MICROFILMED
MAY 1 0 1982
MICROFILMED
OCT 28 1982

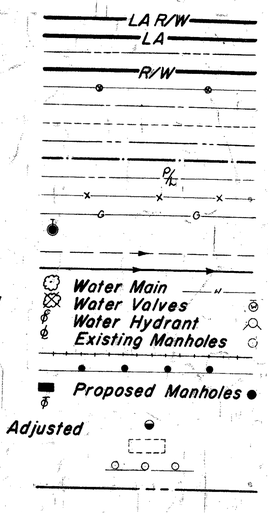
FHWA DISTRICT	STATE	PROJECT	
5	OHIO	FF-430(16)	

JEFFERSON COUNTY
JEF-7-0.20

Federal No. RF-430(16) appearing throughout this plan shall be considered to read FF-430(16)

STATE OF OHIO
DEPARTMENT OF TRANSPORTATION
JEF-7-0.20
JEFFERSON CO, WARREN TWP.
VILLAGE OF YORKVILLE
VILLAGE OF TILTONSVILLE
VILLAGE OF RAYLAND
GRADE SEPARATION
WITH THE PENN CENTRAL TRANSPORTATION CO. AND THE NORFOLK AND WESTERN RAILWAY CO.

CONVENTIONAL SIGNS



- Limited Access R/W
- Limited Access Only
- Existing R/W
- Proposed R/W
- Proposed R/W Fence
- Center Line
- Section Line
- County Line
- Corporation Line
- Property Line
- Existing Fence Line
- Gas Line
- Gas Valve
- Existing Sewer
- Proposed Sewer
- Trees & Stumps
- Trees & Stumps to be Removed
- Power Pole
- Light Pole
- Railroads
- Proposed Guard Rail
- Proposed Catch Basin
- Telephone or Telegraph Pole
- Manholes Reconstructed or Adjusted
- Existing Catch Basins
- Existing Guard Rail
- State Line

INDEX OF SHEETS

Title Sheet	1	Pavement Details & Elevations	104-156
Schematic Plan & Design Designation	2-3	Cross-Section Layout	157-158
Typical Sections	4-10	Mainline Cross-Sections	159-263
General Notes	11-15	Sideroads & Ramp Cross-Sect.	264-338, 312A, 328A
General Summary of Quantities	16, 16A-20	Water Storage Tank	339-344, 344A, 344B
Earthwork & Sub-Summary of Quantities	21	WaterWork Plans	345-356
Special Details	22-25, 24A, 25A, 25B	Lighting Plan Notes & Quantities	357-361, 361A, 361B
Construction Layout	26-33	Lighting Plan Schematic	362-363
Key Map Plan & Profile	34	Lighting Plans	364-372
Mainline Plan & Profile	35-60	Lighting Plan Details	373, 373A-375
Sideroads, Ramps & Weigh Stations	61-73A-79	Traffic Control Notes	377-378
Temporary Rd. "A" Profile & Cross-Section	80	Traffic Control Quantities	379-381
Navigation Channel	81-82	Ground Mounted Sign Locations	382-385
Street & Ramp Profiles	83-85	Traffic Control (Pav't Markings)	386-392
Special Drainage Plan & Profile	86-90	Traffic Control Details	393-401
Sewer Profiles	91-92	Structures Over 20' Span	402-502, 402A
Culvert Details	93-102	Right Of Way	504-560, 520A, 525A
Key Map Pav't Details & Elevations	103	Traffic Signals	401A - 401-E

Sh. Nos. 95, 269, 376, 465, 466, 467, & 503 Have Been Deleted

LINE DATA

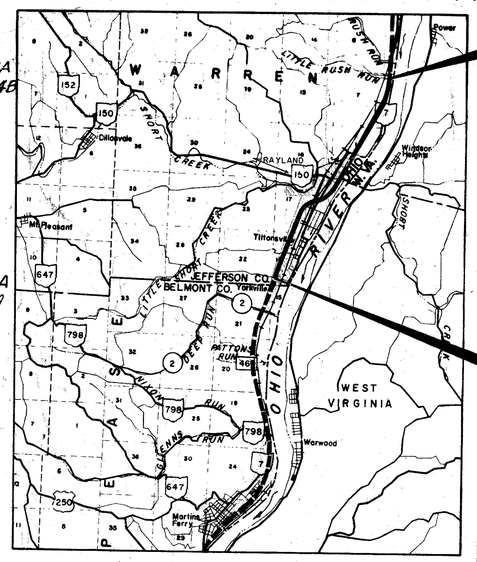
Begin Project	Sta. 10+50.91
End Project	Sta. 244+38.46
Net Length of Project	23,387.55 L.F. = 4.429 Mi
Begin Work S.R.-7	Sta. 8+00.00
Sta. Equation	244+38.46 Back = 264+31.25 Ahead
End Work	Sta. 264+56.25
Total Length of Work S.R.-7	23,663.46 L.F. = 4.482 Mi

WORK ADDITIONS

Public Rd. Sta. -2+00 to 11+40	= 1340.00 L.F.
T.R. 109 Reloc. Sta. 4+50 to 10+82	= 632.00 L.F.
Farm Lane Sta. 10+22 to 19+74	
Deduct for R.R. Crossing -32.00 L.F.	= 920.00 L.F.
Williams St. Reloc. Sta. 45+22.25 to 52+47.11	= 724.86 L.F.
S.R. 150 Ext. Sta. 49+91 to 53+01	= 310.00 L.F.
Total Length of Work Additions	= 3,926.86 L.F. = 0.743 Mi
Net Length of Work	= 27,590.32 L.F. = 5.225 Mi

STANDARD DRAWINGS

NUMBER	DATE	NUMBER	DATE
BP-1	6-1-65	GR-5	1-1-71
BP-2	12-1-68	HL-1	9-6-73
BP-3	1-1-71	HL-2, HL-3	7-27-73
BP-4	1-1-71	HL-4 thru HL-10	9-6-73
BP-5	6-1-72	HL-11, HL-12	4-6-73
BP-6	6-1-65	HL-15, HL-16	4-6-73
BP-7	1-1-66	MC-1	6-13-69
BP-9	1-1-71	MC-3	6-1-73
CB 2-2A & B	6-1-65	MC-4	6-13-69
CB 2-3 & 2-4	6-1-65	MC-6	6-1-65
CB 2-5 & 2-6	6-1-65	MC-7	10-1-68
F-6	10-1-66	MC-8	12-1-67
CB 5	9-1-69	MH-1	10-1-68
CB 6	6-1-65	MH-1A	10-1-68
CB 458A	6-6-68	MH-2	10-1-68
CB 4	9-1-69	MH-2A	10-1-68
F-1	6-1-72		
F-2	1-1-71	I-3	1-20-70
F-3	3-10-69	SD-1-69	6-12-69
F-5	3-10-69	BR-1-67	10-15-71
GR-2A	1-1-71	RB-1-55	2-2-59
GR-2B	11-9-71	AS-1-72	6-30-72
GR-3	11-9-71	I-2A	6-6-69
GR-4	11-9-71	I-2	6-6-69
		SP-53	6-30-67
		HW-3	10-1-65
		HW-4	1-1-70
		L-1	6-1-73
		GR-6	1-1-71



LOCATION MAP

SCALE OF MILES 0 1/2 1 2

END PROJECT
FF-430(16)
STA. 244+38.46
S.L.M. 4.63

N

BEGIN PROJECT
FF-430(16)
STA. 10+50.91
S.L.M. 0.20

Sheet 451 revised 11-18-75 EBL
Sheet 492 revised 12-9-75 EBL

PORTION TO BE IMPROVED
US HIGHWAYS
STATE HIGHWAYS
COUNTY ROADS
TOWNSHIP ROADS
PROPOSED PROJECT

SCALE
PLAN AND PROFILE 0 50 100
VERTICAL 0 10 20
PAVEMENT DETAILS 0 5 10
CROSS SECTIONS 0 10 20 AND 0 10 20 40

Rev. 9-23-74

PLANS PREPARED BY
ALDEN E. STILSON & ASSOCIATES, LIMITED
CONSULTING ENGINEERS
170 NORTH HIGH STREET
COLUMBUS, OHIO
FOR
THE STATE OF OHIO

SUPPLEMENTAL SPECIFICATIONS

NUMBER	DATE	NUMBER	DATE
S625	1-11-74	816	9-20-72
S713	1-11-74	836	1-1-71
901	5-18-65	927	1-1-71
808	1-1-71	1001	9-20-72
838	3-18-70	839	11-25-70
814	1-1-69	941	11-28-73
815	9-20-72	948	2-19-74
		842	8-23-74

FILE NUMBER	JEFFERSON COUNTY	JEF-7-0.20
	DATE OF LETTING	19
	CONTRACT NUMBER	

RF-430(16)

"LIMITED ACCESS"

This improvement is especially designed for thru traffic and has been declared a Limited Access Highway or Freeway by action of the Director of Transportation, in accordance with the provisions of Sec. 5511.05 of The Revised Code of Ohio.

1973 SPECIFICATIONS

The Standard Specifications of the State of Ohio, Department of Transportation, 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 the provisions for maintenance and safety will be as set forth on the plans and estimates.

Sheets 428, 436, 437, 438, & 455 revised 1-24-75 EBL
Sheets 474 & 485 revised 5-23-75 EBL
Sheet 431 revised 7-21-75 EBL
Sheets 472, 474, 475, 476, 477, 497, 499, & 500 revised 8-29-75 EBL
Sheets 413 & 414 revised 9-2-75 EBL

Approved Lee Kindell
Date 11-19-70 Division Deputy Director of Transportation
Approved Robert G. Geyer
Date 8-30-74 Engineer, Bureau of Bridges
Approved E. J. Shaw
Date 8-30-74 Engineer, Bureau of Roadway Design
Approved W. E. Stoll P.E.
Date 8-30-74 Assistant Deputy Director for Highway Design
Approved Julius T. Stewart
Date 8-30-74 Assistant Deputy Director for Real Estate
Approved Julius Bumbley
Date 8-30-74 Assistant Deputy Director for Program Development
Approved
Date Chief Engineer, Division of Highways
Approved William W. Talbot
Date 9-3-74 Deputy Director, Division of Highways
Approved William P. McKenna
Date 9-3-74 Assistant Director, Department of Transportation
Approved
Date 9/3/74 Director, Department of Transportation

Sheet Nos. 1, 379, 468 & 480 revised 1-17-75 A.W.G.

Rev. 1-17-75 AWG.

DEPARTMENT OF TRANSPORTATION
FEDERAL HIGHWAY ADMINISTRATION

APPROVED:

DIVISION ENGINEER DATE

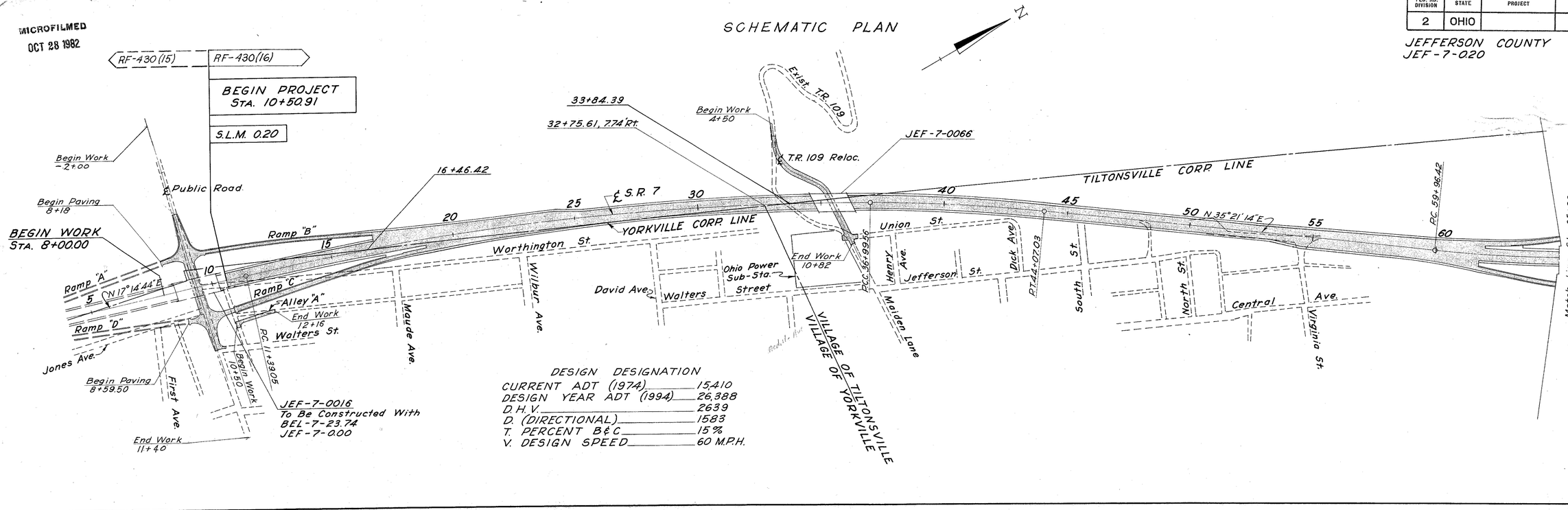
MICROFILMED
OCT 28 1982

FED. RD. DIVISION	STATE	PROJECT	
2	OHIO		

2
560

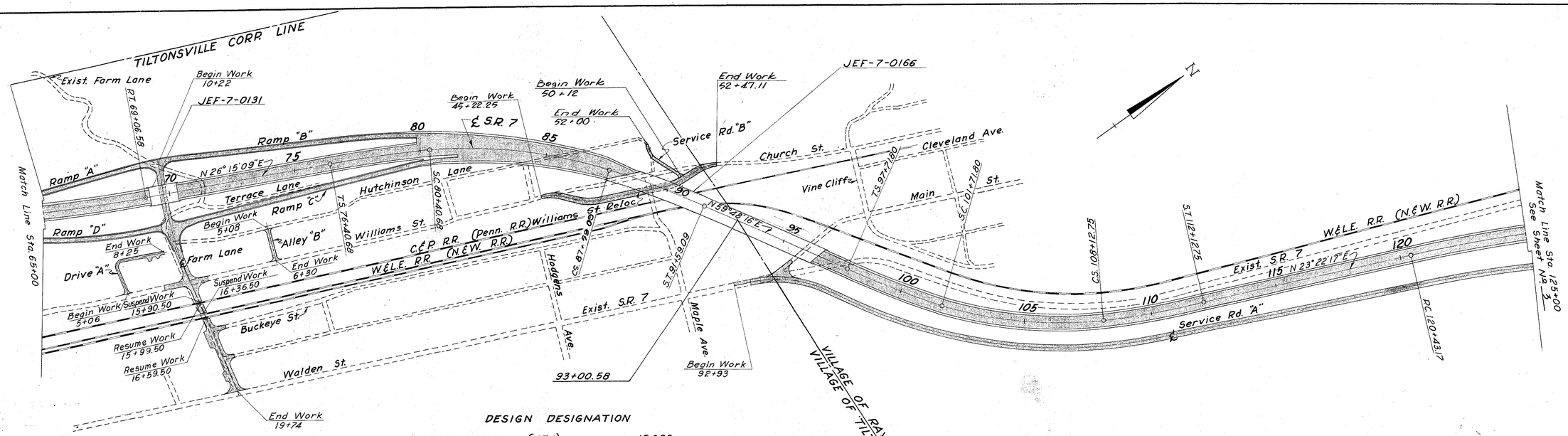
JEFFERSON COUNTY
JEF-7-0.20

SCHEMATIC PLAN



DESIGN DESIGNATION

CURRENT ADT (1974)	15,410
DESIGN YEAR ADT (1994)	26,388
D.H.V.	2639
D. (DIRECTIONAL)	1583
T. PERCENT B&C	15%
V. DESIGN SPEED	60 M.P.H.



DESIGN DESIGNATION

CURRENT ADT (1974)	15,089
DESIGN YEAR ADT (1994)	25,838
D.H.V.	2584
D. (DIRECTIONAL)	1550
T. PERCENT B&C	15%
V. DESIGN SPEED	60 M.P.H.

0 100 200 400
SCALE

Rev. 9-23-74

SCHEMATIC PLAN

FED. RD. DIVISION	STATE	PROJECT	
2	OHIO		

3
560

JEFFERSON COUNTY
JEF-7-0.20

MICROFILMED
OCT 28 1982

SCHEMATIC PLAN

Begin Work 51+17
Begin Work 50+00
Begin Work 49+91
Exist. S.R. 150
End Work 54+00
Ex JEF-7-0241
JEF-7-0245
Exist. S.R. 7
WARREN TOWNSHIP
VILLAGE OF RAYLAND
S.R. 150 Ext.
Match Line Sta. 125+00 See Sheet No. 2
Exist. Short Creek
Ramp "A"
Ramp "B"
Co. Rd. 16
End Work Sta. 2+49.3
P.T. 132+48.87
N 35°25'42" E
P.C. 142+33.64
P.T. 147+24.28
Begin Work Sta. 0+00
Co. Rd. 16
W. & L.E. R.R. (N. & W. R.R.)
C. & P. R.R. (Penn. R.R.)
℄ S.R. 7
Ramp "D"
Ramp "C"
N 28°40'14" E
End Work 53+01
Structure Service Rd. "A" over Short Creek Reloc.
℄ Short Creek Channel Reloc.
℄ Service Rd. "A"
P.C. 155+52.80
JEF-7-0288
JEF-7-0238
End Work 64+30
VILLAGE OF RAYLAND
WARREN TOWNSHIP
Navigation Channel
Exist. S.R. 7
1200 ±
End Work 152+72
Warrenton
Ohio River
P.T. 175+62.86
Match Line Sta. 190+00

DESIGN DESIGNATION	
CURRENT ADT (1974)	12,556
DESIGN YEAR ADT (1994)	21,500
D.H.V.	2150
D (DIRECTIONAL)	1290
T. PERCENT B & C	15%
V. DESIGN SPEED	60 M.P.H.

RF-430 (16)
END PROJECT
STA. 244+38.46
S.L.M. 4.63

Match Line Sta. 190+00
High Tension Wires
Ramp "A"
Ramp "D"
S.B. Weigh Station
N.B. Weigh Station
Ramp "B"
Ramp "C"
(C. & P. R.R. (Penn. R.R.)
W. & L.E. R.R. (N. & W. R.R.)
N 33°42'27" E
T.S. 226+86.13
S.C. 229+86.13
℄ S.R. 7
Station Equation
244+38.46 Back =
264+31.25 Ahead
Little Rush Run
Little Rush Run Road
Rush Run
Rush Run Rd. (C.R. 12)
C.S. 241+40.55
S.T. 264+33.34
Exist. S.R. 7
Exist. T.R. 155
T.R. 155 Reloc.
End Paving 242+50
END WORK
STA. 264+56.25
Transmission Towers
Temporary Rd. "A" Sheet No. 78 and 80
Exist. S.R. 7
Begin Work 225+49.34
OHIO RIVER

0 100 200 400
SCALE

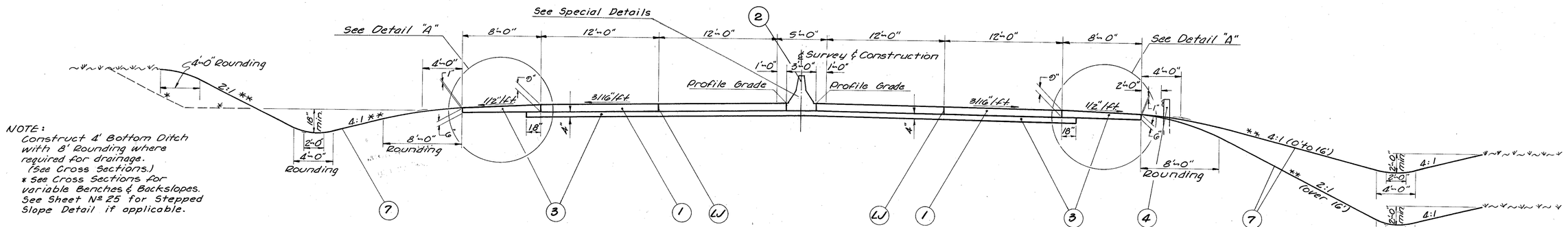
SCHEMATIC PLAN

TYPICAL SECTIONS
TYPE 451

FED. RD. DIVISION	STATE	PROJECT	
2	OHIO		

4/560

JEFFERSON COUNTY
JEF.-7-0.20



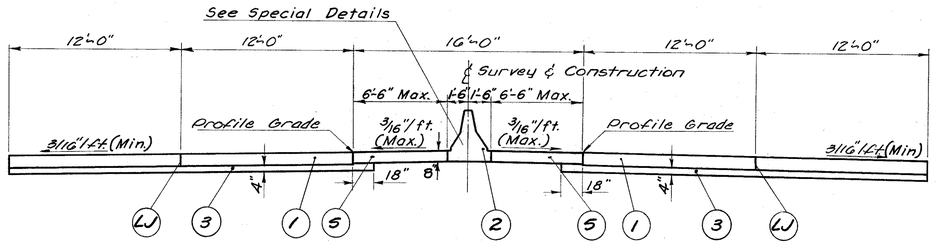
NOTE:
Construct 4' Bottom Ditch with 8' Rounding where required for drainage. (See Cross Sections.)
* See Cross Sections for variable Benches & Backslopes. See Sheet Nº 25 for Stepped Slope Detail if applicable.

NORMAL SECTION "A"

Sta. 46+00 To Sta. 57+75
Sta. 72+25 To Sta. 75+00
Sta. 113+75 To Sta. 118+00
Sta. 135+00 To Sta. 140+00
Sta. 150+00 To Sta. 151+56.23
Sta. 153+81.55 To Sta. 163+30.16
Sta. 163+30.16 To Sta. 165+55.70 (Median varies from 5'-0" To 7'-0")
Struct Nº JEF-7-0288 Bridge and Approach Slabs Sta. 151+56.23 to 153+81.55

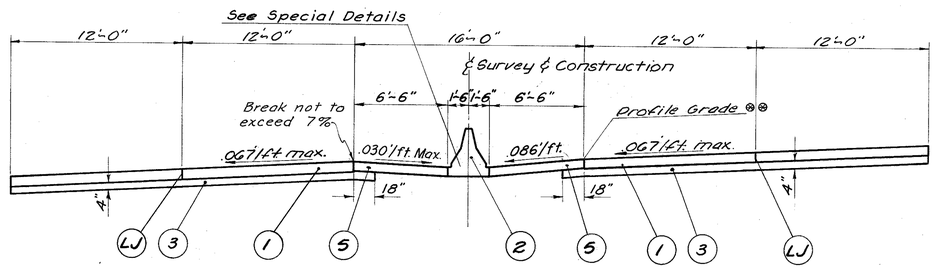
** or as shown on X-Sections

@@ Carry Profile Grade on high side only from Sta 228+25 To Sta. 237+00.



NORMAL SECTION "B" 16' MEDIAN

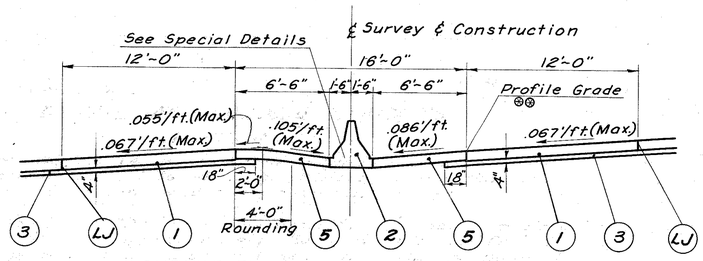
Sta. 165+55.70 To 175+67.66 (Median varies from 7'-0" To 16'-0" See Section "A" for additional details.)
Sta. 175+67.66 To 226+25 (See Section "A" for additional details.)



SUPERELEVATED SECTION "C" 16' MEDIAN

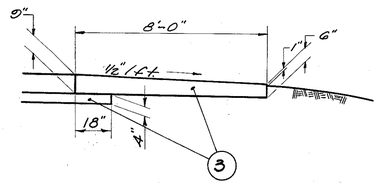
Sta. 226+25 To Sta. 234+50 (See Section "D" for additional details.)
Sta. 242+75 To Sta. 243+50 (Median Varies, See Pavement Details)

ITEM		DESCRIPTION
(1)	451	9" Reinforced Portland Cement Concrete Pavement
(2)	622	Concrete Barrier
(3)	301	Bituminous Aggregate Base: 702.01 (85-100 or Ac-20) or 702.09, Rt.-11 or Rt.12 Thickness as Shown.
(4)	606	Guard Rail Type 5
(5)	301	8" Bituminous Aggregate Base 702.01 (85-100 or Ac-20) or 702.09, RT-11 or RT-12
(7)	659	Seeding & Mulching (See General Notes)
(LJ)		Standard Longitudinal Joint (See Std. Dwg. BP-3)



SUPERELEVATED SECTION "C-1" 16' MEDIAN

Sta. 234+50 to Sta. 239+00 (See Section "D" for additional details.)
Sta. 239+00 to Sta. 242+75 (Median Varies, See Pavement Details)



DETAIL "A"

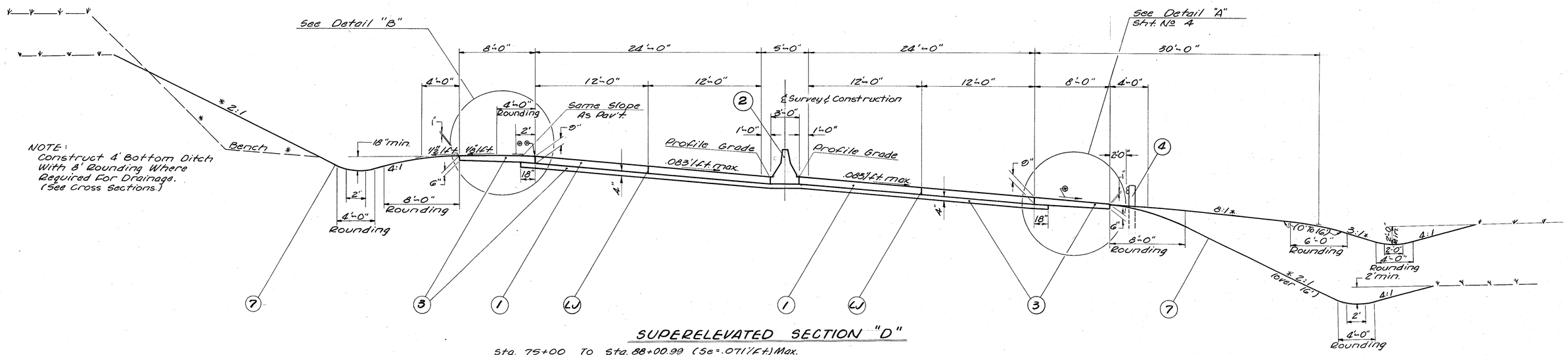
TYPICAL SECTIONS

TYPICAL SECTIONS
TYPE 451

FED. RD. DIVISION	STATE	PROJECT	
2	OHIO		

5/560

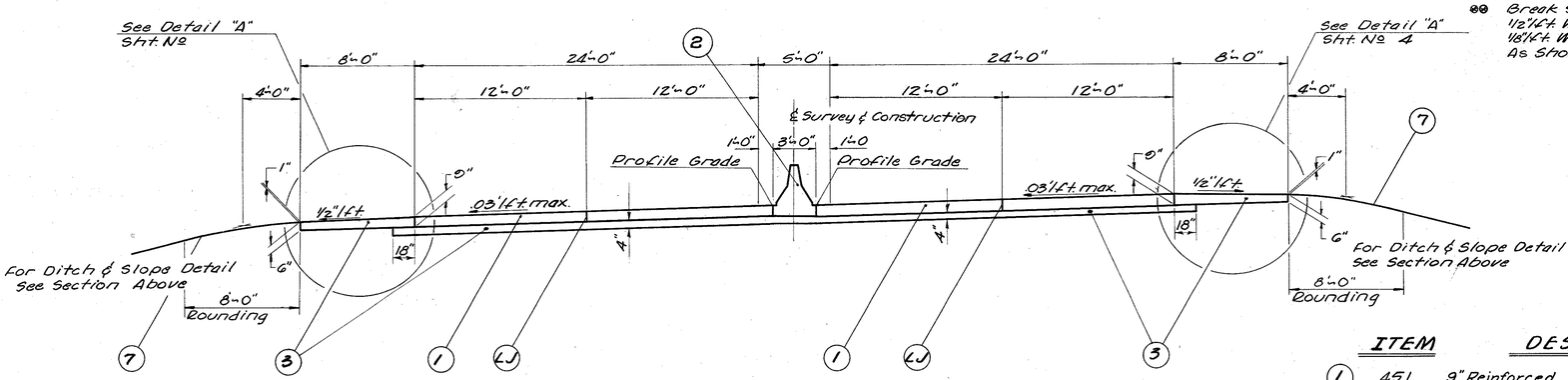
JEFFERSON COUNTY
JEF.-7-0.20

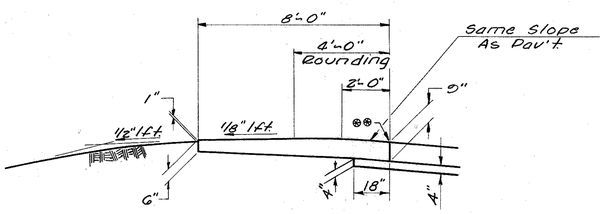


SUPERELEVATED SECTION "D"

Sta. 75+00 To Sta. 88+00.99 (Se=.071'/Ft.) Max.
Sta. 96+68.08 To Sta. 113+75 (Superelevation is Reversed) Se=.083'/Ft. Max.
Sta. 243+50 To Sta. 244+38.46 (Superelevation is Reversed) Se=.067'/Ft. Max. (Median Width Varies from 7'-0" To 5'-0")
Struct. No. JEF-7-0166 Bridge and Approach Sta. 88+00.99 to Sta. 96+68.08

NOTES:
* Or As Shown On Cross Sections
⊛ 1½" Per Ft. Or Rate Of Superelevation Whichever is Greater.
⊛⊛ Break Shall Not Exceed 7%:
1½"/Ft. When Superelevation is Not More Than .028'/Ft.
18"/Ft. When Superelevation is Not More Than .050'/Ft.
As Shown When Superelevation is More Than .050'/Ft.





DETAIL "B"

SUPERELEVATED SECTION "E"

Sta. 10+50.01 To Sta. 34+49.00 (Superelevation is Reversed) Se=.015'/Ft. Max.
Sta. 36+47.01 To Sta. 36+75.00 (Superelevation is Reversed) Se=.015'/Ft. Max.
Sta. 36+75 To Sta. 46+00 (Superelevation is Reversed) Se=.020'/Ft. Max.
Sta. 57+75 To Sta. 68+07.75 Se=.024'/Ft. Max.
Sta. 70+57.25 To Sta. 72+25 Se=.024'/Ft. Max.
Sta. 118+00 To Sta. 125+54.56 (Superelevation is Reversed) Se=.024'/Ft. Max.
Sta. 127+14.06 To Sta. 128+83.55 (Superelevation is Reversed) Se=.024'/Ft. Max.
Sta. 131+46.05 To Sta. 135+00 (Superelevation is Reversed) Se=.024'/Ft. Max.
Sta. 140+00 To Sta. 150+00 Se=.030'/Ft. Max.
Struct. No. JEF-7-0066 Bridge and Approach Slab Sta. 34+49 to Sta. 36+47.01
Struct. No. JEF-7-0131 Bridge and Approach Slab Sta. 68+97.75 to Sta. 70+57.25
Struct. No. JEF-7-0238 Bridge and Approach Slab Sta. 125+54.56 to Sta. 127+14.06
Struct. No. JEF-7-0245 Bridge and Approach Slab Sta. 128+83.55 to Sta. 131+46.05

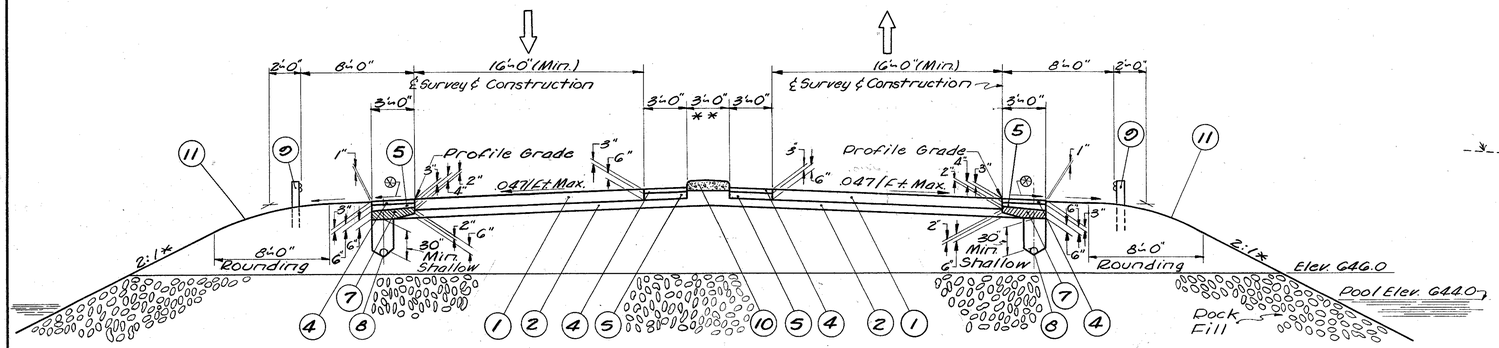
ITEM		DESCRIPTION
1	451	9" Reinforced Portland Cement Concrete Pavement
2	622	Concrete Barrier
3	301	Bituminous Aggregate Base 702.01 (85-100 or Ac-20 or 702.09, RT-11 or RT-12) Thickness as Shown
4	606	Guard Rail Type 5
7	659	Seeding & Mulching (See General Notes)
LJ	—	Standard Longitudinal Joint (See Std. Dwg. BP-3)

TYPICAL SECTIONS

FED. RD. DIVISION	STATE	PROJECT	
2	OHIO		

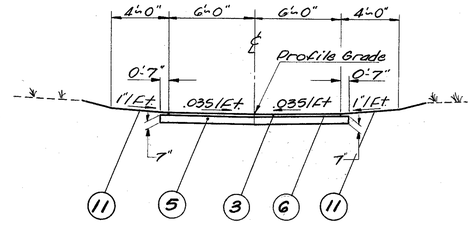
6/560

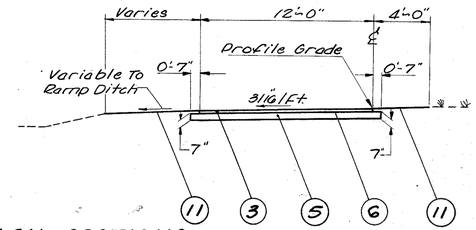
JEFFERSON COUNTY
JEF.-7-0.20



SUPERELEVATED SECTION "K"

Ramp "A"	S.R. 150 Inter.	Sta. 143+58	To	Sta. 145+05	Se=.038/Ft Max.
Ramp "B"	S.R. 150 Inter.	Sta. 140+22	To	Sta. 141+68	Se=.047/Ft Max.
Ramp "C"	S.R. 150 Inter.	Sta. 138+65	To	Sta. 139+92	Se=.045/Ft Max.
Ramp "D"	S.R. 150 Inter.	Sta. 141+21	To	Sta. 142+46	Se=.047/Ft Max.

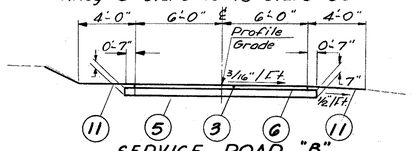




TYPICAL ALLEY SECTIONS

Alley "B" Sta. 5+10 To Sta. 6+30

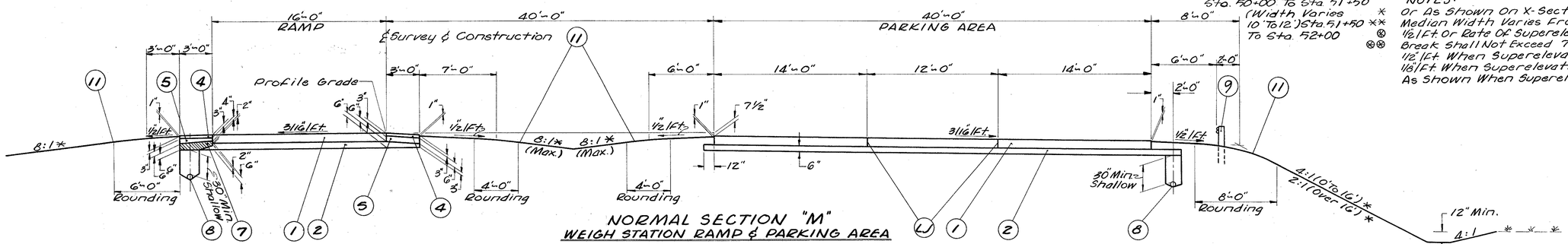
Alley "A" Sta. 10+50 To Sta. 12+16



SERVICE ROAD "B"

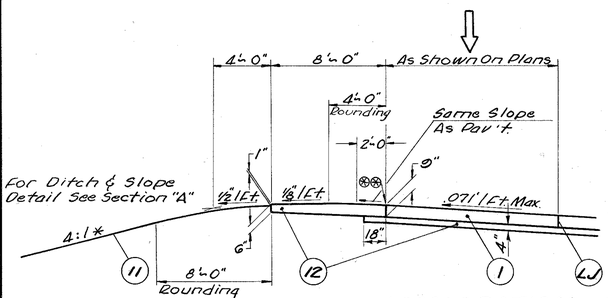
Sta. 50+00 To Sta. 51+50 (Width Varies 10' To 12') Sta. 51+50 To Sta. 52+00

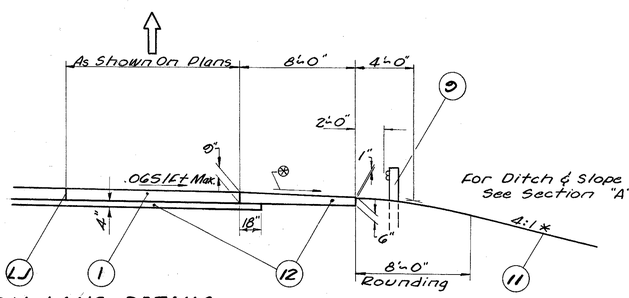
NOTES:
Or As Shown On X-Sections
Median Width Varies From 3'-0" To 10'-0"
1/2"/Ft Or Rate Of Superelevation Whichever is Greater
Break Shall Not Exceed 7%:
1/2"/Ft When Superelevation is Not More Than .028/Ft.
1/8"/Ft When Superelevation is More Than .055/Ft.
As Shown When Superelevation is More Than .055/Ft.



NORMAL SECTION "M"
WEIGH STATION RAMP & PARKING AREA

N.B. Weigh Station Sta. 204+00 To Sta. 211+06
S.B. Weigh Station Sta. 211+25 To Sta. 218+25 (Section is Opposite Hand.)





ACCELERATION & DECELERATION LANE DETAILS

Sta. 79+82	To	Sta. 88+40.68	(Lt.)	Se=.071/Ft Max.
Sta. 143+75	To	Sta. 148+50	(Rt.)	Se=.030/Ft Max.
Sta. 226+75	To	Sta. 230+86	(Rt.)	Se=.065/Ft Max.

Sta. 16+75	To	Sta. 25+20	(Lt.)	Se=.015G/Ft Max.
Sta. 18+82	To	Sta. 28+82	(Rt.)	Se=.015G/Ft Max.
Sta. 52+00	To	Sta. 62+00	(Lt.)	Se=.024/Ft Max.
Sta. 53+50	To	Sta. 61+75	(Rt.)	Se=.021/Ft Max.
Sta. 81+50	To	Sta. 88+50	(Rt.)	Se=.071/Ft Max.
Sta. 131+46	To	Sta. 133+20.85	(Lt.)	Se=.015G/Ft Max.
Sta. 131+87.60	To	Sta. 138+20	(Rt.)	Se=.042/Ft. Max.
Sta. 145+25	To	Sta. 151+47	(Lt.)	Se=.042/Ft Max.
Sta. 148+50	To	Sta. 151+67	(Rt.)	Se=.015G/Ft Max.
Sta. 191+25	To	Sta. 201+25	(Lt.)	Se=.015G/Ft Max.
Sta. 190+78	To	Sta. 198+18	(Rt.)	Se=.015G/Ft Max.
Sta. 222+90	To	Sta. 231+25	(Lt.)	Se=.065/Ft Max.
Sta. 221+00	To	Sta. 226+75	(Rt.)	Se=.015G/Ft Max.

ITEM	DESCRIPTION
(1) 451	9" Reinforced Portland Cement Concrete.
(2) 310	Subbase Grading "A" (Thickness As Shown)
(3) 404	2" Asphalt Concrete (70-85) or Ac-20 (To Be Laid in 1" Courses)
(4) 301	3" Bituminous Aggregate Base: 702.01 (85-100 or Ac-20) or 702.09 RT-11 or RT-12
(5) 304	Aggregate Base
(6) 408	Bituminous Prime Coat: 702.09, RT-2 or RT-3; 702.02, MC-30 or MC-70; or 702.03, Primer 2.0 At 0.40 Gal. Per Sq. Yd.
(7) Special	Drainage Connection, Using No 8 Aggregate (See Sht #1 For Sequence Of Operations Notes.)
(8) 605	6" Pipe Underdrains
(9) 606	Guard Rail, Type 5
(10) 612	Concrete Median
(11) 659	Seeding & Mulching (See General Notes)
(12) 301	Bituminous Aggregate Base: 702.01 (85-100 or Ac-20) or 702.09, RT-11 or RT-12 (Thickness as Shown).
(LJ) —	Standard Longitudinal Joint. (See Std. Dwg. BP 3)

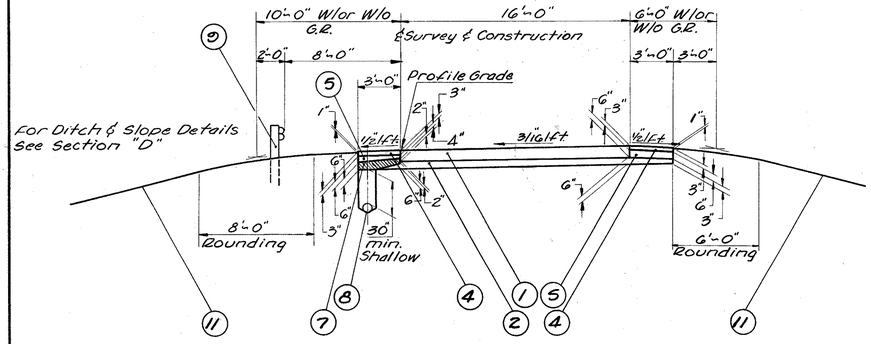
TYPICAL SECTIONS

TYPE 451

FED. RD. DIVISION	STATE	PROJECT	
2	OHIO		

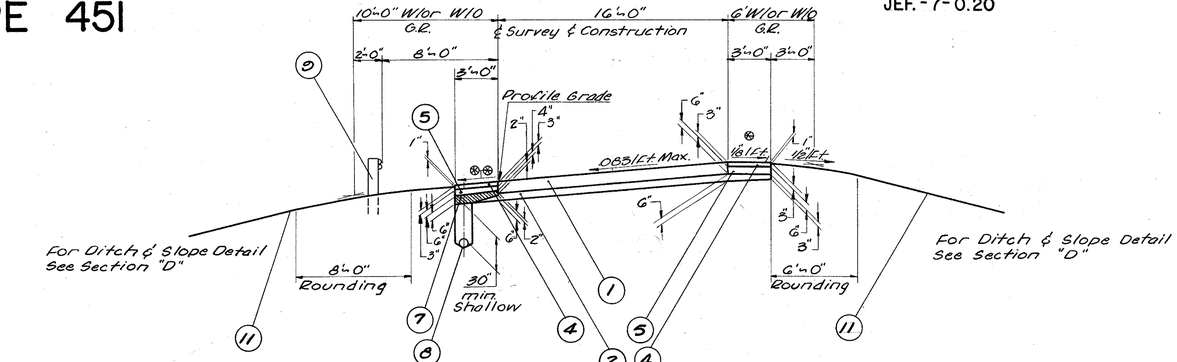
7
560

JEFFERSON COUNTY
JEF.-7-0.20



NORMAL RAMP SECTION "G"

Ramp	"B"	Public Rd. Inter.	Sta. 9+86.50	To	Sta. 15+50	Se=.015G/Ft. Max. **
Ramp	"B"	Public Rd. Inter.	Sta. 15+50	To	Sta. 16+75	Se=.015G/Ft. Max.
Ramp	"A"	Farm Lane Inter.	Sta. 65+50	To	Sta. 68+00	Se=.015G/Ft. Max. **
Ramp	"B"	Farm Lane Inter.	Sta. 71+25	To	Sta. 76+75	Se=.015G/Ft. Max. **
Ramp	"A"	S.B. Weigh Station	Sta. 201+25	To	Sta 205+75	Se=.015G/Ft. Max.
Ramp	"A"	S.B. Weigh Station	Sta. 205+75	To	Sta. 211+25	Se=.015G/Ft. Max. **
Ramp	"B"	S.B. Weigh Station	Sta. 221+75	To	Sta. 222+04.50	Se=.015G/Ft. Max.



NOTES:

** Superelevation is Reversed Or As Shown On X-Sections

✓* 1/2"/Ft. When Superelevation is Not More Than .028/Ft. Transition From 1/2"/Ft. To 1/8"/Ft. When Superelevation is .028/Ft. To .059/Ft.

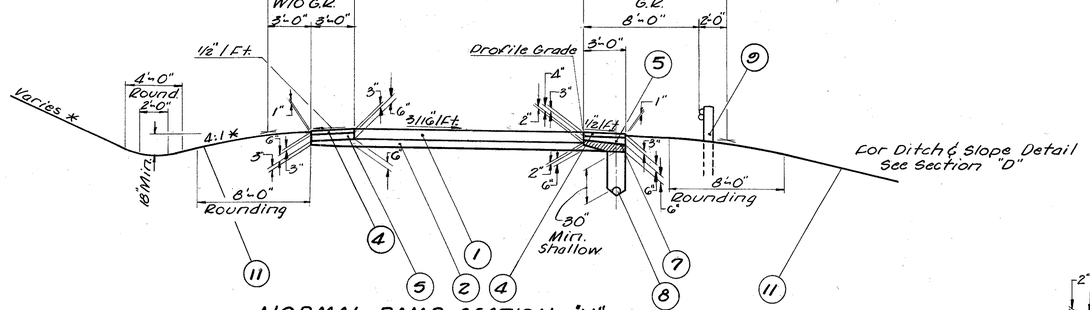
✓⊗ 1/8"/Ft. in Direction Of Pavement When Super. is More Than .059/Ft. 1/2"/Ft. Or Rate Of Superelevation, Whichever is Greater

Direction Of Traffic

All Sections Drawn in Direction of Stationing

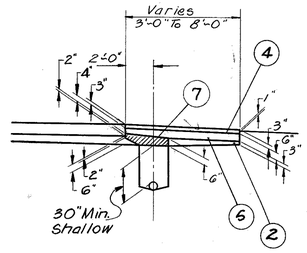
SUPERELEVATED RAMP SECTION "I"

Ramp	"A"	Farm Lane Inter.	Sta. 62+00	To	Sta. 65+50	Se=.042/Ft. Max.
Ramp	"A"	Farm Lane Inter.	Sta 68+00	To	Sta. 69+71.83	Se=.040/Ft. Max.**
Ramp	"B"	Farm Lane Inter.	Sta. 69+53.63	To	Sta. 71+25	Se=.040/Ft. Max.**
Ramp	"B"	Farm Lane Inter.	Sta 76+75	To	Sta. 78+82	Se=.021/Ft. Max.**
Ramp	"A"	S.R. 150 Inter.	Sta. 130+20.79	To	Sta. 143+58	Se=.083/Ft. Max.
Ramp	"B"	S.R. 150 Inter.	Sta. 141+68	To	Sta. 145+30	Se=.083/Ft. Max.
Ramp	"B"	S.B. Weigh Station	Sta. 218+25	To	Sta. 221+75	Se=.021/Ft. Max.**

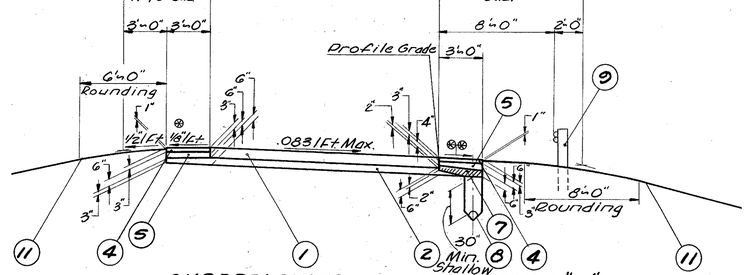


NORMAL RAMP SECTION "H"

Ramp	"C"	Public Rd. Inter.	Sta. 10+75	To	Sta. 15+75	Se=.015G/Ft. Max.
Ramp	"C"	Farm Lane Inter.	Sta. 71+00	To	Sta. 78+75	Se=.015G/Ft. Max.
Ramp	"D"	Farm Lane Inter.	Sta. 61+75	To	Sta. 63+00	Se=.015G/Ft. Max.
Ramp	"D"	N.B. Weigh Station	Sta. 199+13	To	Sta. 200+25	Se=.015G/Ft. Max.
Ramp	"C"	N.B. Weigh Station	Sta. 211+06	To	Sta. 216+50	Se=.015G/Ft. Max. **
Ramp	"C"	N.B. Weigh Station	Sta. 216+50	To	Sta. 220+25	Se=.015G/Ft. Max.



SHOULDER TRANSITION DETAIL



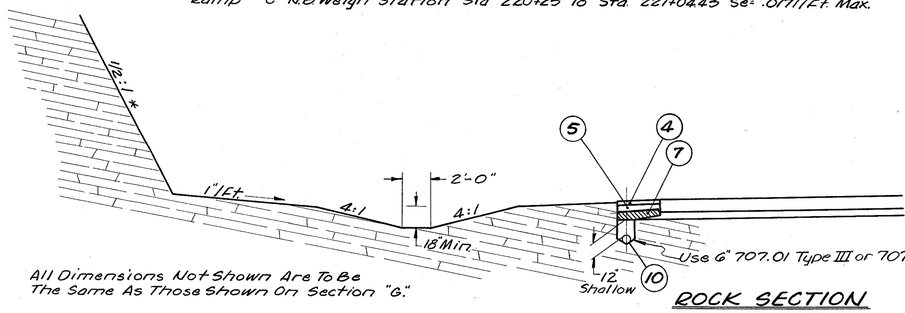
SUPERELEVATED RAMP SECTION "J"

Ramp	"C"	Public Rd. Inter.	Sta 15+75	To	Sta. 18+82	Se=.030/Ft. Max.
Ramp	"C"	Farm Lane Inter.	Sta. 70+02	To	Sta. 71+00	Se=.034/Ft. Max.
Ramp	"C"	Farm Lane Inter.	Sta 78+75	To	Sta. 81+60	Se=.074/Ft. Max.
Ramp	"D"	Farm Lane Inter.	Sta. 63+00	To	Sta. 68+75	Se=.032/Ft. Max.**
Ramp	"D"	Farm Lane Inter.	Sta. 68+75	To	Sta. 69+03	Se=.034/Ft. Max.
Ramp	"C"	S.R. 150 Inter.	Sta. 130+02	To	Sta. 143+75	Se=.083/Ft. Max.
Ramp	"D"	S.R. 150 Inter.	Sta. 138+18	To	Sta. 141+21	Se=.083/Ft. Max.
Ramp	"D"	N.B. Weigh Station	Sta. 200+25	To	Sta. 204+00	Se=.021/Ft. Max.**
Ramp	"C"	N.B. Weigh Station	Sta. 220+25	To	Sta. 221+04.43	Se=.071/Ft. Max.

	ITEM	DESCRIPTION
(1)	451	9" Reinforced Portland Cement Concrete Pavement
(2)	310	Subbase Grading "A" (Thickness As Shown)
(4)	301	"3" Bituminous Aggregate Base: 702.01 (85-100 or Ac-20 or 702.09 RT-11 or RT-12
(5)	304	Aggregate Base
(7)		Special Drainage Connection Using No. 8 Aggregate (See Sequence Of Operations Notes.)
(8)	605	6" Pipe Underdrains.
(9)	606	Guard Rail, Type 5
(10)	603	6" Pipe Underdrains 707.01 Type III or 707.12
(11)	659	Seeding & Mulching (See General Notes)

SEQUENCE OF OPERATION

(1) Install pipe underdrain on outside shoulder where required.
(2) Place subbase out to outside edge of underdrain or to one foot beyond edge of pavement where no underdrain is present. Payment will be made for all subbase material placed in this operation.
(3) Construct Item 451
(4) Remove subbase and any contaminated Backfill over drain and replace with No. 8 Aggregate as shown by Ref. No. 7 above.
(5) Complete shoulder construction.



All Dimensions Not Shown Are To Be The Same As Those Shown On Section "G."

ROCK SECTION

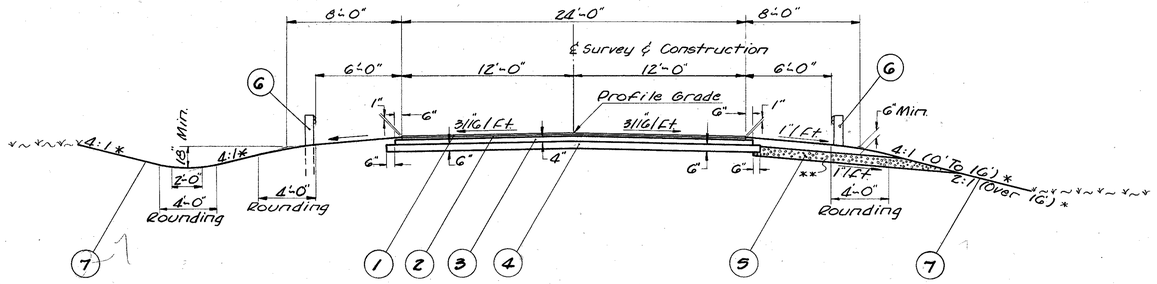
See Plan & Profile Sheets For Limits of The 6" 707.01 Type III or 707.12 Pipe.

TYPICAL SECTIONS

FED. RD. DIVISION	STATE	PROJECT	
2	OHIO		

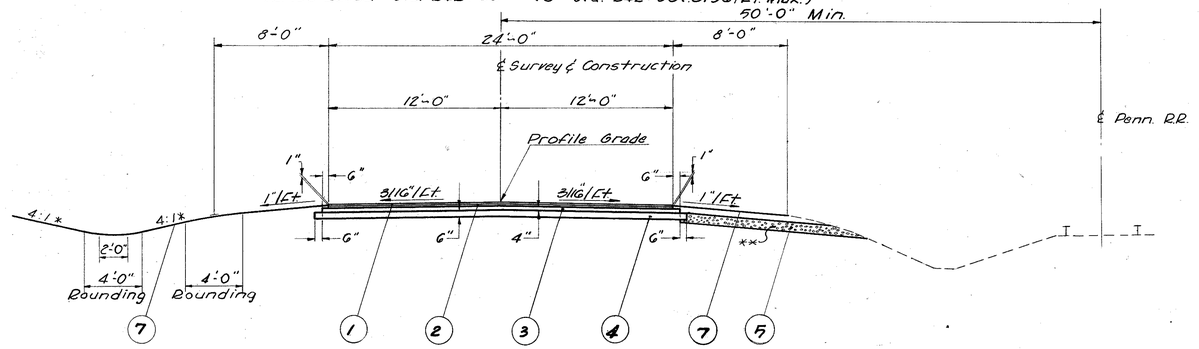
8
560

JEFFERSON COUNTY
JEF.-7-0.20



NORMAL SECTION "I"

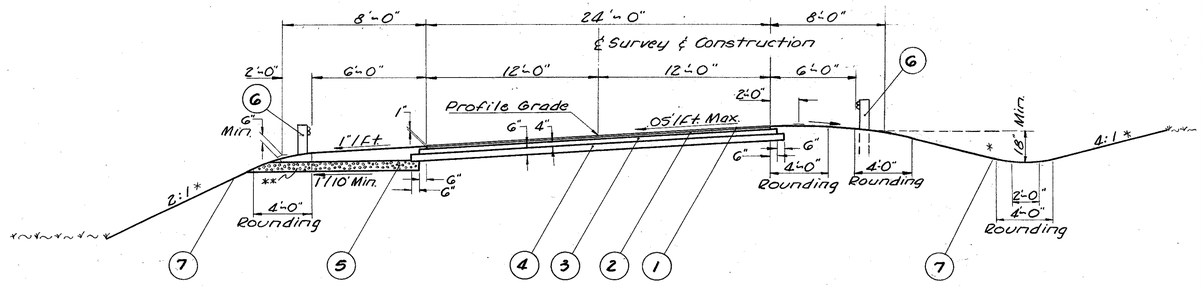
T.R. 109 Reloc.	Sta. 9+00	To	Sta. 10+25	
T.R. 155 Reloc.	Sta. 225+49.34	To	Sta. 226+00	(.015G/Ft. Max.)
T.R. 155 Reloc.	Sta. 228+25	To	Sta. 237+50	(.015G/Ft. Max.)
T.R. 155 Reloc.	Sta. 242+00	To	Sta. 242+50	(.015G/Ft. Max.)



NORMAL SECTION "N"
WILLIAMS STREET RELOCATION

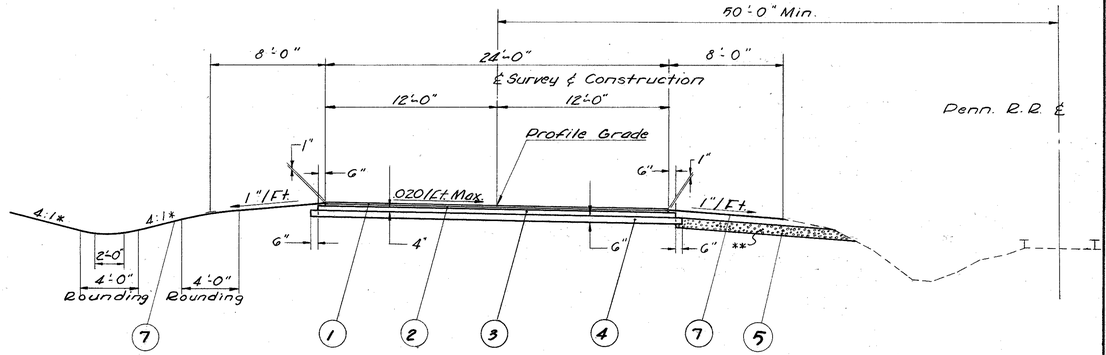
Sta. 47+75 to Sta. 50+25

ITEM		DESCRIPTION
(1)	404	1½" Asphalt Concrete (70-85)
(2)	402	1½" Asphalt Concrete (70-85)
(3)	301	4" Bituminous Aggregate Base 702.01(85-100 or Ac-20 or 702.09RT-11 or RT-12
(4)	310	Subbase (Thickness As Shown)
(5)	605	Aggregate Drains (See Note This Sheet)
(6)	606	Guard Rail, Type 5
(7)	659	Seeding & Mulching (See General Notes)



SUPERELEVATED SECTION "J"

T.R. 109 Reloc.	Sta. 5+00	To	Sta. 6+25	Se=.050'/Ft. Max. (Transition from 12'-0" To 24'-0")
T.R. 109 Reloc.	Sta. 6+25	To	Sta. 7+25	Se=.050'/Ft. Max.
T.R. 109 Reloc.	Sta. 7+25	To	Sta. 9+00	Se=.050'/Ft. Max. (Superelevation is Reversed)
T.R. 155 Reloc.	Sta. 226+00	To	Sta. 228+25	Se=.015G/Ft. Max.
T.R. 155 Reloc.	Sta. 237+50	To	Sta. 242+00	Se=.015G/Ft. Max.
C.R. 16 Reloc.	Sta. 0+00	To	Sta. 2+49.3	Se=.028/ft Max.



SUPERELEVATED SECTION "O"
WILLIAMS STREET RELOCATION

Sta. 45+22.25	To	Sta. 46+50	Se=.020 Max.	(Transition From 17'-0" To 24'-0")
Sta. 46+50	To	Sta. 47+75	Se=.020 Max.	(Superelevation is Reversed)
Sta. 50+25	To	Sta. 51+25	Se=.020 Max.	
Sta. 51+25	To	Sta. 52+47.11	Se=.020 Max.	(Transition From 24'-0" To 15'-0")

NOTE:
* Or as shown on x-sections

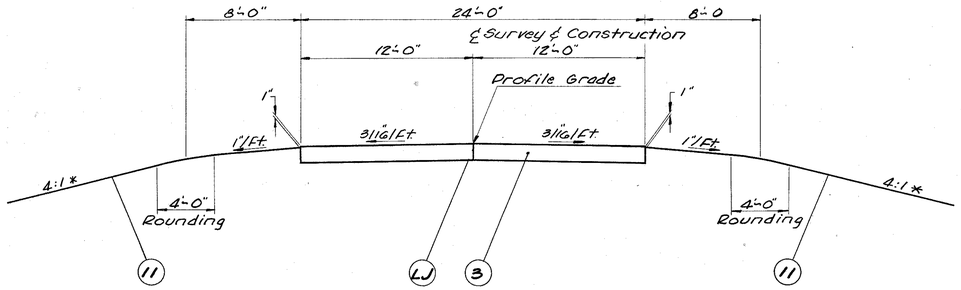
** Aggregate drains shall be located at 50' intervals on each side of the pavement & staggered so that each drain is 25 Ft. from the adjacent drains on the opposite side. Drains shall be provided only at the low edge of superelevated pavement at 25' intervals.

TYPICAL SECTIONS

FED. RD. DIVISION	STATE	PROJECT	
2	OHIO		

9/560

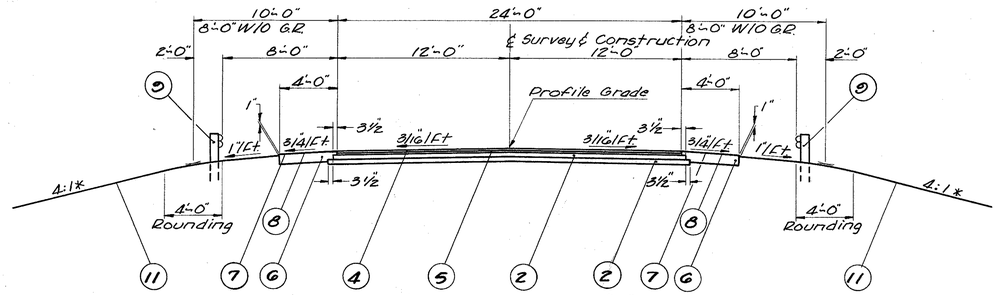
JEFFERSON COUNTY
JEF.-7-0.20



NORMAL SECTION "P"
FARM LANE

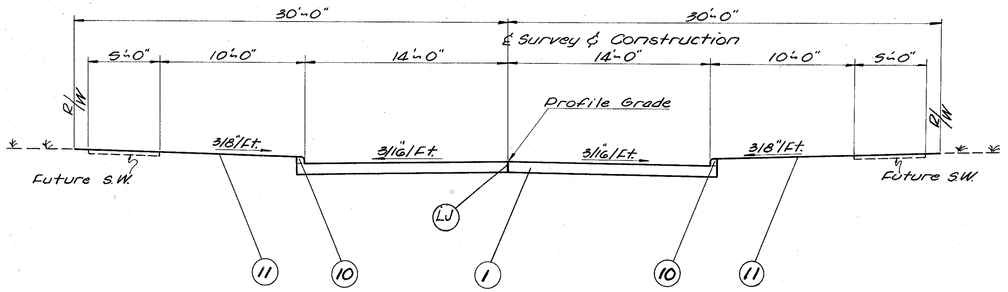
Sta. 10+63.00 To Sta. 15+90.50 (.0156/Ft. Max.)
Sta. 15+90.50 To Sta. 16+36 (.0156/Ft. Max.)
Sta. 16+59.50 To Sta. 16+70 (.0156/Ft. Max.)

NOTE:
* Or as shown on X-Sections.



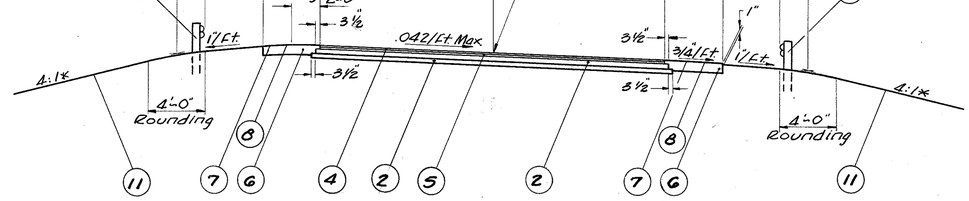
NORMAL SECTION "R"

Service Rd "A" Sta. 110+50 To Sta. 121+00
Service Rd. "A" Sta. 132+75 To Sta. 134+25
Service Rd. "A" Sta. 140+25 To Sta. 152+72
SR. 150 Ext. Sta. 49+21 To Sta. 53+01



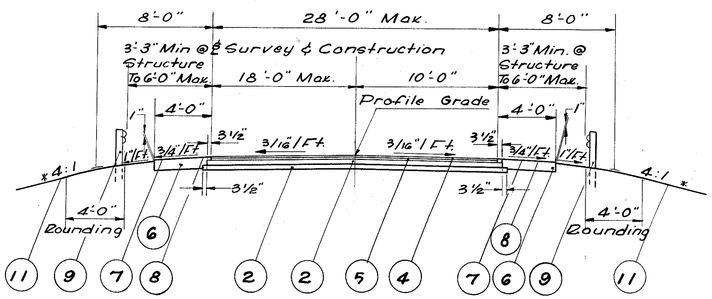
NORMAL SECTION "Q"
FARM LANE

Sta. 16+70 To Sta. 17+10 (.0124/Ft. Max.) Transition From 24'-0" To 28'-0"
Sta. 17+10 To Sta. 19+74 (.0156/Ft. Max.)



SUPERELEVATED SECTION "S"

Service Road "A" Sta. 93+58.04 To Sta. 97+00 Se=.042/Ft. Max.
Service Road "A" Sta. 97+00 To Sta. 110+50 Se=.032/Ft. Max. (Superelevation is Reversed)
Service Road "A" Sta. 121+00 To Sta. 125+25 Se=.0156/Ft. Max.
Service Road "A" Sta. 125+25 To Sta. 128+96.04 Se=.032/Ft. Max.
Service Road "A" Sta. 130+06.58 To Sta. 132+75 Se=.032/Ft. Max.
Service Road "A" Sta. 134+25 To Sta. 140+25 Se=.032/Ft Max. (Superelevation is Reversed)
Struct No. Service RD. "A" over Short Creek, Bridge and Approach Slabs. Sta. 128+96.04 to Sta. 130+96.58



NORMAL SECTION "T"
EXISTING SR 7 FROM SR 150 NORTH

Sta. 51+17 To Sta. 51+63 (Variable width)
Sta. 51+63 To Sta. 52+23 (28'-0" Wide)
Sta. 52+23 To Sta. 52+57 (Transition From 28'-0" To 20'-0")
Sta. 52+57 To Sta. 54+00

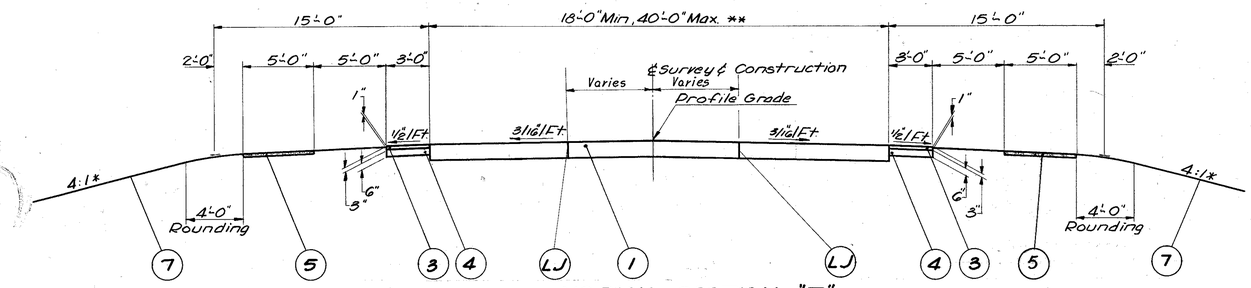
	ITEM	DESCRIPTION
(1)	451	9" Reinforced Portland Cement Concrete Pavement.
(2)	301	3½" Bituminous Aggregate Base 702.01 (85-100 or Ac-20) or 702.09 RT-11 or RT-12
(3)	452	12" Plain Portland Cement Concrete Pavement
(4)	404	1¼" Asphalt Concrete (70-85 or Ac-20)
(5)	402	1¼" Asphalt Concrete (70-85 or Ac-20)
(6)	304	8" Aggregate Base.
(7)	408	Bituminous Prime Coat: 702.09, RT-2 or RT-3; 702.02, MC-30 or MC-70; or 702.03, Primer 20 At 0.40 Gal. Per Sq. Yd.
(8)	409	Seal Coat Bituminous Material: 702.09, RT-9 or RT-10; 702.02, Mc 800 or Mc 3000, Using 0.30 Gal. Per Sq. Yd., Seal Coat Cover Aggregate No. 8 Using 0.008 Cu. Yd. Per Sq. Yd.
(9)	606	Guard Rail, Type 5 *702.04, RS-1, RS-2 or CRS-2; or 702.03, CBAE-800
(10)	609	Curb, Type 2-A.
(11)	659	Seeding & Mulching (See General Notes)
(LJ)	—	Standard Longitudinal Joint. (See Std. Dwg. B.P. 3)

TYPICAL SECTIONS
TYPE 452

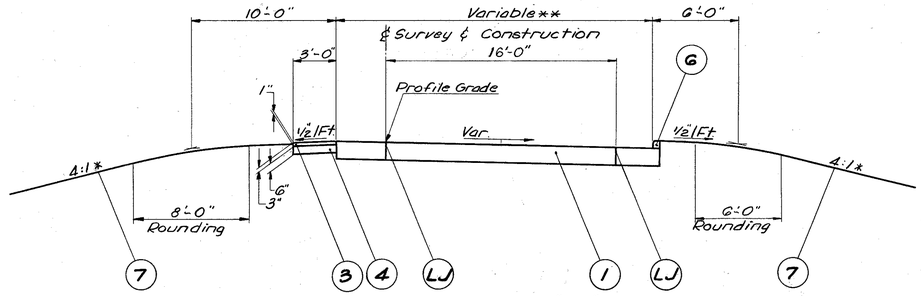
FED. RD. DIVISION	STATE	PROJECT	
2	OHIO		

10/560

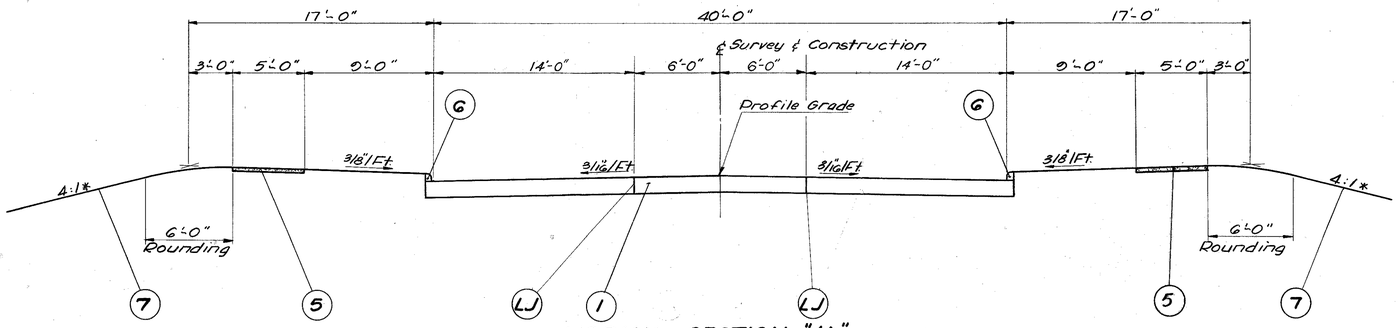
JEFFERSON COUNTY
JEF-7-0.20



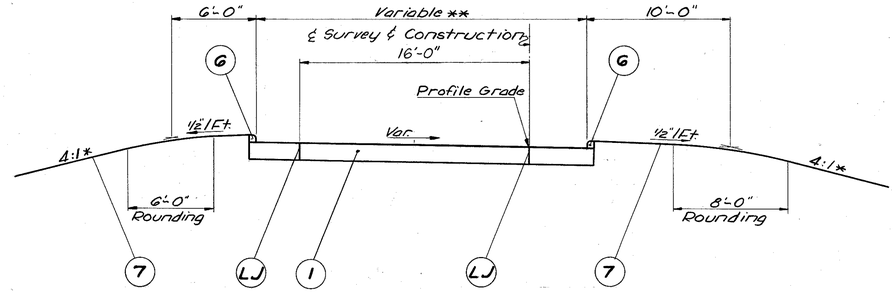
NORMAL SECTION "T"
PUBLIC ROAD
Sta. 1+70 To Sta. 3+78



RAMP SECTION "V"
(PUBLIC RD. INTERCHANGE)
Ramp "A" Sta. 8+18 To Sta. 9+11
Ramp "B" Sta. 9+35 To Sta. 9+86.5



NORMAL SECTION "U"
PUBLIC ROAD
Sta. 3+78 To Sta. 6+73
Sta. 6+73 To Sta. 7+54 (See 20 Scale Pav't Detail For Sidewalk Location Rt.)



RAMP SECTION "W"
(PUBLIC RD. INTERCHANGE)
Ramp "C" Sta. 9+71 To Sta. 10+75
Ramp "D" Sta. 8+59.5 To Sta. 9+19

Notes:
* Or As Shown On X-Sect's
** See 20 Scale Pavement Detail

ITEM		DESCRIPTION
(1)	452	12" Plain Portland Cement Concrete Pavement
(3)	301	3" Bituminous Aggregate Base: 702.01 (85-100 or Ac-20) or 702.09 RT-11 or RT-12
(4)	304	Aggregate Base
(5)	608	4" Concrete Walk
(6)	609	Curb, Type 2-A
(7)	659	Seeding & Mulching (See General Notes)
(LJ)	–	Standard Longitudinal Joint (See Std. Dwg. BP-3)

TYPICAL SECTIONS

FED. RD. DIVISION	STATE	PROJECT	
2	OHIO		

11
560

JEFFERSON COUNTY
JEF-7-0.20

GENERAL NOTES

ITEM 619, FIELD OFFICE

The Contractor shall provide a minimum of 800 square feet of floor space for the field office and in addition to the requirements of Item 619, shall provide and maintain sanitary provisions as per 107.06. All the above is included in the lump sum price bid for Item 619, Field Office.

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 does not guarantee their accuracy or completeness.

TITLE BLOCK

It is intended that the Federal Road Division 2 in the title block in the upper right hand corner of all sheets be considered to read FHWA Region 5.

SUPERELEVATION

Superelevated curves shall be built without crown. The crown shall be worked out of the pavement in the portion between the beginning of the transition and the point where the superelevation equals twice the crown.

CROWN AT RAILROAD CROSSING

The crown shall be worked out of the pavement on each side of the railroad crossing beginning 50 feet from the crossing by raising the edge of the pavement to meet the rail elevation.

ELEVATION DATUM

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

SEEDING

Quantities for seeding 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.

SEEDING SHORT CREEK CHANNEL RELOC.

New channel banks shall be seeded where rock channel protection is not provided. Channel flow lines shall not be seeded below normal water level.

PAVEMENT

Pavement Joint Symbols

L	Standard Longitudinal Joint.
LK	Longitudinal Key Joint with tie bars.
E	Standard Expansion Joint.
Ⓔ	Expansion Joint without tie bars, 2' minimum length.
C	Contraction Joint.

ROADWAY EXCAVATION

A quantity of 100,000 C.Y. of excavation has been added in the project total for correction of slides due to no fault of the Contractor. The displaced material should be removed at the direction of, and in the amounts determined by the Engineer in accordance with Item 203, Excavation Not Including Embankment Construction, at the unit price bid for this item.

COOPERATION The contractor is hereby advised that Project (Bel-7-23.74 / JEF-7-0.00 adjacent to the south end of this project maybe constructed concurrently with this project. The contractor on this project shall schedule his work and cooperate with the contractor on the adjacent project in the area of over lapping work so that unnecessary delays, interference and inconvenience shall be held to an absolute minimum. Any cost incurred in complying with the above requirements shall be included in the various bid items for this project and no additional compensation will be allowed.

UTILITIES 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.

Following is a list of the owners of utilities known to be within the limits of construction:

Ohio Valley Gas Co., 2023 Sunset Blvd., Steubenville, Ohio
The General Telephone Co., 197 S. Main St., Marion, Ohio
The Ohio Power Corp., 301 Cleveland Avenue, Canton, Ohio
Wheeling Steel Co. (Gas Line) - Wheeling, West Virginia
The Penn-Central Railroad Company, 623 Pennsylvania Station Pittsburgh, Pa. 15222
Norfolk and Western Railway Co. - Lake Region, Box 6119 Cleveland, Ohio 44101
Village of Yorkville, Yorkville, Ohio
Village of Tiltonsville, Tiltonsville, Ohio
Western Union Telegraph Co., 33 E. Gay St., Columbus, Ohio
Warren Water Authority Route No. 2 Rayland, Ohio

PAVEMENT REMOVAL OUTSIDE NORMAL CONSTRUCTION LIMITS

The existing pavement as indicated on the plans shall be removed and disposed of, the old roadway graded to the level of the surrounding ground, the old ditches filled, and the disturbed areas sloped to drain and left in a neat condition ready for seeding. Payment for the above work except seeding shall be included in the unit price for Item 202. Seeding shall be measured and paid for in accordance with Item 659 Seeding and Mulching.

BENCHING OF FOUNDATION SLOPES

Although cross sections on this plan indicate specific widths and depths of proposed benching of the embankment foundation in certain areas, no waiver of the specifications is intended and all other sloped foundation areas shall be benched as set forth in 203.09. No additional payment will be made for benching required by the provisions of 203.09.

MEDIAN INLET LOCATION

The location as shown on the plan is at the centerline of sump at the centerline of construction. The elevation shown is at the face of Concrete Barrier minus 2 inches.

ROUNDING OF CORNERS SHOWN ON CROSS SECTIONS

The rounded corners shown on the typical sections, apply to all cross sections, even though otherwise shown on these plans.

PAVEMENT ELEVATIONS

All pavement edge elevations are at the face of the curb unless otherwise specified.

DIMENSIONS

All dimensions shown are to the face of curbs.

I-2A INLET LOCATION

The location of an inlet as shown on the plans is the face of curb and the center of M.H. cover. The elevation shown on the plans is the pavement elevation minus the 2" depression at the face of curb opposite the center of the M.H. cover.

CATCH BASIN LOCATION

The location of a catch basin as shown on the plans is the center of grate.

DRIVE LOCATIONS

The locations of the drives as shown on the plans may be relocated as approved by the Engineer as long as they are kept out of the LA R/W Boundary and at no additional cost for the relocation.

CONTRACTION AND EXPANSION JOINTS

Although specific locations of certain expansion and contraction joints have been detailed on this plan, no waiver of the specifications is intended. Provision of expansion joints at all major structures and the maximum spacing between contraction joints shall in all cases be in accordance with Standard Construction Drawings and the specifications. *Std. Dwg. BP-9 Shall have precedence over any discrepancy between it and the joints as detailed in this plan.*

ESTIMATED QUANTITIES

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

LOCATIONS OF GUARDRAIL

The locations of guardrail runs as shown in these plans are subject to adjustment to assure that the planned installation will afford maximum protection for traffic.

A. E. STILSON & ASSOC.
Quantities Calculated FO Sept. 1970
Quantities Checked DLB SEPT. 1970

FED. RD DIVISION	STATE	PROJECT	
2	OHIO		

12
560

JEFFERSON COUNTY
JEF-7-0.20

GENERAL NOTES

COOPERATION WITH RAILROADS

The Contractor shall cooperate with local officials of the Penn Central *Transportation Company* and the Norfolk and Western Railway Company in all work adjacent to the tracks, in order to avoid delay to, or interference with railroad traffic. When blasting operations are necessary, the Contractor shall notify the Company 48 hours in advance, so that watchmen can be provided to protect railroad traffic. During periods of continuous blasting, the Contractor shall consult with railroad personnel as to scheduled train movements and shall control the size and timing of blasting charges in such a manner that railroad traffic delays and damage to company property is confined to the absolute minimum. The Contractor shall execute a bond in favor of the company as well as in favor of the State, as required by Sec. 5525.16 of the revised Code of Ohio, and shall carry insurance of the kinds and amounts prescribed in the special clauses in the proposal covering work affecting railroad property and operation. The Contractor shall pay to the company all costs for watchmen and flagmen deemed necessary by the company or occasioned by the operation or negligence of the Contractor or any sub-contractor in carrying forward work on railroad property, or any work affecting railroad operations.

The Contractor shall first secure State and Railroad approval of any methods of operation on railroad property or affecting the safety of railroad traffic, before starting such operations. The railroad will perform its engineering review of methods of operations and supervision of construction without cost to the Contractor. Billing against the Contractor by the company will include customary percentage for vacation pay, wage taxes, insurance and overhead expenses.

REMOVAL OF TREES AND STUMPS

All trees and stumps specifically marked for removal within the construction limits of this project shall be removed under the lump sum price bid for Item 201 Clearing and Grubbing, except that those trees for which protection and preservation work is indicated elsewhere in these plans shall not be removed.

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

SIZES	NO. TREES	NO. STUMPS
18"	750	0
30"	16	0
48"	5	0
60"	1	0

The above estimate is 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 the right of way and/or easement lines. Payment for the removal of these additional trees or stumps shall be included in the lump sum price bid for Item 201 Clearing and Grubbing.

REINFORCED CONCRETE CATCH BASINS

Catch basins over 12 feet in depth shall be built of Class "C" Concrete reinforced by placing 1/2" diameter bars 12" center to center both vertically and horizontally with a 2" clearance from the inside face of the wall. Payment for furnishing and placing the reinforcing steel shall be included in the unit price bid for Item 604, Reinforced Concrete Catch Basin.

ROCK FILL IN POOL AREAS *(STA. 129+00± to STA. 181+00±)*

Rock embankment as indicated on the plans in the pool area may be placed by the method of end dumping in water to Elevation 646.0, using rock as defined in 203.02. Above Elevation 646.0, embankment construction shall be in accordance with Sec. 203.07 to 203.12 inclusive. Cost of Rock Fill is included in unit price bid for Item 203 Embankment.

EMBANKMENT PLACEMENT STA. 98+00 TO 244+00

Due to the presence of compressible organic material within these station limits, the following schedule for embankment construction will apply.

Height of Embankment above Existing Ground (Measured from Lowest Point on Existing Ground)	Maximum Placement Per Week
0 - 20 feet	4 feet
20 - 30 feet	3 feet
Over 30 feet	2 feet

The above rates will not apply to the portion of the embankment in the pool area which is to be placed by end dumping rock in water.

ITEM 301 BITUMINOUS AGGREGATE BASE

In lieu of the provisions of 301.13, the variable depth Bituminous Aggregate Base (9" to 6") on the mainline may be placed in one layer.

ITEM 203 PROOF ROLLING

An estimated quantity for this item has been provided in the general summary for use in proof rolling of subgrade for the mainline and ramp pavements, and for paved shoulders.

CONNECTIONS TO EXISTING PIPE

At places where the plans provide for proposed pipe to be connected to existing pipe, 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 pipe. The cost of this operation shall be included in the unit price bid for the pertinent 603 Conduit item.

MAINTENANCE OF SEWER FLOWS

The Contractor shall conduct his operations so as to maintain at all times sewer flows through existing facilities to remain in place and through existing facilities to be replaced until new facilities are completed and placed into use.

Payment for any additional costs involved in maintaining these flows by pumping or by any other means approved by the Engineer shall be included in the unit prices bid for the respective items of 603 Conduit.

ITEM SPECIAL - FILL AND PLUG EXISTING BOX CULVERT

This item shall consist of the construction of bulkheads in the existing box culvert and filling the area thus sealed off with sand or other granular material approved by the Engineer.

Bulkheads shall be located at the limits of the area to be filled as indicated on the plans. The bulkheads shall consist of brick or concrete masonry with a minimum thickness of 12 inches.

The fill material shall be pumped into place or placed by some other means approved by the Engineer, so that, after settlement, at least 90 per cent of the cross-sectional area of the culvert for its entire length shall be filled. The footage of filled and plugged culvert to be paid for shall be the actual number of linear feet (measured along the centerline of the culvert from outer face to outer face of bulkheads) filled and plugged as described above.

The footage, measured as provided above, shall be paid for at the contract unit price bid per linear foot for "Item Special, Fill and Plug Existing Box Culvert", which price and payment shall constitute full compensation for furnishing, hauling, and placing all the necessary materials, and for all labor, equipment, tools, and incidentals necessary to complete this item.

Closing Old Mines. The area in which this project is located has been mined. If during the course of construction, old mines are encountered, they shall be backfilled and drained as directed by the Engineer. Payment shall be made at the unit price bid for Item 203 Embankment and 603 Conduit.

The following quantities are included for this purpose.

Item 603 - 6" Conduit, Type "B" 706.08-300 L.F.

Item 603 - 6" Conduit, Type "C" 706.08-300 L.F.

COATED DOWEL BARS
Dowel bars required on Std. Dwg. BP-4 shall be coated in accordance with Sup. Spec. 948.

A. E. STILSON & ASSOC.
Quantities Calculated *EO Sept. 1970*
Quantities Checked *DLB Sept. 1970*

GENERAL NOTES

FED. RD DIVISION	STATE	PROJECT	
2	OHIO		

13/560

JEFFERSON COUNTY
JEF-7-0.20

PLUGGING PIPE ENDS

The ends of the pipe 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.

Existing pipes or new pipe stubs for future connections 15" and under shall be plugged with a vitrified or concrete stopper. Existing pipes or new pipe stubs for future connections over 15" shall be bulkheaded, using a wall of bricks and mortar.

The wall thickness shall be as follows:

Pipe Size	Wall Thickness
18" to 30"	8" (Under 12' Cover)
	12" (12' & over of Cover)
36" to 60"	12"

Payment for the above work not included in the pipe item shall be included in the unit price bid for Item 203, Excavation Not Including Embankment Construction.

PIPE ENDS

All culverts, whether terminating in headwalls or endwalls, shall begin and end with pipe ends as normally fabricated by the manufacturer. Ends shall not be cut to fit either skew or slope. If field cutting is found to be necessary to fit an exact length control, the cut end shall be located at an interior joint and cradle, collar or band shall be provided to assure a stable joint. Payment for the joint shall be included in the price bid for the pertinent 603 conduit item.

SPECIAL DITCHES

For special ditch grades, see Cross Sections.

ITEM 304, AGGREGATE BASE

Material described in Supplemental Specification 901 (Steam Boiler Slag) may be used in addition to materials specified in Sec. 304.02, providing the requirements for gradation in Sec. 304.02 and the requirements for soundness and durability in Sec. 703.04 are complied with.

ITEM 604 - 8" FLAP VALVE, FRAME AND LID

The 8" Flap Valve shall be as manufactured by Neenah Type R-5041, or Flockhart No. 26806 or approved equal furnished fully bronze mounted with bronze hinge pin, flap ring and seat ring.

The work consisting of furnishing and installing the 8" Flap Valve, Frame and Lid shall be performed in accordance with the applicable provisions of Item 604.

Payment will be made at the contract unit price bid for Each "Item 604-8" Flap Valve, Frame and Lid which price and payment shall constitute full compensation for the furnishing of all labor, materials, small tools, equipment and incidentals required to complete this item of work in place.

EXISTING HOUSE CONNECTION SERVICES

An estimated amount of pipe and an estimated number of pipe bends and branches have been added to make sanitary house connections to existing or proposed sanitary sewers that may be required. These quantities shall not be ordered until directed by the Engineer. See the following:

Item		Unit	Quantity
603	6" Type B with Joints as per 706.11 or 706.12	L.F.	500

All necessary pipe bends and branches shall be included in the pertinent 603 conduit item.

SPRING DRAINS

Reference is made to the standard drawing No. MC-1 showing the method of draining any spring that may be shown on the plan or encountered during construction as determined by the Engineer. The following estimated quantities have been included in the general summary for this purpose.

Item 605-6" Unclassified Pipe Underdrain, 707.01 Type III or 707.12, as per plan 600 L.F.

Item 605-Aggregate Drains for Springs, as per plan 60 L.F.

The Contractor shall not order materials for "Spring Drains" until authorized by the Engineer and in the event no springs are encountered, the item shall be non-performed.

TREATED SANITARY FLOW INTO HIGHWAY DRAINAGE SYSTEMS

Treated sanitary flow may be discharged into the highway drainage system provided the owner has secured the approval of the local health authorities and has acquired from the State Highway Department, or the agency which has jurisdiction over the drainage system, an official permit to have the connection made.

In each case where a permit has been issued for a sanitary connection to be made into a highway drainage conduit, it shall be provided with an inspection well, in accordance with Standard Drawing MC-8, located approximately one foot inside the right of way line.

The following estimated quantities have been included in the general summary, for use as directed by the Engineer, in making the above described connections:

Item 603, 6" Conduit, Type C 500 L.F.

*Item 604, Inspection Wells 5 Each.

All necessary Pipe Bends and Branches which shall be included for payment in the pertinent conduit item.

*No inspection well is required if effluent is discharged into an open ditch, channel, catch basin or manhole.

ITEM 310 SUBBASE, GRADING A AS PER PLAN

Material for this item shall meet the requirements of grading A of 310.02 except that no more than 10% of the material shall pass a No. 200 sieve after all operations of placing and compacting have been completed.

LOCATION AND SIZE OF PIPES

The location, type, depth, and size of all existing pipes are shown as nearly exact as the available information will permit. The State will not be responsible for any variations found during construction.

REMOVAL OF EXISTING PIPE

The removal of all existing pipe drains which would normally be removed in various excavation items shall be included for payment in the unit prices bid for the respective excavation items, unless otherwise itemized in the plans.

MONUMENTS

Monuments shall be constructed in accordance with details shown on Standard Drawing MC-1. For locations, see Sheet No. 507.

A. E. STILSON & ASSOC.
Quantities Calculated FO Sept. 1970
Quantities Checked DLB Sept. 1970

FED. RD. DIVISION	STATE	PROJECT		14
2	OHIO			560

JEFFERSON COUNTY
JEF-7-0.20

GENERAL NOTES

ITEM SPECIAL, DRILLED WELL ABANDONED

The existing concrete or stone slab well cover and pumping equipment shall be removed and disposed of. The casing shall be cut off at least one (1) foot below the proposed finished grade outside proposed pavement areas or at least one (1) foot below the proposed subgrade elevation inside proposed pavement areas. *The well shall be filled from bottom to top with clean puddled clay or concrete.*

The unit price bid for each Item Special "Drilled Well Abandoned" shall include payment for all labor, tools, materials, and incidentals necessary to complete this item.

EROSION CONTROL

Item 601, 660 and 667 are provided in these plans for erosion control. Rock of a stable nature will not be removed in order to place any of these items. The Engineer shall check and non-perform quantities or adjust locations and quantities for these items where indicated by field conditions during construction.

ITEM 604 STANDARD NO. 6 CATCH BASIN, Modified As Per Plan

In lieu of the provisions for depressing the pavement one (1) inch as shown on Standard Construction Drawing CB-6, the pavement shall be depressed two (2) inches on this project when the catch basin is located in a paved berm.

ITEM SPECIAL, SANITARY SEWER CLEANOUT

The sanitary sewer cleanout shall be constructed as shown on detail Sheet No. *22* **. Payment will be made at the unit price bid for each Item Special- Sanitary Sewer Cleanout which shall constitute full compensation for the furnishing of all labor, small tools, materials, equipment and incidentals necessary to complete this item of work in place.**

SWALES AND/OR SPRINGS IN ROCK CUT, SEE SHEET *23*

At the direction of the Engineer, a depression to concentrate the flow of water shall be cut into the face of the rock at all swales and/or springs encountered during construction. The width and depth of the depression for each location shall be as determined by the Engineer (see Detail Sheet) and shall extend to the ditch line. Payment for cutting these depressions shall be included in the unit price bid for Item 203 Excavation Not Including Embankment Construction.

ITEM 605 AGGREGATE DRAINS

Aggregate drains shall be placed at fifty (50)foot intervals on each side of normal crowned sections and at twenty-five (25) foot intervals on the low side only of superelevated sections, except where Item 605 Pipe Underdrains have been provided.

An aggregate drain shall be placed at the low point of each sag vertical curve.

TRAFFIC MAINTENANCE

Public Road Street

Two way traffic shall be maintained at all times by use of the existing pavement, the proposed pavement and a temporary roadway adjacent to the existing constructed with Item 410 Aggregate and stabilized with Item 616 Calcium Chloride.

A watchman shall be provided for the protection of school children in the construction area during times that the children are entering and leaving the school building west of the project.

Basis of payment for the above work including the watchman shall be included in the Lump Sum price bid for Item 614 Maintaining Traffic.

THE FOLLOWING STREETS SHALL BE CLOSED TO TRAFFIC WHEN DEEMED NECESSARY BY THE ENGINEER.

Jones Ave. from First Ave. to Public Rd. St. Worthington Street from Public Rd. St. to a point 155 feet south of Wilbur Avenue. Maude Avenue from Worthington Street to a point 47 feet east of Worthington Street. Union Street from Henry Avenue to Dick Avenue. Dick Avenue from Union Street to a point 130 feet west of Jefferson Street. South Street from a point 112 feet west of Jefferson Street to its westerly end.

Proposed Alley "A" shall be constructed prior to the closing of Worthington Street and a portion of the first alley north of Public Rd. St.

Walters Street. At least one-way traffic shall be maintained between Public Rd. St. and the first alley north of Public Rd. St. during the approach paving.

Existing T.R. 109 shall remain open to traffic until T.R. 109 Relocation is completed and traffic placed thereon.

Williams Street at Farm Lane. At least one-way traffic shall be maintained to Farm Lane during the approach paving, and also during the construction of the 66" storm sewer south of Farm Lane.

Farm Lane from Williams Street to its westerly end shall be closed to traffic after Alley "B" and Drive "A" have been constructed.

Farm Lane (Williams Street to Walden Street). Two-way traffic shall be maintained at all times by use of the existing pavement, the proposed pavement and a temporary roadway adjacent to the existing constructed of Item 410 aggregate and stabilized with Item 616 Calcium Chloride.

Buckeye Street at Farm Lane may be closed to traffic temporarily until the approach paving to Farm Lane is completed. The Contractor shall expedite the work so that traffic can be restored in a minimum period of time.

Alley between Buckeye Street and Walden Street at Farm Lane may be closed to traffic temporarily until the approach paving to Farm Lane is completed. The Contractor shall expedite the work so that traffic can be restored in a minimum period of time.

Medill Avenue (Walters Street to Williams Street) may be closed during the construction of the 54" Storm Sewer and repaving. The Contractor shall expedite the work so that traffic can be restored in a minimin period of time.

Walters Street and Williams Street at Medill Avenue. One-way traffic will be permitted during the construction of 54" Storm Sewer crossing at these locations. The Contractor shall expedite the work so that two-way traffic can be restored in a minimin period of time.

TRAFFIC MAINTENANCE

Existing S.R. 7 at Intersection of Farm Lane. One-way traffic will be permitted during construction of the 78" storm sewer crossing at this location. The Contractor shall expedite the work so that two-way traffic can be restored in a minimum period of time.

Hutchinson Lane from existing Farm Lane to a point 85 feet north of Farm Lane shall be closed to traffic when Alley "B" is completed. It shall also be closed from Short Street to a point left of Mainline Sta. 87+60 when deemed necessary by the Engineer.

Terrace Lane shall be closed to traffic when Farm Lane west of Williams Street is closed to traffic.

Hodgens Avenue from a point 55 feet west of Williams Street to Hutchinson Lane shall be closed to traffic when deemed necessary by the Engineer.

Williams Street at least one-way traffic shall be maintained between Hodgen's Ave. and Church St. at the Rayland corporation line during the construction of Williams St. Relocation.

Maple Avenue from Williams Street to Buckeye Street on the east side of the W & L.E. R.R. shall be closed to traffic until the construction of Williams Street Relocation and the Maple Avenue approach has been completed.

Main Street at least one-way traffic shall be maintained during the construction of the approach paving to Service Road "A".

Existing S.R. 7 from Rt. of Mainline Sta. 94+00 to S.R. 150 and S.R. 150 will remain open to two-way traffic until the construction of Service Road "A" to Sta. 127+00, S.R. 150 Extension and the existing S.R. 7 approach to S.R. 150 Extension are paved and traffic can be placed thereon. During construction of that portion of Service Road "A" that overlaps existing S.R. 7 at Main Street, and that portion of S.R. 150 Extension and the existing S.R. 7 approach to S.R. 150 Extension that overlaps existing S.R. 7, two-way traffic will be maintained at all times by use of temporary roadways paved with 410 aggregate and stabilized with 616 calcium chloride.

Existing S.R. 7 at Short Creek shall be closed to traffic from S.R. 150 to a point 250 feet north of Short Creek, after S.R. 150 Extension and Service Road "A" to Sta. 152+70 have been constructed and traffic placed thereon. Upon completion of the approach paving, Existing S.R. 7 in this area shall be reopened to traffic.

FED. RD. DIVISION	STATE	PROJECT	
2	OHIO		

15
560

JEFFERSON COUNTY
JEF-7-0.20

TRAFFIC MAINTENANCE

Existing S.R. 7 Rt. of Sta. 153+00 +. One-way traffic will be permitted during construction of the 72" culvert crossing at this location or this work may be deferred until Service Road "A" is paved to Sta. 152+70 and S.R. 7 traffic can be placed thereon. In the event that the culvert is constructed under traffic, the Contractor shall expedite the work so that two-way traffic can be restored in a minimum period of time.

County Road 16 At least one-way traffic shall be maintained at all times.

Existing S.R. 7 Rt. of Mainline Sta. 226+00 to the Existing Structure at Little Rush Run.

Step 1 Southbound traffic will be crossed over through the median opening at County Road 17 to the northbound lanes and two-way traffic will be maintained over existing S.R. 7. The proposed southbound pavement from the existing structure over Little Rush Run to Temporary Road "A" and Temporary Road "A" will be constructed while two-way traffic is maintained over existing S.R. 7.

Step 2 Two-way traffic is to be maintained over Temporary Road "A" and the proposed southbound lanes to the median crossover at County Road 17. Existing S.R. 7 between Temporary Road "A" and the existing structure at Little Rush Run is to be closed to traffic.

Step 3 Complete construction of the proposed northbound lanes to the existing structure. Construct Twp. Rd. 155 Relocation.

Existing Twp. Rd. 155 at Intersection with S.R. 7 shall remain open to traffic until the Twp. Rd. 155 Relocation south of the intersection is graded sufficiently to place traffic thereon. Twp. Rd. 155 traffic shall then be maintained over Relocated Twp. Rd. 155 to a connection with existing S.R. 7 and Temporary Road "A". The existing intersection will be closed during construction of the northbound lanes of S.R. 7 and Relocated Twp. Rd. 155.

Temporary Connections and Maintenance of Local Traffic. 650 C.Y. of Item 410 Traffic Compacted Surface, Type "A" or "B", 1950 C.Y. of Item 410 Traffic Compacted Surface, Type "C" and 50 tons of Item 616, Calcium Chloride are to be used at the direction of the Engineer for temporary connections not shown on the plans. Payment for construction, maintenance and subsequent removal and restoration to original lines of temporary connections, except for furnishing and placing Items 410 and 616 for maintaining traffic, shall be included for payment in the lump sum bid for "Item 614, Maintaining Traffic".

GENERAL NOTES

Alternate Methods. If the Contractor so elects, he may submit alternate methods for the maintenance of traffic provided the intent of the above provisions is followed and no additional inconvenience to the traveling public results therefrom. No alternate plan shall be placed into effect until approval has been granted, in writing, by the Director.

Dust Control. Fifty tons of Item 616, Calcium Chloride for dust control and 500 M Gallons of Water, Item 616 for dust control are to be used at the direction and in amounts requested by the Engineer for dust control within the work limits.

CONTRACTOR'S MAINTENANCE RESPONSIBILITY

On this project, the Contractor's responsibility for maintenance of the existing pavement per Item 614 shall be limited to those portions of the existing pavement lying within the proposed work limits.

CONSTRUCTION IN AREAS UNDER JURISDICTION OF U.S. CORPS OF ENGINEERS

A permit has been granted to the State of Ohio by the U.S. Corps of Engineers for: (1) The construction of a culvert and fill along the right bank of the Ohio River at the outfall of the Farm Lane Storm Sewer, (2) The construction of highway embankments, structures, and channel relocations in the Short Creek Pool Area. (3) The construction of a portion of Township Road 155 Relocation embankment along the right bank of the Ohio River.

It will be necessary that the Contractor notify the Project Engineer 12 days in advance of commencement of construction in the above mentioned areas. The Project Engineer in turn must notify the Pittsburgh Office of the U.S. Corps of Engineers 10 days prior to start of construction.

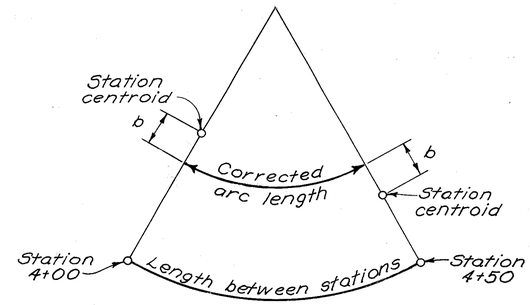
PROPOSED NAVIGATION CHANNEL IN SHORT CREEK POOL AREA

It will be necessary that all dredging for the proposed navigation channel be completed prior to the placement of any highway embankments within this Short Creek Pool Area.

Ohio Power Company Transmission Tower Adjacent To Hamilton Street.

The Contractor shall use extreme caution when constructing the 48" storm sewer along Hamilton Street past the Ohio Power Company transmission tower. To insure stability of the tower when trenching for the sewer, sheeting shall be placed 10 feet left of the sewer survey line from Sta. 1+35± to Sta. 1+75±.

COMPUTATION FOR EARTHWORK



Assume a 10° curve, radius 572.96 feet. Centroid at Station 4+00 is found to be 35 feet from the centerline and centroid at Station 4+50 is found to be 25 feet from the centerline. Correct radius between centroids is therefore 572.96 feet minus (35+25) ÷ 2 or 542.96 feet. Alignment factor is then 542.96 ÷ 572.96 or 0.94764 which when multiplied by 50 feet gives a corrected arc length between centroids of 47.38 feet.

Curve to the left was used in the above example. If curve had been to the right the correct radius between centroids would be 572.96 feet plus (35+25) ÷ 2 or 602.96 feet. Alignment factor would be 602.96 ÷ 572.96 or 1.05236 which when multiplied by 50 feet gives a corrected arc length between centroids of 52.62 feet.

ITEM 207 WATER POLLUTION, SOIL EROSION AND SILTATION CONTROL

The following estimated quantities are to be used as directed by the Engineer for erosion and siltation control measures.

1. Temporary Seeding and Mulching	117,951 S.Y.
2. Water	254 M-Gal
3. Temporary Slope Drains	4700 L.F.
4. Temporary Benches, Dikes, Dams, and Sediment Basins	1956 C.Y.
5. Mowing	1327 M-S.F.
Item 659-Repair Seeding and Mulching	29,488 S.Y.
Item 659-Commercial Fertilizer (12-12-12)	27.2 Tons

The above quantities have been taken to the General Summary

Rev. Calc. F.O. 7-74
Check " " D.L.B. 7-74

A. E. STILSON & ASSOC.
Quantities Calculated F.O. Sept. 1970
Quantities Checked D.L.B. Sept. 1970

A. E. STILSON & ASSOC.
Quantities Calculated F.O. Sept. 70
Quantities Checked D.L.B. Sept. 70

GENERAL SUMMARY

Rev. Quan. Calc. F.O. 7-74
Rev. Quan. Ck'd D.L.B. 7-74
A. E. STILSON & ASSOC.
Quantities Calculated F.O. Sept. 1970
Quantities Checked D.L.B. Sept. 1970

FED. RD. DIVISION	STATE	PROJECT	
2	OHIO		

16/560

JEFFERSON COUNTY
JEF - 7 - 0.20

Type Code 7223 Unless Otherwise Noted

SHEET NUMBERS

GENERAL NOTES	11	12	15	21	R/W Sht. No. 39	36	37	38	39	40	41	42	43	44	45	46	47	48	49	50	51	52	53	54	55	56	57	58	59	61	63	64	65	66	68	69	70	71	72	73A	74	75	76	77	78	79	86	88	89	339	TOTALS	ITEM	UNIT	DESCRIPTION
																																																						ROADWAY
		L.S.																																																		L.S.	201	L.S.	Clearing and Grubbing
				20,578																																																20,578	202	S.Y.	Pavement Removed
				6637																																																6637	202	S.F.	Sidewalk Removed
				L.S.					L.S.											L.S.																																L.S.	202	L.S.	Structures Removed
																				900									9375									250		698												2,785.5	202	L.F.	Guard Rail Removed for Storage
									2	2		2	3																		2																4		6			21	202	Ea.	Manhole Removed
							10		2																							1															2		1	3		19	202	Ea.	Catch Basin Removed
							390	32	231	232		325	110		68		89														205	84										27					291		106	147		2,337	202	L.F.	Pipe Removed, 24" and Under
																																															576		25	83		684	202	L.F.	Pipe Removed Over 24"
															1			1								2									1																	5	202	Ea.	Septic Tank Removed
																		1								3									2																	6	Spec.	Ea.	Drilled Well Abandoned
	100,000			2,088,966																																																4372	2,193,338	203	C.Y.	Excavation Not Including Embankment Construction
				1,955,701																																																1,955,701	203	C.Y.	Embankment
				290,034																																																290,034	203	S.Y.	Subgrade Compaction
				83																																																83	203	Hour	Proof Rolling
			1,950																																																	1,950	410	C.Y.	Traffic Compacted Surface, Type C
			650																																																	650	410	C.Y.	Traffic Compacted Surface, Type A or B
					22																																															22	604	Ea.	Monument Assembly
					94																																															94	604	Ea.	Centerline Reference Monument
						1223.5	1186.5	1210	991.5	1054	1015	1105	1389.5	282	1683.5	2008	2004	1774	873	1981.5	2000	2000	2000	183.5	53		575	150	1787.5	737.5	75		727.5	585	760	1333.5	1444	1212.5	550	512.5	1175	1150	1227.5	1082	1437.5	925						43,384.5	606	L.F.	Guard Rail, Type 5
						2	1	1	1			4	1	1				6	1	1				2	1			2	2	4			1	1	2		2			3	1				4	1						45	606	Ea.	Anchor Assembly
						2		2	2			3		2	2			4		4									2																							23	606	Ea.	Bridge Terminal Assembly, Type A
																		4																	4																	8	606	Ea.	Bridge Terminal Assembly, Type B
					1																																															1	607	Ea.	12' Gate, Type 47
					20,339																																															20,339	607	L.F.	Fence, Type 47
					12,777																																															12,777	607	L.F.	Fence, Type CL
				6886																																																6,886	608	S.F.	4" Concrete Walk
																																													1,306							1,306	615	S.Y.	Temporary Pavement, Class A
																																													L.S.							L.S.	615	L.S.	Temporary Roads
			500																																																	500	616	M.Gal.	Water
			100																																																	100	616	Tons	Calcium Chloride
																																																						EROSION CONTROL TYPE CODE Y005
27.20				55.07																																																0.18	82.45	659	Ton	Commerical Fertilizer (12-12-12)
				275.34																																																0.92	276.26	659	Ton	Agricultural Liming
				589,756																																																2049	591,805	659	S.Y.	Seeding and Mulching
29,488																																																				29,488	659	S.Y.	Repair Seeding and Mulching
								67	75			263		116	79			171		271																															1042	660	S.Y.	Sodding for Special Berm and Slope Protection, As Per Plan
						1270	574	1207	1702	1574	1384	3200	709	1297	1116	391		1141		2152								196			83		786	447	122			334	401		171	71	453	297								21,078	667	S.Y.	Seeding and Jute Matting
117,951																																																				117,951	207	S.Y.	Temporary Seeding and Mulching
254																																																				254	207	M.Gal.	Water
4700																																																				4700	207	L.F.	Temporary Slope Drains
1956																																																				1956	207	C.Y.	Temporary Benches, Dikes, Dams and Sediment Basins
1327																																																				1327	207	M.S.F.	Mowing

EROSION CONTROL TYPE CODE Y005
CONT'D ON SHEET No. 17

Rev. 9-23-74

A. E. STILSON & ASSOC.
Quantities Calculated CLG oct 1970
Quantities Checked MSK oct 1970

GENERAL SUMMARY

FED. RD. DIVISION	STATE	PROJECT	
2	OHIO		

JEFFERSON COUNTY
JEF-7-0.20

16-A 560

Type Code 7223 Unless Otherwise Noted

R/W Sheet No.	Parcel No.	Item	Unit	Total	DESCRIPTION
					BUILDING REMOVAL
18A	104	202	L.S.	L.S.	2-Frame Sheds
19	131				1-Electric Sub Station
	132				1-1 Sty. Blk. Des.; 1-1½ Sty. Brk. Des.; 1-Stu. Gar.; 1-Blk. Gar.
	134				1-Fr. Gar.
	135				1-1 Sty. Brk. Des.
19	136				1-2 Sty. Fr. Des.
21	144				1-Electric Company Tower
20	145				1-100,000 Gallon Water Storage Tank
	146				1-Blk. Gar.; 1-Fr. Shed
	146A				1-1½ Sty. Fr. Des.
	147				1-1 Sty. Fr. Des.
	149				1-1 Sty. Blk. Des.; 1-Privy; 1-Shed; 1-Coop
	151				1-1 Sty. Fr. Des.
	154				1-Brk. Gar.
	156				2-Fr. Gar.
	158				1-2 Sty. Fr. Des.
	159				1-2 Sty. Fr. Des.
	159A				1-2 Sty. Fr. Des.
	160				1-2 Sty. Fr. Des.; 1-Blk. Gar.
	161				1-2 Sty. Fr. Des.; 1-Blk. Gar.; 1-Shed
	163				1-1 Sty. Fr. Des.
	164				1-1 Sty. Fr. Des.
	165				1-2 Sty. Fr. Des.
	166				1-1 Sty. Stu. Des.
	167				1-2 Sty. Fr. Des.; 1-Blk. Gar.; 1-Shed
	168				1-2 Sty. Fr. Des.
	169				1-2 Sty. Stu. Des.
	170				1-1 Sty. Fr. Des.
	176				1-2 Sty. Fr. & Stone Des.; 1-Blk. Gar.
	178				1-2 Sty. Fr. Des.; 1-Blk. Gar.
20	179				1-1 Sty. Fr. & Blk. Des.; 2-Fr. Sheds
21	180				1-1 Sty. Fr. Des.
	186				1-2 Sty. Stone Des.; 1-Shed
	187				1-1½ Sty. Fr. Des.; 1-Blk. Gar.; 1-Shed
	189				1-1 Sty. Fr. Des.; 1-Open Shelter; 1-Blk. Gar.
	194				1-2 Sty. Fr. Des.; 1-Blk. Gar.
	195				1-2 Sty. Fr. Des.; 2-Sheds
21	196				1-1 Sty. Blk. Des.
22	202				1-2 Sty. Brk. Des.
	203				1-2 Sty. Stu. Des.
	205				
	208				1-Fr. Gar.; 1-Car Port
	210				1-1 Sty. Blk. Des. & Attached
	211				1-1½ Sty. Blk. Des.
	212				1-1 Sty. Brk. Des.
	213				1-Blk. Gar.
	214				1-1 Sty. Fr. Des.
	214A				1-1 Sty. Stone Des.
	215				2-1 Sty. Fr. Des.
22	223				1-1 Sty. Brk. Des.
23	245				1-1 Sty. Fr. Des.
23	246				1-1 Sty. Fr. Des.; 1-Fr. Gar.; 2-Sheds
24	251				
	255				1-1 Sty. Brk. Des.
	256				1-1½ Sty. Fr. Des.; 1-1 Sty. Fr. Des.; 1-Blk. Gar.; 5-Sheds
	268				1-1 Sty. Fr. Des.
	269				1-2 Sty. Fr. Des.; 1-Fr. Gar.
	270				1-1½ Sty. Fr. Des.; 1-2 Sty. Fr. Des.
24	271				1-1½ Sty. Fr. Des.
25	272	202	L.S.	L.S.	1-1 Sty. Fr. Des.; 1-Car Port

R/W Sheet No.	Parcel No.	Item	Unit	Total	DESCRIPTION
					BUILDING REMOVAL
25	273	202	L.S.	L.S.	1-1 Sty. Fr. Des.; 1-Blk. Shed
23	274				1-1 Sty. Fr. Des.; 1-Shed
24	275				1-1 Sty. Brk. Des.; 1-Blk. Gar.
	276				1-1 Sty. Fr. Des.
24	277				1-2½ Sty. Fr. Des.; 1-Blk. Gar.
24A,25	278				1-2 Sty. Fr. Des.; 1-1½ Sty. Fr. Des.
25	279				1-1 Sty. Fr. Des.; 1-Fr. Gar.
	280				1-Fr. Gar.
	280A				1-3 Sty. Fr. Des.; 1-Shed
	281				
	283				1-2 Sty. Brk. Des.
	284				1-1½ Sty. Fr. Des.
	286				2-2 Sty. Fr. Des.; 1-Blk. Gar.
25	288				1-2 Sty. Fr. Des.
24	289				1-1 Sty. Blk. Des.; Fr. Gar.
	290				1-2 Sty. Fr. Des.
24	293A				1-2 Sty. Fr. Des.; 1-Blk. Gar.
25	312				1-Shed
	313				1-Blk. Gar.
	314				1-2 Sty. Fr. Des.; 1-Blk. Gar.
	316				1-1 Sty. Fr. Des.; 1-Blk. Gar.; 2-Fr. Sheds
	317				1-2 Sty. Fr. Des.; 1-Fr. Gar.; 1-Shed
	321				1-1 Sty. Fr. Des.;
	325				1-1 Sty. Fr. Des.
25	326				1-2 Sty. Fr. Des.; 1-Fr. Gar.; 1-Fr. Shed
26	327				1-1 Sty. Fr. Des.
	328				1-1 Sty. Fr. Des.
	347				1-2 Sty. Fr. Comm.; Lumber Sheds
26	361				1-1 Sty. Blk. Comm.
	362				1-2 Sty. Blk. Comm.; Pumps; 1-250 Gal. Tank; 4 Underground Tanks
28	363				
28	364				1-1 Sty. Blk. Comm.; Pumps; 3 Underground Tanks
29	365				1-2 Sty. Fr. Des.
	366				1-2 Sty. Fr. Des.; 3-Sheds
29	367				1-1 Sty. Fr. Des.; 1-Shed
35	377				1-2 Sty. Fr. Des.; Fr. Gar.
35	378	202	L.S.	L.S.	1-1½ Sty. Fr. Des.; Fr. & Metal Gar.
	136-WL	202	L.S.	L.S.	2-story frame residence, 2 sheds
	161-WL	202	L.S.	L.S.	2-story frame residence, frame garage, shed
	165-WL	202	L.S.	L.S.	2-story frame residence, frame garage
	188-WL	202	L.S.	L.S.	1 concrete block pump house
	215-WL	202	L.S.	L.S.	1½-story frame residence, frame garage
	347-WL	202	L.S.	L.S.	Lumber storage sheds
	361-WL	202	L.S.	L.S.	1-story concrete block building
	363-WL	202	L.S.	L.S.	1-story concrete block building
	377-WL	202	L.S.	L.S.	Ruins of 2-story frame residence, 2 car frame garage

BRUNING 44-560 10943

Rev. Quan. Calc. F.O. 7-74
Rev. Quan. Ck'd D.L.B 7-74
A. E. STILSON & ASSOC.
Quantities Calculated F.O. Sept 70
Quantities Checked D.L.B. Sept 70

GENERAL SUMMARY

Type Code 7223 Unless Otherwise Noted

FED. RD. DIVISION	STATE	PROJECT	
2	OHIO		

17
560

JEFFERSON COUNTY
JEF - 7 - 0.20

General Notes

SHEET NUMBERS	TOTALS	ITEM	UNIT	DESCRIPTION
				EROSION CONTROL TYPE CODE 4005
				CONT'D. FROM SHEET No. 16
8317 161 68 40	8,586	601	C.Y.	Rock Channel Protection, Type A
325 46 98 201 143 92 140 4 7 182 270 550 50 30 49 190 30 30 93 30 20 40 20 179 23	1,168	601	C.Y.	Rock Channel Protection, Type B
6 8 51.0 199	264	601	S.Y.	Riprap, using 6" Reinforced Concrete Slab
				~ DRAINAGE ~
6.7 0.4 0.2 0.7 0.3 6.0 0.8 0.2 0.8 0.5 0.5 5.6 0.4 0.3 0.5 0.2 6.1 1.4 0.5 6.3 2.2 19.0 33.1 8.8 5.1 8.1	114.7	602	C.Y.	Concrete Masonry
102	102	603	L.F.	15" Conduit, Type A, 706.01, 706.08, 706.02 Cl. III or 707.05
136	136	603	L.F.	Conduit, Type A, 48" 706.02, or 54" 707.05
74	74	603	L.F.	21" Conduit, Type A
55	55	603	L.F.	36" Conduit, Type A, 706.02 or 706.08
51	51	603	L.F.	Conduit, Type A, 15" 706.01, 706.08 or 706.02, or 18" 707.05
64	64	603	L.F.	Conduit, Type A, 18" 706.01, 706.08 or 706.02, or 21" 707.05
404	404	603	L.F.	Conduit, Type A, 84" 706.02, or 96" 707.07
68	68	603	L.F.	72" Conduit, Type A, 706.02 or 707.07
82	82	603	L.F.	84" Conduit, Type A, 706.02 or 707.07
202	202	603	L.F.	91"x58" Conduit, Type A, 706.04 Class HE-III
224	224	603	L.F.	96" Conduit, Type A, 707.07 (0.109"), Shop Beveled
90 98	188	603	L.F.	96" Conduit, Type A, 707.07 (0.079"), Shop Beveled
152	152	603	L.F.	16'-7" x 10'-1" Conduit, Type A, 707.03 (0.138"-0.168"), as per plan
111 20	20	603	L.F.	6" Conduit, Type B, Ductile Iron Pipe, ASA Class 2
75 18 82 8 4 62 4	111	603	L.F.	27" Conduit, Type B, 706.02 Class IV or 707.13
	245	603	L.F.	6" Conduit, Type B
	8	603	L.F.	8" Conduit, Type B
561 57 190 205 120 74 176 112 80 125 200 42 15 120 99 23 134 50 35 84 36	2538	603	L.F.	12" Conduit, Type B
40 37 132 60 78 102 27 28 68 181	753	603	L.F.	15" Conduit, Type B
118 58 43 24 50	293	603	L.F.	18" Conduit, Type B
86 131 64	281	603	L.F.	21" Conduit, Type B
86 128 71 74	359	603	L.F.	24" Conduit, Type B
116	116	603	L.F.	27" Conduit, Type B
276	276	603	L.F.	30" Conduit, Type B
161 286	447	603	L.F.	42" Conduit, Type B
642	642	603	L.F.	54" Conduit, Type B
70	70	603	L.F.	66" Conduit, Type B
28	28	603	L.F.	78" Conduit, Type B
300	300	603	L.F.	6" Conduit, Type B, 706.08
88	88	603	L.F.	15" Conduit, Type B, 706.08 or 707.13
107	107	603	L.F.	24" Conduit, Type B, 706.01, 706.02 Class III, 706.08 or 707.13
300	300	603	L.F.	24" Conduit, Type B, 706.02 Class IV or 707.13
12	12	603	L.F.	30" Conduit, Type B
354	354	603	L.F.	60" Conduit, Type B, 706.05 1/3 Vitrified Liner
16	16	603	L.F.	60" Conduit, Type B, 706.05, Radius Pipe, 1/3 Vitrified Liner
88	88	603	L.F.	54" Conduit, Type B, Radius Pipe
500	500	603	L.F.	6" Conduit, Type C
174 10 46 26 75 5 15	341	603	L.F.	12" Conduit, Type C
32 92 132 26	292	603	L.F.	15" Conduit, Type C
125 10 550 23	708	603	L.F.	24" Conduit, Type C
113	113	603	L.F.	27" Conduit, Type C
277	277	603	L.F.	30" Conduit, Type C
120	120	603	L.F.	36" Conduit, Type C
25 399 250	674	603	L.F.	48" Conduit, Type C
204 170	374	603	L.F.	66" Conduit, Type C
290 914	1,204	603	L.F.	78" Conduit, Type C
4	4	603	L.F.	48" Conduit, Type C, 707.13

Rev. 9-23-74

Rev. Quan. Calc. F.O. 7-74
Rev. Quan Ch'd D.L.B. 7-74
A.E. STILSON & ASSOC.
Quantities Calculated F.O. Sept. 70
Quantities Checked D.L.B. Sept. 70

GENERAL SUMMARY

FED. RD. DIVISION	STATE	PROJECT	
2	OHIO		

18/560

JEFFERSON COUNTY
JEF-7-0.20

Type Code 7223 Unless Otherwise Noted

General Notes	36	37	38	39	40	41	42	43	44	46	47	48	49	50	58	59	61	63	64	65	66	68	71	72	74	75	76	77	78	79	86	87	88	89	90	100	73A	TOTALS	ITEM	UNIT	DESCRIPTION
																																								DRAINAGE
300																																						300	603	L.F.	6" Conduit, Type C, 706.08
				456																																		456	603	L.F.	21" Conduit, Type C, 706.01 Class 3, 706.02, 706.08 E.S. or 707.13
				296																																		296	603	L.F.	30" Conduit, Type C, 706.02, 706.08 E.S. or 707.13
		346																												79								425	603	L.F.	18" Conduit, Type C, 706.01 Class 3, 706.08 E.S., 706.02 Class III or 707.13
																														210								210	603	L.F.	60" Conduit, Type C, 706.05 1/3 Vitrified Liner
																																	16					16	603	L.F.	12" Conduit, Type C, 706.01 Class 3, 706.08 E.S., 706.02 or 707.13
					115																																	115	603	L.F.	18" Conduit, Type C
				132																																		132	603	L.F.	24" Conduit, Type C
				101	253																																	354	603	L.F.	42" Conduit, Type C, 706.02 Class III or 707.13
		298			600																																	898	603	L.F.	48" Conduit, Type C, 706.02 Class III or 707.13
					151	485																																636	603	L.F.	60" Conduit, Type C, 706.02 Class III or 707.13
						335	447																															782	603	L.F.	66" Conduit, Type C, 706.02 Class III or 707.13
			186																											243							429	603	L.F.	48" Conduit, Type C, 706.02 Class IV or 707.13
																																63	77				140	603	L.F.	78" Conduit, Type C, 706.03 Class V Under Railroad, As Per Plan
																																			32		32	603	L.F.	36" Conduit, Type D, 706.02 or 706.08
																																			42		42	603	L.F.	Conduit, Type D, 42" 706.02, or 48" 707.01
																					64																64	603	L.F.	21" Conduit, Type D
	20	20				20	20																40	30		40	20	50	40								300	603	L.F.	6" Conduit, Type F
		122	71			70		67				119				51				21								36	46								603	603	L.F.	12" Conduit, Type F
										31	52				28												54	68									233	603	L.F.	15" Conduit, Type F
				75																					33													108	603	L.F.	21" Conduit, Type F
				58		66																																124	603	L.F.	24" Conduit, Type F
				90																																		90	603	L.F.	15" Conduit, Type F, 707.05 Type C
									74																													74	603	L.F.	18" Conduit, Type F
															3	1																						4	604	Ea.	Standard No. I-3A Median Inlet
																														2								2	604	Ea.	Standard No. 2A-10 Paved Shoulder Inlet
																														2								2	604	Ea.	Standard No. 2A-8 Paved Shoulder Inlet
																																	2					2	604	Ea.	Standard No. 2A-6 Paved Shoulder Inlet
		1																																				1	604	Ea.	Standard No. 2-6 Median Inlet
		6	1	3		3		2	1		3	2	2	3																								26	604	Ea.	Standard No. I-3A Median Inlet, Modified as per plan
				1																													4					5	604	Ea.	Standard No. 1 Manhole
					1	2	1																								2	3	1	1					11	604	Ea.	Standard No. 1-A Manhole
																															1		1					2	604	Ea.	Standard No. 1-A Manhole, Modified As Per Plan
		1			1																										1							3	604	Ea.	Standard No. 2 Manhole
																																	1					1	604	Ea.	Manhole Adjusted To Grade
																		1															1					2	604	Ea.	Manhole Reconstructed To Grade
				2						1							2	2	3						1	1	2							2					16	604	Ea.	Standard No. 2-2B Catch Basin
																																	1					1	604	Ea.	Standard No. 2-3 Catch Basin
		1																																			1	604	Ea.	Standard No. 2-4 Reinforced Concrete Catch Basin
		1																												1							2	604	Ea.	Standard No. 2-5 Catch Basin
				2	4	1	2	1	1																													11	604	Ea.	Standard No. 4 Catch Basin
																							1	1														2	604	Ea.	Standard No. 5 Catch Basin, Modified As Per Plan
		1	1	5	1	2				1							2		1	1					1		2	1		6		5					30	604	Ea.	Standard No. 5 Catch Basin
			1	1	1		1																									2					6	604	Ea.	Standard No. 5-A Catch Basin
		3				2	1																			2	2											10	604	Ea.	Standard No. 6 Catch Basin, Modified As Per Plan
5																																						5	604	Ea.	Inspection Well
	517	379				658	1037	643														1218	1089		1760	1298	333	1542										11,474	605	L.F.	6" Shallow Pipe Underdrains
	450	329					1016	504																														2,299	605	L.F.	6" Shallow Pipe Underdrains, 707.01 Type III or 707.12
600																																						600	605	L.F.	6" Unclassified Pipe Underdrains, 707.01 Type III or 707.12, as per plan
																242												426	506							100		1,274	605	L.F.	Aggregate Drains
60																																						60	605	L.F.	Aggregate Drains for Springs, as per plan
														110																								110	Spec	L.F.	Plug and Fill Existing Box Culvert

GENERAL SUMMARY

Rev. Quan. Col. F.O. 10-73
Rev. Quan. Ckd. G.V. 10-73
A. E. STILSON & ASSOC.
Quantities Calculated F.O. Sept. 1970
Quantities Checked G.V. Sept. 1970

FED. RD. DIVISION	STATE	PROJECT	
2	OHIO		

19
560

JEFFERSON COUNTY
JEF-7-0.20

SHEET NUMBERS: General Notes	39	40	42	63	65	86	88	339	348	350	352	353	TOTALS	ITEM	UNIT	DESCRIPTION
																WATER WORK
																TYPE CODE Y060
									6				6	814	L.F.	4" New Water Main C.I. Pipe ASA Class 22, Push-on Joints includ. Fittings, Cement Lined
								462	184	12	58	16	732	814	L.F.	6" New Water Main C.I. Pipe ASA Class 22, Push-on Joints includ. Fittings, Cement Lined
								30	365		130	80	605	814	L.F.	8" New Water Main C.I. Pipe ASA Class 22, Push-on Joints includ. Fittings, Cement Lined
									490				490	814	L.F.	10" New Water Main C.I. Pipe ASA Class 22, Push-on Joints includ. Fittings, Cement Lined
												1460	1460	814	L.F.	8" New Water Main Ductile Iron Pipe ASA Class 2, Push-on Joints includ. Fittings, Cement Lined
									1				1	814	Ea.	4" Gate Valve and Valve Box
								2	3	1	1	2	9	814	Ea.	6" Gate Valve and Valve Box
									5			3	8	814	Ea.	8" Gate Valve and Valve Box
									1				1	814	Ea.	10" Gate Valve and Valve Box
									2				2	814	Ea.	Fire Hydrant, 5" Opening, Rensselaer
										1	1	2	4	814	Ea.	Fire Hydrant, 5¼" Opening, Mueller A-24007
									100				100	814	L.F.	Removing and Disposing of Existing 4" Water Mains
												120	120	814	L.F.	Removing and Disposing of Existing 4" Water Mains, as per plan
											25		25	814	L.F.	Removing and Disposing of Existing 6" Water Mains, as per plan
												80	80	814	L.F.	Removing and Disposing of Existing 8" Water Mains
									200				200	814	L.F.	Removing and Disposing of Existing 10" Water Mains
											6		6	814	Ea.	Valve Box Adjusted To Grade
											70	10	80	814	L.F.	¾" New Copper Service Line, as per plan
									3	1	1	1	6	814	Ea.	Fire Hydrant Removed and Disposed Of
									3			1	4	814	Ea.	4" Gate Valve and Valve Box Removed and Disposed Of
									30				30	814	L.F.	10" New Water Main Concrete Encased C.I. Pipe ASA Class 22, Push-on Joints, Cement Lined
									20				20	814	L.F.	8" New Water Main Concrete Encased C.I. Pipe ASA Class 22, Push-on Joints, Cement Lined
											10		10	814	L.F.	6" New Water Main Concrete Encased C.I. Pipe ASA Class 22, Push-on Joints, Cement Lined
								L.S.					L.S.	Spec.	L.S.	Portions of Meter Vault Structure Removed
								L.S.					L.S.	Spec.	L.S.	100,000 Gallon Storage Tank Removed and Disposed Of
										3	1		4	814	Ea.	Plugging Existing ¾"-1" Service Line
										1	1		2	814	Ea.	Plugging Existing 4" Water Main and Branches
								L.S.					L.S.	Spec.	L.S.	New Meter Vault
								L.S.					L.S.	Spec.	L.S.	New 100,000 Gallon Water Storage Tank
								4					4	601	S.Y.	Crushed Aggregate Slope Protection
											1	1	2	814	Ea.	Service Stop and Box Removed and Reset
											1	1	2	814	Ea.	Water Meter and Box Removed and Reset
								4.8				9.5	14.3	Spec.	C.Y.	Concrete Anchorage Blocks
																SANITARY SEWER - Type Code Y060
500						12							512	603	L.F.	6" Conduit, Type B, 706.01, 706.02 or 706.08 with Joints As Per 706.11 or 706.12
				941		652	88						1681	603	L.F.	8" Conduit, Type B, 706.01, 706.02 or 706.08 with Joints As Per 706.11 or 706.12
			1	4		6	1						12	604	Ea.	Standard No. 1-A Manhole with Joints As Per 706.11
	2	2		2	1		1						8	Spec.	Ea.	Sanitary Sewer Cleanout
			1										1	604	Ea.	8" Flap Valve, Frame and Lid

Rev. Quan. Calc. D.L.B. 6-74
Rev. Quan. Ck'd J.R.F. 6-74
A. E. STILSON & ASSOC.
Quantities Calculated F.O. Sept 70
Quantities Checked D.L.B. Sept 70

GENERAL SUMMARY

Type Code 7223 Unless Otherwise Noted

FED. RD. DIVISION	STATE	PROJECT	
2	OHIO		

20
560

JEFFERSON COUNTY
JEF - 7 - 0.20

General Notes

SHEET NUMBERS: 104 | 105 | 106 | 107 | 108 | 109 | 110 | 111 | 112 | 113 | 114 | 115 | 116 | 117 | 118 | 119 | 120 | 121 | 122 | 123 | 124 | 125 | 127 | 128 | 129 | 130 | 131 | 132 | 133 | 134 | 135 | 136 | 137 | 138 | 139 | 140 | 141 | 142 | 143 | 144 | 145 | 146 | 147 | 148 | 149 | 150 | 151 | 152 | 153 | 154 | 155 | 156 | 73A

TOTALS	ITEM	UNIT	DESCRIPTION
			PAVEMENT
32,294	301	C.Y.	Bituminous Aggregate Base: 702.01 (85-100 or Ac-20); or 702.09, RT-11 or RT-12
2,855	304	C.Y.	Aggregate Base
6,256	310	C.Y.	Subbase, Grading A, As Per Plan
1,680	310	C.Y.	Subbase
913	402	C.Y.	Asphalt Concrete (70-85 or Ac-20)
998	404	C.Y.	Asphalt Concrete (70-85 or Ac-20)
40	404	C.Y.	Asphalt Concrete (85-100 or AC-20) (Drive ways)
2829	408	Gal.	Bituminous Prime Coat: 702.09, RT-2 or RT-3; 702.02, MC-30 or MC-70; or 702.03, Primer 20
22	407	Gal.	Tack Coat: 702.04, SS-1, SS-1H, MS-2 or RS-1; or 702.02, RC-70 or RC-250
45	409	C.Y.	Seal Coat Cover Aggregate, No. 8
1,608	409	Gal.	Seal Coat Bituminous Material: 702.09, RT-9 or RT-10; 702.02, MC-800 or MC-3000; 702.04, RS-1, RS-2 or CRS-2; or 702.03, CBAE-800
167,549	451	S.Y.	9" Reinforced Portland Cement Concrete Pavement
1,800	452	S.Y.	8" Plain Portland Cement Concrete Pavement
5611	452	S.Y.	12" Plain Portland Cement Concrete Pavement
2218	609	L.F.	Std. Type 2-A, Concrete Curb
1,209	609	L.F.	Std. Type 7, Concrete Curb
1,090	609	L.F.	Std. Type 8, Concrete Curb
840	609	L.F.	Std. Type 6, Concrete Curb
2653	611	S.Y.	Reinforced Concrete Approach Slabs (T-15")
101	612	S.Y.	Concrete Median
13,414	622	L.F.	Concrete Barrier, Type I
7,714	622	L.F.	Concrete Barrier, Type II
88.5	622	L.F.	Concrete Barrier Transition, as per plan
600	Spec	C.Y.	Drainage Connection Using No. 8 Aggregate
737	Spec	L.F.	Pressure Relief Joint
Lump	614	L.S.	Maintaining Traffic
Lump	619	L.S.	Field Office
Lump	623	L.S.	Construction Layout Stakes

STRUCTURE OVER 20' SPAN

Bridge No. Jef-7-0066, See Quantity Sheet No. 406
Bridge No. Jef-7-0131, See Quantity Sheet No. 420
Bridge No. Jef-7-0166, See Quantity Sheet No. 428
Bridge No. Jef-7-0238, See Quantity Sheet No. 468
Bridge No. Jef-7-0245, See Quantity Sheet No. 469
Bridge - Service Road "A" Over Short Creek Relocation, See Quantity Sheet No. 481
Bridge No. Jef-7-0288, See Quantity Sheet No. 490

Traffic Control, See Sheet No. 379

Lighting, See Sheet No. 358

Traffic Signals, See Sheet No. 401B

Rev. 9-23-74

FED. RD. DIVISION	STATE	PROJECT	
2	OHIO		

21
560

JEFFERSON COUNTY
JEF-7-0.20

SHT. Nº	STATION TO STATION	203 EXCAVATION C.Y.	203 EMBANKMENT C.Y.	659 SEEDING S.Y.
36	5+00 To 15+00	23,669	25,903	5,752
37	15+00 To 25+00	300,366	2,660	30,038
38	25+00 To 35+00	185,807	9,764	34,618
39	35+00 To 45+00	80,918	16,994	24,956
40	45+00 To 55+00	72,310	5,180	26,436
41	55+00 To 65+00	12,293	50,188	14,686
42	65+00 To 75+00	79,203	21,263	11,795
43	75+00 To 85+00	200,560	7,965	18,564
44	85+00 To 95+00	3,653	39,793	12,264
45	95+00 To 105+00	2,646	71,890	13,333
46	105+00 To 115+00	1,256	56,790	12,006
47	115+00 To 125+00	2,890	73,415	17,628
48	125+00 To 135+00	635	110,248	13,641
49	135+00 To 145+00	0	152,945	12,560
50	145+00 To 155+00	1,702	181,176	14,394
51	155+00 To 165+00	6,505	126,962	18,161
52	165+00 To 175+00	4,035	82,502	13,806
53	175+00 To 185+00	2,281	81,058	14,852
54	185+00 To 195+00	2,027	82,115	19,094
55	195+00 To 205+00	1,404	102,801	19,783
56	205+00 To 215+00	904	115,554	25,770
57	215+00 To 225+00	2,391	141,093	22,548
58	225+00 To 235+00	905	73,420	15,160
59	235+00 To 244+38.46	4,802	14,685	10,741
61	T.R. 109 Relocation	107,035	835	10,272
62	Farm Lane	15,643	1,354	3,627
63	Williams St. Relocation	1,295	480	3,760
64	S.R. "A" 93+58 To 95+00	102	40	604
65	S.R. "A" 95+00 To 105+00	903	9,138	5,460
66	S.R. "A" 105+00 To 115+00	847	11,606	6,316
67	S.R. "A" 115+00 To 125+00	664	2,999	5,275
68	S.R. "A" 125+00 To 135+00	2,455	15,306	10,308
69	S.R. "A" 135+00 To 145+00	158	58,688	10,838
70	S.R. "A" 145+00 To 152+98.75	34	26,066	3,578
71	Ramp "A" S.R. 150 Inter.	17	24,628	2,983
71	Ramp "B" S.R. 150 Inter.	0	18,665	2,500
72	Ramp "C" S.R. 150 Inter.	0	24,768	2,094
72	Ramp "D" S.R. 150 Inter.	0	31,981	5,821
73	Short Creek Channel Reloc.	73,735	10,364	2,356
48	S.R. 150 Ext.	30	5,355	1,563
78	T.R. 155 Reloc. 225+49.34 To 234+00	82	14,827	7,151
79	T.R. 155 Reloc. 234+00 To 242+50	8,005	4,233	5,988
83	Public Rd. St.	3,741	37	2,485
83	Ramp "A" Public Rd. St. Inter.	453	0	570
83	Ramp "D" Public Rd. St. Inter.	241	3	259
84	Ramp "B" Public Rd. St. Inter.	277,136	0	21,098
84	Ramp "C" Public Rd. St. Inter.	1,136	12,260	5,592
84	Ramp "A" Farm Lane Inter.	103,327	112	14,920
85	Ramp "B" Farm Lane Inter.	474,628	0	33,546
85	Ramp "C" Farm Lane Inter.	13,118	3,530	9,254
85	Ramp "D" Farm Lane Inter.	1,031	27,294	8,579
90	Outfall Ditch	391	70	806
81	Navigation Channel	5,764	0	0
323A	C.R. 16 Reloc.	3,827	4,608	1,687
TOTALS TO GENERAL SUMMARY		2,088,966	1,955,701	611,876 *

SHEET Nº	202 PAV'T REMOVED	202 SIDEWALK REMOVED	202 STRUCTURE REMOVED	203 SUBGRADE COMPACTION	608 CONCRETE WALK
	S.Y.	S.F.	L.S.	S.Y.	S.F.
104	1,577	4,238	L.S.	4,138	4,811
105	271			6,533	25
106	626	495		6,917	30
107	6			5,553	
108				4,206	
109	875			3,788	48
110				3,020	
111	164			1,875	
112		60		4,000	
113	52	280		4,000	
114	569			4,258	
115				5,501	
116				6,851	
117				5,283	
118	291			6,216	
119				4,174	
120	180	496		1,746	372
121				232	
122	50		L.S.	7,877	
123			L.S.	5,412	
124				3,268	
125				2,603	
127	4,267	1,068		5,481	1,600
128	1,067			6,236	
129	1,078			5,944	
130	1,111			5,944	
131	1,111			5,944	
132	1,133			5,944	
133	711			5,465	
135				5,437	
136				7,743	
137				3,932	
138				5,945	
139				2,077	
140				3,545	
141				5,926	
142	125			2,927	
143				8,000	
144				8,660	
145				9,224	
146				9,919	
147				6,751	
148				8,289	
149				9,852	
150				10,218	
151				9,467	
152				7,315	
153	667			7,334	
154	467			6,938	
155	1,577			6,211	
156	2,267			4,544	
134	336			611	
73A				758	
TOTALS	20,578	6,637	L.S.	290,034	6,886

*See Calculation At Right

CALCULATIONS

ITEM 659 - SEEDING

611,876 S.Y. (Deduct For Special Berm and Slope Protection - 1042 S.Y. and Seeding and Jute Matting - 21,078 S.Y.) = 589,756 S.Y. SEEDING TO GENERAL SUMMARY

ITEM 659 - FERTILIZER

589,756 S.Y. + 22,120 S.Y. = 611,876 S.Y. $\times \frac{20}{1000} \times \frac{9}{2000}$ = 55.07 TONS TO GENERAL SUMMARY

ITEM 659 - AGRICULTURAL LIMING

589,756 S.Y. + 22,120 S.Y. = 611,876 S.Y. $\times \frac{100}{1000} \times \frac{9}{2000}$ = 275.34 TONS TO GENERAL SUMMARY

ITEM 203 - PROOF ROLLING

Subgrade Compaction = 290,034 - 41,827 S.Y. Deduction
For Sideroads = 248,207 S.Y. $- \frac{248,207 \text{ S.Y.}}{3000 \text{ S.Y./HR.}}$ = 83 HRS. TO GENERAL SUMMARY

Rev. Quan. Calc. D.L.B. 6-74
Rev. Quan. Ck'd. F.O. 7-74
A. E. STILSON & ASSOC.
Quantities Calculated F.O. Aug. 1970
Quantities Checked D.L.B. Aug. 1970

Rev. 9-23-74

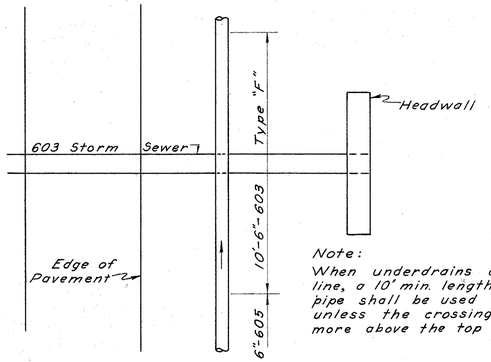
SUB-SUMMARY OF QUANTITIES

SPECIAL DETAILS

FED. RD. DIVISION	STATE	PROJECT	
2	OHIO		

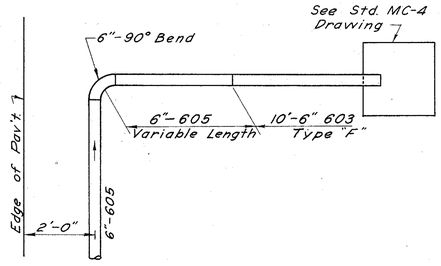
22
560

JEFFERSON COUNTY
JEF.-7-0.20

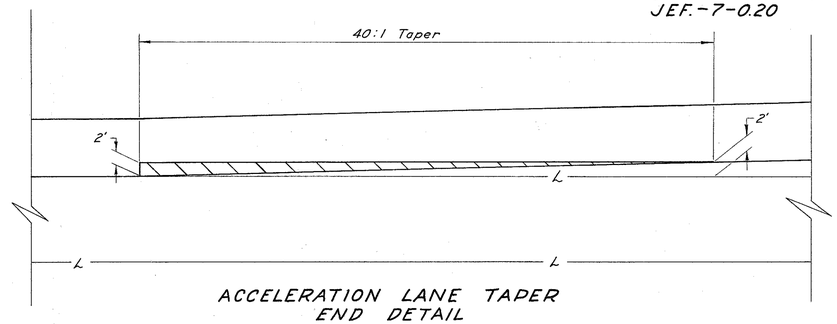


Note:
When underdrains cross a transverse line, a 10' min. length of 6" Class "F" pipe shall be used to span the trench unless the crossing is 2 feet or more above the top of the granular backfill.

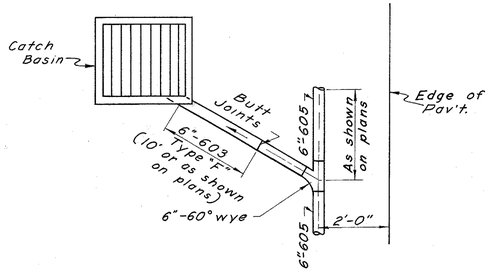
UNDERDRAIN CROSSOVER



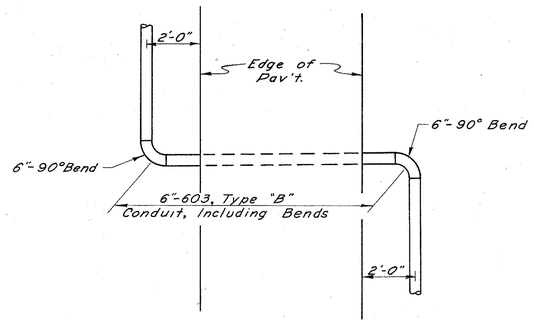
UNDERDRAIN OUTLET



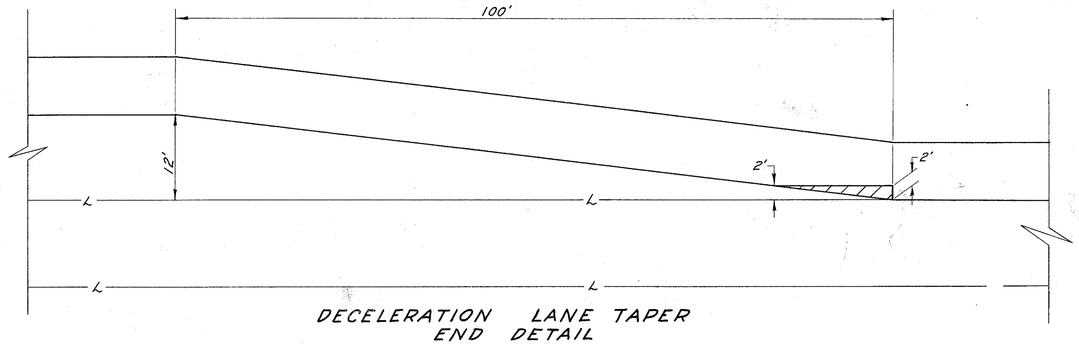
ACCELERATION LANE TAPER END DETAIL



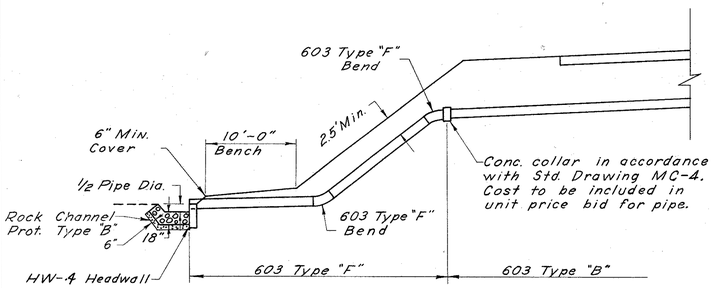
UNDERDRAIN OUTLET



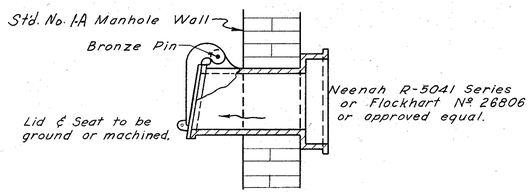
UNDERDRAIN CROSSOVER



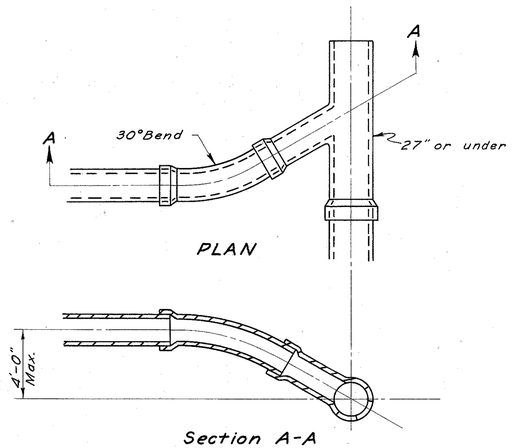
DECELERATION LANE TAPER END DETAIL



STORM SEWER OUTLET IN HIGH FILL



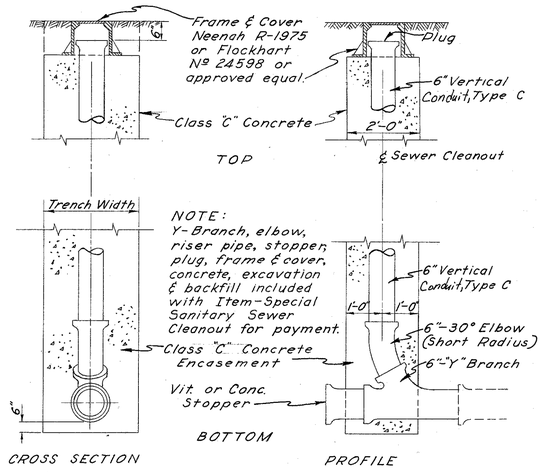
8" MANHOLE FLAP VALVE DETAIL
ITEM-604



TYPICAL RISER DETAIL FOR HOUSE CONNECTION

This detail is to be used when difference in elevation of the two sewer lines are 2' to 4'

Materials:
603, 2LF 6" Pipe-Type "B" With Joints as per 706.11 or 706.12
603, 1-6" 30° Bend
603, 1-6" x ( ) 60° wye



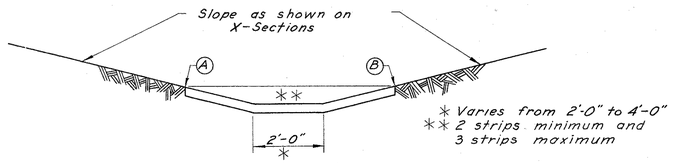
DETAIL ITEM-SPECIAL
SANITARY SEWER CLEANOUT

FED. RD. DIVISION	STATE	PROJECT	
2	OHIO		

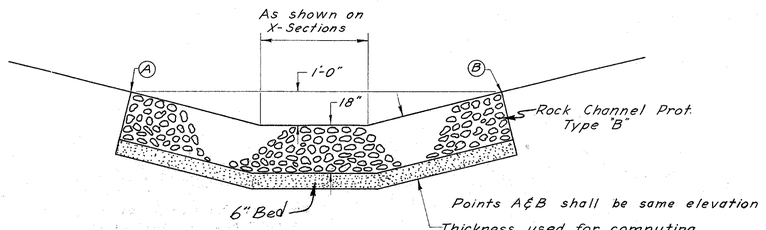
23
560

JEFFERSON COUNTY
JEF.-7-0.20

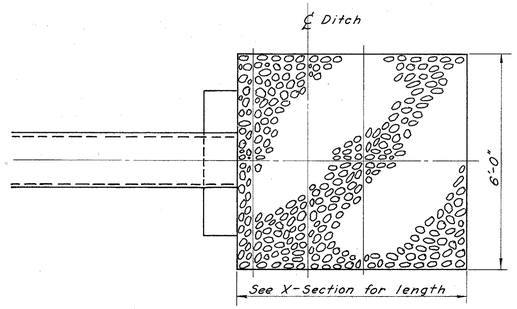
SPECIAL DETAILS

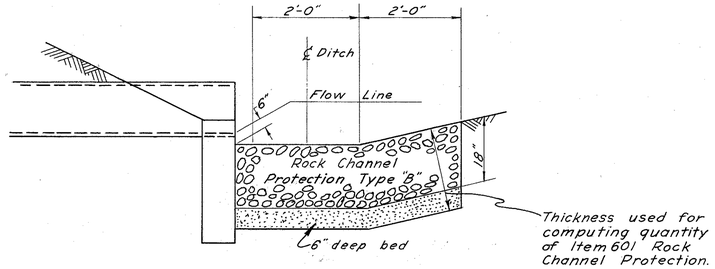


ROADSIDE DITCH
JUTE MATTING DETAIL

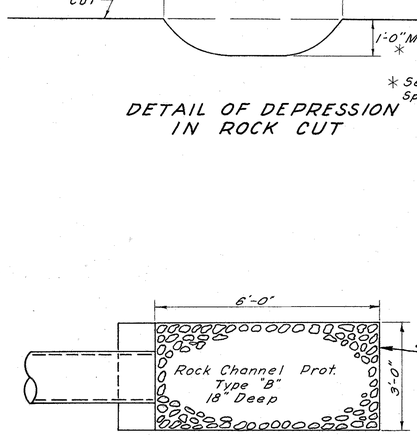


ROADSIDE DITCH
DUMPED ROCK CHANNEL
PROTECTION

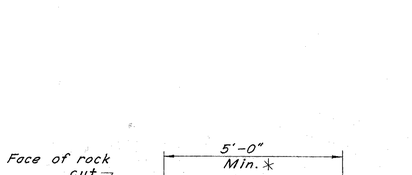




ROCK CHANNEL PROT. DETAIL AT PIPE OUTLET
Unless otherwise noted on plans

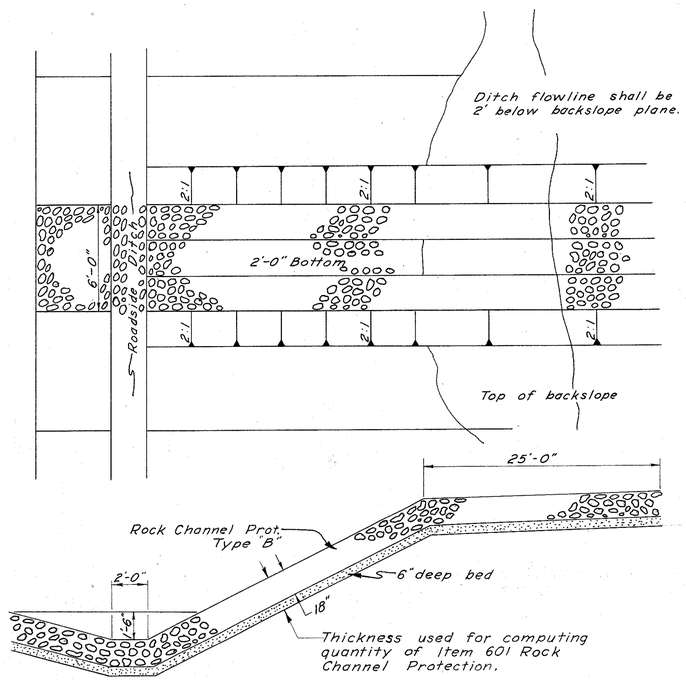


PIPE OUTLET PROTECTION
To be used as noted in areas where no ditches are to be constructed

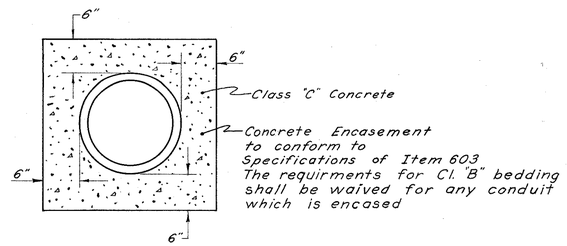


* See general note "Swales &/or Springs in Rockcut." Sht # 14

DETAIL OF DEPRESSION
IN ROCK CUT



ROCK CHANNEL PROTECTION
FOR DITCHES OVER SLOPES



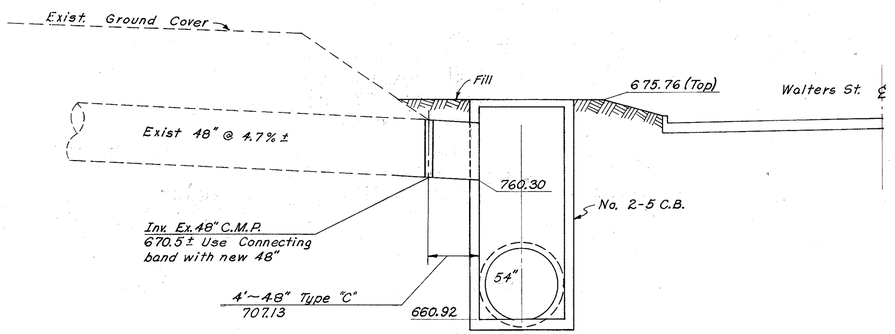
PIPE ENCASEMENT DETAIL

SPECIAL DETAILS

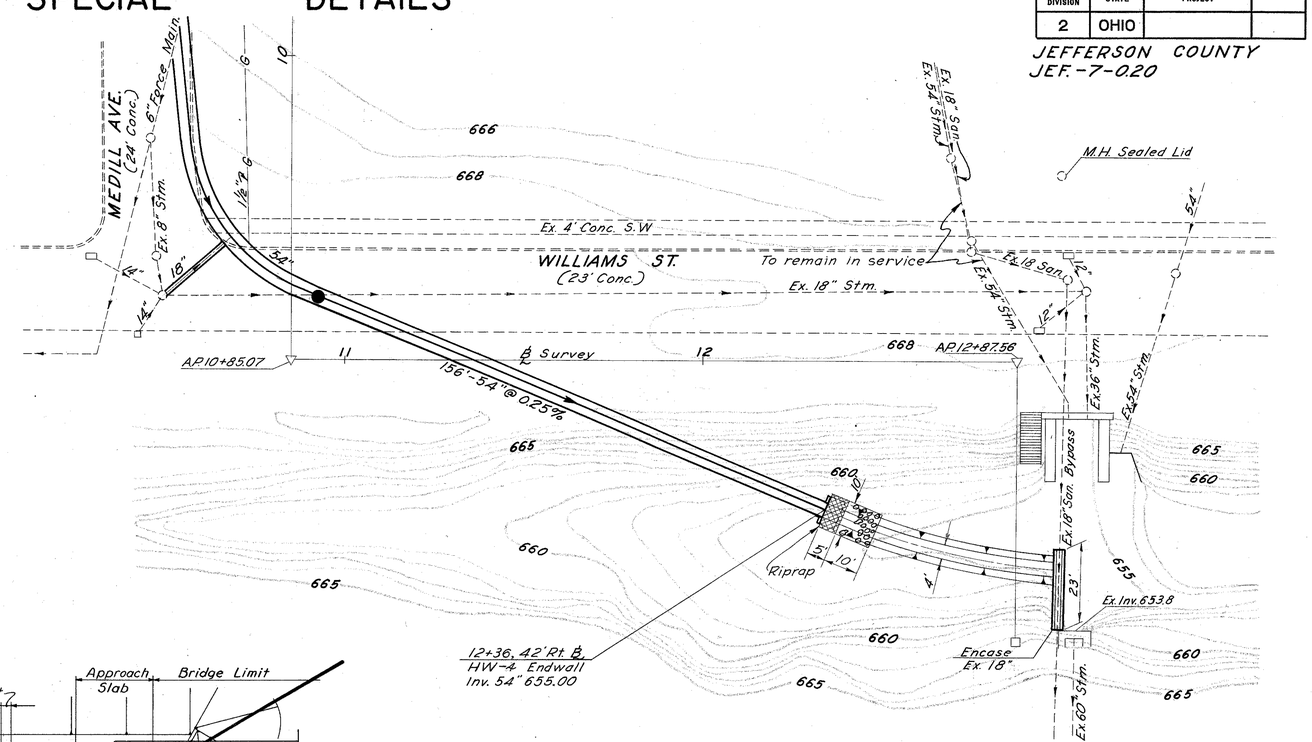
FED. RD. DIVISION	STATE	PROJECT	
2	OHIO		

24/560

JEFFERSON COUNTY
JEF.-7-0.20

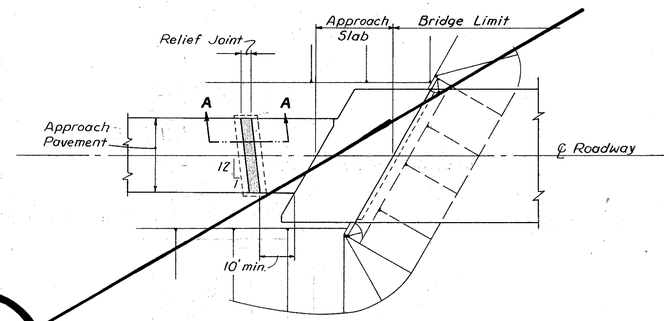


DETAIL OF 48" C.M.P.
CONNECTION TO Nº 2-5 C.B.
AT STATION 5+02
See Sheet Nº 87 For Location
And Quantities

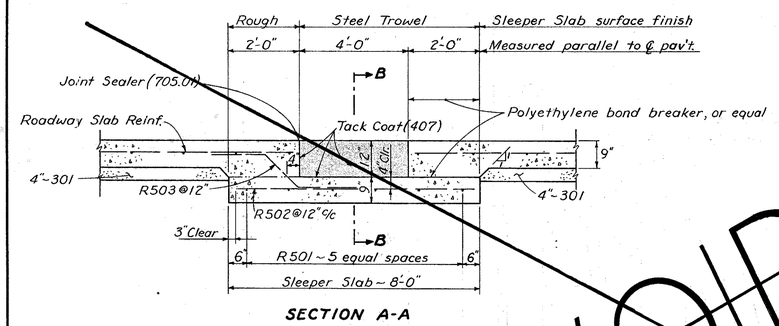


OUTFALL DETAIL OF 54" STORM SEWER

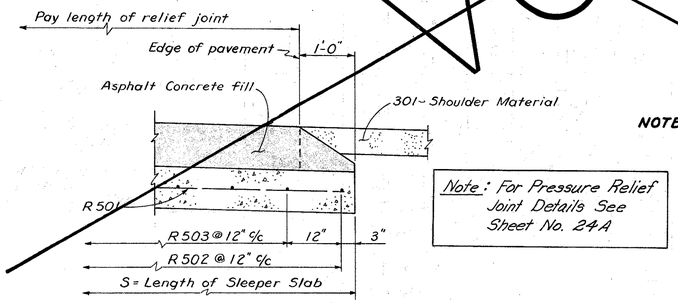
See Sheet # 87 for quantities and profile



PART PLAN AT ABUTMENT



SECTION A-A



SECTION B-B
(at edge of pav't.)

Note: For Pressure Relief Joint Details See Sheet No. 24A

REINFORCING STEEL LIST

Mark	Shape	No.	Length	Bending Diagram
R501	St.	6	S-0.5*	
R502	St.	S+0.5*	7'-6"	
R503	Bt	S-1.5*	4'-6"	1'-7" 1'-0" 1'-7" 1'-0" R503

* S = Length of Sleeper Slab in feet (see SEC. B-B).
R501 bars, at the option of the contractor, may be furnished in segments with a 1'-7" bar lap between segments.

NOTES:

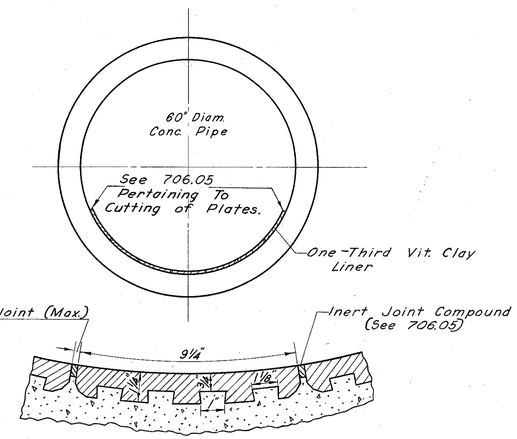
Asphalt Concrete fill shall be placed and compacted (compaction equipment shall be approved by the Engineer) in three equal courses. Surface tolerance of the fill shall be flush to ¼ inch above the pavement surface.

Expansion Joints normally required in the approach pavement adjacent to approach slabs (451.08) shall be non-performed.

Payment shall be at the contract price bid per linear foot for Item Special, Pressure Relief Joint, which shall include furnishing and placing all of the materials necessary to complete the joint as specified.

Measurement: The length of relief joint for pay purposes shall be based on the length of the joint, measured along the centerline of the joint, edge-to-edge of pavement.

~~PRESSURE RELIEF JOINT DETAILS~~



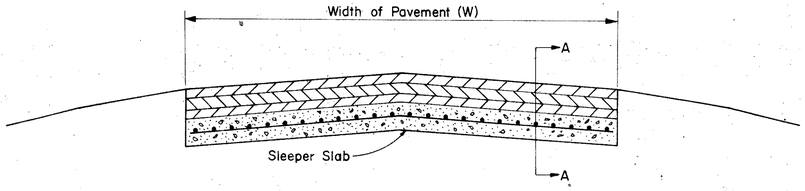
ONE-THIRD VITRIFIED CLAY LINER PLATE

VOID

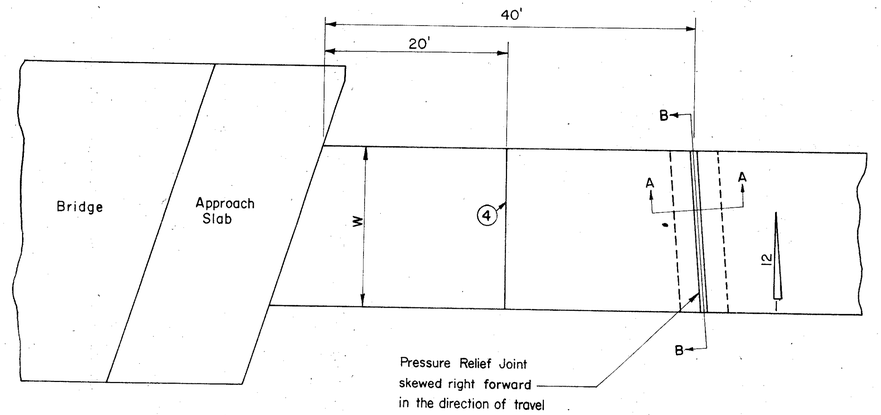
FED. RD. DIVISION	STATE	PROJECT	
2	OHIO		

24A 560

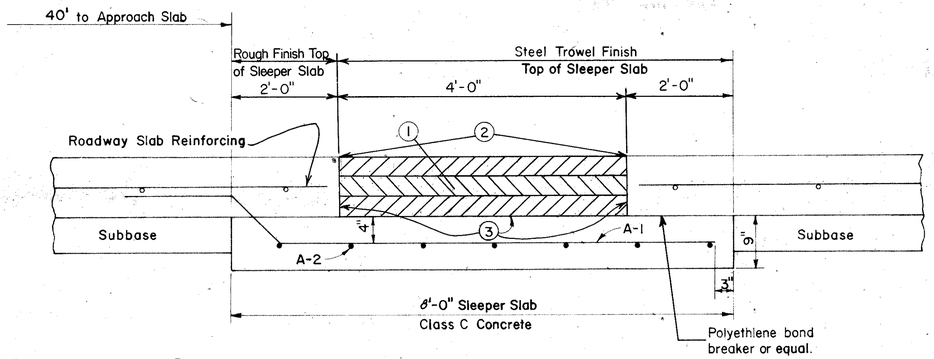
JEFFERSON - COUNTY
JEF - 7 - 0.20



SECTION B – B



PLAN

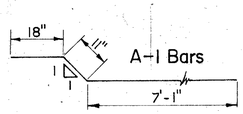


SECTION A – A

LEGEND

① Asphalt Concrete placed in three equal courses shall be in accordance with 404
② The 451 pavement shall have a 1/2" rounding and the joint shall be sealed in accordance with 705.01.
③ Tack Coat: 702.04, SS-1, SS-1h, MS-2 or RS-1; or 702.02, RC-70 or RC-250 in accordance with 407.
④ Expansion Joint

SCHEDULE OF REINFORCING STEEL					
Mark	Bar Size	Spa c/c	Length	No. Req'd.	Shape
A-1	5	12"	9'-6"	24, for 24" Pvmt.	Bent
A-2	4	12"	W minus 6"	8	Straight



NOTES

Asphalt concrete shall be placed in the joint in three equal courses and compacted with equipment as approved by the Engineer.

The expansion joint approximately 60' from the bridge approach slab, as specified under 451.08 (c) shall be eliminated.

Barricades in accordance with 614, shall be provided during construction until the joint has been filled with asphalt.

Pressure Relief Joints will be measured by the linear foot along the centerline of the joint from edge to edge of pavement.

Payment for the work shall be made per linear foot under "Item Special, Pressure Relief Joint", which price and payment shall constitute full compensation for furnishing and placing of all concrete, asphalt, reinforcing steel, tack coat and all other materials, labor, tools and equipment, and incidentals necessary to complete this item.

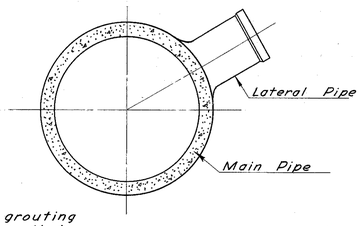
PRESSURE RELIEF JOINT

FED. RD. DIVISION	STATE	PROJECT	
2	OHIO		

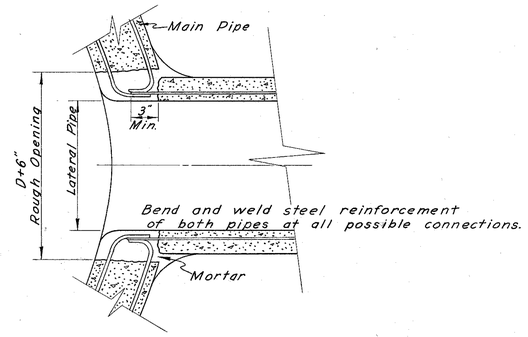
25
560

JEFFERSON COUNTY
JEF.-7-0.20

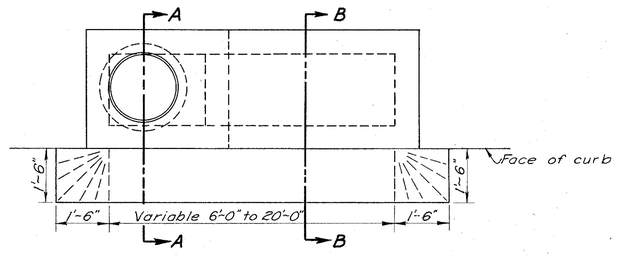
SPECIAL DETAIL



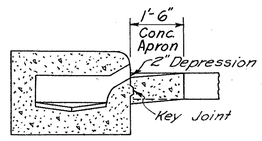
NOTE: Concrete for grouting shall be the same as that specified for pertinent pipe.



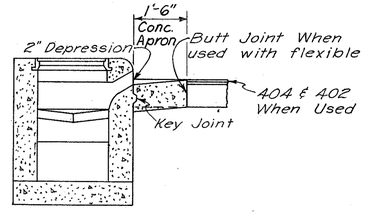
PRE-FABRICATED "T" CONNECTION



PLAN



SECTION "B-B"

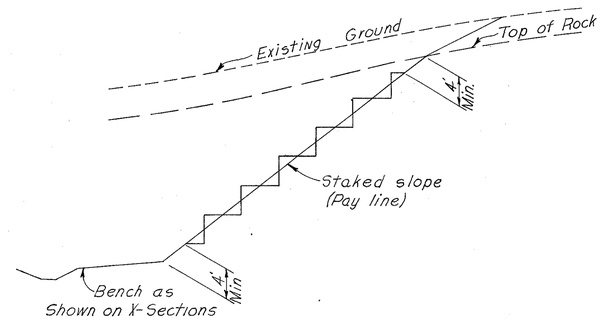


SECTION "A-A"

See Standard Drawing I-2A Paved Shoulder Inlet for notes, dimensions and materials not shown above.

The depressed Apron shall be an integral part of the concrete pavement with hand finishing required for the 2" depression being performed before the initial set. Payment for all labor and material required to construct the depressed apron shall be included in the cost of each Item 604-Std. No. 2-A Paved shoulder Inlet.

ITEM 604-Std No. 2-A PAVED SHOULDER INLET



STEPPED SLOPE DETAIL

Stepped Slopes in Soft Rock-Cuts in soft rock for which the plans provide 1:1 or 1½:1 slope shall be excavated to shape the cut face to a stepped pattern in reasonably close conformity with the typical cross sections shown on the plans.

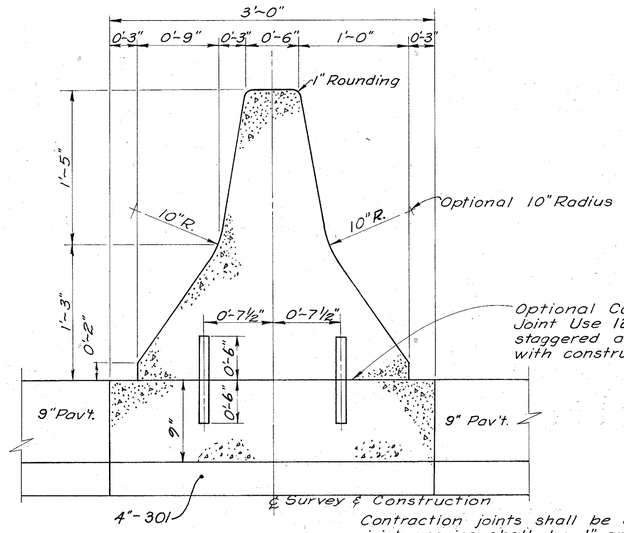
The steps may vary from 2 to 4' vertically, with the horizontal dimension being a function of the staked slope ratio. The approximate midpoint of the horizontal tread of the step shall be constructed on the staked slope line.

The first step shall begin immediately below the soft-rock line and continue to the bottom of the slope.

The steps shall be constructed approximately horizontal rather than parallel to the centerline grade. Excavation of each step shall be in the opposite direction from the preceding one to minimize buildup of loose material at ends of steps. Loose material which collects at the ends of steps shall be removed and the ends blended into the natural ground. Where rock, too hard to rip, is encountered within a cut, the steps shall be blended into the rock.

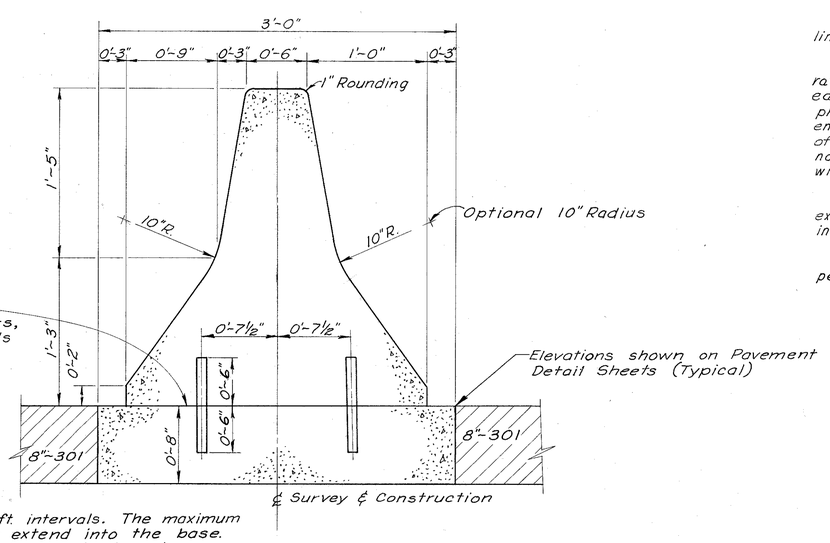
Scaling need not be performed on the stepped slopes except for removal of large rocks or material which may fall into the ditchline or roadway and create a safety hazard.

The stepped slopes shall be exposed to the weather for a period of at least 90 days prior to seeding.



CONCRETE BARRIER (TYPE I)

Contraction joints shall be used at 20 ft. intervals. The maximum joint opening shall be 1" and shall not extend into the base. ¾" preformed expansion joints shall be used at each segment along the alignment, on either side of inlets and at the approach slabs, or as required by the Engineer. The cost of all the above shall be included in the unit price bid per L.F. for Concrete Barrier.



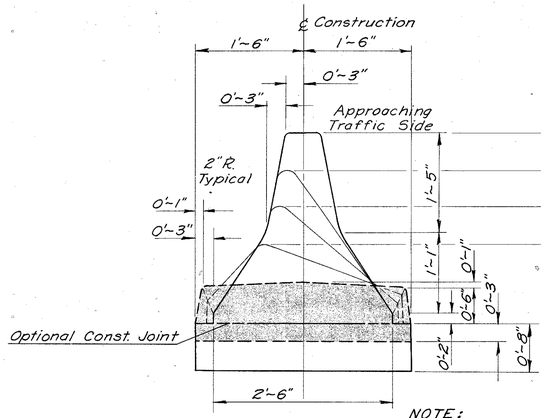
CONCRETE BARRIER (TYPE II)

SPECIAL DETAILS

FED. RD. DIVISION	STATE	PROJECT	
2	OHIO		

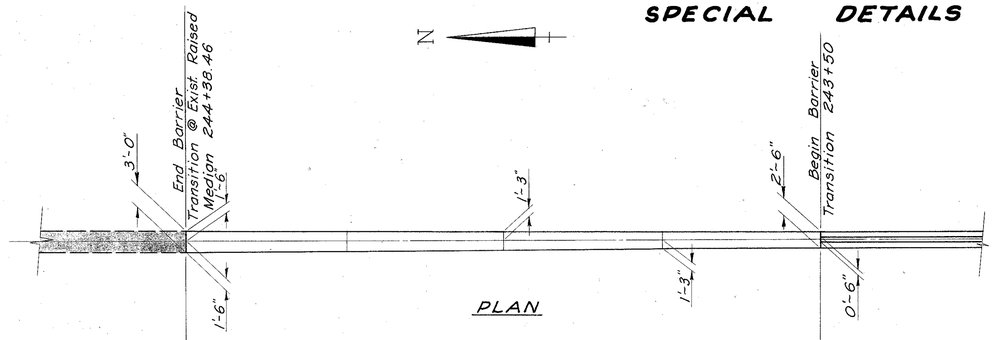
25A
560

JEFFERSON COUNTY
JEF-7-0.20

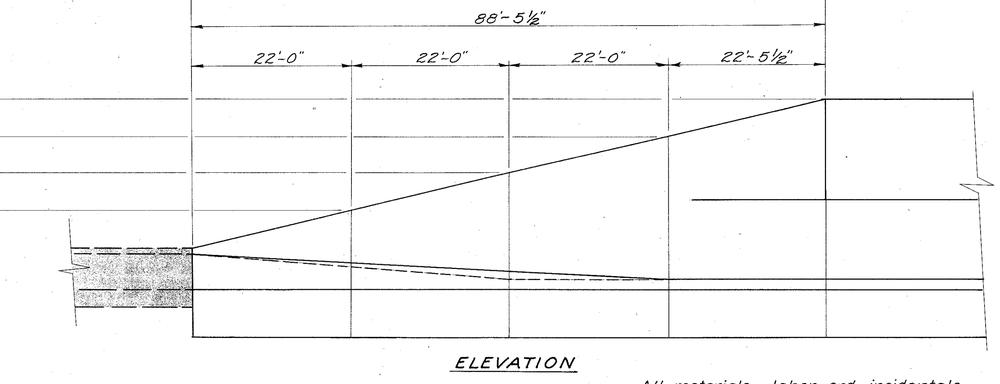


END VIEW

NOTE:
1. Shaded portion is Exist. Concrete Median.
2. Refer to Concrete Barrier, Type II for details not shown.



PLAN



ELEVATION

All materials, labor and incidentals necessary to construct the Concrete Barrier Transition shall be included in the Unit price bid for Item 622 Concrete Barrier (Transition).

CONCRETE BARRIER TRANSITION 243+50 To 244+38.46

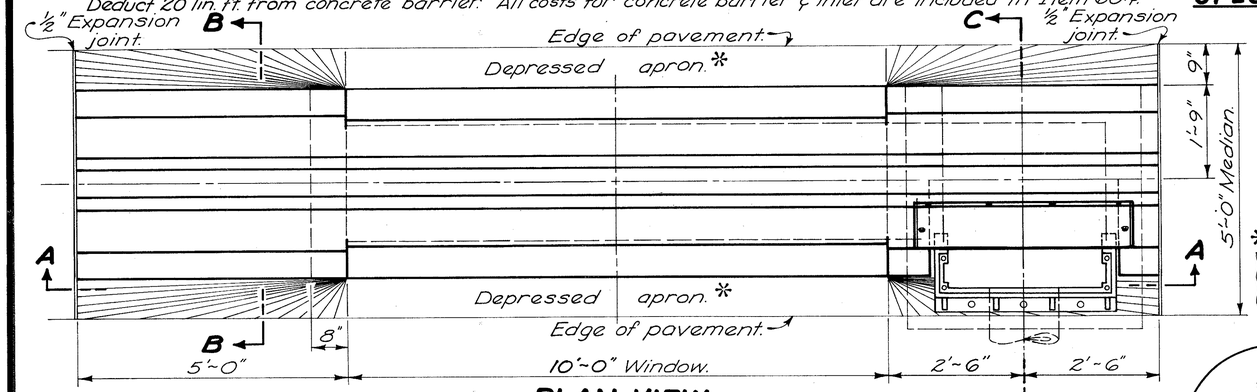
SCALE: 1" = 10' Horiz.
1" = 1' Vert.

FHWA REGION	STATE	PROJECT	
5	OHIO		

25-B 560

JEFFERSON COUNTY
JEF-7-0.20

Deduct 20 lin. ft. from concrete barrier. All costs for concrete barrier & inlet are included in Item 604.

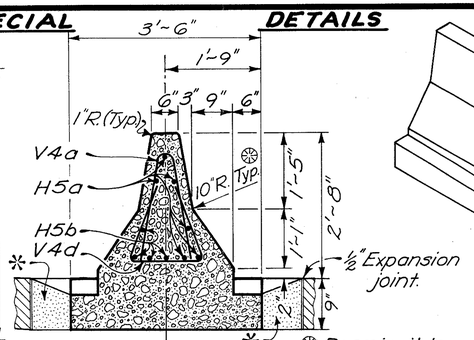


PLAN VIEW

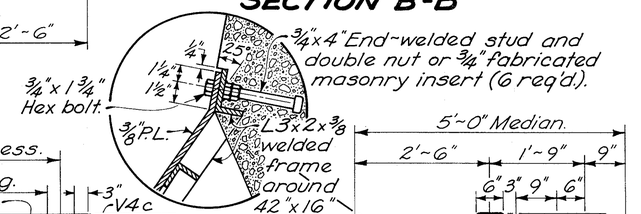
Reinforcing steel is not shown in plan view.

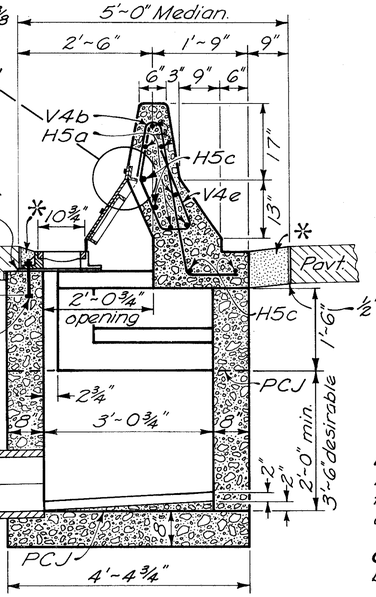
* The 9" wide by 20'-0" long apron areas and expansion joint material shall be filled to the depth of adjacent barrier median with concrete and formed to drain. Payment to be included in the median inlet cost.

SPECIAL DETAILS

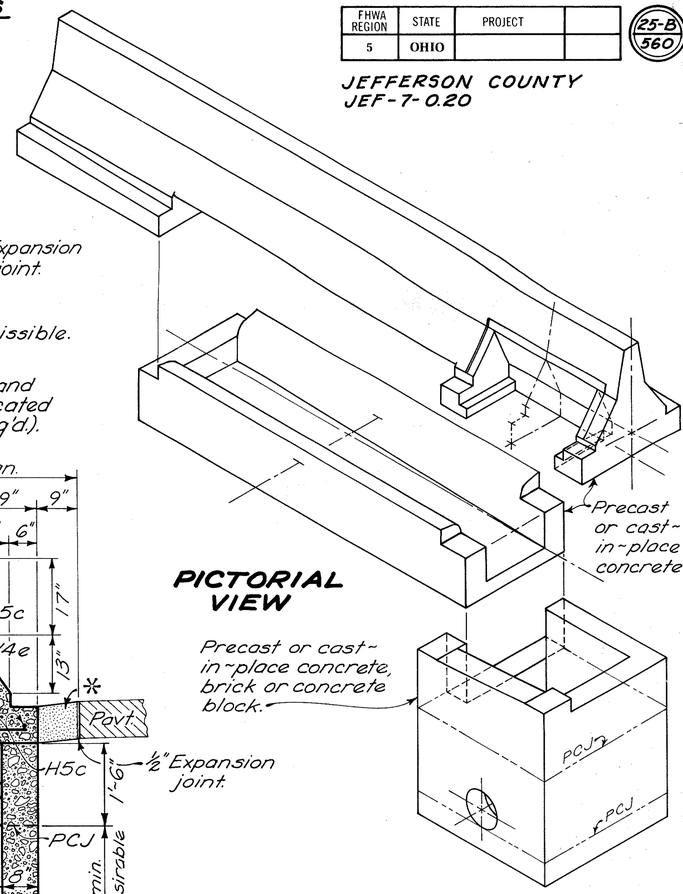


SECTION B-B





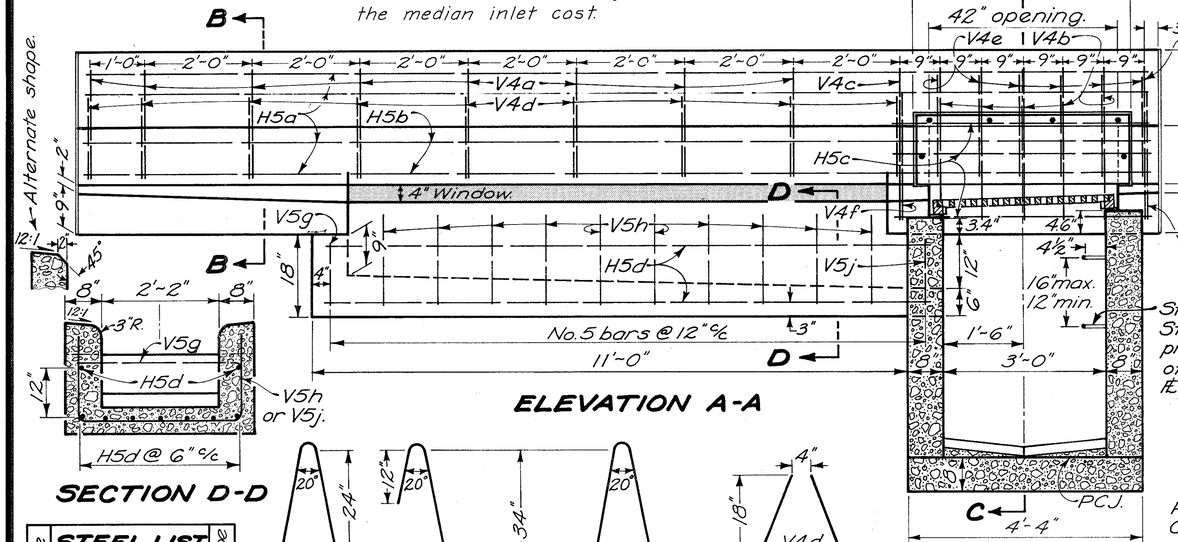
SECTION C-C



PICTORIAL VIEW

PIPE: If a skewed pipe protrudes more than 2" inside a wall, the pipe shall be trimmed flush and finished to produce a neat appearance.

GALVANIZING: The steel door, frame and all bolts and nuts shall be galvanized.



ELEVATION A-A

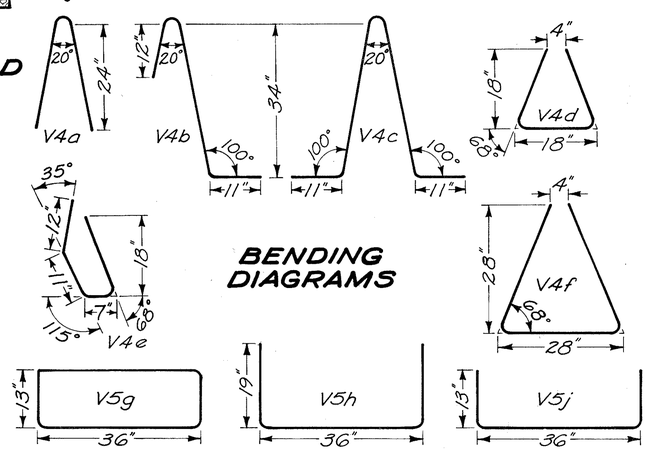
Steps, as detailed on Std. Draw. MH-1, shall be provided when depth of basin (℄ grate to ℄ pipe) exceeds 48".

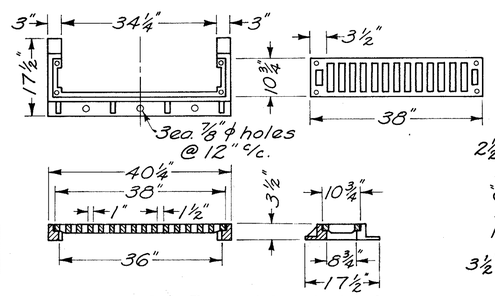
PCJ (Permissive Construction Joint).

SECTION D-D

Size	STEEL LIST Bar	Ea.	Lin. Ft.	Shape
No. 4	V4a	8	4'-6"	Bent
	V4b	5	5'-3"	
	V4c	2	8'-0"	
	V4d	9	4'-6"	
	V4e	6	4'-0"	
	V4f	2	7'-3"	
No. 5	V5g	1	8'-2"	
	V5h	10	6'-4"	
	V5j	1	5'-2"	
	H5a	6	19'-8"	Straight
	H5b	4	15'-4"	
	H5c	4	4'-8"	
	H5d	9	11'-4"	

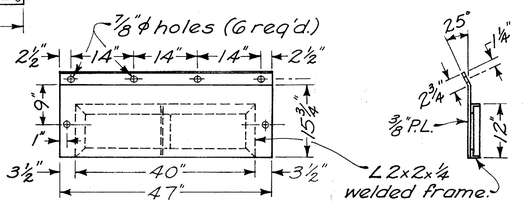
BENDING DIAGRAMS





CASTING DETAIL

Min. weight (frame & grate) 240 lbs.



DOOR DETAIL

4-2

SPECIAL DETAILS MEDIAN INLET I-3A MODIFIED AS PER PL

FED. RD. DIVISION	STATE	PROJECT	
2	OHIO		

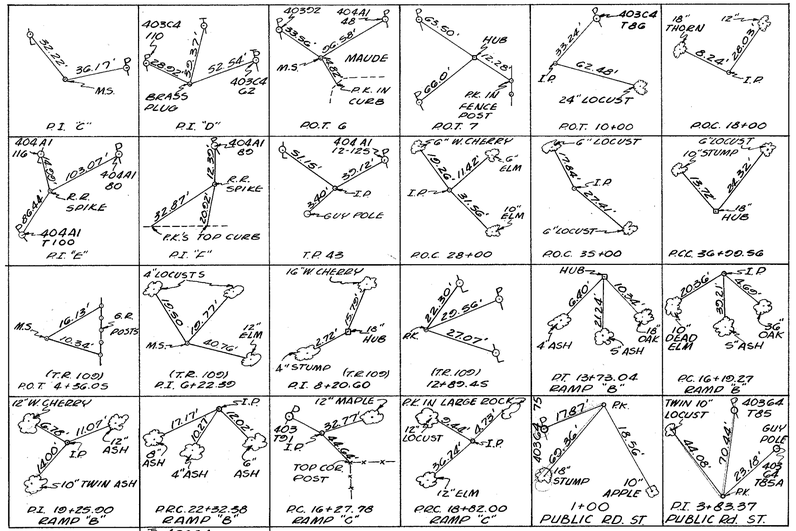
26/560

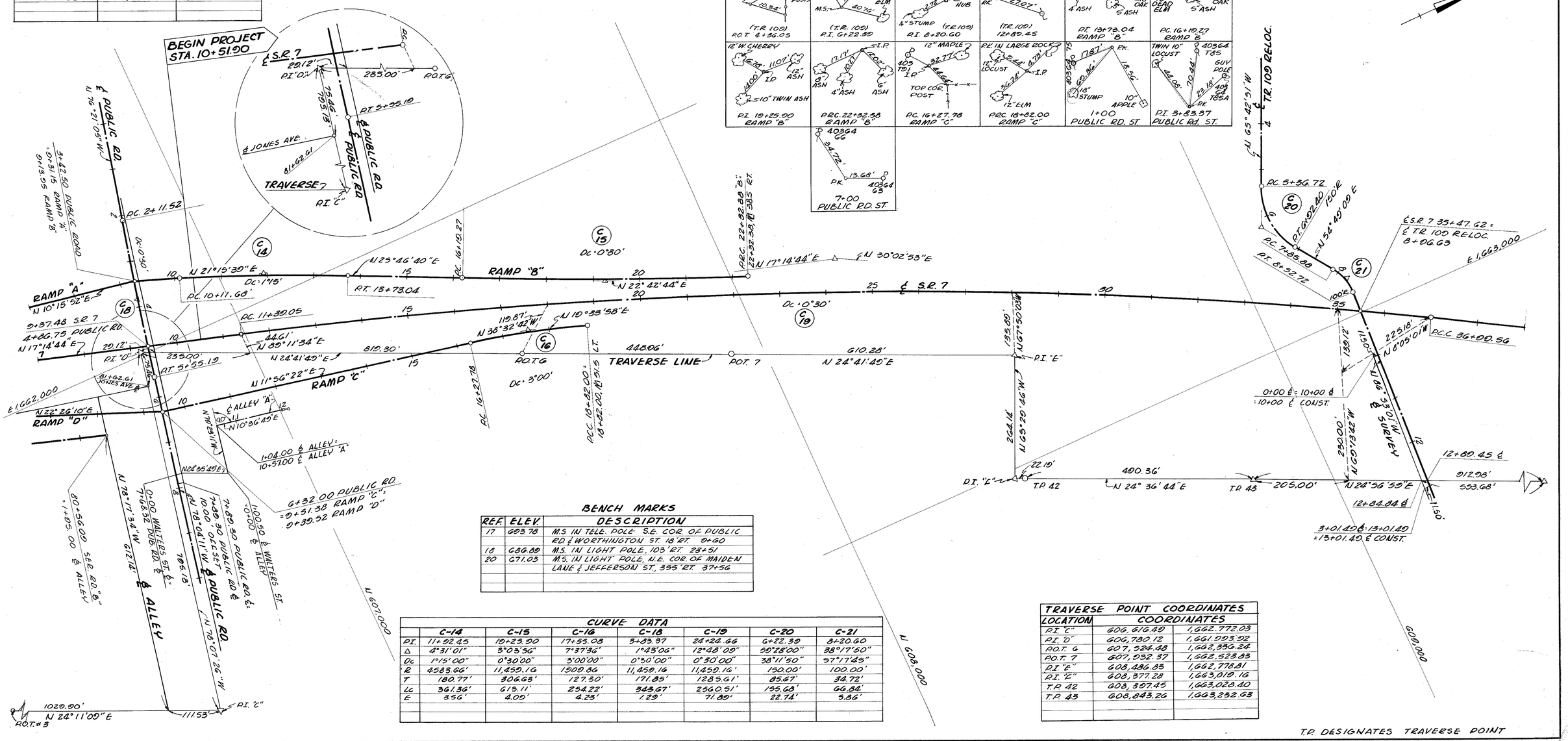
JEFFERSON COUNTY
JEF.-7-0.20

CONTROL POINT COORDINATES		
LOCATION	COORDINATES	
S.R. 7	N.	E.
P.C. 11+30.05	606,993.00	1,662,047.51
P.I. 24+24.66	608,220.81	1,662,428.65
P.C.C. 36+00.56	609,333.64	1,663,072.38
T.R. 109 RELOC.		
P.C. 5+36.72	609,117.01	1,662,665.77
P.I. 6+22.39	609,082.67	1,662,743.86
P.T. 6+92.40	609,132.03	1,662,813.88
P.C. 7+85.88	609,185.89	1,662,890.28
P.I. 8+20.60	609,205.89	1,662,918.66
P.T. 8+52.72	609,204.01	1,662,953.33
RAMP "B"		
P.C. 10+11.68	606,923.07	1,661,882.43
P.I. 11+92.45	607,091.55	1,661,947.08
P.T. 13+73.04	607,254.32	1,662,026.60
P.C. 16+19.27	607,476.04	1,662,133.68
P.I. 19+25.90	607,752.16	1,662,267.03
P.R.C. 22+32.38	608,035.01	1,662,385.41

CONTROL POINT COORDINATES		
LOCATION	COORDINATES	
RAMP "C"	N.	E.
P.C. 16+27.78	607,431.00	1,662,260.73
P.I. 17+55.08	607,556.53	1,662,206.06
P.C.C. 18+82.00	607,676.48	1,662,338.70
PUBLIC RD.		
P.C. 2+11.52	606,382.17	1,661,710.51
P.I. 3+83.37	606,821.62	1,661,886.51
P.T. 5+55.10	606,786.10	1,662,054.65
INTER. 3+42.50	606,831.00	1,661,840.92
INTER. 6+32.00	606,770.22	1,662,120.80

REFERENCES





BENCH MARKS

REF.	ELEV.	DESCRIPTION
17	603.78	M.S. IN TELE. POLE S.E. COR. OF PUBLIC RD. & WORTHINGTON ST. 18' RT. 9+60
18	686.89	M.S. IN LIGHT POLE, 103' RT. 23+51
20	671.03	M.S. IN LIGHT POLE, N.E. COR. OF MAIDEN LANE & JEFFERSON ST, 355' RT. 37+56

CURVE DATA

	C-14	C-15	C-16	C-18	C-19	C-20	C-21
P.I.	11+92.45	19+25.90	17+55.08	3+83.37	24+24.66	G+32.39	8+20.60
Δ	4°31'01"	3°03'56"	7°37'36"	1°43'06"	12°48'09"	56°28'00"	38°17'50"
Dc	1°15'00"	0°30'00"	3°00'00"	0°30'00"	0°30'00"	38°11'50"	57°17'45"
R	4583.66'	11,459.16	1909.86	11,459.16	11,459.16'	150.00'	100.00'
T	180.77'	306.65'	127.30'	171.85'	1283.61'	85.67'	34.72'
LC	361.36'	613.11'	254.22'	343.67'	2560.51'	155.68'	66.84'
E	3.56'	4.00'	4.23'	1.29'	71.80'	22.71'	5.86'

TRAVERSE POINT COORDINATES		
LOCATION	COORDINATES	
P.I. "C"	606,616.49	1,662,772.03
P.I. "D"	606,780.12	1,661,093.92
P.O.T. 6	607,524.48	1,662,356.24
P.O.T. 7	607,052.37	1,662,523.83
P.I. "E"	608,486.85	1,662,778.81
P.I. "F"	608,377.28	1,663,019.16
T.P. 42	608,307.45	1,663,028.40
T.P. 43	608,843.26	1,663,232.63

T.P. DESIGNATES TRAVERSE POINT

CONSTRUCTION LAYOUT 7+00 to 39+00

FED. RD. DIVISION	STATE	PROJECT	
2	OHIO		

27
560

JEFFERSON COUNTY
JEF.-7-0.20

CURVE DATA

	C-22	C-23	C-24	C-25	C-26
PI	40+53.55	64+52.46	63+42.39	50+76.73	66+15.24
Δ	5°18'21"	0°06'05"	11°21'13"	6°54'08"	15°52'06"
Dc	0°45'	1°00'00"	4°00'00"	2°00'00"	3°00'00"
R	7639.44'	5729.58'	1432.39'	2864.79'	1909.86'
T	353.09'	456.04'	142.39'	172.77'	266.17'
Lc	707.47'	910.16'	283.84'	345.11'	528.04'
E	8.20'	18.12'	7.06'	5.20'	18.46'

BENCH MARKS

REF.	ELEV.	DESCRIPTION
21	669.58	M.S. IN LIGHT POLE S.E. COR. SOUTH ST.
		& JEFFERSON ST. 220' RT. 45+79.
23	665.17	M.S. IN LIGHT POLE N.W. COR. VIRGINIA ST.
		& WILLIAMS ST., 537' RT. 55+62.
23-A	669.81	M.S. IN POWER POLE, 54' RT. 61+89.
24	674.79	M.S. IN TEL. POLE, SE COR. OF FARM LANE &
		WILLIAMS ST., 380' RT. 69+60.50.

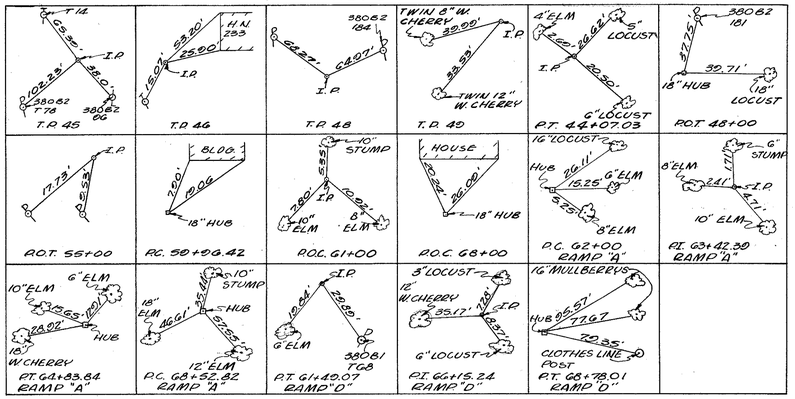
CONTROL POINT COORDINATES

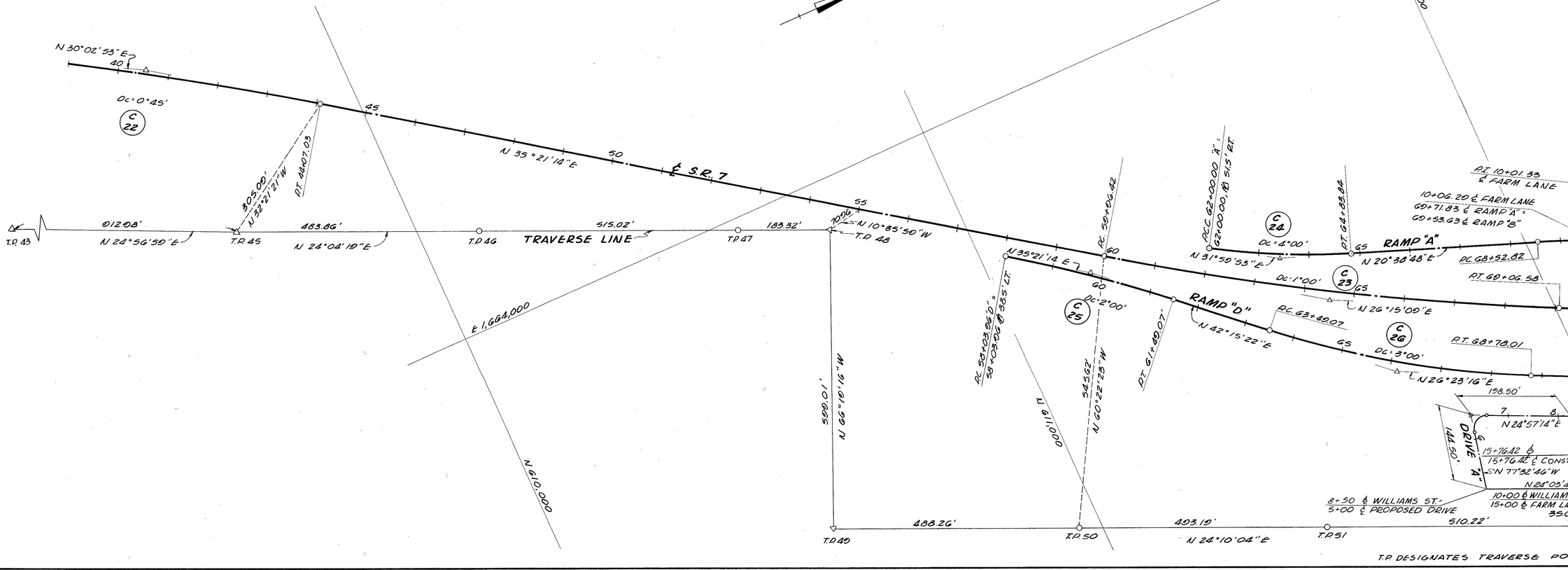
LOCATION	COORDINATES N.	E.
S.R. 7		
P.C.C. 36+00.56	609,333.64	1,663,072.38
P.I. 40+53.55	609,640.05	1,663,249.64
P.T. 44+07.03	609,928.76	1,663,454.46
P.C. 50+06.42	611,225.06	1,664,374.12
P.I. 64+52.46	611,507.00	1,664,638.00
P.T. 69+06.58	612,006.00	1,664,830.72
FARM LANE INTER.		
RAMP "A"		
P.C.C. 62+00.00	611,421.44	1,664,445.02
P.I. 63+42.39	611,542.20	1,664,521.37
P.T. 64+83.84	611,675.43	1,664,571.57
P.C. 68+52.82	612,020.72	1,664,701.66
RAMP "D"		
P.C. 58+03.96	611,045.81	1,664,294.17
P.I. 59+76.73	611,186.72	1,664,394.14
P.T. 61+49.07	611,314.59	1,664,510.31
P.C. 63+49.07	611,462.62	1,664,644.80
P.I. 66+15.24	611,659.63	1,664,823.70
P.T. 68+78.01	611,898.06	1,664,942.09

TRAVERSE POINT COORDINATES

LOCATION	COORDINATES N.	E.
T.P. 45	609,671.04	1,663,617.74
T.P. 46	610,112.82	1,663,815.10
T.P. 47	610,583.05	1,664,025.17
T.P. 48	610,750.43	1,664,099.04
T.P. 49	610,309.86	1,664,648.52
T.P. 50	610,055.33	1,664,848.42
T.P. 51	611,405.20	1,665,050.34

REFERENCES





CONSTRUCTION LAYOUT 39+00 to 70+00

FED. RD. DIVISION	STATE	PROJECT	
2	OHIO		

28/560

JEFFERSON COUNTY
JEF.-7-0.20

CURVE DATA

	C-27	C-28	C-29	C-30	C-31	C-32	C-33	C-34
P.I.	10+01.33	81+22.02	13+26.77	80+64.10	84+17.41	45+65.67	47+18.18	50+61.00
Δ	5°31'35"	17°30'49"	13°15'25"	12°04'16"	35°33'07"	25°37'00"	24°00'00"	25°50'04"
Dc	4°00'00"	2°00'00"	4°00'00"	7°00'00"	3°00'	30°00'00"	30°00'00"	30°00'00"
R	1432.39'	2864.79'	1432.39'	818.51'	1900.86'	190.99'	190.99'	190.99'
Lc	138.16'	883.18'	331.42'	172.44'	718.41'	85.39'	80.00'	66.67'
Ls					400.00'			
T	110.39'	445.12'	166.45'	86.54'		43.42'	40.50'	33.68'
Ts					776.73'			
Θs					6°00'			
E	4.06'	34.37'	0.64'	4.56'		4.87'	4.27'	2.95'
Es					88.54'			
Xc					300.56'			
Yc					13.05'			

BENCH MARKS

REF.	ELEV.	DESCRIPTION
22	682.87	M.S. IN POWER POLE, 4' LT. 73+50
25	677.09	M.S. IN TELE. POLE, 434' RT. 80+21.50.
26	670.41	M.S. IN POWER POLE, 44' RT. 89+64
27	673.83	M.S. IN TELE. POLE, 135' LT. 96+18.

CURVE DATA

	C-35	C-36
P.I.	91+08.60	95+15.77
Δ	22°50'04"	36°33'30"
Dc	30°00'00"	12°00'00"
R	190.99'	477.47'
Lc	99.45'	304.67'
T	50.04'	157.73'
E	6.23'	25.37'

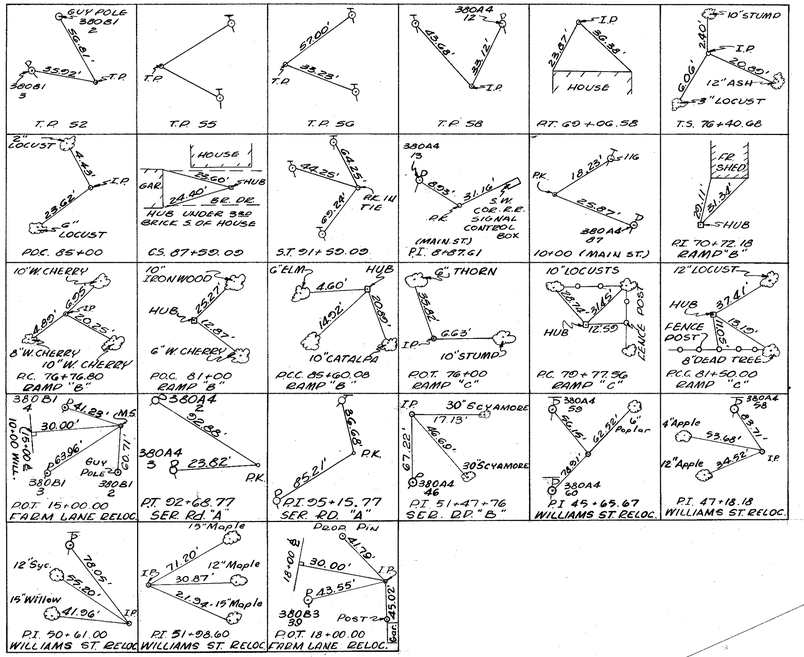
TRAVERSE POINT COORDINATES

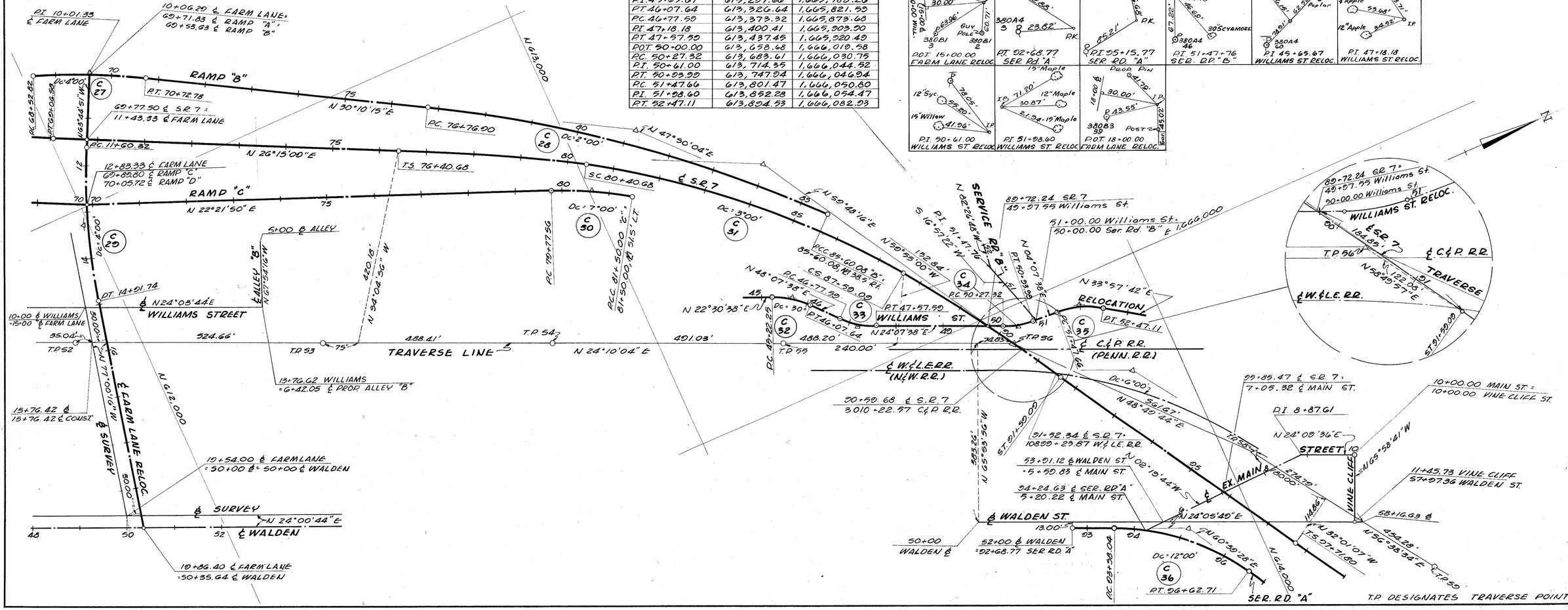
LOCATION	COORDINATES N.	E.
T.P. 52	611,870.70	1,665,253.23
T.P. 53	612,349.46	1,663,474.03
T.P. 54	612,795.06	1,665,673.09
T.P. 55	613,243.05	1,665,875.02
T.P. 56	613,688.46	1,666,074.89
T.P. 58	614,058.22	1,666,407.60

CONTROL POINT COORDINATES

LOCATION	COORDINATES N.	E.
S.R.7		
T.S. 76+40.68	612,664.39	1,665,164.43
S.C. 80+40.68	613,016.56	1,665,353.68
P.I. 84+17.41	613,361.00	1,665,508.00
C.S. 87+50.00	613,538.64	1,665,841.01
S.T. 91+50.00	613,751.66	1,666,170.34
FARM LANE INTER. RAMP "B"		
P.T. 70+72.78	612,235.60	1,664,803.73
P.C. 76+76.00	612,757.88	1,665,107.85
P.I. 81+22.02	613,182.70	1,665,351.06
P.C.C. 85+60.08	613,441.50	1,665,660.08
RAMP "C"		
P.C. 70+77.96	612,025.04	1,665,374.60
P.I. 80+64.10	613,005.97	1,665,407.61
P.C.C. 81+50.00	613,077.35	1,665,456.55
FARM LANE EXT.		
P.I. 10+01.33	612,132.41	1,664,743.74
P.C. 11+60.32	612,062.09	1,664,886.33
P.I. 13+26.77	611,988.46	1,665,035.62
P.T. 14+01.74	611,951.03	1,665,197.81
POT. 10+86.40	611,830.79	1,665,679.80
POT. 10+06.29	612,130.22	1,664,748.20
P.O.C. 12+83.33	612,012.48	1,664,998.85
SER. RD. "A"		
P.C. 93+58.04	613,722.44	1,666,524.08
P.I. 95+15.77	613,866.43	1,666,588.47
P.T. 96+62.71	613,943.71	1,666,725.96
WILLIAMS ST. RELOC.		
P.C. 43+22.25	613,257.55	1,665,772.64
P.I. 43+65.67	613,297.66	1,665,780.26
P.T. 46+07.64	613,326.64	1,665,821.55
P.C. 46+77.59	613,373.32	1,665,873.68
P.I. 47+18.18	613,400.41	1,665,903.50
P.T. 47+57.50	613,437.45	1,665,920.49
POT. 50+00.00	613,658.68	1,666,010.58
P.C. 50+27.32	613,683.61	1,666,030.75
P.T. 50+61.00	613,714.35	1,666,044.52
P.T. 50+03.39	613,747.04	1,666,046.04
P.C. 51+47.66	613,801.47	1,666,050.80
P.I. 51+08.60	613,852.28	1,666,054.47
P.T. 52+47.11	613,894.53	1,666,082.93

REFERENCES





CONSTRUCTION LAYOUT 70+00 to 97+00

FED. RD. DIVISION	STATE	PROJECT	
2	OHIO		

29/560

JEFFERSON COUNTY
JEF.-7-0.20

CURVE DATA

	C-35	C-36	C-37	C-38	C-39
P.I.	105+11.79	126+48.25	104+24.47	123+43.23	128+03.58
Δ	36°25'50"	12°03'25"	35°50'42"	6°27'11"	20°02'32"
Dc	3°30'00"	1°00'	3°00'	1°30'	3°00'
R.	1637.02'	5729.58'	1900.86'	3819.72'	1900.86'
Lc.	640.95	1205.70'	1190.85'	430.20'	668.07'
Ls.	400.00'				
T.		605.08'	620.46'	215.33'	337.48'
T.S.	730.00'				
θs	7°00'				
E.		31.86'	98.26'	6.06'	29.50'
Es.	20.66'				
Xc.	309.40'				
Yc.	16.27'				

BENCH MARKS

REF.	ELEV	DESCRIPTION
28	663.00	MS IN TELE. POLE, 128' LT. 107+24.
29	652.50	MS IN TELE. POLE, 170' LT. 122+05.

