parkway type Light Standard Luminaire including lamp, Foundation, Transformers & Cable
	4	4	ea.	Relocating Light Standard and providing new foundation, anchor bolts & conduit
	28	28	ea.	700 W Luminaire with 700 W Mercury Vapor Lamp
	97	97	ea.	400 W Luminaire with 400 W Mercury Vapor Lamp
	1	1	ea.	250 W Luminaire with 250 W Mercury Vapor Lamp
3	22	25	ea.	400 W Luminaire with built in reactor type ballast (240V) and 400 W Mercury Vapor Lamp
	28	28	ea.	Ballast for 700 W Lamp - G.E. A Series
	97	97	ea.	Ballast for 400 W Lamp - G.E. A Series
	1	1	ea.	Ballast for 250 W Lamp - G.E. A Series
5	249	254	ea.	Pull Box complete with Frame & Cover
	6	6	ea.	Pull Box without frame & cover (use salvaged frame & cover)
3	153	156	ea.	Grounding System for Light Standard & Sign Support
190	5100	5290	Lin. Ft.	3" Asbestos Cement Conduit - Concrete Encased
	23,225	23,225	Lin. Ft.	6000 V Single Conductor #8 A.W.G. Direct Burial Cable (Plain)
	9,200	9,200	Lin. Ft.	6000 V Single Conductor #8 A.W.G. Direct Burial Cable (Identifiable)
300	15,100	15,400	Lin. Ft.	600 V Single Conductor #12 A.W.G. Luminaire Wire
	610	610	Lin. Ft.	3000 V Single Conductor # 4 A.W.G. Direct Burial Cable (Plain)
	610	610	Lin. Ft.	3000 V Single Conductor # 4 A.W.G. Direct Burial Cable (Identifiable)
	1	1	ea.	Oil filled, pole mounting controller for Western Hills Viaduct Lighting Control (2400 V)
	9	9	ea.	30 Amp Controller for Sign Circuits
	2	2	ea.	60 Amp Controller for Sign Circuits
	11	11	ea.	Photoelectric Cell and Pole Top Adapter with locking type receptacle
	1	1	ea.	Photoelectric Cell with mounting bracket and Locking type receptacle
	2,215	2,215	Lin. Ft.	600 V Single Conductor #8 A.W.G. Direct Burial Cable (Plain)
	1,700	1,700	Lin. Ft.	600 V Single Conductor #8 A.W.G. Direct Burial Cable (Identifiable)
500	900	1,400	Lin. Ft.	600 V Single Conductor # 6 A.W.G. Direct Burial Cable (Plain)
500	690	1,190	Lin. Ft.	600 V Single Conductor # 6 A.W.G. Direct Burial Cable (Identifiable)
	4,580	4,580	Lin. Ft.	600 V Single Conductor # 4 A.W.G. Direct Burial Cable (Plain)
	3,580	3,580	Lin. Ft.	600 V Single Conductor # 4 A.W.G. Direct Burial Cable (Identifiable)
	2,288	2,288	Lin. Ft.	600 V Single Conductor # 2 A.W.G. Direct Burial Cable (Plain)
	1,144	1,144	Lin. Ft.	600 V Single Conductor # 2 A.W.G. Direct Burial Cable (Identifiable)
	3	3	ea.	30 Amp, 2 Pole 5N, 250 V Switch & Enclosure & Fuses
	5	5	ea.	60 Amp, 2 Pole 5N, 250 V Switch & Enclosure & Fuses
	2	2	ea.	100 Amp, 2 Pole 5N, 250 V Switch & Enclosure & Fuses

LIGHTING DETAILS

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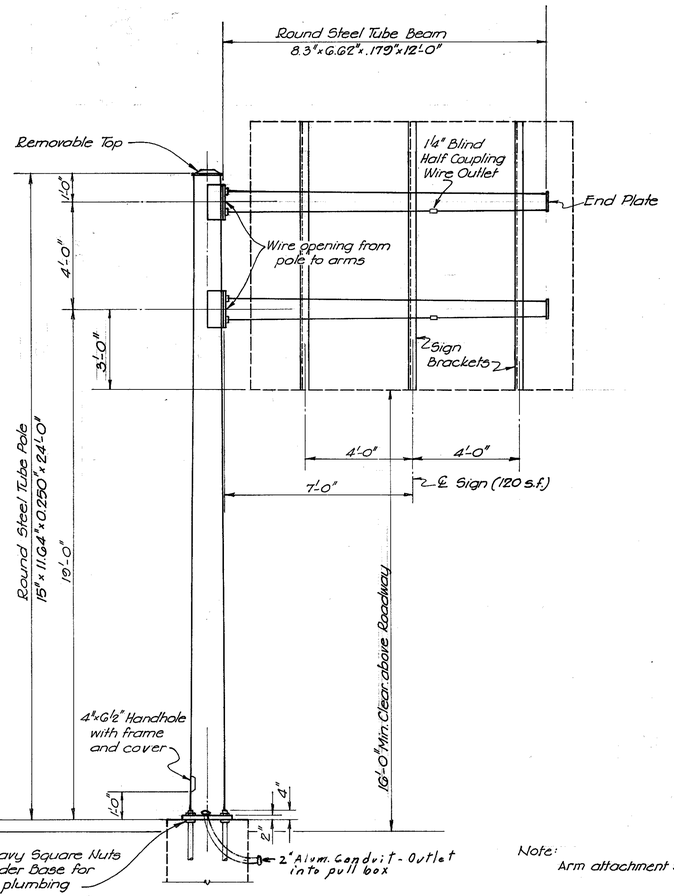
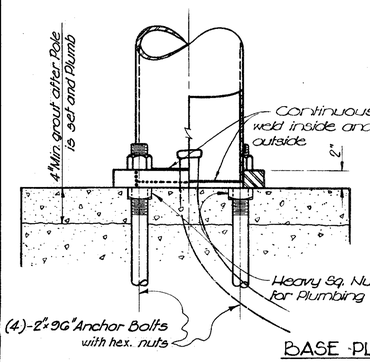


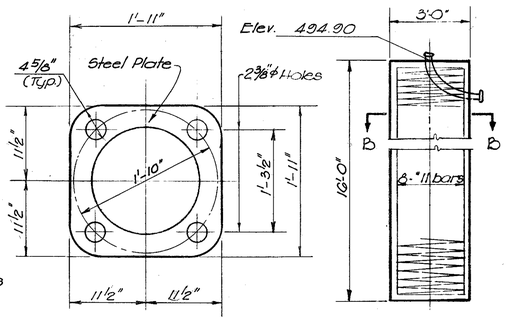
Note:
Arm attachment similar to Sign Support No. 11.

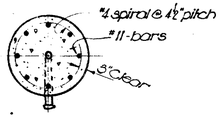
SIGN SUPPORT NO. 10 (Sta. 1+15 B)

CANTILEVER TYPE WITH DOUBLE MAST ARM



BASE PLATE





SECTION "B-B"

FOUNDATION DETAIL
(Class "E" Concrete)

Notes: (See opposite)

SIGN SUPPORT NO. 10

FED. RD. DIVISION	STATE	PROJECT	
2	0410		

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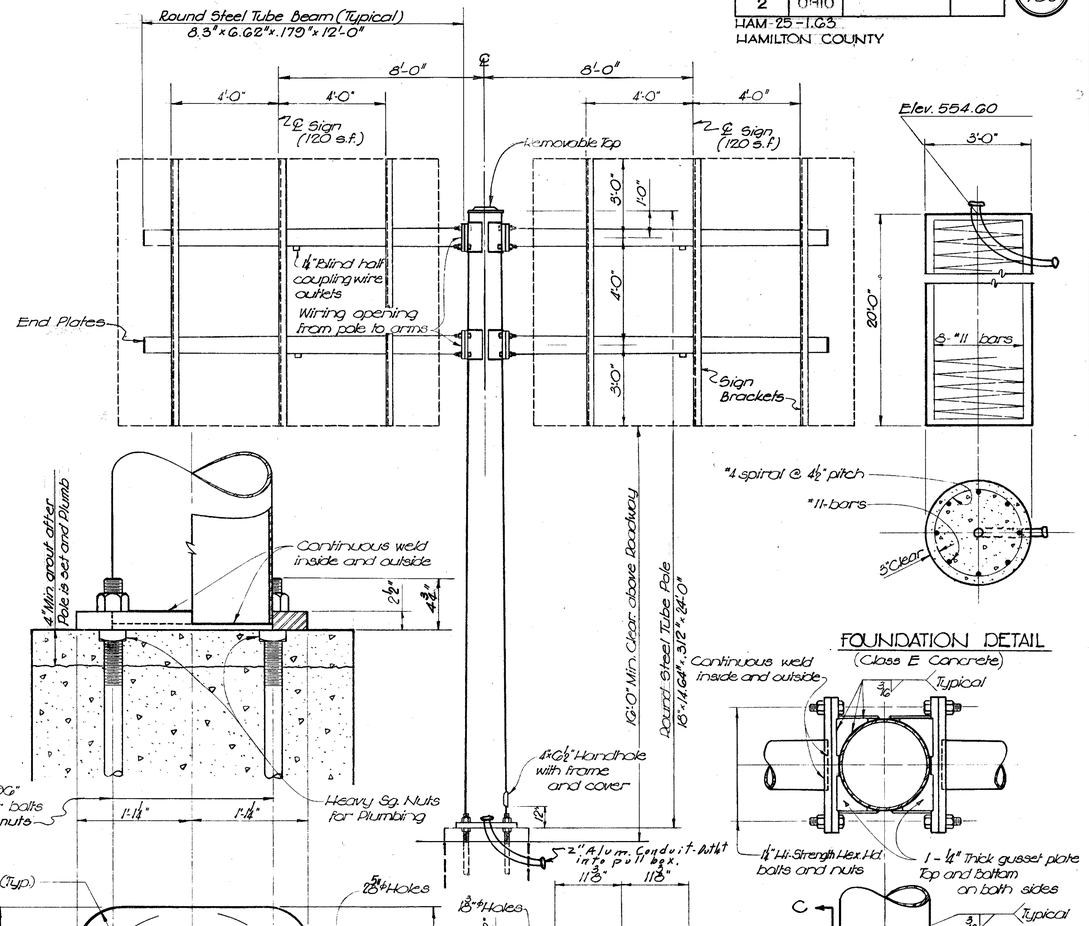
HAMILTON COUNTY



SECTION "C-C"

BASE PLATE

ARM ATTACHMENT

NOTES:

1. For detailed location of sign supports, see roadway plans
2. For electrical details, see Sh. No's 260
3. For sign bracket detail, see Sh. No. 264
4. All parts are steel unless otherwise noted.

SIGN SUPPORT NO. 11 (STA. 12+30 W.H.)

(CENTER MOUNTED TYPE WITH DOUBLE MAST ARM)

SIGN SUPPORT NO. 11

OVERHEAD SIGN SUPPORTS

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FED. RD. DIVISION	STATE	PROJECT	
2	OHIO		

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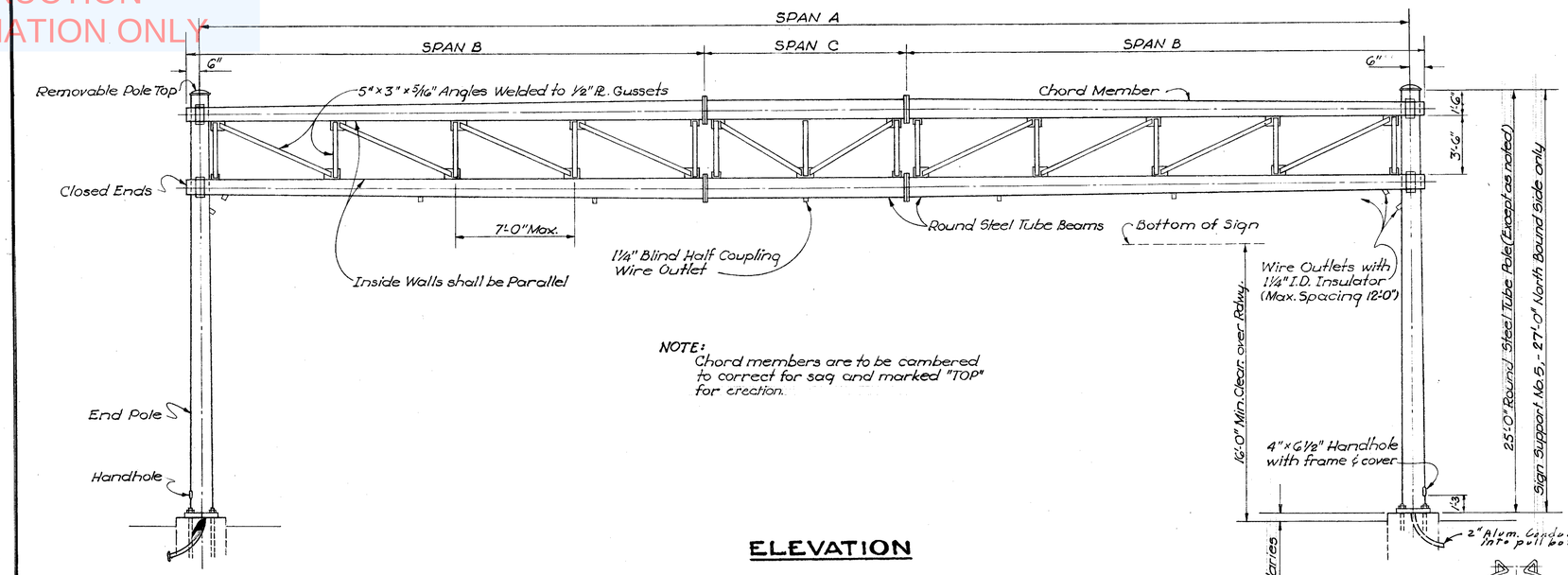
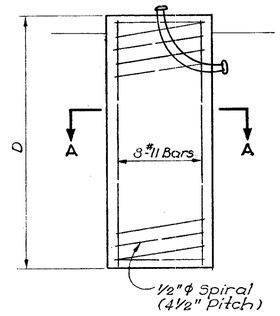
HAMILTON COUNTY



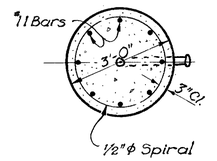
NOTE:
Chord members are to be cambered to correct for sag and marked "TOP" for erection.

ELEVATION

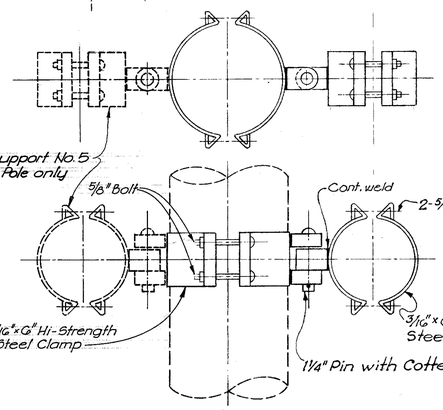


FOUNDATION DETAIL

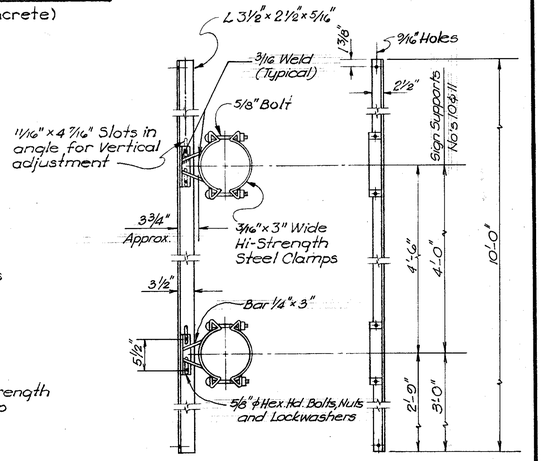
(Class "E" Concrete)



SECTION A-A

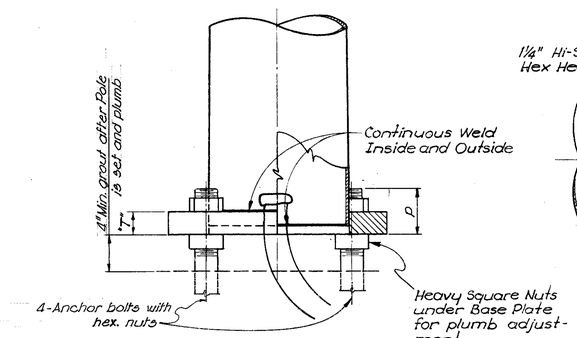


BEAM CLAMP DETAIL

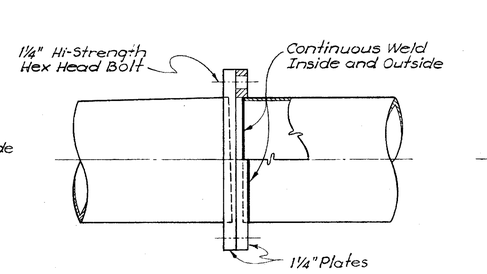


TYPICAL SIGN BRACKET

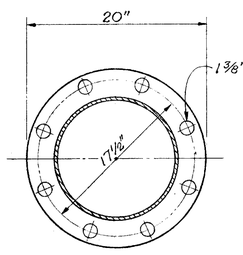
(Sign Brackets are provided for every 4 lineal feet of sign width, for a sign height of 10 feet.)

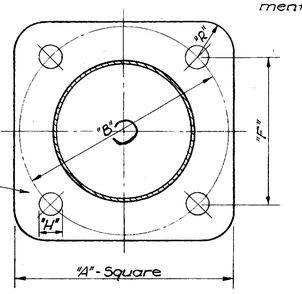


POLE BASE DETAIL



CENTER JOINT DETAIL





BASE PLATE DATA

SUPPORT NO.		A	B	F	R	H	T	P
2		24 1/2"	23 1/2"	16 5/8"	5"	2 5/8"	2 1/2"	4 3/4"
3		24 1/2"	23 1/2"	16 5/8"	5"	2 5/8"	2 1/2"	4 3/4"
8		24 1/2"	23 1/2"	16 5/8"	5"	2 5/8"	2 1/2"	4 3/4"
9		24 1/2"	23 1/2"	16 5/8"	5"	2 5/8"	2 1/2"	4 3/4"
5	N.B.	24 1/2"	23 1/2"	16 5/8"	5"	2 5/8"	2 1/2"	4 3/4"
	Med	20 1/2"	25 1/2"	18"	5 1/2"	3 3/8"	3"	6"
	S.B.	20 1/2"	25 1/2"	18"	5 1/2"	2 5/8"	2 1/2"	4 3/4"

SUPPORT NO.		LOCATION	SIGN AREA	SPAN A	SPAN B	SPAN C	CHORD SIZE SPAN B	CHORD SIZE SPAN C	END POLE SIZE	ANCHOR BOLTS	ELEV@ TOP FOUNDATION	FOUND. DEPTH D	NO. SIGN BRACKETS
2		100+00 ℄ EXPY.	360 S.F.	70'-0"	30'-6"	10'-0"	10"×14.25"×.250"	14.238"×.312"	16"×12.5"×.179" – 2 Ply	2 1/4" ϕ×96"	524.80	19'-0"	9
3		108+00 ℄ EXPY.	360 S.F.	70'-0"	30'-6"	10'-0"	10"×14.25"×.250"	14.238"×.312"	16"×12.5"×.179" – 2 Ply	2 1/4" ϕ×96"	523.70	19'-0"	9
8		155+80 ℄ N.B. EXPY.	360 S.F.	71'-6"	30'-6"	11'-6"	10"×14.25"×.250"	14.238"×.312"	16"×12.5"×.179" – 2 Ply	2 1/4" ϕ×96"	530.60	19'-0"	9
9		157+80 ℄ S.B. EXPY.	360 S.F.	71'-0"	30'-6"	11'-0"	10"×14.25"×.250"	14.238"×.312"	16"×12.5"×.179" – 2 Ply	2 1/4" ϕ×96"	530.00	19'-0"	9
5	NORTH BOUND	120+44 ℄ S.B. EXPY.	360 S.F.	72'-0"	30'-6"	12'-0"	10"×14.25"×.250"	14.238"×.312"	16"×12.22"×.179" – 2 Ply	2 1/4" ϕ×96"	518.60	19'-0"	9
									16"×14.5"×.312" – 2 Ply	3" ϕ×144"	520.60	19'-0"	
	SOUTH BOUND		480 S.F.	84'-0"	30'-6"	24'-0"	10"×14.25"×.250"	14.238"×.312"	16"×14.5"×.312" – 1 Ply	2 1/4" ϕ×96"	520.60	19'-0"	12

NOTES:
1. For detailed location of sign supports, see roadway plans.
2. For electrical details, see Sh. No. 260
3. Signs to be centered vertically on support beams.
4. All parts are steel unless otherwise noted.

Item I-129
Sign Support No's 1 thru 11

Item I-129, 140 Cu. Yd., Concrete for Sign Support Foundations, Class E

Item I-129, 31,900 lbs., Steel Reinforcing Bars

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FED. RD. DIVISION	STATE	PROJECT	
2	OHIO		

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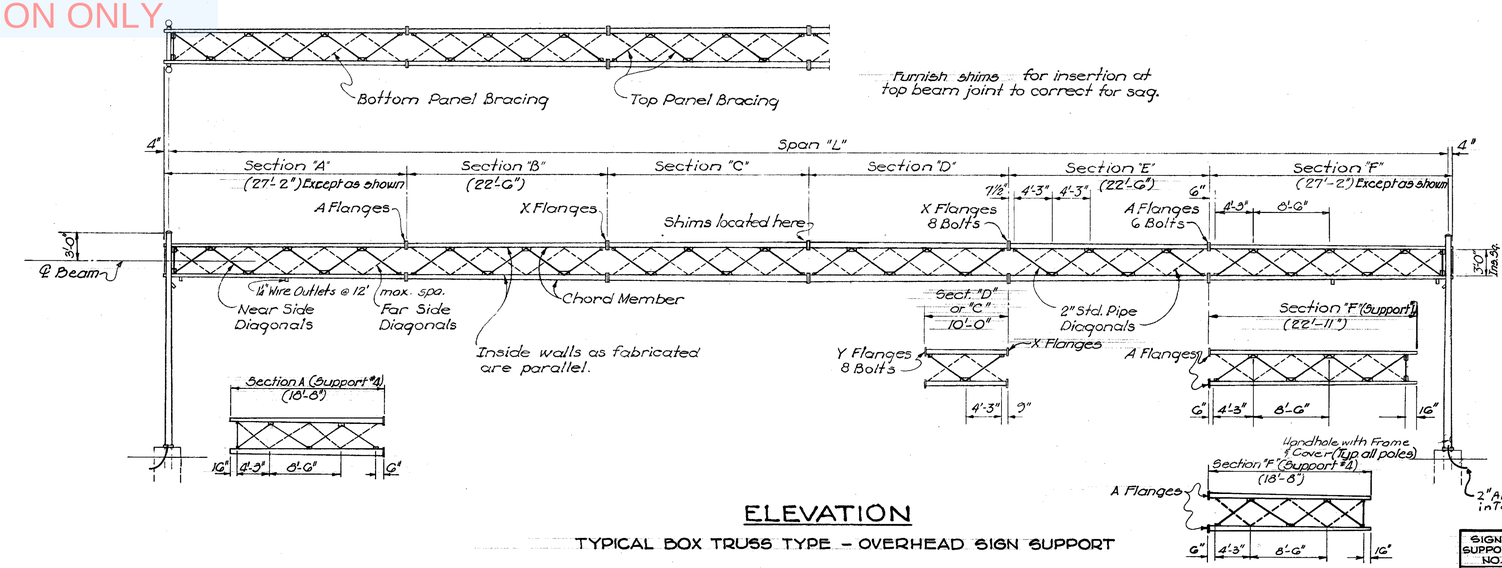
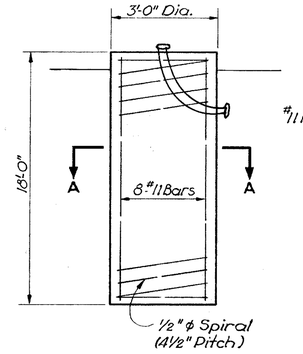
HAMILTON COUNTY



ELEVATION

TYPICAL BOX TRUSS TYPE – OVERHEAD SIGN SUPPORT

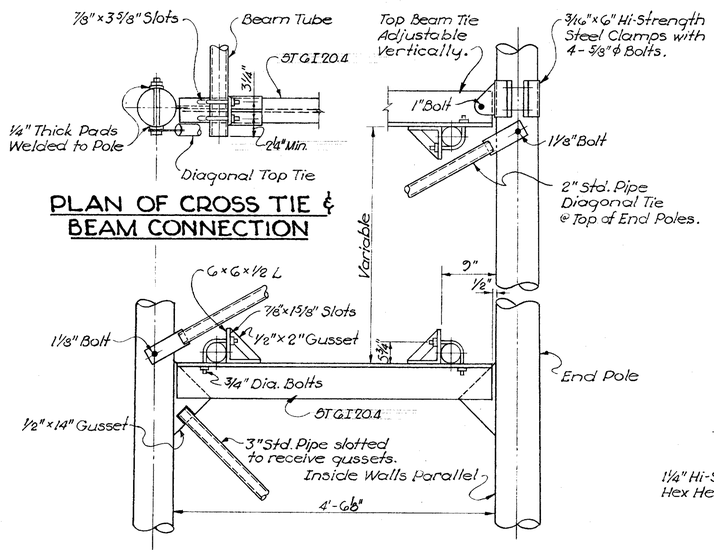


FOUNDATION DETAIL

(Class "E" Concrete)

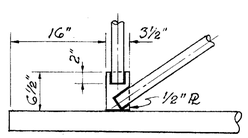
SECTION A-A

SIGN SUPPORT NO.	END POLE SIZE	
	MEDIAN SIDE	BERM SIDE
1	8.85"×7.17"×.250" × 24'-0"	8.85"×6.89"×.250" × 28'-0"
4	8.85"×6.96"×.250" × 27'-0"	8.85"×7.17"×.250" × 24'-0"
6	8.85"×7.17"×.250" × 24'-0"	8.85"×7.17"×.250" × 24'-0"
7	8.85"×7.10"×.250" × 25'-0"	8.85"×7.10"×.250" × 25'-0"

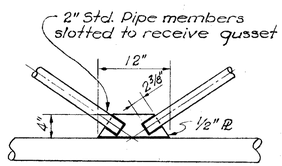


PLAN OF CROSS TIE & BEAM CONNECTION

BOTTOM BEAM SUPPORT & END POLE FRAME TIE

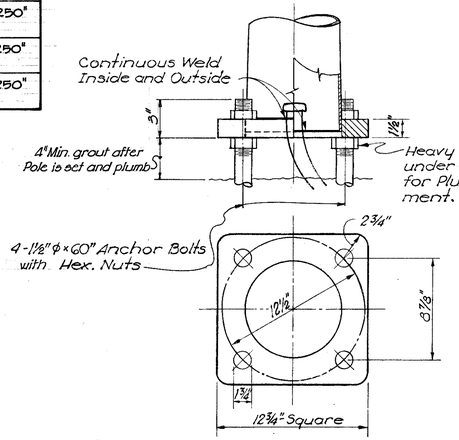


END JOINT DETAIL

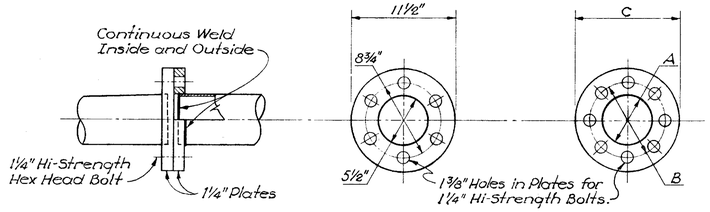


TYPICAL JOINT

Diagonal Truss Members



POLE BASE DETAIL



FLANGE TYPE A

FLANGE TYPE X & Y

FLANGE TYPE	TUBE DIA.	A	B	C
X	6.97"	7'	10¼"	13"
Y	7.67"	7'3¼"	11"	13¾"

NOTES:

1. For detailed location of sign supports, see roadway plans.
2. For electrical details, see Sh. No. 260
3. For sign bracket detail, see Sh. No. 264
4. Signs to be centered vertically on support beams.
5. All parts are steel unless otherwise noted.

SIGN SUPPORT NO.	LOCATION	SIGN AREA (S.F.)	SPAN "L"	SECTION "A" CHORD SIZE	SECTION "B" CHORD SIZE	SECTION "C" CHORD SIZE	SECTION "D" CHORD SIZE	SECTION "E" CHORD SIZE	SECTION "F" CHORD SIZE	ELEV. @ TOP FOUNDATION	NO. OF SIGN BRACKETS
1	℄ EXPRESSWAY STA. 96+00	600	94'-5"	3.5"×5.40"×.250" × 27'-2"	5.40"×6.97"×.250" × 22'-6"	———	———	6.97"×5.40"×.250" × 22'-6"	5.40"×8.79"×.250" × 22'-11"	Median 510.2 Berm 506.2	15
4	℄ EXPRESSWAY STA. 120+50	480	101'-8"	4.1"×5.40"×.250" × 18'-8"	5.40"×6.97"×.250" × 22'-6"	6.97"×7.67"×.250" × 10'-0"	7.67"×6.97"×.250" × 10'-0"	6.97"×5.40"×.250" × 22'-6"	5.40"×4.1"×.250" × 18'-8"	Median 511.3 Berm 514.3	12
6	N.B. EXPRESSWAY STA. 139+48	480	98'-8"	3.5"×5.40"×.250" × 27'-2"	5.40"×6.97"×.250" × 22'-6"	———	———	6.97"×5.40"×.250" × 22'-6"	5.40"×3.5"×.250" × 27'-2"	Median 518.2 Berm 518.2	12
7	S.B. EXPRESSWAY STA. 146+03	480	98'-8"	3.5"×5.40"×.250" × 27'-2"	5.40"×6.97"×.250" × 22'-6"	———	———	6.97"×5.40"×.250" × 22'-6"	5.40"×3.5"×.250" × 27'-2"	Median 519.5 Berm 519.5	12

OVERHEAD SIGN SUPPORTS

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FED. RD. DIVISION	STATE	PROJECT	
2	OHIO		

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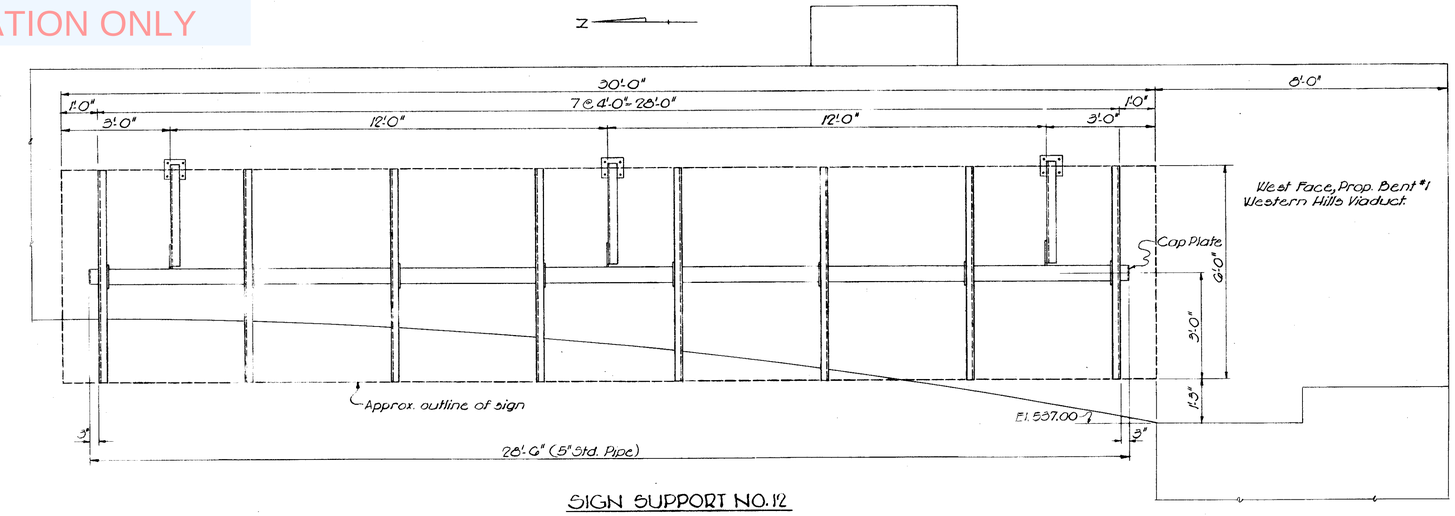
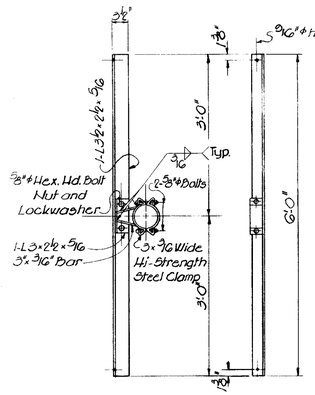
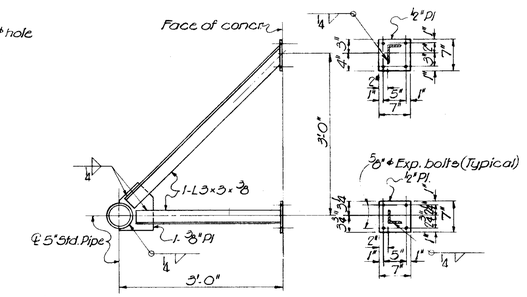


SIGN SUPPORT NO. 12



SIGN BRACKET



SUPPORT BRACKET

NOTE:

1. This sign support to be galvanized after welding in accordance with Sec. M-7.4(d)
2. The cost of providing and installing expansion bolts shall be included in the price bid for this sign support.

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FED. RD. DIVISION	STATE	PROJECT	
2	OHIO		

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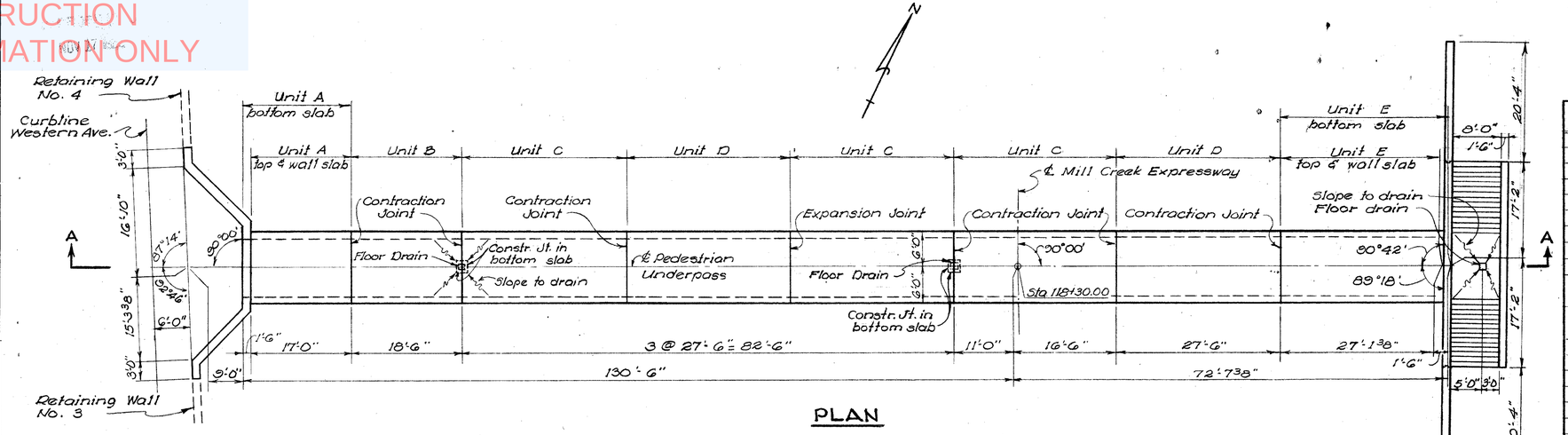
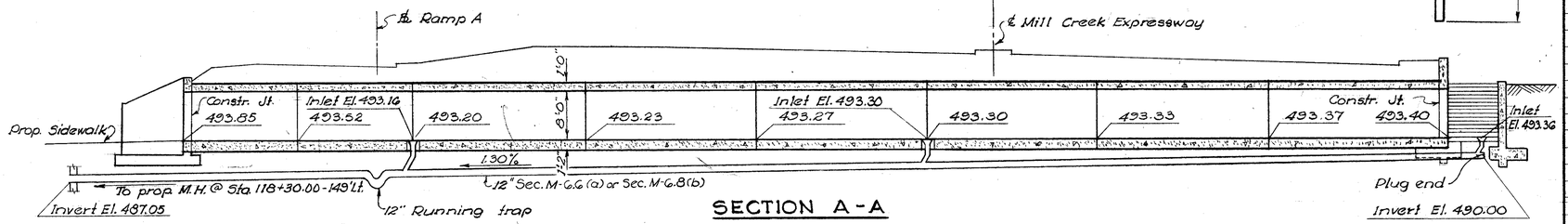


PLAN



SECTION A-A

ESTIMATED QUANTITIES (100% city)

ITEM	UNIT	TOTAL	DESCRIPTION
E-2	Lump Sum	Lump	Cofferdams, cribs and sheeting
E-2	Cu.Yds.	1545	Unclassified Excavation
I-1	Lin.Ft.	227	12" Pipe, Sec. M-6.6 (a) or Sec. M-6.8 (b) Class B-1
I-5	Each	3	6" x 30° Bend, Sec. M-6.6 (a) or Sec. M-6.8 (b) Class B-1
I-5	Each	3	6" x 12" Wye Branch, Sec. M-6.6 (a) or Sec. M-6.8 (b) Class B-1
I-5	Each	1	12" Running Trap, Sec. M-6.6 (a) or Sec. M-6.8 (b) Class B-1
I-13	Sq.Ft.	88	Sidewalk
I-13	Lin.Ft.	232	Concrete Steps
S-1	Cu.Yds.	313	Class "C" Concrete
S-1	Cu.Yds.	130	Class "E" Concrete
S-3	Lin.Ft.	238	Waterproofing, Premolded Sealing Strip
S-4	Lbs.	51,953	Reinforcing Steel
S-9	Sq.Ft.	65	1" Preformed Expansion Joint Filler
S-14	Lin.Ft.	93	Railing, steel pipe, as per plan
S-25	Each	20	Underpass luminaire with 200W. extended service incandescent lamp
S-25	Each	1	30 Amp., 2P.5N fusible switch with weatherproof enclosure
S-25	Each	1	Cast Junction box with weatherproof cover
S-25	Lin.Ft.	7	2" Aluminum conduit, fittings & bushings
S-25	Lin.Ft.	392	¾" Aluminum conduit, fittings & bushings
S-25	Lin.Ft.	825	600V. single conductor #8 AWG luminaire wire
Special	Each	3	Floor drains, as per plan, complete in place
Special	Each	2	Roll type steel doors, complete in place
S-3	Sq.Yd.	4	Type "B" waterproofing

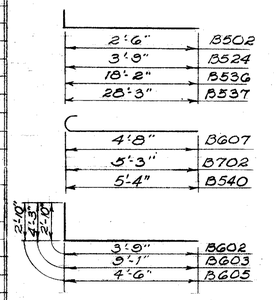
NOTES

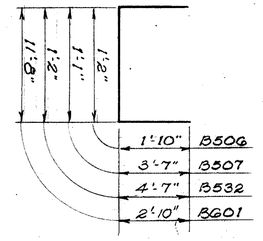
1. DESIGN SPECIFICATIONS: This structure conforms to the requirements of "Design Specifications for Highway Structures" of the State of Ohio, Department of Highways, dated 9-1-57, together with revisions dated 2-21-58.
2. Footing key shall be placed against undisturbed earth.
3. Class "C" Concrete to be used for units A thru E and Class "E" Concrete for portals and portal footings.
4. Designations used are as follows: N.F. = Near Face ; F.F. = Far Face ; E.F. = Each Face .
5. ½" Preformed expansion joint filler shall be included in Item I-13 for payment.
6. Floor drains shall be Neenah R-4954-C or approved equal.
7. Railing and railing posts to be 1½" ϕ steel pipe with welded joints. Railing, railing posts, wall brackets, metal sleeves, welding and concrete grout or molten sulphur to be included with Item S-14 for payment.
8. 3½" ϕ Std. pipe inserts with caps to be included in Item SS-18 for payment.
9. R/W fence included in Roadway Quantities for payment.
10. Provide a crank operated roll type steel door (Kinnear Model FC-20 or equivalent), which can be locked in the open and closed position, at both ends of pedestrian underpass. Each door to be operated from both the inside and outside of underpass. Inside crank to be located in an offset in tunnel wall. When door is in the closed position a 2" opening shall exist along the bottom. This opening can be provided by means of several steel teeth or blocks fastened to the bottom of door. Doors may be installed on outside face of entrance walls.
11. Bar size is indicated in the bar mark. The first digit indicates the bar size number.
12. All dimensions are out to out of bar. The length of bent bars is measured along the centerline.
13. 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 necessary.
14. For lighting details, see Sheet 262 .
15. B.M. #3, Elev. 494.53. Spike in power pole #N7-G75C, N.W. corner York & Western Ave., 208' Lt., Sta. 118+00 Mill Creek Expressway.

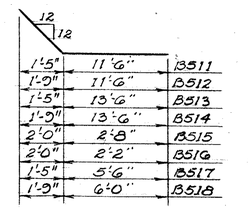
REINFORCING STEEL LIST

MARK	LENGTH	SHAPE	NO.	WEIGHT
B501	27'-2"	Str.	220	6,234
B502	3'-0"	Bt.	284	889
B503	8'-9"	Str.	276	2,519
B504	18'-2"	Str.	82	1,554
B505	28'-3"	Str.	38	1,120
B506	4'-7"	Bt.	10	48
B507	8'-0"	Bt.	30	250
B508	7'-0"	Str.	10	73
B509	Varies, 7'-4" to 11'-6", Incr. 2½"	Str.	1 Series of 21	206
B510	Varies, 7'-4" to 11'-6", Incr. 2"	Str.	1 Series of 26	255
B511	13'-6"	Bt.	6	84
B512	14'-0"	Bt.	6	88
B513	15'-6"	Bt.	6	97
B514	16'-0"	Bt.	6	100
B515	5'-6"	Bt.	10	57
B516	5'-0"	Bt.	10	52
B517	7'-6"	Bt.	2	16
B518	8'-6"	Bt.	2	18
B519	11'-10"	Str.	20	249
B520	4'-0"	Str.	10	42
B521	14'-0"	Str.	5	73
B522	14'-2"	Str.	16	236
B523	7'-7"	Str.	30	237
B524	4'-3"	Bt.	54	239
B525	10'-2"	Str.	19	201
B526	5'-11"	Str.	22	136
B527	5'-8"	Str.	30	177
B528	5'-5"	Str.	12	68
B529	34'-0"	Str.	18	638
B530	22'-8"	Str.	14	331
B531	20'-0"	Str.	26	542
B532	10'-1"	Bt.	10	105
B533	12'-8"	Str.	4	53
B534	10'-10"	Str.	25	282
B535	13'-5"	Str.	18	252
B536	18'-8"	Bt.	6	117
B537	28'-9"	Bt.	6	180
B538	11'-4"	Str.	8	95
B539	9'-10"	Str.	4	41
B540	5'-11"	Bt.	99	611
B541	Varies, 7'-1" to 11'-3", Incr. 10"	Str.	1 Series of 6	57
B542	Varies, 7'-1" to 11'-3", Incr. 12"	Str.	1 Series of 5	48
BG01	17'-0"	Bt.	137	3,498
BG02	6'-5"	Bt.	264	2,544
BG03	13'-2"	Bt.	538	10,640
BG04	7'-0"	Str.	139	1,461
BG05	7'-2"	Bt.	8	86
BG06	13'-9"	Str.	4	83
BG07	5'-4"	Bt.	19	152
BG08	10'-5"	Str.	19	297
B701	10'-6"	Str.	269	5,773
B702	6'-1"	Bt.	28	348
B703	13'-9"	Str.	28	787
B801	10'-6"	Str.	269	7541
B802	13'-9"	Str.	2	73

BENDING DIAGRAMS







REPLACEMENT BARS

MARK	NO.	LENGTH	SHAPE
RE 5	1	5'-7"	Str.
RE 6	1	5'-11"	Str.
RE 7	1	6'-3"	Str.
RE 8	1	6'-6"	Str.

VOGT, IVERS, SEAMAN & ASSOCIATES
ENGINEERS CINCINNATI — ARCHITECTS CHICAGO

PEDESTRIAN UNDERPASS MILL CREEK EXPRESSWAY

HAMILTON COUNTY STA. 118+30.00

DESIGNED	DRAWN	TRACED	CHECKED	REVIEWED	DATE	REVISED
E.P.A.	E.P.A.	D.V.F.	C.E.S.			

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FED. RD. DIVISION	STATE	PROJECT	
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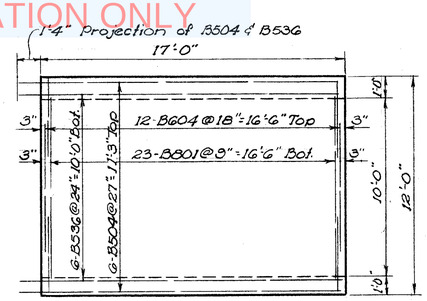
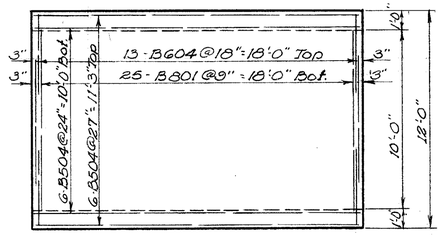


TOP SLAB REINFORCING



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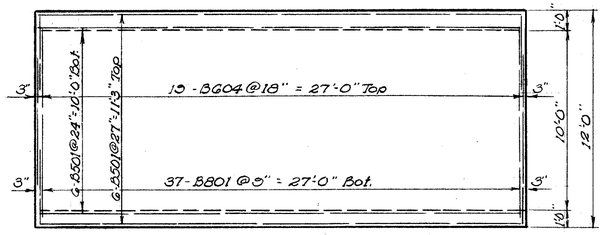
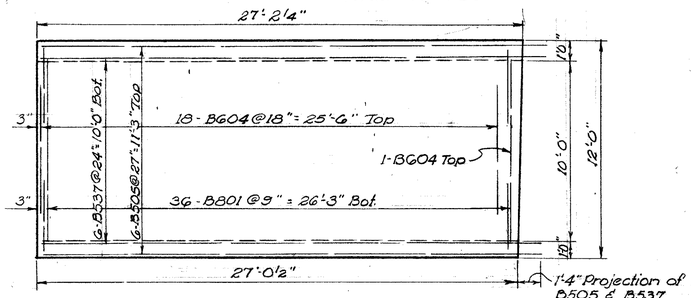
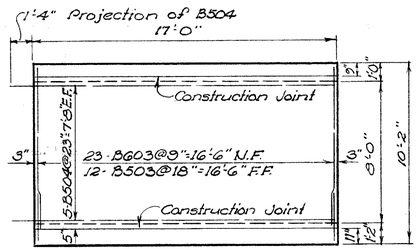


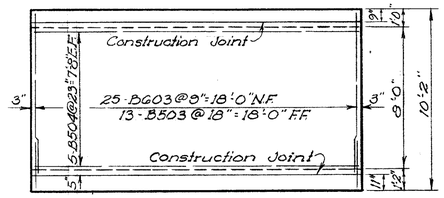
TOP SLAB REINFORCING - UNITS C&D



TOP SLAB REINFORCING



WALL REINFORCING



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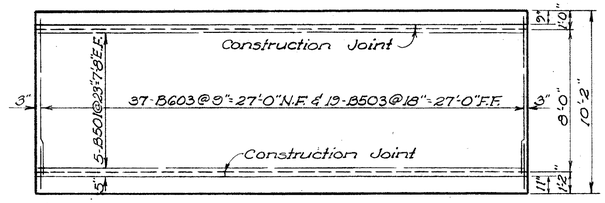
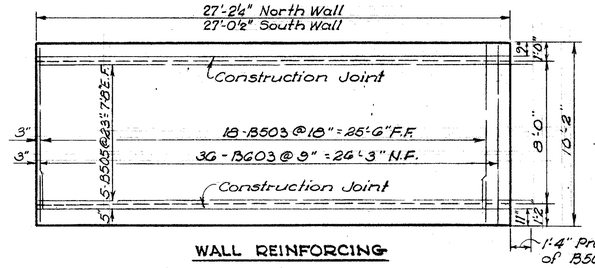


WALL REINFORCING - UNITS C&D



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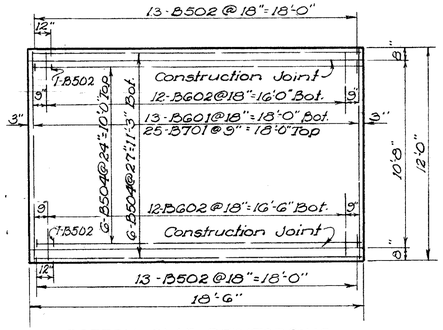
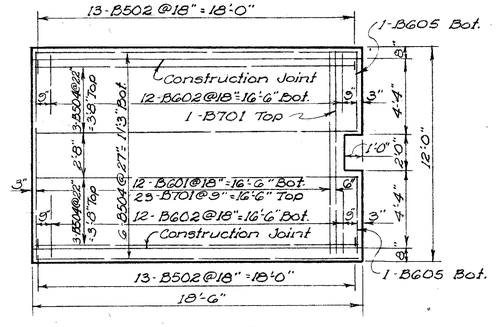


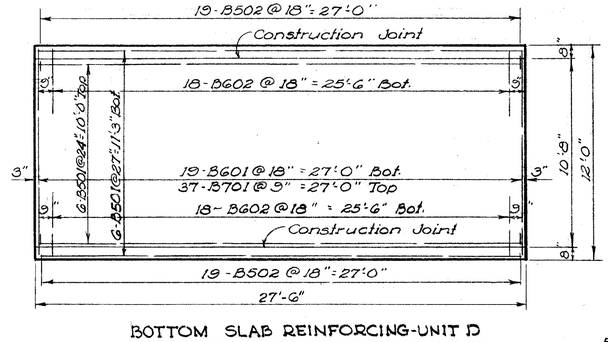
BOTTOM SLAB REINFORCING

UNIT A

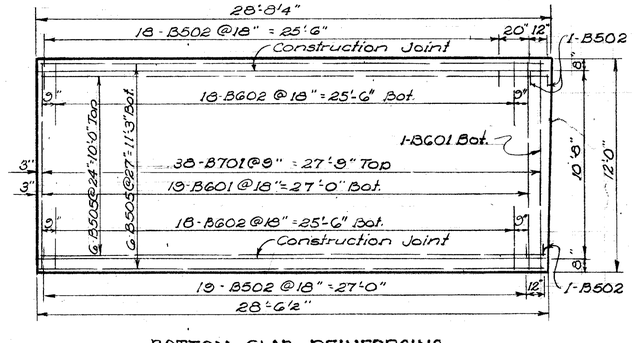


BOTTOM SLAB REINFORCING

UNIT B

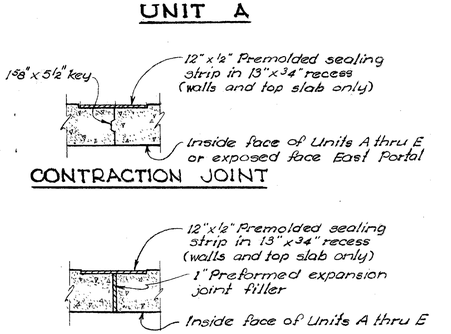


BOTTOM SLAB REINFORCING-UNIT D



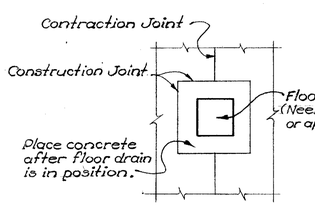
BOTTOM SLAB REINFORCING

UNIT E

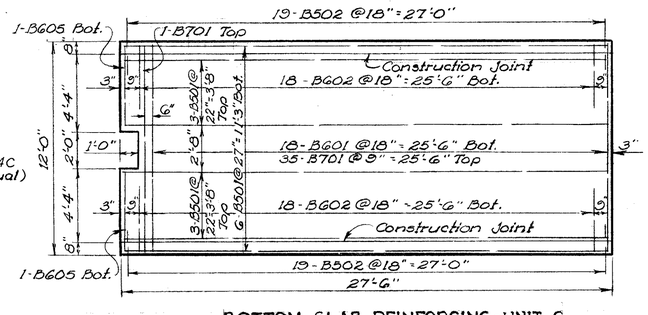


CONTRACTION JOINT

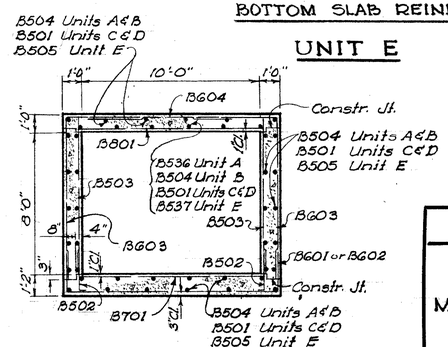
EXPANSION JOINT



FLOOR DRAIN DETAIL



BOTTOM SLAB REINFORCING-UNIT C



TRANSVERSE SECTION
THRU PEDESTRIAN UNDERPASS

VOGT, IVERS, SEAMAN & ASSOCIATES
ENGINEERS — CINCINNATI
ARCHITECTS — CHICAGO

PEDESTRIAN UNDERPASS MILL CREEK EXPRESSWAY

HAMILTON COUNTY STA. 118+30.00

DESIGNED	DRAWN	TRACED	CHECKED	REVIEWED	DATE	REVISED
E.P.A.	E.P.A.	D.Y.F.	C.E.S.			

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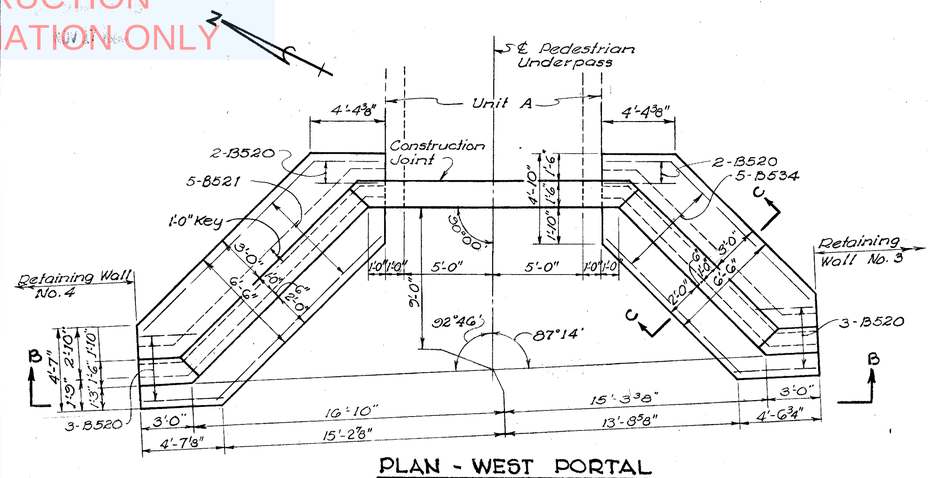
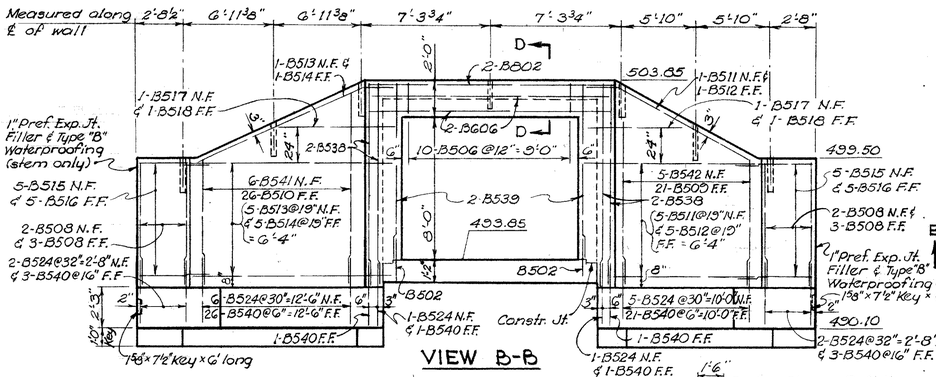


PLAN - WEST PORTAL



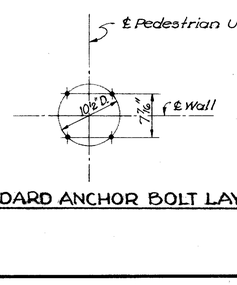
VIEW B-B

SECTION C-C

SECTION D-D

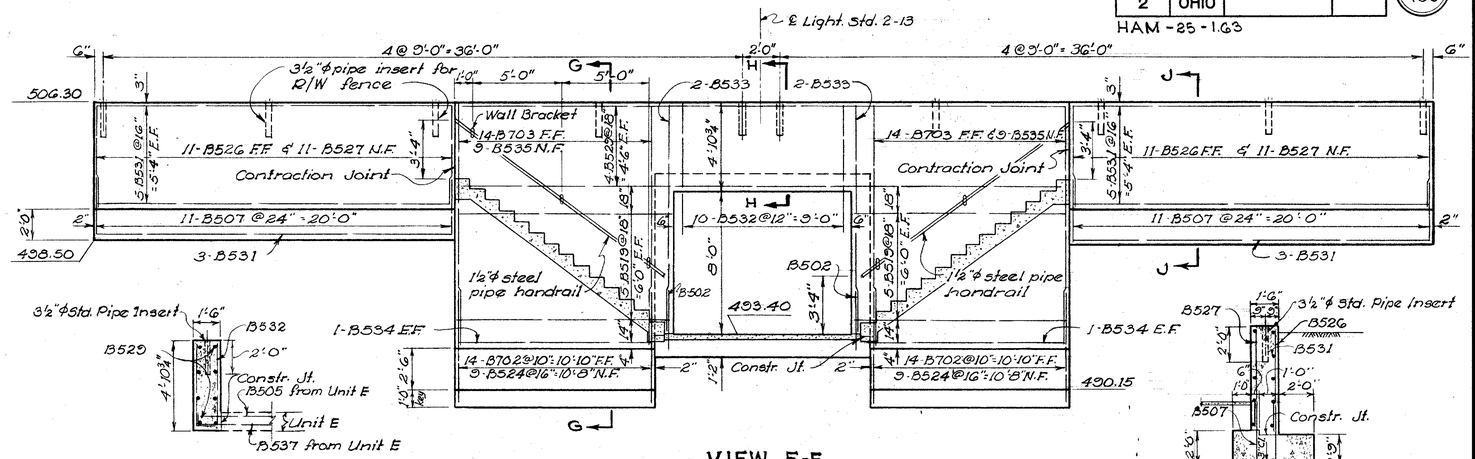
SECTION N-N

SLEEVE DETAIL



Anchor bolts detailed for Union Metal Company Pole No. 440A-T-G-220-F1 and are included with Item S-25 (Lighting) for payment.

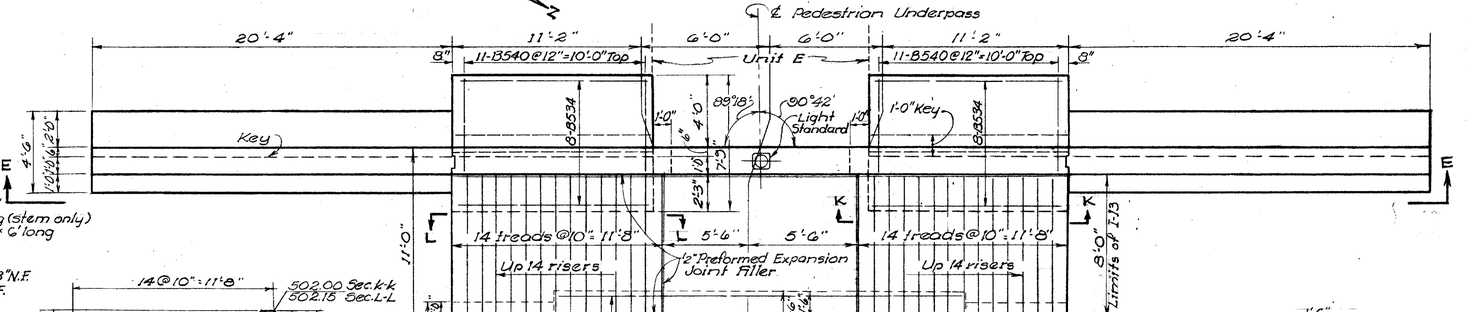
LIGHT STANDARD ANCHOR BOLT LAYOUT



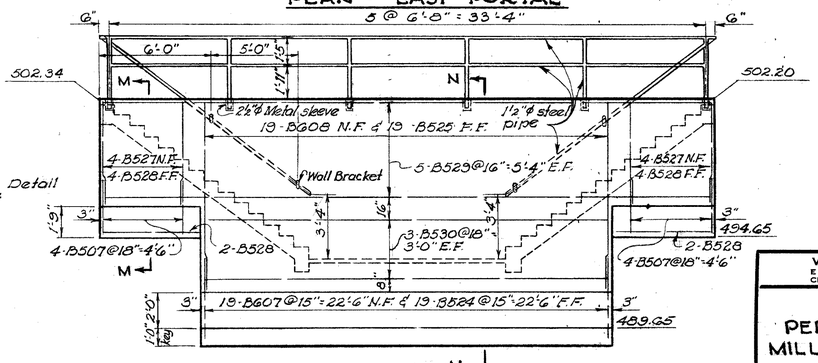
SECTION H-H

VIEW E-E

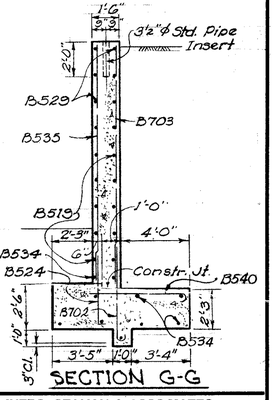
SECTION J-J



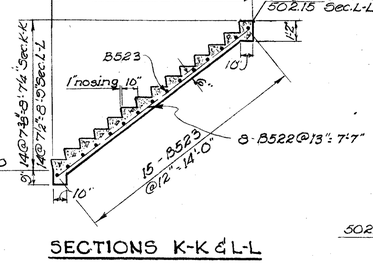
PLAN - EAST PORTAL



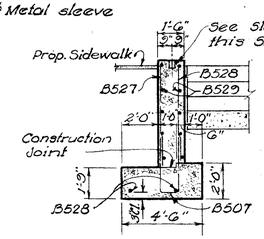
VIEW F-F



SECTION G-G



SECTIONS K-K & L-L



SECTION M-M

VOGT, IVERS, SEAMAN & ASSOCIATES
ENGINEERS CINCINNATI ARCHITECTS CHICAGO

PEDESTRIAN UNDERPASS MILL CREEK EXPRESSWAY

HAMILTON COUNTY STA. 118 + 30.00

DESIGNED	DRAWN	TRACED	CHECKED	REVIEWED	DATE	REVISED
E.P.A.	E.P.A.	D.Y.F.	C.E.S.			

NOT FOR CONSTRUCTION INFORMATION ONLY

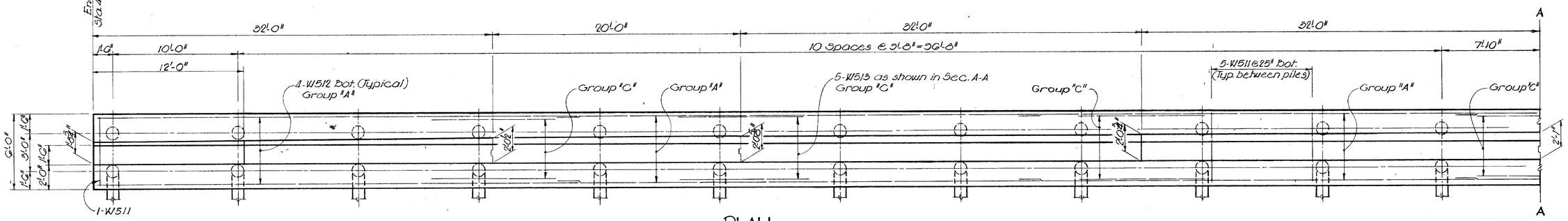
RETAINING WALL PLANS

WALL NO. 1 PLANS

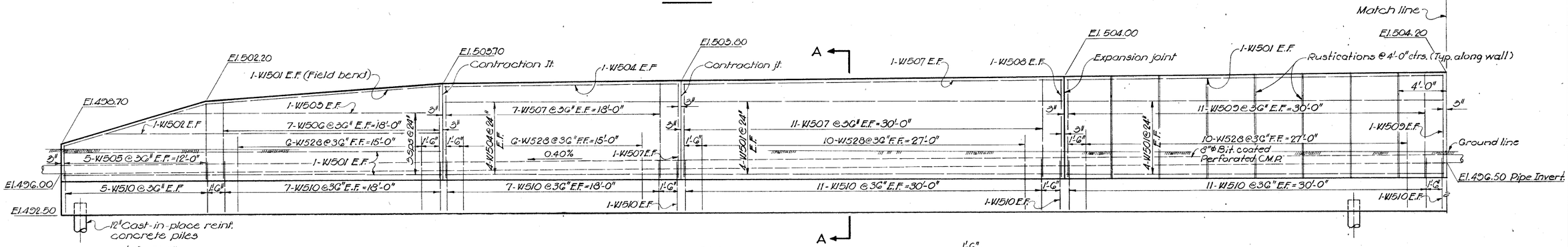
FED. RD. DIVISION	STATE	PROJECT	
2	OHIO		

HAM-25-1.63

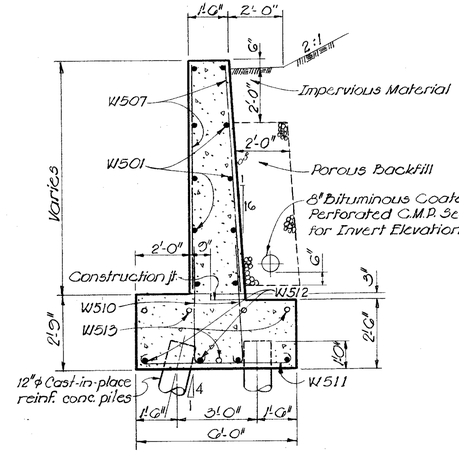
270
486



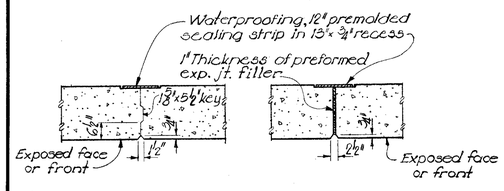
PLAN



ELEVATION



SECTION A-A

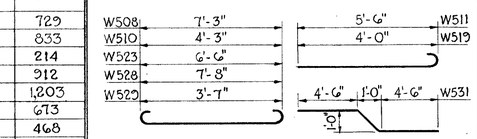


CONTRACTION JOINT EXPANSION JOINT

REINFORCING STEEL LIST

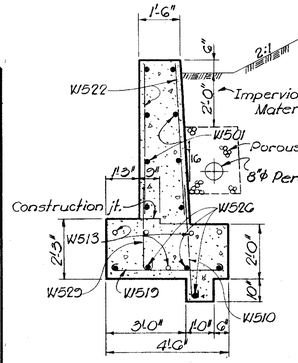
MARK	LENGTH	NO.	SHAPE	WEIGHT
W501	31'-7"	116	Str.	3,811
W502	28'-4"	2	Str.	59
W503	22'-8"	2	Str.	47
W504	19'-8"	10	Str.	205
W505	Varies-2 ea. 3'-3" to 6'-7" Incr. 10"	10	Str.	51
W506	Varies-2 ea. 6'-8" to 8'-2" Incr. 3"	14	Str.	108
W507	8'-3"	85	Str.	729
W508	7'-10"	102	Bt.	833
W509	8'-7"	24	Str.	214
W510	4'-11"	178	Bt.	912
W511	6'-8"	173	Bt.	1,203
W512	40'-4"	16	Str.	673
W513	10'-0"	45	Str.	468
W514	10'-1"	12	Str.	121
W515	10'-3"	12	Str.	128
W516	Varies-4 ea. 3'-5" to 10'-2" Incr. 3"	12	Str.	122
W517	17'-6"	5	Str.	91
W518	Varies-4 ea. 3'-6" to 10'-3" Incr. 3"	12	Str.	123
W519	5'-2	11	Bt.	59
W520	Varies-4 ea. 8'-9" to 9'-6" Incr. 3"	12	Str.	113
W521	Varies-2 ea. 6'-5 1/2" to 8'-9" Incr. 2 1/2"	24	Str.	189
W522	Varies-2 ea. 3'-11" to 6'-2 1/2" Incr. 2 1/2"	24	Str.	125
W523	7'-1"	66	Bt.	487
W524	7'-3"	12	Str.	97
W525	8'-0"	12	Str.	100

MARK	LENGTH	NO	SHAPE	WEIGHT
W526	33'-10"	17	Str.	600
W527	28'-8"	12	Str.	358
W528	8'-3"	32	Bt.	275
W529	4'-2"	18	Bt.	78
W530	Varies-3 ea. 9'-4" to 10'-2" Incr. 2 1/2"	15	Str.	152
W531	10'-7"	10	Bt.	110

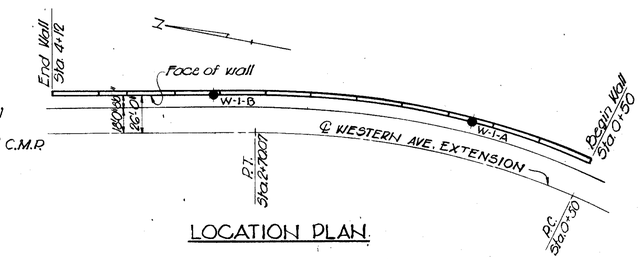


ESTIMATED QUANTITIES

ITEM	UNIT	DESCRIPTION	TOTAL
E-2	Cu.Yds.	Unclassified excavation	583
S-1	Cu.Yds.	Class "E" concrete	427
S-3	Lin.Ft.	Premolded sealing strip	105
S-4	Lbs.	Reinforcing steel	12,641
S-9	Sq. Ft.	1" Preformed expansion joint filler	54
S-18	Lin.Ft.	12" ϕ Cast-in-place reinf. concrete piles	2720
S-29	Cu.Yds.	Porous backfill	180
S-29	Lin.Ft.	8" Perforated bituminous coated C.M.P.	364
S-16	LumpSum	First test pile	Lump



SECTION B-B



LOCATION PLAN

NOTES:

1. 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 dated 2-21-58.
2. First digit of the bar mark indicates the bar size number.
3. N.F. denotes Near Face, F.F. denotes Far Face, Each Face
4. Footing key shall be placed against undisturbed earth.
5. For rustication detail, see Sheet 273.
6. Estimated average pile pay length = 40 Ft.
7. For boring, see Sheet 285.
8. Piles shall be driven to a capacity of 30 tons per pile.
9. All dimensions along curved portion are measured at front face of wall.
10. ● Symbol denotes boring location
11. Max. ftg. brg. pressure = 1.2 Tons/sq. ft.

VOGT, IVERS, SEAMAN & ASSOCIATES
ENGINEERS CINCINNATI ARCHITECTS CHICAGO

WALL NO. 1

MILLCREEK EXPRESSWAY

HAMILTON COUNTY

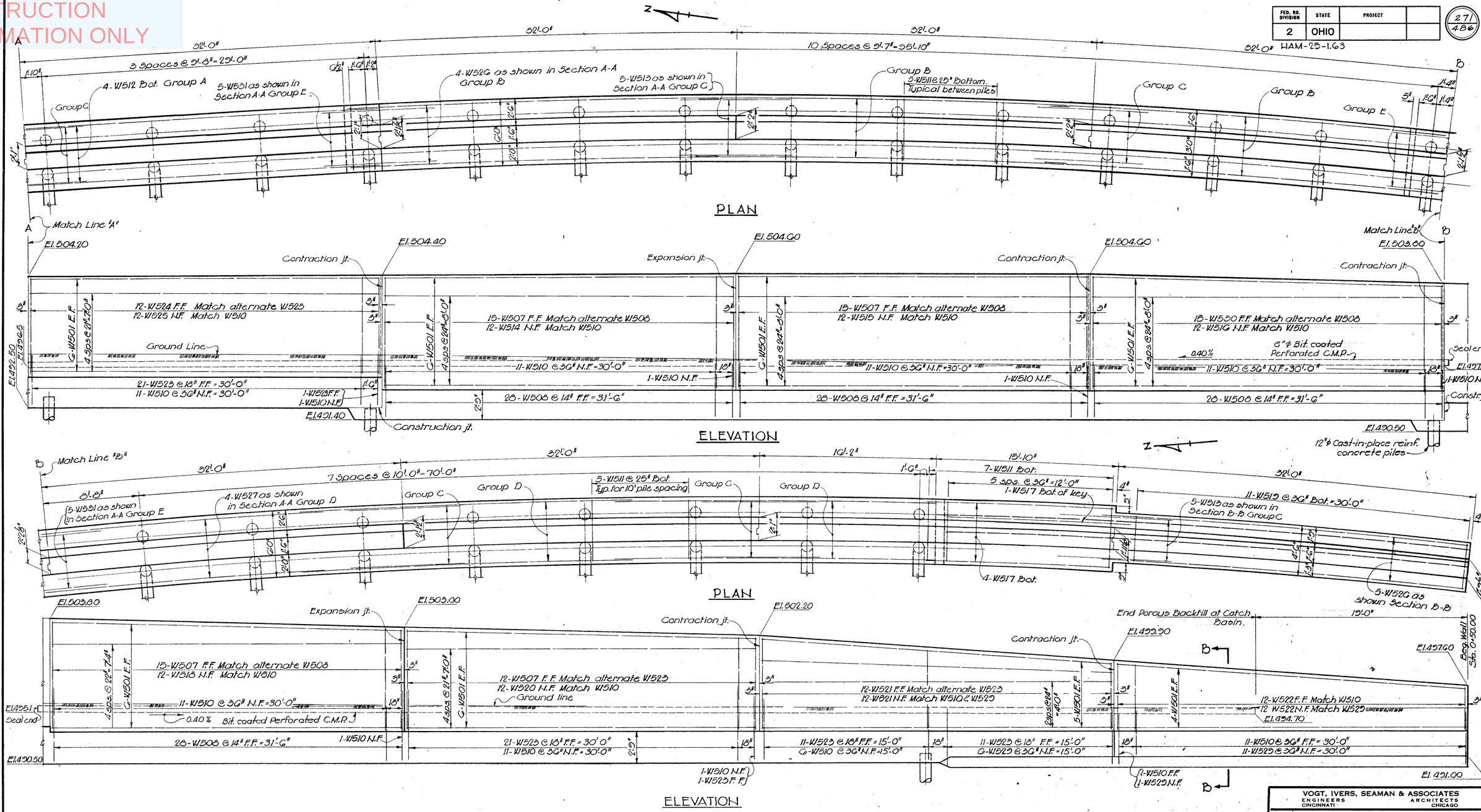
DESIGNED	DRAWN	TRACED	CHECKED	REVIEWED	DATE	REVISED
G.J.C.	S.J.C.	S.T.	J.E.P.			

NOT FOR CONSTRUCTION INFORMATION ONLY

FED. RD. DIVISION	STATE	PROJECT	
2	OHIO		

271
486

HAM-25-1.63



NOTE:
1. For Section B-B, see Sheet 270.

VOGT, IVERS, SEAMAN & ASSOCIATES
ENGINEERS CINCINNATI
ARCHITECTS CHICAGO

WALL NO. 1.
MILLCREEK EXPRESSWAY

HAMILTON COUNTY

DESIGNED	DRAWN	TRACED	CHECKED	REVIEWED	DATE	REVISED
G.J.C.	G.J.C.	S.T.	J.E.P.			

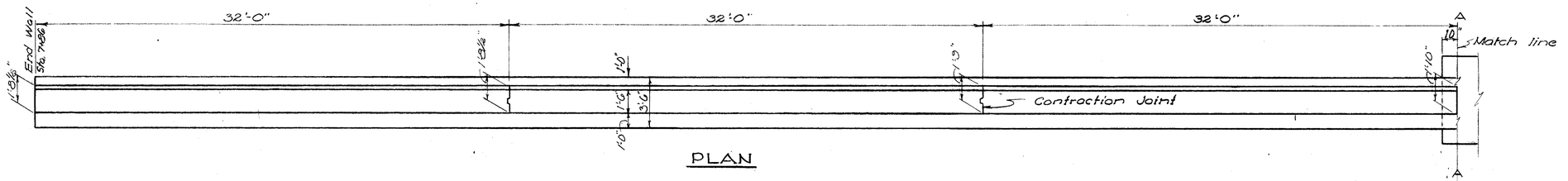
NOT FOR CONSTRUCTION INFORMATION ONLY

FED. RD. DIVISION	STATE	PROJECT	
2	OHIO		

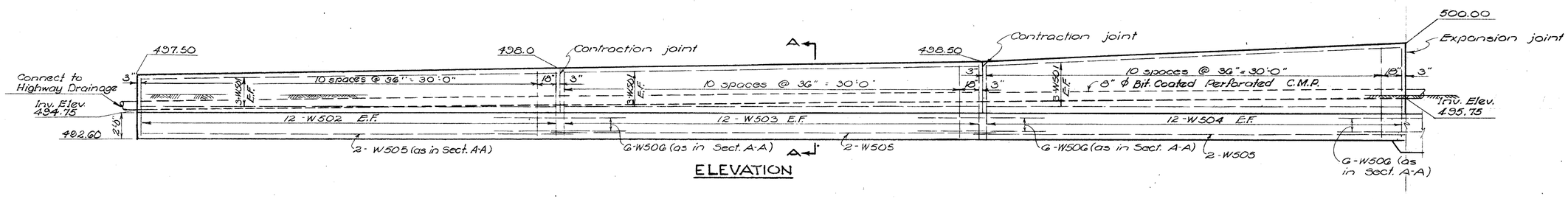
HAM - 25 - 1.63

272
486

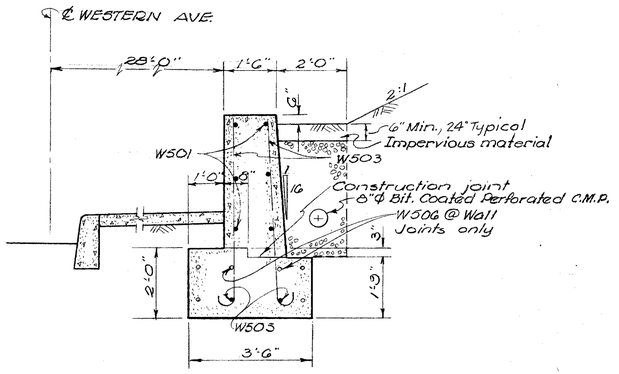
WALL NO. 2 PLANS



PLAN



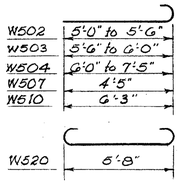
ELEVATION



SECTION A-A

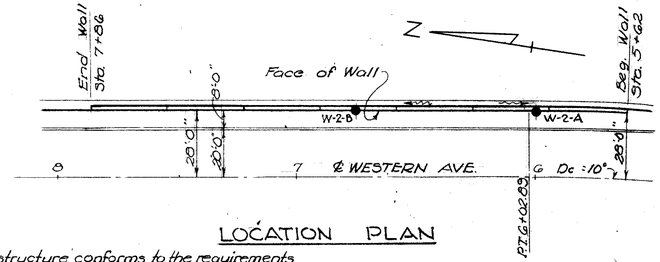
REINFORCING STEEL LIST

MARK	LENGTH	NUMBER	SHAPE	WEIGHT
W501	31'-7"	50	Str.	1647
W502	Varies-Geo. 5'0" to 5'6" Incr. 2"	24	Bt.	131
W503	Varies-Geo. 5'6" to 6'0" Incr. 2"	24	Bt.	144
W504	Varies-12eo. 6'0" to 7'5" Incr. 1½"	24	Bt.	168
W505	32'11"	6	Str.	206
W506	10'0"	30	Str.	313
W507	4'11"	93	Bt.	477
W508	Varies 2eo. 5'0½" to 7'4" Incr. 2½"	24	Str.	155
W509	Varies 2eo. 7'3½" to 8'7" Incr. 2½"	24	Str.	211
W510	6'9"	54	Bt.	380
W511	Varies 1eo 9'7" to 11'6" Incr. 2½"	11	Str.	122
W512	10'0"	17	Str.	177
W513	Varies 1eo. 5'0" to 7'6" Incr. 4½"	8	Str.	52
W514	Varies 1eo. 8'7" to 11'1" Incr. 4½"	8	Str.	82
W515	Varies 2eo. 4'1" to 8'1" Incr. 12"	10	Str.	63
W516	33'7"	6	Str.	210
W517	27'0"	2	Str.	56
W518	21'0"	2	Str.	44
W519	11'1"	1	Str.	12
W520	6'8"	65	Bt.	452
W521	33'9"	16	Str.	563



ESTIMATED QUANTITIES

ITEM	UNIT	DESCRIPTION	TOTAL
E-2	Cu.Yds.	Unclassified excavation	330
S-1	Cu.Yds	Class "E" concrete	196
S-3	Lin.Ft.	Waterproofing-Premolded sealing strip	43
S-4	Lbs.	Reinforcing steel	5665
S-9	Sq. Ft.	1" Preformed expansion joint filler	10
S-16	Lump	First test pile	Lump
S-18	Lin.Ft.	12" Cast-in-place reinforced conc. piles	1160
S-29	Cu.Yds.	Porous backfill	75
S-29	Lin.Ft.	8" Perforated bit. coated corrugated metal pipe including specials	226



LOCATION PLAN

NOTES:

1. 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 dated 2-21-58.
2. First digit of the bar mark indicates the bar size number.
3. N.F. denotes Near Face, F.F. denotes Far Face, F.F. denotes Far Face.
4. Piles shall be driven to a capacity of 30 tons per pile.
5. For rustication detail, expansion and contraction joint details, see Sheet 273.
6. Estimated average pile pay length = 40 ft.
7. ● Symbol denotes boring location
8. Max. Alg. brg. pressure = 1.0 Tons/sq. ft.

VOGT, IVERS, SEAMAN & ASSOCIATES
ENGINEERS CINCINNATI — ARCHITECTS CHICAGO

WALL NO. 2

MILLCREEK EXPRESSWAY

HAMILTON COUNTY

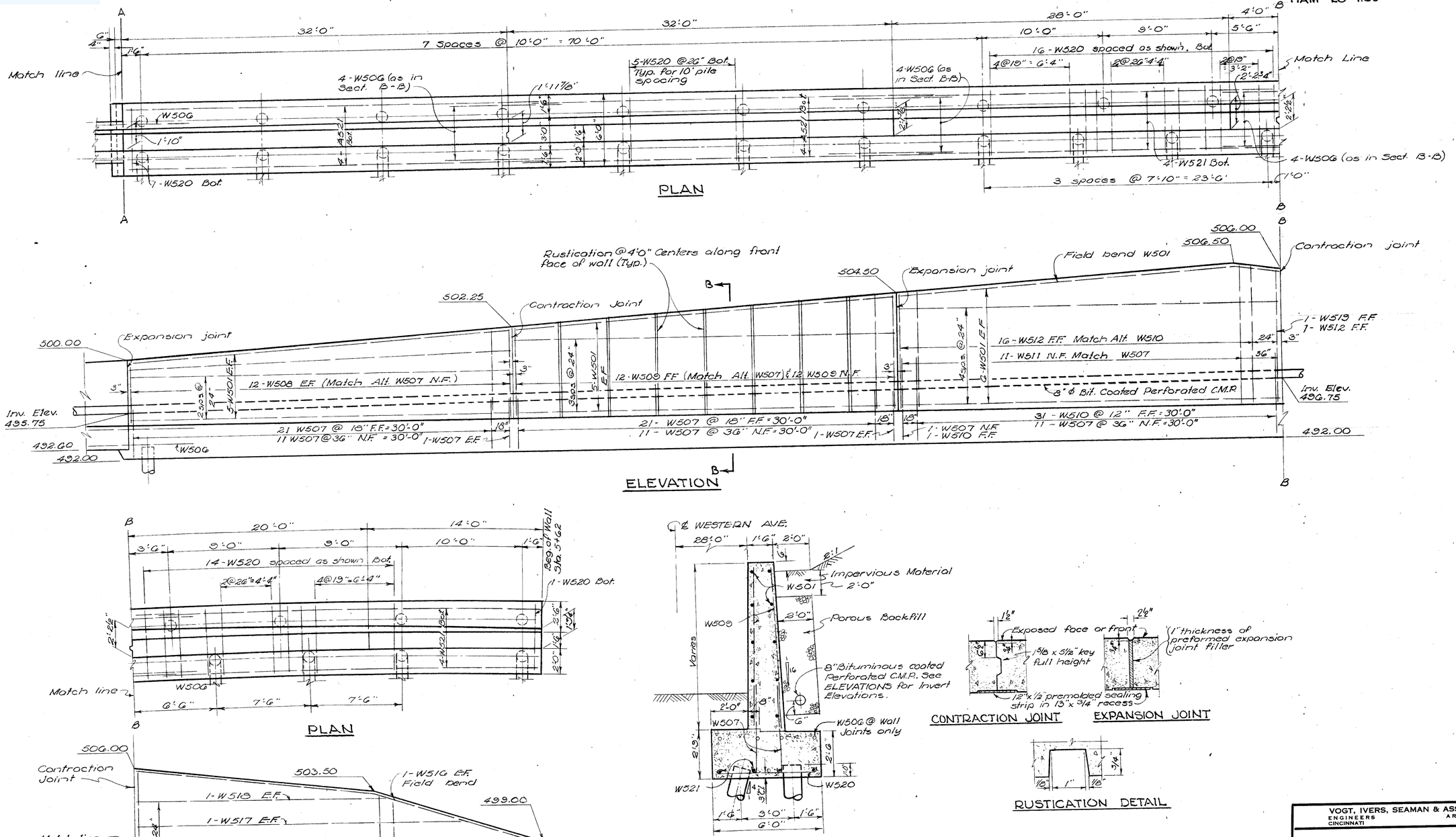
DESIGNED	DRAWN	TRACED	CHECKED	REVIEWED	DATE	REVISED
G.J.C.	G.J.C.	D.Y.F.	A.R.N.			

NOT FOR CONSTRUCTION INFORMATION ONLY

FED. RD. DIVISION	STATE	PROJECT	
2	OHIO		

HAM-25-1.63

273
486



VOGT, IVERS, SEAMAN & ASSOCIATES
ENGINEERS CINCINNATI — ARCHITECTS CHICAGO

WALL NO. 2

MILLCREEK EXPRESSWAY

HAMILTON COUNTY

DESIGNED	DRAWN	TRACED	CHECKED	REVIEWED	DATE	REVISED
G.J.C.	G.J.C.	D.Y.F.	AAN			

NOT FOR CONSTRUCTION INFORMATION ONLY

FED. RD. DIVISION	STATE	PROJECT	
2	OHIO		

274 / 486

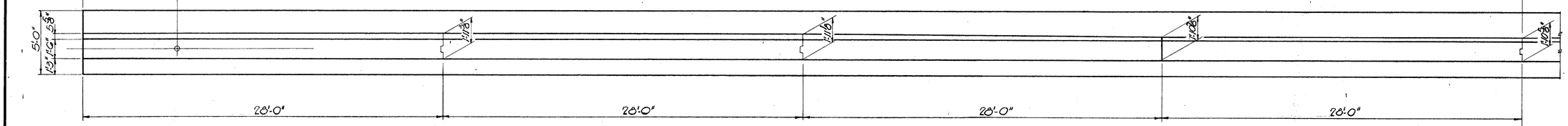
HAM-25-1.03

WALL NO. 3 PLANS

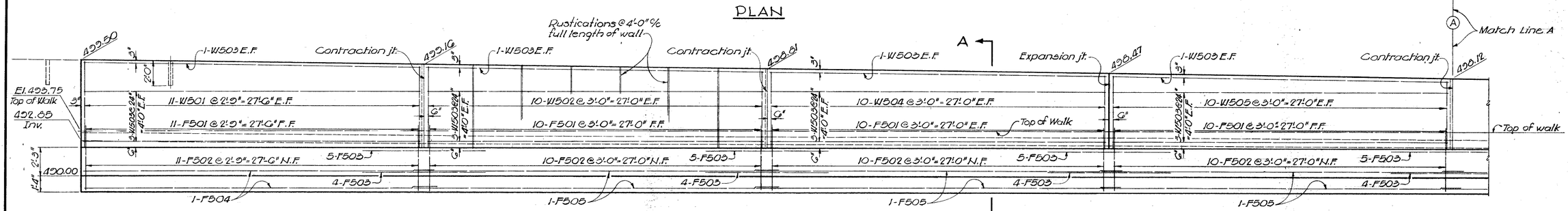
Pedestrian Underpass See Sheet 269

7'-4"

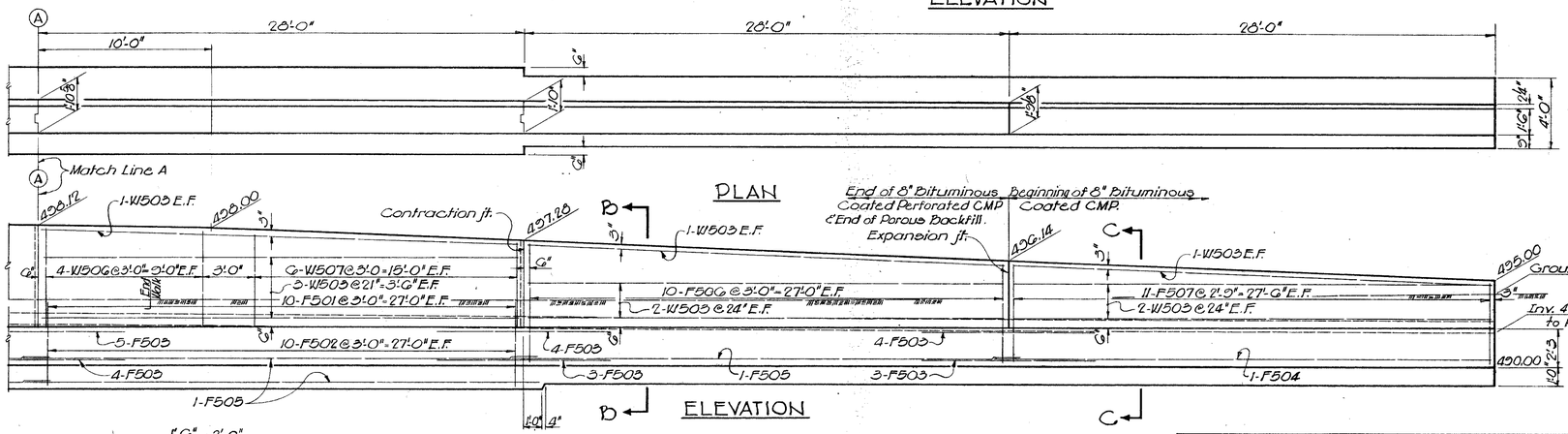
3½"ϕ x 2'-0" Std. pipe insert (with cap) for Type "C" Fence post. Space @ 10'-0" c/c (Include with class "E" concrete for payment)



PLAN

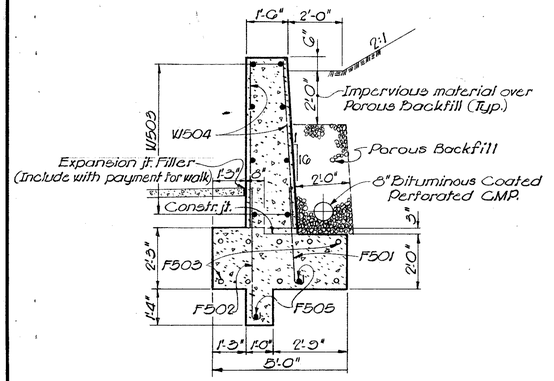


ELEVATION

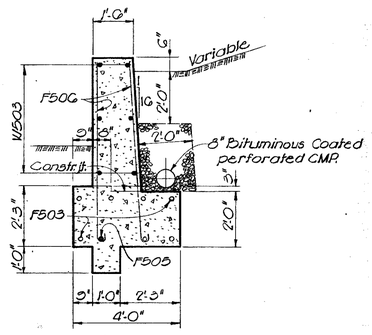


PLAN

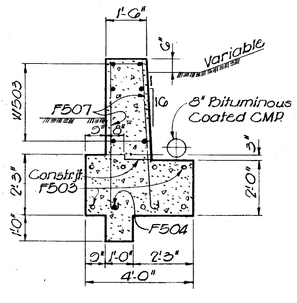
ELEVATION



SECTION A-A



SECTION B-B



SECTION C-C

ESTIMATED QUANTITIES

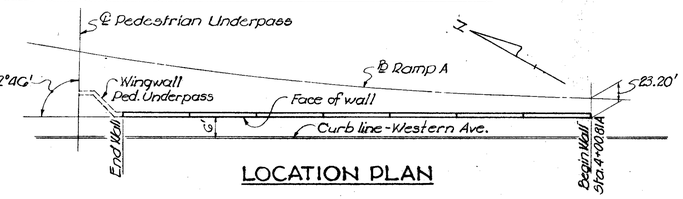
ITEM	DESCRIPTION	UNIT	TOTAL
E-2	Unclassified excavation	Cu. Yd.	1G4
S-1	Class "E" concrete	Cu. Yd.	152
S-3	Premolded Sealing Strip	Lin. Ft.	44
S-4	Reinforcing Steel	Lbs.	3875
S-5	1" Preformed Expansion Jt. Filler	Sq. Ft.	31
S-29	Porous Backfill	Cu. Yd.	47
S-29	6" Perforated bit. coated CMP (M-G4f)	Lin. Ft.	1G8
S-29	8" Bit. coated CMP (M-G4c)	Lin. Ft.	28

REINFORCING STEEL LIST

MARK	NO.	LENGTH	WEIGHT	SHAPE
F501	51	4'-2"	222	Bt.
F502	51	5'-6"	293	Bt.
F503	50	10'-0"	522	Str.
F504	2	28'-8"	30	Str.
F505	9	29'-7"	278	Str.
F506	2 Series of 10	Varies 6'-3½" to 7'-5" Incr. 1½"	143	Bt.
F507	2 Series of 11	Varies 5'-1" to 6'-2¾" Incr. 1⅜"	130	Bt.
W501	2 Series of 11	Varies 6'-5" to 7'-0¾" Incr. 3"	158	Str.
W502	2 Series of 10	Varies 6'-4" to 6'-6½" Incr. 1½"	180	Str.
W503	52	27'-3"	1501	Str.
W504	2 Series of 10	Varies 6'-0" to 6'-4½" Incr. 1½"	129	Str.
W505	2 Series of 10	Varies 5'-8½" to 6'-0½" Incr. 1½"	122	Str.
W506G	2 Series of 4	Varies 5'-6½" to 5'-8" Incr. 1½"	47	Str.
W507	2 Series of 6	Varies 4'-10" to 5'-5½" Incr. 1½"	64	Str.

F501	3'-7"
F502	4'-11"
F506	5'-8½" to 6'-6" to 7'-10" Incr. 1½"
F507	4'-6" to 5'-7¾" Incr. 1⅜"

1. Design Specification: 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 dated 2-21-58.
2. Foundation Bearing Pressure: Wall footings are designed for a maximum bearing pressure of 0.9 tons per sq. ft.
3. First digit of the bar mark indicates the bar size number:
4. N.F. denotes Near Face, F.F. denotes Far Face, E.F. denotes Each Face
5. For expansion & contraction joint details, see Sheet 273.
6. For rustication detail, see Sheet 273.
7. Footing key to be placed against undisturbed earth.



LOCATION PLAN

VOGT, IVERS, SEAMAN & ASSOCIATES
ENGINEERS CINCINNATI — ARCHITECTS CHICAGO

WALL NO. 3.

MILL CREEK EXPRESSWAY

HAMILTON COUNTY

DESIGNED	DRAWN	TRACED	CHECKED	REVIEWED	DATE	REVISED
S.T.	S.T.	~	J.E.P.			

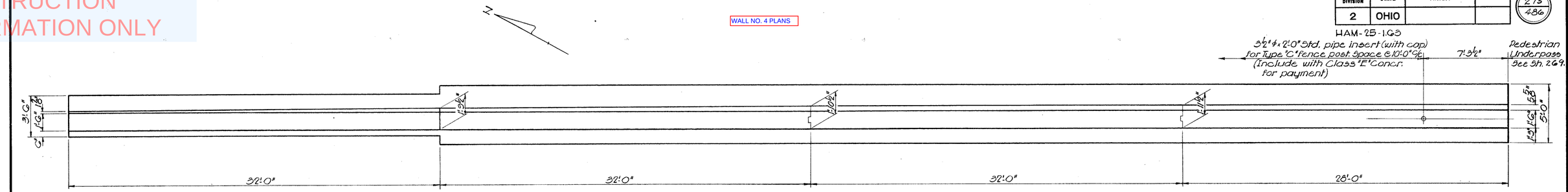
NOT FOR CONSTRUCTION INFORMATION ONLY

WALL NO. 4 PLANS

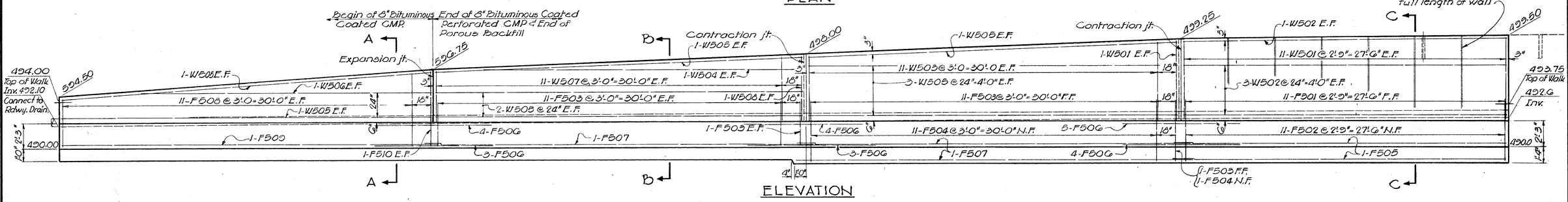
FED. RD. DIVISION	STATE	PROJECT	
2	OHIO		

275 / 486

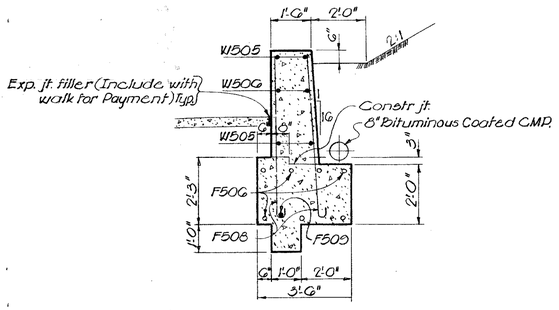
HAM-25-1.63



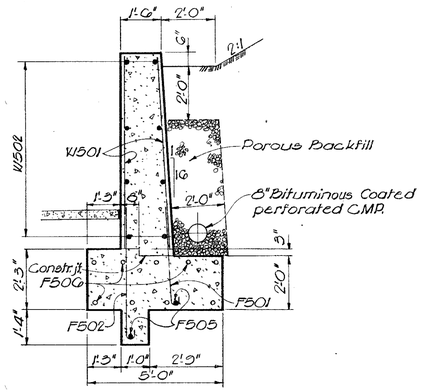
PLAN



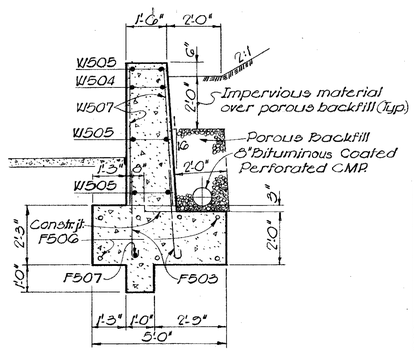
ELEVATION



SECTION A-A



SECTION C-C



SECTION B-B

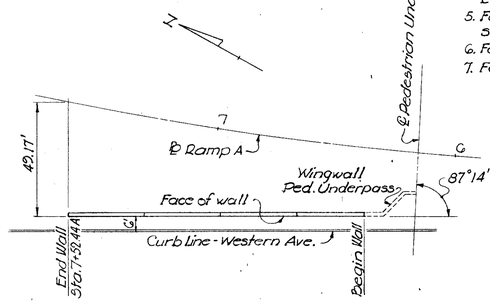
REINFORCING STEEL LIST

MARK	NO.	LENGTH	WEIGHT	SHAPE
F501	11	4'-5"	51	Bt.
F502	11	5'-5"	66	Bt.
F503	36	4'-2"	156	Bt.
F504	12	5'-6"	69	Bt.
F505	2	28'-8"	60	Str.
F506	23	10'-0"	240	Str.
F507	3	38'-7"	105	Str.
F508	2 Series of 11	Varies 4'-8" to 6'-9" Incr. 2½"	128	Bt.
F509	1	32'-8"	34	Str.
F510	2	6'-10"	14	Bt.
W501	24	6'-10"	171	Str.
W502	8	27'-8"	231	Str.
W503	2 Series of 11	Varies 5'-6" to 6'-9" Incr. 1½"	141	Str.
W504	2	28'-6"	53	Str.
W505	18	31'-8"	595	Str.
W506	2	24'-7"	51	Str.
W507	2 Series of 11	Varies 4'-3" to 5'-6" Incr. 1½"	112	Str.
W508	2	5'-7"	12	Str.

F501	3'-10"
F502	5'-2"
F503	3'-7"
F504	4'-11"
F508	4'-1" to 6'-2" Incr. 2'-0"
F510	6'-3"

ESTIMATED QUANTITIES

ITEM	DESCRIPTION	UNIT	TOTAL
E-2	Unclassified excavation	Cu. Yd	126
5-1	Class "E" concrete	Cu. Yd	94
5-3	Premolded Sealing Strip	Lin. Ft.	26
5-4	Reinforcing Steel	Lbs.	2260
5-9	1" Preformed Expansion Jt. Filler.	Sq. Ft.	21
5-29	Porous Backfill	Cu. Yd.	30
5-29	8" Perforated bit. coated CMP. (M-6.4 f)	Lin. Ft.	92
5-29	8" Bit coated CMP. (M-6.4 c)	Lin. Ft.	32



LOCATION PLAN

NOTE

1. Design Specification: 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 dated 2-21-58.
2. Foundation Bearing Pressure: Wall footings are designed for a maximum bearing pressure of 0.3 tons per sq. ft.
3. First digit of the bar mark indicates the bar size number.
4. N.F. denotes Near Face, F.F. denotes Far Face, E.F. denotes Each Face.
5. For expansion & contraction joint details, see Sheet 273.
6. For rustication detail, see sheet 273.
7. Footing key to be placed against undisturbed earth.

VOGT, IVERS, SEAMAN & ASSOCIATES
ENGINEERS · ARCHITECTS
CINCINNATI · CHICAGO

WALL NO. 4.

MILL CREEK EXPRESSWAY

HAMILTON COUNTY

DESIGNED	DRAWN	TRACED	CHECKED	REVIEWED	DATE	REVISED
S.T.	S.T.	~	J.E.P.			

NOT FOR CONSTRUCTION INFORMATION ONLY

FED. RD. DIVISION	STATE	PROJECT	
2	OHIO		

HAM-25-1.63

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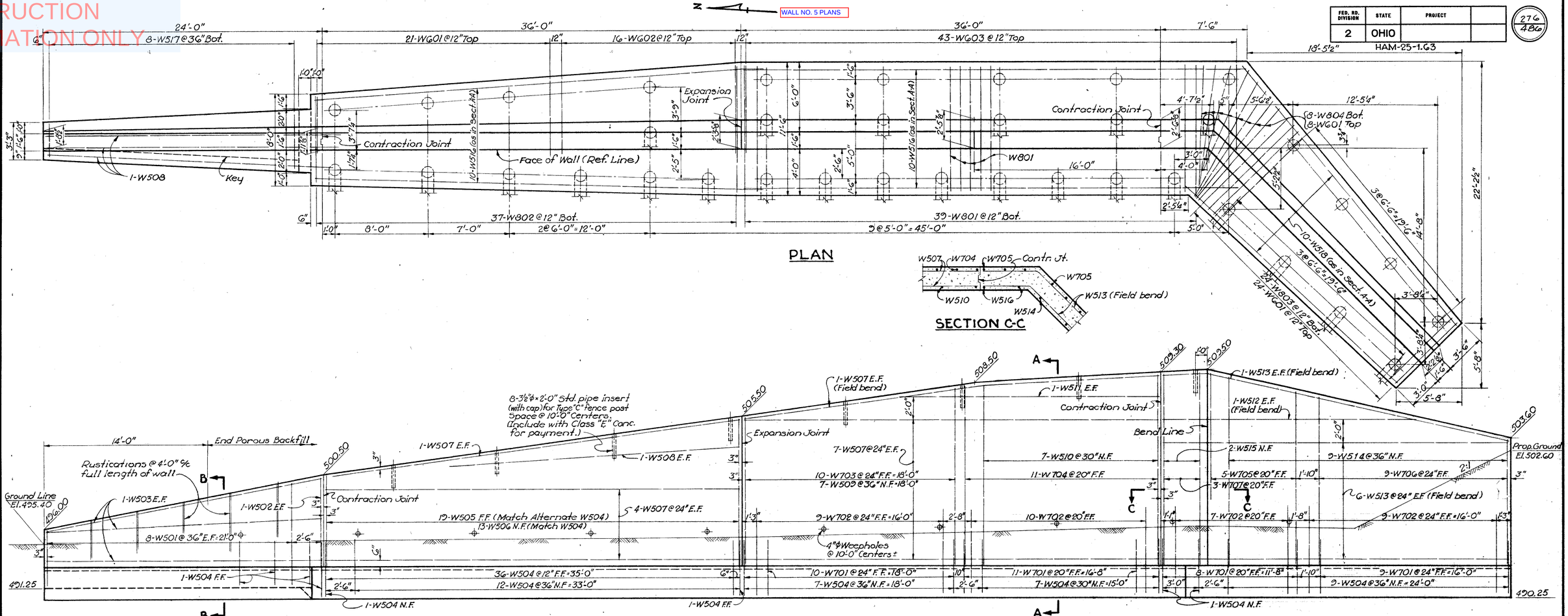
WALL NO. 5 PLANS



PLAN

SECTION C-C

DEVELOPED ELEVATION

REINFORCING STEEL LIST

MARK	NO.	LENGTH	SHAPE	WEIGHT
W501	2 Series of 8	Varies 4'-11" to 9'-0" Incr. 1"	Bt.	116
W502	2	10'-6"	Bt.	22
W503	6	23'-8"	Str.	148
W504	79	4'-8"	Bt.	385
W505	1 Series of 19	Varies 7'-6" to 12'-7" Incr. 3⅜"	Str.	199
W506	1 Series of 13	Varies 7'-4" to 12'-4" Incr. 5"	Str.	133
W507	26	35'-8"	Str.	967
W508	5	25'-0"	Str.	130
W509	1 Series of 7	Varies 12'-2" to 15'-2" Incr. 6"	Str.	99
W510	1 Series of 7	Varies 15'-2" to 16'-2" Incr. 2"	Str.	114
W511	2	21'-0"	Str.	44
W512	2	22'-0"	Str.	46
W513	14	30'-0"	Str.	438
W514	1 Series of 9	Varies 10'-5" to 15'-11" Incr. 8¼"	Str.	124
W515	2	16'-2"	Str.	34
W516	20	40'-6"	Str.	845
W517	8	3'-6"	Bt.	29
W518	10	28'-6"	Str.	297

MARK	NO.	LENGTH	SHAPE	WEIGHT
WG01	53	7'-4"	Bt.	583
WG02	16	7'-8"	Bt.	184
WG03	43	6'-2"	Bt.	527
W701	38	5'-4"	Bt.	414
W702	35	9'-1"	Bt.	649
W703	1 Series of 7	Varies 12'-5" to 15'-5" Incr. 6"	Str.	199
W704	1 Series of 11	Varies 15'-7" to 16'-5" Incr. 1"	Str.	360
W705	1 Series of 5	Varies 14'-8" to 16'-6" Incr. 5½"	Str.	159
W706	1 Series of 9	Varies 10'-8" to 14'-4" Incr. 5½"	Str.	230
W707	3	16'-5"	Str.	101
W801	39	13'-2"	Bt.	1,371
W802	1 Series of 37	Varies 9'-5" to 13'-2" Incr. 1¼"	Bt.	1,115
W803	1 Series of 24	Varies 9'-8" to 12'-9" Incr. 1⅝"	Bt.	718
W804	8	12'-8"	Bt.	270

11'-0"	W801	2'-9"	W517
7'-3" to 11'-0"	W802	4'-1"	W701
7'-6" to 10'-7"	W803	7'-10"	W702
10'-6"	W804		

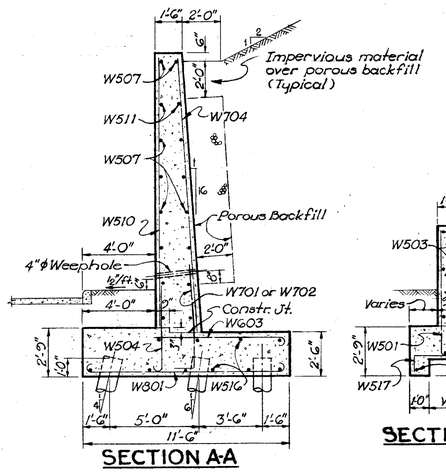
4'-4" to 8'-5" W501
9'-11" W502
4'-1" W504
6'-6" W601
7'-0" W602
7'-6" W603

ESTIMATED QUANTITIES

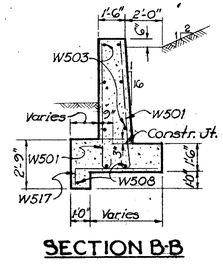
ITEM	DESCRIPTION	UNIT	TOTAL
E-2	Unclassified Excavation	Cu.Yds.	300
S-1	Class "E" Concrete	Cu.Yds.	217
S-3	Premolded Sealing Strip	Lin.Ft.	37
S-4	Reinforcing Steel	Lbs.	11,050
S-9	1" Preformed Expansion Jt. Filler	Sq.Ft.	25
S-23	Porous Backfill	Cu.Yds.	63
S-18	12"ø Cast-in-place Reinf. Conc. Piles	Lin.Ft.	1,850
S-16	First Test Pile	Lump	Lump

NOTES

1. 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 dated 2-21-58.
2. Piles shall be driven to bearing capacity of 40 Tons.
3. E.F. denotes each face; N.F. denotes near face; F.F. denotes far face.
4. First digit of bar mark indicates the bar size number.
5. For contraction and expansion joint details, see Sheet 273.
6. For rustication detail, see Sheet 273.
7. ● Symbol denotes boring location, see Sheet 286.
8. Footing key to be placed against undisturbed earth.
9. Est. Aver. Pay Length for Piles - 50'
10. Max. ftg. brg. pressure = 1.2 Tons/sq. ft.



SECTION A-A



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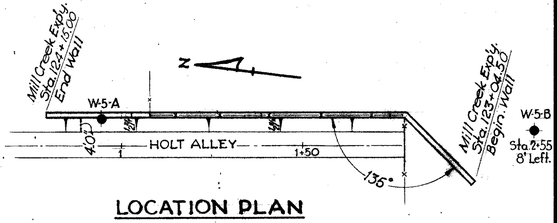

LOCATION PLAN

VOGT, IVERS, SEAMAN & ASSOCIATES
ENGINEERS — CINCINNATI
ARCHITECTS — CHICAGO

WALL NO. 5
MILL CREEK EXPRESSWAY

HAMILTON COUNTY

DESIGNED	DRAWN	TRACED	CHECKED	REVIEWED	DATE	REVISED
A.A.N.	J.C.H.	~	J.E.P.			

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WALL NO. 6 PLANS

FED. RD. DIVISION	STATE	PROJECT	
2	OHIO		

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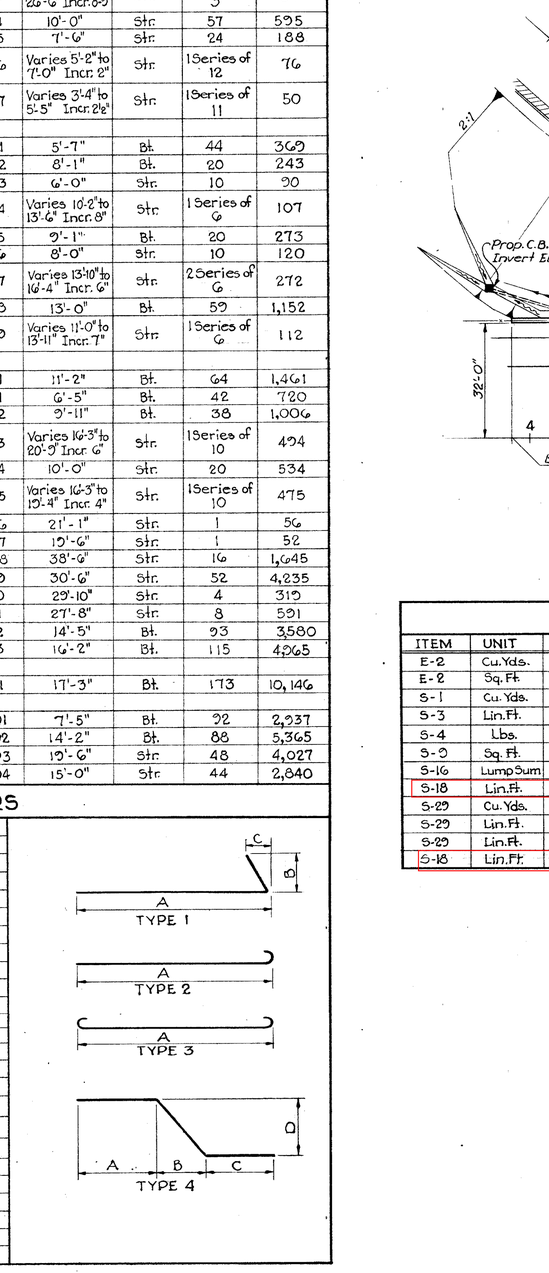
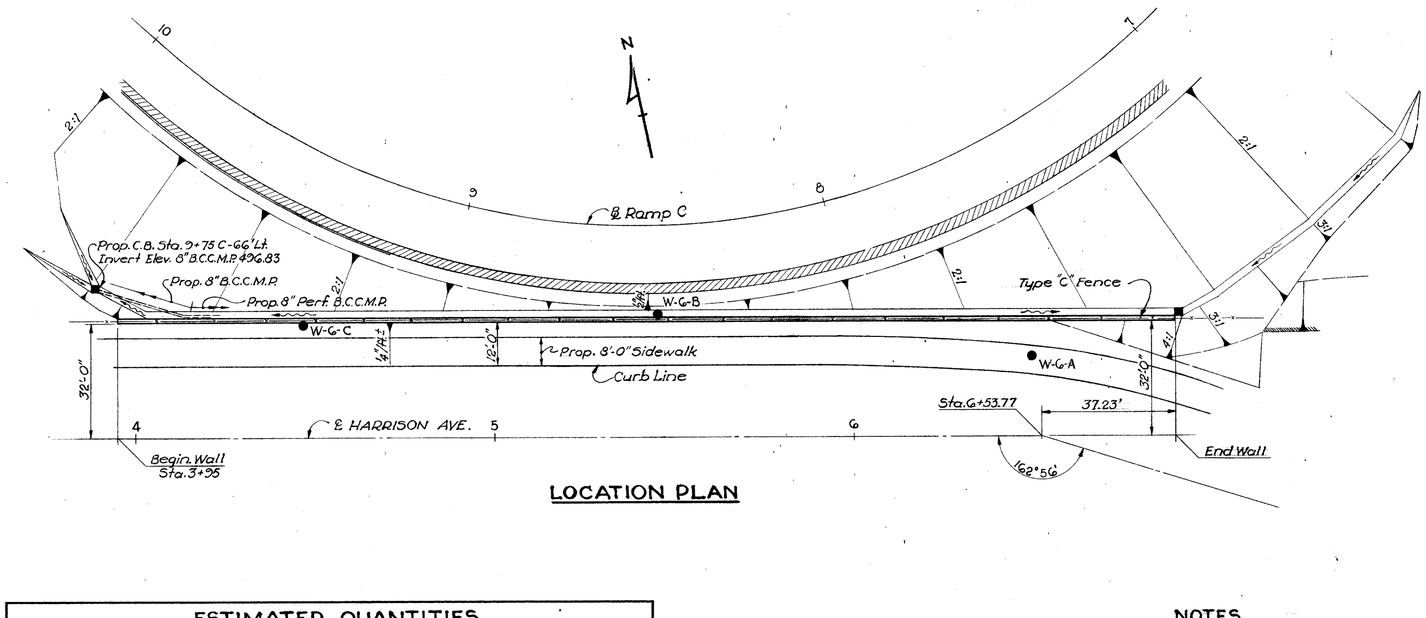
REINFORCING STEEL LIST

MARK	LENGTH	SHAPE	NO.	WEIGHT
R501	7'-10"	Bt.	98	800
R502	10'-10"	Bt.	38	423
R503	14'-10"	Bt.	6	93
R504	16'-1"	Bt.	6	101
R505	4'-11"	Bt.	114	585
R506	5'-0"	Bt.	26	136
R507	8'-0"	Bt.	10	83
R508	Varies 1'-10" to 5'-10" Incr. 8"	Str.	1 Series of 7	28
R509	Varies 2'-1" to 6'-1" Incr. 8"	Str.	1 Series of 7	30
R510	Varies 6'-5" to 9'-9" Incr. 8"	Str.	1 Series of 6	51
R511	Varies 6'-8" to 10'-0" Incr. 8"	Str.	1 Series of 6	52
R512	35'-8"	Str.	6	223
R513	36'-4"	Str.	4	151
R514	Varies 14'-0" to 32'-0" Incr. 9'-0"	Str.	1 Series of 3	72
R515	Varies 9'-10" to 16'-1" Incr. 7½"	Str.	1 Series of 11	149
R516	27'-8"	Str.	156	4,502
R517	24'-6"	Str.	2	51
R518	15'-6"	Str.	2	32
R519	28'-3"	Str.	6	177
R520	23'-0"	Str.	4	96
R521	Varies 16'-3" to 20'-10" Incr. 5½"	Str.	1 Series of 11	213
R522	Varies 19'-4" to 23'-1" Incr. 4½"	Str.	1 Series of 11	243
R523	Varies 23'-2" to 25'-3" Incr. 2½"	Str.	1 Series of 11	278
R524	17'-6"	Str.	4	73
R525	Varies 2'-6" to 6'-9" Incr. 8½"	Str.	1 Series of 7	34
R526	Varies 2'-9" to 7'-0" Incr. 8½"	Str.	1 Series of 7	36
R527	Varies 7'-4" to 10'-8" Incr. 8"	Str.	1 Series of 6	56
R528	Varies 7'-7" to 10'-11" Incr. 8"	Str.	1 Series of 6	58
R529	Varies 10'-8" to 16'-1" Incr. 6½"	Str.	1 Series of 11	154
R530	Varies 16'-0" to 19'-4" Incr. 4"	Str.	1 Series of 11	203
R531	Varies 22'-3" to 24'-9" Incr. 3"	Str.	1 Series of 11	270
R532	Varies 24'-9" to 25'-3" Incr. ½"	Str.	1 Series of 11	287
R533	Varies 9'-0" to 26'-6" Incr. 8½"	Str.	1 Series of 3	57
R534	10'-0"	Str.	57	535
R535	7'-6"	Str.	24	188
R536	Varies 5'-2" to 7'-0" Incr. 2"	Str.	1 Series of 12	76
R537	Varies 3'-4" to 5'-5" Incr. 2½"	Str.	1 Series of 11	50
R601	5'-7"	Bt.	44	369
R602	8'-1"	Bt.	20	243
R603	6'-0"	Str.	10	90
R604	Varies 10'-2" to 13'-6" Incr. 8"	Str.	1 Series of 6	107
R605	9'-1"	Bt.	20	273
R606	8'-0"	Str.	10	120
R607	Varies 13'-10" to 16'-4" Incr. 6"	Str.	2 Series of 6	272
R608	13'-0"	Bt.	59	1,152
R609	Varies 11'-0" to 13'-11" Incr. 7"	Str.	1 Series of 6	112
R701	11'-2"	Bt.	64	1,461
R801	6'-5"	Bt.	42	720
R802	9'-11"	Bt.	38	1,006
R803	Varies 16'-3" to 20'-9" Incr. 6"	Str.	1 Series of 10	494
R804	10'-0"	Str.	20	534
R805	Varies 16'-3" to 19'-4" Incr. 4"	Str.	1 Series of 10	475
R806	21'-1"	Str.	1	56
R807	19'-6"	Str.	1	52
R808	38'-6"	Str.	16	1,645
R809	30'-6"	Str.	52	4,235
R810	29'-10"	Str.	4	319
R811	27'-8"	Str.	8	591
R812	14'-5"	Bt.	93	3,580
R813	16'-2"	Bt.	115	4,965
R901	17'-3"	Bt.	173	10,146
R1001	7'-5"	Bt.	22	2,237
R1002	14'-2"	Bt.	88	5,365
R1003	19'-6"	Str.	48	4,027
R1004	15'-0"	Str.	44	2,840

BENT BARS

MARK	TYPE	A	B	C	D
R501	3	6'-8"	—	—	—
R502	3	9'-8"	—	—	—
R503	4	5'-0"	2'-8"	5'-0"	4'-0"
R504	4	5'-0"	2'-9"	5'-0"	5'-6"
R505	2	4'-4"	—	—	—
R506	1	4'-2"	1'-0"	0¾"	—
R507	1	7'-2"	1'-0"	0¾"	—
R601	1	4'-6"	1'-3"	1"	—
R602	1	7'-0"	1'-3"	1"	—
R605	1	8'-0"	1'-3"	1"	—
R609	3	11'-8"	—	—	—
R701	3	9'-6"	—	—	—
R801	1	5'-0"	1'-8"	1¼"	—
R802	1	8'-6"	1'-8"	1¼"	—
R812	1	12'-3"	—	—	—
R813	3	14'-0"	—	—	—
R901	3	14'-9"	—	—	—
R1001	1	5'-9"	2'-0"	1½"	—
R1002	1	12'-6"	2'-0"	1½"	—





LOCATION PLAN

ESTIMATED QUANTITIES

ITEM	UNIT	TOTAL	DESCRIPTION
E-2	Cu. Yds.	750	Unclassified Excavation
E-2	Sq. Ft.	1344	Steel Sheet Piling, left in place
S-1	Cu. Yds.	780	Class "E" Concrete
S-3	Lin. Ft.	160	Waterproofing, Premolded Sealing Strip
S-4	Lbs.	58,897	Reinforcing Steel
S-5	Sq. Ft.	171	1" Preformed Expansion Joint Filler
S-16	Lump Sum	Lump	First Test Pile
S-18	Lin. Ft.	3,612	Steel H Piles - 12 BP 53
S-29	Cu. Yds.	304	Porous Backfill
S-29	Lin. Ft.	27	8" Bituminous Coated Corrugated Metal Pipe, Sec. M-6.4 (C)
S-29	Lin. Ft.	268	8" Perforated Bituminous Coated Corrugated Pipe, Sec. M-6.4 (F)
S-18	Lin. Ft.	1,302	12"ϕ Cast in place reinforced concrete piles

ITEM - E-2 STEEL SHEET PILING, LEFT IN PLACE
The piling used for this item may be used piling in good condition subject to the approval of the Engineer. The piling shall be MZ-27 or ZP-27 or approved equal.

NOTES

1. 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 dated 2-21-58.
2. Piles shall be driven to a capacity of 45 tons per pile.
3. Abbreviations used are as follows:
   N.F. = Near Face
   F.F. = Far Face
   E.F. = Each Face
4. ● Symbol denotes boring location,
5. For rustication detail, see Sheet 273.
6. For expansion and contraction joint detail, see Sheet 273.
7. Estimated average pay length of piles = 42' (Range 20' to 70')
8. For borings, see Sheet 286.

VOGT, IVERS, SEAMAN & ASSOCIATES
ENGINEERS — CINCINNATI
ARCHITECTS — CHICAGO

WALL NO. 6

MILL CREEK EXPRESSWAY

HAMILTON COUNTY

DESIGNED	DRAWN	TRACED	CHECKED	REVIEWED	DATE	REVISED
C.E.S.	J.C.H.	~	J.E.P.			

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FED. RD. DIVISION	STATE	PROJECT	
2	OHIO		

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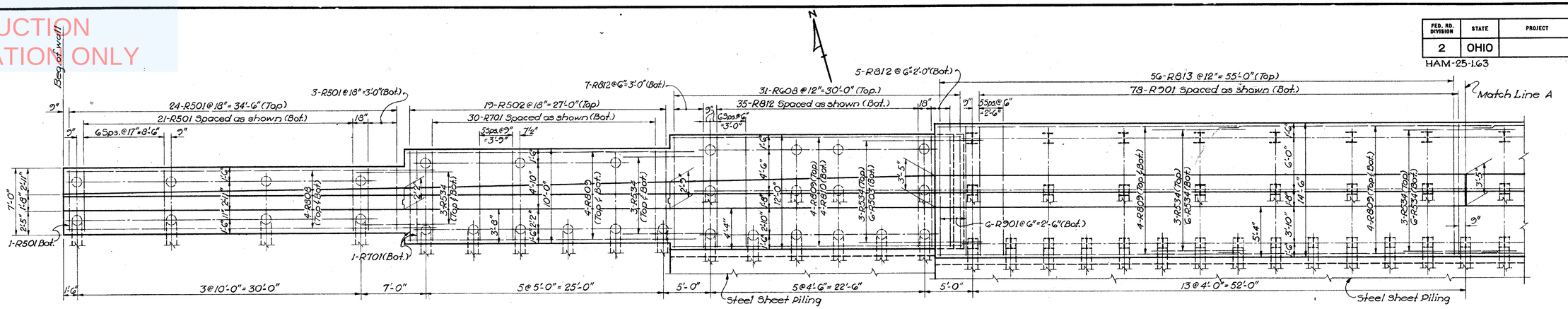
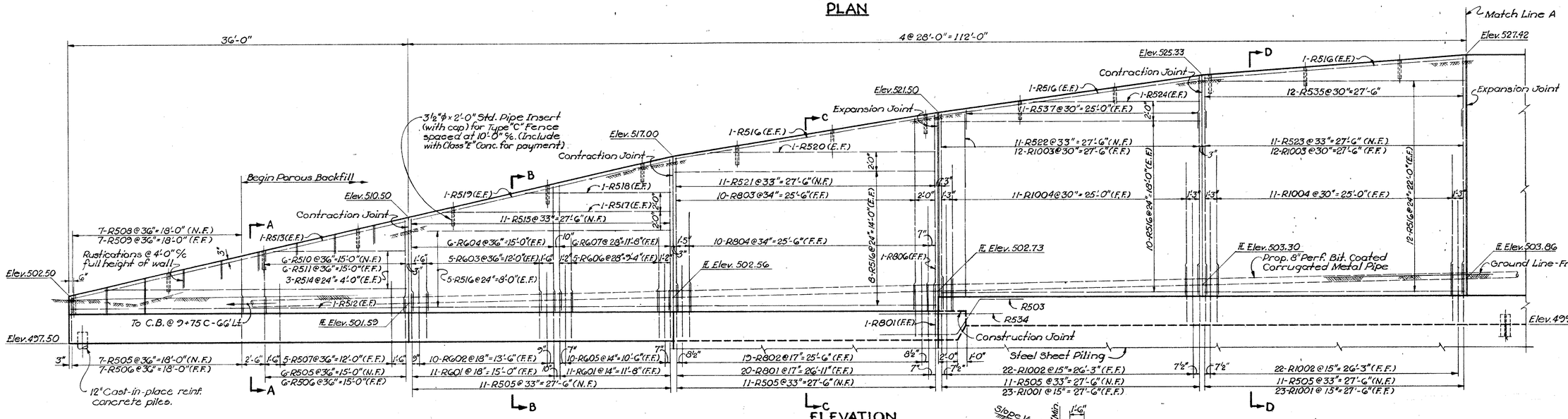
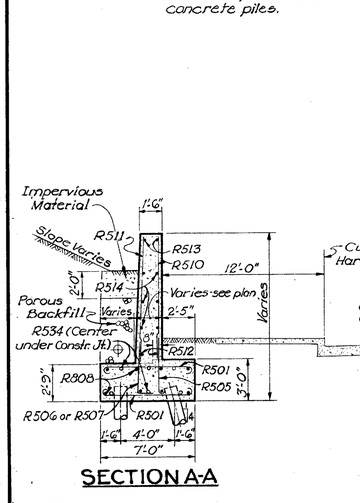


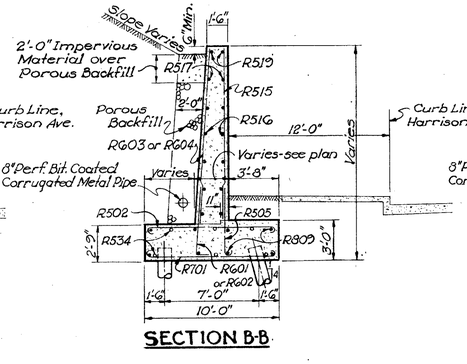
PLAN



ELEVATION



SECTION A-A



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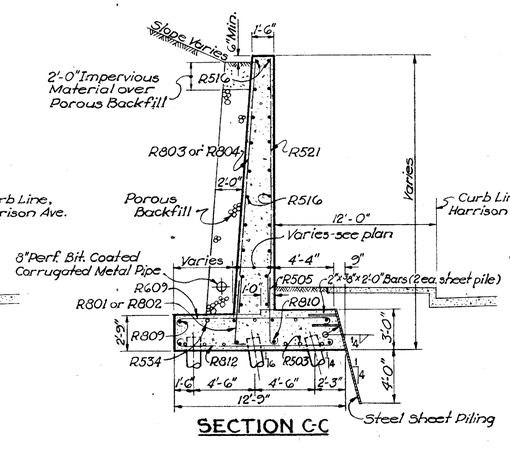

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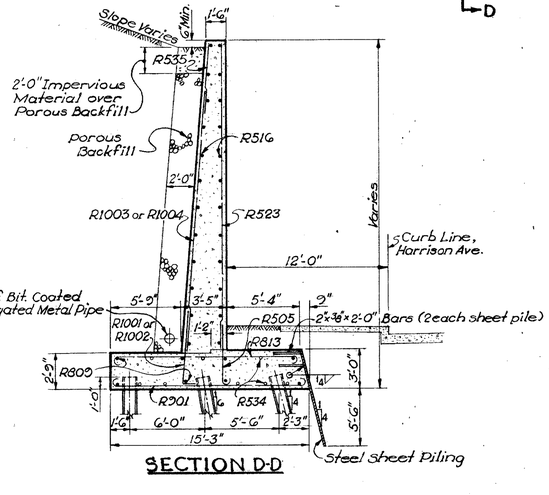

SECTION D-D

VOGT, IVERS, SEAMAN & ASSOCIATES
ENGINEERS CINCINNATI ARCHITECTS CHICAGO

WALL NO. G
MILL CREEK EXPRESSWAY

HAMILTON COUNTY

DESIGNED	DRAWN	TRACED	CHECKED	REVIEWED	DATE	REVISED
C.E.S.	C.E.S.	J.C.H.	J.E.P.			

NOT FOR CONSTRUCTION INFORMATION ONLY

FED. RD. DIVISION	STATE	PROJECT	
2	OHIO		

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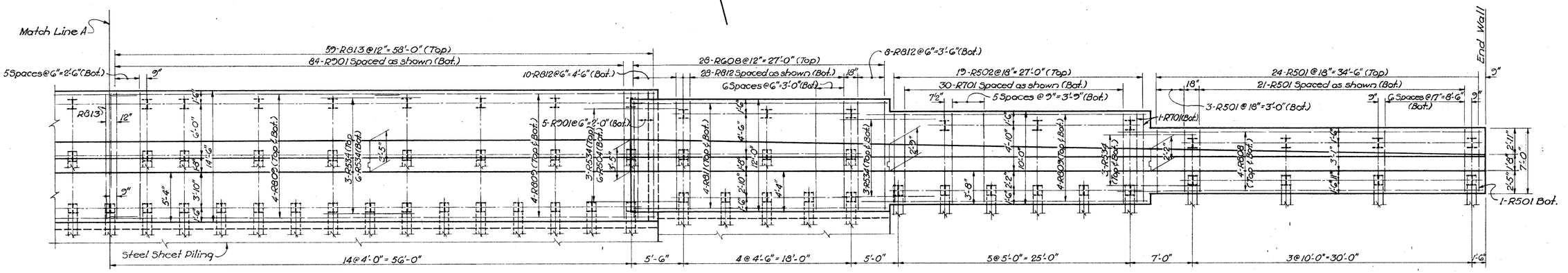
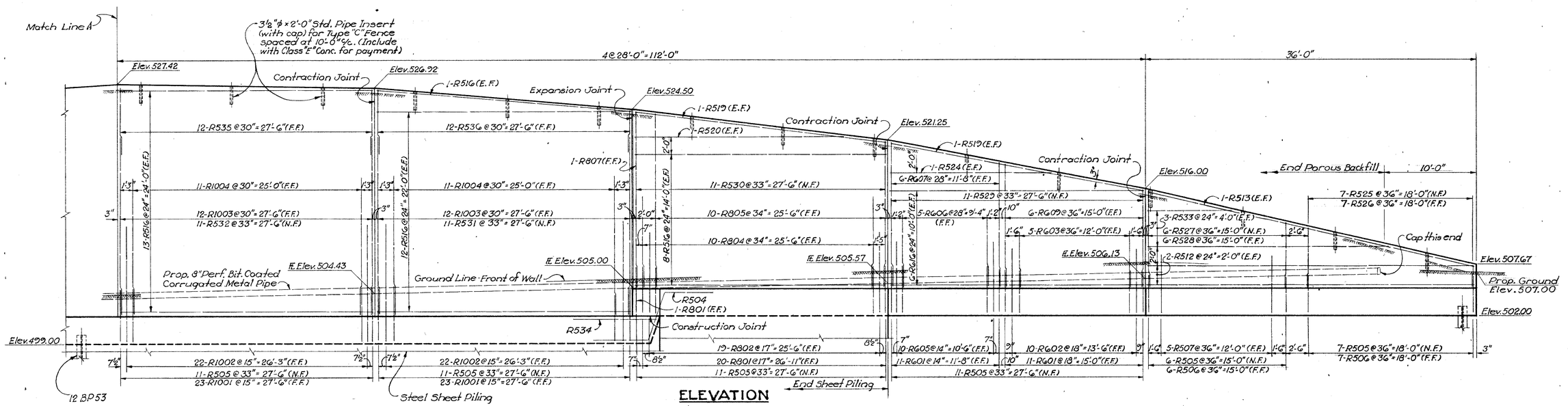


PLAN



ELEVATION

VOGT, IVERS, SEAMAN & ASSOCIATES
ENGINEERS — CINCINNATI
ARCHITECTS — CHICAGO

WALL NO. 6
MILL CREEK EXPRESSWAY

HAMILTON COUNTY

DESIGNED	DRAWN	TRACED	CHECKED	REVIEWED	DATE	REVISED
C.E.S.	C.E.S.	J.C.H.	J.E.P.			

NOT FOR CONSTRUCTION INFORMATION ONLY

FED. RD. DIVISION	STATE	PROJECT	
2	OHIO		

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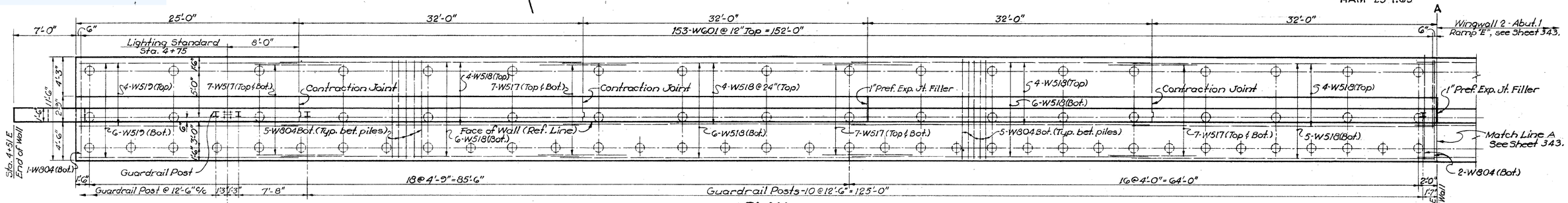
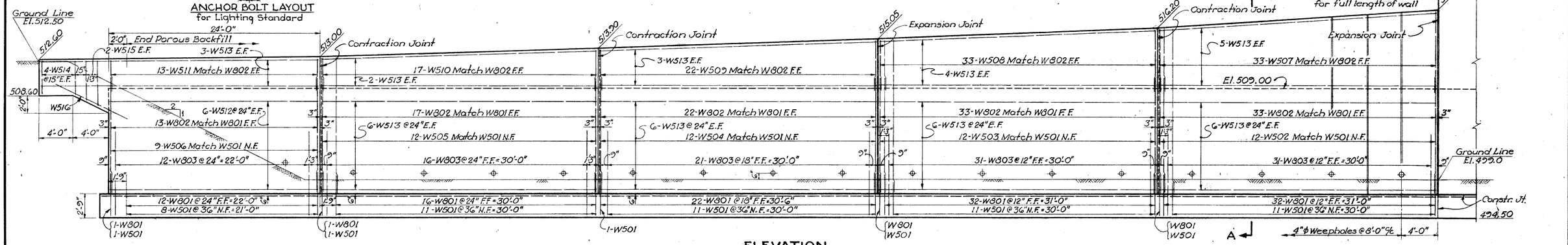
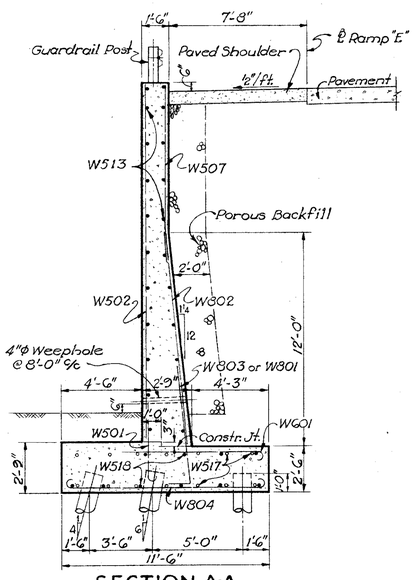
WALL NO. 7 PLANS



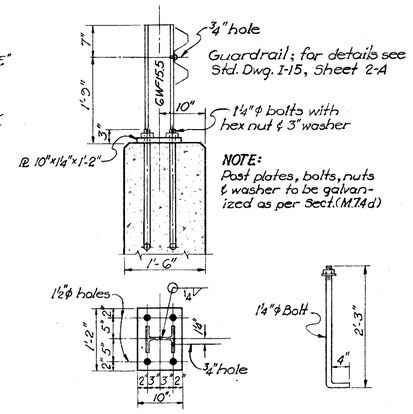
ANCHOR BOLT LAYOUT
for Lighting Standard



ELEVATION



SECTION A-A

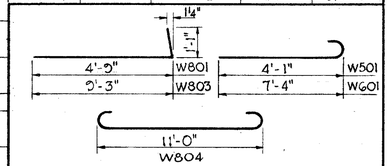


GUARD RAIL POST DETAIL

REINFORCING STEEL LIST

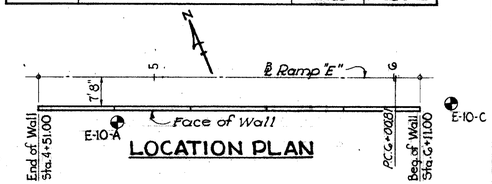
MARK	NO.	LENGTH	SHAPE	WEIGHT
W501	57	4'-8"	Bt.	278
W502	1 Series of 12	Varies 18'-10" to 20'-3" - Incr. 1½"	Str.	244
W503	1 Series of 12	Varies 17'-8" to 18'-10" - Incr. 1¼"	Str.	228
W504	1 Series of 12	Varies 16'-6" to 17'-8" - Incr. 1¼"	Str.	214
W505	1 Series of 12	Varies 15'-7" to 16'-6" - Incr. 1"	Str.	201
W506	9	15'-4"	Str.	144
W507	1 Series of 33	Varies 8'-1" to 9'-9" - Incr. 5/8"	Str.	307
W508	1 Series of 33	Varies 7'-0" to 8'-1" - Incr. 3/8"	Str.	260
W509	1 Series of 22	Varies 5'-10" to 7'-0" - Incr. 5/8"	Str.	147
W510	1 Series of 17	Varies 5'-0" to 5'-10" - Incr. 5/8"	Str.	96
W511	13	5'-0"	Str.	68
W512	12	23'-8"	Str.	296
W513	82	31'-8"	Str.	2,709
W514	8	3'-8"	Str.	31
W515	2 Series of 2	Varies 4'-2" to 4'-10" - Incr. 8"	Str.	19
W516	2	7'-6"	Str.	16
W517	56	10'-0"	Str.	584
W518	40	33'-7"	Str.	1,401
W519	10	24'-9"	Str.	258
W601	153	8'-0"	Bt.	1,838

REINFORCING STEEL LIST				
MARK	NO.	LENGTH	SHAPE	WEIGHT
W801	118	5'-8"	Bt.	1,785
W802	118	12'-6"	Str.	3,938
W803	111	10'-2"	Bt.	3,013
W804	173	13'-2"	Bt.	6,083



ESTIMATED QUANTITIES

ITEM	DESCRIPTION	UNIT	TOTAL
E-2	Unclassified Excavation	Cu. Yds.	346
S-1	Class "E" Concrete	Cu. Yds.	363
S-3	Premolded Sealing Strip	Lin. Ft.	91
S-4	Reinforcing Steel	Lbs.	24,158
S-9	1" Preformed Expansion Jt. Filler	Sq. Ft.	74
S-14	Guardrail, I-15.1, single faced with galvanized posts.	Lin. Ft.	160
S-16	First Test Pile	Lump	Lump
S-18	12" ϕ Cast-in-place Reinf. Conc. Piles	Lin. Ft.	3,205
S-29	Porous Backfill	Cu. Yds.	183



LOCATION PLAN

NOTES

1. 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 dated 2-21-58.
2. E.F. denotes each face; N.F. denotes near face; F.F. denotes far face.
3. First digit of bar mark indicates the bar size number.
4. For contraction and expansion joint details, see Sheet 273.
5. For rustication detail, see Sheet 273.
6. 12" ϕ cast-in-place reinforced concrete piles to be driven to capacity of 30 tons.
7. Estimated average pay length = 55'.
8. ◔ Symbol indicates boring location

VOGT, IVERS, SEAMAN & ASSOCIATES
ENGINEERS CINCINNATI — ARCHITECTS CHICAGO

WALL NO. 7
MILL CREEK EXPRESSWAY

HAMILTON COUNTY

DESIGNED	DRAWN	TRACED	CHECKED	REVIEWED	DATE	REVISED
A.A.N.	A.A.N.	J.C.H.	J.E.P.			

NOT FOR CONSTRUCTION INFORMATION ONLY

WALL NO. 8 PLANS

FED. RD. DIVISION	STATE	PROJECT	
2	OHIO		

HAM - 25 - 1.63

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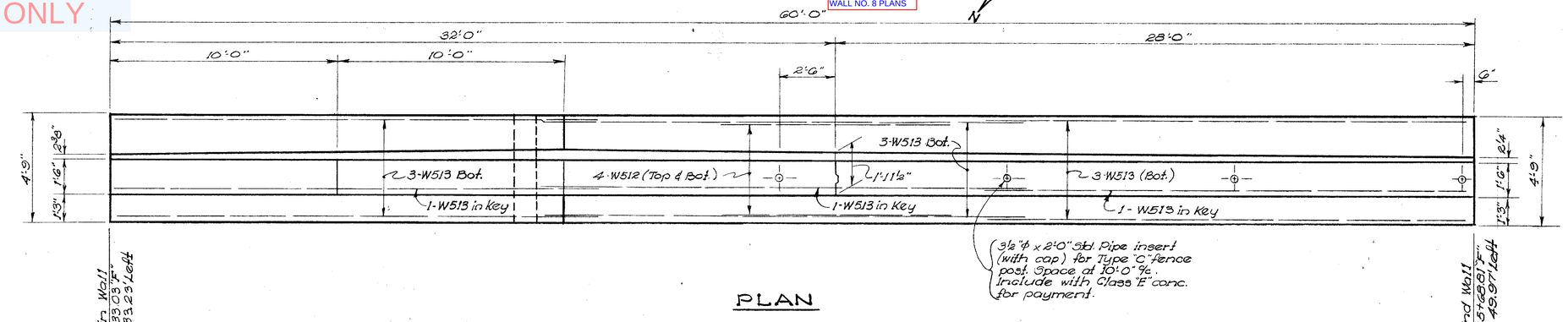
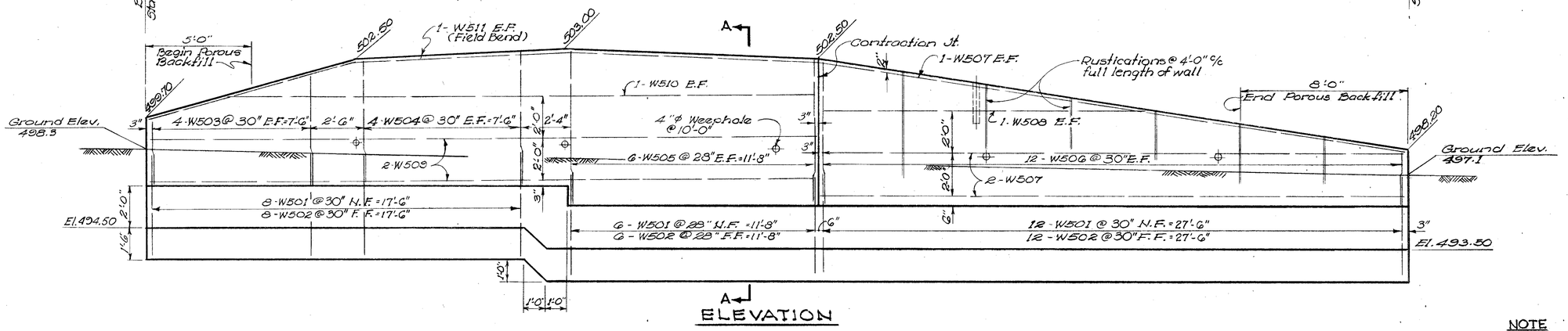
486



PLAN



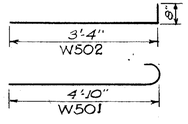
ELEVATION

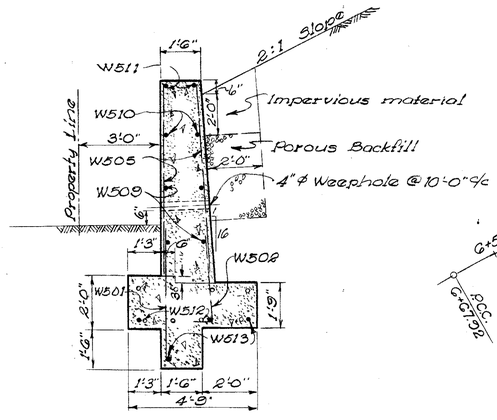
REINFORCING STEEL LIST

MARK	LENGTH	NO.	SHAPE	WEIGHT
W501	5'-5"	26	Bt.	147
W502	4'-0"	26	Bt.	108
W503	Varies – 3'-1" to 5'-2⅛ Incr. 8⅜	2 Series of 4	Str.	34
W504	Varies – 5'-8" to 6'-2" Incr. 2"	2 Series of 4	Str.	49
W505	Varies – 6'-10" to 7'-3" Incr. 1"	2 Series of 6	Str.	88
W506	Varies – 2'-9" to 6'-10" Incr. 4½"	2 Series of 2	Str.	20
W507	27'-8"	6	Str.	173
W508	14'-9"	2	Str.	31
W509	31'-8"	4	Str.	132
W510	27'-0"	2	Str.	56
W511	32'-0"	2	Str.	67
W512	10'-0"	8	Str.	83
W513	21'-6"	12	Str.	269

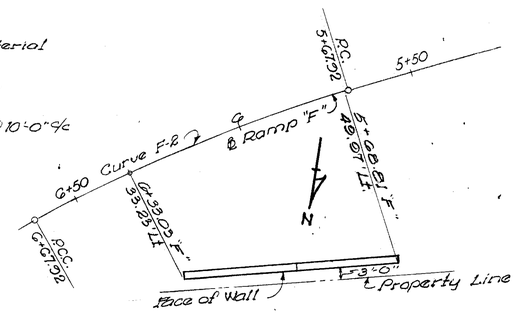
ESTIMATED QUANTITIES

ITEM	UNIT	DESCRIPTION	TOTAL
E-2	Cu.Yds.	Unclassified excavation	64
S-1	Cu.Yds.	Class "E" concrete	46
S-3	Lin.Ft.	Premolded sealing strip	8
S-4	Lbs.	Reinforcing steel	1,257
S-29	Cu.Yds.	Porous backfill	9





SECTION A-A



LOCATION PLAN

NOTE

1. Design Specification: 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 dated 2-21-58.
2. Foundation Bearing Pressure: Wall footings are designed for a maximum bearing pressure of 0.9 tons per sq. ft.
3. First digit of the bar mark indicates the bar size number.
   N.F. denotes Near Face
   F.F. denotes Far Face
   E.F. denotes Each Face
4. For contraction joint details, see Sheet 273.
5. For rustication detail, see Sheet 273.
6. Footing key to be placed against undisturbed earth.

VOGT, IVERS, SEAMAN & ASSOCIATES
ENGINEERS CINCINNATI — ARCHITECTS CHICAGO

WALL NO. 8
MILL CREEK EXPRESSWAY

HAMILTON COUNTY

DESIGNED	DRAWN	TRACED	CHECKED	REVIEWED	DATE	REVISED
J.R	J.P.	D.F.	ST./AAN.			

NOT FOR CONSTRUCTION INFORMATION ONLY

FED. RD. DIVISION	STATE	PROJECT	
2	OHIO		

HAM-25-1.63

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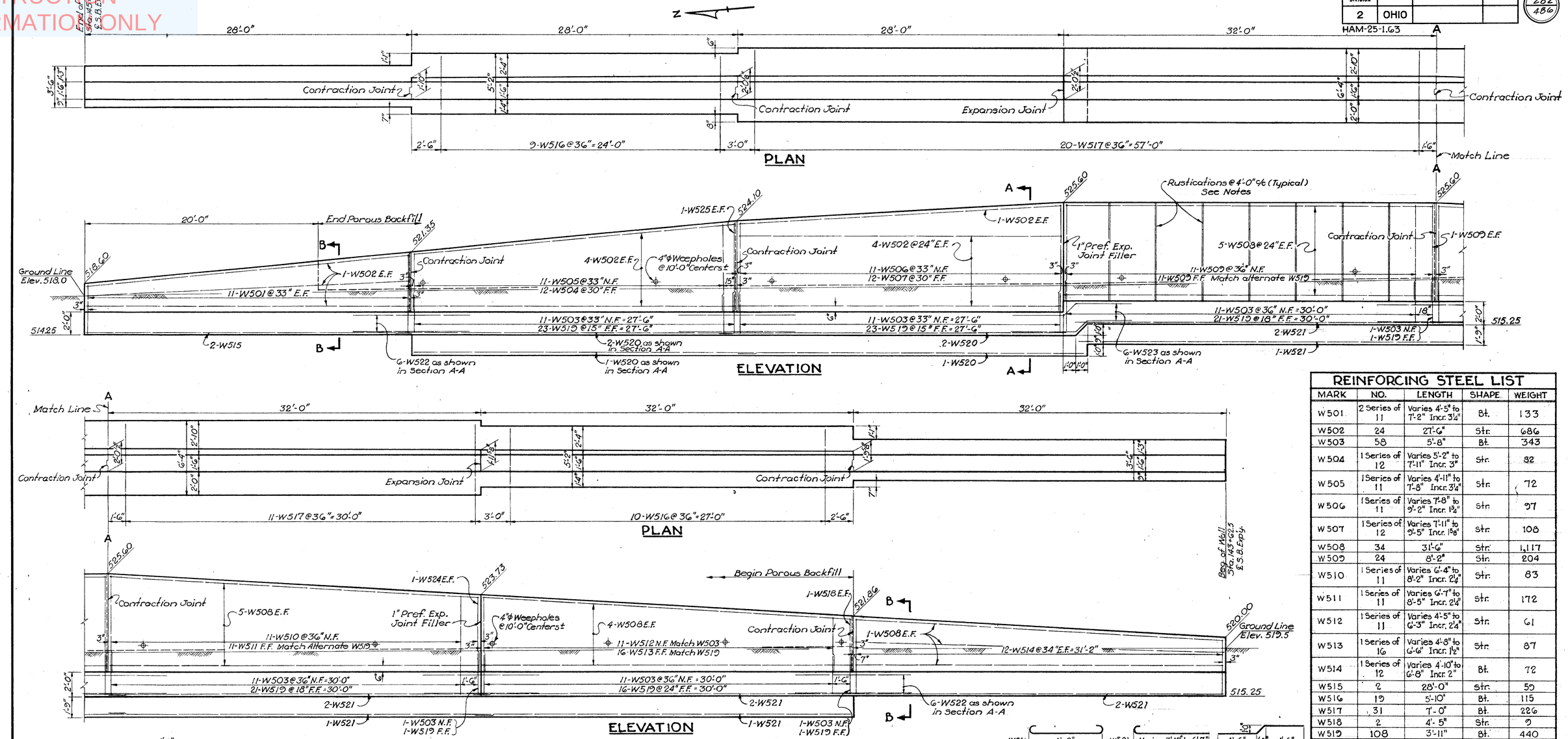
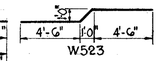


W516 W517	4'-8" 5'-10"
W501 W503 W514 W519	Varies 3'-10" to 6'-7" 5'-1" Varies 4'-3" to 6'-1" 3'-4"



ESTIMATED QUANTITIES

ITEM	DESCRIPTION	UNIT	TOTAL
E-2	Unclassified Excavation	Cu. Yds.	220
S-1	Class "E" Concrete	Cu Yds.	178
S-3	Premolded Sealing Strip	Lin. Ft.	44
S-4	Reinforcing Steel	Lbs.	5,130
S-9	1" Preformed Expansion Jt. Filler	Sq. Ft.	29
S-20	Porous Backfill	Cu. Yds.	55

NOTES

1. 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 dated 2-21-58.
2. E.F. denotes each face; N.F. denotes near face; F.F. denotes far face.
3. First digit of bar mark indicates the bar size number.
4. For contraction and expansion joint details, see Sheet 273
5. For rustication detail, see Sheet 273
6. Foundation Bearing Pressure: Wall footing is designed for a maximum bearing pressure of 0.9 tons per sq. ft.
7. Footing key to be placed against undisturbed earth.

REINFORCING STEEL LIST

MARK	NO.	LENGTH	SHAPE	WEIGHT
W501	2 Series of 11	Varies 4'-5" to 7'-2" Incr. 3¼"	Bt.	133
W502	24	27'-6"	Str.	686
W503	58	5'-8"	Bt.	343
W504	1 Series of 12	Varies 5'-2" to 7'-11" Incr. 3"	Str.	82
W505	1 Series of 11	Varies 4'-11" to 7'-8" Incr. 3¼"	Str.	72
W506	1 Series of 11	Varies 7'-8" to 9'-2" Incr. 1½"	Str.	97
W507	1 Series of 12	Varies 7'-11" to 9'-5" Incr. 1⅝"	Str.	108
W508	34	31'-6"	Str.	1,117
W509	24	8'-2"	Str.	204
W510	1 Series of 11	Varies 6'-4" to 8'-2" Incr. 2¼"	Str.	83
W511	1 Series of 11	Varies 6'-7" to 8'-5" Incr. 2¼"	Str.	172
W512	1 Series of 11	Varies 4'-5" to 6'-3" Incr. 2¼"	Str.	61
W513	1 Series of 16	Varies 4'-8" to 6'-6" Incr. 1½"	Str.	87
W514	1 Series of 12	Varies 4'-10" to 6'-8" Incr. 2"	Bt.	72
W515	2	28'-0"	Str.	59
W516	19	5'-10"	Bt.	115
W517	31	7'-0"	Bt.	226
W518	2	4'-5"	Str.	9
W519	108	3'-11"	Bt.	440
W520	6	29'-7"	Str.	185
W521	11	32'-6"	Str.	305
W522	30	10'-0"	Str.	373
W523	6	10'-5"	Bt.	65
W524	2	6'-4"	Str.	13
W525	2	7'-7"	Str.	16

VOGT, IVERS, SEAMAN & ASSOCIATES
ENGINEERS CINCINNATI — ARCHITECTS CHICAGO

WALL NO. 9
MILL CREEK EXPRESSWAY

HAMILTON COUNTY

DESIGNED	DRAWN	TRACED	CHECKED	REVIEWED	DATE	REVISED
A.A.N.	J.C.H.	~	J.E.P.			

NOT FOR CONSTRUCTION INFORMATION ONLY

FED. RD. DIVISION	STATE	PROJECT	
2	OHIO		

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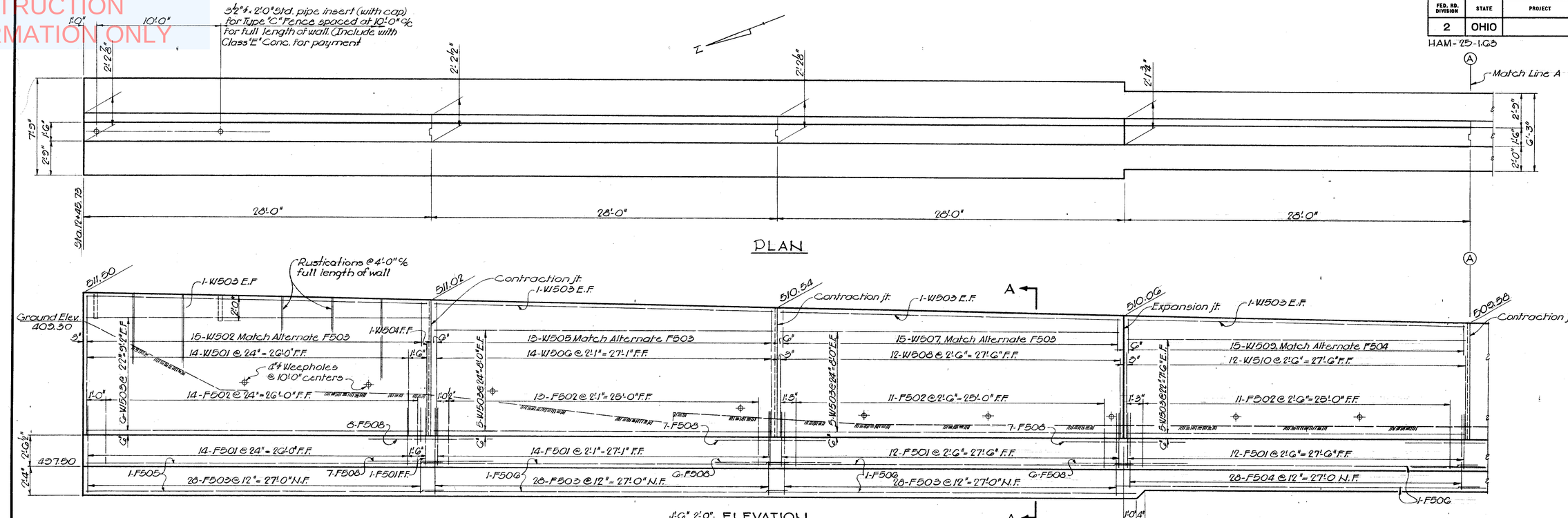
HAM-25-1.03



REINFORCING STEEL LIST

MARK	NO.	LENGTH	WEIGHT	SHAPE
F501	74	7'-7"	586	Bt.
F502	42	7'-5"	370	Bt.
F503	84	6'-10"	500	Bt.
F504	62	6'-5"	415	Bt.
F505	2	28'-10"	60	Str.
F506	6	29'-7"	185	Str.
F507	2	34'-8"	72	Str.
F508	52	10'-0"	542	Str.
W501	1 Series of 14	Varies 11'-0" to 11'-6" Incr. 1/2"	165	Str.
W502	1 Series of 15	Varies 10'-3" to 11'-4" Incr. 1/2"	173	Str.
W503	50	27'-8"	1443	Str.
W504	1	11'-1"	12	Str.
W505	1 Series of 15	Varies 10'-3" to 10'-10" Incr. 1/2"	165	Str.
W506	1 Series of 14	Varies 10'-8 1/2" to 11'-0" Incr. 1/2"	156	Str.
W507	1 Series of 15	Varies 9'-5" to 10'-4" Incr. 1/2"	15	Str.
W508	1 Series of 12	Varies 10'-0 1/2" to 10'-6" Incr. 1/2"	120	Str.
W509	1 Series of 15	Varies 9'-3" to 9'-10" Incr. 1/2"	140	Str.
W510	1 Series of 12	Varies 9'-6 1/2" to 10'-0" Incr. 1/2"	122	Str.
W511	10	33'-8"	351	Str.
W512	1 Series of 18	Varies 8'-8 3/8" to 9'-3" Incr. 3/8"	168	Str.
W513	1 Series of 21	Varies 8'-11 1/2" to 9'-7" Incr. 3/8"	203	Str.

ESTIMATED QUANTITIES

ITEM	DESCRIPTION	UNIT	TOTAL
E-2	Unclassified Excavation	Cu. Yd.	320
5-1	Class 'E' Concrete	Cu. Yd.	214
5-3	Premolded Sealing Strip	Lin. Ft.	43
5-4	Reinforcing Steel	Lbs.	6,225
5-9	1" Preformed Expansion Joint Filler	Sq. Ft.	10
5-20	Porous Backfill	Cu. Yd.	63

NOTE

1. Design Specification: 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 dated 2-21-58.
2. Foundation Bearing Pressure: Wall footings are designed for a maximum bearing pressure of 1.3 tons per sq. ft.
3. First digit of the bar mark indicates the bar size number.
4. N.F. denotes Near Face, F.F. denotes Far Face, E.F. denotes Each Face.
5. For expansion & contraction joint details, see Sheet 273.
6. For rustication detail, see Sheet 273.
7. Footing key to be placed against undisturbed earth.
8. ● Symbol denotes boring location.

VOGT, IVERS, SEAMAN & ASSOCIATES
ENGINEERS CINCINNATI — ARCHITECTS CHICAGO

WALL NO. 10.
MILL CREEK EXPRESSWAY

HAMILTON COUNTY

DESIGNED	DRAWN	TRACED	CHECKED	REVIEWED	DATE	REVISED
S.T.	S.T.	~	J.E.P.			

NOT FOR CONSTRUCTION INFORMATION ONLY

FED. RD. DIVISION	STATE	PROJECT	
2	OHIO		

HAM-25-1.63

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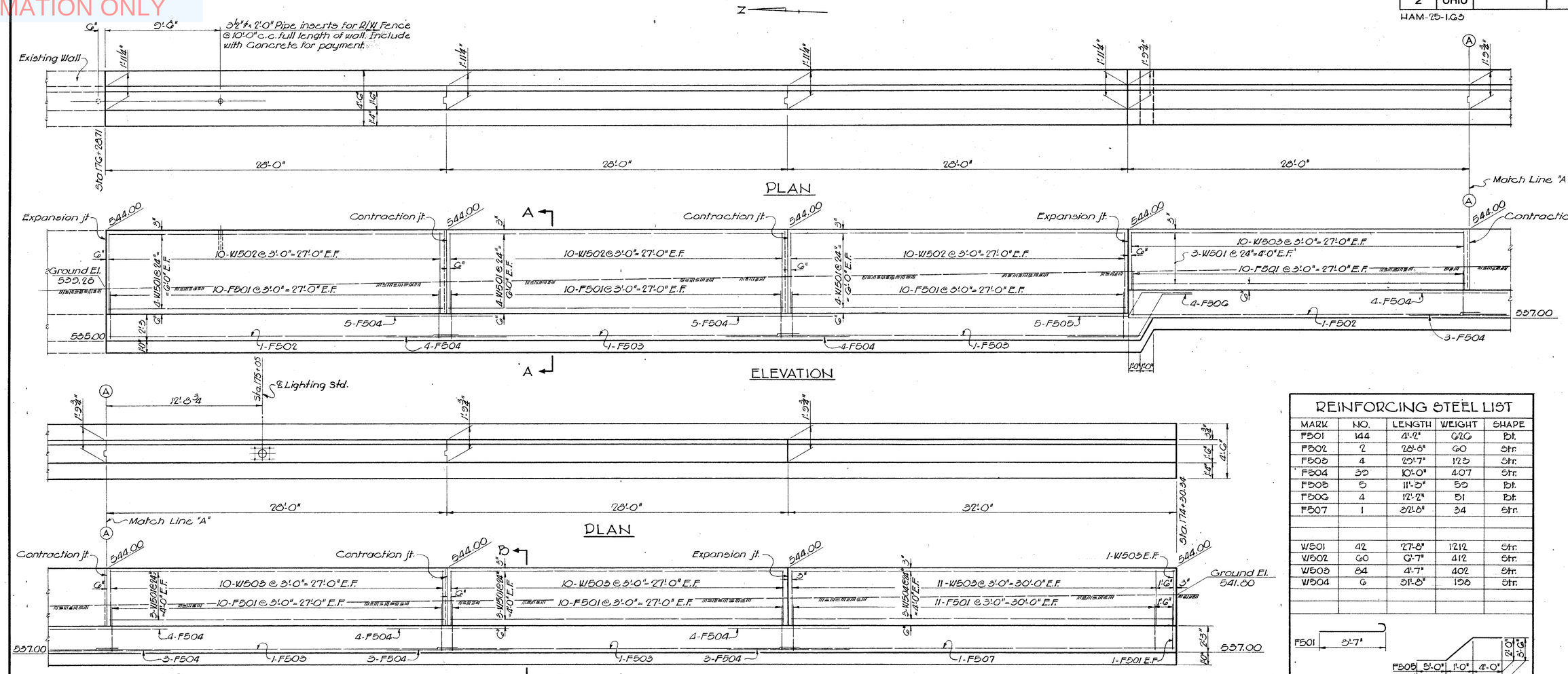
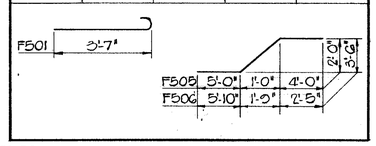
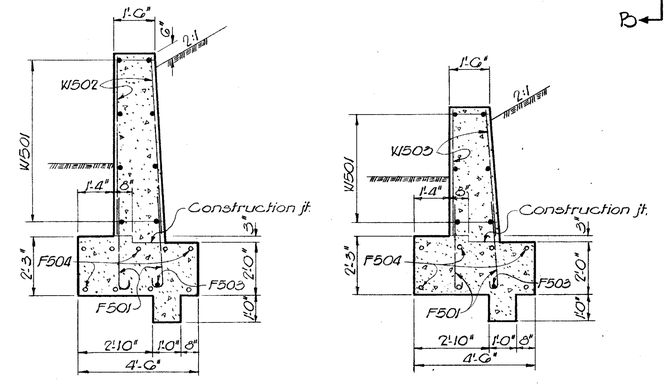


REINFORCING STEEL LIST

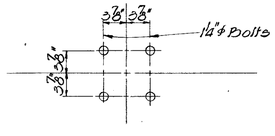
MARK	NO.	LENGTH	WEIGHT	SHAPE
F501	144	4'-7"	626	Bt.
F502	2	28'-8"	60	Str.
F503	4	29'-7"	123	Str.
F504	39	10'-0"	407	Str.
F505	5	11'-3"	59	Bt.
F506	4	12'-7"	51	Bt.
F507	1	32'-8"	34	Str.
W501	42	27'-8"	1212	Str.
W502	60	6'-7"	412	Str.
W503	84	4'-7"	402	Str.
W504	6	31'-8"	198	Str.





SECTION A-A

SECTION B-B



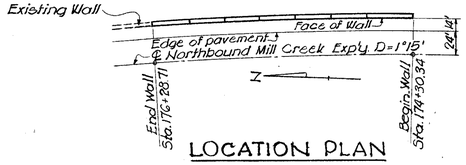
ANCHOR BOLT LAYOUT
Lighting Std.

ESTIMATED QUANTITIES

ITEM	DESCRIPTION	UNIT	TOTAL
E-2	Unclassified Excavation	Cu.Yd.	322
5-1	Class "E" Concrete	Cu.Yd.	150
5-3	Premolded Sealing Strip	Lin. Ft.	43
5-4	Reinforcing Steel	Lbs.	3584
5-5	1" Preformed Expansion Joint Filler	Sq. Ft.	21

NOTES:

1. Design Specification: 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 dated 2-21-58.
2. Foundation Bearing Pressure: Wall footings are designed for a maximum bearing pressure of 1.1 tons per sq. ft.
3. First digit of the bar mark indicates the bar size number.
4. E.F. denotes Each Face.
5. For expansion and contraction joint details, see Sheet 273.
6. For rustication detail, see Sheet 273.
7. Footing key to be placed against undisturbed earth.
8. For lighting details, see Sheet 259.



LOCATION PLAN

VOGT, IVERS, SEAMAN & ASSOCIATES
ENGINEERS — CINCINNATI
ARCHITECTS — CHICAGO

WALL NO. 11.
MILL CREEK EXPRESSWAY

HAMILTON COUNTY

DESIGNED	DRAWN	TRACED	CHECKED	REVIEWED	DATE	REVISED
~	S.T.	~	J.E.P.			

NOT FOR CONSTRUCTION INFORMATION ONLY

FED. RD. DIVISION	STATE	PROJECT	
2	OHIO		

HAM - 25 - 1.63

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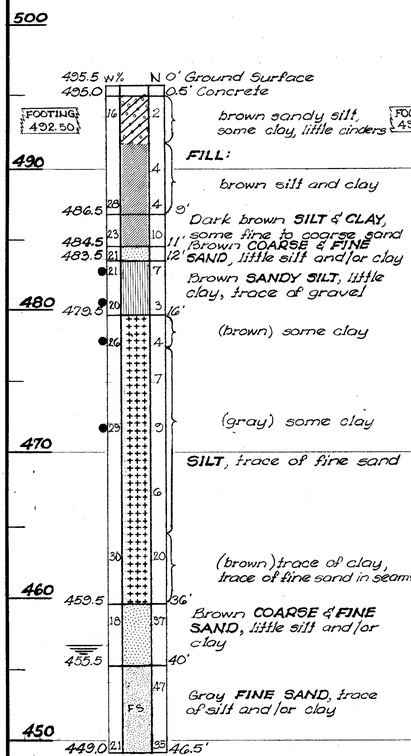
WALL NO. 1 & 2 BORINGS

WALL NO. 1

Western Ave. Extension Stationing

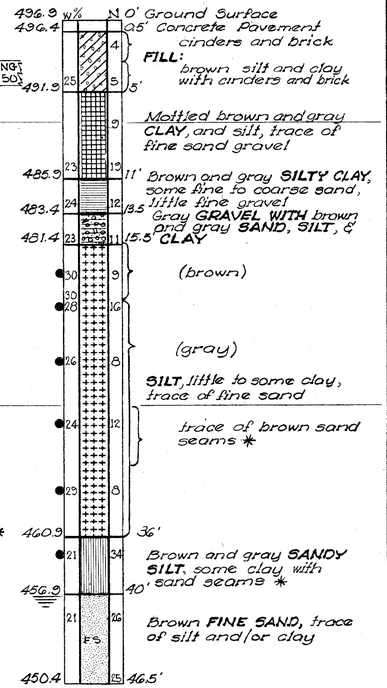
BORING W-1-A

Sta. 1+30 26' Rt.



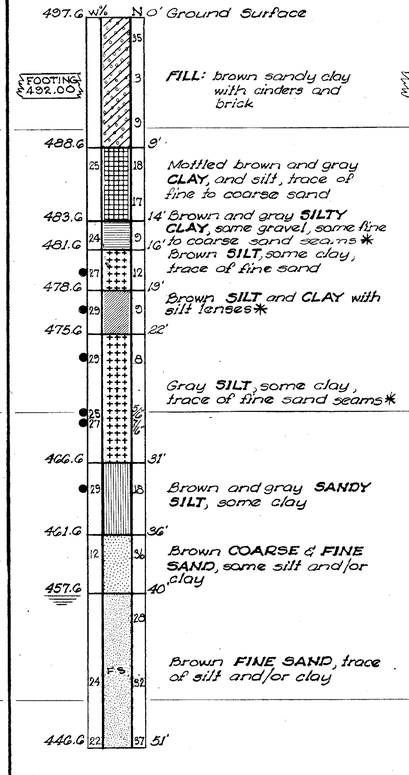
BORING W-1-B

Sta. 3+00 26' Rt.



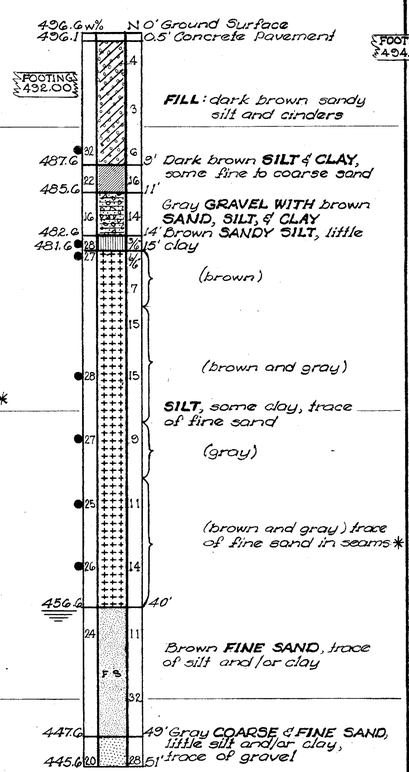
BORING W-2-A

Sta. 6+00 28' Rt.



BORING W-2-B

Sta. 6+75 28' Rt.



BORING NOTES

- Water level reading - immediate.
- Water level reading - X days after completion of boring.
- w% 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 2.0" O.D. split spoon the last 12" of an 18" sample run using 140 lb. weight falling 30 inches, unless shown otherwise.
- ▌ 3" O.D. Shelby Tube sample taken at elevation of symbol
- * Indicates unusual condition.

Description of material is based on laboratory test data and visual examination. Representative samples only were tested.

Modifying description in per cent of dry weight: trace 1-10%, little 10-20%, some 20-35%, and 35-50%.

Soils classified in accordance with the Highway Research Board system as modified by the Ohio Department of Highways Testing Laboratory.

Borings taken between July 22, 1960 and February 13, 1961.

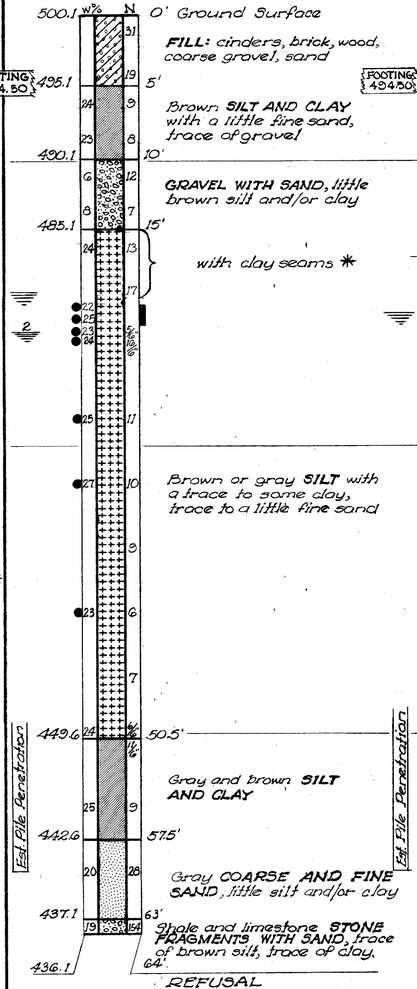
Foundation borings and laboratory testing by The H.C. Nutting Co., Cincinnati, Ohio.

WALL NO. 7

Ramp E Stationing

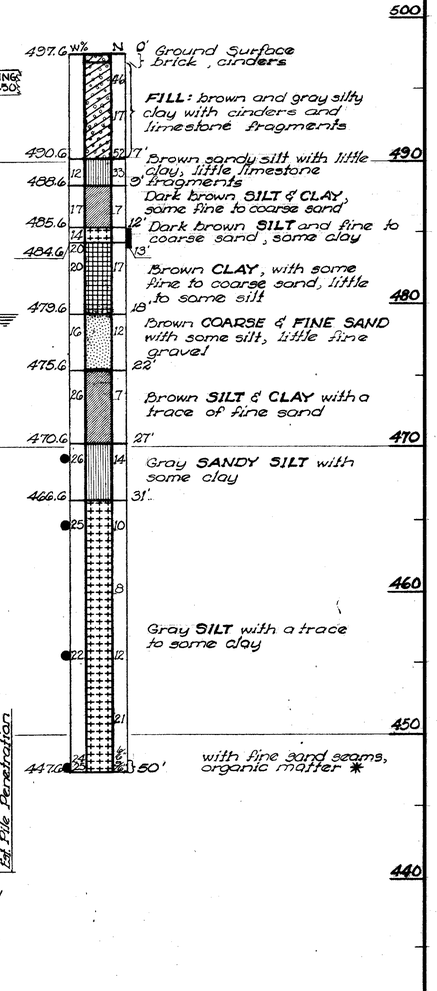
BORING E-10-C

Sta. 6+23 6' Rt.



BORING E-10-A

Sta. 4+85 13' Rt.



VOGT, IVERS, SEAMAN & ASSOCIATES
ENGINEERS CINCINNATI — ARCHITECTS CHICAGO

BORINGS

WALLS NO. 1, 2, and 7
MILL CREEK EXPRESSWAY

HAMILTON COUNTY

DESIGNED	DRAWN	TRACED	CHECKED	REVIEWED	DATE	REVISED
~	D.Y.F.	~	R.D.W.			

NOT FOR CONSTRUCTION INFORMATION ONLY

WALL NO. 7/RAMP C BORINGS

FED. RD. DIVISION	STATE	PROJECT	
2	OHIO		

HAM-25-1.63

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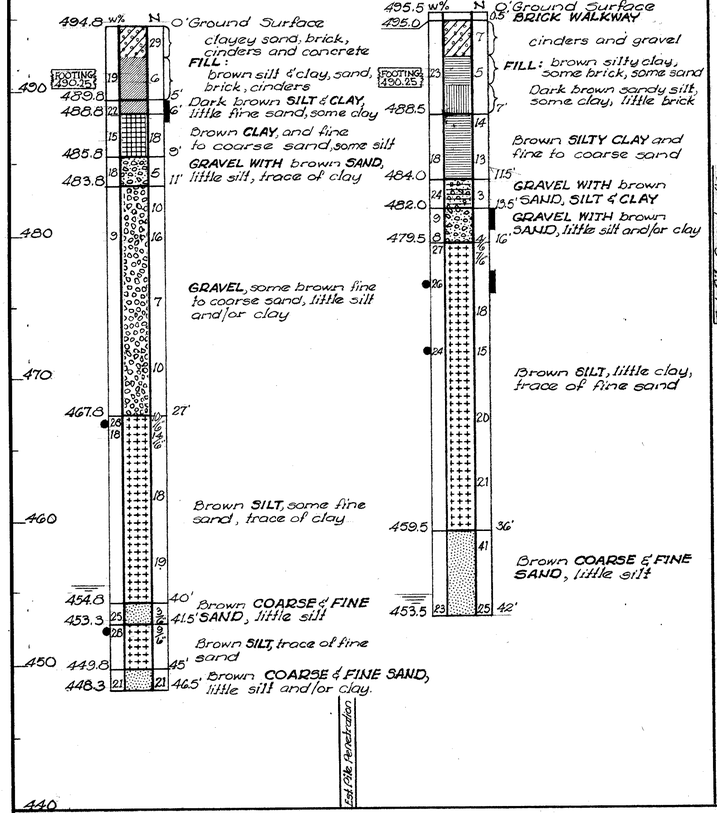
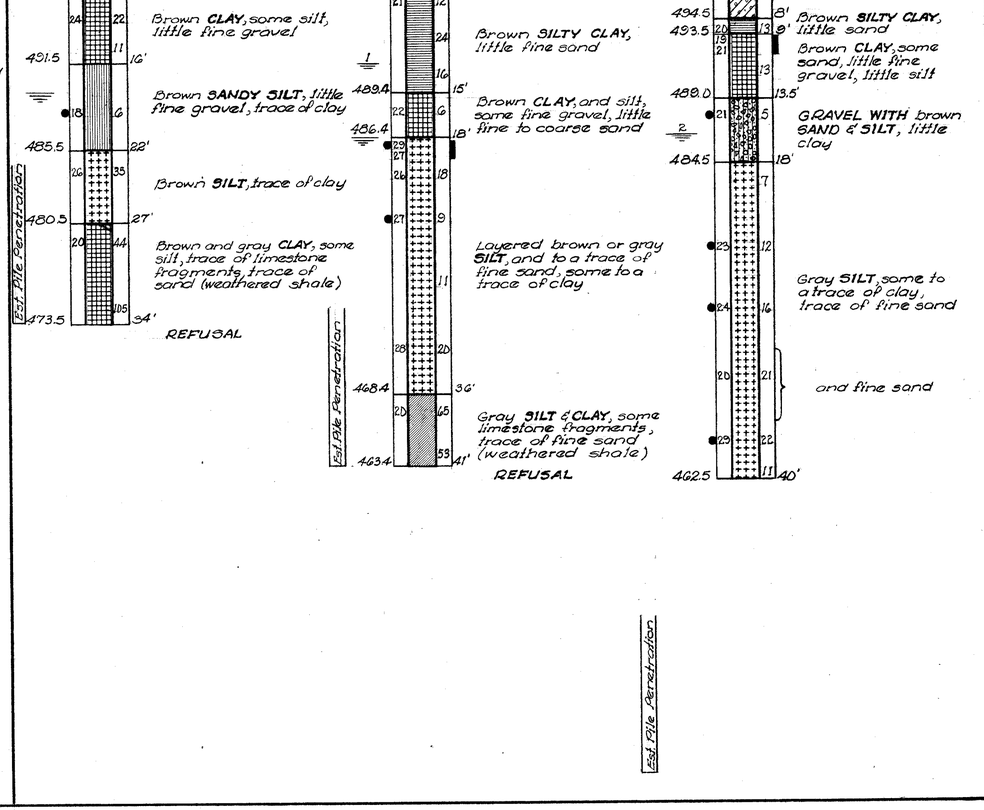
486

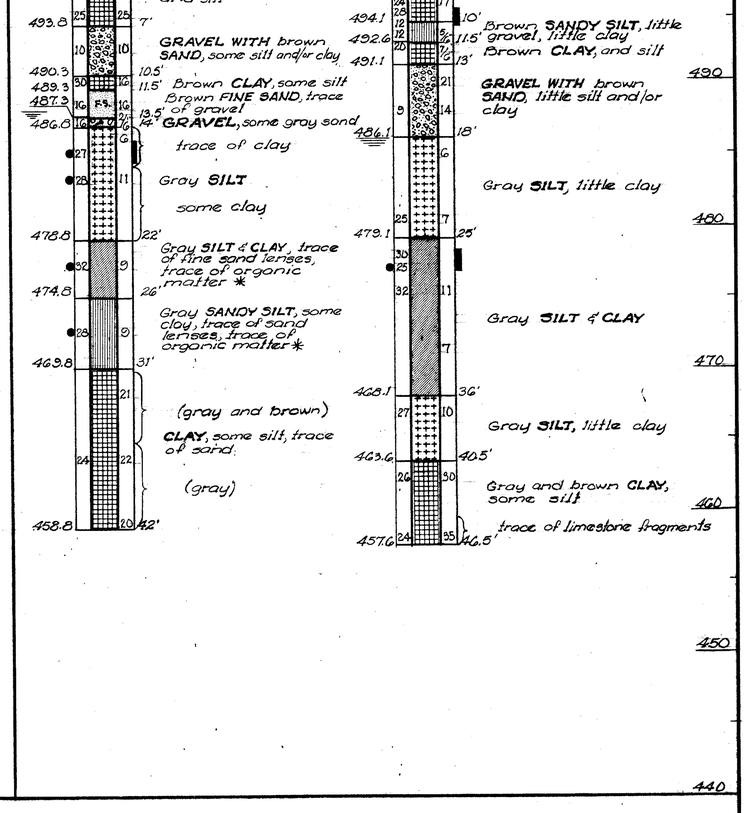
HOLT ALLEY STATIONING



RAMP C STATIONING



RAMP F STATIONING



BORING NOTES

- Water level reading - immediate.
- Water level reading - x days after completion of boring.
- w% 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 2.0" O.D. split spoon the last 12" of an 18" sample run using 140 lb. weight falling 30 inches, unless shown otherwise.
- ▌ 3" O.D. Shelby Tube sample taken at elevation of symbol.
- * Indicates unusual condition.

Description of material is based on laboratory test data and visual examination. Representative samples only were tested.
Modifying description in per cent of dry weight: trace 1-10%, little 10-20%, some 20-35%, and 35-50%.
Soils classified in accordance with the Highway Research Board system as modified by the Ohio Department of Highways Testing Laboratory.
Borings taken between December 7 and December 19, 1961.

Foundation borings and laboratory testing by The H.C. Nutting Co., Cincinnati, Ohio.

VOGT, IVERS, SEAMAN & ASSOCIATES
ENGINEERS CINCINNATI ARCHITECTS CHICAGO

BORINGS

WALLS NO. 5, 6, and 10 MILL CREEK EXPRESSWAY

HAMILTON COUNTY

DESIGNED	DRAWN	TRACED	CHECKED	REVIEWED · DATE	REVISED
R.W.	D.F.		R.W.		

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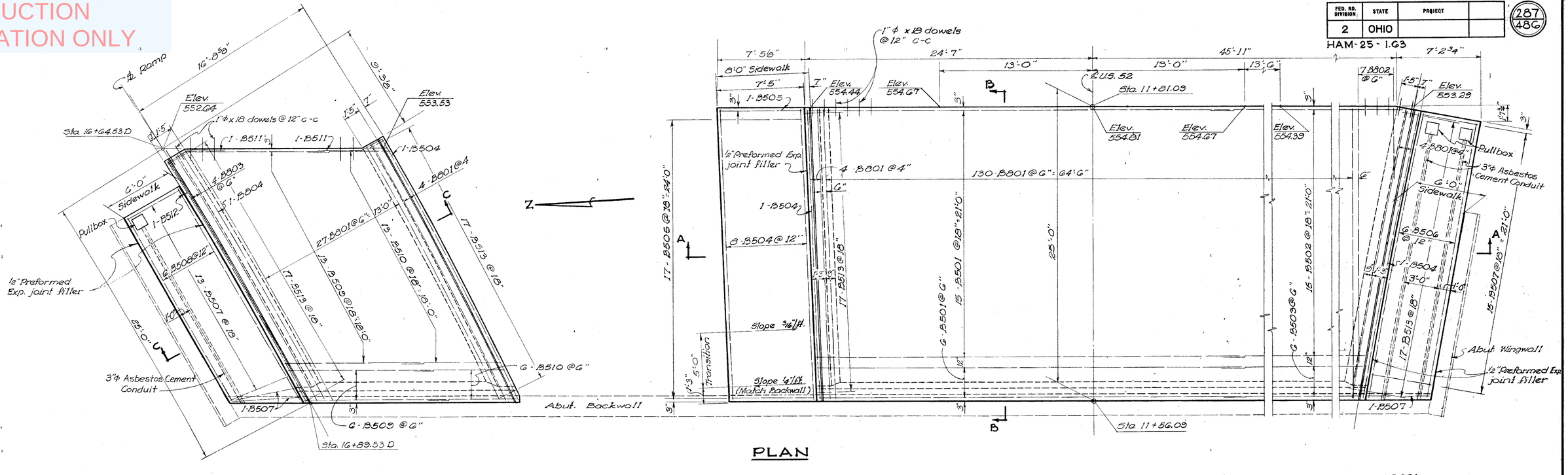
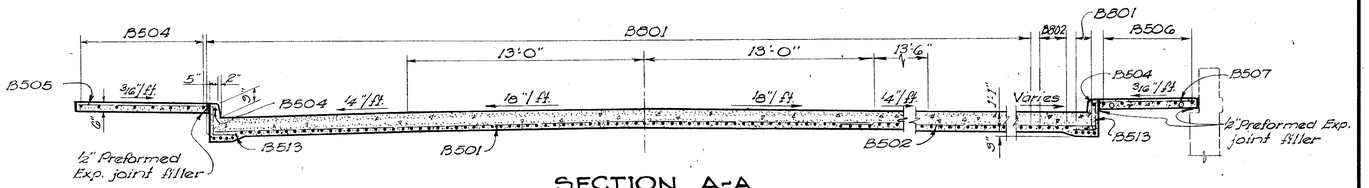
FED. RD. DIVISION	STATE	PROJECT	
2	OHIO		

HAM-25-1.63

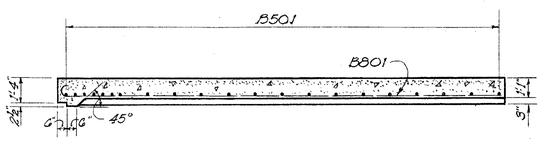
287
486



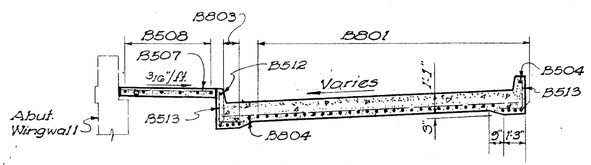
PLAN



SECTION A-A

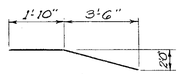


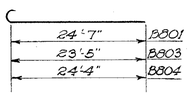
SECTION B-B

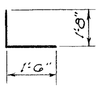


SECTION C-C

REINFORCING STEEL LIST				
MARK	LENGTH	NO.	SHAPE	WEIGHT
B501	36'-0"	21	Str.	789
B502	Varies 38'4" to 38'4" Incr. 5"	15	Str.	554
B503	32'-0"	6	Str.	200
B504	24'-8"	11	Str.	283
B505	7'-0"	18	Str.	131
B506	Varies 23'8" to 24'6" Incr. 2"	6	Str.	151
B507	5'-1"	31	Str.	164
B508	Varies 17'6" to 20'10" Incr. 8"	6	Str.	120
B509	12'-0"	19	Str.	237
B510	9'-2"	19	Str.	181
B511	5'-10"	2	Bt.	13
B512	23'-5"	1	Str.	24
B513	3'-0"	68	Bt.	213
B801	25'-8"	69	Bt.	11,582
B802	Varies 6'-3" to 24'-3" Incr. 3'-0"	7	Str.	111
B803	24'-0"	4	Bt.	262
B804	25'-5"	1	Bt.	68







NOTES:
1. One-half-inch preformed Exp. joint filler shall be included with the Approach Slab, Item 1-7, for payment.
2. For additional notes and details, see Std. Dwg. AS-1-54
3. For pullbox details, see sheet 261.

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ENGINEERS CINCINNATI — ARCHITECTS CHICAGO

APPROACH SLAB

BRIDGE NO. HAM-25-0252
MILL CREEK EXPRESSWAY
UNDER U.S. 52
HAMILTON COUNTY STA. 7+54.25 to STA. 11+56.09

DESIGNED	DRAWN	TRACED	CHECKED	REVIEWED	DATE	REVISED
G.J.C.	G.J.C.	G.J.C.	A.A.N.	J.A.D.	5-61	

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FED. RD. DIVISION	STATE	PROJECT	
2	OHIO		

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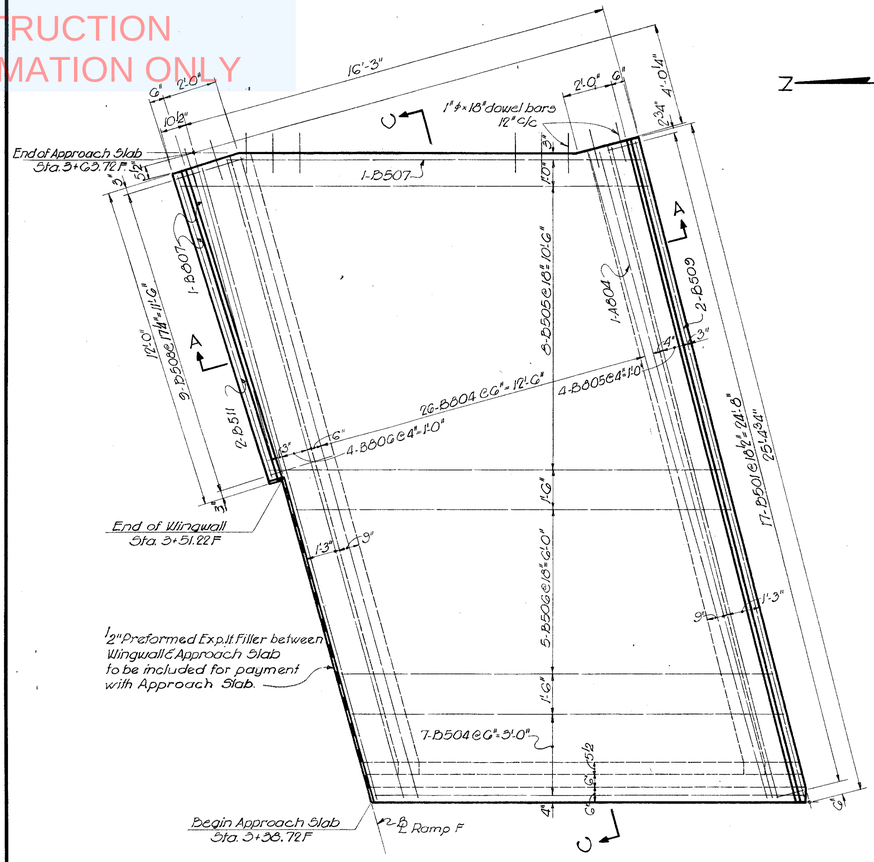
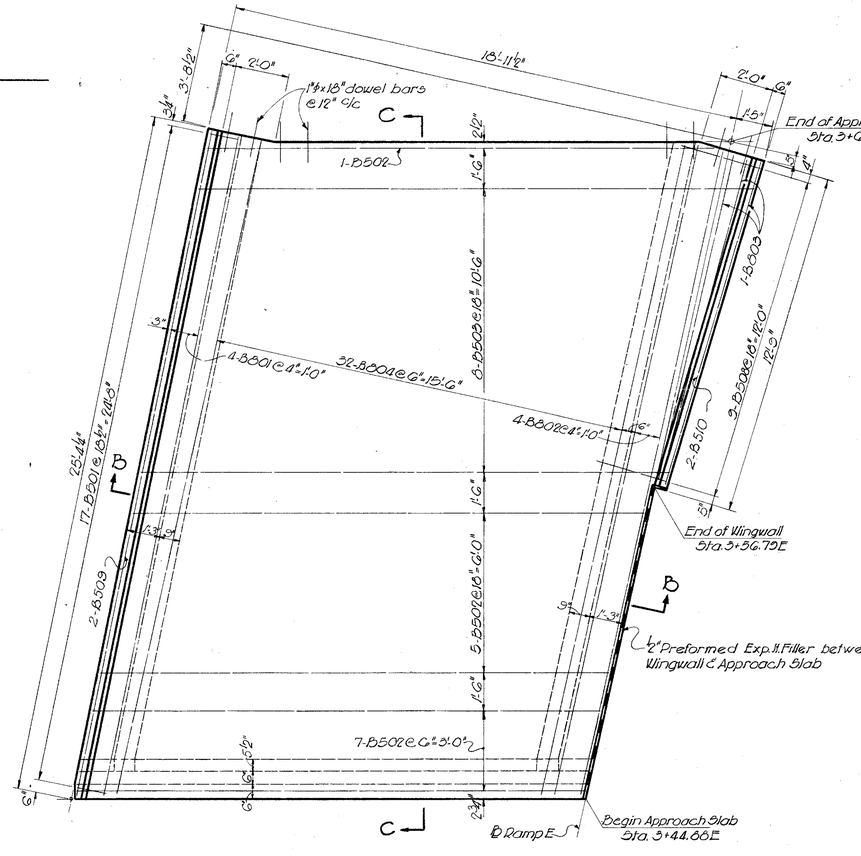
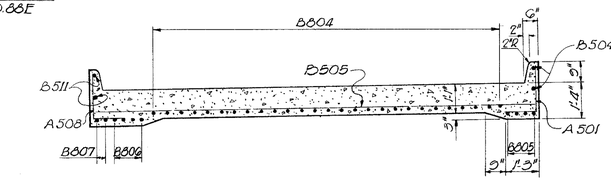
HAM-25-1.63



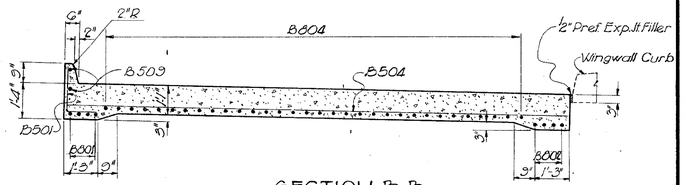
NORTH APPROACH SLAB PLAN



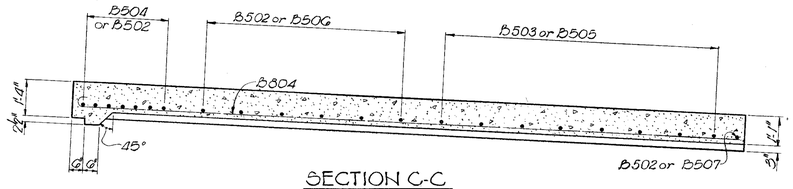
SOUTH APPROACH SLAB PLAN



SECTION A-A



SECTION B-B

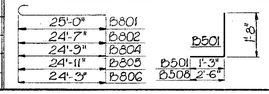


SECTION C-C

REINFORCING STEEL LIST

MARK	NO.	LENGTH	WEIGHT	SHAPE
B501	34	2'-3"	38	Bt.
B502	13	18'-8"	253	Str.
B503	1 Series of 8	Varies 19'-5" to 20'-3" Incr. 2"	167	Str.
B504	7	15'-3"	115	Str.
B505	1 Series of 8	Varies 16'-8" to 17'-3" Incr. 1"	142	Str.
B506	5	15'-10"	83	Str.
B507	1	15'-5"	153	Str.
B508	18	4'-0"	75	Bt.
B509	4	25'-0"	104	Str.
B510	2	12'-5"	26	Str.
B511	2	11'-8"	24	Str.

MARK	NO.	LENGTH	WEIGHT	SHAPE
B801	4	26'-1"	279	Bt.
B802	4	25'-8"	274	Bt.
B803	3	12'-6"	100	Str.
B804	59	25'-10"	4069	Bt.
B805	4	26'-0"	278	Bt.
B806	4	25'-4"	271	Bt.
B807	2	11'-9"	63	Str.



VOGT, IVERS, SEAMAN & ASSOCIATES
ENGINEERS CINCINNATI — ARCHITECTS CHICAGO

APPROACH SLABS
WESTERN HILLS VIADUCT LOWER DECK

HAMILTON COUNTY STA. 0+44.00 to STA. 5+25.00

DESIGNED	DRAWN	TRACED	CHECKED	REVIEWED	DATE	REVISED
~	S.T.	~	A.A.N.	J.A.D.	5-61	

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FED. RD. DIVISION	STATE	PROJECT	
2	OHIO		

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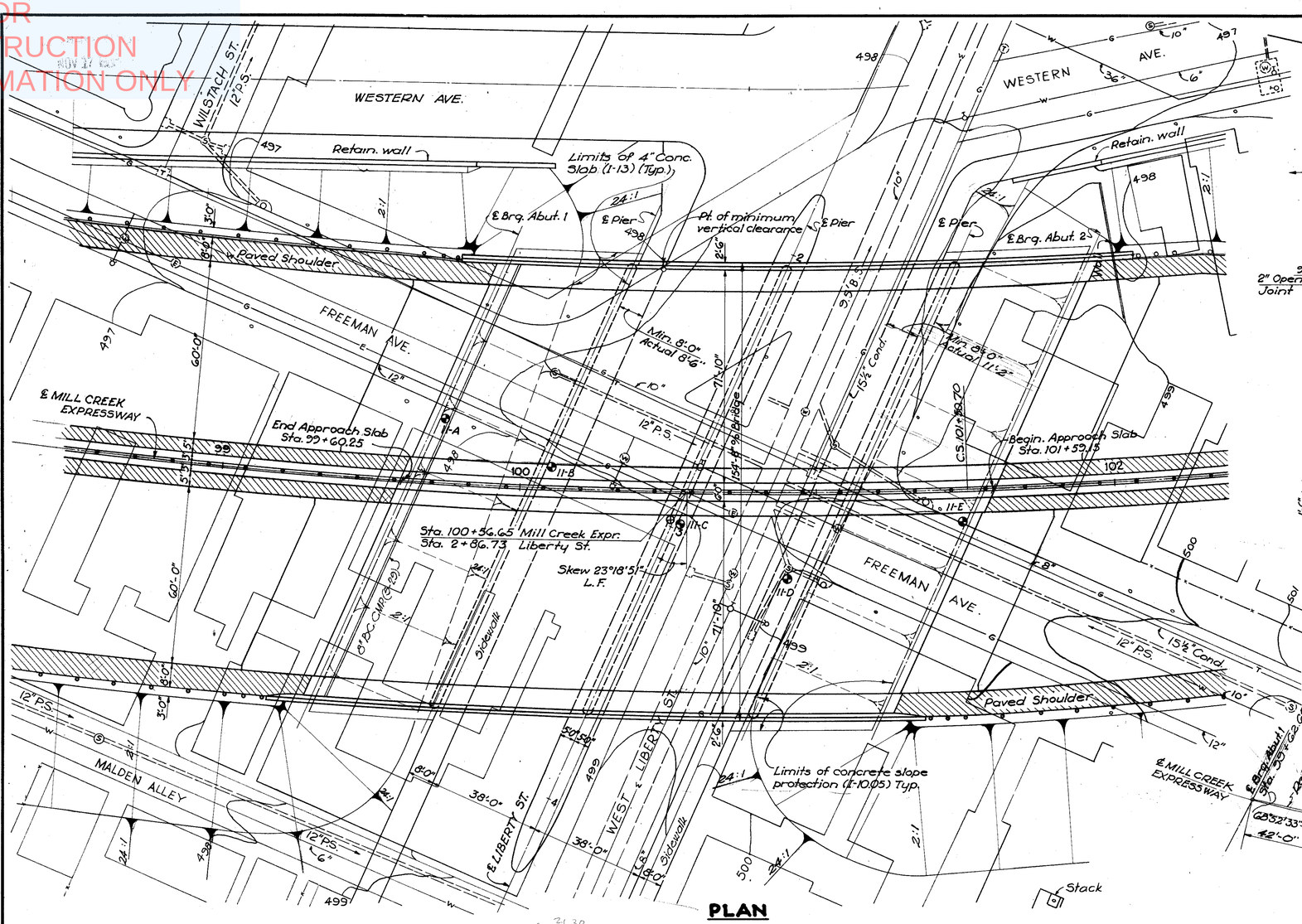
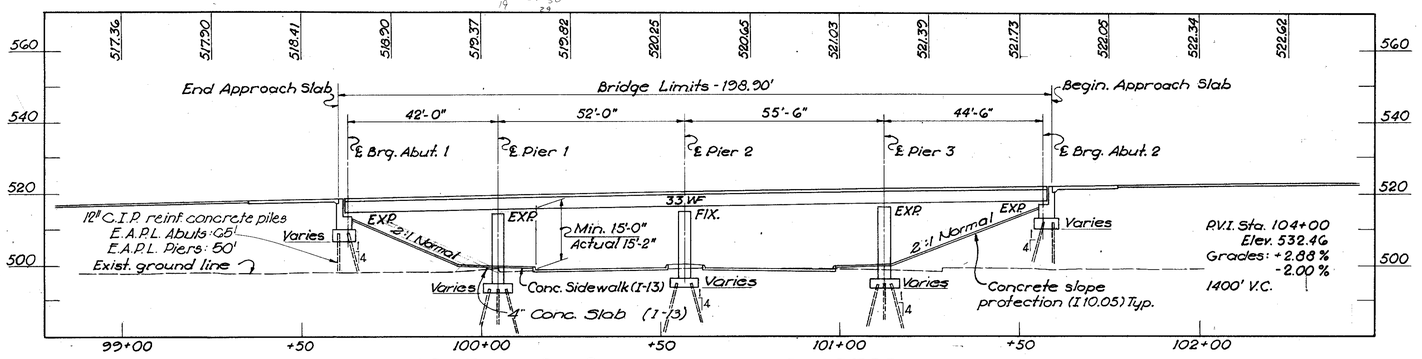
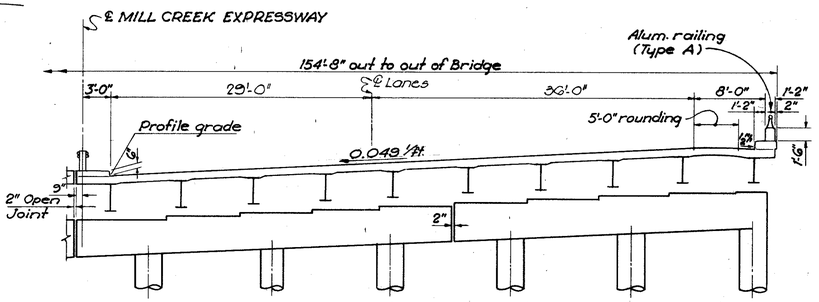


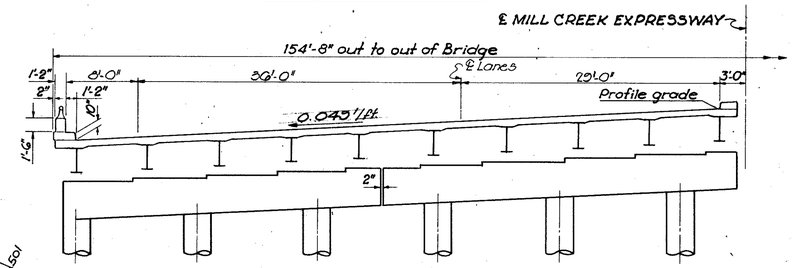
PLAN



PROFILE ON ℄ MILL CREEK EXPRESSWAY

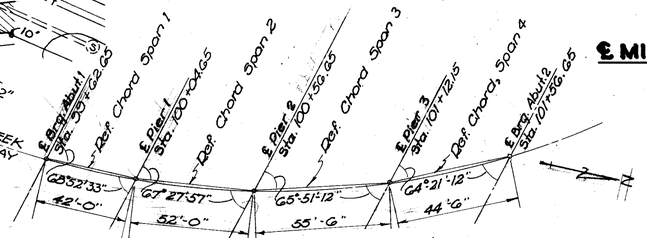


NORTHBOUND LANES



SOUTHBOUND LANES

SECTION THRU BRIDGE



CURVE DATA ℄ MILL CREEK EXPRESSWAY

D =	3°00'00"
Δ =	34°55'25"
R =	1909.86'
L_c =	564.12'
L_s =	600.00'
T_s =	903.00'
P.I. Sta.	98+89.58

LAYOUT SKETCH

℄'s of Piers are parallel to each other and to ℄'s of Brg. of Abutments

NOTES

Foundation design and foundation quantities are based on a study of test borings and soil samplings made at the site. This sounding information may be inspected in the Office of the Bureau of Bridges in Columbus or in an abridged form in the Division Office, but the State assumes no responsibility for the accuracy thereof.

● Boring
⊕ Rod sounding

Limits of 4" Concrete slab are from toe of slope to back of sidewalk and 3'-0" beyond, the outer edge of the superstructure.

Bench Mark No. 1: El. 498.07
Spike in Power Pole #N7-208E. N.W. corner Western Ave. & Liberty St. 38' Lt. Sta. 5+85 Western Ave. Ext.

PROPOSED STRUCTURE

TYPE: Continuous rolled steel beam with reinforced concrete deck & substructure.
SPANS: 42'-0", 52'-0", 55'-6", 44'-6"
ROADWAY: 152'-0" between parapets.
LOAD FREQUENCY: CF-2000 (57)-Adequate for AASHO alternate loading.
SKEW: 23°18'51" L.F.
WEARING SURFACE: 1" monolithic concrete.
APPROACH SLABS: AS-1-54 (25' long)
ALIGNMENT: 3° Curve left
SUPERELEVATION: 0.049 ft/ft.

VOGT, IVERS, SEAMAN & ASSOCIATES
ENGINEERS CINCINNATI — ARCHITECTS CHICAGO

SITE PLAN

BRIDGE NO. HAM-25-0173
MILL CREEK EXPRESSWAY OVER LIBERTY STREET
HAMILTON COUNTY STA. 99 + 60.25 to STA. 101 + 59.15

PRESENT TOPOGRAPHY		PROPOSED WORK			
SURVEYED	DRAWN	DESIGNED	DRAWN	CHECKED	REVISIONS
Aerial	Aerial	G.J.C.	G.J.C.	P.J.K.	

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FED. RD. DIVISION	STATE	PROJECT	
2	OHIO		

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HAM-25-1.63

ESTIMATED QUANTITIES

ITEM	TOTAL	UNIT	DESCRIPTION	ABUT-MENTS	PIERS	SUPER-STRUCTURE	GENERAL		
E-2	1505	Cu. Yds.	Unclassified Excavation	740	765				
S-1	906	Cu. Yds.	Class "C" Concrete - Superstructure			906			
S-1	370	Cu. Yds.	Class "C" Concrete - Piers above footings		370				
S-1	300	Cu. Yds.	Class "E" Concrete - Abutments above footings	300					
S-1	527	Cu. Yds.	Class "E" Concrete - Pier and abutment footings	234	293				
S-3	80	Lin. Ft.	Waterproofing, premolded sealing strip	80					
S-4	468,835	Lbs.	Reinforcing Steel	35,461	166,426	266,948			
S-7	657,600	Lbs.	Structural Steel			657,600			
S-8	657,600	Lbs.	Field painting of structural steel,			657,600			
S-9	48	Sq. Ft.	1" Preformed expansion joint filler	48					
S-14	446	Lin. Ft.	Railing (aluminum railing and supports and conc. parapet)	56		332			
S-14	188	Lin. Ft.	Guardrail, Type I-15.11, double-faced, with galv. steel posts and bolts			188			
S-16	Lump	Lump Sum	First test pile				Lump		
S-17	Lump	Lump Sum	First pile test load				Lump		
S-17	1	ea.	Subsequent pile test load				1		
S-18	17,590	Lin. Ft.	12" Cast-in-place reinforced concrete piles	5,590	12,000				
S-25	3	ea.	Light Standard with 15' mast arm, including anchor bolts				3		
S-25	400	Lin. Ft.	3" Asbestos Cement Conduit, fittings & bushings				400		
S-25	24	Lin. Ft.	2" Aluminum Conduit, fittings & bushings				24		
S-25	145	Lin. Ft.	1" Aluminum Conduit, fittings & bushings				145		
S-25	280	Lin. Ft.	¾" Aluminum Conduit, fittings & bushings				280		
S-25	Lump	Lump Sum	Grounding system				Lump		
S-25	7	ea.	Pull Box complete with frame and cover				7		
S-29	130	Cu. Yds.	Porous Backfill	130					
S-29	5	ea.	Inlet frame & grating & 6" steel pipe.			5			
S-29	52	Lin. Ft.	6" Galvanized or wrought iron pipe downspouts and collectors incl. specials.			52			
S-29	164	Lin. Ft.	8" Bituminous coated C.M.P., including specials, Sec. M-64(c)				164		
I-10	1,452	Sq. Yds.	Concrete slope protection				1,452		
I-13	3,375	Sq. Ft.	4" Concrete slab				3,375		
Special	906	ea.	Water reducing, set retarding admixture*			906			
S-25	3	ea	Ballast for 700W Lamp - C.G.A Series.				3		
S-25	8	ea.	Fluorescent Luminaire complete w. ballast(240V.), hangers & inserts & 2-1.5A fluorescent lamps				8		
S-25	440	Lin. Ft.	6000V Single conductor #8 AWG direct burial cable (plain)				440		
S-25	300	Lin. Ft.	600 V Single conductor #12 AWG Luminaire wire				300		
S-25	895	Lin. Ft.	600 V Single conductor #8 AWG Luminaire wire				895		
S-25	3	ea.	700 W Luminaire with 700W mercury vapor lamp				3		

*See proposal note.

GENERAL NOTES

REFERENCE shall be made to the following:

Standard Drawings: AR-1-57 revised 12-12-60
CSB-2-56, sheets 2 & 3 of 6, revised 2-2-59
AS-1-54, revised 12-1-54

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: Piles shall be driven to a bearing capacity of 35 tons per pile.

EXCAVATION: Excavation quantity includes the removal of fill material between the surface of proposed embankment and the bottom of footings.

CONCRETE DECK PLACING: In order to facilitate water curing of the concrete of the deck slab, the placing of concrete shall progress upgrade. The slab may be placed in sections, between transverse construction joints which are normal to the centerline of bridge and are located near the center of any span.

RAILING: Aluminum rail and supports, concrete parapet, reinforcing bars wholly within the concrete parapet, sponge rubber for parapet joints and preformed bearing pads shall be included in Item S-14 for payment.

UTILITY LINES: All Labor and expense involved in relocating the affected utility lines shall be borne by the owners. The Contractor and Owners are requested to co-operate by arranging their work in such a manner that inconveniences to either will be held to a minimum.

EMBANKMENTS shall be in place and compacted to subgrade elevation for a distance of 200 feet back of abutments for a minimum period of 90 days prior to beginning construction of the abutments, unless settlement hubs indicate that any settlements have ceased. Piers shall not be started until embankments are completed to subgrade elevation.

NOTES:
Materials in approach slabs are not included in the above estimated quantities.
First pile test load shall be applied if and where directed by the Project Engineer.

VOGT, IVERS, SEAMAN & ASSOCIATES
ENGINEERS CINCINNATI — ARCHITECTS CHICAGO

GENERAL NOTES AND ESTIMATED QUANTITIES
BRIDGE NO. HAM-25-0173
MILL CREEK EXPRESSWAY OVER LIBERTY STREET
HAMILTON COUNTY STA. 99+60.25 to STA. 101+55.15

		DESIGNED	DRAWN	CHECKED	REVISIONS
			D.V.P.	G.J.C.	

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FED. RD. DIVISION	STATE	PROJECT	
2	OHIO		

HAM-25-1.63

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497.6 — 0.0 Ground Elevation - 498.1
0.5 Concrete
2 — Brown and gray silty clay
492.6 — 5.5
4, 13, 16 — Mottled brown silt, little clay and a trace of sand
478.1 — 20.0
10, 12 — Brown and gray silt and clay with fine sand lenses
473.1 — 25.0
ST. — 13, 14 — Gray silt with some clay
456.6 — 41.5
18, 49 — Brown fine sand
451.6 — 46.5
Boring completed

BORING 11-A

498.0 — 0.0 Ground Elevation - 498.5
497.5 — 0.5 Concrete
1@6" — 4, 9 — Brown sandy clay & cinders, fill
493.5 — 5.0
3, 9 — Brown and gray silty clay with fine gravel
491.0 — 7.5
17, 17, 14 — Brown and gray silty clay
478.5 — 20.0
5, 7, 7 — Brown and gray silt and clay with fine sand lenses
463.5 — 35.0
10 — Gray silt with some clay; fine sand layers
458.5 W.L. — 40.0
14, 27 — Brown fine to medium sand with silty clay seams
447.0 — 51.5
9 — Boring completed

BORING 11-B

497.6 — 0.0 Ground Elevation - 498.1
0.5 Concrete
3, 13, 12, 10 — Mottled brown and gray clay and silt
478.1 — 20.0
15, 14 — Gray silt with some clay and silty clay layers
ST. — 468.1 — 30.0
ST. — 11, 13 — Gray silt and clay
456.1 — 42.0
37, 38, 42 — Brown fine to medium sand
441.6 — 56.5
33 — Boring completed

BORING 11-C

498.5 — 0.0 Ground Elevation - 499.0
497.5 — 0.5 Concrete
2@24" — 1.5 Cinders, fill
2, 4, 5 — Brown and gray silty clay
494.0 — 5.0
5, 16, 17 — Gray silty clay
489.0 — 10.0
5 — Mottled brown and gray clay and silt
484.0 — 15.0
W.L. — 7, 7, 9 — Gray silt and clay with some sand
464.0 — 35.0
21, 27 — Brown sandy silt
452.5 — 46.5
17 — Boring completed

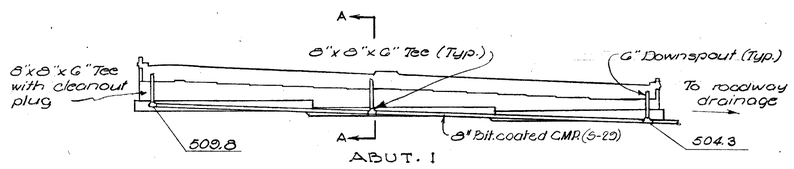
BORING 11-D

498.6 — 0.0 Ground Elevation - 499.3
0.1 Concrete
497.3 — 2.0 Gray silty clay, Fill
9, 7, 6 — Brown clay and silt; trace of sand and fine gravel
491.8 — 7.5
5, 19 — Gray silt with some clay and sand; trace of fine gravel
489.3 — 10.0
20 — Mottled brown and gray clay and silt
481.3 — 18.0
14, 10, 15 — Brown silt and clay with a trace of sand
466.3 — 33.0
16 — Gray silt with some clay and fine sand layers
462.8 — 36.5
Boring completed

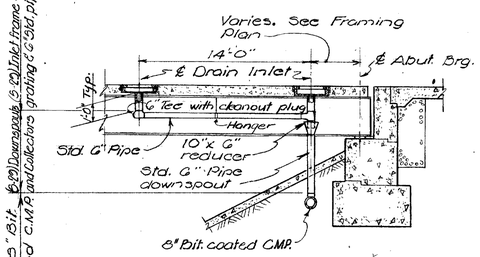
BORING 11-E

DRAINAGE NOTES

1. For drain inlet locations see Sh. 300 & 301
   For drain inlet details see Misc. Str. Details, Sheet 412.
2. For connection to roadway drainage, see Site Plan Sh. 289.



DOWNSPOUT DRAIN PIPE



SECTION A-A

NOTE:

1. W.L. indicates water level after 24 hours.
2. Figures in right hand column indicate number of blows required to drive 2" O.D. sampling pipe one foot, using 140 lbs. weight falling 30 inches.
3. S.T. indicates Two-inch undisturbed Shelby Tube sample.

VOGT, IVERS, SEAMAN & ASSOCIATES
ENGINEERS CINCINNATI — ARCHITECTS CHICAGO

BORINGS & DRAINAGE DETAILS

BRIDGE NO. HAM-25-0173
MILL CREEK EXPRESSWAY OVER LIBERTY STREET

STA. 99+90.25 to STA. 101+55.15

DESIGNED	DRAWN	TRACED	CHECKED	REVIEWED DATE	REVISED
~o~	DWF	DWF	C.W.	J.A.D. 10-60	

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FED. RD. DIVISION	STATE	PROJECT	
2	OHIO		

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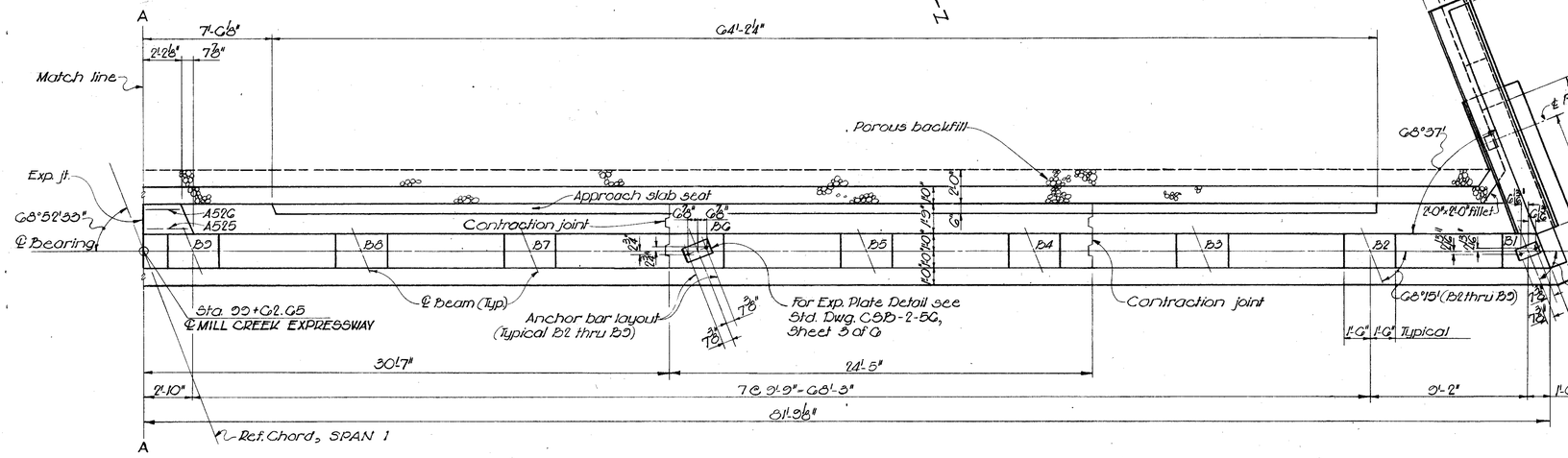
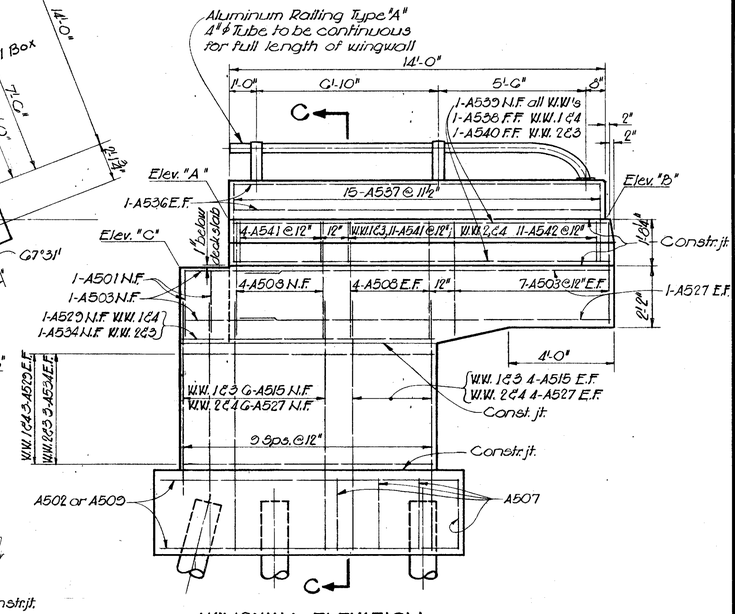
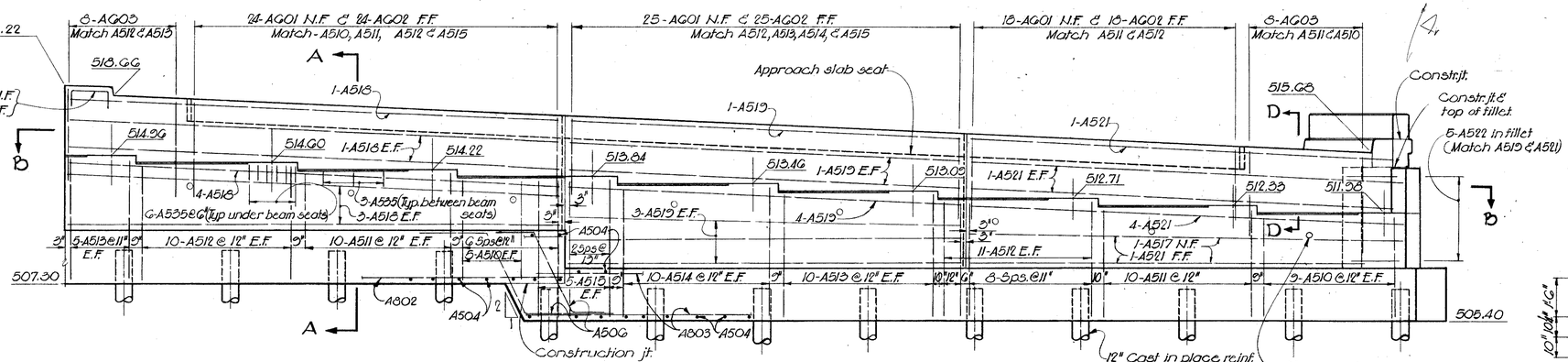
HAM-25-1.03



PLAN



WINGWALL ELEVATION



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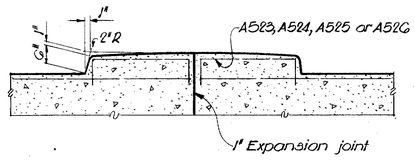
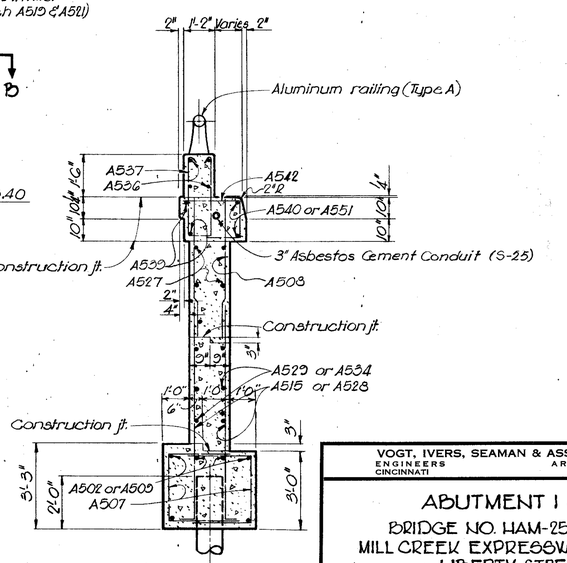


MEDIAN DETAIL

WINGWALL ELEVATIONS				
		ELEV. A	ELEV. B	ELEV. C
ABUT. 1.	W. W. 1.	516.54	516.26	514.80
	W. W. 2.	522.07	521.77	520.32
ABUT. 2.	W. W. 3.	519.22	520.16	518.11
	W. W. 4.	525.32	525.52	523.52

NOTES

1. Sections A-A and B-B and D-D are on Sheet 295
2. For additional Notes, see Sheet 293
3. For Footing Plan, see Sheet 293
4. For Expansion and Contraction Joint details, see Sheet 293



SECTION C-C

VOGT, IVERS, SEAMAN & ASSOCIATES
ENGINEERS CINCINNATI — ARCHITECTS CHICAGO

ABUTMENT 1 S.B

BRIDGE NO. HAM-25-0173
MILL CREEK EXPRESSWAY OVER LIBERTY STREET

HAMILTON COUNTY STA. 99+60.25 to STA. 101+59.15

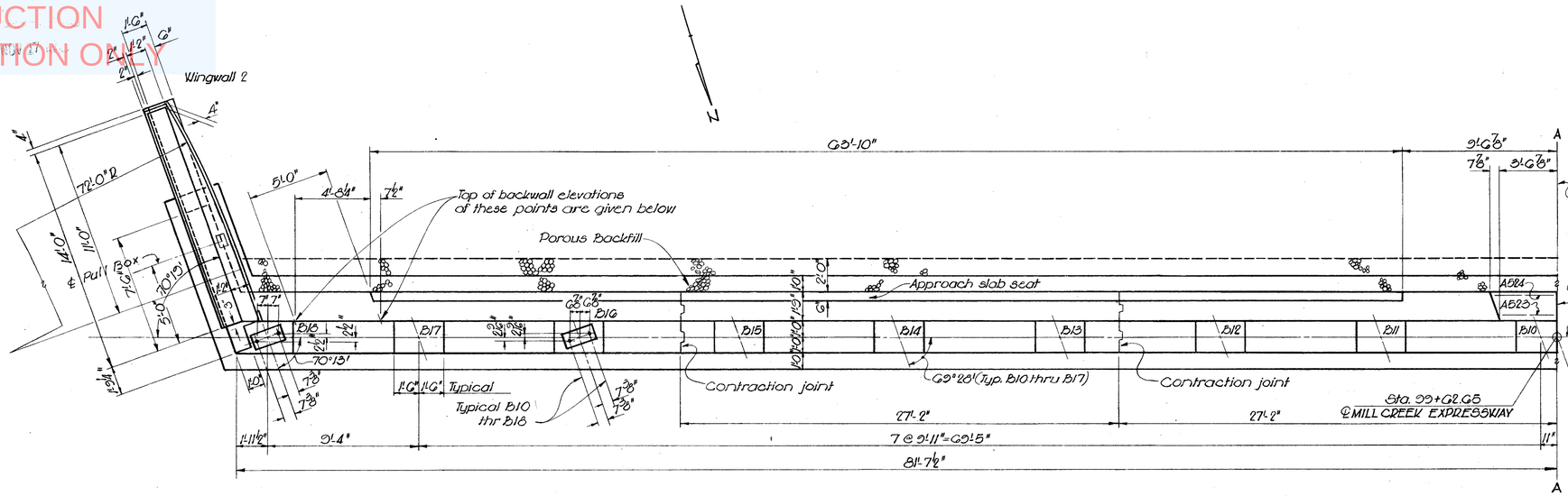
DESIGNED	DRAWN	TRACED	CHECKED	REVIEWED DATE	REVISED
G.J.C.	S.T.	~	A.Y.	J.A.D. 10-60	

NOT FOR CONSTRUCTION INFORMATION ONLY

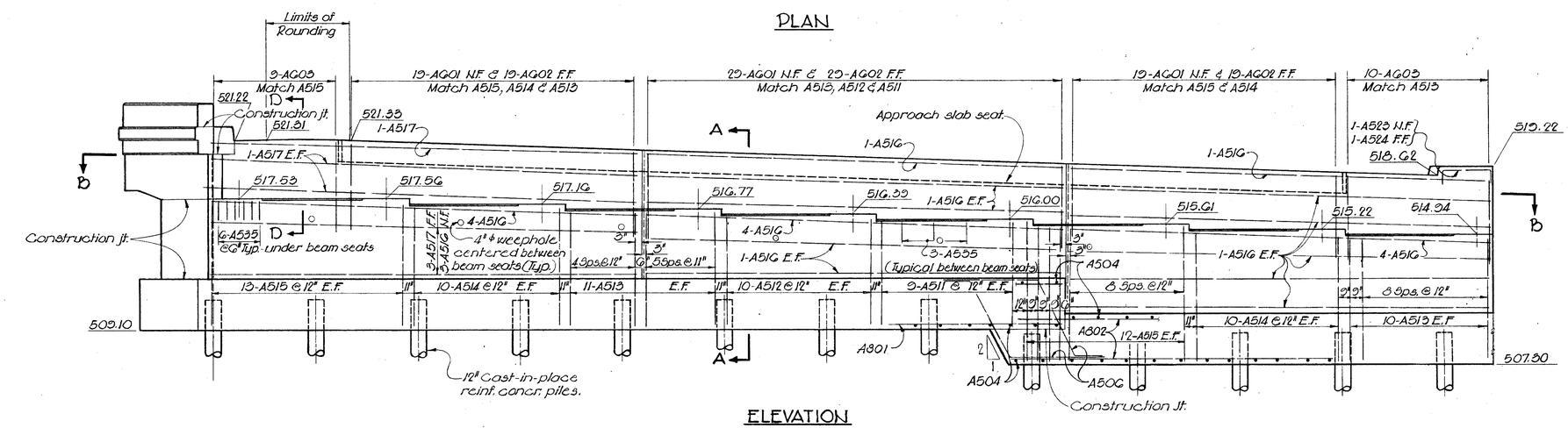
FED. RD. DIVISION	STATE	PROJECT	
2	OHIO		

293 486

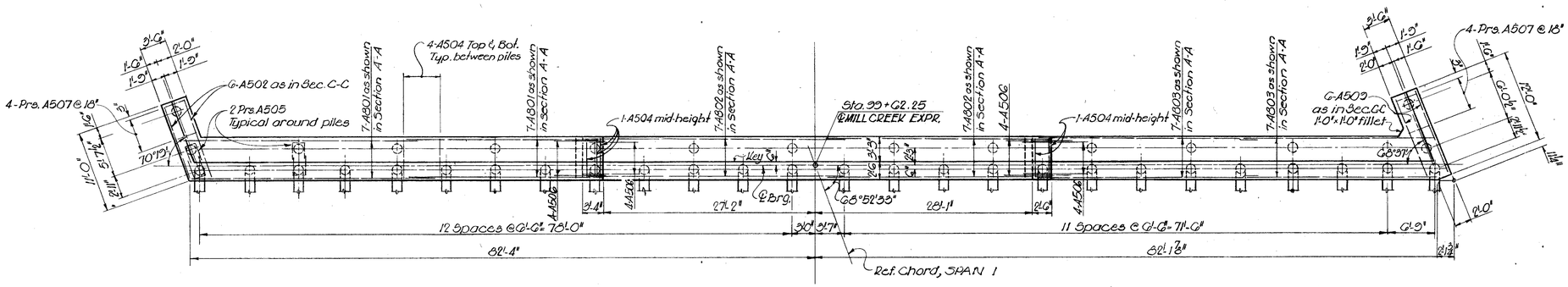
HAM-25-1.63



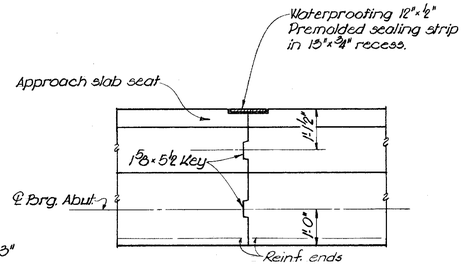
PLAN



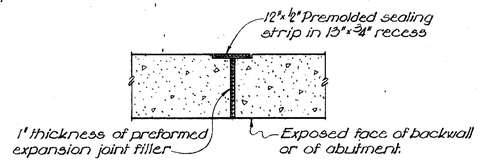
ELEVATION



FOOTING PLAN



CONTRACTION JOINT



EXPANSION JOINT

NOTES:

1. Sections A-A and B-B and D-D are on Sheet 295
2. Designation used : N.F. = Near Face
   F.F. = Far Face
   E.F. = Each Face
3. Porous backfill 2' thick full length of the abutment shall extend up to the underside of the approach slabs and paved shoulders.
4. For railing details, see Std. Dwg. AR-1-57.
5. For layout diagram, see Sheet 289
6. Place reinforcing under beam seats so as not to interfere with the drilling of anchor bar holes.
7. For electrical details, see Sheet 259.

VOGT, IVERS, SEAMAN & ASSOCIATES
ENGINEERS — CINCINNATI
ARCHITECTS — CHICAGO

ABUTMENT 1. N.B.

BRIDGE NO. HAM-25-0173
MILL CREEK EXPRESSWAY OVER LIBERTY STREET

HAMILTON COUNTY STA. 99+62.25 to STA. 101+59.15

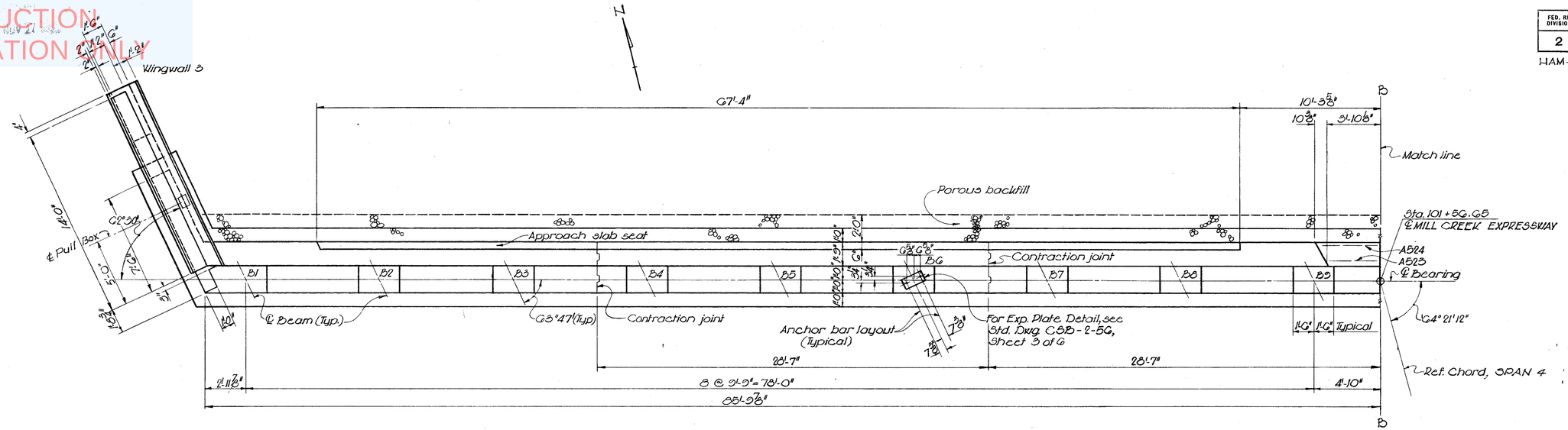
DESIGNED	DRAWN	TRACED	CHECKED	REVIEWED	DATE	REVISED
G.J.C.	S.T.	~	A.Y.	J.A.D.	10-60	

NOT FOR CONSTRUCTION INFORMATION ONLY

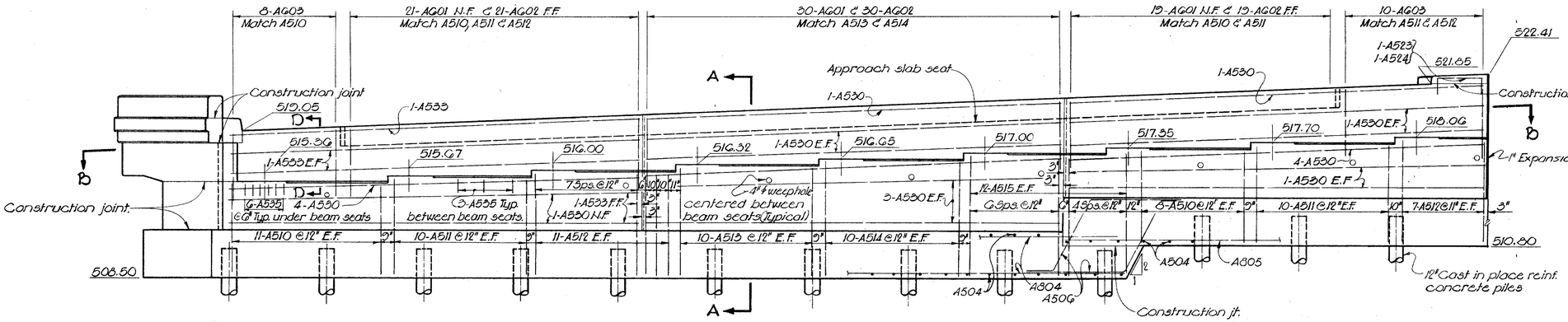
FED. RD. DIVISION	STATE	PROJECT	
2	OHIO		

294
486

HAM-25-1.63



PLAN



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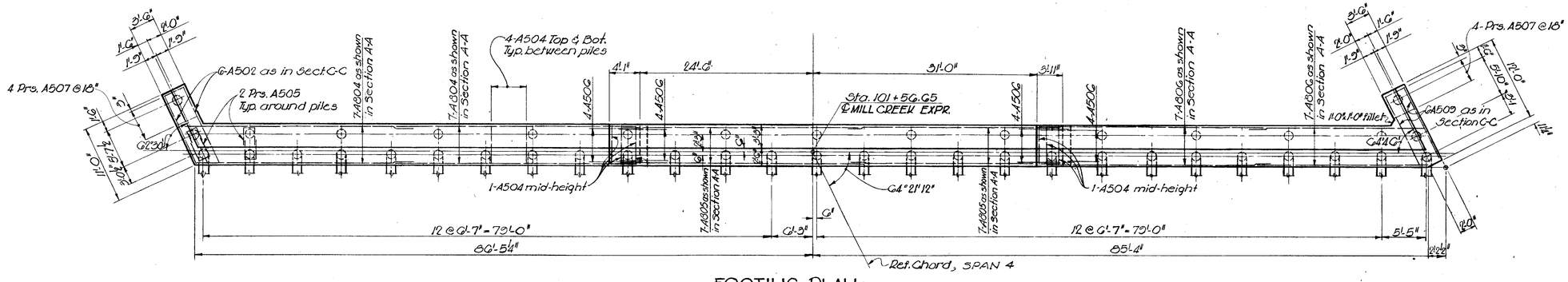

FOOTING PLAN

NOTES

1. Sections A-A and B-B and D-D are on Sheet 295
2. For additional notes, see Sheet 293

VOGT, IVERS, SEAMAN & ASSOCIATES
ENGINEERS CINCINNATI — ARCHITECTS CHICAGO

ABUTMENT 2 S.B.

BRIDGE NO. HAM-25-0173
MILL CREEK EXPRESSWAY OVER LIBERTY STREET

HAMILTON COUNTY STA. 99+60.25 to STA. 101+59.15

DESIGNED	DRAWN	TRACED	CHECKED	REVIEWED	DATE	REVISED
G.J.C.	S.T	~	A.Y	J.A.D.	10-60	

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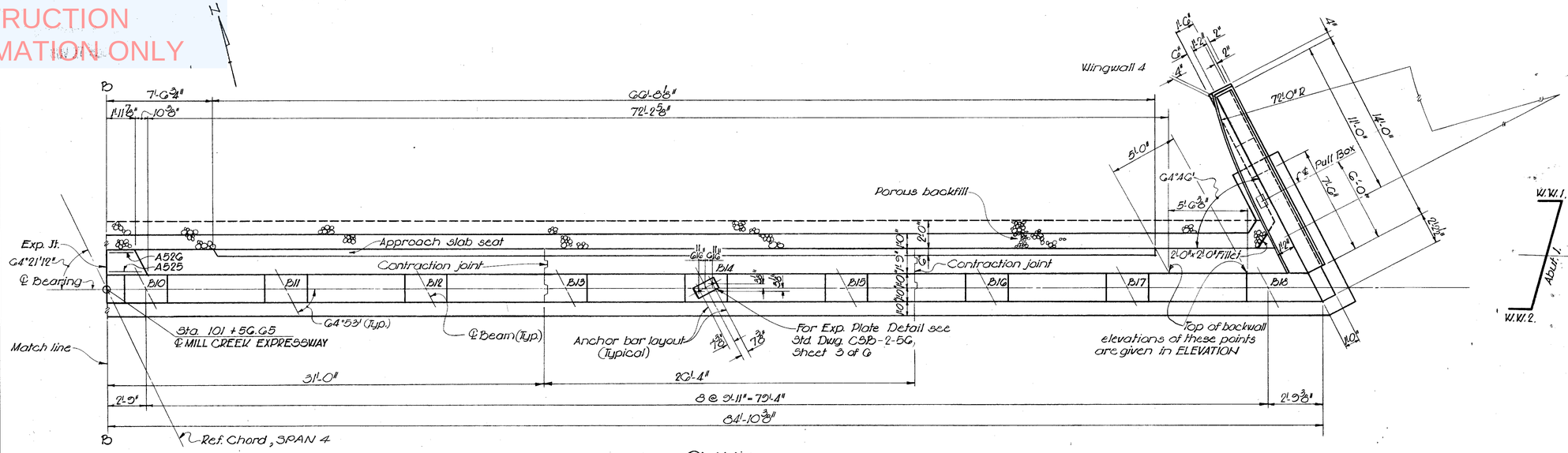
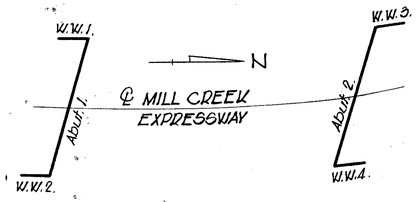
FED. RD. DIVISION	STATE	PROJECT	
2	OHIO		

295
486

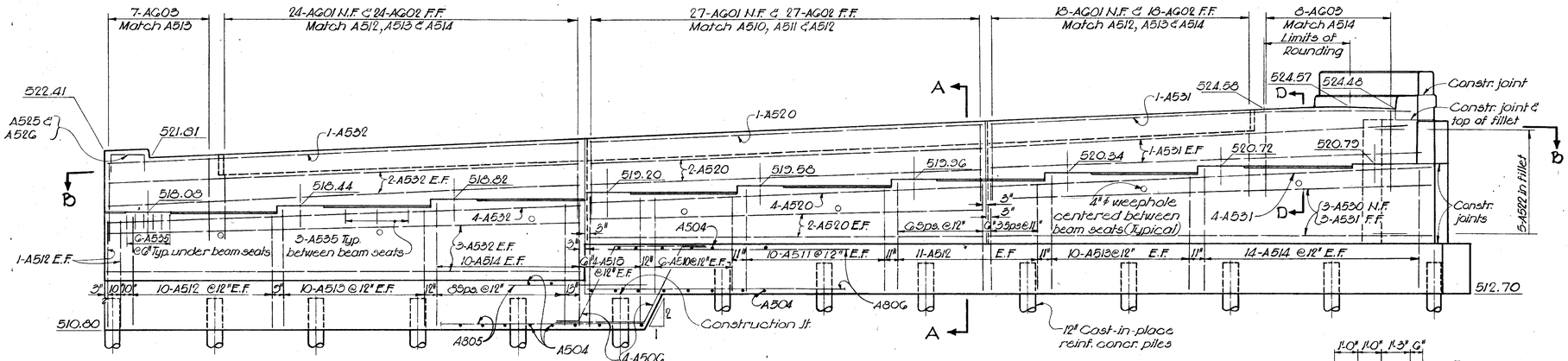
HAM-25-1.03



PLAN



KEY PLAN



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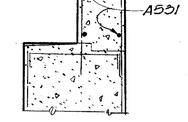
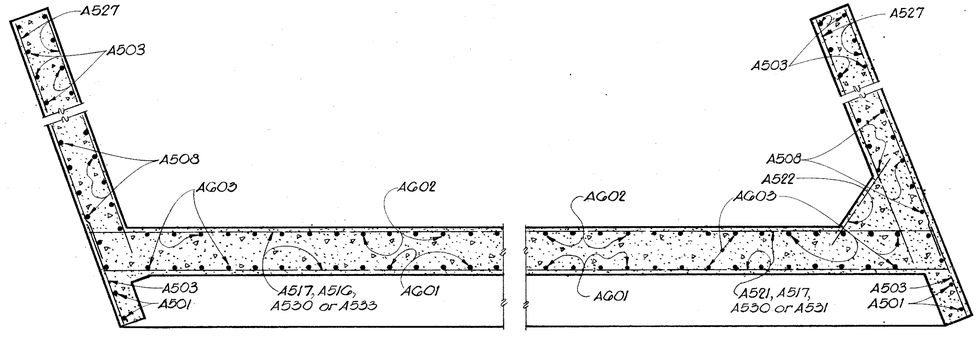
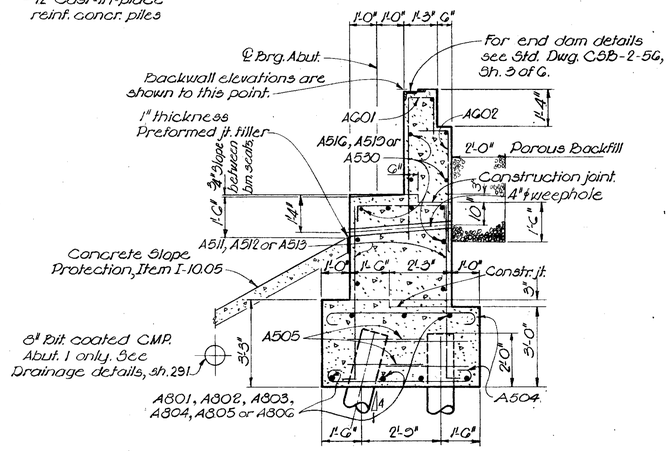


SECTION D-D



SECTION B-B



SECTION A-A

For notes see Sheet 293

VOGT, IVERS, SEAMAN & ASSOCIATES
ENGINEERS CINCINNATI ARCHITECTS CHICAGO

ABUTMENT 2, N.B.

BRIDGE NO. HAM-25-0173
MILL CREEK EXPRESSWAY OVER LIBERTY STREET

HAMILTON COUNTY STA. 99+60.25 to STA. 101+56.15

DESIGNED	DRAWN	TRACED	CHECKED	REVIEWED	DATE	REVISED
G.J.C.	B.T.	~	A.Y.	J.A.D.	10-60	

NOT FOR CONSTRUCTION INFORMATION ONLY

FED. RD. DIVISION	STATE	PROJECT	
2	OHIO		

HAM-25-1.65

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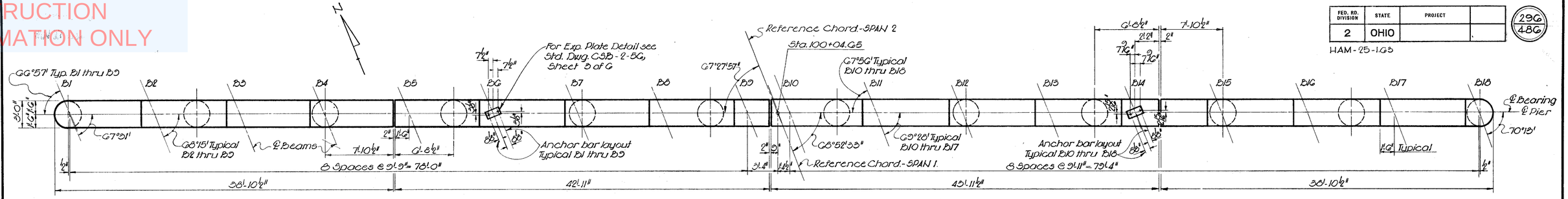
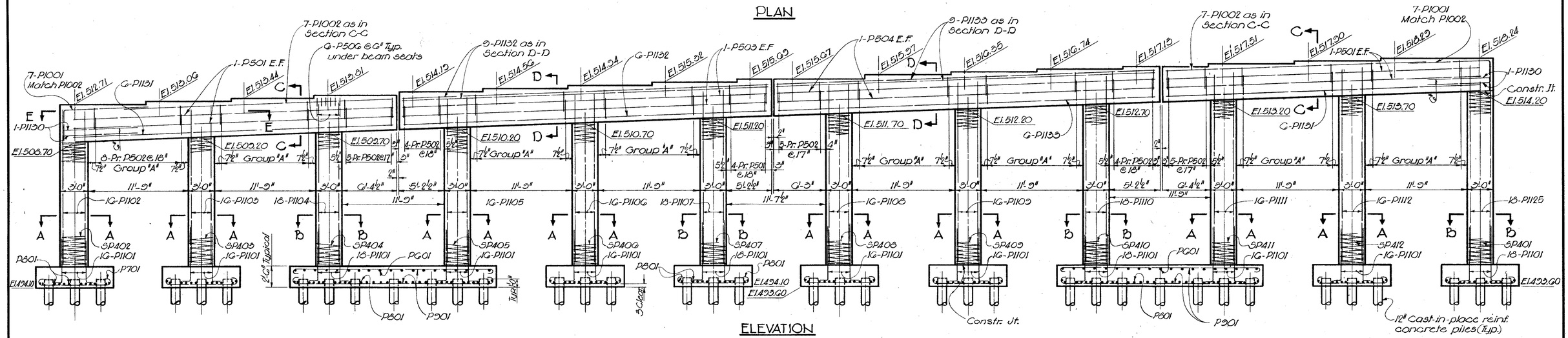
486



PLAN



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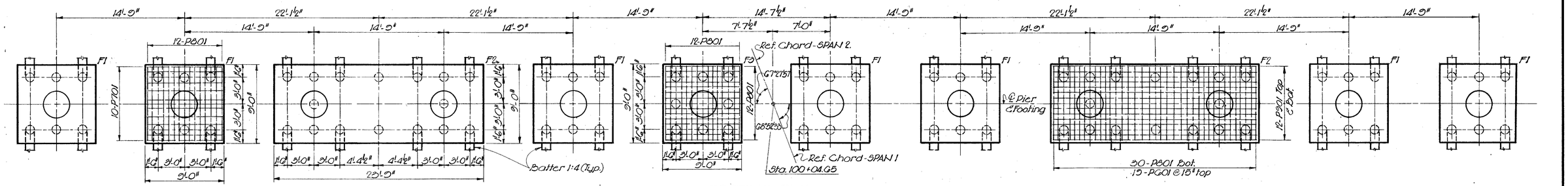
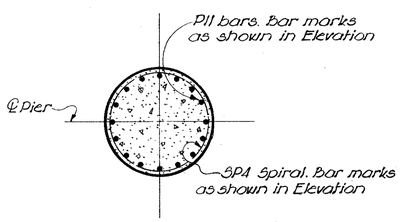
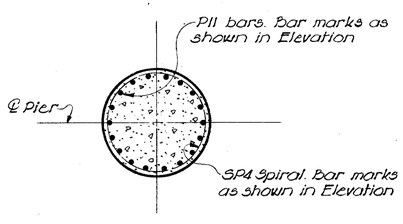


FOOTING PLAN



SECTION A-A



SECTION B-B

NOTES:

1. Designation: E.F. = Each Face
2. For layout diagram see Sheet. 289
3. For Sections C-C, D-D, and E-E See Sheet. 298
4. Place reinforcing under beam seats so as not to interfere with the drilling of anchor bar holes.

VOGT, IVERS, SEAMAN & ASSOCIATES
ENGINEERS — ARCHITECTS
CINCINNATI — CHICAGO

PIER 1.

BRIDGE NO. HAM-25-0173
MILL CREEK EXPRESSWAY OVER LIBERTY STREET

HAMILTON COUNTY STA. 99+60.25 to STA. 101+59.15

DESIGNED	DRAWN	TRACED	CHECKED	REVIEWED	DATE	REVISED
G.J.C.	S.T.	~	A.Y.	J.A.D.	10-60	

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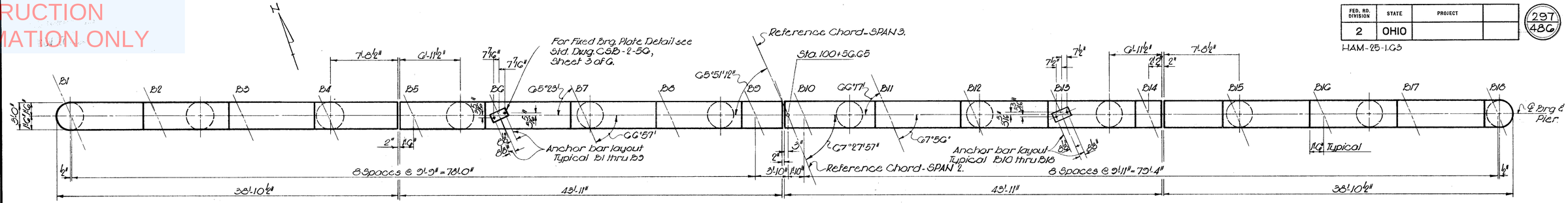
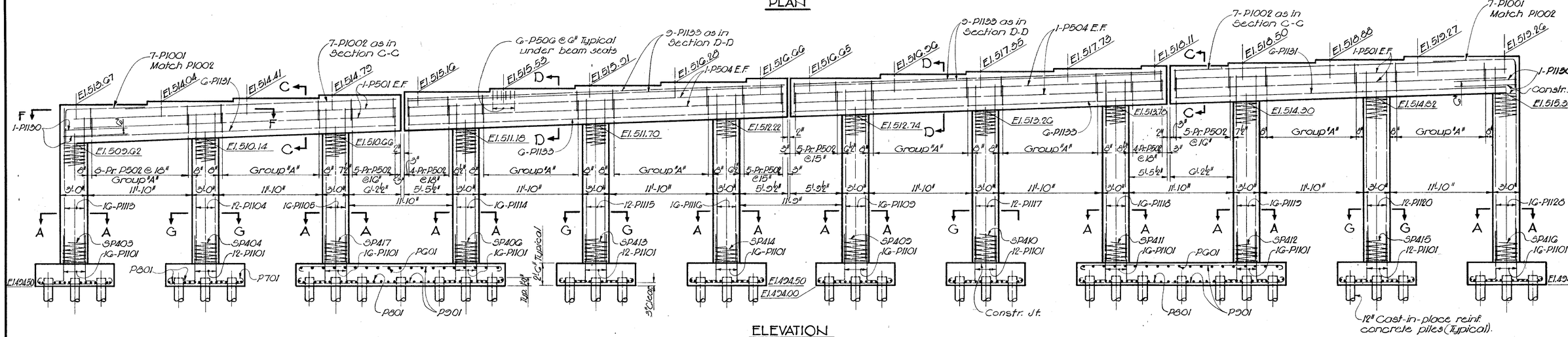
FED. RD. DIVISION	STATE	PROJECT	
2	OHIO		

HAM-25-1.63

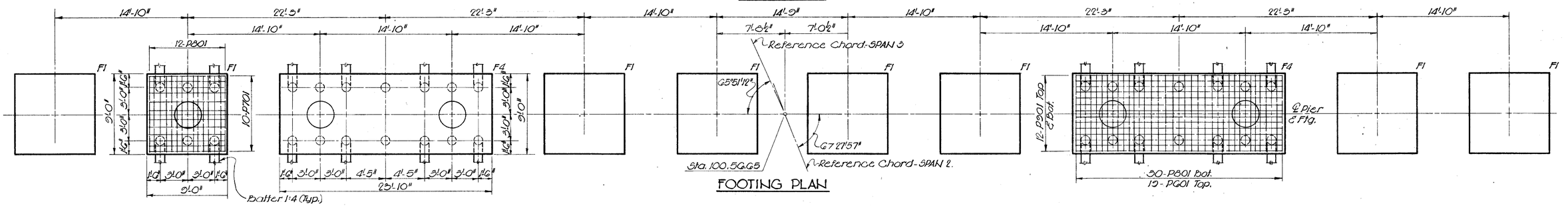
297
486



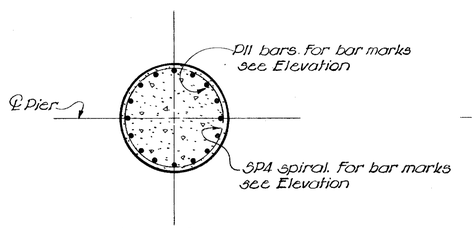
PLAN



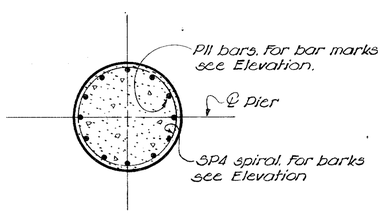
ELEVATION



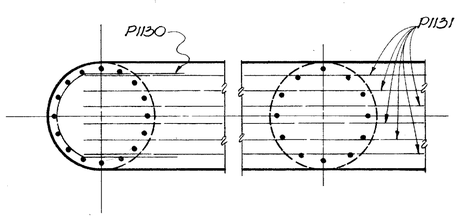
FOOTING PLAN



SECTION A-A



SECTION G-G



SECTION F-F

NOTES

1. For Section C-C and D-D, see Sheet 298.
2. For additional notes, see Sheet 296.
3. Footings F1 are identical to those for Pier 1.

VOGT, IVERS, SEAMAN & ASSOCIATES
ENGINEERS CINCINNATI — ARCHITECTS CHICAGO

PIER 2.

BRIDGE NO. HAM-25-0173
MILL CREEK EXPRESSWAY OVER LIBERTY STREET

HAMILTON COUNTY STA. 99+60.25 to STA. 101+59.15

DESIGNED	DRAWN	TRACED	CHECKED	REVIEWED	DATE	REVISED
G.J.C.	S.T.	~	A.Y.	J.A.D.	10-60	

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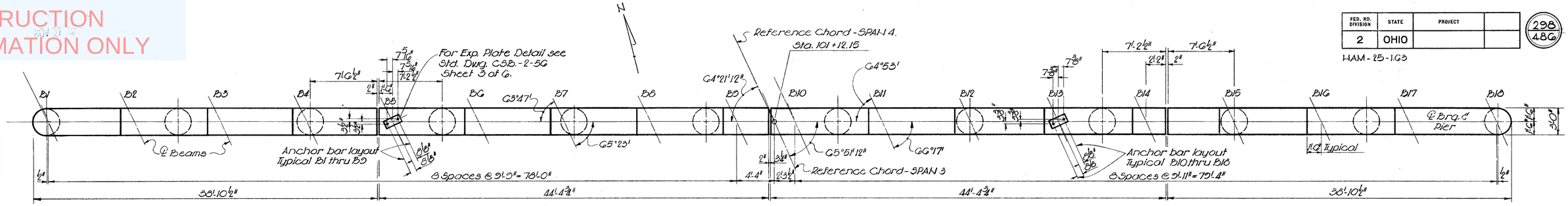
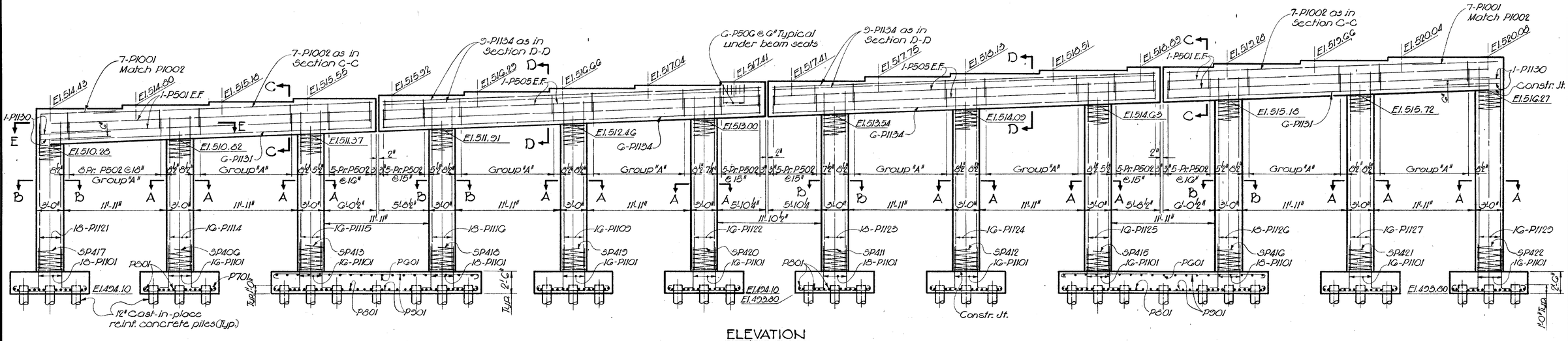
FED. RD. DIVISION	STATE	PROJECT	
2	OHIO		

298
486

HAM-25-1.63



PLAN



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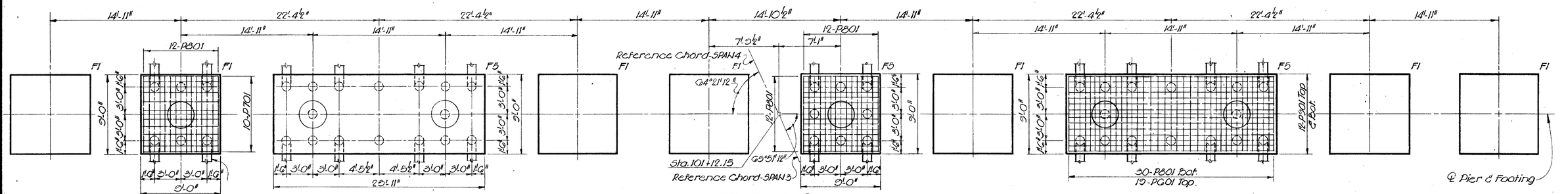
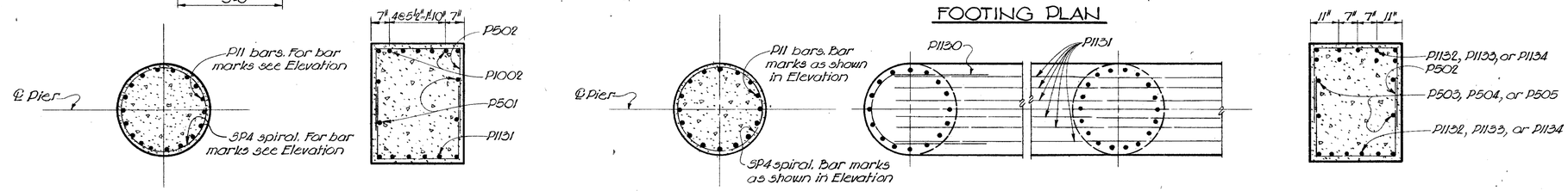


FOOTING PLAN



SECTION B-B SECTION C-C SECTION A-A SECTION E-E SECTION D-D

For Notes see Sheet 29G.

VOGT, IVERS, SEAMAN & ASSOCIATES
ENGINEERS CINCINNATI ARCHITECTS CHICAGO

PIER NO. 3
BRIDGE NO. HAM-25-0173
MILL CREEK EXPRESSWAY OVER LIBERTY STREET

HAMILTON COUNTY STA. 99+60.25 to STA. 101+59.15

DESIGNED	DRAWN	TRACED	CHECKED	REVIEWED	DATE	REVISED
G.J.C.	S.T	~	A.Y.	J.A.D.	10-60	

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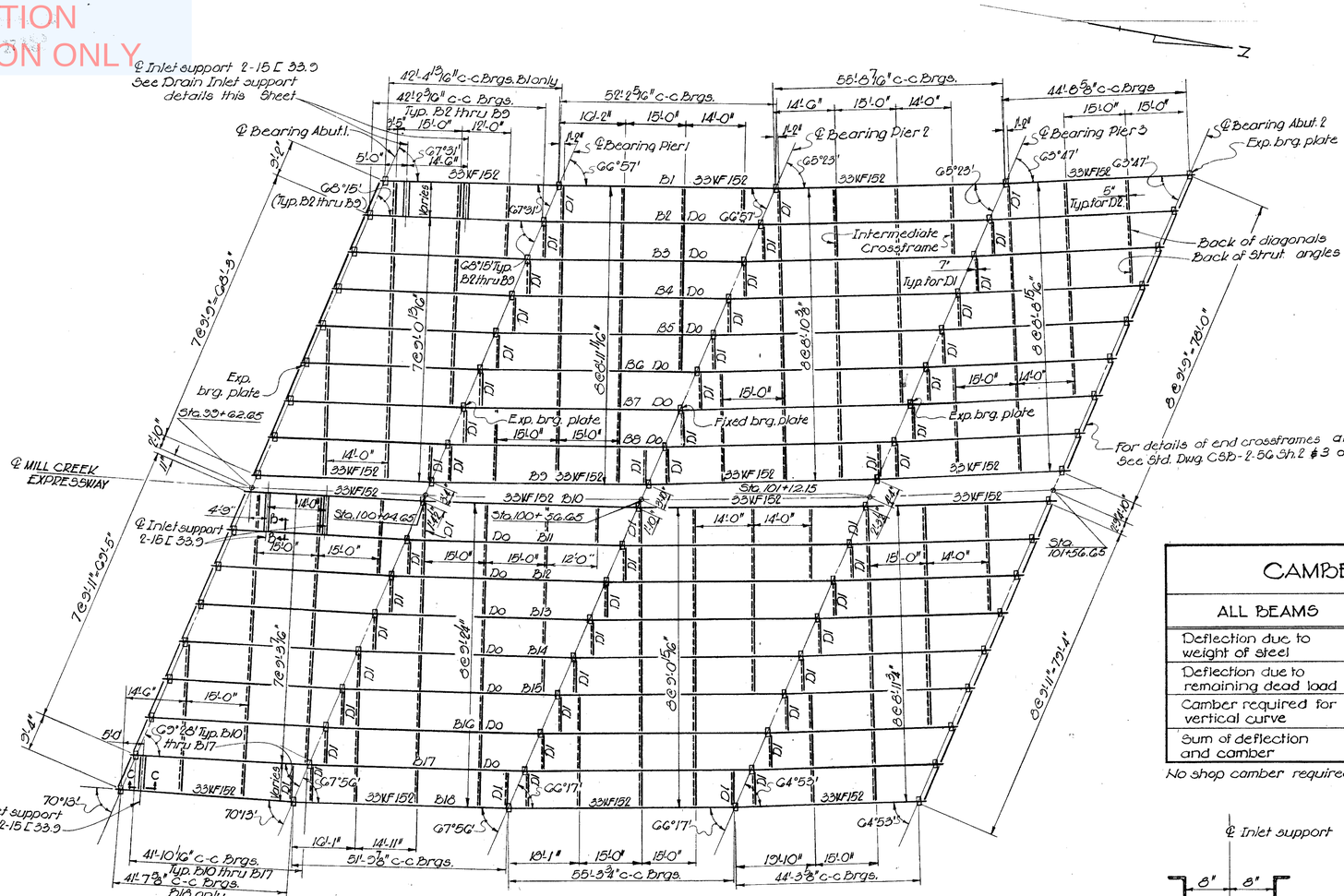
FED. RD. DIVISION	STATE	PROJECT	
2	OHIO		

299
486

HAM-25-1.66



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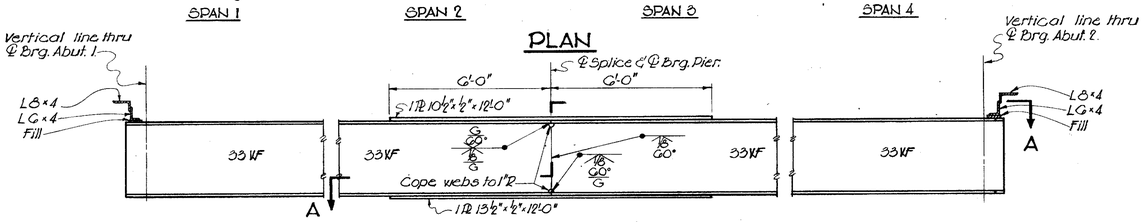

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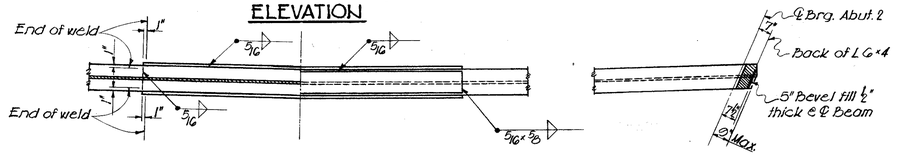
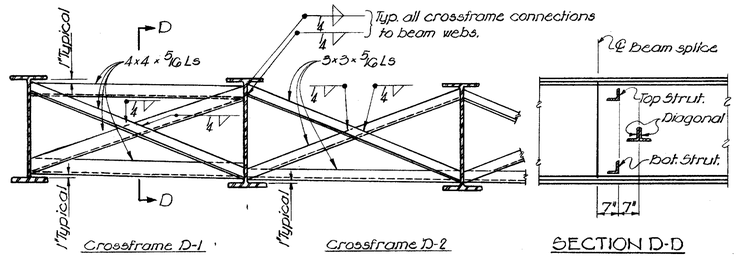


SECTION A-A

TYPICAL SPLICE



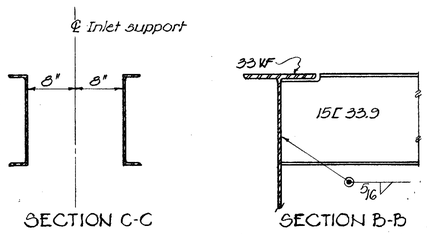
TYPICAL INTERMEDIATE CROSSFRAME

(Crossframes not marked D1 on plan are D2)

CAMBER OF BEAMS

ALL BEAMS	SPAN 1	SPAN 2	SPAN 3	SPAN 4
Deflection due to weight of steel	—	—	1/16	—
Deflection due to remaining dead load	3/16	3/16	1/4	3/16
Camber required for vertical curve	1/8	1/8	3/16	1/8
Sum of deflection and camber	1/4	5/16	1/2	5/16

No shop camber required



INLET SUPPORT DETAILS

BEAM SPLICE WELDING PROCEDURE

1. Raise Span 2 beams 3/4" at Pier 1.
2. Butt weld the beam flanges and webs at Pier 2 as follows: 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 Pier 2.
4. Lower ends of beams at Pier 1. Intermediate crossframes D-1 must be in position and welded, at Pier 2, before lowering the ends of the beams.
5. Raise Span 1 beams 3/8" at Abut. 1 and Span 4 beams 3/8" at Abut. 2.
6. Weld at Pier 1 and Pier 3 repeating steps 2 and 3 above.
7. Lower ends of beams at Abut. 1 and 2. Intermediate crossframes D-1 must be in position and welded, at Piers 1 & 3, before lowering the ends of the beams.

NOTES:

1. For Layout Diagram see Sh. 289. All centerlines of piers and centerlines of bearing of abutments are parallel.
2. Beams B1 thru B9 are parallel in any one span except for B1 in Span 1. Beams B10 thru B18 are parallel in any one span except for B18 in Span 1.
3. For details of drain inlets see Misc. Struct. Details, Sh. 412
4. For details of bearing plates see Std. Dwg. CSD-2-56 Sheet 3 of 6.
5. Welding of structural steel shall be class "A" unless otherwise shown.
6. Welds shown as field welds may, at the contractor's option, be made in the shop.

VOGT, IVERS, SEAMAN & ASSOCIATES
ENGINEERS CINCINNATI — ARCHITECTS CHICAGO

FRAMING PLAN

BRIDGE NO. HAM-25-0173
MILL CREEK EXPRESSWAY OVER
LIBERTY STREET

HAMILTON COUNTY — STA. 99+62.65 to STA. 101+56.15

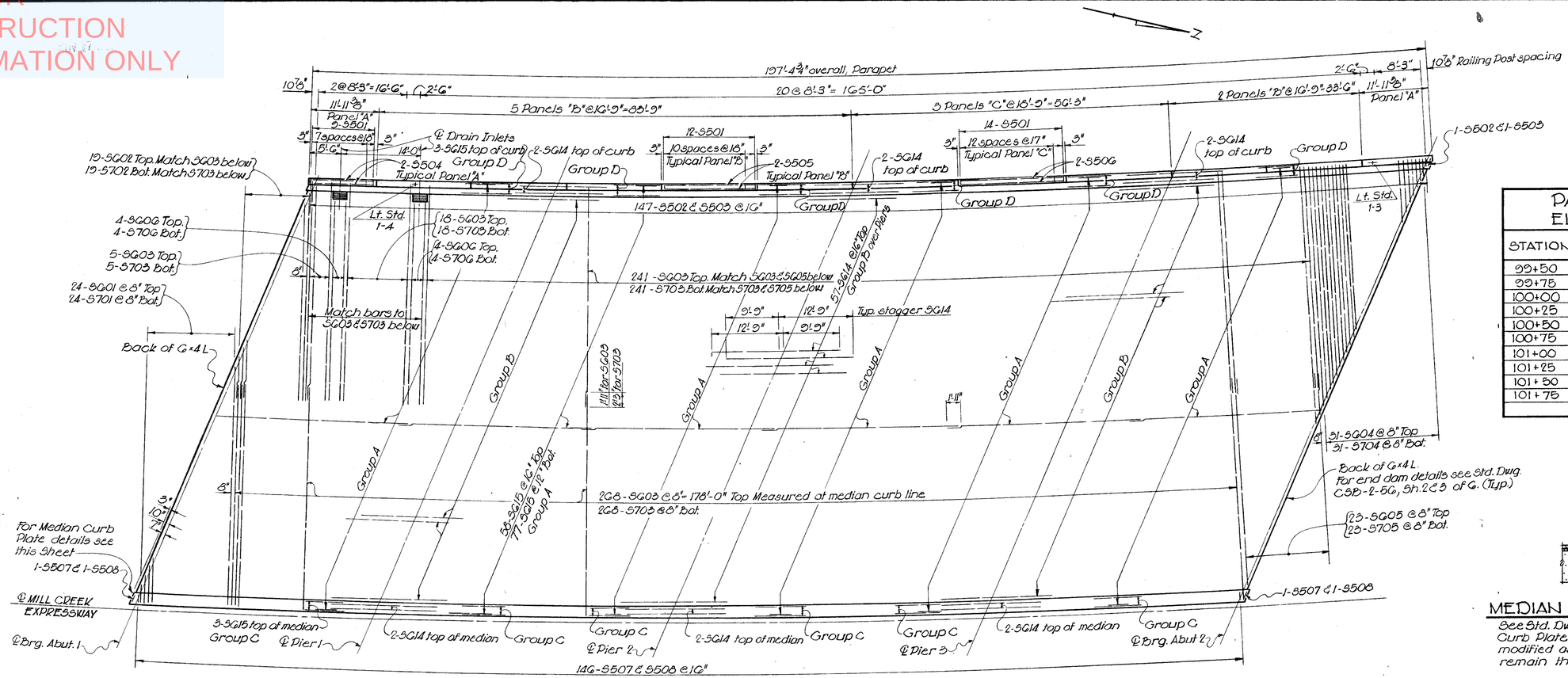
DESIGNED	DRAWN	TRACED	CHECKED	REVIEWED	DATE	REVISED
G.J.C.	G.J.C.	S.T.	A.Y.	J.A.D.	10-60.	

NOT FOR CONSTRUCTION INFORMATION ONLY

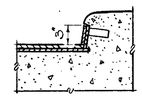
FED. RD. DIVISION	STATE	PROJECT	
2	OHIO		

HAM-25-1.63

300 486



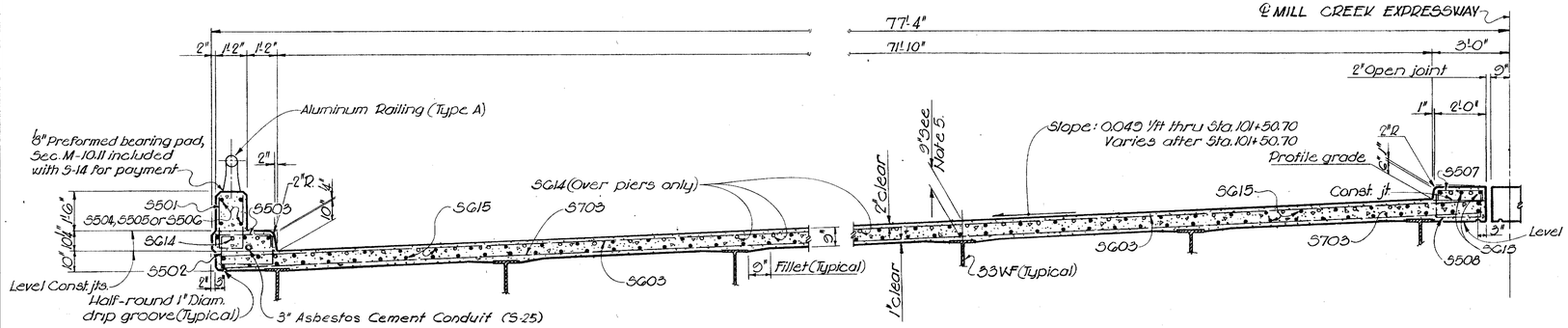
PAVEMENT ELEVATIONS		
STATION	PROFILE GRADE	LEFT CURB
99+50	518.41	514.89
99+75	518.90	515.38
100+00	519.27	515.85
100+25	519.82	516.30
100+50	520.25	516.73
100+75	520.95	517.13
101+00	521.03	517.51
101+25	521.30	517.87
101+50	521.73	518.21
101+75	522.05	518.67



MEDIAN CURB PLATES

See Std. Dwg. CSB-2-56, Sh. 3 of 6, Curb Plate Details, Sec. G-G is to be modified as shown. Other details to remain the same.

SLAB PLAN



TYPICAL SECTION

NOTES

1. Slab thickness includes 1" for monolithic wearing surface.
2. For drain inlet details, see Misc. Structural Details, Sh. 412.
3. For railing and parapet joint details, see Std. Dwg. AR-1-57.
4. Curb and parapet lines are parallel to ℄ Expressway.
5. This is a 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 beams may not have the exact conformation required to place it parallel to the finished grade.
6. For electrical details, see Sheet 259.

VOGT, IVERS, SEAMAN & ASSOCIATES
ENGINEERS CINCINNATI — ARCHITECTS CHICAGO

DECK SLAB-S.B.

BRIDGE NO. HAM-25-0173
MILL CREEK EXPRESSWAY OVER LIBERTY STREET

HAMILTON COUNTY STA. 99+00.25 to STA. 101+59.15

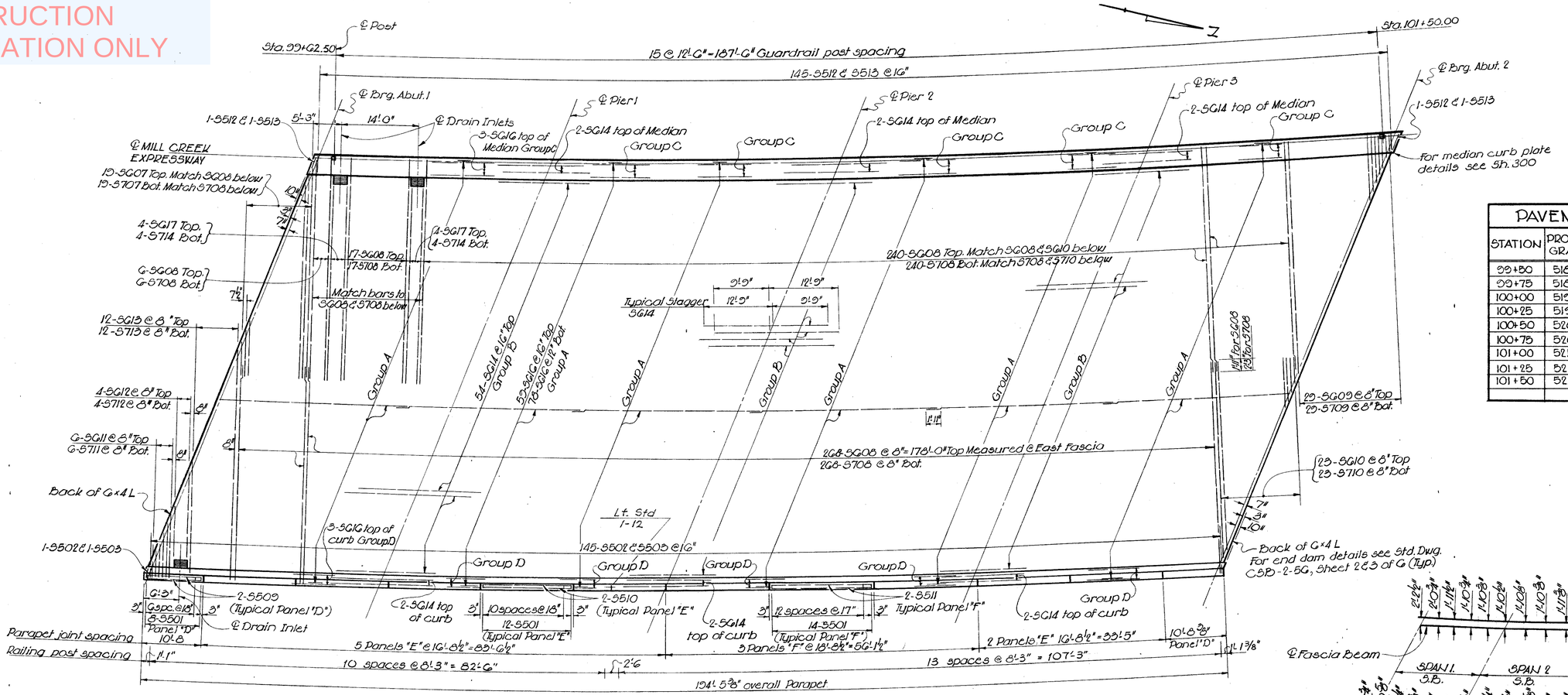
DESIGNED	DRAWN	TRACED	CHECKED	REVIEWED	DATE	REVISED
G.J.C.	G.J.C.	S.T.	A.Y.	J.A.D.	10-60	

NOT FOR CONSTRUCTION INFORMATION ONLY

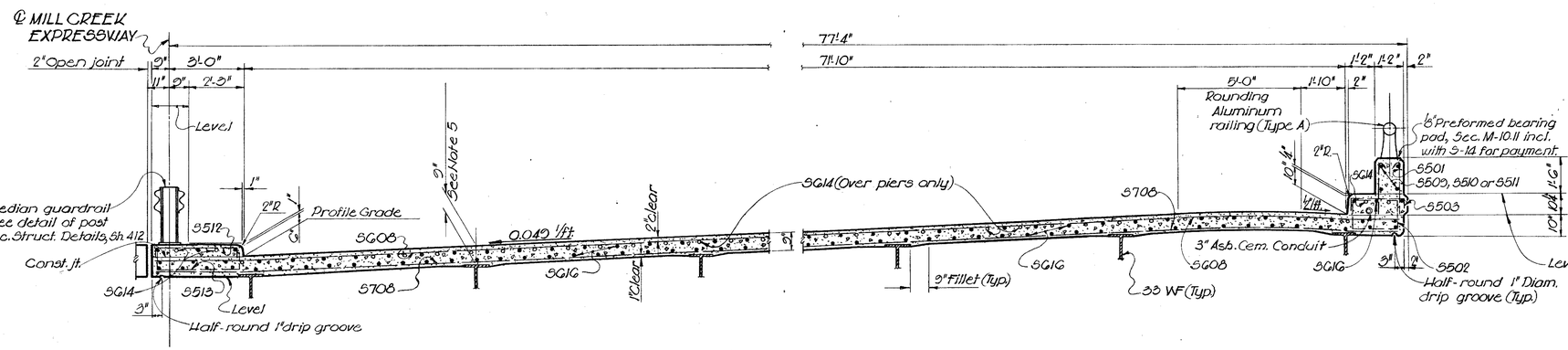
FED. RD. DIVISION	STATE	PROJECT	
2	OHIO		

HAM - 25 - 1.63

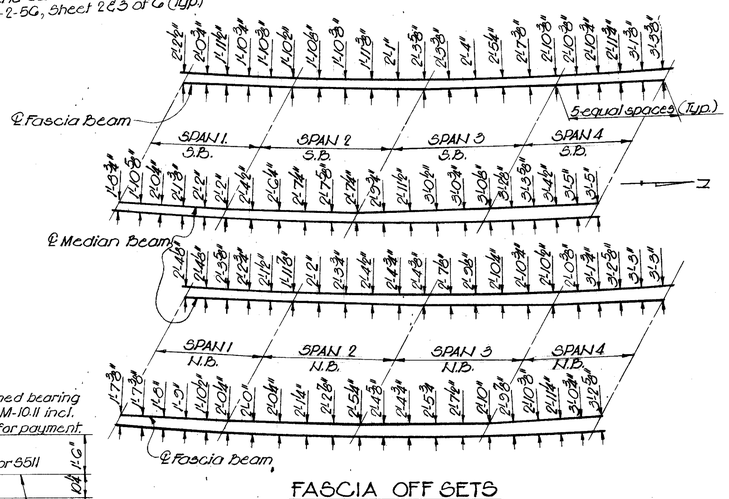
301 486



SLAB PLAN



TYPICAL SECTION



FASCIA OFF SETS

PAVEMENT ELEVATIONS

STATION	PROFILE GRADE	68' RIGHT OF ℄ EXPR.	78' RIGHT OF ℄ EXPR.	RIGHT CURB
99+50	518.41	521.60	521.61	521.54
99+75	518.90	522.09	522.11	522.03
100+00	519.37	522.56	522.57	522.50
100+25	519.82	523.00	523.02	522.95
100+50	520.25	523.43	523.45	523.37
100+75	520.65	523.83	523.85	523.78
101+00	521.03	524.22	524.23	524.16
101+25	521.39	524.58	524.60	524.52
101+50	521.73	524.92	524.93	524.86

For Deck Slab Notes, see sheet 300.

VOGT, IVERS, SEAMAN & ASSOCIATES
ENGINEERS CINCINNATI — ARCHITECTS CHICAGO

DECK SLAB - N.B.

BRIDGE NO. HAM-25-0173
MILL CREEK EXPRESSWAY OVER LIBERTY STREET

HAMILTON COUNTY STA. 99+60.25 to STA. 101+50.15

DESIGNED	DRAWN	TRACED	CHECKED	REVIEWED DATE	REVISED
G.J.C.	G.J.C.	S.T.	A.Y.	J.A.D. 10-60	

NOT FOR CONSTRUCTION INFORMATION ONLY

FED. RD. DIVISION	STATE	PROJECT	
2	OHIO		

HAM - 25 - 1.GD

302 / 486

REINFORCING STEEL LIST

SUPERSTRUCTURE

MARK	LENGTH	SHAPE	NO.	WEIGHT
S501	5'-9"	Bt.	286	1715
S502	4'-10"	Bt.	299	1507
S503	2'-11"	Bt.	299	909
* S504	11'-6"	Str.	8	—
* S505	16'-4"	Str.	28	—
* S506	18'-4"	Str.	12	—
S507	2'-1"	Bt.	148	322
S508	3'-5"	Bt.	148	527
* S509	10'-4"	Str.	8	—
* S510	16'-4"	Str.	28	—
* S511	18'-4"	Str.	12	—
S512	3'-9"	Bt.	152	595
S513	5'-1"	Bt.	152	806
S601	Varies 1ea. 3'-0"to41'-4" Incr. 1'-9"	Str.	24	798
S602	Varies 1ea. 6'-6"to36'-6" Incr. 1'-8"	Str.	19	614
S603	38'-11"	Str.	532	31097
S604	Varies 1ea 2'-8"to42'-8" Incr. 1'-4"	Str.	31	1055
S605	Varies 1ea. 7'-4"to36'-8" Incr. 1'-4"	Str.	23	760
S606	35'-1"	Str.	8	422
S607	Varies 1ea 5'-8"to37'-1" Incr. 1'-9"	Str.	19	610
S608	39'-9"	Str.	531	31703
S609	Varies 1ea. 3'-0"to42'-9" Incr. 1'-5"	Str.	29	996
S610	Varies 1ea. 6'-8"to37'-10" Incr. 1'-5"	Str.	23	769
S611	Varies 1ea. 3'-0"to12'-2" Incr. 1'-10"	Str.	6	68
S612	Varies 1ea. 14'-10"to20'-3" Incr. 1'-10"	Str.	4	105
S613	Varies 1ea. 22'-2"to41'-4" Incr. 1'-10"	Str.	12	572
S614	22'-6"	Str.	342	11558
S615	34'-5"	Str.	810	41872
S616	34'-1"	Str.	810	41466
S617	34'-6"	Str.	9	466
S701	Varies 1ea. 3'-0"to41'-4" Incr. 1'-8"	Str.	24	1087
S702	Varies 1ea 6'-8"to36'-8" Incr. 1'-8"	Str.	19	841
S703	39'-1"	Str.	532	42500
S704	Varies 1ea. 2'-8"to42'-8" Incr. 1'-4"	Str.	31	1436
S705	Varies 1ea. 7'-6"to36'-10" Incr. 1'-4"	Str.	23	1042
S706	35'-3"	Str.	8	576
S707	Varies 1ea. 5'-10"to37'-3" Incr. 1'-9"	Str.	19	837
S708	39'-11"	Str.	531	43324
S709	Varies 1ea. 3'-0"to42'-9" Incr. 1'-5"	Str.	29	1356
S710	Varies 1ea. 6'-10"to38'-0" Incr. 1'-5"	Str.	23	1054
S711	Varies 1ea. 3'-0"to12'-2" Incr. 1'-10"	Str.	6	93
S712	Varies 1ea. 14'-10"to20'-3" Incr. 1'-10"	Str.	4	143
S713	Varies 1ea. 22'-2"to41'-4" Incr. 1'-10"	Str.	12	779
S714	34'-8"	Str.	9	567

ABUTMENTS

MARK	LENGTH	SHAPE	NO.	WEIGHT
A501	2'-5"	Str.	8	21
A502	10'-8"	Str.	12	134
A503	3'-8"	Str.	64	245
A504	6'-7"	Bt.	215	1476
A505	6'-5"	Bt.	116	776
A506	14'-2"	Bt.	32	473
A507	7'-2"	Bt.	32	239
A508	4'-2"	Str.	48	209
A509	11'-0"	Str.	12	127
A510	6'-4"	Bt.	78	5152
A511	6'-8"	Bt.	118	820
A512	7'-1"	Bt.	144	1004
A513	7'-6"	Bt.	132	1033
A514	7'-9"	Bt.	128	1035
A515	8'-3"	Bt.	120	1033
A516	26'-10"	Str.	35	980
A517	27'-4"	Str.	10	285
A518	30'-2"	Str.	15	472
A519	24'-0"	Str.	15	375
A520	26'-0"	Str.	13	353
A521	26'-4"	Str.	11	302
A522	5'-0"	Str.	10	52
A523	3'-11"	Bt.	2	8
A524	4'-7"	Bt.	2	10
A525	3'-2"	Bt.	2	6
A526	2'-5"	Bt.	2	5
A527	13'-10"	Str.	16	231
A528	10'-1"	Bt.	28	294
A529	5'-2"	Str.	14	134
A530	28'-2"	Str.	37	1087
A531	27'-3"	Str.	12	341
A532	30'-7"	Str.	15	478
A533	29'-3"	Str.	7	214
A534	8'-10"	Str.	14	129
A535	5'-2"	Bt.	312	1681
*A536	13'-8"	Str.	16	—
A537	7'-1"	Bt.	90	443
A538	13'-4"	Str.	4	56
A539	13'-3"	Str.	8	115
A540	14'-1"	Str.	4	59

MARK	LENGTH	SHAPE	NO.	WEIGHT
A541	4'-1"	Bt.	38	162
A542	Varies 2ea. 3'-2"to4'-0" Incr. 1"	Bt.	22	82
A601	7'-6"	Bt.	273	3075
A602	5'-1"	Bt.	273	2084
A603	12'-3"	Bt.	68	1251
A801	23'-8"	Str.	14	1078
A802	31'-8"	Str.	14	1184
A803	28'-6"	Str.	14	1065
A804	32'-4"	Str.	14	1209
A805	33'-0"	Str.	14	1234
A806	25'-4"	Str.	14	1056

PIERS

MARK	LENGTH	SHAPE	NO.	WEIGHT
P501	37'-0"	Str.	24	926
P502	8'-1"	Bt.	554	4671
P503	42'-7"	Str.	4	178
P504	43'-7"	Str.	12	545
P505	44'-0"	Str.	8	367
P506	4'-5"	Bt.	324	1493
P601	8'-7"	Str.	114	1470
P701	10'-4"	Bt.	220	4647
P801	10'-10"	Bt.	432	14230
P901	25'-11"	Bt.	144	12688
P1001	11'-4"	Bt.	4	2048
P1002	33'-4"	Str.	4	6124
P1101	6'-7"	Bt.	576	20146
P1102	15'-9"	Str.	16	1339
P1103	16'-1"		16	1367
P1104	16'-9"		30	2670
P1105	17'-3"		32	2933
P1106	18'-0"		16	1530
P1107	18'-4"		18	1753
P1108	19'-3"		16	1636
P1109	19'-10"		48	5058
P1110	20'-3"		18	1937
P1111	21'-1"		16	1792
P1112	21'-5"		16	1821
P1113	16'-4"		16	1388
P1114	17'-10"		32	3032
P1115	18'-7"		28	2764
P1116	18'-11"		34	3417
P1117	20'-6"		12	1307
P1118	20'-11"		16	1778
P1119	21'-8"		16	1842
P1120	22'-0"	Str.	12	1403

MARK	LENGTH	SHAPE	NO.	WEIGHT
P1121	17'-6"	Str.	18	1674
P1122	20'-1"		16	1707
P1123	20'-9"		18	1984
P1124	21'-6"		16	1828
P1125	21'-10"		16	1856
P1126	22'-8"		18	2168
P1127	23'-0"		16	1955
P1128	22'-5"		16	1906
P1129	23'-5"	Str.	16	1991
P1130	10'-9"	Bt.	12	685
P1131	37'-4"	Str.	36	7141
P1132	42'-7"	Str.	15	3394
P1133	43'-7"	Str.	45	10420
P1134	44'-0"	Str.	30	7013

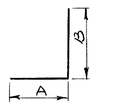
MARK	LENGTH	SHAPE	NO.	WEIGHT	CORE DIA.	PITCH	NO. TURNS
SP401	18'-2"	Bt.	1	338	32"	4½"	51
SP402	12'-1"		1	230			35
SP403	12'-7"		2	478			36
SP404	13'-1"		2	496			38
SP405	13'-7"		1	257			39
SP406	14'-1"		3	791			41
SP407	14'-7"		1	279			42
SP408	15'-8"		1	294			45
SP409	16'-2"		2	608			46
SP410	16'-8"		2	623			48
SP411	17'-3"		3	965			49
SP412	17'-9"		3	991			50
SP413	14'-8"		2	352			42
SP414	15'-3"		1	289			44
SP415	18'-4"		2	681			52
SP416	18'-10"		2	698			53
SP417	13'-8"		2	517			40
SP418	15'-4"		1	288			44
SP419	15'-10"		1	297			45
SP420	16'-5"		1	307			47
SP421	19'-5"		1	360			55
SP422	19'-11"	Bt.	1	369	32"	4½"	56

BENT BARS

MARK	TYPE	A	B	C	D
S501	8	10"	2'-2"		
S502	5	1'-10"	1'-4"	5"	
S503	4	7"	2'-0"	7"	
S507	4	4"	1'-8"	4"	
S508	4	1'-0"	1'-8"	1'-0"	
S512	4	4"	3'-4"	4"	
S513	4	1'-0"	3'-4"	1'-0"	
A504	3	5'-5"			
A505	4	2'-8"	1'-4"	2'-8"	
A506	6	6'-4"	2'-2"	3'-0"	4'-4"
A507	4	2'-5"	2'-7"	2'-5"	
A510	1	6"	6'-0"		
A511	1	6"	6'-4"		
A512	1	6"	6'-9"		
A513	1	6"	7'-2"		
A514	1	6"	7'-5"		
A515	1	6"	7'-11"		
A523	4	1'-0"	3'-2"	1'-0"	
A524	4	1'-0"	3'-10"	1'-0"	
A525	4	1'-0"	2'-5"	1'-0"	
A526	4	1'-0"	1'-8"	1'-0"	
A528	1	6"	9'-9"		
A535	4	1'-0"	3'-5"	1'-0"	
A537	8	10"	2'-10"		
A541	4	1'-0"	1'-4"	2'-0"	
A542	4	1'-0"	1'-4"	←	
		Varies 1'-1" to 1'-11", Incr. 1"			

MARK	TYPE	A	B	C
A601	4	1'-0"	11"	5'-5"
A602	1	1'-0"	4'-3"	
A603	4	5'-7"	1'-5"	5'-7"
P502	4	2'-10"	2'-8"	2'-10"
P606	4	1'-0"	2'-8"	1'-0"
P701	3	6'-8"		
P801	3	6'-8"		
P901	3	23'-5"		
P1001	1	3'-9"	8'-0"	
P1101	1		5'-10"	
P1130	7	4'-0"	2'-2"	

TYPE 1



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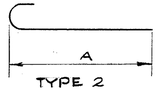

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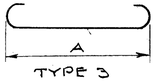

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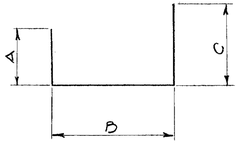

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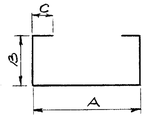

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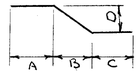

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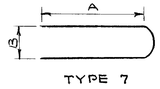
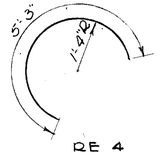


RE 4



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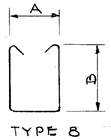


SPIRAL REINFORCING BARS

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. Turns" shown 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 544. 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.

1. 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.
2. Bars marked with single asterisks to be included for payment under Item 514, Railing.
3. Bar dimensions are out-to-out.

REPLACEMENT BARS

MARK	NO.	LENGTH	SHAPE
RE 4	2	5'-3"	Bent
RE 5	2	5'-7"	Str.
RE 6	9	5'-11	Str.
RE 7	6	6'-3"	Str.
RE 8	1	6'-6"	Str.
RE 9	0	6'-10"	Str.
RE 10	1	7'-3"	Str.
RE 11	6	7'-7"	Str.

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. 544.02 need not be furnished and replacement bars will not be required.

VOGT, IVERS, SEAMAN & ASSOCIATES
ENGINEERS — CINCINNATI
ARCHITECTS — CHICAGO

REINFORCING STEEL LIST
BRIDGE NO. HAM-25-0173
MILL CREEK EXPRESSWAY OVER LIBERTY STREET

HAMILTON COUNTY — STA. 99+60.25 to STA. 101+59.15

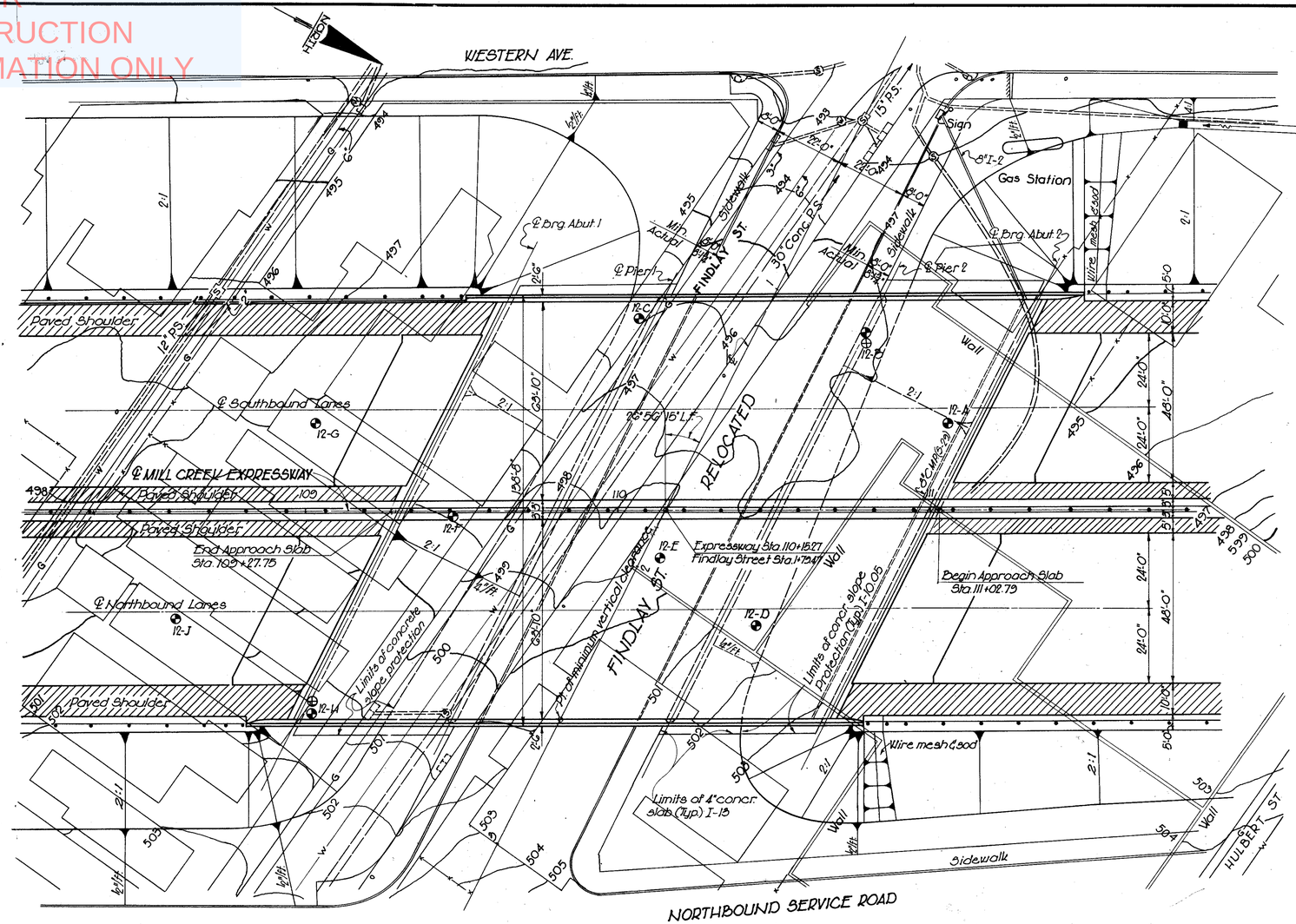
		DESIGNED	DRAWN	CHECKED	REVISIONS
			D.Y.F.	A.A.N.	

NOT FOR CONSTRUCTION INFORMATION ONLY

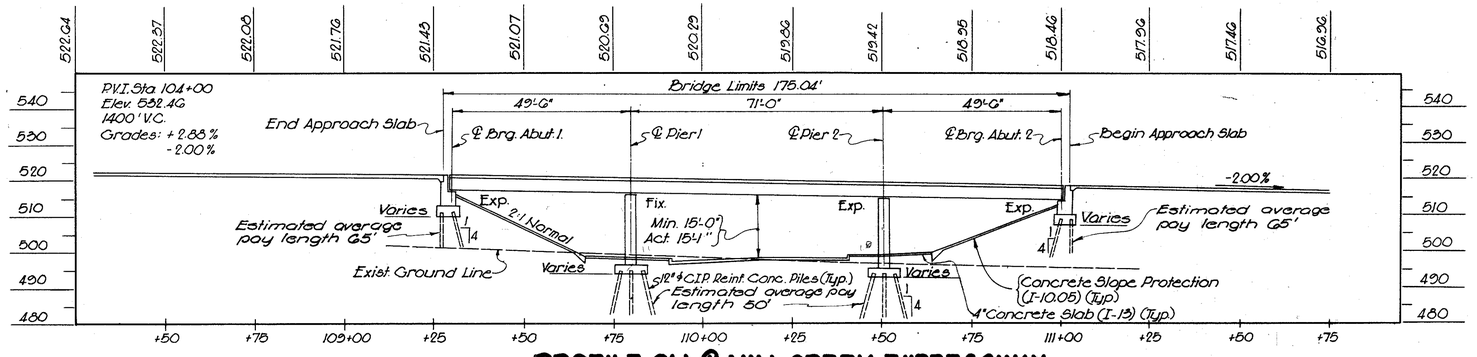
FED. RD. DIVISION	STATE	PROJECT	
2	OHIO		

303
486

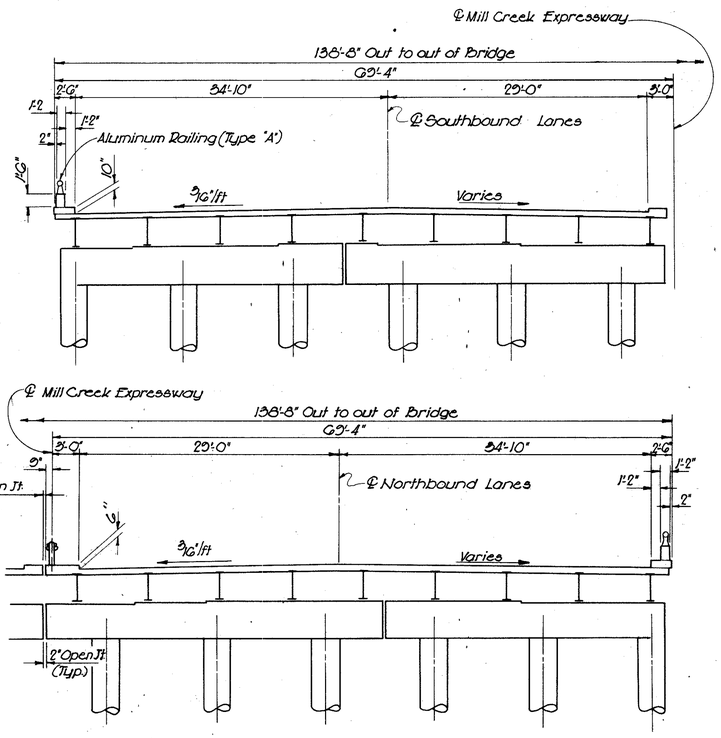
HAM-25-1.63



PLAN



PROFILE ON ℄ MILL CREEK EXPRESSWAY



SECTION THRU BRIDGE

NOTES:

1. ● Boring symbol
2. ⊕ Rod sounding symbol
3. Foundation design and foundation quantities are based on a study of test borings and soil samplings made at the site. This sounding information may be inspected in the office of the Bureau of Bridges in Columbus or in an abridged form in the Division Office but the State assumes no responsibility for the accuracy thereof.
4. Limits of 4" concrete slab are from toe of slope to back of sidewalk and 3'-0" beyond the outer edges of the superstructures.

PROPOSED STRUCTURE

TYPE: Continuous rolled steel beam with reinforced concrete deck and substructure.

SPANS: 49'-6"; 71'-0"; 49'-6"

ROADWAY: 38'-0" between parapets

LOAD FREQUENCY: CF=2000(57) Adequate for AASHO alternate loading.

SKEW: 26°56'15" L.F.

WEARING SURFACE: 1" Monolithic concrete

APPROACH SLABS: AS-1-54 (25' Long)

ALIGNMENT: Tangent

VOGT, IVERS, SEAMAN & ASSOCIATES
ENGINEERS CINCINNATI — ARCHITECTS CHICAGO

SITE PLAN

BRIDGE NO. HAM-25-0191
MILL CREEK EXPRESSWAY OVER
FINDLAY STREET
HAMILTON COUNTY STA. 109+27.75 to STA. 111+02.79

PRESENT TOPOGRAPHY		PROPOSED WORK			
SURVEYED	DRAWN	DESIGNED	DRAWN	CHECKED	REVISIONS
Aerial Survey	Aerial Survey	A.Y.	A.Y.	V.M.	

NOT FOR CONSTRUCTION INFORMATION ONLY

FED. RD. DIVISION	STATE	PROJECT	
2	OHIO		

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486

HAM-25-1.63

ESTIMATED QUANTITIES

ITEM	TOTAL	UNIT	DESCRIPTION	ABUT-MENTS	PIERS	SUPER-STRUCTURE	GENERAL		
E-2	1105	Cu. Yds.	Unclassified Excavation	585	520				
S-1	700	Cu. Yds.	Class "C" Concrete - Superstructure			700			
S-1	244	Cu. Yds.	Class "C" Concrete - Piers above footings		244				
S-1	264	Cu. Yds.	Class "E" Concrete - Abutments above footings	264					
S-1	406	Cu. Yds.	Class "E" Concrete - Pier and abutment footings	214	192				
S-3	41	Lin. Ft.	Waterproofing, premolded sealing strip	41					
S-4	325106	Lbs.	Reinforcing Steel	30311	78765	216030			
S-7	625200	Lbs.	Structural Steel			625200			
S-8	625200	Lbs.	Field painting of structural steel			625200			
S-9	45	Sq. Ft.	1" Preformed expansion joint filler	45					
S-14	356.3	Lin. Ft.	Railing (aluminum railing and supports and conc. parapet)	52.7		343.6			
S-14	176	Lin. Ft.	Guardrail, Type I-15.11, double-faced with galvanized steel posts and bolts			176			
S-16	Lump	Lump Sum	First test pile.				Lump		
S-17	Lump	Lump Sum	First pile test load				Lump		
S-17	1	Ea.	Subsequent pile test load				1		
S-18	10750	Lin. Ft.	12" Cast-in-place reinforced concrete piles	4550	6200				
S-25	2	Ea.	Light Standard with 15' mast arm, include anchor bolts.				2		
S-25	Lump	Lump Sum	Grounding System.				Lump		
S-25	360	Lin. Ft.	3" Asbestos Cement Conduit, fittings and bushings				360		
S-25	22	Lin. Ft.	2" Aluminum Conduit, fittings and bushings				22		
S-25	135	Lin. Ft.	1" Aluminum Conduit, fittings and bushings				135		
S-25	125	Lin. Ft.	¾" Aluminum Conduit, fittings and bushings				125		
S-25	6	Ea.	Pull box complete with frame and cover				6		
S-29	91	Cu. Yds.	Porous Backfill	91					
S-29	4	Ea.	Inlet frame & grating & 6" galvanized or wrought iron pipe downspouts incl. specials			4			
S-29	156	Lin. Ft.	8" Bit. coat. corrugated metal pipe incl. specials Sect. M-6.4(c)				156		
I-10	1265	Sq. Yds.	Concrete slope protection				1265		
I-13	4,518	Sq. Ft.	4" Concrete slab				4,518		
Special	700	Each	Water reducing, set retarding admixture*			700			
S-25	2	Ea.	400 W. Luminaire with 400 W. mercury vapor lamp				2		
S-25	2	Ea.	Ballast for 400 W. lamp - 6.6A series				2		
S-25	5	Ea.	Fluorescent luminaire complete with ballast (240 V.), hangers, inserts and two 1.5A. fluorescent lamps				5		
S-25	396	Lin. Ft.	6000 V. single conductor #8 AWG direct burial cable (plain)				396		
S-25	310	Lin. Ft.	600 V. single conductor #8 luminaire wire				310		
S-25	200	Lin. Ft.	600 V. single conductor #12 luminaire wire				200		

*See proposal note

GENERAL NOTES

REFERENCE shall be made to the following: Standard Drawings AR-1-57 revised 12-12-60; CSB-2-56, sheets 2 & 3 of 6, revised 2-2-59 and AS-1-54 revised 12-1-54.

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: Piles shall be driven to a bearing capacity of 40 tons.

EXCAVATION: Excavation quantity includes the removal of fill material between the surface of proposed embankment and the bottom of footings.

CONCRETE DECK PLACING: In order to facilitate water curing of the concrete of the deck slab, the placing of concrete shall progress upgrade. The slab may be placed in sections, between transverse construction joints which are normal to the centerline of bridge and are located near the center of any span.

RAILING: Aluminum rail and supports, concrete parapet, reinforcing bars wholly within the concrete parapet, sponge rubber for parapet joints and Preformed bearing pads shall be included in Item S-14 for payment.

UTILITY LINES: All labor and expense involved in relocating the affected utility lines shall be borne by the owners. The Contractor and Owners are requested to co-operate by arranging their work in such a manner that inconveniences to either will be held to a minimum.

EMBANKMENTS shall be in place and compacted to subgrade elevation for a distance of 200' back of abutments for a minimum period of 30 days prior to constructing the abutments unless settlement tubs indicate that any settlements have ceased. Construction of piers shall not be started until after the embankments are completed to subgrade elevation.

NOTE: Materials in approach slabs are not included in the above estimated quantities.
First pile test load shall be applied if and where directed by the project engineer.

VOGT, IVERS, SEAMAN & ASSOCIATES
ENGINEERS CINCINNATI ARCHITECTS CHICAGO

GENERAL NOTES AND ESTIMATED QUANTITIES
BRIDGE NO. HAM-25-0131
MILL CREEK EXPRESSWAY OVER FINDLAY STREET
STA. 103+27.75 to STA. 111+02.75

		DESIGNED	DRAWN	CHECKED	REVISIONS
-0-	-0-	-0-	D.Y.F.	J.A.D. 10-60	

NOT FOR CONSTRUCTION INFORMATION ONLY

FED. RD. DIVISION	STATE	PROJECT	
2	OHIO		

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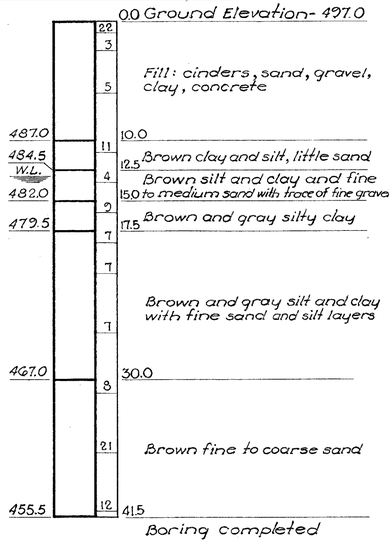
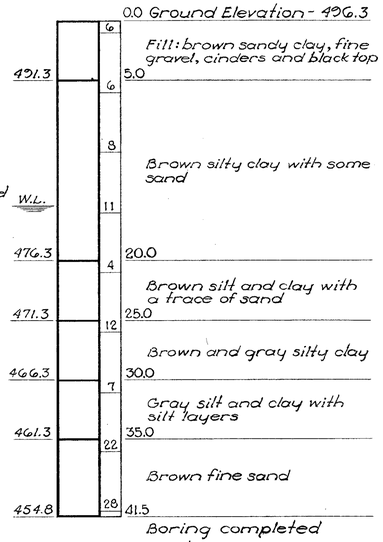
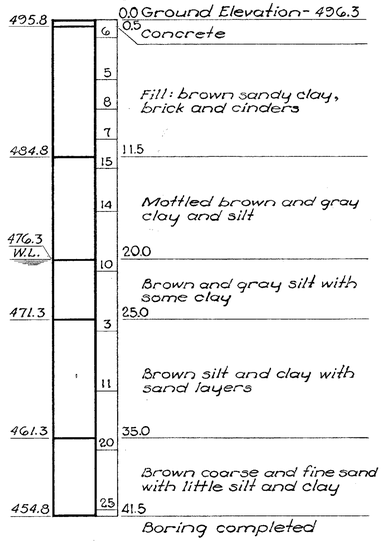
HAM-25-163



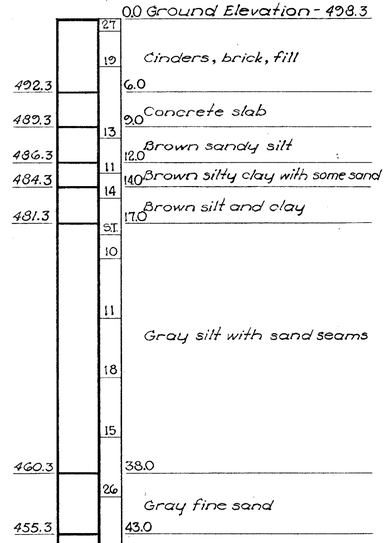
BORING 12-A



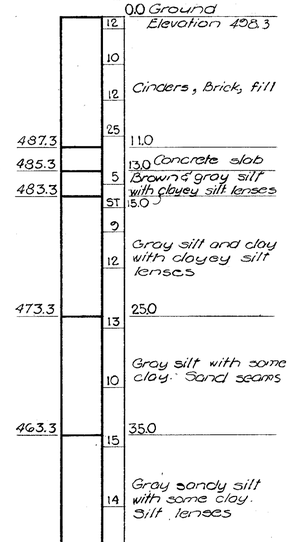
BORING 12-B



BORING 12-C



BORING 12-D



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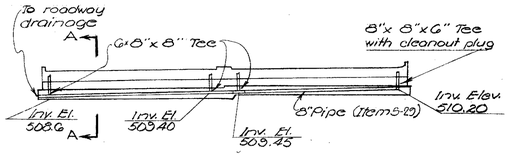
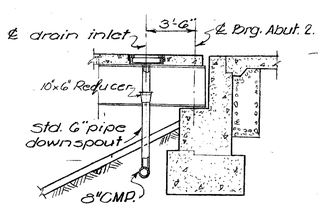


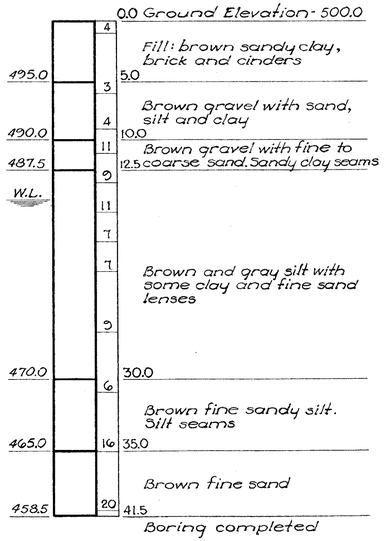
DOWNSPOUT DRAIN PIPE

Abutment 2.

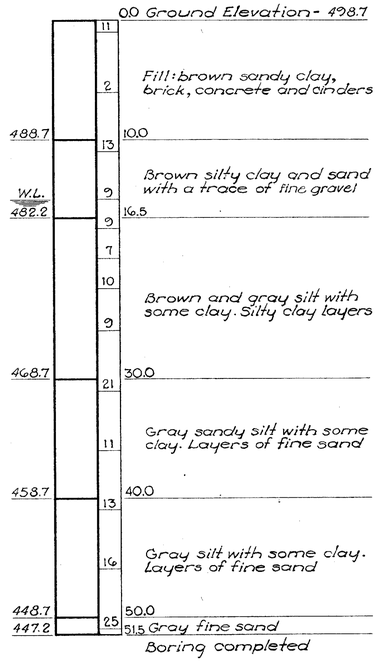


SECTION A-A

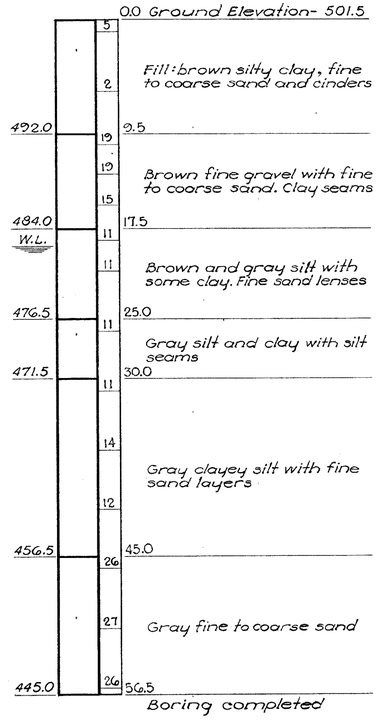
NOTES:
1. For drain inlet locations see Sh. 310. For drain inlet details see Misc. Str. Details, Sh. 412.
2. For connection to roadway drainage, see Site Plan, Sh. 303.



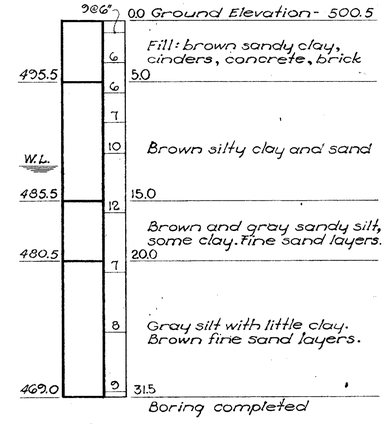
BORING 12-F



BORING 12-G



BORING 12-H



BORING 12-J

NOTE:
1. W.L. indicates water level after 24 hours.
2. Figures in right hand column indicate number of blows required to drive 2" O.D. sampling pipe one foot, using 140 lbs. weight falling 30 inches.
3. For location of borings see Sheet 303.

VOGT, IVERS, SEAMAN & ASSOCIATES
ENGINEERS CINCINNATI ARCHITECTS CHICAGO

BORINGS & DRAINAGE DETAIL

BRIDGE NO. HAM-25-0191
MILL CREEK EXPRESSWAY OVER FINDLAY STREET

HAMILTON COUNTY STA. 109 + 27.75 to STA. 111 + 02.79

DESIGNED	DRAWN	TRACED	CHECKED	REVIEWED DATE	REVISED
C.A.W.	J.C.H.	J.C.H.	A.Y.	J.A.D. 10-60	

NOT FOR CONSTRUCTION INFORMATION ONLY

FED. RD. DIVISION	STATE	PROJECT	
2	OHIO		

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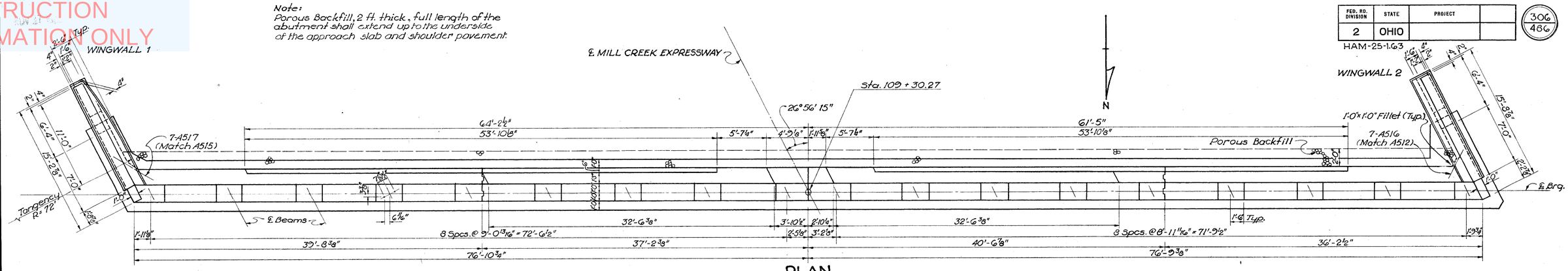
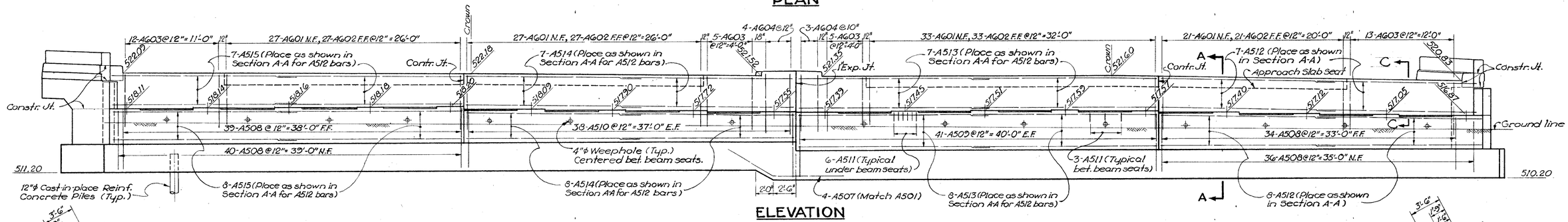
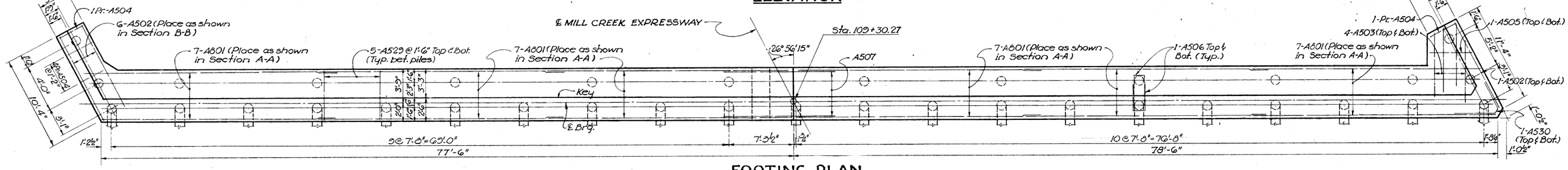
Note:
Porous Backfill, 2 ft. thick, full length of the abutment shall extend up to the underside of the approach slab and shoulder pavement.



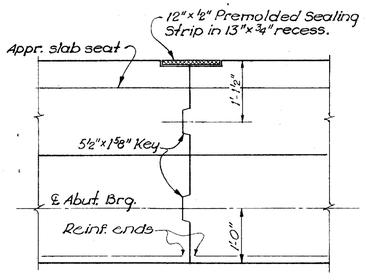
PLAN



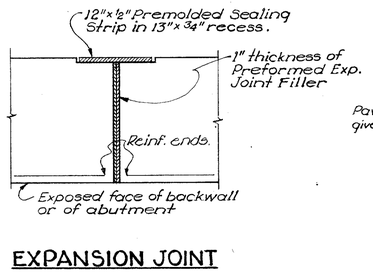
ELEVATION



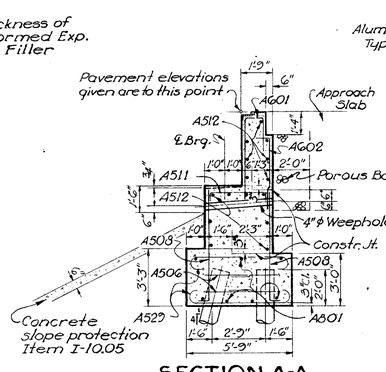
FOOTING PLAN



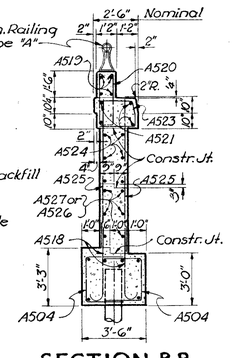
CONTRACTION JOINT



EXPANSION JOINT

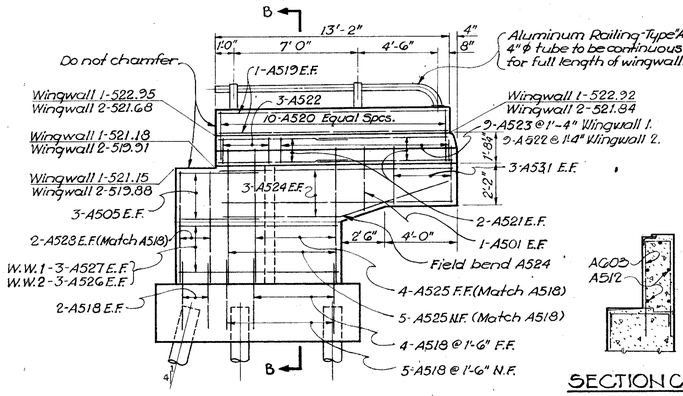


SECTION A-A



SECTION B-B

Footing shown for Wingwall 1



WINGWALL ELEVATION

SECTION C-C

NOTES

1. Designations used are as follows:
   N.F. Near Face
   F.F. Far Face
   E.F. Each Face
2. For railing details, see Std. Dwg. AR-1-57.
3. Place reinforcing under beam seats so as not to interfere with the drilling of anchor bar holes.
4. For electrical details, see Sh. 259

VOGT, IVERS, SEAMAN & ASSOCIATES
ENGINEERS CINCINNATI — ARCHITECTS CHICAGO

ABUTMENT 1

BRIDGE NO. HAM-25-0191
MILL CREEK EXPRESSWAY OVER FINDLAY STREET
HAMILTON COUNTY
STA. 109 + 27.75 to STA. 111 + 02.79

DESIGNED	DRAWN	TRACED	CHECKED	REVIEWED	DATE	REVISED
A.Y.	A.Y.	J.C.H.	G.J.C.	J.A.D.	10-60	

NOT FOR CONSTRUCTION INFORMATION ONLY

FED. RD. DIVISION	STATE	PROJECT	
2	OHIO		

HAM. 25-1.63

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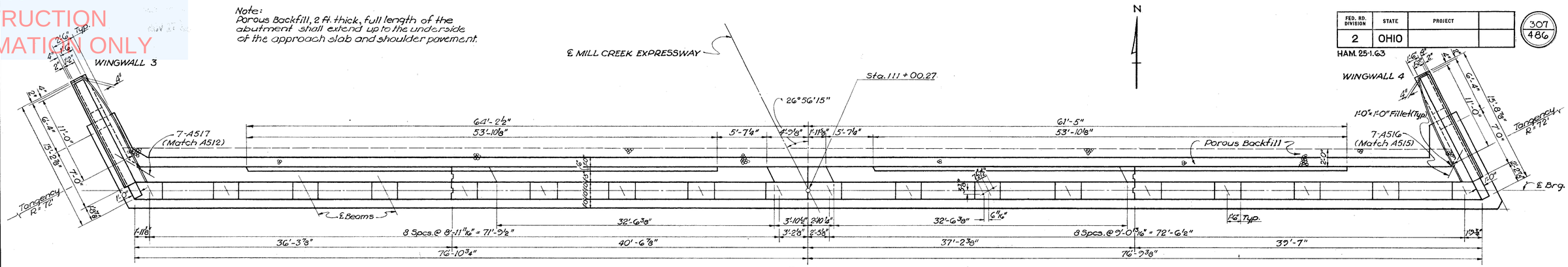
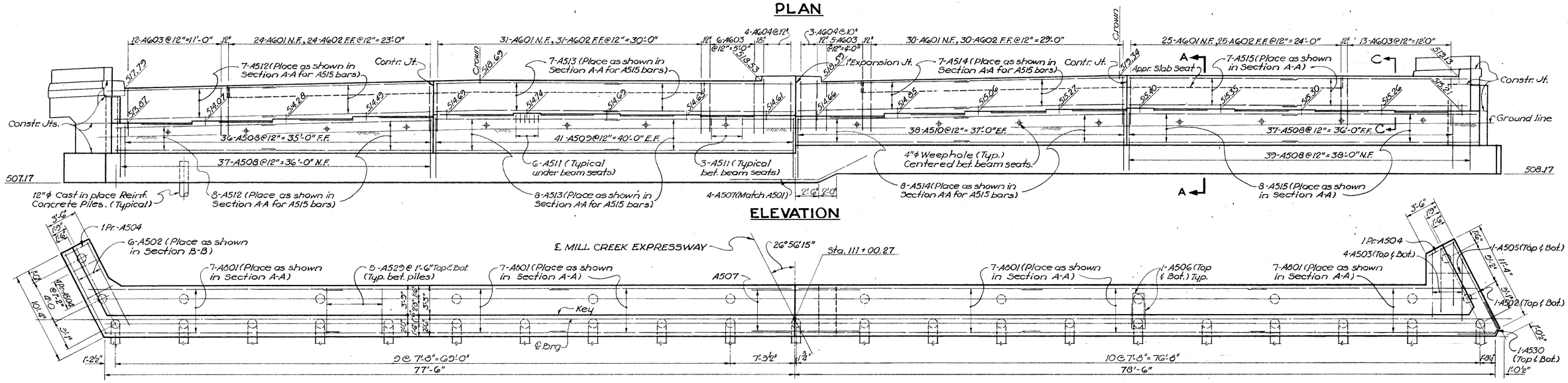
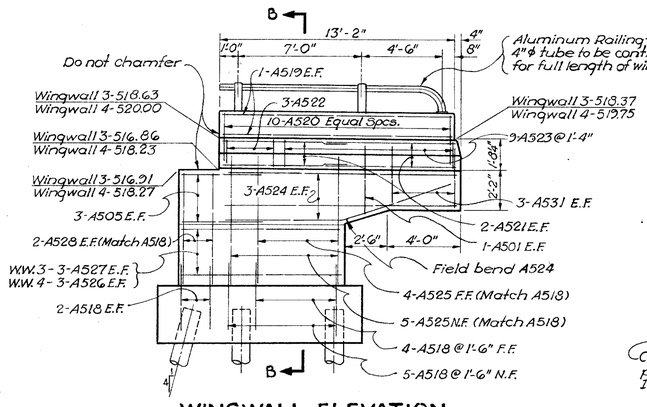
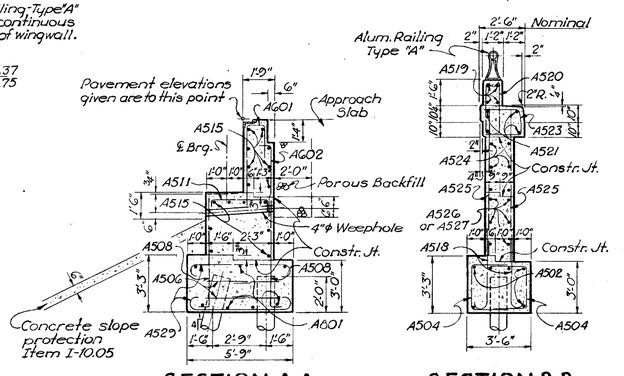
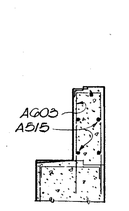
Note:
Porous Backfill, 2 Ft. thick, full length of the abutment shall extend up to the underside of the approach slab and shoulder pavement.

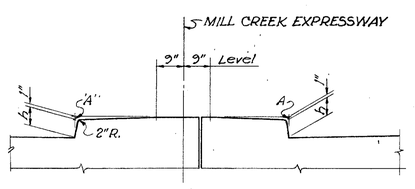












NOTE:
On Abutment 1, make h=6" at east gutter and vary h on west to keep points 'A' at same elevation across normal section. On Abutment 2, h=6".

NOTES

1. Designations used are as follows:
   N.F. Near Face
   F.F. Far Face
   E.F. Each Face
2. For railing details, see Std. Dwg. AR-1-57.

VOGT, IVERS, SEAMAN & ASSOCIATES
ENGINEERS CINCINNATI — ARCHITECTS CHICAGO

ABUTMENT 2

BRIDGE NO. HAM-25-0131
MILL CREEK EXPRESSWAY OVER FINDLAY STREET

HAMILTON COUNTY STA. 109 + 27.75 to STA. 111 + 02.79

DESIGNED	DRAWN	TRACED	CHECKED	REVIEWED	DATE	REVISED
A.Y.	J.C.H.	J.C.H.	G.J.C.	J.A.D.	10-60	

NOT FOR CONSTRUCTION INFORMATION ONLY

FED. RD. DIVISION	STATE	PROJECT	
2	OHIO		

HAM-25-1.63

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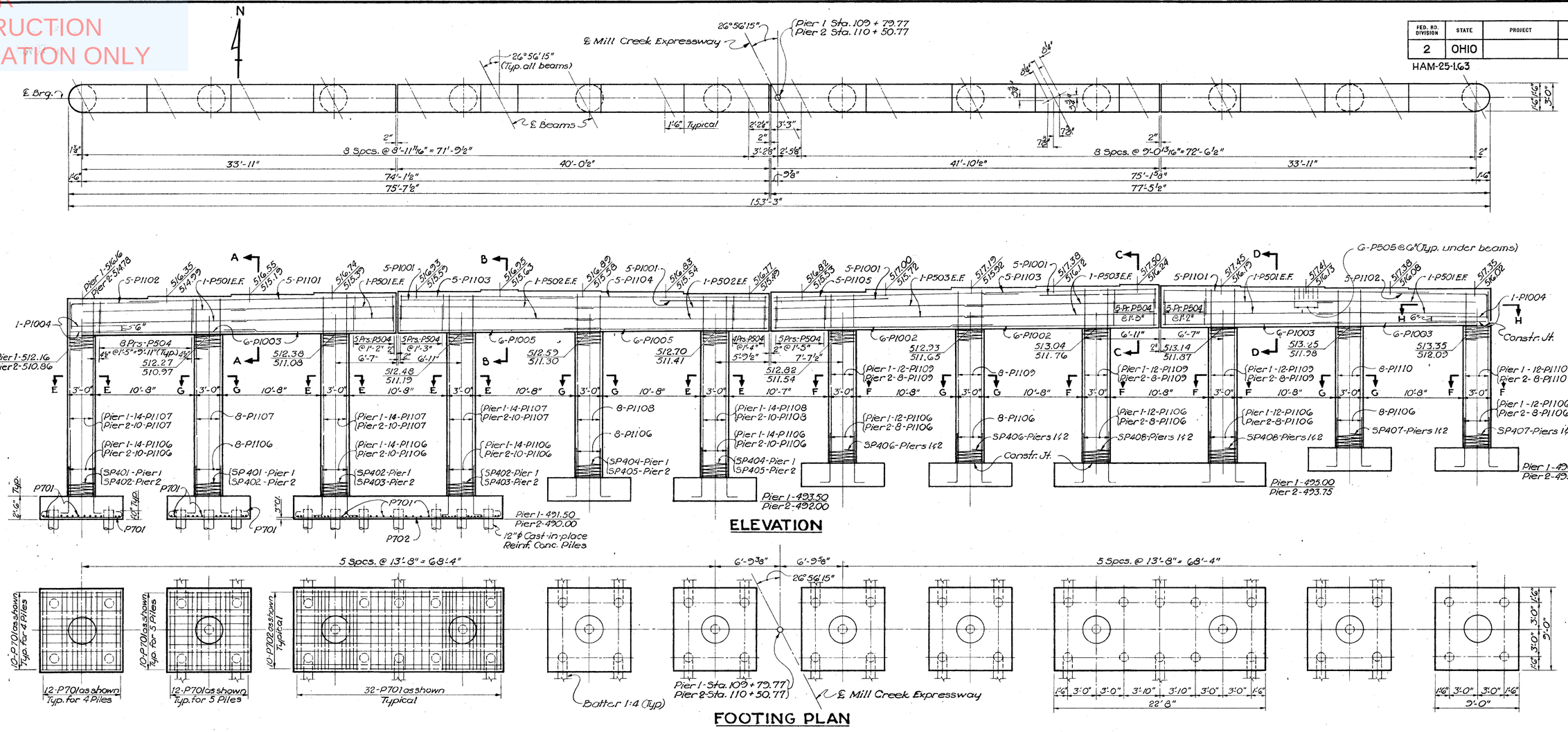
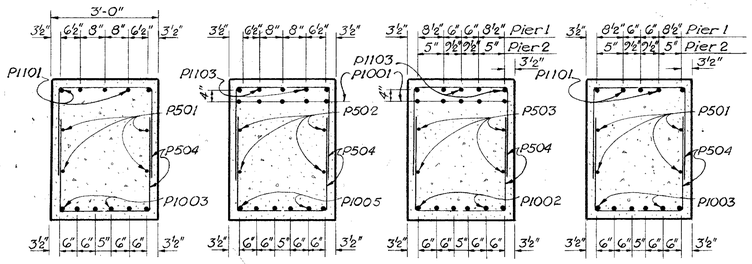
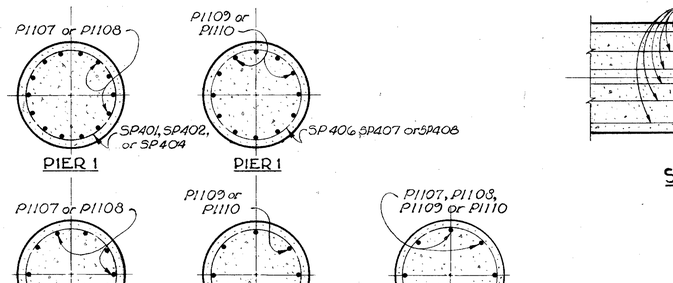


ELEVATION

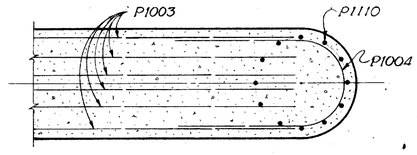
FOOTING PLAN



SECTION A-A
SECTION B-B
SECTION C-C
SECTION D-D



SECTION E-E
SECTION F-F
SECTION G-G



SECTION H-H

NOTES

1. Place reinforcing in pier caps so as to avoid interfering with drilling of anchor bar holes.
2. E.F. designates "Each Face".
3. In elevations shown, the upper figure applies to Pier 1; the lower figure to Pier 2.

VOGT, IVERS, SEAMAN & ASSOCIATES
ENGINEERS CINCINNATI — ARCHITECTS CHICAGO

PIERS 1 & 2

BRIDGE NO. HAM-25-0191
MILL CREEK EXPRESSWAY OVER FINDLAY STREET

HAMILTON COUNTY — STA. 109 + 27.75 to STA. 111 + 02.79

DESIGNED	DRAWN	TRACED	CHECKED	REVIEWED	DATE	REVISED
A.Y.	J.C.H.	J.C.H.	A.A.N.	J.A.D.	10-60	

NOT FOR CONSTRUCTION INFORMATION ONLY

FED. RD. DIVISION	STATE	PROJECT	
2	OHIO		

HAM-25-1.63

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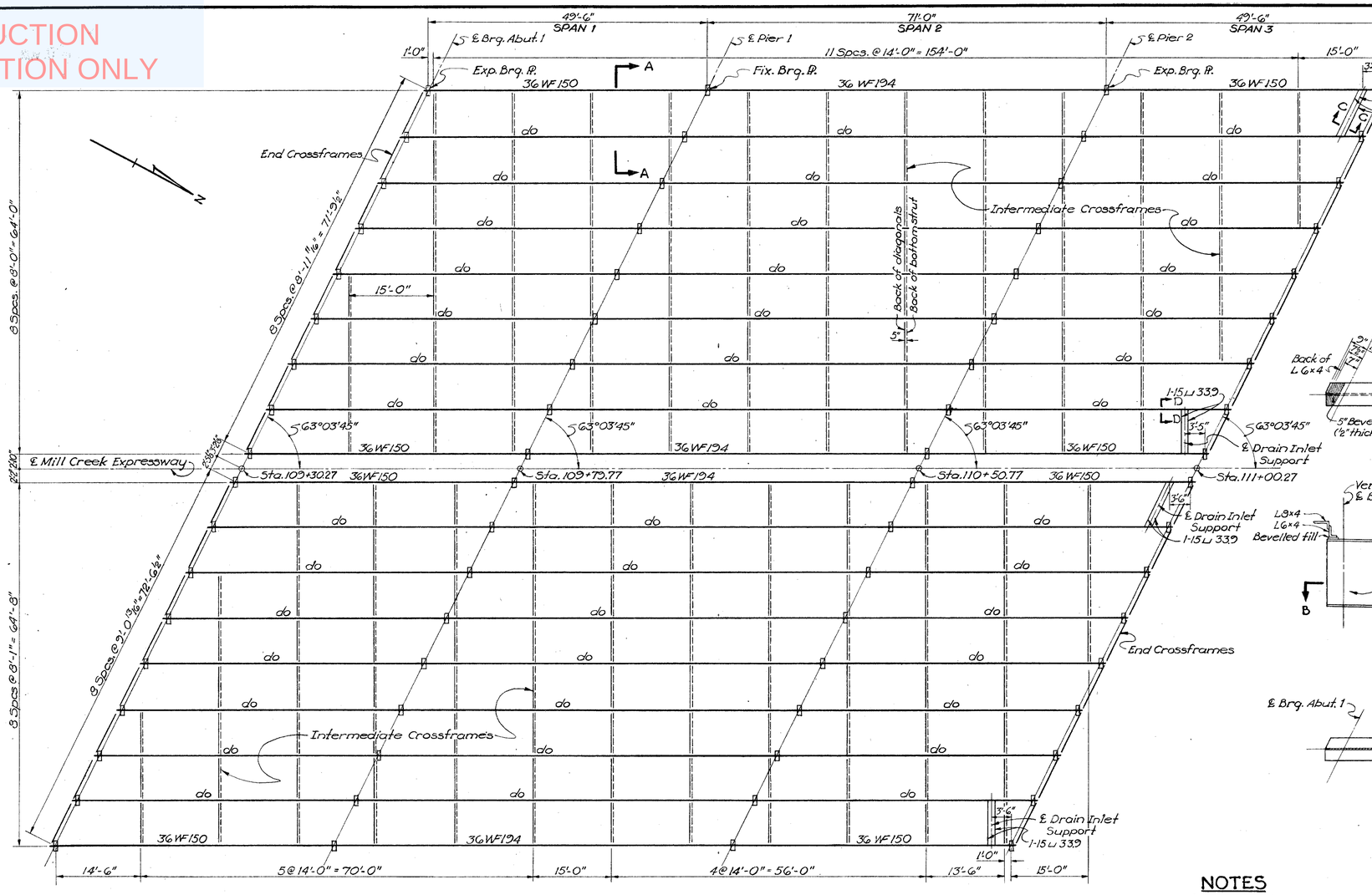
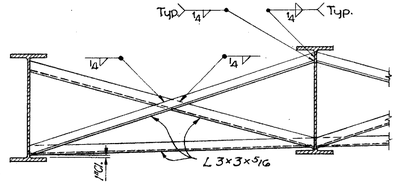
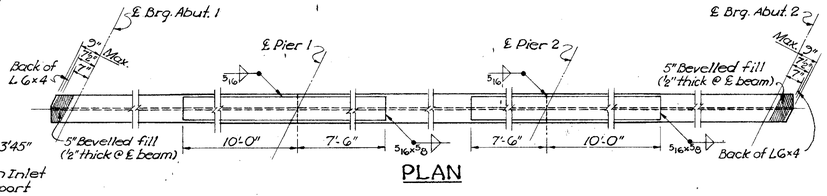
486



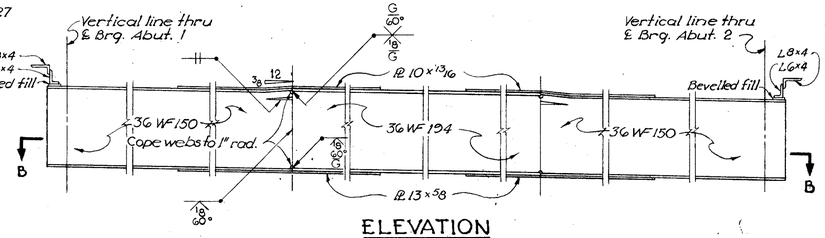
FRAMING PLAN



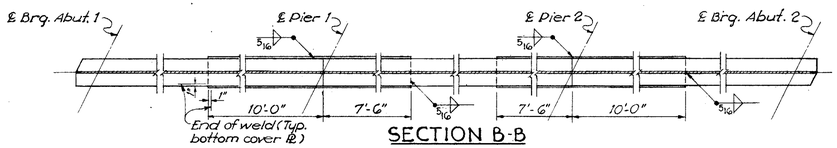
SECTION A-A



PLAN



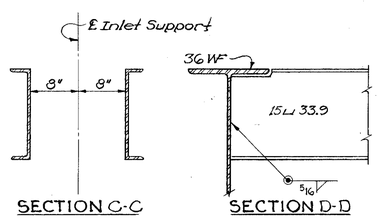
ELEVATION



SECTION B-B

BEAM DETAILS

DEFLECTION & CAMBER OF BEAMS												
	SOUTHBOUND						NORTHBOUND					
	Interior Beams			Fascia Beam			Interior Beams			Fascia Beam		
	SPAN 1	SPAN 2	SPAN 3	SPAN 1	SPAN 2	SPAN 3	SPAN 1	SPAN 2	SPAN 3	SPAN 1	SPAN 2	SPAN 3
Deflection due to weight of steel	0	1/8"	0	0	1/8"	0	0	1/8"	0	0	1/8"	0
Deflection due to remaining dead load	1/16"	7/16"	1/16"	1/16"	7/16"	1/16"	1/16"	7/16"	1/16"	1/16"	7/16"	1/16"
Convexity required for vertical curve	1/8"	1/4"	1/16"	3/8"	1/4"	0	1/8"	0	1/8"	3/16"	0	1/8"
Sum of deflection and camber	3/16"	13/16"	1/8"	7/16"	13/16"	1/16"	3/16"	9/16"	3/16"	1/4"	9/16"	3/16"
Required shop camber	0	1"	0	0	1"	0	0	0	0	0	0	0



INLET SUPPORT DETAILS

NOTES

1. For End crossframe details, see Std. Dwg. C.S.B.-2-56, Sheet 2 of 6, revised 2-2-59.
2. For Bearing Plate details, see Std. Dwg. C.S.B. 2-56, Sheet 3 of 6, revised 2-2-59.
3. For details of Drain Inlets, see Miscellaneous Structural Details, Sheet 412.
4. WELDING of Structural Steel shall be Class "A" unless otherwise shown.
5. Welds shown as field welds may, at the option of the Contractor, be made in the shop.
6. For details at end dams, see Std. Dwg. C.S.B.-2-56, Sheet 2 of 6.

BEAM SPLICE WELDING PROCEDURE

1. Raise the abutment end of the beams ½".
2. Butt-weld the beam flanges and web 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.
4. Lower the beam ends to final position.

VOGT, IVERS, SEAMAN & ASSOCIATES
ENGINEERS CINCINNATI ARCHITECTS CHICAGO

FRAMING PLAN & DETAILS

BRIDGE NO. HAM-25-0191
MILL CREEK EXPRESSWAY OVER FINDLAY STREET

HAMILTON COUNTY STA. 109+27.75 to STA. 111+02.75

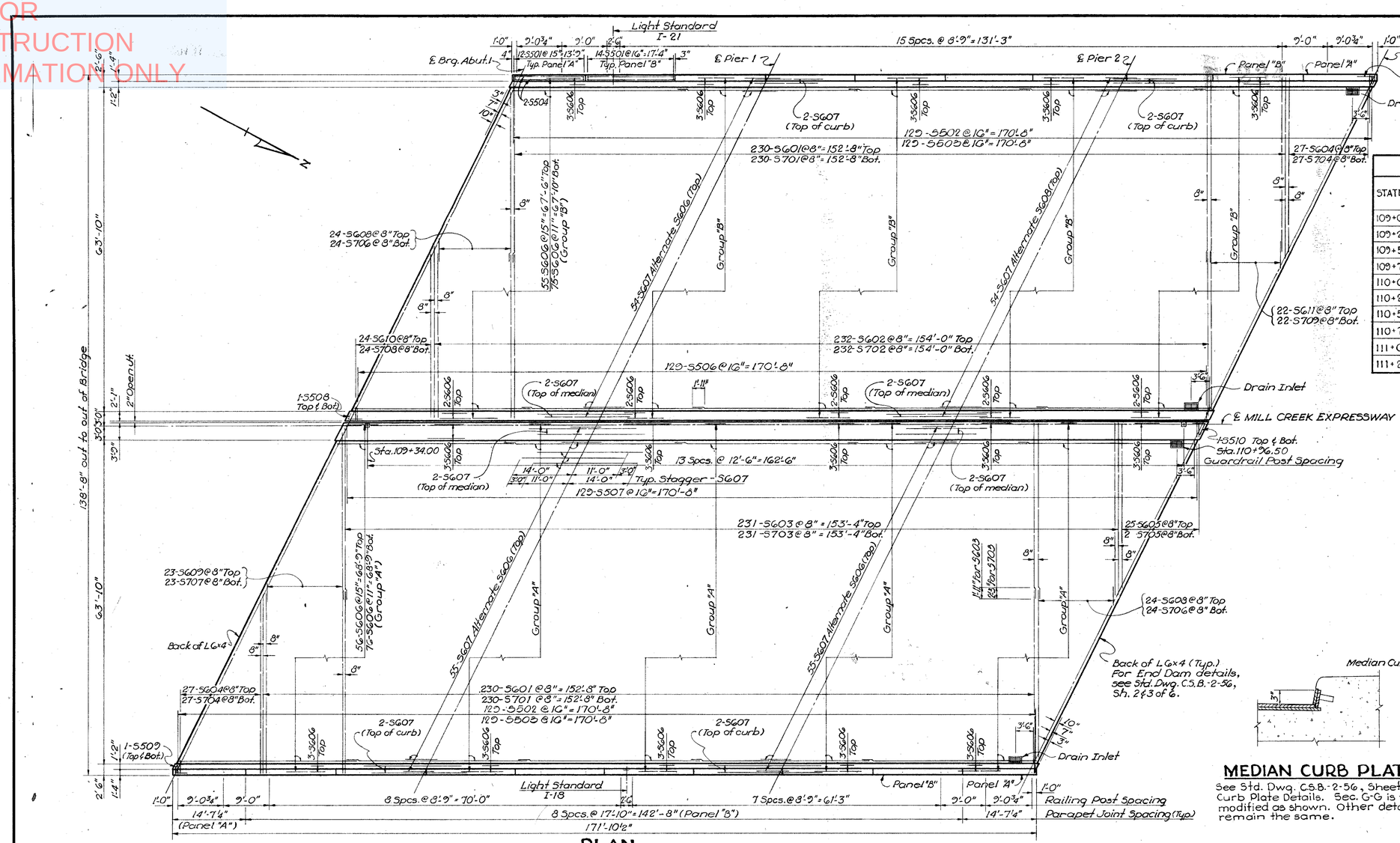
DESIGNED	DRAWN	TRACED	CHECKED	REVIEWED DATE	REVISED
A.Y.	J.C.H.	J.C.H.	G.J.C.	J.A.D. 10-60	

NOT FOR CONSTRUCTION INFORMATION ONLY

FED. RD. DIVISION	STATE	PROJECT	
2	OHIO		

HAM-25-1.63

310
486



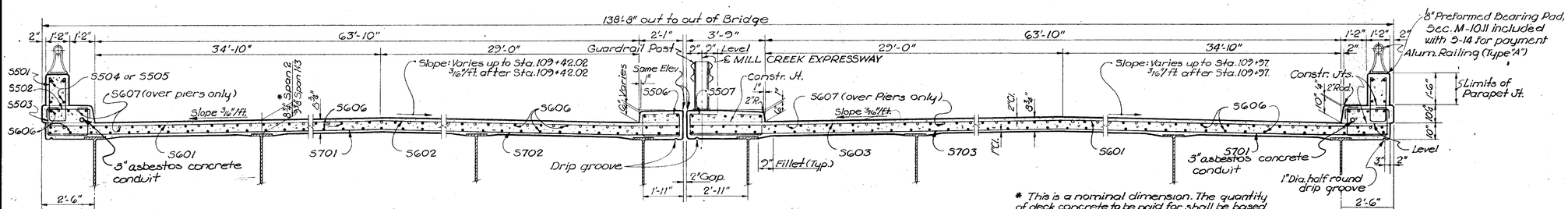
PLAN

PAVEMENT ELEVATIONS

STATIONS	PROFILE GRADE	SOUTHBOUND			NORTHBOUND		
		West Curb	℄ Lanes	East Curb	West Curb	℄ Lanes	East Curb
109+00.00	521.76	521.57	522.12	521.76	521.89	522.35	522.02
109+25.00	521.43	521.30	521.84	521.43	521.56	522.01	521.62
109+50.00	521.07	521.00	521.54	521.09	521.20	521.65	521.21
109+75.00	520.69	520.63	521.22	520.77	520.82	521.27	520.78
110+00.00	520.29	520.33	520.87	520.42	520.42	520.87	520.33
110+25.00	519.86	519.90	520.45	519.99	519.99	520.45	519.90
110+50.00	519.42	519.46	520.00	519.55	519.55	520.00	519.46
110+75.00	518.95	518.99	519.53	519.08	519.08	519.53	518.99
111+00.00	518.46	518.50	519.04	518.59	518.59	519.04	518.50
111+25.00	517.96	518.00	518.54	518.09	518.09	518.54	518.00

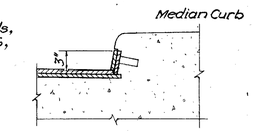
NOTES

1. For Drain Inlet details, see Misc. Structural Details, Sheet 412.
2. Cut reinforcing in slab to clear drain inlets as necessary.
3. For Railing and Parapet Joint details, see Std. Dwg. AR-1-57, revised 2-2-59.
4. Slab thickness shown includes 1" monolithic wearing surface.
5. For Median Guardrail Post detail, see Misc. Structural Details Sheet 412.
6. For additional lighting details see sheets 15, 257 to 261.



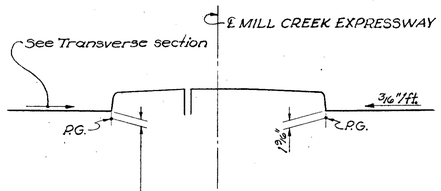
TYPICAL TRANSVERSE SECTION

* This is a 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 beams may not have the conformation required to place it parallel to the finished grade line.



MEDIAN CURB PLATES

See Std. Dwg. C.S.B.-2-56, Sheet 3 of 6; Curb Plate Details. Sec. G-G is to be modified as shown. Other details to remain the same.



LOCATION OF PROFILE GRADE WITH RESPECT TO GUTTER LINE

VOGT, IVERS, SEAMAN & ASSOCIATES
ENGINEERS CINCINNATI — ARCHITECTS CHICAGO

SUPERSTRUCTURE ROADWAY SLAB

BRIDGE NO. HAM-25-0191
MILL CREEK EXPRESSWAY OVER FINDLAY STREET
HAMILTON COUNTY
STA. 109 + 27.75 to STA. 111 + 02.79

DESIGNED	DRAWN	TRACED	CHECKED	REVIEWED	DATE	REVISED
A.Y.	J.C.H.	J.C.H.	G.J.C.	J.A.D.	10-60	

NOT FOR CONSTRUCTION INFORMATION ONLY

FED. RD. DIVISION	STATE	PROJECT	
2	OHIO		

HAM-25-1.63

311 / 486

235

235 Red
311- 399

SUPERSTRUCTURE

MARK	LENGTH	SHAPE	NO.	WEIGHT
S501	5'-0"	Bt.	272	1631
S502	3'- 1"	Bt.	268	830
S503	4'-10"	Bt.	268	1301
*S504	14'- 2"	Str.	16	
*S505	17'- 6"	Str.	64	
S506	4'- 5"	Bt.	120	534
S507	6'-0"	Bt.	120	807
S508	4'- 6"	Bt.	2	9
S509	3'-11"	Bt.	4	16
S510	6'- 4"	Bt.	2	13
S601	36'-10"	Str.	460	25445
S602	33'- 1"	Str.	232	11528
S603	34'- 8"	Str.	231	12028
S604	2'-3" to 35'-10" Incr. 1'-3½"	Str.	2 Series of 27	1544
S605	2'-0" to 33'-0" Incr. 1'-3½"	Str.	1 Series of 25	657
S606	35'- 9"	Str.	4,365	73295
S607	25'- 0"	Str.	234	8787
S608	4'-1" to 33'-10" Incr. 1'-3½"	Str.	2 Series of 24	1367
S609	5'-0" to 33'-5" Incr. 1'-3½"	Str.	1 Series of 23	664
S610	2'-0" to 31'-9" Incr. 1'-3½"	Str.	1 Series of 24	608
S611	4'-9" to 31'-10" Incr. 1'-3½"	Str.	1 Series of 22	604
S701	36'-10"	Str.	460	34632
S702	33'- 1"	Str.	232	15688
S703	34'- 8"	Str.	231	16368
S704	2'-3" to 35'-10" Incr. 1'-3½"	Str.	2 Series of 27	2102
S705	2'-0" to 33'-0" Incr. 1'-3½"	Str.	1 Series of 25	894
S706	4'-1" to 33'-10" Incr. 1'-3½"	Str.	2 Series of 24	1860
S707	5'-0" to 33'-5" Incr. 1'-3½"	Str.	1 Series of 23	903
S708	2'-0" to 31'-9" Incr. 1'-3½"	Str.	1 Series of 24	828
S709	4'-9" to 31'-10" Incr. 1'-3½"	Str.	1 Series of 22	823

ABUTMENTS

MARK	LENGTH	SHAPE	NO.	WEIGHT
A501	5'-9"	Str.	6	31
A502	10'-0"	Str.	16	167
A503	7'- 0"	Str.	16	117
A504	7'-2"	Bt.	24	179
A505	4'-6"	Str.	28	131
A506	7'-7"	Bt.	96	759
A507	13'-0"	Bt.	8	108
A508	6'-11"	Bt.	298	2150
A509	7'-7"	Bt.	164	1297
A510	6'-7"	Bt.	152	1044
A511	5'-6"	Bt.	312	1790
A512	19'-9"	Str.	60	1236
A513	20'-10"	Str.	60	1304
A514	19'-3"	Str.	60	1205
A515	21'-5"	Str.	60	1340
A516	3'-9"	Str.	14	55
A517	5'-6"	Str.	14	80
A518	5'-2"	Bt.	52	280
*A519	12'-10"	Str.	16	
A520	6'-9"	Bt.	40	282
A521	7'-5"	Str.	32	248
A522	4'-9"	Bt.	21	103
A523	2'-7" to 4'-7" Incr. 3"	Bt.	3 Series of 9	101
A524	12'-8"	Str.	24	317
A525	7'-0"	Str.	36	263
A526	8'-9"	Str.	12	110
A527	8'-5"	Str.	12	105
A528	6'-3"	Str.	16	104
A529	6'-7"	Bt.	400	2746
A530	6'-9"	Bt.	4	28
A531	3'-3"	Str.	24	81
A601	8'-7"	Bt.	218	2810
A602	5'- 3"	Bt.	218	1719
A603	13'- 1"	Bt.	70	1376
A604	14'-1"	Bt.	14	296
A801	28'-1"	Str.	84	6238

PIERS

MARK	LENGTH	SHAPE	NO.	WEIGHT
P501	17'-8"	Str.	32	590
P502	20'-6"	Str.	16	342
P503	21'- 7"	Str.	16	360
P504	8'-5"	Bt.	372	3266
P505	31-11"	Bt	216	882
PT01	10'-4"	Bt.	480	10138
PT02	22'- 2"	Str.	40	1812
P1001	12'-0"	Str.	40	2066
P1002	22'-5"	Str.	24	2315
P1003	18'-6"	Str.	48	3821
P1004	10'- 8"	Bt.	8	367
P1005	21'-6"	Str.	24	2220
P1101	23'-1"	Str.	20	3030
P1102	12'-10"	Bt.	20	1364
P1103	18'-0"	Str.	20	1913
P1104	25'-3"	Str.	10	1342
P1105	27'-1"	Str.	10	1439
P1106	6'-6"	Bt.	240	8288
P1107	22'-0"	Str.	88	10286
P1108	20'-5"	Str.	40	4339
P1109	19'- 1"	Str.	76	7705
P1110	17'-11"	Str.	36	3427

SPIRALS

MARK	LENGTH	SHAPE	NO.	WEIGHT	CORE DIA. & SPIRAL	PITCH	NO. TURNS
SP401	18'-2"	Bt.	2	672	32	4½	52
SP402	18'-5"	Bt.	4	1348	32	4½	52
SP403	18'-7"	Bt.	2	674	32	4½	52
SP404	16'-8"	Bt.	2	620	32	4½	48
SP405	16'-10"	Bt.	2	622	32	4½	48
SP406	15'- 5"	Bt.	4	1140	32	4½	44
SP407	14'- 1"	Bt.	4	1056	32	4½	41
SP408	15'-7"	Bt.	4	1160	32	4½	45

REPLACEMENT BARS

MARK	NO	LENGTH	SHAPE
RE 4	1	5'- 3"	Bt.
RE 5	2	5'- 7"	Str.
RE 6	8	5'-11"	Str.
RE 7	5	6'- 3"	Str.
RE 10	1	7'- 3"	Str.
RE 11	3	7'- 3"	Str.

If reinforcing bars are fabricated from stock which has previously been tested and approved by the Ohio Highway Testing Labratory, test samples as provided in Section S-402 need not be furnished and replacement bars will not be required.

SPIRAL REINFORCING BARS: 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.

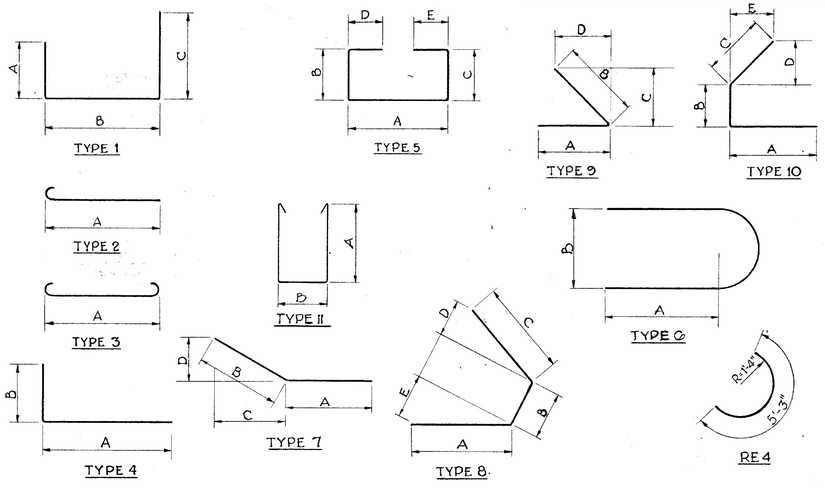
The "No. of Turns" shown is the "Length" divided by the pitch, plus 3 turns (total number of closed coils), expressed as the nearest whole number. Spiral reinforcing bar shall not have deformations but shall in other respects conform to Item S-4. 1½" closed coils shall be provided at the ends of each spiral unit.

Four steel channel, tee or angle spacers, weighing approximately 0.68 lb. per lineal foot 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 lineal foot, will be paid for as reinforcing steel and is included in the tabulated quantity of spiral bars.

BENDING LIST

MARK	TYPE	A	B	C	D	E
S501	11	2'- 2"	10"			
S502	1	8"	2'-0"	8"		
S503	5	1'-10"	1'-3"	1'-3"	6"	6"
S506	5	1'- 9"	11"	11"	8"	8"
S507	5	8'-4"	11"	11"	8"	8"
S508	9	3'-0"	1'- 7"	1'-5"	9"	
S509	10	2'-0"	1'- 0"	1'-0"	11"	6"
S510	9	3'-0"	3'-6"	3'-3"	1'-7"	
A504	1	2'- 5"	2'-7"	2'-5"		
A506	1	3'- 2"	1'- 6"	3'-2"		
A507	7	9'-0"	4'-0"	3'-6"	1'-9"	
A508	4	6'-0"	1'-0"			
A509	4	6'-8"	1'-0"			
A510	4	5'-8"	1'-0"			
A511	1	1'- 2"	3'-5"	1'- 2"		
A518	2	4'-7"				
A520	11	2'- 8"	10"			
A522	1	2'-0"	1'-4"	1'- 8"		
A523	1	10" to 1'-10" Incr. 1½"	1'- 4"	8" to 1'-8" Incr. 1½"		
A529	3	5'-5"				
A530	8	3'-0"	1'- 0"	3'-0"	1'-6"	1'-6"
A601	1	5'-10"	10"	2'-2"		
A602	4	4'- 5"	1'-0"			
A603	1	6'-0"	1'- 5"	6'-0"		
A604	1	6'-6"	1'- 5"	6'-6"		
P504	1	3'-0"	2'-8"	3'-0"		
P505	1	0'-9"	2'-8"	0'-9"		
P701	3	8'-8"				
P1004	6	3'-6"	2'-4"			
P1102	4	9'- 5"	3'-9"			
P1106	4	5'-10"	1'-0"			

BENDING DIAGRAMS



NOTES

1. 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.
2. Bars marked with single asterisks to be included for payment under Item S-14 Railing.
3. All dimensions are out to out of bar.
4. The "Length" of bent bars is measured along the center line.

VOGT, IVERS, SEAMAN & ASSOCIATES
ENGINEERS CINCINNATI — ARCHITECTS CHICAGO

REINFORCING STEEL LIST

BRIDGE NO. HAM-25-0191
MILL CREEK EXPRESSWAY OVER FINDLAY STREET

HAMILTON COUNTY — STA. 109 + 27.75 to STA. 111 + 02.75

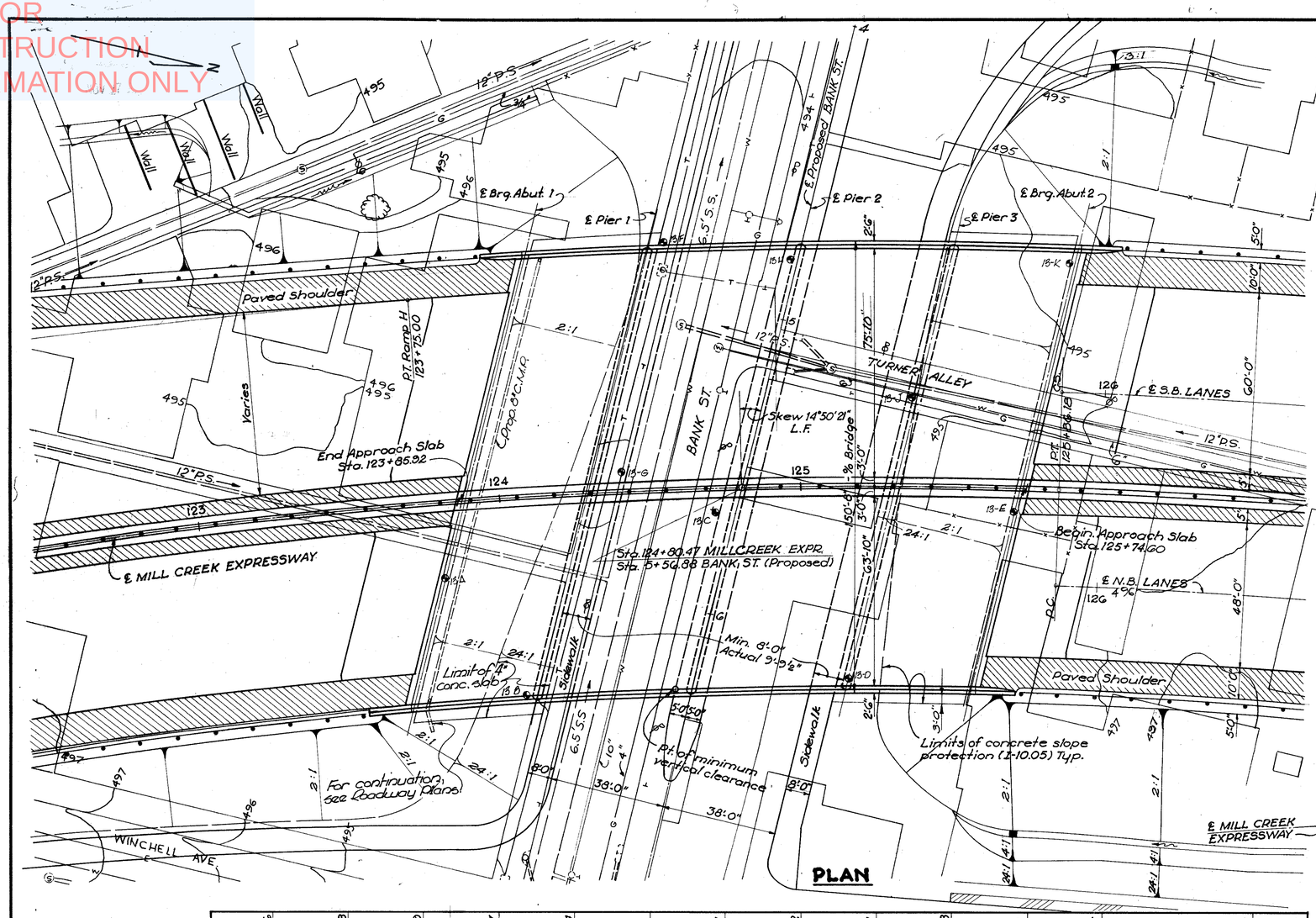
DESIGNED	DRAWN	TRACED	CHECKED	REVIEWED	DATE	REVISED
AY.	J.C.H.	J.C.H.	J.C.H.	J.A.D.	10-60	

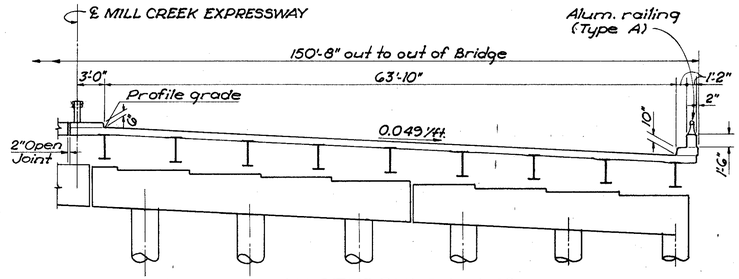
NOT FOR CONSTRUCTION INFORMATION ONLY

FED. RD. DIVISION	STATE	PROJECT	
2	OHIO		

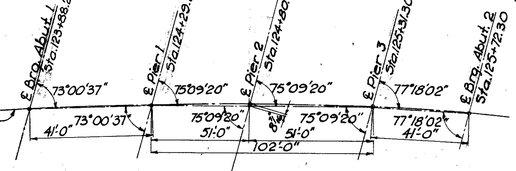
HAM-25-1.63

312 / 486





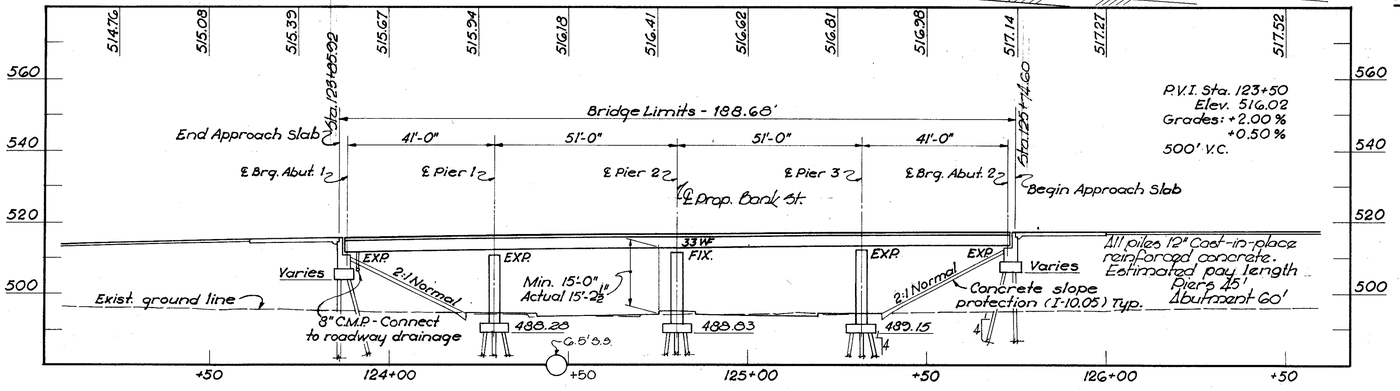
SECTION THRU BRIDGE



CURVE DATA ℄ MILL CREEK EXPRESSWAY

D = 3° 00' 00"
Δ = 23°39'37"
R = 1909.86'
L_c = 488.67'
L_s = 600'
T_1 = 681.88'
T_2 = 419.39'
P.I. Sta. 121+79.39

REFERENCE CHORD LAYOUT



PROFILE ON ℄ MILL CREEK EXPRESSWAY

NOTES

Foundation design and foundation quantities are based on a study of test borings and soil samplings made at the site. This sounding information may be inspected in the Office of the Bureau of Bridges in Columbus or in an abridged form in the Division Office, but the State assumes no responsibility for the accuracy thereof.

● Boring symbol

Limits of 4" concrete slab are from toe of slope to back of sidewalk and to 3'-0" beyond the outer limits of the superstructure.

BENCH MARK
P.M. #4 El. 494.36
Spike in Power Pole #N8-800E east side Western Ave. south of Bank St.
120' Rt. Sta. 135+82 S.B.

PROPOSED STRUCTURE

TYPE: Continuous rolled steel beam with reinforced concrete deck & substructure.
SPANS: 41'-0", 51'-0", 51'-0", 41'-0"
ROADWAY: 148'-0" between parapets.
LOAD FREQUENCY: CF-2000(57)-Adequate for AASHO alternate loading.
SKEW: 14°50'21" L.F.
WEARING SURFACE: 1" Monolithic concrete.
APPROACH SLABS: AS-1-54 (25' long)
ALIGNMENT: 3° Curve right
SUPERELEVATION: 0.049 ft/ft.

VOGT, IVERS, SEAMAN & ASSOCIATES
ENGINEERS CINCINNATI — ARCHITECTS CHICAGO

SITE PLAN

BRIDGE NO. HAM-25-0219
MILL CREEK EXPRESSWAY OVER BANK STREET
HAMILTON COUNTY STA. 123 + 85.92 to STA. 125 + 74.60

PRESENT TOPOGRAPHY		PROPOSED WORK			
SURVEYED	DRAWN	DESIGNED	DRAWN	CHECKED	REVISIONS
Aerial	Aerial	G.J.C.	G.J.C.	K.M.	

NOT FOR CONSTRUCTION INFORMATION ONLY

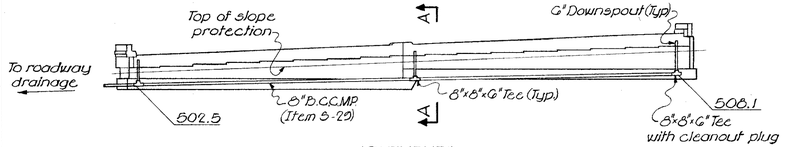
FED. RD. DIVISION	STATE	PROJECT		SHEET NO. / TOTAL SHEETS
2	OHIO			315 / 486

HAM-25-1.63

ESTIMATED QUANTITIES

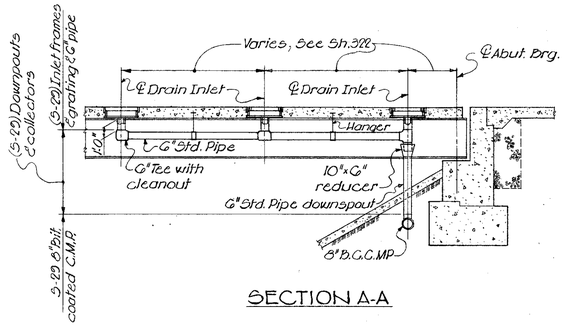
ITEM	TOTAL	UNIT	DESCRIPTION	ABUT'S	PIERS	SUPERST.	GENERAL
E-2	1093	Cu.Yds.	Unclassified Excavation	802	291		
S-1	810	Cu.Yds.	Class "C" Concrete ~ Superstructure			810	
S-1	398	Cu.Yds.	Class "C" Concrete ~ Piers above footings		398		
S-1	338	Cu.Yds.	Class "E" Concrete ~ Abutments above footings	338			
S-1	521	Cu.Yds.	Class "E" Concrete ~ Pier and abutment footings	218	303		
S-3	99	Lin.Ft.	Waterproofing, premolded sealing strip.	99			
S-4	459,815	Lbs.	Reinforcing Steel	33,213	107,688	249,914	
S-7	563,100	Lbs.	Structural Steel			563,100	
S-8	563,100	Lbs.	Field painting of Structural steel			563,100	
S-9	70	Sq.Ft.	1" Preformed Expansion Joint Filler.	70			
S-14	425	Lin.Ft.	Railing (aluminum railing and supports and concrete parapet)	53		372	
S-14	175	Lin.Ft.	Guardrail, Type I-15.11, double-faced with galvanized steel posts & bolts			175	
S-16	Lump	Lump Sum	First test pile.				Lump
S-17	Lump	Lump Sum	First pile test load				Lump
S-17	1	Each	Subsequent pile test load				1
S-18	16,770	Lin.Ft.	12" Cast-in-place reinforced concrete piles.	5,160	11,610		
S-25	3	Each	Light Standard with 15' Mast Arm, including anchor bolts.				3
S-25	380	Lin.Ft.	3" Asbestos Cement Conduit, fittings & bushings				380
S-25	24	Lin.Ft.	2" Aluminum Conduit, fittings & bushings				24
S-25	130	Lin.Ft.	1" Aluminum Conduit, fittings & bushings				130
S-25	280	Lin.Ft.	¾" Aluminum Conduit, fittings & bushings				280
S-25	Lump	Lump Sum	Grounding System				Lump
S-25	7	Each	Pull box complete with Frame & Cover.				7
S-29	104	Cu.Yds.	Porous backfill	104			
S-29	7	Each	Inlet Frame, Grating & 6" Std. Pipe			7	
S-29	75	Lin.Ft.	6" Pipe downspouts, galvanized or wrought iron, including specials.			75	
S-29	165	Lin.Ft.	8" Bituminous Coated Corrugated Metal Pipe including specials M-6.4(C)				165
I-10	1330	Sq.Yds.	Concrete slope protection				1330
I-13	2,709	Sq.Ft.	4" Concrete slab.				2,709
Special	810	Each	Water reducing, set retarding admixture*				
S-25	1	Each	700W Luminaire with 700W Mercury Vapor Lamp.				1
S-25	2	Each	400W Luminaire with 400W Mercury Vapor Lamp				2
S-25	1	Each	Ballast for 700W Lamp - G.E.A Series				1
S-25	2	Each	Ballast for 400W Lamp - G.E.A Series				2
S-25	8	Each	Flourescent Luminaire complete w. ballast (240V), hangers & inserts & 2-15A Flourescent Lamps				8
S-25	418	Lin.Ft.	6000V Single Conductor #8 AWG. Direct Burial Cable (Plain)				418
S-25	300	Lin.Ft.	600V Single Conductor #12 AWG. Luminaire wire				300
S-25	1120	Lin.Ft.	600V Single Conductor #8 AWG. Luminaire wire				1120

NOTE: 1. Materials in approach slabs are not included in this tabulation of estimated quantities
2. First test load shall be applied if and where directed by the project engineer.
*See proposal note.



ABUTMENT 1

DOWNSPOUT DRAIN PIPE



SECTION A-A

DRAINAGE DETAILS

GENERAL NOTES

REFERENCE shall be made to the following:

Standard Drawings: AR-1-57 revised 12-12-60
C.S.D.-2-56, sheets 2 & 3 of 6, revised 2-2-59
AS-1-54, revised 12-1-54

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: Piles shall be driven to a bearing capacity of 35 tons per pile.

CONCRETE DECK PLACING: In order to facilitate water curing of the concrete of the deck slab, the placing of concrete shall progress upgrade. The slab may be placed in sections, between transverse construction joints which are normal to the center line of bridge and are located near the center of any span.

RAILING: Aluminum rail and supports, concrete parapet, reinforcing bars wholly within the concrete parapet, and sponge rubber for parapet joints and preformed bearing pads shall be incl. in Item S-14 for payment.

UTILITY LINES: All Labor and expense involved in relocating the effected utility line shall be borne by the owners. The Contractor and Owners are requested to co-operate by arranging their work in such a manner that inconveniences to either will be held to a minimum.

EMBANKMENTS shall be, in place & compacted to subgrade elevation for a distance of 200 feet back of the abutments of 30 days prior to constructing the abutments unless settlement rods indicate that any settlements have ceased. Piers shall not be started until after the embankments are completed to subgrade elevation

DRAINAGE NOTES

1. For drain inlet locations see Sheet 322
For drain inlet details see Misc. Str. Details, Sheet 412.
2. For connection to roadway drainage, see Roadway Plans.

VOGT, IVERS, SEAMAN & ASSOCIATES
ENGINEERS CINCINNATI — ARCHITECTS CHICAGO

GENERAL NOTES AND ESTIMATED QUANTITIES
DRAINAGE DETAILS
BRIDGE NO. HAM-25-0219
MILL CREEK EXPRESSWAY
OVER BANK STREET

HAMILTON COUNTY STA. 123+85.92 TO STA. 125+74.60

DESIGNED	DRAWN	TRACED	CHECKED	REVIEWED DATE	REVISED
~	S.T.	~	C.E.S.		