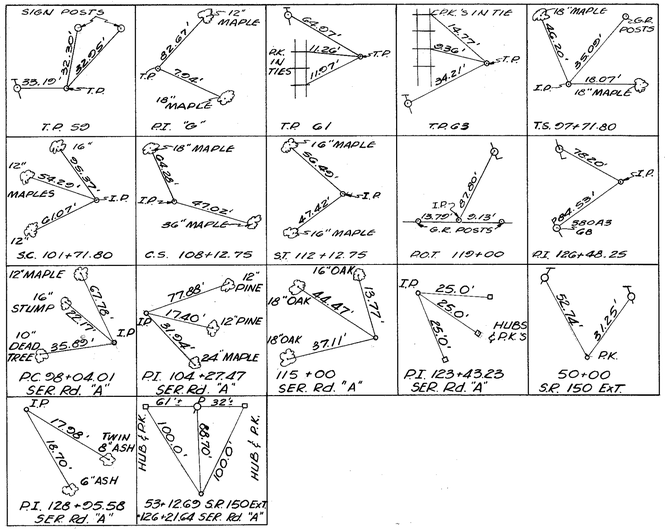
CONTROL POINT COORDINATES

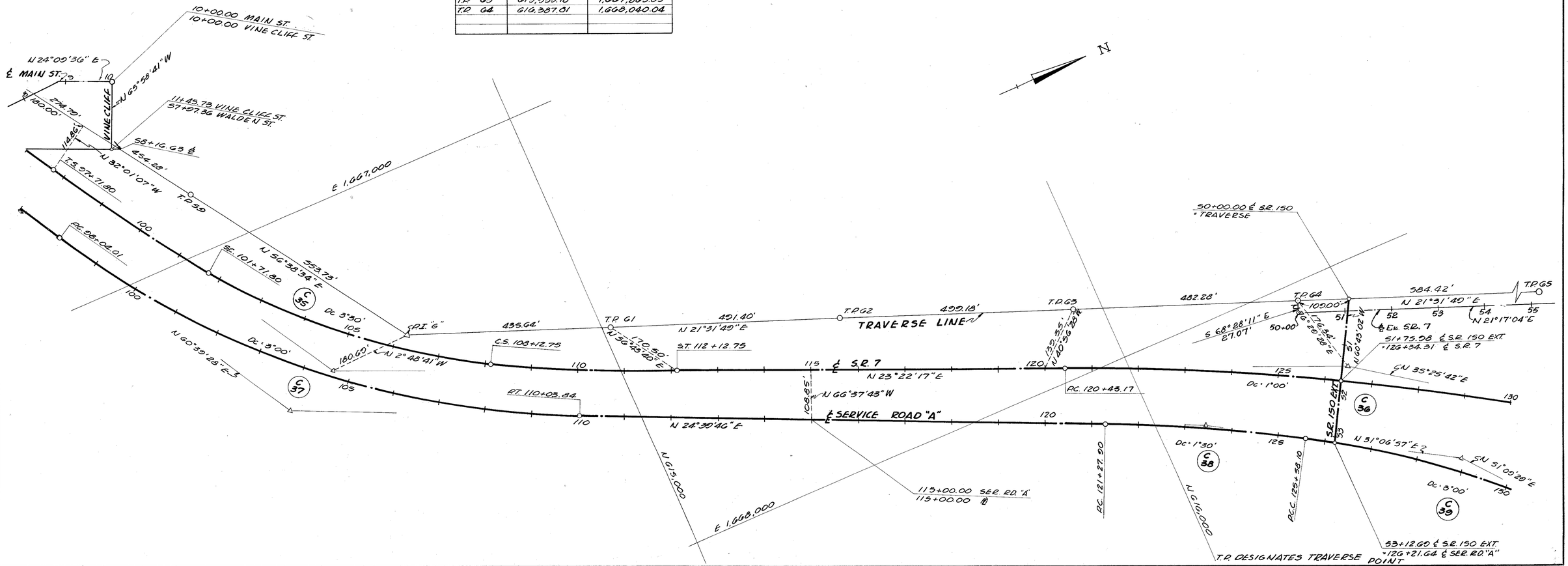
LOCATION	COORDINATES	
S.R. 7	N.	E.
T.S. 97+71.80	614,050.81	1,666,708.93
S.C. 101+71.80	614,274.75	1,667,045.96
P.I. 105+11.79	614,432.00	1,667,348.50
C.S. 108+12.75	614,751.08	1,667,468.69
S.T. 112+12.75	615,111.26	1,667,642.07
P.C. 120+43.17	615,873.55	1,667,971.49
P.I. 126+48.25	616,420.00	1,668,211.50
SER. RD. "A"		
P.C. 98+04.01	614,012.95	1,666,843.13
P.I. 104+24.47	614,317.00	1,667,350.00
P.T. 110+03.84	614,880.85	1,667,648.89
P.C. 121+27.90	615,902.38	1,668,117.52
P.I. 123+43.23	616,058.07	1,668,207.79
P.C.C. 125+58.10	616,282.41	1,668,319.05
P.I. 128+05.58	616,371.34	1,668,403.47
S.R. 150 EXT.		
P.O.T. 50+00.00	616,489.20	1,668,080.05
P.O.T. 53+12.69	616,336.26	1,668,352.78

TRAVERSE POINT COORDINATES

LOCATION	COORDINATES	
	N.	E.
T.P. 50	614,308.00	1,666,877.13
P.I. "6"	614,612.48	1,667,335.64
T.P. 61	615,017.72	1,667,409.51
T.P. 62	615,474.85	1,667,678.85
T.P. 63	615,939.18	1,667,853.05
T.P. 64	616,387.51	1,668,040.04

REFERENCES





CONSTRUCTION LAYOUT 97+00 to 130+00

FED. RD. DIVISION	STATE	PROJECT	
2	OHIO		

30/560

JEFFERSON COUNTY
JEF. - 7-0.20

CURVE DATA

	C-40	C-41	C-42	C-43	C-44	C-45	C-46	C-47	C-48
P.I.	145+04.27	51+26.36	137+31.60	142+26.30	143+02.86	146+06.02	140+81.38	136+67.71	140+87.14
Δ	6°45'28"	11°34'11"	14°59'21"	88°18'02"	25°44'46"	11°20'44"	57°55'16"	10°11'50"	48°32'27"
Dc	1°15'	7°00'	5°00'	28°00'	28°00'	4°00'	28°00'	4°00'	28°00'
R.	4583.66'	818.51'	1909.86'	204.63'	204.63'	1432.39'	204.63'	1432.39'	204.63'
Lc.	540.64'	165.28'	499.64'	115.12'	51.95'	283.64'	206.86'	254.09'	173.36'
Ls				200.00'					
T.	270.65'	82.92'	251.25'		46.77'	142.28'	113.24'	127.83'	92.27'
Ts				305.45'					
Θs				28°00'					
E	7.98'	4.18'	16.46'		5.28'	7.05'	20.25'	3.69'	10.84'
Es				51.64'					
Xc.				195.28'					
Yc.				32.03'					
L.T.				135.04'					
S.T.				68.22'					

SPIRAL DATA

	S-1	S-2	S-3	S-4
P.I.	141+97.73	144+32.02	142+43.22	130+22.84
Ls	200'	200'	200'	200'
Δ/2 Δs		32°00'		32°00'
T1		127.07'		127.07'
T2		77.38'		77.38'
Ps		6.04'		6.04'
Θs	28°00'	24°00'	28°00'	24°00'
L.T.	135.04'		135.04'	
S.T.	68.22'		68.22'	

CURVE DATA

	C-41-A
PI	56+72.27
Δ	71°34'11"
Dc	25°00'
R	229.18'
Lc	286.27'
T	165.20'
E	53.33'

TRAVERSE POINT COORDINATES

LOCATION	COORDINATES N.	E.
T.P. 65	616,031.45	1,668,254.52
T.P. 66	617,300.01	1,668,435.43
T.P. 67	617,837.74	1,668,612.07
T.P. 68	618,013.19	1,668,681.22
T.P. 69	618,410.26	1,669,089.07
T.P. 70	618,703.08	1,669,380.79
P.I. "H"	619,168.42	1,669,777.01

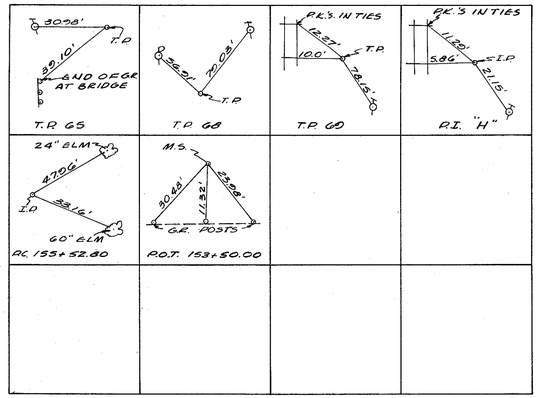
CONTROL POINT COORDINATES

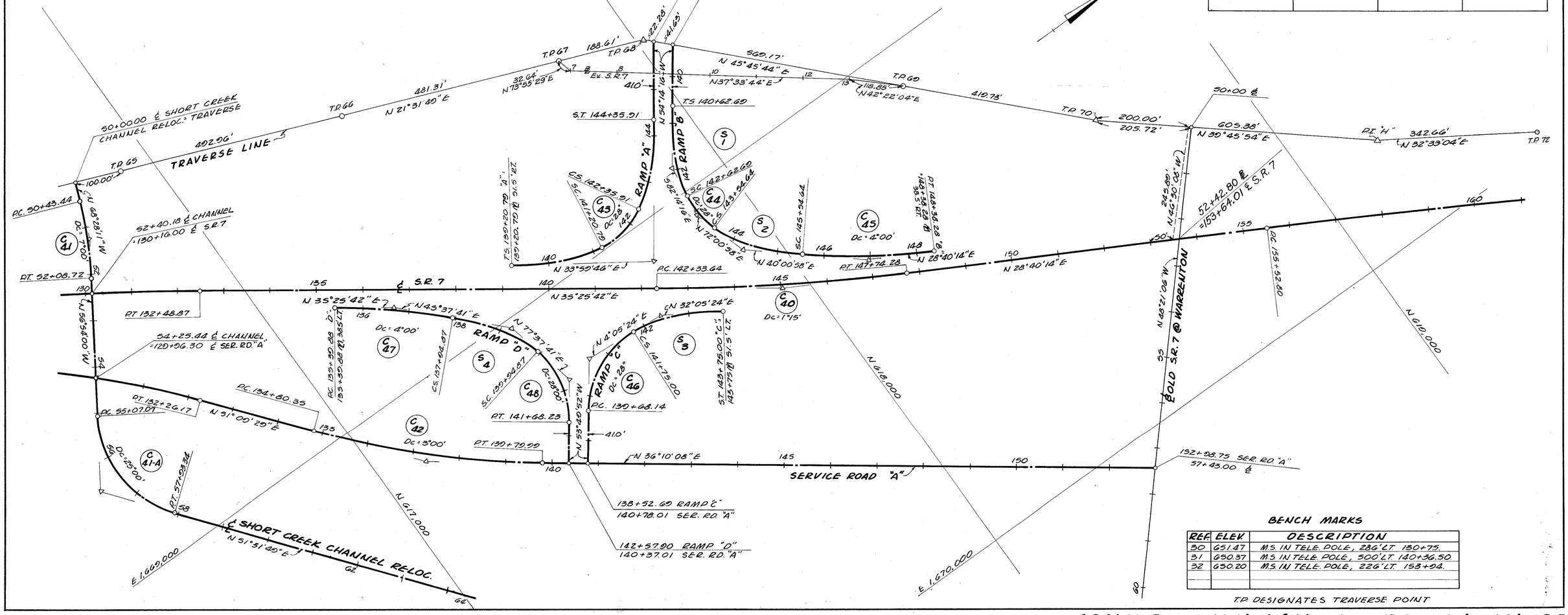
LOCATION	COORDINATES N.	E.
S.R. 7		
P.T. 132+48.87	616,022.03	1,668,562.28
P.C. 142+33.64	617,724.46	1,669,133.14
P.I. 145+04.27	617,045.00	1,669,200.00
P.T. 147+74.28	618,182.43	1,669,410.87
P.C. 155+52.80	618,865.50	1,669,793.38
SHORT CREEK CHANNEL RELOC.		
P.O.T. 50+00.00	616,838.43	1,668,217.82
P.C. 50+43.44	616,822.49	1,668,258.23
P.I. 51+26.36	616,792.06	1,668,335.36
(See continuation for additional points.)		
SER. RD. "A"		
P.T. 132+26.17	616,783.01	1,668,756.30
P.C. 134+80.35	616,842.42	1,668,954.28
P.I. 137+31.60	617,100.00	1,669,150.00
P.T. 139+79.99	617,302.84	1,669,298.25
P.O.T. 152+98.75	618,367.46	1,670,076.53
S.R. 130 INTER. RAMP "A"		
P.T. 130+20.79	617,499.39	1,668,909.83
S.C. 141+20.79	617,679.19	1,668,992.46
P.I. 142+26.24	617,752.63	1,669,080.61
C.S. 142+35.91	617,791.04	1,668,972.49
S.T. 144+35.01	617,931.15	1,668,832.76

CONTROL POINT COORDINATES

LOCATION	COORDINATES N.	E.
RAMP "B"		
T.S. 140+62.60	617,981.37	1,668,833.16
P.I. 141+97.73	617,902.45	1,668,942.74
S.C. 142+62.60	617,893.23	1,669,010.33
P.I. 143+09.46	617,886.02	1,669,056.68
C.S. 143+54.64	617,901.36	1,669,101.16
P.I. 144+32.02	617,925.25	1,669,174.76
S.C. 145+54.64	618,023.26	1,669,257.04
P.I. 146+06.02	618,132.22	1,669,348.93
P.T. 148+38.28	618,257.06	1,669,416.79
RAMP "C"		
P.C. 130+68.14	617,450.10	1,669,262.89
P.I. 140+81.38	617,316.93	1,669,171.47
C.S. 141+75.00	617,629.88	1,669,170.55
P.I. 142+43.22	617,697.93	1,669,184.42
S.T. 143+75.00	617,812.34	1,669,256.15
RAMP "D"		
P.C. 135+32.88	617,136.84	1,668,762.35
P.I. 136+67.71	617,241.00	1,668,836.45
C.S. 137+02.87	617,330.39	1,668,927.82
P.I. 139+22.84	617,410.88	1,669,018.30
S.C. 139+94.87	617,436.46	1,669,084.88
P.I. 140+87.14	617,456.23	1,669,185.01
P.T. 141+68.23	617,401.78	1,669,239.50

REFERENCES





BENCH MARKS

REF.	ELEV.	DESCRIPTION
30	651.47	M.S. IN TELE. POLE, 286' LT. 130+75.
31	650.37	M.S. IN TELE. POLE, 300' LT. 140+36.50.
32	650.20	M.S. IN TELE. POLE, 226' LT. 153+94.

T.P. DESIGNATES TRAVERSE POINT

CONSTRUCTION LAYOUT 130+00 to 161+00

FED. RD. DIVISION	STATE	PROJECT	
2	OHIO		

31/560

JEFFERSON COUNTY
JEF.-7-0.20

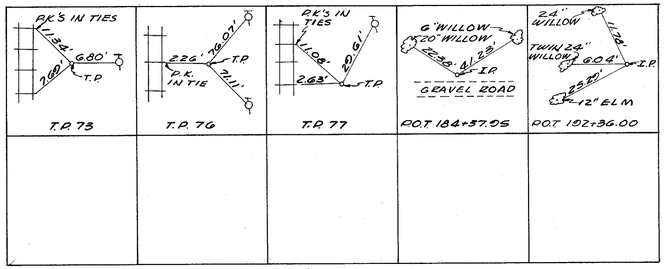
CURVE DATA

	C-49
P.I.	165+60.88
Δ	5°02'15"
Dc	0°15'
R.	22,918.31'
T.	1008.08'
Lc	2014.86'
E.	22.15'

CONTROL POINT COORDINATES

LOCATION	COORDINATES	
S.R.7	N.	E.
P.I. 165+60.88	619,750.00	1,670,277.00
P.T. 175+67.66	620,588.58	1,670,836.47
P.O.T. 190+00.00	621,780.12	1,671,631.36

REFERENCES

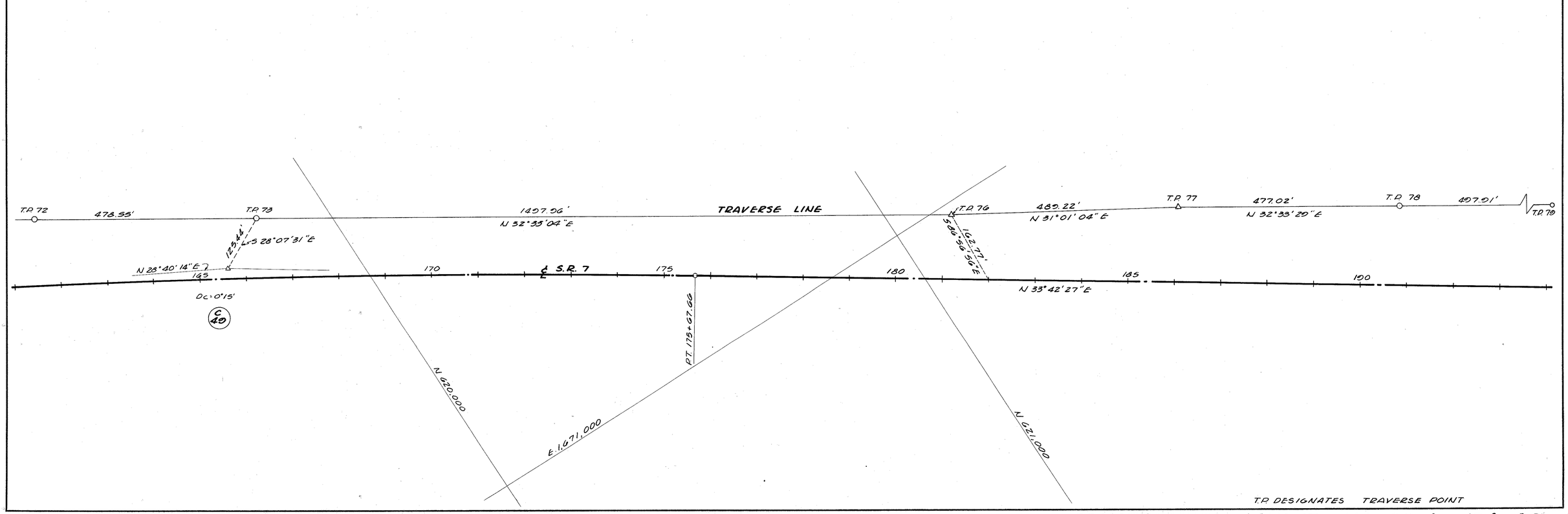


BENCH MARKS

REF.	ELEV.	DESCRIPTION
33	648.28	M.S. IN TELE. POLE, 138' LT. 161+11.50
34	652.53	M.S. IN TELE. POLE, 118' LT. 171+36
35	650.28	M.S. IN TELE. POLE, 138' LT. 183+31
36	658.03	M.S. IN TELE. POLE, 218' LT. 191+16

TRAVERSE POINT COORDINATES

LOCATION	COORDINATES	
	N.	E.
T.P. 72	619,457.25	1,669,961.38
T.P. 73	619,860.63	1,670,218.87
T.P. 76	621,123.28	1,671,024.85
T.P. 77	621,342.54	1,671,276.04
T.P. 78	621,944.60	1,671,533.65



T.P. DESIGNATES TRAVERSE POINT

CONSTRUCTION LAYOUT 161+00 to 194+00

FED. RD. DIVISION	STATE	PROJECT	
2	OHIO		

32
560

JEFFERSON COUNTY
JEF.-7-0.20

CURVE DATA

	C-50	C-51	C-52	C-53	C-54	C-55	C-56	C-57
P.I.	202+25.02	208+52.57	210+53.87	225+48.23	196+64.46	202+40.88	213+77.08	220+04.45
Δ	5°00'00"	4°25'56"	6°15'47"	6°31'15"	6°16'19"	6°16'19"	4°25'56"	5°00'00"
Dc.	1°30'	1°00'	2°00'	1°30'	1°30'	2°00'	1°00'	1°30'
R.	3810.72'	5720.58'	2864.79'	3810.72'	3819.72'	2864.79'	5720.58'	3810.72'
T.	100.02'	221.72'	156.75'	217.60	209.27'	156.96'	221.72'	100.02'
Lc	200.00'	443.22'	313.15'	434.72'	418.13'	313.60'	443.22'	200.00'
E.	1.31'	4.29'	4.28'	6.10'	5.75'	4.30'	4.29'	1.31'

BENCH MARKS

REF.	ELEV.	DESCRIPTION
37	660.73	M.S. IN TELE. POLE, 232' LT. 200+32
38	666.18	M.S. IN TELE. POLE, 200' LT. 210+00
39	657.08	M.S. IN TELE. POLE, 318' LT. 220+17

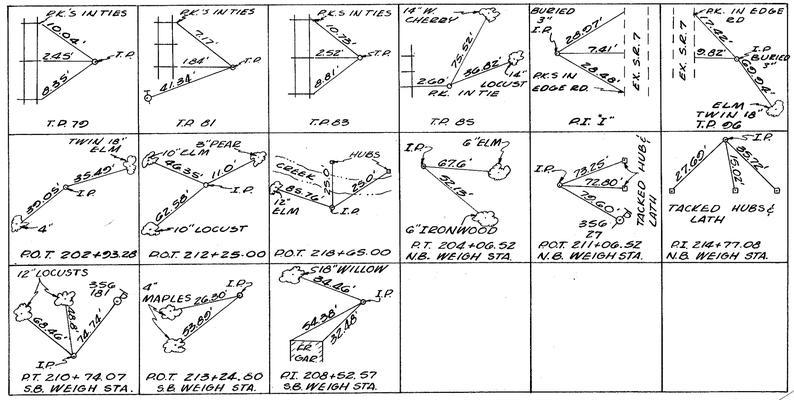
TRAVERSE POINT COORDINATES

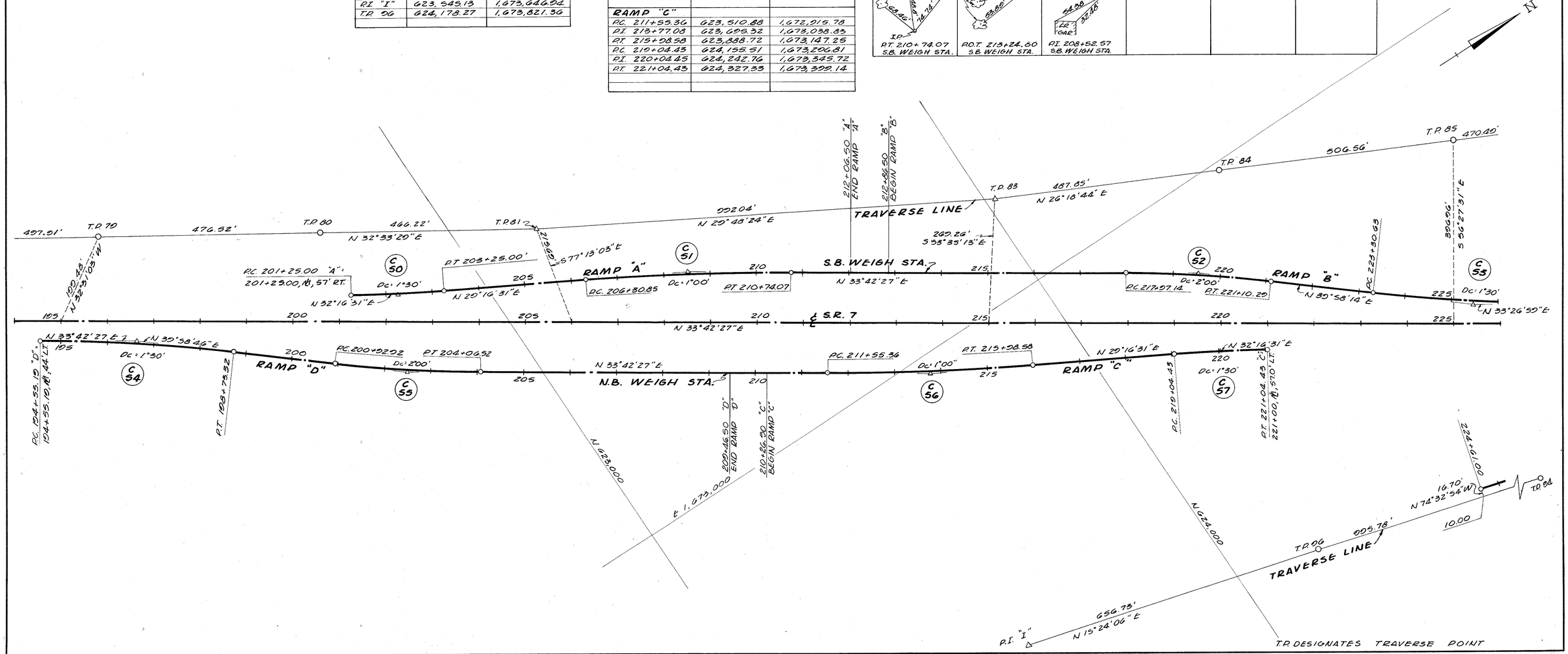
LOCATION	COORDINATES N.	E.
T.P. 70	622,364.26	1,671,301.61
T.P. 80	622,705.80	1,672,058.05
T.P. 81	623,158.85	1,672,308.04
T.P. 83	624,010.65	1,672,802.06
T.P. 84	624,456.05	1,673,018.31
T.P. 85	624,911.03	1,673,242.85
P.I. "I"	623,545.13	1,673,646.94
T.P. 06	624,178.27	1,673,821.36

CONTROL POINT COORDINATES

LOCATION	COORDINATES N.	E.
S.R. 7		
P.O.T. 193+00.00	622,196.06	1,671,908.83
P.O.T. 225+00.00	624,691.69	1,673,373.70
S.B. WEIGH STA.		
RAMP "A"		
P.C. 201+25.00	622,747.61	1,672,208.27
P.I. 202+25.02	622,832.18	1,672,261.67
P.T. 203+25.00	622,910.43	1,672,310.50
P.C. 206+30.85	623,186.22	1,672,460.15
P.I. 208+52.57	623,370.62	1,672,568.57
P.T. 210+74.07	623,564.06	1,672,691.62
RAMP "B"		
P.C. 217+97.14	624,165.57	1,673,092.80
P.I. 219+53.87	624,295.95	1,673,179.87
P.T. 221+10.20	624,414.07	1,673,280.55
P.C. 223+30.63	624,584.03	1,673,422.09
P.I. 225+48.23	624,751.70	1,673,561.88
P.T. 227+65.35	624,933.25	1,673,681.81
N.B. WEIGH STA.		
RAMP "D"		
P.C. 194+55.19	622,134.36	1,671,920.57
P.I. 196+64.46	622,308.45	1,672,038.70
P.T. 198+73.32	622,468.81	1,672,171.17
P.C. 200+82.02	622,637.09	1,672,312.26
P.I. 202+40.88	622,757.36	1,672,413.11
P.T. 204+06.52	622,887.93	1,672,500.21
RAMP "C"		
P.C. 211+55.36	623,510.88	1,672,015.78
P.I. 213+77.08	623,695.32	1,673,038.83
P.T. 215+08.58	623,888.72	1,673,147.25
P.C. 219+04.45	624,155.51	1,673,290.81
P.I. 220+04.45	624,242.76	1,673,345.72
P.T. 221+04.45	624,327.33	1,673,399.14

REFERENCES





CONSTRUCTION LAYOUT 194+00 to 226+00

FED. RD. DIVISION	STATE	PROJECT	
2	OHIO		

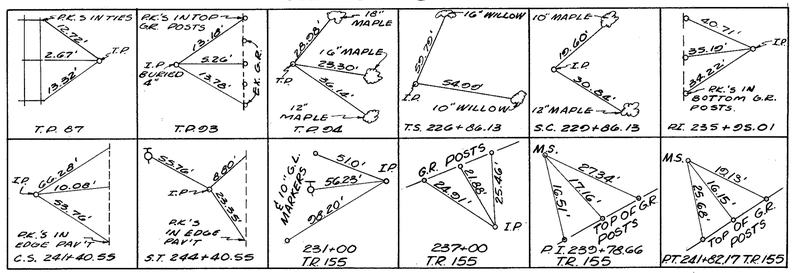
33
560

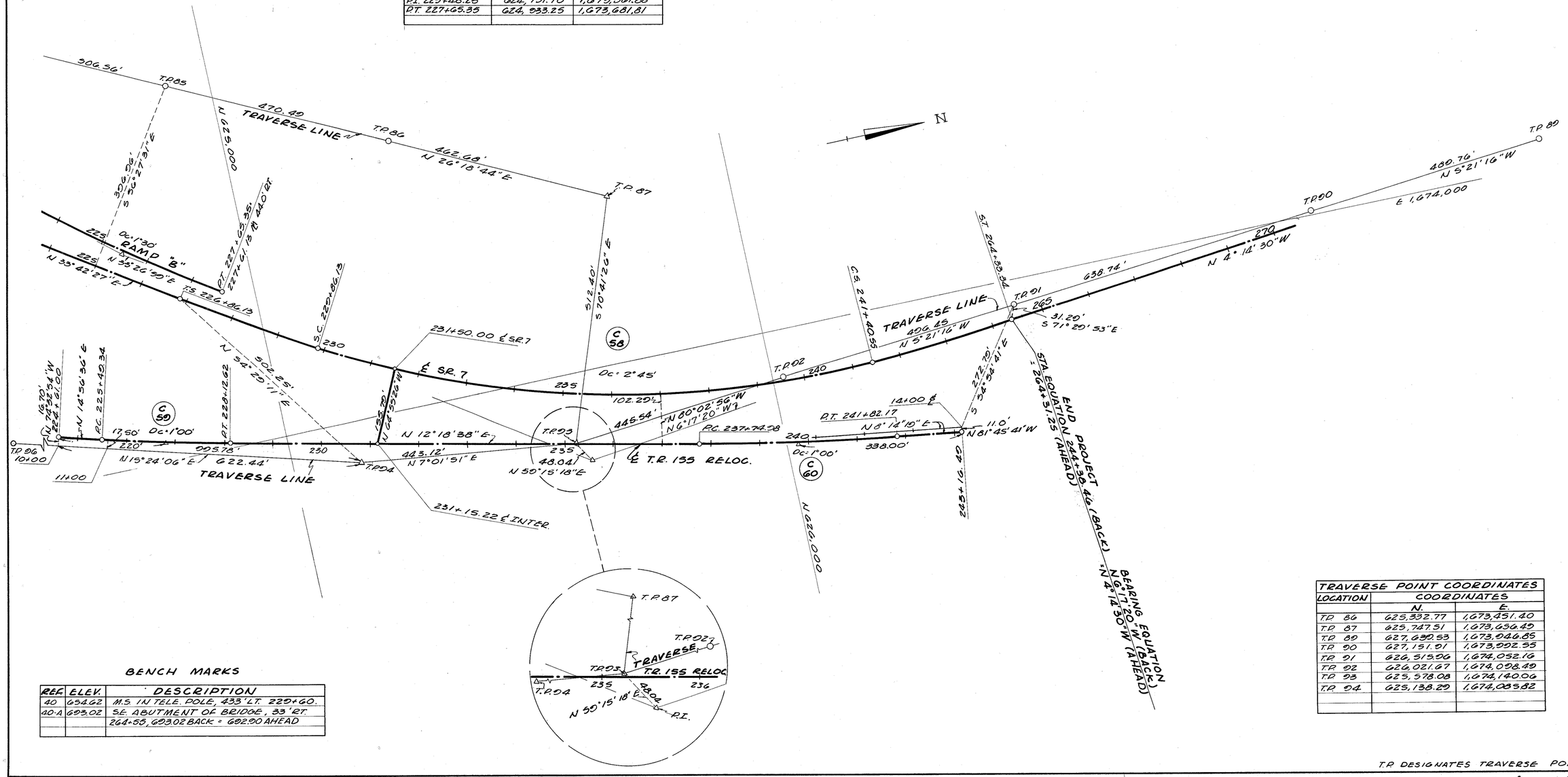
JEFFERSON COUNTY
JEF.-7-0.20

CURVE DATA			
	C-58	C-59	C-60
PI.	235+05.01	226+81.00	230+78.66
Δ	30°55'47"	2°37'58"	4°04'19"
Dc	2°45'	1°00'	1°00'
R.	2083.48'	5720.58'	5720.58'
Lc	1134.42'	263.28'	407.19'
Ls	300'		
T.		131.66'	203.68
Ts	008.83'		
Θs	4°07'30"		
E		1.51'	3.62'
Es	139.60'		
Xc	209.84'		
Yc	7.15'		

CONTROL POINT COORDINATES		
LOCATION	COORDINATES	
S.R. 7	N.	E.
T.S. 226+86.13	624,846.53	1,673,677.00
S.C. 220+86.13	625,000.96	1,673,837.41
POT 231+50.00	625,245.50	1,673,912.65
P.I. 235+05.01	625,602.64	1,674,181.35
C.S 241+40.55	626,207.20	1,674,107.52
S.T. 264+33.34	626,506.03	1,674,081.83
T.R. 155 RELOC.		
P.C. 225+40.34	624,627.00	1,673,927.19
P.I. 226+81.00	624,755.20	1,673,961.14
P.T. 228+12.62	624,883.84	1,673,989.21
POT. 231+15.22	625,179.48	1,674,055.73
P.C. 237+74.08	625,824.07	1,674,194.40
P.I. 239+78.66	626,023.07	1,674,237.83
P.T. 241+82.17	626,224.64	1,674,267.01
POT. 243+16.49	626,357.38	1,674,286.26
RAMP "B"		
P.I. 225+48.28	624,751.70	1,673,561.88
P.T. 227+65.35	624, 933.25	1,673,681.81

REFERENCES





TRAVERSE POINT COORDINATES		
LOCATION	COORDINATES	
	N.	E.
T.P. 86	625,332.77	1,673,451.40
T.P. 87	625,747.51	1,673,656.49
T.P. 89	627,690.53	1,673,046.85
T.P. 90	627,151.01	1,673,092.35
T.P. 91	626,515.96	1,674,052.16
T.P. 92	626,021.67	1,674,098.49
T.P. 93	625,578.08	1,674,140.06
T.P. 94	625,138.29	1,674,083.82

BENCH MARKS

REF.	ELEV.	DESCRIPTION
40	634.62	M.S. IN TELE. POLE, 433' LT. 220+60.
40-A	693.02	S.E. ABUTMENT OF BRIDGE, 33' RT. 264+55, 603.02 BACK = 602.90 AHEAD

T.P DESIGNATES TRAVERSE POINT

CONSTRUCTION LAYOUT 226+00 to 244+38.46

FED. RD. DIVISION	STATE	PROJECT	
2	OHIO		

JEFFERSON COUNTY
JEF-T-0.20

34
560

SEE SHEET N° 36
SEE SHEET N° 37
SEE SHEET N° 38 (NI)
SEE SHEET N° 39 (NI)
SEE SHEET N° 40
SEE SHEET N° 41
RAMP "A"
RAMP "B"
RAMP "C"
RAMP "D"
PUBLIC RD
5+00
TR 109 RELOC.
SEE SHEET N° 6
MALDEN LANE
00+00

SEE SHEET N° 42 (NI)
SEE SHEET N° 43
SEE SHEET N° 44 (NI)
SEE SHEET N° 45 (NI)
SEE SHEET N° 46 (NI)
SEE SHEET N° 47 (NI)
SEE SHEET N° 67
SEE SHEET N° 66
SEE SHEET N° 65
SEE SHEET N° 64
SEE SHEET N° 63
WILLIAMS ST. RELOC.
WILLIAMS ST.
WALDEN ST.
PENN. R.R.
W&LE R.R.
BUCKEYE ST.
CEMETERY LANE RELOC.
SERVICE RD "A"
05+00
10+00

SR 150
CR. SR 7
SEE SHEET N° 48 (NI)
SEE SHEET N° 49 (NI)
SEE SHEET N° 50 (NI)
SEE SHEET N° 51
SEE SHEET N° 52
SEE SHEET N° 53
SEE SHEET N° 68
SEE SHEET N° 69
SEE SHEET N° 70
SEE SHEET N° 71
SEE SHEET N° 72
SEE SHEET N° 73
RAMPS "A" & "B"
RAMPS "C" & "D"
See Plan Sheet No. 73A
See Profile Sh. No. 328A
Co. Rd. 16
SHORT CREEK CHANNEL RELOC.
SERVICE RD "A"
15+00
18+00

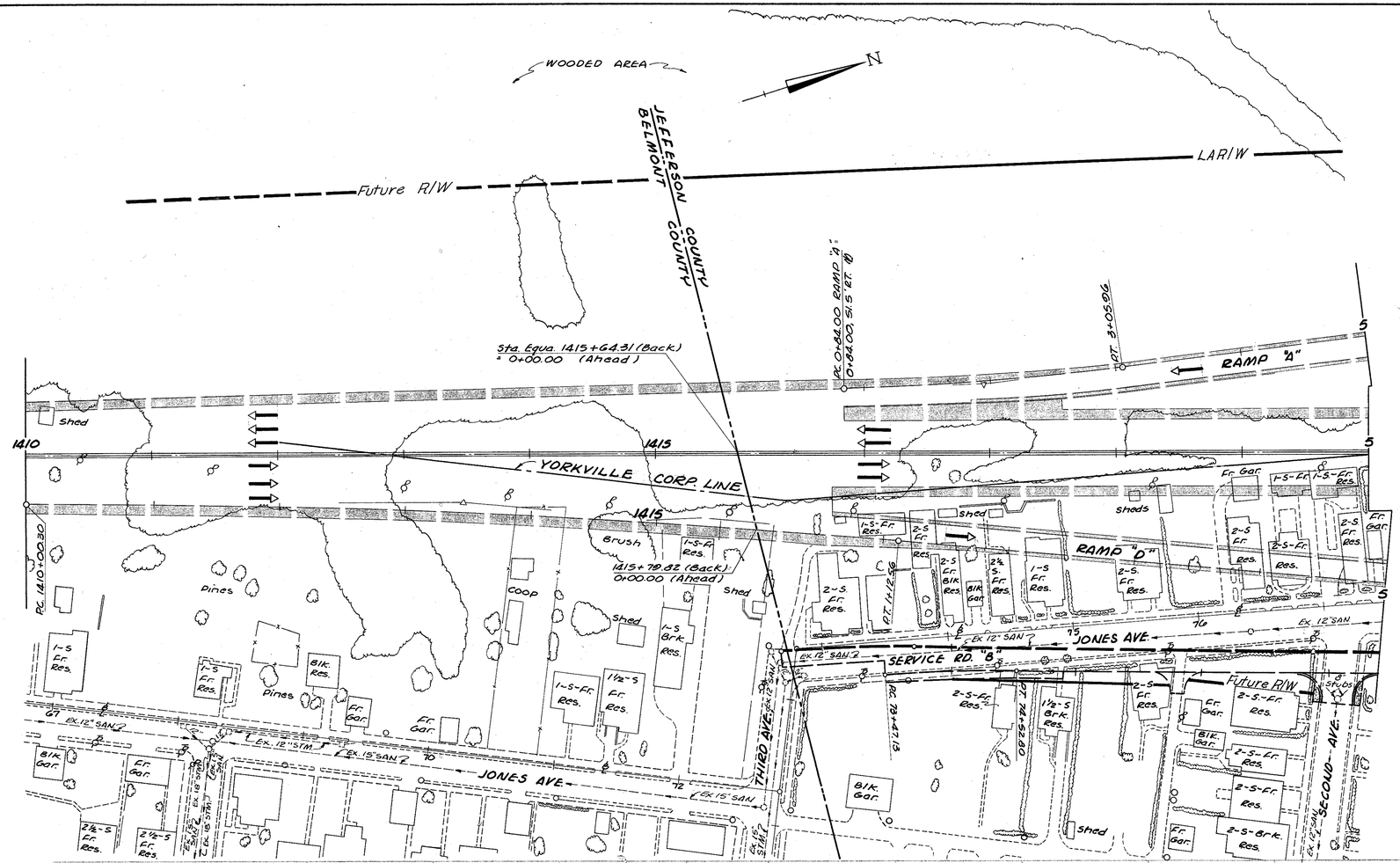
SEE SHEET N° 54 (NI)
SEE SHEET N° 55 (NI)
SEE SHEET N° 56 (NI)
SEE SHEET N° 57 (NI)
SEE SHEET N° 58 (NI)
SEE SHEET N° 59
SEE SHEET N° 60
SEE SHEET N° 74
SEE SHEET N° 75
SEE SHEET N° 76
SEE SHEET N° 77
SEE SHEET N° 78
S.B. WEIGH STA.
N.B. WEIGH STA.
TR 155 RELOC.
OHIO RIVER
END PROJECT
STA 2+00
STA 2+00 (AHEAD)

KEY MAP ~ PLAN AND PROFILE

FED. RD. DIVISION	STATE	PROJECT	
2	OHIO		

35/560

JEFFERSON COUNTY
JEF.-7-0.20



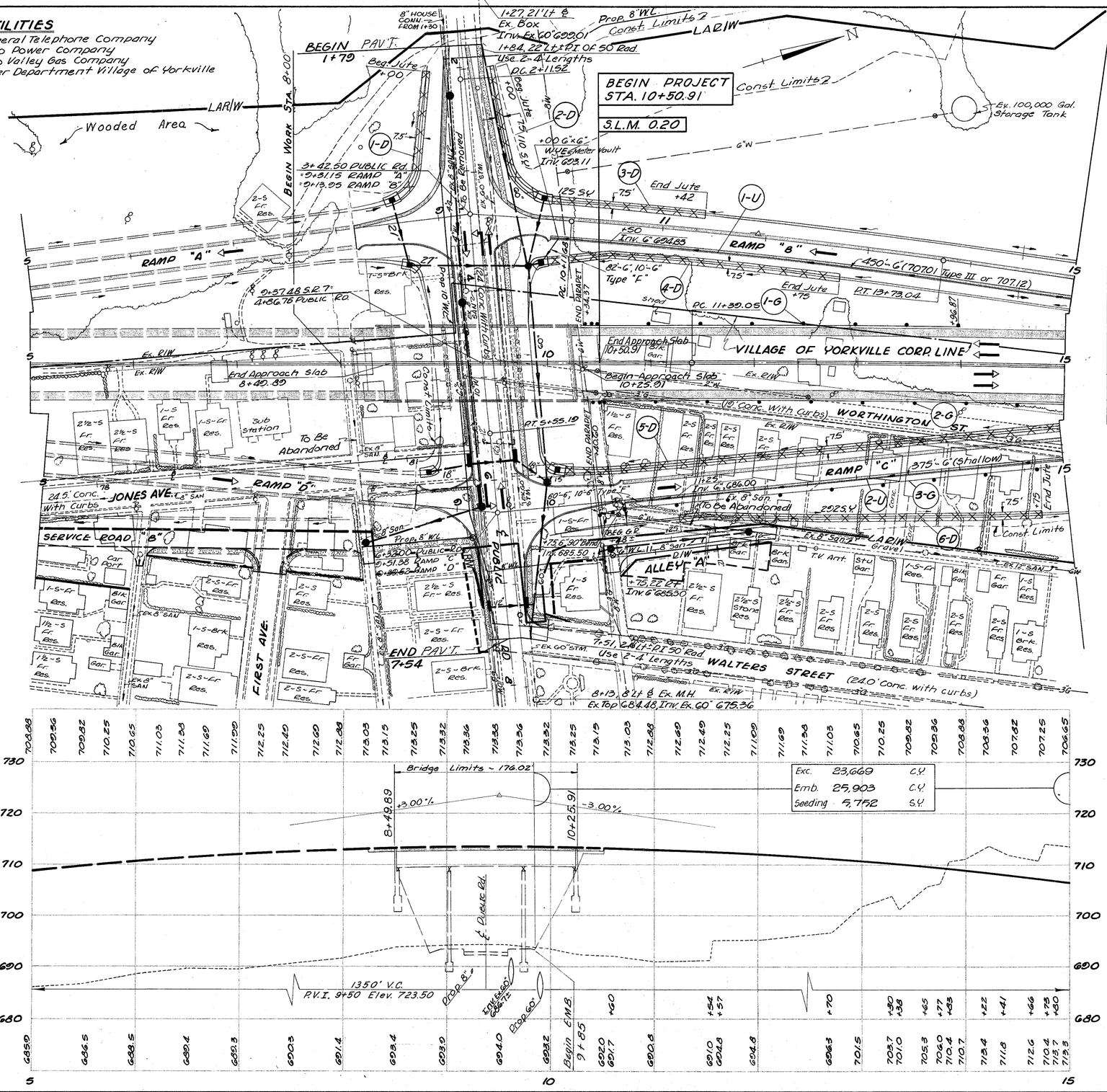
FED. RD. DIVISION	STATE	PROJECT		
2	OHIO			

36
560

JEFFERSON COUNTY
JEF.-7-0.20

UTILITIES

General Telephone Company
Ohio Power Company
Ohio Valley Gas Company
Water Department Village of Yorkville



* 707.01 Type III or 707.12

REF.	SIDE	LOCATION	603 Type "F" 6" L.F.	605 Shallow Pipe Underdrains 6" L.F.	605 Shallow Pipe Underdrains with Bends & Branches 6" Ea.	606 Guard Rail Type S L.F.	Anchor Assembly Ea.	Type II Bridge Assembly Ea.	667 Seeding & Jute Matting S.Y.	See Sht. #
1-D	R	2+00 TO C.B.							107	
2-D	L	2+00 TO C.B.							110	
3-D	L	9+92 TO 11+42. "B"							125	
4-D	R	9+92 TO 12+75 "B"							236	
5-D	L	10+20.5 TO 15+00 "C"							400	
6-D	R	11+25 TO 14+75 "C"							202	
1-U	R	9+92± TO 15+00 "B"	10	82	450 1					84
2-U	R	10+75 TO 15+00 "C"	10	435	1					84
1-G	L	10+34.37 TO 13+96.87 "B"				337.5	1	1		
2-G	R	10+40.60 TO 15+00 "B"				459		1		
3-G	R	10+48± TO 15+00 "C"				427	1			
TOTALS TO GEN. SUMMARY			20	517	450	12235	2	2	1270	

For Pavement Details & Elevations See Sheets 104 & 105
For Construction Layouts, Bench Marks & References See Sheet #26
For Public Rd. St. & Ramp Profiles See Sheets 83 & 84
For 20 Scale Drainage Details & Quantities See Sheet #36
For Alley "A" Pavement Details & Elevations See Sheet #105
For Waterwork Details See Sheets 344 Thru 347

A. E. STILSON & ASSOCIATES
DLB December 1968
EO April 1969

Rev. 9-23-74

5+00 to 15+00

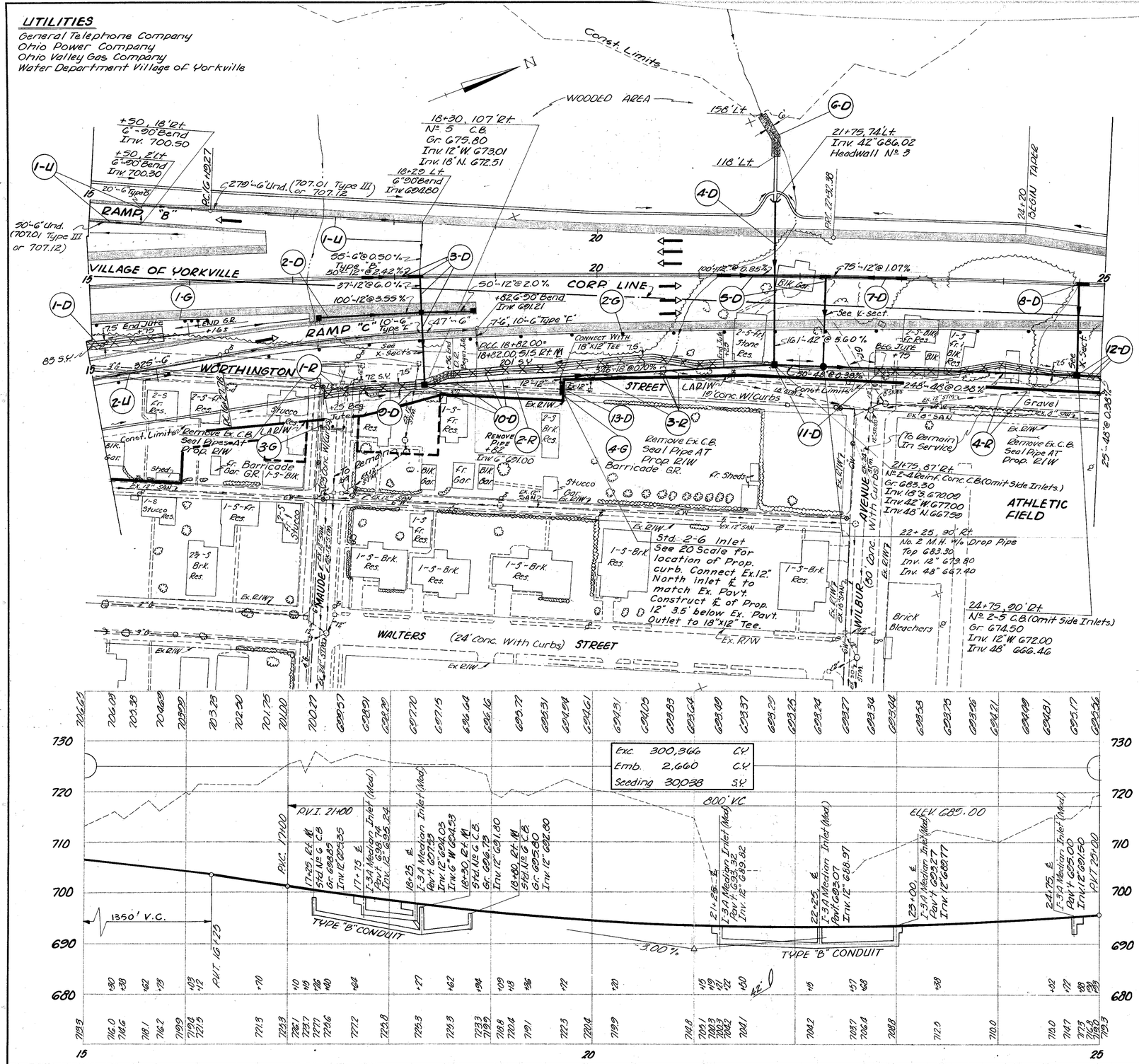
FED. RD. DIVISION	STATE	PROJECT		
2	OHIO			

37
560

JEFFERSON COUNTY
JEF.-7-0.20

UTILITIES

General Telephone Company
Ohio Power Company
Ohio Valley Gas Company
Water Department Village of Yorkville


Const. Limits
N
WOODED AREA
158' Lt.
118' Lt.
G-D
21+75, 74' Lt.
Inv. 42" G86.02
Headwall No. 3
4-D
24+20 BEGIN TAPER
18+30, 107' Rt.
No. 5 C.B.
Gr. G75.80
Inv. 12" W G73.01
Inv. 18" N. G72.51
18+29 Lt.
6°00 Bend
Inv. G69.80
+30, 18' Rt.
6°-90° Bend
Inv. 700.50
+30, 2' Lt.
6°-90° Bend
Inv. 700.30
1-U
RAMP "B"
20'-6" Type B
R/C @ 1+92.7
C 270'-6" Und. (707.01 Type III or 707.12)
50'-6" Und. (707.01 Type III or 707.12)
2-D
3-D
55'-6" @ 0.50 %
Type B
50'-12" @ 2.42 %
VILLAGE OF YORKVILLE
CORP. LINE
37'-12" @ 6.0 %
100'-12" @ 3.55 %
50'-12" @ 2.0 %
100'-12" @ 0.85 %
75'-12" @ 1.07 %
+82.6 50° Bend
Inv. G91.21
5-D
6-D
7-D
8-D
See V-Sect.
1-G
1-D
7.5 End Jute
+16 ±
END G.R.
RAMP "C" 10'-6" Type E
47'-6"
7'-6" 10'-6" Type E
83 S.Y.
825'-6"
See X-Sects.
PCC. 18+82.00 = 18+82.00, 51.5 Rt. NA
201.5 S.Y.
CONNECT WITH 18"x12" Tee
BEG. Jute +75
161'-42" @ 8.60 %
2-S-Brk. Fr. Res.
1-S Fr. Res.
1-S-Brk. Fr. Res.
1-S Brk. Res.
2-S Fr. Res.
2½-S Brk. Res.
Stucco Res.
Shed
Bik. Gar.
Fr. Barricade G.R. 1-S-Brk.
Const. Limits
Remove Ex. C.B. Seal Pipe AT Prop. R/W
Remove Pipe +82 Inv. G 69.00
Ex. 12" SAN.
Ex. 8" W.
Ex. R/W
Ex. 12" W.
Ex. 12" STM.
Ex. 6" SAN.
Ex. 8" STM.
Ex. 18" STM.
Ex. 2" STM.
Ex. 6" W.
Ex. 2" GAS
Ex. 8" GAS
Ex. 12" GAS
Ex. 4" GAS
Ex. 6" GAS
Ex. 10" GAS
Ex. 16" GAS
Ex. 20" GAS
Ex. 24" GAS
Ex. 30" GAS
Ex. 36" GAS
Ex. 42" GAS
Ex. 48" GAS
Ex. 54" GAS
Ex. 60" GAS
Ex. 66" GAS
Ex. 72" GAS
Ex. 78" GAS
Ex. 84" GAS
Ex. 90" GAS
Ex. 96" GAS
Ex.

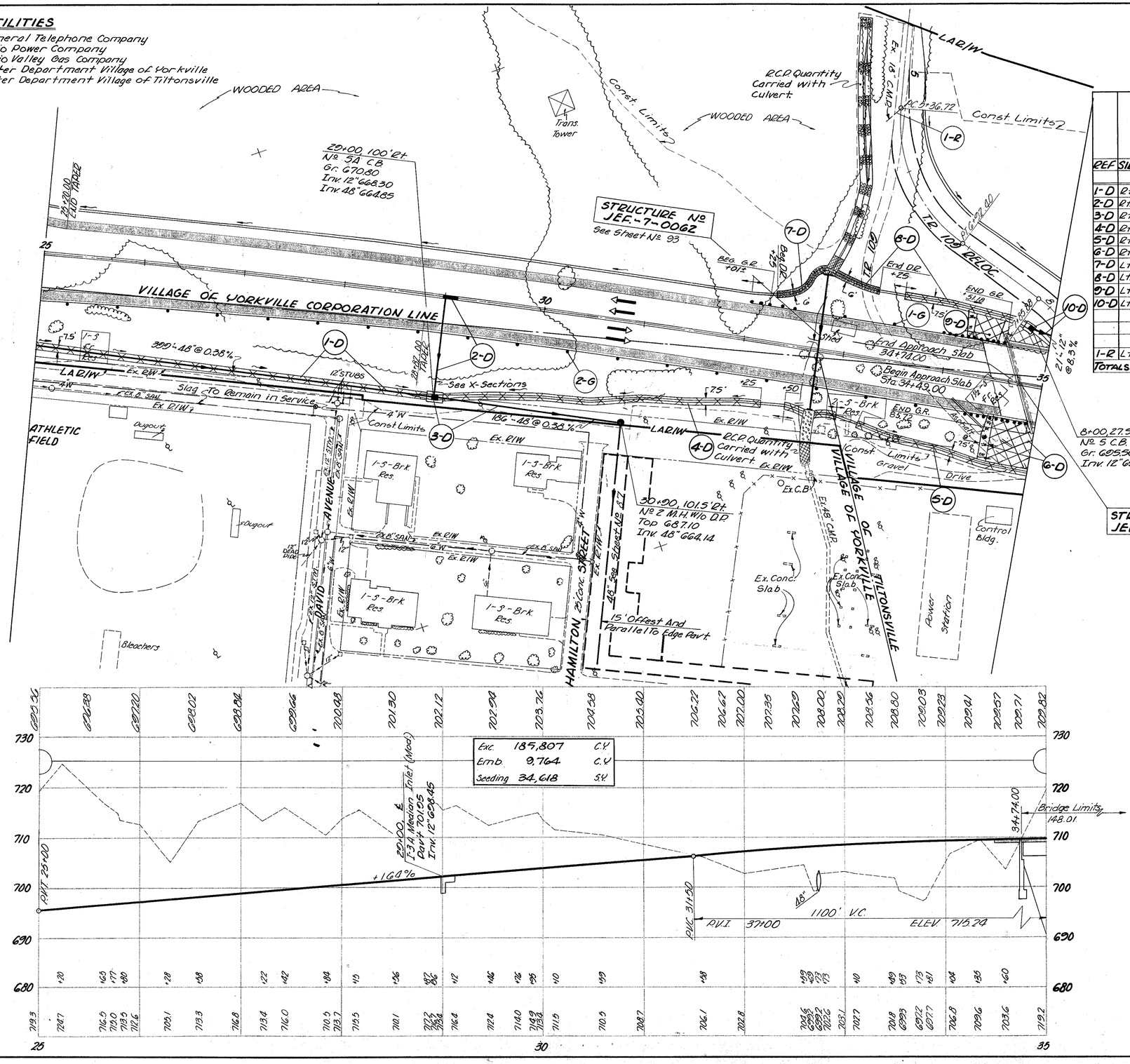
FED. RD. DIVISION	STATE	PROJECT	
2	OHIO		

38
560

JEFFERSON COUNTY
JEF.-7-0.20

UTILITIES

General Telephone Company
Ohio Power Company
Ohio Valley Gas Company
Water Department Village of Yorkville
Water Department Village of Tiltonsville



ESTIMATED QUANTITIES			601	603 CONDUIT					604			202	660	667	
			Rock Channel Prot. "B"	CLASS "B" BEDDING											
REF.	SIDE	LOCATION		"B" Type 12"	"C" Type 48"	"C" Type 48"	"E" Type 12"	Bands & Branches	No. 5 C.B.	No. 5A C.B.	#3 A Median Inlet	Plan Removed 24" & Under	Special Berm & Slope Protection	Seeding & Jute Matting	See Sheet No.
			C.Y.	L.F.	L.F.	L.F.	L.F.		Ea.	Ea.	Ea.	L.F.	S.Y.	S.Y.	
1-D	Rt.	25+00 To 20+00			300									325	91
2-D	Rt.	20+00		36			71	2		1					175
3-D	Rt.	20+00 To 30+30				186				1					91
4-D	Rt.	20+10 To 32+70												280	
5-D	Rt.	32+80 To 35+00												163	
6-D	Rt.	34+00											42	205	
7-D	Lt.	32+25 To 32+65	25												
8-D	Lt.	32+80 To 34+70	21											102	
9-D	Lt.	34+46 To 35+00											25	132	
10-D	Lt.	34+80 To 35+00		21					1						91
1-R	Lt.	As Shown										32			
TOTALS TO GEN. SUMMARY			46	57	300	186	71		1	1	1	32	67	1207	

✳ Sec. 706.02 CL. IV or 707.13

For Pavement Details & Elevations See Sheets # 108 & 109
For Construction Layout, Bench Marks & References See Sheet # 26
For T.R. 109 Pavement Details See Sheet # 111
For T.R. 109 Plan & Profile See Sheet # 61
For Waterline Details See Sheet # 318
For Plan & Profile Of Storm Sewer Continuation See Sheet # 87

ESTIMATED QUANTITIES			606				
			Guard Rail Type 5	Anchor Assembly Type B		Bridge Terminal Assembly	
REF.	SIDE	LOCATION	L.F.	Ea.		Ea.	
1-G	Lt.	32+01 To 34+31.18	225	1		1	
2-G	Rt.	25+00 To 34+85.72	985			1	
TOTAL TO GEN. SUMMARY			1210	1		2	

DLB December 1968
FO April 1969
Rev. 660, 667, 7-5-73 FO

25+00 to 35+00

FED. RD. DIVISION	STATE	PROJECT		39 / 560
2	OHIO			

JEFFERSON COUNTY

JEF-7-0.20

UTILITIES

General Telephone Co.
Ohio Power Company
Ohio Valley Gas Co.
Water Department
Village Of Tiltonsville

8+50, 32.5' Lt. TR. 109
№ 5 C.B.
Grate : 688.50
Inv. 12"S 686.00
Inv. 12" E 686.00

STRUCTURE № JEF. 0066

38+10, 48' Lt.
№ 2-28 C.B.
Top 707.50
Inv 15"E 704.50
(To Carry Dry Weather Acid Flow.)

38+00, 98' Rt.
№ 1 M.H.
Top 679.60
Inv. 21" 670.80

41+00, 48' Lt
№ 4 C.B.
Grate : 704.25
Inv. 21" 701.04
(Grate To Face Upstream)

41+00, 106' Rt
№ 5 C.B.
Grate : 672.00
Inv. 21"S 666.50
Inv. 21"W 668.50
Inv. 30" N. 667.75

42+68, 46' Lt
№ 4 C.B.
Grate : 700.90
Inv. 24" 696.90
(Grate To Face Hillside Ditch)

44+00, 92' Rt.
№ 5A C.B.
Grate : 672.50
Inv. 24"W 668.50
Inv. 30"S 666.50
Inv. 42"N 665.50

44+00, 46' Lt
№ 5 C.B.
Grate : 697.85
Inv. 24" 694.10 S&E

Top Of Cut
213' Lt.
207' Lt.
155' Lt.
81' Lt.
140' Lt.
132'-24" @ 2.12%
46'-24" @ 1.65%
50'-12" @ 2.2%
61'-12" @ 8.30%
48'-21" @ 1.9%
206'-30" @ 0.42%
206'-21" @ 0.78%
160'-21" @ 0.78%
101'-42" @ 0.26%
Const Limits
Beg Jute +25
End Parapet +09.81
Begin Approach Slab 36+22.01
End Approach Slab 36+47.01
End Parapet +93.58
Bulkhead Ex. 18" @ 10+80
End Work 10+82
Bulkhead Ex. 110' Rt. W
Bulkhead Ex. Pipe 110' Rt. W
Barricade
Gravel
Shed
Car Port
Sheds
Fr. Gar.
Blk. Gar.
Ex. Brace
Ex. Curb Line
Ex. Curb Inlet
Ex. Gas Line
Ex. Water Line
Ex. Overhead Wires
Ex. Guy Wire
Ex. Power Pole
Ex. Light Standard
Ex. Fire Hydrant
Ex. Gate Valve
Ex. Water Meter
Ex. Sanitary Manhole
Ex. Storm Manhole
Ex. Catch Basin
Ex. Drop Inlet
Ex. Combination Inlet
Ex. Flared End Section
Ex. Concrete Headwall
Ex. Concrete Endwall
Ex. Metal Endwall
Ex. Metal Flared End Section
Ex. Concrete Flared End Section
Ex. Concrete Pipe
Ex. Metal Pipe
Ex. Corrugated Metal Pipe
Ex. Vitrified Clay Pipe
Ex. Plastic Pipe
Ex. Asbestos Cement Pipe
Ex. Cast Iron Pipe
Ex. Ductile Iron Pipe
Ex. Reinforced Concrete Pipe
Ex. Corrugated Metal Pipe Arch
Ex. Vitrified Clay Pipe Arch
Ex. Plastic Pipe Arch
Ex. Asbestos Cement Pipe Arch
Ex. Cast Iron Pipe Arch
Ex. Ductile Iron Pipe Arch
Ex. Reinforced Concrete Pipe Arch

FED. RD. DIVISION	STATE	PROJECT	
2	OHIO		

40
560

JEFFERSON COUNTY

JEF.-7-0.20

UTILITIES

General Telephone Co.
Ohio Power Company
Ohio Valley Gas Company
Water Department
Village Of Tiltonsville

47+50, 61' Rt
N° 2 M.H. W/o P.R
Top 680.60
Inv. 42" S. 664.50
Inv. 48" N. 664.00
Inv. 24" W 676.60

TILTONSVILLE

234' Lt.

Top of Cut

47+50, 46' Lt
N° 5 C.B.
Grate: 682.65
Inv. 24" N. 683.16
Inv. 18" S. 683.66
Inv. 24" E. 683.16

48+75, 46' Lt
N° 4 C.B.
Grate: 687.85
Inv 24" S. 684.10
(Grate To Face Hillside Ditch)

WOODED AREA

Const. Limits

Top of Cut

238' Lt.

52+37, 50' Lt
N° 4 C.B.
Grate: 685.40
Inv. 27" N. 680.65
(Grate To Face Hillside Ditch)

53+50, 52' Lt
N° 4 C.B.
Grate: 685.05
Inv. 27" S 678.95
Inv. 27" E 682.00
(Grate To Face Upstream Ditch)

46+55, 46' Lt
N° 4 C.B.
Grate: 691.95
Inv. 18" N 688.20
(Grate To Face Hillside Ditch)

VILLAGE OF CORPORATION LINE

50+50, 77' Rt
N° 5A C.B.
Grate: 670.00
Inv. 48" S. 663.01
Inv. 48" N. 663.01

138' Lt.

Const. Limits

Top of Cut

Ex. San. M.H.
Ex. Inv. 706.42
R.P.

125'-24" @ 0.75%

115'-18" @ 3.06%

107'-24" @ 6.12%

111'-27" @ 1.5%

113'-27" @ 4.80%

Asphalt

1-S-Stone Funeral Home

Concrete Drive

Gravel

Ex. San. M.H.
Inv. 682.93 R.P.

253'-42" @ 0.26%

300'-48" @ 0.36%

151'-60" @ 0.20%

LAP/W

TRAVERSE LINE

45+10, 100' Rt
Drop Sewer Cleanout
Top 678.5±
Inv. Ex. 8" 671.6±

48+24, 75' Rt
Drop Sewer Cleanout
Top 683.0±
Inv. Ex. 8" 680.7

Const. Limits

Ex. 12" W.P.

JEFFERSON ST.

SOUTH STREET

NORTH STREET

LINN AVE.

QUINCY LANE

VIRGINIA STREET

CENTRAL AVE.

Ex. R/W

Ex. San. M.H.
Inv. 660.55 R.P.

Ex. San. M.H.
Inv. 660.18

Ex. San. M.H.
Inv. 660.12

Ex. San. M.H.
Inv. 661.28

Ex. Drainage Box (To Remain)

Shed

Fr. Gar.

Blk. Gar.

Brk. Res.

1-S Fr. Res.

2-S Fr. Res.

1½-S Blk. Res.

1-S-Blk Res.

Ex. 8" SAN.

Ex. 12" STM.

Ex. 6" SAN.

Ex. 10" SAN.

Ex. 30" STM.

Ex. 36" STM.

Ex. 4" W.

Ex. 12" W.

Ex. 16" W.

Ex. 20" W.

Ex. 24" W.

Ex. 30" W.

Ex. 36" W.

Ex. 42" W.

Ex. 48" W.

Ex. 54" W.

Ex. 60" W.

Ex. 66" W.

Ex. 72" W.

Ex. 78" W.

Ex. 84" W.

Ex. 90" W.

Ex. 96" W.

Ex.

FED. RD. DIVISION	STATE	PROJECT	
2	OHIO		

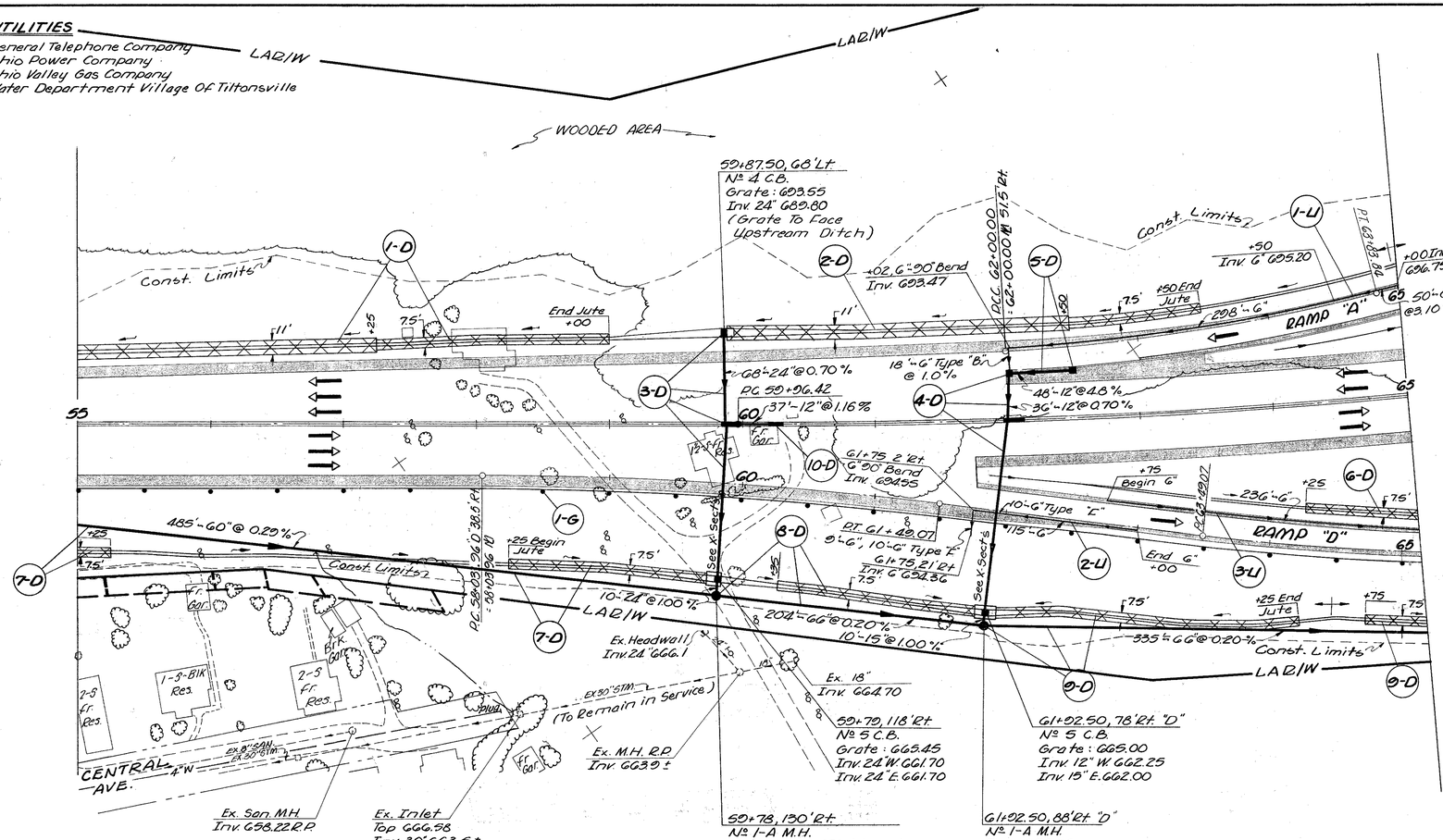
41/560

JEFFERSON COUNTY

JEF.-7-020

UTILITIES

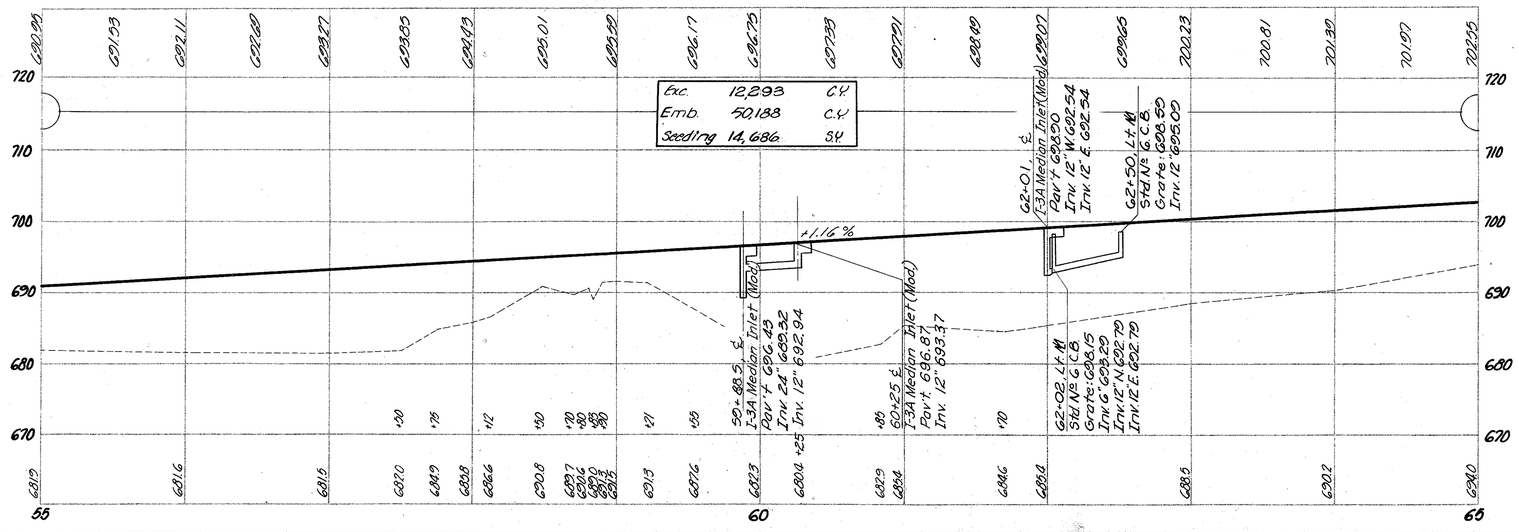
General Telephone Company
Ohio Power Company
Ohio Valley Gas Company
Water Department Village Of Tiltonsville



REF.	SIDE	ESTIMATED QUANTITIES LOCATION	603 CONDUIT Type "B" 12" 24" LF	Type "C" 15" 24" LF	Type "C" 24" 66" LF	Type 24" III 707.19 60 LF	Type "E" 60 LF	Type "E" 66 LF	Bends & Branches Type "E" 12" 24" Ea.	Bends & Branches Type "E" 24" Ea.	604 № 4 C.B. Ea.	№ 5 C.B. Ea.	№ 6 C.B. Ea.	№ 1-A M.H. Ea.	F-3A Median Inlet (Mod) Ea.	605 Shallow Pipe Underdrains 6" LF.	Bands & Branches 6" Ea.	667 Seeding & Jute Matting S.Y.	See Sheet №
1-D	Lt.	55+00 To 59+00																421	
2-D	Lt.	59+95 M to 63+50 "A"																391	
3-D	Lt. & Rt.	59+88.5		10				66		2	1	1		1					202
4-D	Lt. & Rt.	62+01	120	10			70		2			1	1	1					203
5-D	Lt.	62+02 to 62+50	48										1						
6-D	Lt.	64+50 to 65+10 "D"																71	
7-D	Rt.	55+00 to 59+78																146	91
8-D	Rt.	59+78 to 61+92.5			204	405								1				125	91
9-D	Rt.	61+92.5 to 65+00 M					335							1				230	91
10-D	℄	59+88.5 to 60+25	37												1				
1-U	Lt.	62+02 to 65+00 "A"	18						1							208			
2-U	Rt.	61+75 to 63+00 "D"						20								124	1		
3-U	Lt.	62+75 to 65+14 "D"														236			
TOTAL TO GEN. SUMMARY			105	20	10	10	405	335	20	70	66	XXX	XXX	XXX	3	568	XXX	1384	

For Pavement Details & Elevations See Sheets 115 & 116
For Construction Layout, Bench Marks & References See Sheet # 27
For Ramp Profiles See Sheets 84 & 85
For Waterline Details See Sheet # 350

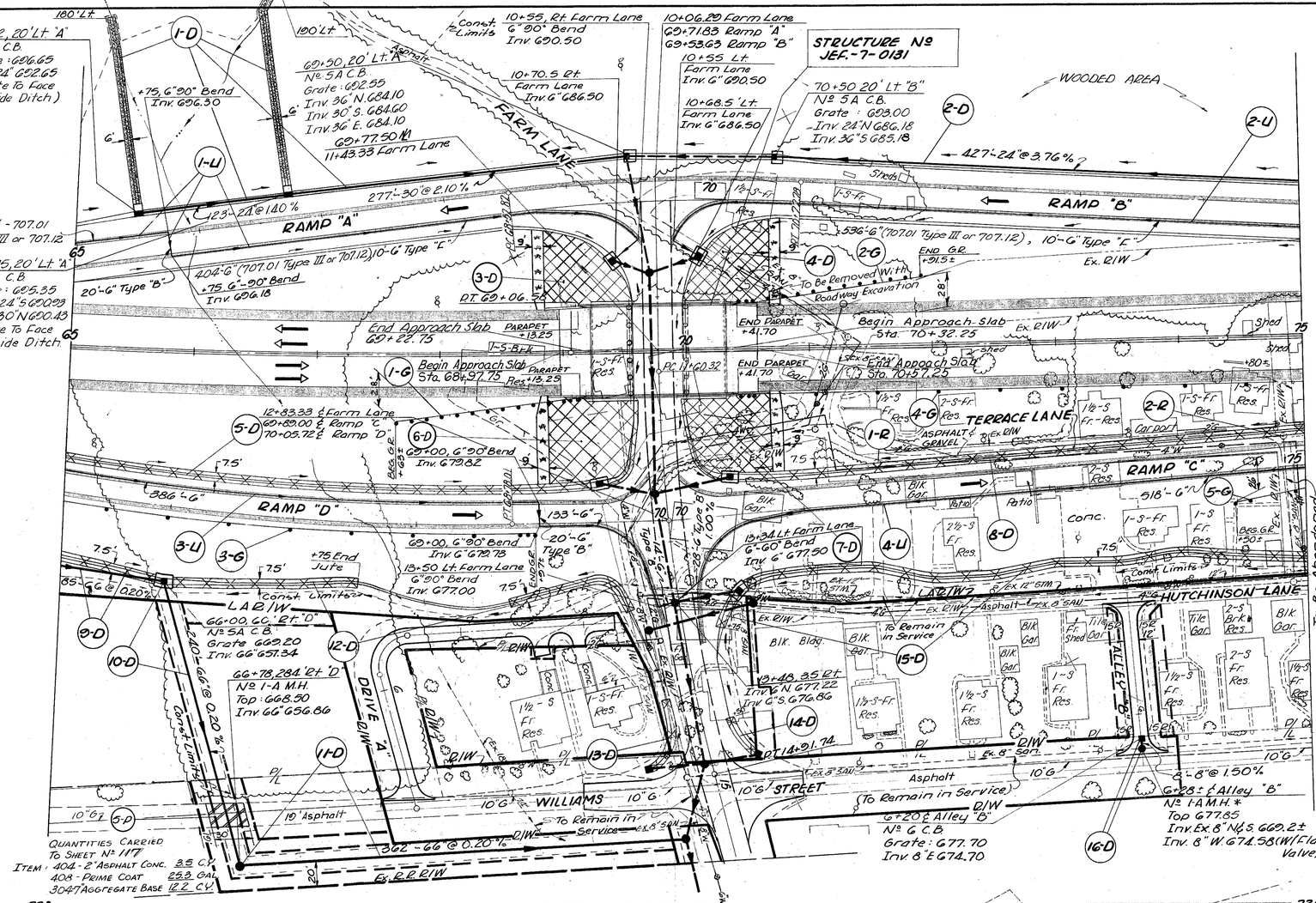
REF.	SIDE	ESTIMATED QUANTITIES LOCATION	606 Guard Rail Type 5 L.F.	See Sheet №
1-G	Rt.	55+00 M To 65+15 "D"	1015	
TOTAL TO GEN. SUMMARY			1015	



	BY	DATE
EXISTING PLOTTED		
EXISTING CHECKED		
PROPOSED DRAWN		
PROPOSED CHECKED		
QUANTITIES CALCULATED		
QUANTITIES CHECKED		

A.E. STILSON & ASSOCIATES, LIMITED
Quantities Calculated D.G.B. December 1968
Quantities Checked E.O. April 1969

55+00 to 65+00

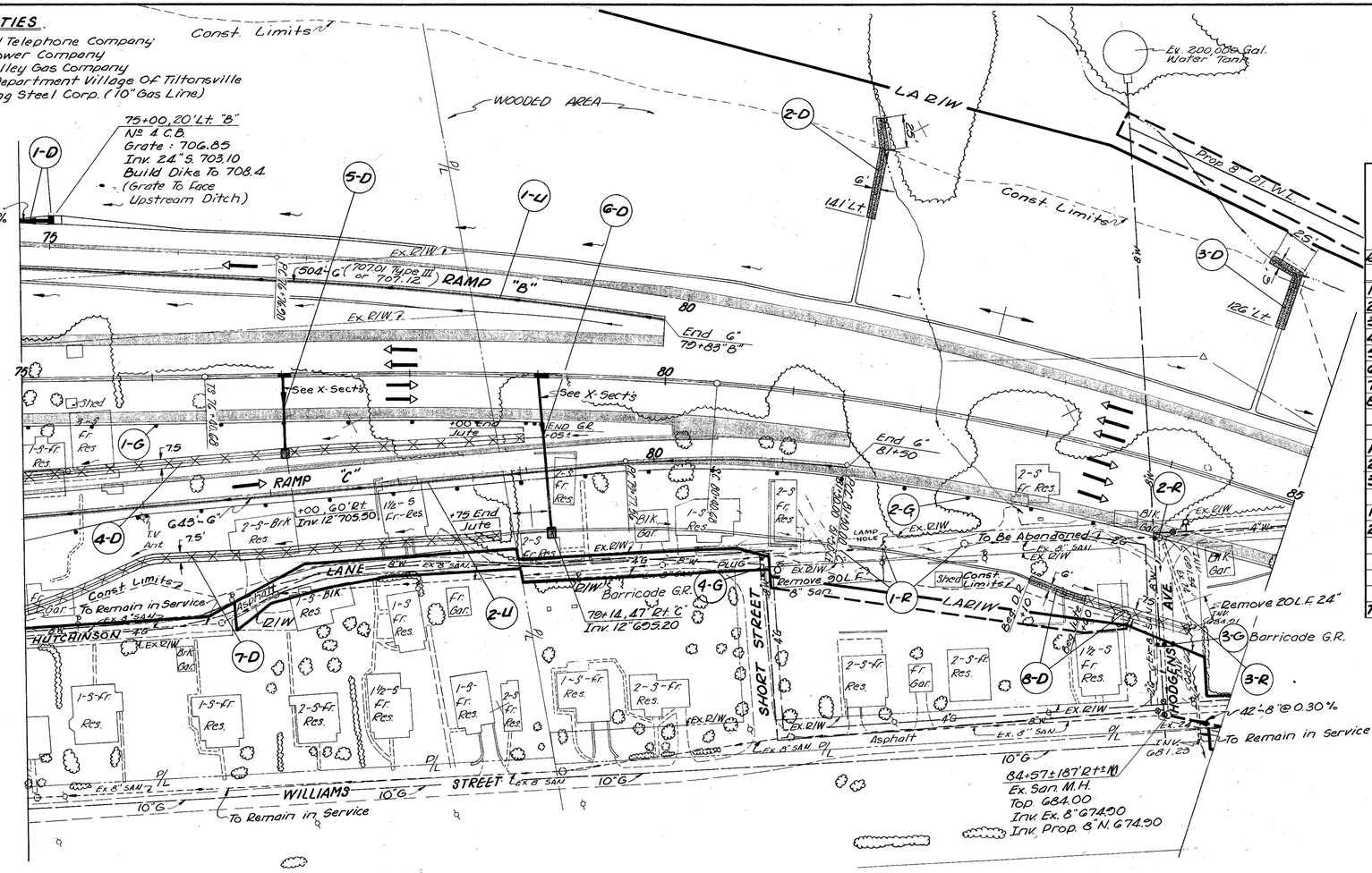

STRUCTURE Nº JEF-7-0131
65+52, 20' Lt "A" Nº 4 C.B. Grate: 686.65 Inv. 24" 652.65 (Grate to Face Hillside Ditch)
60+50, 20' Lt "A" Nº 5A C.B. Grate: 692.55 Inv. 36" N. 684.10 Inv. 30" S. 684.60 Inv. 36" E. 684.10
60+77.50 Nº1 11+43.33 Farm Lane
10+55, Rt. Farm Lane 6"@ 90° Bend Inv. 690.50
10+70.5 Rt. Farm Lane Inv. 6" 686.50
10+06.20 Farm Lane 69+71.83 Ramp "A" 69+53.63 Ramp "B"
10+55 Lt. Farm Lane Inv. 6" 690.50
10+68.5 'Lt. Farm Lane Inv. 6" 686.50
70+50 20' Lt "B" Nº 5A C.B. Grate: 693.00 Inv. 24" N 686.18 Inv. 36" S 685.18
WOODED AREA
427'-24" @ 3.76%
RAMP "A"
277'-30" @ 2.10%
123'-24" @ 1.40%
RAMP "B"
536'-6" (707.01 Type III or 707.12), 10'-G" Type "E"
END GR +91.5±
Ex. R/W
To Be Removed With Roadway Excavation
76'-6" - 707.01 Type III or 707.12
GG+75, 20' Lt "A" Nº 4 C.B. Grate: 685.35 Inv. 24" S 680.93 Inv. 30" N 680.43 (Grate To Face Hillside Ditch)
20'-6" Type "B"
404'-6" (707.01 Type III or 707.12), 10'-6" Type "E"
+75.6" - 90° Bend Inv. 696.18
DT 69+06.32
End Approach Slab 60+22.75 PARAPET +13.25
Begin Approach Slab Sta. 68+97.75 PARAPET +13.25
END PARAPET +41.70
Begin Approach Slab Sta. 70+32.25
End Approach Slab Sta. 70+57.25
TERRACE LANE
ASPHALT & GRAVEL
RAMP "C"
RAMP "D"
386'-6"
518'-6"
133'-6"
12+83.33 ℄ Farm Lane 60+89.00 ℄ Ramp "C" 70+05.72 ℄ Ramp "D"
69+00, 6" 90° Bend Inv. 679.82
69+00, 6" 90° Bend Inv. 6 672.78
13+50 Lt. Farm Lane 6" 90° Bend Inv. 677.00
13+94 Lt. Farm Lane 6"-90° Bend Inv. 6 677.50
+75 End Jute
LAB/W 66+00, 60' Rt. "D" Nº 5A C.B. Grate 662.20 Inv. 66" 657.34
66+78, 284' Rt. "D" Nº 1-A M.H. Top: 668.50 Inv. 66" 656.66
240'-66" @ 0.20%
DRIVE "A"
WILLIAMS STREET
HUTCHINSON LANE
ALLEY "B"
Asphalt
Concrete
Bldg.
Shed
Patio
Conc.
Const. Limits
To Remain in Service
To Be Abandoned
13+48.35 Rt. Inv. N 677.22 Inv. C.S. 676.86
14+21.74
15+48.35 Rt. 677.22
362'-66" @ 0.20%
6+20 ℄ Alley "B" Nº 6 C.B. Grate: 677.70 Inv. 8" E 674.70
G-8" @ 1.50%
G+28± ℄ Alley "B"
Nº 1-A M.H. * Top 677.85 Inv. Ex. 8" N, S. 669.2± Inv. 8" W. 674.58 (W/Flap Valve)
Ex. R.R. R/W
Ex. 8" SAN.
Ex. 12" STM.
Ex. 8" W.
Ex. 6" Gas
Ex. 8" Gas
Ex. 12" Gas
Ex. 8" Elec.
Ex. 8" Tel.
Ex. 8" Tel. & Elec.
Ex. 12" Tel.
Ex. 8" Tel. & Elec.
Ex. 8" Tel. & Elec.
Ex. 8" Tel. & Elec

FED. RD. DIVISION	STATE	PROJECT		43 / 560
2	OHIO			

JEFFERSON COUNTY
JEF.-7-0.20

UTILITIES

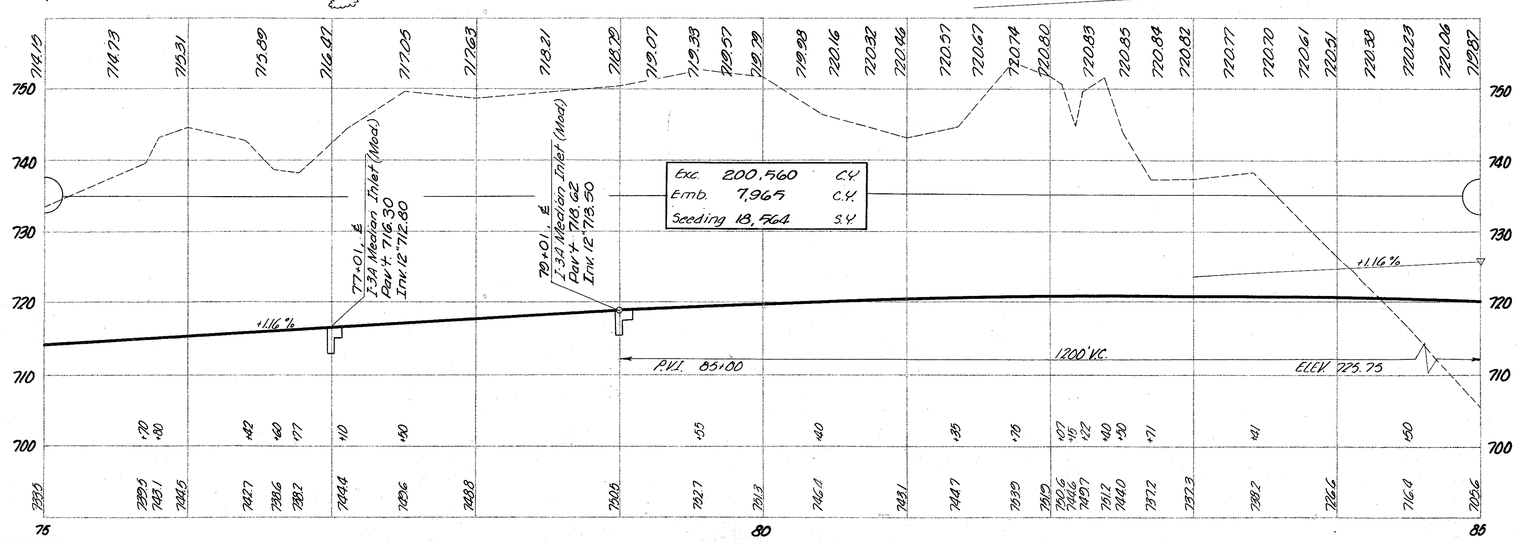
General Telephone Company
Ohio Power Company
Ohio Valley Gas Company
Water Department Village Of Tiltonsville
Wheeling Steel Corp. (10" Gas Line)



ESTIMATED QUANTITIES			601	602	603 CONDUIT			604		605			667	202		
REF.	SIDE	LOCATION	Rock Chan. Prof. Type "B"	Concrete Masonry	Type "B" 12"	Type "C" 24"	Type "F" 12"	Bends & Branches 12"	Nº 4 C.B.	F.A. Manhole Side Outlet	Shallow Pipe Underdrains 6"	Shallow Pipe Underdrains 6" * *	Seeding & Jute Matting	Manholes Removed	Pipe Removed 24" & Under	See Sheet Nº.
			C.Y.	C.Y.	L.F.	L.F.	L.F.	Ea.	Ea.	Ea.	L.F.	L.F.	S.Y.	Ea.	L.F.	
1-D	Lt.	74+75 To 75+00 "B"				23			1							92
2-D	Lt.	81+40 M, 141' Lt	35.5													
3-D	Lt.	84+50 M, 126' Lt	31.1													
4-D	Lt.	75+08 To 79+00 "C"											321			
5-D	Rt.	77+01 M	2.7	0.21	36		26	2		1						213
6-D	Rt.	79+01 M	2.7	0.21	84		41	2		1						213
7-D	Rt.	75+00 To 78+75 "C"											317			
8-D	Rt.	83+10 To 84+50 M	20.4										71			
1-R	Rt.	As Shown												2	90	
2-R	Rt.	As Shown												1		
3-R	Rt.	As Shown													20	
1-U	Rt.	74+79 To 79+83 "B"									504					85
2-U	Rt.	75+07 To 81+50 "C"										G43				85
TOTAL TO GEN. SUMMARY			92	042	120	23	67	X 1	2	G43	504		709	3	110	

** 707.01 Type III or 707.12

For Pavement Details & Elevations See Sheets 122 & 123
For Construction Layout, Bench Marks & References See Sheet # 28
For Ramp Profiles See Sheet # 85
For Water Line Details See Sheet # 352

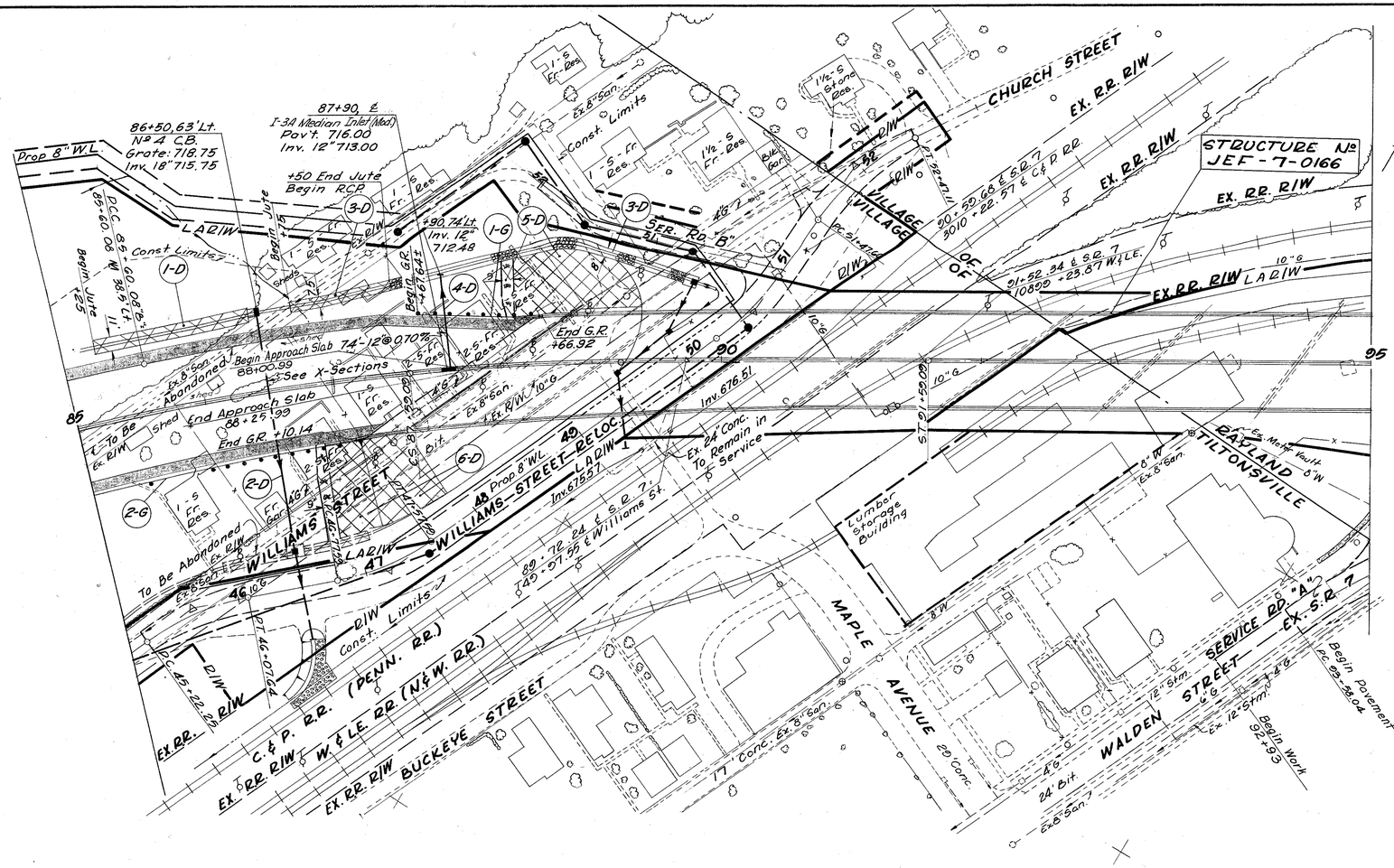


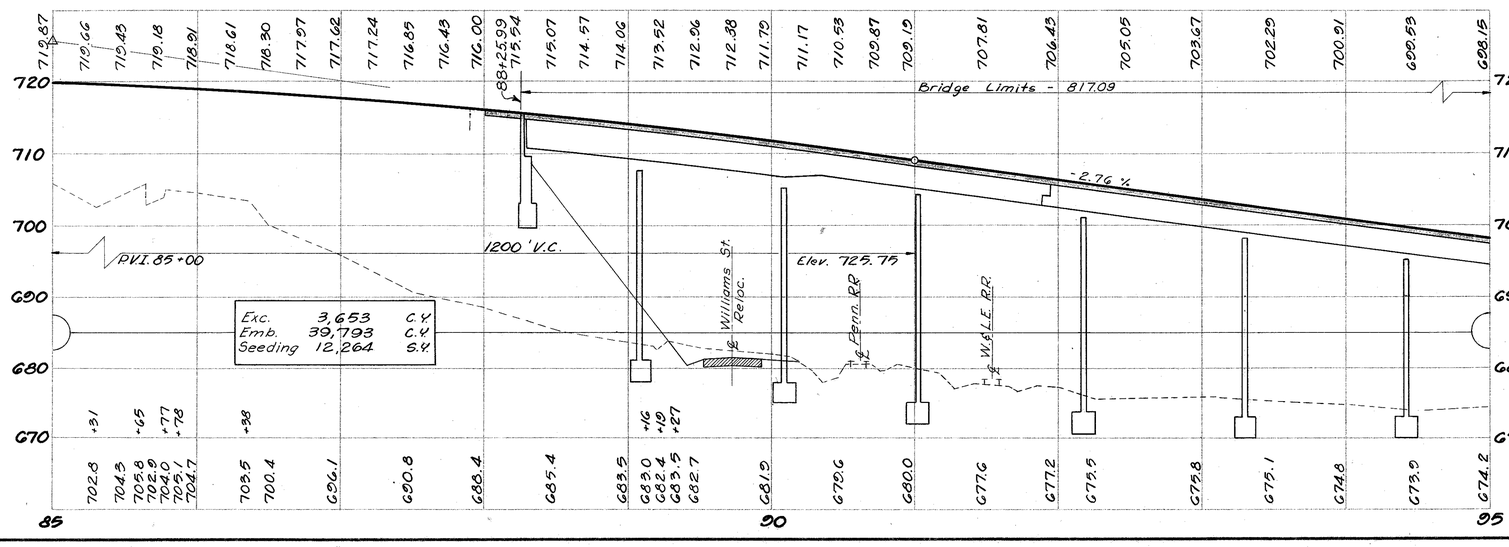
ESTIMATED QUANTITIES			G06			
REF.	SIDE	LOCATION	L.F.	Guard Rail Type S L.F.	Anchor Assembly Ea.	See Sheet Nº.
1-G	Rt.	75+00 To 79+05 ± N1		379.5	1	
2-G	Rt.	75+10 ± "C" To 85+00 N1		98.5		
3-G	Rt.	84+25, 136' Rt		12.5		
4-G	Rt.	80 + 84 Rt. "C"		12.5		
TOTAL TO SUMMARY				389.5	1	

	BY	DATE
EXISTING PLOTTED		
EXISTING CHECKED		
PROPOSED DRAWN		
PROPOSED CHECKED		
QUANTITIES COMPUTED		
QUANTITIES CHECKED		

Quantities Computed PLB December 1968
Quantities Checked EO April 1969

75+00 to 85+00





UTILITIES

General Telephone Company
Ohio Power Company
Ohio Valley Gas Company
Water Department Village Of Tiltonsville
Western Union Telegraph Company
Wheeling Steel Corporation (10" Gas Line)

FED. RD. DIVISION	STATE	PROJECT	
2	OHIO		

44/560

JEFFERSON COUNTY
JEF.-7-0.20

REF.	SIDE	LOCATION	601 Rock Channel Prot. "B" C.Y.	602 Concrete Masonry C.Y.	603 Conduit 12" L.F.	603 Conduit Type "B" 18" L.F.	603 Conduit Type "F" 18" L.F.	603 Conduit Bends & Branches 18"	604 No 4 C.B. 137 Median Inlet (Mod.) Ea.	660 Spec. Berm And Slope Protection Seeding And Jute Matting S.Y.	667 Jute Matting S.Y.	See Sheet No
1-D	Lt.	85+25 to 86+43									145	
2-D	Lt. & Rt.	86+50			118	74	2		1			220
3-D	Lt.	86+75 to 50+74 S.R. "B"	140								67	
4-D	Lt.	87+90		0.21	74				1			221
5-D	Lt.	As Shown								44	511	
6-D	Rt.	As Shown								72	574	
TOTAL TO GEN. SUMMARY			140	0.21	74	118	74		1	116	1297	

For Construction Layouts, Bench Marks and References See Sheet # 28
For Pavement Details & Elevations See Sheets 124, 126
For Water Line Details See Sheet # 353
For Williams St. Reloc. Pavement Details, See Sheet # 125
For Williams St. Reloc. Plan and Profile, See Sheet # 63
For Service Rd. "B" Profile & X-Sections, See Sheet # 298
For Service Rd. "B" Pavement Details See Sheet # 125
For Service Rd. "A" Plan and Profile, See Sheet # 65

REF.	SIDE	LOCATION	606 Guard Rail Type 5 L.F	606 Anchor Assembly Ea.	606 Type A Bridge Terminal Assembly Ea.
1-G	Lt.	87+67.64± to 88+66.92	75	1	1
2-G	Rt.	85+00 to 87+10.14	207		1
TOTAL TO GEN. SUMMARY			282	1	2

PROPOSED STRUCTURE No JEF.-7-0166

TYPE : Continuous welded steel girder with reinforced concrete deck and substructure.
SPANS : 78'-9", 102'-0", 93'-0", 115'-3", 3@112'-0", 85'-3" ℄/c along ℄ S.R. 7
ROADWAY : Variable f/f concrete barrier type parapet with 3'-0" barrier median. Average f/f parapet 74'-9"
LOADING : HS 20-44
WEARING SURFACE : 2½" Asphaltic concrete.
SKEW : Varies from 54°19'22" to 27°52'00" Lt. Fwd. with respect to Ref. Tan.
ALIGNMENT : Spiral right and tangent.
APPROACH SLABS : See Sheet , 25'-0" long
SUPERELEVATION : S.B. Lanes - Varies from 0.071@87+75 to 0@91+50; varies from 0@91+50 to 0.015@93+00; .015G from 93+00 ahead. N.B. Lanes - Varies from 0.071@87+75 to 0.015G@90+67.61; 0.015G from 90+67.61 ahead.

Rev. 660 & 667 7-5-73 F.O.
A. E. STILSON & ASSOC.
Quantities Calculated F.O. AUG 70.
Quantities Checked D.L.B. AUG 70

85+00 to 95+00

BRUNING 44-560 10943

FED. RD. DIVISION	STATE	PROJECT	
2	OHIO		

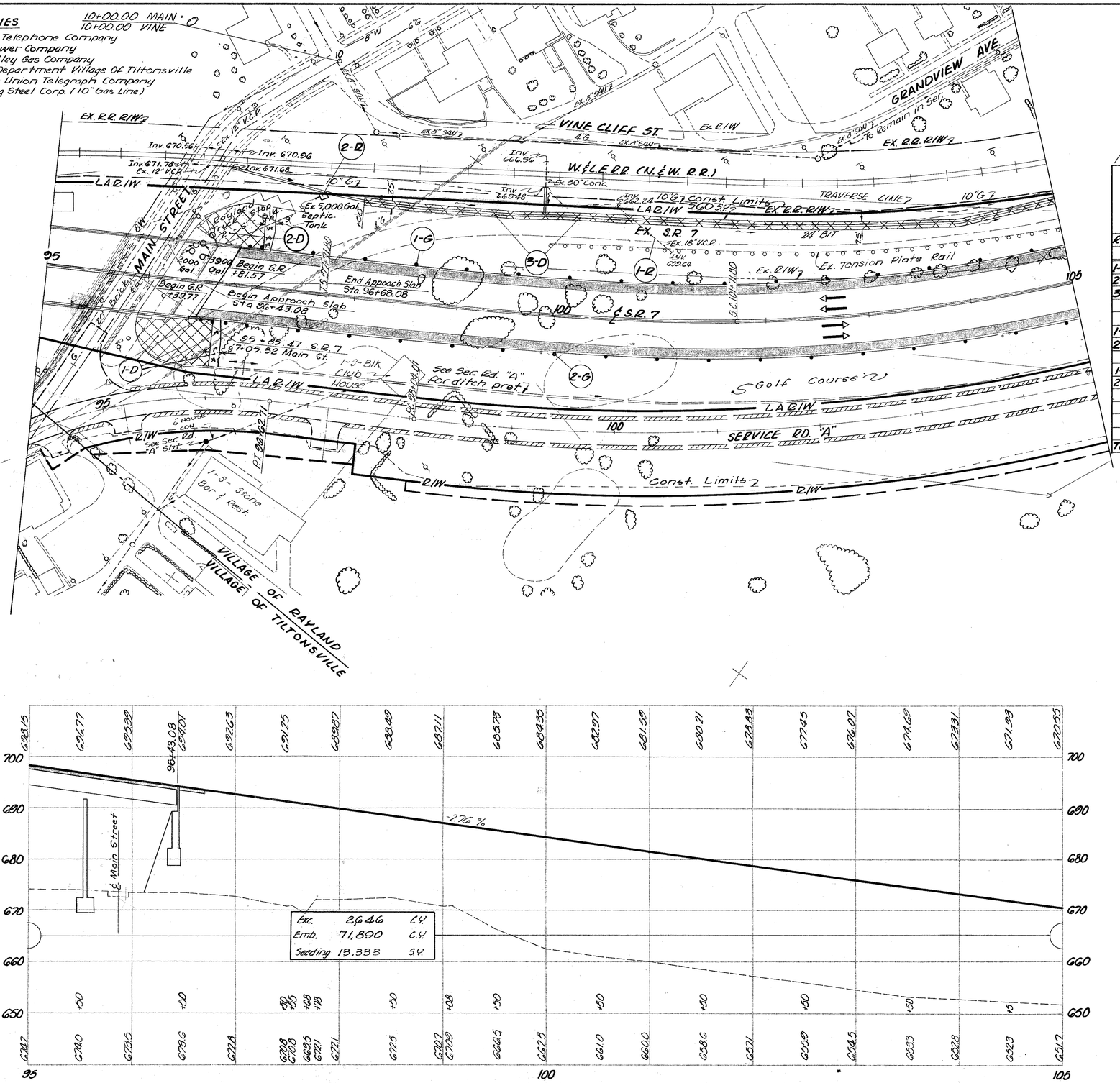
45
560

JEFFERSON COUNTY
JEF.-7-020

UTILITIES

10+00.00 MAIN
10+00.00 VINE

General Telephone Company
Ohio Power Company
Ohio Valley Gas Company
Water Department Village Of Tiltonsville
Western Union Telegraph Company
Wheeling Steel Corp. (10" Gas Line)



REF.	SIDE	ESTIMATED QUANTITIES LOCATION	660 Special Slope & Berm Prot. S.Y.	667 Seeding & Lite Matting S.Y.	202 Pipe Removed 24"ϕ Under L.F.	606 Guard Rail Type 5 L.F.	606 Bridge Terminal Assembly Type A Ea.	202 Septic Tank Removed Ea.	See Sheet No.
1-D	Rt.	As Shown	42	324					
2-D	Lt.	As Shown	37	232					
3-D	Lt.	98+00 To 105+00		560					
1-R	Lt.	As Shown			68				
2-R	Lt.	As Shown						1	
1-G	Lt.	96+81.57 To 105+00				808.5	1		
2-G	Rt.	96+39.77 To 105+00				875	1		
TOTAL TO GEN. SUMMARY			79	1116	68	1683.5	2	1	

For Pavement Details & Elevations See Sheets 127 & 128
For Construction Layout, Bench Marks & References See Sheets 28 & 29
For Service Road "A" Plan & Profile See Sheet # 65
For Service Road "A" Pavement Details See Sheets 127 & 128

DATE	
EXISTING CHECKED	
PROPOSED DRAWN	
PROPOSED CHECKED	
QUANTITIES CALCULATED	
QUANTITIES CHECKED	

CRAWFORD & ASSOCIATES LIMITED
Quantities Calculated V.L.B. December 1968
Quantities Checked F.O. April 1969

Rev. 667 7-5-73 F.O.

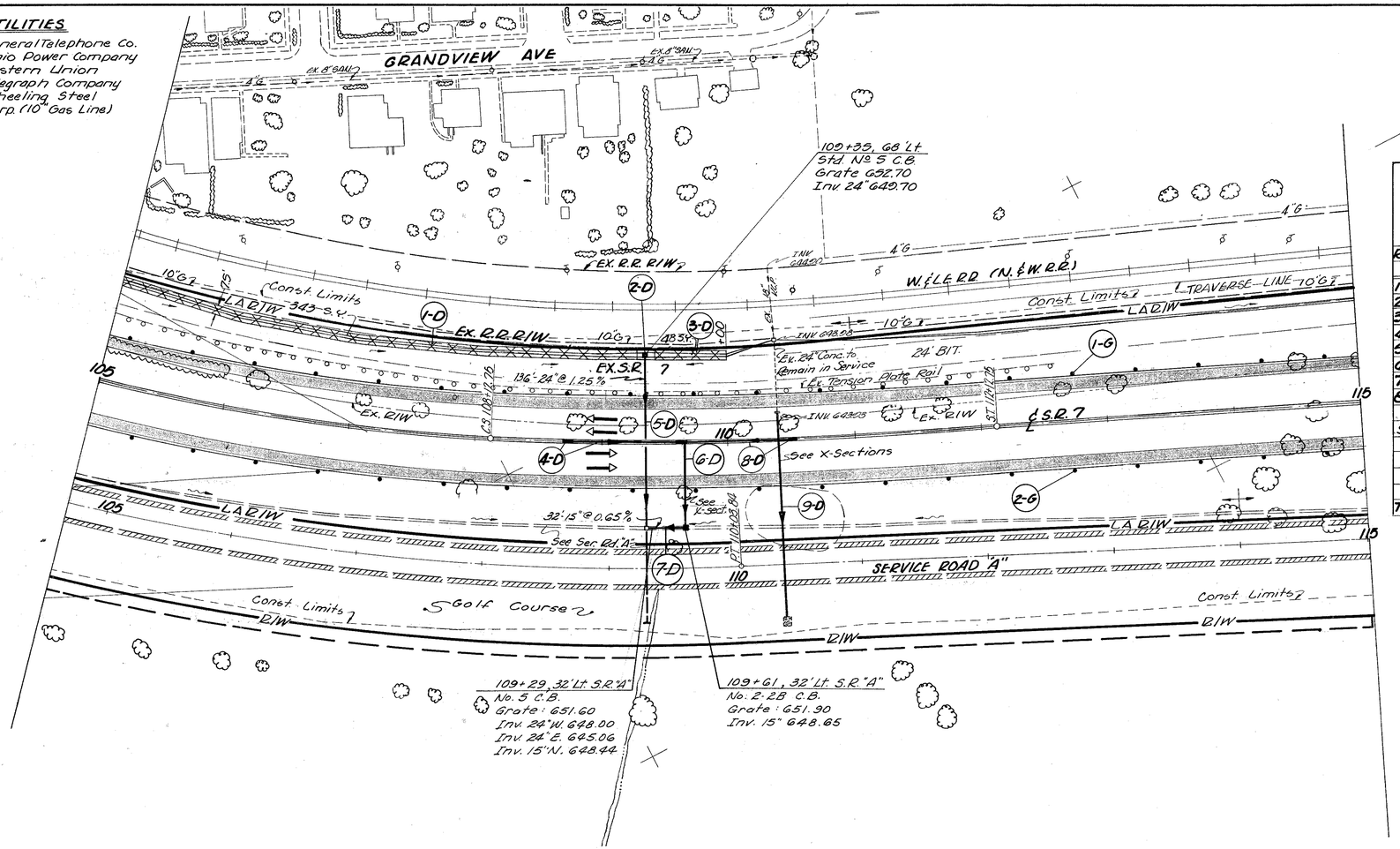
95+00 to 105+00

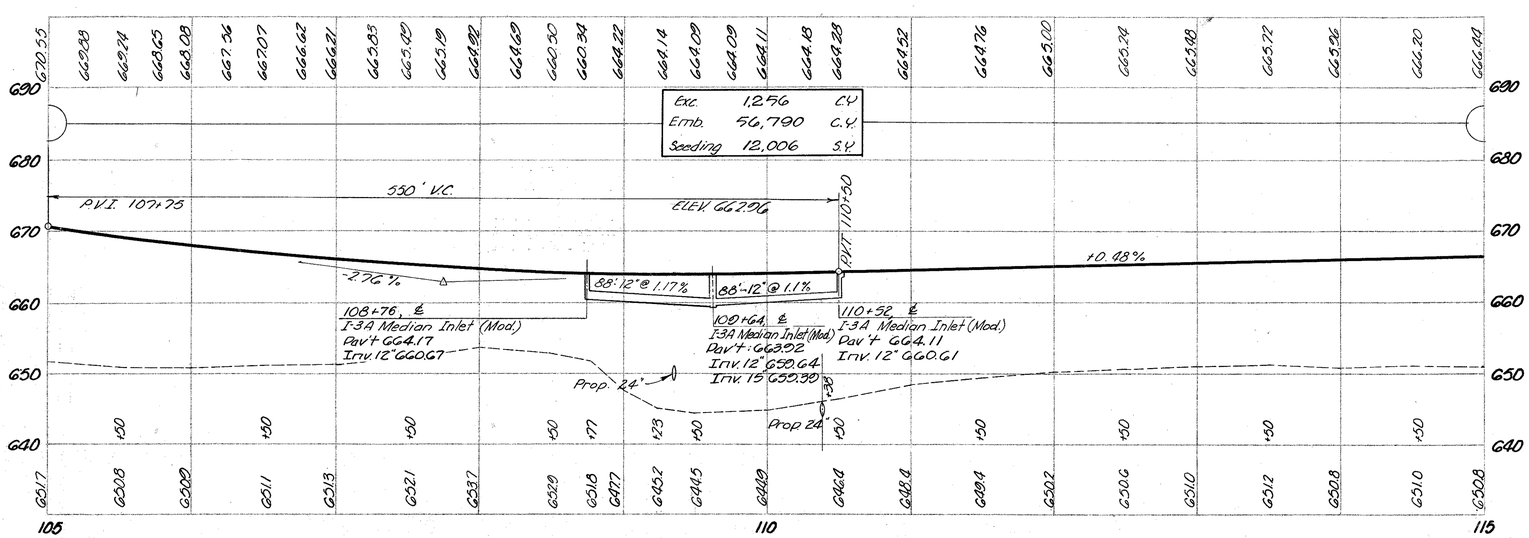
FED. RD. DIVISION	STATE	PROJECT	
2	OHIO		

46/560

JEFFERSON COUNTY
JEF.-7-0.20

UTILITIES
General Telephone Co.
Ohio Power Company
Western Union
Telegraph Company
Wheeling Steel
Corp. (10" Gas Line)





REF.	SIDE	LOCATION	603 Type "B" 12" L.F.	603 Type "B" 15" L.F.	603 Type "B" 24" L.F.	603 Type "F" 15 L.F.	603 Type "C" 15 L.F.	602 Concrete Masonry C.Y.	604 I-3A Median Inlet (Mod.) Ea.	604 No. 2-2B Catch Basin Ea.	604 Std. No. 5 Catch Basin Ea.	667 Seeding & Jute Matting S.Y.	See Sheet No.
1-D	Lt.	105+00 to 109+28										343	
2-D	Lt.	109+35, 68' Lt.									1		
3-D	Lt.	109+42 to 110+00										48	
4-D	℄	108+76 to 109+64	88						1				
5-D	Lt. & Rt.	109+35			136								227
6-D	Rt.	109+64' to 109+61, 32' Lt.		40		31			1	1			227
7-D	Lt.	109+29 to 109+61					32						
8-D	℄	109+64 to 109+52	88						1				
9-D	Lt. & Rt.	110+38, 22' Lt. to 110+39, 42' Rt. Ser. Rd. "A"			164			0.69					227
TOTAL TO GEN. SUMMARY			176	40	300	31	32	0.69	3	1	1	391	

For Pavement Details & Elevations See Sheets 129 & 130
For Construction Layouts, Bench Marks & References See Sheet # 29
For Service Road "A" Plan & Profile See Sheet # 66
For Service Road "A" Pavement Details See Sheets 129 & 130

REF.	SIDE	LOCATION	606 Guard Rail Type 5 L.F.	See Sheet No.
1-G	Lt.	105+00 To 115+00	992	
2-G	Rt.	105+00 To 115+00	1016	
TOTAL TO GEN. SUMMARY			2008	

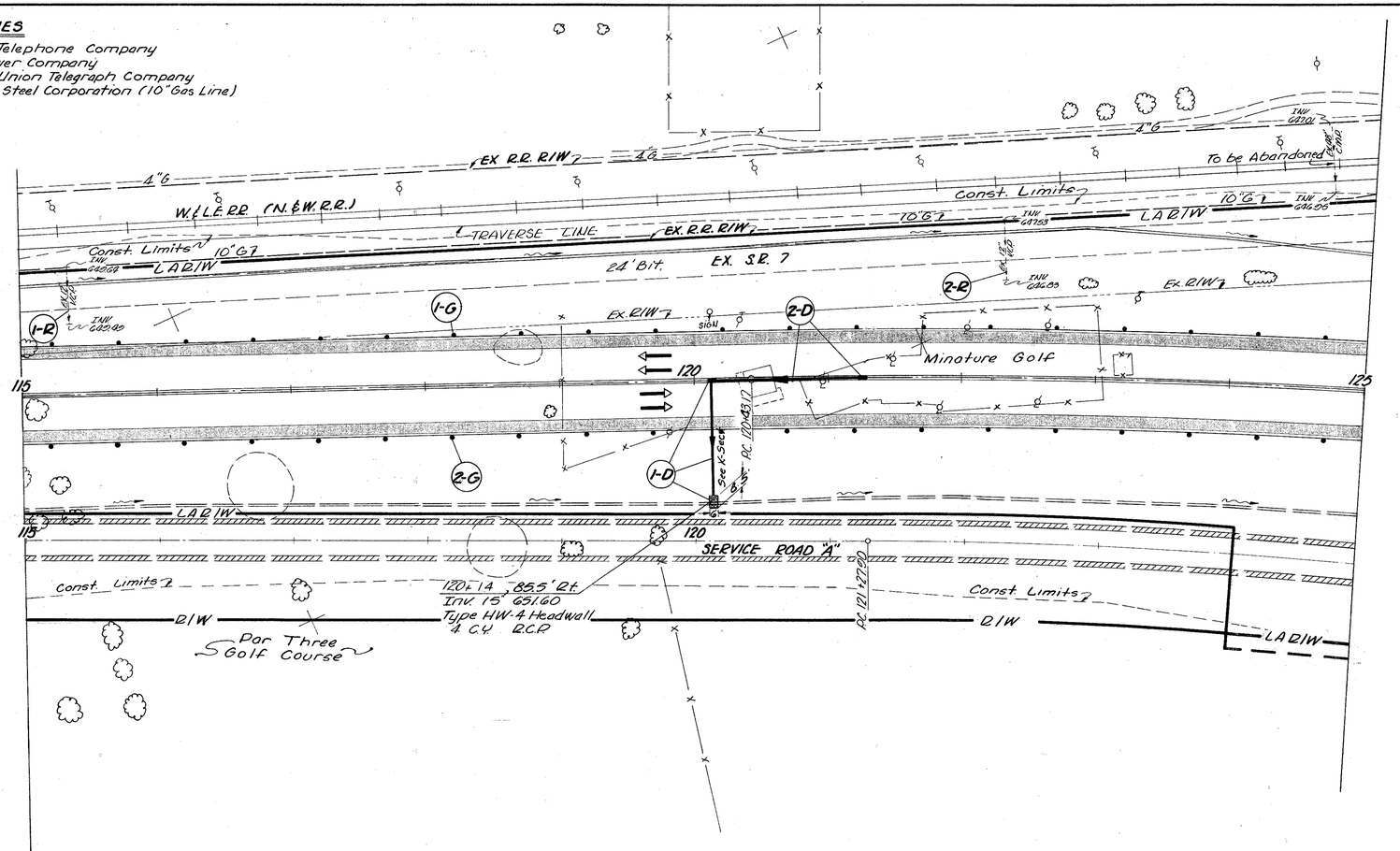
	BY	DATE
EXISTING PLOTTED		
EXISTING CHECKED		
PROPOSED DRAWN		
PROPOSED CHECKED		
QUANTITIES CALCULATED		
QUANTITIES CHECKED		

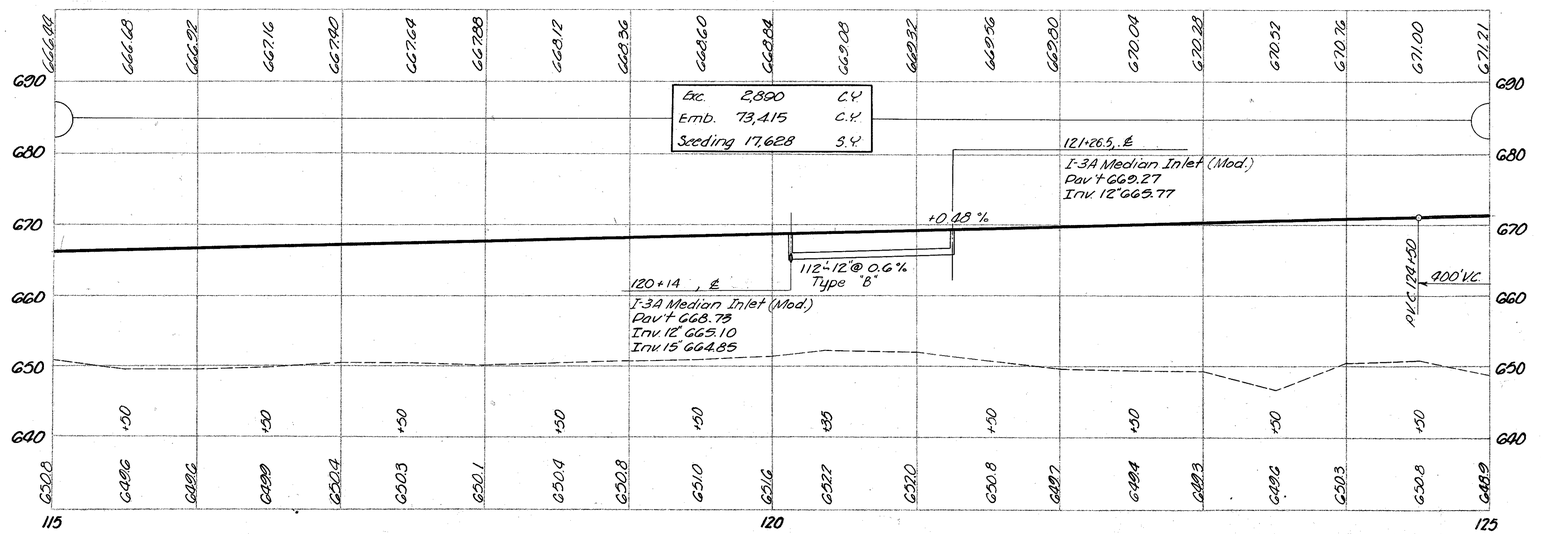
R. S. STILSON & ASSOCIATES LIMITED
Consulting Engineers
Quantities Calculated DLB December 1968
Checked EO April 1969

105+00 to 115+00

UTILITIES

General Telephone Company
Ohio Power Company
Western Union Telegraph Company
Wheeling Steel Corporation (10" Gas Line)





FED. RD. DIVISION	STATE	PROJECT		47 / 560
2	OHIO			

JEFFERSON COUNTY
JEF.-7-0.20

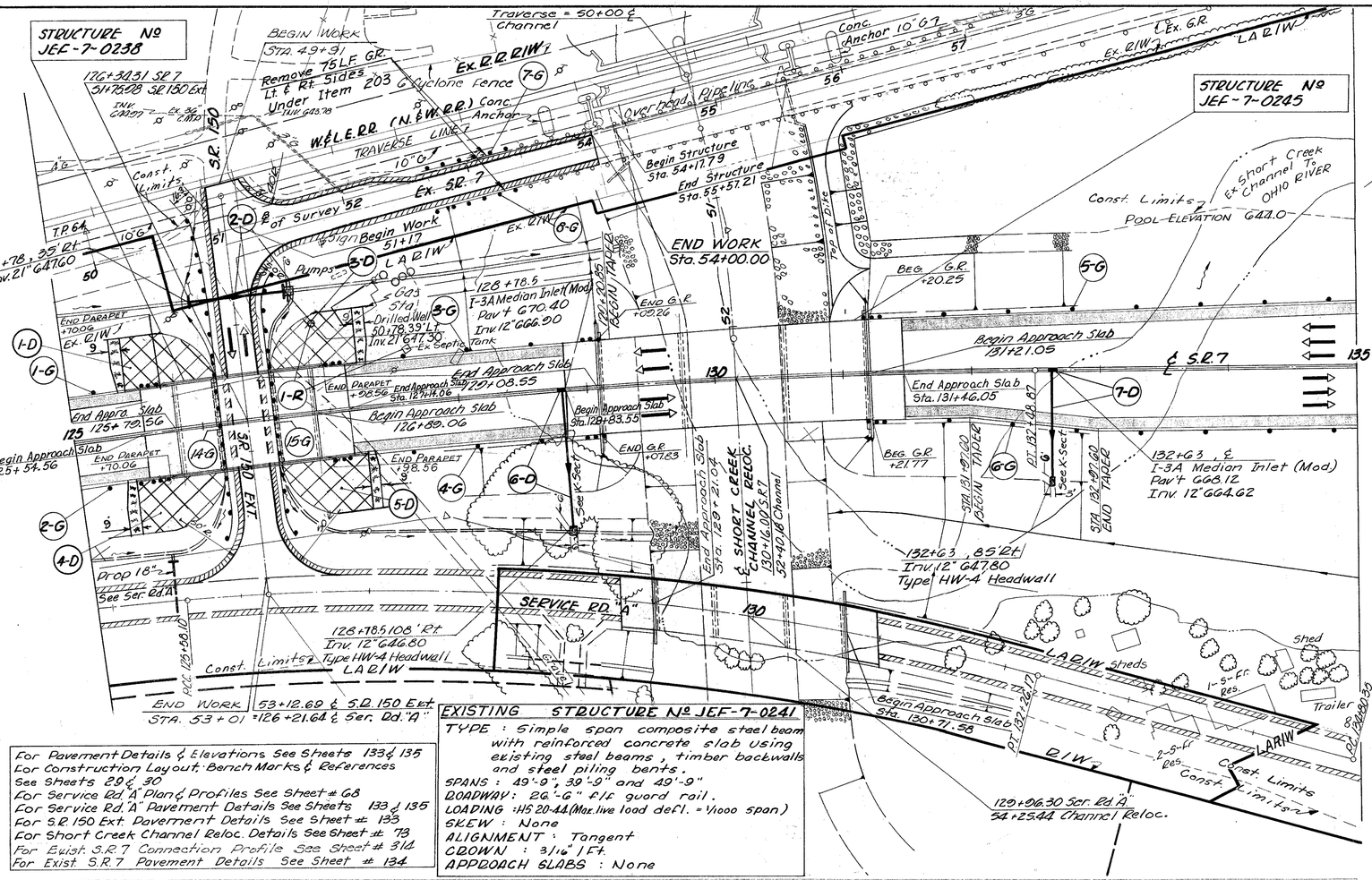
REF.	SIDE	LOCATION	603 Type "B" 12" L.F.	603 Type "B" 15" L.F.	603 Bends & Branches 15" Ea.	603 Type "E" 15" Ea.	602 Concrete Masonry C.Y.	604 I-3A Median Inlet (Mod.) Ea.	601 Rock Channel Prot. Type B C.Y.	202 Pipe Removed 24" & Under L.F.	606 Guard Rail Type 5 L.F.	See Sheet No.
1-D	Lt. & Rt.	120+14, 15' Lt. to 85.5' Rt.		37	1	52		1	4			229
2-D	℄	120+14 to 121+26.5	112					1				
1-R	Lt.	115+35.52' Lt. to 95' Lt.								43		
2-R	Lt.	122+30.72' Lt. to 118' Lt.								46		
1-G	Lt.	115+00 To 125+00									1005	
2-G	Rt.	115+00 To 125+00									995	
TOTAL TO GEN. SUMMARY			112	37	X	52	027	2	4	89	2004	

For Pavement Details & Elevations See Sheets 131 & 132
For Construction Layout, Bench Marks & References See Sheet # 20
For Service Rd. "A" Plan & Profile See Sheet # G7
For Service Rd. "A" Pavement Details See Sheets 131 & 132

	BY	DATE
EXISTING PLOTTED		
EXISTING CHECKED		
PROPOSED DRAWN		
PROPOSED CHECKED		
QUANTITIES CALCULATED		
QUANTITIES CHECKED		

T. E. Sloan & Associates Limited
DLB December 1968
FO April 1969

115+00 to 125+0

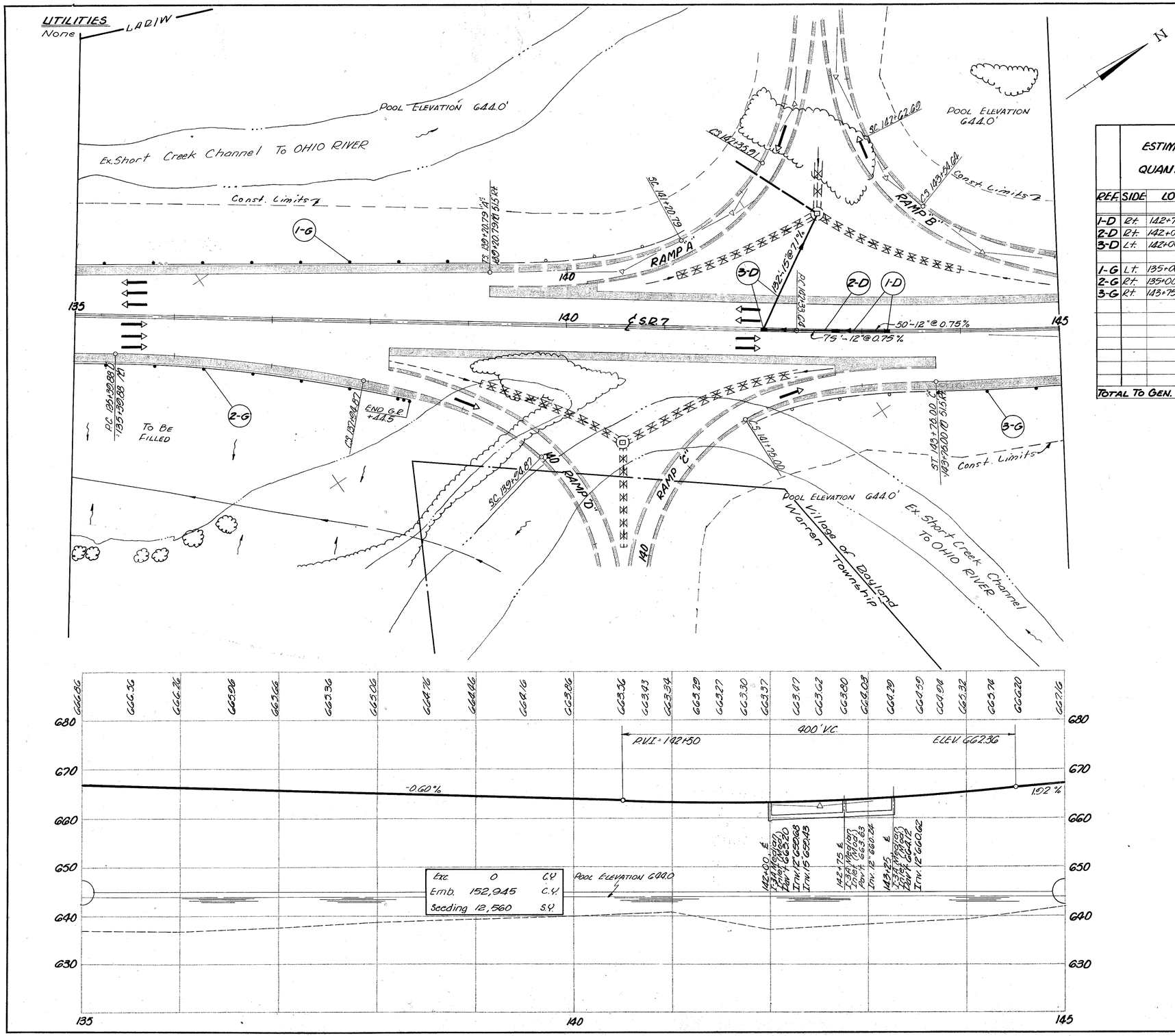

STRUCTURE Nº JEF-7-0238
STRUCTURE Nº JEF-7-0245
BEGIN WORK STA. 49+91
Remove 75 LF GR.
Lt. & Rt. Sides
Under Item 203 6' Cyclone Fence
Traverse = 50+00 ℄ Channel
Ex. R.R. R/W
W.&L.E.R.R. (N.&W.R.R.)
TRAVERSE LINE 7
Conc. Anchor
Overhead Pipe Lines
Ex. R/W
L.A.R/W
Ex. G.R.
Begin Structure Sta. 54+17.79
End Structure Sta. 55+57.21
Const. Limits
Ex. Short Creek Channel To OHIO RIVER
POOL ELEVATION 644.0
Ex. SR. 7
℄ of Survey 52
Begin Work Sta. 51+17
END WORK Sta. 54+00.00
Pumps
Gas Sta.
Drilled Well
Septic Tank
Begin Approach Slab 131+21.05
End Approach Slab Sta. 131+46.05
℄ S.R. 7
End Approach Slab Sta. 129+08.55
Begin Approach Slab Sta. 128+83.55
End Approach Slab Sta. 129+08.55
Begin Approach Slab 126+89.06
End Approach Slab Sta. 127+14.06
End Appra. Slab 125+70.56
Begin Approach Slab 125+54.56
END PARAPET +70.06
END PARAPET +98.56
END PARAPET +70.06
Ex. 36" CMP
Ex. 12" CMP
Ex. 10" W.L.
Ex. 8" G.&S.
Ex. 10" G.
Ex. 12" W.L.
Ex. 6" G.
Ex. 8" W.L.
Ex. 8" S.S.
Ex. 8" G.
Ex. 6" W.L

FED. RD. DIVISION	STATE	PROJECT	
2	OHIO		

49
560

JEFFERSON COUNTY
JEF.-7-0.20

UTILITIES
None



REF.	SIDE	LOCATION	603 Type "B" 12" L.F.	603 Type "B" 15" L.F.	604 I-3A Median Inlet (Mod) Ea.	606 Guard Rail Type 5 L.F.	606 Anchor Assembly Ea.	See Sheet No.
1-D	Rt.	142+75 to 143+25	50		1			
2-D	Rt.	142+00 to 142+75	75		1			
3-D	Lt.	142+00 to 142+25 "A"		132	1			234
1-G	Lt.	135+00 To 139+20± N/A				422		
2-G	Rt.	135+00 N/A To 138+44.5 "D"				323	1	
3-G	Rt.	143+75 To 145+00 N/A				128		
TOTAL TO GEN. SUMMARY			125	132	3	873	1	

For Pavement Details & Elevations See Sheets 136 & 138
For Construction Layout, Bench Marks & References See Sheet # 30
For Ramp Plan & Profiles See Sheets 71 & 72
For Ramp Pavement Details See Sheets 136, 138, 139, 140

A. E. STILSON & ASSOCIATES LIMITED
Quantities Calculated DLB December 1968
Quantities Checked EO April 1969

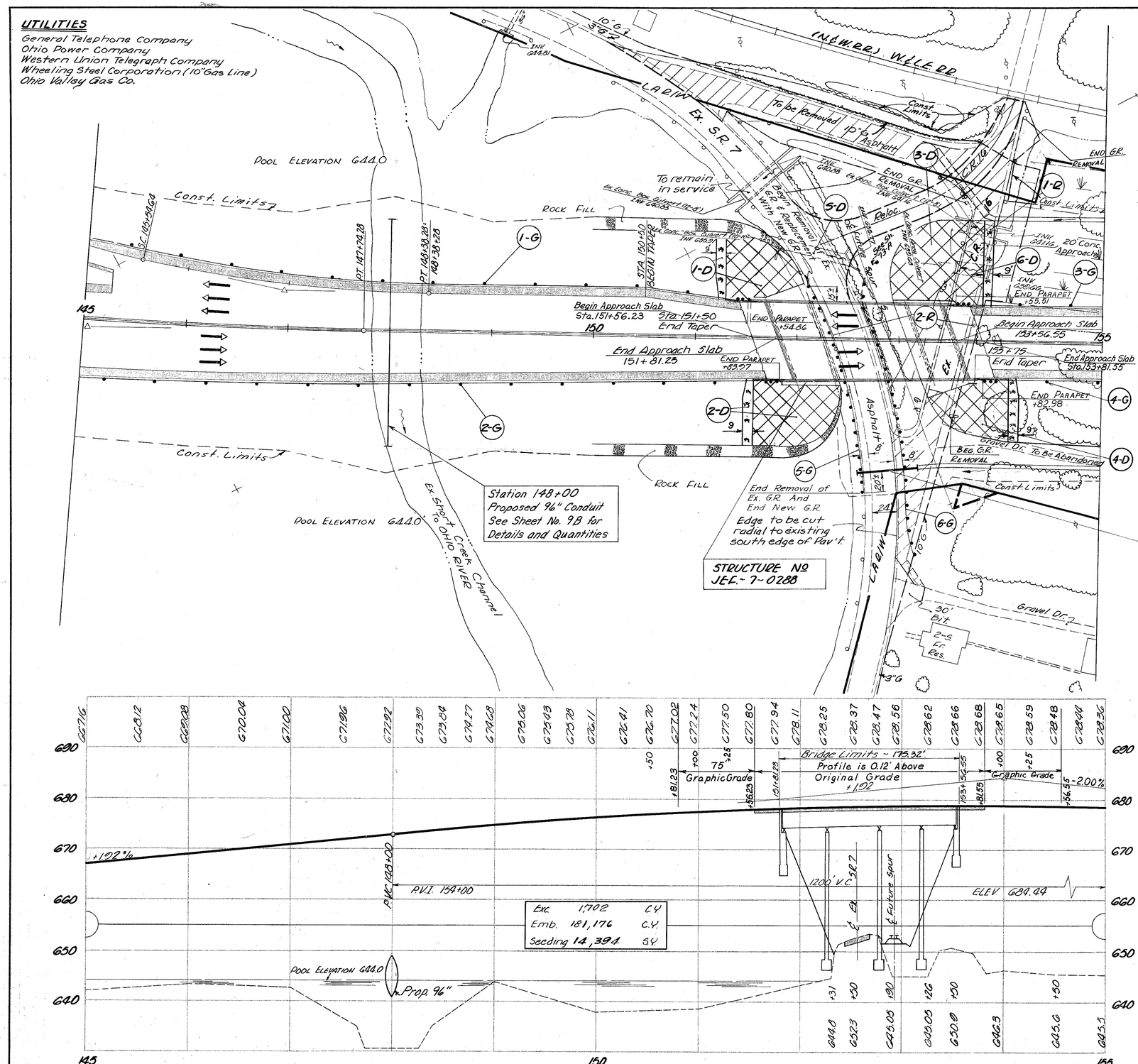
135+00 to 145+00

FED. RD. DIVISION	STATE	PROJECT	
2	OHIO		

50/560

JEFFERSON COUNTY
JEF.-7-0.20

UTILITIES
General Telephone Company
Ohio Power Company
Western Union Telegraph Company
Wheeling Steel Corporation (10" Gas Line)
Ohio Valley Gas Co.



REF.	SIDE	LOCATION	660 Special Slope & Berm Protection S.Y.	202 Existing Structure Removal Lump	202 Guard Rail Removed for Storage L.F.	667 Seeding & Jute Matting S.Y.	SPEC. Plug & Fill Ex. Box Culvert L.F.	606 Guard Rail Type 5 L.F.	606 Anchor Assembly Ea.	606 Type A Bridge Terminal Assembly Ea.	See Sheet No.
1-D	Lt.	151+52	65			417					
2-D	Rt.	151+81	62			497					
3-D	Lt.	153+50	84			851					
4-D	Rt.	153+50	60			387					
5-D	Lt.	152+13, 85' Lt. ±					75				
6-D	Lt.	153+70, 70' Lt. ±					35				
1-R	Lt.	153+80, 110' Lt. ±		Lump							
2-R	L&R.	As Shown			900						
1-G	Lt.	145+54.64 "B" To 151+54.86 M						598		1	
2-G	Rt.	145+00 To 151+83.97 M						684.5		1	
3-G	Lt.	153+55.51 To 155+00						144.5		1	
4-G	Rt.	153+82.98 To 155+00						117		1	
5-G	L&R.	As Shown						212.5			
6-G	L&R.	As Shown						225	1		
TOTAL TO GEN. SUMMARY			271	Lump	900	2152	110	1981.5	1	4	

For Pavement Details & Elevations See Sheets 141 & 142
For Construction Layout, Bench Marks & References See Sheet #30
For C.R. 16 Details See Sheet No. 73A
For C.R. 16 Profile & Cross Sections See Sheet No. 328A

PROPOSED STRUCTURE No JEF.-7-0288

TYPE : Continuous steel beam with reinforced concrete slab and substructure.
SPANS : 42'-0", 52'-6", 42'-0", 34'-0" along ℄ S.R. 7
ROADWAY : 76' avg. width f/f concrete barrier type parapet with 3'-0" barrier median.
LOADING : HS 20-44
WEARING SURFACE : 1½" Asphaltic concrete.
SKEW : 20° 58' 26" Right forward.
ALIGNMENT : Tangent
APPROACH SLABS : AS-1-72, 25'-0" long

PLB December 1968
F.O. April 1969

Rev. 9-23-74

Rev. 660 & 667 7-5-73 F.O.

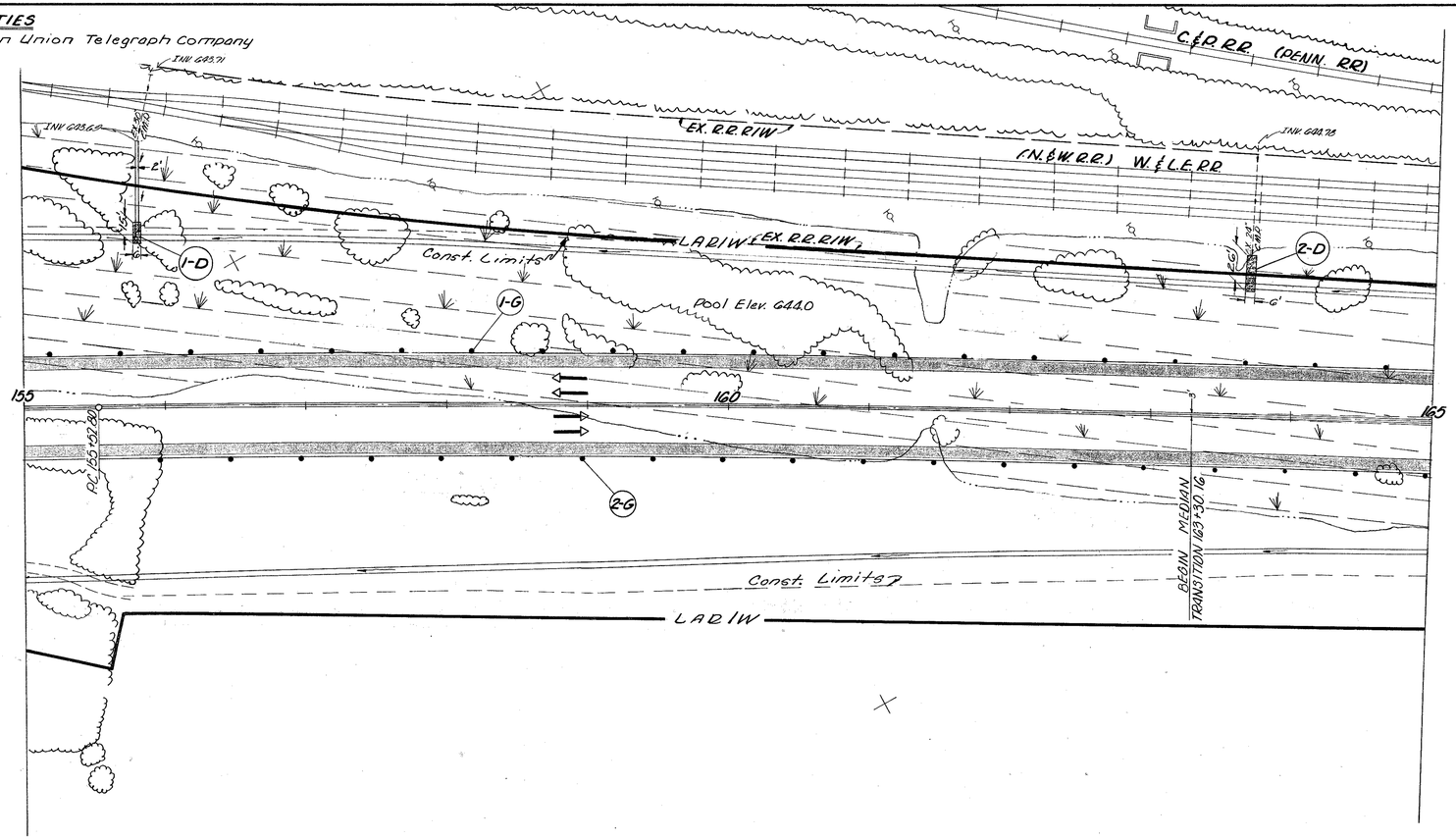
145+00 to 155+00

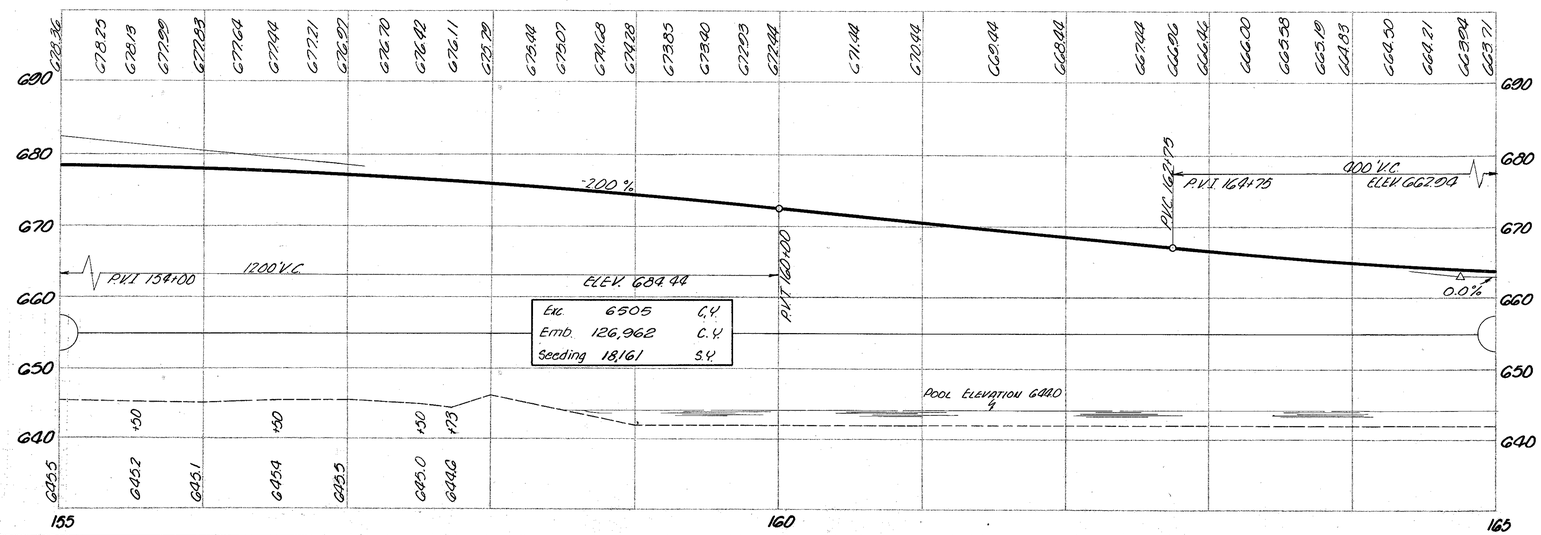
FED. RD. DIVISION	STATE	PROJECT	
2	OHIO		

51
560

JEFFERSON COUNTY
JEF.-7-020

UTILITIES
Western Union Telegraph Company

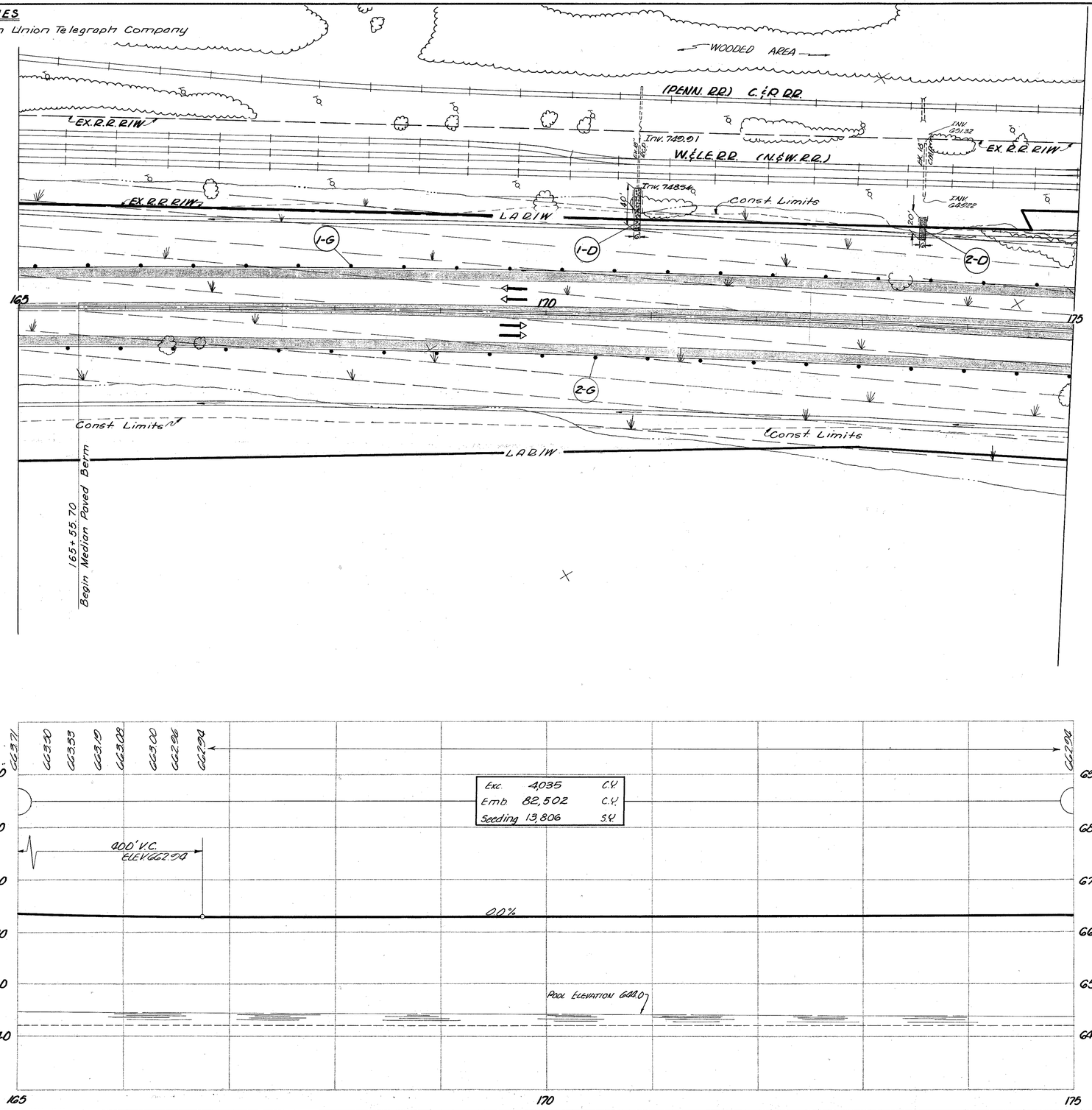




| ESTIMATED QUANTITIES | | | 601 | 606 | | |

UTILITIES

Western Union Telegraph Company





FED. RD. DIVISION	STATE	PROJECT	
2	OHIO		

52
560

JEFFERSON COUNTY

JEF.-7-0.20

REF	SIDE	LOCATION	601 Rock Prot. Type "B"	606 Guard Rail Type "S"	See Sheet No.
			C.Y.	L.F.	
1-D	Lt.	170+85.70 to 118' Lt.	178		
2-D	Lt.	173+53.80' to 100' Lt.	80		
1-G	Lt.	165+00 To 175+00		1000	
2-G	Rt.	165+00 To 175+00		1000	
TOTAL TO GEN. SUMMARY			27	2000	

For Pavement Details & Elevations See Sheet # 14A
For Construction Layout, Bench Marks & References See Sheet # 31

	BY	DATE
EXISTING PLOTTED		
EXISTING CHECKED		
PROPOSED DRAWN		
PROPOSED CHECKED	G.P.M.	7-1-68
QUANTITIES COMPUTED		
QUANTITIES CHECKED		

DLB December 1968
FO April 1969

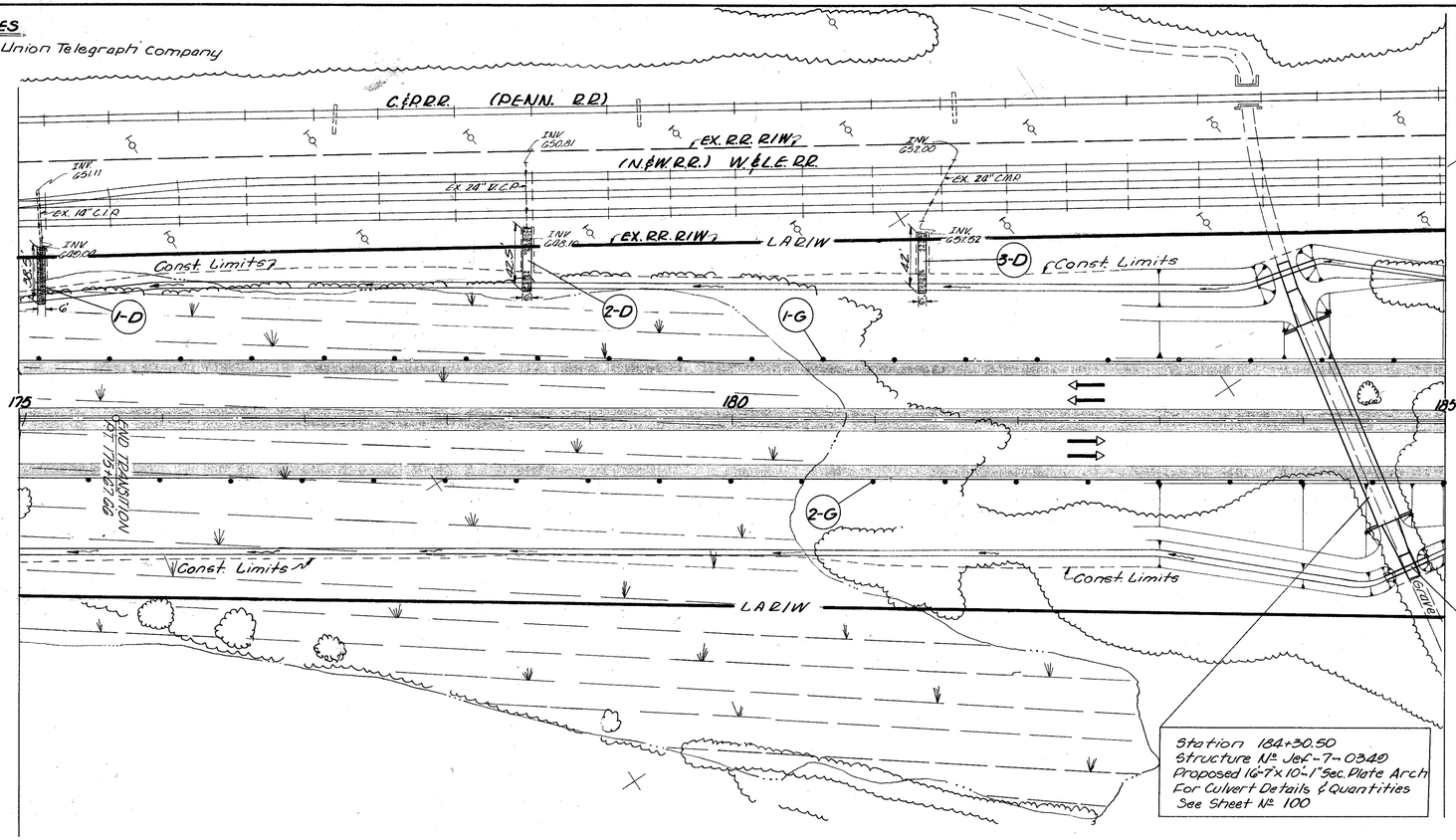
165+00 to 175+00

FED. RD. DIVISION	STATE	PROJECT	
2	OHIO		

53/560

JEFFERSON COUNTY
JEF.-7-0.20

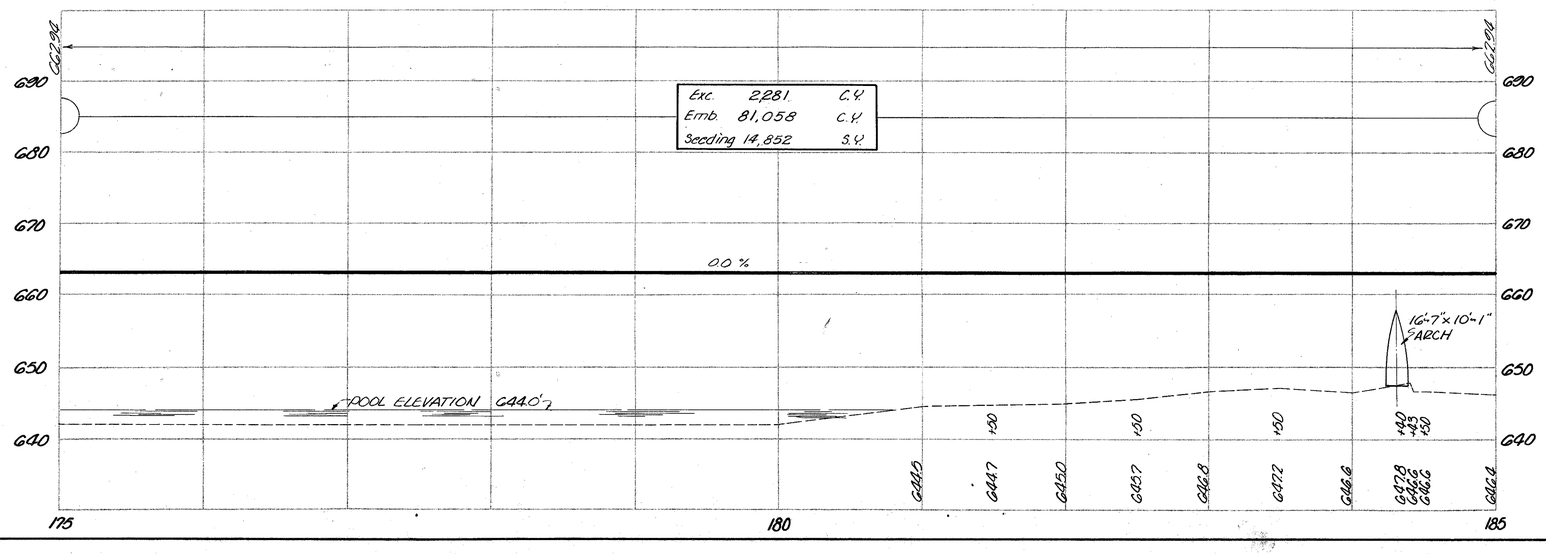
UTILITIES
Western Union Telegraph Company



Station 184+00 ± Lt. & Rt.
42" Conduit Lt. & 36" Conduit Rt.
For Culvert Details & Quantities
See Sheet No. 100

REF.	SIDE	LOCATION	601 Rock Chan. Dept. Type "B"	606 Guard Rail Type 5	See Sheet No.
			C.Y.	L.F.	
1-D	Lt.	175+15, 65' to 100' Lt.	17		
2-D	Lt.	178+55, 90' to 132.5' Lt.	19		
3-D	Lt.	181+33, 88.5' to 130' Lt.	19		
1-G	Lt.	175+00 To 185+00		1000	
2-G	Rt.	175+00 To 185+00		1000	
TOTAL TO GEN. SUMMARY			55	2000	

For Pavement Details & Elevations See Sheet # 145
For Construction Layout, Bench Marks & References See Sheet # 31



Exc. 2,281 C.Y.
Emb. 81,058 C.Y.
Seeding 14,852 S.Y.

DLB December 1968
FO April 1969

175+00 to 185+00

FED. RD. DIVISION	STATE	PROJECT	
2	OHIO		

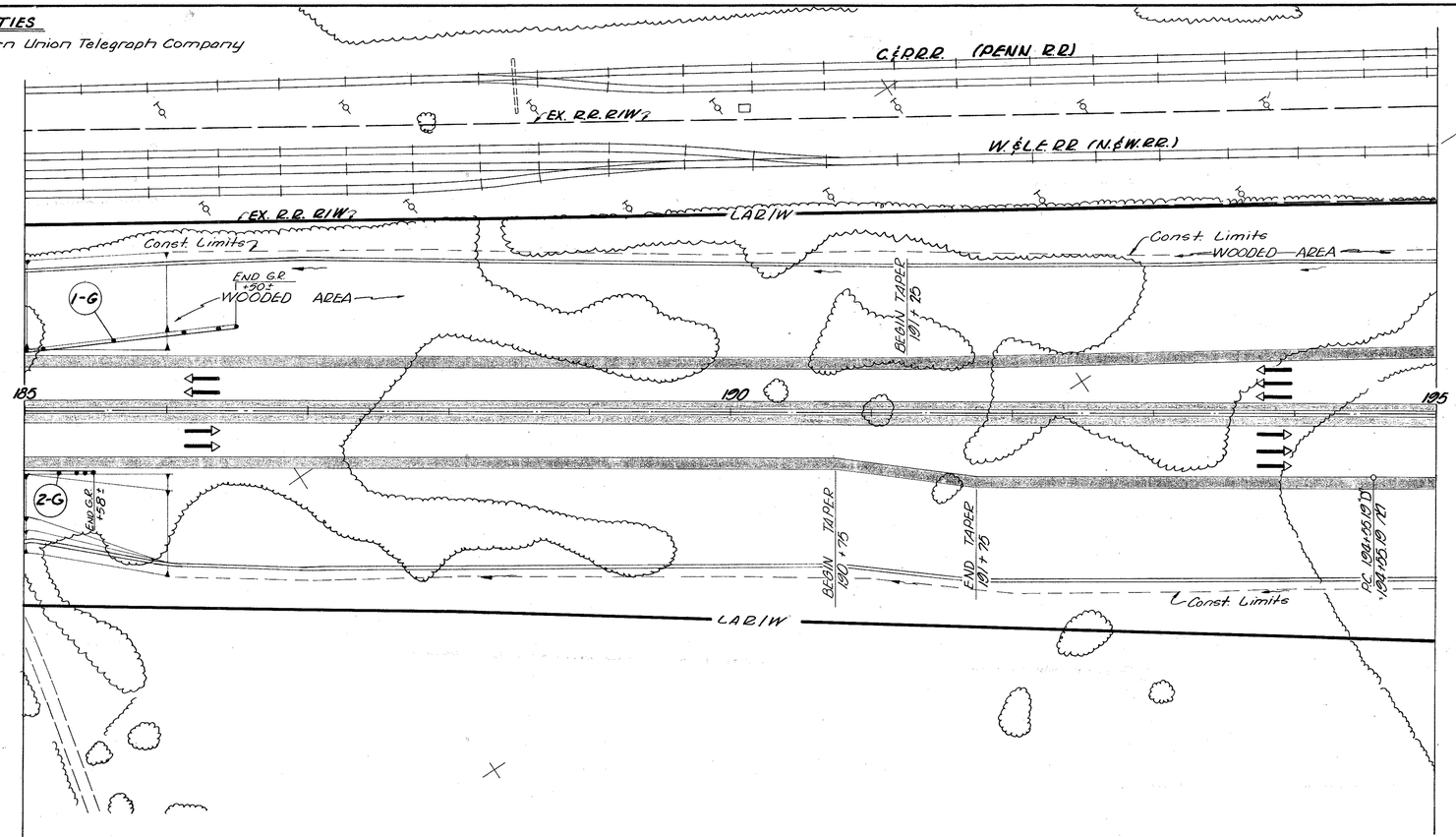
54
560

JEFFERSON COUNTY

JEF.-7-0.20

UTILITIES

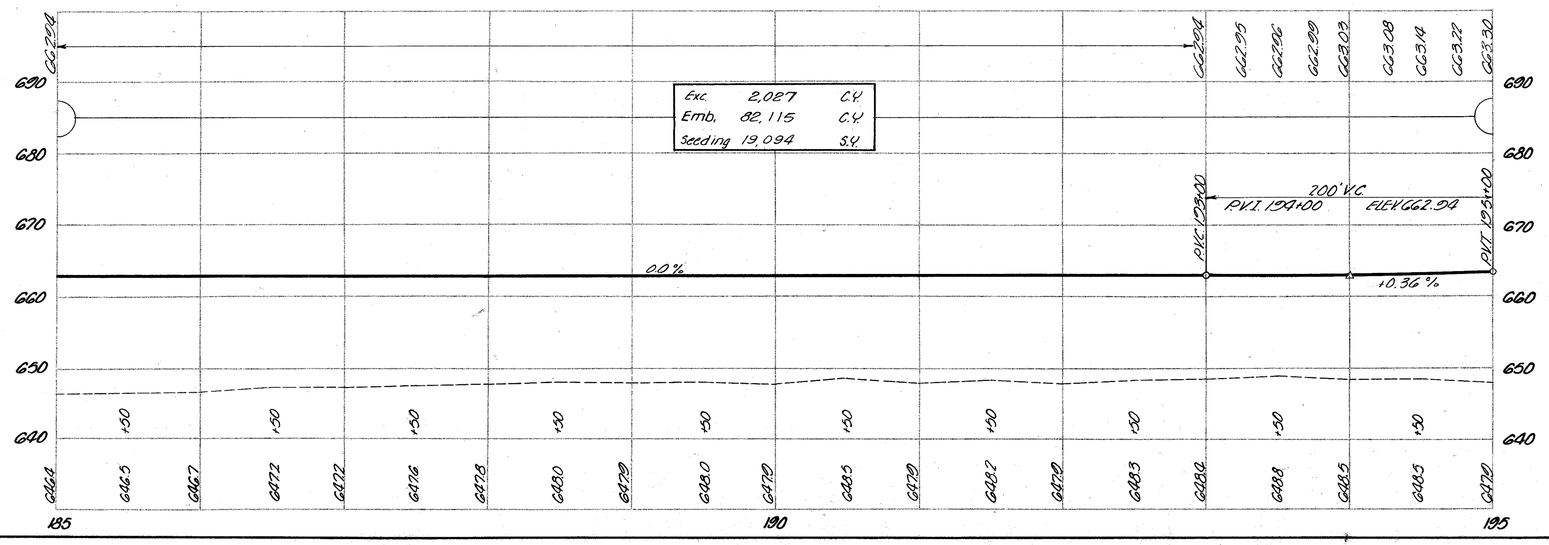
Western Union Telegraph Company



REF.	SIDE	LOCATION	606 Guard Rail Type 5 L.F.	606 Anchor Assembly Ea
1-G	Lt.	185+00 To 186+50±	130.5	1
2-G	Rt.	185+00 To 185+58	33	1
TOTALS TO GEN. SUMMARY			163.5	2

ESTIMATED QUANTITIES

For Pavement Details & Elevations See Sheet # 146
For Construction Layout, Bench Marks & References See Sheets 31 & 32



	BY	DATE
EXISTING PLOTTED		
EXISTING CHECKED		
PROPOSED DRAWN		
PROPOSED CHECKED		
QUANTITIES CALCULATED		
QUANTITIES CHECKED		

R. E. SULLIVAN & ASSOCIATES LIMITED
PLB December 1968
EO April 1969

185+00 to 195+00

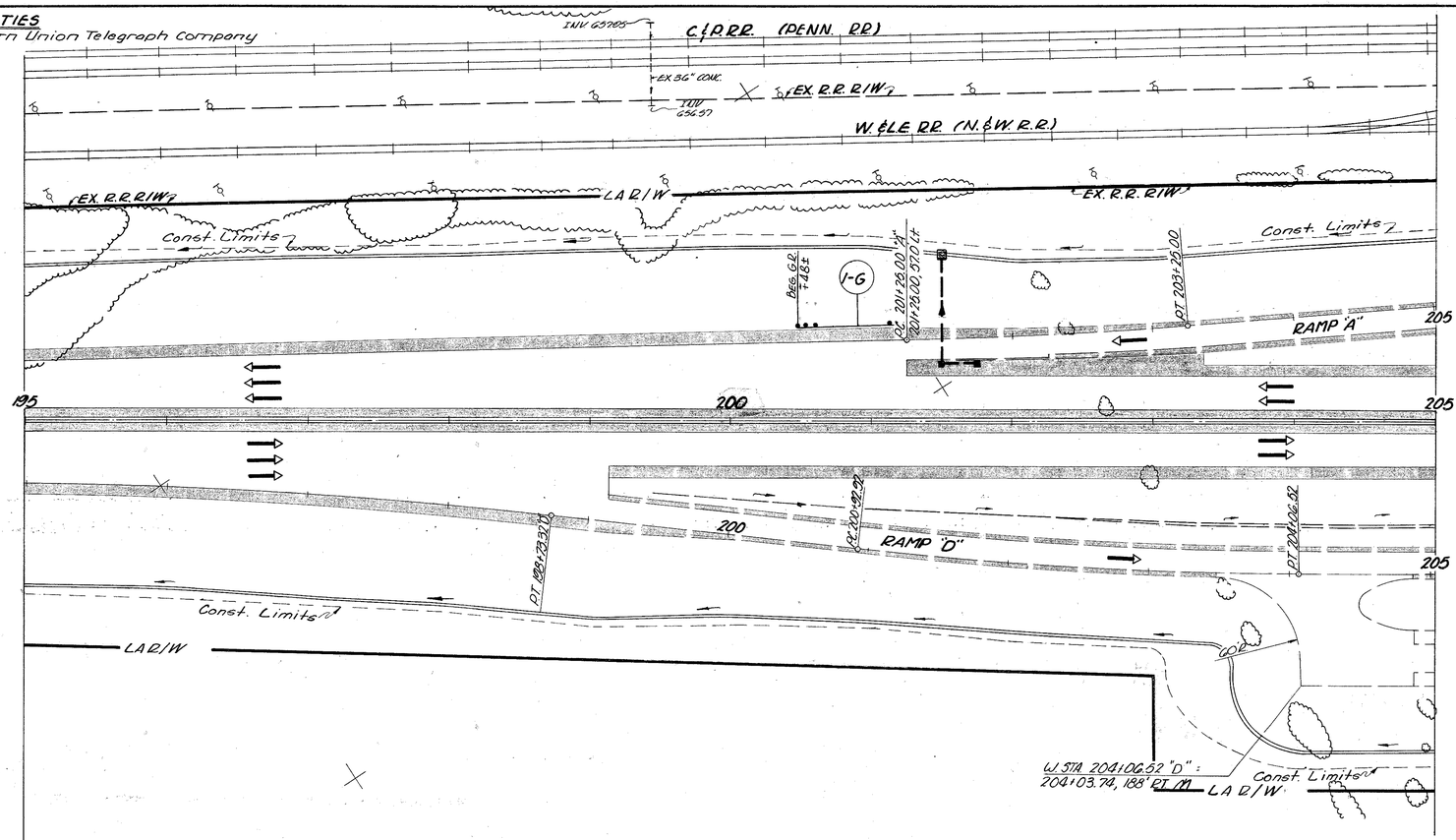
FED. RD. DIVISION	STATE	PROJECT	
2	OHIO		

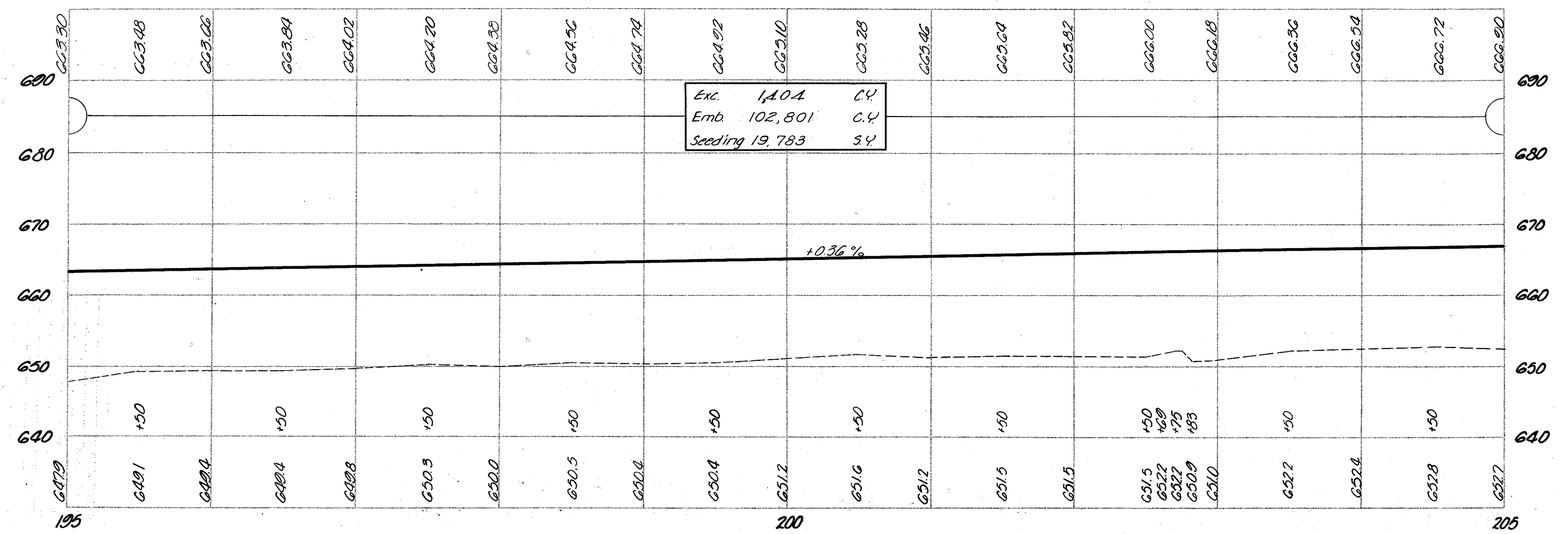
55/560

JEFFERSON COUNTY

JEF.-7-0.20

UTILITIES
Western Union Telegraph Company







REF.	SIDE	LOCATION	606 Guard Rail Type S L.F.	606 Anchor Assembly Ea.
1-G	Lt.	200+48± To 201+25 M	53.0	1
TOTAL TO GEN. SUMMARY			53.0	1

For Pavement Details & Elevations See Sheets 147 & 148
For Construction Layout, Bench Marks & References See Sheet # 3B
For Ramp Plan & Profiles See Sheets 74 & 76
For Ramp Pavement Details See Sheets 147 & 148

	BY	DATE
EXISTING PLOTTED		
EXISTING CHECKED		
PROPOSED DRAWN		
PROPOSED CHECKED		
QUANTITIES CALCULATED		
QUANTITIES CHECKED		

DLB December 1968
CO April 1969

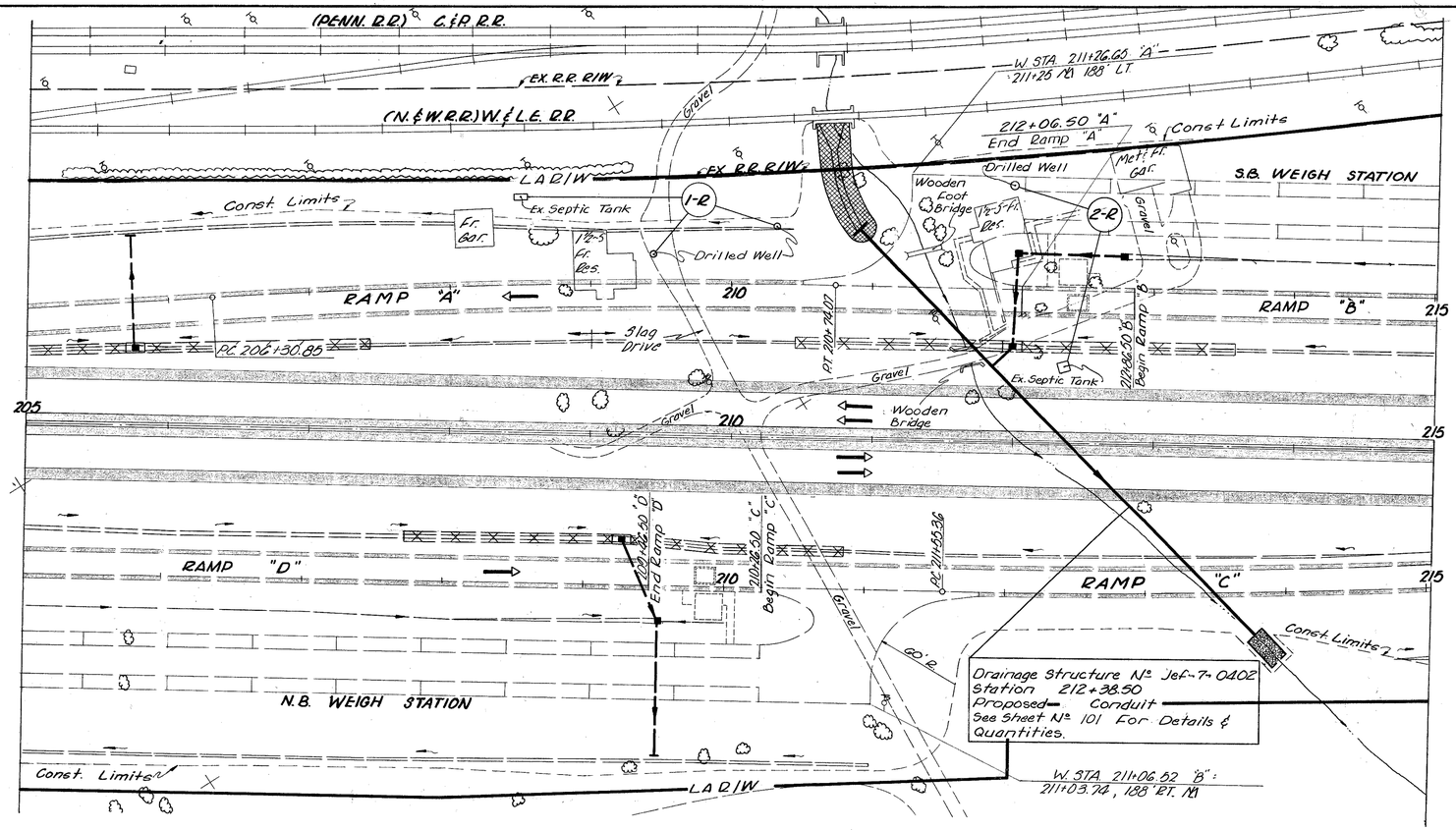
195+00 to 205+00

FED. RD. DIVISION	STATE	PROJECT	
2	OHIO		

56/560

JEFFERSON COUNTY

JEF.-7-020

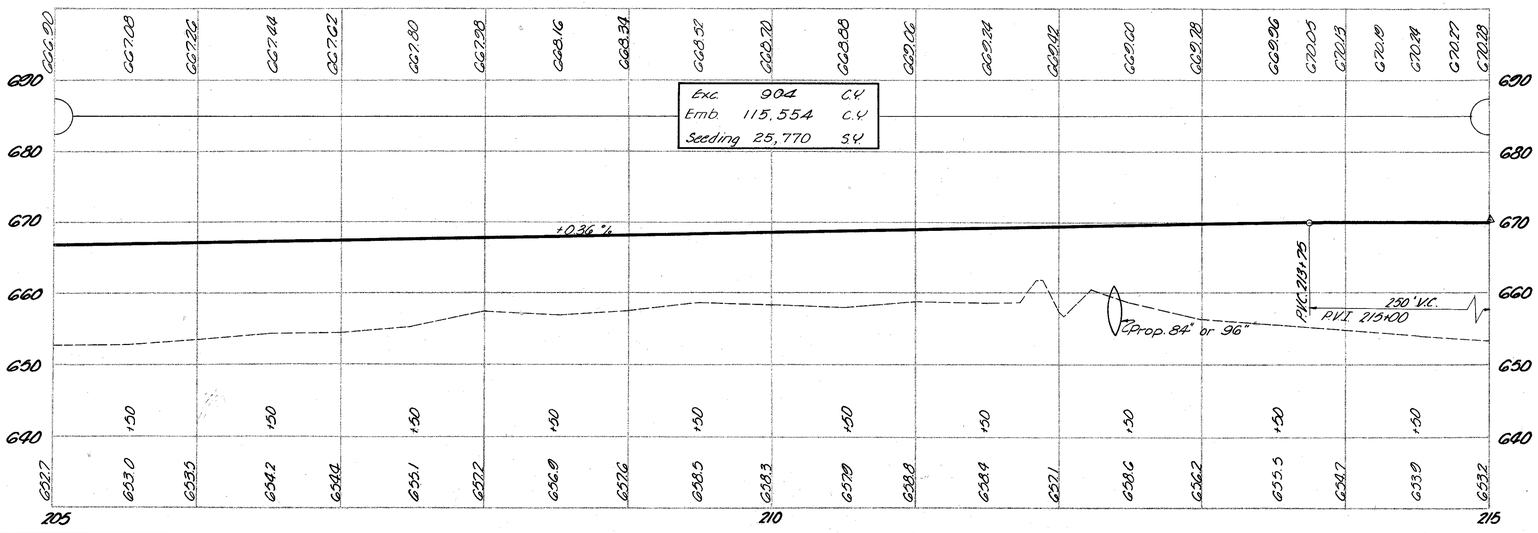


UTILITIES

General Telephone Company
Ohio Power Company
Western Union Telegraph Company

REF.	SIDE	LOCATION	202 Septic Tank Removed	SPEC. Drilled Well Abandoned
			Ea.	Ea.
1-R	Lt.	As Shown	1	2
2-R	Lt.	As Shown	1	1
TOTAL TO GEN. SUMMARY			2	3

For Pavement Details & Elevations See Sheets 149 & 150
For Construction Layout, Bench Marks & References See Sheet # 32
For Weigh Station & Ramp Plan & Profile See Sheets 74, 75, 76 & 77
For Weigh Station & Ramp Pavement Details & Elevations See Sheets 149 & 150



	BY	DATE
EXISTING PLOTTED		
EXISTING CHECKED		
PROPOSED DRAWN		
PROPOSED CHECKED		
QUANTITIES CALCULATED		
QUANTITIES CHECKED		

A. R. STEFFEN & ASSOCIATES LIMITED
PLB December 1968
EO April 1969

205+00 to 215+00

FED. RD. DIVISION	STATE	PROJECT	
2	OHIO		

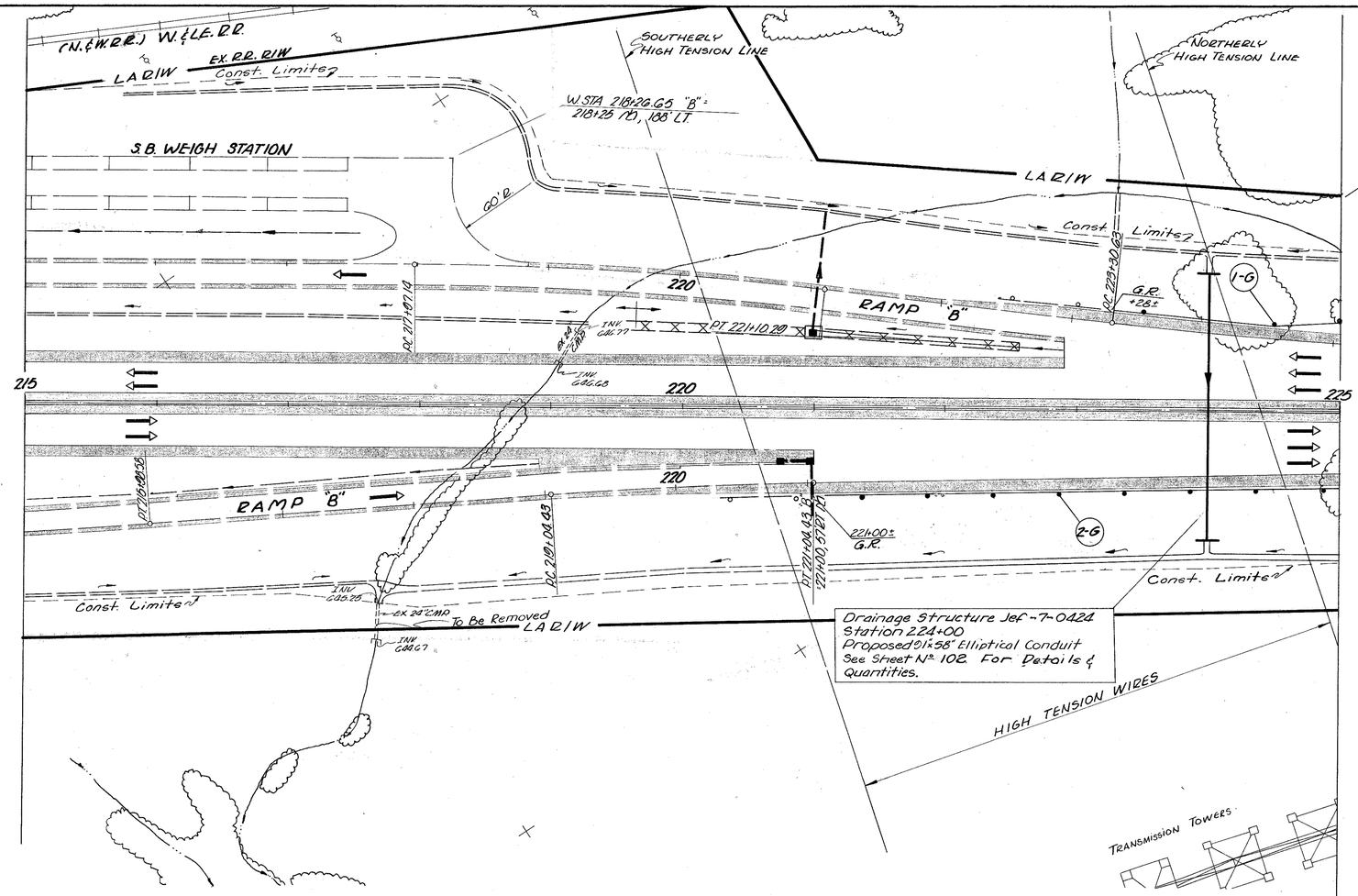
JEFFERSON COUNTY

JEF.-7-0.20

57
560

UTILITIES

Ohio Power Company
Western Union Telegraph Company

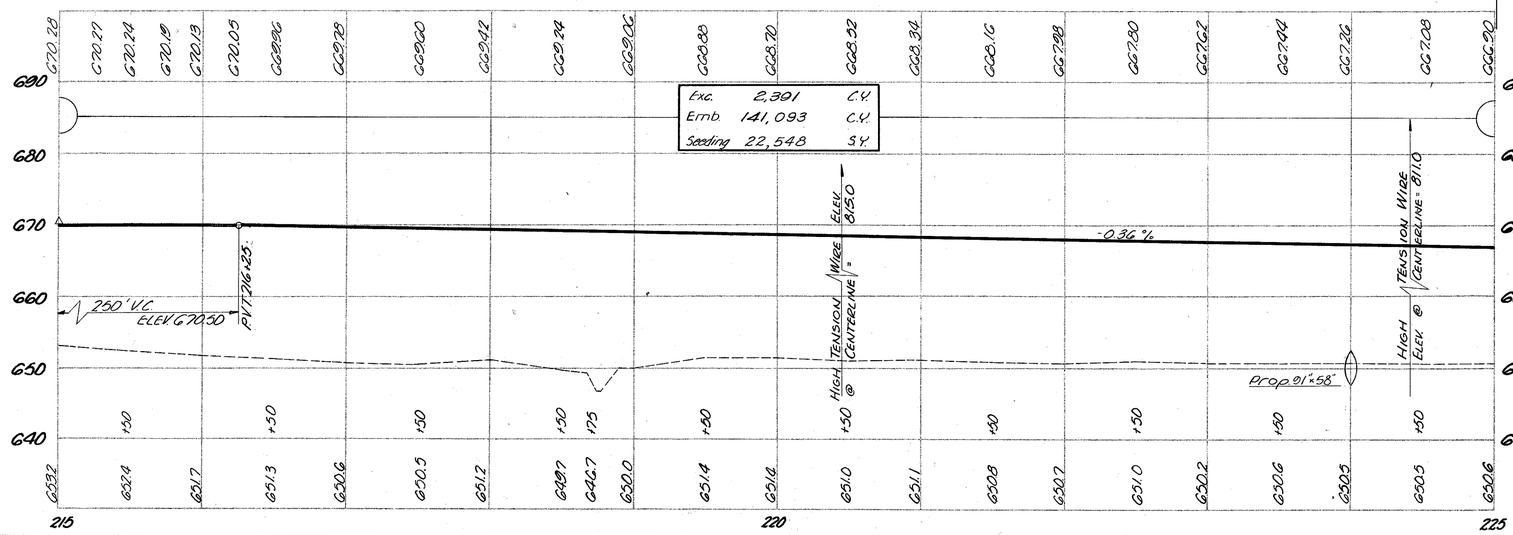


Drainage Structure Jef.-7-0424
Station 224+00
Proposed 91"x58" Elliptical Conduit
See Sheet No. 102 For Details & Quantities.

ESTIMATED QUANTITIES

REF.	SIDE	LOCATION	606 Guard Rail Type S L.F.
1-G	Lt.	225+28± "B" To 225+00 Ahd.	175
2-G	Rt.	221+00± To 225+00 Ahd.	400
TOTAL TO GEN. SUMMARY			575

For Pavement Details & Elevations See Sheets 151 & 152
For Construction Layout, Bench Marks & References See Sheet # 32
For Weigh Station & Ramp Plan & Profiles See Sheets 75 & 77
For Weigh Station & Ramp Pavement Details & Elevations See Sheets 151 & 152



	BY	DATE
EXISTING PLOTTED		
EXISTING CHECKED		
PROPOSED DRAWN		
PROPOSED CHECKED		
QUANTITIES CALCULATED		
QUANTITIES CHECKED		

A. E. STILSON & ASSOC.
D.L.B. December 1968
F.O. April 1969

215+00 to 225+00

FED. RD. DIVISION	STATE	PROJECT	
2	OHIO		

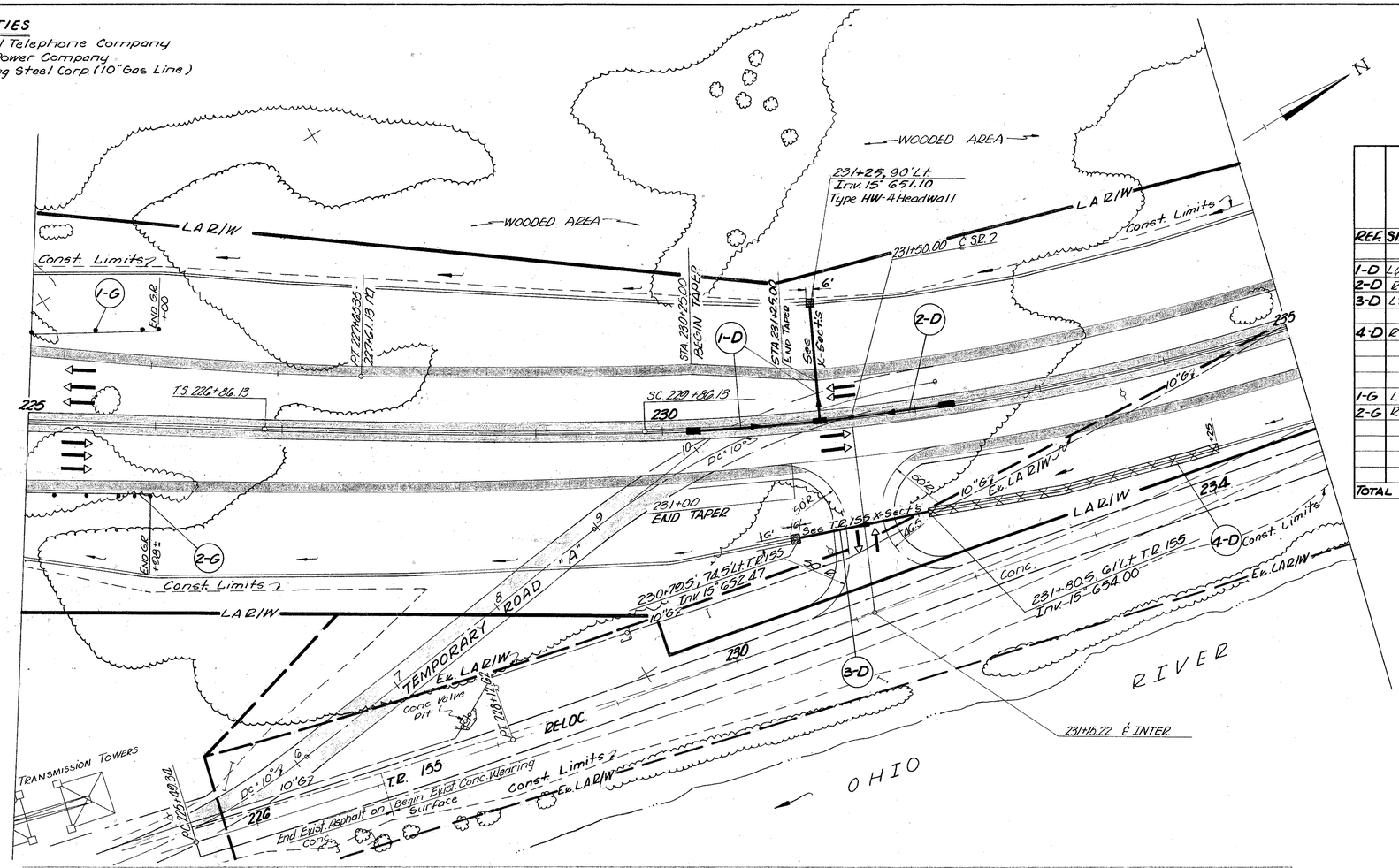
58
560

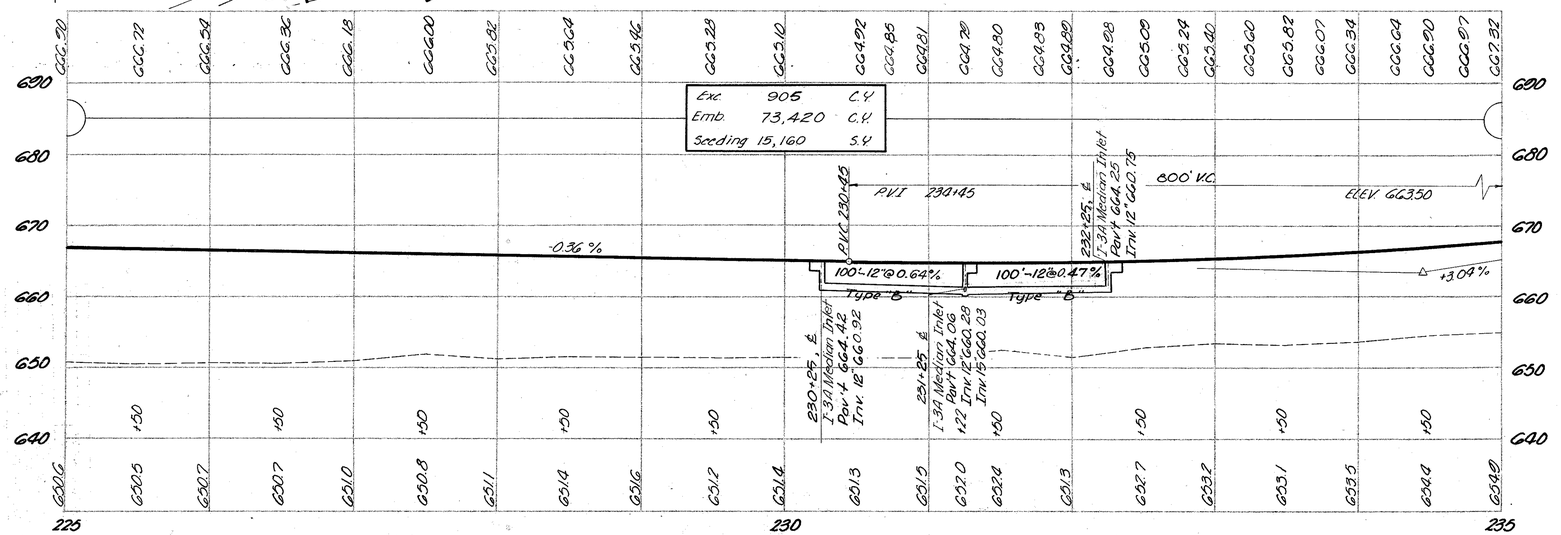
JEFFERSON COUNTY

JEF.-7-0.20

UTILITIES

General Telephone Company
Ohio Power Company
Wheeling Steel Corp. (10" Gas Line)





ESTIMATED QUANTITIES			603					602	604	601	667	606			
			Type "A" *	Type "B"	Type "E"	Bends & Branches Type "E"		Concrete Masonry	1-3A Median Inlet	Rock Cut Type "B" & Sodding & Jute Matting	Guard Rail Type 5	Anchor Assembly		See Sheet No.
REF.	SIDE	LOCATION	15"	12"	15"	15"								
			L.F.	L.F.	L.F.	L.F.	Ea.	C.Y.	Ea.	C.Y.	S.Y.	L.F.	Ea.	
1-D	L & R.	230+25 & to 231+25 96' L.		100	60	28	2	.27	2	2.7				260
2-D	Rt.	231+25 to 232+25		100					1					
3-D	Lt.	230+64 to 231+80.5 T.R. 155	102					.54		2.7				331
4-D	Rt.	231+80.5 T.R. 155 to 234+25 ℳ									196			
1-G	Lt.	225+00 To 226+00										75	1	
2-G	Rt.	225+00 To 226+00										75	1	
TOTAL TO GEN. SUMMARY			102 ✓	200 ✓	60 ✓	28 ✓		0.81 ✓	3 ✓	5 ✓	196 ✓	150 ✓	2 ✓	

* 706.01, 706.02 Cl. III
706.08 or 707.05

For Pavement Details & Elevations See Sheets 153 & 154
For Construction Layout, Bench Marks & References See Sheets 32 & 33
For T.R. 155 Plan & Profile See Sheets 78 & 79
For T.R. 155 Pavement Details See Sheets 153 & 154

	BY	DATE
EXISTING PLOTTED		
EXISTING CHECKED		
PROPOSED UNITS		
QUANTITIES FIGURED		
QUANTITIES CALCULATED		
QUANTITIES CHECKED		

ALFRED BENESCH & ASSOCIATES CONSULTANTS
DLB December 1968
FO April 1969

225+00 to 235+00

FED. RD. DIVISION	STATE	PROJECT	
2	OHIO		

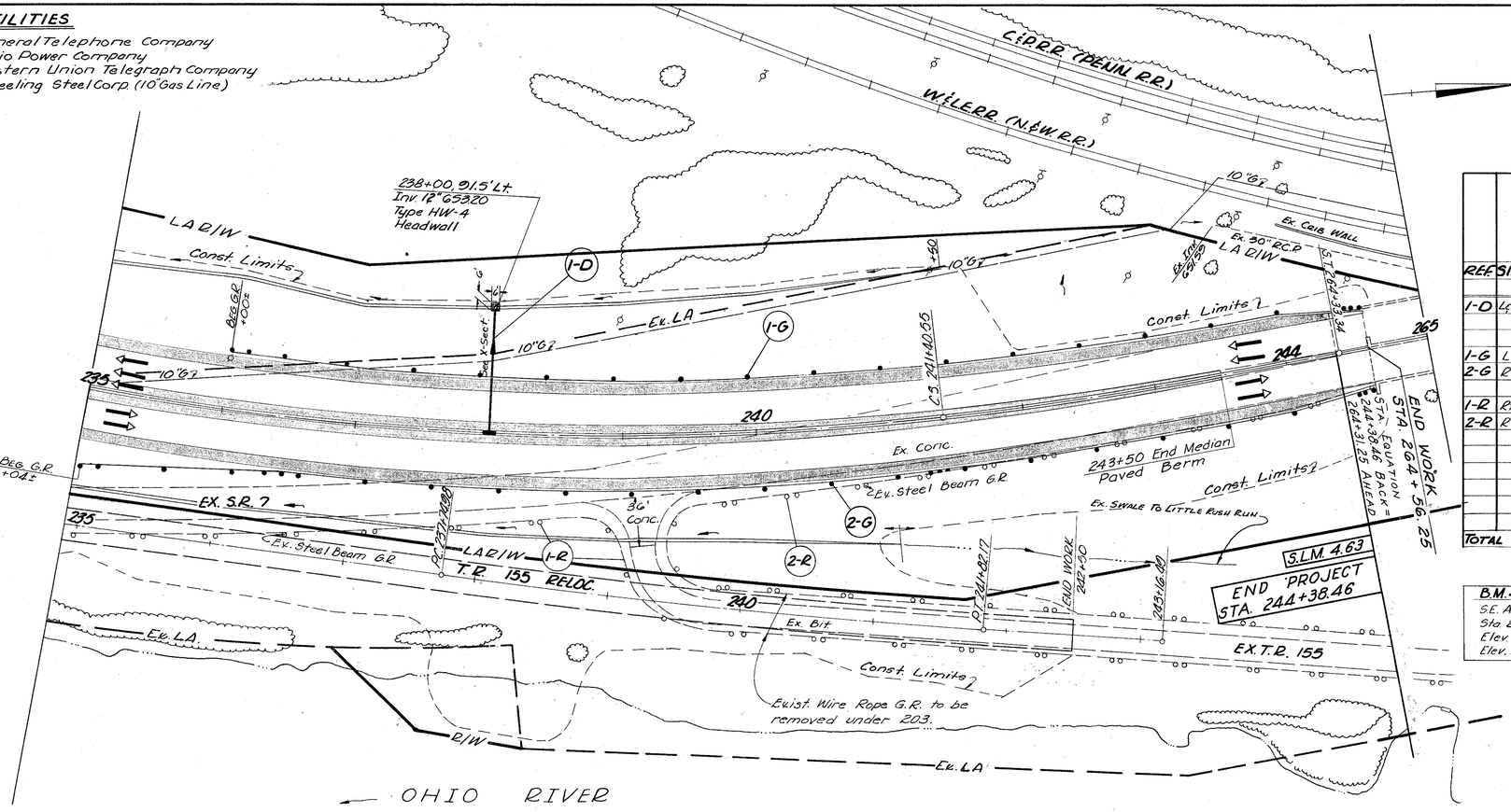
59
560

JEFFERSON COUNTY

JEF-7-0.20

UTILITIES

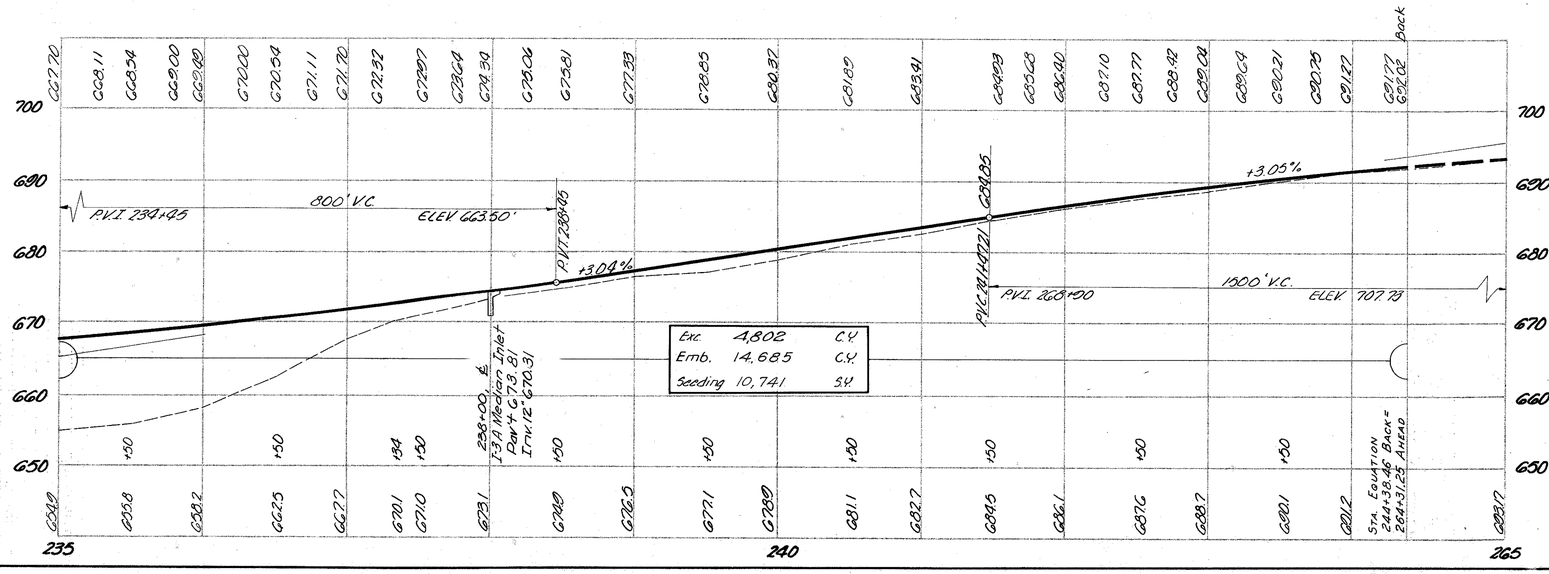
General Telephone Company
Ohio Power Company
Western Union Telegraph Company
Wheeling Steel Corp. (10" Gas Line)



ESTIMATED QUANTITIES			603			604	602	601	606				202	
			Type "B"	Type "E"	Bends & Branches Type "E"	I-34 Median Inlet	Concrete Masonry	Rock Chan Prot Type "B"	Guard Rail Type 5	Anchor Assembly	Bridge Terminal Assembly	Guard Rail Removed for Storage	See Sheet No.
REF.	SIDE	LOCATION	12"	12"	12"						Type A		
			L.F.	L.F.	Ea.	Ea.	C.Y.	C.Y.	L.F.	Ea.	Ea.	L.F.	
1-D	Lt. R.	238+00 & to 237.5' L.	42	51	2	1	.21	3					261
1-G	Lt.	236+00± To Struct.							8375	1	1		
2-G	Rt.	235+04± To Struct.							350	1	1		
1-R	Rt.	235+00 M To 238+87± TR 155										400	
2-R	Rt.	239+34± To 264+56±										537.5	
TOTAL TO GEN. SUMMARY			42	51		1	.21	3	17875	2	2	937.5	

B.M. 40-A VERTICAL EQUATION
S.E. Abutment of Bridge, 33' Rt.
Sta 264+55
Elev. Back = 698.02
Elev. Ahead = 692.50

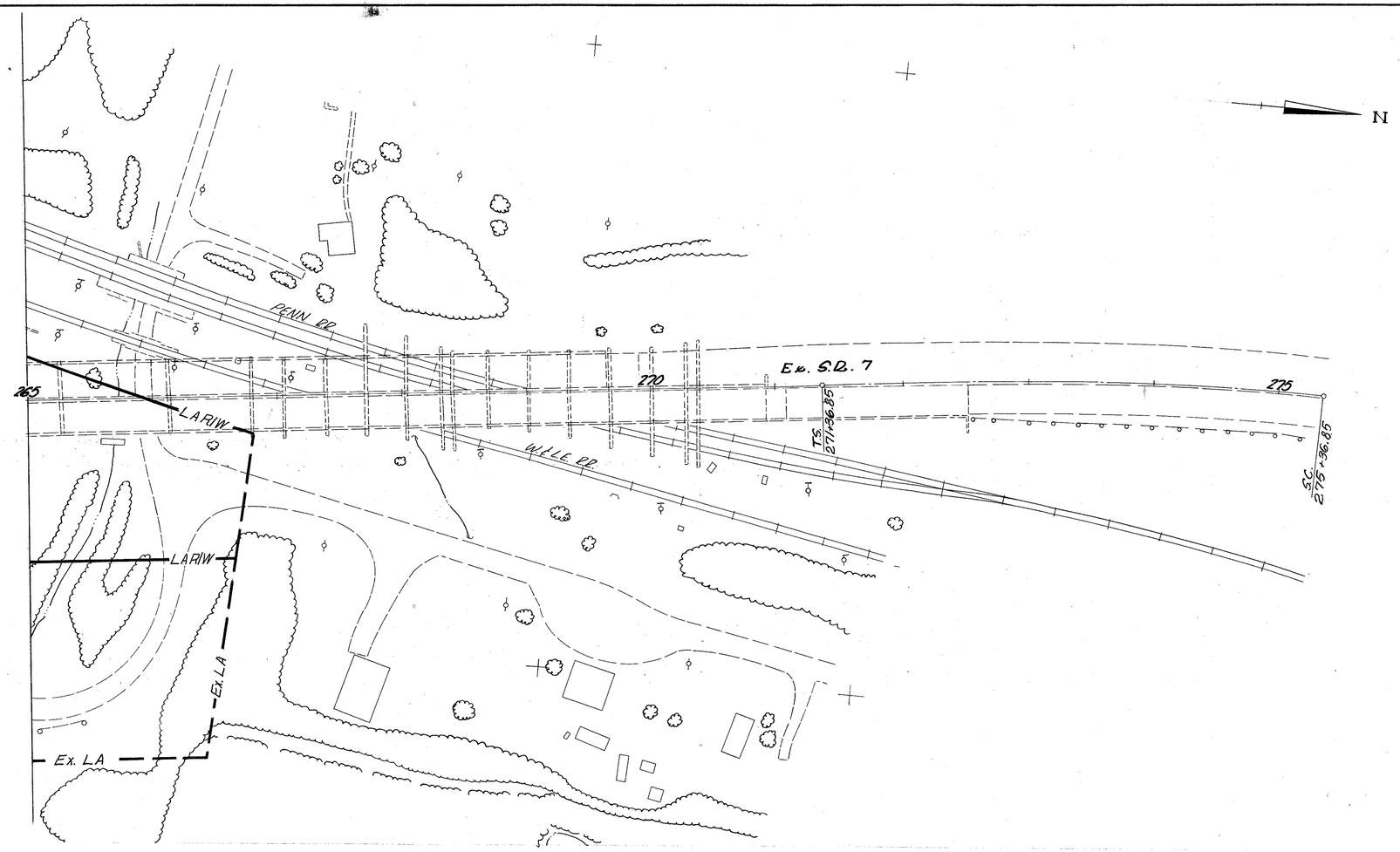
For Pavement Details & Elevation See Sheets 155 & 156
For Construction Layout, Bench Marks & References See Sheet # 33
For T.R. 155 Plan & Profile See Sheets 78 & 79
For T.R. 155 Pavement Details See Sheets 155 & 156

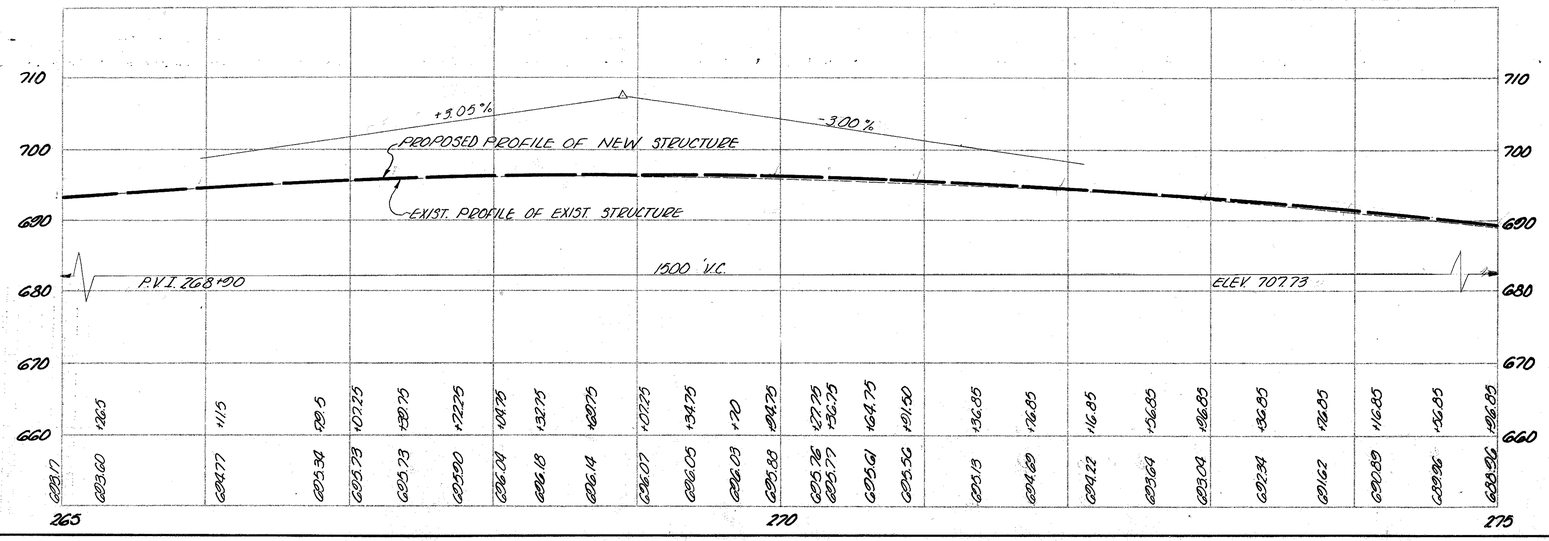

G27.70 G28.11 G28.54 G29.00 G29.00 G70.00 G70.34 G71.11 G71.70 G72.32 G72.97 G73.64 G74.30 G75.06 G75.81 G77.33 G78.85 G80.37 G81.89 G83.41 G84.93 G85.68 G86.40 G87.10 G87.77 G88.42 G89.04 G89.64 G90.21 G90.75 G91.27 G91.77 G92.02 Back
700
690
680
670
660
650
P.V.I. 234+95
800' V.C.
ELEV. 663.50'
+3.04%
P.V.T. 238+05
P.V.C. 241+42.2
+3.05%
P.V.I. 268+50
1500' V.C.
ELEV. 707.73
Sta. Equation 244+38.46 Back = 264+31.25 Ahead
238+00 13' Median Inlet Dia. 4' 6.73 & 8' Inv. 12" 670.3
+50 +50 +50 +34 +50 +50 +50

FED. RD. DIVISION	STATE	PROJECT	
2	OHIO		

60
560

JEFFERSON COUNTY
JEF.-7-0.20





	BY	DATE
EXISTING PLOTTED		
EXISTING CHECKED		
PROPOSED DRAWN		
PROPOSED CHECKED		
QUANTITIES CALCULATED		
QUANTITIES CHECKED		

A. E. STILSON & ASSOCIATES, LIMITED
CONSULTING ENGINEERS
COLUMBUS, OHIO

265+00 to 275+00

FED. RD. DIVISION	STATE	PROJECT	
2	OHIO		

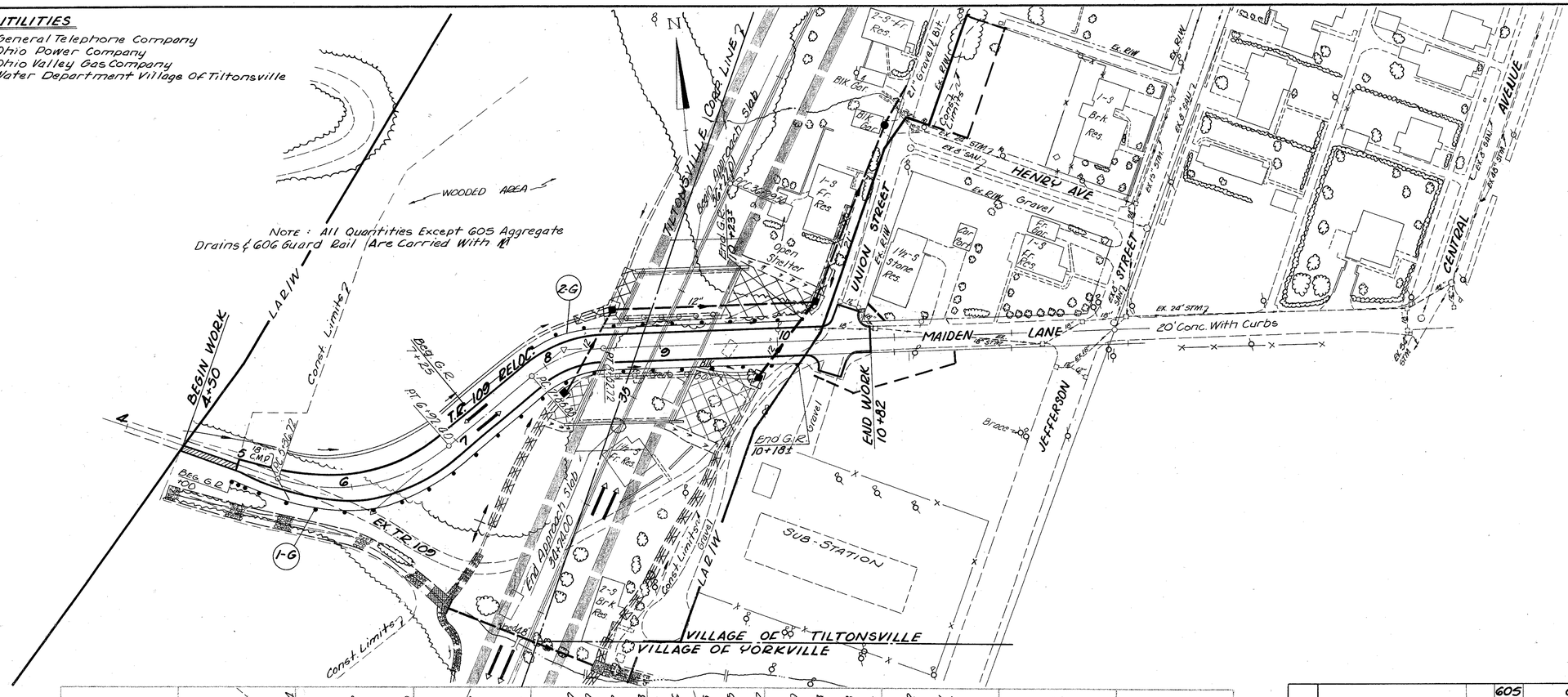
61/560

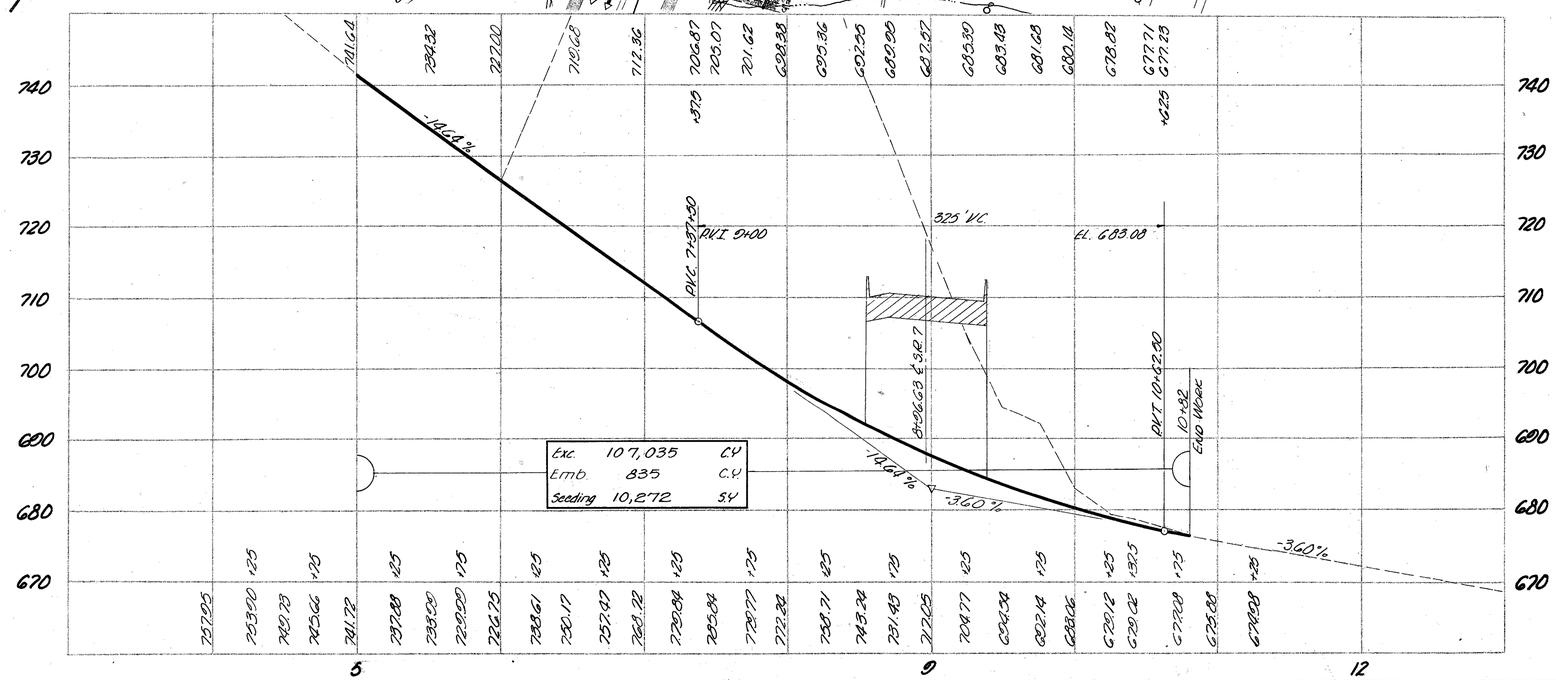
JEFFERSON COUNTY
JEF.-7-020

UTILITIES

General Telephone Company
Ohio Power Company
Ohio Valley Gas Company
Water Department Village Of Tiltonsville

Note : All Quantities Except 605 Aggregate Drains & 606 Guard Rail Are Carried With T.R. 109





REF.	SIDE	ESTIMATED QUANTITIES LOCATION	605 Aggregate Drains L.F.	606 Guard Rail Type S L.F.	606 Anchor Assembly Ea.	See Sheet No.
	L & R.	5+00 To 10+25	242			
1-G	Rt.	5+00 To 10+18±		475	2	
2-G	Lt.	7+25 To 10+23±		262.5	2	
TOTAL TO GEN. SUMMARY			242 ✓	737.5 ✓	4 ✓	

For Pavement Details & Elevations See Sheet # 111
For Construction Layout, Bench Marks & References See Sheet # 26
For ℄ Plan & Profile See Sheets 38 & 39
For ℄ Pavement Details See Sheets 109 & 110
For Waterwork Details See Sheets 348 & 349

DLB December 1968
FO April 1969

T.R. 109 RELOC. 5+00 to 11+12.50

FED. RD. DIVISION	STATE	PROJECT	
2	OHIO		

62
560

JEFFERSON COUNTY
JEF.-7-0.20

UTILITIES

General Telephone Company
Ohio Power Company
Ohio Valley Gas Company
Water Department Village Of Tiltonsville
Western Union Telegraph Company
Wheeling Steel Corp. (10" Gas Line)

REF	SIDE	LOCATION
		ESTIMATED QUANTITIES

For Pavement Details & Elevations See Sheets 119 & 120
For Construction Layout, Bench Marks & References See Sheet # 28
For M Plan & Profile See Sheet # 12
For M Pavement Details See Sheets 117 & 118
For Ramp Profiles See Sheets 84, 85
For 20 Scale Drainage Details & Quantities See Sheets 88 & 89
For Water work Details See Sheet # 351
For Drive "A" & Alley "B" Details See Sheet # 121
For Storm Outfall Sewer Plan & Profile To Ohio River See Sheet # 90

Exc.	15,643	C.Y.
Emb.	1,354	C.Y.
Seeding	3,627	S.Y.