NOT FOR CONSTRUCTION INFORMATION ONLY

493.6			Ground Elev. 494.0
	4		Concrete
	14		Fill; Dark brown silt and trace of sand cinders and brick
485.0	3		
	4		Brown silt and some sand & trace of fine gravel
482.0	9		
	8		Brown gravel with sand; little silt and clay
474.0	7		Brown silt; trace of sand
472.0	16		Brown coarse & fine sand
467.0	13		
	12		Brown silt; some sand and trace of clay
455.0			
W.L.	18		Brown coarse and fine sand with silt seams
	21		
450.0	22		Brown gravel with sand
444.0	28		Boring completed

BORING 13-A

493.0			Ground Elev. 493.5
	6		Concrete
	10		
	3		Fill, brown sandy clay with brick cinders
	3		
	3		
480.5	6		
	10		Brown gravel with sand & silt; trace of clay
476.5	11		
	20		Brown sandy silt with silt layers
463.5	20		
	18		Brown silt; trace of clay
W.L.			
457.5	8		
	32		
	12		
	32		Gray coarse & fine sand with silt seams
	14		
	14		
	15		
	20		
			Gray silt
420.0	48		Boring completed

BORING 13-B

493.5			Ground Elev. 493.9
	12		Concrete
	6		
	3		
	3		Fill; Dark brown sandy silt with cinders, gravel and brick
	5		
	2		
477.9	10		
	9		
	12		Gray silt and sand
471.9			
	13		Brown coarse and fine sand with silt seams
465.4	15		
	9		Brown silt and sand
460.9			
W.L.	17		Brown coarse and fine sand with silt seams
	16		
449.9			
	19		Gray fine sand
443.9	19		Boring completed

BORING 13-C

493.0			Ground Elev. 494.0
	18		Concrete and brick
	6		
	7		Fill; Dark brown sandy clay with gravel, cinders and brick
	5		
	3		
480.5	13		
	11		Brown gravel with sand; little silt and clay
476.0	11		
472.0			Gray silt; some fine sand; trace of clay
	8		Brown coarse & fine sand; little silt and
467.0			
W.L.	19		
	17		Brown silt, some fine sand
458.0	20		
454.0			Brown sandy silt, trace of clay
	20		Brown coarse and fine sand; some silt and clay
449.0	14		
	20		Gray fine sand
444.0			Boring completed

BORING 13-G

494.7			Ground Elev.
	12		
	16		Fill; Brown sandy clay, cinders and brick
488.7	11		
485.7			Brown clay; some silt and sand
	5		Brown coarse and fine sand; some fine gravel; little silt & clay
482.7	4		
	11		Brown gravel with fine to coarse sand; some silt and clay
476.7			
	5		
	0		Brown sandy silt; silt seams
	9		
468.7			
	10		Brown silt with sand seams
461.7	17		
W.L.			
457.2	22		Brown coarse & fine sand; some silt & clay
	28		Brown fine sandy silt
450.7			
	26		Brown coarse and fine sand with silt seams
444.7	22		Boring completed

BORING 13-F

494.0			Ground Elev. 494.4
	5		Concrete
	5		
	1		Fill; Brown sandy clay with cinders and brick
	3		
	2		
482.4	14		Brown gravel with sand; little clay; trace of silt
479.9			
	4		
	13		Brown coarse and fine sand with silt layers; little clay
	15		
462.9			
	15		
W.L.	14		
	24		Brown sandy silt; trace of clay
449.4			
	15		Brown fine sand
444.4	20		Boring completed

BORING 13-H

496.0			Ground Elev. 496.0
	28		
	37		
	31		Fill; Brick, cinders, some clay
487.0	28		
486.0	8		Brown sandy silt; some clay
	8		Brown clay with a trace of sand
480.5			
479.5			Brown gravel with sand, silt, & clay
478.0	8		Brown silty clay
	13		Brown silty fine sand
472.0	10		
	17		
	15		Brown coarse & fine sand
460.0			
W.L.	17		Brown silty fine sand
457.0			
	13		Brown sandy silt
452.0			
449.5	22		Brown fine sand
			Boring completed

BORING 13-D

495.4			Ground Elev. 495.4
	13		
	9		Fill; Brown sandy clay with brick and cinders
486.9	10		
	8		Brown & gray silt & clay
482.4			
	6		Brown clay and sand; some gravel; trace of silt
477.4	15		Brown silt and fine sand trace of clay
	15		
468.4			
	19		
	15		Brown sandy silt; trace of clay
W.L.			
	16		
454.9			
	13		Brown silt, with a trace of sand and clay
450.4			
448.9	18		Gray fine sand
			Boring completed

BORING 13-E

493.5			Ground Elev. 494.1
	8		Concrete
	4		
	11		
	5		Fill; Brown sandy clay with cinders and brick
	3		
482.1			
479.6	7		Brown silt and clay; some fine gravel; little sand
	13		
	20		Brown silt; some fine sand
	17		
	14		
W.L.			
455.1	20		
	11		
	16		
	13		
	29		Brown to gray coarse and fine sand with silt seams; trace of clay
	19		
	59		
422.6	47		Boring completed

BORING 13-J

495.9			Ground Elev. 495.9
	9		
	3		Dark brown sandy clay with cinders and brick
488.9	3		
486.9	13		Brown sandy silt
	8		Brown gravel with sand and silt; trace of clay
480.9	7		
	6		
	12		
W.L.			
	18		Brown silt; some clay; little sand
	10		
	15		
459.9			
	30		
	25		Brown coarse and fine sand with silt seams
445.9	22		Boring completed

BORING 13-K

FED. RD. DIVISION	STATE	PROJECT	
2	OHIO		

HAM-25-1.63

314
466

NOTE:

1. W.L. indicates water level after 24 hours
2. Figures in right hand column indicate number of blows required to drive 2" O.D. sampling pipe one foot, using 140 lbs. weight falling 30 inches.
3. For Boring locations, see Sheet 312

VOGT, IVERS, SEAMAN & ASSOCIATES
ENGINEERS CINCINNATI — ARCHITECTS CHICAGO

BORINGS

BRIDGE NO. HAM-25-0219
MILL CREEK EXPRESSWAY
OVER BANK STREET
HAMILTON COUNTY STA. 123+85.92 to STA. 125+74.60

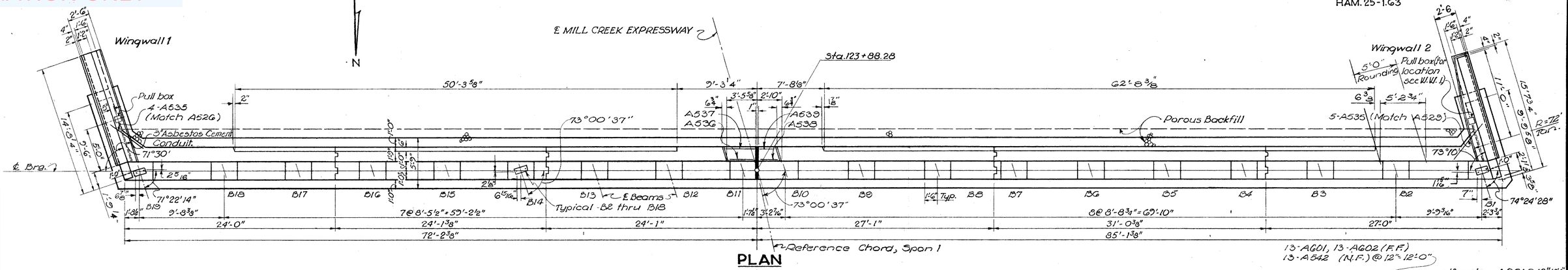
DESIGNED	DRAWN	TRACED	CHECKED	REVIEWED	DATE	REVISED
CAW	DYF		J.C.H.	JAD	11-60	

NOT FOR CONSTRUCTION INFORMATION ONLY

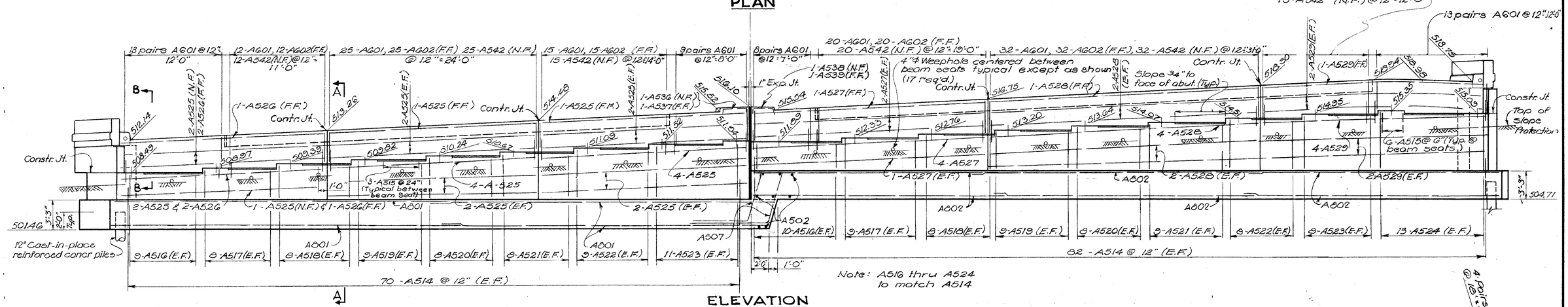
FED. RD. DIVISION	STATE	PROJECT	
2	OHIO		

HAM. 25-1.63

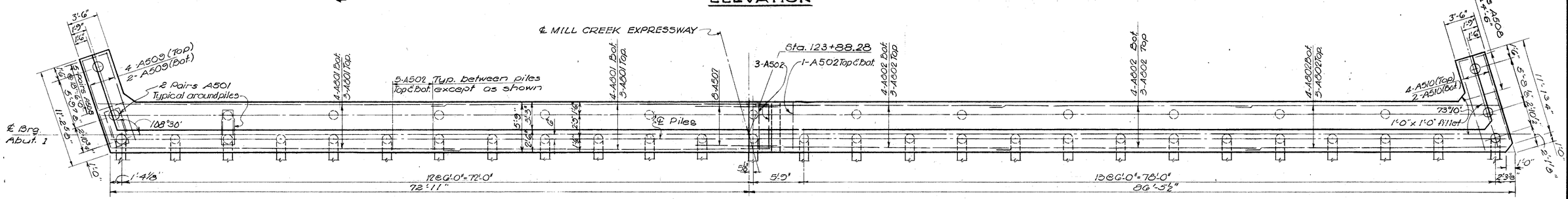
315
466



PLAN



ELEVATION



FOOTING PLAN

See Sheet 317 For Expansion & Contraction Joints.
See Sheet 317 For Sections A-A & B-B
See Sheet 702 For Lighting Details.

VOGT, IVERS, SEAMAN & ASSOCIATES
ENGINEERS CINCINNATI
ARCHITECTS CHICAGO

ABUTMENT 1

BRIDGE NO. HAM-25-0219
MILL CREEK EXPRESSWAY
OVER BANK STREET

HAMILTON COUNTY STA. 123 + 85.02
STA. 125 + 74.00

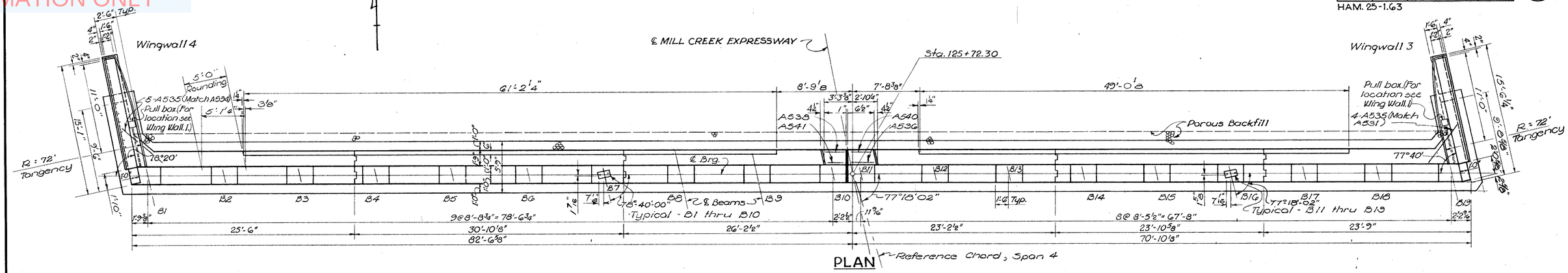
DESIGNED	DRAWN	TRACED	CHECKED	REVIEWED	DATE	REVISED
P.J.K.	J.C.H.	J.C.H. D.Y.F.	C.E.S.	JAD	11-60	

NOT FOR CONSTRUCTION INFORMATION ONLY

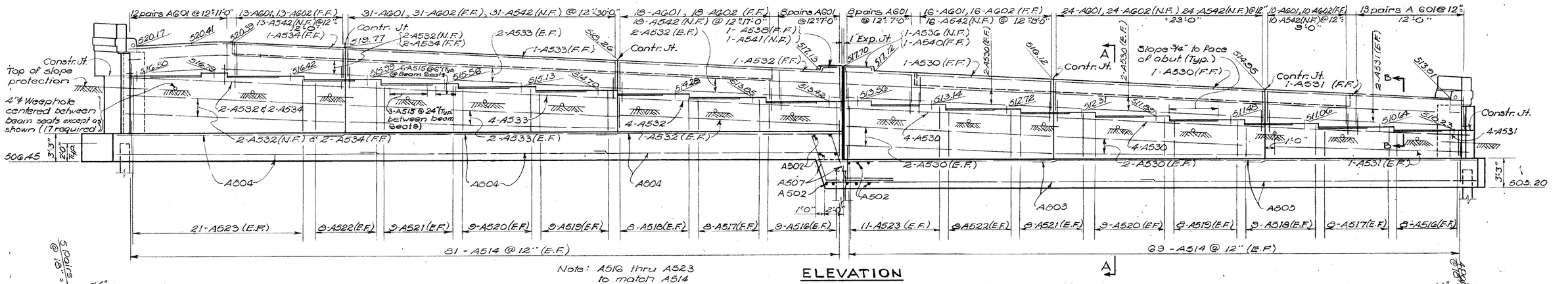
FED. RD. DIVISION	STATE	PROJECT	
2	OHIO		

HAM. 25-1.63

316 / 486



PLAN



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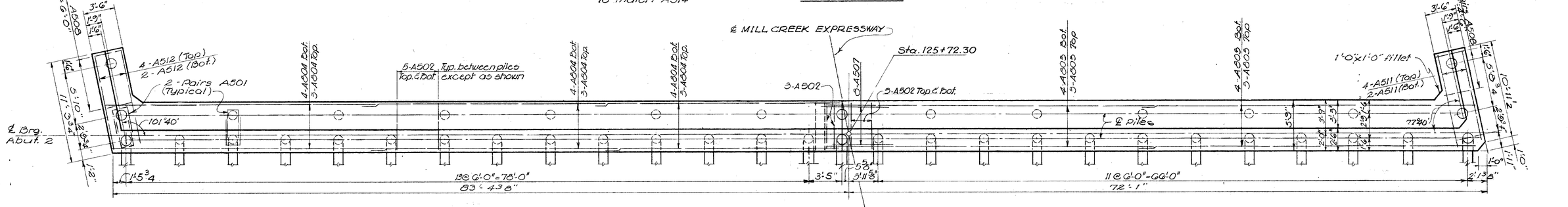


FOOTING PLAN

See Sheet 317 for Expansion & Contraction Joints.
See Sheet 317 for Section A-A & B-B
See Sheet 262 for Lighting Details.

VOGT, IVERS, SEAMAN & ASSOCIATES
ENGINEERS CINCINNATI ARCHITECTS CHICAGO

ABUTMENT 2

BRIDGE NO. HAM-25-0219
MILL CREEK EXPRESSWAY
OVER BANK STREET

HAMILTON COUNTY STA. 123 + 85.92
STA. 125 + 74.60

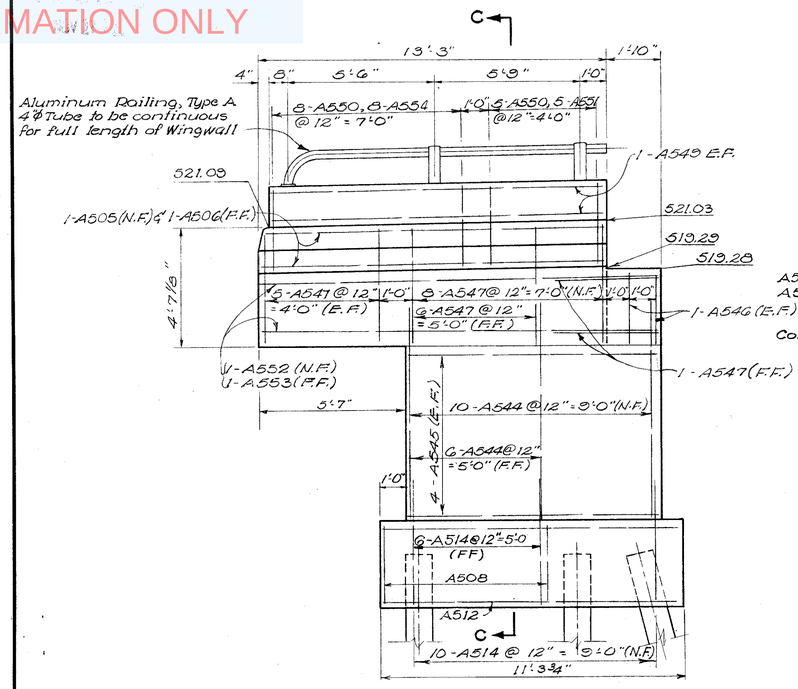
DESIGNED	DRAWN	TRACED	CHECKED	REVIEWED	DATE	REVISED
P.J.K.	J.C.H. D.Y.F.	~	C.E.S.	JAD	11-60	

NOT FOR CONSTRUCTION INFORMATION ONLY

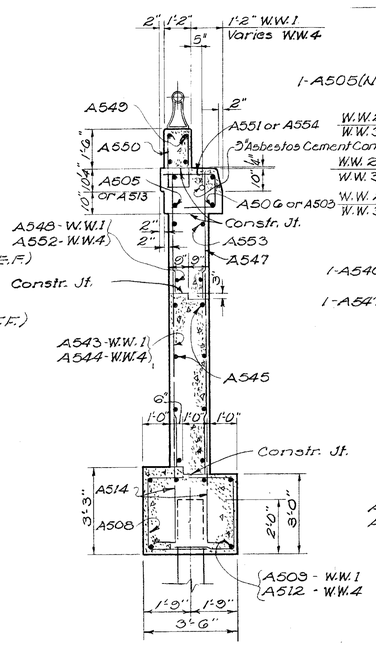
FED. RD. DIVISION	STATE	PROJECT	
2	OHIO		

317/486

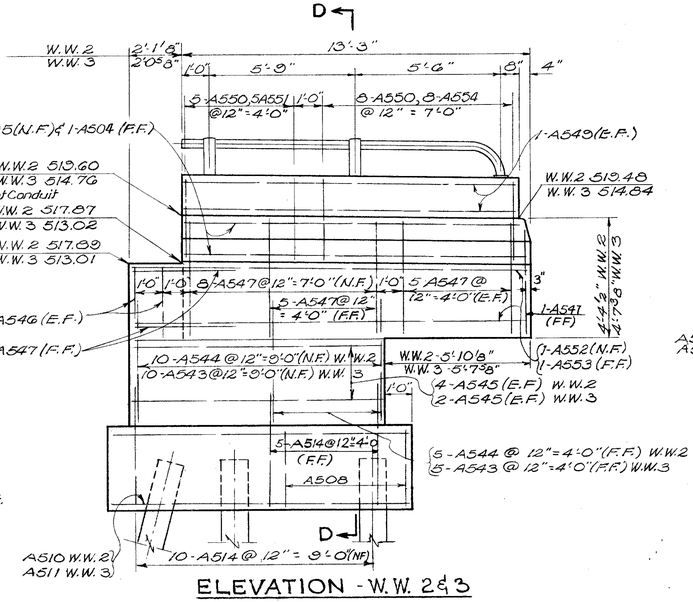
HAM. 25-1.63



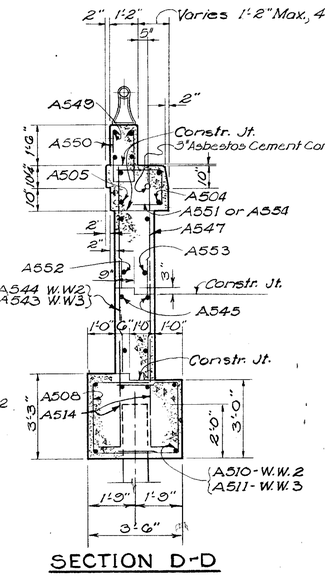
ELEVATION - W.W. 4



SECTION C-C



ELEVATION - W.W. 2&3



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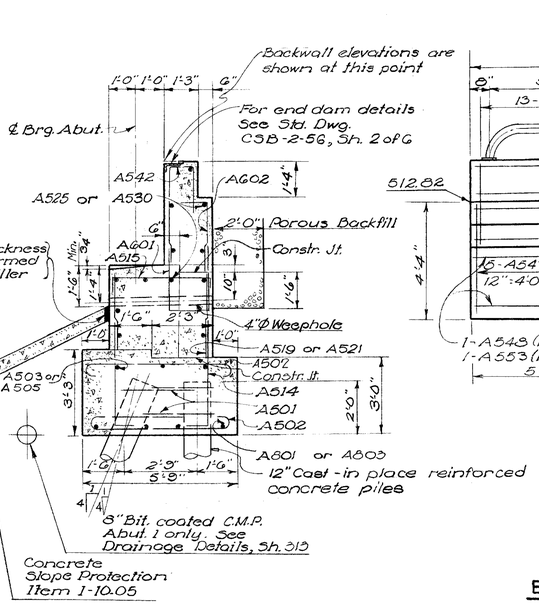
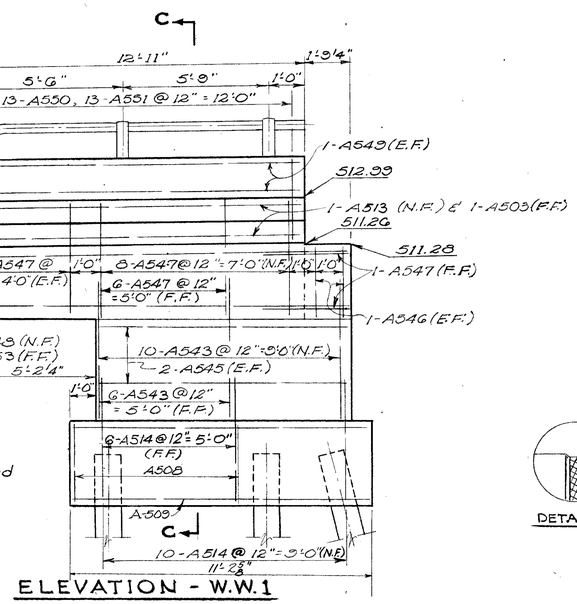
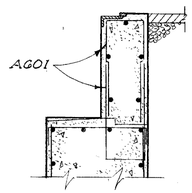


SECTION A-A

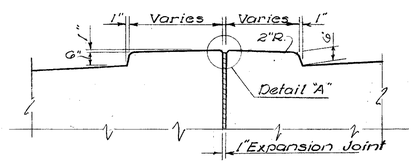


ELEVATION - W.W.1

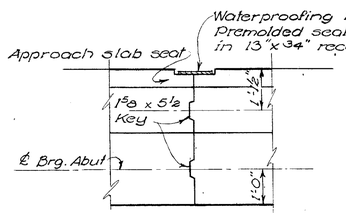


SECTION B-B

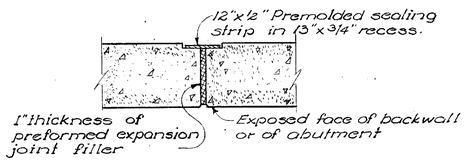
DETAIL "A"



MEDIAN DETAIL
(Abutment Backwalls)



CONTRACTION JOINT



EXPANSION JOINT

NOTES

1. Designations used are as follows:
   N.F. = Near Face
   F.F. = Far Face
   E.F. = Each Face
2. Porous backfill, 2' thick for full length of the abutment, shall extend up to the underside of the approach slabs and paved shoulders.
3. For railing details see Std. Dwg. AP-1-57
4. For layout diagrams, see sheet 3½
5. Place reinforcing steel so as to avoid interfering with drilling for anchor bars.

VOGT, IVERS, SEAMAN & ASSOCIATES
ENGINEERS CINCINNATI — ARCHITECTS CHICAGO

ABUTMENTS 1 & 2 - DETAILS

BRIDGE NO. HAM-25-0219
MILL CREEK EXPRESSWAY
OVER BANK STREET

HAMILTON COUNTY STA. 123 + 85.32
STA. 125 + 74.60

DESIGNED	DRAWN	TRACED	CHECKED	REVIEWED	DATE	REVISED
R.J.K.	J.C.H. D.Y.F.		C.E.S.	JAD	11-60	

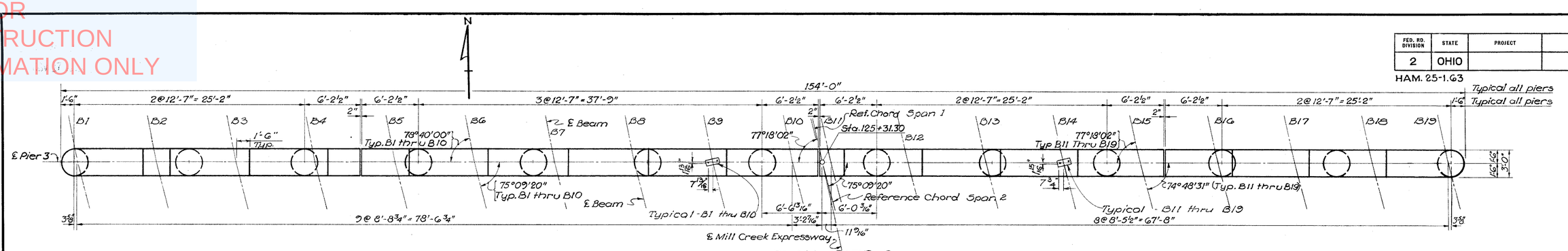
235 R/W

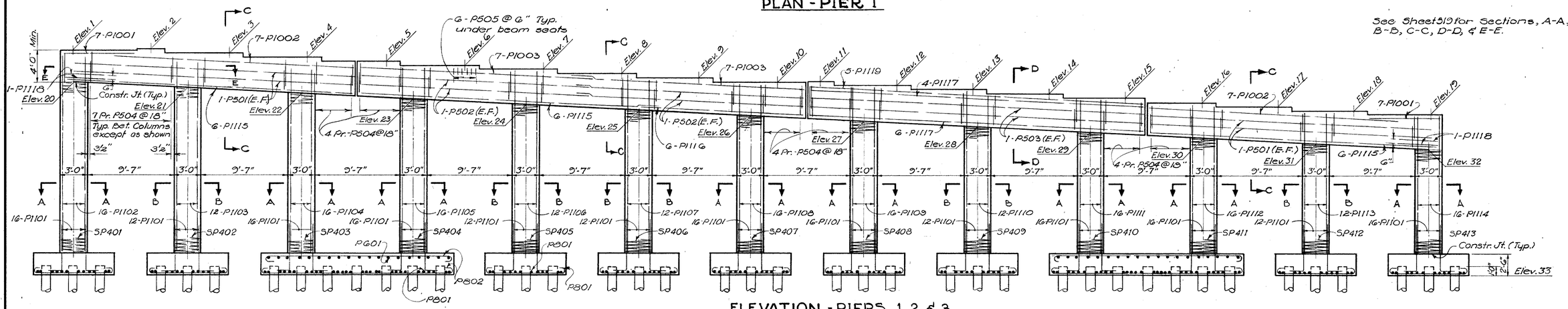
NOT FOR CONSTRUCTION INFORMATION ONLY

FED. RD. DIVISION	STATE	PROJECT	
2	OHIO		

HAM. 25-1.63

318
486





ELEVATION - PIERS 1, 2, & 3

TABLE OF ELEVATIONS

	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	32	33
Pier 1	515.44	515.70	515.31	514.87	514.44	514.00	513.57	513.14	512.70	512.27	512.32	511.90	511.48	511.05	510.63	510.21	509.78	509.36	508.94	511.37	510.81	510.25	509.68	509.12	508.56	507.99	507.43	506.87	506.30	505.74	505.18	504.62	488.29
Pier 2	515.95	516.21	515.81	515.38	514.95	514.52	514.09	513.65	513.22	512.79	512.86	512.44	512.02	511.60	511.18	510.76	510.34	509.92	509.50	511.88	511.33	510.77	510.21	509.65	509.09	508.53	507.98	507.42	506.86	506.30	505.74	505.19	488.83
Pier 3	516.17	516.43	516.15	515.72	515.29	514.86	514.43	514.00	513.57	513.14	513.23	512.81	512.38	511.96	511.56	511.14	510.72	510.31	509.88	512.11	511.56	511.02	510.48	509.93	509.39	508.85	508.31	507.76	507.22	506.68	506.13	505.59	489.15

VOGT, IVERS, SEAMAN & ASSOCIATES
ENGINEERS CINCINNATI — ARCHITECTS CHICAGO

PIERS 1, 2 & 3

BRIDGE NO. HAM-25-0219
MILL CREEK EXPRESSWAY
OVER BANK STREET

HAMILTON COUNTY STA. 123 + 85.92
STA. 125 + 74.60

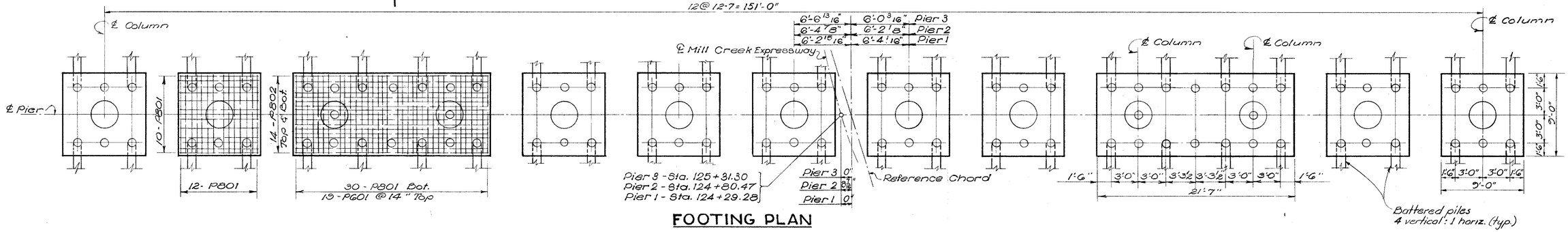
DESIGNED	DRAWN	TRACED	CHECKED	REVIEWED	DATE	REVISED
P.J.K.	J.C.H. D.Y.E.		C.E.S.	JAD	11-60	

NOT FOR CONSTRUCTION INFORMATION ONLY

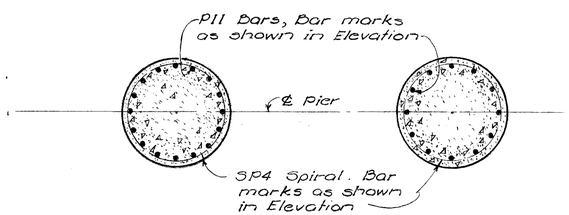
FED. RD. DIVISION	STATE	PROJECT	
2	OHIO		

HAM. 25-1.63

312
486

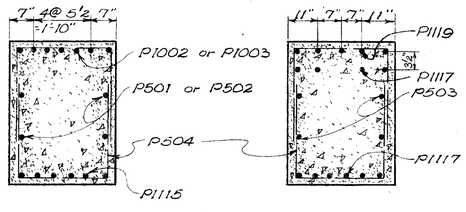


FOOTING PLAN



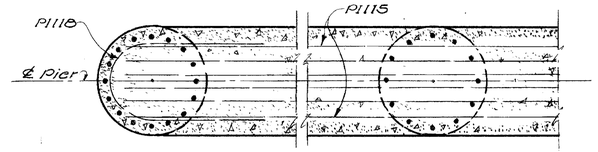
SECTION A-A

SECTION B-B



SECTION C-C

SECTION D-D



SECTION E-E

NOTES:
1. Designation: E.F. = Each Face
2. For layout diagram see Sheet 312
3. Space reinforcing steel so as to avoid interfering with drilling for anchor bars.
4. Piles in north row Pier 1 are to be pre-bored to elev. 472.0

VOGT, IVERS, SEAMAN & ASSOCIATES
ENGINEERS CINCINNATI ARCHITECTS CHICAGO

PIERS 1, 2 & 3

BRIDGE NO. HAM-25-0213
MILL CREEK EXPRESSWAY
OVER BANK STREET

HAMILTON COUNTY STA. 123 + 85.92
STA. 125 + 74.60

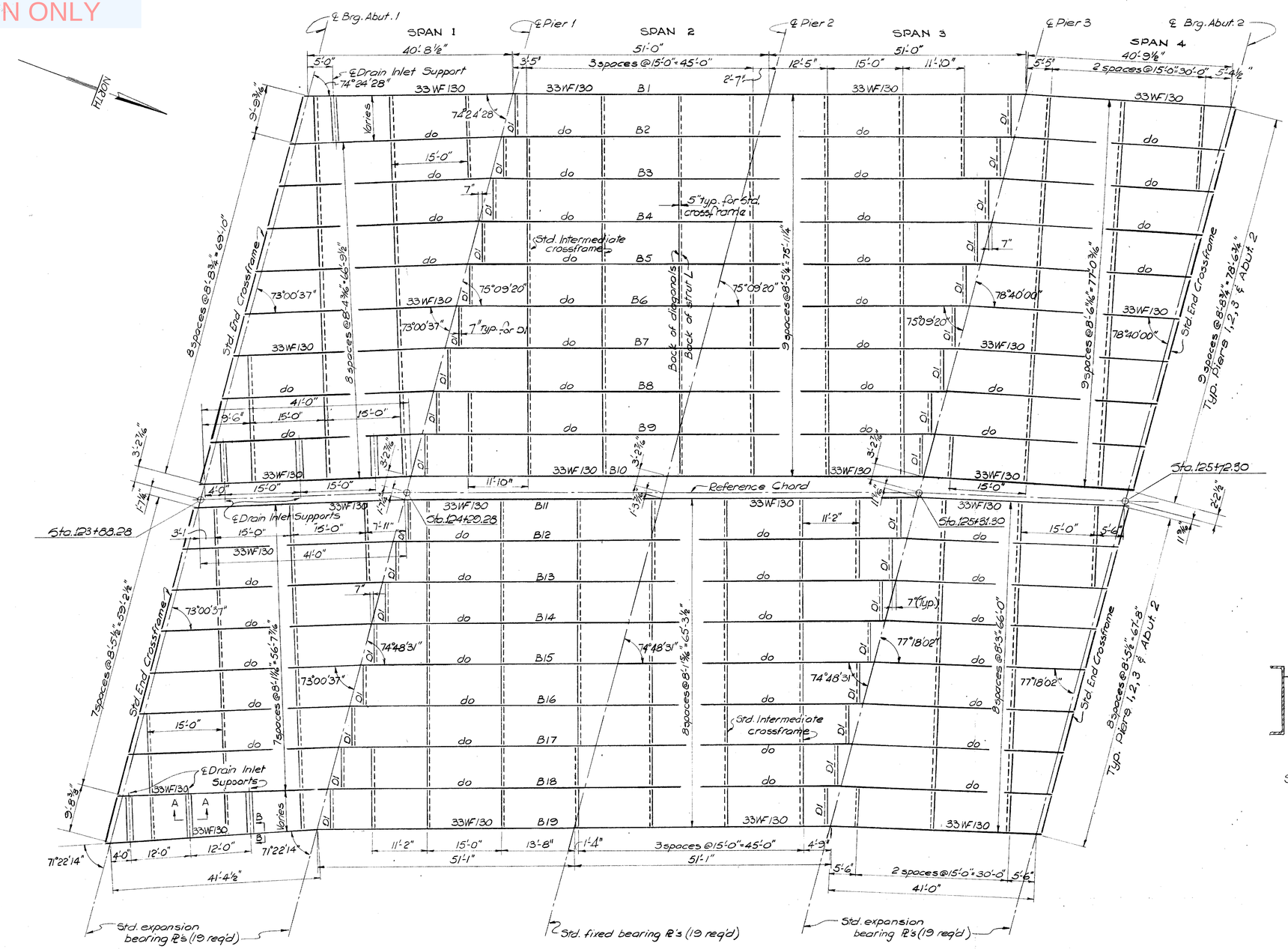
DESIGNED	DRAWN	TRACED	CHECKED	REVIEWED	DATE	REVISED
P.J.K.	J.C.H. D.Y.F.		C.E.S.	JAD	11-60	

NOT FOR CONSTRUCTION INFORMATION ONLY

FED. RD. DIVISION	STATE	PROJECT	
2	OHIO		

HAM-25-1.63

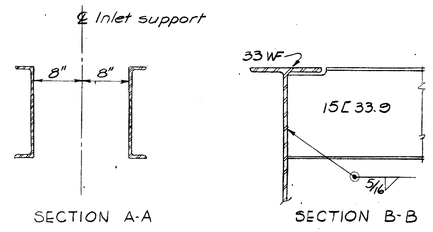
320 / 406



FRAMING PLAN

WELDING PROCEDURE

1. Raise the ends of the beams in Span 2, 5/8" at Pier 1.
2. Butt weld the beam flanges and webs at Pier 2 as follows: Make two passes on each flange, then two on the web; repeat, using one pass on each location, until welds are complete.
3. Weld the bottom and top moment plates at Pier 2.
4. Lower the ends of the beams at Pier 1.
5. Raise the ends of the beams in Span 1, 3/8" at Abut. 1, and the ends of beams in Span 4, 3/8" at Abut. 2.
6. Butt weld the beam flanges and webs at Piers 1 and 3, using the sequence described in step 2, above.
7. Weld the bottom and top moment plates at Piers 1 & 3. Intermediate crossframes D-1 must be position and welded, at Piers 1 & 3, prior to lowering the ends of the beams at abutments.
8. Lower ends of beams at abutments.



INLET SUPPORT DETAILS

For additional details, see Sheet 321

VOGT, IVERS, SEAMAN & ASSOCIATES
ENGINEERS CINCINNATI — ARCHITECTS CHICAGO

FRAMING PLAN

BRIDGE NO. HAM-25-0210
MILLCREEK EXPRESSWAY
OVER BANK STREET
HAMILTON COUNTY STA. 123+85.02 to STA. 125+74.60

DESIGNED	DRAWN	TRACED	CHECKED	REVIEWED	DATE	REVISED
P.J.K.	O.J.W.	—	G.J.C.	J.A.D.	11-60	

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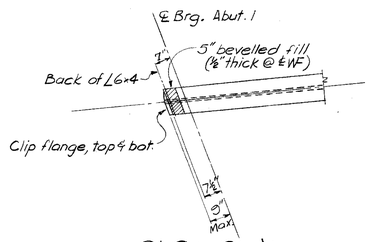
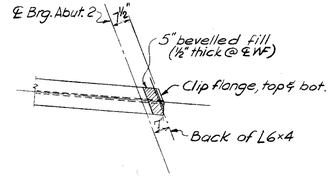
FED. RD. DIVISION	STATE	PROJECT	
2	OHIO		

HAM.-25-1.69

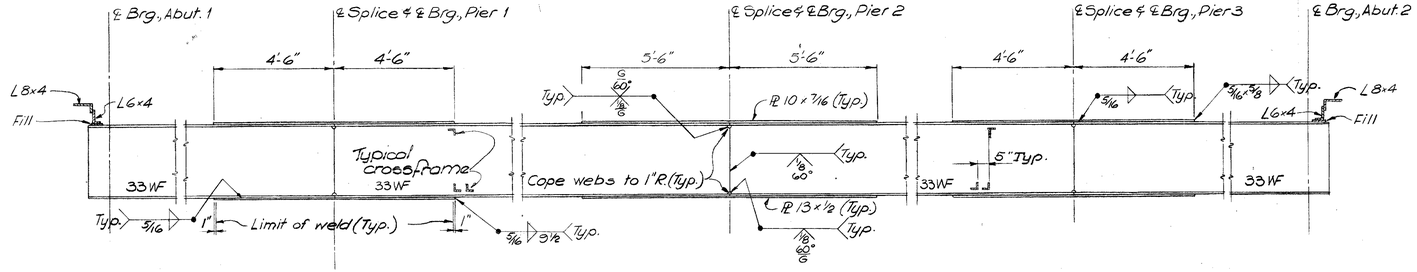
321
486



PART PLAN



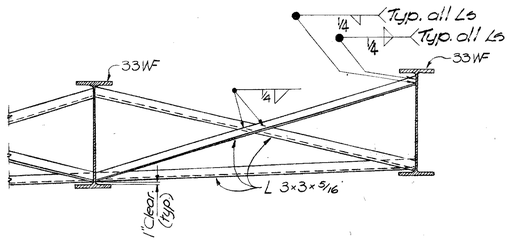
PART PLAN



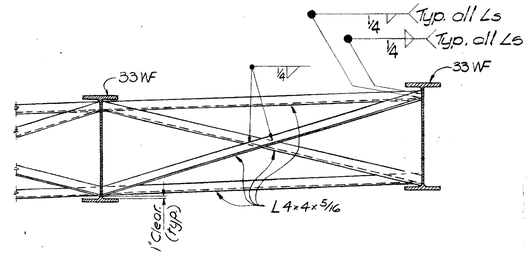
NOTES

1. See Std. Dwg. C.S.B.-2-56, Sheet 2, for details of end crossframes and expansion dams.
2. See Std. Dwg. C.S.B.-2-56, Sheet 3, for details of bearing plates.
3. For details of drain inlets, see Sheet 325
4. The 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.
5. For additional notes, see Sheet 313
6. For Layout Diagram, see Sheet 312

BEAM DETAILS



STD. INTERMEDIATE CROSSFRAME



D1 INTERMEDIATE CROSSFRAME

CAMBER OF BEAMS		
ALL BEAMS	END SPANS	CENTER SPANS
Deflection due to weight of steel.	0	0
Deflection due to remaining dead load.	1/8	1/8
Camber required for vertical curve.	1/16	1/8
Sum of deflection and camber.	3/16	1/4

No shop camber required.

VOGT, IVERS, SEAMAN & ASSOCIATES
ENGINEERS CINCINNATI ARCHITECTS CHICAGO

STRUCTURAL STEEL DETAILS

BRIDGE NO. HAM.-25-0210
MILLCREEK EXPRESSWAY
OVER BANK STREET
HAMILTON COUNTY STA. 123+89.92 TO STA. 125+74.60

DESIGNED	DRAWN	TRACED	CHECKED	REVIEWED	DATE	REVISED
R.J.K.	D.J.W.	—	G.J.C.	JAD	11-60	

NOT FOR CONSTRUCTION INFORMATION ONLY

FED. RD. DIVISION	STATE	PROJECT	
2	OHIO		

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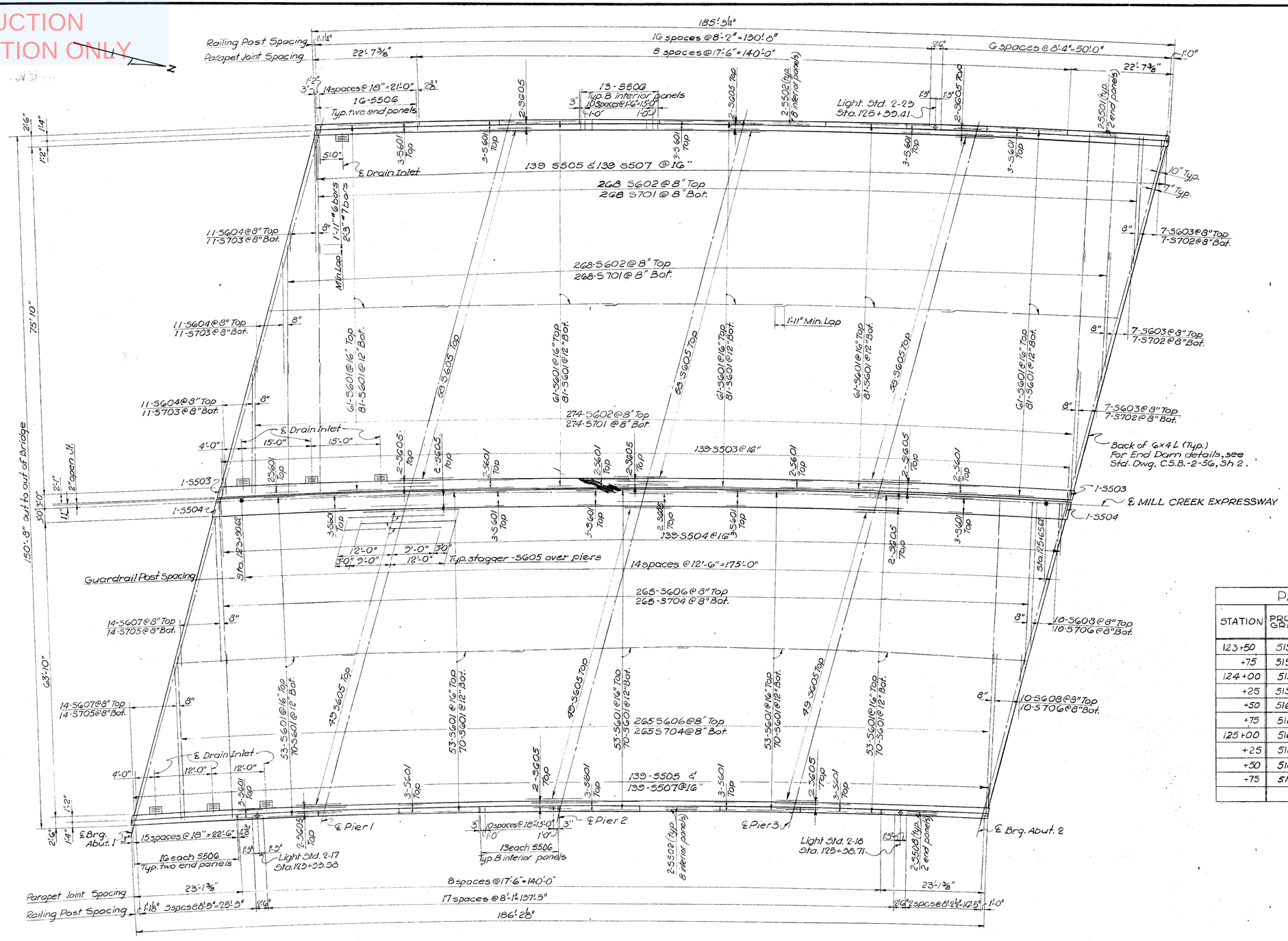
486

HAM-25-1.63



ROADWAY SLAB REINFORCING

NOTES

1. Railing Post and parapet joint spacing given along ℄ parapet.
2. Guardrail Post spacing given along ℄ Mill Creek Expressway.
3. Slab thickness includes 1" for monolithic wearing surface.
4. Railing and parapet joints are detailed on Std. Dwg. AR-1-57, revised 2-2-59.
5. Field cut reinforcing steel to clear drain inlets.
6. For inlet details, see Sh. 412
7. For guardrail post details, see Sh. 412.
8. For additional details, see Sh. 323
9. For lighting details, see Sh. 262 & 259 & 15.

PAVEMENT ELEVATIONS

STATION	PROFILE GRADE	66'-10" RIGHT OF ℄	PROFILE GRADE	68'-0" LEFT OF ℄	73'-0" LEFT OF ℄	78'-10" LEFT OF ℄
123+50	515.08	——	——	——	——	——
+75	515.39	512.26	515.39	——	——	——
124+00	515.67	512.54	515.67	518.86	518.87	518.63
+25	515.94	512.81	515.94	519.12	519.14	518.90
+50	516.18	513.05	516.18	519.37	519.38	519.14
+75	516.41	513.28	516.41	519.59	519.61	519.37
125+00	516.62	513.49	516.62	519.81	519.82	519.58
+25	516.81	513.68	516.81	519.99	520.01	519.77
+50	516.98	513.85	516.98	520.17	520.18	519.94
+75	517.14	514.01	517.14	520.33	520.34	520.10

VOGT, IVERS, SEAMAN & ASSOCIATES
ENGINEERS CINCINNATI — ARCHITECTS CHICAGO

SUPERSTRUCTURE — ROADWAY SLAB

BRIDGE NO. HAM-25-0219
MILL CREEK EXPRESSWAY
OVER BANK STREET
HAMILTON COUNTY STA. 123+85.92 to STA. 125+74.60

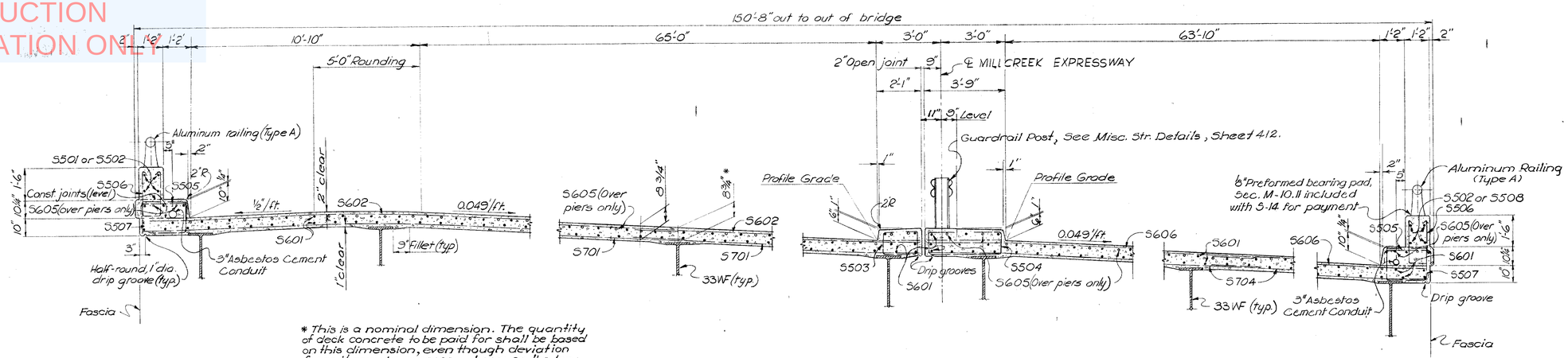
DESIGNED	DRAWN	TRACED	CHECKED	REVIEWED	DATE	REVISED
P.J.K.	D.J.W.	D.J.W.	G.J.C.	JAD	11-60	

NOT FOR CONSTRUCTION INFORMATION ONLY

FED. RD. DIVISION	STATE	PROJECT	
2	OHIO		

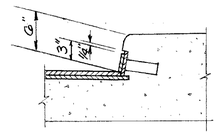
HAM-25-1.63

229
486



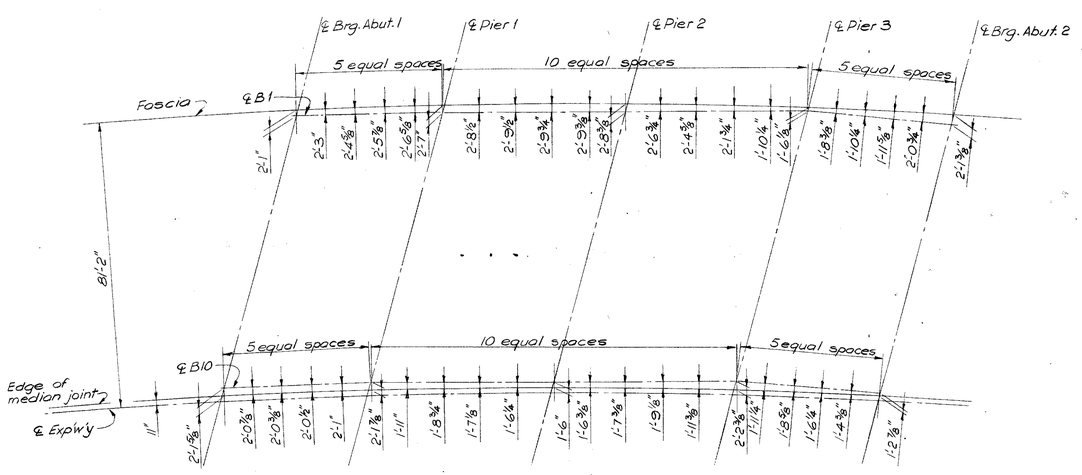
* This is a nominal dimension. The quantity of deck concrete to be paid for shall be based on this dimension, even though deviation from it may be necessary because the top flange of the beams may not have the exact camber required to place it parallel to the finished grade line.

TYPICAL TRANSVERSE SECTION

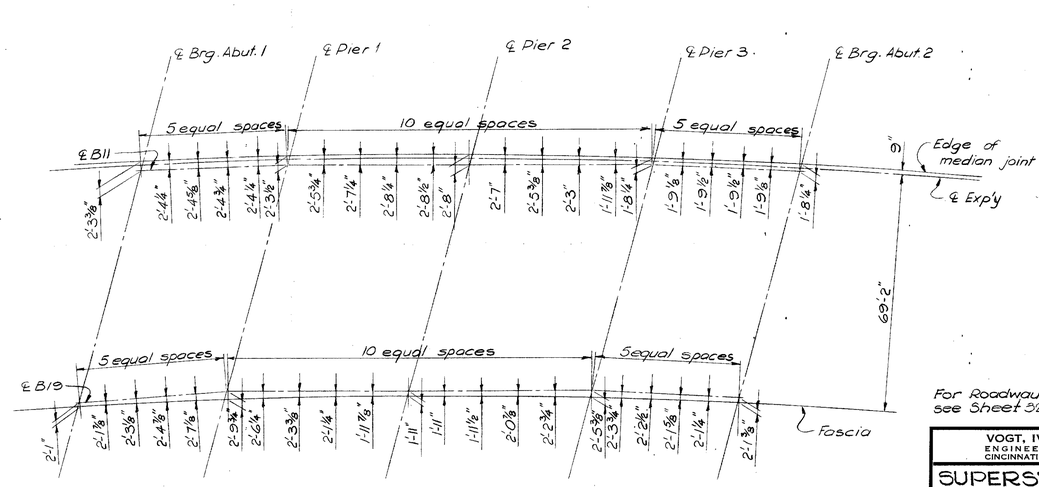


MEDIAN CURB PLATES

See Std. Dwg. C.S.B.-2-56, Sheet 3 of 6, Curb Plate Details. Sec. G-G is to be modified as shown. Other details to remain the same.



FASCIA OFFSETS ~ LEFT BRIDGE



FASCIA OFFSETS ~ RIGHT BRIDGE

Offsets are measured normal to ℄ beam.

For Roadway Slab Reinforcing & Notes, see Sheet 322

VOGT, IVERS, SEAMAN & ASSOCIATES
ENGINEERS CINCINNATI — ARCHITECTS CHICAGO

SUPERSTRUCTURE DETAILS

BRIDGE NO. HAM-25-0219
MILL CREEK EXPRESSWAY
OVER BANK STREET

HAMILTON COUNTY STA. 123+85.92 to STA. 125+74.60

DESIGNED	DRAWN	TRACED	CHECKED	REVIEWED	DATE	REVISED
P.J.K.	D.J.W.	A.J.W.	C.E.S	JAD	11-60	

NOT FOR CONSTRUCTION INFORMATION ONLY

FED. RD. DIVISION	STATE	PROJECT	
2	OHIO		

HAM - 25 - 1.63

324 / 466

REINFORCING STEEL LIST

SUPERSTRUCTURE

MARK	LENGTH	SHAPE	NO.	WEIGHT
*S501	22'-3"	Str.	8	
*S502	17'-2"	Str.	G4	
S503	4'-4"	Bt.	139	629
S504	7'-8"	Bt.	139	1111
S505	3'-1"	Bt.	278	894
S506	5'-7"	Bt.	278	1619
S507	5'-2"	Bt.	272	1466
*S508	22'-9"	Str.	8	
S601	38'-8"	Str.	1380	80,146
S602	27'-10"	Str.	804	33,612
S603	Varies 3ea 5'6" to 24'-8" Incr. 3'-2"	Str.	21	478
S604	Varies 3ea. 4'-11" to 28'-8" Incr. 2'-1"	Str.	33	760
S605	21'-0"	Str.	345	10,882
S606	35'-8"	Str.	530	28,392
S607	Varies 2ea. 5'6" to 33'-8" Incr. 2'-2"	Str.	28	824
S608	Varies 2ea. 4'-10" to 32'-7" Incr. 3'-1"	Str.	20	562
S701	28'-1"	Str.	804	46148
S702	Varies 3ea. 5'-8" to 24'-8" Incr. 3'-2"	Str.	21	651
S703	Varies 3ea 4'-11" to 28'-8" Incr. 2'-1"	Str.	33	1,034
S704	35'-10"	Str.	530	38,819
S705	Varies 2ea 5'-6" to 33'-8" Incr. 2'-2"	Str.	28	1,121
S706	Varies 2ea 4'-10" to 32'-7" Incr. 3'-1"	Str.	20	765

ABUTMENTS

MARK	LENGTH	SHAPE	NO.	WEIGHT
A501	6'-5"	Bt.	112	750
A502	6'-6"	Bt.	510	3458
A503	13'-0"	Str.	2	26
A504	12'-5"	Str.	4	51
A505	12'-11"	Str.	6	81
A506	13'-5"	Str.	2	26
A507	13'-7"	Bt.	16	227
A508	7'-2"	Bt.	36	260
A509	10'-10"	Str.	6	68
A510	10'-6"	Str.	6	66
A511	10'-3"	Str.	6	64
A512	10'-2"	Str.	6	64
A513	12'-7"	Str.	2	26
A514	5'-0"	Bt.	666	3473
A515	5'-2"	Bt.	330	1778
A516	3'-6"	Str.	72	263
A517	4'-0"	Str.	66	275
A518	4'-5"	Str.	66	304
A519	4'-10"	Str.	70	353
A520	5'-3"	Str.	68	372
A521	5'-8"	Str.	68	402
A522	6'-1"	Str.	66	419
A523	6'-6"	Str.	102	681
A524	7'-0"	Str.	26	190
A525	23'-8"	Str.	31	765
A526	24'-6"	Str.	6	153
A527	26'-8"	Str.	11	306
A528	30'-8"	Str.	13	416
A529	25'-5"	Str.	13	345
A530	23'-5"	Str.	26	635
A531	22'-8"	Str.	11	260
A532	25'-2"	Str.	17	446
A533	30'-6"	Str.	13	414
A534	25'-8"	Str.	7	187
A535	5'-8"	Str.	18	108
A536	4'-7"	Bt.	2	10
A537	5'-2"	Bt.	1	5
A538	4'-0"	Bt.	2	8
A539	3'-5"	Bt.	1	4
A540	4'-4"	Bt.	1	5

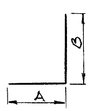
MARK	LENGTH	SHAPE	NO.	WEIGHT
A541	3'-10"	Bt.	1	4
A542	5'-6"	Bt.	229	1314
A543	5'-7"	Str.	31	181
A544	8'-11"	Str.	31	288
A545	9'-2"	Str.	24	229
A546	2'-7"	Str.	16	43
A547	4'-2"	Str.	102	443
A548	14'-4"	Str.	2	30
*A549	12'-7"	Str.	16	
A550	7'-1"	Bt.	52	364
A551	3'-11"	Bt.	28	115
A552	14'-9"	Str.	6	92
A553	12'-0"	Str.	8	100
A554	Varies 3ea 3'-11" to 12'-9" Incr.	Bt.	24	83
AG01	8'-1"	Bt.	88	4844
AG02	2'-10"	Bt.	229	974
A601	40'-1"	Str.	14	1428
A602	30'-4"	Str.	21	1701
A603	38'-1"	Str.	14	1424
A604	29'-6"	Str.	21	1654

PIERS

MARK	LENGTH	SHAPE	NO.	WEIGHT
P501	31'-0"	Str.	24	776
P502	25'-9"	Str.	24	645
P503	37'-3"	Str.	12	466
P504	7'-9"	Bt.	450	3697
P505	3'-9"	Bt.	342	1338
PG01	8'-8"	St.	114	484
P701	10'-4"	Bt.	270	5703
P801	10'-10"	Bt.	774	22,388
P802	23'-5"	Bt.	168	10,504
P1001	11'-7"	Bt.	42	2,093
P1002	27'-4"	Str.	42	4,940
P1003	26'-7"	Str.	42	4,804
P1101	6'-10"	Bt.	564	20,477
P1102	23'-6"	Str.	48	5,993
P1103	22'-11"	Str.	36	4,385
P1104	22'-4"	Str.	48	5,696
P1105	21'-10"	Str.	48	5,568
P1106	21'-3"	Str.	36	4,064
P1107	20'-9"	Str.	36	3,969
P1108	20'-2"	Str.	48	5,143
P1109	19'-8"	Str.	48	5,015
P1110	19'-1"	Str.	36	3,450
P1111	18'-6"	Str.	48	4,718
P1112	17'-11"	Str.	48	4,568
P1113	17'-5"	Str.	36	3,331
P1114	16'-10"	Str.	48	4,293
P1115	32'-0"	Str.	54	9181
P1116	21'-11"	Str.	18	2096
P1117	37'-3"	Str.	30	5937
P1118	12'-11"	Bt.	12	824
P1119	40'-5"	Bt.	15	3221

MARK	LENGTH	SHAPE	NO.	WEIGHT	CORE DIA.	PITCH	NO. TURNS
SP401	20'-6"	Bt.	3	1137	32"	4½"	58
SP402	19'-11"	Bt.	3	1106	32"	4½"	56
SP403	18'-4"	Bt.	3	1075	32"	4½"	55
SP404	18'-10"	Bt.	3	1049	32"	4½"	53
SP405	18'-3"	Bt.	3	1018	32"	4½"	52
SP406	17'-8"	Bt.	3	991	32"	4½"	50
SP407	17'-2"	Bt.	3	960	32"	4½"	49
SP408	16'-8"	Bt.	3	934	32"	4½"	47
SP409	16'-1"	Bt.	3	903	32"	4½"	46
SP410	15'-6"	Bt.	3	872	32"	4½"	44
SP411	14'-11"	Bt.	3	841	32"	4½"	43
SP412	14'-5"	Bt.	3	815	32"	4½"	41
SP413	13'-10"	Bt.	3	784	32"	4½"	40

TYPE 1



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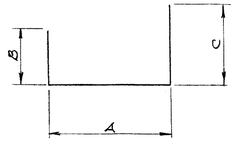
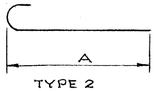


TYPE 6

TYPE 8

TYPE 2



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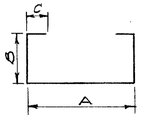

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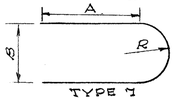

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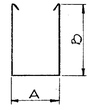

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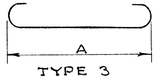
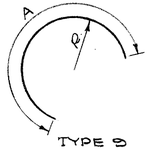


TYPE 9



MARK	TYPE	A	B	C	D
S503	5	1'-8"	11"	8"	
S504	5	3'-4"	11"	1'-6"	
S505	4	2'-0"	8"	8"	
S506	10	10"	2'-1"		
S507	5	1'-10"	1'-3"	8"	
A501	4	1'-4"	2'-8"	2'-8"	
A502	3	5'-4"			
A507	6	5'-9"	1'-3"	7'-7"	
A508	4	2'-7"	2'-5"	2'-5"	
A514	1	4'-7"	8"		
A515	4	3'-5"	1'-0"	1'-0"	
A536	4	2'-10"	1'-0"	1'-0"	
A537	4	3'-5"	1'-0"	1'-0"	
A538	4	2'-3"	1'-0"	1'-0"	
A539	4	1'-8"	1'-0"	1'-0"	
A540	4	2'-7"	1'-0"	1'-0"	
A541	4	2'-1"	1'-0"	1'-0"	
A542	4	11"	3'-4"	1'-6"	
A550	10	10"	2'-10"		
A551	4	1'-4"	10"	2'-0"	
A557	4	1'-4"	10"	Varies 2'-0" to 10"-2" Incr.	

MARK	TYPE	A	B	C	R
AG01	4	1'-5"	3'-6"	3'-6"	
AG02	1	2'-0"	1'-0"		
P504	4	2'-8"	2'-8"	2'-8"	
P505	4	2'-8"	8"	8"	
P801	3	8'-8"			
P802	3	21'-3"			
P1001	1	3'-8"	8'-3"		
P1101	1	5'-8"	1'-6"		
P1118	7	4'-9"	2'-2"		1'-1"
P1119	8	37'-3"	0'-2"	13'-6"	
RE4	9	5'-3"			1'-4"

SPIRAL REINFORCING BARS

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. Turns" shown is the "Length" divided by 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.

1. *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.*
2. *Bars marked with asterisks to be included for payment under Item S-14, Railing.*
3. *All dimensions are out to out of bar.*

REPLACEMENT BARS

MARK	NO.	LENGTH	SHAPE
RE 4	1	5'-3"	Bent
RE 5	2	5'-7"	Str.
RE 6	9	5'-11"	Str.
RE 7	5	6'-3"	Str.
RE 8	2	6'-6"	Str.
RE 10	1	7'-3"	Str.
RE 11	6	7'-7"	Str.

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.

VOGT, IVERS, SEAMAN & ASSOCIATES
ENGINEERS CINCINNATI — ARCHITECTS CHICAGO

REINFORCING STEEL LIST

BRIDGE NO. HAM-25-0219
MILLCREEK EXPRESSWAY OVER BANK STREET

HAMILTON COUNTY STA. 123+85.92 to STA. 125+74.60

DESIGNED	DRAWN	TRACED	CHECKED	REVIEWED	DATE	REVISED
-o-	D.Y.F.	-o-	C.E.S.	JAD	11-60	

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2	OHIO			

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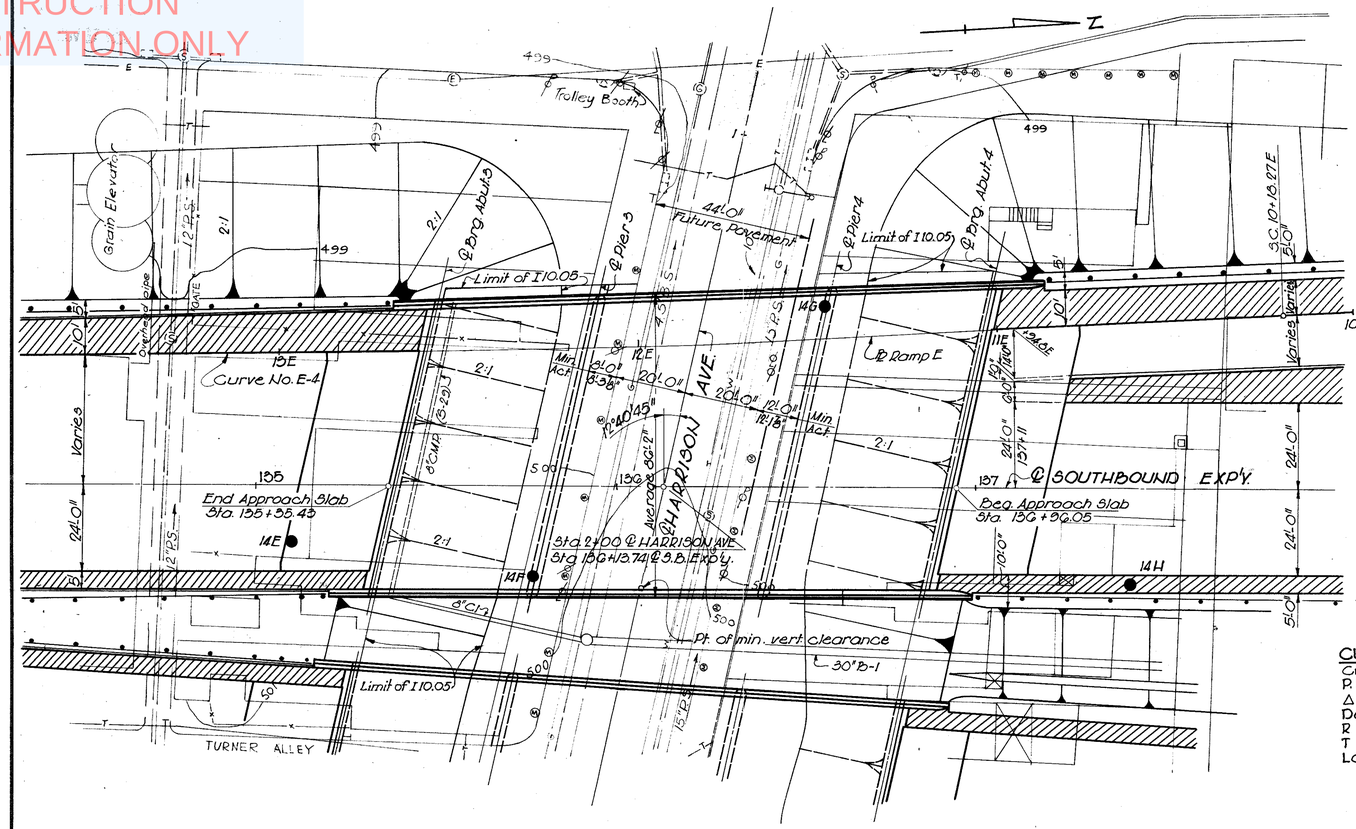
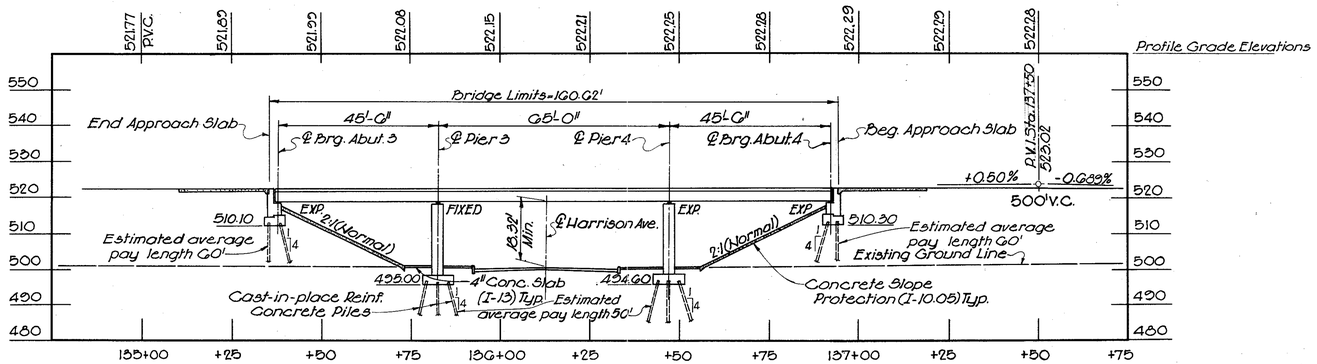
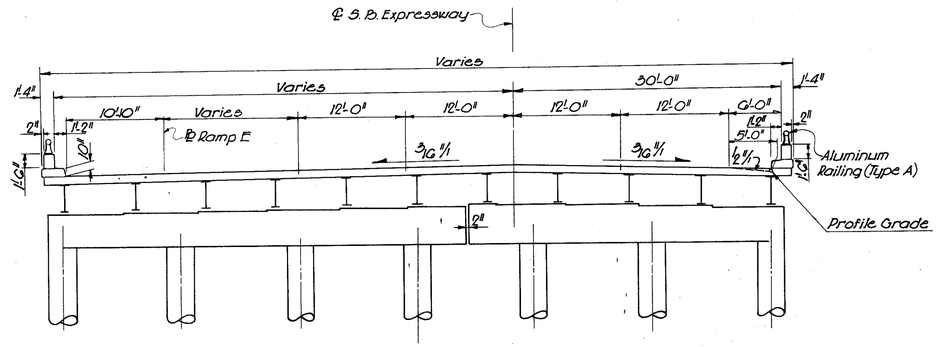
HAM-25-1.03



PLAN



PROFILE ON ℄ SOUTHBOUND EXPRESSWAY



SECTION THRU BRIDGE

CURVE DATA - Ramp E
Curve No. E-4
P.I. = 12+16.89
Δ = 3° 58' 15"
Dc = 1° 00' 00"
R = 5729.58'
T = 198.62'
Lc = 397.07'

NOTES:

1. ● Symbol denotes boring
2. Foundation design & foundation quantities are based on a study of test borings and soil samplings made at the site. This sounding information may be inspected in the office of the Bureau of Bridges in Columbus or in an abridged form in the Division Office but the State assumes no responsibility for the accuracy thereof.
3. Limits of 4" concrete slab are from toe of slope to back of sidewalk and 3'-0" beyond the east and west edges of Northbound and Southbound superstructures respectively.

B.M. #5: Elev 499.58
Spike in Power Pole # NB-G25
On east side Spring Grove Ave. south of Harrison Ave.
112' Lt. Sta. 135 + 82 S.B.

PROPOSED STRUCTURE

TYPE : Continuous rolled steel beam with reinforced concrete deck and substructure.
SPANS : 45'-0", 65'-0", 45'-0"
ROADWAY : Varies, 60'-0" to 65'-0" between parapets.
WEARING SURFACE : 1" Monolithic Concrete
LOAD FREQUENCY : C.F. 2000 (57) - Adequate for A.A.S. H.O. Alternate loading.
SKEW : 12°40'45" L.F.
APPROACH SLABS : AS-1-54 (25'-0" long)
ALIGNMENT : Tangent
SUPERELEVATION : None.

VOGT, IVERS, SEAMAN & ASSOCIATES
ENGINEERS CINCINNATI — ARCHITECTS CHICAGO

SITE PLAN

BRIDGE NO. HAM-25-0240-L
MILL CREEK EXPRESSWAY OVER HARRISON AVE.
HAMILTON COUNTY STA. 135 + 55.43 To STA. 136+96.05

PRESENT TOPOGRAPHY		PROPOSED WORK			
SURVEYED	DRAWN	DESIGNED	DRAWN	CHECKED	REVISIONS
AERIAL SURVEY	AERIAL SURVEY	A.A.N	B.T.	G.J.C.	

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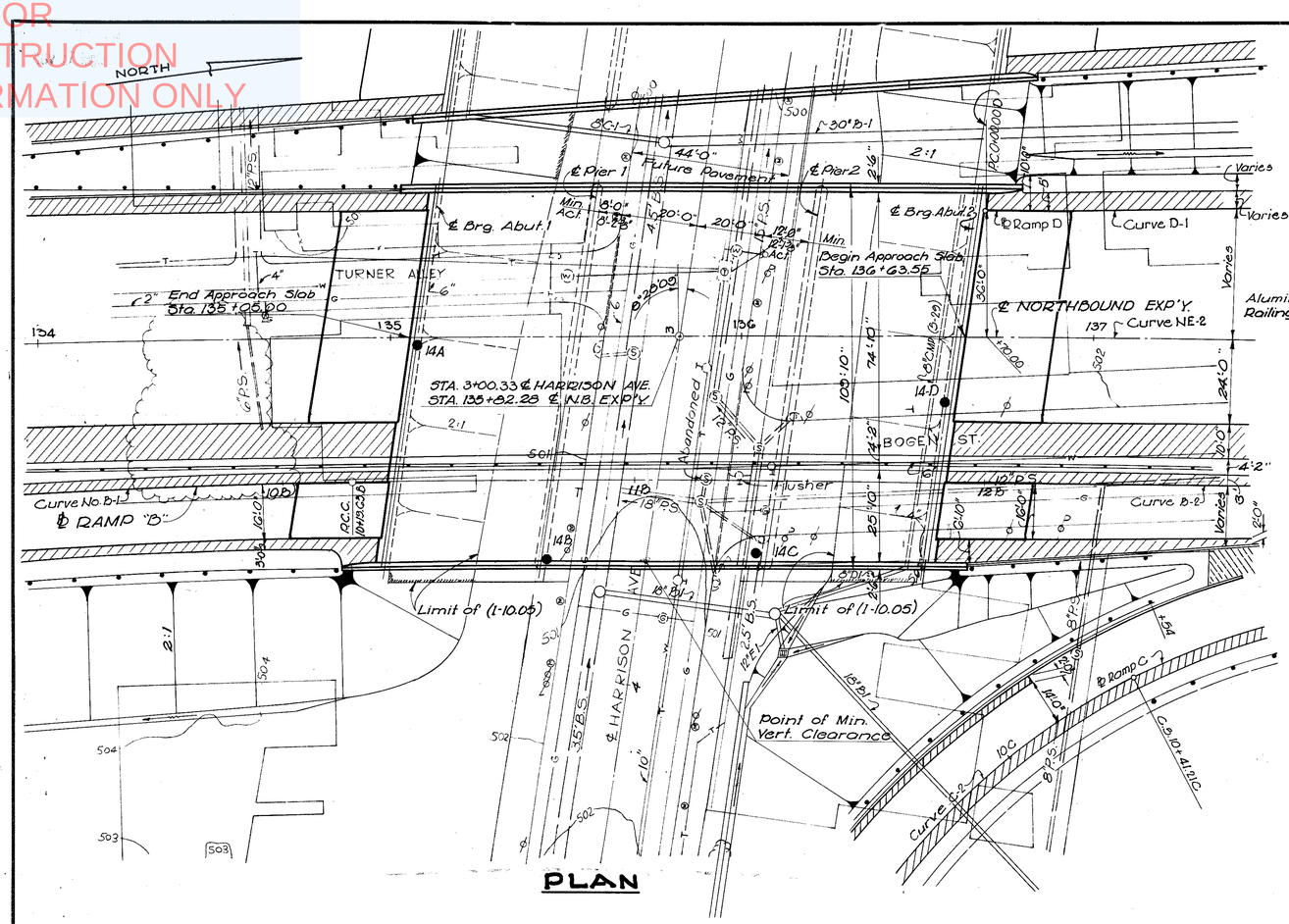
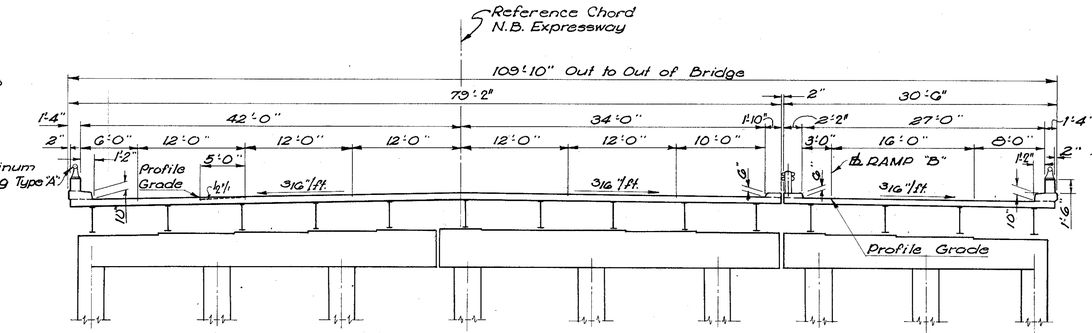
FED. RD. DIVISION	STATE	PROJECT	
2	OHIO		

HAM-25-1.63

32G
48G



PLAN



SECTION THRU BRIDGE

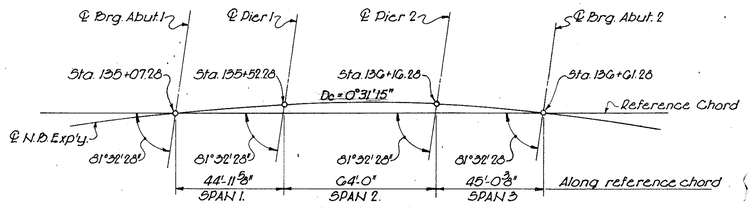
CURVE DATA

N.B. EXP'Y. Curve No. NE-2

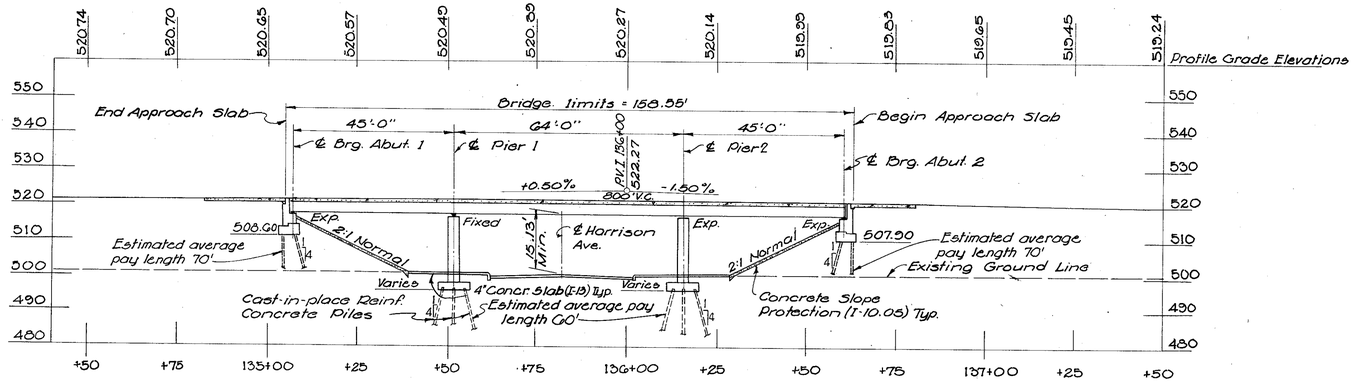
Dc	=	00°31'15"
Δ	=	10° 33'59"
R	=	11,000.79'
Lc	=	2028.74'
T	=	1017.26'
P.I. STA.	=	141+14.61

RAMP "B" Curve No. B-2

Dc	=	00°31'22"
Δ	=	3° 25'49
R	=	10,959.62'
Lc	=	656.13'
T	=	328.16'
P.I. STA.	=	13+47.79



LAYOUT DIAGRAM



PROFILE ON ℄ NORTHBOUND EXPRESSWAY

For Notes see Sheet 325

PROPOSED STRUCTURE

TYPE: Continuous rolled steel beam with reinforced concrete deck and substructure.
SPANS: 45'0"; 64'-0"; 45'-0"
ROADWAY: 107'-8" between parapets
WEARING SURFACE: 1" Monolithic concrete
LOAD FREQUENCY: C.F.-2000(57)-Adequate for A.A.S.H.O. alternate loading
SKEW: 8°28'09" L.F.
APPROACH SLABS: A3-1-54(25'0"Long)
ALIGNMENT: 00°31'15" Curve right
SUPERELEVATION: None

VOGT, IVERS, SEAMAN & ASSOCIATES
ENGINEERS CINCINNATI
ARCHITECTS CHICAGO

SITE PLAN

BRIDGE NO: HAM-25-0240-R
MILLCREEK EXPRESSWAY & RAMP "B" OVER HARRISON AVE.
HAMILTON COUNTY STA. 135+05.00 To STA. 136+63.55

PRESENT TOPOGRAPHY		PROPOSED WORK			
SURVEYED	DRAWN	DESIGNED	DRAWN	CHECKED	REVISIONS
Aerial Survey	Aerial Survey	A.A.N.	A.A.N.	G.J.C.	

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2	OHIO		

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HAM-25-1.63

ESTIMATED QUANTITIES

ITEM	TOTAL	UNIT	DESCRIPTION	BRIDGE NO. HAM-25-0240 LEFT						BRIDGE NO. HAM-25-0240 RIGHT					
				ABUTMENTS	PIERS	SUPER-STRUCTURE	GENERAL			ABUTMENTS	PIERS	SUPER-STRUCTURE	GENERAL		
Special	893	Each	Water reducing, set-retarding admixture *			392						501			
E-2	1,727	Cu. Yds.	Unclassified excavation	464	306					567	390				
S-1	893	Cu. Yds.	Class "C" concrete = Superstructure			392						501			
S-1	313	Cu. Yds.	Class "C" concrete = Piers above footings		143						170				
S-1	424	Cu. Yds.	Class "E" concrete = Abutments above footings	190						234					
S-1	561	Cu. Yds.	Class "E" concrete = Pier & abutment footings	139	111					171	140				
S-3	81	Lin. Ft.	Waterproofing, premolded sealing strip	32						49					
S-4	417,835	Lbs.	Reinforcing steel	19,438	42,479	122,794				23,801	55,812	153,511			
S-7	739,900	Lbs.	Structural steel			328,300						411,600			
S-8	739,900	Lbs.	Field painting of structural steel			328,300						411,600			
S-9	245	Sq. Ft.	1" Preformed expansion joint filler				110						135		
S-14	732	Lin. Ft.	Railing (aluminum railing and supports and concrete parapet)	51.8		317				51.8		311.4			
S-14	156	Lin. Ft.	Guardrail, Type I-15.11, double-faced with galvanized steel posts and bolts									156			
S-16	Lump	Lump Sum	First test pile				Lump						Lump		
S-17	Lump	Lump Sum	First pile test load				Lump								
S-17	1	Each	Subsequent pile test load										1		
S-18	15,560	Lin. Ft.	12" Cast-in-place reinforced concrete piles	2,580	3,600					3,500	5,880				
S-25	3	Each	Light standard with 15' mast arm, including anchor bolts				1						2		
S-25	Lump	Lump Sum	Grounding systems				Lump						Lump		
S-25	480	Lin. Ft.	3" Asbestos cement conduit, fittings and bushings				160						320		
S-25	42	Lin. Ft.	2" Aluminum conduit, fittings and bushings				20						22		
S-25	118	Lin. Ft.	1" Aluminum conduit, fittings and bushings				45						73		
S-25	171	Lin. Ft.	3/4" Aluminum conduit, fittings and bushings				83						88		
S-25	9	Each	Pull box complete with frame and cover				3						6		
S-29	108	Cu. Yds.	Porous Backfill	50						58					
S-29	7	Each	Inlet frame & grating & 6" galvanized or wrought iron pipe downspouts & specials			3						4			
S-29	192	Lin. Ft.	8" Bit. coat corrugated metal pipe, including specials Sec. M-6.4(c)				83						109		
I-10	1,641	Sq. Yds.	Concrete slope protection				820						821		
I-13	7,850	Sq. Ft.	4" Concrete slab				2,660						5,190		
S-25	1	Each	700W Luminaire with 700W mercury vapor lamp				1								
S-25	2	Each	400W Luminaire with 400W mercury vapor lamp										2		
S-25	1	Each	Ballast for 700W lamp - 6.6A series				1								
S-25	2	Each	Ballast for 400W lamp - 6.6A series										2		
S-25	6	Each	Fluorescent Luminaire complete with ballast (240V), hangers & inserts & 2-15A fluorescent lamps				3						3		
S-25	412	Lin. Ft.	6000V Single conductor #8 AWG direct burial cable (plain)				60						352		
S-25	60	Lin. Ft.	6000V Single conductor #8 AWG direct burial cable (identifiable)				60								
S-25	300	Lin. Ft.	600V Single conductor #12 AWG Luminaire wire				100						200		
S-25	725	Lin. Ft.	600V Single conductor #8 AWG Luminaire wire				325						400		

Notes: Materials in approach slabs are not included in the above estimated quantities.
First test pile may be driven at either NB or SB bridge.
First pile test load shall be applied if and where directed by the Engineer.
* See proposal note.

GENERAL NOTES

REFERENCE shall be made to the following Standard Drawings:
AR-1-57 revised 12-12-60
CSB-2-56, sheets 2 & 3 of 6, revised 2-2-59
AS-1-54, revised 12-1-54

DESIGN SPECIFICATIONS: This structure conforms to the requirements of "Design Specification for Highway Structures" of the State of Ohio, Department of Highways, dated 9-1-57, together with revisions thereof dated 2-21-58.

PILES: Piles shall be driven to a bearing capacity of 40 tons per pile for the Piers and 40 tons per pile for the Abutments.

EXCAVATION: Excavation quantity includes the removal of fill material between the surface of proposed embankment and the bottom of footings.

CONCRETE DECK PLACING: In order to facilitate water curing of the concrete of the deck slab, the placing of concrete shall progress upgrade. The slab may be placed in sections, between transverse construction joints which are parallel to the centerline of piers and are located near the center of any span.

RAILING: Aluminum rail and supports, concrete parapet, reinforcing bars, wholly within the concrete parapet, preformed bearing pads, and sponge rubber for parapet joints shall be included in Item S-14 for payment.

UTILITY LINES: All labor and expense involved in relocating the affected utility lines shall be borne by the owners. The contractor and the owners are requested to co-operate by arranging their work in such a manner that inconveniences to either will be held to a minimum.

EMBANKMENTS: Embankments shall be in place and compacted to subgrade elevation for a distance of 200 feet back of each abutment for a minimum period of 90 days prior to constructing the abutments unless settlement hubs indicate that any settlements have ceased. Construction of piers shall not be started until after embankments are completed to subgrade elevation.

VOGT, IVERS, SEAMAN & ASSOCIATES
ENGINEERS CINCINNATI — ARCHITECTS CHICAGO

GENERAL NOTES AND ESTIMATED QUANTITIES
BRIDGE NO. HAM-25-0240 L&R
MILL CREEK EXPRESSWAY
OVER HARRISON AVE.
HAMILTON COUNTY STA. 135+05.00 TO STA. 136+96.05

DESIGNED	DRAWN	TRACED	CHECKED	REVIEWED	DATE	REVISED
~	TEC	~	G.J.C.	J.A.D.	2-61	

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2	OHIO		

HAM-25-1.63

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BORING 14-A

N.B./Sta. 135+10 , 2' Right

FTG 500.6

	w%	N	0' Ground Elevation
500			
495.0		23	FILL, dark brown clay with brick fragments
491.0		17	4.0'
488.0	31	6	Brown silty clay, some sand, trace of gravel
WL 485.0	50	7	7.0' Brown sandy silt and clay
480		3	10.0'
	28		
	20	3	Brown silt, some clay
	26	4	
474.0			21.0'
	26		Gray sandy silt and clay
470		7	26.0'
469.0	25	6	Gray silt with clay
		5	
460			
450.0		24	36.0'
	20	27	Gray fine sand with SILT BEAMS
450.0			45.0'
448.5	18	27	Gray coarse & fine sand with some silt 46.5' and/or clay

EST. PILE TIP

Boring completed

BORING 14-B

N.B./Sta. 135+45 , 55' Right

FTG 496.+

	w%	N	0' Ground Elevation
501.0			
496.+			BASEMENT
491.0			10.0'
490.0		10	FILL, dark brown sandy clay with 11.0' cinders
	22	15	
484.0		7	Brown clay and silt, trace of sand with 17.0' fine gravel
	28	4	
		6	
	27	6	
	24		
		10	
			Gray silt, some clay
		6	
W.L.			
	25		
	24	8	
		10	
	24	9	
		11	
		15	
	23	10	
438.0			63.0'
	18	15	
		50	
			Gray coarse and fine sand with SILT BEAMS trace of clay
	18	81	
423.0			78.0'
	15	68	Gravel with sand, little brown silt and/or clay
420.0			81.0

EST. PILE TIP

Refusal - Boring Completed

BORING 14-C

N.B./Sta. 136+00 , 60' Right

FTG 496.±

	w%	N	0' Ground Elevation
501.6			
501.1			0.5' Concrete
500.6		5	1.0' FILL, cinders
498.1	25		Brown clay and silt, 3.0' little sand
496.6	20	4	Brown sandy silt, some clay, little gravel
496.±		10	6.0'
	27	8	
		15	Brown and gray clay and silt little sand
487.6	21	15	14.0'
	24	9	Gray and brown sandy silt with SAND BEAMS little clay
483.6			18.0' and gravel
W.L.	27	5	
		8	
		9	
	24	4	Gray silt, some clay, trace of sand
		5	
	24	8	
		7	
		8	
	24	8	
		22	
458.6	23		48.0'
		24	Gray sandy silt and sand with CLAY BEAMS
450.6	21		51.0' trace of gravel

Boring completed

BORING 14-D

N.B./Sta. 136+47 , 15' Right

FTG 507.0

	w%	N	0' Ground Elevation
501.5			
501.0			0.5' Concrete
500.0		11	1.0' FILL, cinders
	25	5	FILL, Brown clay and silt, trace of sand, stone fragments.
495.5			6.0'
	34	8	Mottled brown and gray plastic clay and silt, little 0.3' gravel, trace of sand
492.5		9	
	47		Gravel with brown sand, silt and clay
		7	
483.5			18.0'
		5	
		6	
	26	4	Gray silt, some clay, trace of sand
		5	
	27	8	
461.5			40.0'
	20	33	Brown fine and coarse sand
457.5			44.0'
	21	18	Gray silt, some sand trace of clay
453.5			48.0'
451.5	20	16	Brown fine sandy silt 50.0' trace of clay

EST. PILE TIP

Boring completed

NOTES

W.L = Water level reading ~ immediate.

w% = Column of figures indicates moisture content of sample in per cent of dry weight.

● = Moisture content nearly equal to or greater than liquid limit minus 3%.

N = Column of figures indicates number of blows required to drive 2.0 O.D. Split Spoon the last 12" of an 18" sample run using 140 lb. weight falling 30 inches.

▮ = 3" O.D. Shelby Tube sample taken at elevation of symbol.

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 June 3, 1960 and August 20, 1960.

See Sheet 328 for location of borings.

VOGT, IVERS, SEAMAN & ASSOCIATES
ENGINEERS CINCINNATI — ARCHITECTS CHICAGO

BORINGS

BRIDGE NO. HAM-25-0240 L/R
MILLCREEK EXPRESSWAY & RAMPS "B" OVER HARRISON AVE.
HAMILTON COUNTY STA. 135+05.00 to STA. 138+63.55

DESIGNED	DRAWN	TRACED	CHECKED	REVIEWED	DATE	REVISED
R.O.W.	J.R.R.	—	R.O.W.	J.A.D.	12-61	

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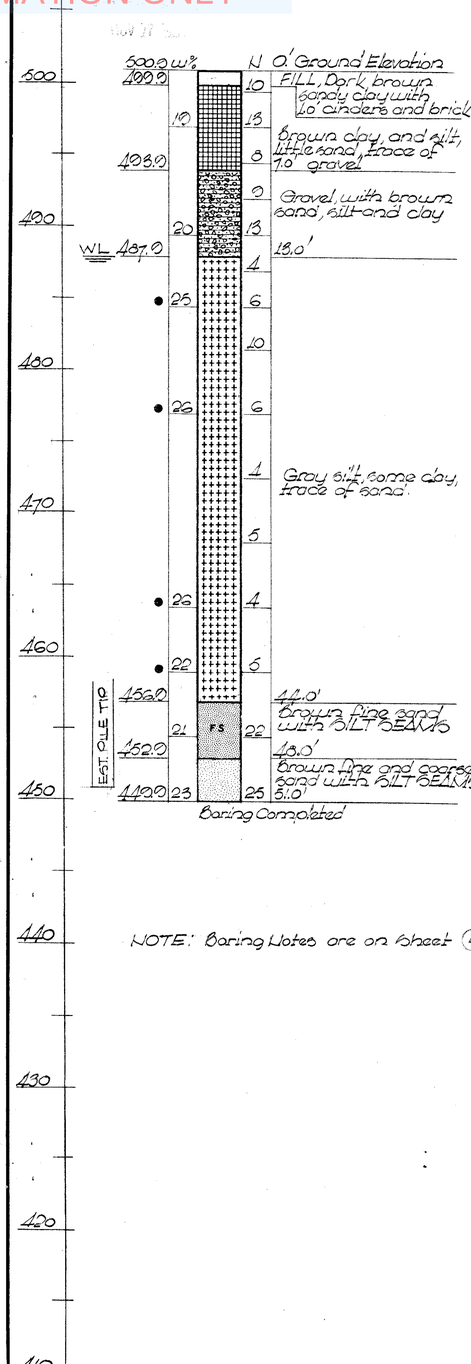
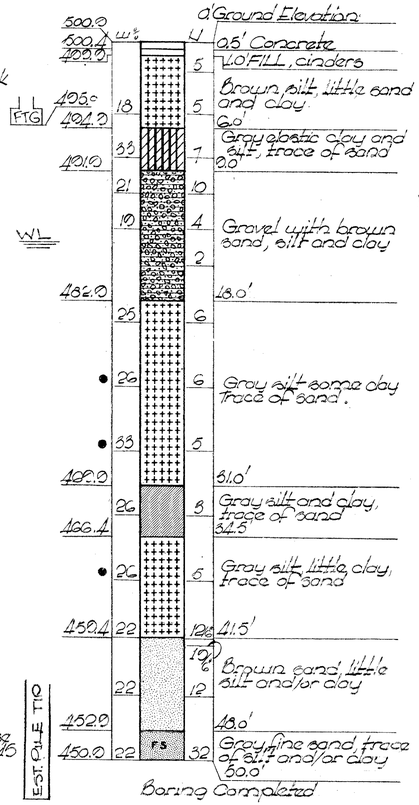
BORING 14-E

N.B. Sta. 134+05 , 90' Left



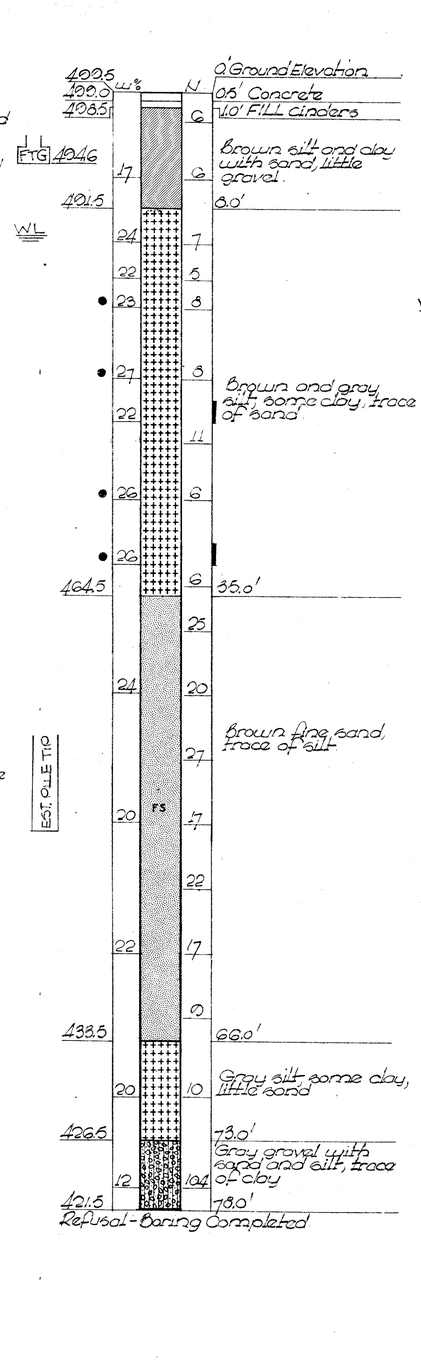
BORING 14-F

N.B. Sta. 135+60 , 85 Left



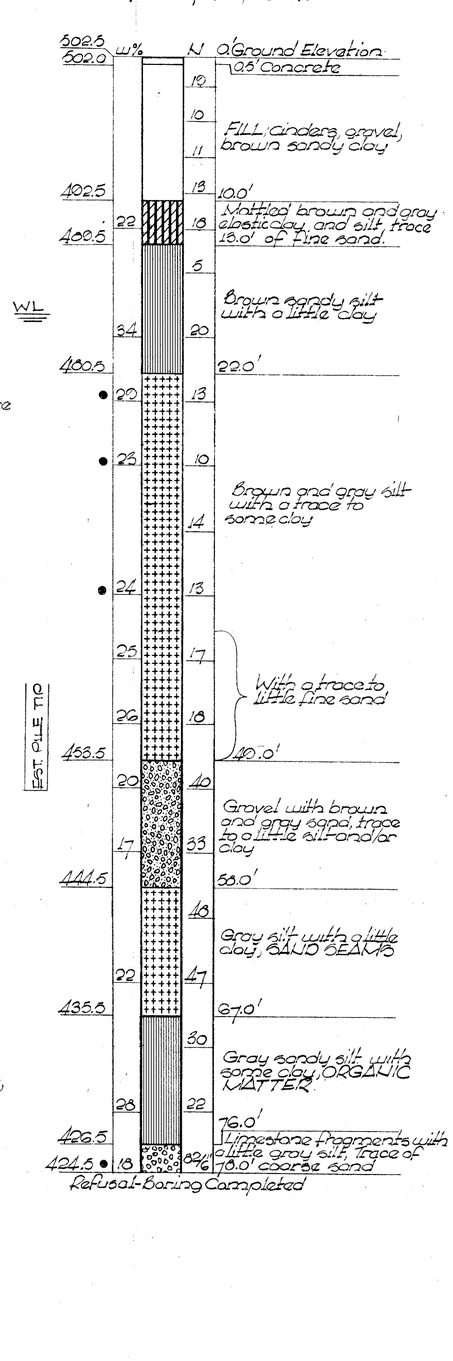
BORING 14-G

N.B. Sta. 136+32 , 165 Left



BORING 14-H

N.B. Sta. 137+43 , 85 Left



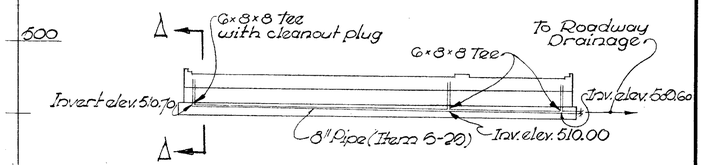
SEE SHEET (4)

NOTE: Boring Notes are on Sheet (4)

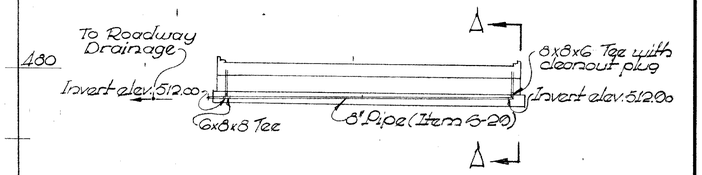
FED. RD. DIVISION	STATE	PROJECT	
2	OHIO		

329
486

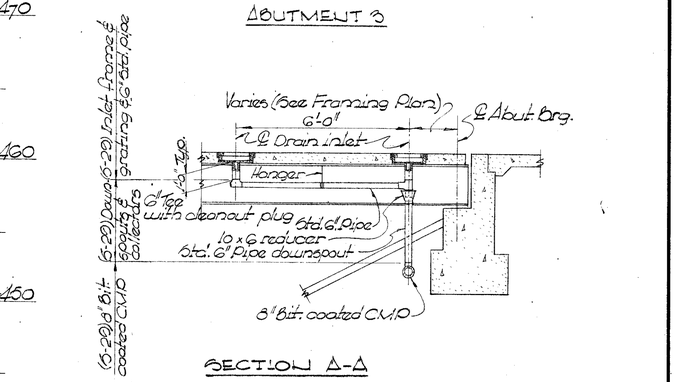
HAM-25-1.65



ABUTMENT 2



ABUTMENT 3



SECTION A-A

DRAINAGE DETAILS

DRAINAGE NOTES

1. For drain inlet locations see Sheet 337. For drain inlet details see Misc. Str. Details, Sheet 412.
2. For connection to roadway drainage, see Site Plan, Sh 325 & 326.
3. All 6"ø pipe shown shall be standard hot-dipped galvanized steel or wrought iron pipe. Joints shall be made by welding. All welding shall be done before galvanizing.

VOGT, IVERS, SEAMAN & ASSOCIATES
ENGINEERS — CINCINNATI
ARCHITECTS — CHICAGO

BORINGS AND DRAINAGE DETAILS
BRIDGE NO. HAM-25-0210 1/2
MILLCREEK EXPRESSWAY OVER HARRISON AVE.
HAMILTON COUNTY STA. 135+55.43 to STA. 136+06.05

DESIGNED	DRAWN	TRACED	CHECKED	REVIEWED	DATE	REVISED
-o-	J.R.R.	-o-	R.D.W.	J.A.D.	2-61	

NOT FOR CONSTRUCTION INFORMATION ONLY

FED. RD. DIVISION	STATE	PROJECT	
2	OHIO		

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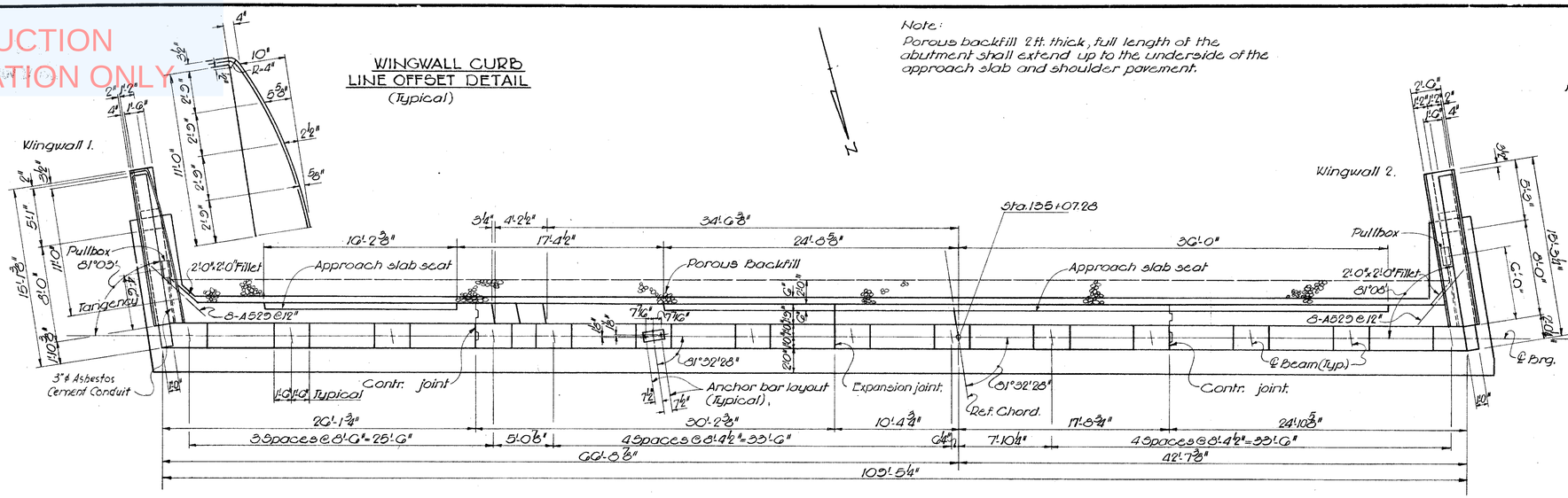
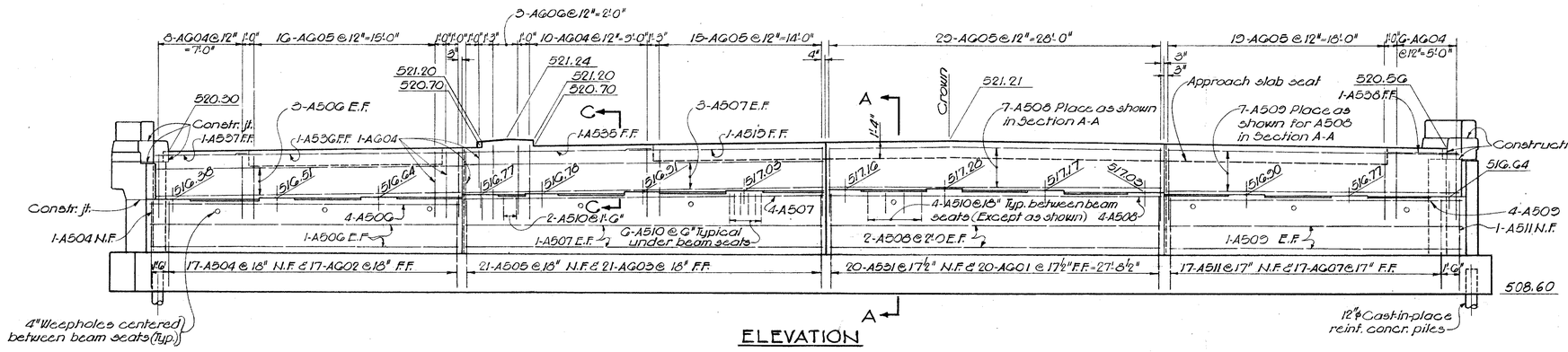
486

WINGWALL CURB LINE OFFSET DETAIL
(Typical)

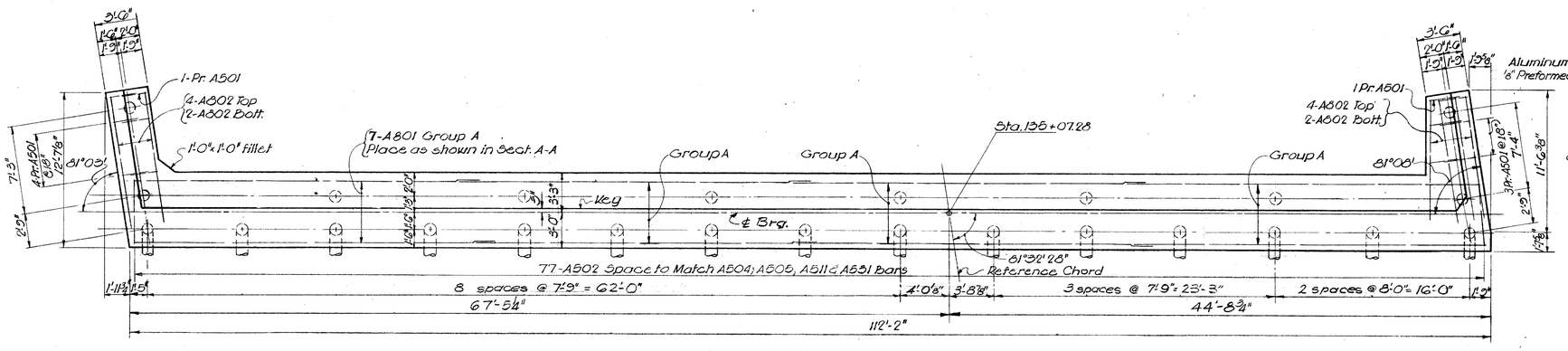
Note:
Porous backfill 2ft. thick, full length of the abutment shall extend up to the underside of the approach slab and shoulder pavement.



PLAN



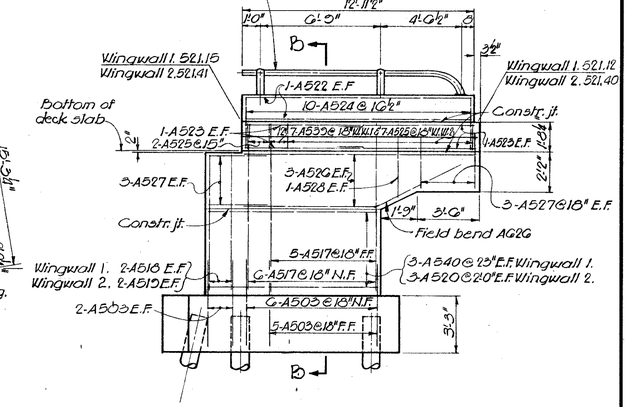
ELEVATION



FOOTING PLAN

Aluminum Railing-Type 'A' 4"ø Tube to be continuous for full length of wingwall.

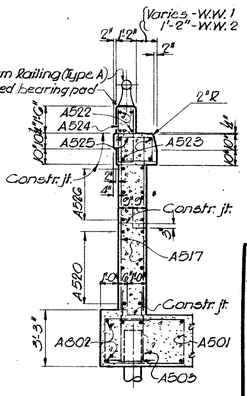
HAM-25-1.63



WINGWALL ELEVATION
Drawn for Wingwall 2. Marked for Wingwall 1.

SECTION C-C

SECTION A-A



SECTION B-B

NOTES:

1. Designations used are as follows:
   N.F. Near face
   F.F. For face
   E.F. Each face
2. For railing details see Std. Dwg. AR-1-57.
3. Place the reinforcing under beam seats so as not to interfere with the drilling of anchor bar holes.
4. For Contraction Joint detail see Sheet 332.
5. For Expansion joint detail see Sheet 331.

VOGT, IVERS, SEAMAN & ASSOCIATES
ENGINEERS — CINCINNATI
ARCHITECTS — CHICAGO

ABUTMENT 1
BRIDGE NO. HAM. 25-0240-R
MILL CREEK EXPRESSWAY OVER HARRISON AVE.

HAMILTON COUNTY STA. 135+05.00 to STA. 136+63.55

DESIGNED	DRAWN	TRACED	CHECKED	REVIEWED	DATE	REVISED
A.Y.	S.T.	S.T.	G.J.C.	J.A.D.	2-61	

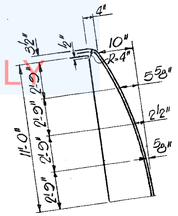
NOT FOR CONSTRUCTION INFORMATION ONLY

FED. RD. DIVISION	STATE	PROJECT	
2	OHIO		

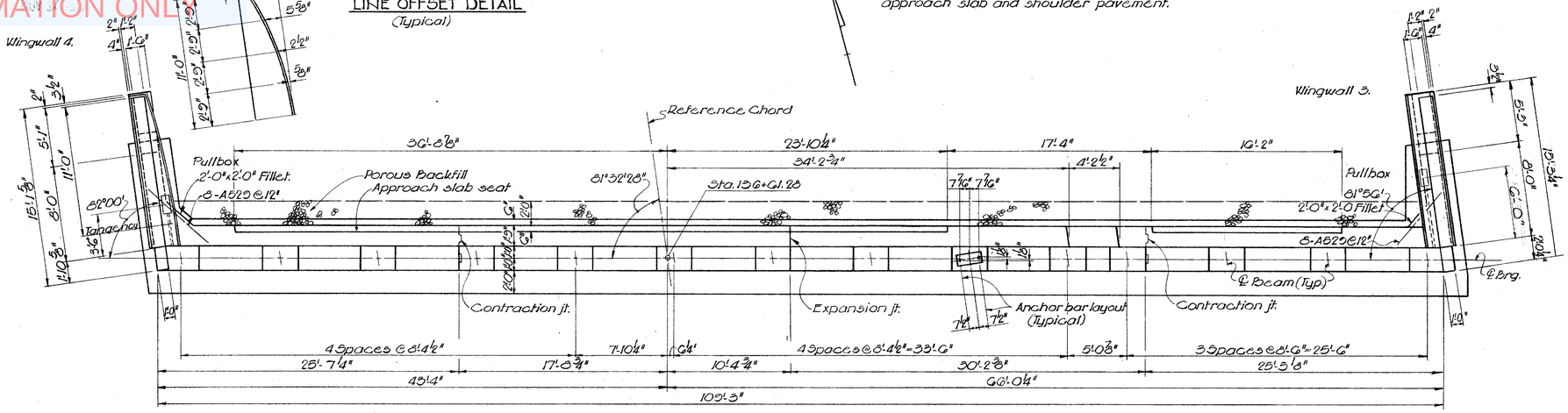
331
486

HAM-25-1.63

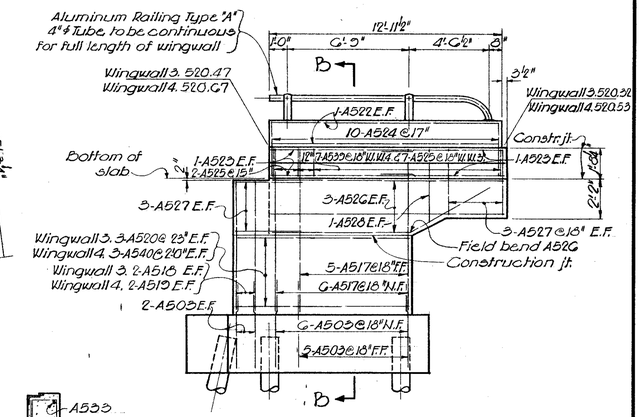
WINGWALL CURB LINE OFFSET DETAIL
(Typical)



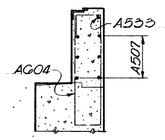
Note:
Porous backfill 2 ft. thick, full length of the abutment shall extend up to the underside of the approach slab and shoulder pavement.



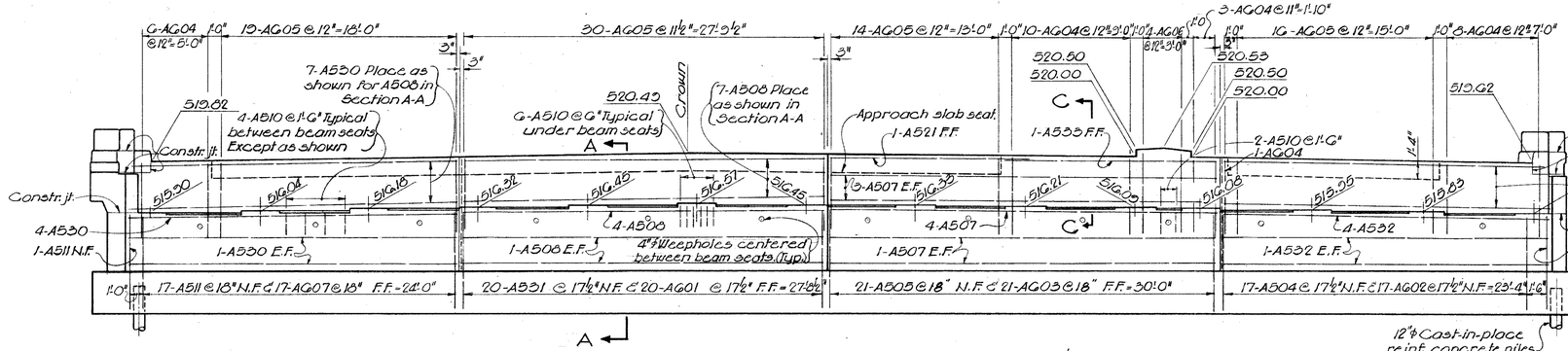
PLAN



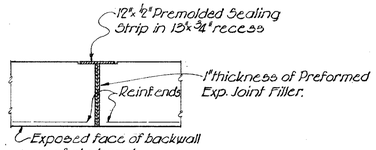
WINGWALL ELEVATION
Drawn for Wingwall 3. Marked for Wingwall 4.



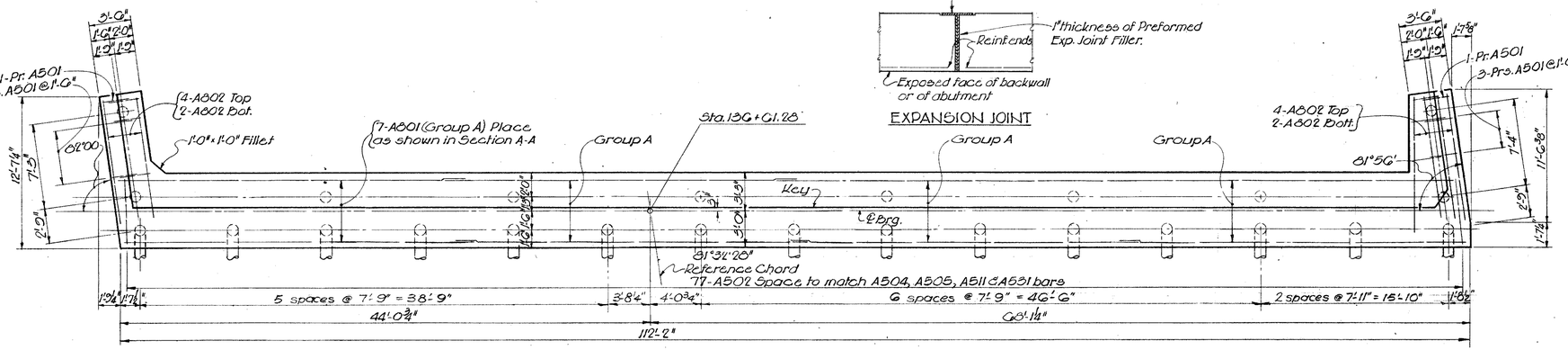
SECTION C-C



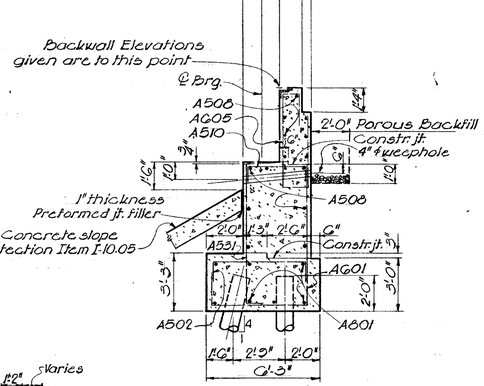
ELEVATION



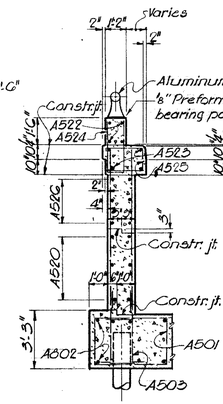
EXPANSION JOINT



FOOTING PLAN



SECTION A-A



SECTION B-B

NOTES:
1. Designations are as follows:
N.F. Near Face
F.F. Far Face
E.F. Each Face
2. For railing details see Std. Dwg. AR-1-57
3. Place the reinforcing under beam seats so as not to interfere with the drilling of anchor bar holes.
4. For Contraction Joint detail see Sheet 332.

VOGT, IVERS, SEAMAN & ASSOCIATES
ENGINEERS CINCINNATI — ARCHITECTS CHICAGO

ABUTMENT 2.

BRIDGE NO. HAM-25-0240-R
MILL CREEK EXPRESSWAY OVER HARRISON AVE.

HAMILTON COUNTY STA. 135+05.00 to STA. 136+63.55

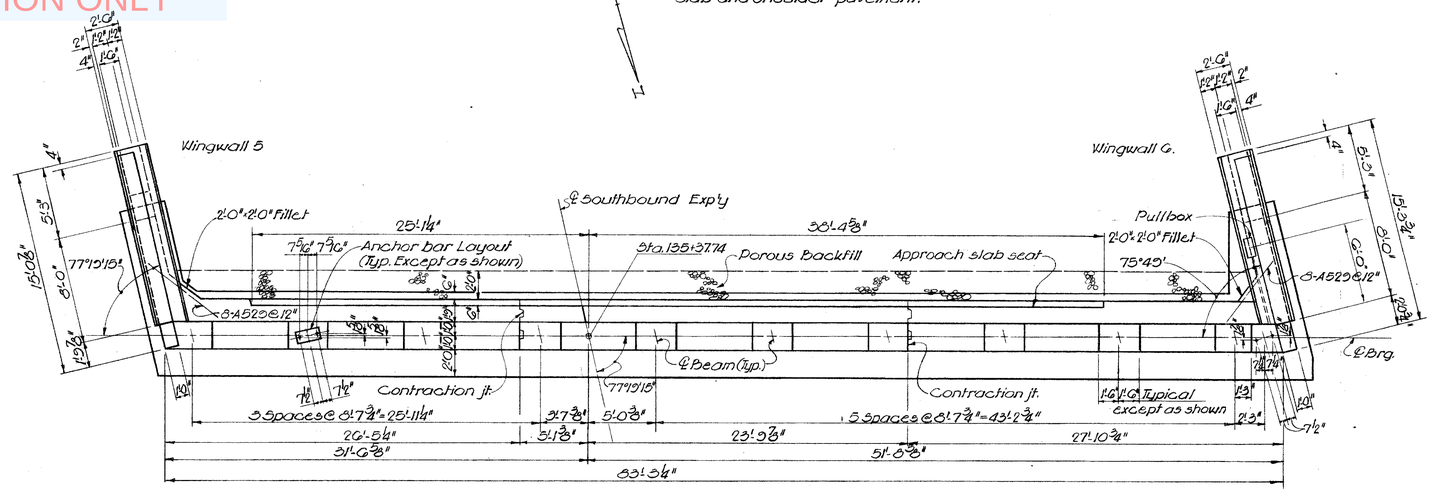
DESIGNED	DRAWN	TRACED	CHECKED	REVIEWED	DATE	REVISED
A.Y.	S.T.	S.T.	G.J.C.	J.A.D.	2-61	

NOT FOR CONSTRUCTION INFORMATION ONLY

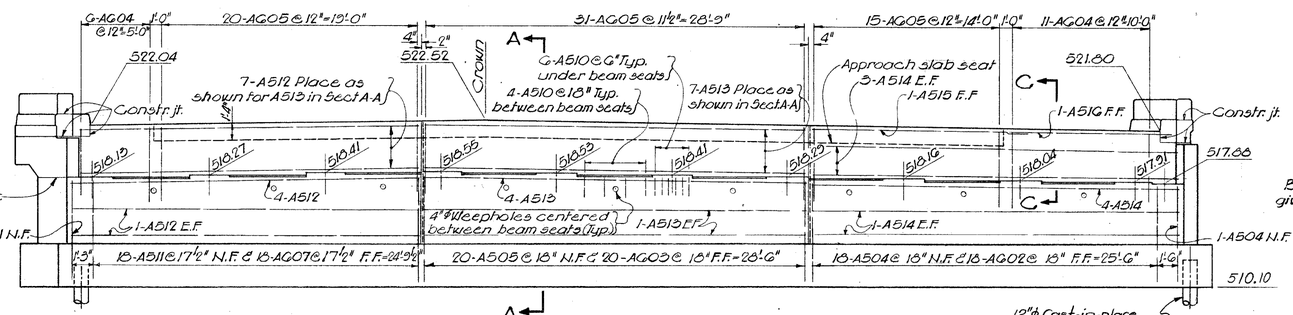
FED. RD. DIVISION	STATE	PROJECT	
2	OHIO		

332 / 486

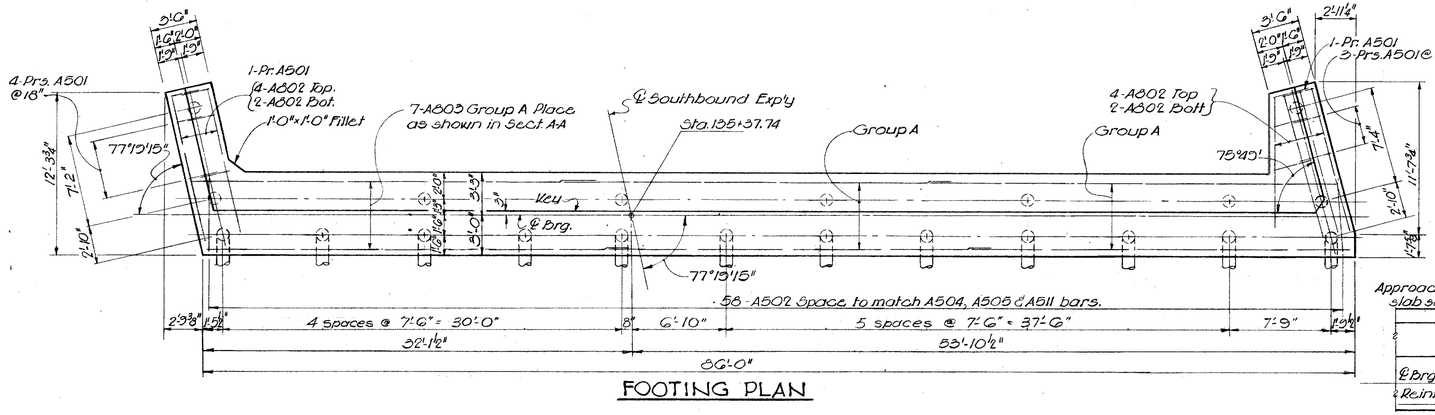
Note:
Porous backfill 2 ft. thick, full length of the abutment shall extend up to the underside of the approach slab and shoulder pavement.



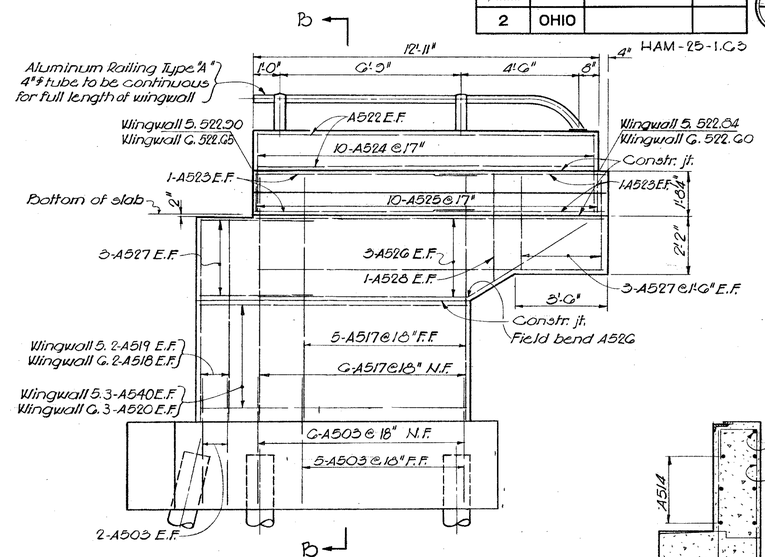
PLAN



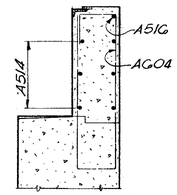
A
ELEVATION



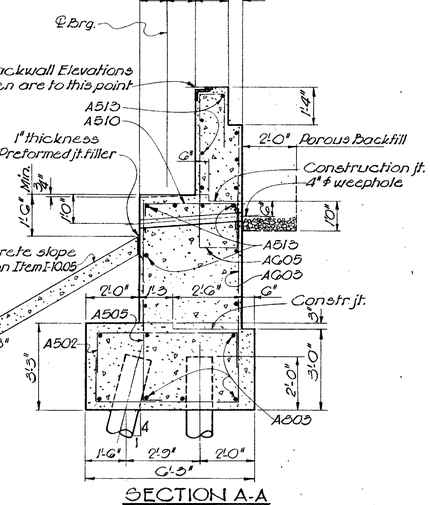
FOOTING PLAN



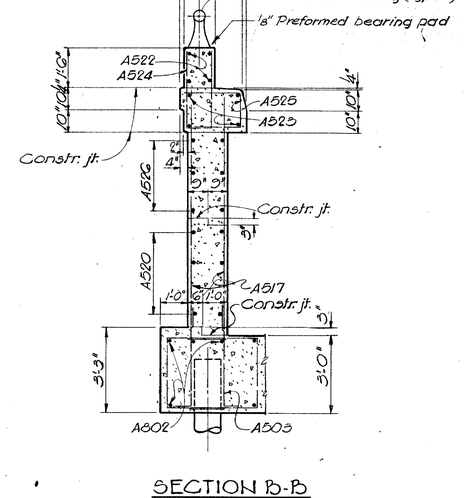
WINGWALL ELEVATION



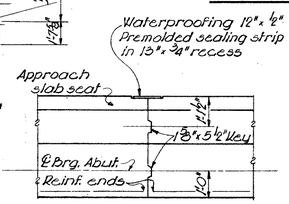
SECTION C-C



SECTION A-A



SECTION B-B



CONTRACTION JOINT

NOTES:

1. Designations used are as follows.
   N.F. Near face
   F.F. Far face
   E.F. Each face
2. For railing details see Std. Dwg. AR-1-57
3. Place the reinforcing under beam seats so as not to interfere with the drilling of anchor bar holes.

VOGT, IVERS, SEAMAN & ASSOCIATES
ENGINEERS CINCINNATI — ARCHITECTS CHICAGO

ABUTMENT 3
BRIDGE NO. HAM-25-0240-L
MILL CREEK EXPRESSWAY OVER HARRISON AVE

HAMILTON COUNTY STA. 135+35.43 to STA. 136+96.08

DESIGNED	DRAWN	TRACED	CHECKED	REVIEWED	DATE	REVISED
A.Y.	S.T.	S.T.	G.J.C.	J.A.D.	2-61	

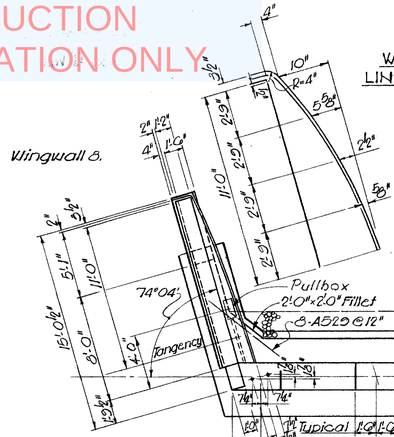
NOT FOR CONSTRUCTION INFORMATION ONLY

FED. RD. DIVISION	STATE	PROJECT	
2	OHIO		

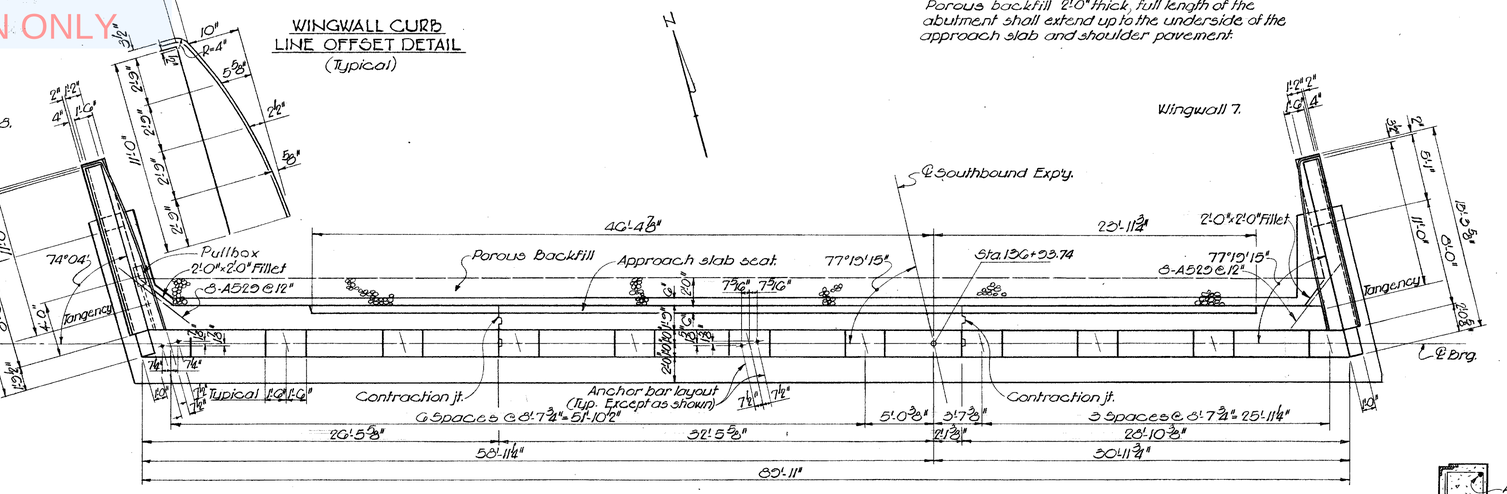
HAM.-25-1.66

333 / 486

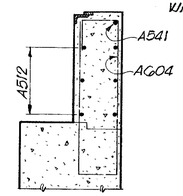
WINGWALL CURB LINE OFFSET DETAIL (Typical)



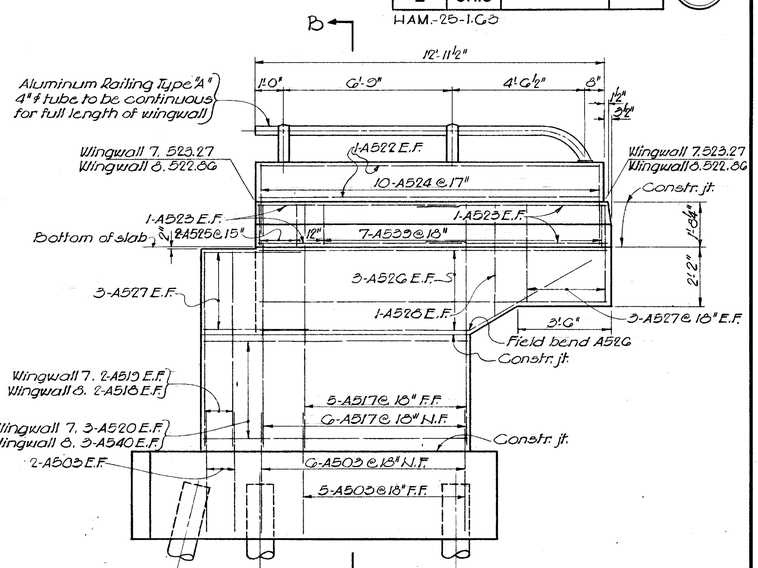
Note:
Porous backfill 2'-0" thick, full length of the abutment shall extend up to the underside of the approach slab and shoulder pavement.



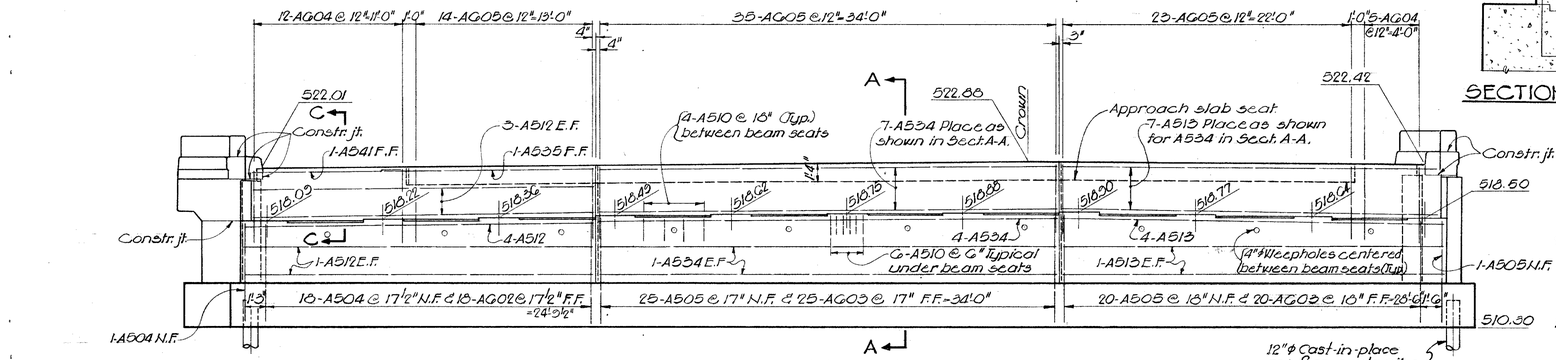
PLAN



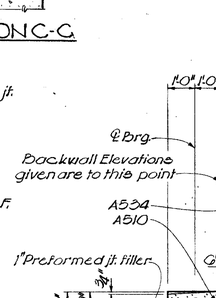
SECTION C-C



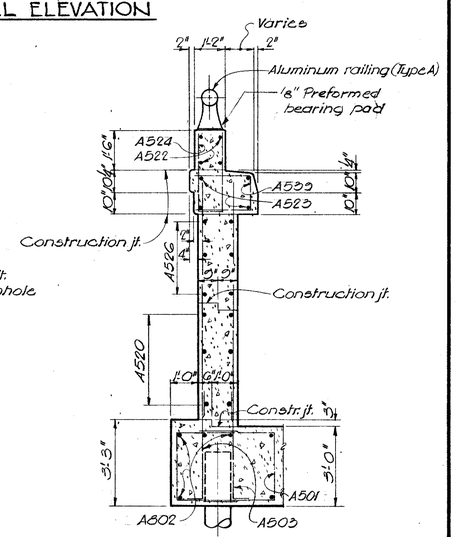
WINGWALL ELEVATION



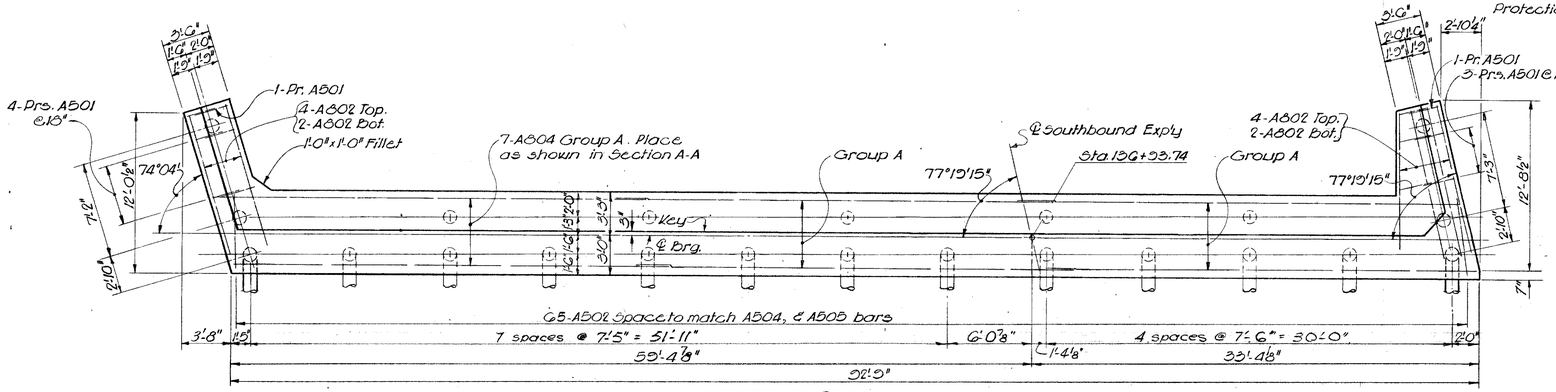
ELEVATION



SECTION A-A



SECTION B-B



G5-A502 Spaces to match A504, & A505 bars

FOOTING PLAN

SECTION C-C

A541	
A512	AG04

NOTES:

1. Designations used are as follows.
   N.F. Near face
   F.F. Far face
   E.F. Each face
2. For railing details see Std Dwg. AR-1-57.
3. Place the reinforcing under beam seats so as not to interfere with the drilling of anchor bar holes.
4. For Contraction Joint detail See Sheet 332.

VOGT, IVERS, SEAMAN & ASSOCIATES
ENGINEERS — CINCINNATI
ARCHITECTS — CHICAGO

ABUTMENT 4

BRIDGE NO. HAM-25-0240 - L
MILL CREEK EXPRESSWAY OVER HARRISON AVE.

HAMILTON COUNTY STA. 135+35.43 to STA. 136+96.05

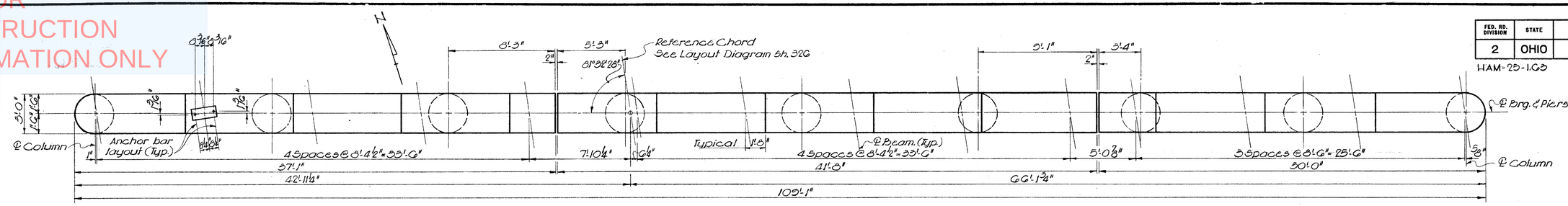
DESIGNED	DRAWN	TRACED	CHECKED	REVIEWED	DATE	REVISED
A.Y.	S.T.	~	G.J.C.	J.A.D.	2-61	

NOT FOR CONSTRUCTION INFORMATION ONLY

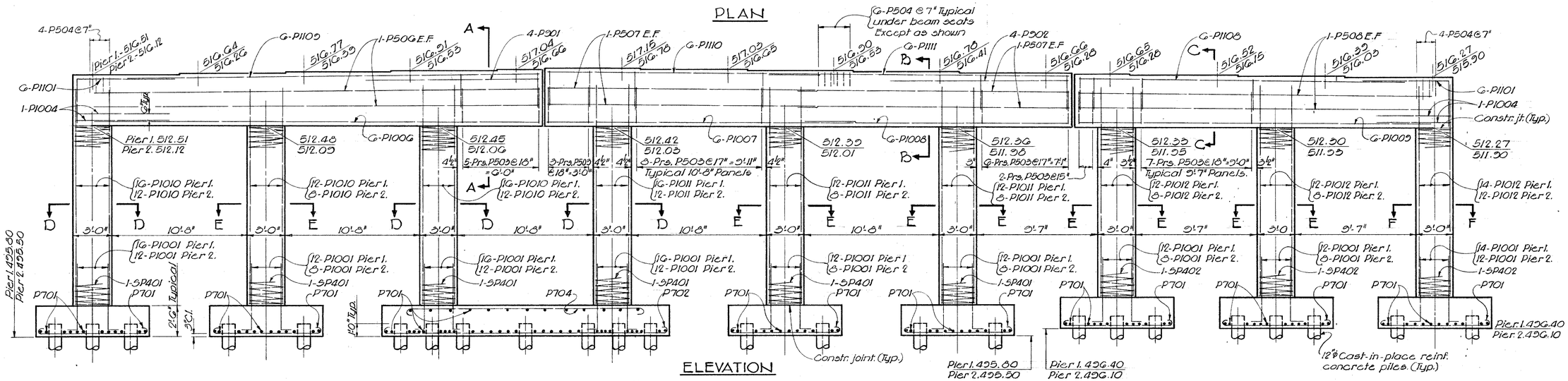
FED. RD. DIVISION	STATE	PROJECT	
2	OHIO		

HAM-25-1.03

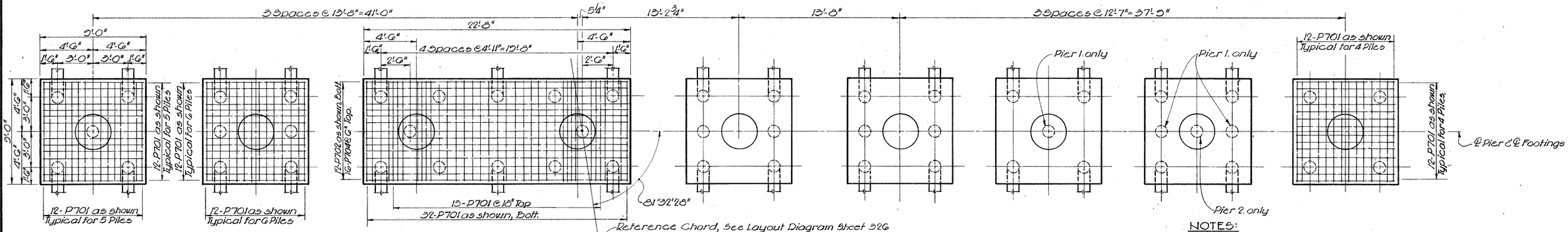
334 466



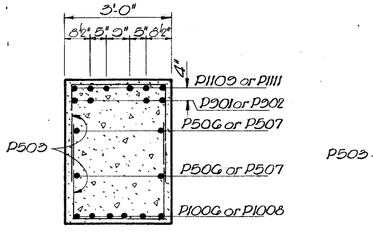
PLAN



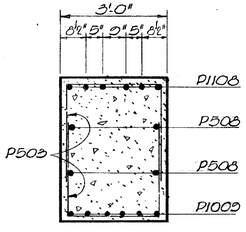
ELEVATION



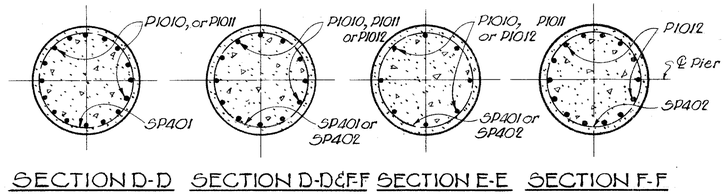
FOOTING PLAN



SECTION A-A & SECTION B-B



SECTION C-C



SECTION D-D PIER 1. | SECTION D-D & F-F PIER 2. | SECTION E-E PIER 2. | SECTION F-F PIER 1.

SECTION E-E PIER 1.

NOTES:

1. Place dowels in footing to insure correct spacing of main column steel.
2. E.F. designates "Each Face"
3. Where the elevations are given, the upper figure applies to Pier 1. the lower figure to Pier 2.
4. Batter of the piles is 1:4.
5. Place reinforcement under beam seats so as not to interfere with drilling of anchor bar holes.

VOGT, IVERS, SEAMAN & ASSOCIATES
ENGINEERS CINCINNATI — ARCHITECTS CHICAGO

PIERS 1 & 2

BRIDGE NO. HAM.-25-0240R
MILL CREEK EXPRESSWAY OVER HARRISON AVE.

HAMILTON COUNTY STA. 135+08.00 to STA. 136+62.88

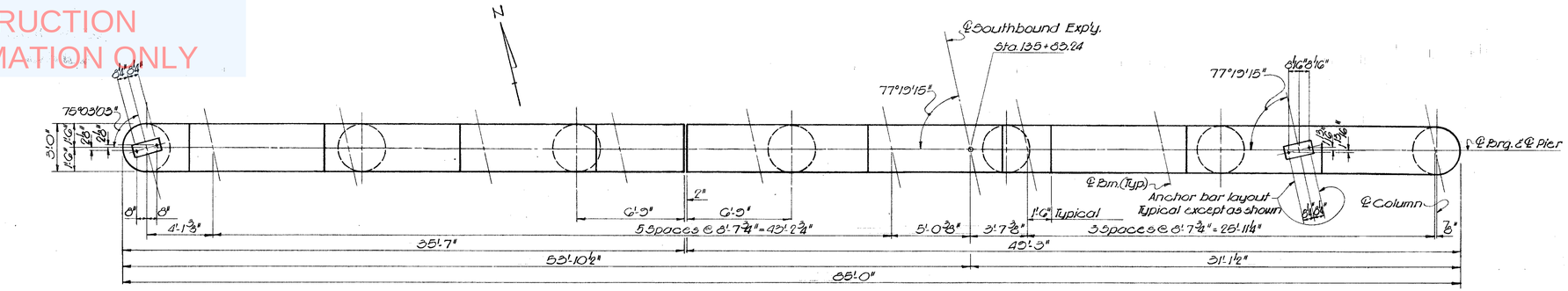
DESIGNED	DRAWN	TRACED	CHECKED	REVIEWED	DATE	REVISED
A.Y.	S.T.	S.T.	G.J.C.	J.A.D.	2-61	

NOT FOR CONSTRUCTION INFORMATION ONLY

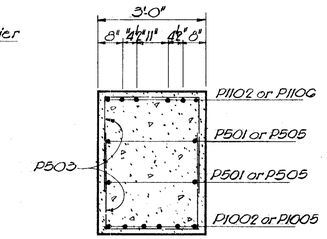
FED. RD. DIVISION	STATE	PROJECT	
2	OHIO		

335/486

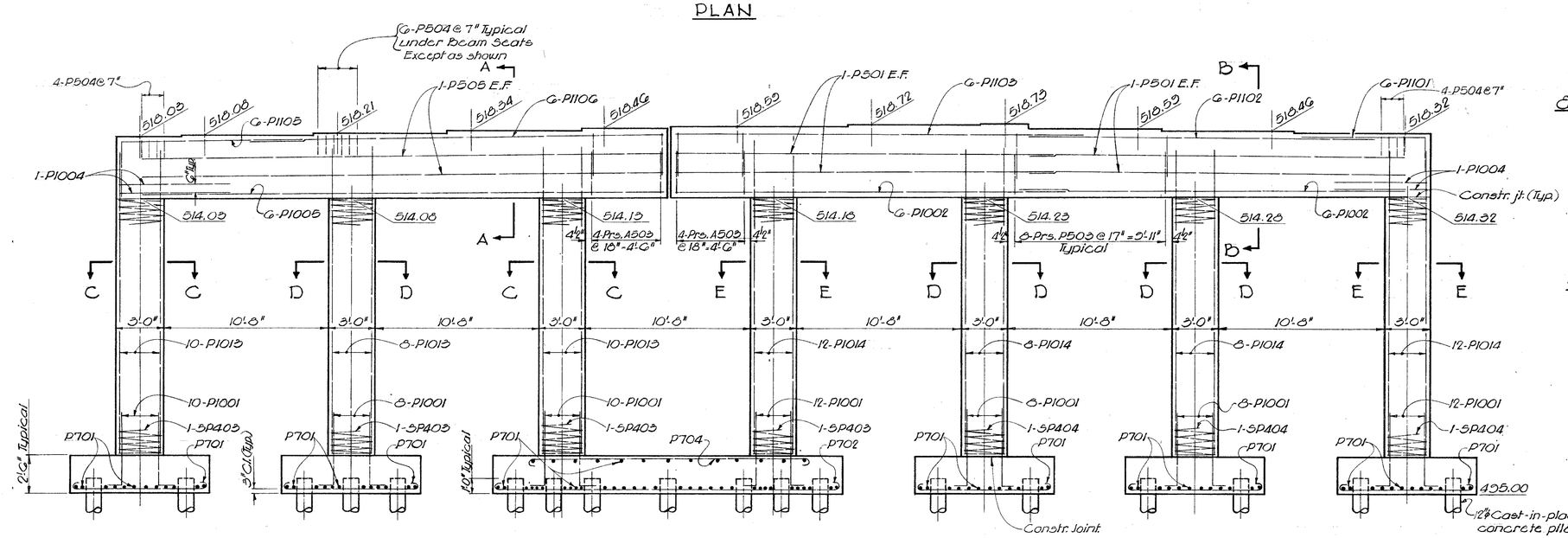
HAM-25-1.63



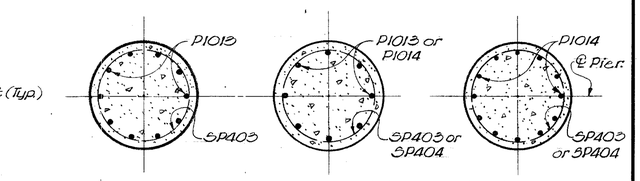
PLAN



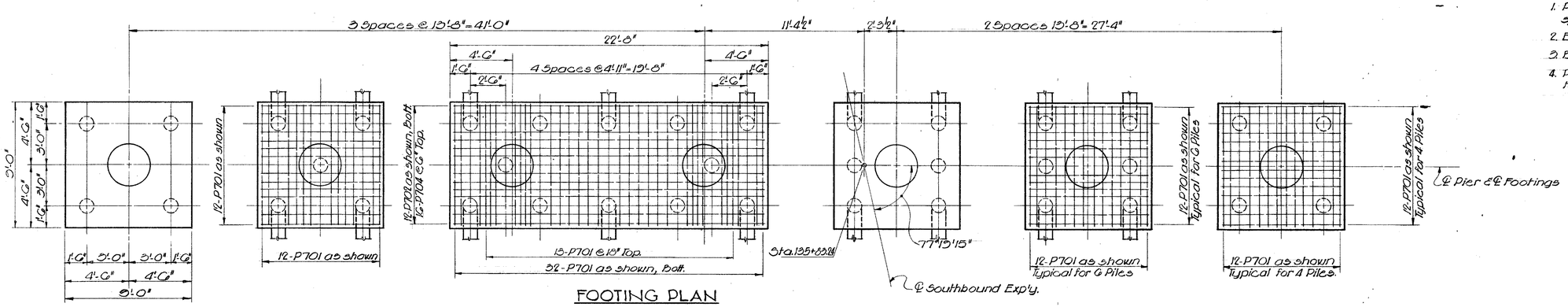
SECTION A-A & SECTION B-B



ELEVATION



SECTION C-C SECTION D-D SECTION E-E



FOOTING PLAN

NOTES:

1. Place dowels in footing to insure correct spacing of main column steel.
2. E.F. designates "Each Face"
3. Batter of the piles is 1:4
4. Place reinforcing under beam-seats so as not to interfere with drilling of anchor bar holes.

VOGT, IVERS, SEAMAN & ASSOCIATES
ENGINEERS CINCINNATI — ARCHITECTS CHICAGO

PIER 3.

BRIDGE NO. HAM-25-0240 L
MILL CREEK EXPRESSWAY OVER HARRISON AVE.

HAMILTON COUNTY STA. 135+35.43 to STA. 136+96.05

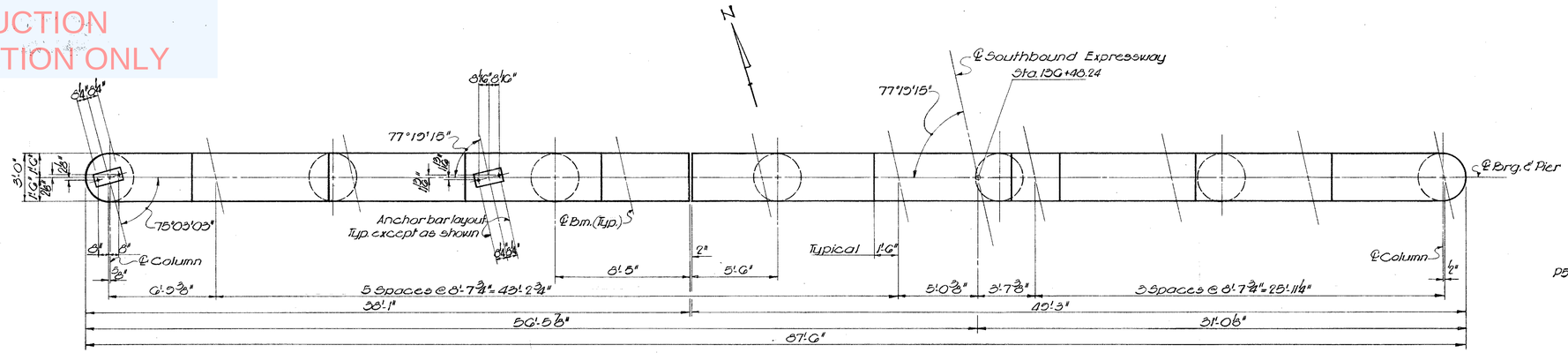
DESIGNED	DRAWN	TRACED	CHECKED	REVIEWED	DATE	REVISED
A.Y.	S.T.	~	G.J.C.	J.A.D.	2-61	

NOT FOR CONSTRUCTION INFORMATION ONLY

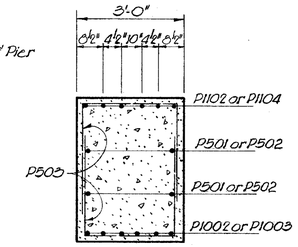
FED. RD. DIVISION	STATE	PROJECT	
2	OHIO		

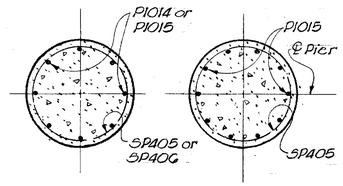
356
406

HAM-25-1.63



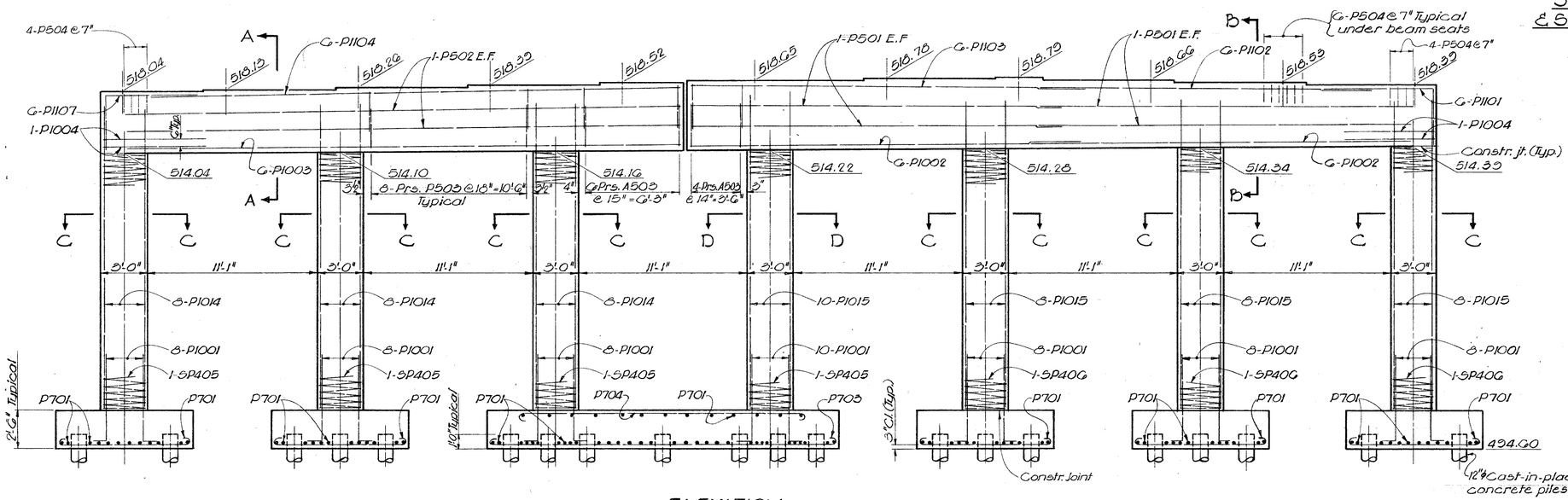
PLAN



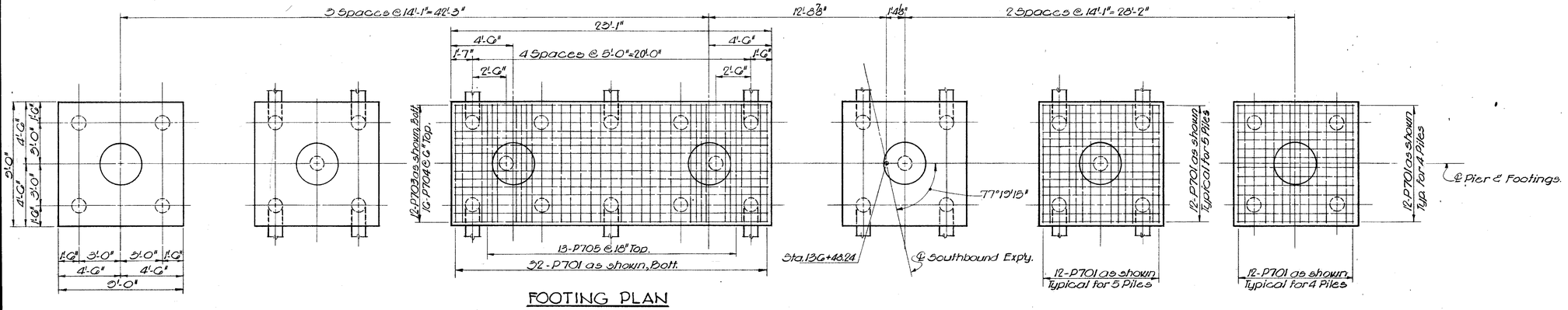


SECTION C-C SECTION D-D

SECTION A-A & SECTION B-B



ELEVATION



FOOTING PLAN

NOTES:

1. Place dowels in footing to insure correct spacing of main column steel.
2. E.F. designates "Each Face"
3. Batter of the piles is 1:4.
4. Place reinforcement under beam seats so as not to interfere with drilling of anchor bar holes.

VOGT, IVERS, SEAMAN & ASSOCIATES
ENGINEERS CINCINNATI ARCHITECTS CHICAGO

PIER 4

BRIDGE NO. HAM. 25-0240L
MILL CREEK EXPRESSWAY OVER HARRISON AVE.

HAMILTON COUNTY STA. 135+35.43 to STA. 136+96.05

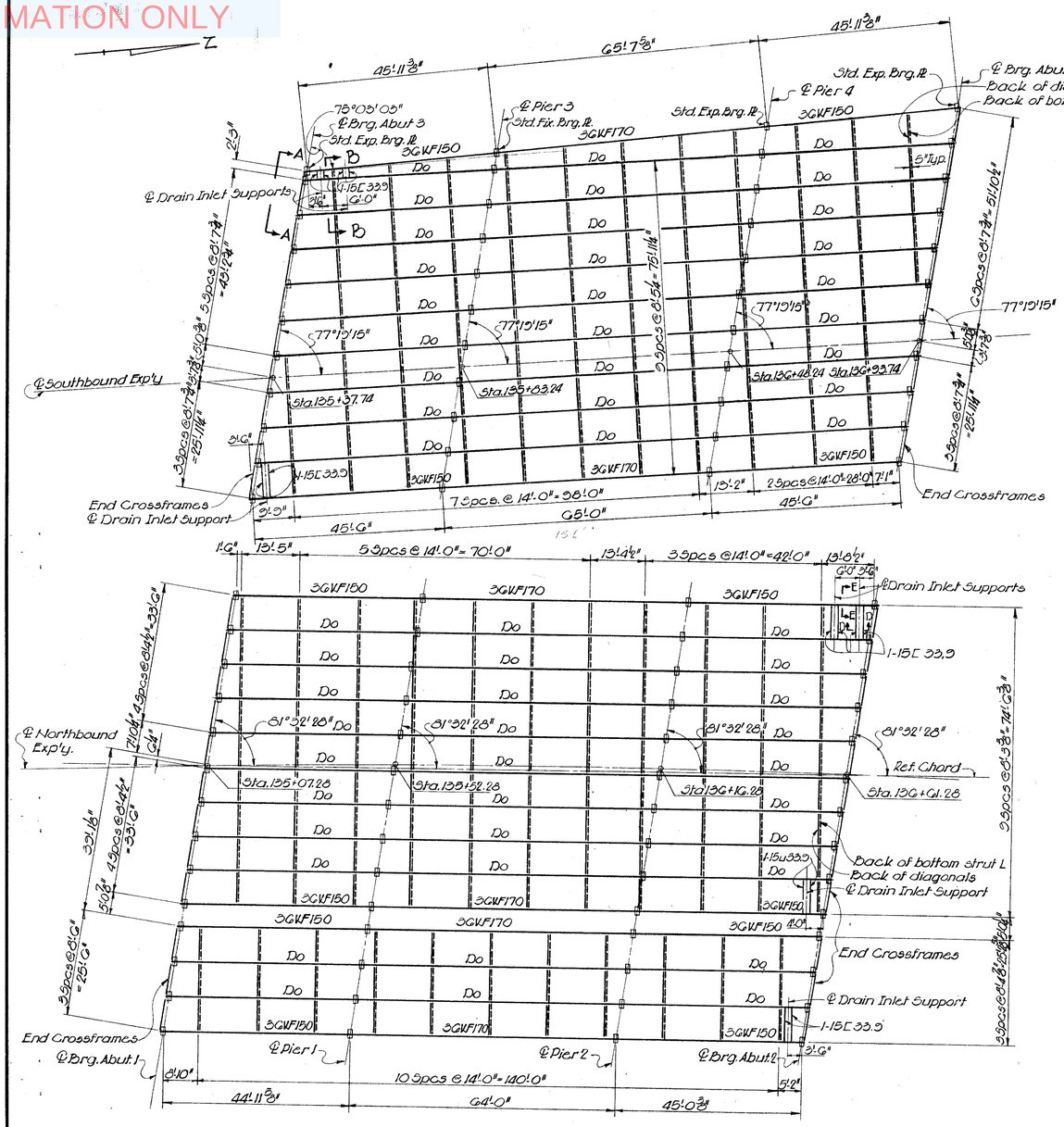
DESIGNED	DRAWN	TRACED	CHECKED	REVIEWED	DATE	REVISED
A.Y.	S.T.	~	G.J.C.	J.A.D.	2-61	

NOT FOR CONSTRUCTION INFORMATION ONLY

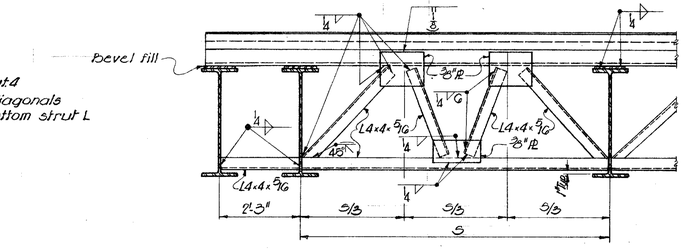
FED. RD. DIVISION	STATE	PROJECT	
2	OHIO		

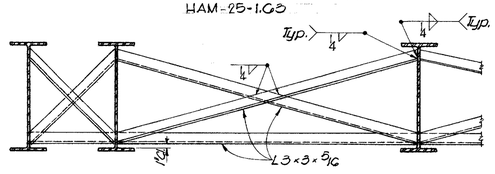
337 486

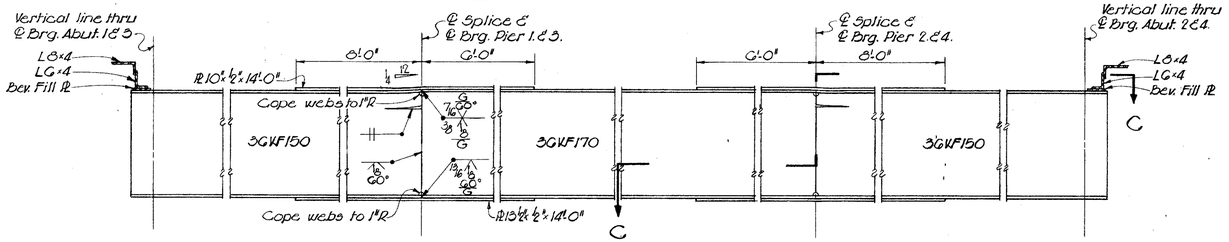
HAM-25-1.63



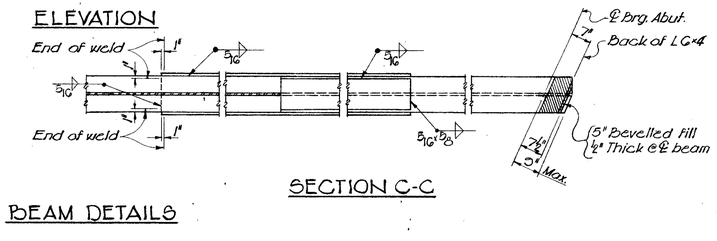
PLAN





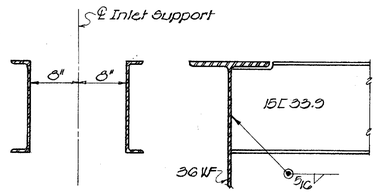


ELEVATION



SECTION C-C

BEAM DETAILS



SECTION D-D SECTION E-E

INLET SUPPORT DETAILS

DEFLECTION & CAMBER OF BEAMS

	INTERIOR BEAMS			FASCIA 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 vertical curve	1/16"	1/8"	1/16"	1/16"	1/8"	1/16"
Sum of deflection and camber	1/8"	7/16"	1/8"	1/8"	7/16"	1/8"
Required shop camber	0	0	0	0	0	0

BEAM SPLICE WELDING PROCEDURE

1. Raise the abutment ends of the beams 3/8".
2. Butt-weld the beam flanges and web, 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.
4. Lower the beam ends to final position.

NOTES:

1. For Bearing Plate details, see Std. Dwg. C.S.B. 2-5G, Sheet 3 of 6, revised 2-2-59.
2. For details of Drain Inlets, see Miscellaneous Structural Details, Sheet 412.
3. Welding of Structural Steel shall be Class "A" unless otherwise shown.
4. Welds shown as field welds may, at the option of the Contractor, be made in the shop.

VOGT, IVERS, SEAMAN & ASSOCIATES
ENGINEERS CINCINNATI — ARCHITECTS CHICAGO

FRAMING PLAN
BRIDGE NO. HAM-25-0240L&R
MILLCREEK EXPRESSWAY OVER HARRISON AVE.,
HAMILTON COUNTY STA. 135+05.00 to STA. 136+96.05

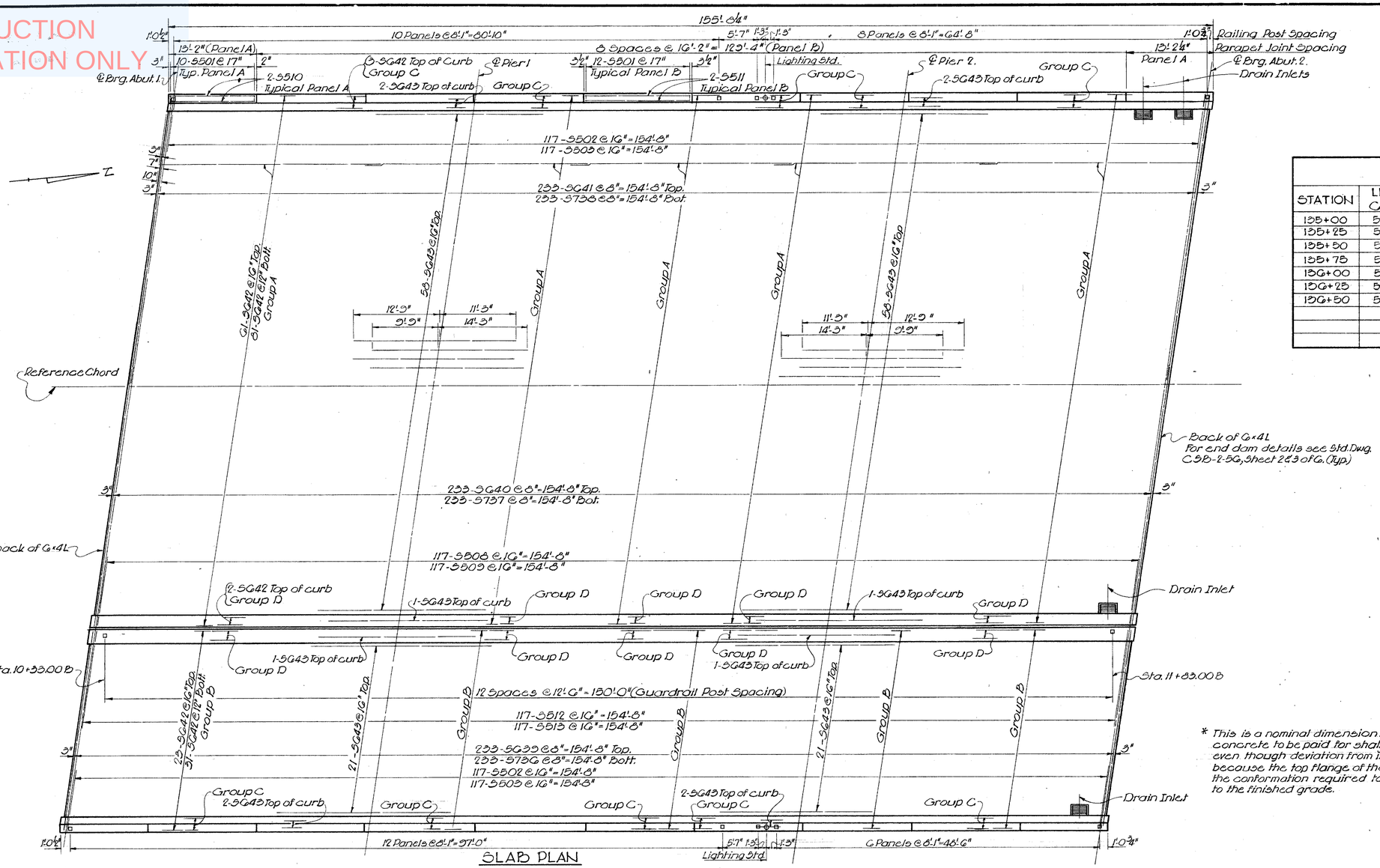
DESIGNED	DRAWN	TRACED	CHECKED	REVIEWED	DATE	REVISED
A.Y.	S.T.	~	G.J.C.	J.A.D.	2-61	

NOT FOR CONSTRUCTION INFORMATION ONLY

FED. RD. DIVISION	STATE	PROJECT	
2	OHIO		

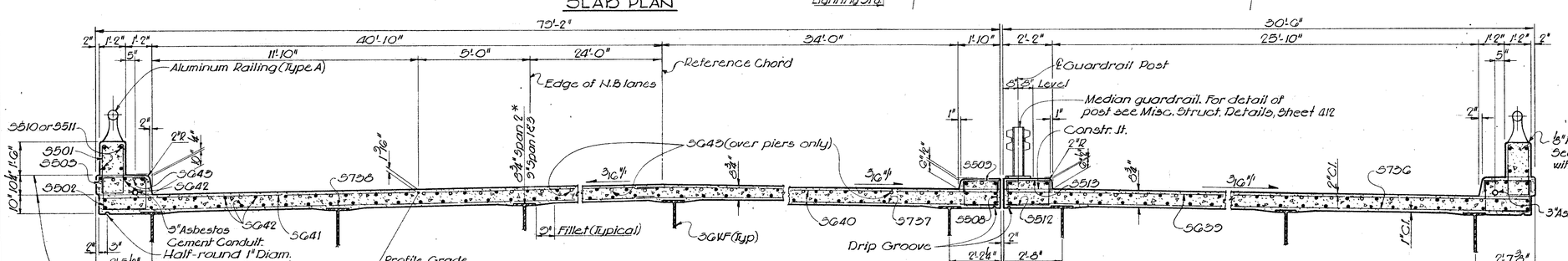
338
486

HAM-25-1.03

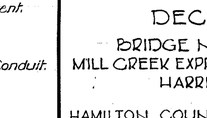


SLAB PLAN

PAVEMENT ELEVATIONS					
STATION	LEFT CURB	PROFILE GRADE	℄ N.B. EXP'Y.	MEDIAN CURBS	RIGHT CURB
135+00	520.59	520.65	521.23	520.70	520.23
135+25	520.52	520.57	521.16	520.63	520.22
135+50	520.44	520.49	521.07	520.54	520.14
135+75	520.35	520.39	520.97	520.44	520.04
136+00	520.22	520.27	520.85	520.32	519.92
136+25	520.08	520.14	520.72	520.19	519.79
136+50	519.94	519.99	520.57	520.04	520.64



TYPICAL SECTION



MEDIAN CURB PLATES

See Std Dwg. CSD-2-56, Sheet 3 of C. Curb Plate Details. Sec. G-G is to be modified as shown. Other details to remain the same.

* This is a 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 beams may not have the conformation required to place it parallel to the finished grade.

NOTES:

1. For Drain Inlet details, see Misc. Structural Details Sh. 412
2. Cut reinforcing in slab to clear drain inlets as necessary.
3. For Railing and Parapet Joint details see Std. Dwg. AR-1-57 revised 12-12-60.
4. Slab thickness shown includes 1" monolithic wearing surface.
5. For electrical details see Sheet 259.

VOGT, IVERS, SEAMAN & ASSOCIATES
ENGINEERS CINCINNATI — ARCHITECTS CHICAGO

DECK SLAB

BRIDGE NO. HAM-25-0240R
MILL CREEK EXPRESSWAY & RAMP "B" OVER HARRISON AVE.

HAMILTON COUNTY STA. 135+05.00 TO STA. 136+63.55

DESIGNED	DRAWN	TRACED	CHECKED	REVIEWED	DATE	REVISED
A.Y.	S.T.	S.T.	G.J.C.	J.A.D.	2-61	

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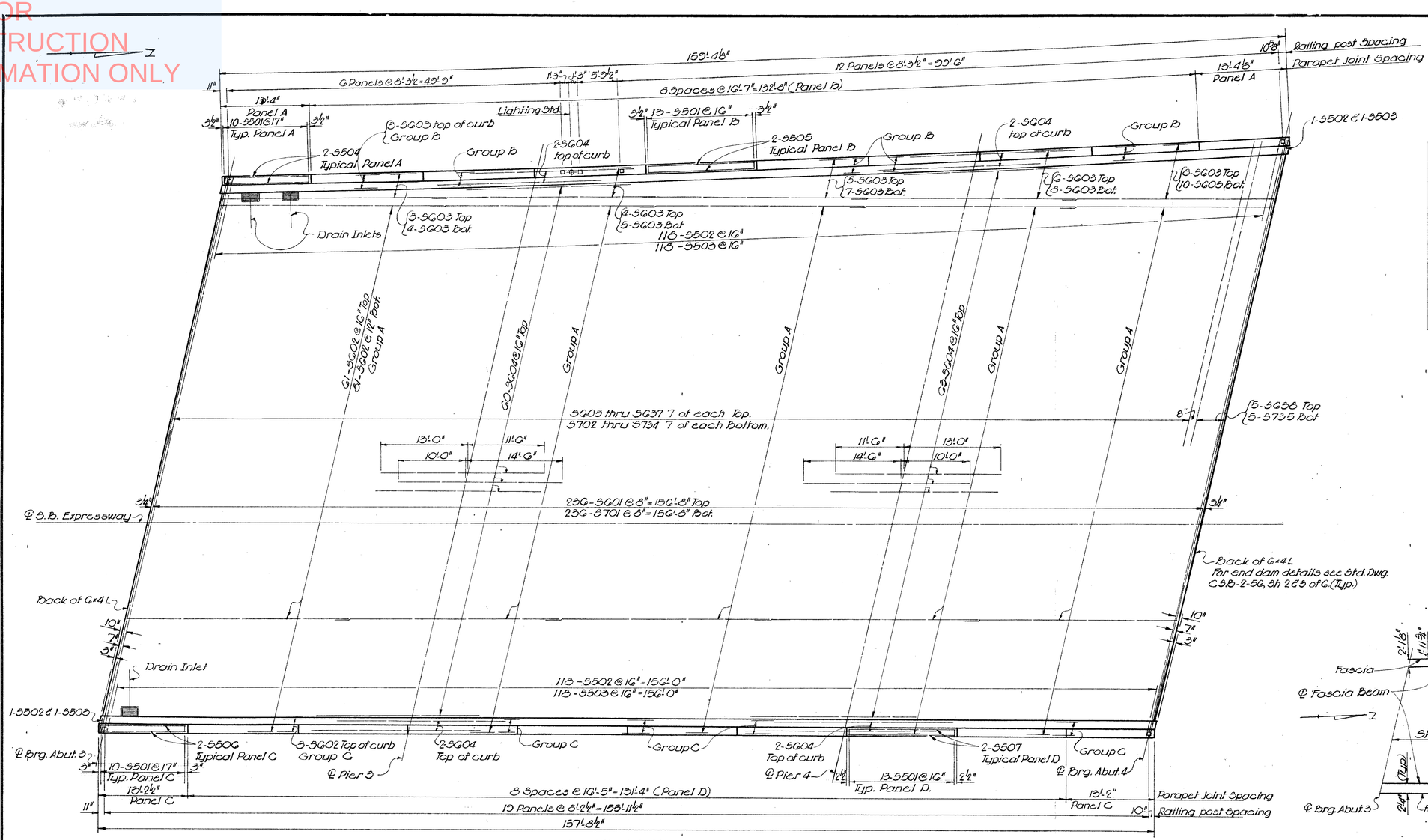
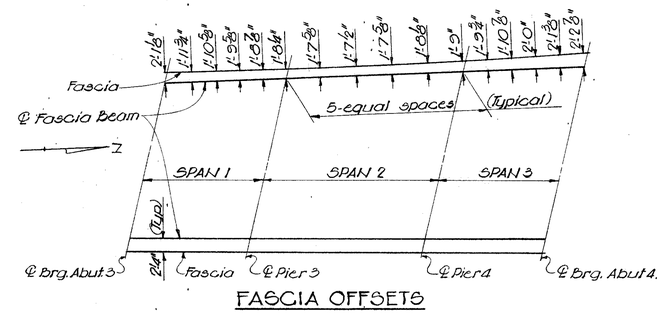
FED. RD. DIVISION	STATE	PROJECT	
2	OHIO		

HAM-25-1.63

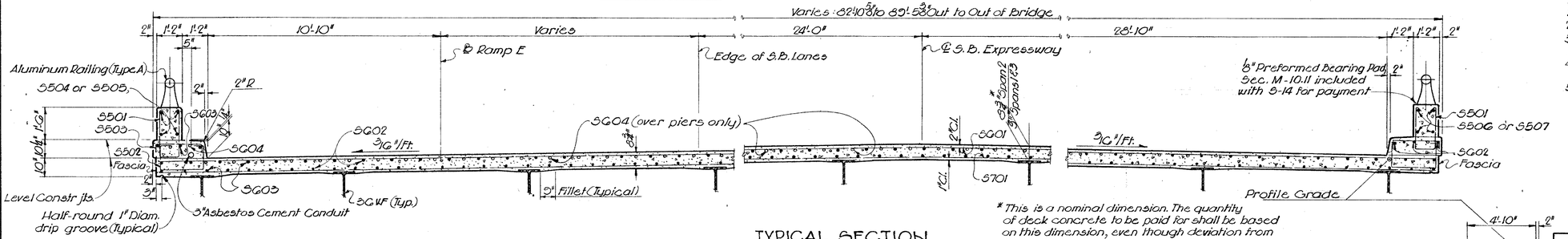


SLAB PLAN



FASCIA OFFSETS

PAVEMENT ELEVATIONS				
STATION	LEFT CURB	℄ S.B. EXP'Y.	RIGHT CURB	PROFILE GRADE
155+25	521.72	522.47	522.02	521.69
155+50	521.81	522.57	522.12	521.93
155+75	521.88	522.66	522.21	522.08
156+00	521.94	522.73	522.28	522.18
156+25	521.99	522.79	522.34	522.21
156+50	522.01	522.83	522.39	522.25
156+75	522.02	522.86	522.41	522.26
157+00	522.02	522.88	522.43	522.29



TYPICAL SECTION

* This is a 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 beams may not have the conformation required to place it parallel to the finished grade.

DETAIL - LOCATION OF P.G.

NOTES:

1. For Drain Inlet details, see Misc. Structural Details Sh. 412
2. Cut reinforcing in slab to clear drain inlets as necessary.
3. For Railing and Parapet Joint details see Std. Dwg. AR-1-57 revised 12-12-60.
4. Slab thickness shown includes 1" monolithic wearing surface.
5. For electrical details see Sheet 259

VOGT, IVERS, SEAMAN & ASSOCIATES
ENGINEERS CINCINNATI — ARCHITECTS CHICAGO

DECK SLAB
BRIDGE NO. HAM-25-0240L
MILL CREEK EXPRESSWAY OVER HARRISON AVE.

HAMILTON COUNTY STA. 155+35.45 to STA. 160+90.05

DESIGNED	DRAWN	TRACED	CHECKED	REVIEWED	DATE	REVISED
A.Y	S.T.	~	G.J.C.	J.A.D.	2-61	

NOT FOR CONSTRUCTION INFORMATION ONLY

FED. RD. DIVISION	STATE	PROJECT	
2	OHIO		

340/486

HAM-25-1.03

ABUTMENTS

			BRIDGE NO. HAM-25-0240 L		BRIDGE NO. HAM-25-0240 R	
MARK	LENGTH	SHAPE	NO.	WEIGHT	NO.	WEIGHT
AB01	7'-4"	Bt.	36	275	36	275
AB02	8'-2"	Bt.	123	1048	154	1312
AB03	5'-5"	Bt.	60	330	60	330
AB04	6'-3"	Bt.	38	327	36	310
AB05	8'-8"	Bt.	66	597	42	380
AB06	25'-9"	Str.	—	—	14	376
AB07	29'-9"	Str.	—	—	28	665
AB08	27'-0"	Str.	—	—	30	668
AB09	24'-9"	Str.	—	—	15	387
AB10	61'-2"	Bt.	208	1338	268	1724
AB11	8'-6"	Bt.	15	168	36	315
AB12	20'-0"	Str.	25	786	—	—
AB13	28'-6"	Str.	30	892	—	—
AB14	27'-6"	Str.	14	402	—	—
AB15	16'-0"	Str.	1	17	1	17
AB16	13'-0"	Str.	1	14	—	—
AB17	9'-1"	Str.	44	417	44	417
AB18	7'-8"	Str.	8	60	8	60
AB19	7'-6"	Str.	8	63	8	63
AB20	5'-8"	Str.	12	121	12	121
AB21	14'-11"	Str.	—	—	1	16
* AB22	12'-7"	Str.	16	—	16	—
AB23	7'-3"	Str.	32	242	32	242
AB24	6'-5"	Bt.	40	268	40	268
AB25	4'-3"	Bt.	24	110	22	103
AB26	12'-7"	Str.	24	315	24	315
AB27	3'-6"	Str.	48	178	48	178
AB28	4'-0"	Str.	8	33	8	33
AB29	5'-0"	Str.	32	167	32	167
AB30	25'-2"	Str.	—	—	15	394
AB31	8'-11"	Bt.	—	—	40	372
AB32	24'-11"	Str.	—	—	15	390
AB33	16'-4"	Str.	—	—	1	17
AB34	34'-2"	Str.	15	535	—	—
AB35	15'-6	Str.	1	16	1	16
AB36	19'-5"	Str.	—	—	1	20
AB37	8'-0"	Str.	—	—	1	8
AB38	6'-3"	Str.	—	—	1	7
AB39	Varies 2'-0" to 4'-2" Incr 4'	Bt.	2 Series of 7	55	2 Series of 7	55
AB40	3'-6"	Str.	12	113	12	113
AB41	12'-0"	Str.	1	13	—	—
AG01	15'-2"	Bt.	—	—	40	311
AG02	14'-6"	Bt.	36	784	34	740
AG03	14'-11"	Bt.	65	1456	42	941
AG04	15'-4"	Bt.	34	783	56	1290
AG05	13'-10"	Bt.	128	2867	158	3765
AG06	14'-10"	Bt.	—	—	7	156
AG07	14'-9	Bt.	18	399	34	754
AG01	20'-10"	Str.	—	—	56	4461
AG02	11'-0	Str.	24	705	24	705
AG03	30'-4"	Str.	21	1701	—	—
AG04	32'-6"	Str.	21	1822	—	—

SUPERSTRUCTURE

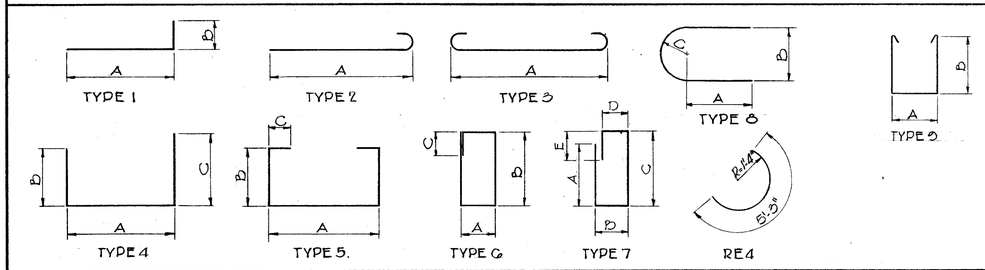
			BRIDGE NO. HAM-25-0240 L		BRIDGE NO. HAM-25-0240 R	
MARK	LENGTH	SHAPE	NO.	WEIGHT	NO.	WEIGHT
S501	5'-2"	Bt.	248	1430	232	1330
S502	4'-10"	Bt.	238	1200	234	1180
S503	2'-11"	Bt.	238	724	234	712
* S504	13'-0"	Str.	8	—	—	—
* S505	16'-3"	Str.	32	—	—	—
* S506	12'-10"	Str.	8	—	—	—
* S507	16'-1"	Str.	32	—	—	—
S508	3'-7"	Bt.	—	—	117	437
S509	1'-10"	Bt.	—	—	117	224
* S510	12'-3"	Str.	—	—	16	—
* S511	13'-10"	Str.	—	—	64	—
S512	3'-11"	Bt.	—	—	117	478
S513	2'-2"	Bt.	—	—	117	264
SG01	47'-0"	Str.	736	16660	—	—
SG02	33'-0"	Str.	725	35935	—	—
SG03	33'-4"	Str.	75	3755	—	—
SG04	24'-6"	Str.	131	4821	—	—
SG05	33'-3"	Str.	7	413	—	—
SG06	33'-5"	Str.	7	414	—	—
SG07	33'-7"	Str.	7	416	—	—
SG08	33'-9"	Str.	7	418	—	—
SG09	33'-11"	Str.	7	420	—	—
SG10	40'-1"	Str.	7	421	—	—
SG11	40'-3"	Str.	7	423	—	—
SG12	40'-5"	Str.	7	425	—	—
SG13	40'-7"	Str.	7	427	—	—
SG14	40'-9"	Str.	7	428	—	—
SG15	40'-11"	Str.	7	430	—	—
SG16	41'-1"	Str.	7	432	—	—
SG17	41'-4"	Str.	7	435	—	—
SG18	41'-6"	Str.	7	436	—	—
SG19	41'-8"	Str.	7	438	—	—
SG20	41'-11"	Str.	7	441	—	—
SG21	42'-1"	Str.	7	442	—	—
SG22	42'-3"	Str.	7	444	—	—
SG23	42'-5"	Str.	7	446	—	—
SG24	42'-8"	Str.	7	449	—	—
SG25	42'-11"	Str.	7	451	—	—
SG26	43'-1"	Str.	7	453	—	—
SG27	43'-3"	Str.	7	455	—	—
SG28	43'-5"	Str.	7	456	—	—
SG29	43'-8"	Str.	7	459	—	—
SG30	43'-11"	Str.	7	462	—	—
SG31	44'-2"	Str.	7	464	—	—
SG32	44'-5"	Str.	7	467	—	—
SG33	44'-8"	Str.	7	470	—	—
SG34	44'-11"	Str.	7	472	—	—
SG35	45'-2"	Str.	7	475	—	—
SG36	45'-5"	Str.	7	478	—	—
SG37	45'-8"	Str.	7	481	—	—
SG38	45'-11"	Str.	5	345	—	—

			BRIDGE NO. HAM-25-0240 L		BRIDGE NO. HAM-25-0240 R	
MARK	LENGTH	SHAPE	NO.	WEIGHT	NO.	WEIGHT
SG39	30'-3"	Str.	—	—	233	10586
SG40	33'-7"	Str.	—	—	233	13833
SG41	41'-10"	Str.	—	—	233	14640
SG42	32'-6"	Str.	—	—	1030	50270
SG43	24'-0"	Str.	—	—	170	6128
S701	47'-0"	Str.	236	22672	—	—
S702	33'-7"	Str.	7	566	—	—
S703	33'-9"	Str.	7	569	—	—
S704	33'-11"	Str.	7	571	—	—
S705	40'-1"	Str.	7	574	—	—
S706	40'-3"	Str.	7	576	—	—
S707	40'-5"	Str.	7	578	—	—
S708	40'-7"	Str.	7	581	—	—
S709	40'-9"	Str.	7	583	—	—
S710	40'-11"	Str.	7	585	—	—
S711	41'-1"	Str.	7	588	—	—
S712	41'-3"	Str.	7	590	—	—
S713	41'-5"	Str.	7	593	—	—
S714	41'-7"	Str.	7	595	—	—
S715	41'-9"	Str.	7	597	—	—
S716	41'-11"	Str.	7	600	—	—
S717	42'-2"	Str.	7	603	—	—
S718	42'-4"	Str.	7	606	—	—
S719	42'-6"	Str.	7	608	—	—
S720	42'-8"	Str.	7	610	—	—
S721	42'-10"	Str.	7	613	—	—
S722	43'-1"	Str.	7	616	—	—
S723	43'-4"	Str.	7	620	—	—
S724	43'-7"	Str.	7	624	—	—
S725	43'-10"	Str.	7	627	—	—
S726	44'-1"	Str.	7	631	—	—
S727	44'-4"	Str.	7	634	—	—
S728	44'-7"	Str.	7	638	—	—
S729	44'-10"	Str.	7	641	—	—
S730	45'-1"	Str.	7	645	—	—
S731	45'-4"	Str.	7	649	—	—
S732	45'-7"	Str.	7	652	—	—
S733	45'-10"	Str.	7	656	—	—
S734	46'-1"	Str.	7	659	—	—
S735	46'-3"	Str.	5	473	—	—
S736	30'-3"	Str.	—	—	233	14407
S737	33'-11"	Str.	—	—	233	19010
S738	41'-10"	Str.	—	—	233	19323

PIERS

			BRIDGE NO. HAM-25-0240 L		BRIDGE NO. HAM-25-0240 R		CORE DIA & SPIRAL	PITCH	NO. TURNS
MARK	LENGTH	SHAPE	NO.	WEIGHT	NO.	WEIGHT			
SP401	14'-2"	Bt.	—	—	12	3212	32"	4½"	41
SP402	13'-5"	Bt.	—	—	6	1527	32"	4½"	39
SP403	16'-7"	Bt.	4	1231	—	—	32"	4½"	47
SP404	16'-10"	Bt.	3	942	—	—	32"	4½"	48
SP405	17'-1"	Bt.	4	1281	—	—	32"	4½"	49
SP406	17'-3"	Bt.	3	962	—	—	32"	4½"	49
P501	24'-7"	Str.	16	410	—	—			
P502	36'-3"	Str.	4	151	—	—			
P503	7'-3"	Bt.	136	1584	248	2008			
P504	3'-11"	Bt.	124	506	160	653			
P505	33'-3"	Str.	4	141	—	—			
P506	35'-3"	Str.	—	—	8	294			
P507	21'-6	Str.	—	—	16	359			
P508	26'-2"	Str.	—	—	8	295			
P701	10'-4"	Bt.	330	6970	426	8997			
P702	29'-11"	Bt.	12	587	24	1173			
P703	24'-4"	Bt.	12	507	—	—			
P704	15'-8"	Bt.	32	1285	32	1285			
P301	13'-0"	Str.	—	—	8	354			
P302	13'-3"	Str.	—	—	8	374			
P1001	6'-1"	Bt.	126	3228	210	5457			
P1002	25'-3"	Str.	24	2628	—	—			
P1003	36'-3"	Str.	6	936	—	—			
P1004	11'-1"	Bt.	8	382	8	382			
P1005	33'-3"	Str.	6	671	—	—			
P1006	35'-3"	Str.	—	—	12	1820			
P1007	24'-0"	Str.	—	—	12	1230			
P1008	20'-7"	Str.	—	—	12	1063			
P1009	28'-2"	Str.	—	—	12	1454			
P1010	17'-10"	Str.	—	—	76	5832			
P1011	18'-0"	Str.	—	—	68	2267			
P1012	16'-11"	Str.	—	—	66	4804			
P1013	20'-2"	Str.	28	2430	—	—			
P1014	20'-6"	Str.	64	5646	—	—			
P1015	20'-11"	Str.	34	3060	—	—			
P1101	10'-9"	Bt.	12	685	24	1371			
P1102	22'-6"	Str.	12	1435	—	—			
P1103	26'-4"	Str.	12	1679	—	—			
P1104	35'-1"	Str.	6	1118	—	—			
P1105	14'-11"	Bt.	6	476	—	—			
P1106	27'-5"	Str.	6	874	—	—			
P1107	9'-11"	Bt.	6	316	—	—			
P1108	25'-10"	Str.	—	—	12	1647			
P1109	32'-11"	Str.	—	—	12	2093			
P1110	21'-0"	Str.	—	—	12	1339			
P1111	24'-0"	Str.	—	—	12	1530			

BENDING DIAGRAMS



MARK	TYPE	A	B	C	D	E
A501	4	2'-7"	2'-6"	2'-6"	—	—
A502	4	5'-5"	1'-6"	1'-6"	—	—
A503	1	4'-7"	1'-0"	—	—	—
A504	1	7'-4"	1'-0"	—	—	—
A505	1	7'-5"	1'-0"	—	—	—
A510	4	3'-5"	1'-6"	1'-6"	—	—
A511	1	7'-7"	1'-0	—	—	—
A524	4	0'-10"	2'-11"	2'-11"	—	—
A525	4	1'-4"	2'-0"	1'-8"	—	—
A551	1	8'-0"	1'-0"	—	—	—
A559	4	1'-4"	1'-0" to 2'-0" Incr 2"	0'-6" to 1'-6" Incr 2"	—	—
AG01	4	5'-3"	7'-0"	2'-6"	—	—
AG02	4	5'-3"	7'-1"	2'-6"	—	—
AG03	4	5'-3"	7'-6"	2'-6"	—	—
AG04	6	1'-4"	5'-8"	2'-0"	—	—
AG05	7	4'-4"	1'-4"	5'-8"	0'-10"	2'-4"
AG06	6	1'-4"	6'-2"	2'-0"	—	—
AG07	4	5'-3"	7'-4"	2'-6"	—	—

MARK	TYPE	A	B	C	D	E
S501	9	0'-10"	2'-2"		—	—
S502	5	1'-10"	1'-4	0'-5"	—	—
S503	4	2'-0"	0'-7"	0'-7"	—	—
S508	5	1'-5"	0'-10"	0'-6"	—	—
S509	4	1'-5"	0'-4"	0'-4"	—	—
S512	5	1'-5"	0'-10"	0'-6"	—	—
S513	4	1'-5"	0'-4"	0'-4"	—	—
P503	4	2'-8"	2'-8"	2'-8"	—	—
P504	4	2'-8"	0'-5"	0'-5"	—	—
P701	3	8'-8"	—	—	—	—
P702	3	22'-3"	—	—	—	—
P703	3	22'-8"	—	—	—	—
P704	3	16'-0"	—	—	—	—
P1001	1	5'-5"	1'-0"	—	—	—
P1004	8	3'-10"	2'-2"	1'-1"	—	—
P1101	1	7'-4"	3'-3"	—	—	—
P1105	1	11'-6"	3'-3"	—	—	—
P1107	1	6'-6"	3'-3"	—	—	—

REPLACEMENT BARS

MARK	NO.	LENGTH	SHAPE
RE4	1	5'-3"	Bt.
RE5	2	5'-7"	Str.
RE6	10	5'-11"	Str.
RE7	6	6'-3"	Str.
RE8	1	6'-6"	Str.
RE9	1	6'-10"	Str.
RE10	3	7'-3"	Str.
RE11	1	7'-7"	Str.

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 S-402 need not be furnished and replacement bars will not be required.

SPIRAL REINFORCING BARS: 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 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 5-4. ½ 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.

NOTES

1. 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.
2. Bars marked with single asterisks to be included for payment under Item 5-14 Railing.
3. All dimensions are out to out of bar.
4. The "Length" of bent bars is measured along the center line.

VOGT, IVERS, SEAMAN & ASSOCIATES
ENGINEERS CINCINNATI — ARCHITECTS CHICAGO

REINFORCING STEEL LIST

BRIDGE NO. HAM-25-0240 L & R
MILL CREEK EXPRESSWAY, RAMP 'B' OVER HARRISON AVE.

HAMILTON COUNTY STA. 135+05.00 to STA. 136+06.05

DESIGNED	DRAWN	TRACED	CHECKED	REVIEWED	DATE	REVISED
~	S.T.	~	A.Y.	J.A.D.	2-61	

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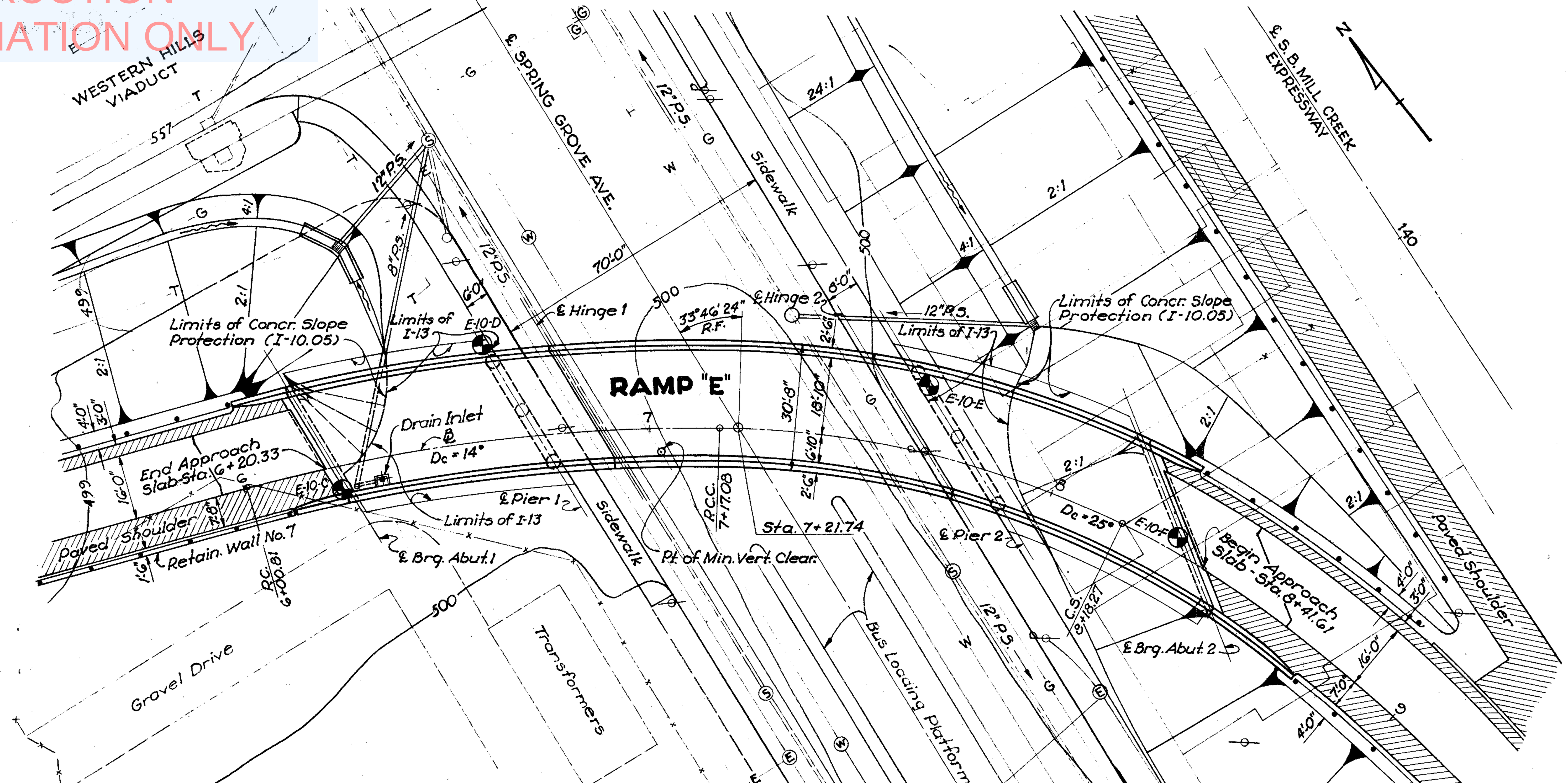
2	OHIO		

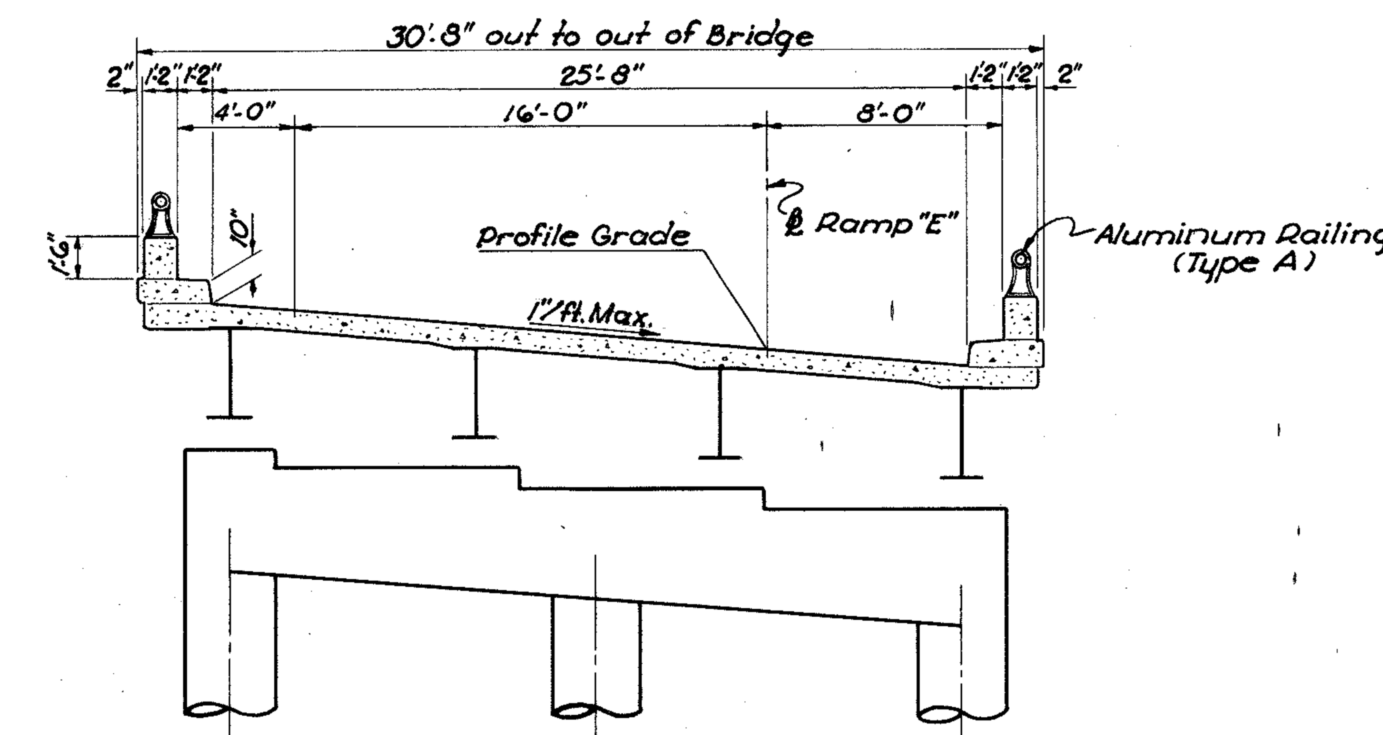
HAM-25-1.63



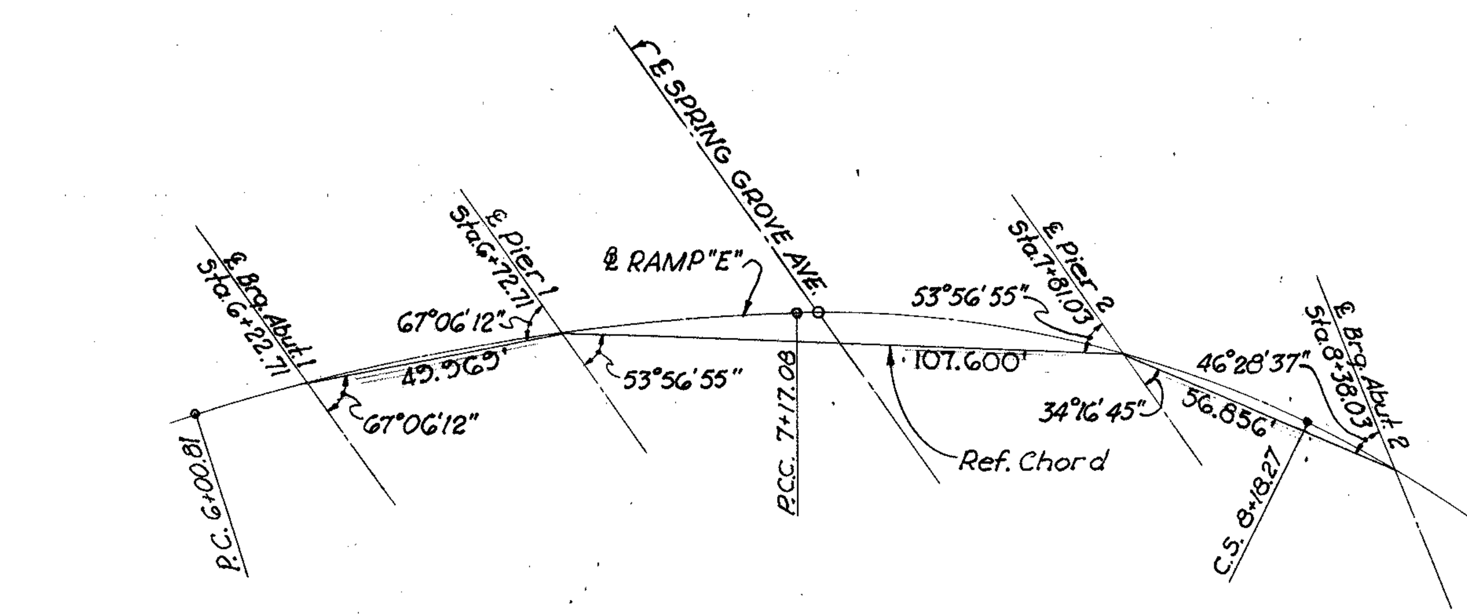
CURVE DATA

P.I. STA. 6+59.34	P.I. STA. 8+37.08
Δ = 16°16'39"	Δ = 51°17'51"
Dc = 14°00'00"	Dc = 25°00'00"
Lc = 116.27'	Lc = 101.19'
Rc = 409.26'	Rc = 229.18'
Tc = 58.53'	Ls = 200.00'
E = 4.16'	T1 = 120.00'
	T2 = 199.12'

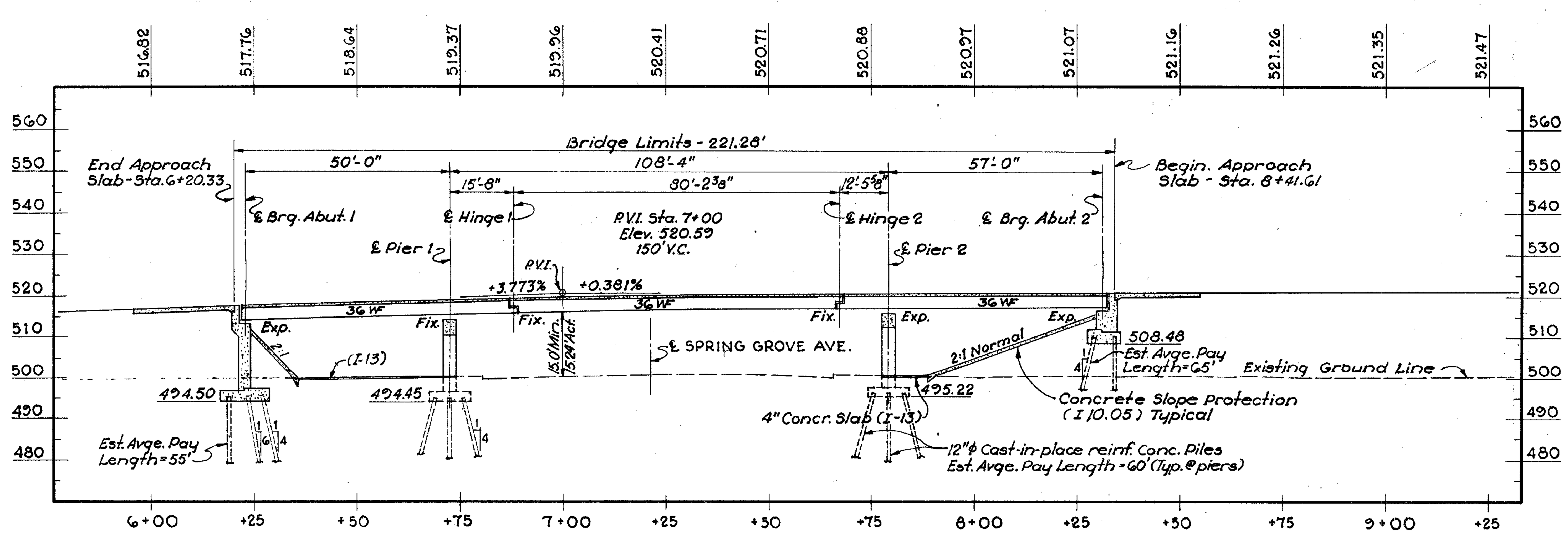
PLAN



SECTION THRU BRIDGE



LAYOUT OF BRIDGE REFERENCE CHORDS



PROFILE ON ℄ RAMP "E"

NOTES

Limits of 4" Concr. Slab (I-13) are from toe of slope to back of sidewalk and 3'-0" beyond the outer edges of the superstructure.

Foundation design and foundation quantities are based on a study of test borings and soil samplings made at the site. This sounding information may be inspected in the Office of the Bureau of Bridges in Columbus or in an abridged form in the Division Office, but the State assumes no responsibility for the accuracy thereof.

◐ Symbol denotes boring

Bench Mark: B.M. #6 Elev. 501.11
City of Cincinnati, B.M. #K117, Brass Disc in western face of Viaduct Pier, 97' Lt. Sta. 142+10.0 S.B.

PROPOSED STRUCTURE

TYPE: Cantilever rolled beam with reinforced concrete deck and substructure
SPANS: 50'-0", 108'-4", 57'-0"
ROADWAY: 28'-0" Face to face of parapets.
LOAD FREQUENCY: CF = 2000 (57) Adequate for AASHO alternate loading.
SKEW: 33°46'24" at ℄ Spring Grove Ave.
WEARING SURFACE: 1" Monolithic concrete
APPROACH SLABS: AS-1-54 (25'-0" long)
ALIGNMENT: Compound - 14°00' and 25°00'
SUPERELEVATION: 1 in. per ft. Max.

VOGT, IVERS, SEAMAN & ASSOCIATES
ENGINEERS CINCINNATI — ARCHITECTS CHICAGO

SITE PLAN

RAMP "E" OVER
SPRING GROVE AVENUE

HAMILTON COUNTY STA. 6+20.33 to STA. 8+41.61

PRESENT TOPOGRAPHY		PROPOSED WORK			
SURVEYED	DRAWN	DESIGNED	DRAWN	CHECKED	REVISIONS
Aerial	Aerial	G.J.C.	J.C.H.	A.A.N.	

235 red

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2	OHIO		

342 / 486

HAM. 25-1.63

ESTIMATED QUANTITIES

ITEM	TOTAL	UNIT	DESCRIPTION	ABUTMENTS	PIERS	SUPER-STRUCTURE	GENERAL
E-2	420	Cu. Yds.	Unclassified excavation	285	135		
S-1	228	Cu. Yds.	Class "C" Concrete - Superstructure			228	
S-1	53	Cu. Yds.	Class "C" Concrete - Piers above footings		53		
S-1	148	Cu. Yds.	Class "E" Concrete - Pier & abutment footings	104	44		
S-1	151	Cu. Yds.	Class "E" Concrete - Abutments above footings	151			
S-3	9	Lin. Ft.	Waterproofing: Premolded sealing strip	9			
S-4	101,525	Lbs.	Reinforcing Steel	16,738	19,936	64,891	
S-7	291,650	Lbs.	Structural Steel			291,650	
S-8	291,650	Lbs.	Field painting of structural steel			291,650	
S-9	26	Sq. Ft.	1" Preformed expansion joint filler			26	
S-9	68	Lin. Ft.	6" Neoprene waterstop (dumbbell type), incl. joint sealer			68	
S-14	502	Lin. Ft.	Railing (aluminum railing and supports, concr. parapets)	69		433	
S-16	Lump	Lump Sum	First test pile				Lump
S-18	4,145	Lin. Ft.	12"ϕ Cast-in-place reinforced concrete piles	2,225	1,920		
S-29	23	Lin. Ft.	6" Std. pipe downspouts, galvanized or wrought iron, incl. specials				23
S-29	27	Lin. Ft.	8" Perf. bit. coated corrugated metal pipe, including specials				27
S-29	1	Ea.	Inlet frame & grating & 6" std. pipe,				1
S-29	76	Cu. Yds.	Porous backfill	76			
I-10	246	Sq. Yds.	Concrete slope protection				246
I-13	2,070	Sq. Ft.	4" Concrete slab				2,070
S-25	1	Ea.	Lighting Standard with 10' mast arm, including anchor bolts				1
S-25	*Lump*	*Lump Sum*	Grounding System				*Lump*
S-25	240	Lin. Ft.	3" Asbestos cement conduit with bushings & fittings				240
S-25	3	Lin. Ft.	2" Aluminum conduit with bushings & fittings				3
Special	228	Ea.	Water reducing, set retarding admixture *			228	
S-25	*1*	*Ea.*	*Pullbox, frame and cover*				*1*
S-25	1	Ea.	400 W. luminaire with 400 W. mercury vapor lamp				1
S-25	1	Ea.	Ballast for 400 W lamp - G.E.A. Series				1
S-25	265	Lin. Ft.	6000V single conductor #8AWG Direct Burial Cable (Plain)				265
S-25	265	Lin. Ft.	6000V single conductor #8AWG Direct Burial Cable (Identifiable)				265
S-25	90	Lin. Ft.	600V single conductor #12AWG luminaire wire				90

NOTE: Materials in approach slabs are not included in the above estimated quantities.

GENERAL NOTES

REFERENCE shall be made to the following:
Standard Drawing: AS-1-54 revised 12-1-54; AR-1-57 revised 12-12-60, RB-1-55 revised 2-2-59; CSB-2-56, sheets 2 & 3 of 6 revised 2-2-59.

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: *Piles shall be driven to a bearing capacity of 38 Tons for abutments & 35 Tons for piers.*

EXTRUDED NEOPRENE WATERSTOP: *The material used in the neoprene waterstop shall contain a minimum of 70% by volume of the basic neoprene polymer and shall be compounded and cured to have the following characteristics:*

Test Method:		
Fed. ZZ-R-601a	Tensile strength, lbs. per sq. inch min.	2,750
Fed. ZZ-R-601a	Elongation at break, percent min.	400
ASTM D-395-52T	Compression set, Method B, 22 hrs. at 70°C.	30% Max.
Fed. ZZ-R-601a	Water absorption, 2 days at 70°C.	10% Max.
Fed. ZZ-R-601a	Specific gravity	1.37 ± .03
ASTM D-676-49T	Shore durometer, Type A	60-70
Fed. ZZ-R-601a	Tensile strength after oxygen pressure test (48 hrs. at 70°C., 300 pounds per sq. inch) percent of tensile strength before aging.	80

RAILING: *Aluminum rail and supports, concrete parapet, reinforcing bars wholly within the conc. parapet, pref. brg. pads and sponge rubber for parapet joints shall be included in Item S-14 for payment.*

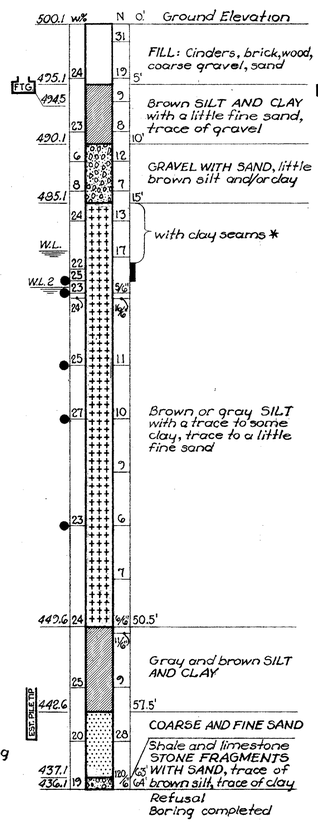
UTILITY LINES: *All labor and expense involved in relocating the affected utility lines shall be borne by the owners. The Contractor and Owners are requested to co-operate by arranging their work in such a manner that inconveniences to either will be held to a minimum.*

EXCAVATION. *Excavation quantity includes the removal of material between the surface of proposed subgrade and the bottom of footings.*

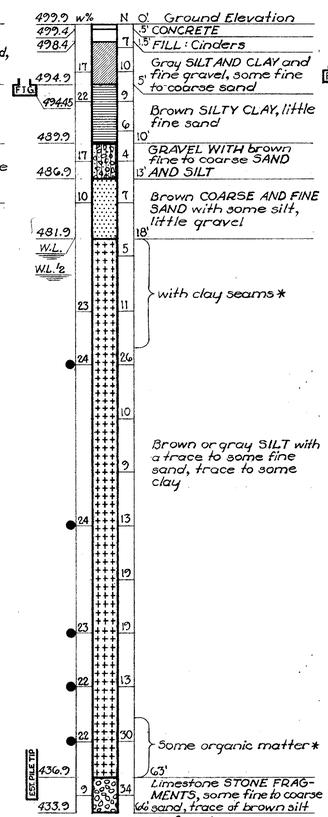
EMBANKMENTS *shall be in place and compacted to subgrade elevation for a distance of 200 ft. back of abutment 2 for a minimum period of 30 days prior to construction of abutment, unless settlement hubs indicate that any settlements have ceased. Pier shall not be started until the embankments are completed to subgrade elevations.*

* *See proposal note.*

BORING E-10-C
Sta. 6+23, 6' R.

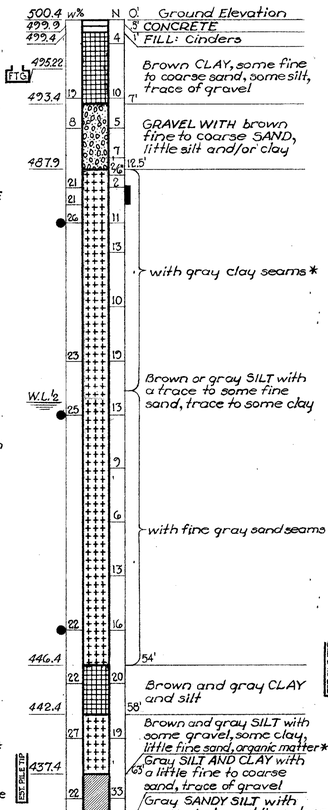


BORING E-10-D
Sta. 6+62, 18' L.

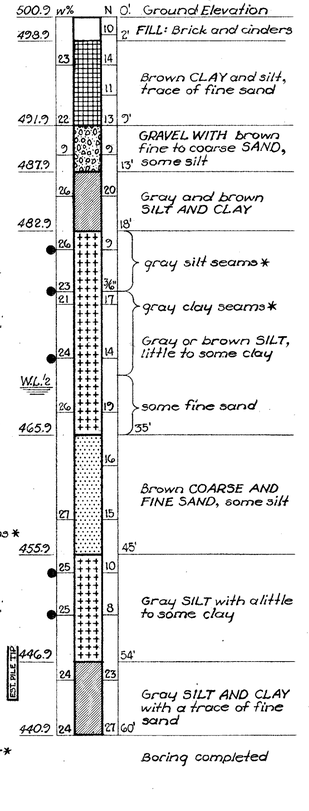


BORING E-10-E
Sta. 7+65, 16' L.

FTG 508.48



BORING E-10-F
Sta. 8+32, 3' L.



BORING NOTES

W.L.- *Water Level reading - immediate*
W.L.x- *Water Level reading - x days after completion of boring.*
w%- *Indicates moisture content of sample by weight in left column.*
● - *Moisture content equal to or greater than liquid limit minus 3%.*
N - *Indicates number of blows required to drive 2" O.D. split spoon the last 12" of an 18" sample run using 140 lb. weight falling 30 inches, unless shown otherwise, in right column.*
▮ - *3" O.D. Shelby Tube sample taken at elevation of symbol.*
* - *Denotes unusual condition. Description of material is based on laboratory test data and visual examination. Representative samples only were tested.*
Borings were taken between July 21 and July 25, 1960.
For location of borings, see Sh. 34.

Foundation borings and laboratory testing by The H.C. Nutting Co. - Cincinnati, Ohio

VOGT, IVERS, SEAMAN & ASSOCIATES
ENGINEERS CINCINNATI ARCHITECTS CHICAGO

ESTIMATED QUANTITIES, BORINGS & GENERAL NOTES

RAMP "E" OVER
SPRING GROVE AVENUE

HAMILTON COUNTY STA. 6+20.33 to STA. 8+41.61

DESIGNED	DRAWN	TRACED	CHECKED	REVIEWED	DATE	REVISED
~	J.C.H.	~	C.A.W.	U.A.D.	2-3-61	

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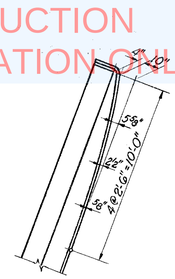
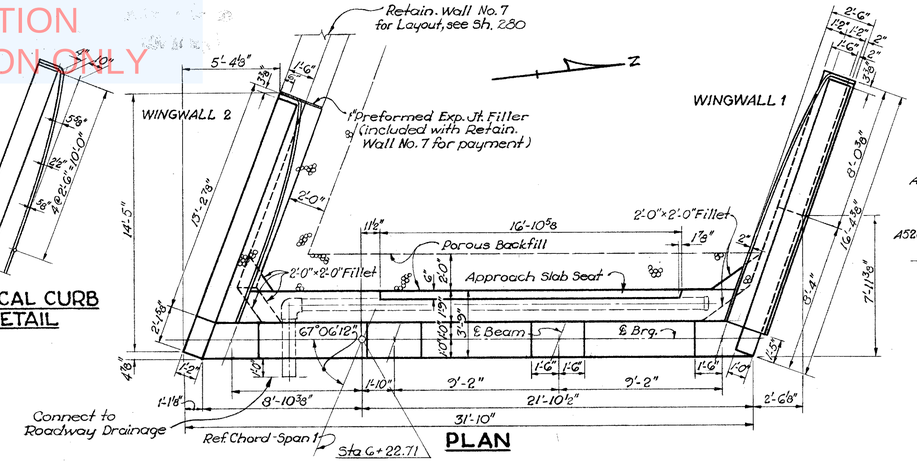
2	OHIO		

343 / 486

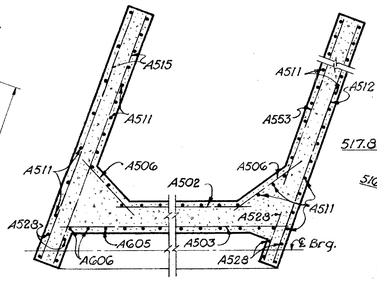
HAM-25-1.63



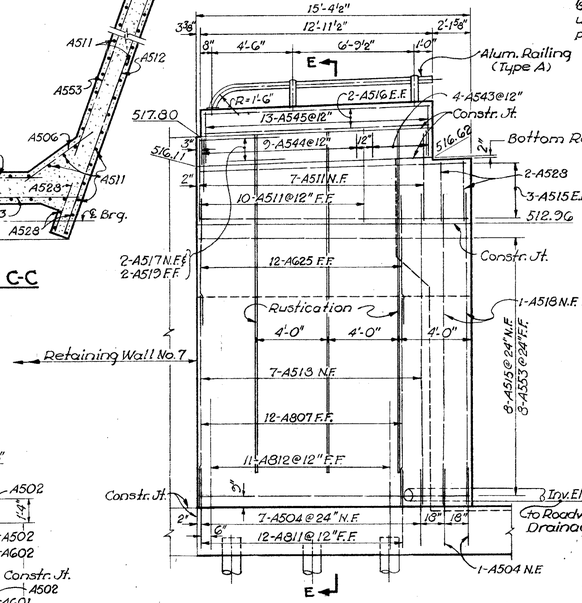
TYPICAL CURB DETAIL



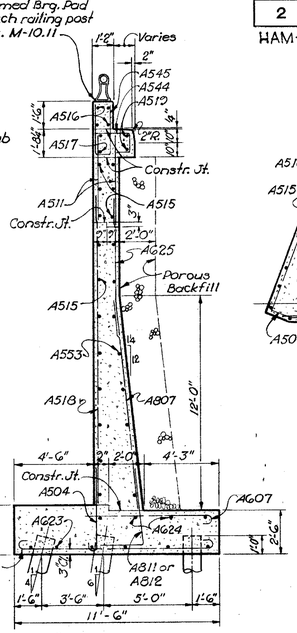
PLAN



SECTION C-C



ELEVATION-WINGWALL 2



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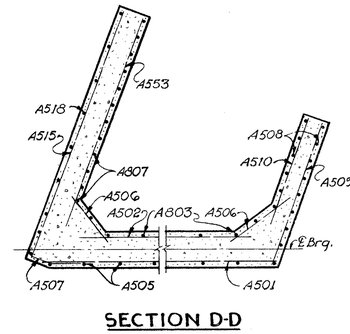

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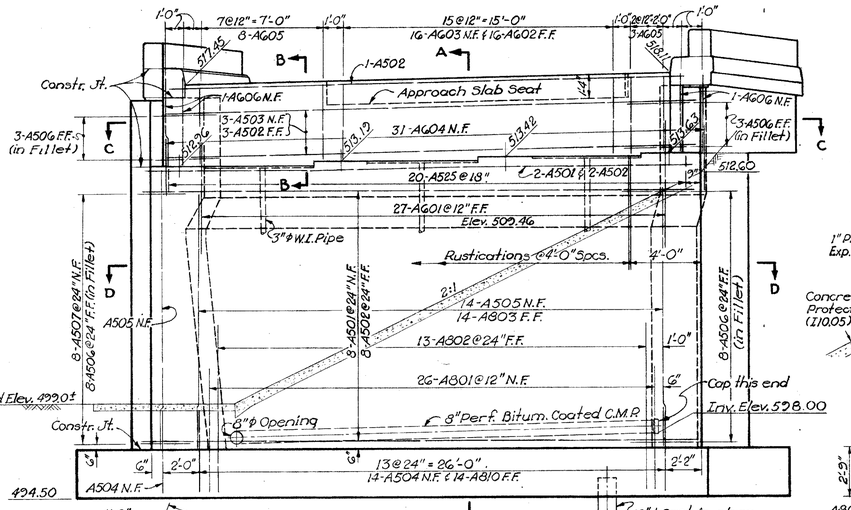
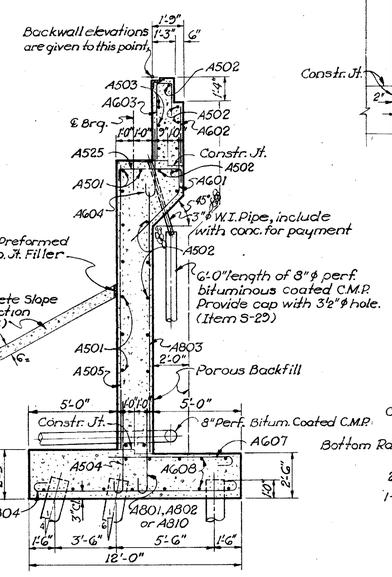
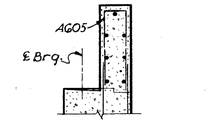


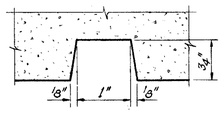
A
ELEVATION



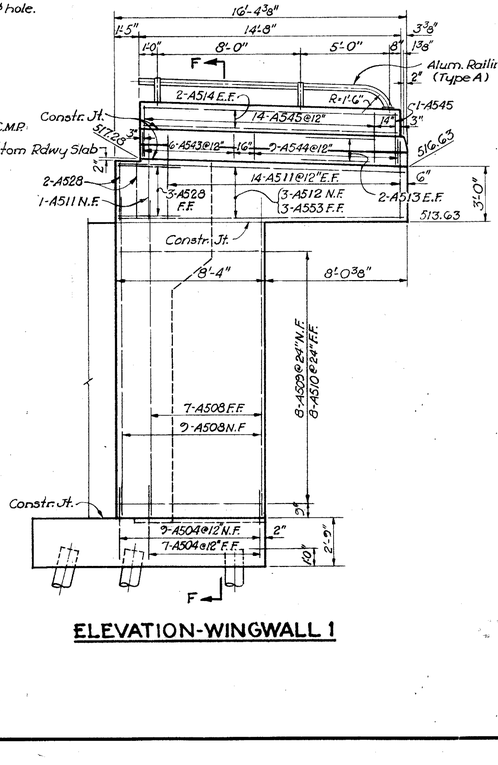
SECTION A-A



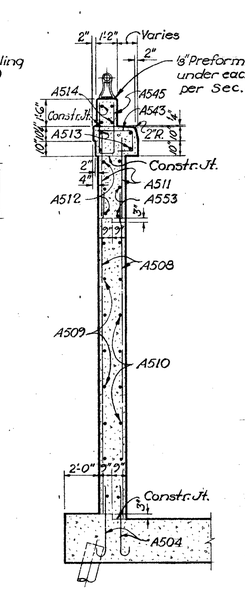
SECTION B-B



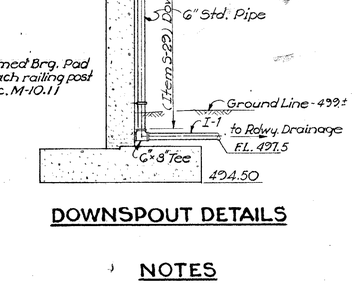
RUSTICATION DETAIL
Extend to 1'-0" below finished ground line.



ELEVATION-WINGWALL 1



SECTION F-F



DOWNSPOUT DETAILS

NOTES

1. Porous Backfill 2 ft. thick, full length of the abutment and Wingwall 2, shall extend up to the underside of the approach slab and shoulders.
2. Designations used are as follows:
   N.F. = Near Face
   F.F. = Far Face
   E.F. = Each Face
3. For Railing details, see Std. Dwg. AR-1-57. Aluminum railing tubes to be continuous over at least two post spaces.
4. For location of Drain Inlet, see Sheet 346
5. Procedure: Before the backwall is placed, the embankment shall be placed & 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 ft. back of the abutment.

VOGT, IVERS, SEAMAN & ASSOCIATES
ENGINEERS CINCINNATI — ARCHITECTS CHICAGO

ABUTMENT 1

RAMP "E" OVER SPRING GROVE AVENUE

HAMILTON COUNTY STA. 6+20.33 to STA. 8+41.61

DESIGNED	DRAWN	TRACED	CHECKED	REVIEWED	DATE	REVISED
A.A.N.	J.C.H.	~	E.P.A.	J.A.D.	2-3-61	

NOT FOR CONSTRUCTION INFORMATION ONLY

FED. RD. DIVISION	STATE	PROJECT	
2	OHIO		

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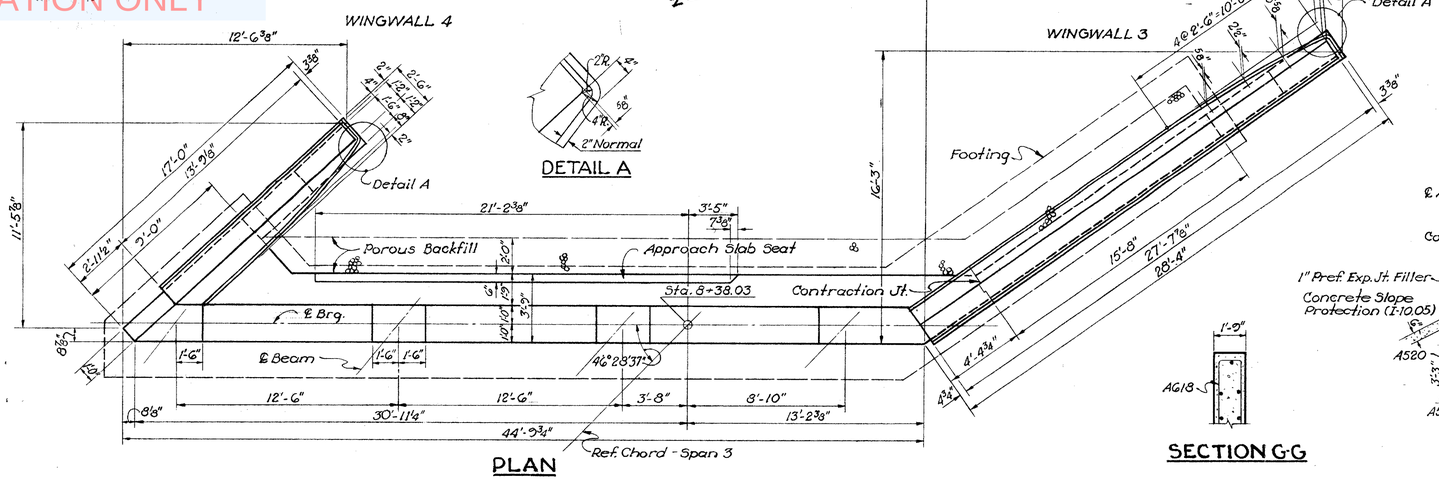

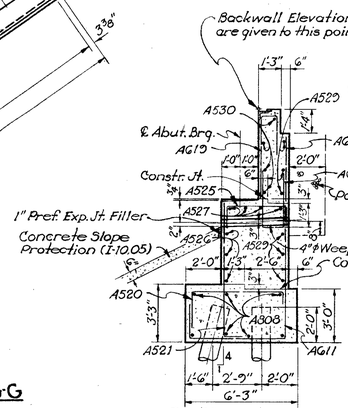

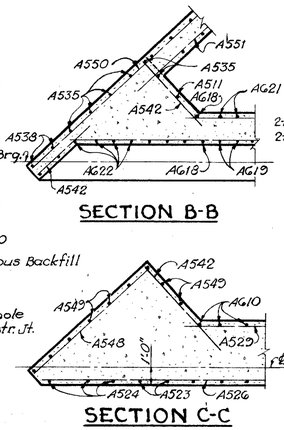

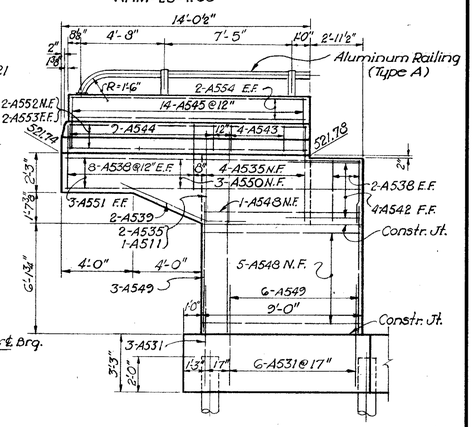

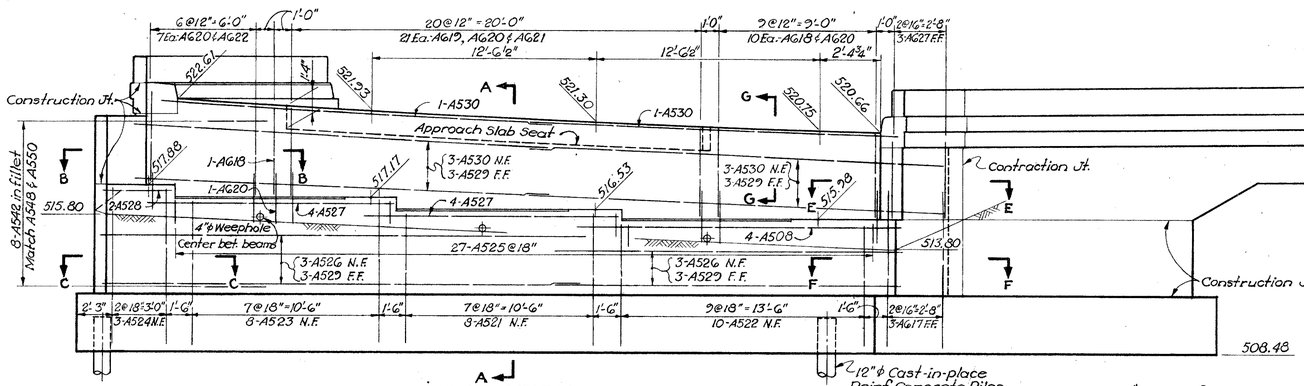

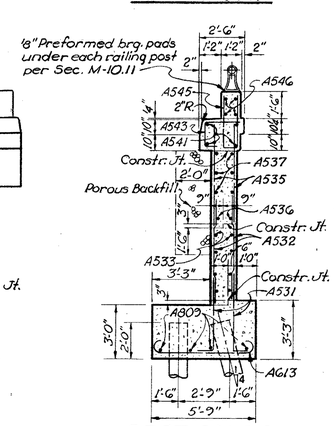

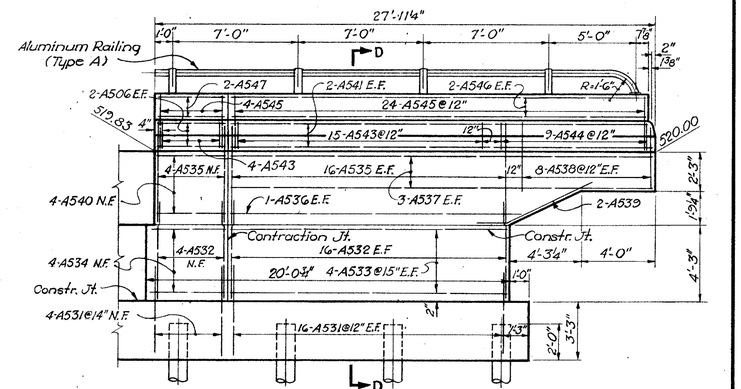

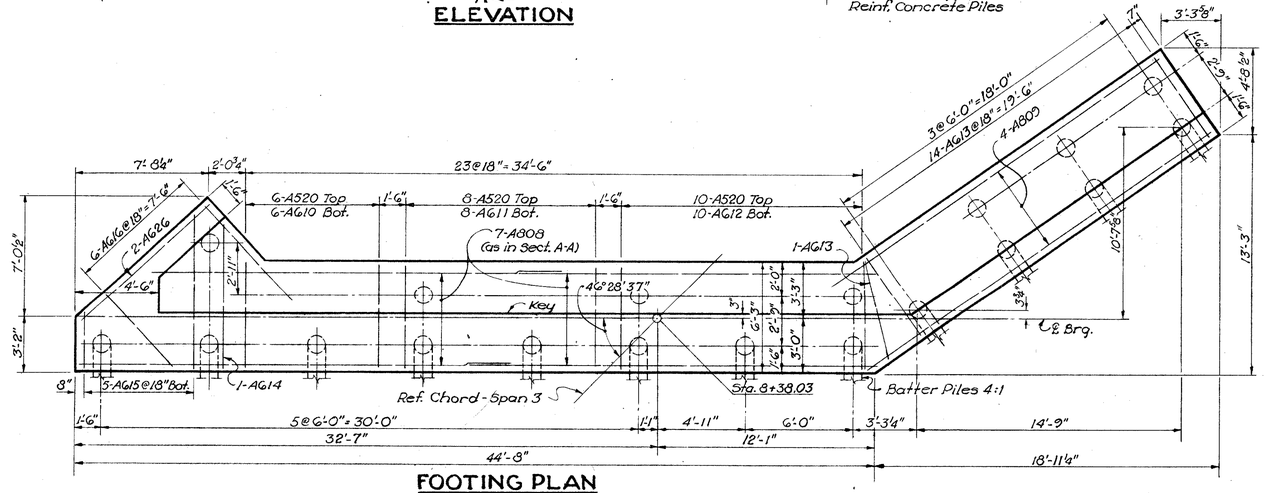

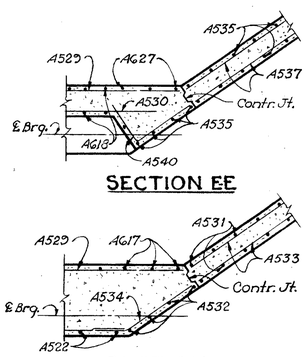

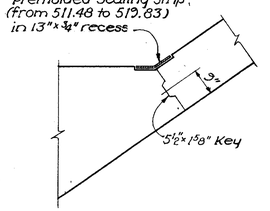

NOTES

1. Designations used are as follows:
   N.F. = Near Face
   F.F. = Far Face
   E.F. = Each Face
2. Porous Backfill 2 ft. thick, full length of the abutment and Wingwall 3, shall extend up to the underside of the approach slab and/or shoulders.
3. For railing details, see Std. Dwg. AR-1-57. Aluminum railing tubes shall be continuous over at least two post spaces.

5. For other notes, see Sheet 343.

VOGT, IVERS, SEAMAN & ASSOCIATES
ENGINEERS CINCINNATI — ARCHITECTS CHICAGO

ABUTMENT 2

RAMP "E" OVER SPRING GROVE AVENUE

HAMILTON COUNTY STA. 6+20.33 to STA. 8+41.61

DESIGNED	DRAWN	TRACED	CHECKED	REVIEWED	DATE	REVISED
A.A.N.	J.C.H.	~	E.P.A.	J.A.D.	9-3-61	

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FED. RD. DIVISION	STATE	PROJECT	
2	OHIO		

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486

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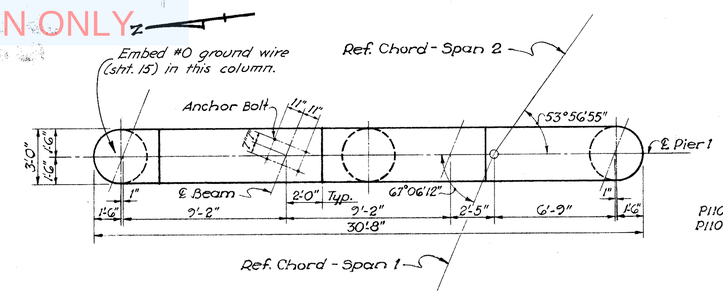
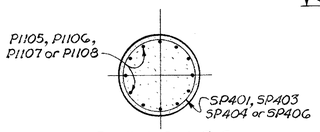
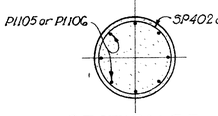


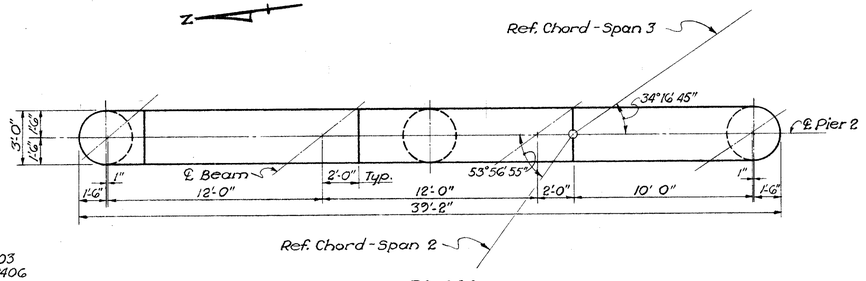
PLAN
Pier 1



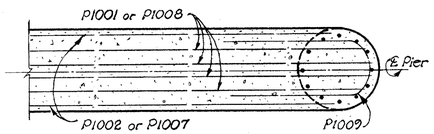
SECTION G-G



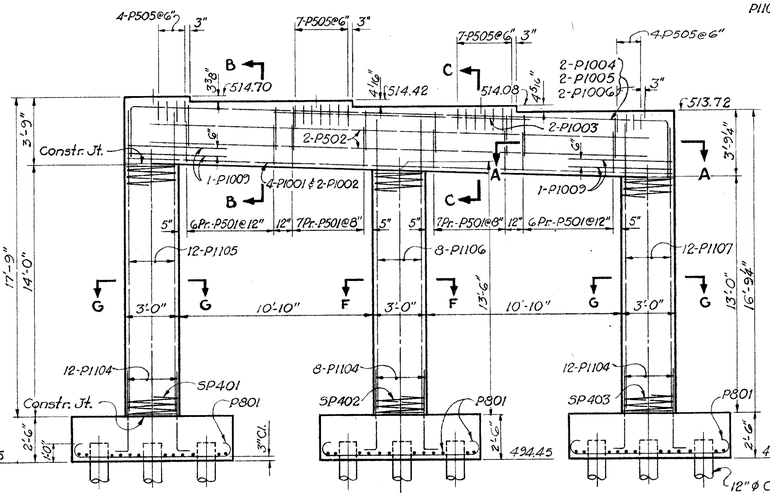
SECTION F-F



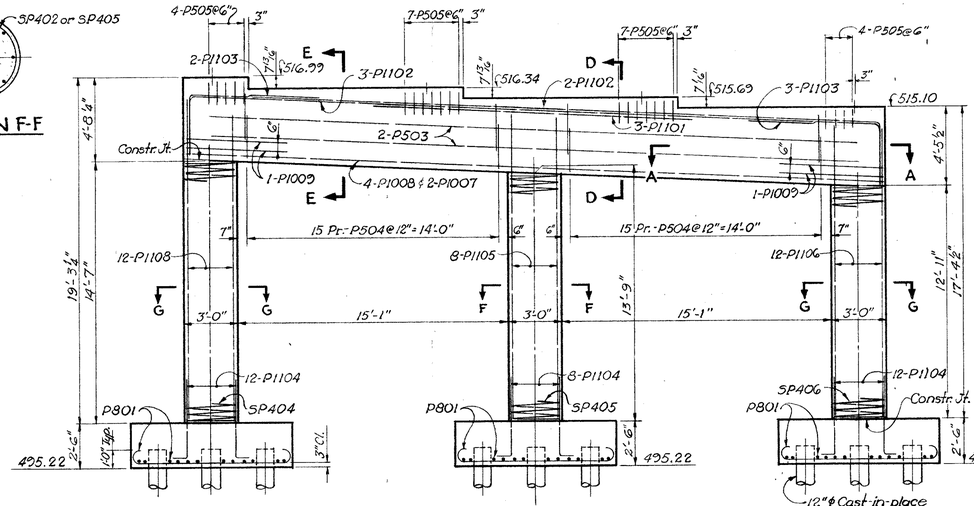
PLAN
Pier 2



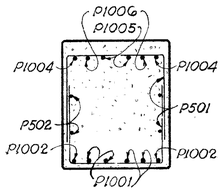
SECTION A-A
Piers 1 & 2



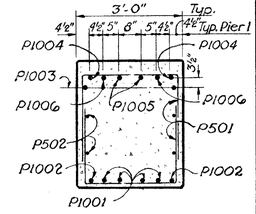
ELEVATION
Pier 1



ELEVATION
Pier 2



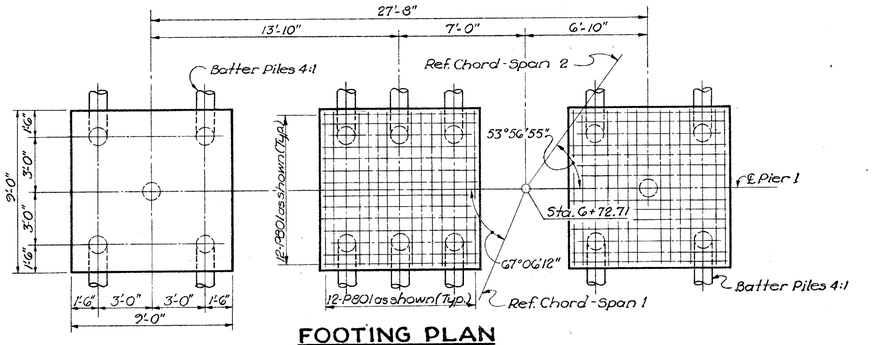
SECTION B-B



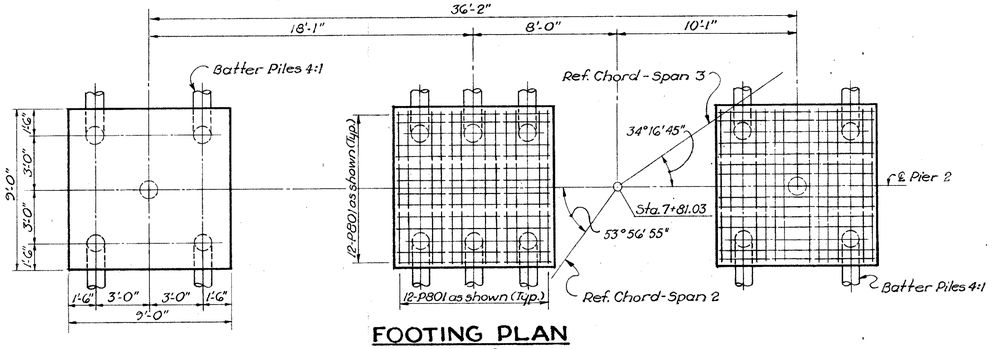
SECTION C-C

SECTION E-E

SECTION D-D



FOOTING PLAN
Pier 1



FOOTING PLAN
Pier 2

NOTES:

1. For anchor bolt details, see Std. Dwg RB-1-55.
2. Place reinforcing steel in cap ℄ column so as to avoid interference with drilling of anchor bolt holes at pier 1.

VOGT, IVERS, SEAMAN & ASSOCIATES
ENGINEERS — CINCINNATI
ARCHITECTS — CHICAGO

PIERS 1 & 2

RAMP "E" OVER
SPRING GROVE AVENUE

HAMILTON COUNTY STA. 6+20.33 to STA. 8+41.61

DESIGNED	DRAWN	TRACED	CHECKED	REVIEWED	DATE	REVISED
A.A.N.	J.C.H.		E.P.A.	J.A.D.	2-3-61	

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FED. RD. DIVISION	STATE	PROJECT	
2	OHIO		

HAM-25-1.63

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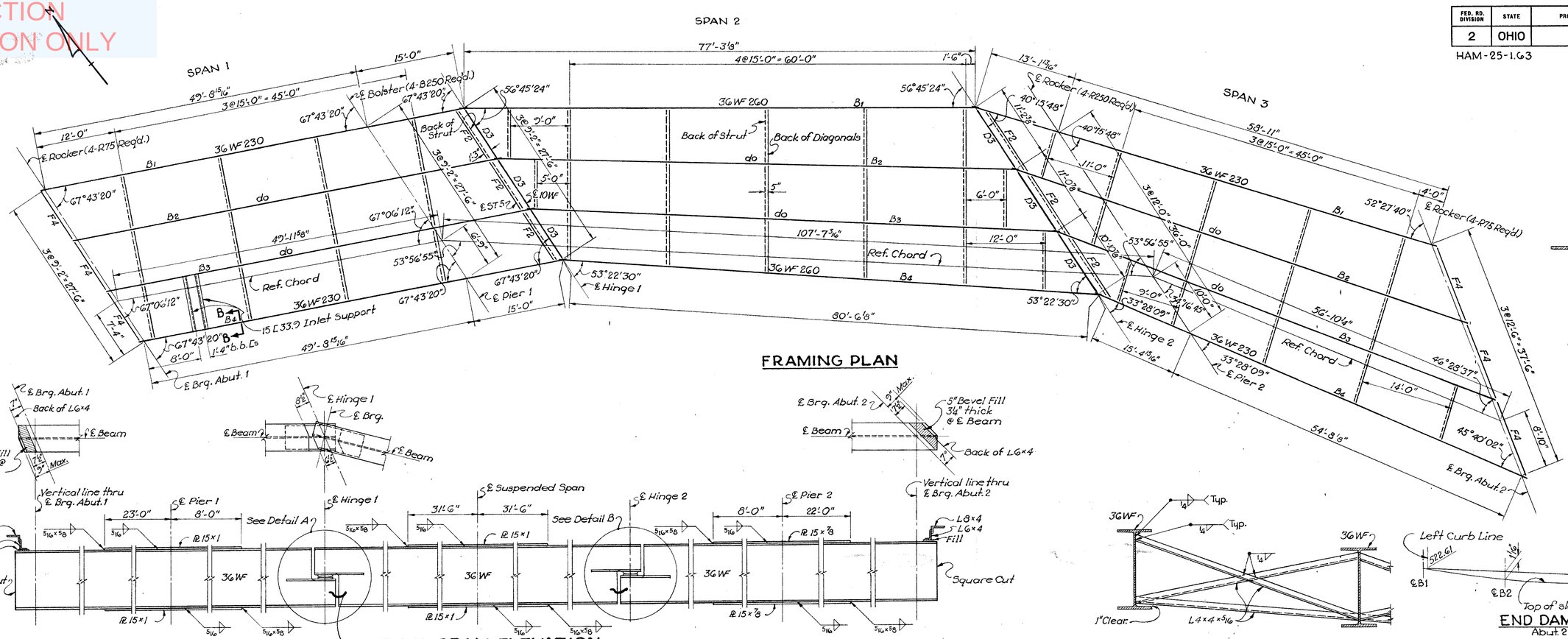
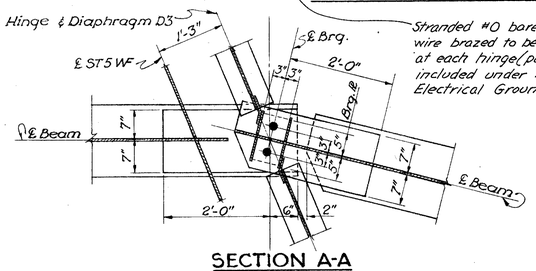
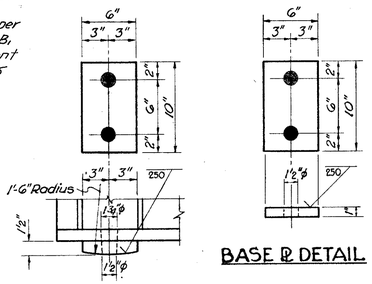


FRAMING PLAN

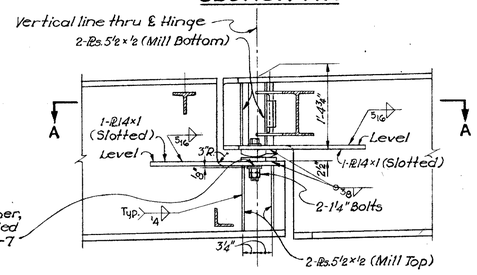
TYPICAL BEAM ELEVATION



SECTION A-A



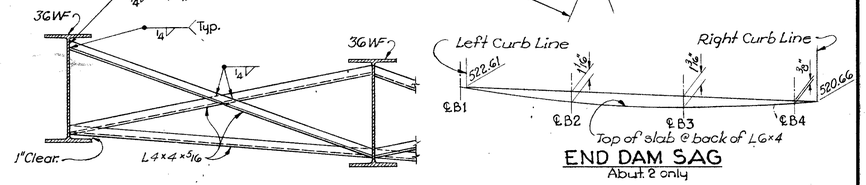
SOLE ℄ DETAIL



DETAIL A

Detail B-Opposite Hand

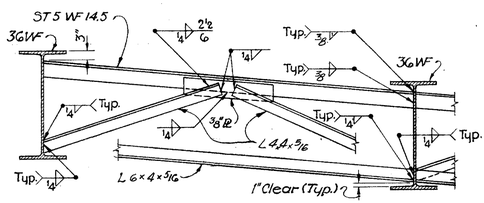
DEFLECTIONS & CAMBER - inches					
	SPAN 1	SPAN 2			SPAN 3
	Mid-point	Hinge 1	Mid-point	Hinge 2	Mid-point
Deflection due to weight of steel	-1/16	1/8	9/16	1/8	-1/16
Deflection due to remaining D.L.	-3/16	5/16	15/16	5/16	-3/16
Camber due to vert. curve & superelev.	0	0	0	0	0
Sum of deflections	-1/4	7/16	1 7/8	7/16	-1/4
Required camber	0	0	1 7/16	0	0



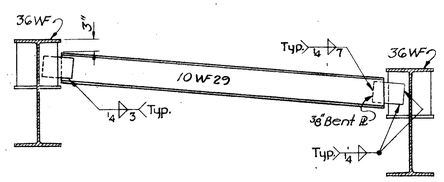
END DAM SAG

Abut. 2 only

CROSSFRAME F1



CROSSFRAME F2



DIAPHRAGM D3

NOTES

2. For end dam details at Abut. 1, see Misc. Structural Details, Sheet 412; for end dam details at Abut. 2, see Std. Dwg. CSB-2-56, Sheets 2 & 3.
3. For inlet frame and grating details, see Misc. Structural Details, Sheet 412.
4. Welding of structural steel shall be Class "A" unless otherwise noted.
5. Welds shown as field welds may be made in the shop.
6. All crossframes are Type F1 except as shown.
7. Crossframes Type F4 are standard end crossframes; for details, see Std. Dwg. CSB-2-56, Sh. 2.
8. For rocker and bolster details, see Std. Dwg. RB-1-55.
9. For Layout of Bridge Reference Chords, see Sheet 341.

VOGT, IVERS, SEAMAN & ASSOCIATES
ENGINEERS CINCINNATI — ARCHITECTS CHICAGO

FRAMING PLAN & DETAILS

RAMP "E" OVER
SPRING GROVE AVENUE

HAMILTON COUNTY STA. 6+20.33 to STA. 8+41.61

DESIGNED	DRAWN	TRACED	CHECKED	REVIEWED	DATE	REVISED
A.A.N.	J.C.H.		E.P.A.	J.A.D.	2-7-61	

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FED. RD. DIVISION	STATE	PROJECT	
2	OHIO		

HAM-25-1.63

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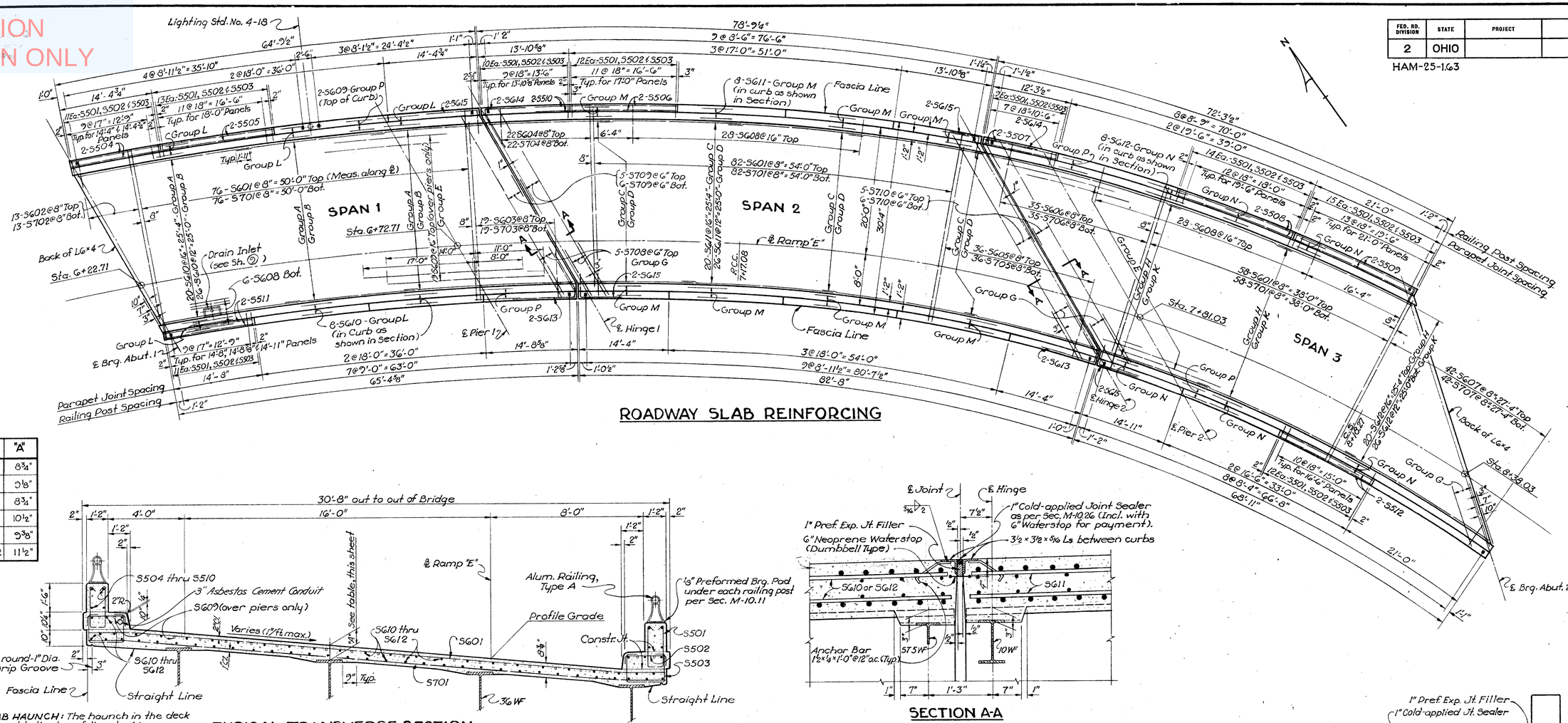
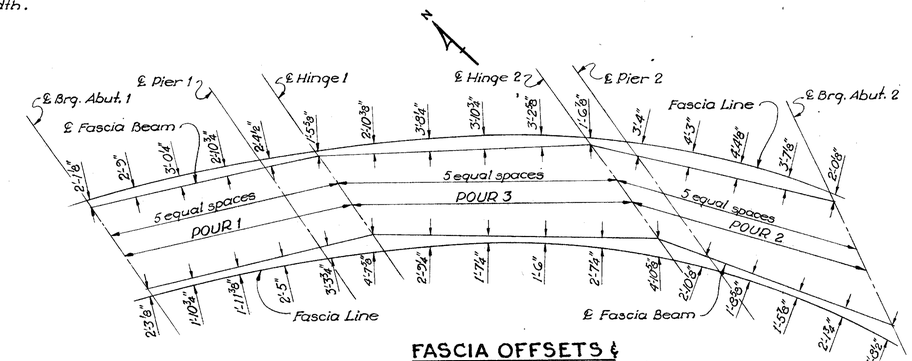
486



	"A"
Abutment 1	8'3¼"
Pier 1	9'1⅛"
Hinge 1	8'3¼"
Hinge 2	10'1½"
Pier 2	9'3⅜"
Abutment 2	11'1½"

TYPICAL TRANSVERSE SECTION

DECK SLAB HAUNCH: The haunch in the deck slab adjacent to the top of the steel beam, which is shown as 9" wide, may vary from this dimension with a minimum of 6" & a maximum of 12". Maximum slope of haunch shall be 1:4; payment for deck slab concrete shall be based on the 9" width.



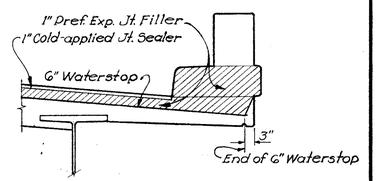
FASCIA OFFSETS & ORDER OF POURING DECK SLAB

SECTION A-A

PAVEMENT ELEVATIONS			
STATION	PROFILE GRADE	RIGHT CURB	LEFT CURB
6 + 10	517.20	——	517.87
20	517.58	——	518.32
30	517.95	517.66	518.75
40	518.30	517.99	519.17
50	518.64	518.30	519.57
60	518.95	518.58	519.94
70	519.23	518.85	520.29
80	519.50	519.09	520.62
90	519.74	519.31	520.93
7 + 00	519.96	519.50	521.21
10	520.15	519.68	521.47
20	520.33	519.83	521.71
30	520.48	519.96	521.92
40	520.61	520.06	522.11
50	520.71	520.14	522.28
60	520.80	520.23	522.37
70	520.86	520.29	522.33
80	520.90	520.33	522.47
90	520.94	520.37	522.51
8 + 00	520.97	520.40	522.54
10	521.01	520.44	522.58
20	521.05	520.48	522.61
30	521.09	520.55	——
40	521.13	520.61	——

NOTES

1. Slab thickness includes 1" for monolithic wearing surface.
2. Railing post spacing and parapet joint spacing are measured along inside face of parapet.
3. For drain inlet details, see Misc. Structural Details, Sheet 412.
4. For railing and parapet joint details, see Std. Dwg. AR-1-57.
5. Cut transverse reinforcing to clear drain inlet.
6. For drain inlet location, see Sheet 346.
7. For downspout detail, see Sheet 343.
8. The placing of concrete shall progress upgrade in the order of pouring shown.
9. For lighting details, see sheet 259



LIMITS OF JOINT MATERIAL AT HINGES

VOGT, IVERS, SEAMAN & ASSOCIATES
ENGINEERS — CINCINNATI
ARCHITECTS — CHICAGO

SUPERSTRUCTURE ROADWAY SLAB

RAMP "E" OVER
SPRING GROVE AVENUE

HAMILTON COUNTY STA. 6+20.33 to STA. 8+41.61

DESIGNED	DRAWN	TRACED	CHECKED	REVIEWED	DATE	REVISED
A.A.N.	J.C.H.	~	E.P.A.	J.A.D.	2-7-61	

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FED. RD. DIVISION	STATE	PROJECT		
2	OHIO			

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HAM. 25-1.63

ROADWAY SLAB

MARK	LENGTH	SHAPE	NO.	WEIGHT
S501	5'-9"	Bt.	315	1,890
S502	3'-0"	Bt.	315	986
S503	5'-3"	Bt.	315	1,725
* S504	14'-1"	Str.	16	—
* S505	17'-8"	Str.	28	—
* S506	16'-8"	Str.	12	—
* S507	11'-11"	Str.	4	—
* S508	19'-2"	Str.	8	—
* S509	20'-8"	Str.	8	—
* S510	13'-6"	Str.	8	—
* S511	14'-4"	Str.	12	—
* S512	16'-2"	Str.	8	—
S601	30'-0"	Str.	216	9,733
S602	Varies 3'-0" to 27'-0" Incr. 2'-0"	Str.	1 Series of 13	293
S603	Varies 4'-0" to 28'-0" Incr. 1'-4"	Str.	1 Series of 19	457
S604	Varies 4'-0" to 28'-6" Incr. 1'-2"	Str.	1 Series of 22	537
S605	Varies 3'-0" to 29'-3" Incr. 9"	Str.	1 Series of 36	872
S606	Varies 3'-0" to 28'-6" Incr. 9"	Str.	1 Series of 35	828
S607	Varies 3'-0" to 28'-7½" Incr. 7½"	Str.	1 Series of 42	998
S608	6'-0"	Str.	62	559
S609	25'-0"	Str.	46	1,727
S610	23'-2"	Str.	186	6,472
S611	22'-1"	Str.	248	8,226
S612	25'-4"	Str.	186	7,077
S613	13'-8"	Bt.	4	82
S614	12'-8"	Bt.	4	76
S615	8'-4"	Bt.	8	100
S701	30'-0"	Str.	216	13,245
S702	Varies 3'-0" to 27'-0" Incr. 2'-0"	Str.	1 Series of 13	399
S703	Varies 4'-0" to 28'-0" Incr. 1'-4"	Str.	1 Series of 19	621
S704	Varies 4'-0" to 28'-6" Incr. 1'-2"	Str.	1 Series of 22	731
S705	Varies 3'-0" to 29'-3" Incr. 9"	Str.	1 Series of 36	1,187
S706	Varies 3'-0" to 28'-6" Incr. 9"	Str.	1 Series of 35	1,127
S707	Varies 3'-0" to 28'-7½" Incr. 7½"	Str.	1 Series of 42	1,357
S708	9'-0"	Str.	25	460
S709	31'-6"	Str.	22	1,416
S710	39'-0"	Str.	22	1,754

PIERS

MARK	LENGTH	SHAPE	NO.	WEIGHT
P501	7'-3"	Bt.	52	393
P502	27'-6"	Str.	4	115
P503	36'-0"	Str.	4	150
P504	7'-7"	Bt.	60	475
P505	5'-5"	Bt.	44	249
P801	10'-10"	Bt.	144	4,165
P1001	29'-2"	Str.	4	502
P1002	27'-6"	Str.	2	237
P1003	13'-10"	Str.	2	119
P1004	34'-0"	Bt.	2	293
P1005	35'-4"	Bt.	2	304
P1006	34'-6"	Bt.	2	297
P1007	36'-0"	Str.	2	310
P1008	37'-6"	Str.	4	645
P1009	12'-6"	Bt.	8	430
P1101	18'-1"	Str.	3	288
P1102	34'-0"	Bt.	5	903
P1103	12'-7"	Bt.	5	334
P1104	6'-11"	Bt.	64	2,352
P1105	17'-2"	Str.	20	1,824
P1106	16'-7"	Str.	20	1,762
P1107	16'-2"	Str.	12	1,031
P1108	18'-2"	Str.	12	1,158

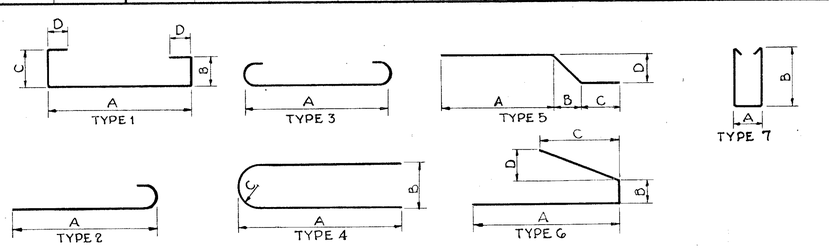
ABUTMENTS

MARK	LENGTH	SHAPE	NO.	WEIGHT
A501	30'-6"	Str.	10	318
A502	28'-0"	Str.	14	409
A503	31'-4"	Str.	3	98
A504	4'-8"	Bt.	40	195
A505	15'-6"	Str.	15	242
A506	4'-2"	Str.	30	130
A507	3'-3"	Bt.	8	27
A508	18'-0"	Str.	20	375
A509	8'-0"	Str.	8	67
A510	5'-6"	Str.	8	46
A511	4'-4"	Str.	47	212
A512	16'-0"	Str.	3	50
A513	14'-6"	Str.	4	60
* A514	14'-4"	Str.	4	—
A515	15'-0"	Str.	14	219
* A516	12'-7"	Str.	4	—
A517	12'-10"	Str.	2	27
A518	17'-6"	Str.	9	164
A519	12'-5"	Str.	2	26
A520	8'-1"	Bt.	24	202
A521	8'-1"	Bt.	8	67
A522	7'-7"	Bt.	10	79
A523	8'-8"	Bt.	8	72
A524	9'-6"	Bt.	3	30
A525	5'-2"	Bt.	47	253
A526	23'-0"	Str.	6	144
A527	14'-0"	Str.	8	117
A528	3'-4"	Str.	13	45
A529	21'-0"	Str.	12	263
A530	22'-0"	Str.	8	184
A531	5'-1"	Bt.	45	239
A532	6'-0"	Str.	36	225
A533	15'-5"	Str.	8	129
A534	5'-9"	Bt.	4	24
A535	5'-3"	Str.	42	230
A536	16'-4"	Str.	2	34
A537	23'-7"	Str.	6	148
A538	3'-6"	Str.	36	131
A539	7'-2"	Bt.	4	30
A540	6'-0"	Bt.	4	25
A541	23'-3"	Str.	4	97
A542	5'-0"	Str.	12	63
A543	4'-0"	Bt.	23	96
A544	Varies 3'-2" to 3'-10" Incr. 1"	Bt.	4 Series of 9	131
A545	6'-3"	Bt.	70	456
* A546	23'-4"	Str.	4	—
* A547	4'-1"	Str.	4	—
A548	8'-9"	Str.	6	55
A549	7'-9"	Str.	9	73
A550	16'-8"	Str.	3	52
A551	9'-8"	Str.	3	30
A552	13'-6"	Str.	2	28
A553	12'-3"	Str.	13	166
* A554	13'-5"	Str.	4	—

MARK	LENGTH	SHAPE	NO.	WEIGHT
A601	7'-0"	Bt.	27	284
A602	3'-0"	Str.	16	72
A603	6'-10"	Bt.	16	164
A604	4'-8"	Bt.	31	217
A605	5'-7"	Bt.	11	158
A606	5'-0"	Str.	4	30
A607	7'-8"	Bt.	44	507
A608	34'-9"	Str.	12	626
A609	5'-10"	Bt.	5	44
A610	15'-7"	Bt.	6	140
A611	15'-0"	Bt.	8	180
A612	14'-5"	Bt.	10	217
A613	6'-9"	Bt.	15	152
A614	9'-8"	Bt.	1	15
A615	Varies 5'-11" to 11'-5" Incr. 16½"	Bt.	1 Series of 5	65
A616	5'-6"	Str.	6	50
A617	9'-8"	Bt.	3	44
A618	10'-3"	Bt.	11	169
A619	7'-3"	Bt.	21	229
A620	10'-1"	Bt.	39	591
A621	3'-6"	Str.	21	110
A622	4'-11"	Str.	7	52
A623	Varies 9'-10" to 14'-0" Incr. 10"	Str.	1 Series of 6	107
A624	Varies 9'-10" to 11'-0" Incr. 8"	Str.	1 Series of 4	63
A625	8'-0"	Str.	12	144
A626	10'-2"	Str.	2	31
A627	4'-6"	Str.	3	20
A801	8'-2"	Bt.	26	567
A802	10'-8"	Bt.	13	370
A803	14'-0"	Str.	14	523
A804	13'-10"	Bt.	42	1,550
A805	13'-1"	Bt.	5	175
A806	13'-4"	Bt.	10	356
A807	12'-0"	Str.	12	384
A808	23'-7"	Str.	14	882
A809	22'-9"	Str.	4	243
A810	5'-10"	Bt.	14	218
A811	5'-10"	Bt.	12	187
A812	9'-6"	Bt.	11	279

SPIRALS

MARK	LENGTH	SHAPE	NO.	WEIGHT	CORE DIA. % SPIRAL	PITCH	NO. TURNS
SP401	14'-0"	Bt.	1	264	32"	4½"	40
SP402	13'-6"	Bt.	1	255	32"	4½"	39
SP403	13'-0"	Bt.	1	247	32"	4½"	38
SP404	14'-7"	Bt.	1	275	32"	4½"	42
SP405	13'-9"	Bt.	1	260	32"	4½"	40
SP406	12'-11"	Bt.	1	245	32"	4½"	38



BENT BARS

MARK	TYPE	A	B	C	D
S501	7	10"	2'-2"	—	—
S502	1	2'-0"	7½"	7½"	—
S503	1	1'-10"	1'-4"	1'-4"	7½"
S613	6	6'-0"	2'-0"	3'-0"	5'-0"
S614	6	6'-0"	1'-0"	3'-0"	5'-0"
S615	1	6'-0"	1'-6"	—	—
P501	1	2'-8"	2'-5"	2'-5"	—
P504	1	2'-8"	2'-7"	2'-7"	—
P505	1	2'-8"	1'-6"	1'-6"	—
P801	3	8'-8"	—	—	—
P1004	1	28'-8"	3'-0"	3'-0"	—
P1005	1	30'-0"	3'-0"	3'-0"	—
P1006	1	29'-2"	3'-0"	3'-0"	—
P1009	4	5'-8"	2'-0"	1'-0"	—
P1102	1	31'-4"	3'-0"	—	—
P1103	1	9'-11"	3'-0"	—	—
P1104	1	5'-9"	1'-6"	—	—
A504	2	4'-1"	—	—	—
A507	5	2'-0"	1'-2"	—	6"
A520	1	5'-4"	2'-0"	1'-0"	—
A521	1	7'-7"	7½"	—	—
A522	1	7'-1"	7½"	—	—
A523	1	8'-2"	7½"	—	—
A524	1	9'-0"	7½"	—	—
A525	1	3'-5"	1'-0"	1'-0"	—
A531	1	4'-7"	7½"	—	—
A534	5	4'-0"	1'-6"	—	1'-0"
A539	5	5'-6"	1'-6"	—	9"
A540	1	3'-8"	2'-6"	—	—
A543	1	1'-4"	2'-0"	11"	—
A544	1	1'-4"	1'-2" to 1'-10"	11"	—
A545	1	10"	2'-10"	2'-10"	—
A601	5	3'-6"	2'-6"	—	2'-6"
A603	1	11"	4'-3"	2'-0"	—
A604	2	4'-0"	—	—	—
A605	1	1'-5"	4'-3"	4'-3"	—
A607	2	7'-0"	—	—	—
A609	2	5'-2"	—	—	—
A610	1	5'-5"	2'-6"	8'-0"	—
A611	1	5'-5"	2'-6"	7'-5"	—
A612	1	5'-5"	2'-6"	6'-10"	—
A613	3	5'-5"	—	—	—
A614	1	7'-0"	2'-10"	—	—
A615	1	3'-4" to 8'-9"	2'-10"	—	—
A617	2	9'-0"	—	—	—
A618	1	1'-5"	4'-7"	4'-7"	—
A619	1	11"	4'-8"	2'-0"	—
A620	1	1'-5"	4'-6"	4'-6"	—
A625	5	6'-0"	2'-0"	—	2½"
A801	2	7'-1"	—	—	—
A802	2	9'-7"	—	—	—
A804	3	11'-8"	—	—	—
A805	2	12'-0"	—	—	—
A806	3	11'-2"	—	—	—
A810	2	4'-9"	—	—	—
A811	6	4'-9"	—	2"	1'-4"
A812	6	8'-5"	—	2"	1'-4"

REPLACEMENT BARS

MARK	NO.	LENGTH	SHAPE
RE4	1	5'-3"	Bt.
RE5	1	5'-7"	Str.
RE6	3	5'-11"	Str.
RE7	2	6'-3"	Str.
RE8	1	6'-6"	Str.
RE10	1	7'-3"	Str.
RE11	1	7'-7"	Str.

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 5402 need not be furnished and replacement bars will not be necessary.

SPIRAL REINFORCING BARS: 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 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 5-4. 1/2" 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 linear foot 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 linear foot, will be paid for as reinforcing steel and is included in the tabulated quantity of spiral bars.

NOTES

1. *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.*
2. *Bars marked with single asterisks to be included for payment under Item 5-14 Railing.*
3. *All dimensions are out to out of bar.*
4. *The "Length" of bent bars is measured along the centerline.*

VOGT, IVERS, SEAMAN & ASSOCIATES
ENGINEERS CINCINNATI — ARCHITECTS CHICAGO

REINFORCING STEEL LIST

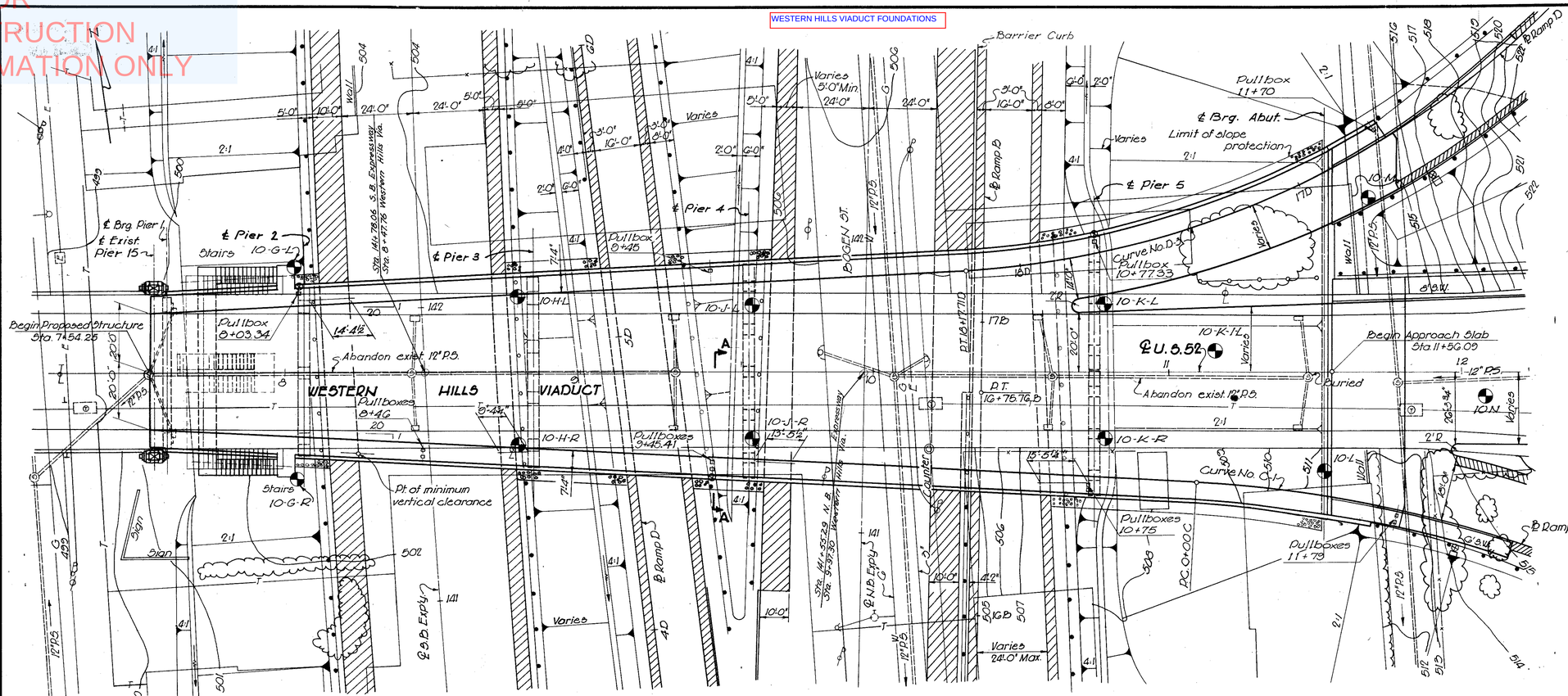
RAMP "E" OVER
SPRING GROVE AVENUE

HAMILTON COUNTY STA. 6+20.33 to STA. 8+41.61

DESIGNED	DRAWN	TRACED	CHECKED	REVIEWED	DATE	REVISED
~	J.C.H.	~	A.A.N.	J.A.D.	2-7-61	

NOT FOR CONSTRUCTION INFORMATION ONLY

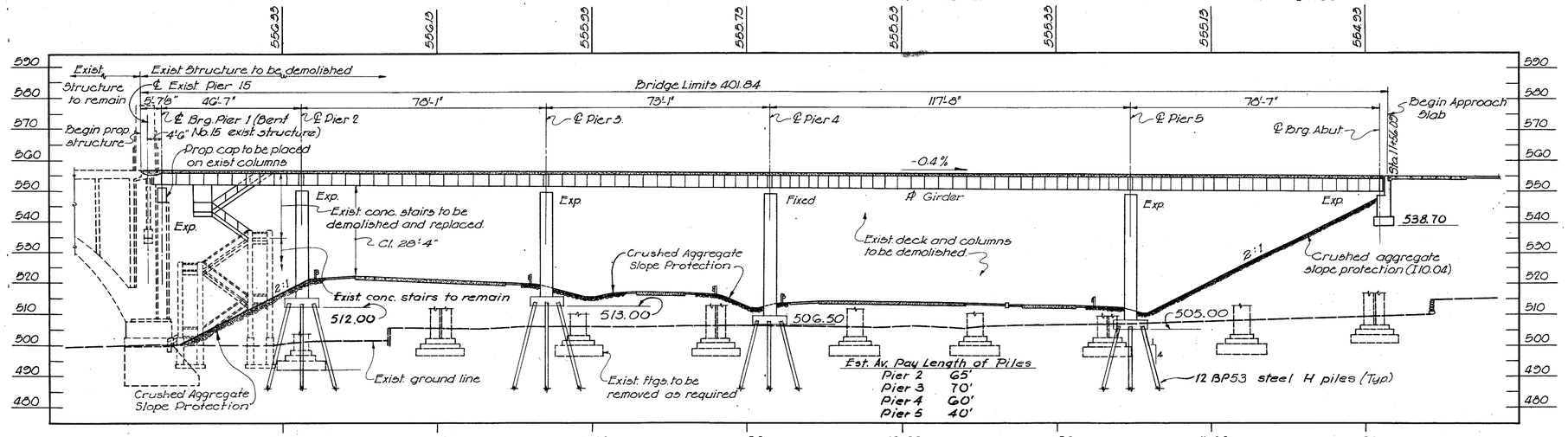
WESTERN HILLS VIADUCT FOUNDATIONS



PLAN

CURVE C-1:
Sta. P.I. = 2+21.63C Lc = 406.25'
Δ = 56°52'31" T = 221.63
Dc = 14°00'00" S.E. = 1"/ft. max.
R = 409.26'

CURVE D-3:
Sta. P.I. = 10+77.55 D Lc = 311.24'
Δ = 59°08'08" T = 171.08'
Dc = 19°00'00" S.E. = 1"/ft max.
R = 301.50'



PROFILE ON ℄ U.S. 52

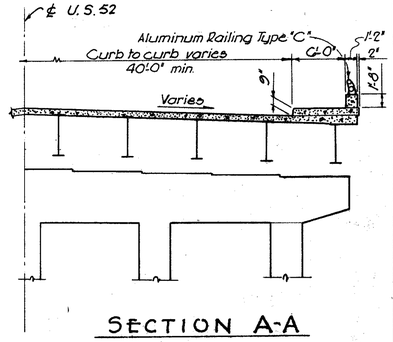
Est. Av. Pay Length of Piles
Pier 2 65'
Pier 3 70'
Pier 4 60'
Pier 5 40'

12 BP53 steel H piles (Typ.)

FED. RD. DIVISION	STATE	PROJECT	
2	OHIO		

HAM-25-1.63

349 / 486



SECTION A-A

NOTES:
Foundation design and foundation quantities are based on a study of test borings and soil samplings made at the site. This sounding information may be inspected in the Office of the Bureau of Bridges in Columbus or in an abriged form in the Division Office, but the State assumes no responsibility for the accuracy thereof.

Boring Symbol

Bench Mark #7 - Western Hills Viaduct Triangulation Station. Brass disc in north sidewalk near center of viaduct; near railing light #20. Elev. 559.50.

PROPOSED STRUCTURE

TYPE: Continuous welded plate girders with reinforced concrete deck and substructure.
SPANS: 40'-7", 78'-1", 73'-1", 117'-8", 78'-7"
ROADWAY: Varies, 40'-0" face to face of curbs min.
LOAD FREQUENCY: CF = 2000 ('57) Adequate for AASHO alternate loading.
SKEW: Zero.
WEARING SURFACE: 1" Monolithic concrete.
APPROACH SLABS: AS-1-54 (25' long)
ALIGNMENT: Tangent
SUPERELEVATION: Varies

EXISTING STRUCTURE

TYPE: Reinforced concrete slab and beams and rigid frame bents.
SPANS: 5 @ 44'-8½", 39'-0", 7 @ 42'-11⅝", 48'-0¾"
ROADWAY: 40'-0" face to face of curbs
LOADING: State of Ohio Design Spec. - 1928
SKEW: Varies.
ALIGNMENT: Tangent.
DATE BUILT: 1932

VOGT, IVERS, SEAMAN & ASSOCIATES
ENGINEERS CINCINNATI ARCHITECTS CHICAGO

SITE PLAN
BRIDGE NO. HAM-25-0252
MILL CREEK EXPRESSWAY
UNDER U.S. 52

HAMILTON COUNTY STA. 7+54.25 TO STA. 11+56.09

PRESENT TOPOGRAPHY		PROPOSED WORK			
SURVEYED	DRAWN	DESIGNED	DRAWN	CHECKED	REVISIONS
Aerial	K.M.	G.J.C.	S.T.	C.E.S.	

NOT FOR CONSTRUCTION INFORMATION ONLY

FED. RD. DIVISION	STATE	PROJECT	
2	OHIO		

350 486

HAM - 25 - 1.63

ESTIMATED QUANTITIES

ITEM	TOTAL	UNIT	DESCRIPTION	ABUT-MENTS	PIERS	SUPER-STRUCTURE	GENERAL
E-2	1160	Cu. Yds.	Unclassified Excavation	420	740		
I-10	2150	Sq. Yds.	Crushed Aggregate Slope Protection				2150
S-1	1051	Cu. Yds.	Class "C" Concrete - Superstructure			1051	
S-1	477	Cu. Yds.	Class "C" Concrete - Piers above footings		477		
S-1	190	Cu. Yds.	Class "C" Concrete - Abutment above footings	190			
S-1	317	Cu. Yds.	Class "E" Concrete - Pier and abutment footings	80	237		
S-3	50	Lin. Ft.	Waterproofing, premolded sealing strip	50			
S-4	433,036	Lbs.	Reinforcing Steel	14,312	124,094	294,630	
S-7	1,037,300	Lbs.	Structural Steel			1,037,300	
S-8	1,037,300	Lbs.	Field painting of structural steel			1,037,300	
S-9	38	Sq. Ft.	1" Preformed expansion joint filler	38			
S-9	22	Sq. Ft.	½" Preformed expansion joint filler			22	
S-9	25	Sq. Ft.	¼" Preformed expansion joint filler		25		
S-14	819	Lin. Ft.	Railing (aluminum railing and supports and concrete parapet, Type C)	37		782	
S-14	255	Lin. Ft.	Railing (aluminum pipe framing and aluminum #6 gauge chain link fence.)			255	
S-15	Lump	Lump Sum	Temporary Run-Around Bridge				Lump
S-16	Lump	Lump Sum	First test pile				Lump
S-18	8220	Lin. Ft.	12BP53, steel piles		8220		
S-25	3	ea.	Light Standard with 10' mast arm, including anchor bolts				3
S-25	Lump	Lump Sum	Grounding System				Lump
S-25	1260	Lin. Ft.	3" Asbestos Cement Conduit with bushings and fittings				1260
S-25	6	Lin. Ft.	2" Aluminum Conduit with bushings and fittings				6
S-25	115	Lin. Ft.	¾" Aluminum Conduit with bushings and fittings				115
S-25	12	ea.	Pull Box complete with frame & cover				12
S-29	108	Lin. Ft.	6" Std. pipe downspouts, galvanized or wrought iron, including specials				108
S-29	78	Cu. Yds	Porous Backfill	78			
S-29	9	ea.	Inlet Frame & grating & 6" steel pipe			9	
Special	1051	ea.	Water reducing, set-retarding admixture **			1051	
S-22	Lump	Lump Sum	Removal of Western Hills Viaduct from Sta. 7+54.25 to 13+79.30				LUMP
I-8	2	ea.	Manhole, frame and cover				2
S-25	525	Lin. Ft.	600 V Single Conductor # 12 AWG Luminaire Wire				525
S-25	405	Lin. Ft.	3000V Single Conductor #4 AWG Direct Burial Cable (Plain)				405
S-25	405	Lin. Ft.	3000V Single Conductor #4 AWG Direct Burial Cable (Identifiable)				405
S-25	1860	Lin. Ft.	600 V Single Conductor # 4 AWG Luminaire Wire				1860
S-25	5	ea.	Stairway Light, including outlet boxes				5
S-25	3	ea.	400W Luminaire with built in reactor type ballast (240V) and 400W mercury vapor lamp				3

NOTE: Materials in approach slabs are not included in the above estimated quantities

GENERAL NOTES

REFERENCE shall be made to the following:
Standard Drawings: AR-1-57 revised 12-12-60; WSB-60 **revised 10-27-60**
CSB-2-56, sheets 2 & 3 of 6, revised 2-2-59
RB-1-55 revised 2-2-59
AS-1-54 revised 12-1-54
Suppl. Specifications 5307, dated 8-23-60 & 5207.10, dated 4-25-61

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

CONCRETE DECK PLACING: In order to facilitate water curing of the concrete of the deck slab, the placing of concrete shall progress upgrade. The slab may be placed in sections, between transverse construction joints which are normal to the centerline of bridge and are located near the center of any span.

RAILING: Aluminum rail and supports, concrete parapet, reinforcing bars wholly within the concrete parapet, sponge rubber for parapet joints and preformed bearing pads, shall be included in Item S-14 for payment.

** See proposal note

UTILITY LINES: All Labor and expense involved in relocating the affected utility lines shall be borne by the owners. The Contractor and Owners are requested to co-operate by arranging their work in such a manner that inconveniences to either will be held to a minimum.

EXCAVATION: Excavation quantity includes the removal of fill material between the surface of proposed embankment and the bottom of footings

EMBANKMENT shall be in place and compacted to subgrade elevation for a distance of 200 ft. behind the abutment for a minimum period of 60 days prior to beginning construction of the abutment unless settlement hubs indicate that any settlements have ceased. Embankments under the bridge shall be placed and compacted to subgrade elevation prior to beginning construction of the piers.

PILES: See pile driving chart and note this sheet.

FOUNDATION BEARING PRESSURE: Abutment footing is designed for a maximum bearing pressure of 2.5 tons per sq. ft.

GENERAL NOTES, Cont'd.

JOINT PREPARATION FOR PLACING NEW CONCRETE ON EXISTING: Surface of existing concrete shall be sound and clean; where necessary, the existing surface shall be chipped to expose sound concrete. Preparation for placing new concrete shall follow generally S-1.16, Construction Joints, of Construction and Material Specifications, with these added requirements: Existing reinforcing shall be thoroughly cleaned where included in the new concrete. Surface of existing concrete shall be kept wet for a minimum of two hours prior to placing new concrete.

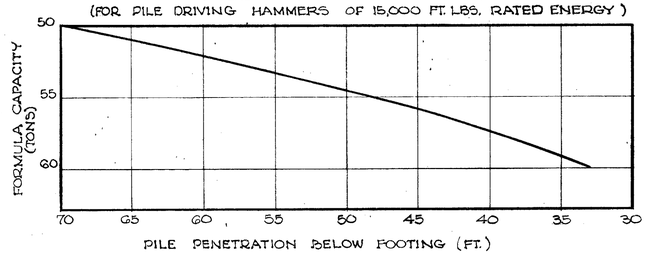
TEMPORARY RUN-AROUND BRIDGE: Load frequency for bridge, CF=130, with unit stresses increased 25% as per the provisions for temporary bridges in the Design Specifications for Highway Structures. All material used for this bridge shall be the property of the Contractor and shall be removed from the job by him, except concrete footings at Bents 1, 2, 3 & 5. The Contractor may submit to the Director, for approval, an alternate design for the temporary run-around bridge.

DIMENSIONS shown throughout these plans marked with an asterisk (*) were determined from the "As-built" plans of the Western Hills Viaduct. Their accuracy should be verified by measurements in the field by the Contractor.

STAIRWAY LIGHT shall be Crouse-Hinds cat. # VMA2828G or approved equal.

PILE DRIVING CHART

(FOR PILE DRIVING HAMMERS OF 15,000 FT. LBS. RATED ENERGY)



NOTES

1. The chart shows the relationship between min. pile design capacity and necessary formula capacity as per Sec. S-18.05 (Construction & Material Specifications) for 12 BP53 steel "H" piles driven to firm contact with rock. Design capacity of 45 tons.
2. Piles shall be driven to firm contact with rock. If the length of penetration is approximately equal to the depth to rock according to the bridge foundation 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 values for a pile hammer of the indicated energy rating shown above.

VOGT, IVERS, SEAMAN & ASSOCIATES
ENGINEERS CINCINNATI — ARCHITECTS CHICAGO

GENERAL NOTES AND ESTIMATED QUANTITIES

BRIDGE NO. HAM-25-0252
MILL CREEK EXPRESSWAY
UNDER U.S. 52
HAMILTON COUNTY STA. 7+54.25 to STA. 11+36.05

DESIGNED	DRAWN	TRACED	CHECKED	REVIEWED	DATE	REVISED
—	DYF	—	CES	JAD	5-61	

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WHV BORING LOGS

ALL STATIONING REFERS TO U.S. 52

FED. RD. DIVISION	STATE	PROJECT	
2	OHIO		

HAM-25-1.63

351 486

BORING 10-G-R
Sta. 8+05, 36' Rt.

PIER#2 512.00

502.8 w% N 0' Ground Surface
FILL: brick and cinders
492.8 10'
Brown SILTY CLAY, some fine to coarse sand, trace of fine gravel
488.8 14'
Brown COARSE & FINE SAND, little silt and/or clay
475.8 27'
trace of clay
Brown SILT, trace of fine sand
little clay, fine to coarse sand seam at 42' *
some clay
452.3 50.5'
GRAVEL WITH brown SAND & SILT, trace of clay
448.8 54'
Brown and gray SANDY SILT, little clay
442.8 60' limestone fragments
REFUSAL

Est. Pile Penetration

BORING 10-G-L
Sta. 8+04, 36' Lt.

PIER#2 512.00

501.4 w% N 0' Ground Surface
FILL: cinders, brick, gravel, brown silty clay
497.4 4'
Brown CLAY and fine to coarse sand, some silt, trace of fine gravel
492.4 9'
GRAVEL WITH brown SAND, little silt and/or clay
488.4 13'
Gray SILT & CLAY, little fine sand (in seams) *
479.4 22'
little clay
Gray or brown SILT, trace of clay, trace of fine sand
465.4 36'
Brown CLAY, some silt, little fine to coarse sand, trace of fine gravel
461.4 40'
Brown and gray SANDY SILT, some clay, little fine gravel and/or limestone fragments
447.4 54'
REFUSAL

Est. Pile Penetration

BORING 10-H-R
Sta. 8+80, 25' Rt.

PIER#3 513.00

504.7 w% N 0' Ground Surface
FILL: cinders, brick, gravel
498.7 6'
Brown CLAY and silt, little fine to coarse sand, trace of gravel
495.7 9'
Gray ELASTIC CLAY and silt, trace of sand, trace of gravel.
493.7 11'
Brown and gray CLAY and silt, some fine to coarse sand
490.7 14'
GRAVEL WITH brown SAND, SILT, & CLAY
488.7 16'
Brown SANDY SILT, trace of clay
477.7 27'
some silt and/or clay
Brown COARSE & FINE SAND
trace of silt and/or clay
459.7 45'
Gray SANDY SILT, trace of clay
455.7 49'
trace of fine sand
Gray SILT & CLAY, organic matter *
some fine gravel, some fine to coarse sand (brown sand seams) *
446.7 58'
Gray SILTY CLAY, trace of fine gravel, trace of fine to coarse sand
441.7 63'
Brown COARSE & FINE SAND, little silt and/or clay
438.7 66'
REFUSAL

Est. Pile Penetration

BORING 10-H-L
Sta. 8+80, 25' Lt.

PIER#3 513.00

505.1 w% N 0' Ground Surface
FILL: brown fine to coarse sand and gravel
499.1 6'
FILL: limestone fragments with dark brown sand and silt, trace of clay
496.1 9'
Mottled brown CLAY, some fine to coarse sand, some silt, trace of fine gravel
489.1 16'
GRAVEL WITH brown SAND & SILT, trace of clay
486.1 19'
Brown SANDY SILT and fine gravel, little clay
483.1 22'
Gray SILT, little clay, organic matter *
478.1 27'
Brown COARSE & FINE SAND, little silt and/or clay
465.1 40'
Gray SANDY SILT, some clay, little fine gravel
460.1 45'
Gray GRAVEL WITH SAND, little silt and/or clay, (sandy clay in seams - visual classification) *
451.1 54'
Mottled gray and brown SANDY SILT, little limestone fragments, little clay
447.1 58'
Gray CLAY some silt, little fine to coarse gravel
437.6 67.5' (weathered shale)
REFUSAL

Est. Pile Penetration

BORING 10-J-R
Sta. 9+60, 23' Rt.

PIER#4 506.50

505.5 w% N 0' Ground Surface
cinders, brick, gravel
FILL:
brown, sandy clay and cinders
496.5 9'
Gray SILT & CLAY
492.5 13'
Gray SILTY CLAY and fine to coarse sand
486.5 19'
SILT
(brown) little fine sand, trace of clay
(gray) trace of sand, trace of clay, organic matter *
469.5 36'
Brown FINE SAND, trace of silt and/or clay
460.5 45'
Brown COARSE & FINE SAND, some silt, trace of clay
456.5 49'
little fine sand
Gray SILT, little fine to coarse sand, little clay
447.5 58'
Gray and brown SILTY CLAY, some limestone fragments, trace of fine to coarse sand
442.0 64.5'
REFUSAL

Est. Pile Penetration

BORING 10-J-L
Sta. 9+60, 23' Lt.

PIER#4 506.50

505.4 w% N 0' Ground Surface
CONCRETE SLAB 0.5'
504.9
cinders and brick
FILL:
brown sandy clay, cinders, and brick
496.4 9'
Mottled brown and gray SILTY CLAY, little fine to coarse sand
491.4 14'
GRAVEL WITH brown SAND, SILT, & CLAY
489.4 16'
organic matter *
Layered brown and gray SILT, and to a trace of fine sand, some to a trace of clay
fine sand seams *
451.4 54'
Gray SILT & CLAY, trace of fine to coarse sand
446.9 58.5'
Gray SILTY CLAY, some limestone fragments
441.4 64'
REFUSAL

Est. Pile Penetration

BORING NOTES ON SHEET NO. 352

VOGT, IVERS, SEAMAN & ASSOCIATES
ENGINEERS CINCINNATI ARCHITECTS CHICAGO

BORINGS
HAM-25-0252
MILL CREEK EXPRESSWAY UNDER U.S. 52
HAMILTON COUNTY STA. 7+54.25 TO STA. 11+56.09

DESIGNED	DRAWN	TRACED	CHECKED	REVIEWED	DATE	REVISED
C.W.	D.F.		R.D.W.	JAD	5-61	

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WHV BORING LOGS

FED. RD. DIVISION	STATE	PROJECT	
2	OHIO		

HAM - 25 - 1.63

352 / 48G

ALL STATIONING REFERS TO U. S. 52

ABUT 538.70

ABUT 538.70

BORING 10-K-R
Sta. 10+80 23' R.

PIER #5 505.00

506.5 w% N 0' Ground Surface

28 FILL: brick, cinders, gravel

18

500.5 6'

17 and silt, trace of fine sand

20 25 Mottled brown and gray CLAY, some silt, little fine to coarse sand, trace of fine gravel

19 22 16'

490.5 GRAVEL WITH brown

29 17' SAND, SILT, & CLAY

489.5

33 12 Mottled brown and gray ELASTIC CLAY and silt

484.5 22'

17 20 GRAVEL WITH brown SAND, little silt, trace of clay

27'

½ 479.5

17 25 Gray SILT & CLAY, little fine gravel, little brown fine to coarse sand

475.5 31' (in seams) *

12 28 Gray SANDY SILT (brown sand in seams) * and to little fine gravel, some to little clay

12 43

466.5 40'

29 60 Gray CLAY, some silt (weathered shale)

462.5 44'

17 135 Gray SILT & CLAY, trace of fine sand (weathered shale)

461.5 45'

REFUSAL

Est. File Penetration

BORING 10-K-L
Sta. 10+80 23' L.

PIER #5 505.00

507.1 w% N 0' Ground Surface

5 FILL: brick, cinders, gravel

14

9

498.1 9'

19 30 Mottled brown and gray CLAY and silt,

29

19

23 16 little fine to coarse sand

488.1 19'

21 LIMESTONE FRAGMENTS WITH brown SAND & SILT, trace of clay

485.1 22'

14 40 Brown SILT & CLAY, some fine to coarse gravel and limestone fragments, little fine to coarse sand

27'

480.1

13 43 LIMESTONE FRAGMENTS WITH gray SAND, SILT, & CLAY

476.1 31'

32

21 24 Gray SILT and clay, trace of fine sand

24'

463.1 44'

11 141 46' Gray SILT & CLAY and shale fragments (weathered shale)

461.1 REFUSAL

Est. File Penetration

BORING 10-L
Sta. 11+55 34' R.

508.5 w% N 0' Ground Elevation brick, cinders, gravel

62 FILL: brown silty clay, brick

7 5'

503.5

28 8 (dark brown)

14 ELASTIC CLAY, and silt (mottled brown and gray) little fine sand

22 14 13'

495.5

11 26 GRAVEL WITH brown SAND, little silt and/or clay

18'

490.5

16 41 Brown and gray to gray SANDY SILT, some shale fragments, little clay, organic matter * (weathered shale)

79/6 23'

485.5 REFUSAL

484.5

BORING 10-K-1-L
Sta. 11+18 7' L.

Note: Additional Boring for bedrock profile.

4

BORING 10-M
Sta. 11+70 59' L.

514.6 w% N 0' Ground Surface

42 gravel, some fine to coarse sand, little silt and/or clay

57 FILL:

10 brown sandy clay with cinders

506.6 8'

19 20 Brown SILT & CLAY, trace

504.6 10' of fine sand

17

20 19 Mottled brown and gray CLAY, and silt, trace of sand, trace of shale fragments

497.6 17'

21 32 Gray SILTY CLAY, little limestone fragments

496.1 18.5' (weathered shale).

16 32 Gray SILT & CLAY, little limestone and shale fragments, trace of

492.1 17 48 22.5' sand (weathered shale)

BORING 10-N
Sta. 12+10 8' R.

516.5 w% N 0' Ground Surface brown sandy clay cinders, brick, gravel

19 FILL:

21 9 mottled brown and gray silt and clay, trace of sand (dark brown) trace of sand

510.5 5'

22 4/6 4/6

19 4/6 4/6 SILT & CLAY, (brown) little gravel

505.5 21 10'

26 3/6 3/6 Brown and gray SILT, some to little clay, some to o trace of fine sand

15 3/6 3/6

13'

502.5

17 23 Gray SANDY SILT, and clay, little limestone and shale fragments (weathered shale)

498.0 17.5'

8 81 Gray SILT & CLAY, trace of shale fragments, trace of

496.0 19.5' sand (weathered shale)

REFUSAL

BORING 10-P
Sta. 12+60 8' L

519.1 w% N 0' Ground Surface

24 16 FILL: brown sandy clay with cinders

516.6 25'

23 10

75 Mottled brown and gray CLAY, and to some silt, trace of fine sand,

18 55

508.1 104 11' trace of limestone fragments

REFUSAL

BORING NOTES

- Water Level reading - immediate.
- x Water Level reading - x days after completion of boring.
- w% - 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 2.0" O.D. split spoon the last 12" of an 18" sample run using 140 lb. weight falling 30 inches, unless shown otherwise.
- ▌ - 3" O.D. Shelby Tube sample taken at elevation of symbol.
- * - Indicates unusual condition.

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%.

Soils classified in accordance with the Highway Research Board system as modified by the Ohio Department of Highways Testing Laboratory.

Borings taken between August 11 and December 15, 1960.

See Sheet 349 for Plan of Borings.

Foundation borings and laboratory testing by The H.C. Nutting Co., Cincinnati, Ohio.

VOGT, IVERS, SEAMAN & ASSOCIATES
ENGINEERS CINCINNATI — ARCHITECTS CHICAGO

BORINGS

HAM - 25 - 0252

MILL CREEK EXPRESSWAY UNDER U.S. 52

HAMILTON COUNTY STA. 7+54.25 STA. 11+56.09

DESIGNED	DRAWN	TRACED	CHECKED	REVIEWED	DATE	REVISED
C.W.	D.F.	~	R.D.W.	JAD	5-61	

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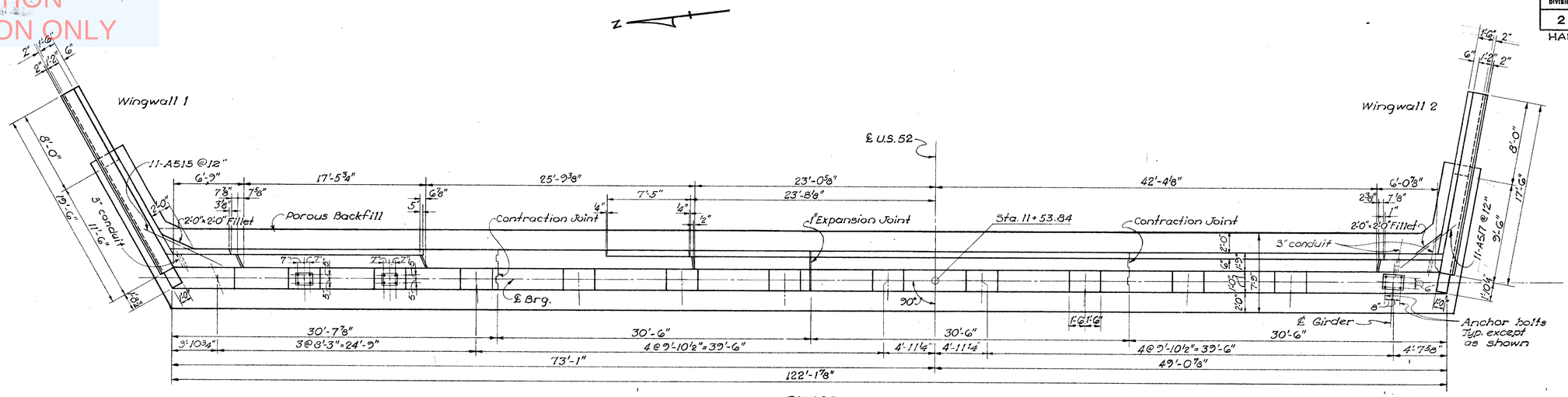
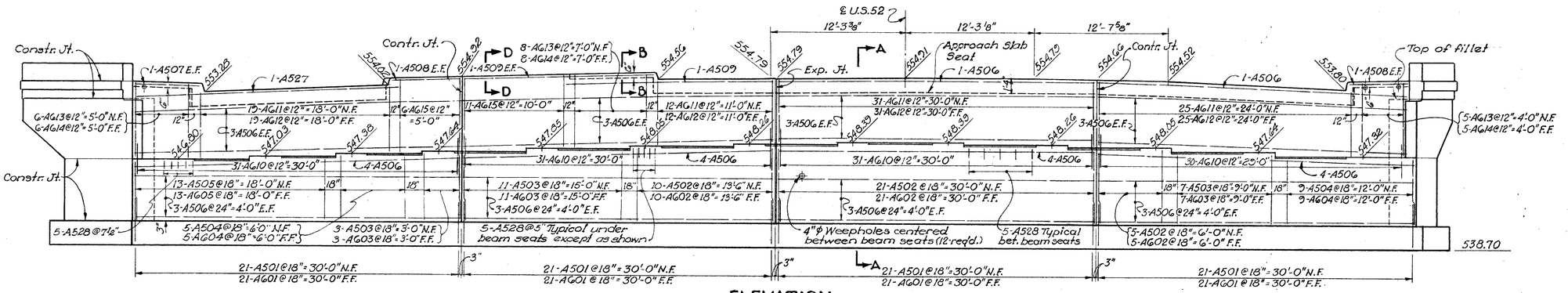
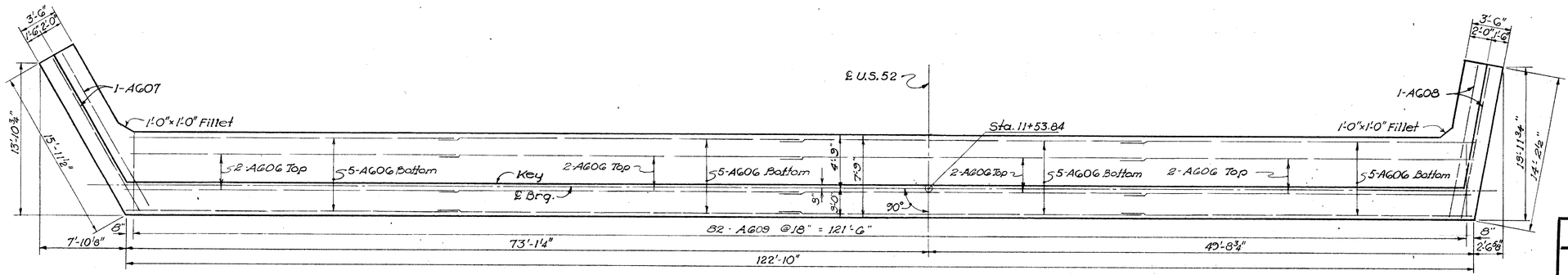
FED. RD. DIVISION	STATE	PROJECT	
2	OHIO		

HAM-25-1.63

353
48G







See Sheet 354 for Sections and notes.

VOGT, IVERS, SEAMAN & ASSOCIATES
ENGINEERS — CINCINNATI
ARCHITECTS — CHICAGO

ABUTMENT

BRIDGE NO. HAM-25-0252
MILL CREEK EXPRESSWAY
UNDER U.S. 52

HAMILTON COUNTY STA. 7+54.25 to STA. 11+56.09

DESIGNED	DRAWN	TRACED	CHECKED	REVIEWED	DATE	REVISED
C.E.S.	C.E.S.	J.C.H.	AY	JAD	5-61	

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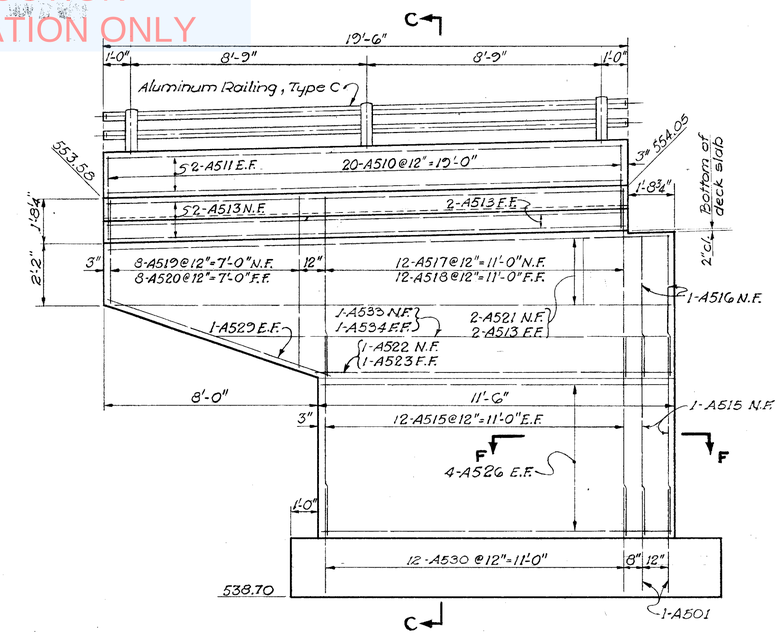
WHV ABUTMENT - STA. 11+56 AT EAST END

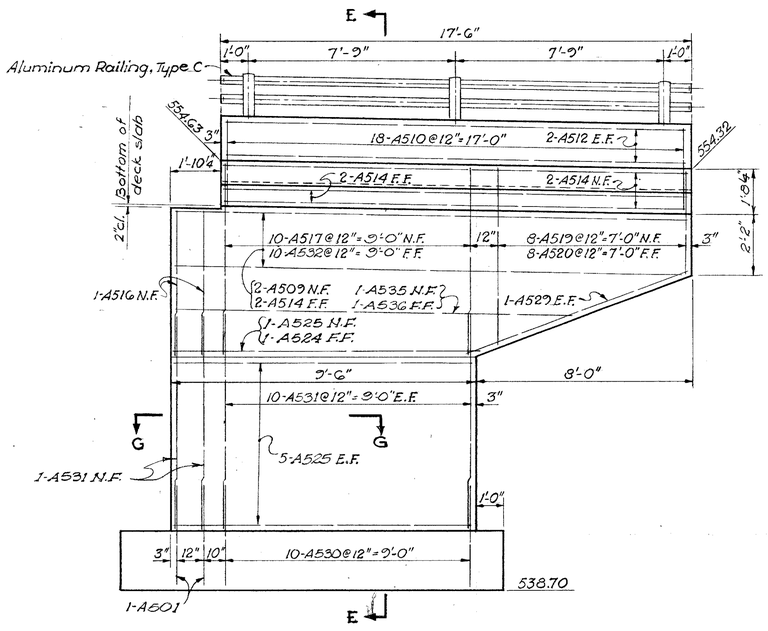
FED. RD. DIVISION	STATE	PROJECT	
2	OHIO		

HAM-25-1.63

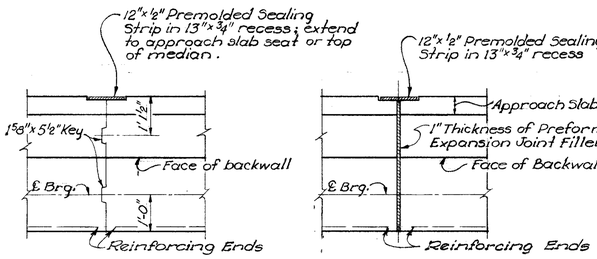
354
486

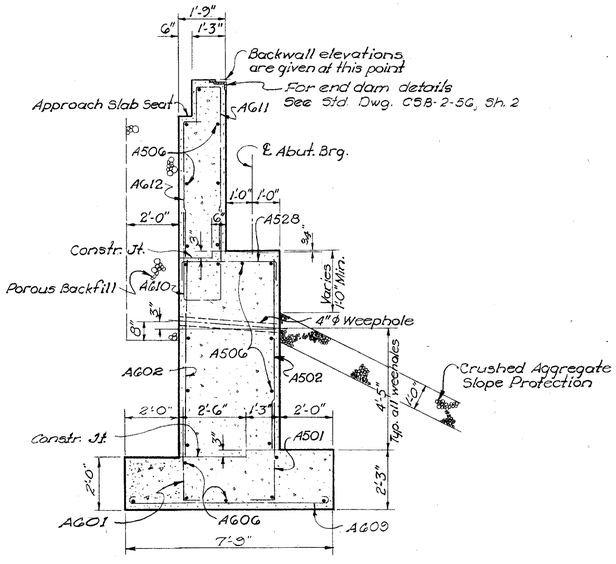


WINGWALL 1

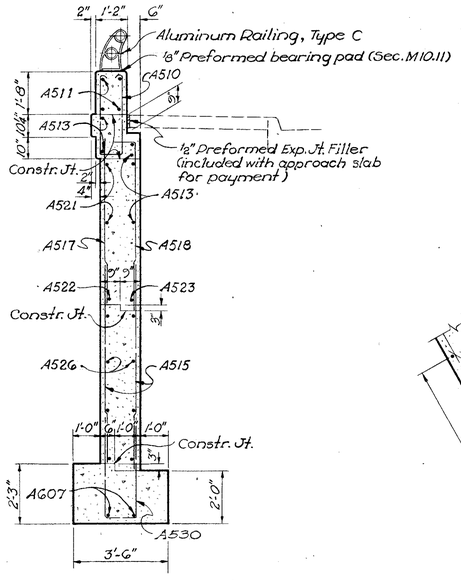


WINGWALL 2

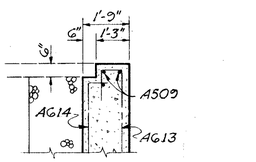




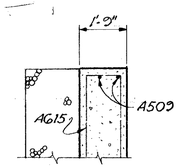
SECTION A-A



SECTION C-C
Section E-E similar



SECTION B-B



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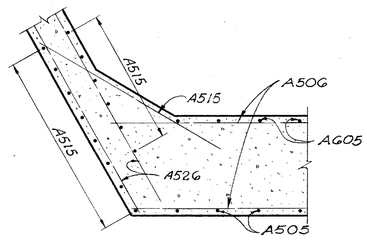
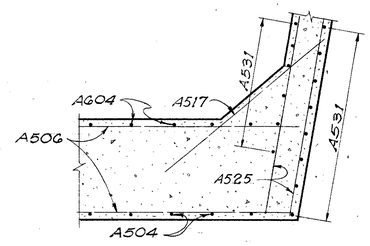


SECTION F-F



SECTION G-G

NOTES

1. Designations used are as follows:
   N. F. = Near Face
   F. F. = Far Face
   E. F. = Each Face
2. Porous Backfill, 2' thick for full length of the abutment, shall extend up to the underside of the approach slabs or walks, or to 2'-0" below the finished ground.
3. For railing details, see Std. Dwg. AR-1-57. Aluminum railing tubes are to be continuous for full length of wingwalls.
4. Place reinforcing steel in beam seats so as to avoid interference with drilling of holes for anchor bolts.

VOGT, IVERS, SEAMAN & ASSOCIATES
ENGINEERS CINCINNATI — ARCHITECTS CHICAGO

ABUTMENT DETAILS

BRIDGE NO. HAM-25-0252
MILL CREEK EXPRESSWAY
UNDER U.S.52

HAMILTON COUNTY STA. 7+54.25 to STA. 11+56.09

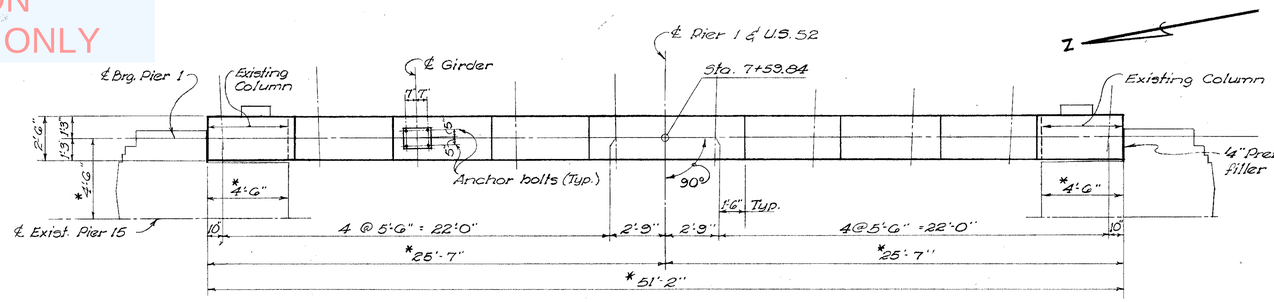
DESIGNED	DRAWN	TRACED	CHECKED	REVIEWED	DATE	REVISED
C.E.S.	C.E.S.	J.C.H.	A.Y.	JAD	5-61	

NOT FOR CONSTRUCTION INFORMATION ONLY

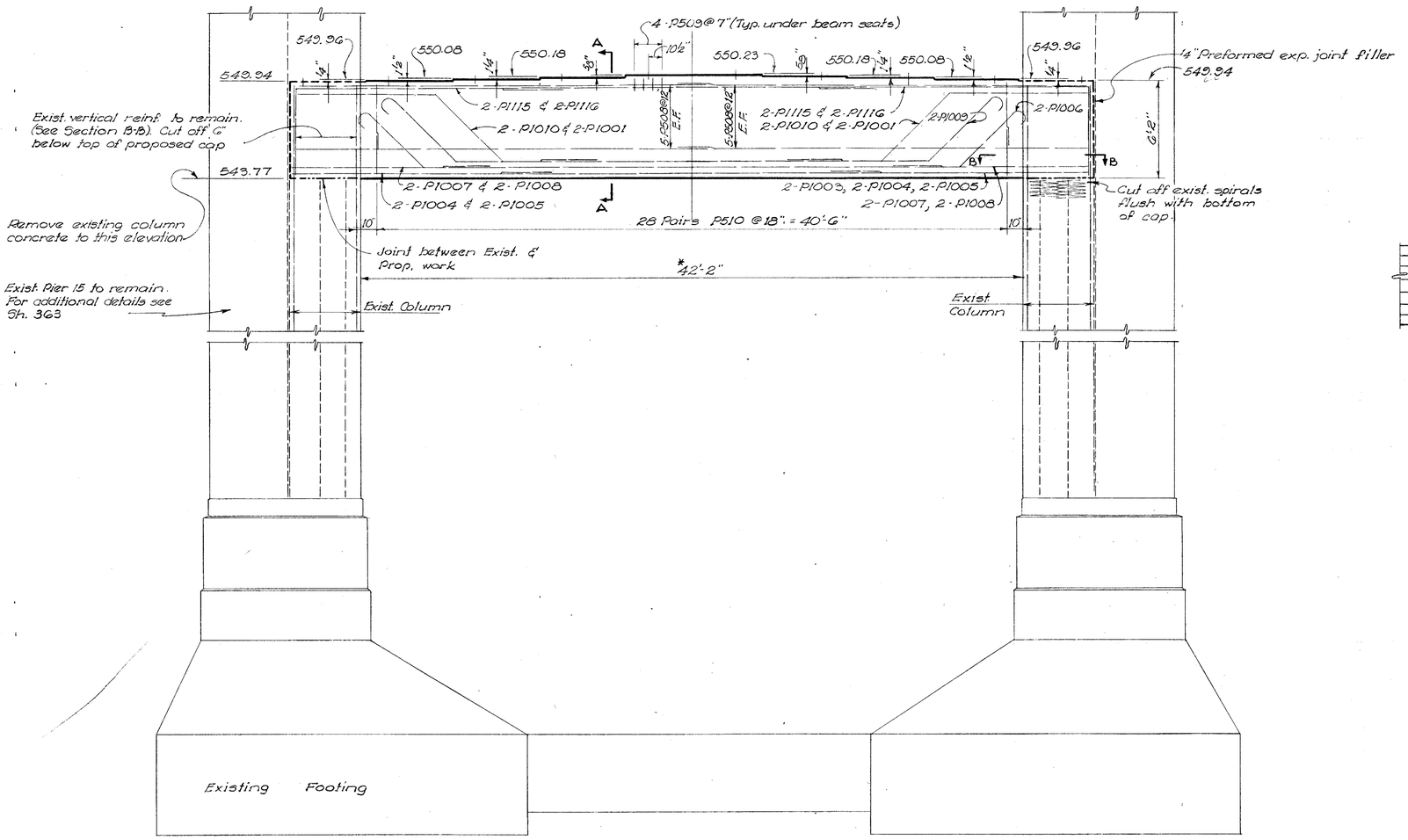
FED. RD. DIVISION	STATE	PROJECT	
2	OHIO		

355 486

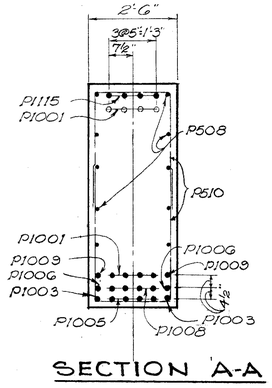
HAM - 25 - 1.63



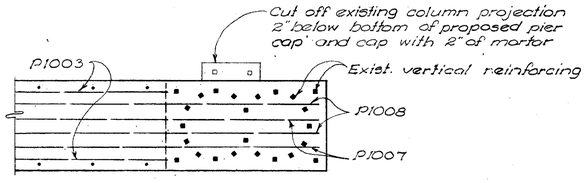
PLAN



ELEVATION



SECTION A-A



SECTION B-B

NOTES

1. E. F. designates "Each Face"
2. Dimensions marked with asterisk are from "AS-BUILT" plans of existing bridge, and may not check field measurements exactly.
3. Place reinforcing steel in cap so as to avoid interference with drilling of holes for anchor bolts.

VOGT, IVERS, SEAMAN & ASSOCIATES
ENGINEERS CINCINNATI ARCHITECTS CHICAGO

PIER 1

BRIDGE NO. HAM-25-0252
MILL CREEK EXPRESSWAY
UNDER U.S.52

HAMILTON COUNTY STA. 7+54.25 to STA. 11+56.09

DESIGNED	DRAWN	TRACED	CHECKED	REVIEWED	DATE	REVISED
GJC	GJC	DYF	CES	JAD	5-61	

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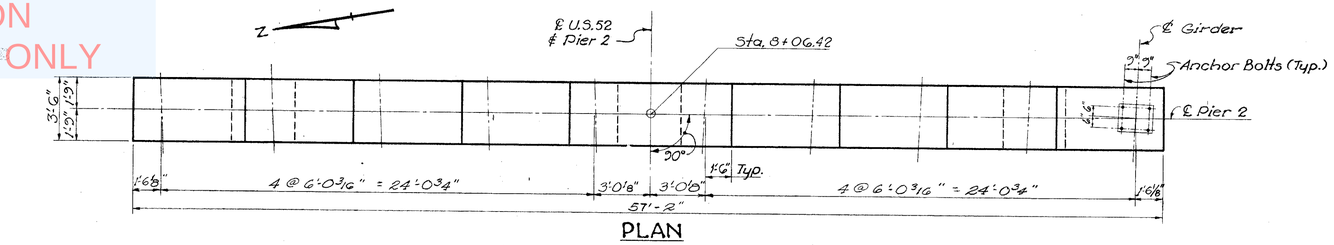
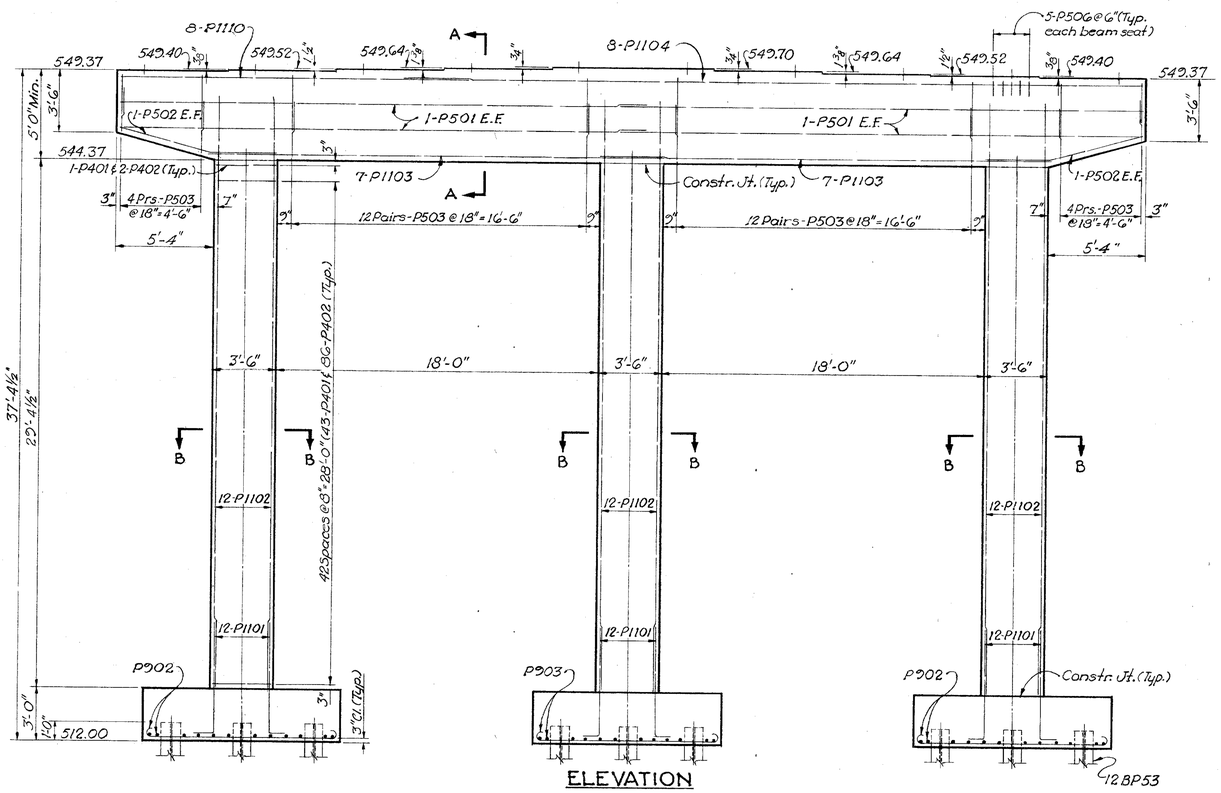
FED. RD. DIVISION	STATE	PROJECT	
2	OHIO		

HAM-25-1.63

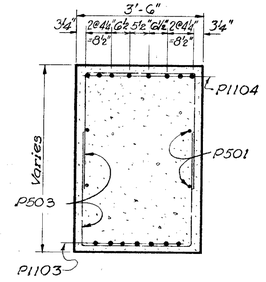
35G
48G



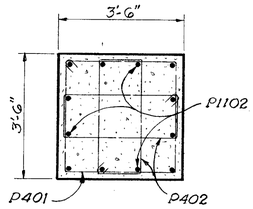
PLAN



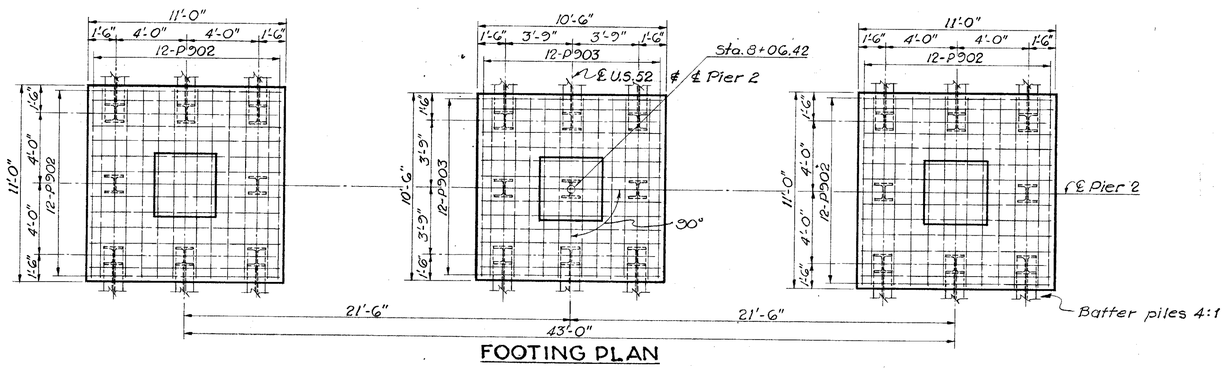
ELEVATION



SECTION A-A



SECTION B-B



FOOTING PLAN

NOTES

1. E.F. Designates "Each Face"
2. Place reinforcing steel in cap so as to avoid interference with drilling of holes for anchor bolts.

VOGT, IVERS, SEAMAN & ASSOCIATES
ENGINEERS CINCINNATI — ARCHITECTS CHICAGO

PIER 2

BRIDGE NO. HAM-25-0252
MILL CREEK EXPRESSWAY
UNDER U.S.52

HAMILTON COUNTY STA. 7 + 54.25 to STA. 11 + 56.00

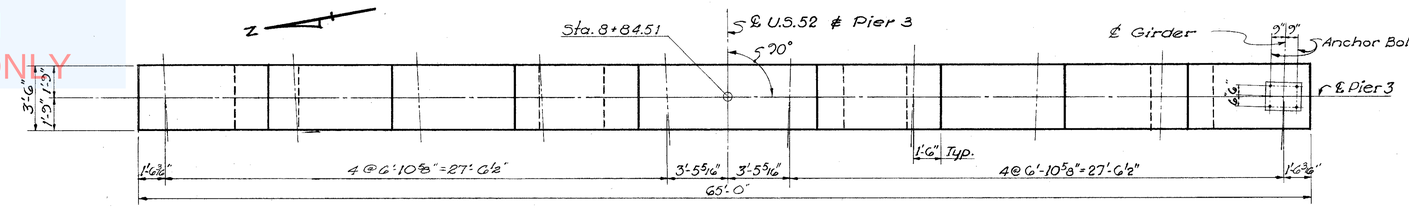
DESIGNED	DRAWN	TRACED	CHECKED	REVIEWED	DATE	REVISED
C.E.S.	J.C.H.	~	A.Y.	JAD	5-61	

NOT FOR CONSTRUCTION INFORMATION ONLY

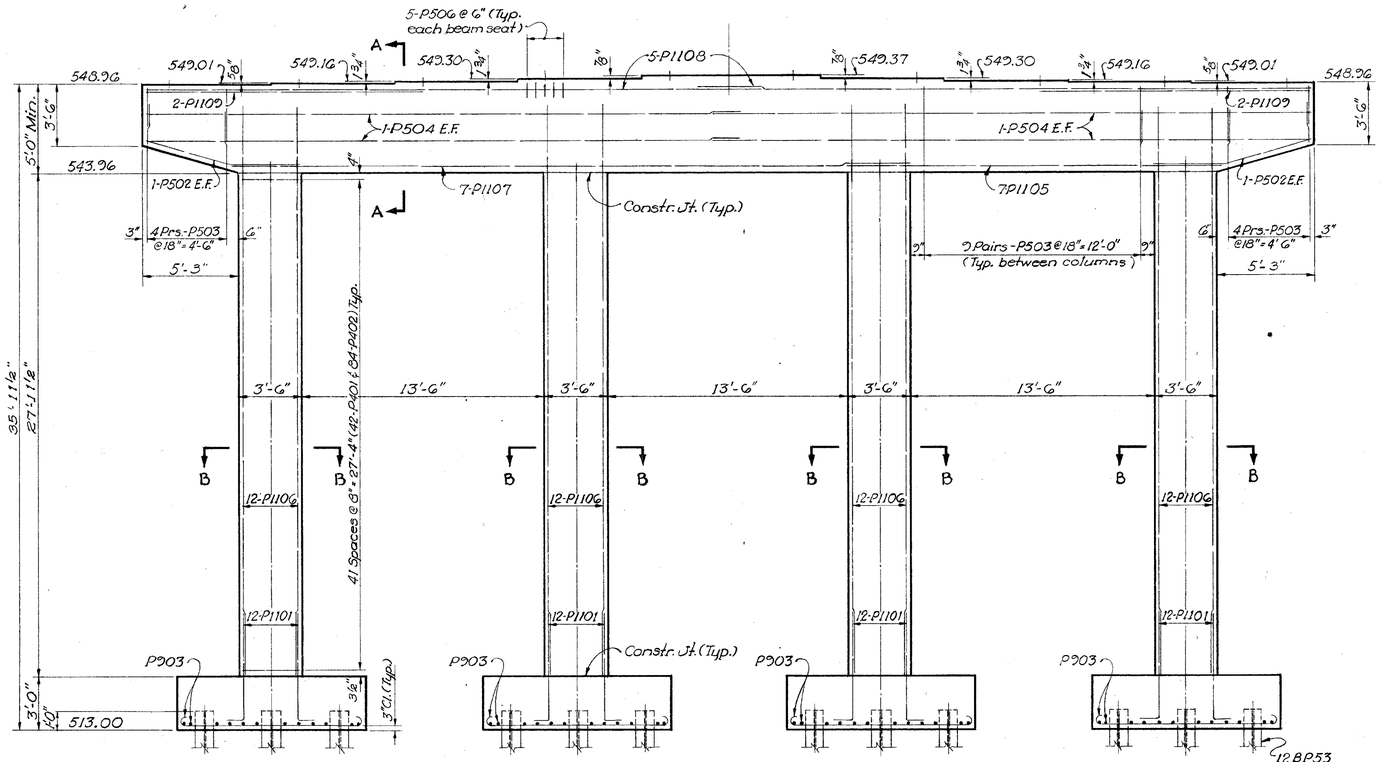
FED. RD. DIVISION	STATE	PROJECT	
2	OHIO		

HAM-25-1.63

357
486



PLAN



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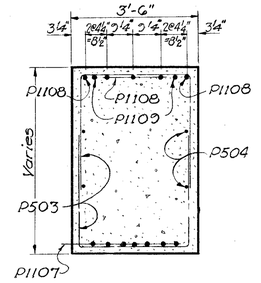
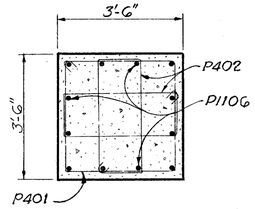
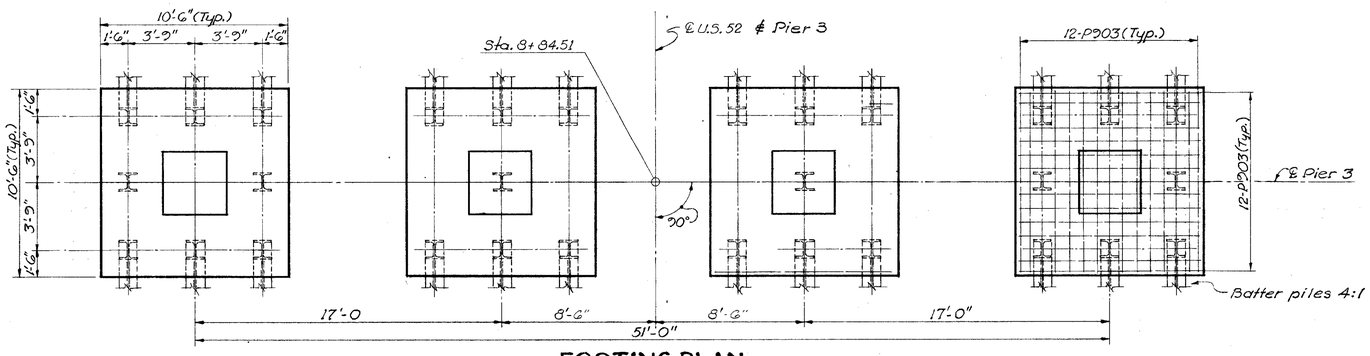


SECTION A-A



SECTION B-B



FOOTING PLAN

NOTES

1. E.F. Designates "Each Face"
2. Place reinforcing steel in cap so as to avoid interference with drilling of holes for anchor bolts.

VOGT, IVERS, SEAMAN & ASSOCIATES
ENGINEERS CINCINNATI ARCHITECTS CHICAGO

PIER 3

BRIDGE NO. HAM-25-0252
MILL CREEK EXPRESSWAY
UNDER U.S. 52

HAMILTON COUNTY STA. 7+54.25 to STA. 11+56.09

DESIGNED	DRAWN	TRACED	CHECKED	REVIEWED	DATE	REVISED
C.E.S.	J.C.H.	~	A.Y.	JAD	5-61	

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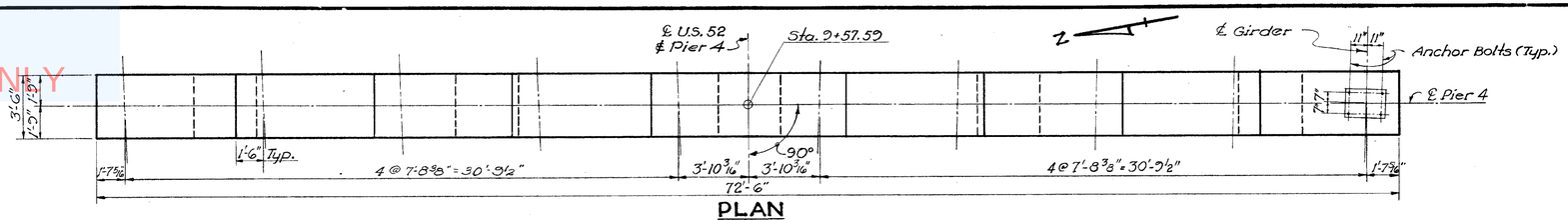
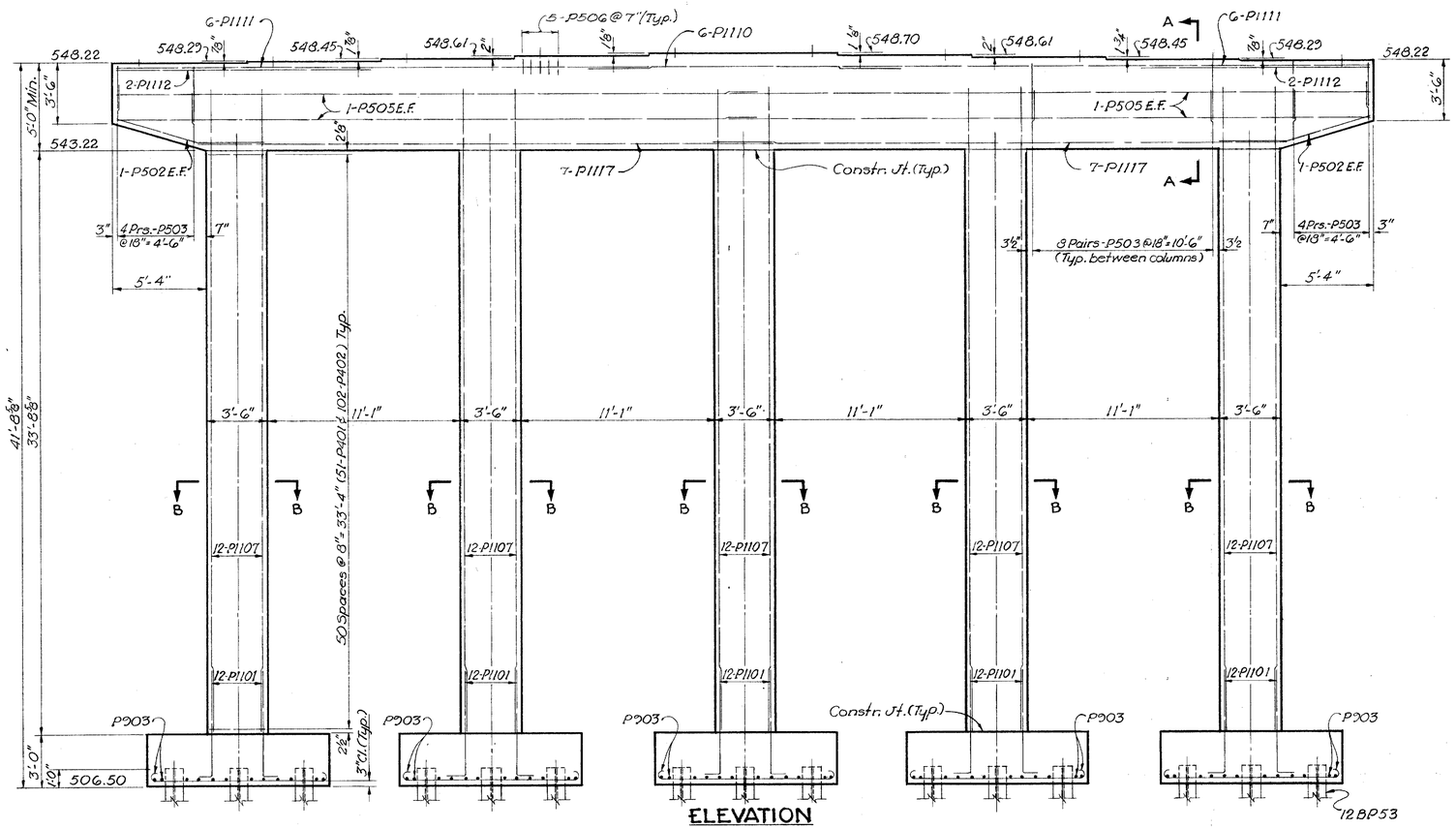
FED. RD. DIVISION	STATE	PROJECT	
2	OHIO		

HAM-25-1.63

358
486



PLAN



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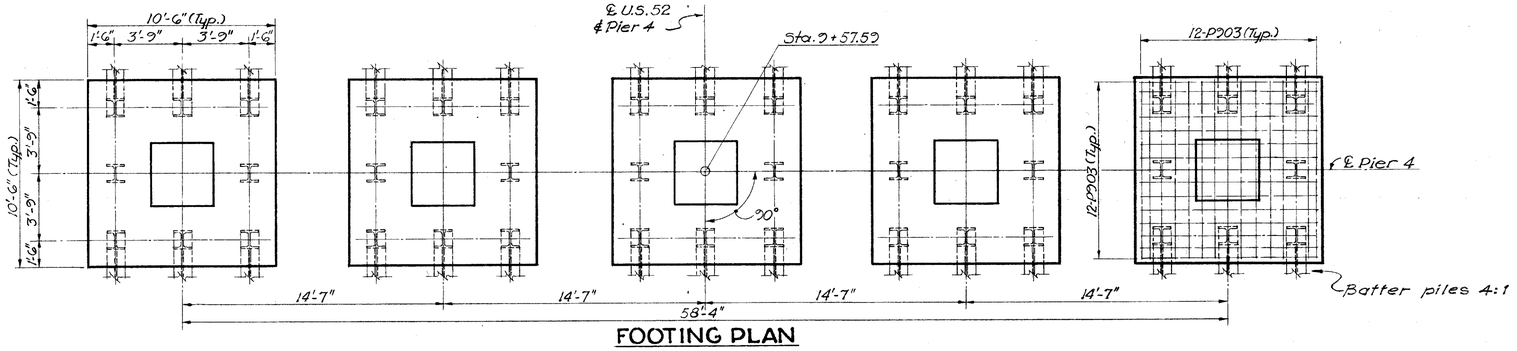
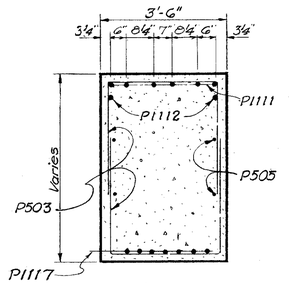
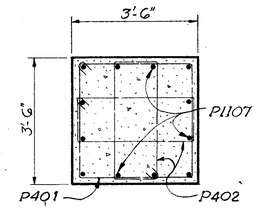


FOOTING PLAN



SECTION A-A



SECTION B-B

NOTES
1. E.F. Designates "Each Face"
2. Place reinforcing steel in cap so as to avoid interference with drilling of holes for anchor bolts.

VOGT, IVERS, SEAMAN & ASSOCIATES
ENGINEERS CINCINNATI ARCHITECTS CHICAGO

PIER 4

BRIDGE NO. HAM 25 0252
MILL CREEK EXPRESSWAY
UNDER U.S.52

HAMILTON COUNTY STA. 7+54.25 to STA. 11+56.09

DESIGNED	DRAWN	TRACED	CHECKED	REVIEWED	DATE	REVISED
C.E.S.	J.C.H.	~	A.Y.	JAD	5-61	

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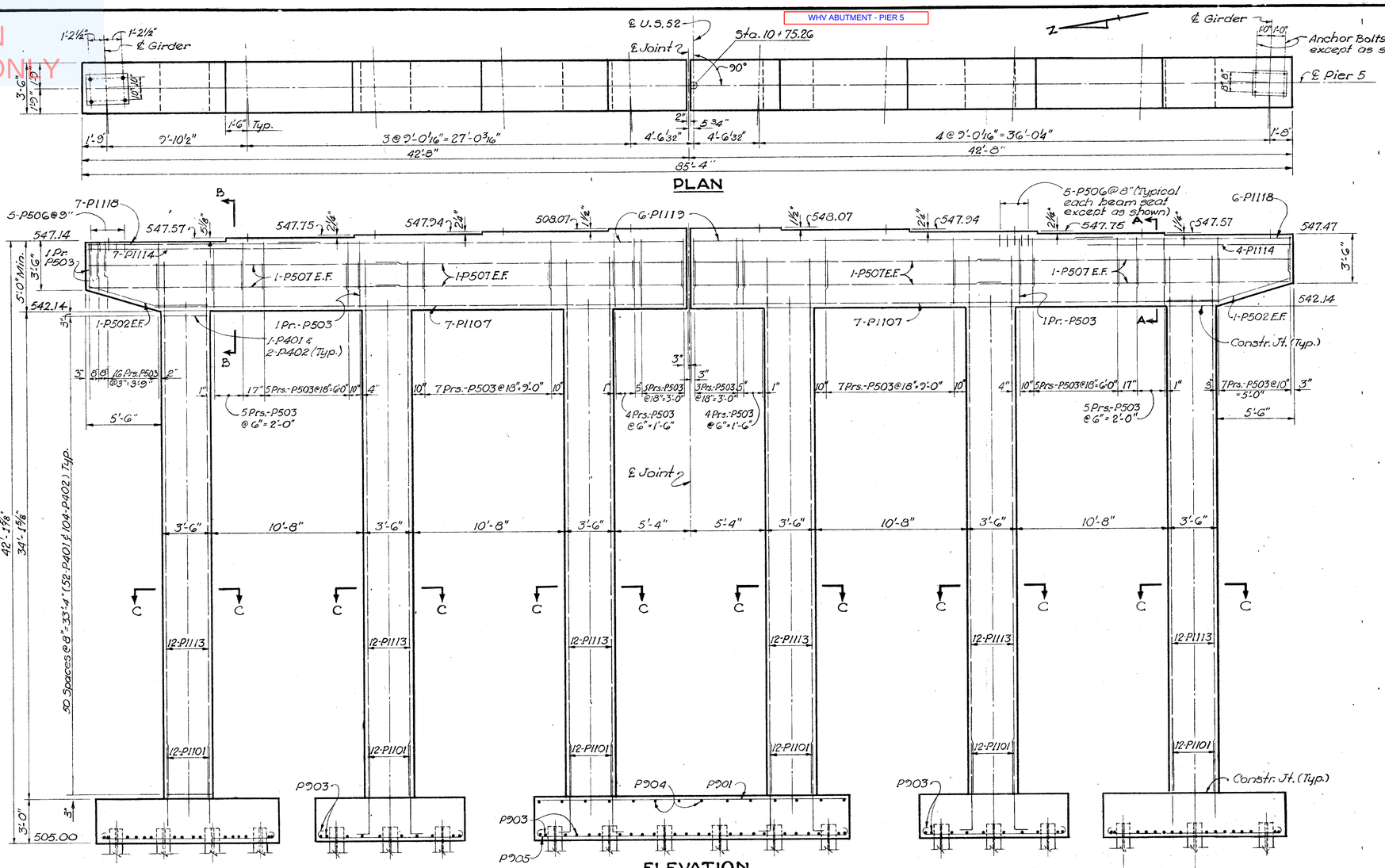
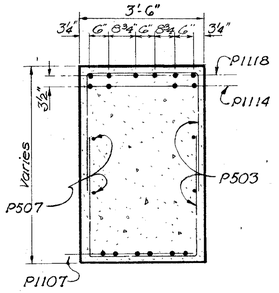
WHV ABUTMENT - PIER 5

FED. RD. DIVISION	STATE	PROJECT	
2	OHIO		

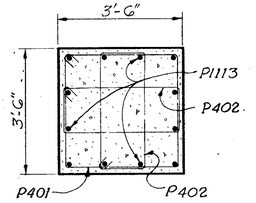
HAM-25-1.63

359 / 48Q

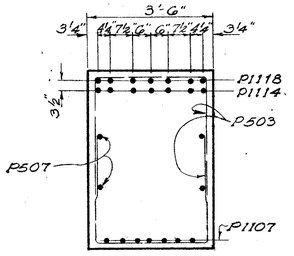




SECTION A-A



SECTION C-C



SECTION B-B

NOTES

1. E.F. Designates "Each Face"
2. Place reinforcing steel in cap so as to avoid interference with drilling of holes for anchor bolts.

VOGT, IVERS, SEAMAN & ASSOCIATES
ENGINEERS CINCINNATI — ARCHITECTS CHICAGO

PIER 5

BRIDGE NO. HAM-25-0252
MILL CREEK EXPRESSWAY
UNDER U.S.52

HAMILTON COUNTY — STA. 7+54.25 to STA. 11+56.09

DESIGNED	DRAWN	TRACED	CHECKED	REVIEWED · DATE	REVISED
C.E.S.	J.C.H.	~	A.Y.	JAD 5-61	

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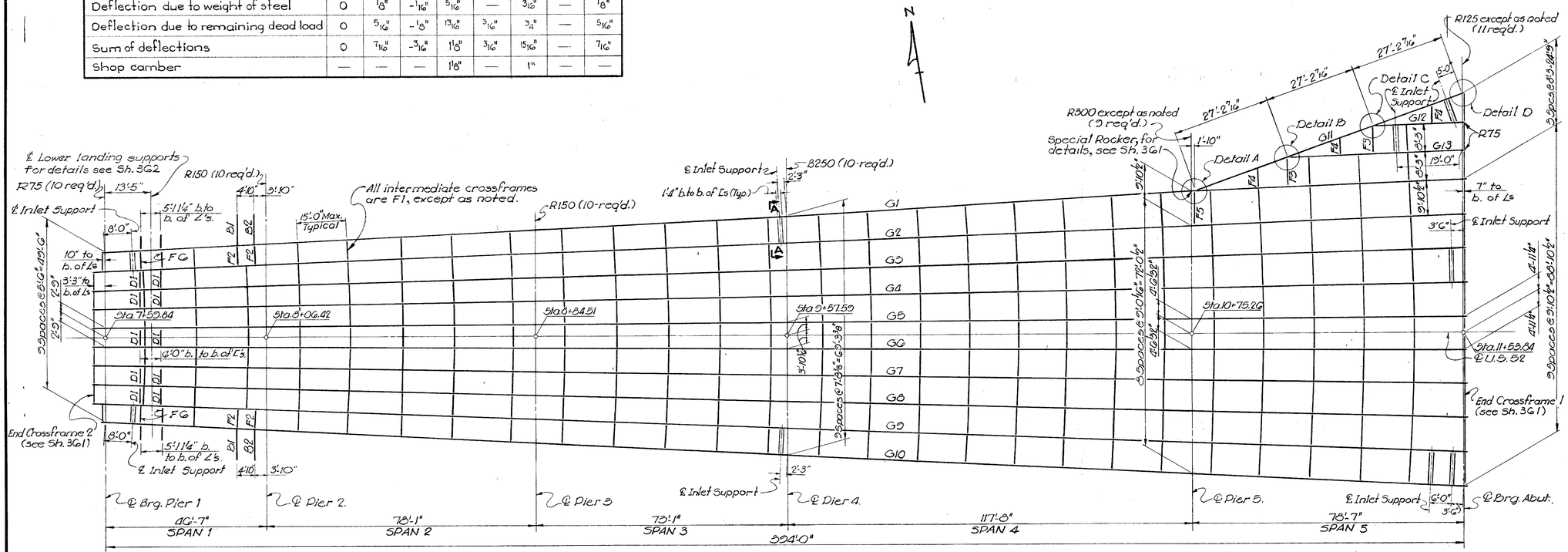
FED. RD. DIVISION	STATE	PROJECT	
2	OHIO		

HAM-25-1.03

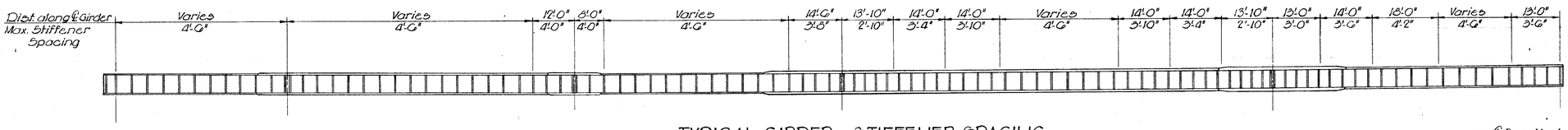
360 486

DEFLECTIONS & CAMBER

	SPAN 1	SPAN 2	SPAN 3	SPAN 4	SPAN 5			
					G1 thru G10	G-11	G-12	G-13
Deflection due to weight of steel	0	1/8"	-1/16"	5/16"	—	3/16"	—	1/8"
Deflection due to remaining dead load	0	5/16"	-1/8"	13/16"	3/16"	3/4"	—	5/16"
Sum of deflections	0	7/16"	-3/16"	1 1/8"	3/16"	15/16"	—	7/16"
Shop camber	—	—	—	1 1/8"	—	1"	—	—

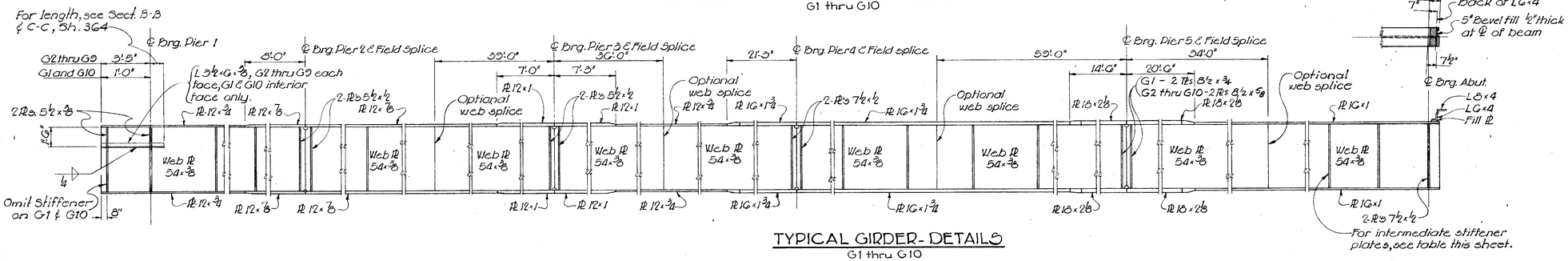


PLAN



TYPICAL GIRDER – STIFFENER SPACING

G1 thru G10

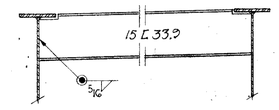


TYPICAL GIRDER- DETAILS

G1 thru G10

NOTES

1. STIFFENERS: Intermediate stiffeners shall not be welded to the flanges, except as noted, but shall be fitted to the flanges in close enough contact so that when the shop paint is applied it will fill and close the openings. The bearing stiffeners over piers and abutment shall be fully welded to the bottom flange and in close contact, without welding, at the top flange.
2. For roadway end dam details at abutment, see Standard Dwg. CSB-2-56, Sh. 2 of 6. For sidewalk end dam details at abutment, see Sh. 3G5. For end dam details at Pier 1, see Sh. 3G4.
3. For rocker and bolster details, except special rocker, see Std. Dwg. RB-1-55. Base plates shall be modified as shown on Miscellaneous Structural Details, Sh. 412.
4. For drain inlet details, except special inlet, see Misc. Structural Details, Sh. 412. For special inlet details, see Sh. 3G3.
5. All welding of structural steel shall be Class A.
6. For lower landing details, see Sh. 3G2.
7. For additional details, see Sh. 3G1.



SECTION A-A

INTERMEDIATE STIFFENERS			
FLANGE WIDTH	12	16	18
STIFFENER Pl.	5 x 3/8	7 x 1/2	8 x 1/2

VOGT, IVERS, SEAMAN & ASSOCIATES
ENGINEERS CINCINNATI — ARCHITECTS CHICAGO

STEEL FRAMING PLAN & DETAILS

BRIDGE NO. HAM-25-0252
MILL CREEK EXPRESSWAY
UNDER U.S. 52

HAMILTON COUNTY STA. 7+54.25 to STA. 11+56.09

DESIGNED	DRAWN	TRACED	CHECKED	REVIEWED	DATE	REVISED
G.J.C.	G.J.C.	S.T.	C.E.S.	JAD	5-61	

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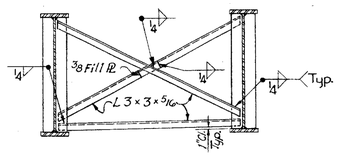
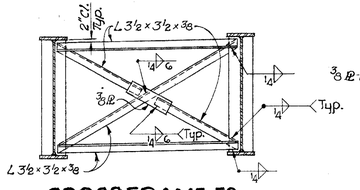
FED. RD. DIVISION	STATE	PROJECT	
2	OHIO		

HAM-25-1.63

3G1 / 48G



CROSSFRAME F1



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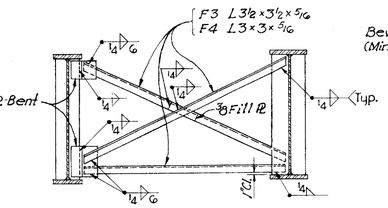
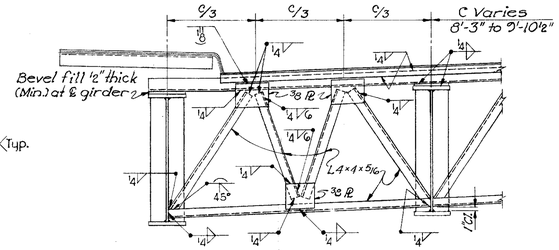
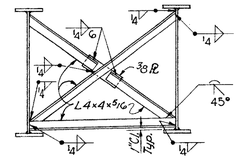


CROSSFRAME F3 & F4



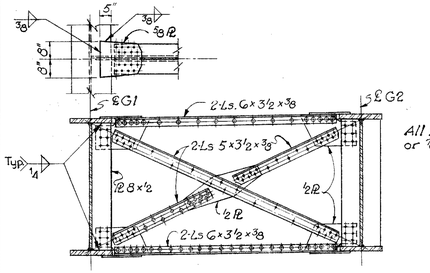
END CROSSFRAME 1
Looking West



END CROSSFRAME 2
Looking West

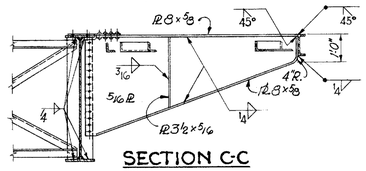
GIRDER SPLICE PROCEDURE

1. Raise span 3 girders 2⅜" at Pier 3 and span 5 girders 2", except G11, G12 & G13, at abutment.
2. Butt weld the girder flanges and webs at Pier 4 and Pier 5 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. Lower ends of span 3 and span 5 girders to final position.
4. Raise span 2 girders ¾" at Pier 2.
5. Make splice at Pier 3 using the same sequence as given in step 2.
6. Lower ends of span 2 girders to final position.
7. Make splice at Pier 2 with span 1 girders in place using the same sequence as given in step 2.
8. After crossframe F5 is in place, connect girder G11 to girder G1.



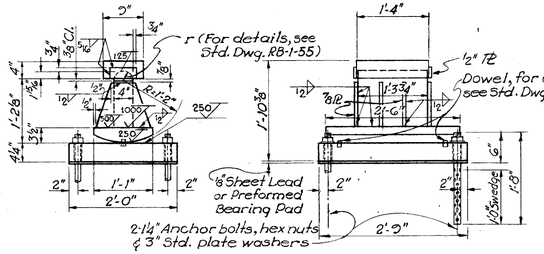
All holes to be 15/16" ϕ for ⅞" ϕ shop rivets or ⅞" ϕ H.S. field bolts.

CROSSFRAME F5

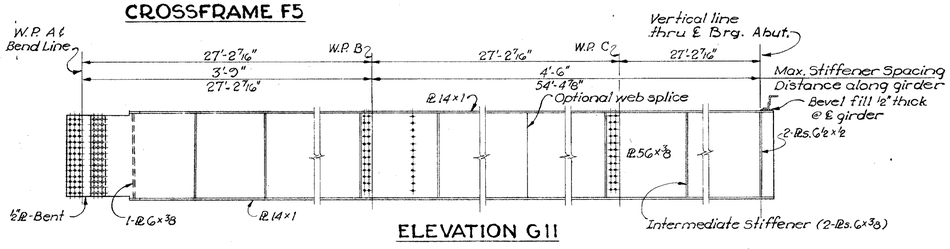


SECTION C-C

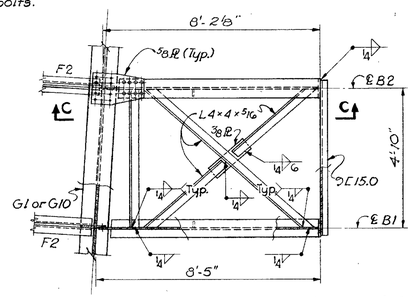
All holes to be 13/16" ϕ for ¾" ϕ shop rivets or ¾" ϕ H.S. field bolts.



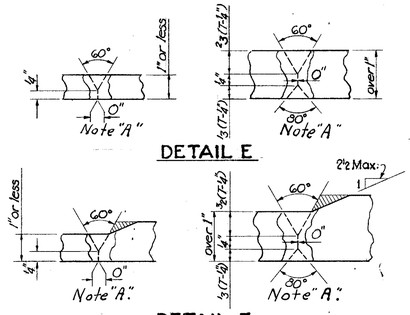
SPECIAL ROCKER DETAIL



ELEVATION G11



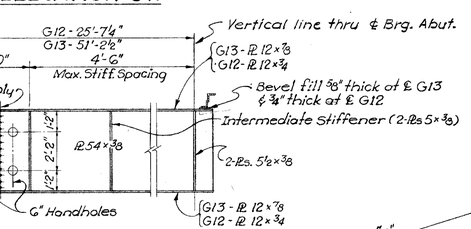
UPPER STAIR LANDING SUPPORT - B1 & B2



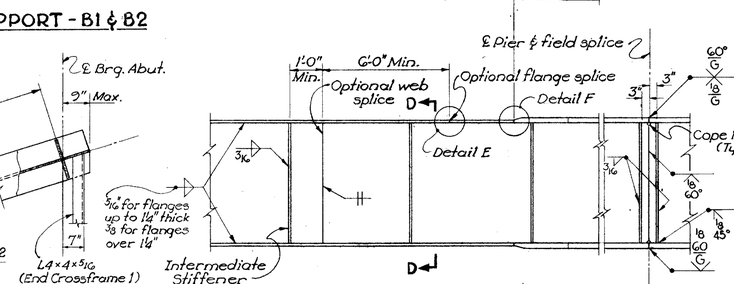
DETAIL E

DETAIL F

Note "A" - Weld after placing at least one pass other side.



ELEVATION G12 & G13

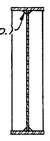


DETAIL D

DETAIL C

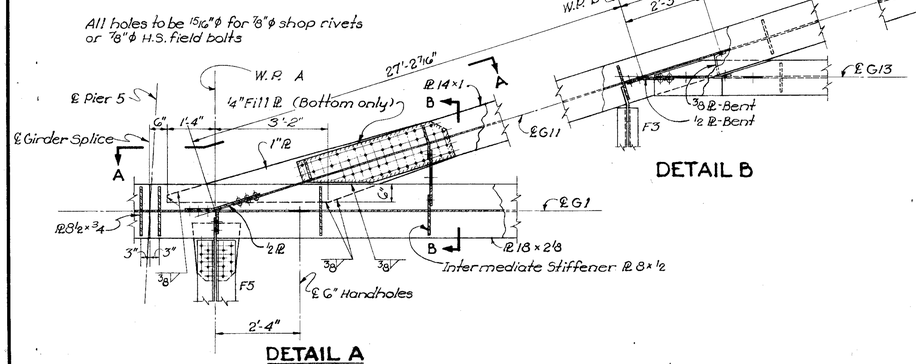
GIRDER WELDS & DETAILS

NOTE: Brg. Stiffeners at Abut. and Pier 1 may be shop welded



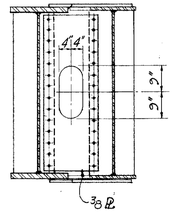
SECTION D-D

All holes to be 15/16" ϕ for ⅞" ϕ shop rivets or ⅞" ϕ H.S. field bolts.

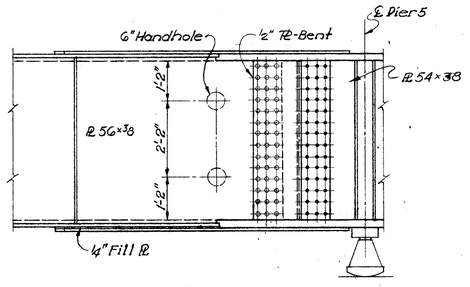


DETAIL A

DETAIL B



SECTION B-B



VIEW A-A

VOGT, IVERS, SEAMAN & ASSOCIATES
ENGINEERS CINCINNATI ARCHITECTS CHICAGO

GIRDER DETAILS

BRIDGE NO. HAM-25-0252
MILL CREEK EXPRESSWAY UNDER U.S. 52
HAMILTON COUNTY STA. 7 + 54.25 to STA. 11 + 56.03

DESIGNED	DRAWN	TRACED	CHECKED	REVIEWED	DATE	REVISED
G.J.C.	G.J.C.	J.C.H.	C.E.S.	JAD	5-61	

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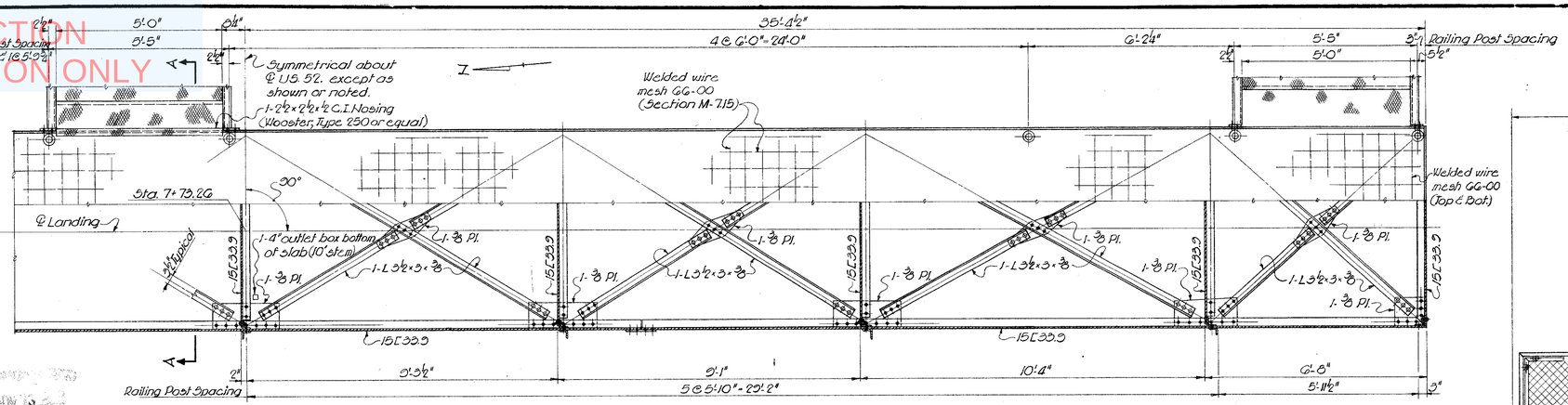
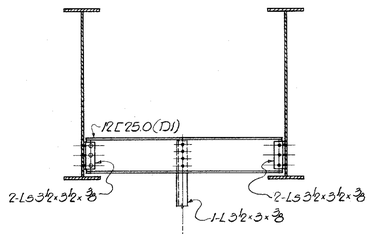
FED. RD. DIVISION	STATE	PROJECT	
2	OHIO		

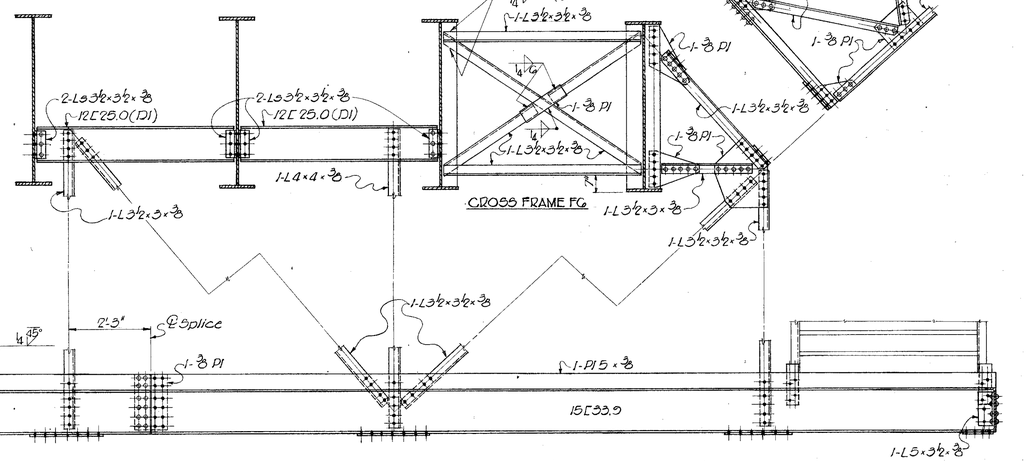
HAM-25-1.03

362 / 486



PLAN





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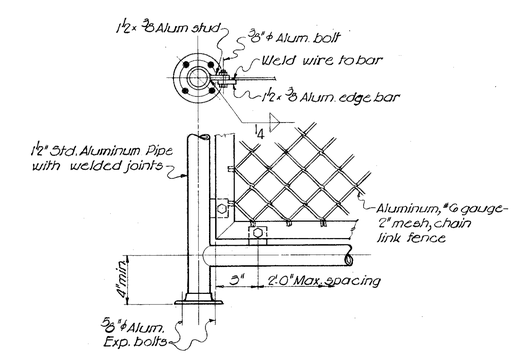
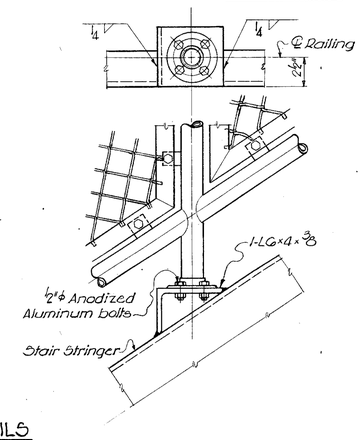
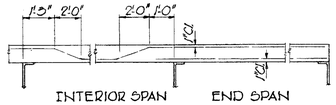
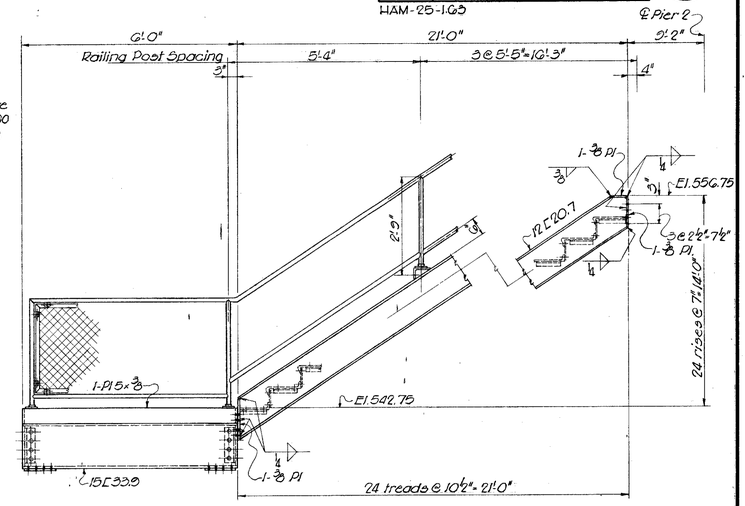




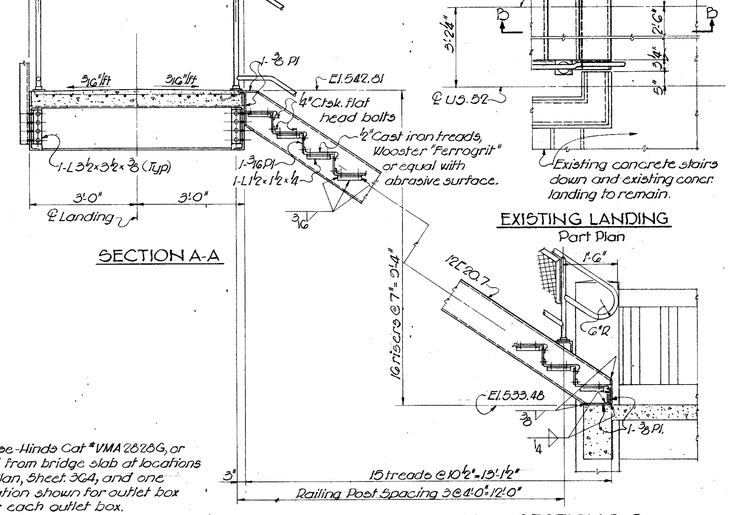
RAILING DETAILS



DRAPE OF MESH REINFORCING



END VIEW



SECTION A-A

EXISTING LANDING
Part Plan

SECTION B-B

STAIRWAY LIGHTING

Stairs are to be lighted by five Crouse-Hinds Cat # VMA 2828G, or equal, fixtures as follows: 4 supported from bridge slab at locations shown for outlet boxes on Deck Slab Plan, Sheet 304, and one supported from lower landing at location shown for outlet box this sheet. Length of stem is noted for each outlet box.

Three-fourths-inch aluminum conduit will be provided connecting all outlet boxes with transformer compartment in south end of existing Pier 15. Enclose conduit in deck slab for boxes in slab. For box in lower landing bring conduit down inside of 3½"×3" hanger angle. Continue conduit from this box down proposed stairs to next lower landing and connect to existing conduit in concrete landing.