A. E. STILSON & ASSOCIATES, LIMITED
Quantities calculated JEW April 1969
Quantities checked PLB April 1969

EXISTING PLOTTED
EXISTING CHECKED
PROPOSED DRAWN
PROPOSED CHECKED
QUANTITIES CALCULATED
QUANTITIES CHECKED
BY
DATE

FARM LANE 10+00 to 19+86.40

FED. RD. DIVISION	STATE	PROJECT	
2	OHIO		

63
560

JEFFERSON COUNTY
JEF.-7-0.20

UTILITIES
General Telephone Company
Ohio Power Company
Ohio Valley Gas Company
Water Department Village of Tiltonsville
Western Union Telegraph Company
Wheeling Steel Corporation (10" Gas Line)

* With Joints as per 706.11 or 706.12
** With Joints as per 706.11

ESTIMATED QUANTITIES

			601	602	603			604			Spec.	202		667		606	
			Rock Channel Prot. "B"	Concrete Masonry	Type "B" ** 8"	Type "C" ** 15"	Type "B" 18"	Type "B" 24"	No 2-2B C.B.	No 5 C.B.	No 1-A M.H. **	San. Sewer Cleanout	Manholes Removed	Pipe Removed 24" And Under	Seeding And Jute Matting		Guard Rail Type 5	
REF.	SIDE	LOCATION	C.Y.	C.Y.	L.F.	L.F.	L.F.	L.F.	Ea.	Ea.	Ea.	Ea.	Ea.	L.F.	S.Y.		L.F.	See Sheet No
1-D	Rt & Lt	84+57 Rt. W. to 87+59 Lt. W.			941						4	2						
2-D	Lt & Rt	46+50 Williams St. Reloc.	40	0.46				71		1					83			299
3-D	Lt & Rt	49+21 Rt. Williams To 50+67 Lt. Ser. Rd. "B"	9	0.33		92	58		2	1								300
1-R		As Shown											1	145				
2-R		As Shown											1	60				
1-G		As Shown															75	
TOTAL TO GEN. SUMMARY			49	0.79	941	92	58	71	2	2	4	2	2	205	83		75	

For Construction Layout, Bench Marks & References See Sheet # 28
For Pavement Elevations and Details See Sheet # 125
For Waterwork Details See Sheet # 353
For S.R. 7 Plan and Profile See Sheet # 44
For S.R. 7 Pavement Details and Elevations See Sheets 123, 124, 126
For Service Rd. "B" Profile and X-Sections See Sheet #298

A. E. STILSON & ASSOC.
Quantities Calculated EO AUG. 70
Quantities Checked PLB AUG. 70

BRUNING 44.560 10943

WILLIAMS STREET RELOCATION

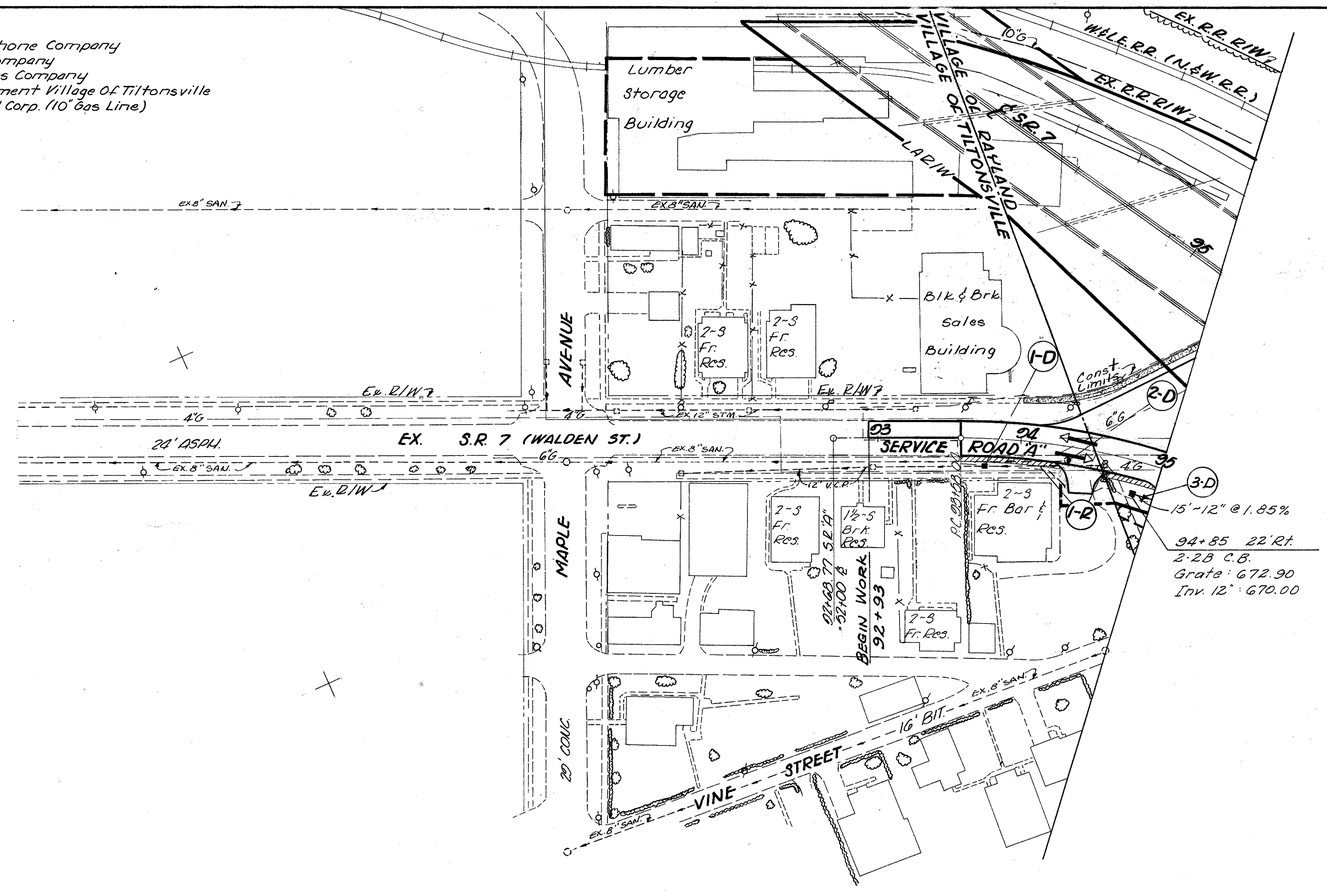
FED. RD. DIVISION	STATE	PROJECT	
2	OHIO		

64
560

JEFFERSON COUNTY
JEF.-7-0.20

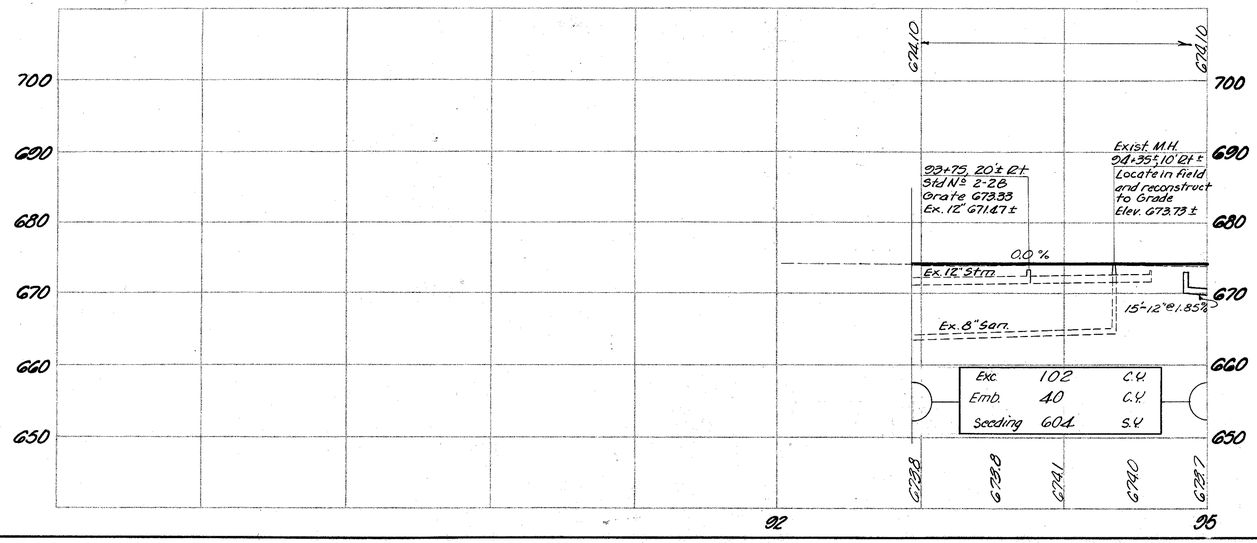
UTILITIES

General Telephone Company
Ohio Power Company
Ohio Valley Gas Company
Water Department Village Of Tiltonsville
Wheeling Steel Corp. (10" Gas Line)



REF.	SIDE	LOCATION	604 Man Hole Reconstructed To Grade	604 Std. No. 2-2B Catch Basin	202 Pipe Removed 24" & Under	202 Catch Basin Removed	603 Type "B" 12"	See Sheet No.
			Ea.	Ea.	L.F.	Ea.	L.F.	
1-D	Rt.	93+75, 20' Rt. ±		1				
2-D	Rt.	91+35, 10' Rt. ±	1					
3-D	Rt.	94+85 to 95+00		1			15	
1-R	Rt.	93+75 to 94+62			84	1		
TOTAL TO GEN. SUMMARY			1	2	84	1	15	

For Pavement Details & Elevations See Sheet # 127
For Construction Layout, Bench Marks & References See Sheet # 28
For M Plan & Profile See Sheets 44 & 45



	BY	DATE
EXISTING PLOTTED		
EXISTING CHECKED		
PROPOSED DRAWN		
PROPOSED CHECKED		
QUANTITIES CALCULATED		
QUANTITIES CHECKED		

A. E. STILSON & ASSOCIATES LIMITED
DLB December 1968
EO April 1969

SERVICE ROAD "A" 92+68.77 to 95+00

FED. RD. DIVISION	STATE	PROJECT	
2	OHIO		

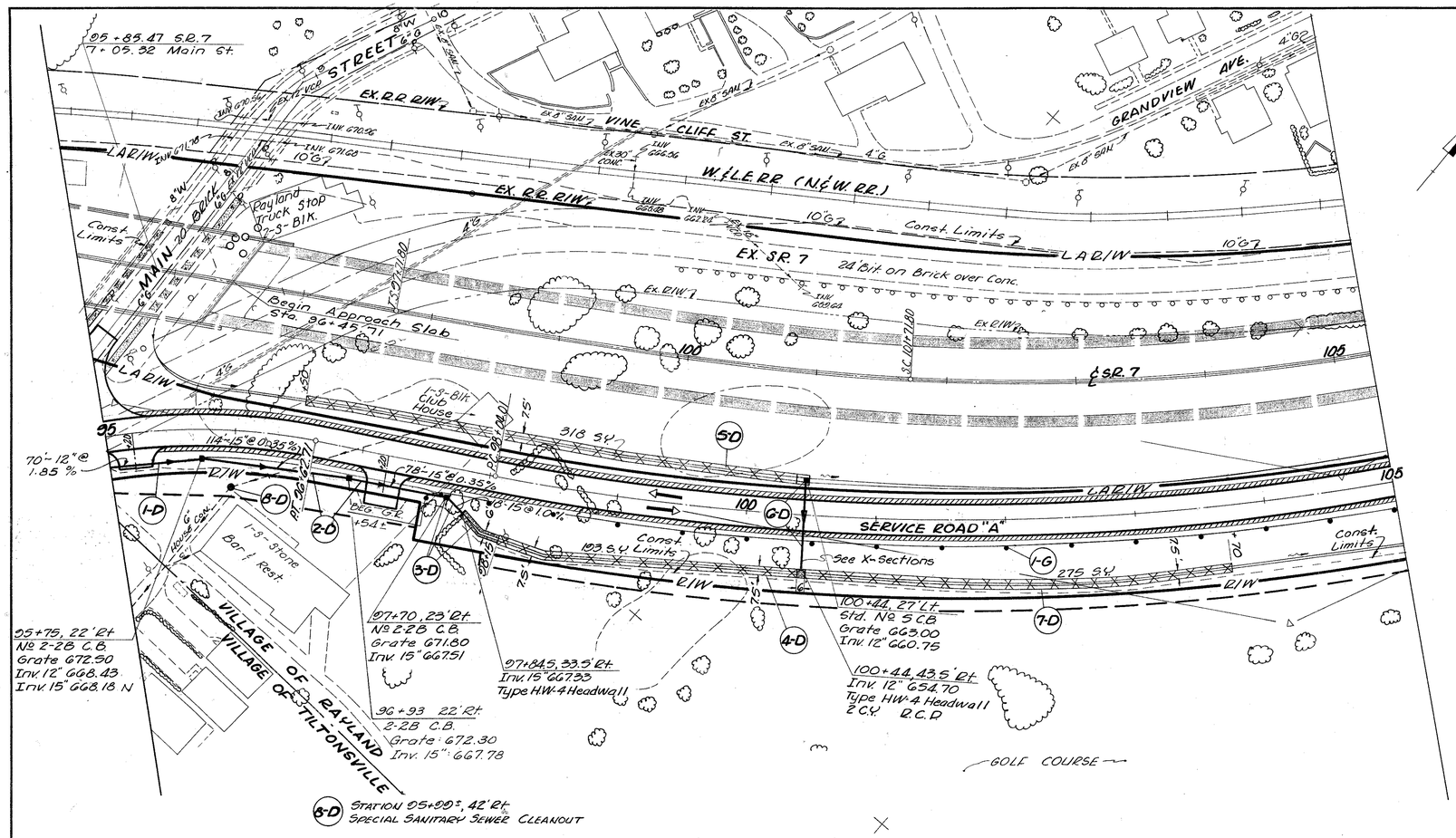
GS 560

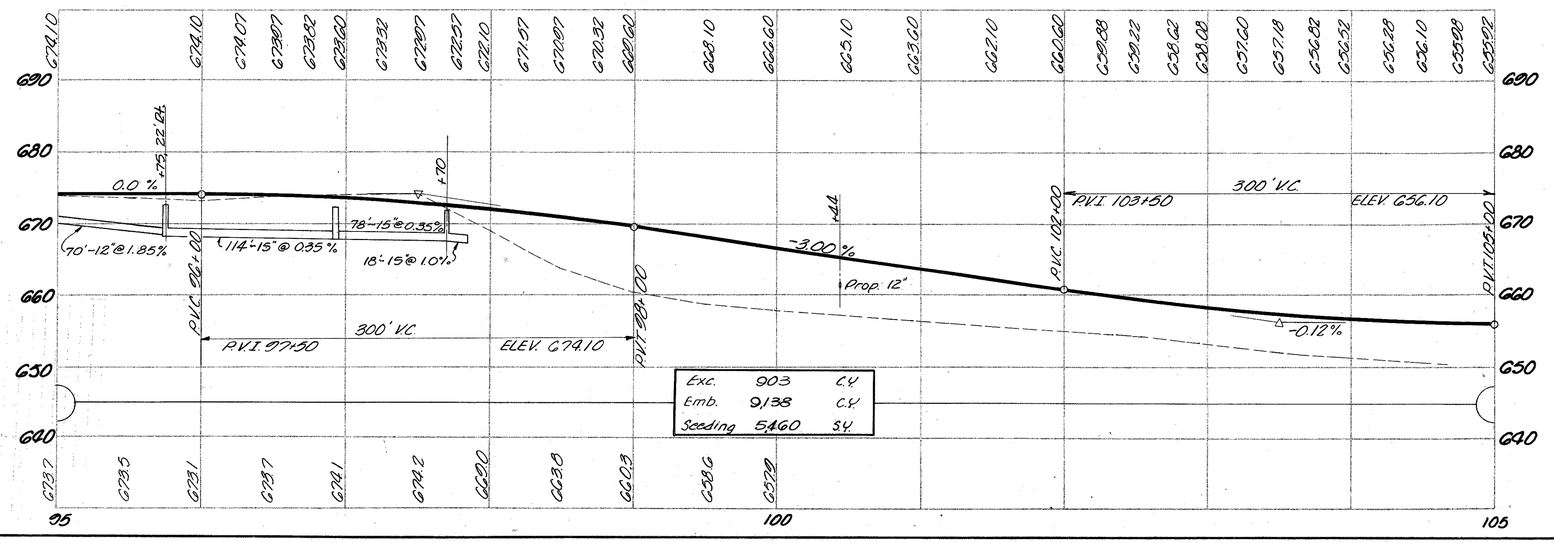
JEFFERSON COUNTY

JEF-7-0.20

UTILITIES

General Telephone Company
Ohio Power Company
Water Department Village Of Tiltonsville
Western Union Telegraph Company
Wheeling Steel Corp. (10" Gas Line)





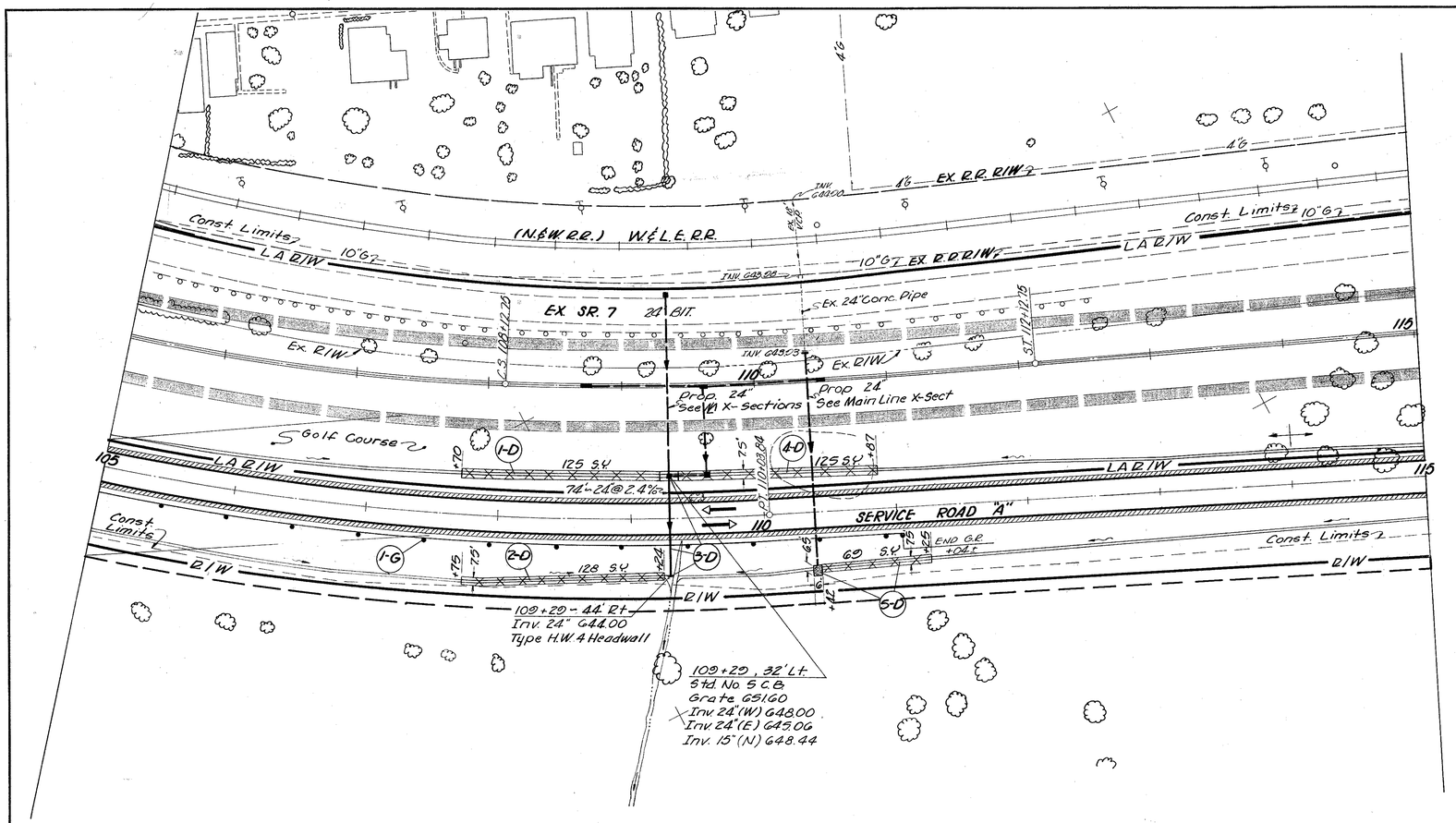
ESTIMATED QUANTITIES			603				604	603	602	667	SPEC.	601	606			
			Type "B"	Type "C"	Type "E"	Bends & Branches	Std № 2.2B Catch Basin	Std № 5 Catch Basin	Type "B"	Concrete Masonry	Seeding & Mulching	Sanitary Sewer Cleanout	Rock Chan. Prot. Type B	Guard Rail Type 5		Anchor Assembly	See Sheet №
REF.	SIDE	LOCATION	12"	15"	12"	15"			15"		SY		CY	LF		Ea.	
			LF	LF	LF	Ea.	Ea.	Ea.	LF	CY		Ea.					
1-D	Rt.	95+00 to 95+75, 22' Rt.	70				1										
2-D	Rt.	95+75 to 97+70		114			2		78								
3-D	Rt.	97+70 to 98+15		18						0.27			15.5				
4-D	Rt.	98+15 to 100+41									193						
5-D	Lt.	96+50 to 100+37									318						
6-D	Lt. & Rt.	100+44, 27' Lt to 100+44, 43.5 Rt.	50		21			1		0.21			3.3				304
7-D	Rt.	100+47 to 103+70									275						
8-D	Rt.	95+99, 42' Rt. ‡										1					
1-G	Rt.	97+54± To 105+00												727.5		1	
TOTAL To GEN. SUMMARY			120 ✓	132 ✓	21 ✓	✕	3 ✓	1 ✓	78 ✓	0.48 ✓	786 ✓	1 ✓	19 ✓	727.5 ✓		1 ✓	

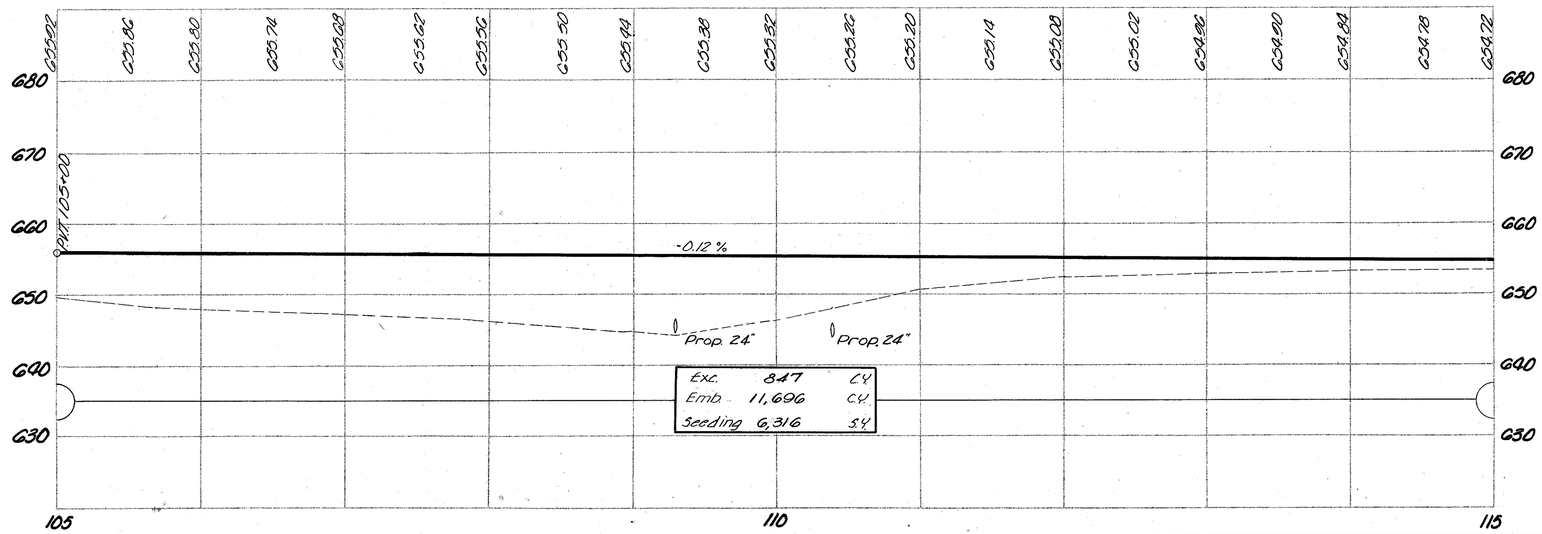
For Pavement Details & Elevations See Sheets 127 & 128
For Construction Layout, Bench Marks & References See Sheets 28 & 29
For M Plan & Profile See Sheet # 45
For M Pavement Details See Sheets 127 & 128

	BY	DATE
EXISTING PLOTTED		
EXISTING CHECKED		
PROPOSED DRAWN		
PROPOSED CHECKED		
QUANTITIES COMPUTED		
QUANTITIES CHECKED		

A. E. STILSON & ASSOCIATES, LIMITED
Quantities By: V.L.B. December 1968
Quantities Checked: F.O. April 1969

SERVICE ROAD "A" 95+00 to 105+00





Exc.	847	C.Y.
Emb.	11,696	C.Y.
Seeding	6,316	S.Y.

UTILITIES

General Telephone Company
Ohio Power Company
Western Union Telegraph Company
Wheeling Steel Corp. (10" Gas Line)

FED. RD. DIVISION	STATE	PROJECT	
2	OHIO		

66/560

JEFFERSON COUNTY

JEF-7-0.20

REF.	SIDE	LOCATION	603 Type "S" 24" L.F.	604 Std. No 5 Catch Basin Ea.	602 Concrete Masonry C.Y.	606 Guard Rail Type 5 L.F.	606 Anchor Assembly Ea.	667 Seeding & Mulching S.Y.	601 Rock Excav. Type "B" C.Y.	See Sheet No
1-D	Lt.	107+70 to 109+22						125		
2-D	Rt.	107+75 to 109+24						128		
3-D	Lt. & Rt.	109+29, 32' Lt. to 44' Rt.	74	1	0.46					304
4-D	Lt.	109+36 to 110+87						125		
5-D	Rt.	110+36 to 111+25						60	2.0	
1-G	Rt.	105+00 To 111+04±				585	1			
TOTAL TO GEN. SUMMARY			74 ✓	1 ✓	0.46 ✓	585 ✓	1 ✓	447 ✓	3.0 ✓	

For Pavement Details & Elevations See Sheets 129 & 130
For Construction Layout, Bench Marks & References
See Sheet # 29
For ℳ Plan & Profile See Sheet # 46
For ℳ Pavement Details See Sheets 129 & 130

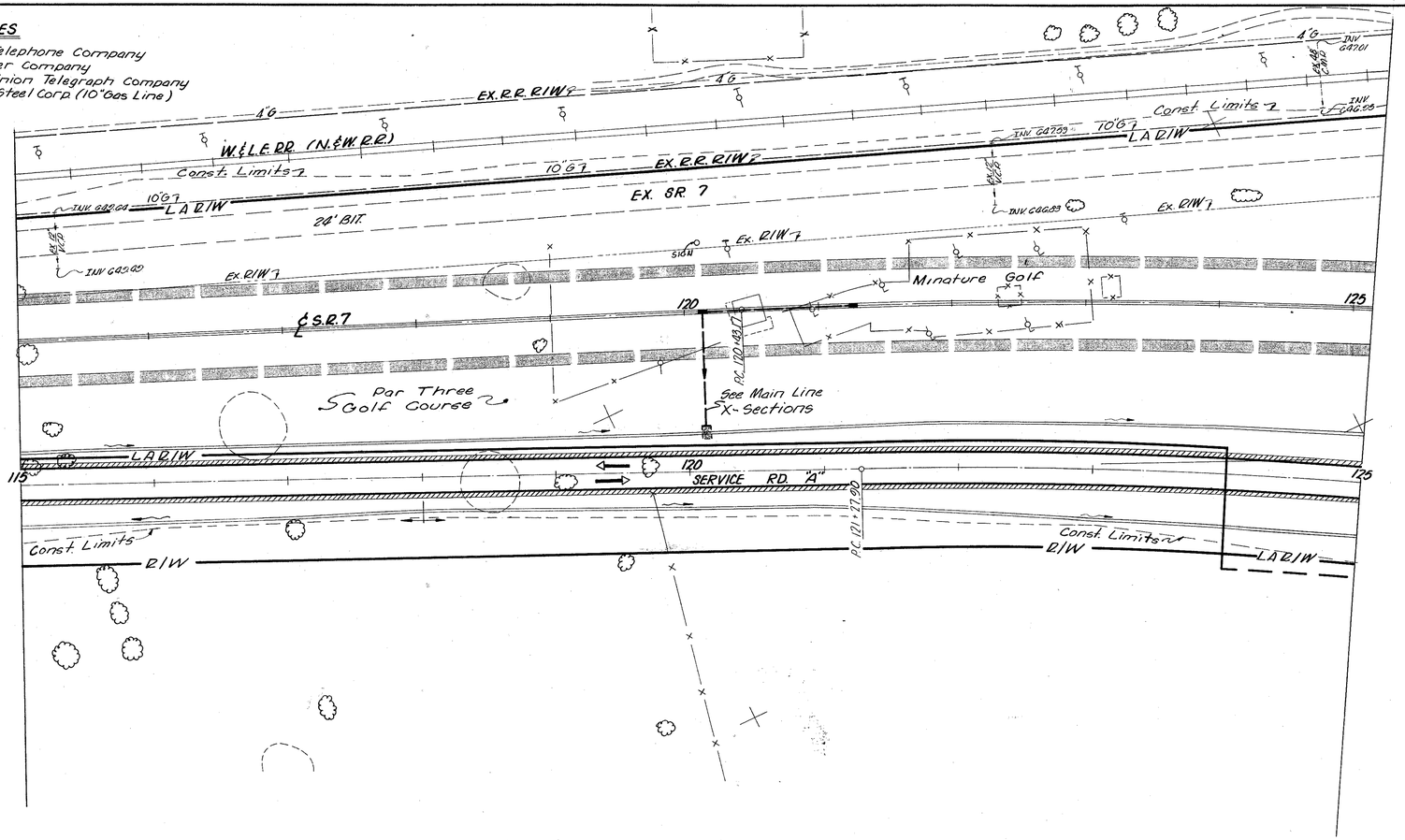
	BY	DATE
EXISTING PLOTTED		
EXISTING CHECKED		
PROPOSED DRAWN		
PROPOSED CHECKED		
QUANTITIES CALCULATED		
QUANTITIES CHECKED		

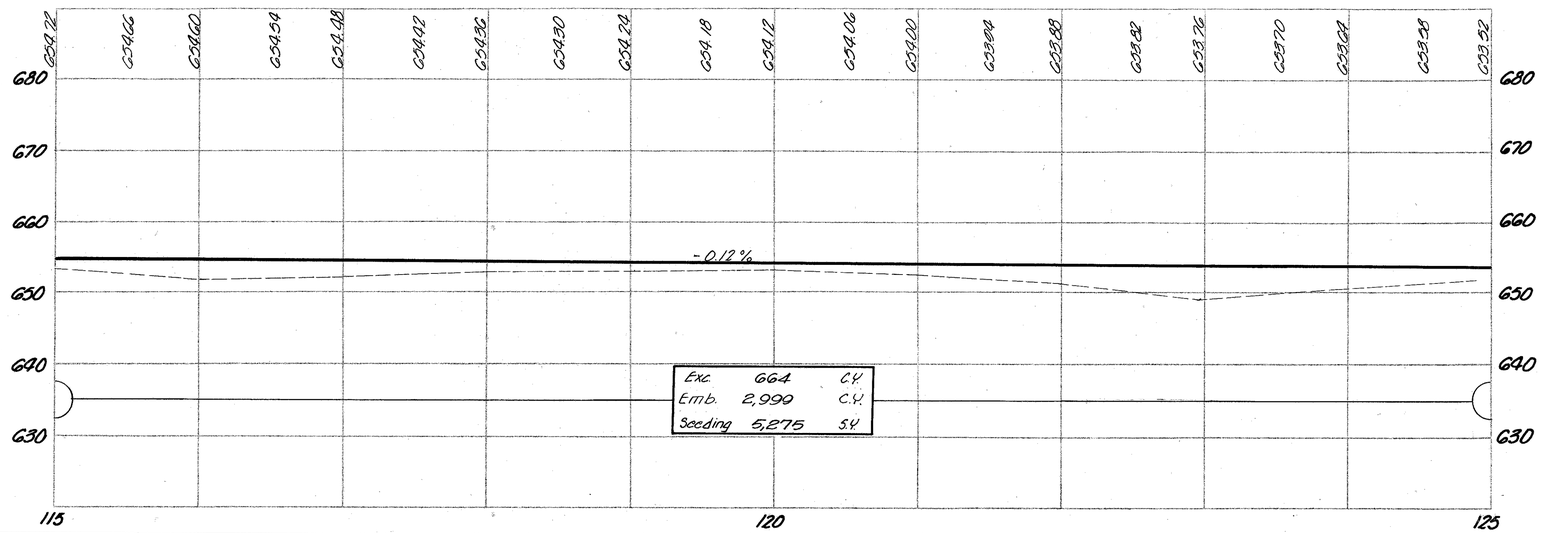
DLB December 1968
FO April 1969

SERVICE ROAD "A" 105+00 to 115+00

UTILITIES

General Telephone Company
Ohio Power Company
Western Union Telegraph Company
Wheeling Steel Corp. (10"Gas Line)





FED. RD. DIVISION	STATE	PROJECT	
2	OHIO		

67/560

JEFFERSON COUNTY
JEF-7-0.20

REF.	SIDE	LOCATION	ESTIMATED QUANTITIES

For Pavement Details & Elevations See Sheets 131 & 132
For Construction Layout, Bench Marks & References See Sheet # 29
For M Plan & Profile See Sheet # 47
For M Pavement Details See Sheets 131 & 132

	BY	DATE
EXISTING PLOTTED		
EXISTING CHECKED		
PROPOSED DRAWN		
PROPOSED CHECKED		
QUANTITIES COMPUTED		
QUANTITIES CHECKED		

A.E. STILSON & ASSOCIATES, INC.
Quantities Computed JWF April 1960
Quantities Checked DLB April 1960

SERVICE ROAD "A" 115+00 to 125+00

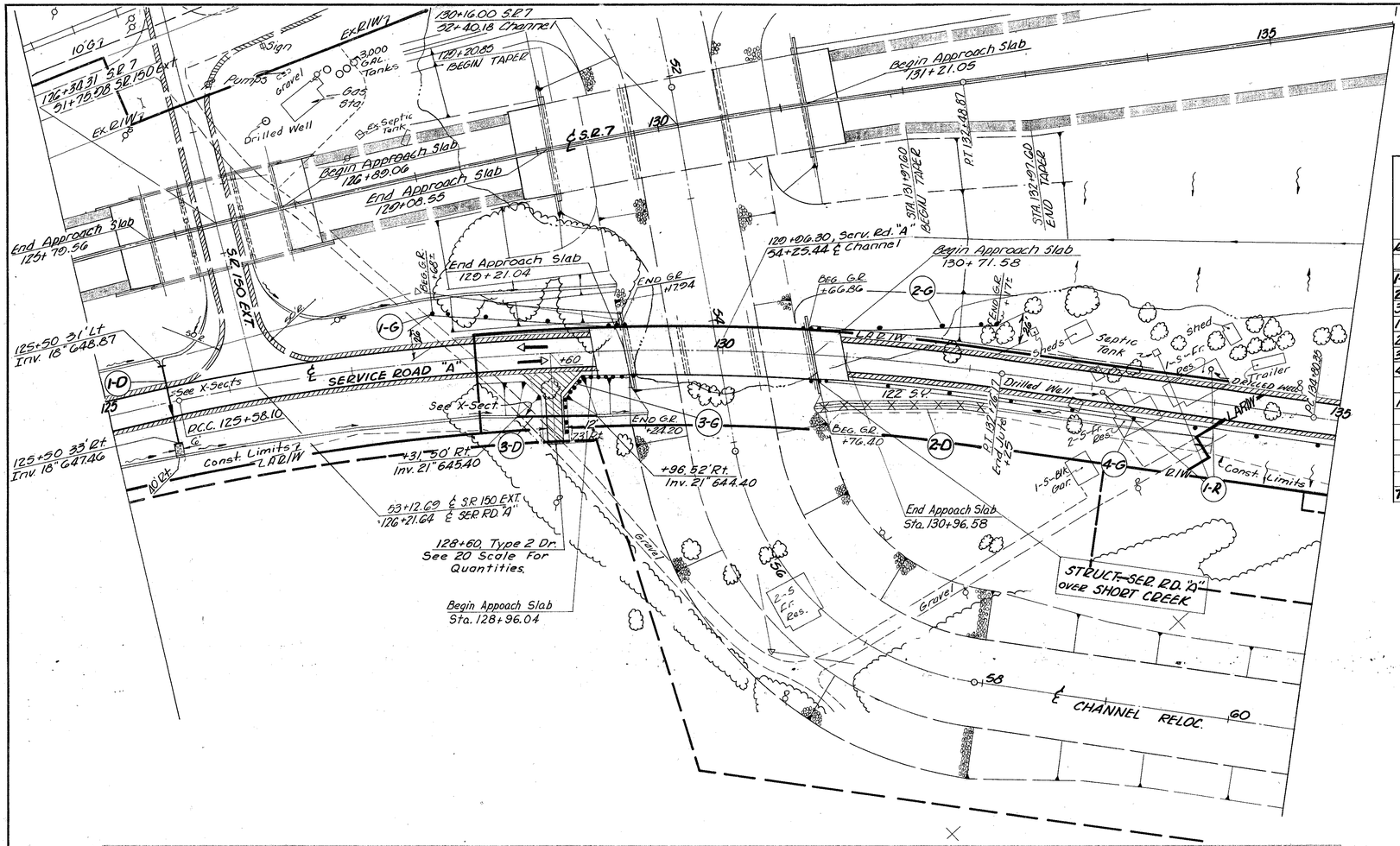
FED. RD. DIVISION	STATE	PROJECT	
2	OHIO		

68
560

JEFFERSON COUNTY
JEF.-7-0.20

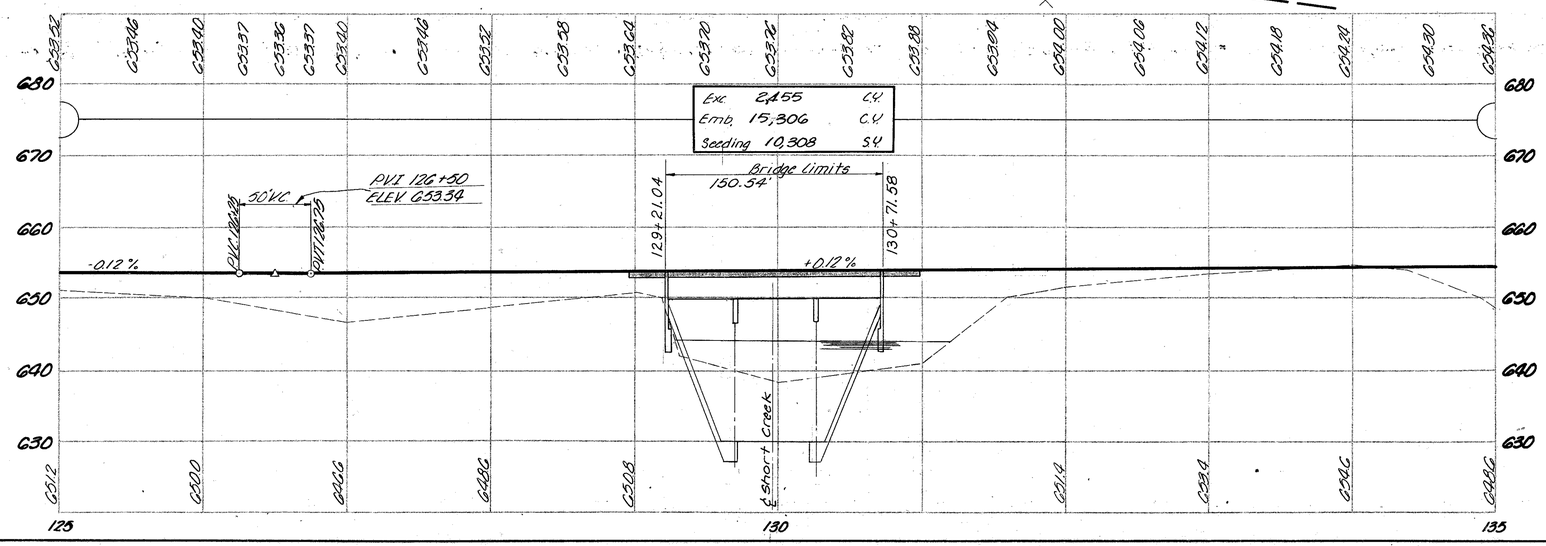
UTILITIES

General Telephone Company
Ohio Power Company
Western Union Telegraph Company
Wheeling Steel Corp. (10" Gas Line)



REF.	SIDE	LOCATION	603 Type "A" 18" 706.02, 706.09, 706.08, or 21" 707.05	603 Type "D" 21"	602 Concrete Masonry	601 Rock Chan. Prot. Type "B"	667 Seeding & Jute Matting	606 Type B Bridge Terminal Assembly	606 Guard Rail Type 5	606 Anchor Assembly	202 Septic Tank Removed	Spec. Drilled Well Abandoned	See Sheet No.
			L.F.	L.F.	C.Y.	C.Y.	S.Y.	Ea.	L.F.	Ea.	Ea.	Ea.	
1-D	Lt. & Rt.	125+50, 31' Lt to 33' Rt.	64		5.6	3							307
2-D	Rt.	130+75 to 132+25					122						
3-D	Rt.	128+31 to 128+96		64									
1-G	Lt.	127+68± To 129+17.94						1	125	1			
2-G	Lt.	130+66.86 To 132+17±						1	125	1			
3-G	Rt.	As Shown						1	87.5				
4-G	Rt.	130+26.40 To 135+00						1	422.5				
1-R	Lt.	As Shown									1	2	
TOTAL TO GEN. SUMMARY			64	64	5.6	3	122	4	760	2	1	2	

For Pavement Details & Elevations See Sheets 133 & 135
For Construction Layout, Bench Marks & References See Sheets 29 & 30
For M Plan & Profile See Sheet # 48
For M Pavement Details See Sheets 133 & 135
For S.R. 150 Ext. Plan & Profile See Sheet # 48
For Short Creek Channel Reloc. Details See Sheet # 73



PROPOSED STRUCT. SER. RD. "A" OVER SHORT CREEK

TYPE : Continuous steel beam with reinf. conc. deck, integral abuts. & capped pile piers
SPANS : 45'-6", 57'-6", 45'-6" along ℄ Service Rd. "A"
ROADWAY : 40'-0" f/f guardrail.
LOADING : HS 20-44
WEARING SURFACE : 2½" Asphaltic concrete
SKEW : 11°09'42" Rt. fwd. with respect to reference chord
ALIGNMENT : 3°00' curve right.
APPROACH SLABS : AS-1-T2, 25'-0" long.
SUPERELVATION : 0.032 ft/ft

DLB December 1968
FO April 1969

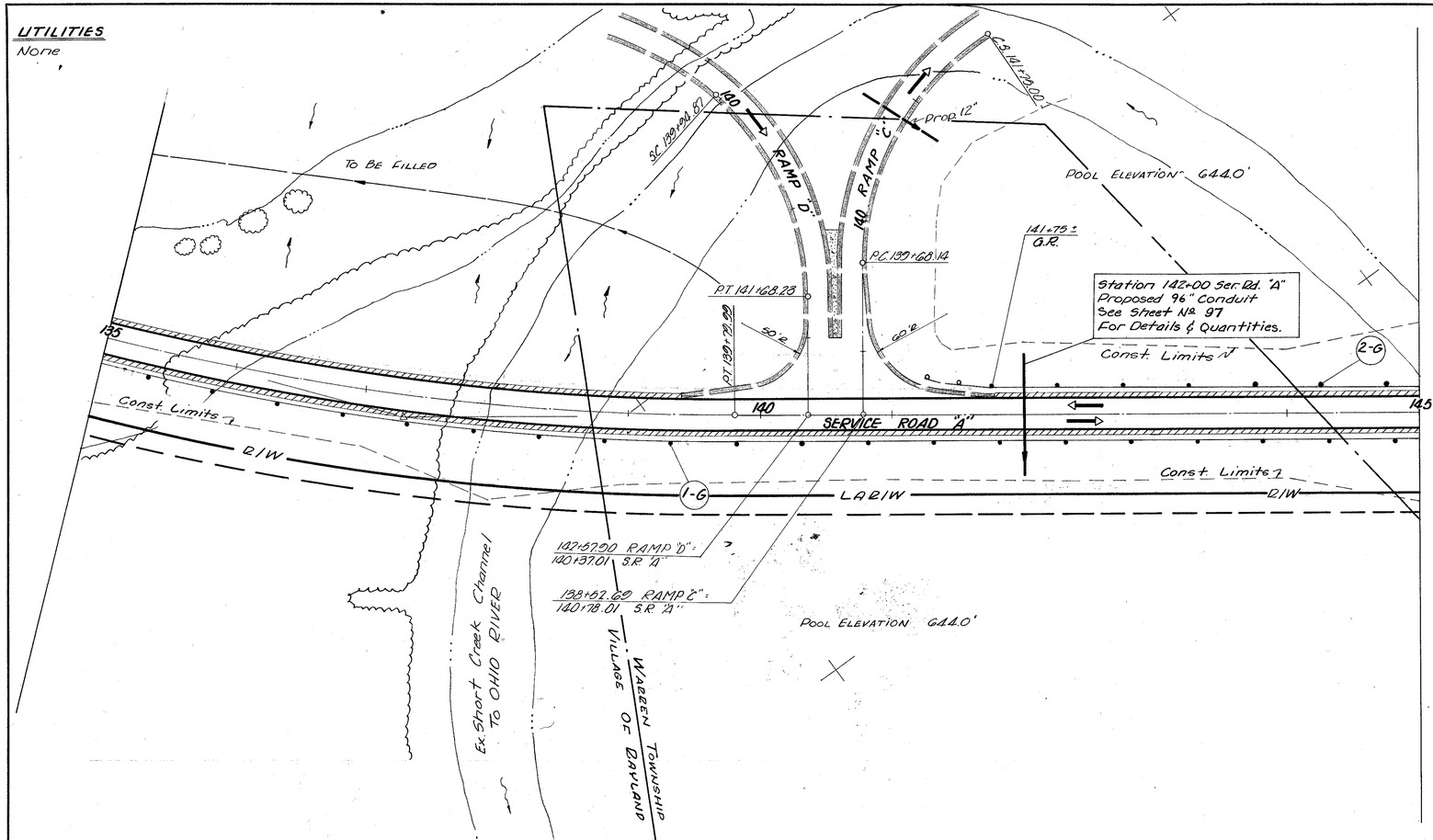
SERVICE ROAD "A" 125+00 to 135+00

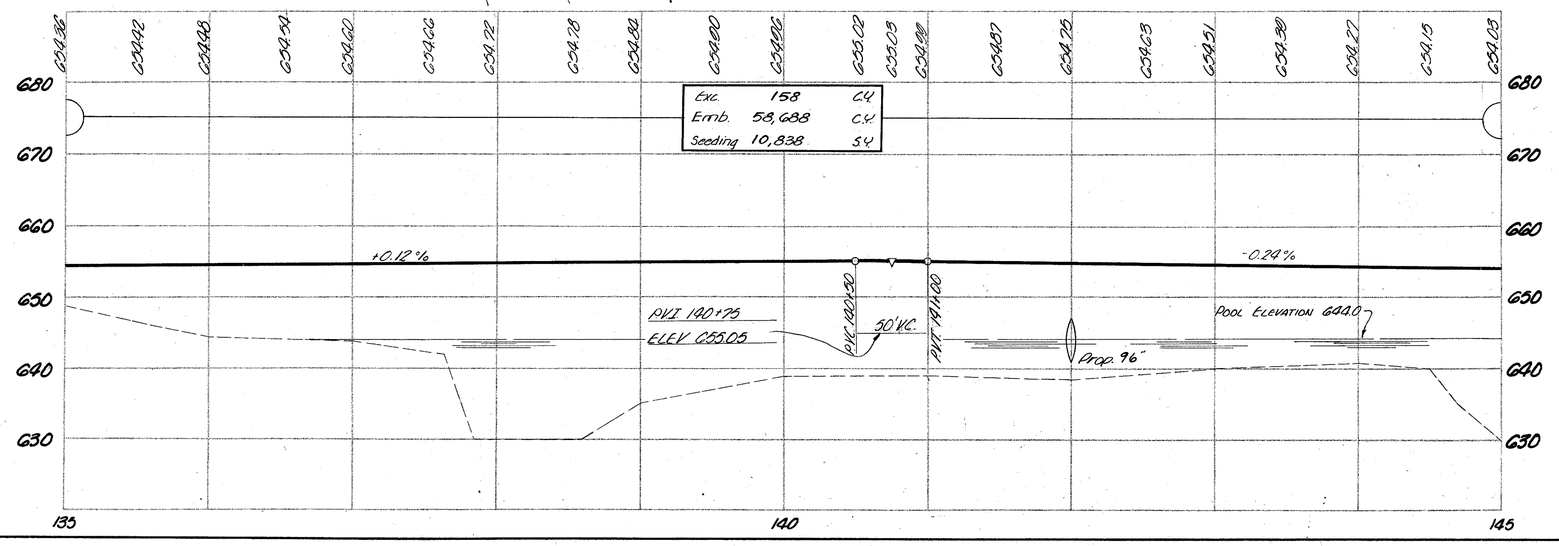
FED. RD. DIVISION	STATE	PROJECT	
2	OHIO		

69
560

JEFFERSON COUNTY
JEF.-7-0.20

UTILITIES
None





	ESTIMATED QUANTITIES		606
REF.	SIDE	LOCATION	Guard Rail Type S
			L.F.
1-G	Rt.	135+00 To 145+00	1008.5
2-G	Lt.	141+76± To 145+00	325
TOTAL TO GEN. SUMMARY			1333.5

For Pavement Details & Elevations See Sheets 136, 137, 140
For Construction Layout, Bench Marks & References See Sheet # 90
For Ramp Plan & Profile See Sheet # 72
For Ramp Pavement Details See Sheet # 140

	BY	DATE
EXISTING PLOTTED		
LAYOUT DRAWN		
PROPOSED DRAWN		
PROPOSED CHECKED	CPS	9-23-74
QUANTITIES CALCULATED		
QUANTITIES CHECKED		

A.E. STEESON & ASSOCIATES, INCORPORATED
DLB December 1968
FO April 1969
Rev. 9-23-74

SERVICE ROAD "A" 135+00 to 145+00

FED. RD. DIVISION	STATE	PROJECT	
2	OHIO		

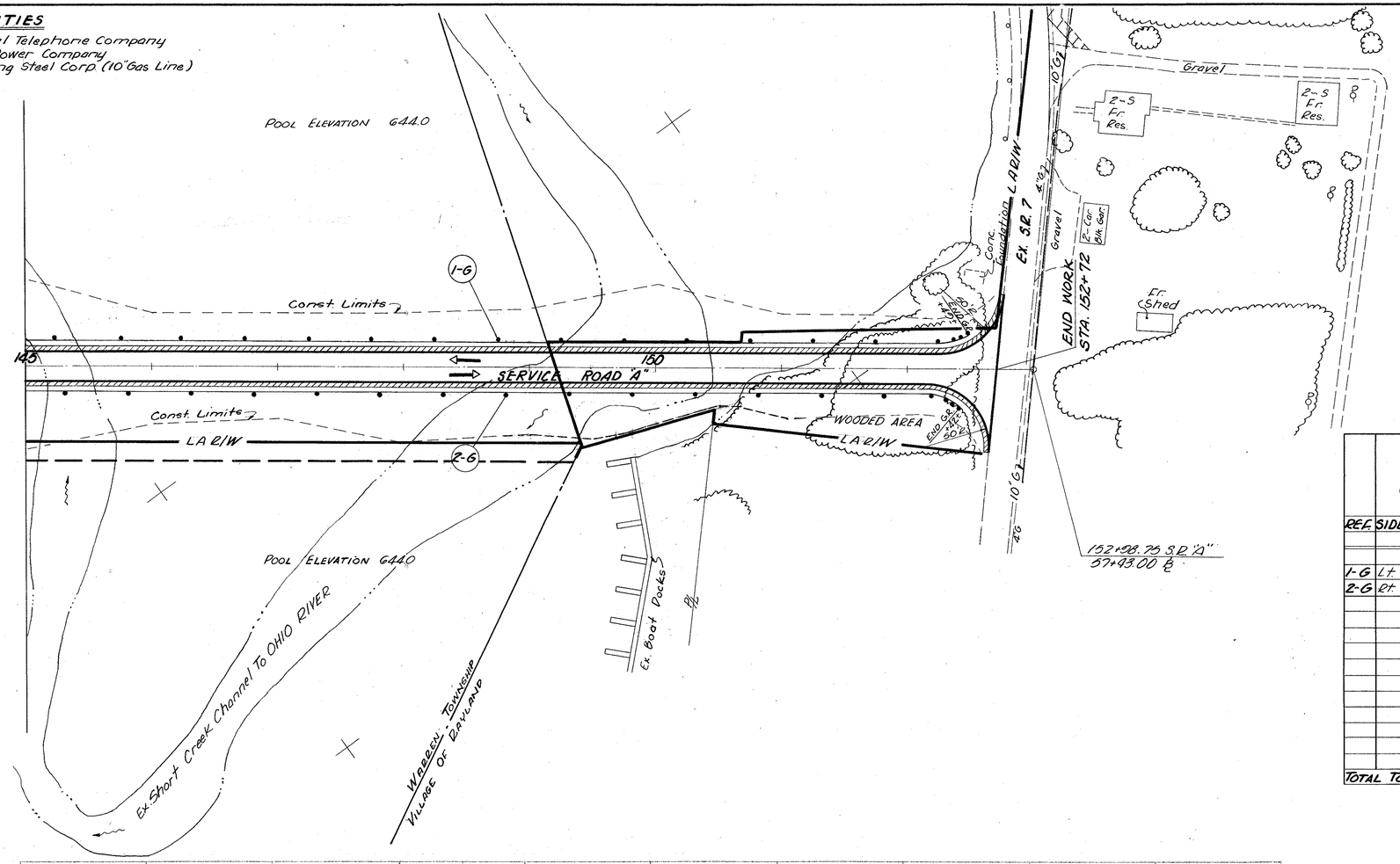
70
560

JEFFERSON COUNTY

JEF.-7-0.20

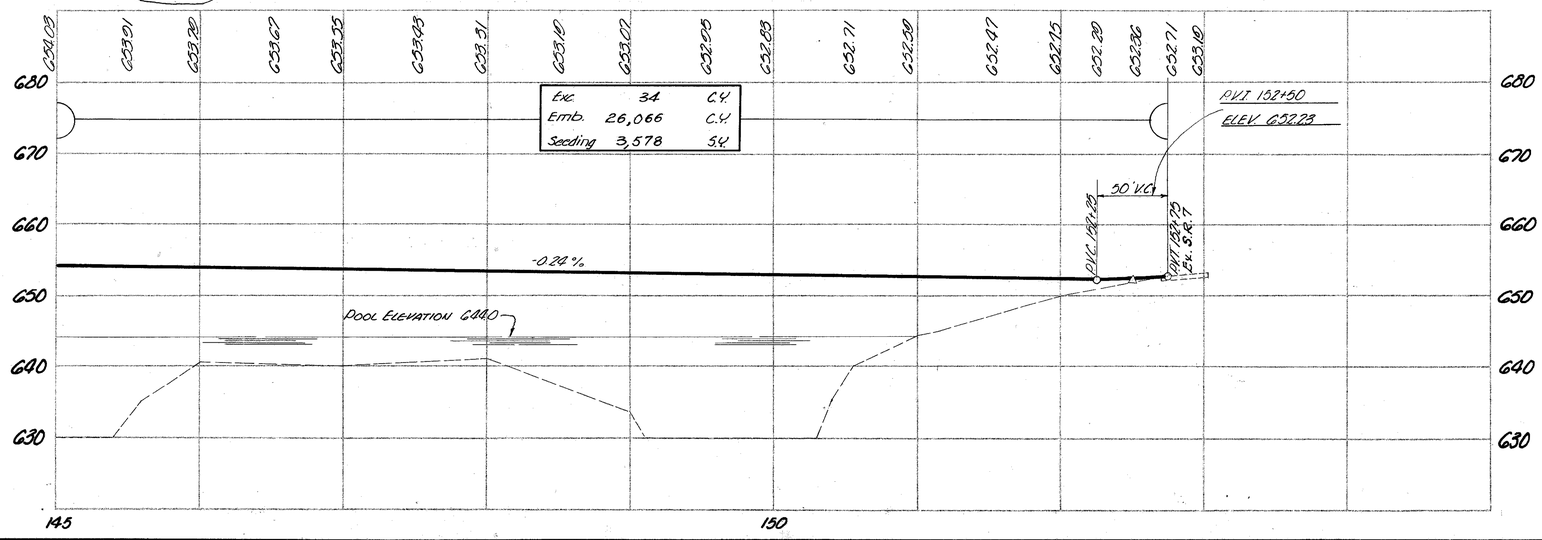
UTILITIES

General Telephone Company
Ohio Power Company
Wheeling Steel Corp. (10" Gas Line)



ESTIMATED QUANTITIES			606	
REF.	SIDE	LOCATION	Guard Rail Type S	Anchor Assembly
			L.F.	Ea.
1-G	Lt.	145+00 To 152+49 ±	725	1
2-G	Rt.	145+00 To 152+42 ±	719	1
TOTAL TO GEN SUMMARY			1444	2

For Pavement Details & Elevations See Sheet # 137
For Construction Layout, Bench Marks & References See Sheet # 30



	DATE
EXISTING PLOTTED	
EXISTING CHECKED	
PROPOSED DRAWN	
PROPOSED CHECKED	
DRAWING EXAMINED	
QUANTITIES CHECKED	

A. E. STILSON & ASSOCIATES
Quantities Computed DLB December 1968
Drawing Prepared EO April 1969

SERVICE ROAD "A" 145+00 to 152+98.75

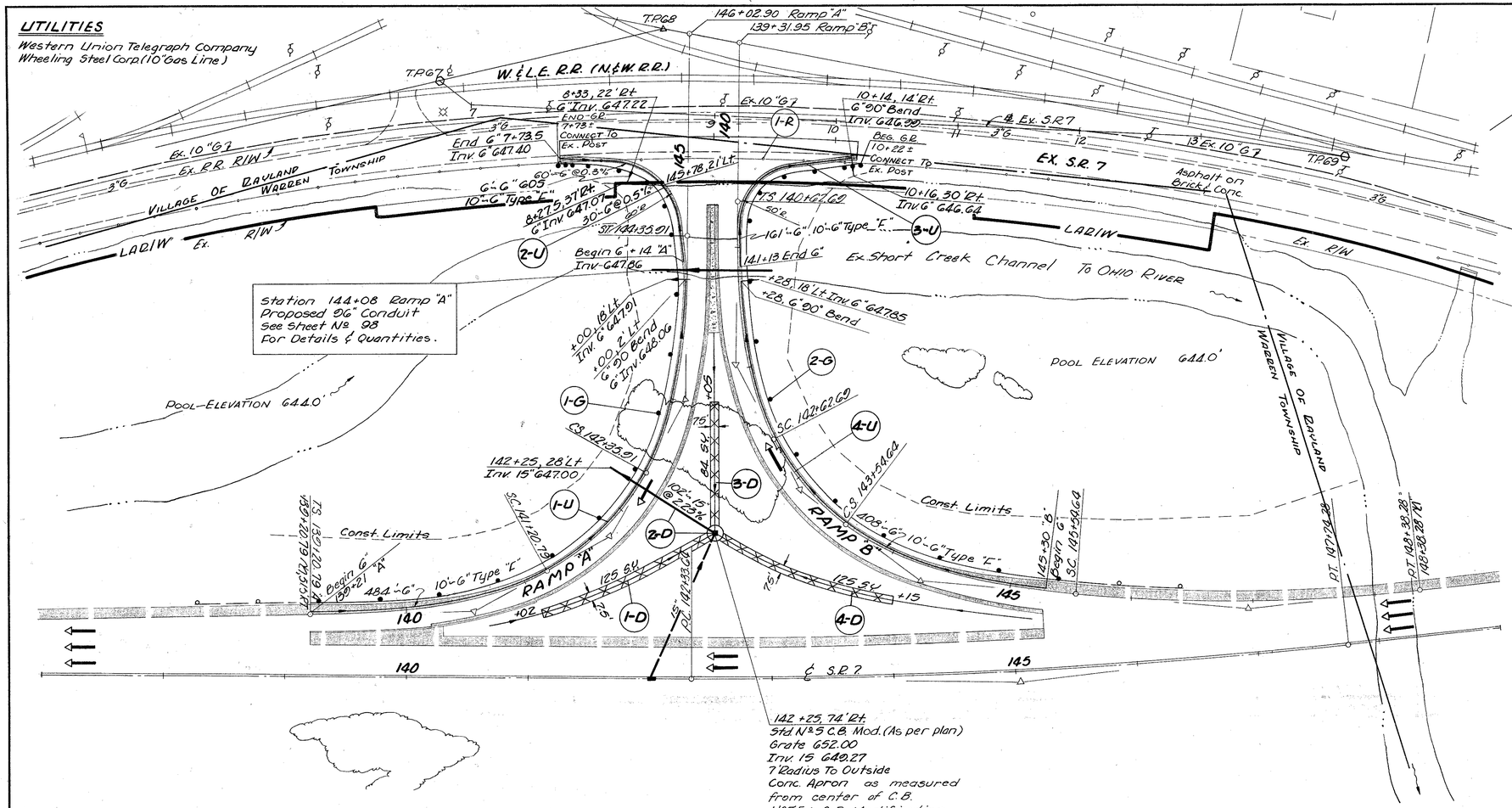
FED. RD. DIVISION	STATE	PROJECT	
2	OHIO		

71/560

JEFFERSON COUNTY
JEF.-7-0.20

UTILITIES

Western Union Telegraph Company
Wheeling Steel Corp.(10"Gas Line)

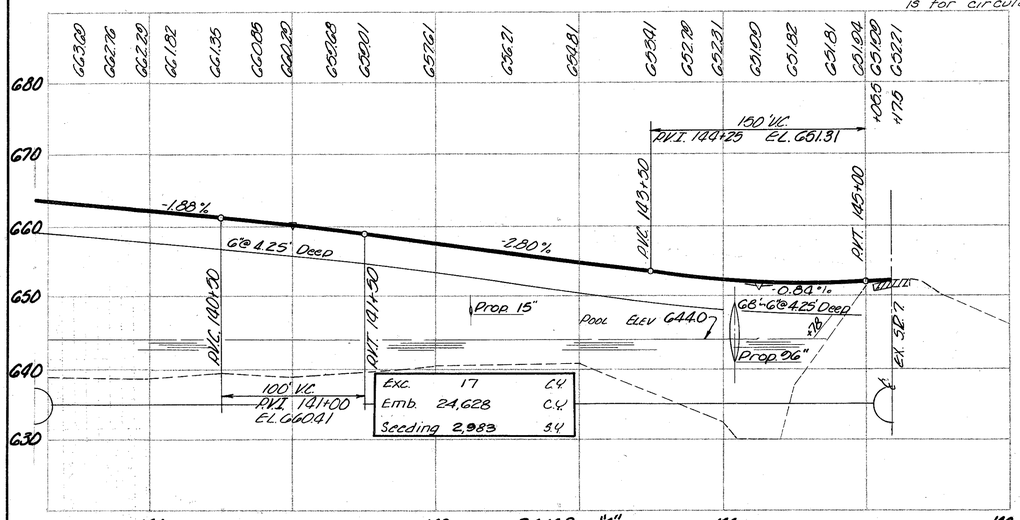


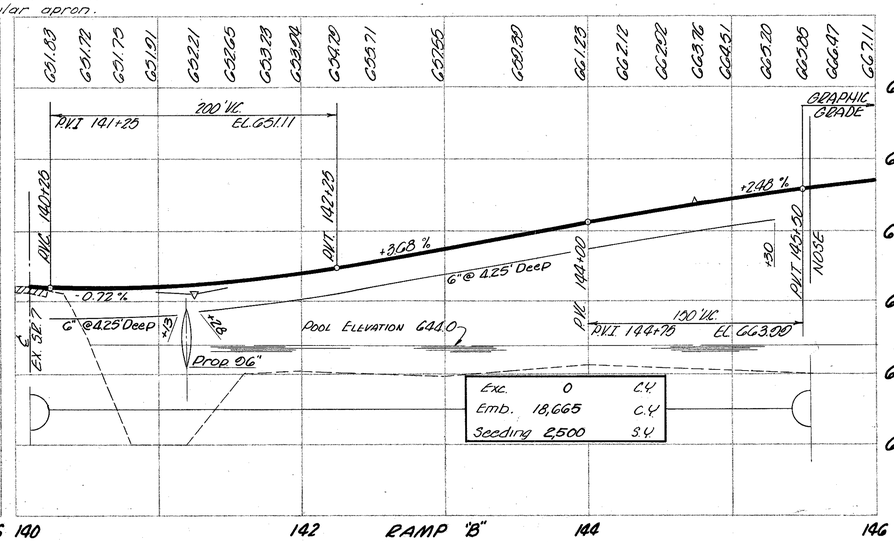
142+25, 74' Rt.
Std N° 5 C.B. Mod. (As per plan)
Grate 652.00
Inv. 15 649.27
7 Radius To Outside
Conc. Apron as measured
from center of C.B.
NOTE: C.B. Modification
is for circular apron.

ESTIMATED QUANTITIES			603		605		604	667	
			Type "B"	Type "E"	Shallow Pipe Underdrain		Std N° 5 C.B. Mod. As per plan	Sodding & Jute Matting	
REF.	SIDE	LOCATION	15"	6"	6"	Bends & Branches 6"			See Sheet N°
			L.F.	L.F.	L.F.	Ea.	Ea	S.Y.	
1-D	Rt	141+02 to 142+18 "A"						125	
2-D	Lt & Rt	142+25.28 Lt. to 74' Rt.	102				1		320
3-D	Rt	142+32 to 143+05 "A"						84	
4-D	Rt	143+00 to 144+15 "B"						125	
1-U	Lt	139+21 to 144+00 "B"		10	485	1			
2-U	Lt	144+14 to 7+73.5 Ex. S.R.7		10	164	1			
3-U	Lt	10+14 Ex. S.R.7 to 141+13 "B"		10	161	1			
4-U	Lt	141+28 to 145+30		10	408	1			
TOTALS TO GEN. SUMMARY			102	40	1218		1	334	

For Pavement Details & Elevations See Sheets 138 & 139
For Construction Layout, Bench Marks & References See Sheet # 30
For M.H. Plan & Profile See Sheets 49 & 50
For M.H. Pavement Details See Sheets 136, 138 & 141

ESTIMATED QUANTITIES			606				202	
			Guard Rail Type S				Guard Rail Removed & Stacked	
REF.	SIDE	LOCATION	L.F.				L.F.	See Sheet N°
1-G	Lt.	139+20.85 "A" to 7+73 Ex. 7	635.5					
2-G	Lt.	10+22 Ex. 7 To 145+54.64	577					
1-R							250	
TOTAL TO GEN. SUMMARY			1212.5				250	





DATE	BY	
EXISTING PLOTTED		G.B.K.
EXISTING CHECKED		
PROPOSED DRAWN	G.P.S.	
PROPOSED CHECKED		
QUANTITIES CALCULATED		
QUANTITIES CHECKED		

DLB December 1968
EO April 1969

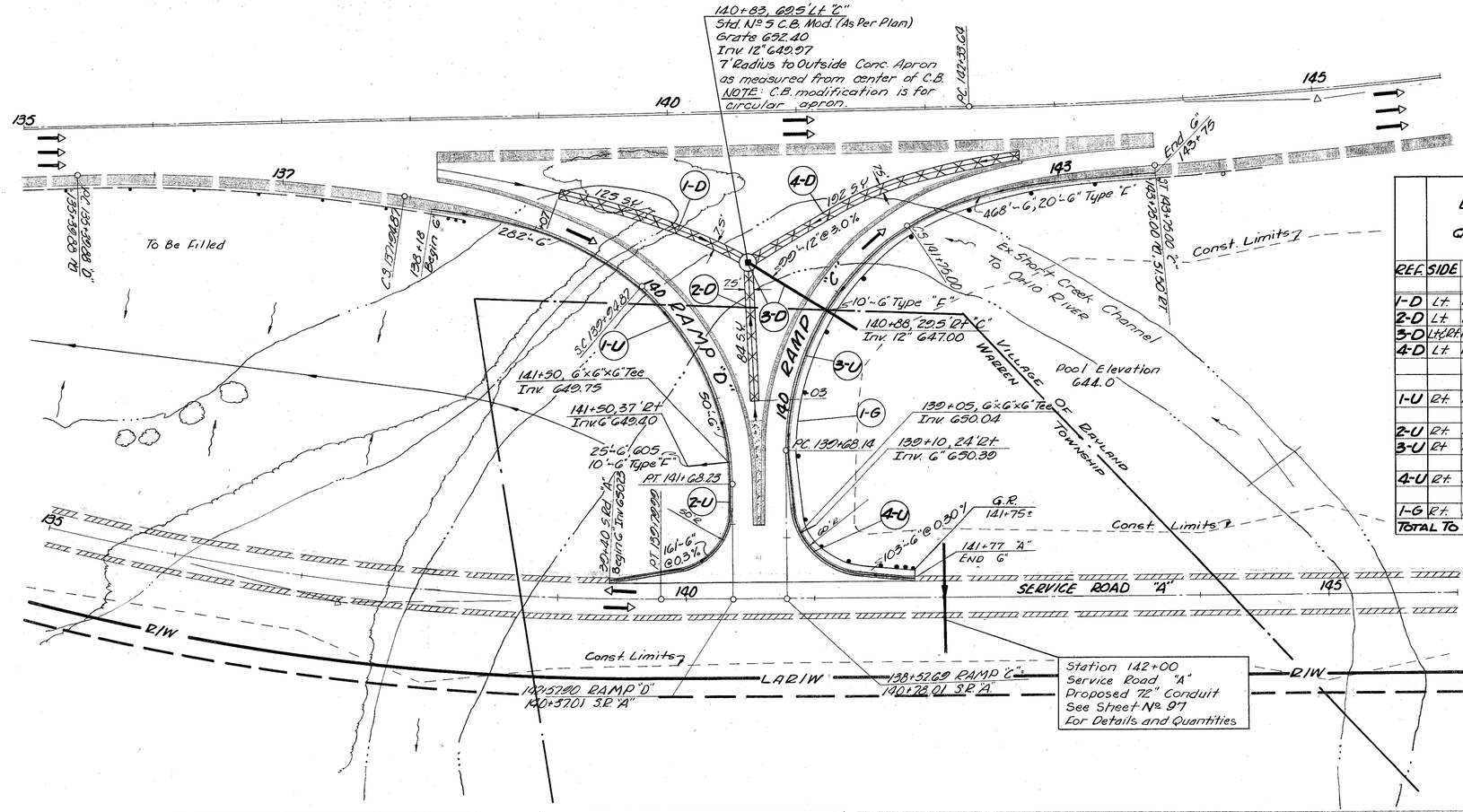
RAMPS "A" & "B" S.R. 150 INTER.

FED. RD. DIVISION	STATE	PROJECT	
2	OHIO		

72
560

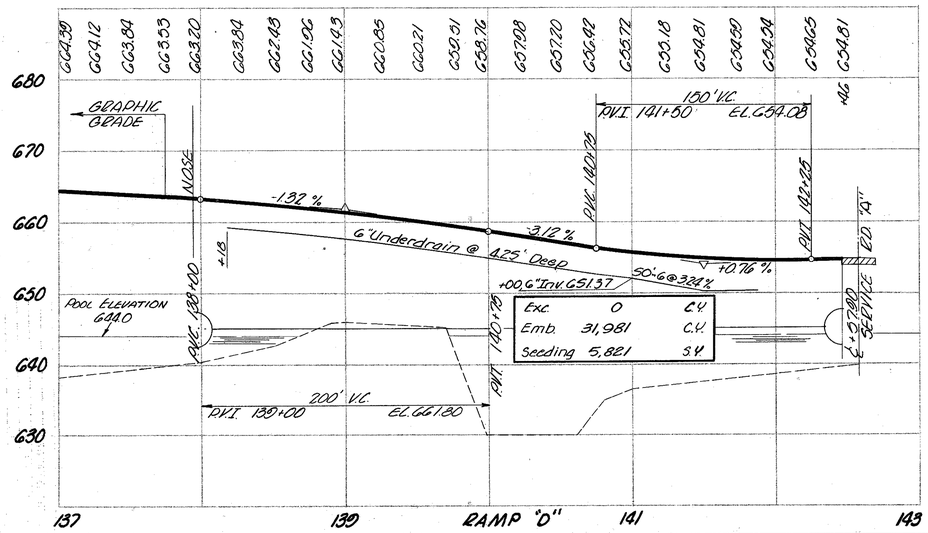
JEFFERSON COUNTY
JEF.-7-0.20

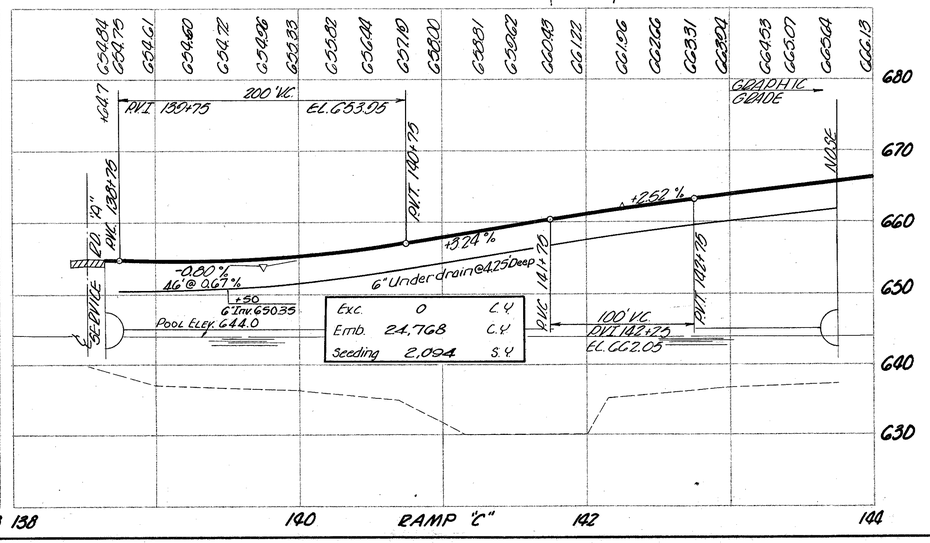
UTILITIES
None



ESTIMATED QUANTITIES			608		604	667	605		606		
REF.	SIDE	LOCATION	Type "B" 12" L.F.	Type "E" 6" L.F.	Std. №5 C.B. Mod. (As Per Plan) Ea.	Sodding & Jute Matting S.Y.	Shallow Pipe Underdrains 6" L.F.	Bends & Branches 6" Ea.	Guard Rail Type 5 L.F.	See Sheet №
1-D	Lt.	139+07 to 140+24 "D"				125				
2-D	Lt.	140+03 to 140+76 "C"				84				
3-D	Lt. & Rt.	140+83, 69.5 Lt to 20.5 Rt.	00		1					324
4-D	Lt.	140+90 to 142.73 "C"				192				
1-U	Rt.	138+18 to 141+50, 34 Rt. Ramp "D"		10			357	1		
2-U	Rt.	141+50 to 139+40.58 "A"					161			
3-U	Rt.	139+10, 23 Rt. to 143+75 Ramp "C"		20			468			
4-U	Rt.	141+77 "A" to 139+05 Ramp "C"					103			
1-G	Rt.	141+75± "A" To 143+75 "C"							550	
TOTAL TO GEN. SUMMARY			00 ✓	30 ✓	1 ✓	401 ✓	1089 ✓	✗	550 ✓	

For Pavement Details & Elevations See Sheets 136, 138 & 140
For Construction Layout, Bench Marks & References See Sheet #30
For Ⓜ Plan & Profiles See Sheet # 49
For Ⓜ Pavement Details See Sheets 136 & 138
For Service Rd. "A" Plan & Profile See Sheet # 69
For Service Rd. "A" Pavement Details See Sheets 136, 137 & 140





	BY	DATE
EXISTING PLOTTED		
EXISTING CHECKED		
PROPOSED DRAWN		12-68
PROPOSED CHECKED		
QUANTITIES CALCULATED		
QUANTITIES CHECKED		

A. E. STILSON & ASSOCIATES LIMITED
DLB December 1968
FO April 1969

RAMPS "C" & "D" S.R. 150 INTER.

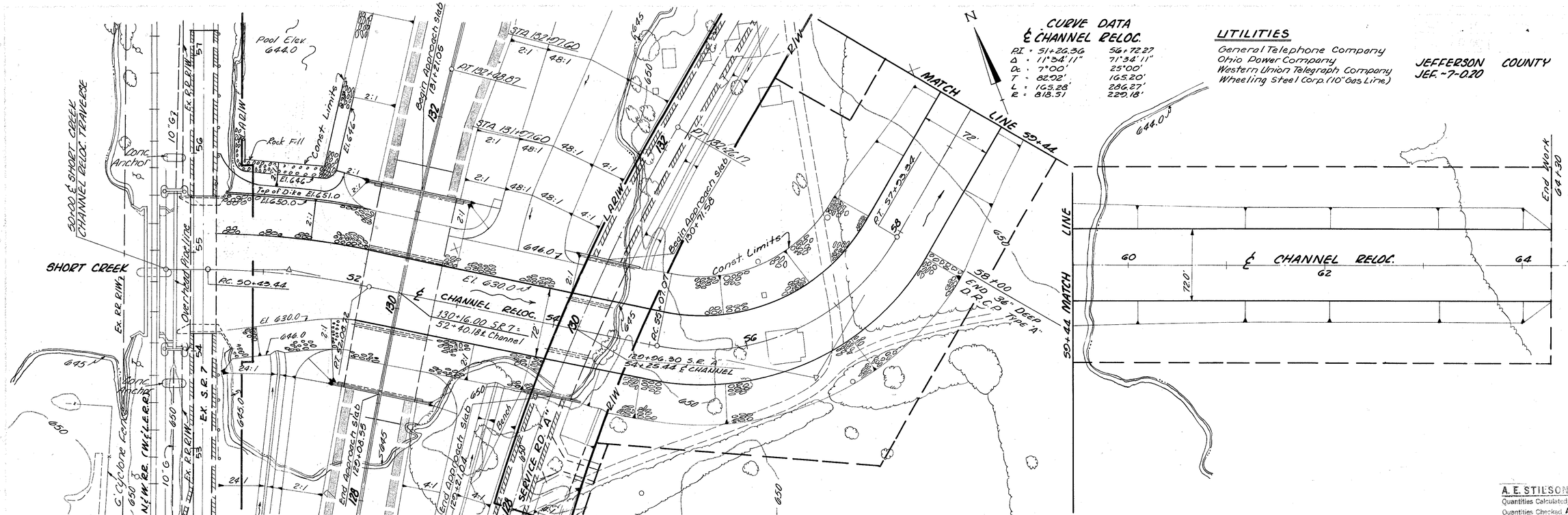
JEFFERSON COUNTY
JEF.-7-0.20

CURVE DATA
& CHANNEL RELOC.

PI	51+26.36	56+72.27
Δ	11°34'11"	71°34'11"
Dc	7°00'	25°00'
T	82.02'	165.20'
L	165.28'	286.27'
R	818.51	229.18'

UTILITIES

General Telephone Company
Ohio Power Company
Western Union Telegraph Company
Wheeling Steel Corp. (10" Gas Line)

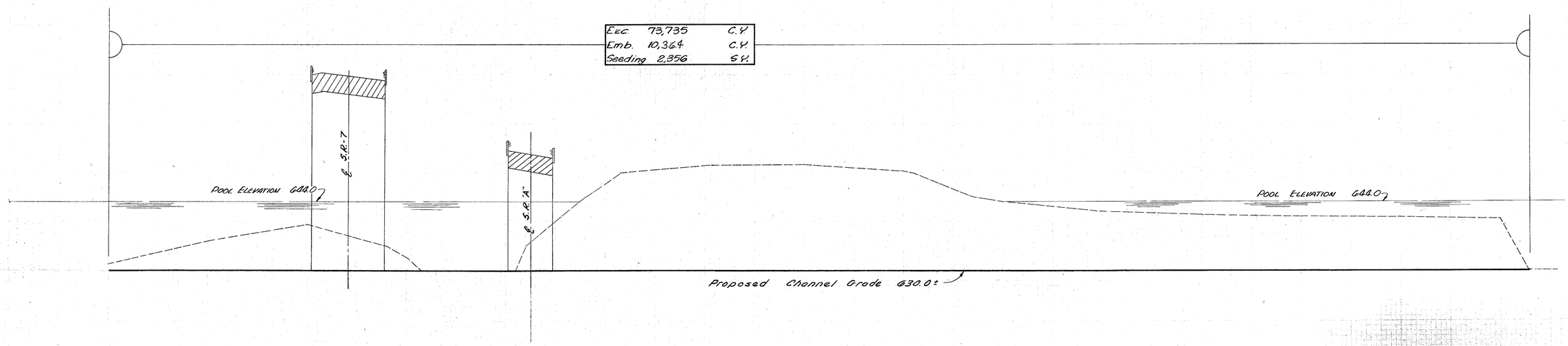


A. E. STILSON & ASSOC.
Quantities Calculated JWF April 1969
Quantities Checked DLB April 1969

For Construction Layout, Bench Marks & References
See Sheet # 30
For M Plan & Profile See Sheet # 48
For M Pavement Details See Sheets 133 & 135
For Service Rd. "A" Plan & Profile See Sheet # 68
For Service Rd. "A" Pavement Details See Sheets 133 & 135

ITEM 601, ROCK CHANNEL PROT. TYPE "A" = 8317 C.Y.

Exc.	73,735	C.Y.
Emb.	10,364	C.Y.
Seeding	2,356	S.Y.



	BY	DATE
EXISTING PLOTTED		
EXISTING REVISED		
PROPOSED DRAWN		
PROPOSED CHECKED		
QUANTITIES CALCULATED		
QUANTITIES CHECKED		

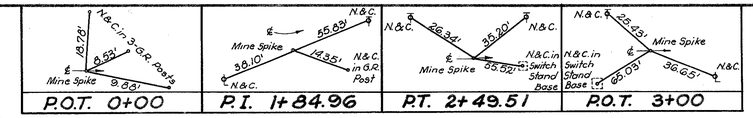
Rev. 9-23-74

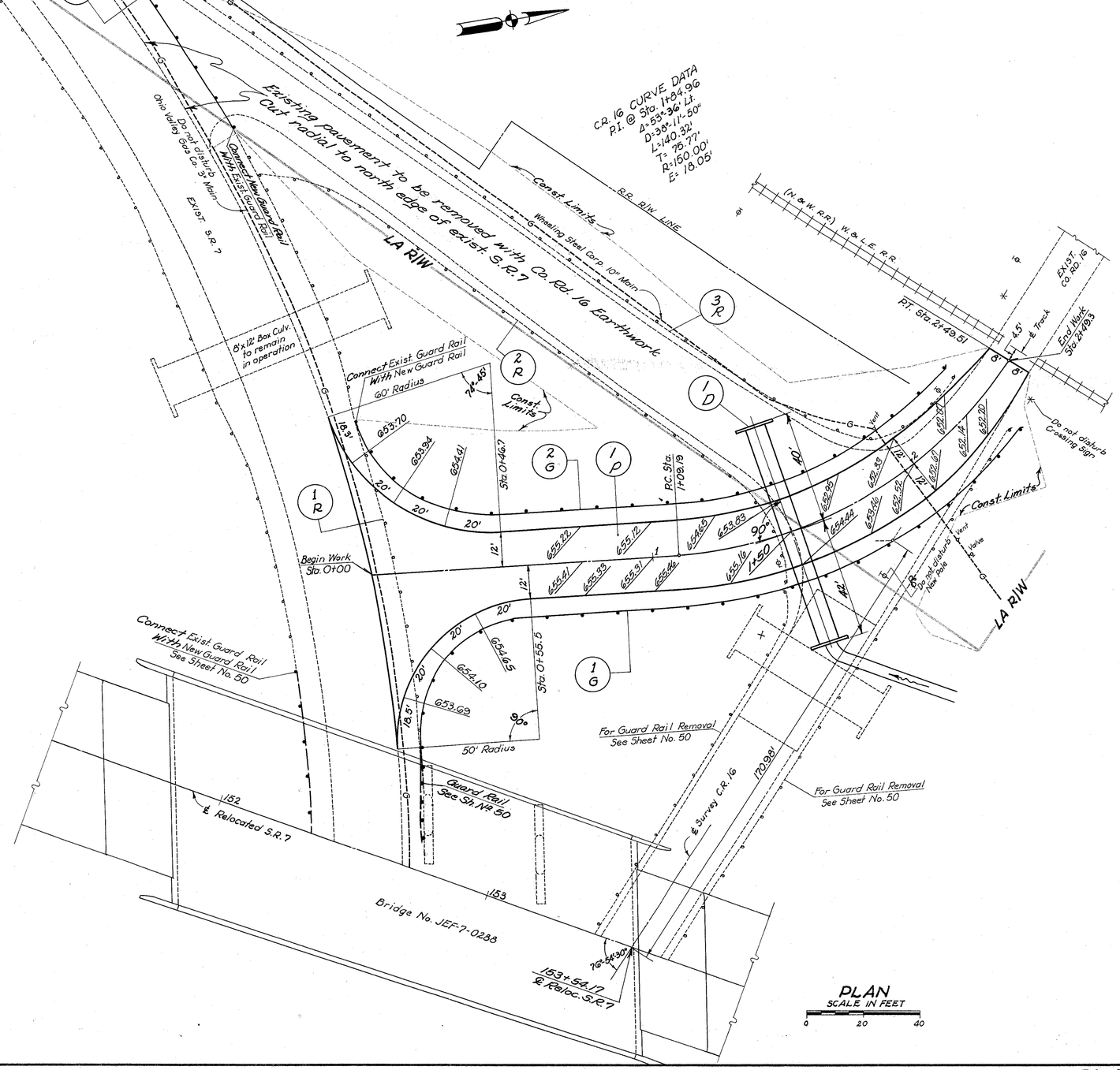
SHORT CREEK CHANNEL RELOC. 50+00 to 64+00

FED. RD. DIVISION	STATE	PROJECT	
2	OHIO		

73-A 560

JEF-7-0.20





PLAN
SCALE IN FEET
0 20 40

QUANTITIES

REF. No.	SIDE	LOCATION	202 GUARD RAIL REMOVED FOR STORAGE (LIN. FT.)	203 SUBGRADE COMPACTION (SQ. YD.)	301 BITUMINOUS AGGREGATE BASE (CU. YD.)	310 6" SUBBASE (CU. YD.)	402 1½" ASPHALT CONCRETE (CU. YD.)	404 1½" ASPHALT CONCRETE (CU. YD.)		602 CONCRETE MASONRY (CU. YD.)	603 24" CONDUIT TYPE A 709.02 (LIN. FT.)	606 GUARD RAIL TYPE 5 (LIN. FT.)	606 ANCHOR ASSEMBLY (EACH)	605 AGGREGATE DRAINS (LIN. FT.)		SEE SHEET NUMBER
1-P	℄	0+00 TO 2+49.3		758	87.6	136.6	26.3	26.3						100		
1-G	RT.	0+08 TO 2+33										250	1			
2-G	LT.	0+08 TO 2+33										212.5	1			
3-G	LT.	As Shown										50	1			
1-R	LT. & RT.	As Shown	131													
2-R	LT.	As Shown	245													
3-R	LT.	As Shown	322													
1-D	LT. & RT.	1+50								8.10	82					3284
TOTALS			698 ✓	758 ✓	87.6 ✓	136.6 ✓	26.3 ✓	26.3 ✓		8.10 ✓	82 ✓	512.5 ✓	3 ✓	100 ✓		

CALCULATIONS

404 ASPHALT CONCRETE:

FLARE RT: (59.2 Sq. Ft. by planimeter x 1.25") ÷ (12 x 27) = 2.284 Cu. Yds.
FLARE LT: (444 Sq. Ft. by planimeter x 1.25") ÷ (12 x 27) = 1.713 Cu. Yds.
STA. 0+00 TO STA. 2+00: (200' x 24' x 1.25") ÷ (12 x 27) = 18.518 Cu. Yds.
STA. 2+00 TO STA. 2+49.3: (49.3' x 20' avg. x 1.25") ÷ (12 x 27) = 3.804 Cu. Yds.

TOTAL = 26.32 CU. YDS.

402 ASPHALT CONCRETE:

Same as 404

TOTAL = 26.32 CU. YDS.

301 BITUMINOUS AGGREGATE BASE:

FLARE RT: (59.2 Sq. Ft. x 4") ÷ (12 x 27) = 7.309 Cu. Yds.
FLARE LT: (444 Sq. Ft. x 4") ÷ (12 x 27) = 5.482 Cu. Yds.
EXTRA AROUND FLARES: (54 G' x 0.5' x 4") ÷ (12 x 27) = 0.337 Cu. Yds.
STA. 0+00 TO STA. 2+00: (200' x 25' x 4") ÷ (12 x 27) = 61.728 Cu. Yds.
STA. 2+00 TO 2+49.3: (49.3' x 21' avg. x 4") ÷ (12 x 27) = 12.781 Cu. Yds.

TOTAL = 87.64 CU. YDS.

310 SUBBASE:

FLARE RT: (59.2 Sq. Ft. x 6") ÷ (12 x 27) = 10.963 Cu. Yds.
FLARE LT: (444 Sq. Ft. x 6") ÷ (12 x 27) = 8.222 Cu. Yds.
EXTRA AROUND FLARES: (54 G' x 1.0' x 6") ÷ (12 x 27) = 1.011 Cu. Yds.
STA. 0+00 TO STA. 2+00: (200' x 26' x 6") ÷ (12 x 27) = 96.296 Cu. Yds.
STA. 2+00 TO STA. 2+49.3: (49.3' x 22' avg. x 6") ÷ (12 x 27) = 20.085 Cu. Yds.

TOTAL = 136.58 CU. YDS.

203 SUBGRADE COMPACTION:

[59.2 Sq. Ft. + 444 Sq. Ft. + (200' x 24') + (49.3' x 20' avg.)] ÷ 9 = 758 Sq. Yds.

TOTAL = 758 SQ. YDS.

605 AGGREGATE DRAINS:

Estimated

TOTAL = 100 LIN. FT.

QUANTITIES	
Calculated by: J.W.H.	Checked by: W.F.P.
Date: 2-5-71	Date: 2-6-71

BRUNING 44-560 10943

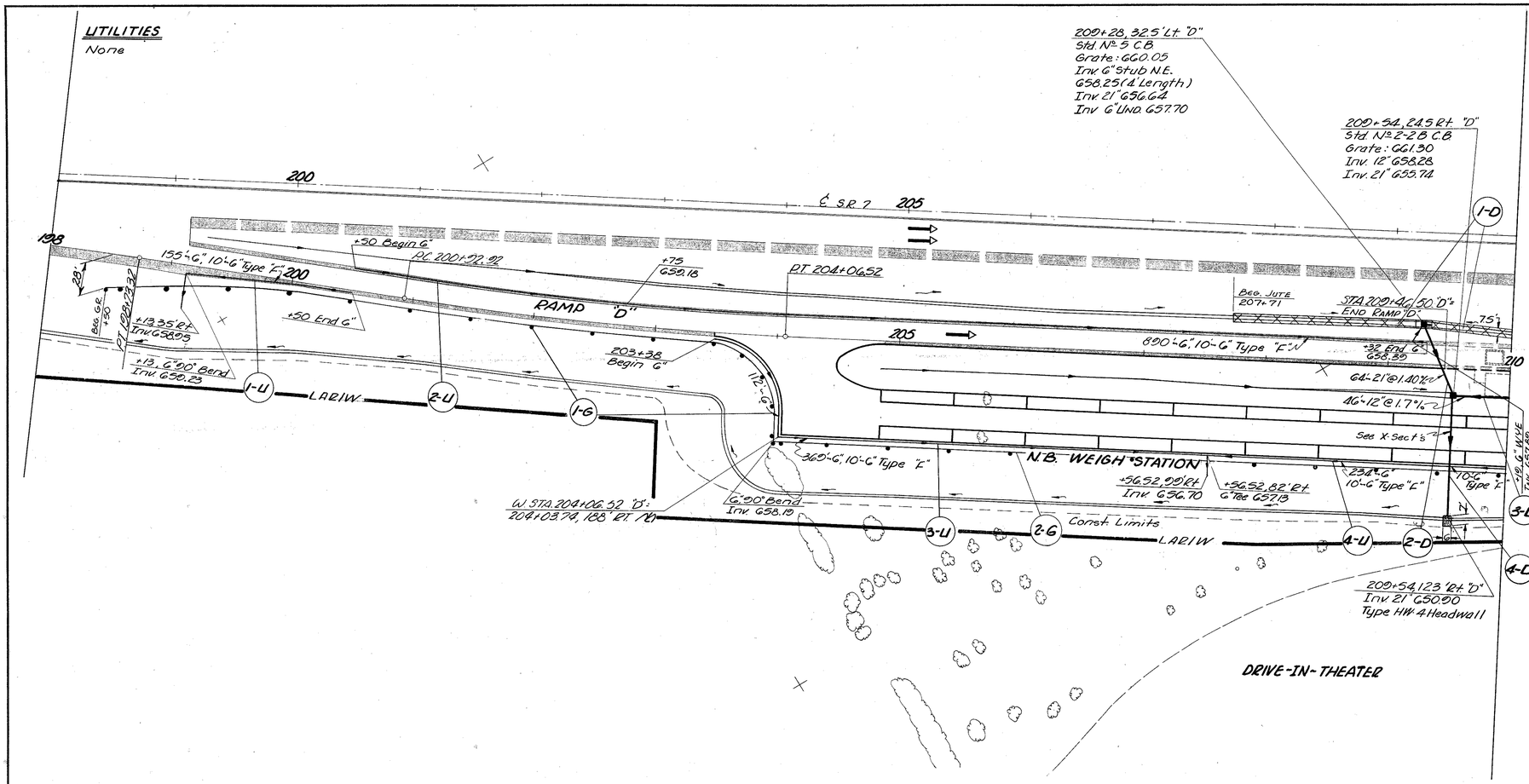
PLAN ~ CO. RD. 16 RELOCATION ~ STA. 0+00 TO STA. 2+49.3

FED. RD. DIVISION	STATE	PROJECT		
2	OHIO			

JEFFERSON COUNTY
JEF.-7-0.20

74
560

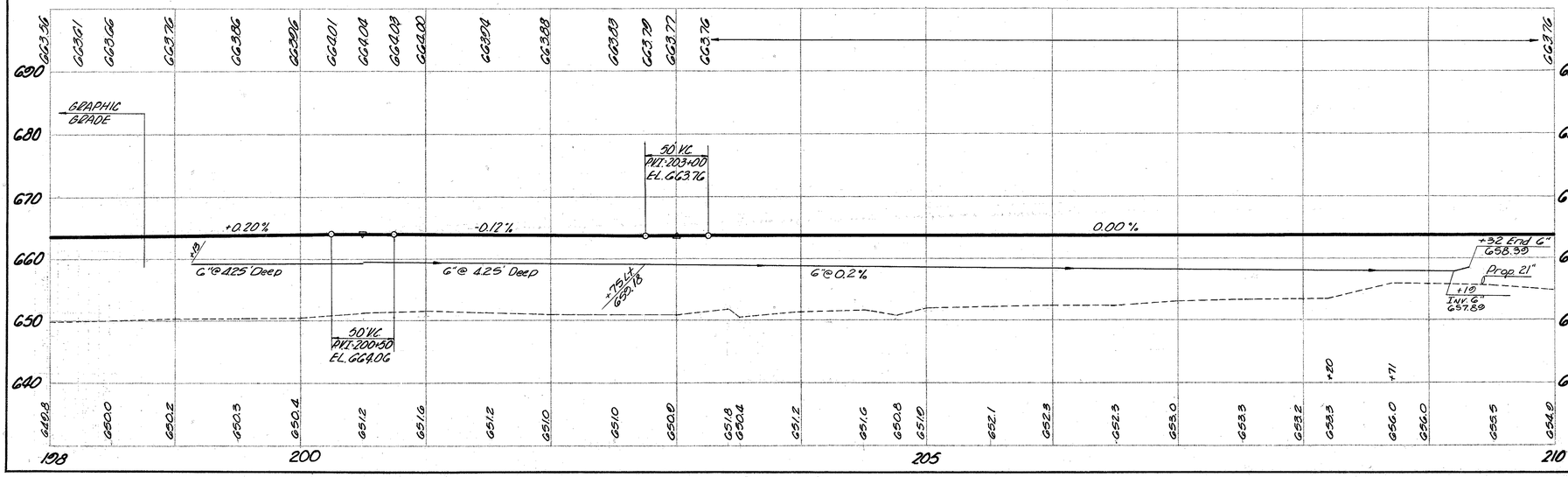
UTILITIES
None



ESTIMATED QUANTITIES			603						604	607	667	602		
			Type "B"		Type "L"		Bends & Branches Type "L"	Type "C"	No. 228 C.B.	No. 5 C.B.	Rock Chan. Prot. Type B	Seeding & Matting	Concrete Masonry	See Sheet No.
REF.	SIDE	LOCATION	6"	21"		21"	21"	12"	Ea.	Ea.	C.Y.	S.Y.	C.Y.	
			L.F.	L.F.		L.F.	Ea.	L.F.						
1-D	L & R	207+71 Lt. to 210+00										170		
2-D	Lt.	209+28 to 209+54.4	64							1				251
3-D	Rt.	209+54 to 210+00						46						251
4-D	Rt.	209+54.245' to 180' Rt.	67			33	2		1		3		0.39	251
TOTAL TO GEN. SUMMARY			131			33	X	46	1	1	3	171	0.39	

ESTIMATED QUANTITIES			603		605			606		
			Type "L"		Shallow Pipe Underdrains	Bends & Branches	Guard Rail Type S		Anchor Assembly	
REF.	SIDE	LOCATION	6"		L.F.	Ea.	L.F.		Ea.	
			L.F.							
1-U	Rt.	199+13 to 200+50	10		155	1				
2-U	Lt.	200+50 to 209+32	10		800	1				
3-U	Rt.	203+38 to 207+56.52	10		481	2				
4-U	Rt.	207+56.52 to 210+00	10		234					
1-G	Rt.	198+50 To 204+00 ± "D"					575		1	
2-G	Rt.	204+00 ± "D" to 210+00					600			
TOTAL TO GEN. SUMMARY			40		1760	X	1175		1	

For Pavement Details & Elevations See Sheets 147, 148 & 149
For Construction Layout, Bench Marks & References See Sheet # 32
For N/A Plan & Profile See Sheets 55 & 56
For N/A Pavement Details See Sheets 147, 148 & 149



	BY	DATE
EXISTING PLOTTED		
EXISTING CHECKED		
PROPOSED DRAWN		
PROPOSED CHECKED		
QUANTITIES CALCULATED		
QUANTITIES CHECKED		

R. E. PHILLIPSON & ASSOCIATES, LIMITED
Consulting Engineers
DLB December 1968
EO April 1969

N. B. WEIGH STATION 198+00 to 210+00

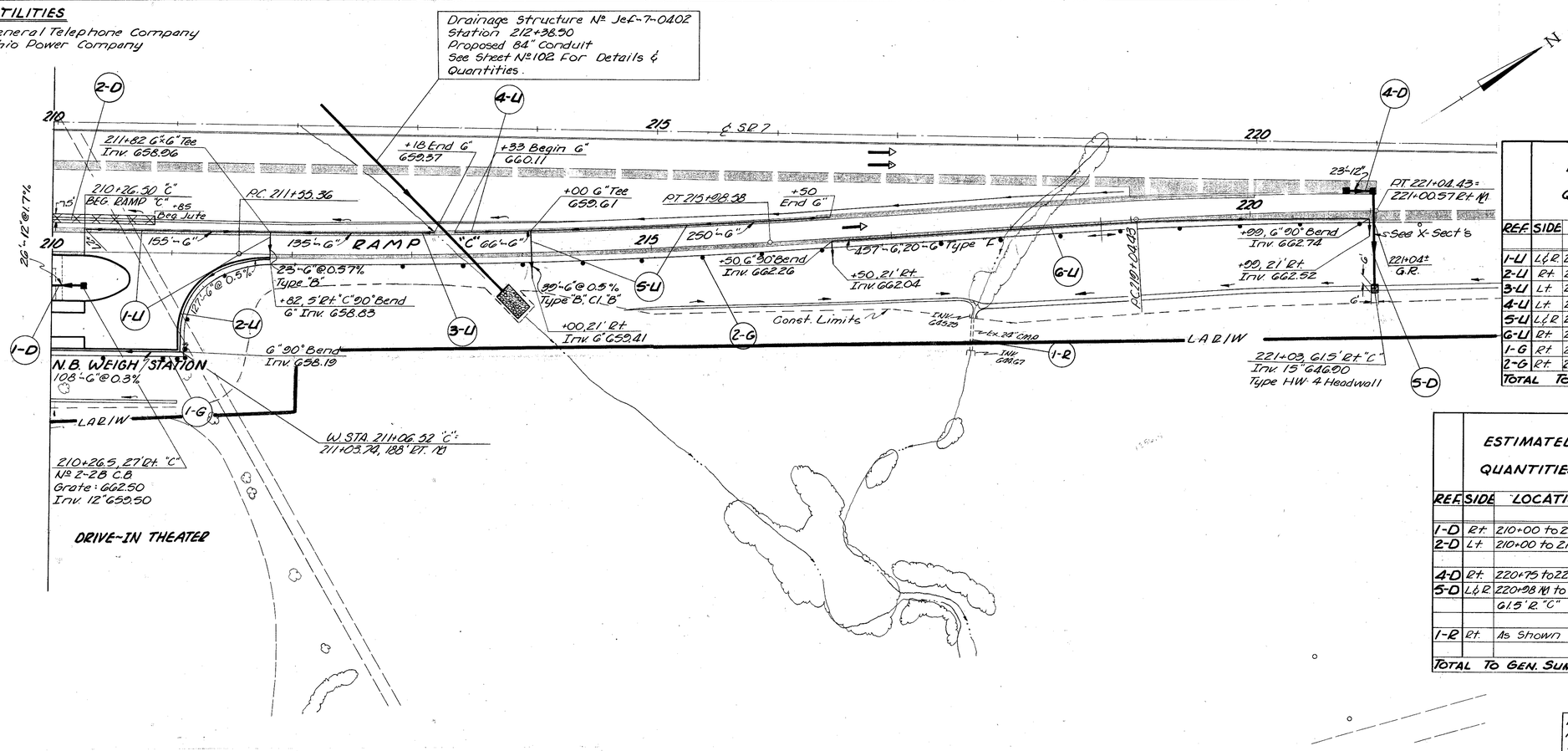
FED. RD. DIVISION	STATE	PROJECT	
2	OHIO		

75/560

JEFFERSON COUNTY
JEF.-7-0.20

UTILITIES

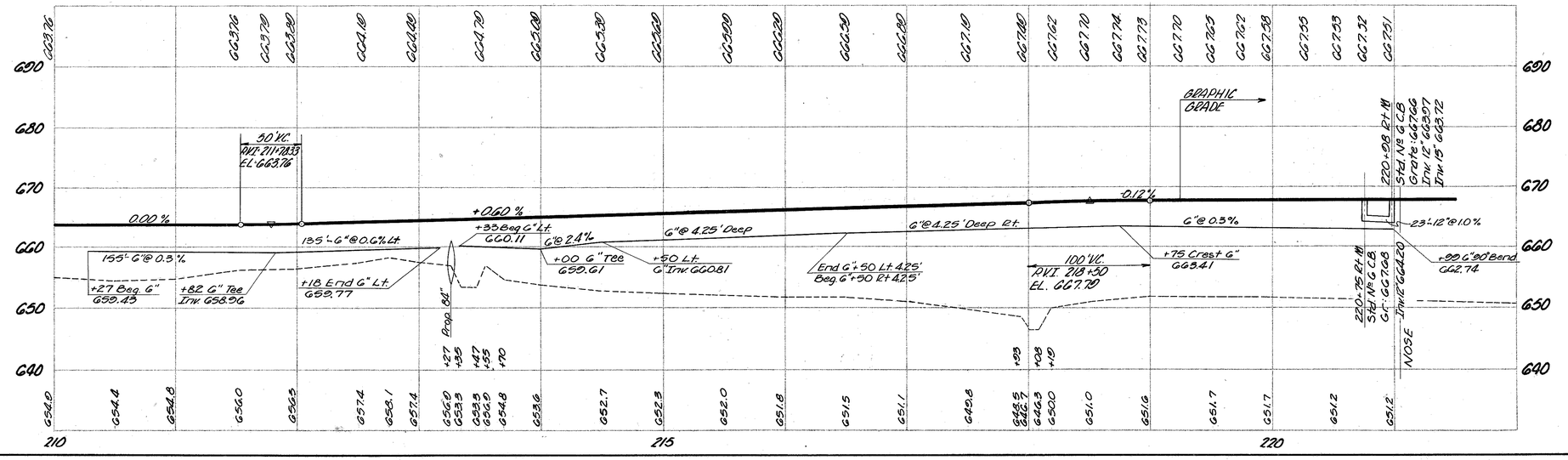
General Telephone Company
Ohio Power Company



REF.	SIDE	ESTIMATED QUANTITIES LOCATION	603 Type "B" 6" LF	603 Bends & Tees Type "B" 6" Ea.	603 Type "L" 6" LF	605 Shallow Pipe Underdrains 6" LF	605 Bends & Branches 6" Ea.	606 Guard Rail Type S LF		See Sheet Nº
1-U	Lt.&R.	210+27 to 211+82 Rt.	23	2		155				
2-U	Rt.	210+00 to 211+82				235	1			
3-U	Lt.	211+82 to 213+18				135				
4-U	Lt.	213+33 to 214+00				66				
5-U	Lt.&R.	214+00 R. to 216+50 L.	30			250				
6-U	Rt.	216+50 to 220+00			20	457	2			
1-G	Rt.	210+00 to 211+12.5± "D"						112.5		
2-G	Rt.	211+12.5 "D" to 221+04±						1032.5		
TOTAL TO GEN. SUMMARY			62 ✓	✕	20 ✓	1298 ✓	✕	1150 ✓		

REF.	SIDE	ESTIMATED QUANTITIES LOCATION	603 Type "B" 12" LF	603 Type "C" 15" LF	603 Type "L" 12" LF	603 Bends & Tees Type "L" 15" Ea.		604 Nº 2 C.B. Ea.	604 Nº 6 C.B. Ea.	602 Concrete Masonry C.Y.	601 Rock Excav. Type B C.Y.	667 Seeding & Mulching S.Y.	202 Removal Of Exist. Pipe 24" & Under L.F.	See Sheet Nº
1-D	Rt.	210+00 to 210+26.5			26			1						251
2-D	Lt.	210+00 to 210+85										71		
4-D	Rt.	220+75 to 220+98 R. Ⓜ	23						1					
5-D	Lt.&R.	220+98 Ⓜ to 221+03		27		54	2		1	0.27	2.			257
		61.5' R. "C"												
1-R	Rt.	As Shown											27	
TOTAL TO GEN. SUMMARY			23 ✓	27 ✓	26 ✓	54 ✓	✕	1 ✓	2 ✓	0.27 ✓	2 ✓	71 ✓	27 ✓	

For Pavement Details & Elevations See Sheets 150, 151 & 152
For Construction Layout, Bench Marks & References See Sheet # 32
For Ⓜ Plan & Profile See Sheets 56 & 57
For Ⓜ Pavement Details See Sheets 150, 151 & 152



	BY	DATE
EXISTING PLOTTED		
EXISTING CHECKED		
PROPOSED DRAWN		
PROPOSED CHECKED		
QUANTITIES CALCULATED		
QUANTITIES CHECKED		

DLB December 1968
FO April 1969

N.B. WEIGH STATION 210+00 to 222+00

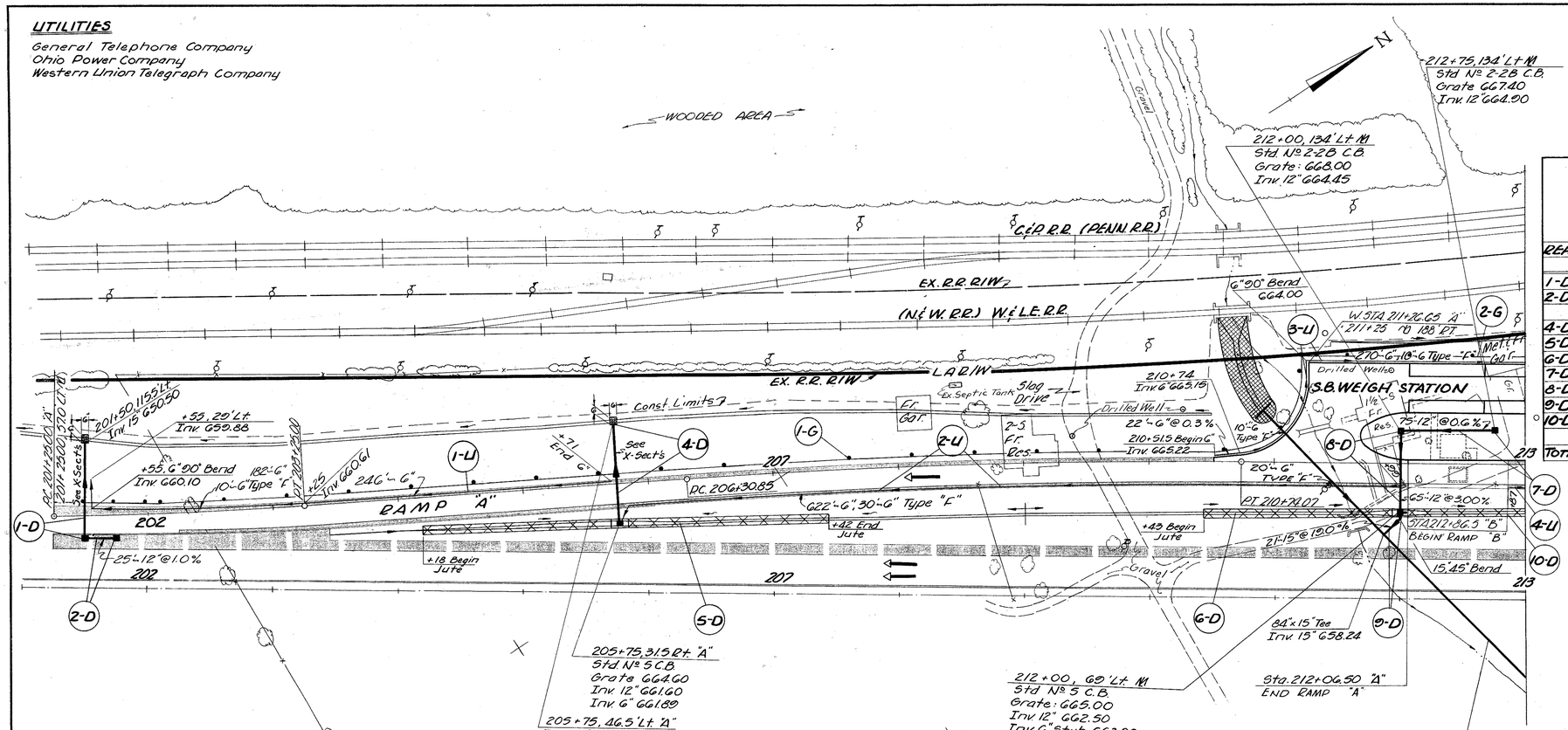
FED. RD. DIVISION	STATE	PROJECT	
2	OHIO		

JEFFERSON COUNTY
JEF-7-0.20

76/560

UTILITIES

General Telephone Company
Ohio Power Company
Western Union Telegraph Company

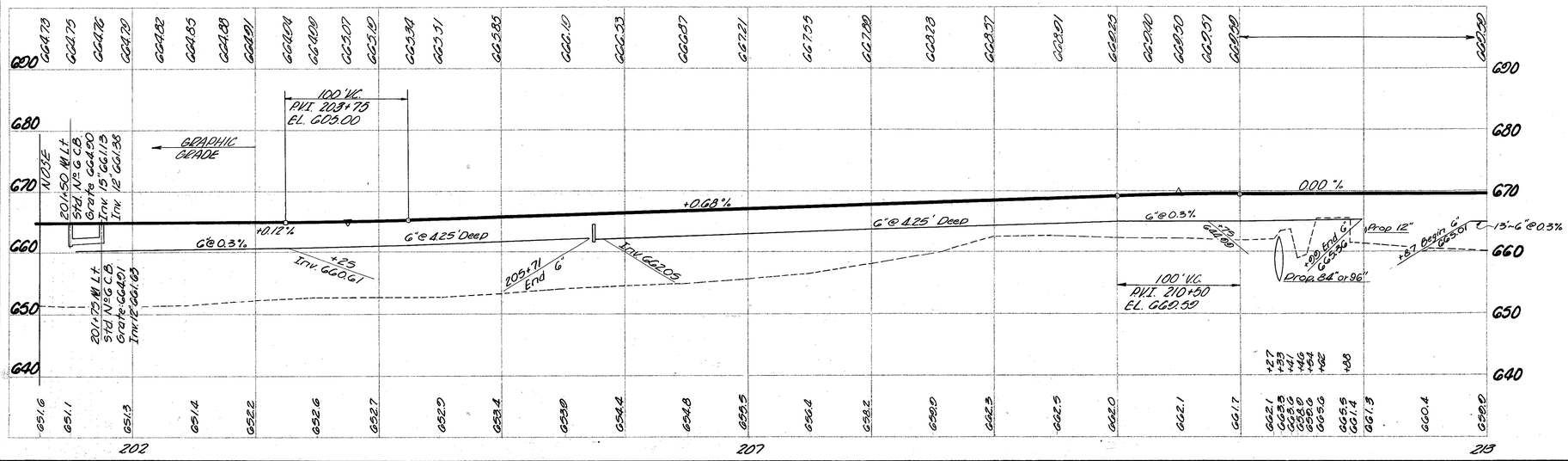


Drainage Structure Jef-7-0.402
Station 212+38.50
Proposed 84" or 96"
See Sheet No. 101 For Details & Quantities

ESTIMATED QUANTITIES			603 Type "B" 6"	603 Type "C" 12"	603 Type "F" 12"	603 Bends & Branches 12"	603 Bends & Branches 15"	604 No 6 C.B.	604 No 2-2B C.B.	604 No 5 C.B.	602 Concrete Masonry	601 Rock chan. Prot. Type B	667 Seeding & Jute Matting	
REF.	SIDE	LOCATION	LF	LF	LF	LF	LF	Ea.	Ea.	Ea.	CY	CY	SY	See Sheet No.
1-D	Lt.	201+50 NM		28		47	2	1			027	2		250
2-D	Lt.	201+50 to 201+75 NM	25					1						
4-D	L&R	205+75.315 Lt to 515 Rt.	44			36	2			1	021	2		252
5-D	Rt.	204+18 to 207+42 NM											250	
6-D	Lt.	210+43 to 211+93 NM											125	
7-D	Lt.	212+00 to 212+75 NM			75					1				254
8-D	Lt.	212+00, 60' to 134 Lt.	65							1				254
9-D	Lt.	212+00, 60' to 84' Lt.	4			21	1			1				254
10-D	Lt.	212+07 to 213+00 NM											78	
TOTAL TO GEN. SUMMARY			4	28	75	3668		2	2	2	0.48	4	453	

ESTIMATED QUANTITIES			605 Steel Flow Line Underdrains 6"	605 Bends & Branches 6"	603 Type "L" 6"	606 Guard Rail Type S			See Sheet No.
REF.	SIDE	LOCATION	LF	Ea.	LF	LF			
1-U	Lt.	201+55 to 205+71	428	1	10				
2-U	Rt.	205+75 to 211+89	622	1	30				
3-U	Lt.	210+51.5 to 213+00	270	1	10				
4-U	Rt.	212+87 to 213+00	13						
1-G	Lt.	201+25 To 211+20.6 ± "A"				1047			
2-G	Lt.	211+20.6 ± "A" to 213+00				180.5			
TOTAL TO GEN. SUMMARY			1333		50	1227.5			

For Pavement Details & Elevations See Sheets 148, 149 & 150
For Construction Layouts, Bench Marks & References See Sheet # 32
For NM Plan & Profile See Sheets 55 & 56
For NM Pavement Details See Sheets 148, 149 & 150



EXISTING PLOTTED
EXISTING CHECKED
PROPOSED DRAWN
PROPOSED CHECKED
QUANTITIES CALCULATED
QUANTITIES CHECKED
BY
DATE

A. E. STILSON & ASSOCIATES LIMITED
PLB December 1968
EO April 1969

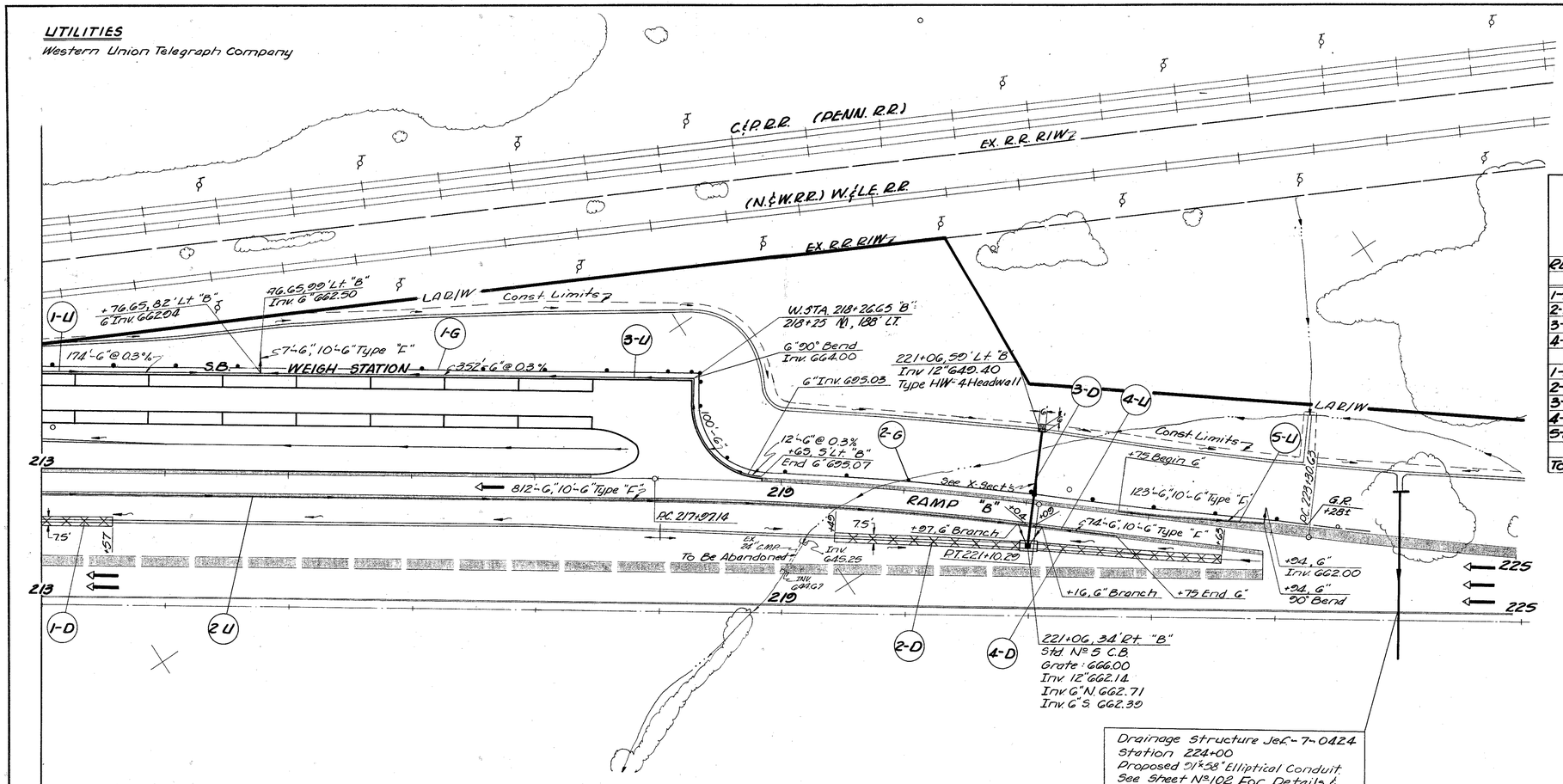
S.B. WEIGH STATION 202+00 to 213+00

FED. RD. DIVISION	STATE	PROJECT	
2	OHIO		

77
560

JEFFERSON COUNTY
JEF.-7-0.20

UTILITIES
Western Union Telegraph Company

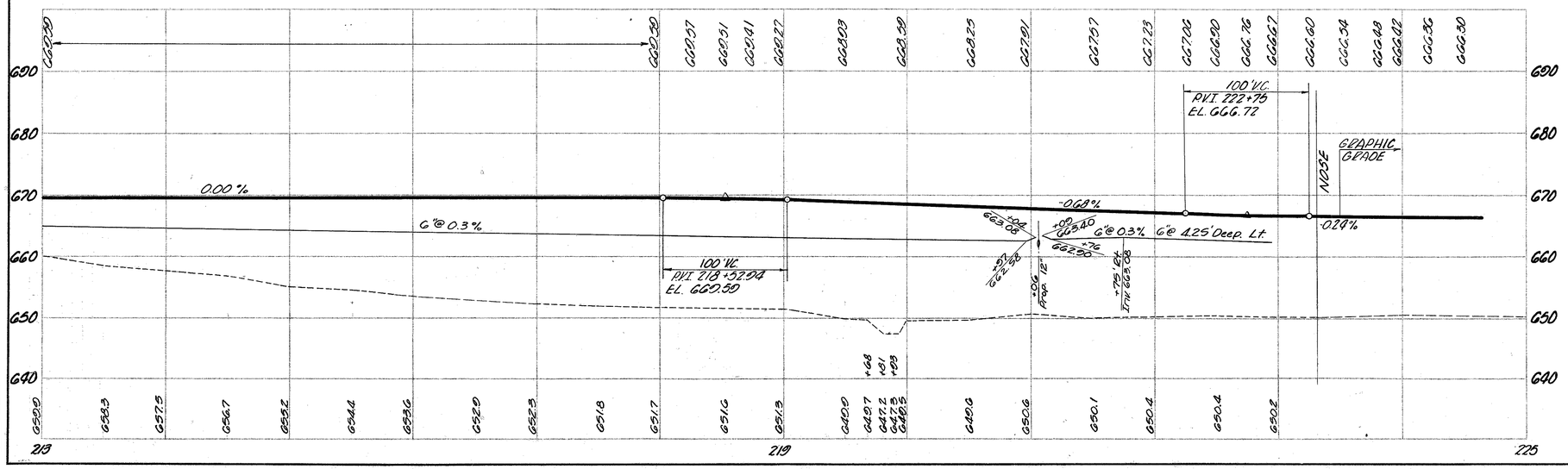


Drainage Structure Jef.-7-0424
Station 224+00
Proposed 21"x38" Elliptical Conduit
See Sheet No. 102 For Details & Quantities.

ESTIMATED QUANTITIES			603 Type "B" 12"	603 Type "F" 12"	603 Type "F" 6"	603 Bends & Branches "F" Type 6"	603 Bends & Branches "F" Type 12"	604 Std No. 5 Catch Basin	602 Concrete Masonry	601 Rock Prot. Type "B" Class "D"	667 Seeding & Mulching	605 Shallow Underdrains	See Sheet No.
REF.	SIDE	LOCATION	LF	LF.	L.F.	Ea.	Ea.	Ea.	C.Y.	C.Y.	S.Y.	L.F.	
1-D	Lt.	213+00 to 213+57 M									47		
2-D	Rt.	210+49 to 220+99									125		
3-D	L&R	221+06.34' R. to 65' L.	50	46			1	1	0.21	2			258
4-D	Rt.	221+13 to 222+63									125		
1-U	Lt.	213+00 to 214+76.65			10	1						181	
2-U	Rt.	213+00 to 221+06			10							812	
3-U	Lt.	214+76.65 to 218+85										352	
4-U	Rt.	221+06 to 221+75			10	1						74	
5-U	Lt.	221+75 to 222+04			10	1						123	
TOTAL TO GEN. SUMMARY			50 ✓	46 ✓	40 ✓	✓	✓	1 ✓	0.21 ✓	2 ✓	297 ✓	1542 ✓	

For Pavement Details & Elevations See Sheets 150, 151 & 152
For Construction Layout, Bench Marks & References See Sheet # 32.
For M Plan & Profile See Sheets 56 & 57
For M Pavement Details See Sheets 150, 151 & 152

ESTIMATED QUANTITIES			606 Guard Rail Type 5
REF.	SIDE	LOCATION	L.F.
1-G	Lt.	213+00 To 218+32.6' "B"	532
2-G	Lt.	218+32.6' "B" To 223+26	550
TOTAL TO GEN. SUMMARY			1082 ✓



	BY	DATE
EXISTING PLOTTED		
EXISTING CHECKED		
PROPOSED DRAWN		
PROPOSED CHECKED		
QUANTITIES CALCULATED		
QUANTITIES CHECKED		

D.L.B. December 1968
F.O. April 1969

S.B. WEIGH STATION 213+00 to 225+00

FED. RD. DIVISION	STATE	PROJECT	
2	OHIO		

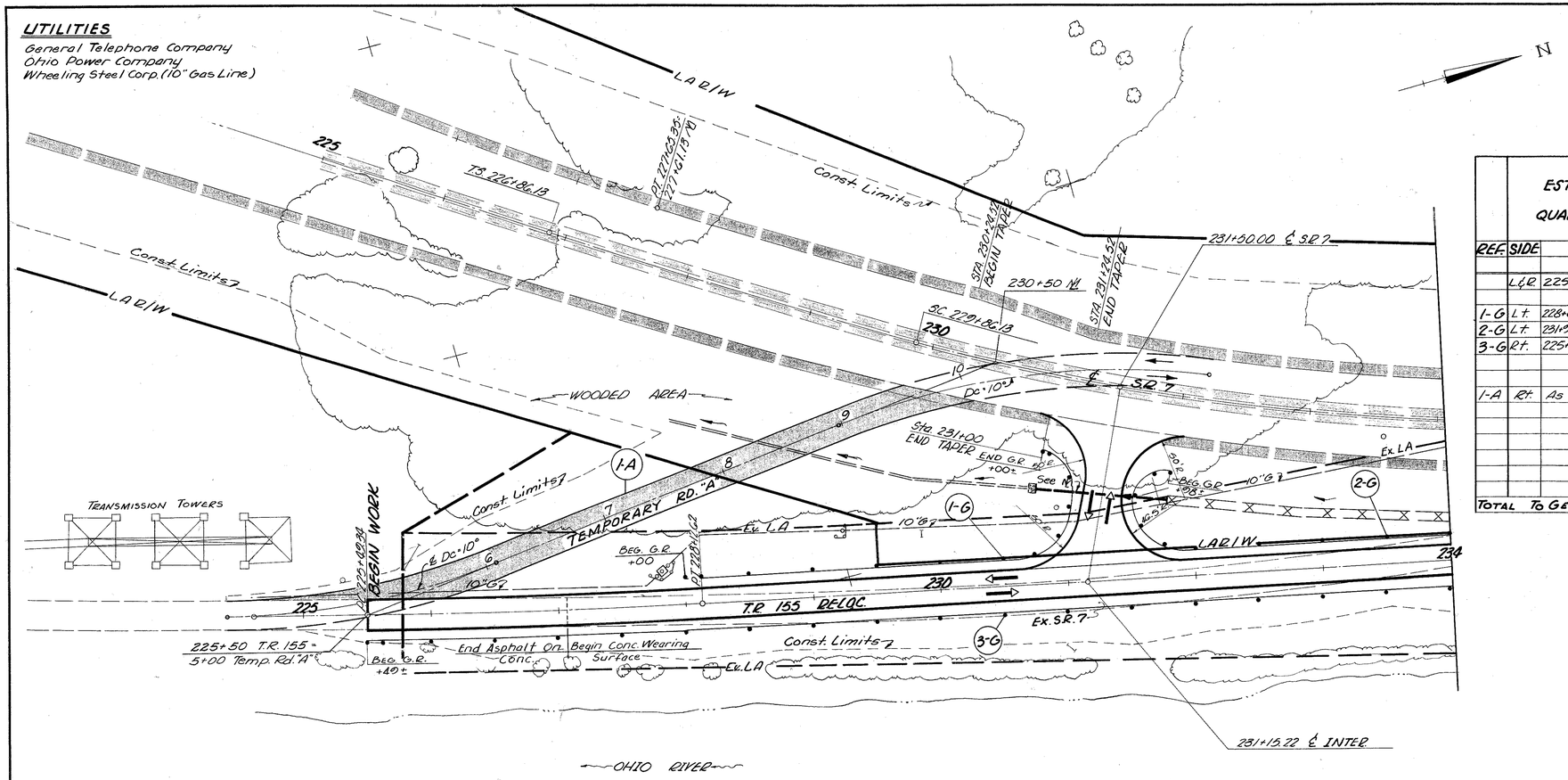
78/560

JEFFERSON COUNTY

JEF.-7-0.20

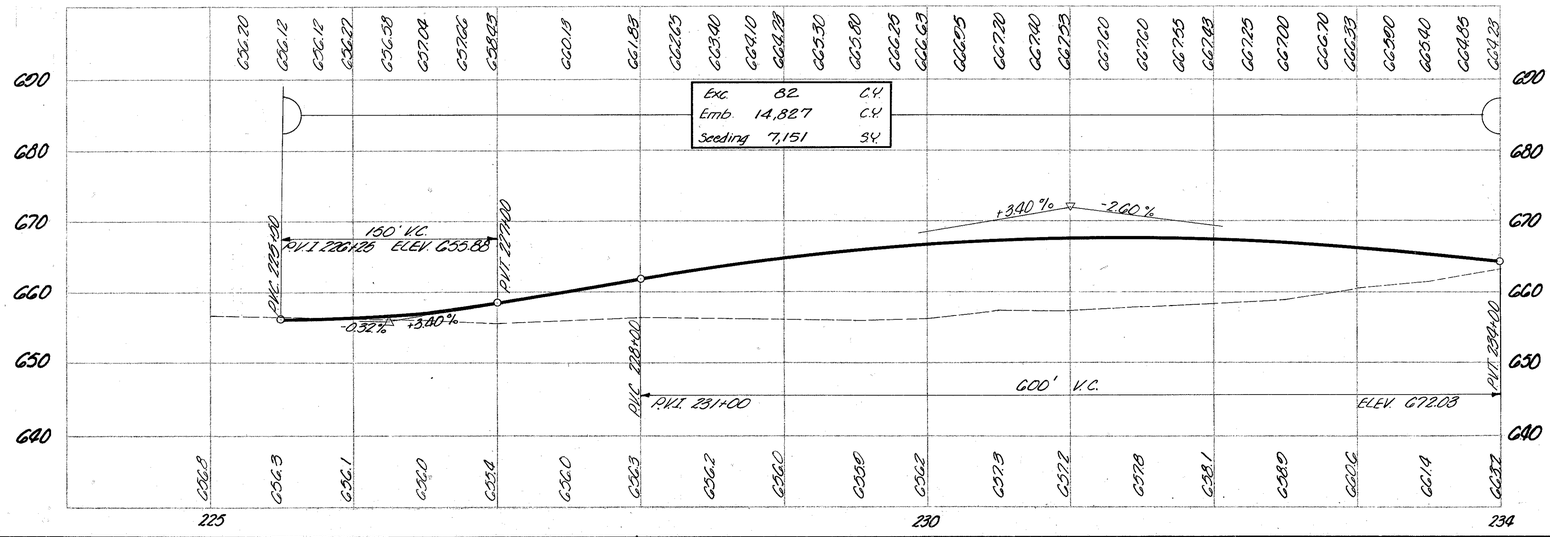
UTILITIES

General Telephone Company
Ohio Power Company
Wheeling Steel Corp. (10" Gas Line)



REF.	SIDE	LOCATION	605 Aggregate Drains L.F.	606 Guard Rail Type 5 L.F.	606 Anchor Assembly Ea.	615 Class "A" Temporary Pavement S.Y.	615 Temporary Road L.S.	See Sheet #
	L&R	225+50 to 233+75	426					
1-G	Lt.	228+00 To 231+00± M		325	2			
2-G	Lt.	231+98± M To 234+00 T.R.		287.5	1			
3-G	Rt.	225+49.5± To 234+00		825	1			
1-A	Rt.	As Shown				1306	L.S.	
TOTAL TO GEN. SUMMARY			426 ✓	1437.5 ✓	4 ✓	1306 ✓	L.S. ✓	

For Pavement Details & Elevations See Sheets 153 & 154
For Const. Layout, Bench Marks & References See Sh. 32 & 33
For M Plan & Profile See Sheet # 58
For M Pavement Details See Sheets 153 & 154
For Temporary Rd. "A" Profile See Sheet #80



	BY	DATE
EXISTING PLOTTED		
EXISTING CHECKED		
PROPOSED DRAWN		
PROPOSED CHECKED		
QUANTITIES CALCULATED		
QUANTITIES CHECKED		

A. E. STILSON & ASSOCIATES, INC.
DLB December 1968
EO April 1969

T.R. 155 RELOC. 225+00 to 234+00

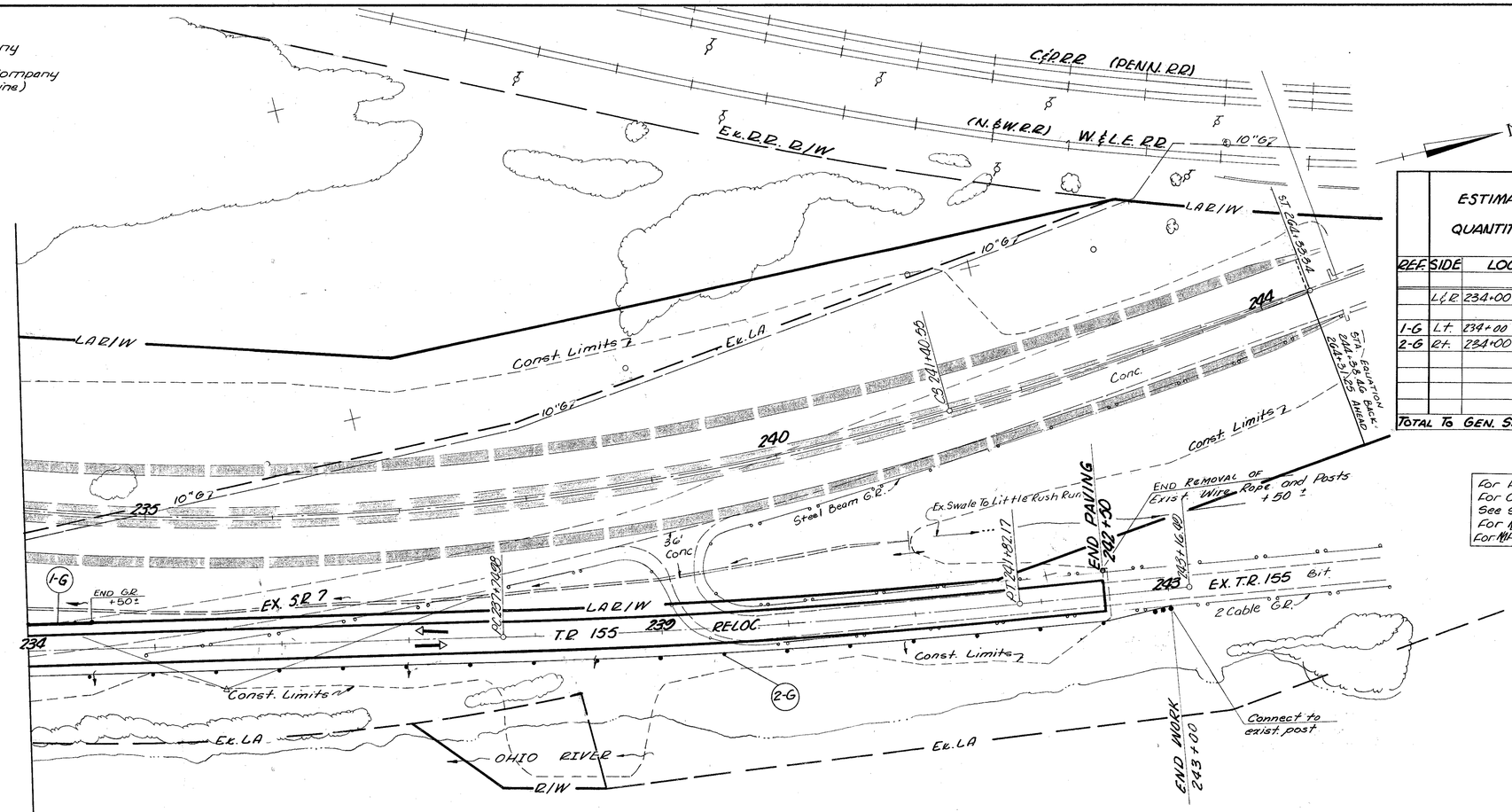
UTILITIES

General Telephone Company
Ohio Power Company
Western Union Telegraph Company
Wheeling Steel Corp. (10" Gas Line)

FED. RD. DIVISION	STATE	PROJECT	
2	OHIO		

JEFFERSON COUNTY
JEF-7-0.20

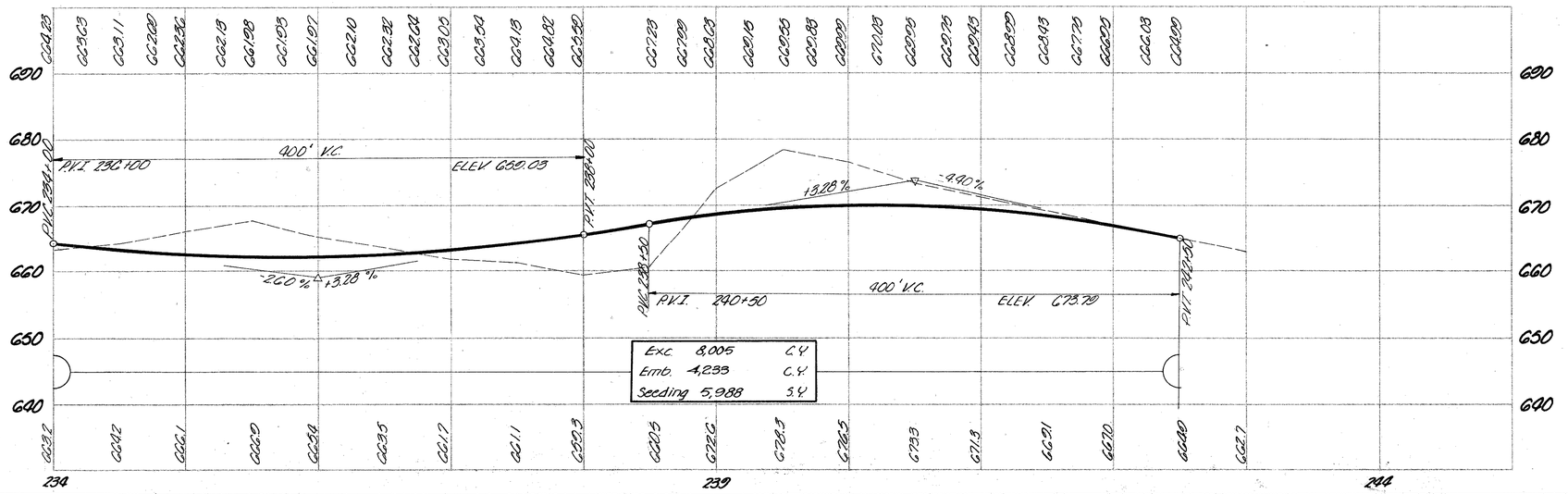
79
560



REF.	SIDE	LOCATION	605 Aggregate Drains	606 Guard Rail Type S	606 Anchor Assembly
			L.F.	L.F.	Ea.
	L & R	234+00 to 242+50	506		
1-G	Lt.	234+00 to 234+50		25	1
2-G	Rt.	234+00 To 243+00 ±		900	
TOTAL TO GEN. SUMMARY			506 ✓	925 ✓	1 ✓

ESTIMATED QUANTITIES

For Pavement Details & Elevations See Sheets 154, 155 & 156
For Construction Layout, Bench Marks & References See Sheet # 33
For ℄ Plan & Profile See Sheets 68 & 69
For ℄ Pavement Details See Sheets 154, 155 & 156

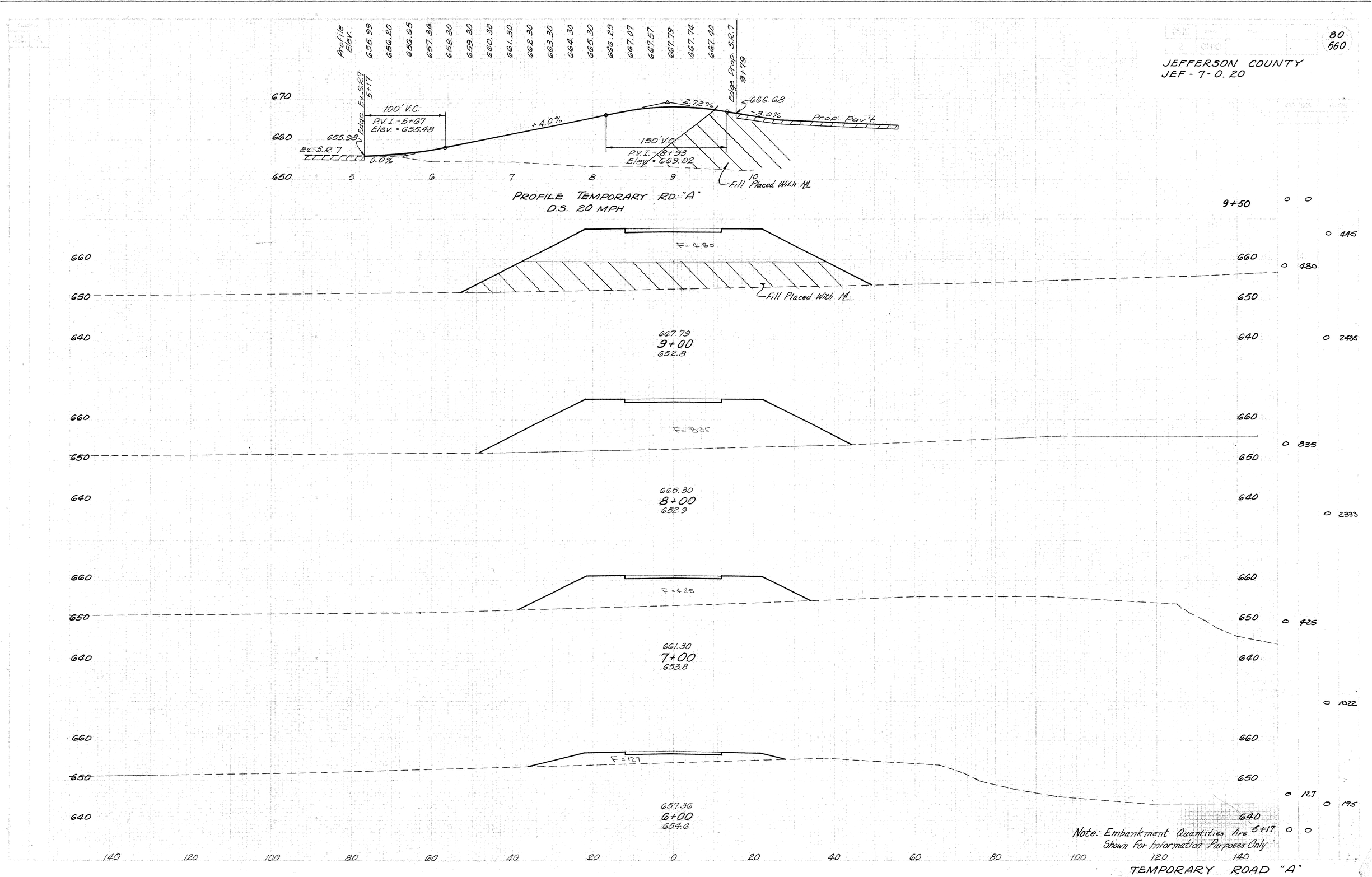


Exc.	8,005 C.Y.
Emb.	4,233 C.Y.
Seeding	5,988 S.Y.

	BY	DATE
EXISTING PLOTTED		
EXISTING CHECKED		
PROPOSED DESIGNED		
PROPOSED CHECKED		
QUANTITIES CALCULATED		
QUANTITIES CHECKED		

A. E. STILSON & ASSOCIATES
Quantities Calculated DLB December 1968
Quantities Checked E.O. April 1969

T.R. 155 RELOC. 234+00 to 243+00



JEFFERSON COUNTY
JEF-7-0.20
80
560
Profile Elev.
655.99
656.20
656.65
657.36
658.30
659.30
660.30
661.30
662.30
663.30
664.30
665.30
666.29
667.07
667.57
667.79
667.74
667.40
Edge Ev. S.R.7 5+17
Edge Prop. S.R.7 9+79
100' V.C.
P.V.I. = 5+67
Elev. = 655.48
655.98
Ev. S.R. 7
0.0%
+4.0%
-2.72%
666.68
-3.0%
Prop. Pav't.
150' V.C.
P.V.I. = 8+93
Elev. = 669.02
Fill Placed With ML
PROFILE TEMPORARY RD. "A"
D.S. 20 MPH
F=480
Fill Placed With ML
667.79
9+00
652.8
F=835
665.30
8+00
652.9
F=425
661.30
7+00
653.8
F=127
657.36
6+00
654.6
9+50
445
480
2435
835
2333
425
1022
127
195
5+17
Note: Embankment Quantities Are Shown For Information Purposes Only
TEMPORARY ROAD "A"

FED. RD. DIVISION	STATE	PROJECT	
2	OHIO		

81/560

JEFFERSON COUNTY
JEF. - 7 - 0.20

PT 139+79.50

RAMP "D"

RAMP "C"

L&R/W

SERVICE ROAD "A"

140 145 150

30°

640

636

650'

144+85 Service Road

335'

16+00 Channel

10+15 ℄ Channel

NAVIGATION CHANNEL ELEV. 636.0

100'

Pool Elevation 644.0

Ex. SHORT CREEK CHANNEL TO OHIO RIVER

OHIO RIVER

Ex. Boat Docks

Loading Ramp

Bit. Parking Area

Ex. S.R. 7

645

See Sheet 82 for ℄-Sections

A. E. STILSON & ASSOC.
Quantities Calculated MLB 9-70
Quantities Checked MAS 9-70

Pool Elevation 644.0

Channel Elevation 636.0

Exc.	5,764	C.Y.
Emb.	0	C.Y.
Seeding	0	S.Y.

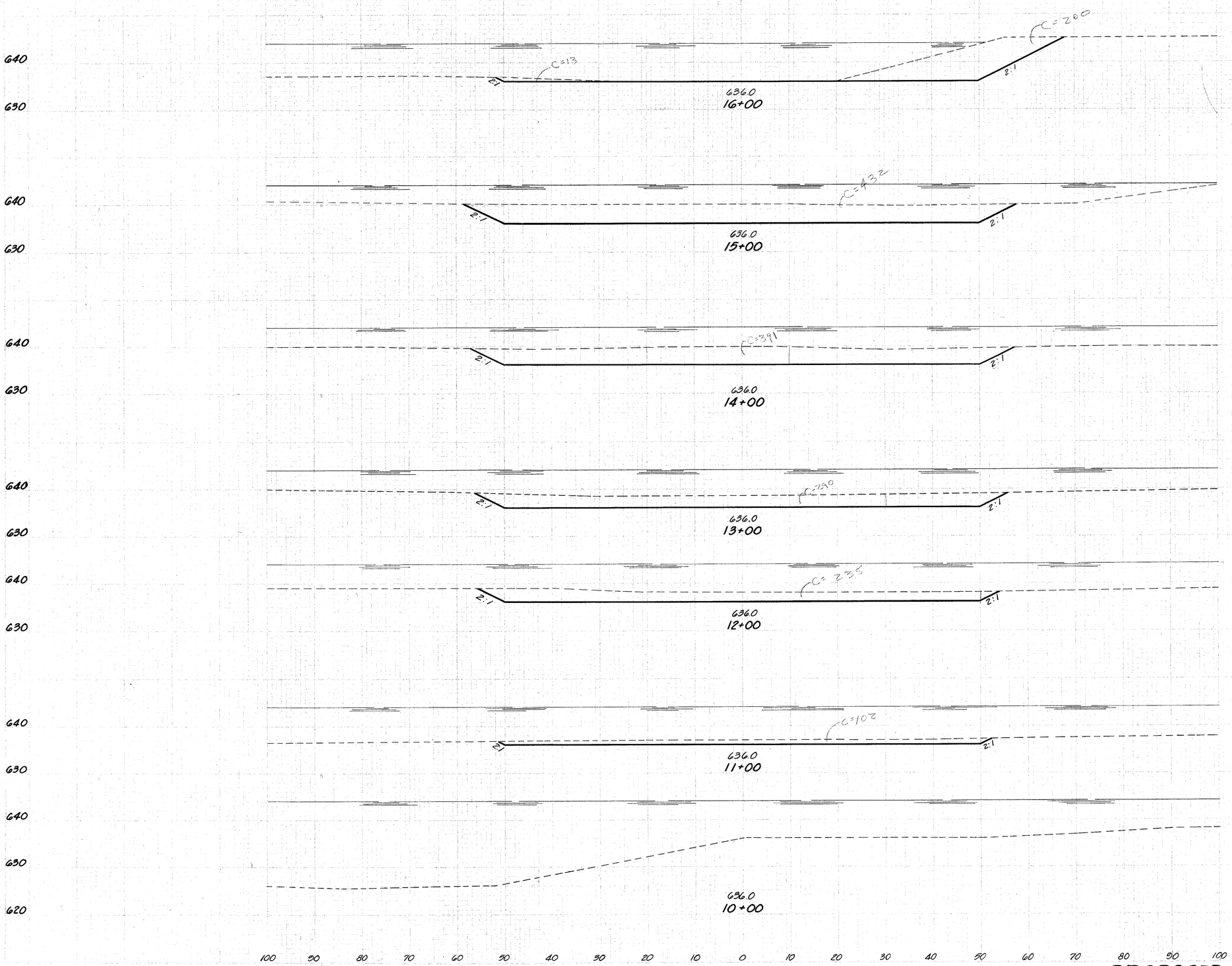
10 11 12 13 14 15 16

640 630 620

PLAN & PROFILE PROPOSED NAVIGATION CHANNEL

BRUNING 44-560 10943

JEFFERSON COUNTY
JEF.-7-0.20



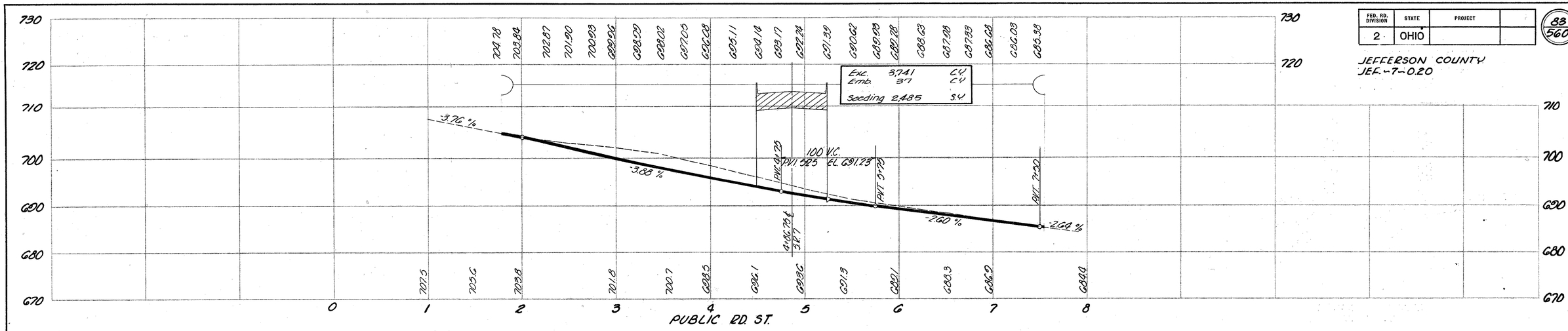
PROPOSED NAVIGATION CHANNEL

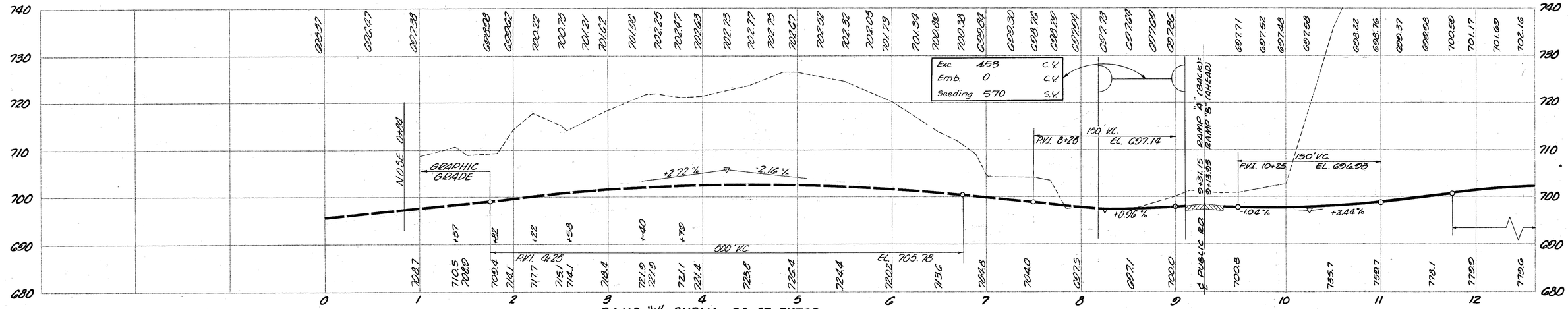
	BY	DATE
EXISTING PLOTTED		
EXISTING CHECKED		
TEMPLATE PLOTTED		
TEMPLATE CHECKED		
AREAS DETERMINED	HLB	6-70
AREAS CHECKED	HAS	6-70
SEEDING DETERMINED	HLB	6-70
SEEDING CHECKED	HAS	

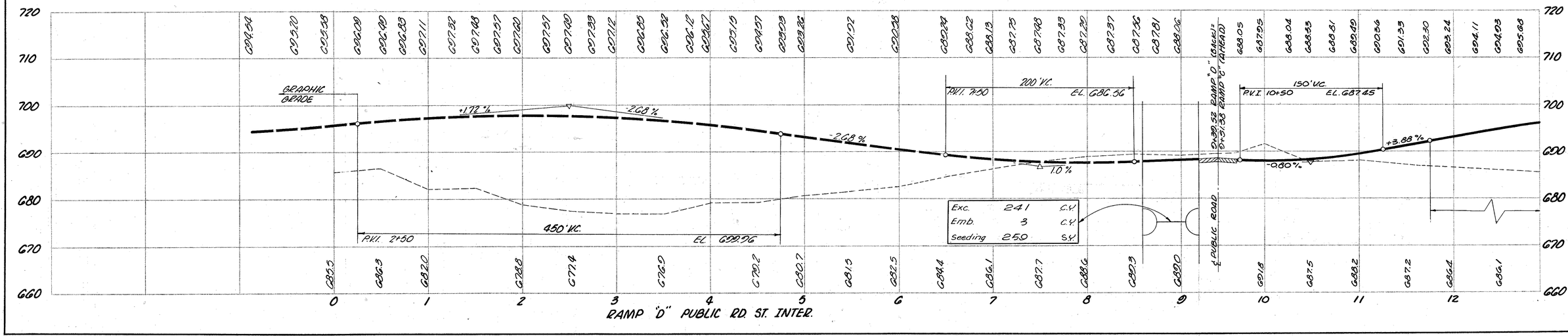
FED. RD. DIVISION	STATE	PROJECT	
2	OHIO		

83/560

JEFFERSON COUNTY
JEF.-7-0.20







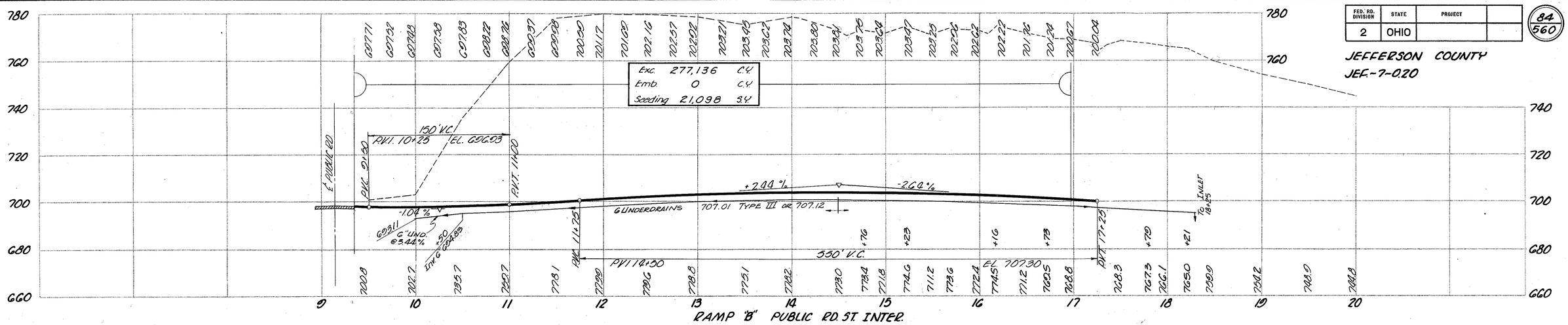
	BY	DATE
EXISTING PLOTTED		
EXISTING CHECKED		
PROPOSED DRAWN		
PROPOSED CHECKED		
QUANTITIES CALCULATED		
QUANTITIES CHECKED		

PROFILES

FED. RD. DIVISION	STATE	PROJECT	
2	OHIO		

84
560

JEFFERSON COUNTY
JEF.-7-0.20



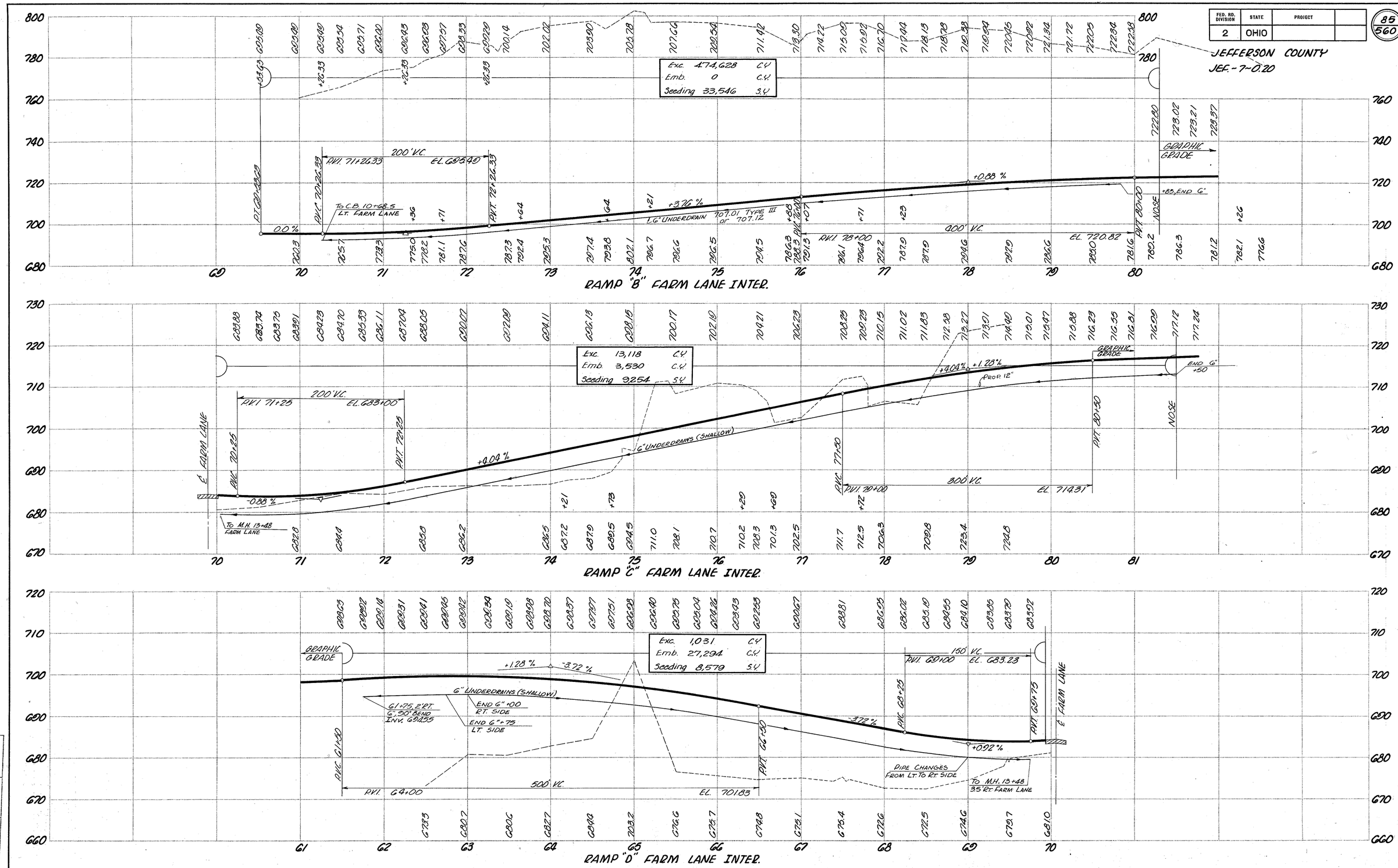
PROFILES

	DATE
EXISTING PLOTTED	
EXISTING CHECKED	
PROPOSED DRAWN	
PROPOSED CHECKED	
QUANTITIES CALCULATED	
QUANTITIES CHECKED	

FED. RD. DIVISION	STATE	PROJECT	
2	OHIO		

85
560

JEFFERSON COUNTY
JEF.-7-0.20



RAMP "B" FARM LANE INTER.

RAMP "C" FARM LANE INTER.

RAMP "D" FARM LANE INTER.

	BY	DATE
EXISTING PLOTTED		
EXISTING CHECKED		
PROPOSED DRAWN		
PROPOSED CHECKED		
QUANTITIES CALCULATED		
QUANTITIES CHECKED		

PROFILES

FED. RD. DIVISION	STATE	PROJECT	
2	OHIO		

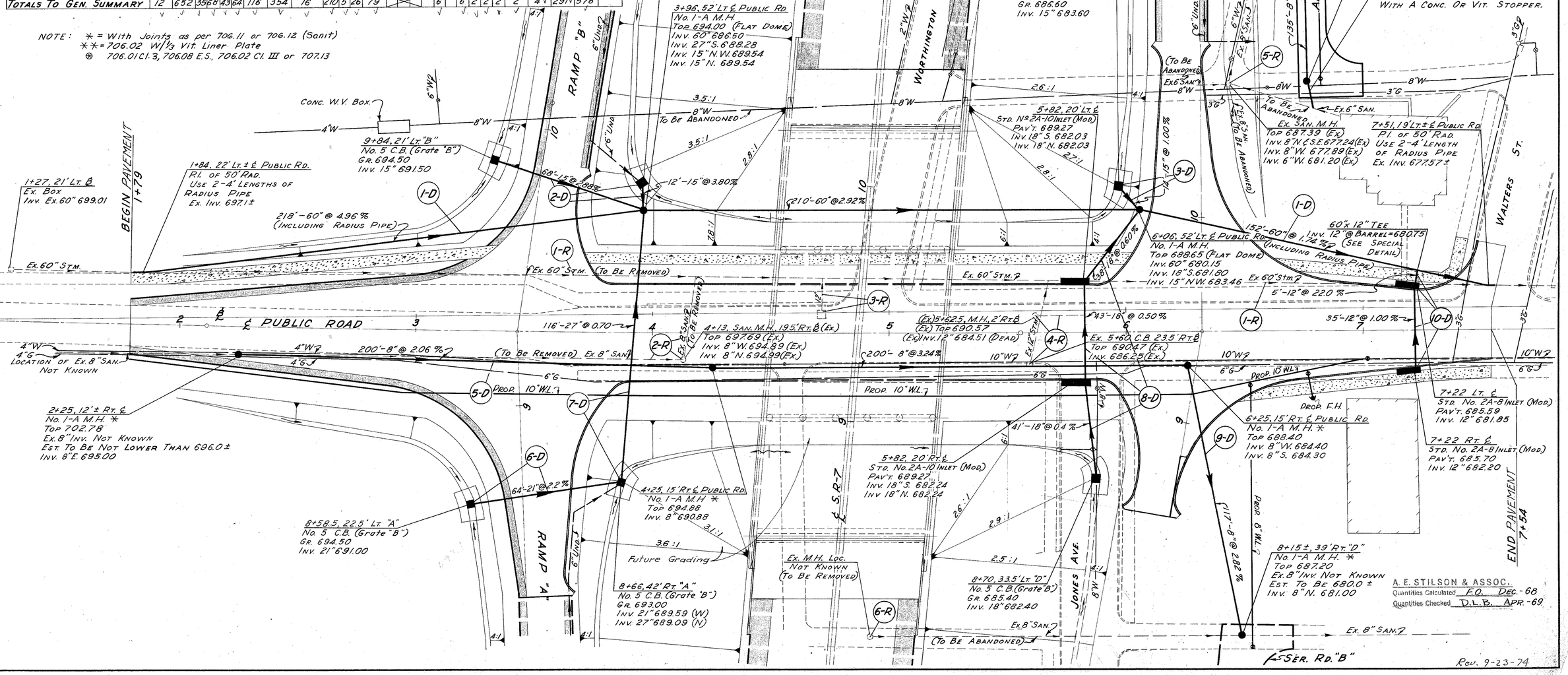
86
560

JEFFERSON COUNTY
JEF. - 7 - 020

ESTIMATED QUANTITIES

REF.	SIDE	LOCATION	603 CONDUIT: Sanit "B" Type * 6" L.F.	Sanit "B" Type * 8" L.F.	Type "B" 12" L.F.	Type "B" 15" L.F.	Type "B" 18" L.F.	Type "B" 21" L.F.	Type "B" 27" L.F.	Type "B" 36" as Vit. Liner Plate L.F.	Type "B" Radius Pipe w/ 1/3 Vit. Liner Plate ** 60" L.F.	Type "C" 12" L.F.	Type "C" 15" L.F.	Type "C" 18" L.F.	Bends & Branches 6" Ea.	Bends & Branches 8" Ea.	Bends & Branches 60" Ea.	604: No. 5 C.B. Ea.	No. 1-A M.H. * Ea.	No. 1-A M.H. Ea.	No. 2A-8 Inlet (Mod) Ea.	No. 2A-10 Inlet (Mod) Ea.	202: Catch Basins Removed Ea.	Manholes Removed Ea.	Pipe Removed (24" & Under) L.F.	Pipe Removed (Over 24") L.F.	See Sht. #
1-D	L	1+84 to 7+55								354	16	210							2								92
2-D	L&R	9+84 Ramp "B"				68							12					2									267
3-D	L	5+82, 20' Lt. & Public Rd.											14					1									272
4-D		Alley "A"	12	135												1	1		2								92
5-D	R	2+25 to 6+25 &		400															3								92
6-D	L&R	8+58.5, Ramp "A"						64										1									266
7-D	L&R	3+98 ± & Public Rd.							116.									1									269
8-D	L&R	5+82 & Public Rd.					43							79				1				2					265
9-D	R	6+25 to Ser. Rd. "B"		117															1								92
10-D	L&R	7+22 & Public Rd.				35							5			1					2						265
1-R	L	1+80, 22' Lt. to 7+55, 19' Lt.																								576	
2-R	R	2+25 to 4+13																							1	222	
3-R	L	As Shown																						1		14	
4-R	L&R	As Shown																						1	1	55	
5-R		As Shown																							1		
6-R		As Shown																							1		
TOTALS TO GEN. SUMMARY			12	652	35	68	43	64	116	354	16	210	5	26	79				6	6	2	2	2	2	4	291	576

NOTE: * = With Joints as per 706.11 or 706.12 (Sanit)
** = 706.02 W/1/3 Vit. Liner Plate
⊛ 706.01 Cl. 3, 706.08 E.S., 706.02 Cl. III or 707.13



A. E. STILSON & ASSOC.
Quantities Calculated F.O. DEC. - 68
Quantities Checked D.L.B. APR. - 69

Rev. 9-23-74

DRAINAGE DETAILS PUBLIC ROAD ST.

FED. RD. DIVISION	STATE	PROJECT	
2	OHIO		

87/560

JEFFERSON COUNTY
JEF-7-0.20

Location of curb Line is to be recorded prior to removal of pav't. for sewer installation.

Varies 6" to 9 1/16"/Ft.

Ex. Longitudinal Joint Line

South Portion of Ex. Pav't. not to be disturbed.

Type 2-A curb

8"-452

TYPICAL SECTION MEDILL AVE.

(7-D) – A quantity of 20 L.F. of 6" Ductile Iron Pipe ASA Class 2 has been provided to alter the Exist. 6" Force Main to clear the 54" storm sewer. A masonry collar shall be provided at the end connections as detailed on Standard Drawing MC-4. The cost of the collars and any necessary pipe bends shall be included in the price bid per L.F. for 6" Ductile Iron Pipe.

If during construction it is found that no conflict in elevations exists between the two pipes, the above Item shall be non-performed.

A.E. STILSON & ASSOC.
Quantities Calculated FD Dec. 1968
Quantities Checked DCA April 1969

*-Sec. 706.02 Cl. IV or Sec. 707.13

ESTIMATED QUANTITIES			601	602	603 CONDUIT							604				
REF.	SIDE	LOCATION	Rock Channel Prot. Type "B" C.Y.	Concrete Masonry Pipe Collar 6" C.Y.	Pipe Conc. Slab S.Y.	Type "B" 54" L.F.	Type "B" Radius Pipe 54" L.F.	Type "C" 48" L.F.	Type "C" 707.13 L.F.	Ductile Iron Pipe ASA Class 2 6" L.F.	Type "C" * 48" L.F.	Type "B" 18" L.F.	No. 2-5 C.B. Ea.	No. 1-A M.H. Ea.	No. 2 M.H. w/o 2.2 Ea.	M.T.A. M.H. (Mod.) as per plan Ea.
1-D	℄	0+04 to 2+47 ℄										243'			1'	
2-D	Lt.	2+47 to 5+02, 5 Lt. ℄						250'						1'		
3-D	Lt.	5+00 Lt. ℄							4'							
4-D	Rt.	5+02, 5 Lt. to 8+02, 22.5' Rt.				258'	32'						1'			
5-D	Rt.	8+02, 22.5' Rt. to 9+34, 39' Rt.				136'								1'		
6-D	Rt.	9+34, 39' Rt. to 10+67, 7.5 Lt.				92'	56'								1'	
7-D	Rt.	As Indicated								20'						
8-D	Rt.	10+67.5± to 12+36		1.33		156'								1'		
9-D	Rt.	As Indicated	9.3'	4.80	5.6'											
10-D	Rt.	As Indicated										24'				
TOTALS-TO GEN. SUMMARY			9.3'	6.13	6'	642	88'	250'	4'	20'	243'	24'	1'	3'	1'	1'

℄ REFERENCE POINTS

HET 0+34 — 37.78' — 49.10' — Blk. & Stone Gar.

89°58' — NER in ℄ 404AI 94 — 27.8' — HET 2+52.18 — 35.49' — NER in end Fence Post

NER in ℄ 404AI P 5.44' P T-3 S 69°24' 9.11' — HET 5+15.44

NER in 20" Locust — NER in 24" Twin Locust — 20°54' — 16.48' — 28.23' — 5+65.24 HET

8+02.14 HET — 32°43' — 32.58' — 52.41' — NER in ℄ 404AI 73-125 — NER in ℄ 404AI 64

9+44.38 HET — 3°21' — 13.61' — 21.52' — Brk. Pump House

90°03'45" — NER in 6" Wild Cherry — 10+85.07 M.S. — 24.01' — 40.45' — NER in 18" Locust

NER in Handrail Posts — 90°00' — 15.69' — 14.46' — 12+87.56 O+00 M.S.

NOTES: 1. All work on storm sewer is to be confined within the R/W limits of Medill Ave.
2. Quantities for 3-P, 4-P, 2-C, -3-C, 1-S, and 1-R have been taken to the pavement Sub-Summary on Sheet No. 109.

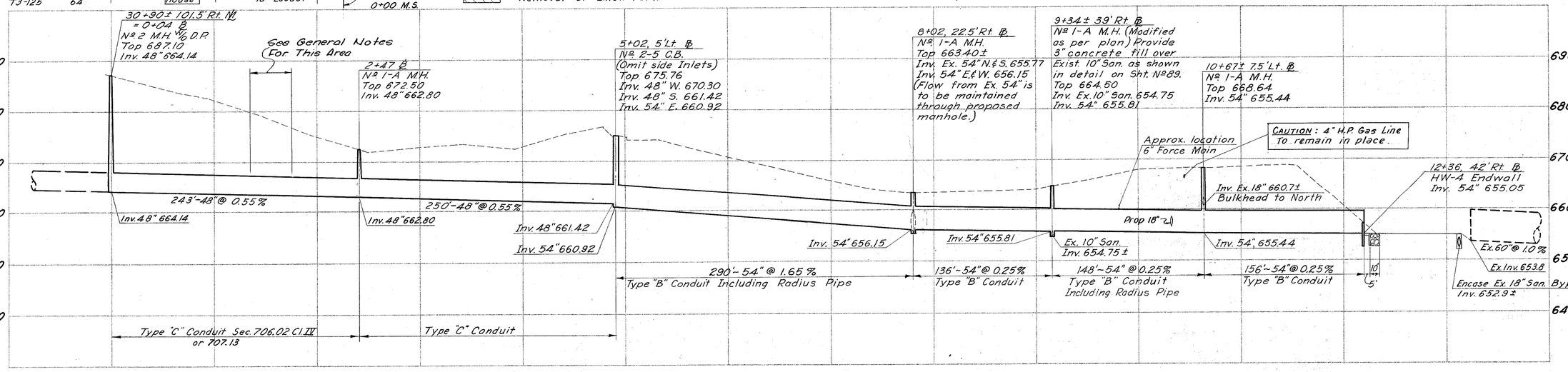
LEGEND

8" 452 Portland Cement Conc. Pav't. Match Ex. curb with Type 2-A (Note: Curb and Pavement to be replaced to match present elevations.)

4"-608 Concrete Walk

Removal of Exist. Pav't.

9"-304 Aggregate Base



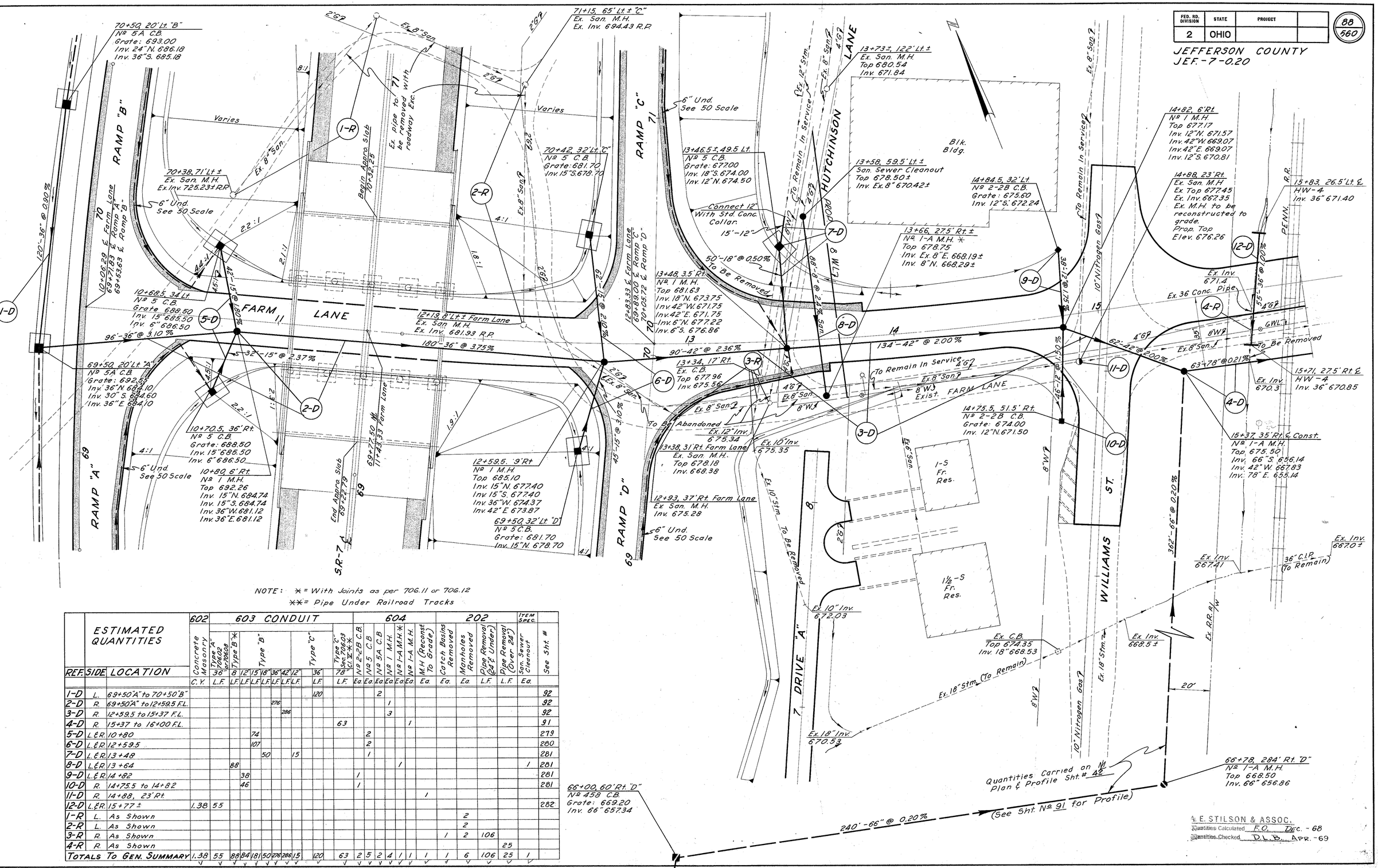
STORM SEWER PLAN & PROFILE (YORKVILLE)

F708539

FED. RD. DIVISION	STATE	PROJECT	
2	OHIO		

88
560

JEFFERSON COUNTY
JEF.-7-0.20



NOTE: ✳ = With Joints as per 706.11 or 706.12
✳✳ = Pipe Under Railroad Tracks

ESTIMATED QUANTITIES			602	603 CONDUIT											604						202				ITEM SPEC.	
			Concrete Masonry	Type "A" 706.02 or 706.03	Type "B" ✳	Type "B"				Type "C"			Type "C" ✳✳ Sec. 609 CL. II ✳✳		№ 2-2B C.B.	№ 5 C.B.	№ 5A C.B.	№ 1 M.H.	№ 1-A M.H. ✳	№ 1-A M.H.	M.H. (Recast To Grade)	Catch Basins Removed	Manholes Removed	Pipe Removal (24" & Under)	Pipe Removal (Over 24")	San. Sewer Cleanout	See Sht. #
REF.	SIDE	LOCATION	36"	8"	12"	15"	18"	36"	42"	12"		36"	78"		Ea.	Ea.	Ea.	Ea.	Ea.	Ea.	Ea.	Ea.	Ea.	L.F.	L.F.	Ea.	
			C.Y.	L.F.	L.F.	L.F.	L.F.	L.F.	L.F.	L.F.		L.F.	L.F.														
1-D	L.	69+50 "A" to 70+50 "B"										120				2										92
2-D	R.	69+50 "A" to 12+59.5 F.L.							276									1								92
3-D	R.	12+59.5 to 15+37 F.L.								286								3								92
4-D	R.	15+37 to 16+00 F.L.											63						1							91
5-D	L.&R.	10+80					74									2										279
6-D	L.&R.	12+59.5					107									2										280
7-D	L.&R.	13+48						50		15						1										281
8-D	L.&R.	13+64			88														1						1	281
9-D	L.&R.	14+82				38									1											281
10-D	R.	14+75.5 to 14+82				46									1											281
11-D	R.	14+88, 23' Rt.																		1						
12-D	L.&R.	15+77 ±	1.38	55																						282
1-R	L.	As Shown																				2				
2-R	L.	As Shown																				2				
3-R	R.	As Shown																			1	2	106			
4-R	R.	As Shown																							25	
TOTALS To GEN. SUMMARY			1.38	55	88	84	181	50	276	286	15		120		63	2	5	2	4	1	1	1	1	6	106	25	1

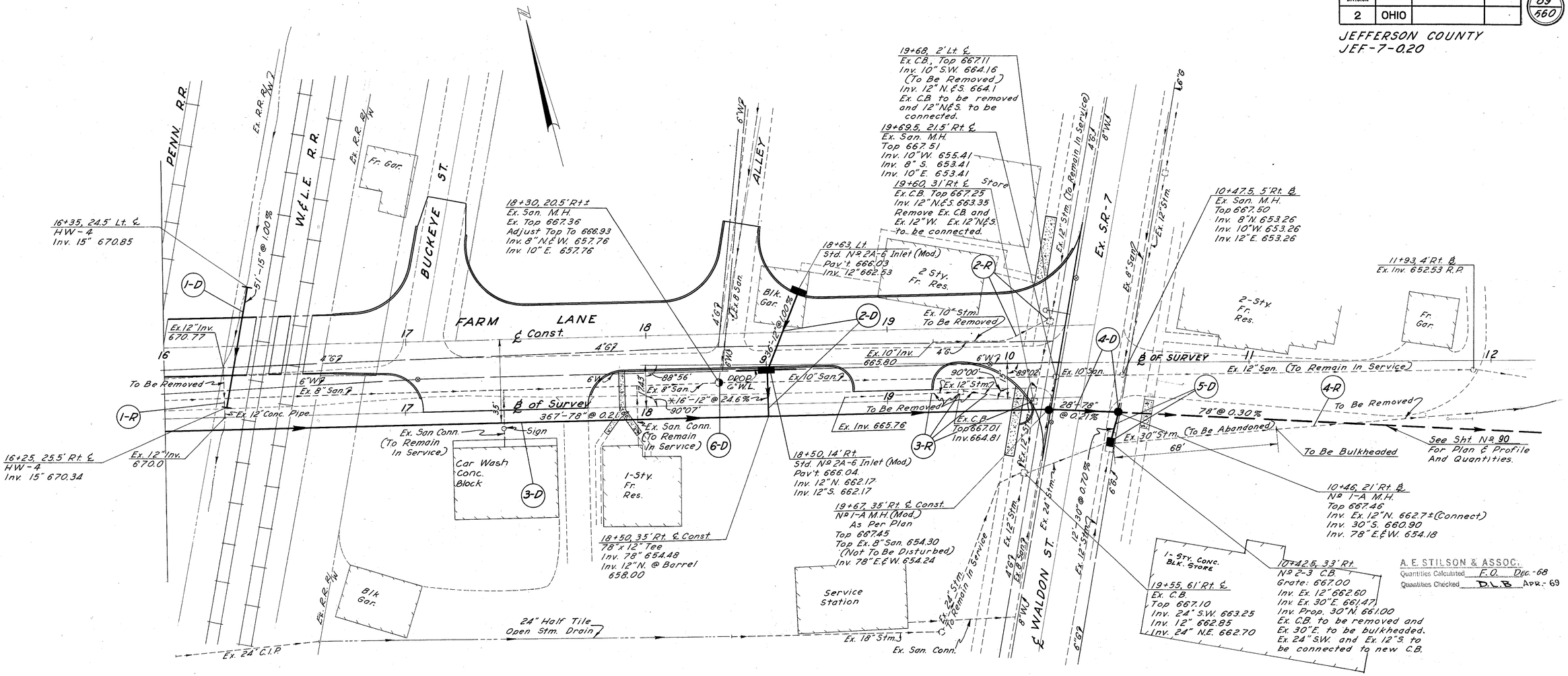
V. E. STILSON & ASSOC.
Quantities Calculated F.O. DEC. - 68
Quantities Checked D.L.B. APR. - 69

DRAINAGE DETAILS \ FARM LANE

FED. RD. DIVISION	STATE	PROJECT	
2	OHIO		

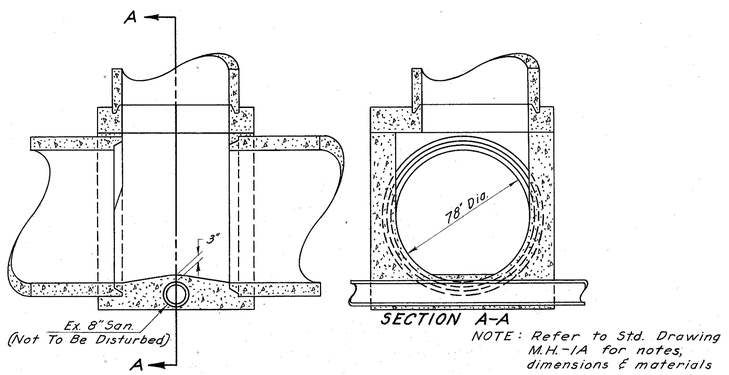
89
560

JEFFERSON COUNTY
JEF-7-0.20



A. E. STILSON & ASSOC.
Quantities Calculated F.O. Dec.-68
Quantities Checked D.L.B Apr.-69

NOTE: ** = Pipe Under Railroad Tracks.
* = 706.01 Cl. 3, 706.08 E.S., 706.02 or 707.13



NOTE: Refer to Std. Drawing M.H.-1A for notes, dimensions & materials

№ 1-A MANHOLE (MOD) AS PER PLAN
STA. 19+67 FARM LANE

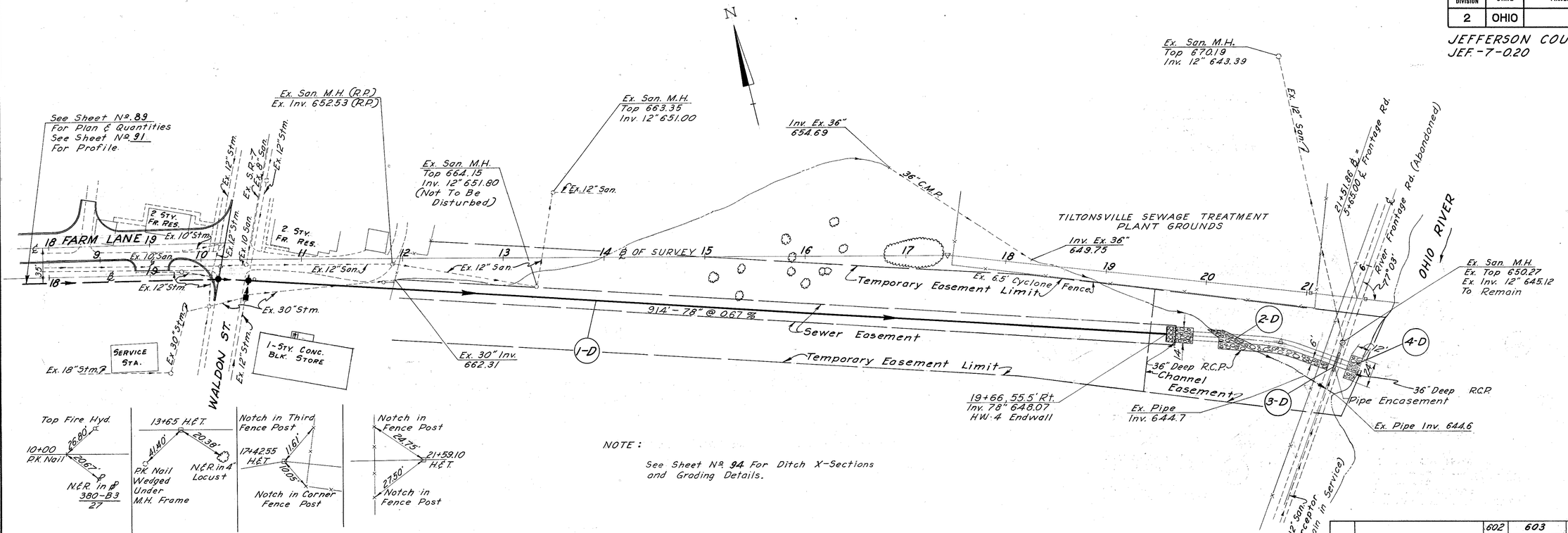
ESTIMATED QUANTITIES			602	603 CONDUIT							604				202			
REF.	SIDE	LOCATION	Concrete Masonry	Type A, 15 706.01, 706.08 or 18" 706.05	12"	Type "B" 18"	30"	Type "C" 18"	Type "C" Sec. 706.03 C.I.P.**	Type "C" * 12"	Bends & Branches 78"	Manhole to (Adjusted to Grade)	№ 2-3 C.B.	№ 1-A M.H. (Mod.) As Per Plan	№ 2A-6 Inlet (Mod.)	Catch Basins Removed	Pipe Removal (24" & Under)	Pipe Removal (Over 24")	See Sht #
			C.Y.		L.F.	L.F.	L.F.	L.F.	L.F.	L.F.	Ea.	Ea.	Ea.	Ea.	Ea.	Ea.	L.F.	L.F.	
1-D	L.℄R	16+30	0.50		51														282
2-D	L.℄R	18+50, Rt to 18+63 Lt.				36				16					2				283
3-D	R	16+00 to 19+67.35' Rt.						290	77		1			1					91
4-D	R	19+67 ℄ to 10+46 ℄				28							1						91
5-D	R	10+42.5, 33' Rt.					12					1							
6-D	R	18+30, 20.5' Rt.										1							
1-R	R	As Shown															21		
2-R	L.℄R	As Shown														1	50		
3-R	R	As Shown														2	76		
4-R	R	As Shown																83	
TOTALS To GEN. SUMMARY			0.50		51	36	28	12	290	77	16		1	1	1	2	3	147	83	

DRAINAGE DETAILS FARM LANE

FED. RD. DIVISION	STATE	PROJECT	
2	OHIO		

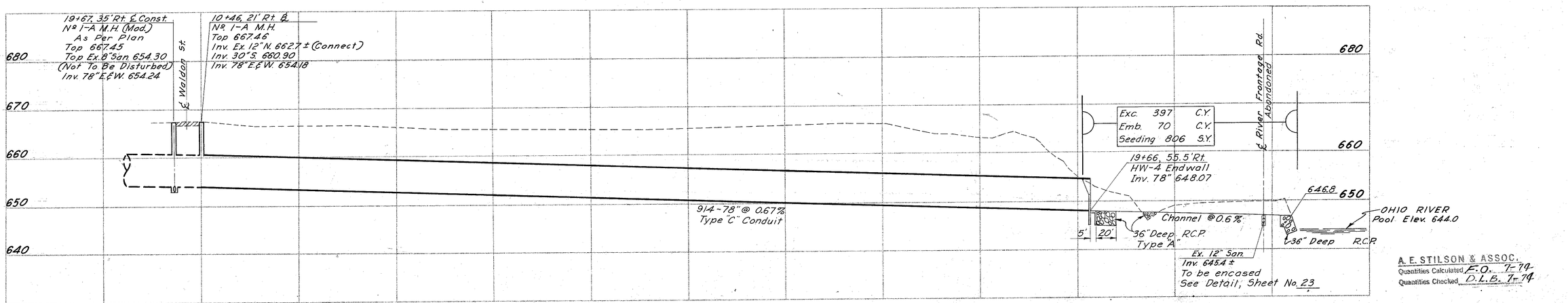
90
560

JEFFERSON COUNTY
JEF.-7-0.20



BASELINE REFERENCES

ESTIMATED QUANTITIES			602	603		601		
			Concrete Masonry Type "C"			R.C.P. Type "A"	Riprap 6" Reinf. Conc. Slab	
REF.	SIDE	LOCATION		78"				
			C.Y.	L.F.		C.Y.	S.Y.	
1-D	R	10+46 to 19+91±	3.37	914		31	7.8	
2-D	R	As Shown				98		
3-D	R	As Shown	2.92					
4-D	R	As Shown				32		
TOTALS TO GEN. SUMMARY			6.29	914		161	8	



PROFILE ALONG ℄ PIPE AND DITCH

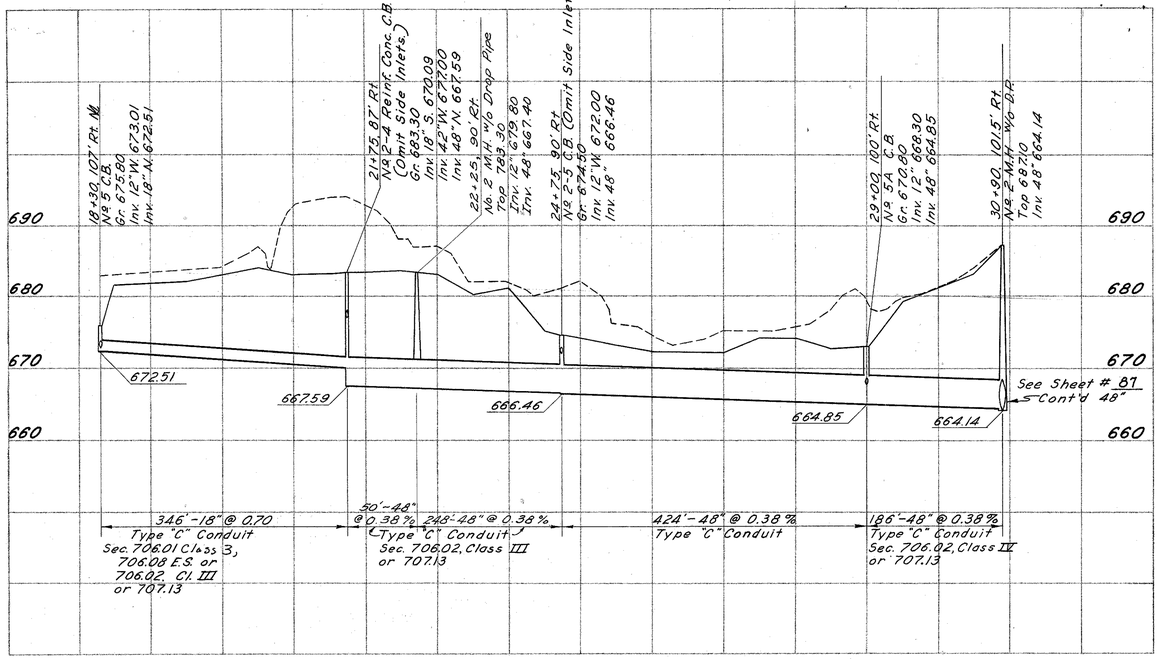
A. E. STILSON & ASSOC.
Quantities Calculated F.O. 7-79
Quantities Checked D.L.B. 7-79

STORM SEWER PLAN AND PROFILE (TILTONSVILLE)

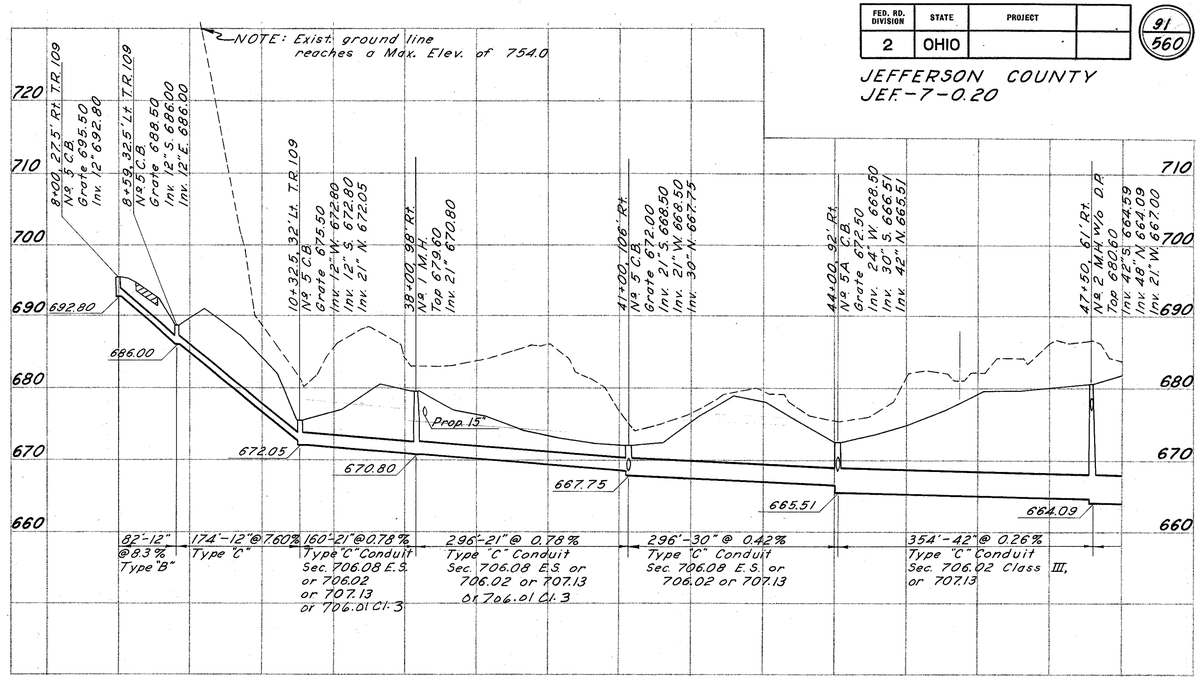
FED. RD. DIVISION	STATE	PROJECT	
2	OHIO		

91
560

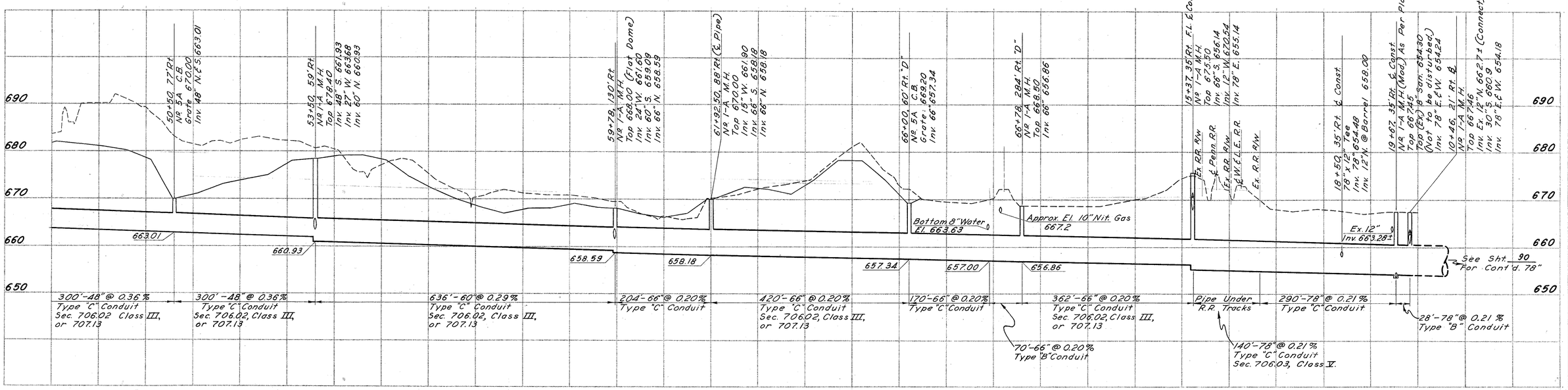
JEFFERSON COUNTY
JEF.-7-0.20



PROP. STORM SEWER (YORKVILLE)
(Sta. 18+30 to Sta. 30+90)



PROP. STORM SEWER (TILTONSVILLE)



PROP. STORM SEWER (TILTONSVILLE) (CONT'D.)