VOGT, IVERS, SEAMAN & ASSOCIATES
ENGINEERS CINCINNATI — ARCHITECTS CHICAGO

STAIRS AND LOWER LANDING

BRIDGE NO. HAM-25-0252
MILL CREEK EXPRESSWAY
UNDER U.S. 52

HAMILTON COUNTY STA. 7+54.25 TO STA. 11+56.09

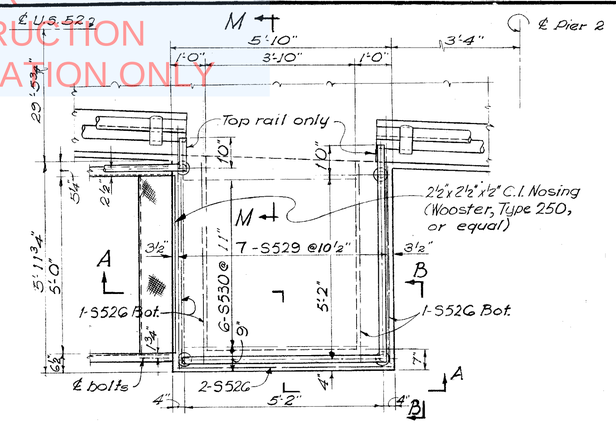
DESIGNED	DRAWN	TRACED	CHECKED	REVIEWED	DATE	REVISED
G.J.C.	S.T.	~	C.E.S.	JAD	5-61	

NOT FOR CONSTRUCTION INFORMATION ONLY

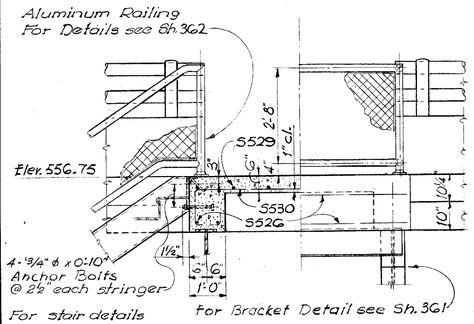
FED. RD. DIVISION	STATE	PROJECT	
2	OHIO		

HAM-25-1.63

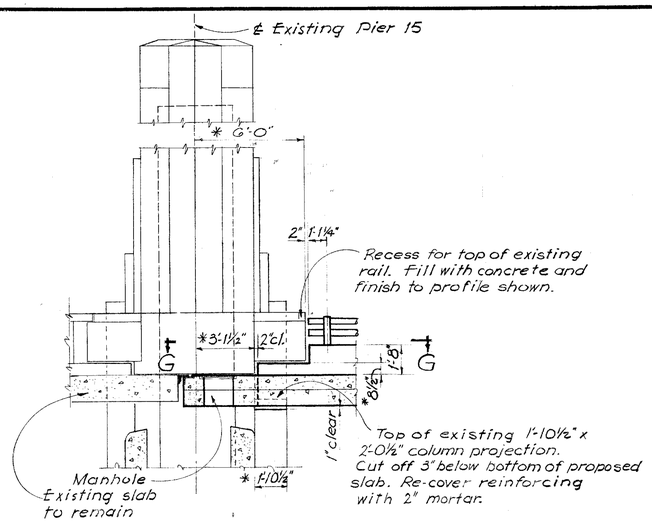
3G3 / 48G

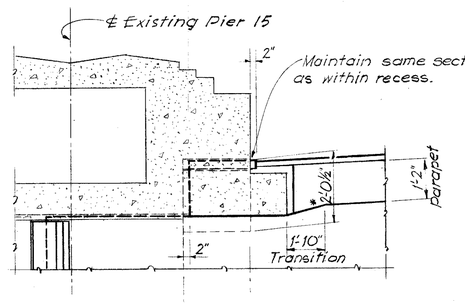


PLAN OF UPPER STAIR LANDING



SECTION A-A

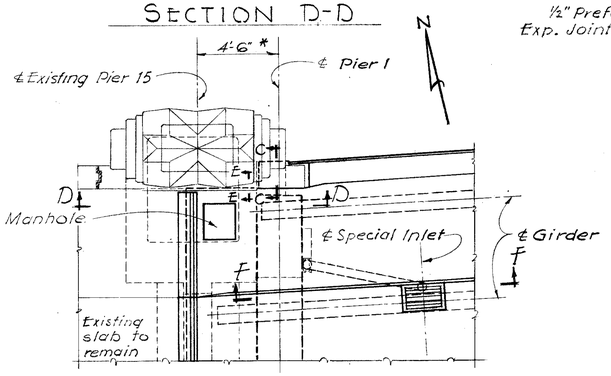




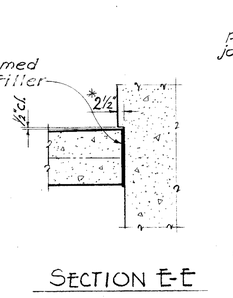
SECTION G-G

NOTES:
1. For details of drainage inlets, pipe supports and hangers, see Miscellaneous Structural Details, Sh. 412
2. Dimensions marked with asterisk are taken from "As Built" plans of existing bridge and may not check field measurements exactly

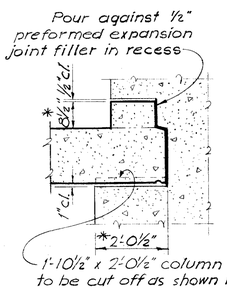
SECTION D-D



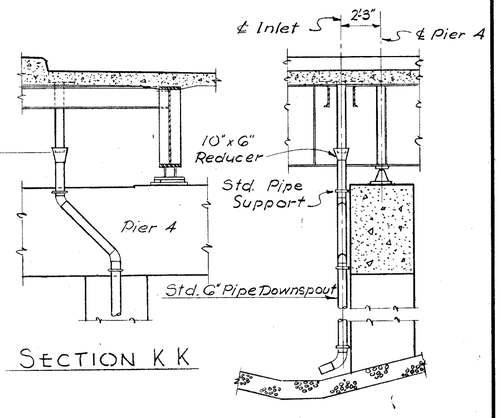
PART PLAN AT PIER 1



SECTION E-E



SECTION C-C

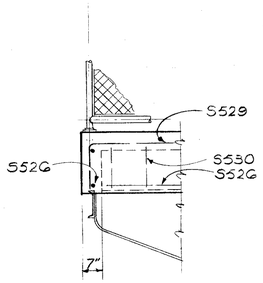


SECTION K K

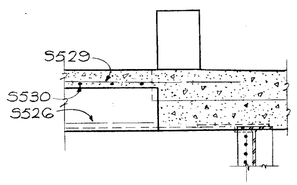
SECTION L-L

DRAINAGE DETAILS AT PIER 4

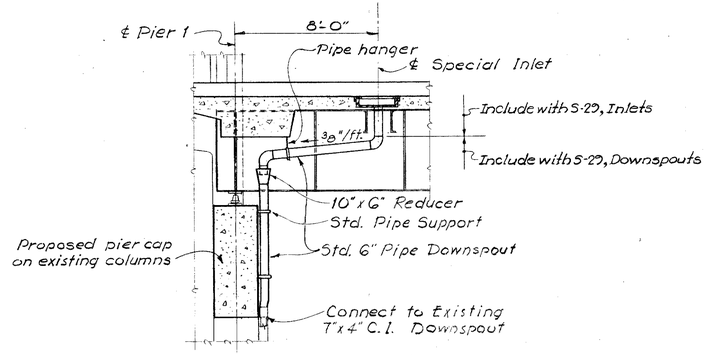
For location of Sections K-K & L-L, see Sh. 3G5



VIEW B-B

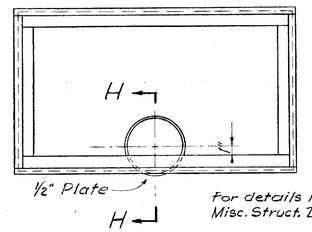


SECTION M-M



SECTION F-F

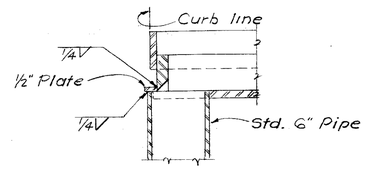
Showing Drainage Details at Pier 1



For details not shown, see Misc. Struct. Details, Sh. 412

SPECIAL INLET FRAME

2 REQUIRED



SECTION H-H

VOGT, IVERS, SEAMAN & ASSOCIATES
ENGINEERS CINCINNATI — ARCHITECTS CHICAGO

DRAINAGE AND MISCELLANEOUS SUPERSTRUCTURE DETAILS

BRIDGE NO. HAM.-25-0252
MILL CREEK EXPRESSWAY
UNDER U.S. 52

HAMILTON COUNTY STA. 7+54.25 to STA. 11+56.09

DESIGNED	DRAWN	TRACED	CHECKED	REVIEWED	DATE	REVISED
G.J.C.	G.J.C.	T.E.C.	C.E.S.	JAD	5-61	

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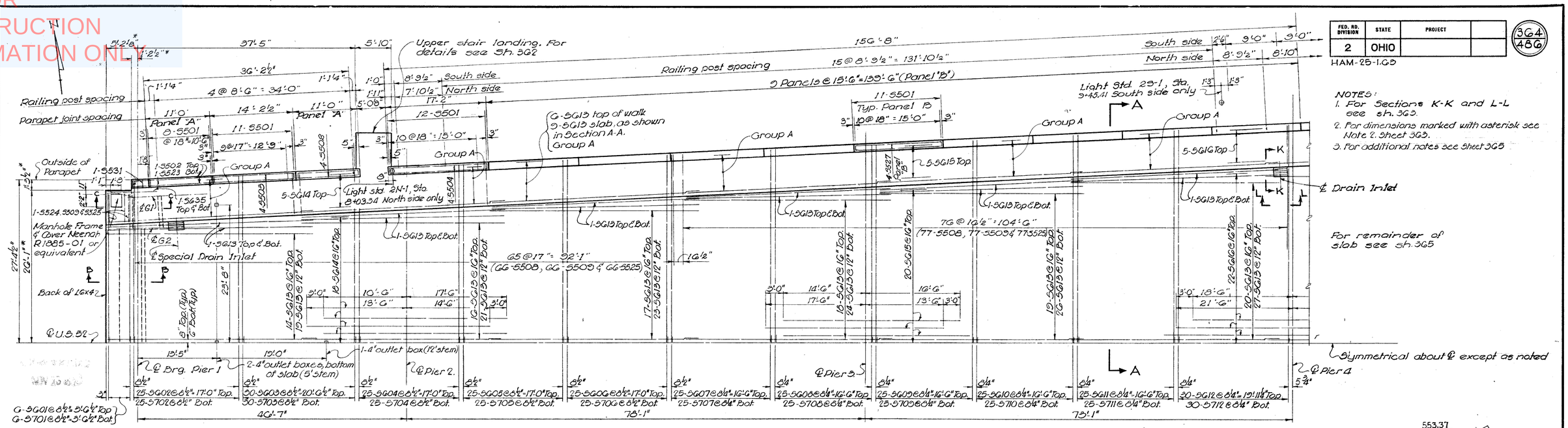
FED. RD. DIVISION	STATE	PROJECT	
2	OHIO		

HAM-25-1.05

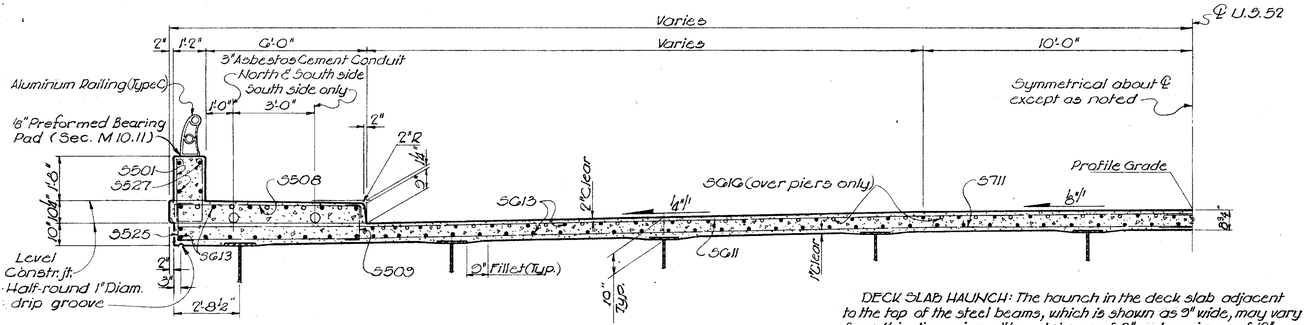
3G4 / 48G

NOTES:
1. For Sections K-K and L-L see sh. 3G3.
2. For dimensions marked with asterisk see Note 2, Sheet 3G3.
3. For additional notes see Sheet 3G5

For remainder of slab see sh. 3G5



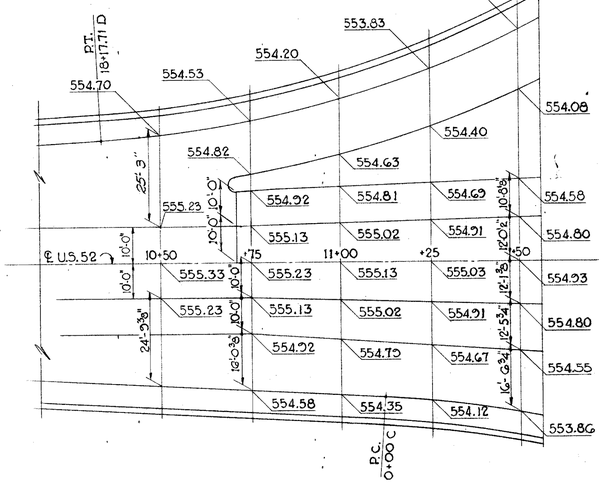
HALF PLAN



SECTION A-A

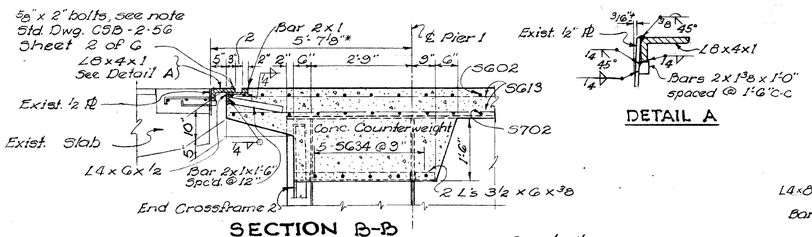
DECK SLAB HAUNCH: The haunch in the deck slab adjacent to the top of the steel beams, which is shown as 9" wide, may vary from this dimension with a minimum of 6" and maximum of 12". Maximum slope of haunch shall be one vertical to four horizontal. Payment for deck slab concrete shall be based on the 9" width.

PAVEMENT ELEVATIONS Sta. 7+75 to Sta. 10+25				
STATION	PROFILE GRADE	10' FROM ℄	CURB LINE OFFSET FROM ℄	CURB LINE ELEV.
7+75	556.43	556.33	21'-0⅜"	556.10
8+00	556.33	556.23	22'-3⅜"	555.97
+25	556.23	556.13	23'-6⅜"	555.84
+50	556.13	556.03	24'-9⅜"	555.72
+75	556.03	555.93	26'-0⅜"	555.59
9+00	555.93	555.83	27'-3⅜"	555.47
+25	555.83	555.73	28'-6⅜"	555.34
+50	555.73	555.63	29'-9⅜"	555.21
+75	555.63	555.53	31'-0⅜"	555.09
10+00	555.53	555.43	32'-3⅜"	554.96
+25	555.43	555.33	33'-6⅜"	554.84



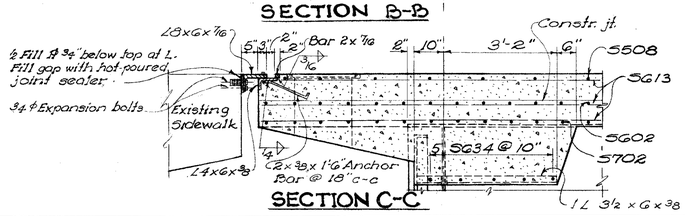
PAVEMENT ELEVATIONS

Sta. 10+50 to Sta. 11+50

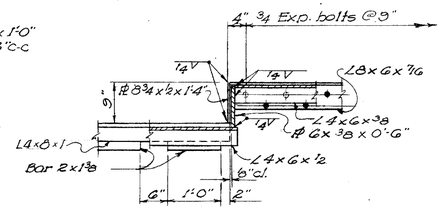


SECTION B-B

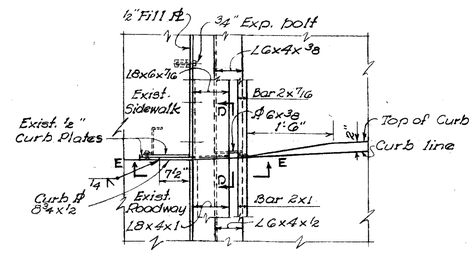
DETAIL A



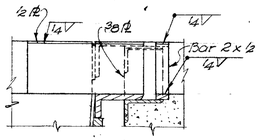
SECTION C-C



SECTION D-D



PLAN OF EXPANSION JOINT



SECTION E-E

VOGT, IVERS, SEAMAN & ASSOCIATES
ENGINEERS — ARCHITECTS
CINCINNATI — CHICAGO

DECK SLAB

BRIDGE NO. HAM-25-0252
MILL CREEK EXPRESSWAY
UNDER U.S. 52.

HAMILTON COUNTY STA. 7+54.25 to STA. 11+50.05

DESIGNED	DRAWN	TRACED	CHECKED	REVIEWED	DATE	REVISED
G.J.C.	S.T.	S.T.	C.E.S	JAD - 54		

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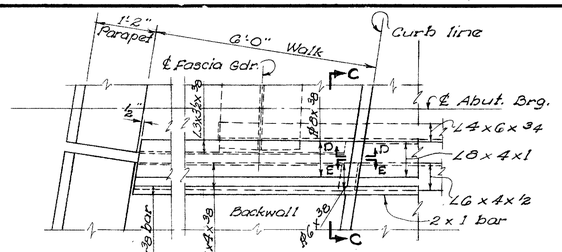
FED. RD. DIVISION	STATE	PROJECT	
2	OHIO		

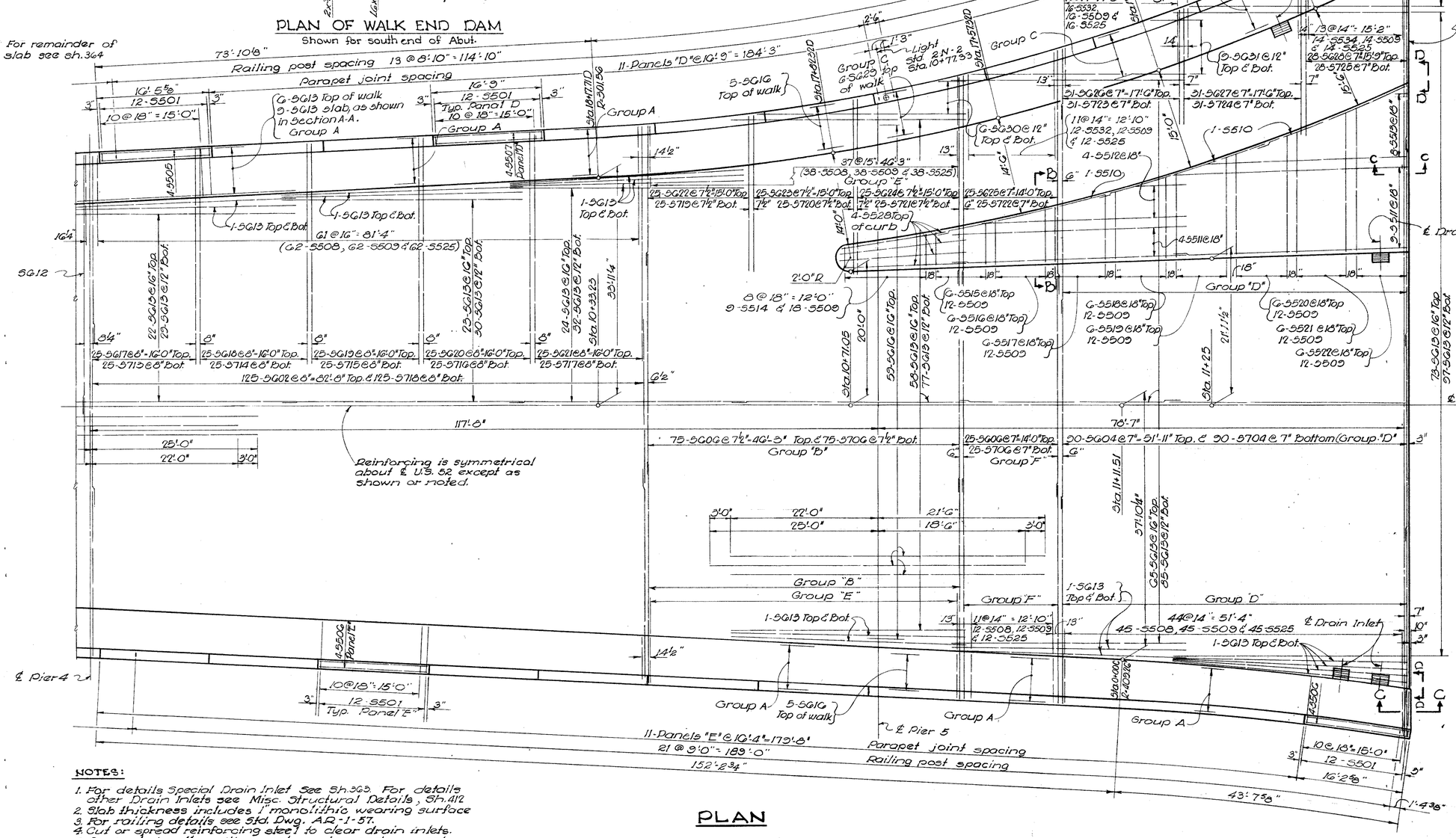
365 486

HAM-25-1.03

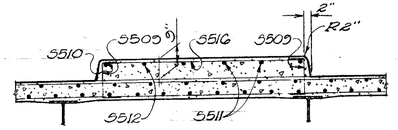


PLAN OF WALK END DAM

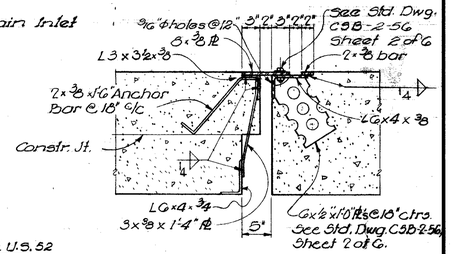
Shown for south end of Abut.



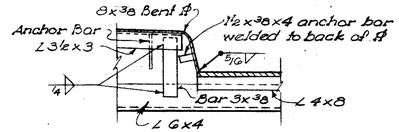
SECTION B-B



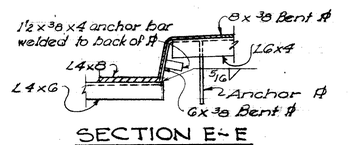
SECTION C-C



SECTION D-D



SECTION E-E



NOTES:

1. For details Special Drain Inlet See Sh. 363. For details other Drain Inlets see Misc. Structural Details, Sh. 412
2. Slab thickness includes 1" monolithic wearing surface
3. For railing details see Std. Dwg. AR-1-57.
4. Cut or spread reinforcing steel to clear drain inlets.
5. Parapet length, railing post spacing and parapet joint spacing are measured along ℄ Parapet.
6. Lighting and conduits: Three-inch-asbestos cement conduit shall be provided in sidewalks as shown in Section A-A. Pull boxes as detailed on Sh. 361 shall be placed at locations shown on Site Plan Sh. 349. Expansion sleeves shall be used between deck slab and abutment back wall.
   Outlet boxes shown on Sh. 364 are for stairway lighting. See Note Sh. 362 for necessary conduit and further details. Stem length shown is for light fixture at that location.

PLAN

VOGT, IVERS, SEAMAN & ASSOCIATES
ENGINEERS CINCINNATI — ARCHITECTS CHICAGO

DECK SLAB

BRIDGE NO. HAM-25-0252
MILL CREEK EXPRESSWAY
UNDER U.S. 52.

HAMILTON COUNTY STA. 7+54.25 to STA. 11+50.09

DESIGNED	DRAWN	TRACED	CHECKED	REVIEWED	DATE	REVISED
G.J.C.	S.T.	S.T.	C.E.S.	J.A.D.	5-61	

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FED. RD. DIVISION	STATE	PROJECT	
2	OHIO		

HAM-25-1.03

366
486

REINFORCING STEEL LIST

SUPERSTRUCTURE

MARK	LENGTH	SHAPE	NO.	WEIGHT
S501	5'-9"	Bt.	564	3382
*S502	10'-8"	Str.	12	—
*S503	13'-10"	Str.	8	—
*S504	16'-8"	Str.	8	—
*S505	16'-1"	Str.	4	—
*S506	15'-11"	Str.	48	—
*S507	16'-5"	Str.	44	—
S508	7'-9"	Bt.	543	4388
S509	2'-2"	Bt.	720	1627
S510	25'-0"	Str.	4	104
S511	35'-2"	Str.	13	477
S512	Varies 6'-6" to 29'-0" Incr. 7'-6"	Str.	1series of 4	74
S513	Varies 3'-2" to 30'-0" Incr. 3'-10"	Str.	1series of 8	130
S514	Varies 3'-1" to 5'-1" Incr. 3"	Str.	1series of 9	38
S515	Varies 5'-1" to 6'-4" Incr. 3"	Str	1series of 6	36
S516	Varies 6'-5" to 8'-1" Incr. 4"	Str.	1series of 6	45
S517	Varies 8'-5" to 10'-1" Incr. 4"	Str.	1series of 6	58
S518	Varies 10'-7" to 12'-3" Incr. 4"	Str.	1series of 6	71
S519	Varies 12'-8" to 14'-9" Incr. 5"	Str.	1series of 6	86
S520	Varies 15'-6" to 18'-0" Incr. 6"	Str.	1series of 6	105
S521	Varies 18'-8" to 21'-2" Incr. 6"	Str.	1series of 6	125
S522	Varies 21'-5" to 24'-8" Incr. 8"	Str.	1series of 6	144
*S523	13'-6"	Str.	4	—
S524	6'-7"	Bt.	6	41
S525	2'-4"	Bt.	606	1475
S526	5'-6"	Str.	12	69
*S527	15'-2"	Str.	72	—
S528	16'-8"	Str.	4	70
S529	9'-1"	Bt.	7	66
S530	9'-6"	Bt.	6	59
S531	2'-11"	Bt.	2	6
S532	8'-0"	Bt	28	234
S533	8'-3"	Bt.	15	129
S534	8'6"	Bt.	14	124
SG01	26'-11"	Str.	12	485
SG02	29'-0"	Str.	175	7623
SG03	30'-1"	Str.	60	2711
SG04	30'-11"	Str.	320	14,860
SG05	31'-10"	Str.	50	2381
SG06	32'-9"	Str.	250	12,298
SG07	33'-7"	Str.	50	2522
SG08	34'-5"	Str.	50	2585
SG09	35'-4"	Str.	50	2654
SG10	36'-2"	Str.	50	2716
SG11	37'-0"	Str.	50	2779
SG12	38'-0"	Str.	60	3425
SG13	35'-8"	Str.	1670	89,464
SG14	28'-0"	Str.	46	1935
SG15	31'-0"	Str.	50	2328
SG16	43'-6"	Str.	123	8036
SG17	25'-6"	Str.	50	1915
SG18	26'-4"	Str.	50	1978
SG19	27'-2"	Str.	50	2040
SG20	28'-1"	Str.	50	2109
SG21	28'-8"	Str.	50	2153
SG22	Varies 21'-3" to 23'-3" Incr. 1"	Str	1series of 25	835
SG23	Varies 24'-6" to 26'-6" Incr. 1"	Str.	1series of 25	958
SG24	Varies 26'-6" to 30'-6" Incr. 2"	Str.	1series of 25	1070
SG25	Varies 30'-6" to 36'-6" Incr. 3"	Str.	1series of 25	1258
SG26	Varies 10'-4" to 17'-10" Incr. 3"	Str.	1series of 31	656
SG27	Varies 18'-6" to 26'-0" Incr. 3"	Str.	1series of 31	1036
SG28	Varies 27'-3" to 36'-3" Incr. 4"	Str.	1series of 28	1335
SG29	36'-6"	Str.	18	987
SG30	Varies 4'-0" to 30'-8" Incr. 5'-4"	Str.	2series of 6	312
SG31	Varies 4'-3" to 32'-3" Incr. 3'-6"	Str.	2series of 9	493
SG32	Varies 17'-6" to 32'-6" Incr. 2'-6"	Str.	2series of 7	526
SG33	Varies 3'-3" to 15'-3" Incr. 2'-0"	Str.	2series of 7	195
SG34	5'-2"	Str.	45	349
SG35	8'-0"	Str.	2	24
S701	27'-1"	Str.	12	664
S702	29'-2"	Str.	50	2981
S703	30'-3"	Str.	60	3710
S704	31'-1"	Str.	320	20,331
S705	32'-0"	Str.	50	3270
S706	32'-11"	Str.	250	16,821
S707	33'-9"	Str.	50	3449
S708	34'-7"	Str.	50	3534
S709	35'-6"	Str.	50	3628
S710	36'-4"	Str.	50	3713
S711	37'-2"	Str.	50	3798
S712	38'-2"	Str.	60	4681
S713	25'-8"	Str.	50	2623
S714	26'-6"	Str.	50	2708
S715	27'-4"	Str.	50	2793
S716	28'-2"	Str.	50	2878
S717	28'-10"	Str.	50	2947
S718	29'-0"	Str.	125	7410
S719	Varies 21'-9" to 23'-9" Incr. 1"	Str.	1series of 25	1163
S720	Varies 24'-10" to 26'-10" Incr. 1"	Str.	1series of 25	1320
S721	Varies 27'-0" to 31'-0" Incr. 2"	Str.	1series of 25	1482
S722	Varies 31'-6" to 37'-6" Incr. 3"	Str.	1series of 25	1763
S723	Varies 11'-0" to 18'-6" Incr. 3"	Str.	1series of 31	935
S724	Varies 19'-3" to 26'-9" Incr. 3"	Str.	1series of 31	1457
S725	Varies 27'-9" to 36'-9" Incr. 4"	Str.	1series of 28	1846
GG-00 Mesh Fabric, 3 Sheets 24'-0"x5'-6", 2 Sheets 7'-6"x 5'-6"				513

ABUTMENTS

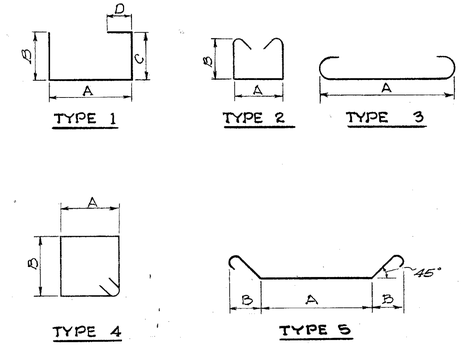
MARK	LENGTH	SHAPE	NO.	WEIGHT
A501	4'-2"	Bt.	88	383
A502	7'-0"	Str.	36	253
A503	6'-6"	Str.	21	142
A504	6'-3"	Str.	14	91
A505	5'-8"	Str.	13	77
A506	30'-2"	Str.	66	2077
A507	6'-5"	Str.	2	13
A508	5'-8"	Str.	4	24
A509	19'-0"	Str.	5	99
A510	7'-5"	Bt.	38	284
*A511	19'-2"	Str.	4	—
*A512	17'-2"	Str.	4	—
A513	18'-2"	Str.	6	120
A514	17'-2"	Str.	6	107
A515	7'-5"	Str.	37	286
A516	15'-4"	Str.	4	22
A517	6'-8"	Str.	33	229
A518	6'-9"	Bt.	12	84
A519	Varies 3'-8" to 6'-0" Incr. 4"	Str.	2series of 8	81
A520	Varies 3'-5" to 5'-9" Incr. 4"	Bt.	2series of 8	76
A521	20'-10"	Str.	2	44
A522	13'-0"	Str.	1	14
A523	11'-4"	Str.	1	12
A524	9'-2"	Str.	1	10
A525	11'-0"	Str.	11	126
A526	12'-10"	Str.	8	107
A527	25'-0"	Str.	1	26
A528	5'-2"	Bt.	125	674
A529	8'-6"	Str.	4	35
A530	6'-1"	Bt.	22	185
A531	8'-0"	Str.	22	184
A532	7'-0"	Bt.	10	73
A533	16'-10"	Str.	1	18
A534	15'-2"	Str.	1	16
A535	15'-0"	Str.	1	16
A536	13'-2"	Str.	1	14
AG01	4'-6"	Bt.	84	568
AG02	6'-11"	Str.	36	374
AG03	6'-6"	Str.	21	205
AG04	6'-3"	Str.	14	131
AG05	5'-9"	Str.	13	112
AG06	33'-0"	Str.	28	1388
AG07	15'-0"	Str.	2	45
AG08	13'-6"	Str.	2	41
AG09	8'-7"	Bt.	82	1057
AG10	9'-1"	Bt.	123	1678
AG11	8'-2"	Bt.	87	1067
AG12	5'-10"	Bt.	87	762
AG13	8'-11"	Bt.	19	254
AG14	7'-5"	Bt.	19	212
AG15	15'-6"	Bt.	17	396

PIERS

MARK	LENGTH	SHAPE	NO.	WEIGHT
P401	13'-5"	Bt.	867	7771
P402	9'-5"	Bt.	1734	10,908
P501	29'-4"	Str.	8	245
P502	8'-11"	Bt.	16	149
P503	9'-3"	Bt.	364	3512
P504	33'-4"	Str.	8	278
P505	37'-1"	Str.	8	309
P506	4'-11"	Bt.	200	1026
P507	22'-3"	Str.	16	371
P508	26'-9"	Str.	20	558
P509	3'-11"	Bt.	40	163
P510	9'-3"	Bt.	56	540
P901	21'-10"	Str.	14	1039
P902	13'-2"	Bt.	48	2149
P903	12'-8"	Bt.	312	13,437
P904	10'-2"	Str.	14	484
P905	24'-4"	Bt.	12	993
P1001	36'-7"	Bt.	4	630
P1002	15'-6"	Bt.	64	4269
P1003	42'-4"	Str.	2	364
P1004	16'-0"	Str.	4	275
P1005	39'-4"	Str.	4	677
P1006	47'-6"	Bt.	2	409
P1007	12'-0"	Str.	4	207
P1008	43'-4"	Str.	4	746
P1009	45'-2"	Bt.	2	389
P1010	21'-4"	Bt.	4	367
P1101	7'-5"	Bt.	216	8511
P1102	33'-4"	Str.	36	6376
P1103	26'-1"	Str.	14	1866
P1104	42'-3"	Str.	8	1796
P1105	20'-11"	Str.	7	778
P1106	32'-0"	Str.	48	8161
P1107	37'-6"	Str.	81	16,138
P1108	34'-4"	Str.	10	1824
P1109	15'-8"	Str.	4	333
P1110	18'-4"	Str.	14	1364
P1111	30'-11"	Str.	12	1971
P1112	14'-6"	Str.	4	308
P1113	38'-5"	Str.	72	14,696
P1114	14'-0"	Str.	11	818
P1115	44'-1"	Bt.	4	936
P1116	21'-6"	Bt.	4	457
P1117	32'-9"	Str.	14	2436
P1118	18'-0"	Str.	13	1243
P1119	28'-6"	Str.	12	1817

BENT BARS

MARK	TYPE	A	B	C	D
S501	2	10"	2'-2"		
S508	1	6'-8"	8"	8"	—
S509	1	1'-1"	8"	8"	—
S524	1	5'-6"	8"	8"	—
S525	1	1'-3"	8"	8"	—
S529	1	8'-2"	1'-1"	—	—
S530	7	5'-6"	1'-1"	8	8
S531	1	10"	1'-2"	1'-2"	
S532	1	6'-11"	8"	8"	—
S533	1	7'-2"	8"	8"	—
S534	1	7'-5"	8"	8"	—
A501	1	3'-7"	8"	—	—
A510	2	10"	3'-0"	—	—
A518	1	6'-3"	8"	—	—
A520	1	Varies 2'-11" to 5'-3"	8"	—	—
A528	1	3'-5"	1'-0"	1'-0"	—
A530	1	1'-2"	3'-7"	3'-7"	—
A532	1	6'-6"	8"	—	—
AG01	1	3'-8"	1'-0"	—	—
AG09	3	7'-3"			—
AG10	1	1'-5"	4'-0"	4'-0"	—
AG11	1	6'-3"	11"	1'-4"	—
AG12	1	5'-2"	10"	—	—
AG13	1	7'-0"	11"	1'-4"	—
AG14	1	6'-9"	10"	—	—
AG15	1	1'-5"	7'-0"	7'-3"	—
P401	4	3'-2"	3'-2"		
P402	4	1'-2"	3'-2"		
P502	6	5'-5"	3'-6"	—	1'-6"
P503	1	3'-2"	3'-2"	3'-2"	—
P506	1	3'-2"	1'-0"	1'-0"	—
P509	1	2'-2"	1'-0"	1'-0"	—
P510	1	2'-2"	3'-8"	3'-8"	—
P902	3	10'-8"			
P903	3	10'-2"			
P905	3	21'-10"			
P1001	6	21'-3"	4'-6"	8'-11"	4'-7"
P1002	3	12'-8"			
P1006	5	34'-0"	4'-2"	—	
P1009	5	30'-0"	4'-9"	—	
P1010	6	6'-0"	4'-6"	8'-11"	4'-7"
P1101	1	6'-3"	1'-6"	—	—
P1115	1	38'-6"	5'-11"	—	—
P1116	1	15'-11"	5'-11"	—	—



REPLACEMENT BARS

MARK	LENGTH	SHAPE	NO.
RE 4	5'-3"	Str.	1
RE 5	5'-7"	Str.	2
RE 6	5'-11"	Str.	10
RE 7	6'-3"	Str.	6
RE 8	6'-6"	Str.	—
RE 9	6'-10"	Str.	1
RE 10	7'-3"	Str.	1
RE 11	7'-7"	Str.	4

1. *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*
2. *Bars marked with single asterisks to be included for payment under Item 514, Railing.*
3. *Bar dimensions are out to out.*
4. *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 5402 need not be furnished and replacement bars will not be required.*

VOGT, IVERS, SEAMAN & ASSOCIATES
ENGINEERS — CINCINNATI
ARCHITECTS — CHICAGO

REINFORCING STEEL LIST

BRIDGE NO. HAM-25-0252
MILL CREEK EXPRESSWAY
UNDER U.S. 52

HAMILTON COUNTY STA. 7+54.25 to STA. 11+56.03

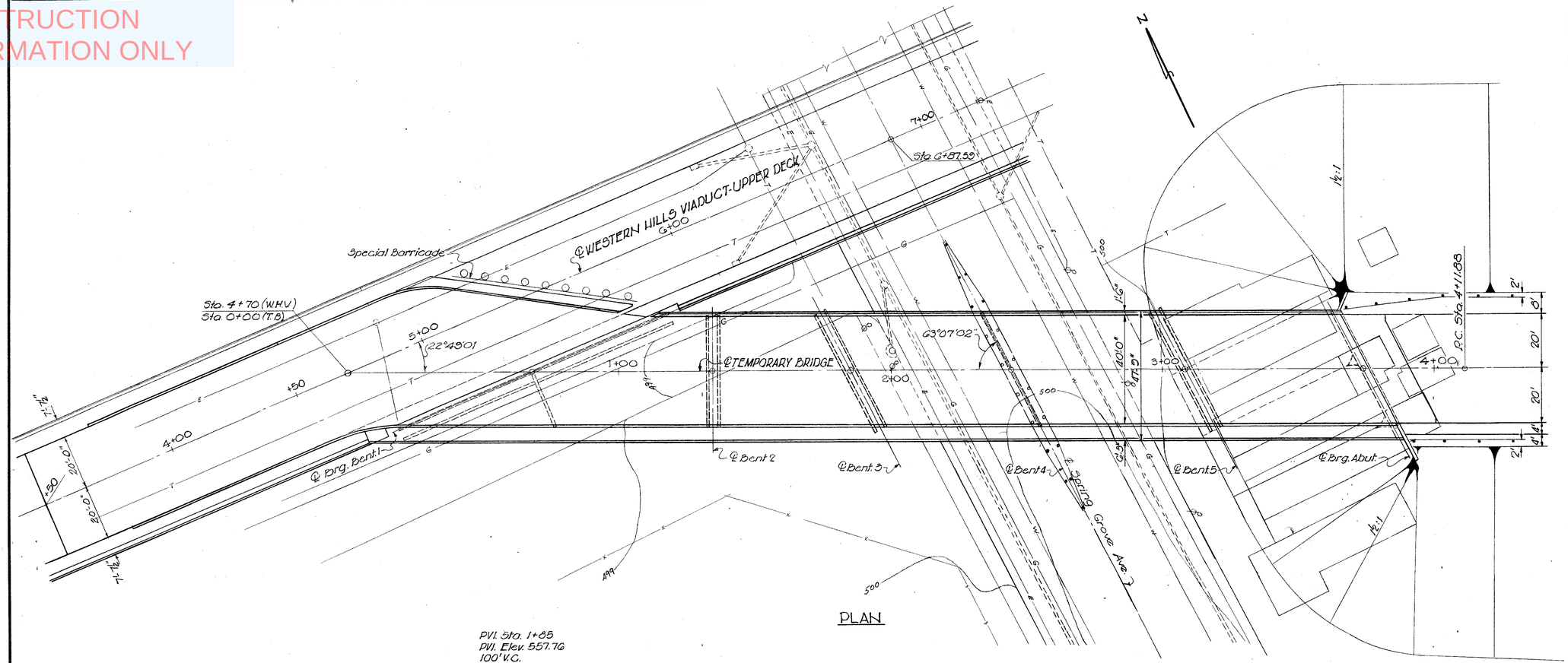
DESIGNED	DRAWN	TRACED	CHECKED	REVIEWED	DATE	REVISED
~	D.Y.F.	~	C.E.S.	JAD	5-61	

NOT FOR CONSTRUCTION INFORMATION ONLY

FED. RD. DIVISION	STATE	PROJECT	
2	OHIO		

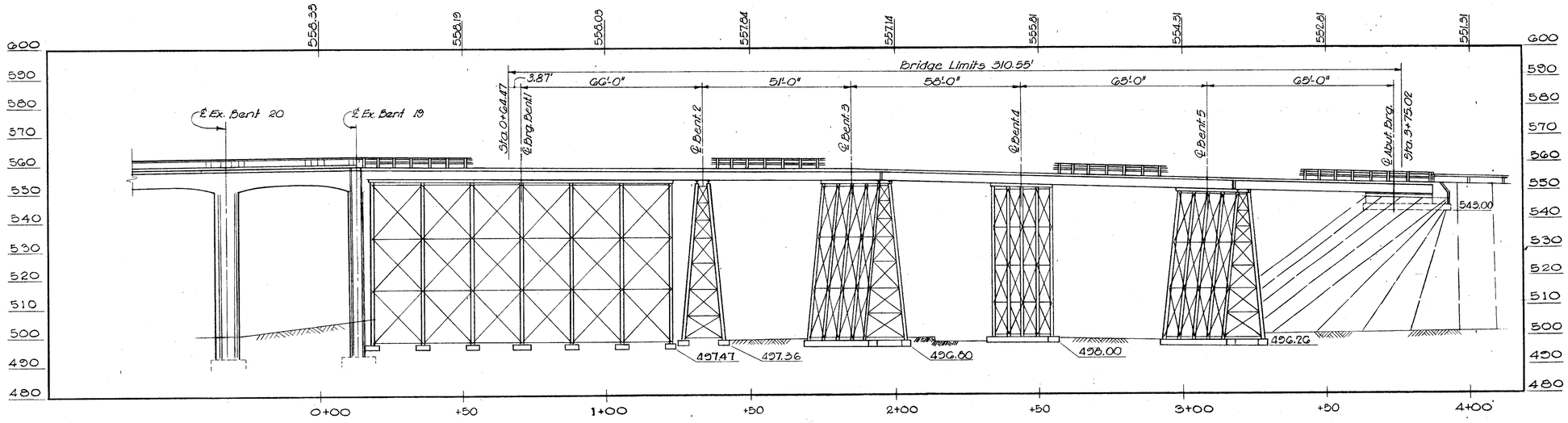
367
486

HAM-25-1.65



PLAN

P.V.I. Sta. 1+65
P.V.I. Elev. 557.76
100' V.C.
Grades: -0.32 %
-3.00 %



ELEVATION

See Sheet 370 for Estimated Quantities.

TEMPORARY STRUCTURE

TYPE: Timber deck on Simple span steel beams and steel bents.
ROADWAY: 40'-0" curb to curb
SPANS: 66'-0", 51'-0", 58'-0", 68'-0", 65'-0"
SKEW: 26°52'58"
LOAD FREQUENCY: CF=130(57)
ALIGNMENT: Tangent
APPROACH SLAB: 15' long (A5-1-54)

VOGT, IVERS, SEAMAN & ASSOCIATES
ENGINEERS — CINCINNATI
ARCHITECTS — CHICAGO

TEMPORARY BRIDGE-SITE PLAN
BRIDGE NO. HAM-25-0252
MILL CREEK EXPRESSWAY UNDER U.S.52

HAMILTON COUNTY STA. 7+54.40 TO STA. 11+06.05

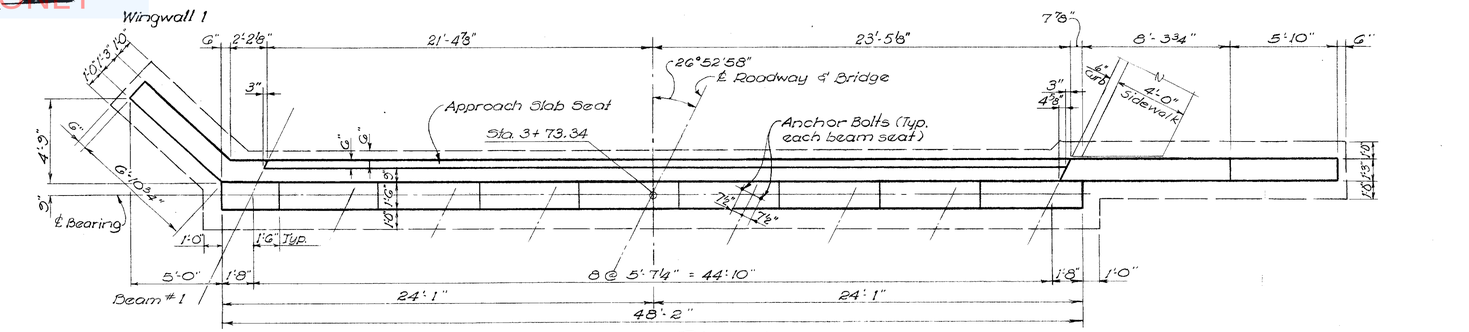
DESIGNED	DRAWN	TRACED	CHECKED	REVIEWED	DATE	REVISED
P.R.B.	P.R.B.	I.V.	REP			

NOT FOR CONSTRUCTION INFORMATION ONLY

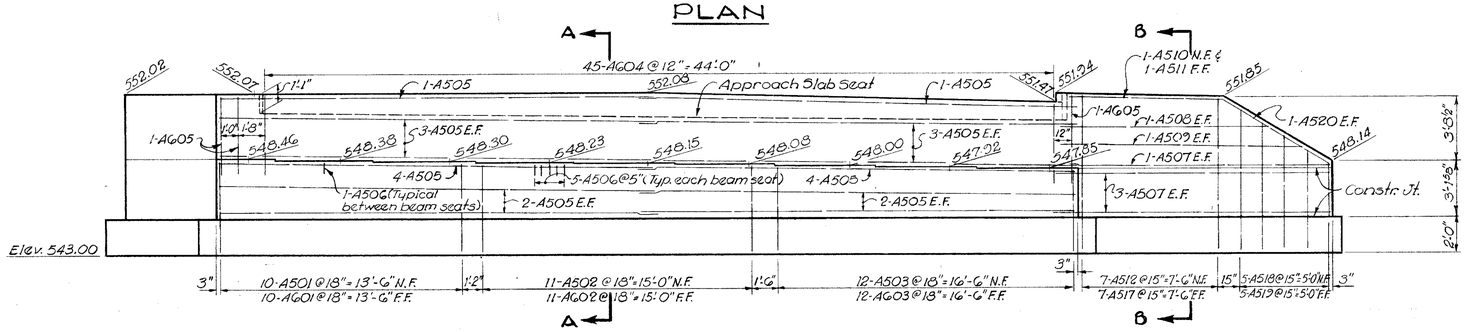
FED. RD. DIVISION	STATE	PROJECT	
2	OHIO		

3G8 / 4OG

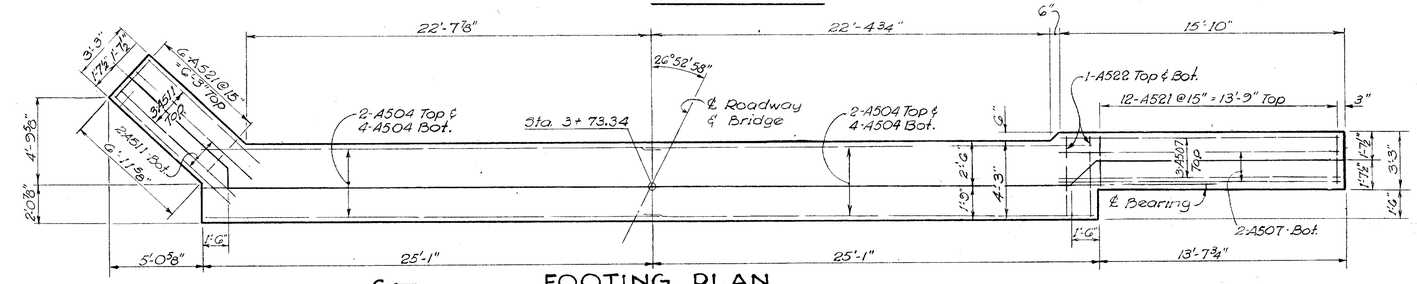
HAM-25-1.63



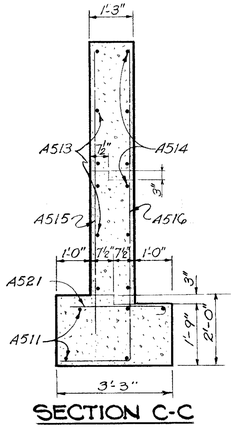
PLAN



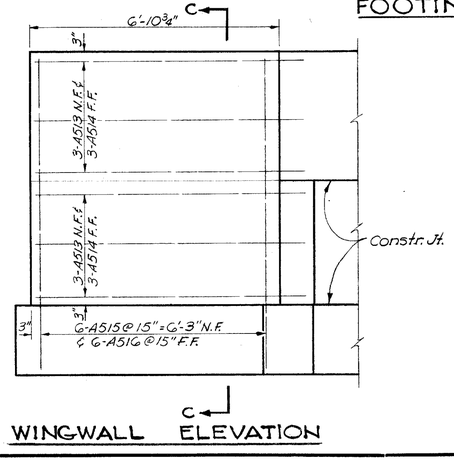
ELEVATION



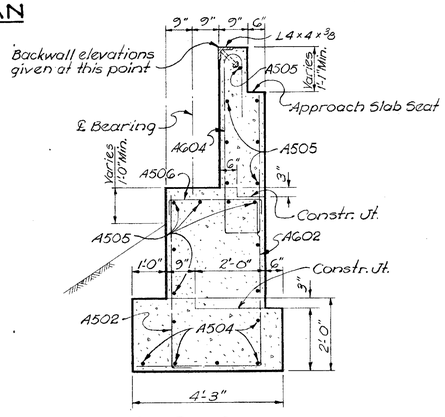
FOOTING PLAN



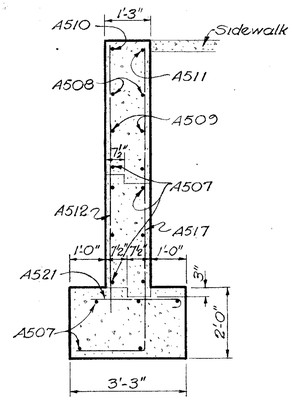
SECTION C-C



WINGWALL ELEVATION



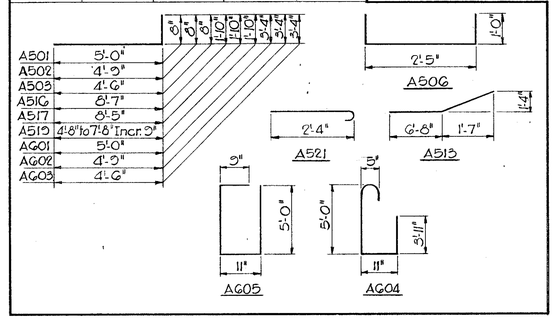
SECTION A-A



SECTION B-B

REINFORCING STEEL LIST

MARK	NO	LENGTH	WEIGHT	SHAPE
A501	10	5'-6"	57	Bt.
A502	11	5'-8"	60	Bt.
A503	12	5'-0"	63	Bt.
A504	12	25'-2"	322	Str.
A505	30	24'-9"	774	Str.
A506	55	4'-2"	230	Bt.
A507	13	15'-6"	210	Str.
A508	2	12'-6"	26	Str.
A509	2	14'-0"	29	Str.
A510	1	9'-3"	10	Str.
A511	6	8'-8"	54	Str.
A512	7	8'-4"	61	Str.
A513	6	8'-8"	54	Bt.
A514	6	7'-6"	47	Str.
A515	6	8'-6"	53	Str.
A516	6	10'-3"	64	Bt.
A517	7	10'-1"	74	Bt.
A518	1 Series of 5	Varies 4'-8" to 7'-8" Incr. 9"	32	Str.
A519	1 Series of 5	Varies 6'-4" to 9'-4" Incr. 9"	41	Bt.
A520	2	7'-0"	15	Str.
A521	18	2'-11"	55	Bt.
A522	4	41'-5"	18	Str.
AG01	10	8'-2"	125	Bt.
AG02	11	7'-11"	131	Bt.
AG03	12	7'-8"	138	Bt.
AG04	45	10'-10"	732	Bt.
AG05	3	11'-2"	50	Bt.



NOTE:

1. Designations used are as follows:
   N.F. = Near Face
   F.F. = Far Face
   E.F. = Each Face

VOGT, IVERS, SEAMAN & ASSOCIATES
ENGINEERS CINCINNATI — ARCHITECTS CHICAGO

TEMPORARY BRIDGE-ABUTMENT
BRIDGE NO. HAM-25-0252
MILL CREEK EXPRESSWAY UNDER U.S. 52

HAMILTON COUNTY STA. 7+54.40 TO STA. 11+06.90

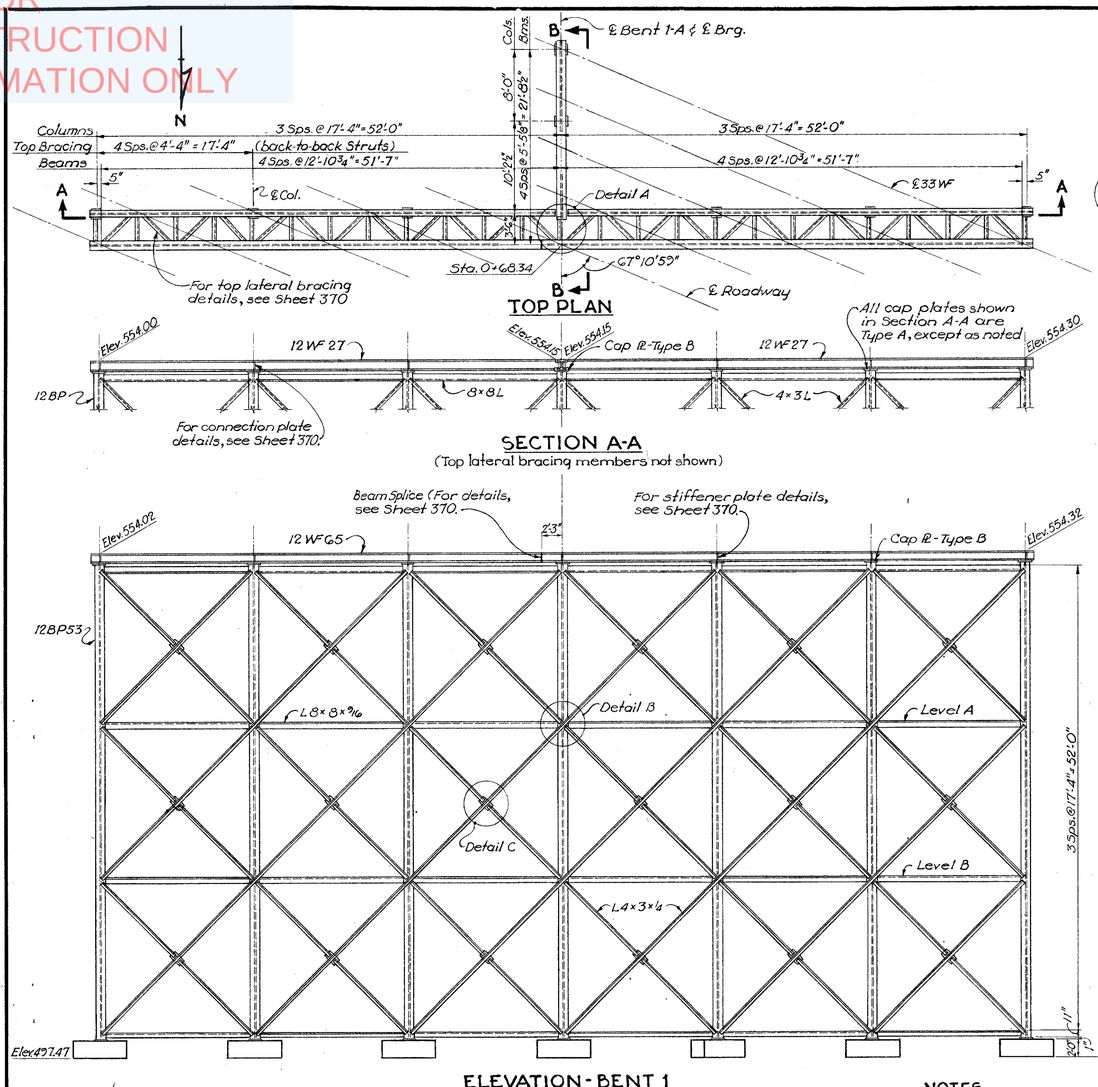
DESIGNED	DRAWN	TRACED	CHECKED	REVIEWED	DATE	REVISED
P.R.B.	P.R.B.	J.H.	C.E.S.			

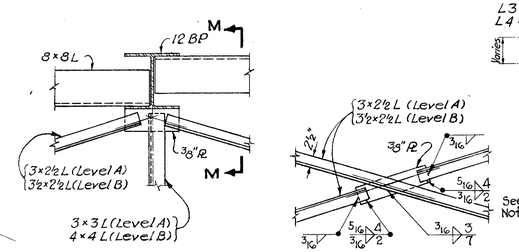
NOT FOR CONSTRUCTION INFORMATION ONLY

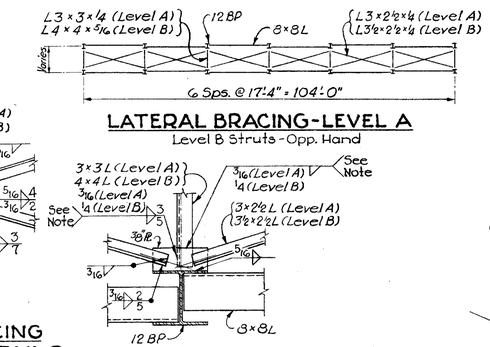
FED. RD. DIVISION	STATE	PROJECT	
2	OHIO		

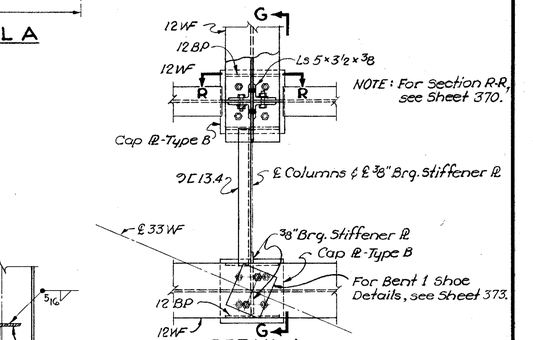
HAM-25-1.63

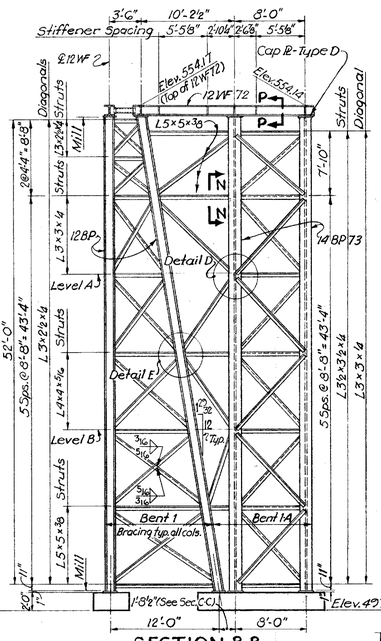
369 486

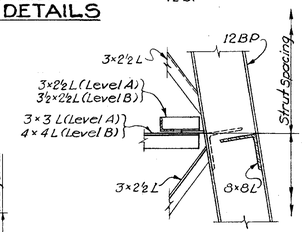


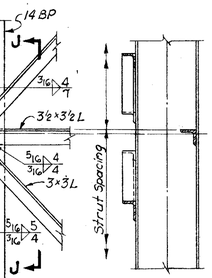


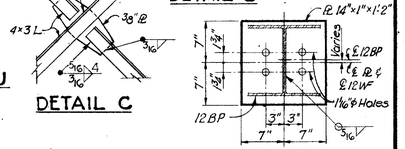


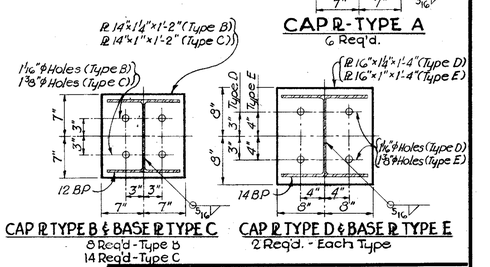


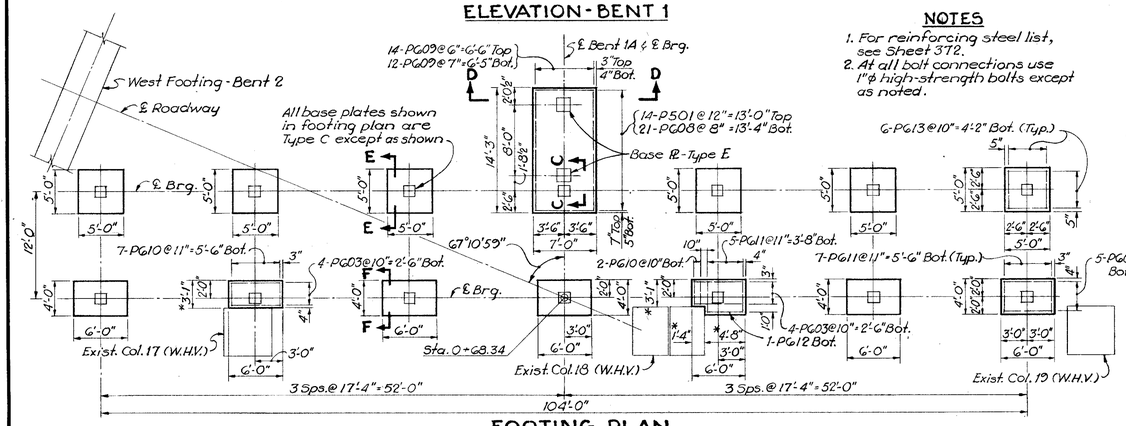


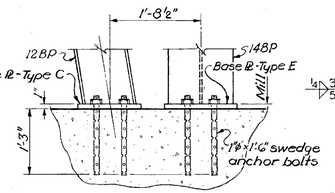


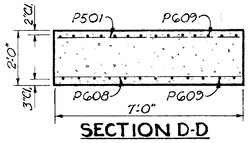


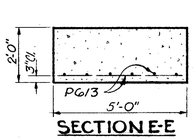


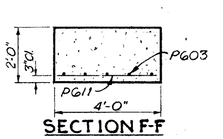












NOTES

1. For reinforcing steel list, see Sheet 372.
2. At all bolt connections use 1" ϕ high-strength bolts except as noted.

VOGT, IVERS, SEAMAN & ASSOCIATES
ENGINEERS — CINCINNATI
ARCHITECTS — CHICAGO

TEMPORARY BRIDGE - BENT 1 & 1A

BRIDGE NO. HAM-25-0252
MILL CREEK EXPRESSWAY
UNDER U.S. 52

HAMILTON COUNTY — STA. 7+54.40 to STA. 11+06.05

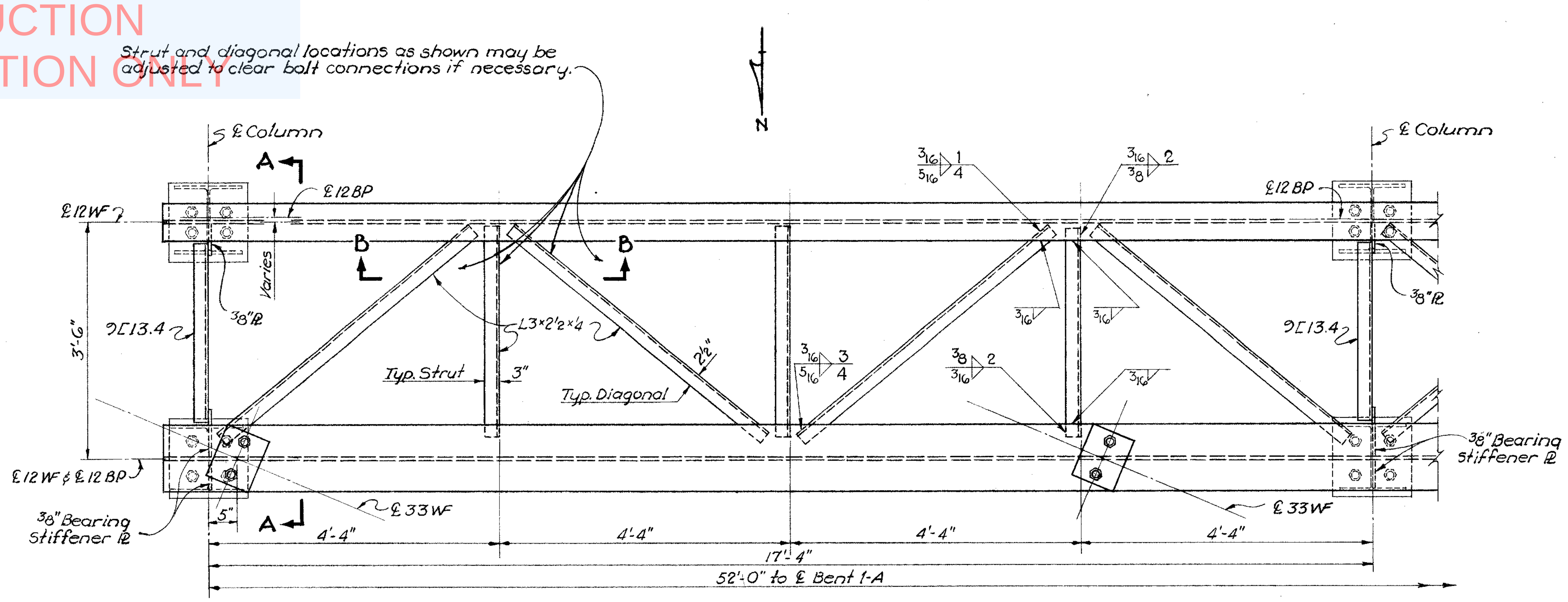
DESIGNED	DRAWN	TRACED	CHECKED	REVIEWED	DATE	REVISED
R.L.S.	J.C.H.	~	A.Y.			

NOT FOR CONSTRUCTION INFORMATION ONLY

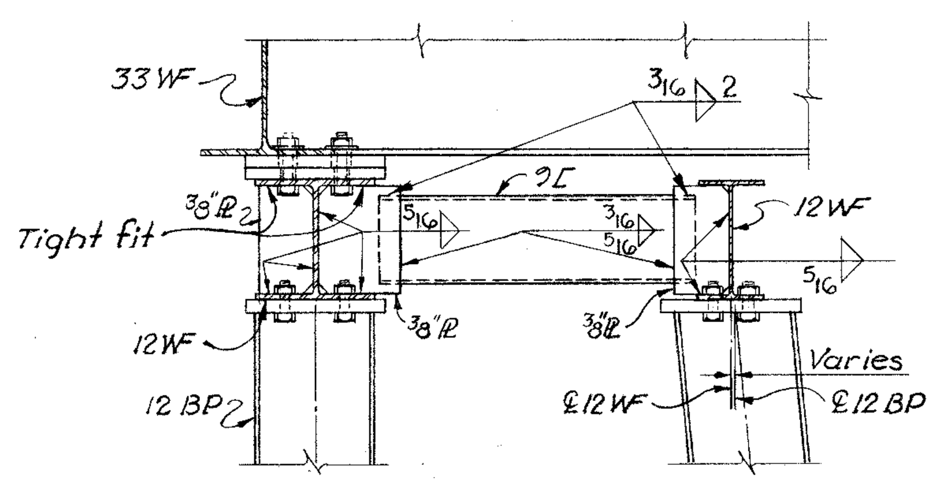
FED. RD. DIVISION	STATE	PROJECT	
2	OHIO		

HAM-25-1.63

370
486

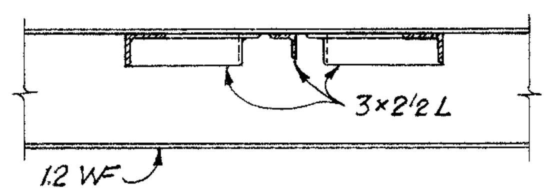


TOP LATERAL BRACING DETAILS

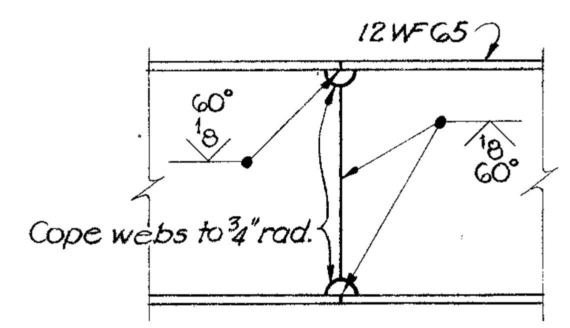


SECTION A-A

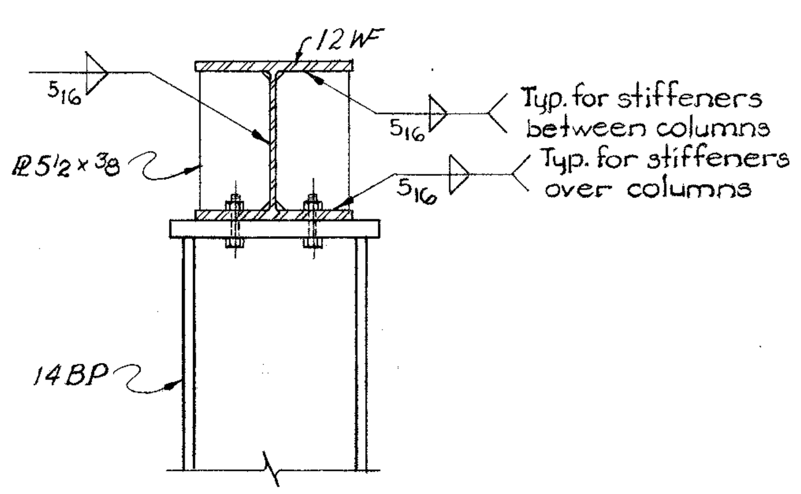
L3×2½×¼ & A-Frame Bracing not shown



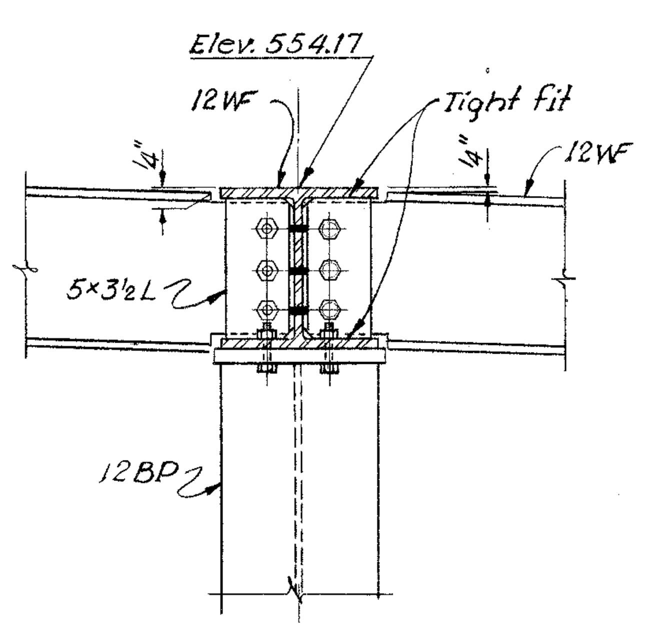
SECTION B-B



BEAM SPLICE DETAIL



SECTION P-P



SECTION R-R

ESTIMATED QUANTITIES (ITEM S-15)

ITEM	DESCRIPTION	UNIT	AMOUNT
B-19	Crushed aggregate base	Cu. Yds.	105
B-35	Asphaltic concrete base course	Sq. Yds.	670
E-2	Unclassified excavation	Cu. Yds.	213
I-15	Guard rail (I-15.11) with steel posts	Lin. Ft.	839
I-24	Asphaltic concrete curb, Type I	Lin. Ft.	228
I-24	Asphaltic concrete curb, special	Lin. Ft.	80
S-1	Class "E" concrete, bent & abutment footings	Cu. Yds.	157
S-1	Class "E" concrete, abutment above footings	Cu. Yds.	27
S-4	Reinforcing steel	Lbs.	20,620
S-7	Structural steel	Lbs.	777,000
S-13	8" Strip floor, untreated	Sq. Ft.	14,800
S-13	Bridge timber	M.B.F.	8
S-14	Railing, timber & chain-link fencing	Lin. Ft.	380
S-14	Concrete railing & sidewalk	Lin. Ft.	125
S-22	Removal of concrete railing & sidewalk	Lin. Ft.	125
T-35	Asphaltic concrete wearing surface	Sq. Yds.	1860
S-25	Lighting System on Temp. Bridge (See Sheet 261)	As per plan	

The quantities shown above are approximate only and the lump sum bid shall govern regardless of any overrun or underrun of the above quantities. Materials for the approach slab are not included in the above quantities.

VOGT, IVERS, SEAMAN & ASSOCIATES
ENGINEERS CINCINNATI — ARCHITECTS CHICAGO

TEMPORARY BRIDGE-BENTS 1 & 1-A DETAILS

BRIDGE NO. HAM-25-0252
MILL CREEK EXPRESSWAY
UNDER U.S. 52

HAMILTON COUNTY — STA. 7+54.40 to STA. 11+06.09

DESIGNED	DRAWN	TRACED	CHECKED	REVIEWED	DATE	REVISED
R.L.S.	J.C.H.	~	A.Y.			

NOT FOR CONSTRUCTION INFORMATION ONLY

FED. RD. DIVISION	STATE	PROJECT	
2	OHIO		

HAM-25-1.63

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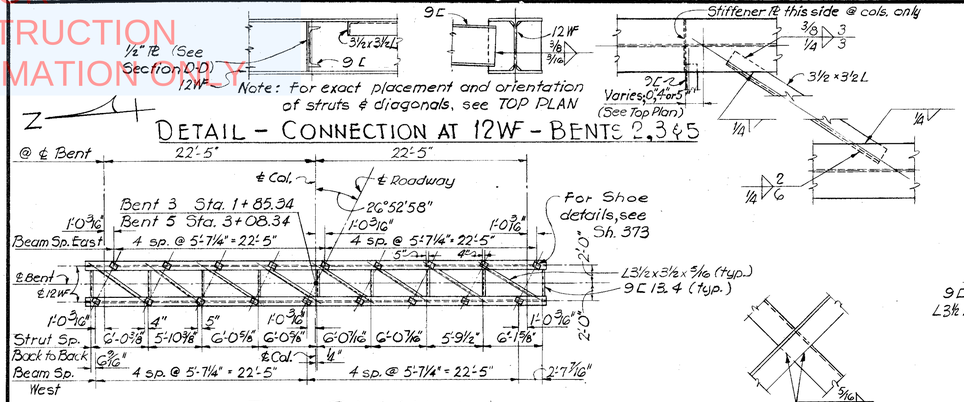
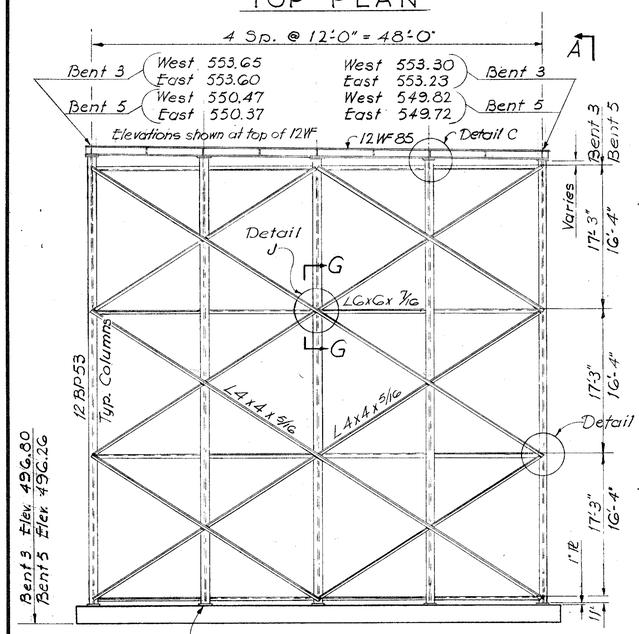
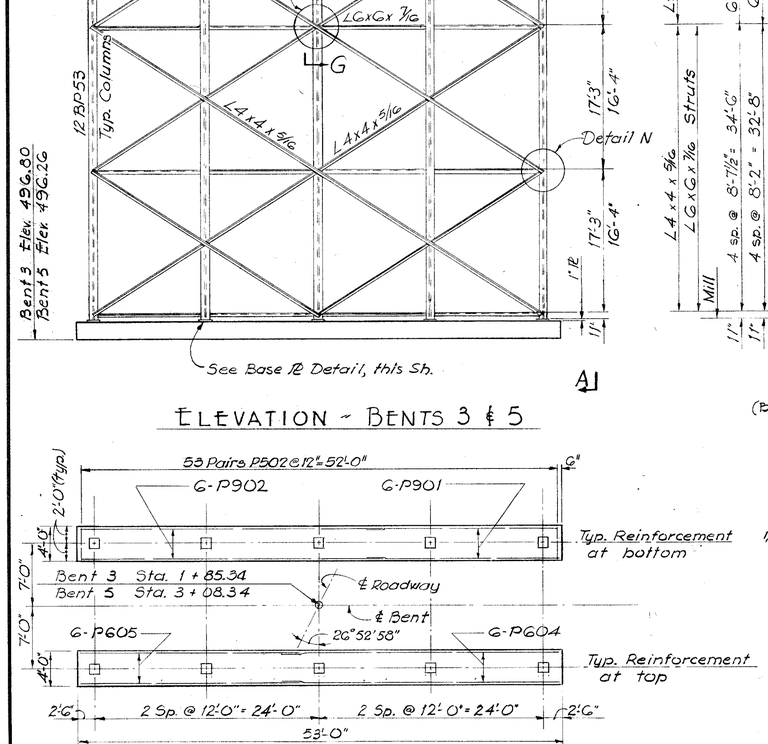
DETAIL - CONNECTION AT 12WF - BENTS 2, 3 & 5



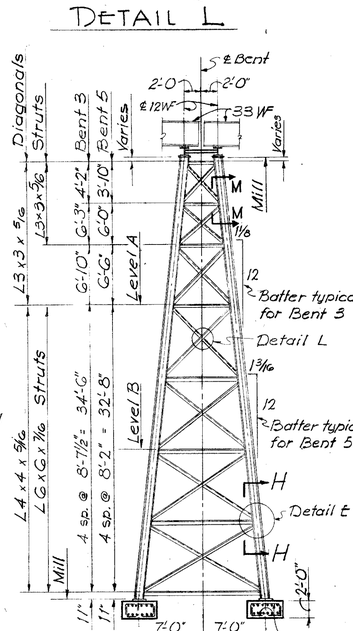
TOP PLAN



ELEVATION - BENTS 3 & 5

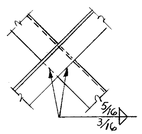


FOOTING PLAN

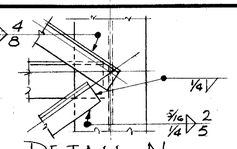


VIEW A-A

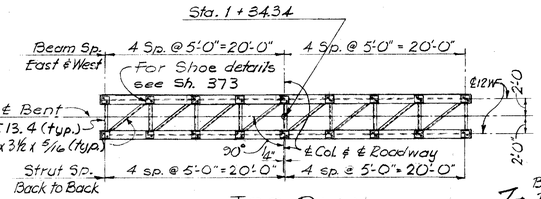
(Bracing Typical All Columns)



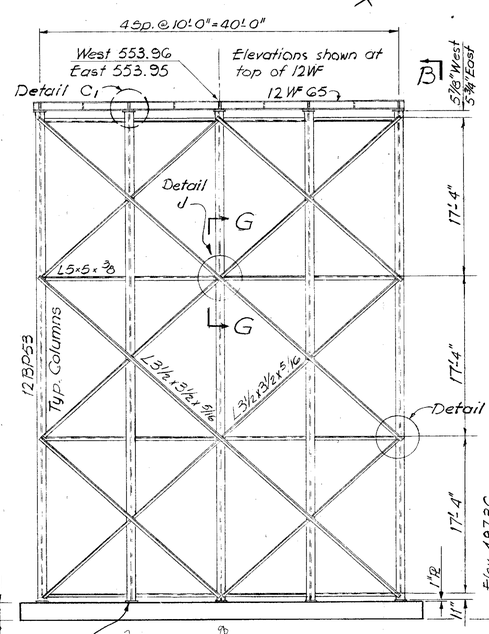
DETAIL L



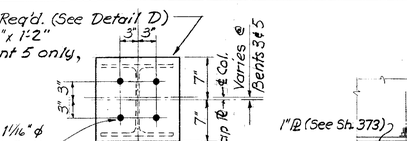
DETAIL N



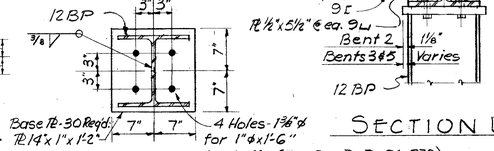
TOP PLAN



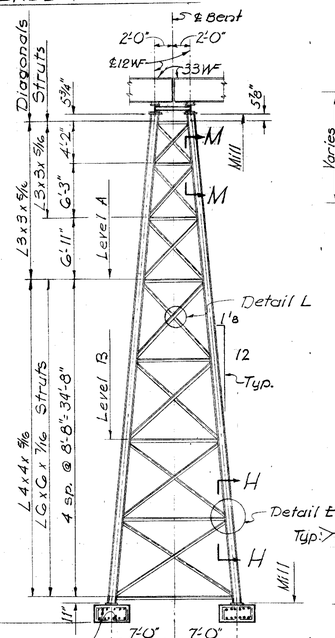
ELEVATION - BENT 2



CAP ℞ - DETAIL

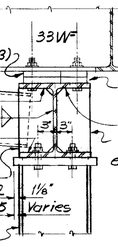


BASE ℞ - DETAIL

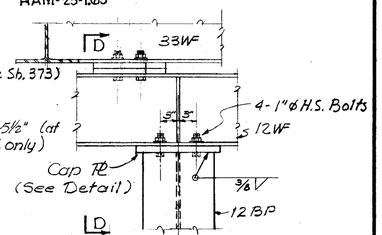


VIEW B-B

(Bracing Typical All Columns)

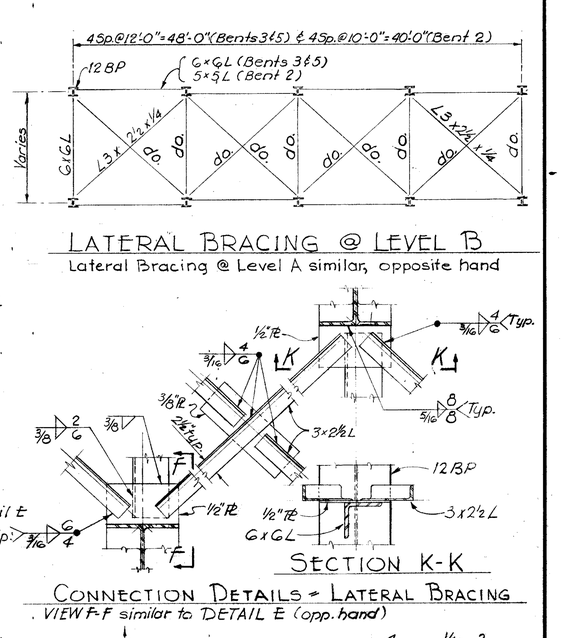


SECTION D-D



DETAIL C

Detail C, Similar



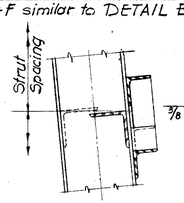
LATERAL BRACING @ LEVEL B

Lateral Bracing @ Level A similar, opposite hand

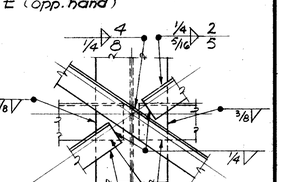
SECTION K-K

CONNECTION DETAILS - LATERAL BRACING

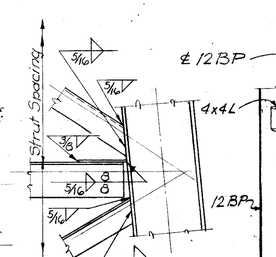
VIEW F-F similar to DETAIL E (opp. hand)



SECTION G-G

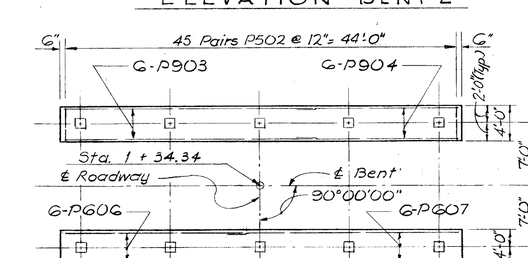


DETAIL J

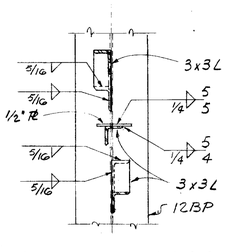


DETAIL E SECTION H-H

VIEW F-F similar (opp. hand) with lateral diagonals not shown



FOOTING PLAN



SECTION M-M

Note: for reinforcing steel list see Sheet 372.

VOGT, IVERS, SEAMAN & ASSOCIATES
ENGINEERS CINCINNATI — ARCHITECTS CHICAGO

TEMPORARY BRIDGE - BENTS 2, 3 & 5 - DETAILS

BRIDGE NO. HAM.-25-0252

MILL CREEK EXPRESSWAY UNDER U. S. 52

HAMILTON COUNTY STA. 7+54.40 TO STA. 11+06.09

DESIGNED	DRAWN	TRACED	CHECKED	REVIEWED	DATE	REVISED
AY	TEC	TEC	R.L.S.			

NOT FOR CONSTRUCTION INFORMATION ONLY

FED. RD. DIVISION	STATE	PROJECT	
2	OHIO		

HAM-25-1.63

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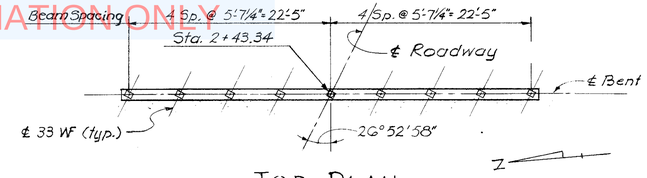
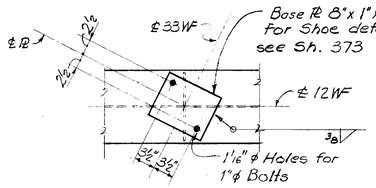
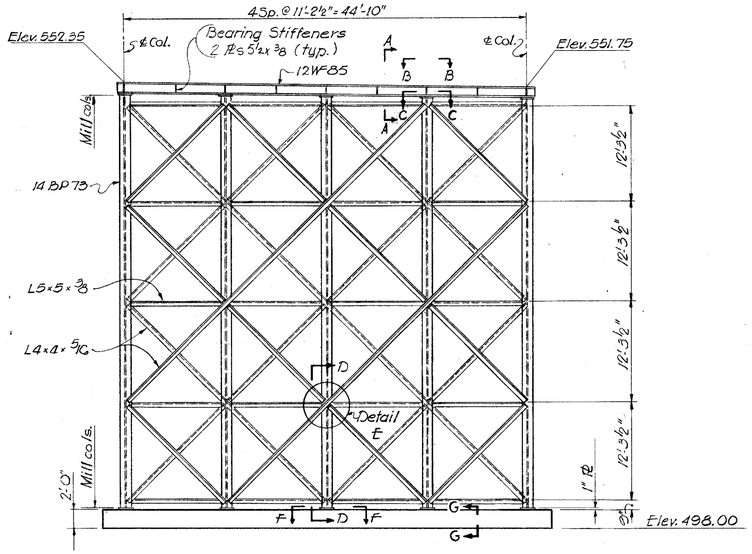


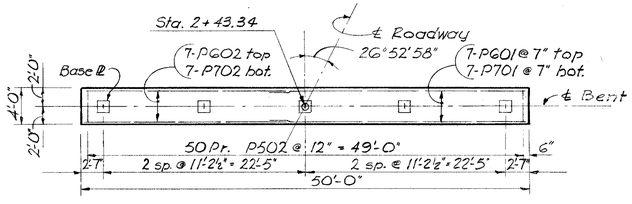
TOP PLAN



VIEW B-B



ELEVATION - BENT 4



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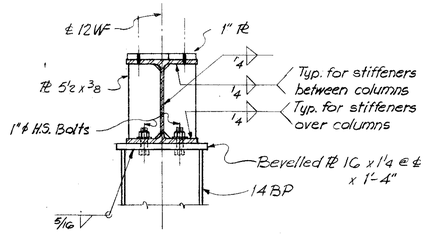
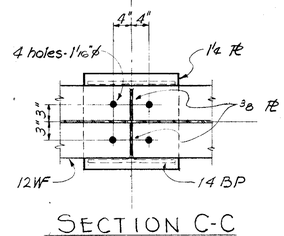
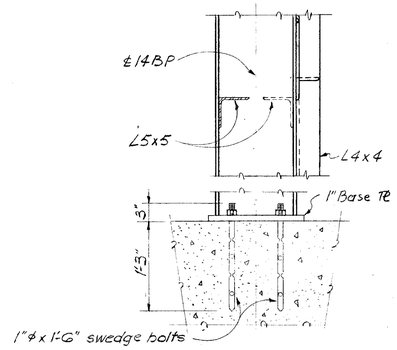


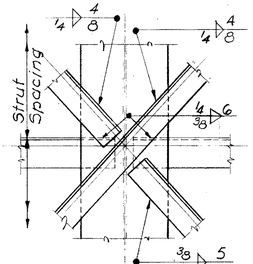
SECTION A-A



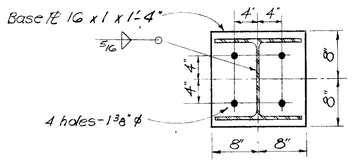
SECTION C-C



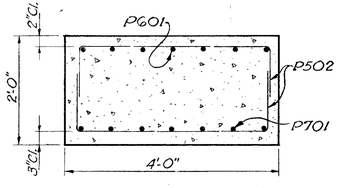
SECTION D-D



DETAIL E



SECTION F-F



SECTION G-G

REINFORCING STEEL LIST

MARK	LENGTH	SHAPE	NO.	WEIGHT
PG01	6'-8"	Str.	14	97
PG02	6'-2"	Bt.	704	4,528
PG01	28'-8"	Str.	7	301
PG02	23'-0"	↑	7	242
PG03	5'-8"		33	281
PG04	30'-3"		24	1,090
PG05	24'-3"		24	874
PG06	20'-8"		12	365
PG07	26'-3"		12	473
PG08	6'-8"		21	210
PG09	13'-10"		26	540
PG10	2'-9"		9	37
PG11	3'-8"		40	220
PG12	4'-4"	↓	1	7
PG13	4'-8"	Str.	72	505
PT01	30'-0"	Str.	7	429
PT02	22'-0"	Str.	7	315
P901	21'-8"	Str.	24	1,768
P902	33'-8"	↑	24	2,747
P903	28'-8"	↓	12	1,170
P904	18'-8"	Str.	12	762

VOGT, IVERS, SEAMAN & ASSOCIATES
ENGINEERS CINCINNATI — ARCHITECTS CHICAGO

TEMPORARY BRIDGE - BENT 4 DETAILS & REINFORCING STEEL LIST

BRIDGE NO. HAM-25-0252

MILL CREEK EXPRESSWAY
UNDER U. S. 52
HAMILTON COUNTY STA. 7+54.40 TO STA. 11+06.09

DESIGNED	DRAWN	TRACED	CHECKED	REVIEWED	DATE	REVISED
A.Y.	T.E.C.	T.E.C.	G.J.C.			

NOT FOR CONSTRUCTION INFORMATION ONLY

FED. RD. DIVISION	STATE	PROJECT	
2	OHIO		

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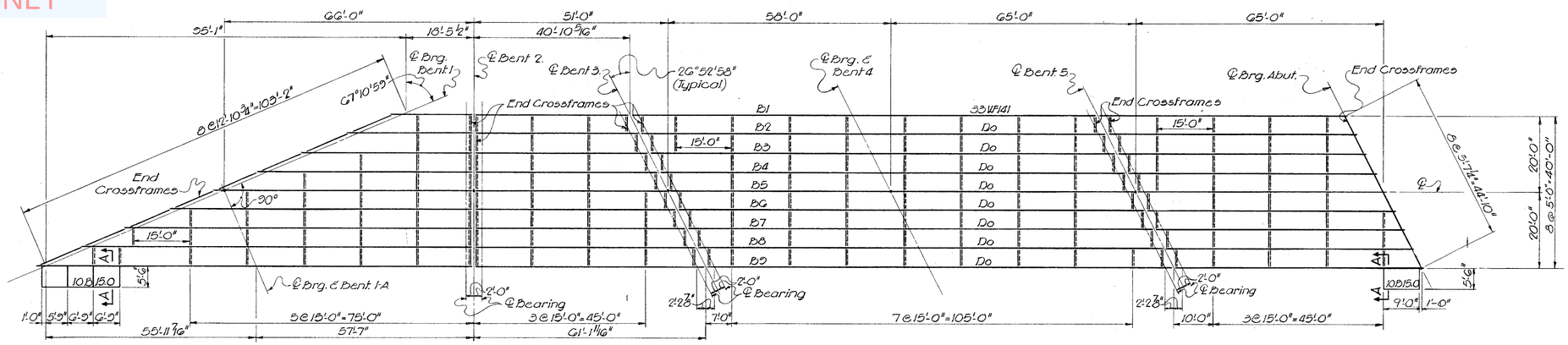
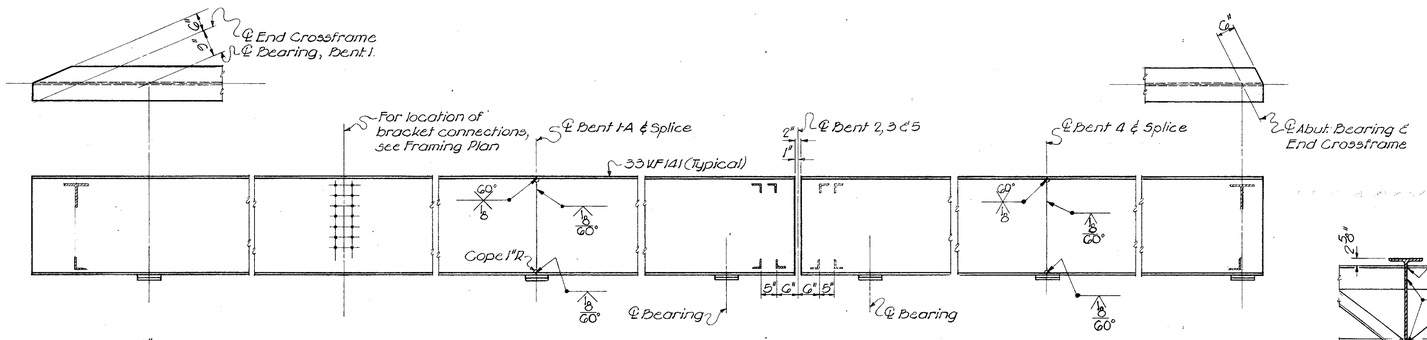
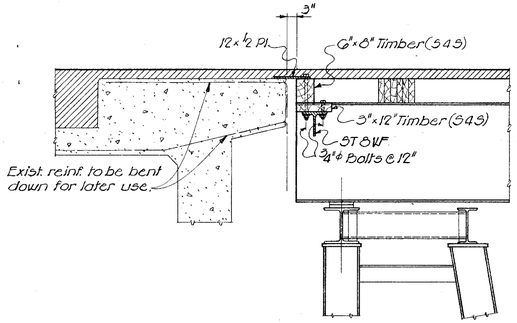
HAM-25-1.63



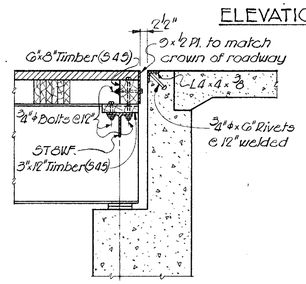
STEEL FRAMING PLAN



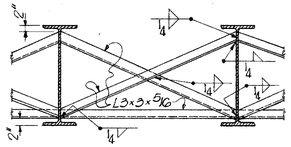
ELEVATION



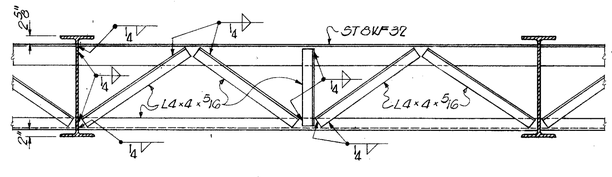
END DAM AT EXISTING BRIDGE



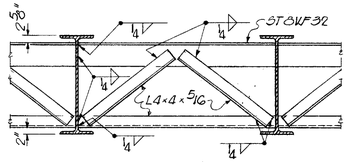
END DAM AT ABUTMENT



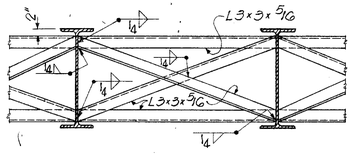
TYPICAL INTERMEDIATE CROSSFRAME



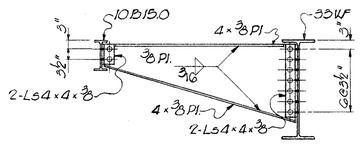
TYPICAL END CROSSFRAME AT BENT 1



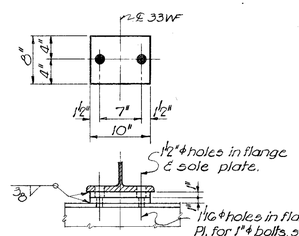
TYPICAL END CROSSFRAME AT ABUTMENT



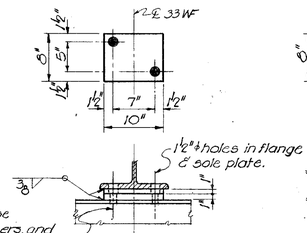
TYPICAL END CROSSFRAME AT BENTS 2,3&5



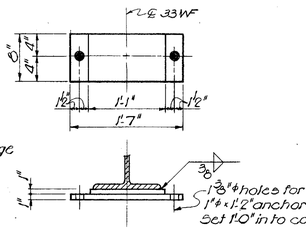
SECTION A-A



BENT SHOE (Bents 1, 3 & 5)



BENT SHOE (Bents 1A, 2 & 4)



ABUTMENT SHOE

NOTES:

1. Bevel sole plates on shoes where grade of roadway exceeds 1.5%. Sole plate to be 1" thick at ℄ bearing
2. At Bent 1A, splice weld Beams B6, B7, B8 and B9 only.
3. Beam Splice Welding Procedure: Make two passes on each flange, then two on the web. Repeat, making one pass at each location until welds are completed.
4. All structural steel for the temporary bridge shall be governed by the requirements of S-7 of the Specifications except that all painting requirements are waived.

VOGT, IVERS, SEAMAN & ASSOCIATES
ENGINEERS CINCINNATI ARCHITECTS CHICAGO

TEMPORARY BRIDGE-FRAMING PLAN

BRIDGE NO. HAM-25-0252
MILLCREEK EXPRESSWAY UNDER U.S. 52

HAMILTON COUNTY STA. 7+54.40 TO STA. 11+06.09

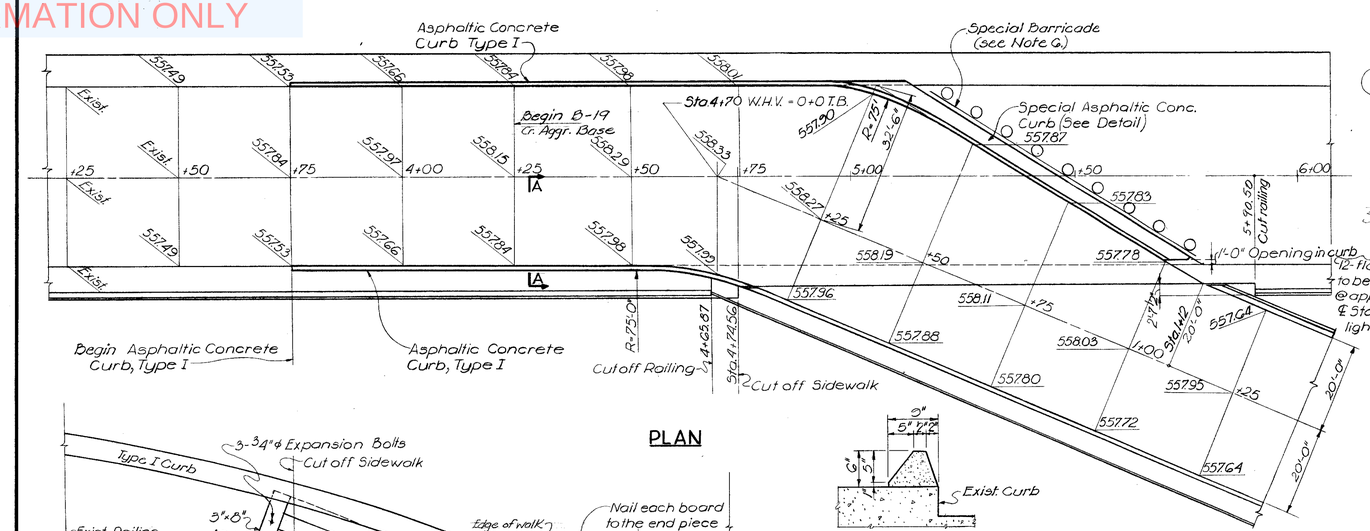
DESIGNED	DRAWN	TRACED	CHECKED	REVIEWED	DATE	REVISED
P.R.B.	P.R.B.	S.T.	R.E.P.			

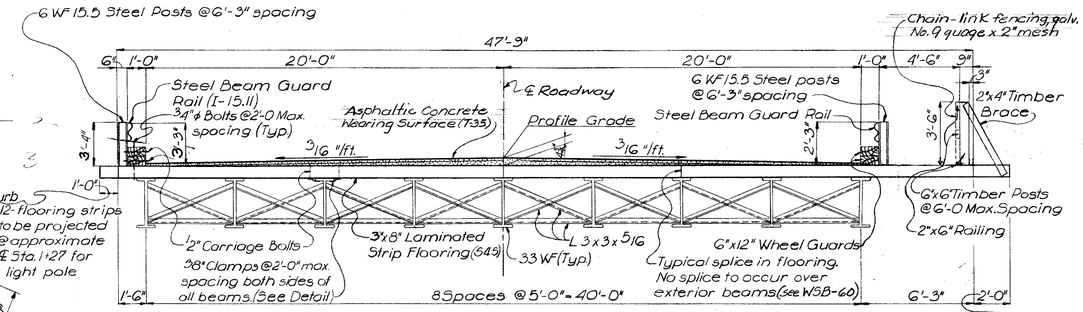
NOT FOR CONSTRUCTION INFORMATION ONLY

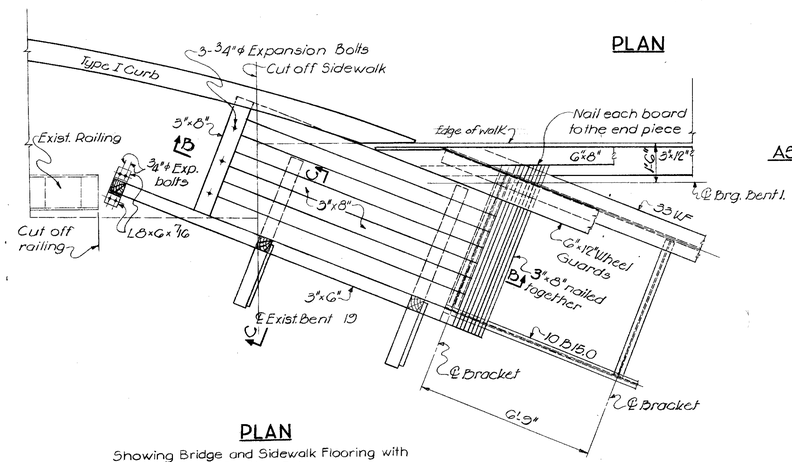
FED. RD. DIVISION	STATE	PROJECT	
2	OHIO		

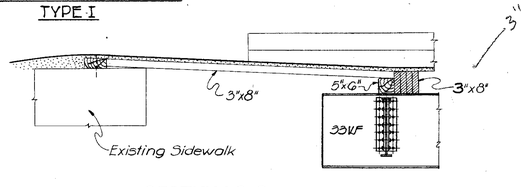
HAM-25-1.63

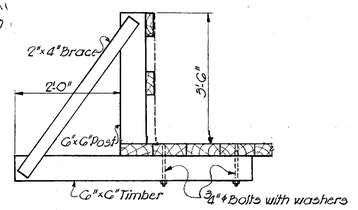
374
486

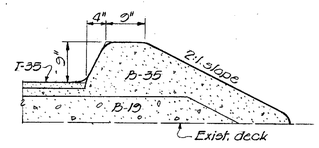


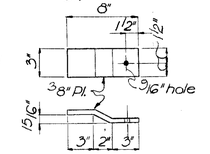


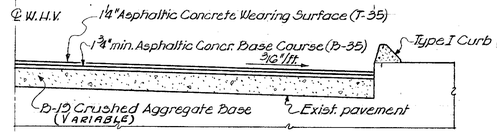


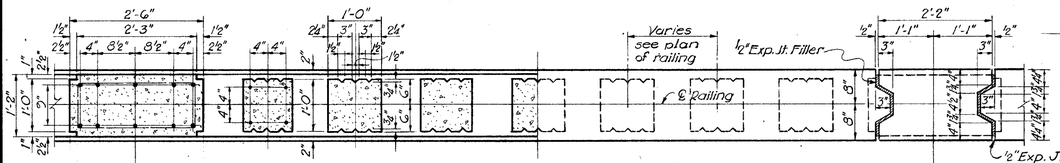


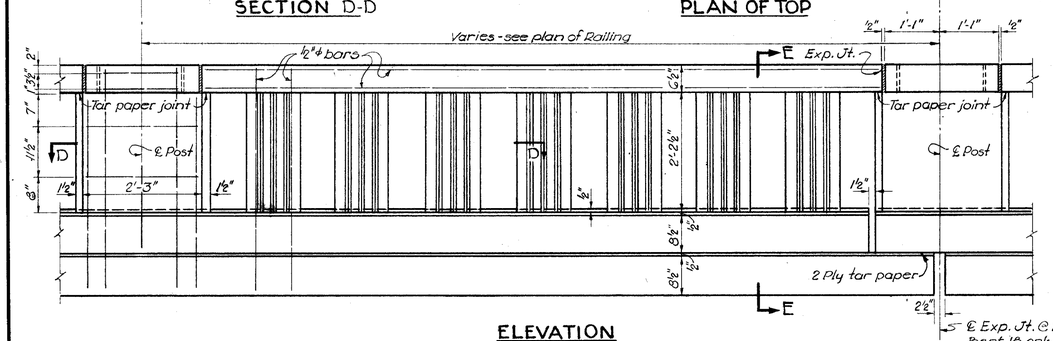


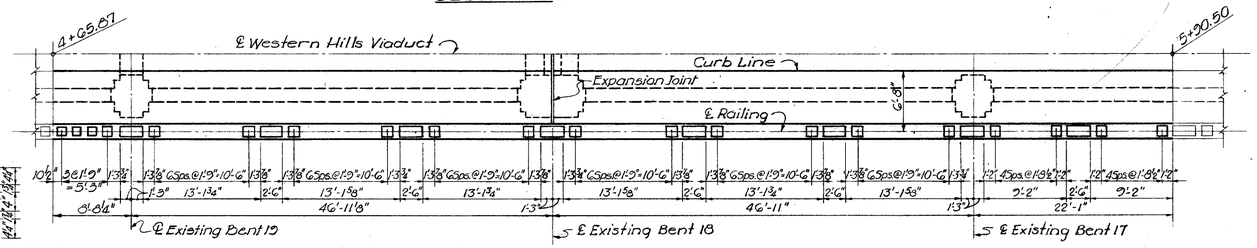




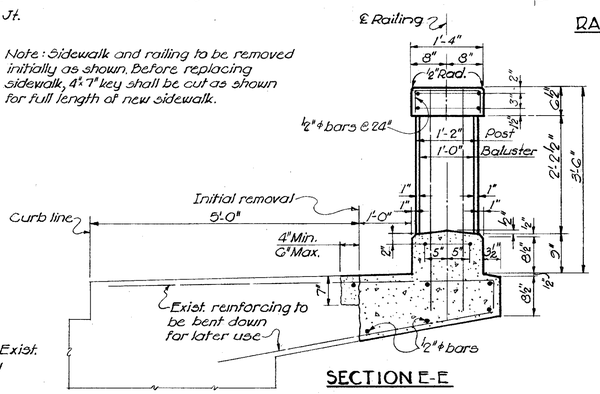








Note: Sidewalk and railing to be removed initially as shown. Before replacing sidewalk, 4" x 7" key shall be cut as shown for full length of new sidewalk.



RAILING PLAN

NOTES:

1. All labor, material and equipment required for the removal and the replacement of the concrete railing shall be included in the price bid for the Temporary Bridge.
2. All reinforcing required for new railing shall be ½" ϕ bars.
3. Drainage openings, 1'-0" long, shall be provided in the bottom 6"x12" wheel guard on both sides of the bridge at 12'-0" maximum spacing except in two spans over Spring Grove Ave. Openings to be spaced to clear guardrail posts.
4. All timber shall be of at least 1450 f grade and meet the requirements of Sec. 9-13 of the Specifications.
5. Timber Railing: Posts shall be connected with a min. of two 20d nails on each of four faces, toe-nailed into retaining strip and flooring. Railing and brace shall have at least 3-20d nails in each connection. Retaining strip shall be nailed to flooring with 10d nails at 12" ctrs. each side of strip.
6. The special barricade shall consist of 55 gal. drums filled with sand at 6ft. spacing with a steel beam guardrail (Type T-15.11) mounted on the traffic side of the drums. Red flasher lights shall be mounted on the top of each drum. Payment for this barricade shall be included in the bid item "Maintaining Traffic."

VOGT, IVERS, SEAMAN & ASSOCIATES
ENGINEERS — CINCINNATI
ARCHITECTS — CHICAGO

TEMPORARY BRIDGE-SUPERSTRUCTURE AND RAILING DETAILS

BRIDGE NO. HAM-25-0252
MILL CREEK EXPRESSWAY UNDER U.S. 52

HAMILTON COUNTY — STA. 7+54.40 TO STA. 11+06.05

DESIGNED	DRAWN	TRACED	CHECKED	REVIEWED	DATE	REVISED
P.R.B.	P.R.B.	I.V.	REP			

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FED. RD. DIVISION	STATE	PROJECT		
2	OHIO			

375 486

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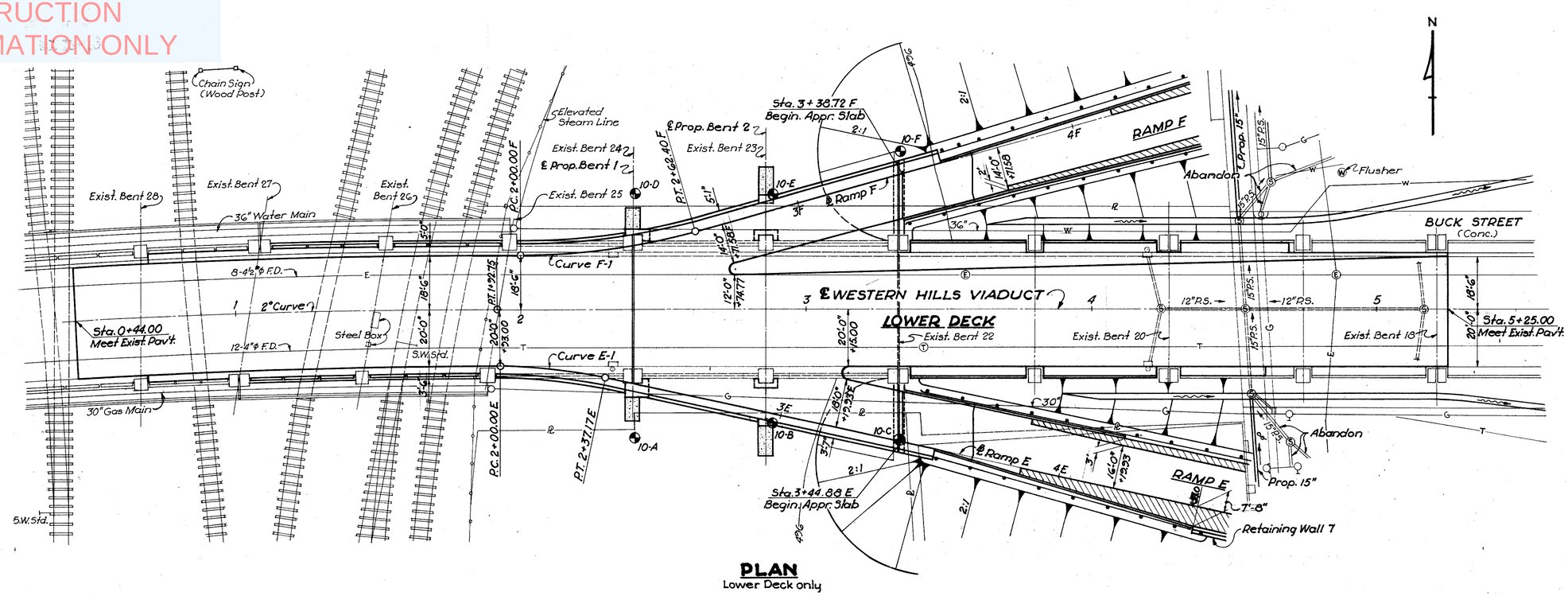
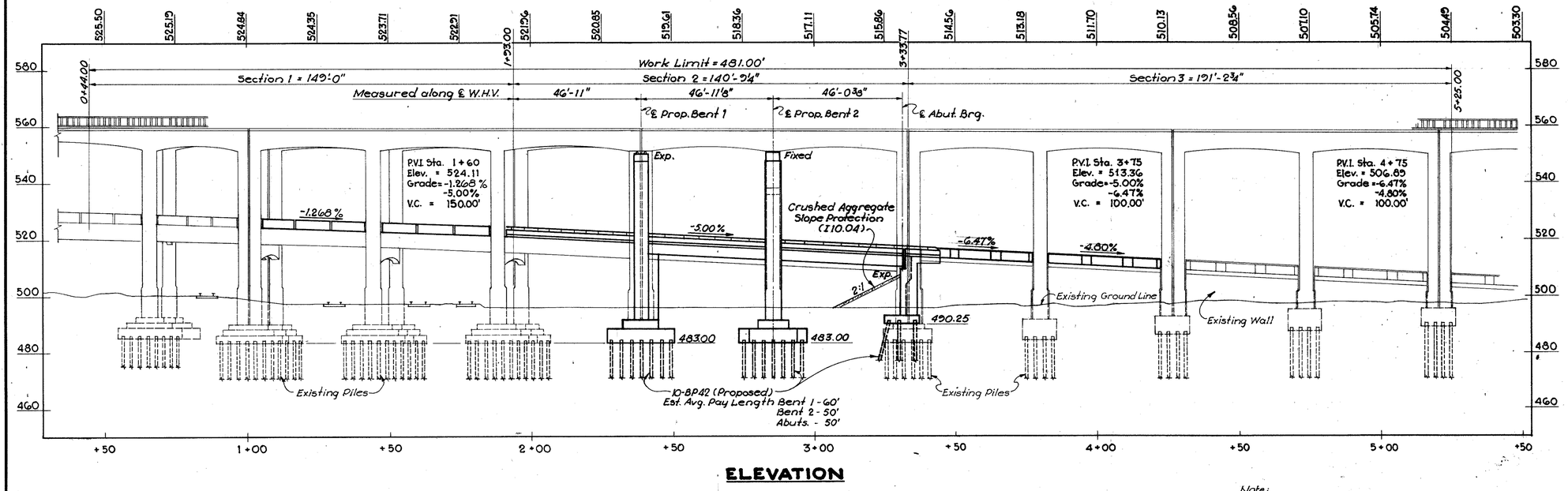


PLAN
Lower Deck only



ELEVATION

Note:
For Traffic Maintenance on Lower Deck, see Sheet 17.

CURVE DATA

RAMP F		RAMP E	
P.I. Sta.	2+31.39	P.I. Sta.	2+18.65
Δ =	15° 36' 00"	Δ =	12° 15' 53"
Dc =	25° 00' 00"	Dc =	33° 00' 00"
R =	229.18'	R =	173.62'
Lc =	62.40'	Lc =	37.17'
T =	31.39'	T =	18.65'
E =	2.14'	E =	1.00'

NOTES

Foundation design and foundation quantities are based on a study of test borings and soil samplings made at the site. This sounding information may be inspected in the Office of the Bureau of Bridges in Columbus or in an abridged form in the Division Office, but the State assumes no responsibility for the accuracy thereof.

Symbol denotes boring. See Sheet 372 for test boring data.

Bench Mark No. G Elev. 501.11
City of Cincinnati B.M. K117
Brass disk in western face of viaduct pier 37' left of Sta. 142+10 S.B.

PROPOSED STRUCTURE

TYPE: Continuous reinforced concrete deck, beams and rigid frames
SPANS: 46'-11"; 46'-11⅛"; 46'-0⅜"
ROADWAY: Varies
LOAD FREQUENCY: C.F. 2000(57) Adequate for AASHO alternate loading
SKEW: 0° 00'
ALIGNMENT: Tangent
WEARING SURFACE: 1½" Asphaltic concrete
APPROACH SLABS: 25 ft. (AS-1-54)

EXISTING STRUCTURE

TYPE: Continuous reinf. concrete deck, girders and rigid frame bents
ROADWAY: 38'-6" Curb to curb (Lower Deck)
LOAD FREQUENCY: State of Ohio Design Spec. 1928
BUILT: 1932

VOGT, IVERS, SEAMAN & ASSOCIATES
ENGINEERS CINCINNATI
ARCHITECTS CHICAGO

SITE PLAN
WESTERN HILLS VIADUCT LOWER DECK

HAMILTON COUNTY STA. 0+44.00 to STA. 5+25.00

PRESENT TOPOGRAPHY		PROPOSED WORK			
SURVEYED	DRAWN	DESIGNED	DRAWN	CHECKED	REVISIONS
AERIAL SURVEY	AERIAL SURVEY	A.A.N.	A.A.N.	E.P.A.	

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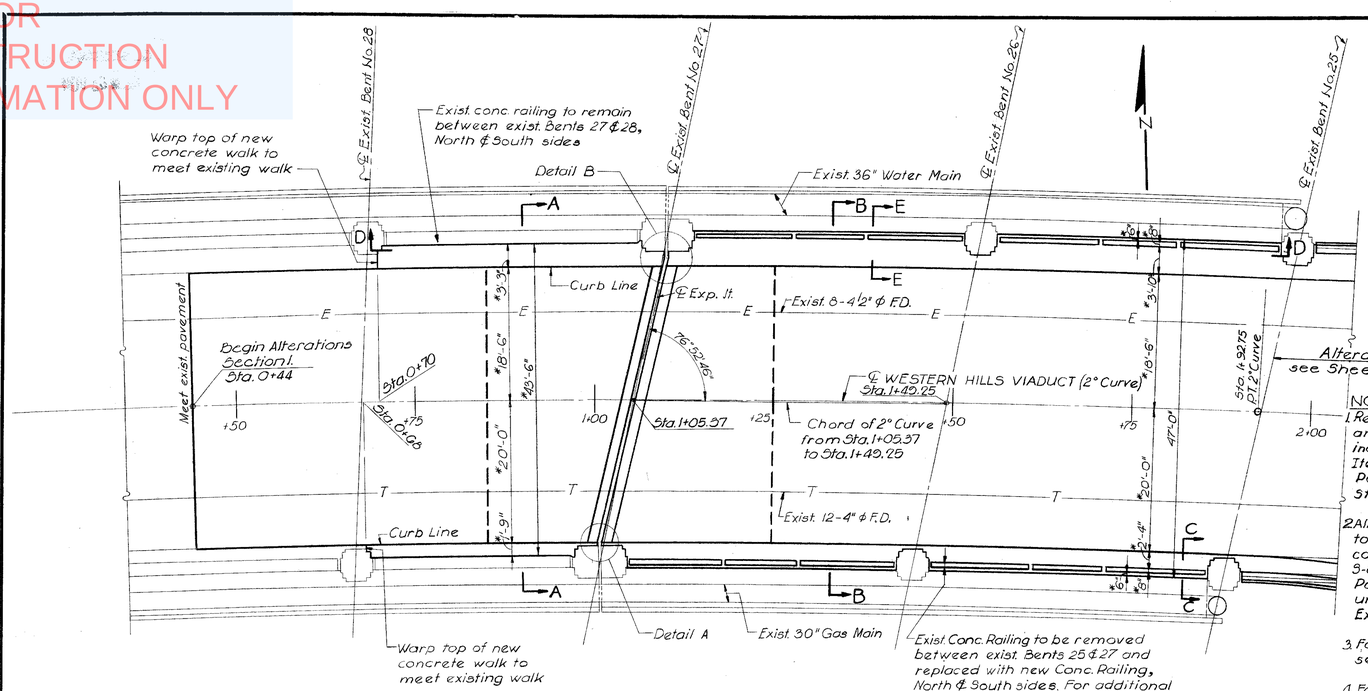

PLAN

Alteration Section 2, see Sheets 383 thru 386

NOTES:

1. Removal of exist. plates, anchor bars & concrete to be included for payment under Item 5-22, Removal of Portions of Existing Structure.
2. All exposed structural steel to have 1 shop coat & 3 field coats of paint according to S-8 of the Constr. & Matl. Specs. Painting included for payment under Item S-3, Structural Expansion Joints.
3. For Sections A-A thru E-E, see Sheet 377.
4. For additional notes, see Sheet 378.

PAVEMENT ELEVATIONS

Station	Profile Grade ℄ Western Hills Viaduct	18'-0" Left of ℄ Western Hills Viaduct	10'-0" Left and Right of ℄ Western Hills Viaduct	20'-0" Right of ℄ Western Hills Viaduct
0+44	Meet exist. pavt.	Meet exist. pavt.	Meet exist. pavt.	Meet exist. pavt.
0+50	525.50	525.22	525.40	525.19
0+75	525.19	524.91	525.09	524.88
1+00	524.89	524.56	524.74	524.53
1+25	524.35	524.07	524.25	524.04
1+50	523.71	523.43	523.61	523.40
1+75	522.91	522.63	522.81	522.60
2+00	521.96	521.68	521.86	—

FED. RD. DIVISION	STATE	PROJECT	
2	OHIO		

376 466

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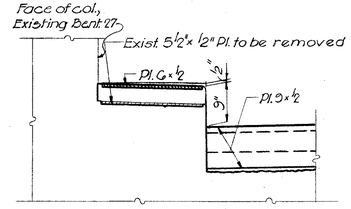
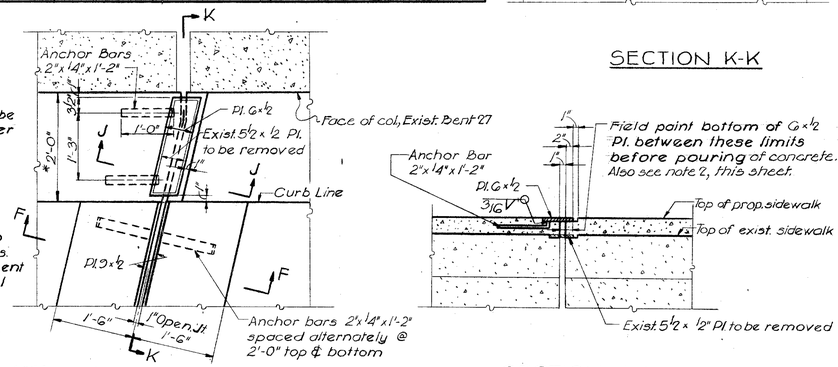
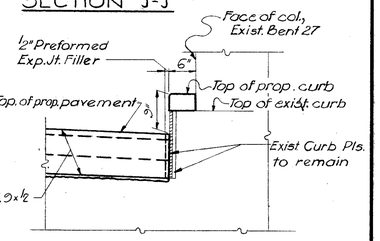


SECTION K-K

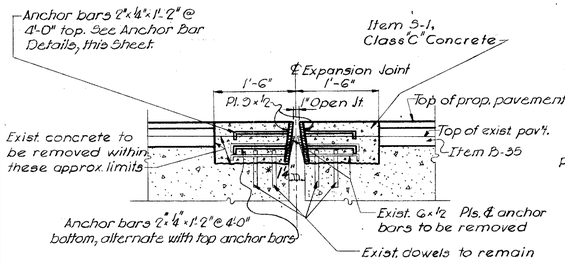


DETAIL B

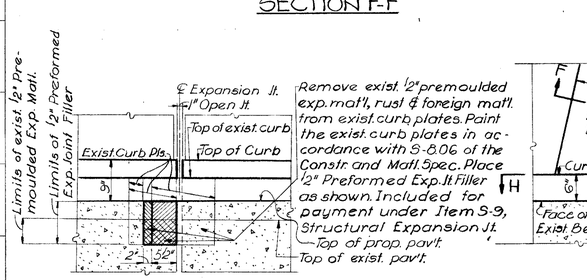
SECTION J-J



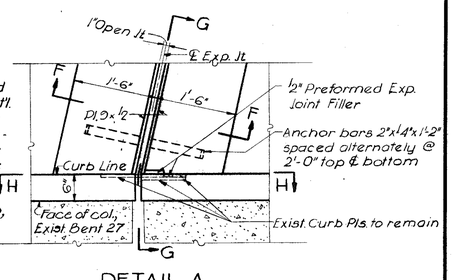
ANCHOR BAR DETAILS



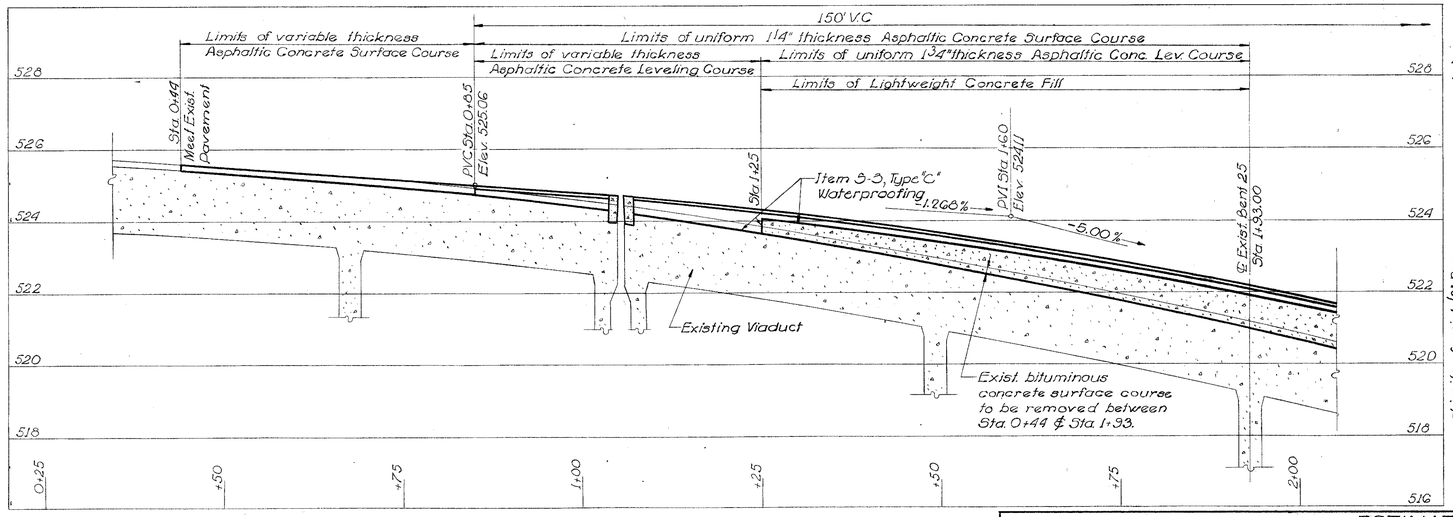
SECTION F-F



SECTION H-H



DETAIL A



PROFILE ON CENTERLINE

* See Proposal Note

ESTIMATED QUANTITIES-SEC. 1

ITEM	TOTAL	UNIT	DESCRIPTION	SUPER-STRUCTURE		
B-55	36	Cu. Yds.	Asphaltic Concrete Leveling Course (70-85)	36		
Special	68	Cu. Yds.	Lightweight Concrete	68		
E-8	630	Sq. Yds.	Removal and Disposal of Existing Bituminous Concrete Surface Course	630		
S-1	25	Cu. Yds.	Class "C" Concrete	25		
S-3	640	Sq. Yds.	Type "C" Waterproofing	640		
S-9	1320	Lbs.	Structural Expansion Joint	1320		
S-14	155	Lin. Ft.	Concrete Railing	155		
S-22	13	Cu. Yds.	Removal of Portions of Existing Structure	13		
T-55	29	Cu. Yds.	Asphaltic Concrete Surface Course Type "C" (70-85)	29		
*Special	93	Each	Water-reducing, set-retarding admixture	93		

VOGT, IVERS, SEAMAN & ASSOCIATES
ENGINEERS CINCINNATI — ARCHITECTS CHICAGO

ALTERATIONS SECTION 1

WESTERN HILLS VIADUCT
LOWER DECK

HAMILTON COUNTY STA. 0+44.00 to STA. 5+25.00

DESIGNED	DRAWN	TRACED	CHECKED	REVIEWED	DATE	REVISED
R.L.S.	R.L.S.	I.G.V.	E.P.A.	JAD	5-61	

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FED. RD. DIVISION	STATE	PROJECT	
2	OHIO		

HAM-25-1.63

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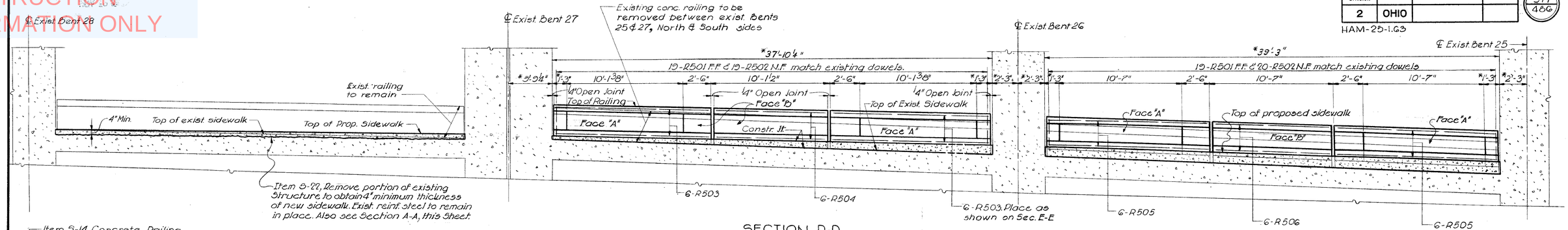
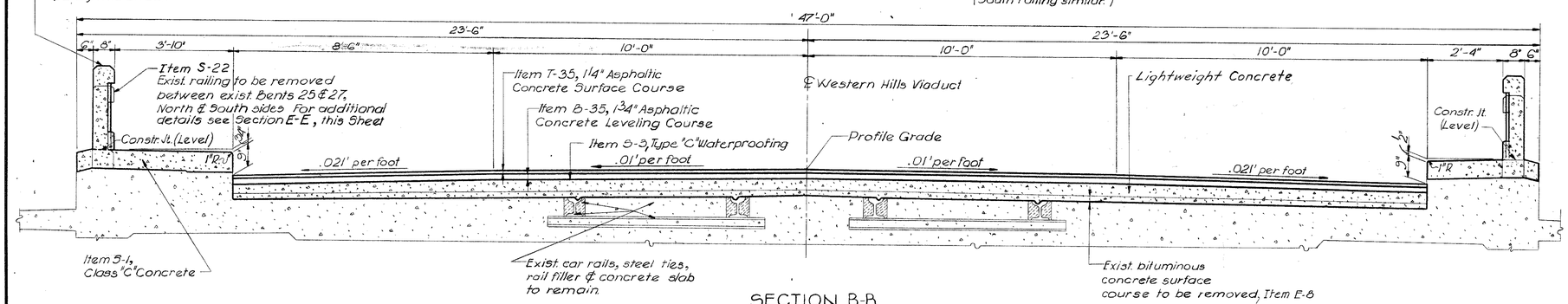
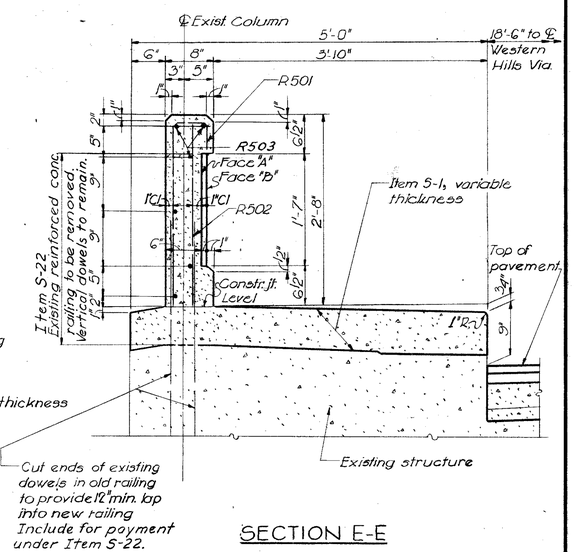


SECTION D-D

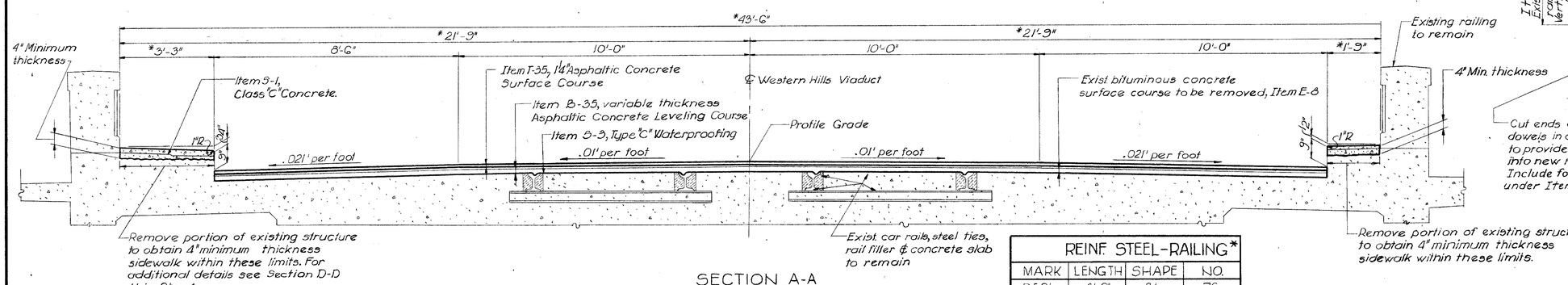
(North railing shown South railing similar.)



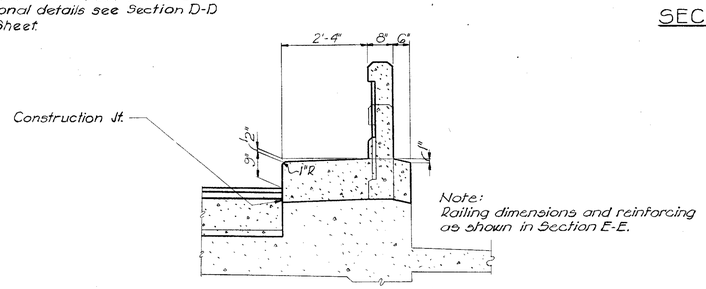
SECTION B-B



SECTION E-E



SECTION A-A

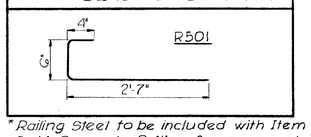


Note: Railing dimensions and reinforcing as shown in Section E-E.

SECTION C-C

REINF. STEEL-RAILING*			
MARK	LENGTH	SHAPE	NO.
R501	3'-2"	Bt.	76
R502	2'-7"	Str.	78
R503	13'-6"	Str.	24
R504	9'-9"	Str.	12
R505	14'-0"	Str.	24
R506	10'-3"	Str.	12

BENDING DIAGRAM



* Railing Steel to be included with Item S-14, Concrete Railing, for payment.

NOTE:

1. Designations used are as follows:
   N.F. = Near Face
   F.F. = Far Face
2. For additional notes, see Sheet 378

VOGT, IVERS, SEAMAN & ASSOCIATES
ENGINEERS CINCINNATI — ARCHITECTS CHICAGO

ALTERATIONS SECTION I

WESTERN HILLS VIADUCT
LOWER DECK

HAMILTON COUNTY STA. 0+44.00 to STA. 5+25.00

DESIGNED	DRAWN	TRACED	CHECKED	REVIEWED	DATE	REVISED
R.L.S.	R.L.S.	I.G.V.	E.P.A.	JAD	5-61	

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FED. RD. DIVISION	STATE	PROJECT	
2	OHIO		

HAM-25-1.63

ESTIMATED QUANTITIES

ITEM	TOTAL	UNIT	DESCRIPTION	ABUTMENTS	BENTS	SUPER-STRUCTURE	GENERAL
B-35	42	Cu.Yds.	Asphaltic concrete base and levelling course (70-85)			42	
Special	224	Cu.Yds.	Light weight concrete			224	
Special	Lump	Lump Sum	Temporary Falsework		Lump		
E-2	Lump	Lump Sum	Cofferdams, cribs and sheeting				Lump
E-2	1,280	Cu.Yds.	Unclassified excavation	200	1,080		
E-8	600	Sq.Yds.	Removal and disposal of existing pavement (wearing course)				600
I-10	140	Sq.Yds.	Crushed aggregate slope protection				140
S-1	286	Cu.Yds.	Class "C" concrete - Superstructure			286	
S-1	670	Cu.Yds.	Class "C" concrete - Bents above footings		670		
S-1	113	Cu.Yds.	Class "E" concrete - Abutments above footings	113			
S-1	526	Cu.Yds.	Class "E" concrete - Bent and abutment footings	72	454		
S-4	191,185	Lbs.	Reinforcing steel	13,561	108,961	68,663	
S-7	11,270	Lbs.	Structural steel, including all painting			11,270	
S-9	261	Sq.Ft.	1" Preformed expansion joint filler	158	103		
S-14	308	Lin.Ft.	Railing Type "C" (aluminum railing, supports and concrete parapet)	25		283	
S-16	Lump	Lump Sum	First test pile				Lump
S-17	Lump	Lump Sum	First pile test load				Lump
S-17	1	Each	Subsequent pile test load				1
S-18	8,600	Lin.Ft.	10" Steel pile (10BP42)	1,600	7,000		
S-22	130	Cu.Yds.	Removal of portion of existing structure				130
S-23	52	Lin.Ft.	Dowel holes			52	
S-29	49	Cu.Yds.	Porous backfill	49			
S-29	4	Each	Drain Inlet			4	
S-3	850	Sq.Yds.	Type "C" waterproofing			850	
S-25	2	Each	Light standard with 6ft. mast arm including anchor bolts				2
S-25	160	Lin.Ft.	3" Asbestos cement conduit, fittings and bushings				160
S-25	5	Lin.Ft.	2" Aluminum conduit, fittings and bushings				5
S-25	Lump	Lump Sum	Grounding system				Lump
T-35	30	Cu.Yds.	Asphaltic concrete surface course, Type "C" (70-85)			30	
S-29	134	Lin.Ft.	6" Std. pipe downspout, galvanized or wrought iron, incl. specials.				134
* Special	510	Each	Water reducing, set retarding admixture			510	
S-25	4	Each	Pullboxes complete with frame and Cover				4
S-25	2	Each	Ballast for 400 W lamp - 6.6 A series				2
S-25	6	Each	Fluorescent luminaire complete with ballast (240 V), Including pipe, bracket arm, as per plan.				6
S-25	80	Lin.Ft.	600 V single conductor #12 AWG luminaire wire				80
S-25	100	Lin.Ft.	6000 V single conductor #8 AWG direct burial cable (plain)				100
S-25	100	Lin.Ft.	6000 V single conductor #8 AWG direct burial cable (identifiable)				100
S-25	2	Each	400 W Luminaire with 400 W mercury vapor lamp.				2
** I-129	1	Each	Overhead sign support No. 12				1

NOTES: Materials in approach slabs are not included in the estimated quantities.
Item S-17, First pile test load, shall be applied only if and where directed by the project engineer.

* See proposal note.

** See sheet No. 266

GENERAL NOTES

REFERENCE shall be made to the following: Standard Drawing: AS-1-54 revised 12-1-54; AR-1-57 revised 12-12-60. Supplemental Specification S-207.10 dated 4-25-61

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: Piles shall be driven to a bearing capacity of 35 tons.

RAILING: Aluminum rail and supports, concrete parapet, reinforcing bars wholly within the concrete parapet and sponge rubber for parapet joints, Preformed bearing pads shall be included in Item S-14 for payment.

UTILITY LINES: All labor and expense involved in relocating the affected utility lines shall be borne by the owners. The Contractor and Owners are requested to co-operate by arranging their work in such a manner that inconveniences to either will be held to a minimum.

EXCAVATION: Excavation quantity includes the removal of material between the surface of the proposed subgrade and the bottom of footings.

LIGHTWEIGHT CONCRETE: Light-weight concrete shall be composed of light-weight aggregates conforming to ASTM designation C330-60T, air-entraining cement meeting the requirements of Item S-1, and a water-reducing, set-retarding admixture meeting that called for in the proposal for other superstructure concrete, except that the slump may be a maximum of 4 inches. The resulting concrete shall have a minimum compressive strength of 4000 p.s.i. in 28 days and the weight per cu.ft. shall not exceed 115 lbs.

TEMPORARY FALSEWORK: All material in the temporary falsework shall be the property of the Contractor and shall be removed from the job by him.

MEASUREMENT OF DEFLECTIONS at the temporary falsework bents, in conjunction with the measurement of loads on the jacks, is intended as a check on the distribution of loads to the jacks as well as the total load applied to the bent in order to insure the proper functioning of the bent under the following conditions:

1. At time of transfer of load from the columns to the bent it is requisite to safety, both of the structure and the personnel involved in this operation, that the transfer be accomplished without excessive impact to, or rebound of, the falsework bent. The load applied to the jacks shall be the control for this operation but excessive deviation from the anticipated deflections should indicate that either the jacks have not activated properly or the falsework bent joints have not been tightened properly. In either case an investigation should be made by the Engineer to determine the cause.
2. At time of placing concrete in the forms for the bent cap the load applied to the bent from the new concrete will depend upon the rate of placing concrete and the time required to obtain an initial set. Excessive elongation of the tie rod following placement of concrete in bent cap will indicate that the bent is carrying more load from the new concrete than was anticipated and live load should be kept off the structure until the concrete has set sufficiently to transfer a greater proportion of the load to the columns.
3. The elongation of the tie rod is a measure of the stress in the various members of the truss. Any elongation in excess of the maximum due to the design loads indicates an overstress at some point in the truss and corresponding decrease in live load should be enforced until such time as the concrete can support its own weight. At the time the concrete is capable of supporting its own weight the truss is actually prestressed and can take an increase in load equal to the weight of concrete it originally supported before any additional deflection will be indicated.

Further description of construction procedures are contained on Sheets 388 and 390.
In the event the Contractor desires additional clarification of the procedures intended in these plans, he shall contact the Director.

ELECTRICAL GROUNDS for each lamp standard mounted on railing parapet shall consist of a #6 AWG bare copper wire, brazed to an anchor bolt, embedded in the curb concrete and extended to the abutment with sufficient wire projecting to allow a suitable splice to a #0 AWG bare copper wire embedded in the abutment wall and footing and brazed to one of the steel piles.

VOGT, IVERS, SEAMAN & ASSOCIATES
ENGINEERS CINCINNATI — ARCHITECTS CHICAGO

ESTIMATED QUANTITIES & GENERAL NOTES - SECTION 2
WESTERN HILLS VIADUCT
LOWER DECK

HAMILTON COUNTY STA. 0+44.00 to STA. 5+25.00

DESIGNED	DRAWN	TRACED	CHECKED	REVIEWED	DATE	REVISED
~	J.C.H.	~	A.A.N.	JAD	5-61	

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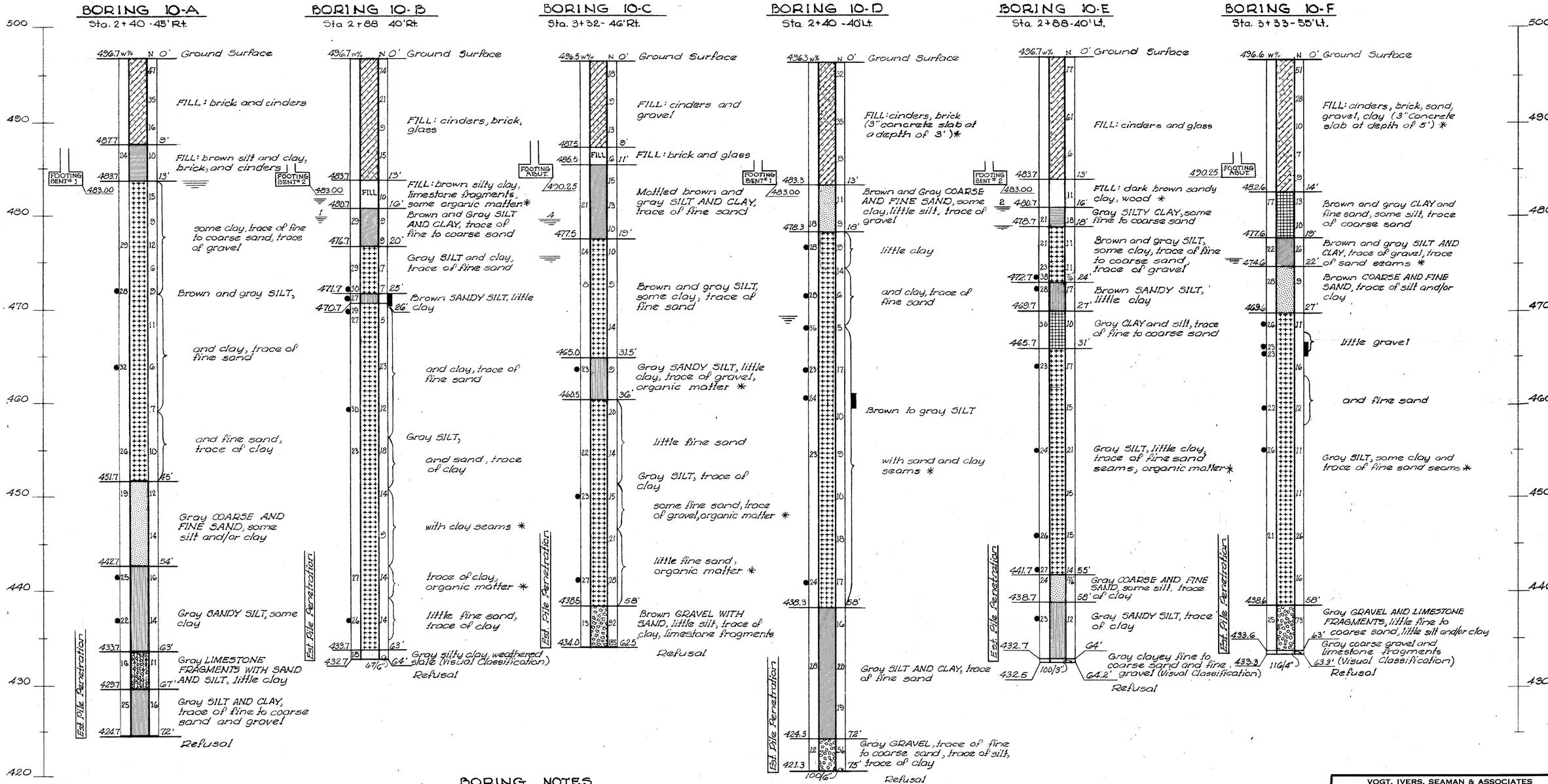
FED. RD. DIVISION	STATE	PROJECT	
2	OHIO		

HAM-25-1.63

379 / 486

ALL STATIONING REFERS TO WESTERN HILLS VIADUCT



BORING NOTES

- ⎓ - Water Level reading - immediate.
- ⎓ (x) - Water Level reading - x days after completion of boring.
- w% - 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 2.0" O.D. split spoon the last 12" of an 18" sample run using 140 lb. weight falling 30 inches, unless shown otherwise.
- ▮ - 3" O.D. Shelby Tube sample taken at elevation of symbol.
- * - Indicates unusual condition.

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%

Soils classified in accordance with the Highway Research Board system as modified by the Ohio Department of Highways Testing Laboratory.

Borings taken between July 25 and August 2, 1960.

See Sheet No. 375 for Plan of Borings.

Foundation borings and laboratory testing by The H.C. Nutting Co., Cincinnati, Ohio.

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ENGINEERS CINCINNATI — ARCHITECTS CHICAGO

BORINGS
WESTERN HILLS VIADUCT LOWER DECK

HAMILTON COUNTY STA. 0+44.00 to STA. 5+25.00

DESIGNED	DRAWN	TRACED	CHECKED	REVIEWED	DATE	REVISED
C.W	D.Y.F.	—	R.D.W	J.A.D	5-61	

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PLAN - Ramp F

PLAN - Ramp E

ELEVATION - Ramp F

ELEVATION - Ramp E

SECTION E-E

SECTION D-D

BEARING PLATE DETAIL

SECTION H-H W.W. 2

SECTION H-H W.W. 1

SECTION G-G

SECTION F-F

SECTION A-A

ELEVATION - WINGWALL 1
W.W. 2 Similar - Opp. Hand

SECTION B-B

SECTION C-C

FOOTING PLAN

Ramp F

Ramp E

NOTES

1. Designations used are as follows:
   N.F. = Near Face
   F.F. = Far Face
   E.F. = Each Face
2. For railing details, see Std. Dwg. AR-1-57.
3. For end dam details, see Sh. 386.
4. Procedure: Before the backwall is placed, 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 Ft. back of the abutments.

VOGT, IVERS, SEAMAN & ASSOCIATES
ENGINEERS CINCINNATI — ARCHITECTS CHICAGO

ABUTMENTS-SECTION 2

WESTERN HILLS VIADUCT LOWER DECK

HAMILTON COUNTY STA. 0+44.00 to STA. 5+25.00

DESIGNED	DRAWN	TRACED	CHECKED	REVIEWED	DATE	REVISED
A.A.N.	A.A.N.	J.C.H.	E.P.A.	JAD	5-61	

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FED. RD. DIVISION	STATE	PROJECT	
2	OHIO		

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PLAN

ELEVATION

END ELEVATION

DETAIL F

ELEVATION H-H

DETAIL A
Showing Pedestal

SECTION A-A

SECTION B-B

SECTION C-C

SHOE DETAIL

SECTION D-D

SECTION F-F

SECTION E-E

SECTION G-G

DETAIL B

DETAIL D

DETAIL C

DETAIL E

FOOTING PLAN

NOTES

1. For construction sequence of lower deck, see Sheet 388.
2. For falsework details & location, see Sheet 388.
3. For detail of 1¼"ϕ anchor bolt for falsework shoes, see Sheet 382.
4. For deck slab layout & details, see Sheet 383.
5. Non-shrink pressure grout to be included with Class "C" conc. for measurement & payment.
6. Anchor bolts, exp. bolts & 5×5×½ angles to be included with Class "E" concrete for payment.
7. For downspout details, see Sheet 386.
8. For overhead sign support, see Sheet 266.

VOGT, IVERS, SEAMAN & ASSOCIATES
ENGINEERS — ARCHITECTS
CINCINNATI — CHICAGO

BENT 1 - SECTION 2

WESTERN HILLS VIADUCT LOWER DECK

HAMILTON COUNTY STA. 0+44.00 to STA. 5+25.00

DESIGNED	DRAWN	TRACED	CHECKED	REVIEWED	DATE	REVISED
A.A.N.	A.A.N.	J.C.H.	E.R.H.	J.A.D.	5-61	

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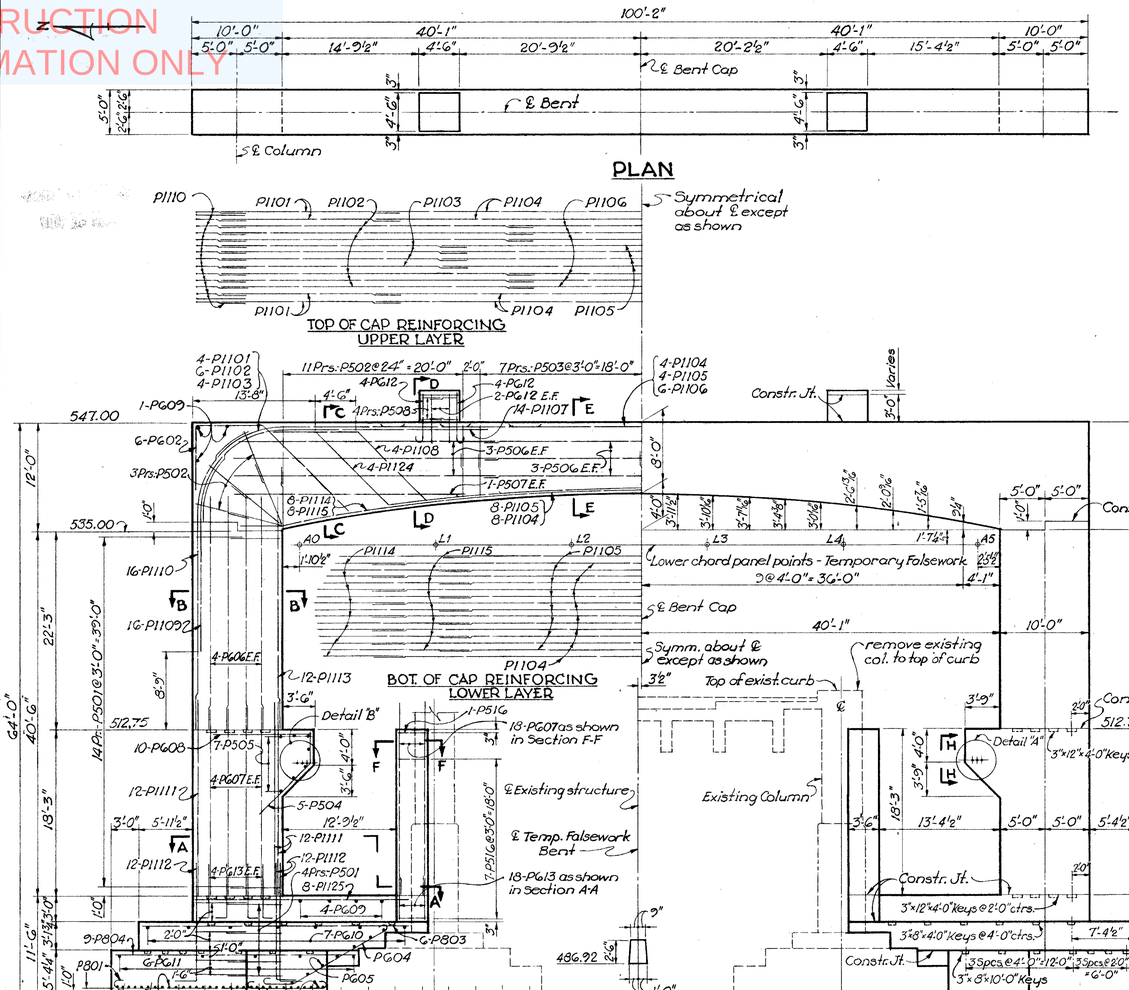
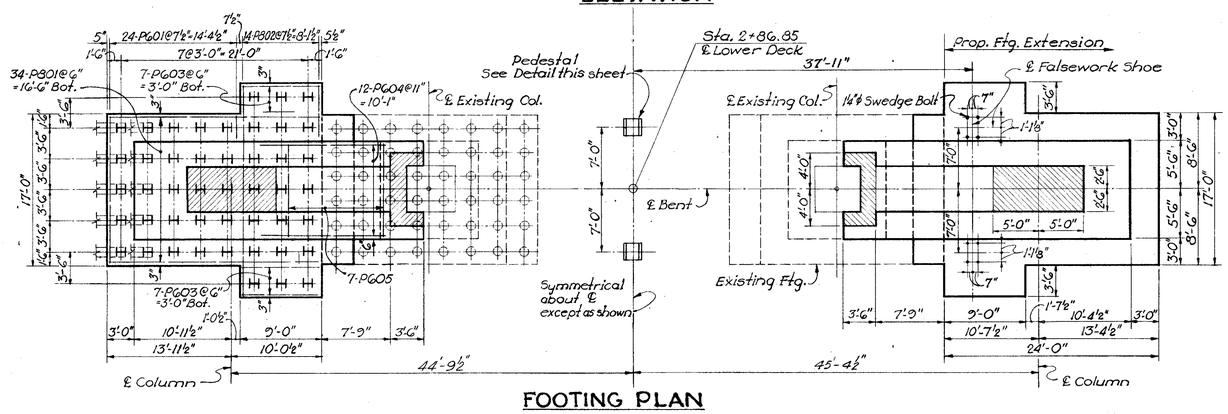
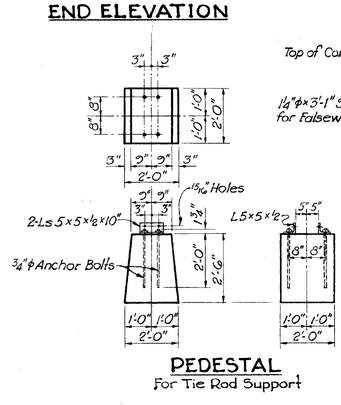
FED. RD. DIVISION	STATE	PROJECT	
2	OHIO		

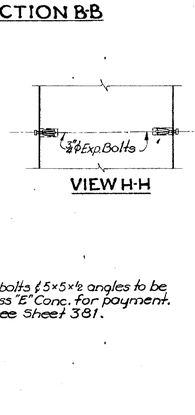
HAM-25-1.63

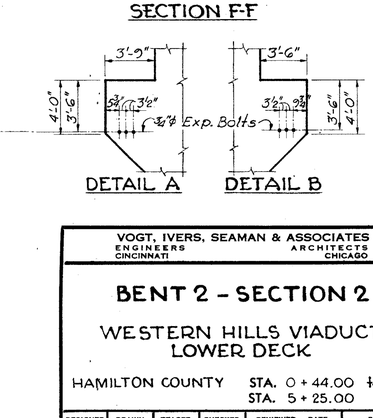
382 / 486











NOTES

1. Anchor bolts, exp. bolts & 5×5×½ angles to be included with Class "E" Conc. for payment.
2. For other notes, see Sheet 381.

VOGT, IVERS, SEAMAN & ASSOCIATES
ENGINEERS CINCINNATI — ARCHITECTS CHICAGO

BENT 2 - SECTION 2

WESTERN HILLS VIADUCT LOWER DECK

HAMILTON COUNTY STA. 0 + 44.00 to STA. 5 + 25.00

DESIGNED	DRAWN	TRACED	CHECKED	REVIEWED	DATE	REVISED
A.A.N.	A.A.N.	J.C.H.	E.R.H.	JAD	5-6-61	

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FED. RD. DIVISION	STATE	PROJECT	
2	OHIO		

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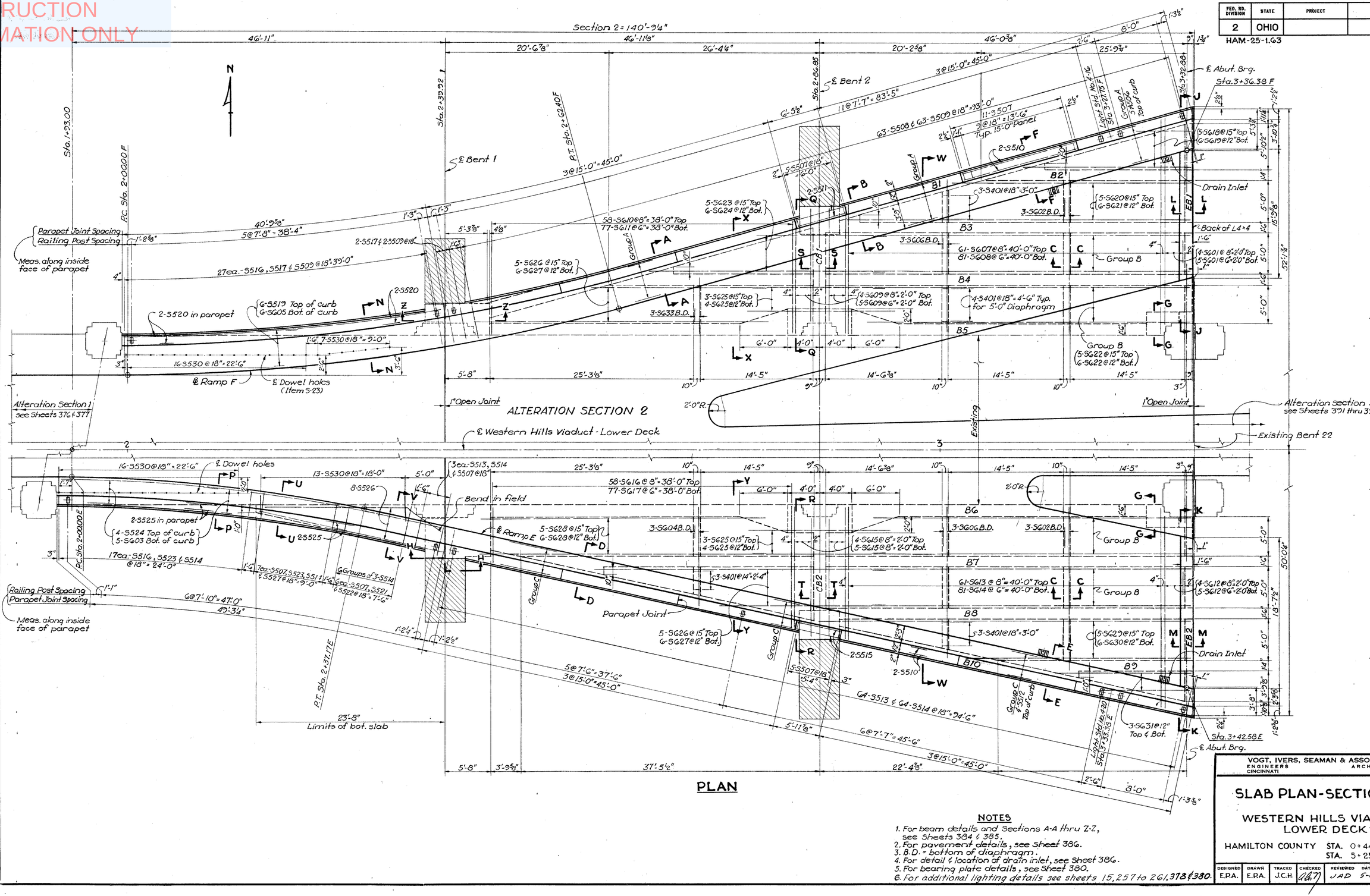
486



NOTES

1. For beam details and Sections A-A thru Z-Z, see Sheets 384 & 385.
2. For pavement details, see Sheet 386.
3. B.D. = bottom of diaphragm.
4. For detail & location of drain inlet, see Sheet 386.
5. For bearing plate details, see Sheet 380.
6. For additional lighting details see sheets 15, 257 to 261, 378 & 380.

VOGT, IVERS, SEAMAN & ASSOCIATES
ENGINEERS — CINCINNATI
ARCHITECTS — CHICAGO

SLAB PLAN-SECTION 2

WESTERN HILLS VIADUCT LOWER DECK

HAMILTON COUNTY STA. 0+44.00 to STA. 5+25.00

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E.P.A.	E.P.A.	J.C.H.	W.H.T.	J.A.D.	5-61	

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FED. RD. DIVISION	STATE	PROJECT	
2	OHIO		

384
486

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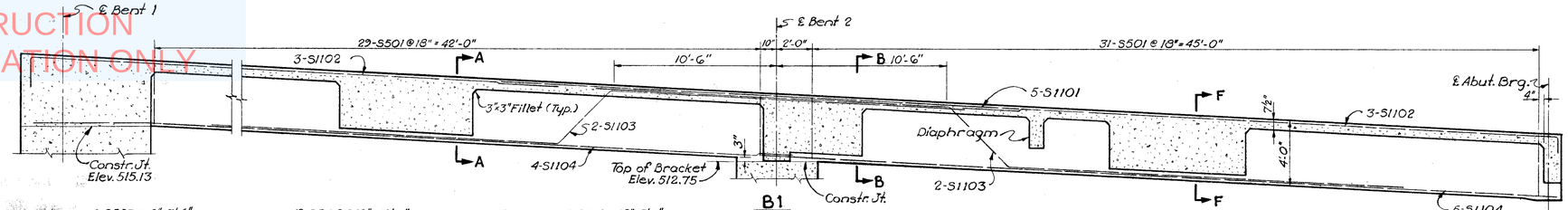

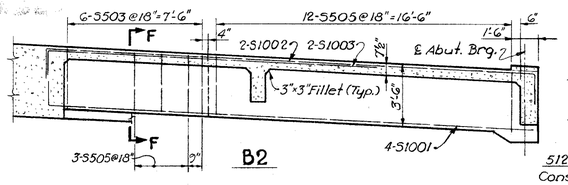

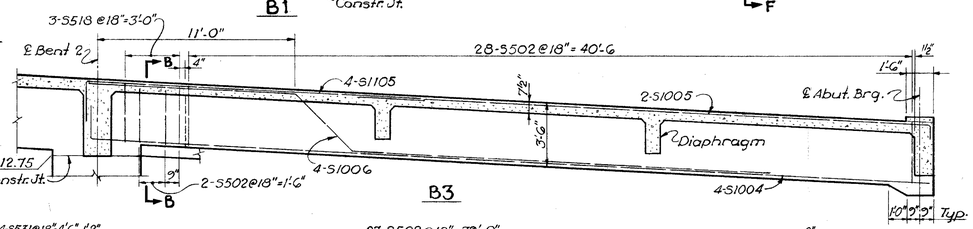

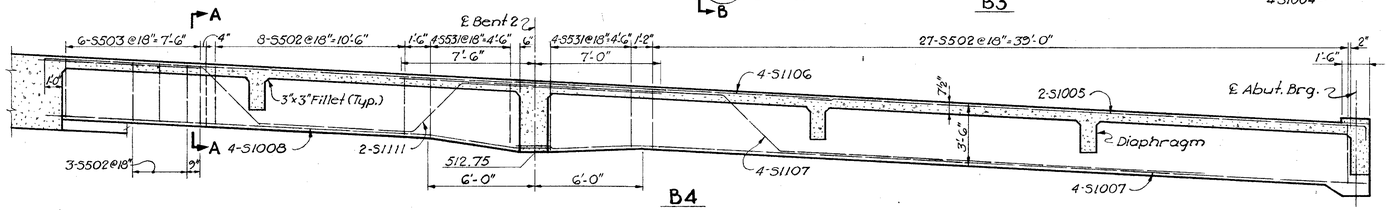

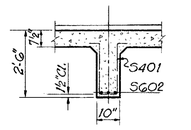

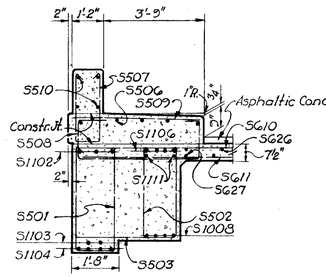

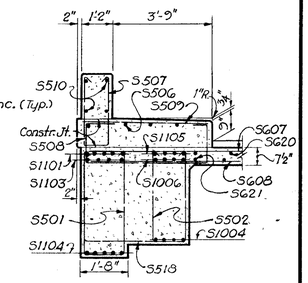

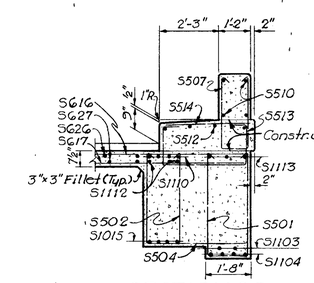

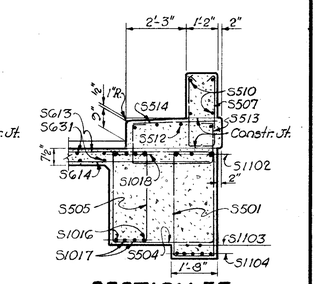

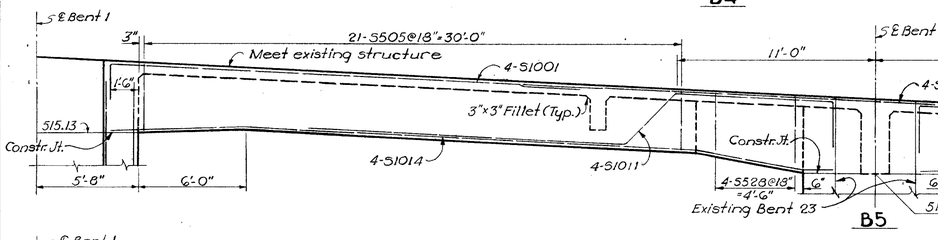

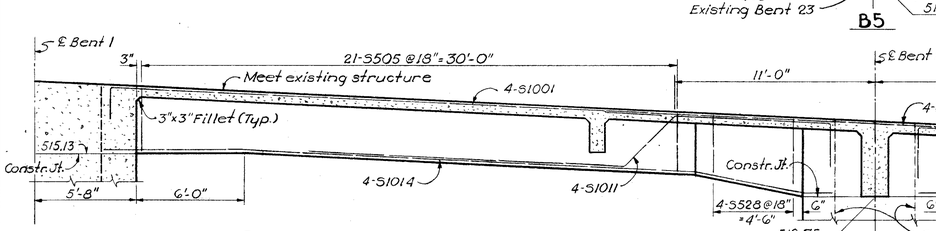

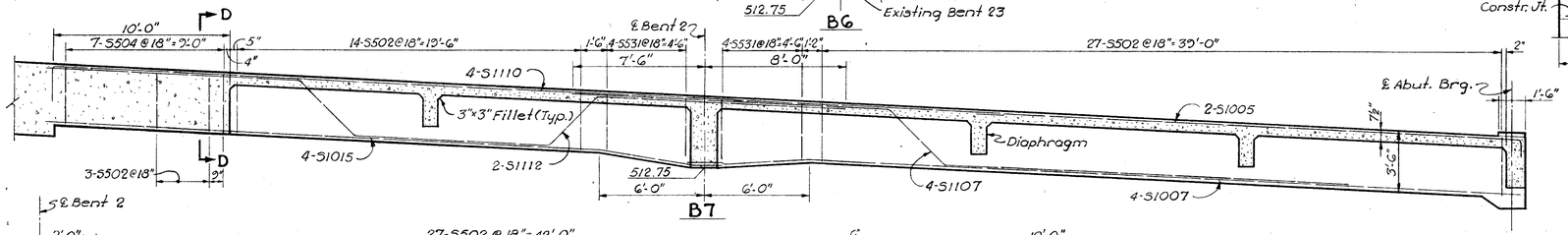

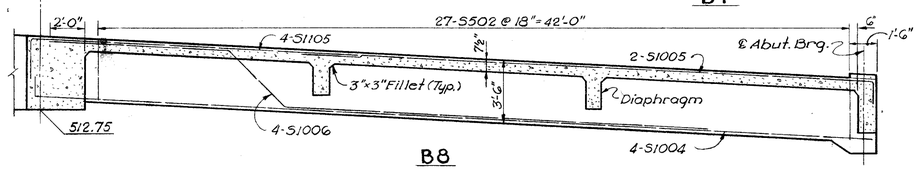

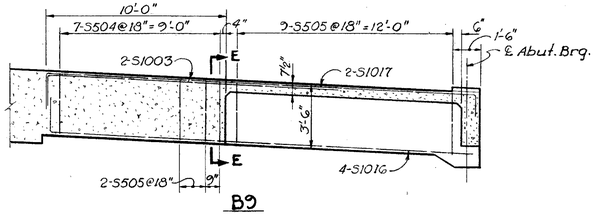

NOTES

1. For beam location, see Sheet 383.
2. For pavement details & elevations, see Sheet 386.
3. Sections shown on this sheet correspond to sections shown on Sheet 383.
4. For slab reinforcing, see Sheet 383.
5. For other beam details and sections, see Sheet 385.

VOGT, IVERS, SEAMAN & ASSOCIATES
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BEAM DETAILS - SECTION 2

WESTERN HILLS VIADUCT LOWER DECK

HAMILTON COUNTY STA. 0+44.00 to STA. 5+25.00

DESIGNED	DRAWN	TRACED	CHECKED	REVIEWED	DATE	REVISED
E.P.A.	E.P.A.	J.C.H.	[illegible]	JAD	5-61	

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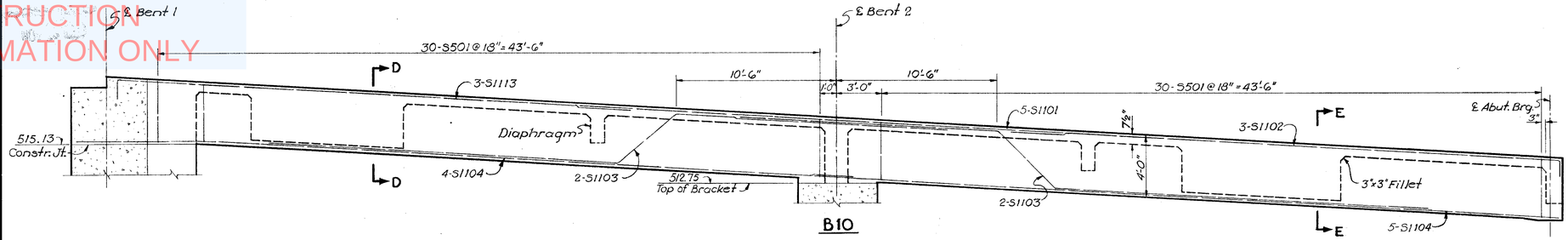
FED. RD. DIVISION	STATE	PROJECT	
2	OHIO		

HAM-25-1.63

385
486



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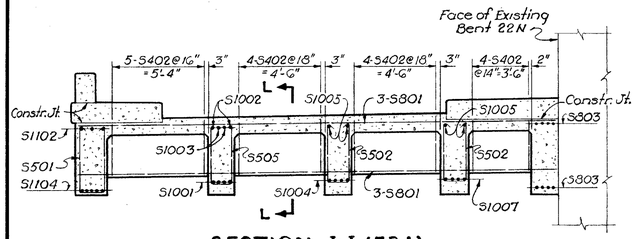
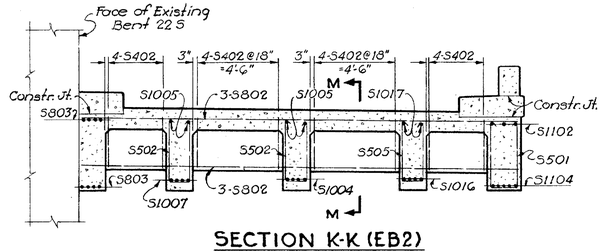


SECTION J-J (EB1)
slab & curb reinforcing not shown



SECTION K-K (EB2)
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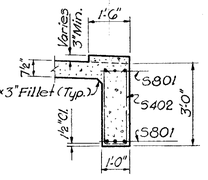
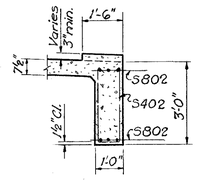
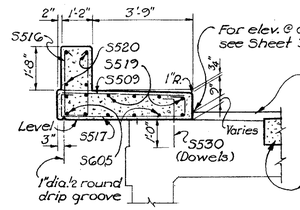


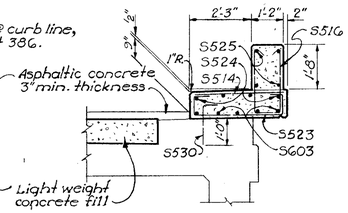
SECTION L-L



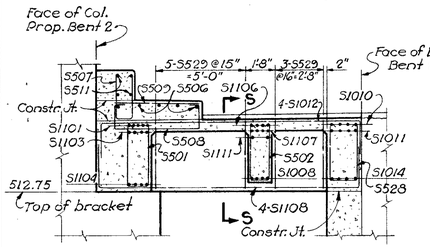
SECTION M-M



SECTION N-N



SECTION P-P



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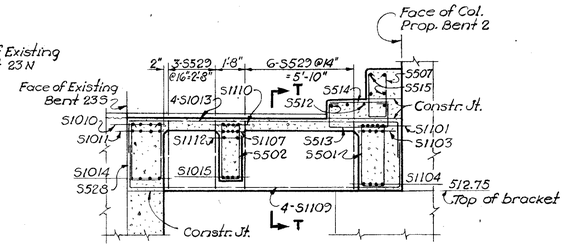

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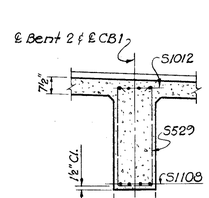
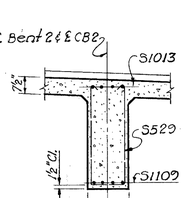
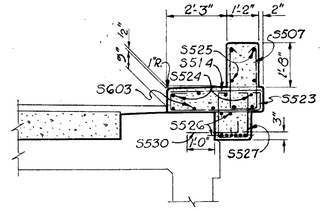


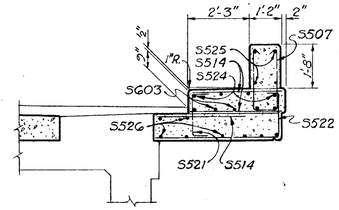
SECTION S-S



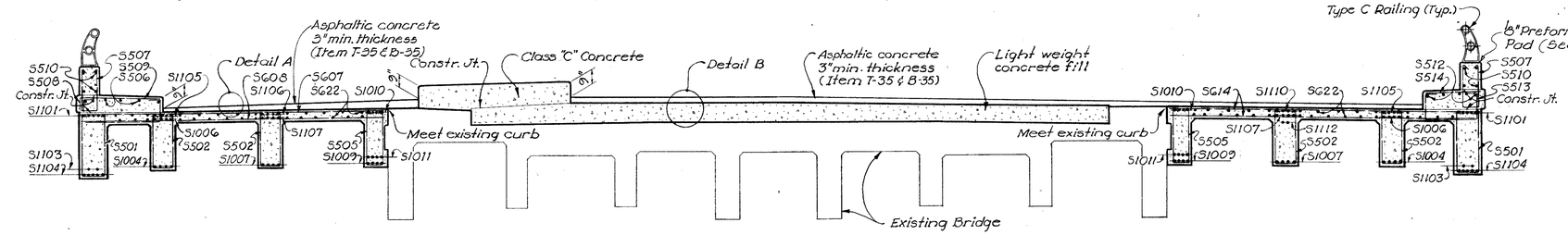
SECTION T-T



SECTION U-U



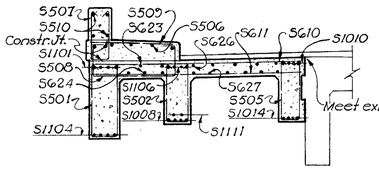
SECTION V-V



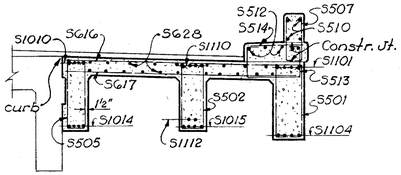
SECTION W-W

DETAIL A

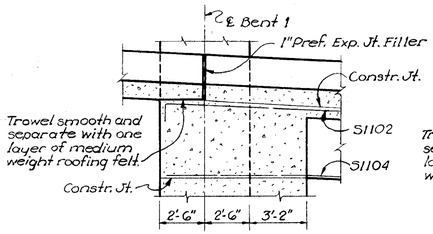
DETAIL B



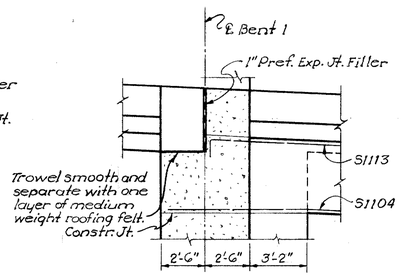
SECTION X-X



SECTION Y-Y



SECTION Z-Z



SECTION H-H

NOTES

1. For beam location, see Sheet 383.
2. Sections shown on this sheet correspond to Sections shown on Sheet 383.
3. For other beam details & sections, see Sheet 384.

VOGT, IVERS, SEAMAN & ASSOCIATES
ENGINEERS ARCHITECTS
CINCINNATI CHICAGO

BEAM DETAILS - SECTION 2

WESTERN HILLS VIADUCT LOWER DECK

HAMILTON COUNTY STA. 0+44.00 to STA. 5+25.00

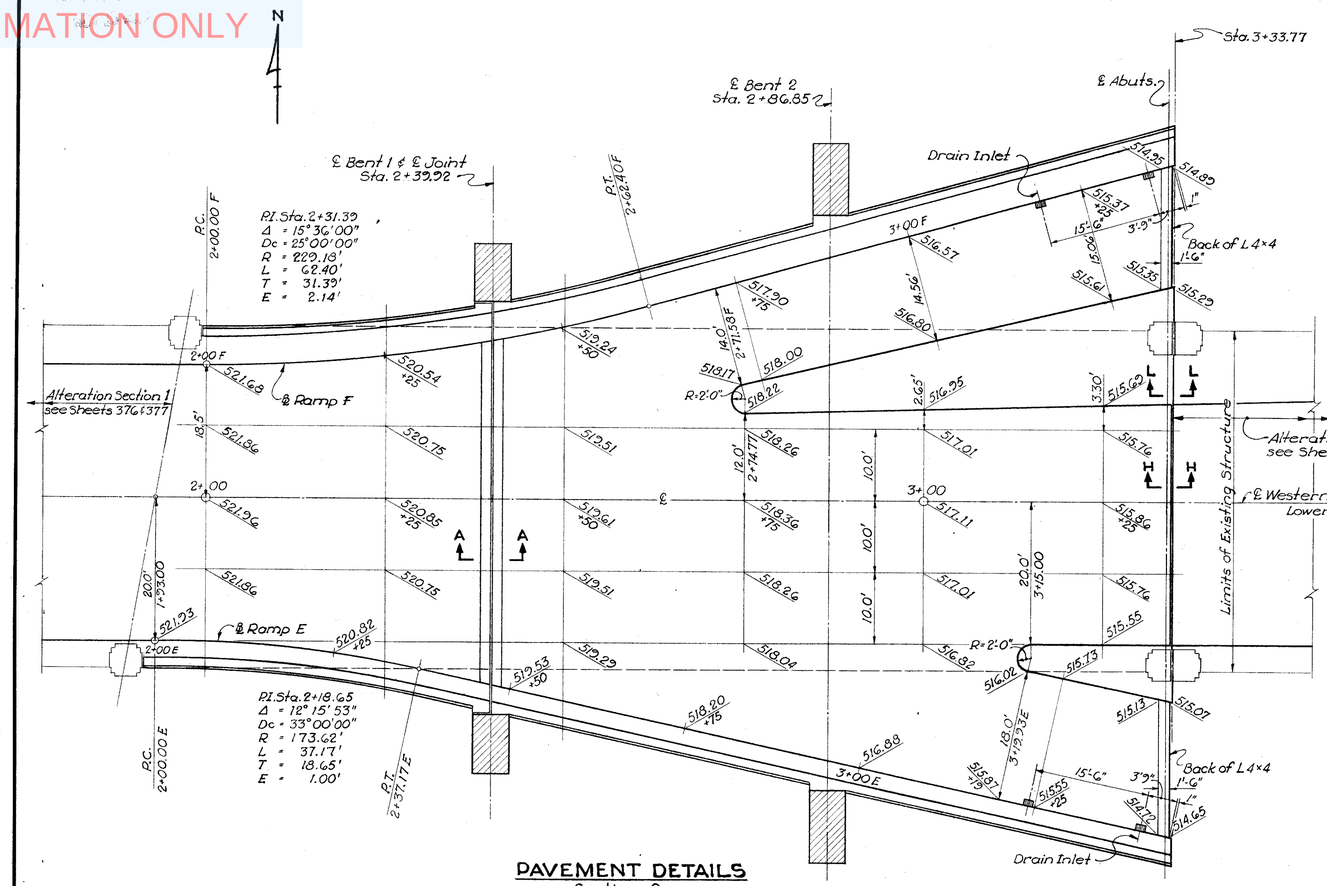
DESIGNED	DRAWN	TRACED	CHECKED	REVIEWED	DATE	REVISED
E.P.A.	E.P.A.	J.C.H.	A.A.T.	JAD	5-61	

NOT FOR CONSTRUCTION INFORMATION ONLY

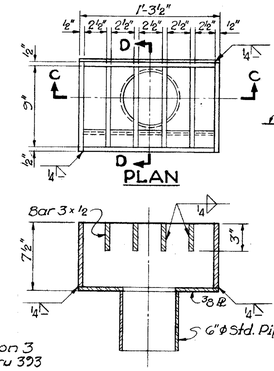
FED. RD. DIVISION	STATE	PROJECT	
2	OHIO		

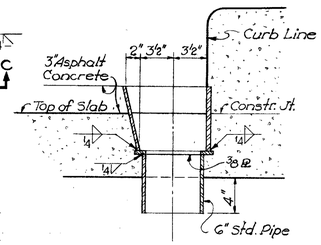
HAM-25-1.63

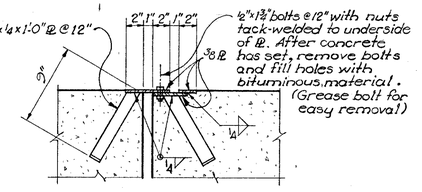
386
486

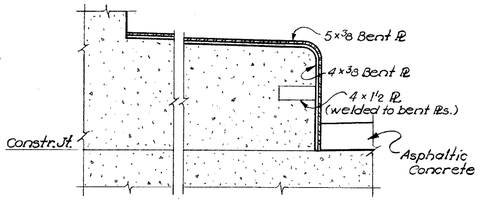


PAVEMENT DETAILS
Section 2



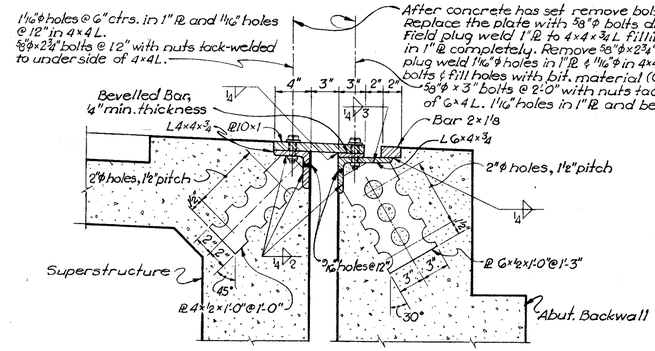




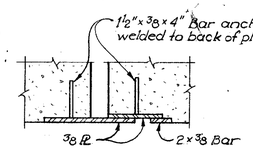


DRAIN INLET DETAILS

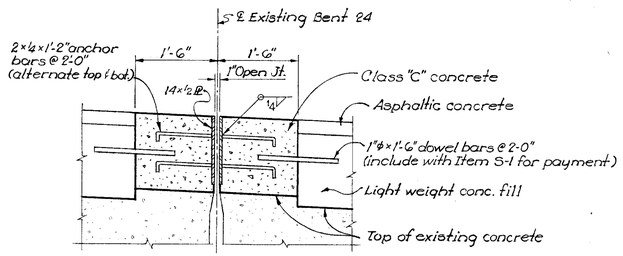
SIDEWALK DAM DETAIL
@ BENT 1



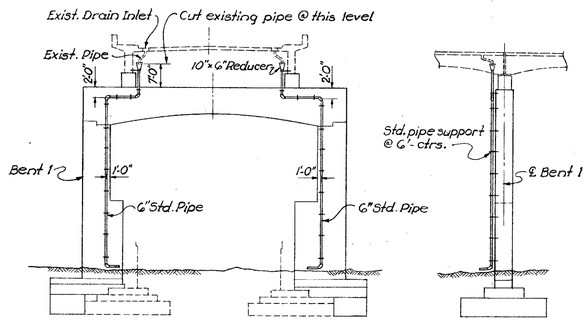
ROADWAY END DAM AT ABUTMENTS



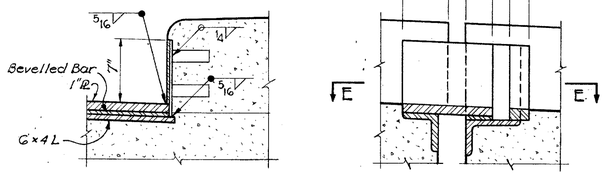
SECTION E-E



SECTION A-A



DOWNSPOUTS DETAIL @ BENT 1



CURB PLATE DETAILS AT ABUTMENTS

NOTES

1. For Section H-H, see Sheet 391.
2. For Section L-L, see Sheet 393.

VOGT, IVERS, SEAMAN & ASSOCIATES
ENGINEERS CINCINNATI — ARCHITECTS CHICAGO

PAVEMENT DETAILS SECTION 2

WESTERN HILLS VIADUCT LOWER DECK

HAMILTON COUNTY STA. 0+44.00 to STA. 5+25.00

DESIGNED	DRAWN	TRACED	CHECKED	REVIEWED	DATE	REVISED
E.P.A.	E.P.A.	J.C.H.	(2nd)	JAD	5-61	

NOT FOR CONSTRUCTION INFORMATION ONLY

HAM. 25-1.63

FED. RD. DIVISION	STATE	PROJECT	
2	OHIO		

387 / 486

SUPERSTRUCTURE

MARK	LENGTH	SHAPE	NO.	WEIGHT
S401	5'- 3"	Bt.	57	200
S402	6'-10"	Bt.	33	151
S501	9'- 7"	Bt.	120	1,109
S502	8'- 5"	Bt.	139	1,220
S503	Varies 8'-5" to 10'-10½", Incr. 5"	Bt.	2 Series of 6	123
S504	Varies 8'-11" to 10'-11", Incr. 4"	Bt.	2 Series of 7	145
S505	8'- 3"	Bt.	110	947
S506	33'- 3"	Str.	15	520
S507	6'- 6"	Bt.	158	1,071
S508	8'- 0"	Bt.	63	526
S509	4'- 9"	Str.	32	456
*S510	14'- 8"	Str.	48	—
*S511	6'- 0"	Str.	4	—
S512	32'-10"	Str.	12	411
S513	6'- 6"	Bt.	67	454
S514	3'- 3"	Str.	109	369
*S515	5'- 6"	Str.	4	—
S516	6'- 3"	Bt.	44	287
S517	6'-10"	Bt.	29	207
S518	10'- 0"	Bt.	3	31
S519	39'- 8"	Str.	6	248
*S520	21'- 2"	Str.	8	—
S521	2'- 8"	Bt.	6	17
S522	Varies 5'-3" to 6'-11", Incr. 4"	Bt.	1 Series of 6	38
S523	5'- 4"	Bt.	24	134
S524	25'- 2"	Str.	8	210
*S525	25'- 6"	Str.	8	—
S526	23'- 0"	Str.	8	192
S527	Varies 5'-0" to 7'-0", Incr. 4"	Bt.	1 Series of 7	44
S528	Varies 6'-4" to 11'-4", Incr. 12"	Bt.	4 Series of 4	164
S529	9'- 4"	Bt.	17	165
S530	2'- 2"	Bt.	52	118
S531	Varies 8'-5" to 9'-5½", Incr. 4"	Bt.	4 Series of 4	149
S601	26'- 0"	Str.	9	351
S602	20'- 6"	Str.	6	185
S603	27'- 10"	Str.	10	418
S604	12'- 6"	Str.	3	56
S605	39'- 8"	Str.	6	357
S606	19'- 3"	Str.	6	173
S607	Varies 16'-0" to 27'-3", Incr. 2½"	Str.	1 Series of 61	1,981
S608	Varies 15'-8" to 27'-4", Incr. 1½"	Str.	1 Series of 81	2,616
S609	14'- 6"	Str.	18	392
S610	Varies 3'-9" to 14'-5", Incr. 2½"	Str.	1 Series of 58	791
S611	Varies 3'-4" to 14'-5", Incr. 1½"	Str.	1 Series of 77	1,026
S612	24'- 0"	Str.	9	324
S613	Varies 16'-10" to 25'-7", Incr. 1½"	Str.	1 Series of 61	1,943
S614	Varies 17'-0" to 25'-4", Incr. 1½"	Str.	1 Series of 81	2,575
S615	15'- 3"	Str.	18	412
S616	Varies 7'-0" to 15'-4", Incr. 1½"	Str.	1 Series of 58	973
S617	Varies 7'-1" to 15'-0", Incr. 1½"	Str.	1 Series of 77	1,277
S618	Varies 7'-0" to 21'-0", Incr. 3'-6"	Str.	1 Series of 5	105
S619	Varies 7'-0" to 21'-2", Incr. 2'-10"	Str.	1 Series of 6	127
S620	Varies 30'-0" to 43'-0", Incr. 3'-3"	Str.	1 Series of 5	274
S621	Varies 30'-0" to 45'-4", Incr. 3'-3"	Str.	1 Series of 6	330
S622	40'-0"	Str.	44	2,644
S623	Varies 17'-0" to 30'-0", Incr. 3'-3"	Str.	1 Series of 5	176
S624	Varies 17'-0" to 30'-4", Incr. 2'-8"	Str.	1 Series of 6	213
S625	18'-0"	Str.	14	379
S626	Varies 23'-0" to 37'-0", Incr. 3'-6"	Str.	2 Series of 5	451
S627	Varies 23'-0" to 36'-9", Incr. 2'-9"	Str.	2 Series of 6	538
S628	37'-0"	Str.	11	611
S629	Varies 27'-0" to 47'-0", Incr. 5'-0"	Str.	1 Series of 5	278
S630	Varies 27'-0" to 47'-0", Incr. 4'-0"	Str.	1 Series of 6	333
S631	Varies 12'-0" to 17'-0", Incr. 2'-6"	Str.	2 Series of 3	131
S801	26'-6"	Str.	6	425
S802	24'-6"	Str.	6	392
S803	5'-4"	Str.	16	228
S1001	27'-7"	Bt.	20	2,374
S1002	28'-8"	Bt.	2	247
S1003	18'-1"	Bt.	4	311
S1004	48'-3"	Bt.	8	1,661
S1005	33'-1"	Bt.	8	1,139
S1006	39'-3"	Bt.	8	1,351
S1007	48'-3"	Bt.	8	1,661
S1008	28'-2"	Bt.	4	485
S1009	41'-0"	Bt.	8	1,411
S1010	40'-9"	Bt.	8	1,403
S1011	31'-10"	Bt.	16	2,192
S1012	16'-7"	Bt.	4	285
S1013	17'-2"	Bt.	4	295
S1014	40'-10"	Bt.	8	1,406
S1015	38'-6"	Bt.	4	663
S1016	25'-3"	Bt.	4	435
S1017	26'-5"	Bt.	2	227
S1101	34'-6"	Str.	10	1,833
S1102	37'-2"	Bt.	9	1,777
S1103	53'-0"	Bt.	8	2,253
S1104	50'-6"	Str.	18	4,830
S1105	19'-8"	Bt.	8	836
S1106	46'-8"	Bt.	4	992
S1107	45'-9"	Bt.	8	1,945
S1108	17'-9"	Bt.	4	377
S1109	18'-4"	Bt.	4	390
S1110	54'-8"	Bt.	4	1,204
S1111	36'-6"	Bt.	2	388
S1112	42'-9"	Bt.	2	454
S1113	34'-11"	Bt.	3	557

BENTS

MARK	LENGTH	SHAPE	NO.	WEIGHT
P501	15'-9"	Bt.	72	1,183
P502	17'-9"	Bt.	56	1,037
P503	14'-11"	Bt.	26	405
P504	11'-9"	Bt.	10	123
P505	4'-8"	Str.	14	68
P506	34'-6"	Str.	18	648
P507	28'-0"	Str.	4	117
P508	9'-9"	Bt.	28	285
P509	15'-5"	Bt.	36	579
P510	13'-9"	Bt.	62	883
P511	11'-5"	Bt.	12	143
P512	8'-2"	Bt.	24	204
P513	23'-2"	Bt.	12	290
P514	8'-9"	Bt.	12	110
P515	25'-10"	Bt.	12	323
P516	15'-8"	Bt.	16	261
P601	18'-0"	Bt.	48	1,298
P602	27'-3"	Bt.	12	491
P603	10'-0"	Bt.	76	1,142
P604	17'-4"	Bt.	24	625
P605	12'-0"	Bt.	14	252
P606	25'-2"	Str.	28	1,058
P607	20'-2"	Str.	52	1,575
P608	9'-0"	Str.	20	270
P609	4'-8"	Str.	30	210
P610	10'-8"	Str.	28	445
P611	16'-8"	Str.	12	300
P612	6'-8"	Bt.	24	240
P613	5'-8"	Bt.	52	443
P614	25'-0"	Str.	4	150
P615	37'-7"	Str.	8	452
P616	17'-9"	Bt.	22	587
P617	22'-10"	Bt.	12	412
P618	8'-3"	Bt.	12	149
P619	19'-0"	Bt.	42	1,199
P620	23'-1"	Str.	48	1,664
P621	5'-1"	Bt.	60	458
P801	24'-10"	Bt.	68	4,509
P802	25'-10"	Bt.	56	3,863
P803	30'-2"	Str.	12	966
P804	27'-0"	Str.	18	1,298
P805	14'-4"	Bt.	50	1,913
P1001	43'-6"	Bt.	20	3,744
P1101	21'-3"	Bt.	8	903
P1102	36'-3"	Bt.	12	2,311
P1103	28'-9"	Bt.	8	1,222
P1104	60'-0"	Str.	12	3,825
P1105	45'-0"	Str.	12	2,869
P1106	30'-0"	Str.	6	956
P1107	39'-8"	Bt.	28	5,901
P1108	59'-2"	Bt.	8	2,515
P1109	23'-6"	Bt.	32	3,995
P1110	36'-0"	Bt.	32	6,121
P1111	21'-10"	Str.	72	8,352
P1112	14'-11"	Bt.	72	5,706
P1113	25'-10"	Str.	24	3,294
P1114	18'-8"	Bt.	16	1,587
P1115	26'-2"	Bt.	16	2,224
P1116	45'-2"	Bt.	6	1,567
P1117	13'-3"	Bt.	11	1,125
P1118	50'-0"	Bt.	11	2,922
P1119	32'-4"	Bt.	20	3,436
P1120	26'-0"	Str.	16	2,210
P1121	25'-0"	Str.	20	2,657
P1122	8'-8"	Bt.	16	738
P1123	14'-3"	Bt.	20	1,532
P1124	60'-0"	Bt.	8	2,550
P1125	24'-3"	Str.	16	2,061

ABUTMENTS

MARK	LENGTH	SHAPE	NO.	WEIGHT
A501	4'-7"	Bt.	53	341
A502	16'-9"	Str.	14	245
A503	22'-0"	Str.	9	207
A504	24'-0"	Str.	12	300
A505	24'-7"	Str.	16	410
A506	22'-6"	Str.	4	94
A507	26'-7"	Str.	3	83
A508	26'-0"	Str.	12	325
A509	17'-0"	Str.	15	266
A510	7'-2"	Str.	18	135
A511	5'-0"	Str.	18	94
A512	4'-6"	Str.	24	113
A513	18'-7"	Str.	24	465
A514	12'-1"	Str.	6	75
A515	10'-0"	Str.	6	63
A516	9'-5"	Bt.	18	177
A517	5'-1"	Str.	12	64
A518	6'-9"	Bt.	13	92
A519	9'-9"	Bt.	13	132
A520	6'-5"	Bt.	26	174
*A521	12'-2"	Str.	8	—
A522	Varies 12'-2" to 12'-11" Incr. 3"	Str.	2 Series of 4	105
A523	Varies 12'-2" to 13'-6" Incr. 4"	Str.	2 Series of 5	134
A524	7'-4"	Bt.	24	184
A525	8'-11"	Bt.	24	223
A526	7'-7"	Bt.	18	142
A527	4'-5"	Bt.	52	240
A601	8'-8"	Bt.	54	703
A602	25'-3"	Str.	11	417
A603	27'-3"	Str.	11	450
A604	7'-4"	Bt.	47	518
A605	5'-1"	Bt.	52	397
A606	3'-10"	Bt.	36	207
A607	6'-10"	Bt.	35	359
A608	5'-1"	Str.	10	76
A609	11'-11"	Bt.	9	161
A610	6'-6"	Bt.	10	98
A611	7'-0"	Str.	22	231
A612	26'-0"	Str.	5	195
A613	28'-0"	Str.	5	210
A614	11'-6"	Str.	22	380
A615	20'-0"	Str.	20	601
A616	5'-2"	Bt.	20	155
A801	7'-0"	Bt.	25	467
A802	9'-6"	Bt.	46	1,167
A803	11'-6"	Bt.	23	706
A804	15'-6"	Str.	25	1,035
A901	14'-2"	Bt.	3	145

REPLACEMENT BARS

MARK	NO.	LENGTH	SHAPE
RE5	1	5'-7"	Str.
RE6	2	5'-11"	Str.
RE8	1	6'-6"	Str.
RE9	1	6'-10"	Str.
RE10	2	7'-3"	Str.
RE11	5	7'-7"	Str.

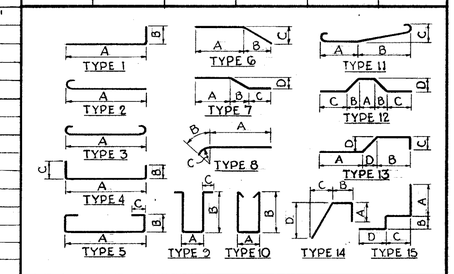
If reinforcing bars are fabricated from stock which has previously been tested and approved by the Ohio Highway Testing Laboratory, test samples, as provided in Sec. 3-4.02 need not be furnished and replacement bars will not be required.

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.

Bars marked with single asterisk to be included for payment under Item 5-14 Railing.

BENDING BAR LIST

MARK	TYPE	A	B	C	D
S401	9	7"	2'-0"	6"	
S402	10	9"	2'-9"		
S501	10	1'-5"	3'-9½"		
S502	10	1'-3"	3'-3½"		
S503	10	1'-7" to 3'-8", Incr. 5"	3'-3½"		
S504	10	1'-5" to 3'-3", Incr. 4"	3'-3½"		
S505	10	1'-1"	3'-3½"		
S507	10	10"	2'-6"		
S508	5	4'-7"	1'-4"	7½"	
S513	5	3'-1"	1'-4"	7½"	
S516	10	10"	2'-5"		
S517	5	4'-9"	8"	7½"	
S518	10	2'-10"	3'-3½"		
S521	4	1'-8"	7½"	7½"	
S522	4	1'-8"	7½"	3'-3" to 4'-11", Incr. 4"	
S523	5	3'-3"	8"	7½"	
S527	5	11" to 2'-11", Incr. 4"	1'-8"	7½"	
S528	10	1'-2" to 3'-2", Incr. 8"	3'-3" to 3'-9", Incr. 2"		
S529	10	1'-3"	3'-9"		
S530	1	1'-8"	7½"		
S531	10	1'-3"	3'-3" to 3'-10", Incr. 2"		
S1001	1	26'-6"	1'-5"		
S1002	4	26'-6"	1'-5"	1'-5"	
S1003	1	17'-0"	1'-5"		
S1004	1	47'-2"	1'-5"		
S1005	1	32'-0"	1'-5"		
S1006	7	11'-6"	2'-8"	24'-0"	2'-8"
S1007	7	40'-6"	6'-0"	1'-9"	6"
S1008	7	20'-5"	6'-0"	1'-9"	6"
S1009	7	33'-2"	6'-0"	1'-9"	6"
S1010	12	8'-0"	6'-1"	10'-0"	2'-0"
S1011	13	18'-0"	9'-0"	1'-5"	2'-8"
S1012	4	14'-5"	1'-5"	1'-5"	
S1013	4	15'-0"	1'-5"	1'-5"	
S1014	12	25'-4"	6'-0"	1'-9"	6"
S1015	7	30'-9"	6'-0"	1'-9"	6"
S1016	1	24'-2"	1'-5"		
S1017	4	24'-3"	1'-5"	1'-5"	
S1102	1	36'-0"	1'-6"		
S1103	7	24'-0"	3'-6½"	24'-0"	3'-6½"
S1105	1	18'-6"	1'-6"		
S1106	1	45'-6"	1'-6"		
S1107	7	18'-0"	2'-3"	24'-0"	2'-8"
S1108	4	14'-7"	1'-11"	1'-11"	
S1109	4	15'-2"	1'-11"	1'-11"	
S1110	1	55'-6"	1'-6"		
S1111	12	8'-0"	2'-8"	10'-6"	2'-8"
S1112	12	11'-0"	2'-8"	14'-0"	2'-8"
S1113	1	33'-9"	1'-6"		
P501	4	4'-8"	5'-8"	5'-8"	
P502	4	4'-8"	6'-8"	6'-8"	
P503	4	4'-8"	5'-3"	5'-3"	
P504	6	8'-0"	2'-8"	2'-8"	
P508	4	4'-2"	2'-11"	2'-11"	
P509	4	4'-8"	5'-6"	5'-6"	
P510	4	4'-8"	4'-8"	4'-8"	
P511	4	6'-4"	4'-0"	1'-4"	
P512	1	6'-8"	1'-8"		
P513	4	4'-8"	9'-9"	9'-0"	
P514	4	3'-8"	4'-0"	1'-4"	
P515	4	4'-8"	12'-5"	9'-0"	
P516	5	7'-8"	3'-2"	1'-1"	
P601	3	16'-8"			
P602	14	7'-0"	7'-0"	9'-6"	9'-6"
P603	3	8'-8"			
P604	11	3'-0"	11'-1"	7'-0"	
P605	3	10'-8"			
P612	2	6'-0"			
P613	1	4'-11"	10"		
P616	3	16'-5"			
P617	14	6'-0"	5'-0"	8'-6"	8'-6"
P618	1	7'-7"	10"		
P619	2	18'-4"			
P621	2	4'-5"			
P801	2	23'-9"			
P802	3	23'-8"			
P805	3	12'-2"			
P1001	8	30'-6"	13'-0"	7'-9"	
P1101	8	13'-8"	7'-7"	9'-9"	
P1102	8	28'-8"	7'-7"	9'-9"	
P1103	8	21'-2"	7'-7"	9'-9"	
P1107	8	24'-0"	15'-8"	9'-5"	
P1108	7	44'-0"	7'-11"	4'-0"	7'-11"
P1109	8	15'-6"	8'-0"	9'-5"	
P1110	8	23'-11"	12'-1"	9'-9"	
P1112	1	13'-9"	1'-6"		
P1114	6	13'-8"	4'-11"	11¾"	
P1115	6	21'-2"	4'-11"	11¾"	
P1116	7	34'-7"	6'-9"	5'-0"	6'-9"
P1117	6	15'-3"	3'-10"	11"	
P1118	6	46'-0"	3'-10"	11"	
P1119	8	23'-10"	8'-6"	7'-9"	
P1122	2	7'-1"			
P1123	1	13'-3"	1'-6"		
P1124	7	44'-0"	8'-6"	4'-0"	8'-6"
A501	2	4'-0"			
A516	4	1'-2"	4'-3"	4'-3"	
A518	4	8"	3'-2"	3'-2"	
A519	4	8"	4'-8"	4'-8"	
A520	10	10"	2'-6"		
A524	1	5'-9"	1'-9"		
A525	15	4'-0"	1'-9"	2'-0"	1'-7"
A526	4	2'-8"	3'-8"	1'-6"	
A527	4	3'-5"	7½"	7½"	
A601	2	8'-0"			
A604	6	3'-10"	2'-6"	2'-6"	
A605	2	4'-5"			
A606	1	3'-2"	10"		
A607	4	11"	4'-3"	2'-0"	
A609	4	1'-5"	5'-5"	5'-5"	
A610	3	5'-2"			
A616	2	4'-6"			
A801	1	4'-10"	2'-5"		
A802	1	7'-4"	2'-5"		
A803	1	9'-4"	2'-5"		
A901	3	11'-8"			



VOGT, IVERS, SEAMAN & ASSOCIATES
ENGINEERS CINCINNATI — ARCHITECTS CHICAGO

REINFORCING STEEL LIST SECTION 2

WESTERN HILLS VIADUCT LOWER DECK

HAMILTON COUNTY — STA. 0+44.00 to STA. 5+25.00

DESIGNED	DRAWN	TRACED	CHECKED	REVIEWED	DATE	REVISED
~	J.C.H.	~	GCM	JAD	5-61	

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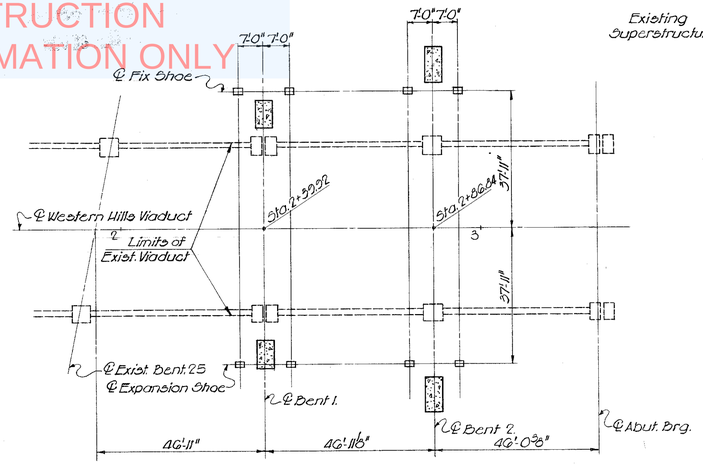
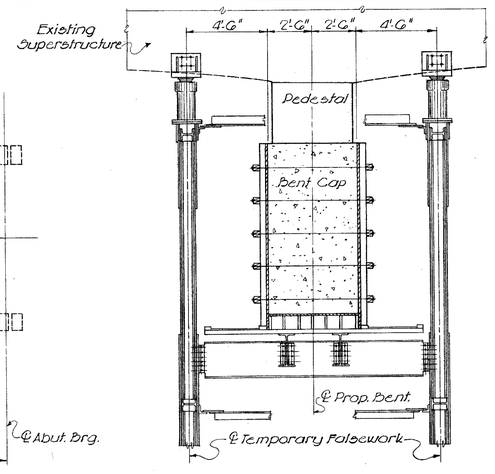


LOCATION PLAN



TYPICAL SECTION

TABLE OF TRUSS MEMBERS, STRESSES AND CAMBER

MEMBER	DESIGN STRESS IN KIPS	AREA FURNISHED SQ. IN. EFF. GROSS	NET.	t/r	MATERIAL	CAMBER (INCHES)
U0-U1 & U4-U5	5GC	9.71		24	10WF55	+0.025
U1-U2 & U3-U4	11GC	9.71		24	10WF55	+0.062
U2-U3	11GC	9.71		24	10WF55	+0.031
A0-L1 & L4-A5	1C	9.71		24	10WF55	+0.001
L1-L2 & L3-L4	112C	9.71		24	10WF55	+0.059
L2-L3	52C	9.71		24	10WF55	+0.011
U0-A0 & U5-A5	53C	9.71		87	10WF33	+0.022
A0-B0 & A5-B5	100C	9.71		87	10WF33	+0.050
B0-C0 & B5-C5	103C	9.71		G2	10WF33	+0.036
C0-L0 & C5-L5	104C	9.71		120	10WF33	+0.072
L0-C1 & L5-C4	510C	37.70		87	8WF67+2PL.12"×⅜"	+0.090
C1-B1 & C4-B4	508C	37.70		45	8WF67+2PL.12"×⅜"	+0.046
B1-L1 & B4-L4	506C	37.70		G3	8WF67+2PL.12"×⅜"	+0.004
*U1-L1 & *U4-L4	467C	33.45		G8	8WF67+2PL.10"×11/16"	+0.060
U2-L2 & U3-L3	2C	9.71		87	10WF33	+0.001
B0-B1 & B4-B5	1C	9.71		G3	10WF33	0
C0-C1 & C4-C5	0	9.71		42	10WF33	0
U0-L1 & L4-U5	75T		7.96	126	10WF33	-0.046
U1-L2 & L3-U4	82T		7.96	126	10WF33	-0.099
U2-L3 & L2-U3	0		7.96	G4	10WF33	0
A0-B1 & B4-A5	2T		7.96	107	10WF33	-0.002
B0-C1 & C4-B5	1T		7.96	75	10WF33	-0.001
L0-L3	168T		9.48	230	10WF33	-0.177

BLOCKING (INCHES) JOINT	LEFT	ABOVE
U0	0.300	0.176
U1	0.275	0.358
U2	0.212	0.551
U3	0.142	0.551
U4	0.079	0.358
U5	0.054	0.178
A0	0.252	0.157
L1	0.251	0.208
L2	0.192	0.550
L3	0.162	0.550
L4	0.103	0.208
A5	0.102	0.157
B0	0.186	0.107
B1	0.185	0.208
B4	0.160	0.208
B5	0.166	0.107
C0	0.136	0.071
C1	0.136	0.142
C4	0.216	0.142
C5	0.216	0.071
L0	0	0
L5	0.354	0

FED. RD. DIVISION	STATE	PROJECT		SHEET NO.
2	OHIO			388 486

HAM-25-1.63

NOTES

Design stress is due to the following loads in combination:
Dead load of truss, bracing, jack, blocking, forms, concrete bent cap and upper deck.
Live load and impact on upper deck.
Members marked with * are proportioned for bending stresses in combination with the stresses indicated in the table.
Camber is computed for dead loads. Lengths of members shall be computed for geometric shape of truss and the corrections indicated are to be applied to these lengths.
(indicates lengthening; - indicates shortening)

SEQUENCE OF CONSTRUCTION

PHASE I
1. Excavate, drive piles and construct concrete bents to top of columns, and construct abutments, if desired.
2. Preassemble legs of temporary bent on blocking, construct pedestals for ties and set shoes for temporary bent on footings at Bent 2.

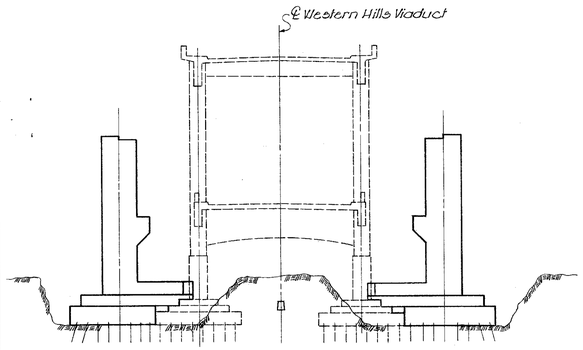
PHASE II
1. Pin legs of temporary bent to shoes and swing legs vertically into position.
2. Complete construction of temporary bent by erecting middle sections, ties, bracing, struts, floorbeams, stringers and jacking assemblies.
3. Adjust all four jacks simultaneously to transfer dead load of upper deck from existing columns to the temporary bent (See "Method of Jacking and Measuring Deflections" on Sheet 390. Install shims between jacking yokes and pedestals.
4. Remove upper columns of existing bent between bottom of girders on upper deck and top of curb on lower deck on both sides of existing bent and cut off reinforcing steel below existing girders as shown on the details of the bents. Initial column removal operations to be conducted simultaneously at both columns.

PHASE III
1. Erect forms for new bent caps on stringers of temporary bent and place reinforcing steel.
2. Adjust all four jacks simultaneously to insert one additional 1/8" shim between jacking yokes and pedestals.
3. Place concrete in forms for new bent cap. (See "Method of Jacking and Measuring Deflections".)
4. Construct new concrete pedestals between bottom of girders and top of bent cap.
5. Remove falsework, backfill excavation and move to Bent 1.

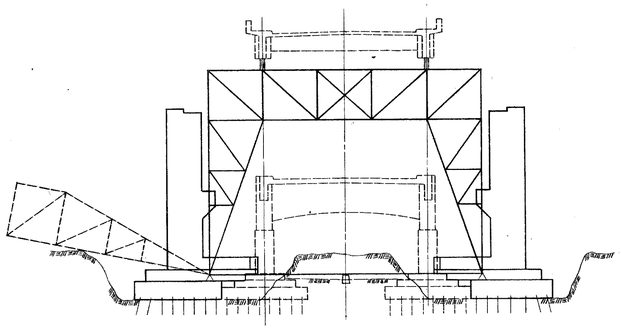
PHASE IV
1. Repeat Phase II at Bent 1.

PHASE V
1. Repeat Phase III at Bent 1.

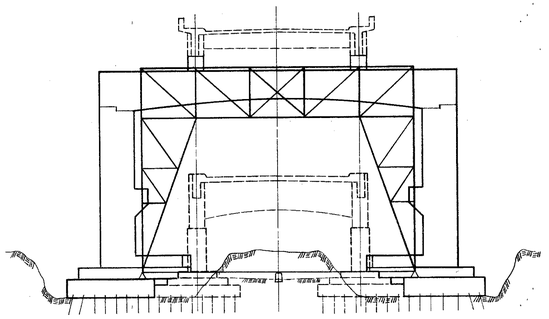
PHASE VI
1. Remove existing concrete railing between Bents 22 & 25.
2. Construct beams and slabs for lower deck widening.
3. Remove existing asphalt surfacing on lower deck and replace with lightweight concrete to 3" below final grade.
4. Resurface lower deck with 1-3/4" min. thickness asphaltic concrete leveling course and 1-1/4" thickness asphaltic wearing surface.



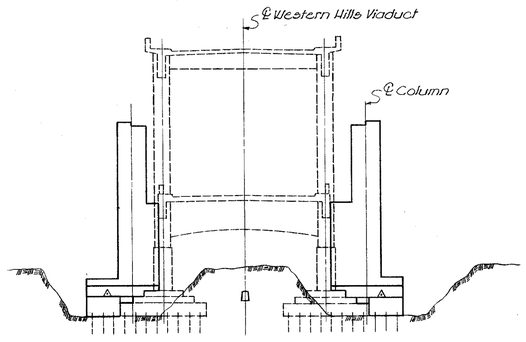
PHASE I AT BENT 2



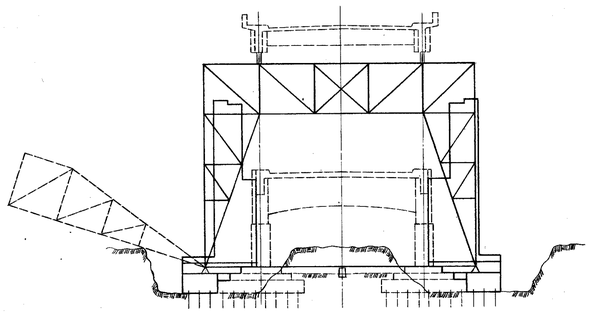
PHASE II



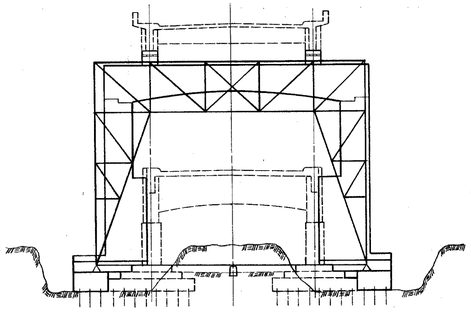
PHASE III



PHASE I AT BENT 1.



PHASE IV



PHASE V

NOTE:
Item Special, Temporary Falsework shall be governed by the requirements specified under Item 5-7, Structural Steel, except painting requirements are waived.

VOGT, IVERS, SEAMAN & ASSOCIATES
ENGINEERS CINCINNATI ARCHITECTS CHICAGO

TEMPORARY FALSEWORK
SECTION 2
WESTERN HILLS VIADUCT
LOWER DECK

HAMILTON COUNTY STA. 0+44.00 To STA. 5+25.00

DESIGNED	DRAWN	TRACED	CHECKED	REVIEWED	DATE	REVISED
J.A.D.	S.T.	~	RE/PERH	JAD	5-61	

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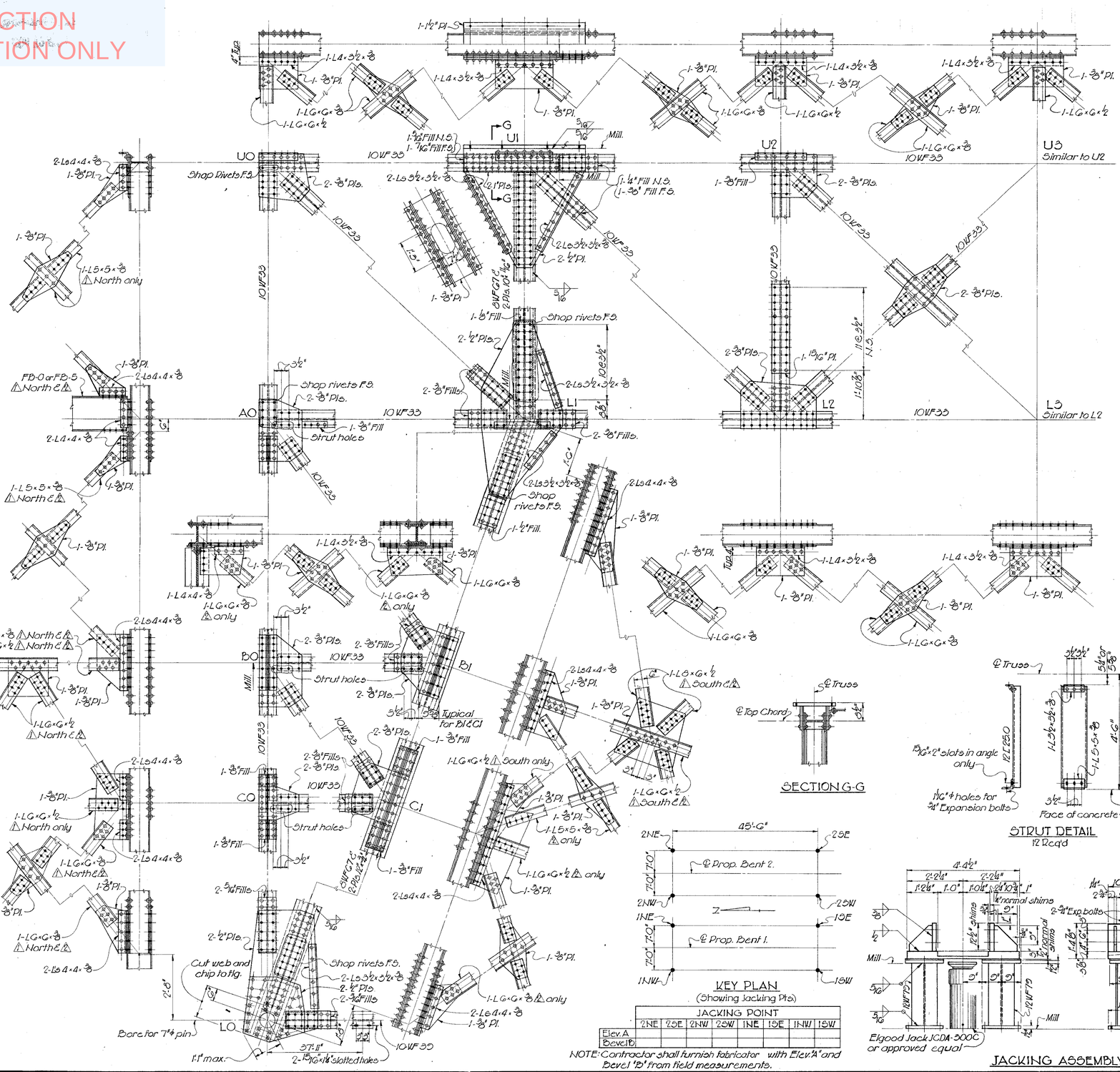
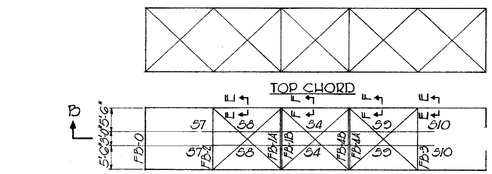
FED. RD. DIVISION	STATE	PROJECT		389 / 486
2	OHIO			

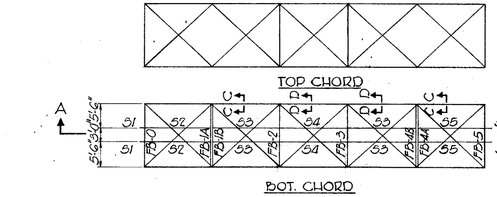
HAM-25-1.63

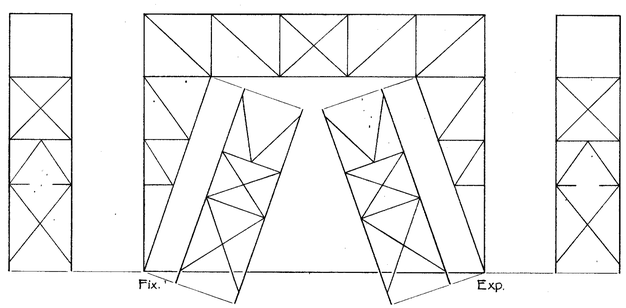


JACKING POINT	2NE	2SE	2NW	2SW	1NE	1SE	1NW	1SW
Elev. A								
Bevel B								



⚠ TEMPORARY BENT AS ERECTED AT BENT 1





⚠ TEMPORARY BENT AS ERECTED AT BENT 2

NOTES:

1. The details shown on this sheet are for a single bent which will be erected first at Bent 2 and later modified and erected at Bent 1, see Sequence of Construction Sheet 388.
2. All holes to be 15/16" ϕ for ⅞" shop rivets and ⅞" H.T.S. field bolts unless otherwise noted.
3. Section A-A, B-D, C-C, D-D, E-E and F-F, see Sheet 390.

VOGT, IVERS, SEAMAN & ASSOCIATES
ENGINEERS — ARCHITECTS
CINCINNATI — CHICAGO

TEMPORARY FALSEWORK SECTION 2.
WESTERN HILLS VIADUCT LOWER DECK

HAMILTON COUNTY STA. 0+44.00 to STA. 5+25.00

DESIGNED	DRAWN	TRACED	CHECKED	REVIEWED	DATE	REVISED
J.A.D.	S.T.	~	REVIEWED	JAD	5-61	

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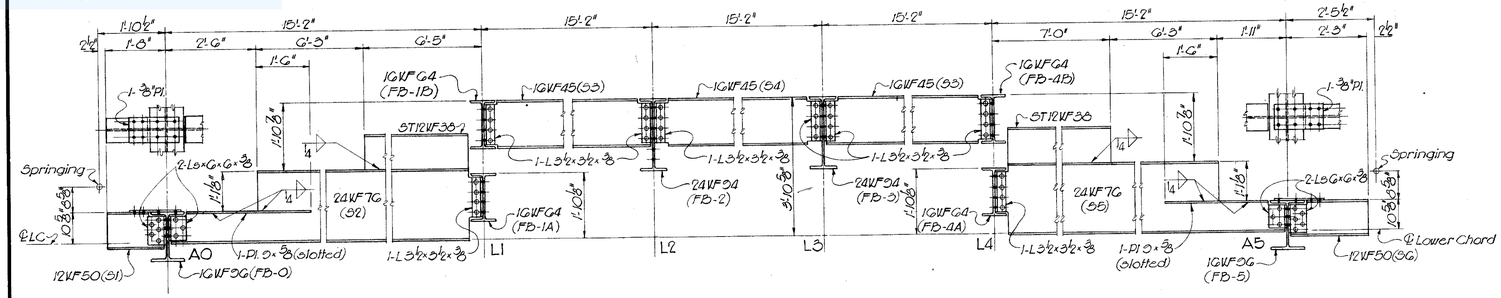
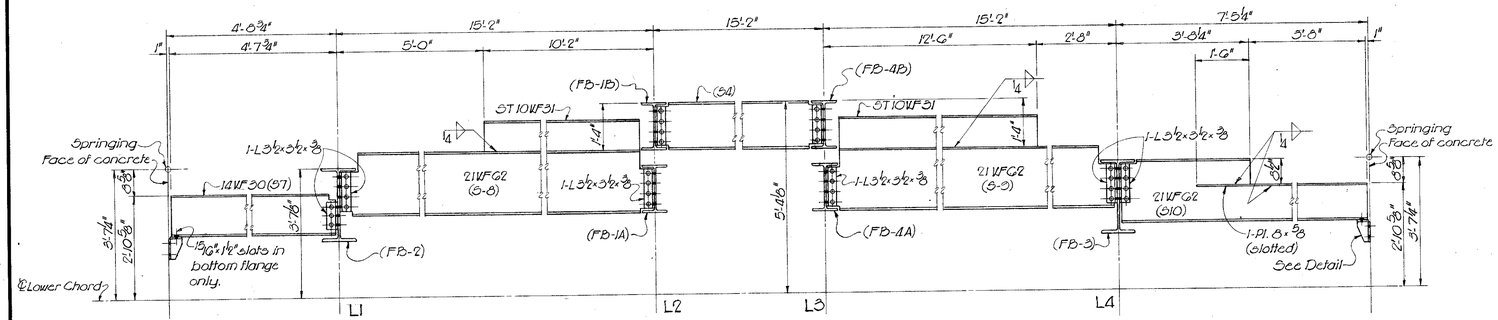
FED. RD. DIVISION	STATE	PROJECT	
2	OHIO		

HAM-25-1.03

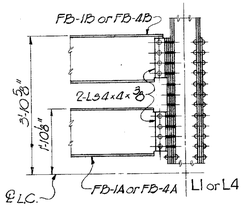
390 / 486



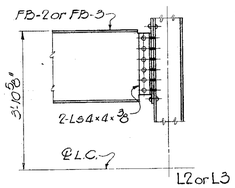
SECTION A-A



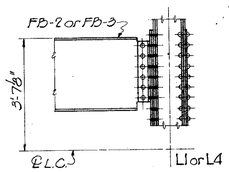
SECTION B-B



SECTION C-C



SECTION D-D



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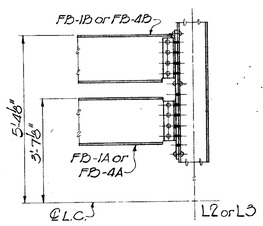
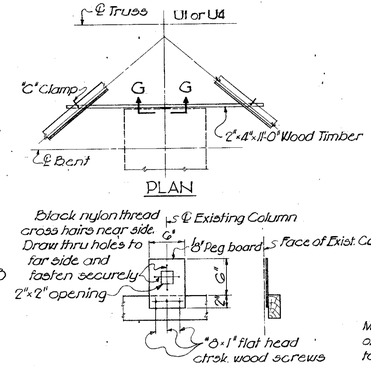


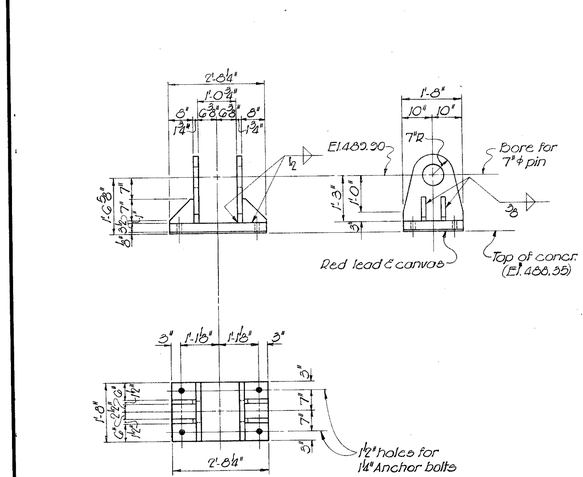
SECTION F-F



PLAN

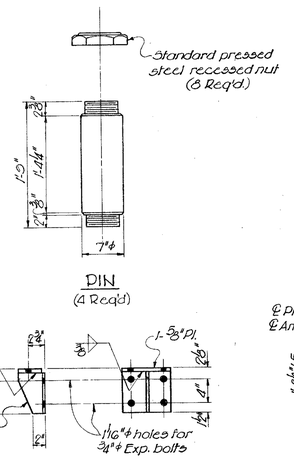
VIEW G-G

DEVICE FOR MEASURING DEFLECTION
4 Req'd.



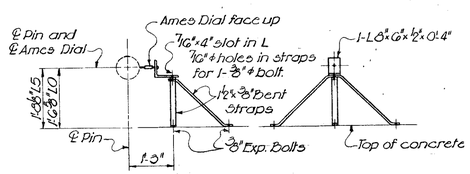
FIXED SHOE
(2 Req'd.)

EXPANSION SHOE
(2 Req'd.)



DIN
(4 Req'd)

BRACKET DETAIL
2 Req'd



TRIPOD FOR AMES DIAL
One req'd for each shoe

Note: For details of anchor bolt see Sh. 382.

METHOD OF JACKING AND MEASURING DEFLECTIONS

1. All jacks shall be synchronized by the Elgood Synchronized Jacking System, using Elgood Model JCDA-300-C, 300 ton, jacks or approved equal.

2. Upon completion of Step 2 of Phase II or IV, initial readings of the Ames dials at joints L0 and L5 of both trusses shall be obtained and the locations of the crosswires at the faces of the columns at joints U1 and U4 shall be noted.

3. The loads given in the Table of Jacking Loads and Deflections for the appropriate location shall be applied to the jacks and maintained while a second set of readings at the Ames dials and crosswires are obtained. The load on the jacks shall then be increased slightly in order to insert sufficient shims between the jacking yoke and the pedestals so that this second set of readings will be maintained after the load is removed from the jacks. The deflections listed in the table under Phase II for Bent 2 and Phase IV for Bent 1 are the anticipated differences between the first and second set of readings obtained above. These movements were computed for the dead load of the upper deck.

4. Upon completion of Step 4 or Phase II or IV, the Ames dials shall be observed and the readings recorded, and again at the completion of Step 3 of Phase III or V. The anticipated differences between these two readings are recorded in the table under Phase V for Bent 1 and Phase III for Bent 2.

5. The maximum elongation of the tie, due to design loads applied after completion of the trusses, is 0.444 inches. If at any time the Ames dials indicate an elongation in excess of this amount, the Director shall be immediately notified.

6. Except for the periods when jacks are activated in accordance with the above procedures, the pedestals (2 at each jacking point) have been designed to carry the total anticipated loads from the upper deck without assistance from the jacks. As an additional precautionary measure, however, it is suggested that shims be supplied and installed between the jack and the jacking yoke during the periods when the pedestals support the upper deck. No live load will be permitted on the upper deck during the periods when the jacks are activated.

TABLE OF JACKING LOADS AND DEFLECTION

LOCATION		BENT 1	BENT 2
PHASE		IV	II
Load per jack in Kips		215	285
Deflection in inches			
U1	Down	0.184	0.245
	Right	0.115	0.157
U4	Down	0.184	0.245
	Right	0.062	0.082
L0	Left or Right	0	0
L5	Right	0.181	0.239
PHASE		V	III
Deflection in inches			
L0	Left or Right	0	0
L5	Right	0.105	0.105

Mount 1 sheet of 20×20 Graph Paper on a hard smooth surface and fasten to face of column behind crosshairs.

VOGT, IVERS, SEAMAN & ASSOCIATES
ENGINEERS CINCINNATI — ARCHITECTS CHICAGO

TEMPORARY FALSEWORK SECTION 2.
WESTERN HILLS VIADUCT LOWER DECK

HAMILTON COUNTY STA. 0+44.00 To STA. 5+25.00

DESIGNED	DRAWN	TRACED	CHECKED	REVIEWED	DATE	REVISED
J.A.D.	S.T.	~	R.E.P./E.R.I.	J.A.D.	5-61	

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FED. RD. DIVISION	STATE	PROJECT		321 486
2	OHIO			

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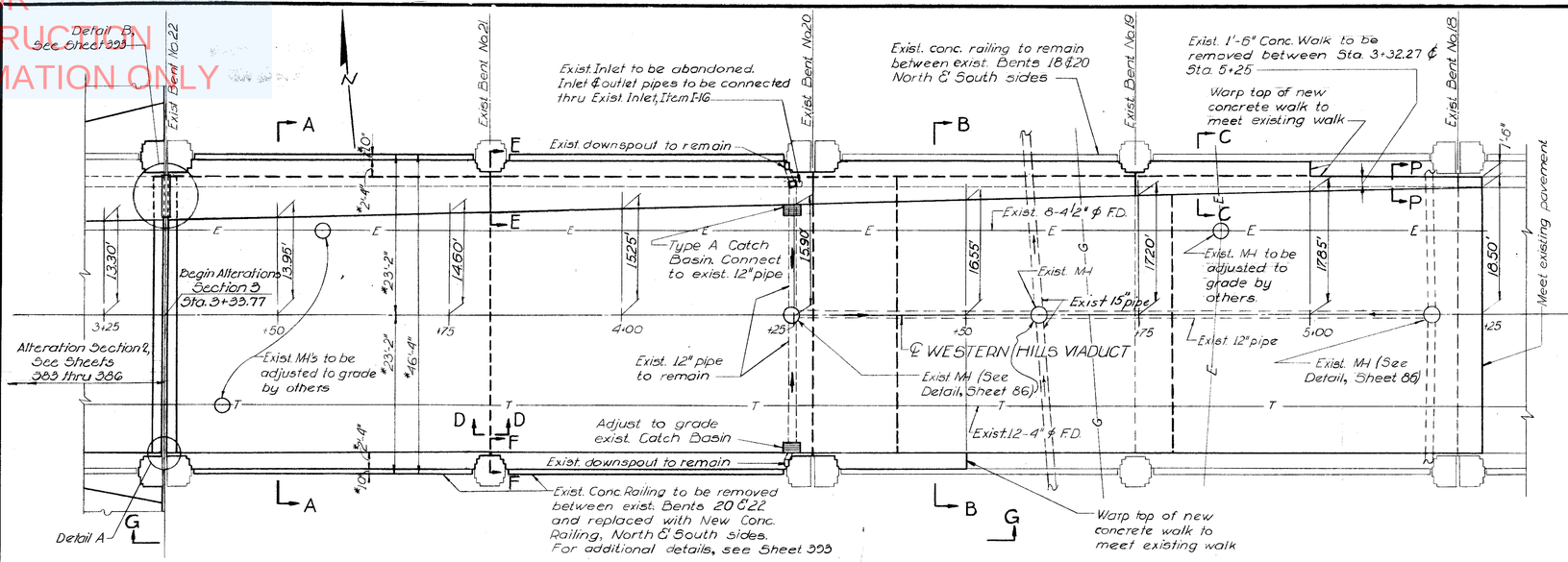
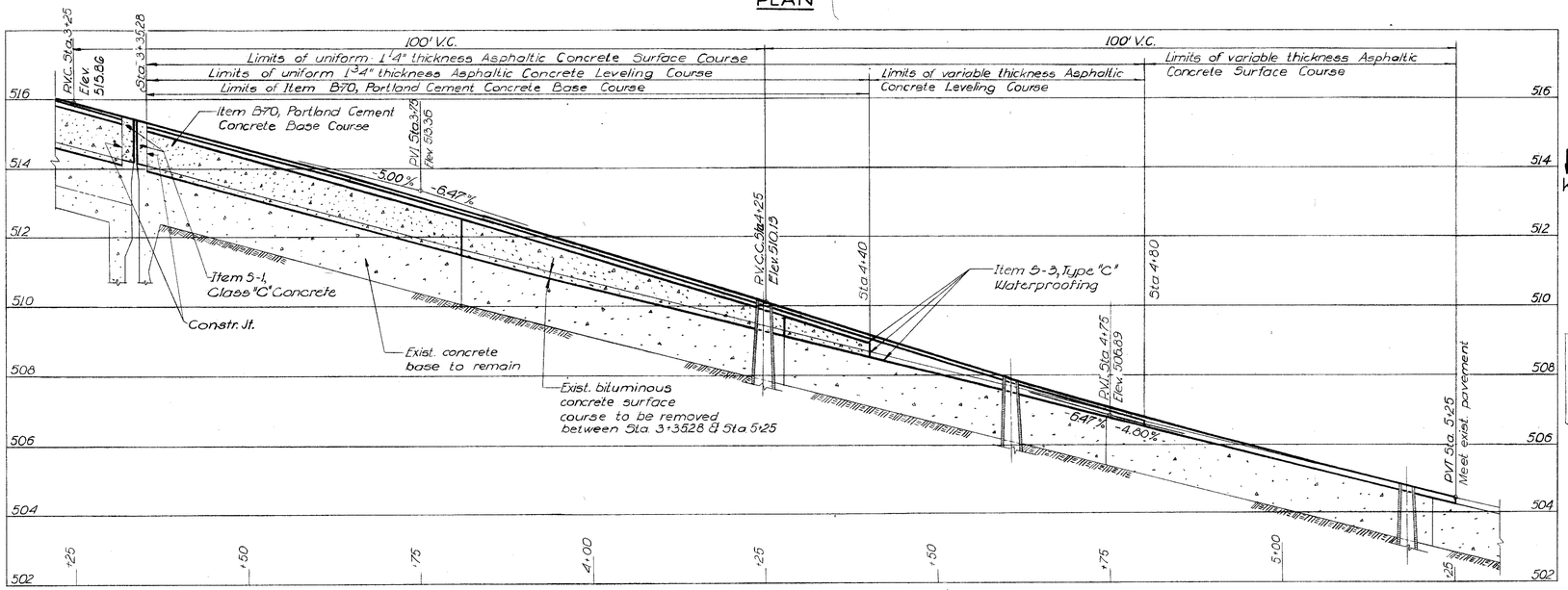


PLAN



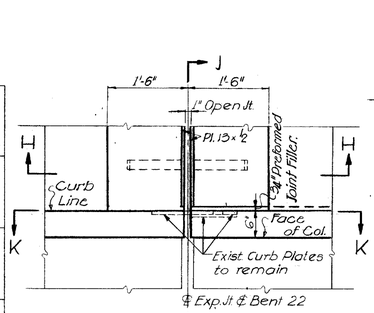
PROFILE ON CENTERLINE

PAVEMENT ELEVATIONS

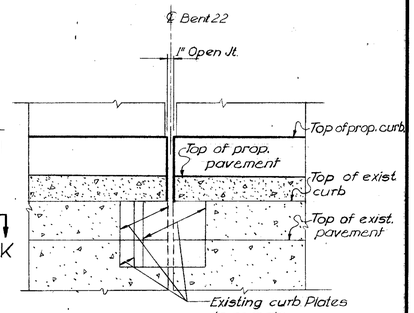
Station	Profile Grade, ℄ Western Hills Viaduct	North Curb, Dist. varies from ℄ Western Hills Viaduct. (See Plan this Sheet.)	10'-0" Left ℄ Right of ℄ Western Hills Viaduct.	20'-0" Right of ℄ Western Hills Viaduct.
3+25	515.86	515.69	515.76	515.55
3+50	514.56	514.38	514.46	514.25
3+75	513.18	512.98	513.08	512.87
4+00	511.70	511.49	511.60	511.39
4+25	510.13	509.91	510.03	509.82
4+50	508.56	508.32	508.46	508.25
4+75	507.10	506.85	507.00	506.79
5+00	505.74	505.48	505.64	505.43
5+25	Meet exist. pav't.	Meet exist. pav't.	Meet exist. pav't.	Meet exist. pav't.

NOTES:

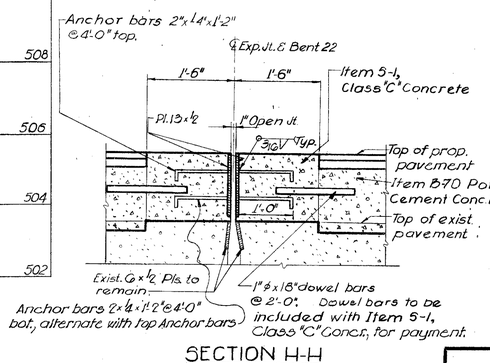
1. For Sections A-A thru F-F, see Sheet 392.
2. For Detail B & View G-G, see Sheet 393.
3. For Section P-P, see Sheet 392.
4. For Estimated Quantities, see Sheet 393.
5. For additional notes, see Sheet 378.



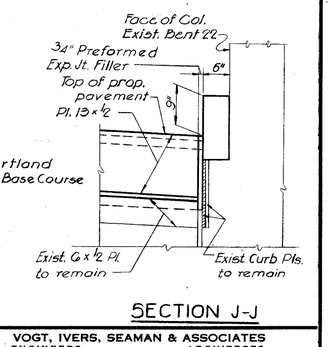
DETAIL A



SECTION K-K



SECTION H-H



SECTION J-J

VOGT, IVERS, SEAMAN & ASSOCIATES
ENGINEERS CINCINNATI — ARCHITECTS CHICAGO

ALTERATIONS SECTION 3 WESTERN HILLS VIADUCT LOWER DECK

HAMILTON COUNTY STA. 0+44.00 to STA. 5+25.00

DESIGNED	DRAWN	TRACED	CHECKED	REVIEWED	DATE	REVISED
R.L.S.	R.L.S.	I.G.V.	E.P.A	JAD	5-61	

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FED. RD. DIVISION	STATE	PROJECT	
2	OHIO		

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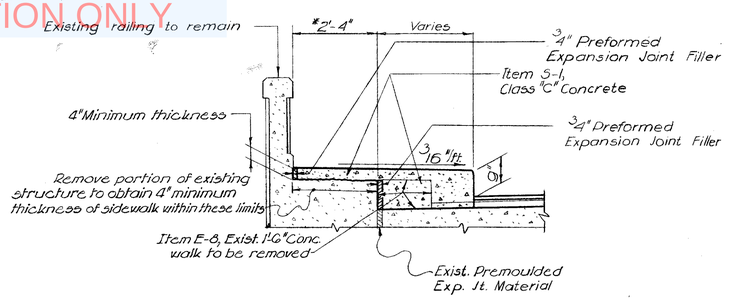
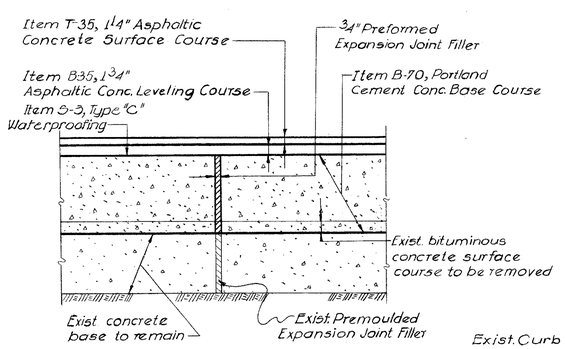
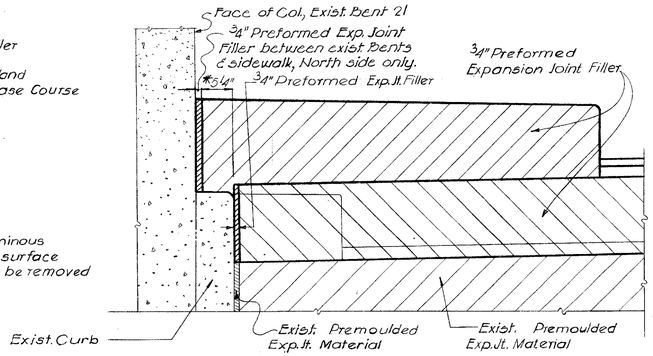


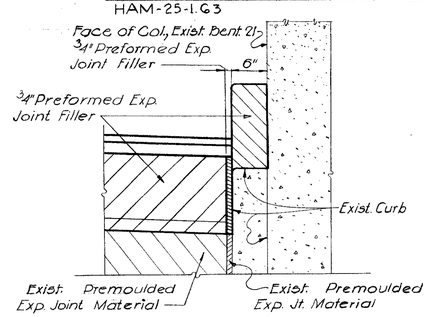
SECTION C-C



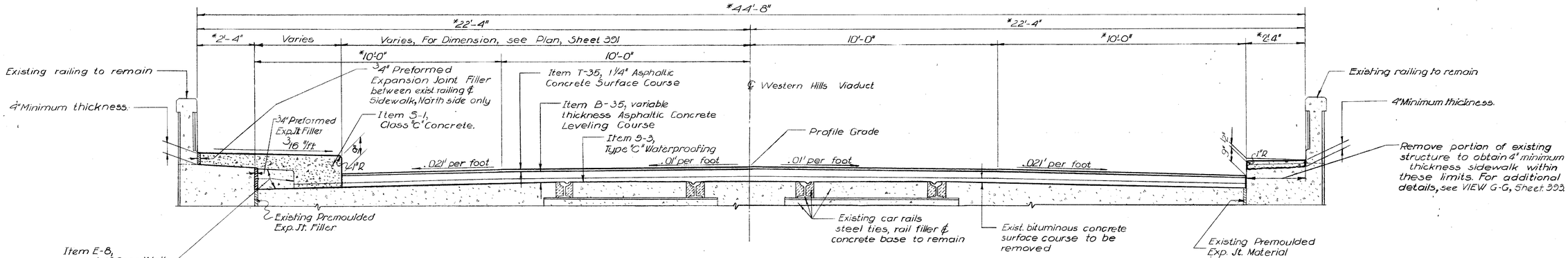
SECTION D-D



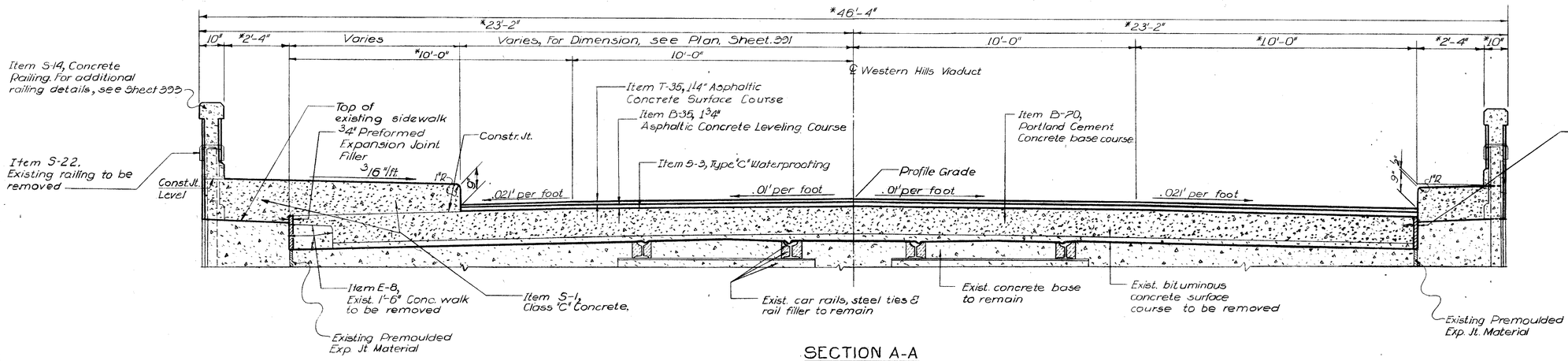
SECTION E-E



SECTION F-F



SECTION B-B



SECTION A-A

NOTE:
For additional notes, see Sheet 376.

VOGT, IVERS, SEAMAN & ASSOCIATES
ENGINEERS CINCINNATI — ARCHITECTS CHICAGO

ALTERATIONS SECTION 3
WESTERN HILLS VIADUCT LOWER DECK

HAMILTON COUNTY STA. 0+44.00 to STA. 5+25.00

DESIGNED	DRAWN	TRACED	CHECKED	REVIEWED	DATE	REVISED
R.L.S.	R.L.S.	I.G.V.	E.P.A.	JAD	5-61	

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2	OHIO		

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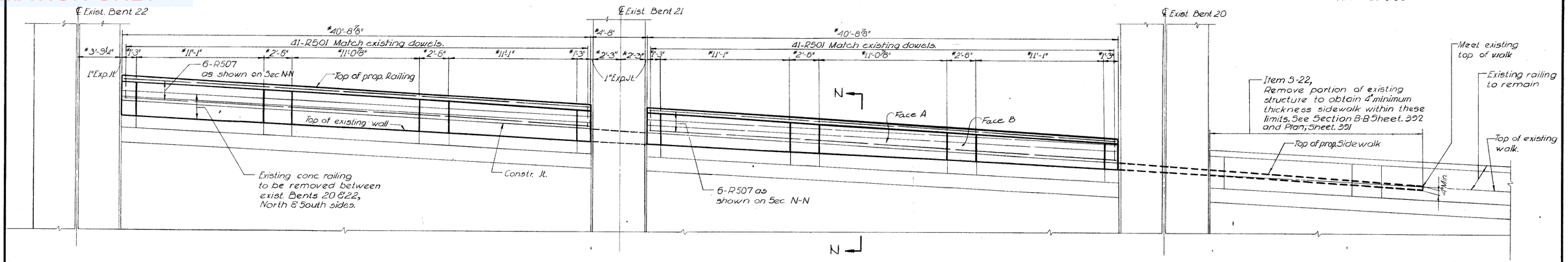
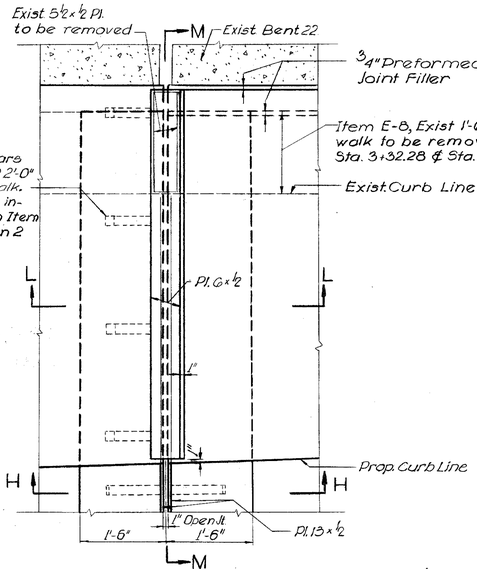
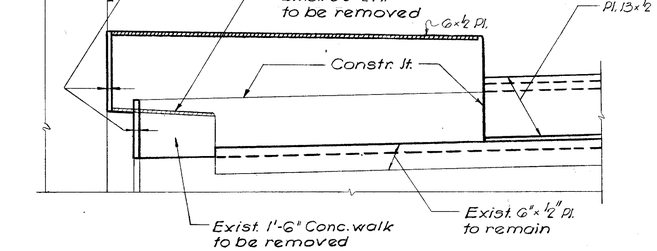
486



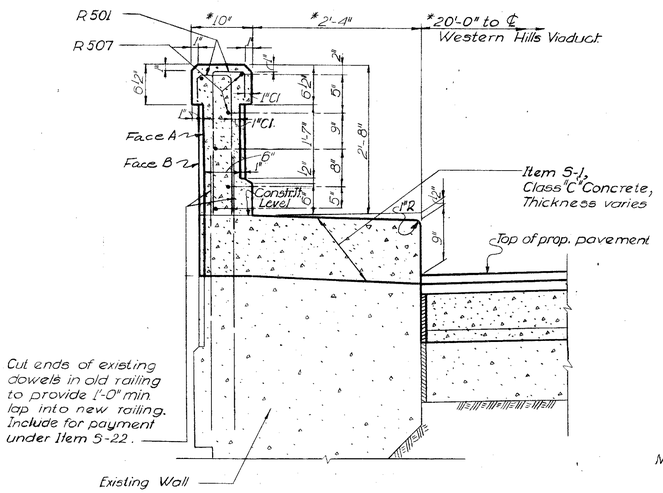


DETAIL B

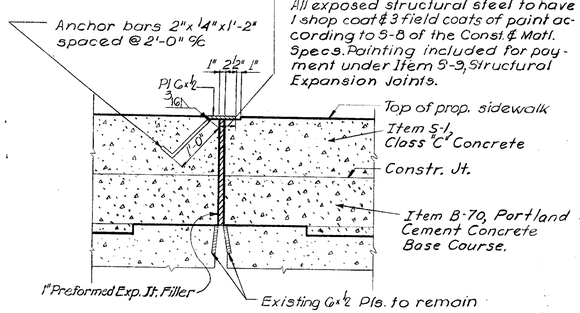


SECTION M-M

VIEW G-G
(South side shown, North side similar between Bents 20 & 22)



SECTION N-N



SECTION L-L

Field paint bottom of G x ½ Pl. between these limits before pouring concrete. All exposed structural steel to have 1 shop coat & 3 field coats of paint according to S-8 of the Const. & Matl. Specs. Painting included for payment under Item S-9, Structural Expansion Joints.

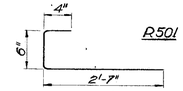
NOTES:

1. For Section H-H, see Sheet 391.
2. Anchor bars 2"x¼"x1'-2", G x ½ Pl. & 13 x ½ Pls. are included for payment under Item S-3, Structural Expansion Joint, Sec. 3.
3. Removal of exist. 5½x½ plate to be included for payment under Item E-8, Removal and Disposal of Existing Sidewalk, Section 3.
4. For additional notes, see Sheet 378.

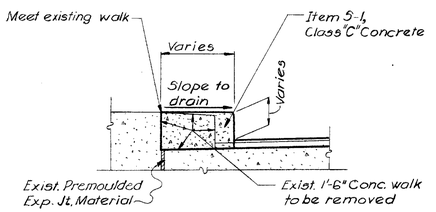
REINF. STEEL - RAILING *

MARK	LENGTH	SHAPE	NUMBER
R501	3'-2"	Bt.	164
R507	40'-4"	Str.	24

BENDING DIAGRAM



* Railing Steel to be included with Item S-14, Concrete Railing, for payment.



SECTION P-P

ESTIMATED QUANTITIES - SEC. 3

ITEM	TOTAL	UNIT	DESCRIPTION	SUPER-STRUCTURE
B-35	40	Cu.Yds.	Asphaltic Concrete Base Course (70-85)	40
B-70	142	Cu.Yds.	Portland Cement Concrete Base Course	142
E-8	290	Sq.Ft.	Removal and Disposal of Existing Sidewalk	290
E-8	820	Sq.Yds.	Removal and Disposal of Existing Bituminous Concrete Surface Course.	820
I-8	1	Each	Catch Basin, Adjust to Grade	1
I-8	1	Each	Type "A" Catch Basin	1
I-16	1	Each	Inlet Abandoned, Pipe connected thru.	1
S-1	57	Cu.Yds.	Class "C" Concrete	57
S-3	770	Sq.Yds.	Type "C" Waterproofing	770
S-9	420	Sq.Ft.	¾" Preformed Expansion Joint Filler	420
S-9	1630	Lbs.	Structural Expansion Joint	1630
S-14	103	Lin.Ft.	Concrete Railing	103
S-22	11	Cu.Yds.	Removal of portions of Existing Structure	11
T-35	35	Cu.Yds.	Asphaltic Concrete Surface Course Type "C" (70-85)	35
S-9	28	Sq.Ft.	1" Preformed Expansion Joint Filler	28
Special	57	Each	water-reducing, set-retarding admixture (See proposal note)	57

VOGT, IVERS, SEAMAN & ASSOCIATES
ENGINEERS — CINCINNATI
ARCHITECTS — CHICAGO

ALTERATIONS SECTION 3
WESTERN HILLS VIADUCT LOWER DECK

HAMILTON COUNTY STA. 0+44.00 to STA. 5+25.00

DESIGNED	DRAWN	TRACED	CHECKED	REVIEWED	DATE	REVISED
R.L.S.	R.L.S.	I.G.V.	E.P.A.	JAD	5-61	

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FED. RD. DIVISION	STATE	PROJECT	
2	OHIO		

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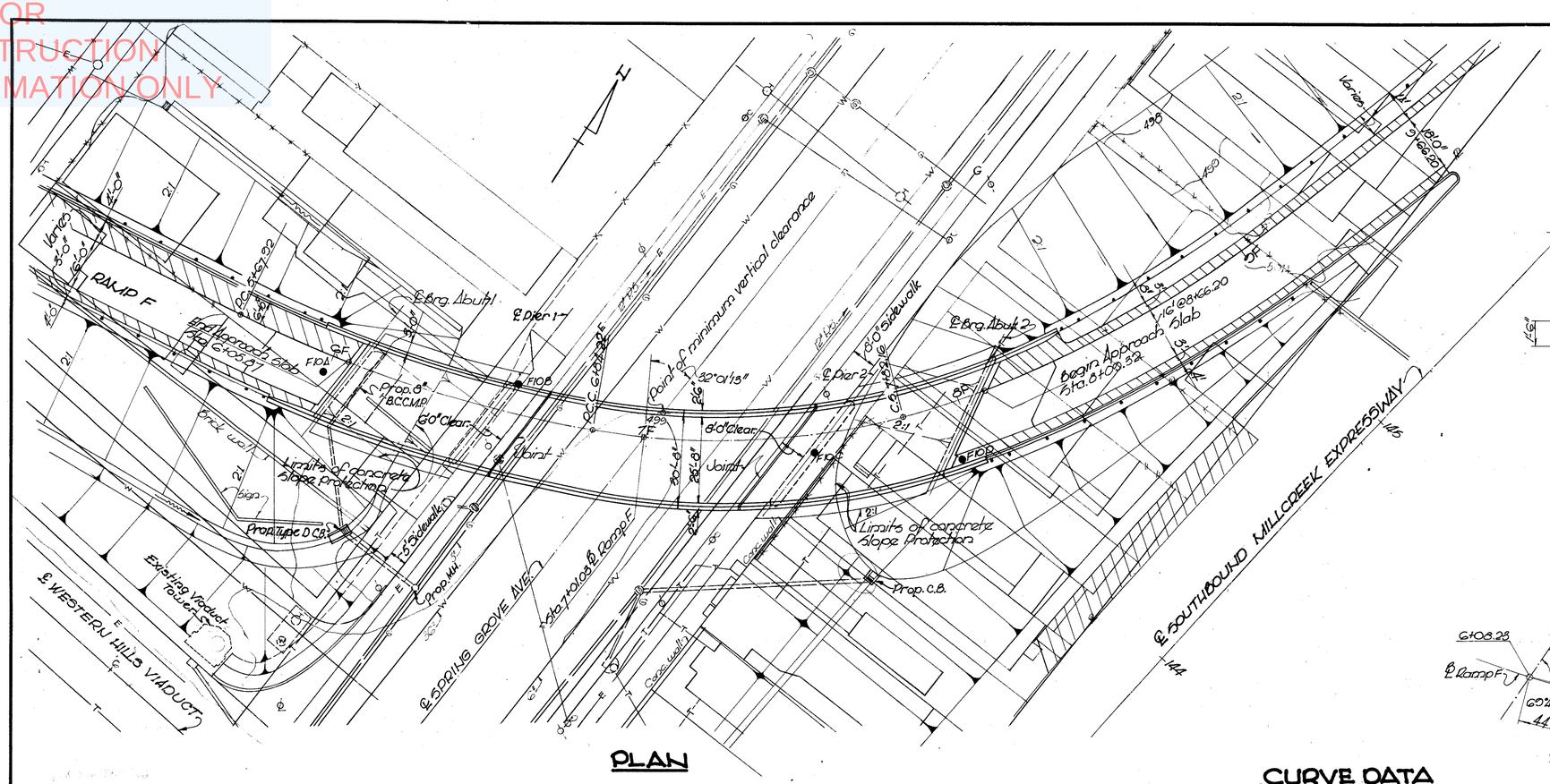
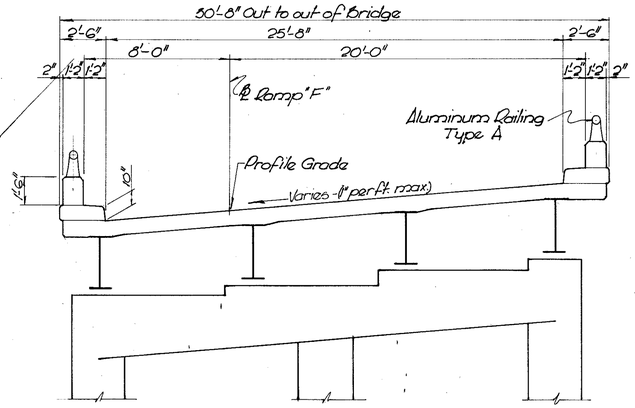
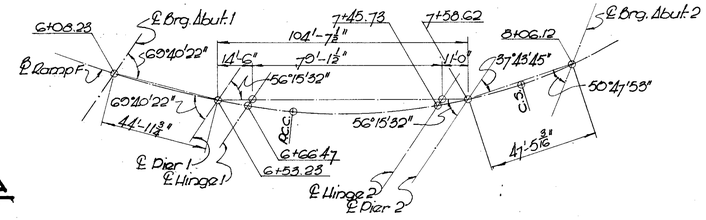


PLAN



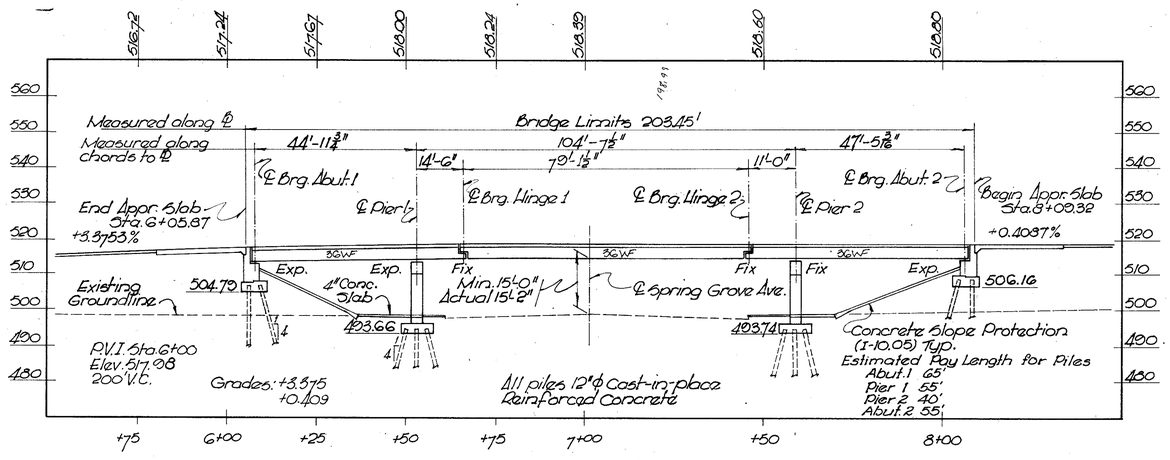
SECTION



REFERENCE CHORD LAYOUT

CURVE DATA
℄ RAMP "F"

	CURVE F2	CURVE F3
D =	14°00'00"	25°00'00"
Δ =	16°16'55"	40°20'07"
R =	409.26	229.18
Lc =	116.30	87.24
Ls =	—	200
T1 =	58.54	115.12
T2 =	58.54	108.82
P.T. Sta.	6+26.16	7+20.34



PROFILE ALONG ℄ RAMP F

NOTES

- Symbol denotes boring; see Sheet 336 for test boring data.

Foundation design and foundation quantities are based on a study of test borings and soil samplings made at the site. This sounding information may be inspected in the Office of the Bureau of Bridges in Columbus or in an abridged form in the Division Office, but the State assumes no responsibility for the accuracy thereof.

Limits of 4" concrete slab are from toe of slope to back of sidewalk and to 3'-0" beyond the outer limits of the superstructure.

BENCH MARK

B.M. #G — El. 501.11

City of Cincinnati; B.M. # K117. Brass Disc. in Western face of Viaduct pier. 37' Lt. Sta. 142+10 S.B.

PROPOSED STRUCTURE

TYPE: Three span cantilever rolled steel beam with reinforced concrete deck and substructure.

SPANS: 44'-11¾", 104'-7⅛", 47'-5 13/16"

ROADWAY: 28'-0" Face to face of parapets.

LOAD FREQUENCY: CF=2000(57) adequate for AASHO alternate loading.

SKEW: 32°01'18" Left Forward

WEARING SURFACE: 1" Monolithic concrete

APPROACH SLABS: AS-1-54(25' long)

ALIGNMENT: Compound curve to left.

SUPERELEVATION: Varies (1" per ft. max.)

VOGT, IVERS, SEAMAN & ASSOCIATES
ENGINEERS — CINCINNATI
ARCHITECTS — CHICAGO

SITE PLAN

RAMP F OVER SPRING GROVE AVENUE

HAMILTON COUNTY STA. 6+05.87 TO STA. 8+09.32

PRESENT TOPOGRAPHY		PROPOSED WORK			
SURVEYED	DRAWN	DESIGNED	DRAWN	CHECKED	REVISIONS
Aerial	———	R.J.K.	J.R.R.	C.E.S.	

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2	OHIO		

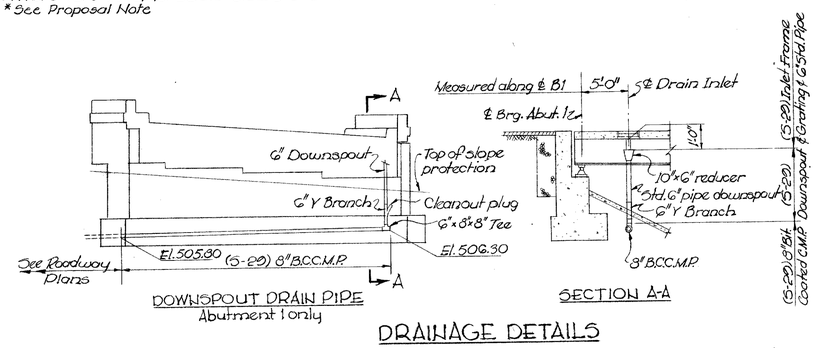
335 486

HAM-26-1.60

ESTIMATED QUANTITIES

ITEM	TOTAL	UNIT	DESCRIPTION	ABUTMENTS	PIERS	SUPERSTR.	GENERAL
E-2	330	Cu. Yds.	Unclassified Excavation	264	126		290
I-10	290	Sq. Yds.	Concrete Slope Protection				
S-1	213	Cu. Yds.	Class "C" Concrete ~ Superstructure			213	
S-1	51	Cu. Yds.	Class "C" Concrete ~ Piers above footings		51		
S-1	105	Cu. Yds.	Class "E" Concrete ~ Abutments above footings	105			
S-1	111	Cu. Yds.	Class "E" Concrete ~ Pier and abutment footings	67	44		
S-4	89,507	Lbs.	Reinforcing Steel	11,476	17,098	60,933	
S-7	267,600	Lbs.	Structural Steel			267,600	
S-8	267,600	Lbs.	Field painting of structural steel			267,600	
S-9	25	Sq. Ft.	1" Preformed expansion joint filler			25	
S-9	66	Lin. Ft.	6" Neoprene waterstop (Oumbbell type) including joint sealer			66	
S-14	465	Lin. Ft.	Railing (Aluminum rail & supports & concrete parapet)	64		401	
S-16	Lump	Lump Sum	First test pile				Lump
S-18	3545	Lin. Ft.	12" Cast-in-place reinforced concrete piles	1,835	1,710		
S-20	28	Cu. Yds.	Porous backfill	28			
S-20	1	Each	Inlet frame & grating & 6" std. pipe			1	
S-20	10	Lin Ft.	6" Standard pipe downspout, galvanized steel or wrought iron, including specials.			10	
S-20	30	Lin. Ft.	8" Bit. coated corrugated metal pipe including specials Sec. M-64(c)				30
I-13	1260	Sq. Ft.	4" Concrete slab				1260
S-25	1	Each	Light standard with 10' mast arm, including anchor bolts.				1
S-25	Lump	Lump Sum	Grounding system				Lump
S-25	240	Lin Ft.	3" Asbestos cement conduit with fittings & bushings.				240
S-25	3	Lin. Ft.	2" Aluminum conduit with fittings & bushings.				3
S-25	3	Each	Pull box complete with frame & cover				3
Special	213	Each	Water reducing, set retarding admixture *			213	
S-25	1	Each	400 W. Luminaire with 400 W. mercury vapor lamp				1
S-25	1	Each	Ballast for 400 W. lamp - G.C.A series				1
S-25	265	Lin. Ft.	6000 V. Single conductor #8 AWG. direct burial cable (Plain)				265
S-25	90	Lin. Ft.	600 V. Single conductor #12 AWG. luminaire wire				90
S-25	265	Lin. Ft.	6000 V. Single conductor #8 AWG direct burial Cable (Identifiable)				265

NOTE: Materials in approach slabs are not included in the above estimated quantities.
* See Proposal Note



DOWNSPOUT DRAIN PIPE
Abutment 1 only

SECTION A-A

DRAINAGE DETAILS

DRAINAGE NOTES

1. For drain inlet details, see Sheet 412
2. For connection to roadway drainage, see Roadway Plans.

GENERAL NOTES

REFERENCE shall be made to the following:
Standard Drawings: BP-1-54 revised 12-1-54
BP-1-57 revised 12-12-60
CBB-2-56, Sheets 2 & 3 of 6 revised 2-2-59
RB-1-55 revised 2-2-59

DESIGN SPECIFICATION: This structure conforms to the requirements of "Design Specifications for Highway Structures" of the State of Ohio, Dept. of Highways, dated 9-1-57, together with revisions thereof dated 2-21-58.

PILES: Piles shall be driven to a bearing capacity of 30 tons per pile for Abutments, 35 tons per pile for Piers

EXCAVATION: Excavation quantity includes the removal of fill material between the surface of proposed embankment and the bottom of footings.

EXTRUDED NEOPRENE WATERSTOP: The material used in the neoprene waterstop shall contain a minimum of 70% by volume of the basic neoprene polymer and shall be compounded and cured to have the following characteristics:

Test Method:		
Fed. ZZ-R-601a	Tensile strength, lbs. per sq. inch min.	2750
Fed. ZZ-R-601a	Elongation at break, percent min.	400
ASTM D 395-52T	Compression set, Method B, 22 hrs. at 70°C.	30% Max.
Fed. ZZ-R-601a	Water absorption, 2 days at 70°C.	10% Max.
Fed. ZZ-R-601a	Specific gravity.	1.37±.03
ASTM D-676-49T	Shore durometer, Type A.	60-70
Fed. ZZ-R-601a	Tensile strength after oxygen pressure test (48 hrs. at 70°C, 300 lbs per sq. inch) percent of tensile strength before aging.	80

RAILING: Aluminum rail and supports, concrete parapet reinforcing, bars wholly within the concrete parapet, sponge rubber for parapet joints & 1/8" Preformed Bearing Pads shall be included in Item S-14 for payment.

UTILITY LINES: All labor and expense involved in relocating the affected utility lines shall be borne by the owners. The contractor and owners are requested to co-operate by arranging their work in such a manner that inconveniences to either will be held to a minimum.

EMBANKMENTS shall be in place and compacted to subgrade elevation for a distance of 200 ft. behind the abutment for a minimum period of 30 days prior to constructing the abutments unless settlement hubs indicate that any settlements have ceased. Piers shall not be constructed until embankment has been placed to subgrade elevation.

CONCRETE DECK PLACING: The concrete shall be placed in span 1 and span 3 prior to placing the concrete in span 2. In order to facilitate water curing of the concrete of the deck slab, the placing of the concrete shall progress upgrade.

VOGT, IVERS, SEAMAN & ASSOCIATES
ENGINEERS CINCINNATI — ARCHITECTS CHICAGO

GENERAL NOTES, ESTIMATED QUANTITIES AND DRAINAGE DETAILS RAMP F OVER SPRING GROVE AVENUE

HAMILTON COUNTY STA. 6+05.87 TO STA. 8+00.82

DESIGNED	DRAWN	TRACED	CHECKED	REVIEWED	DATE	REVISED
---	J.R.R.	---	P.J.K.	J.A.D.	3-61	

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FED. RD. DIVISION	STATE	PROJECT	
2	OHIO		

HAM - 25 - 1.63

306 486

BORING F-10-A
Sta. 5+99 - 06'R

FOOTING ABUT. #1 504.73

498.3 W% N 0' Ground Elevation
496.8 — 7 — 1.5' FILL: dark brown silty clay with cinders
493.8 — 16 — 11 — 4.5' POSSIBLE FILL: brown sandy silt, little clay
491.3 — 17 — 15 — 7' POSSIBLE FILL: brown silty clay, some fine to coarse gravel, trace of sand
18
485.3 — 28 — 23 — 13' Dark brown ELASTIC CLAY, some limestone fragments, trace of sand
20
27 — 26 — Mottled brown and gray CLAY, some silt, little sand, trace of gravel
W.L. 480.3 — 18'
479.3 — 32 — 47 — 3/6" — 19' Brown SILT & CLAY, trace of sand
26
30
10
7
22 — 13 — Gray SILT, some clay, sand seams, organic matter *
12
26 — 13
11
449.3 — 23 — 13 — 49'
Brown SILT AND CLAY, trace of sand
444.3 — 54'
11 — 86
LIMESTONE FRAGMENTS WITH brown SAND, SILT, & CLAY
439.8 — 12 4/6 — 58.5'
Refusal
Boring completed
Est. Pile Penetration

BORING F-10-B
Sta. 6+88 - 05'L

FOOTING PIER #1 493.66

498.2 W% N 0' Ground Elevation
8
14 — FILL: cinders, sand, silt, clay
29 — 5 — 9' with sand seams, organic matter *
489.2 — 5
W.L. 24 — 4 — Brown SILTY CLAY, trace of sand, trace of organic matter *
484.2 — 14'
18 — 3 — Gray SANDY SILT, some clay, trace of gravel
482.2 — 16'
17 — 18 — Brown COARSE & FINE SAND, some gravel, some silt
479.2 — 19'
30 — 14 — Brown SILT, some clay, trace of sand
476.2 — 22'
10
29 — 11 — Gray SILT & CLAY, organic matter *
31'
467.2
16
29 — 10 — Gray SILT, little clay, fine sand seams *
22
453.2 — 45'
15 — 41 — Gray GRAVEL WITH SAND, little silt and/or clay
449.2 — 49'
22 — 15 6/6"
20 — 17 6/6" — Brown and gray SANDY SILT, some clay, fine sand seams *
444.2 — 54'
17 — 48 — LIMESTONE FRAGMENTS WITH SAND, little brown silt, trace of clay
438.2 — 13 6/6" — 60'
Refusal
Boring completed
Est. Pile Penetration

BORING F-10-C
Sta. 7+53 - 06'R

FOOTING PIER #2

498.4 W% N 0' Ground Elevation
497.0 — 5" Concrete
497.4 — 21 — 7 — 1' FILL: Cinders and gravel
493.74
493.4 — 5' — Brown SILTY CLAY, some sand
9 — 3 — 7' little silt and/or clay
491.4 — Brown COARSE & FINE SAND,
12 — 4 — GRAVEL WITH brown SAND, some silt
488.4 — 10'
28 — 10 — Brown and gray SILT and clay, trace of fine sand
27 — 7 — 12
483.4 — 33 — 15'
10
Gray SILT & CLAY
8
472.4 — 26'
28 — 9 — Gray SILT, some clay, trace of fine sand
W.L. 467.4 — 31'
20 — 18 — GRAVEL WITH gray SAND & SILT, little clay, organic matter *
462.4 — 36'
21 — 30 — Gray and brown SILT & CLAY and sand, limestone fragments, sand and gravel seams *
458.4 — 40'
72
7 — 60 — GRAVEL & LIMESTONE FRAGMENTS, little brown sand, trace of silt, trace of clay
85
444.0 — 12 6/6" — 54.4'
Refusal
Boring completed
Est. Pile Penetration

FOOTING ABUT. #2 506.16

BORING F-10-D
Sta. 7+96 - 18'R

499.3 W% N 0' Ground Elevation
498.8 — 25 — 7 — .5' Blacktop and brick
18
22 — 10 — Brown CLAY, some silt, some sand, little gravel
10
487.3 — 12'
28 — 6
7 — Gray SILT, some clay, fine sand seams *
482.3 — 17'
30 — 5 — Gray SILT & CLAY
477.3 — 22'
7
25 — 12
20 — 15 — Gray and brown SILT, little to some clay, trace to some sand
W.L.
22 — 22
459.3 — 40'
23 — 40
105 — Gray CLAY, some to and silt, trace of limestone fragments
20 — 113
446.3 — 53'
19 — 28 4/6" — 54' Gray SILT & CLAY, some limestone fragments, trace of sand
445.3
Refusal
Boring completed
Est. Pile Penetration

BORING NOTES

W.L. Water Level reading - immediate.
W% - Indicates moisture content of sample in per cent of dry weight.
● - Moisture content equal to or greater than liquid limit minus 3%.
N - Indicates number of blows required to drive 2" O.D. split spoon the last 12" of an 18" run using 140 lb. weight falling 30 inches, unless shown otherwise.
▮ - 3" O.D. Shelby Tube sample taken at elevation of symbol.
✱ - Denotes unusual condition.
Description of material is based on laboratory test data and visual examination. Representative samples only were tested.
Borings were taken between Aug. 3 and Aug. 10, 1960.
For location of borings, see Sh. No. 3 of 4
Modifying descriptions in per cent of dry weight: trace 1-10%, little 10-20%, some 20-35% and 35-50%.
Soils classified in accordance with the Highway Research Board system as modified by the Ohio Dept. of Highways Testing Laboratory.
Foundation borings and laboratory testing by The H.C. Nutting Co., Cincinnati, Ohio.

VOGT, IVERS, SEAMAN & ASSOCIATES
ENGINEERS CINCINNATI — ARCHITECTS CHICAGO

BORINGS
RAMP F OVER SPRING GROVE AVENUE

HAMILTON COUNTY STA. 6+05.87 to STA. 8+09.32

DESIGNED	DRAWN	TRACED	CHECKED	REVIEWED	DATE	REVISED
RDW	D.Y.F.	~	RDW	J.A.D.	5-61	

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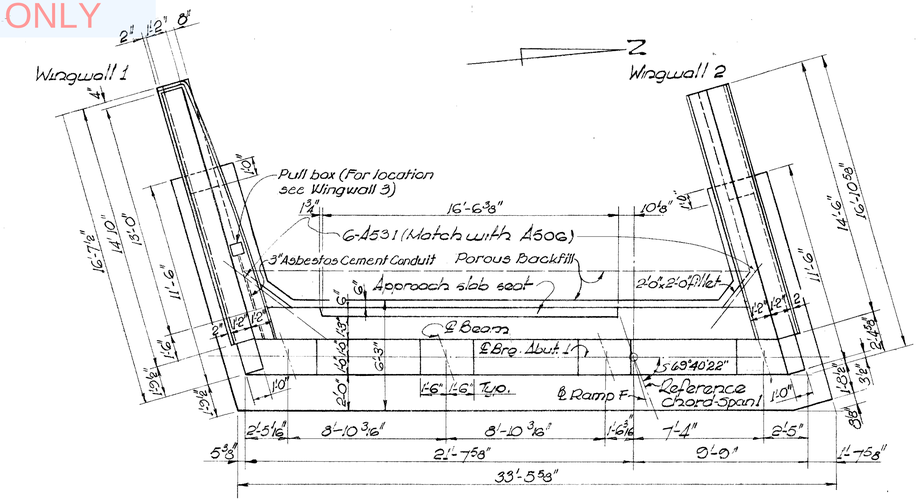
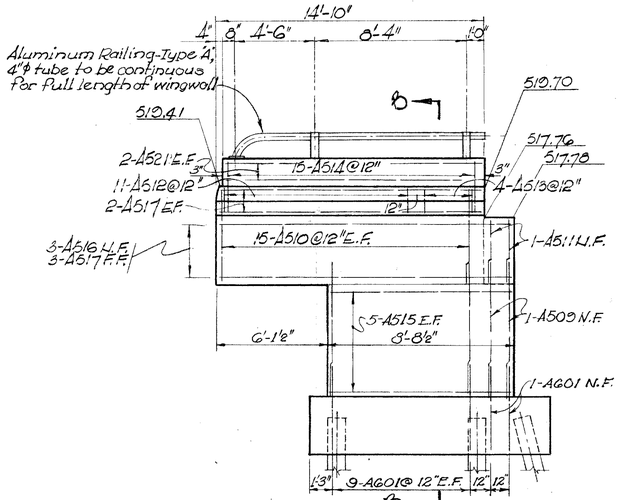
FED. RD. DIVISION	STATE	PROJECT	
2	OHIO		

307 / 486

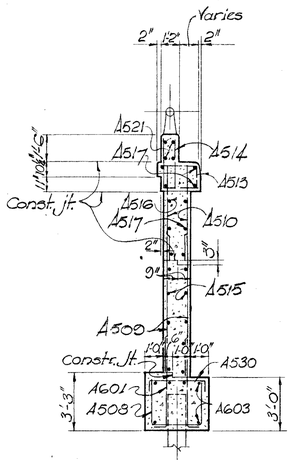
HAM-25-1.69



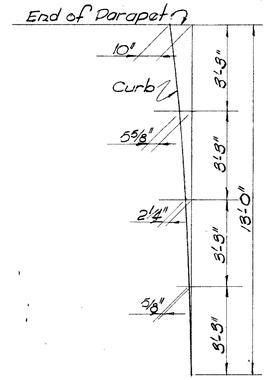
PLAN



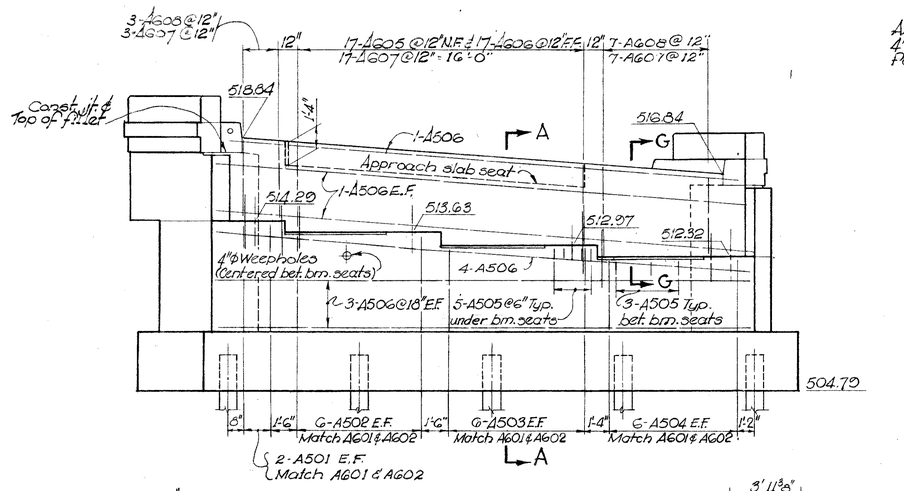
ELEVATION - WINGWALL 1

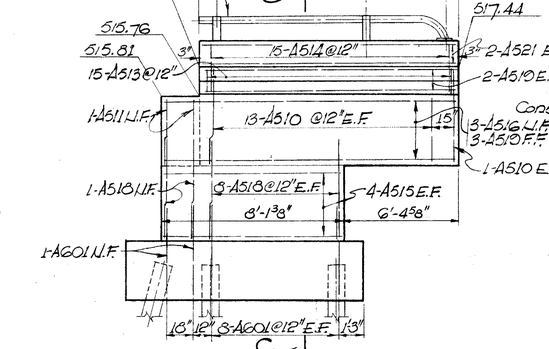


SECTION B-B

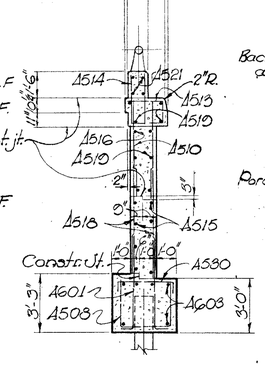


OFFSET TO CURB
Wingwall 1 & 4

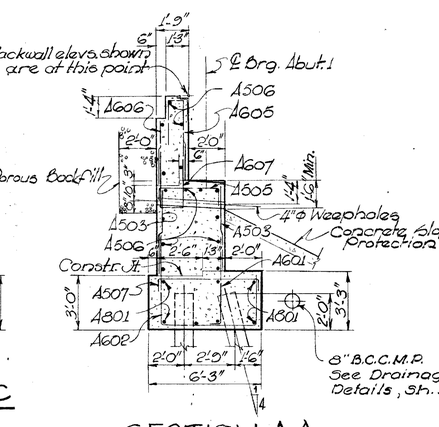




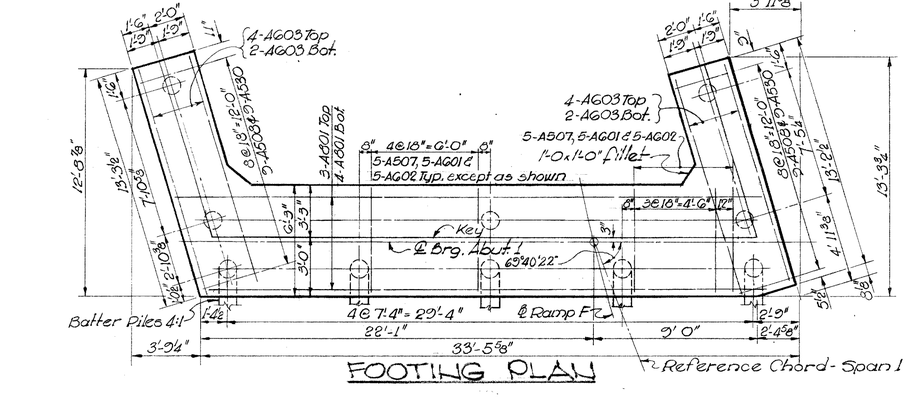
ELEVATION - WINGWALL 2



SECTION C-C



SECTION A-A



FOOTING PLAN

NOTES

1. Designations used are as follows:
   N.F. = Near Face
   F.F. = Far Face
   E.F. = Each Face
2. Porous Backfill, 2' thick for full length of the abutment shall extend up to the underside of approach slabs and paved shoulders.
3. For railing details, see Std. Dwg. AR-1-57.
4. For layout diagram, see Sheet 394.
5. For Section G-G, see Sheet 396.

VOGT, IVERS, SEAMAN & ASSOCIATES
ENGINEERS — CINCINNATI
ARCHITECTS — CHICAGO

ABUTMENT 1
RAMP F OVER SPRING GROVE AVENUE
HAMILTON COUNTY STA. 6+05.87 TO STA. 8+00.32

DESIGNED	DRAWN	TRACED	CHECKED	REVIEWED	DATE	REVISED
P.J.V.	J.Q.R.	— " —	C.E.S.	J.A.D.	5-61	

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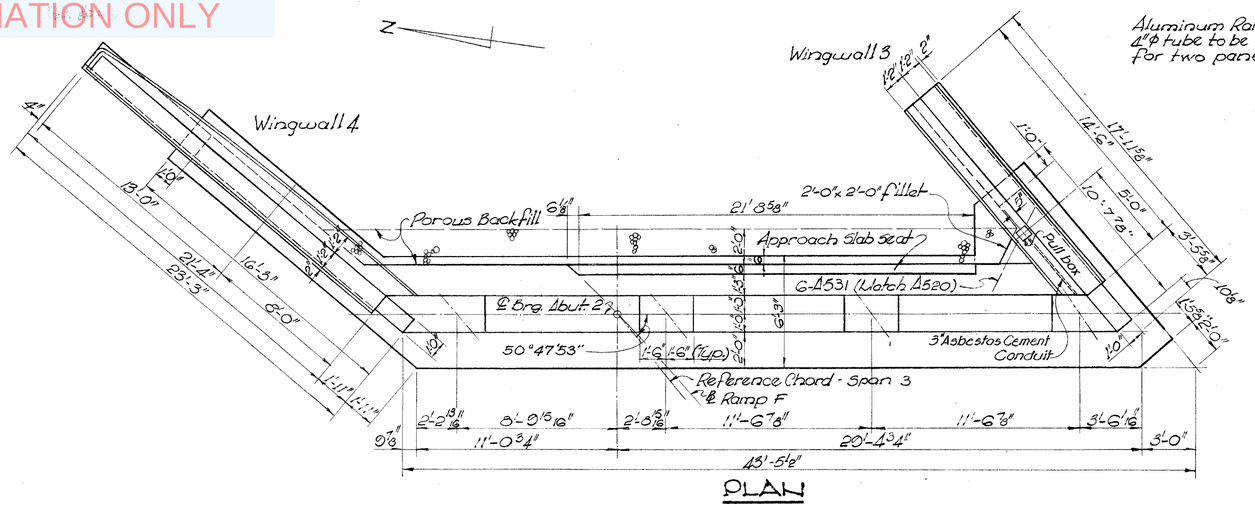
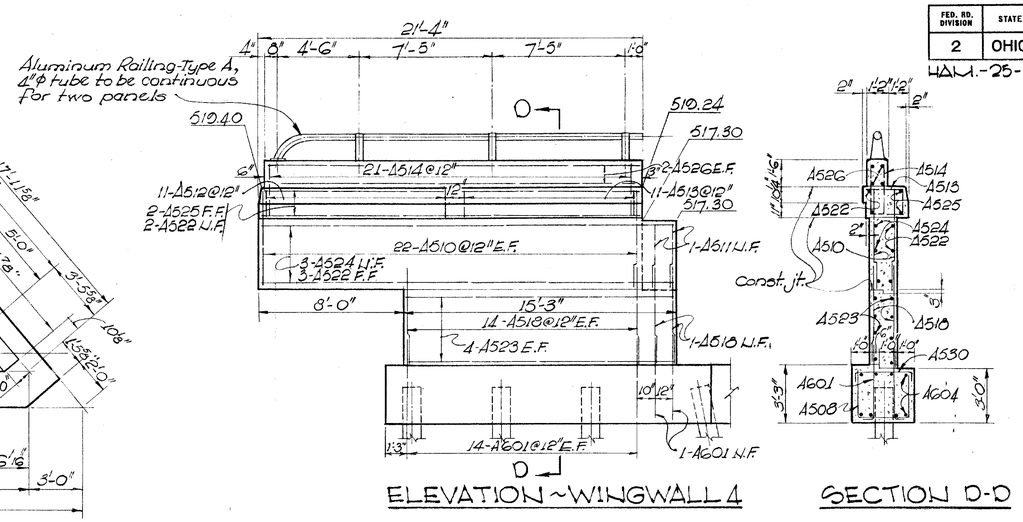
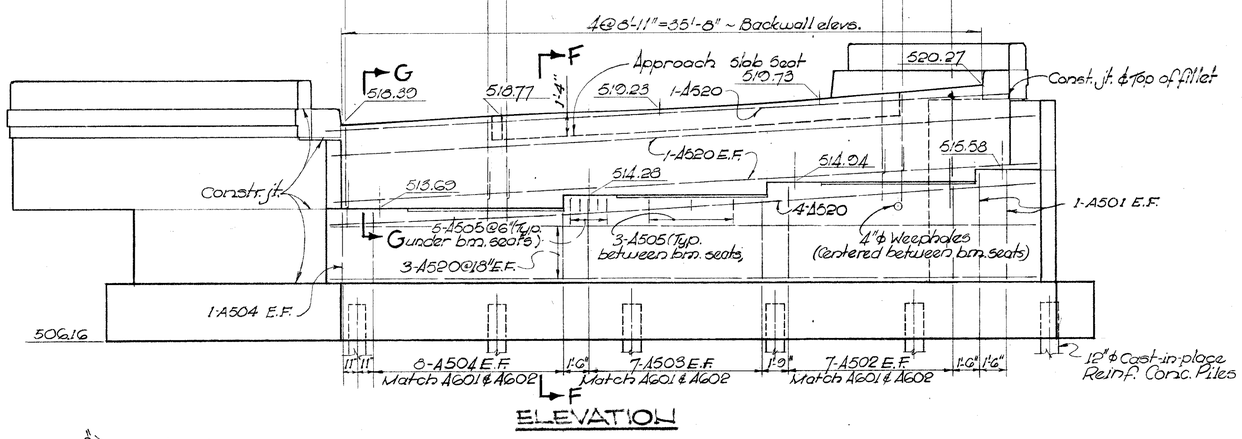
FED. RD. DIVISION	STATE	PROJECT	
2	OHIO		

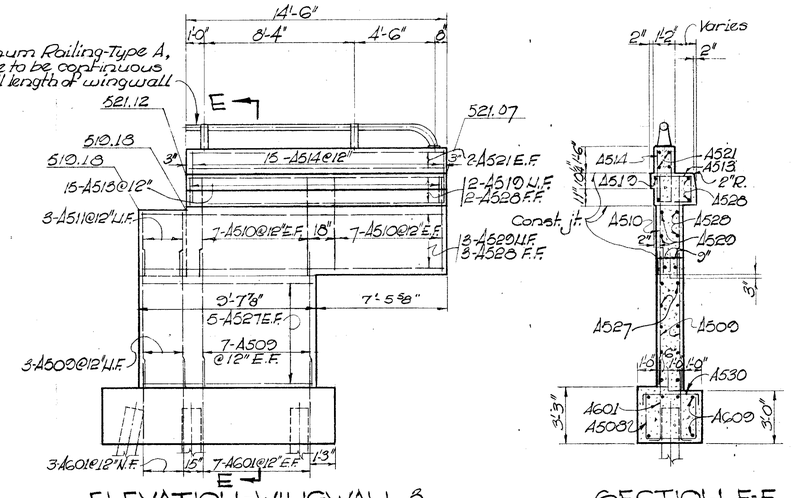
308
486

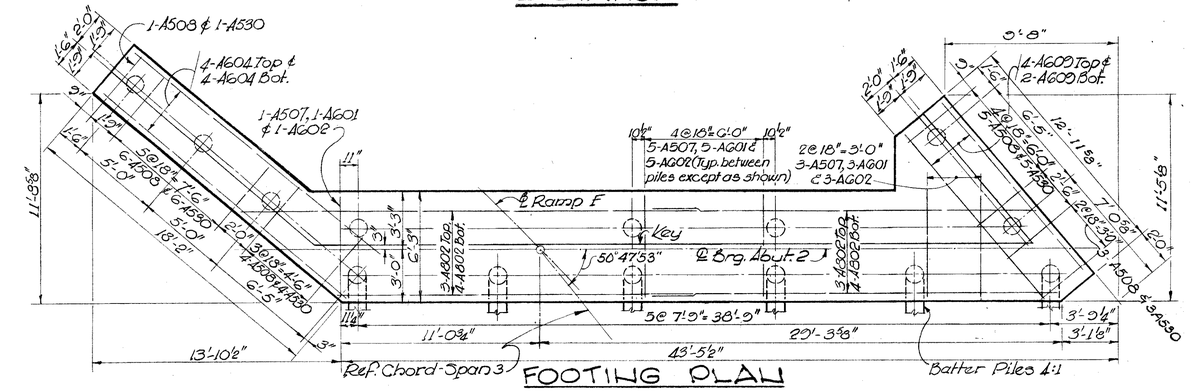
HAM.-25-1.63

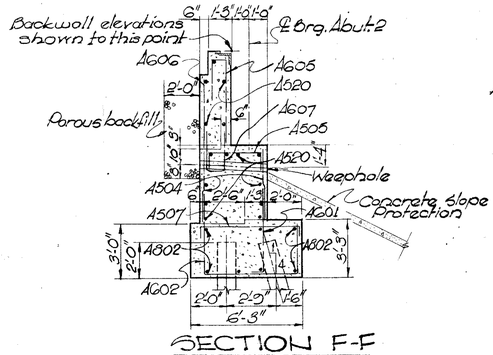


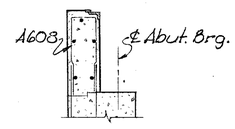












For additional details see Sheet 307

VOGT, IVERS, SEAMAN & ASSOCIATES
ENGINEERS — ARCHITECTS
CINCINNATI — CHICAGO

ABUTMENT 2
RAMP F OVER SPRING GROVE AVENUE
HAMILTON COUNTY STA. 6+05.87 TO STA. 8+09.32

DESIGNED	DRAWN	TRACED	CHECKED	REVIEWED	DATE	REVISED
P.J.K.	J.R.R.	---	C.E.S.	J.A.D.	3-61	

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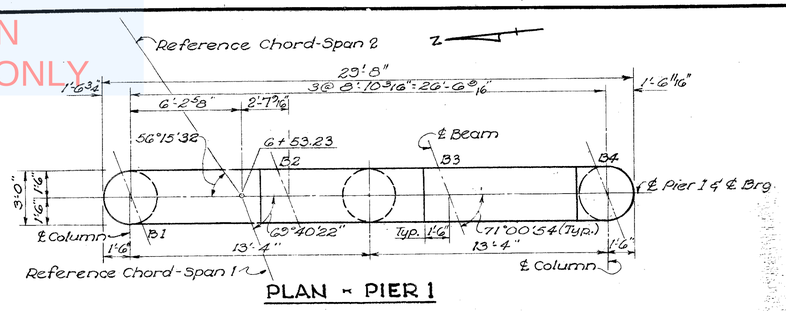
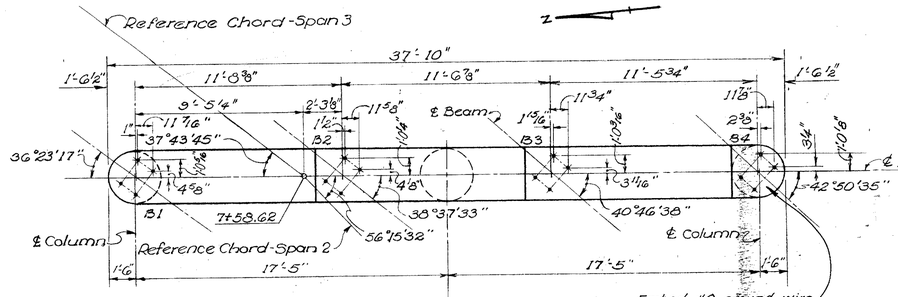
2	OHIO		

HAM-25-1.63

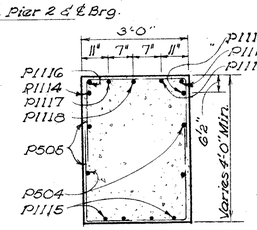
333 486



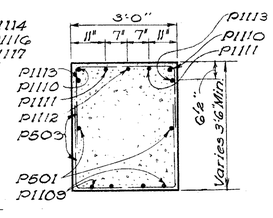
PLAN - PIER 1



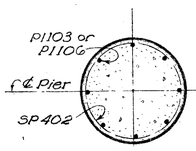
PLAN - PIER 2



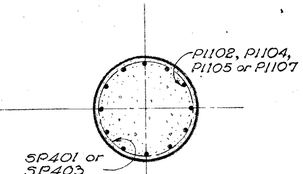
SECTION E-E



SECTION A-A



SECTION C-C



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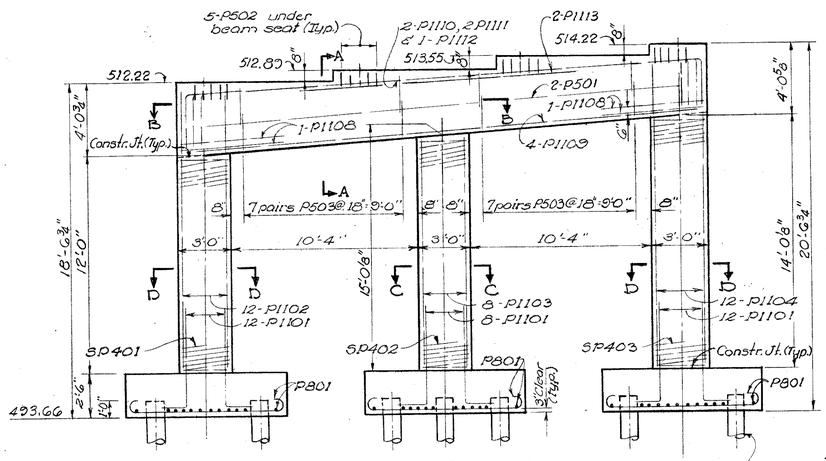
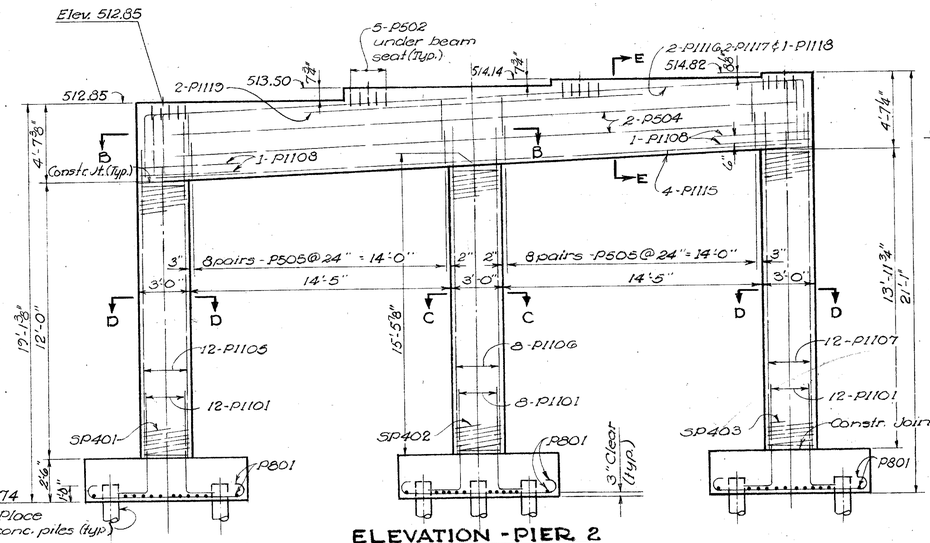
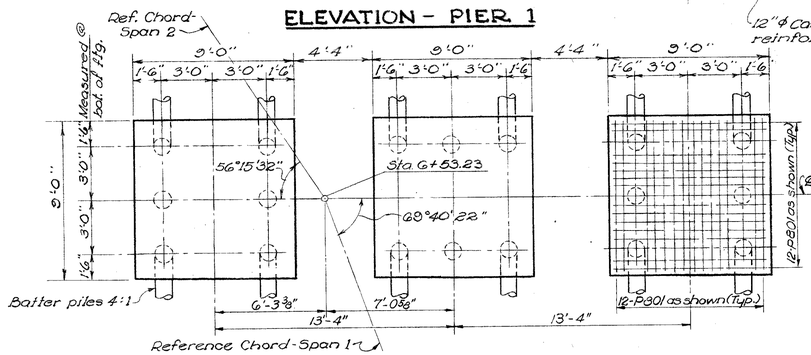


ELEVATION - PIER 1

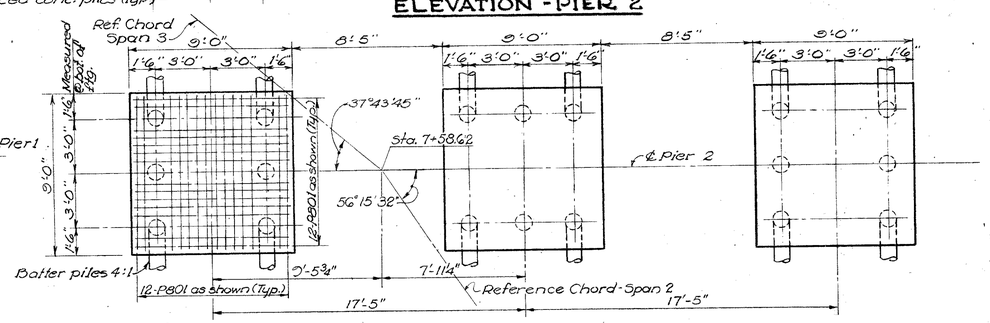


ELEVATION - PIER 2

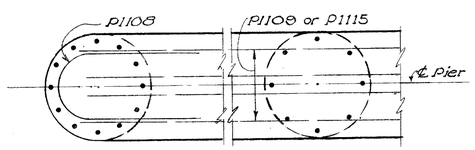
12" ϕ Cast-in-Place reinforced conc. piles (typ.)



FOOTING PLAN-PIER 1



FOOTING PLAN - PIER 2



SECTION B-B

NOTE:
Place reinforcing in the pier caps so as not to interfere with the drilling of anchor bolt holes.

VOGT, IVERS, SEAMAN & ASSOCIATES
ENGINEERS CINCINNATI — ARCHITECTS CHICAGO

PIERS 1 & 2

RAMP F OVER SPRING GROVE AVENUE

HAMILTON COUNTY STA. 6+05.87 to STA. 8+09.32

DESIGNED	DRAWN	TRACED	CHECKED	REVIEWED	DATE	REVISED
P.J.K.	D.Y.F.	D.Y.F.	C.E.S.	J.A.D.	3-61	

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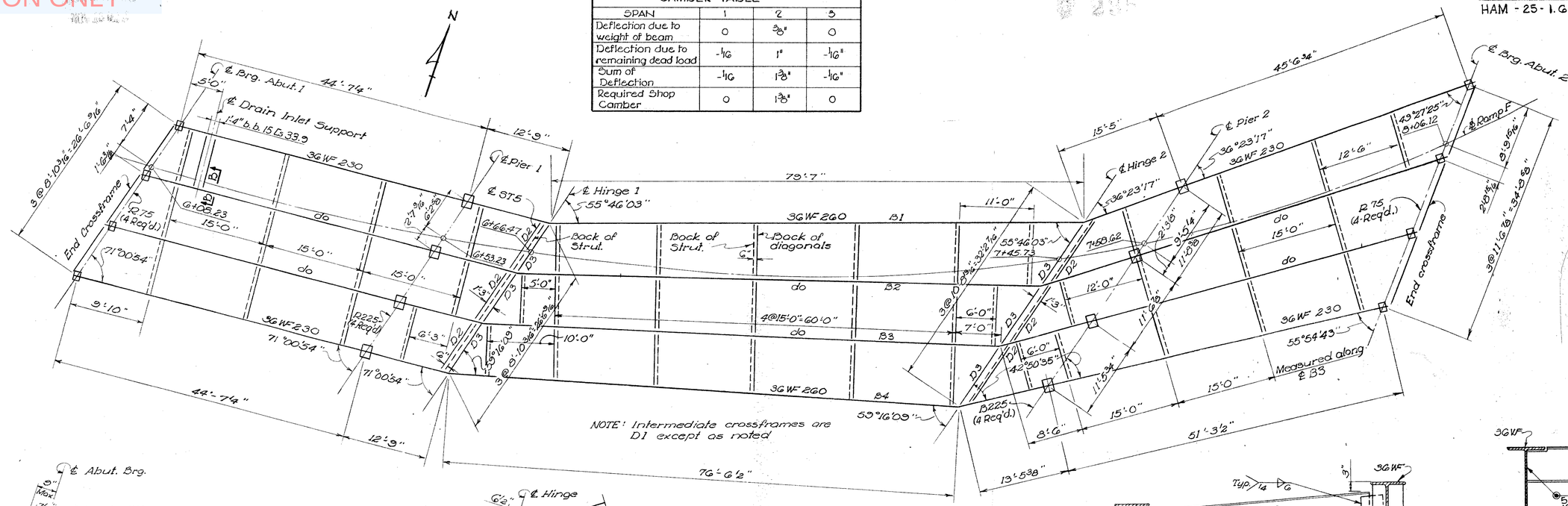
FED. RD. DIVISION	STATE	PROJECT	
2	OHIO		

400 / 486

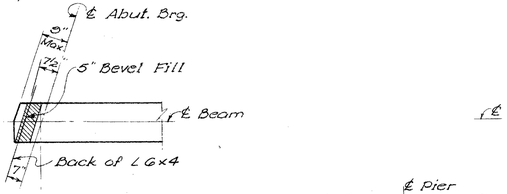
HAM - 25 - 1.63

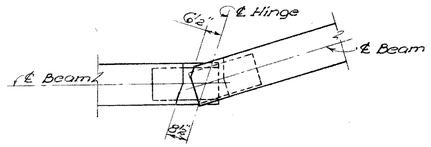
236 Rod
400 - 486
Plus Soil Profile

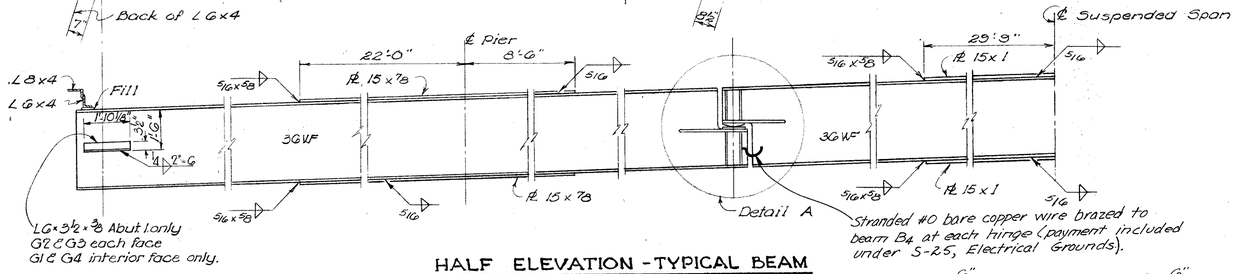
CAMBER TABLE			
SPAN	1	2	3
Deflection due to weight of beam	0	3/8"	0
Deflection due to remaining dead load	-1/16	1"	-1/16"
Sum of Deflection	-1/16	1 3/8"	-1/16"
Required Shop Camber	0	1 3/8"	0



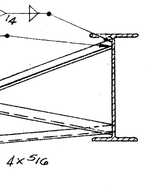
FRAMING PLAN





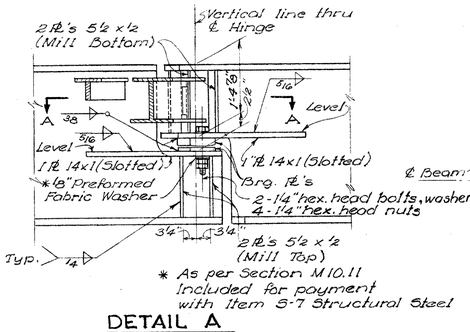


HALF ELEVATION - TYPICAL BEAM



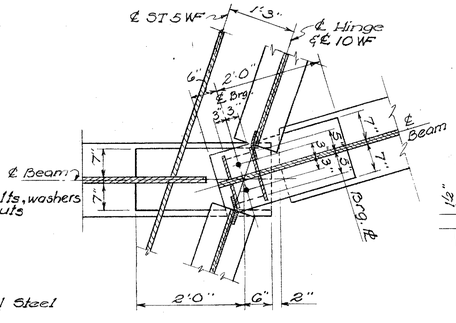
CROSSFRAME D1

1. See Std. Dwg. CSB-2-56, Sheet 2 for details of std. end crossframes & end dams.
2. See Sheet 401 for details of special end dams at hinges.
3. See Std. Dwg. RB-1-55 for details of Rockers and Bolsters.
4. The 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.
5. For details of drain inlets and supports, see Sheet 412.
6. For additional notes, see Sheet 395.

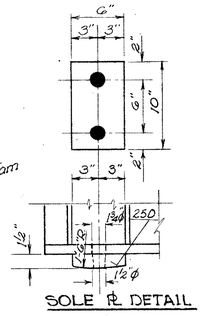


DETAIL A

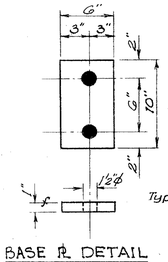
* As per Section M10.11 included for payment with Item S-7 Structural Steel



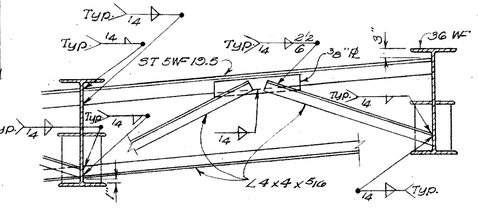
SECTION A-A



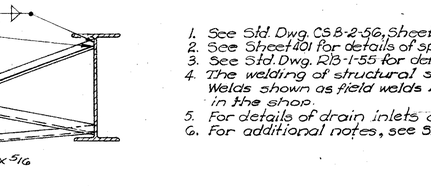
SOLE PL DETAIL



BASE PL DETAIL



CROSSFRAME D2



DIAPHRAGM D3

SECTION B-B

VOGT, IVERS, SEAMAN & ASSOCIATES
ENGINEERS — ARCHITECTS
CINCINNATI — CHICAGO

FRAMING PLAN & DETAILS

RAMP F OVER SPRING GROVE AVENUE

HAMILTON COUNTY STA. 6+05.87 to STA. 8+05.32

DESIGNED	DRAWN	TRACED	CHECKED	REVIEWED	DATE	REVISED
PJK	PJK	DYF	CES	J.A.D.	3-61	

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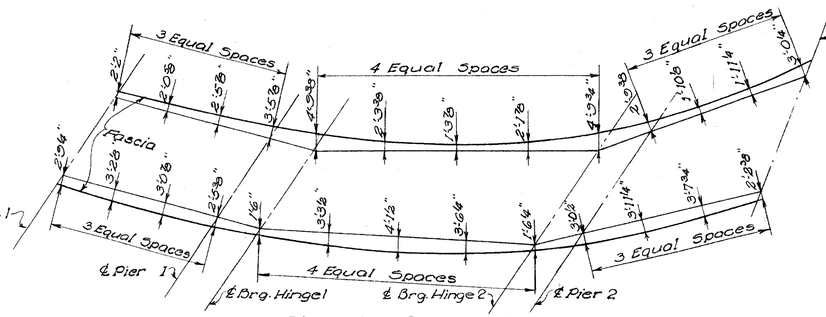
FED. RD. DIVISION	STATE	PROJECT	
2	OHIO		

HAM-25-1.68

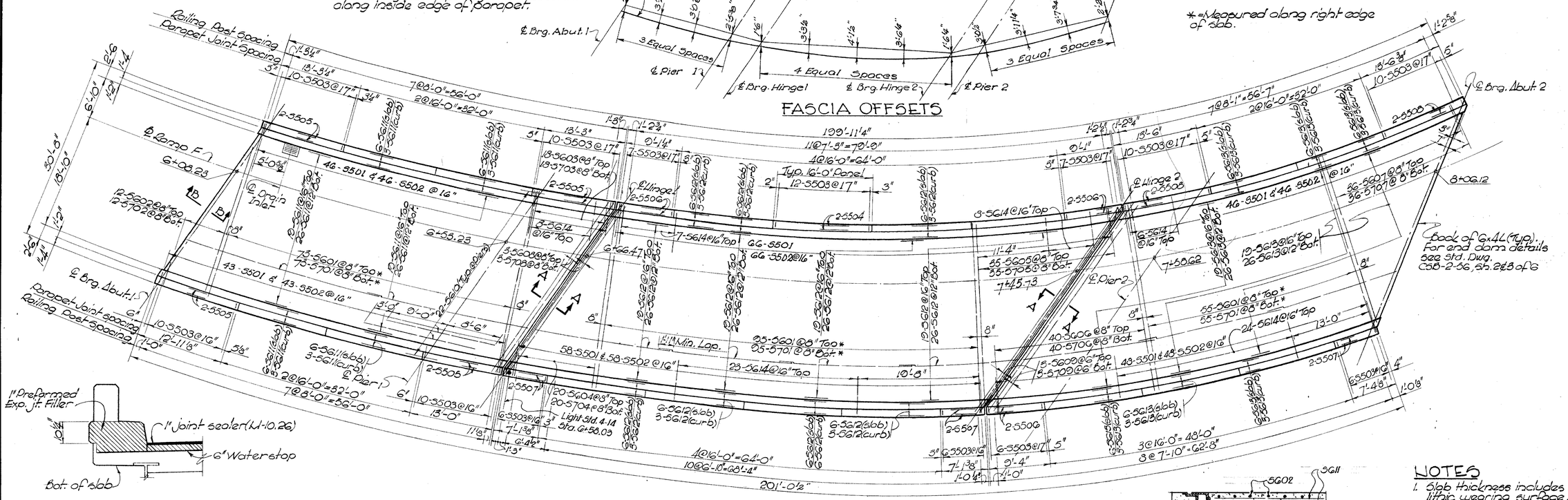
401 486

236

Parapet lengths & joint spacing and railing post spacing are measured along inside edge of parapet.



FASCIA OFFSETS



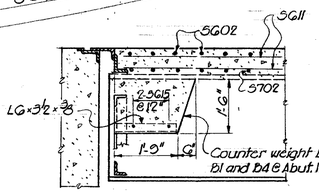
* = Measured along right edge of slab.

LIMIT OF JOINT MATERIAL AT HINGES

TYPICAL SECTION

DECK SLAB

SECTION A-A



SECTION B-B

NOTES

1. Slab thickness includes 1" for monolithic wearing surface.
2. Railing and parapet joints are detailed on AR-1-57.
3. Field cut reinforcing steel to clear drain inlet.
4. For inlet details, see Misc. Structural Details, Sheet 412.
5. For lighting details, see Sheet 259.

DIMENSION "A"

BEAM	B1	B2	B3	B4
℄ Brg. Abut. 1	8'-3"	8'-3"	8'-3"	8'-3"
℄ Pier 1	10'-3"	10'-1"	10'-0"	9'-11"
℄ Hinge 1	11'-3"	11'-1"	10'-11"	10'-3"
℄ Hinge 2	11'-3"	11'-1"	11"	10'-3"
℄ Pier 2	9'-3"	9'-1"	9'-1"	9'-1"
℄ Brg. Abut. 2	11"	10'-1"	10'-1"	10'-1"

PAVEMENT ELEVATIONS

STATION	18'-10" RIGHT OF ℄	BASELINE	6'-10" LEFT OF ℄
G+00	518.81	517.24	516.67
G+25	518.24	517.67	517.10
G+50	518.37	518.00	517.43
G+75	518.82	518.24	517.68
7+00	519.06	518.30	517.82
7+25	520.06	518.40	517.92
7+50	520.16	518.50	518.02
7+75	520.27	518.70	518.13
8+00	520.33	518.80	518.28
8+25	520.13	518.90	518.45

VOGT, IVERS, SEAMAN & ASSOCIATES
ENGINEERS — CINCINNATI
ARCHITECTS — CHICAGO

SUPERSTRUCTURE ROADWAY SLAB

RAMP "F" OVER SPRING GROVE AVENUE

HAMILTON COUNTY STA. G+05.87 TO STA. 8+09.32

DESIGNED	DRAWN	TRACED	CHECKED	REVIEWED	DATE	REVISED
P.J.K.	J.R.R.	J.R.R.	C.E.S.	J.A.D.	3-61	

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FED. RD. DIVISION	STATE	PROJECT	
2	OHIO		

402 486

HAM-25-1.63

ROADWAY SLAB

MARK	LENGTH	SHAPE	NO.	WEIGHT
S501	5'-6"	Bt.	307	1,761
S502	2'-11"	Bt.	307	934
S503	5'-8"	Bt.	303	1,721
* S504	15'-8"	Str.	68	—
* S505	12'-8"	Str.	16	—
* S506	8'-8"	Str.	12	—
* S507	6'-9"	Str.	16	—
* S508	13'-2"	Str.	8	—
S601	30'-0"	Str.	223	10,048
S602	Varies 2'-11" to 25'-10" Incr. 2'-1"	Str.	1 Series of 12	259
S603	Varies 2'-5" to 27'-11" Incr. 1'-6"	Str.	1 Series of 18	410
S604	Varies 2'-1" to 29'-0" Incr. 1'-5"	Str.	1 Series of 20	467
S605	Varies 2'-4" to 29'-3" Incr. 2½"	Str.	1 Series of 35	830
S606	Varies 2'-11" to 28'-11" Incr. 8"	Str.	1 Series of 40	956
S607	Varies 1'-9" to 28'-0" Incr. 2"	Str.	1 Series of 36	804
S608	33'-0"	Str.	6	297
S609	40'-2"	Str.	6	362
S610	17'-6"	Str.	44	1,157
S611	30'-1"	Str.	126	5,693
S612	21'-8"	Str.	252	8,201
S613	23'-0"	Str.	189	6,529
S614	6'-3"	Str.	76	713
S615	8'-6	Str.	6	77
S701	30'-0"	Str.	223	13,674
S702	Varies 2'-11" to 25'-0" Incr. 2'-1"	Str.	1 Series of 12	353
S703	Varies 2'-5" to 27'-11 Incr. 1'-6"	Str.	1 Series of 18	558
S704	Varies 2'-1" to 29'-0" Incr. 1'-5"	Str.	1 Series of 20	635
S705	Varies 2'-4" to 29'-3" Incr. 2½"	Str.	1 Series of 35	1,130
S706	Varies 2'-11" to 28'-11" Incr. 8"	Str.	1 Series of 40	1,301
S707	Varies 1'-9" to 28'-0" Incr. 2"	Str.	1 Series of 36	1,095
S708	33'-0"	Str.	6	405
S709	40'-2"	Str.	6	493

PIERS

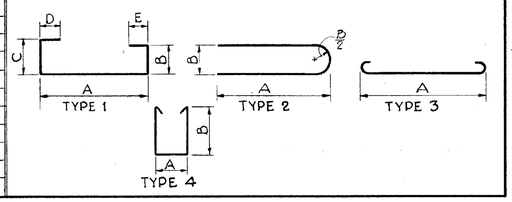
MARK	LENGTH	SHAPE	NO.	WEIGHT
P501	26'-8"	Str.	2	56
P502	4'-5"	Bt.	40	184
P503	7'-3"	Bt.	28	212
P504	34'-10"	Str.	4	145
P505	7'-9"	Bt.	32	259
P801	10'-10"	Bt.	144	4,165
P1101	6'-10"	Bt.	64	2,324
P1102	15'-0"	Str.	12	956
P1103	16'-0"	Str.	8	680
P1104	17'-0"	Str.	12	1,083
P1105	15'-6"	Str.	12	988
P1106	16'-6"	Str.	8	701
P1107	17'-6"	Str.	12	1,116
P1108	10'-2"	Bt.	8	432
P1109	28'-0"	Str.	4	595
P1110	33'-4"	Bt.	2	354
P1111	34'-6"	Bt.	2	367
P1112	35'-0"	Bt.	1	186
P1113	16'-0"	Str.	2	170
P1114	18'-10"	Str.	2	200
P1115	36'-4"	Str.	4	772
P1116	42'-6"	Bt.	2	452
P1117	43'-10"	Bt.	2	466
P1118	44'-2"	Bt.	1	235

ABUTMENTS

MARK	LENGTH	SHAPE	NO.	WEIGHT
A501	6'-0"	Str.	8	50
A502	5'-4"	Str.	26	145
A503	4'-6"	Str.	26	127
A504	4'-0"	Str.	30	125
A505	5'-2"	Bt.	58	313
A506	31'-0"	Str.	15	485
A507	6'-11"	Bt.	44	317
A508	8'-1"	Bt.	37	312
A509	7'-10"	Str.	37	302
A510	5'-0"	Str.	130	678
A511	3'-3"	Str.	9	31
A512	Varies 3'-3" to 4'-1" Incr. 1"	Bt.	2 Series of 11	84
A513	4'-1"	Bt.	45	192
A514	6'-3"	Bt.	66	430
A515	10'-0"	Str.	18	188
A516	16'-3"	Str.	6	102
A517	14'-4"	Str.	7	105
A518	5'-10"	Str.	48	292
A519	14'-0"	Str.	9	131
A520	40'-9"	Str.	15	638
* A521	14'-2"	Str.	12	—
A522	20'-10"	Str.	5	109
A523	14'-11"	Str.	8	124
A524	22'-11"	Str.	3	72
A525	21'-10"	Str.	2	46
* A526	20'-8"	Str.	4	—
A527	9'-0"	Str.	10	94
A528	13'-2"	Str.	5	69
A529	16'-8"	Str.	3	52
A530	4'-3"	Bt.	37	164
A531	5'-0"	Str.	18	94
A601	5'-8"	Bt.	129	1,098
A602	12'-10"	Bt.	44	848
A603	12'-10"	Str.	12	231
A604	17'-10"	Str.	8	214
A605	6'-1"	Bt.	39	356
A606	3'-1"	Str.	39	181
A607	8'-1"	Bt.	62	753
A608	9'-5"	Bt.	23	325
A609	12'-7"	Str.	6	113
A801	32'-0"	Str.	7	598
A802	23'-9"	Str.	14	888

BENT BARS

MARK	TYPE	A	B	C	D	E
S501	1	1'-10"	1'-5"	1'-5"	8"	8"
S502	1	1'-10"	8"	8"	—	—
S503	4	10"	2'-1"	—	—	—
P502	1	2'-8"	1'-0"	1'-0"	—	—
P503	1	2'-8"	2'-5"	2'-5"	—	—
P505	1	2'-8"	2'-8"	2'-8"	—	—
P801	3	8'-8"	—	—	—	—
P1101	1	5'-8"	1'-6"	—	—	—
P1108	2	4'-7"	2'-0"	—	—	—
P1110	1	27'-6"	3'-3"	3'-3"	—	—
P1111	1	28'-8"	3'-3"	3'-3"	—	—
P1112	1	29'-2"	3'-3"	3'-3"	—	—
P1116	1	35'-8"	3'-9"	3'-9"	—	—
P1117	1	37'-0"	3'-9"	3'-9"	—	—
P1118	1	37'-4"	3'-9"	3'-9"	—	—
A505	1	3'-5"	1'-0"	1'-0"	—	—
A507	1	5'-10"	8"	8"	—	—
A508	1	3'-2"	2'-7"	2'-7"	—	—
A512	1	1'-4"	1'-2" to 2'-0"	1'-0"	—	—
A513	1	1'-4"	2'-1"	1'-0"	—	—
A514	1	10"	2'-10"	2'-10"	—	—
A530	1	3'-2"	8"	8"	—	—
A601	1	5'-0"	10"	—	—	—
A602	1	5'-4"	2'-10"	5'-0"	—	—
A605	1	4'-2"	11"	—	—	1'-4"
A607	1	1'-5"	3'-6"	3'-6"	—	—
A608	1	1'-5"	4'-2"	4'-2"	—	—



SPIRALS

MARK	LENGTH	SHAPE	NO.	WEIGHT	CORE DIA. % SPIRAL	PITCH	NO. TURNS
SP401	12'-0"	Bt.	2	458	32	4½"	35
SP402	13'-0"	Bt.	2	493	32	4½"	38
SP403	14'-0"	Bt.	2	528	32	4½"	40

REPLACEMENT BARS

MARK	NO.	LENGTH	SHAPE
RE 4	1	5'-3"	Bt.
RE 5	1	5'-7"	Str.
RE 6	3	5'-11"	Str.
RE 7	1	6'-3"	Str.
RE 8	1	6'-6"	Str.
RE 11	1	7'-7"	Str.

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-402 need not be furnished and replacement bars will not be necessary.

SPIRAL REINFORCING BARS: 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 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 lineal foot 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 linear foot, will be paid for as reinforcing steel and is included in the tabulated quantity of spiral bars.

NOTES:

1. *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.*
2. *Bars marked with single asterisks to be included for payment under Item S-14 Railing.*
3. *All dimensions are out to out of bar.*
4. *The "Length" of bent bars is measured along the centerline.*

VOGT, IVERS, SEAMAN & ASSOCIATES
ENGINEERS CINCINNATI — ARCHITECTS CHICAGO

REINFORCING STEEL LIST

RAMP "F" OVER
SPRING GROVE AVENUE

HAMILTON COUNTY STA. 6 + 05.87 to STA. 8 + 09.32

DESIGNED	DRAWN	TRACED	CHECKED	REVIEWED	DATE	REVISED
~	J.C.H.	~	C.E.S.	J.A.D.	3-61	

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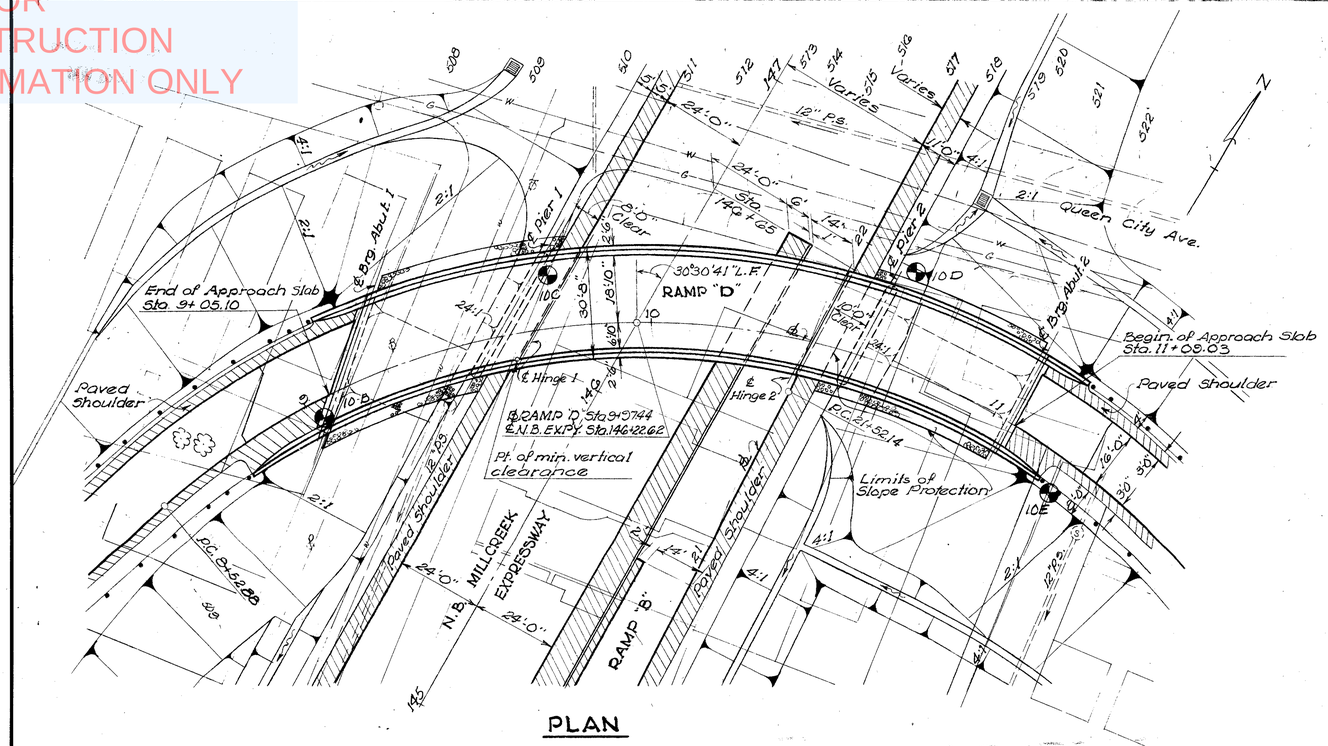
2	OHIO			

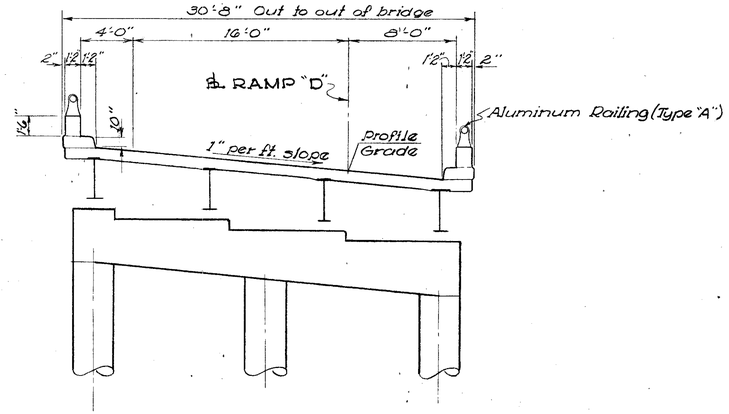
403 / 486

HAM - 25 - 1.63

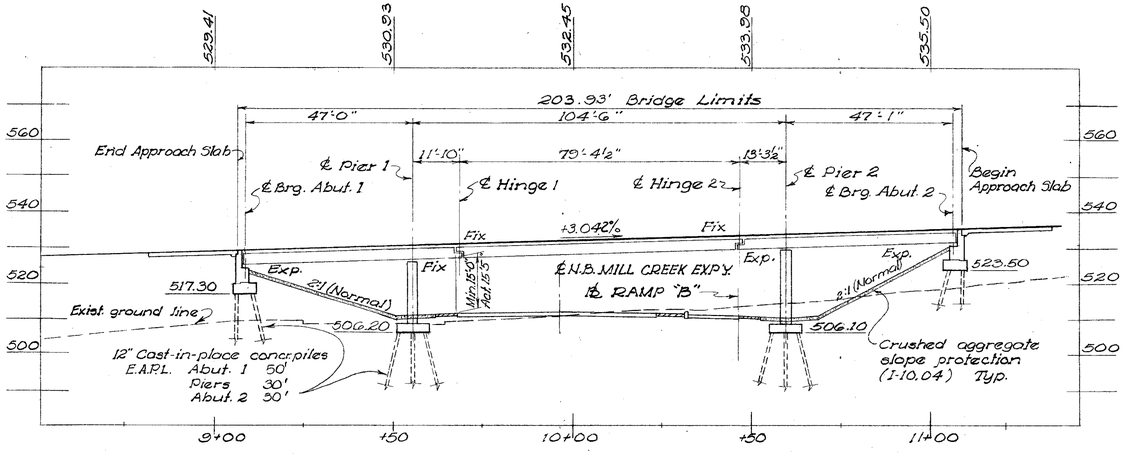
CURVE DATA								
	Dc	Δ	R	Lc	Ls	T	Sta. P.I.
N.B. Mill Creek Expy.	0°31'15"	10°33'59"	11000.79	2023.74	0	1017.26	141+14.61
Ramp "D"	28°30'	214°56'38"	201.04	654.19	200	—	—
Ramp "B"	1°01'24"	5°05'28	5599.65	497.57	0	248.95	24+01.09



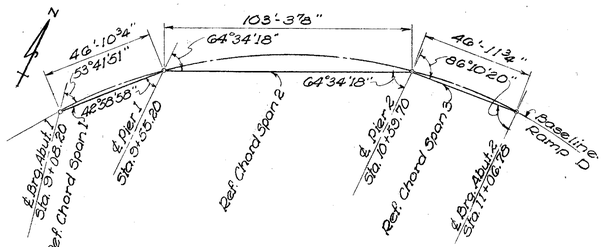
PLAN



SECTION THRU BRIDGE



PROFILE ON BASE LINE OF RAMP "D"



REFERENCE CHORD LAYOUT

NOTES

Foundation design and foundation quantities are based on a study of test borings and soil samplings made at the site. This sounding information may be inspected in the Office of the Bureau of Bridges in Columbus or in an abriged form in the Division Office, but the State assumes no responsibility for the accuracy thereof.

◔ Boring Symbol

Benchmark : B.M. #C El. 501.11

City of Cincinnati; B.M. #117. Brass disk in Western face of Viaduct pier. 57' Lt. Sta. 142+10 S.B.

PROPOSED STRUCTURE

TYPE: Cantilever rolled beam with reinforced concrete deck and substructure
SPANS: 47'-0", 104'-6", 47'-1"
ROADWAY: 28'-0" face to face of parapets
LOAD FREQUENCY: CF = 2000 (57)
Adequate for AASHO alternate loading.
SKEW: 30°30'41" LF at ℄ N.B. Mill Creek Expressway
WEARING SURFACE: 1" monolithic concrete
APPROACH SLABS: AS-1-54 (25' long)
ALIGNMENT: 28°30' curve right
SUPERELEVATION: 1" per ft.

VOGT, IVERS, SEAMAN & ASSOCIATES
ENGINEERS CINCINNATI
ARCHITECTS CHICAGO

SITE PLAN

BRIDGE NO. HAM-25-02G1
RAMP "D" OVER
NORTHBOUND MILL CREEK EXPRESSWAY
HAMILTON COUNTY STA. 9+05.10 to STA. 11+08.03

PRESENT TOPOGRAPHY		PROPOSED WORK			
SURVEYED	DRAWN	DESIGNED	DRAWN	CHECKED	REVISIONS
Aerial	Aerial	GJC	DYF	AAN	

236 red

TUBE 236 red

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HAM-25-1.68

ESTIMATED QUANTITIES

ITEM	TOTAL	UNIT	DESCRIPTION	ABUT-MENTS	PIERS	SUPER STRUCTURE	GENERAL		
E-2	385	Cu. Yds.	Unclassified Excavation	250	135				
1-10	465	Sq. Yds.	Crushed aggregate slope protection				465		
S-1	223	Cu. Yds.	Class "C" Concrete - Superstructure			223			
S-1	51	Cu. Yds.	Class "C" Concrete - Piers above footings		51				
S-1	97	Cu. Yds.	Class "E" Concrete - Abutments above footings	97					
S-1	108	Cu. Yds.	Class "E" Concrete - Pier and Abutment footings	64	44				
S-4	86,962	Lbs.	Reinforcing Steel	11,414	18,884	56,664			
S-7	269,300	Lbs.	Structural Steel			269,300			
S-8	269,300	Lbs.	Field painting of structural steel			269,300			
S-9	25	Sq. Ft.	1" Preformed expansion joint filler			25			
S-9	66	Lin. Ft.	6" Neoprene Waterstop (Dumbbell type) *Including joint sealer.*			66			
S-14	453	Lin. Ft.	Railing (aluminum railing and supports and conc. parapet)	51		402			
S-16	Lump	Lump Sum	First test pile				Lump		
S-18	1070	Lin. Ft.	12" Cast-in-place reinforced concrete piles	250	1020				
S-25	1	ea.	Light Standard with 10' mast arm				1		
S-25			Grounding System				*Lump*		
S-25	200	Lin. Ft.	3" Asbestos Cement Conduit with bushings & fittings				200		
S-25	3	Lin. Ft.	2" Aluminum Conduit with bushings & fittings				3		
S-29	29	Cu Yds.	Porous backfill	29					
S-29	1	ea.	Inlet frame & grating & 6" galvanized or wrought iron pipe incl. specials.			1			
S-25	3	ea.	Pull box complete with frame and cover				3		
Special	223	ea.	Water reducing, set retarding admixture*			223			
S-25	1	ea.	400W Luminaire with built-in reactor type ballast (240V) and 400W Mercury vapor lamp.				1		
S-25	220	Lin. Ft.	6000V Single Conductor #8 AWG. Direct Burial Cable (Plain)				220		
S-25	220	Lin. Ft.	6000V single conductor #8 AWG. Direct Burial Cable (Identifiable)				220		
S-25	90	Lin. Ft.	600V single conductor # 12 AWG Luminaire wire				90		

*See proposal note

GENERAL NOTES

REFERENCE shall be made to the following:
Standard Drawings: AR-1-57 revised 12-12-60; AS-1-54 Rev. 12-1-54
CSD-2-56, sheets 2 & 3 of 6 revised 2-2-59
RB-1-55 revised 2-2-59

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: Piles shall be driven to min. cap: Piers 40 tons, Abut. 30 tons.

EXCAVATION: Excavation quantity includes the removal of fill material between the surface of proposed embankment and the bottom of footings

EXTRUDED NEOPRENE WATERSTOP: The material used in the neoprene waterstop shall contain a minimum of 70% by volume of the basic neoprene polymer and shall be compounded and cured to have the following characteristics:

Test Method:		
Fed. ZZ-R-601a	Tensile strength, lbs. per sq. inch min.	2,750
Fed. ZZ-R-601a	Elongation at break, percent min.	400
ASTM D 395-52T	Compression set, Method B, 22 hrs. at 70°C	30% Max.
Fed. ZZ-R-601a	Water absorption, 2 days at 70°C.	10% Max.
Fed. ZZ-R-601a	Specific gravity	1.37 ± 0.03
ASTM D 676-49T	Shore durometer, Type A	60-70
Fed. ZZ-R-601a	Tensile strength after oxygen pressure test (48 hrs. at 70°C, 300 pounds per square inch) percent of tensile strength before aging	80

RAILING: Aluminum rail and supports, concrete parapet, reinforcing bars wholly within the concrete parapet, sponge rubber for parapet joints, and preformed bearing pads, shall be included in Item S-14 for payment.

UTILITY LINES: All labor and expense involved in relocating the affected utility lines shall be borne by the owners. The Contractor and Owners are requested to co-operate by arranging their work in such a manner that inconveniences to either will be held to a minimum.

EMBANKMENTS shall be in place and compacted to subgrade elevation for a distance of 200 ft. back of the abutments for a minimum period of 30 days prior to constructing the abutments unless settlement hubs indicate that any settlements have ceased. Piers shall not be started until after the embankments are completed to subgrade elevation.

CONCRETE DECK PLACING: In order to facilitate the water curing of concrete of the deck slab, the placing of concrete in any span shall progress upgrade. Sequence for pouring spans is given on Sh. 410.

NOTE:
1. Materials in approach slabs are not included in the above estimated quantities.

VOGT, IVERS, SEAMAN & ASSOCIATES
ENGINEERS CINCINNATI ARCHITECTS CHICAGO

GENERAL NOTES AND ESTIMATED QUANTITIES
BRIDGE NO. HAM-25-0291
RAMP "D" OVER
NORTHBOUND MILL CREEK EXPRESSWAY
HAMILTON COUNTY STA. 9+05.10 to STA. 11+05.03

DESIGNED	DRAWN	TRACED	CHECKED	REVIEWED	DATE	REVISED
G.J.C.	D.Y.E.	--o--	A.A.N.	J.A.D.	2-7-61	

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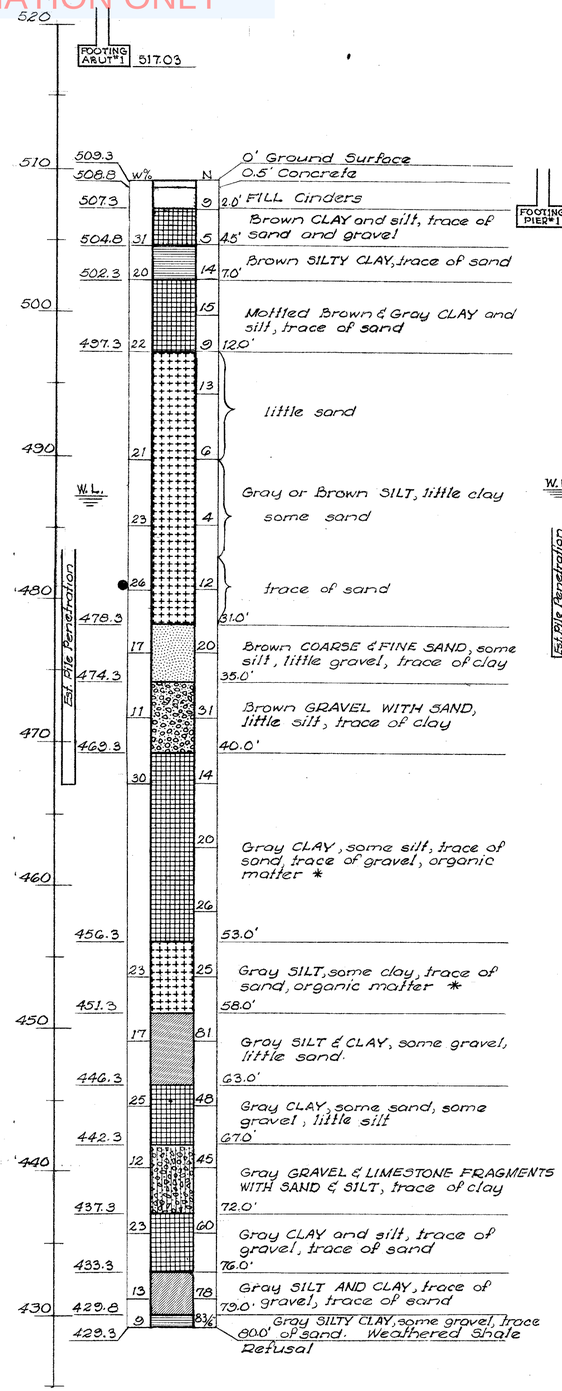
HAM-25-1.63

405 486

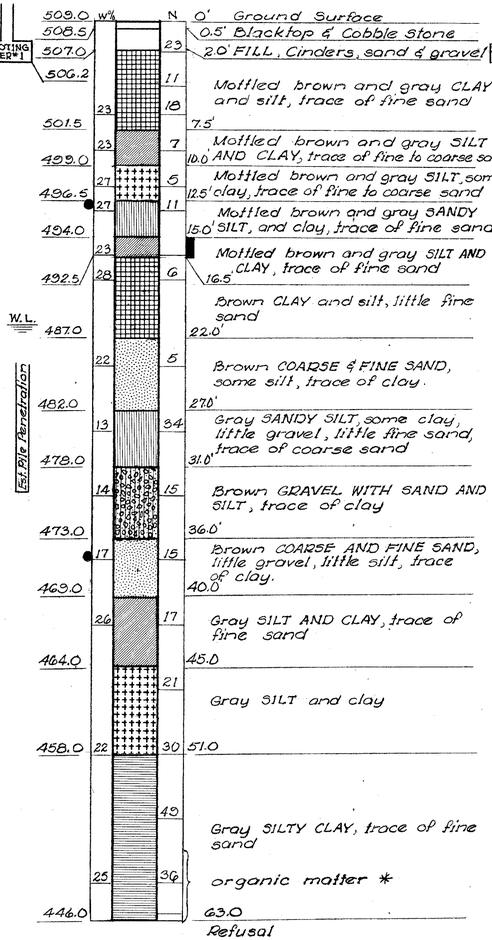
BORING D-10-B

Ramp "D" Sta. 9+03 - 5' Rt.



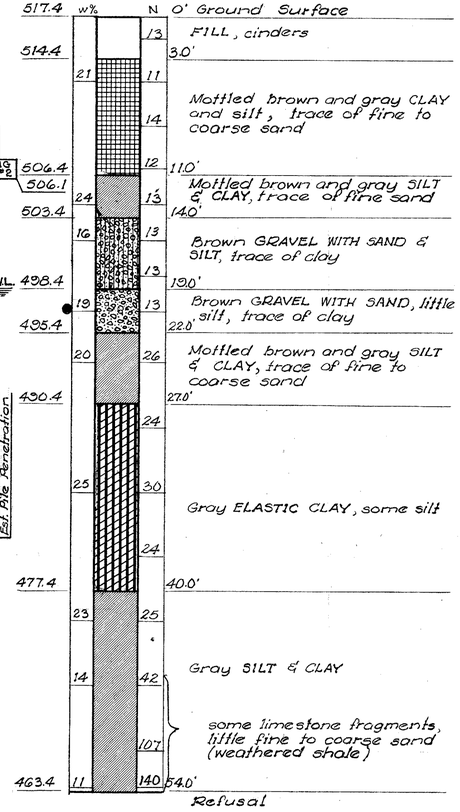
BORING D-10-C

Ramp "D" Sta. 9+72 - 15' Lt.



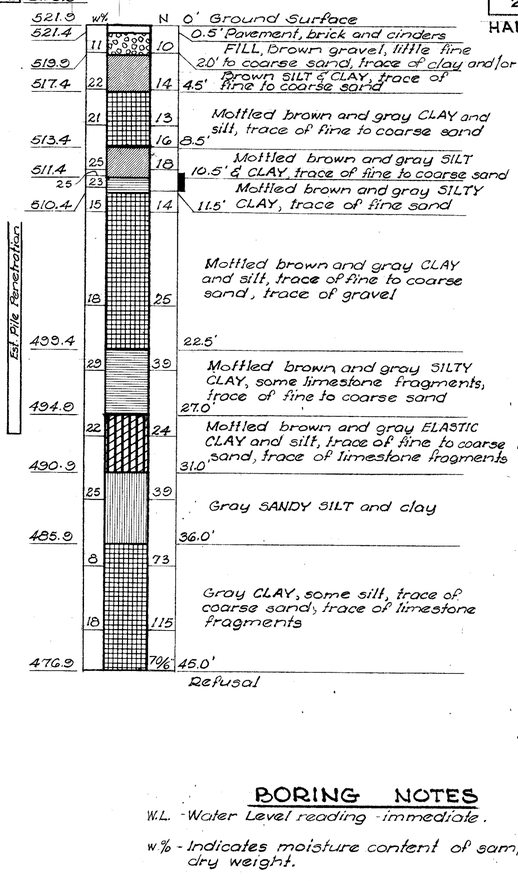
BORING D-10-D

Ramp "D" Sta. 10+66 27' Lt.



BORING D-10-E

Ramp "D" Sta. 11+25 - 10' Rt.



BORING NOTES

W.L. - Water Level reading - immediate.

w% - Indicates moisture content of sample in per cent of dry weight.

● - Moisture content equal to or greater than liquid limit minus 3%.

N - Indicates number of blows required to drive 2" O.D. split spoon the last 12" of an 18" run using 140 lb. weight falling 30 inches, unless shown otherwise.

▮ - 3" O.D. Shelby Tube sample taken at elevation of symbol.

* - Denotes unusual condition.

Description of material is based on laboratory test data and visual examination. Representative samples only were tested.

Borings were taken between Aug. 23 and Sept. 6, 1960

For location of borings, see Sh. 403

Modifying descriptions in per cent of dry weight: trace 1-10%, little 10-20%, some 20-35%, and 35-50%.

Foundation borings and laboratory testing by The H.C. Nutting Co., Cincinnati, Ohio.

VOGT, IVERS, SEAMAN & ASSOCIATES
ENGINEERS CINCINNATI ARCHITECTS CHICAGO

BORINGS

BRIDGE NO. HAM-25-02G1
RAMP "D" OVER
NORTHBOUND MILL CREEK EXPRESSWAY
HAMILTON COUNTY STA. 9+05.10 to STA. 11+05.03

DESIGNED	DRAWN	TRACED	CHECKED	REVIEWED	DATE	REVISED
C.W.	D.Y.F.	~	C.A.W.	J.A.D.	2-7-61	

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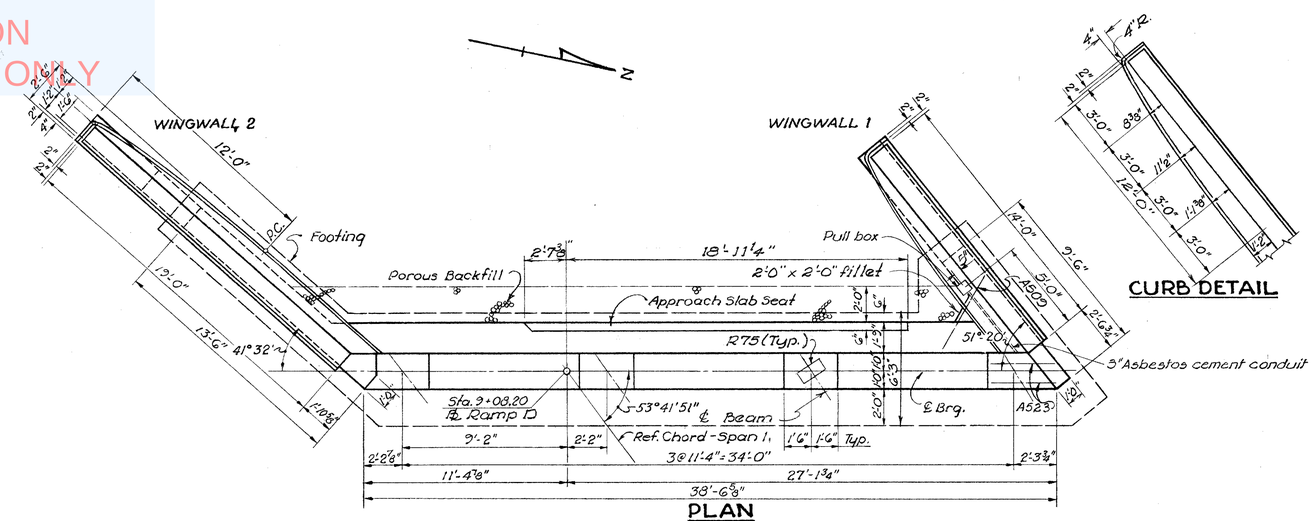
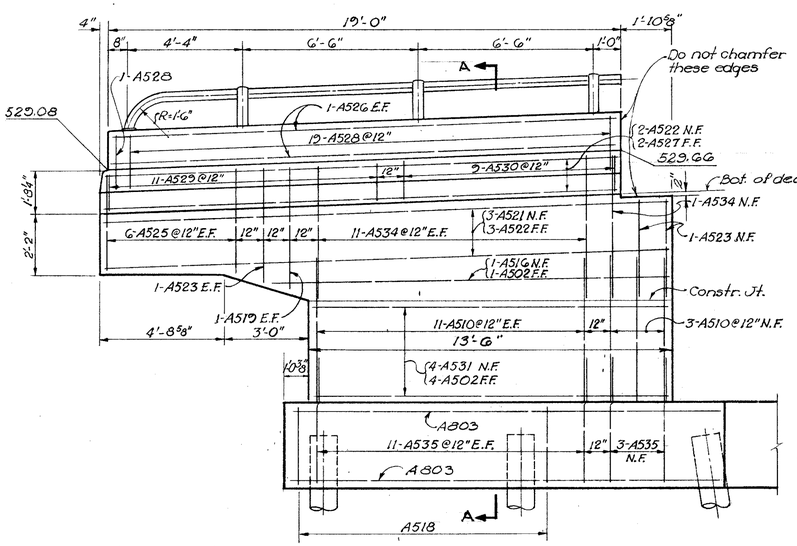
2	OHIO		

HAM-25-1.63

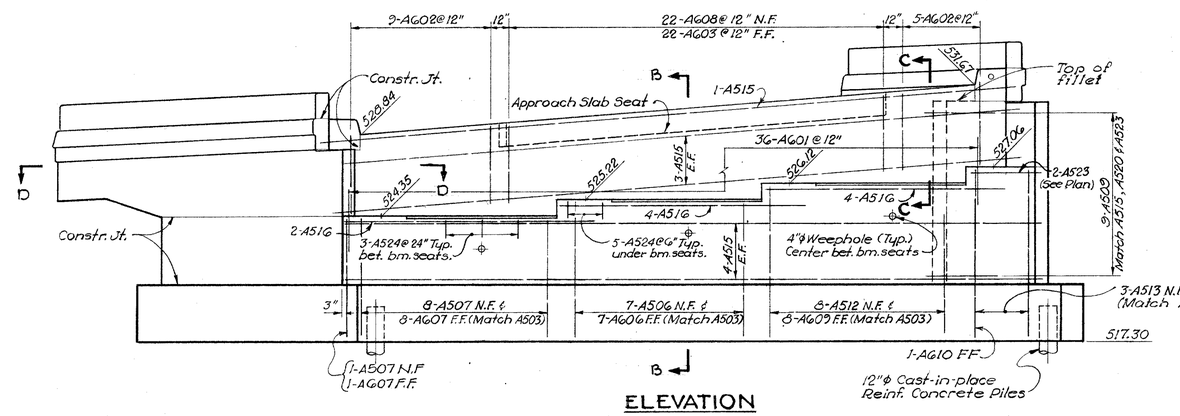
406
486



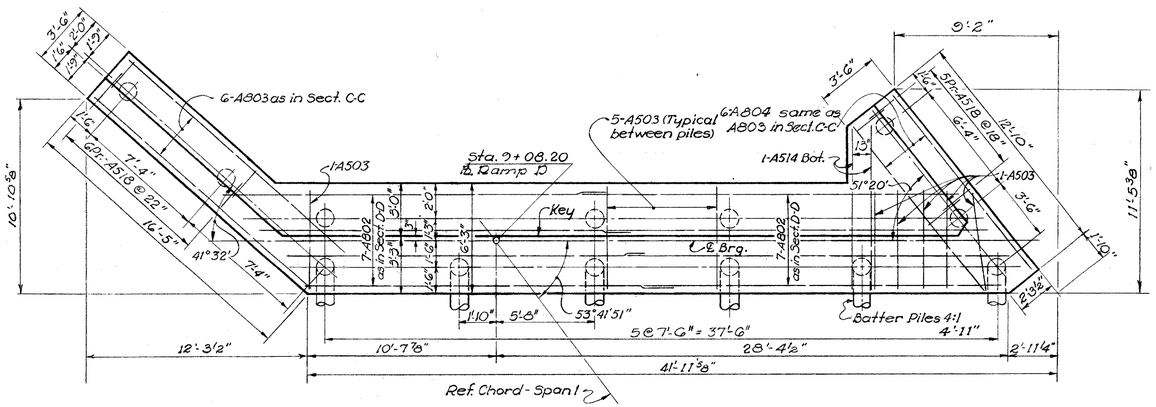
PLAN



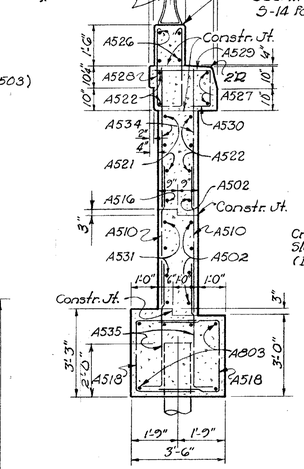
ELEVATION - WINGWALL 2



ELEVATION

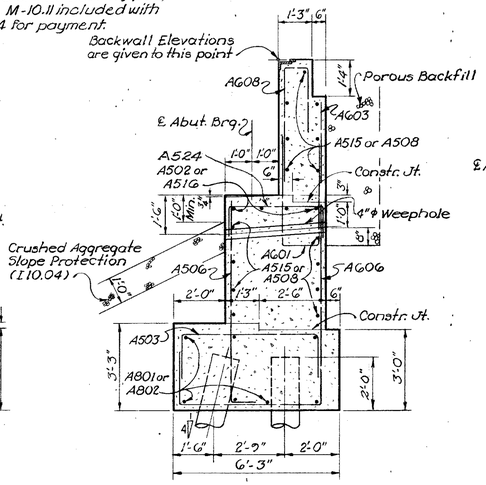


FOOTING PLAN

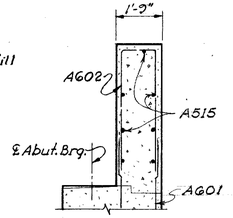


SECTION A-A

(Reinforcement shown for Wingwall 2)



SECTION B-B



SECTION C-C

NOTES:

1. For lighting details, see Sheet 259.
2. Designations used are as follows:
   N.F. = Near Face
   F.F. = Far Face
   E.F. = Each Face
3. Porous Backfill: 2' thick, full length of the abutment, shall extend up to the underside of the approach slab and shoulders.
4. For Section D-D see Sh. 407
5. For Wingwall 1, see Sh. 407
6. Parapet concrete, A517 & A526 bars to be included with Item 514 for payment.
7. For Reference Chord Layout, see Sh. 403
8. Aluminum railing tube to be continuous for full length of wingwalls

VOGT, IVERS, SEAMAN & ASSOCIATES
ENGINEERS CINCINNATI — ARCHITECTS CHICAGO

ABUTMENT 1

BRIDGE NO. HAM-25-0261
RAMP "D" OVER
NORTHBOUND MILL CREEK EXPRESSWAY
HAMILTON COUNTY STA. 9+05.10 to STA. 11+08.03

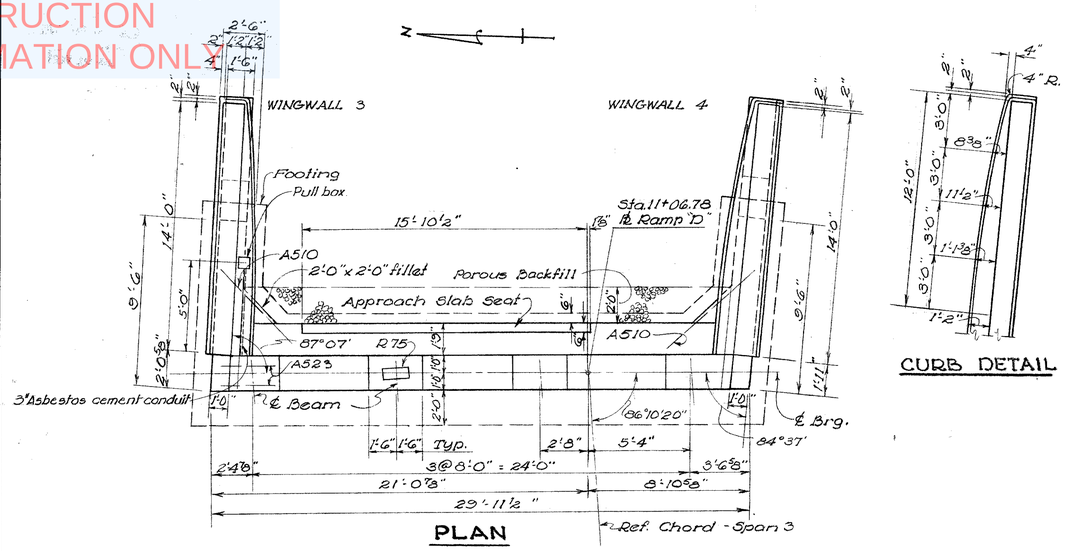
DESIGNED	DRAWN	TRACED	CHECKED	REVIEWED	DATE	REVISED
G.J.C.	J.C.H.	~	R.L.S	J.A.D.	2-7-61	

NOT FOR CONSTRUCTION INFORMATION ONLY

FED. RD. DIVISION	STATE	PROJECT	
2	OHIO		

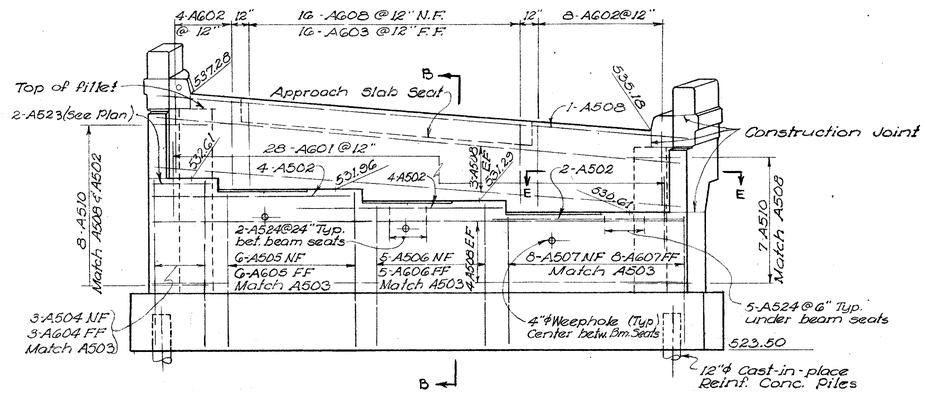
HAM-25-1.63

407 406

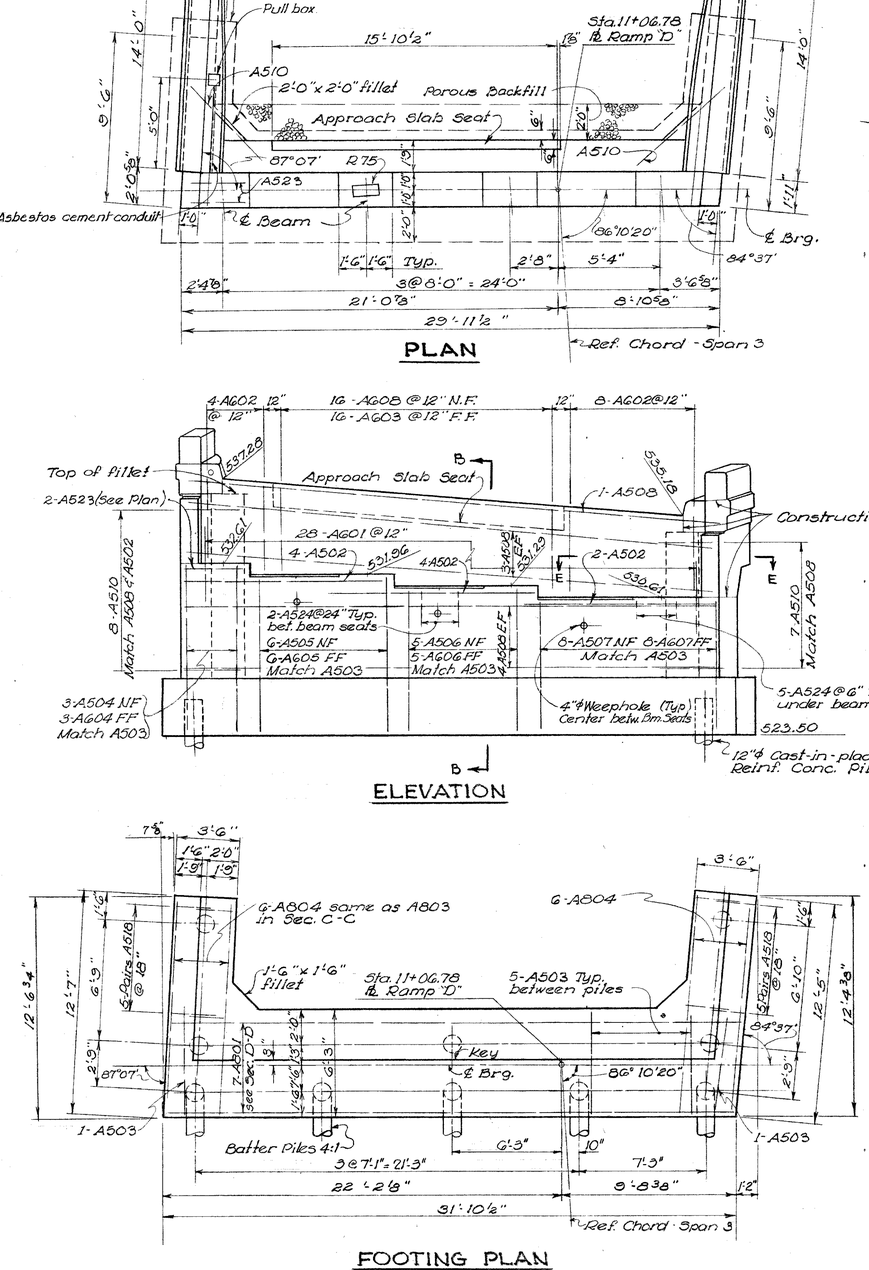


PLAN

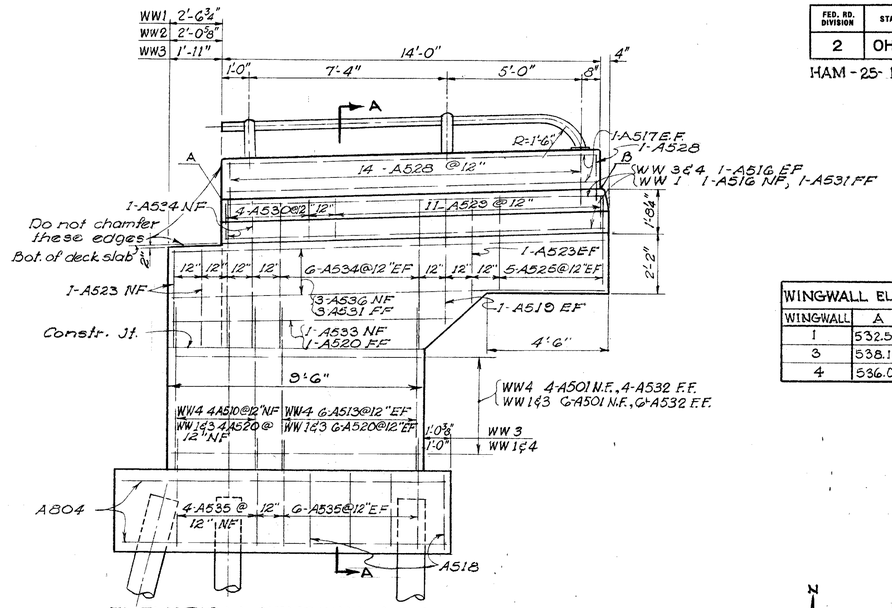
CURB DETAIL



ELEVATION

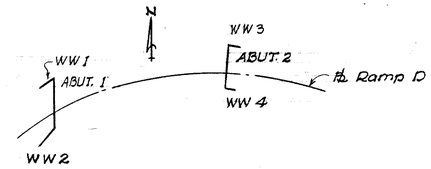


FOOTING PLAN



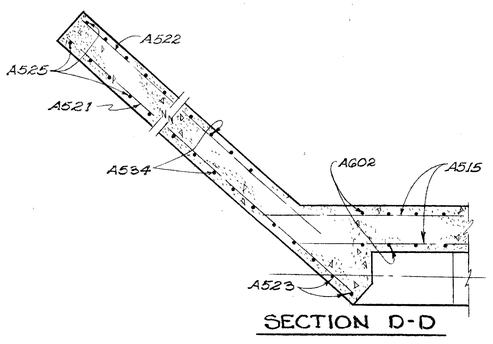
ELEVATION WINGWALL 1,3,4

WINGWALL ELEVATIONS		
WINGWALL	A	B
1	532.55	532.12
3	538.13	538.56
4	536.04	536.46

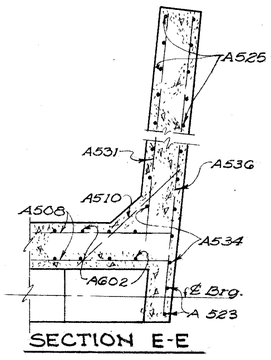


KEY PLAN

NOTES
1. For Sections A-A and B-B see Sh. 406
2. For additional notes see Sh. 406



SECTION D-D



SECTION E-E

VOGT, IVERS, SEAMAN & ASSOCIATES
ENGINEERS CINCINNATI
ARCHITECTS CHICAGO

ABUTMENT 2

BRIDGE NO. HAM-25-02.61
RAMP "D" OVER
NORTHBOUND MILL CREEK EXPRESSWAY

HAMILTON COUNTY STA. 9+05.10 to STA. 11+09.03

DESIGNED	DRAWN	TRACED	CHECKED	REVIEWED	DATE	REVISED
G.J.C.	G.J.C.	D.W.F.	R.L.S.	J.A.D.	27-61	

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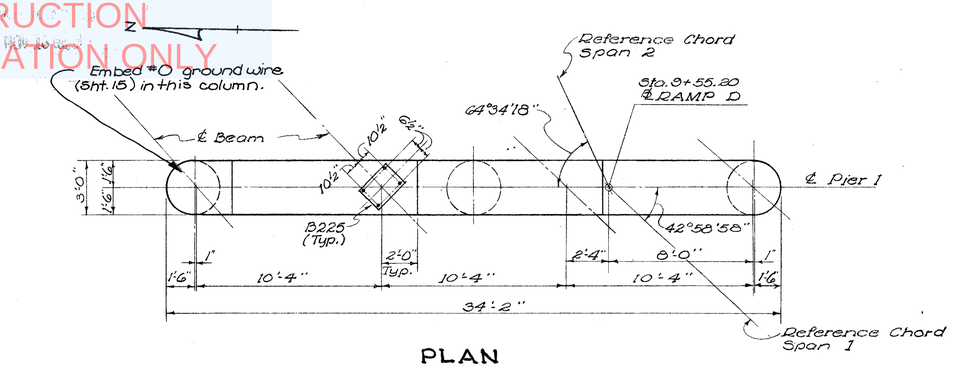
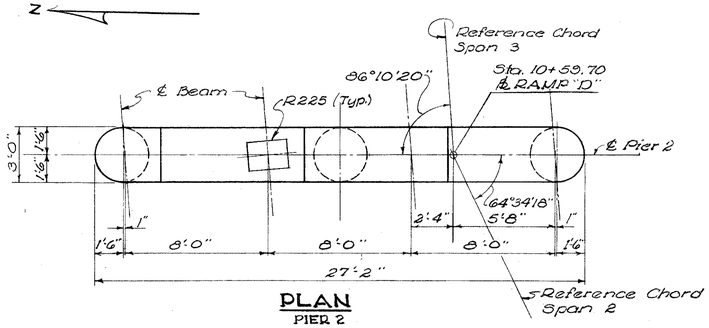
FED. RD. DIVISION	STATE	PROJECT	
2	OHIO		

408 486

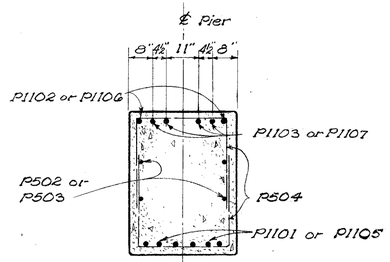
HAM-25-1.63



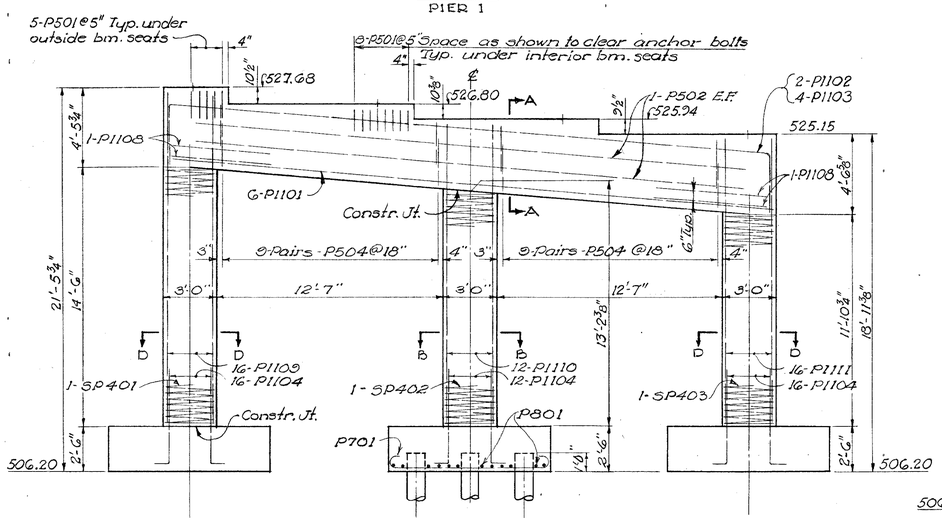
PLAN
PIER 1



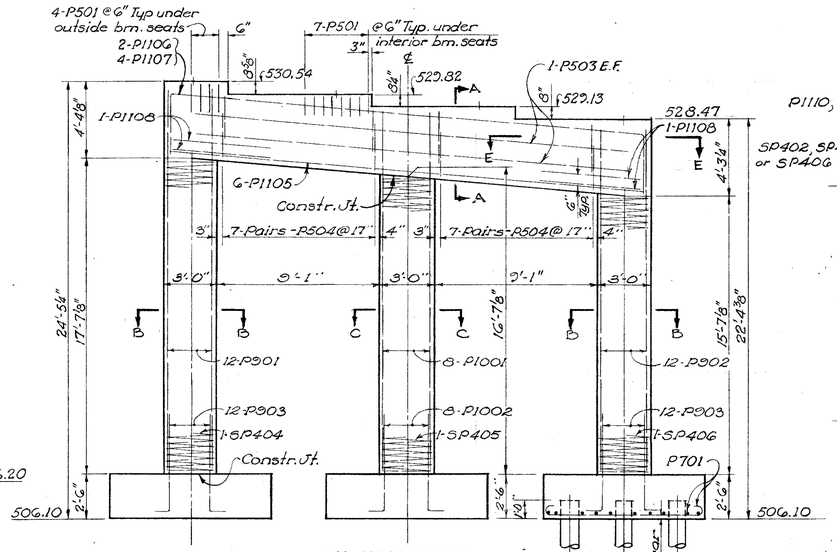
PLAN
PIER 2



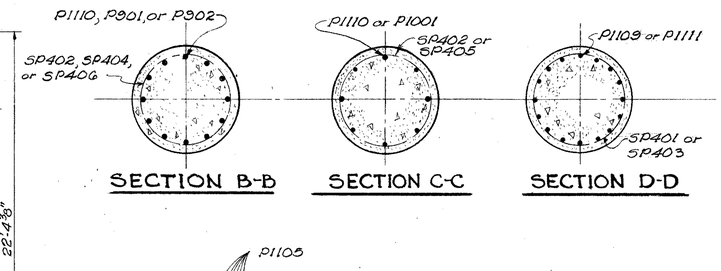
SECTION A-A



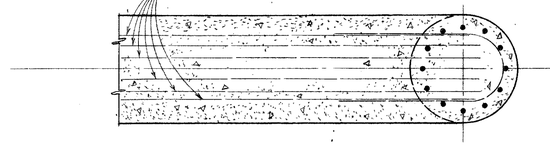
ELEVATION
PIER 1



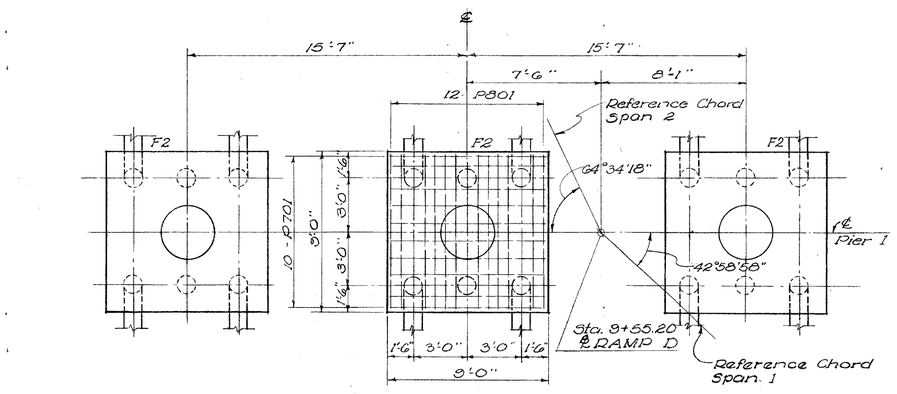
ELEVATION
PIER 2



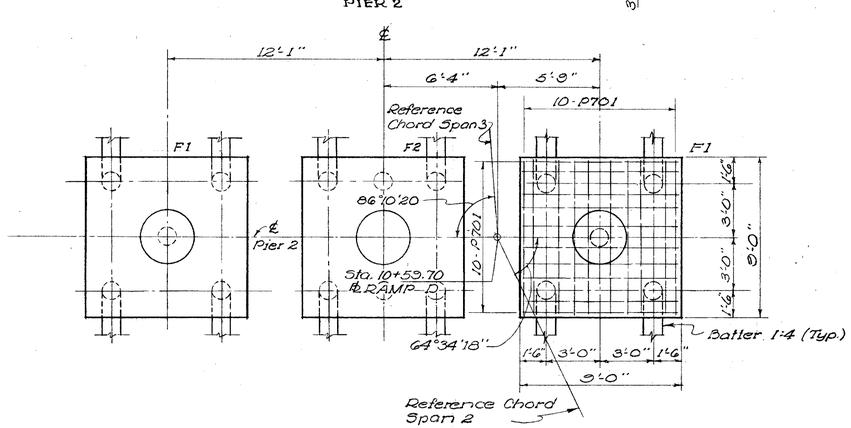
SECTION B-B | SECTION C-C | SECTION D-D



SECTION E-E



FOOTING PLAN
PIER 1



FOOTING PLAN
PIER 2

NOTES

1. For layout of Reference Chords See Sh. 403
2. "E.F." designates "Each Face"
3. Footings having same designation (F1 or F2) have identical dimensions, piles and reinforcing.
4. Reinforcement is to be placed in the cop. of Pier 1. so as not to interfere with the drilling of anchor bolt holes.

VOGT, IVERS, SEAMAN & ASSOCIATES
ENGINEERS CINCINNATI ARCHITECTS CHICAGO

PIERS 1 & 2

BRIDGE NO. HAM-25-0261
RAMP "D" OVER
NORTHBOUND MILL CREEK EXPRESSWAY
HAMILTON COUNTY STA. 9+05.10 to STA. 11+09.03

DESIGNED	DRAWN	TRACED	CHECKED	REVIEWED	DATE	REVISED
G.J.C.	D.Y.E		R.L.S.	J.A.D.	2-7-61	

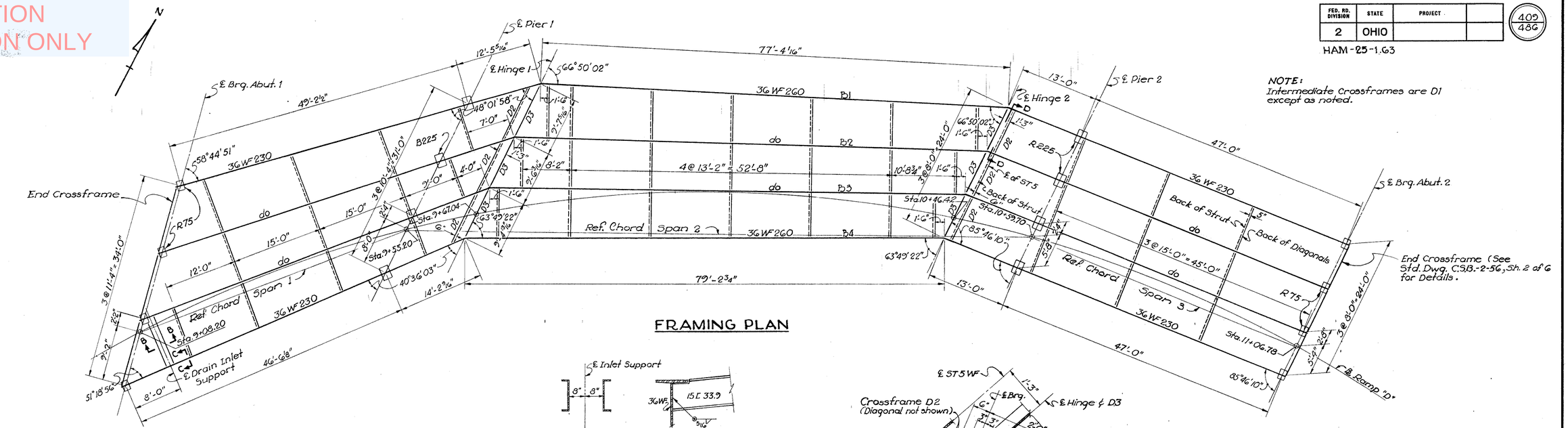
NOT FOR CONSTRUCTION INFORMATION ONLY

FED. RD. DIVISION	STATE	PROJECT	
2	OHIO		

HAM-25-1.63

409 / 466

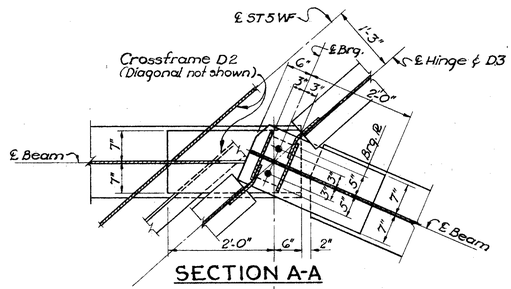
NOTE: Intermediate Crossframes are D1 except as noted.