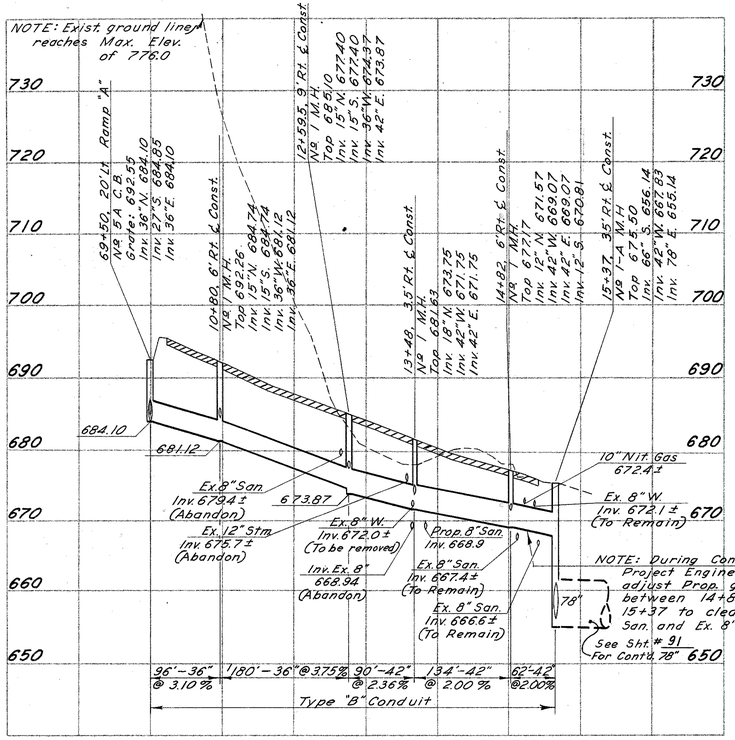
Scale: 1"=10'-V
1"=100'-H

SEWER PROFILES

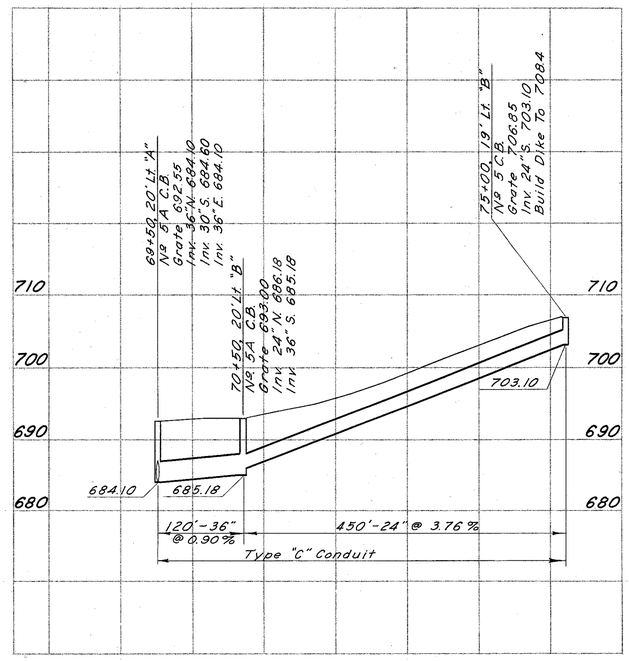
FED. RD. DIVISION	STATE	PROJECT	
2	OHIO		

92
560

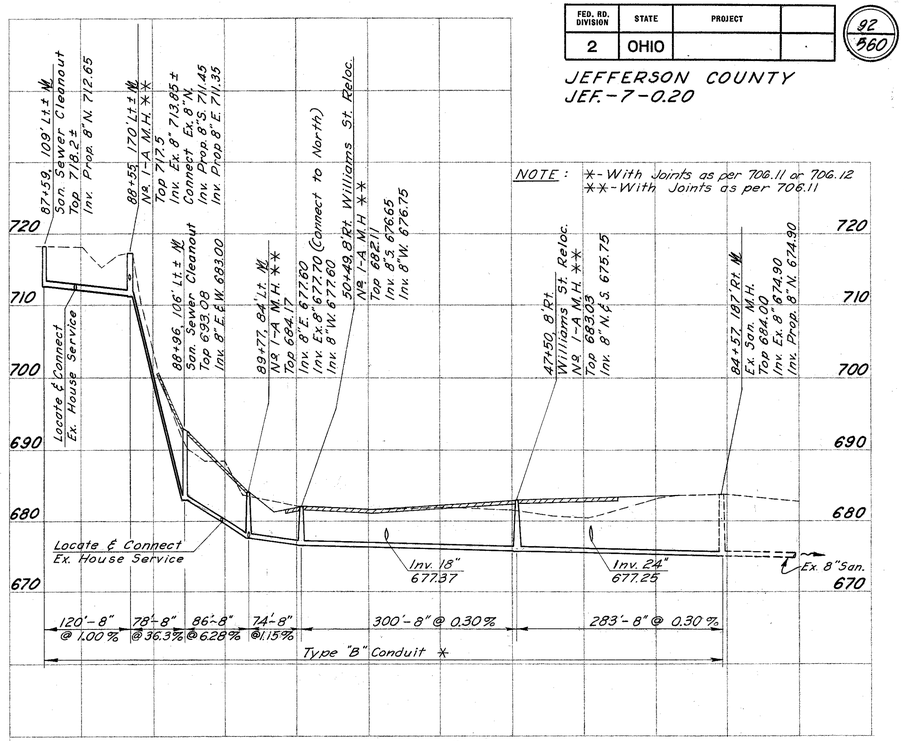
JEFFERSON COUNTY
JEF.-7-0.20



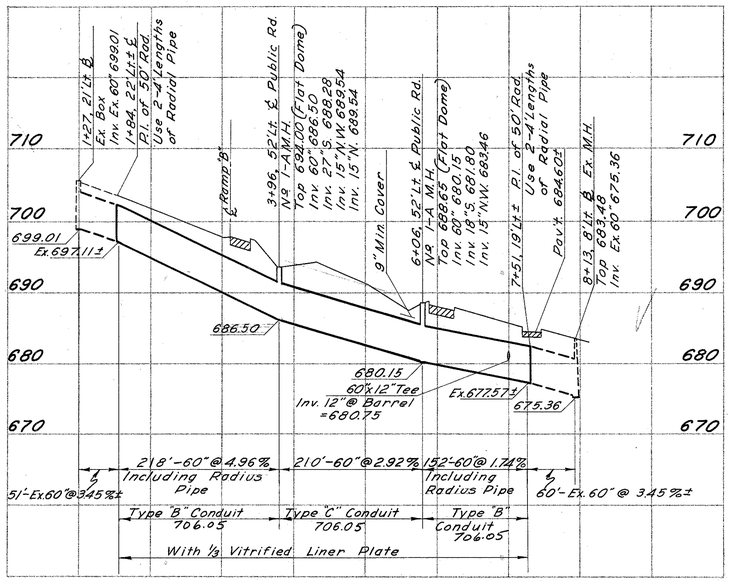
FARM LANE STORM SEWER



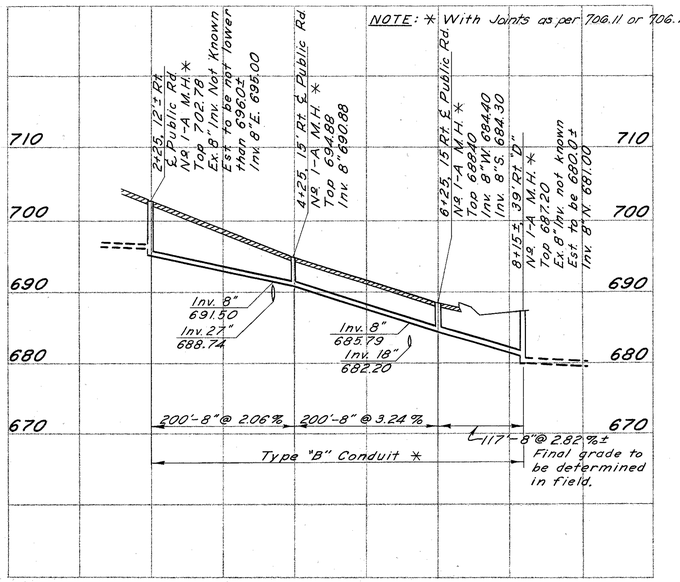
STORM SEWER
(68+50 RAMP "A" TO 75+00 RAMP "B")
FARM LANE INTER.



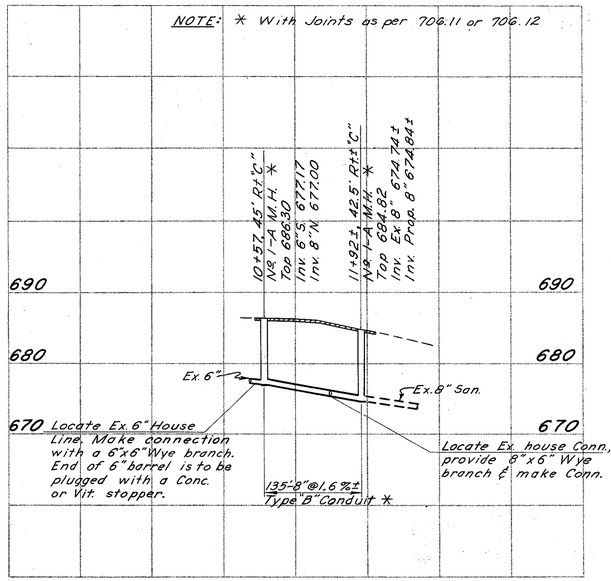
RELOCATION OF 8" SAN. SEWER
@ NORTHWEST CORPORATION LIMITS OF TILTONSVILLE.



RELOCATION OF Ex. 60" STORM SEWER
AT PUBLIC RD. ST.



8" SANITARY SEWER IN
PUBLIC RD. ST.



8" SANITARY SEWER IN
ALLEY "A"

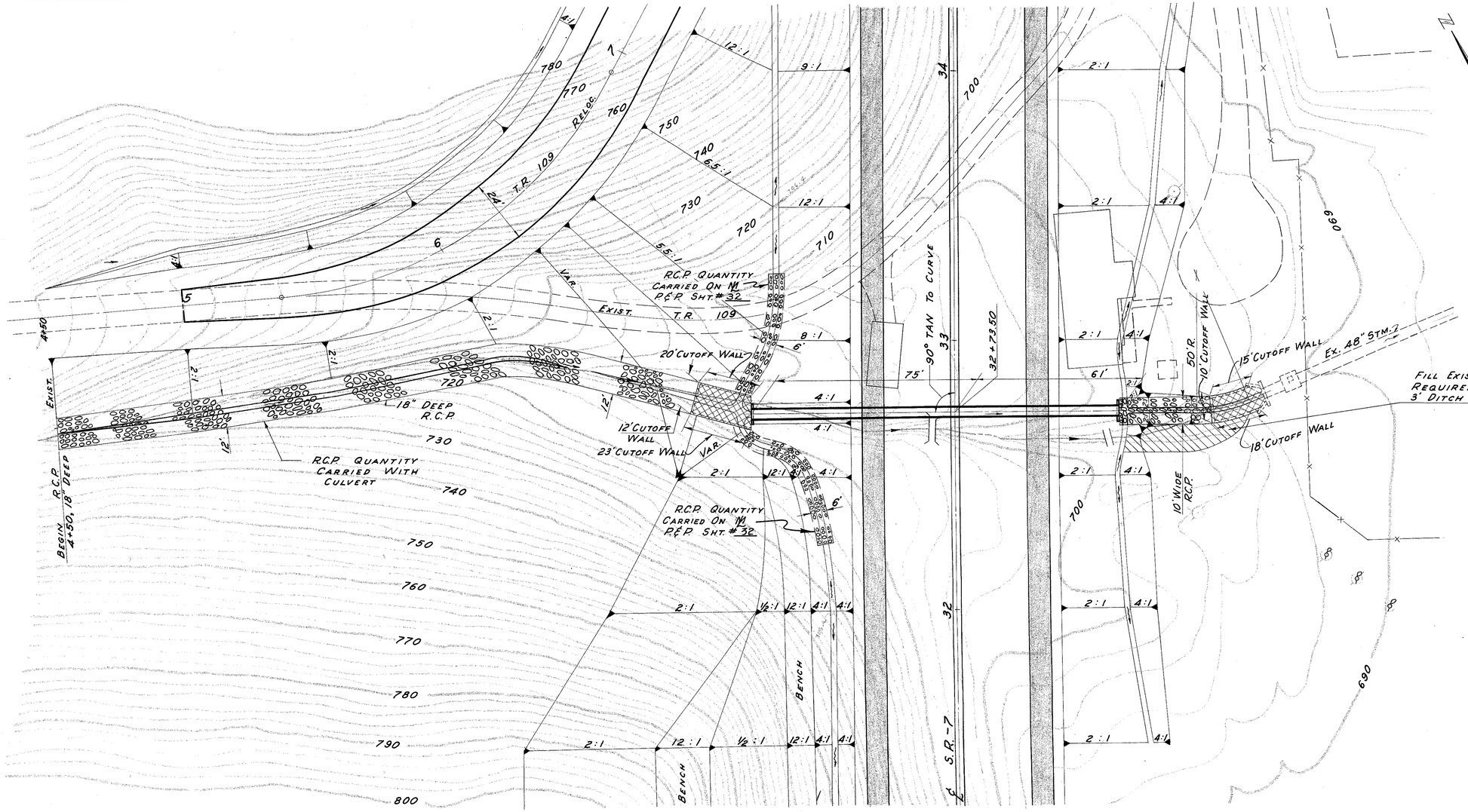
Scale: 1" = 10'-V
1" = 100'-H

SEWER PROFILES

FED. RD. DIVISION	STATE	PROJECT	
2	OHIO		

93/560

JEFFERSON COUNTY
JEF.-7-0.20



DRAINAGE STRUCTURE
JEF-7-0062 STA. 32+73.5

DESIGN INFORMATION

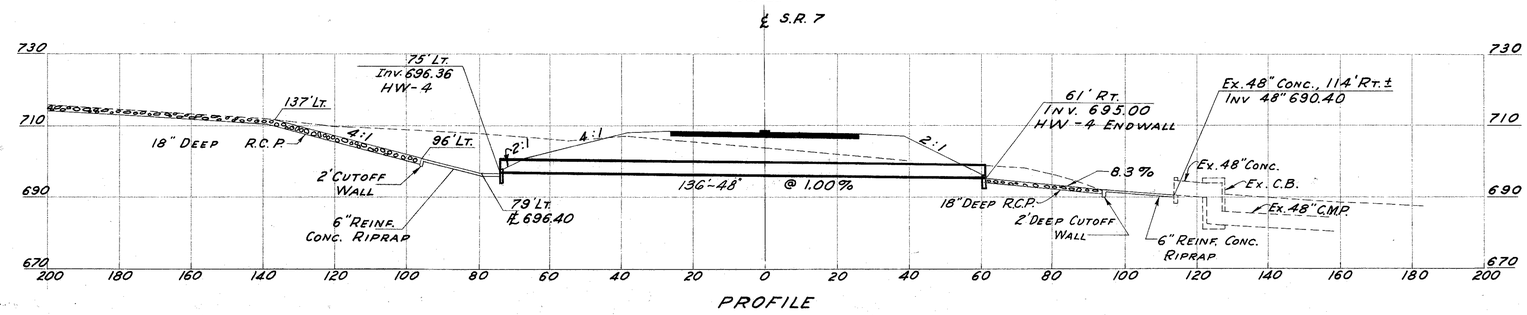
D.A.	Q 25	
76 Ac.	135 cfs.	

TYPE HEADWALLS: HW-4

ESTIMATED QUANTITIES

603 ᵛ 136 L.F. Type "A" Conduit, 48" 706.02, or 54" 707.05
602 ⁽ 2.18 C.Y. Concrete Masonry
601 ⁱ 51 S.Y. Riprap (6" Reinforced Concrete Slab)
601 ⁱ 179 C.Y. Rock Channel Protection (Type "B")

0 10 20 40
SCALE



PROFILE

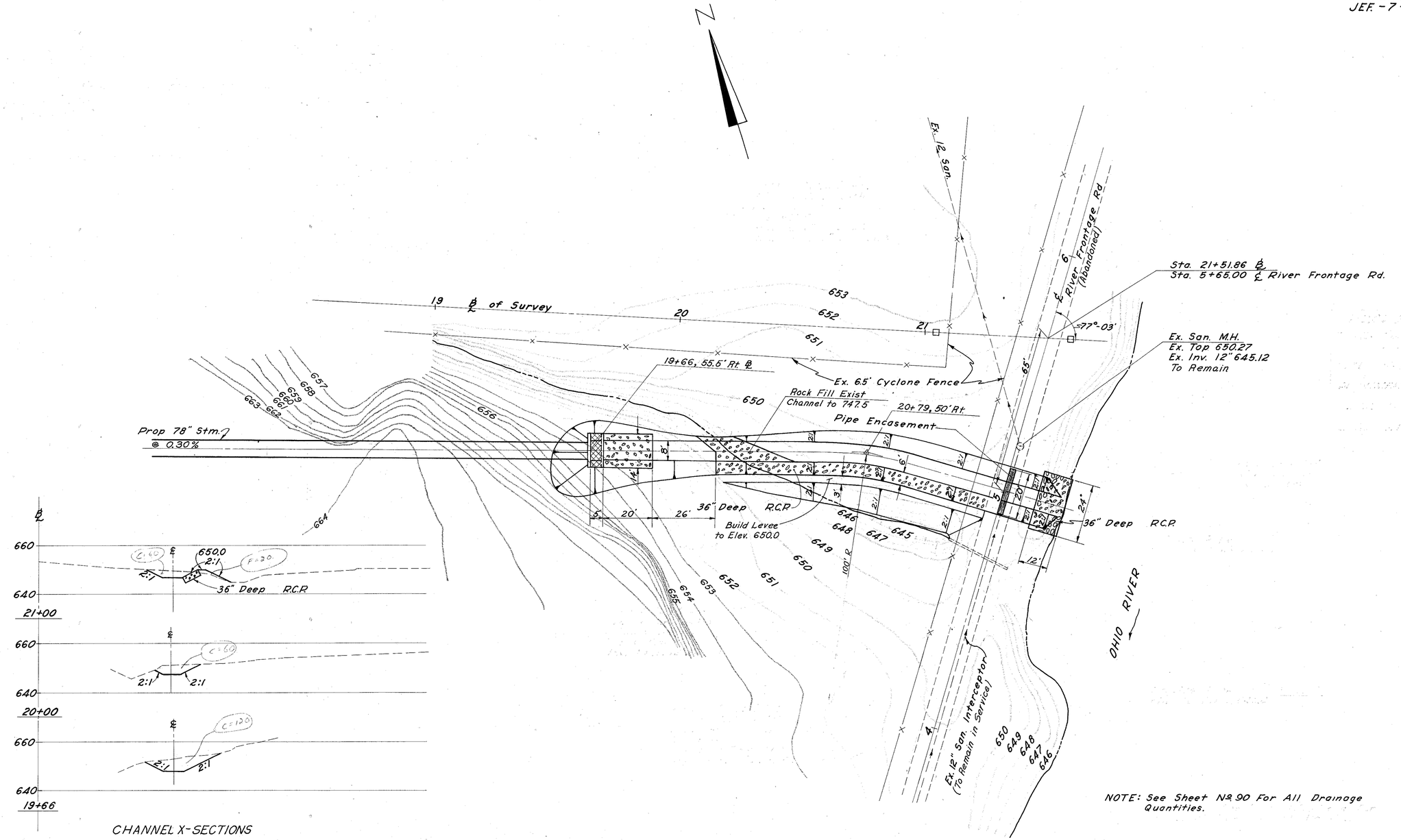
A. E. STILSON & ASSOC.
Quantities Calculated EO APRIL 1968
Quantities Checked DLB MAY 1969

CULVERT DETAILS 32+73.5

FED. RD. DIVISION	STATE	PROJECT	
2	OHIO		

94
560

JEFFERSON COUNTY
JEF.-7-0.20



CHANNEL X-SECTIONS

NOTE: See Sheet No. 90 For All Drainage Quantities.

NOTE: Earthwork & Seeding Quantities Taken to Sheet No. 81
Exc. 397 C.Y.
Emb. 70 C.Y.
Seeding 806 S.Y.

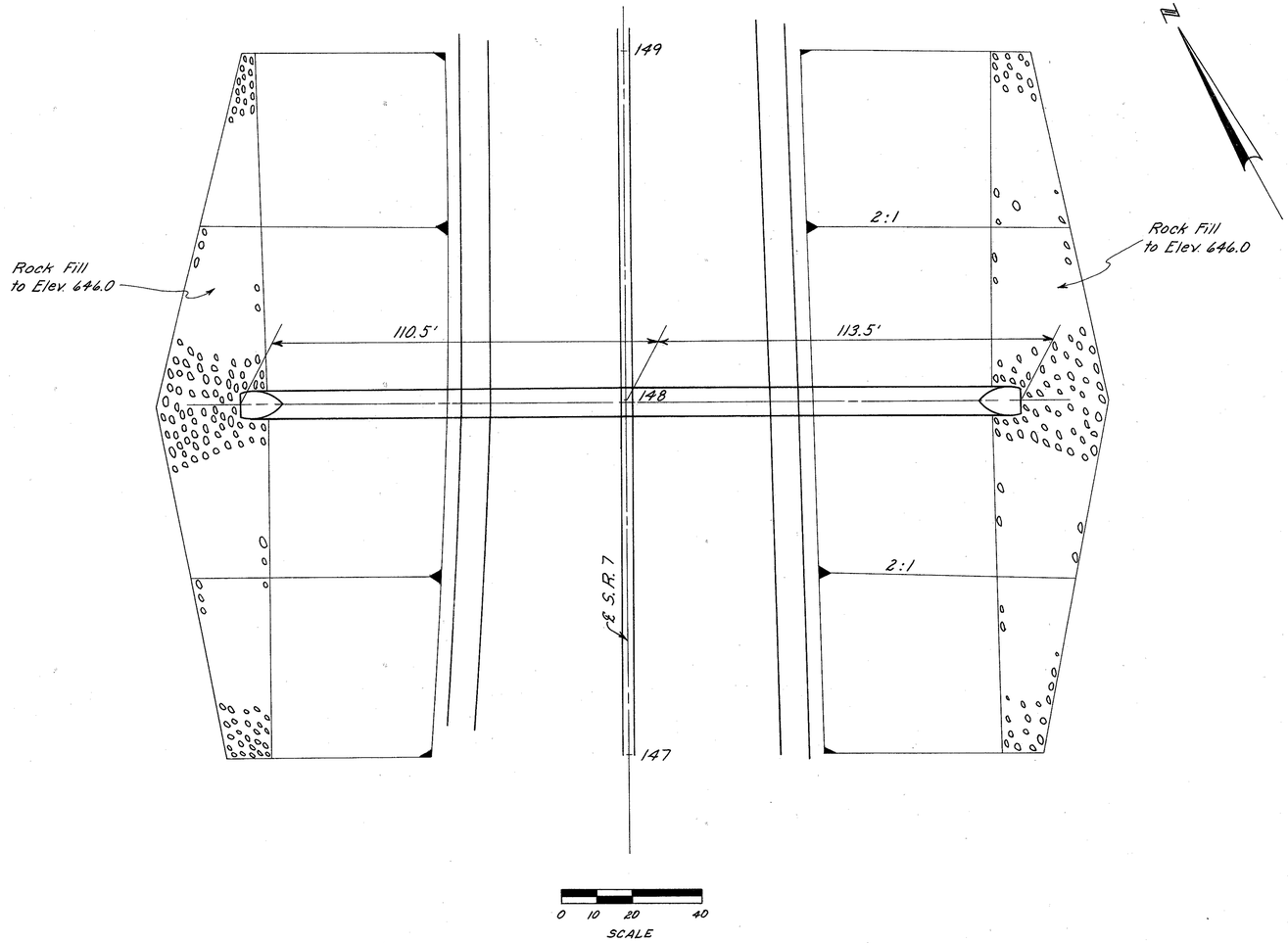
A.E. STILSON & ASSOC.
Quantities Calculated F.O. 7-74
Quantities Checked J.R.F. 7-74

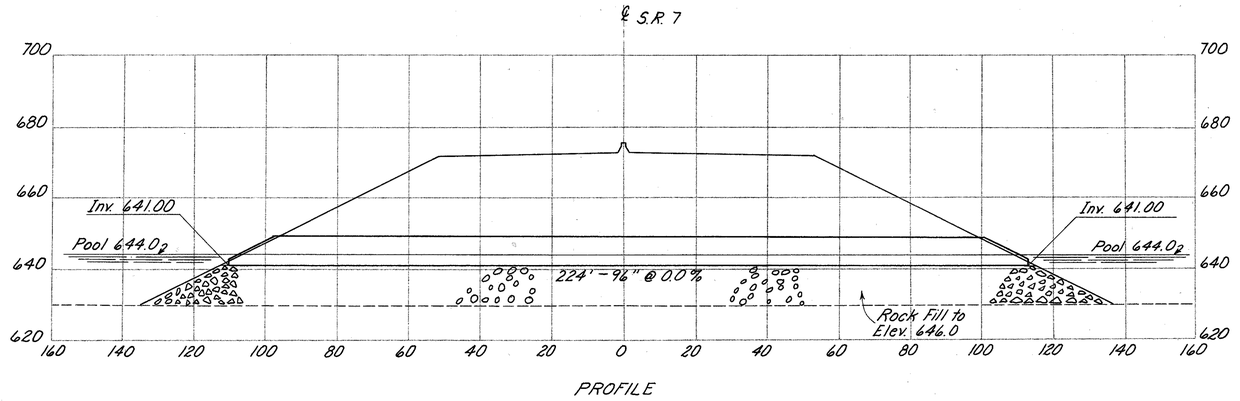
STORM SEWER OUTFALL **DETAIL & SITE PLAN**

FHWA REGION	STATE	PROJECT	
5	OHIO		

96/560

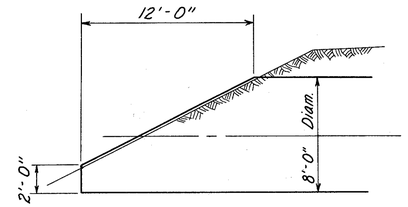
JEFFERSON COUNTY
JEF-7-0.20





PROFILE

DRAINAGE STRUCTURE	
JEF-7-02.80	STA. 148+00
DESIGN INFORMATION	
D.A. Ac.	Q25 cfs
TYPE HEADWALL : NONE	
ESTIMATED QUANTITIES	
603-224 L.F. 96" TYPE A Conduit 707.07 (0.109")	



TYPICAL END BEVEL DETAIL
SCALE : 1" = 5'-0"

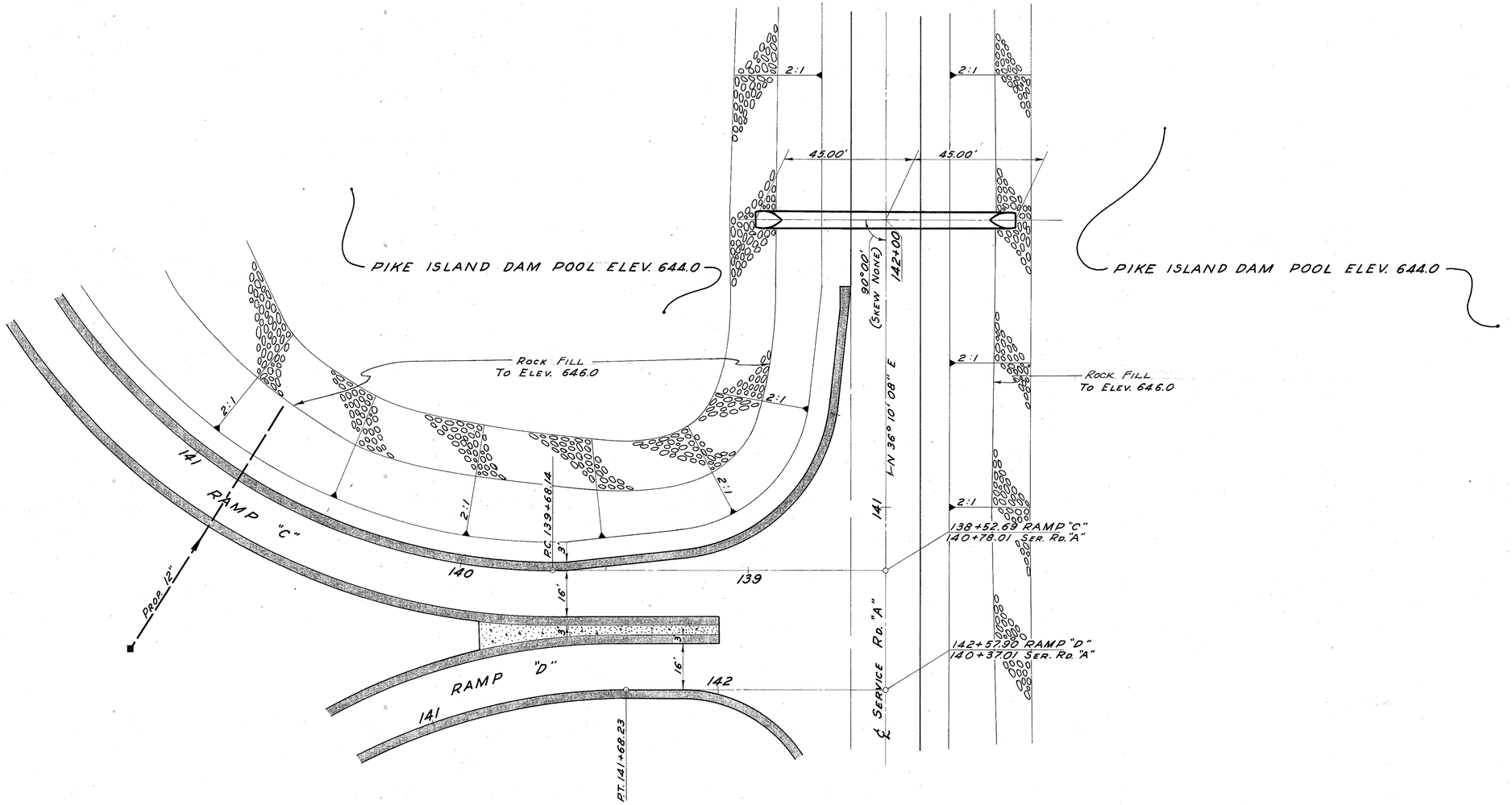
Rev. 9-23-74

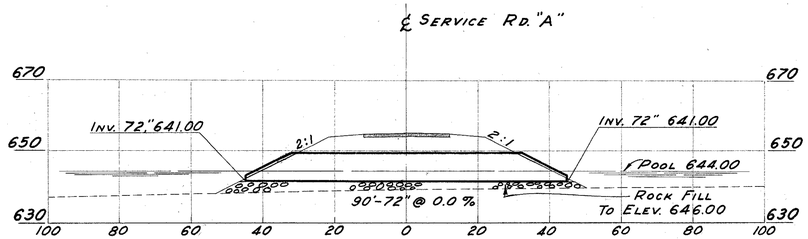
CULVERT DETAIL, STA. 148+00

FED. RD. DIVISION	STATE	PROJECT	
2	OHIO		

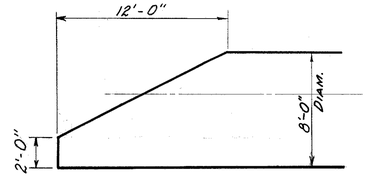
97
560

JEFFERSON COUNTY
JEF.-7-0.20





PROFILE



TYPICAL END BEVEL DETAIL
SCALE 1"=5'-0"

DRAINAGE STRUCTURE
STA. 142+00 SERVICE RD. "A"

DESIGN INFORMATION		
D.A.	Q_{10}	
171 Ac.	98 cfs	
TYPE HEADWALL:	NONE	

ESTIMATED QUANTITIES

603±90 LF. - 96" TYPE "A" CONDUIT
SEC. 707.01

A. E. STILSON & ASSOC.
Quantities Calculated EO MAY 1968
Quantities Checked DLB MAY 1968

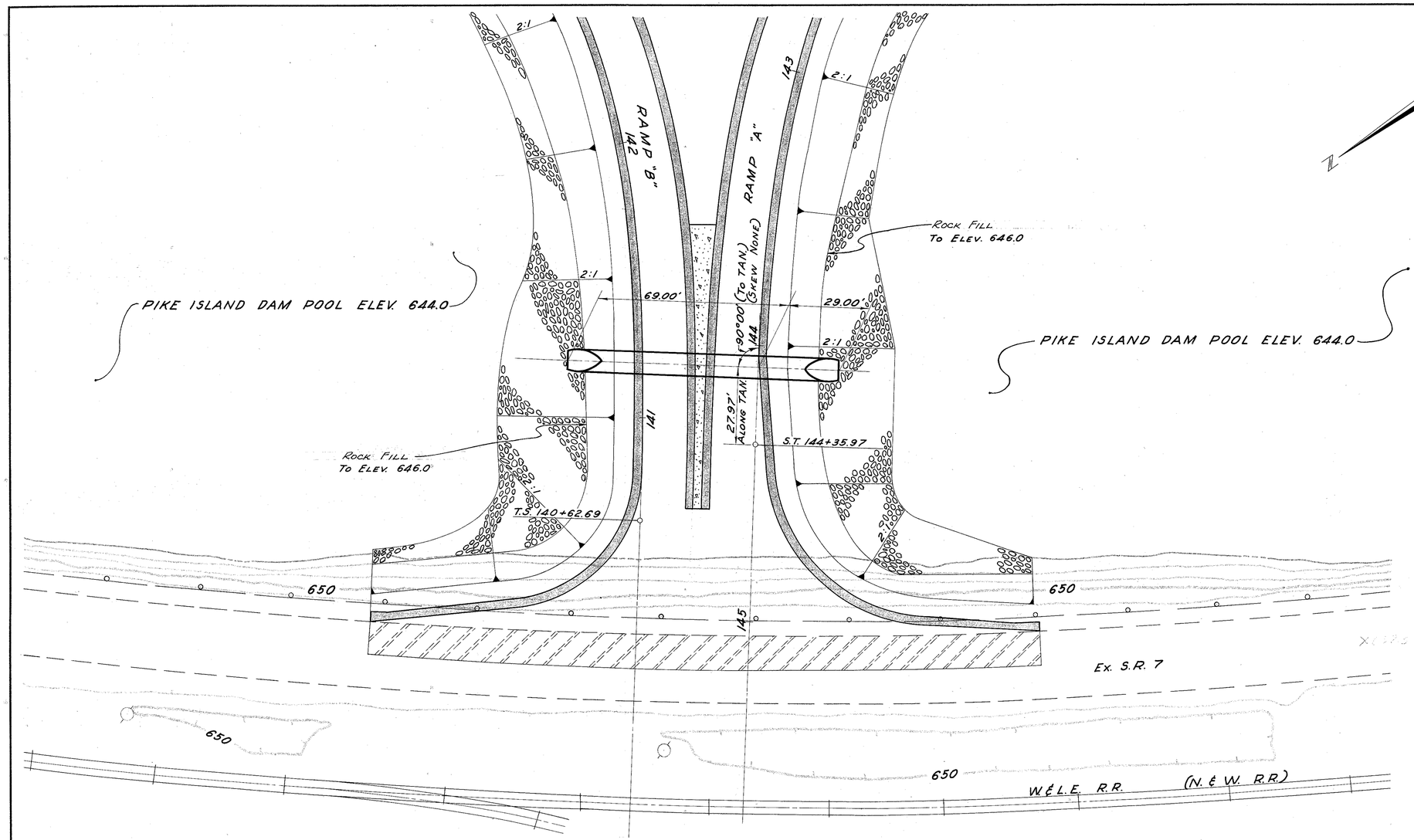
Rev. 9-23-74

CULVERT DETAILS 142+00 SERVICE RD. "A"

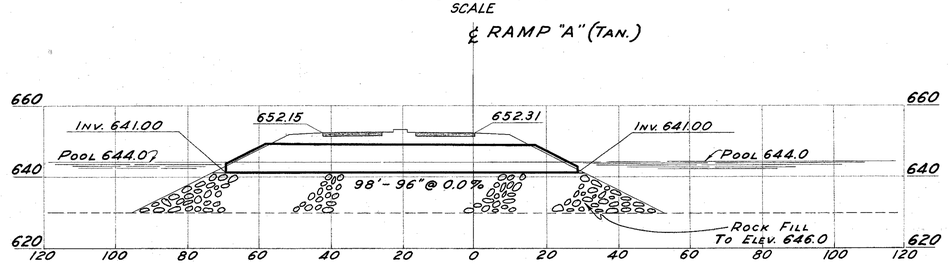
FED. RD. DIVISION	STATE	PROJECT	
2	OHIO		

98
560

JEFFERSON COUNTY
JEF.-7-0.20

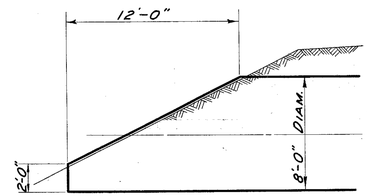


0 10 20 40
SCALE



PROFILE

DRAINAGE STRUCTURE STA. 144+08 RAMP "A" (S.R. 150 INTER)		
DESIGN INFORMATION		
D.A.	Q25	
223 Ac.	260 cfs	
TYPE HEADWALL: NONE		
ESTIMATED QUANTITIES		
603-98 L.F.-96" TYPE "A" CONDUIT SEC. 707.07 (0.079")		



TYPICAL END BEVEL DETAIL
SCALE 1"=5'-0"

A. E. STILSON & ASSOC.
Quantities Calculated EO MAY 1968
Quantities Checked DCB MAY 1969

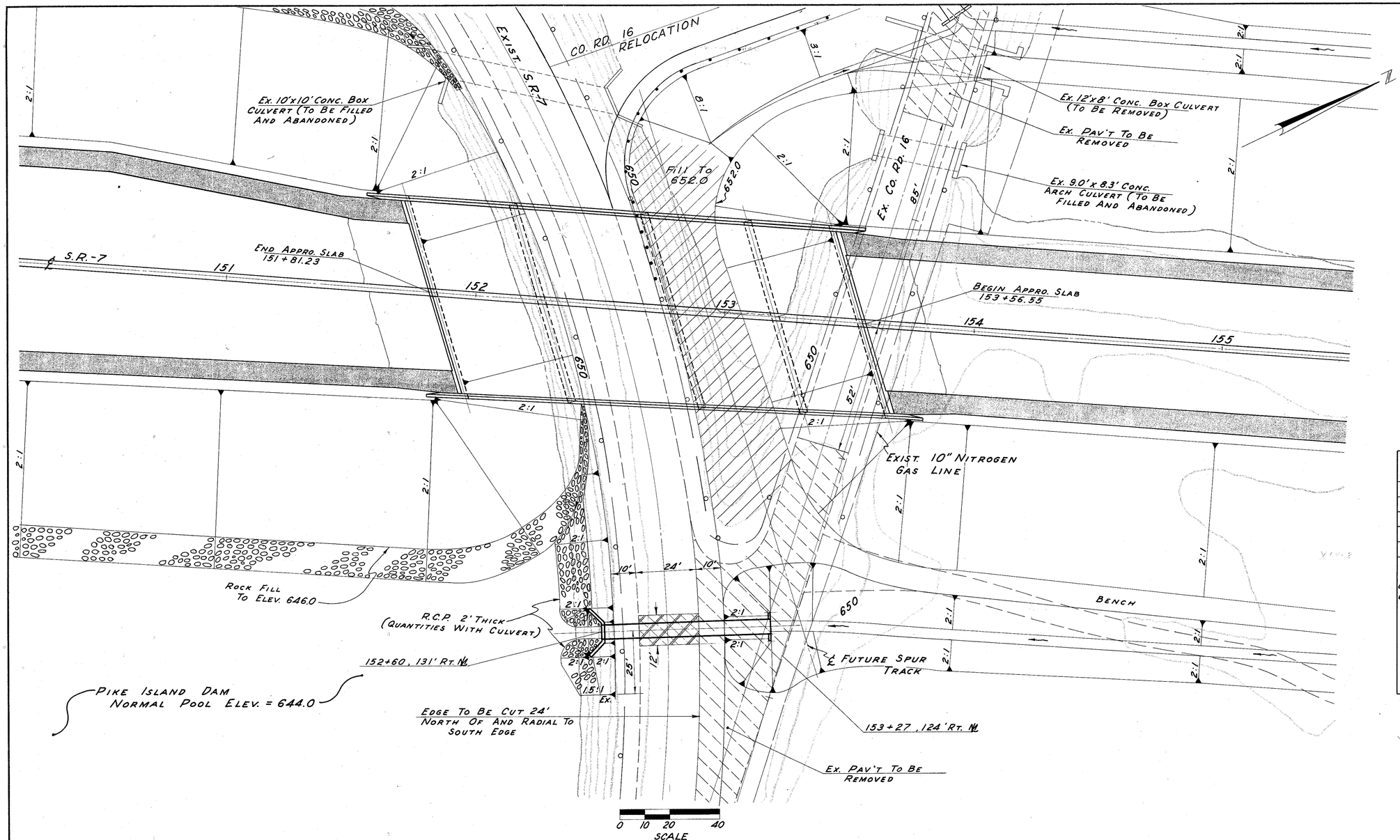
Rev. 9-23-74

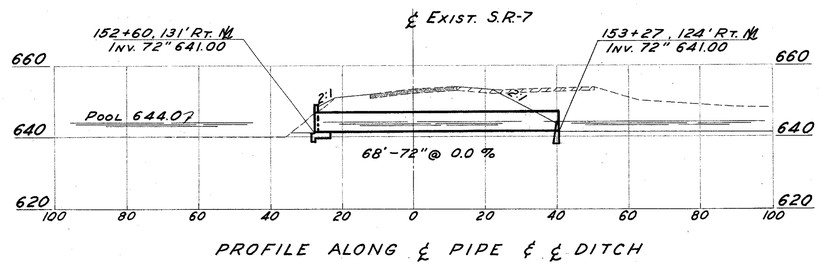
CULVERT DETAILS 144+08 RAMP "A" (S.R. 150 INTER.)

FED. RD. DIVISION	STATE	PROJECT	
2	OHIO		

99
560

JEFFERSON COUNTY
JEF.-7-0.20





PROFILE ALONG ℄ PIPE ℄ DITCH

LEGEND

404-1¼", 402-1¼", 407-Tack Coat, 452-9", 310-6"

Removal of Exist. Pav't.

DRAINAGE STRUCTURE
Ex. S.R. 7 Rt. Side 153+00± ℕ

DESIGN INFORMATION		
D.A.	Q10	
159 Ac.	90 cfs.	

TYPE HEADWALL: *

ESTIMATED QUANTITIES

603-√68 L.F. 72" Type "A" Conduit Sec. 706.02 or 707.07
602-√18.97 C.Y. Concrete Masonry
601-68 C.Y. Rock Channel Protection (Type "A")

* Headwall № 3 At Southend. HW-4 At Northend

A.E. STILSON & ASSOC.
Quantities Calculated FO MAY 1968
Quantities Checked DLB MAY 1969

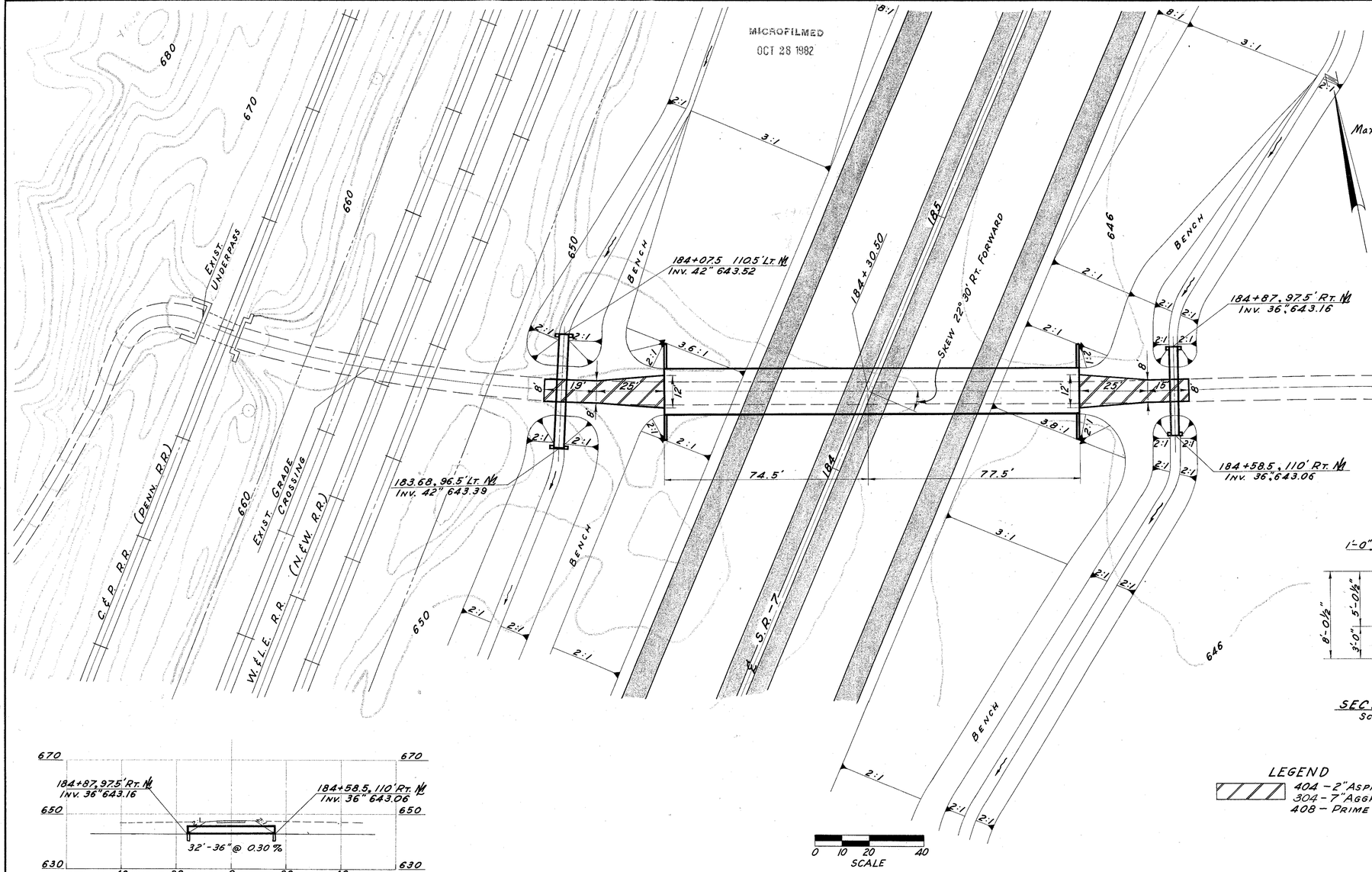
CULVERT DETAILS Rt. ℕ Sta. 153+00± (Ex. S.R.-7)

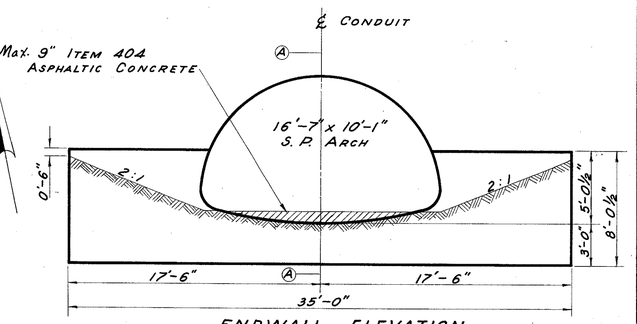
FED. RD. DIVISION	STATE	PROJECT	
2	OHIO		

100
560

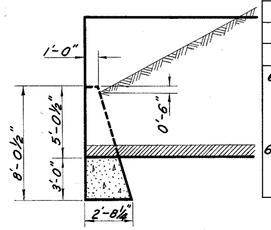
JEFFERSON COUNTY
JEF.-7-0.20

MICROFILMED
OCT 28 1982





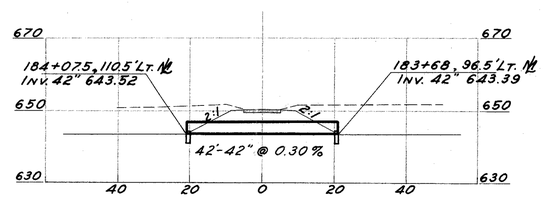
ENDWALL ELEVATION
Scale : 1"=5'-0"



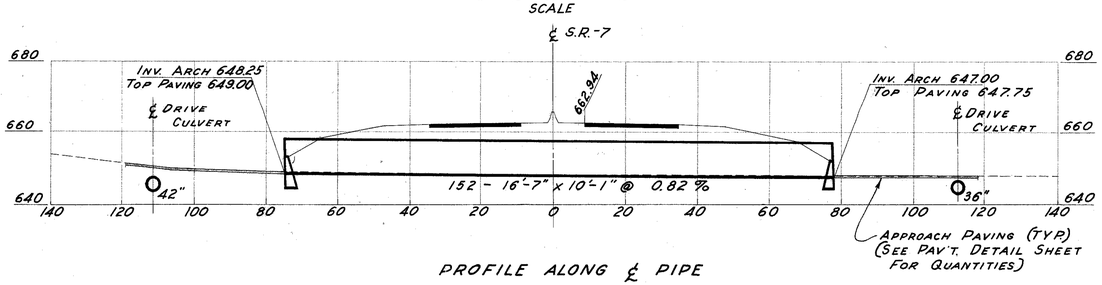
SECTION A-A
Scale : 1"=5'-0"

LEGEND
404 – 2" Asphaltic Conc.
304 – 7" Aggregate Base
408 – Prime Coat

DRIVE CULVERT RT. SIDE
MAINLINE



DRIVE CULVERT LT. SIDE
MAINLINE



PROFILE ALONG ℄ PIPE

UNDERPASS STRUCTURE JEF.-7-0349 STA. 184+30.50		
DESIGN INFORMATION		
D.A.		
None		
TYPE HEADWALLS: SP. 53		
ESTIMATED QUANTITIES		
603: √152 L.F. Type "A" Conduit 16'-7"x 10'-1" Sectional Plate Arch Sec. 707.03 (0.138") Cost of Invert Paving To Be Included In Price Bid For Item 603,		
602: √30 C.Y. Concrete Masonry		

DRIVE CULVERT LT. SIDE MAINLINE		
DESIGN INFORMATION		
D.A.	Q5	
56 AC.	82 cfs.	
TYPE HEADWALLS: HW-4		
ESTIMATED QUANTITIES		
603: √42 L.F. Cond. Type D, 42". 706.02, or 48" 707.01		
602: √1.68 C.Y. Masonry		

DRIVE CULVERT RT. SIDE MAINLINE		
DESIGN INFORMATION		
D.A.	Q5	
75 AC.	50 cfs.	
TYPE HEADWALLS: HW-4		
ESTIMATED QUANTITIES		
603: √32 L.F. 36" Type "D" Conduit Sec. 706.02 or 706.08		
602: √1.38 C.Y. Masonry		

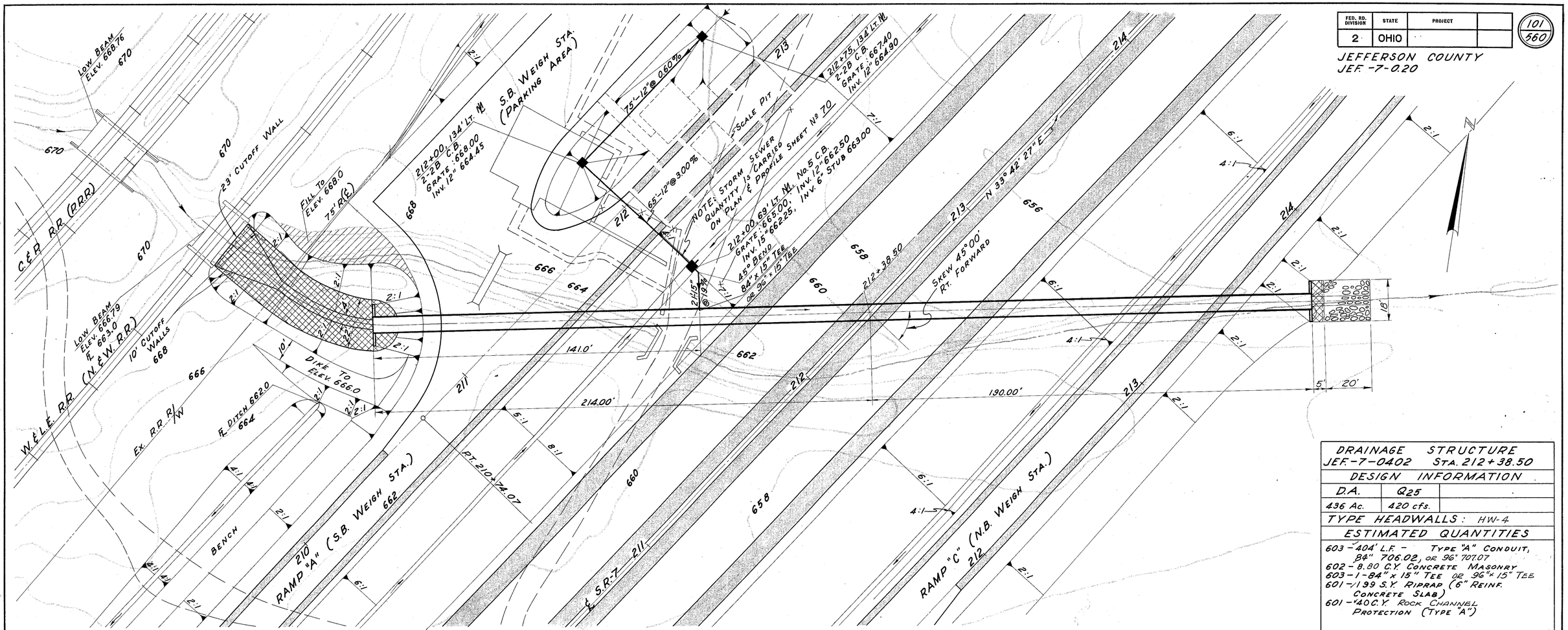
A. E. STILSON & ASSOC.
Quantities Calculated A.O. APRIL 1968
Quantities Checked D.L.B. MAY - 1969

UNDERPASS & CULVERT DETAILS 184+30.50

FED. RD. DIVISION	STATE	PROJECT	
2	OHIO		

101
560

JEFFERSON COUNTY
JEF.-7-0.20



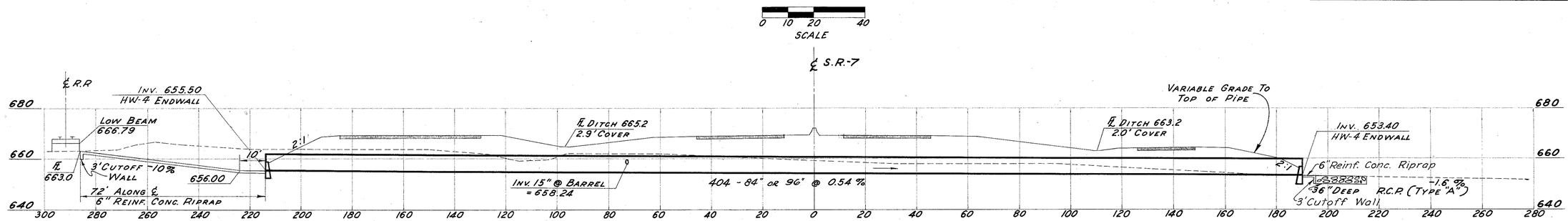
DRAINAGE STRUCTURE JEF.-7-0402 STA. 212+38.50

DESIGN INFORMATION		
D.A.	Q25	
436 Ac.	420 cfs.	

TYPE HEADWALLS : HW-4

ESTIMATED QUANTITIES

603 - 404' L.F. - Type "A" Conduit, 84" 706.02, or 96" 707.07
602 - 8.80 C.Y. Concrete Masonry
603 - 1-84" x 15" Tee or 96" x 15" Tee
601 - 1199 S.Y. Riprap (6" Reinf. Concrete Slab)
601 - 140 C.Y. Rock Channel Protection (Type "A")



PROFILE ALONG ℄ PIPE & ℄ CHANNEL

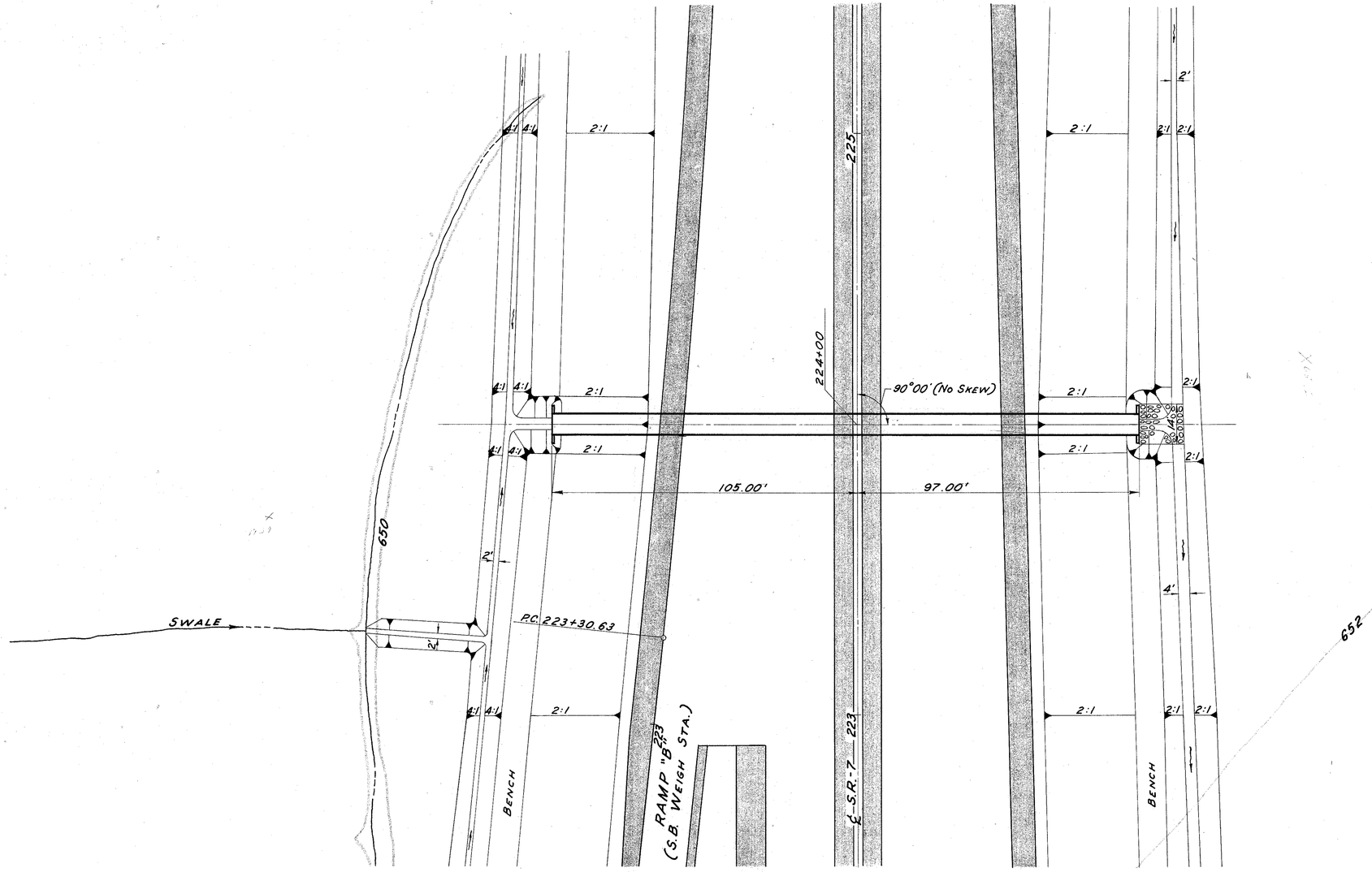
A. E. STILSON & ASSOC.
Quantities Calculated Eo MAY 1968
Quantities Checked DLB MAY 1969

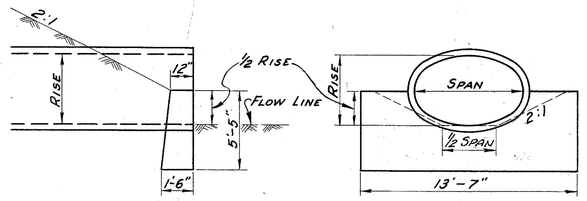
CULVERT DETAILS 212+38.50

FED. RD. DIVISION	STATE	PROJECT	
2	OHIO		

102
560

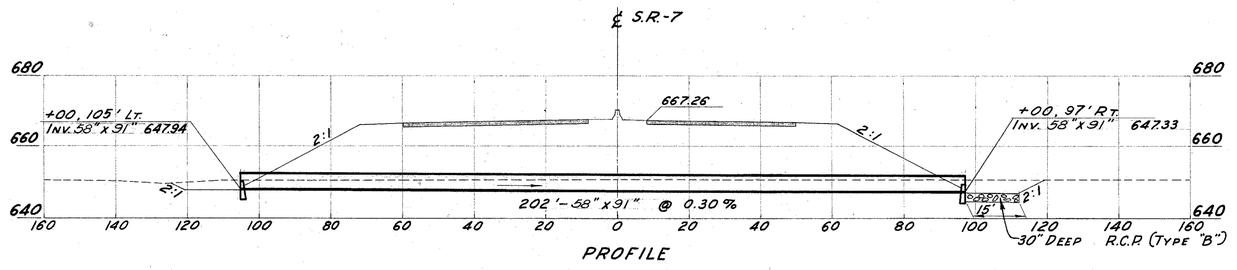
JEFFERSON COUNTY
JEF.-7-0.20





SIDE VIEW — END VIEW - ELLIPTICAL PIPE

HW-4 ENDWALL



PROFILE

DRAINAGE STRUCTURE
JEF.-7-0424 Sta. 224+00

DESIGN INFORMATION

D.A.	Q25	
86 Ac.	143 cfs.	

TYPE HEADWALL: HW-4

ESTIMATED QUANTITIES

603 - 202 LF-58"x91" Type "A" Conduit Sec. 706.04 Cl. HE-III
602 - 5.06 C.Y. Concrete Masonry
601 - 23 C.Y. Rock Channel Protection (Type "B")

L. E. STILSON & ASSOC.
Quantities Calculated FO MAY 1968
Quantities Checked DGB MAY 1968

CULVERT DETAILS 224+00

FED. RD. DIVISION	STATE	PROJECT	
2	OHIO		

103
560

JEFFERSON COUNTY
JEF-7-0.20

SEE SHEET Nº 104
RAMP "A"
RAMP "B"
RAMP "C"
RAMP "D"
PUBLIC RD.
SEE SHEET Nº 105
SEE SHEET Nº 106
SEE SHEET Nº 107
SEE SHEET Nº 108
SEE SHEET Nº 109
SEE SHEET Nº 111
TR 109 RELOC.
MAIDEN LANE
SEE SHEET Nº 110
SEE SHEET Nº 112
SEE SHEET Nº 113
SEE SHEET Nº 114
SEE SHEET Nº 115
SEE SHEET Nº 116
85+00
SEE SHEET Nº 117
SEE SHEET Nº 118
SEE SHEET Nº 119
SEE SHEET Nº 122
SEE SHEET Nº 123
SEE SHEET Nº 124
SEE SHEET Nº 125
WILLIAMS ST. RELOC.
SEE SHEET Nº 126
WILLIAMS ST.
PENN. R.R.
WHEELING & LAKE ERIE R.R.
BUCKEYE ST.
FARM LANE RELOC.
WALDEN ST.
SEE SHEET Nº 120
SEE SHEET Nº 127
SERVICE RD "A"
SEE SHEET Nº 128
SEE SHEET Nº 129
SEE SHEET Nº 130
SEE SHEET Nº 131
SEE SHEET Nº 132
125+00
SR. 150
EX. SR. 7
SEE SHEET Nº 134
SEE SHEET Nº 139
See Sheet Nº 73A
Co. Rd. 16
SEE SHEET Nº 133
SEE SHEET Nº 135
SEE SHEET Nº 136
SEE SHEET Nº 138
SEE SHEET Nº 140
SEE SHEET Nº 141
SEE SHEET Nº 142
SEE SHEET Nº 143
SEE SHEET Nº 144
SEE SHEET Nº 145
SEE SHEET Nº 137
SERVICE RD "A"
SHORT CREEK CHANNEL RELOC.
SR-7
165+00
END PROJECT STA 2004+37.51 (AHEAD)
SEE SHEET Nº 154
SEE SHEET Nº 155
SEE SHEET Nº 156
SEE SHEET Nº 146
SEE SHEET Nº 147
SEE SHEET Nº 148
SEE SHEET Nº 149
S.B. WEIGH STA.
N.B. WEIGH STA.
SEE SHEET Nº 150
SEE SHEET Nº 151
SEE SHEET Nº 152
SEE SHEET Nº 153
TR 155 RELOC.
OHIO RIVER
185+00

KEY MAP - PAVEMENT DETAILS

FED. RD. DIVISION	STATE	PROJECT	
2	OHIO		

104/560

JEFFERSON COUNTY
JEF. -7-0.20

SEE SHEET Nº 105

BEG. APPR. SLAB
STA. 10+25.91

9+37.48 S.R. 7 =
4+86.75 PUBLIC RD.

3+42.50 PUBLIC RD. =
9+31.15 RAMP "A" =
9+13.95 RAMP "B"

Conc. Meter Vault Box

9+86.5, 60' Lt.
RAMP "B"

9+76, 66' Rt.
RAMP "B"

2+99, 20' Lt.

2+88, 20' Rt.

8+54, 64' Lt.
RAMP "A"

8+61.5, 80.5' Rt.
RAMP "A"
1 STY.
BRICK RES.

1½ STY. FR. RES.

Ex. 14' CONC. ALLEY
to be abandoned ?

CONC. BLK. FOUNDATION

Ex. 15' CONC. PAV'T.
ST. WORTHINGTON
TRAVERSE ST.

Ex. 4' CONC. S.W.

P.I. 5+03.45
℄ PUBLIC RD.
60' R.

10+17.80' Lt.
RAMP "C"

Conc. Slab

PROP. 5' CONC. S.W.

P.T. 5+55.19

8+73.5, 66' Lt.
RAMP "D"

END APPR. SLAB
STA. 8+49.89

NOTE:
STRUCTURE TO BE CONSTRUCTED
WITH BEL-7-23.74
JEF-7-0.00

NOTE:
FLEXIBLE PAV'T. & FLEXIBLE SIDEWALK TO
BE REMOVED UNDER 203

BEGIN PAVING
1+19 ℄

BEGIN PAVING
8+18.5

BEGIN PAVING
8+59.5

END PAVING
7+54 ℄

PROP. 8" W.L.

PROP. 10" W.L.

Ex. 8" SAN. (Ex.)

Ex. 60" STM.

Ex. 4" ASPHALT S.W.

PROP. CONC. S.W.

Ex. 6' CONC. S.W.

PUBLIC ROAD 40

BEGIN Ex. ASPHALT

END Ex. ASPHALT

BEGIN Ex. CONC. PAV'T.

P.I. "D"

Ex. 5' CONC. S.W.

PROP. 10" W.L.

Ex. 6' S.W.

1+04.00 ℄ ALLEY =
10+57.00 ℄ SURVEY
ALLEY "A"

N 79° 23' 11" W ?

Ex. CONC. BLK. WALL

PROP. 6" W.L.

10+31.5, 64' Rt.
RAMP "C"
1 STY. FR. RES.

6+90, 20' Lt.

PROP. 3' CONC. S.W.

1+00.50 ℄ ALLEY =
20+00 ℄ WALTERS ST.
= 7+66.52 ℄ PUBLIC RD.

N 24° 35' 49" E

Ex. 6' S.W.

24' Ex. PAV'T. ASPHALT ON CONC.

N 78° 04' 11" W

PROP. 10" W.L.

6+32.00 PUBLIC RD. =
9+51.38 RAMP "C" =
9+39.52 RAMP "D"

2 STY. FR. RES.

6+725, 20' Rt.

2 STY. FR. RES.

8+69, 60' Rt.
RAMP "D"

BLK. STOR. SHED

BLK. GAR

2 STY. STONE RES.

FR. GAR.

PROP. 8" W.L.

CONC. ALLEY

Ex. 8" SAN.

℄ ALLEY

Ex. 18" S.W.

Ex. 24' CONC. PAV'T.

Ex. 5' CONC. S.W.

Ex. CONC. 5' S.W.

Ex. 16" CMP

N 12° 52' 16" E

Ex. 8" W.L.

Ex. 6" W.L.

Ex. 60" STM.

Ex. 24" CONC.

Ex. 6" S.W.

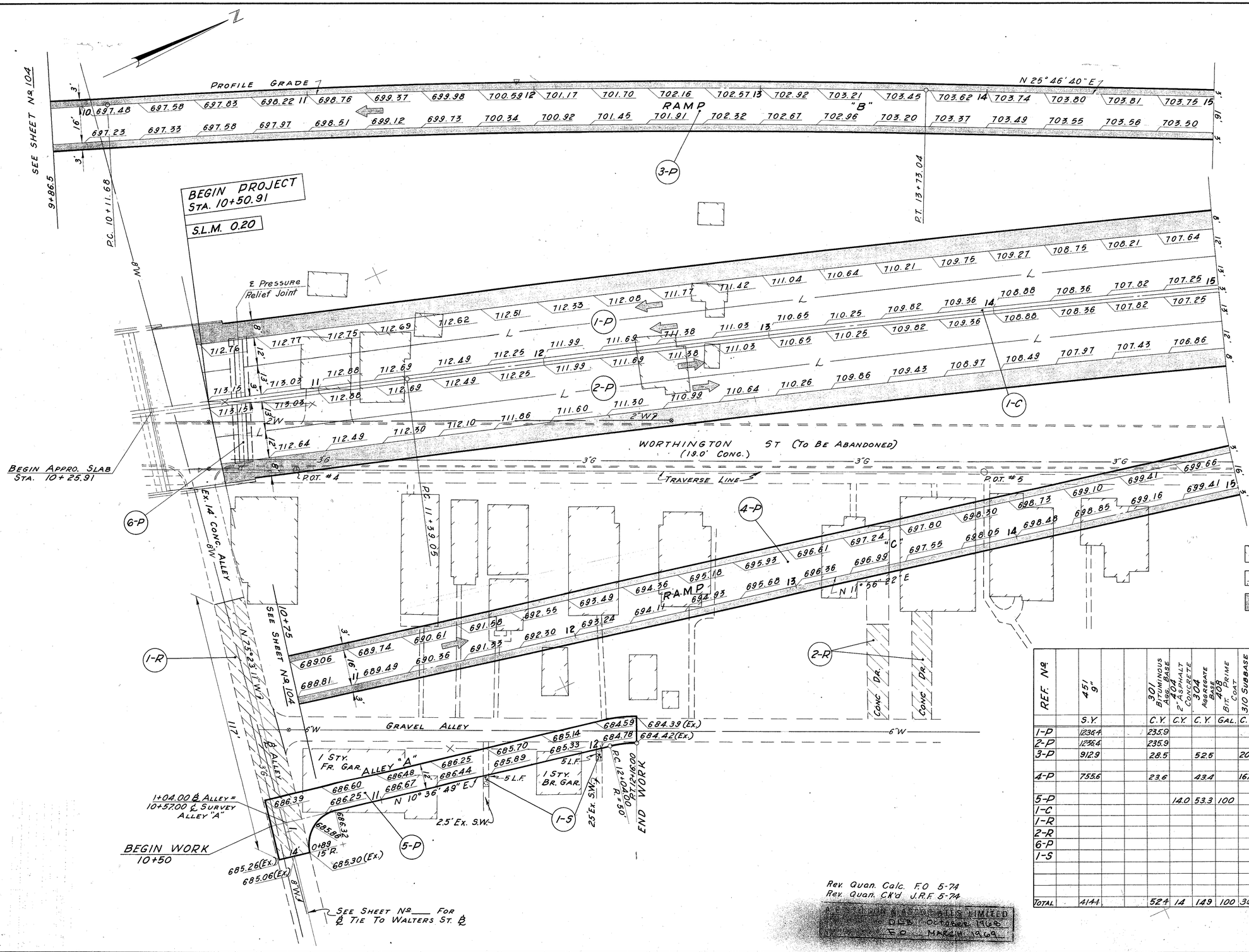
Ex. 8" W.L.

Ex. 6" W.L

FED. RD. DIVISION	STATE	PROJECT	
2	OHIO		

105
560

JEFFERSON COUNTY
JEF-7-0.20



LEGEND

- PAV'T. REMOVAL UNDER ITEM 202
- 4" CONC. WALK
- ITEM 301 - BIT. AGG. BASE

REF. No.	451 9"			301 BITUMINOUS AGG. BASE	404 2" ASPHALT CONCRETE	304 AGGREGATE BASE	408 BIT. PRIME COAT	310 SUBBASE GRADING "A"	Item Special Pressure Relief Joint				608 4" CONC. WALK	622 Concrete Barrier Type I	SPEC. DRAINAGE CONNECTION No. 8 AGG.	203 SUBGRADE COMPACTION	202 EXIST. PAV'T. REMOVED
	S.Y.			C.Y.	C.Y.	C.Y.	GAL.	C.Y.	L.F.				S.F.	L.F.	C.Y.	S.Y.	S.Y.
1-P	1236.4			235.9												1796.4	
2-P	1236.4			235.9												1796.4	
3-P	912.9			28.5		52.5		201.8							26.2	1426.4	
4-P	755.6			23.6		43.4		167							21.7	1180.6	
5-P					14.0	53.3	100									333.3	
1-C														449			
1-R																	182.0
2-R																	89.0
6-P									50								
1-S													25				
TOTAL	4144			524	14	149	100	369	50				25	449	48	6533	271

Rev. Quan. Calc. F.O. 5-74
Rev. Quan. Ck'd J.R.F. 5-74

A. E. STOLPER & ASSOCIATES LIMITED
DLB October 1968
F.O. March 1969

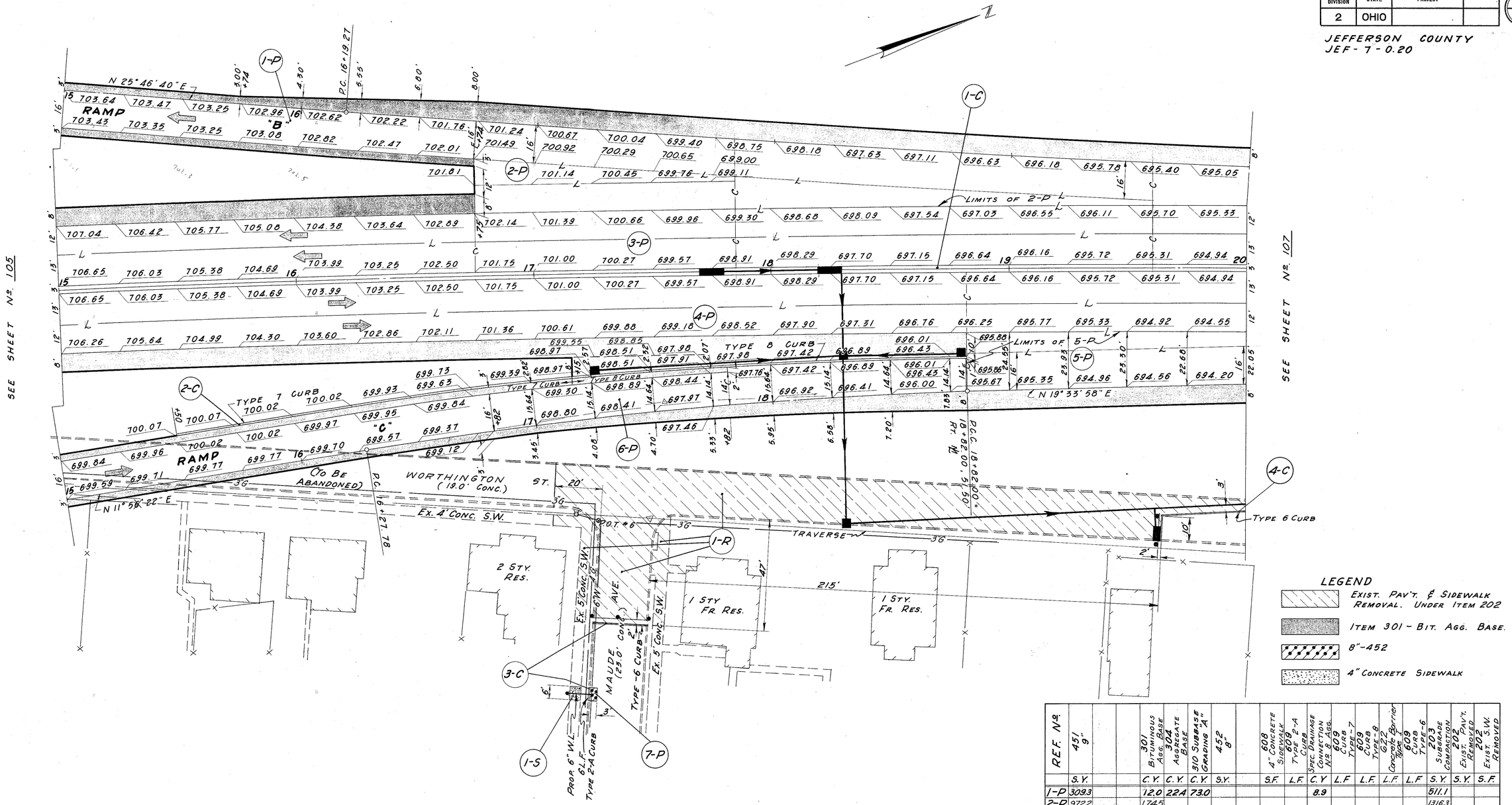
	BY	DATE
EXISTING PLOTTED		
EXISTING CHECKED		
PROPOSED DRAWN		
PROPOSED CHECKED		
QUANTITIES CALCULATED		
QUANTITIES CHECKED		

PAVEMENT DETAILS STA. 10+50.91 TO STA. 15+00

FED. RD. DIVISION	STATE	PROJECT	
2	OHIO		

106
560

JEFFERSON COUNTY
JEF-7-0.20



LEGEND

- EXIST. PAV'T. & SIDEWALK REMOVAL. UNDER ITEM 202
- ITEM 301 - BIT. AGG. BASE.
- 8"-452
- 4" CONCRETE SIDEWALK

REF. No.	451 9"			301 Bituminous Agg. Base	304 Aggregate Base	310 Subbase Grading "A"	452 8"		608 4" Concrete Sidewalk	609 Type 2-A Curb	Spec. Drainage Connection No. 8 Agg.	609 Curb Type-7	609 Curb Type-8	622 Concrete Barrier Type-1	609 Curb Type-6	203 Subgrade Compaction	202 Exist. Pav't. Removed	202 Exist. S.W. Removed
	S.Y.			C.Y.	C.Y.	C.Y.	S.Y.		S.F.	L.F.	C.Y.	L.F.	L.F.	L.F.	L.F.	S.Y.	S.Y.	S.F.
1-P	309.3			12.0	22.4	73.0					8.9					511.1		
2-P	972.2			174.5												1316.3		
3-P	1380.1			199.2												1657.0		
4-P	1388.9			258.1												1937.9		
5-P	308.5			58.3												433.1		
6-P	657.0			22.6	34.0	146.9					19.5					1061.1		
7-P							2.3											
1-C														460				
2-C												169.0	167.0					
3-C										6					24.			
1-S									30									
1-R																	626	495
4-C															45			
TOTAL	5016			725	56	220	2		30	6	28	169	167	460	69	6917	626	495

Rev. Quan. Calc. F.O. 5-74
Rev. Quan. Ch'd J.R.F. 5-74

A. E. JOHNSON & ASSOCIATES LIMITED
DLB OCTOBER 1968
FO MARCH 1969

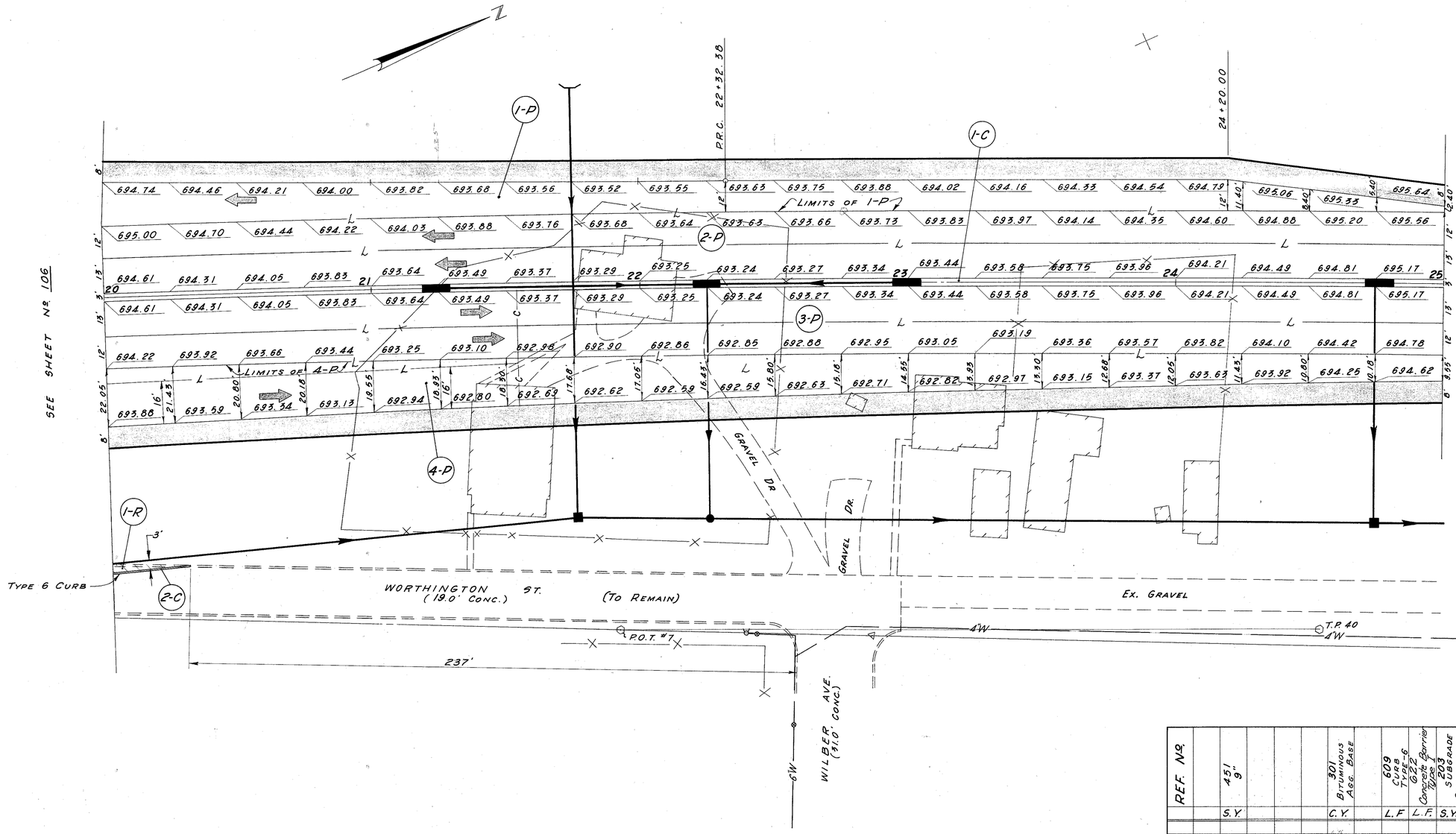
	BY	DATE
EXISTING PLOTTED		
EXISTING CHECKED		
PROPOSED DRAWN		
PROPOSED CHECKED		
QUANTITIES CALCULATED		
QUANTITIES CHECKED		

PAVEMENT DETAILS STA. 15+00 TO STA. 20+00

FED. RD. DIVISION	STATE	PROJECT	
2	OHIO		

107
560

JEFFERSON COUNTY
JEF - 7 - 0.20



LEGEND

EXIST. PAV'T. REMOVAL

ITEM 301 - BITUMINOUS AGGREGATE BASE

REF. No.	451 9"	301 BITUMINOUS AGG. BASE	609 CURB TYPE-6	622 Concrete Barrier Type I	203 SUBGRADE COMPACTION	202 EXIST. PAV'T. REMOVED
	S.Y.	C.Y.	L.F.	L.F.	S.Y.	S.Y.
1-P	675.6	176.9			1203.3	
2-P	1371.3	163.6			1472.2	
3-P	1388.9	163.6			1472.2	
4-P	877.8	199.4			1405.5	
1-C				420		
2-C			29			
1-R						6
TOTAL	4314	704	29	420	5553	6

Rev. Quan. Calc. F.O. 5-74
Rev. Quan. Ck'd J.R.F. 5-74

A. E. STILSON & ASSOCIATES LIMITED
Quantities Calculated DLB OCTOBER 1968
Quantities Checked FO MARCH 1969

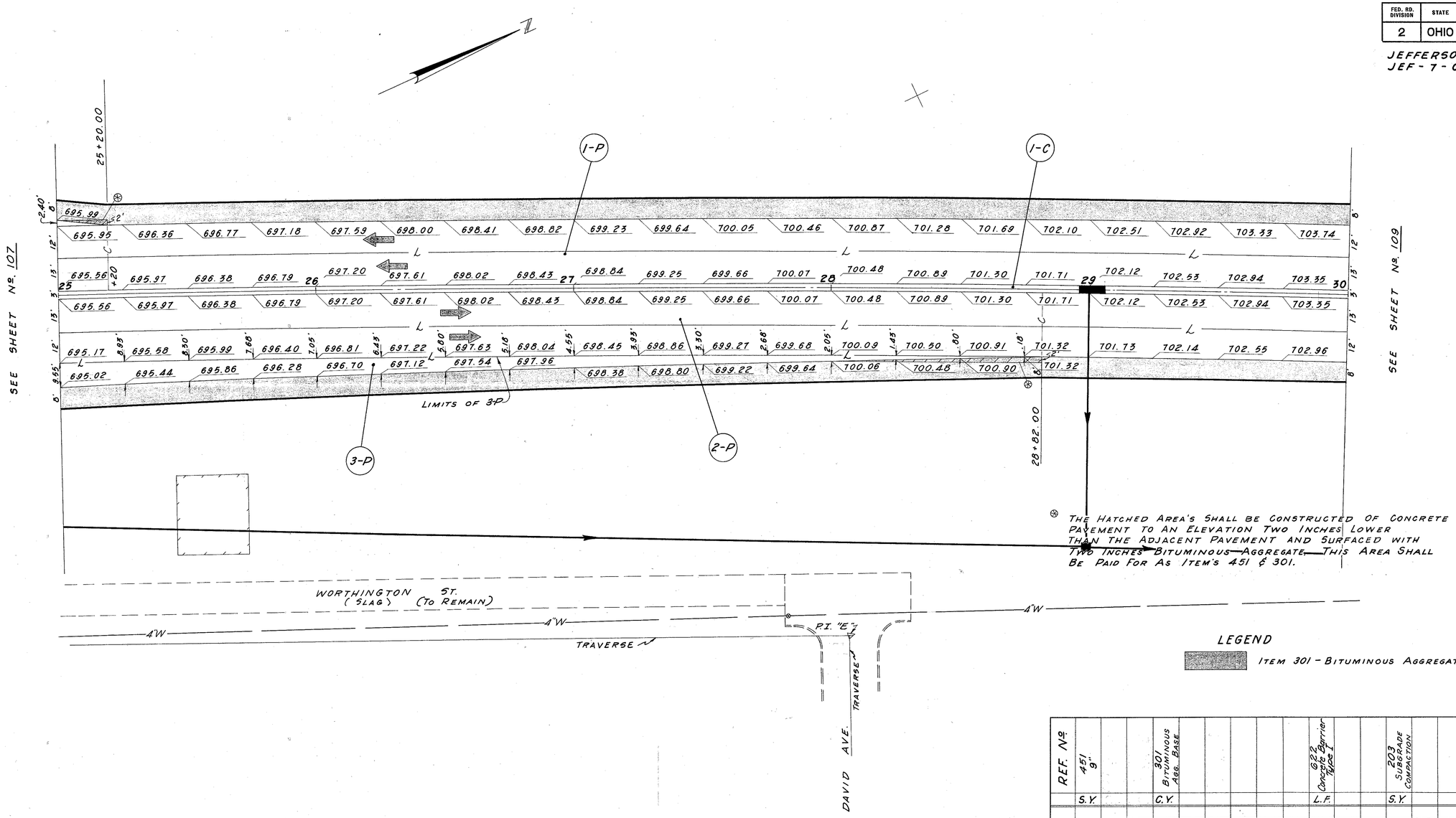
	BY	DATE
EXISTING PLOTTED		
EXISTING CHECKED		
PROPOSED DRAWN		
PROPOSED CHECKED		
QUANTITIES CALCULATED		
QUANTITIES CHECKED		

PAVEMENT DETAILS STA. 20+00 TO STA. 25+00

FED. RD. DIVISION	STATE	PROJECT	
2	OHIO		

108/560

JEFFERSON COUNTY
JEF-7-0.20



THE HATCHED AREA'S SHALL BE CONSTRUCTED OF CONCRETE PAVEMENT TO AN ELEVATION TWO INCHES LOWER THAN THE ADJACENT PAVEMENT AND SURFACED WITH TWO INCHES BITUMINOUS AGGREGATE. THIS AREA SHALL BE PAID FOR AS ITEM'S 451 & 301.

LEGEND

ITEM 301 - BITUMINOUS AGGREGATE BASE

REF. No.	451 9"	301 BITUMINOUS AGG. BASE	622 Concrete Barrier Type I	203 SUBGRADE COMPACTION
	S.Y.	C.Y.	L.F.	S.Y.
1-P	1389.2	265.8		2003.3
2-P	1388.9	163.6		1472.2
3-P	211.9	122.6		730.5
1-C			480	
TOTAL	2990	552	480	4206

Rev. Quan. Calc. F.O. 5-74
Rev. Quan. Ck'd J.R.F. 5-74

A. E. STILSON & ASSOCIATES LIMITED
Quantities Calculated DLB OCTOBER 1963
Quantities Checked FO MARCH 1969

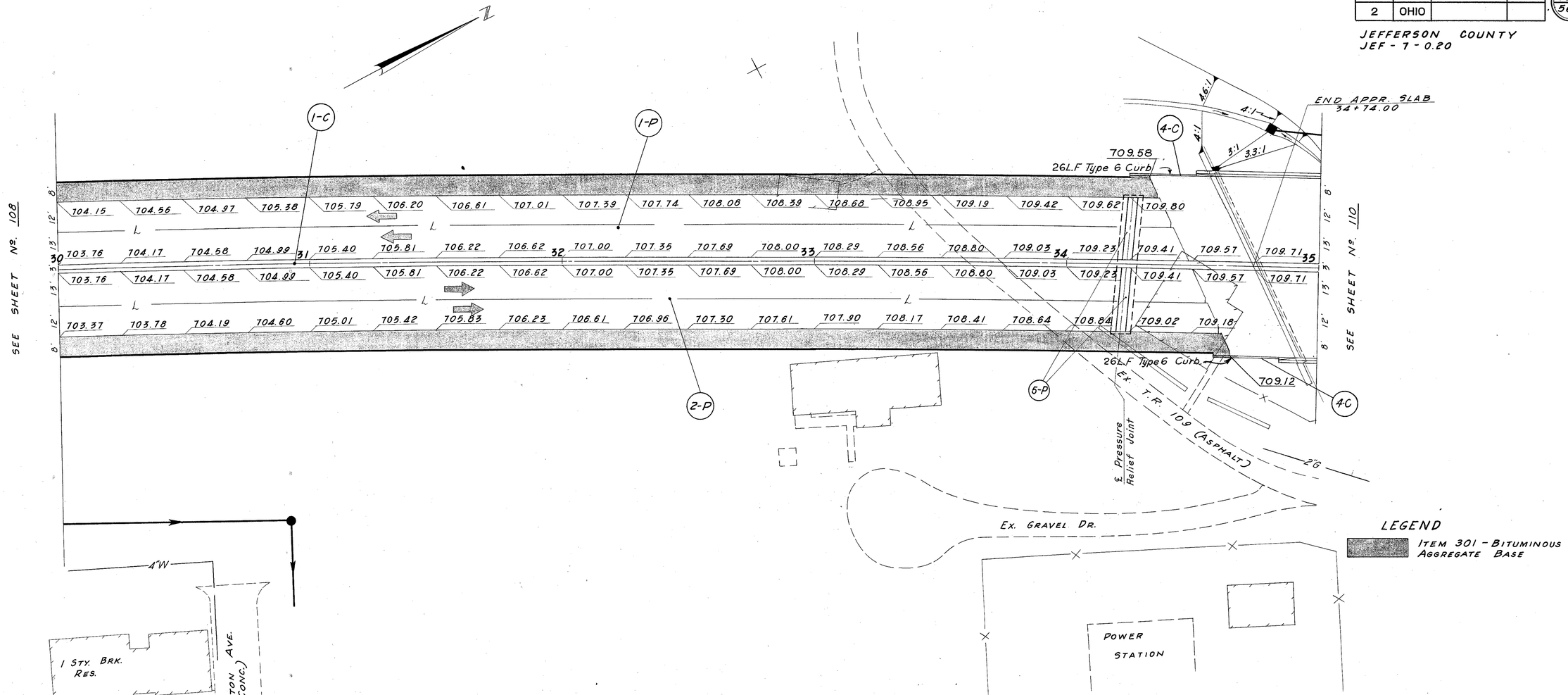
	BY	DATE
EXISTING PLOTTED		
EXISTING CHECKED		
PROPOSED DRAWN		
PROPOSED CHECKED		
QUANTITIES CALCULATED		
QUANTITIES CHECKED		

PAVEMENT DETAILS STA. 25+00 TO STA. 30+00

FED. RD. DIVISION	STATE	PROJECT	
2	OHIO		

109
560

JEFFERSON COUNTY
JEF - 7 - 0.20



LEGEND

ITEM 301 - BITUMINOUS AGGREGATE BASE

REF. No.	451 9"			452 8"		301 BITUMINOUS AGG. BASE	Item Special Pressure Relief Joint	608-4" CONCRETE WALK	609 CURB TYPE-2-A	611 REINF. CONC. APPRO. SLAB (T=15")	622 Concrete Barrier Type I	304 AGGREGATE BASE	609 Curb, Type 6	203 SUBGRADE COMPACTION	202 EXIST. PAV'T. REMOVED			
	S.Y.			S.Y.		C.Y.	L.F.	S.F.	L.F.	S.Y.	L.F.	C.Y.	L.F.	S.Y.	S.Y.			
1-P	1216.7					230.3				99.3				1860.0				
2-P	1252.8					240.7				99.3				1928.0				
3-P				875														
4-P												11.4						
5-P							50											
1-C											474							
2-C									15									
3-C									510									
4-C													52					
1-S								48										
1-R															875			
TOTAL	2470			875		471	50	48	525	199	474	11	52	3788	875			

Rev. Quan. Calc. F.O. 5-74
Rev. Quan Ck'd J.R.F. 5-74
Rev. 7-5-73 F.O.

A. E. STILSON & ASSOCIATES LIMITED
CONSULTING ENGINEERS
OCTOBER 1968
MARCH 1969

NOTE:
QUANTITIES FOR 3-P, 4-P, 1-R, 1-S, 2-C AND 3-C ARE CARRIED FROM SHEET No. 87.

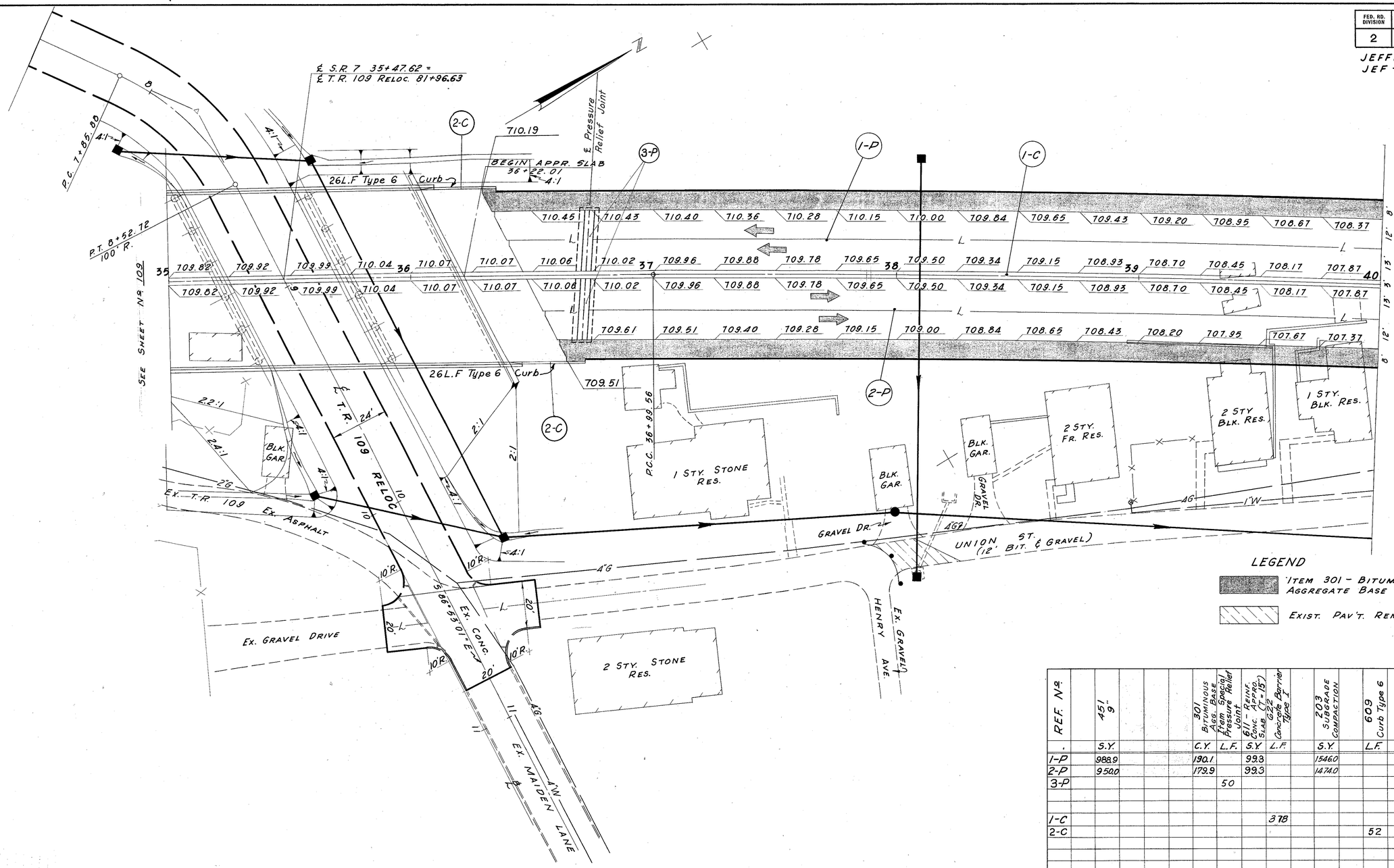
	BY	DATE
EXISTING PLOTTED		
EXISTING CHECKED		
PROPOSED DRAWN		
PROPOSED CHECKED		
QUANTITIES CALCULATED		
QUANTITIES CHECKED		

PAVEMENT DETAILS STA. 30+00 TO STA. 35+00

FED. RD. DIVISION	STATE	PROJECT	
2	OHIO		

110
560

JEFFERSON COUNTY
JEF - 7 - 0.20



LEGEND

ITEM 301 - BITUMINOUS AGGREGATE BASE

EXIST. PAV'T. REMOVAL UNDER ITEM 203

REF. No.	451 9"			301 Bituminous Agg. Base	Item Special Pressure Relief Joint	611 - Reinf. Conc. Appr. Slab (T=15") 622 Concrete Barrier Type 1		203 Subgrade Compaction	609 Curb Type 6					
,	S.Y.			C.Y.	L.F.	S.Y.	L.F.	S.Y.	L.F.					
1-P	988.9			190.1		99.3		1546.0						
2-P	950.0			179.9		99.3		1474.0						
3-P					50									
1-C							37.8							
2-C									52					
TOTAL	1939			370	50	199	37.8	3020	52					

Rev. Quan. Calc. F.O. 5-74
Rev. Quan. Ck'd J.R.F. 5-74
Rev. 7-6-73 F.O.

A.E. STELSON & ASSOCIATES, LIMITED
DATE OCTOBER 1968
F.O. MAY 6, 1969

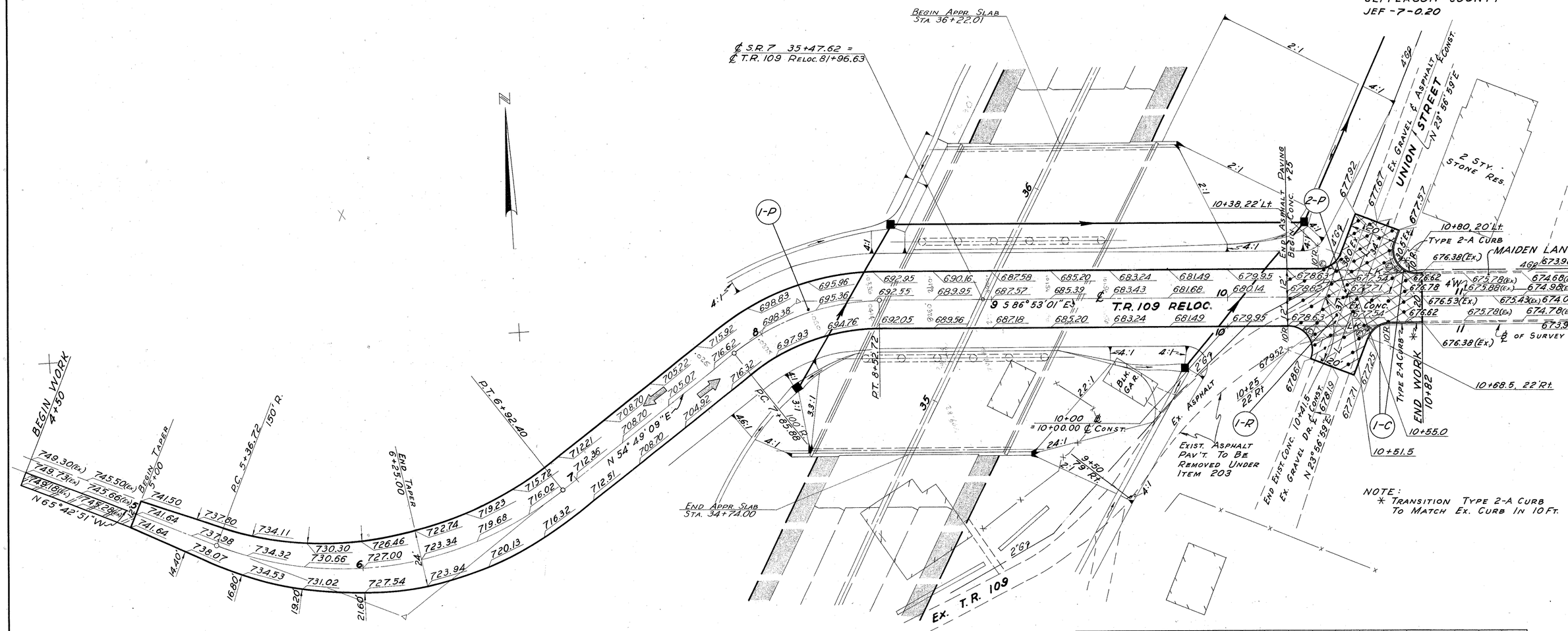
	BY	DATE
EXISTING PLOTTED		
EXISTING CHECKED		
PROPOSED DRAWN		
PROPOSED CHECKED		
QUANTITIES CALCULATED		
QUANTITIES CHECKED		

PAVEMENT DETAILS STA. 35+00 TO STA. 40+00

FED. RD. DIVISION	STATE	PROJECT	
2	OHIO		

111
560

JEFFERSON COUNTY
JEF-7-0.20



NOTE:
* TRANSITION TYPE 2-A CURB TO MATCH EX. CURB IN 10 FT.

REF. No.	452 8"	404-1 1/4" ASPHALT CONCRETE	402-1 1/4" ASPHALT CONCRETE	301-4" BITUMINOUS AGG. BASE	310 SUBBASE	404 (0" TO 4") ASPHALT CONCRETE	609 TYPE 2-A CURB	202 EXIST. PAV'T. REMOVED	203 SUBGRADE COMPACTION
	S.Y.	C.Y.	C.Y.	C.Y.	C.Y.	C.Y.	L.F.	S.Y.	S.Y.
1-P		45.8	45.8	152.7	238.9	1.8			1608.3
2-P	249.3				42.4				266.7
1-C							52		
1-R								163.6	
TOTAL	249	46	46	153	281	2	52	164	1875

LEGEND

8"-452 PLAIN PORTLAND CEMENT CONC. PAV'T., 6"-310 SUBBASE

EXIST. PAV'T. REMOVAL UNDER ITEM 202

404-(0" TO 4") ASPHALT CONCRETE

Rev. Quan. Calc. F.O. 5-74
Rev Quan. Ck'd J.R.F 5-74

A. E. STEVENSON & ASSOCIATES, LIMITED
D.L.B. OCTOBER 1968
F.O. MARCH 1969

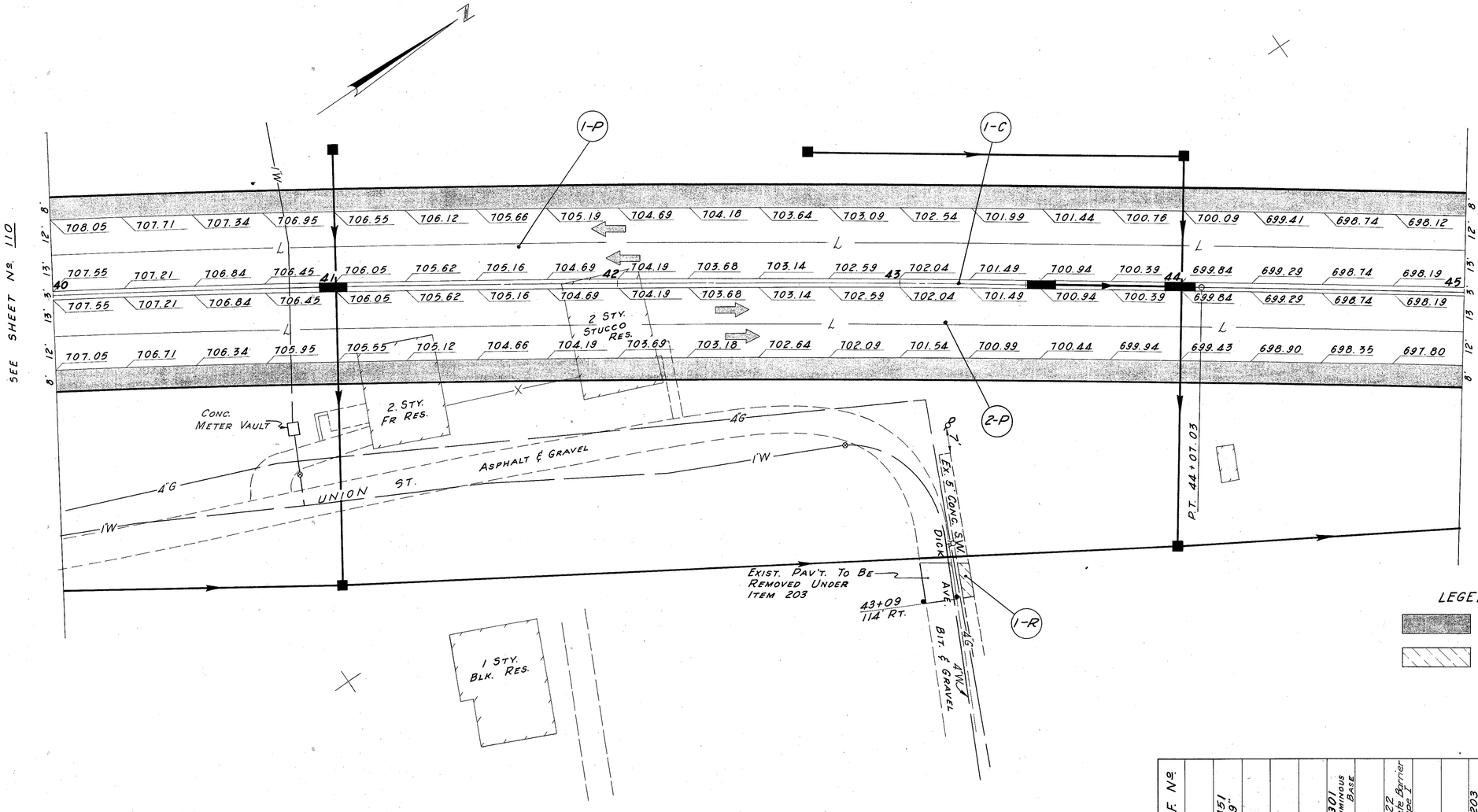
	BY	DATE
EXISTING PLOTTED		
EXISTING CHECKED		
PROPOSED DRAWN		
PROPOSED CHECKED		
QUANTITIES CALCULATED		
QUANTITIES CHECKED		

T.R. 109 RELOCATION

FED. RD. DIVISION	STATE	PROJECT	
2	OHIO		

112
560

JEFFERSON COUNTY
JEF - 7 - 0.20



LEGEND

- Item 301 – Bituminous Aggregate Base.
- Exist. Sidewalk Removal Under Item 202

REF. No.		451 9"			301 Bituminous Agg. Base		622 Concrete Barrier Type 1		203 Subgrade Compaction		202 Exist. S.W. Removed				
		S.Y.			C.Y.		L.F.		S.Y		S.F.				
1-P		1375.7			265.4				2000						
2-P		1388.9			265.4				2000						
1-C							440								
1-R											60				
TOTAL		2765			531		440		4000		60				

Rev. Quan. Calc. F.O. 5-74
Rev. Quan. Calc. J.R.F. 5-74

A.E. STILSON & ASSOCIATES, LIMITED
D.L.B. October 1965
F.O. March 1962

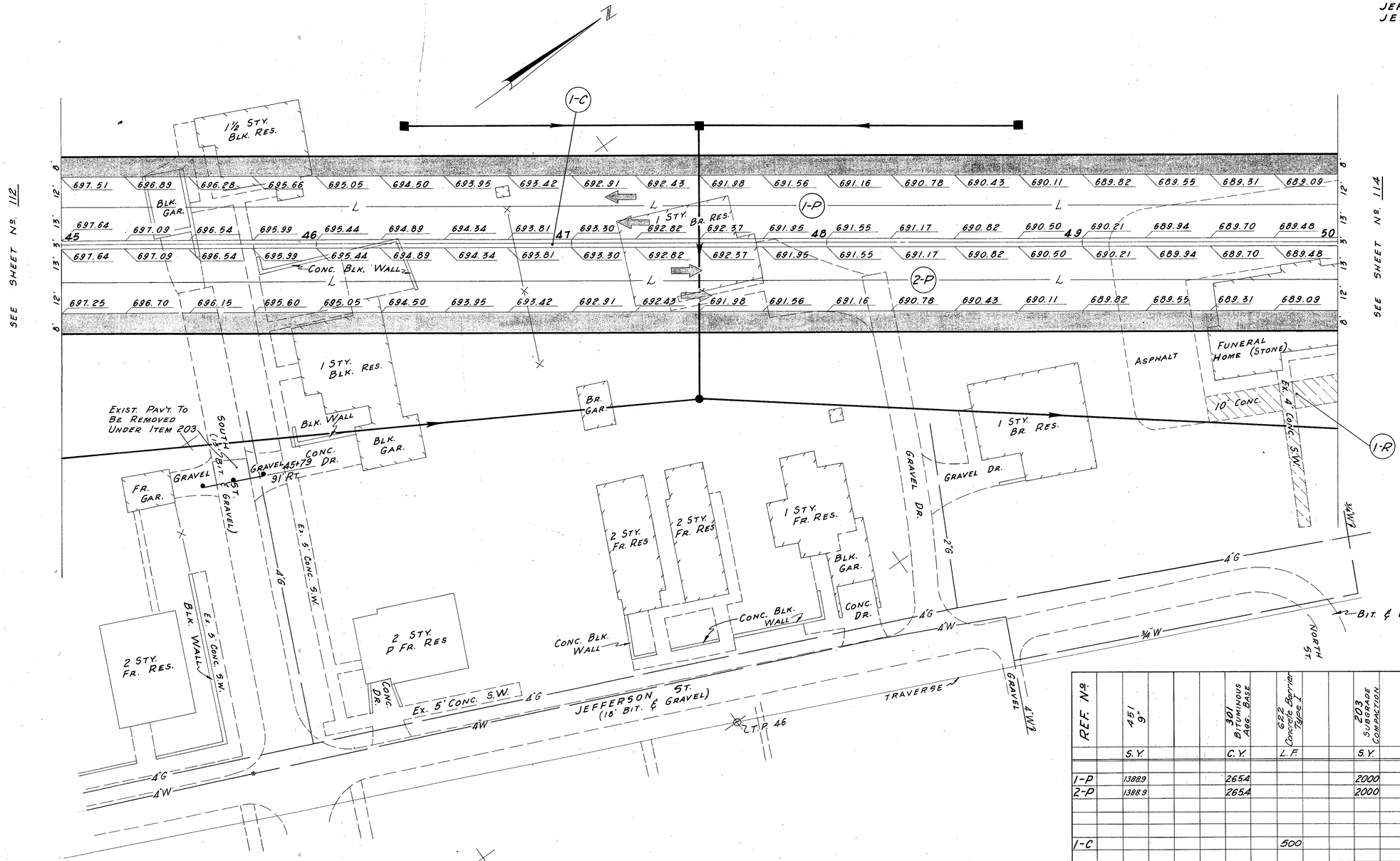
	BY	DATE
EXISTING PLOTTED		
FIELD CHECKED		
PROPOSED DRAWN		
PROPOSED CHECKED		
QUANTITIES CALCULATED		
QUANTITIES CHECKED		

PAVEMENT DETAILS STA 40+00 To STA. 45+00

FED. RD. DIVISION	STATE	PROJECT	
2	OHIO		

113
560

JEFFERSON COUNTY
JEF - 7 - 0.20



REF. No.	451 9"	301 BITUMINOUS AGG. BASE	622 Concrete Barrier Type I	203 SUBGRADE COMPACTION	202 EXIST. PAV'T. REMOVED	202 EXIST. S.W. REMOVED
	S.Y.	C.Y.	L.F.	S.Y.	S.Y.	S.F.
1-P	1388.9	265.4		2000		
2-P	1388.9	265.4		2000		
1-C			500			
1-R					52	280
TOTAL	2778	531	500	4000	52	280

LEGEND

ITEM 301 - BITUMINOUS AGGREGATE BASE

EXIST. PAV'T. & SIDEWALK REMOVAL UNDER ITEM 202

Rev. Quan. Calc. F.O. 5-74
Rev. Quan. Ck'd J.R.F. 5-74

A.E. STILSON & ASSOCIATES LIMITED
DUB. OCTOBER 1968
F.O. MARCH 1969

	BY	DATE
EXISTING PLOTTED		
EXISTING CHECKED		
PROPOSED DRAWN		
PROPOSED CHECKED		
QUANTITIES CALCULATED		
QUANTITIES CHECKED		

PAVEMENT DETAILS STA 45+00 TO STA. 50+00

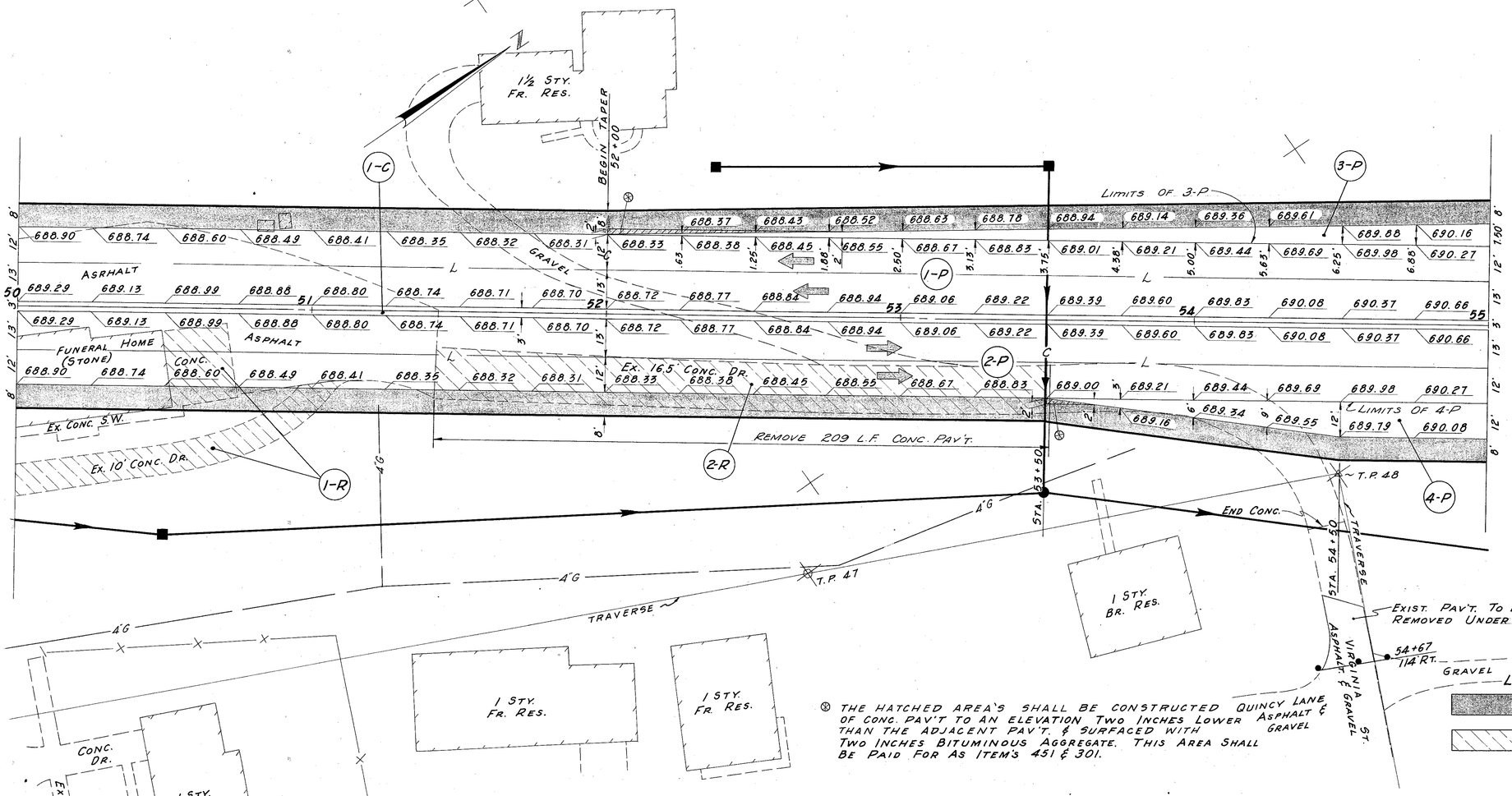
FED. RD. DIVISION	STATE	PROJECT	
2	OHIO		

114
560

JEFFERSON COUNTY
JEF - 7 - 0.20

SEE SHEET No. 113

SEE SHEET No. 115



Ⓧ THE HATCHED AREA'S SHALL BE CONSTRUCTED OF CONC. PAV'T TO AN ELEVATION TWO INCHES LOWER THAN THE ADJACENT PAV'T. & SURFACED WITH TWO INCHES BITUMINOUS AGGREGATE. THIS AREA SHALL BE PAID FOR AS ITEM'S 451 & 301.

LEGEND

- ITEM 301 - BITUMINOUS AGGREGATE BASE
- EXIST. PAV'T. REMOVAL UNDER ITEM 202

REF. Nº	451 S.Y.	301 BITUMINOUS AGG. BASE C.Y.	622 Concrete Barrier Type 1 L.F.	203 SUBGRADE COMPACTION S.Y.	202 EXIST. PAVT. REMOVED S.Y.
1-P	1388.9	204.3		1683.2	
2-P	1388.9	234.9		1841.6	
3-P	133.9	78.9		441.7	
4-P	135.2	45.4		291.6	
1-C			500		
1-R					185.8
2-R					383.2
TOTAL	3047	564	500	4258	569

Rev. Quan. Calc. F.O. 5-74
Rev. Quan. Ck'd J.R.F. 5-74

A. E. STILSON & ASSOCIATES
Quantities Computed D.L.B. OCTOBER 1968
Quantities Ck'd E.O. MARCH 1969

	BY	DATE
EXISTING PLOTTED		
EXISTING CHECKED		
PROPOSED DRAWN		
PROPOSED CHECKED		
QUANTITIES CALCULATED		
QUANTITIES CHECKED		

PAVEMENT DETAILS STA. 50+00 To STA. 55+00

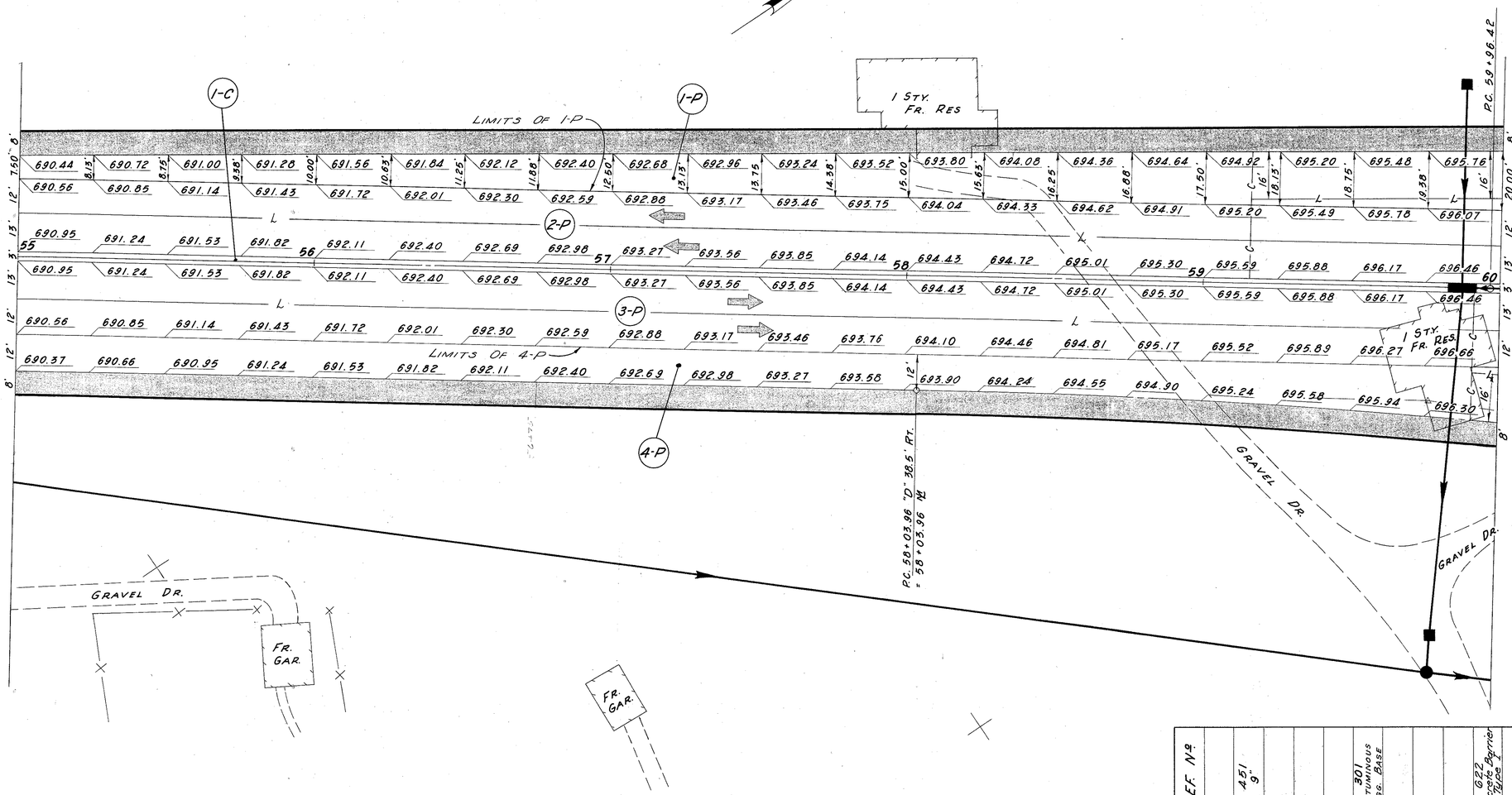
FED. RD. DIVISION	STATE	PROJECT	
2	OHIO		

115/560

JEFFERSON COUNTY
JEF - 7 - 0.20

SEE SHEET No 114

SEE SHEET No 116



LEGEND

ITEM 301 - BITUMINOUS AGGREGATE BASE

REF. No.	451 9"			301 BITUMINOUS AGG. BASE			622 Concrete Barrier Type 1	203 SUBGRADE COMPACTION						
	S.Y.			C.Y.			L.F.	S.Y.						
1-P	763.9			186.7				1291.6						
2-P	1384.5			163.6				1472.2						
3-P	1388.9			163.6				1472.2						
4-P	737.5			183.8				1265.2						
1-C							480							
TOTAL	4275			698			480	5501						

Rev. Quan. Calc. F.O. 5-74
Rev. Quan. Ck'd J.R.F. 5-74

A.E. STILSON & ASSOCIATES LIMITED
D.L.P. OCTOBER 1968
F.O. MARCH 1969

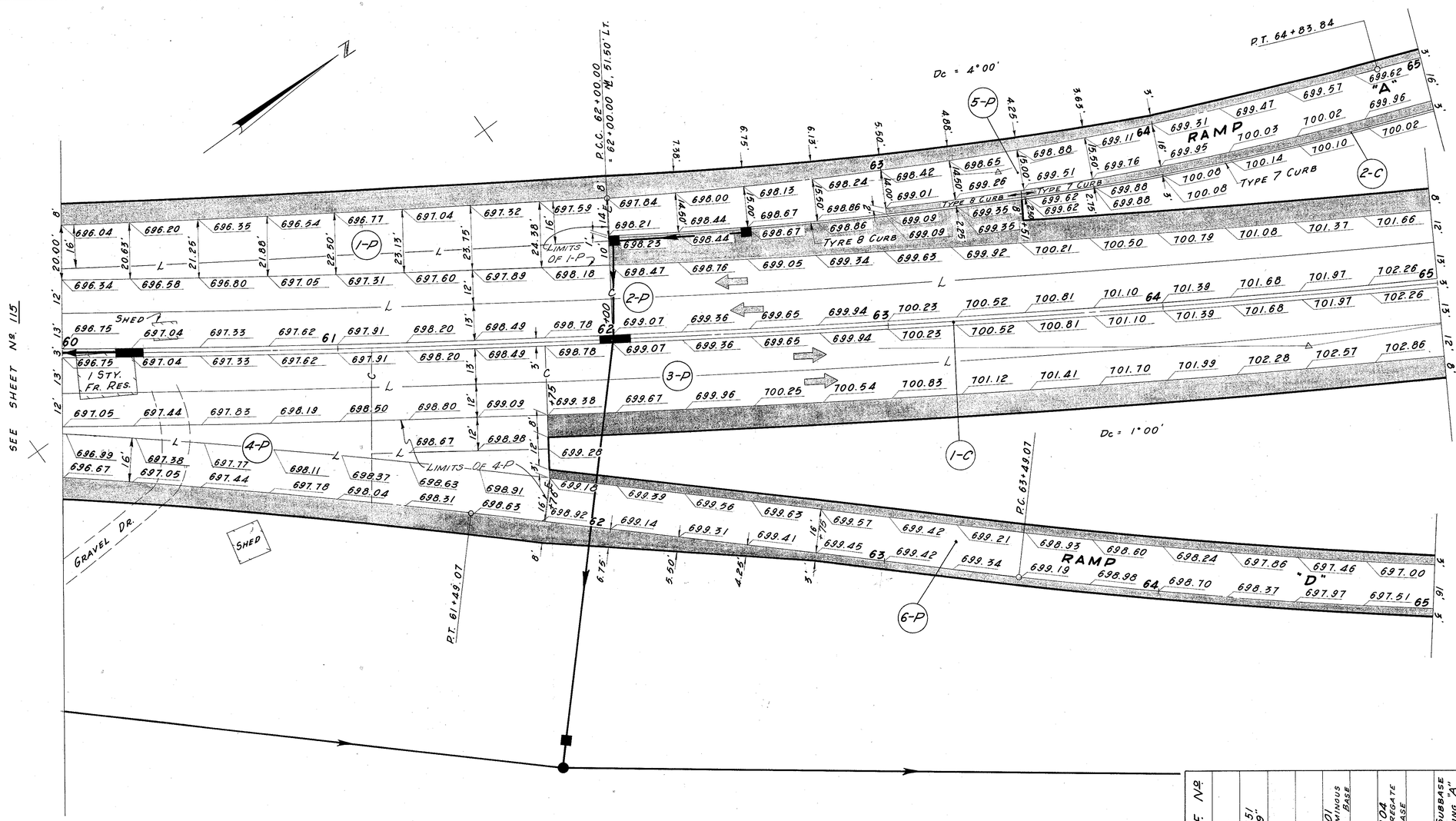
	BY	DATE
EXISTING PLOTTED		
EXISTING CHECKED		
PROPOSED DRAWN		
PROPOSED CHECKED		
QUANTITIES CALCULATED		
QUANTITIES CHECKED		

PAVEMENT DETAILS STA. 55+00 To STA. 60+00

FED. RD. DIVISION	STATE	PROJECT	
2	OHIO		

116
560

JEFFERSON COUNTY
JEF - 7 - 0.20



LEGEND

ITEM 301 - BITUMINOUS AGGREGATE BASE

REF. Nº	451 8"	301 BITUMINOUS AGG. BASE	304 AGGREGATE BASE	310 SUBBASE GRADING "A"	SPEC. DRAINAGE CONNECTION Nº 608	203 SUBGRADE COMPACTION	609 CURB TYPE 7	609 CURB TYPE B	622 Concrete Barrier Type F
	S.Y.	C.Y.	C.Y.	C.Y.	C.Y.	S.Y.	L.F.	L.F.	L.F.
1-P	500.0	96.3				711.1			
2-P	1380.1	233.8				1834.0			
3-P	1388.1	223.8				1815.3			
4-P	544.2	96.3				729.9			
5-P	511.1	18.5	33.4	117.9	15.2	833.3			
6-P	576.0	20.3	37.7	131.9	17.9	927.8			
1-C									460
2-C							153	151	
TOTAL	4900	689	71	250	33	6851	153	151	460

Rev. Quan. Calc. F.O. 5-74
Rev. Quan. Ck'd J.R.F. 5-74

A.B. STILSON & ASSOCIATES, INC.
DES'D OCTOBER 1968
F.O. MARCH 1969

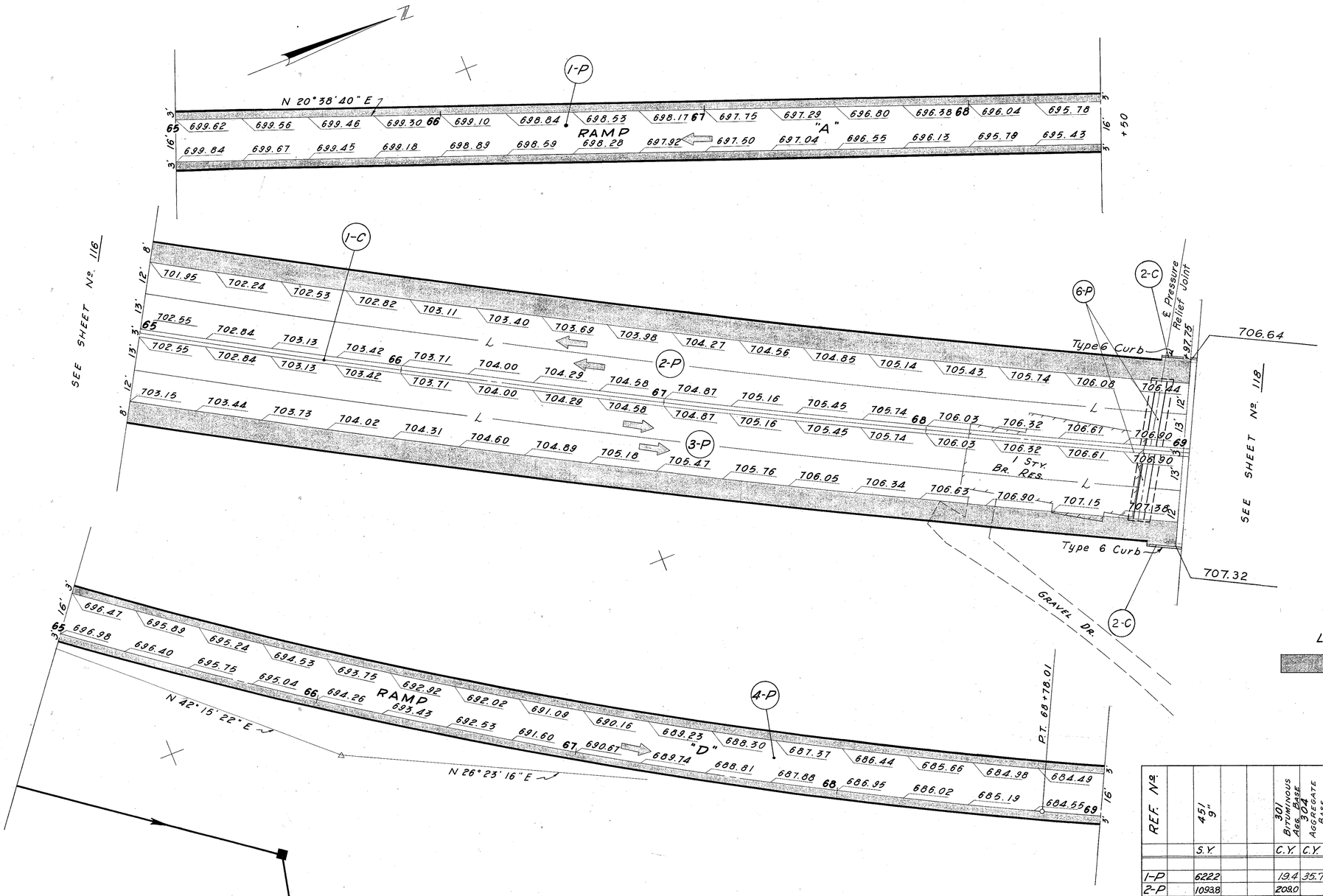
	BY	DATE
EXISTING PLOTTED		
EXISTING CHECKED		
PROPOSED DRAWN		
PROPOSED CHECKED		
QUANTITIES FIGURED		
QUANTITIES CHECKED		

PAVEMENT DETAILS STA. 60+00 TO STA. 65+00

FED. RD. DIVISION	STATE	PROJECT	
2	OHIO		

117
560

JEFFERSON COUNTY
JEF-7-0.20



LEGEND

ITEM 301 – BITUMINOUS AGGREGATE BASE

REF. No.	451 9"		301 Bituminous Aggregate	304 Aggregate Base	Item Special Relief Joint	310 Subbase Grading "A"	404-2" Asphalt Concrete	408 Bituminous Prime Coat		609 Curb Type 6	622 Concrete Barrier Type 1		511-Reinf. Conc. Approach Slab (7"-15")	Spec. Drainage Connection No. 8 Modified	203 Subgrade Compaction	
	S.Y.		C.Y.	C.Y.	L.F.	C.Y.	C.Y.	GAL.		L.F.	L.F.		S.Y.	C.Y.	S.Y.	
1-P	6222		19.4	35.7		137.5									17.9	9722
2-P	1093.8		209.0										8.9			1600.0
3-P	1093.8		209.0										8.9			1600.0
4-P	711.1		22.2	40.9		157.2								20.4	1111.1	
5-P				12.2			3.5	25.3								
6-P					50											
1-C											400					
2-C										26						
TOTAL	3521		460	89	50	295	4	25		26	400		18	38	5283	

NOTE:
QUANTITIES FOR 5-P CARRIED FROM PLAN & PROFILE SHT. 42

Rev. Quan. Calc. F.O. 5-74
Rev. Quan. Ck'd J.R.F. 5-74
Rev. 7-6-73 F.O.

A.E. ON & ASSOCIATES — WITH
Drawn D.C.B. October 1968
Quantities Prep. F.O. Moody 1968

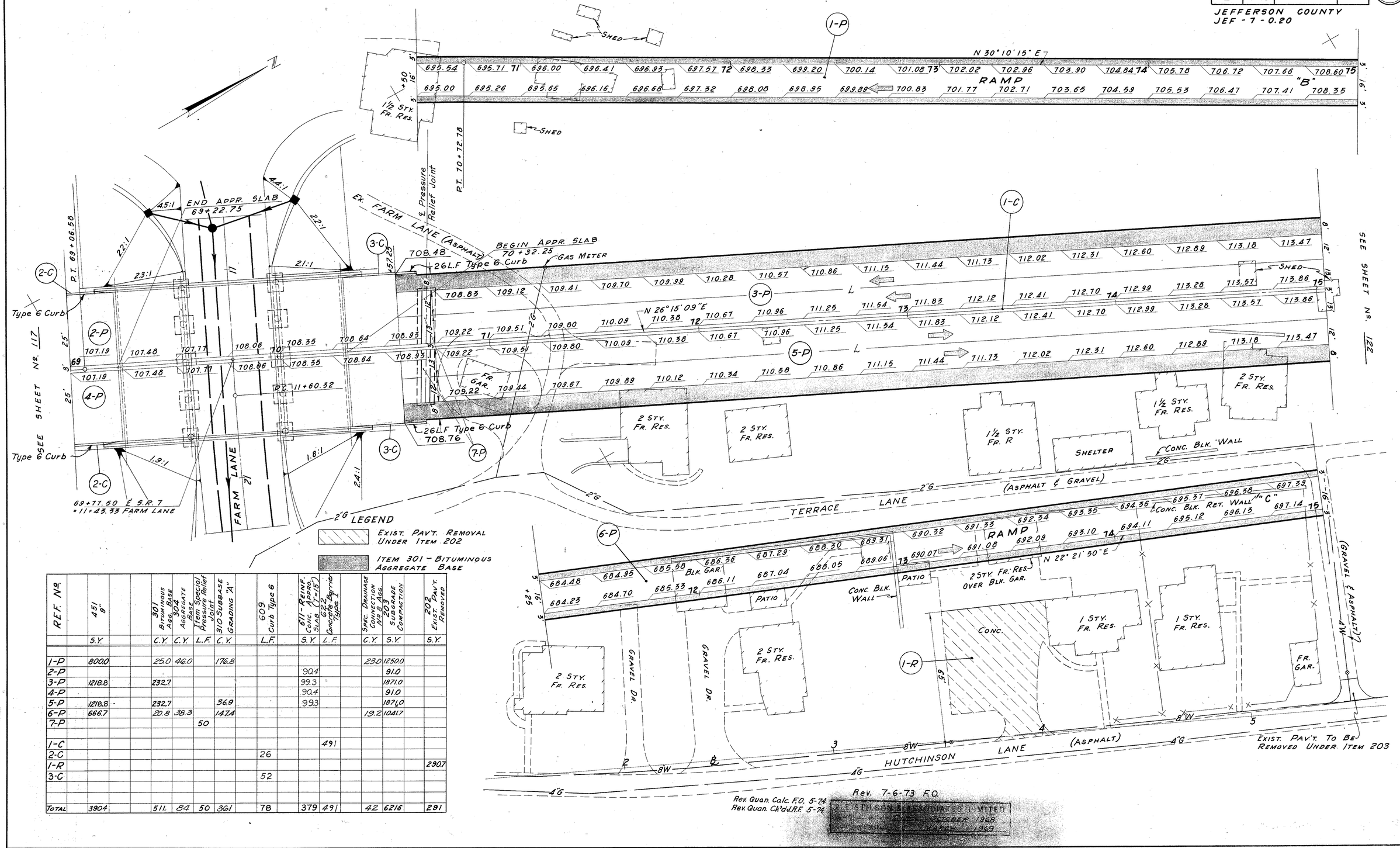
PAVEMENT DETAILS STA. 65+00 TO STA. 69+00

EXISTING PLOTTED
EXISTING CHECKED
PROPOSED DRAWN
PROPOSED CHECKED
QUANTITIES CALCULATED
QUANTITIES CHECKED
BY
DATE

FED. RD. DIVISION	STATE	PROJECT	
2	OHIO		

118
560

JEFFERSON COUNTY
JEF - 7 - 0.20



REF. No.	451 9"			301 Bituminous Agg. Base	304 Aggregate Base	Item Special Pressure Relief Joint	310 Subbase Grading "A"	609 Curb Type 6	611 - Reinf. Conc. Approx. Slab (T=15")	622 Concrete Barrier Type I	Spec. Drainage Connection No. 8 Agg.	203 Subgrade Compaction	202 Exist. Pav't. Removed
	S.Y.			C.Y.	C.Y.	L.F.	C.Y.	L.F.	S.Y.	L.F.	C.Y.	S.Y.	S.Y.
1-P	800.0			25.0	46.0		176.8				23.0	1250.0	
2-P									90.4			91.0	
3-P	1218.8			232.7					99.3			1871.0	
4-P									90.4			91.0	
5-P	1218.8			232.7			36.9		99.3			1871.0	
6-P	666.7			20.8	38.3		147.4				19.2	1041.7	
7-P						50							
1-C										491			
2-C								26					
1-R													290.7
3-C								52					
TOTAL	3904			511	84	50	361	78	379	491	42	6216	291

Rev. 7-6-73 F.O.
Rev. Quan. Calc. F.O. 5-74
Rev. Quan. Ck'd. R.F. 5-74

STILSON & ASSOCIATES LIMITED
OCTOBER 1968
MARCH 1969

	BY	DATE
EXISTING PLOTTED		
EXISTING CHECKED		
PROPOSED DRAWN		
PROPOSED CHECKED		
QUANTITIES CALCULATED		
QUANTITIES CHECKED		

PAVEMENT DETAILS STA. 69+00 TO STA. 75+00

FED. RD. DIVISION	STATE	PROJECT	
2	OHIO		

119
560

JEFFERSON COUNTY
JEF - 7 - 0.20

SEE SHEET No. 122

SEE SHEET No. 118

SEE SHEET No. 120

RAMP "B"
RAMP "A"
RAMP "C"
RAMP "D"
EX. FARM LANE
FARM LANE
L.T.R. 52
PENN. R.R.
TRAVERSE LINE
BEGIN WORK 10+22
BEGIN WORK 15+99.5
END WORK 15+90.5
END WORK +00
BEGIN APPR. SLAB 70+32.25
END APPR. SLAB 69+22.75
P.C. 68+52.82
P.T. 69+06.58
10+06.29 ℄ FARM LANE = 69+71.83 ℄ RAMP "A" = 69+53.63 ℄ RAMP "B"
12+83.33 ℄ FARM LANE = 89+89.80 ℄ RAMP "C" = 90+05.72 ℄ RAMP "D"
69+07.79.5' Rt. RAMP "A"
69+51.5, 66' Lt. RAMP "D"
69+77.50 ℄ = 11+43.33 FARM LANE
70+14.66' Rt. RAMP "B"
70+40.5, 66' Lt. RAMP "C"
70+69.64' Rt. RAMP "C"
69+41.50' Rt. RAMP "D"
14+67.47' Lt. FARM LANE ℄
14+50.5, 47' Rt. FARM LANE ℄
15+44.5 47' Rt. FARM LANE ℄
15+625.47 Lt. FARM LANE ℄
10+00.00 ℄ WILLIANS ST. = 15+00.00 ℄ FARM LANE
S 63° 44' 51" E
S 77° 00' 16" E
N 24° 57' 14" E
N 24° 03' 44" E
1-P
2-P
3-P
4-P
5-P
6-P
7-P
8-P
9-P
1 STY. FR. RES.
2 STY. FR. RES.
1 STY. BR. RES.
1 STY. BLK. RES.
2 STY. FR. RES.
ROLLER RINK 1 STY. BLK.
1½ STY. FR. RES.
1½ STY. FR. RES.
Ex. Conc. Drive
Ex. Conc. Drive
Gravel Dr.
Gravel Dr.
Gravel Dr.
Gravel Dr. 60' R.
Blk. Gar.
Fr. Gar.
Conc. Steps
Prop. 8" San.
Exist. 8" San.
Exist. 6" San.
Exist. Pav't. To Be Removed Under Item 203
Exist. Pav't. To Be Removed, Under Item 203.
3.5' Conc. S.W.
Parking Area (Gravel)
(Ex. Asphalt)
10" Nitrogen Gas
10" Nitrogen Gas
Drive "A"
Lane Asphalt (To Remain)
Exist. Asphalt
Varies
Reloc. +90
Farm Lane ℄
Gravel Rd.
8" W
6" W
12" W
8" S.W.
4" G.W.
8" Ex.
Ex. 3' Conc. S.W.
Ex. 4' Conc. S.W.
Ex. 5' Conc. S.W.
Ex. 6' Conc. S.W.
Ex. 8' Conc. S.W.
Ex. 10' Conc. S.W.
Ex. 12' Conc. S.W.
Ex. 14' Conc. S.W.
Ex. 16' Conc. S.W.
Ex. 18' Conc. S.W.
Ex. 20' Conc. S.W.
Ex. 24' Conc. S.W.
Ex. 26' Conc. S.W.
Ex. 28' Conc. S.W.
Ex. 30' Conc. S.W.
Ex. 32' Conc. S.W.
Ex. 34' Conc. S.W.
Ex. 36' Conc. S.W.
Ex. 38' Conc. S.W.
Ex. 40' Conc. S.W.
Ex. 42' Conc. S.W.
Ex. 44' Conc. S.W.
Ex. 46' Conc. S.W.
Ex. 48' Conc. S.W.
Ex. 50' Conc. S.W.
Ex. 52' Conc. S.W.
Ex. 54' Conc. S.W.
Ex. 56' Conc. S.W.
Ex. 58' Conc. S.W.
Ex. 60' Conc. S.W.
Ex. 62' Conc. S.W.
Ex. 64' Conc. S.W.
Ex. 66' Conc. S.W.
Ex. 68' Conc. S.W.
Ex. 70' Conc. S.W.
Ex. 72' Conc. S.W.
Ex. 74' Conc. S.W.
Ex. 76' Conc. S.W.
Ex. 78' Conc. S.W.
Ex. 80' Conc. S.W.
Ex. 82' Conc. S.W.
Ex. 84' Conc. S.W.
Ex. 86' Conc. S.W.
Ex. 88' Conc. S.W.
Ex. 90' Conc. S.W.
Ex. 92' Conc. S.W.
Ex. 94' Conc. S.W.
Ex. 96' Conc. S.W.
Ex. 98' Conc. S.W.
Ex. 100' Conc. S.W.
Ex. 102' Conc. S.W.
Ex. 104' Conc. S.W.
Ex. 106' Conc. S.W.
Ex. 108' Conc. S.W.
Ex. 110' Conc. S.W.
Ex. 112' Conc. S.W.
Ex. 114' Conc. S.W.
Ex. 116' Conc. S.W.
Ex. 118' Conc. S.W.
Ex. 120' Conc. S.W.
Ex. 122' Conc. S.W.
Ex. 124' Conc. S.W.
Ex. 126' Conc. S.W.
Ex. 128' Conc. S.W.
Ex. 130' Conc. S.W.
Ex. 132' Conc. S.W.
Ex. 134' Conc. S.W.
Ex. 136' Conc. S.W.
Ex. 138' Conc. S.W.
Ex. 140' Conc. S.W.
Ex. 142' Conc. S.W.
Ex. 144' Conc. S.W.
Ex. 146' Conc. S.W.
Ex. 148' Conc. S.W.
Ex. 150' Conc. S.W.
Ex. 152' Conc. S.W.
Ex. 154' Conc. S.W.
Ex. 156' Conc. S.W.
Ex. 158' Conc. S.W.
Ex. 160' Conc. S.W.
Ex. 162' Conc. S.W.
Ex. 164' Conc. S.W.
Ex. 166' Conc. S.W.
Ex. 168' Conc. S.W.
Ex. 170' Conc. S.W.
Ex. 172' Conc. S.W.
Ex. 174' Conc. S.W.
Ex. 176' Conc. S.W.
Ex. 178' Conc. S.W.
Ex. 180' Conc. S.W.
Ex. 182' Conc. S.W.
Ex. 184' Conc. S.W.
Ex. 186' Conc. S.W.
Ex. 188' Conc. S.W.
Ex. 190' Conc. S.W.
Ex. 192' Conc. S.W.
Ex. 194' Conc. S.W.
Ex. 196' Conc. S.W.
Ex. 198' Conc. S.W.
Ex. 200' Conc. S.W.
Ex. 202' Conc. S.W.
Ex. 204' Conc. S.W.
Ex. 206' Conc. S.W.
Ex. 208' Conc. S.W.
Ex. 210' Conc. S.W.
Ex. 212' Conc. S.W.
Ex. 214' Conc. S.W.
Ex. 216' Conc. S.W.
Ex. 218' Conc. S.W.
Ex. 220' Conc. S.W.
Ex. 222' Conc. S.W.
Ex. 224' Conc. S.W.
Ex. 226' Conc. S.W.
Ex. 228' Conc. S.W.
Ex. 230' Conc. S.W.
Ex. 232' Conc. S.W.
Ex. 234' Conc. S.W.
Ex. 236' Conc. S.W.
Ex. 238' Conc. S.W.
Ex. 240' Conc. S.W.
Ex. 242' Conc. S.W.
Ex. 244' Conc. S.W.
Ex. 246' Conc. S.W.
Ex. 248' Conc. S.W.
Ex. 250' Conc. S.W.
Ex. 252' Conc. S.W.
Ex. 254' Conc. S.W.
Ex. 256' Conc. S.W.
Ex. 258' Conc. S.W.
Ex. 260' Conc. S.W.
Ex. 262' Conc. S.W.
Ex. 264' Conc. S.W.
Ex. 266' Conc. S.W.
Ex. 268' Conc. S.W.
Ex. 270' Conc. S.W.
Ex. 272' Conc. S.W.
Ex. 274' Conc. S.W.
Ex. 276' Conc. S.W.
Ex. 278' Conc. S.W.
Ex. 280' Conc. S.W.
Ex. 282' Conc. S.W.
Ex. 284' Conc. S.W.
Ex. 286' Conc. S.W.
Ex. 288' Conc. S.W.
Ex. 290' Conc. S.W.
Ex. 292' Conc. S.W.
Ex. 294' Conc. S.W.
Ex. 296' Conc. S.W.
Ex. 298' Conc. S.W.
Ex. 300' Conc. S.W.
Ex. 302' Conc. S.W.
Ex. 304' Conc. S.W.
Ex. 306' Conc. S.W.
Ex. 308' Conc. S.W.
Ex. 310' Conc. S.W.
Ex. 312' Conc. S.W.
Ex. 314' Conc. S.W.
Ex. 316' Conc. S.W.
Ex. 318' Conc. S.W.
Ex. 320' Conc. S.W.
Ex. 322' Conc. S.W.
Ex. 324' Conc. S.W.
Ex. 326' Conc. S.W.
Ex. 328' Conc. S.W.
Ex. 330' Conc. S.W.
Ex. 332' Conc. S.W.
Ex. 334' Conc. S.W.
Ex. 336' Conc. S.W.
Ex. 338' Conc. S.W.
Ex. 340' Conc. S.W.
Ex. 342' Conc. S.W.
Ex. 344' Conc. S.W.
Ex. 346' Conc. S.W.
Ex. 348' Conc. S.W.
Ex. 350' Conc. S.W.
Ex. 352' Conc. S.W.
Ex. 354' Conc. S.W.
Ex. 356' Conc. S.W.
Ex. 358' Conc. S.W.
Ex. 360' Conc. S.W.
Ex. 362' Conc. S.W.
Ex. 364' Conc. S.W.
Ex. 366' Conc. S.W.
Ex. 368' Conc. S.W.
Ex. 370' Conc. S.W.
Ex. 372' Conc. S.W.
Ex. 374' Conc. S.W.
Ex. 376' Conc. S.W.
Ex. 378' Conc. S.W.
Ex. 380' Conc. S.W.
Ex. 382' Conc. S.W.
Ex. 384' Conc. S.W.
Ex. 386' Conc. S.W.
Ex. 388' Conc. S.W.
Ex. 390' Conc. S.W.
Ex. 392' Conc. S.W.
Ex. 394' Conc. S.W.
Ex. 396' Conc. S.W.
Ex. 398' Conc. S.W.
Ex. 400' Conc. S.W.
Ex. 402' Conc. S.W.
Ex. 404' Conc. S.W.
Ex. 406' Conc. S.W.
Ex. 408' Conc. S.W.
Ex. 410' Conc. S.W.
Ex. 412' Conc. S.W.
Ex. 414' Conc. S.W.
Ex. 416' Conc. S.W.
Ex. 418' Conc. S.W.
Ex. 420' Conc. S.W.
Ex. 422' Conc. S.W.
Ex. 424' Conc. S.W.
Ex. 426' Conc. S.W.
Ex. 428' Conc. S.W.
Ex. 430' Conc. S.W.
Ex. 432' Conc. S.W.
Ex. 434' Conc. S.W.
Ex. 436' Conc. S.W.
Ex. 438' Conc. S.W.
Ex. 440' Conc. S.W.
Ex. 442' Conc. S.W.
Ex. 444' Conc. S.W.
Ex. 446' Conc. S.W.
Ex. 448' Conc. S.W.
Ex. 450' Conc. S.W.
Ex. 452' Conc. S.W.
Ex. 454' Conc. S.W.
Ex. 456' Conc. S.W.
Ex. 458' Conc. S.W.
Ex. 460' Conc. S.W.
Ex. 462' Conc. S.W.
Ex. 464' Conc. S.W.
Ex. 466' Conc. S.W.
Ex. 468' Conc. S.W.
Ex. 470' Conc. S.W.
Ex. 472' Conc. S.W.
Ex. 474' Conc. S.W.
Ex. 476' Conc. S.W.
Ex. 478' Conc. S.W.
Ex. 480' Conc. S.W.
Ex. 482' Conc. S.W.
Ex. 484' Conc. S.W.
Ex. 486' Conc. S.W.
Ex. 488' Conc. S.W.
Ex. 490' Conc. S.W.
Ex. 492' Conc. S.W.
Ex. 494' Conc. S.W.
Ex. 496' Conc. S.W.
Ex. 498' Conc. S.W.
Ex. 500' Conc. S.W.
Ex. 502' Conc. S.W.
Ex. 504' Conc. S.W.
Ex. 506' Conc. S.W.
Ex. 508' Conc. S.W.
Ex. 510' Conc. S.W.
Ex. 512' Conc. S.W.
Ex. 514' Conc. S.W.
Ex. 516' Conc. S.W.
Ex. 518' Conc. S.W.
Ex. 520' Conc. S.W.
Ex. 522' Conc. S.W.
Ex. 524' Conc. S.W.
Ex. 526' Conc. S.W.
Ex. 528' Conc. S.W.
Ex. 530' Conc. S.W.
Ex. 532' Conc. S.W.
Ex. 534' Conc. S.W.
Ex. 536' Conc. S.W.
Ex. 538' Conc. S.W.
Ex. 540' Conc. S.W.
Ex. 542' Conc. S.W.
Ex. 544' Conc. S.W.
Ex. 546' Conc. S.W.
Ex. 548' Conc. S.W.
Ex. 550' Conc. S.W.
Ex. 552' Conc. S.W.
Ex. 554' Conc. S.W.
Ex. 556' Conc. S.W.
Ex. 558' Conc. S.W.
Ex. 560' Conc. S.W.
Ex. 562' Conc. S.W.
Ex. 564' Conc. S.W.
Ex. 566' Conc. S.W.
Ex. 568' Conc. S.W.
Ex. 570' Conc. S.W.
Ex. 572' Conc. S.W.
Ex. 574' Conc. S.W.
Ex. 576' Conc. S.W.
Ex. 578' Conc. S.W.
Ex. 580' Conc. S.W.
Ex. 582' Conc. S.W.
Ex. 584' Conc. S.W.
Ex. 586' Conc. S.W.
Ex. 588' Conc. S.W.
Ex. 590' Conc. S.W.
Ex. 592' Conc. S.W.
Ex. 594' Conc. S.W.
Ex. 596' Conc. S.W.
Ex. 598' Conc. S.W.
Ex. 600' Conc. S.W.
Ex. 602' Conc. S.W.
Ex. 604' Conc. S.W.
Ex. 606' Conc. S.W.
Ex. 608' Conc. S.W.
Ex. 610' Conc. S.W.
Ex. 612' Conc. S.W.
Ex. 614' Conc. S.W.
Ex. 616' Conc. S.W.
Ex. 618' Conc. S.W.
Ex. 620' Conc. S.W.
Ex. 622' Conc. S.W.
Ex. 624' Conc. S.W.
Ex. 626' Conc. S.W.
Ex. 628' Conc. S.W.
Ex. 630' Conc. S.W.
Ex. 632' Conc. S.W.
Ex. 634' Conc. S.W.
Ex. 636' Conc. S.W.
Ex. 638' Conc. S.W.
Ex. 640' Conc. S.W.
Ex. 642' Conc. S.W.
Ex. 644' Conc. S.W.
Ex. 646' Conc. S.W.
Ex. 648' Conc. S.W.
Ex. 650' Conc. S.W.
Ex. 652' Conc. S.W.
Ex. 654' Conc. S.W.
Ex. 656' Conc. S.W.
Ex. 658' Conc. S.W.
Ex. 660' Conc. S.W.
Ex. 662' Conc. S.W.
Ex. 664' Conc. S.W.
Ex. 666' Conc. S.W.
Ex. 668' Conc. S.W.
Ex. 670' Conc. S.W.
Ex. 672' Conc. S.W.
Ex. 674' Conc. S.W.
Ex. 676' Conc. S.W.
Ex. 678' Conc. S.W.
Ex. 680' Conc. S.W.
Ex. 682' Conc. S.W.
Ex. 684' Conc. S.W.
Ex. 686' Conc. S.W.
Ex. 688' Conc. S.W.
Ex. 690' Conc. S.W.
Ex. 692' Conc. S.W.
Ex. 694' Conc. S.W.
Ex. 696' Conc. S.W.
Ex. 698' Conc. S.W.
Ex. 700' Conc. S.W.
Ex. 702' Conc. S.W.
Ex. 704' Conc. S.W.
Ex. 706' Conc. S.W.
Ex. 708' Conc. S.W.
Ex. 710' Conc. S.W.
Ex. 712' Conc. S.W.
Ex. 714' Conc. S.W.
Ex. 716' Conc. S.W.
Ex. 718' Conc. S.W.
Ex. 720' Conc. S.W.
Ex. 722' Conc. S.W.
Ex. 724' Conc. S.W.
Ex. 726' Conc. S.W.
Ex. 728' Conc. S.W.
Ex. 730' Conc. S.W.
Ex. 732' Conc. S.W.
Ex. 734' Conc. S.W.
Ex. 736' Conc. S.W.
Ex. 738' Conc. S.W.
Ex. 740' Conc. S.W.
Ex. 742' Conc. S.W.
Ex. 744' Conc. S.W.
Ex. 746' Conc. S.W.
Ex. 748' Conc. S.W.
Ex. 750' Conc. S.W.
Ex. 752' Conc. S.W.
Ex. 754' Conc. S.W.
Ex. 756' Conc. S.W.
Ex. 758' Conc. S.W.
Ex. 760' Conc. S.W.
Ex. 762' Conc. S.W.
Ex. 764' Conc. S.W.
Ex. 766' Conc. S.W.
Ex. 768' Conc. S.W.
Ex. 770' Conc. S.W.
Ex. 772' Conc. S.W.
Ex. 774' Conc. S.W.
Ex. 776' Conc. S.W.
Ex. 778' Conc. S.W.
Ex. 780' Conc. S.W.
Ex. 782' Conc. S.W.
Ex. 784' Conc. S.W.
Ex. 786' Conc. S.W.
Ex. 788' Conc. S.W.
Ex. 790' Conc. S.W.
Ex. 792' Conc. S.W.
Ex. 794' Conc. S.W.
Ex. 796' Conc. S.W.
Ex. 798' Conc. S.W.
Ex. 800' Conc. S.W.
Ex. 802' Conc. S.W.
Ex. 804' Conc. S.W.
Ex. 806' Conc. S.W.
Ex. 808' Conc. S.W.
Ex. 810' Conc. S.W.
Ex. 812' Conc. S.W.
Ex. 814' Conc. S.W.
Ex. 816' Conc. S.W.
Ex. 818' Conc. S.W.
Ex. 820' Conc. S.W.
Ex. 822' Conc. S.W.
Ex. 824' Conc. S.W.
Ex. 826' Conc. S.W.
Ex. 828' Conc. S.W.
Ex. 830' Conc. S.W.
Ex. 832' Conc. S.W.
Ex. 834' Conc. S.W.
Ex. 836' Conc. S.W.
Ex. 838' Conc. S.W.
Ex. 840' Conc. S.W.
Ex. 842' Conc. S.W.
Ex. 844' Conc. S.W.
Ex. 846' Conc. S.W.
Ex. 848' Conc. S.W.
Ex. 850' Conc. S.W.
Ex. 852' Conc. S.W.
Ex. 854' Conc. S.W.
Ex. 856' Conc. S.W.
Ex. 858' Conc. S.W.
Ex. 860' Conc. S.W.
Ex. 862' Conc. S.W.
Ex. 864' Conc. S.W.
Ex. 866' Conc. S.W.
Ex. 868' Conc. S.W.
Ex. 870' Conc. S.W.
Ex. 872' Conc. S.W.
Ex. 874' Conc. S.W.
Ex. 876' Conc. S.W.
Ex. 878' Conc. S.W.
Ex. 880' Conc. S.W.
Ex. 882' Conc. S.W.
Ex. 884' Conc. S.W.
Ex. 886' Conc. S.W.
Ex. 888' Conc. S.W.
Ex. 890' Conc. S.W.
Ex. 892' Conc. S.W.
Ex. 894' Conc. S.W.
Ex. 896' Conc. S.W.
Ex. 898' Conc. S.W.
Ex. 900' Conc. S.W.
Ex. 902' Conc. S.W.
Ex. 904' Conc. S.W.
Ex. 906' Conc. S.W.
Ex. 908' Conc. S.W.
Ex. 910' Conc. S.W.
Ex. 912' Conc. S.W.
Ex. 914' Conc. S.W.
Ex. 916' Conc. S.W.
Ex. 918' Conc. S.W.
Ex. 920' Conc. S.W.
Ex. 922' Conc. S.W.
Ex. 924' Conc. S.W.
Ex. 926' Conc. S.W.
Ex. 928' Conc. S.W.
Ex. 930' Conc. S.W.
Ex. 932' Conc. S.W.
Ex. 934' Conc. S.W.
Ex. 936' Conc. S.W.
Ex. 938' Conc. S.W.
Ex. 940' Conc. S.W.
Ex. 942' Conc. S.W.
Ex. 944' Conc. S.W.
Ex. 946' Conc. S.W.
Ex. 948' Conc. S.W.
Ex. 950' Conc. S.W.
Ex. 952' Conc. S.W.
Ex. 954' Conc. S.W.
Ex. 956' Conc. S.W.
Ex. 958' Conc. S.W.
Ex. 960' Conc. S.W.
Ex. 962' Conc. S.W.
Ex. 964' Conc. S.W.
Ex. 966' Conc. S.W.
Ex. 968' Conc. S.W.
Ex. 970' Conc. S.W.
Ex. 972' Conc. S.W.
Ex. 974' Conc. S.W.
Ex. 976' Conc. S.W.
Ex. 978' Conc. S.W.
Ex. 980' Conc. S.W.
Ex. 982' Conc. S.W.
Ex. 984' Conc. S.W.
Ex. 986' Conc. S.W.
Ex. 988' Conc. S.W.
Ex. 990' Conc. S.W.
Ex. 992' Conc. S.W.
Ex. 994' Conc. S.W.
Ex. 996' Conc. S.W.
Ex. 998' Conc. S.W.
Ex. 1000' Conc. S.W.

REF. Nº	452 12"	451 9"							404 2" Asphalt Concrete	310 Subbase Grading "A"	304 Aggregate Base	301 Bituminous Agg. Base		Spec. Drainage Connection Nº 3 Page		203 Subgrade Compaction		408 Bituminous Prime Coat
	S.Y.	S.Y.							C.Y.	C.Y.	C.Y.	C.Y.		C.Y.		S.Y.		GAL.
1-P		270.9								55.1	10.2	5.5		5.0		369.8		
2-P		347.7								69.5	12.1	6.6		5.9		460.0		
3-P	1406.7															1694.7		
4-P		420.0								85.7	16.0	8.8		6.9		577.5		
5-P		292.4								61.4	12.7	7.1		7.1		420.4		
6-P	212.4															263.4		
7-P	312.9															387.9		
8-P											6.5							
9-P									0.9		3.8							6.4
TOTAL	1932	1331							1	272	61	28		25		4174		6

LEGEND

- Item 452-12" Plain Portland Cement Concrete Pav't.
- 304-7" Aggregate Base
- Item 301 - Bituminous Aggregate Base.
- Exist. Pav't. Removal. Under Item 203
- 404-2", 408 Prime Coat, 304-7" Aggregate Base

BY	DATE
EXISTING PLOTTED	
EXISTING CHECKED	
PROPOSED DRAWN	
PROPOSED CHECKED	
QUANTITIES COMPUTED	
QUANTITIES CHECKED	

⊛ The hatched areas shall be constructed of Conc. Pav't. To an elevation two inches lower than the adjacent pav't. and surfaced with two inches Bituminous Aggregate. This area shall be paid for as Items 451 & 301.

Rev. Quan. Calc. F.O. 5-74
Rev. Quan. Ck'd J.R.F. 5-74

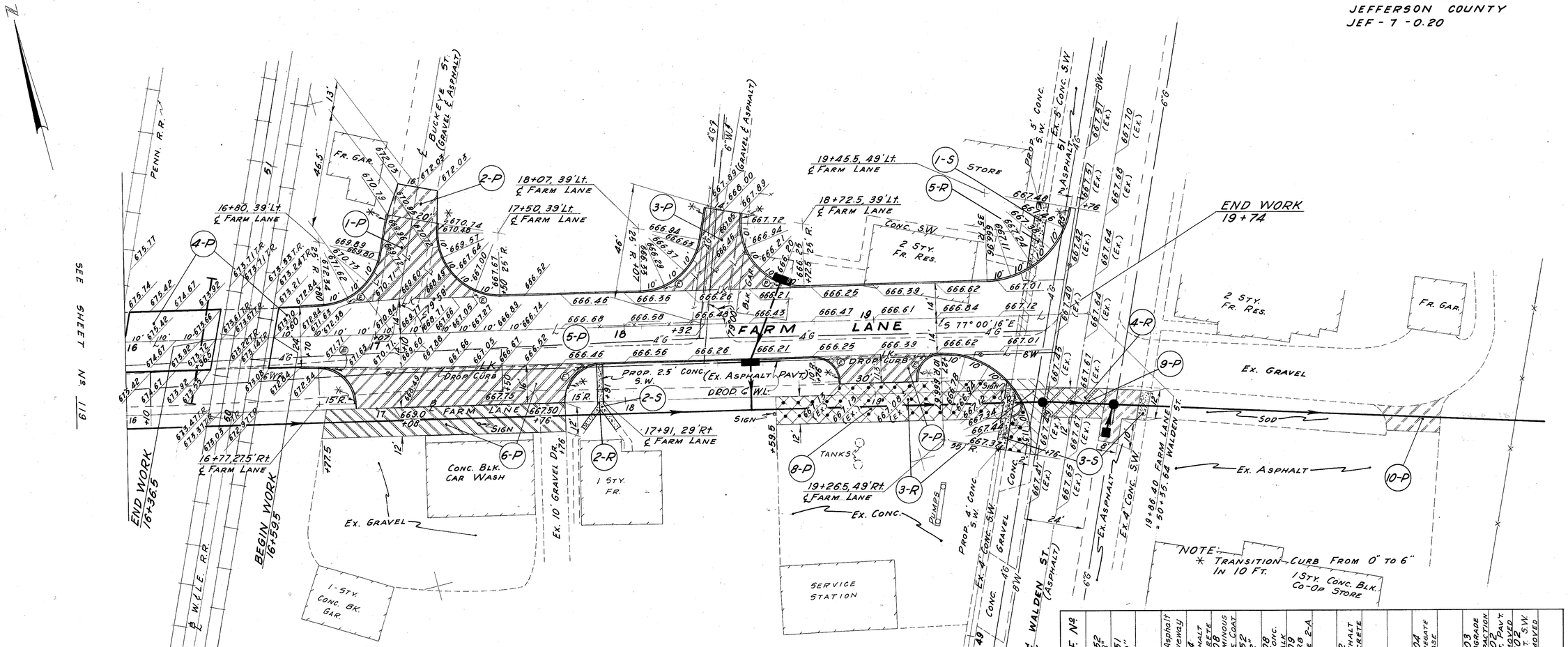
[redacted] & ASSOCIATES, LIMITED
[redacted] 1968
[redacted] March, 1969

FARM LANE STA. 10+06.29 TO STA. 16+00

FED. RD. DIVISION	STATE	PROJECT	
2	OHIO		

120
560

JEFFERSON COUNTY
JEF - 7 - 0.20



LEGEND

- EXIST. PAV'T. & SIDEWALK REMOVAL. UNDER ITEM 202
- ITEM 451 - 9" REINF. PORTLAND CEMENT CONCRETE PAV'T.
- ITEM 404 - 2" (2 - 1" COURSES) ASPHALT CONC., ITEM 408 - PRIME COAT., ITEM 304 - 7" AGGREGATE BASE
- ITEM 304 - AGGREGATE BASE
- ITEM 404 - 1¼", ITEM 402 - 1¼" ASPHALT CONC., ITEM 452 - 8" PLAIN PORTLAND CEMENT CONC.
- ITEM 452 - 8" PLAIN PORTLAND CEMENT.
- ITEM 608 - 4" CONC. WALK

REF. Nº	452 8" 451 9"	404 Asphalt Driveway	404 Asphalt Concrete	408 Bituminous Prime Coat 452 12"	608 4" Conc. Walk	608 Type 2-A	402 Asphalt Concrete	304 Aggregate Base	203 Subgrade Compaction	202 Exist. Pav't. Removed	202 Exist. S.W. Removed
	S.Y. S.Y.	C.Y.	C.Y.	GAL. S.Y.	S.F.	L.F.	C.Y.	C.Y.	S.Y.	S.Y.	S.F.
1-P	111.1					93			126.6		
2-P			1.4	10.4				5.0			
3-P	87.8					84			104.4		
4-P				126.7					158.3		
5-P	107.24					335			113.36		
6-P	161.7					36		32.2	169.4		
7-P	48.0					32.0			53.4		
8-P	155.1										
9-P	32.0		2.6	11.2			1.1	5.3			
10-P		1.6		11.6				5.6			
1-S					125						
2-S					99						
3-S					148						
2-R											73
3-R									147.5	240	
4-R									32.0	48	
5-R											135
Total	187 148.1	2	4	33	127	372	580	1	48	1746	180 496

Rev. Quan. Calc. F.O. 5-74
Rev. Quan. Ck'd J.R.F. 5-74

A. E. STILSON & ASSOCIATES
Quantity Computed D.L.B. October 1968
Quantity Checked F.O. 1968

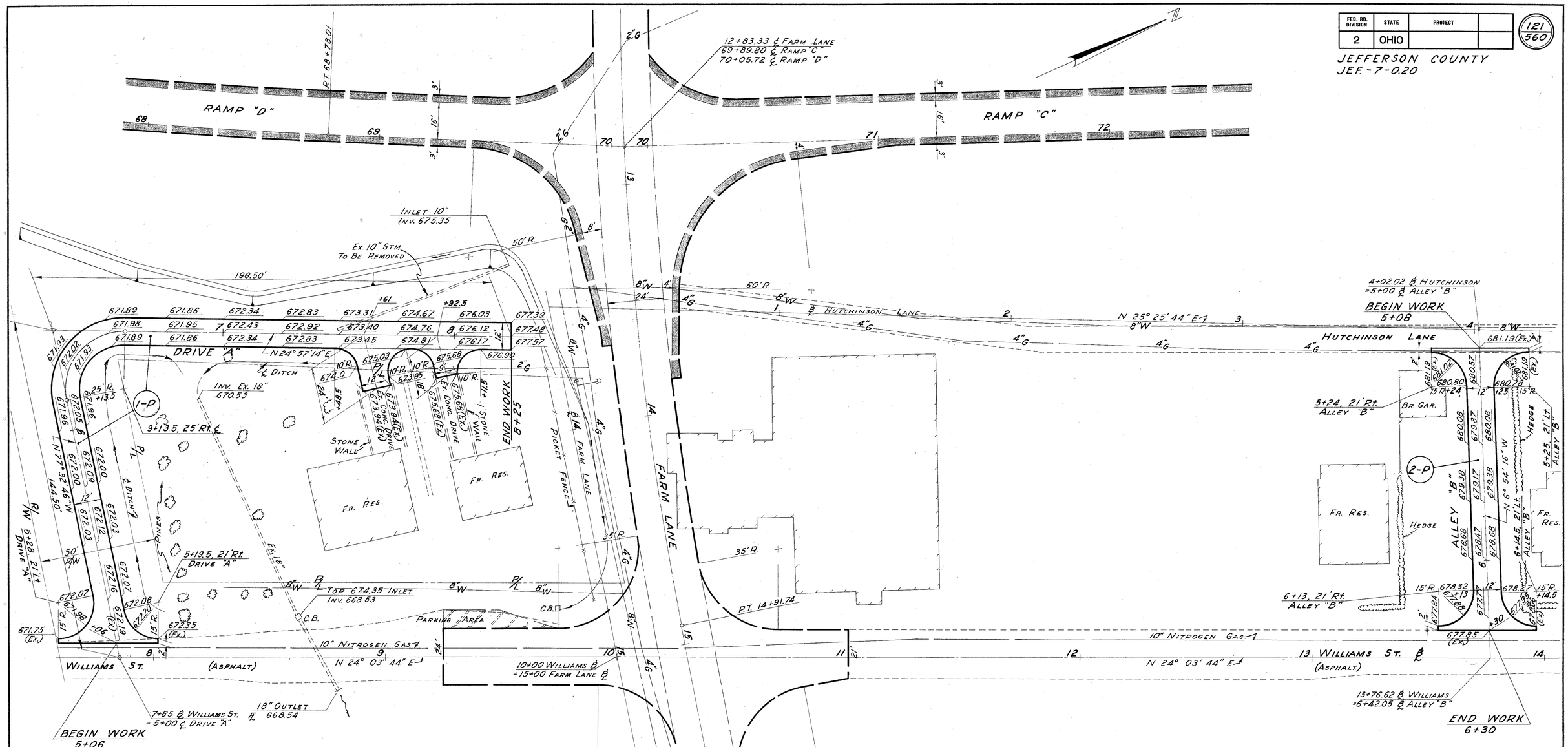
FARM LANE STA. 16+00 TO STA. 19+86.40

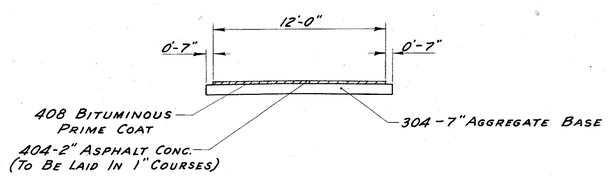
BY	DATE
EXISTING PLOTTED	
EXISTING CHECKED	
PROPOSED DRAWN	
PROPOSED CHECKED	
QUANTITIES COMPUTED	
QUANTITIES CHECKED	

FED. RD. DIVISION	STATE	PROJECT	
2	OHIO		

121
560

JEFFERSON COUNTY
JEF.-7-0.20





TYPICAL SECTION
DRIVE "A"

REF. No.	404 Asphalt Driveway	404-2" Asphalt Concrete	408 Bituminous Prime Coat	304 Aggregate Base				203 Subgrade Compaction	
	C.Y.	C.Y.	GAL.	C.Y.				S.Y.	
1-P	27.2		197.0	102.7					
2-P		11.8	84.8	44.1				231.6	
TOTAL	27	12	282	147				232	

Rev. Quan. Calc. F.O. 5-74
Rev. Quan. Ck'd J.R.F. 5-74

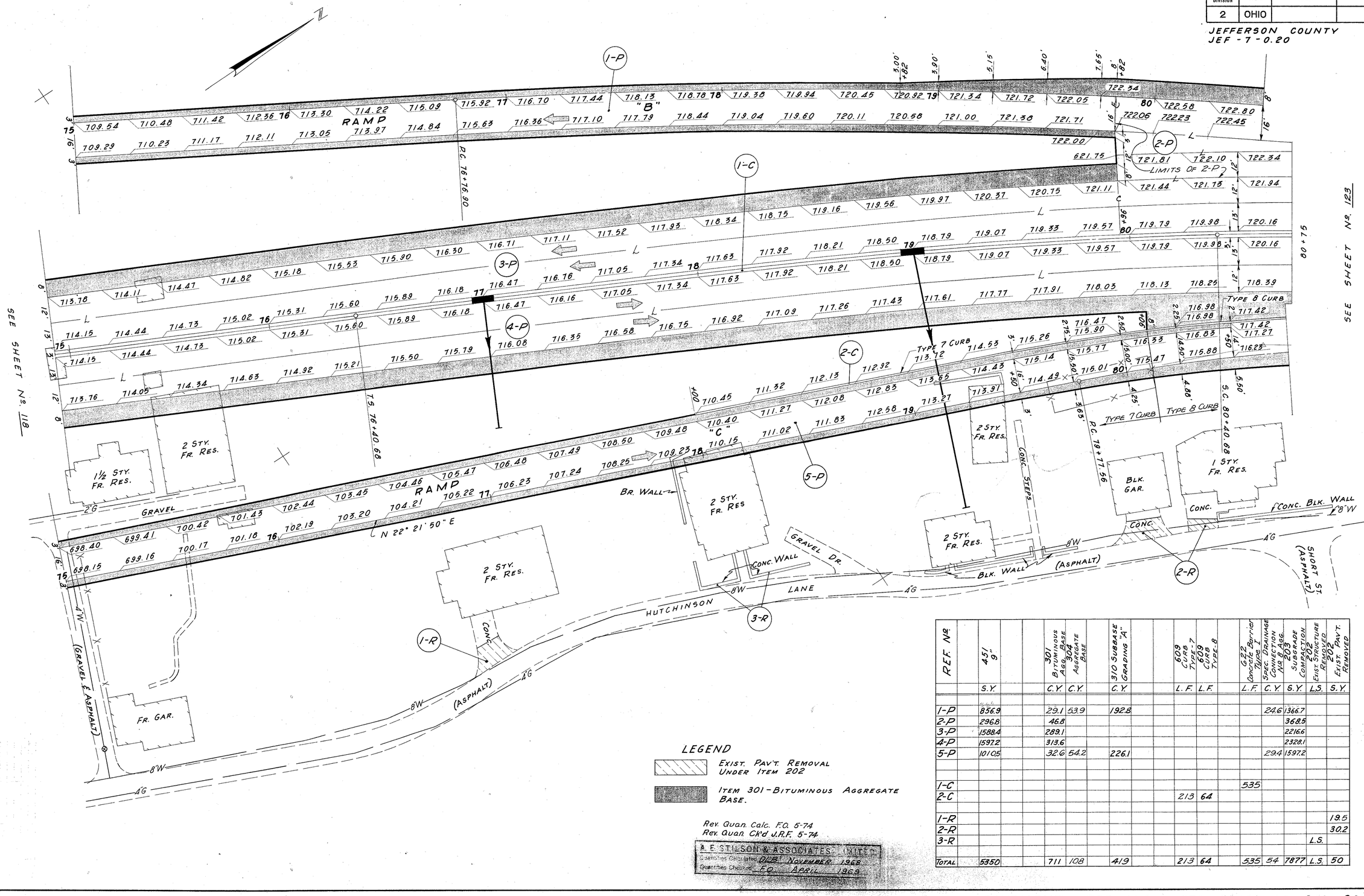
A. E. STILSON & ASSOCIATES LIMITED
Quantities Calculated DLB OCTOBER 1968
Quantities Checked FO MARCH 1969

PAVEMENT DETAILS DRIVE "A" & ALLEY "B"

FED. RD. DIVISION	STATE	PROJECT	
2	OHIO		

122/560

JEFFERSON COUNTY
JEF - 7 - 0.20



LEGEND

EXIST. PAV'T. REMOVAL UNDER ITEM 202

ITEM 301 - BITUMINOUS AGGREGATE BASE.

Rev. Quan. Calc. F.O. 5-74
Rev. Quan. Ck'd J.R.F. 5-74

A. E. STILSON & ASSOCIATES (WITH)
Quantities Calculated DJB NOVEMBER 1968
Quantities Checked F.O. APRIL 1969

REF. No.	451 9"	301 BITUMINOUS AGG. BASE	304 AGGREGATE BASE	310 SUBBASE GRADING "A"	609 CURB TYPE 7	609 CURB TYPE 8	622 CONCRETE BARRIER TYPE 1	SPEC. DRAINAGE CONNECTION No. 8 AGG.	203 SUBGRADE COMPACTION	202 EXIST. STRUCTURE REMOVED	202 EXIST. PAV'T. REMOVED
	S.Y.	C.Y.	C.Y.	C.Y.	L.F.	L.F.	L.F.	C.Y.	S.Y.	L.S.	S.Y.
1-P	856.9	29.1	53.9	192.8				24.6	366.7		
2-P	296.8	46.8							368.5		
3-P	1588.4	289.1							2216.6		
4-P	1597.2	313.6							2328.1		
5-P	1010.5	32.6	54.2	226.1				29.4	1597.2		
1-C							535				
2-C					213	64					
1-R											19.5
2-R											30.2
3-R										L.S.	
TOTAL	5350	711	108	419	213	64	535	54	7877	L.S.	50

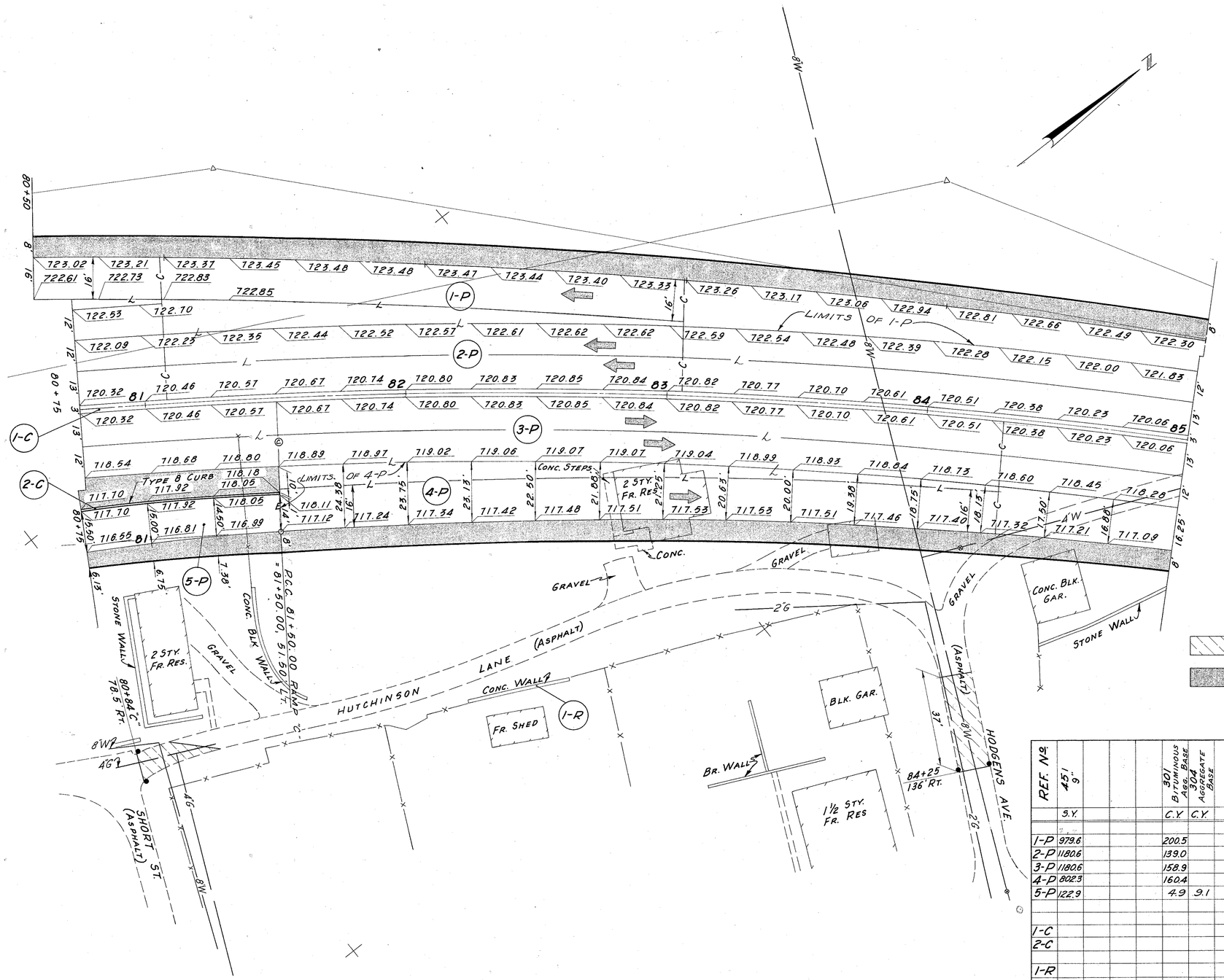
	BY	DATE
EXISTING PLOTTED		
EXISTING CHECKED		
PROPOSED DRAWN		
PROPOSED CHECKED		
QUANTITIES CALCULATED		
QUANTITIES CHECKED		

PAVEMENT DETAILS STA. 75+00 TO STA. 80+75

FED. RD. DIVISION	STATE	PROJECT	
2	OHIO		

123/560

JEFFERSON COUNTY
JEF - 7 - 0.20



LEGEND

EXIST. PAV'T. REMOVAL. UNDER ITEM 203

ITEM 301 - BITUMINOUS AGGREGATE BASE.

REF. No.	451 9"				301 BITUMINOUS AGG. BASE	304 AGGREGATE BASE		310 SUBBASE GRADING "A"				609 CURB TYPE-8		622 Concrete Barrier Type 1	SPEC. DRAINAGE CONNECTION No. 8 AGG.	203 SUBGRADE COMPACTION	202 EXIST. STRUCTURE REMOVED	
	S.Y.				C.Y.	C.Y.		C.Y.				L.F.		L.F.	C.Y.	S.Y.	L.S.	
1-P	979.6				200.5											1454.6		
2-P	1180.6				139.0											1251.4		
3-P	1180.6				158.9											1340.3		
4-P	802.3				160.4											1171.7		
5-P	122.9				4.9	9.1		28.9							3.8	194.3		
1-C														425				
2-C												75						
1-R																	L.S.	
TOTAL	4266				664	9		29				75		425	4	5412	L.S.	

Rev. Quan. Calc. F.O. 5-74
Rev. Quan. Ck'd J.R.F. 5-74

A. E. STILSON & ASSOCIATES
Quantities Calculated DLB NOVEMBER 1968
Quantities Checked FO APRIL 1969

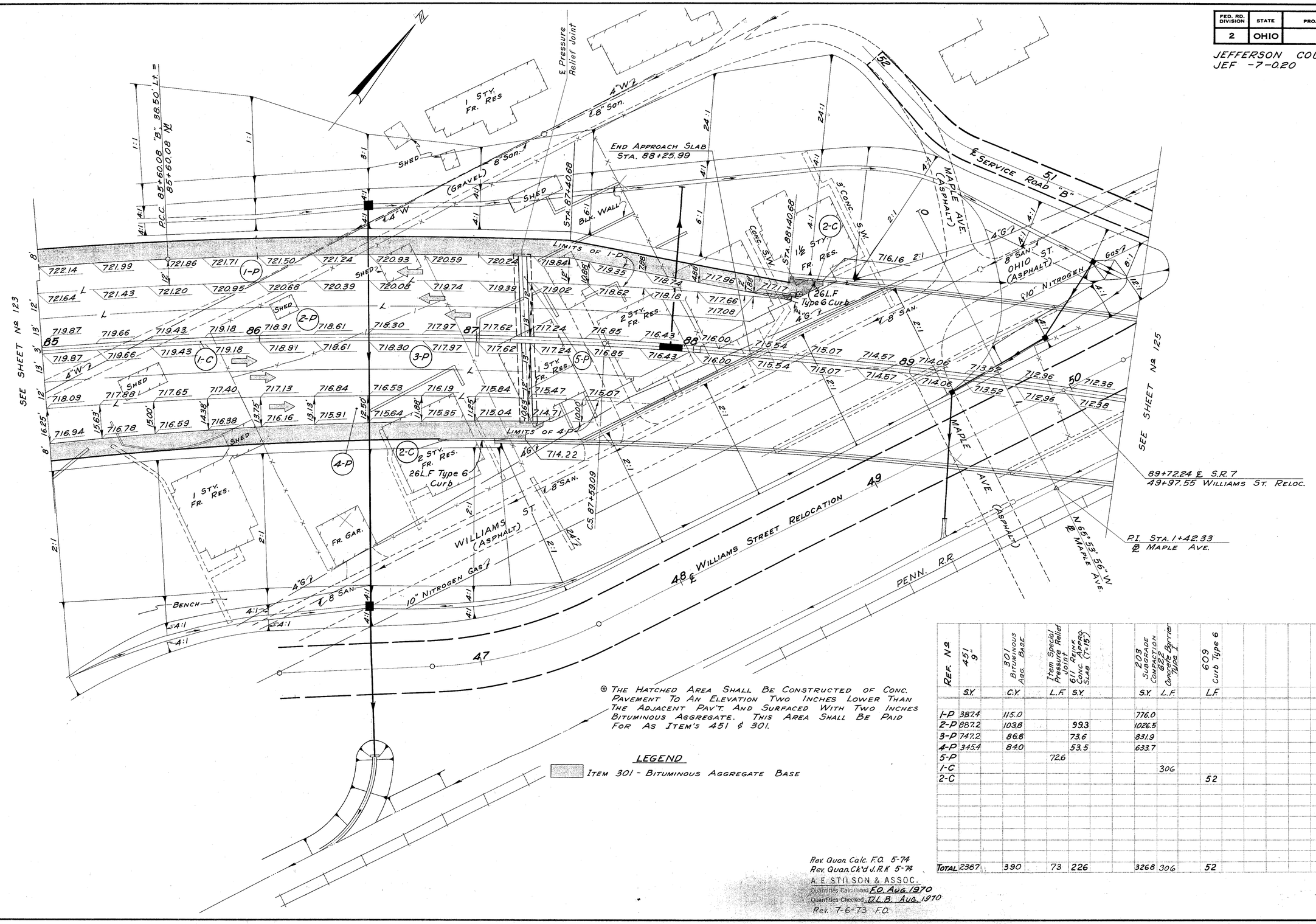
	BY	DATE
EXISTING PLOTTED		
EXISTING CHECKED		
PROPOSED DRAWN		
PROPOSED CHECKED		
QUANTITIES CALCULATED		
QUANTITIES CHECKED		

PAVEMENT DETAILS STA. 80+75 TO STA. 85+00

FED. RD. DIVISION	STATE	PROJECT	
2	OHIO		

124/560

JEFFERSON COUNTY
JEF -7-0.20



REF. №	451 9"	301 Bituminous Agg. Base	Item Special Pressure Relief Joint	611 Reinf. Conc. Approx. Slab (T=15")		203 Subgrade Compaction	622 Concrete Barrier Type 1	609 Curb Type 6						
	S.Y.	C.Y.	L.F.	S.Y.		S.Y.	L.F.	L.F.						
1-P	387.4	115.0				776.0								
2-P	887.2	1038		99.3		1026.5								
3-P	747.2	868		73.6		831.9								
4-P	345.4	840		53.5		633.7								
5-P			72.6											
1-C							306							
2-C								52						
TOTAL	2367	390	73	226		3268	306	52						

⊛ THE HATCHED AREA SHALL BE CONSTRUCTED OF CONC. PAVEMENT TO AN ELEVATION TWO INCHES LOWER THAN THE ADJACENT PAV'T. AND SURFACED WITH TWO INCHES BITUMINOUS AGGREGATE. THIS AREA SHALL BE PAID FOR AS ITEM'S 451 & 301.

LEGEND

ITEM 301 - BITUMINOUS AGGREGATE BASE

Rev. Quan. Calc. F.O. 5-74
Rev. Quan. Ck'd J.F.K 5-74
A. E. STILSON & ASSOC.
Quantities Calculated F.O. Aug. 1970
Quantities Checked D.L.B. Aug. 1970
Rev. 7-6-73 F.O.

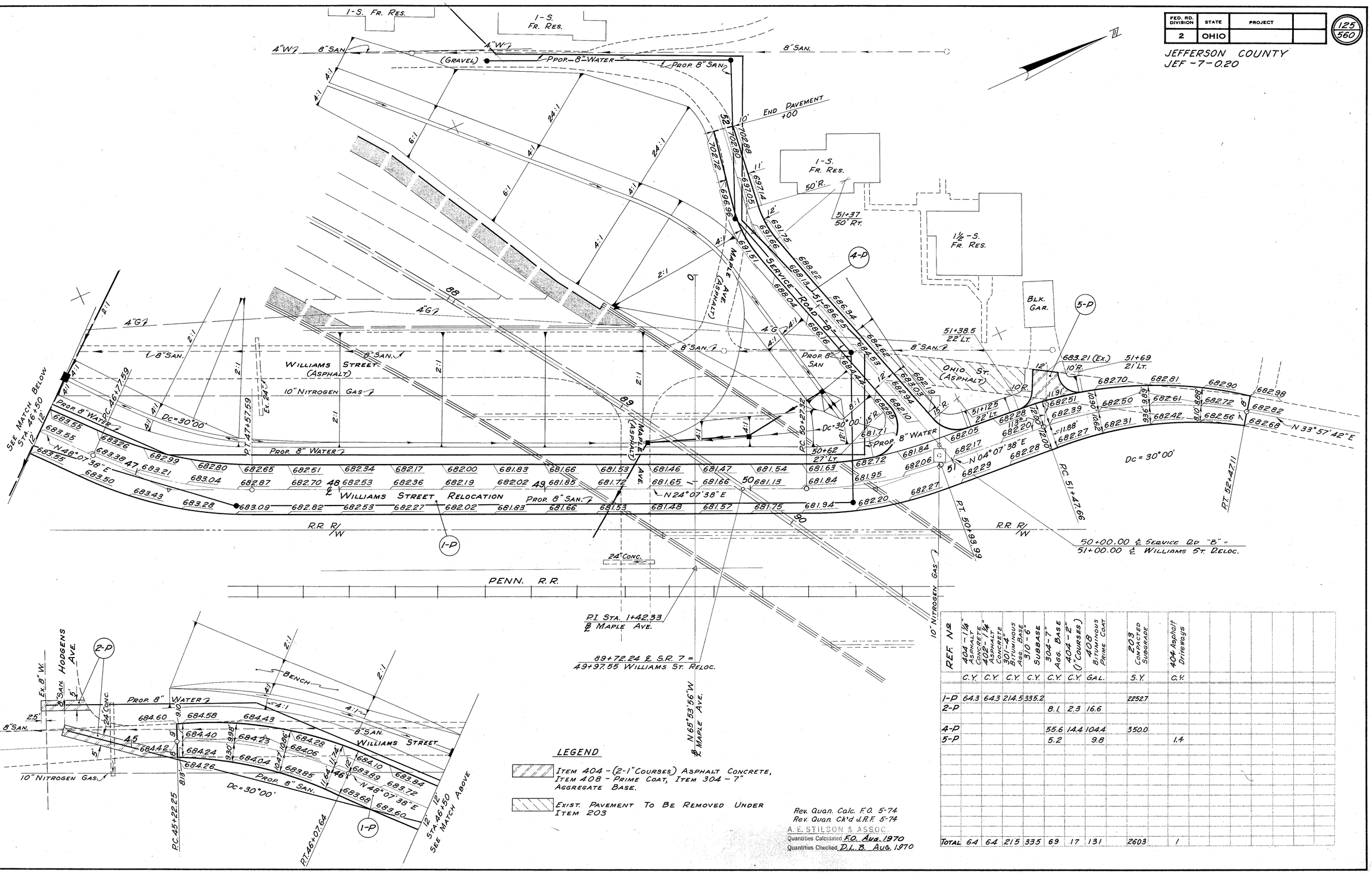
PAVEMENT DETAILS STA. 85+00 TO STA. 90+00

BRUNING 44-560 10943

FED. RD. DIVISION	STATE	PROJECT	
2	OHIO		

125/560

JEFFERSON COUNTY
JEF -7-0.20



LEGEND

Item 404 - (2-1"Courses) Asphalt Concrete, Item 408 - Prime Coat, Item 304 - 7" Aggregate Base.

Exist. Pavement To Be Removed Under Item 203

REF. №	404 - 1¼" Asphalt Concrete	402 - 1¼" Asphalt Concrete	301 - 4" Bituminous Agg. Base	SUBBASE 310 - 6"	304 - 7" Agg. Base	404 - 2" (1"Courses)	408 Bituminous Prime Coat	203 Compacted Subgrade	404 Asphalt Driveways
	C.Y.	C.Y.	C.Y.	C.Y.	C.Y.	C.Y.	GAL.	S.Y.	C.Y.
1-P	64.3	64.3	214.5	335.2				2252.7	
2-P					8.1	2.3	16.6		
4-P					55.6	14.4	104.4	350.0	
5-P					5.2		9.8		1.4
TOTAL	64	64	215	335	69	17	131	2603	1

Rev. Quan. Calc. F.O. 5-74
Rev. Quan. Ch'd J.R.F. 5-74
A. E. STILSON & ASSOC.
Quantities Calculated F.O. Aug. 1970
Quantities Checked D.L.B. Aug. 1970

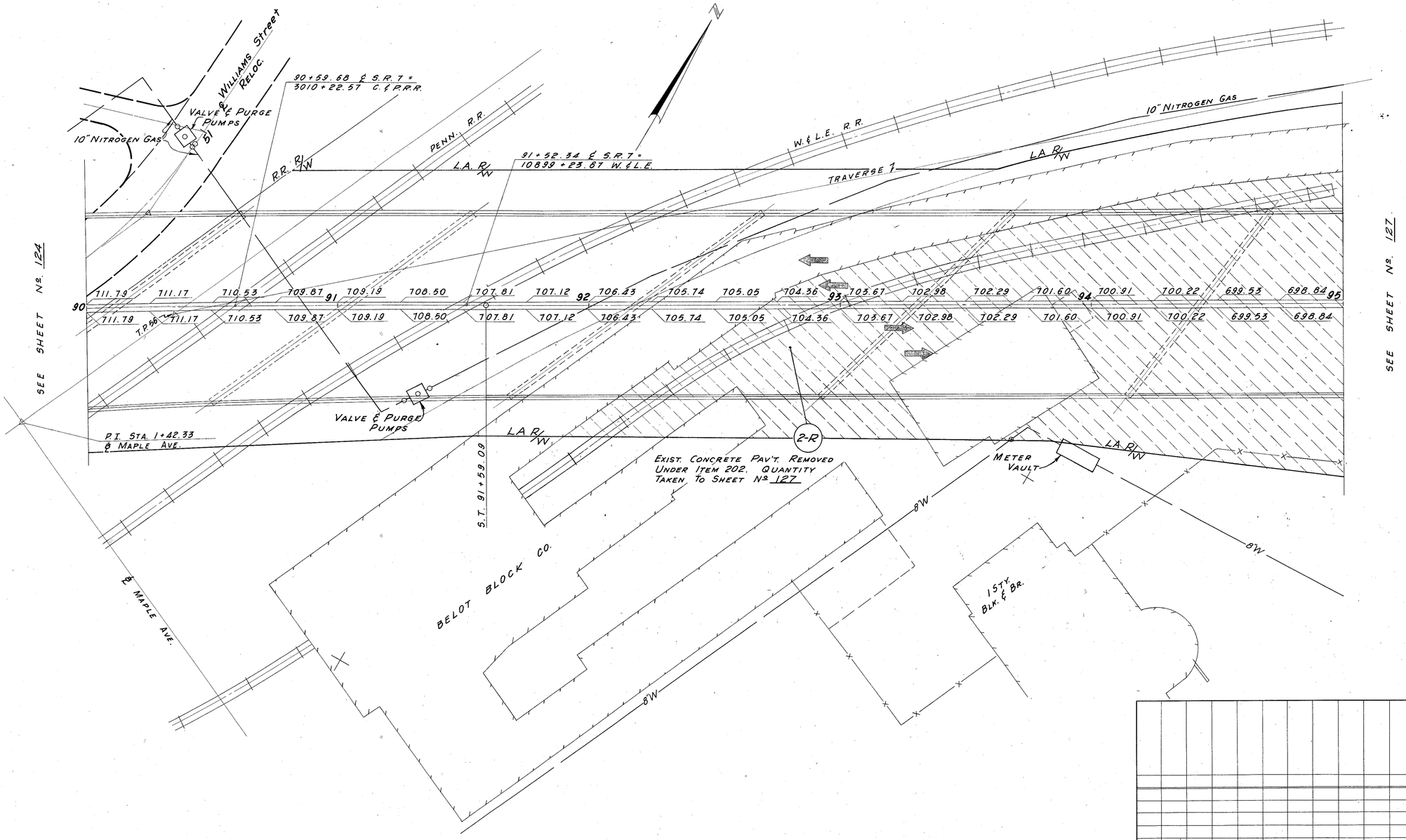
BRUNING 44-560 10943

PAVEMENT DETAILS WILLIAMS STREET RELOCATION

FED. RD. DIVISION	STATE	PROJECT	
2	OHIO		

126
560

JEFFERSON COUNTY
JEF -7-0.20



LEGEND

EXIST. PAV'T. REMOVAL UNDER ITEM 202 (TO BE REMOVED BETWEEN PROPOSED RIGHT OF WAY LINES)

	BY	DATE
EXISTING PLOTTED		
EXISTING CHECKED		
PROPOSED DRAWN		
PROPOSED CHECKED		
QUANTITIES CALCULATED		
QUANTITIES CHECKED		

PAVEMENT DETAILS STA. 90+00 TO STA. 95+00

FED. RD. DIVISION	STATE	PROJECT	
2	OHIO		

127/560

JEFFERSON COUNTY
JEF - 7 - 0.20

⊛ THE SHADED AREA SHALL BE CONSTRUCTED OF CONCRETE PAVEMENT TO AN ELEVATION TWO INCHES LOWER THAN THE ADJACENT PAVEMENT AND SURFACED WITH TWO INCHES ASPHALT CONCRETE. THIS AREA SHALL BE PAID FOR AS ITEMS 452 AND 404.

SEE SHEET No. 126

CONTINUED FROM SHEET No. 126

SEE SHEET No. 128

95+85.47 S.R. 7 = 7+05.32 MAIN ST.

EXIST. MAIN STREET
N 2° 19' 44" W

8" W
Ex. 4" Conc. S.W.

RAYLAND TRUCK STOP

692.32 ASPHALT

26 L.F. Type 6 Curb

T.S. 97+71.80

END PAVING STA. 6+43

N 59° 48' 16" E

WALDEN STREET (ASPHALT ON BRICK & CONC. BASE)

693.56

Begin Approach Slab Sta. 96+43.08

6" Pressure Relief Joint

GRAVEL

1 STY. BLK.

P.C. 98+04.01

METER VAULT

8" W

LA R/W

1 STY. BLK. & BR.

5+20.22 ℄ MAIN ST. = 94+24.63 ℄ SER. RD. "A"

Ex. 4" Conc. S.W.

C.B.

BEGIN WORK 92+93

92+68.77 ℄ SER. RD. "A"

1 STY. BLK. RES.

2 STY. FR. RES. & BAR

GRAVEL PARKING AREA

P.C. 93+58.04

N 24° 05' 49" E

SERVICE ROAD "A"

Conc. Walk

15' R

24'

90° TAN. TO CURVE

ASPHALT

VINE CLIFF RESTAURANT

GRAVEL

P.T. 96+62.71

39' Rt

Rev. 7-6-73 F.O.
Rev. Quan. Calc. F.O. 5-74
Rev. Quan. Ck'd J.R.F. 5-74

WILSON & ASSOCIATE
Quantities Computed DLB NOVEMBER 1968
Quantities Checked F.O. APRIL 1969

REF. No.	Item Special/ Pressure Relief Joint	451 9"	452 8"	404 Asphalt Driveway	301 Bituminous Agg. Base	304 Aggregate Base	402-1¼" Asphalt Concrete	411 Asphalt Concrete	408 Bituminous Prime Coat	409 Bituminous Material	409 Aggregate	608 4" Concrete	611 Reinf. Conc. Approach Slab (T=15")	622 Concrete Barrier Type 2	609 Curb Type 6	203 Subgrade Compaction	202 Pav't. Removed	202 Exist. S.W. Removed
	L.F.	S.Y.	S.Y.	C.Y.	C.Y.	C.Y.	C.Y.	C.Y.	GAL.	GAL.	C.Y.	S.F.	S.Y.	L.F.	L.F.	S.Y.	S.Y.	S.F.
2-C															52			
1-P		880.6			167.5								99.3			137.6		
2-P		927.8			179.1								99.3			145.6		
3-P					304.8	89.7	52.5	52.5	161.4	121.1	3.2					220.8		
4-P								3.0										
5-P				2.5		8.6			17.8									
6-P				3.0		10.4			21.3									
7-P				4.5		16.0			32.9									
8-P			408.9													444.6		
1-S												24.0						
2-S												92.0						
3-S												65.6						
1-R																	866.7	920.0
2-R																	297.8	
3-R																	422.2	
4-R																		148.0
1-C													35.7					
9-P	50				55.3													
TOTAL	50	1808	409	10	651	125	53	56	233	121	3	1600	199	357	52	548.1	426.7	1068

LEGEND

- Item 404 - (0" To 2½" Leveling Course) Asphalt Conc.
- Exist. Pav't. & Sidewalk Removal. Under Item 202
- Item 304 - 8" Aggregate Base; Item 408 - Bituminous Prime Coat.; Item 409 - Seal Coat, Bituminous Material & Aggregate
- 8" - 452
- Item 404 - 2" (2-1" Courses) Asphalt Conc.; Item 408 (0.40 Gal./S.Y.) Bit. Prime Coat.; Item 304 - 7" Aggregate Base
- Item 301 Bituminous Aggregate Base
- 4" Concrete Walk

	BY	DATE
EXISTING PLOTTED		
EXISTING CHECKED		
PROPOSED DRAWN		
PROPOSED CHECKED		
QUANTITIES CALCULATED		
QUANTITIES CHECKED		

PAVEMENT DETAILS STA. 95+00 To STA. 100+00

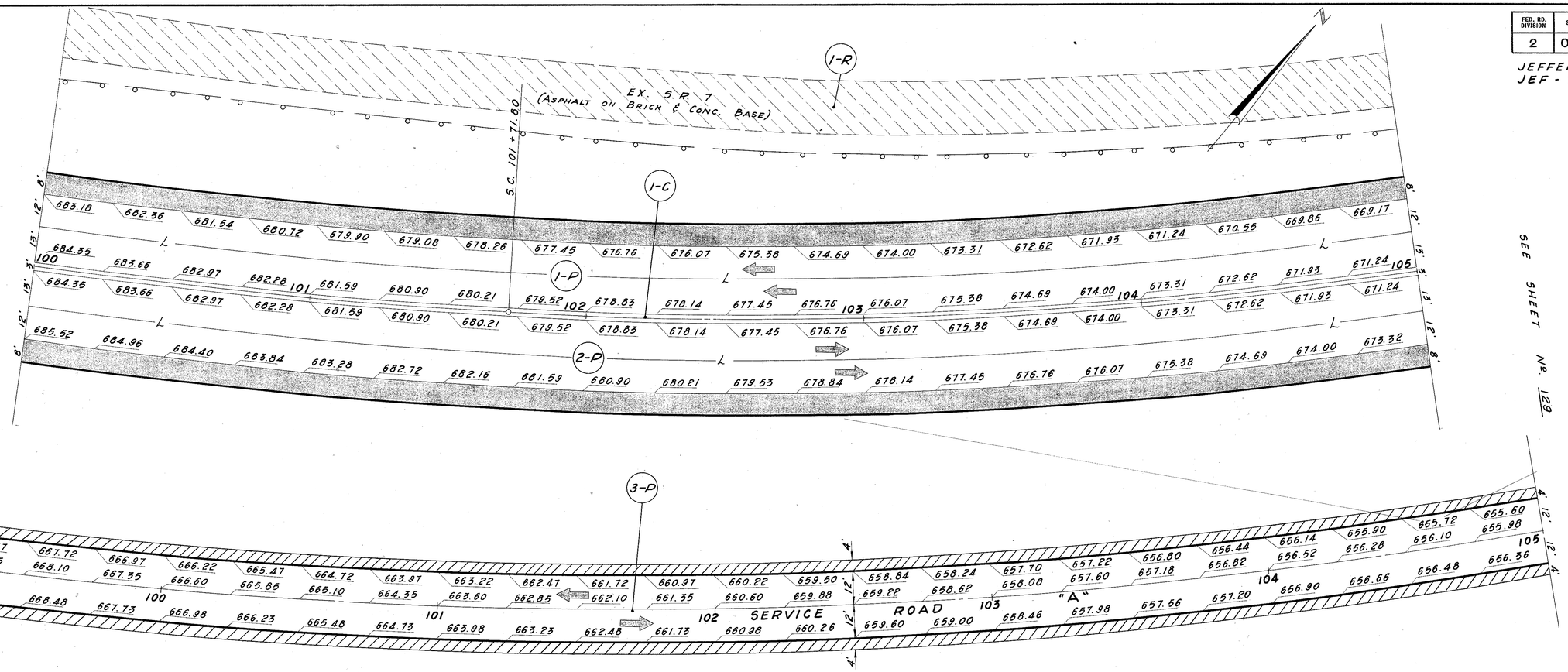
FED. RD. DIVISION	STATE	PROJECT	
2	OHIO		

128
560

JEFFERSON COUNTY
JEF - 7 - 0.20

SEE SHEET No. 127

SEE SHEET No. 129



LEGEND

ITEM 301 - BITUMINOUS AGGREGATE BASE

ITEM 304 - 8" AGGREGATE BASE.
ITEM 408 - BITUMINOUS PRIME COAT.
ITEM 409 - SEAL COAT, BIT. MATERIAL & AGGREGATE.

EXIST. PAV'T. REMOVAL.
UNDER ITEM 202

REF. No.		451 9"			301 BITUMINOUS AGGR. 8"	304 8" AGGREGATE BASE	402 1¼" ASPHALT CONCRETE	403 1¼" ASPHALT CONCRETE	408 BITUMINOUS PRIME COAT	409 BITUMINOUS MATERIAL	409 AGGREGATE	622 CONCRETE BARRIER TYPE 1				203 SUBGRADE COMPACTION	202 EXIST. PAV'T. REMOVED	
		S.Y.			C.Y.	C.Y.	C.Y.	C.Y.	GAL.	GAL.	C.Y.	L.F.				S.Y.	S.Y.	
1-P		1388.9			265.4											2000		
2-P		1388.9			265.4											2000		
3-P					309.1	113.6	53.3	53.3	204.4	153.3	4.1					2236		
1-C												500						
1-R																	1066.7	
TOTAL		2778			840	114	53	53	204	153	4	500				6236	1067	

Rev. Quan. Calc. F.O. 5-74
Rev. Quan. Ck'd J.R.F. 5-74

A. E. STILLSON & ASSOCIATES LIMITED
Quantities Calculated D.L.B. October 1968
Quantities Checked F.O. April 1969

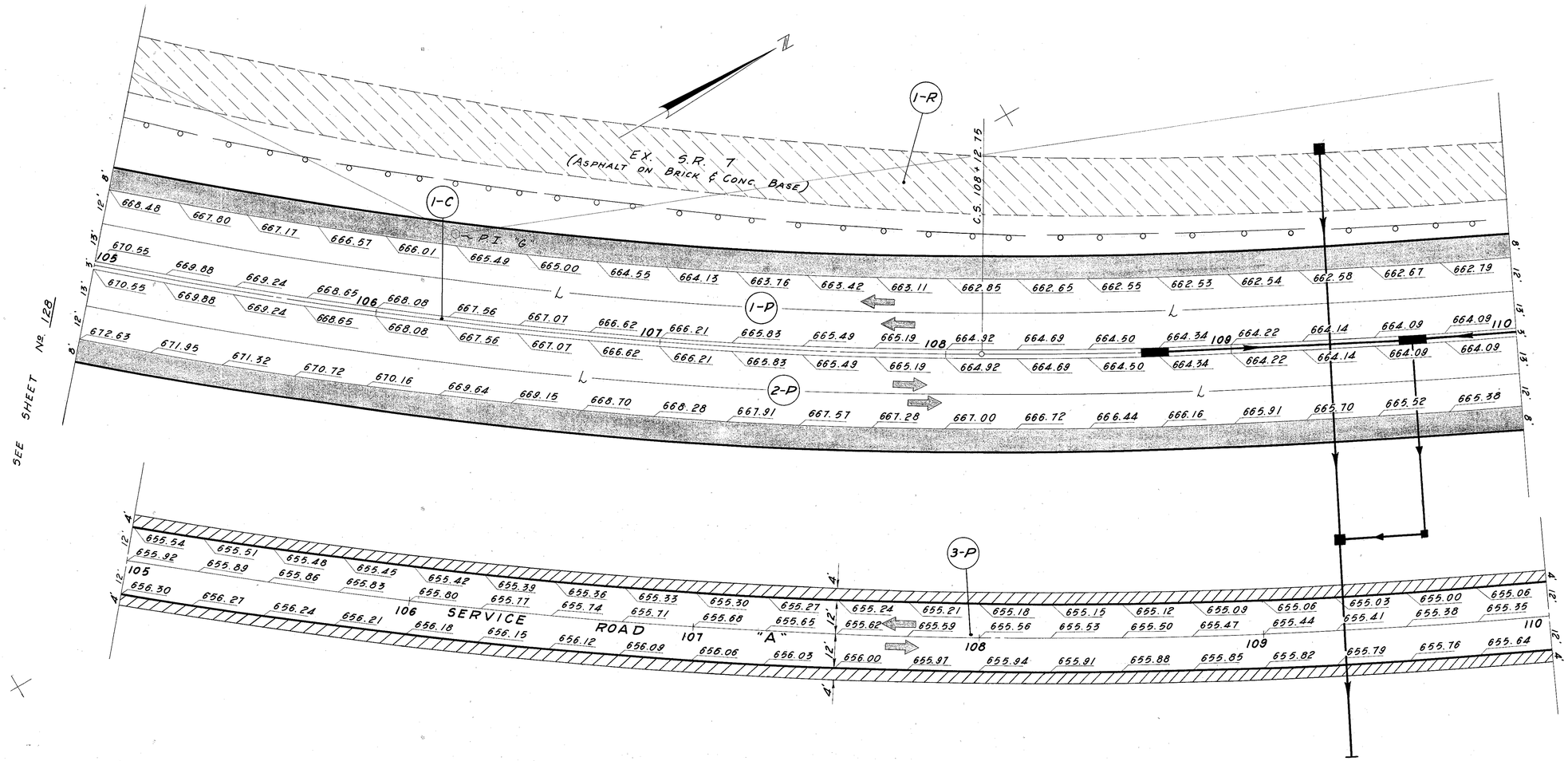
	BY	DATE
EXISTING PLOTTED		
EXISTING CHECKED		
PROPOSED DRAWN		
PROPOSED CHECKED		
QUANTITIES CALCULATED		
QUANTITIES CHECKED		

PAVEMENT DETAILS STA. 100+00 to STA. 105+00

FED. RD. DIVISION	STATE	PROJECT	
2	OHIO		

129
560

JEFFERSON COUNTY
JEF. - 7 - 0.20



LEGEND

ITEM 301 - BITUMINOUS AGGREGATE BASE

ITEM 304 - 8" AGGREGATE BASE
ITEM 408 - BITUMINOUS PRIME COAT
ITEM 409 - SEAL COAT, BIT. MATERIAL & AGGREGATE.

EXIST. PAV'T. REMOVAL.
UNDER ITEM 202

REF. No.	451 9"	301 BITUMINOUS AGG. BASE	304 8" AGGREGATE BASE	402 - 1¼" ASPHALT CONCRETE	404 - 1¼" ASPHALT CONCRETE	408 BITUMINOUS PRIME COAT	409 BITUMINOUS MATERIAL	409 AGGREGATE	G22 Concrete Barrier Type 2	203 SUBGRADE COMPACTION	202 EXIST. PAV'T. REMOVED
	S.Y.	C.Y.	C.Y.	C.Y.	C.Y.	GAL.	GAL.	C.Y.	L.F.	S.Y.	S.Y.
1-P	1380.1	265.4								2000	
2-P	1388.9	265.4								2000	
3-P		268.7	98.8	46.3	46.3	177.8	133.3	3.6		1944.4	
1-C									460		
1-R											1077.8
TOTAL	2769	800	99	46	46	178	133	4	460	5944	1078

Rev. Quan. Calc. F.O. 5-74
Rev. Quan. Ck'd J.R.F. 5-74

A.E. STILSON & ASSOCIATES LIMITED
Computed by D.L.B. NOVEMBER 1973
Quantities by F.O. APRIL 1974

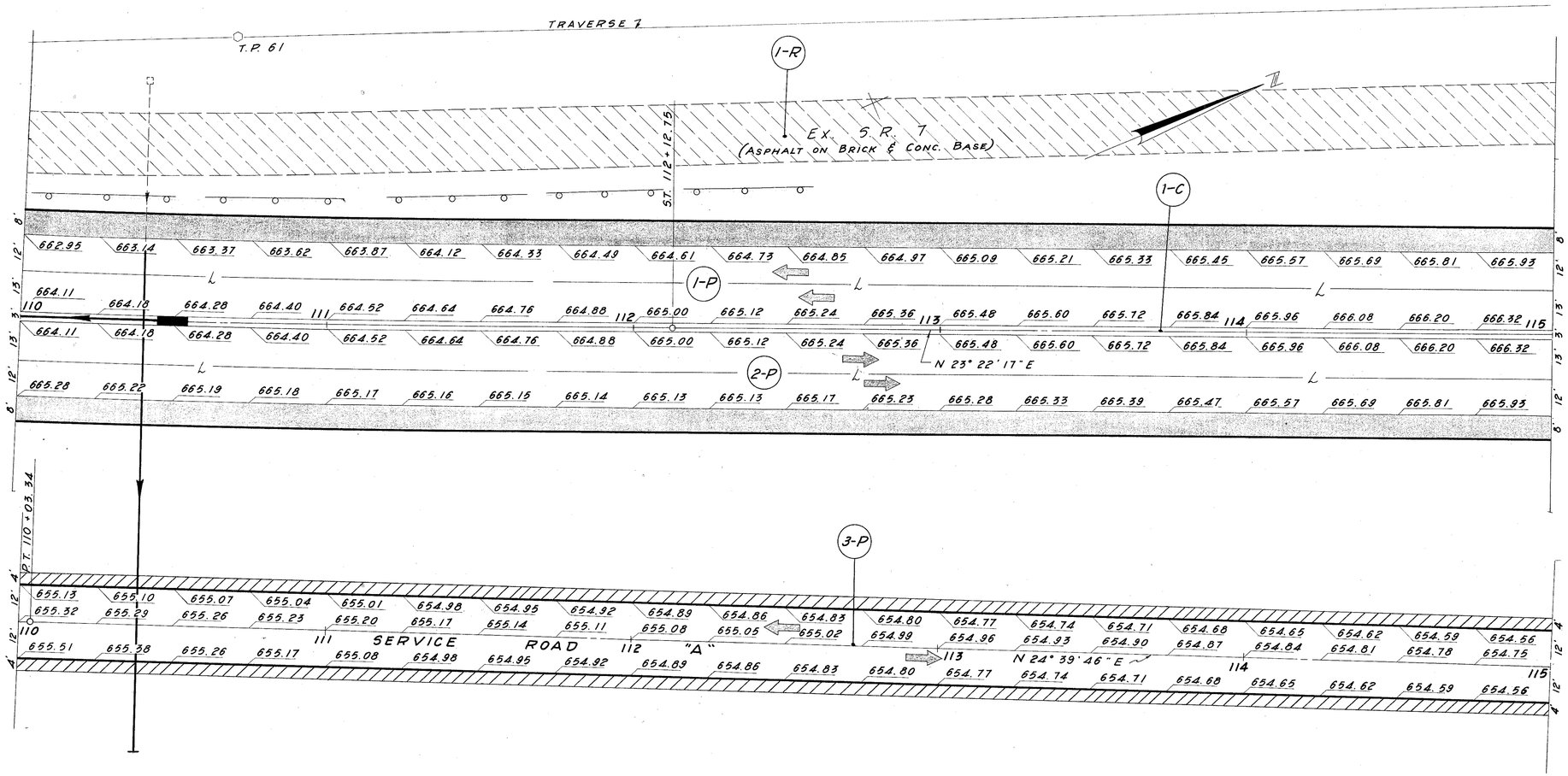
	BY	DATE
EXISTING PLOTTED		
EXISTING CHECKED		
PROPOSED DRAWN		
PROPOSED CHECKED		
QUANTITIES CALCULATED		
QUANTITIES CHECKED		

PAVEMENT DETAILS STA. 105+00 To STA. 110+00

FED. RD. DIVISION	STATE	PROJECT	
2	OHIO		

130
560

JEFFERSON COUNTY
JEF. - 7 - 0.20



REF. No.	451 9"	301 Bituminous Agg. Base	304-8" Aggregate Base	402-1¼" Asphalt Concrete	404-1¼" Asphalt Concrete	408 Bituminous Prime Coat	409 Bituminous Material	409 Aggregate	622 Concrete Barrier Type I	203 Subgrade Compaction	202 Exist. Pav't. Removed
	S.Y.	C.Y.	C.Y.	C.Y.	C.Y.	GAL.	GAL.	C.Y.	L.F.	S.Y.	S.Y.
1-P	1384.5	265.4								2000	
2-P	1388.9	265.4								2000	
3-P		268.7	98.8	46.3	46.3	177.8	133.3	3.6		1944	
1-C									480		
1-R											1111
TOTAL	2773	800	99	46	46	178	133	4	480	5944	1111

LEGEND

ITEM 301 - BITUMINOUS AGGREGATE BASE.

ITEM 304 - 8" AGGREGATE BASE.
ITEM 408 - BITUMINOUS PRIME COAT.
ITEM 409 - SEAL COAT, BIT. MATERIAL & AGG.

EXIST. PAV'T. REMOVAL
UNDER ITEM 202
Rev. Quan. Calc. F.O. 5-74
Rev. Quan. Ck'd J.R.F. 5-74

A. E. STILSON & ASSOCIATES, LIMITED
Quantities Calculated D.L.B. NOVEMBER 1968
Quantities Checked F.O. APRIL 1969

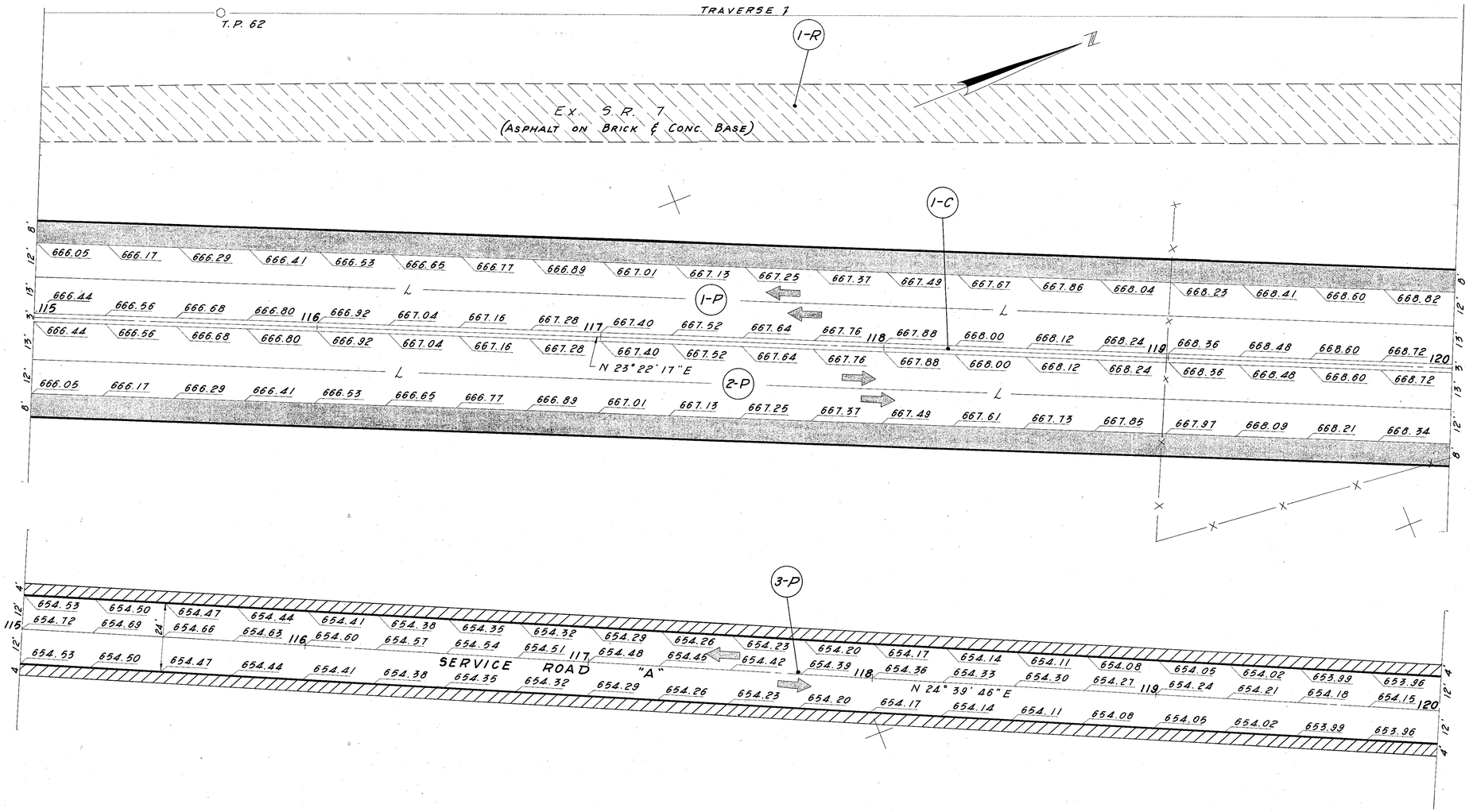
	BY	DATE
EXISTING PLOTTED		
EXISTING CHECKED		
PROPOSED DRAWN		
PROPOSED CHECKED		
QUANTITIES CALCULATED		
QUANTITIES CHECKED		

PAVEMENT DETAILS STA. 110+00 TO STA. 115+00

FED. RD. DIVISION	STATE	PROJECT	
2	OHIO		

131
560

JEFFERSON COUNTY
JEF - 7 - 0.20



REF. No.	451 9"			301 Bituminous Agg. Base	304-8" Aggregate Base		402-1¼" Asphalt Concrete	404-1¼" Asphalt Concrete	408 Bituminous Prime Coat	409 Bituminous Material	409 Aggregate		622 Concrete Barrier Type I		203 Subgrade Compaction	202 Exist. Pav't. Removed	
	S.Y.			C.Y.	C.Y.		C.Y.	C.Y.	GAL.	GAL.	C.Y.		L.F.		S.Y.	S.Y.	
1-P	1388.9			265.4											2000		
2-P	1388.9			265.4											2000		
3-P				268.7	98.8		46.3	46.3	177.8	133.3	3.6				1944		
1-C													500				
1-R																1111	
TOTAL	2778			800	99		46	46	178	133	4		500		5944	1111	

LEGEND

ITEM 301 - BITUMINOUS AGGREGATE BASE

ITEM 304 - 8" AGGREGATE BASE
ITEM 408 - BITUMINOUS PRIME COAT
ITEM 409 - SEAL COAT, BIT. MATERIAL & AGG.

EXIST. PAV'T. REMOVAL
UNDER ITEM 202

Rev. Quan. Calc. F.O. 5-74
Rev. Quan. Ck'd J.R.F. 5-74

A. BISTILSON & ASSOCIATES LIMITED
PLB. NOVEMBER 1968
EO. APRIL 1969

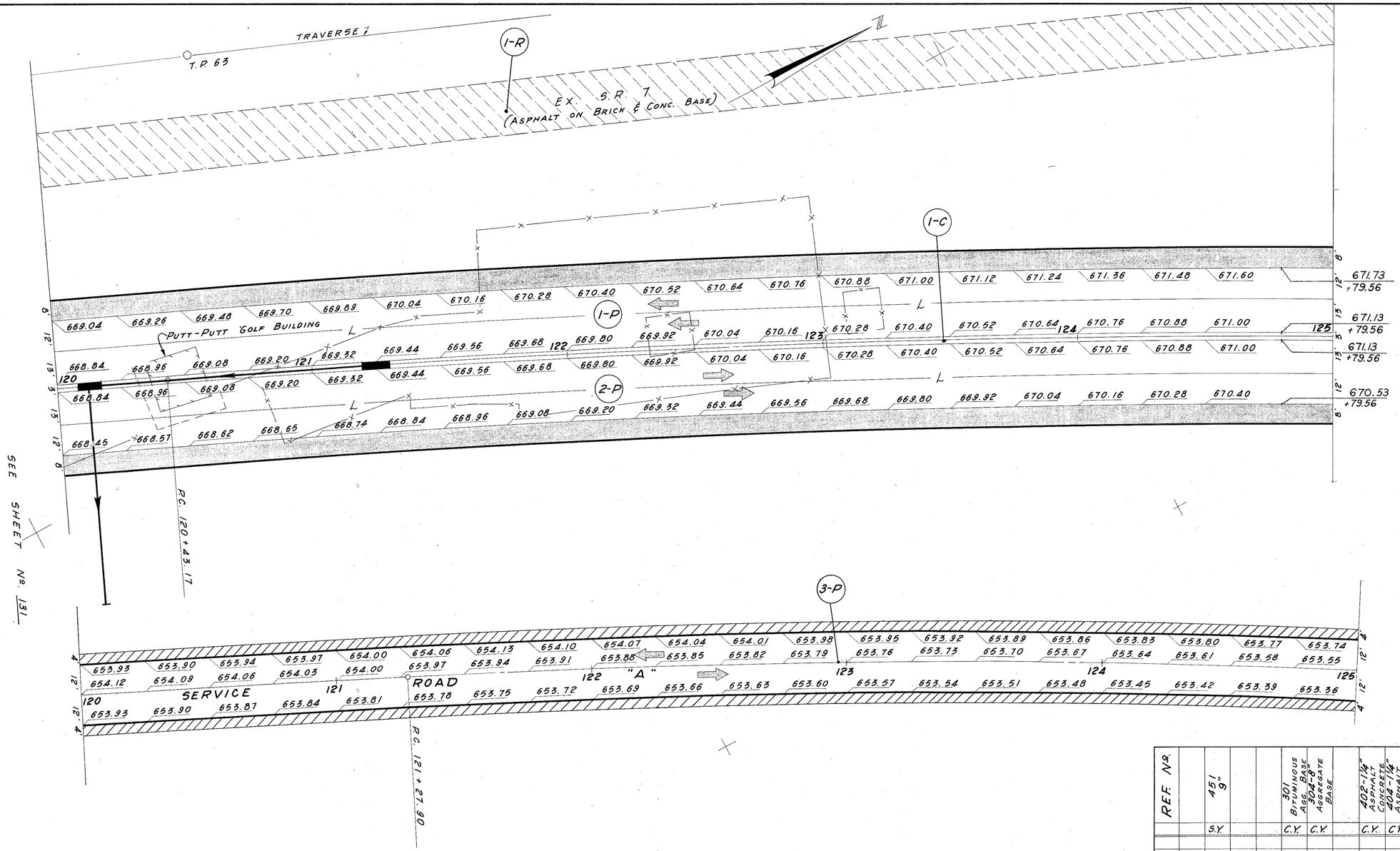
	BY	DATE
EXISTING PLOTTED		
EXISTING CHECKED		
PROPOSED DRAWN		
PROPOSED CHECKED		
QUANTITIES CALCULATED		
QUANTITIES CHECKED		

PAVEMENT DETAILS STA. 115+00 TO STA. 120+00

FED. RD. DIVISION	STATE	PROJECT	
2	OHIO		

132/560

JEFFERSON COUNTY
JEF-7-0.20



REF. No.	451 9"	301 Bituminous Agg. Base	304-8" Aggregate Base	402-1¼" Asphalt Concrete	404-1¼" Asphalt Concrete	408 Bituminous Prime Coat	409 Bituminous Material	409 Aggregate	622 Concrete Barrier Type I	203 Subgrade Compaction	202 Exist. Pav't. Removed
	S.Y.	C.Y.	C.Y.	C.Y.	CY	GAL.	GAL.	C.Y.	L.F.	S.Y.	S.Y.
1-P	1380.1	265.4								2000	
2-P	1388.9	265.4								2000	
3-P		268.7	98.8	46.3	46.3	177.8	133.3	3.6		1944	
1-C									460		
1-R											1133.3
TOTAL	2769	800	99	46	46	178	133	4	460	5944	1133

LEGEND

- Item 301 - Bituminous Aggregate Base
- Item 304-8" Aggregate Base
  Item 408 - Bituminous Prime Coat
  Item 409 - Seal Coat, Bit. Material & Agg.
- Exist. Pav't. Removal. Under Item 202

Rev. Quan. Calc. F.O. 5-74
Rev. Quan. Ck'd J.R.F. 5-74

A. E. ST. LEON & ASSOCIATES LIMITED
Quantities Calculated DLB November 1968
Quantities Checked FO April 1969

	BY	DATE
EXISTING PLOTTED		
EXISTING CHECKED		
PROPOSED DRAWN		
PROPOSED CHECKED		
QUANTITIES CALCULATED		
QUANTITIES CHECKED		

PAVEMENT DETAILS STA. 120+00 To STA. 125+00

FED. RD. DIVISION	STATE	PROJECT	
2	OHIO		

133
560

JEFFERSON COUNTY
JEF-7-0.20

REF. Nº	451 9"	Item Special Pressure Relief Joint	301 Bituminous Agg. Base	304-8" Aggregate Base	402 1¼" Asphalt Concrete	404 Asphalt Concrete	408 Bituminous Prime Coat	409 Bituminous Material	409 Aggregate	611-Reinf. Conc. Approg. Slab (T=15")	622 Concrete Barrier Type 1	310 Subbase Grading A"	203 Subgrade Compaction	202 Exist. Pav't Removed	609 Curb Type 6
	S.Y.	L.F.	C.Y.	C.Y.	C.Y.	C.Y.	GAL.	GAL.	C.Y.	S.Y.	L.F.	C.Y.	S.Y.	S.Y.	L.F.
2-P			53.6	14.8	9.3	9.3	26.7	20.0	0.5				333.3		
3-P			189.7	56.7	32.7	32.7	102.0	76.5	2.0				1196.0		
4-P			212.9	66.0	36.7	36.7	118.8	89.1	2.4	111.1		19.9	1561.5		
5-P	140.5		26.8							93.3			318.2		
6-P	444.2		85.6							200.7			578.0		
7-P	140.5		26.6							93.3			314.0		
8-P	448.6		84.6							200.7			864.0		
9-P				18.6											
10-P		50													
11-P		50													
12-P		50													
1-C											80				
2-C											199				
3-C															52
4-C															52
1-R														711	
TOTAL	1174	150	680	156	79	79	248	186	5	711	279	20	5465	711	104

LEGEND

- ITEM 301 - BITUMINOUS AGGREGATE BASE
- ITEM 304 - 8" AGGREGATE BASE
  ITEM 408 - BITUMINOUS PRIME COAT
  ITEM 409 - SEAL COAT, BITUMINOUS MATERIAL & AGGREGATE.
- EXIST. PAV'T. REMOVAL. UNDER ITEM 202
- ITEM 304, 8" AGGREGATE BASE

Rev. Quan. Calc. F.O. 5-74
Rev. Quan. Ch'd J.R.F. 5-74
Rev. 7-6-73 F.O

S.E. STILSON & ASSOCIATES LIMITED
Quantities Computed DLB NOVEMBER 1968
Quantities Checked FO APRIL 1969

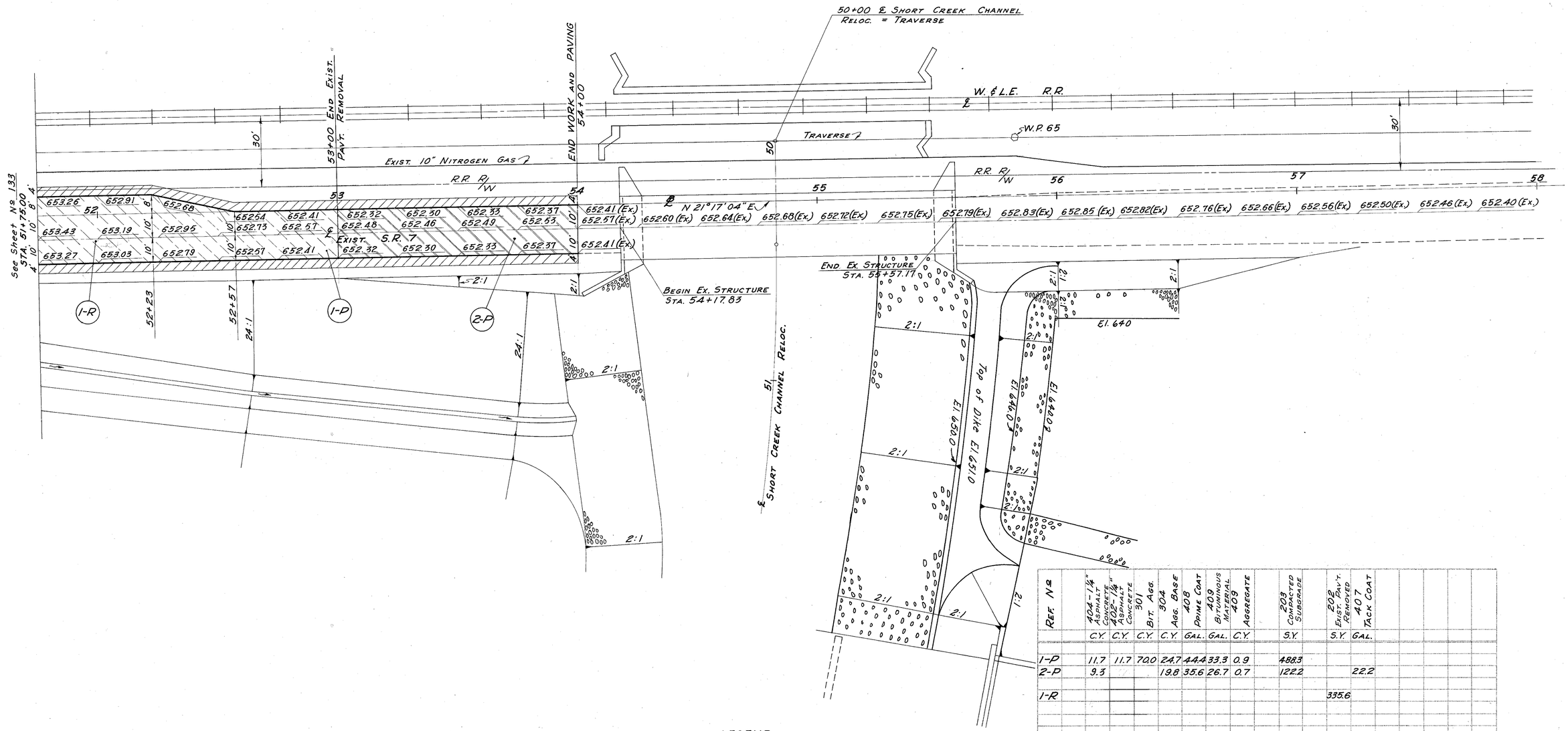
	BY	DATE
EXISTING PLOTTED		
EXISTING CHECKED		
PROPOSED DRAWN		
PROPOSED CHECKED		
QUANTITIES CALCULATED		
QUANTITIES CHECKED		

PAVEMENT DETAILS STA. 125+00 to STA. 130+00

FED. RD. DIVISION	STATE	PROJECT	
2	OHIO		

134
560

JEFFERSON COUNTY
JEF-7-0.20



REF. NO	404 - 1¼" Asphalt Concrete	402 - 1¾" Asphalt Concrete	301 Bit. Agg.	304 Agg. Base	408 Prime Coat	409 Bituminous Material	409 Aggregate	203 Compacted Subgrade	202 Pav't. Removed	407 Tack Coat
	C.Y.	C.Y.	C.Y.	C.Y.	GAL.	GAL.	C.Y.	S.Y.	S.Y.	GAL.
1-P	11.7	11.7	70.0	24.7	44.4	33.3	0.9	488.3		
2-P	9.3			19.8	35.6	26.7	0.7	122.2		22.2
1-R									335.6	
TOTAL	21	12	70	45	80	60	2	611	336	22

LEGEND

Item 304 - 8" Aggregate Base
Item 408 - Bituminous Prime Coat
Item 409 - Seal Coat, Bituminous Material & Aggregate

Exist. Pav't. Removal Under Item 202

404 - Aspholtic Concrete
(53+00 to 53+50) 4" to 1"
(53+50 to 54+00) 1" to 0"

407 - Tack Coat applied @ 0.10 gal. per S.Y.

Rev. Quan. Calc. F.O. 5-74
Rev. Quan. Ch'd J.R.F. 5-74
A. E. STILSON & ASSOC.
Quantities Calculated F.O. Aug. 1970
Quantities Checked D.L.B. Aug. 1970

Rev. 9-23-74

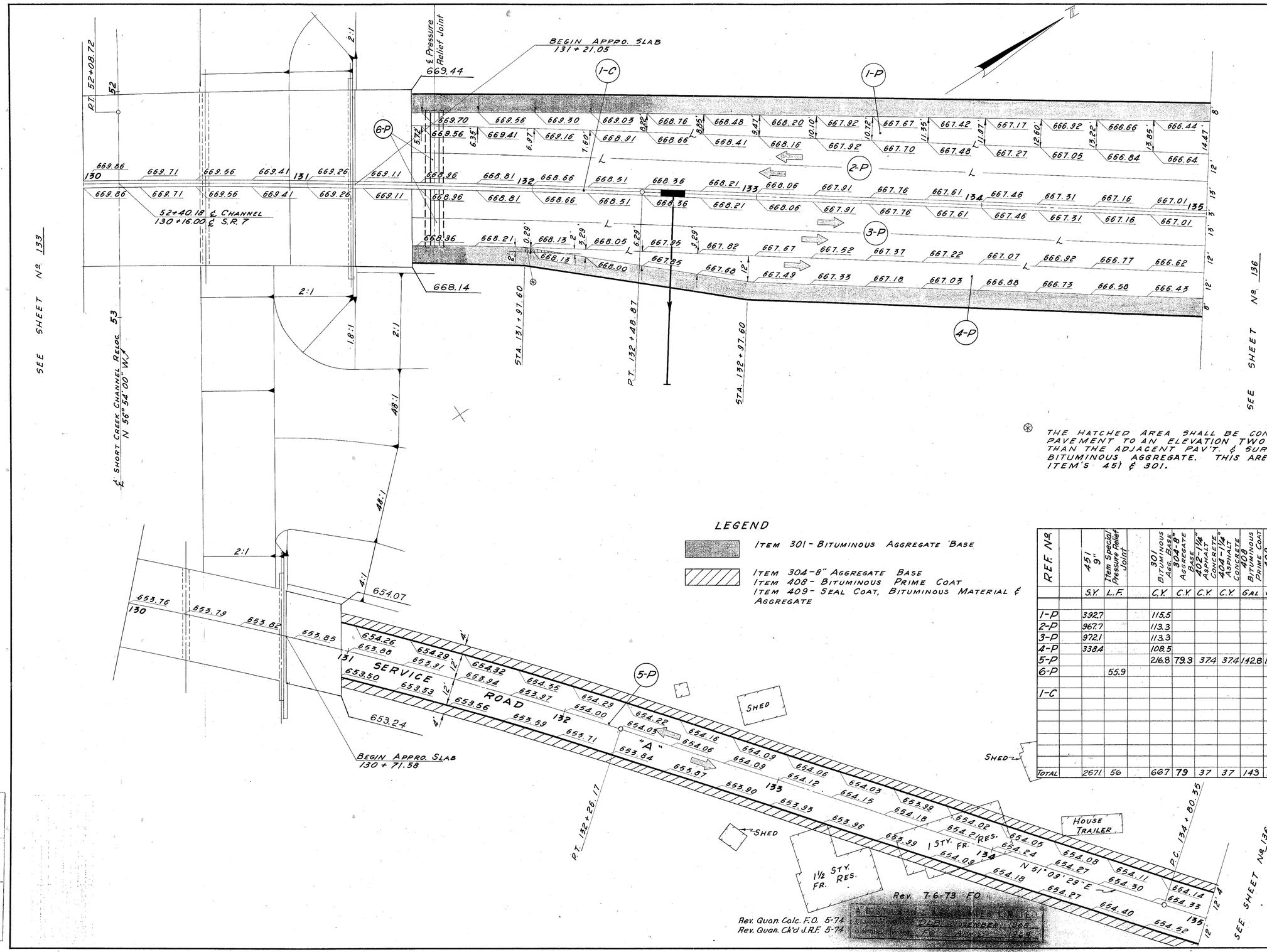
PAVEMENT DETAILS EXIST. S.R. 7 STA. 51+75 TO STA. 57+25

BRUNING 44-560 10943

FED. RD. DIVISION	STATE	PROJECT	
2	OHIO		

135/560

JEFFERSON COUNTY
JEF - 7 - 0.20



THE HATCHED AREA SHALL BE CONSTRUCTED OF CONC. PAVEMENT TO AN ELEVATION TWO INCHES LOWER THAN THE ADJACENT PAV'T. & SURFACED WITH TWO INCHES BITUMINOUS AGGREGATE. THIS AREA SHALL BE PAID FOR AS ITEM'S 451 & 301.

LEGEND

ITEM 301 - BITUMINOUS AGGREGATE BASE

ITEM 304-8" AGGREGATE BASE
ITEM 408 - BITUMINOUS PRIME COAT
ITEM 409 - SEAL COAT, BITUMINOUS MATERIAL & AGGREGATE

REF. No.	451 9"	Item Special Pressure Relief Joint	301 Bituminous Agg. Base	304-8" Aggregate Base	402-1¼" Asphalt Concrete	404-1¼" Asphalt Concrete	408 Bituminous Prime Coat	409 Bituminous Material	409 Aggregate	611-Reinf. Conc. Approx. Slab (T=15")	622 Concrete Barrier Type I	310 Subbase Grading "A"	203 Subgrade Compaction
	S.Y.	L.F.	C.Y.	C.Y.	C.Y.	C.Y.	GAL	GAL.	C.Y.	S.Y.	L.F.	C.Y.	S.Y.
1-P	392.7		115.5										810.2
2-P	967.7		113.3							116.1			1113.0
3-P	972.1		113.3							101.4			1192.2
4-P	338.4		108.5										655.7
5-P			216.8	79.3	37.4	37.4	142.8	107.1	2.9	111.1		19.9	1666.1
6-P		55.9											
1-C											359		
TOTAL	2671	56	667	79	37	37	143	107	3	329	359	20	5437

	BY	DATE
EXISTING PLOTTED		
EXISTING CHECKED		
PROPOSED DRAWN		
PROPOSED CHECKED		
QUANTITIES CALCULATED		
QUANTITIES CHECKED		

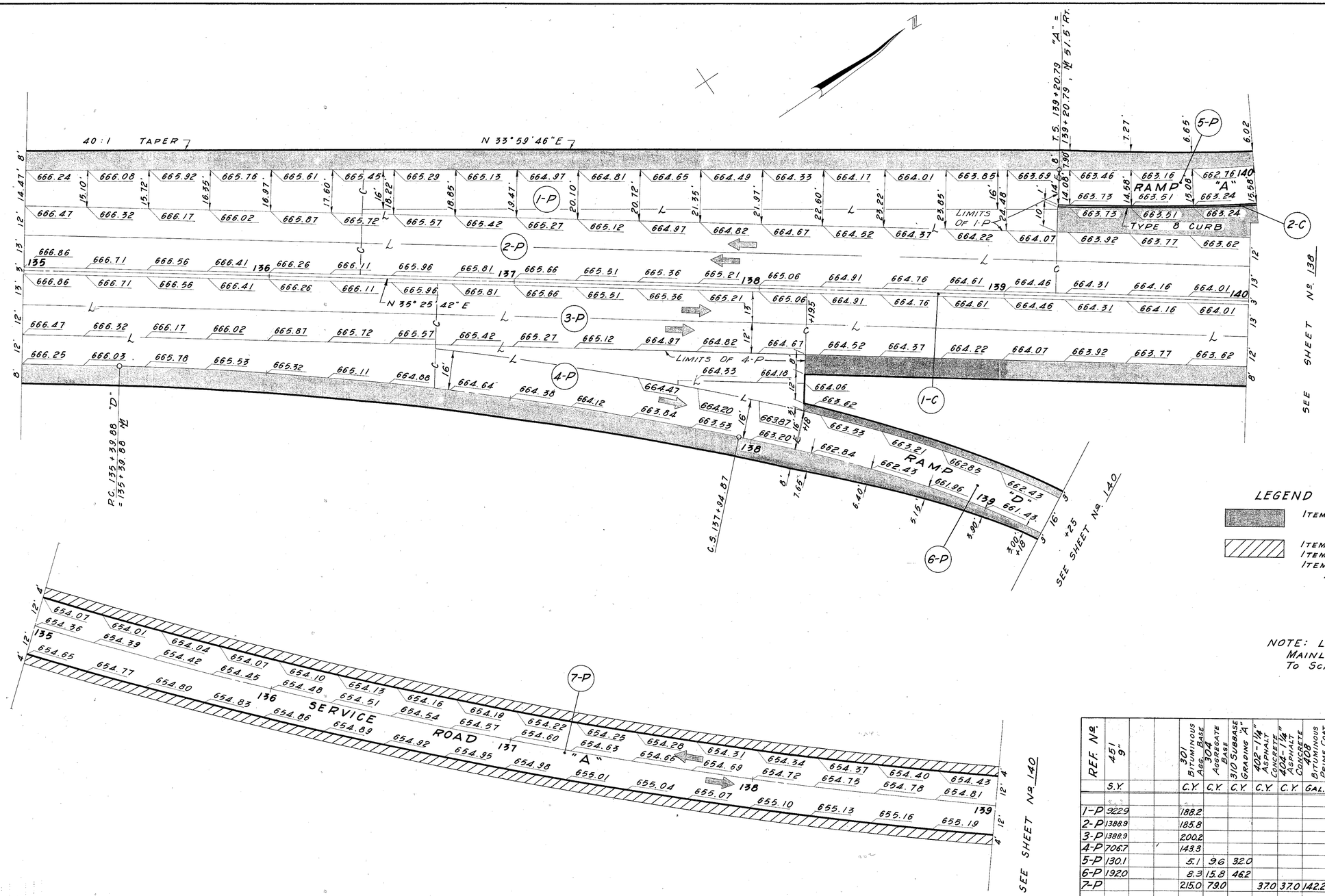
Rev. 9-23-74

PAVEMENT DETAILS STA. 130+00 TO STA. 135+00

FED. RD. DIVISION	STATE	PROJECT	
2	OHIO		

136
560

JEFFERSON COUNTY
JEF - 7 - 0.20



LEGEND

- Item 301 – Bituminous Aggregate Base
- Item 304 – 8" Aggregate Base
- Item 408 – Bituminous Prime Coat
- Item 409 – Seal Coat, Bituminous Material & Aggregate

NOTE: LATERAL RELATIONSHIP BETWEEN MAINLINE AND SERVICE ROAD "A" IS NOT TO SCALE.

REF. No.	451 9"		301 Bituminous Agg. Base	304 Aggregate Base	310 Subbase Grading "A"	402-1¼" Asphalt Concrete	404-1¼" Asphalt Concrete	408 Bituminous Prime Coat	409 Bituminous Material	409 Aggregate		609 Curb Type-B	622 Concrete Apron Type 1		Spec. Drainage Connection No. 8 Agg.		203 Subgrade Compaction
	S.Y.		C.Y.	C.Y.	C.Y.	C.Y.	C.Y.	Gal.	Gal.	C.Y.		L.F.	L.F.		C.Y.		S.Y.
1-P	922.9		188.2														1367.1
2-P	1388.9		185.8														1572.2
3-P	1388.9		200.2														1662.2
4-P	706.7		143.3														1042.3
5-P	130.1		5.1	9.6	32.0										4.0		213.9
6-P	192.0		8.3	15.8	46.2										5.5		330.0
7-P			215.0	79.0		37.0	37.0	142.2	106.7	2.8							1555.6
1-C													500				
2-C												81.0					
TOTAL	4730		946	104	78	37	37	142	107	3		81	500		10		7743

Rev. Quan. Calc. F.O. 5-74
Rev. Quan. Ck'd J.R.F. 5-74

A. E. STILSON & ASSOCIATES LIMITED
Quantities Computed D.L.B. November 1968
Quantities Checked F.O. " 1969

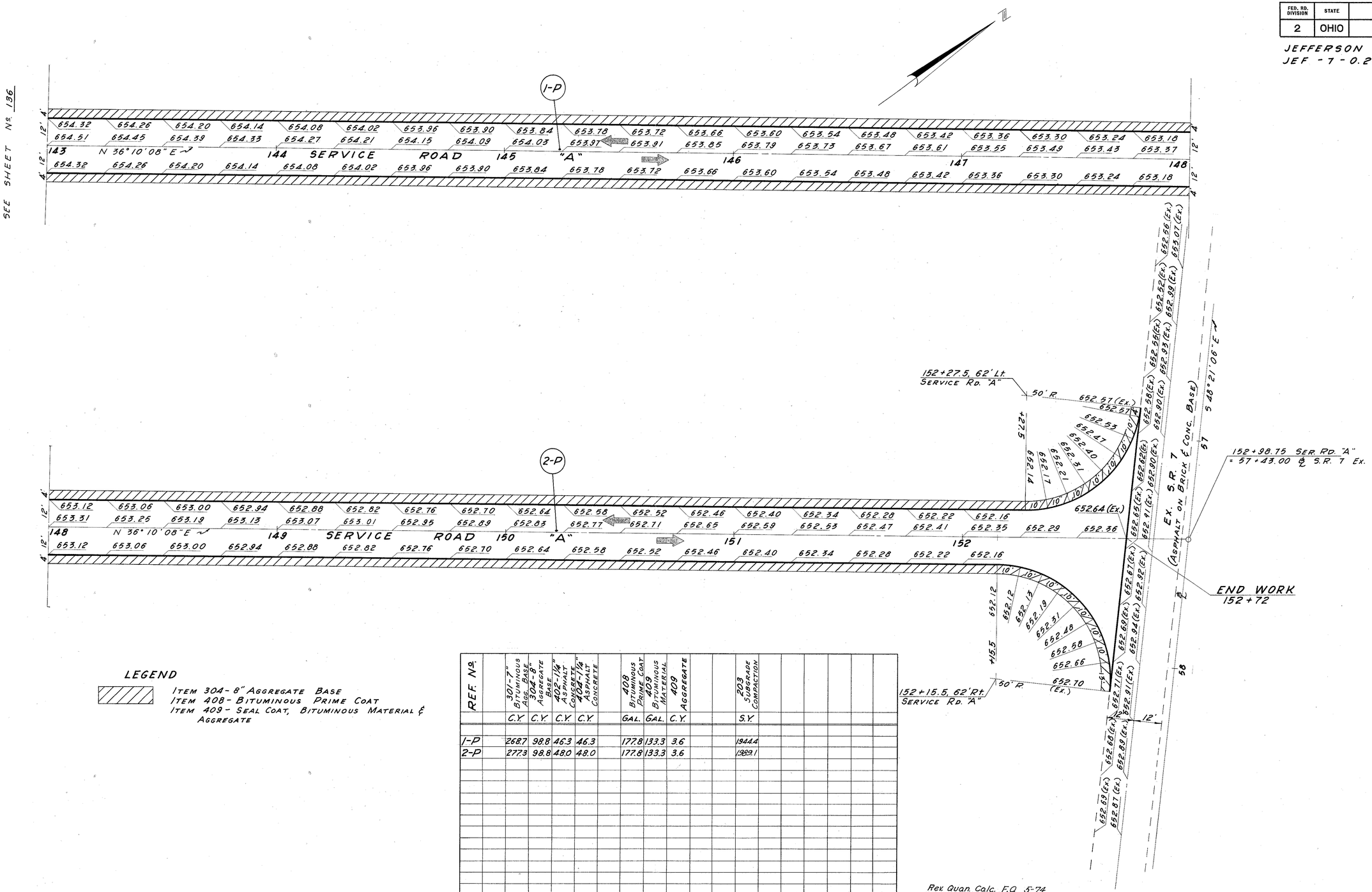
	BY	DATE
EXISTING PLOTTED		
EXISTING CHECKED		
PROPOSED DRAWN		
PROPOSED CHECKED		
QUANTITIES CALCULATED		
QUANTITIES CHECKED		

PAVEMENT DETAILS – STA. 135+00 TO STA. 140+00

FED. RD. DIVISION	STATE	PROJECT	
2	OHIO		

137/560

JEFFERSON COUNTY
JEF - 7 - 0.20



LEGEND

ITEM 304-8" AGGREGATE BASE
ITEM 408 - BITUMINOUS PRIME COAT
ITEM 409 - SEAL COAT, BITUMINOUS MATERIAL & AGGREGATE

REF. No.	301-7" BITUMINOUS AGG. BASE	304-8" AGGREGATE BASE	402-1¼" ASPHALT CONCRETE	404-1¼" ASPHALT CONCRETE	408 BITUMINOUS PRIME COAT	409 BITUMINOUS MATERIAL	409 AGGREGATE	203 SUBGRADE COMPACTION
	C.Y.	C.Y.	C.Y.	C.Y.	GAL.	GAL.	C.Y.	S.Y.
1-P	268.7	98.8	46.3	46.3	177.8	133.3	3.6	1944.4
2-P	277.3	98.8	48.0	48.0	177.8	133.3	3.6	1989.1
TOTAL	546	198	94	94	356	267	7	3934

Rev. Quan. Calc. F.Q. 5-74
Rev. Quan. Ck'd. J.R.F. 5-74

A. E. STILSON & ASSOCIATES LIMITED
Date Plotted: 21st November, 1968
Date Checked: 22 April, 1969

	BY	DATE
EXISTING PLOTTED		
EXISTING CHECKED		
PROPOSED DRAWN		
PROPOSED CHECKED		
QUANTITIES CALCULATED		
QUANTITIES CHECKED		

SERVICE ROAD "A" STA. 143+00 TO STA. 152+98.75

FED. RD. DIVISION	STATE	PROJECT	
2	OHIO		

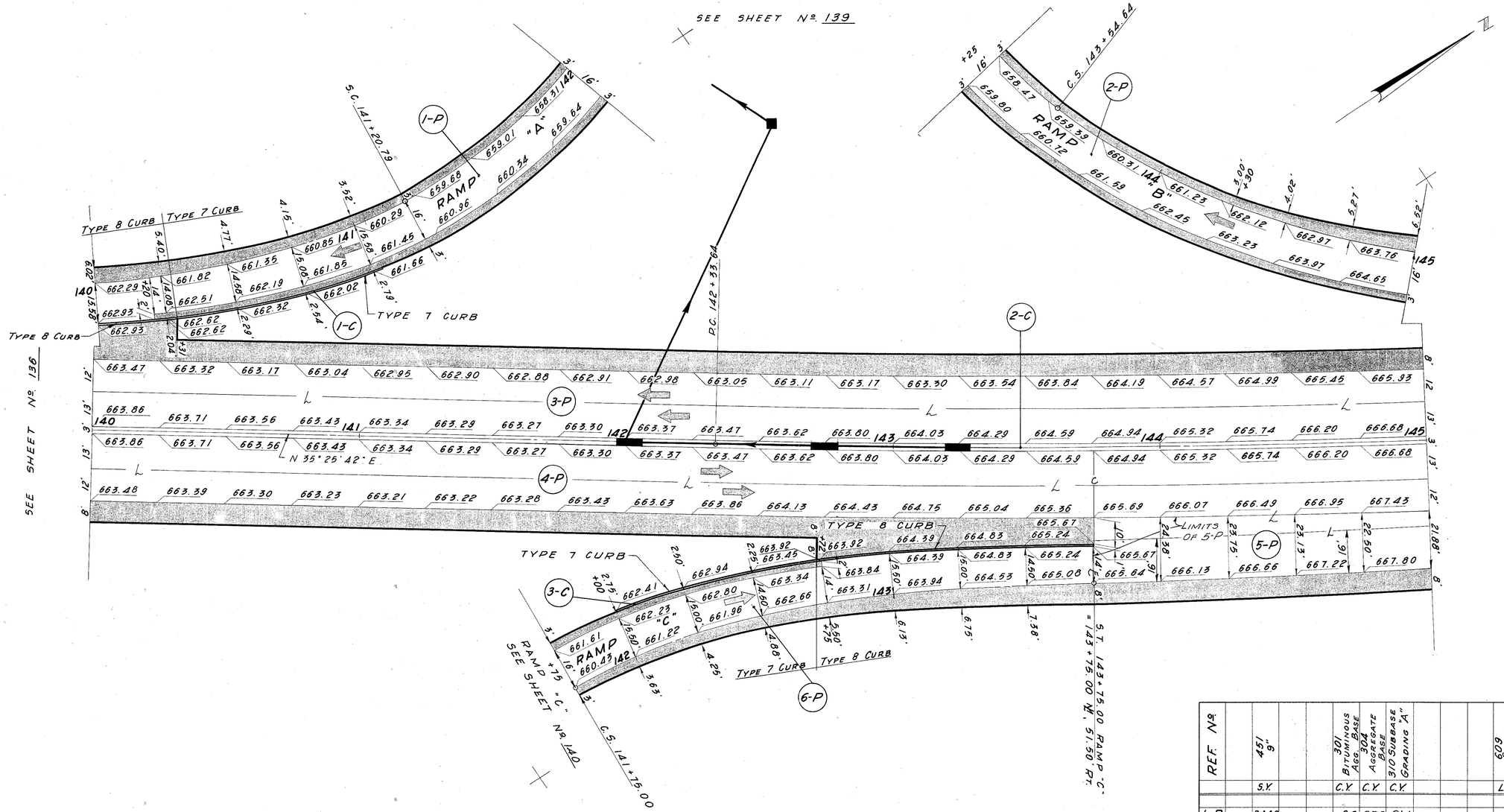
138
560

JEFFERSON COUNTY
JEF - 7 - 0.20

SEE SHEET Nº. 139

SEE SHEET Nº. 136

SEE SHEET Nº. 141



LEGEND

ITEM 301 - BITUMINOUS AGGREGATE BASE

REF. Nº	451 9" S.Y.	301 BITUMINOUS AGG. BASE C.Y.	304 AGGREGATE BASE C.Y.	310 SUBBASE GRADING "A" C.Y.	609 CURB TYPE-7 L.F.	609 CURB TYPE-8 L.F.	622 CONCRETE BARRIER TYPE 1 L.F.	SPEC. DRAINAGE CONNECTION NO. 8 AGG. C.Y.	203 SUBGRADE COMPACTION S.Y.
1-P	3440	9.6	25.0	81.1				10.2	5353
2-P	3111	11.2	20.7	70.5				8.9	4998
3-P	13757	2696							20153
4-P	13889	2498							18980
5-P	3256	61.6							4575
6-P	3933	12.5	23.2	78.2				10.2	5389
1-C					80.0	30.0			
2-C							440		
3-C					78.0	10.0			
TOTAL	4079	614	69	230	158	134	440	29	5945

Rev. Quan. Calc. F.O. 5-74
Rev. Quan. Ck'd J.R.F. 5-74

A.E. STILSON & ASSOCIATES, INC.
Quantities Calculated D.L.B. NOVEMBER 1968
Quantities Checked F.O. APRIL 1969

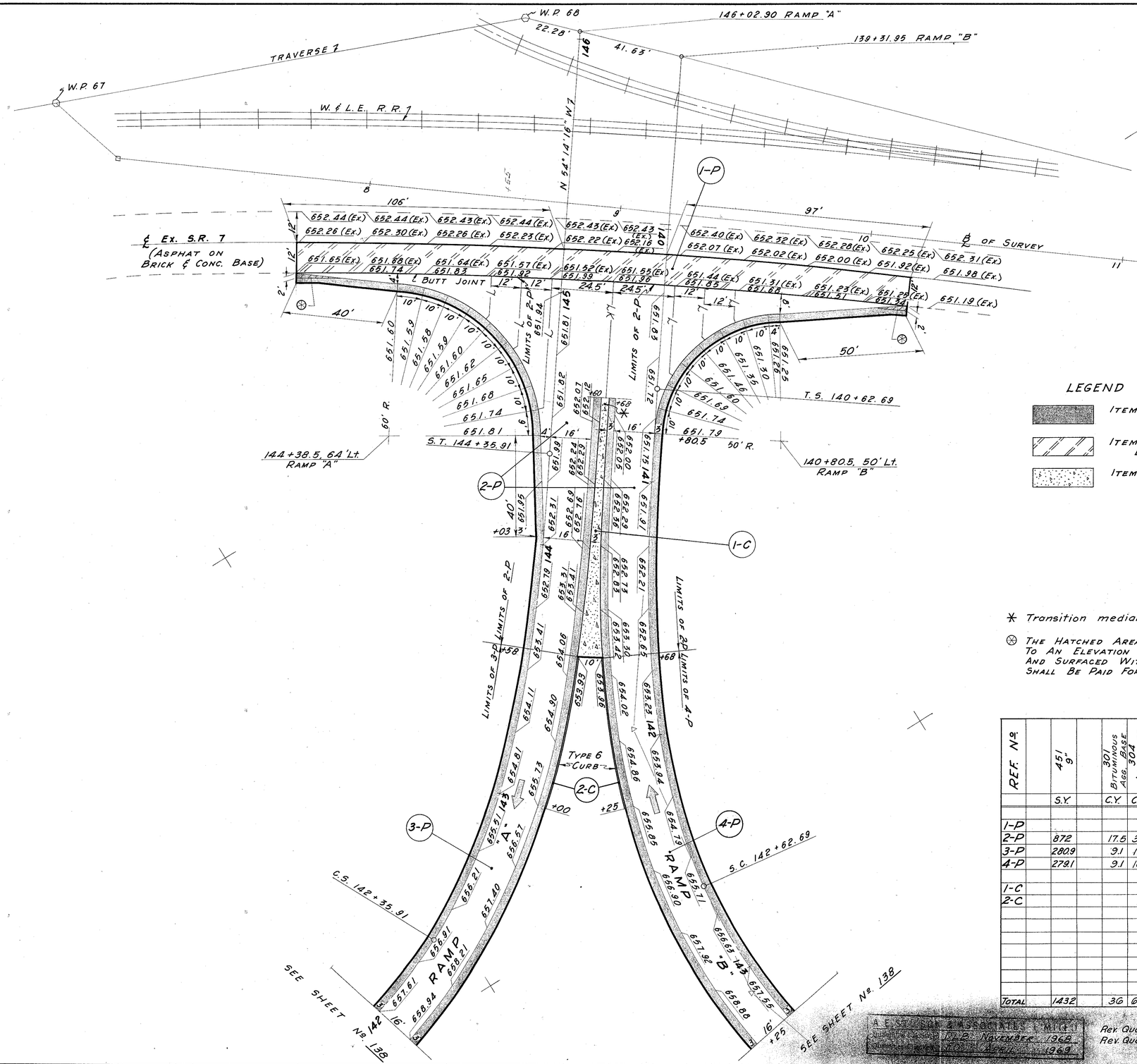
	DATE	BY
DRAFTING PLOTTED		
DRAFTING CHECKED		
PROPOSED DRAWN		
PROPOSED CHECKED		
QUANTITIES CALCULATED		
QUANTITIES CHECKED		

PAVEMENT DETAILS STA. 140+00 TO STA. 145+00

FED. RD. DIVISION	STATE	PROJECT	
2	OHIO		

139
560

JEFFERSON COUNTY
JEF.-7-0.20



LEGEND

- ITEM 301 - BITUMINOUS AGGREGATE BASE
- ITEM 404 - (0" TO 5½") ASPHALT CONC. BUILD-UP
- ITEM 612 - CONCRETE MEDIAN

✳ Transition median height from 0" to 6" in 10'

⊗ THE HATCHED AREA SHALL BE CONSTRUCTED OF CONC. PAVEMENT TO AN ELEVATION TWO INCHES LOWER THAN THE ADJACENT PAVEMENT AND SURFACED WITH TWO INCHES BITUMINOUS AGGREGATE. THIS AREA SHALL BE PAID FOR AS ITEM'S 451 AND 301.

REF. Nº	451 9"	301 BITUMINOUS AGG. BASE	304 AGGREGATE BASE	310 SUBBASE GRADING "A"	404 ASPHALT CONCRETE	612 CONCRETE MEDIAN	609 TYPE 6 CURB	SPEC. DRAINAGE CONNECTION NA & AGG.	203 SUBGRADE COMPACTION
	S.Y.	C.Y.	C.Y.	C.Y.	C.Y.	S.Y.	L.F.	C.Y.	S.Y.
1-P					24.7				
2-P	872	17.5	31.2	199.1				20.1	1201.5
3-P	280.9	9.1	16.7	62.1				8.1	438.9
4-P	279.1	9.1	16.7	61.7				8.0	436.1
1-C						56			
2-C							121		
TOTAL	1432	36	65	323	25	56	121	36	2077

A. E. STEPHAN & ASSOCIATES, CINTI.
Quantities & Est. Prep. 12-12-NOVEMBER-1968
Quantities Checked F.O. APRIL 1969

Rev. Quan. Calc. F.O. 5-74
Rev. Quan. Ck'd J.P.F. 5-74

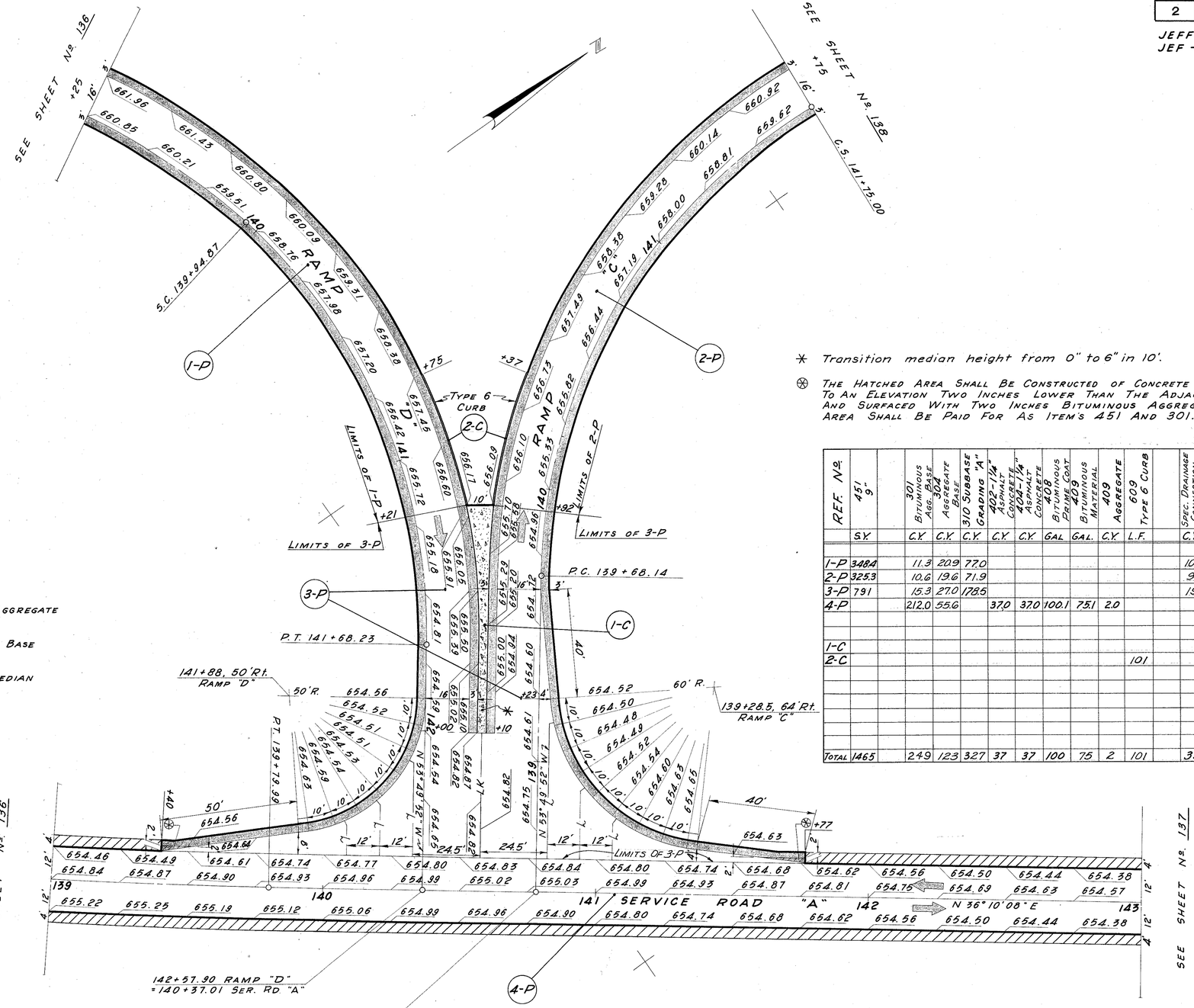
BY	DATE
EXISTING PLOTTED	
EXISTING CHECKED	
PROPOSED DRAWN	
PROPOSED CHECKED	
QUANTITIES CALCULATED	
QUANTITIES CHECKED	

S.R. 150 INTERCHANGE - RAMP'S "A" & "B" PAVEMENT DETAILS

FED. RD. DIVISION	STATE	PROJECT	
2	OHIO		

140/560

JEFFERSON COUNTY
JEF - 7 - 0.20



LEGEND

- ITEM 301 - BITUMINOUS AGGREGATE BASE
- ITEM 304 - 8" AGGREGATE BASE
- ITEM 612 - CONCRETE MEDIAN

* Transition median height from 0" to 6" in 10'.

⊛ THE HATCHED AREA SHALL BE CONSTRUCTED OF CONCRETE PAVEMENT TO AN ELEVATION TWO INCHES LOWER THAN THE ADJACENT PAVEMENT AND SURFACED WITH TWO INCHES BITUMINOUS AGGREGATE. THIS AREA SHALL BE PAID FOR AS ITEM'S 451 AND 301.

REF. No.	451 9"		301 BITUMINOUS AGG. BASE	304 AGGREGATE BASE	310 SUBBASE GRADING "A"	402-1¼" ASPHALT CONCRETE	404-1¼" ASPHALT CONCRETE	408 BITUMINOUS PRIME COAT	409 BITUMINOUS MATERIAL	409 AGGREGATE	609 TYPE 6 CURB		SPEC. DRAINAGE CONNECTION No. 8 AGG.	612 CONCRETE MEDIAN			203 SUBGRADE COMPACTION
	S.Y.		C.Y.	C.Y.	C.Y.	C.Y.	C.Y.	GAL	GAL.	C.Y.	L.F.		C.Y.	S.Y.			S.Y.
1-P	348.4		11.3	20.9	77.0								10.0				544.4
2-P	325.3		10.6	19.6	71.9								9.3				508.3
3-P	791		15.3	27.0	178.5								19.5				1081.5
4-P			212.0	55.6		37.0	37.0	100.1	75.1	2.0							1410.8
1-C														45			
2-C											101						
TOTAL	1465		249	123	327	37	37	100	75	2	101		39	45			3545

Rev. Quan. Calc. F.O. 5-74
Rev. Quan. Ck'd J.R.F. 5-74

A.E. STILSON & ASSOCIATES LIMITED
Original Calculated D.L.B. NOVEMBER 1968
Revised F.O. APRIL 1969

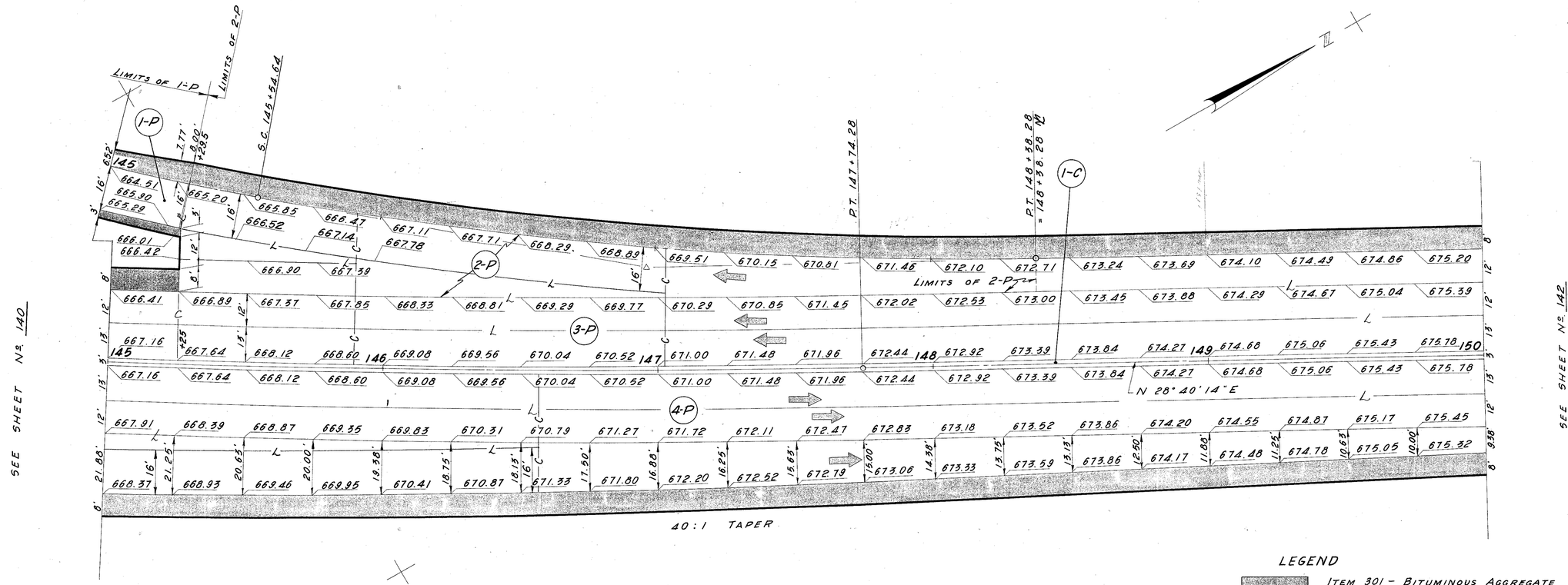
	BY	DATE
EXISTING PLOTTED		
EXISTING CHECKED		
PROPOSED DRAWN		
PROPOSED CHECKED		
QUANTITIES CALCULATED		
QUANTITIES CHECKED		

S.R. 150 INTERCHANGE - RAMP'S "C" & "D" PAVEMENT DETAILS

FED. RD. DIVISION	STATE	PROJECT	
2	OHIO		

141
560

JEFFERSON COUNTY
JEF - 7 - 0.20



LEGEND

ITEM 301 - BITUMINOUS AGGREGATE BASE

REF. No.	451 9"	301 Bituminous Agg. Base	304 Aggregate Base	310 Subbase Grading "A"	622 Concrete Barrier Type I	Spec. Drainage Connection No. 8 Agg.	203 Subgrade Compaction
	S.Y.	C.Y.	C.Y.	C.Y.	L.F.	C.Y.	S.Y.
1-P	52.4	2.8	4.9	13.3		1.5	95.9
2-P	751.6	146.4					1076.5
3-P	1604.5	231.4					1884.9
4-P	2257.2	361.9					2868.3
1-C					500		
TOTAL	4666	743	5	13	500	2	5926

Rev. Quan. Calc. F.O. 5-74
Rev. Quan. Ck'd J.R.F. 5-74

A. E. STILSON & ASSOCIATES, Limited
Quantities Calculated [illegible] November 1968
Quantities Checked [illegible] April 1969

	BY	DATE
EXISTING PLOTTED		
EXISTING CHECKED		
PROPOSED DRAWN		
PROPOSED CHECKED		
QUANTITIES CALCULATED		
QUANTITIES CHECKED		

PAVEMENT DETAILS STA. 145+00 TO STA. 150+00

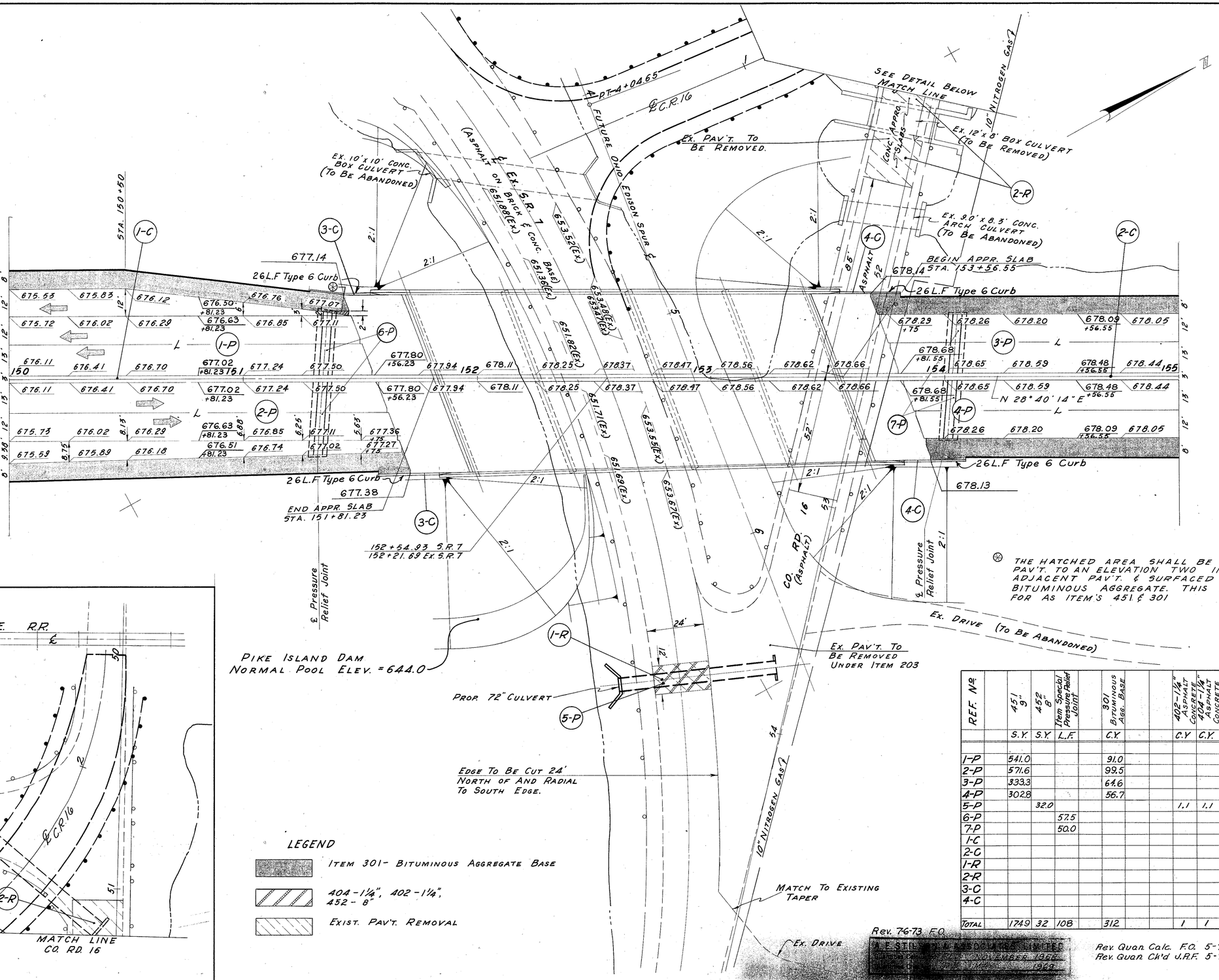
FED. RD. DIVISION	STATE	PROJECT	
2	OHIO		

142
560

JEFFERSON COUNTY
JEF - 7 - 0.20

SEE SHEET No. 141

SEE SHEET No. 143

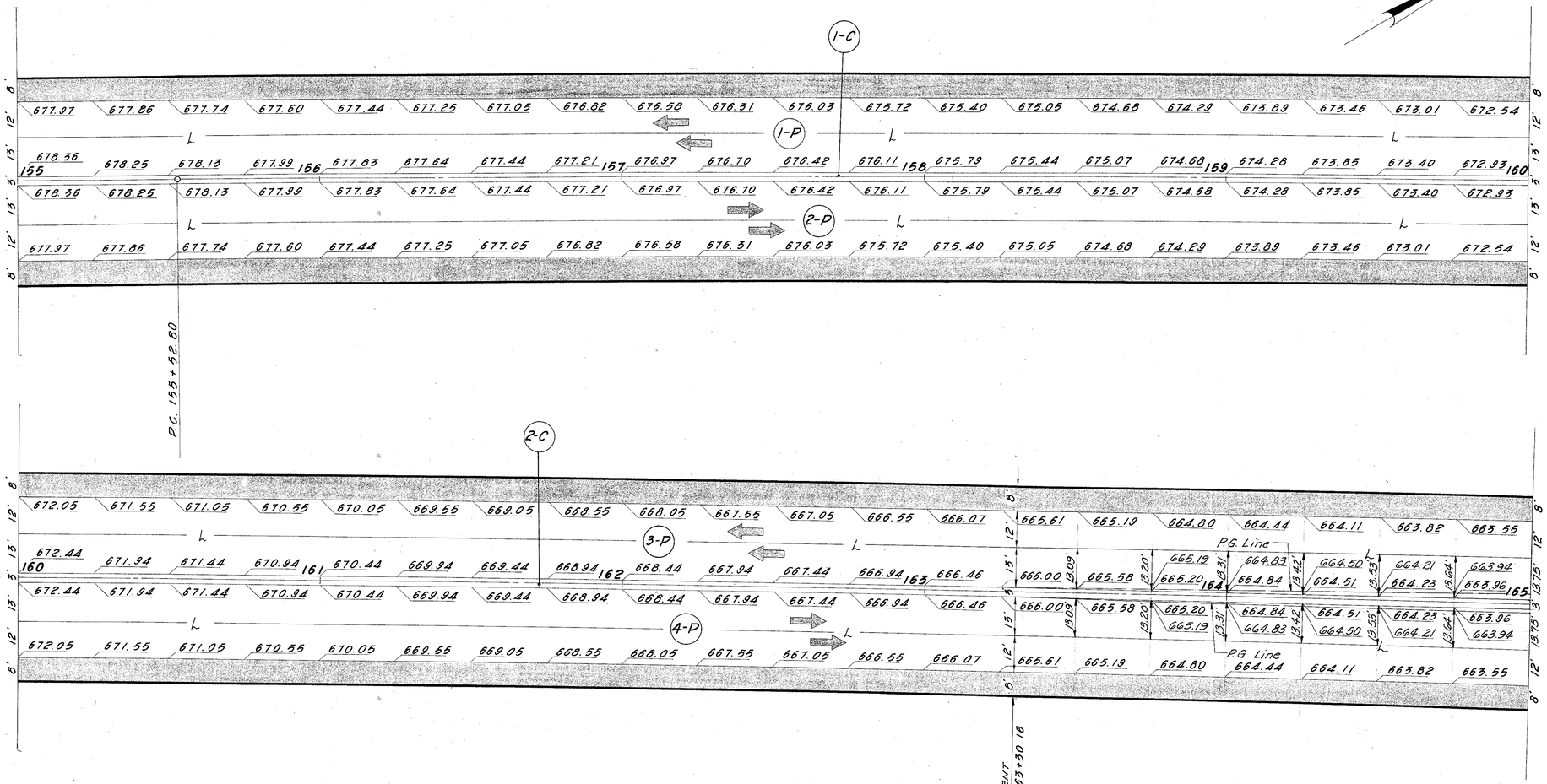

STA. 150+50
1-C
3-C
2-C
4-C
2-R
1-R
5-P
6-P
1-P
2-P
3-P
4-P
7-P
677.14
26 L.F Type 6 Curb
677.38
END APPR. SLAB
STA. 151+81.23
BEGIN APPR. SLAB
STA. 153+56.55
678.14
678.13
EX. 10'x10' CONC. BOX CULVERT (To Be Abandoned)
EX. 12'x8' BOX CULVERT (To Be Removed)
EX. 9.0'x8.3' CONC. ARCH CULVERT (To Be Abandoned)
EX. PAV'T. To Be Removed.
CONC. APPRO. SLABS
FUTURE OHIO EDISON SPUR ℄
℄ EX. S.R. 7 (Asphalt on Brick & Conc. Base)
℄ C.R. 16
651.88(Ex)
651.38(Ex)
653.52(Ex)
653.48(Ex)
653.41(Ex)
651.82(Ex)
651.71(Ex)
653.55(Ex)
653.62(Ex)
651.69(Ex)
652.16(Ex)
652.13(Ex)
652.10(Ex)
652.07(Ex)
652.04(Ex)
652.01(Ex)
651.98(Ex)
651.95(Ex)
651.92(Ex)
651.89(Ex)
651.86(Ex)
651.83(Ex)
651.80(Ex)
651.77(Ex)
651.74(Ex)
651.71(Ex)
651.68(Ex)
651.65(Ex)
651.62(Ex)
651.59(Ex)
651.56(Ex)
651.53(Ex)
651.50(Ex)
651.47(Ex)
651.44(Ex)
651.41(Ex)
651.38(Ex)
651.35(Ex)
651.32(Ex)
651.29(Ex)
651.26(Ex)
651.23(Ex)
651.20(Ex)
651.17(Ex)
651.14(Ex)
651.11(Ex)
651.08(Ex)
651.05(Ex)
651.02(Ex)
650.99(Ex)

FED. RD. DIVISION	STATE	PROJECT	
2	OHIO		

143
560

JEFFERSON COUNTY
JEF - 7 - 0.20

SEE SHEET No. 142



SEE SHEET No. 144

REF. No.	451 9"				301 BITUMINOUS AGG. BASE		622 Concrete Barrier Type 1	203 SUBGRADE COMPACTION						
	S.Y.				C.Y.		L.F.	S.Y.						
1-P	1388.9				265.4			2000						
2-P	1388.9				265.4			2000						
3-P	1396.0				266.2			2000						
4-P	1396.0				266.2			2000						
1-C							500							
2-C							500							
TOTAL	5570				1063		1000	8000						

LEGEND

ITEM 301 - BITUMINOUS AGGREGATE BASE

Rev. Quan. Calc. F.O. 5-74
Rev. Quan. Ck'd J.R.F. 5-74

A. E. STILSON & ASSOCIATES, LIMITED
Quantities Calculated R.E.I. NOVEMBER 1973
Quantities Checked D.H.P. MAY 1974

	BY	DATE
EXISTING PLOTTED		
EXISTING CHECKED		
PROPOSED DRAWN		
PROPOSED CHECKED		
QUANTITIES CALCULATED		
QUANTITIES CHECKED		

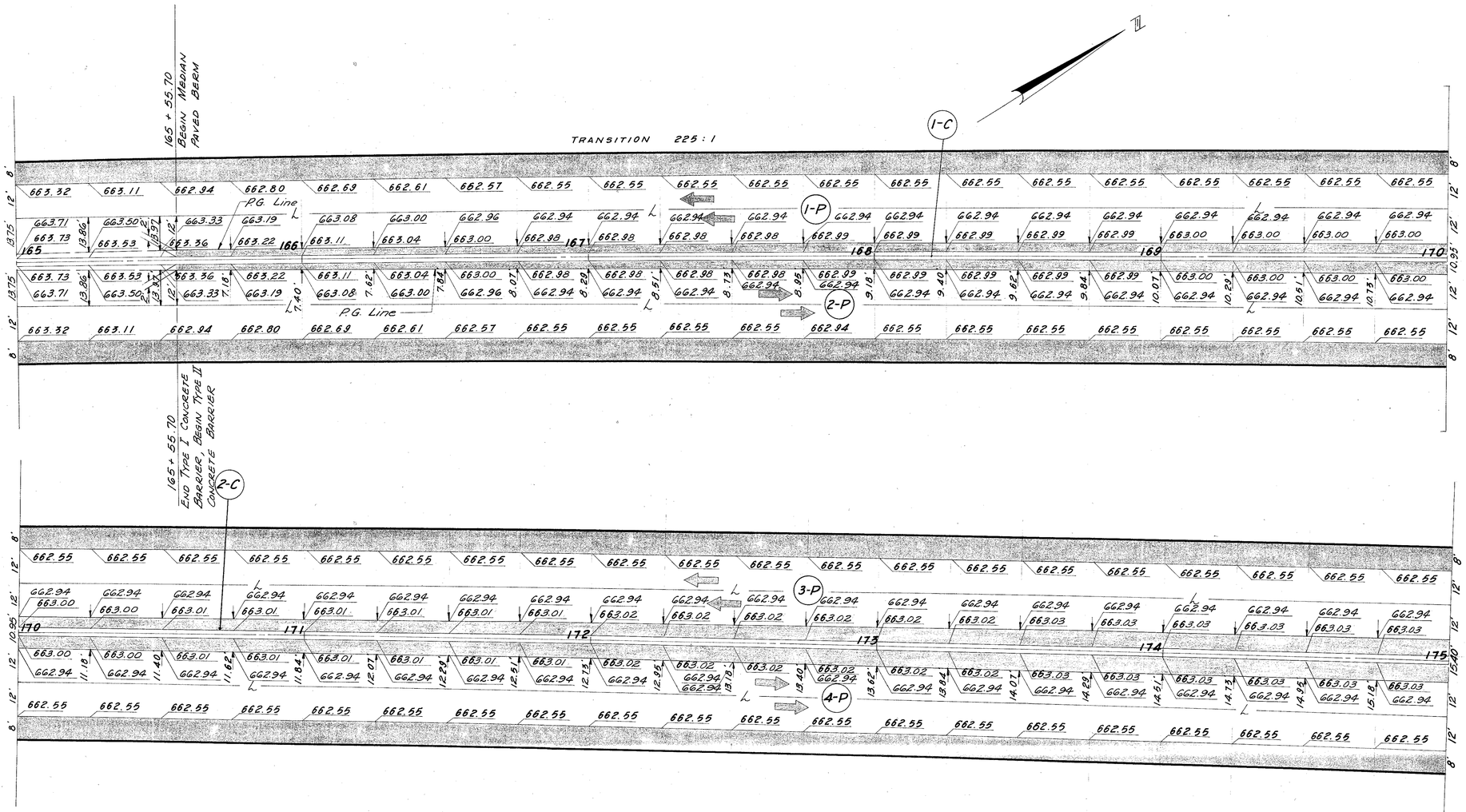
PAVEMENT DETAILS STA. 155+00 TO STA. 165+00

FED. RD. DIVISION	STATE	PROJECT	
2	OHIO		

144
560

JEFFERSON COUNTY
JEF. - 7 - 0.20

SEE SHEET No. 143



SEE SHEET No. 145

LEGEND

ITEM 301 - BITUMINOUS AGGREGATE BASE

Rev. Quan. Calc. F.O. 5-74
Rev. Quan. Ck'd J.R.F. 5-74

A. E. STILSON & ASSOCIATES LIMITED
Computed R.E.L. NOVEMBER 1968
Checked D.L.B. MAY 1969

REF. No.	451 9"				301 BITUMINOUS AGG. BASE			622 Concrete Barrier Type I	622 Concrete Barrier Type II	203 SUBGRADE COMPACTION					
	S.Y.				C.Y.			L.F.	L.F.	S.Y.					
1-P	1344.9				293.3					2103					
2-P	1344.9				293.3					2103					
3-P	1333.3				322.1					2227					
4-P	1333.3				322.1					2227					
1-C								56	444						
2-C									500						
TOTAL	5356				1231			56	944	8660					

	BY	DATE
EXISTING PLOTTED		
EXISTING CHKD.		
PROPOSED DRAWN		
PROPOSED CHECKED		
QUANTITIES CALCULATED		
QUANTITIES CHECKED		

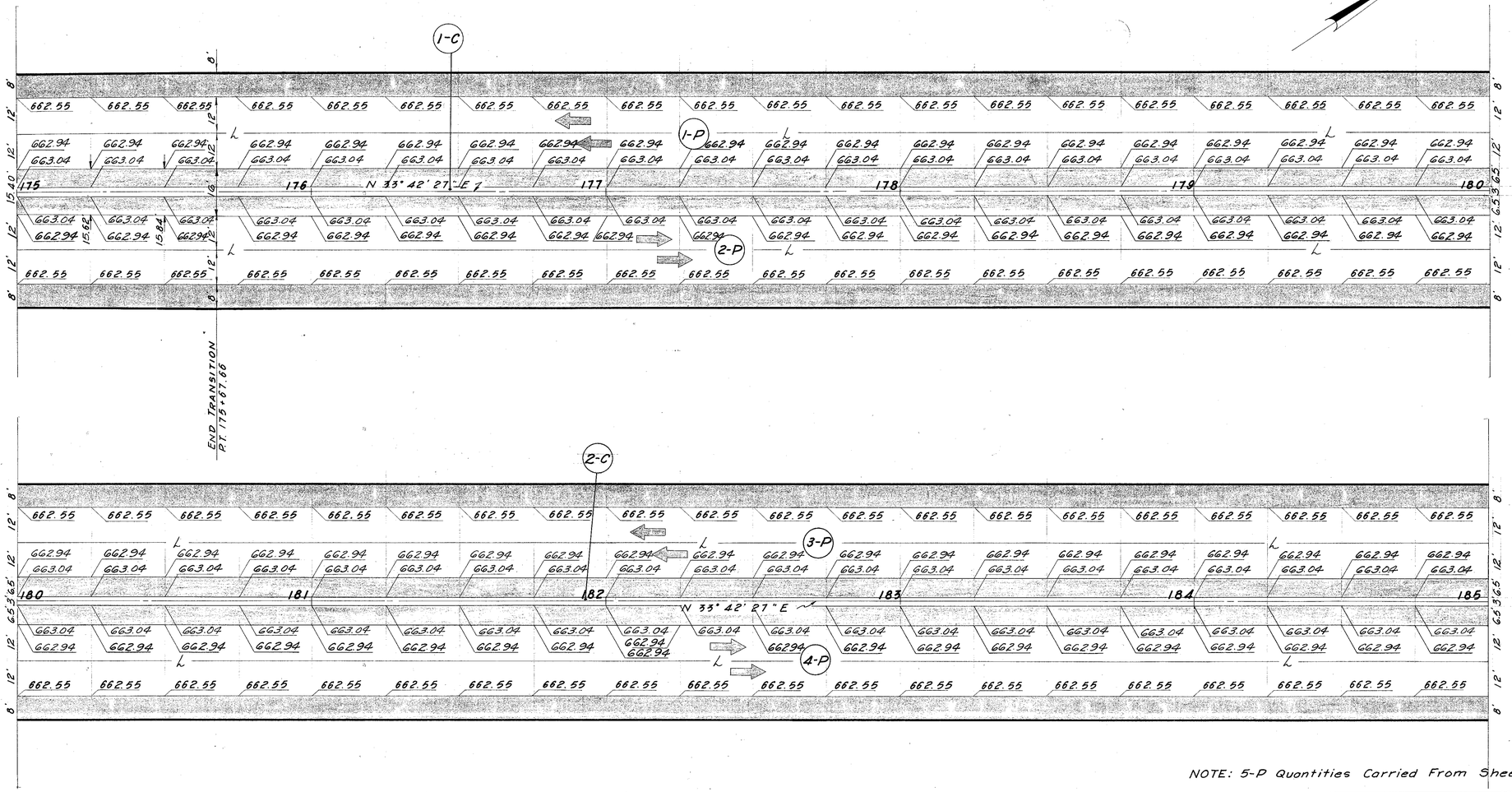
PAVEMENT DETAILS STA. 165+00 TO STA. 175+00

FED. RD. DIVISION	STATE	PROJECT	
2	OHIO		

145/560

JEFFERSON COUNTY
JEF - 7 - 0.20

SEE SHEET Nº 144



SEE SHEET Nº 146

NOTE: 5-P Quantities Carried From Sheet Nº 100

REF. Nº	451 S.Y.	404 Asphalt Concrete C.Y.	304 Aggregate Base C.Y.	408 Bituminous Prime Coat Gal.	301 Bituminous Agg. Base C.Y.	G22 Concrete Barrier Type II L.F.	203 Subgrade Compaction S.Y.
1-P	1333.3				339.3		2306
2-P	1333.3				339.3		2306
3-P	1333.3				339.6		2306
4-P	1333.3				339.6		2306
5-P		4.8	16.7	34.3			
1-C						500	
2-C						500	
TOTAL	5333	5	17	34	1358	1000	9224

LEGEND

ITEM 301 - BITUMINOUS AGGREGATE BASE

Rev. Quan. Calc. F.O. 5-74
Rev. Quan. Ch'd J.A.F. 5-74

A. E. STILSON & ASSOCIATES
Quantities computed REL NOVEMBER 1968
Quantities checked DLB MAY 1969

	BY	DATE
EXISTING PLOTTED		
EXISTING CHECKED		
PROPOSED DRAWN		
PROPOSED CHECKED		
QUANTITIES CALCULATED		
QUANTITIES CHECKED		

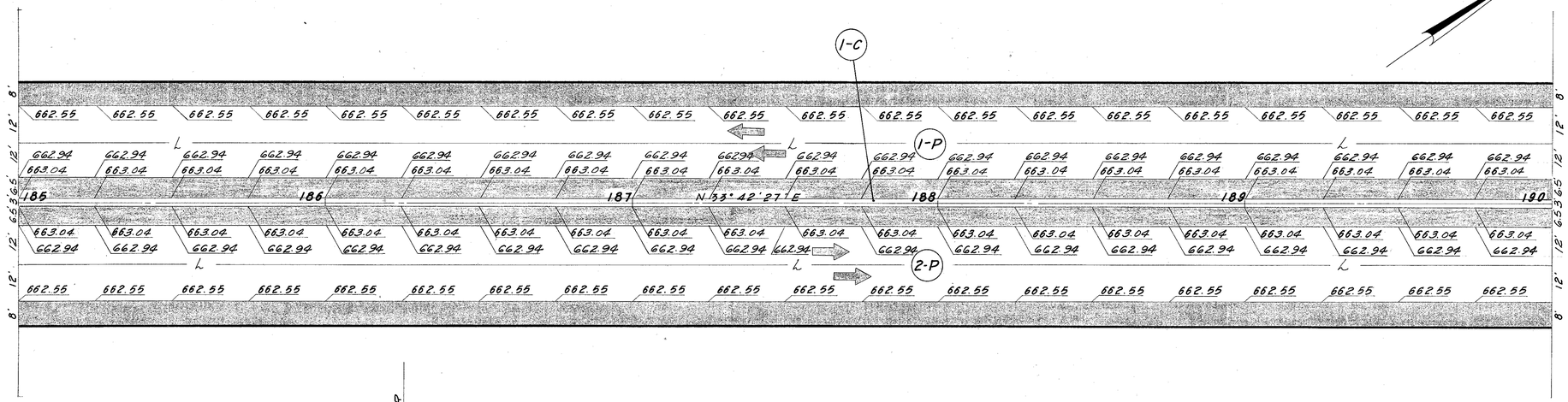
PAVEMENT DETAILS STA. 175+00 TO STA. 185+00

FED. RD. DIVISION	STATE	PROJECT	
2	OHIO		

146
560

JEFFERSON COUNTY
JEF - 7 - 0.20

SEE SHEET No. 145



SEE SHEET No. 147

LEGEND

ITEM 301 - BITUMINOUS AGGREGATE BASE

⊛ THE HATCHED AREA'S SHALL BE CONSTRUCTED OF CONC. PAV'T. TO AN ELEVATION TWO INCHES LOWER THAN THE ADJACENT PAV'T. & SURFACED WITH TWO INCHES BITUMINOUS AGGREGATE. THIS AREA SHALL BE PAID FOR AS ITEM'S 451 & 301.

Rev. Quan. Calc. F.O. 5-74
Rev. Quan. Ck'd J.R.F. 5-74

E. STILSON & ASSOCIATES, LIMITED
Quantities Calculated REL NOVEMBER 1968
Quantities Checked JRF MAY 1969

REF. No.	451 9"					301 BITUMINOUS AGG. BASE			203 SUBGRADE COMPACTION		622 Concrete Barrier Type II					
	S.Y.					C.Y.			S.Y.		L.F.					
1-P	1333.3					339.6			2306							
2-P	1333.3					339.6			2306							
3-P	1537.7					360.6			2501							
4-P	1835.2					395.1			2806							
1-C											500					
2-C											500					
TOTAL	6040					1435			9919		1000					

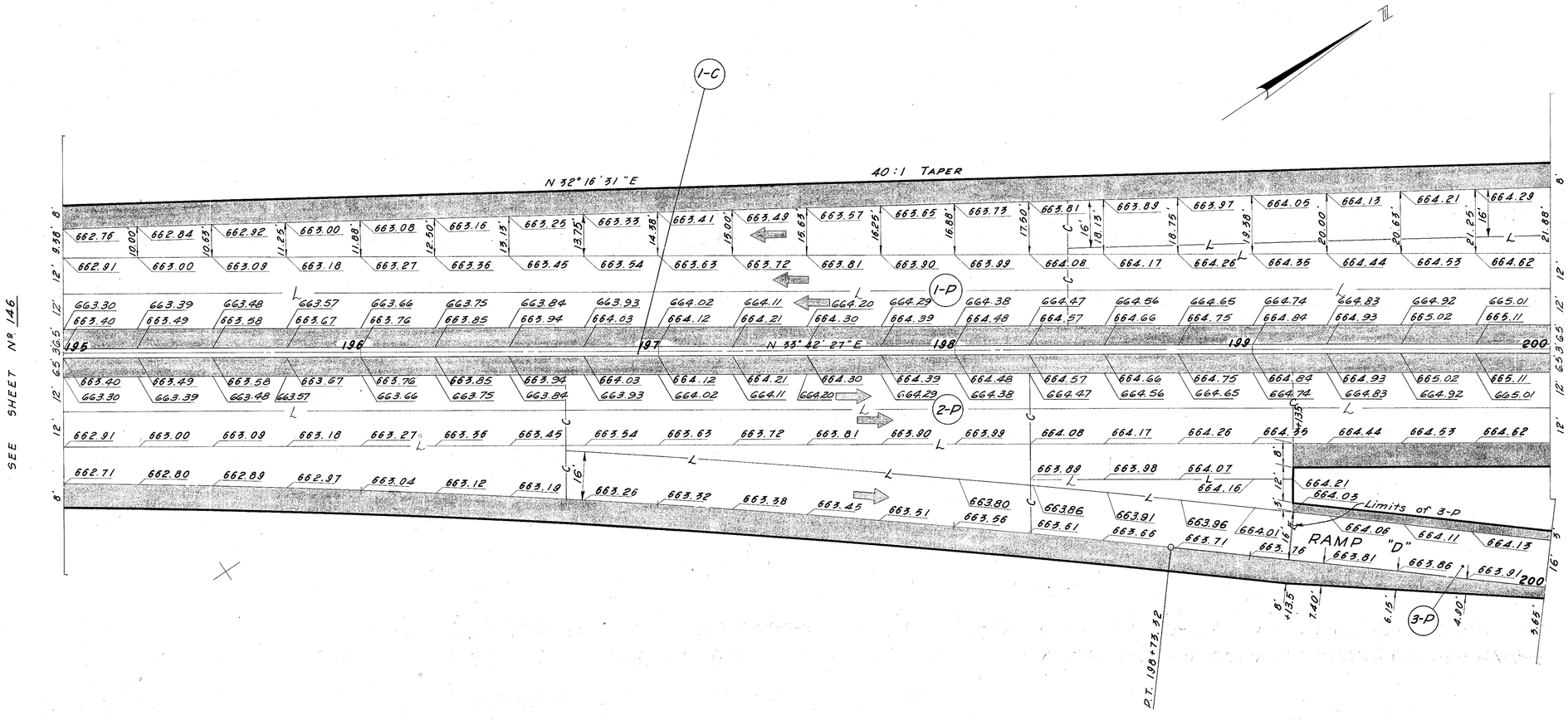
PAVEMENT DETAILS STA. 185+00 TO STA. 195+00

	BY	DATE
EXISTING PLOTTED		
EXISTING CHECKED		
PROPOSED DRAWN		
PROPOSED CHECKED		
QUANTITIES CALCULATED		
QUANTITIES CHECKED		

FED. RD. DIVISION	STATE	PROJECT	
2	OHIO		

147
560

JEFFERSON COUNTY
JEF - 7 - 0.20



REF. No.	451 9"			301 Bituminous Aggregate Base	304 Aggregate Base	310 Subbase Grading "A"		622 Concrete Barrier Type II				Spec. Drainage Connection No. 8 Agg.		203 Subgrade Compaction		
	S.Y.			C.Y.	C.Y.	C.Y.		L.F.				C.Y.		S.Y.		
1-P	2201.7			436.0										317.4		
2-P	2346.9			452.2										331.9		
3-P	153.8			7.1	13.4	37.5						4.4		25.8		
1-C								500								
TOTAL	4702			895	13	38		500				4		675.1		

LEGEND

ITEM 301 – BITUMINOUS AGGREGATE BASE

Rev. Quan. Calc. F.O. 5-74
Rev. Quan. Ck'd J.R.F. 5-74

A. E. STILSON & ASSOCIATES, ENGINEERS
Quantities Calculated R.E.L. NOVEMBER 1968
Quantities Checked D.L.B. MAY 1969

	BY	DATE
EXISTING PLOTTED		
EXISTING CHECKED		
PROPOSED DRAWN		
PROPOSED CHECKED		
QUANTITIES CALCULATED		
QUANTITIES CHECKED		

PAVEMENT DETAILS STA. 195+00 TO STA. 200+00

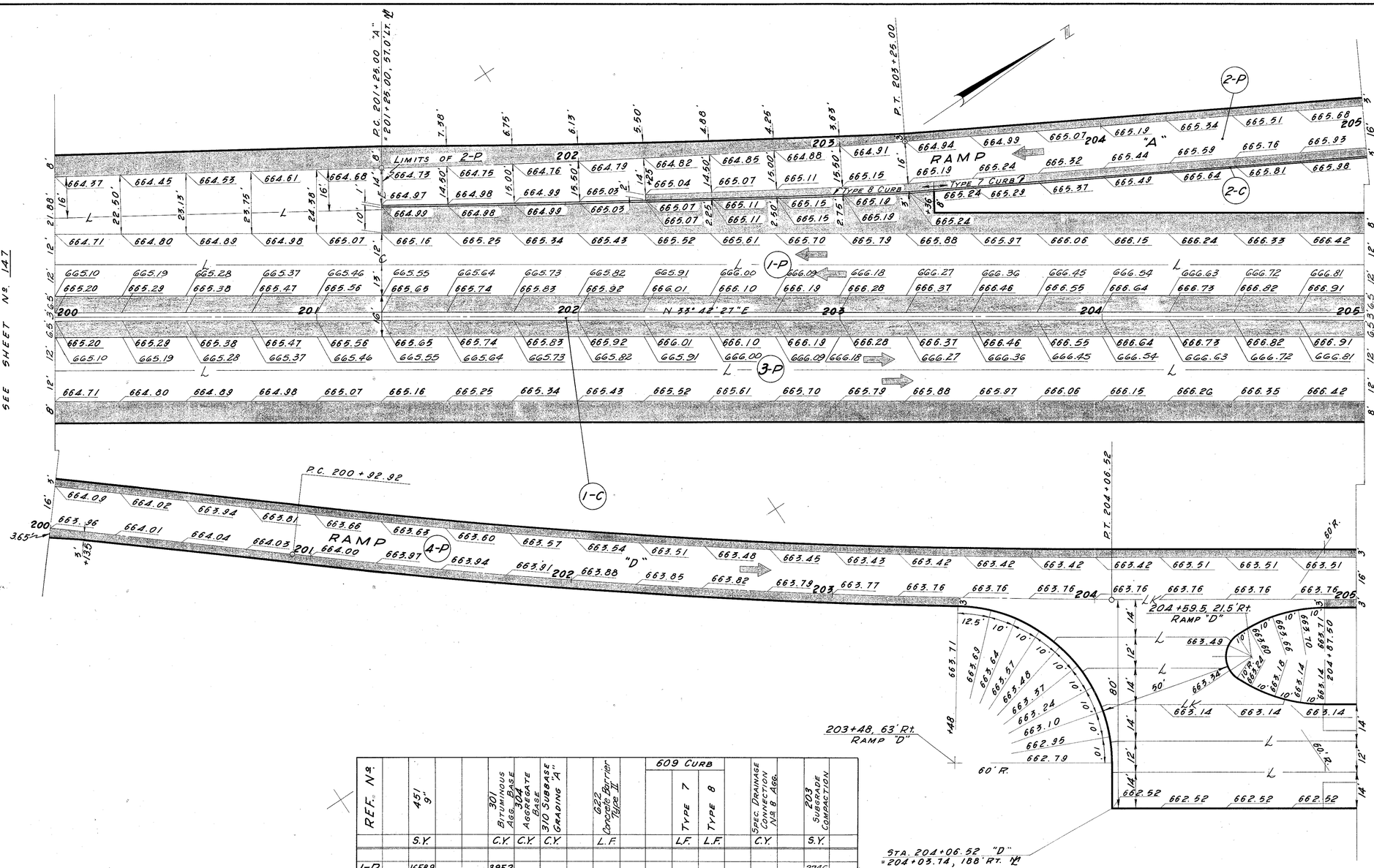
FED. RD. DIVISION	STATE	PROJECT	
2	OHIO		

148
560

JEFFERSON COUNTY
JEF - 7 - 0.20

SEE SHEET No. 147

SEE SHEET No. 149



REF. No.	451 9" S.Y.	301 Bituminous Agg. Base C.Y.	304 Aggregate Base C.Y.	310 Subbase Grading "A" C.Y.	622 Concrete Barrier Type II L.F.	609 Curb Type 7 L.F.	609 Curb Type 8 L.F.	Spec. Drainage Connection No 8 Agg. C.Y.	203 Subgrade Compaction S.Y.
1-P	1658.9	395.2							274.6
2-P	644.4	22.2	41.1	147.4				17.6	104.2
3-P	1333.4	339.6							230.6
4-P	1652.0	23.9	43.3	317.8				25.6	219.5
1-C					50.0				
2-C						165.0	211.0		
TOTAL	5289	781	84	465	50.0	165	211	43	828.9

LEGEND

ITEM 301 - BITUMINOUS AGGREGATE BASE

Rev. Quan. Calc. F.O. 5-74
Rev. Quan. Ck'd J.A.F. 5-74

A.E. STILSON & ASSOCIATES LIMITED
Quantities Calculated R.E.L. NOVEMBER 1968
Quantities Checked P.J.B. MAY 1969

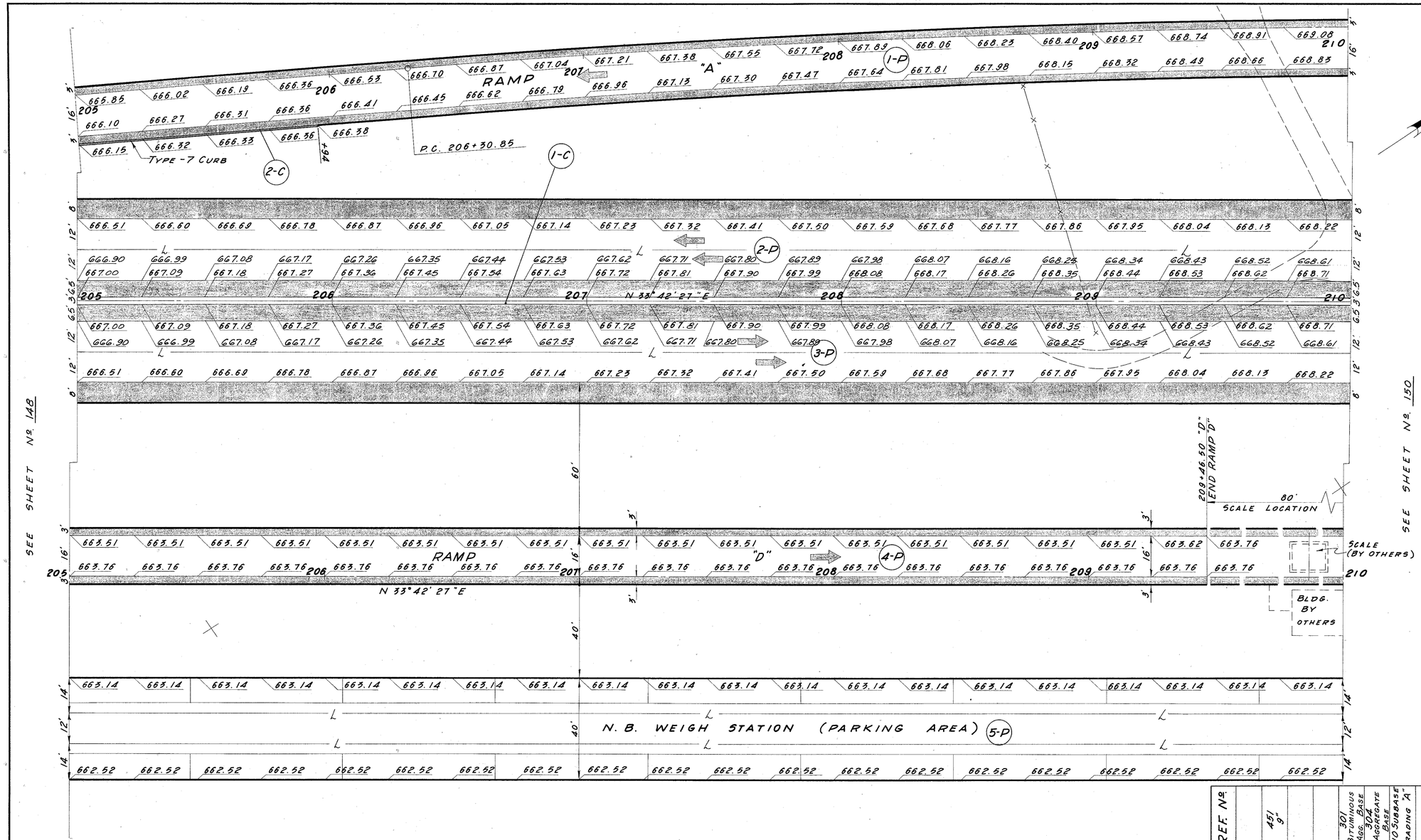
	BY	DATE
EXISTING PLOTTED		
EXISTING CHECKED		
PROPOSED DRAWN		
PROPOSED CHECKED		
QUANTITIES CALCULATED		
QUANTITIES CHECKED		

PAVEMENT DETAILS STA. 200+00 to STA. 205+00

FED. RD. DIVISION	STATE	PROJECT	
2	OHIO		

149
560

JEFFERSON COUNTY
JEF - 7 - 0.20



REF. No.	451 9" S.Y.	301 Bituminous Agg. Base C.Y.	304 Aggregate Base C.Y.	310 Subbase Grading "A" C.Y.	622 Concrete Barrier Type II L.F.	609-Curb Type 7 L.F.	Spec. Drainage Connection No. 8 Agg. C.Y.	203 Subgrade Compaction S.Y.
1-P	888.9	27.8	51.1	196.5			25.6	1389
2-P	1333.4	339.6						2306
3-P	1333.4	339.6						2306
4-P	793.8	24.8	45.8	175.5			22.8	1240
5-P	2222.2			407.4				2611
1-C					500			
2-C						94		
TOTAL	6572	732	97	779	500	94	48	9852

LEGEND

ITEM 301 - BITUMINOUS AGGREGATE BASE

Rev. Quan. Calc. F.O. 5-74
Rev. Quan. Ck'd J.R.F. 5-74

A. E. STILSON & ASSOCIATES LIMITED
Quantities Calculated REL NOVEMBER 1968
Quantities Checked DLB MAY 1969

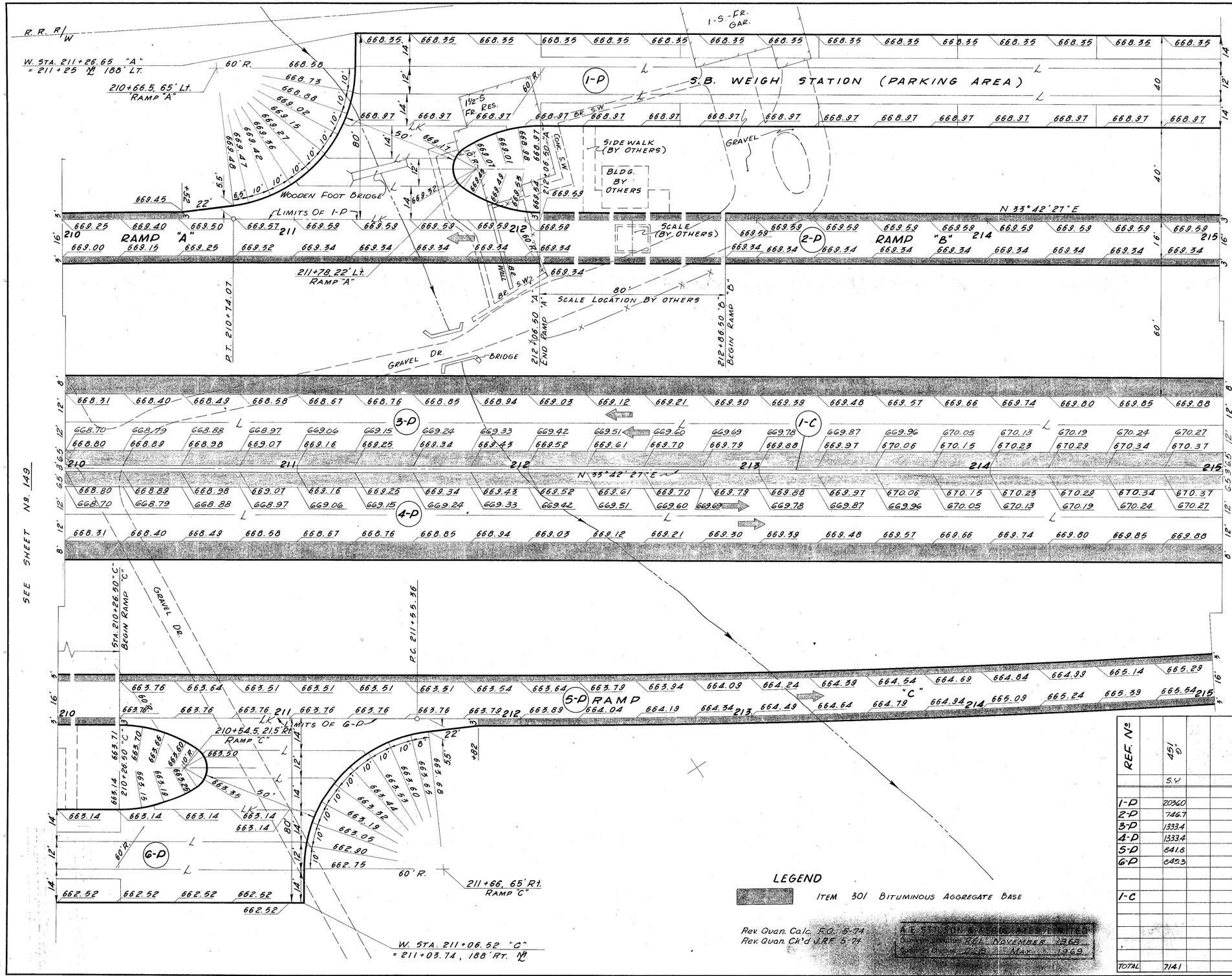
	BY	DATE
EXISTING PLOTTED		
EXISTING CHECKED		
PROPOSED DRAWN		
PROPOSED CHECKED		
QUANTITIES CALCULATED		
QUANTITIES CHECKED		

PAVEMENT DETAILS STA. 205+00 TO STA. 210+00

FED. RD. DIVISION	STATE	PROJECT	
2	OHIO		

150/560

JEFFERSON COUNTY
JEF-7-0.20



LEGEND

ITEM 301 BITUMINOUS AGGREGATE BASE

Rev. Quan. Calc. F.O. 5-74
Rev. Quan. Ck'd J.R.F. 5-74

A.E. STILSON & ASSOCIATES LIMITED
Quantities Calculated REL NOVEMBER 1968
Quantities Checked DLB MAY 1969

REF. No	451 "D"				301 BITUMINOUS AGG. BASE	304 AGGREGATE BASE	310 SUBBASE GRADING "A"		622 Concrete Barrier Type II			203 SUBGRADE COMPACTION		SPECIAL DRAINAGE CONNECTION	
	S.Y.				C.Y.	C.Y.	C.Y.		L.F.			S.Y.		C.Y.	
1-P	2036.0						371.3					2338			
2-P	746.7				19.0	34.3	158.7					1089		21.5	
3-P	1333.4				339.6							2306			
4-P	1333.4				339.6							2306			
5-P	841.8				22.0	39.8	179.5					1236		24.2	
6-P	849.3						153.6					943			
1-C									500						
TOTAL	7141				720	74	863		500			10,218		46	

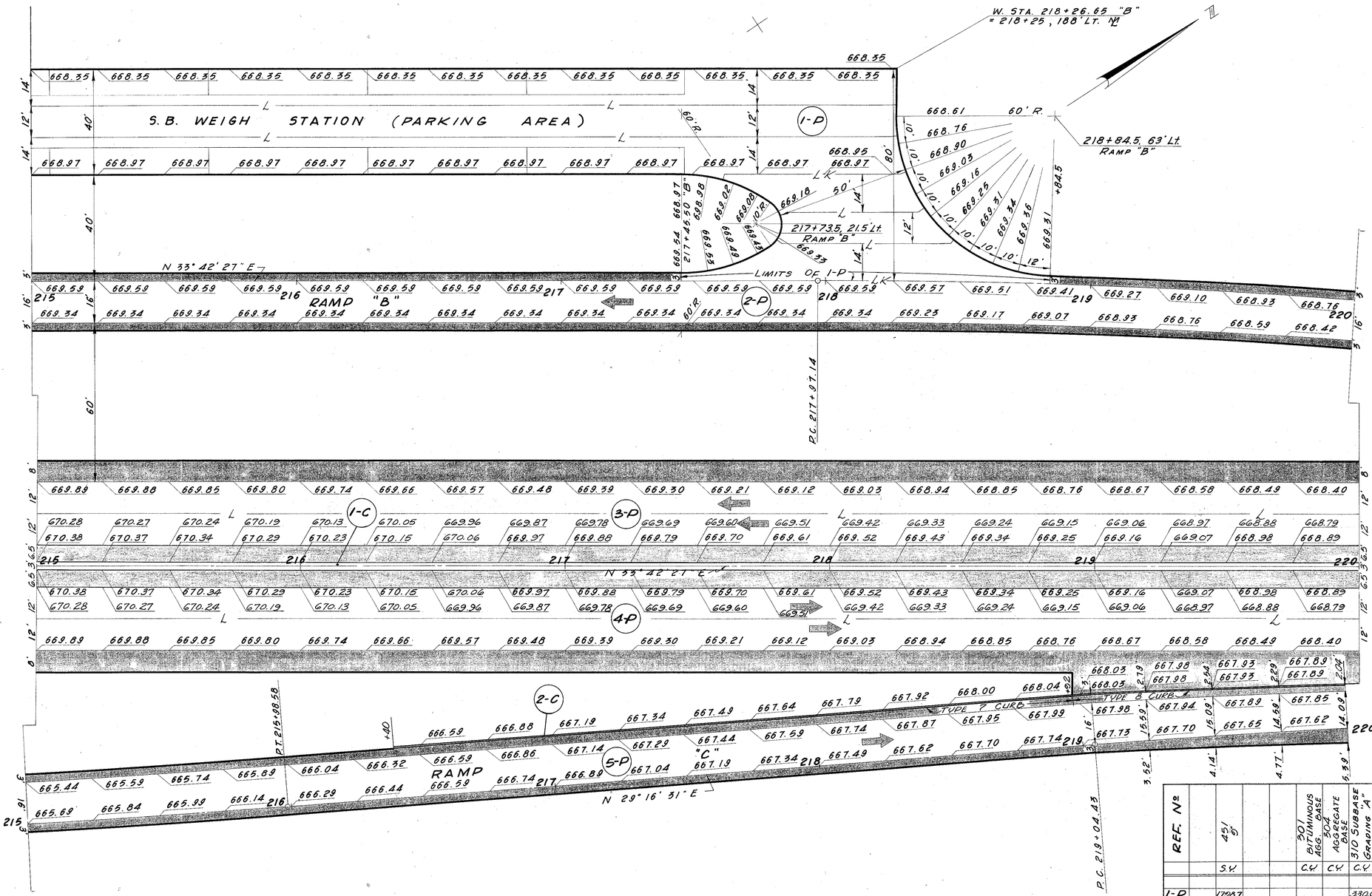
	BY	DATE
EXISTING PLOTTED		
EXISTING CHECKED		
PROPOSED DRAWN		
PROPOSED CHECKED		
QUANTITIES CALCULATED		
QUANTITIES CHECKED		

PAVEMENT DETAILS STA. 210+00 TO STA. 215+00

FED. RD. DIVISION	STATE	PROJECT	
2	OHIO		

151
560

JEFFERSON COUNTY
JEF - 7 - 0.20



SEE SHEET No. 150

SEE SHEET No. 152

LEGEND

ITEM 301 - BITUMINOUS AGGREGATE BASE

Rev. Quan. Calc. F.Q. 5-74
Rev. Quan. Ck'd J.R.F. 5-74

REF. No		451 S		301 BITUMINOUS AGG BASE 304 AGGREGATE BASE CY	310 SUBBASE GRADING "A" CY			622 Concrete Barrier Type II LF	GOD CURB TYPE 7 LF	GOD CURB TYPE 8 LF		203 SUBGRADE COMPACTION SY	SPECIAL DRAINAGE CONNECTION CY	
		SY		CY	CY			LF	LF	LF		SY	CY	
1-P		1756.7			330.0							2107		
2-P		888.9		239	434	1996						1319	25.6	
3-P		1333.4		339.6								2306		
4-P		1333.4		354.6								2360		
5-P		878.8		28.4	52.4	196.5						1375	25.6	
1-C								500						
2-C									257.0	103.0				
TOTAL		6233		747	96	726		500	257	103		9467	51	

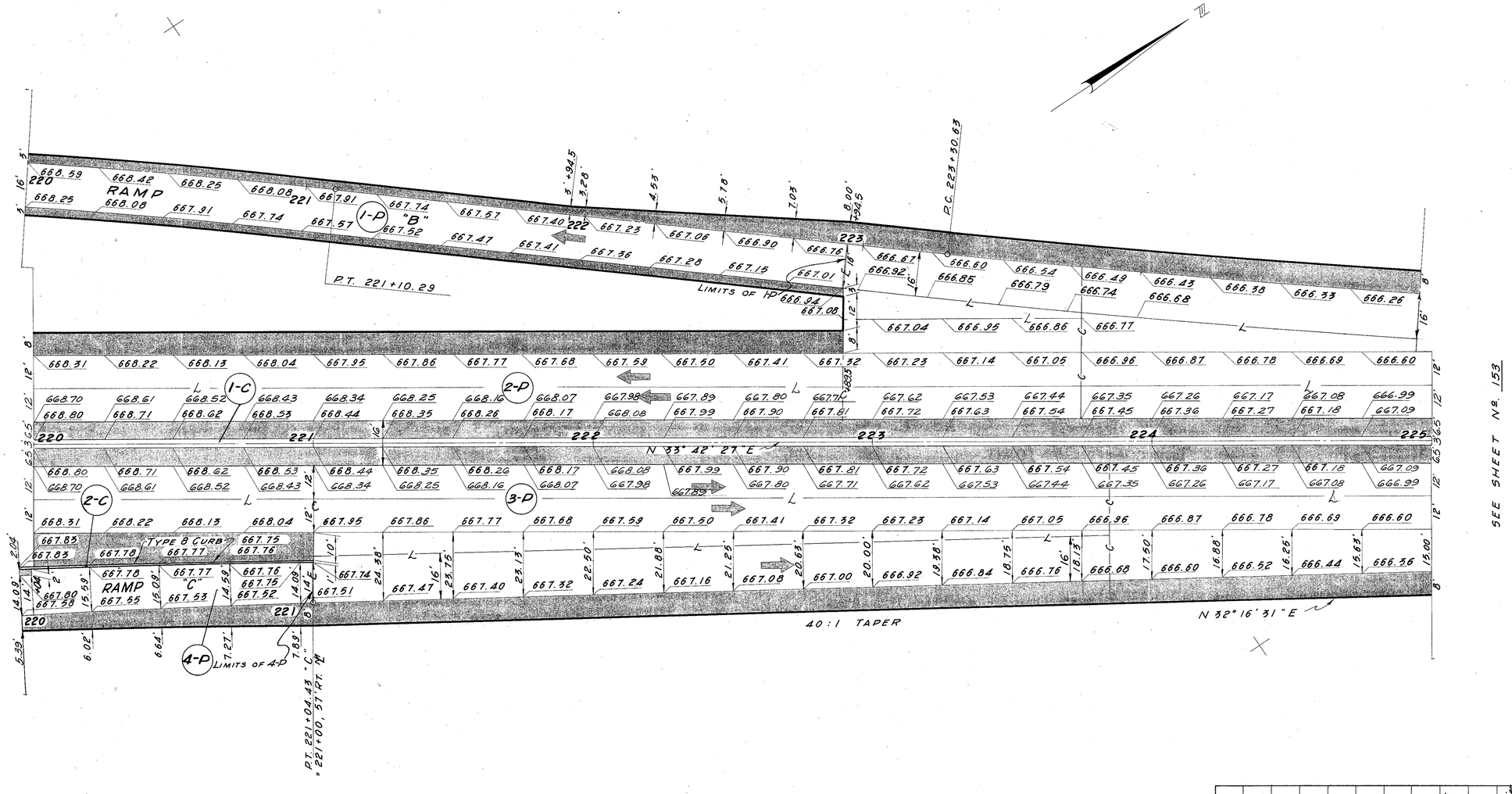
PAVEMENT DETAILS - STA. 215+00 TO STA. 220+00

	BY	DATE
EXISTING PLOTTED		
EXISTING CHECKED		
PROPOSED DRAWN		
PROPOSED CHECKED		
GRAPHICS CHECKED		
QUANTITIES CHECKED		

FED. RD. DIVISION	STATE	PROJECT	
2	OHIO		

152
560

JEFFERSON COUNTY
JEF-7-0.20



REF. No.	451 9"	301 BITUMINOUS AGG. BASE	304 AGGREGATE BASE	310 SUBBASE GRADING "A"	622 Concrete Barrier Type II	609 CURB TYPE 8	203 SUBGRADE COMPACTION	SPECIAL DRAINAGE CONNECTION
	S.Y.	C.Y.	C.Y.	C.Y.	L.F.	L.F.	S.Y.	C.Y.
1-P	523.6	18.7	34.7	119.2			846	15.1
2-P	1996.3	412.2					2982	
3-P	2222.3	445.3					3211	
4-P	173.6	6.6	12.2	40.2			276	5.3
1-C					500			
2-C						104.5		
TOTAL	4916	883	47	159	500	104	7315	20

LEGEND

ITEM 301 - BITUMINOUS AGGREGATE BASE

Rev. Quan. Calc. F.O. 5-74
Rev. Quan. Ck'd J.R.F. 5-74

A.E. STILSON & ASSOCIATES LIMITED
Quantities Calculated REL November 1968
Quantities Checked DLB May 1969

	BY	DATE
EXISTING PLOTTED		
EXISTING CHECKED		
PROPOSED DRAWN		
PROPOSED CHECKED		
QUANTITIES CALCULATED		
QUANTITIES CHECKED		

PAVEMENT DETAILS STA. 220+00 TO STA. 225+00

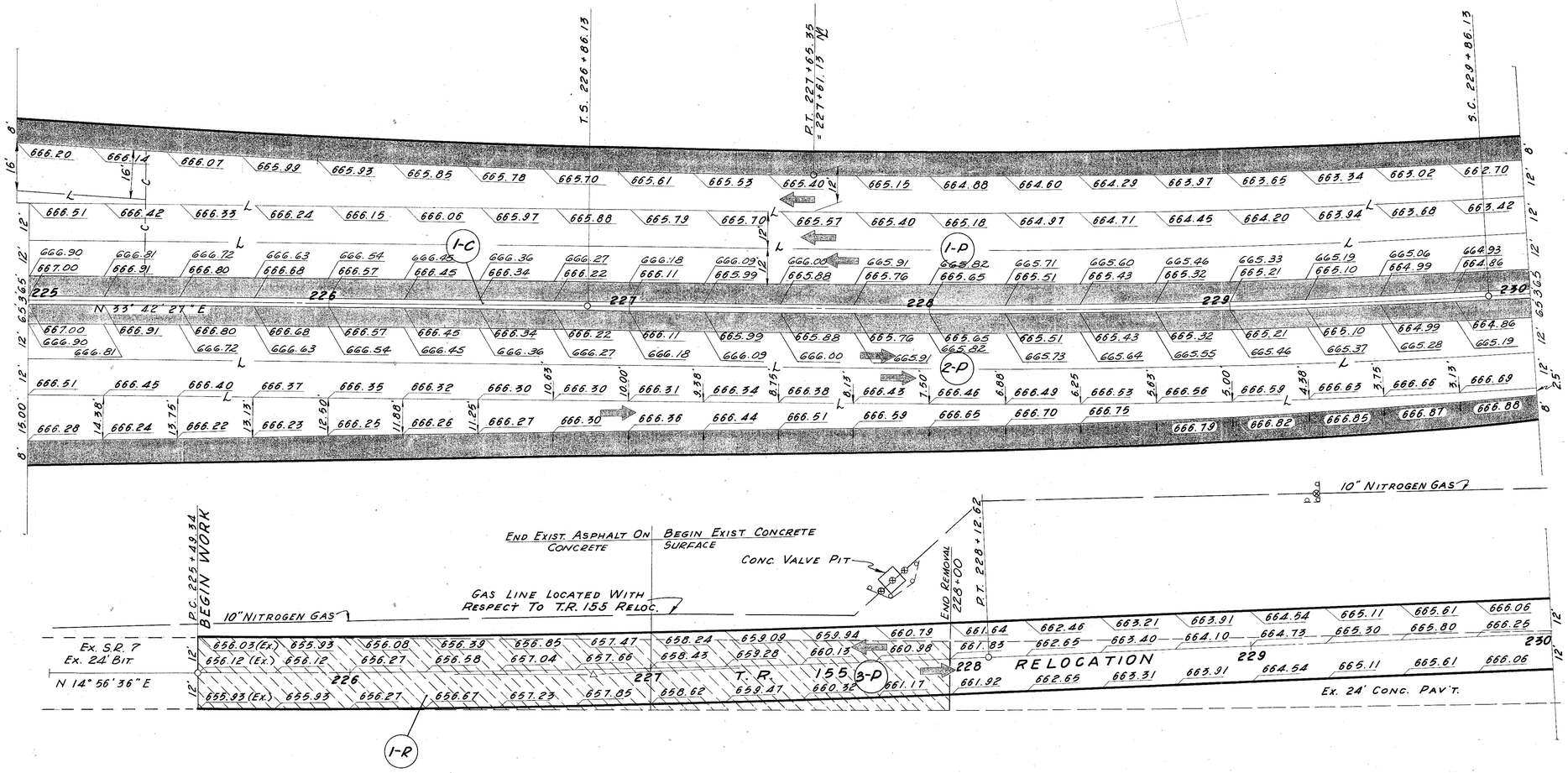
FED. RD. DIVISION	STATE	PROJECT	
2	OHIO		

153
560

JEFFERSON COUNTY
JEF-7-0.20

SEE SHEET No. 152

SEE SHEET No. 154



NOTE: LATERAL RELATIONSHIP BETWEEN MAINLINE AND T.R. 155 RELOC. IS NOT TO SCALE.

LEGEND

ITEM 301 - BITUMINOUS AGGREGATE BASE

EXIST. PAV'T REMOVAL UNDER ITEM 202

REF. No.	451 S.Y.	301 BITUMINOUS AGG. BASE C.Y.	310 SUBBASE C.Y.	402 - 1 1/4" ASPHALT CONCRETE C.Y.	404 - 1 1/4" ASPHALT CONCRETE C.Y.	203 SUBGRADE COMPACTION S.Y.	202 PAV'T REMOVAL S.Y.	622 Concrete Barrier Type 11 L.F.
1-P	2089	426.5				3090		
2-P	1895	393.6				2792		
3-P		139.1	217.0	41.7	41.7	1452		
1-C								500
1-R							666.7	
TOTAL	3928	959	217	42	42	7334	667	500

Rev. Quan. Calc. F.O. 5-74
Rev. Quan. Ck'd J.R.F. 5-74

A.E. STILSON & ASSOCIATES, INC.
Columbus, Ohio

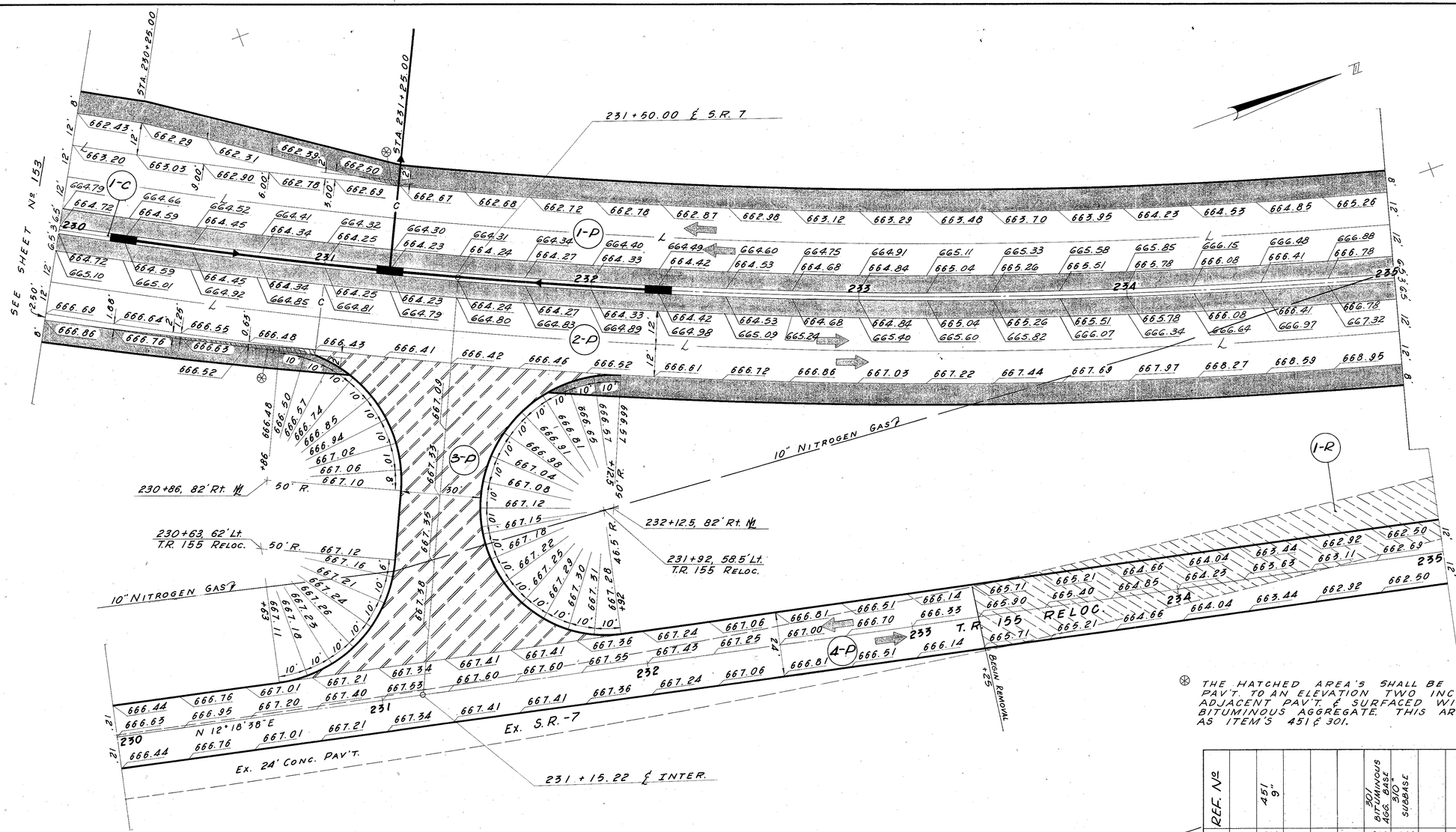
	BY	DATE
EXISTING PLOTTED		
EXISTING CHECKED		
PROPOSED DRAWN		
PROPOSED CHECKED		
QUANTITIES CALCULATED		
QUANTITIES CHECKED		

PAVEMENT DETAILS STA. 225+00 TO STA. 230+00

FED. RD. DIVISION	STATE	PROJECT		
2	OHIO			

154
560

JEFFERSON COUNTY
JEF - 7 - 0.20



⊛ THE HATCHED AREA'S SHALL BE CONSTRUCTED OF CONCRETE PAV'T. TO AN ELEVATION TWO INCHES LOWER THAN THE ADJACENT PAV'T. & SURFACED WITH TWO INCHES BITUMINOUS AGGREGATE. THIS AREA SHALL BE PAID FOR AS ITEM'S 451 & 301.

REF. Nº	451 S.Y.			301 BITUMINOUS AGG. BASE 3/0" C.Y.	3/0" SUBBASE C.Y.		402-1½" ASPHALT CONCRETE 404-1½" ASPHALT CONCRETE C.Y.	C.Y.		622 Concrete Barrier Type II L.F.		203 SUBGRADE COMPACTION S.Y.	202 PAV'T REMOVED S.Y.	
1-P	1435.2			350.7								2406		
2-P	1525.0			346.8								2219		
3-P				69.9	107.9		21.2	21.2				702		
4-P				154.3	240.7		46.3	46.3				1611		
1-C										440				
1-R													466.7	
TOTAL	2960			922	349		68	68		440		6938	467	

LEGEND

- Item 301 - Bituminous Aggregate Base
- Exist. Pav't Removal Under Item 202
- Item 404-1½", Item 402-1½" (Asphalt Conc)
  Item 301-4" Bit. Aggregate Base
  Item 310-6" Subbase

Rev. Quan. Calc. F.Q. 5-74
Rev. Quan. Ck'd J.R.F. 5-74

ALFRED BENESCH & ASSOCIATES, LIMITED
DATE NOVEMBER 1968
DATE MAY 1969

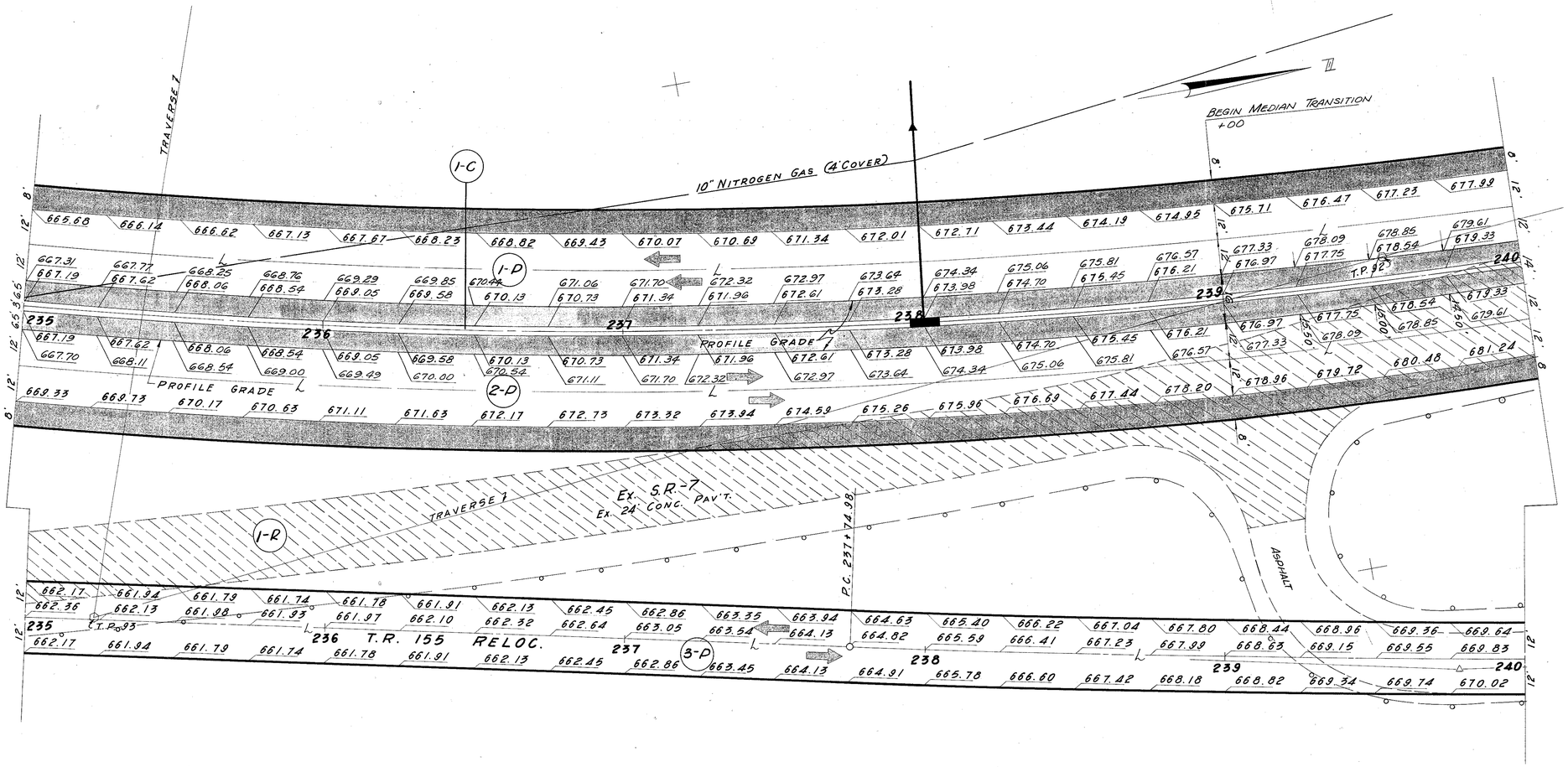
	BY	DATE
EXISTING PLOTTED		
FEATURES DRAWN		
PROPOSED DRAWN		
PROPOSED CHECKED		
QUANTITIES CALCULATED		
QUANTITIES CHECKED		

PAVEMENT DETAILS STA. 230+00 TO STA. 235+00

FED. RD. DIVISION	STATE	PROJECT	
2	OHIO		

155/560

JEFFERSON COUNTY
JEF-7-0.20



REF. No	451 9"	301 BITUMINOUS AGG. BASE	310 SUBBASE	402-1 1/4" ASPHALT CONCRETE	404-1 1/4" ASPHALT CONCRETE	203 SUBGRADE COMPACTION	202 EXIST. PAV'T REMOVED	622 Concrete Barrier Type II
	S.Y.	C.Y.	C.Y.	C.Y.	C.Y.	S.Y.	S.Y.	L.F.
1-D	1333.4	338.3				2300		
2-D	1333.4	338.3				2300		
3-D		154.3	240.7	46.3	46.3	1611		
1-C								480
1-R							1576.9	
TOTAL	2667	831	241	46	46	6211	1577	480

LEGEND

ITEM 301 - BITUMINOUS AGGREGATE BASE

EXIST. PAV'T REMOVAL UNDER ITEM 202

Rev. Quan. Calc. F.O. 5-74
Rev. Quan. Ck'd J.R.F. 5-74

A. E. STILSON & ASSOCIATES LIMITED
Quantities Calculated R.E.L. NOVEMBER 1968
Quantities Checked D.L.B. MAY 1969

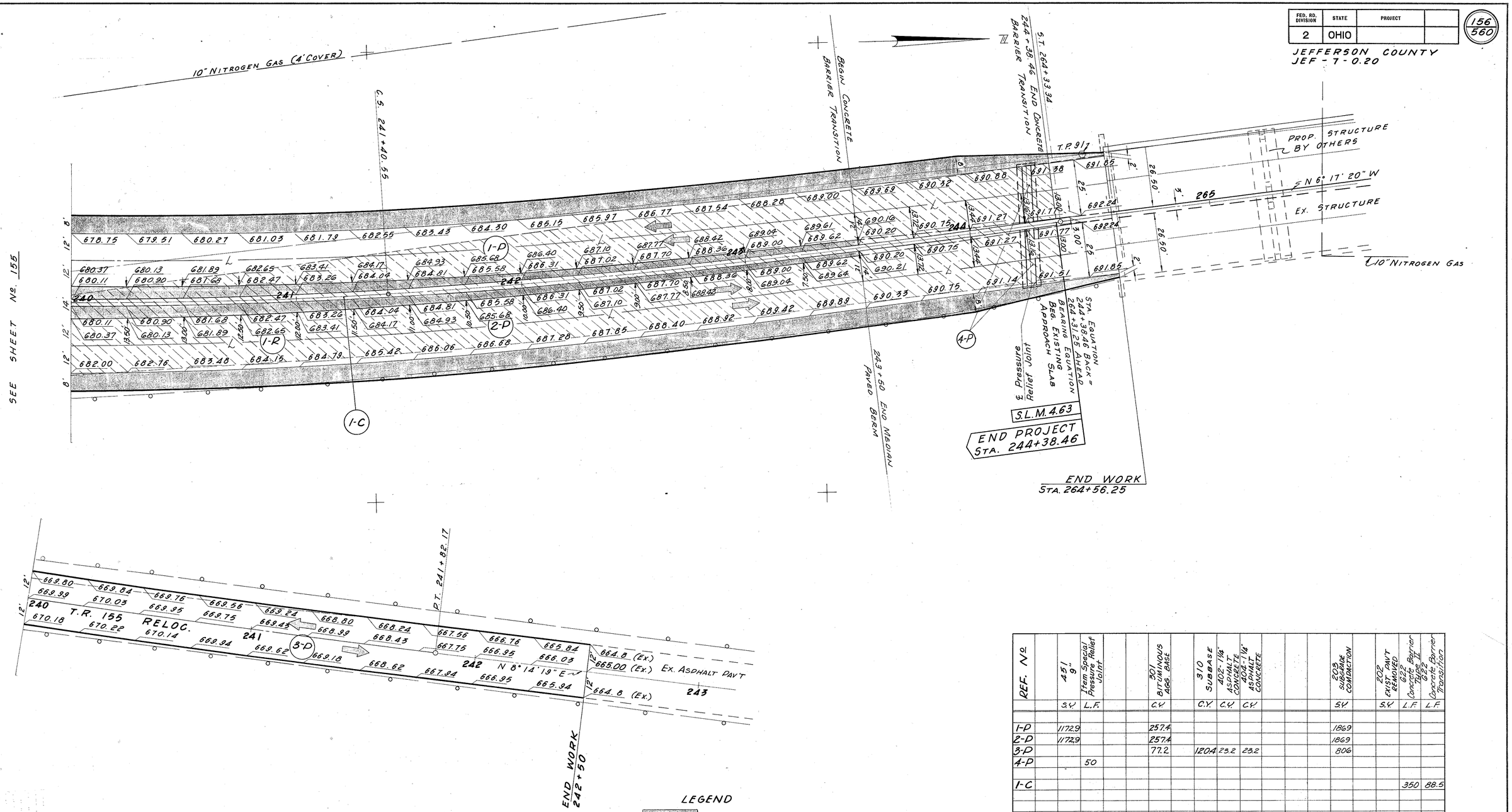
	BY	DATE
EXISTING PLOTTED		
EXISTING CHECKED		
PROPOSED DRAWN		
PROPOSED CHECKED		
QUANTITIES CALCULATED		
QUANTITIES CHECKED		

PAVEMENT DETAILS STA. 235+00 TO STA. 240+00

FED. RD. DIVISION	STATE	PROJECT	
2	OHIO		

156/560

JEFFERSON COUNTY
JEF - 7 - 0.20



REF. No	451 9"	Item Special Pressure Relief Joint			301 BITUMINOUS AGG. BASE		310 SUBBASE	402-1¼" ASPHALT CONCRETE	404-1¼" ASPHALT CONCRETE				203 SUBGRADE COMPACTION		202 EXIST. PAV'T REMOVED	622 Concrete Barrier Type II	622 Concrete Barrier Transition
	S.Y.	L.F.			C.Y.		C.Y.	C.Y.	C.Y.				S.Y.		S.Y.	L.F.	L.F.
1-P	1172.9				257.4								1869				
2-P	1172.9				257.4								1869				
3-P					77.2		120.4	23.2	23.2				806				
4-P		50															
1-C																350	88.5
1-R															2267		
TOTAL	2346	50			592		120	23	23				4544		2267	350	88.5

LEGEND

ITEM 301 - BITUMINOUS AGGREGATE BASE

EXIST PAV'T REMOVAL UNDER ITEM 202

Rev. Quan. Calc. F.O. 5-74
Rev. Quan. Ck'd J.R.F. 5-74

A. E. STILSON & ASSOCIATES LIMITED
Consulting Engineers
R.E.L. NOVEMBER 1968
D.L.B. MAY 1969

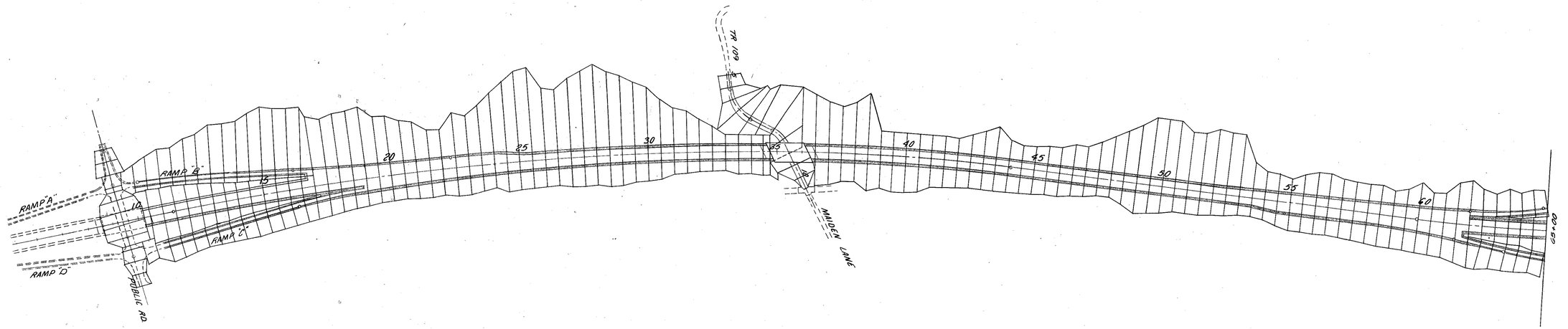
	BY	DATE
EXISTING PLOTTED		
EXISTING CHECKED		
PROPOSED DRAWN		
PROPOSED CHECKED		
QUANTITIES CALCULATED		
QUANTITIES CHECKED		

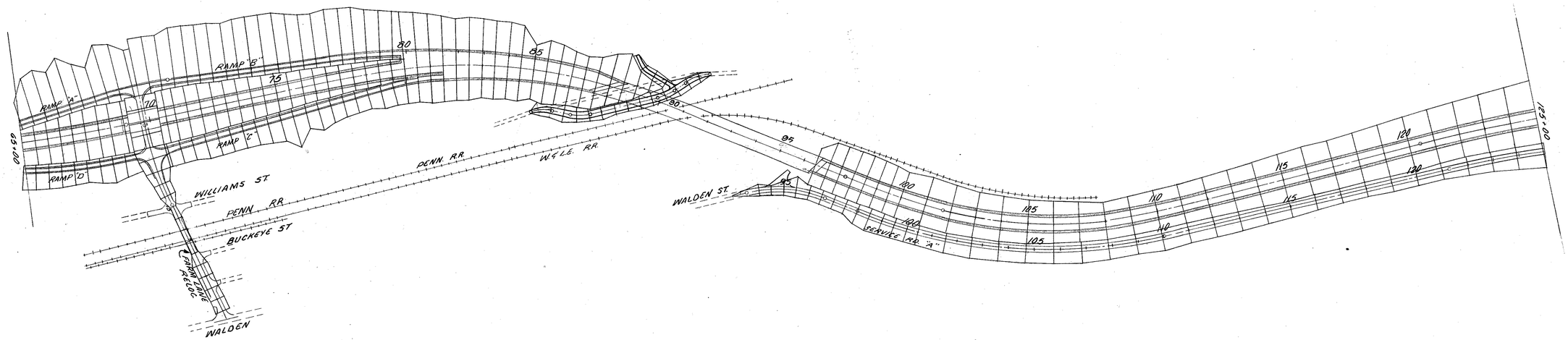
PAVEMENT DETAILS STA. 240+00 TO STA. 244+63.46

FED. RD. DIVISION	STATE	PROJECT	
2	OHIO		

157
560

JEFFERSON COUNTY
JEF-7-0.20



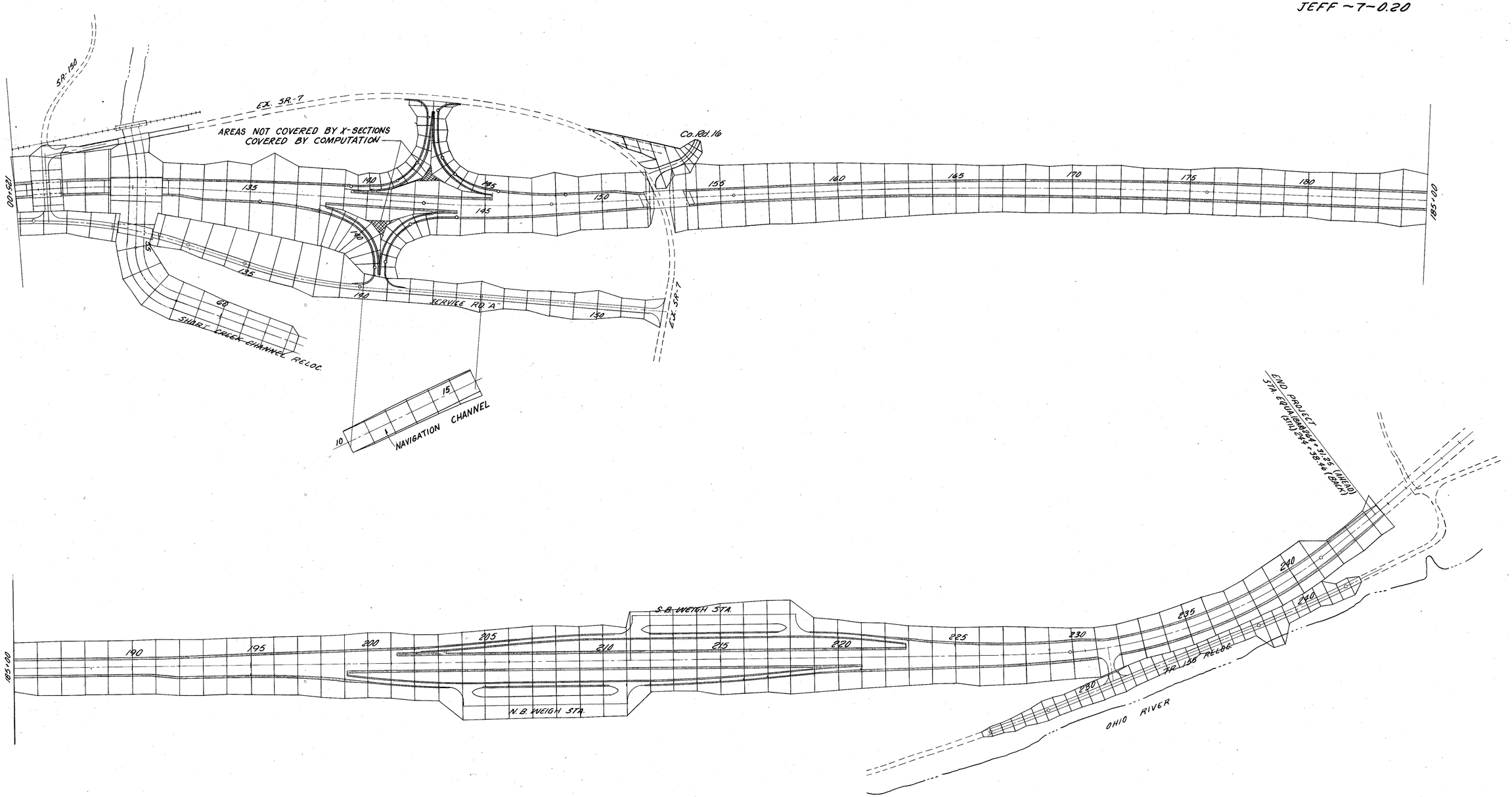


CROSS SECTION LAYOUT STA. 10+00 to 125+00

FED. RD. DIVISION	STATE	PROJECT	
2	OHIO		

158/560

JEFFERSON COUNTY
JEFF -7-0.20



CROSS SECTION LAYOUT STA. 125+00 TO 244+38.46

JEFFERSON COUNTY
JEF-7-0.20

280 260 240 220 200 180 160 140 120 100 80 60 40 20 0 20 40 60 80 100 120 140 160 180 200 220

780 760 740 720 700 680

132

SEE Ramp "B"

C-1492

4.2:1

F-1964

2.6:1

SEE Ramp "C"

Ex. Worthington St

712.49
11+50
691.0

740 720 700 680

1492 1964

750 760 740 720 700 680

138

SEE Ramp "B"

C-1112

3.8:1

F-2070

2.6:1

SEE Ramp "C"

Ex. Worthington St

712.88
11+00
690.8

760 740 720 700 680

2411 3735

1112 2070

792

SEE Ramp "B"

C-576

3.9:1

F-2220

2.6:1

SEE Ramp "C"

C-12

Ex. Worthington St

713.15
10+50
691.9

720 700 680

1574 3973

588 2220

147

393

END STRUCTURE 10+25.91

713.32
10+00
693.2

720 700 680

10+25.91
(Same as 10+50) 588 2220

446 1681

Sta. 9+85 0 0

147 334 00

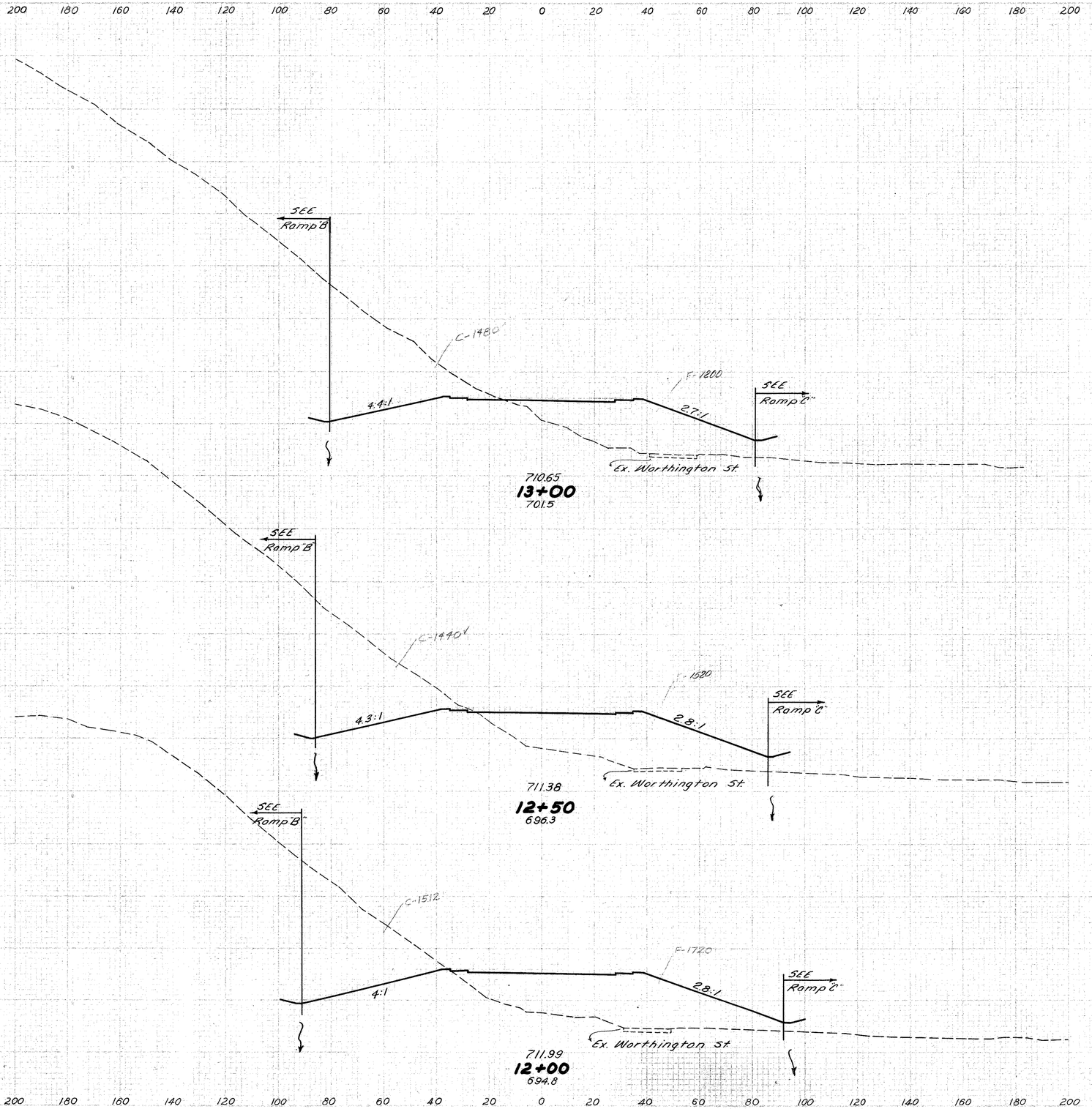
10+25.91
(Same as 10+50)
9+85

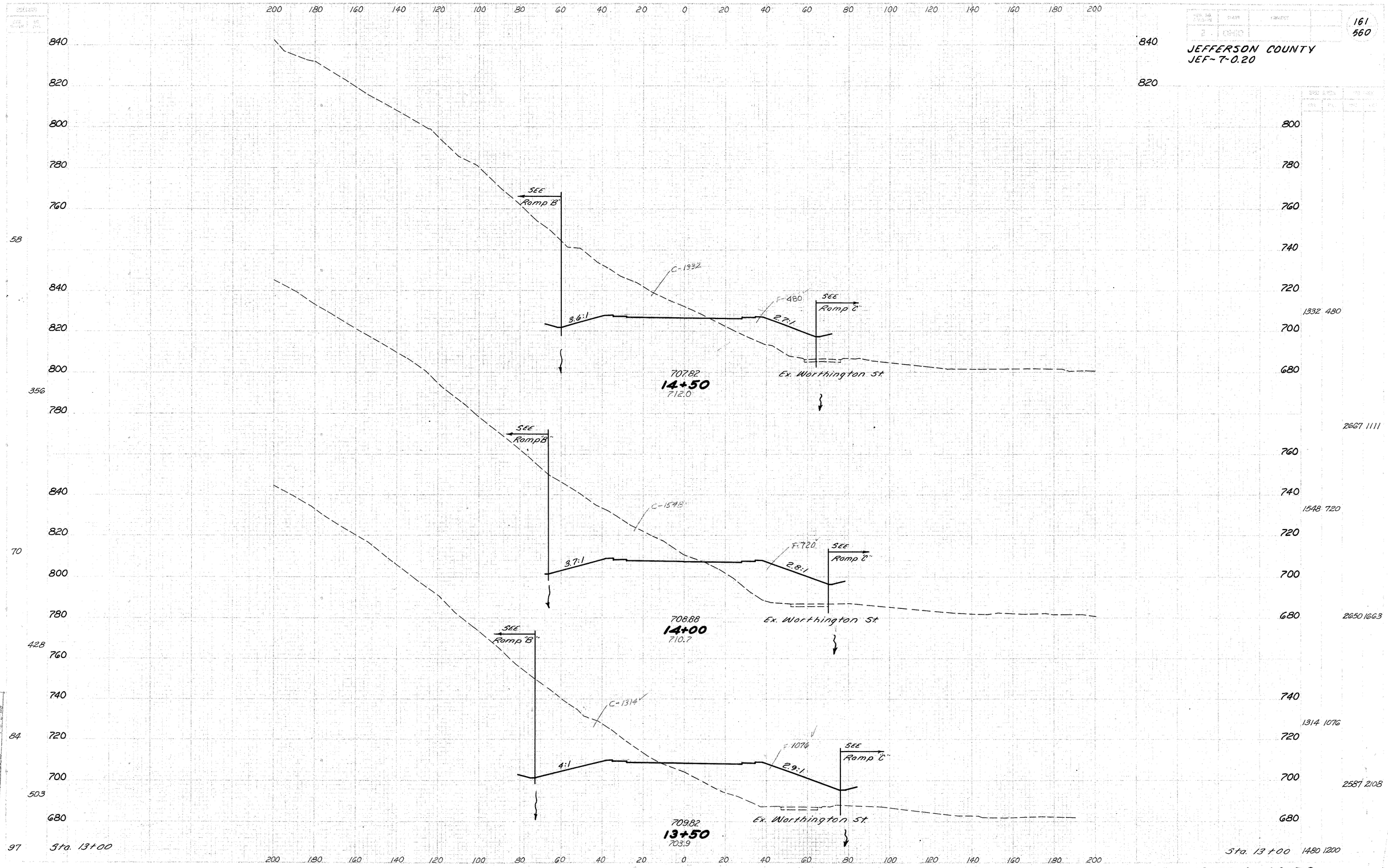
260 240 220 200 180 160 140 120 100 80 60 40 20 0 20 40 60 80 100 120 140 160 180 200

10+00 to 11+50

EXISTING PLOTTED		
EXISTING CHECKED		
TEMPLATE LAYOUT		
TEMPLATE PLOTTED	JEW	9-68
CROSS SECTIONS	MLB	11-68
GRADE CHECKED		
SEEDING DETERMINED		
SEEDING CHECKED		

JEFFERSON COUNTY
JEF~7~0.20



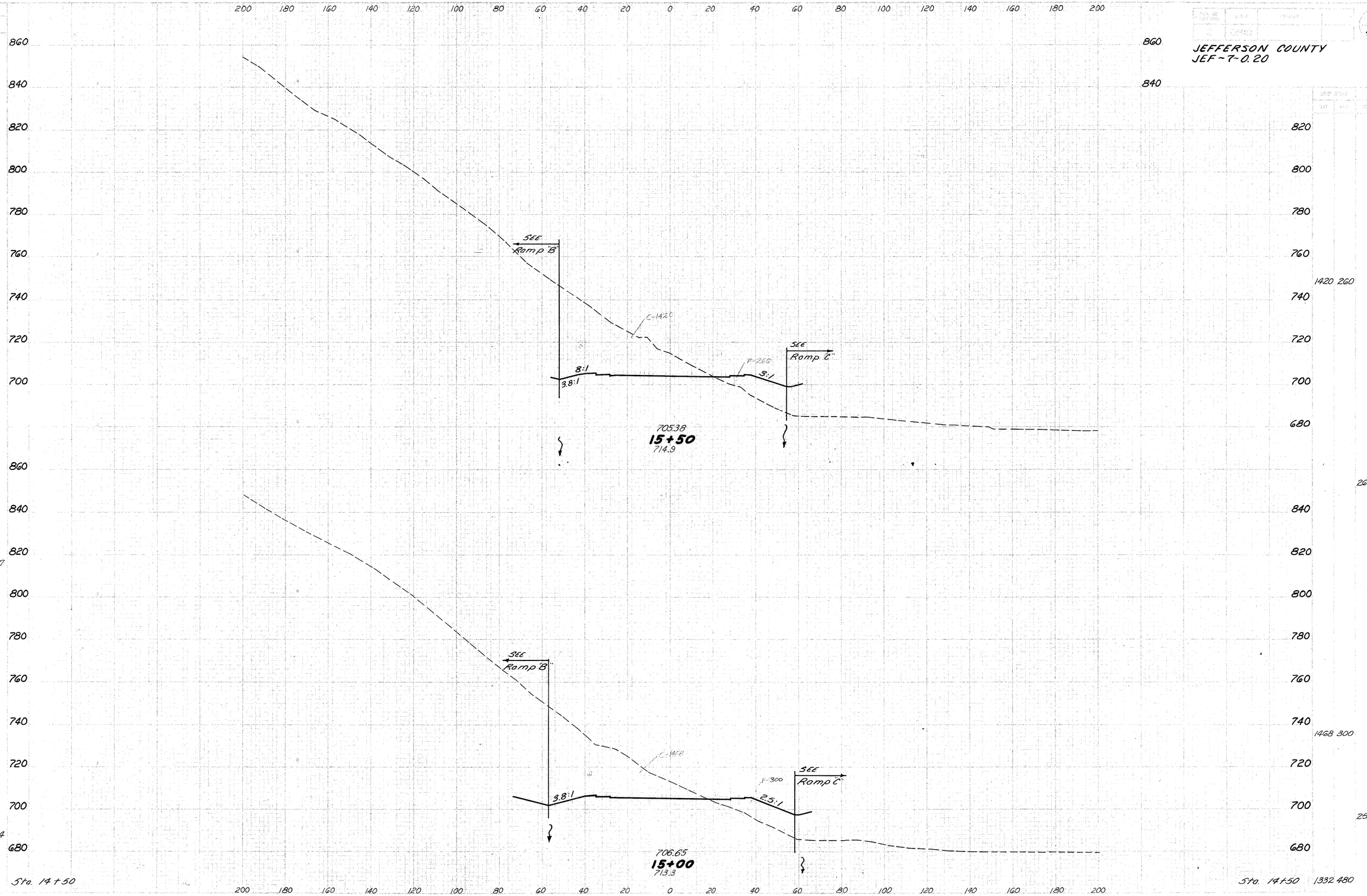


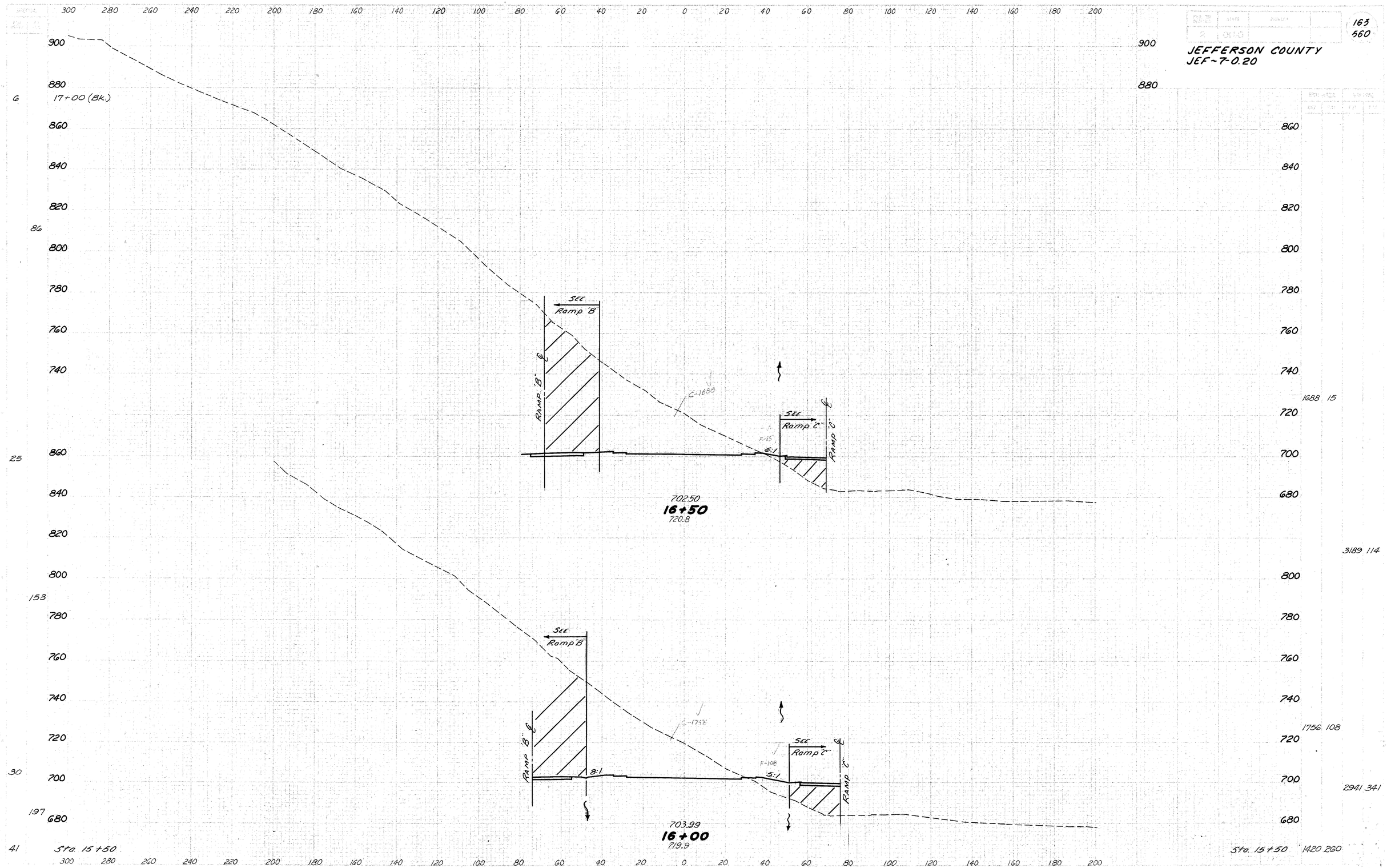
161
560
JEFFERSON COUNTY
JEF-7-0.20
SEE Ramp "B"
C-1332
F-480
SEE Ramp "C"
3.6:1
2.7:1
707.82
14+50
712.0
Ex. Worthington St.
SEE Ramp "B"
C-1548
F-720
SEE Ramp "C"
3.7:1
2.8:1
708.88
14+00
710.7
Ex. Worthington St.
SEE Ramp "B"
C-1314
F-1076
SEE Ramp "C"
4:1
2.9:1
709.82
13+50
703.9
Ex. Worthington St.
Sta. 13+00
Sta. 13+00
1332 480
2667 1111
1548 720
2650 1663
1314 1076
2587 2108
1480 1200

13+50 to 14+50

162
560

JEFFERSON COUNTY
JEF-7-0.20





163
560
JEFFERSON COUNTY
JEF-7-0.20
17+00 (Bk.)
SEE Ramp "B"
RAMP "B"
C-1680
SEE Ramp "C"
RAMP "C"
6:1
702.50
16+50
720.8
SEE Ramp "B"
RAMP "B"
8:1
SEE Ramp "C"
RAMP "C"
5:1
703.99
16+00
719.9
Sta. 15+50
Sta. 15+50
1688 15
3189 114
1756 108
2941 341
1420 260

16+00 to 16+50

JEFFERSON COUNTY
JEF-7-0.20

164
560

359

2069

13288 260

25926 GG3

3430 14

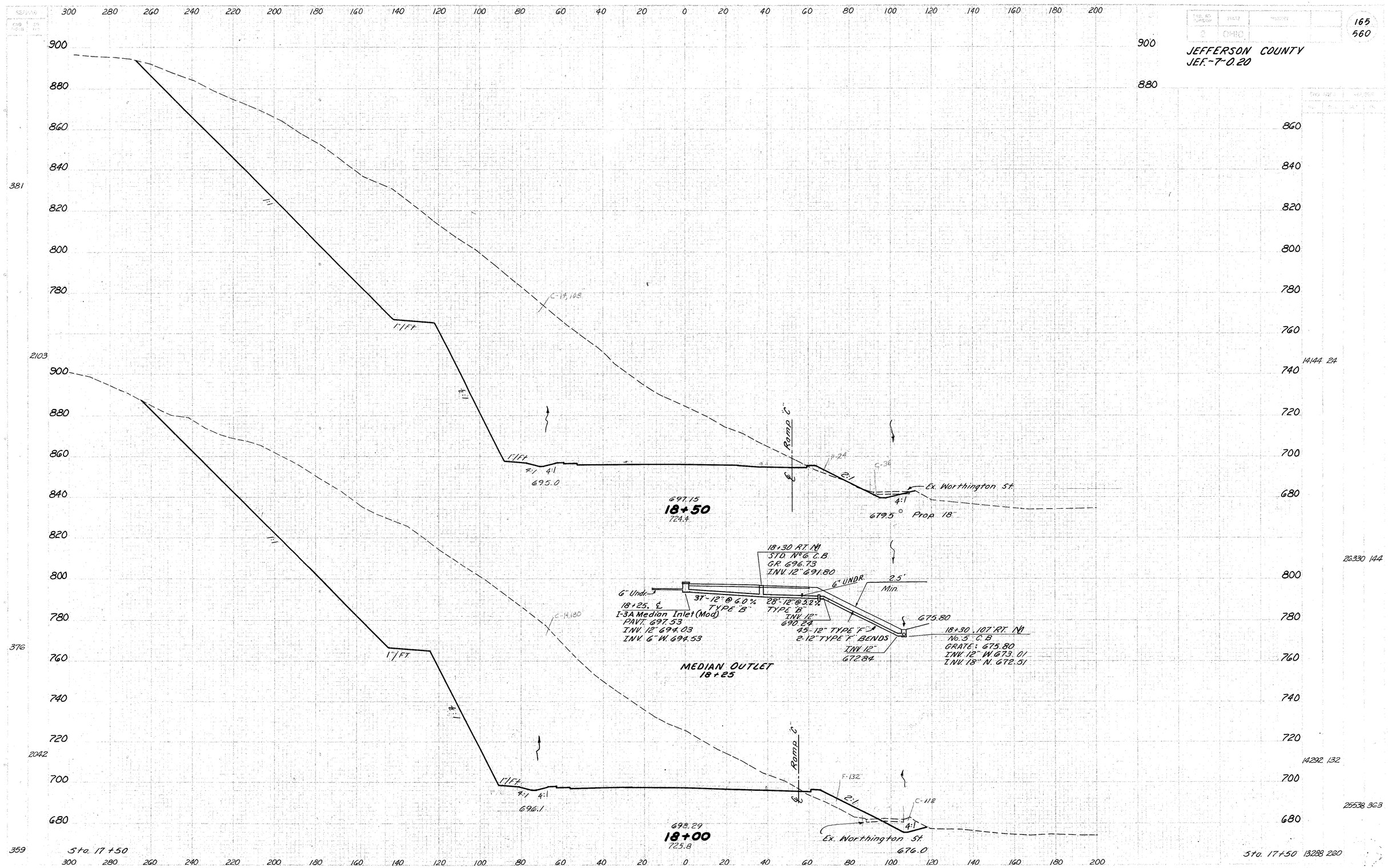
Sta. 16+50 16888 15

AHEAD 14357 456
BACK 2056 0

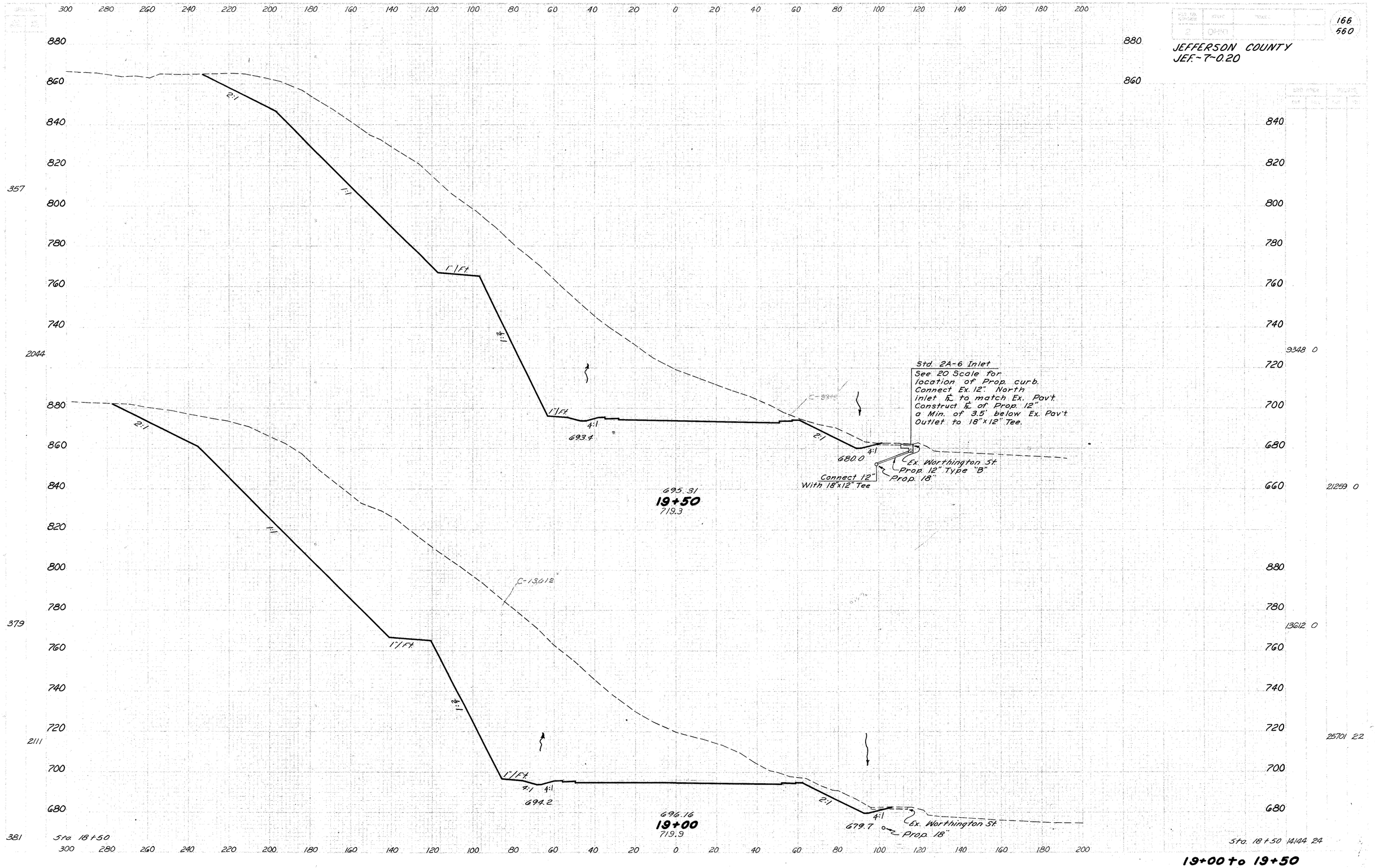
1:1

1:1

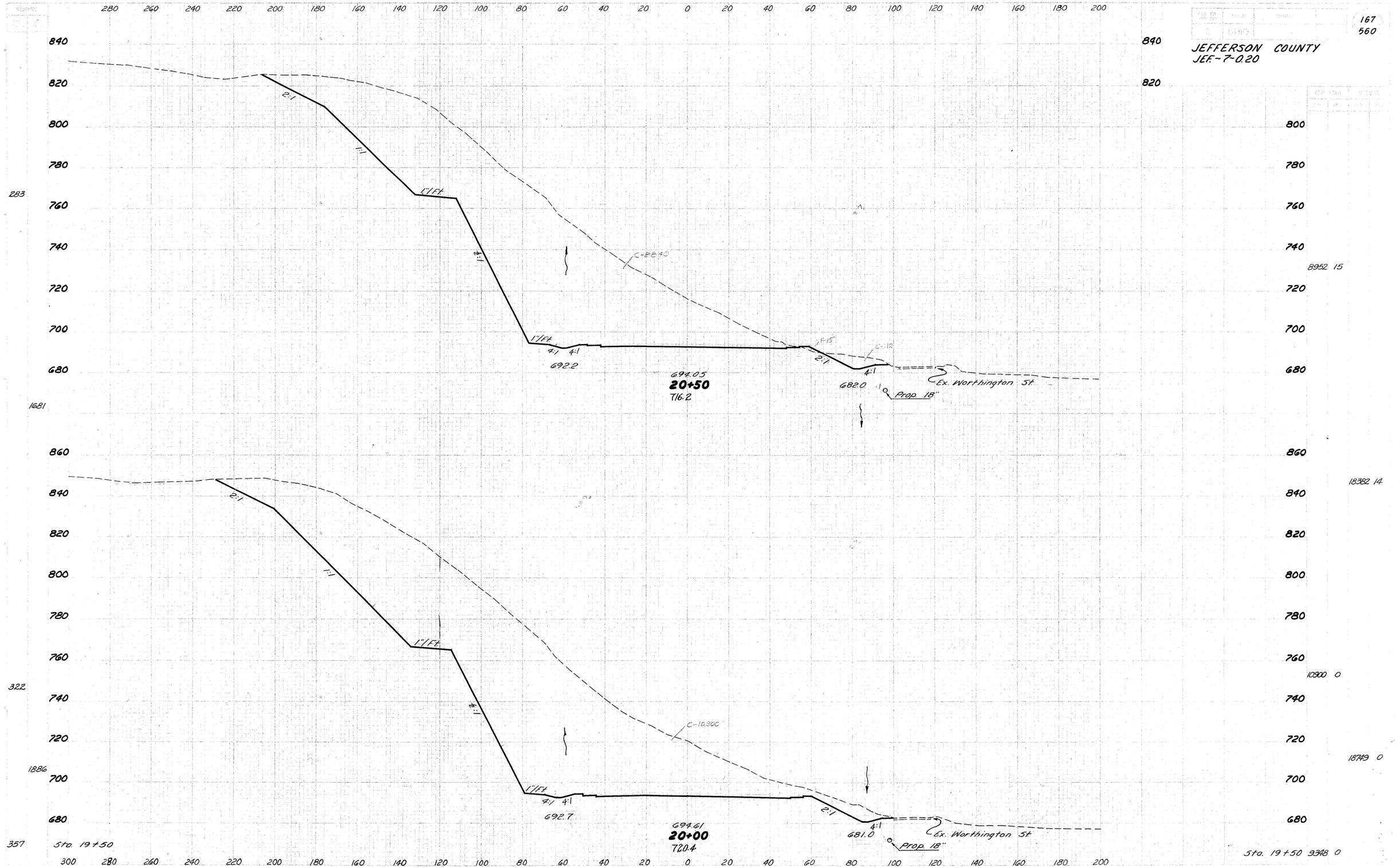
1:1



JEFFERSON COUNTY
JEF.-7-0.20
165
560
Ex. Worthington St.
Prop. 18"
697.15
18+50
724.4
695.0
679.5
Ramp "C"
18+30 RT. N
STD. No 6 C.B.
GR. 696.73
INV. 12" 691.80
6" UNDR.
2.5' Min.
6" Undr.
18+25, ℄
I-3A Median Inlet (Mod)
PAVT. 697.53
INV. 12" 694.03
INV. 6" W. 694.53
37'-12" @ 6.0% TYPE "B"
28'-12" @ 5.2% TYPE "B"
INV. 12" 690.24
45-12" TYPE "F"
2-12" TYPE "F" BENDS
INV. 12" 672.84
675.80
18+30, 107' RT. N
No. 5 C.B.
GRATE: 675.80
INV. 12" W. 673.01
INV. 18" N. 672.51
MEDIAN OUTLET
18+25
698.29
18+00
725.8
696.1
676.0
Ex. Worthington St.
Sta. 17+50
Sta. 17+50
18+00 to 18+50

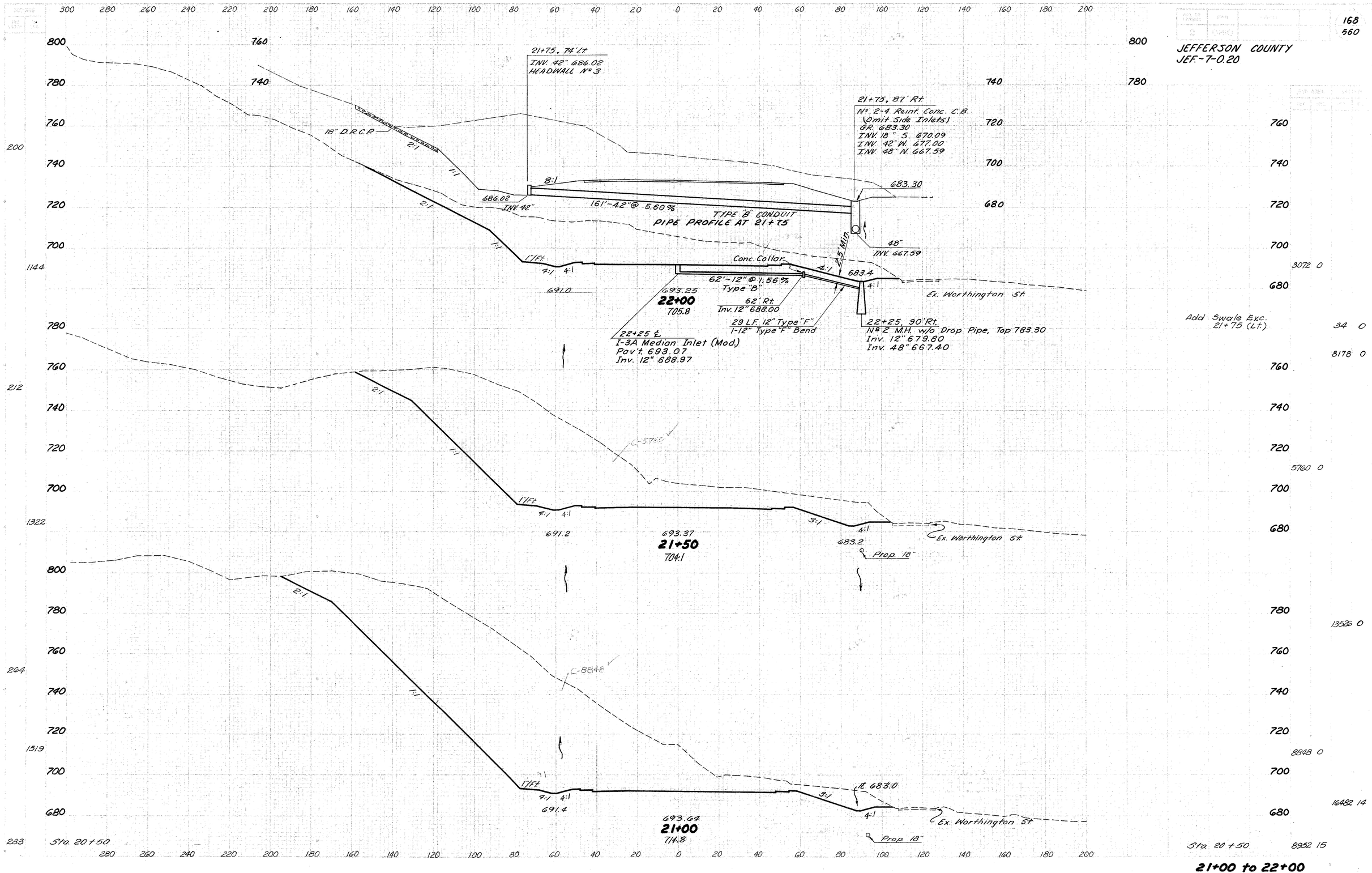


166
560
JEFFERSON COUNTY
JEF.-7-0.20
Std. 2A-6 Inlet
See 20 Scale for location of Prop. curb. Connect Ex. 12" North inlet ℄ to match Ex. Pav't. Construct ℄ of Prop. 12" a Min. of 3.5' below Ex. Pav't. Outlet to 18"x12" Tee.
Ex. Worthington St.
Prop. 12" Type "B"
Prop. 18"
Connect 12" With 18"x12" Tee
695.31
19+50
719.3
696.16
19+00
719.9
Sta. 18+50
Sta. 18+50
19+00 to 19+50

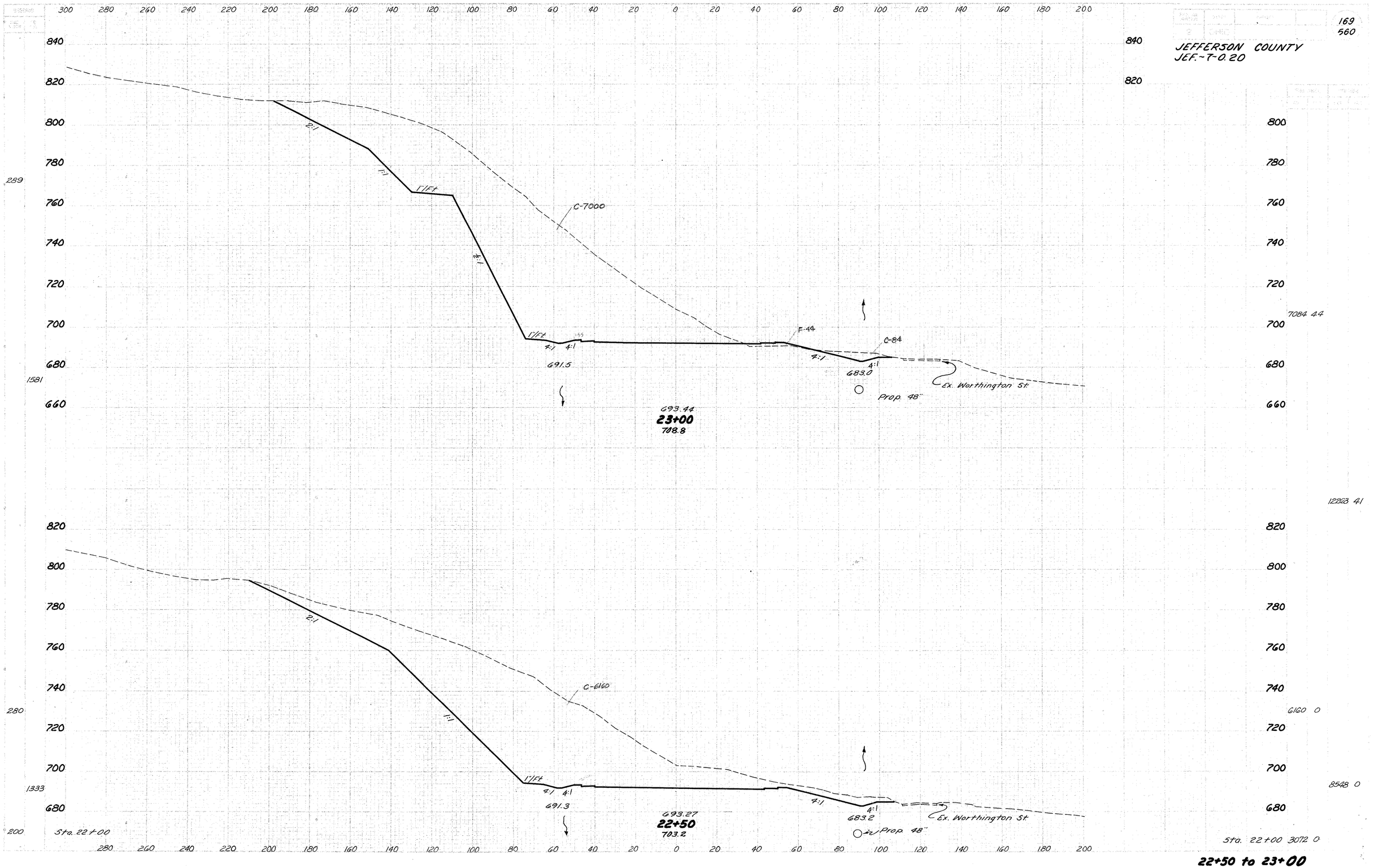


JEFFERSON COUNTY
JEF.-7-0.20
167
560
283
1681
322
1886
357
8952 15
18382 14
10900 0
18749 0
Sta. 19+50 9348 0
2:1
1:1
1"/Ft.
4:1
692.2
694.05
20+50
716.2
682.0
Prop. 18"
Ex. Worthington St.
C-8840
C-10,300
692.7
694.61
20+00
720.4
681.0
Sta. 19+50

20+00 to 20+50

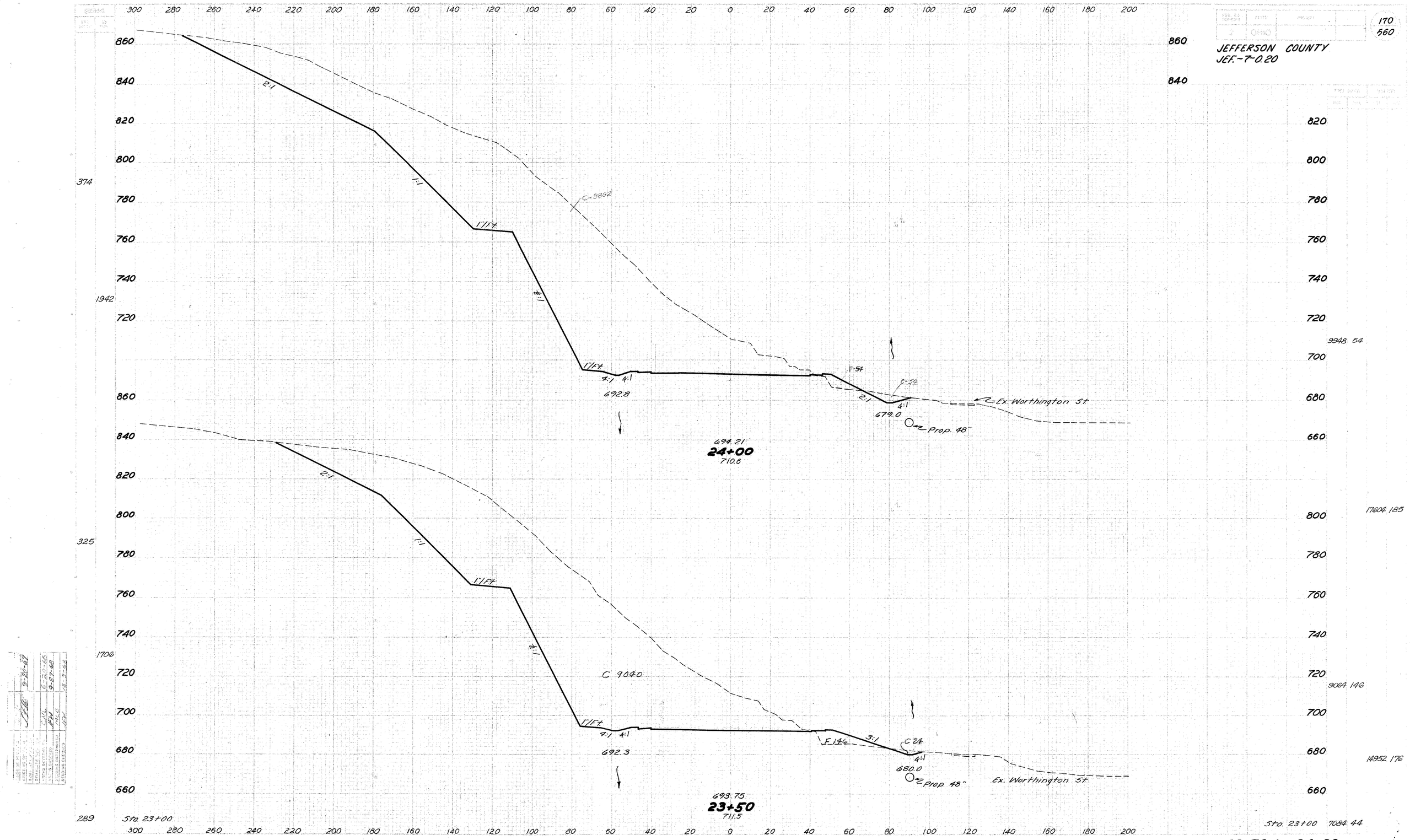


JEFFERSON COUNTY
JEF.-7-0.20
168
560
21+75, 74' Lt
INV. 42" 686.02
HEADWALL Nº 3
21+75, 87' Rt.
Nº. 2-4 Reinf. Conc. C.B.
(Omit Side Inlets)
GR. 683.30
INV. 18" S. 670.09
INV. 42" W. 677.00
INV. 48" N. 667.59
18" D.R.C.P.
2:1
1:1
8:1
686.02
INV. 42"
161'-42" @ 5.60%
TYPE "B" CONDUIT
PIPE PROFILE AT 21+75
683.30
48"
INV. 667.59
2.5' Min.
1"/Ft.
4:1
Conc. Collar
683.4
62'-12" @ 1.56%
Type "B"
62' Rt.
Inv. 12" 688.00
693.25
22+00
705.8
691.0
Ex. Worthington St.
22+25 ℄
I-3A Median Inlet (Mod.)
Pav't. 693.07
Inv. 12" 688.97
29 L.F. 12" Type "F"
1-12" Type "F" Bend
22+25, 90' Rt.
Nº 2 M.H. w/o Drop Pipe, Top 783.30
Inv. 12" 679.80
Inv. 48" 667.40
Add Swale Exc.
21+75 (Lt.)
3072 0
34 0
8178 0
5760 0
13526 0
8848 0
16482 14
8952 15
C-5760
691.2
693.37
21+50
704.1
3:1
683.2
Prop. 18"
C-8848
691.4
693.64
21+00
714.8
℄ 683.0
Sta. 20+50
Sta. 20+50
21+00 to 22+00



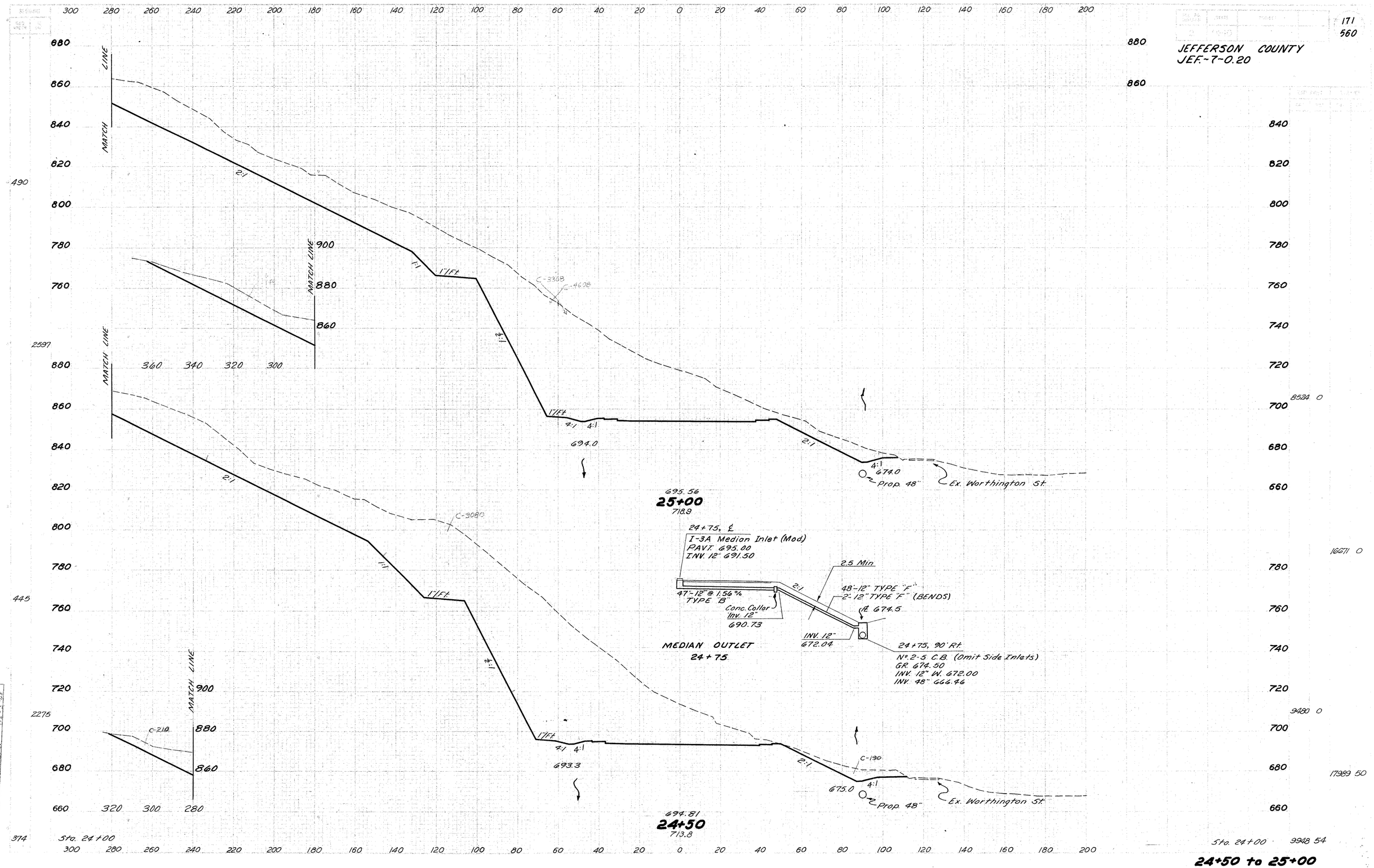
169
560
JEFFERSON COUNTY
JEF.-7-0.20
C-7000
2:1
1:1
1"/Ft
4:1
691.5
F-44
C-84
683.0
Ex. Worthington St.
Prop. 48"
693.44
23+00
708.8
7084 44
12263 41
C-6160
691.3
693.27
22+50
703.2
683.2
Ex. Worthington St.
Prop. 48"
6160 0
8548 0
Sta. 22+00
Sta. 22+00 3072 0

22+50 to 23+00



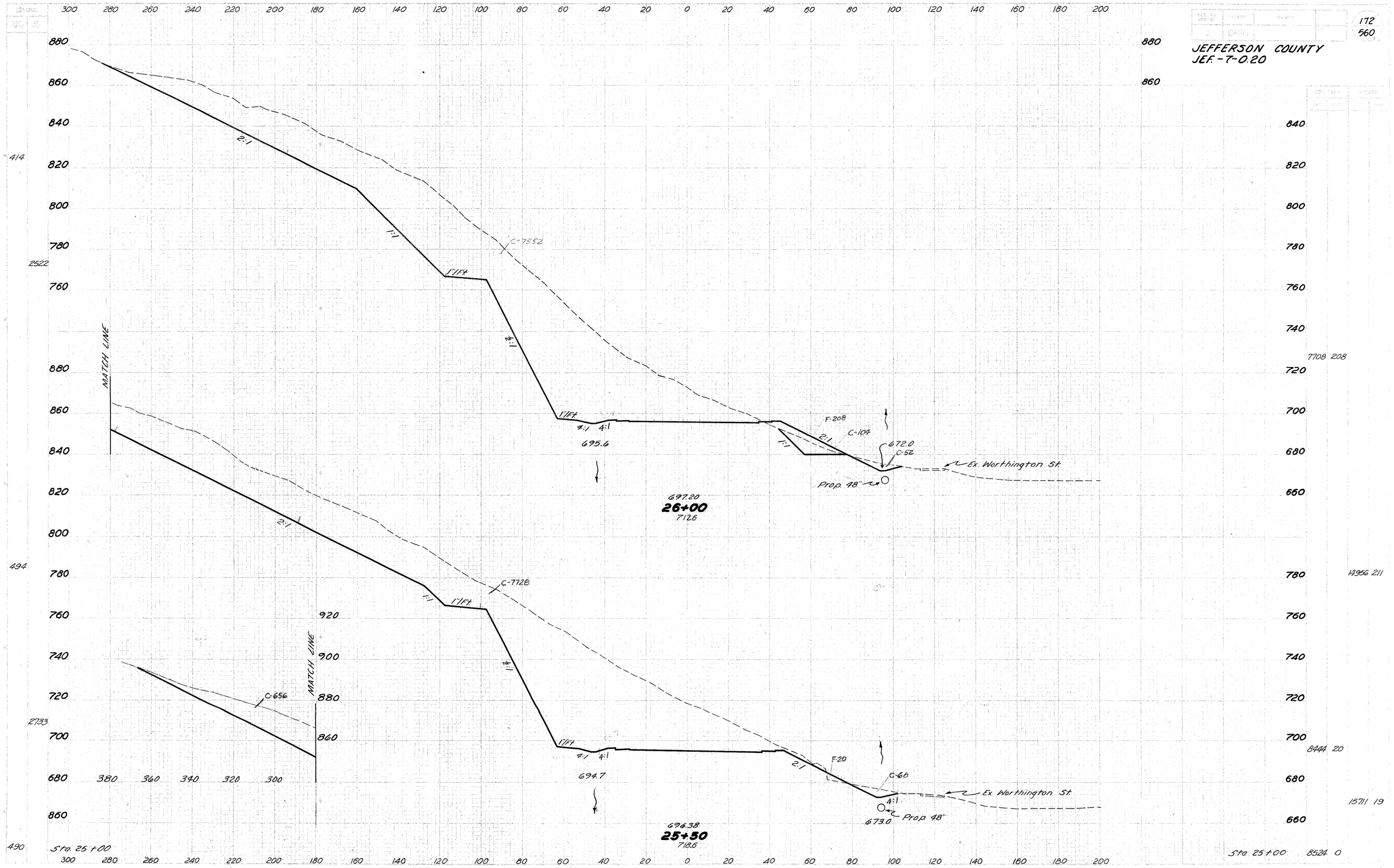
170
560
JEFFERSON COUNTY
JEF.-7-0.20
374
1942
325
1706
289
Sta. 23+00
2:1
1:1
1"/Ft.
4:1
692.8
694.21
24+00
710.6
C-9892
F-54
C-56
679.0
Ex. Worthington St.
Prop. 48"
9948 54
17604 185
9064 146
14952 176
7084 44
C 9040
692.3
693.75
23+50
711.5
F 146
3:1
C 24
680.0
Prop. 48"
Ex. Worthington St.

23+50 to 24+00



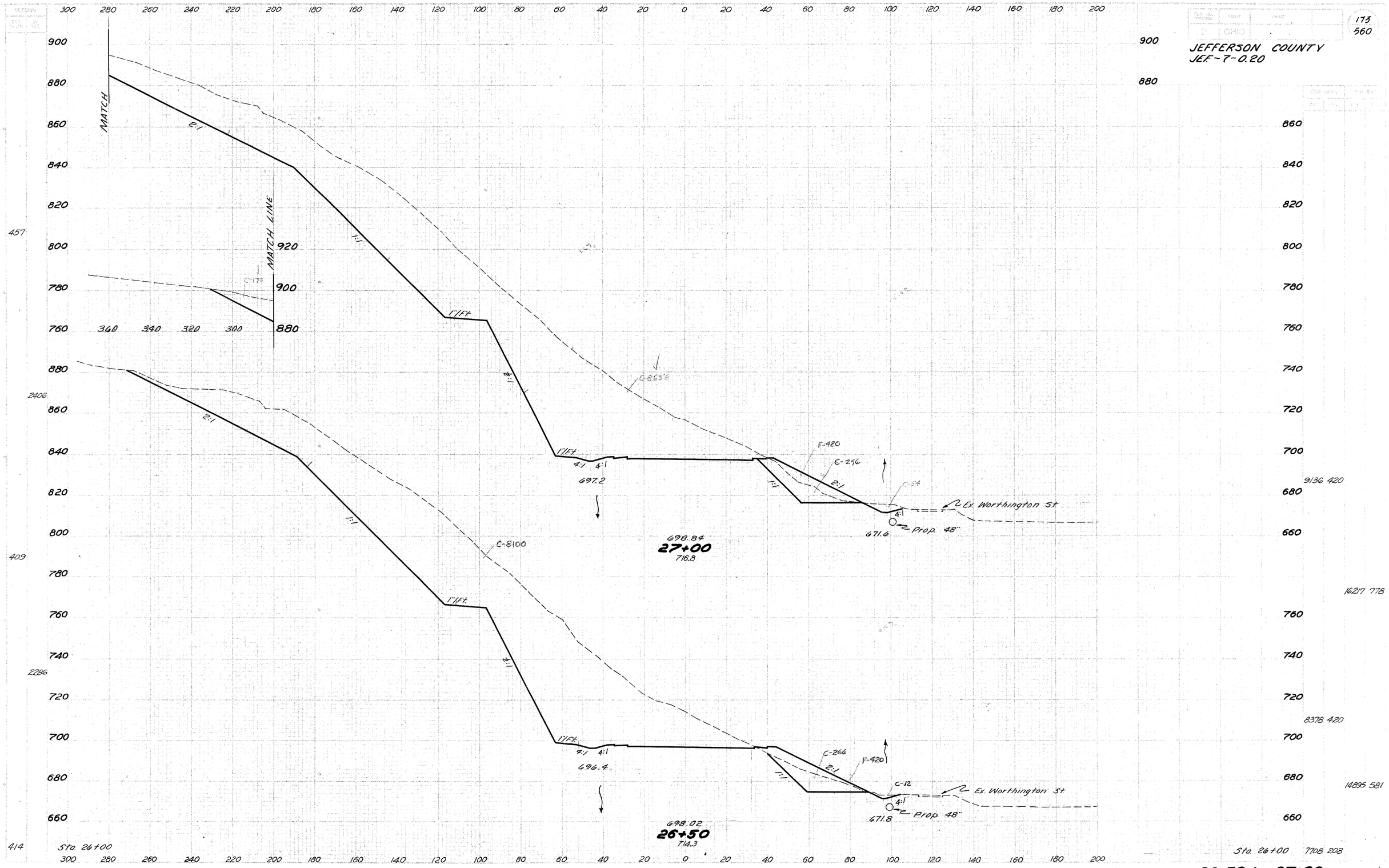
171
560
JEFFERSON COUNTY
JEF.-7-0.20
MATCH LINE
2:1
1:1
1"/Ft.
4:1
694.0
674.0
Prop. 48"
Ex. Worthington St.
695.56
25+00
718.9
24+75, ℄
I-3A Median Inlet (Mod.)
PAVT. 695.00
INV. 12" 691.50
2.5 Min.
47'-12" @ 1.56%
TYPE "B"
Conc. Collar
Inv. 12"
690.73
48'-12" TYPE "F"
2'-12" TYPE "F" (BENDS)
℄ 674.5
INV. 12"
672.04
MEDIAN OUTLET
24+75
24+75, 90' Rt.
No. 2-5 C.B. (Omit Side Inlets)
GR. 674.50
INV. 12" W. 672.00
INV. 48" 666.46
C-3368
C-4698
C-3080
C-210
C-190
693.3
675.0
694.81
24+50
713.8
Sta. 24+00
8524 0
16671 0
9480 0
17989 50
9948 54
490
2597
445
2275
374

24+50 to 25+00



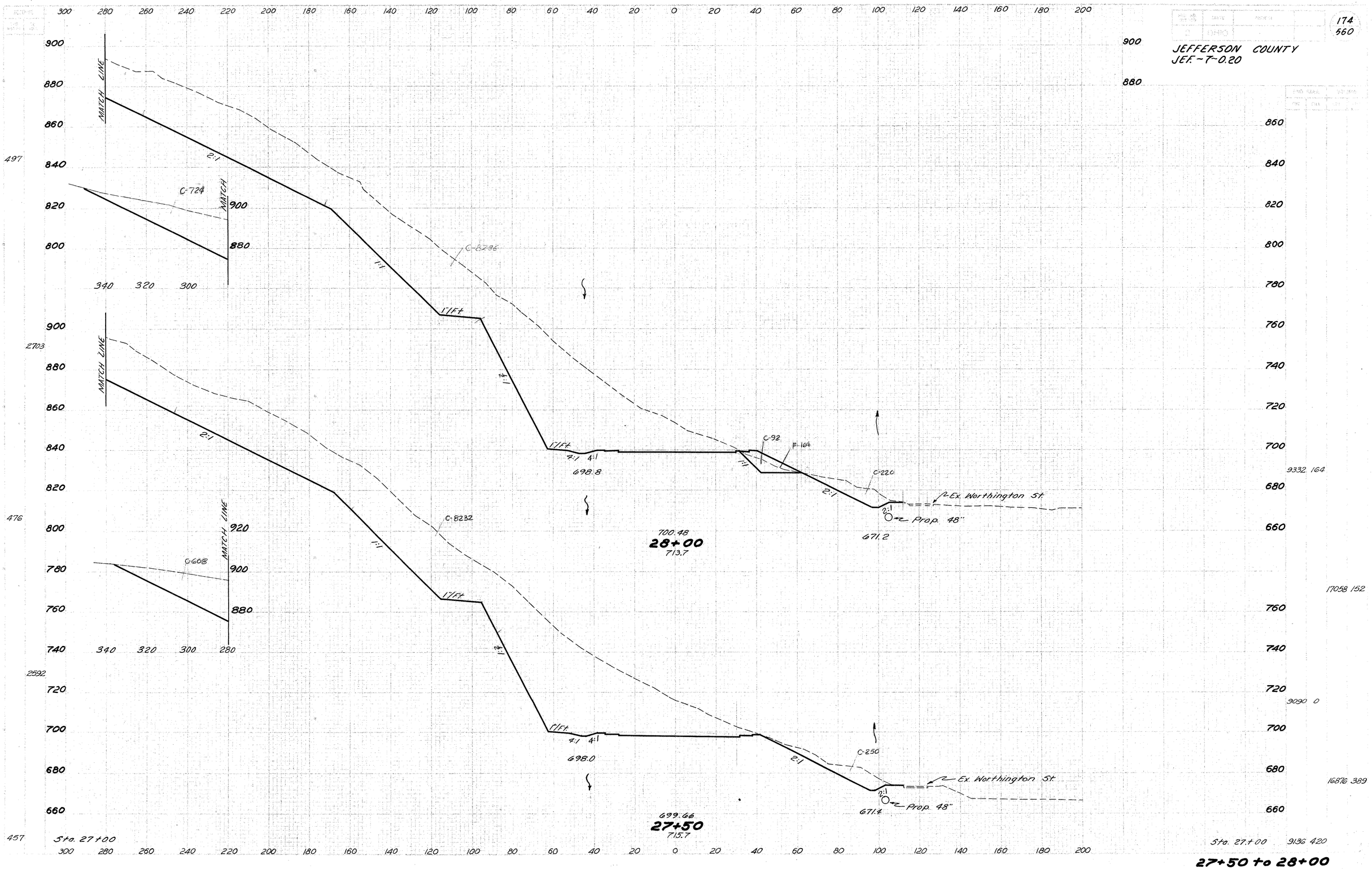
172
560
JEFFERSON COUNTY
JEF.-7-0.20
MATCH LINE
2:1
1:1
1"/Ft.
4:1
C-7552
C-7728
C-656
F-208
C-104
C-52
F-20
C-68
Ex. Worthington St.
Prop. 48"
695.6
694.7
672.0
673.0
697.20
26+00
712.6
696.38
25+50
718.6
414
2522
494
2733
490
7708 208
14956 211
8444 20
15711 19
8524 0
Sta. 25+00

25+50 to 26+00



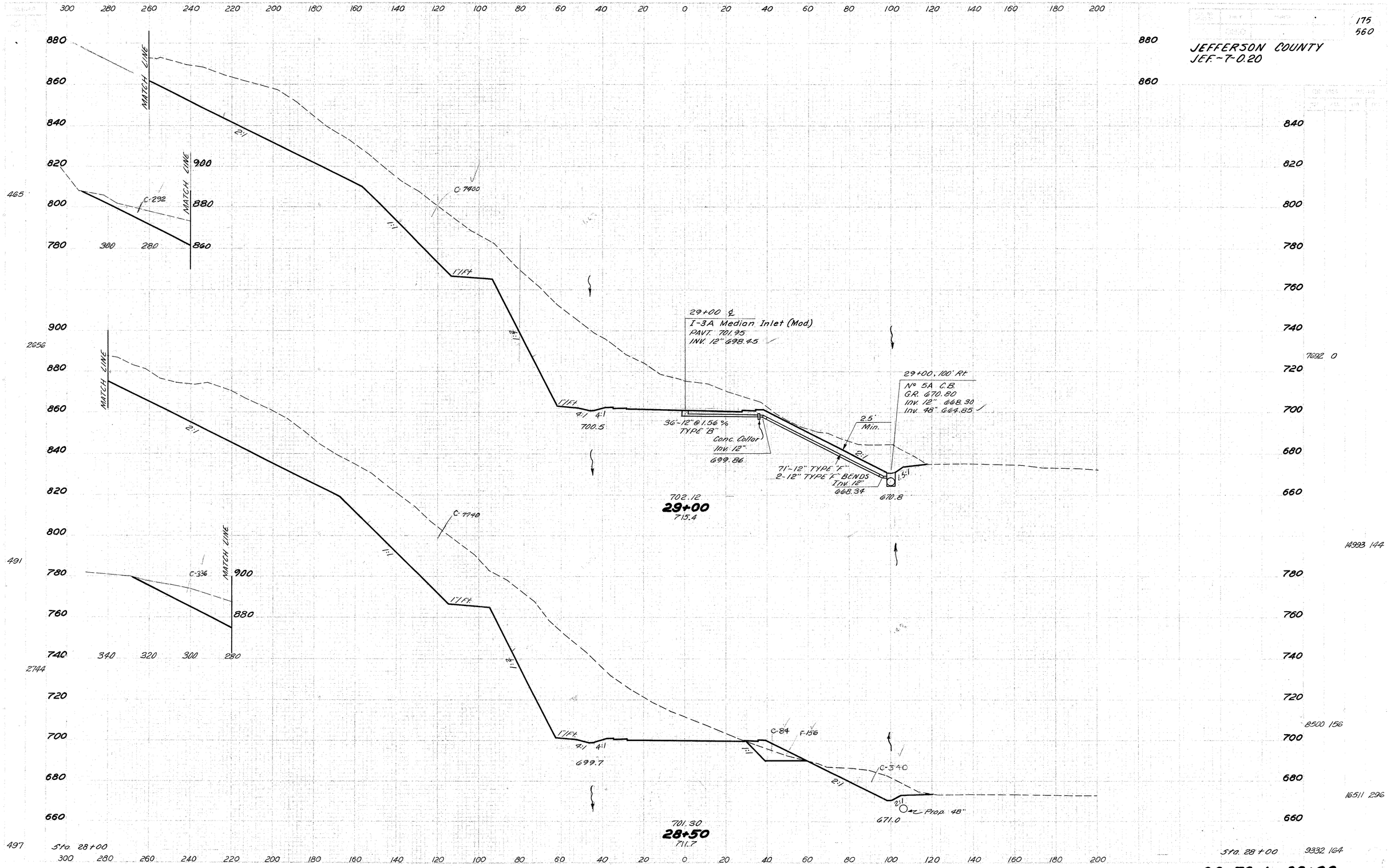
JEFFERSON COUNTY
JEF-7-0.20
173
560
MATCH
MATCH LINE
2:1
1:1
1"/Ft.
4:1
C-170
C-8100
C-8656
C-266
C-12
C-54
F-420
C-256
Ex. Worthington St.
Prop. 48"
671.6
671.8
697.2
696.4
698.84
27+00
716.8
698.02
26+50
714.3
Sta. 26+00
457
409
414
2406
2286
9136 420
16217 778
8378 420
14895 581
7708 208

26+50 to 27+00



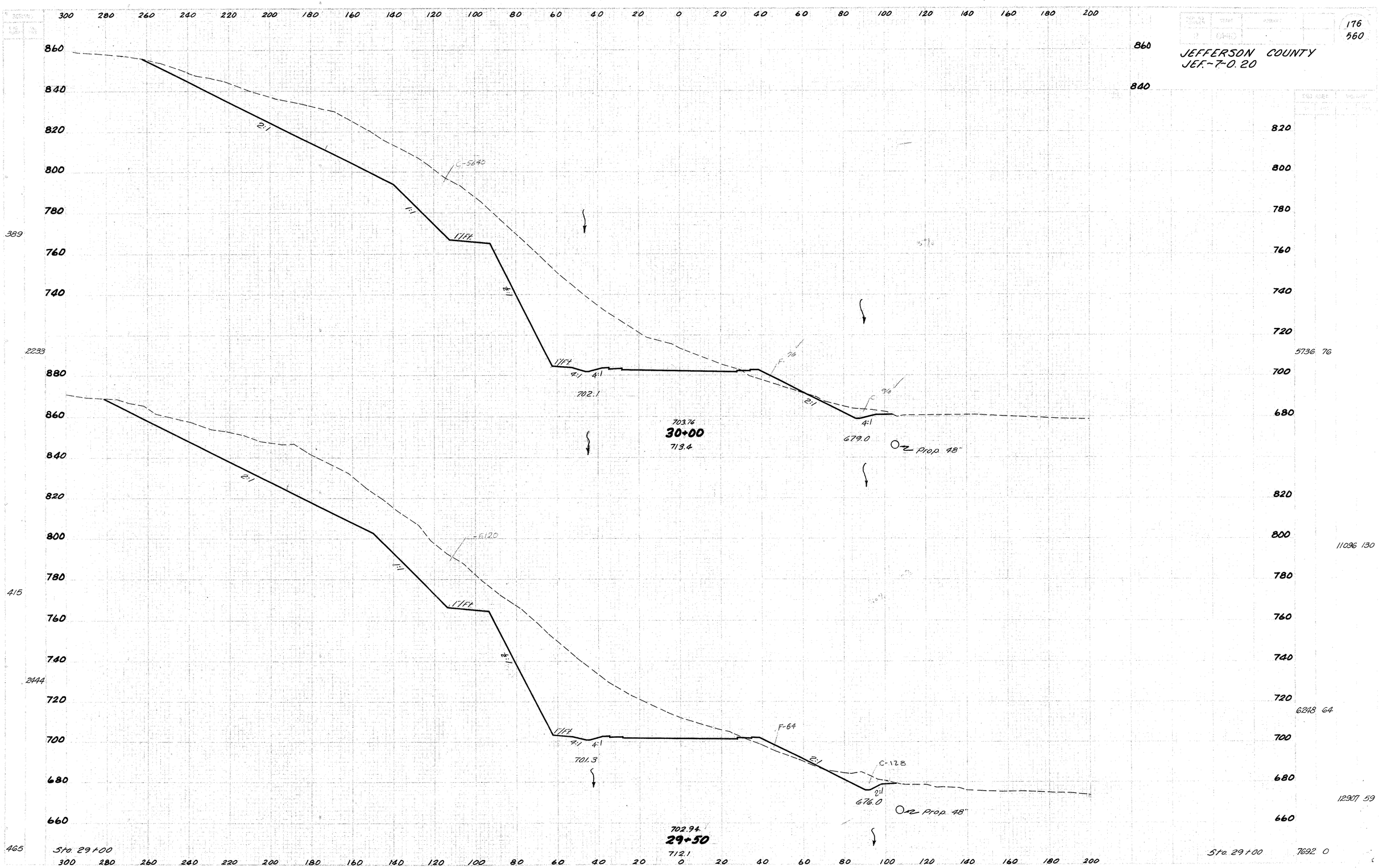
174
560
JEFFERSON COUNTY
JEF.-7-0.20
MATCH LINE
2:1
1:1
1"/Ft.
4:1
C-724
C-8236
C-92
F-164
C-220
C-8232
C-608
C-250
Ex. Worthington St.
Prop. 48"
698.8
671.2
700.48
28+00
713.7
698.0
671.4
699.66
27+50
715.7
Sta. 27+00
497
2703
476
2592
457
9332 164
17058 152
9090 0
16876 389
9136 420

27+50 to 28+00



JEFFERSON COUNTY
JEF.-7-0.20
175
560
MATCH LINE
2:1
1:1
1"/Ft.
C-7400
C-292
29+00 ℄
I-3A Median Inlet (Mod.)
PAVT. 701.95
INV. 12" 698.45
29+00, 100' Rt.
Nº 5A C.B.
G.R. 670.80
Inv. 12" 668.30
Inv. 48" 664.85
2.5' Min.
4:1
700.5
36'-12" @ 1.56 %
TYPE "B"
Conc. Collar
Inv. 12"
699.86
71'-12" TYPE "F"
2-12" TYPE "F" BENDS
Inv. 12"
668.34
670.8
702.12
29+00
715.4
C-7740
C-336
699.7
C-84
F-156
C-340
Prop. 48"
671.0
701.30
28+50
711.7
Sta. 28+00
7692 0
14993 144
8500 156
16511 296
9332 164
465
2656
491
2744
497

28+50 to 29+00



176
560
JEFFERSON COUNTY
JEF.-7-0.20
C-5640
2:1
1:1
1"/Ft.
4:1
702.1
703.76
30+00
713.4
679.0
Prop. 48"
C-6120
701.3
F-64
C-128
676.0
702.94
29+50
712.1
Sta. 29+00
389
2233
415
2444
465
5736 76
11096 130
6248 64
12907 59
7692 0

29+50 to 30+00

JEFFERSON COUNTY
JEF.-7-0.20

177.
560.