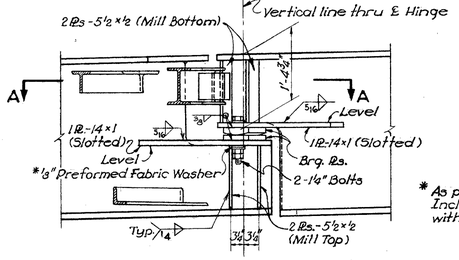
FRAMING PLAN

SECTION B-B SECTION C-C

INLET SUPPORT DETAILS

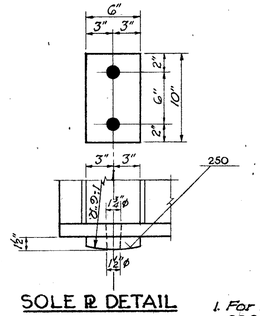


SECTION A-A

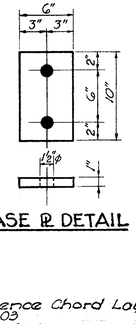


DETAIL A

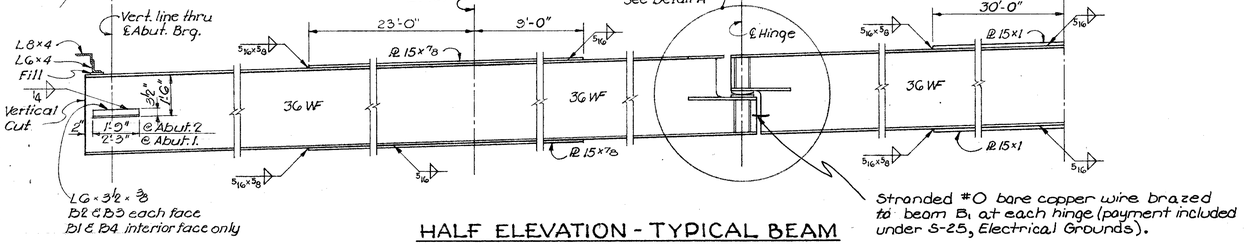
* As per Section M10.11 Included for payment with Item S-7 Struct. Steel.



BASE ℙ DETAIL

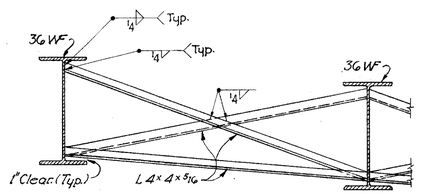


SOLE ℙ DETAIL

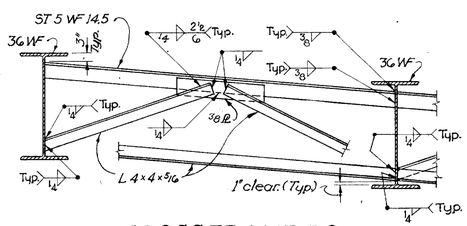


HALF ELEVATION - TYPICAL BEAM

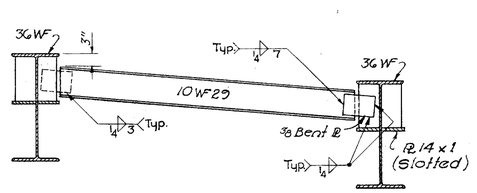
Stranded #0 bare copper wire brazed to beam B1 at each hinge (payment included under S-25, Electrical Grounds).



CROSSFRAME D1



CROSSFRAME D2
VIEW D-D



DIAPHRAGM D3

DEFLECTION AND CAMBER			
	END SPAN	CENTER SPAN	
		HINGE	@ SUSP. SPAN
Deflection due to weight of steel	0	1/16"	7/16"
Deflection due to remaining dead load	-1/16"	5/16"	1 9/16"
Total Deflection	-1/16"	3/8"	2"
Required shop Camber	0	0	2"

1. For Reference Chord Layout Diagram, see Sh. 403
2. Centerline of Piers and Hinges are parallel to each other and to centerline Brg. Abutment 2, but not to centerline Brg. Abutment 1.
3. For Details of Rockers and Bolsters, see Std. Dwg. RB-1-55
4. For Details of End Dams & Drain Inlets, see Misc. Structural Details, Sh. 412
5. The welding of Structural Steel shall be Class "A" unless otherwise noted. Welds shown as field welds may be made in the shop.

VOGT, IVERS, SEAMAN & ASSOCIATES
ENGINEERS CINCINNATI — ARCHITECTS CHICAGO

FRAMING PLAN & DETAILS

BRIDGE NO. HAM-25-0261
RAMP "D" OVER
NORTH BOUND MILL CREEK EXPRESSWAY
HAMILTON COUNTY STA. 9+05.10
STA. 11+09.03

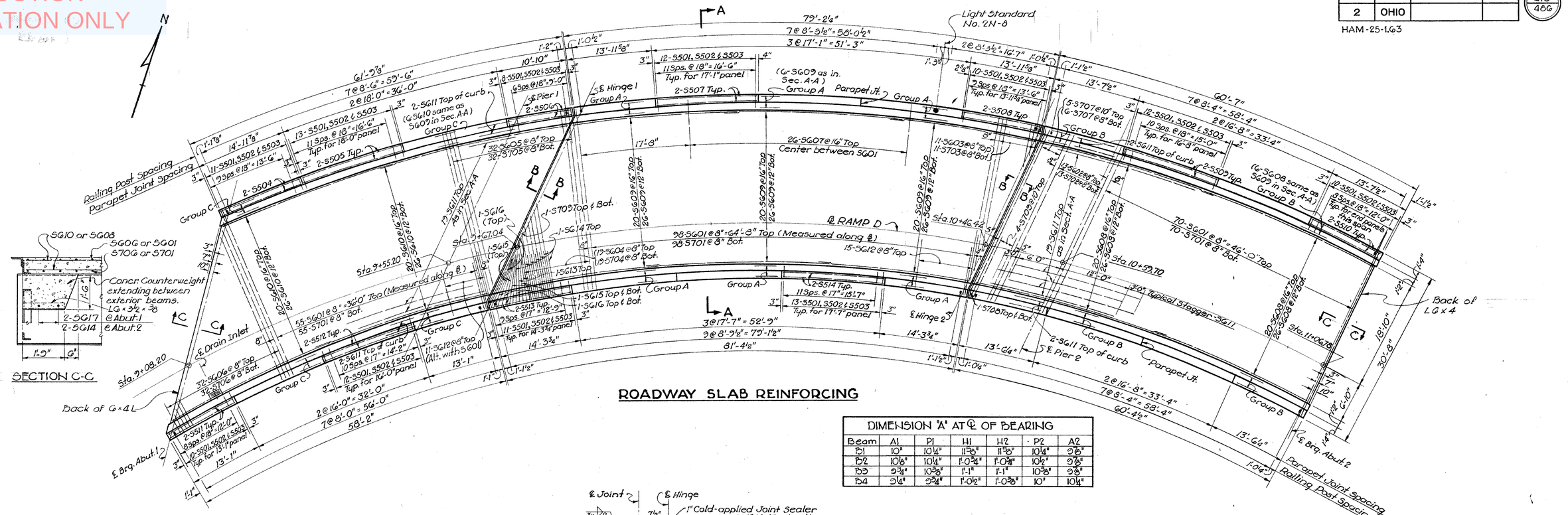
DESIGNED	DRAWN	TRACED	CHECKED	REVIEWED	DATE	REVISED
G.J.C.	J.C.H.	J.C.H.	R.L.S.	J.A.D.	2-7-61	

NOT FOR CONSTRUCTION INFORMATION ONLY

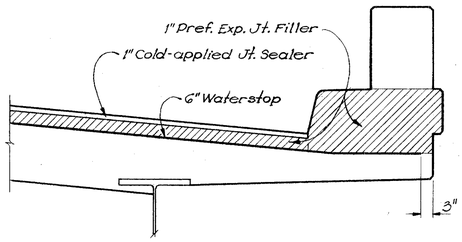
FED. RD. DIVISION	STATE	PROJECT	
2	OHIO		

HAM-25-1.63

410
466

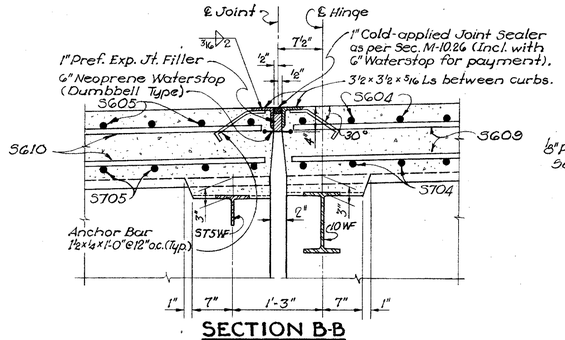


DIMENSION "A" AT ℄ OF BEARING						
Beam	A1	P1	L1	L2	P2	A2
B1	10"	10¼"	11⅝"	11⅝"	10¼"	9⅝"
B2	10⅛"	10¼"	1'-0¾"	1'-0¾"	10½"	9⅝"
B3	9¾"	10⅜"	1'-1"	1'-1"	10⅜"	9⅝"
B4	9¼"	9¾"	1'-0½"	1'-0⅜"	10"	10¼"

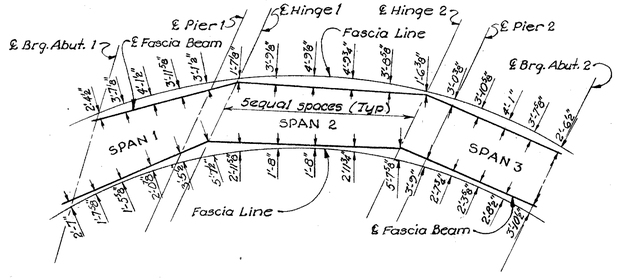


SECTION NEAR HINGE

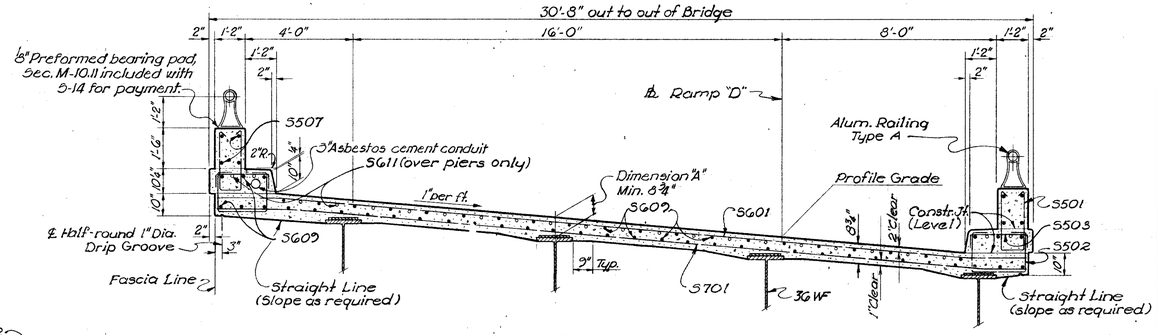
Showing limits of waterstop and joint filler



SECTION B-B



FASCIA OFFSETS



SECTION A-A

PAVEMENT ELEVATIONS			
STATION	PROFILE GRADE	NORTH CURB	SOUTH CURB
9 + 00	529.41	530.98	528.84
+ 25	530.17	531.74	529.60
+ 50	530.93	532.50	530.36
+ 75	531.69	533.26	531.12
10 + 00	532.45	534.02	531.88
+ 25	533.22	534.79	532.65
+ 50	533.98	535.55	533.41
+ 75	534.74	536.31	534.17
11 + 00	535.50	537.07	534.93

NOTES

1. Slab thickness includes 1" for monolithic wearing surface.
2. For Drain Inlet Details, see Misc. Structural Details, Sh. 4/2
3. For Railing & Parapet Joint Details, see Std. Dwg. AR-1-57.
4. Curb & parapet lines are parallel to Baseline
5. Spread reinforcing steel to clear drain inlet.
6. Railing Post and Parapet Joint spacing are measured along ℄ Parapet
7. Deck slab concrete is to be poured in the following sequence: Span 1 from end dam Abut. 1 to hinge 1; Span 3 from hinge 2 to end dam Abut. 2; Span 2 from hinge 1 to hinge 2
8. For lighting details see Sheet 259.

VOGT, IVERS, SEAMAN & ASSOCIATES
ENGINEERS — CINCINNATI
ARCHITECTS — CHICAGO

SUPERSTRUCTURE ROADWAY SLAB

BRIDGE NO. HAM-25-0261
RAMP "D" OVER
NORTH BOUND MILL CREEK EXPRESSWAY
HAMILTON COUNTY STA. 9 + 05.10
STA. 11 + 09.03

DESIGNED	DRAWN	TRACED	CHECKED	REVIEWED	DATE	REVISED
G.J.C.	G.J.C.	J.C.H.	R.L.S.	J.A.D.	2-7-61	

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FED. RD. DIVISION	STATE	PROJECT	
2	OHIO		

411
486

HAM - 25 - 1.63

REINFORCING STEEL LIST

SUPERSTRUCTURE

MARK	LENGTH	SHAPE	NO.	WEIGHT
S501	5'-9"	Bt.	294	1763
S502	5'-0"	Bt.	294	1533
S503	2'-11"	Bt.	294	884
*S504	14'-7"	Str.	4	—
*S505	17'-7"	↑	8	—
*S506	10'-5"		4	—
*S507	16'-8"		12	—
*S508	13'-7"		8	—
*S509	16'-3"		16	—
*S510	13'-4"		16	—
*S511	12'-8"		8	—
*S512	15'-7"		8	—
*S513	13'-11"	↓	8	—
*S514	17'-2"	Str.	12	—
SG01	30'-0"	Str.	223	10,048
SG02	30'-4"	↑	13	592
SG03	Varies, 1ea., 2'-0" to 27'-0", Incr. 2'-6"		11	240
SG04	Varies, 1ea. 0'-9" to 27'-9", Incr. 1'-0"		19	535
SG05	Varies, 1ea. 2'-1" to 27'-11", Incr. 10"		32	721
SG06	Varies, 1ea. 2'-10" to 27'-4½", Incr. 9½"		32	726
SG07	10'-0"		26	391
SG08	31'-1"		116	5416
SG09	28'-4"		174	7405
SG10	31'-8"		116	5517
SG11	21'-0"		46	1451
SG12	8'-0"		26	312
SG13	7'-0"		2	210
SG14	7'-6"		14	158
SG15	8'-0"	↓	6	72
SG16	9'-0"	Str.	7	95
SG17	11'-0"	Str.	6	99
S701	30'-0"	Str.	223	13674
S702	30'-4"	↑	13	806
S703	Varies, 1ea., 2'-0" to 27'-0", Incr. 2'-6"		11	326
S704	Varies, 1ea., 9'-9" to 27'-9", Incr. 1'-0"		13	728
S705	Varies, 1ea., 2'-1" to 27'-11", Incr. 10"		32	981
S706	Varies, 1ea., 2'-10" to 27'-4½", Incr. 9½"	↓	32	988
S707	30'-8"	Str.	11	689
S708	30'-8"	Bt.	2	125
S709	12'-0"	Str.	6	147

ABUTMENTS

MARK	LENGTH	SHAPE	NO.	WEIGHT
A501	9'-2"	Str.	16	153
A502	11'-7"	Str.	15	181
A503	6'-2"	Bt.	46	305
A504	9'-0"	Bt.	3	28
A505	8'-4"	Bt.	6	52
A506	7'-8"	Bt.	12	97
A507	7'-0"	Bt.	17	124
A508	28'-6"	Str.	15	462
A509	4'-7"	Str.	9	43
A510	5'-7"	Str.	56	326
A512	8'-9"	Bt.	8	73
A513	9'-8"	Bt.	3	30
A514	9'-0"	Str.	2	19
A515	38'-6"	Str.	15	602
A516	13'-11"	Str.	21	305
*A517	13'-8"	Str.	12	
A518	7'-2"	Bt.	42	314
A519	4'-3"	Str.	8	36
A520	8'-8"	Str.	35	316
A521	20'-10"	Str.	3	65
A522	18'-10"	Str.	5	98
A523	3'-6"	Str.	18	66
A524	5'-2"	Bt.	55	296
A525	3'-5"	Str.	42	150
*A526	18'-8"	Str.	4	—
A527	19'-8"	Str.	2	41
A528	7'-1"	Bt.	65	480
A529	Varies 4ea. 3'-2" to 4'-0" Incr. 1"	Bt.	44	164
A530	4'-1"	Bt.	21	89
A531	13'-0"	Str.	15	203
A532	6'-8"	Str.	16	111
A533	10'-6"	Str.	3	33
A534	5'-0"	Str.	62	323
A535	5'-5"	Bt.	73	412
A536	18'-11"	Str	9	149
AG01	10'-1"	Bt.	64	969
AG02	9'-7"	Bt.	26	374
AG03	3'-8"	Str.	38	185
AG04	16'-1"	Bt.	3	72
AG05	15'-5"	Bt.	6	199
AG06	14'-10"	Bt.	12	267
AG07	14'-1"	Bt.	17	360
AG08	7'-5"	Bt.	38	423
AG09	15'-10"	Bt.	8	190
AG10	16'-9"	Bt.	1	25
A801	31'-6"	Str.	7	589
A802	22'-0"	Str.	14	822
A803	16'-3"	Str.	6	260
A804	12'-3"	Str.	18	589

PIERS

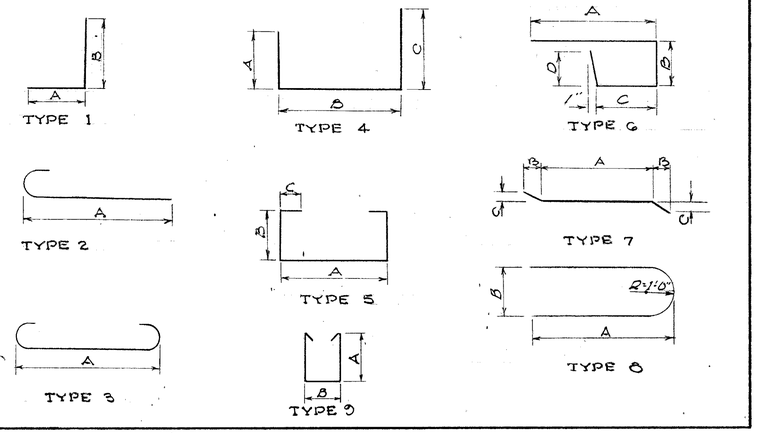
MARK	LENGTH	SHAPE	NO.	WEIGHT
P501	5'-5"	Bt.	48	272
P502	31'-2"	Str.	4	130
P503	24'-2"	Str.	4	101
P504	8'-1"	Bt.	64	540
P701	10'-3"	Bt.	80	1676
P801	10'-9"	Bt.	48	1378
P901	20'-8"	Str.	12	843
P902	18'-8"	Str.	12	762
P903	6'-1"	Bt.	24	496
P1001	19'-11"	Str.	8	686
P1002	6'-7"	Bt.	8	227
P1101	32'-4"	Str.	6	1031
P1102	37'-4"	Bt.	2	397
P1103	39'-0"	Bt.	4	829
P1104	7'-0"	Bt.	44	1636
P1105	25'-4"	Str.	6	808
P1106	30'-4"	Bt.	2	322
P1107	32'-0"	Bt.	4	680
P1108	11'-0"	Bt.	8	468
P1109	18'-1"	Str.	16	1587
P1110	16'-8"	Str.	12	1068
P1111	15'-6"	Str.	16	1318

SPIRALS

MARK	LENGTH	SHAPE	NO.	WEIGHT	CORE DIA.	PITCH	NO. TURNS
SP401	14'-6"	Bt.	1	273	32"	4½"	42
SP402	13'-2"	Bt.	1	249	32"	4½"	38
SP403	11'-11"	Bt.	1	227	32"	4½"	35
SP404	17'-7"	Bt.	1	328	32"	4½"	50
SP405	16'-7"	Bt.	1	310	32"	4½"	47
SP406	15'-7"	Bt.	1	292	32"	4½"	45

BENT BARS

MARK	TYPE	A	B	C	D
S501	3	2'-2"	10"		
S502	3	1'-10"	1'-4"	6"	
S503	4	7"	2'-0"	7"	
S708	7	28'-10"	10"	4"	
A503	4	5'-3"	7"	7"	
A504	1	8'-7"	7"		
A505	1	7'-11"	7"		
A506	1	7'-4"	7"		
A507	1	6'-7"	7"		
A511	4	1'-5"	2'-8"	2'-8"	
A512	1	8'-4"	7"		
A513	1	9'-3"	7"		
A518	4	2'-7"	2'-5"	2'-5"	
A524	4	3'-5"	1'-0"	1'-0"	
A528	3	2'-10"	10"		
A529	4	1'-4"	1'-0"	Varies 1'-1" to 1'-11" Incr. 1"	
A530	4	1'-4"	1'-0"	2'-0"	
A535	1	4'-7"	1'-0"		
AG01	4	1'-5"	4'-6"	4'-6"	
AG02	4	1'-5"	4'-3"	4'-3"	
AG04	4	5'-3"	8'-5"	2'-9"	
AG05	4	5'-3"	7'-9"	2'-9"	
AG06	4	5'-3"	7'-2"	2'-9"	
AG07	4	5'-3"	6'-5"	2'-9"	
AG08	4	11"	4'-4"	2'-6"	
AG09	4	5'-3"	8'-2"	2'-9"	
AG10	4	5'-3"	8'-1"	2'-9"	
P501	4	2'-8"	1'-6"	1'-6"	
P504	4	2'-8"	2'-10"	2'-10"	
P701	3	8'-7"			
P801	3	8'-7"			
P903	1	5'-1"			
P1002	1	5'-6"			
P1102	4	31'-0"	3'-6"	3'-6"	
P1103	4	32'-8"	3'-6"	3'-6"	
P1104	1	5'-10"			
P1106	4	24'-6"	3'-6"	8'-6"	
P1107	4	25'-8"	3'-6"	3'-6"	
P1108	8	6'-0"	2'-0"		



SPIRAL REINFORCING BARS

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. Turns" shown 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 8-4. 1½ closed coils shall be provided at the ends of each spiral unit.

Four steel channel, tee or angle spacers, weighing approximately 0.681b. 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 0.681b per lin. ft will be paid for as reinforcing steel and is included in the tabulated quantity of spiral bars

1. 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.
2. Bars marked with single asterisks to be included for payment under Item 5-14, Railing.
3. Bar dimensions are out to out

REPLACEMENT BARS

MARK	LENGTH	SHAPE	NO.
RE4	5'-3"	Bent	1
RE5	5'-7"	Str.	1
RE6	5'-11"	Str.	2
RE7	6'-3"	Str.	2
RE8	6'-6"	Str.	1
RE9	6'-10"	Str.	1
RE10	7'-3"	Str.	1
RE11	7'-7"	Str.	1

If reinforcing bars are fabricated from stock which has been previously 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.

VOGT, IVERS, SEAMAN & ASSOCIATES
ENGINEERS CINCINNATI — ARCHITECTS CHICAGO

REINFORCING STEEL LIST
BRIDGE NO. HAM-25-02.61
RAMP "D" OVER
NORTHBOUND MILL CREEK EXPRESSWAY
HAMILTON COUNTY STA. 9+05.05 to STA. 11+06.50

DESIGNED	DRAWN	TRACED	CHECKED	REVIEWED	DATE	REVISED
G.J.C.	D.Y.F	—	R.L.S	J.A.D.	2-7-61	

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2	OHIO		

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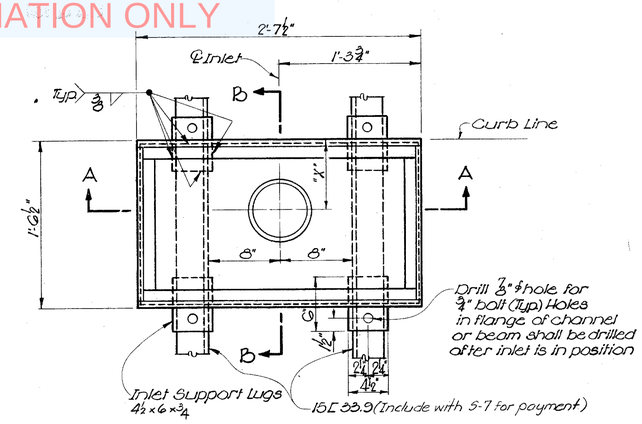
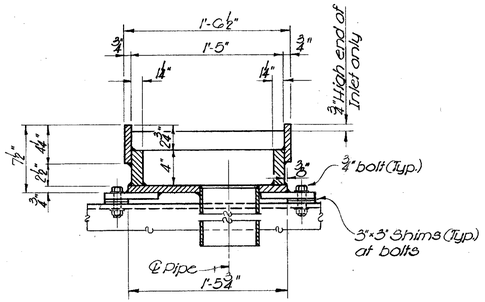
HAM-25-1.63

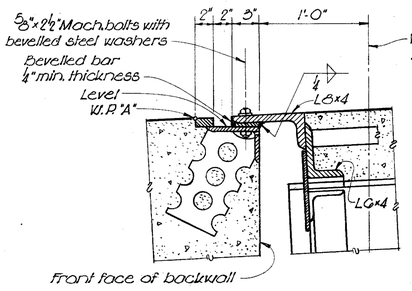


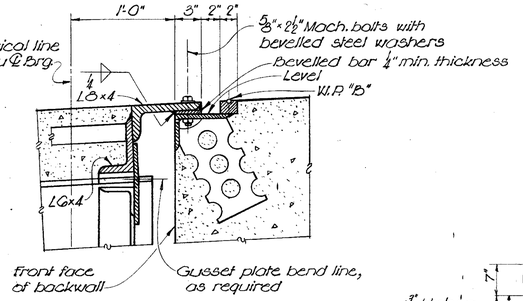
PLAN

BRIDGE	DIM. "X"
HAM-25-0173	7
HAM-25-0191	7
HAM-25-0219	12
HAM-25-0240	7
RAMP 'E'	7
HAM-25-0261	7
HAM-25-0292	7
RAMP 'F'	10



SECTION B-B





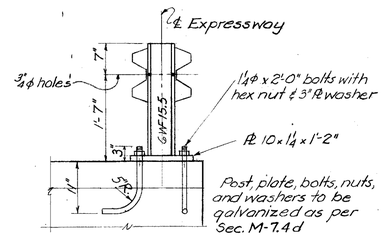
NOTE: For details and notes not shown, see Section C-C, Std. Dwg. CSB-2-56, Sh. 2, Revised 2-2-59

SECTION C-C
(Std. Dwg. CSB-2-56, Sh. 2)

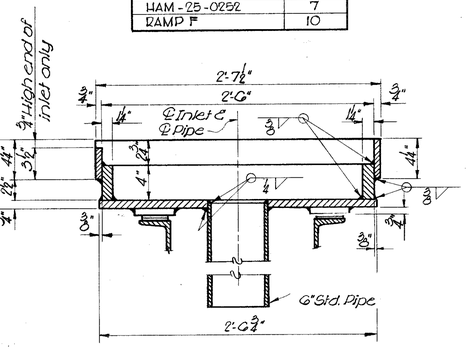
SECTION C-C
(OPP. HAND)
(Std. Dwg. CSB-2-56, Sh. 2)

ROADWAY END DAM DATA				
MEMBER	Thickness or spacing of member for load frequency of:			
	CF=50	CF=130	CF=400	CF=1000
Main angle 8×4	5/8"	3/4"	7/8"	1"
2" Edge bar	Determine from Working Points "A" or "B"			
2"×½"×1'-6" anchor bars - Spacing	18"	18"	15"	12"
Supporting angle G4	3/8"	½"	5/8"	¾"

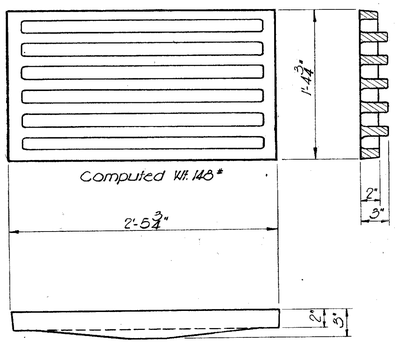
SPECIAL END DAM DETAILS



GUARDRAIL POST

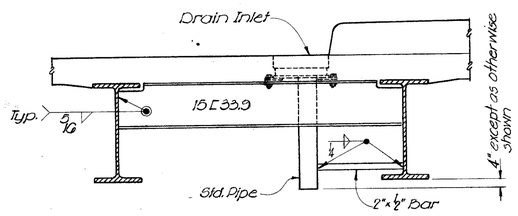


SECTION A-A



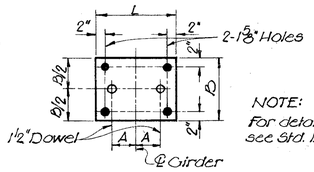
INLET GRATING
Neenah Fdy #R-3289-A or approved equal

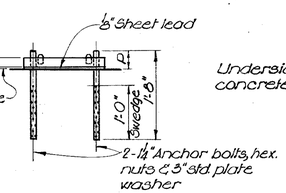
INLET FRAME AND GRATING DETAILS



INLET SUPPORT

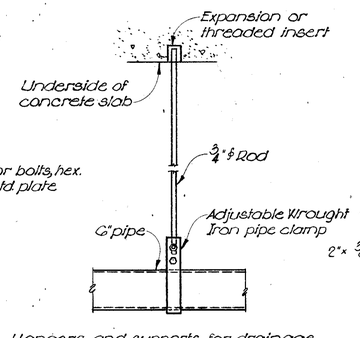
NOTES:
1. Inlet grating castings shall meet the requirements of Sec. M-7.8 of the Material Specifications of the State of Ohio.
2. Gratings and inlets shall be fitted to each other to prevent rattling by grinding grating casting as necessary.
3. Inlet to be welded structural steel plates and standard steel pipe, galvanized after fabrication.
4. For location of inlets, see Framing Plan.
5. Cope channels so top is flush with top of beams.
6. Weld channels to beams with ⅜" continuous fillet weld. Weld to beam webs only.
7. Space lugs on inlets to permit bolting to supporting channels and beams.





DIMENSION	ROCKER NO.									
	R-75	R-100	R-125	R-150	R-175	R-200	R-225	R-250	R-275	R-300
T	1¾"	2"	2"	2¼"	2½"	2½"	2½"	2¾"	3"	3"
D	14"	15"	16"	16"	17"	17"	17"	18"	20"	20"
L	18"	19"	20"	22"	23"	24"	25"	26"	27"	28"
A	5½"	6"	6½"	7"	7½"	8"	8½"	9"	9½"	10"
P	3½"	3¾"	3¾"	4"	4¼"	4¼"	4¼"	4½"	4¾"	4¾"

ROCKER BASE PLATE



Hangers and supports for drainage pipe to be included with Item 6-29.

PIPE HANGER

PIPE SUPPORT
(four per downspout)

NOTE: Pipe supports, along with fittings and clamps, if any; shall be included for payment with Item 6-29,

NOTE:
Only those details on this sheet are applicable which are referred to specifically on other sheets of the plans.

VOGT, IVERS, SEAMAN & ASSOCIATES
ENGINEERS — CINCINNATI
ARCHITECTS — CHICAGO

MISCELLANEOUS STRUCTURAL DETAILS
MILL CREEK EXPRESSWAY

HAMILTON COUNTY

DESIGNED	DRAWN	TRACED	CHECKED	REVIEWED	DATE	REVISED
~	S.T.	S.T.	R.E.P.			

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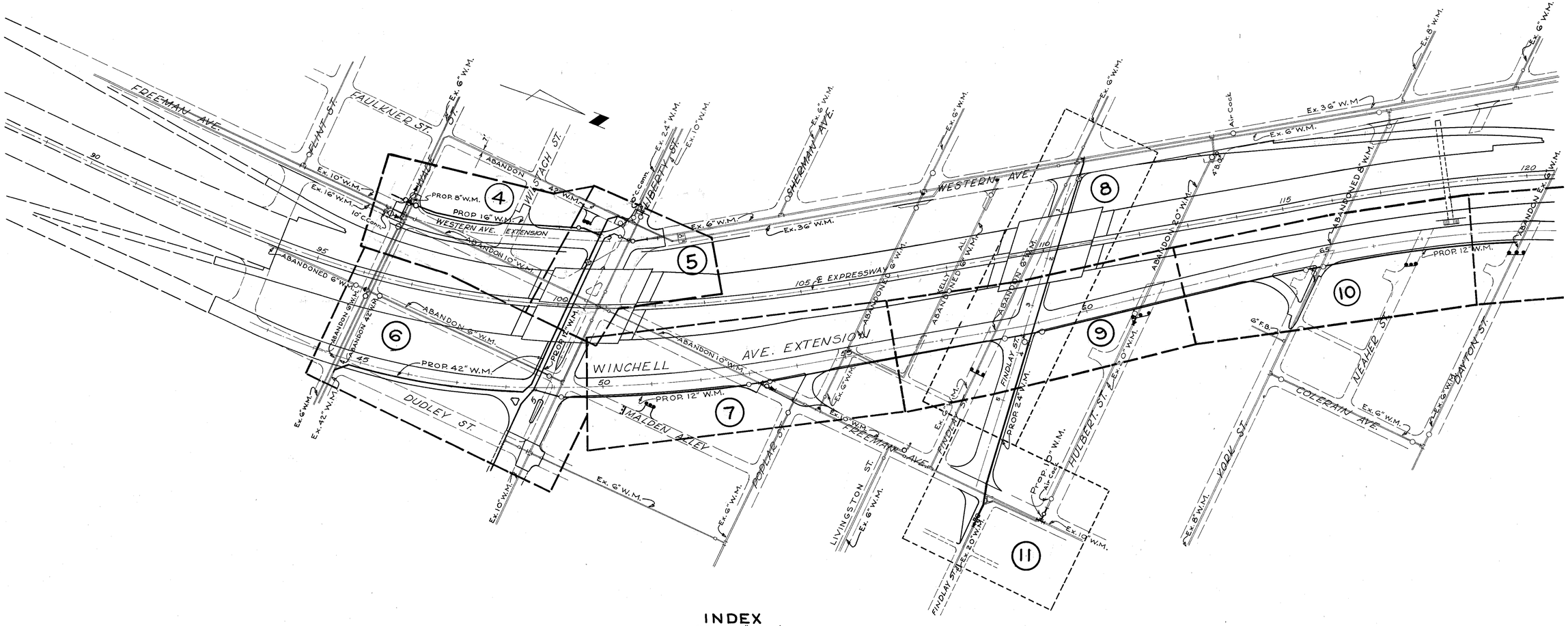

INDEX
SCALE: 1" = 100'

WATER WORKS SHEETS

STATE SHEET NO.	SHEET NO.	
413, 414, 415	1, 2, & 3	INDEX
416 THRU 433	4 THRU 21	PLAN & PROFILE
434 THRU 439	22 THRU 27	PLUGGING EX. W.M.
440 THRU 445	28 THRU 33	STANDARDS & DETAILS
446	34	STANDARDS & NOTES & DETAILS
447	35	TYPICAL SECTIONS
448	36	CONCRETE PIPE MATERIAL
449	37	CAST IRON & BRANCH MATERIAL
21	38	LABOR SUMMARY

MILLCREEK EXPRESSWAY

FROM FLINT ST. TO MARSHALL AVE.

CINCINNATI WATERWORKS

DISTRIBUTION DIVISION

APP'D BY C.F.D.	Walter R. Moeller	
DRAWING BY L.B.	5-2-61	SCALE: As Shown
CHECKED BY DM	5-2-61	C-526 SHEET 1 OF 38
APP'D BY J.H.R.	5-2-61	DRAWING NUMBER S-529

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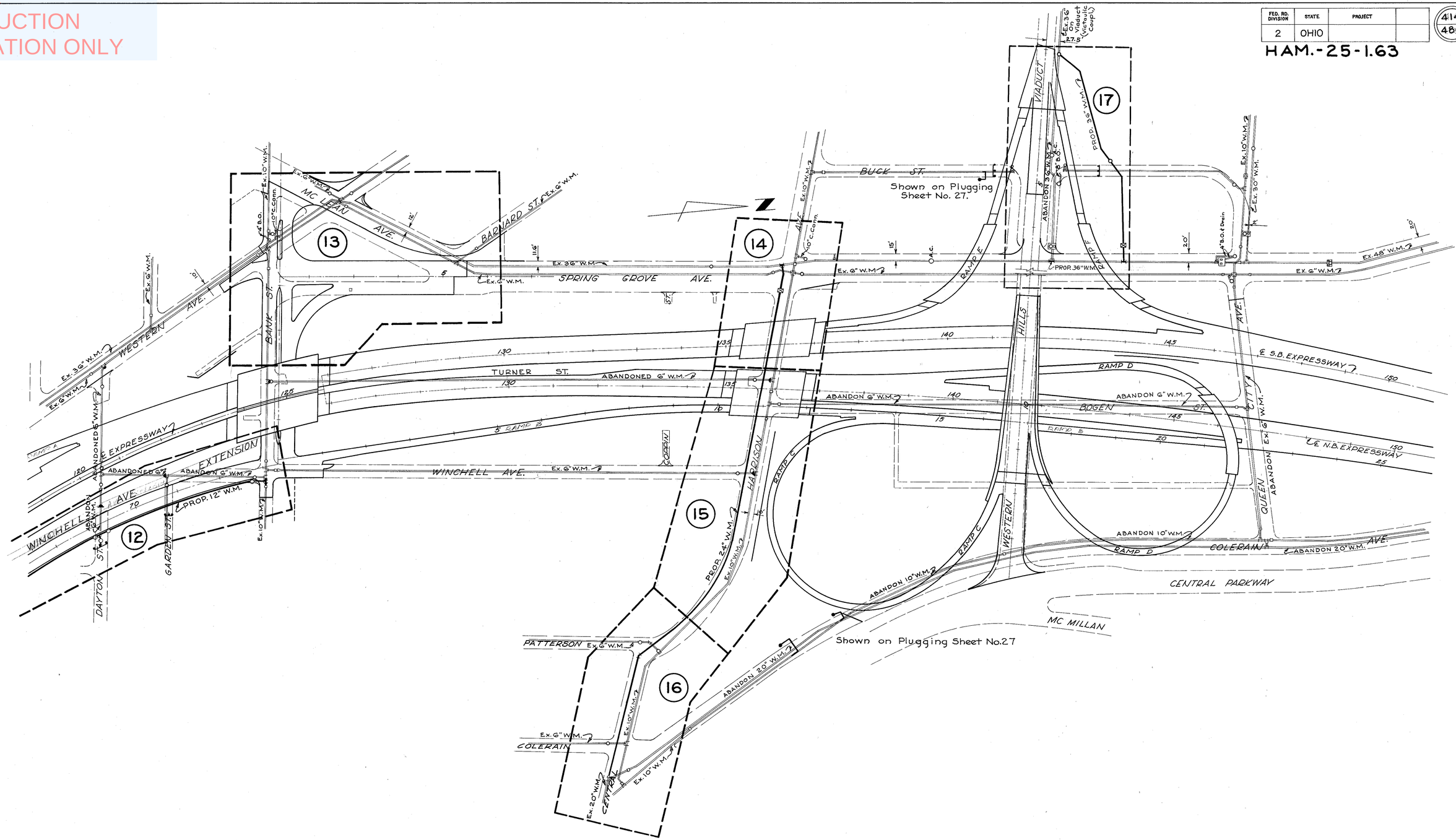

CINCINNATI WATER WORKS

C-526
Drawing No. S-525
Scale: 1" = 100'
Sheet No. 2 of 38

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FED. RD. DIVISION	STATE	PROJECT	
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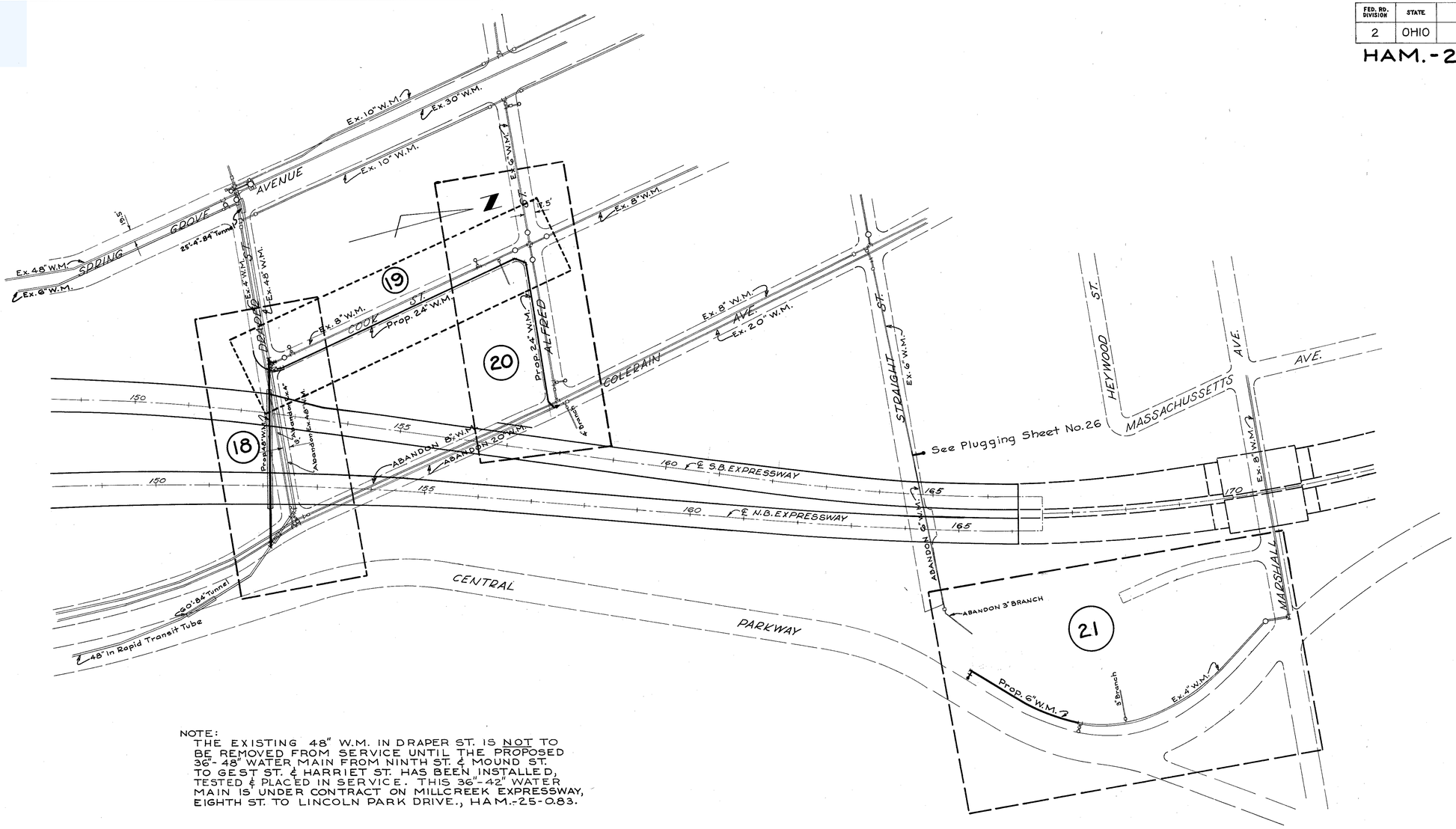

NOTE:
THE EXISTING 48" W.M. IN DRAPER ST. IS NOT TO BE REMOVED FROM SERVICE UNTIL THE PROPOSED 36"- 48" WATER MAIN FROM NINTH ST. & MOUND ST. TO GEST ST. & HARRIET ST. HAS BEEN INSTALLED, TESTED & PLACED IN SERVICE. THIS 36"-42" WATER MAIN IS UNDER CONTRACT ON MILLCREEK EXPRESSWAY, EIGHTH ST. TO LINCOLN PARK DRIVE., HAM.-25-0.83.

NOTE:
The existing 36" W.M. in Spring Grove Ave. & Western Ave. from Liberty St. to Queen City Ave. is not be removed from service at the same time as the 48" W.M. in Draper St.

CINCINNATI WATER WORKS

C-526
Drawing No. S-525
Scale: 1"= 100'
Sheet No. 3 of 38

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FED. RD. DIVISION	STATE	PROJECT	
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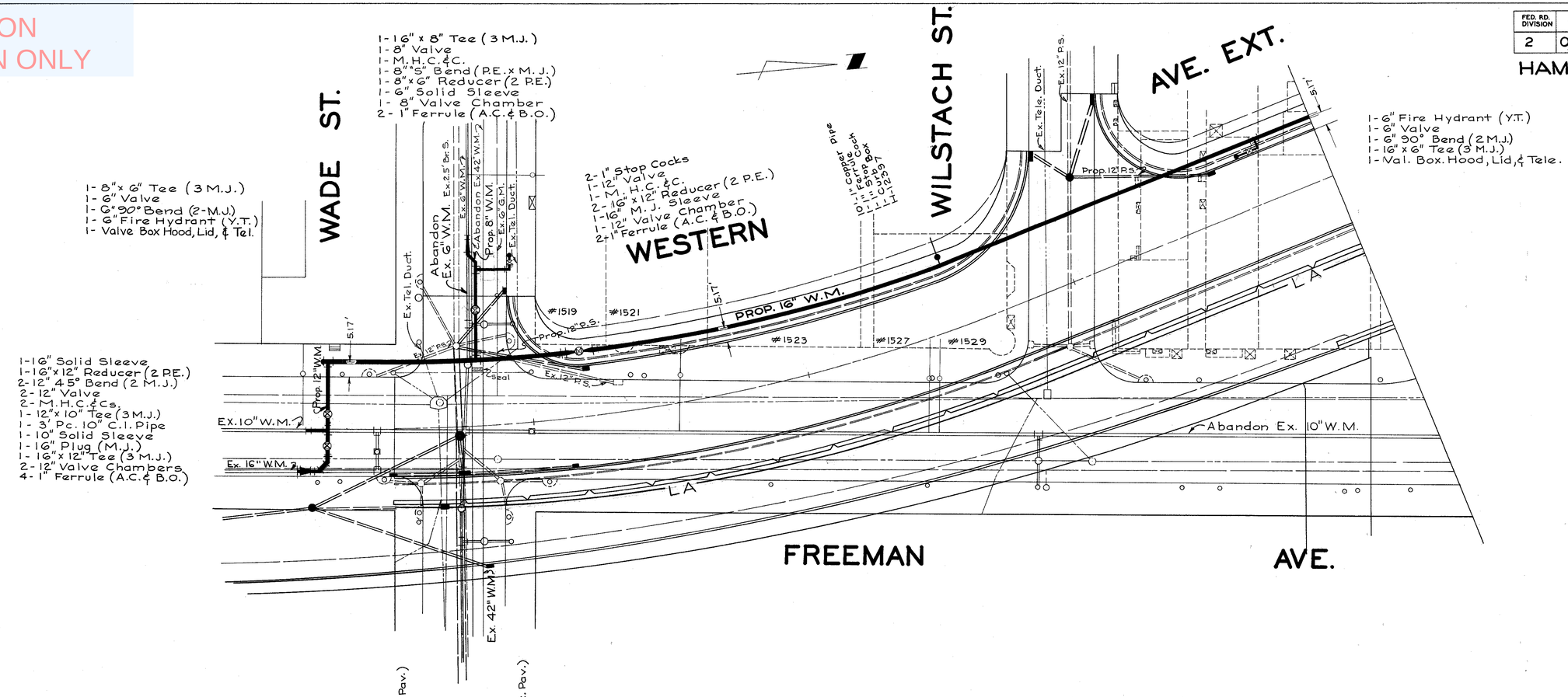

C-526
Drawing No. S-529
Scale: 1" = 20' Hor. - 5' Vert.
Sheet No. 4 of 38

CINCINNATI WATER WORKS

WESTERN AVE. EXT. & WADE ST.

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FED. RD. DIVISION	STATE	PROJECT	
2	OHIO		

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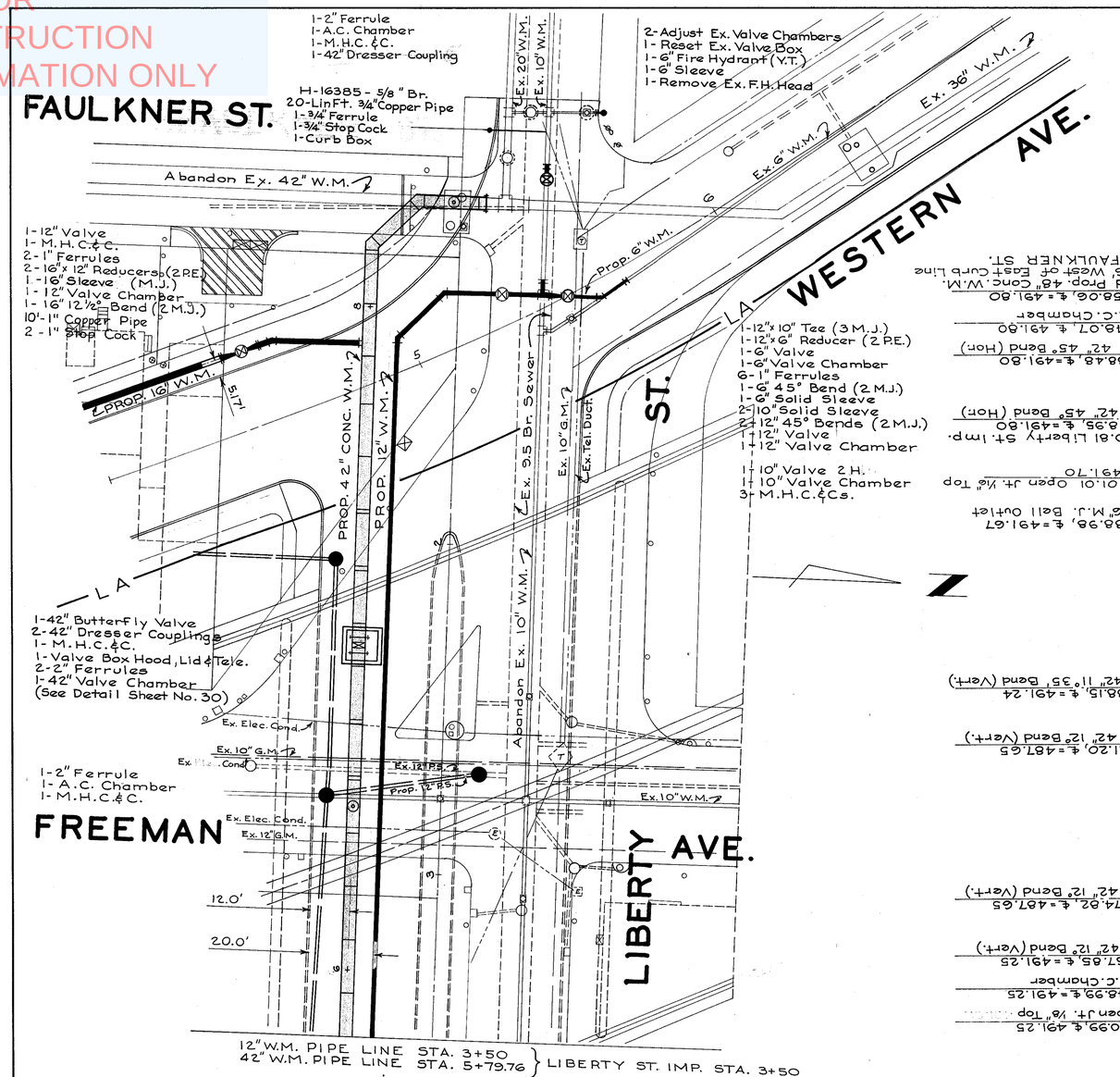

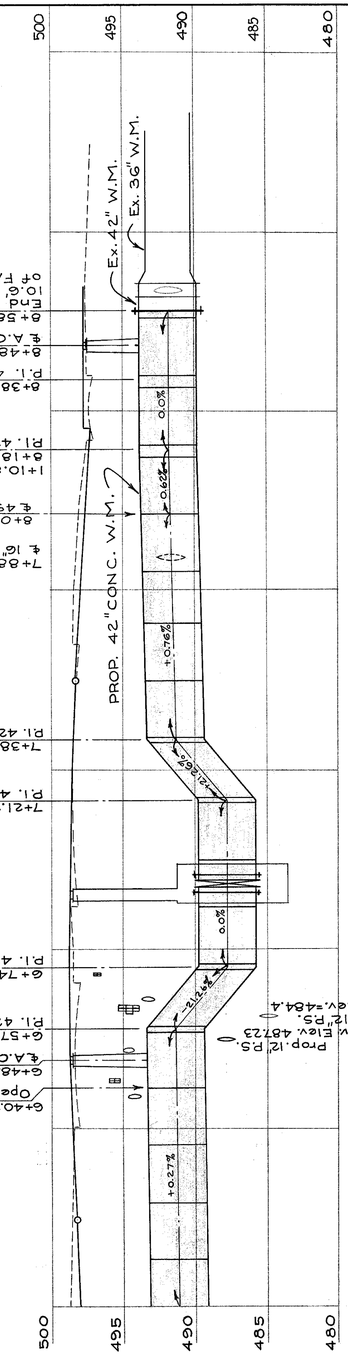

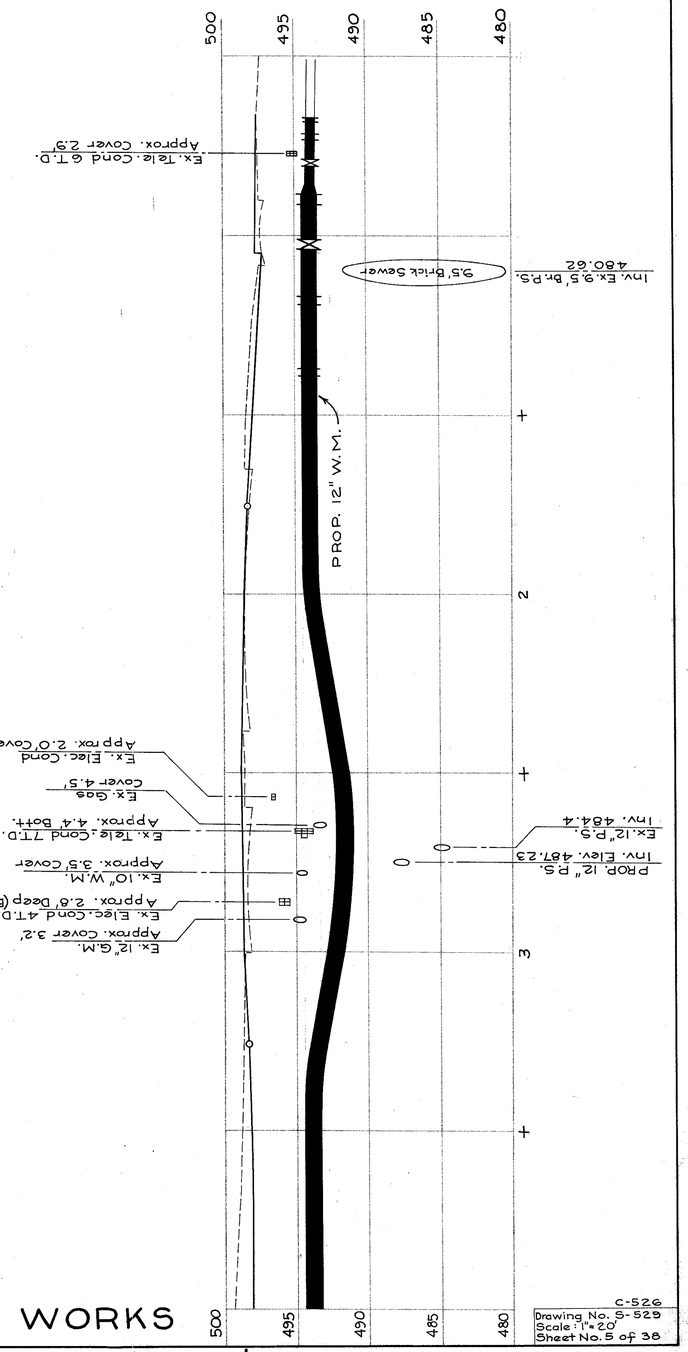

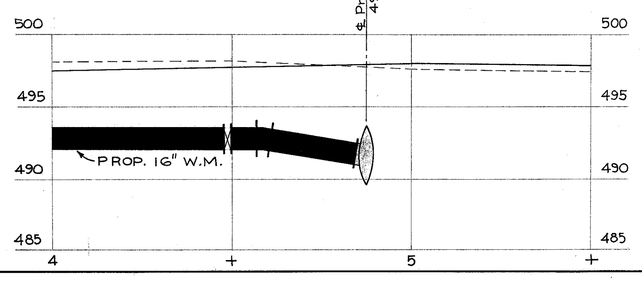

CINCINNATI WATER WORKS

C-526
Drawing No. S-529
Scale 1" = 20'
Sheet No. 5 of 38

LIBERTY ST. ℄ WESTERN AVE. EXT.

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FED. RD. DIVISION	STATE	PROJECT	
2	OHIO		

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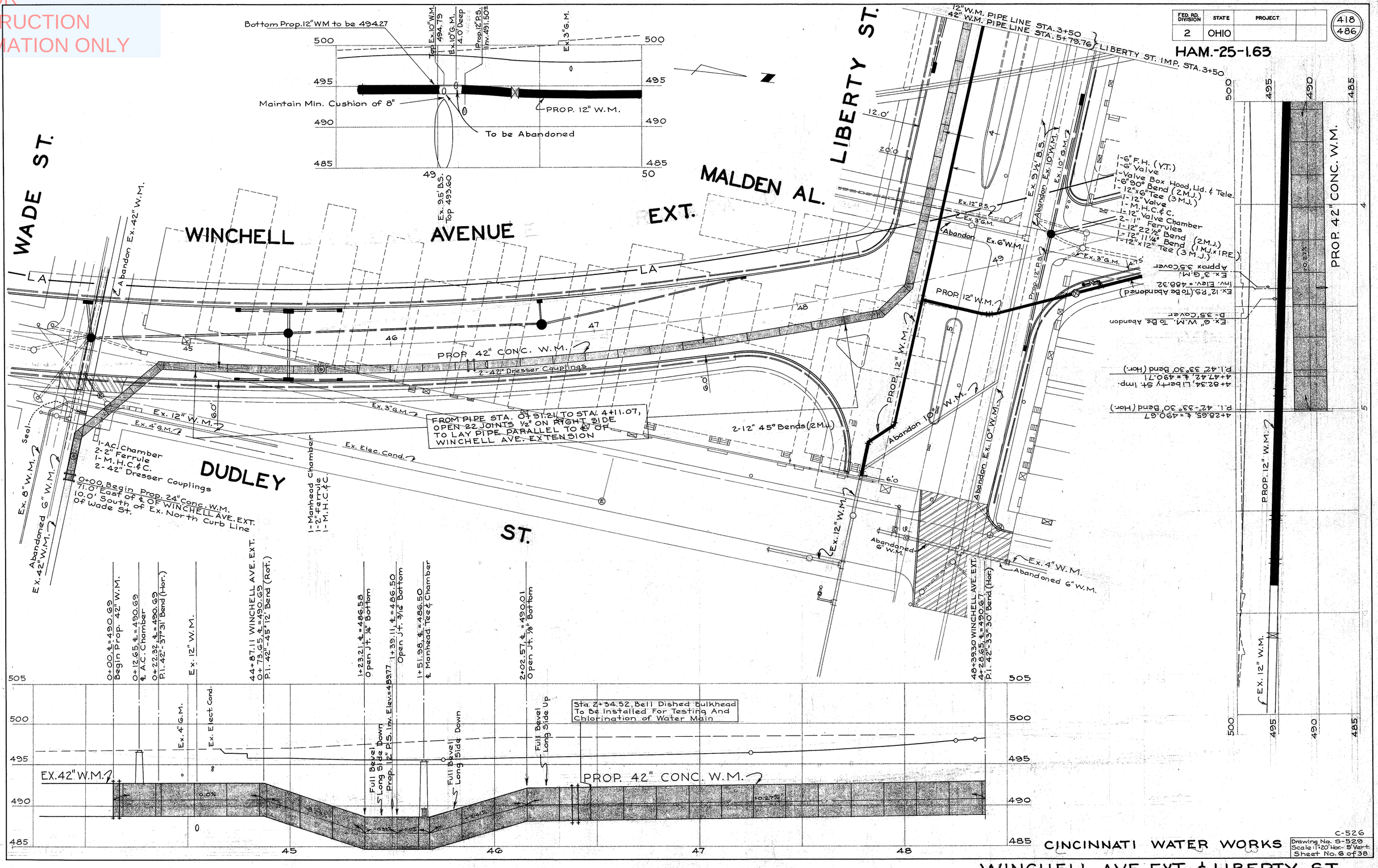

C-526
Drawing No. S-5529
Scale: 1"=20' Hor. 5' Vert.
Sheet No. 6 of 38

CINCINNATI WATER WORKS

WINCHELL AVE. EXT. & LIBERTY ST.

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HAM.-25-1.63

KENT ALLEY

EXT.

3-12" Valves
3-12" Valve Chambers
3-M.H.C.&C.s.
6-1" Ferrules (A.C.& B.O.)
1-12"x12" Tee (3 M.J.)
1-12" 45° Bend (2 M.J.)
1-12" 11¼° Bend (M.J.x P.E.)
1-10" Solid Sleeve
1-12"x10" Reducer (2 P.E.)

FREEMAN AVENUE

WINCHELL

MALDEN ALLEY

POPLAR ST

AVE.

Abandon

Ex. 10" W.M.

Ex. Elec. Cond.

Ex. B.G.M.

Ex. Tele. Duct

Ex. 12" G.M.

Ex. Elec. Cond.

L.A.

PROP. 12" W.M.

Prop. 12" P.S.

Ex. 8" P.S.

Ex. 15" P.S.

Ex. 3" G.M.

4.75'

#1618

#1620 #1622

#1624

#1626

#1628

#1630

#1632

#1634

#1701-1703

#1705

#1707

#1709

#1711

H-80136

H-12829

H-9527

H-12662

H-12605

H-21391

H-53698

H-9378

Renew Ex. ⅝" Br.
10'-1" Copper Pipe
1-1" Ferrule
1-1" Stop Cock
1-Curb Box
H-9527

1-12"x6" Tee (3 M.J.)
1-6" 90° Bend (2 M.J.)
1-6" Valve
1-Valve Box Hood, Lid & Tele.
1-6" Fire Hydrant (Y.T.)

2-Renew Ex. ⅝" Br.
40'-¾" Copper Pipe
2-¾" Ferrule
2-¾" Stop Cock
2-Curb Box

Renew Ex. ⅝" Br.
36'-¾" Copper Pipe
1-¾" Ferrule
1-¾" Stop Cock
1-Curb Box

10'-¾" Copper Pipe
1-¾" Ferrule
1-¾" Curb Box
H-17151

10'-1" Copper Pipe
1-1" Ferrule
1-1" Stop Cock
1-Curb Box
H-9568

10'-1" Copper Pipe
1-1" Ferrule
1-1" Stop Cock
1-Curb Box
H-9527

Ex. ⅝" Br.
74¾'
H-12605
83½'

Ex. 3" G.M.
4 T.D. Tele. Cond.

Ex. G" W.M. (To be Abandoned)

Ex. 12" P.S.
Inv. Elev.= 490.2±

Prop. 12" P.S.
Inv. Elev.= 498.0

Ex. G" W.M.

Ex. 12" P.S.
Inv. Elev.= 490.9

Ex. 15" P.S.
Inv. Elev.= 488.5±

Elec. Duct

Ex. 12" G.M.

Ex. 10" W.M.
To Be Abandoned
Prop. 12" P.S.
Inv. Elev.= 498.6

Maintain Min. Cushion of 12"

G.T.D. Tel. Cond.

Ex. 8" G.M. (To be Abandoned)

Elec. Duct

PROP. 12" W.M.

Maintain Min. Cushion of 12"

510
505
500
495
490

50 51 52 53 54 55

C-526

CINCINNATI WATER WORKS

Drawing No. S-529
Scale: 1"=20 Hor.- 5 Vert.
Sheet No. 7 of 38

WINCHELL AVE. EXT.- STA. 49+69 TO 56+00

NOT FOR CONSTRUCTION INFORMATION ONLY

FED. RD. DIVISION	STATE	PROJECT	
2	OHIO		

420/486

HAM.-25-1.63

PROPOSED FINDLAY EXT.

FINDLAY ST.

WESTERN AVE.

WINCHELL LA. AVE.

ST.

1-24" Valve 2H
1-24" Valve Chamber
1-M.H.C.&C.
2-2" Ferrules
2-24" Dresser Couplings
1-Valve Box Hood, Lid, & Tel.

1-12" Valve-H.&Flg.
1-12" Valve Chamber
1-M.H.C.&C.
1-1" Ferrule

2-6" Offset Bends (M.J.x P.E.)
2-6" Solid Sleeve
1-24" Dresser Coupling
2-36" Dresser Couplings
1-2" Ferrule

Ex. 18" P.S.
Ex. 6" W.M.
Ex. 10" G.M.
Ex. Tele. Ducts
Ex. 36" C.I.W.M. (Sealed)
See Note On Sheet No. 3
Ex. 12" P.S. (Sealed)
Ex. Elect. Cond.
Ex. Tel. (T.D.)
Ex. 6" P.S. (Abandoned)
0+03.71 AH
0+24.18 P.I.
Ex. 6" W.M.
Ex. 10" G.M.
Ex. 12" P.S.
Ex. Elect. Cond.
Ex. 4" G.M.
Ex. Elect. Cond.
Prop. 30" P.S.
Abandon Ex. 6" W.M.
Ex. 30" P.S.
Prop. 12" P.S.
Prop. 12" W.M.
PROP. 24" CONC. W.M.
Prop. 15" P.S.
Prop. 30" P.S.
Ex. 30" P.S.
Ex. 6" W.M.
Ex. 4" G.M.
R/W
See Sheet No. 23

0+00 ℄ Ex. 36" W.M. ℄ Elev. 488.46
0+24.18 P.I. Eq
0+03.71 AH
0+51.80 Open Jt. 3/16" Bottom ℄ Elev. 488.46
0+67.85 Open Jt. 7/16" Bottom ℄ Elev. 488.70
0+83.89 Open Jt. 7/16" Bottom ℄ Elev. 489.11
1+47.96 Open Jt. 3/16" Top ℄ Elev. 491.98
2+56.55 ℄ Elev. 491.95
3+36.41 ℄ Elev. 497.78
3+68.39 Open Jt. 7/16" Top ℄ Elev. 497.81
4+96.38 Open Jt. 3/8" Top ℄ Elev. 504.81
5+44.45 Open Jt. 1/4" Top ℄ Elev. 506.82
5+60.49 Open Jt. 5/16" Top ℄ Elev. 507.31

Sta. 0+08.15 Ball Dished Bulkhead Cap With Tied Clamped Type Joint to Be Installed for Testing & Chlorination of W.M.

Ex. 15" P.S. Inv. 481.17
Top Ex. 6" W.M. 489.75
Ex. 12" P.S. Abandoned 0+00
Ex. 12" P.S. To Be Abandoned
Inv. 485.6±
Ex. 12" P.S. To Be Abandoned
Inv. 486.1±
4" G.M. To Be Abandoned
I.T.D. Tel. Elec. Cond.
Prop. 12" P.S. Inv. 485.09
Vertical Half Bevel Long Side Top
Vertical Bevel Long Side Bottom
Vertical Bevel Long Side Top
Vertical Bevel Long Side Bottom
Maintain Min. Cushion of 12"
Maintain Min. Cushion of 12"
Inv. Prop. 30" P.S.
Prop. 15" P.S. Inv. 493.51
Prop. 12" W.M. Cover 3.0'

515 510 505 500 495 490 485

1 2 3 4 5

CINCINNATI WATER WORKS

C-526
Drawing No. S-522.9
Scale: 1"=20' Hor.- 5' Vert.
Sheet No. 8 of 38

FINDLAY ST. & WESTERN AVE.

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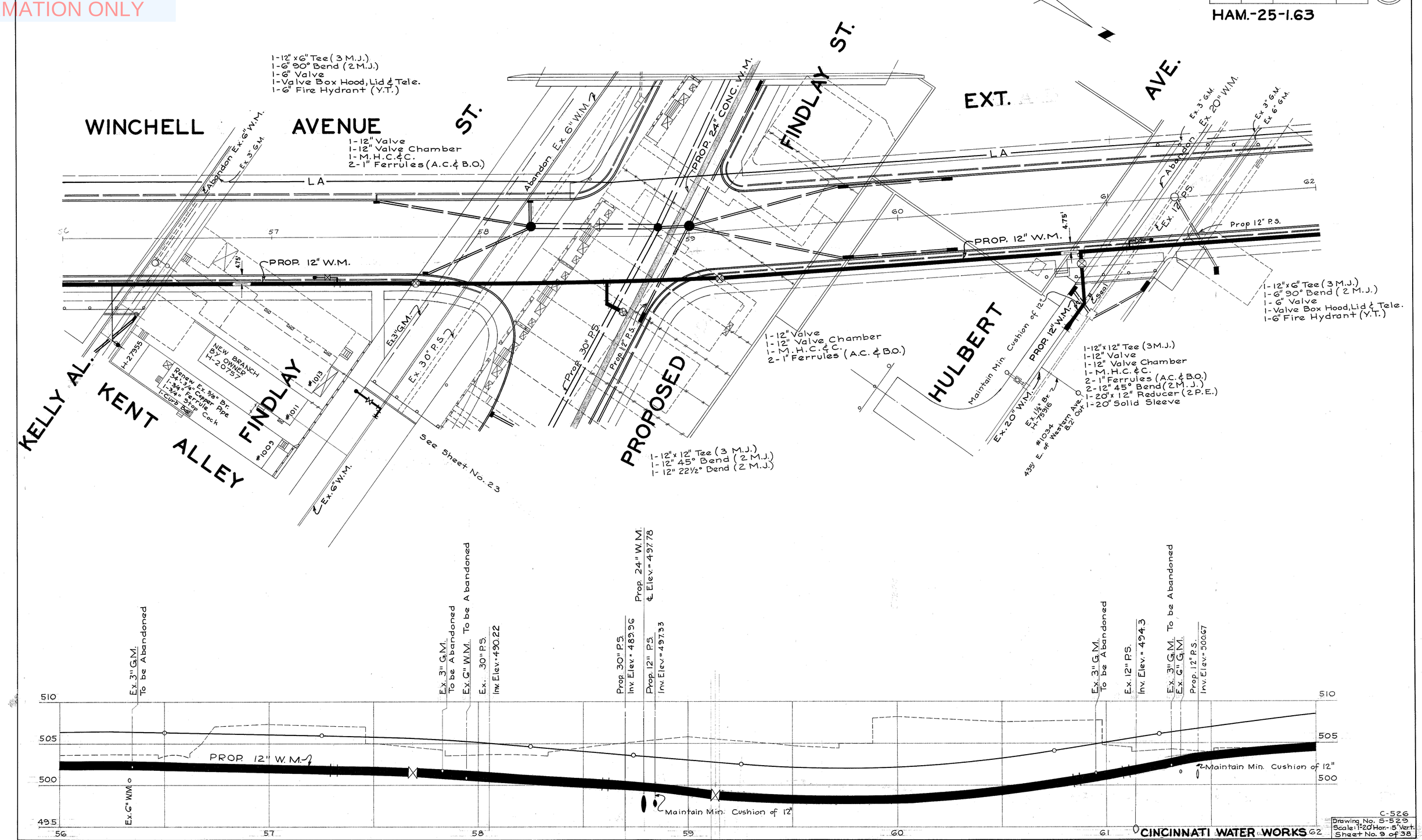
CONSTRUCTION
INFORMATION ONLY

FED. RD. DIVISION	STATE	PROJECT	
2	OHIO		

421
486

HAM.-25-1.63



C-526
Drawing No. S-529
Scale: 1"=20' Hor.-5' Vert.
Sheet No. 9 of 38

CINCINNATI WATER WORKS

WINCHELL AVE. - 56+00 TO 62+00

NOT FOR CONSTRUCTION INFORMATION ONLY

FED. RD. DIVISION	STATE	PROJECT	
2	OHIO		

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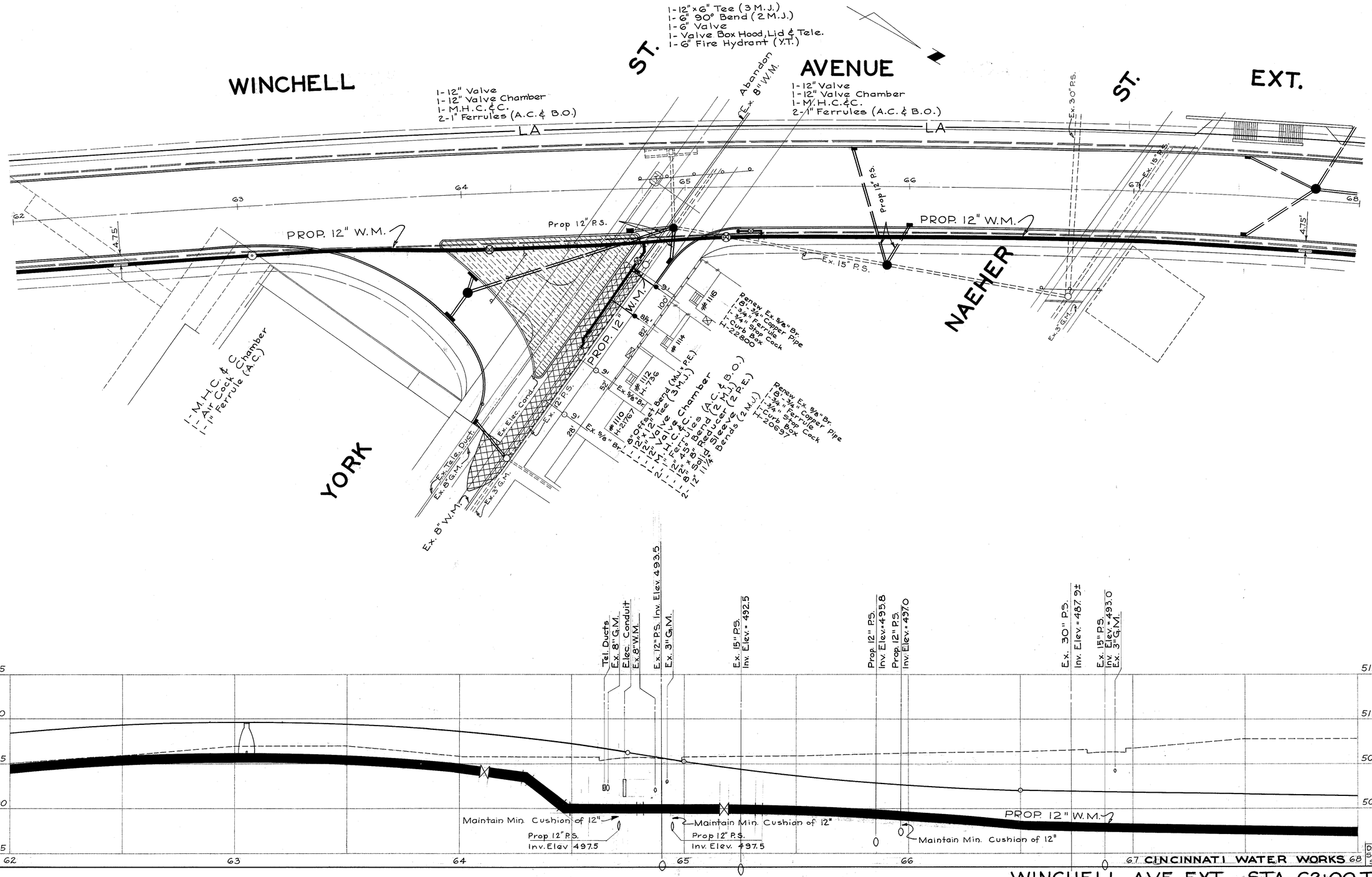
486

HAM-25-1.63



C-526
Drawing No. S-529
Scale: 1"=20' Hor. - 5' Vert.
Sheet No. 10 of 38

CINCINNATI WATER WORKS

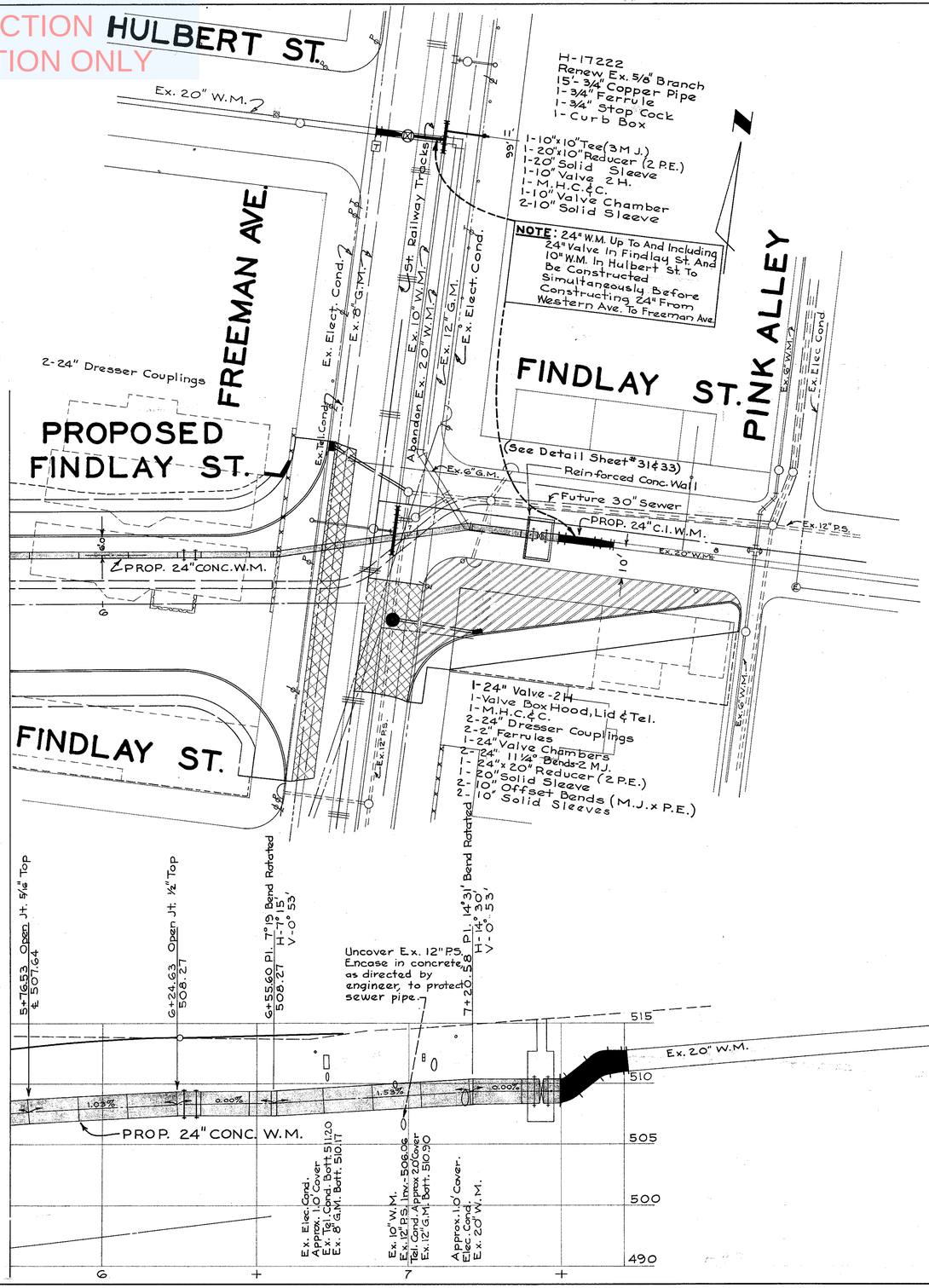
WINCHELL AVE. EXT. - STA. 62+00 TO 68+00

NOT FOR CONSTRUCTION INFORMATION ONLY

FED. RD. DIVISION	STATE	PROJECT	
2	OHIO		

423
486

HAM.-25-1.63



CINCINNATI WATER WORKS

C-526
Drawing No. S-529
Scale 1"=20' Hor. 5' Vert.
Sheet No. 11 of 38

FINDLAY ST. & FREEMAN AVE.

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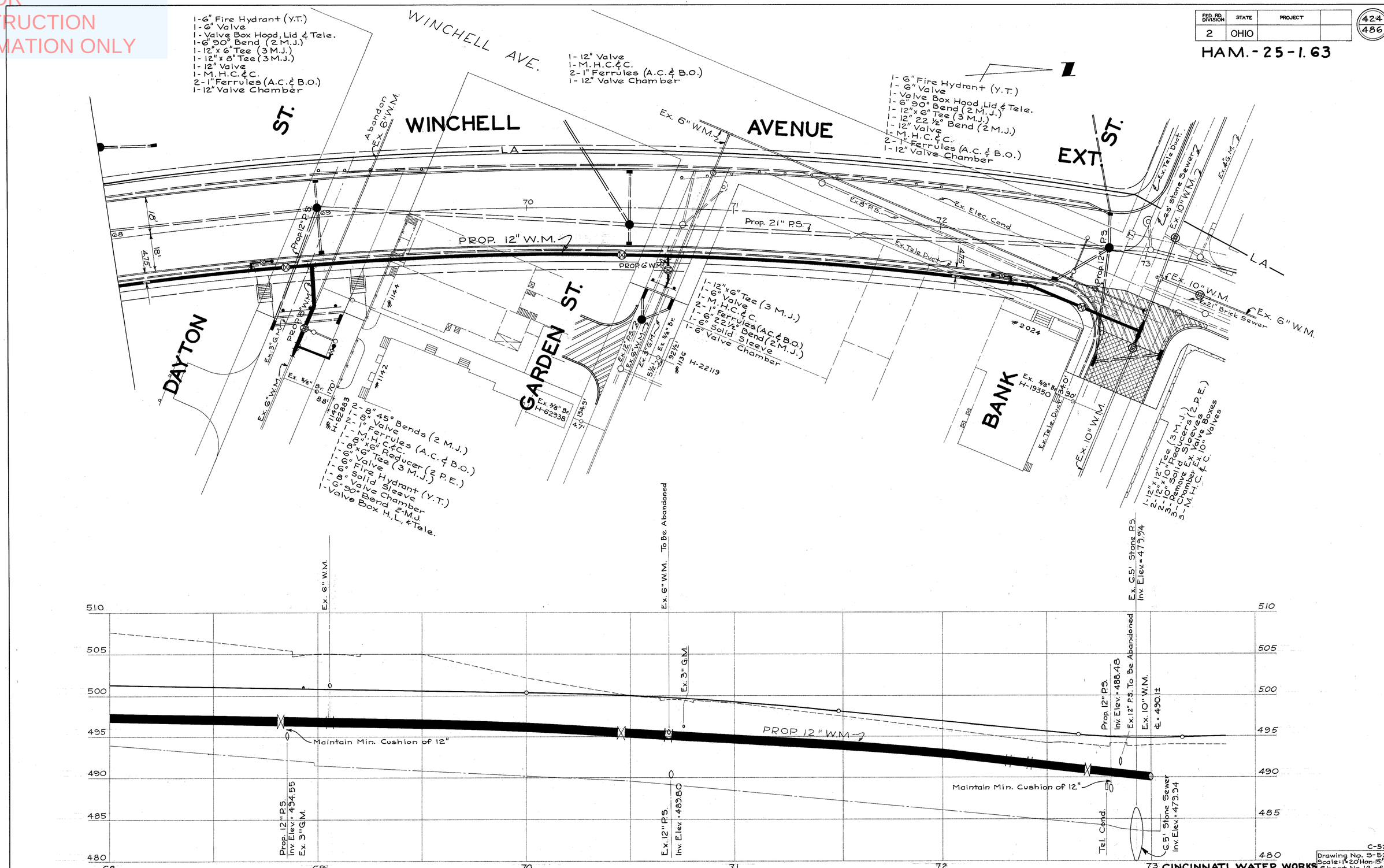
FED. RD. DIVISION	STATE	PROJECT	
2	OHIO		

424
486

HAM.-25-1.63



CINCINNATI WATER WORKS

C-526
Drawing No. S-529
Scale: 1" = 20' Hor. - 5' Vert.
Sheet No. 12 of 38

WINCHELL AVE. EXT. 68+00 to 73+00

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FED. RD. DIVISION	STATE	PROJECT	
2	OHIO		

425
486

HAM.-25-1.63

1-6" F.H. (Y.T.)
1-6" Valve
1-6" 90° Bend - 2 M.J.
1-10"x6" Tee - 3 M.J.
1-3' Pc. 10" C.I. Pipe
1-10" Sleeve
1-Val. Box Hood, Lid, & Tel.

WESTERN AVE.

BANK ST.

SPRING GROVE AVE.

BARNARD ST.

Ex. 36" W.M.
Ex. 6" W.M.
Ex. 10" W.M.
6.5' Stone Sewer
Lower Ex. 10" W.M.
Abandon Ex. 6" W.M.
Abandoned 6" W.M.

2-Chamber Ex. 10" Valves
1-Chamber Ex. 6" Valve
1-Chamber Ex. 4" Valve
4-M.H.C. & C.
4-Remove Ex. V.B.
1-Adjust Ex. Chamber

1-Valve Box Hood, Lid, & Tel.
1-6" F.H. (Y.T.)
1-6" 90° Bend - 2 M.J.
1-6" Sleeve
1-6"x6" Tee - 3 M.J.
1-6" Valve
1-3' Pc. 6" C.I. Pipe
1-Chamber Ex. Valve
1-Remove Ex. V.B.
1-M.H.C. & C.

H-19836 Reset Ex. 1" Dr.
40'-1" Copper Pipe
1-1" C.C. Cock
1-1" Stop Cock
1-1" Curb Box
#2127

1-6" F.H. (Y.T.)
1-6" 90° Bend - 2 M.J.
1-10" Sleeve
1-6"x6" Tee - 3 M.J.
1-6" Valve
3' Pc. 10" C.I. Pipe
1-Val. Box Hood, Lid, & Tel.

1-Chamber Ex. 6" Valve
1-Reset Ex. F.H.
1-M.H.C. & C.V.B.
Remove Ex.

	Prop. El. = 494.97 Ex. El. = 494.0	Prop. El. = 494.32 Ex. El. = 494.1	Prop. El. = 493.33 Ex. El. = 494.0	Turner Alley	Prop. El. = 493.21 Ex. El. = 494.0	Prop. El. = 493.96 Ex. El. = 494.0	Prop. El. = 494.74 Ex. El. = 494.2
500							500
495	Prop. Grade				Ex. Grade		495
490					Ex. 10" W.M.		490
485					Lower Ex. 10" W.M.		485
	4	+	5	+	6	+	

CINCINNATI WATER WORKS

C-526
Drawing No. S-529
Scale 1" = 20'
Sheet No. 13 of 38

BANK ST. & SPRING GROVE AVE.

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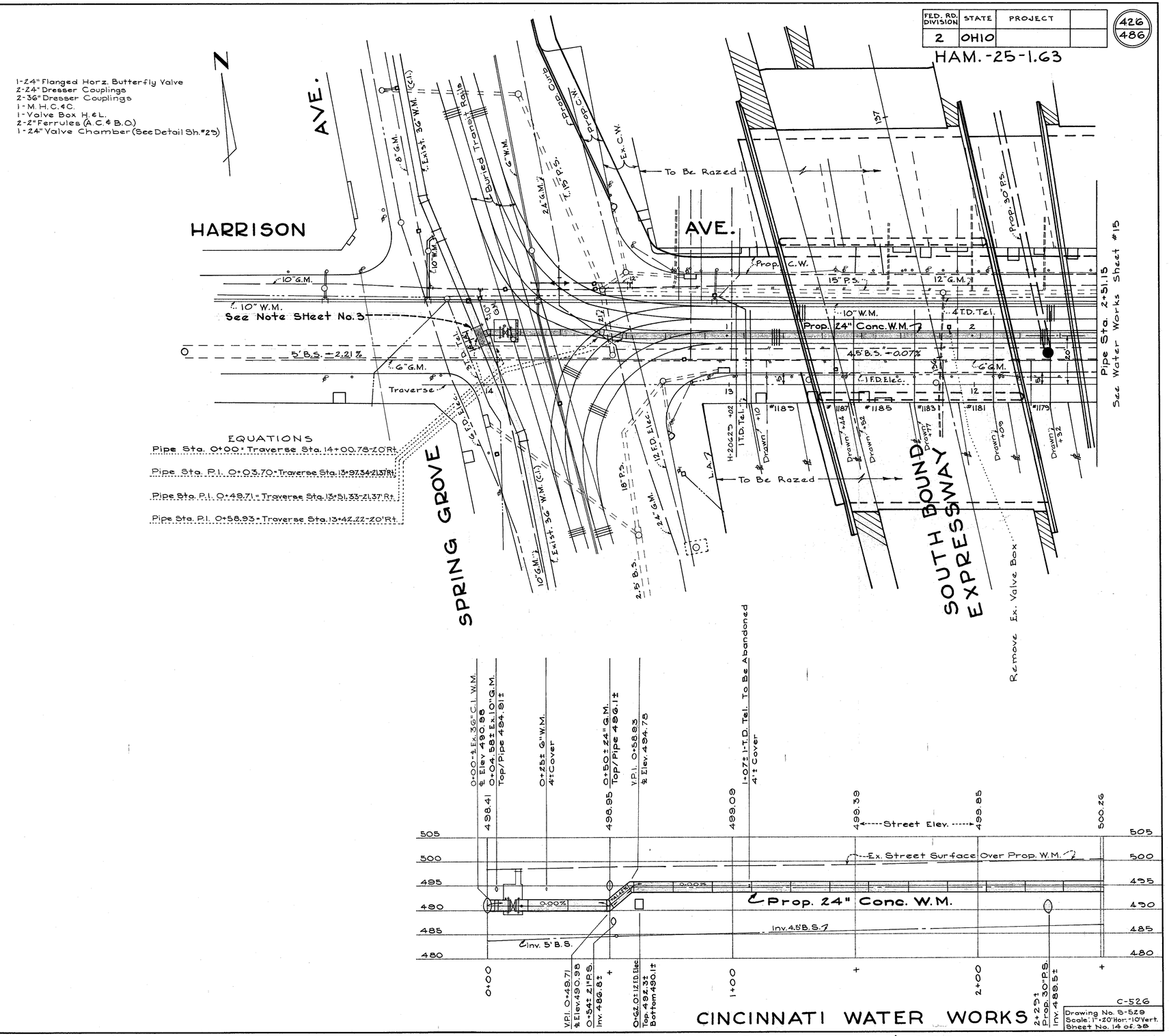
FED. RD. DIVISION	STATE	PROJECT	
2	OHIO		

426
486

HAM.-25-1.63



C-526

Drawing No. S-529
Scale: 1" = 20' Hor. - 10' Vert.
Sheet No. 14 of 38

CINCINNATI WATER WORKS

HARRISON AVE. & SPRING GROVE AVE.

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HARRISON AVE. & WINCHELL AVE.

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FED. RD DIVISION	STATE	PROJECT	
2	OHIO		

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HAM.-25-1.63

APPROACH TO McMICKEN ST.

COLERAIN AVE.

HARRISON AVE.

CENTRAL AVE.

PATTERSON ST.

KINDEL ST.

COLERAIN AVE.

THEATER

BANK #1100

See Water Works Sheet #15 Pipe Sta. 8+64.80

#1120 H-58406 +74

2- Remove Ex. Valve Box

20" W.M. To Be Abandon

10" W.M. To Remain

EQUATION
Face of Exist. 20" Cl. Bell Pipe Sta. 12+52.11
Trav. Sta. 1+40.00 - 17.0' Rt.

EQUATIONS
P.I. Pipe Sta. 9+53.77 - Defl. 15°25' Lt.
Trav. Sta. 4+61.00 - 20' Rt.
P.I. Pipe Sta. 5+87.05 - Defl. 22°22' Lt.
Trav. Sta. 4+12.50 - 20' Rt.

Prop. 24" Conc. W.M.

Exist. 20" W.M.

Seal

Traverse

#1117 H-48798 Tap On Patterson

#1101 H-40581 Tap On Colerain

#2185 H-32126 Tap On Colerain

Trav. P.I. 2+45.25 30° 08' Rt.

Trav. P.I. 1+08.71 2° 37' Lt.

1-24" Hub Gate Valve (Hor.)
1-M.H.C. & C.
2-Valve Boxes H. & L.
2-24" Dresser Couplings
1-20" Dresser Coupling
2-2" Ferrules (A.C.)
1-Standard 24" Valve Chamber

Maintain Min. Cushion of 12"

Ex. Street Surface Over Prop. W.M.

Prop 24" Conc. W.M.

Inv. 24" P.S.

Inv. 3.5' B.S.

Ex. 20" C.I. W.M.

Street Elev.

CINCINNATI WATER WORKS

HARRISON AVE. & COLERAIN AVE.

C-526
Drawing No. S-528
Scale 1"=20' Hor. 1"=10' Vert.
Sheet No. 16 of 38

NOT FOR CONSTRUCTION INFORMATION ONLY

FED. RD. DIVISION	STATE	PROJECT	
2	OHIO		

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HAM.-25-1.63

SPRING GROVE AVENUE

WESTERN HILLS VIADUCT

NOTE: Ex. 36" 90° Cast Iron Bend is to be Removed, Turned 60° Counter-Clockwise, And Reinstalled See Item W-65, Sheet No. 38

2-36" Dresser Couplings
1-2" Ferrule

1-Manhead Chamber
1-M.H.C.&C.
1-2" Ferrule

PROP. 30' EASEMENT
PROP. 36" CONC. W.M.
N. 78° 18'16"E. 207.66'
L.A.

N. 59° 43' 28" E. 286.54'

Ex. 15" P.S.
Ex. Elec. Cond.
Ex. G W.M.

20'
15.0'

RAMP "F"

N 39° 26' 16" E. 43.37'

Seal
Abandon Ex. 36" W.M.

1-36" Valve 2H.
4-36" Dresser Couplings
1-M.H.C.&C.
1-Val. Box Hood, Lid & Tel.
1-36" Valve Chamber
(See Detail Sheets No. 31 & 33
2-2" Ferrules

Reinforced Conc. West Wall of Cham.

PROP. 30' EASEMENT
PROP. 36" CONC. W.M.
N. 84° 25'43"W. 177.46'

Ex. Elect. Cond.
Ex. 12" P.S.

Ex. 36" W.M.

Traction Rails

Seal
Remove Ex. 36"x36" Tee

Prop. 36" C.I.P. See Item W-64 Sheet No. 38

See Note On Sheet No. 3

5+15.63, ℄=492.24 & 36" Riser Remove & Reinstall Ex. 36" 90° C.I. Bend
5+11.65, ℄=492.24 End 36" Conc. W.M.
4+71.66, ℄=492.24 P.I. 38°53' Bend (Rotated)
2+64, ℄=488.28 P.I. 18°37' Bend (Rotated)
2+32.11, ℄=488.28 ℄ Manhead Tee & Chamber
1+77.46, ℄=488.28 P.I. 35°51' Bend (Hor.)
0+27.87 ℄ 36" Valve
0+16.81, ℄=488.28 P.I. 16°45' Bend
0+00, ℄=493.34 & 36"x36" Tee Begin 36" Conc. W.M.

4+14.59, Spigot Dished Bulkhead Plug with Tied Clamped Type Joint To Be Installed For Testing & Chlorination of 36" W.M.

Ex. Grade
PROP. 36" W.M.
0.0%
+1.91%
Ex. 15" P.S. Inv. Elev. 484.39
Ex. 8" W.M.
Ex. Elec. Cond. Elev. Bot. - 410.53
0.0%
Ex. Elect. Cond. Elev. Bot. - 492.73
Ex. 12" P.S. Inv. Elev. 485.47
30.16%
Maintain Min. Cushion of 9"

515 510 505 500 495 490 485

5 4 3 2 1 0

C-526
Drawing No. S-529
Scale: 1"=20' Hor. - 5' Ver.
Sheet No. 17 of 38

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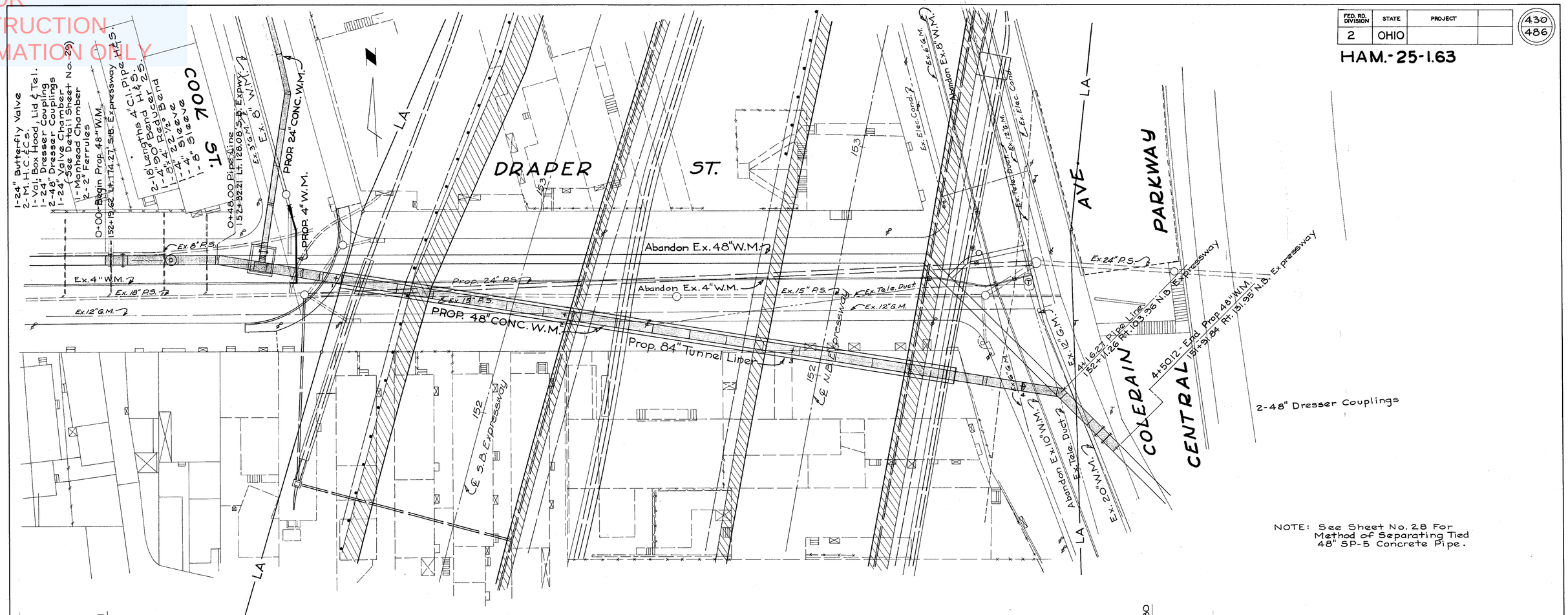
FED. RD. DIVISION	STATE	PROJECT	
2	OHIO		

430
486

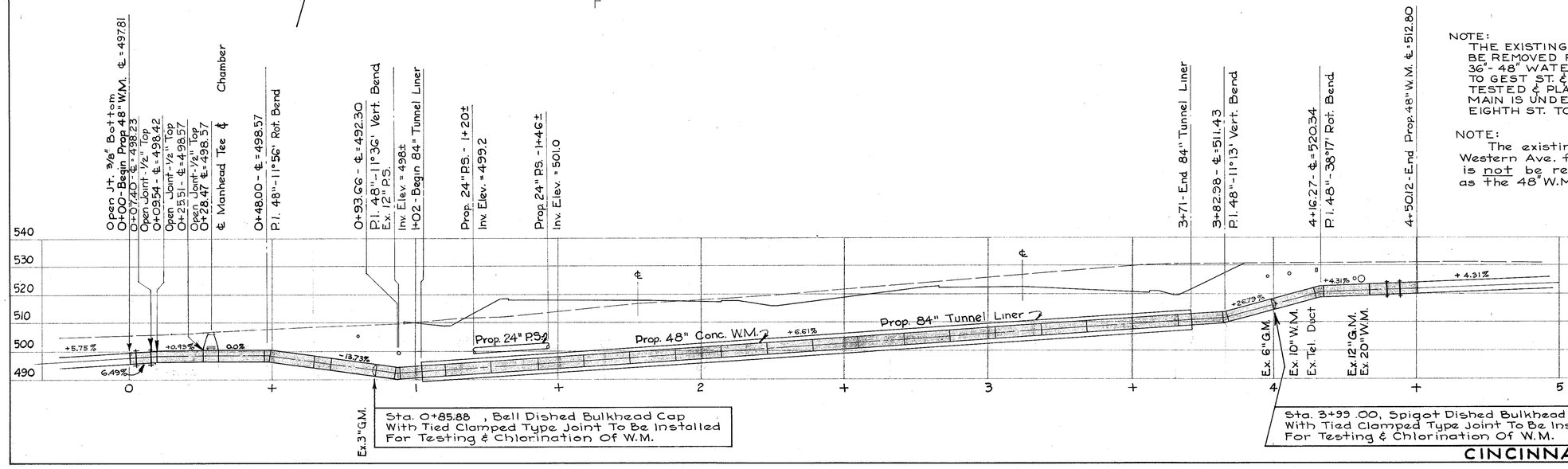
HAM.-25-1.63



NOTE: See Sheet No. 28 For Method of Separating Tied 48" SP-5 Concrete Pipe.

NOTE:
THE EXISTING 48" W.M. IN DRAPER ST. IS NOT TO BE REMOVED FROM SERVICE UNTIL THE PROPOSED 36"-48" WATER MAIN FROM NINTH ST. & MOUND ST. TO GEST ST. & HARRIET ST. HAS BEEN INSTALLED, TESTED & PLACED IN SERVICE. THIS 36"-42" WATER MAIN IS UNDER CONTRACT ON MILLCREEK EXPRESSWAY, EIGHTH ST. TO LINCOLN PARK DRIVE., HAM.-25-0.83.

NOTE:
The existing 36" W.M. in Spring Grove Ave. & Western Ave. from Liberty St. to Queen City Ave. is not be removed from service at the same time as the 48" W.M. in Draper St.



C-526
Drawing No. S-529
Scale: 20' Hor.-20' Vert.
Sheet No. 18 of 38

CINCINNATI WATER WORKS

DRAPER ST.

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FED. RD. DIVISION	STATE	PROJECT	
2	OHIO		

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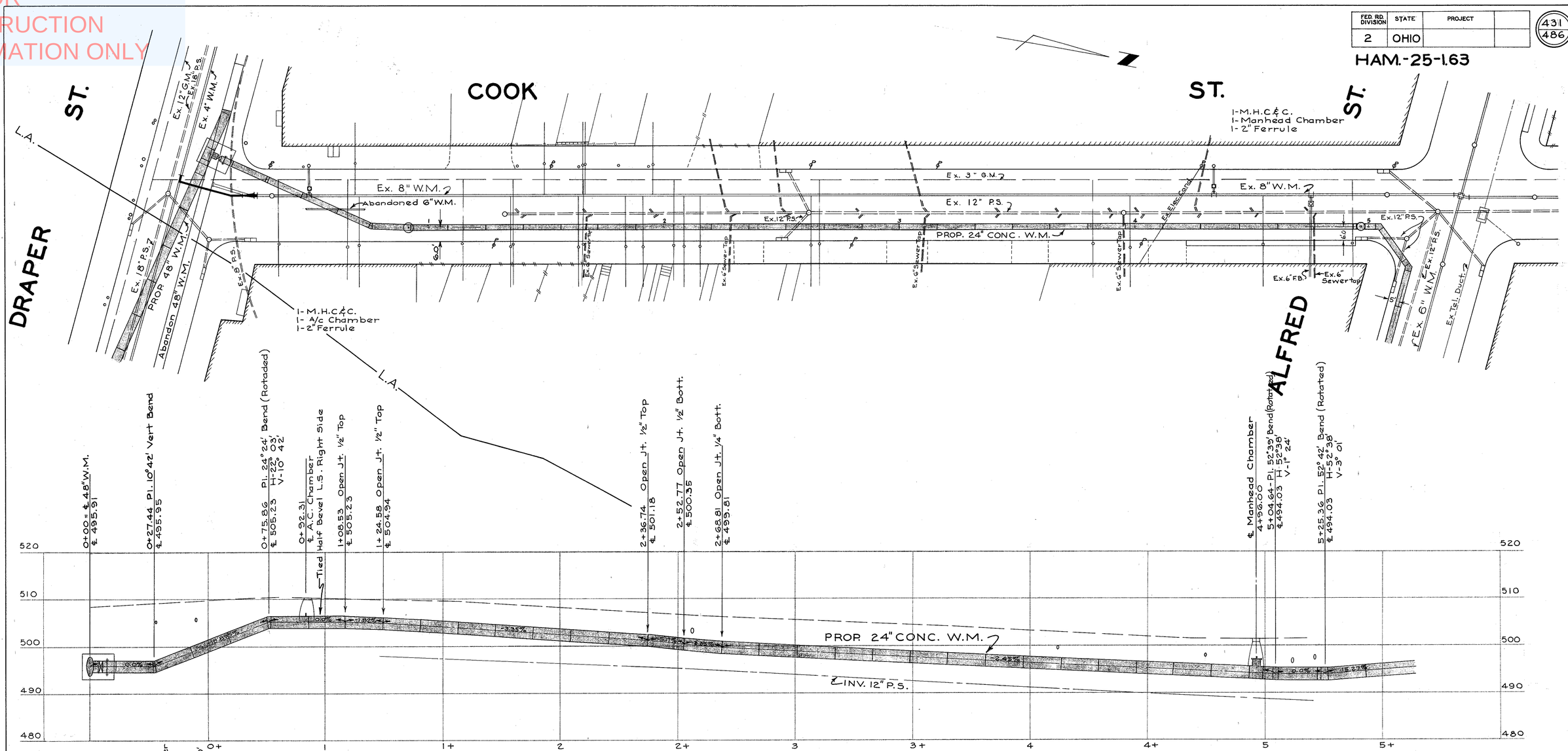
HAM.-25-1.63



CINCINNATI WATER WORKS

COOK ST.

C-526
Drawing No. S-529
Scale: 1"=20' Hor.-10' Vert.
Sheet No. 19 of 38

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CONSTRUCTION
INFORMATION ONLY

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FED. RD. DIVISION	STATE	PROJECT	
2	OHIO		

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HAM.-25-1.63

N

STRAIGHT ST.

CORMANY

STEPHENS ST.

AVE.

MARSHALL AVE.

CENTRAL PARKWAY

1-6"x6"Tee -3M.J.
1-6" Valve
1-Valve Box Hood, Lid & Tele.
1-6" Fire Hydrant
1-6" Plug & Clamp

20'

Prop. 6" W.M.

3" Br. 2

Ex. 4" W.M.

20'

CINCINNATI WATER WORKS

CENTRAL PARKWAY & STRAIGHT ST.

C-526
Drawing No. S-525
Scale: 1" = 20'
Sheet No. 21 of 38

NOT FOR
CONSTRUCTION
INFORMATION ONLY

FED. RD. DIVISION	STATE	PROJECT	
2	OHIO		

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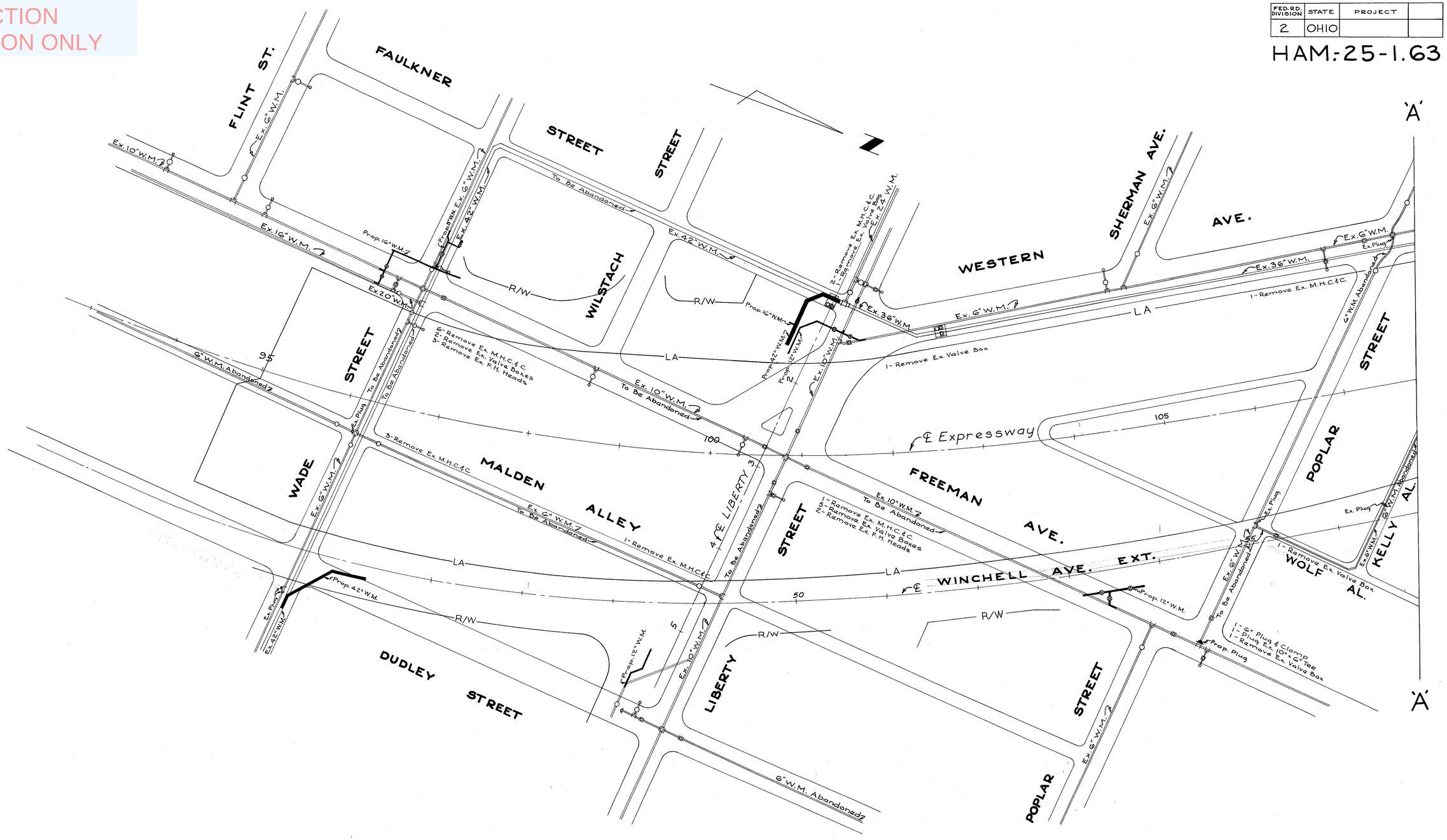
486

HAM-25-1.63



CINCINNATI WATER WORKS

C-526
Drawing No. S-529
Scale: 1" = 50'
Sheet 22 of 38

PLUGGING SHEET

NOT FOR CONSTRUCTION INFORMATION ONLY

FED. RD. DIVISION	STATE	PROJECT	
2	OHIO		

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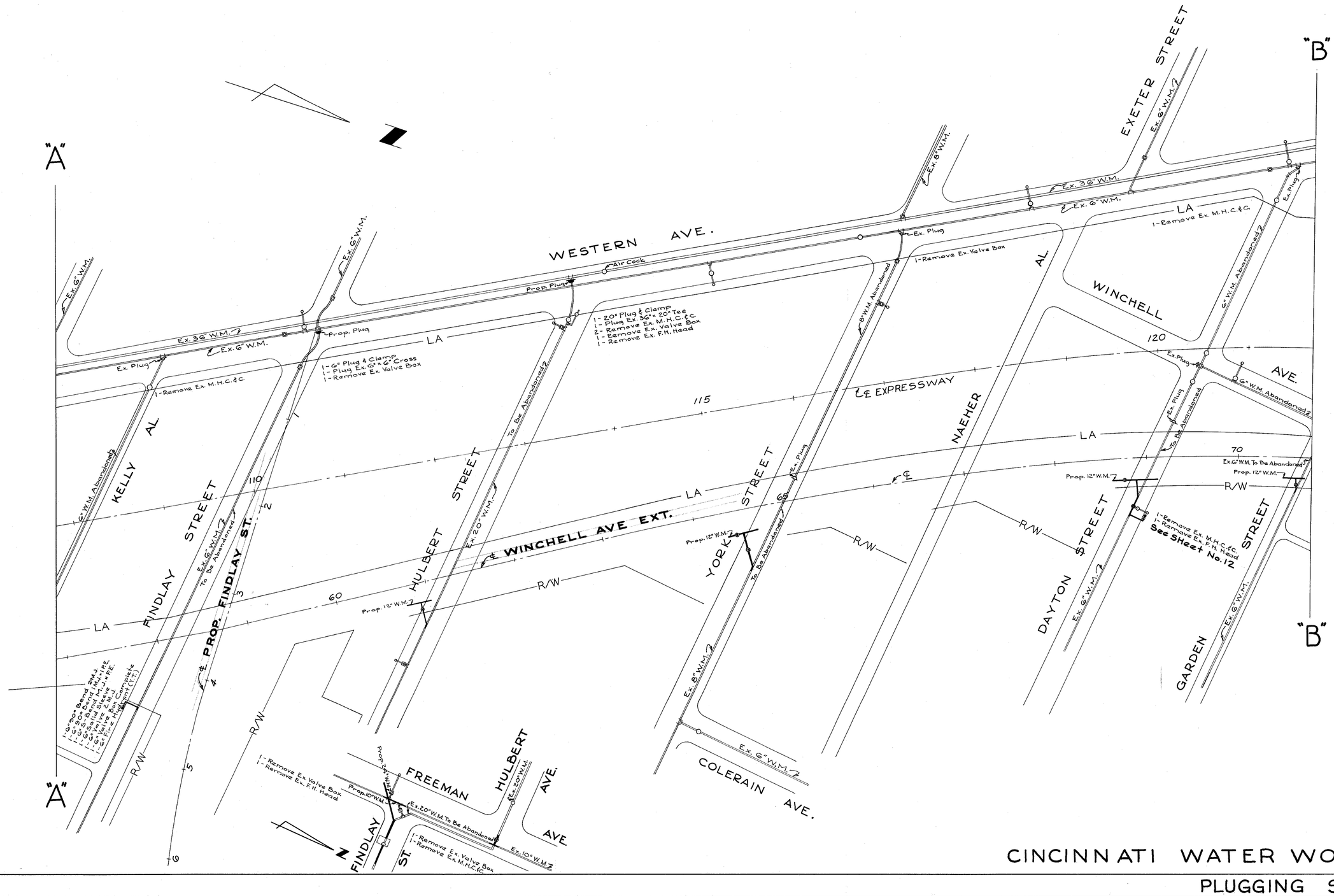
486

HAM.-25-1.63



CINCINNATI WATER WORKS

PLUGGING SHEET

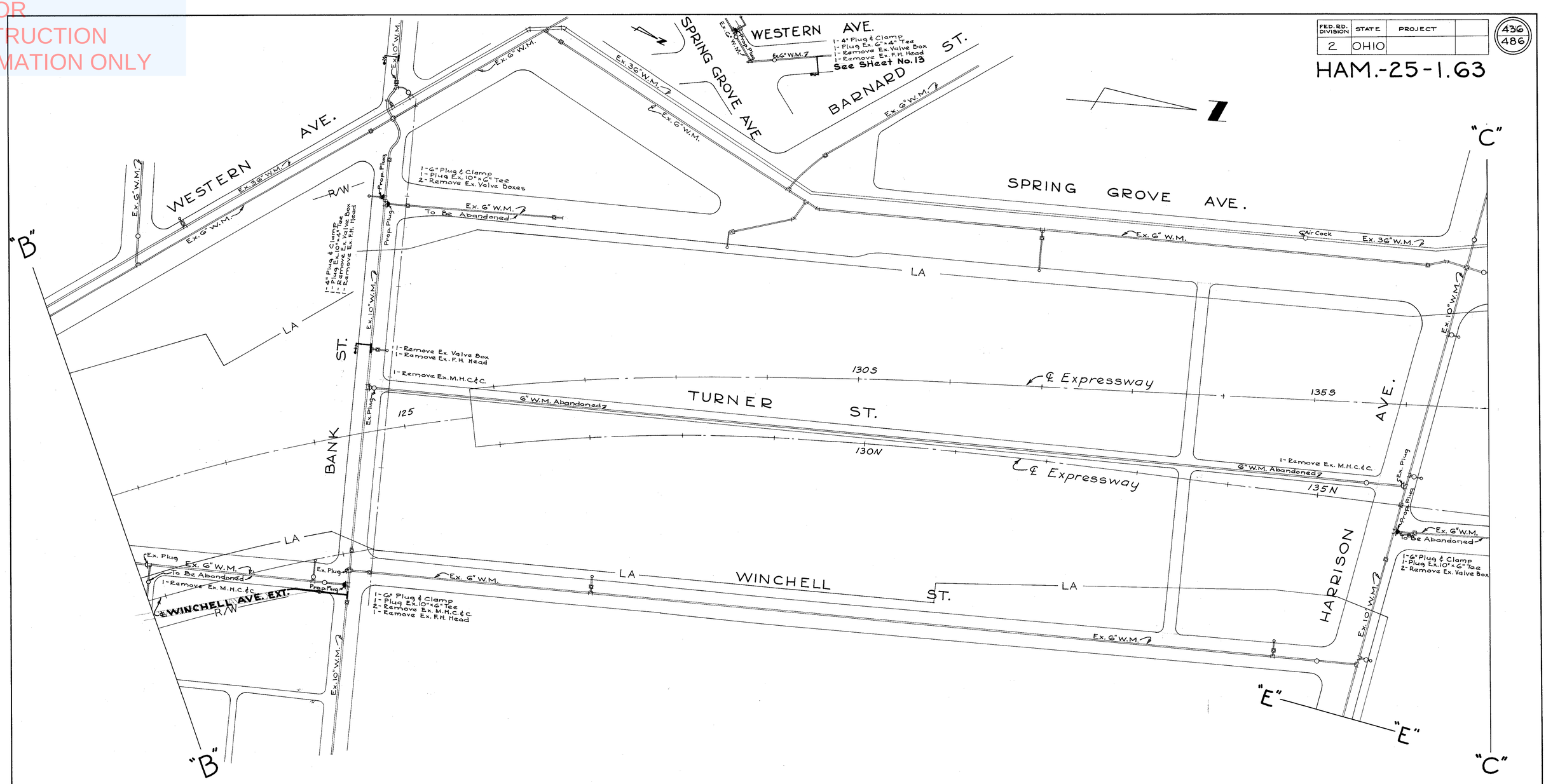
C-526
Drawing No. 5-529
Scale 1"=50'
Sheet 23 of 38

NOT FOR
CONSTRUCTION
INFORMATION ONLY

FED. RD. DIVISION	STATE	PROJECT	
2	OHIO		

436
486

HAM.-25-1.63



CINCINNATI WATER WORKS

C-526
Drawing No. S-529
Scale: 1"=50'
Sheet 24 of 38

PLUGGING SHEET

NOT FOR CONSTRUCTION INFORMATION ONLY

FED. RD. DIVISION	STATE	PROJECT	
2	OHIO		

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486

HAM.-25-1.63

FOR CONTINUANCE OF WESTERN HILLS VIADUCT SEE SHEET NO. 27

"C"

SPRING GROVE AVE.

Ex. 36" W.M.

Air Cock.

Ex. 6" W.M.

LA

Ex. 36" W.M. To Be Abandoned

1 - Remove Ex. M.H.C. & C.
1 - Remove Ex. Valve Box

Prop. 36" W.M.

Prop. 36" W.M.
1 - REMOVE EX. 36" x 36" TEE & SLEEVE

Ex. 36" W.M.

Ex. 10" W.M.

Ex. 30" W.M.

Ex. 48" W.M.

Ex. 6" W.M.

Prop. Plug

1 - 6" Plug & Clamp
1 - Plug Ex. 6" x 6" Tee
1 - Remove Ex. Valve Box

Ex. 6" W.M. To Be Abandoned

"D"

LA

145

140

150

℄ Expressway

BOGEN ST.

AVE.

1 - Remove Ex. M.H.C. & C.
1 - Remove Ex. Valve Box
1 - Remove Ex. F.H. Head

Ex. 6" W.M.

To Be Abandoned

℄ Expressway

140

145

150

Ex. 6" W.M.

To Be Abandoned

2 - Remove Ex. Valve Boxes
2 - Remove Ex. F.H. Heads

WESTERN HILLS VIADUCT

CITY

QUEEN

Ex. 6" W.M. To Be Abandoned

LA

6 - Remove Ex. Valve Boxes
2 - Remove Ex. F.H. Heads

Ex. 10" W.M.

Ex. 20" W.M.

To Be Abandoned

COLERAIN AVE.

"C"

"D"

2 - Remove Ex. Valve Boxes
1 - Remove Ex. F.H. Head

Ex. 20" W.M.

Ex. 10" W.M.

To Be Abandoned

LA

CENTRAL PARKWAY

"E"

"E"

Mc MILLAN ST.

CINCINNATI WATER WORKS

C-526
Drawing No. S-529
Scale: 1" = 50'
Sheet 25 of 38

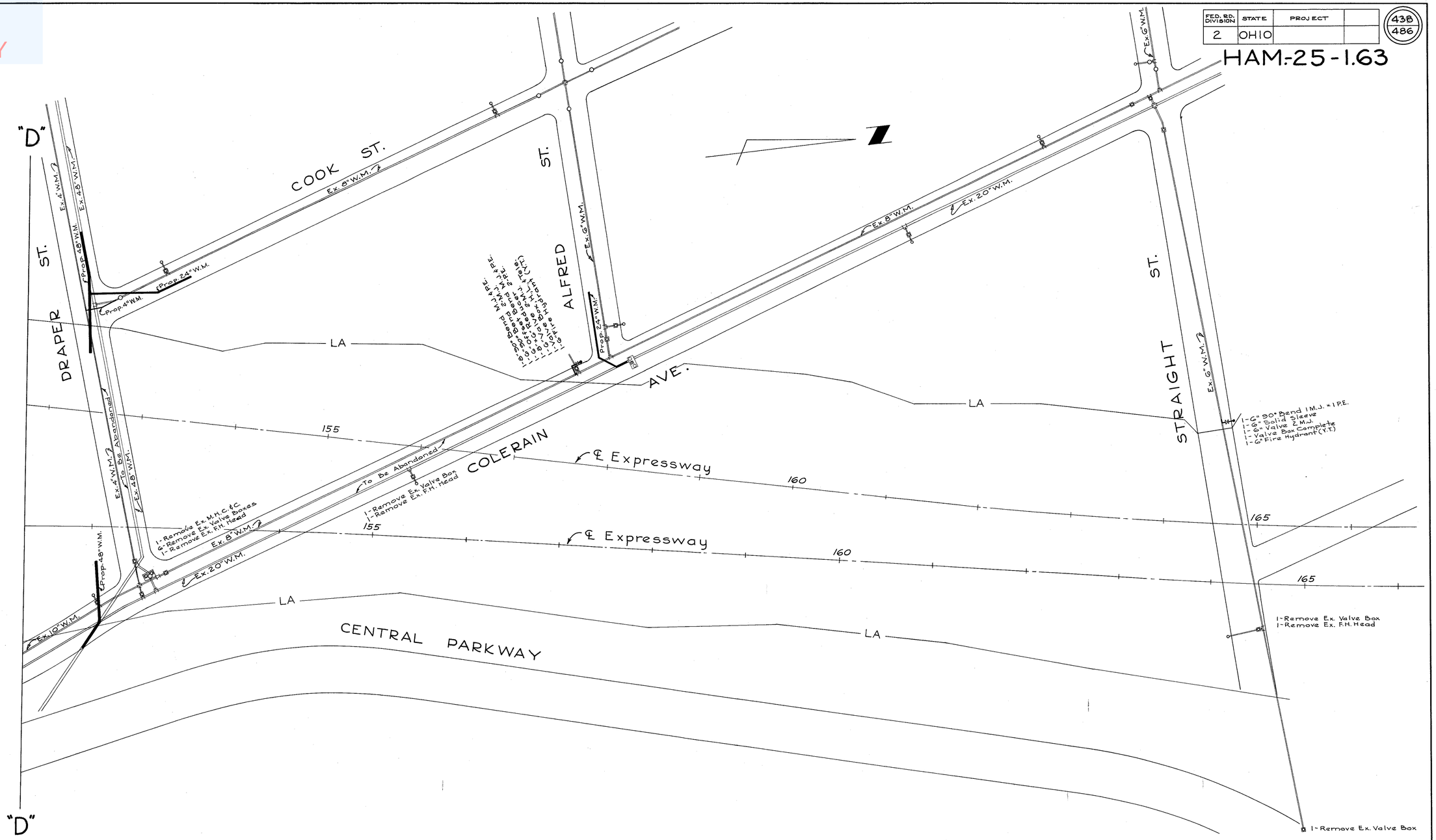
PLUGGING SHEET

NOT FOR
CONSTRUCTION
INFORMATION ONLY

FED. RD. DIVISION	STATE	PROJECT	
2	OHIO		

438
486

HAM-25-1.63



CINCINNATI WATER WORKS

C-526
Drawing No. S-529
Scale: 1" = 50'
Sheet 26 of 38

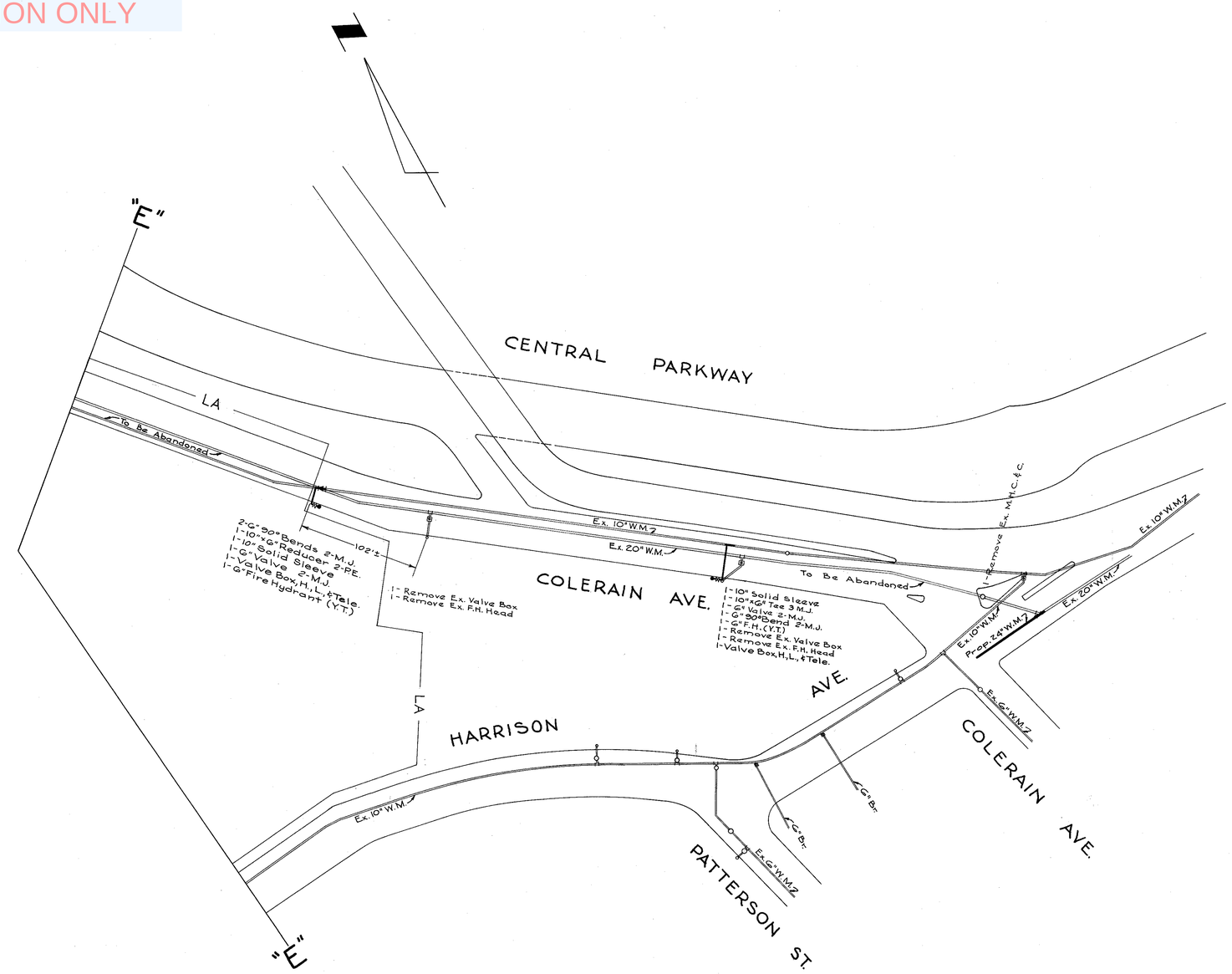
PLUGGING SHEET

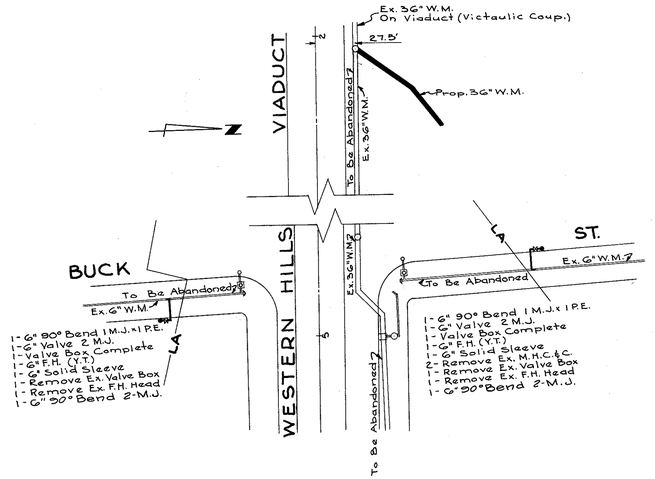
NOT FOR CONSTRUCTION INFORMATION ONLY

FED. RD. DIVISION	STATE	PROJECT	
2	OHIO		

439
486

HAM.-25-1.63





CINCINNATI WATER WORKS

C-526
Drawing No. S-529
Scale: 1" = 50'
Sheet 27 of 38

PLUGGING SHEET

NOT FOR CONSTRUCTION INFORMATION ONLY

FED. RD. DIVISION	STATE	PROJECT	
2	OHIO		

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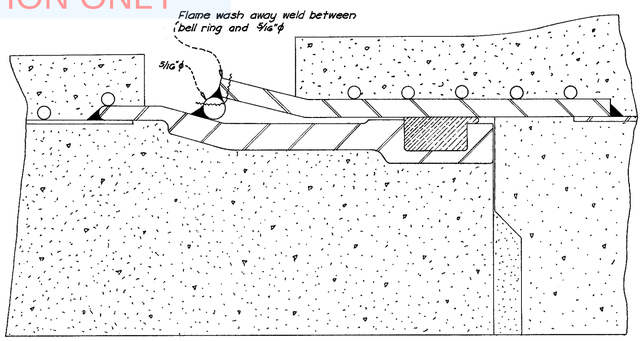
486

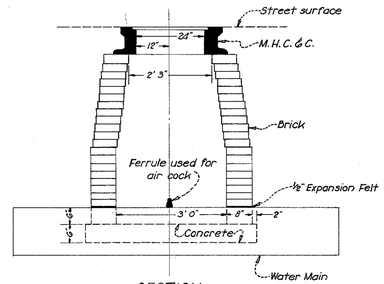
HAM. 25-1.63

METHOD FOR SEPARATING TIED 48" SP-5 PIPE

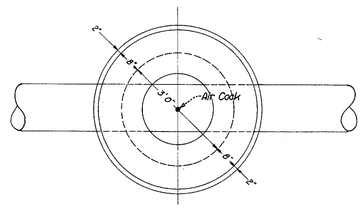


1. Remove grout from joint.
2. Flame wash away weld between bell ring and 5/16"ϕ. Remove as little of bell ring as possible.
3. Pull pipe apart.
4. Grind bell ring smooth and round sharp edges. Make 1/16" R.
5. Use power cold chisel to remove 5/16"ϕ from spigot ring. No grinding necessary.
6. Use new gasket and relay pipe.
7. Use new 5/16"ϕ to reweld joint.
8. Grout joint in standard manner.

STANDARD CHAMBER FOR AIR COCKS

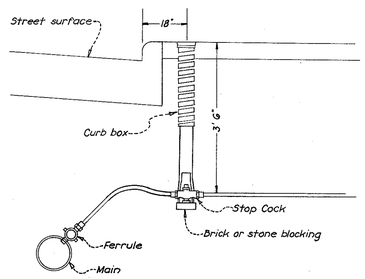


SECTION

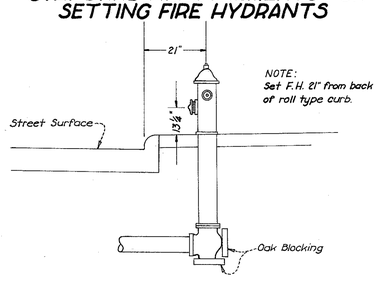


PLAN

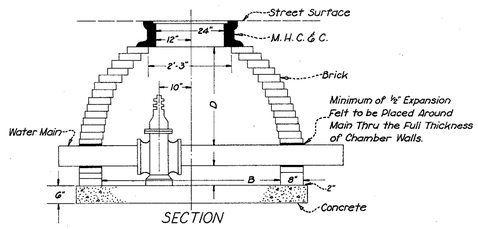
TYPICAL SERVICE BRANCH INSTALLATION



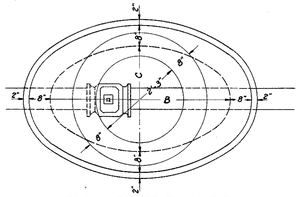
STANDARD MEASUREMENTS FOR SETTING FIRE HYDRANTS



STANDARD CHAMBER FOR VERTICAL VALVES



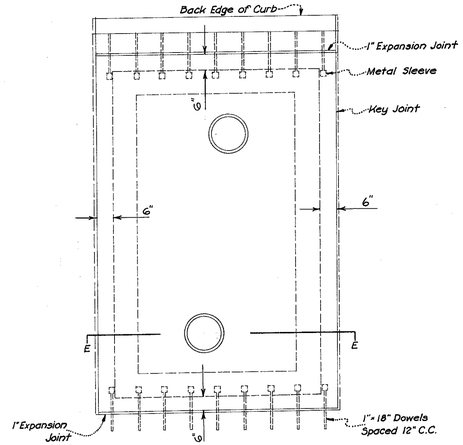
SECTION

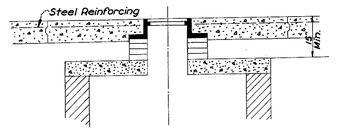


PLAN - COVER REMOVED

SIZE OF VALVE	A	B	C	D	CONC. CU YDS.	BRICK CU YDS.
4"-6"-8"	G"	5'-0"	3'-0"	2'-11"	0.5	1.3
10"-12"	G"	5'-0"	4'-0"	2'-11"	0.6	1.6

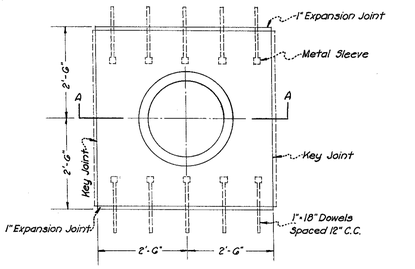
BLOCKING-OUT AROUND LAY-DOWN VALVES

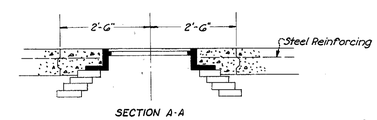




NOTE:
When chambers are near curb the Blocking-out shall continue through curb as shown.

BLOCKING-OUT AROUND AIR-COCK & VERTICAL VALVE CHAMBERS





SECTION A-A

CINCINNATI WATER WORKS

C-526
Drawing No. S-529
Scale: As Noted
Sheet No. 28 of 38

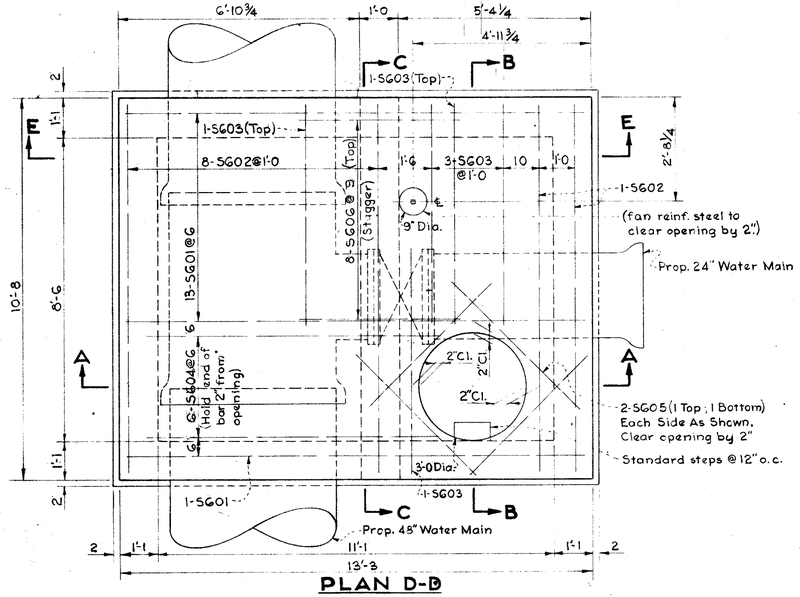
WATER WORKS STANDARDS

NOT FOR CONSTRUCTION INFORMATION ONLY

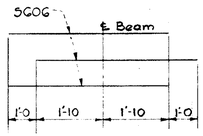
FED. RD. DIV.	STATE	PROJECT	FISCAL YEAR
2	OHIO		

441
486

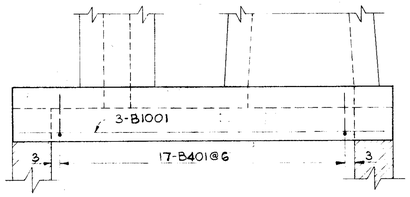
HAM.-25-1.63



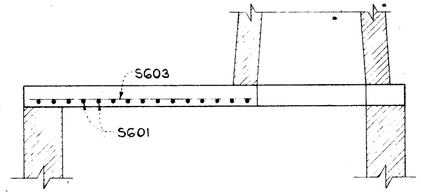
PLAN D-D



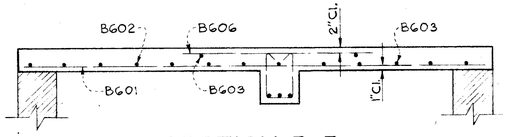
SG06 STAGGER DETAIL



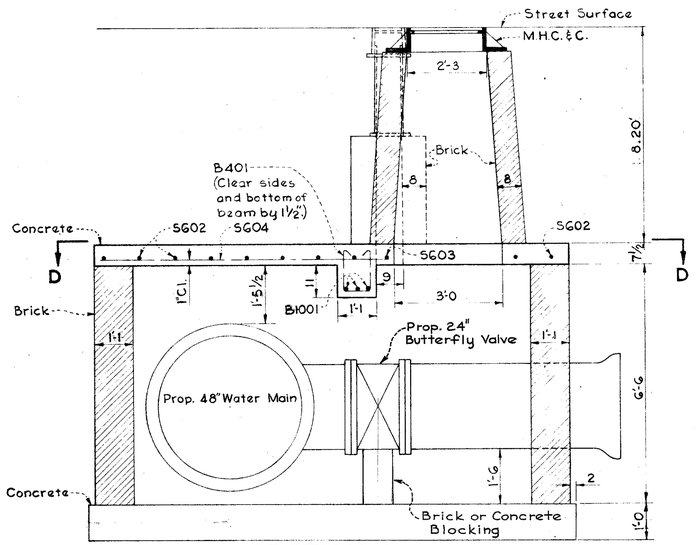
SECTION C-C
(Note : Slab bars not shown)



SECTION B-B



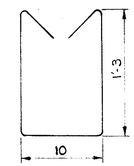
SECTION E-E



SECTION A-A

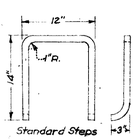
48" x 24" Valve Chamber			
LENGTH	WIDTH	CONC. CU.YDS.	BRICK CU.YDS.
10'8"	13'3"	8.2	13.2

NOTE
For Estimate Purposes Only.



B401

REINFORCING STEEL LIST				
MARK	NO.	LENGTH	WEIGHT	SHAPE
B401	17	4'-1	46	Bt.
B1001	3	10'-4	133	Str.
SG01	14	12'-11	272	Str.
SG02	10	10'-4	155	Str.
SG03	6	6'-3	56	Str.
SG04	6	8'-0	72	Str.
SG05	8	4'-9	57	Str.
SG06	8	4'-6	54	Str.
Total Wt. 845#				



Standard Steps
1" Square Stock
Wrought Iron

See Sheet No. 31 for notes.

48"x 24" VALVE CHAMBER
DRAPER ST. & COOK ST.

C-526
Drawing No. 9-529
Scale: None
Sheet No. 29 of 38

DESIGNED	DRAWN	TRACED	CHECKED	REVIEWED	DATE	REVISED

CINCINNATI WATER WORKS

48"x 24" VALVE CHAMBER

Z 0

NOT FOR CONSTRUCTION INFORMATION ONLY

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

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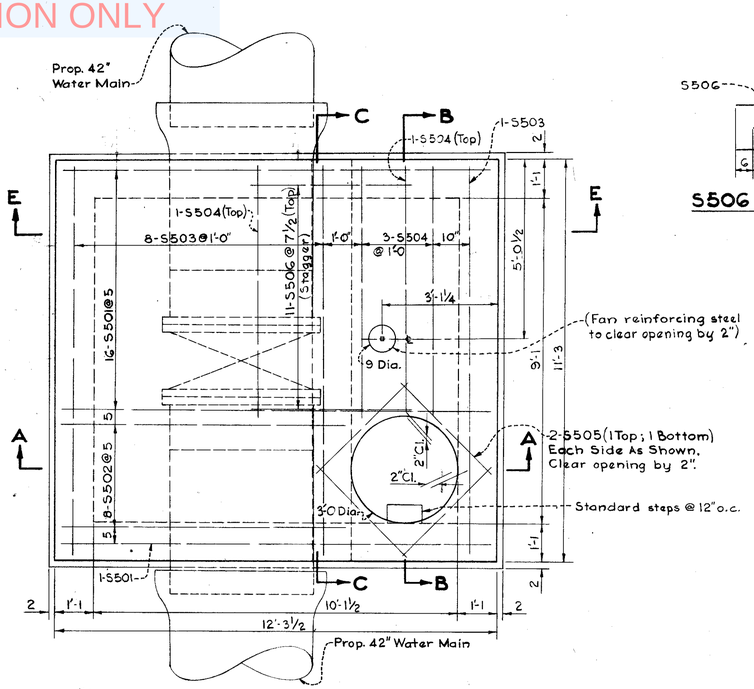
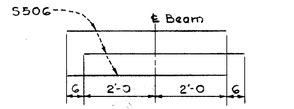
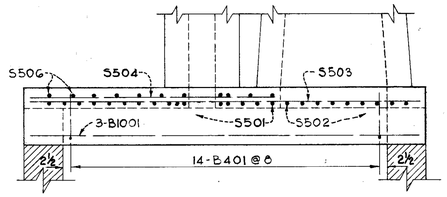
486



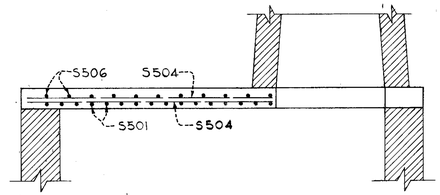
PLAN D-D



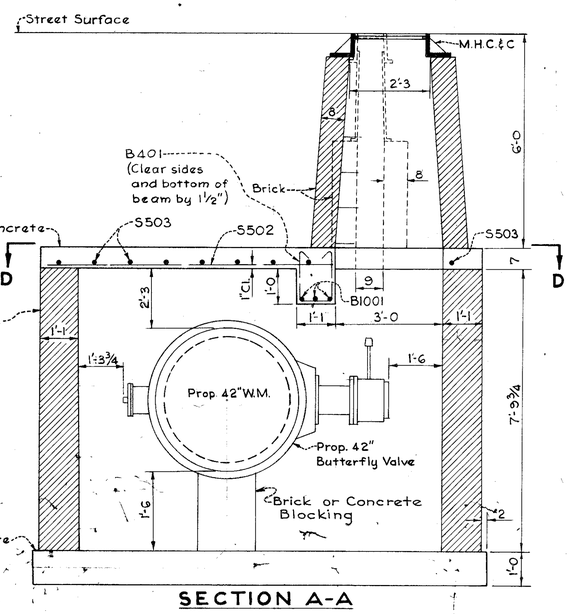
S506 STAGGER DETAIL



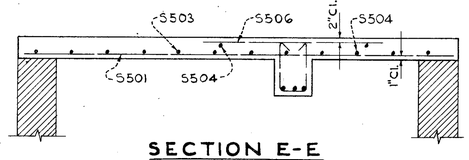
SECTION C-C



SECTION B-B



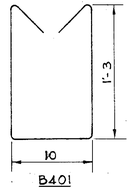
SECTION A-A



SECTION E-E

42" Butterfly Valve			
LENGTH	WIDTH	CONC. CU. YDS.	BRICK CU. YDS.
11'3"	12'-3½"	8.1	14.8

NOTE
For Estimate Purposes Only.



REINFORCING STEEL LIST				
MARK	NO.	LENGTH	WEIGHT	SHAPE
B401	14	4'-1	38	Bt.
B1001	3	10'-11	141	Str.
S501	17	11'-11	211	Str.
S502	8	7'-10	65	Str.
S503	9	10'-11	102	Str.
S504	5	6'-10	36	Str.
S505	8	3'-8	31	Str.
S506	11	4'-6	52	Str.
Total Wt. 676#				

See Sheet No. 31 for notes.

CINCINNATI WATER WORKS

42" BUTTERFLY VALVE CHAMBER

42" BUTTERFLY VALVE CHAMBER
LIBERTY STREET STA 2+31.91

Drawing No. S-529
Scale: None
Sheet No. 30 of 38

DESIGNED	DRAWN	TRACED	CHECKED	REVIEWED	DATE	REVISED

NOT FOR CONSTRUCTION INFORMATION ONLY

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

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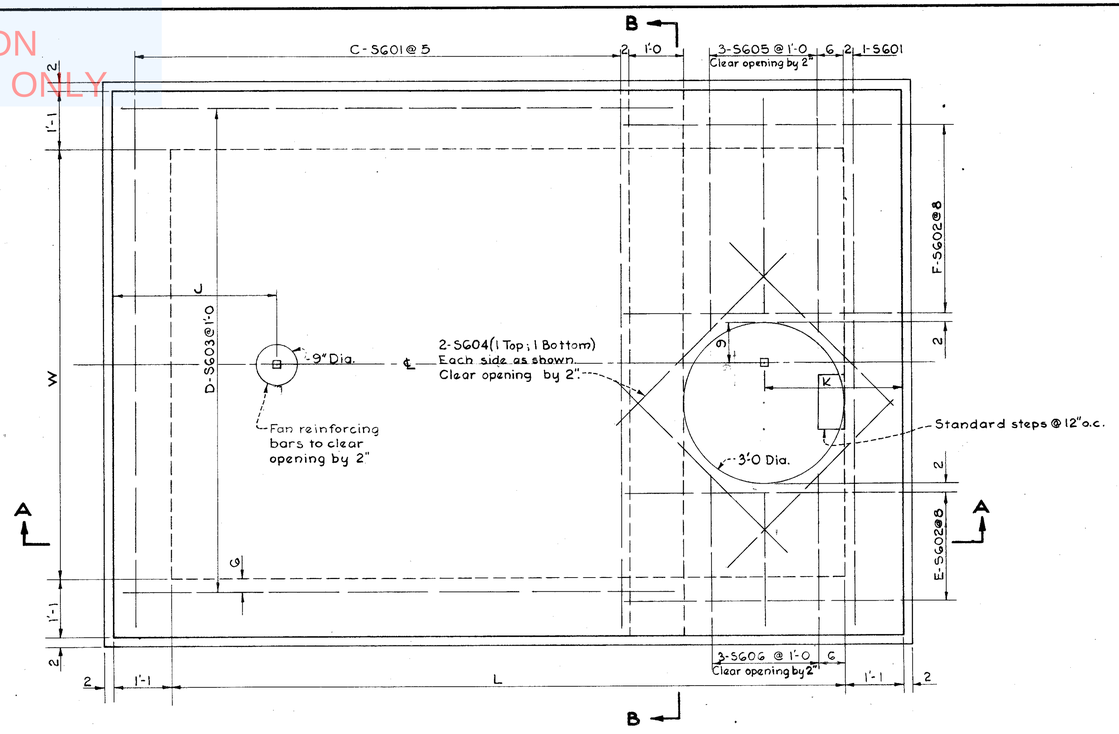
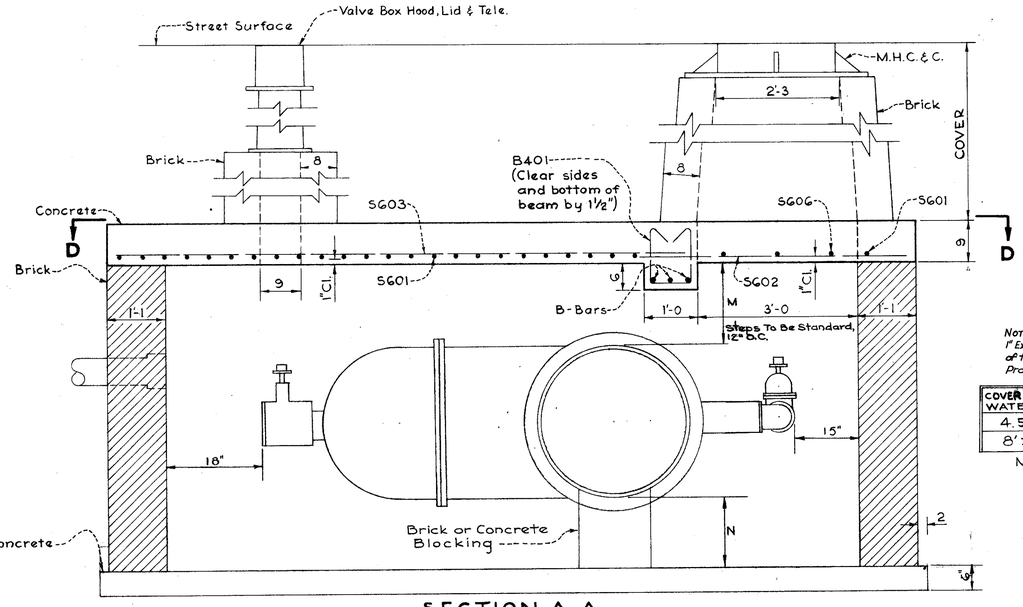


PLAN D-D

SECTION B-B
(Note: Slab bars not shown)

REINFORCING STEEL LIST				
MARK	NO.	LENGTH	WEIGHT	SHAPE
36" VALVE CHAMBER				
B401	16	3'-6	38	Bt.
B901	3	9'-10	100	Str.
SG01	23	9'-10	340	Str.
SG02	10	5'-0	75	Str.
SG03	10	10'-7	159	Str.
SG04	8	4'-4	52	Str.
SG05	3	4'-0	18	Str.
SG06	3	2'-6	11	Str.
Total Wt. 793#				
24" VALVE CHAMBER				
B401	14	3'-6	33	Bt.
B801	3	8'-10	71	Str.
SG01	16	8'-10	212	Str.
SG02	8	5'-0	60	Str.
SG03	9	7'-11	107	Str.
SG04	8	4'-4	52	Str.
SG05	3	3'-6	16	Str.
SG06	3	2'-0	9	Str.
Total Wt. 560#				



SECTION A-A

LETTERED DETAILS											
VALVE SIZE	J	K	L	W	COVER	C	D	E	F	G	B-Bars
36"	3'-3	2'-11½	12'-10	8'-0	6'-0	23	10	4	6	16	B901
24"	3'-1	2'-8½	10'-2	7'-0	1'-6 to 6'-0	16	9	3	5	14	B801

Note:
1" Expansion Felt to be around main and to extend the full thickness of the chamber wall.
Provide ladders with standard steps 12" O.C.

COVER OVER WATER MAINS	M	N
4.5'	27"	18"
8' ±	18"	27"

SIZE VALVE	CONC. CU. YDS.	BRICK CU. YDS.
36"	9.9	15.2
24"	7.5	11.5

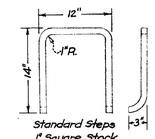
Note: For Estimate Purposes Only.

Note: Concrete beam and slab shall be Class "C" concrete.

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.

If dimensions of chamber vary from those shown, the Contractor shall submit revised details of the proposed reinforced concrete slab to the Water Works Engineering Office for approval before fabricating the slab.

Reinforcing steel and additional concrete shall be added to the chamber bottom slab when so ordered by the Superintendent.



Standard Steps
1" Square Stock
Wrought Iron

STANDARD 36" AND 24" VALVE CHAMBERS

Drawing No. S-525
Scale: None
Sheet No. 81 of 38

DESIGNED	DRAWN	TRACED	CHECKED	REVIEWED	DATE	REVISED

CINCINNATI WATER WORKS

STANDARD VALVE CHAMBERS

NOT FOR CONSTRUCTION INFORMATION ONLY

FED. RD. DIVISION	STATE	PROJECT	
2	OHIO		

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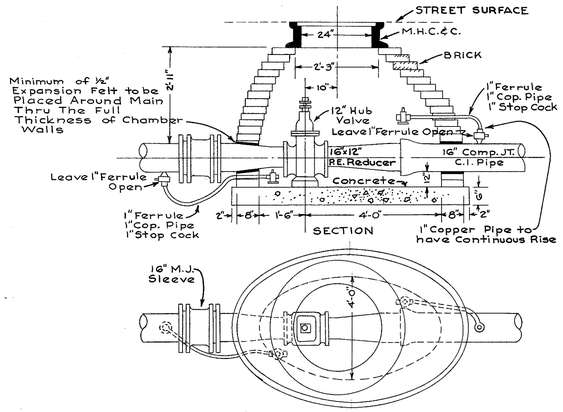
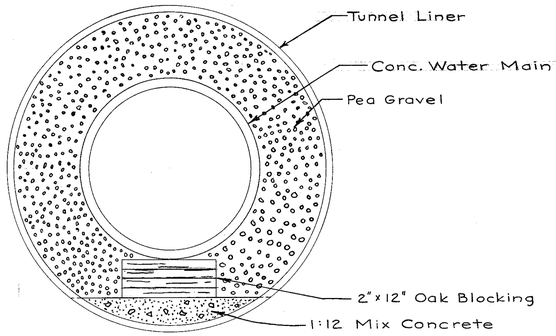
HAM. 25-1.63

PROPOSED 12" VALVE & CHAMBER
WESTERN AVE. EXT.



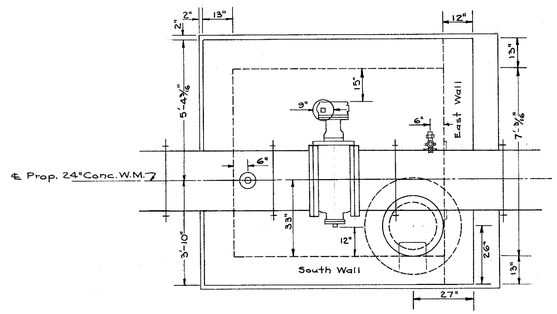
TYPICAL SECTION
Conc. Water Main in Tunnel Liner

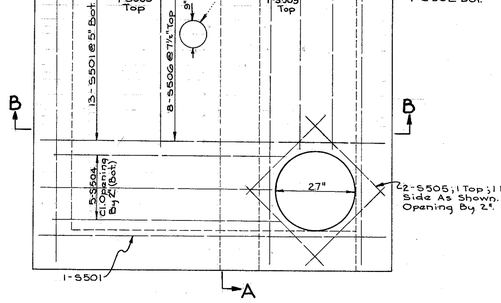


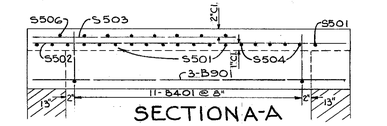
Steel tunnel liner, 3/16" thick, galvanized and fully bituminous coated, paneled out, Truscon or approved equal.
Each end of tunnel to be bricked up and sealed with bitumastic.
Each pipe length shall be supported on each end by 2"x12" oak blocking.

24" BUTTERFLY VALVE CHAMBER DETAILS
STA. 0+10.53 HARRISON AVE. PIPE LINE

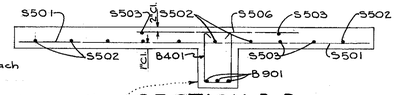
24" BUTTERFLY VALVE CHAMBER
STA. 0+10.53 HARRISON AVE. PIPE LINE





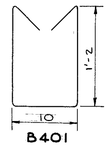


SECTION A-A

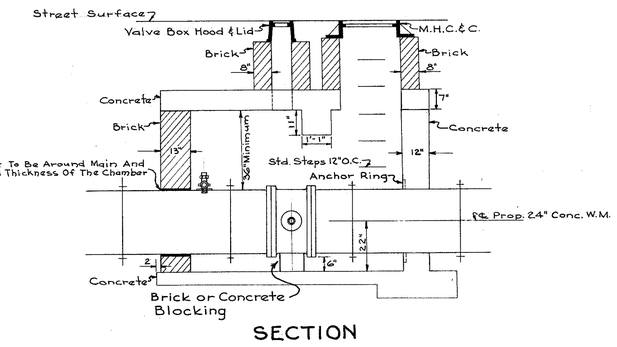


Clear Sides And Bottom Of Beam By 1½".

SECTION B-B



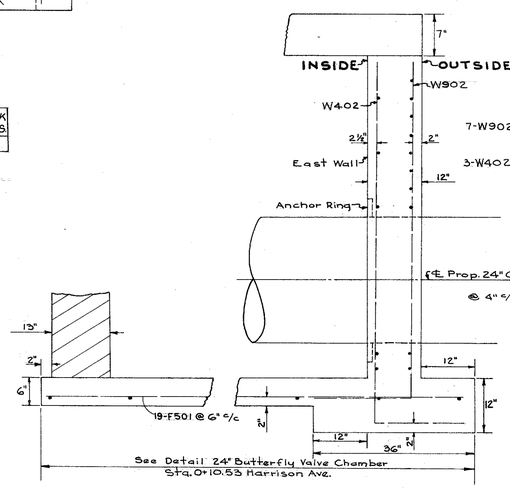
24" BUTTERFLY VALVE REINFORCING STEEL LIST				
MARK	NO.	LENGTH	WEIGHT	SHP
B401	11	4'-0"	29	BT.
B901	3	8'-8"	88	STR
S501	14	9'-8"	142	"
S502	8	8'-11"	74	"
S503	4	5'-7"	23	"
S504	5	6'-5"	33	"
S505	8	3'-1"	26	"
S506	8	4'-7"	38	"
W401	5	8'-6"	28	"
W601	6	8'-0"	72	"
W602	2	4'-7"	14	"
W603	2	3'-11"	12	"
W604	1	3'-4"	5	"
W605	1	2'-10"	4	"
W606	1	6'-1"	9	"
W607	1	6'-9"	10	"
W608	2	7'-3"	22	"
W609	2	7'-11"	24	"
W610	2	6'-8"	20	"
W611	2	6'-1"	18	"
W612	1	5'-6"	8	"
W613	1	4'-11"	7	"
W901	10	8'-6"	287	"
W402	7	8'-5"	40	BT.
W902	18	8'-0"	499	"
F301	8	9'-2"	28	STR.
F501	19	10'-10"	214	"
TOTAL WEIGHT			1775#	

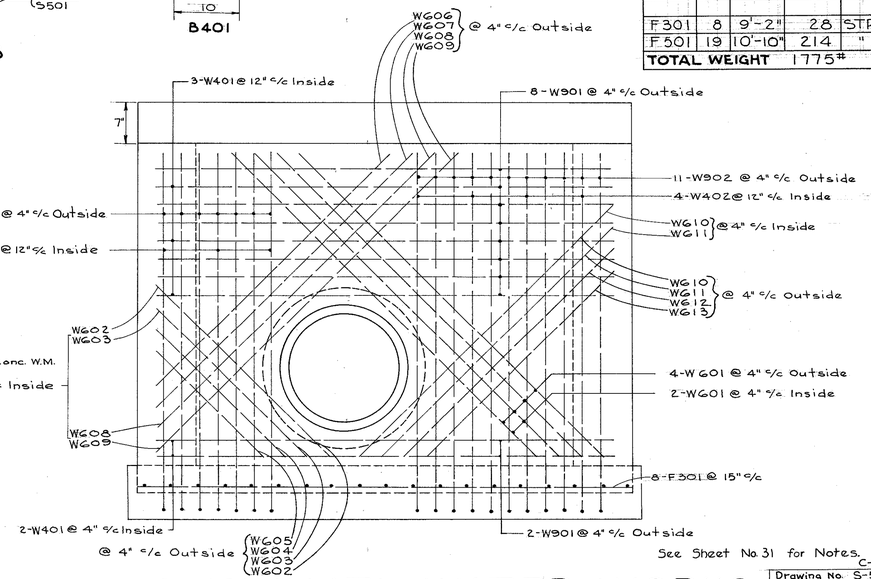


SECTION

SIZE OF VALVE	LENGTH	WIDTH	CONC. CU YDS.	BRICK CU YDS.
24"	Varies	9'-2⅝"	7.1	6

NOTE
For Estimate Purposes Only.





See Sheet No. 31 for Notes.

C-526

CINCINNATI WATER WORKS

Drawing No. S-529
Scale: None
Sheet No. 32 of 38

WATER WORKS STANDARDS

NOT FOR CONSTRUCTION INFORMATION ONLY

FED. RD. DIVISION	STATE	PROJECT	
2	OHIO		

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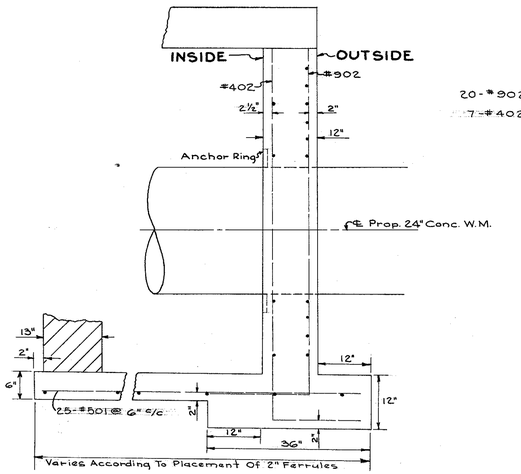
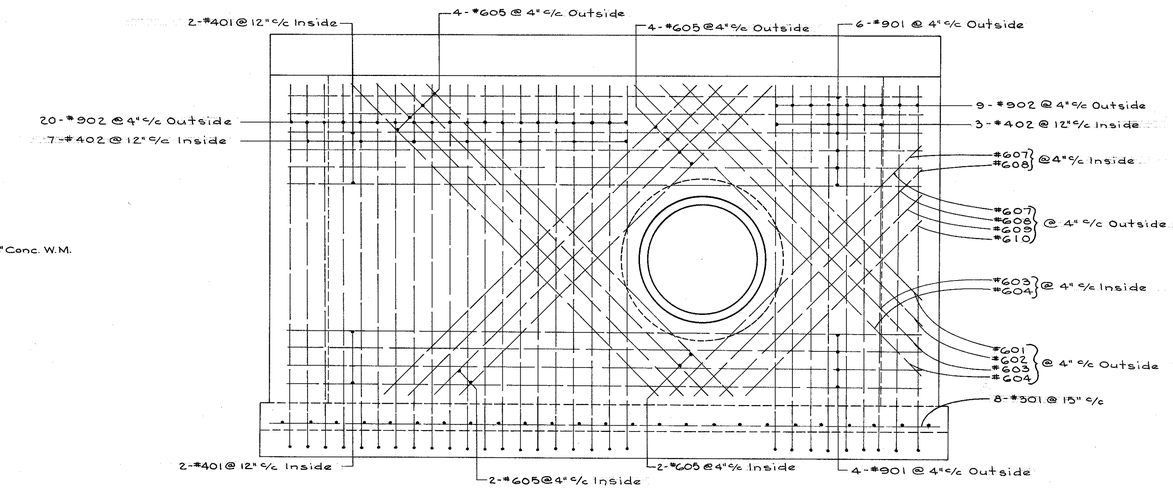
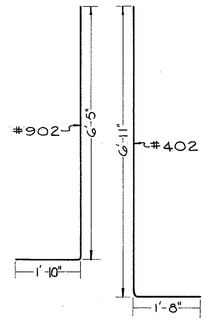
HAM. 25-1.63

REINFORCED CONCRETE WALL
24" VALVE CHAMBER

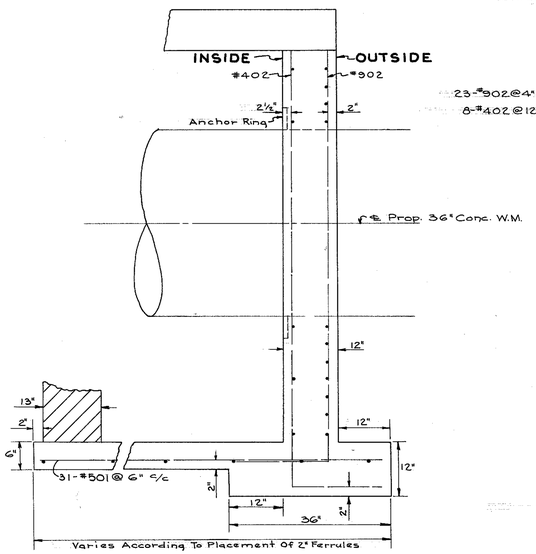


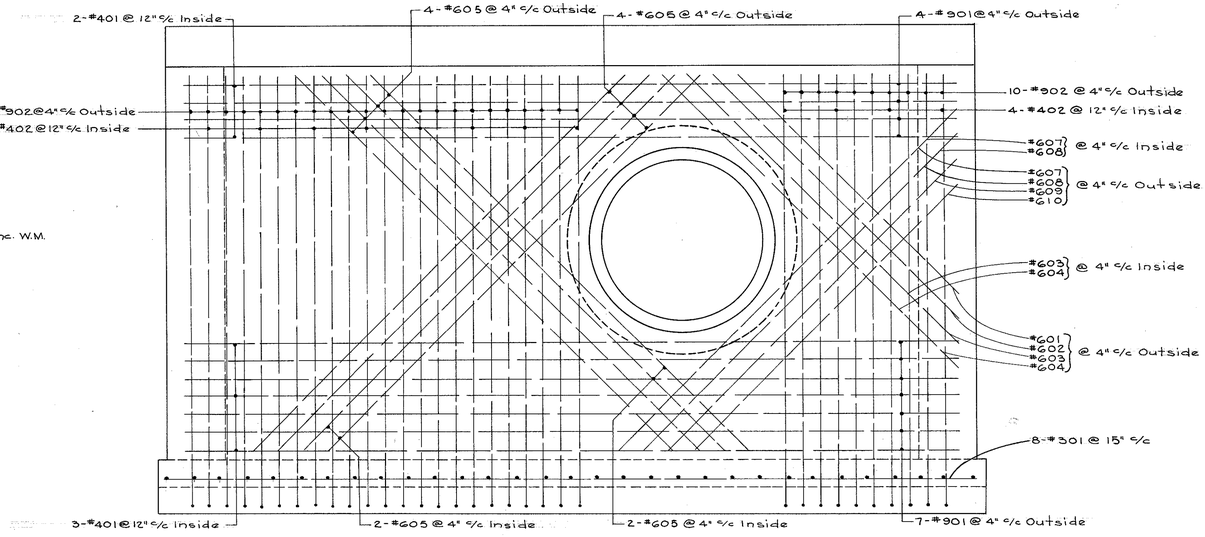


24" VALVE REINFORCING STEEL LIST				
MARK	NO.	LENGTH	WEIGHT	SHP.
#301	8	12'-5"	37	STR
#401	4	11'-9"	32	"
#501	25	9'-11"	258	"
#601	1	5'-7"	8	"
#602	1	6'-3"	10	"
#603	2	6'-11"	21	"
#604	2	7'-7"	23	"
#605	12	8'-2"	148	"
#607	2	6'-7"	20	"
#608	2	5'-11"	18	"
#609	1	5'-3"	8	"
#610	1	4'-7"	7	"
#901	10	11'-9"	399	"
#402	10	8'-7"	58	BT.
#902	29	8'-3"	814	"
TOTAL WEIGHT			1861#	

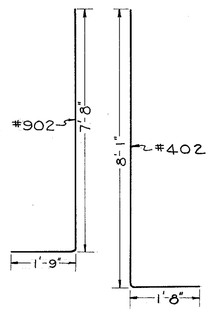


REINFORCED CONCRETE WALL
36" VALVE CHAMBER





36" VALVE RIENFORCING STEEL LIST				
MARK	NO.	LENGTH	WEIGHT	SHP.
#301	8	15'-0"	45	STR
#401	5	14'-3"	48	"
#501	31	10'-11"	352	"
#601	1	5'-9"	9	"
#602	1	6'-6"	10	"
#603	2	7'-1"	21	"
#604	2	7'-9"	23	"
#605	12	9'-9"	177	"
#607	2	8'-11"	27	"
#608	2	8'-3"	25	"
#609	1	7'-8"	12	"
#610	1	6'-11"	10	"
#901	11	14'-3"	532	"
#402	12	9'-9"	79	BT.
#902	33	9'-5"	1048	"
TOTAL WEIGHT			2418#	



CINCINNATI WATER WORKS

C-526
Drawing No. S-529
Scale: None
Sheet No. 33 of 38

WATER WORKS STANDARDS

NOT FOR CONSTRUCTION INFORMATION ONLY

FED. RD. DIVISION	STATE	PROJECT	
2	OHIO		

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GENERAL NOTES

WATER MAIN ITEMS ARE TO BE CONSTRUCTED IN ACCORDANCE WITH THE PROVISIONS OF THE GENERAL CONSTRUCTION & MATERIAL SPECIFICATIONS FOR HIGHWAYS & SEWERS, DATED JAN. 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 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 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 RESPONSIBILITY 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 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 MANUFACTURE 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 & 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 ITEM W-52.

SPECIAL NOTES
PIPE MANUFACTURER

ALL CONCRETE PIPE AND SPECIALS SHALL BE FABRICATED IN ACCORDANCE WITH THE LATEST REVISIONS OF THE CINCINNATI WATER WORKS AND A.W.W.A. SPECIFICATIONS GOVERNING THE MANUFACTURE OF REINFORCED CONCRETE WATER PIPE, PRESTRESSED STEEL CYLINDER TYPE. THE CINCINNATI WATER WORKS SPECIFICATIONS SHALL GOVERN IN CASE OF ANY DISCREPANCY.

THE SUCCESSFUL PIPE MANUFACTURER BIDDER MUST, AS STATED IN THE WATER WORKS SPECIFICATION, SUBMIT SHOP DRAWINGS SHOWING COMPLETE DETAILS OF THE INTENDED FABRICATION.

ALL CONCRETE PIPE AND SPECIALS SHALL BE PLAINLY MARKED WITH INDENTIFYING WATER WORKS LETTERS AND NUMBERS. STRAIGHT FULL LENGTH SECTIONS TO BE UNMARKED.

PIPE LAYING CONTRACTOR

THE PIPE LAYING CONTRACTOR SHALL CUT, IN THE FIELD, ALL STEEL CLOSURE PIECES AND THE 18" PIECES ADJACENT TO THE PROPOSED VALVES. NO EXTRA PAYMENT WILL BE MADE FOR THIS WORK SO IT SHOULD BE INCLUDED IN THE UNIT PRICE BID FOR LAYING THE RESPECTIVE SIZES OF CONCRETE PIPE.

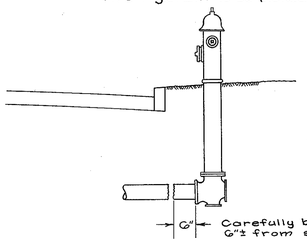
THE SUCCESSFUL BIDDER WILL BE FURNISHED A LAYING SCHEDULE AND A SET OF DETAILED PRINTS FOR THE PROPOSED CONCRETE PIPE.

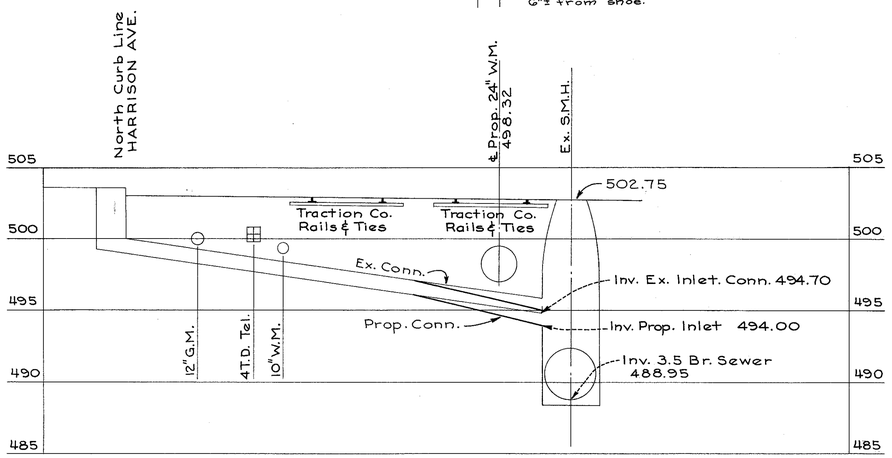
EXISTING SEWERS AND INLETS THAT ARE TO BE ABANDONED WITH EXPRESSWAY CONSTRUCTION SHALL NOT BE REMOVED OR DISTURBED FOR WATER WORKS CONSTRUCTION UNTIL NO LONGER REQUIRED FOR DRAINAGE PURPOSES. DECISION TO BE BY CITY ENGINEERING DIVISION AND STATE ENGINEER.

TEMPORARY LINES -
IF NECESSARY OR WHERE DIRECTED BY SUPERINTENDENT, TEMPORARY PIPE LINES SHALL BE FURNISHED, INSTALLED AND MAINTAINED BY THE CONTRACTOR FOR THE PURPOSE OF SUPPLYING CONSUMERS AND FOR FIRE PROTECTION SHALL BE INSTALLED. 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.

FIRE HYDRANT REMOVAL

Note: Fire Hydrant and shoe to be carefully removed.
Fire Hydrant to be picked up by Cincinnati Fire Department.





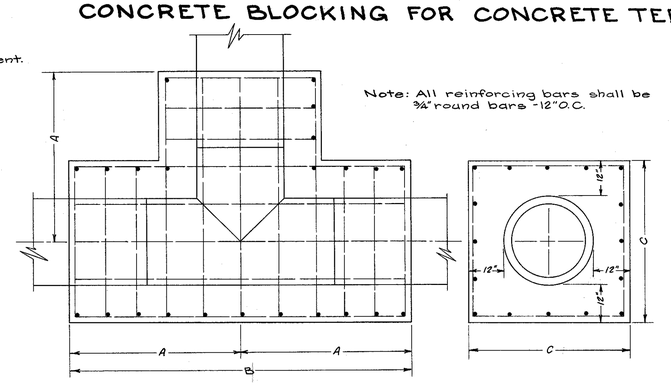
SEWER INLET CONNECTION CHANGE
HARRISON AVE AT WINCHELL AVE.
STA. 4+81.5, PROP. 24" CONC. WATER MAIN

SPECIAL NOTES

PERMITS MUST BE TAKEN OUT BY THE CONTRACTOR ON ALL UTILITY WORK OUTSIDE THE LIMITS OF NEW PAVEMENT CONCTRUCTION. 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.

CONCRETE BLOCKING FOR CONCRETE TEES

Note: All reinforcing bars shall be ¾" round bars -12" O.C.

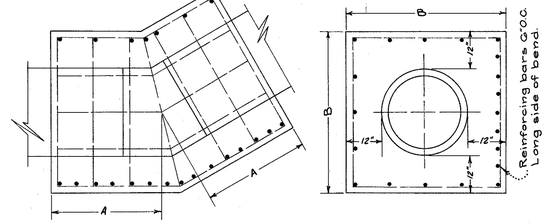


PLAN CROSS-SECTION

Size Tee	Pressure under 100 lbs. p.s.i.				Pressure over 100 lbs. p.s.i.			
	A	B	C	Lgths. tied each side	A	B	C	Lgths. tied each side
To 24"x24"	4.75	5.50	4.50	1	4.75	5.50	4.50	2
To 30"x30"	4.75	5.50	5.00	2	4.75	5.50	5.00	2
To 36"x36"	5.00	10.00	5.50	2	5.00	10.00	6.00	3
To 42"x42"	5.50	11.00	6.00	3	5.50	11.00	6.50	4
To 48"x48"	6.00	12.00	6.50	3	6.00	12.00	7.00	4

CONCRETE BLOCKING ON CONCRETE BENDS

Note: All reinforcing bars shall be ¾" round bars spaced 12" O.C. except on long side of bend where they shall be 6" O.C.



PLAN CROSS-SECTION

Size Pipe	Pressure under 100 lbs. p.s.i.				Pressure over 100 lbs. p.s.i.			
	Degree Bend	A	B	Lengths tied each side	Degree Bend	A	B	Lengths tied each side
24"	0° to 15°	3.0'	4.5'	1	0° to 15°	6.0'	4.5'	3
	15° to 30°	3.0'	4.5'	2	15° to 30°	6.0'	4.5'	4
	30° to 45°	4.0'	4.5'	3	30° to 45°	6.0'	4.5'	5
30"	0° to 15°	3.0'	5.0'	1	0° to 15°	6.0'	5.0'	3
	15° to 30°	3.0'	5.0'	2	15° to 30°	6.0'	5.0'	4
	30° to 45°	4.0'	5.0'	3	30° to 45°	6.0'	5.0'	5
36"	0° to 15°	4.0'	5.5'	1	0° to 20°	6.0'	6.0'	3
	15° to 30°	4.0'	5.5'	2	20° to 35°	6.0'	6.0'	4
	30° to 45°	6.0'	5.5'	3	35° to 45°	6.0'	6.0'	5
42"	0° to 15°	4.0'	6.0'	2	0° to 25°	6.0'	6.5'	3
	15° to 30°	4.0'	6.0'	3	25° to 35°	6.0'	6.5'	5
	30° to 45°	4.0'	6.0'	4	35° to 45°	6.0'	6.5'	6
48"	0° to 15°	4.0'	6.5'	2	0° to 25°	6.0'	7.0'	4
	15° to 30°	4.0'	6.5'	3	25° to 35°	6.0'	7.0'	5
	30° to 45°	4.0'	6.5'	4	35° to 45°	6.0'	7.0'	6

Size	Concrete Required - Other than Standard				
	Degree	Pipe Sta.	Location	A	B
48"	11°36'	0+53.66	Draper St.	5.0'	6.5'
48"	11°13'	3+82.98	Draper St.	5.0'	6.5'
42"	37°31'	0+22.32	Winchell Ave.	5.0'	6.0'
42"	45°12'	0+73.65	Winchell Ave.	12.0'	6.0'
42"	45°00'	8+18.95	Liberty St.	5.0'	6.0'
42"	45°00'	8+38.48	Liberty St.	5.0'	6.0'
36"	16°45'	0+16.81	Western Hills Via.	6.5'	5.5'
24"	53°30'	7+88.01	Alfred St.	9.0'	4.5'
24"	53°30'	8+07.01	Alfred St.	9.0'	4.5'

C-526
Drawing No. S-529
Sheet No. 34 of 38

CINCINNATI WATER WORKS
NOTES & STANDARDS

NOT FOR CONSTRUCTION INFORMATION ONLY

TYPICAL SECTIONS

FED. RD. DIVISION	STATE	PROJECT	
2	OHIO		

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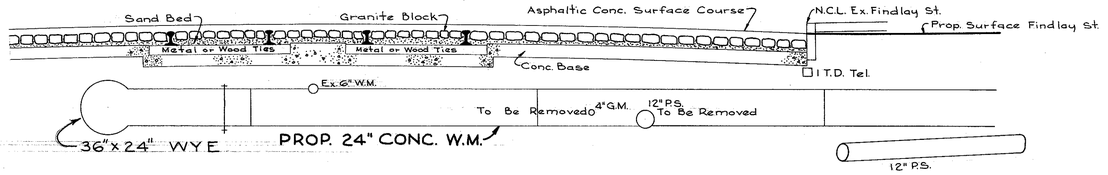
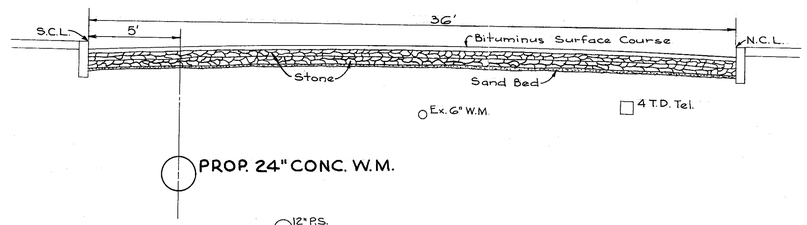
WESTERN AVE. AT PROP. FINDLAY ST.

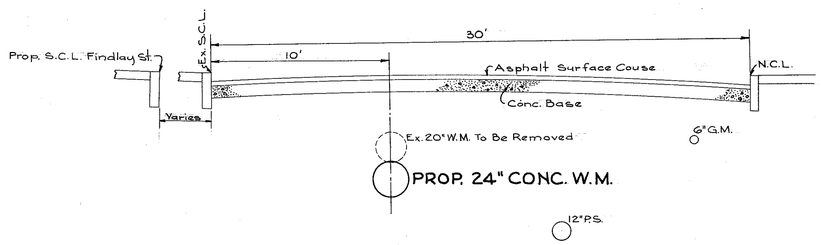


NOTE
Where Existing Rails Or Ties Interfere With Laying The Proposed Water Main The Rails And Complete Ties Shall Be Removed.

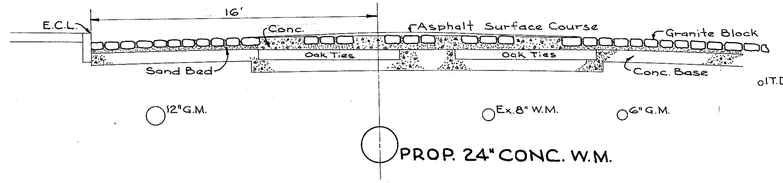
ALFRED ST.



FINDLAY ST.

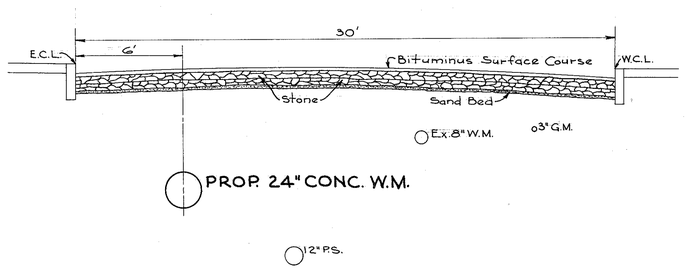


COLERAIN AVE.

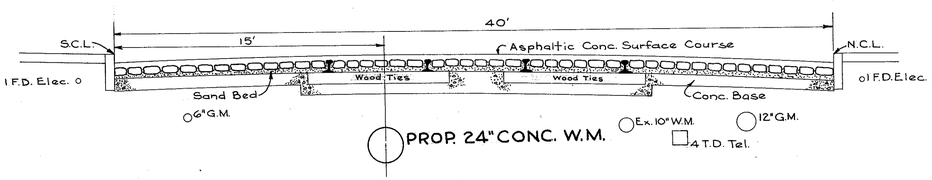


NOTE
Where Existing Rails Or Ties Interfere With Laying The Proposed Water Main The Rails And Complete Ties Shall Be Removed.

COOK ST.



HARRISON AVE.



NOTE
Where Existing Rails Or Ties Interfere With Laying The Proposed Water Main The Rails And Complete Ties Shall Be Removed.