234
1378
262
1633
326
1986
389

C-2584
C-3652
C-4444

F-436
F-476
F-392

C-29
C-20
C-96

2604 436
5812 844
3672 476
7603 804
4540 392
9515 433
5736 76

2:1
1:1
1:2
1'/Ft.
4:1

704.6
703.8
702.9
690.0
686.5
680.5

706.22
31+50
705.1

705.40
31+00
708.7

704.58
30+50
710.5

Prop. 48"

Sta. 30+00

30+50 to 31+50

300 280 260 240 220 200 180 160 140 120 100 80 60 40 20 0 20 40 60 80 100 120 140 160 180 200

760 740 720 700

98

Match TR.109

C-192

12:1

706.4

F-586

2:1

C-68

4:1

691.0

708.80

33+50

702.0

503

760 740 720 700

83

Match TR.109

C-92

F4

VAR.

8:1

704.5

F-324

2:1

C-36

4:1

696.5

600

708.29

33+00

703.1

Prop. 48"
32+75 ±

Ex. Channel
32+75 ±
Elev. 695.00

760 740 720 700

133

2:1

C-380

17/FT

4:1 4:1

704.0

F-156

2:1

C-34

696.0

850

707.69

32+50

705.4

780 760 740 720 700

175

2:1

2:1

C-1168

17/FT

4:1 4:1

705.4

F-298

2:1

C-80

694.5

1136

707.00

32+00

702.8

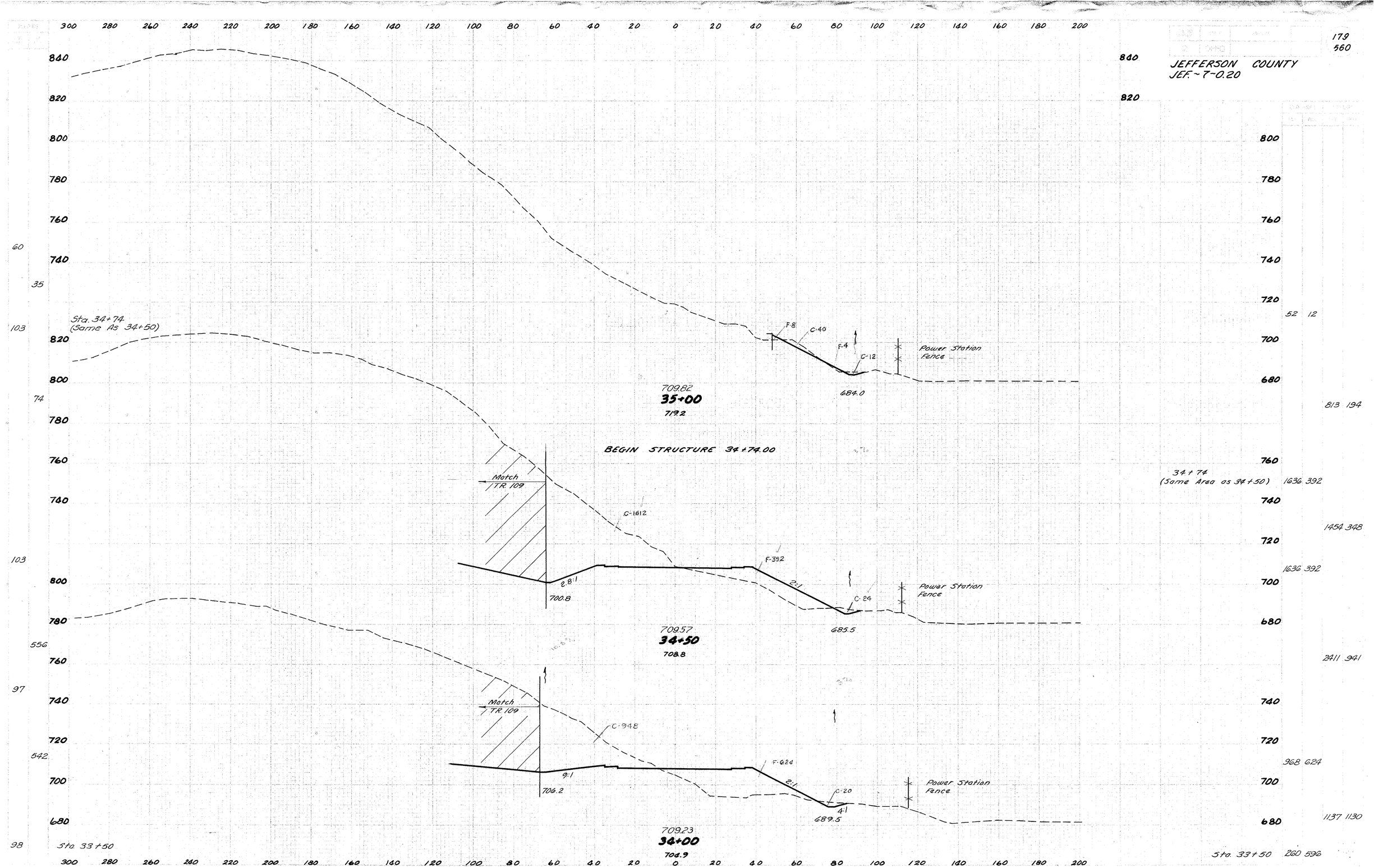
680

234

Sta. 31+50

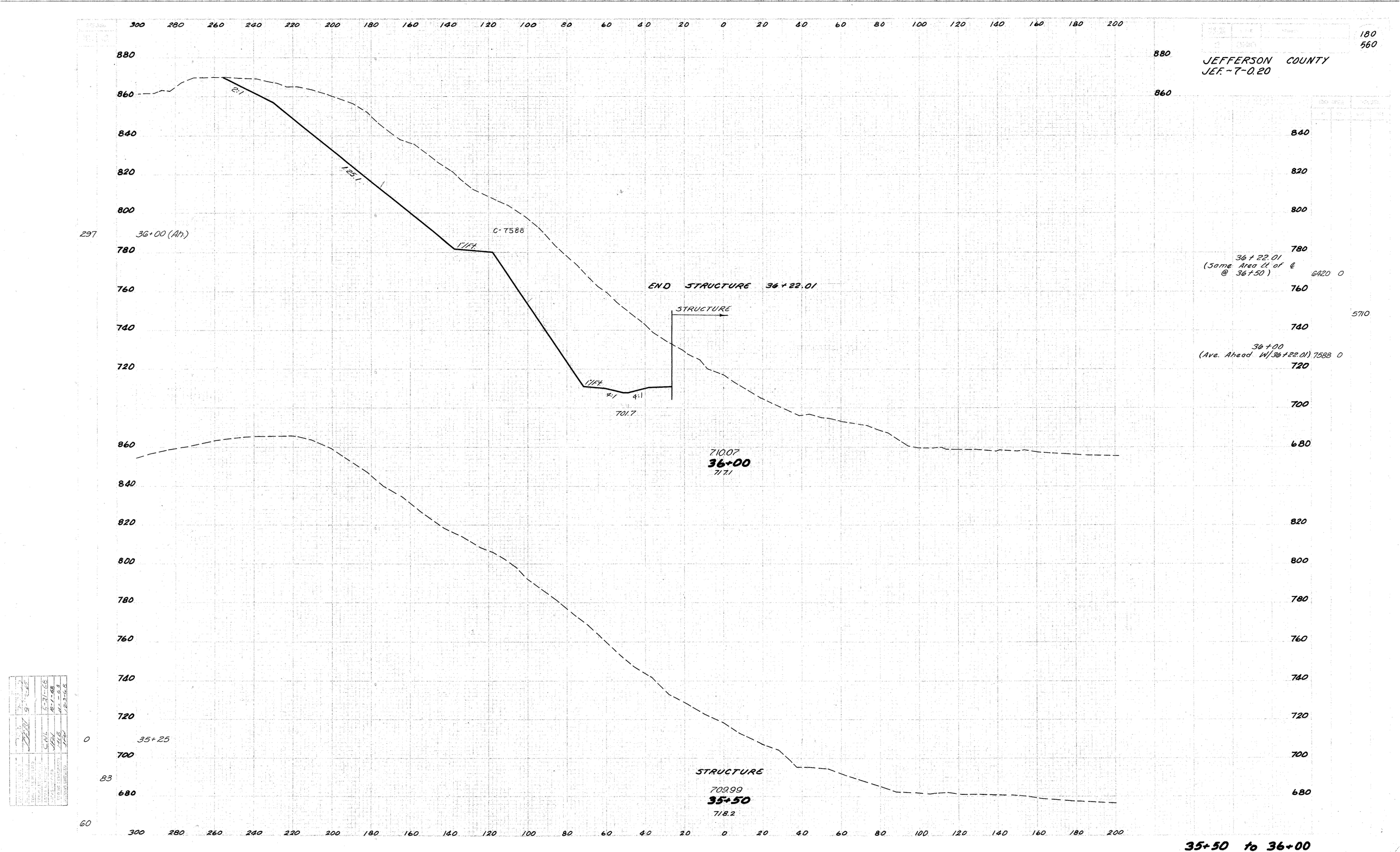
300 280 260 240 220 200 180 160 140 120 100 80 60 40 20 0 20 40 60 80 100 120 140 160 180 200

| | | |



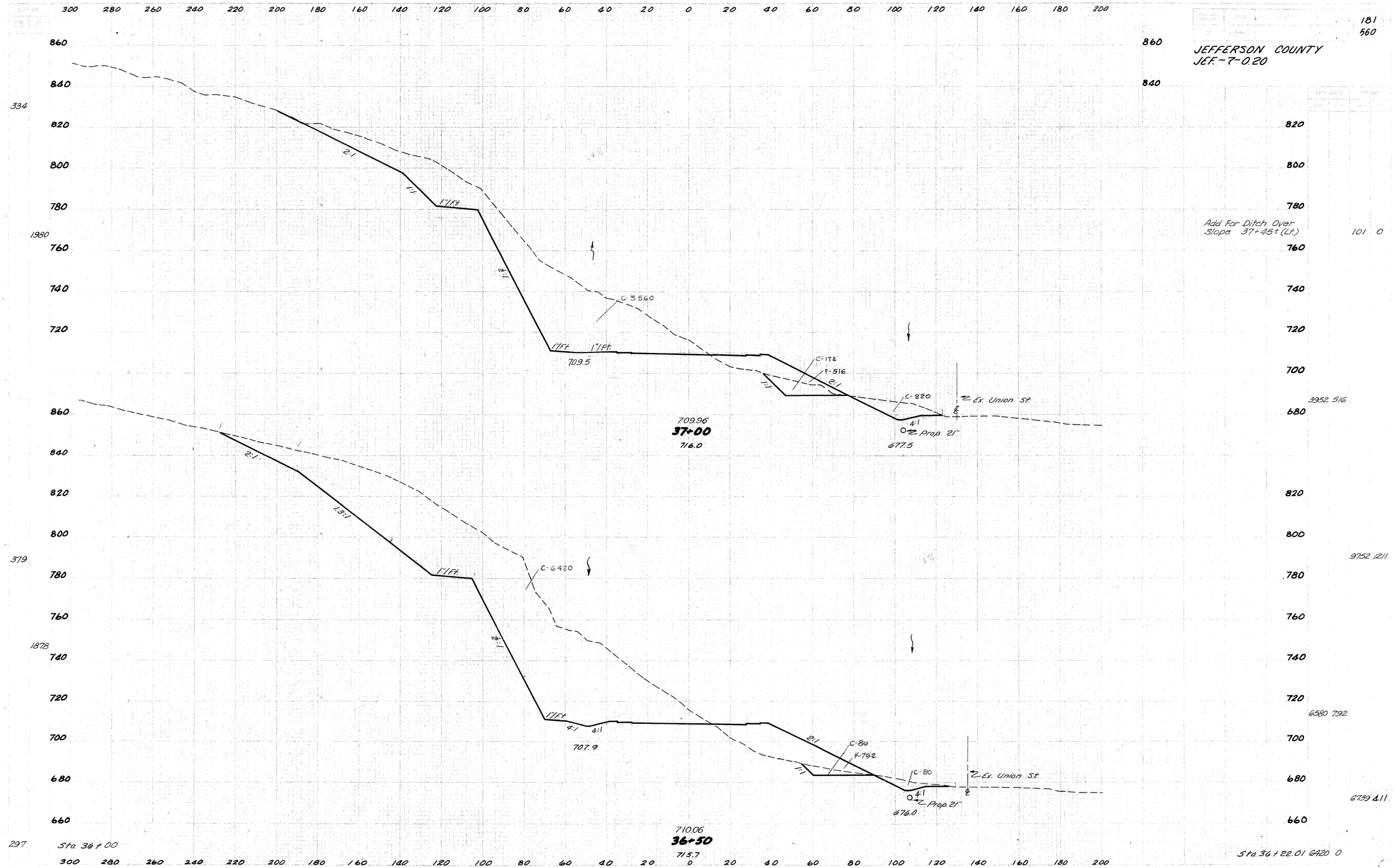
JEFFERSON COUNTY
JEF.-7-0.20
179
560
Sta. 34+74
(Same As 34+50)
F-8
C-40
F-4
C-12
Power Station Fence
684.0
709.82
35+00
719.2
BEGIN STRUCTURE 34+74.00
Match TR 109
C-1612
F-392
2.8:1
2:1
700.8
C-24
685.5
709.57
34+50
708.8
C-948
F-624
9:1
706.2
C-20
4:1
689.5
709.23
34+00
704.9
Sta. 33+50
34+74
(Same Area as 34+50)
1636 392
1454 348
1636 392
2411 941
968 624
1137 1130
260 596

34+00 to 35+00



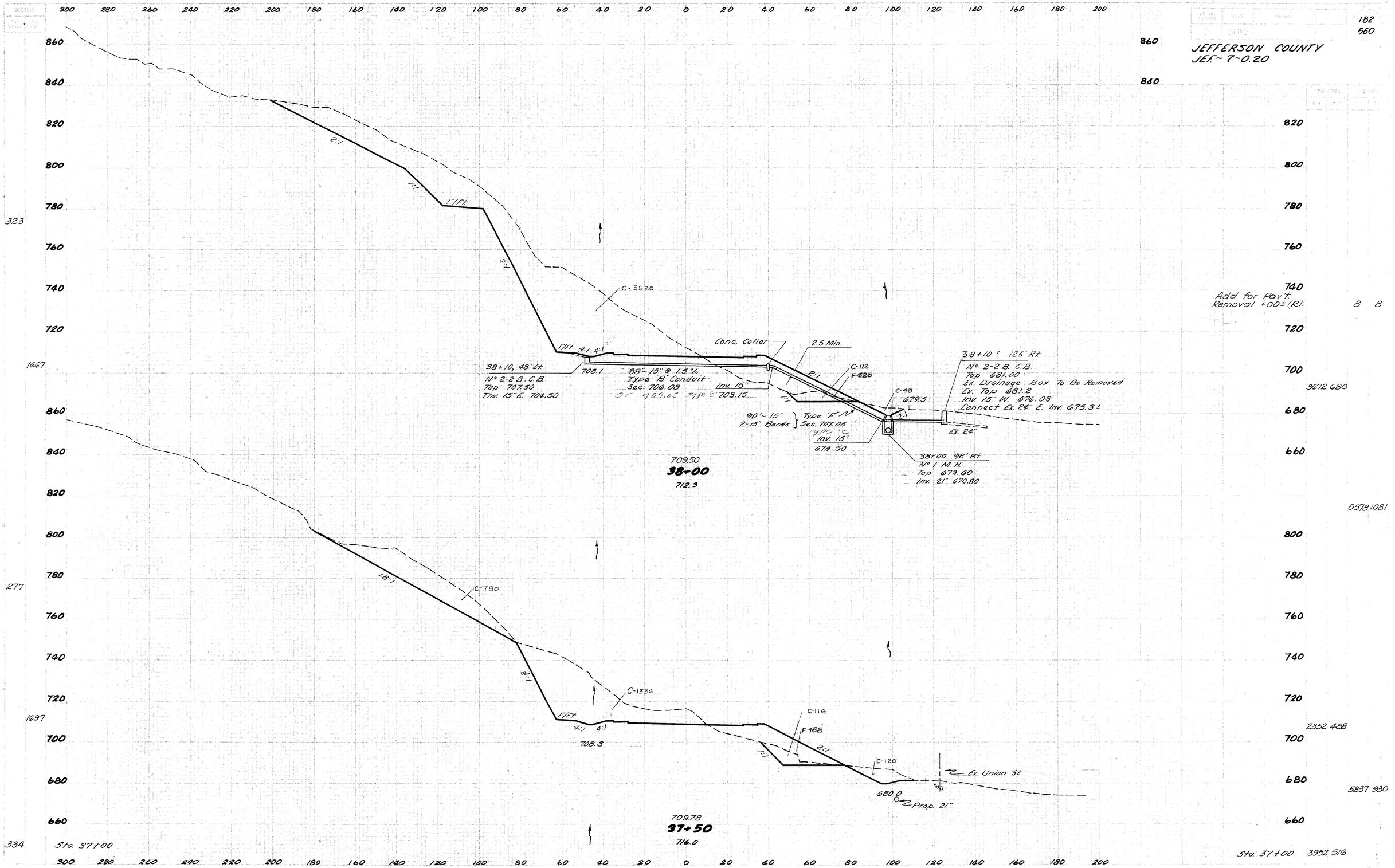
JEFFERSON COUNTY
JEF.-7-0.20
180
560
297
36+00 (Ah.)
2:1
1.25:1
1"/Ft.
C-7588
END STRUCTURE 36+22.01
STRUCTURE
1"/Ft.
4:1
4:1
701.7
710.07
36+00
717.1
36+22.01
(Same Area Lt. of ℄
@ 36+50)
6420 0
5710
36+00
(Ave. Ahead W/36+22.01) 7588 0
0
35+25
83
60
STRUCTURE
709.99
35+50
718.2

35+50 to 36+00



JEFFERSON COUNTY
JEF.-7-0.20
181
560
Add For Ditch Over Slope 37+45± (Lt.)
101 0
3952 516
9752 1211
6580 792
6739 411
Sta. 36+22.01 6420 0
Sta. 36+00
297
334
1980
379
1878
2:1
1:1
1"/Ft.
C-3560
709.5
C-172
F-516
C-220
Ex. Union St.
Prop. 21"
4:1
677.5
709.96
37+00
716.0
1.3:1
C-6420
707.9
C-80
F-792
676.0
710.06
36+50
715.7

36+50 to 37+00



JEFFERSON COUNTY
JEF-7-0.20
182
560
Add for Pav't. Removal +00± (Rt.
8 8
C-3520
Conc. Collar
2.5 Min.
38+10, 48' Lt.
Nº 2-2 B.C.B.
Top 707.50
Inv. 15" E. 704.50
708.1
88'-15" @ 1.5%
Type "B" Conduit
Sec. 706.08
Inv. 15"
703.15
C-112
F-680
C-40
679.5
38+10± 125' Rt.
Nº 2-2 B.C.B.
Top 681.00
Ex. Drainage Box To Be Removed
Ex. Top 681.2
Inv. 15" W. 676.03
Connect Ex. 24" E. Inv. 675.3±
90'-15"
2-15" Bends
Type "F"
Sec. 707.05
Type "C"
Inv. 15"
676.50
Ex. 24"
38+00 98' Rt.
Nº 1 M.H.
Top 679.60
Inv. 21" 670.80
709.50
38+00
712.3
C-780
C-1336
C-116
F-488
C-120
Ex. Union St.
680.0
Prop. 21"
708.3
709.78
37+50
716.0
Sta. 37+00
Sta. 37+00
323
1667
277
1697
334
3672 680
5578 1081
2352 488
5837 930
3952 516
37+50 to 38+00

JEFFERSON COUNTY
JEF.-7-0.20

183
560

219

1722

401

2011

323

C-1944

2:1

1:1

1'/1'

4:1 4:1

707.2

C-278
F-488

2:1

1:1

C-188

4:1

Prop. 21"

675.0

708.70

39+00

712.9

C-4064

1:1

1'/1'

4:1

1'/1'

4:1 4:1

706.6

C-148
F-608

2:1

1:1

C-180

4:1

Prop. 21"

676.0

709.15

38+50

713.3

Sta. 38+00

2410 488

6291 1015

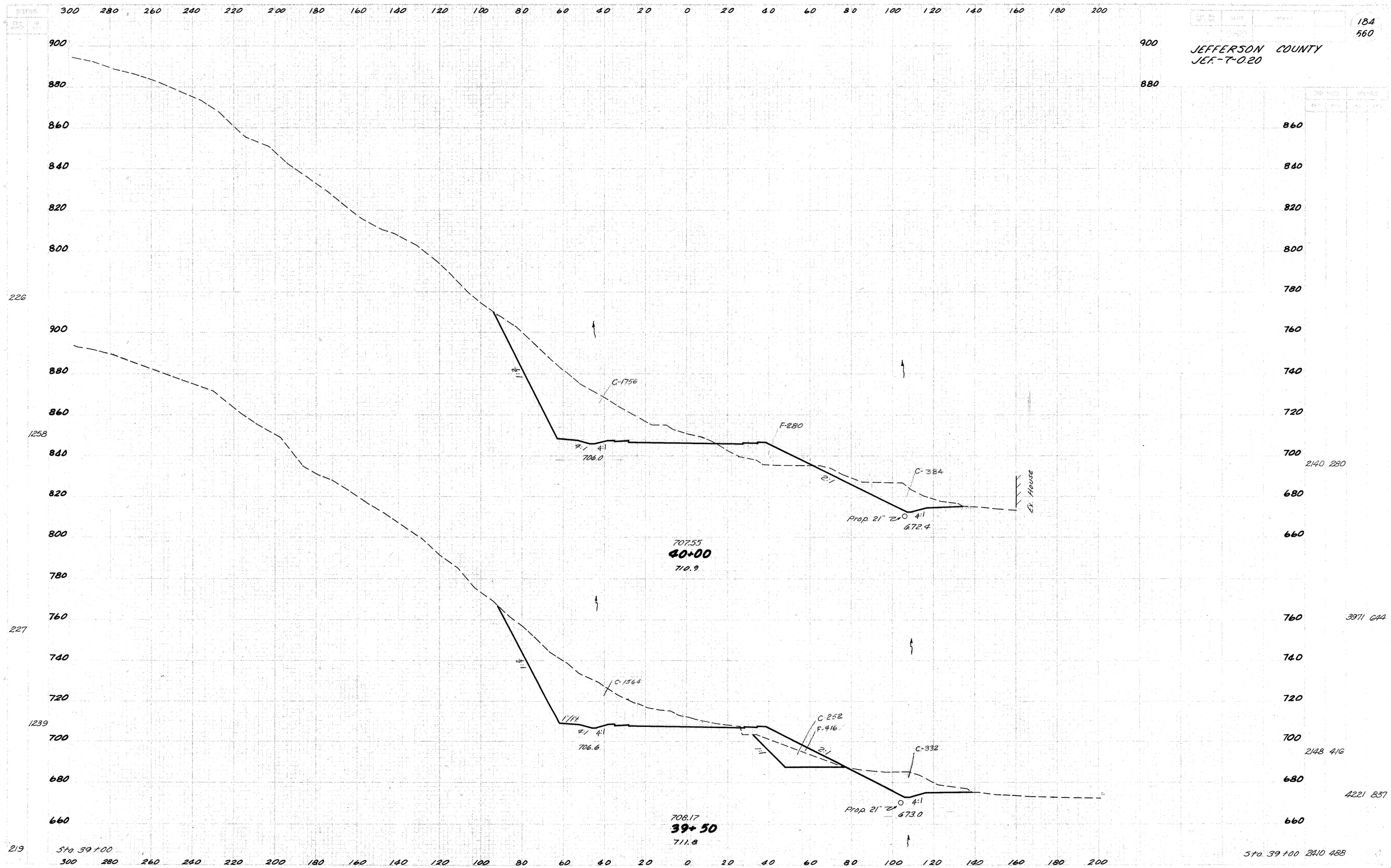
4384 608

7459 1193

3672 680

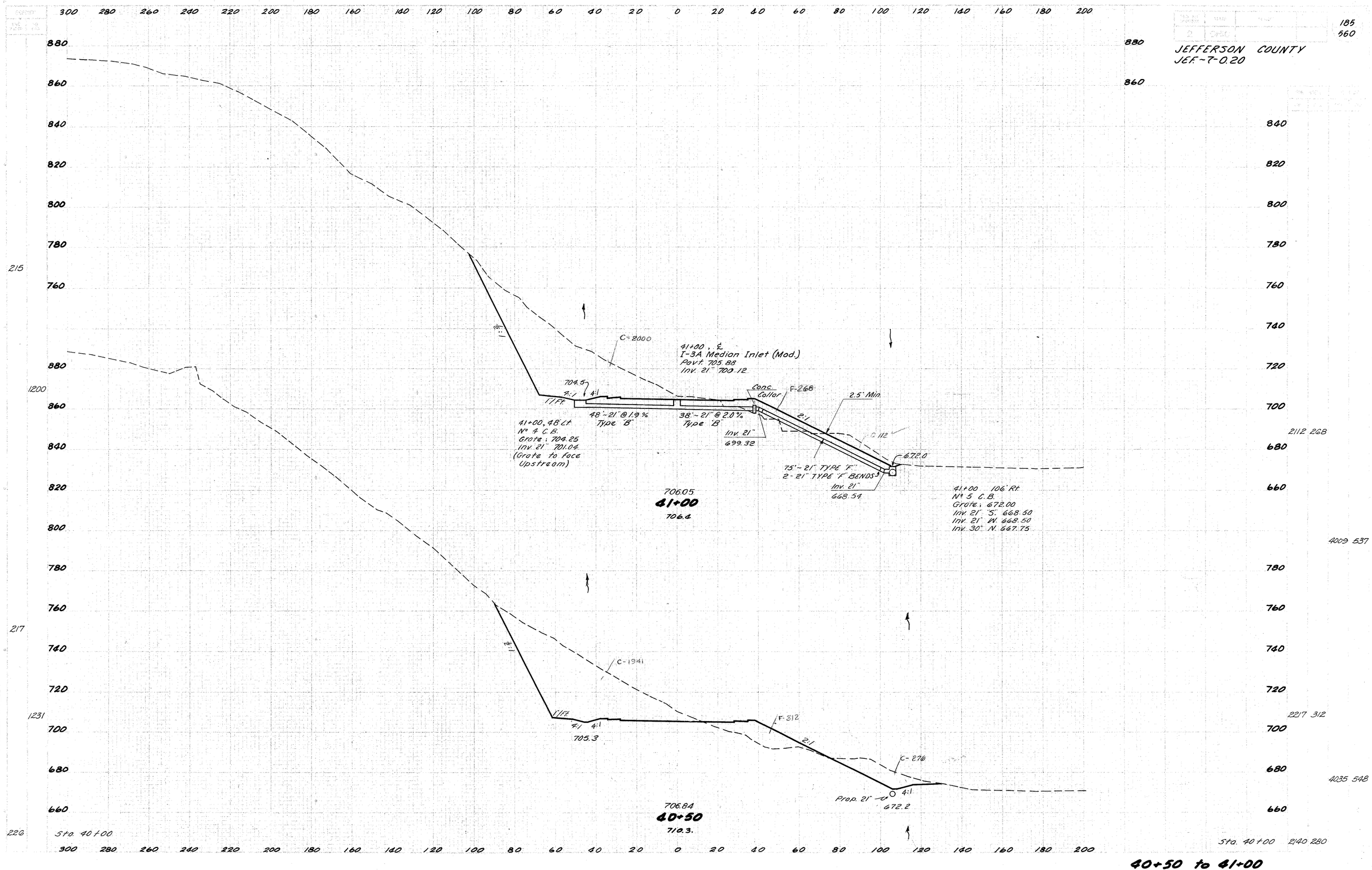
Sta. 38+00

38+50 to 39+00



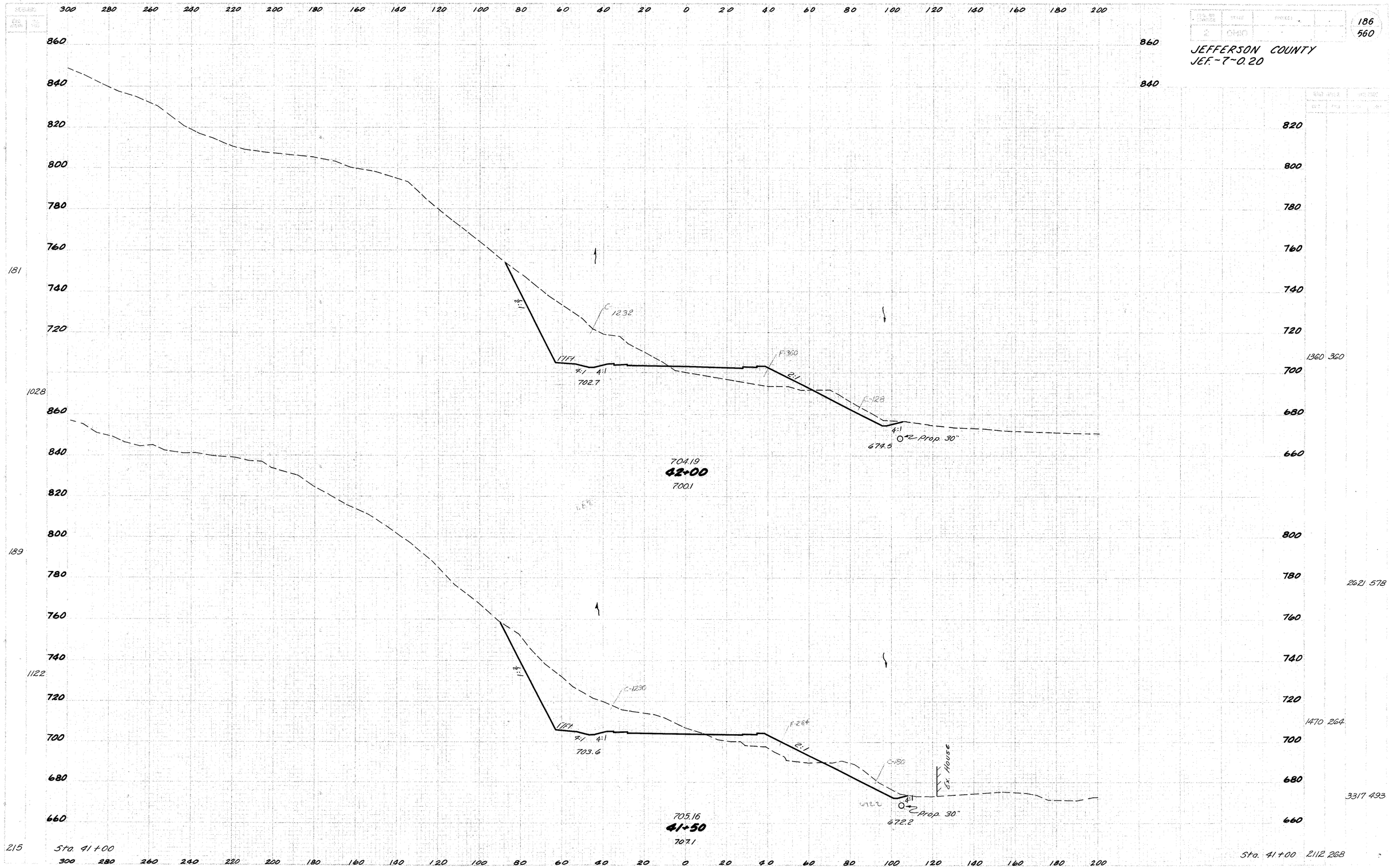
184
560
JEFFERSON COUNTY
JEF.-7-0.20
300 280 260 240 220 200 180 160 140 120 100 80 60 40 20 0 20 40 60 80 100 120 140 160 180 200
900
880
860
840
820
800
780
760
740
720
700
680
660
226
227
219
1258
1239
2140 280
3971 644
2148 416
4221 837
Sta. 39+00 2410 488
C-1756
F-280
C-384
Ex. House
Prop. 21"
4:1
672.4
706.0
707.55
40+00
710.9
C-1564
C-252
F-416
C-332
706.6
673.0
708.17
39+50
711.8
Sta. 39+00

39+50 to 40+00



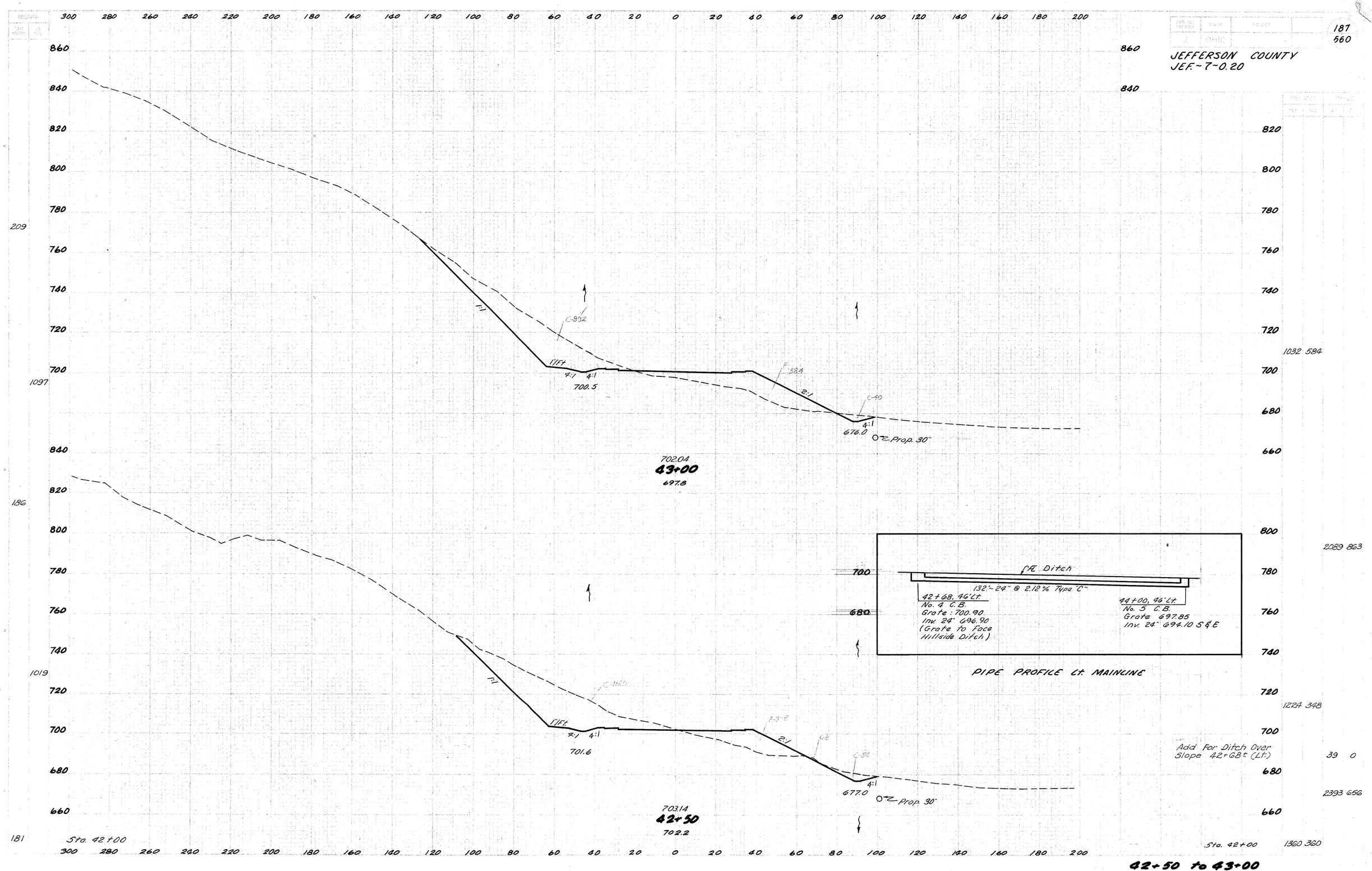
JEFFERSON COUNTY
JEF-7-0.20
185
560
215
1200
217
1231
226
2112 268
4009 537
2217 312
4035 548
2140 280
Sta. 40+00
C=2000
41+00, ℄
I-3A Median Inlet (Mod.)
Pavt. 705.88
Inv. 21" 700.12
704.5
4:1
1:1 Ft.
48'-21" @ 1.9%
Type "B"
38'-21" @ 2.0%
Type "B"
Conc. Collar
F-268
2.5' Min.
2:1
C 112
Inv. 21"
699.32
672.0
75'-21" TYPE "F"
2-21" TYPE "F" BENDS
Inv. 21"
668.54
41+00, 48' Lt.
Nº 4 C.B.
Grate: 704.25
Inv. 21" 701.04
(Grate to face Upstream)
41+00 106' Rt.
Nº 5 C.B.
Grate: 672.00
Inv. 21" S. 668.50
Inv. 21" W. 668.50
Inv. 30" N. 667.75
706.05
41+00
706.4
C-1941
1:1 Ft.
4:1
705.3
F-312
2:1
C-276
Prop. 21"
672.2
706.84
40+50
710.3.

40+50 to 41+00



186
560
JEFFERSON COUNTY
JEF.-7-0.20
181
1028
189
1122
215
Sta. 41+00
C-1232
F-360
C-128
1:2
1/1 Ft
4:1
702.7
2:1
674.5
Prop. 30"
704.19
42+00
700.1
C-1230
F-264
C-180
Ex. House
703.6
672.2
705.16
41+50
707.1
1360 360
2621 578
1470 264
3317 493
2112 268

41+50 to 42+00



187
560
JEFFERSON COUNTY
JEF.-7-0.20
209
1097
186
1019
181
1032 584
2089 863
1224 348
39 0
2393 656
1360 360
Sta. 42+00
702.04
43+00
697.8
703.14
42+50
702.2
1:1
1/Ft
4:1
700.5
2:1
676.0
Prop. 30"
701.6
677.0
Add For Ditch Over Slope 42+68± (Lt.)
PIPE PROFILE Lt. MAINLINE
℄ Ditch
132'-24" @ 2.12% Type "C"
42+68, 46' Lt.
No. 4 C.B.
Grate: 700.90
Inv. 24" 696.90
(Grate to Face Hillside Ditch)
44+00, 46' Lt.
No. 5 C.B.
Grate 697.85
Inv. 24" 694.10 S&E

42+50 to 43+00

JEFFERSON COUNTY
JEF.-7-0.20

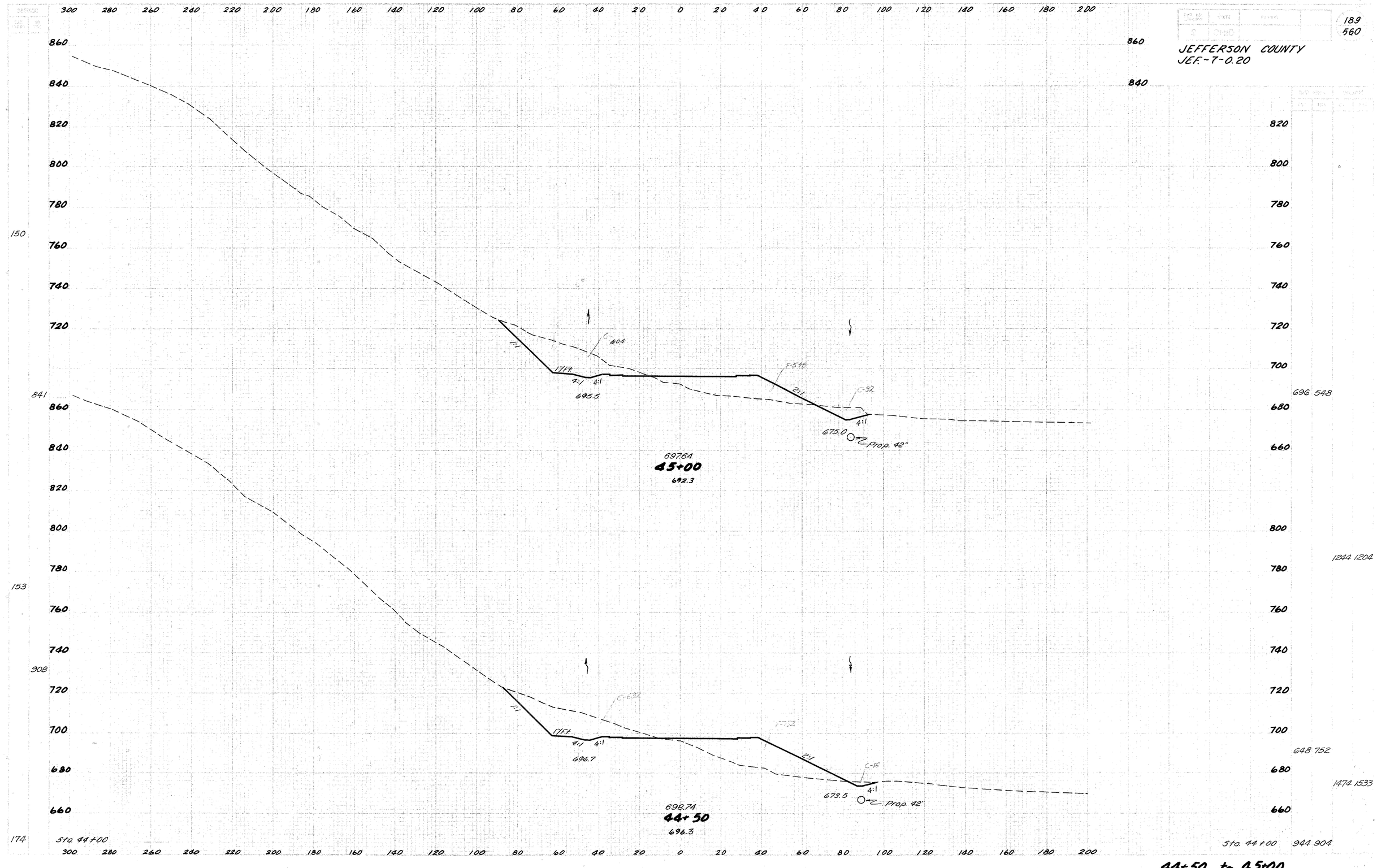
188
560

174
1439
344
1536
209

944 904
1974 1774
1188 1012
2056 1478
1032 584

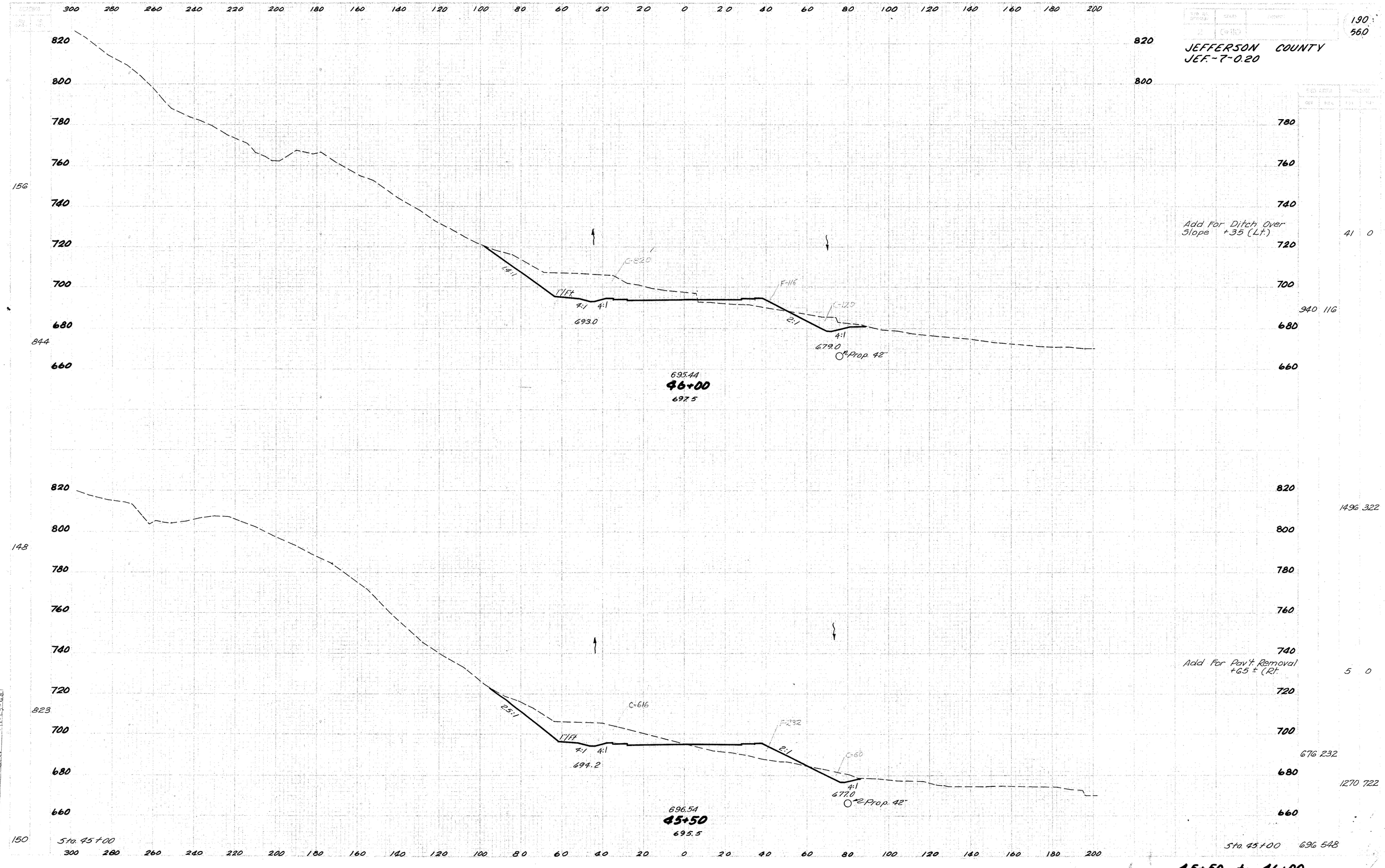
C-316
44+00, ℄
I-3A Median Inlet (Mod.)
Pavt. 699.67
Inv. 24" 693.34
Inv. 12" S. 696.17
698.1
4:1 4:1
17 Ft.
46'-24" @ 1.65% Type "B"
40'-24" @ 1.65% Type "B"
F-304
2:1
2.5' Min.
672.5
C-22
conc. collar
Inv. 24"
692.65
58'-24" Type "F"
2-24" Type "F" Bends
Inv. 24"
668.54
44+00, 46' Lt.
N° 5 C.B.
Grate; 697.85
Inv. 24" 694.10
44+00, 92' Rt.
N° 5A C.B.
Grate; 672.50
Inv. 24" W 668.50
Inv. 30" S. 666.51
Inv. 42" N. 665.51
699.84
44+00
693.7
1:1
C-168
43+50 ℄
I-3A Median Inlet (Mod.)
Pav't 700.77
Inv. 12" 697.27
4:1 4:1
17 Ft.
699.4
F-302
2:1
C-20
4:1
2 Prop. 30"
673.5
700.94
43+50
689.3
Sta. 43+00
Sta. 43+00

43+50 to 44+00



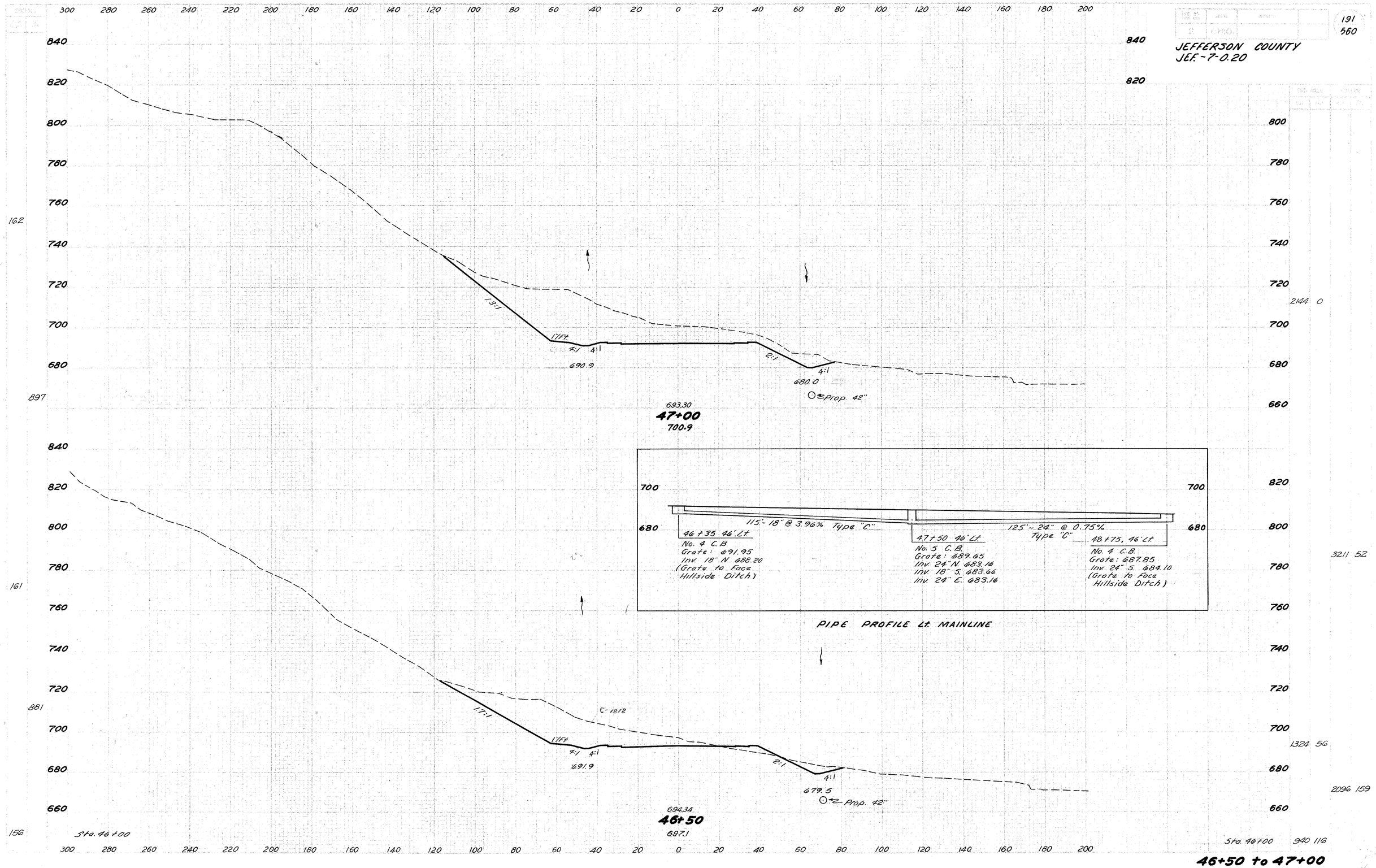
JEFFERSON COUNTY
JEF.-7-0.20
189
560
150
841
153
908
174
696 548
1244 1204
648 752
1474 1533
944 904
Sta. 44+00
697.64
45+00
692.3
698.74
44+50
696.3
1:1
17 Ft.
4:1
695.5
2:1
675.0
Prop. 42"
696.7
673.5
C-604
C-632
C-92
C-16

44+50 to 45+00

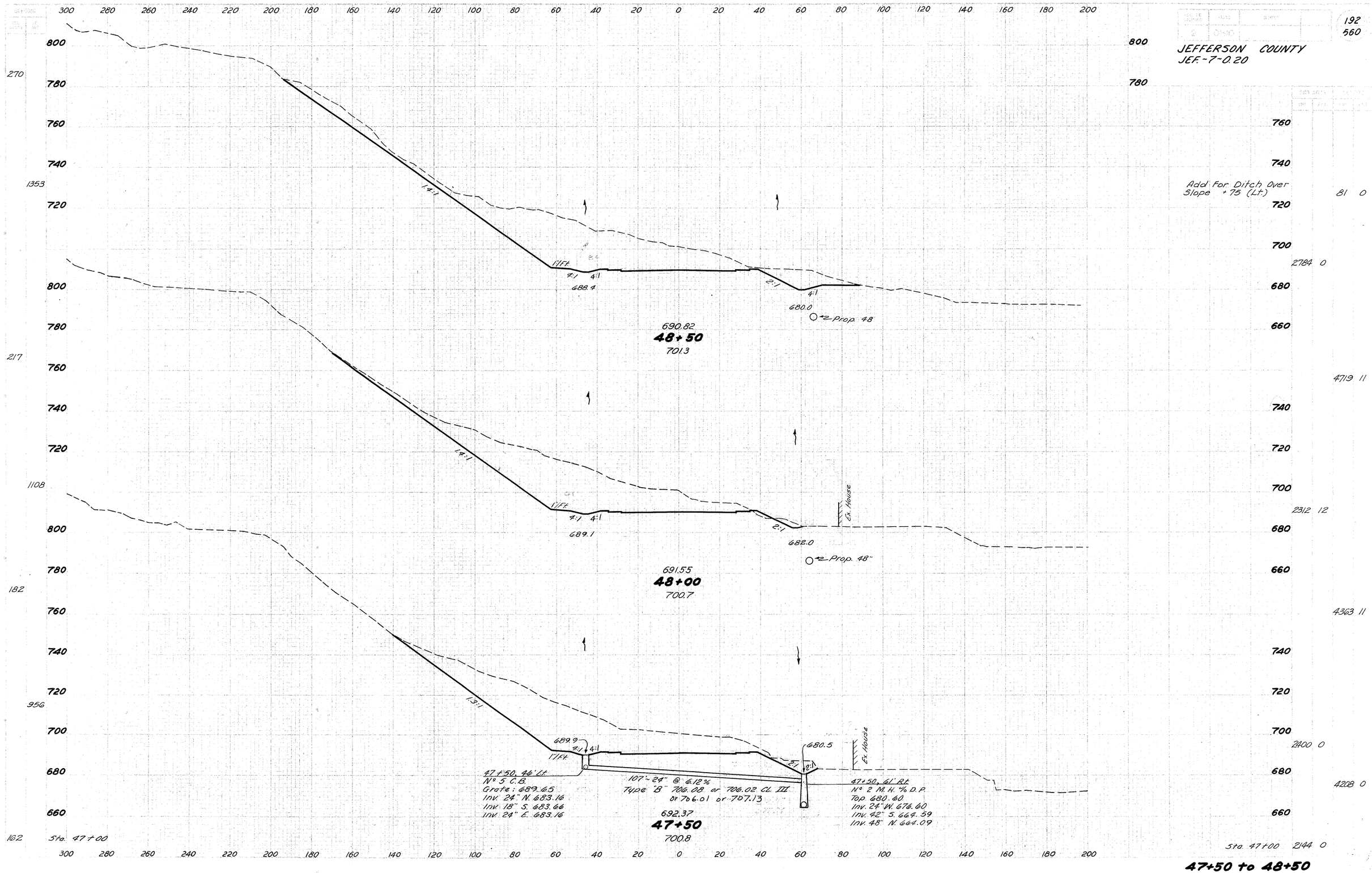


JEFFERSON COUNTY
JEF.-7-0.20
190
560
Add For Ditch Over Slope +35 (Lt.)
41 0
940 116
1496 322
Add For Pav't Removal +65 ± (Rt.
5 0
676 232
1270 722
Sta. 45+00
696 548
156
844
148
823
150
C-820
F-116
C-120
1.4:1
1"/Ft
4:1
4:1
693.0
2:1
4:1
679.0
Prop. 42"
695.44
46+00
697.5
C-616
F-232
C-60
2.5:1
1"/Ft
4:1
4:1
694.2
2:1
4:1
677.0
Prop. 42"
696.54
45+50
695.5
Sta. 45+00

45+50 to 46+00



191
560
JEFFERSON COUNTY
JEF.-7-0.20
1.3:1
17 Ft.
4:1
4:1
690.9
2:1
4:1
680.0
Prop. 42"
693.30
47+00
700.9
115'-18" @ 3.96% Type "C"
125'-24" @ 0.75% Type "C"
46+35 46' Lt.
No. 4 C.B.
Grate: 691.95
Inv. 18" N. 688.20
(Grate to Face Hillside Ditch)
47+50 46' Lt.
No. 5 C.B.
Grate: 689.65
Inv. 24" N. 683.16
Inv. 18" S. 683.66
Inv. 24" E. 683.16
48+75, 46' Lt.
No. 4 C.B.
Grate: 687.85
Inv. 24" S. 684.10
(Grate to Face Hillside Ditch)
PIPE PROFILE Lt. MAINLINE
1.7:1
C-12+2
17 Ft.
4:1
4:1
691.9
2:1
4:1
679.5
Prop. 42"
694.34
46+50
697.1
Sta. 46+00
Sta. 46+00
2144 0
3211 52
1324 56
2096 159
940 116
162
897
161
881
156
46+50 to 47+00



192
560
JEFFERSON COUNTY
JEF.-7-0.20
Add For Ditch Over Slope +75 (Lt.)
81 0
2784 0
4719 11
2312 12
4363 11
2400 0
4208 0
2144 0
Sta. 47+00
270
1353
217
1108
182
956
162
1:4:1
1"/Ft.
4:1
688.4
2:1
680.0
Prop. 48"
690.82
48+50
701.3
689.1
682.0
Ex. House
691.55
48+00
700.7
1:3:1
689.9
680.5
47+50, 46' Lt.
Nº 5 C.B.
Grate: 689.65
Inv. 24" N. 683.16
Inv. 18" S. 683.66
Inv. 24" E. 683.16
107'-24" @ 6.12%
Type "B" 706.08 or 706.02 Cl. III
or 706.01 or 707.13
47+50, 61' Rt.
Nº 2 M.H. % D.P.
Top 680.60
Inv. 24" W. 676.60
Inv. 42" S. 664.59
Inv. 48" N. 664.09
692.37
47+50
700.8

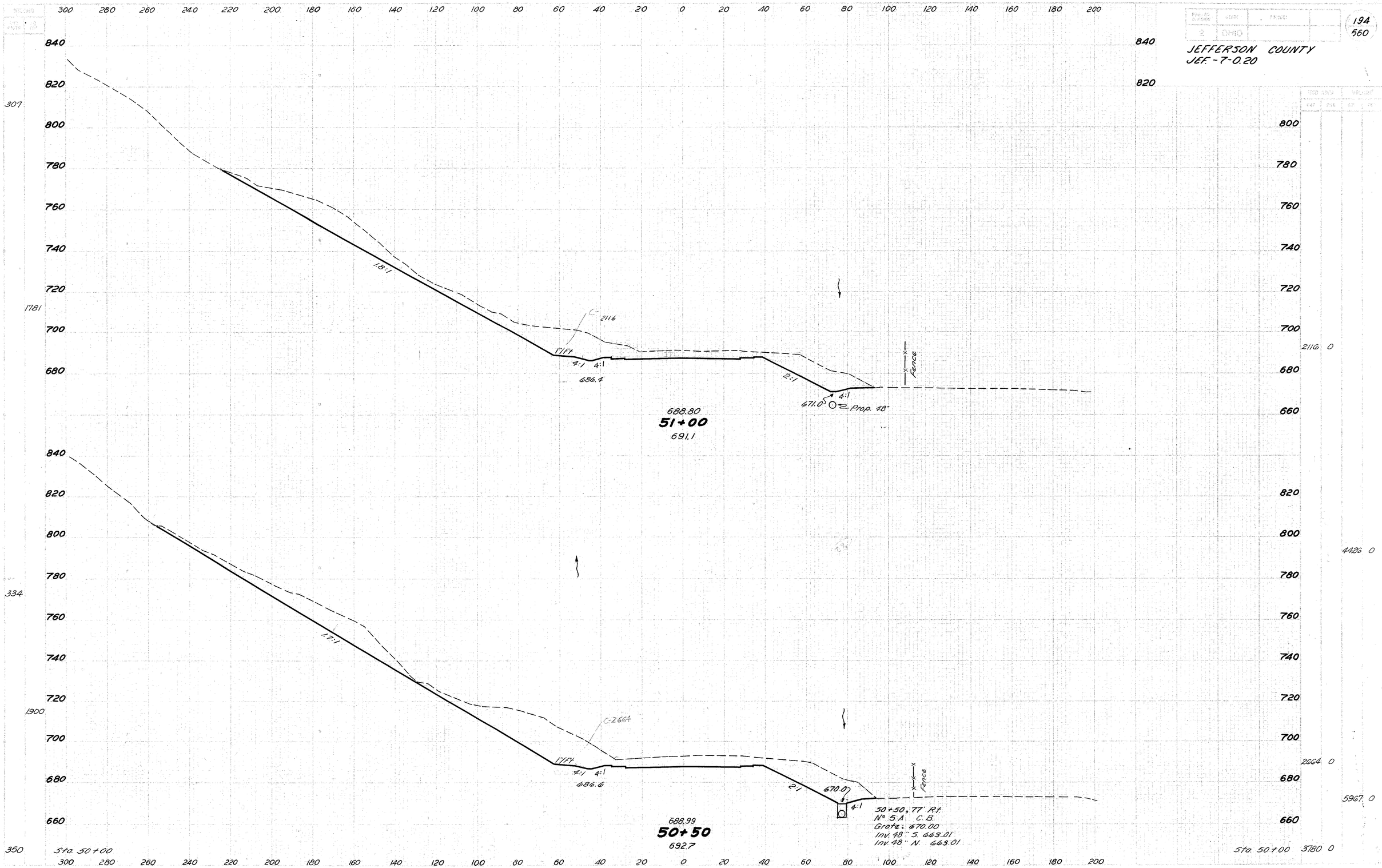
47+50 to 48+50

FED. ROAD OR STATE PROJECT	STATE	COUNTY		193
2	OHIO			560

JEFFERSON COUNTY
JEF.-7-0.20

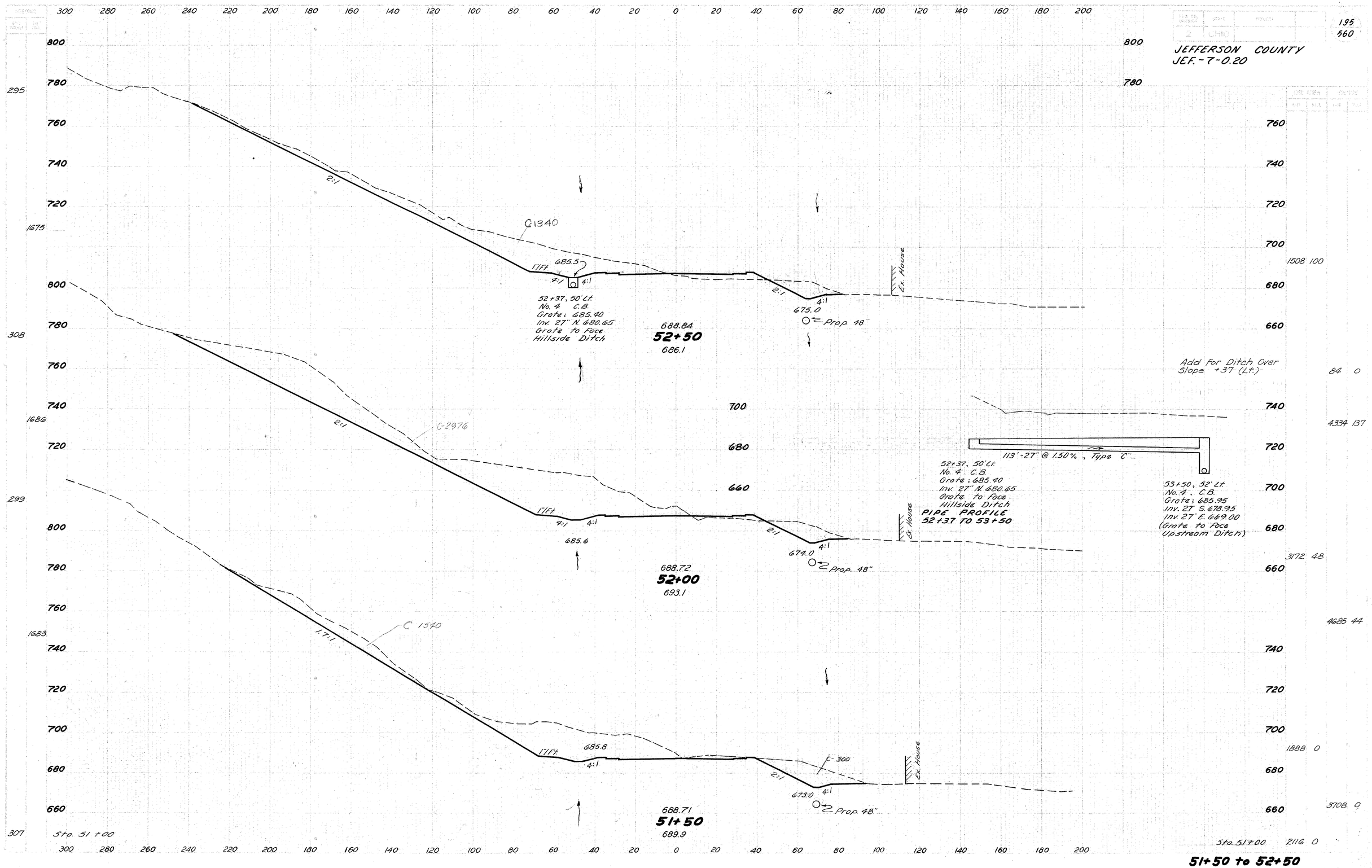
EXISTING PLOTTED	BY	DATE
EARTHWORK CHECKED		
TEMPLATE PLOTTED		
TEMPLATE CHECKED	CNL	6-21-62
AREAS DETERMINED	JES	12-8-62
AREAS CHECKED	NLS	11-27-63
SECOND DETERMINED	JES	11-27-63
SECOND CHECKED		

| | | |



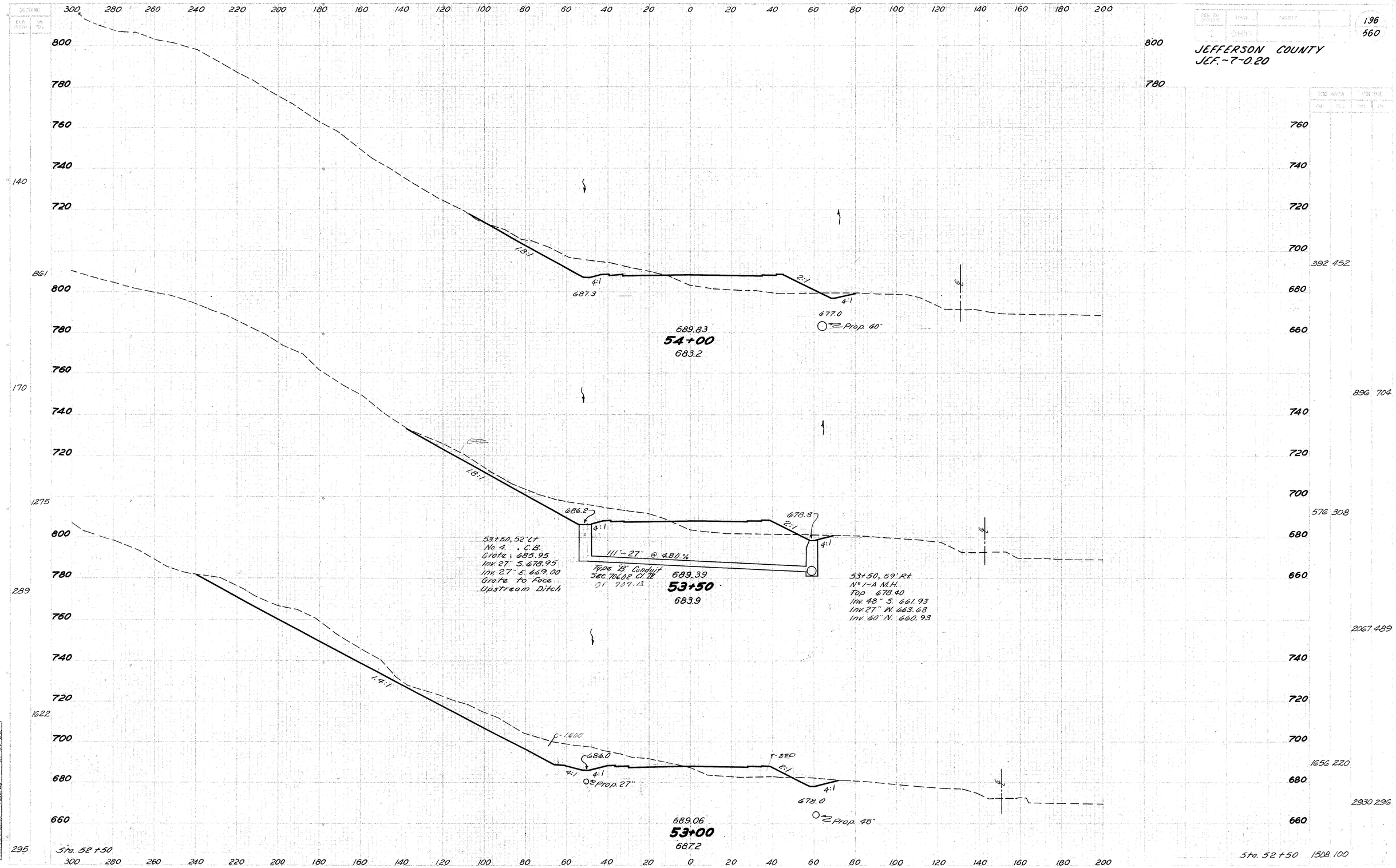
194
560
JEFFERSON COUNTY
JEF.-7-0.20
1.8:1
C-2116
1"/Ft
4:1
4:1
686.4
2:1
4:1
671.0
Prop. 48"
Fence
688.80
51+00
691.1
1.7:1
C-2664
1"/Ft
4:1
4:1
686.6
2:1
670.0
4:1
Fence
50+50, 77' Rt.
Nº 5 A. C.B.
Grate: 670.00
Inv. 48" S. 663.01
Inv. 48" N. 663.01
688.99
50+50
692.7
Sta. 50+00
Sta. 50+00
307
1781
334
1900
350
2116 0
4426 0
2664 0
5967 0
3780 0

50+50 to 51+00



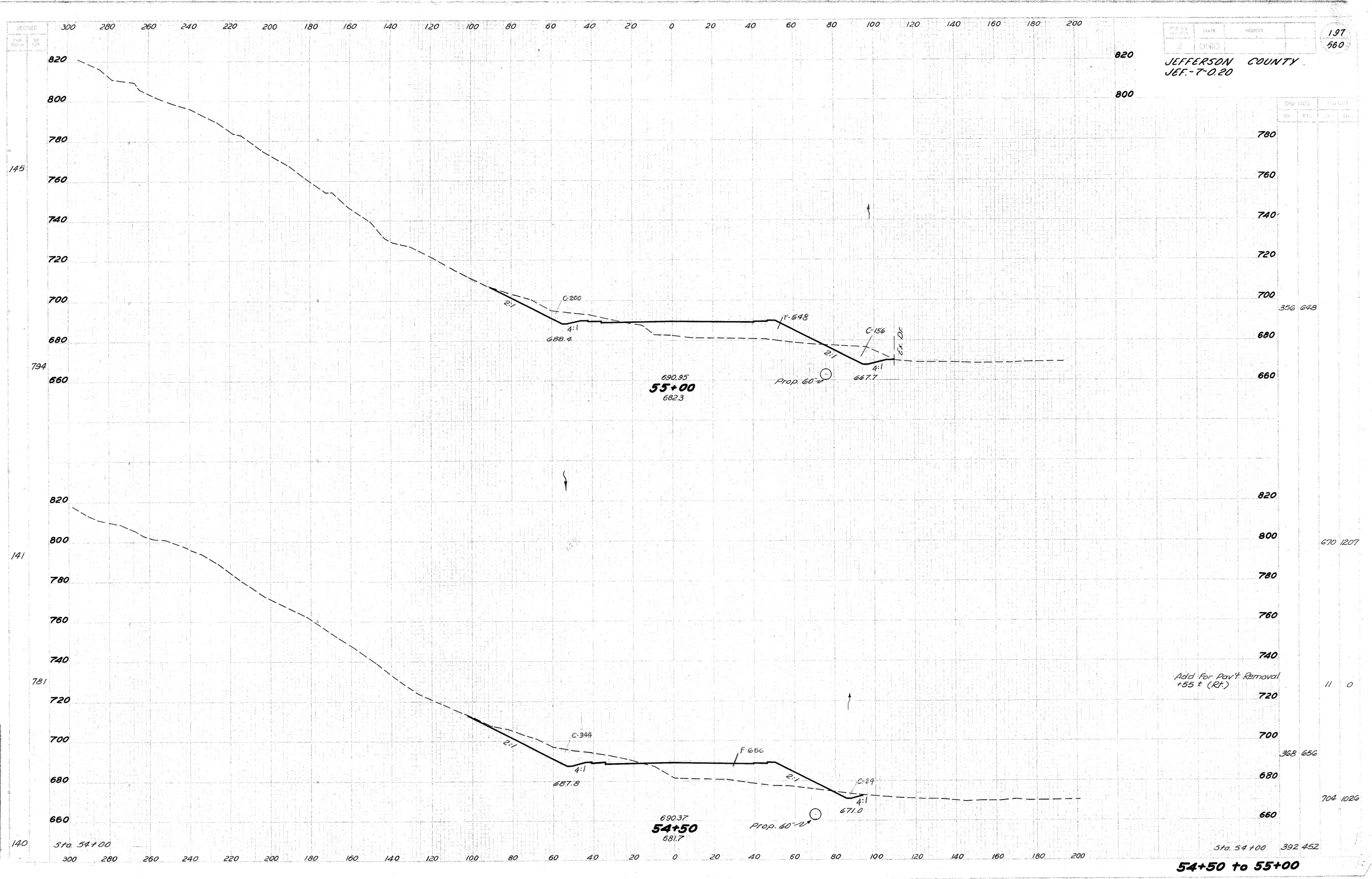
JEFFERSON COUNTY
JEF.-7-0.20
195
560
C1340
2:1
1"/Ft.
685.5
4:1
52+37, 50' Lt.
No. 4 C.B.
Grate: 685.40
Inv. 27" N. 680.65
Grate to Face
Hillside Ditch
688.84
52+50
686.1
675.0
Prop. 48"
Ex. House
Add For Ditch Over
Slope +37 (Lt.)
84 0
C-2976
113'-27" @ 1.50%, Type "C"
52+37, 50' Lt.
No. 4 C.B.
Grate: 685.40
Inv. 27" N. 680.65
Grate to Face
Hillside Ditch
PIPE PROFILE
52+37 TO 53+50
53+50, 52' Lt.
No. 4, C.B.
Grate: 685.95
Inv. 27 S. 678.95
Inv. 27 E. 669.00
(Grate to Face
Upstream Ditch)
685.6
674.0
688.72
52+00
693.1
C 1540
1.7:1
685.8
C-300
673.0
688.71
51+50
689.9
Sta. 51+00
1508 100
4334 137
3172 48
4685 44
1888 0
3708 0
2116 0

51+50 to 52+50

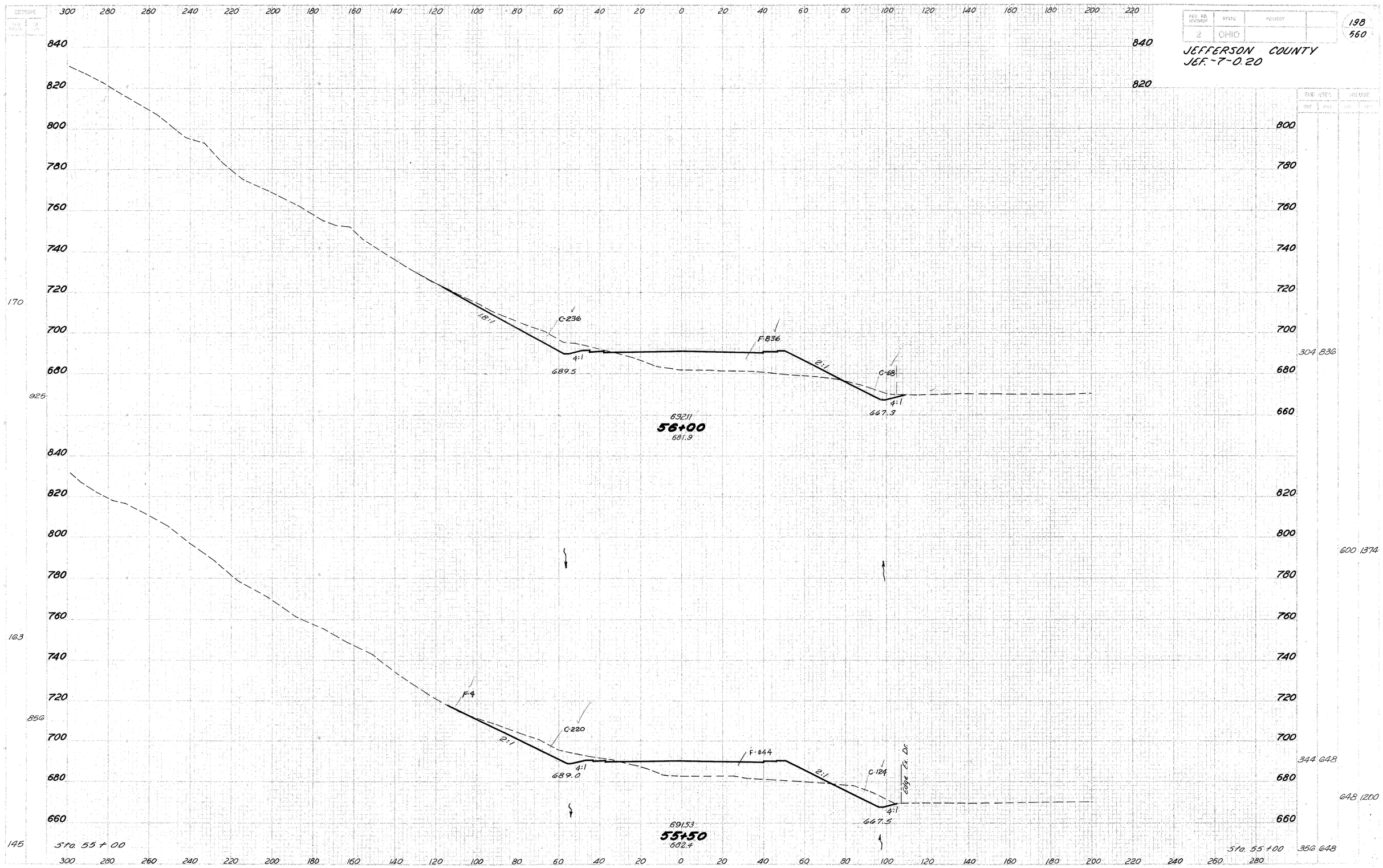


JEFFERSON COUNTY
JEF.-7-0.20
196
560
689.83
54+00
683.2
687.3
677.0
Prop. 60"
1.8:1
4:1
2:1
686.2
678.3
53+50, 52' Lt
No. 4 . C.B.
Grate ; 685.95
Inv. 27" S. 678.95
Inv. 27" E. 669.00
Grate to Face
Upstream Ditch
111'-27" @ 4.80 %
Type "B" Conduit
Sec. 706.02 Cl. II
Or 707.13
689.39
53+50
683.9
53+50, 59' Rt
No 1-A M.H.
Top 678.40
Inv. 48" S. 661.93
Inv. 27" W. 663.68
Inv. 60" N. 660.93
1.4:1
686.0
Prop. 27"
678.0
Prop. 48"
689.06
53+00
687.2
Sta. 52+50
Sta. 52+50
392 452
896 704
576 308
2067 489
1656 220
2930 296
1508 100
140
861
170
1275
289
1622
295

53+00 to 54+00

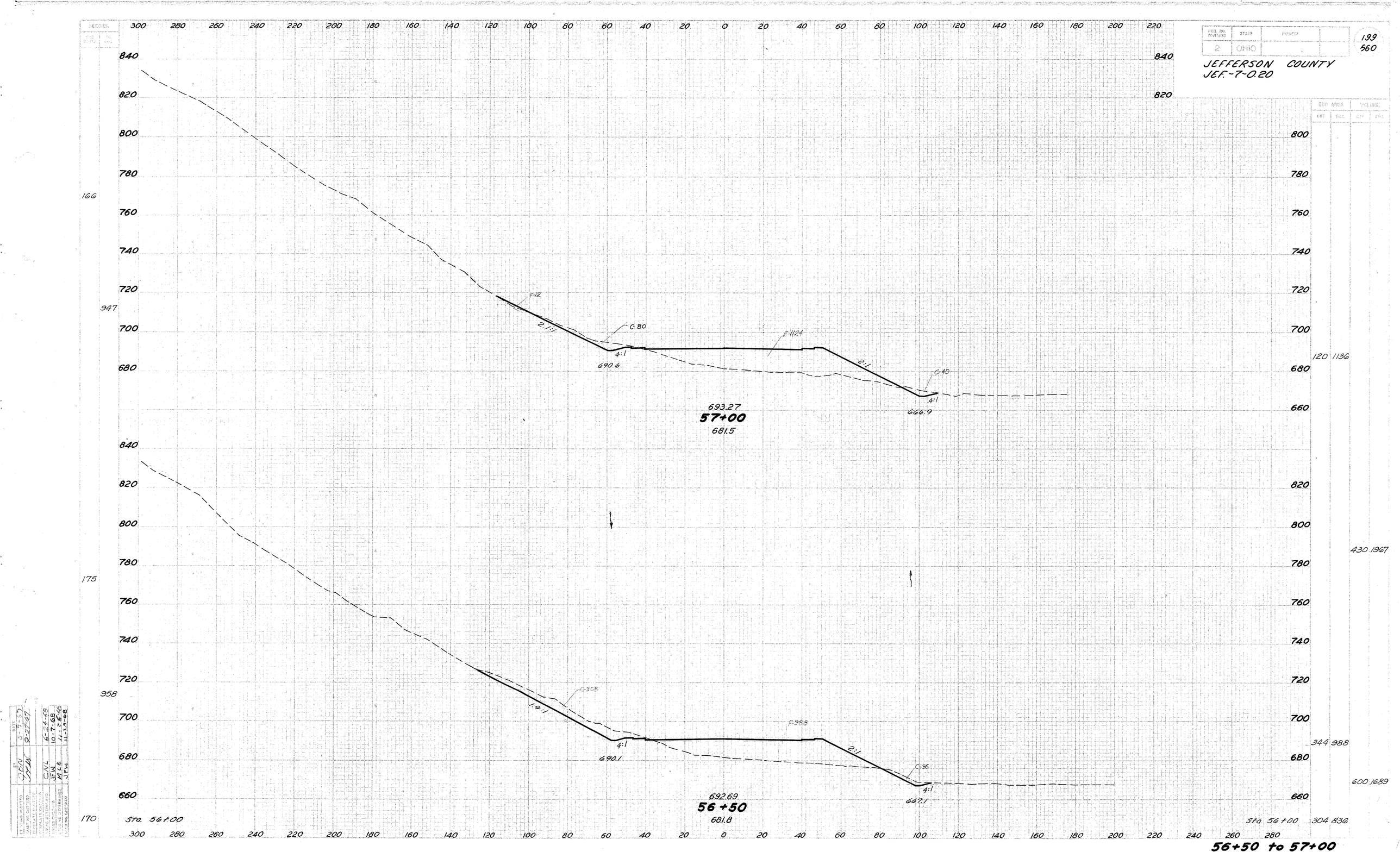


197
560
JEFFERSON COUNTY
JEF.-7-0.20
145
794
C-200
2:1
4:1
688.4
F-648
C-156
Ex. Dr.
2:1
4:1
667.7
Prop. 60"
690.95
55+00
682.3
356 648
141
781
C-344
2:1
4:1
687.8
F-656
2:1
C-24
4:1
671.0
Prop. 60"
690.37
54+50
681.7
Add For Pav't Removal
+55 ± (Rt.)
670 1207
11 0
368 656
704 1026
140
Sta. 54+00
Sta. 54+00
392 452
54+50 to 55+00



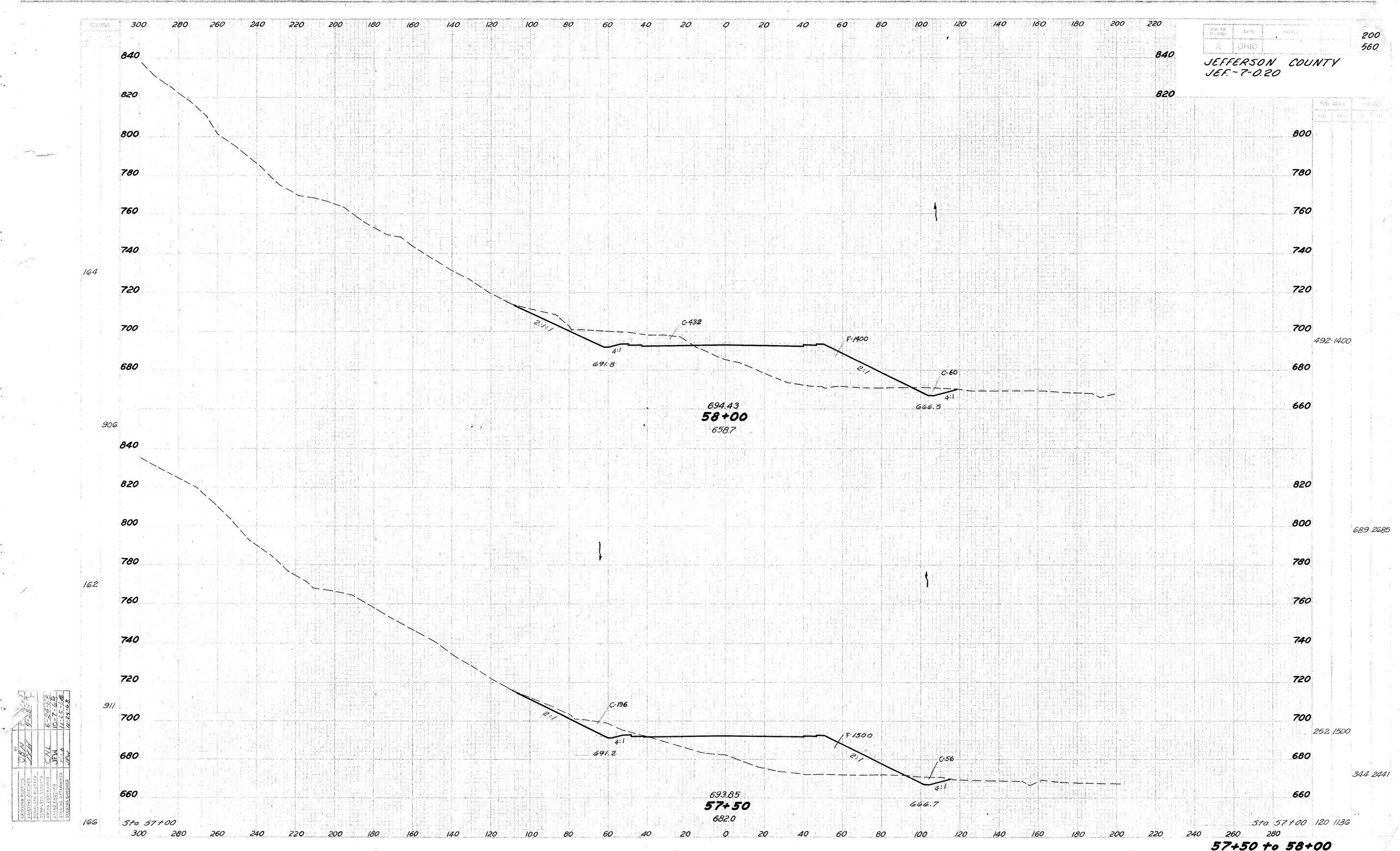
FED. RD. DIVISION 2
STATE OHIO
PROJECT
198
560
JEFFERSON COUNTY
JEF.-7-0.20
END AREA
VOLUME
CUT
FILL
840
820
800
780
760
740
720
700
680
660
170
925
163
856
145
1.8:1
C-236
4:1
689.5
F-836
2:1
C-68
4:1
667.3
692.11
56+00
681.9
F-4
2:1
C-220
4:1
689.0
F-644
2:1
C-124
Edge Ex. Dr.
4:1
667.5
691.53
55+50
682.4
Sta. 55+00
304 836
600 1374
344 648
648 1200
356 648
Sta. 55+00
300 280 260 240 220 200 180 160 140 120 100 80 60 40 20 0 20 40 60 80 100 120 140 160 180 200 220 240 260 280

55+50 to 56+00



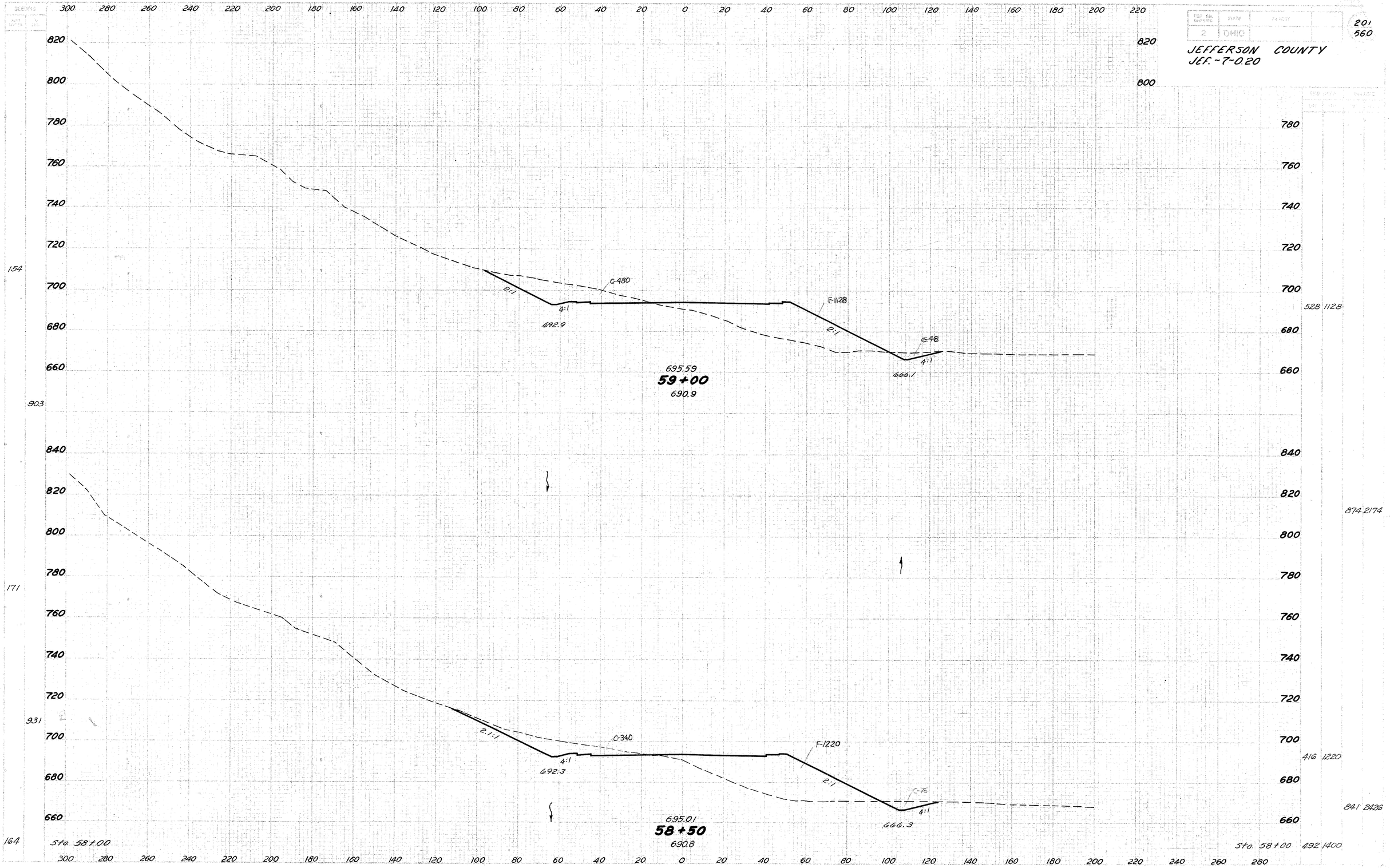
FED. RD. DIVISION
2
STATE
OHIO
PROJECT
199
560
JEFFERSON COUNTY
JEF.-7-0.20
END AREA
VOLUME
CUT
FILL
F-12
2.1:1
C-80
4:1
690.6
F-1124
2:1
C-40
4:1
666.9
693.27
57+00
681.5
C-30B
1.9:1
4:1
690.1
F-988
2:1
C-56
4:1
667.1
692.69
56+50
681.8
Sta. 56+00
Sta. 56+00
166
947
175
958
170
120 1136
430 1967
344 988
600 1689
304 836

56+50 to 57+00



JEFFERSON COUNTY
JEF.-7-0.20
2
OHIO
200
560
164
906
162
911
166
492 1400
689 2685
252 1500
344 2441
120 1136
2:1
4:1
691.8
C-432
F-1400
2:1
C-60
4:1
666.5
694.43
58+00
658.7
2:1
C-196
4:1
691.2
F-1500
2:1
C-56
4:1
666.7
693.85
57+50
682.0
Sta. 57+00
Sta. 57+00

57+50 to 58+00



2 OHIO
JEFFERSON COUNTY
JEF.-7-0.20
201
560
C-480
2:1
4:1
692.9
F-1128
2:1
C-48
4:1
666.1
695.59
59+00
690.9
154
903
528 1128
874 2174
171
931
2.1:1
C-340
4:1
692.3
F-1220
2:1
C-76
4:1
666.3
695.01
58+50
690.8
416 1220
841 2426
164
Sta. 58+00
Sta. 58+00
492 1400

58+50 to 59+00

JEFFERSON COUNTY
JEF-7-0.20

300 280 260 240 220 200 180 160 140 120 100 80 60 40 20 0 20 40 60 80 100 120 140 160 180 200 220

780 760 740 720 700 680 660

153

C-232

2:1

4:1

694.3

F-2068

2:1

C-10

665.5

697.33
60+50
683.5

242 2068

972

780 760 740 720 700 680 660

197

0.4%

787 3619

2:1

C-592

693.82

4:1

59+88.5, ℄
I-3A Median Inlet (Mod.)
Povt. 696.43
Inv. 24" 689.32
Inv. 12" 692.94

F-1840

1008

48'-24" @ 0.70%
Type "B"

60'-24" @ 0.70%
Type "B"

Conc. Collar

Inv. 24"
688.90

2:1

2.5'
Min.

59+79, 118' Rt.
N° 5 C.B.
Grate; 665.45
Inv. 24" W. 661.70
Inv. 24" E. 661.70

665.7

C-16

10'-24" Type "C" @ 1.0%

608 1840

780 760 740 720 700 680 660

166

59+87.5, 68' Lt.
N° 4 C.B.
Grate; 693.55
Inv. 24" 689.80
(Grate To Face
Upstream Ditch)

696.75
60+00
682.3

66'-24" Type "F"
2-24" Type "F" Bends

Inv. 24"
661.74

59+78, 130' Rt.
N° 1-A M.H.
Top 668.00 (Flat Dome)
Inv. 24" W. 661.60
Inv. 60" S. 659.09
Inv. 66" N. 658.59

1126 3035

889

780 760 740 720 700 680 660

G 580

2:1

4:1

693.4

F-1438

2:1

C-28

4:1

665.9

696.17
59+50
687.3

608 1438

1052 2376

154

Sta. 59+00

300 280 260 240 220 200 180 160 140 120 100 80 60 40 20 0 20 40 60 80 100 120 140 160 180 200 220 240 260 280

Sta. 59+00

528 1128

59+50 to 60+50

SURFACE INSPECTED	ZAV	9-28-67	
EARTHWORK APPROVED	ZAV	9-28-67	
CONSTRUCTED	CNC	6-24-68	
FINAL INSPECTION	JFW	10-7-68	
AS-BUILT REVISED	MLB	11-13-68	
FINAL ESTIMATE		11-27-68	
QUANTITIES CHECKED	JFW		

JEFFERSON COUNTY
JEF.-7-0.20

9 Ahead W/"C"
135 Ahead W/"A"
125 Ahead W/"D"

269 62+00 (BK.)

1344

AVE. FULL SECTION BACK

Ave. Ahead W/Sta. 62+50 Ramp "A"

Ave. Ahead W/Sta 62+50 "C"

Ave. Ahead W/Sta. 62+50 Ramp "D"

1.9:1

C-1340

4:1

695.8

C-4

F-996

℄ Ramp "D"

F-1676

2:1

C-192

2:1

665.0

699.07
62+00
685.6

700
680

36-12" @ 0.70% Type "B"

84'-12" @ 1.00% Type "B"

Conc. Collar

6" Und.

2.5'

2:1

Inv. 12" 691.70

10'-15" @ 1.00% Type "C"

2:1

70'-18" Type "F" 2-12" Type "F" Bends

Inv. 12" 662.30

62+02, Lt. ℄
Std. № 6 C.B.
Grate: 698.15
Inv. 6" 693.29
Inv. 12" N. 692.79
Inv. 12" E. 692.79

62+01, ℄
I-3A Median Inlet (Mod.)
Pavt. 698.90
Inv. 12" W. 692.54
Inv. 12" E. 692.54

PIPE PROFILE 62+00

61+92.5, 78' Rt. "D"
№ 5 C.B.
Grate: 665.00
Inv. 12" W. 662.25
Inv. 15" E. 662.00

61+92.5, 88' Rt. "D" (℄ Pipe)
№ 1-A M.H.
Top 670.00
Inv. 15" W. 661.90
Inv. 66" S. 658.18
Inv. 66" N. 658.18

215

1056

C-830

2:1

4:1

695.3

F-2360

2:1

C-44

665.1

698.49
61+50
686.2

165

883

C-472

2:1

4:1

694.7

F-2380

2:1

C-16

665.3

697.91
61+00
685.7

153

Ahead 4 996

Back 1536 2672

2278 4660

924 2360

1307 4389

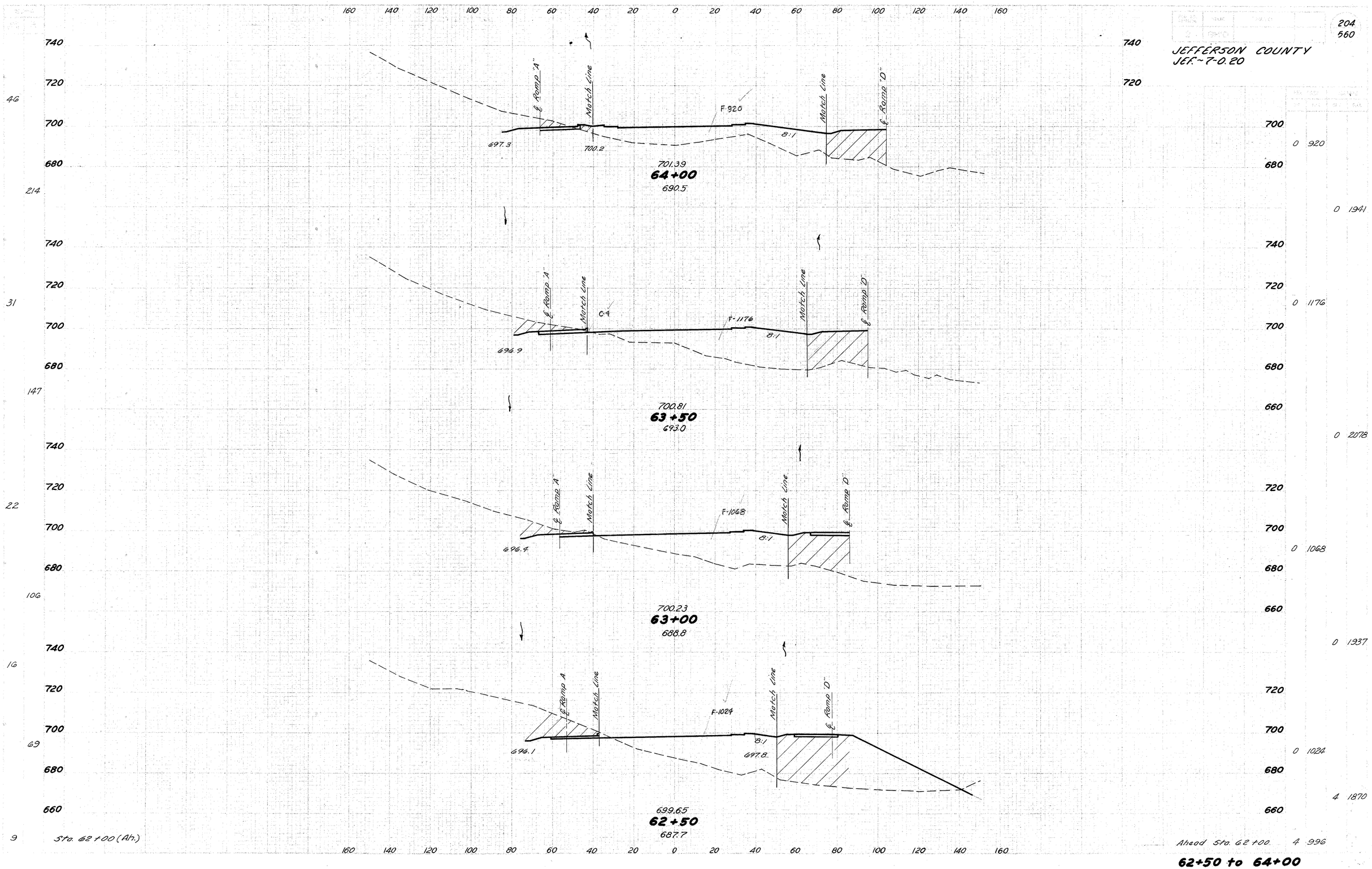
488 2380

676 4119

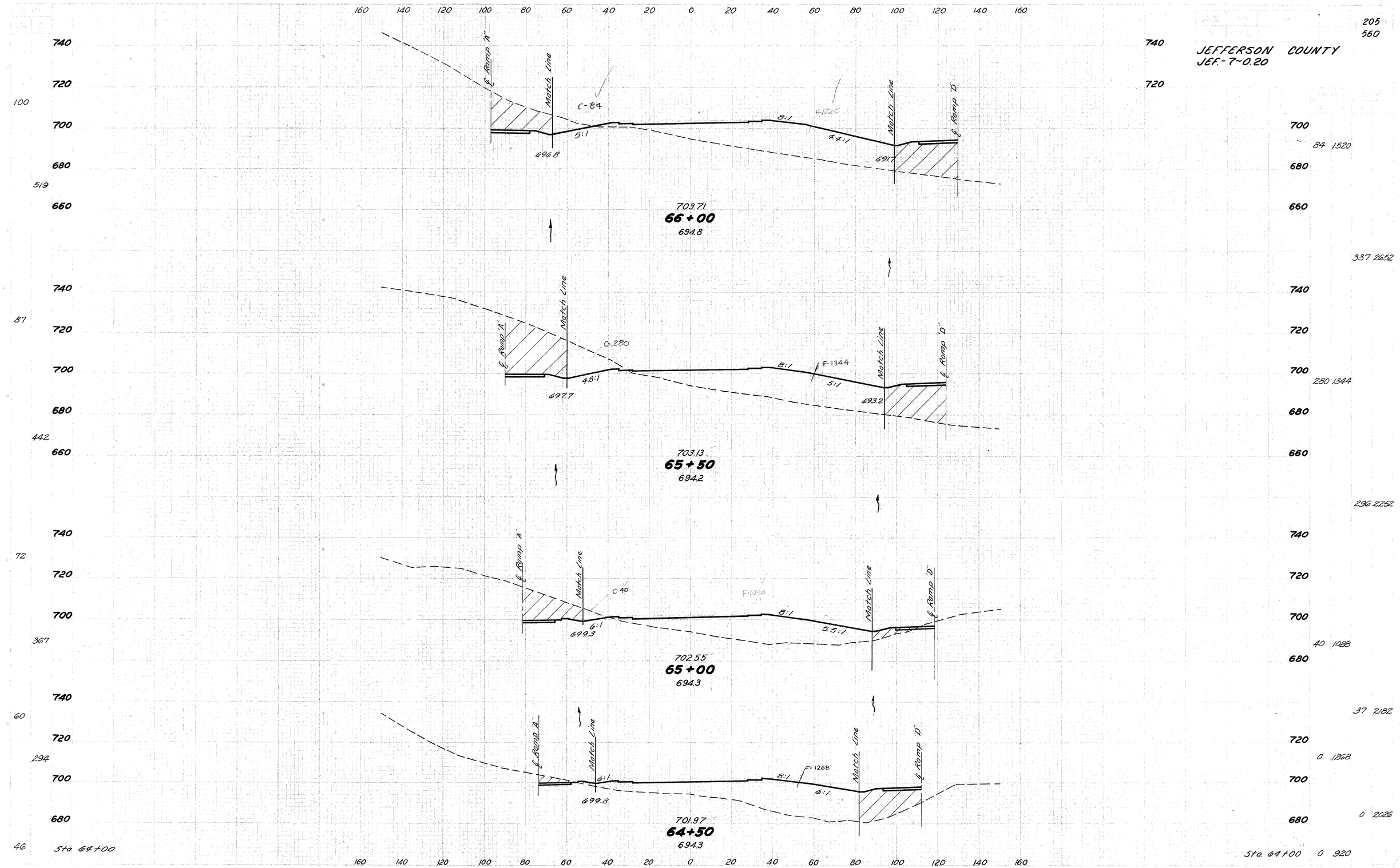
Sta. 60+50 242 2068

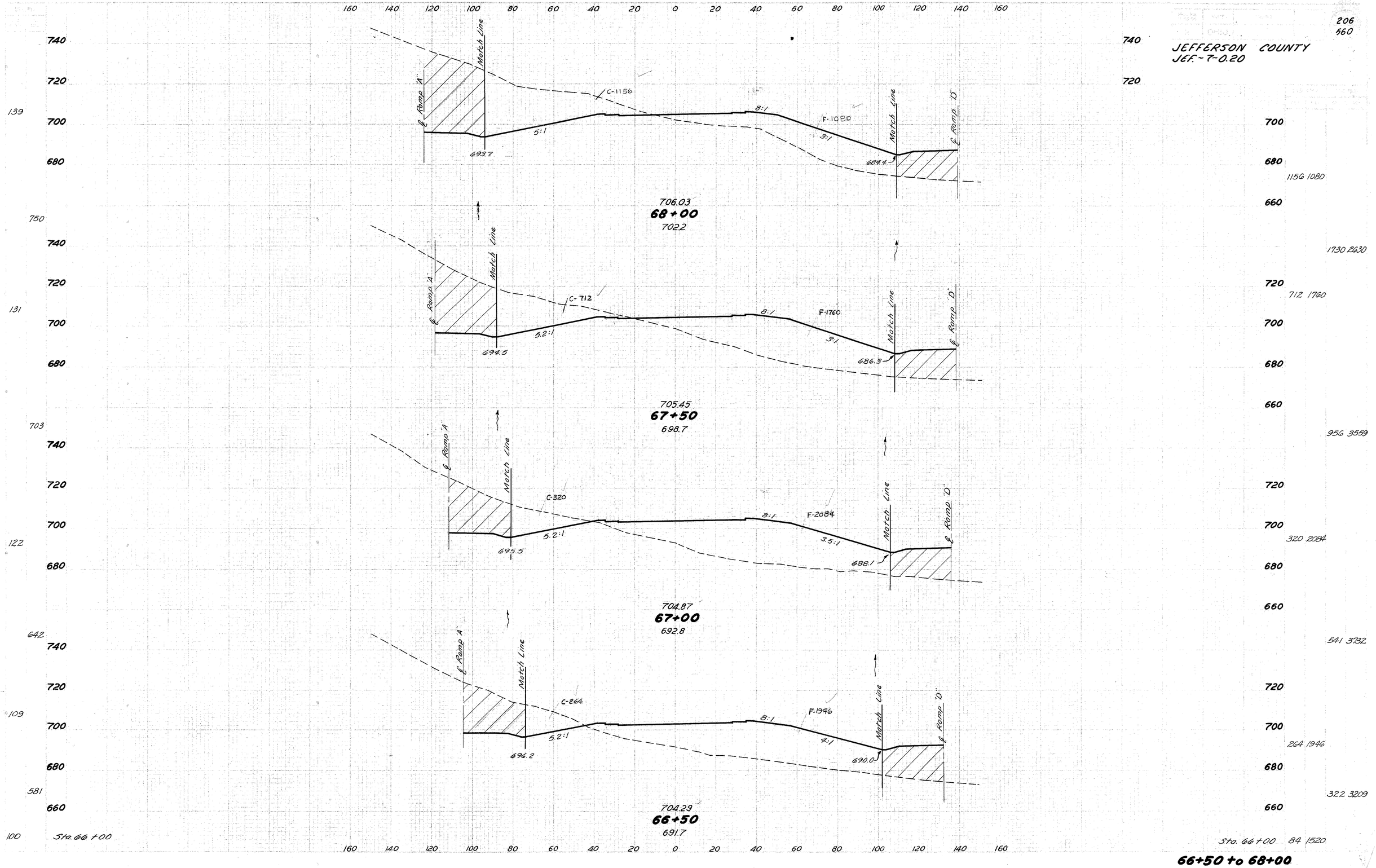
61+00 to 62+00

	DATE
DRAWING CHECKED	9-28-68
TEMPLATE PLOTTED	
TEMPLATE CHECKED	6-21-68
LAYOUT COMPLETED	10-9-68
AREAS CHECKED	11-22-68
BEDDING DETERMINED	11-25-68
BEDDING CHECKED	



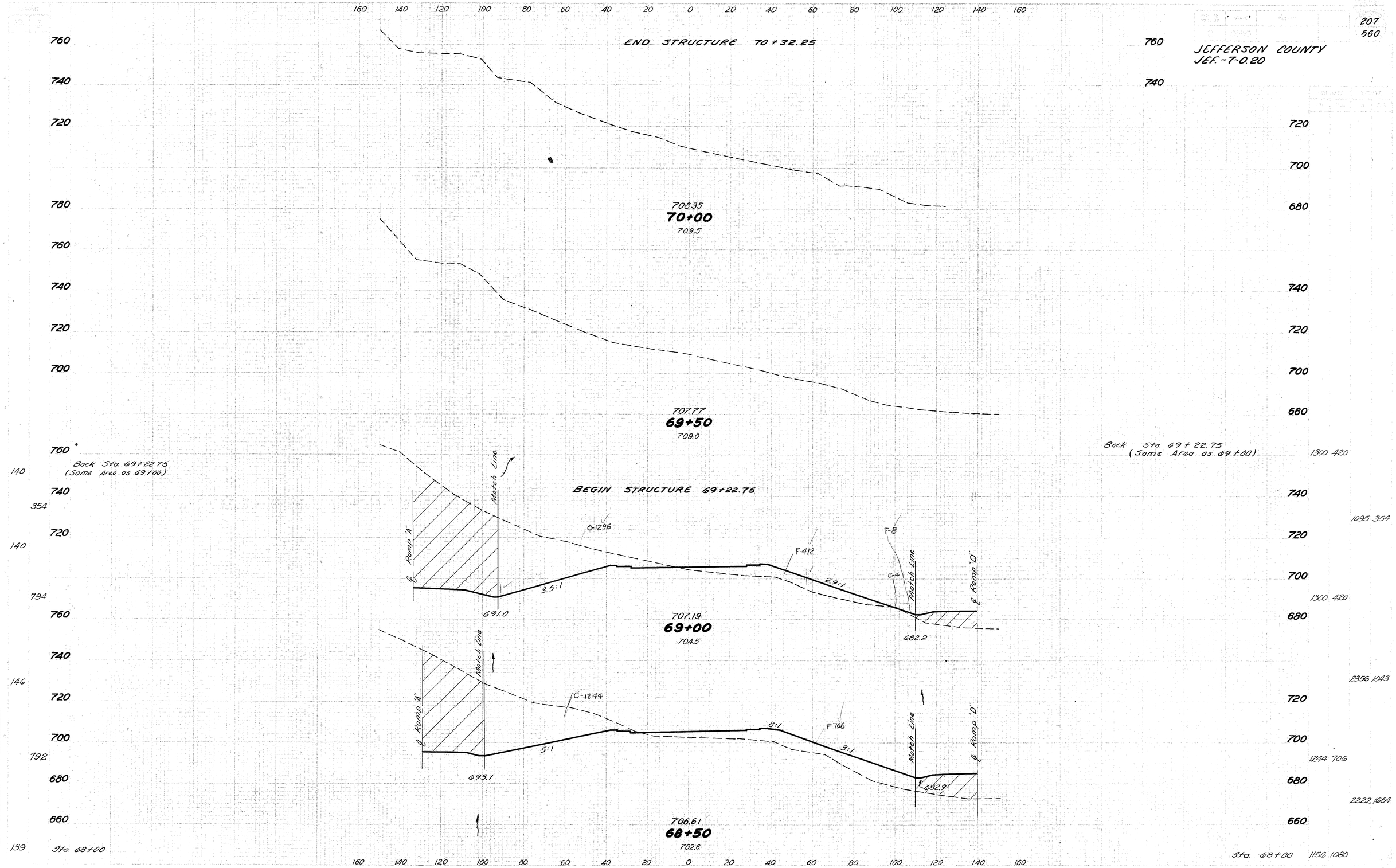
JEFFERSON COUNTY
JEF.-7-0.20
204
560
℄ Ramp "A"
Match Line
F-920
8:1
697.3
700.2
701.39
64+00
690.5
℄ Ramp "D"
C-4
F-1176
696.9
700.81
63+50
693.0
F-1068
696.4
700.23
63+00
688.8
F-1024
696.1
697.8
699.65
62+50
687.7
Sta. 62+00 (Ah.)
Ahead Sta. 62+00
62+50 to 64+00
0 920
0 1941
0 1176
0 2078
0 1068
0 1937
0 1024
4 1870
4 996


JEFFERSON COUNTY
JEF.-7-0.20
205
560
℄ Ramp "A"
Match Line
C-84
5:1
8:1
4.4:1
696.8
691.7
℄ Ramp "D"
703.71
66+00
694.8
84 1520
337 2652
C-280
4.8:1
697.7
F-1344
5:1
693.2
703.13
65+50
694.2
280 1344
296 2252
C-40
6:1
699.3
5.5:1
702.55
65+00
694.3
40 1088
37 2182
F-1268
6:1
699.8
701.97
64+50
694.3
0 1268
0 2026
Sta. 64+00
0 920
64+50 to 66+00



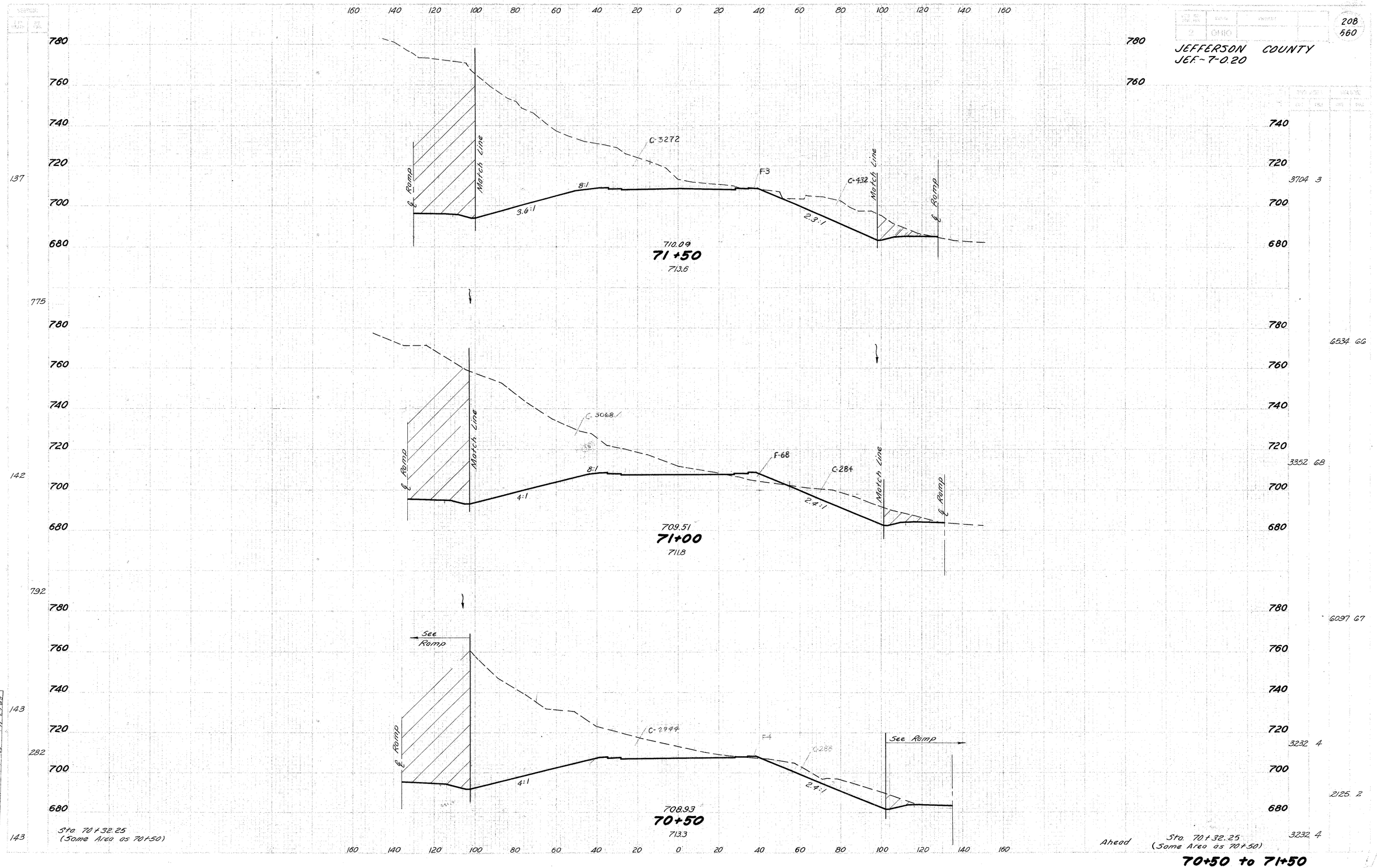
JEFFERSON COUNTY
JEF.-7-0.20
206
560
Match Line
℄ Ramp "A"
℄ Ramp "D"
C-1156
F-1080
8:1
5:1
3:1
693.7
684.4
706.03
68+00
702.2
C-712
F-1760
5.2:1
694.5
686.3
705.45
67+50
698.7
C-320
F-2084
3.5:1
695.5
688.1
704.87
67+00
692.8
C-264
F-1946
4:1
696.2
690.0
704.29
66+50
691.7
Sta. 66+00
1156 1080
1730 2630
712 1760
956 3559
320 2084
541 3732
264 1946
322 3209
84 1520

66+50 to 68+00



207
560
JEFFERSON COUNTY
JEF.-7-0.20
END STRUCTURE 70+32.25
708.35
70+00
709.5
707.77
69+50
709.0
Back Sta. 69+22.75
(Same Area as 69+00)
BEGIN STRUCTURE 69+22.75
Match Line
℄ Ramp "A"
℄ Ramp "D"
C-1296
F-412
F-8
C-4
3.5:1
2.9:1
691.0
682.2
707.19
69+00
704.5
C-1244
F-706
8:1
5:1
3:1
693.1
682.9
706.61
68+50
702.6
Sta. 68+00
1300 420
1095 354
2356 1043
1244 706
2222 1654
1156 1080

68+50 to 70+00



208
560
JEFFERSON COUNTY
JEF-7-0.20
C-3272
F-3
C-432
Match Line
℄ Ramp
8:1
3.6:1
2.3:1
710.09
71+50
713.6
C-3068
F-68
C-284
4:1
2.4:1
709.51
71+00
711.8
See Ramp
C-2944
F-4
C-288
708.93
70+50
713.3
137
775
142
792
143
282
3704 3
6534 66
3352 68
6097 67
3232 4
2125 2
3232 4
Sta. 70+32.25
(Same Area as 70+50)
Ahead
Sta. 70+32.25
(Same Area as 70+50)

70+50 to 71+50

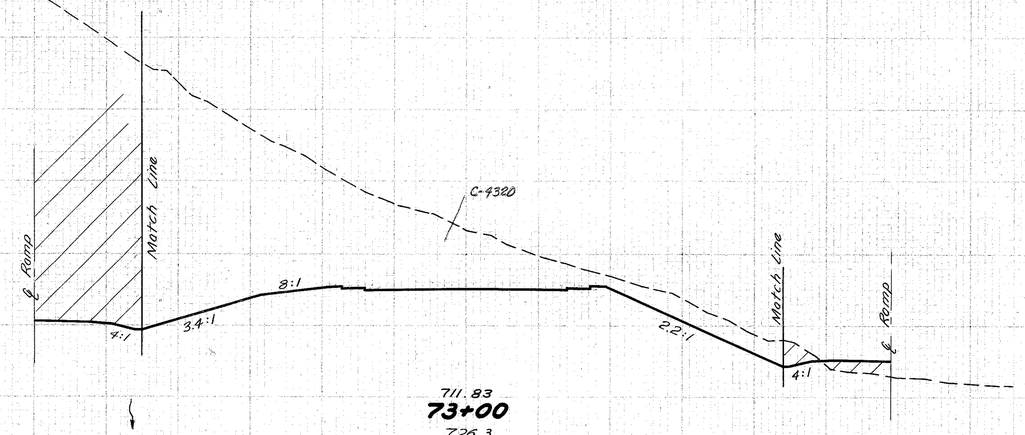
JEFFERSON COUNTY
JEF.-7-0.20

209
560

160 140 120 100 80 60 40 20 0 20 40 60 80 100 120 140 160

800
780
760
740
720
700
680

116

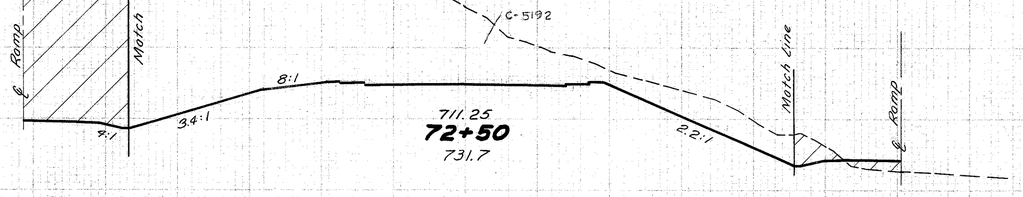


711.83
73+00
726.3

4320 0

664

800
780
760
740
720
700
680



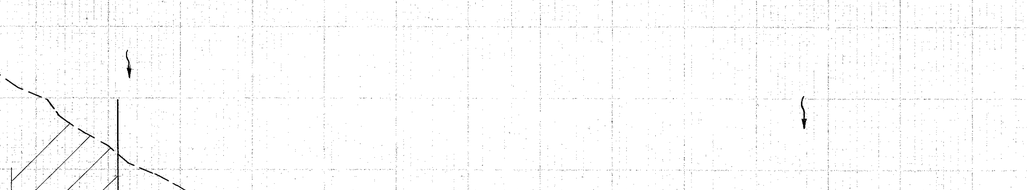
711.25
72+50
731.7

123

5192 0

708

800
780
760
740
720
700
680



710.67
72+00
724.6

132

4444 0

747

137

Sta. 71+50

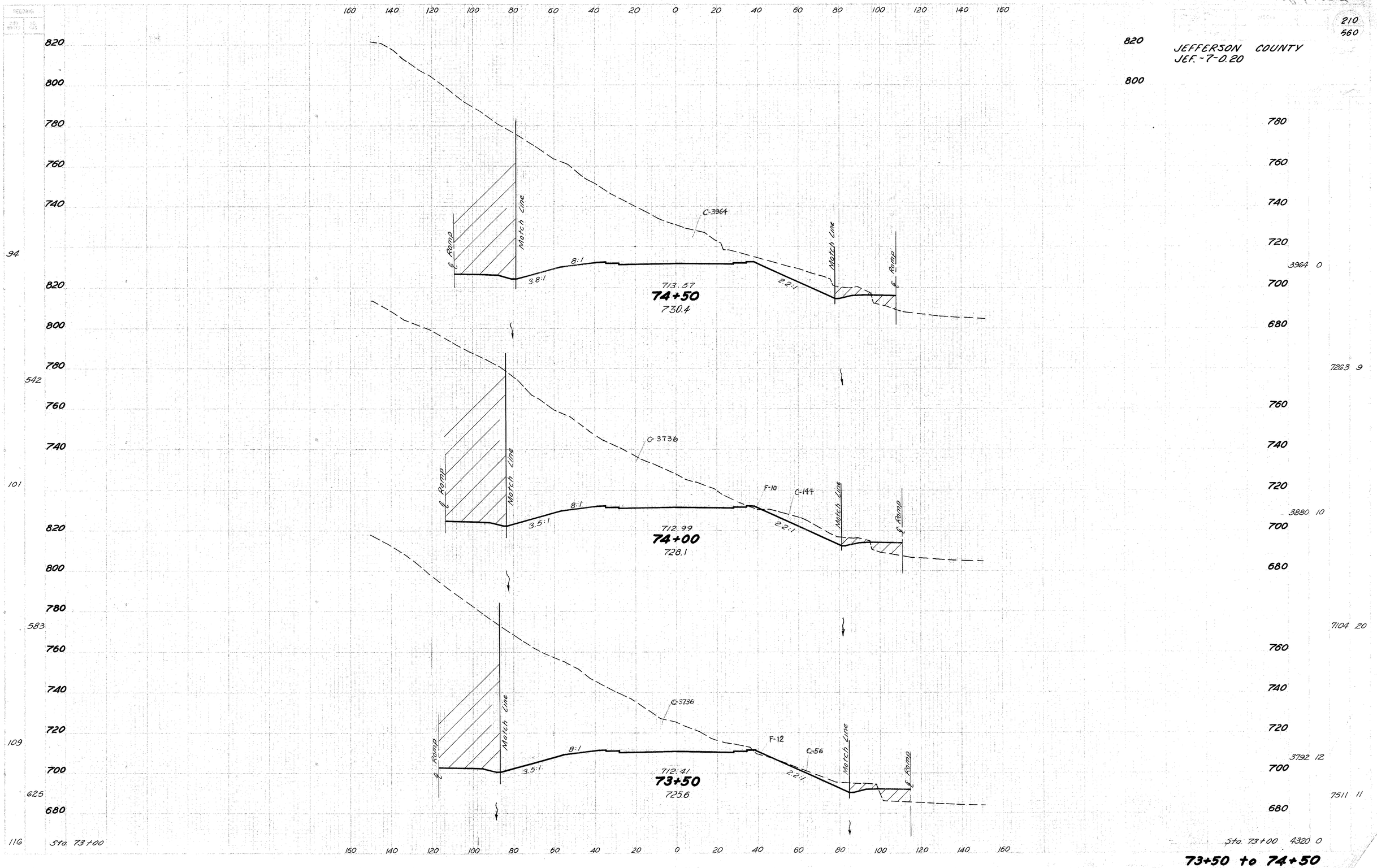
160 140 120 100 80 60 40 20 0 20 40 60 80 100 120 140 160

8807 0
8922 0
7544 3
3704 3

Sta. 71+50

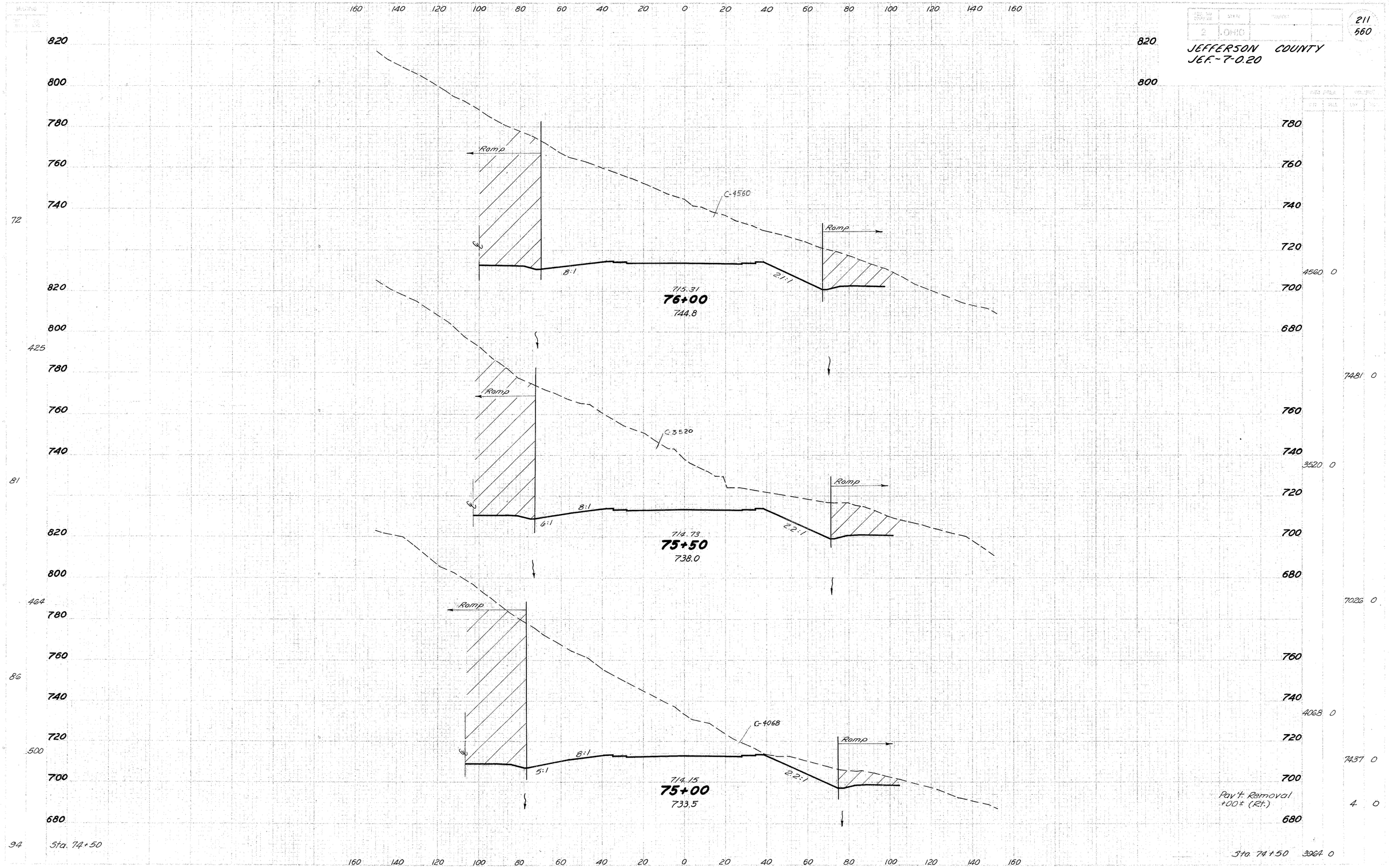
72+00 to 73+00

	BY	DATE
EXISTING PLOTTED		
EXISTING CHECKED		9-22-67
TEMPLATE PLOTTED		
TEMPLATE CHECKED		
AREAS DETERMINED	C.N.L.	5-26-68
AREAS CHECKED	J.P.H.	10-10-68
VOLUMES DETERMINED	R.L.C.	11-25-68
VOLUMES CHECKED	J.P.H.	11-27-68



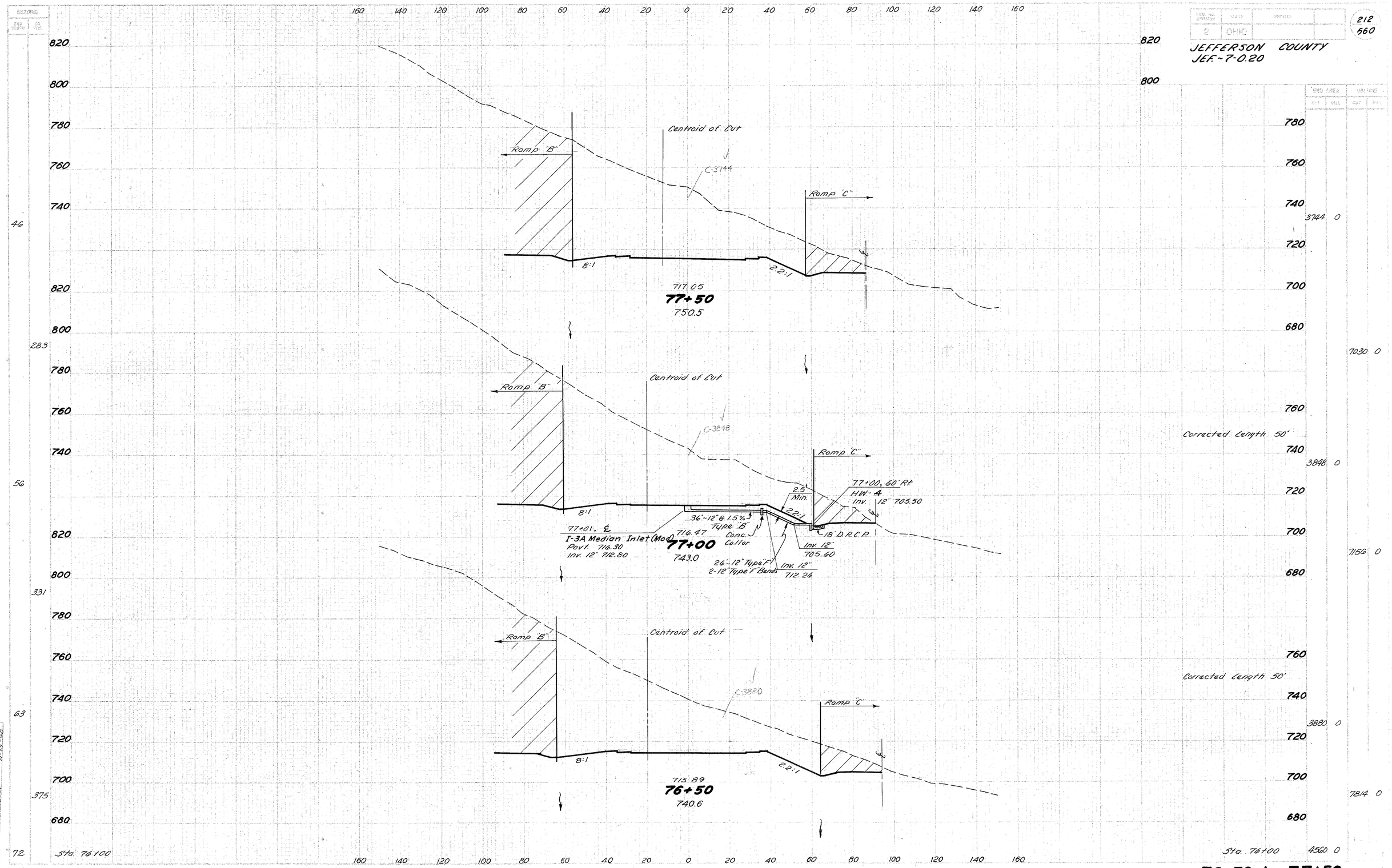
JEFFERSON COUNTY
JEF.-7-0.20
210
560
C-3964
Match Line
℄ Ramp
8:1
3.8:1
2.2:1
713.57
74+50
730.4
C-3736
F-10
C-144
3.5:1
712.99
74+00
728.1
F-12
C-56
712.41
73+50
725.6
3964 0
7263 9
3880 10
7104 20
3792 12
7511 11
4320 0
Sta. 73+00
94
542
101
583
109
625
116

73+50 to 74+50



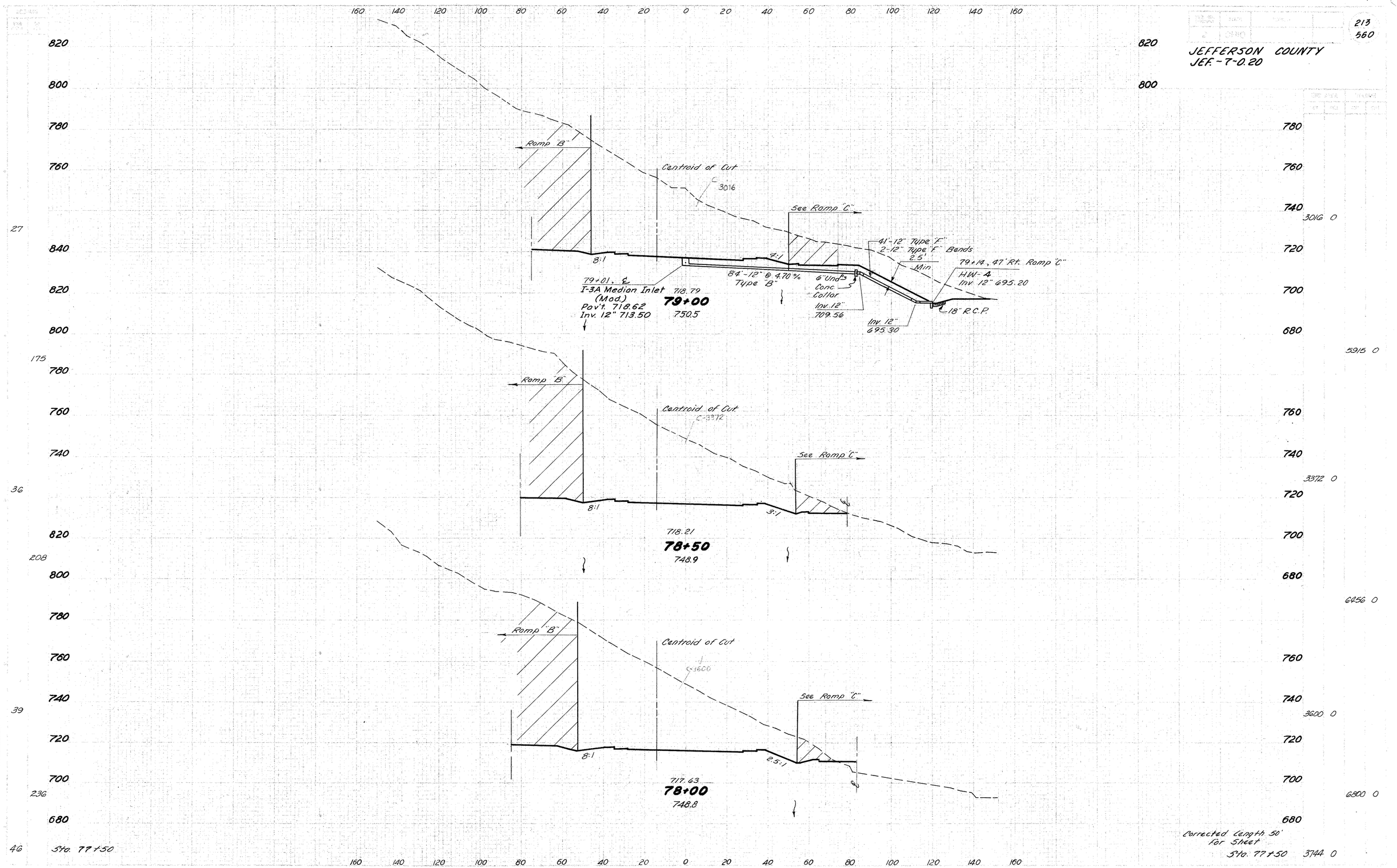
2 OHIO
211
560
JEFFERSON COUNTY
JEF.-7-0.20
Ramp
C-4560
8:1
2.1:1
715.31
76+00
744.8
C-3520
6:1
2.2:1
714.73
75+50
738.0
C-4068
5:1
714.15
75+00
733.5
Pav't. Removal
+00± (Rt.)
4560 0
7481 0
3520 0
7026 0
4068 0
7437 0
4 0
3964 0
Sta. 74+50

75+00 to 76+00



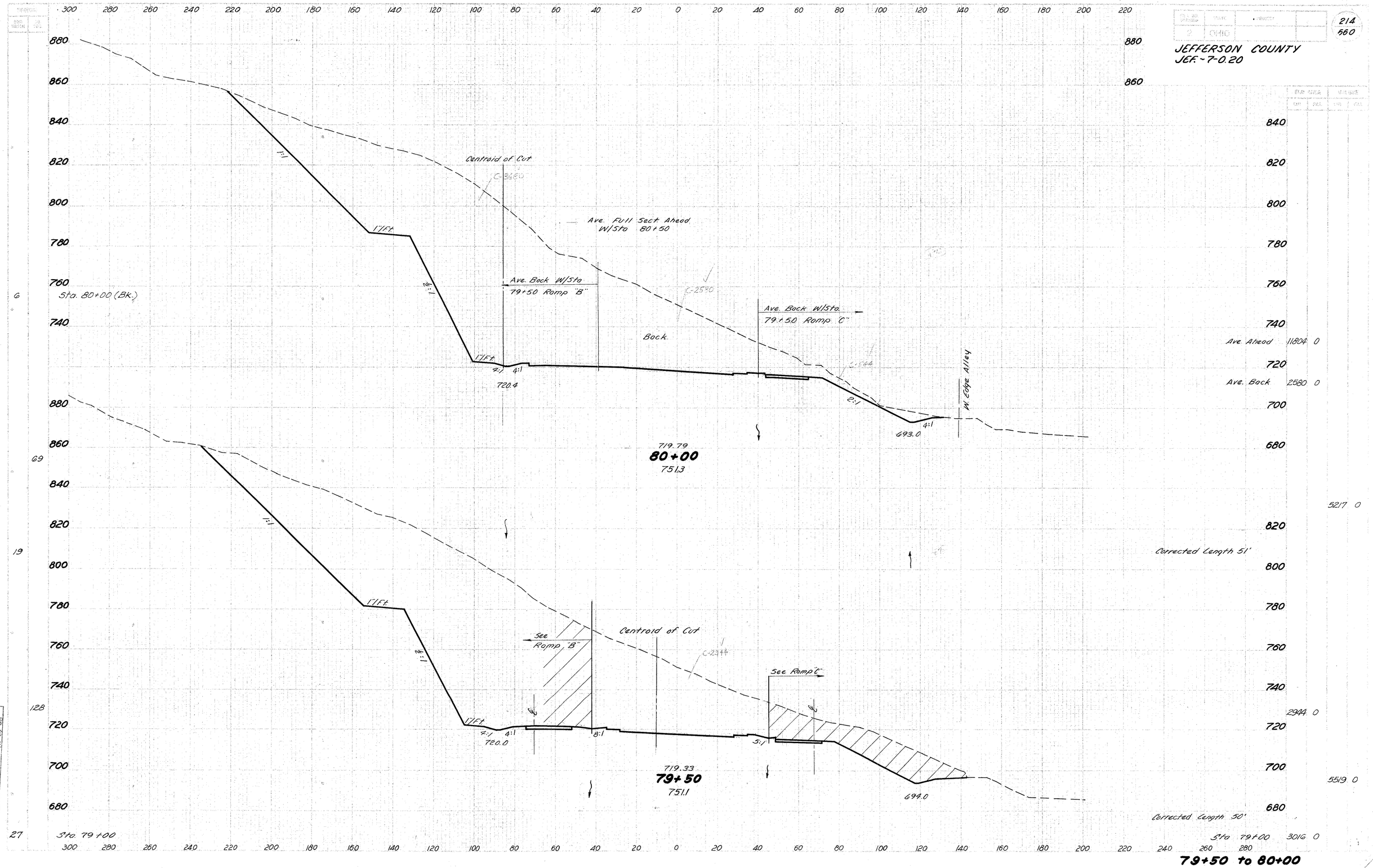
212
560
2 OHIO
JEFFERSON COUNTY
JEF.-7-0.20
Centroid of Cut
Ramp "B"
Ramp "C"
C-3744
8:1
2.2:1
717.05
77+50
750.5
C-3848
77+00, 60' Rt
HW-4
Inv. 12" 705.50
2.5' Min.
36'-12" @ 1.5% Type "B" Conc. Collar
18" D.R.C.P.
Inv. 12" 705.60
77+01, ℄
I-3A Median Inlet (Mod)
Pavt. 716.30
Inv. 12" 712.80
716.47
77+00
743.0
26'-12" Type "F"
2-12" Type "F" Bends
Inv. 12" 712.26
C-3880
715.89
76+50
740.6
Corrected Length 50'
Sta. 76+00
3744 0
7030 0
3848 0
7156 0
3880 0
7814 0
4560 0
46
283
56
331
63
375
72

76+50 to 77+50

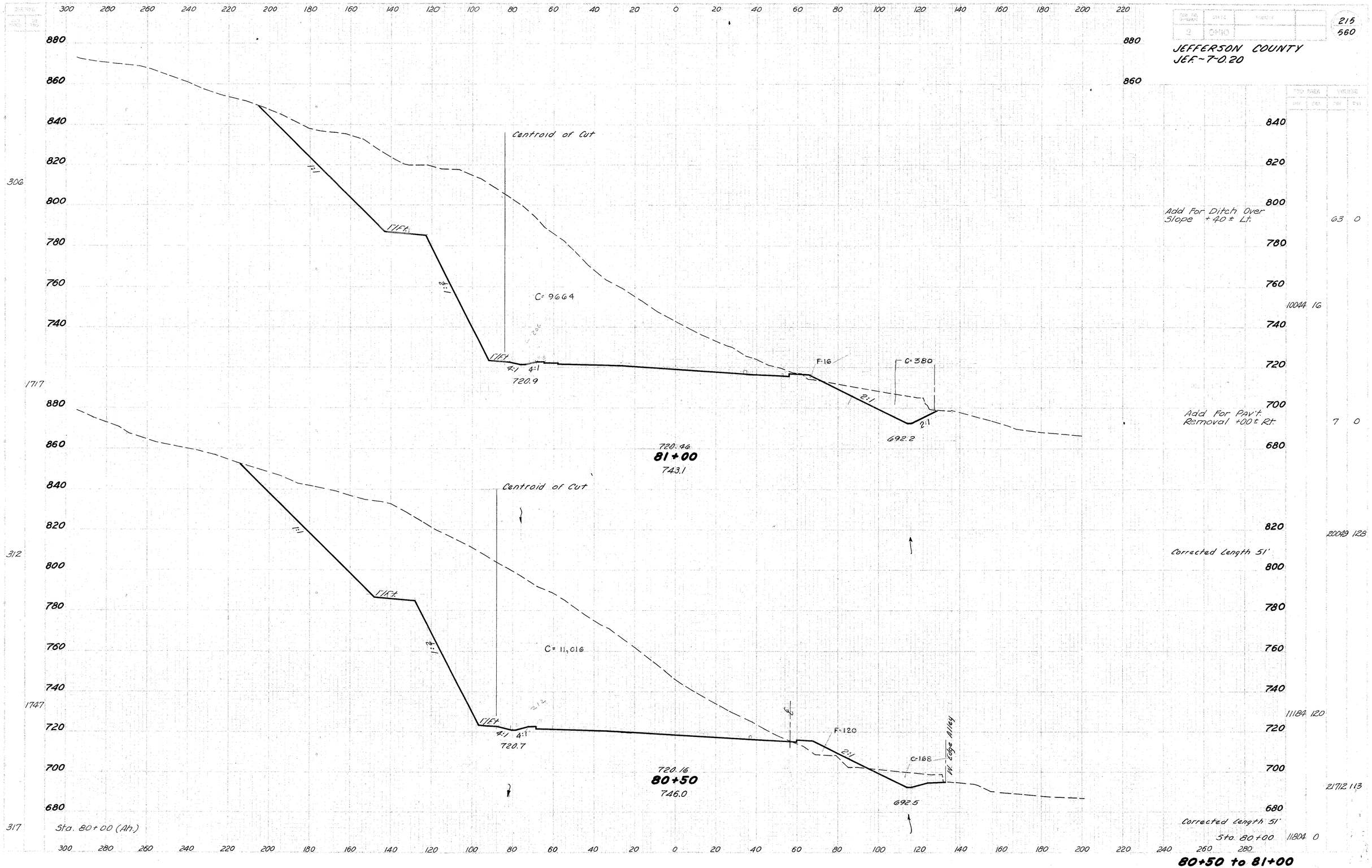


213
560
JEFFERSON COUNTY
JEF.-7-0.20
Ramp "B"
Centroid of Cut
3016
See Ramp "C"
41'-12" Type "F"
2-12" Type "F" Bends
2.5' Min
79+14, 47' Rt. Ramp "C"
HW-4
Inv. 12" 695.20
8:1
4:1
79+01, ℄
I-3A Median Inlet
(Mod.)
Pav't. 718.62
Inv. 12" 713.50
718.79
79+00
750.5
84'-12" @ 4.70%
Type "B"
6" Und.
Conc.
Collar
Inv. 12"
709.56
Inv. 12"
695.30
18" R.C.P.
Ramp "B"
Centroid of Cut
3372
See Ramp "C"
8:1
3:1
718.21
78+50
748.9
Ramp "B"
Centroid of Cut
3600
See Ramp "C"
8:1
2.5:1
717.63
78+00
748.8
Sta. 77+50
Corrected Length 50'
for Sheet
Sta. 77+50
3016 0
5915 0
3372 0
6456 0
3600 0
6800 0
3744 0

78+00 to 79+00

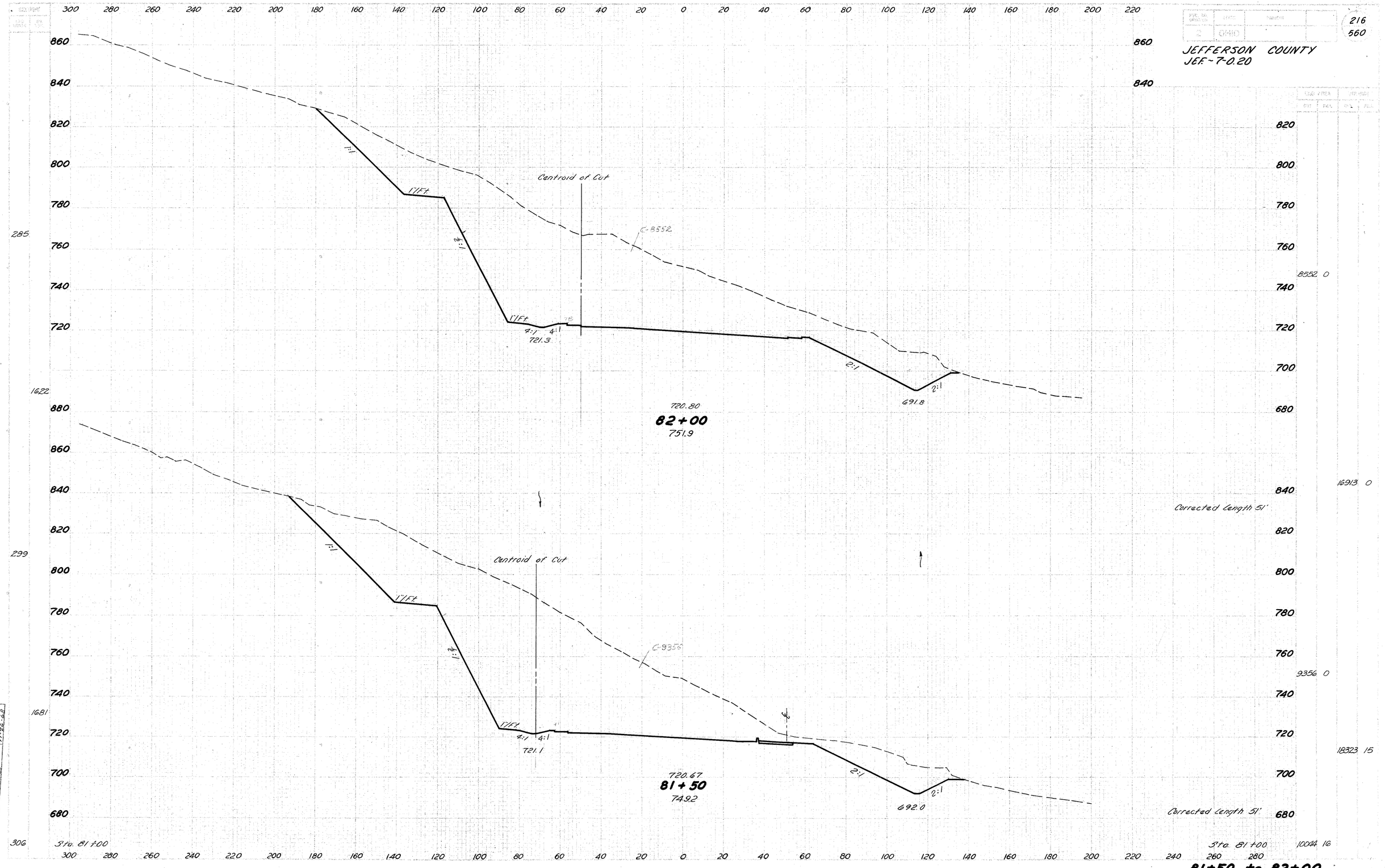


JEFFERSON COUNTY
JEF.-7-0.20
214
560
Centroid of Cut
Ave. Full Sect. Ahead W/Sta 80+50
Ave. Back W/Sta 79+50 Ramp "B"
Ave. Back W/Sta 79+50 Ramp "C"
Back
W. Edge Alley
Sta. 80+00 (Bk.)
1:1
1"/Ft.
4:1
720.4
2:1
693.0
719.79
80+00
751.3
Ave. Ahead 11804 0
Ave. Back 2580 0
5217 0
Corrected Length 51'
See Ramp "B"
See Ramp "C"
8:1
5:1
720.0
694.0
719.33
79+50
751.1
2944 0
5519 0
Corrected Length 50'
Sta. 79+00
3016 0
79+50 to 80+00



215
560
JEFFERSON COUNTY
JEF.-7-0.20
Centroid of Cut
C= 9664
1:1
1"/Ft.
4:1
720.9
F-16
C=380
2:1
692.2
720.46
81+00
743.1
Centroid of Cut
C= 11,016
1:1
1"/Ft.
4:1
720.7
F-120
C-168
W. Edge Alley
692.5
720.16
80+50
746.0
Add For Ditch Over Slope +40± Lt.
63 0
10044 16
Add For Pav't. Removal +00± Rt.
7 0
20049 128
Corrected Length 51'
11184 120
21712 113
Corrected Length 51'
Sta. 80+00
11804 0
Sta. 80+00 (Ah.)
306
1717
312
1747
317

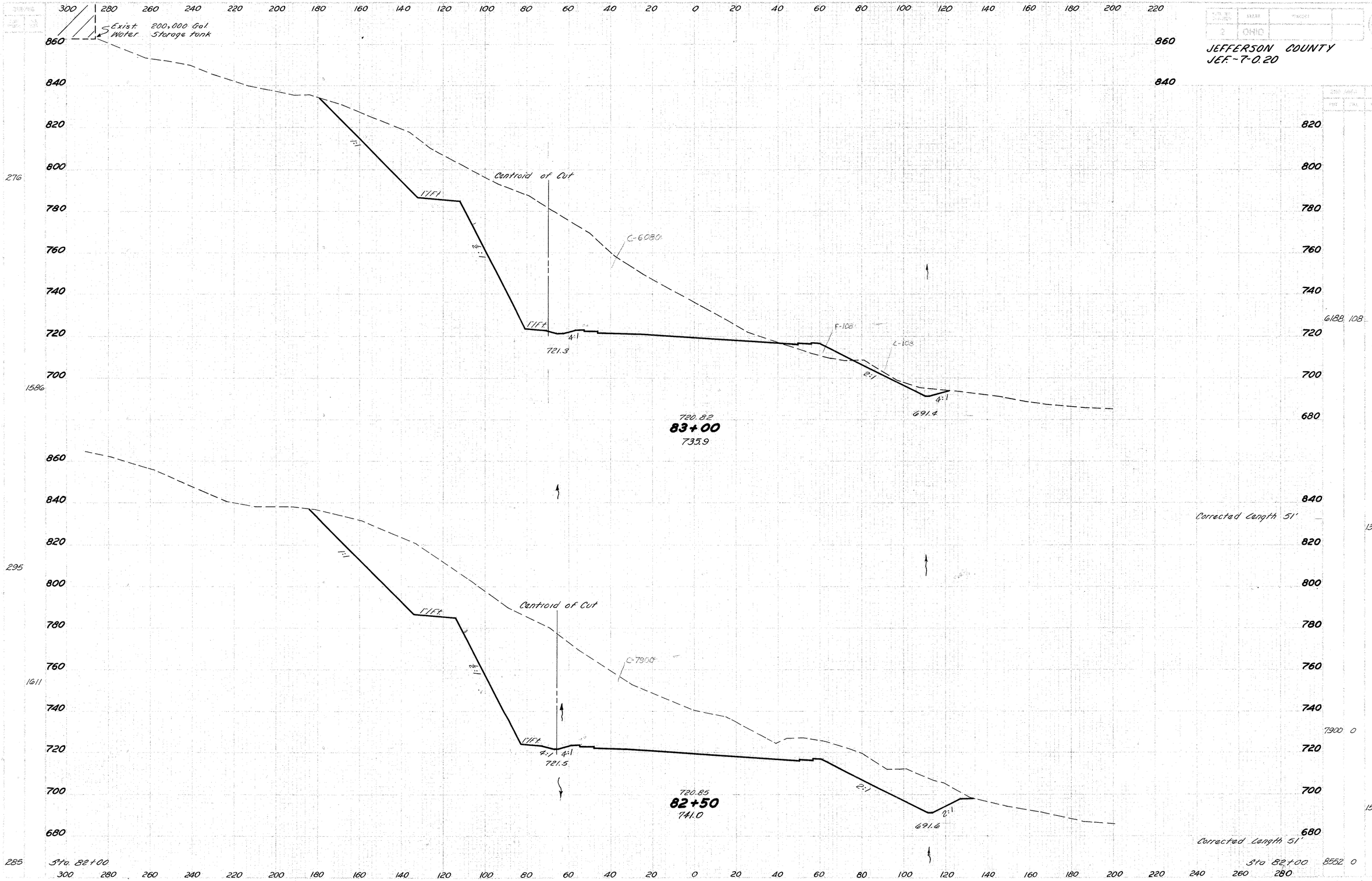
80+50 to 81+00

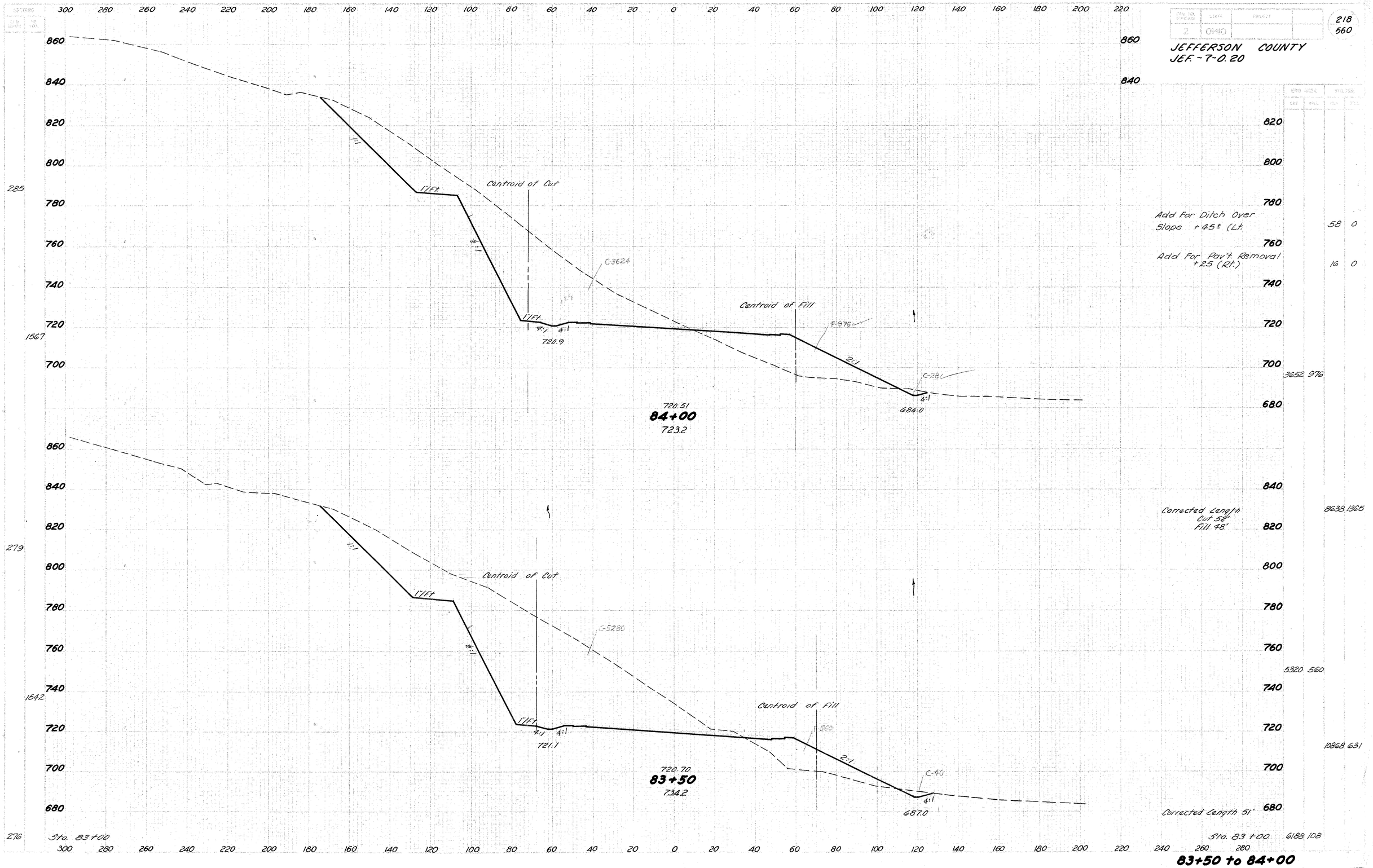


216
560
JEFFERSON COUNTY
JEF-7-0.20
Centroid of Cut
C-8552
1:1
1"/Ft.
1:¾
4:1
721.3
2:1
691.8
720.80
82+00
751.9
Corrected Length 51'
C-9356
721.1
720.67
81+50
749.2
692.0
Sta. 81+00
8552 0
16913 0
9356 0
18323 15
10044 16
285
1622
299
1681
306

81+50 to 82+00

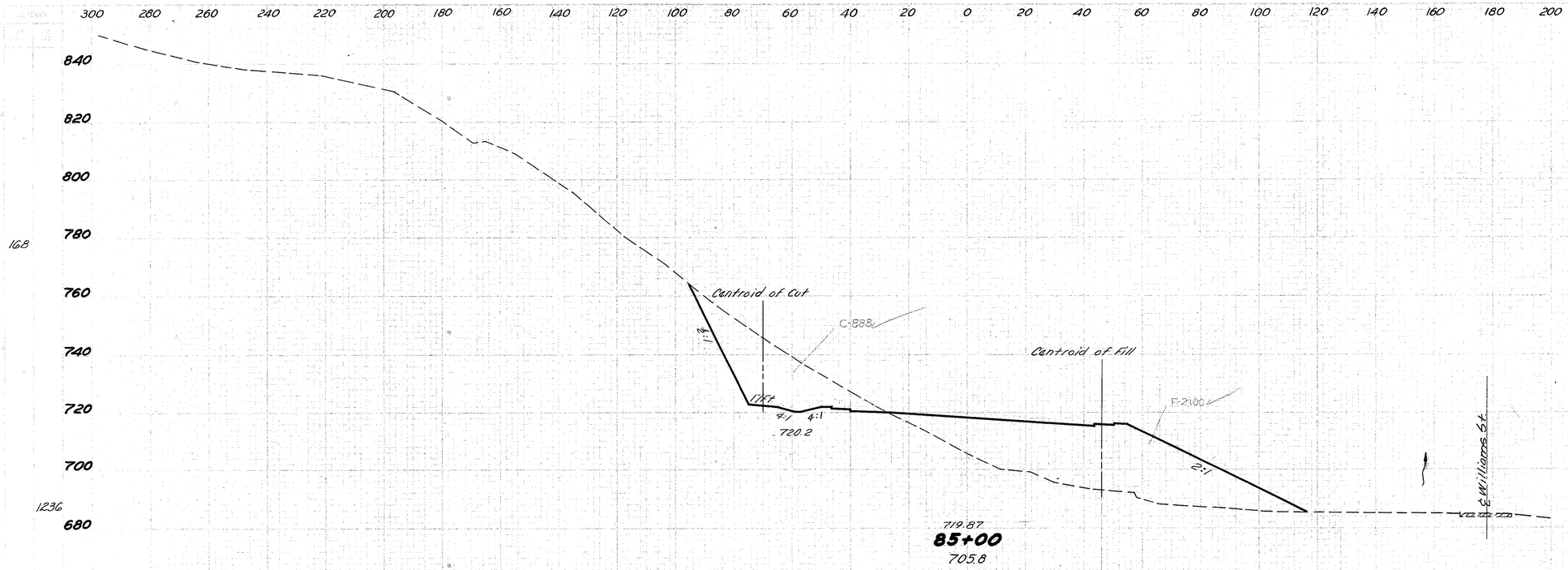
JEFFERSON COUNTY
JEF.-7-0.20

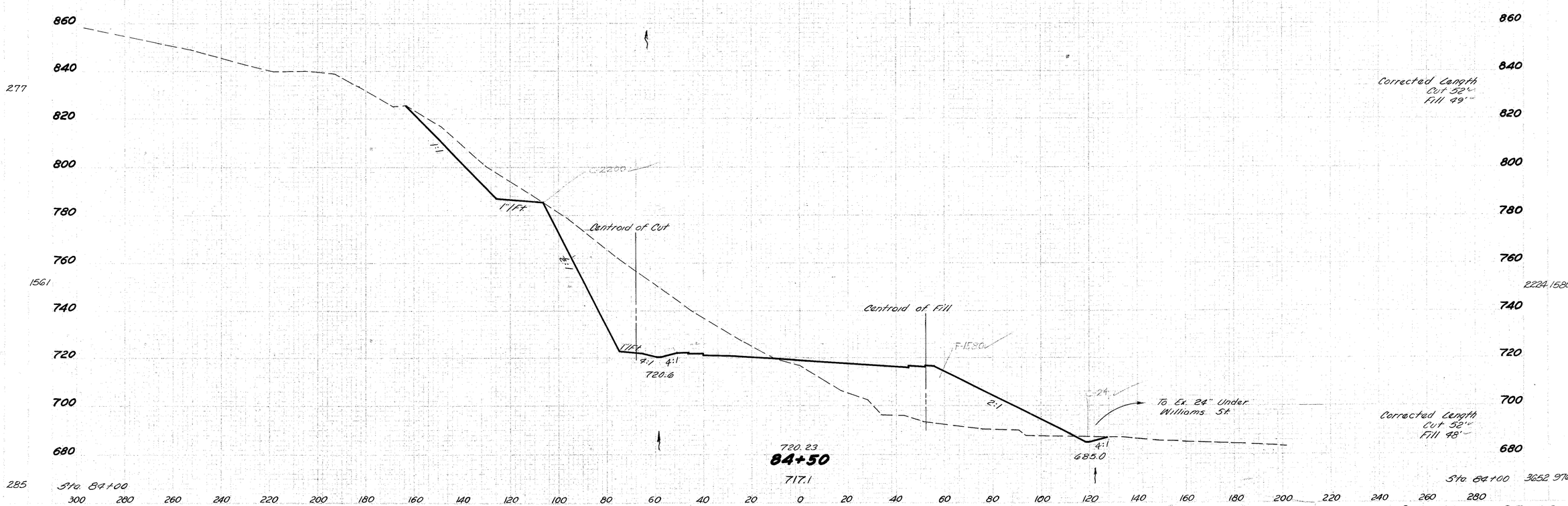


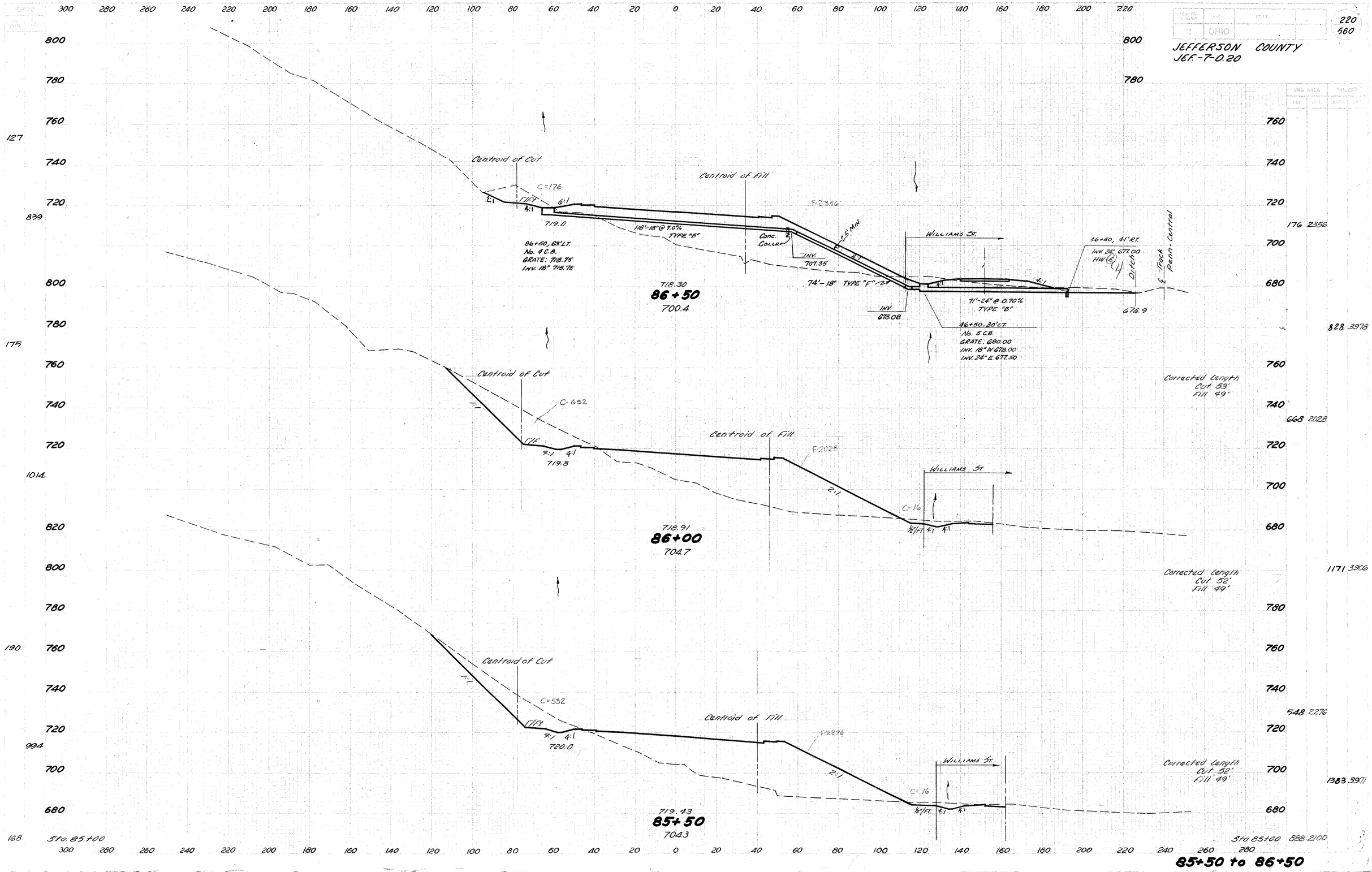


JEFFERSON COUNTY
JEF.-7-0.20
218
560
Centroid of Cut
Centroid of Fill
C-3624
F-976
C-28
1:1
1"/Ft.
4:1
720.9
720.51
84+00
723.2
686.0
Add For Ditch Over Slope +45± (Lt.
58 0
Add For Pav't. Removal +25 (Rt.)
16 0
3652 976
Corrected Length Cut 52' Fill 48'
8638 1365
5320 560
10868 631
C-5280
F-560
C-40
721.1
720.70
83+50
734.2
687.0
Corrected Length 51'
Sta. 83+00
6188 108
285
1567
279
1542
276

83+50 to 84+00

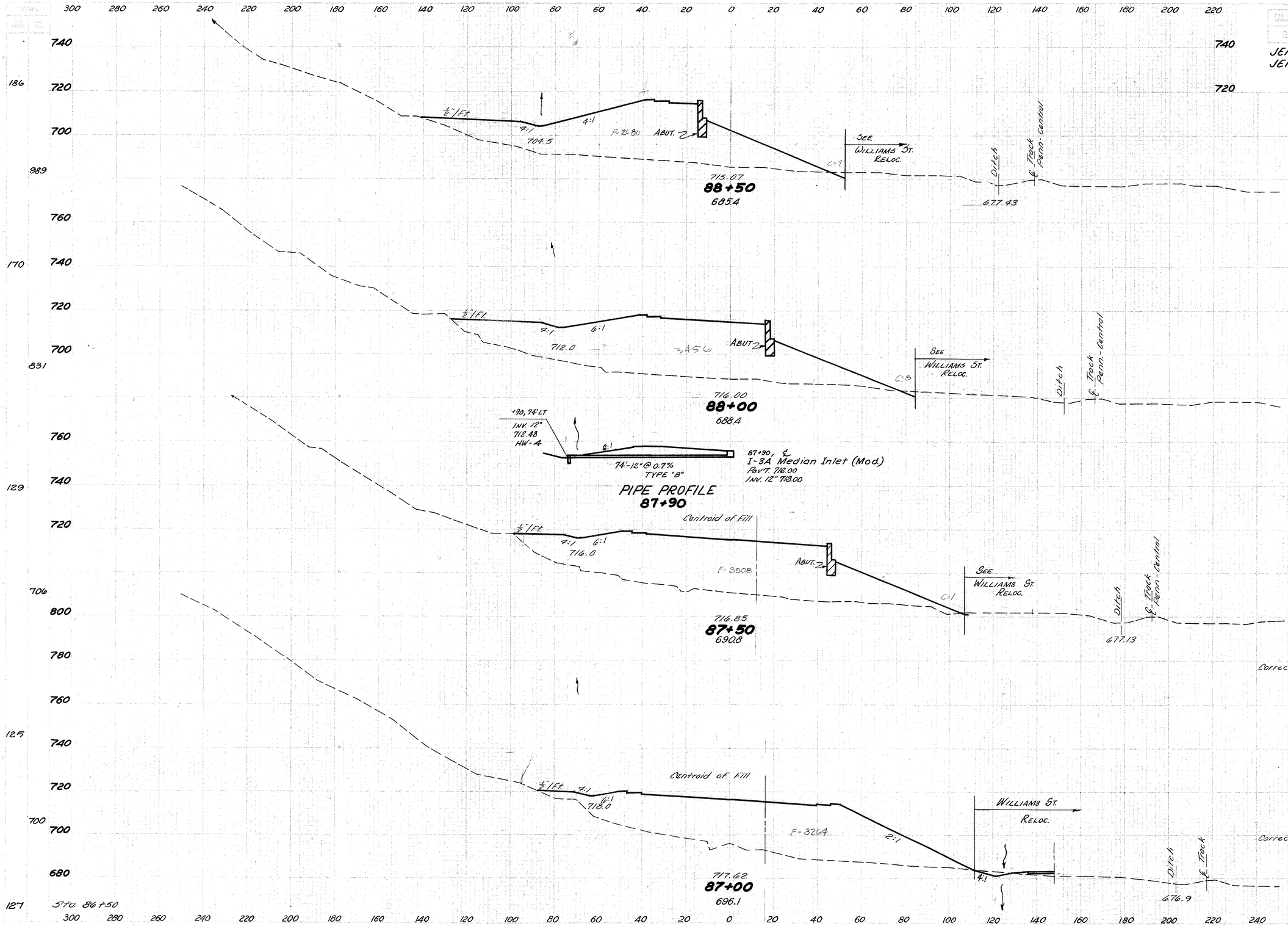

300 280 260 240 220 200 180 160 140 120 100 80 60 40 20 0 20 40 60 80 100 120 140 160 180 200 220
840
820
800
780
760
740
720
700
680
168
1236
Centroid of Cut
C-888
1:1
1'/Ft
4:1
4:1
720.2
Centroid of Fill
F-2100
2:1
E. Williams St.
719.87
85+00
705.8
JEFFERSON COUNTY
JEF.-7-0.20
219
560
888 2100


860
840
820
800
780
760
740
720
700
680
277
1561
285
1:1
1'/Ft
2:1
C-2200
Centroid of Cut
1'/Ft
4:1
4:1
720.6
Centroid of Fill
F-1580
2:1
24"
To Ex. 24" Under Williams St.
4:1
685.0
720.23
84+50
717.1
Sta. 84+00
Corrected Length
Cut 52'
Fill 49'
2996 3339
2224 1580
Corrected Length
Cut 52'
Fill 48'
5659 2272
3652 976
84+50 to 85+00

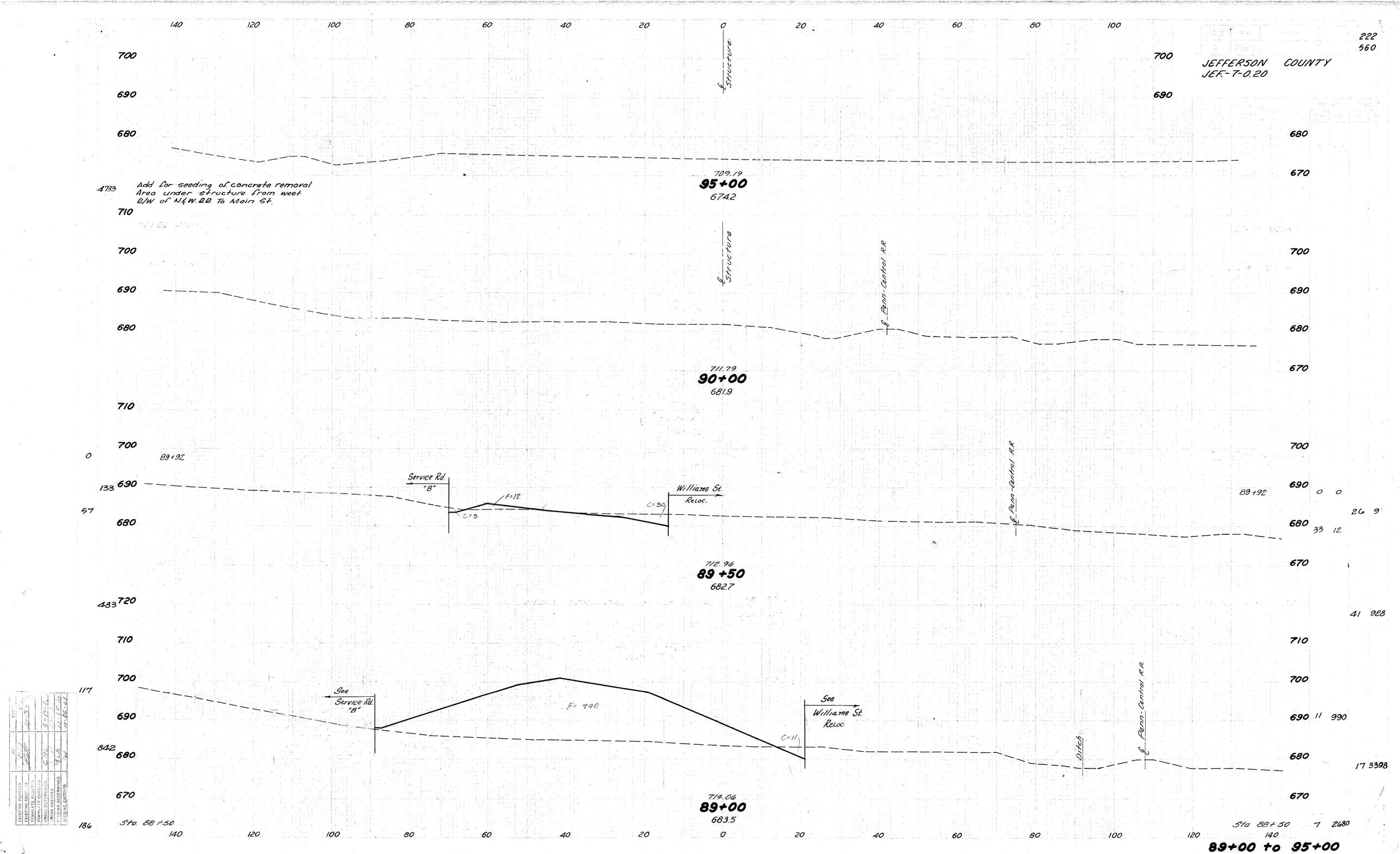


JEFFERSON COUNTY
JEF.-7-0.20
220
560
Centroid of Cut
C=176
Centroid of Fill
F-2356
2:1
1"/Ft
4:1
6:1
719.0
118'-18" @ 7.0% TYPE "B"
86+50, 63' LT.
No. 4 C.B.
GRATE: 718.75
INV. 18" 715.75
Conc. Collar
INV. 707.35
2.5' MIN.
WILLIAMS ST.
74'-18" TYPE "F"
INV. 678.08
71'-24" @ 0.70% TYPE "B"
46+50, 30' LT.
No. 5 C.B.
GRATE: 680.00
INV. 18" W. 678.00
INV. 24" E. 677.50
46+50, 41' RT.
INV. 24" 677.00
HW
Ditch
℄ Track Penn-Central
676.9
718.30
86+50
700.4
Centroid of Cut
C-652
1:1
1"/Ft
4:1
719.8
Centroid of Fill
F-2028
2:1
WILLIAMS ST.
C=16
1/2"/Ft
718.91
86+00
704.7
Centroid of Cut
C=532
1:1
1"/Ft
4:1
720.0
Centroid of Fill
F-2276
2:1
WILLIAMS ST.
C=16
1/2"/Ft
719.43
85+50
704.3
Corrected Length
Cut 53'
Fill 49'
Corrected Length
Cut 52'
Fill 49'
Corrected Length
Cut 52'
Fill 49'
127
839
175
1014
190
994
168
176 2356
828 3978
668 2028
1171 3906
548 2276
1383 3971
888 2100
Sta. 85+00
Sta. 85+00

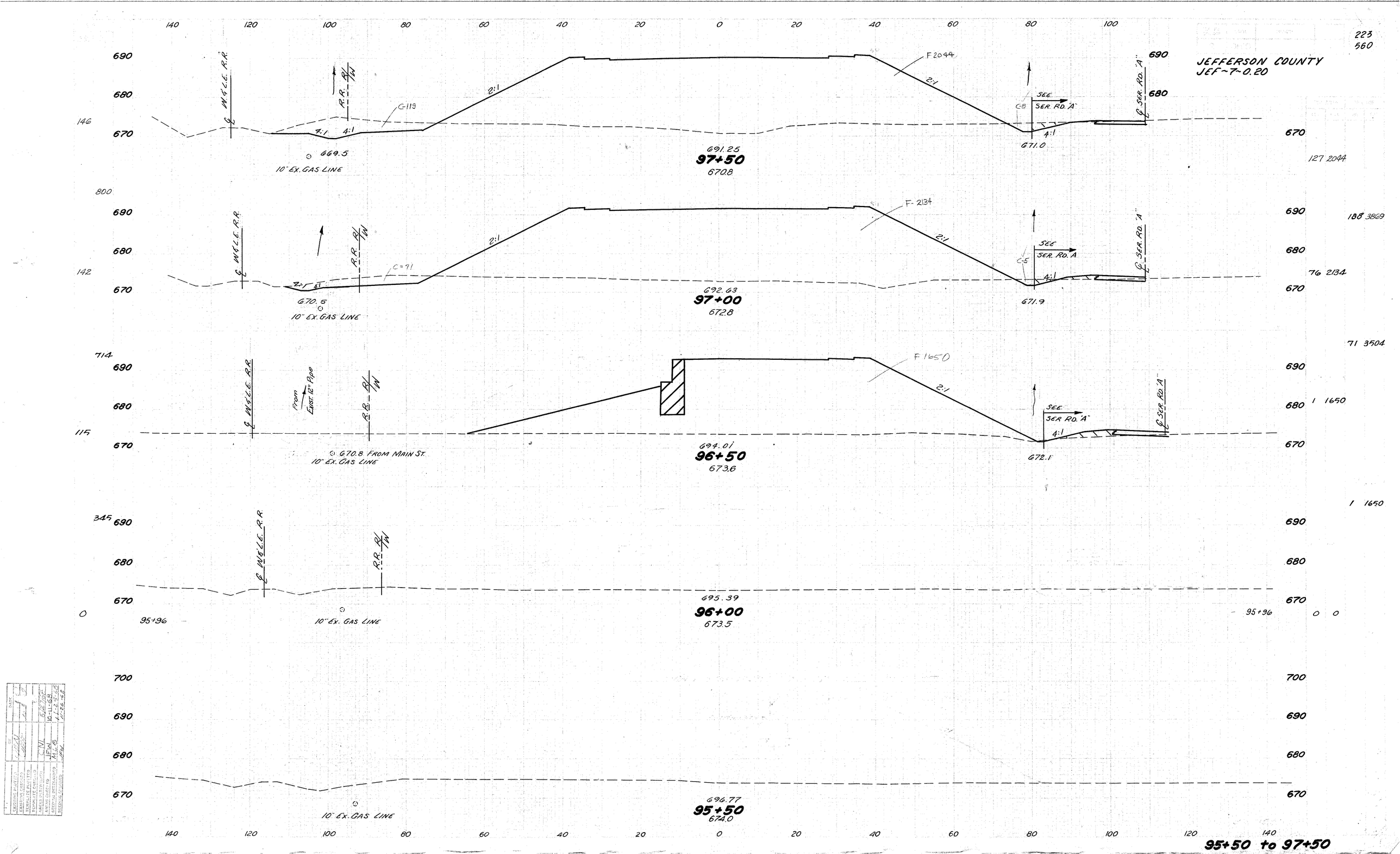
85+50 to 86+50


300 280 260 240 220 200 180 160 140 120 100 80 60 40 20 0 20 40 60 80 100 120 140 160 180 200 220
740
720
700
680
760
780
800
186
989
170
831
129
706
125
127
½"/Ft.
4:1
6:1
2:1
709.5
F-2180
ABUT.
715.07
88+50
685.4
See Williams St. Reloc.
Ditch
℄ Track Penn-Central
677.43
712.0
F-3456
716.00
88+00
688.4
+90, 74' LT.
INV. 12"
712.48
HW-4
74'-12"@0.7%
TYPE "B"
87+90, ℄
I-3A Median Inlet (Mod.)
Pavt. 716.00
Inv. 12" 713.00
PIPE PROFILE
87+90
Centroid of Fill
716.0
F=3508
716.85
87+50
690.8
718.0
F=3264
717.62
87+00
696.1
Williams St. Reloc.
676.9
Corrected Length 50'
Corrected Length
Cut 52'
Fill 50'
Sta. 86+50
Sta. 86+50
300 280 260 240 220 200 180 160 140 120 100 80 60 40 20 0 20 40 60 80 100 120 140 160 180 200 220 240 260 280
87+00 to 88+50

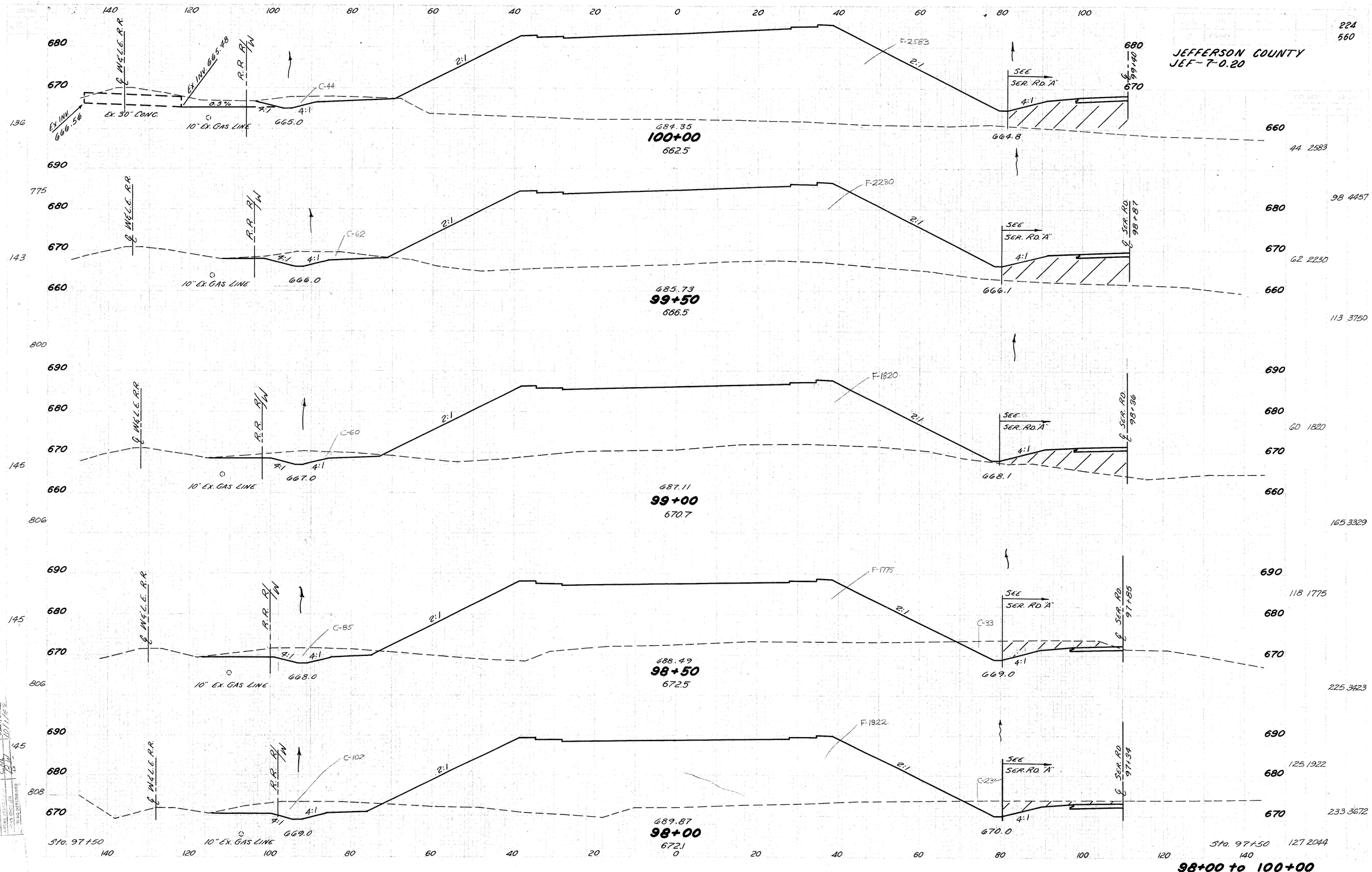
BY	DATE	



222
560
JEFFERSON COUNTY
JEF.-7-0.20
℄ Structure
709.19
95+00
674.2
4733
Add for seeding of concrete removal
Area under structure from west
R/W of N.&W. RR To Main St.
℄ Structure
℄ Penn-Central R.R.
711.79
90+00
681.9
89+92
Service Rd. "B"
F=12
C=3
C=30
Williams St. Reloc.
℄ Penn-Central R.R.
712.96
89+50
682.7
See Service Rd. "B"
F=790
See Williams St. Reloc.
C=11
Ditch
℄ Penn-Central R.R.
714.06
89+00
683.5
Sta. 88+50
Sta. 88+50
89+00 to 95+00


JEFFERSON COUNTY
JEF-7-0.20
223
560
146
127 2044
800
188 3869
142
76 2134
714
71 3504
115
1 1650
345
1 1650
0
0 0
95+96
95+96
690
680
670
700
140
120
100
80
60
40
20
0
20
40
60
80
100
120
140
℄ W&L.E. R.R.
R.R. R/W
C-119
2:1
4:1
F 2044
C-8
SEE SER. RD. "A"
℄ SER. RD. "A"
669.5
10" EX. GAS LINE
691.25
97+50
670.8
671.0
F-2134
C-71
C-5
670.5
10" EX. GAS LINE
692.63
97+00
672.8
671.9
F 1650
From Exist. 12" Pipe
670.8 FROM MAIN ST.
10" EX. GAS LINE
694.01
96+50
673.6
672.1
695.39
96+00
673.5
10" EX. GAS LINE
696.77
95+50
674.0
10" EX. GAS LINE

95+50 to 97+50


JEFFERSON COUNTY
JEF-7-0.20
100+00
662.5
684.35
99+50
666.5
685.73
99+00
670.7
687.11
98+50
672.5
688.49
98+00
672.1
689.87
98+00 to 100+00
Sta. 97+50
Sta. 97+50
℄ W&L.E. R.R.
R.R. R/W
Ex. INV. 666.56
Ex. 30" CONC.
Ex. INV. 665.48
10" EX. GAS LINE
0.5%
4:1
2:1
C-44
C-62
C-60
C-85
C-102
C-33
C-23
F-2583
F-2230
F-1820
F-1775
F-1922
SEE SER. RD. "A"
℄ 99+40
℄ SER. RD. 98+87
℄ SER. RD. 98+36
℄ SER. RD. 97+85
℄ SER. RD. 97+34
664.8
665.0
666.0
666.1
667.0
668.1
668.0
669.0
669.0
670.0
224 560
44 2583
98 4457
62 2230
113 3750
60 1820
165 3329
118 1775
225 3423
125 1922
233 3672
127 2044
136
143
145
775
800
806
808

JEFFERSON COUNTY
JEF-7-0.20



JEFFERSON COUNTY
JEF-7-0.20

226
560

140 120 100 80 60 40 20 0 20 40 60 80 100

670 660 650 640

95

1106

10" EX. GAS LINE

C-32

4:1

655.0

664.92

108+00

653.7

F-1244

2:1

SEE SER. RD. "A"

4:1

℄ SER. RD. 107+88

652.2

32 1244

106 5228

104

1189

10" EX. GAS LINE

F-7

C-25

4:1

656.0

666.21

107+00

651.3

F-1572

2:1

SEE SER. RD. "A"

4:1

℄ SER. RD. 106+80

653.1

25 1579

122 6267

110

1233

10" EX. GAS LINE

C-41

4:1

657.0

668.08

106+00

650.9

F-1805

2:1

SEE SER. RD. "A"

4:1

℄ SER. RD. 105+76

653.5

41 1805

131 7097

112

1306

10" EX. GAS LINE

C-30

4:1

657.5

670.35

105+00

651.7

F-2027

2:1

SEE SER. RD. "A"

4:1

℄ SER. RD. 104+69

653.9

30 2027

209 7981

123

Sta. 104+00

Sta. 104+00

83 2283

140 120 100 80 60 40 20 0 20 40 60 80 100 120 140

105+00 to 108+00

EXISTING PAVEMENT
SURVEY NO. 2
DRAWN
TRACED
CHECKED
AREAS SECT. III
AREAS SECT. IV
ITEMS ENGLISH
ITEMS METRIC
QUANTITIES
CHECKED

140 120 100 80 60 40 20 0 20 40 60 80 100

227
560

JEFFERSON COUNTY
JEF.-7-0.20

108

670 660 650 640

℄ W&L.E. RR

RR R/W

F-9 C-42 2:1 4:1 4:1

653.2

10" Ex. Gas Line

F-1324 2:1 4:1 4:1

SEE SER. RD. "A"

SER. RD. 112+10

652.8

42 1333

665.00
112+00
650.2

1172

111 5200

670 660 650 640

℄ W&L.E. RR

RR R/W

F-7 C-18 3:1

655.0

10" Ex Gas Line

664.52
111+00
648.4

F-1468 2:1 4:1 4:1

SEE SER. RD. "A"

SER. RD. 110+99

652.4

18 1475

103

640

651.00
Ex. Top

3:1

SER. RD. 110+38

4:1 4:1

110+39.42 Rt. Ser. Rd "A"
Inv. 24" 643.70
Type HW-4 Headwall

109 5836

1139

Ex. 18"

Ex. 24"

Exist. Drainage Inlet
Top 651.00
Inv. Ex. 24" 643.92

Remove Ex. HW & Connect to Ex Inv 643.93
Sta 110+38.27 Lt
See Detail Left

164'-24" @ 0.14% Type "B" 706.02 Class III or 707.13

650 640

℄ W&L.E. RR

RR R/W

F-19 C-41 3:1 4:1

653.0

10" Ex Gas Line

F-1657 2:1 4:1 4:1

SEE SER. RD. "A"

SER. RD. 109+97

652.0

41 1676

102

109+64, ℄
I-3A Median Inlet (Mod)
Pavt. 663.92
Inv. 12" 659.64
Inv. 15" 659.39

Conc. Collar
40'-15" @ 0.65% Type "B"
Inv. 659.12
42' Rt.
31'-15" Type "F"
2-15" Type "F" Bends

Inv. 648.75

664.11
110+00
644.9

109+29, 32' Lt. SER. RD. "A"
Std. N°5 CB
Grate 651.60
Inv. 24" 648.00 (W)
Inv. 24" 645.06 (E)

109+61, 32' Lt. S.R. "A"
N° 2-2B C.B.
Grate: 651.90
Inv. 15" 648.65

124 6141

1072

109+35, 68' Lt.
Std N°5 C.B.
Grate 652.70
Inv. 24" 649.70

3:1 2:1

SEE SER. RD. "A"

136'-24" @ 1.25%
706.02 Class IV or 707.13

Profile 24" @ 109+35

Ex GROUND +35

24"

℄ W&L.E. RR

RR R/W

C-26 4:1 4:1

654.5

10" Ex Gas Line

12" Prop

F-1640 2:1 4:1 4:1

SEE SER. RD. "A"

SER. RD. 108+97

651.8

109+35
Grate 651.6

91

1033

664.22
109+00
647.7

107 5341

95

Sta. 108+00

140 120 100 80 60 40 20 0 20 40 60 80 100 120 140

Sta. 108+00

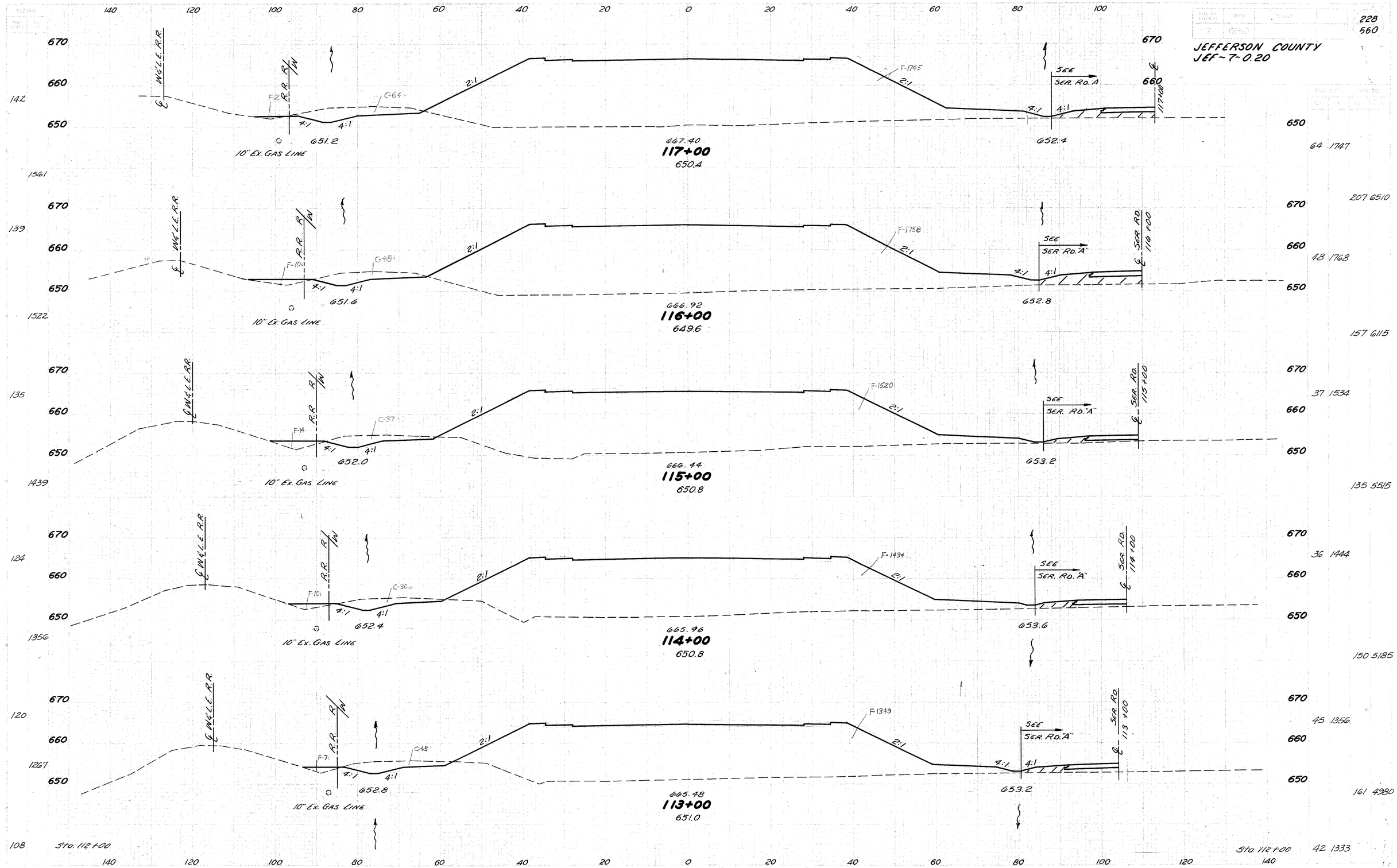
32 1244

109+00 to 112+00

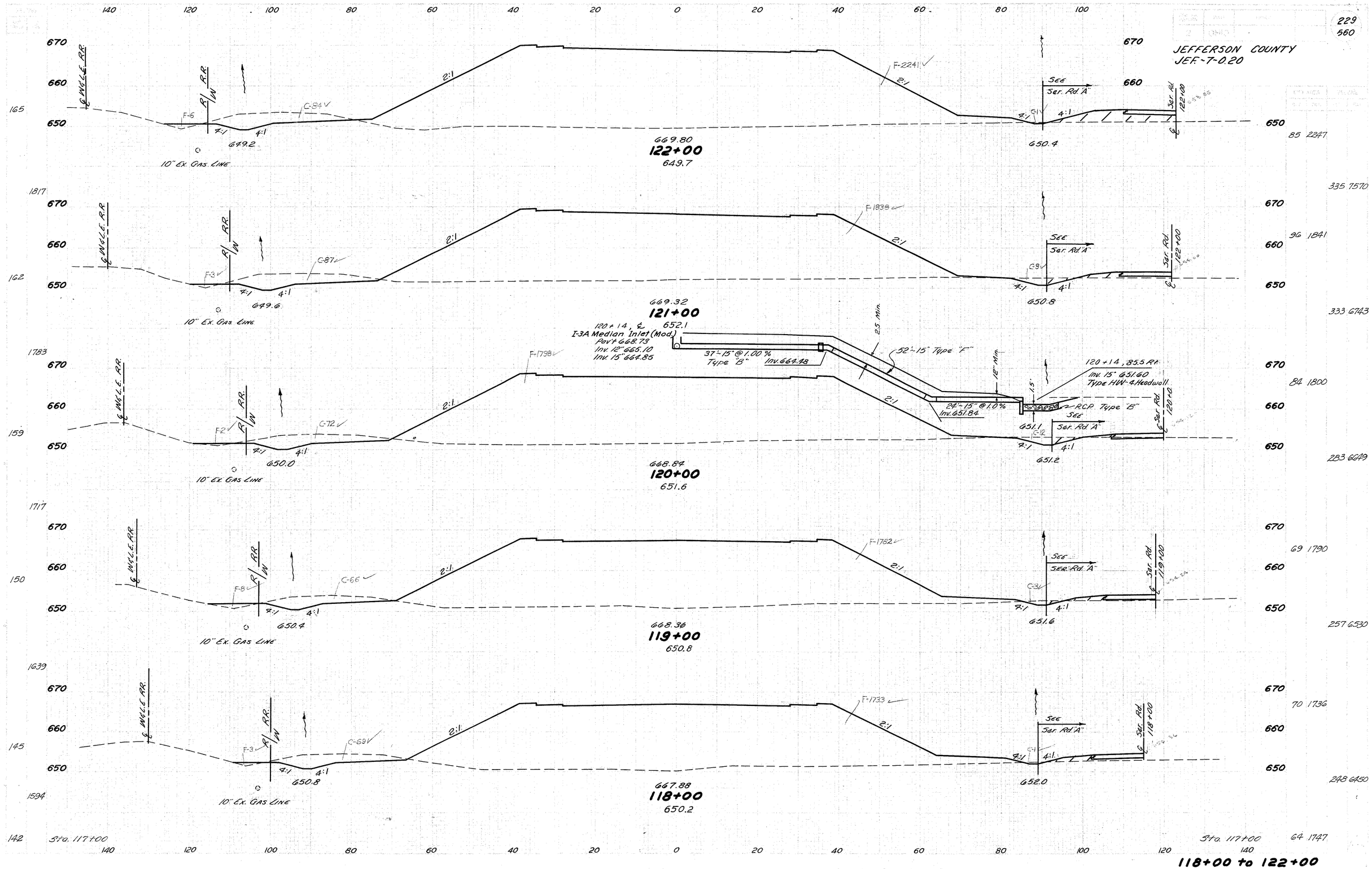
Note: Concrete Collar
Dowels ¾" Ø x 1'-6" at each corner dowelled into existing headwall 9" deep x 1¼" dia. Dowel holes and dowels shall be constructed in accordance with the requirements of item 510 included for payment with item 602
0.23 C.Y.

6"
Ex. H.W.
1'-0"
3'-6"
6"
Ex. 24"
Prop. 24"
3'-6"
Dowels
CONCRETE COLLAR DETAIL

EXISTING CHECKED		
TEMPLATE ALL PLOTTED		
TEMPLATE CHECKED	CWE	6/28/82
AREAS DETERMINED	MJG	7/7/82
AREAS CHECKED	MJG	7/26/82
STICKING DRAWN	MJG	7/26/82
STICKING CHECKED	CWE	7/28/82



JEFFERSON COUNTY
JEF-7-0.20
228
560
117+00
667.40
650.4
651.2
652.4
10" Ex. Gas Line
SEE SER. RD. A
116+00
666.92
649.6
651.6
652.8
115+00
666.44
650.8
652.0
653.2
114+00
665.96
650.8
652.4
653.6
113+00
665.48
651.0
652.8
653.2
Sta. 112+00
113+00 to 117+00



JEFFERSON COUNTY
JEF.-7-0.20
229
560
669.80
122+00
649.7
669.32
121+00
652.1
120+14, ℄
I-3A Median Inlet (Mod.)
Pav't 668.73
Inv. 12" 665.10
Inv. 15" 664.85
37'-15" @ 1.00 %
Type "B"
Inv. 664.48
52'-15" Type "F"
24'-15" @ 1.0 %
Inv. 651.84
120+14, 85.5 Rt.
Inv. 15" 651.60
Type HW-4 Headwall
R.C.P. Type "B"
2.5 Min.
12" Min.
1.5'
10" Ex. Gas Line
10" Ex. Gas Line
10" Ex. Gas Line
10" Ex. Gas Line
669.2
650.4
649.6
650.8
650.0
651.2
651.1
668.84
120+00
651.6
668.36
119+00
650.8
650.4
651.6
667.88
118+00
650.2
650.8
652.0
Sta. 117+00
Sta. 117+00
118+00 to 122+00

140 120 100 80 60 40 20 0 20 40 60 80 100

230
560

670
660
650
640

Ex. S.R.7

181
220

F-8 24:1 2:1 C-45 2:1 24:1 2:1

647.2

F-2756

2:1

4:1 C-1

647.0

670
660
650
640

SEE Svc. Rd. "A"

4:1

JEFFERSON COUNTY
JEF-7-0.20

46 2765

19 1120

181

Ahead 126+89.06
(Same as 127+00)

AHEAD 126+89.06
(SAME AS 127+00)

46 2765

END STRUCTURE 126+89.06

670
660
650

192

Back 125+79.56
(Same as 125+00)

BACK 125+79.56
(SAME AS 125+00)

87 2653

BEGIN STRUCTURE 125+79.56

SERVICE RD. "A"

G71.42
126+00
647.3

1697

670
660
650

124±70 147± LT
EX. 48" CMP
INV. 646.95
(TO BE BULKHEADED)
Pipe to be Abandoned

A.R. R/W

192

C-84 24:1 4:1 4:1 2:1

648.0

F-2653

2:1

TO CULVERT UNDER S.R. 150 EXT

SEE Svc. Rd. "A"

C-3 4:1 4:1

649.2

670
660
650

25G 7817

87 2653

2106

10" EX. GAS

G71.21
125+00
648.9

372 9311

187

670
660
650

F-3 A.R. R/W C-113 24:1 2:1 4:1 4:1

2006

10" EX. GAS

648.4

F-2372

2:1

SEE Svc. Rd. "A"

C-1 4:1 4:1

649.6

670
660
650

114 2375

670.76
124+00
650.3

37G 8887

174

670
660
650

1883

F-4 A.R. R/W C-89 24:1 4:1 4:1 2:1

165

Sta. 122+00

10" EX. GAS

648.8

F-2420

2:1

SEE Svc. Rd. "A"

4:1 4:1

650.0

670
660
650

89 2424

322 8650

670.28
123+00
649.3

Sta. 122+00

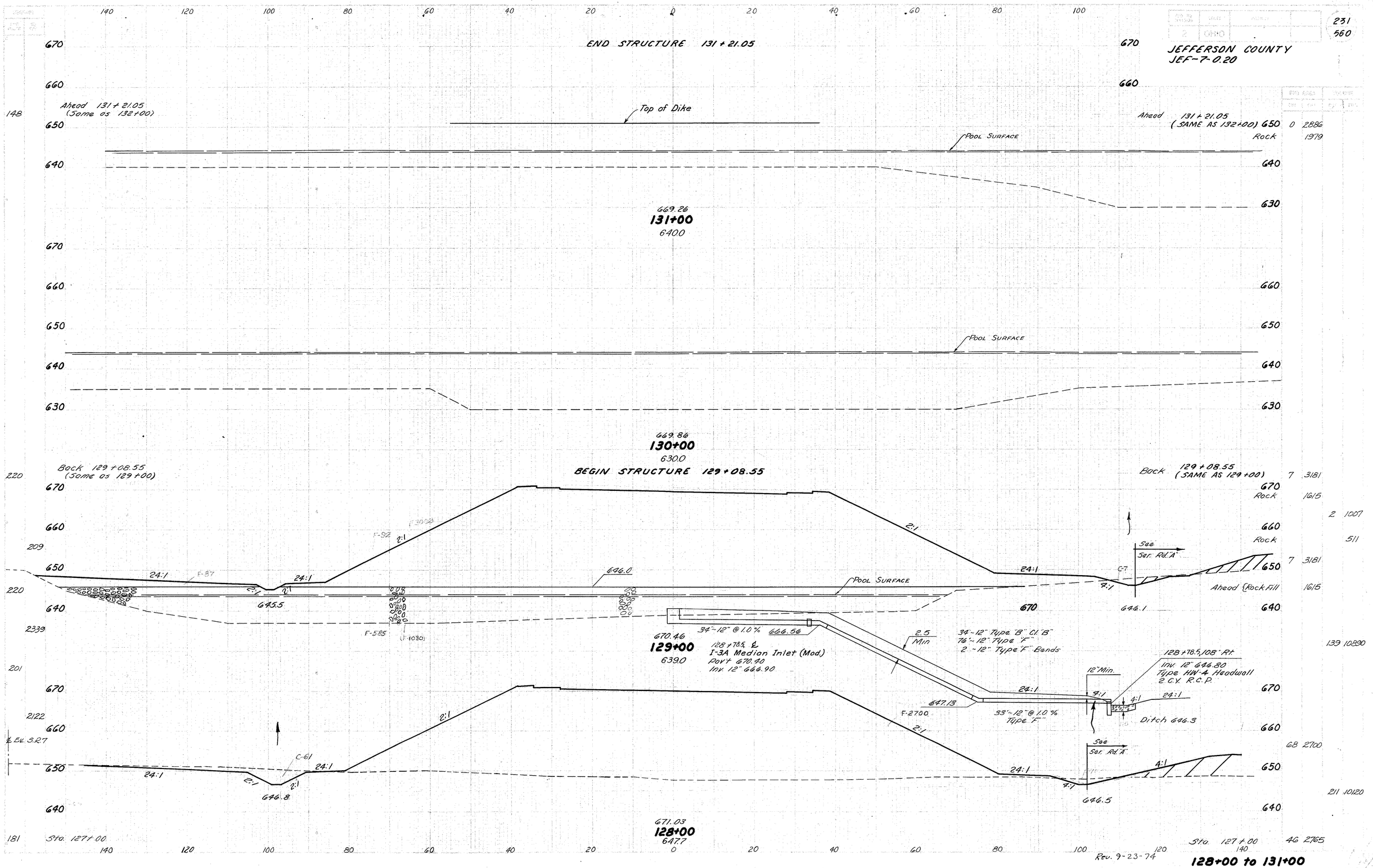
85 2247

140 120 100 80 60 40 20 0 20 40 60 80 100 120 140

123+00 to 127+00

NO.	DATE	BY	DESCRIPTION
1	3/11/68	CMC	PRELIMINARY
2	4/25/68	CMC	PRELIMINARY
3	6/26/68	CMC	PRELIMINARY
4			
5			
6			

PROJECT DEVELOPMENT ENGINEER
PRELIMINARY PLANS COMPLETED
FINAL PLANS COMPLETED
CONSTRUCTION UP-DATED
RECORD PLANS COMPLETED



END STRUCTURE 131 + 21.05
JEFFERSON COUNTY
JEF-7-0.20
231
560
Ahead 131 + 21.05
(Same as 132+00)
Top of Dike
Pool Surface
Ahead 131 + 21.05
(SAME AS 132+00)
0 2886
Rock 1979
669.26
131+00
640.0
669.86
130+00
630.0
BEGIN STRUCTURE 129 + 08.55
Back 129 + 08.55
(Same as 129+00)
Back 129 + 08.55
(SAME AS 129+00)
7 3181
Rock 1615
2 1007
Rock 511
7 3181
Ahead {Rock Fill 1615
139 10890
68 2700
211 10120
46 2765
24:1
2:1
4:1
645.5
646.0
646.1
646.8
646.5
670.46
129+00
639.0
34'-12" @ 1.0%
666.56
128 + 78.5 ℄
I-3A Median Inlet (Mod.)
Pav't 670.40
Inv. 12" 666.90
2.5 Min
34'-12" Type "B" Cl. "B"
76'-12" Type "F"
2'-12" Type "F" Bends
12" Min.
128 + 78.5, 108' Rt.
Inv. 12" 646.80
Type HW-4 Headwall
2 C.Y. R.C.P.
647.13
33'-12" @ 1.0%
Type "F"
Ditch 646.3
F-2700
F-87
F-92
F-585
C-61
C-7
See Ser. Rd. "A"
℄ Ev. S.R.7
671.03
128+00
647.7
Sta. 127+00
Sta. 127+00
Rev. 9-23-74
128+00 to 131+00

JEFFERSON COUNTY
JEF-7-0.20

232
560

140 120 100 80 60 40 20 0 20 40 60 80 100

670 660 650 640

F-1439 F-1521

2:1 2:1

646.0 POOL SURFACE

48:1

(F-1020) (F-1150)

171

666.86
135+00
637.0

F-1464 F-1539

1833

2:1 2:1

646.0 POOL SURFACE

48:1

(F-1482) (F-1162)

159

667.46
134+00
636.0

F-1515 F-1506

1700

2:1 2:1

646.0 POOL SURFACE

48:1

147

46'-12" @ 1.5% 663.93

668.06
133+00
630.0

132+63 ℄
I-3A Median Inlet (Mod)
Pavt. 668.12
Inv. 12" 664.62

1639

46'-12" Type 'B' Cl. B
43-12" Type 'F'
2-12" Specials

132+63, 85' Rt
Inv. 12" 647.80
Type HW-4 Headwall

647.88 8'-12" @ 1.0%

48:1

18" deep R.C.P.
1.0 C.Y.

2:1 2:1

646.0 POOL SURFACE

48:1

148

668.66
132+00
640.0

1298

Sta. 131+21.05

140 120 100 80 60 40 20 0 20 40 60 80 100 120 140

670 660 650 640 630

SEE SER. Rd. "A"

Rock Fill

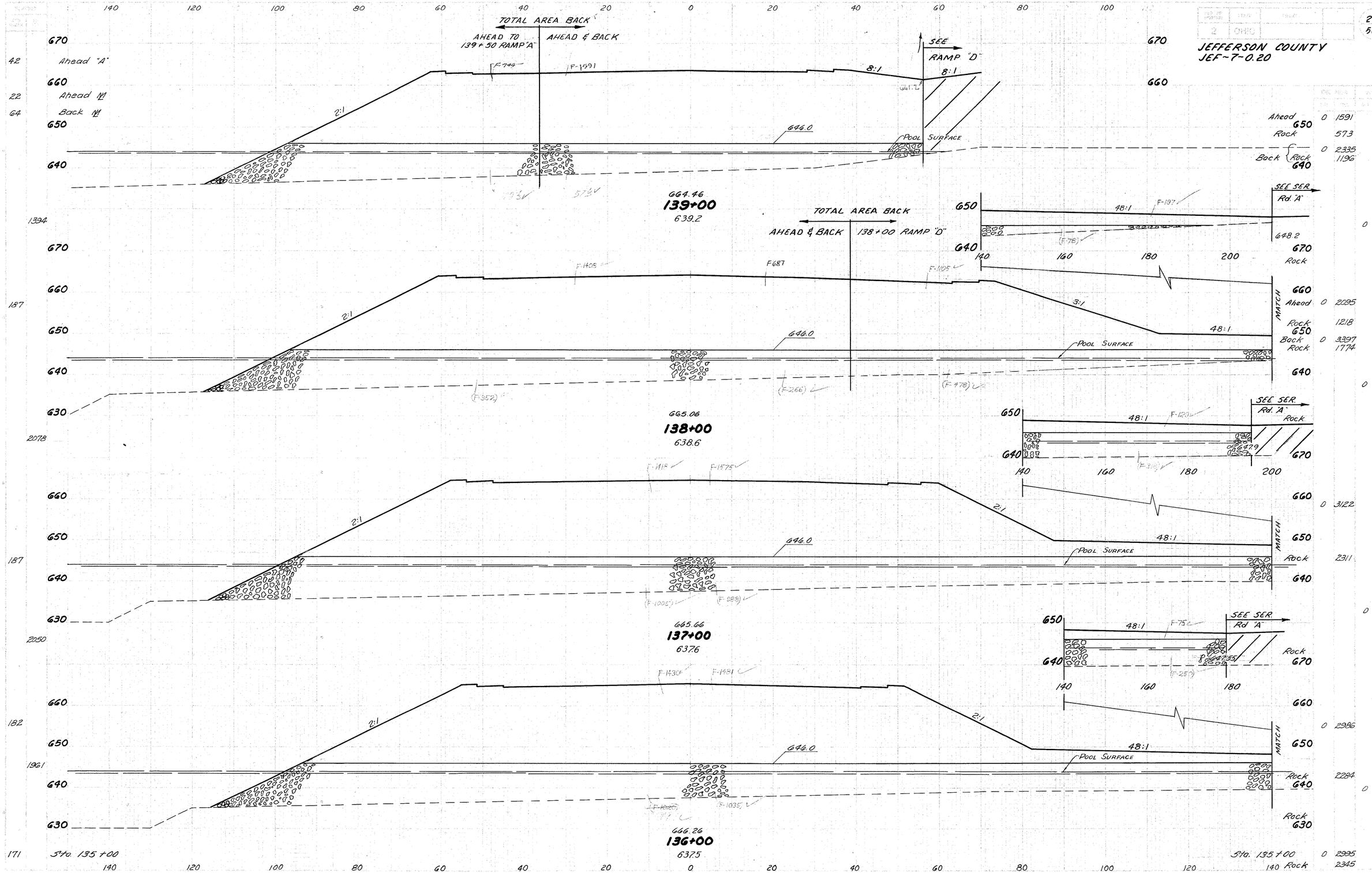
Rock

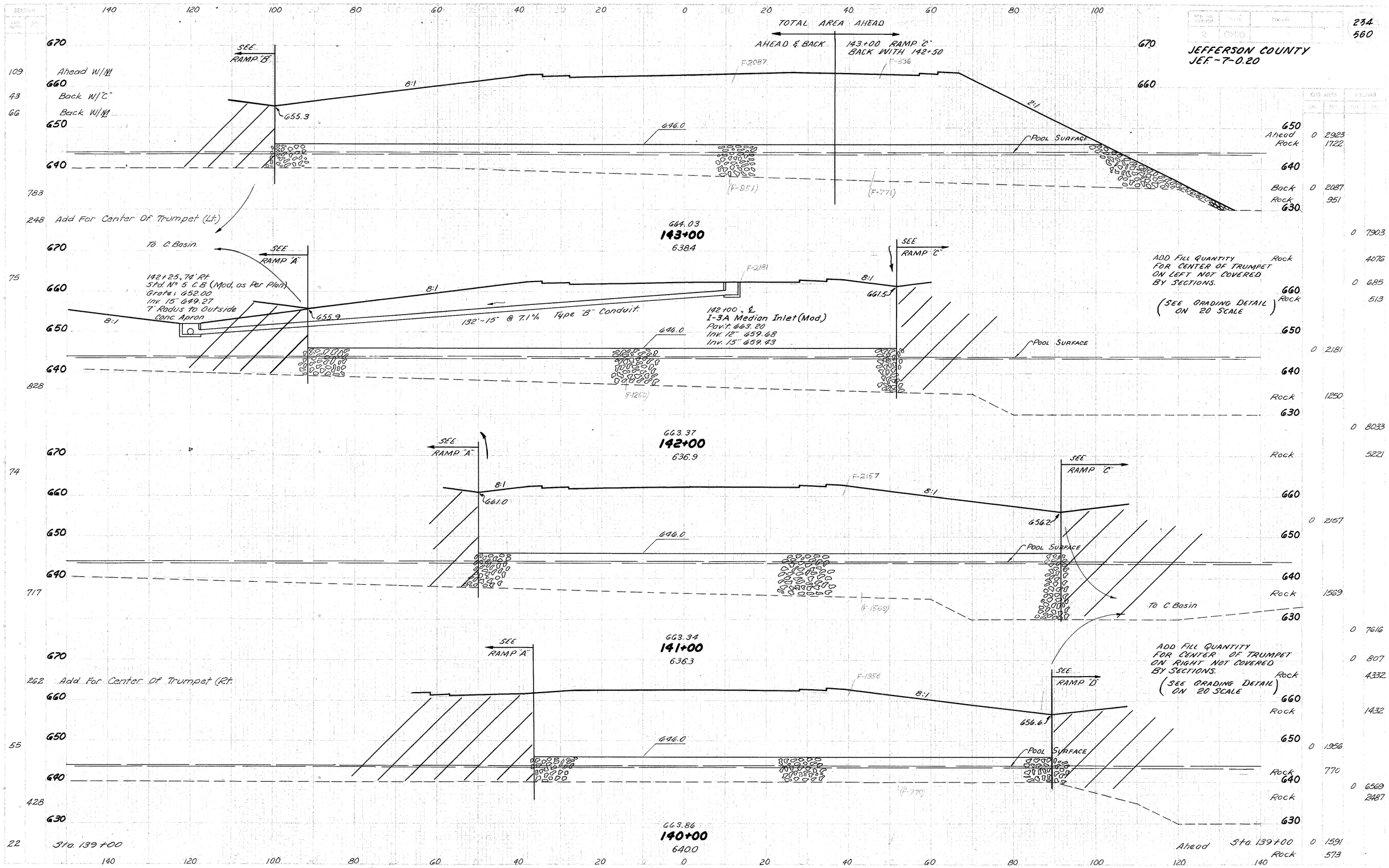
0	2995	
		2345
0	11124	
		9357
0	3012	
		2708
0	11283	
		10985
0	3081	
		3224
0	11050	
		3635
0	2836	
		1979
0	8438	
		5787
Sta. 131+21.05	0	2886
		1979

132+00 to 135+00

DATE	

JEFFERSON COUNTY
JEF-7-0.20





234
560
JEFFERSON COUNTY
JEF.-7-0.20
TOTAL AREA AHEAD
AHEAD & BACK
143+00 RAMP "C"
BACK WITH 142+50
SEE RAMP "B"
Ahead W/M
Back W/"C"
Back W/M
8:1
2:1
655.3
646.0
F-2087
F-836
POOL SURFACE
(F-951)
(F-771)
Add For Center Of Trumpet (Lt.)
664.03
143+00
638.4
To C. Basin.
SEE RAMP "A"
SEE RAMP "C"
142+25, 74' Rt.
Std. No 5 C.B. (Mod. as Per Plan)
Grate: 652.00
Inv. 15" 649.27
7' Radius to Outside
Conc. Apron
655.9
132'-15" @ 7.1% Type "B" Conduit.
F-2181
661.5
142+00, ℄
I-3A Median Inlet (Mod.)
Pav't. 663.20
Inv. 12" 659.68
Inv. 15" 659.43
ADD FILL QUANTITY FOR CENTER OF TRUMPET ON LEFT NOT COVERED BY SECTIONS.
(SEE GRADING DETAIL ON 20 SCALE)
663.37
142+00
636.9
661.0
F-2157
656.2
To C. Basin
663.34
141+00
636.3
Add For Center Of Trumpet (Rt.
F-1956
656.6
ADD FILL QUANTITY FOR CENTER OF TRUMPET ON RIGHT NOT COVERED BY SECTIONS.
(SEE GRADING DETAIL ON 20 SCALE)
663.86
140+00
640.0
Sta. 139+00
Ahead
Rock
140+00 to 143+00

JEFFERSON COUNTY
JEF-7-0.20

235
560

140 120 100 80 60 40 20 0 20 40 60 80 100

670 660 650 640

F-1858 F-2062

2:1 2:1

646.0

POOL SURFACE

(F-690) (F-694)

671.00
147+00
6400

117 | 0 3920 | Rock 1354

1250 | 0 14265 | Rock 5037

F-1849 F-1934

2:1 2:1

646.0

POOL SURFACE

(F-691) (F-675)

669.08
146+00
640.0

108 | 0 3783 | Rock 1366

TOTAL AREA AHEAD
145+01.5 RAMP "B" AHEAD & BACK
BACK WITH
144+50

1233 | 0 13787 | Rock 5208

49 Back W/"B"
114 Ahead W/"M"
65 Back W/"M"

F-2685

8:1 2:1 2:1

665.0

646.0

POOL SURFACE

(F-424) (F-985)

667.16
145+00
640.0

783 | Ahead 0 3662 Rock 1446 | Back 0 2685 Rock 966

0 9985 | Rock 4841

SEE RAMP "B"

8:1

661.0

F-2707

2:1

646.0

POOL SURFACE

(F-1645)

665.32
144+00
638.2

76 | 0 2707 | Rock 1648 | 0 10426 Rock 6241

1028

109 3to. 143+00 | Ahead 3to. 143+00 0 2923 Rock 1722

140 120 100 80 60 40 20 0 20 40 60 80 100 120 140

144+00 to 147+00

236
560.

JEFFERSON COUNTY
JEF-7-0.20

140 120 100 80 60 40 20 F-2256 0 F-2266 20 40 60 80 100

670 660 650 640

2:1 2:1

646.0

Pool Surface

142 1550

(F-677) 677.21 **151+00** 640.0 (F-681)

0 4522
Rock 1358

1483

F-2307 F-2238

670 660 650 640

2:1 2:1

646.0

Pool Surface

137

(F-656) 676.11 **150+00** 640.0 (F-686)

0 16791
Rock 5008
0 4545
Rock 1346

1483

F-2150 F-2172

670 660 650 640

2:1 2:1

646.0

Pool Surface

130

(F-311) 674.68 **149+00** 642.5 (F-504)

0 16421
Rock 4002
0 4322
Rock 815

1411

F-1377 F-2124

670 660 650 640 630

2:1 2:1

646.0

Pool Surface

124 1339

(F-1912) 672.92 **148+00** 630.0 (F-1960)

0 15598
Rock 8619
0 4101
Rock 3872
0 14854
Rock 9678
0 3920
Rock 1354

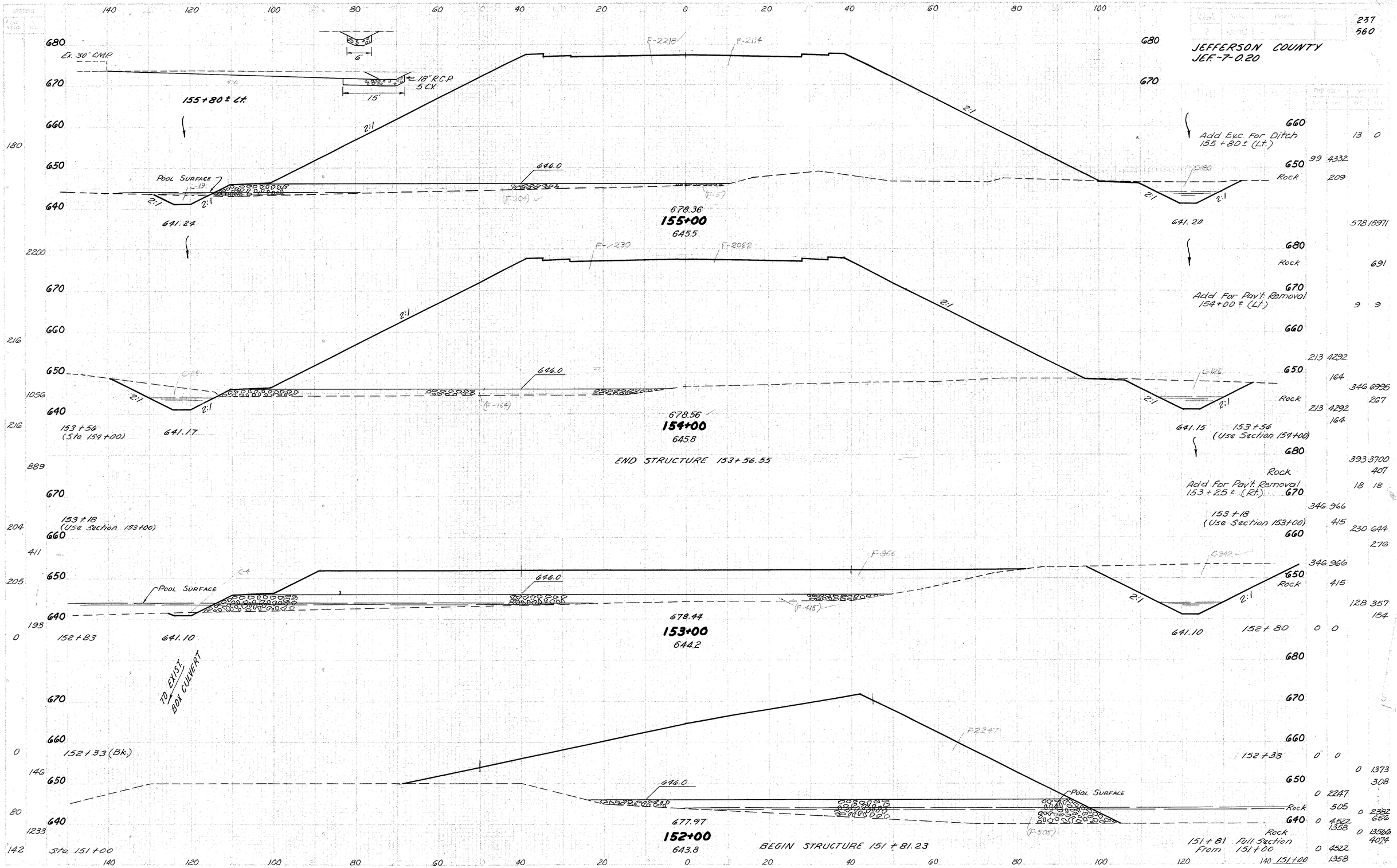
117 Sta. 147+00

140 120 100 80 60 40 20 0 20 40 60 80 100 120 140

148+00 to 151+00

	BY	DATE
EXISTING PLOTTED		
DATUM CHECKED		
TEMPLATE SELECTED		
TEMPLATE PLOTTED		
TEMPLATE CHECKED	CNL	7/9/68
AREAS COMPUTED	CNL	7/11/68
SIDES CHECKED	MLB	11-26-68
SLOPE DETERMINED		11 26 68
SLOPE CHECKED		

JEFFERSON COUNTY
JEF-7-0.20



| | | |

JEFFERSON COUNTY
JEF-7-0.20

238
560

140 120 100 80 60 40 20 0 20 40 60 80 100

159+00

F-1515 F-1615

670 / 660 / 650 / 640

Ex. R.R. R/W

C-31

2:1 2:1 2:1 2:1

646.0

Pool Surface

(F-263)

674.28

641.52

644.7

641.40

C-191

169

1922

158+00

F-1950 F-1735

670 / 660 / 650 / 640

Ex. R.R. R/W

C-27

2:1 2:1 2:1 2:1

646.0

Pool Surface

(F-254)

675.79

641.45

644.5

641.35

C-140

177

1967

157+00

F-2067 F-1910

670 / 660 / 650 / 640

Ex. R.R. R/W

C-21

2:1 2:1 2:1 2:1

646.0

Pool Surface

(F-224)

676.97

641.38

645.7

641.30

C-115

177

1994

156+00

F-2157 F-1993

680 / 670 / 660 / 650 / 640

R.R. R/W

C-23

2:1 2:1 2:1 2:1

646.0

Pool Surface

(F-222)

677.83

641.31

645.5

641.25

C-115

182

2011

3 to. 155+00

140 120 100 80 60 40 20 0 20 40 60 80 100 120

3 to. 155+00

156+00 to 159+00

				222 3430
Rock	263			
				720 13270
Rock	957			
				167 3736
Rock	254			
				561 14283
Rock	885			
				136 3977
Rock	224			
				507 15050
Rock	826			
				138 4150
Rock	222			
				439 15708
Rock	209			
				99 4332
				798

JEFFERSON COUNTY
JEF-7-0.20

239
560

140 120 100 80 60 40 20 0 20 40 60 80 100

660 650 640 670 660 650 670 660 650 640 670 660 650 670 660 650 640

138 1561 143 1656 155 1778 165 1889 175 1911 169

EX. RR R/W

C-28 C-28 C-29 C-30 C-28

2:1 2:1

Pool Surface

646.0

F-1017 F-1003 F-1123 F-1115 F-1255 F-1282 F-1450 F-1433 F-1636 F-1550

(F-284) (F-144) (F-236) (F-166) (F-231) (F-94) (F-224) (F-177) (F-295)

C-119 C-152 C-152 C-195 C-130

641.81 641.80 641.73 641.66 641.59

641.65 641.60 641.55 641.50 641.45

664.83 666.46 668.44 670.44 672.44

164+00 163+00 162+00 161+00 160+00

642.8 643.4 643.6 643.6 644.1

115' Lt ± 89' Lt

Ex. 24" C.M.P.

18" D.R.C.P.

9 C.Y.

2.5%

6

163+70 ± Lt.

Add Exc. For Ditch +10

		145	2020
G40	Rock		424
			602 7885
G70	Rock		1417
G60		180	2238
G50	Rock		341
			720 8894
G70	Rock		1233
G60		209	2565
G50	Rock		325
			804 10089
Rock			1226
G70		225	2883
G60			
G50	Rock		337
			822 11239
G70	Rock		1170
G60		219	3186
G50	Rock		295
G40			817 12252
			1033
Sta. 159+00		222	3430
140 Rock			263

160+00 to 164+00

DESIGNED	J.V.	DATE	7-6	11-16-64	
DRAWN	J.V.				
QUANTITIES					
CHECKED					
CORRECTIONS					
PLANS CHECKED					
EXCEPTIONS DETERMINED					
PLANS CHECKED					

JEFFERSON COUNTY
JEF-7-0.20

240
560

140 120 100 80 60 40 20 0 20 40 60 80 100

660 / 650 / 640

EX. RR R/W

Pool Surface

646.0

662.94

---

124 | C-25 | F-905 | F-898 | 642.22 | 169+00 | 643.3 | C-104 | 641.90 | 129 1803 | Rock 310 | 520 6676

1439 | Rock 1167

---

135 | C-52 | F-907 | F-895 | 642.15 | 168+00 | 643.0 | C-96 | 641.85 | 152 1802 | Rock 320 | 509 6672

1450 | Rock 1269

---

126 | C-43 | F-903 | F-898 | 642.08 | 167+00 | 643.0 | C-80 | 641.80 | 123 1801 | Rock 365 | 413 6676

1372 | Rock 1424

---

121 | C-28 | F-901 | F-903 | 642.01 | 166+00 | 643.1 | C-75 | 641.75 | 103 1804 | Rock 404 | 419 6824

1378 | Rock 1485

---

127 | C-24 | F-941 | F-940 | 641.94 | 165+00 | 642.9 | C-99 | 641.70 | 123 1881 | Rock 398 | 496 7225

1472 | Rock 1522

138 | 3 to 164+00 | 140 Rock 424 | 3 to 164+00 | 145 2020

165+00 to 169+00

241
560

JEFFERSON COUNTY
JEF-7-0.20

140 120 100 80 60 40 20 0 20 40 60 80 100

105 1217 114 1383 135 1478 131 1444 129 1406 124

660 / 650 / 640

EX. RR R/W

EX. 18" CMP

18" R.C.P. 9 C.Y.

18" R.C.P. 17 C.Y.

2:1 6'

C-19 C-14 C-16 C-40 C-38 C-25 C-48 C-87

Pool Surface

646.0

F-1918 F-1872 F-1850 F-1837

(F-485) (F-454) (F-365) F-328 (F-304)

642.57 642.50 642.43 642.36 642.29

642.15 642.10 642.05 642.00 641.95

662.94
174+00
642.1

662.94
173+00
642.3

662.94
172+00
642.7

662.94
171+00
643.2

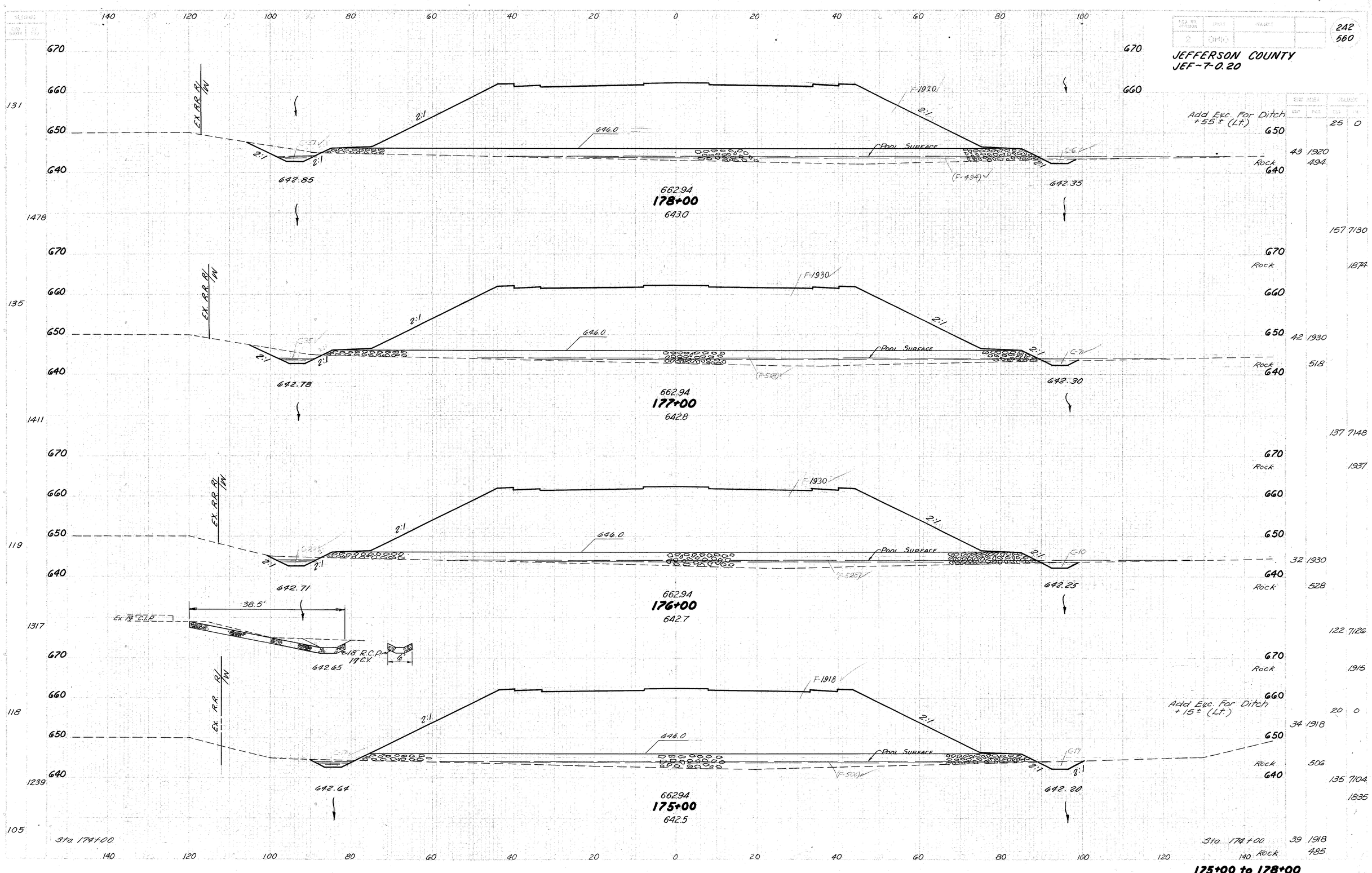
662.94
170+00
643.3

	SIDE AREA	VOLUME
	CUT FILL	CUT FILL
	39 1918	
Rock	485	
	144	7019
Rock		1794
Quantity For Ditch +50± (Lt.	7	0
	39 1872	
Rock	484	
		302 6933
Rock		1572
	124 1872	
Rock	365	
		465 6893
Rock		1283
	127 1850	
Rock	328	
		548 6828
Rock		1170
Add For Ditch +82± (Lt.	15	0
	169 1837	
Rock	304	
		552 6741
		1137
	129 1803	
Rock	310	

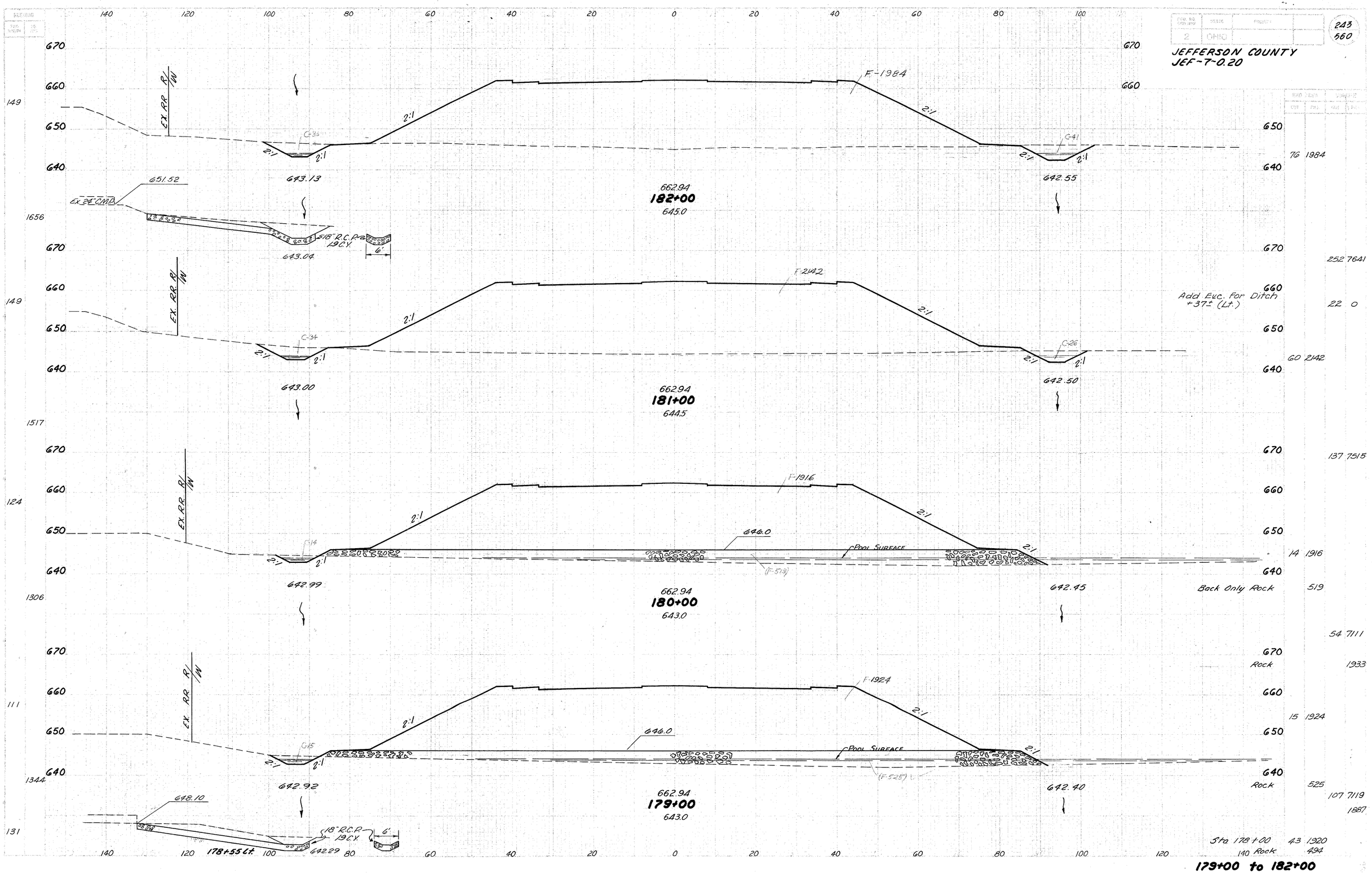
3 to. 169+00 — 140 Rock — 3 to. 169+00

170+00 to 174+00

| | | |



JEFFERSON COUNTY
JEF-7-0.20
242
560
Add Exc. For Ditch +55± (Lt.)
Add Exc. For Ditch +15± (Lt.)
EX. R.R. R/W
2:1
646.0
POOL SURFACE
642.85
642.35
662.94
178+00
643.0
642.78
642.30
662.94
177+00
642.8
642.71
642.25
662.94
176+00
642.7
38.5'
Ex. 14" C.I.P.
18" R.C.P.
17 C.Y.
642.65
642.64
642.20
662.94
175+00
642.5
Rock
Sta. 174+00
175+00 to 178+00



JEFFERSON COUNTY
JEF-7-0.20
243
560
EX. RR. R/W
F-1984
C-36
C-41
2:1
643.13
642.55
662.94
182+00
645.0
651.52
Ex. 24" CMP
18" R.C.P.
19 C.Y.
6'
643.04
F-2142
C-34
C-26
643.00
642.50
662.94
181+00
644.5
Add Euc. For Ditch
+37± (Lt.)
F-1916
646.0
Pool Surface
(F-519)
642.99
642.45
662.94
180+00
643.0
Back Only Rock
F-1924
C-15
(F-525)
642.92
642.40
662.94
179+00
643.0
648.10
18" R.C.P.
19 C.Y.
6'
178+55 Lt.
642.29
Sta 178+00
Rock
149
1656
1517
124
1306
111
1344
131
76 1984
252 7641
22 0
60 2142
137 7515
14 1916
519
54 7111
1933
15 1924
525
107 7119
1887
43 1920
494
179+00 to 182+00

140 120 100 80 60 40 20 0 20 40 60 80 100

244
560

JEFFERSON COUNTY
JEF - 7-0.20

670
660
650
640

EX. RR R/W

172

C-31

2:1

3:1

644.1

662.94
186+00
646.7

F-2217

3:1

C-38

2:1

643.5

69 2217

1772

269 7650

670
660
650
640

EX. RR R/W

147

C-35

2:1

3:1

643.8

662.94
185+00
646.4

F-1914

2:1

C-41

2:1

2:1

643.2

76 1914

1617

398 7007

670
660
650
640

EX. RR R/W

144

C-104

ENDWALL

VAR.

662.94
184+00
646.9

F-1870

3:1

END 4' BOTTOM DITCH
BEGIN 2' BOTTOM DITCH

C-35

2:1

2:1

642.9

139 1870

1589

483 6752

670
660
650
640

EX. RR R/W

142

C-92

2:1

2:1

643.2

662.94
183+00
646.8

F-1776

2:1

C-30

2:1

2:1

642.6

122 1776

1617

3G7 6963

149

Sta. 182+00

140 120 100 80 60 40 20 0 20 40 60 80 100 120 140

Sta. 182+00

1G 1984

183+00 to 186+00

	BY	DATE
EXISTING PLOTTED		
EXISTING CHECKED		
TEMPLATE PLOTTED		
TEMPLATE CHECKED		
CROSS SECTIONS		
SECTIONS DRAWN		
SECTIONS CHECKED		
ENGRNG. CHECKED		

245
560

JEFFERSON COUNTY
JEF-7-0.20

140 120 100 80 60 40 20 0 20 40 60 80 100

670 660 650 640

EX. R.R. R/W

175

C-10 4:1 645.3 3:1 8:1 8:1 F-2170 3:1 C-23 2:1 644.7

662.94
190+00
647.9

1967

33 2170

143 8109

179

C-20 2:1 645.0 3:1 8:1 8:1 F-2209 3:1 C-24 2:1 644.4

662.94
189+00
647.9

1989

44 2209

196 8200

179

C-35 2:1 644.7 3:1 8:1 F-2219 8:1 3:1 C-27 2:1 644.1

662.94
188+00
647.8

1961

62 2219

220 8400

174

C-24 2:1 644.4 3:1 8:1 8:1 F-2317 3:1 C-33 2:1 643.8

662.94
187+00
647.2

1922

57 2317

233 8396

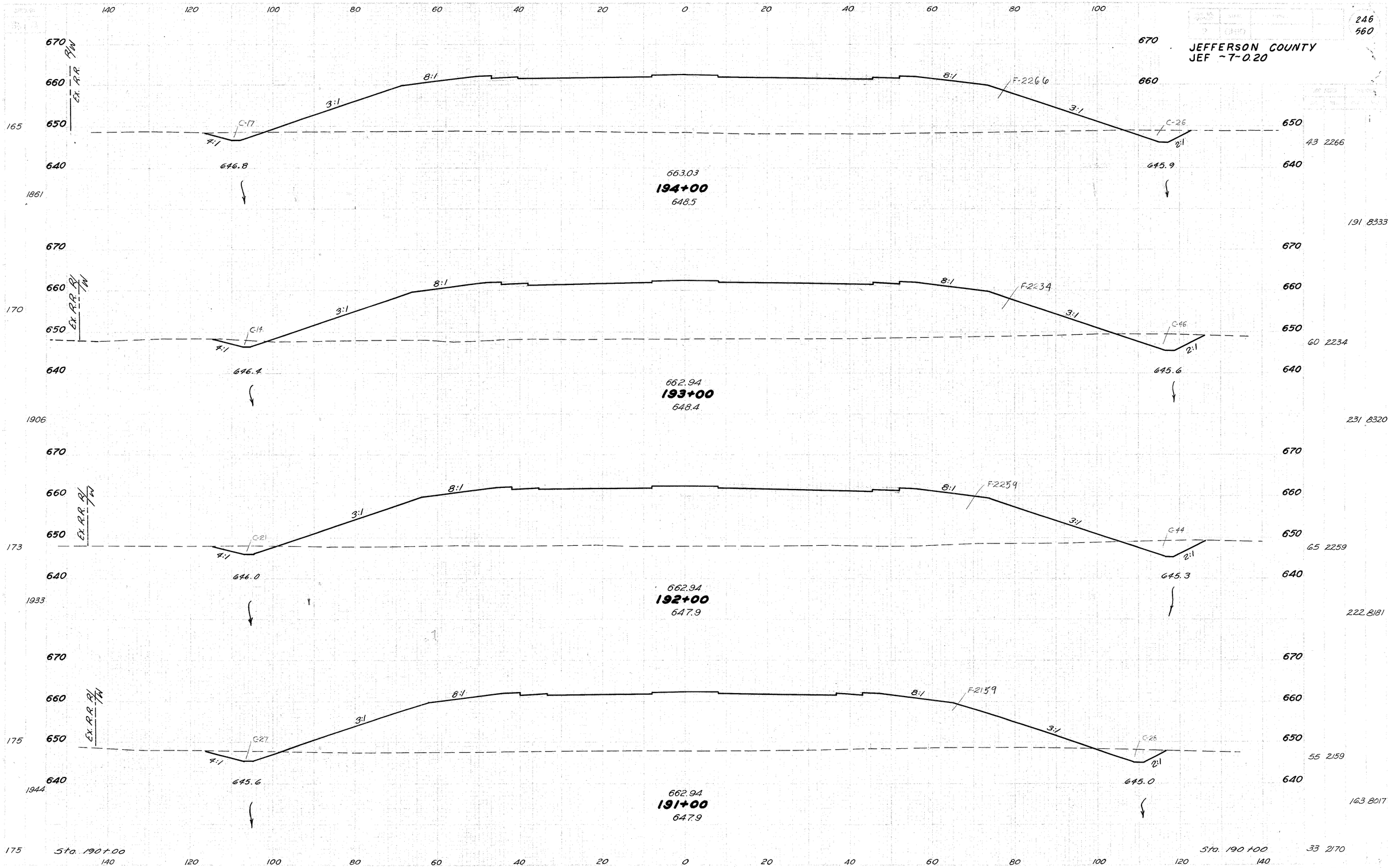
172 Sta. 186+00

Sta. 186+00 68 2217

140 120 100 80 60 40 20 0 20 40 60 80 100 120 140

187+00 to 190+00

DESIGNED	W	DATE
DRAWN	TEW	11-15-72
CHECKED	TEW	
QUANTITIES	CHL	7-16-73
APPROVED	CHL	11-26-73
FIELD INSPECTED	MJB	11-26-73
SECTION CHECKED	TEW	11-27-73


JEFFERSON COUNTY
JEF ~7~0.20
246
560
140 120 100 80 60 40 20 0 20 40 60 80 100
670
660
650
640
Ex. R.R. R/W
165
1861
43 2266
191 8333
C-17
4:1
3:1
8:1
F-2266
C-26
2:1
646.8
645.9
663.03
194+00
648.5
170
1906
60 2234
231 8320
C-14
F-2234
C-46
646.4
645.6
662.94
193+00
648.4
173
1933
65 2259
222 8181
C-21
F-2259
C-44
646.0
645.3
662.94
192+00
647.9
175
1944
55 2159
163 8017
33 2170
C-27
F-2159
C-28
645.6
645.0
662.94
191+00
647.9
Sta. 190+00
Sta. 190+00
191+00 to 194+00

247
960

JEFFERSON COUNTY
JEF ~T-0.20

140 120 100 80 60 40 20 0 20 40 60 80 100

Ex. R.R. R/W

670
660
650
640

166

C-13 4:1 3:1 8:1 F-1232 F-1324 8:1 3:1 C-13 2:1

647.8 646.8

664.02
197+00
649.5

32 2556

1850

148 9087

Ex. R.R. R/W

670
660
650
640

167

C-20 4:1 3:1 8:1 F-1124 F-1227 8:1 3:1 C-28 2:1

647.5 646.5

663.66
196+00
649.4

48 2351

1850

169 8667

Ex. R.R. R/W

670
660
650
640

166

C-19 4:1 3:1 8:1 8:1 F-2329 3:1 C-24 2:1

647.2 646.2

663.30
195+00
647.9

43 2329

1839

159 8509

165

Sta. 194+00

140 120 100 80 60 40 20 0 20 40 60 80 100 120 140

Sta. 194+00 43 2266

195+00 TO 197+00

JEFFERSON COUNTY
JEF-7-0.20

140 120 100 80 60 40 20 0 20 40 60 80 100

TOTAL SECTION BACK

Ahead With Sta. 201 Right

Ahead With Sta. 201 Left

℄ RAMP

℄ WEIGH STA.

83 Ahead W/ 201 L.

94 Ahead W/ 201 R.

178 Back W/ ℄

670 660 650 640

F-1232 F-678 F-770

8:1 8:1 8:1 8:1 3:1 3:1 4:1 4:1 2:1

C-20 C-20

649.0 663.1 647.7

Back

40 2680

665.10
200+00
651.2

1889

143 9891

F-1219 F-1442

8:1 8:1 8:1 3:1 3:1 4:1 4:1 2:1

C-18 C-19

162

648.7 647.4

37 2661

664.74
199+00
650.4

1806

124 9794

F-1249 F-1379

8:1 8:1 3:1 3:1 4:1 2:1

C-10 C-20

163

648.1 647.1

30 2628

664.38
198+00
650.0

1828

115 9600

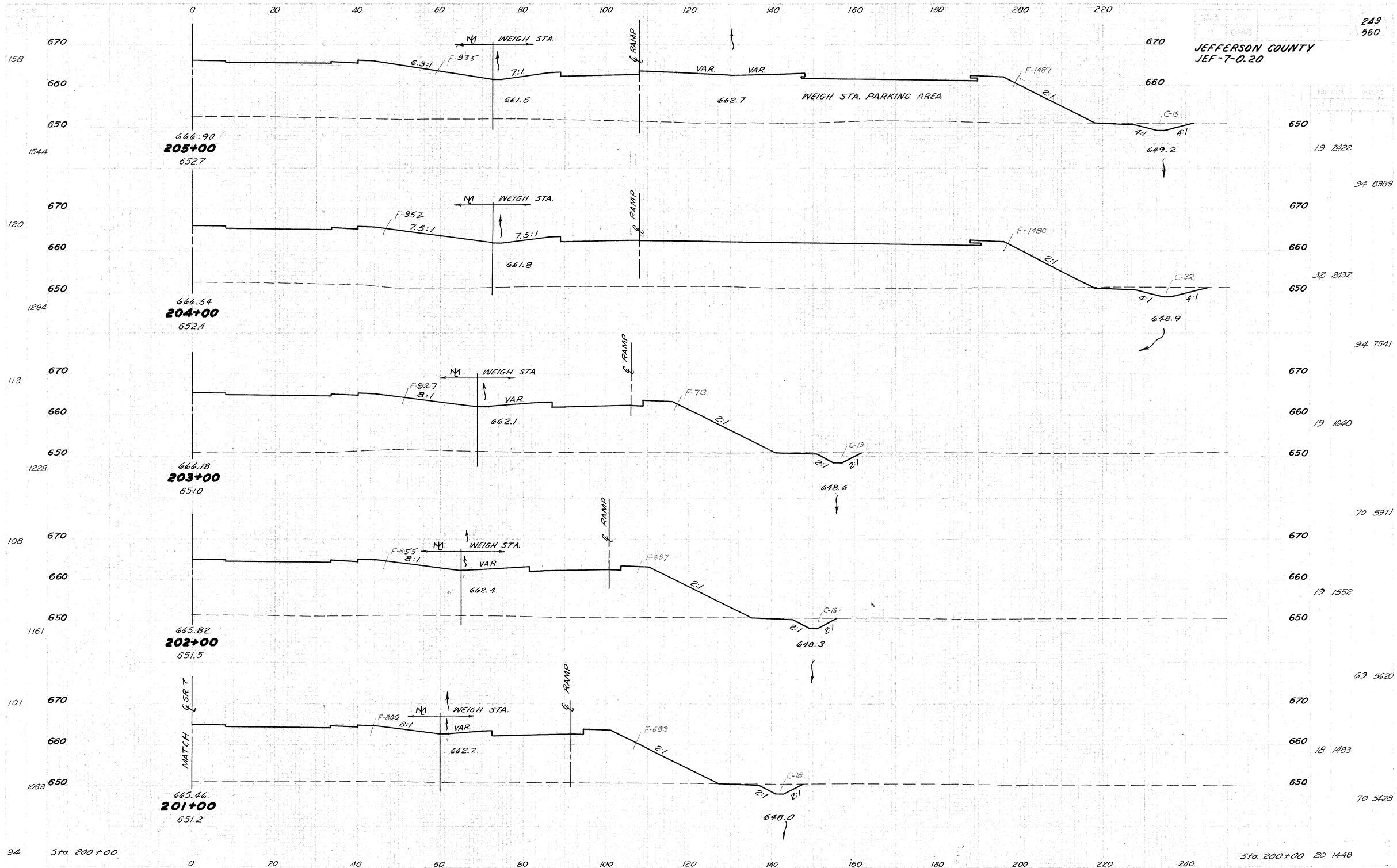
166 Sta. 197+00

Sta. 197+00 32 2556

140 120 100 80 60 40 20 0 20 40 60 80 100 120 140

198+00 to 200+00

BY	DATE
EXISTING PLOTTED	7/15/96
EXISTING CHECKED	11-6-96
TENTATIVE DESIGN	11-22-96
DESIGN REVISED	12-2-96
PLANS DETERMINED	12-2-96
PLANS CHECKED	12-2-96



201+00 to 205+00 (RIGHT)

240 220 200 180 160 140 120 100 80 60 40 20 0

88 944

670 660 650

R.R. R/W

C-18 4:1 4:1 2:1

652.0

RAMP

WEIGH STA NJ

F-639 5:1 5:1 F-663

664.8

670 660

666.90

205+00

652.7

82 828

670 660 650

R.R. R/W

C-15 4:1 4:1 2:1

651.0

RAMP

WEIGH STA NJ

F-582 6:1 6:1 F-634

665.0

666.54 ✓

204+00

652.4

67 756

670 660 650

R.R. R/W

C-15 4:1 4:1 2:1

650.6

RAMP

F-1144

666.18

203+00

651.0

69 822

670 660 650

R.R. R/W

C-18 4:1 3:1

650.2

RAMP

F-1131

665.82

202+00

651.5

79 900

670 660 650

R.R. R/W

201+50, 115.5' Lt
Inv. 15" 650.50
Type HW-4 H.W.

28'-15" Type "B" Cl "B"
47'-15" Type "F"
Type HW-4 Headwall

3:1 8:1 8:1 3.2:1

650.61

Ft. 650.0

C-16 4:1

649.8

201+50, 41.7' Lt
Std. N° 6 C. Basin
Grate: 664.90
Inv. 15" 661.13

28'-15" @ 1.00%
Inv. 660.85

F 1256

665.46

201+00

651.2

83 Sta. 200+00

240 220 200 180 160 140 120 100 80 60 40 20 0

DATE	BY	
5-11	DLT	EXISTING PLOTTED
2-22	DLT	EXISTING REVISED
2-22	DLT	TEMPLATE REVISED
2/19/08	DLT	TEMPLATE PLOTTED
11-26-08	DLT	TYPES CHECKED
11-26-08	ALL	TYPES DETERMINED
11-26-08	DLT	LINE CHECKED

250
560

JEFFERSON COUNTY
JEF-7-0.20

650

18 1302

G1 4663

670 660 650

15 1216

650

G1 4213

670 660 650

18 1131

650

G3 4420

670 660 650

16 1256

650

G7 4607

Sta. 200+00 20 1232

201+00 to 205+00(LEFT)

JEFFERSON COUNTY
JEF - 7-0.20

PROFILE 12"
STA. 209+54 TO 210+26.5

0 20 40 60 80 100 120 140 160 180 200 220

670 / 660 / 650

668.70
210+00
658.3

209+28, 34' Lt Ramp "D"
Std N° 5 C.B.
Grate 660.03
Inv 6" Stub NE 658.25
Inv 21" 656.64
Inv 6" Und. 657.70

209+54, 24.5' Rt "D"
Std N° 2.2B C.B.
Grate 661.30
Inv 12" 658.28
Inv 21" 655.74

Ditch

72'-12" @ 1.7%, Type "C"

210+26.5, 27' Rt "B"
N° 2-2B C.B.
Grate: 662.50
Inv 12" 659.50

668.34
209+00
657.6

64'-21" @ 1.40%
Type "B"

67'-21" @ 1.40%
Type "B"

Inv 21" 654.77

Conc. Collar

209+54, 123' Rt "D"
Inv 21" 650.9
Type HW-4 Headwall
130' Rt

1.5' R.C.P (Type B)
3.0 C.Y.

Inv 21"
651.13

33'-21" Type "F"

667.98
208+00
657.2

667.62
207+00
654.4

667.26
206+00
653.5

N.B. WEIGH STATION

WEIGH Sta.

RAMP

F-739
F-642
F-787
F=899
F-917
F-985
F-1205
F-1233
F-1291
F-1370

3:1
4:1
4.5:1
5.5:1
6:1
8:1
9:1
10:1
2:1
VAR.

661.4
660.3
660.6
660.9
661.2
661.5
661.8
662.1
662.4
650.7
650.1
649.8
649.5

2.5' Min.
12" Min.

C-19
C-10
C-14
C-20

158 Sta. 205+00

206+00 to 210+00(RIGH

JEFFERSON COUNTY
JEF - T-0.20

240 220 200 180 160 140 120 100 80 60 40 20 0

670 / 660 / 650

105 1133 99 1139 106 1172 105 1100 93 1006

R.R. R/W RAMP WEIGH STA. NB

C-30 2:1 4:1 4:1 661.5 6:1 F-369 F-563 9:1 665.8

668.70 **210+00** 658.3

C-10 2:1 4:1 4:1 660.5 10:1 F-335 F-526 666.2

668.34 **209+00** 657.6

C-23 2:1 4:1 4:1 657.0 11:1 F-515 F-562 11:1 665.7

667.98 **208+00** 657.2

C-23 2:1 4:1 4:1 654.0 10:1 F-695 9:1 F-689 665.3

667.62 **207+00** 654.4

C-14 2:1 4:1 4:1 653.0 8:1 F-637 8:1 F-671 664.9

667.26 **206+00** 653.5

205+75.46.5 Lt "A"
Inv 12" 653.20
Type HW-A Headwall lt 652.7

2.5 Min. 2:1 22' @ 1.0% 653.40 6:1 5:1 660.68
44'-12" @ 2.0 %
36'-12" Type "F"

205+75, 31.5' Rt Ramp "A"
Std. N° 5 C.B.
Grate: 664.60
Inv. 12" 661.60
Inv. 6" 661.89

88 Sta. 205+00

Sta. 205+00 ℄ 18 1302

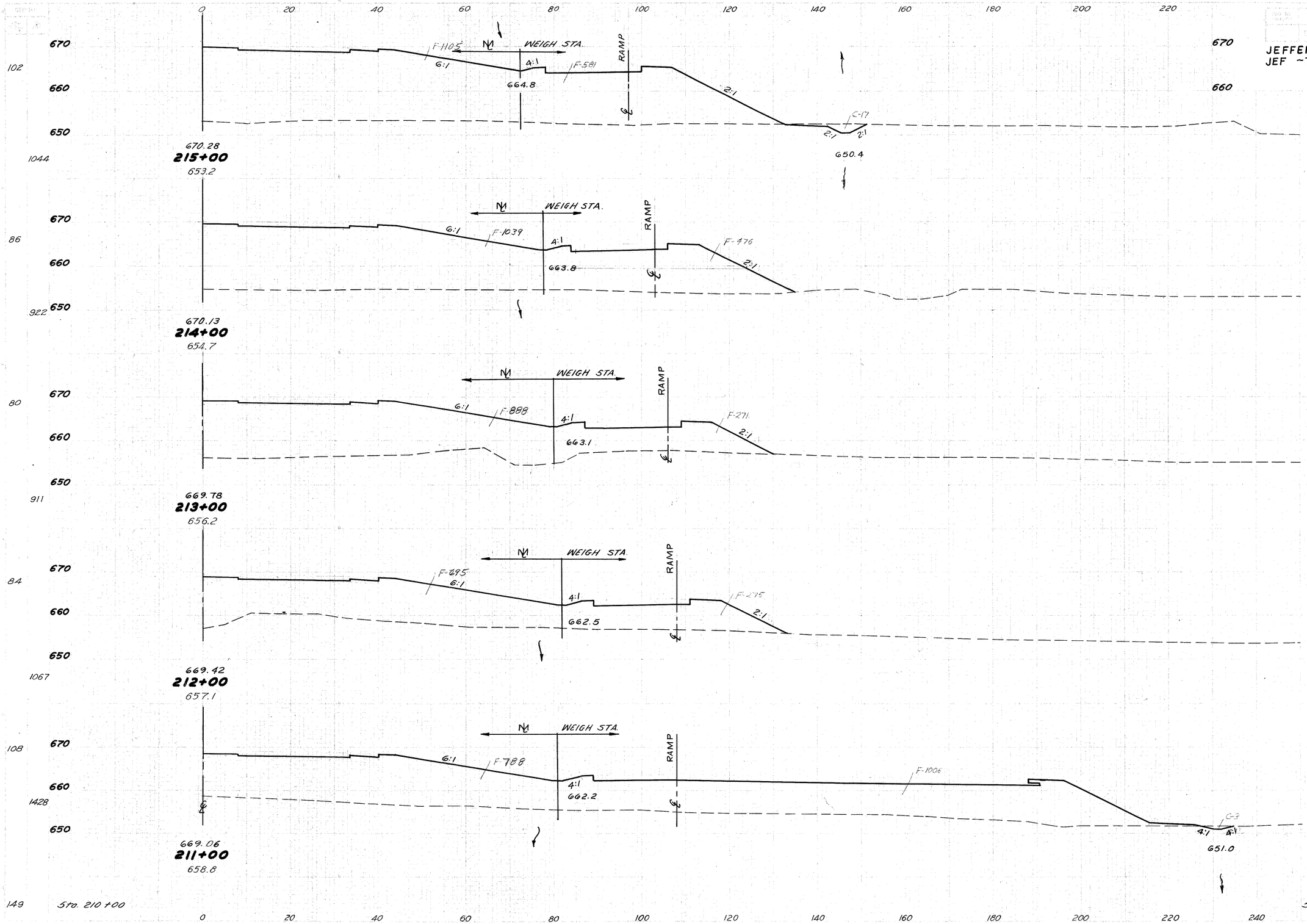
206+00 to 210+00 (LEFT)

252
560

650
30 932
74 3331
670
660
10 867
650
668.34
209+00
657.6
61 3600
670
23 1077
660
650
667.98
208+00
657.2
96 4465
670
29 1334
660
650
667.62
207+00
654.4
80 4893
670
14 1308
660
650
667.26
206+00
653.5
59 4833

EXISTING PLOTTED			
EXISTING CHECKED			
TEMPLATE PLOTTED			
TEMPLATE CHECKED			
AREAS DETERMINED			
1-H.S CHECKED			
TONS DETERMINED			
TONS CHECKED			

JEFFERSON COUNTY
JEF -7-0.20



	BY	DATE
EXISTING PLOTTED		
EXISTING CHECKED		
TEMPLATE APPLIED		
TEMPLATE CHECKED		
AREAS DETERMINED		
AREAS CHECKED		
SECOND DETERMINED		
SECOND CHECKED		

JEFFERSON COUNTY
JEF -7-0.20

240 220 200 180 160 140 120 100 80 60 40 20 0

147 1567 135 1450 126 1344 116 1044 72 983 105

670 660 650

R/W R.R. C-11 2:1 4:1 4:1 655.5 668.1 F-1177 RAMP WEIGH STA. NB 6:1 F-525 F-1021 8.5:1 666.2

670.28 215+00 653.2

R/W R.R. C-10 2:1 4:1 658.0 9:1 9:1 F-906 RAMP WEIGH STA. NB 5:1 F-916 F-885 7.5:1 667.8 665.8

670.13 214+00 654.7

R/W R.R. C-10 2:1 4:1 661.0 212+75, 134' Lt. NB Std. N° 2.2B C. Basin Grate: 667.90 Inv. 12" 664.90 667.5 RAMP WEIGH STA NB 4.3:1 F-354 F-777 7:1 665.4

669.78 213+00 656.2

R/W R.R. C2 2:1 664.0 212+00, 134' Lt. NB Std. N° 2.2B C. Basin Grate: 668.00 Inv. 12" N&E 664.95 212+00, 69' Lt. NB Std. N° 5 C. Basin Grate: 665.00 Inv. 12" 662.50 Inv. 15" 662.25 Inv. G. Stub 663.00 RAMP WEIGH STA NB 4:1 F-563 7:1 F-458 65'-18" @ 3.00% 665.0 21'-15" @ 19% To prop. 84" Conduit Connect with 84"x15" Tee ℄ Prop. 84"

669.42 212+00 657.1

R/W R.R. RAMP WEIGH STA. NB 5:1 F-474 8:1 F-531 HEADWALL 665.4

669.06 211+00 658.8

Sta. 210+00

240 220 200 180 160 140 120 100 80 60 40 20 0

254 560

650

11 2724

39 9132

670

660

10 2207

650

37 7283

670

10 1726

660

650

22 5272

670

2 1121

660

G 3529

650

Sta. 211+15 (Some Area as 212+00) 2 1121

0 591

670

0 1005

660

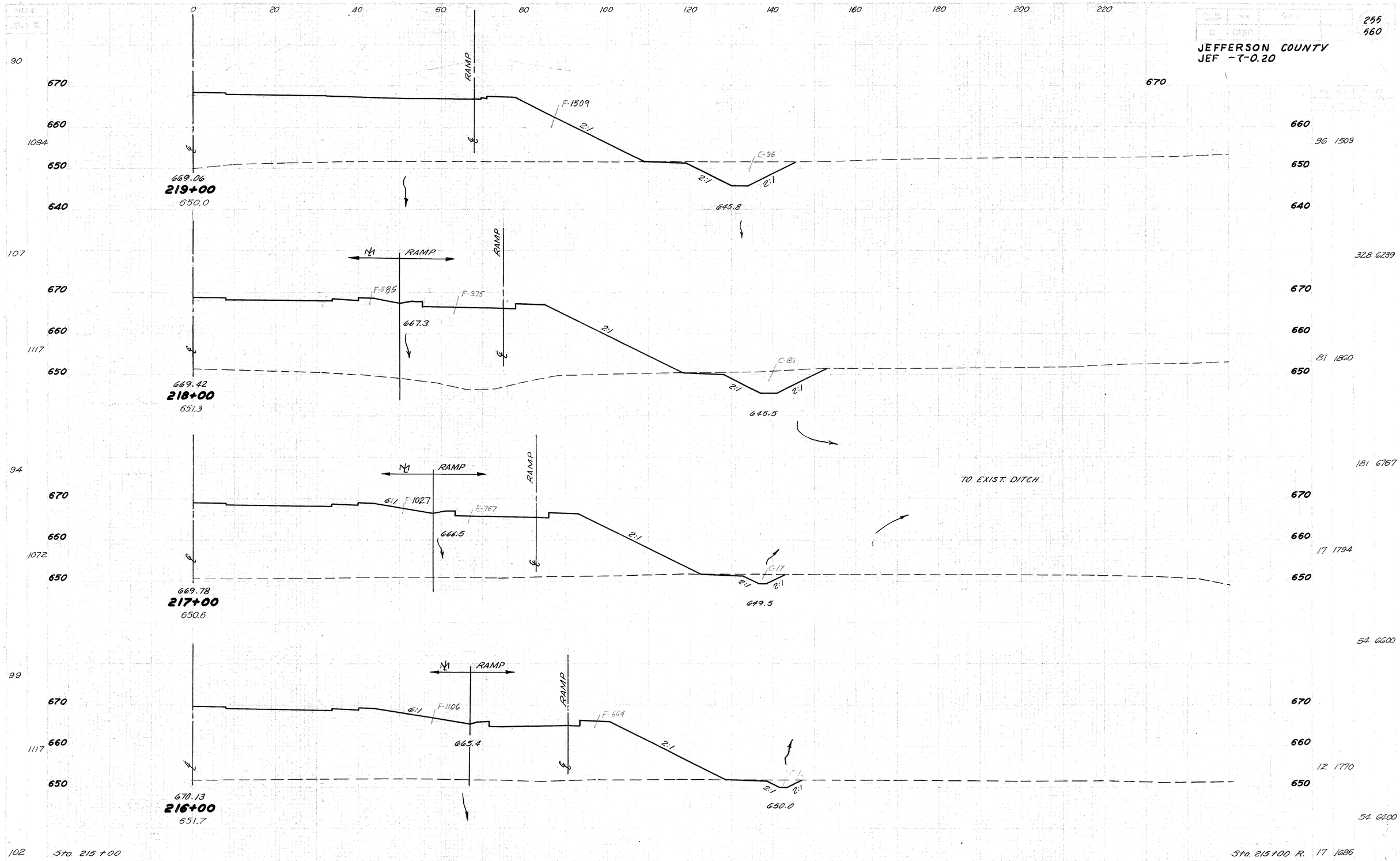
650

5G 3587

Sta. 210+00 C. 30 932

211+00 to 215+00 (LEFT)

	DATE
EXISTING PLOTTED	5-31
EXISTING CHECKED	
TEMPLATE PLOTTED	
TEMPLATE CHECKED	
AREAS DETERMINED	6-14
AREAS CHECKED	6-28
SECOND DETERMINATION	11-28-84
SECOND CHECKED	11-29-84



JEFFERSON COUNTY
JEF -7-0.20
255
560
RAMP
F-1509
2:1
C-96
669.06
219+00
650.0
645.8
F-685
F-975
667.3
C-81
669.42
218+00
651.3
645.5
F-1027
F-767
666.5
C-17
669.78
217+00
650.6
649.5
F-1106
F-664
665.4
670.13
216+00
651.7
650.0
TO EXIST. DITCH
Sta. 215+00
Sta. 215+00 R.
216+00 to 219+00 (RIGHT)

256
560

JEFFERSON COUNTY
JEF -7-0.20

240 220 200 180 160 140 120 100 80 60 40 20 0

670 / 660 / 650 / 640

125

RAMP

WEIGH STA. NB

10:1

F-1203

F-1174

667.0

C-11

2:1

4:1 4:1

650.0

669.06
219+00
650.0

660 / 650

11 2377

640

1394

670 / 660 / 650

126

RAMP

WEIGH STA. NB

F-2302

10.5:1

F-1125

667.4

WEIGH STA. PARKING AREA

2:1

C-15

4:1 4:1

651.0

669.42
218+00
651.3

48 10748

670 / 660 / 650

15 3427

1600

670 / 660 / 650

162

RAMP

WEIGH STA. NB

F-2161

8:1

12:1

F-1194

667.0

668.7

WEIGH STA. PARKING AREA

2:1

C-18

4:1 4:1

652.0

669.78
217+00
650.6

61 12559

670 / 660 / 650

18 3355

1756

R.R. R/W

670 / 660 / 650

154

RAMP

WEIGH STA. NB

F-1983

6:1

9:1

F-1145

666.6

668.4

WEIGH STA. PARKING AREA

2:1

C-14

4:1 4:1

654.0

670.13
216+00
651.7

59 12006

670 / 660 / 650

14 3128

1672

147 Sta. 215+00

46 10837

Sta. 215+00 ℄ 11 2724

216+00 to 219+00 (LEFT)

	BY	DATE
EXISTING PLOTTED		
EXISTING PROFILE		
TEMPLATE PLOTTED		
TEMPLATE CHECKED		
AREAS DETERMINED	CNL	7-25-68
AREAS CHECKED	RW	10-4-68
VOLUME DETERMINED	RWC	11-27-68
SLIDING CHECKED	VPM	

JEFFERSON COUNTY
JEF -7- 0.20

257
560

0 20 40 60 80 100 120 140 160 180 200 220

77 670 660 650 856

F-1200 2:1 C-36 2:1 2:1

667.26
224+00
650.5

647.3

670 660 650

36 1200

77 670 660 650 878

F-1253 2:1 C-44 2:1 2:1

667.62
223+00
650.2

647.0

670 660 650

148 4543
44 1253

81 670 660 650 911

F-1319 2:1 C-52 2:1 2:1

667.98
222+00
650.7

646.7

670 660 650

178 4763
52 1319

83 670 660 650 944

F-1350 2:1 2.5' Min C-68 2:1 2:1

220+98, Rt. ℄
Std. N° 6 C.B.
Grate; 667.66
Inv. 12" 663.97
Inv. 15" 663.72

27'-15"@1.0% Type B
54'-15" Type F
2-15" 30° Bends

Inv. 663.45

Inv. 647.08

18'-15"@10%

221+03, 61.5' Rt.
Inv. 15" 646.90
HW-4 Endwall

1.5' R.C.P.

668.34
221+00
651.1

646.4

670 660 650

222 4943
68 1350

87 670 660 650 983

F-1397 2:1 C-88 2:1 2:1

668.70
220+00
651.4

646.1

670 660 650 640

289 4994
88 1347
341 5289

90 Sta. 219+00 R. 0 20 40 60 80 100 120 140 160 180 200 220 240 Sta. 219+00 R. 96 1509

220+00 to 224+00 (RIGHT)

	BY	DATE
DRAWING PLOTTED		
DRAWING CHECKED		
TEMPLATE PLOTTED		
TEMPLATE CHECKED		
AREAS DETERMINED	SMS	7-25-95
VOLUMES CHECKED	RLH	7-27-95
SECOND DETERMINED		
SECOND CHECKED		

JEFFERSON COUNTY
JEF -7-0.20

240 220 200 180 160 140 120 100 80 60 40 20 0

670 / 660 / 650

74

C-28 — 4:1 — 4:1 — 648.0

2:1 — F-1361

667.26
224+00
650.5

800

258
560

2B 1361

65 5454

70

C-7 — 4:1 — 4:1 — 648.5

2:1 — F-1584

667.62
223+00
650.2

7 1584

933

50 6206

98

C-20 — 4:1 — 4:1 — 649.1

2:1

WEIGH STA. NB — F-932 — 8:1 — 8:1 — F-935

666.2

667.98
222+00
650.7

20 1767

1144

WEIGH STA. NB
221+06, 34' Rt. Ramp "B"
Std. N° 5 C. Basin
Grate; 666.00
Inv. 12" 662.14
Inv. 6" N. 662.71
Inv. 6" S. 662.39

41 6926

108

221+06, 39' Lt. "B"
Inv. 12" 649.90
Type HW-A Headwall

C-2 — 649.4 — 20'-@ 1.0%

12" Min. — 2.5 Min. — 2:1

Conc. Collar — 50'-12" @ 1.6% — Inv. 649.62

F-1056 — 8:1 — 8:1 — F-917

Inv. 661.34 — 666.0

50'-12" Type "B"
46'-12" Type "T"

668.34
221+00
651.1

2 1973

1250

11 7839

117

C-4 — 4:1 — 4:1 — 649.7

2:1

WEIGH STA. NB — F-1240 — 10:1 — 10:1 — F-1020

666.5

668.70
220+00
651.4

4 2260

1344

28 8587

125 Sta. 219+00 ℄

Sta. 219+00 ℄ 11 2377

240 220 200 180 160 140 120 100 80 60 40 20 0

220+00 to 224+00 (LEFT)

DATE	BY	
5-66		GEOMETRIC PROFILES
12-66		SCREENING CHECKED
10-7-68	BW	FINAL SIZE PLOTTED
1-27-69	HLO	TRANSLATE CHECKED
2-12-69		INPUT TAPE PREPARED
		P.T. CHECKED
		FINAL PLOTTING APPROVED
		READY FOR STRIPPING

JEFFERSON COUNTY
JEF-7-0.20

259
560

140 120 100 80 60 40 20 0 20 40 60 80 100

160 | 1822 | 168 | 1883 | 171 | 1889 | 169 | 1778 | 151 | 1683 | 152

670 / 660 / 650

F-1021 F-1113 F-1152 F-1232 F-1247 F-1247 F-1360 F-1273 F-1303 F-1208

8:1 3:1 4:1 2:1

C-10 C-15 C-15 C-10 C-8

C-19 C-20 C-18 C-26 C-29

650.0 649.7 649.4 649.1 648.5

665.46 **229+00** 651.6

665.82 **228+00** 651.1

666.18 **227+00** 651.0

666.54 **226+00** 650.7

666.90 **225+00** 650.6

650.5 649.5 649.1 648.7 648.3

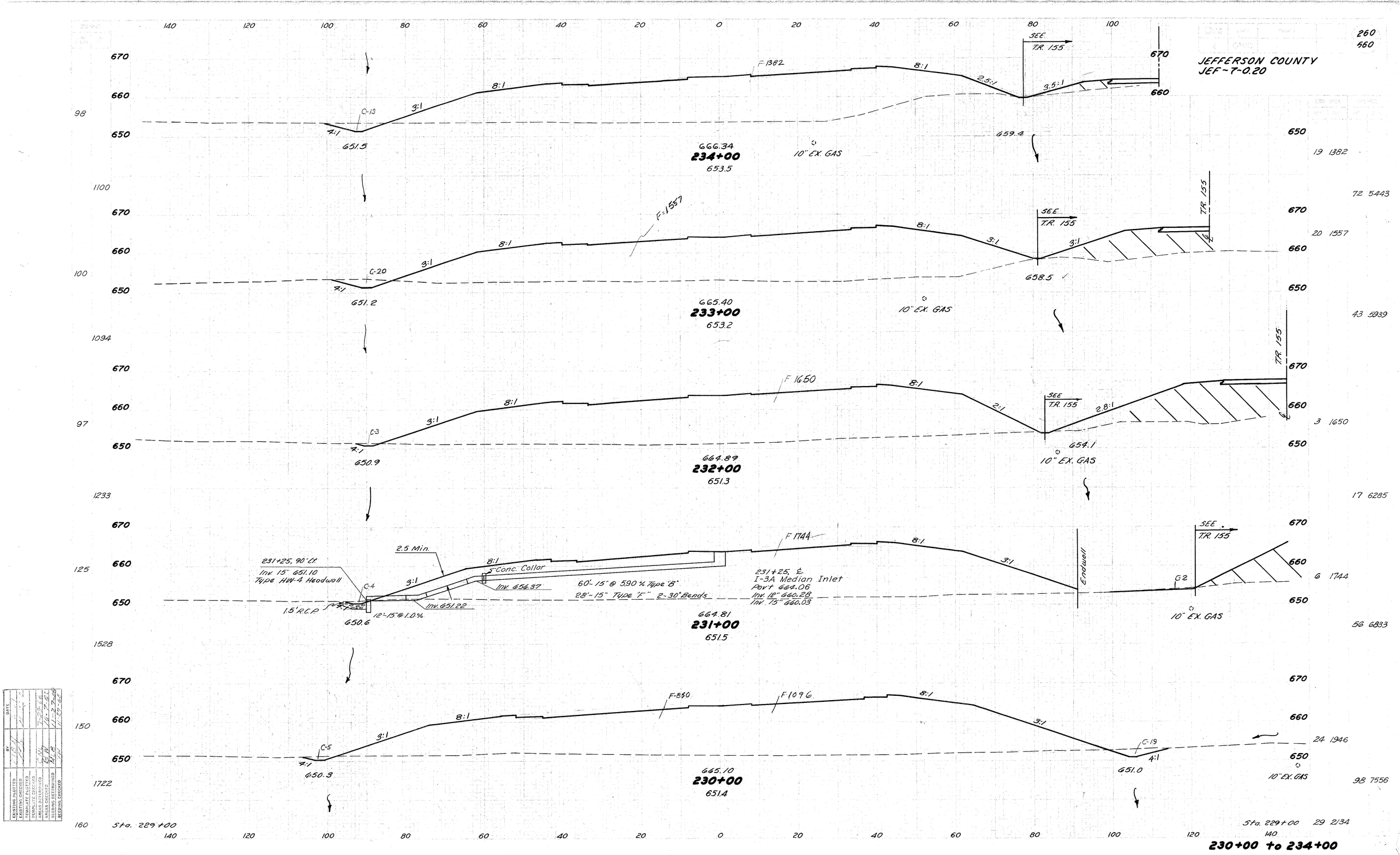
29 2134
119 8367
35 2384
126 9033
33 2494
128 9494
36 2633
135 9526
37 2511
187 9393
64 2561

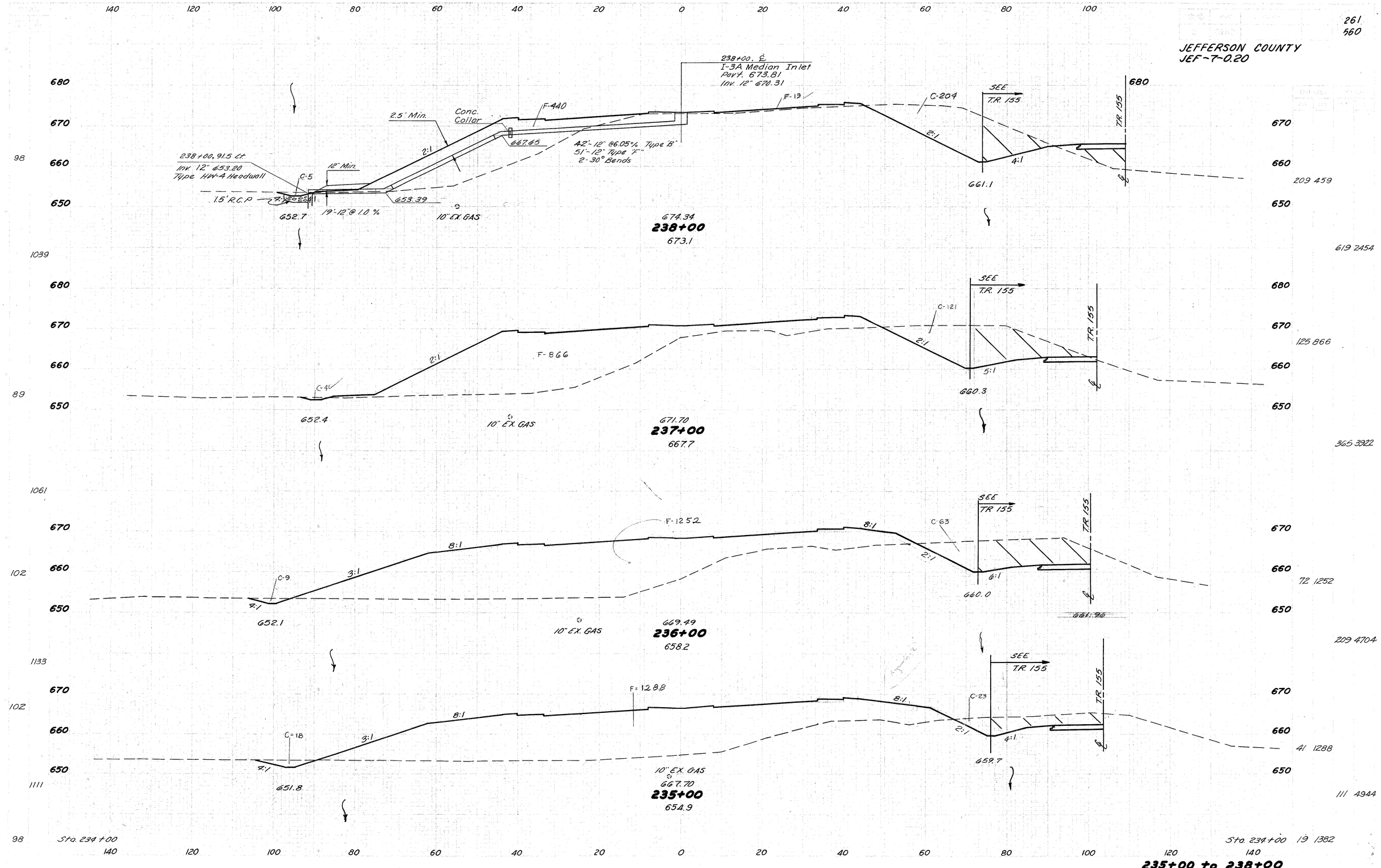
	SITE	SITE	SITE
BY			
EXISTING PLOTTED			
EXISTING CHECKED			
TEMPLATE PLOTTED			
TEMPLATE CHECKED			
AREAS CHECKED			
SEEDING DETERMINED			
SEEDING CHECKED			

3 to. 224+00 R.t.L.

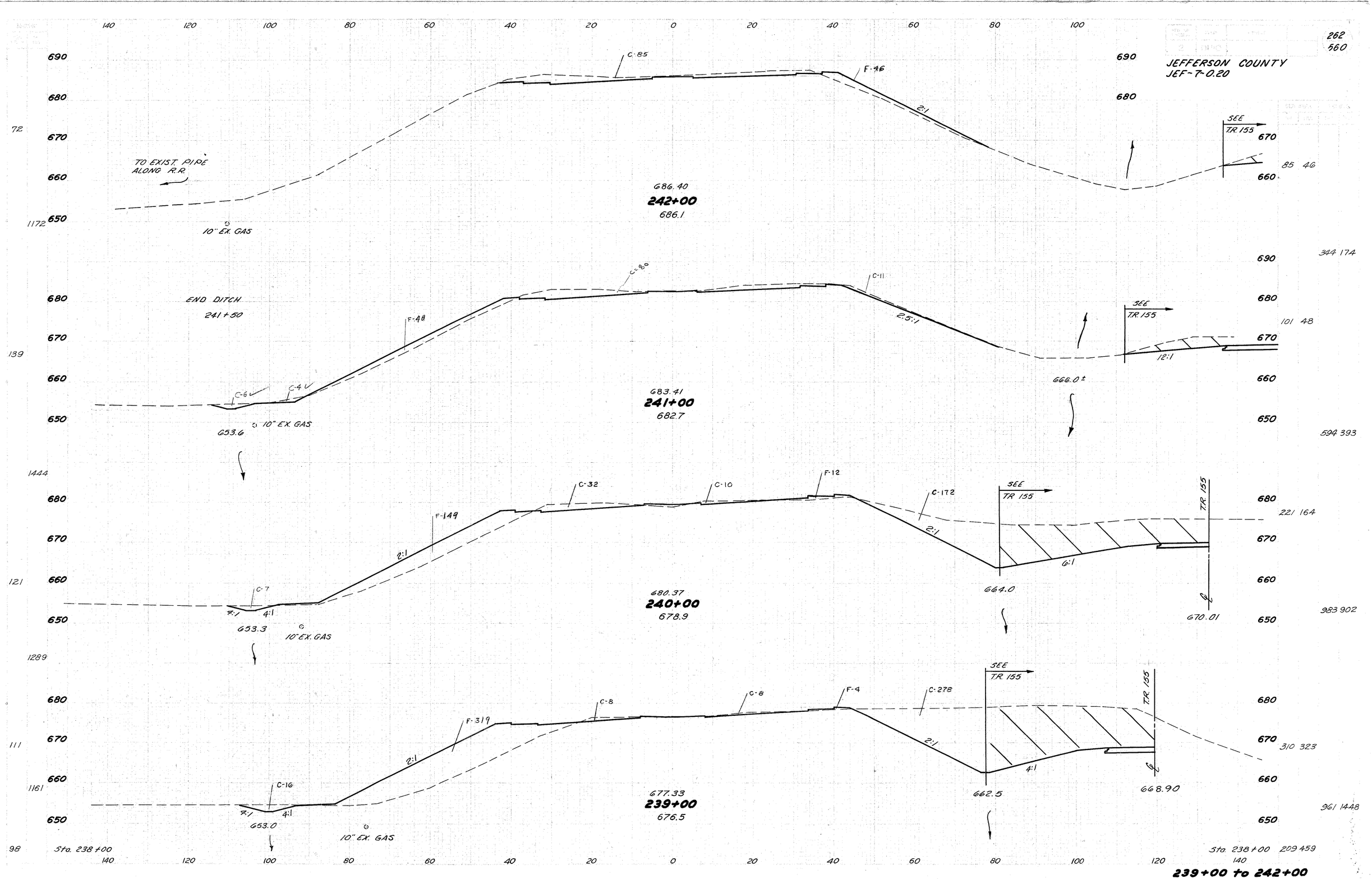
3 to. 224+00 R.t.L.

225+00 to 229+00

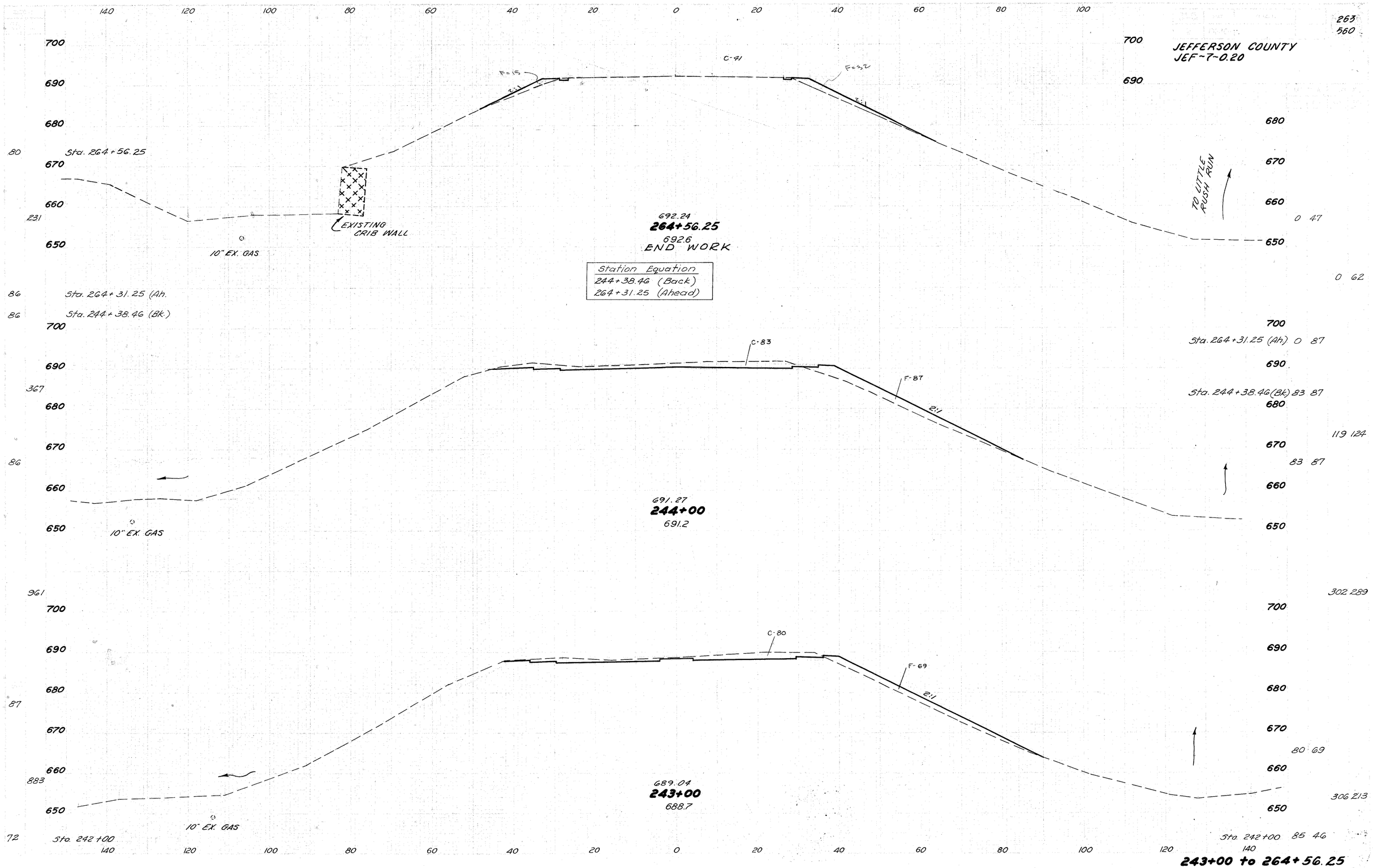

JEFFERSON COUNTY
JEF-7-0.20
SEE T.R. 155
F 1382
8:1
3:1
2.5:1
3.5:1
C-13
4:1
651.5
659.4
666.34
234+00
653.5
10" EX. GAS
19 1382
72 5443
F-1557
C-20
651.2
658.5
665.40
233+00
653.2
20 1557
43 5939
F 1650
C-3
650.9
654.1
664.89
232+00
651.3
3 1650
17 6285
F 1744
2.5 Min.
231+25, 90' Lt.
Inv. 15" 651.10
Type HW-4 Headwall
C-4
1.5' R.C.P.
650.6
12'-15" @ 1.0%
Inv. 651.22
Conc. Collar
Inv. 656.37
60'-15" @ 5.90% Type "B"
28'-15" Type "F" 2-30° Bends
231+25, ℄
I-3A Median Inlet
Pav't 664.06
Inv. 12" 660.28
Inv. 15" 660.03
Endwall
C-2
664.81
231+00
651.5
6 1744
56 6833
F-850
F 1096
C-5
650.3
C-19
651.0
665.10
230+00
651.4
24 1946
98 7556
Sta. 229+00
29 2134
230+00 to 234+00

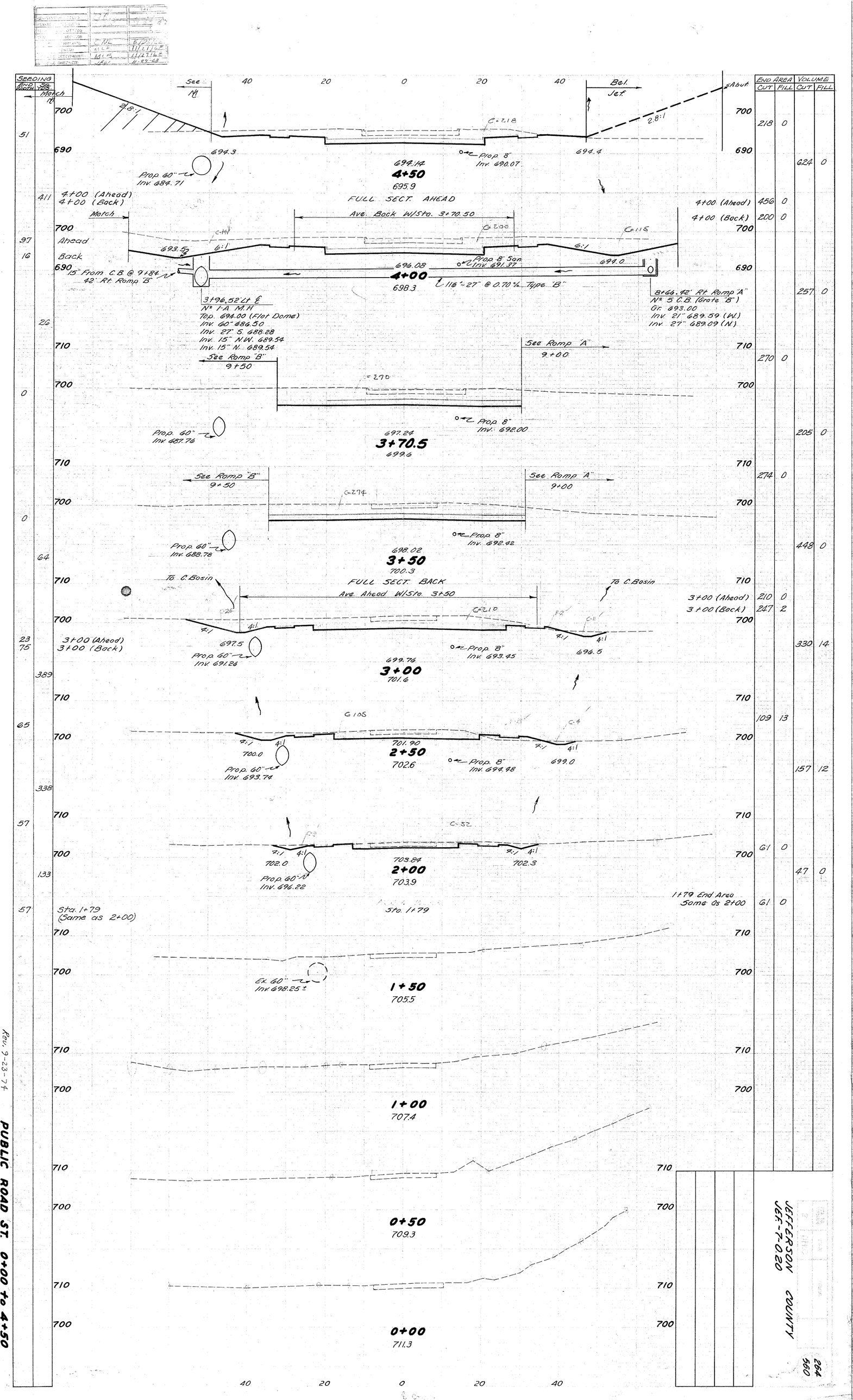


JEFFERSON COUNTY
JEF-7-0.20
238+00, ℄
I-3A Median Inlet
Part. 673.81
Inv. 12" 670.31
238+00, 91.5 Lt.
Inv. 12" 653.20
Type HW-4 Headwall
1.5' R.C.P.
2.5' Min.
Conc. Collar
12" Min.
19'-12" @ 1.0 %
42'-12" @ 6.05% Type "B"
51'-12" Type "F"
2-30° Bends
10" EX. GAS
SEE T.R. 155
T.R. 155
674.34
238+00
673.1
671.70
237+00
667.7
669.49
236+00
658.2
667.70
235+00
654.9
Sta. 234+00
235+00 to 238+00

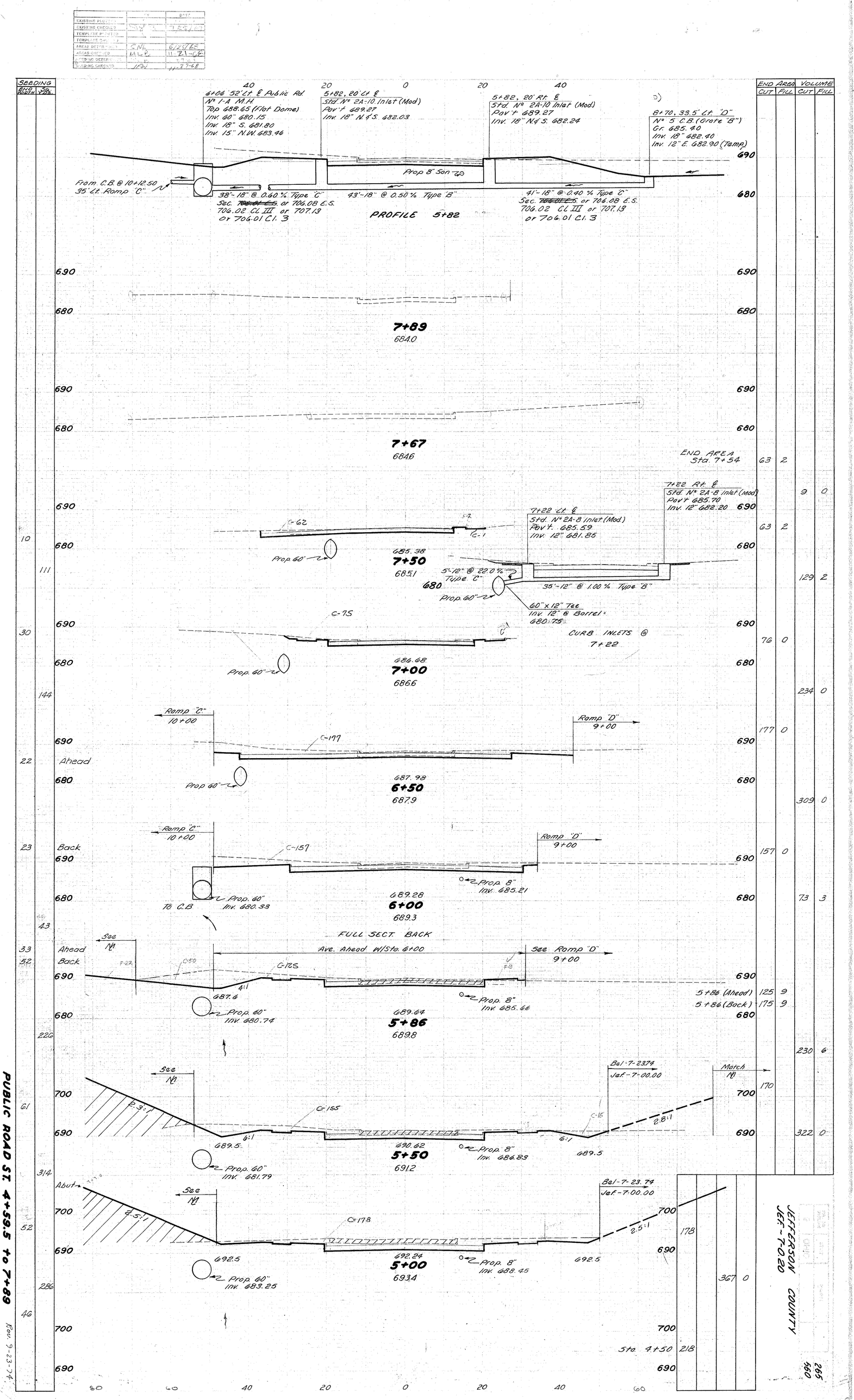


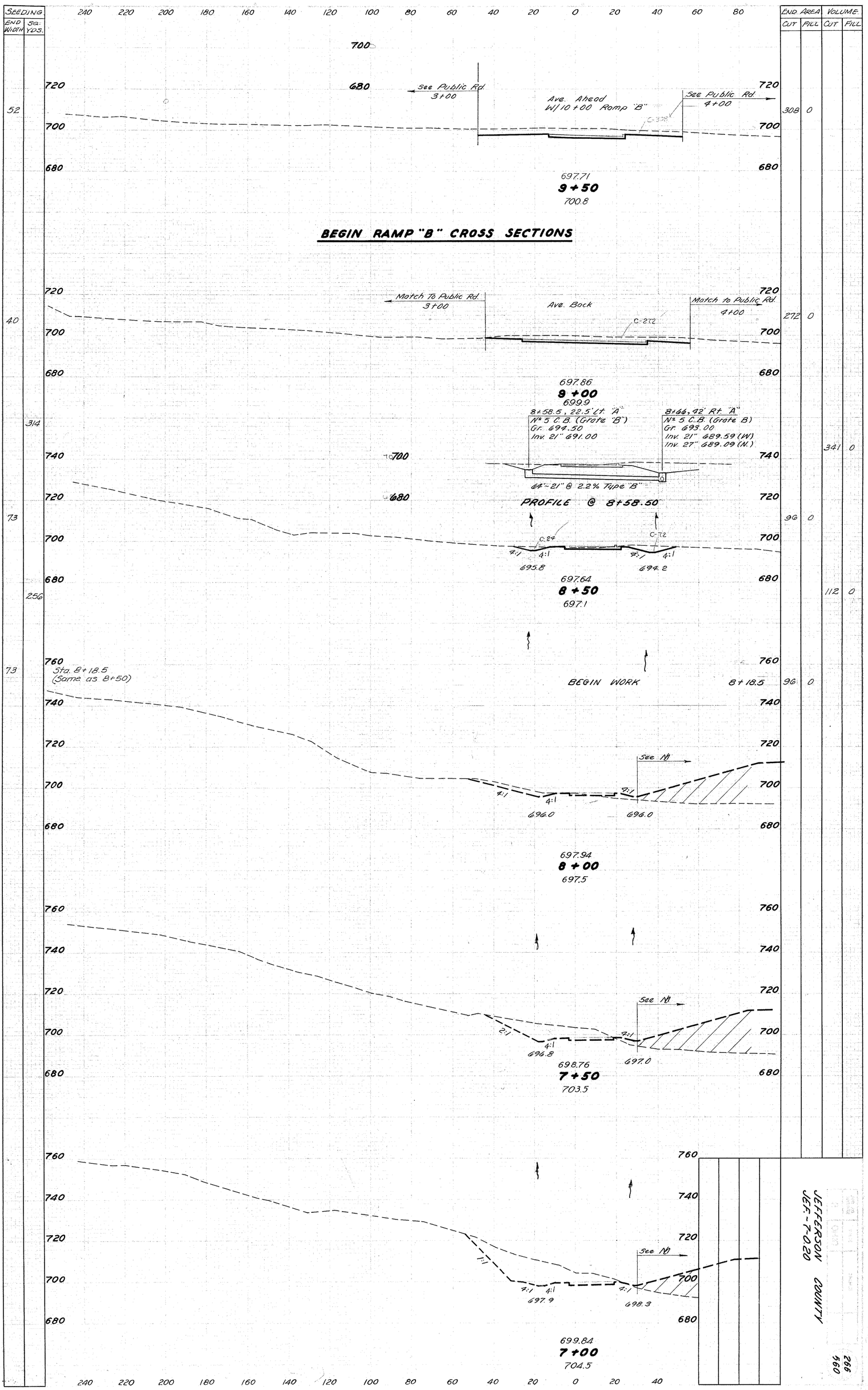
JEFFERSON COUNTY
JEF-7-0.20
262
560
TO EXIST. PIPE ALONG R.R.
10" EX. GAS
C-85
F-46
2:1
SEE T.R. 155
85 46
686.40
242+00
686.1
72
1172
END DITCH
241+50
C-80
C-11
F-48
2.5:1
12:1
C-6
C-4
683.41
241+00
682.7
666.0±
653.6
344 174
101 48
594 393
1444
C-32
C-10
F-12
C-172
F-149
2:1
6:1
C-7
4:1
653.3
680.37
240+00
678.9
664.0
670.01
221 164
983 902
1289
C-8
F-4
C-278
F-319
C-16
4:1
653.0
677.33
239+00
676.5
662.5
668.90
310 323
961 1448
98
Sta. 238+00
Sta. 238+00
209 459
239+00 to 242+00


JEFFERSON COUNTY
JEF-7-0.20
Sta. 264+56.25
EXISTING CRIB WALL
10" EX. GAS
692.24
264+56.25
692.6
END WORK
Station Equation
244+38.46 (Back)
264+31.25 (Ahead)
TO LITTLE RUSH RUN
Sta. 264+31.25 (Ah.
Sta. 244+38.46 (Bk.)
Sta. 264+31.25 (Ah) 0 87
Sta. 244+38.46(Bk) 83 87
691.27
244+00
691.2
10" EX. GAS
689.04
243+00
688.7
10" EX. GAS
Sta. 242+00
Sta. 242+00 85 46
243+00 to 264+56.25

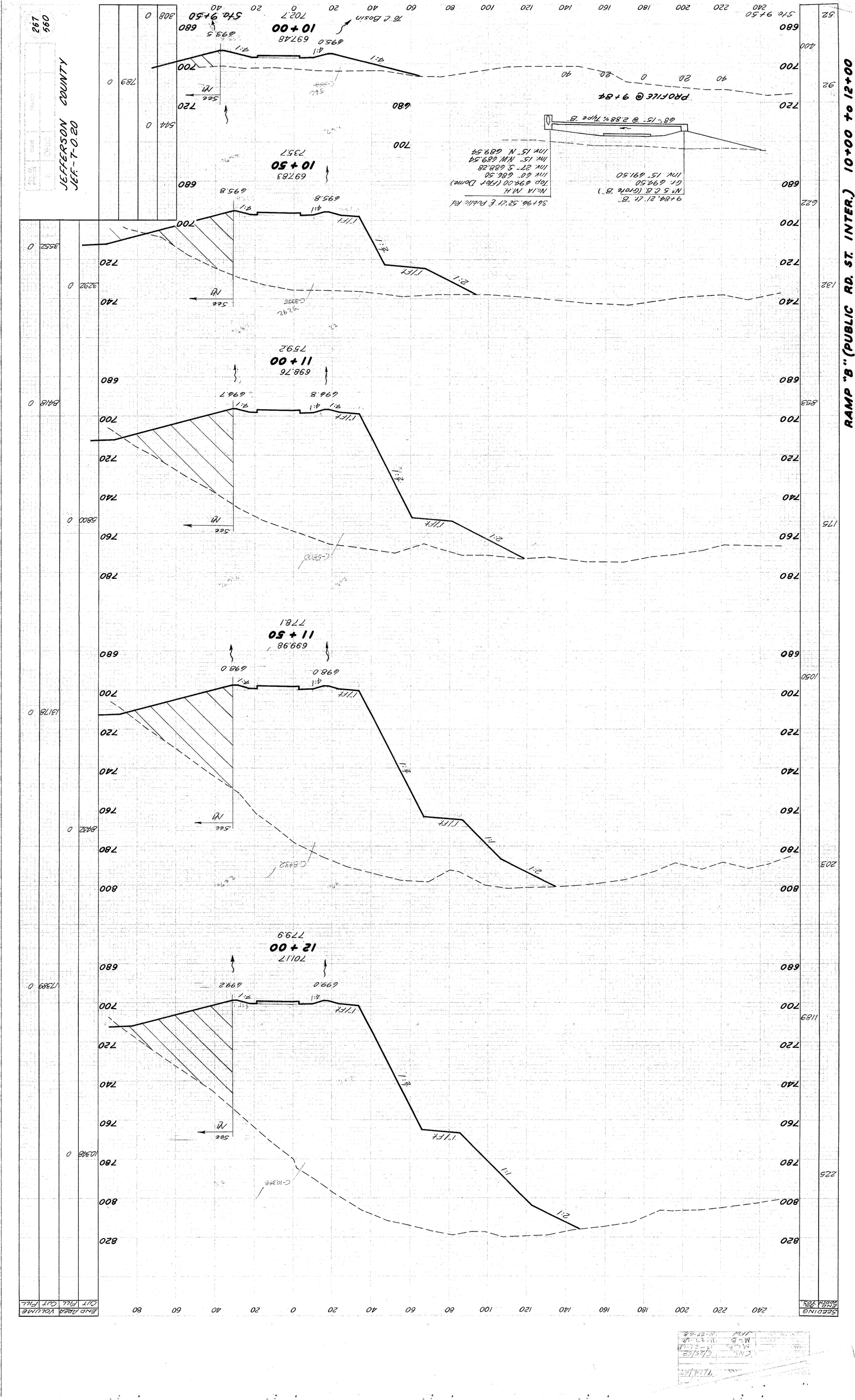

SEEDING AND MULCH
Match
See M
40 20 0 20 40
Bal. Jct.
Abut.
END AREA CUT FILL
VOLUME CUT FILL
700
690
710
2:1
C=2.18
694.3
694.4
Prop. 60" Inv. 684.71
Prop. 8" Inv. 690.07
694.14
4+50
695.9
FULL SECT. AHEAD
4+00 (Ahead) 4+00 (Back)
Ave. Back W/Sta. 3+70.50
Ahead
Back
C=2.00
C=1.15
693.5
6:1
696.08
694.0
Prop. 8" San Inv. 691.37
15" From C.B. @ 9+84.42" Rt. Ramp "B"
4+00
698.3
℄ 116'-27" @ 0.70% Type "B"
8+66.42' Rt. Ramp "A" No. 5 C.B. (Grate "B") Gr. 693.00 Inv. 21" 689.59 (W.) Inv. 27" 689.09 (N.)
3+96.52 Lt ℄ No. 1-A M.H. Top. 694.00 (Flat Dome) Inv. 60" 686.50 Inv. 27" S. 688.28 Inv. 15" NW. 689.54 Inv. 15" N. 689.54
See Ramp "B" 9+50
See Ramp "A" 9+00
C=2.70
Prop. 60" Inv. 687.76
Prop. 8" Inv. 692.00
697.24
3+70.5
699.6
C=2.74
Prop. 60" Inv. 688.78
Prop. 8" Inv. 692.42
698.02
3+50
700.3
To C. Basin
FULL SECT. BACK
Ave. Ahead W/Sta. 3+50
C=2.10
C=2.6
F-2
C-11
4:1
697.5
696.5
Prop. 60" Inv. 691.26
Prop. 8" Inv. 693.45
699.76
3+00
701.6
3+00 (Ahead) 3+00 (Back)
C=1.08
C-4
700.0
699.0
701.90
2+50
702.6
Prop. 60" Inv. 693.74
Prop. 8" Inv. 694.48
C=.52
C-3
702.0
702.3
703.84
2+00
703.9
Prop. 60" Inv. 696.22
Sta. 1+79 (Same as 2+00)
1+79 End Area Same as 2+00
Ex. 60" Inv. 698.25±
1+50
705.5
1+00
707.4
0+50
709.3
0+00
711.3
4+00 (Ahead) 456 0
4+00 (Back) 200 0
3+00 (Ahead) 210 0
3+00 (Back) 247 2
218 0
270 0
274 0
109 13
61 0
624 0
257 0
205 0
448 0
330 14
157 12
47 0
51
411
97
16
26
0
64
23
75
389
65
338
57
133
JEFFERSON COUNTY JEF-7-020
264
560
Rev. 9-23-74
PUBLIC ROAD ST. 0+00 to 4+50

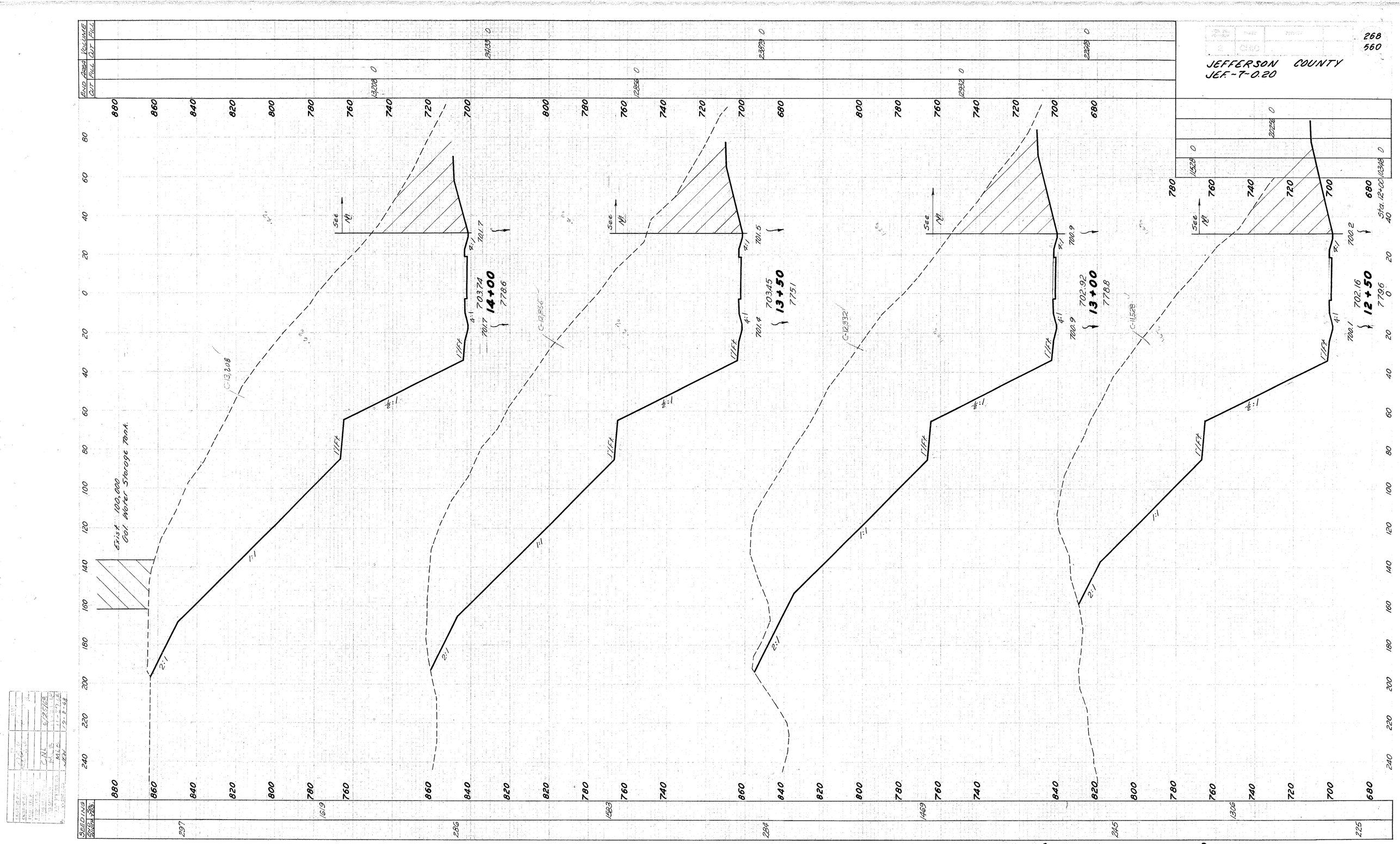
	BY	DATE
EXISTING PROFILE		
EXISTING CROSS SECTIONS	MLC	7-27-72
TEMPLATE PROFILE		
TEMPLATE CROSS SECTIONS		
AREAS DETERMINED	CNL	6/28/72
AREAS CHECKED	MLC	11-21-72
GRADING DETERMINED		7-7-72
GRADING CHECKED	MLC	11-27-72





SEEDING
END WIDTH
SQ. YDS.
END AREA
CUT
FILL
VOLUME
CUT
FILL
See Public Rd. 3+00
Ave. Ahead W/10+00 Ramp "B"
See Public Rd. 4+00
C-308
697.71
9+50
700.8
BEGIN RAMP "B" CROSS SECTIONS
Match To Public Rd. 3+00
Ave. Back
Match to Public Rd. 4+00
C-272
697.86
9+00
699.9
8+58.5, 22.5' Lt. "A"
Nº 5 C.B. (Grate "B")
Gr. 694.50
Inv. 21" 691.00
8+66, 42' Rt. "A"
Nº 5 C.B. (Grate B)
Gr. 693.00
Inv. 21" 689.59 (W)
Inv. 27" 689.09 (N.)
64'-21" @ 2.2% Type "B"
PROFILE @ 8+58.50
C-24
C-72
4:1
695.8
694.2
697.64
8+50
697.1
Sta. 8+18.5 (Same as 8+50)
BEGIN WORK
8+18.5
See N1
696.0
697.94
8+00
697.5
2:1
696.8
697.0
698.76
7+50
703.5
1:1
697.9
698.3
699.84
7+00
704.5
RAMP "A" (PUBLIC RD. ST. INTER.) 7+00 to 9+00 & RAMP "B" (PUBLIC RD. ST. INTER.) 9+50
JEFFERSON COUNTY
JEF.-7-0.20
266
560


RAMP "B" (PUBLIC RD. ST. INTER.) 10+00 to 12+00
JEFFERSON COUNTY
JEF-7-0.20
10 + 00
697.48
702.7
693.5
695.0
PROFILE @ 9+84
9+84.21' LT. "B"
Gr. 694.50
Inv. 15" 691.50
Top 695.00 (Fiber Dome)
Inv. 27" 688.28
Inv. 15" NW 689.54
Inv. 15" N. 689.54
68'-15" @ 2.88% Taper "B"
10 + 50
697.83
735.7
695.8
11 + 00
698.76
759.2
696.8
696.7
11 + 50
699.98
778.1
698.0
12 + 00
701.17
779.9
699.2
699.0
1:1 FF
4:1
2:1
Slope
M
C-3335
C-5530
C-8432
C-10345
SEEDING
AND
MULCH
SQ. YDS.
CUT
FILL
AREA
CUT
FILL
VOLUME



RAMP "B" (PUBLIC RD. ST. INTER.) 12+50 to 14+00

FED. ROAD	STATE	PROJECT	
2	OHIO		

270
560

JEFFERSON COUNTY
JEF.-7-0.20

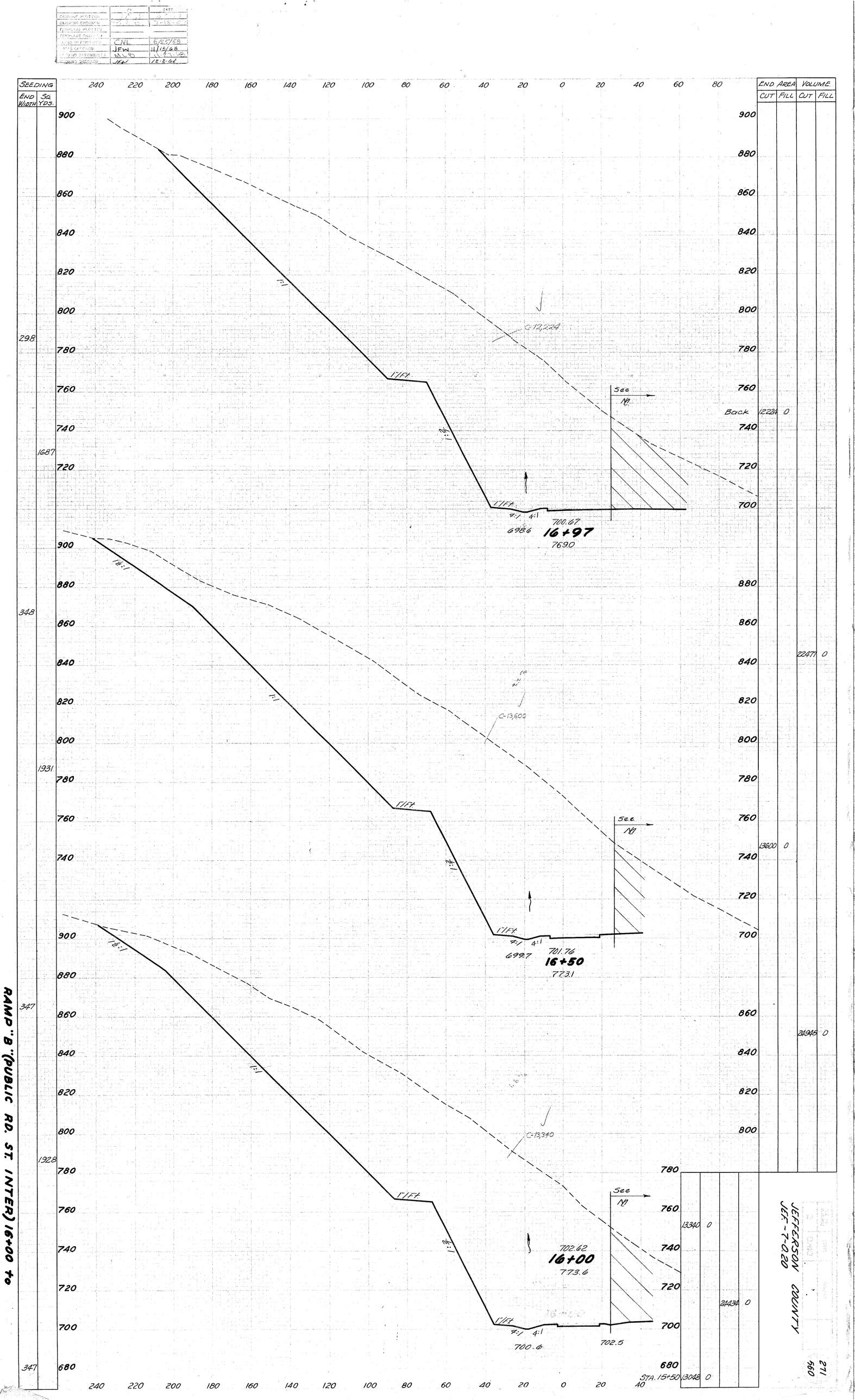
END AREA	VOLUMES
CUT / FILL	CUT / FILL
0 / 13348	0 / 24481
0 / 13382	0 / 23363
0 / 11840	0 / 23193

	BY	DATE
EXISTING PLOTTED	CJS	6-2-03
CROSS SECTIONS	JDH	11-25-03
FIELD CHECK	C.W.L.	5/26/03
OFFICE CHECK	M.L.B.	11-7-03
FINAL CHECK	M.L.B.	11-21-03
PLANS DETAILED	M.L.B.	11-21-03
PLANS CHECKED	JDH	12-8-03

Notch line

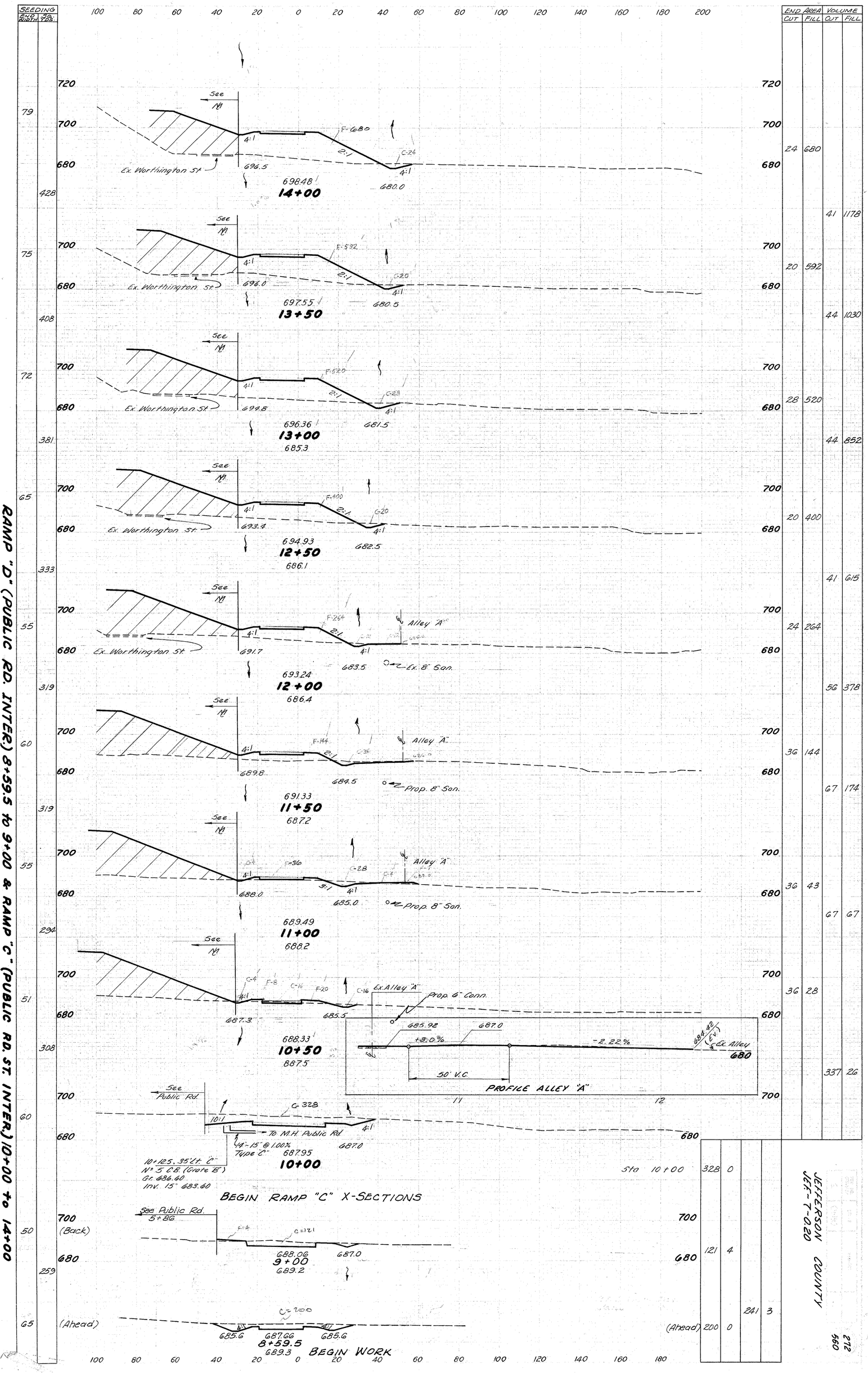
Notch line

RAMP "B" (PUBLIC RD. ST. INTER.) 14+50 to 15+50



SEEDING
END WIDTH
SQ. YDS.
END AREA
VOLUME
CUT
FILL
298
1687
348
1931
347
1928
347
Back 12224 0
22477 0
13600 0
24945 0
13340 0
24434 0
STA. 15+50 13048 0
C-12,224
C-13,600
C-13,340
1:1
1½:1
1"/Ft.
4:1
See No.
700.67
698.6
16+97
769.0
701.76
699.7
16+50
773.1
702.62
16+00
773.6
700.6
702.5
JEFFERSON COUNTY
JEF.-7-0.20
RAMP "B" (PUBLIC RD. ST. INTER) 16+00 to

	BY	DATE
EXISTING PLOTTED		
EXISTING CHECKED		
SPLITS PLOTTED		
TEMPLATE CHECKED		
AREAS DETERMINED	C.N.L.	5/22/68
AREAS CHECKED		
SEEDING DETERMINED	MLK	12-27
SEEDING CHECKED	JFL	12-2-68



DESIGNED	BLC	4/26/68		
DRAWN	JEW	11-15-68		
CHECKED	LWB	11-26-68		
QUANTITIES CHECKED	LWB	12-2-68		

| | | | |

140 120 100 80 60 40 20 0 20 40 60 80 100

820 810 800 790 780 770 760 750 740 730 720

130

672

112

311

0 0

Sta. 4+50

JEFFERSON COUNTY
JEF.-7-0.20

274
560

620 132

751 261

281 134

260 124

Corrected Length Cut 45'

Corrected Length Fill 53'

1:1

1'/Ft.

4:1

4:1

731.9

C-610

F-2

C-10

F-130

2:1

784.9

734.32
5+50
7340

Centroid of Cut

Centroid of Fill

C-264

F-4

C-17

F-3

F-127

739.3

741.64
5+00
741.7

728.8

748.0

4+50
749.7

EXISTING PLOTTED							
EXISTING CHECKED							
TEMPLATE PLOTTED							
TEMPLATE CHECKED							
AREAS PLOTTED							
AREAS CHECKED							
SYDING DETERMINED							
SECTIONS CHECKED							

T.R. 109 RELOC. 4+50 to 5+50

JEFFERSON COUNTY
JEF.-7-0.20

140 120 100 80 60 40 20 0 20 40 60 80 100

820 810 800 790 780 770 760 750 740 730 720 710

288

1378

208

939

130

1:1

1½:1

1½:1

1½

276
560

JEFFERSON COUNTY
JEF.-7-0.20

140 120 100 80 60 40 20 0 20 40 60 80 100

820 810 820 790 780 770 760 820 810 800 790 780 770 760 750 740 730 720 710

274

Match 80 Lt.

C-5247
C-4245

Centroid of Cut

705.07
7+50
785.8

1:1

1'/Ft.

4:1 4:1 Var.

703.3

248

1450

1:1

1'/Ft.

1489

C-3857
C-4750

Centroid of Cut

712.36
7+00
768.7

1:1

1'/Ft.

4:1 4:1 Var.

710.0

288 Sta. 6+50

706.3

See N1

200 190 180 170 160 150 140 130 120 110 100 90 80

850 840 830 820 810 800 790 780 770 760 750 740 730 720 710 700

C-3255

1:1

1'/Ft.

Match 7+50, 80 Lt.

12747 0

Corrected Length 50' 18847 0

7607 0

Corrected Length 41' 9535 0

Sta. 6+50 4951 0

140 120 100 80 60 40 20 0 20 40 60 80 100 120 140

T.R. 109 RELOC. 7+00 to 7+50

EXISTING PLOTTED			
EXISTING CHECKED			
TEMPLATE PLOTTED			
TEMPLATE CHECKED	CNC	Coates	
AREAS CALCULATED			
VOLUMES DETERMINED	WCR		1-27-72
VOLUMES CHECKED			2-2-72
	EDL		

JEFFERSON COUNTY
JEF-7-0.20

277
560

96

1144

316

1639

274

2615 0

7276 0

13801 0

28515 0

12747 0

Sta. 7+50

Centroid of Cut

692.55
8+50
7432

C.B. 8+59
Grate 688.50

Match 180' Lt.

Var.

1'/Ft

1:1

4:1

690.0

4:1

2 Prop 12"

690.5

2:1

3:1

Abut

C-2361

C-4315

C-8156

C-4383

Centroid of cut

698.38
8+00
7722

695.5

8+00, 27.5' Rt.
℄ N° 5 C.B.
Inv. 12" 692.80, G.R. 695.50

4:1

4:1

696.9

Match 8+00, 140' Lt.

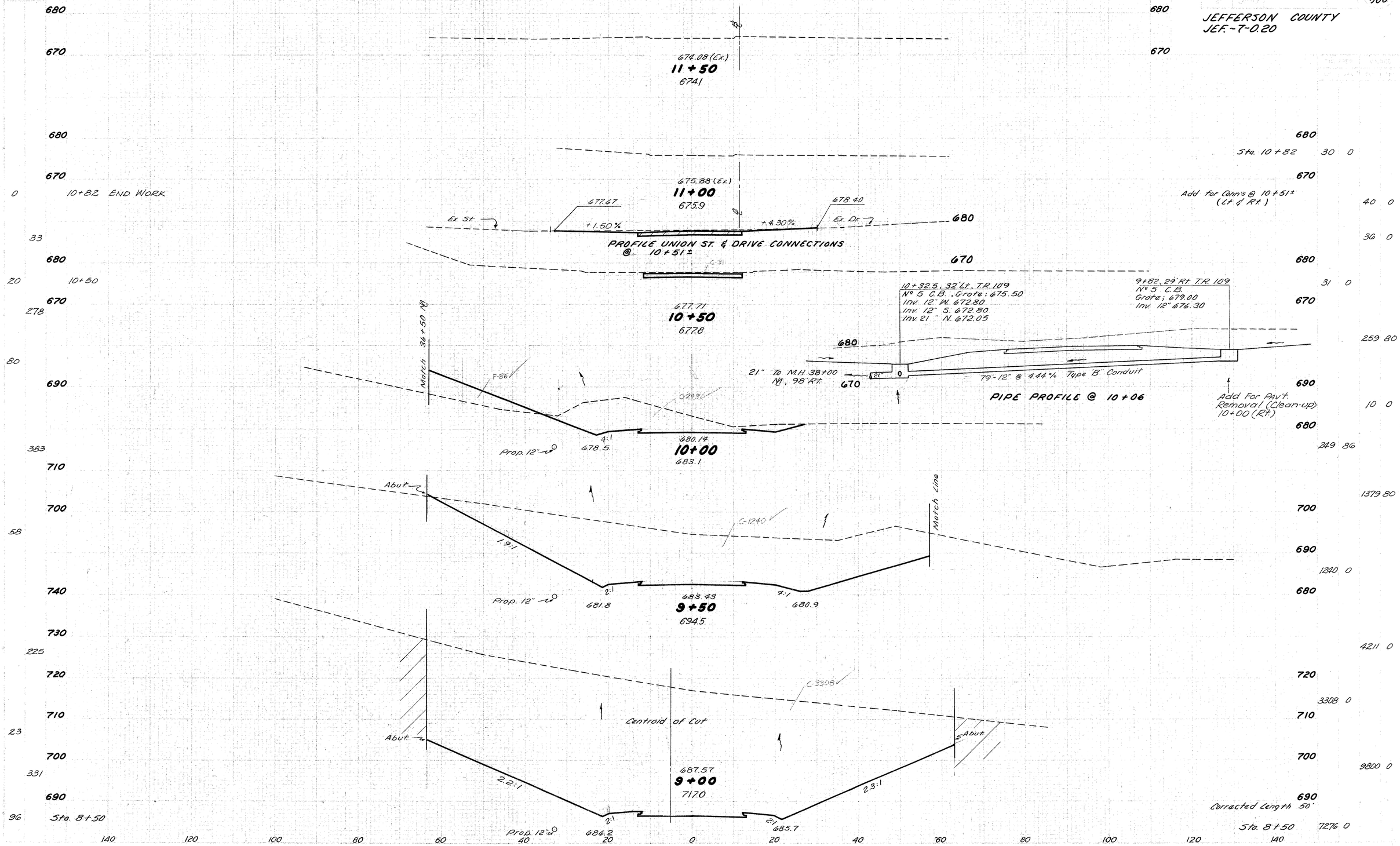
C-7262

Corrected length 67'

Corrected length 58'

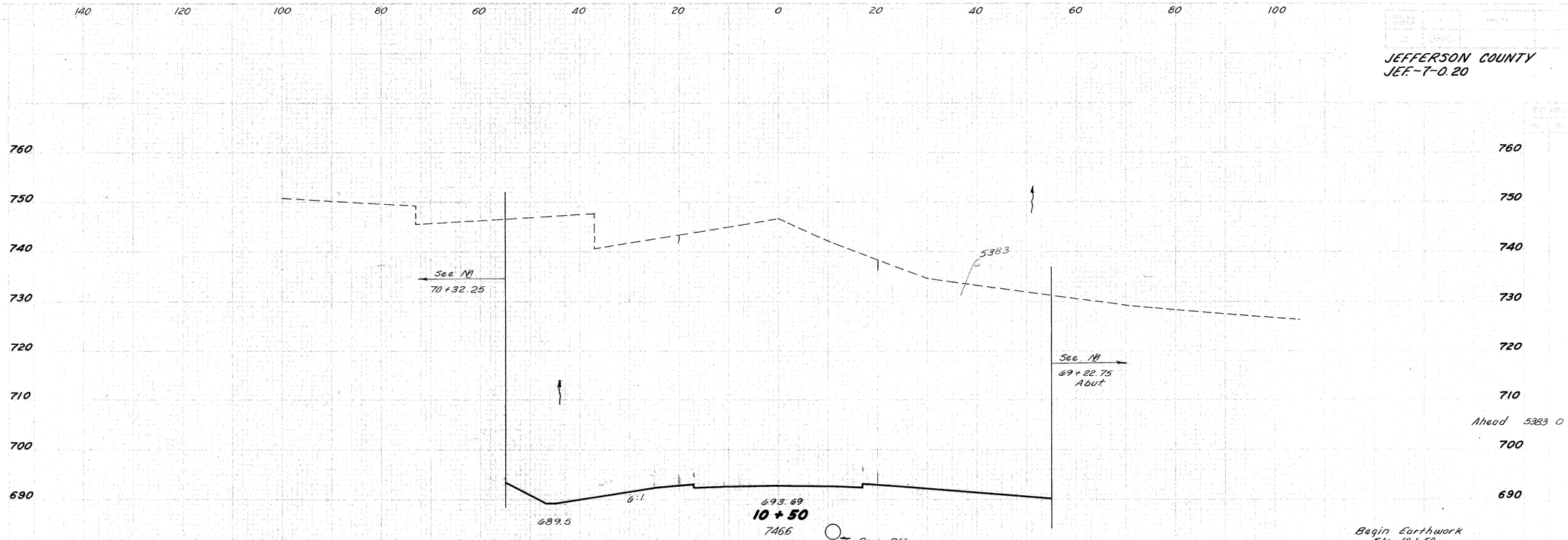
DRAWING PLOTTED		
DRAWING CHECKED		
TEMP. SITE PLOTTED		
TEMP. SITE CHECKED	SMW	12-15-88
AREAS CALCULATED	AJC	12-22-88
AREAS CHECKED	AJC	12-23-88
SIGNED AND SEALED		

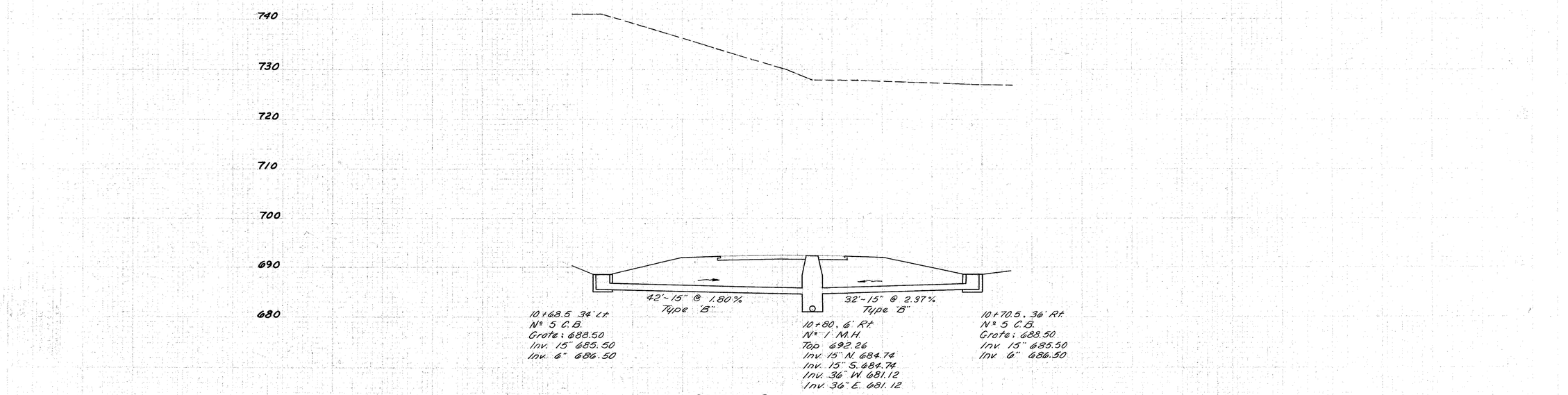
T.R. 109 RELOC. 8+00 to 8+50



T.R. 109 RELOC. 9+00 to 11+50

JEFFERSON COUNTY
JEF.-7-0.20





PROFILE @ 10+78±

FARM LANE 10+50

	BY	DATE
EXISTING PLOTTED		
EXISTING CHECKED		
TEMPLATE PLOTTED		
TEMPLATE CHECKED		
AREAS DETERMINED		
AREAS CHECKED		
GRADING DETERMINED		
GRADING CHECKED		

88

JEFFERSON COUNTY
JEF.-7-0.20

140 120 100 80 60 40 20 0 20 40 60 80 100

12+50 (Back) Only

See Ramp "C" 70+50

C-181

F-157

C-20

See N1 69+22.75

70+42, 32' Lt. "C"
N° 5 C.B.
Grate: 681.70
Inv. 15" S. 678.70

62'-15" @ 2.10%
Type "B"

45'-15" @ 3.10%
Type "B"

12+59.5, 9' Rt.
N° 1 M.H.
Top 685.10
Inv. 15" N. 677.40
Inv. 15" S. 677.40
Inv. 36" W. 674.37
Inv. 42" E. 673.87

69+50, 32' Lt. "D"
N° 5 C.B.
Grate: 681.70
Inv. 15" N. 678.70

To C.B.

685.61
12 + 50
681.1

See N1 70+32.25

See N1 69+22.75

C-747

F48

2.2:1

4:1

686.0

4:1

686.0

2.2:1

Prop. 36"

687.40
12 + 00
697.1

11+80 (Ahead)
11+80 (Back)

See N1

See N1

C-1485

Abut.

Abut.

1.9:1

2:1

2:1

687.9

687.9

2:1

Prop. 36"

689.22
11 + 50
707.3

11+00 (Ahead)
11+00 (Back)

See N1

See N1

C-2495

2.1:1

2:1

690.1

691.44
11 + 00
718.5

2:1

690.1

2.3:1

Prop. 36"

Sta. 10+50

Sta. 10+50

280
560

202 157

879 190

747 48

2067 44

1485 0

3685 0

2495 0

7295 0

5383 0

	BY	DATE
CADD/MS PROJECT'D		
CADD/MS CHECKED		
TEMP. LINE PROJ'D		
TEMP. LINE CHECKED	C.N.L.	5/26/98
X-SECS PLOTTED	J.F.W.	10-13-98
X-SECS CHECKED	M.L.G.	11-27-98
GRADES DETERMINED		12-2-98
GRADING CHECKED		

FARM LANE 11+00 to 12+50

JEFFERSON COUNTY
JEF-7-0.20

140 120 100 80 60 40 20 0 20 40 60 80 100

14+75.5, 51.5' Rt.
No. 2-28 C.B.
Grate 674.00
Inv. 12" N. 671.50

680

690 — 680 — 670

38'-12" @ 1.75%
Type "B"

46'-12" @ 1.50%
Type "B"

14+84.5 32' Lt.
Nº 2-28 C.B.
Grate; 675.60
Inv. 12" S. 672.24

14+82, 6' Rt.
Nº 1 M.H.
Top 677.17
Inv. 12" N. 671.57
Inv. 42" W. 699.07
Inv. 42" E. 699.07
Inv. 12" S. 670.81

Roller Rink

C-130

Fence

677.5

℄ Prop. 42"

676.0
Ex. 8" W.L.

690 — 680 — 670

130 0

20 10 0 10

PROFILE @ 14+82

678.04
14 + 50
679.8

56

319

207 0

Roller Rink

C-134

C-110

Fence

678.0

4:1 677.2

℄ Prop. 42"

Ex. 8" W.L.

690 — 680 — 670

94 0

59

4:1

4:1

Ex. 8" San.

88'-8" San. @ 2.4% Type "B" *

679.63
14 + 00
680.5

358

13+58, 59.5 Lt ±
San. Sewer Cleanout
Top 678.50 ±
Inv. Ex. 8" 670.42 ±

NOTE: * With Joints as per "706.11 or 706.12

13+66, 27.5' Rt. ±
Nº 1-A M.H. *
Top 678.75
Inv. Ex. 8" E. 668.19 ±
Inv. 8" N. 668.29 ±

660

105 140

690 — 680 — 670

20 0 20

PROFILE @ Sta. 13+64±

C-10

4:1

4:1

677.0

F-151

4:1

C-9

676.7

Ex. 17" Stm.

15'-12" Type "C"

50'-18" @ 0.50% Type "B"

Ex. 8" W.L.

Connect Ex. 12" W/Std. Conc. Collar

13+46.5 ±, 49.5 Lt.
Nº 5 C.B.
Grate; 677.00
Inv. 18" S. 674.00
Inv. 12" N. 674.50

681.60
13 + 50
678.3

13+48, 3.5' Rt.
Nº 1 M.H.
Top 681.63
Inv. 18" N. 673.75
Inv. 42" W. 671.75
Inv. 42" E. 671.75
Inv. 6" N. 677.22
Inv. 6" S. 676.86

690 — 680 — 670

19 151

70

311

Ramp Ditch 69+50

18 413

See Ramp "C" 70+50

F-235

See Ramp "D" 69+50

690 — 680 — 670

0 295

42

℄ Prop. 42"

683.62
13 + 00
680.4

187 419

Sta. 12+50 202 157

140 120 100 80 60 40 20 0 20 40 60 80 100 120 140

FARM LANE 13+00 to 14+50

JEFFERSON COUNTY
JEF-7-0.20

140 120 100 80 60 40 20 0 20 40 60 80 100

Ex. St. 672.03 Farm Lane

680 670

17+08
Profile Buckeye St. Conn.

Buckeye St. Conn. F-55 4:1

℄ Const. Ex. 6" W.L. Ex. 8" San.

660

15+83, 26.5' Lt. Top Rail 675.8
HW-E
Inv. 36" 671.40

15+71, 27.5' Rt.
HW-E
Inv. 36" 670.85

55'- 36" @ 1.00% Ex. 6" W.L.
Type "A" Conduit (706.02 or 706.08

670.84 Prop. 78"

17+00
667.9

PROFILE CULVERT
15+77.5

Add for Connection @ 17+08 20 0

Sta. 17+00 0 55

0 82

16+59.5

680 670 660

On W & L.E. R.R. F-6

℄ Const. ℄ Survey Ex. 6" W.L. Ex. 8" San.

16+50
672.7

Prop. 78"

16+59.5 (Ahead) 0 55

16+35, 20.5' Lt. ℄ Top Rail 673.7
HW-E
Inv. 15" 670.85

16+25, 25.5' Rt. ℄
HW-E
Inv. 15" 670.34

51'- @ 1.00%
Type "A" Conduit - 15" 706.01, 706.08 or 706.02
or 18" 707.05

PROFILE CULVERT
16+30.5

16+36.5 (Back) 14 5

680 670

To R.R. Ditch

R.R. Tracks F-5 C-4 C-10

4:1 4:1 679.0

℄ Const. Ex. 6" W.L. Ex. 8" San.

675.80
16+00
674.0

Prop. 78"

19 7

16+00 (Ahead) 14 5

15+90.5 (Back)

680 670 660

To R.R. Ditch

C-8 C-20 F-1 C-10

4:1 4:1 4:1 674.8

℄ Const. Ex. 8" W.L. 674.1 ℄ of Survey Ex. 8" San.

676.15
15+50
675.7

Prop. 78"

676.44 Ex. St. +1.76% C-20 -1.32% -6.28% -1.0% 673.0 Ex. St.

15+06
PROFILE WILLIAMS ST.
Connections (Lt. & Rt.)

Ex. 8" W.L. Prop. 42" Ex. 8" San.

15+90.5 (Back) 20 0

680 670 660

44 0

38 1

44 0

Add for Williams St. Connections

Add for Connections @ 15+06 175 0

690 680 670

Williams St. Conn. C-10 Williams St. Conn.

676.88
15+00
676.3

Ex. 8" W.L. Prop. 42" Ex. 8" San.

10 0

130 0

Sta. 14+50 130 0

140 120 100 80 60 40 20 0 20 40 60 80 100 120 140

FARM LANE 15+00 to 17+00

BY	DATE
LEW	10-17-68
MLB	11-22-68
LEW	12-6-68

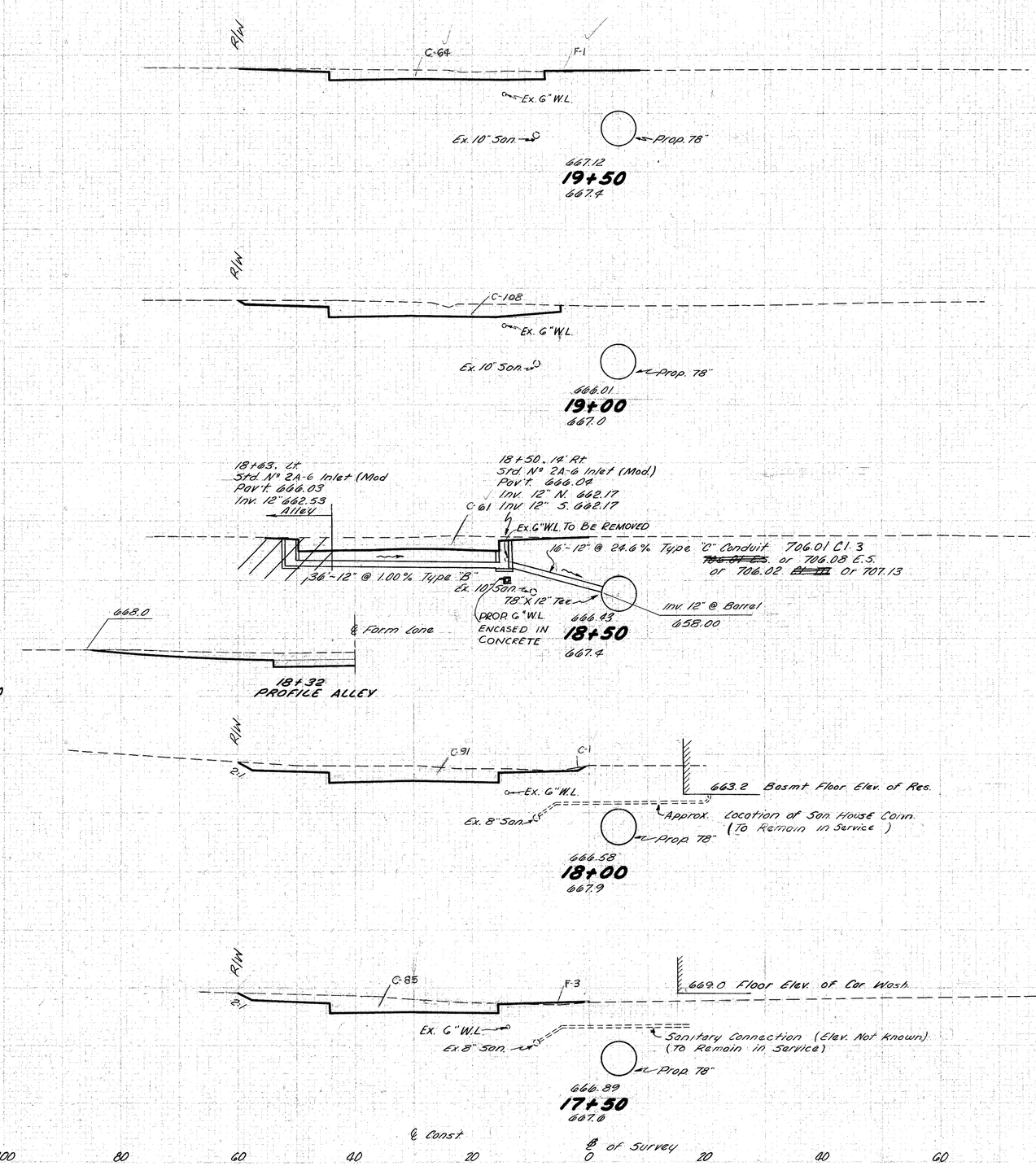
ADDED
ITEMS CHECKED
PLANS CHECKED
QUANTITIES DETERMINED
ITEMS CHECKED

140 120 100 80 60 40 20 0 20 40 60 80 100

℄ Const ℄

Sta. 19+74

21 G70 — 16 GGO — 89 — 16 G70 — GGO — 106 — 22 G70 — GGO — 144 — 670 — 660 — 30 G70 — GGO — 125 — 15 G70 — GGO — 108 — 24



	DATE
EXISTING PLOTTED	
EXISTING DRAWN	
TEMPLATE DRAWN	
TEMPLATE CHECKED	6/23/76
AREAS DETERMINED	9-17-76
AREAS CHECKED	JFW 11-2-76
ESSENTIAL DETERMINED	MLS 12-2-76
ESSENTIAL CHECKED	JFW

GGO
19+74 0 0
28 1
19+50 G4 1
159 1
G70
108 0
GGO
156 0
G1 0
G70
GGO
142 0
Add for Alley (Lt) @ 18+32 40 0
G70
92 0
GGO
164 3
85 3
G70
GGO
79 54
Sta. 17+00 0 55

℄ of Survey

140 120 100 80 60 40 20 0 20 40 60 80 100 120 140

Sta. 17+00

FARM LANE 17+50 to 19+50

	DATE
EXISTING PLANS BY	[illegible]
EXISTING SURVEY BY	[illegible]
FIELD VERIFIED BY	[illegible]
FIELD SURVEY BY	C.N.L. 6/26/68
AREAS & QUANTITIES BY	J.F.W. 10-18-68
DRAWING CHECKED BY	N.N.G. 11-20-68
DRAWING DESIGNED BY	J.F.W. 12-2-68

END AREA	VOLUME	
CUT	FILL	CUT	FILL
0	420	0	774
20	416	19	756
0	400	0	756
0	416	0	1281
			2137
0	368	0	1340

284
560

JEFFERSON COUNTY
JEF.-7-0.20

64+50
2240
699.57
699.8
697.5
See N1
SR 7 ℄
C-420
4:1
1.6:1

64+00
2232
699.37
700.2
697.3
See N1
SR 7 ℄
F-20
C-416
4:1
1.8:1

63+50
2228
698.88
698.9
SR 7 ℄
Notch
C-400
4:1
1.8:1

63+00
2209
698.42
698.4
SR 7 ℄
Notch
C-416
4:1
2:1

62+50
2178
699.13
696.1
SR 7 ℄
Notch
C-383
4:1
2:1

62+00 from N1 Sections

SECOND END WIDTH	SQ YDS
104	539
90	533
102	508
81	511
103	661
135	

Sta. 62+00 N1

RAMP "A" FARM LANE INTER. 62+50 to 64+50

EXIST. ING PLOTTED	JEW	6-7
EXIST. ING CHECKED	JEW	6-8-67
TEMPLATE PLOTTED		
TEMPLATE CHECKED		
AREAS DETERMINED	JEW	6/26/68
AREAS CHECKED		12-15-68
SEEDING DETERMINED	MLB	12-17-68
SEEDING CHECKED	JEW	12-20-68

RAMP "A" FARM LANE INTER. 65+00 to 67+00

JEFFERSON COUNTY
JEF-7-0.20

285
560

SEEDING	
END WIDTH	SQ YDS.
242	
182	
1097	
213	
1122	
191	
808	
100	
567	
104	

END AREA		VOLUME	
CUT	FILL	CUT	FILL
5888	0		
		7492	37
		79	0
2204	40		
		5604	37
3848	0		
		6941	0
		70	0
3648	0		
		4608	0
1328	0		
		1619	0
420	0		

C-5888 — Match to Ex. — 14:1 — 4:1 — 695.2 — 5.2:1 — 695.5 — 697.75 — **67+00** 725.5

Add For Ditch Over Slope +75 (Lt.)

C-2204 — Match to Ex. — 2:1 — 4:1 — 696.0 — Flag 4:1 — 5.2:1 — 696.2 — 698.53 — **66+50** 723.9

C-3848 — Match to Ex. — 1.8:1 — 4:1 — 696.6 — 4:1 — 5:1 — 696.8 — 699.10 — **66+00** 719.2

Add For Ditch Over Slope +52 (Lt.)

C-3648 — Match to ℄ SR 7 — 2:1 — 696.9 — 4:1 — 4:1 — 5:1 — 697.7 — 699.46 — **65+50** 728.7

65+52, 20' Lt. "A"
No. 4 C.B.
Grate: 696.65
Inv. 24" 692.65
Grate to Face Hillside Ditch

64+75, 20' Lt. "A"
No. 4 C.B.
Grate: 695.35
Inv. 24" S. 690.93
Inv. 30" N. 690.43

69+50, 20' Lt. "A"
No. 5-A C.B.
Grate: 692.55
Inv. 36" N. 684.10
Inv. 30" S. 684.60
Inv. 36" E. 684.10

123'-24" @ 1.40% Type "C"
277'-30" @ 2.10% Type "C"
Scale: 1"=10' V. 1"=100' H

PIPE PROFILE ALONG LT. SIDE RAMP "A"

C1328 — See Ⓜ — 16:1 — ℄ SR 7 — 4:1 — 697.6 — 6:1 — 699.3 — 699.62 — **65+00** 717.1

Sta. 64+50 — Sta. 64+50

END AREA		VOLUME	
CUT	FILL	CUT	FILL
8536	0	15578	0
6128	0	10042	0
4776	0	9922	0
6000	0	11007	0
6888	0		

STATE OF OHIO — SHEETS — 286 / 560

JEFFERSON COUNTY
JEF.-7-0.20

Match to ℄

To C.B.

5.5:1

8536

℄

1"/ft

4:1

693.0

69+00

695.49

752.8

Match to ℄

5:1

C-6128

693.1

C.B. 68+50

1"/ft

4:1

693.2

68+50

695.40

745.9

Match to ℄

5:1

C-4776

693.7

1"/ft

4:1

693.8

68+00

696.04

736.6

Match to ℄

5.2:1

6000

694.5

1"/ft

4:1

694.3

67+50

696.80

732.3

1:1

½:1

1:1

½:1

1:1

½:1

1:1

Sta. 67+00

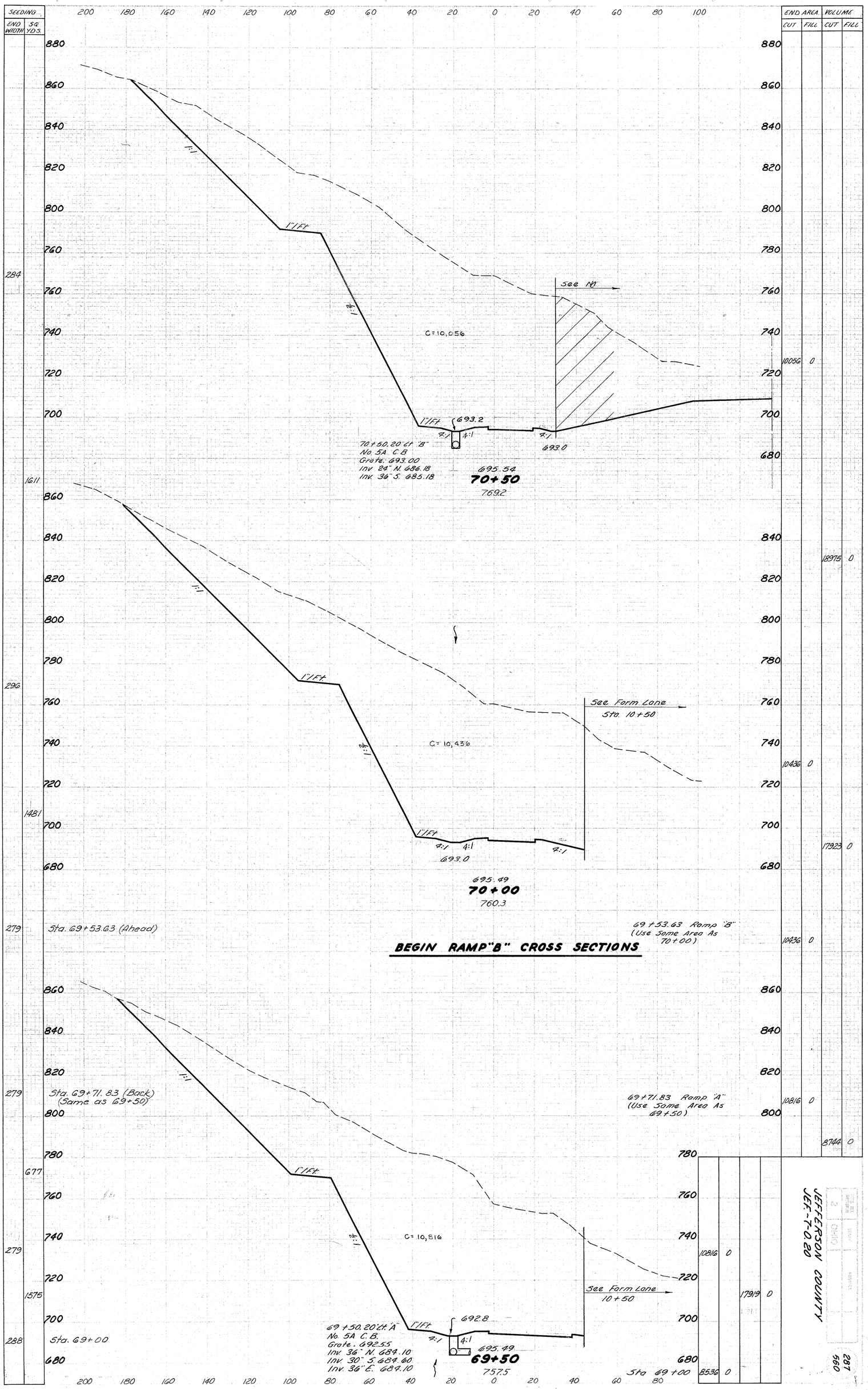
SECOND END WIDTH	SQ YDS
288	1511
256	1244
192	1125
213	1284
242	

Sta. 67+00

RAMP "A" (FARM LANE INTER.) 67+50 to 69+00

	BY	DATE
DESIGNED & DETAILED		
QUANTITIES CHECKED		
TRAFFIC DATA		
STRUCTURE DATA		
FINAL PLANS	CJL	6/14/65
FIELD CHECK	JFM	10-16-68
RIGHT OF WAY DATA	MMS	11-15-68
ROAD DETAILS		12-2-68
BRIDGE DETAILS		

	BY	DATE
EXISTING PLOTTED	[illegible]	[illegible]
EXISTING CHECKED	JFW	10-12-68
TEMPLATE PLOTTED		
TEMPLATE CHECKED		
AREAS DETERMINED	CNL	6/26/68
AREAS CHECKED	JFW	10-18-68
SEEDING DETERMINED	MLB	12-2-68
SEEDING CHECKED	JFW	12-2-68



RAMP "A" (FARM LANE INTER.) 69+50 & RAMP "B" (FARM LANE INTER.) 70+00 to 70+50

JEFFERSON COUNTY
JEF.-7-0.20

287
560

END AREA	VOLUME	
CUT	FILL	CUT	FILL

STATE	DIV.	PROJECT	SHEET NO.
2	OHIO		288 560

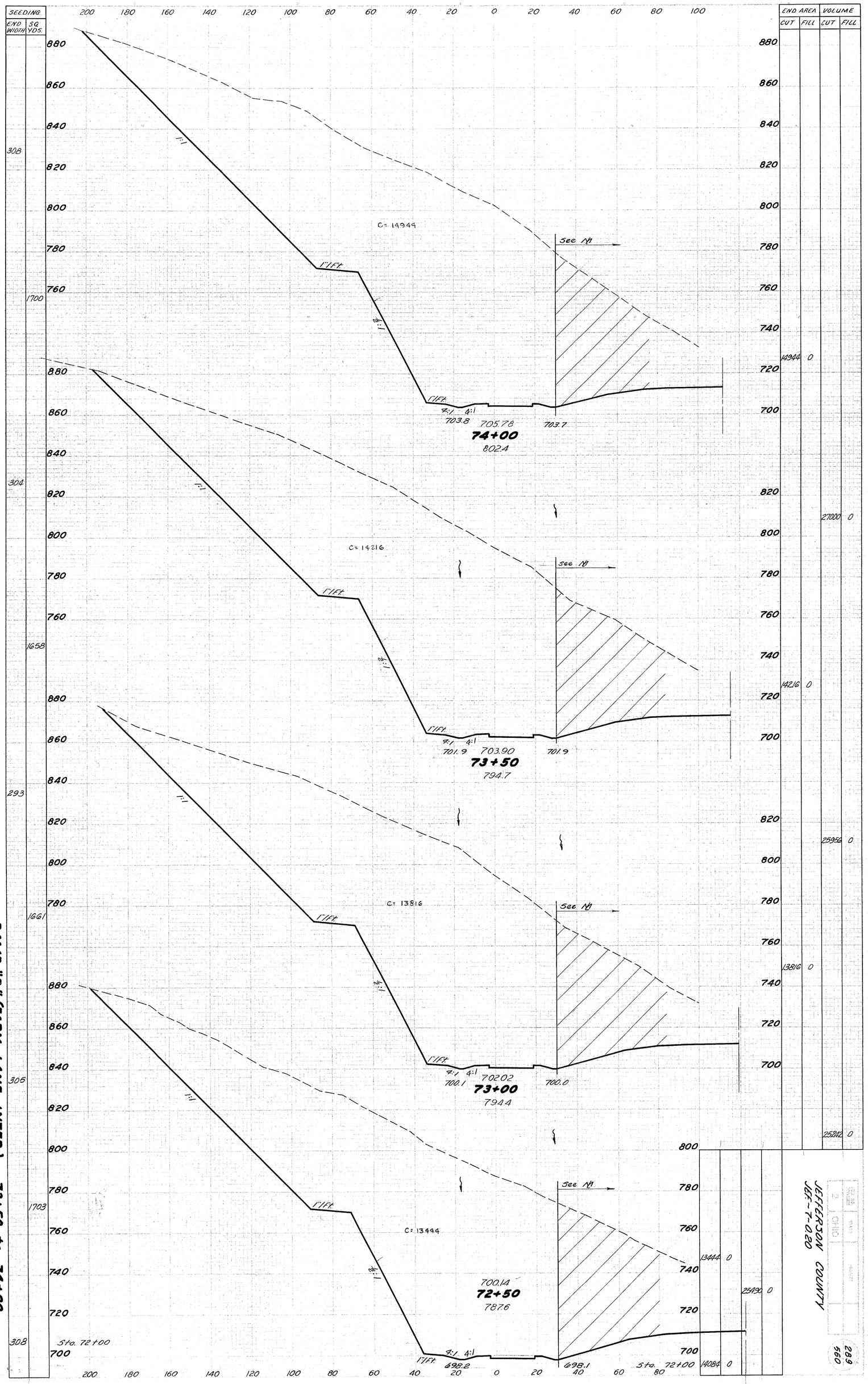
JEFFERSON COUNTY
JEF.-7-0.20

	DESIGNED	DRAWN	CHECKED	QUANTITIES	DATE
EXISTING PLOTTED	BJ				
EXISTING EDITED	BJ				
TEMPLATES					
AREAS DET.	CNL	CNL	6/26/68		
AREAS SUM.	JFM	JFM	10-18-68		
PLOTTING DETERMINED	MLB	MLB	12-2-68		
PLOTTING CHECKED	JFM	JFM	12-2-68		

SEEDING	
AND	SQ. YDS.
WIDTH	
308	1722
312	1728
310	1650
	1294

RAMP "B" (FARM LANE INTER.) 71+00 to 72+00

	BY	DATE
EXISTING PLOTTED	JEW	8-67
EXISTING CHECKED	JEW	10-2-67
TEMPLATE PLOTTED		
TEMPLATE CHECKED		
AREAS DETERMINED	CNL	6/27/68
AREAS CHECKED	JEW	10-18-68
SEEDING DETERMINED	MCB	12-2-68
SEEDING CHECKED	JEW	12-2-68



RAMP "B" (FARM LANE INTER.) 72+50 to 74+00

JEFFERSON COUNTY
JEF-7-0.20

OHIO

289
560

	BY	DATE
QUANTITIES PLOTTED		
GRADING CHECKED	ZDK	6/26/67
TEMPLATE PLOTTED		
TEMPLATE CHECKED		
AREAS DETERMINED	GNL	6/27/68
AREAS CHECKED	JFK	10-18-68
CUBES DETERMINED	MLH	12-2-68
CUBES CHECKED	JFK	12-2-68

END AREA		VOLUME	
CUT	FILL	CUT	FILL

SEEDING	
2ND 50 WDTH YDS.	
290	
1678	
314	
1731	
309	
1714	
308	

			290
2	CHG		560

JEFFERSON COUNTY
JEF-7-0.20

0 | 12492 | 25839 | 27689 | 27228 | 14432 | 14944

C = 12,492
C = 15,412
C = 14,492

See M

1:1 | 1½:1 | 2:1 | 4:1

1'LIFT

709.5 | 711.42 | 709.4 | 707.1 | 707.5 | 709.54 | 705.7 | 707.66 | 705.6

75+50 794.1

75+00 794.8

74+50 796.5

75+00, 20' Lt. "B" Rp. C&B
Rp. to 708.85
Inv. at S. 703.10
Build Dike to Face
(Grade to face Upstream)

Sta. 78+00

RAMP "B" (FARM LANE INTER.) 74+50 to 75+50

END AREA		VOLUME	
CUT	FILL	CUT	FILL
8630	0	16271	0
8892	0	17000	0
9469	0	18541	0
10556	0	20408	0
11454	0	21764	0
10940	0		

292
560

JEFFERSON COUNTY
JEF.-T-0.20

Sta. 80+00 from NT Sections

Sta 80+00 NT

Sta. 77+50

C-8892

C-9469

C-10,556

C-11,454

See NT

8:1

4:1

1:1

1½:1

1 LIFT

720.1

722.05

720.0

719.3

721.34

719.4

718.8

720.45

718.5

718.3

719.38

717.4

79+50
785.4

79+00
786.1

78+50
792.7

78+00
794.4

| SEEDING | | |

END AREA	VOLUME
CUT / FILL	CUT / FILL
0 / 244	119 / 367
68 / 152	172 / 226
118 / 92	257 / 144
160 / 64	319 / 94
184 / 38	372 / 46
218 / 12	285 / 69
68 / 62	

Begin Earthwork Quantities 1+50

				DATE
EXISTING PLOTTED	DF			
EXISTING CHECKED				
TEMPLATE PLOTTED				
TEMPLATE CHECKED				
AREAS DETERMINED	C.N.L.	6/27/68		
AREAS CHECKED	J.F.W.	10-21-68		
FIELD NO. DETERMINED				
SECOND CHECKED				

293
560

JEFFERSON COUNTY
JEF.-7-0.20

SECOND END AREA	SQ YDS
93	503
88	506
94	517
92	478
80	439
78	422
74	

RAMP "C" (FARM LANE INTER) 70+00 to 73+50

END AREA	CUT	370	602	760	860	120	208	4	4	193	607	88	448
	FILL	62	0	0	0								
VOLUME	CUT		900	1261	1500					907	193		
	FILL		57	0	0								

733			544
146			120
	344		244
	70		60

294
560

JEFFERSON COUNTY
JEF.-7-0.20

Add for Pav't. Removal +00 (Ref.)

Sta. 73+50

W. Edge Alley

C-128 F-62 C-242 4:1 2:1 704.5 688.0 706.23 704.8 77+00

C-602 4:1 2:1 702.4 687.0 704.21 708.6 76+50

C-760 4:1 2:1 700.4 686.0 702.19 711.6 76+00

C-860 4:1 8:1 2.7:1 699.4 683.0 700.17 709.2 75+50

C-84 F-208 C-36 4:1 8:1 3.5:1 698.4 681.9 698.15 695.9 75+00

C-52 F-448 C-36 4:1 8:1 3:1 694.3 681.0 696.13 688.1 74+50

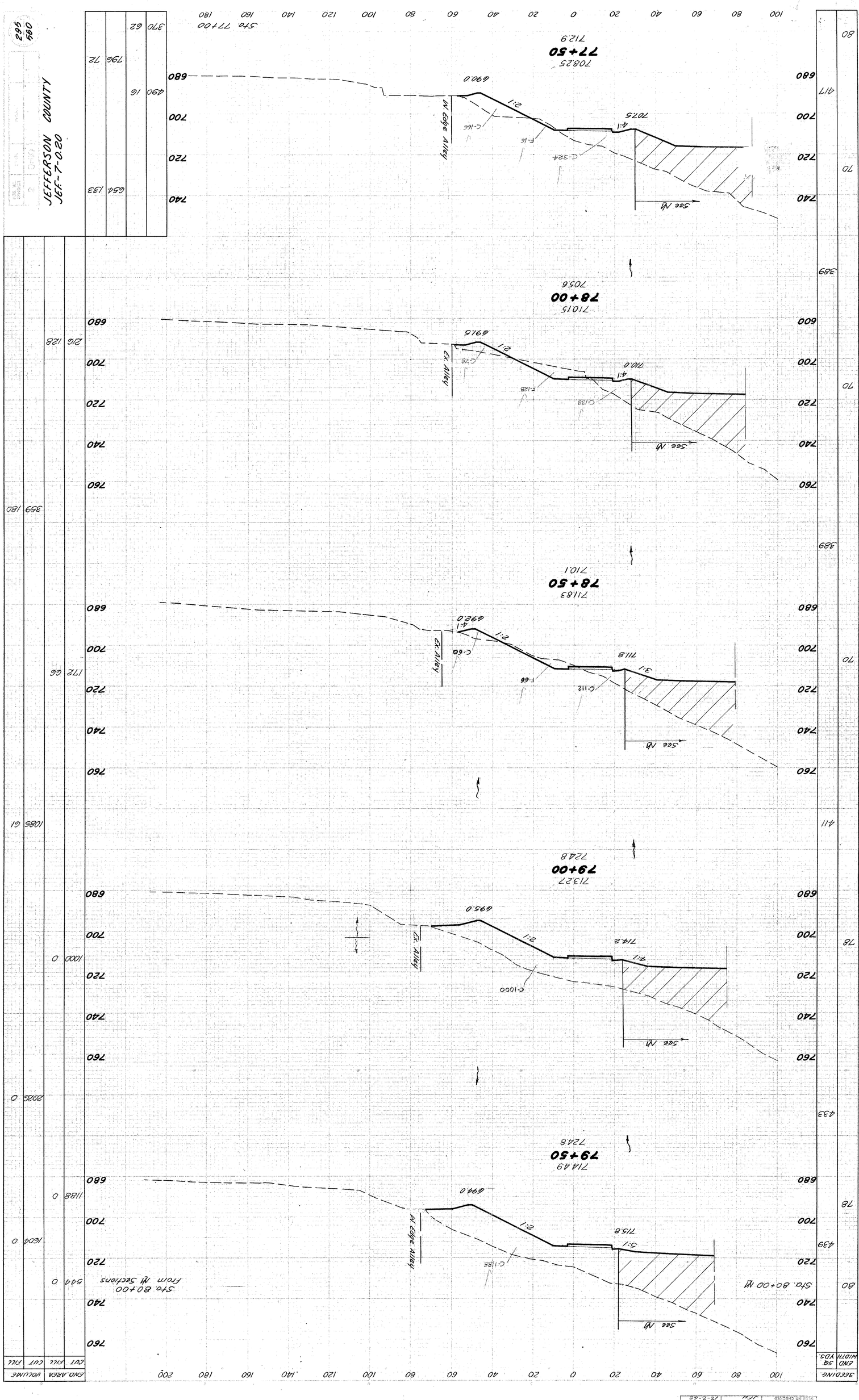
C-34 F-344 C-36 4:1 8:1 3.5:1 692.3 680.8 694.11 686.5 74+00

See N

SEEDING AND MULCH	80	483	94	492	83	494	95	550	103	564	100	528	90	508	93
SEEDING AND MULCH 36 YDS															

RAMP "C" (FARM LANE INTER.) 74+00 to 77+00

	BY	DATE
SHEETING PLOTTED		
ADDITIONS REVISED		
COMPUTATIONS CHECKED		
COMPLETE DRAWING	CNL	6/27/68
DRAWING CHECKED	JFW	10-21-68
QUANTITIES CHECKED		10-31-68
DATA DETERMINED		12-2-68
CORE CHECKED		


RAMP "C" (FARM LANE INTER.) 77+50 to 79+50
JEFFERSON COUNTY
JEF-7-0.20
295
560
Sta. 77+00
Sta. 80+00
From M Sections
77+50
78+00
78+50
79+00
79+50
See M
Ex. Alley
N Edge Alley
2:1
4:1
3:1
END AREA
CUT
FILL
VOLUME
CUT
FILL
SLOPING
END WIDTH
SIDE DITCH
CUT
FILL

END AREA		VOLUME	
CUT	FILL	CUT	FILL
	20 960		107 1396
	90 548		98 1454
	10 1022		46 1304
	40 1034		54 2137
	18 1274		41 2441
	26 1362		139 2025
		124 1692	293 3119
		192 1676	

296
560

JEFFERSON COUNTY
JEF.-7-0.20

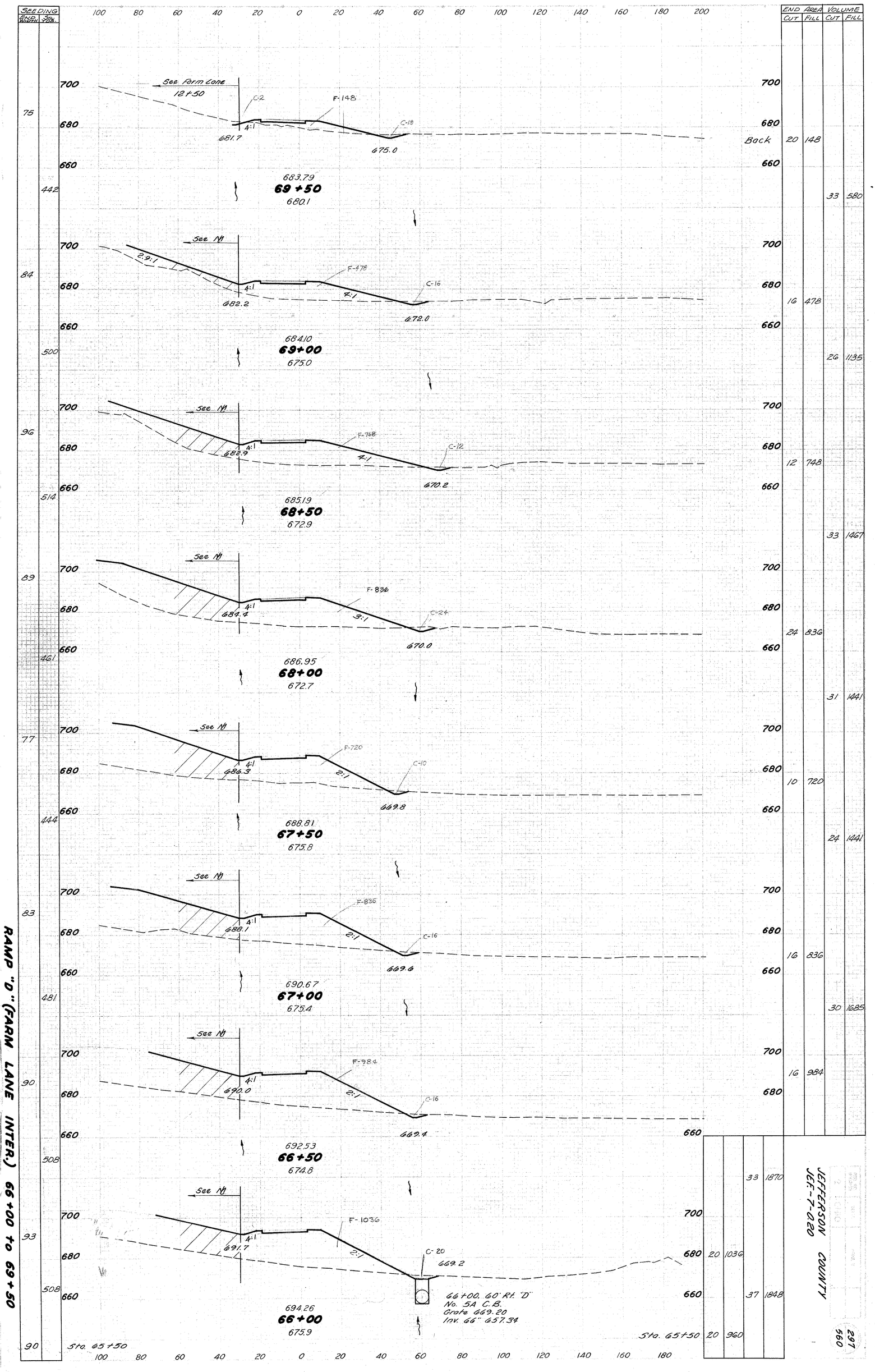
	BY		
EXISTING PLOTTED	JEW	5-'68	
EXISTING CHECKED	JEW	11-'68	
TEMPLATE CLC			
AREAS DETERMINED	CNL	6/27/68	
AREAS CHECKED	JEW	10-21-68	
SECOND DETERMINED	WLB	11-12-68	
SECOND CHECKED	JEW	12-2-68	

SEEDING	
END WIDTH	SQ YDS.
30	508
93	489
83	503
98	553
101	503
109	636
120	681
125	

Sta 62+00 from N° Sections

RAMP "D" (FARM LANE INTER.) 62+50 to 65+50

	BY	DATE
EXISTING PLOTTED	JBN	5-67
EXISTING CHECKED	[illegible]	10-4-67
TEMPLATE		
TEMPLATE CK.		
AREAS CHECKED	CNL	6/27/68
AREAS CHECKED	JFW	10-21-68
SEEDING DETERMINED	[illegible]	[illegible]
SEEDING CHECKED	JFW	12-2-68



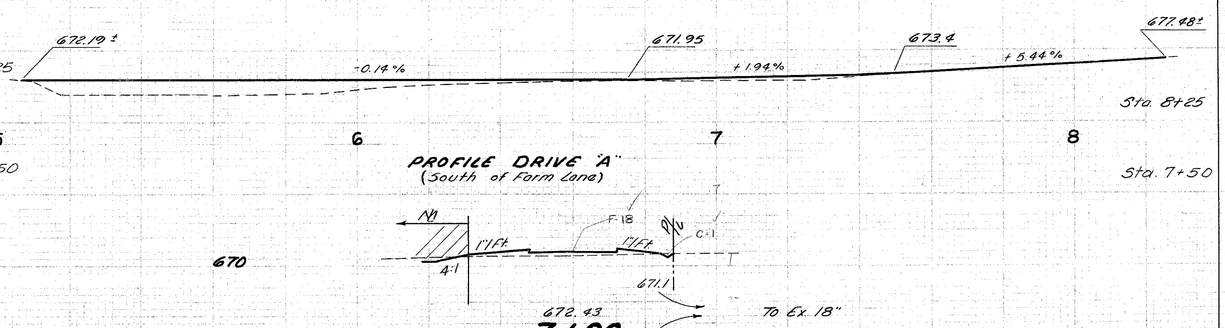
RAMP "D" (FARM LANE INTER.) 66+00 to 69+50

JEFFERSON COUNTY
JEF-7-0.20

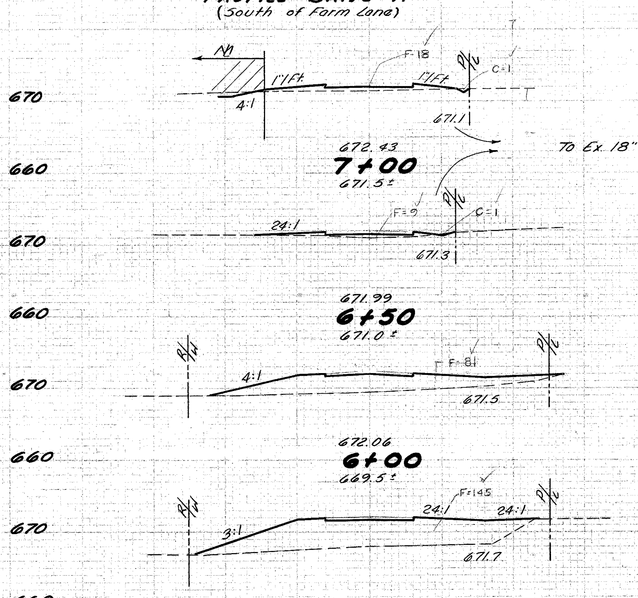
297
560

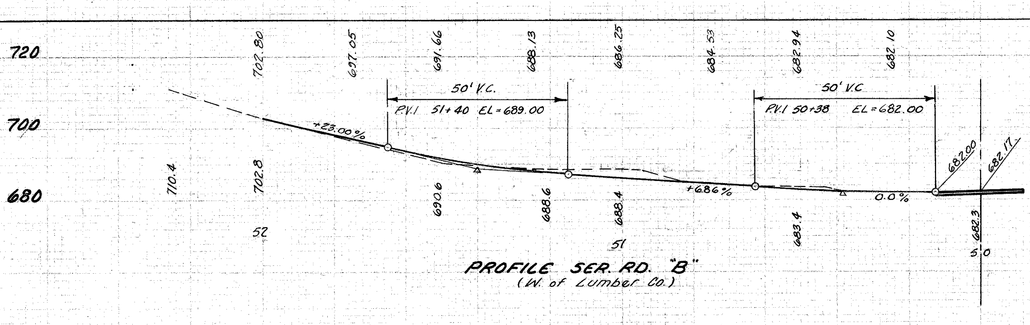
Seeding Completed - 10-30-68
Storm Inlet Set - 10-24-68
Area Cut and Fill - 10-8-68
Seeding, Retainment - 10-8-68
Planted - 10-5-68

SEEDING END WIDTH	SEEDING SQ. YDS.		END AREA CUT	END AREA FILL	VOLUME CUT	VOLUME FILL
0		Sta. 8+25	0	0		
67	1				1	25
16	18	Sta. 7+50	1	18		
89	2				2	33
16	18		1	18		
89	2				2	25
16	9		1	9		
156	1				1	83
40	81		0	81		
321	0				0	314
37	145		0	145		
26	0				0	37
30	145	Sta. 5+18 (Same as 5+25)	0	145		
20	0				0	31
0	0	Sta. 5+06 Begin Work	0	0		



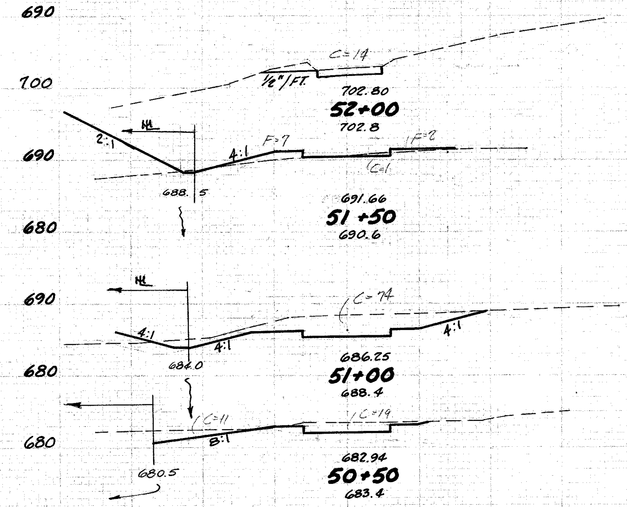
PROFILE DRIVE "A"
(South of Farm Lane)

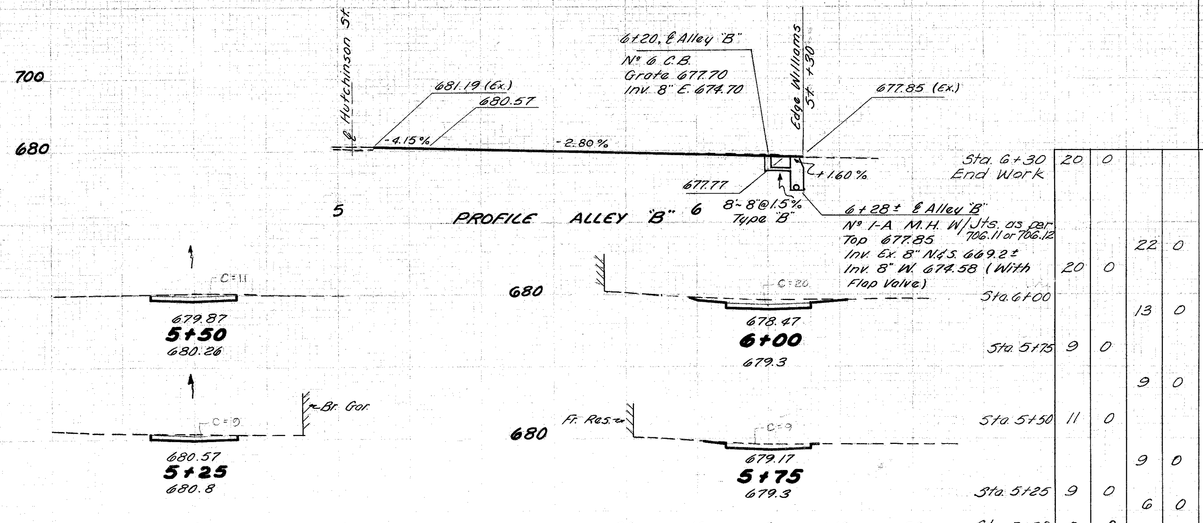




PROFILE SER. RD. "B"
(W. of Lumber Co.)

28	52+00		14	0		
174					14	9
34			1	9		
206					70	9
40			74	0		
211					97	0
36			30	0		
69					28	0
14	50+25	(Same As 50+50)	30	0		





20	0	Sta. 6+30 End Work	20	0		
					22	0
		Sta. 6+00	20	0		
					13	0
		Sta. 5+75	9	0		
					9	0
		Sta. 5+50	11	0		
					9	0
		Sta. 5+25	9	0	6	0
		Sta. 5+08 Begin Work	9	0		

ALLEY "B" SERVICE RD. "B" & DRIVE "A"

JEFFERSON COUNTY
JEF-7-0.20

238
560

		48+50	48+00	47+50	47+00	46+50	46+00	45+50	45+00	44+50	44+00
END AREA	CUT	46	12	10	14	50	91	57	55	20	
	FILL	0	10	32	60	140	112	28	0	0	
VOLUME	CUT		54	20	22	70	36	103	35		
	FILL		9	39	85						
SEEDING	SQ. YDS.	32	195	38	217	40	242	47	330	72	339
	END WIDTH										

DESIGNED	MAS	6-70	
DRAWN	MAS	6-70	
TRACED	MAS	6-70	
CHECKED	MAS	6-70	

NO.	DATE			299
2	1970			560

JEFFERSON COUNTY
JEF.-7-0.20

Add Toe Ditch

Begin Work 49+25

46+50, 41' Rt.
Inv. 24.67 7.00

71'-24" @ 0.7% Type "B"

46+50, 30' Lt.
No 5 C.B.
Grate: 680.80
Inv. 18" W 678.00
Inv. 24" E 677.50

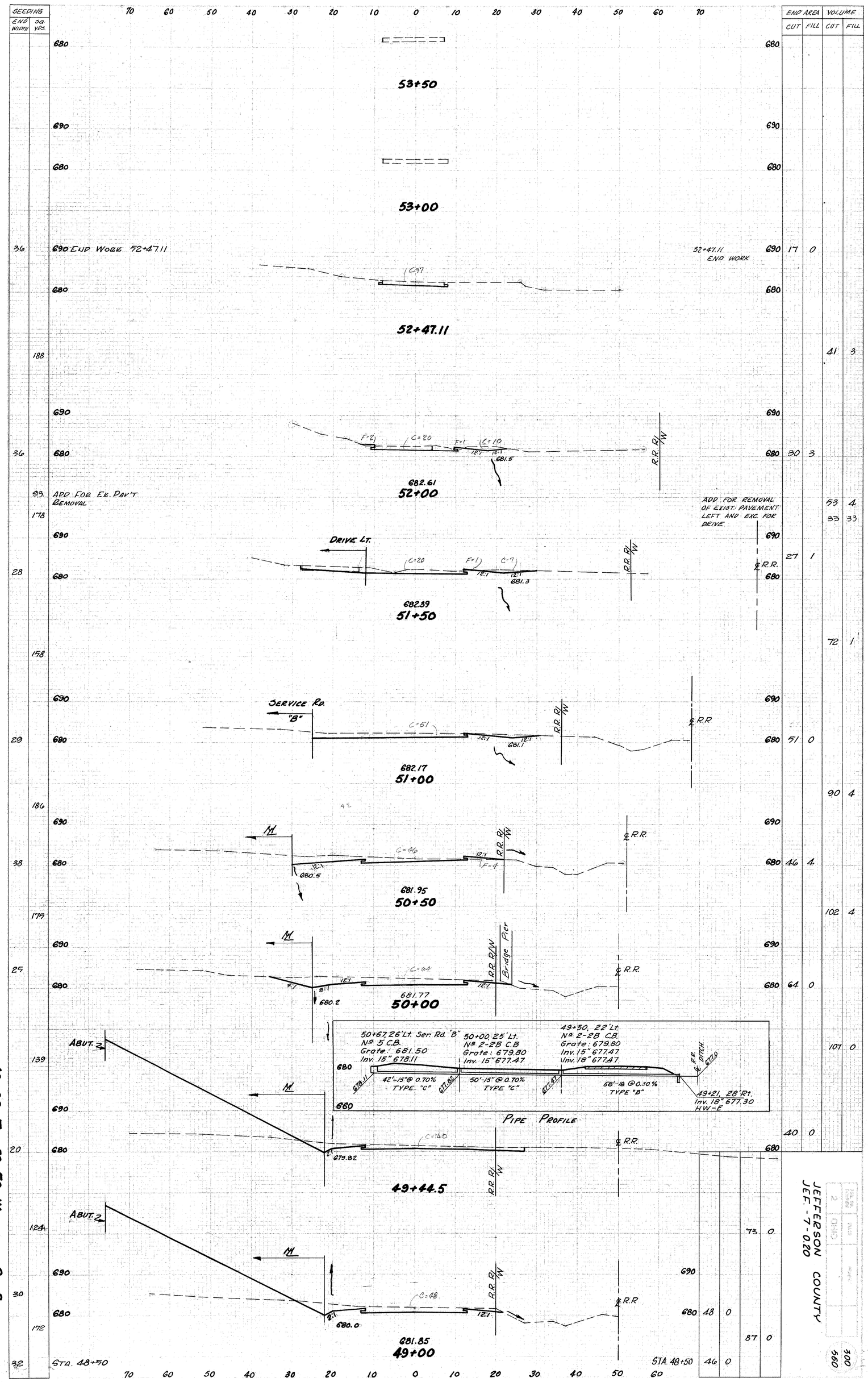
Abut.

Abut 2

47+27 Begin Work

44+00 To 48+50 Williams St. Reloc.

	BY	DATE
EXISTING PLOTTED		
EXISTING CHECKED		
TEMPLATE PLOTTED		
TEMPLATE CHECKED		
AREAS DETERMINED	MAS	9-70
AREAS CHECKED	MLB	9-70
SEEDING DETERMINED	MAS	9-70
SEEDING CHECKED	MLB	9-70

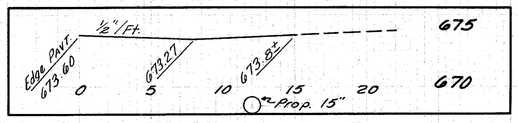


JEFFERSON COUNTY
JEF-7-0.20

301
560

140 120 100 80 60 40 20 0 20 40 60 80 100

2:1
See N1
4:1
672.0
674.10
96+00
673.1



DRIVE PROFILE Rt. 95+20

25 289 61 219 18 100 138 32 138 18 150 Main St. Connection 78 10

680 670

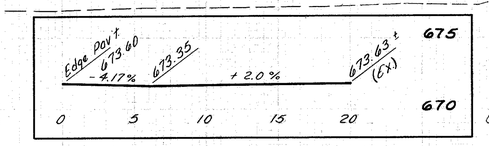
See N1
C=16
13:1
F=14
C=20
672.8
8:1
672.2
674.10
95+50
673.5

Sta. 95+75, 22' Rt.
Std. N°2-2B C.B.
Grate 672.50
Inv. 12" 668.43
Inv. 15" 668.18

Main St.
C=5
C=12
C=1
673.0
674.10
95+00
673.7

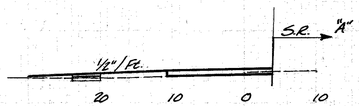
Sta. 94+85, 22' Rt.
Std. No. 2-2B C.B.
Grate 672.90

Main St.
C=21
673.2
674.10
94+50
674.0

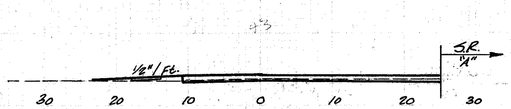


PROFILE DRIVE Rt. @
STA. 94+40

F=3
C=20
674.10
94+00
674.1



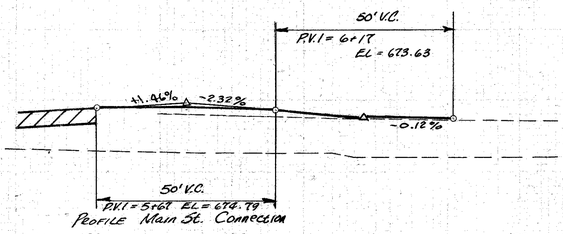
5+50 Main St.



6+00 Main St.

93+75 20' Rt ±
Std N°2-2B C.B
Grate 673.33
Inv Ex. 12" 671.47±

F=2
93+50
673.8



PROFILE Main St. Connection

12" Ex.
93+00
673.8

140 120 100 80 60 40 20 0 20 40 60 80 100 120 140

SERVICE ROAD "A" 93+00 to 96+00

				2	37
				35	47
				36	14
				50	13
Add For Drive Connection +20(Rt)				10	0
				18	0
				36	0
				21	0
Add For Drive Connection +40(Rt)				38	3
				9	0
				20	3
				19	5
				0	2
				0	2
Add For Main St. Connection				0	30
93+00				0	0

	DATE
EXISTING PLOTTED	5-13-74
EXISTING CHECKED	
TEMPLATE PLOTTED	
TEMPLATE CHECKED	7-2-74
AREAS DETERMINED	7-11-74
AREAS CHECKED	7-12-74
ACCOUNTS DETERMINED	7-18-74
ACCOUNTS CHECKED	7-18-74

BY: WWP, WWP, WWP, WWP, WWP, WWP, WWP, WWP

JEFFERSON COUNTY
JEF-7-0.20

140 120 100 80 60 40 20 0 20 40 60 80 100

2:1 SEE N1 4:1 667.5 F-350 3:1 C-36 4:1 660.0

670.97
98+50
663.8

2:1 SEE N1 C-25' F-1 4:1 668.5 F-138' C-11 18" R.C.P. 663.5

Sta 97+70, 23' Rt
N° 2-28 C Basin
Grate 671.80
Inv 15" 667.51

97+84.5, 33.5' Rt
15" Inv 667.33

98+15 End R.C.P.
Begin Jute Matting

672.10
98+00
669.0

18"-15" @ 1.0%
Type HW-E Headwall
18"
7%

Profile of C.B. Outlet into ditch

2:1 SEE N1 4:1 669.5 C-133 4:1 672.2

672.97
97+50
674.2

PROFILE DR. RT. STA. 97+20

0 10 20 30
673.27 E.P.
-½'/Ft.
672.97
+8.0%
674.65

Add For Drive Connection +20(Rt.)