CINCINNATI WATER WORKS

C-526
Drawing No. S-529
Scale: 1/4" = 1'
Sheet No. 35 of 38

TYPICAL SECTIONS

NOT FOR CONSTRUCTION INFORMATION ONLY

WATER WORKS MATERIAL
100% PROJECT PARTICIPATION

FED. RD. DIVISION	STATE	PROJECT	
2	OHIO		

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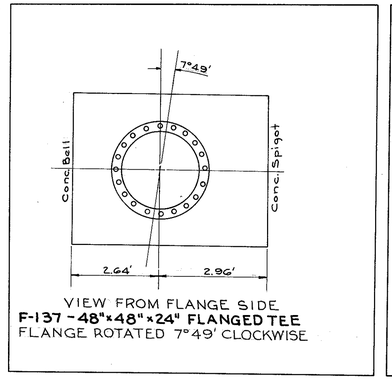
MATERIAL FURNISHED TO CONTRACTOR BY CITY OF CINCINNATI

CONCRETE PIPE and SPECIALS

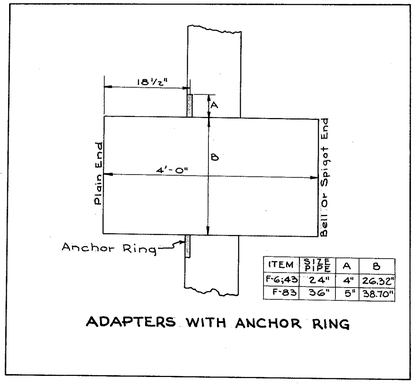
Total	Item	Description
14		16' LENGTHS 48" CONCRETE PIPE
1	S-146	16' LENGTHS 48" CONCRETE PIPE - TIED SPIGOT END ONLY
2	S-139; 149	16' LENGTH 48" CONCRETE PIPE - TIED BELL END ONLY
5		16' LENGTHS 42" CONCRETE PIPE
1	S-107	16' LENGTH 42" CONCRETE PIPE - TIED BELL END ONLY
2	S-101, 146	16' LENGTH 42" CONCRETE PIPE - TIED SPIGOT END ONLY
5		16' LENGTHS 36" CONCRETE PIPE
102		16' LENGTHS 24" CONCRETE PIPE
6	S-11; 15; 21; 47; 58; 73;	16' LENGTHS 24" CONCRETE PIPE - TIED BELL END ONLY
6	S-10; 14; 20; 25; 33; 65;	16' LENGTHS 24" CONCRETE PIPE - TIED SPIGOT END ONLY
1	S-102	SHORT LENGTH 42" CONCRETE PIPE - 9.97' LONG
1	S-84	SHORT LENGTH 36" CONCRETE PIPE - 13.44' LONG
1	S-66	SHORT LENGTH 24" CONCRETE PIPE - 12.25' LONG
6		TIED 16' LENGTHS 48" CONCRETE PIPE
32		TIED 16' LENGTHS 42" CONCRETE PIPE
18		TIED 16' LENGTHS 36" CONCRETE PIPE
39		TIED 16' LENGTHS 24" CONCRETE PIPE
1	S-128	TIED SHORT LENGTH 48" CONCRETE PIPE - 7.00' LONG - WELDED TYPE TIED JOINT BELL END - CLAMPED TYPE TIED JOINT SPIGOT END
2	S-147, 145	16' LENGTH 36" CONCRETE PIPE - TIED BELL END ONLY
1	S-117	TIED SHORT LENGTH 42" CONCRETE PIPE - 14.27' LONG
1	S-77	TIED SHORT LENGTH 36" CONCRETE PIPE - 13.84' LONG
1	S-79	TIED SHORT LENGTH 36" CONCRETE PIPE - 4.00' LONG
1	S-88	TIED SHORT LENGTH 36" CONCRETE PIPE - 14.97' LONG
1	S-90	TIED SHORT LENGTH 36" CONCRETE PIPE - 5.71' LONG
1	S-46	TIED SHORT LENGTH 24" CONCRETE PIPE - 6.95' LONG
1	S-61	TIED SHORT LENGTH 24" CONCRETE PIPE - 4.46' LONG
1	S-63	TIED SHORT LENGTH 24" CONCRETE PIPE - 1.78' LONG
1	S-69	TIED SHORT LENGTH 24" CONCRETE PIPE - 13.49' LONG
1	S-8	TIED SHORT LENGTH 24" CONCRETE PIPE - 8.47' LONG
1	S-12	TIED SHORT LENGTH 24" CONCRETE PIPE - 13.16' LONG
1	S-16	TIED SHORT LENGTH 24" CONCRETE PIPE - 11.65' LONG
1	S-18	TIED SHORT LENGTH 24" CONCRETE PIPE - 9.11' LONG
1	S-22	TIED SHORT LENGTH 24" CONCRETE PIPE - 7.77' LONG
3		FULL BEVELS 42" CONCRETE PIPE
5		FULL BEVELS 24" CONCRETE PIPE
1		HALF BEVEL 48" CONCRETE PIPE
1		HALF BEVEL 24" CONCRETE PIPE
1	S-57	HALF BEVEL 24" CONCRETE PIPE - TIED CONCRETE SPIGOT ONLY
1		TIED FULL BEVEL 24" CONCRETE PIPE
1	S-124	16' LENGTH 42" CONCRETE PIPE - TIED BELL END ONLY - WITH 2" MUELLER THREAD OUTLET 8.00' FROM SPIGOT END
1	S-131	TIED 16' LENGTH 48" CONCRETE PIPE - WELDED TYPE TIED JOINT SPIGOT END - CLAMPED TYPE TIED JOINT BELL END
1	S-99	TIED 16' LENGTH 42" CONCRETE PIPE - WELDED TYPE TIED JOINT BELL END - CLAMPED TYPE TIED JOINT SPIGOT END
1	S-91	TIED 16' LENGTH 36" CONCRETE PIPE - WELDED TYPE TIED JOINT SPIGOT END - CLAMPED TYPE TIED JOINT BELL END
1	S-32	TIED 16' LENGTH 24" CONCRETE PIPE - WELDED TYPE TIED JOINT BELL END - CLAMPED TYPE TIED JOINT SPIGOT END
2	S-128; 108.	TIED 16' LENGTH 42" CONCRETE PIPE - WITH 2" MUELLER THREAD OUTLET 8.00' FROM SPIGOT END
1	S-118	TIED 16' LENGTH 42" CONCRETE PIPE - WITH 16" MECHANICAL JOINT BELL OUTLET 4.00' FROM SPIGOT END.
1	S-56	TIED 16' LENGTH 24" CONCRETE PIPE - WITH 2" MUELLER THREAD OUTLET 15.80' FROM SPIGOT END
1	S-38	FULL BEVEL 24" CONCRETE PIPE - WITH L.S. BOTTOM - 12" NECK FLANGE OUTLET 8.00' FROM SPIGOT END AND ON SPRING LINE OF RIGHT SIDE
1	S-72	TIED FULL BEVEL 24" CONCRETE PIPE - WITH 2" MUELLER THREAD OUTLET 0.62' FROM SPIGOT END ON L.S. OF PIPE
1	F-30	24" CONCRETE SPIGOT × 22.06" O.D. PLAIN END REDUCER - CONCRETE COATING HELD BACK 9" FROM PLAIN END
1	F-68	24" CONC. SPIGOT × 22.06 O.D. PLAIN END REDUCER - CONC. COATING HELD BACK 9" FROM PLAIN END - TIED SPIGOT END ONLY
1	F-140 & 141	48" CONC. SPIGOT × 48" CONC. BELL × 24" FLANGED TEE WITH 24" BLIND FLANGE TAPPED FOR 2" MUELLER THREAD OUTLET, GALVANIZED DIPPED BOLTS & NUTS, GASKET
1	F-103 & 104	42" CONC. SPIGOT × 42" CONC. BELL × 24" FLANGED TEE WITH 24" BLIND FLANGE TAPPED FOR 2" MUELLER THREAD OUTLET, GALVANIZED DIPPED BOLTS & NUTS, GASKET
1	F-86 & 87	TIED 36" CONC. SPIGOT × 36" CONC. BELL × 24" FLANGED TEE WITH 24" BLIND FLANGE TAPPED FOR 2" MUELLER THREAD OUTLET, GALVANIZED DIPPED BOLTS & NUTS, GASKET
1	F-59 & 60	TIED 24" CONC. SPIGOT × 24" CONC. BELL × 24" FLANGED TEE WITH 24" BLIND FLANGE TAPPED FOR 2" MUELLER THREAD OUTLET, GALVANIZED DIPPED BOLTS & NUTS, GASKET
1	F-137	TIED 48" CONC. SPIGOT × 48" CONC. BELL × 24" FLANGED TEE - 125# FLANGE, GALVANIZED DIPPED BOLTS & NUTS, GASKET - SEE SHEET #36 FOR FLANGE ROTATION
1	F-1	36" PLAIN END × 36" PLAIN END × 24" TIED CONC. BELL TEE - CONC. COATING HELD BACK 12" ON PLAIN ENDS - PLAIN ENDS 38.70" O.D.
1	F-76	36" PLAIN END × 36" PLAIN END × 36" CONC. BELL TEE - CONC. COATING HELD BACK 12" ON PLAIN ENDS - PLAIN ENDS 38.70" O.D. - TIED 36" CONC. BELL OUTLET
1	F-50	36" PLAIN END × 36" PLAIN END × 24" PLAIN END 63°03' WYE - CONC. COATING HELD BACK 12" ON PLAIN ENDS - PLAIN ENDS TO BE 38.70" O.D. AND 26.32" O.D.
1	F-127	48" BELL DISHED BULKHEAD CAP WITH TIED CLAMPED TYPE JOINT - TAPPED FOR 2" MUELLER THREAD OUTLET
1	F-132	48" SPIGOT DISHED BULKHEAD PLUG WITH TIED CLAMPED TYPE JOINT - TAPPED FOR 2" MUELLER THREAD OUTLET
1	F-98	42" BELL DISHED BULKHEAD CAP WITH TIED CLAMPED TYPE JOINT - TAPPED FOR 2" MUELLER THREAD OUTLET
1	F-92	36" SPIGOT DISHED BULKHEAD PLUG WITH TIED CLAMPED TYPE JOINT - TAPPED FOR 2" MUELLER THREAD OUTLET
1	F-31	24" BELL DISHED BULKHEAD CAP WITH TIED CLAMPED TYPE JOINT - TAPPED FOR 2" MUELLER THREAD OUTLET
2	F-139; 136	ADAPTERS - 48" CONC. SPIGOT × 51.40" O.D. PLAIN END - 6.00' LONG - CONC. COATING HELD BACK 12" FROM PLAIN END - TIED CONC. SPIGOT
1	F-135	ADAPTER - 51.40" O.D. PLAIN END × 51.40" O.D. PLAIN END - 5.25' LONG - CONC. LINING HELD BACK 18" FROM ONE END
1	F-143	ADAPTER - 51.40" O.D. PLAIN END × 51.40" O.D. PLAIN END - 6.50' LONG - CONC. LINING HELD BACK 24" FROM ONE END
2	F-142; 144	ADAPTERS - 51.40" O.D. PLAIN END × 48" CONC. BELL - 2.14' LONG - CONC. COATING HELD BACK 12" FROM PLAIN END
1	F-126	ADAPTER - 45.10" O.D. PLAIN END × 45.10" O.D. PLAIN END - 3.50' LONG - CONC. LINING HELD BACK 15" FROM ONE END
1	F-111	ADAPTER - 45.10" O.D. PLAIN END × 42" CONC. SPIGOT - 4.00' LONG - CONC. COATING HELD BACK 9" FROM PLAIN END - TIED CONC. SPIGOT - WITH 2" MUELLER THREAD OUTLET 12" FROM PLAIN END
2	F-112; 113	ADAPTERS - 45.10" O.D. PLAIN END × 42" FLANGED END - 2.50' LONG - CONC. LINING HELD BACK 15" FROM PLAIN END - CLASS 125# FLANGE WITH GASKET, GALVANIZED DIPPED BOLTS & NUTS
1	F-114	ADAPTER - 45.10" O.D. PLAIN END × 42" CONC. BELL - 4.00' LONG - CONC. COATING HELD BACK 9" FROM PLAIN END - TIED CONC. BELL - WITH 2" MUELLER THREAD OUTLET 12" FROM PLAIN END

CONCRETE PIPE and SPECIALS

Total	Item	Description
1	F-122	ADAPTER - 45.10" O.D. PLAIN END × 42" CONC. SPIGOT - 1.96' LONG - CONC. COATING HELD BACK 12" FROM PLAIN END - TIED SPIGOT END ONLY
1	F-125	ADAPTER - 45.10" O.D. PLAIN END × 42" CONC. BELL - 1.65' LONG - CONC. COATING HELD BACK 12" FROM PLAIN END
1	F-80	ADAPTER - 38.70" O.D. PLAIN END × 36" CONC. SPIGOT - 4.00' LONG - CONC. COATING HELD BACK 9" FROM PLAIN END - WITH 2" MUELLER THREAD OUTLET 12" FROM PLAIN END - TIED SPIGOT END ONLY
2	F-81; 82	ADAPTERS - 38.70" O.D. PLAIN END × 38.70" O.D. PLAIN END - 2.00' LONG - CONC. LINING HELD BACK 9" FROM ONE END
1	F-83	ADAPTER - 38.70" O.D. PLAIN END × 36" CONC. BELL - 4.00' LONG - CONC. COATING HELD BACK 9" FROM PLAIN END - WITH 2" MUELLER THREAD OUTLET 12" FROM PLAIN END - SEE SHEET #36 - WITH 1" × 48.70" O.D. ANCHOR RING 18 1/2" FROM PLAIN END
1	F-93	ADAPTER - 38.70" O.D. PLAIN END × 36" CONC. SPIGOT - 1.88' LONG - CONC. COATING HELD BACK 12" FROM PLAIN END
1	F-94	ADAPTER - 38.70" O.D. PLAIN END × 36" CONC. SPIGOT - 6.70' LONG - CONC. COATING HELD BACK 21" FROM PLAIN END - PLAIN END TO HAVE 6 LUGS 15" FROM PLAIN END TO MATCH STANDARD LUGS ON 36" 90° CAST IRON BEND CLASS "C" WITH 12 1.75" × 26.00" GALVANIZED DIPPED BOLTS, NUTS & WASHERS - TIED SPIGOT END ONLY
1	F-96	ADAPTER - 38.70" O.D. PLAIN END × 36" CONC. BELL - 1.64' LONG - CONC. COATING HELD BACK 12" FROM PLAIN END
1	F-97	ADAPTER - 38.70" O.D. PLAIN END × 38.70" O.D. PLAIN END - 5.00' LONG - CONC. LINING HELD BACK 18" FROM ONE END
3	F-3; 26; 34	ADAPTERS - 26.32" O.D. PLAIN END × 24" CONC. SPIGOT - 4.00' LONG - CONC. COATING HELD BACK 9" FROM PLAIN END - WITH 2" MUELLER THREAD OUTLET 12" FROM PLAIN END
6	F-27; 28; 35; 36; 41; 42;	ADAPTERS - 26.32" O.D. PLAIN END × 26.32" O.D. PLAIN END - 2.00' LONG - CONC. LINING HELD BACK 9" FROM ONE END
2	F-29; 37	ADAPTERS - 26.32" O.D. PLAIN END × 24" CONC. BELL - 4.00' LONG - CONC. COATING HELD BACK 9" FROM PLAIN END - WITH 2" MUELLER THREAD OUTLET 12" FROM PLAIN END
2	F-39; 67	ADAPTERS - 26.32" O.D. PLAIN END × 24" CONC. SPIGOT - 1.88' LONG - CONC. COATING HELD BACK 12" FROM PLAIN END
1	F-40	ADAPTER - 26.32" O.D. PLAIN END × 26.32" O.D. PLAIN END - 4.00' LONG - CONC. COATING HELD BACK 9" FROM BOTH ENDS - WITH 2" MUELLER THREAD OUTLET 12" FROM ONE END
2	F-48; 74	ADAPTERS - 26.32" O.D. PLAIN END × 24" CONC. BELL - 1.65' LONG - CONC. COATING HELD BACK 12" FROM PLAIN END
2	F-49; 75	ADAPTERS - 26.32" O.D. PLAIN END × 26.32" O.D. PLAIN END - 5.00' LONG - CONC. LINING HELD BACK 18" FROM ONE END
1	F-51	ADAPTER - 26.32" O.D. PLAIN END × 24" CONC. BELL - 2.65' LONG - CONC. COATING HELD BACK 24" AND CONC. LINING HELD BACK 18" FROM PLAIN END
2	F-5; 4	ADAPTERS - 26.32" O.D. PLAIN END × 24" FLANGED END - 2.00' LONG - CONC. LINING HELD BACK 9" FROM PLAIN END - CLASS 125# FLANGE WITH GASKET, GALVANIZED DIPPED BOLTS & NUTS
1	F-52	ADAPTER - 26.32" O.D. PLAIN END × 24" FLANGED END - 2.00' LONG - CLASS 125# FLANGE WITH GASKET, GALVANIZED DIPPED BOLTS & NUTS
1	F-53	ADAPTER - 26.32" O.D. PLAIN END × 24" CONC. BELL - 4.00' LONG - CONC. COATING HELD BACK 9" FROM PLAIN END - WITH 2" MUELLER THREAD OUTLET 12" FROM PLAIN END - TIED CONC. BELL END ONLY
1	F-43	ADAPTER - 26.32" O.D. PLAIN END × 24" CONC. SPIGOT - 4.00' LONG - CONC. COATING HELD BACK 9" FROM PLAIN END - WITH 2" MUELLER THREAD OUTLET 12" FROM PLAIN END - TIED CONC. SPIGOT END ONLY - SEE SHEET #36 - WITH 1" × 34.32" O.D. ANCHOR RING 18 1/2" FROM PLAIN END
1	F-6	ADAPTER - 26.32" O.D. PLAIN END × 24" CONC. BELL - 4.00' LONG - CONC. COATING HELD BACK 9" FROM PLAIN END - WITH 2" MUELLER THREAD OUTLET 12" FROM PLAIN END - SEE SHEET #36 - WITH 1" × 34.32" O.D. ANCHOR RING 18 1/2" FROM PLAIN END
1	F-129	TIED 48" CONC. BEND - 11°36'
1	F-130	TIED 48" CONC. BEND - 11°13'
1	F-133	TIED 48" CONC. BEND - 38°17'
1	F-138	TIED 48" CONC. BEND - 11°56'
1	F-100	TIED 42" CONC. BEND - 45°12'
2	F-105; 106	TIED 42" CONC. BEND - 33°30'
3	F-109; 110; 115	TIED 42" CONC. BEND - 12°00'
1	F-116	TIED 42" CONC. BEND - 11°34'
2	F-119; 120	TIED 42" CONC. BEND - 45°00'
1	F-123	TIED 42" CONC. BEND - 37°31'
1	F-78	TIED 36" CONC. BEND - 16°45'
1	F-85	TIED 36" CONC. BEND - 35°51'
1	F-89	TIED 36" CONC. BEND - 18°37'
1	F-95	TIED 36" CONC. BEND - 38°53'
1	F-44	TIED 24" CONC. BEND - 14°31'
1	F-45	TIED 24" CONC. BEND - 7°19'
1	F-54	TIED 24" CONC. BEND - 10°42'
1	F-55	TIED 24" CONC. BEND - 24°24'
1	F-62	TIED 24" CONC. BEND - 52°30'
1	F-64	TIED 24" CONC. BEND - 52°42'
2	F-70; 71	TIED 24" CONC. BEND - 53°30'
2	F-7; 9	TIED 24" CONC. BEND - 24°00'
1	F-13	TIED 24" CONC. BEND - 17°00'
1	F-2	TIED 24" CONC. BEND - 21°43'
1	F-17	TIED 24" CONC. BEND - 10°54'
1	F-19	TIED 24" CONC. BEND - 12°33'
1	F-23	TIED 24" CONC. BEND - 15°57'
1	F-24	TIED 24" CONC. BEND - 22°40'
1	F-150	ADAPTER - 45.10" O.D. PLAIN END × 42" CONC. SPIGOT - 6.00' LONG - CONC. COATING HELD BACK 12" FROM PLAIN END
1	F-151	ADAPTER - 45.10" O.D. PLAIN END × 45.10" O.D. PLAIN END - 5.50' LONG - CONC. LINING HELD BACK 24" FROM ONE END
1	F-152	ADAPTER - 45.10" O.D. PLAIN END × 42" CONC. BELL - 6.00' LONG - CONC. COATING HELD BACK 12" FROM PLAIN END



VIEW FROM FLANGE SIDE
F-137 - 48"×48"×24" FLANGED TEE
FLANGE ROTATED 7°49' CLOCKWISE



ITEM	SIZE PIPE	A	B
F-6;43	24"	4"	26.32"
F-83	36"	5"	38.70"

ADAPTERS WITH ANCHOR RING

NOTE:

THE ITEMS ON THIS SHEET SHALL BE REINFORCED CONCRETE WATER PIPE STEEL CYLINDER TYPE, PRESTRESSED CINCINNATI STANDARD CLASS "B".

ALL FLANGES TO BE CLASS 125# AS TO DIMENSION.

ANCHOR LUGS AND RINGS FOR TESTING PIPE OR FITTINGS SHALL NOT BE LEFT TO REMAIN ON THE SPIGOT RING IF SUCH LUGS OR RINGS INTERFERE WITH THE WELDING OF TIED JOINTS.

THE CONCRETE PIPE AND SPECIALS WILL BE DELIVERED, BY THE PIPE FABRICATOR, TO ANY SPOT DESIGNATED BY THE CONTRACTOR WHICH IS ACCESSIBLE BY "OVER THE ROAD" TRACTOR TRAILER.

C-526

CINCINNATI WATER WORKS

Drawing No. S-529
Sheet 36 of 38

CONCRETE PIPE MATERIAL

NOT FOR CONSTRUCTION INFORMATION ONLY

WATER WORKS MATERIAL
100% PROJECT PARTICIPATION

Material Furnished to the Contractor by the City of Cincinnati.

FED. RD. DIVISION	STATE	PROJECT	
2	OHIO		

449
486

HAM.-25-1.63

NOTE: Sheet No. 450 omitted from Plans

CAST IRON PIPE AND SPECIALS

TOTAL	DESCRIPTION			
168	18' LENGTHS 12" CAST IRON PIPE	COMP. JT.	CLASS 250	
5	18' LENGTHS 10" CAST IRON PIPE	H. & S.	CLASS 250	
26	18' LENGTHS 16" CAST IRON PIPE	COMP. JT.	CLASS 250	
6	18' LENGTHS 8" CAST IRON PIPE	M.J.	CLASS 250	
37	18' LENGTHS 6" CAST IRON PIPE	COMP. JT.	CLASS 250	
2	18' LENGTHS 4" CAST IRON PIPE	H. & S.	CLASS 250	
2	18' LENGTHS 24" CAST IRON PIPE	M.J.	CLASS 250	
2	18' LENGTHS 20" CAST IRON PIPE	H. & S.	CLASS 250	
1	12' LENGTH 36" CAST IRON PIPE	H. & S.	CLASS C	
2	24" 11 1/4° BEND	2M.J.	CLASS D	
1	16" 22 1/2° BEND	2M.J.	CLASS D	
11	12" 45° BEND	2M.J.	CLASS D	
3	12" 22 1/2° BEND	2M.J.	CLASS D	
2	12" 11 1/4° BEND	2M.J.	CLASS D	
2	12" 11 1/4° BEND	P.E. X M.J.	CLASS D	
2	10" OFFSET BEND	P.E. X M.J.	CLASS D	
2	8" OFFSET BEND	P.E. X M.J.	CLASS D	
1	8" 90° BEND	P.E. X M.J.	CLASS D	
2	8" 45° BEND	2M.J.	CLASS D	
4	6" OFFSET BEND	P.E. X M.J.	CLASS D	
4	6" 90° BEND	P.E. X M.J.	CLASS D	
2	6" 45° BEND	P.E. X M.J.	CLASS D	
21	6" 90° BEND	2M.J.	CLASS D	
3	6" 45° BEND	2M.J.	CLASS D	
1	6" 22 1/2° BEND	2M.J.	CLASS D	
1	4" 90° BEND	H. & S.	CLASS D	
1	4" 22 1/2° BEND	H. & S.	CLASS D	
1	20" PLUG	H. & S.	CLASS D	
1	16" PLUG	M.J.	CLASS D	
7	6" PLUGS	H. & S.	CLASS D	
2	4" PLUGS	H. & S.	CLASS D	
1	20" PLUG CLAMP			
7	6" PLUG CLAMPS			
2	4" PLUG CLAMPS			
1	24" X 20" REDUCER	2P.E.	CLASS D	
1	20" X 12" REDUCER	2P.E.	CLASS D	
5	16" X 12" REDUCER	2P.E.	CLASS D	
3	12" X 10" REDUCER	2P.E.	CLASS D	
1	12" X 8" REDUCER	2P.E.	CLASS D	
1	12" X 6" REDUCER	2P.E.	CLASS D	
1	10" X 6" REDUCER	2P.E.	CLASS D	
3	8" X 6" REDUCER	2P.E.	CLASS D	
1	8" X 4" REDUCER	2P.E.	CLASS D	
3	20" SLEEVES	SOLID	CLASS D	
1	16" SLEEVE	SOLID	CLASS D	
2	16" SLEEVES	2M.J.	CLASS D	
14	10" SLEEVES	SOLID	CLASS D	
2	8" SLEEVES	SOLID	CLASS D	
14	6" SLEEVES	SOLID	CLASS D	
1	4" SLEEVE	SOLID	CLASS D	
1	16" X 6" TEE	3M.J.	CLASS D	
1	16" X 12" TEE	3M.J.	CLASS D	
1	16" X 8" TEE	3M.J.	CLASS D	
6	12" X 12" TEE	3M.J.	CLASS D	
2	12" X 10" TEE	3M.J.	CLASS D	
1	12" X 8" TEE	3M.J.	CLASS D	
8	12" X 6" TEE	3M.J.	CLASS D	
1	10" X 10" TEE	3M.J.	CLASS D	
3	10" X 6" TEE	3M.J.	CLASS D	
2	8" X 6" TEE	3M.J.	CLASS D	
2	6" X 6" TEE	3M.J.	CLASS D	
1	42" BUTTERFLY VALVE (LAY DOWN) 2 FLANGE			
1	36" VALVE (LAY DOWN) 2H.			
2	24" BUTTERFLY VALVE (LAY DOWN) 2 FLANGE			
3	24" VALVE (LAY DOWN) 2H.			
18	12" VALVE 2M.J.			
2	10" VALVE 2H.			
2	8" VALVE 2M.J.			
22	6" VALVE 2M.J.			
1	12" VALVE H. & FLG.			
51	M.H.C. & C.			
26	VALVE BOX HOOD, LID & TELESCOPE			
3	VALVE BOX HOOD & LID			
22	FIRE HYDRANTS - Y.T.			
1	20" X 10" REDUCER	2P.E.	CLASS D	

CAST IRON PIPE AND SPECIALS

TOTAL	DESCRIPTION
4	48" DRESSER COUPLINGS FOR 51.40" O.D. PIPE - STYLE 38 - 1/2" X 10" MIDDLE RING - PIPE STOP REMOVED - GALV. DIPPED BOLTS & NUTS
7	42" DRESSER COUPLINGS FOR 45.10" O.D. PIPE - STYLE 38 - 1/2" X 10" MIDDLE RING - PIPE STOP REMOVED - GALV. DIPPED BOLTS & NUTS
10	36" DRESSER COUPLINGS FOR 38.70" O.D. PIPE - STYLE 38 - 1/2" X 10" MIDDLE RING - PIPE STOP REMOVED - GALV. DIPPED BOLTS & NUTS
14	24" DRESSER COUPLINGS FOR 26.32" O.D. PIPE - STYLE 38 - 3/8" X 7" MIDDLE RING - PIPE STOP REMOVED - GALV. DIPPED BOLTS & NUTS
2	20" DRESSER COUPLINGS FOR 22.06" O.D. PIPE - STYLE 38 - 3/8" X 7" MIDDLE RING - PIPE STOP REMOVED - GALV. DIPPED BOLTS & NUTS

SERVICE BRANCH MATERIAL

TOTAL	DESCRIPTION	
9	3/4" FERRULES	INSTALLED BY WATER WORKS
53	1" FERRULES	INSTALLED BY WATER WORKS
25	2" FERRULES	INSTALLED BY WATER WORKS
9	3/4" STOP COCKS	
9	1" STOP COCKS	
14	CURB BOXES	
240	LIN. FT. 3/4" COPPER SERVICE PIPE	
120	LIN. FT. 1" COPPER SERVICE PIPE	

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 CONTRACTORS TRUCKS.

CINCINNATI WATER WORKS

C-526
Drawing No. S-529
Sheet No. 37 of 38

CAST IRON & BRANCH MATERIAL

NOT FOR CONSTRUCTION INFORMATION ONLY

FED. RD. DIVISION	STATE	PROJECT	
2	OHIO		

451
486

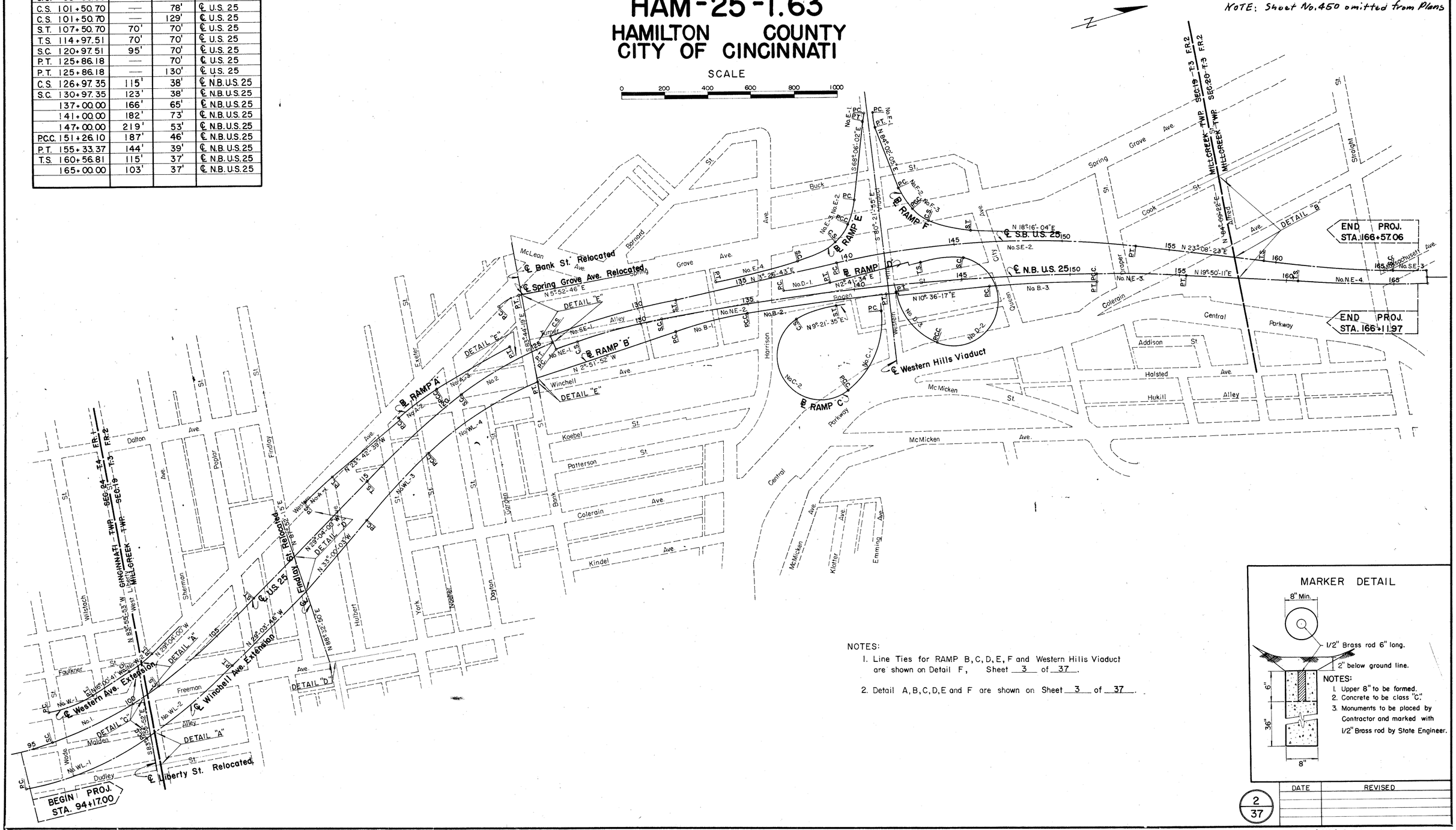
HAM.-25-1.63
R/W PLANS
LIMITED ACCESS

NOTE: Sheet No. 450 omitted from Plans

LOCATION PLAN
HAM-25-1.63
HAMILTON COUNTY
CITY OF CINCINNATI

SCALE 0 200 400 600 800 1000

CENTERLINE REFERENCE MONUMENTS			
LOCATION	LEFT	RIGHT	REMARKS
S.C. 95+86.58	96'	78'	℄ U.S. 25
C.S. 101+50.70	—	78'	℄ U.S. 25
C.S. 101+50.70	—	129'	℄ U.S. 25
S.T. 107+50.70	70'	70'	℄ U.S. 25
T.S. 114+97.51	70'	70'	℄ U.S. 25
S.C. 120+97.51	95'	70'	℄ U.S. 25
P.T. 125+86.18	—	70'	℄ U.S. 25
P.T. 125+86.18	—	130'	℄ U.S. 25
C.S. 126+97.35	115'	38'	℄ N.B. U.S. 25
S.C. 130+97.35	123'	38'	℄ N.B. U.S. 25
137+00.00	166'	65'	℄ N.B. U.S. 25
141+00.00	182'	73'	℄ N.B. U.S. 25
147+00.00	219'	53'	℄ N.B. U.S. 25
P.C.C. 151+26.10	187'	46'	℄ N.B. U.S. 25
P.T. 155+33.37	144'	39'	℄ N.B. U.S. 25
T.S. 160+56.81	115'	37'	℄ N.B. U.S. 25
165+00.00	103'	37'	℄ N.B. U.S. 25



NOTES:

1. Line Ties for RAMP B, C, D, E, F and Western Hills Viaduct are shown on Detail F, Sheet 3 of 37.
2. Detail A, B, C, D, E and F are shown on Sheet 3 of 37.

MARKER DETAIL

NOTES:
1. Upper 8" to be formed.
2. Concrete to be class "C".
3. Monuments to be placed by Contractor and marked with 1/2" Brass rod by State Engineer.

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DATE	REVISED

R/W PLAN - LOCATION PLAN

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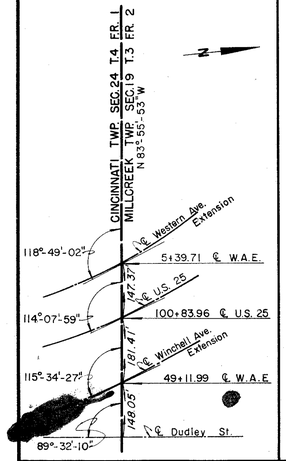
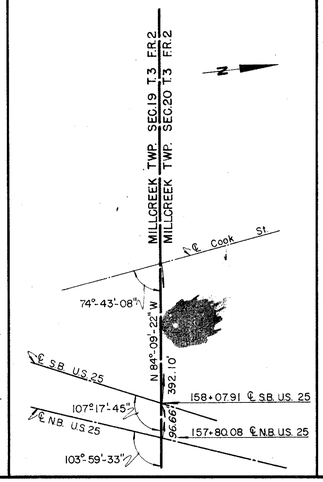
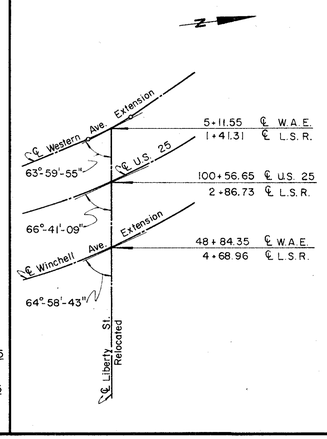
SECTION LINE TIE DETAIL "A"



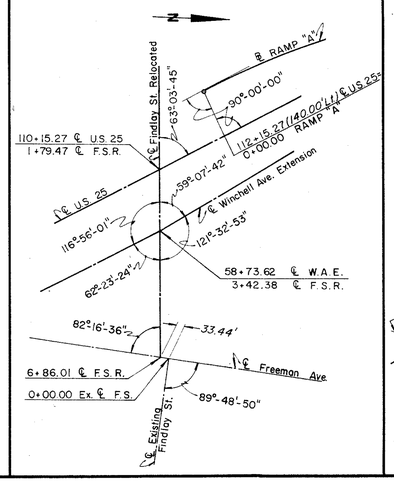
SECTION LINE TIE DETAIL "B"



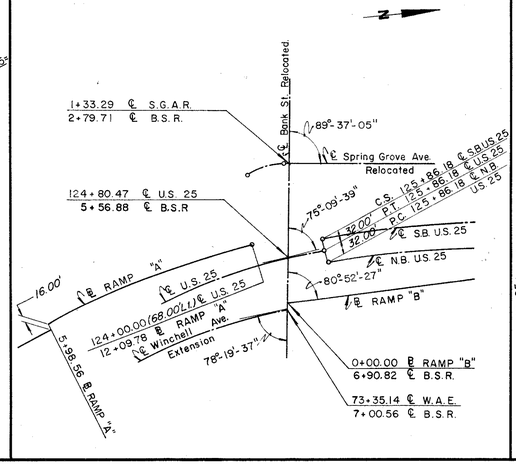
LINE TIE DETAIL "C"



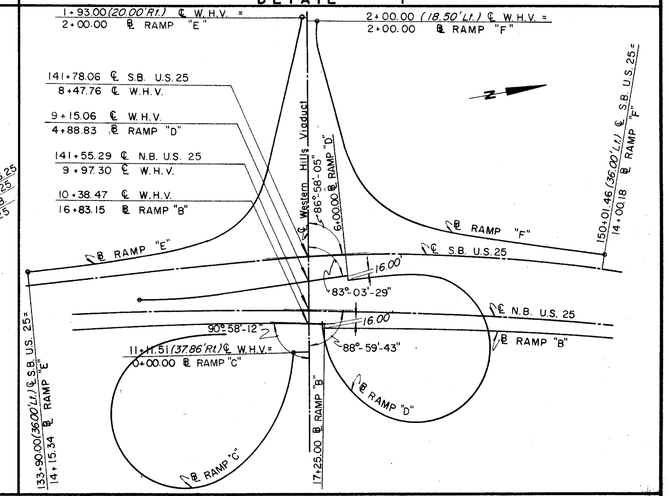
LINE TIE DETAIL "D"



LINE TIE DETAIL "E"



LINE TIE DETAIL "F"



CURVE DATA

CURVE NO.	P.I. Sta.	△	D_c	R	L	T_1	T_2	L_{s-1}	L_{s-2}	θ_{s-1}	θ_{s-2}	E
1.	98+89.58	34°55'25"	3°00'00"	1909.86'	564.12'	903.00'	903.00'	600.00'	600.00'	9°00'00"	9°00'00"	100.00'
2.	121+79.39	23°04'00"	3°00'00"	1909.86'	488.67'	681.88'	419.59'	600.00'	———	9°00'00"	———	———
NE-1.	127+83.67	10°32'09"	3°03'04"	1877.86'	111.17'	197.49'	315.01'	———	400.00'	———	7°08'38"	———
NE-2.	141+14.61	10°33'59"	0°31'15"	11000.79'	2028.74'	1017.25'	1017.25'	———	———	———	———	46.93'
NE-3.	153+29.81	4°08'26"	1°01'00"	5635.65'	407.27'	203.72'	203.72'	———	———	———	———	3.68'
NE-4.	164+57.04	5°56'01"	1°58'40"	2896.79'	———	400.23'	200.21'	600.00'	———	5°56'01"	———	———
SE-1.	127+86.64	8°51'06"	2°57'02"	1941.86'	———	200.46'	400.50'	———	600.00'	———	8°51'06"	———
SE-2.	146+57.20	19°41'41"	1°25'00"	4044.41'	1390.21'	702.03'	702.03'	———	———	———	———	60.48'
SE-3.	164+41.40	9°14'14"	2°01'21"	2832.79'	156.70'	496.20'	261.81'	600.00'	———	6°04'04"	———	———
WL-1.	45+68.62	24°20'20"	4°00'00"	1432.39'	608.47'	308.89'	308.89'	———	———	———	———	32.93'
WL-2.	51+29.75	10°26'00"	2°00'00"	2864.79'	521.67'	261.56'	261.56'	———	———	———	———	11.92'
WL-3.	65+17.12	6°17'33"	1°30'00"	3819.72'	419.50'	209.96'	209.96'	———	———	———	———	5.77'
WL-4.	70+34.45	21°17'48"	3°30'00"	1637.02'	608.48'	307.79'	307.79'	———	———	———	———	———
W-1.	1+61.41	22°00'26"	10°00'00"	572.96'	220.07'	111.41'	111.41'	———	———	———	———	10.73'
W-2.	5+37.90	13°03'19"	10°00'00"	572.96'	130.55'	65.65'	65.65'	———	———	———	———	3.74'
A-1.	0+89.32	5°21'21"	3°00'00"	1909.86'	178.52'	89.33'	89.33'	———	———	———	———	2.09'
A-2.	7+08.89	8°48'33"	4°00'00"	1432.39'	220.22'	110.33'	110.33'	———	———	———	———	4.24'
A-3.	10+14.36	3°54'36"	1°00'00"	5729.58'	391.00'	195.58'	195.58'	———	———	———	———	3.34'
B-1.	8+52.74	10°02'21"	3°00'00"	———	334.64'	167.75'	167.75'	———	———	———	———	7.45'
B-2.	13+47.80	3°25'49"	0°31'22"	10959.62'	656.13'	328.16'	328.16'	———	———	———	———	4.19'
B-3.	24+01.09	5°05'28"	1°01'24"	5599.65'	497.57'	248.95'	248.95'	———	———	———	———	5.53'
C-1.	2+21.63	56°52'31"	14°00'00"	409.26'	409.25'	221.63'	221.63'	———	———	———	———	56.16'
C-2.	———	209°59'14"	28°30'00"	201.04'	634.96'	———	———	———	200.00'	29°01'26"	———	———
D-1.	1+12.99	5°25'09"	2°24'00"	2387.32'	225.80'	112.99'	112.99'	———	———	———	———	2.67'
D-2.	———	214°56'38"	28°30'00"	201.04'	654.19'	———	———	200.00'	———	28°30'00"	———	———
D-3.	16+77.55	59°08'08"	19°00'00"	301.56'	311.24'	171.08'	171.08'	———	———	———	———	45.15'
E-1.	2+18.65	12°15'53"	33°00'00"	173.62'	37.17'	18.65'	18.65'	———	———	———	———	1.00'
E-2.	6+59.34	16°16'39"	14°00'00"	409.26'	116.27'	58.53'	58.53'	———	———	———	———	4.16'
E-3.	8+37.08	51°17'51"	25°00'00"	229.18'	101.19'	120.00'	199.12'	———	200.00'	———	26°00'00"	———
E-4.	12+16.88	3°58'15"	1°00'00"	5729.58'	397.07'	189.62'	189.62'	———	———	———	———	3.44'
F-1.	2+31.39	15°36'00"	25°00'00"	229.18'	62.40'	31.39'	31.39'	———	———	———	———	2.14'
F-2.	6+26.46	16°16'55"	14°00'00"	409.27'	116.30'	58.54'	58.54'	———	———	———	———	4.17'
F-3.	7+99.34	49°29'06"	25°00'00"	229.18'	97.94'	115.12'	198.82'	———	200.00'	———	25°00'00"	———

CONTROL POINT STATION

CURVE NO.	P. I. Sta.	P. C. Sta.	P. T. Sta.	P.C.C. Sta.	T. S. Sta.	S. C. Sta.	C. S. Sta.	S. T. Sta.
1.	98+89.58	———	———	———	89+86.58	95+86.58	101+50.70	107+50.70
2.	121+79.39	———	125+86.18	———	114+97.51	120+97.51	———	———
NE-1.	127+83.67	125+86.18	———	———	———	———	126+97.35	130+97.35
NE-2.	141+14.61	130+97.35	———	151+26.07	———	———	———	———
NE-3.	153+29.81	———	155+33.36	151+26.09	———	———	———	———
NE-4.	164+57.01	———	———	———	160+56.81	———	———	———
SE-1.	127+86.64	———	———	———	———	———	125+86.18	131+86.18
SE-2.	146+57.20	139+55.17	153+45.38	———	———	———	———	———
SE-3.	164+41.40	———	———	———	159+45.20	165+45.20	———	———
WL-1.	45+68.62	42+59.72	———	48+68.19	———	———	———	———
WL-2.	51+29.75	———	53+89.86	48+68.19	———	———	———	———
WL-3.	65+17.12	63+07.16	———	67+26.66	———	———	———	———
WL-4.	70+34.45	———	73+35.14	67+26.66	———	———	———	———
W-1.	1+61.41	0+50.00	2+70.07	———	———	———	———	———
W-2.	5+37.90	4+72.34	6+02.89	———	———	———	———	———
A-1.	0+89.33	0+00.00	1+78.52	———	———	———	———	———
A-2.	7+08.89	5+98.56	———	8+18.78	———	———	———	———
A-3.	10+14.36	———	12+09.78	8+18.78	———	———	———	———
B-1.	8+52.74	6+84.99	———	10+19.63	———	———	———	———
B-2.	13+47.80	———	16+75.76	10+19.63	———	———	———	———
B-3	24+01.09	21+52.14	26+49.71	———	———	———	———	———
C-1.	2+21.63	0+00.00	———	4+06.25	———	———	———	———
C-2.	———	———	———	4+06.25	———	———	10+41.21	12+41.21
D-1.	1+12.99	0+00.00	2+25.80	———	———	———	———	———
D-2	———	———	———	15+06.47	6+52.28	8+52.28	———	———
D-3.	16+77.55	———	18+17.71	15+06.47	———	———	———	———
E-1.	2+18.65	2+00.00	2+37.17	———	———	———	———	———
E-2.	6+59.34	6+00.81	———	7+17.08	———	———	———	———
E-3.	8+37.08	———	———	7+17.08	———	———	8+18.27	———
E-4.	12+16.89	———	14+15.34	———	———	10+18.27	———	———
F-1.	2+31.39	2+00.00	2+62.40	———	———	———	———	———
F-2.	6+26.46	5+67.92	———	6+84.22	———	———	———	———
F-3.	7+99.34	———	———	6+84.22	———	———	7+82.16	9+82.16

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R/W PLAN - LOCATION PLAN

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R/W PLANS
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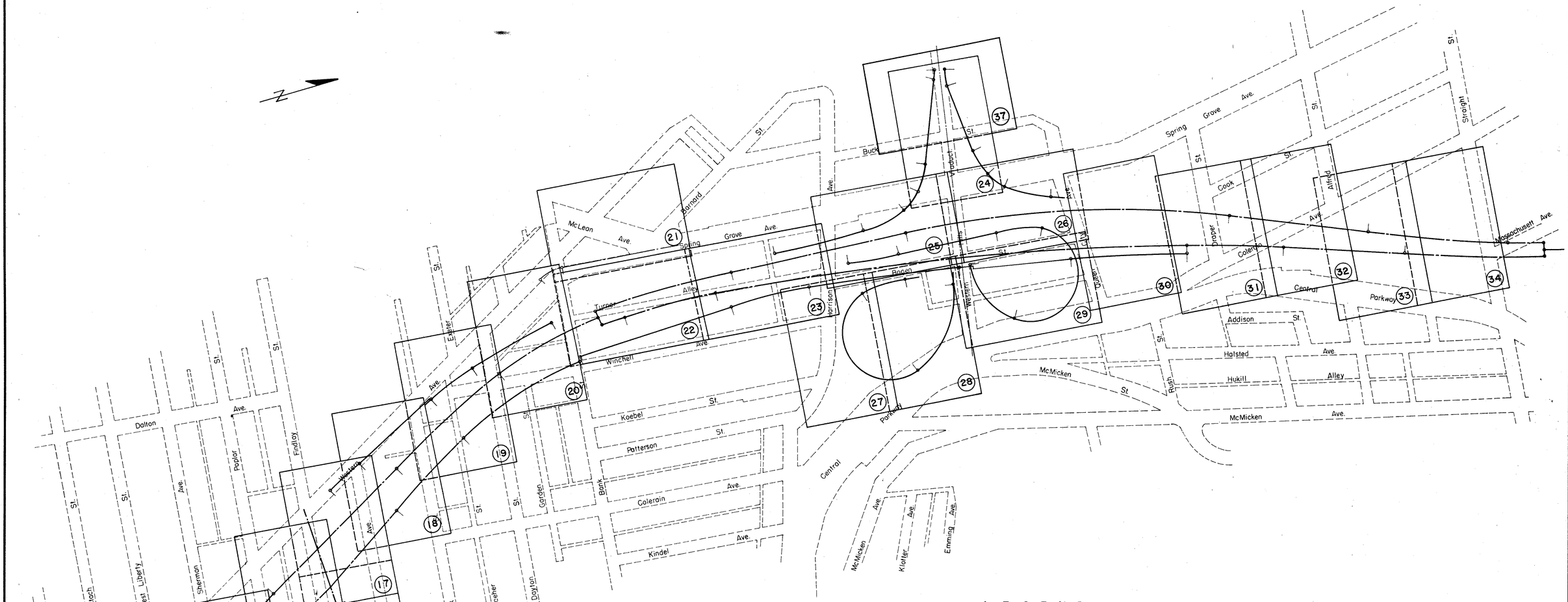

LEGEND

TYPICAL LINE DESIGNATION

L A	Limited Access Line.
R/W	Right of Way Line.
	WA.,S.A.,SL.,U. and T. Line.
	Proposed Type "C" R/W Fence.
E.P.A.	End Panel Assembly.
A.C.	Abutment Connection.

TYPICAL PARCEL DESIGNATION

1735 LA	Limited Access.
1735	Right-of-Way.
1735 SL	Slope Easement.
U	Utility Easement.
SA	Special Agreement.
T	Temporary.
WA	Work Agreement.
WD	Warranty Deed.

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DATE	REVISED

R/W PLAN - SHEET INDEX PLAN

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2	OHIO		

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R/W PLANS
LIMITED ACCESS

R/W PLANS
HAM-25-1.63
CITY OF CINCINNATI
HAMILTON CO.

SUMMARY OF R/W REQUIRED

Parcel No.	Owner	R/W Area Total Sq.Ft.	Req. Sq.Ft.	Req. Ac.	Res. Sq.Ft.	R/W Sheet No.	Remarks
1175 LA	Thea B. Schuberth	2,440	2,181	0.05	0	10	Part Take
1175	"	——	259	0.01	——	10	" "
1176 LA	Jerome S. Teller "Tr."	2,763	2,460	0.06	0	10	" "
1176	" "	——	303	0.01	——	10	" "
1177 LA	Mary Alice Parr	1,650	571	0.01	0	10, 11	" "
1177	" " "	——	1,079	0.02	——	10, 11	" "
1178LAthru	——	——	——	——	——	10, 11	See Note #1
1193 LA	——	——	——	——	——	10, 11	" " "
1194 LA	——	——	——	——	——	——	Not Used
1195 LA	Wm. P. Wurzlebacher	1,437	838	0.02	0	11	Part Take
1195	" "	——	599	0.01	——	11	" "
1196 LA	Abe and M. Tennebaum	1,612	1,612	0.04	0	11	Whole Take
1197 LA	David Jacobson	3,050	2,341	0.05	0	11	Part Take
1197	" "	——	709	0.02	——	11	" "
1198 LA	J. Vincent Aug, Trustee	3,050	2,221	0.05	0	11	" "
1198	" "	——	829	0.02	——	11	" "
1199 LA	Morris and Rosa Nagler	3,050	2,089	0.05	0	11	" "
1199	" " "	——	961	0.02	——	11	" "
1200 LA	Raymond Sims	3,050	1,945	0.04	0	11	" "
1200	" "	——	1,105	0.03	——	11	" "
1201 LA	Joseph and Cecilia Kreimer	3,050	1,789	0.04	0	11	" "
1201	" " "	——	1,261	0.03	——	11	" "
1202 LA	Eddie and Nena Miller	3,050	1,621	0.04	0	11	" "
1202	" " "	——	1,429	0.03	——	11	" "
1203 LA	Stanley C. Jacques	3,050	1,440	0.03	51	11	" "
1203	" "	——	1,559	0.04	——	11	" "
1203 WA	" "	——	——	——	——	11	——
1204 LA	Margaret L. Eggleston	3,050	1,247	0.03	229	11	Part Take
1204	" "	——	1,574	0.04	——	11	" "
1204 WA	" "	——	——	——	——	11	——
1205 LA	Linnie and Snowie Caldwell	3,050	1,040	0.02	426	11	Part Take
1205	" " "	——	1,584	0.04	——	11	" "
1205 WA	" " "	——	——	——	——	11	——
1206 LA	Oliver W. Hardin	8,874	1,708	0.04	2,292	11	Part Take
1206	" "	——	4,874	0.11	——	11	" "
1206 WA		——	——	——	——	11	——
1207 LA	Ruth and John White	2,958	106	0.00	227	11	Part Take
1207	" "	——	2,625	0.06	——	11	" "
1207 WA	" "	——	——	——	——	11	——
1208	Walter Meier	2,440	2,440	0.06	0	11	Whole Take
1209	Wm. Kohls	2,440	2,440	0.06	0	11	" "
1210LAthru	——	——	——	——	——	11	See Note #1
1222 LA	——	——	——	——	——	11	" " "
1223	Boys Club of Cincinnati Inc.	3,325	269	0.01	3,056	13	
1223 WA	" " " "	——	——	——	——	13	——
1224	Wilma Ida Davis	12,103	1,717	0.04	10,386	13	
1224 WA	" " "	——	——	——	——	13	——
						13	

Note #1. - These parcels were purchased under contract HAM.-25-0.83 for an embankment area.

Note #2. - These parcels were purchased under contract HAM.-25-2.99 .

SUMMARY OF R/W REQUIRED

Parcel No.	Owner	R/W Area Total Sq.Ft.	Req. Sq.Ft.	Req. Ac.	Res. Sq.Ft.	R/W Sheet No.	Remarks
1225	Irvin Adler	6,916	2,189	0.05	4,727	13	Part Take
1225 WA	" "	——	——	——	——	13	——
1226 LA	John Gabbennesch	3,325	85	0.00	1,318	13	Part Take
1226	" "	——	1,922	0.04	——	13	" "
1226 T	" "	——	1,318	0.03	——	13	——
1227 LA	Philip Nathan	3,325	337	0.01	1,258	13	Part Take
1227	" "	——	1,730	0.04	——	13	" "
1227 T		——	1,258	0.03	——	13	——
1228 LA	Wilfred Realty Co.	5,320	1,073	0.02	1,483	13	Part Take
1228	" " "	——	2,764	0.06	——	13	" "
1228 T	" " "	——	1,483	0.03	——	13	——
1229 LA	Rose R. Fields	2,660	783	0.02	0	13	Part Take
1229	" "	——	1,877	0.04	——	13	" "
1230 LA	Rebecca Stein	5,814	918	0.02	0	13	" "
1230	" "	——	4,896	0.11	——	13	" "
1231LAthru	——	——	——	——	——	——	Not Needed
1304 LA	——	——	——	——	——	——	" "
1305	Stanshar Investment Co., Inc.	2,394	674	0.02	1,720	12	Part Take
1305 WA	" " "	——	——	——	——	12	——
1306 LAthru	——	——	——	——	——	——	Not Needed
1311 LA	——	——	——	——	——	——	" "
1312 LA	Morris Investment Co.	7,875	5,791	0.13	0	12	Part Take
1312	" " "	——	2,084	0.05	——	12	" "
1313 LA	Curtis F. Bellamy, M.D.	2,875	1,610	0.04	0	12	" "
1313	" "	——	1,265	0.03	——	12	" "
1314 LA	The Gibson Schlemmer Co.	3,312	1,486	0.03	0	12	" "
1314	" " "	——	1,826	0.04	——	12	" "
1315	Active Realty Co.	2,500	2,500	0.06	0	12	Whole Take
1316 LA	Wm. R. MacConnell	2,500	1,503	0.03	0	12	Part Take
1316	" "	——	997	0.02	——	12	" "
1317 LA	Wm. Mallin, et al.	4,948	584	0.01	0	12	" "
1317	" "	——	4,364	0.10	——	12	" "
1318 LA	Wm. Abernathy et al.	3,125	7	0.00	1,275	12	" "
1318	" " "	——	1,623	0.04	——	12	" "
1318 SL	" " "	——	220	0.01	——	12	——
1318 WA	" " "	——	——	——	——	12	——
1319	John S. and Blanche Bennett	6,250	2,135	0.05	3,962	12	Part Take
1319 SL	" " "	——	153	0.00	——	12	——
1319 WA	" " "	——	——	——	——	12	——
1320	Louella Wilson	3,125	492	0.01	2,633	12	Part Take
1320 WA	" "	——	——	——	——	12	——
1321	Katherine Trovilla	3,125	148	0.00	2,977	12	Part Take
1322LAthru	——	——	——	——	——	——	Not Needed
1326 LA	——	——	——	——	——	——	" "
1327LAthru	——	——	——	——	——	14	See Note #1
1335 LA	——	——	——	——	——	14	" " "
1336 LA	Kathryn S. Robinson Cardwell	1,500	1,481	0.03	0	14	Part Take
1336	" " "	——	19	0.00	——	14	" "

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FED. RD. DIVISION	STATE	PROJECT	
2	OHIO		

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HAM.-25-1.63
R/W PLANS
LIMITED ACCESS

SUMMARY OF R/W REQUIRED

Parcel No.	Owner	R/W Area Total Sq.Ft.	Req.Sq.Ft.	Req. Ac.	Res.Sq.Ft.	R/W Sheet No.	Remarks
1337 LA	Richard and Allie Moore	1,500	1,351	0.03	0	14	Part Take
1337	" " "	———	149	0.00	———	14	" "
1338 LA	Oscar and L.M. Brantley	1,500	1,201	0.03	0	14	" "
1338	" "	———	299	0.01	———	14	" "
1338ALA	Hattie Boyer	1,500	1,048	0.02	0	14	" "
1338 A	" "	———	452	0.01	———	14	" "
1339 LA	Clint and Eula Bowling	2,250	1,282	0.03	0	14	" "
1339	" " "	———	968	0.02	———	14	" "
1340 LA	Ruby Leonard	2,500	1,010	0.02	0	14	" "
1340	" "	———	1,490	0.03	———	14	" "
1341 LA	Stanley and Raymond Hater	5,500	710	0.02	0	14	" "
1341	" " "	———	4,790	0.11	———	14	" "
1342LAthru	———	———	———	———	———	14	See Note #1
1367 LA	———	———	———	———	———	14	" " "
1368 LA	———	———	———	———	———	———	Not Needed
1369	Wm. Smith	2,412	2,412	0.05	0	16	Whole Take
1370	Alfred C. Klien and Margaret Reis	5,000	680	0.02	4,091	15	Part Take
1370 SL	" " " "	———	229	0.00	———	15	———
1370 WA	" " " "	———	———	———	———	15	———
1371LAthru	———	———	———	———	———	15	Not Needed
1375 LA	———	———	———	———	———	15	" "
1376	Ida Stern	1,950	1,950	0.04	0	15	Whole Take
1377 LA	Furlow and Amanda Gordon	2,194	164	0.00	0	15	Part Take
1377	" " "	———	2,030	0.05	———	15	" "
1378 LA	Marion B. Woodley	1,706	592	0.01	0	15	" "
1378	" "	———	1,114	0.03	———	15	" "
1379 LA	Rosa Lee Warren and Prince E. Phillips	1,950	1,206	0.03	0	15	" "
1379	" " " " "	———	744	0.02	———	15	" "
1380 LA	Jos. T. and Bessie Wynn	1,950	1,762	0.04	0	15	" "
1380	" " "	———	188	0.00	———	15	" "
1381LAthru	———	———	———	———	———	15	See Note #1
1393 LA	———	———	———	———	———	15	" " "
1394 LA	———	———	———	———	———	15	Not Needed
1395	Mary Macon Harvey, et.al.	2,145	26	0.00	1,963	15	Part Take
1395 SL	"	———	156	0.00	———	15	———
1395 WA	"	———	———	———	———	15	———
1396	Elias Brown	1,950	455	0.01	1,357	15	Part Take
1396 SL	" "	———	138	0.00	———	15	———
1396 WA	" "	———	———	———	———	15	———
1397	Clara F. Grupenhoff	1,950	1,020	0.02	930	15	Part Take
1397 WA	" "	———	———	———	———	15	———
1398 LA	William and Minnie Jenkins	3,900	115	0.00	0	15	Part Take
1398	" " "	———	3,785	0.09	———	15	" "
1399 LA	Jeannette Smith	1,950	642	0.01	0	15	" "
1399	" "	———	1,308	0.03	———	15	" "
1400 LA	Elizabeth V. Hall	1,950	1,208	0.03	0	15	" "
1400	" "	———	742	0.02	———	15	" "
1401 LA	W. R. and Clara Daniels	1,950	1,763	0.04	0	15	" "
1401	" "	———	187	0.00	———	15	" "
1402LAthru	———	———	———	———	———	15	See Note #1
1411 LA	———	———	———	———	———	16	" "
1412	Margaret E. Barron	5,000	5,000	0.11	0	16	Whole Take
1413	Alice R. Wilcox	3,065	3,065	0.07	0	16	" "
1414	Hurley and Mary Bonner	2,446	2,446	0.06	0	16	" "
1415	1st. Reformed Church of Cincinnati, Ohio	9,500	14	0.00	9,486	16	Part Take
1415 WA	" " "	———	———	———	———	16	———
1416	Cornelius Stone	3,300	3,300	0.08	0	16	Whole Take
1417	Jessie Washington	2,256	2,256	0.05	0	16	" "
1418	Rosie McGue	2,444	2,444	0.06	0	16	" "
1419	Thomas and Jean Guppenheim	4,695	4,695	0.11	0	16,17	" "

SUMMARY OF R/W REQUIRED

Parcel No.	Owner	R/W Area Total Sq.Ft.	Req.Sq.Ft.	Req. Ac.	Res.Sq.Ft.	R/W Sheet No.	Remarks
1420	Vinia Wright	1,794	1,794	0.04	0	16,17	Whole Take
1421	John Carr et.al.	1,804	1,804	0.04	0	17	" "
1422	Jos. A. and Ozela B. Parker	1,810	1,810	0.04	0	17	" "
1423	Evelyn B. Jansen	1,809	1,809	0.04	0	17	" "
1424 LA	Albert L. Hobt	3,598	53	0.00	0	17	Part Take
1424	" "	———	3,545	0.08	———	17	" "
1425 LA	Samuel L. and Manuel D. Mayerson, Trustees	11,548	8,356	0.19	0	17	" "
1425	" " " "	———	3,192	0.07	———	17	" "
1426 LA	———	———	———	———	———	17	Not Needed
1427 LA	Emerson Electric Mfg. Co.	47,898	25,625	0.59	8,706	17	Part Take
1427	" " "	———	12,553	0.29	———	17	" "
1427 SL	" " "	———	1,014	0.02	———	17	" "
1428 LA	———	———	———	———	———	17	See Note #1
1429 LA	———	———	———	———	———	17	" " "
1430LA	———	———	———	———	———	18	Not Needed
1431 LA	Phillip C. Young	12,978	1,265	0.03	2,906	18	Part Take
1431	" "	———	7,089	0.16	———	18	" "
1431 SL	" "	———	1,718	0.04	———	18	———
1431 WA	" "	———	———	———	———	18	———
1432 LA	Helen C. Young	10,383	9,433	0.22	0	18	Part Take
1432	" "	———	950	0.02	———	18	" "
1433 LA	———	———	———	———	———	18	Not Needed
1434	The Mid-City Realty Co.	16,232	307	0.01	15,814	18	Part Take
1434 SL	" "	———	111	0.00	———	18	———
1434 WA	" "	———	———	———	———	18	———
1435	Mollie Lande	3,320	3,320	0.08	0	18	Whole Take
1436 LA	Wendy Lu Realty Co.	48,693	38,858	0.87	0	18	Part Take
1436	" " "	———	9,835	0.23	———	18	" "
1437 LA	———	———	———	———	———	18	See Note #1
1438LAthru	———	———	———	———	———	———	Not Needed
1442 LA	———	———	———	———	———	———	" "
1443	Howard Cowan et.al	3,174	419	0.01	2,358	19	Part Take
1443 A	" "	———	12	0.00	———	19	" "
1443 SL	" "	———	385	0.01	———	19	———
1443 WA	" "	———	———	———	———	19	———
1444	Melvin Henderson	3,174	3,174	0.07	0	19	Whole Take
1445 LA	Wendy Lu Realty Co.	4,761	90	0.00	0	19	Part Take
1445	" " "	———	4,651	0.11	———	19	" "
1446 LA	Leonard and Willie L. Myles	2,116	435	0.01	0	19	" "
1446	" " "	———	1,681	0.04	———	19	" "
1447 LA	James High et. al.	2,645	1,059	0.02	0	19	" "
1447	" "	———	1,586	0.04	———	19	" "
1448 LA	James A. and Lillie P. Torrey	3,171	2,040	0.05	0	19	" "
1448	" " "	———	1,131	0.03	———	19	" "
1449 LA	Donald Spencer	3,174	2,886	0.07	0	19	" "
1449	" "	———	288	0.01	———	19	" "
1450LAthru	———	———	———	———	———	19	See Note #1
1455 LA	———	———	———	———	———	19	" " "
1456LAthru	———	———	———	———	———	19	Not Needed
1458 LA	———	———	———	———	———	19	" "
1459	Isaac Lindsey	5,400	99	0.00	4,820	19	Part Take
1459 SL	" "	———	481	0.01	———	19	———
1459 WA	" "	———	———	———	———	19	———
1460	Richard E. and Frances L. McKenzie	5,850	5,850	0.13	0	19	Whole Take
1461 LA	Merrit and Mable Grey	4,500	61	0.00	0	19	Part Take
1461	" " "	———	4,439	0.10	———	19	" "
1462 LA	Emma Agin	4,500	1,159	0.03	0	19	" "
1462	" " "	———	3,341	0.08	———	19	" "
1463 LA	James and Tamer Hillard	4,050	2,363	0.05	0	19	" "
1463	" " "	———	1,687	0.04	———	19	" "

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R/W PLAN - SUMMARY R/W REQUIRED

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R/W PLANS
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SUMMARY OF R/W REQUIRED

Parcel No.	Owner	R/W Area Total Sq.Ft.	Req.Sq.Ft.	Req. Ac.	Res.Sq.Ft.	R/W Sheet No.	Remarks
1464 LA	Prince E. Phillips	4,500	4,109	0.09	0	19	Part Take
1464	" "	——	391	0.01	——	19	" "
1465LA thru	——	——	——	——	——	19	See Note # 1
1475 LA	——	——	——	——	——	19	" "
1476 LA	——	——	——	——	——	20	Not Needed
1477 LA	——	——	——	——	——	20	" "
1478	Azzie L. Bryant	2,750	2,750	0.06	0	20	Whole Take
1479	Lucille D. Brown	1,375	1,375	0.03	0	20	Whole Take
1480	Jessie M. and Mollie Brown	1,375	1,375	0.03	0	20	Whole Take
1481	Norman and Pauline Croft	2,750	2,750	0.06	0	20	Whole Take
1482 LA	Arthur Broderick	2,750	386	0.01	0	20	Part Take
1482	" "	——	2,364	0.05	——	20	" "
1483 LA	Freida Weller	2,640	1,700	0.04	0	20	" "
1483	" "	——	940	0.02	——	20	" "
1484 LA	——	——	——	——	——	20	Not Needed
1485	Adolph C. Jones and Willie Bell Jones	945	628	0.01	187	20	Part Take
1485 SL	" " " " "	——	130	0.00	——	20	——
1485 WA	" " " " "	——	——	——	——	20	——
1486	Fannie Lee	1,155	678	0.02	297	20	
1486 SL	" "	——	180	0.00	——	20	——
1486 WA	" "	——	——	——	——	20	——
1487	Eliz. B. Adkins	1,400	694	0.02	460	20	Part Take
1487 SL	" "	——	246	0.01	——	20	——
1487 WA	" "	——	——	——	——	20	——
1488	Robert S. Buchsbaun	1,820	703	0.02	762	20	Part Take
1488 SL	" " "	——	355	0.01	——	20	——
1488 WA	" " "	——	——	——	——	20	——
1489	Earl J. Weber.	2,400	458	0.01	1,589	20	Part Take
1489 SL	" "	——	353	0.01	——	20	——
1489 WA	" "	——	——	——	——	20	——
1490	Liberty Scrap Metals Inc.	4,000	308	0.01	3,219	20	Part Take
1490 SL	" " " "	——	473	0.01	——	20	——
1490 WA	" " " "	——	——	——	——	20	——
1491 T	Frank T. Schuerman	4,000	307	0.01	4,000	20	
1492 LA	A. Nielen Co.	31,064	30,438	0.70	0	20	Part Take
1492	" "	——	628	0.01	——	20	" "
1493LA thru	——	——	——	——	——	20	See Note # 1
1501 LA	——	——	——	——	——	20	" "
1502LA thru	——	——	——	——	——	20	Not Needed
1507 LA	——	——	——	——	——	20	" "
1508 thru							See Sht. No. 9
1511							" " "
1512 LA	State of Ohio (Miami and Erie Canal Abandonded)	——	16,272	0.37	——	31,32,33	Part Take
1512 WA	" " "	——	——	——	——	31	——
1513 LA	City of Cincinnati (Rapid Transit)	——	1,864	0.04	——	34	Part Take
1514LA thru	——	——	——	——	——	——	Not Needed
1600 LA	——	——	——	——	——	——	" "
1601LA thru	——	——	——	——	——	22	See Note # 1
1622 LA	——	——	——	——	——	22	" "

SUMMARY OF R/W REQUIRED

Parcel No.	Owner	R/W Area Total Sq.Ft.	Req.Sq.Ft.	Req. Ac.	Res. Sq.Ft.	R/W Sheet No.	Remarks
1623 LA	City of Cincinnati	49,998	46,689	1.07	3,309	22,23	Part Take
1623 T	" "	——	3,309	0.08	——	22,23	——
1624 LA	Thelma Schultz	1,312	917	0.02	395	23	" "
1624 T	" "	——	395	0.01	——	23	——
1625 LA	Robert K. Frank et. al.	1,350	860	0.02	490	23	" "
1625 T	" "	——	490	0.01	——	23	——
1626 LA	Cecelia and Carlton Williams	1,663	1,071	0.02	592	23	" "
1626 T	" " "	——	592	0.01	——	23	——
1627 LA	——	——	——	——	——	23	See Note # 1
1628 LA	Helen M. Ruehlman	4,750	3,035	0.07	1,715	23	Part Take
1628 T	" "	——	1,715	0.04	——	23	——
1629 LA	——	——	——	——	——	23	See Note # 1
1630 LA	Peter G Ruehlman	220	145	0.00	75	23	Part Take
1630 T	" "	——	75	0.00	——	23	——
1631 LA	Robert and Carolyn Ruehlman	3,763	2,384	0.05	1,379	23	" "
1631 T	" " "	——	1,379	0.03	——	23	——
1632LA thru	——	——	——	——	——	22,23	See Note # 1
1657 LA	——	——	——	——	——	22,23	" "
1658 LA	Marie Jones	5,905	1,021	0.02	4,884	23	Part Take
1659 LA	Joseph F. Poe, et. al.	1,047	1,047	0.02	0	23	Whole take
1660 LA	Joseph R. Nielander	13,232	10,611	0.24	2,621	23	Part Take
1660 T	" "	——	2,621	0.06	——	23	——
1661LA thru	——	——	——	——	——	23	See Note # 1
1670 LA	——	——	——	——	——	23	" "
1671 LA	——	——	——	——	——	——	Not Needed
1672 LA	Margaret M. Webb	17,584	7,271	0.17	10,313	27	Part Take
1672 WA	" "	——	——	——	——	27	——
1673 LA	Charles E. Holmes	9,349	9,349	0.21	0	27	Whole Take
1674 LA	Giltner Skiles	3,696	3,696	0.08	0	27	" "
1675 LA	Sol Richmond	3,088	3,088	0.07	0	27	" "
1676 LA	——	——	——	——	——	——	Not Needed
1677 LA	George E. Fee, Trustee	183,852	160,744	3.69	23,108	28,29	Part Take
1677 WA	" " "	——	——	——	——	28,29	——
1678 LA	——	——	——	——	——	——	Not Needed
1679 LA	Active Realty Co.	15,772	15,772	0.36	0	28,29	Whole Take
1680 LA	Ernet Schaengold	3,684	3,684	0.08	0	25	" "
1681 LA	Frank Bohrer	3,564	3,564	0.08	0	25	" "
1682 LA	Bernard L. Kessen	2,984	2,726	0.06	0	25	" "
1683 LA	Max Fox	3,093	3,093	0.07	0	25	" "
1684 LA	The Ferdinand Dieckmann Co.	17,795	17,795	0.40	0	25	" "
1685 LA	The Krug Realty Co.	4,369	4,369	0.10	0	25	" "
1686 LA	Jos. R. Nielander	2,375	2,375	0.05	0	25	" "
1687 LA	The Cincinnati Transit Co.	23,692	23,692	0.54	0	25	" "
1688 LA	Union Bank of Commerce, Trustee	31,697	31,697	0.73	0	25	" "
1689 LA	The Methodist Union	4,750	4,750	0.11	0	25	" "
1690 LA	Oliver M. Dock	2,375	2,375	0.05	0	25	" "
1691 LA	Chas. F. Unwin	2,375	2,375	0.05	0	25	" "
1692 LA	Flora I. Smith	2,375	2,375	0.05	0	25	" "
1693 LA	George W. and Virginia B. Thall	2,375	2,375	0.05	0	25	" "
1694 LA	Florence Hock	4,750	4,750	0.11	0	25	" "
1695 LA	Central Outdoor Adv. Co.	2,793	2,793	0.06	0	25	" "
1696 LA	——	——	——	——	——	——	Not Needed
1697 LA	Cincinati Gas and Electric Co.	31,846	7,937	0.18	23,909	24	Part Take
1698 LA	Young and Bertke Co.	18,218	7,919	0.18	8,499	24	" "
1698	" " "	——	1,800	0.04	——	24	" "
1698 WA	" " "	——	——	——	——	24	——
1699 LA	Harrison Terminal Inc.	96,176	4,012	0.09	92,164	24	
1699 T	" " "	——	9,761	0.22	——	24	
1700 LA	Robt. T. Barrett et. al.	4,171	4,171	0.10	0	29	Whole Take

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R/W PLANS
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SUMMARY OF R/W REQUIRED

Parcel No.	Owner	R/W Area Total Sq.Ft.	Req. Sq.Ft.	Req. Ac.	Res. Sq.Ft.	R/W Sheet No.	Remarks
1701 LA	Lewis C. Greiser	6,760	6,760	0.15	0	29	Whole Take
1702 LA	Chase Realty Co.	2,556	2,556	0.06	0	29	" "
1703 LA	Gustave F. Bembenneck	2,865	2,865	0.07	0	29	" "
1704 LA	Willam Estep	2,476	2,476	0.06	0	29	" "
1705 LA	William Estep	2,474	2,474	0.06	0	29	" "
1706 LA	Lessie Littlejohn	2,471	2,471	0.06	0	29	" "
1707 LA	Cifford A. and Marie R. Young	2,469	2,469	0.06	0	29	" "
1708 LA	Helga King	2,466	2,466	0.06	0	29	" "
1709 LA	Bertha R. Smith	2,464	2,464	0.06	0	29	" "
1710 LA	Otto H. and Vir. M. Baum	2,461	2,461	0.06	0	29	" "
1711 LA	Barbara Dinkelacker	2,459	2,459	0.06	0	29	" "
1712 LA	Freida Youch.	2,456	2,456	0.06	0	29	" "
1713 LA	R. A. and C.M. Gump	2,454	2,454	0.06	0	29	" "
1714 LA	Clarence and Emma C. Howes	2,402	2,402	0.06	0	29	" "
1715 LA	J. M. D. Inc.	2,377	2,377	0.06	0	29	" "
1716 LA	Simon and Fanny Luel	4,019	4,019	0.07	0	29	" "
1717 LA	Ethel Carroll Ollie	3,490	3,490	0.08	0	29	" "
1718 LA	Red Top Brewing Co.	17,238	17,238	0.40	0	29	" "
1719 LA	Ben and Mary Borchers	4,518	4,518	0.10	0	29	" "
1720 LA	Esther and Launcey Lowenthal	6,281	6,281	0.14	0	29	" "
1721 LA	Geo. Fletcher	3,490	3,490	0.08	0	29	" "
1722 LA	Else Jantzen	1,425	1,425	0.03	0	29	" "
1723 LA	Chas. W. Smallwood	5,554	5,554	0.13	0	29	" "
1724 LA	Mary Hussong et.al.	6,063	6,063	0.14	0	29	" "
1725 LA	Mary Hussong et.al.	2,780	2,780	0.06	0	29	" "
1726 LA	Frieda R. Lerner	1,504	1,504	0.03	0	29	" "
1727 LA	Norman F. Hoover	4,517	4,517	0.10	0	29	" "
1728 LA	Ida L. Meyer	2,727	2,727	0.06	0	29	" "
1729 LA	Arvie and Mary Webster	3,841	3,841	0.09	0	29	" "
1730 LA	Edw. Frank	2,945	2,945	0.07	0	29	" "
1731 LA	Red Top Brewing Co.	8,173	8,173	0.19	0	26	" "
1732 LA	Chester and Gladys Petrey	2,180	2,180	0.05	0	26	" "
1733 LA	John A. and W. E. Foster	2,123	2,123	0.05	0	26	" "
1734 LA	Levi and Polly Dash	2,117	2,117	0.05	0	26	" "
1735 LA	Mollie Zadaker	2,117	2,117	0.05	0	26	" "
1736 LA	George A. and Flora G. Calhoun	2,139	2,139	0.05	0	26	" "
1737 LA	Shelby and Blanche Ball	2,030	2,030	0.05	0	26	" "
1738 LA	Theresa Toelke	3,761	3,761	0.09	0	26	" "
1739 LA	Hilda Thomas	3,541	3,541	0.08	0	26	" "
1740 LA	Wm. Vogel	6,121	6,121	0.14	0	26	" "
1741 LA	Lucy Gregory	3,050	3,050	0.07	0	26	" "
1742 LA	Reba V. Clem	6,008	6,008	0.14	0	26	" "
1743 LA	Marie Fronk	2,295	2,295	0.05	0	26	" "
1744 LA	Wm. and Elenora Fischer	2,450	2,450	0.06	0	26	" "
1745 LA	Albert F. and Mary E. Schnetzer	2,450	2,450	0.06	0	26	" "
1746 LA	Pete and Eva M. Lambing	2,450	2,450	0.06	0	26	" "
1747 LA	Chas. J. and Marie O. Held	2,450	2,450	0.06	0	26	" "
1748 LA	Mary Hussong	1,987	1,987	0.04	0	26	" "
1749 LA	Central Outdoor Advertising Co. Inc.	1,969	1,969	0.04	0	26	" "
1750 LA	Oliver W. Hardin	2,375	2,375	0.06	0	26	" "
1751 LA	Morris J. Levin etal	2,375	2,375	0.06	0	26	" "
1752 LA	Ella Rothfeld	2,375	2,375	0.06	0	26	" "
1753 LA	Benjamin Bernstein	2,375	2,375	0.06	0	26	" "
1754 LA	Wm. Bertschinger	3,959	3,959	0.09	0	26	" "
1755 LA	Investment Associates Inc.	1,583	1,583	0.04	0	26	" "
1756 LA	Harry C. Ragor	5,000	5,000	0.12	0	26	" "
1757 LA	Alfred C. Kline and Margaret Reis	3,000	3,000	0.07	0	26	" "
1758 LA	Harold C. Rembold et.al.	6,000	6,000	0.14	0	26	" "
1759 LA	Sarah Reisenfeld	4,500	4,500	0.10	0	26	" "
1760 LA	Max and Rose Pinsky	7,168	7,168	0.16	0	26	" "

SUMMARY OF R/W REQUIRED

Parcel No.	Owner	R/W Area Total Sq.Ft.	Req. Sq.Ft.	Req. Ac.	Res. Sq.Ft.	R/W Sheet No.	Remarks
1761 LA	Central Outdoor Advertising Co., Inc.	3,087	3,087	0.07	0	24	Whole Take
1762 LA	Helen Y. Nielander	3,600	3,600	0.08	0	24	" "
1763 LA	Harry Wilke	7,920	7,529	0.17	391	24	Part Take
1764 LA		——	——	——	——	24	Not Needed.
1765 U	Verity Investment Co.	18,720	4,322	0.11	18,720	24	
1766LAthru		——	——	——	——	——	Not Needed
1767 LA		——	——	——	——	——	" "
1768ALA	Cincinnati Union Terminal Co.	——	12,502	0.29	——	24,37	Part Take
1768BLA	" " " "	——	3,150	0.07	——	24,37	" "
1768	" " " "	——	1,200	0.03	——	24,37	" "
1768T-A	" " " "	——	500	0.01	——	24,37	" "
1768T-B	" " " "	——	3,091	0.07	——	24,37	" "
1768 U	" " " "	——	7,847	0.18	——	24,37	" "
1769 WD	Bessie Jenner Riggs	4,481	4,481	0.10	0	30	Whole Take
1770 WD	Lester Kohn, Trustee	5,221	5,221	0.12	0	30	" "
1771 LA	Carl F. and Ida Nelson	12,832	7,852	0.18	4,980	30	Part Take
1771 WD	" " "	——	4,980	0.11	——	30	——
1772 LA	Ernestine C. Shottelkotte	2,380	2,380	0.06	0	30	Whole Take
1773 LA	Thomas M. Armstrong	2,417	2,417	0.06	0	30	" "
1774 LA	Sally Lutchin	2,500	2,500	0.06	0	30	" "
1775 LA	Eliz. and Jos. Schnatz	3,743	3,743	0.09	0	30	" "
1776 LA	Gerald A. Dornheggen	3,850	3,850	0.09	0	30	" "
1777 LA	Estate of Elizabeth Hans	3,875	3,875	0.09	0	30	" "
1778 LA	Lerner Realty Co.	3,918	3,918	0.09	0	30	" "
1779 LA	Elmer Hutcherson	3,946	3,946	0.09	0	30	" "
1780 LA	Ethel Brewer and Bertha Brewer	3,990	3,990	0.09	0	30	" "
1781 LA	Amelda K. Clift	4,000	4,000	0.09	0	30	" "
1782 LA	Saul Sanker	5,637	5,637	0.13	0	30	" "
1783 LA	Caroline L. Papania	1,161	1,161	0.03	0	30	" "
1784 LA	Maurice E. and Blanche Meister	4,053	1,435	0.03	2,618	30	Part Take
1784 WA	" " "	——	——	——	——	30	——
1785 LA	Sarah Reisenfeld	2,947	1,043	0.02	1,904	30	Part Take
1786 LA	Madeleine VanLeunen	2,947	862	0.02	2,085	30	" "
1786 WA	" "	——	——	——	——	30	——
1787 LA	Geo. M. Hutchenson	2,947	681	0.01	2,266	30	Part Take
1788 LA	The Bigner Realty Co.	4,205	1,739	0.04	2,466	30	" "
1789 LA	Jean Wainer	4,205	1,663	0.04	2,542	30	" "
1790 LA	Shepard Elevator Co.	91,214	81,001	1.86	L-1,190 R-9,023	30,31	" "
1790 WD	" "	——	9,023	0.21	——	30,31	——
1791 LA	Charles E. Rinck	3,960	1,043	0.02	2,917	30	Part Take
1791 WA	" "	——	——	——	——	30	——
1792 LA	John P. Weber	3,831	968	0.02	2,863	30	Part Take
1792 WA	" "	——	——	——	——	30	——
1793 LA	Atkins Realty	9,828	1,307	0.03	8,521	30	Part Take
1794LAthru		——	——	——	——	——	Not Needed
1804 LA		——	——	——	——	——	" "
1805 LA	Eva Hardy	3,688	1,016	0.02	2,662	31	Part Take
1805 WA	" "	——	——	——	——	31	——
1806 LA	Ethel Smith	3,600	2,988	0.07	612	31	Part Take
1806 S	" "	——	612	0.01	——	31	——
1807 LA	Howard W. and Gertrude R. Burdette	3,533	3,533	0.08	0	31	Whole Take
1808 LA	Henry J. and Lena Gorth	3,475	3,475	0.08	0	31	" "
1809 LA	Marian Walther et. al.	3,400	3,400	0.08	0	31	" "
1810 LA	Cora M. Williams	3,350	3,350	0.08	0	31	" "
1811 LA	Sophia F. Metzger, deceased	5,838	5,838	0.13	0	31	" "
1812 LA	Earl J. Goldsmith, Jr.	5,430	5,430	0.13	0	31	" "
1813 LA	Jos. P. Haus Jr. et. al.	300	300	0.01	0	31	" "
1814 LA	Lyda E Henger	2,370	2,370	0.05	0	31	" "
1814ALA	Christian F. Brockman, et. al.	2,490	2,490	0.06	0	31	" "
1815 LA	Central Outdoor Advertising Co., Inc.	1,059	1,059	0.02	0	31	" "

8/37

DATE	REVISED

R/W PLAN - SUMMARY R/W REQUIRED

NOT FOR CONSTRUCTION INFORMATION ONLY

CONTINUED

FED. RD. DIVISION	STATE	PROJECT	
2	OHIO		

458/486

HAM.-25-1.63
R/W PLANS
LIMITED ACCESS

SUMMARY OF R/W REQUIRED

Parcel No.	Owner	R/W Area Total Sq.Ft.	Req.Sq.Ft.	Req. Ac.	Res.Sq.Ft.	R/W Sheet No.	Remarks
1816 LA	The United Wrecking Co. Inc.	11,118	11,118	0.25	0	31,32	Whole Take
1817 LA	Cornelius Alice Humpert	2,572	2,572	0.06	0	32	" "
1818 LA	Ida Cohen	27,063	27,063	0.62	0	32	" "
1819 LA							Not Used
1820 LA	Louine and Dorothy Bimel	54,445	49,914	1.15	4,531	32,33	Part Take
1820 WA	" " "					32,33	
1821 LA	Harry B. Cutter Jr. et. al.	16,925	12,757	0.29	4,168	33	Part Take
1821 WA	" "					33	
1822 LA	B. J. Rowekamp Sons Inc.	24,675	16,505	0.38	8,170	33	Part Take
1822 WA	" " " "					33	
1823 LA	Robert Knight	70,803	45,274	1.04	25,529	33,34	Part Take
1823 WA	" "					33,34	
1824 LA	Sarah Jane Hirschberg	3,593	3,593	0.08	0	34	Whole Take
1825 LA							Not Needed
1826 LA	Saul Malman and Ben Simpson	4,800	4,800	0.11	0	34	Whole Take
1827 LA	Burton Signer	8,226	8,226	0.19	0	34	" "
1828 LA	Walter Linger	4,135	4,135	0.10	0	34	" "
1829 LA	Bruce Maucher	4,113	4,113	0.10	0	34	" "
1830 LA	Rosa Grupenhoff	4,169	4,169	0.10	0	34	" "
1831 LA	Louis and Virginia Wenneman	4,169	3,996	0.09	0	34	Part Take
1831	" " "		173	0.01		34	" "
1832 LA	Earl J. Goldsmith	5,656	1,891	0.04	3,765	34	" "
1832 WA	" "					34	
1833 LA	George Roth	2,500	615	0.01	1,018	34	Part Take
1833	" "		867	0.02		34	" "
1833 WA	" "					34	
1834LA thru							Not Needed
1837 LA							" "
1838 LA	Ralph and Jane Hoffmeister	82,076	37,734	0.87	44,342	31,32	Part Take
1839 LA	Amelia Ott	4,601	4,601	0.10	0	31	Whole Take
1840 LA	Lincoln Park Baptist Church of Cincinnati	9,137	6,243	0.14	2,894	31	Part Take
1840 WA	" " " "					31	
1841 LA	Sarah and Frieda Cohen	4,381	1,629	0.04	2,752	31	Part Take
1842 LA	Anna Imdieke	2,498	807	0.02	1,691	31	" "
1843 LA	Framil Corp	1,275	143	0.00	1,132	31	Part Take
1843ALA	" "	1,242	46	0.00	1,196	31	" "

SUMMARY OF R/W REQUIRED (100% CITY PARTICIPATION)

Parcel No.	Owner	R/W Area Total Sq.Ft.	Req.Sq.Ft.	Req. Ac.	Res.Sq.Ft.	R/W Sheet No.	Remarks
1508	Max Fox	1,802	75	0.00	1,727	20	Part Take
1508 WA	" "					20	
1509	Bertha Ray Smith	1,359	473	0.01	886	20	Part Take
1509 WA	" " "					20	
1510	" "	2,424	15	0.00	2,409	21	Part Take
1511	City of Cincinnati	1,128	1,128	0.03	0	21	Whole Take
1634	" "	18,758	18,758	0.43	0	21	" "

9/37

DATE	REVISED

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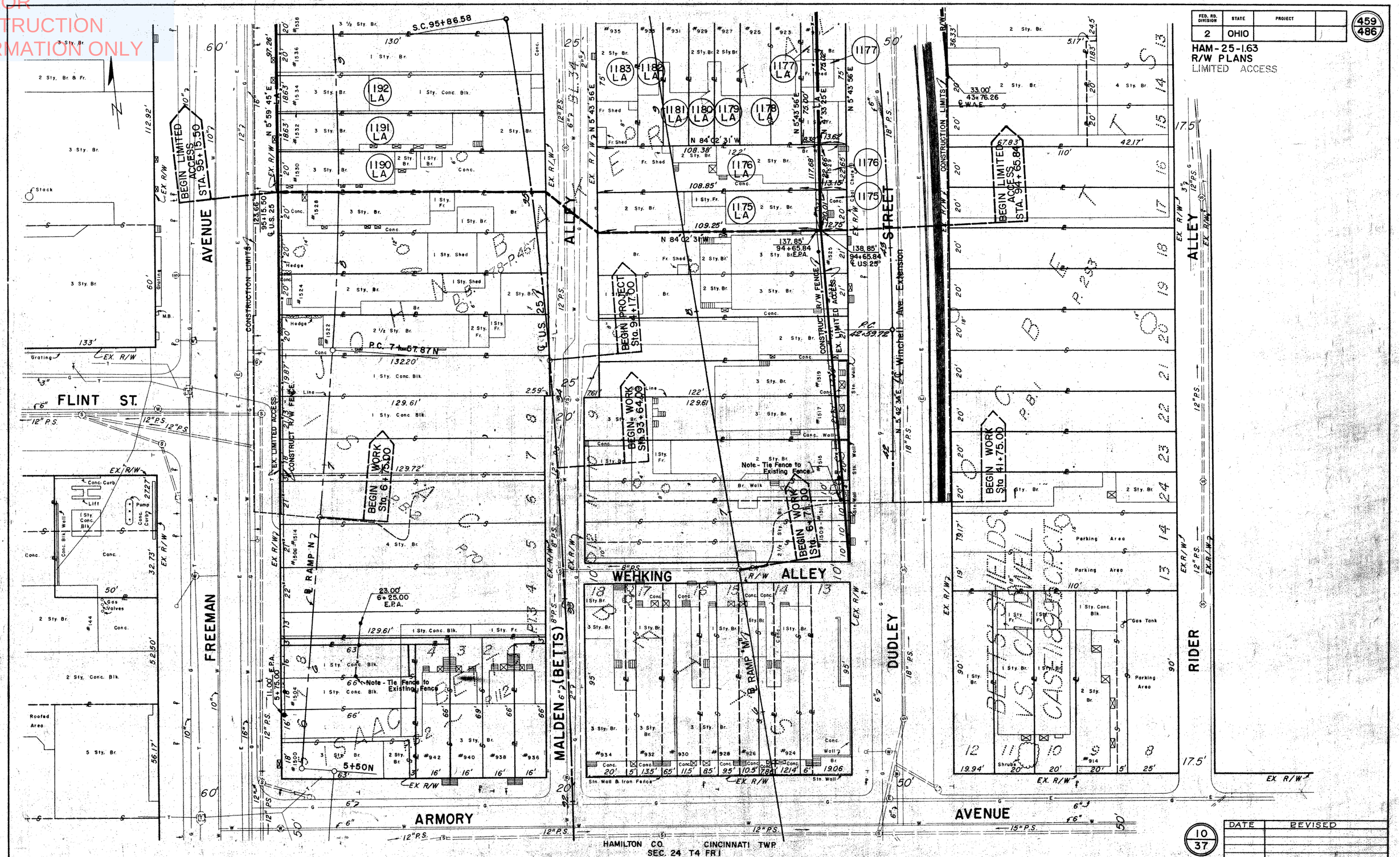
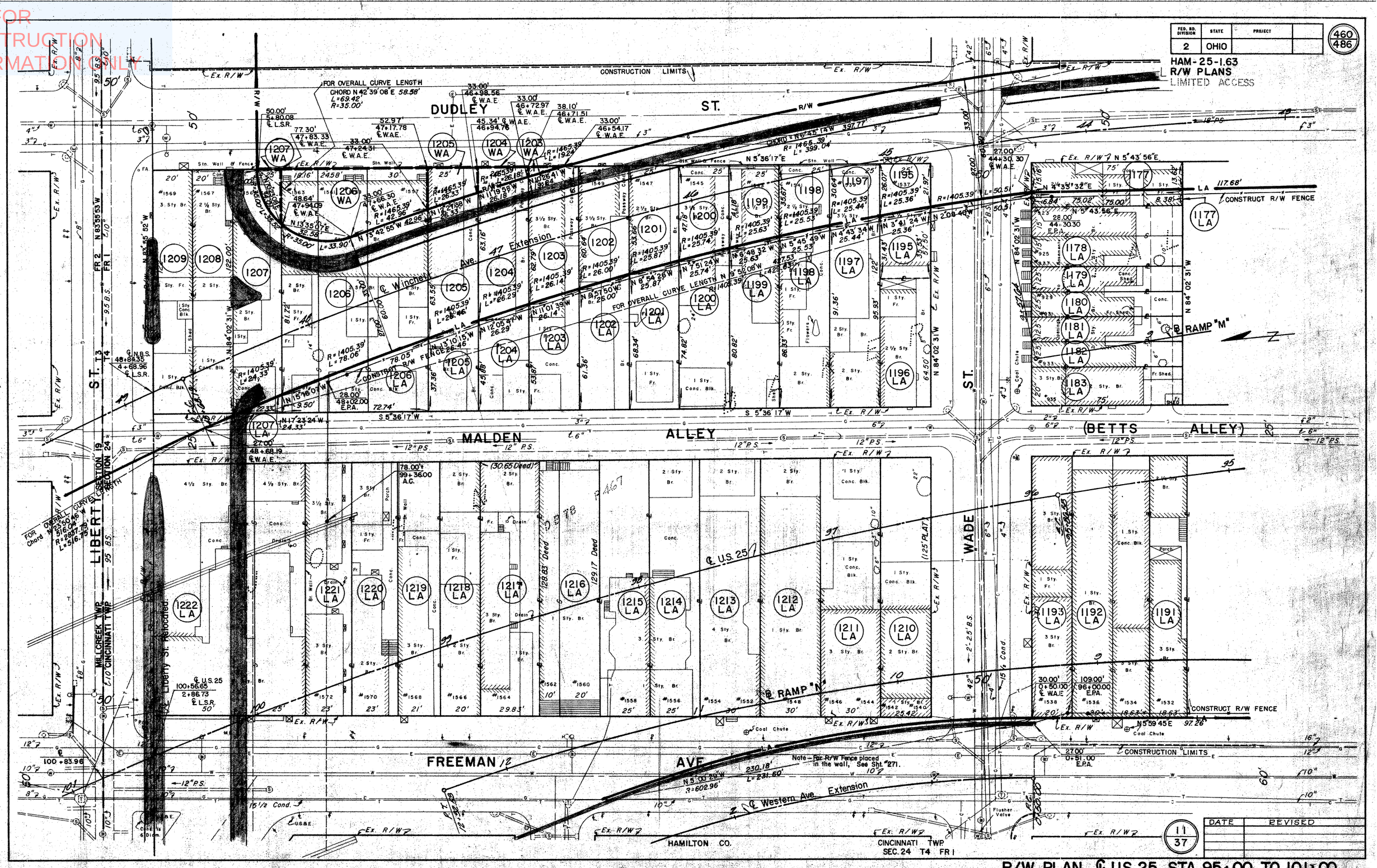


R/W PLAN U.S. 25 STA. 92+00 TO STA. 95+00

NOT FOR CONSTRUCTION INFORMATION ONLY



R/W PLAN ℄ U.S. 25 STA. 95+00 TO 101+00

NOT FOR CONSTRUCTION INFORMATION ONLY

FED. RD. DIVISION	STATE	PROJECT	
2	OHIO		

461
486

HAM.-25-1.63
R/W PLANS
LIMITED ACCESS

℄ U.S.25
100+56.65
2+86.73
℄ L.S.R.

N 83°55'52"W

EX. R/W

LIBERTY ST. T4 SECTION 24 T3 SECTION 19 FR2

10' R/W

EX. R/W

℄ U.S.25

EX. R/W

12" P.S.

8" P.S.

FREEMAN AVE.

EX. R/W

Conc. S.W.

FOR OVERALL CURVE LENGTH
CHORD N 23°50'46"W 516.04'
R=2837.79'
L=516.75'
CONSTRUCT R/W FENCE

FOR OVERALL CURVE LENGTH
CHORD N 25°12'32"W 117.00'
R=2837.79'
L=117.01'

SEE DET. "A"

N 6°01'42"E

Stone Coping

Conc.

EX R/W

Conc. S.W.

Stone

Stone Bit.

POPLAR ST.

EX. R/W

12" P.S.

℄ Winchell Ave. Extension

1317 LA
1316 LA
1314 LA
1313 LA
1312 LA
1315
1318 SL
1319
1318
1317
1320
1321
1319 SL
1319 WA
1320 WA
1318 WA
1322 LA
1323 LA
1324 LA
1326 LA
1325 LA

#1602 #1604 #1606 #1608 #1610 #1612 #1614 #1616 #1618 #1620 #1622 #1624 #1626 #1628 #1630 #1632 #1634 #1636 #1638 #1640 #1642 #1644 #1646 #1648 #1649 #1941 #1943 #1945 #1947

83.00'
50+33.00
A.C

28.00'
50+33.00
E.P.A.

33.00'
51+39.33
℄ W.A.E.

44.15'
51+74.63
℄ W.A.E.

38.28'
51+64.88
℄ W.A.E.

42.94'
51+33.65
℄ W.A.E.

55.50
51+54.90
℄ W.A.E.

74.26' ℄ W.A.E.
51+57.16

93.95'
51+89.30
℄ W.A.E.

106.93'
52+09.94
℄ W.A.E.

36.53'
52+82.12
℄ W.A.E.

33.00'
52+25.82
℄ W.A.E.

33.00'
52+55.01
℄ W.A.E.

CONSTRUCTION LIMITS

TOP OF CUT

Porch

Shed

Gar.

Drain

Brick

Brick S.W.

Cone. & Br. S.W.

Cone. & Br. S.W.

MALDEN ALLEY

CONSTRUCTION LIMITS

77.25
51+14.40
℄ W.A.E.

15" P.S.

EX. R/W

33.00'
50+33.94
℄ W.A.E.

38.47'
℄ W.A.E.
49+89.92

CONSTRUCTION LIMITS N 5°36'02"E ℄ W.A.E.

FOR OVERALL CURVE LENGTH
CHORD N 20°58'30"W 98.04'
R=2837.79'
L=98.05'

27.00'
48+68.19
℄ W.A.E.

℄ N.B.S.
48+84.35
4+68.96
℄ L.S.R.

℄ Liberty St Relocated

EX. R/W

CINCINNATI TWP 9 S 8 S E
MILLCREEK TWP

1305
1306 LA
1307 LA
1305 WA
1304 LA
1303 LA
1302 LA
1301 LA
1300 LA

#925 #926 #924 #922 #1607 #1609

33.00'
49+79.50
℄ W.A.E.

33.00'
49+37.0
℄ W.A.E.

72.50'
49+72.83
℄ W.A.E.
Brick & Conc.

Coal Chute

Br. Wall

2½ Sty. Br.
45.07'
49+18.07
℄ W.A.E.

2 Sty. Br.

2 Sty. Fr.

2½ Sty. Br.

3 Sty. Br.

Drain

END WORK
Sta. 6+35.00

DUDLEY ST.

EX. R/W

DET. "A"

N 6°01'42"E 4.86'
2.90'
Ex R/W
25'
LA
N 24°48'54"W
5.66'
R=2837.79'
L=5.66'
N 83°55'52"W
1318 LA

HAMILTON- CO
SEC. 19
MILLCREEK TWP
T3 FR2

12
37

DATE	REVISED

R/W PLAN ℄ WINCHELL AVE. EXTENSION STA. 49+00 TO 53+00

NOT FOR
CONSTRUCTION
INFORMATION ONLY

FED. RD. DIVISION	STATE	PROJECT	
2	OHIO		

462/486

HAM-25-1.63
R/W PLANS
LIMITED ACCESS

DATE	REVISED
6-14-61	Parcel 1223-27.57' to 22.57'

13/37

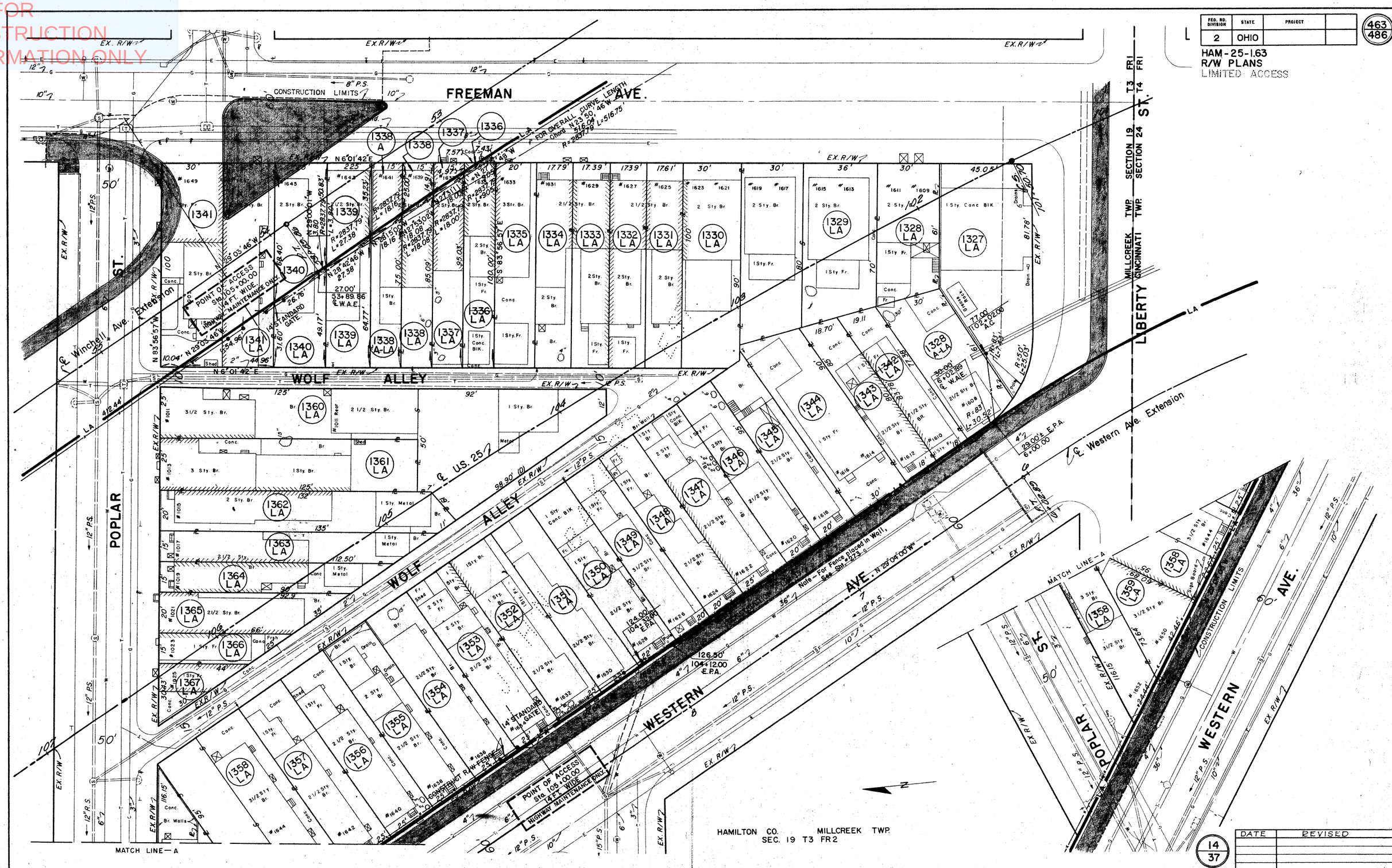
R/W PLAN ℄ WESTERN AVE. EXTENSION STA. 0+50 TO 6+00

NOT FOR CONSTRUCTION INFORMATION ONLY

FED. RD. DIVISION	STATE	PROJECT	
2	OHIO		

463
486

HAM-25-1.63
R/W PLANS
LIMITED ACCESS



DATE	REVISED

14
37

R/W PLAN ℄ U.S.25 STA. 101+00 TO 107+00

NOT FOR CONSTRUCTION INFORMATION ONLY

FED. RD. DIVISION	STATE	PROJECT	
2	OHIO		

464
486

HAM-25-1.63
R/W PLANS
LIMITED ACCESS

℄ N.B.S.R. 58+73.62 3+42.58 ℄ F.S.R.

℄ Findlay St. Relocated. N 88°32'50" E

℄ U.S. 25 110+15.27 1+79.47 ℄ F.S.R. N 87°52'15" E

8" P.S. (Private)

Ex. R/W

30" Conc. P.S.

CONSTRUCTION LIMIT N 83°55'22" W 195.19 Ex. R/W

FINDLAY ST.

WESTERN AVE.

KELLY ALLEY

POPLAR ST.

WINKELL AVE.

FREEMAN AVE.

CONSTRUCTION LIMITS

CONSTRUCT R/W FENCE

HAMILTON CO. MILLCREEK TWP. SEC 19 T3 FR2

DATE | REVISED

15
37

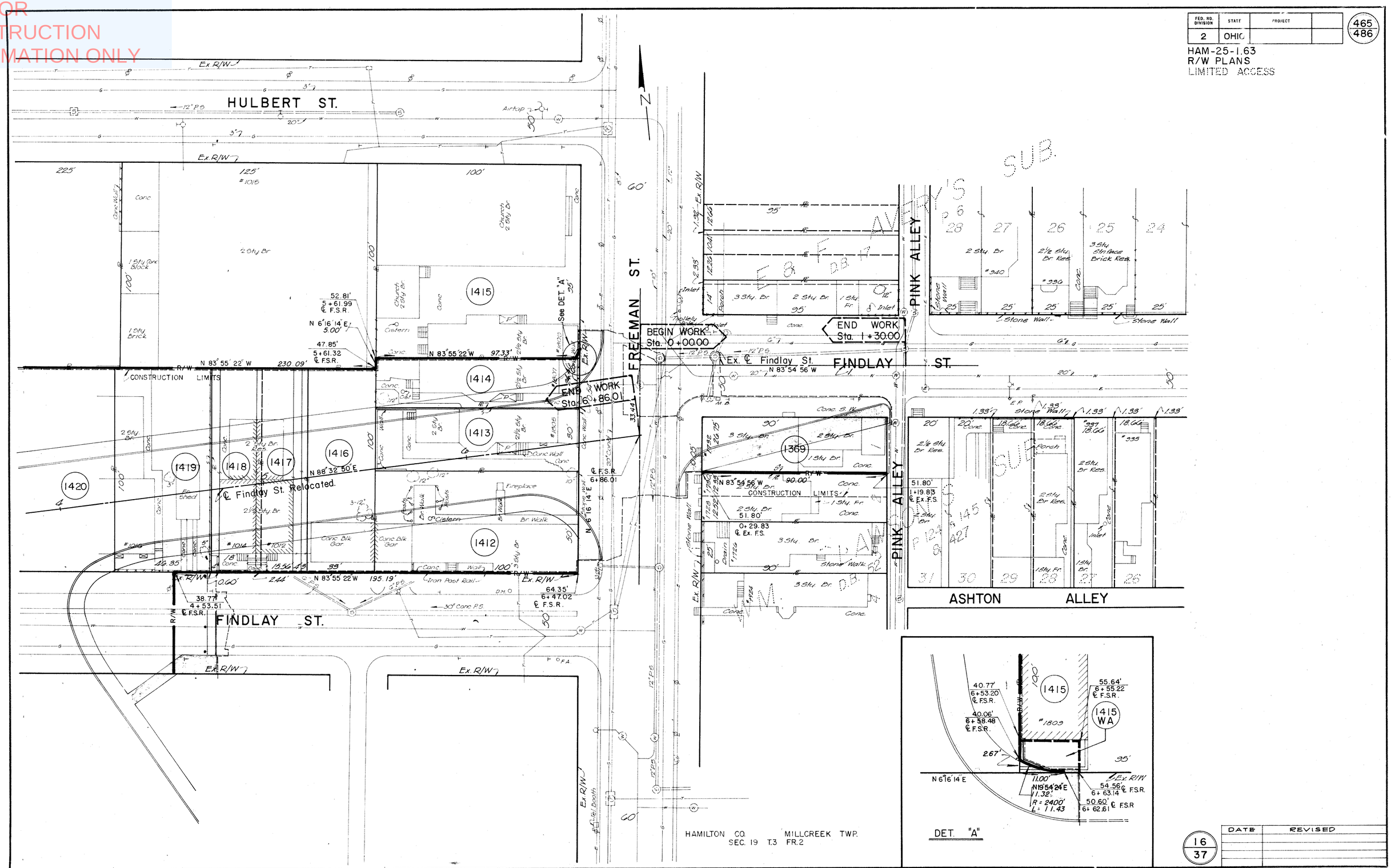
R/W PLAN ℄ U.S. 25 STA. 107+00 TO 110+00

NOT FOR
CONSTRUCTION
INFORMATION ONLY

FED. RD. DIVISION	STATE	PROJECT	
2	OHIO		

465
486

HAM-25-1.63
R/W PLANS
LIMITED ACCESS



DATE	REVISED

16
37

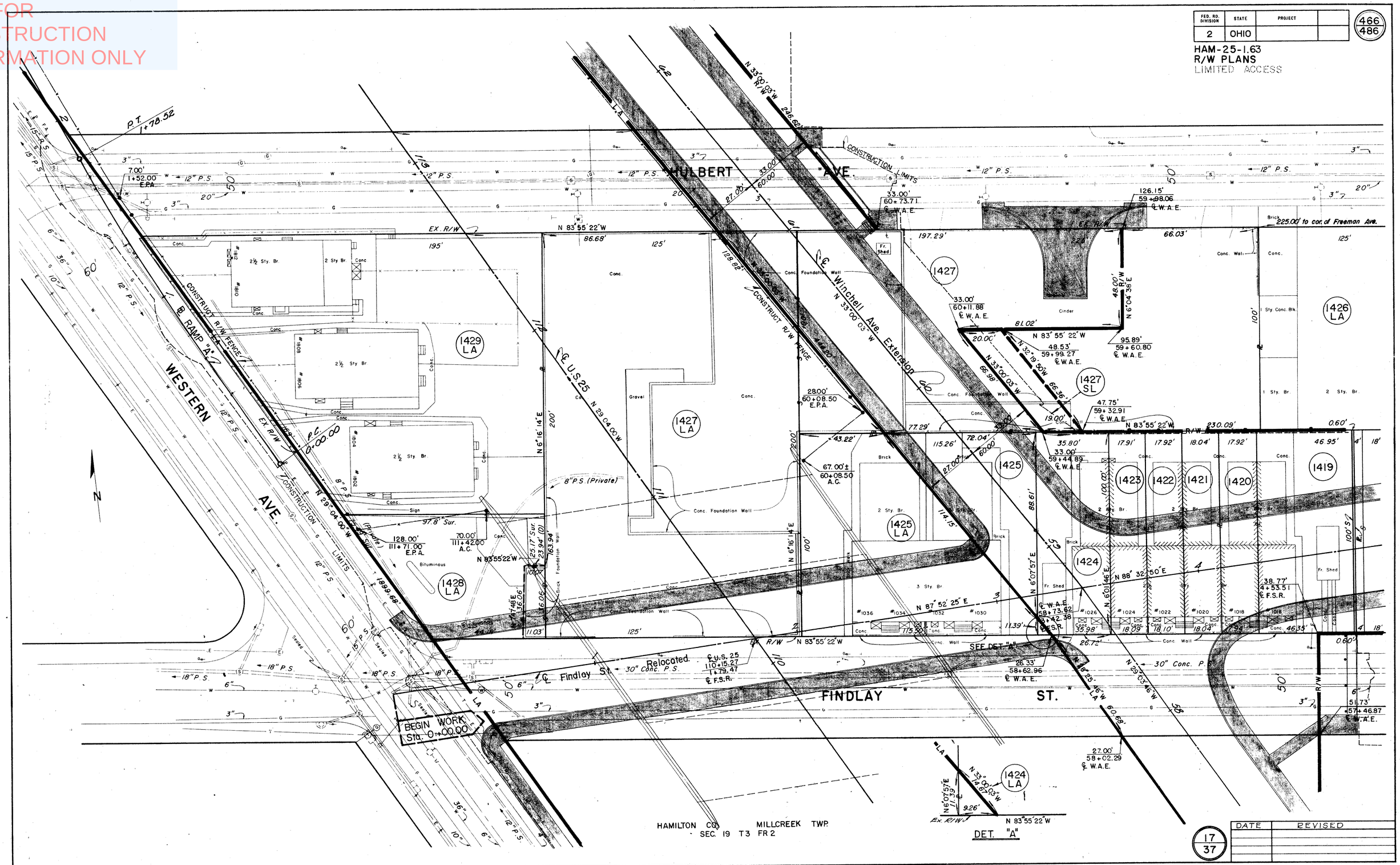
R/W PLAN ℄ FINDLAY ST. RELOCATED STA.4+00 TO STA.6+00

NOT FOR
CONSTRUCTION
INFORMATION ONLY

FED. RD. DIVISION	STATE	PROJECT	
2	OHIO		

466
486

HAM-25-1.63
R/W PLANS
LIMITED ACCESS



DATE	REVISED

17
37

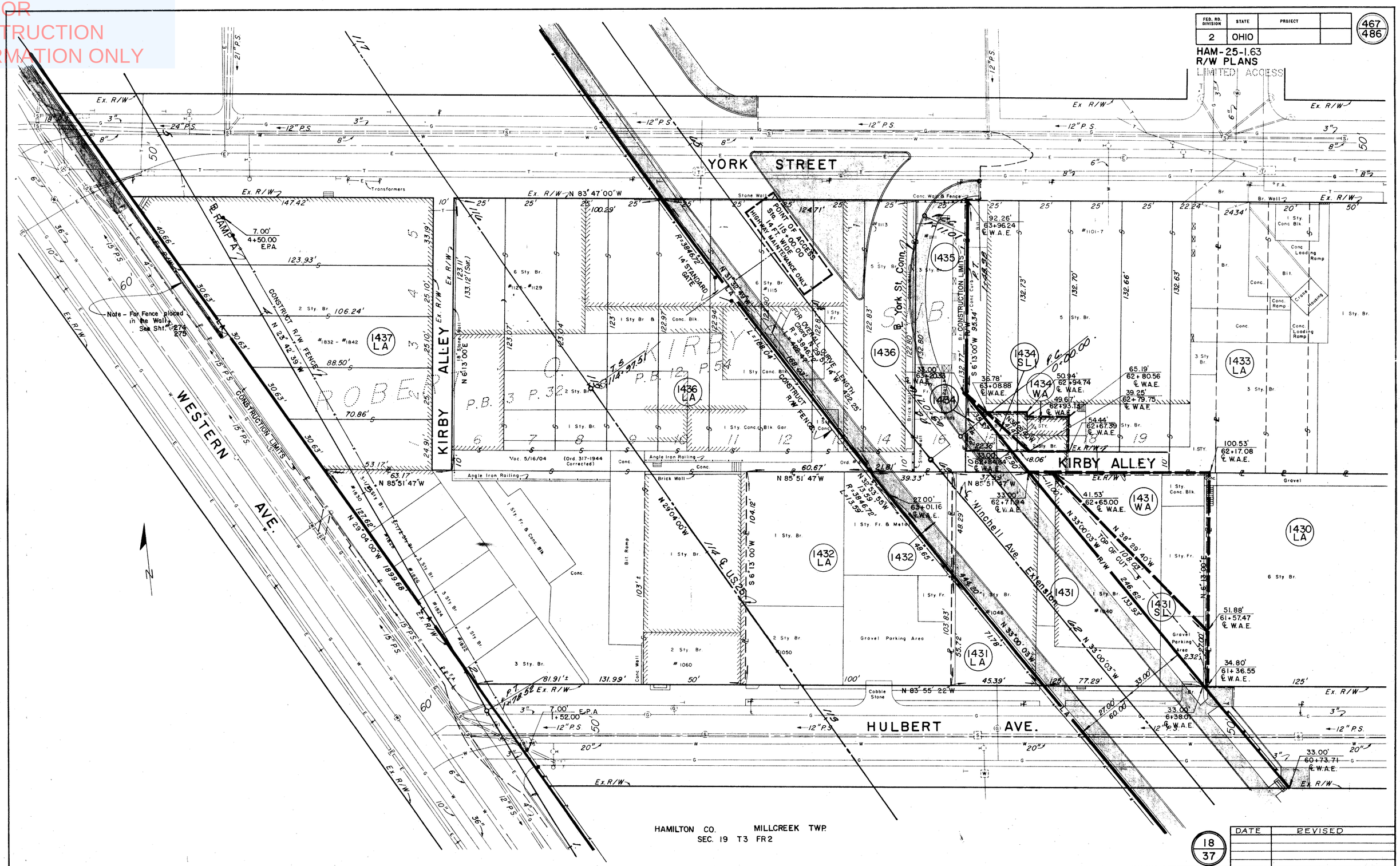
R/W PLAN ℄ U.S. 25 STA. 109+00 TO 113+00

NOT FOR
CONSTRUCTION
INFORMATION ONLY

FED. RD. DIVISION	STATE	PROJECT	
2	OHIO		

467
486

HAM-25-1.63
R/W PLANS
LIMITED ACCESS



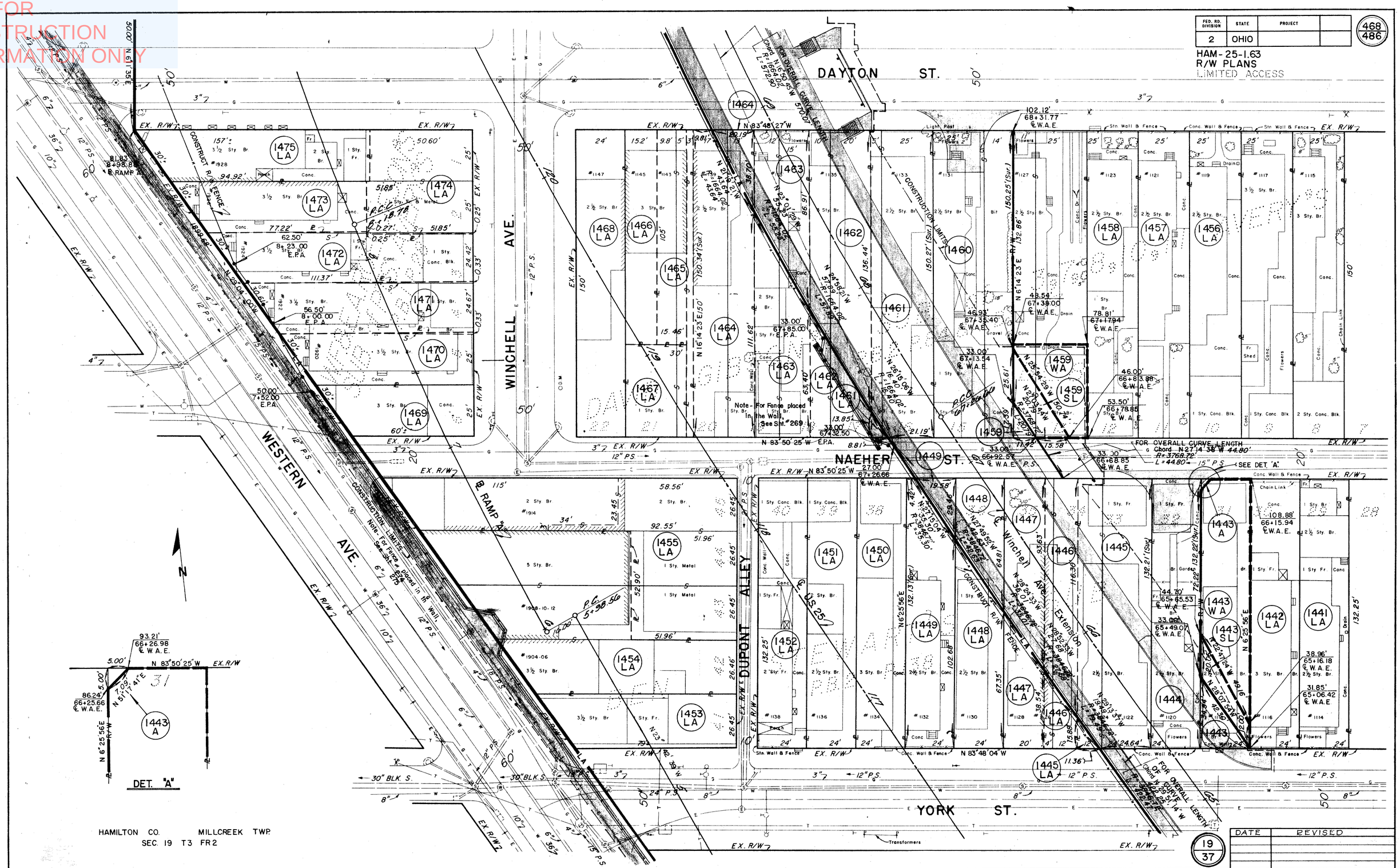
HAMILTON CO. MILLCREEK TWP.
SEC. 19 T3 FR2

18
37

DATE	REVISED

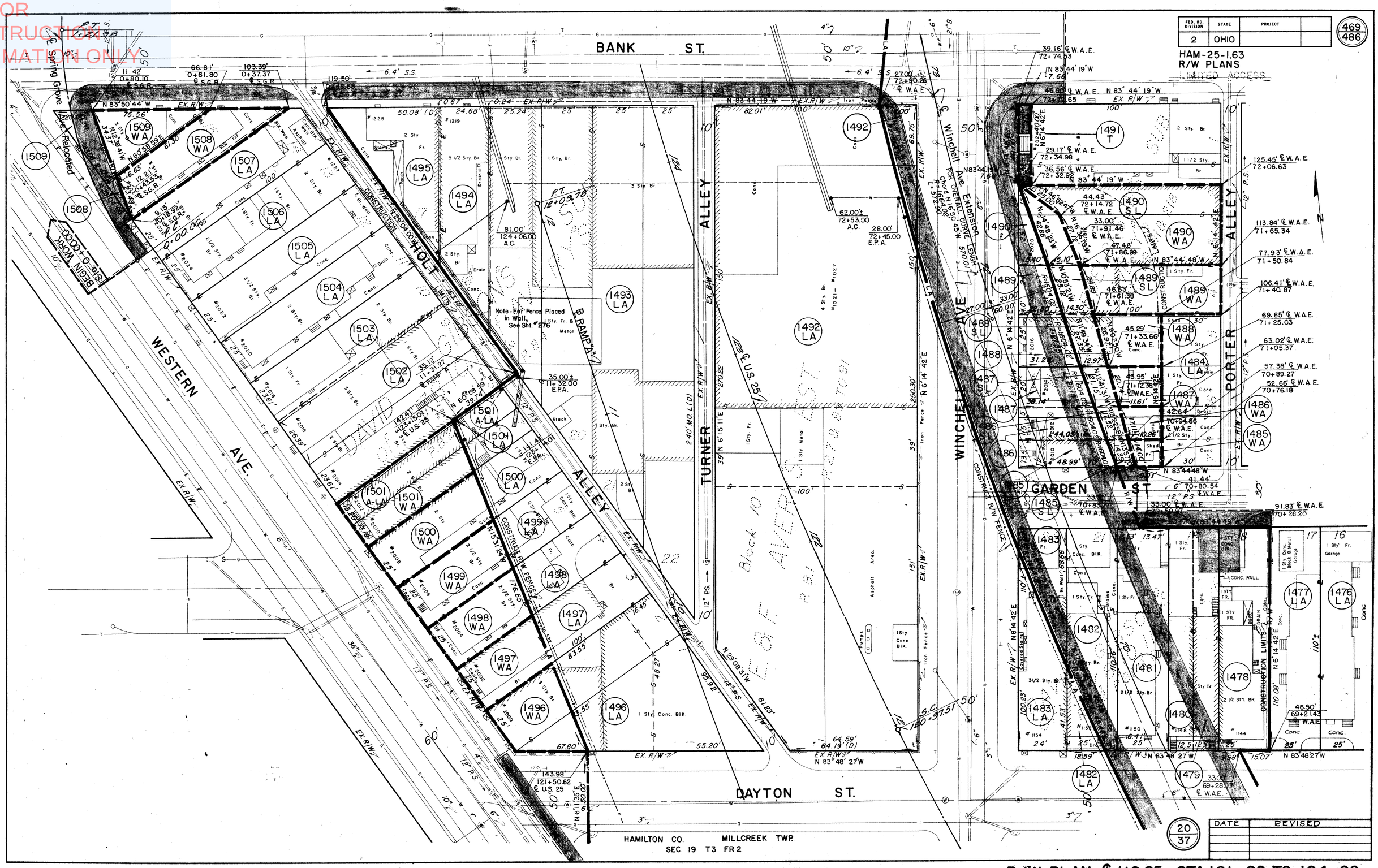
R/W PLAN ℄ U.S. 25 STA. 113+00 TO 116+00

NOT FOR CONSTRUCTION INFORMATION ONLY



R/W PLAN ℄ U.S.25 STA.117+00 TO 120+00

NOT FOR CONSTRUCTION INFORMATION ONLY



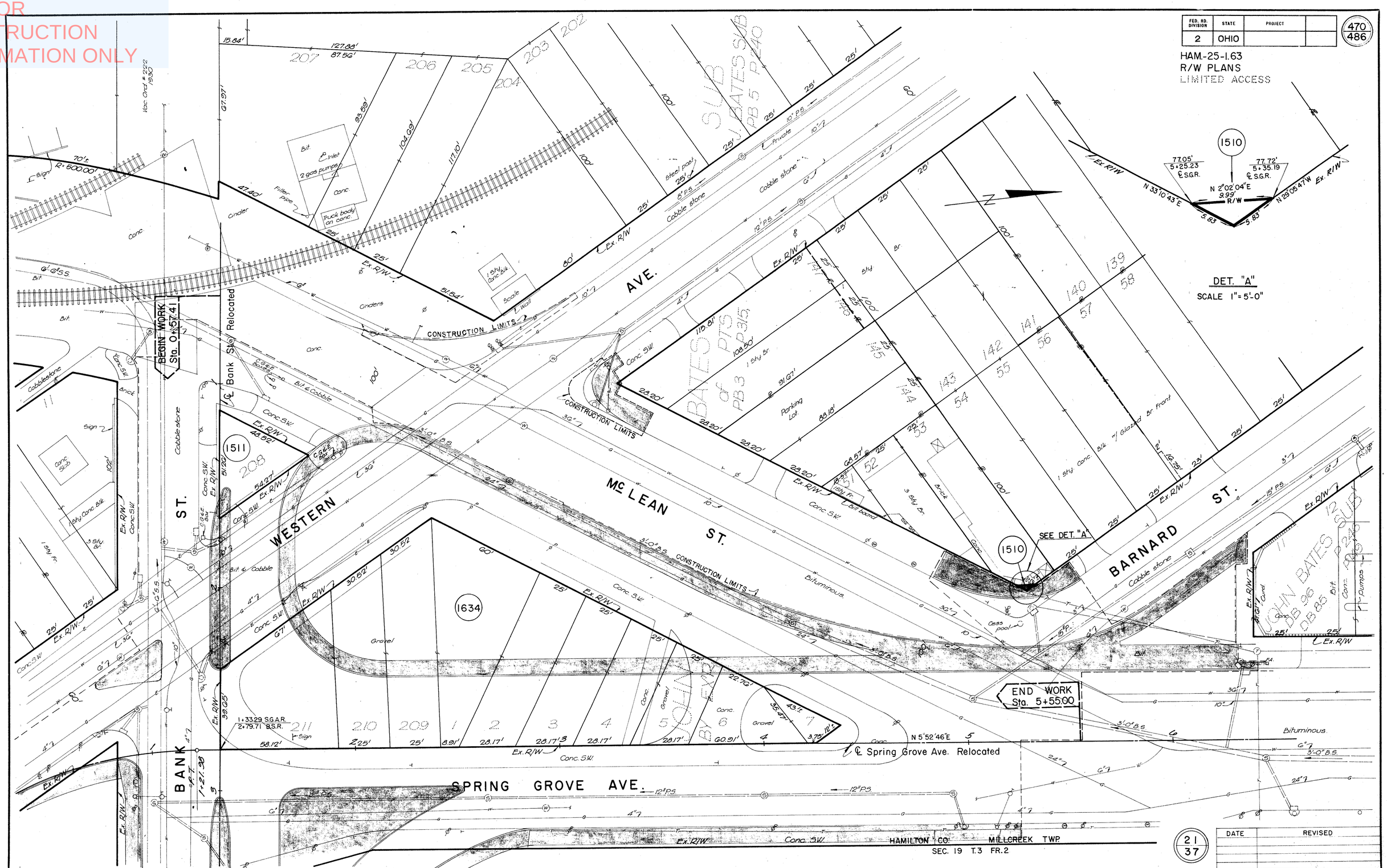
R/W PLAN ℄ U.S. 25 STA. 121+00 TO 124+00

NOT FOR
CONSTRUCTION
INFORMATION ONLY

FED. RD. DIVISION	STATE	PROJECT	
2	OHIO		

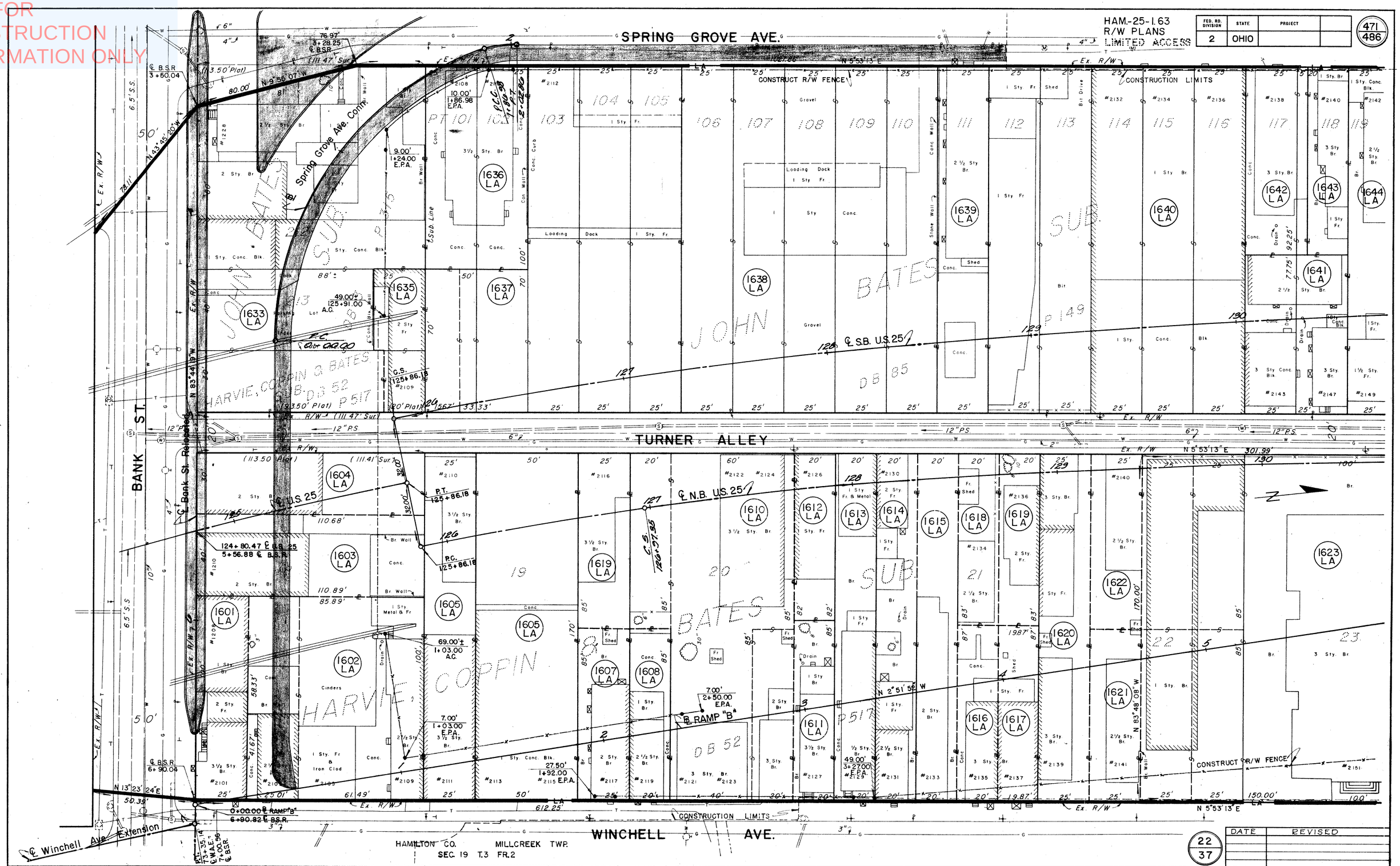
470
486

HAM.-25-1.63
R/W PLANS
LIMITED ACCESS



R/W PLAN ℄ SPRING GROVE AVE. RELOCATED STA. 2+00 TO STA. 6+00

NOT FOR CONSTRUCTION INFORMATION ONLY



R/W PLAN ℄ N.B. U.S. 25 STA. 125+00 TO STA. 130+00

NOT FOR CONSTRUCTION INFORMATION ONLY

FED. RD. DIVISION	STATE	PROJECT	
2	OHIO		

472
486

HAM-25-1.63
R/W PLANS
LIMITED ACCESS

POINT OF ACCESS
Sta 132+58.00
14 FT. WIDE
HIGHWAY MAINTENANCE ONLY

14' STANDARD GATE

CONSTRUCTION LIMITS

CONSTRUCT R/W FENCE

℄ RAMP "E"

℄ RAMP "B"

℄ S.B. U.S. 25

℄ N.B. U.S. 25

HARVIE ALLEY

TURNER ALLEY

WINCHELL AVE.

COPPIN ST.

HARRISON AVE.

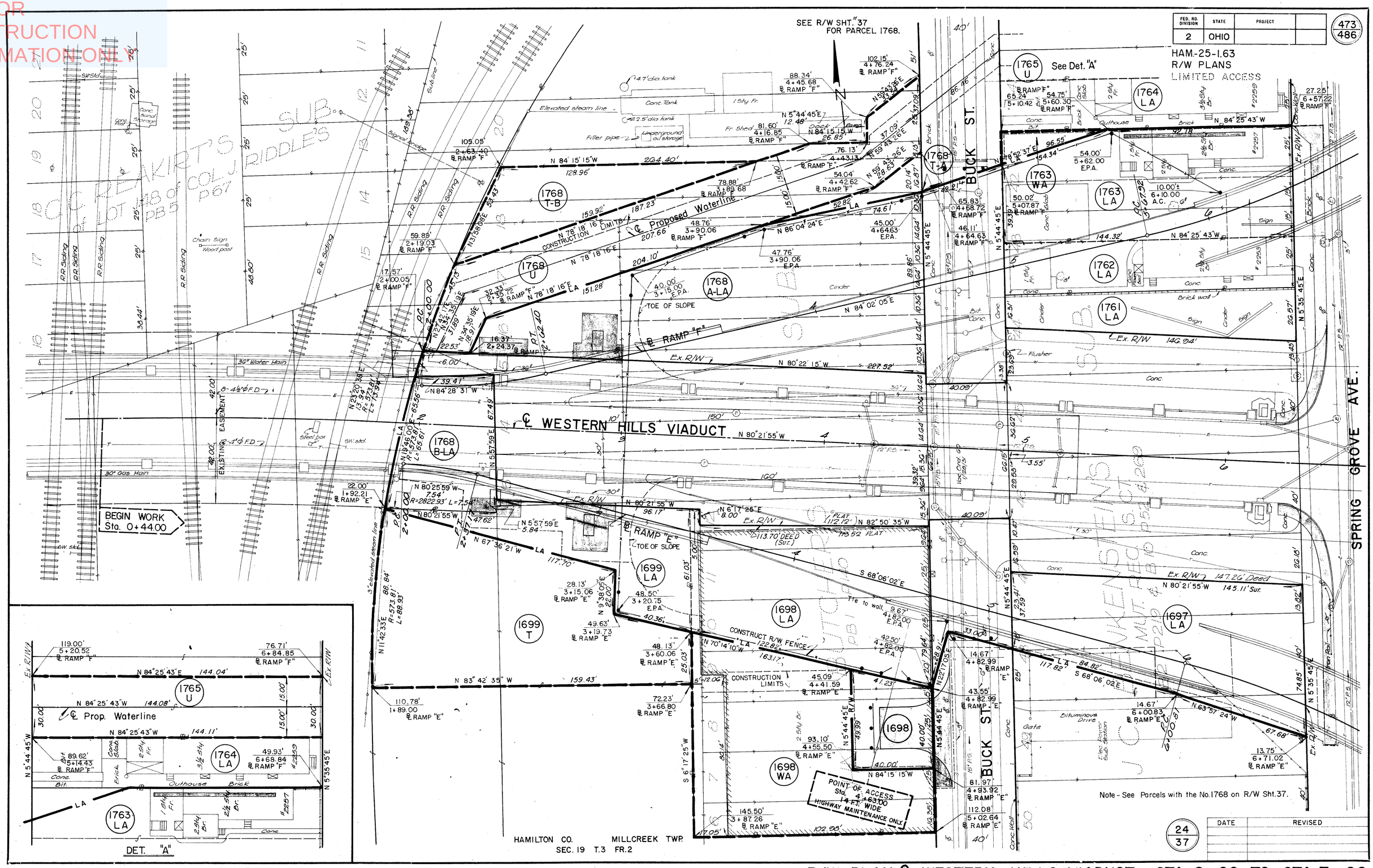
HAMILTON CO. MILLCREEK TWP.
SEC. 19 T.3 FR.2

DATE	REVISED

23
37

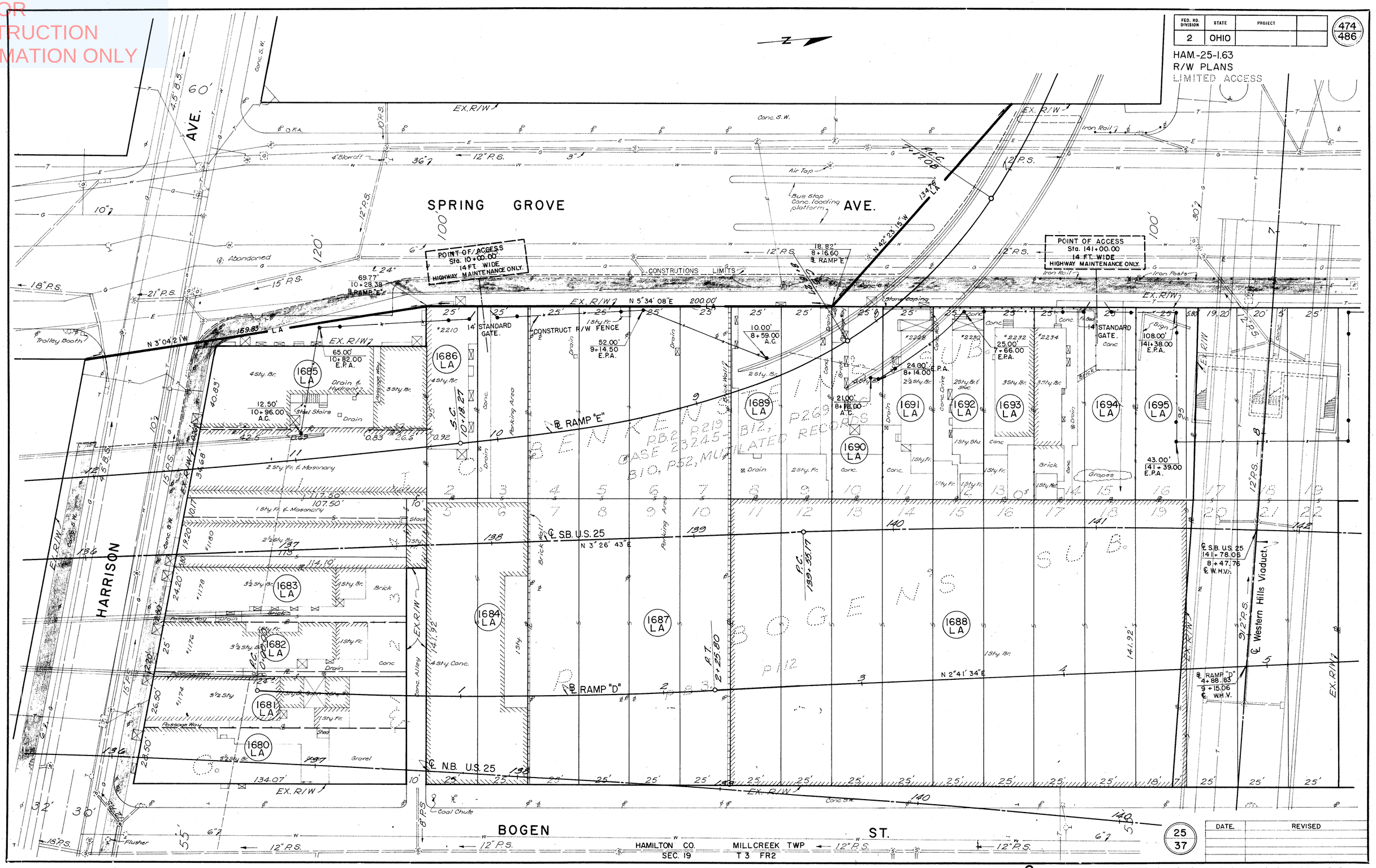
R/W PLAN ℄ N.B. U.S. 25 STA. 131+00 TO STA. 136+00

NOT FOR CONSTRUCTION INFORMATION ONLY



R/W PLAN ℄ WESTERN HILLS VIADUCT STA. 2+00 TO STA. 7+00

NOT FOR
CONSTRUCTION
INFORMATION ONLY



R/W PLAN ℄ N.S. U.S. 25 STA. 136+00 TO STA. 141+00

NOT FOR CONSTRUCTION INFORMATION ONLY

FED. RD. DIVISION	STATE	PROJECT	
2	OHIO		

475/486

HAM-25-1.63
R/W PLANS
LIMITED ACCESS

SPRING GROVE AVE.

POINT OF ACCESS
Sta. 143+00.00
14 FT. WIDE
HIGHWAY MAINTENANCE ONLY.

POINT OF ACCESS
Sta. 10+33.50
14 FT. WIDE
HIGHWAY MAINTENANCE ONLY.

N 37°31'06"E LA 1879.9'

CONSTRUCTION LIMITS

CONSTRUCT R/W FENCE

14' STANDARD GATE

WESTERN HILLS VIADUCT

QUEEN CITY AVE.

℄ S.B. U.S. 25
141+78.06
8+47.76
℄ W.H.V.

℄ S.B. U.S. 25

℄ N.B. U.S. 25

141+55.29 ℄ N.B. U.S. 25
9+97.30 ℄ W.H.V.

4+88.83 ℄ RAMP "D"
9+15.06 ℄ W.H.V.

℄ RAMP "D"

℄ RAMP "E"

℄ RAMP "F"

BOGEN ST.

HAMILTON CO.
SEC. 19
MILLCREEK TWP
T3 FR2

1731 LA
1732 LA
1733 LA
1734 LA
1735 LA
1736 LA
1737 LA
1738 LA
1739 LA
1740 LA
1741 LA
1742 LA
1743 LA
1744 LA
1745 LA
1746 LA
1747 LA
1748 LA
1749 LA
1750 LA
1751 LA
1752 LA
1753 LA
1754 LA
1755 LA
1756 LA
1757 LA
1758 LA
1759 LA
1760 LA

GENKINS SURVEY
P52, P21
CASE 2324 E BIG A52 SURVEY
BIG P52 MUTILATED RECORDS

26/37

DATE	REVISED

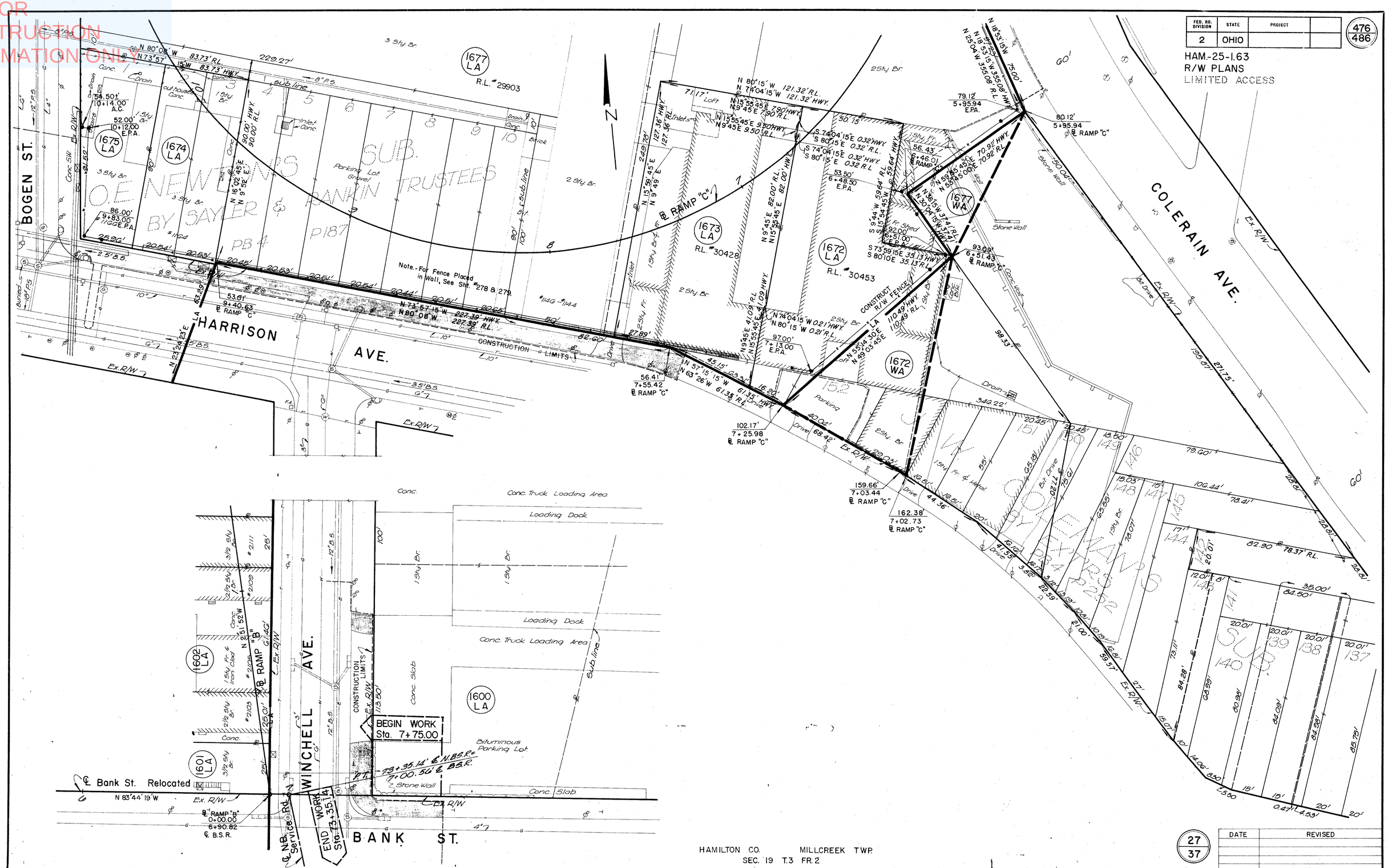
R/W PLAN ℄ S.B. U.S. 25 STA 142+00 TO STA 147+00

NOT FOR CONSTRUCTION INFORMATION ONLY

FED. RD. DIVISION	STATE	PROJECT	
2	OHIO		

476/486

HAM.-25-1.63
R/W PLANS
LIMITED ACCESS



HAMILTON CO. MILLCREEK TWP.
SEC. 19 T.3 FR.2

27/37

DATE	REVISED

R/W PLAN ℄ RAMP "C" STA. 7+00 TO STA. 10+00

NOT FOR CONSTRUCTION INFORMATION ONLY

FED. RD. DIVISION	STATE	PROJECT	
2	OHIO		

477-486

HAM.-25-1.63
R/W PLANS
LIMITED ACCESS

ZINCK ST.

BOGEN ST.

CENTRAL PARKWAY

COLERAIN AVE.

℄ RAMP "B"

℄ RAMP "C"

CONSTRUCT R/W FENCE

CONSTRUCTION LIMITS

1679 LA

1677 LA R.L. # 29903

HAMILTON CO. MILLCREEK TWP.
SEC. 19 T. 3 FR. 2

28/37

DATE	REVISED

R/W PLAN ℄ RAMP "C" STA. 2+00 TO STA. 12+00

NOT FOR CONSTRUCTION INFORMATION ONLY

FED. RD. DIVISION	STATE	PROJECT	
2	OHIO		

478
486

HAM.-25-1.63
R/W PLANS
LIMITED ACCESS

BOGEN ST.

ZINCK ST.

COLERAIN AVE.

CENTRAL PARKWAY

WESTERN HILLS VIADUCT

CITY QUEEN AVE.

℄ RAMP "B"

℄ RAMP "C"

℄ RAMP "D"

℄ N.B. U.S. 25

Ex. R/W

Sub line

Conc. S.W.

Brick

Stone Wall

Conc. Blk. Wall

Stn. Wall

Conc. Wall

Conc. Ret. Wall

Gravel

Bit.

Drain

Scrub Trees

Switch House

Coal Shute

Gas pump

Filler Pipes

Note - This easement is for the Western Hills Viaduct overhang and Footers.

Note - This easement for maintaining the piers of Western Hill Viaduct.

Note - Tie Fence to Existing Wall.

CONSTRUCT R/W FENCE

CONSTRUCTION LIMITS

END WORK Sta. 13+96.84

1677 LA
1679 LA
1700 LA
1701 LA
1702 LA
1703 LA
1704 LA
1705 LA
1706 LA
1707 LA
1708 LA
1709 LA
1710 LA
1711 LA
1712 LA
1713 LA
1714 LA
1715 LA
1716 LA
1717 LA
1718 LA
1719 LA
1720 LA
1721 LA
1722 LA
1723 LA
1724 LA
1725 LA
1726 LA
1727 LA
1728 LA
1729 LA
1730 LA

HAMILTON CO. MILLCREEK TWP.
SEC. 19 T. 3 FR. 2

29
37

DATE	REVISED

R/W PLAN ℄ RAMP "B" STA. 16+00 TO STA. 22+00

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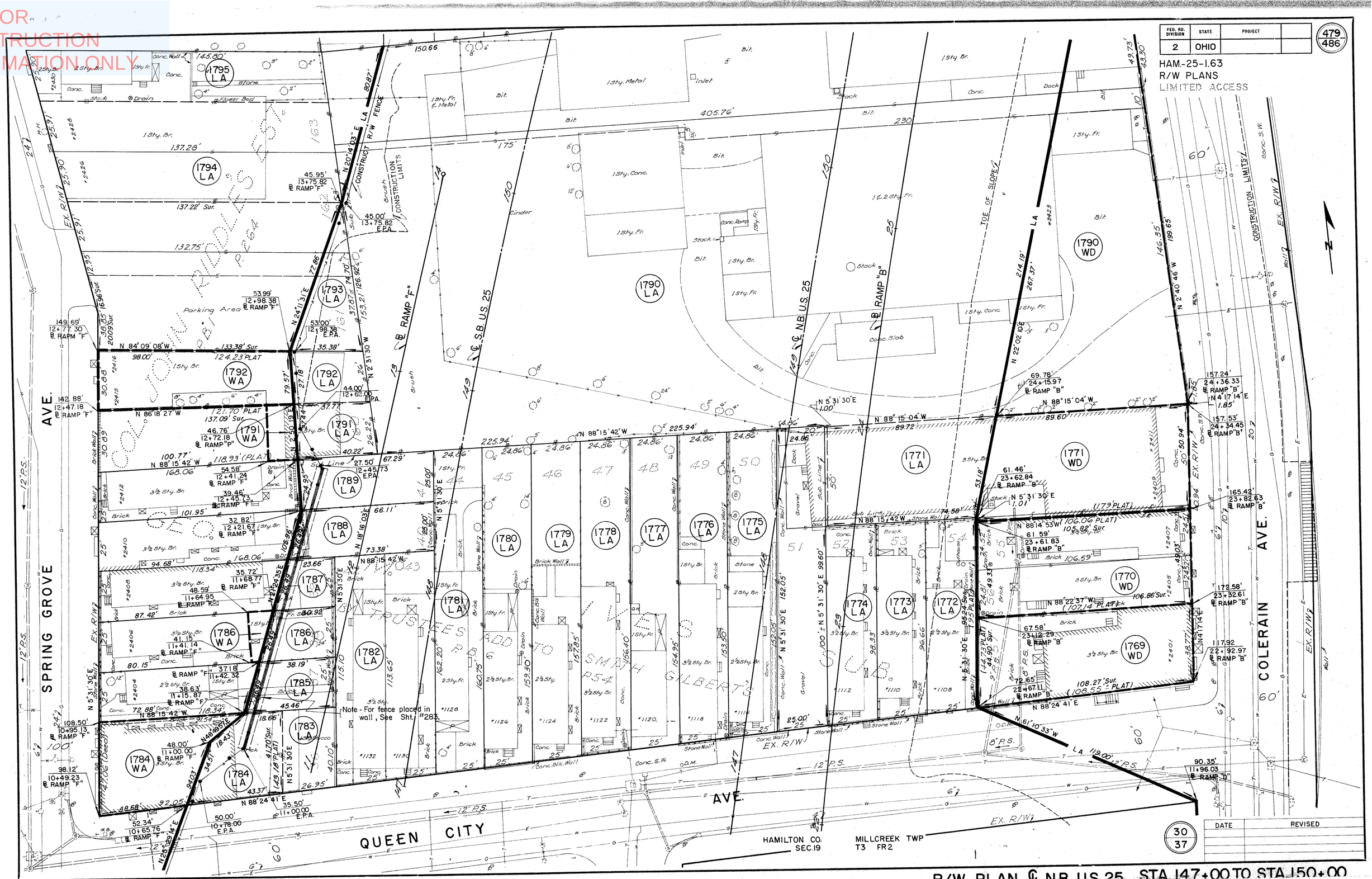

R/W PLAN ℄ NB US 25 STA 147+00 TO STA 150+00

NOT FOR CONSTRUCTION INFORMATION ONLY

FED. RD. DIVISION	STATE	PROJECT	
2	OHIO		

480
486

HAM-25-1.63
R/W PLANS
LIMITED ACCESS

DET. "A"

DATE	REVISED

31
37

R/W PLAN ℄ N.B. U.S. 25 STA. 151+00 TO STA. 154+00

NOT FOR CONSTRUCTION INFORMATION ONLY

FED. RD. DIVISION	STATE	PROJECT	
2	OHIO		

481
486

HAM-25-1.63
R/W PLANS
LIMITED ACCESS

ALFRED ST. — SECTION 20 / SECTION 19 — SEC. 20 / SEC. 19

COOK ST.

COLERAIN AVE. — CL SB US 25 — CL NB US 25

CENTRAL PARKWAY

RAPID TRANSIT

STATE OF OHIO (Miami and Erie Canal Abandoned)

CONSTRUCTION LIMITS

CONSTRUCT R/W FENCE

HAMILTON CO. SEC. 19 & 20 — MILLCREEK TWP T3 FR2

1844 LA — 1838 LA — 1818 LA — 1820 LA — 1817 LA — 1816 LA — 1512 LA

DATE	REVISED

32
37

R/W PLAN ℄ N.B. U.S. 25 STA. 155+00 TO STA. 158+00

NOT FOR CONSTRUCTION INFORMATION ONLY

FED. RD. DIVISION	STATE	PROJECT	
2	OHIO		

482
486

HAM.-25-1.63
R/W PLANS
LIMITED ACCESS

N

1823 LA

1822 WA

1822 LA

1821 WA

1821 LA

1820 WA

1820 LA

1512 LA

Gravel
45ty. Br.
Brick
Bit.
Trees
1 Sty. Fr.
Stack
1 Sty. Br.
Stone
Concrete Slab
3 Sty. Br.
Cinder
1 Sty. Conc. Blk. & Steel Fr.
1 Sty. Fr. & Steel Fr.
Overhead Crane Rail
Brick Wall
Retaining Wall
Stone Wall
Inlet
M.H.
Conc. Slope
Conc. S.W.
Oil Intake Pipe
Trees & Shrubs
Conc. Retaining Wall

200'
132.39'
N 13°11'45"E
231.30'
160+50.01
℄ S.B. U.S. 25
36.14'
156.00'
254.66'
N 84°09'22"W
211.58' PLAT
232.71' Sur.
31.60'
132.96'
N 24°10'08"E
88.06'
161+15.56
℄ N.B. U.S. 25
5.38'
81.13'
160+96.19
E.P.A.
72.00'
82.13'
160+96.19
℄ S.B. U.S. 25
T.S.
160+36.81
194.15'
159+94.74
℄ S.B. U.S. 25
96.43'
160+25.20
℄ S.B. U.S. 25
N 34°22'06"E
102.31'
267.17'
398.42'± PLAT
171.82' PLAT
95.43'
160+25.20
E.P.A.
N 24°01'51"E
50.34'
97.26'
159+74.72
℄ S.B. U.S. 25
166.01'
159+53.29
℄ S.B. U.S. 25
266.35'
96.26'
159+74.72
E.P.A.
134.14'
159+06.51
℄ S.B. U.S. 25
338.63' PLAT
94.96'
159+18.71
℄ S.B. U.S. 25
72.11'
159+36.36
℄ N.B. U.S. 25
N 20°46'54"E
91.91'
158+44.53
℄ S.B. U.S. 25
90.91'
158+44.53
E.P.A.
72.22
158+15.64
℄ S.B. U.S. 25
N 23°08'23"E
℄ 158+07.91
℄ 157+80.08
216.34' Sur.
126.34'
N 84°09'22"W
360.00' Sur.
N 24°54'53"E
179.99'
142.00'
N 14°54'08"E
83.60'
158+00.96
℄ N.B. U.S. 25
135.90'
N 24°10'08"E
172.82'
N 23°51'15"E
268.25'
N 19°50'11"E
N 18°43'13"E
N 19°16'22"E
N 19°16'22"W
N 84°09'22"W
℄ S.B. U.S. 25
℄ N.B. U.S. 25
CONSTRUCT R/W FENCE
CONSTRUCTION LIMITS
EX. R/W
EX. R/W?
60'
65'
50'
90'
25'
158
159
140
141
133
1/16
1/2
R 2044.26'
SECTION 20
SECTION 19
HAMILTON CO. SEC. 19&20
MILLCREEK TWP T3 FR 2
STATE OF OHIO (Miami and Erie Canal Abandoned)
CONSTRUCTION LIMITS
RAPID TRANSIT
CENTRAL PARKWAY
COLERAIN AVE.
ALFRED ST.
15½" Cond
12" P.S.
15" P.S.
6" W
12" W
8" W
6" G
12" G
8" G
6" T
8" T
6" S
8" S
12" S
6" E
8" E
12" E
6" Cond
8" Cond
12" Cond
6" Conc. S.W.
8" Conc. S.W.
12" Conc. S.W.
#2600
#2612
#2614
#2616
#2618
#2620
#2633
#2634

SUBD

33
37

DATE	REVISED

R/W PLAN ℄ N.B. U.S. 25 STA. 158+00 TO STA. 161+00

NOT FOR
CONSTRUCTION
INFORMATION ONLY

FED. RD. DIVISION	STATE	PROJECT	
2	OHIO		

HAM.-25-1.63
R/W PLANS
LIMITED ACCESS

DATE	REVISED

R/W PLAN ℄ N.B. U.S. 25 STA. 161+00 TO STA. 165+00

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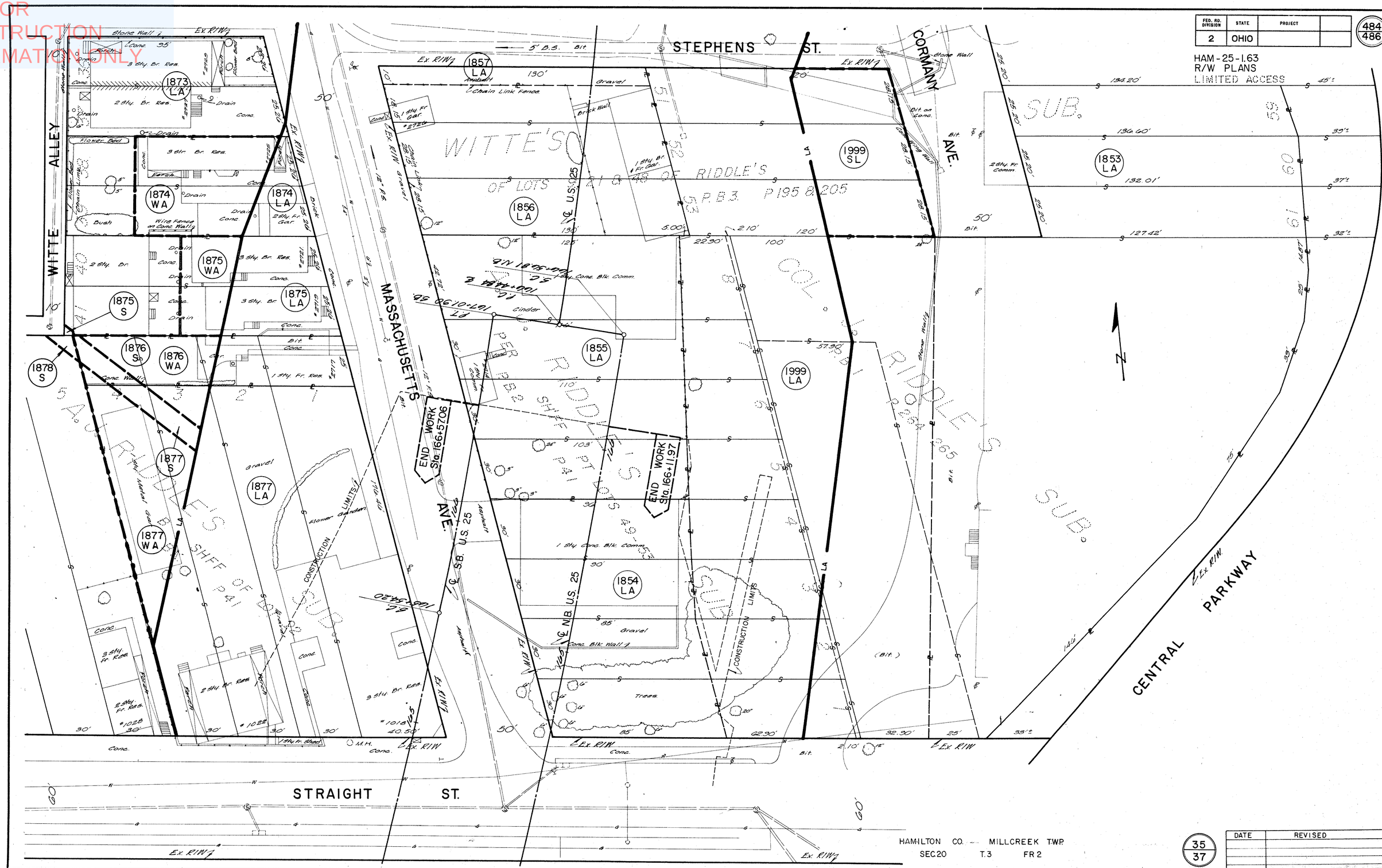


R/W PLAN ℄ U.S. 25 STA. 165+00 TO STA. 168+00

NOT FOR CONSTRUCTION INFORMATION ONLY

FED. RD. DIVISION	STATE	PROJECT	
2	OHIO		

485
486

HAM-25-1.63
R/W PLANS
LIMITED ACCESS

MASSACHUSETTS AVE.

MARSHALL AVE.

UNNAMED ALLEY

CENTRAL PARKWAY

J. RIDDLE'S EST.

COL. J. RIDDLE'S SUB.

BUERKLE'S SUB. OF D. QUINN'S P.B. 4 P. 105

QUINN'S SUB. P.B. 2 PTS 8 114

DAVID

2002 LA
2001 WA
2001 LA
2000 LA
2003 LA
2003 A-WA
2003 A-LA
2005 LA
2004 LA
1999 B-LA
1998 LA

Ex. R/W

12" P.S.

Conc.

Flower Bed

Shrubs

Trees

Porch

Garden

Conc. Wall

Stone Wall with Iron Fence

2½ Sty. Fr. Res. #1039

2½ Sty. Fr. Res. #1032

1 Sty. Br.

1 Sty. Conc. Blk. Comm.

2 Sty. Conc. Blk. Comm.

2 Sty. Conc. & Br. Comm.

Conc. Block Garage

Ramp

Drain

Gravel

Bituminous

Porch

2½ Sty. Br.

1 Sty. Fr.

2½ Sty. #1003

Conc. Passenger Waiting Sheds

Bushes

Trees & Shrubs

112.59'

37.50' PLAT 37.52' Sur.

260.48' Sur.

225.54' Sur.

213.91' Sur.

202.28' Sur.

127.40'

196.54' Sur.

215.45' PLAT

21.44' Sur.

20' Sub. Line

175' PLAT

P.C. 173+37.60 ℄ S.B. U.S. 25

P.T. 173+39.97

P.C. 173+39.97

P.T. 174+02.44

P.C. 174+02.44

P.T. 174+39.97

P.C. 174+39.97

P.T. 175+00.00

40.26' Sur.

38.46' Sur.

102.77' Sur.

208.58' Sur. (208' OID)

104.17'

109'

℄ U.S. 25

℄ S.B. U.S. 25

℄ N.B. U.S. 25

℄ Rapid Transit

℄ TEMP. CONN.

℄ TEMP. CONN.

96.00'± 172+70.00 E.P.A.

82.00'± 173+00.00 E.P.A.

48.00'± 173+39.97 E.P.A.

42.00'± 174+11.00 E.P.A.

106.00'± 172+40.00 E.P.A.

CONSTRUCT R/W FENCE

STATE of OHIO
(Miami and Erie Canal Abandonded)

Note-Tie fence to existing of HAM. 25-1.63

Note.-For fence placed in wall, See sht # 284.

Note.-Tie fence to existing fence of HAM.-25-2.99.

HAMILTON CO. MILLCREEK TWP.
SEC. 20 T.3 F.R. 2

36
37

DATE	REVISED

R/W PLAN ℄ U.S. 25 STA. 171+00 TO 177+00

NOT FOR CONSTRUCTION INFORMATION ONLY

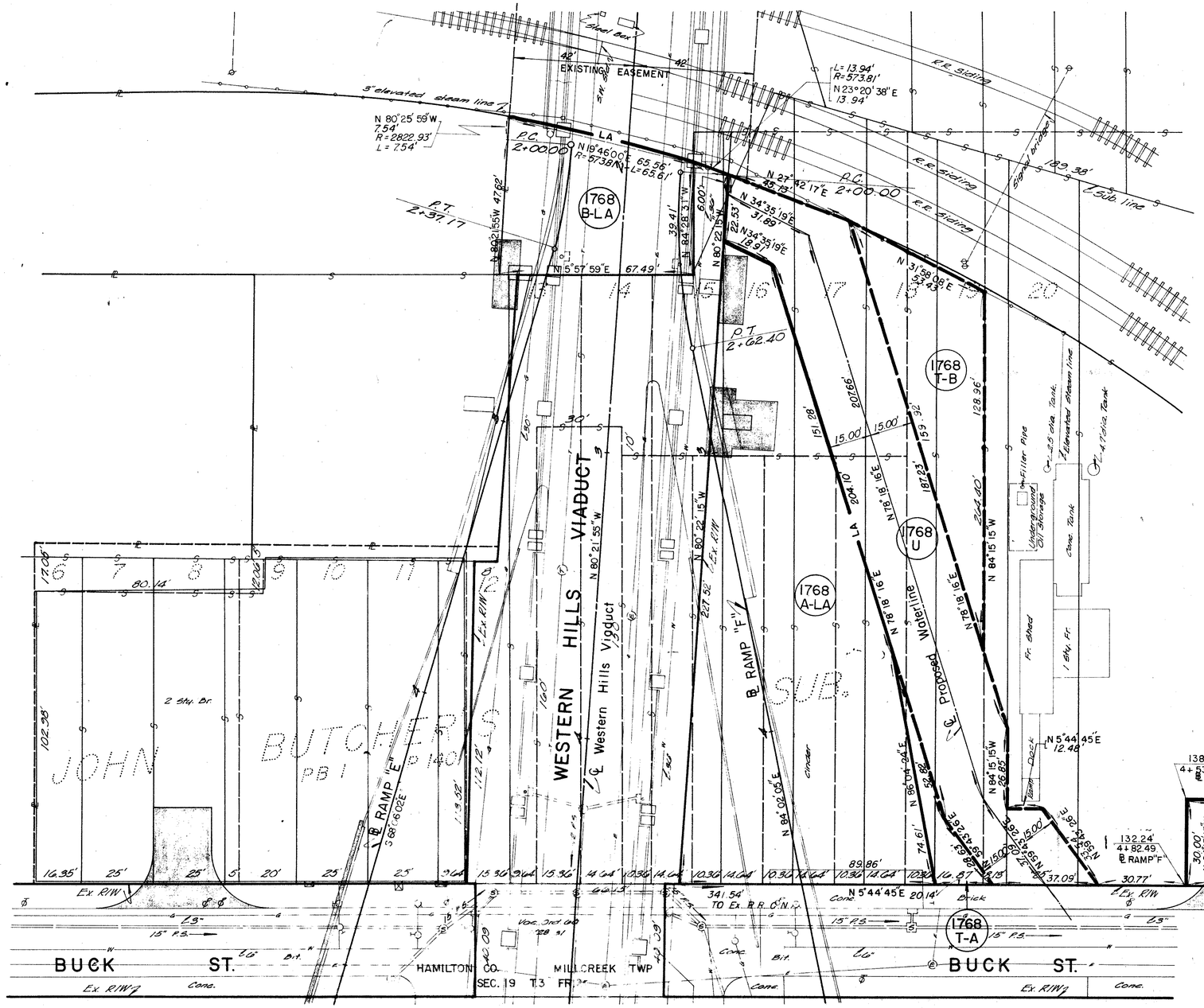
THE CINCINNATI UNION TERMINAL CO.
PROPERTY PLAT

FED. RD. DIVISION	STATE	PROJECT	
2	OHIO		

486
486

HAM.-25-1.63
R/W PLANS
LIMITED ACCESS

SCALE
0 20 40 60 80



R/W REQUIRED

Parcel No.	Area Sq. Ft.	Area Acres
1768 A-LA	12,502	0.29
1768 B-LA	3,150	0.07
1768	1,200	0.03
1768 T-A	500	0.01
1768 T-B	3,091	0.07
1768 U	7,847	0.18

37
37

DATE	REVISED

R/W PLAN C.U.T. CO.

NOT FOR CONSTRUCTION INFORMATION ONLY

- Auger sample boring - plan view
- Drive sample boring - plan view
- Boring plotted to vertical scale only. Figures to right of borings indicate water content in per cent.
- Water content equal to or greater than liquid limit minus 3%
- —W Free Water
- Number of blows for "Standard Penetration" test. X = number of blows for the second 6 inches, y = number of blows for the third 6 inches.

NOTE "A" Random Fill

NOTE "B" Pavement (Includes sidewalk and all types of paved streets)

LEGEND FOR PROJECT-AVERAGE RESULTS OF TESTS - 125 SAMPLES TESTED

DESCRIPTION	H.B.R. CLASS	OHIO CLASS	% AGG.	% C. SAND	% F. SAND	% SILT	% CLAY	LIQUID LIMIT	PLASTICITY INDEX	GROUP INDEX	WATER CONTENT	SAMPLES TESTED
Gravel with Sand	A-1-b	A-1-b	38	30	14	- 18 -		22*	5*	0	12	7
Fine Sand	A-3	A-3	3	17	75	- 5 -		NP	NP	0	22	2
Coarse and Fine Sand	-	A-3a	7	8	62	- 23 -		12*	2*	0	16	6
Gravel with Sand and Silt	A-2-4	A-2-4	27	28	17	18	10	25	7	0	17	3
Gravel with Sand, Silt, and Clay	A-2-6	A-2-6	12	31	29	9	19	40	19	1	20	1
Gravel with Sand, Silt, and Clay	A-2-7	A-2-7	13	37	18	10	22	48	26	3	19	3
Sandy Silt	A-4	A-4a	13	9	20	35	23	25	8	5	17	10
Silt	A-4	A-4b	1	1	8	71	19	26*	6*	8	23	30
Silt and Clay	A-6	A-6a	5	5	9	45	36	32	12	9	22	26
Silty Clay	A-6	A-6b	2	6	13	34	45	35	18	11	22	6
Elastic Clay	A-7-5	A-7-5	5	9	3	31	52	51	19	14	27	4
Clay	A-7-6	A-7-6	4	5	5	39	47	45	21	13	23	27

* Group includes non-plastic samples. These samples were not included in computing this average.

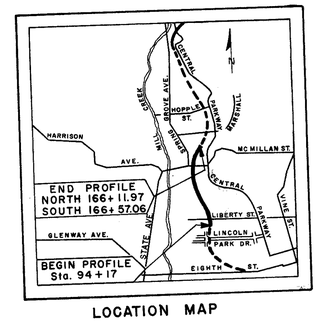
SOIL PROFILE

(1/4)

HAMILTON COUNTY
HAM-25-1.63

VOGT, IVERS, SEAMAN & ASSOCIATES
CINCINNATI, OHIO

NOTE: THE INFORMATION SHOWN BY THE SUBGRADE PROFILE WAS SECURED FOR THE USE OF THE STATE OF OHIO AND NOT TO BE CONSTRUED AS PART OF THE PLANS GOVERNING THE CONSTRUCTION OF PROJECT.



LOCATION MAP

Recon. - R.D.W. - Feb.'59, Feb.'61
Drilling - The H.C. Nutting Co., Cincinnati, Ohio
Auger - 9-17-59 through 9-18-59
Drive - 2-14-59 through 2-13-61
Drafting - R.D.W., R.A.B., D.Y.F. March '61

SUMMARY OF SOIL TEST DATA

STATION, OFFSET	DEPTH FROM -TO	% AGG	% CS	% FS	% SILT	% CLAY	LL	PI	% WC	S, H, T, L. CLASS.
96 + 05 CL	0.0- 0.5	Concrete Pavement								Visual
	0.5- 9.5	Fill - Cinders, Clay, Sand								A - 4a
	9.5-10.0	0	2	38	43	17	19	7	16	
99 + 74 21' Lt.	0.0- 0.9	Concrete Pavement								Visual
	15.5-17.0	1	4	13	62	20	25	7	24	A - 4b
	20.0-21.5	0	0	1	69	30	33	11	32	A - 6a
101 + 50 10' Rt.	0.0- 0.7	Concrete Pavement								Visual
	0.7- 2.0	Fill - Silty Clay								A -7-6
	5.0- 6.5	1	1	8	35	55	43	23	29	A - 4b
	7.5- 9.0	1	4	15	52	28	30	8	22	A - 7-6
	15.0-16.5	0	1	6	46	47	41	20	22	A - 6a
	20.0-21.5	0	0	2	59	39	36	14	31	A - 6a
	30.0-31.5	0	1	8	63	28	29	11	24	
105 + 09 20' Lt.	0.0-18.0	Fill - Cinders, Brick, Clay, Sand, Gravel								Visual
	18.5-20.0	15	40	11	12	22	54	32	22	A - 2-7
108 + 58 34' Rt.	0.0- 2.5	Fill - Cinders, Concrete, Brick								Visual
	2.5- 5.0	Fill - Sandy Clay, Cinders, Brick								A - 6b
	7.5- 9.0	1	14	25	33	27	34	18	20	A - 4a
	15.0-16.5	5	25	20	30	20	29	10	22	A - 4b
	25.0-26.5	0	0	6	76	18	25	5	28	
112 + 20 60' Rt.	0.0- 0.5	Concrete Pavement								Visual
	0.5- 6.0	Fill - Sandy Clay with Gravel								A - 6a
	12.0-13.5	0	2	7	57	34	28	11	21	A - 4a
	15.5-17.0	5	14	26	36	19	21	6	21	
116 + 06 11' Lt.	0.0- 3.0	Fill - Cinders, Clay, Gravel, Sand								Visual
	3.0-10.0	18	24	35	16	7	12	2	5	A - 3a
119 + 92 70' Rt.	0.0- 2.0	Fill - Clay, Gravel, Cinders, Concrete								Visual
	2.0- 6.0	22	14	16	32	16	30	12	22	A - 6a
	6.0-10.0	0	4	25	41	30	25	11	20	A - 6a
123 + 80 25' Rt.	0.0- 0.4	Concrete Pavement								Visual
	0.4- 9.0	Fill - Silt, Clay, Cinders, Brick								A - 6a
	10.0-11.5	10	7	13	47	23	34	11	28	A - 1 -b
	15.0-16.5	26	42	10	12	10	22	4	11	A - 4b
	18.0-19.5	0	0	9	78	13	24	3	27	A - 3a
	22.5-24.0	0	0	86	-14-		NP	NP	7	A - 4b
	27.0-28.5	0	0	27	71	2	NP	NP	13	A - 4b
	31.5-33.0	0	6	7	81	6	NP	NP	15	

STATION, OFFSET	DEPTH FROM -TO	% AGG	% CS	% FS	% SILT	% CLAY	LL	PI	% WC	S, H, T, L. CLASS.
125 + 71 8' Rt.	0.0- 8.5	Fill - Sandy Clay, Brick, Cinders								Visual
	9.0-10.5	1	0	5	58	36	37	15	23	A - 6a
	13.5-15.0	23	30	9	5	33	66	36	28	A - 7-6
	18.0-20.0	0	0	14	80	6	23	3	14	A - 4b
	22.5-24.0	0	0	46	51	3	NP	NP	14	A - 4b
* N-128 + 55 15' Lt.	0.0- 6.5	Fill - Sand, Clay, Cinders, Rock								Visual
	8.0- 9.5	25	22	9	18	26	47	26	28	A - 7-6
	12.0-13.5	0	0	2	58	40	32	17	23	A - 6b
	18.5-20.0	0	1	1	60	38	28	10	28	A - 4b
N-132 + 50 20' Lt.	0.0- 4.5	Fill - Gravel, Clay, Brick, Cinders								Visual
	4.5-10.0	6	5	14	33	42	42	21	23	A - 7-6
**S-135 + 10 5' Rt.	0.0- 1.0	Fill - Sandy Clay, Cinders, Brick								Visual
	2.5- 4.0	5	4	8	43	40	45	17	19	A - 7-6
	10.0-11.5	12	31	29	9	19	40	19	20	A - 2-6
	15.0-16.5	0	0	1	65	34	27	7	25	A - 4b
	22.5-24.0	0	0	1	65	34	25	6	26	A - 4b
	36.0-37.5	0	0	1	63	36	27	7	26	A - 4b
	40.5-42.0	0	0	3	87	10	22	3	22	A - 4b
	45.0-46.5	0	0	100	0	0	NP	NP	21	A - 3
N-136 + 47 15' Rt.	0.0- 0.5	Concrete Pavement								Visual
	0.5- 1.5	Fill - Cinders								A - 7-6
	3.0- 4.5	8	4	4	41	43	43	18	25	A - 7-5
	6.0- 7.5	12	1	1	45	41	50	16	34	A - 2-7
	9.0-10.5	13	32	24	11	20	41	19	17	A - 4b
	27.0-28.5	0	0	0	57	43	29	9	26	A - 4b
	36.0-37.5	0	0	6	76	18	23	4	27	A - 3a
	40.5-42.0	0	0	78	22	0	NP	NP	20	
S-139 + 65 80' Lt.	0.0- 2.0	Fill - Brick and Cinders								Visual
	2.5- 4.0	0	2	7	49	42	43	17	23	A - 7-6
	7.5- 9.0	1	4	7	48	40	43	19	22	A - 7-6
	10.0-11.5	50	18	9	22	1	NP	NP	9	A - 1-b
	13.5-15.0	0	0	0	50	50	35	12	26	A - 6a
	18.0-19.5	0	0	1	61	38	28	9	26	A -4b
	22.5-23.0	0	0	0	85	15	23	2	23	A -4b
	23.0-24.0	0	1	1	78	20	26	6	21	A -4b
	27.0-28.5	0	0	2	87	11	26	6	24	A -4b
	31.5-33.0	0	0	27	69	4	NP	NP	26	A -4b
	40.5-42.0	0	0	67	33	0	NP	NP	27	A -3a

* N - Northbound CL

** S - Southbound CL

STATION, OFFSET	DEPTH FROM -TO	% AGG	% CS	% FS	% SILT	% CLAY	LL	PI	% WC	S, H, T, L. CLASS.
N-141+33 82' Rt.	0.0 - 0.5	Fill - Brick, Cinders, Gravel								Visual
	9.0 -10.5	0	0	4	54	42	45	19	20	A - 7 - 6
	14.0 -15.5	10	10	8	28	44	55	27	19	A - 7 - 6
	17.0 -18.5	0	1	0	39	60	52	19	33	A - 7 - 5
	22.5 -24.0	60	9	6	17	8	25	6	17	A - 1 - b
	27.0 -28.5	17	8	12	33	30	30	11	17	A - 6 - a
S-142+15 35' Lt.	0.0 - 4.0	Fill - Cinders, Brick, Gravel, Silty, Clay								Visual
	6.5 - 8.0	6	20	17	23	34	44	18	20	A - 7 - 6
	9.0 -10.5	34	32	14	-20-		NP	NP	7	A - 1 - b
	18.0 -19.5	0	0	12	28	60	36	11	27	A - 6a
	27.0 -28.5	0	0	0	85	15	24	3	28	A - 4b
	31.5 -33.0	0	0	9	86	5	NP	NP	30	A - 4b
	36.0 -37.5	8	6	9	33	44	49	22	20	A - 7 - 6
	40.5 -42.0	10	9	15	36	30	26	7	14	A - 4a
	49.5 -51.0	15	7	12	35	31	29	10	14	A - 4a
S-146+05 35' Rt.	0.0 - 2.0	Fill - Sandy Clay, Cinders, Gravel								Visual
	2.5 - 4.0	0	1	3	56	40	43	18	22	A - 7 - 6 (Fill)
	5.0 - 6.5	4	1	3	46	46	44	18	19	A - 7 - 6 (Fill)
	7.5 - 9.0	0	1	4	50	45	47	18	23	A - 7 - 6
	10.0 -11.5	0	2	4	48	46	41	18	23	A - 7 - 6
	13.5 -15.0	8	35	12	15	30	56	24	17	A - 7 - 5
	18.0 -19.5	9	18	34	16	23	35	17	22	A - 6b
	22.5 -24.0	3	20	21	38	18	29	12	30	A - 6a
	27.0 -28.5	1	1	78	-20-		NP	NP	23	A - 3a
	31.5 -33.0	1	0	9	85	5	NP	NP	20	A - 4b
	36.0 -37.5	0	0	3	68	29	24	6	20	A - 4b
	40.5 -42.0	0	0	1	49	50	41	16	28	A - 7 - 6
	45.0 -46.5	0	0	2	42	56	41	13	32	A - 7 - 6
	49.5 -51.0	42	19	10	19	10	24	7	14	A - 2 - 4
N-146+73 60' Rt.	0.0 - 3.0	Fill - Cinders								Visual
	3.0 - 4.5	0	4	6	55	35	42	16	21	A - 7 - 6
	11.5 -13.0	0	0	7	59	34	36	15	24	A - 6a
	14.0 -15.5	3	42	36	9	10	24	7	16	A - 2 - 4
	19.0 -20.5	33	31	19	13	4	19	5	19	A - 1 - b
	22.5 -24.0	0	1	1	53	45	36	11	20	A - 6a
	31.5 -33.0	0	0	0	22	78	45	15	25	A - 7 - 5
	40.5 -42.0	0	0	0	40	60	38	11	23	A - 6a
	45.0 -46.5	30	11	17	16	26	35	15	14	A - 6a
	53.0 -54.0	34	8	11	24	23	29	13	11	A - 6a
N-148+20 10' Rt.	0.0 - 7.0	Fill - Sand, Gravel, Clay, Cinders								Visual
	12.0 -13.5	0	1	1	22	76	51	22	27	A - 7 - 6
	18.5 -20.0	32	39	17	-12-		NP	NP	5	A - 1 - b

STATION, OFFSET	DEPTH FROM -TO	% AGG	% CS	% FS	% SILT	% CLAY	LL	PI	% WC	S, H, T, L. CLASS.
N-152+05 72' Rt.	0.0 - 0.5	Concrete Pavement								Visual
	0.5 - 2.5	Fill - Cinders and Brick								A - 6a
	3.0 - 4.5	0	0	0	38	62	37	15	26	A - 6b
	5.5 - 6.5	0	0	1	32	67	38	19	26	A - 6a
	7.5 - 9.0	0	2	4	48	46	32	11	24	A - 4a
	9.5 -11.0	39	7	9	28	17	26	10	13	A - 6a
	13.5 -15.0	8	11	15	40	26	27	11	15	A - 4a
	19.0 -20.0	10	10	13	43	24	23	8	15	A - 6a
	20.0 -20.5	8	8	15	44	25	29	11	16	A - 4a
	21.0 -22.5	31	7	11	31	20	26	10	17	A - 6a
	23.0 -24.0	0	0	1	60	39	32	11	27	A - 4b
	27.0 -28.5	6	1	1	82	10	NP	NP	28	A - 4a
	31.5 -33.0	3	8	53	19	17	21	4	25	A - 2 - 4
	36.0 -37.5	36	23	6	26	9	28	8	21	A - 1 - b
	45.0 -46.0	28	40	22	-10-		NP	NP	15	
S-152+45 25' Rt.	0.0 - 0.5	Concrete Pavement								Visual
	0.5 - 2.0	Fill - Sand, Gravel, Cinders, Clay								A - 7 - 6
	4.0 - 5.5	0	1	3	36	60	46	23	25	A - 2 - 7
	12.5 -14.0	10	40	18	8	24	48	26	19	
N-154+70 85' Rt	0.0 - 5.0	Fill - Sand, Gravel, Clay, Cinders								Visual
	9.0 -10.5	0	0	2	25	73	46	26	23	A - 7 - 6
	16.0 -17.5	1	2	1	78	18	27	10	17	A - 4b
	24.0 -25.5	22	25	28	-25-		NP	NP	14	A - 3a
S-155+95 8' Rt.	0.0 - 0.5	Concrete Pavement								Visual
	0.5 - 2.5	Fill - Sand, Gravel, Clay, Cinders								A - 6a
	2.5 - 6.0	8	9	12	50	21	26	11	18	A - 6a
	6.0 -10.0	1	13	15	46	25	26	11	20	
N-155+33 78' Rt	0.0 - 2.5	Fill - Sand, Gravel, Cinders								Visual
	6.0 - 7.5	0	1	1	35	63	46	24	21	A - 7 - 6
	12.0 -13.5	0	2	3	55	40	25	8	19	A - 4b
	16.0 -17.5	0	0	4	56	40	35	15	17	A - 6a
	22.0 -23.0	29	3	4	58	6	26	3	24	A - 4b
	24.0 -25.5	5	35	50	-10-		NP	NP	22	A - 3
N-156+00 82' Rt	0.0 - 2.0	Fill - Sand, Gravel, Cinders								Visual
	9.0 -10.5	0	3	1	31	65	44	21	22	A - 7 - 6
	12.0 -13.5	12	5	7	43	33	25	8	17	A - 4a
	24.0 -25.5	0	3	25	62	10	21	0.4	26	A - 4b
N-156+65 82' Rt.	0.0 - 5.0	Fill - Clay, Sand, Gravel, Cinders								Visual
	9.0 -10.5	3	2	3	30	63	43	20	22	A - 7 - 6
	15.0 -16.5	1	2	4	67	26	30	10	23	A - 4b
	24.0 -25.5	0	0	2	33	65	39	15	27	A - 6 a
N-158+85 10' Lt	0.0 - 2.0	Fill - Clay, Cinders, Sand, Gravel								Visual
	3.0 -10.0	3	5	10	37	45	31	16	17	A - 6b
N-162+85 69' Rt.	0.0 - 2.0	Fill - Silty Clay								Visual
	4.0 - 5.5	0	0	2	61	37	42	22	17	A - 7 - 6
	12.0 -13.5	0	1	1	28	70	40	20	23	A - 6b

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HAMILTON COUNTY
HAM-25-1.63

VOGT, IVERS, SEAMAN & ASSOCIATES
CINCINNATI, OHIO

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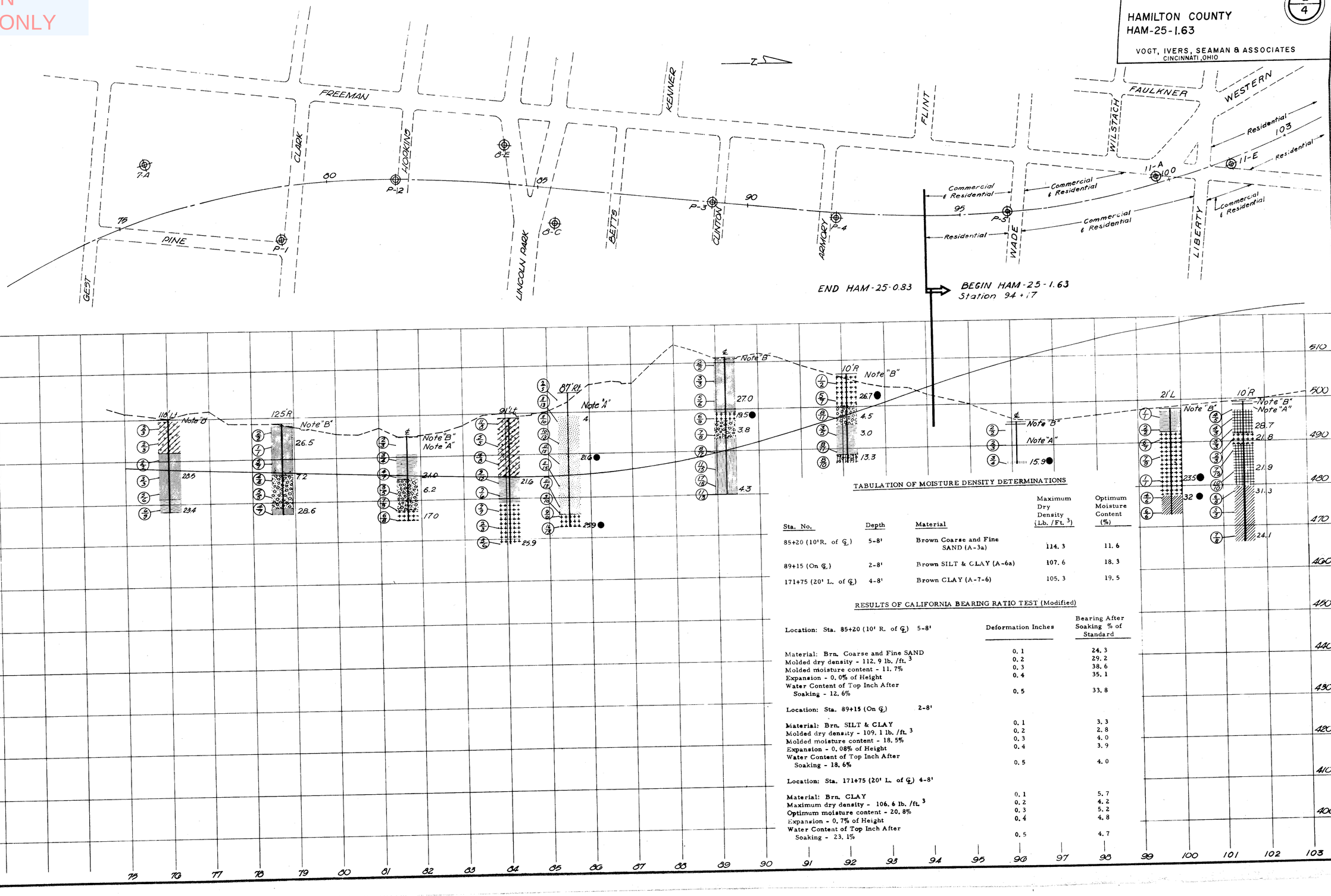

TABULATION OF MOISTURE DENSITY DETERMINATIONS

Sta. No.	Depth	Material	Maximum Dry Density (Lb./Ft.^{3})	Optimum Moisture Content (%)
85+20 (10' R. of ℄)	5-8'	Brown Coarse and Fine SAND (A-3a)	114.3	11.6
89+15 (On ℄)	2-8'	Brown SILT & CLAY (A-6a)	107.6	18.3
171+75 (20' L. of ℄)	4-8'	Brown CLAY (A-7-6)	105.3	19.5

RESULTS OF CALIFORNIA BEARING RATIO TEST (Modified)

	Deformation Inches	Bearing After Soaking % of Standard
Location: Sta. 85+20 (10' R. of ℄) 5-8'		
Material: Brn. Coarse and Fine SAND	0.1	24.3
Molded dry density - 112.9 lb./ft.^{3}	0.2	29.2
Molded moisture content - 11.7%	0.3	38.6
Expansion - 0.0% of Height	0.4	35.1
Water Content of Top Inch After Soaking - 12.6%	0.5	33.8
Location: Sta. 89+15 (On ℄) 2-8'		
Material: Brn. SILT & CLAY	0.1	3.3
Molded dry density - 109.1 lb./ft.^{3}	0.2	2.8
Molded moisture content - 18.5%	0.3	4.0
Expansion - 0.08% of Height	0.4	3.9
Water Content of Top Inch After Soaking - 18.6%	0.5	4.0
Location: Sta. 171+75 (20' L. of ℄) 4-8'		
Material: Brn. CLAY	0.1	5.7
Maximum dry density - 106.6 lb./ft.^{3}	0.2	4.2
Optimum moisture content - 20.8%	0.3	5.2
Expansion - 0.7% of Height	0.4	4.8
Water Content of Top Inch After Soaking - 23.1%	0.5	4.7

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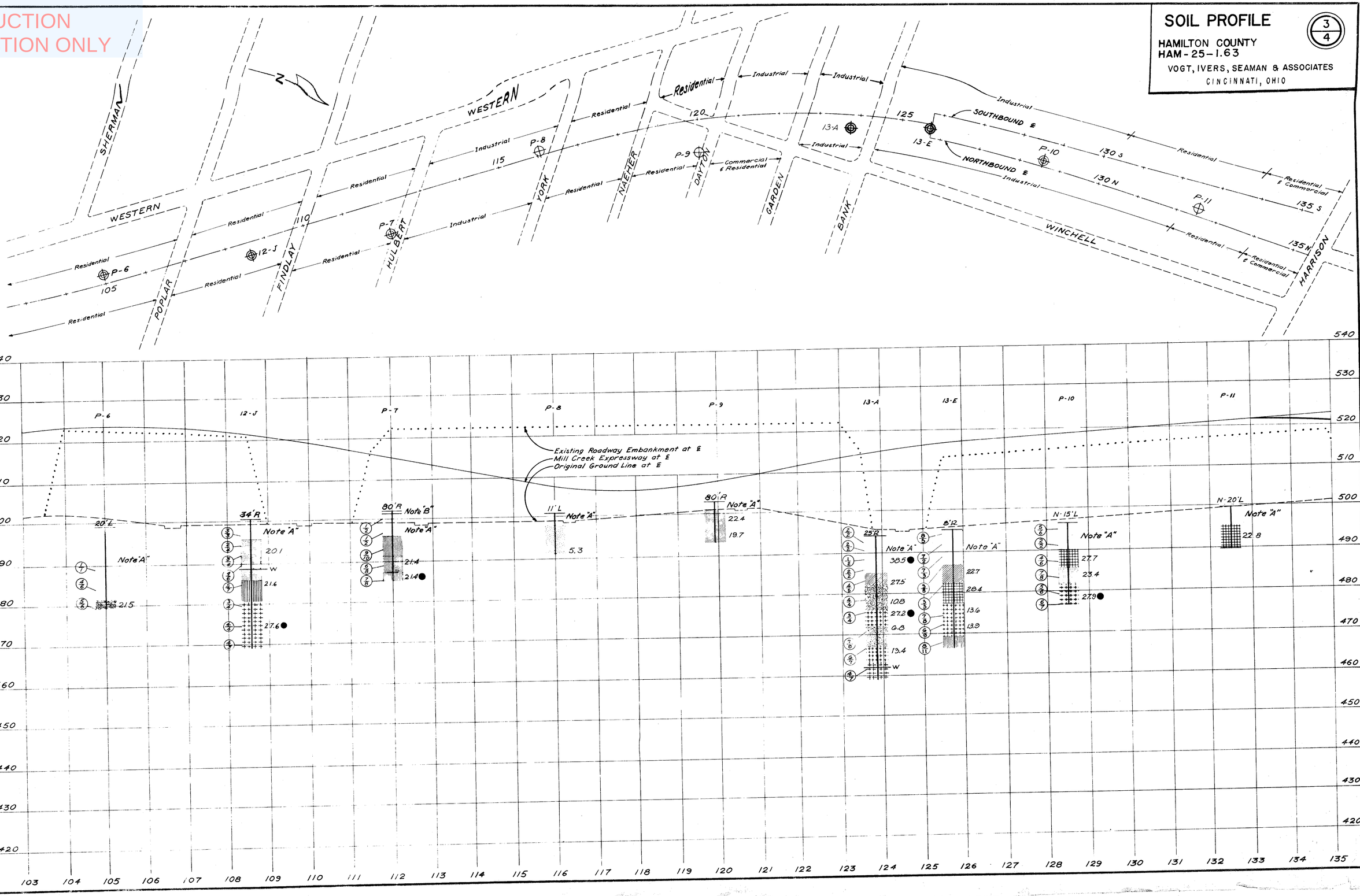

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SPRING GROVE AVE.
Residential & Commercial
Commercial
Industrial
Residential
Industrial
Residential
Industrial
Residential
Residential
COOK ST.
DRAPER ST.
ALFRED ST.
COLERAIN AVE.
STRAIGHT ST.
MASSACHUSETTS AVE.
TURNER ALLEY
BOGEN ST.
WINCHELL AVE.
HARRISON AVE.
WESTERN HILLS VIADUCT
QUEEN CITY AVE.
ZINCK ST.
COLERAIN AVE.
CENTRAL PARKWAY
CENTRAL PARKWAY
SOUTHBOUND ℄
NORTHBOUND ℄
Ground surface 9'± above basement level (may be filled in)
Concrete slab 19'± above basement level (not filled in)
LIMITS OF ABANDONED AND FILLED MIAMI & ERIE CANAL
Concrete Ret. Wall
ENTRANCES TO RAPID TRANSIT TUBES
Max. 33' emb.
ABANDONED RAPID TRANSIT

135 S, 140 S, 145 S, 150 S, 155 S, 160 S, 165 S
135 N, 140 N, 145 N, 150 N, 155 N, 160 N, 165 N

14-E, 14-D, E-10-F, 10-G-L, D-10-A, D-10-D, 10-K-R, P-12, P-13, P-13-AA, P-13-A, P-14-A, P-14-B, P-14-C, P-14, P-15, P-16

Mill Creek Expressway at Southbound ℄
Mill Creek Expressway at Northbound ℄
Original Ground Line at Northbound ℄
Original Ground Line at Southbound ℄
Existing Roadway Embankment at Northbound ℄ at Southbound ℄

S-5'R, N-15'R, S-80'L, N-82'R, S-35'L, S-35'R, N-60'R, N-10'R, S-25'R, N-85'R, N-82'R, N-82'R, N-10'L, N-65'R
Note "A"
Note "B"
REFUSAL

LOG OF OFFSET BORING
P-13-AA
Sta. 152 + 05
N-72'R
Note "B"
Note "A"

LOGS OF OFFSET BORINGS
P-14
P-14-A
Sta. 155 + 33
N-78'R
Note "A"
Sta. 155 + 95
S-8'R
Note "B"
Note "A"
FS

550, 540, 530, 520, 510, 500, 490, 480, 470, 460, 450, 440

135, 136, 137, 138, 139, 140, 141, 142, 143, 144, 145, 146, 147, 148, 149, 150, 151, 152, 153, 154, 155, 156, 157, 158, 159, 160, 161, 162, 163, 164, 165, 166