2:1 SEE N1 C-80 4:1 670.8 4:1 672.3

Sta. 96+93, 22' Rt.
Std. 2-28 C.B.
Grate 672.30
Inv. 15" 667.78

673.60
97+00
674.1

2:1 SEE N1 C-2 4:1 F-8 C-19 8:1 671.8 673.0

Begin Jute Matting +50

673.97
96+50
673.7

Sta. 96+00

140 120 100 80 60 40 20 0 20 40 60 80 100 120 140

Sta. 96+00

SERVICE ROAD "A" 96+50 to 98+50

	BY	DATE
EXISTING PLOTTED		
EXISTING RECHECKED		
TEMPLATE PLOTTED		
TEMPLATE CHECKED		
AREAS SCT'D/PLANIM.		
AREAS CHECKED		
SECTIONS DETERMINED		
SECTIONS CHECKED		

302
560
69
364
62
253
29
158
28
147
25
139
25
364
G7 453
157 129
133 0
197 0
80 0
93 7
21 8
21 42
2 37

JEFFERSON COUNTY
JEF-7-0.20

140 120 100 80 60 40 20 0 20 40 60 80 100

| | | |

140 120 100 80 60 40 20 0 20 40 60 80 100

304
560

JEFFERSON COUNTY
JEF-7-0.20

Sta. 109+29, 32' Lt. "A"
Std. No 5 C.B.
Grate 651.60
Inv. 24" 648.00 (W)
Inv. 24" 645.06 (E)

24"

74'-24" @ 2.4% Type "B" Class "B"

109+29 44' Rt
Inv. 24" 644.00
Type HW-E Headwall

Exist. Ground

Profile 24" Storm Sta 109+29

650
640

G1
650
692
640

2:1 4:1 4:1 F-492 2:1 C-34 3:1 R/W

655.3
109+97
646.1

643.6

To Exist. Ditch

650
34 492
640

See No

60
650
695
640

2:1 4:1 F-640 2:1 C-3 R/W

651.7 655.4 644.5
108+94
644.7

650
70 2159
650
3 640
640

58
650
677
640

2:1 4:1 F-497 3:1 C-11 4:1 R/W

652.4 647.7

655.6
Begin Jute Matting +70
107+88
646.4

650
28 2232
650
11 497
640

57
650
653
640

2:1 4:1 F-477 4:1 C-10 4:1 Prop. R/W

653.0 648.1

655.7
106+82
647.3

640
41 1911
650
10 477
640

660
54
650
636
660

2:1 4:1 F-395 4:1 C-6 4:1 R/W

653.5 648.5

655.8
105+76
648.3

31 1711
660
6 395
650
40 1316
660

53
650
630
660

2:1 4:1 F-269 4:1 C-14 Prop. R/W

653.9 649.5

656.0
104+69
650.4

14 269
650
47 1019

54 Sta. 103+63

Sta. 103+63 10 250

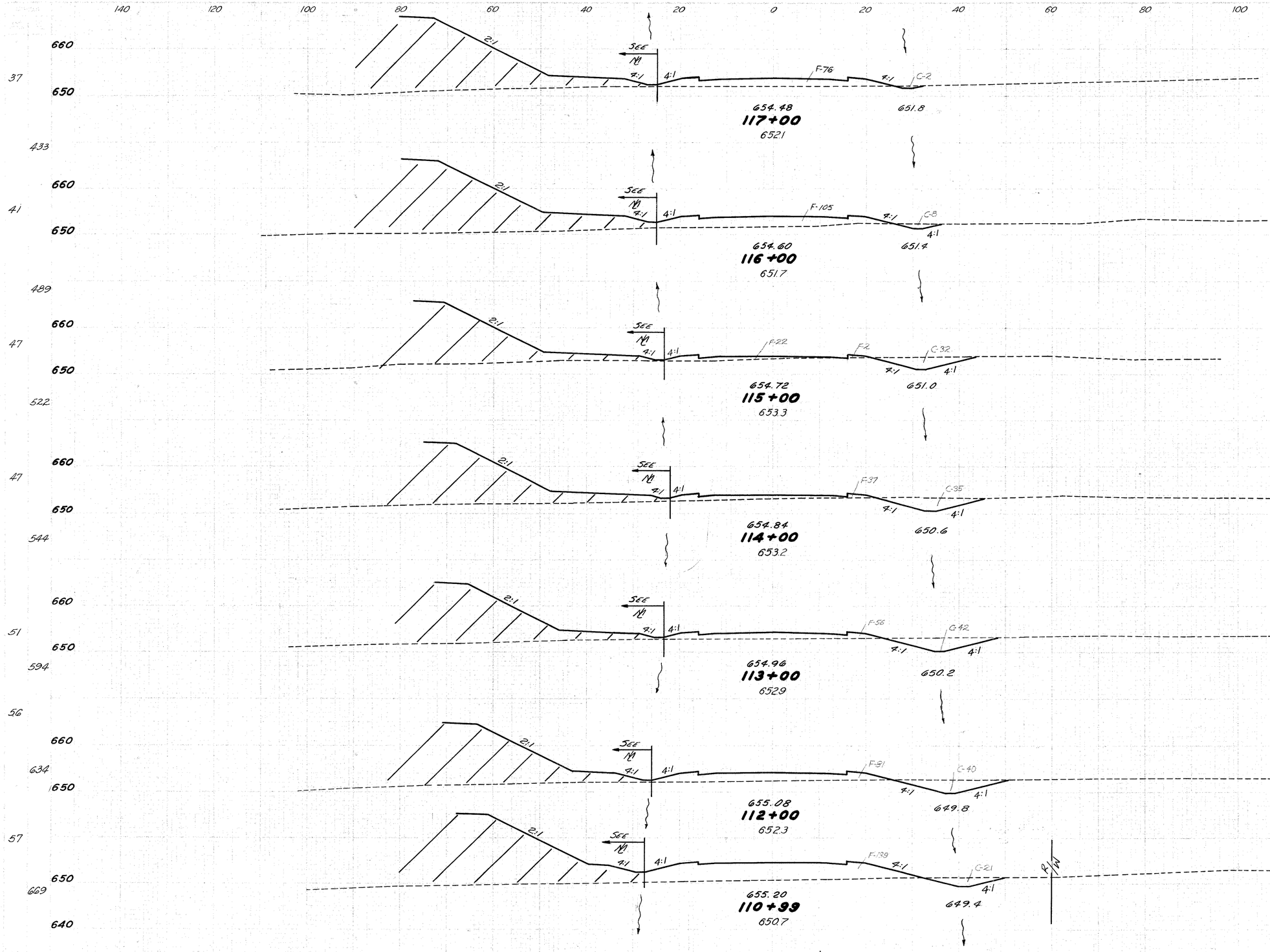
140 120 100 80 60 40 20 0 20 40 60 80 100 120 140

SERVICE ROAD "A" 104+69 to 109+97

	BY	DATE
EXISTING PLOTTED		
EXISTING CHECKED	JPM	
TEMPLATE PLOTTED		
TEMPLATE CHECKED	JPM	
AREAS DETERMINED	CWL	12-2-96
AREAS CHECKED		
SEEDING DETERMINED	KLW	12-2-96
SEEDING CHECKED	JPM	12-3-96

JEFFERSON COUNTY
JEF-7-0.20

140 120 100 80 60 40 20 0 20 40 60 80 100



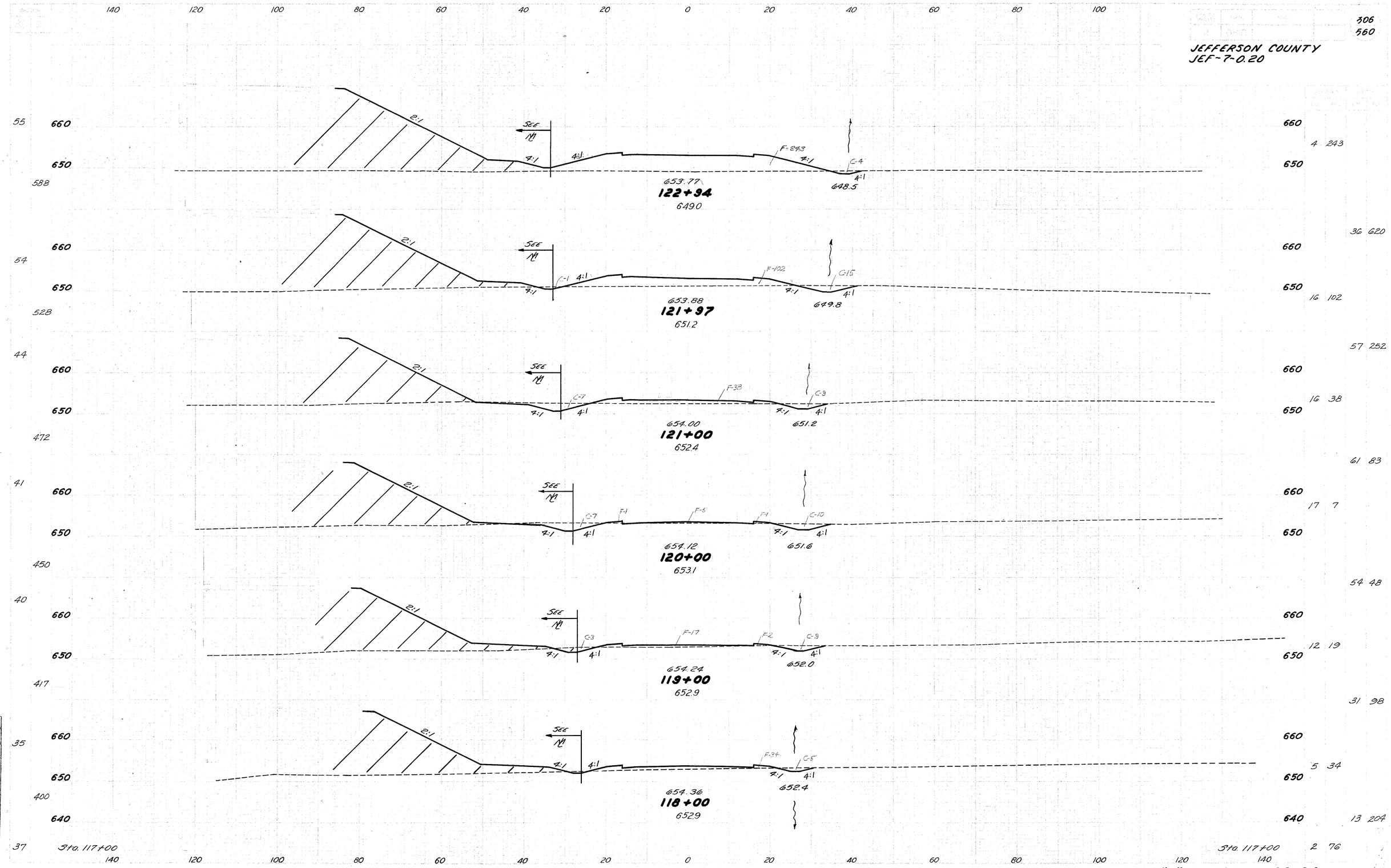
305 560
433 41
489 47
522 47
544 51
594 56
634 57
669 61

2 76
19 335
8 105
74 239
32 24
124 113
35 37
143 172
42 56
152 254
40 81
114 524
21 199
104 1304
34 492

Sta. 109+97

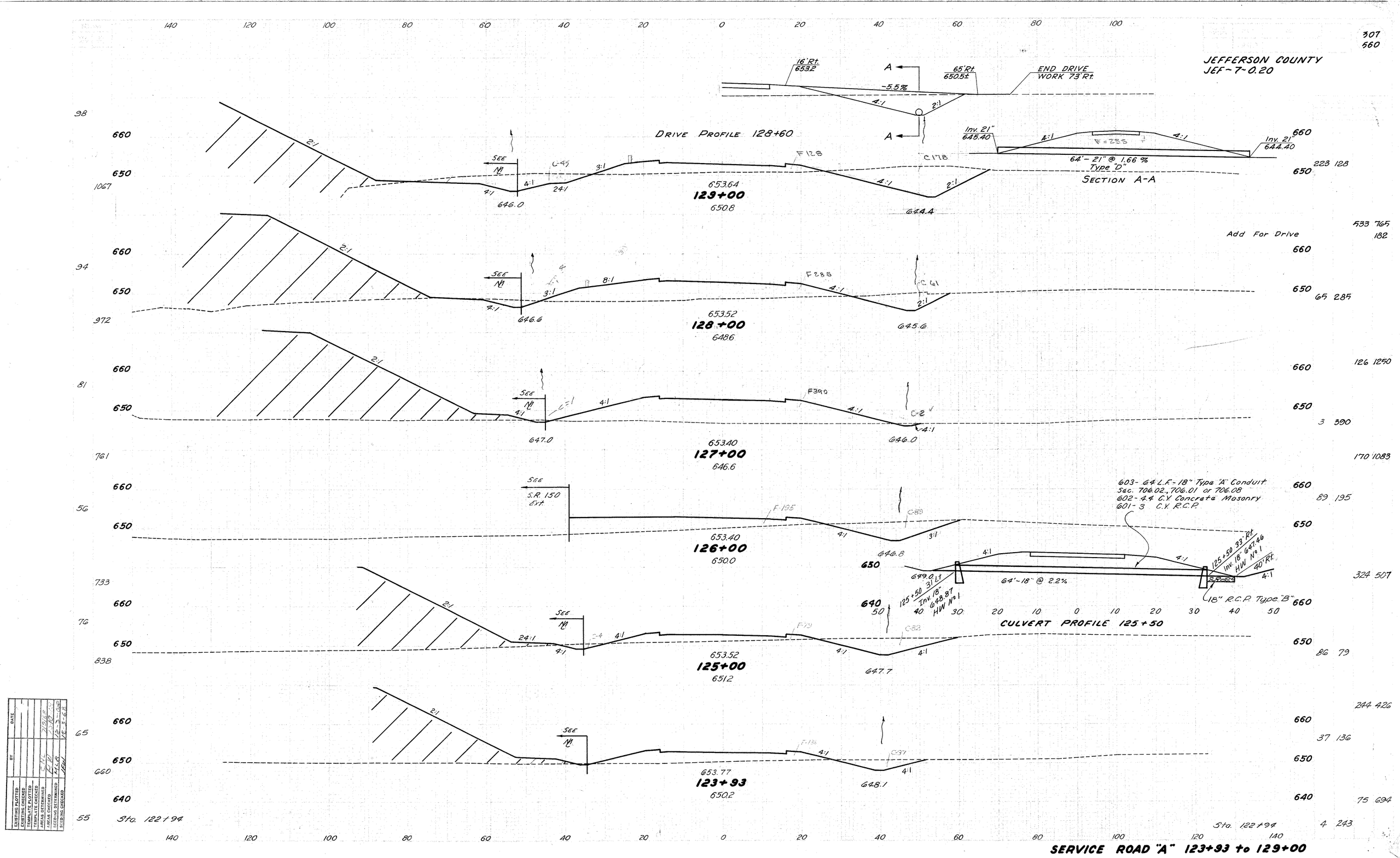
	BY	DATE
EXISTING PLOTTED		
EXISTING CHECKED		
TEMPLATE DESIGNED		
TEMPLATE CHECKED	CWL	7-10-68
AREAS DETERMINED	CWL	11-1-68
AREAS CHECKED	MLG	12-2-68
SEEDING DETERMINED	JEM	12-3-68
SEEDING CHECKED		

SERVICE ROAD "A" 110+99 to 117+00



	BY	DATE
EXISTING PLOTTED		
EXISTING CHECKED		
TEMPLATE PLOTTED		
TEMPLATE CHECKED		
AREAS DETERMINED	CNL	7/9/68
AREAS CHECKED	RW	10-10-68
SEEDING DETERMINED	MJB	12-3-68
SEEDING CHECKED	JFW	12-3-68

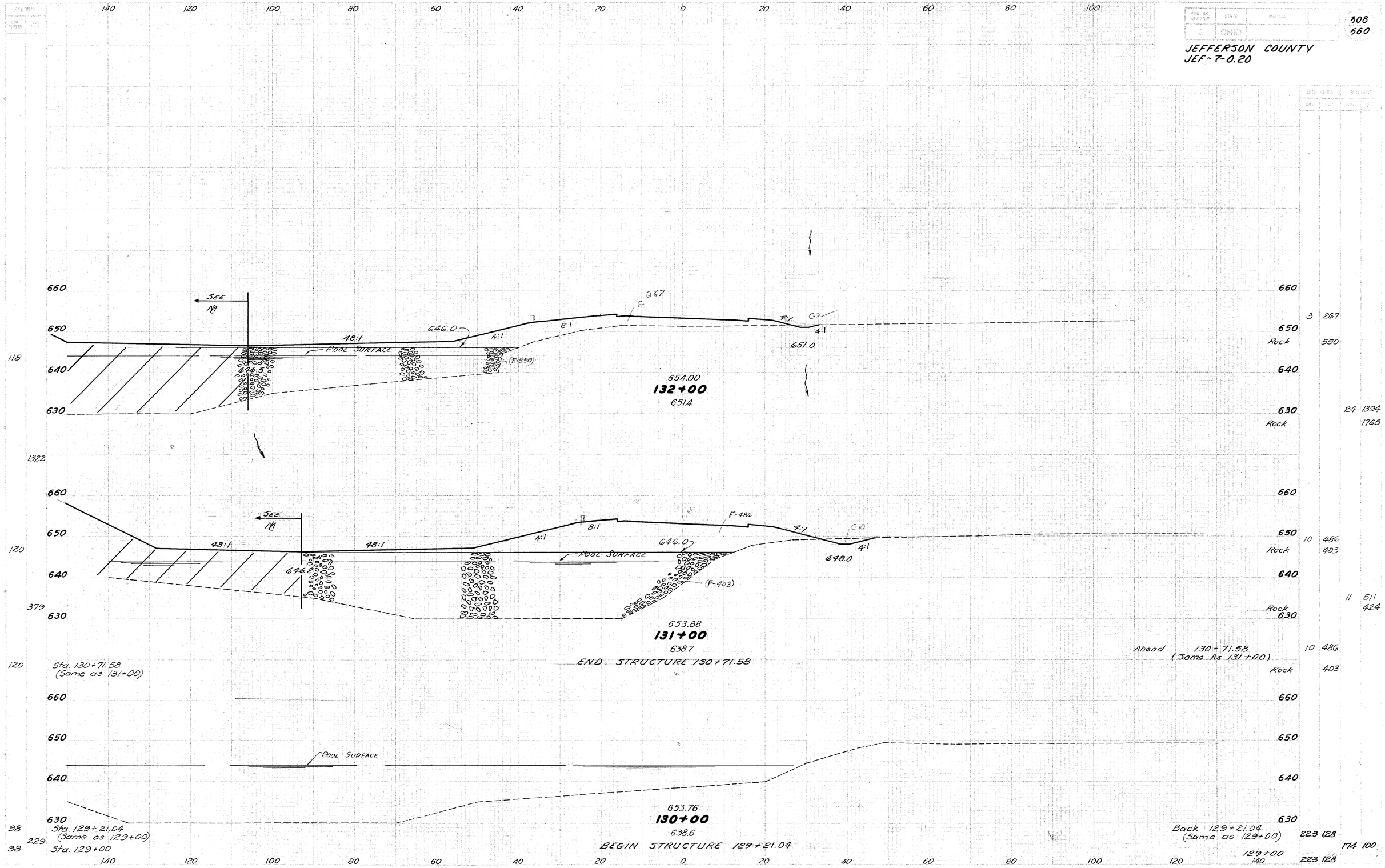
SERVICE ROAD "A" 118+00 to 122+94


JEFFERSON COUNTY
JEF-7-0.20
16' Rt. 653.2
65' Rt. 650.5±
END DRIVE WORK 73' Rt.
-5.5%
DRIVE PROFILE 128+60
Inv. 21" 645.40
Inv. 21" 644.40
64'-21" @ 1.66 % Type "D"
SECTION A-A
SEE
653.64
129+00
650.8
646.0
644.4
Add For Drive
653.52
128+00
648.6
646.6
645.6
653.40
127+00
646.6
647.0
646.0
SEE S.R. 150 Ext.
603-64 L.F.-18" Type "A" Conduit Sec. 706.02, 706.01 or 706.08
602-4.4 C.Y. Concrete Masonry
601-3 C.Y. R.C.P.
653.40
126+00
650.0
646.8
649.0
125+50 31' Lt. Inv. 18" 648.87 HW No 1
64'-18" @ 2.2%
125+50 33' Rt. Inv. 18" 647.46 HW No 1
40' Rt.
18" R.C.P. Type "B"
CULVERT PROFILE 125+50
653.52
125+00
651.2
647.7
653.77
123+93
650.2
648.1
Sta. 122+94
Sta. 122+94
SERVICE ROAD "A" 123+93 to 129+00

FED. RD. DIVISION	STATE	PROJECT	
2	OHIO		

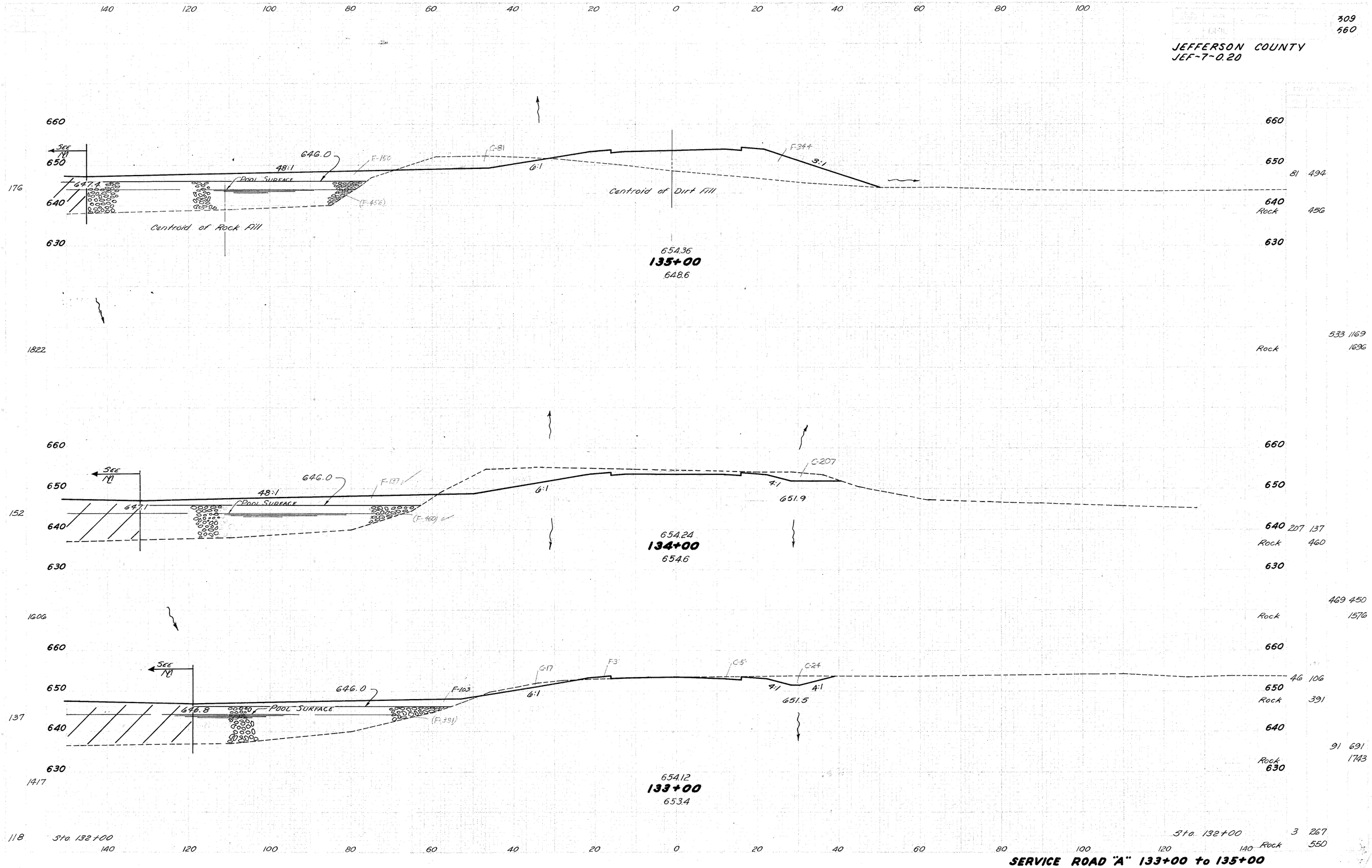
308
560

JEFFERSON COUNTY
JEF-7-0.20



	BY	DATE
EXISTING PLOTTED		
EXISTING CHECKED		
TEMPLATE PLOTTED		
TEMPLATE CHECKED	CNL	11-9-68
AREAS DETERMINED	KLW	12-2-68
AREAS CHECKED	MLB	12-2-68
SEEDING DETERMINED	JFW	12-3-68
SEEDING CHECKED		

SERVICE ROAD "A" 130+00 to 132+00



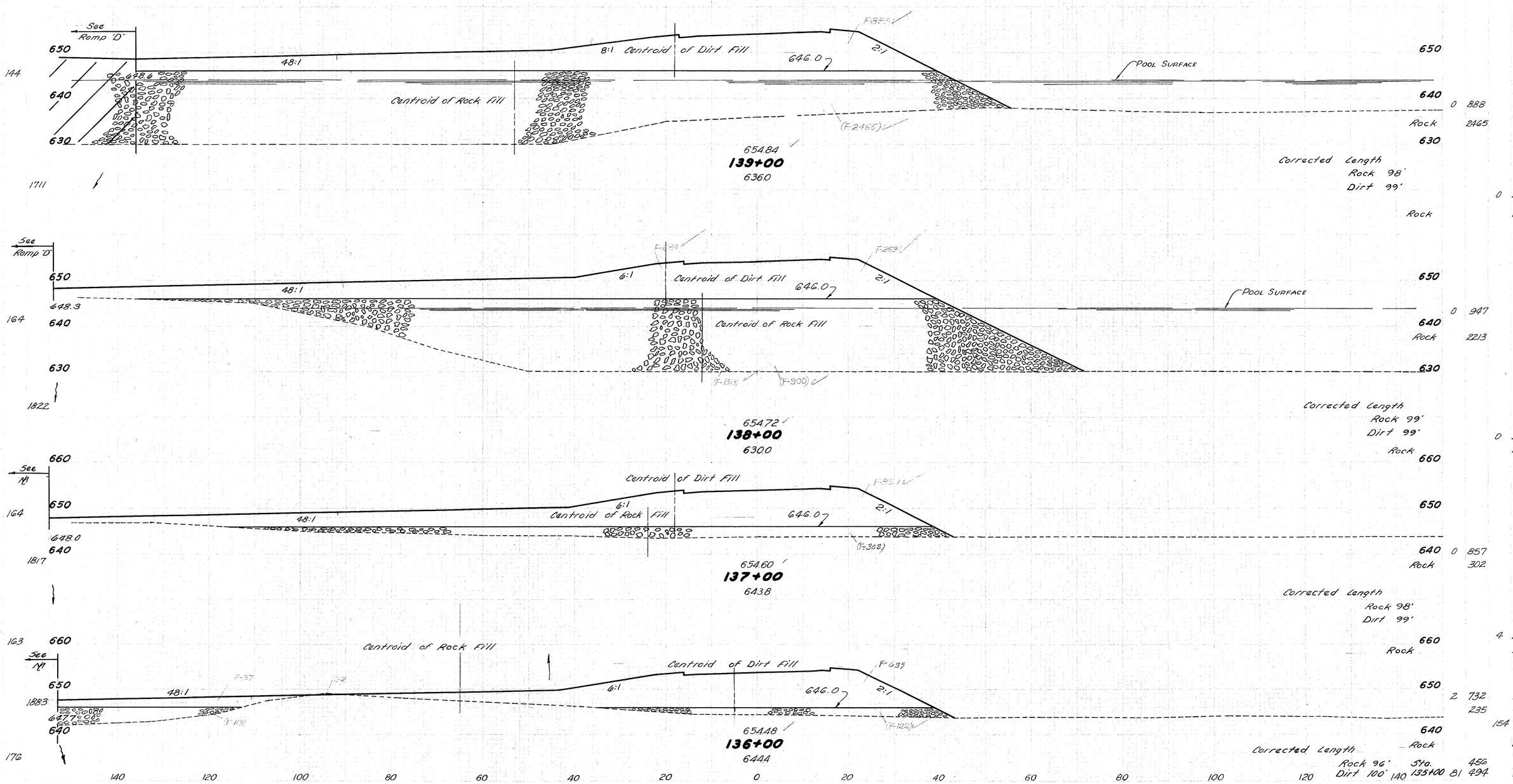
	BY	DATE
EXISTING PLOTTED	JFW	
EXISTING CHECKED	JFW	
TEMPLATE PLOTTED	CNL	7-19-68
TEMPLATE CHECKED		
AREAS DETERMINED		
AREAS CHECKED		
SEEDING DETERMINED	MLB	12-3-68
SEEDING CHECKED	JFW	12-3-68

SERVICE ROAD "A" 133+00 to 135+00

140 120 100 80 60 40 20 0 20 40 60 80 100

310
560

JEFFERSON COUNTY
JEF.-7-0.20



	DATE
EXISTING PLOTTED	
EARTHS CHECKED	
TEMPLATE PLOTTED	
TEMPLATE CHECKED	7/31/56
AREAS DETERMINED	8/1/56
AREAS CHECKED	8/2/56
SECOND DETERMINED	8/2/56
SECOND CHECKED	8/2/56

140 120 100 80 60 40 20 0 20 40 60 80 100 120 140

SERVICE ROAD "A" 136+00 to 139+00

JEFFERSON COUNTY
JEF.-7-0.20

140 120 100 80 60 40 20 0 20 40 60 80 100

46 511

650
640
630

F-462
2:1
646.0
2:1
(F-510)
Pool Surface

654.27
144+00
640.3

650
640
Rock
630

0 462
0 1704
Rock 510 2072

46 522

650
640
630

F-458
2:1
646.0
2:1
(F-608)
Pool Surface

654.51
143+00
639.0

650
640
Rock
630

0 458
0 1611
Rock 609 2446

48 450

650
640
630

F-412
2:1
646.0
2:1
Inv. 72" 641.00
Inv. 72" 641.00
90-72" @ 0.0%
Type "A"
(F-712)
Pool Surface

654.75
142+00
639.1

650
640
Rock
630

0 412
0 1937
Rock 712 2504

33 506

650
640
630

Ramp "C"
F-634
2:1
646.0
(F-640)
Pool Surface

654.99
141+00
639.2

650
640
Rock
630

0 634
0 2485
Rock 640 2463

58 1122 144

650
640
630

See Ramp "D" 142+00
Centroid of Dirt Fill
F-708
2:1
646.0
Sta. 139+00
Centroid of Rock Fill
(F-690)
Pool Surface

654.96
140+00
639.5

650
640
Rock
630

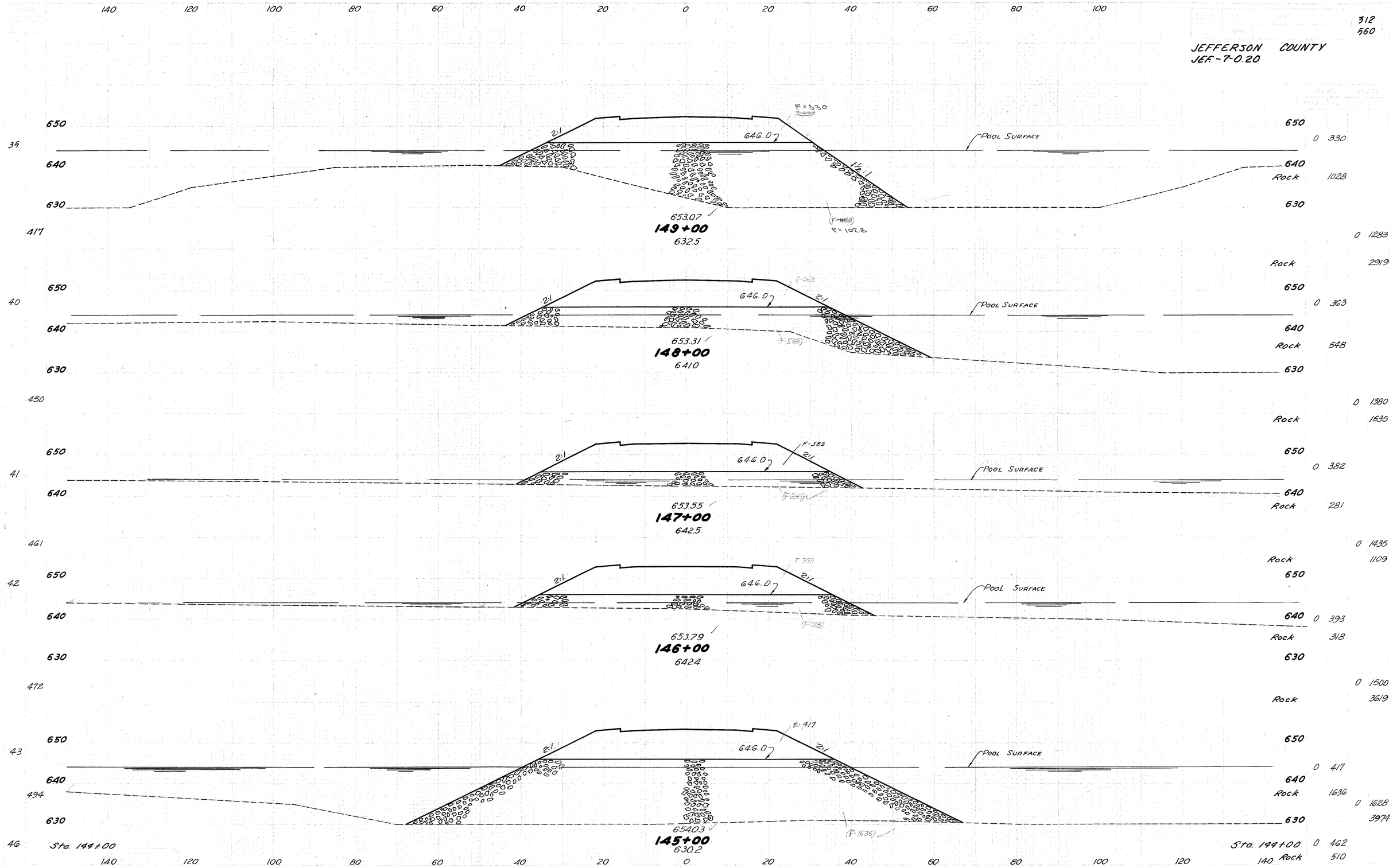
0 708
0 2924
Rock 690 5784

140 120 100 80 60 40 20 0 20 40 60 80 100 120 140

Corrected length
Rock 99' Sta. 139 0 888
Dirt 99' Rock 2465

SERVICE ROAD "A" 140+00 to 144+00

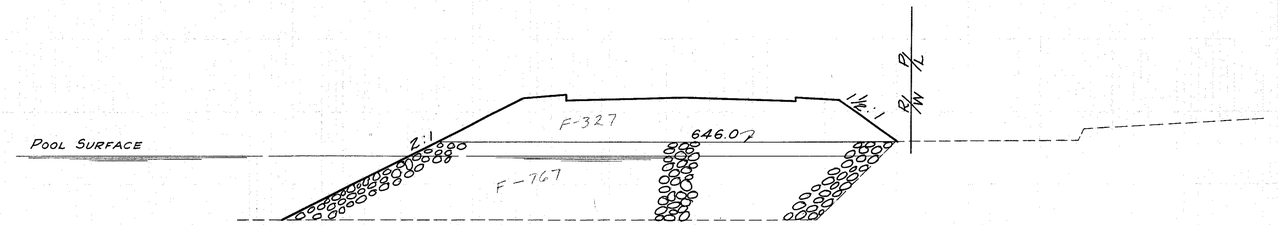
	BY	DATE
EXISTING PLOTTED		
EXISTING CHECKED		
TEMPLATE PLOTTED		
TEMPLATE CHECKED		
AREAS DETERMINED		
AREAS CHECKED		
SEEDING DETERMINED		
SEEDING CHECKED		



SERVICE ROAD "A" 145+00 to 149+00

JEFFERSON COUNTY
JEF-7-0.20

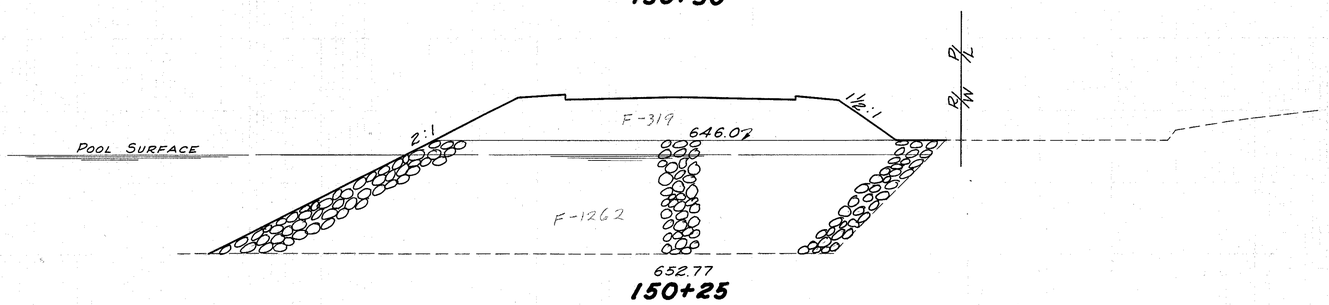
100 80 60 40 20 0 20 40 60 80 100



652.71
150+50

37 | 650 | 640 | 630 | 100

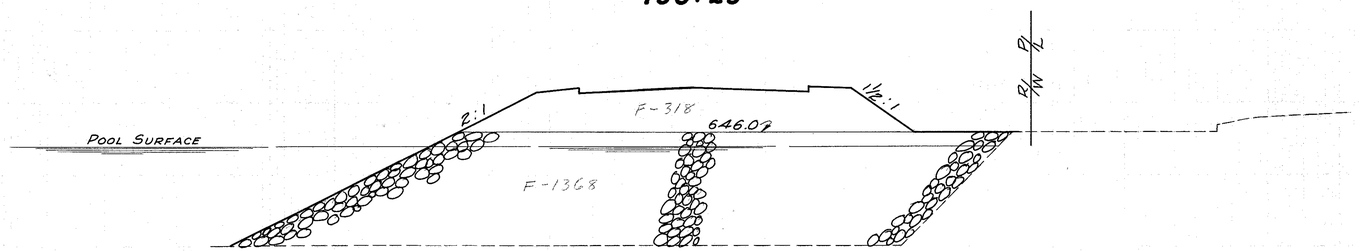
650
640 0 327
Rock 767
630
0 299
Rock 939



652.77
150+25

35 | 650 | 640 | 630 | 97

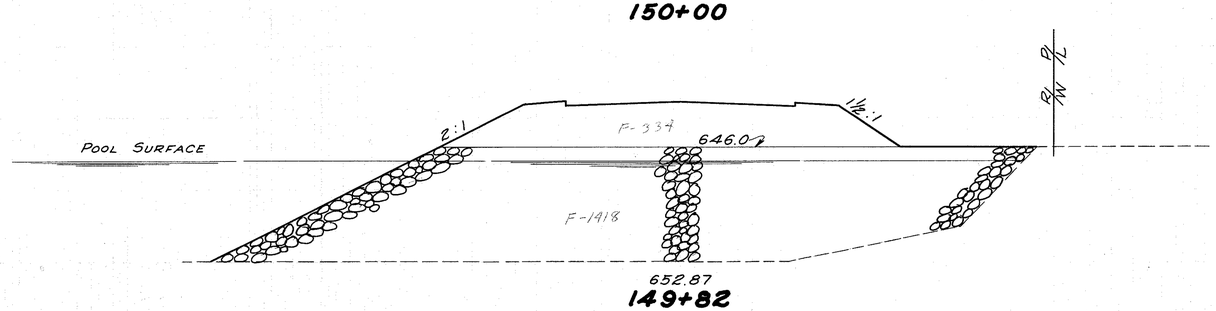
650
0 319
Rock 1262
640
630
0 295
Rock 1218



652.83
150+00

35 | 650 | 640 | 630 | 70

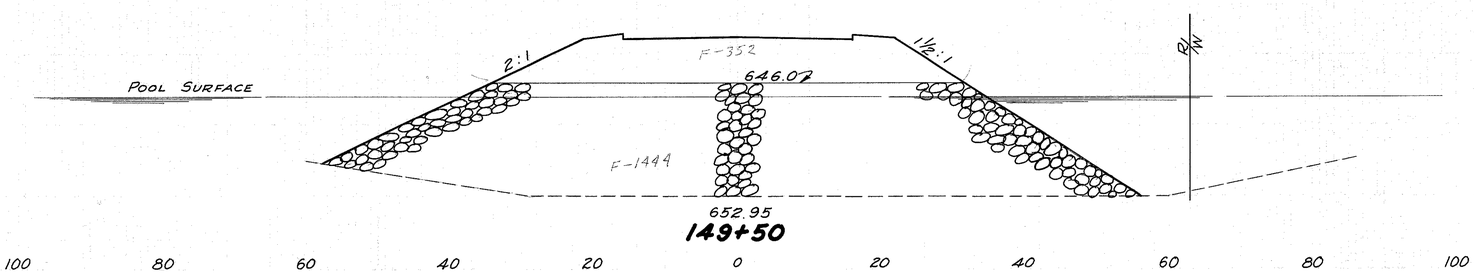
650
0 318
Rock 1368
640
630
0 217
Rock 929



652.87
149+82

35 | 650 | 640 | 630 | 130

650
0 334
Rock 1418
640
630
0 407
Rock 1696



652.95
149+50

38 | 650 | 640 | 203 | 630 | 35 | Sta. 149+00

650
0 352
Rock 1444
640
0 631
Rock 2289
630
Sta. 149+00 0 330
Rock 1028

SERVICE ROAD "A" 149+50 to 150+50

140 120 100 80 60 40 20 0 20 40 60 80 100

313
560

JEFFERSON COUNTY
JEF.-7-0.20

EXISTING PLOTTED	BY	DATE
EXISTING CHECKED		
TEMPLATE PLOTTED		
TEMPLATE CHECKED	SW	7-9-68
AREAS DETERMINED	SW	7-9-68
AREAS CHECKED	WLS	7-12-68
SEEDING DETERMINED	WLS	7-12-68
SEEDING CHECKED	WLS	7-12-68

0 Sta. 152+72

264

66 650 Pool Surface 640 661

4:1 F-116 4:1 F-71 4:1

649.0

652.35
152+00
650.0

END ROCK FILL AT 152+00

53 650 Pool Surface 640 630 138

646.0 2:1 F-300 3:1 F-3 4:1

646.0 F-142 647.0

652.59
151+00
644.5

46 650 Pool Surface 640 630 115

646.0 2:1 F-323 2:1

646.0 F-182

652.65
150+75

37 Sta. 150+50

140 120 100 80 60 40 20 0 20 40 60 80 100 120 140

Sta. 152+72 0 0
Rock 0

9 155
Rock 0

7 116
650
Rock 0
640 19 770
Rock 263

3 300
650
Rock 142
640
6 288
630
Rock 150

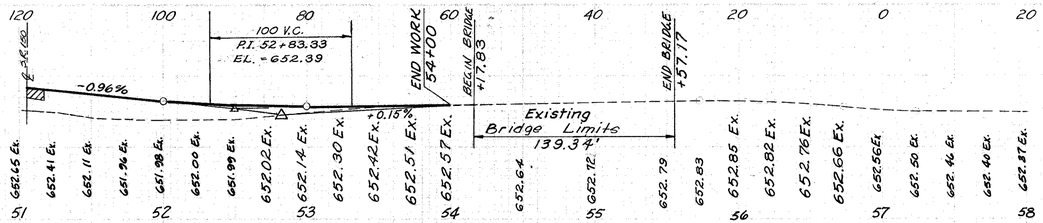
0 323
650
Rock 182
640 0 301
Rock 439
630

Sta. 150+50 0 327
Rock 767

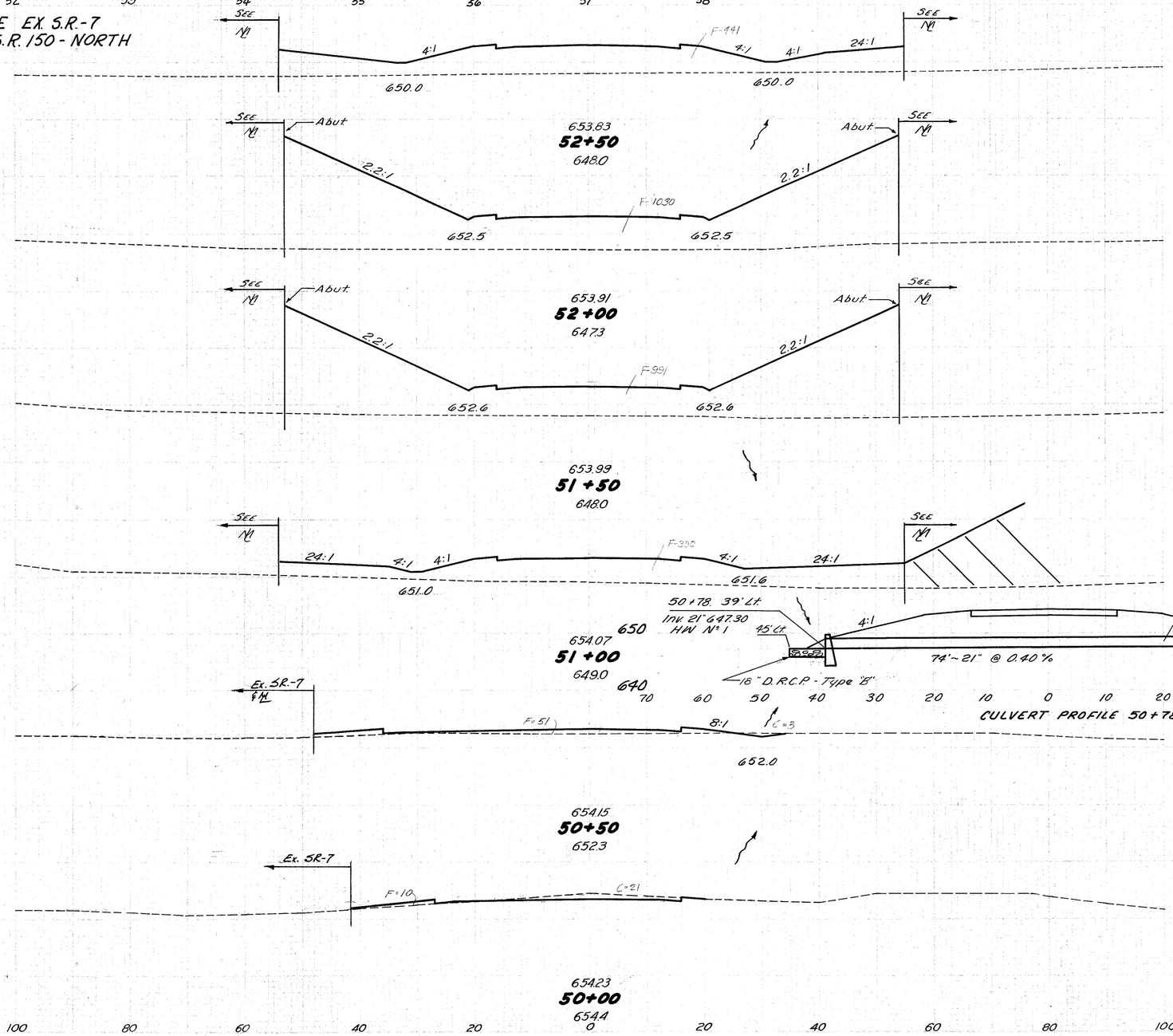
SERVICE ROAD "A" 150+75 to 152+00

314
560

JEFFERSON COUNTY
JEF-7-0.20



PROFILE EX. S.R.-7
FROM S.R. 150 - NORTH

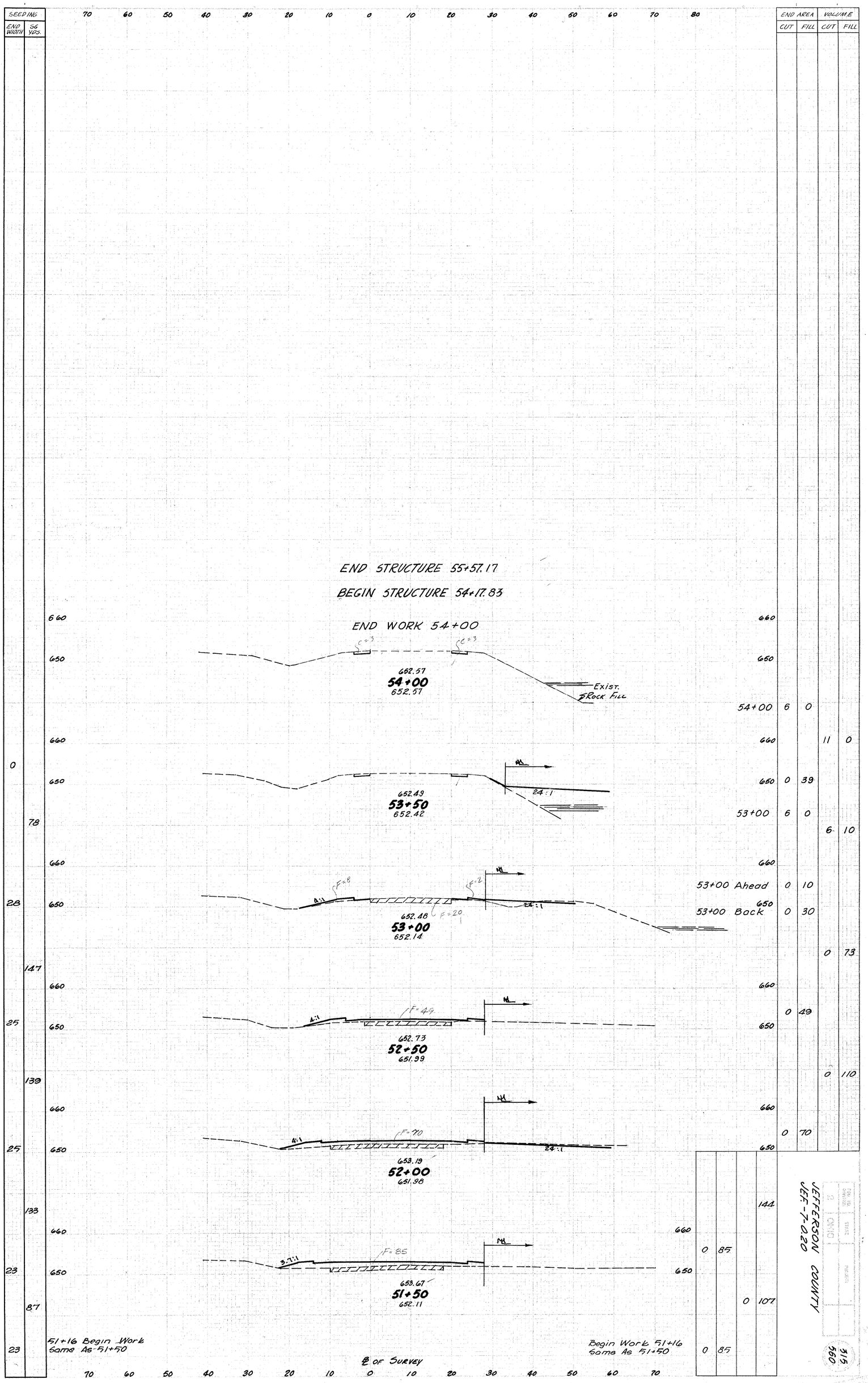


End Earthwork
52+73
(Same As 52+50)

79	52+73 (Same as 52+50)		
202			
79			
311			
81	650		
20	52+15± (Ah.)		
33	52+15± (Bk.)		
20	640		
111			
20	650		
27	640		
81	650		
333	51+38± (Ah.)		
77	51+38± (Bk.)		
325	650		
40	640		
192	650		
29	640		
29	650		
29	640		
	Begin Work 49+91		
		0	441
		0	376
	650		
		0	441
	640		
		0	1362
		0	1030
	650		
		0	1871
	640		
		0	991
	650		
		0	1279
	640		
		0	390
	650		
		2	408
	640		
		2	51
	650		
		21	56
	640		
		21	10
	650		
		7	3
	640		
	Begin Work 49+91	21	10

| | | |

	BY	DATE
EXISTING PLOTTED		
EXISTING CHECKED		
TEMPLATE PLOTTED		
TEMPLATE CHECKED		
AREAS DETERMINED	MAS	9-70
AREAS CHECKED	MLB	9-70
SEEDING DETERMINED	MAS	9-70
SEEDING CHECKED	MLB	9-70



EXIST. SR-7 AT SHORTCREEK 51+50 TO 57+00

JEFFERSON COUNTY
JEF-7-0.20

315
560

316
560

JEFFERSON COUNTY
JEF.-7-0.20

140 120 100 80 60 40 20 0 20 40 60 80 100

0 | 650 | 640 | 28 | 630

C-2476

650

640

2476 0

630

36" R.C.P. Type "A"

55+00
648.0

36" R.C.P. Type "A"

6312 330

5 | 650 | 640 | 422 | 630

See Ser. Rd. "A"

2:1

C-930

F-178

36" R.C.P. Type "A"

54+00
637.0

36" R.C.P. Type "A"

See Ser. Rd. "A"

Abut

650

932 178

640

630

2041 2376

7l | 650 | 640 | 161 | 630

See N1

C-634

2:1

Pool Surface

C-419

36" R.C.P. Type "A"

53+00
630.0

36" R.C.P. Type "A"

See N1

170 1105

650

640

1565 4311

630

60 Sta. 52+78 (Ahead)
60 Sta. 52+00 (Back)

See N1

Abut

F-634

2:1

36" R.C.P. Type A

52+00
636.0

36" R.C.P. Type "A"

See N1

Abut

F-799

2:1

Pool Surface

C-632

650

675 1223

640

630

406 | 630

10' Dike

651

646

640

2:1

2:1

Rock Fill

36" R.C.P. Type A

52+50

2102 2735

Add for Dike

142

13 | 650 | 640 | 72 | 630

C-419

Rock Fill

51+00
635.5

36" R.C.P. Type "A"

See N1

Pool Surface

C-41

2:1

F-254

36" R.C.P. Type "A"

460 254

852 470

0 Sta. 50+00

Sta. 50+00 0 0

140 120 100 80 60 40 20 0 20 40 60 80 100 120 140

	BY	DATE
EXISTING PLOTTED		
DESIGN PLOTTED		
TEMPLATE PLOTTED	C.W.	
TEMPLATE CHECKED	Miller	
AREAS DETERMINED	C.W.	12-3-74
AREAS CHECKED	Miller	12-3-74
SECOND DETERMINED	R.A.M.	12-4-74
SECOND CHECKED	J.P.H.	12-9-74

SHORT CREEK CHANNEL RELOC. 51+00 to 55+00

Rev. 9-23-74

317
560

JEFFERSON COUNTY
JEF.-7-0.20

140 120 100 80 60 40 20 0 20 40 60 80 100

C-1302 Pool Surface

650 640 630

0 183

2:1 2:1

60+00
643.0

1302 0

C-1718

650 640 630

33 317

2:1 2:1

59+00
646.0

5593 0
1718 0
8327 0

C-2779

650 640 630

24 300

2:1 2:1

End 36" R.C.P. Type A — End 36" R.C.P. Type "A"

58+00
651.0

2779 0
10546 0

660 650 640 630

30 317

C-2916

2:1 2:1

36" R.C.P. Type "A" — 36" R.C.P. Type "A"

57+00
6522

2916 0
10609 0

C-2813

650 640 630

27 150 0

2:1 2:1

36" R.C.P. Type "A" — 36" R.C.P. Type "A"

56+00
651.0

2813 0
9794 0
2476 0

Sta. 55+00

140 120 100 80 60 40 20 0 20 40 60 80 100 120 140

	BY	DATE
EXISTING PLOTTED		
EXISTING CHECKED		
TEMPLATE PLOTTED		
TEMPLATE CHECKED	CJK	7/11/83
AREAS DETERMINED	JMG	10-3-83
AREAS CHECKED	JMG	10-4-83
SECOND DETERMINED	CJK	12-6-83
SECOND CHECKED		

SHORT CREEK CHANNEL RELOC. 56+00 to 60+00

140 120 100 80 60 40 20 0 20 40 60 80 100

318
560

JEFFERSON COUNTY
JEF.-7-0.20

Sta. 64+30 End Work 0 0

547 0

Sta. 64+00 985 0

3648 0

650

650

0

640

630

C-985

Pool Surface

2:1

2:1

63+00

640.1

985 0

3735 0

0

650

650

640

630

C-1032

Pool Surface

2:1

2:1

62+00

640.7

1032 0

3782 0

0

650

650

640

630

C-1010

Pool Surface

2:1

2:1

61+00

640.7

1010 0

4282 0

0

Sta. 60+00

Sta. 60+00

1302 0

140 120 100 80 60 40 20 0 20 40 60 80 100 120 140

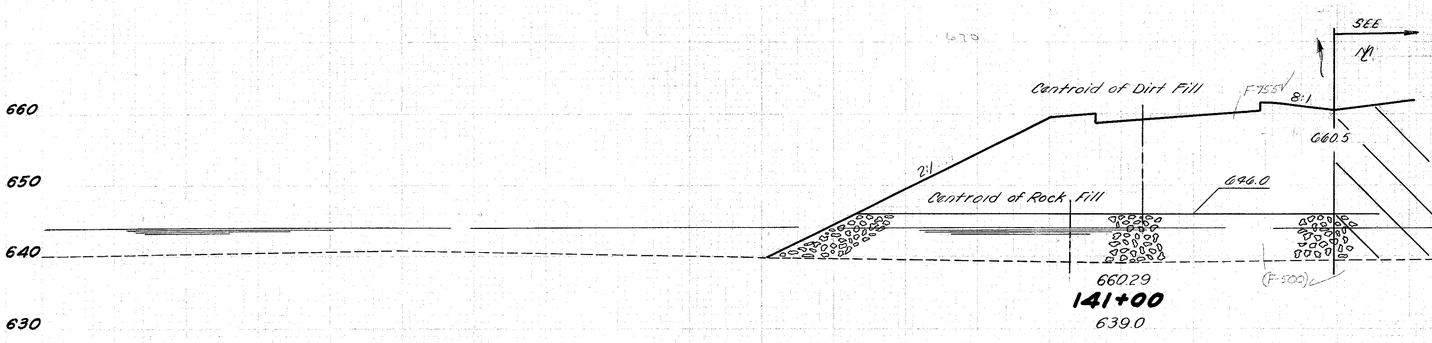
	BY	DATE
EXISTING PLOTTED		
EXISTING CHECKED		
TEMPLATE PLOTTED		
TEMPLATE CHECKED		
AREAS DETERMINED	DJH	11-25-68
AREAS CHECKED	WLB	12-3-68
SEEDING DETERMINED	DJH	12-6-68
SEEDING CHECKED	WLB	12-6-68

SHORT CREEK CHANNEL RELOC. 61+00 to 63+00

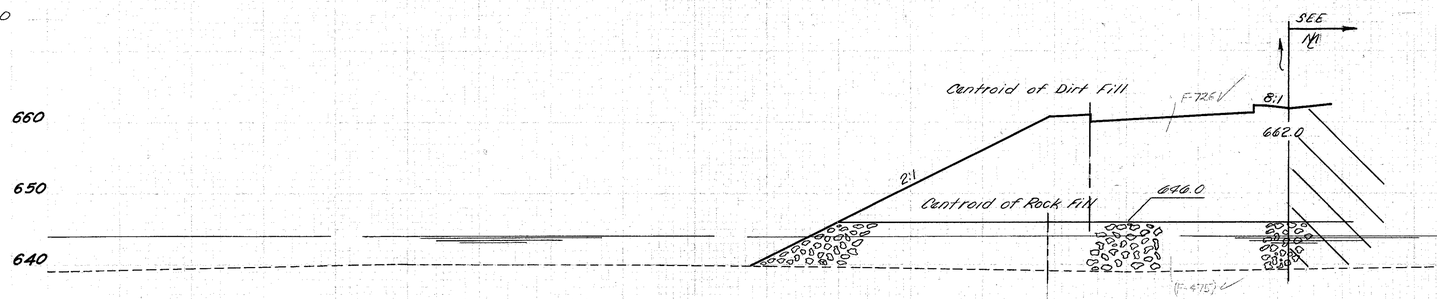
319
560

JEFFERSON COUNTY
JEF-7-0.20

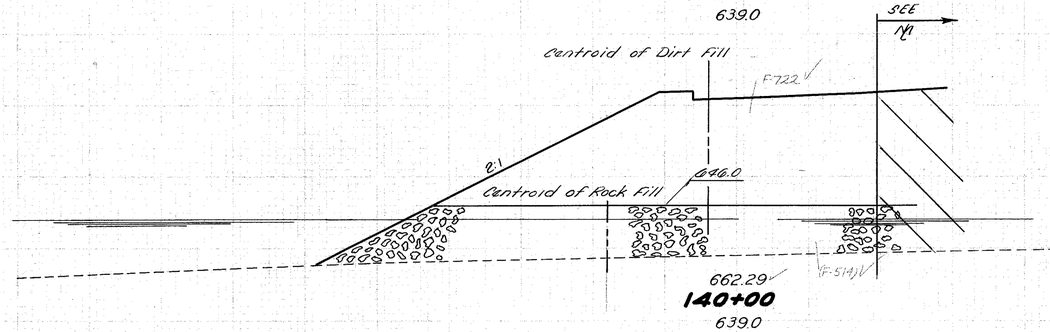
140 120 100 80 60 40 20 0 20 40 60 80 100



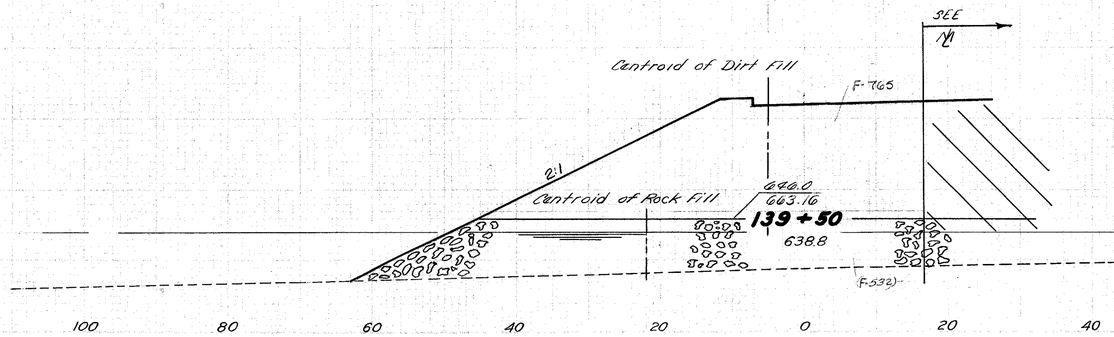
46 250



44 233



40 231



43 236 42

Sta. 139+00
From N1 Sections

	BY	DATE
EXISTING PLOTTED		
EXISTING CHECKED		
TEMPLATE PLOTTED		
TEMPLATE CHECKED	CHL	12-3-58
AREAS DETERMINED	WLB	12-3-58
AREAS CHECKED	WLB	12-3-58
SECTIONS DETERMINED	JMC	12-4-58
SECTIONS CHECKED	JMC	12-4-58

660 650 640 630

0 755 Rock 500
0 1371 Rock 867
0 1341 Rock 879
0 1377 Rock 930
0 1397 Rock 532
0 1069 0 744 Rock 623

Pool Surface

Corrected Length
Rock 48'
Dirt 50'

Corrected Length
Rock 48'
Dirt 50'

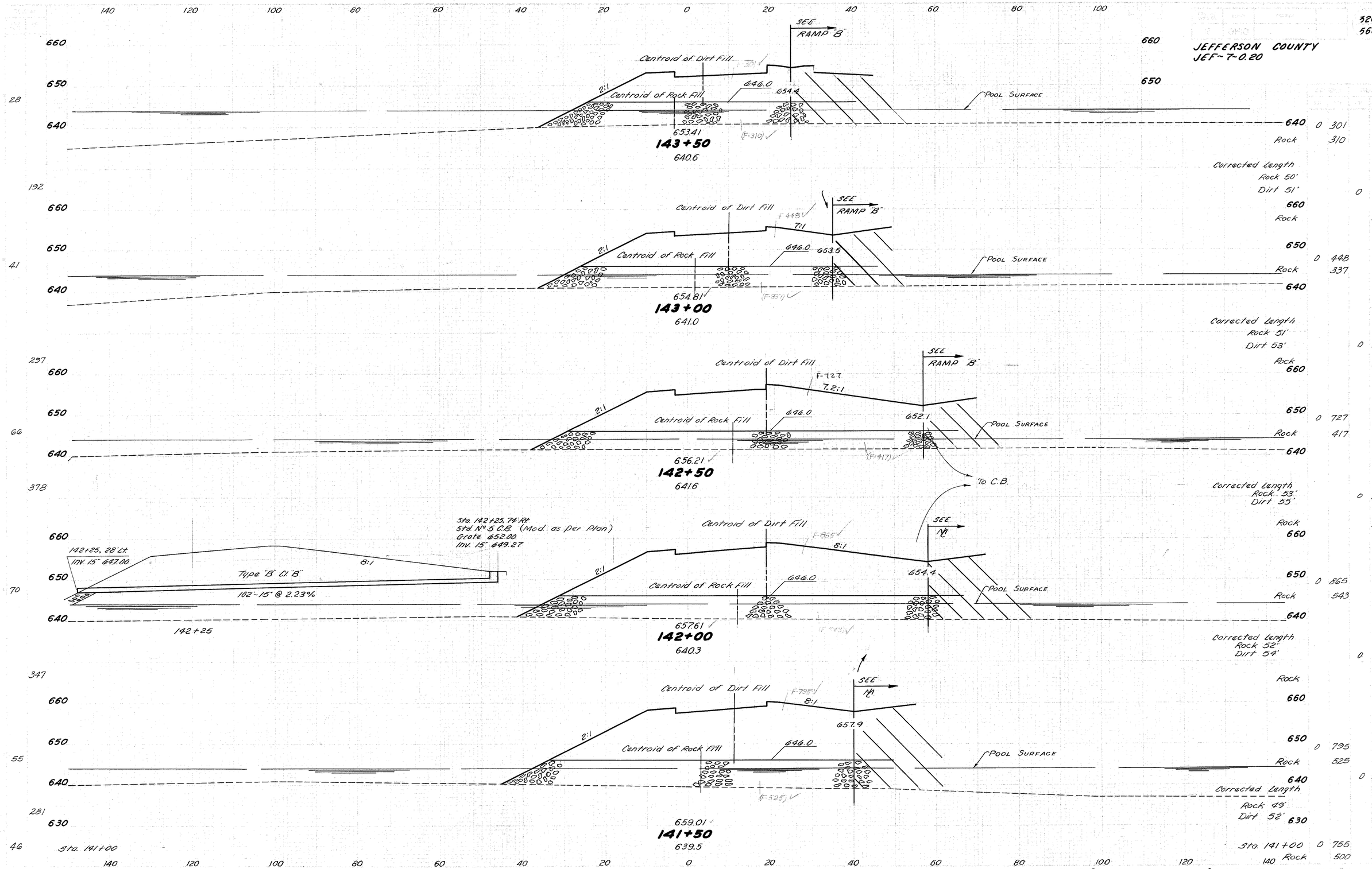
Corrected Length
Rock 48'
Dirt 50'

139+00 From N1 Sections.

0 726 Rock 475
0 722 Rock 514

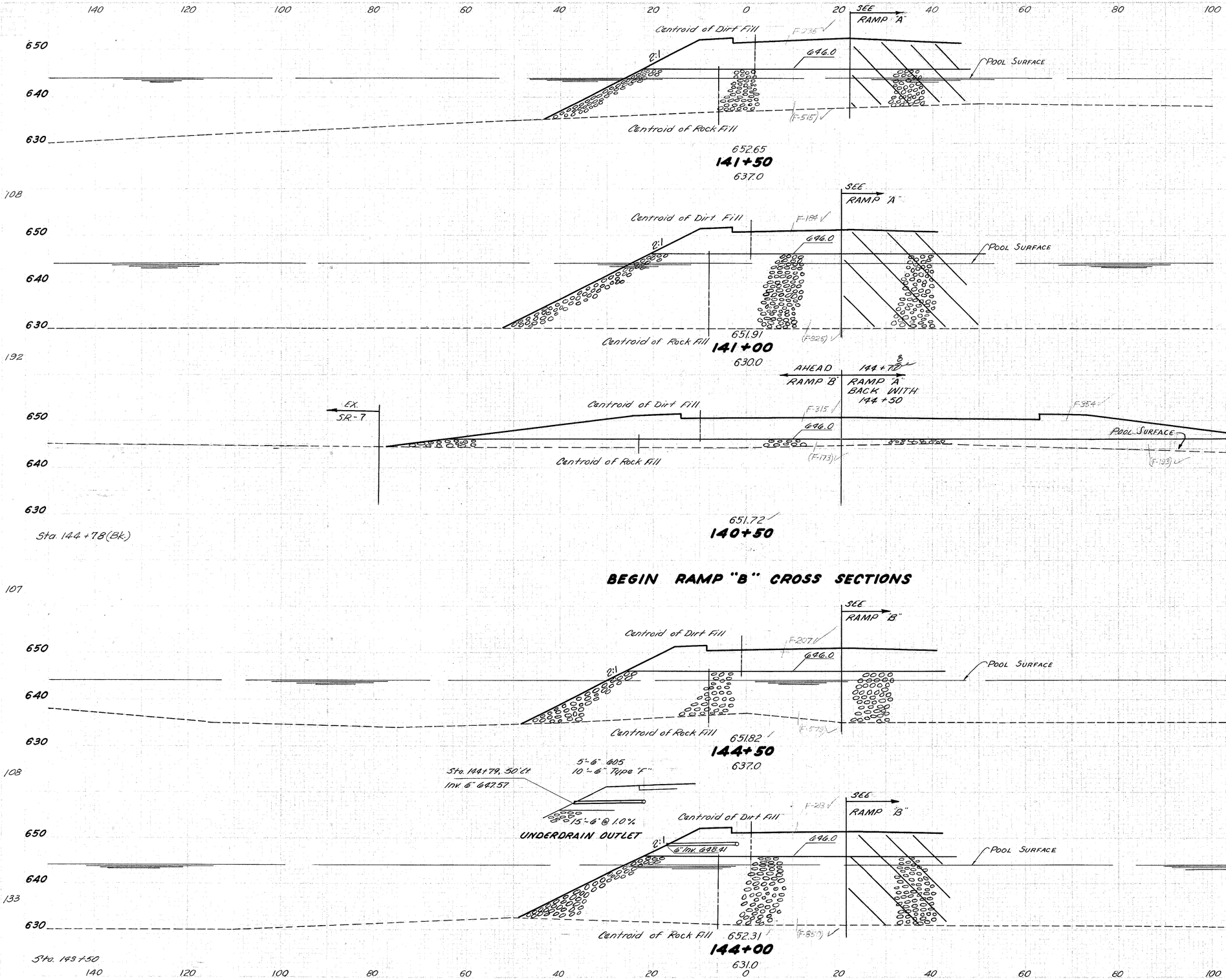
140 120 100 80 60 40 20 0 20 40 60 80 100 120 140

RAMP "A" (S.R. 150 INTER.) 139+50 to 141+00



	BY	DATE
EXISTING PLOTTED		
EXISTING CHECKED		
TEMPLATE PLOTTED		
TEMPLATE CHECKED		
AREAS DETERMINED	SNL	7/10/68
AREAS CHECKED	RW	12-3-68
SEEDING DETERMINED	MLB	12-4-68
SEEDING CHECKED	JFW	12-4-68

RAMP "A" (S.R. 150 INTER.) 141+50 to 143+50

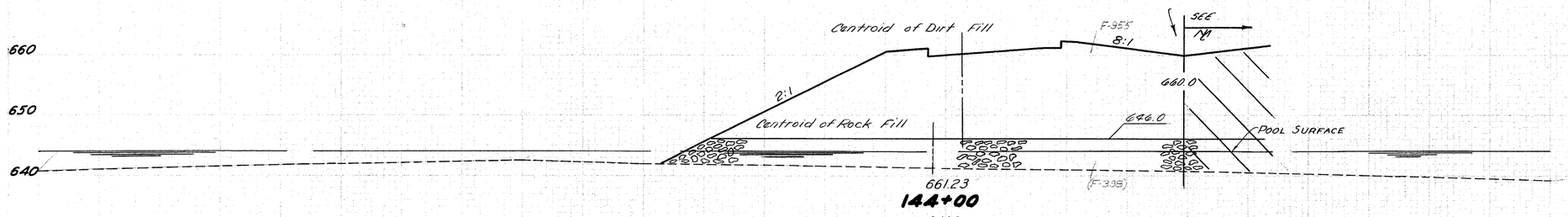


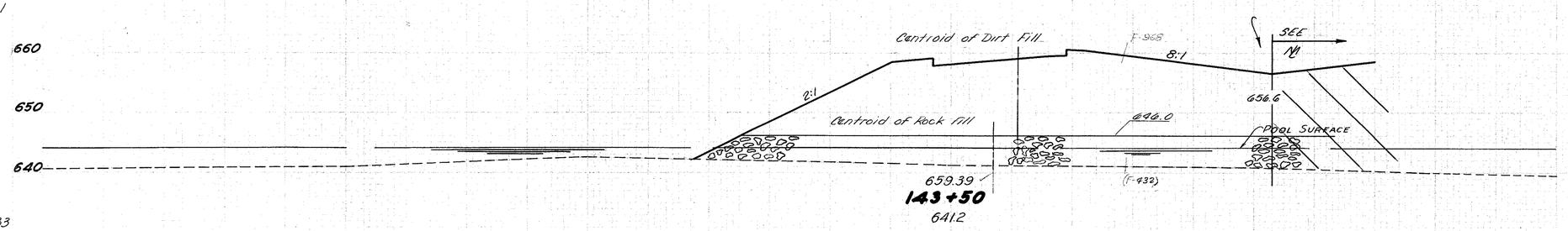
RAMP "A" (S.R. 150 INTER.) 144+00 to 144+50 & RAMP "B" (S.R. 150 INTER.) 140+50 to 141+50

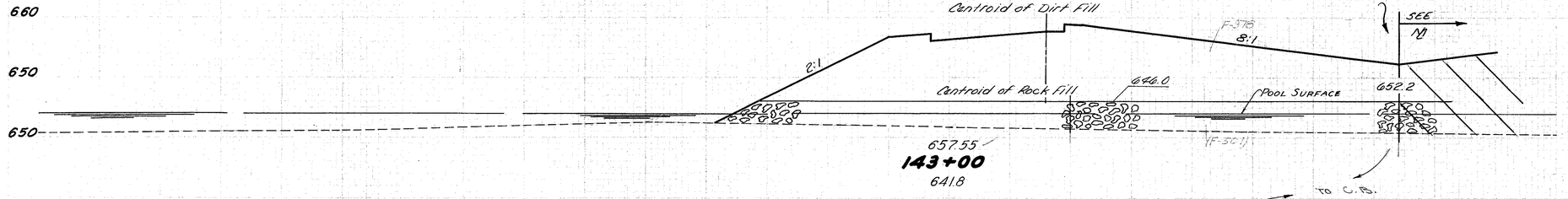
322
560

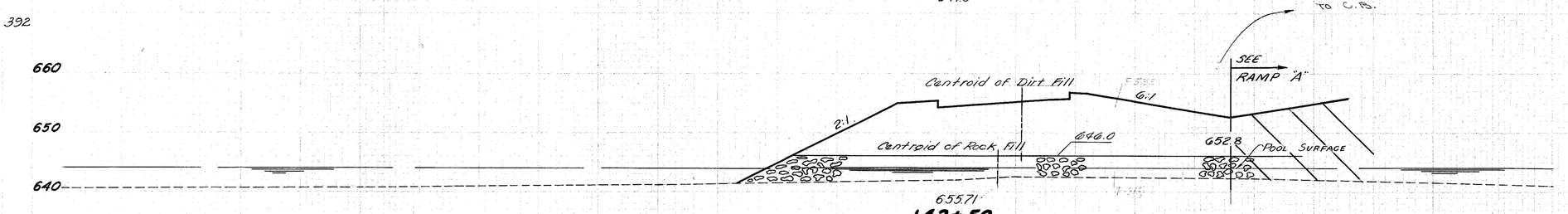
JEFFERSON COUNTY
JEF-7-0.20

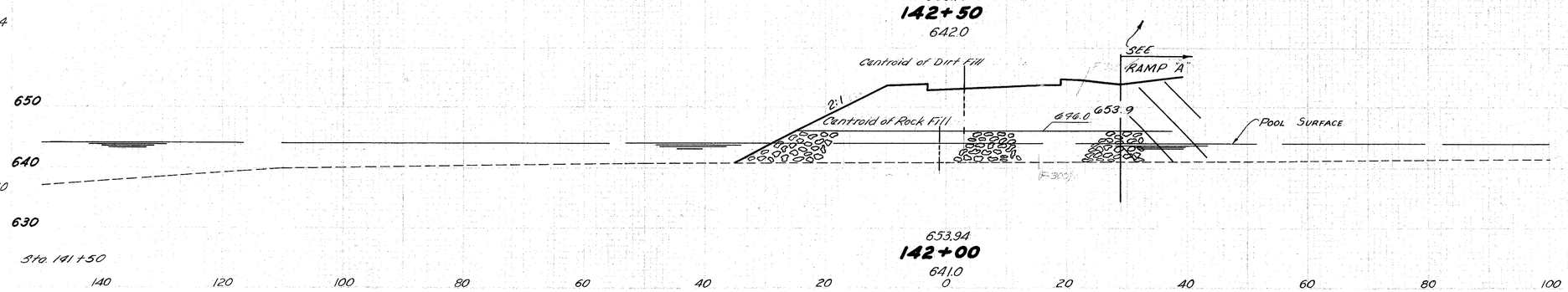
140 120 100 80 60 40 20 0 20 40 60 80 100





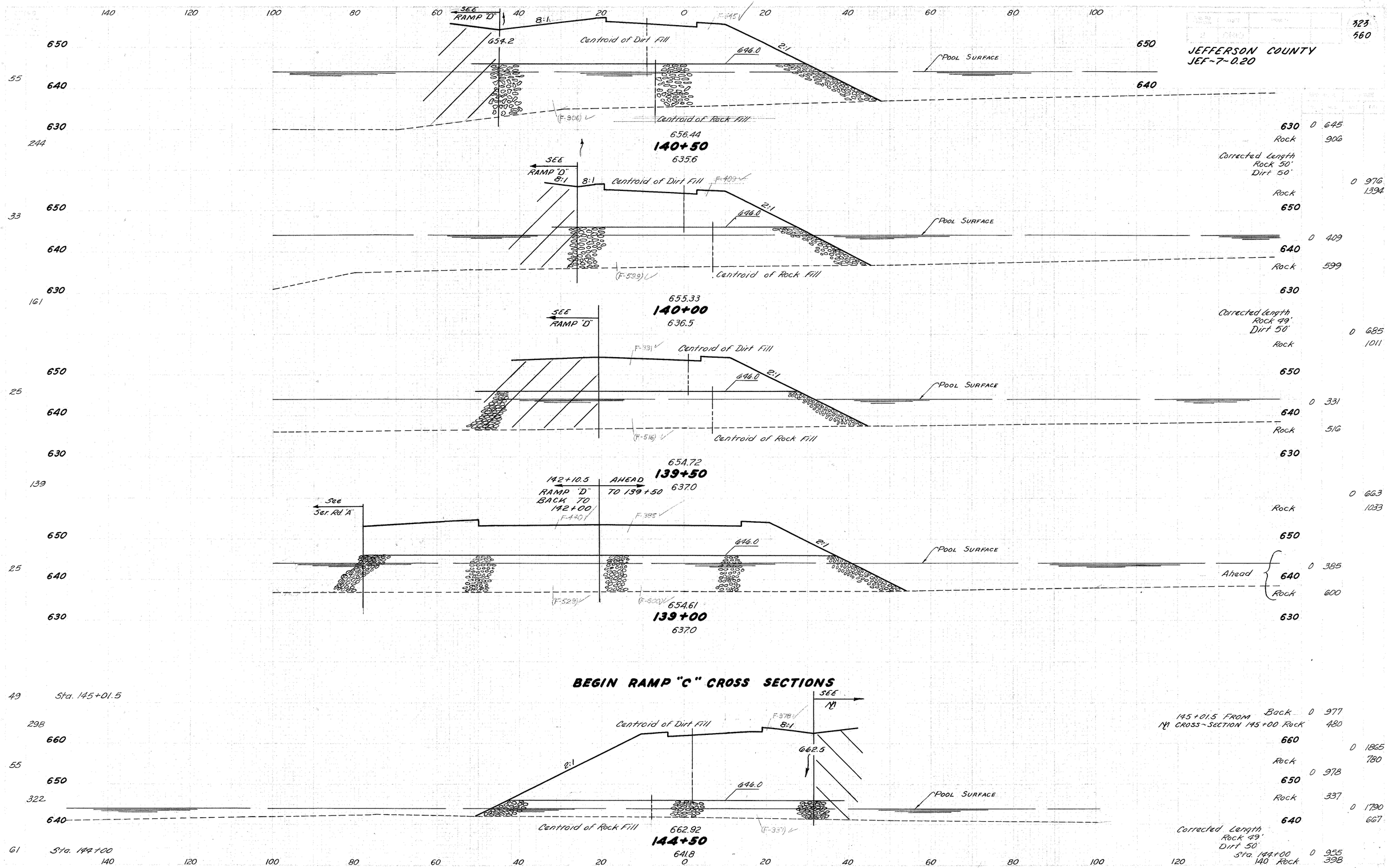






140 120 100 80 60 40 20 0 20 40 60 80 100 120 140

| | | |


140 120 100 80 60 40 20 0 20 40 60 80 100
SEE RAMP "D"
8:1
654.2
Centroid of Dirt Fill
F-545
2:1
696.0
Pool Surface
650
640
630
55
(F-906)
Centroid of Rock Fill
656.44
140+50
635.6
244
SEE RAMP "D"
8:1
8:1
Centroid of Dirt Fill
F-409
2:1
696.0
Pool Surface
650
640
630
33
(F-599)
Centroid of Rock Fill
655.33
140+00
636.5
161
SEE RAMP "D"
F-331
Centroid of Dirt Fill
2:1
696.0
Pool Surface
650
640
630
25
(F-516)
Centroid of Rock Fill
654.72
139+50
637.0
139
142+10.5 RAMP "D" BACK TO 142+00
AHEAD TO 139+50
See Ser. Rd. "A"
F-440
F-385
2:1
696.0
Pool Surface
650
640
630
25
(F-529)
(F-600)
654.61
139+00
637.0
BEGIN RAMP "C" CROSS SECTIONS
49
Sta. 145+01.5
298
660
650
55
322
640
G1
Sta. 142+00
SEE NM
F-978
Centroid of Dirt Fill
8:1
2:1
662.5
696.0
Pool Surface
Centroid of Rock Fill
662.92
144+50
641.8
(F-337)
140 120 100 80 60 40 20 0 20 40 60 80 100 120 140
RAMP "B" (S.R. 150 INTER.) 144+50 & RAMP "C" (S.R. 150 INTER.) 139+00 to 140+50
JEFFERSON COUNTY
JEF-7-0.20
323
560
650
640
630
0 645
Rock 906
Corrected Length
Rock 50'
Dirt 50'
0 976
Rock 1394
650
0 409
640
Rock 599
630
Corrected Length
Rock 49'
Dirt 50'
0 685
Rock 1011
650
0 331
640
Rock 516
630
0 663
Rock 1033
650
0 385
Ahead
640
Rock 600
630
145+01.5 FROM NM
Back 0 977
CROSS-SECTION 145+00 Rock 480
660
0 1865
Rock 780
650
0 978
Rock 337
0 1790
640
667
Corrected Length
Rock 49'
Dirt 50'
Sta. 144+00
0 955
140 Rock 398
DATE
BY
EXISTING PLOTTED
EXISTING CHECKED
TEMPLATE PLOTTED
TEMPLATE CHECKED
AREAS DETERMINED
AREAS CHECKED
SECTIONS DETERMINED
SECTIONS CHECKED
1/9/58
2-1-58
1-28-58
2-3-58
1-29-58
2-4-58
1-30-58
2-5-58

JEFFERSON COUNTY
JEF-7-0.20

140 120 100 80 60 40 20 0 20 40 60 80 100

46
267
50
306
60
372
74
358
55

660 650 640 630 636

Sta. 140+50

Sta. 140+83.69 ℄ Ramp "C"
Std. No. S.E.B. (Not as Per Plan)
Grate: 652.40
Inv. 12" 649.97

12" Dia. 3 Cl. RCP
12" Dia. 3 Cl. RCP
END VIEW

℄ Ramp "C"
648.00
2:1
99'-12" @ 3.00%
Type "B" Class "B"

PROFILE 12" @ Sta 140+83 Ramp "C"

650 640

SEE N1

Centroid of Dirt Fill
663.2
F-806
2:1
646.0
Pool Surface
662.66
142+50
635.5
Centroid of Rock Fill
(F-1014)

660 650 640 630

0 806
Rock 1014

Corrected Length
Rock 96'
Dirt 50'

SEE N1

8:1
Centroid of Dirt Fill
661.5
F-836
2:1
646.0
Pool Surface
661.22
142+00
630.0
Centroid of Rock Fill
(F-1266)

660 650 640 630

0 1520
Rock 1943
0 836
Rock 1266

Corrected Length
Rock 98'
Dirt 52'

SEE N1

8:1
Centroid of Dirt Fill
658.2
F-872
2:1
646.0
Pool Surface
659.62
141+50
630.0
Centroid of Rock Fill
(F-1534)

660 650 640 630

0 1644
Rock 2489
0 872
Rock 1534

Corrected Length
Rock 51'
Dirt 53'

SEE N1

8:1
Centroid of Dirt Fill
654.3
To C.B.
F-922
2:1
646.0
Pool Surface
658.00
141+00
631.5
Centroid of Rock Fill
(F-1491)

660 650 640 630

0 1761
Rock 2858
0 922
Rock 1491

Corrected Length
Rock 52'
Dirt 53'

Sta. 140+50 0 645
Rock 906

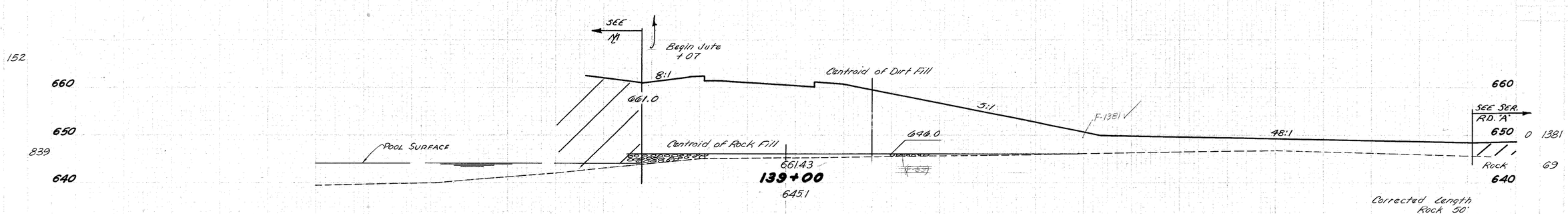
	BY	DATE
EXISTING PLOTTED		
EXISTING CHECKED		
TEMPLATE PLOTTED		
TEMPLATE CHECKED	[illegible]	7/15/68
AREAS DETERMINED	[illegible]	[illegible]
AREAS CHECKED	W.L.B.	12-3-68
SECOND DETERMINED	J.F.H.	12-4-68
SECOND CHECKED		

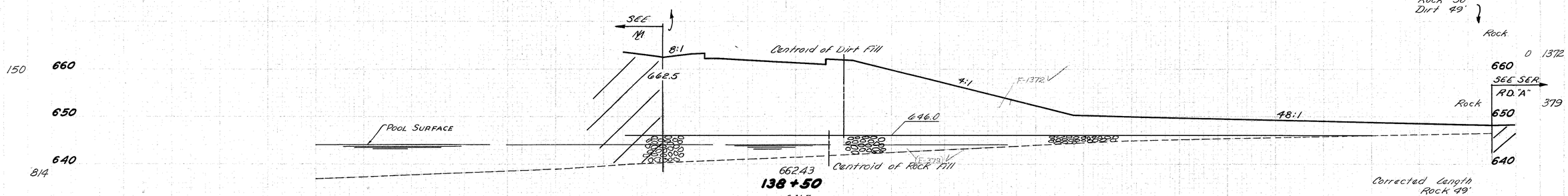
RAMP "C" (S.R. 150 INTER.) 141+00 to 142+50

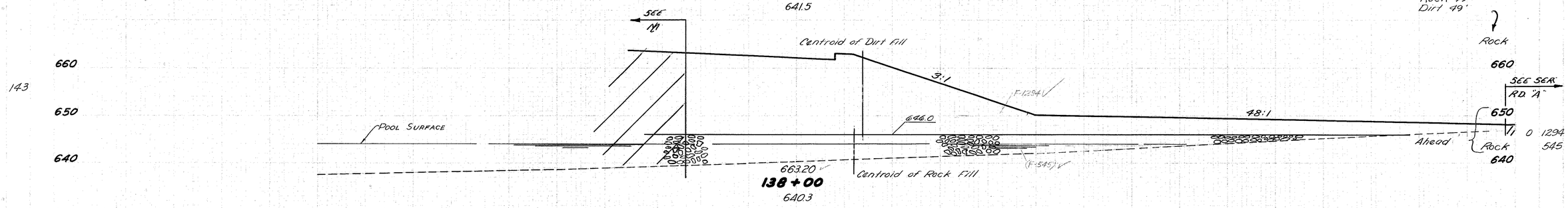
140 120 100 80 60 40 20 0 20 40 60 80 100

325
560

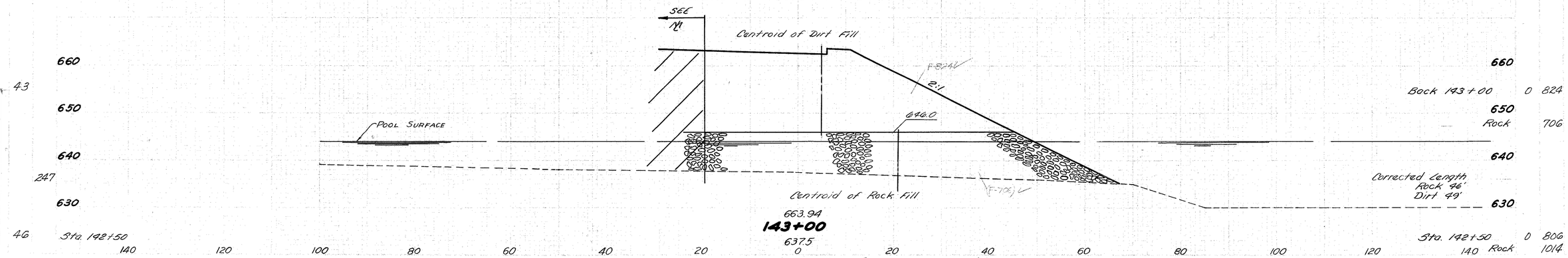
JEFFERSON COUNTY
JEF-7-0.20







BEGIN RAMP "D" CROSS SECTIONS



	DATE
EXISTING PLOTTED	
EXISTING CHECKED	
TEMPLATE PLOTTED	
TEMPLATE CHECKED	
AREAS DETERMINED	12-5-68
AREAS CHECKED	12-6-68
VOLUMES COMPUTED	12-9-68
VOLUMES CHECKED	12-9-68

RAMP "C" (S.R.150 INTER.) 143+00 & RAMP "D" (S.R. 150 INTER.) 138+00 to 139+00

JEFFERSON COUNTY
JEF-7-0.20

140 120 100 80 60 40 20 0 20 40 60 80 100

660 / 650 / 640 / 630

106

SEE RAMP "C"

8:1 — 655.8

6:1 — 646.0

48:1 — F-764 — POOL SURFACE

SEE SER. RD. "A"

0 764
Rock 1588

655.72
141+00
6354

(F-1588)

Corrected Length
Rock 41'
Dirt 47'

728

660 / 650 / 640 / 630

156

SEE RAMP "C"

7:1 — 653.4

6:1 — F-1212 — 646.0

48:1 — POOL SURFACE

SEE SER. RD. A

0 1212
Rock 2853

(F-2853)

TO C.B.

657.20
140+50
630.0

Corrected Length
Rock 42'
Dirt 48'

889

660 / 650 / 640 / 630

164

SEE N1

8:1 — 655.5

6:1 — F-1412 — 646.0

48:1 — POOL SURFACE

SEE SER. RD. "A"

0 1412
Rock 2961

(F-2961)

658.76
140+00
630.0

Corrected Length
Rock 35'
Dirt 50'

892

660 / 650 / 640 / 630

157

SEE N1

8:1 — Centroid of Dirt Fill — 659.0

6:1 — F-1434 — 646.0

48:1 — POOL SURFACE

SEE SER. RD. "A"

0 1434
640 818
0 2450
Rock 690

(F-37)

(F-761)

660.21
139+50
646.0

Centroid of Rock Fill

Corrected Length
Rock 42'
Dirt 47'

858

660 / 650 / 640 / 630

152

Sta. 139+00

0 1381
69

140 120 100 80 60 40 20 0 20 40 60 80 100 120 140

BY	DATE
EXISTING PLOTTED	8-2-21
EXISTING CHECKED	8-3-21
TEMPLATE PLOTTED	7/16/22
TEMPLATE CHECKED	7-18-22
AREAS REVISED	7-19-22
AREAS CHECKED	7-20-22
SEEDING DETERMINED	8-1-22
SEEDING CHECKED	8-2-22

RAMP "D" (S.R. 150 INTER.) 139+50 to 141+00

140 120 100 80 60 40 20 0 20 40 60 80 100

327
560

JEFFERSON COUNTY
JEF-7-0.20

28 Sta. 142+10.5 (Back)

142+10.5 Back FROM RAMP "C" CROSS-SECTION
0 440
Rock 529

40
660
40 650
640
289 630

SEE RAMP "C"

F-478

SEE SER. RD. "A"

646.0

POOL SURFACE

654.5A
142+00
636.9

(F-625)

660 0 178
Rock 224
650
0 478
640
Rock 625
630

Corrected Length
Rock 48'
Dirt 49'
0 894
Rock 1339

64
660
650
472
640
630

SEE RAMP "C"

Centroid of Dirt Fill

F-508

6" INV. 649.93

6:1

48:1

SEE SER. RD. "A"

646.0

6" Underdrain @ 1.0%

POOL SURFACE

0 508
640
Rock 882
0 1083
Corrected Length
Rock 42'
630 1921
Dirt 96'

654.81
141+50
636.5

Centroid of Rock Fill

(F-882)

106 Sta. 141+00
0 764
140 Rock 1588

140 120 100 80 60 40 20 0 20 40 60 80 100 120 140

	BY	DATE
EXISTING PLOTTED		
EXISTING CHECKED		
TEMPLATE PLOTTED		
TEMPLATE CHECKED		7/1/18
*HEAD DETERMINED		11-5-18
*HEAD CHECKED	M.L.S.	12-5-18
*TYING DETERMINED		12-6-18
TYING CHECKED		

RAMP "D" (S.R. 150 INTER.) 141+50 to 142+00

END AREA		VOLUME	
CUT	FILL	CUT	FILL
0	0	1	11
0	0	0	9
4	36	6	90
2	29	3	38
1	61	2	124
1	12	1	29
1	73	2	120
1	19	1	31
3	57	4	77
1	15	1	36
3	26	1	12
2	24	1	11

0	0		
0			

SEQUENCE	
END AREA	SB VOLS
0	17
18	81
11	6
18	67
25	0

	BY	DATE
EXISTING PLOTTED		
EXISTING CHECKED		
TEMPLATE PLOTTED		
TEMPLATE CHECKED	CNL	7-68
AREAS NOTED	CNL	10-68
AREAS CHECKED	CLW	10-68
SEQUENCE NOTED	CLW	12-68
SEQUENCE CHECKED	CLW	12-68

FED. AID PROJECT	STATE	PROJECT	
2	OHIO		

328
560

JEFFERSON COUNTY
JEF-7-0.20

10+17 Rock

10+18.28 "Rt. 8" Inf. 882.14

5"-8" 605
10"-8" Pipe "F"
UNDERDRAIN OUTLET

10+50

10+00

9+50

9+00

8+50

8+00

7+50

7+75 Rock

℄ Ex. SR-7

RAMP "B"

9+50 (Ah.) Only

8+50 (Bk.) Only

Ex. S.R. 7 AT S.R. 150 INTER. RAMPS "A" & "B" 7+50 to 10+50

JEFFERSON COUNTY
JEF-7-0.20

140 120 100 80 60 40 20 0 20 40 60 80 100

660
650
640

F-14B 4:1 2:1
10" Ex. GAS
OHIO RIVER

57

658.43
227+00
655.4

319

660
650
640

F-14 F-28 4:1 2:1
10" Ex GAS
OHIO RIVER

58

657.04
226+50
656.0

269

660
650
640

F-1 C-25 F-1
10" Ex. GAS
OHIO RIVER

39

656.27
226+00
656.1

211

660
650
640

C-32
10" EX. GAS
OHIO RIVER

36

Sta. 225+49.34

656.12
225+50
656.3

0

670
660
650
640

OHIO RIVER

EXIST.
225+00
656.8

140 120 100 80 60 40 20 0 20 40 60 80 100

0 146
0 174
0 42
23 41
25 2
54 2
32 0

Sta. 225+49.34
Begin Work

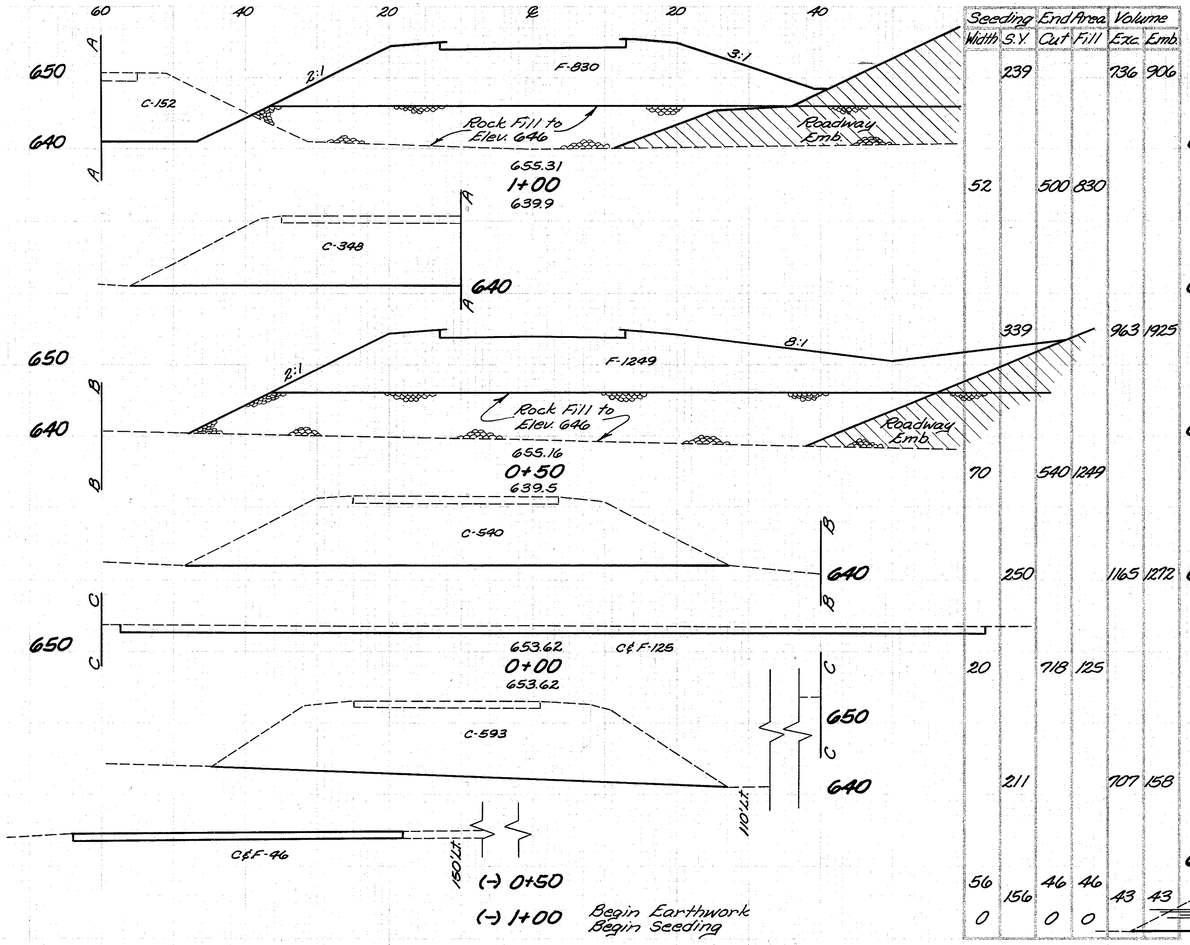
	DATE
EXISTING PLOTTED	7-20
SURFACE PLOTTED	7-20
TEMPLATE PLOTTED	7-20
TEMPLATE CHECKED	7-20
AREAS DETERMINED	7-20
AREAS CHECKED	7-20
SEEDING DETERMINED	7-21-68
SEEDING CHECKED	7-21-68

T.R. 155 225+00 to 227+00

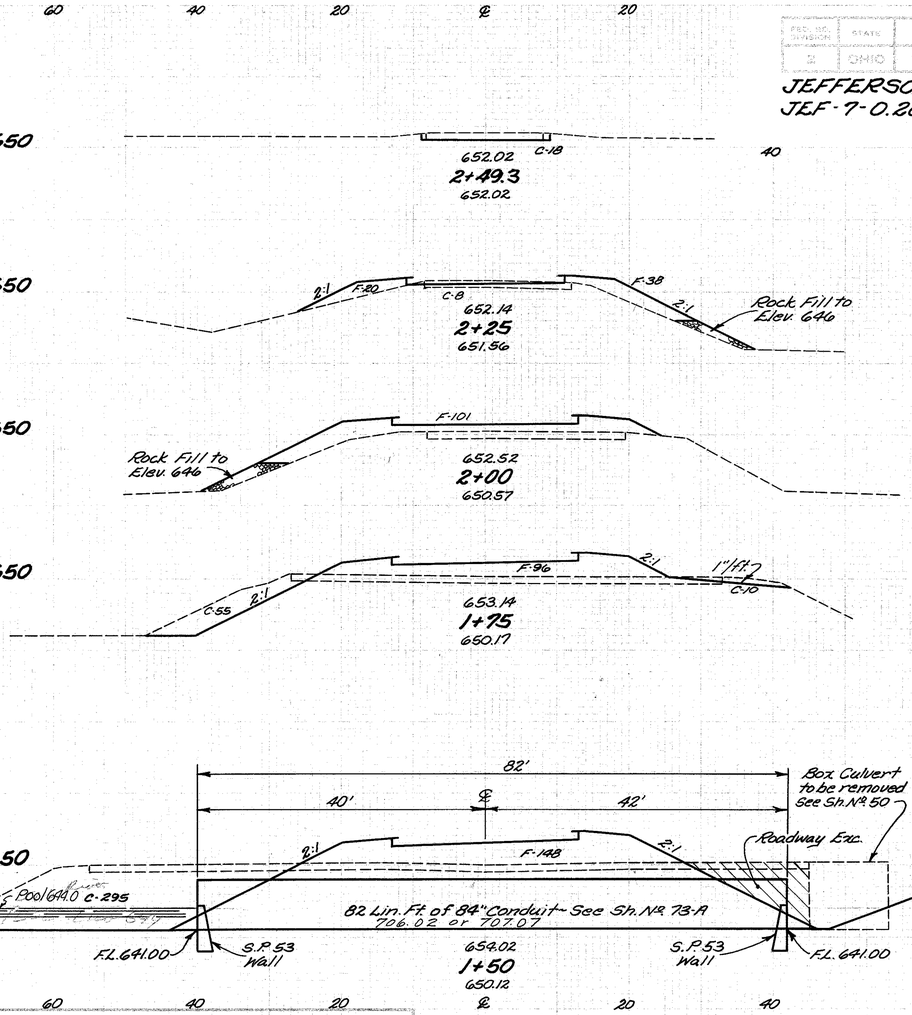
FED. RD. DIVISION	STATE	PROJECT	
2	OHIO		

328A
560

JEFFERSON COUNTY
JEF-7-0.20

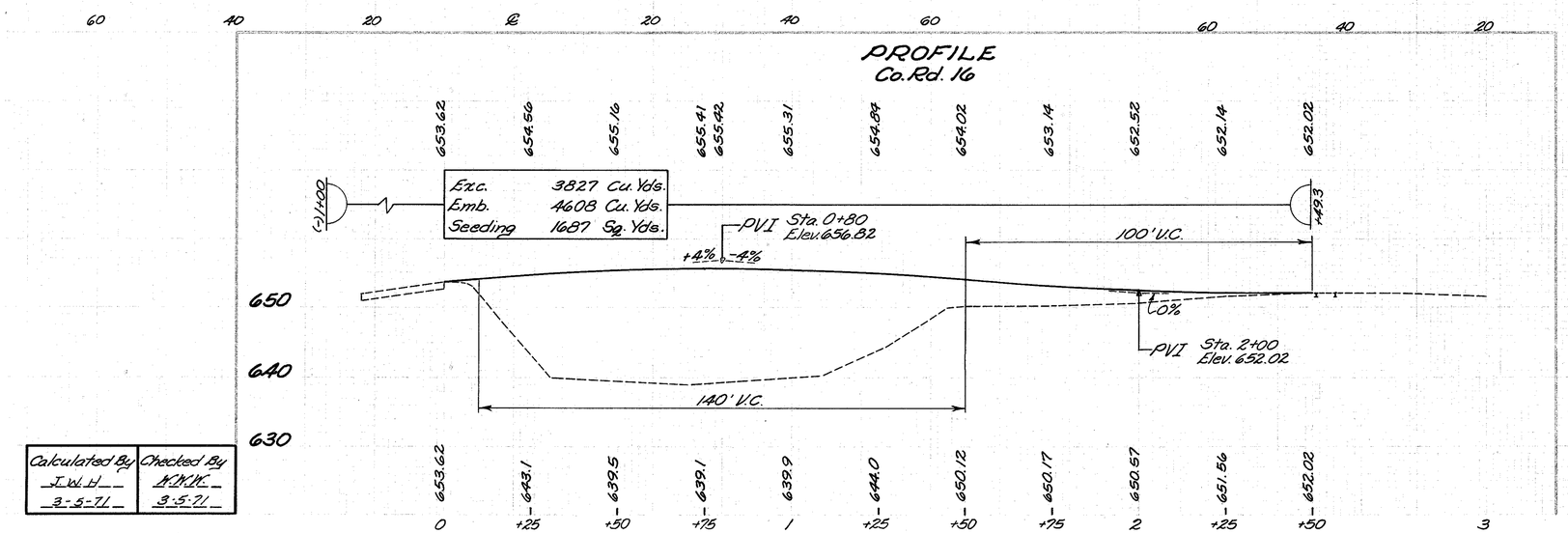


Seeding Width	Seeding S.Y.	End Area Cut	End Area Fill	Volume Exc.	Volume Emb.
	239			736	906
52		500	830		
	339			963	1925
70		540	1249		
	250			1165	1272
20		718	125		
	211			707	158
56	156	46	46	43	43
0		0	0		



Seeding Width	Seeding S.Y.	End Area Cut	End Area Fill	Volume Exc.	Volume Emb.
20		18	0		
	85			12	26
43		8	58		
	124			4	74
46		0	101		
	150			30	91
62		65	96		
	133			167	113
34		295	148		

Note:
Seed as per General Note or to Elev. 646



Calculated By	Checked By
J.W.H.	K.W.K.
3-5-71	3-5-71

C.R. 16 ~ PROFILE & CROSS SECTIONS

STATE	ROUTE	SECTION
2	OHIO	

330
560

JEFFERSON COUNTY
JEF-7-0.20

140 120 100 80 60 40 20 0 20 40 60 80 100

670 660 650 640

81

2:1 F-498 2:1

10" EX. GAS

OHIO RIVER

664.73
229+00
656.0

0 498

469

3:1 F-447 2:1

88

10" EX. GAS

OHIO RIVER

663.40
228+50
656.2

0 875

0 447

494

4:1 F-355 3:1

90

10" EX. GAS

OHIO RIVER

661.83
228+00
656.3

0 743

0 355

453

4:1 F-245 3:1

73

10" EX. GAS

OHIO RIVER

660.13
227+50
656.0

0 556

0 245

361

57

Sta. 227+00

Sta. 227+00

0 362

0 146

	BY	DATE
EXISTING PLOTTED	CSH	8-21-18
EXISTING CHECKED	DBB	8-28-18
TEMPORARY SEEDING		
TEMPORARY MULCH		
AREAS DISTURBED	CSH	10-2-18
AREAS CHECKED	DBB	11-5-18
SEEDING DETERMINED	MLB	12-5-18
SEEDING CHECKED	DBB	12-5-18

T.R. 155 227+50 to 229+00

331
560

JEFFERSON COUNTY
JEF-7-0.20

140 120 100 80 60 40 20 0 20 40 60 80 100

93

INTERSECTION CONNECTION

670
660
650
640

2:1

F-656

2:1

10" EX. GAS

OHIO RIVER

ADD. FILL FOR INTERSECTION CONNECTION

0 2600

0 656

514

667.3

670
660

2:1

F-975

2:1

6'

231+80.5 6' LT. TR 155 RELOC.
INV. 15" 654.00
HW-E

667.53
231+00
6572

102'-15" @ 1.5%

670

18" D.R.C.P.

230+79.5 24.5 LT. TR 155
INV. 15" 652.47
HW-E

70 60 50 40 30 20 10 0 10 20 30 40 50 60

603 - 102'-15" TYPE "A" CONDUIT
SEC. 706.02 CL. III 706.08
OR 706.01

602 - 0.52 C.Y. CONCRETE MASONRY

601 2.7 C.Y. R.C.P. (Type "B")

PROFILE CULVERT UNDER T.R. 155 CONNECTION

92

670
660
650
640

2:1

F-631

2:1

10" EX. GAS

OHIO RIVER

667.20

230+50

6573

0 1192

0 631

511

92

670
660
650
640

2:1

F-634

2:1

10" EX. GAS

OHIO RIVER

494

666.63

230+00

656.2

0 1171

0 634

86

670
660
650
640

2:1

F-579

2:1

10" EX. GAS

OHIO RIVER

464

665.80

229+50

655.9

0 1123

0 579

81

Sta. 229+00

140 120 100 80 60 40 20 0 20 40 60 80 100

Sta. 229+00

0 997

0 498

T.R. 155 229+50 to 231+00

	BY	DAT.
ADDITIONS PLOTTED		
DRAFTING FINISHED		
TEMPLATE PLOTTED		
TEMPLATE CHECKED		
LEVELS CHECKED		
QUANTITIES DETERMINED		
DRAWING CHECKED		

JEFFERSON COUNTY
JEF-7-0.20

140 120 100 80 60 40 20 0 20 40 60 80 100

	AREA (SQ. FT.)		VOLUME (CU. YDS.)	
	CUT	FILL	CUT	FILL

71

670
660
650
640

SEE N1
3:1
F-355
2:1
OHIO RIVER

0 355

667.33
233+00
660.6

422

670
660
650
640

SEE N1
2.7:1
F-497
2:1
OHIO RIVER

0 789
0 497

667.00
232+50
658.9

0 1051

478

670
660
650
640

31

SEE N2
3:1
F-638
2:1
OHIO RIVER

0 638

667.43
232+00
658.1

492

TO CULVERT UNDER INTER.

0 1175

670
660
650
640

86

AT GRADE INTERSECTION
2:1
F-631
2:1
OHIO RIVER

497

0 631

667.60
231+50
657.8

0 1192

93

Sta. 231+00

Sta. 231+00

0 656

140 120 100 80 60 40 20 0 20 40 60 80 100

	DATE
EXISTING PLOTTED	12-2-87
EXISTING CHECKED	12-2-87
TEMPLATE PL.	12-2-87
TEMPLATE CHK.	12-3-87
AREAS DETERMINED	12-3-87
AREAS CHECKED	12-4-87
SEEDING DETERMINED	12-4-87
SEEDING CHECKED	12-4-87

T.R. 155 231+50 to 233+00

JEFFERSON COUNTY
JEF-T-0.20

333
560

140 120 100 80 60 40 20 0 20 40 60 80 100

670 660 650 640

SEE NOTE

C-186

659.7

OHIO RIVER

662.36
235+00
666.1

33 186 0 254 9

244

SEE NOTE

C-88 F-10

4:1 3:1

659.55

OHIO RIVER

663.11
234+50
664.2

55 88 10

319

SEE NOTE

C=5 3.3:1 F32 F-32 3:1

659.4

OHIO RIVER

664.23
234+00
663.2

60 5 64 5 257

336

SEE NOTE

3:1 F-214 2:1

659.1

OHIO RIVER

665.40
233+50
661.4

61 0 214 0 527

367

71 0 355

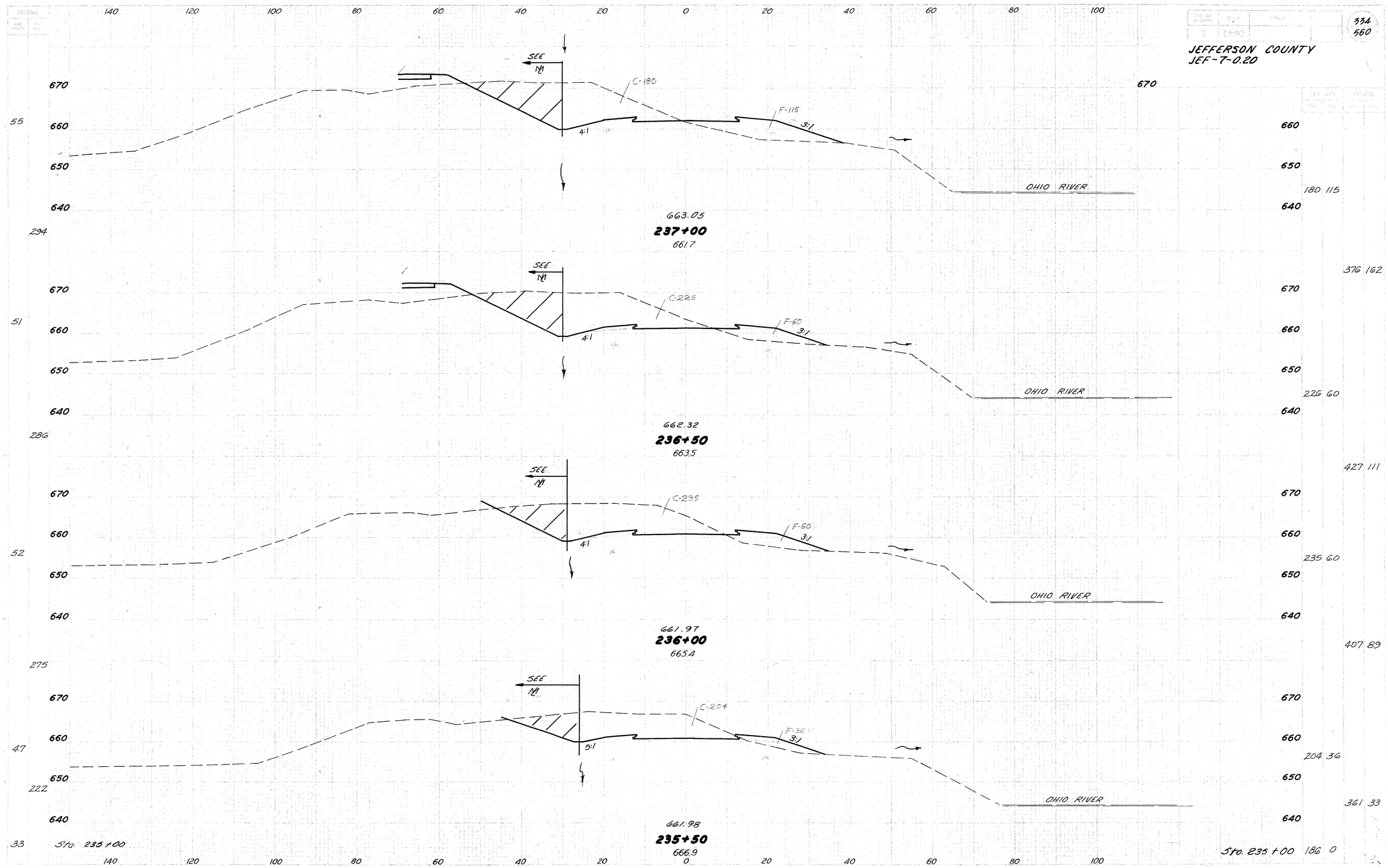
Sta 233+00

140 120 100 80 60 40 20 0 20 40 60 80 100

Sta 233+00

	BY	DATE
DRAWING PLOTTED		
EXISTING CHECKED	[illegible]	6-19-97
TEMPLATE PLOTTED		
TEMPLATE CHECKED		
AREAS DETERMINED	[illegible]	7/15/98
AREAS CHECKED	[illegible]	7-15-98
SEEDING DETERMINED	M.W.	8-4-98
SEEDING CHECKED	[illegible]	8-4-98

T.R. 155 233+50 to 235+00



334
560
JEFFERSON COUNTY
JEF-7-0.20
SEE
C-180
F-115
3:1
4:1
OHIO RIVER
663.05
237+00
661.7
C-226
F-60
662.32
236+50
663.5
C-235
661.97
236+00
665.4
C-204
F-36
5:1
661.98
235+50
666.9
Sta. 235+00
180 115
376 162
226 60
427 111
235 60
407 89
204 36
361 33
186 0
Sta. 235+00
T.R. 155 235+50 to 237+00

JEFFERSON COUNTY
JEF-7-0.20

335
560

140 120 100 80 60 40 20 0 20 40 60 80 100

680
670
660
650
640

SEE N1

C-155
4:1
2:1
F-146
646.0
OHIO RIVER
Rock Fill
APPROX. RIVER BOTTOM
(F-483)

84
444
667.23
238+50
660.5

155 446
Rock 483
245 748
Rock 814

SEE N1

C-110
4:1
F-362
2:1
646.0
OHIO RIVER
Rock Fill
(F-396)
APPROX. RIVER BOTTOM

76
361
665.59
238+00
659.3

110 362
Rock 396
241 443
367

SEE N1

C-150
4:1
F-116
2:1
OHIO RIVER

54
303
664.13
237+50
661.1

150 116
Rock 0
306 214

55
Sta. 237+00

140 120 100 80 60 40 20 0 20 40 60 80 100

Sta. 237+00
180 115

	BY	DATE
EXISTING PLOTTED	JEW	1-82
EXISTING CHECKED	JEW	11-29-82
TEMPLATE PLOTTED		
TEMPLATE CHECKED	JEW	11-29-82
AREAS DETERMINED	JEW	12-3-82
AREAS CHECKED	NLW	12-3-82
VOLUMES DETERMINED	NLW	12-7-82
VOLUMES CHECKED	JEW	12-7-82

T.R. 155 237+50 to 238+50

JEFFERSON COUNTY
JEF-7-0.20

336
560

140 120 100 80 60 40 20 0 20 40 60 80 100

690 680 670 660 650 640

72

SEE ℳ

C-609

6:1

12:1

OHIO RIVER

389

609 0

669.99
240+00
676.5

1245 0

680 670 660 650 640

68

SEE ℳ

C-736

5:1

12:1

OHIO RIVER

736 0

669.55
239+50
678.3

1151 54

680 670 660 650 640

71

SEE ℳ

C-507

F-58

4:1

2:1

OHIO RIVER

507 58

Rock 0

668.63
239+00
672.6

613 467

447

431

84

Sta. 238+50

140 120 100 80 60 40 20 0 20 40 60 80 100

Sta. 238+50

155 446

Rock 483

	BY	DATE
EXISTING PLOTTED	GHH	4-7-88
EXISTING CHECKED	RDW	4-12-88
TEMPLATE PLOTTED		
TEMPLATE CHECKED		
AREAS DETERMINED	GHH	11-7-88
AREAS CHECKED	RDW	11-10-88
SECOND DETERMINED	MLB	12-7-88
SECOND CHECKED	RDW	12-9-88

T.R. 155 239+00 to 240+00

JEFFERSON COUNTY
JEF-7-0.20

331
560

140 120 100 80 60 40 20 0 20 40 60 80 100

690 680 670 660 650 640

75

C-115
12:1
2:1
F-25
OHIO RIVER

453

668.43
241+50
670.3

331 39

88

SEE N1

C-243
8:1
2:1
F-17
OHIO RIVER

444

669.43
241+00
672.0

243 17

72

SEE N1

2:1
8:1
C-467
12:1
664.5
OHIO RIVER

400

669.95
240+50
674.6

657 16
467 0
996 0
609 0

72

Sta. 240+00

140 120 100 80 60 40 20 0 20 40 60 80 100

Sta. 240+00

	BY	DATE
EXISTING PLOTTED	D.S.H.	5-5-2
EXISTING CHECKED	[illegible]	[illegible]
TEMPLATE PLOTTED		
TEMPLATE CHECKED	C.N.L.	7/15/08
AREAS DETERMINED	[illegible]	11-9-2
AREAS CHECKED	[illegible]	[illegible]
SECOND DETERMINED	M.L.R.	12-3-08
SECOND CHECKED	[illegible]	12-9-08

T.R. 155 240+50 to 241+50

140 120 100 80 60 40 20 0 20 40 60 80 100

338
560

JEFFERSON COUNTY
JEF-7-0.20

690
680
670
660
650
640

243+00
664.0

END WORK 242+50

690
680
670
660
650
640

30

C-30

306

OHIO RIVER

664.99
242+50
665.0

690
680
670
660
650
640

80

C-34

12:1

2:1

F-69

431

OHIO RIVER

666.95
242+00
668.3

75 Sta. 241+50

140 120 100 80 60 40 20 0 20 40 60 80 100

Back 30 0

115 64

94 69

194 87

Sta. 241+50 115 25

	BY	DATE
EARTHWORK PLOTTED		4-2
EARTHWORK COMPUTED		7-27
TRANSVERSE PLOTTED		
TEMPLATE CHECKED		7/15/70
AREAS PLANIMETERED		12-3-68
AREAS CHECKED		12-4-68
SECTIONS DETERMINED		
SECTIONS CHECKED		

T.R. 155 242+00 to 243+00

FHWA REGION	STATE	PROJECT	TYPE FUNDS
5	OHIO	STATE	

339
560

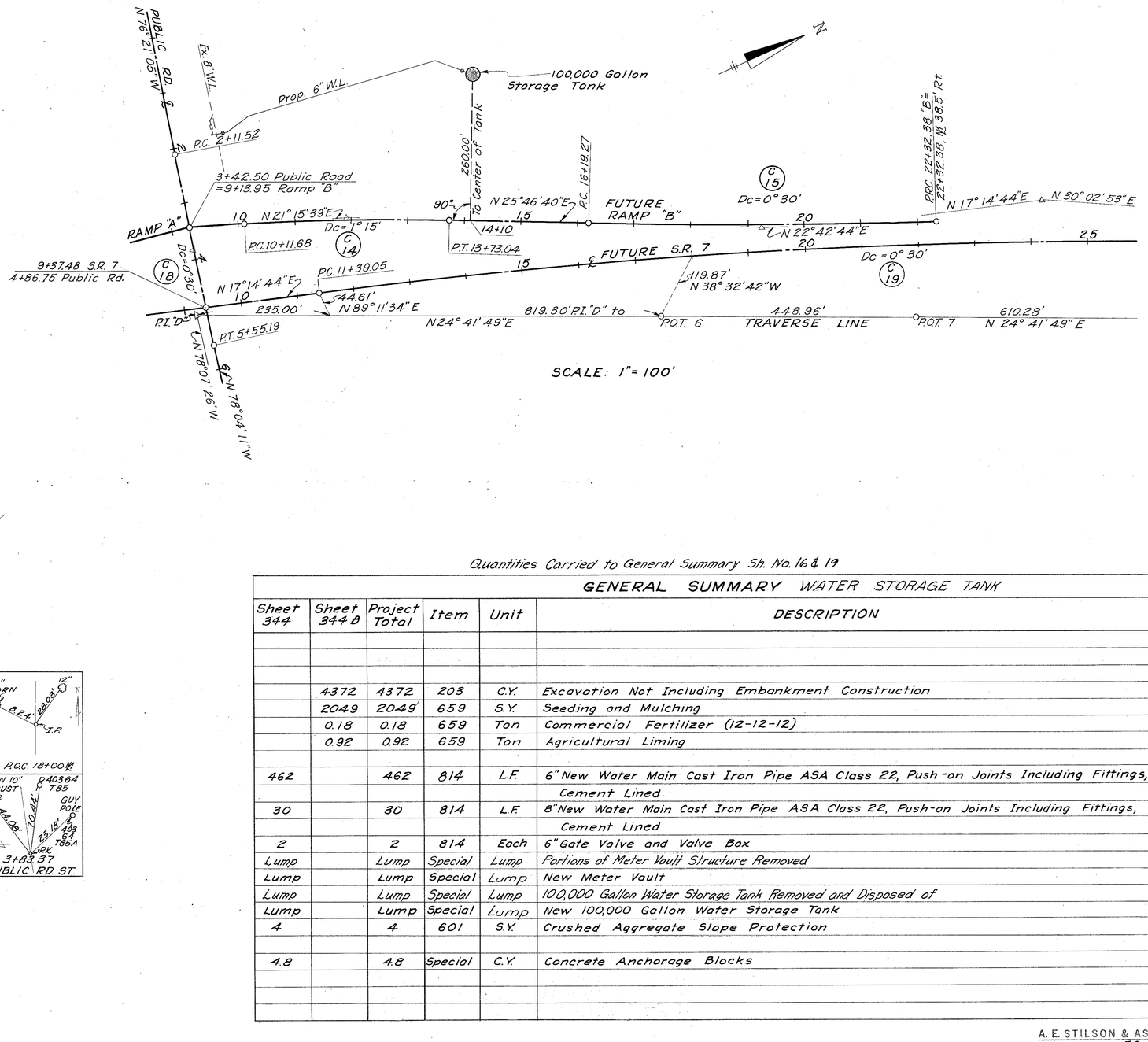
JEFFERSON COUNTY
JEF-7-0.20

CONTROL POINT COORDINATES		
LOCATION	COORDINATES N.	E.
S.R. 7		
P.C. 11+39.05	606,993.00	1,662,047.51
P.I. 24+24.66	608,220.81	1,662,428.65
P.C.C. 36+99.56	609,333.64	1,663,072.38
RAMP "B"		
P.C. 10+11.68	606,923.07	1,661,882.43
P.I. 11+92.45	607,091.53	1,661,947.98
P.T. 13+73.04	607,254.32	1,662,026.60
P.C. 16+19.27	607,476.04	1,662,133.68
P.I. 19+25.90	607,752.16	1,662,267.03
P.R.C. 22+32.38	608,035.01	1,662,385.41
PUBLIC RD.		
P.C. 2+11.52	606,862.17	1,661,719.51
P.I. 3+83.37	606,821.62	1,661,886.51
P.T. 5+55.19	606,786.10	1,662,054.65
INTER. 3+42.50	606,831.99	1,661,846.99

TRAVERSE POINT COORDINATES		
LOCATION	COORDINATES	
P.I. "C"	606,616.49	1,662,772.03
P.I. "D"	606,780.12	1,661,993.92
P.O.T. 6	607,524.48	1,662,336.24
P.O.T. 7	607,932.37	1,662,523.83

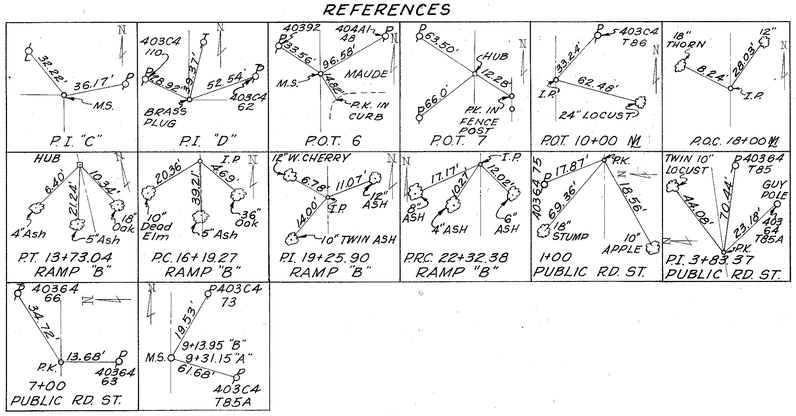
BENCH MARKS		
REF.	ELEV.	DESCRIPTION
17	693.78	M.S. IN TELE. POLE No 703 N.E. COR. OF PUBLIC RD. & WORTHINGTON ST. 18' RT. 9+60

CURVE DATA				
	C-14	C-15	C-18	C-19
P.I.	11+92.45	19+25.90	3+83.37	24+24.66
Δ	4°31'01"	3°03'56"	1°43'06"	12°48'09"
Dc	1°15'00"	0°30'00"	0°30'00"	0°30'00"
R	4583.66'	11,459.16'	11,459.16'	11,459.16'
T	180.77'	306.63'	171.85'	1285.61'
Lc	361.36'	613.11'	343.67'	2560.51'
E	3.56'	4.09'	1.29'	71.89'



SCALE: 1"=100'

REFERENCES



Quantities Carried to General Summary Sh. No. 16 & 19

GENERAL SUMMARY WATER STORAGE TANK					
Sheet 344	Sheet 344 B	Project Total	Item	Unit	DESCRIPTION
	4372	4372	203	C.Y.	Excavation Not Including Embankment Construction
	2049	2049	659	S.Y.	Seeding and Mulching
	0.18	0.18	659	Ton	Commercial Fertilizer (12-12-12)
	0.92	0.92	659	Ton	Agricultural Liming
462		462	814	L.F.	6" New Water Main Cast Iron Pipe ASA Class 22, Push-on Joints Including Fittings, Cement Lined.
30		30	814	L.F.	8" New Water Main Cast Iron Pipe ASA Class 22, Push-on Joints Including Fittings, Cement Lined
2		2	814	Each	6" Gate Valve and Valve Box
Lump		Lump	Special	Lump	Portions of Meter Vault Structure Removed
Lump		Lump	Special	Lump	New Meter Vault
Lump		Lump	Special	Lump	100,000 Gallon Water Storage Tank Removed and Disposed of
Lump		Lump	Special	Lump	New 100,000 Gallon Water Storage Tank
4		4	601	S.Y.	Crushed Aggregate Slope Protection
4.8		4.8	Special	C.Y.	Concrete Anchorage Blocks

A. E. STILSON & ASSOC.
Quantities Calculated F.O. 10-73
Quantities Checked G.V. 10-73

CONSTRUCTION LAYOUT & GENERAL SUMMARY

FHWA REGION	STATE	PROJECT	
5	OHIO	STATE	

340
560

JEFFERSON COUNTY
JEF-7-0.20

SCOPE OF WORK

1. This item consists of designing, furnishing, and installing a steel water tank including reinforced concrete foundation, 6" compacted stone backfill foundation and appurtenances as shown and specified on Sheet No. 343

2. The 6" water feed line to within 5 feet of the foundation is included with Item 814 - New Water Mains.

PAYMENT

1. Payment for Item 203 excavation not including embankment construction, Item 659 seeding and mulching and Item 601, crushed aggregate slope protection, will be made under the appropriate items.

2. Payment for all other associated work will be made at the contract price bid lump sum for Item Special New 100,000 gallon water storage tank, which price and payment shall constitute full compensation for the furnishing of all labor, materials, small tools and equipment required to complete this item of work in place.

   Excavation and backfill for water tank ringwall foundation shall be performed in accordance with the requirements of 503 - excavation for structures, and paid for under Item Special now 100,000 gallon water storage tank.

WATER TANK AND ACCESSORIES

1. GENERAL

   A. Reference Specifications: American Water Works Association Standard (AWWA) D 100-67 shall be considered a part of this specification and all work shall conform thereto, except as otherwise specified or shown on the Drawings.

   B. Design Criteria

      1. General: Design the tank and foundation in accordance with the following requirements.

      2. Design Loads: Conform to AWWA D 100.

      3. Earthquake Resistance: Not required.

      4. Corrosion Allowance: Not required.

      5. Bearing Value for Foundation: Determined by Contractor from boring information with a safety factor of two (2).

2. TANK DESCRIPTION AND ACCESSORIES

   A. General

      1. Capacity: 100,000 gallon nominal capacity.
      2. Measurement of Capacity: Bottom of net storage to level of overflow.

      3. Construction: Steel, all welded construction.

      4. Dimensions: Conform to requirements shown on the Drawings.

   B. Type

      1. General: Manufacturer's standard with a cone roof with outside edge pressed to furnish a double curved surface, or ellipsoidal roof.

      2. Knuckle at Junction of Cone Roof and Sidewall: ⅜ inch minimum thickness, butt welded, press the plates to form a double curved surface. (Rolling of knuckle plates will not be sufficient.)

      3. Manufacturer: Pittsburgh-Des Moines Steel Company, Chicago Bridge and Iron, Caldwell Tank and Manufacturing Company, or approved equal.

   C. Accessories

      1. Overflow

         a. Cut hole in tank at overflow elevation as shown on the Drawings.

         b. Provide weir box with removal top mounted on outside of tank.

         c. Provide 6 inch diameter standard weight steel pipe from weir box to the trough as shown on the Drawings.

         d. Suitably brace pipe.

      2. Other Accessories

         a. Shell manhole.

         b. Outside tank ladder with safety cage.

         c. Roof hatch.

         d. Roof vent.

         e. 6 inch inlet assembly with necessary pipe. Pipe shall be steel and connect to the flange of the cast iron elbows.

3. FOUNDATION

   A. General: Tank manufacturer shall furnish the design of the foundation, subject to the approval of the engineer. Foundation Concrete Class C shall be furnished and placed in accordance with Item 511. Concrete for structures and reinforcing steel shall be furnished and placed in accordance with Item 509 - Reinforcing Steel.

   B. Type: Concrete ring wall with spread footing if required.

   C. Depth: As required for tank manufacturer's standard, but a minimum of 5.5 feet.

   D. Allowable Bearing Value: As previously specified.

   E. Foundation Inside Ring Wall

      1. Overexcavate to minimum depth of 6 inches below tank bottom. (included in Item 203 - Excavation not including Embankment Construction)

      2. Fill to tank bottom with clean, uniform No. 10 stone (AASHO M-43) thoroughly compacted.

4. CAST IRON PIPE AND FITTINGS

   A. Materials and Installation: Conform to requirements for Item 814.

5. TESTING AND STERILIZATION

   A. General: Water will be furnished the Contractor from adjacent Village-owned mains.

   B. Testing: Conform to AWWA D 100.

   C. Sterilization: Immediately after completion of any tank or piping that is to be put into service, flush and sterilize system, using chlorine solution made from liquid chlorine or from HTH or similar compounds all in accordance with the requirements of State Environmental Protection Agency and to satisfaction of Engineer by spraying all surfaces with water containing 200 ppm chlorine residual.

TANK PAINTING

1. SCOPE

   A. Painting of interior and exterior of the tank.

2. REFERENCE SPECIFICATIONS

   A. AWWA D 102-64 - Painting and Repainting Steel Tanks, Standpipes, Reservoirs, and Elevated Tanks for Water Storage.

   B. Structural Steel Painting Council Specifications of the latest revision.

3. PAINTING SYSTEM

   A. General

      1. Inside: AWWA D 102, Inside Paint System No. 2 (vinyl), except as herein modified.

      2. Outside: AWWA D 102, Outside Paint System No. 2 (vinyl), except as herein modified.

      3. Surface Preparation: Thoroughly clean by sand blasting or pickling in conformance with SSPC No. 6, or SSPC No. 8.

      4. Pretreatment

         a. Apply after surface preparation and before surface rusting or soiling occurs (maximum of 8 hours).

         b. Paint with one coat of basic zinc chromate vinyl butyral wash coat conforming to SSPC-PT3.

         c. Apply to dry thickness of 0.30 to 0.50 mil; do not exceed 0.50 mil.

         d. Discard wash coat if mixed more than 8 hours.

         e. Do not apply to a two-inch strip along each edge of plates or ends of members to be welded.

   B. Shop Primer

      1. After the wash coat has dried, usually less than one (1) hour, paint each part with one shop coat of vinyl red lead primer conforming to Mil-P-15929A (Formula 119).

      2. Apply to a dry film thickness of 1 mil.

      3. Do not paint edges of members to be field welded.

   C. Field Welds and Abrasions

      1. After the structure has been erected, welded and tested, all welds and areas where the shop paint has been damaged shall be blast cleaned in the field in accordance with SSPC No. 6.

      2. Paint the cleaned surfaces with a vinyl butyral wash coat and the vinyl red lead primer as specified for the shop primer.

      3. Apply wash coat within a maximum of 8 hours after blast cleaning.

      4. Discard wash coat if mixed more than 8 hours.

YORKVILLE WATER STORAGE TANK "NOTES"

D. Finish Coats

1. Apply after the field welds and abraded areas have been painted and allowed to dry.

2. Interior finish coats shall consist of two (2) coats of aluminum vinyl paint conforming to SSPC No. 8.

3. Exterior finish coats shall consist of two (2) coats of vinyl paint similar in formulation to SSPC No. 9, except it shall be tinted (probably light green or blue-green). Color of last finish coat will be selected by Owner at time of construction.

4. Tint alternate coats to provide a contrast to assist in obtaining complete coverage.

5. The total dry film thickness of the vinyl system shall be not less than 4 mils.

4. APPLICATION

A. General

1. Use skilled painters experienced in application of this type of paint.

2. Use airless spray or brush for wash and prime coats.

3. Use airless spray on final coats, except for small areas which may be applied with a brush.

B. Weather Conditions

1. Do not apply paint, except under shelter, during wet, damp weather, or when conditions are such that wind blown dust, debris, or insects will adhere to the freshly applied paint.

2. Do not apply paint when the temperature is below 40°F, or to surface metals having a temperature below 40°F, or when the metal temperature and the atmospheric conditions are such that condensation is formed on the surface of the metal.

C. Paint Film Requirements

1. All paint in any one coat shall be hard and dry before the next coat is applied.

2. Do not re-coat or immerse any paint in water until after the expiration of the time period recommended by the manufacturer.

3. Apply paint to a uniform thickness throughout.

4. Check the dry film thickness by a dry film thickness gauge.

5. Paint film showing sags, checks, blisters, fat edges, etc., will not be accepted.

6. Repair any paint defects that appear in any of the coatings, including the undercoat, to the satisfaction of the Engineer.

D. Ventilation: Provide adequate ventilation while applying paint to the interior surfaces to remove all solvent vapors as rapidly as produced to be sure workmen applying the paint are adequately protected, and all explosion hazards are eliminated.

UTILITIES

The Contractor shall notify, at least 7 working days before breaking ground, all public service corporations having wires, poles, pipes, conduit, manholes or other structures, which may be affected by the operation, including all structures which are affected and not shown on these plans. He shall conduct his operations in such a manner as to avoid damages to any and all utilities. 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.

ACCESS TO SITE

Access to the site is from public road and over the Right-of-Way as defined on plan sheet No. 344.

FHWA REGION	STATE	PROJECT	TYPE FUNDS
5	OHIO	STATE	

341/560

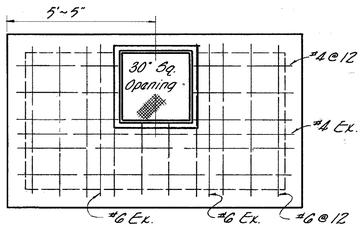
JEFFERSON COUNTY
JEF-7-0.20

FHWA REGION	STATE	PROJECT	TYPE FUNDS
5	OHIO	STATE	

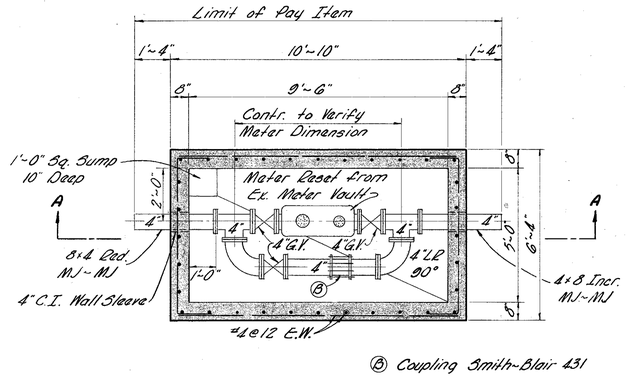
342
560

JEFFERSON COUNTY
JEF.-7-0.20

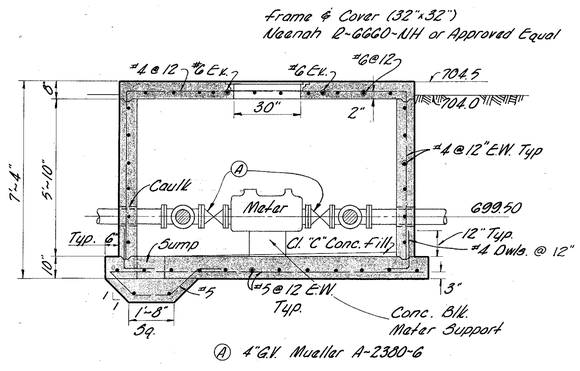
NOTES:
All Piping, Fittings and Gate Valves within limits of the pay item shall have flanged ends.
Meter shall be removed from the Existing Meter Vault and re-installed as indicated.
Concrete shall be Class "C"
Reinforcing steel shall Conform to Item 709.01.
Meter Vault Structure work done under Item Special.



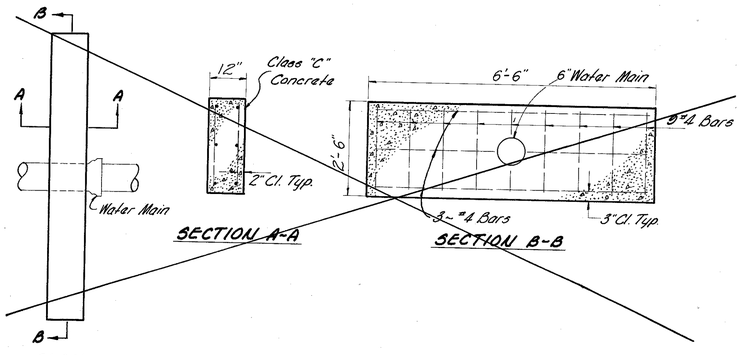
PLAN - TOP SLAB



SECTIONAL PLAN



SECTION A-A

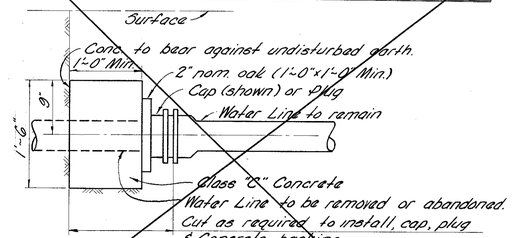


PLAN

SECTION A-A

SECTION B-B

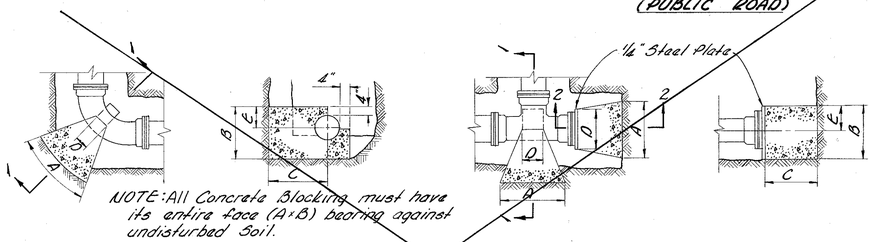
CONCRETE ANCHORAGE BLOCK DETAIL



LINES 4" TO 8" INCLUSIVE
CUTTING & PLUGGING DETAILS

Scale: 3/8" = 1'-0"

METER VAULT DETAILS
(PUBLIC ROAD)



PLAN
90°, 45°, 22½°, 11¼°

SECTION 1-1

PLAN
DEAD END OR TEE

SECTION 2-2

WORKING PRESSURE 150 psi
TABLE OF DIMENSIONS

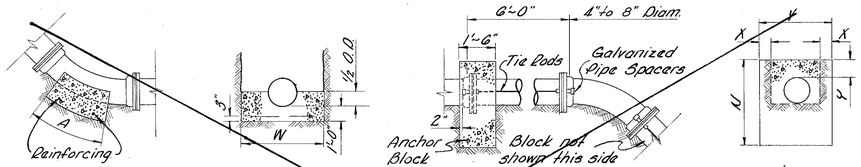
Diam.	11¼° Bend			22½° Bend			45° Bend			90° Bend			Tee-Dead End		
	A	B	C.Y.	A	B	C.Y.	A	B	C.Y.	A	B	C.Y.	A	B	C.Y.
4"	——	——	——	——	——	——	1'-0"	1'-0"	0.08	1'-6"	1'-0"	0.10	1'-1"	1'-0"	0.08
6"	——	——	——	1'-0"	1'-0"	0.08	1'-7"	1'-2"	0.12	2'-6"	1'-4"	0.17	1'-10"	1'-4"	0.15
8"	1'-0"	1'-0"	0.07	1'-5"	1'-2"	0.11	2'-5"	1'-4"	0.17	2'-7"	1'-8"	0.25	2'-6"	1'-8"	0.25

DIMENSION "C"
4"-8" Diam. = 2'-0"

DIMENSION "D"
4"-8" Diam. = 1'-0"

DIMENSION "E"
For All Diameters
E = D/2 + 4"

THRUST BLOCKING DETAILS
FOR BENDS IN HORIZONTAL PLANE



PROFILE

SECTION

PROFILE

SECTION

TABLE OF DIMENSIONS

SAG BENDS

Diam.	11¼° Bend			22½° Bend			45° Bend		
	A	W	C.Y.	A	W	C.Y.	A	W	C.Y.
4"	——	——	——	——	——	——	0'-8"	1'-0"	0.03
6"	——	——	——	0'-8"	0'-11"	0.03	0'-8"	2'-3"	0.07
8"	0'-8"	0'-8"	0.02	0'-8"	1'-9"	0.05	1'-2"	2'-5"	0.14

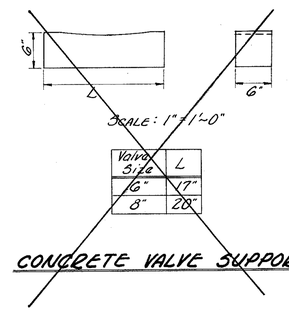
Reinforcing for Sag Bends
11¼° Bend ~ #4 @ 3½" c/c
22½° Bend ~ #4 @ 5½" c/c
45° Bend ~ #6 @ 6" c/c

OVER BENDS

11¼°, 22½°, 45°, 90° Bends					
X	V	Y	U	C.Y.	Tie Rods-N° & Size
1'-0"	4'-3"	1'-0"	2'-4"	0.55	2 - 3/4" ø
1'-0"	4'-6"	1'-0"	2'-6"	0.61	2 - 3/4" ø
1'-0"	4'-8"	1'-0"	2'-8"	0.67	2 - 3/4" ø

Quantity Shown for each Thrust Block.
Double nut each Rod each End.

THRUST BLOCKING DETAILS
FOR BENDS IN VERTICAL PLANE



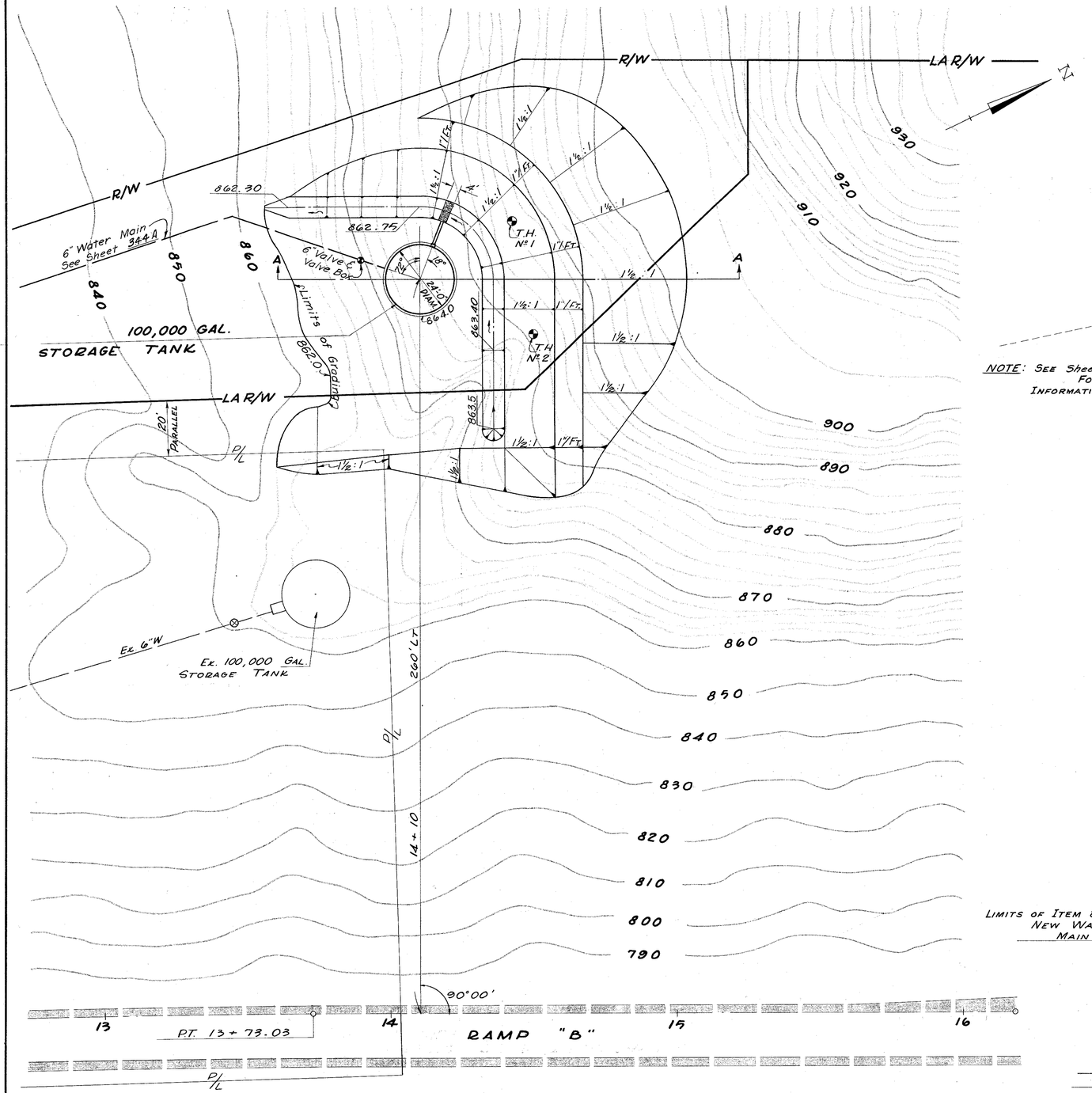
CONCRETE VALVE SUPPORT

WATER WORK DETAILS

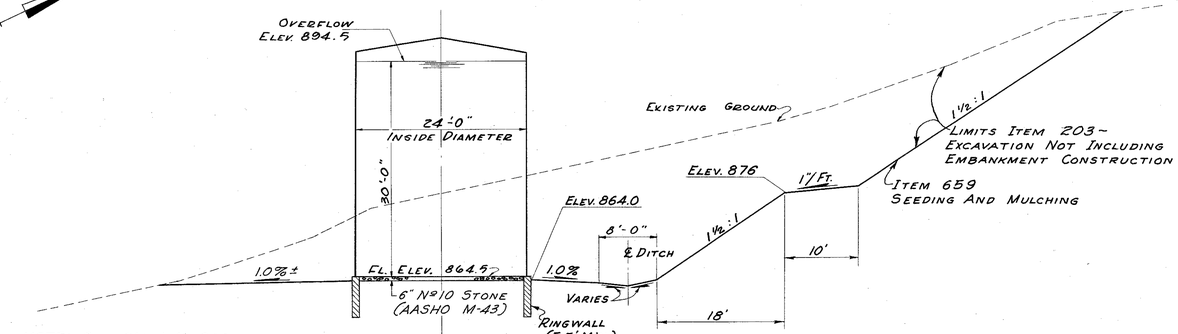
FHWA REGION	STATE	PROJECT	TYPE FUNDS
5	OHIO	STATE	

343
560

JEFFERSON COUNTY
JEF.-7-0.20

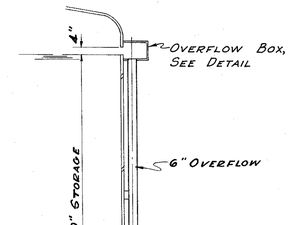


SITE PLAN
SCALE - 1" = 20'

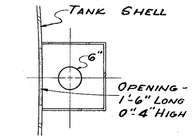


NOTE: See Sheet No. 344C For Boring Log Information.

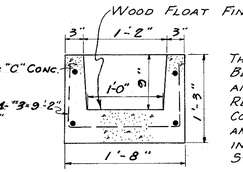
SECTION A-A
SCALE
1" = 10' - HORIZ.
1" = 10' - VERT.



OVERFLOW DETAIL
No SCALE

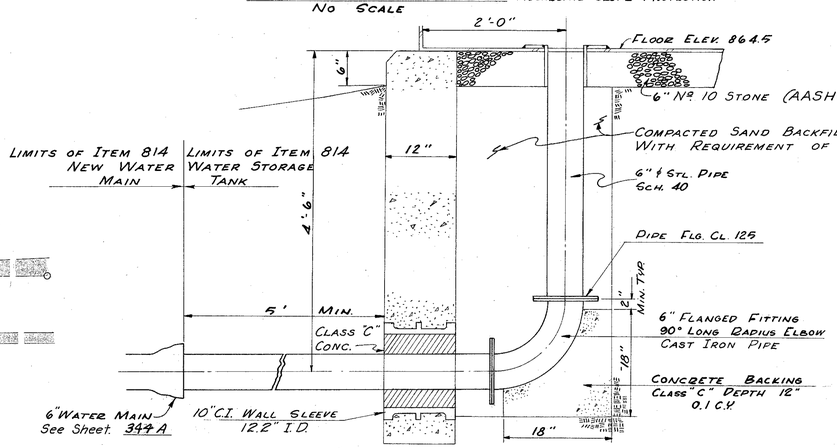


OVERFLOW BOX DETAIL
No SCALE



THE CONCRETE TROUGH SHALL BE CONSTRUCTED IN ACCORDANCE WITH THE APPLICABLE REQUIREMENTS OF ITEM 511 - CONCRETE FOR STRUCTURES AND INCLUDED FOR PAYMENT IN ITEM 814 - WATER STORAGE TANK.

TROUGH DETAIL
No SCALE



NOTE : FOOTER TO BE DESIGNED TO SUSTAIN TANK AND WATER LOADS, DESIGN TO BE BY TANK MANUFACTURER.

TRANSMISSION & DISTRIBUTION CONNECTION DETAIL
SCALE - 1" = 1'

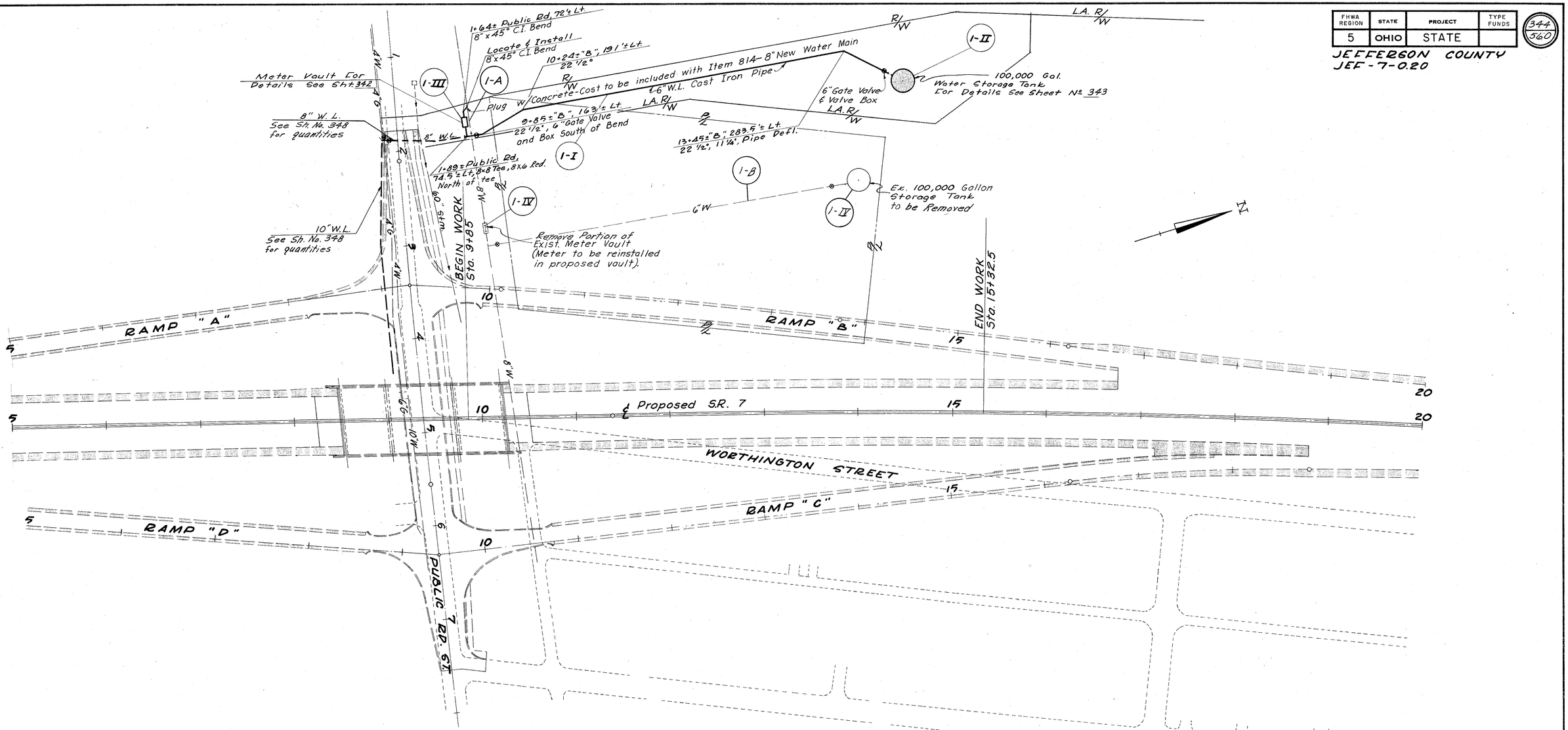
YORKVILLE WATER STORAGE T

BRUNING 44-560 10943

FHWA REGION	STATE	PROJECT	TYPE FUNDS
5	OHIO	STATE	

344/360

JEFFERSON COUNTY
JEF-7-0.20



Scale: 1" = 50'

	814 SPEC.										ESTIMATING PURPOSES ONLY														601 SPEC.	
	New Water Main CI. Pipe ASA CI.22 Push-on Type Jts.		Gate Valve With Box	Portion of Meter Vault Structure to be Removed (as per Detail)	Removing Existing Meter Vault	Removing Existing Water Storage Tank	45°	C.I. 8" Bends MJ-MJ		22 1/2°	11 1/4°	8 x 8	C.I. 6" Bends MJ-MJ		C.I. Tees MJ-MJ	C.I. 8"x6" Reducer	C.I. 8"x4" Reducer	4"x8" Increaser	Concrete Backing	Cast Iron Plug	Crushed Agg. Slope Prot.	Conc. Anchorage Blocks				
	8" LF	6" LF	6" Ea.	LS	LS	LS	Ea.	Ea.	Ea.	Ea.	Ea.	Ea.	Ea.	Ea.	Ea.	Ea.	Ea.	Ea.	C.Y.	8" Ea.	S.Y.	C.Y.				
I-I	30	462	2				2	6	5		1		1	1	1	1	4.18				4.8					
I-II						LS															4					
I-III							LS																			
I-IV				LS	LS																					
TOTAL TO GEN. SUM.	30	462	2	LS	LS	LS	LS														4	4.8				

A. E. STILSON & ASSOC.
Quantities Calculated FO. Oct 1973
Quantities Checked GV. Oct 1973

WATER LINES TO BE ABANDONED

I-A Existing 8" in Area of Proposed Meter Vault.
I-B 6" To Existing Storage Tank

WORK TO BE DONE

I-I INSTALL NEW 6" W.L. AND APPURTENANCES
I-II CONSTRUCT NEW 100,000 GAL. WATER STORAGE TANK.
I-III CONSTRUCT NEW METER VAULT AS SHOWN
I-IV REMOVE PORTION OF EXISTING METER VAULT & REMOVE EXISTING 100,000 GAL. WATER STORAGE TANK

NOTE: See Sheet No. 344A For Profiles

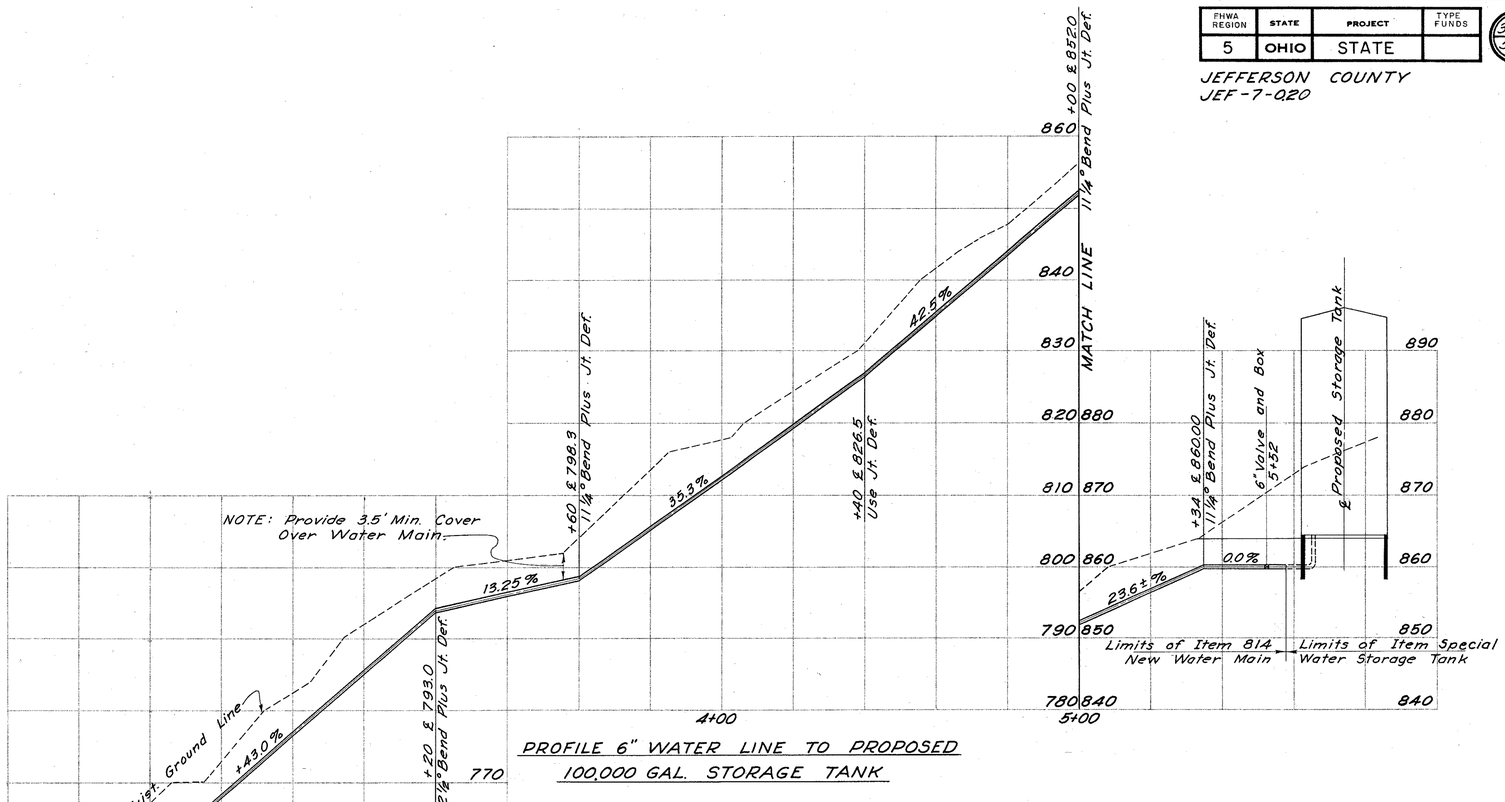
YORKVILLE WATER PLANS 6" FEED LINE TO STORAGE TANK

BRUNING 44-560 10943

FHWA REGION	STATE	PROJECT	TYPE FUNDS
5	OHIO	STATE	

344A
560

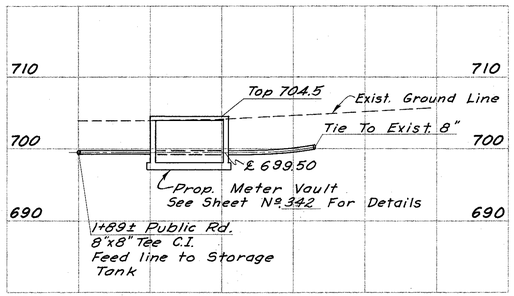
JEFFERSON COUNTY
JEF-7-020



PROFILE 6" WATER LINE TO PROPOSED 100,000 GAL. STORAGE TANK

Anchor blocks shall be provided at every third length of pipe between Sta. 1+58 and Sta. 3+20, and between Sta. 3+60 and Sta. 5+00. Spaced about one for every 50' horizontal measurement or as directed by the engineer. See Detail Sheet No. 342

SCALE: 1" = 20' Horiz.
1" = 10' Vert.



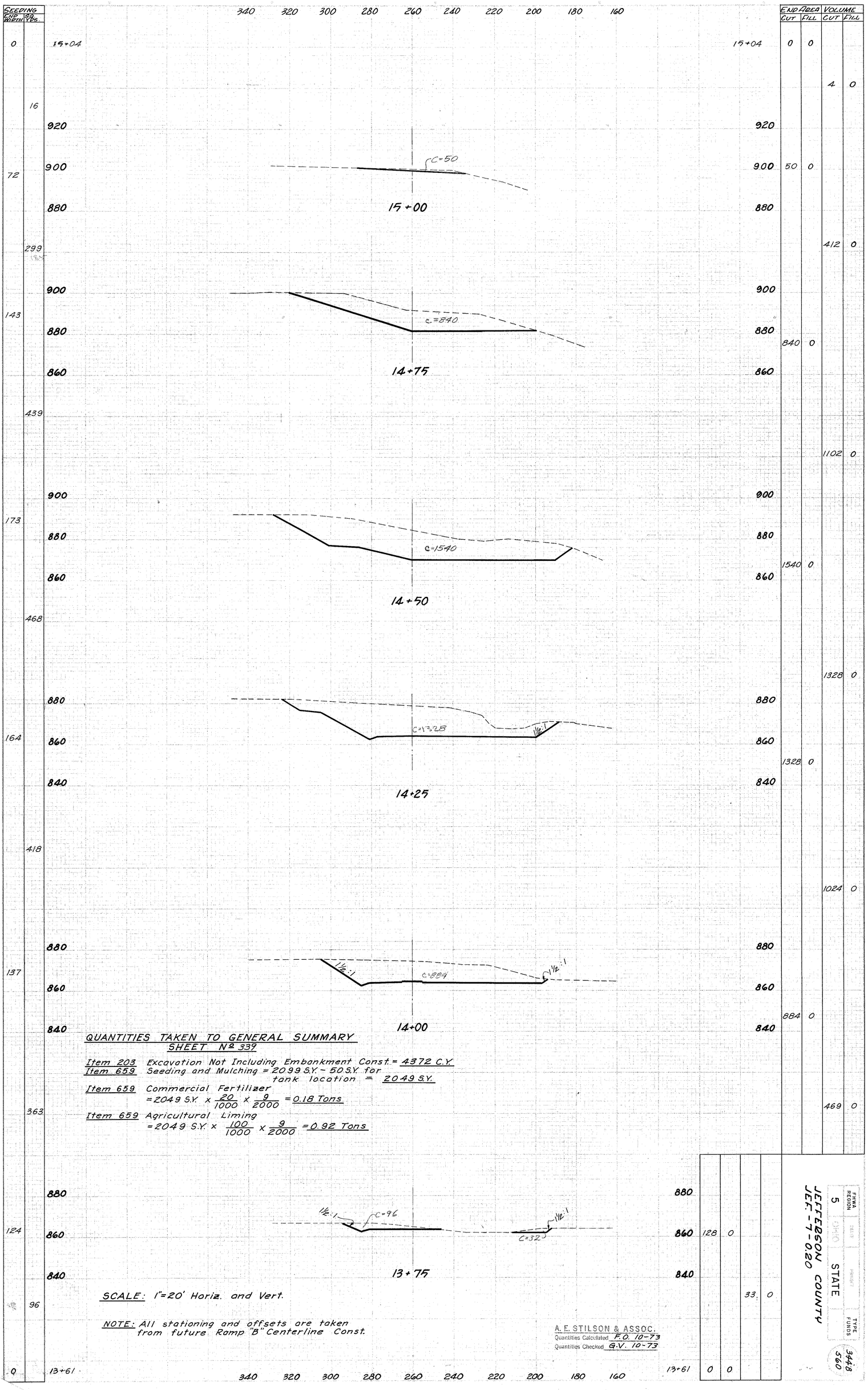
METER VAULT PROFILE

6" Water Main Public Road to Water Storage Tank Yorkville

WATER LINE PROFILES

BRUNING 44560 10943

	BY	DATE
EXISTING PLOTTING		
EXISTING CHECKING		
[illegible]		
[illegible]		
[illegible]		
[illegible]	MLB	9-70
[illegible]	MAS	9-70
[illegible]	MAS	9-70
SEEDING CHECKED	MLB	9-70



QUANTITIES TAKEN TO GENERAL SUMMARY
SHEET Nº 339

Item 203 Excavation Not Including Embankment Const. = 4372 C.Y.
Item 659 Seeding and Mulching = 2099 S.Y. - 50 S.Y. for tank location = 2049 S.Y.
Item 659 Commercial Fertilizer
$= 2049\ S.Y. \times \frac{20}{1000} \times \frac{9}{2000} = 0.18$ Tons
Item 659 Agricultural Liming
$= 2049\ S.Y. \times \frac{100}{1000} \times \frac{9}{2000} = 0.92$ Tons

SCALE: 1"=20' Horiz. and Vert.

NOTE: All stationing and offsets are taken from future Ramp "B" Centerline Const.

A. E. STILSON & ASSOC.
Quantities Calculated F.O. 10-73
Quantities Checked G.V. 10-73

TANK SITE X-SECTIONS 13+75 To 15+00

FHWA REGION 5 | STATE OHIO | PROJECT STATE | TYPE FUNDS

JEFFERSON COUNTY
JEF.-7-0.20

344B
560

WATER WORK NOTES

FED. RD. DIVISION	STATE	PROJECT	
2	OHIO		

345/560

JEFFERSON COUNTY
JEF-7-0.20

WATER WORK SPECIFICATIONS

All water main relocations shall be made in accordance with Department of *Transportation* Supplemental Specification 814 entitled "Item 814 Water Mains and Service Branches".

This Specification is modified by the following notes which constitute the Special Provisions of Supplemental Specification 814. The figures or letters in parenthesis in the notes refer to the section of Supplemental Specification 814 which is being modified. In all cases of conflict with Supplemental Specification 814, these notes shall govern.

STATUS OF VILLAGE INSPECTORS

Inspectors, as designated by the respective Village Water Departments are authorized to inspect all work done and materials furnished. Village inspection shall extend to all or any part of the Water Work and to the preparation or manufacture of materials incorporated in the Water Work. All instructions shall be worked through and coordinated with the Project Engineer.

EXISTING 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 does not guarantee their accuracy or completeness.

The Contractor shall make such investigations as are necessary to determine the extent to which existing surface, subsurface, or overhead structures may interfere with the prosecution of the works.

CONNECTIONS TO EXISTING PIPE

At places where the plans provide for proposed or new pipe to be connected to existing pipe, 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 new pipe. The cost of this operation shall be included in the unit price bid for the pertinent pipe item. Connections to existing pipe may be made with leaded sleeved or pipe couplings where mechanical joints are not practical. Also included in the cost of the pertinent pipe item is the cutting into and removing section of existing pipes and making the new connections.

NIGHT AND WEEKEND CONNECTIONS

It may be necessary that certain main line connections be made at night and/or on weekends. The respective Village Water Departments shall determine the time and place of such connections and the Contractor shall be responsible for making these connections in the time allotted. No extra payment will be made for any work required under this note.

Night and/or weekend work will be ordered only when such work must be done at these times in order to protect the water supply at the respective Villages.

REMOVAL OF EXISTING WATER MAIN

The removal and disposal of the water main and fittings designated for removal on the plans shall be done in accordance with the requirements of Item 202.04 - Pipe Removed. The pipe and fittings indicated for removal shall become the property of the Contractor.

Payment will be made at the contract unit price bid per Linear Foot for "Item 814 - Removing and Disposing of Existing Water Mains."

Where the existing water pipe is located within the limits of the trench excavation for the new water main pipe, the removing and disposing of the water main only shall be paid for at the contract unit price bid per Linear Foot of Item 814- Removing and Disposing of Existing Water Main as per plan.

PAINTING

All pipe accessories such as tie rods, nuts, bolts, straps, etc. which are not encased in concrete shall be painted with a bitumastic paint such as Inertol No. 66, Koppers Bitumastic 50, or approved equal.

WORKING OR OPERATING PRESSURES

Yorkville - 150 psi Tiltonsville - 250 psi

MATERIALS (814.02)

(a) Cast iron pipe. Cast iron pipe for water mains sizes 4" thru 10" shall conform to ASA A21.6 or ASA A 21.8. ASA thickness Class 22. Joints for all pipe shall be push-on type conforming to ASA A21.11.

(c) Cast iron fittings shall be mechanical joint conforming to ASA A21.10, 250 psi pressure rating.

(b) Ductile iron pipe. Ductile iron pipe for water mains as called for on the plans shall conform to ASA A21.51. ASA thickness Class 2. Joints for ductile iron pipe shall be push-on type conforming to ASA A21.11.

(d) Valves and Hydrants. All valves shall be Meuller AWWA Fig. No. A-2380-20; Mechanical Joint ends, N.R.S., "O" ring seals and "open left" (counter-clockwise). All fire hydrants shall "open left" and be of the following:

Yorkville - Rensselaer 5 inch - One-4½" pumper nozzle, two-2½" hose nozzles, 6" mechanical joint inlet connection, 4 feet cover.

Tiltonsville and Rayland - Mueller Fig. No. A-24007 5¼" opening, one-4½" pumper nozzle, two-2½" hose nozzles, 6" mechanical joint inlet connection, 4 feet cover.

(f) Cement Mortar Lining. All cast iron pipe and fittings and ductile iron pipe shall be cement mortar lined, standard thickness, conforming to ASA 21.4.

NOTIFICATION (814.04)

The contractor shall notify the State of Ohio, Environmental Protection Agency and the respective Village Water Departments before beginning any work under this Specification.

BLOCKING, BACKING AND ENCASING (814.06) - NEW WATER MAINS

No separate payment will be made for work done in accordance with Item 602-Masonry but paid for under Item 814 and shall include material conforming to Item 711 such as reinforcing steel, tie rods, nuts, bolts, spacers, strapping, steel backing plates, concrete and timber blocking, as called for in the details. Concrete shall be Class C. Cost shall be included with the contract unit price bid for "Item 814-New Water Mains."

HYDROSTATIC TEST (814.07)

The hydrostatic test shall be made as specified under Alternate "A". The cost of all test plugs, caps, taps and blocking on pipe tested prior to connection to existing mains shall be included in the unit price bid per linear foot for "Item 814-"New Water Main."

YORKVILLE

Construct a new 100,000 gallon storage tank and 6" feeder main from Public Road to New storage tank. The storage tank and feeder main shall be installed and ready for service before abandonment and removal of the existing tank and meter vault. At the time of abandonment of the existing meter vault, the existing meter is to be reinstalled in the new meter vault and the existing 8" main connected to the new 8" water main as indicated. (See Water Storage Tank Notes.)

100,000 GALLON STORAGE TANK REMOVED AND DISPOSED OF

The existing storage tank is of the ground storage type built about 1938, and is 24 feet in diameter, approximately 30 feet in height constructed of steel plate. It is presumed the foundation is a thin concrete ring-wall of the tank perimeter.

All materials removed shall become the property of the contractor and be disposed of by him.

The removal and disposal of the storage tank and appurtenances and concrete foundation shall be done in accordance with the requirements of Paragraphs 202.01, 202.02 and 202.03.

Payment will be made at the contract unit price bid per lump sum for"Item Special-100,000 Gallon Storage Tank Removed and Disposed Of."

METER VAULT REMOVED AND DISPOSED OF

The Contractor shall remove all pipe, valves, fittings and partially remove the vault structure walls and backfill the cavity.

The removal of the pipe and valve fittings shall be done in accordance with Item 202, and shall be disposed of by the contractor.

The partial removal of the vault structure walls including top slab and castings and the backfilling of the cavity shall be done in accordance with the requirements of Paragraphs 202.02 and 202.08.

Payment will be made at the contract unit price bid per Lump Sum for "Item Special - Portions of Meter Vault Structure Removed.

WATER WORK NOTES

CUTTING AND PLUGGING PIPE

The Contractor shall do the excavating, sheeting and bracing, cutting into and removing pipe, plugging or capping pipe, tees, crosses at the mains, branches and service lines with cast iron, malleable iron, wrought iron or copper caps or plugs with clamps and concrete piers, backfilling and surface restoration.

Payment will be made at the contract unit price bid per each "Item 814 - Plugging Existing Water Mains, Branches or Service Lines" which shall constitute full compensation for performing all the requirements of this item complete and in place.

NEW WATER MAIN - CONCRETE ENCASED

Concrete Encasement Work of the new water mains shall be done in accordance with the requirements of Item 603.05.

Payment for Concrete Encasement Work and New Water Main in place, complete will be made at the contract unit price bid per linear foot for "Item 814 - New Water Main - Concrete Encased."

CONCRETE ANCHORAGE BLOCKS

Shall be placed at locations as shown on the plans and be constructed as shown on detail sheet No. 347. Concrete shall be Class "C", furnished and placed in accordance with the requirements of Item 602 "Concrete Masonry" and reinforcing steel shall be furnished and placed in accordance with Item 509 "Reinforcing Steel".

Cost shall include all labor, small tools, equipment, excavation and backfill and material furnished to complete this Item of work. Payment will be made at the contract unit price bid per cubic yard for Item Special, "Concrete Anchorage Blocks", complete and in place.

GATE VALVE AND VALVE BOX REMOVED AND DISPOSED OF

The contractor shall remove and dispose of the gate valve and valve box, including the excavation and backfilling, at the locations shown on plans. The gate valves and valve boxes removed shall become the property of the Contractor. Excavation shall be as provided in 814.06 and Backfilling shall be as provided in 814.08.

Payment will be made at the contract unit price bid per Each "Item 814—Gate Valve and Valve Box Removed and Disposed Of" which price and payment shall constitute full compensation for the furnishing of all labor, materials, small tools and equipment required to complete this item of work.

VALVE BOX ADJUSTED TO GRADE

The contractor shall carefully excavate around the existing valve box without injuring the boxes, valves or pipe. Boxes shall be adjusted to grade. If necessary adjustment is outside the design limits of the existing box, an extension shall be added or a new service box installed as directed by the Engineer. The valve boxes shall be installed as provided in 814.06. Backfilling shall be as provided in 814.08.

Payment will be made at the contract unit price bid per Each "Item 814 - Valve Box Adjusted to Grade."

NEW METER VAULT

The vault structure shall be built in accordance with the requirements of Item 604.

All piping and fittings shall be cast iron, cement mortar lined as specified in materials (814.02) above except that the ends of pipe and fittings shall be flanged joint. The 4 in. gate valves, flanged joints, shall be as specified in materials 814.02. The existing water meter shall be carefully removed from the existing vault and reinstalled in the new meter vault. Payment for the removal and the reinstallation of the meter shall be included in the Item Special New Meter Vault.

The meter vault cost shall include all labor, small tools, equipment and materials furnished between the limits as shown on the plans.

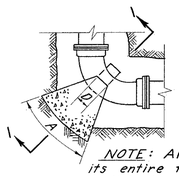
Payment will be made for the unit price bid for lump sum 'Item Special New Meter Vault,' complete and in place as specified.

FED. RD. DIVISION	STATE	PROJECT	
2	OHIO		

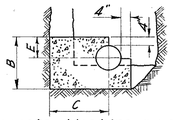
347
560

JEFFERSON COUNTY
JEF.-7-0.20

THRUST BLOCKING DETAILS
FOR BENDS IN HORIZONTAL PLANE

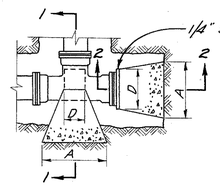


PLAN
90°, 45°, 22½°, 11¼°

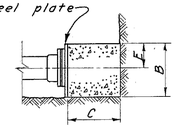


SECTION 1-1

NOTE: All concrete blocking must have its entire face (A x B) bearing against undisturbed soil.



PLAN
DEAD END OR TEE



SECTION 2-2

WORKING PRESSURE 150 psi (YORKVILLE)

TABLE OF DIMENSIONS

DIAM.	11¼° BEND			22½° BEND			45° BEND			90° BEND			TEE-DEAD END		
	A	B	C.Y.	A	B	C.Y.	A	B	C.Y.	A	B	C.Y.	A	B	C.Y.
4"	—	—	—	—	—	—	1'-0"	1'-0"	0.08	1'-6"	1'-0"	0.10	1'-1"	1'-0"	0.08
6"	—	—	—	1'-0"	1'-0"	0.08	1'-7"	1'-2"	0.12	2'-6"	1'-4"	0.17	1'-10"	1'-4"	0.15
8"	1'-0"	1'-0"	0.07	1'-5"	1'-2"	0.11	2'-5"	1'-4"	0.17	2'-7"	1'-8"	0.23	2'-6"	1'-8"	0.23
10"	1'-2"	1'-2"	0.09	1'-4"	1'-4"	0.15	3'-0"	1'-8"	0.25	4'-3"	2'-2"	0.44	3'-4"	2'-0"	0.32

DIMENSION C
4"-10" Diam. = 2'-0"

DIMENSION D
4"-10" Diam. = 1'-0"

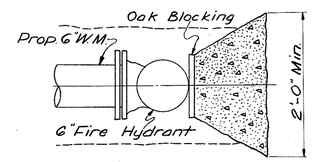
DIMENSION E
For all Diameters
E = D/2 + 4"

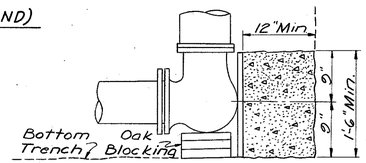
WORKING PRESSURE 250 psi (TILTONSVILLE - RAYLAND)

TABLE OF DIMENSIONS

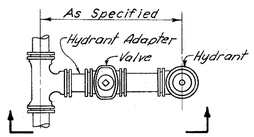
DIAM.	11¼° BEND			22½° BEND			45° BEND			90° BEND			TEE-DEAD END		
	A	B	C.Y.	A	B	C.Y.	A	B	C.Y.	A	B	C.Y.	A	B	C.Y.
4"	—	—	—	—	—	—	1'-3"	1'-0"	0.09	2'-3"	1'-0"	0.13	1'-7"	1'-0"	0.10
6"	—	—	—	1'-2"	1'-2"	0.11	2'-4"	1'-2"	0.16	4'-3"	1'-3"	0.24	2'-8"	1'-4"	0.19
8"	1'-0"	1'-4"	0.11	1'-10"	1'-4"	0.14	3'-3"	1'-6"	0.26	4'-5"	2'-0"	0.44	3'-10"	1'-8"	0.30

TYPICAL HYDRANT BLOCKING

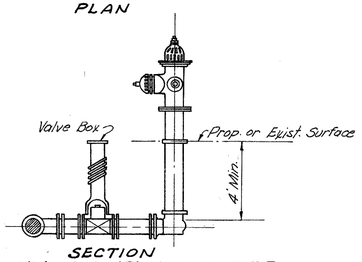




TYPICAL HYDRANT CONNECTION

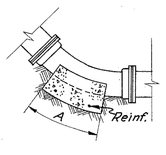


PLAN

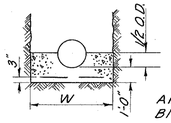


SECTION

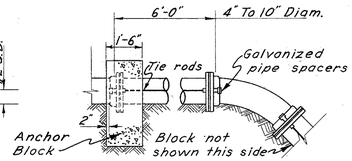
THRUST BLOCKING DETAILS
FOR BENDS IN VERTICAL PLANE



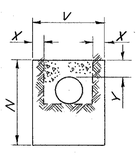
PROFILE



SECTION



PROFILE



SECTION

TABLE OF DIMENSIONS (YORKVILLE)

DIAM.	11¼° BEND			22½ BEND			45° BEND		
	A	W	C.Y.	A	W	C.Y.	A	W	C.Y.
4"	—	—	—	—	—	—	0'-8"	1'-0"	0.03
6"	—	—	—	0'-8"	0'-11"	0.03	0'-8"	2'-3"	0.07
8"	0'-8"	0'-8"	0.02	0'-8"	1'-9"	0.05	1'-2"	2'-5"	0.14
10"	0'-8"	0'-11"	0.03	0'-10"	2'-3"	0.08	1'-8"	2'-8"	0.22

—— SAG BENDS ——

11¼°, 22½°, 45°, 90° BENDS					
X	V	Y	N	C.Y.*	TIE RODS-No. & SIZE **
1'-0"	4'-3"	1'-0"	2'-4"	0.55	2 - ¾" Ø
1'-0"	4'-6"	1'-0"	2'-6"	0.61	2 - ¾" Ø
1'-0"	4'-8"	1'-0"	2'-8"	0.67	2 - ¾" Ø
1'-0"	4'-10"	1'-0"	3'-2"	0.85	4 - ¾" Ø

—— OVER BENDS ——

REINF. FOR SAG BENDS
11¼° Bend - #4 @ 8½" c/c
22½° Bend - #4 @ 5½" c/c
45° Bend - #6 @ 6" c/c

TABLE OF DIMENSIONS (TILTONSVILLE - RAYLAND)

DIAM.	11¼°-BENDS			22½° BEND			45° BEND		
	A	W	C.Y.	A	W	C.Y.	A	W	C.Y.
4"	—	—	—	0'-8"	0'-8"	0.02	0'-8"	1'-6"	0.04
6"	0'-8"	0'-8"	0.02	0'-8"	1'-7"	0.05	1'-0"	2'-5"	0.11
8"	0'-8"	0'-11"	0.03	1'-0"	2'-0"	0.09	1'-8"	2'-8"	0.21

—— SAG BENDS ——

11¼°, 22½°, 45° 90° BENDS					
X	V	Y	N	C.Y.*	TIE RODS-No. & SIZE **
1'-0"	4'-3"	1'-0"	2'-4"	0.55	2 - ¾" Ø
1'-0"	4'-6"	1'-0"	2'-6"	0.61	2 - ¾" Ø
1'-0"	4'-8"	1'-0"	2'-8"	0.67	2 - ¾" Ø

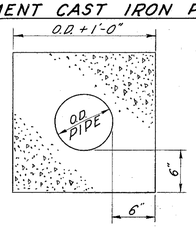
—— OVER BENDS ——

REINF. FOR SAG BENDS
11¼° Bends - #4 @ 5½" c/c
22½° Bends - #4 @ 5½" c/c
45° Bends - #9 @ 7" c/c

* Quantity shown for each thrust block.
** Double nut Ea. rod Ea. end.

CONCRETE ENCASEMENT CAST IRON PIPE

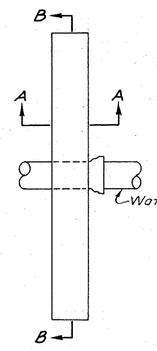
NOTE:
OD of pipe shown is that of pipe barrel only.



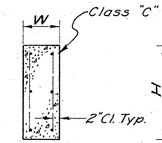
SECTION

Nom. DIAM.	C.Y./L.F.
4	0.07
6	0.08
8	0.10
10	0.11
12	0.13

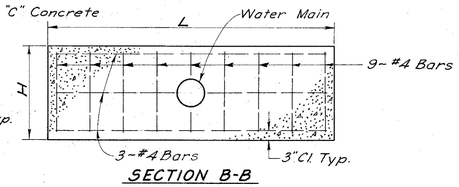
CONCRETE ANCHORAGE BLOCK DETAIL



PLAN



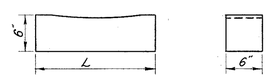
SECTION A-A



SECTION B-B

Diam.	L	H	W
8"	8'-0"	2'-8"	12"
6"	6'-6"	2'-6"	12"

CONCRETE VALVE SUPPORT

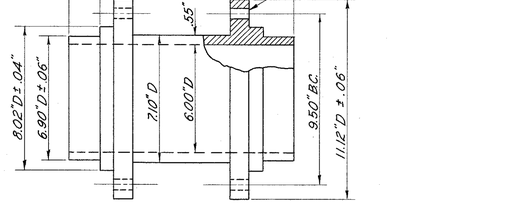


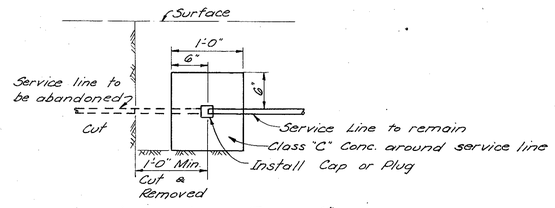
Scale: 1"=1'-0"

Valve Size	"L"
4"	14"
6"	17"
8"	20"
10"	24"

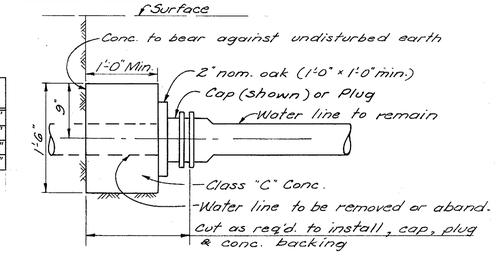
CUTTING AND PLUGGING DETAILS

Bolt hole in flanges to straddle common centerline.





LINES LESS THAN 4"



LINES 4" TO 10" INCLUSIVE

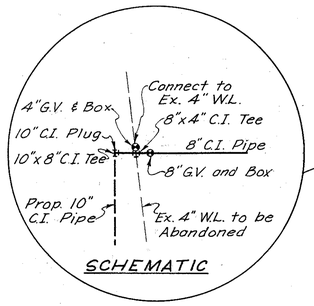
WATER LINE DETAILS

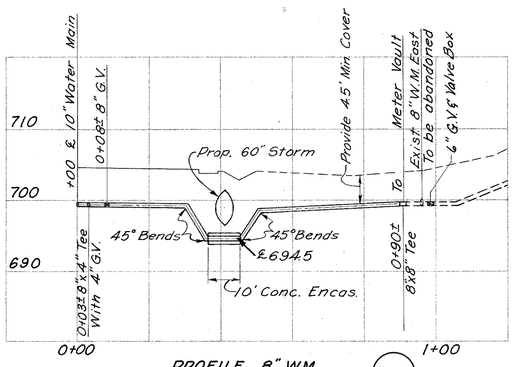
FED. RD. DIVISION	STATE	PROJECT	
2	OHIO		

348
560

JEFFERSON COUNTY
JEF.-7-0.20

SCHEMATIC





PROFILE 8" W.M.
STA. 1+90 PUBLIC ROAD (1-VI)

A. E. STILSON & ASSOC.
Quantities Calculated RAS DEC. 1968
Quantities Checked F.O DEC. 1968
Rev. Quan. Cal. F.O. 10-73
Rev. Quan. Ck'd. G.V. 10-73

ITEM 814 — ESTIMATING PURPOSES ONLY

	Removing and Disposing Exist. Water Main		New Water Main CL Pipe ASA CL 22 Push-on Type Joints			New Water Main Cast Iron Pipe Encased In Conc.			Gate Valve & Valve Box			Fire Hydrant, Complete with 5' Bury, 6" Branch Connection, Gate Valve & Box Removed & Dispersed Of		Cast Iron Plug	10" CI. Bends MJ-MJ			8" CI. Bends MJ-MJ			C.I. Tees MJ-MJ				Red.			Concrete Backing
	4" L.F.	10" L.F.	10" L.F.	8" L.F.	6" L.F.	4" L.F.	10" L.F.	8" L.A.	8" Eo.	6" Eo.	4" Eo.	Eo.	4" Eo.	10" Eo.	8" Eo.	45° Eo.	22½° Eo.	11¼° Eo.	90° Eo.	45° Eo.	22½° Eo.	11¼° Eo.	10x8 Eo.	10x6 Eo.	8"x4" Eo.	8x8 Eo.	8x6 Eo.	6"x90° C.I. Bend Eo.	8x6 Eo.	C.Y.
1-I			490		12		30		1		1					2	4	4					2	1						49.5
1-II				175				3							1				1			1				1				25.3
1-III				110	162			10		1	1								2	4	1					1		1		29.7
1-IV					10					1		1															1			0.15
1-V													3	3																
1-VI				80		6		10		1		1			1				4		1		1		1					22.8
1-B	100	200																												
TOTAL To GEN. SUM.	100	200	490	365	184	6	30	20	1	5	3	1	2	3	3															

NOTE: See Sheet No. 355 For Profiles

WATER LINES TO BE ABANDONED

1-A	8" JONES AVENUE To PUBLIC ROAD
1-B	10" PUBLIC ROAD } EXIST. PIPE TO BE REMOVED
1-C	4" PUBLIC ROAD } STA. 2+50 To 5+50
1-D	6" ALLEY BETWEEN WORTHINGTON & WALTERS STS.
1-E	8" ALLEY "A" To NEW 8" W.L. LEFT OF 1+89 PUBLIC ROAD
1-F	2" WORTHINGTON STREET
1-G	6" MAUDE AVENUE To WORTHINGTON STREET

WORK TO BE DONE

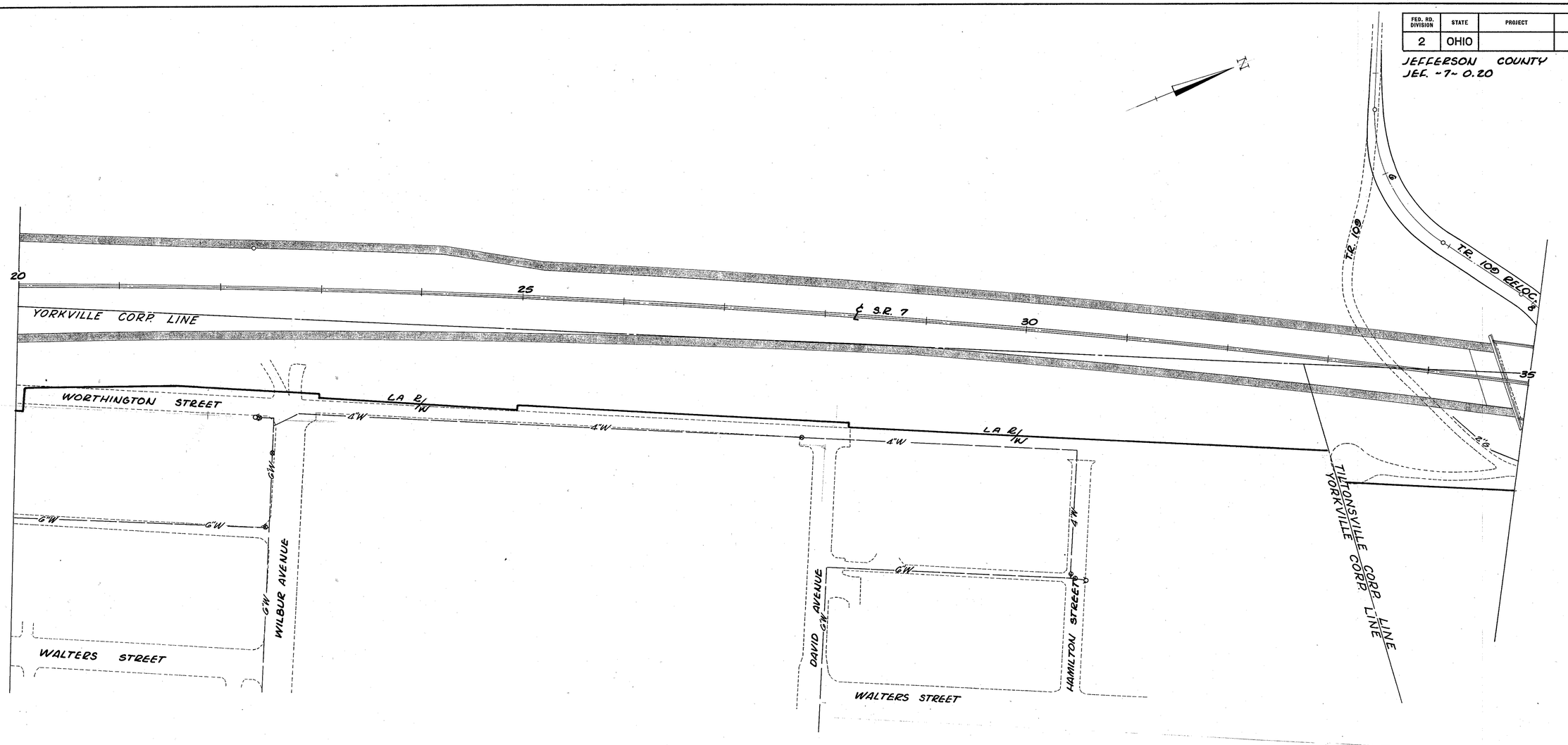
1-I	INSTALL NEW 10" W.L., F.H. AND APPURTENANCES
1-II	INSTALL NEW 8" W.L. & VALVES
1-III	INSTALL NEW 6" & 8" W.L.
1-IV	INSTALL NEW FIRE HYDRANT
1-V	REMOVE & DISPOSE OF EX. FIRE HYDRANT & VALVE
1-VI	INSTALL NEW 8" W.L. AND VALVES

YORKVILLE WATER PLANS 5+00 to 20+0

FED. RD. DIVISION	STATE	PROJECT	
2	OHIO		

349
560

JEFFERSON COUNTY
JEF. -7- 0.20



NOTES

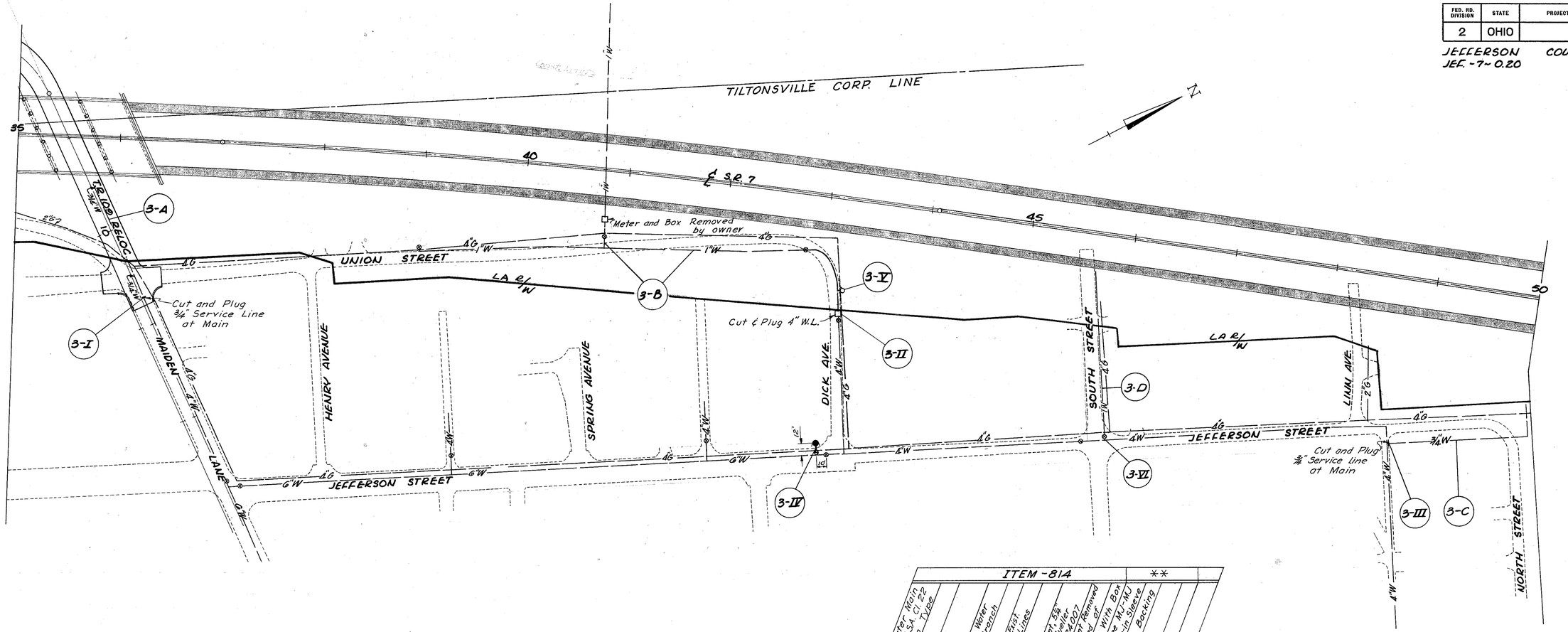
No Work Required This Sheet

YORKVILLE WATER PLANS 20+00 to 35+00

FED. RD. DIVISION	STATE	PROJECT	
2	OHIO		

350
560

JEFFERSON COUNTY
JEF.-7-0.20



	ITEM -814												**	
	New Water Main CI. Pipe ASA CI 22 Push-on Type			Plug Exist. Water Main or Branch	Plugging Exist. Service Lines	Fire Hydrant 3/4" opening Mueller Fig. A-24207	Fire Hydrant Removed & Disposed of	Gate Valve With Box 6"x6" CI. Tee MJ-MJ and Cutting-in Sleeve	Concrete Backing			3/4"I	
	6"			4"	3/4"I			6"				3/4"I	
	LF.			Ea.	Ea.	Ea.	Ea.	Ea.	Ea.	C.Y.		Ea.	
3-I					1							1	
3-II				1									
3-III					1							1	
3-IV	12					1		1	1	0.19			
3-V							1						
3-VI					1							1	
TOTAL TO G.S.	12			1	3	1	1	1					

**-Estimating Purposes Only

A. E. STILSON & ASSOC.
Quantities Calculated RAS Dec. 1968
Quantities Checked FO Dec. 1968

WATER LINES TO BE ABANDONED

3-A 3/4" SERVICE LINE FROM END OF EXIST. 4 WATER LINE MAIDEN LANE
3-B 1" SERVICE LINE, UNION STREET SOUTH OF DICK AVENUE
3-C 3/4" SERVICE LINE, SOUTH OF JEFFERSON STREET
3-D 1" SERVICE LINE, NORTH SIDE OF SOUTH STREET

WORK TO BE DONE

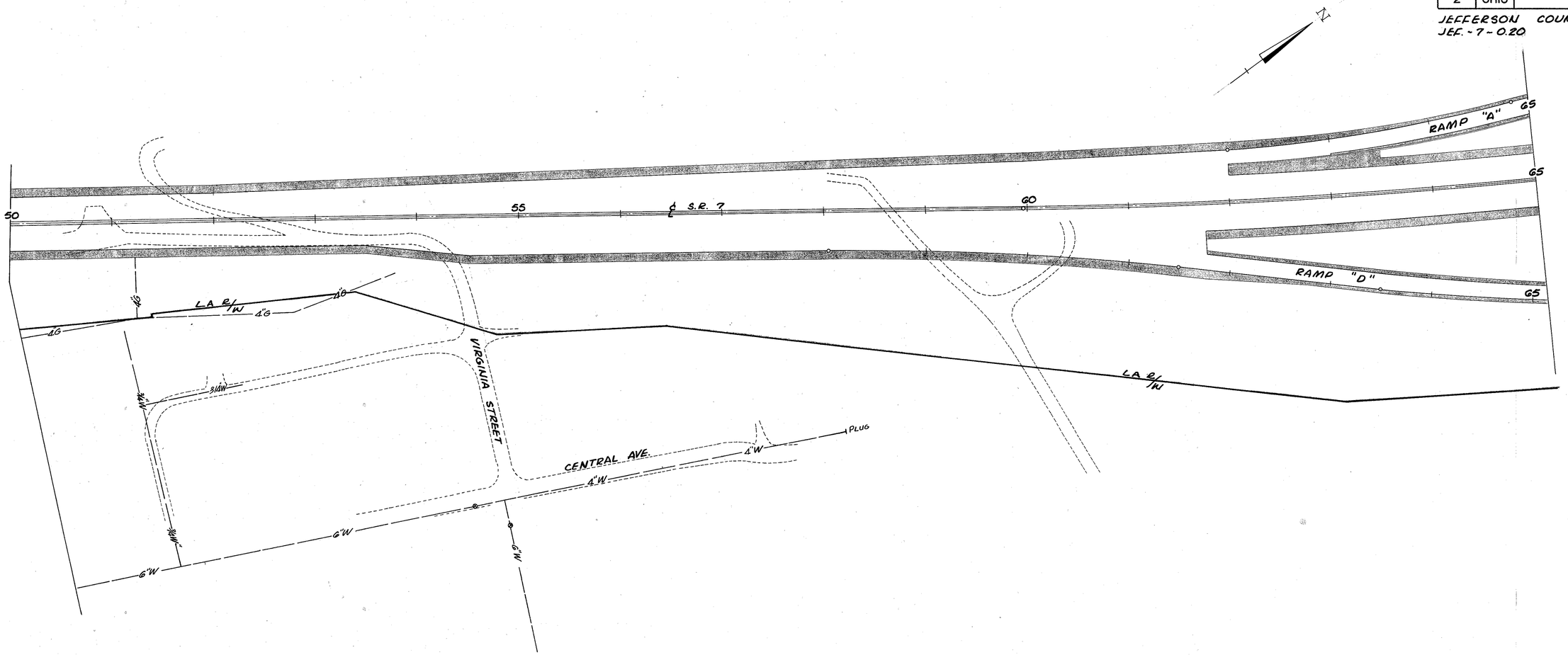
3-I LOCATE END OF 4" W.L. CUT & PLUG 3/4" SERVICE LINE AT CONNECTION
3-II LOCATE, CUT & PLUG 4" W.L.
3-III LOCATE, CUT & PLUG 3/4" SERVICE AT CONNECTION
3-IV INSTALL G x G TEE 6" G.V./BOX, FIRE HYDRANT
3-V REMOVE & DISPOSE OF EX. FIRE HYDRANT
3-VI LOCATE, CUT & PLUG 1" SERVICE AT CONNECTION

TILTONSVILLE WATER PLANS 35+00 to 50+00

FED. RD. DIVISION	STATE	PROJECT	
2	OHIO		

351
560

JEFFERSON COUNTY
JEF. - 7 - 0.20



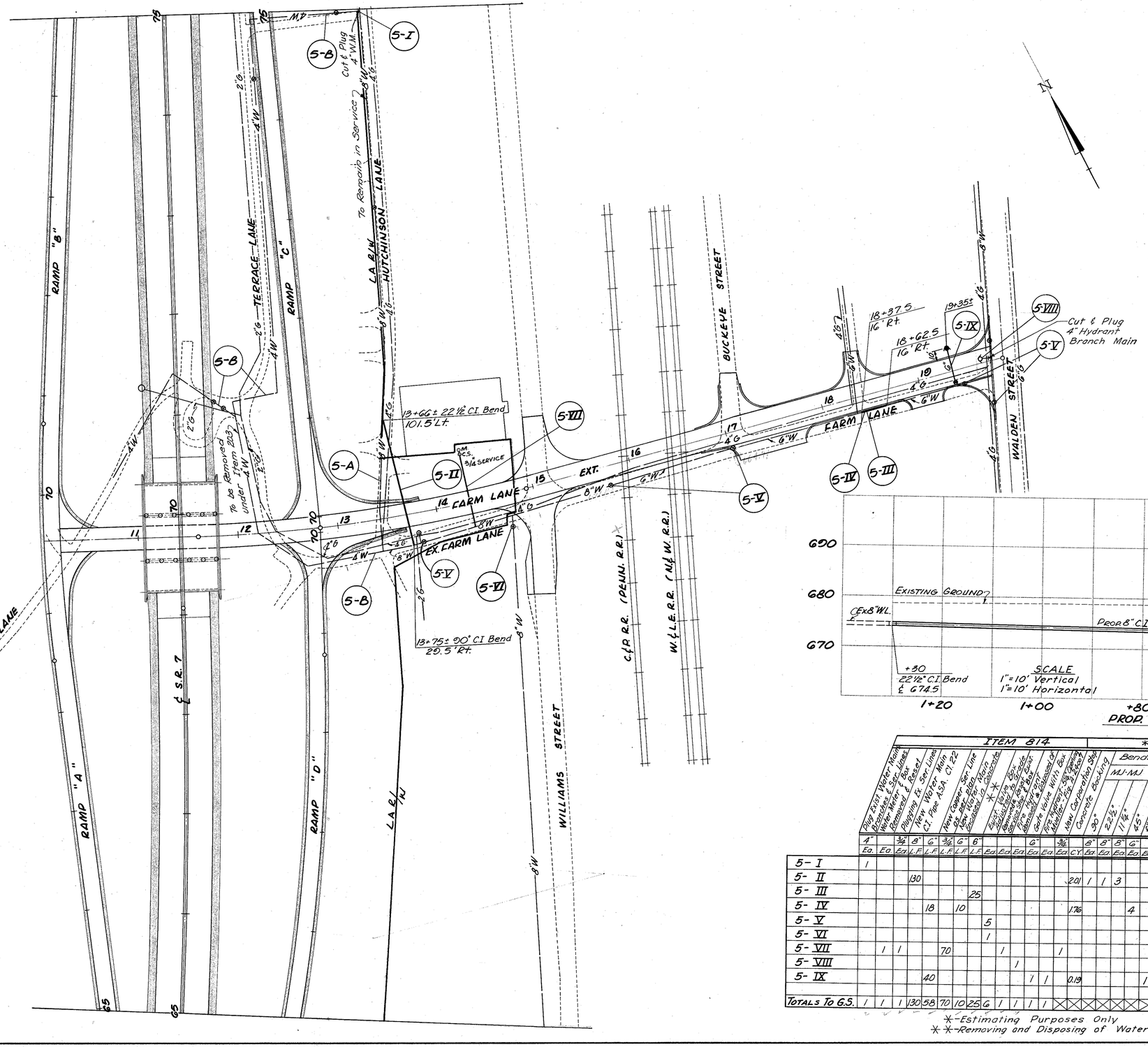
NOTE :
NO WORK REQUIRED ON THIS SHEET

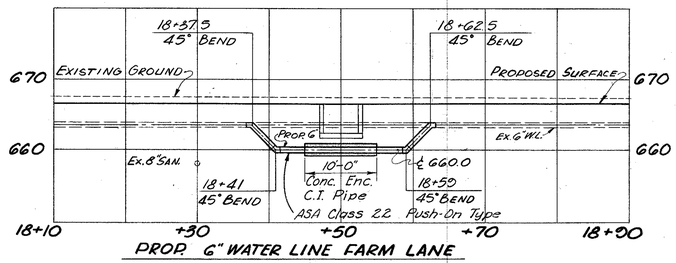
WATER PLANS 50+00 to 65+00

FED. RD. DIVISION	STATE	PROJECT	
2	OHIO		

352
560

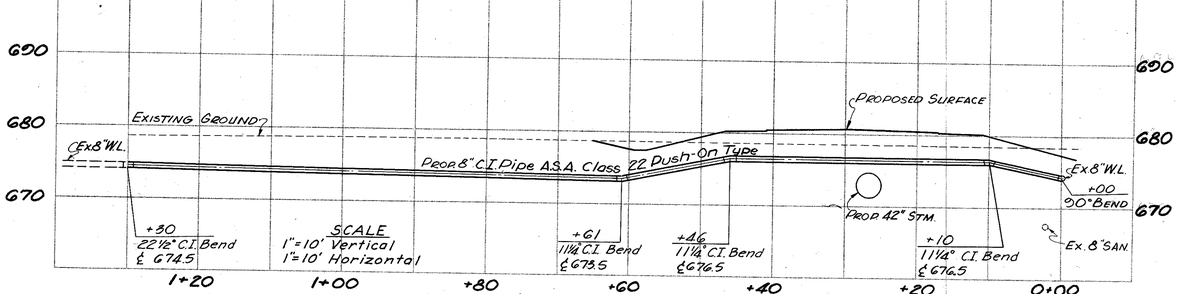
JEFFERSON COUNTY
JEF.-7-0.20





PROP. 6" WATER LINE FARM LANE

SCALE
1"=10' VERTICAL
1"=10' HORIZONTAL



PROP. 8" WATER LINE FARM LANE TO HUTCHINSON LANE

	ITEM 814															*								
	Plug Exist. Water Main, Remove 4" Ser. Line, Water Meter & Box Removed & Reset	Plugging Ex. Ser. Lines	New Water Main C.I. Pipe A.S.A. Cl. 22					New Copper Ser. Line from Water Main to Curb Box Including ℄ Corporation	New 6" Plug Valve in Valve Box Including ℄ Corporation	** Excl. Valve Box, Removing & Disposing of Valve Box & Cover	Remove & Dispose of Existing Hydrant	Core Valve with Box	Tap New 6" Ser. Line to Water Main & Install 6" Gate Valve with Box	Cut & Plug 6" Water Main with Concrete Backing	Bends C.I. MJ-MJ					6"x6"Tee MJ-MJ & Cutting in Sleeve	Plug or Cap	CI. Plug or Cap
	4"		¾"	8"	6"	3½"	6"	6"					6"		3½"		8"	8"	6"		¾"	4"	
	Ea.	Ea.	Ea.	L.F.	L.F.	L.F.	L.F.	L.F.	Ea.	Ea.	Ea.	Ea.	Ea.	Ea.	Ea.	C.Y.	Ea.	Ea.	Ea.	Ea.	Ea.	Ea.	
5-I	1																					1	
5-II				130												2.01	1	1	3				
5-III							25																
5-IV					18		10									1.76			4				
5-V								5															
5-VI								1															
5-VII		1	1			70			1							1					1		
5-VIII										1												1	
5-IX					40						1	1				0.19				1			
TOTALS TO G.S.	1	1	1	130	58	70	10	25	6	1	1	1	1										

*-Estimating Purposes Only
**-Removing and Disposing of Water Mains as per plan

WATER LINES TO BE ABANDONED

5-A 8" FARM LANE TO HUTCHINSON LANE CONNECTION
5-B 8"℄ 4" FARM LANE ℄ TERRACE LANE

WORK TO BE DONE

5-I LOCATE 8"X4" TEE, PLUG 4" BRANCH
5-II INSTALL NEW 8" W.L.
5-III REMOVE EXISTING 6" W.L. 18+37.5± TO 18+62.5±
5-IV INSTALL NEW 6" W.L. 18+37.5± TO 18+62.5±
5-V ADJUST VALVE BOXES TO GRADE FARM LANE FROM WALDEN STREET TO 5-II
5-VI ADJUST VALVE BOX TO GRADE WILLIAMS STREET
5-VII REMOVE & RESET CURB, METER, INSTALL NEW SERVICE LINE TO BUILDING (RELOCATE AS DIRECTED)
5-VIII REMOVE & DISPOSE OF EXISTING HYDRANT
5-IX INSTALL NEW FIRE HYDRANT & VALVE AS SHOWN

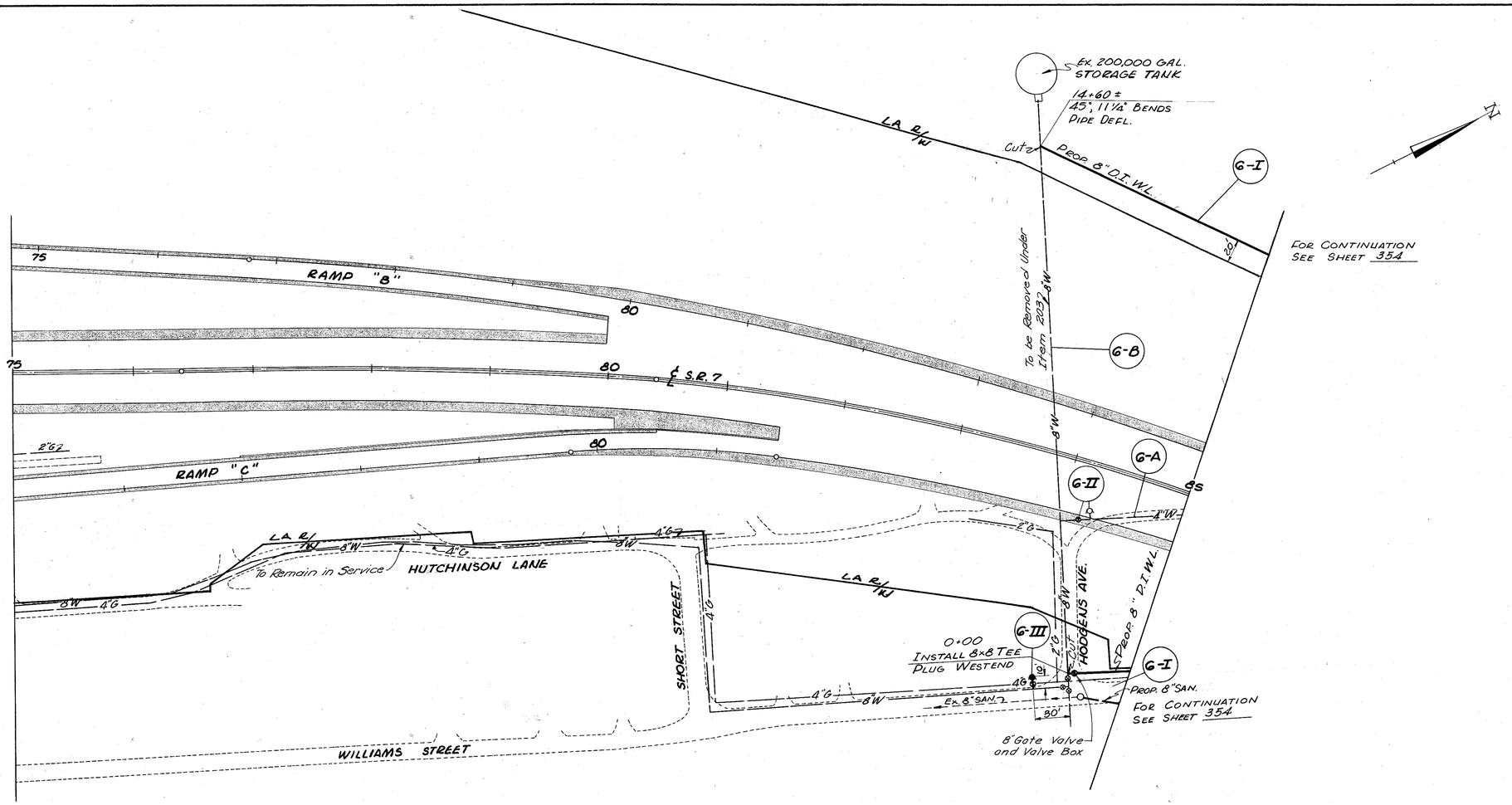
A. E. STILSON & ASSOC.
Quantities Calculated RAS Dec. 1968
Quantities Checked FO Dec. 1968

TILTONSVILLE WATER PLANS 65+00 to 75+00

FED. RD. DIVISION	STATE	PROJECT	
2	OHIO		

353
560

JEFFERSON COUNTY
JEF.-7-0.20



	ITEM 814													ESTIMATING PURPOSES ONLY											814A Spec.
	Ductile Iron Pipe W.M. A.S.A.	New Water Main C.I. Pipe A.S.A. O.I.22	Gate Valve With Box	Fire Hydrant Assembly Complete with 6" Lead New 4" Upper Barrel New Connection Stem	Upper Barrel & Stem Fire Hydrant Assembly Complete with 6" Lead	Gate Valve Complete with Box	Removing & Disposing of Exist. W.M.	Removing & Disposing of Exist. W.M. as per plan	Removing & Disposing of Exist. W.M.	Concrete Bedding	Bends C.I. MJ-MJ 90°	Bends C.I. MJ-MJ 45°	Bends C.I. MJ-MJ 22½°	Bends C.I. MJ-MJ 11¼°	Tee CI MJ-MJ 8x8	Red. CI MJ-MJ 8x6	8x4	CI Plug or Cap	8"x6" CI Tee MJ & 8" Cutting in Sleeve Watervalve in Box Removed & Reset	Conc. Anchorage Blocks	
	8" L.F.	8" L.F.	6" L.F.	8" Ea.	6" Ea.	¾" L.F.	¾" Ea.	4" Ea.	4" Ea.	4" L.F.	8" L.F.	C.Y.	Ea.	Ea.	Ea.	Ea.	Ea.	Ea.	Ea.	8" Ea.	Ea.	Ea.	C.Y.	
G-I	1440		6	3	1	1	10	1	1				6.87	2	5	7	6	3	1		1	2		1	9.5	
G-II									1	1																
G-III			10		1	1							0.19										1			
7-I		80											1.04		4											
7-II											80															
7-III										120																
TOTAL TO GEN. SUMMARY	1440	80	16	3	2	2	10		1	1	120	80									1	2		1	9.5	

WATER LINES TO BE ABANDONED

G-A 4" FROM 8" TANK FEED TO M.H. STA. 85+00
G-B 8" FROM 0+00 PROP. 8" D.I.W.L. TO 14+60±

WORK TO BE DONE

G-I INSTALL PROP. 8" DUCTILE IRON WATER LINE AS SHOWN AND APPURTENANCES
6-II REMOVAL & DISPOSAL OF EXISTING FIRE HYDRANT AND VALVE
6-III INSTALL NEW FIRE HYDRANT AND VALVE

NOTES

FOR PROFILE PROP. 8" DUCTILE IRON WATER SEE SHEET Nº 356

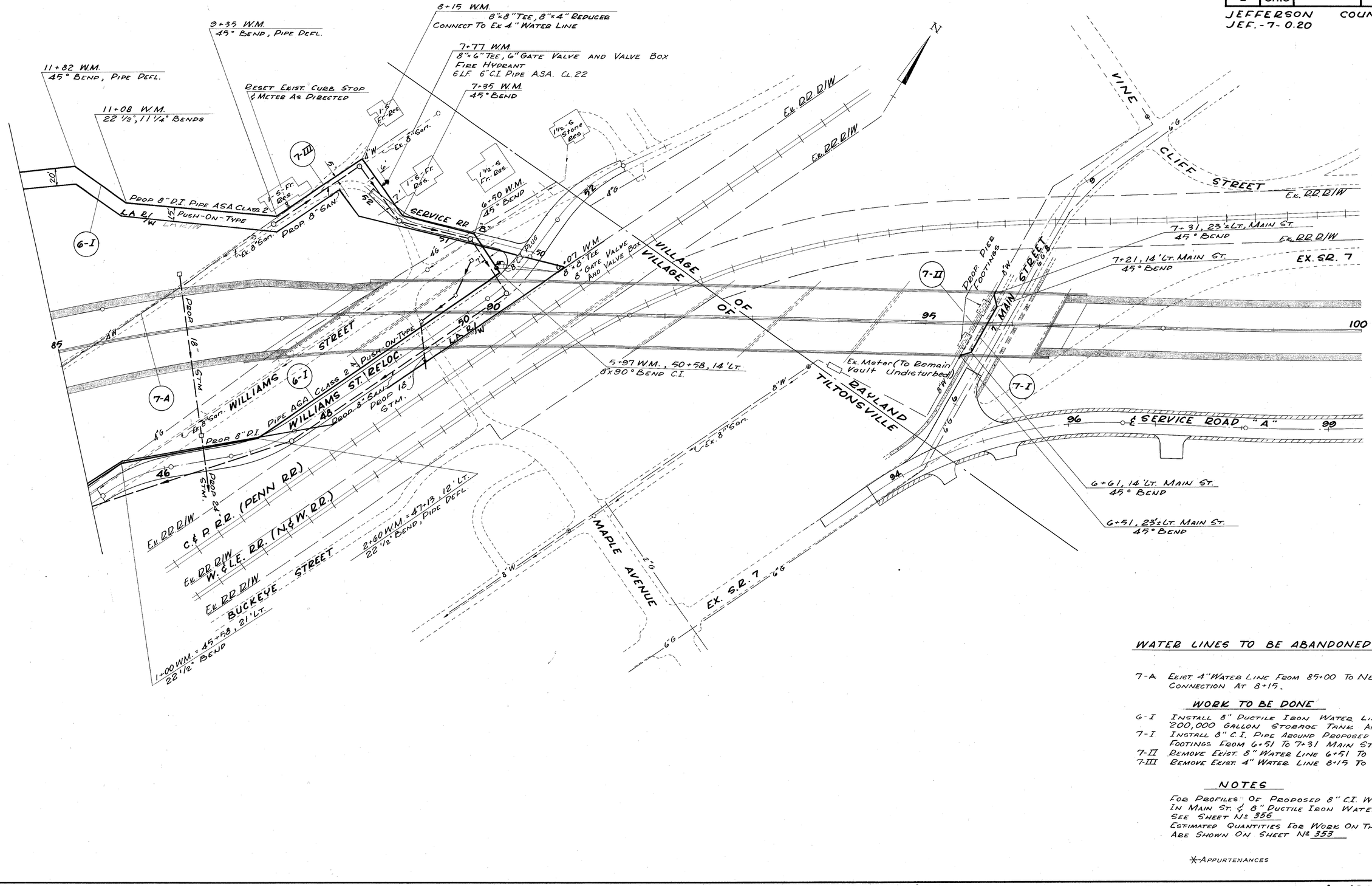
A. E. STILSON & ASSOC.
Quantities Calculated RAS DEC. 1968
Quantities Checked FO DEC. 1968

TILTONSVILLE WATER PLANS 75+00 to 85+00

FED. RD. DIVISION	STATE	PROJECT	
2	OHIO		

354
360

JEFFERSON COUNTY
JEF.-7-0.20



WATER LINES TO BE ABANDONED

7-A Exist. 4" Water Line From 85+00 To New Connection At 8+15.

WORK TO BE DONE

6-I Install 8" Ductile Iron Water Line To 200,000 Gallon Storage Tank And ✳
7-I Install 8" C.I. Pipe Around Proposed Pier Footings From 6+51 To 7+31 Main St.
7-II Remove Exist. 8" Water Line 6+51 To 7+91.
7-III Remove Exist. 4" Water Line 8+15 To 9+35.

NOTES

For Profiles Of Proposed 8" C.I. Water Line In Main St. & 8" Ductile Iron Water Line See Sheet No. 356
Estimated Quantities For Work On This Sheet Are Shown On Sheet No. 353

✳-Appurtenances

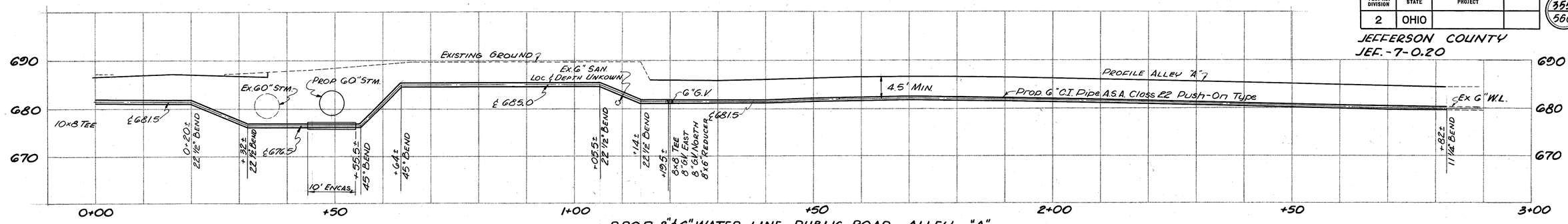
BRUNING 44-560 10943

RAYLAND, TILTONSVILLE WATER PLANS 85+00 to 100+00

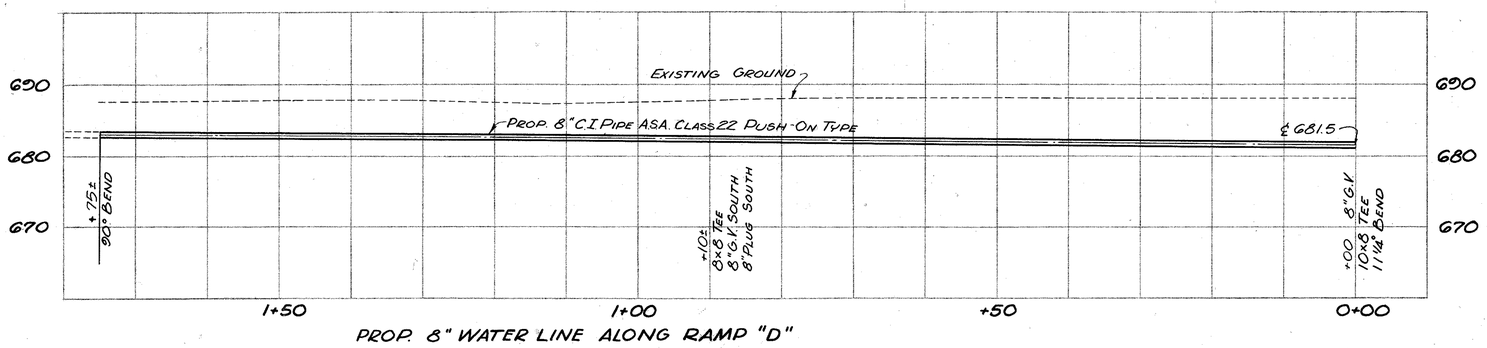
FED. RD. DIVISION	STATE	PROJECT	
2	OHIO		

355/560

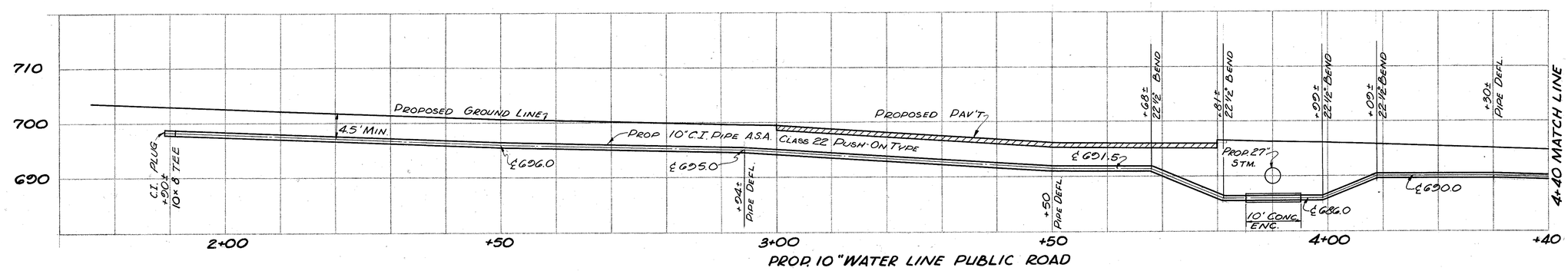
JEFFERSON COUNTY
JEF.-7-0.20



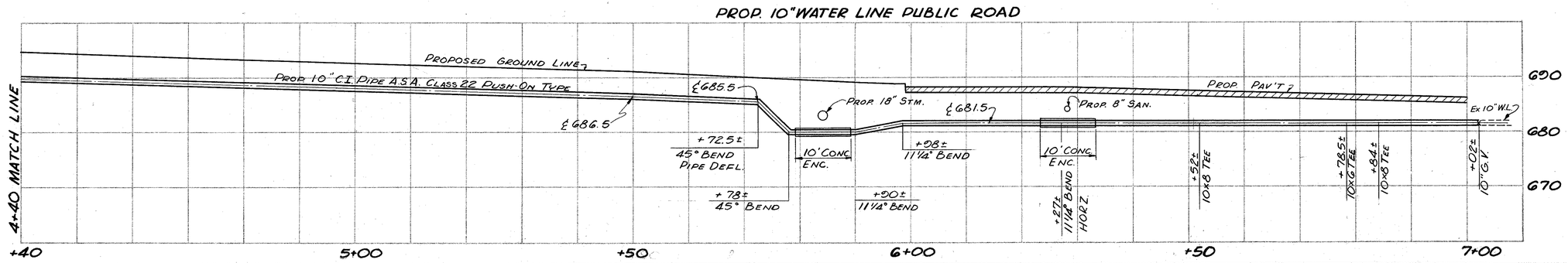
PROP. 8"℄6" WATER LINE PUBLIC ROAD - ALLEY "A"



PROP. 8" WATER LINE ALONG RAMP "D"



PROP. 10" WATER LINE PUBLIC ROAD

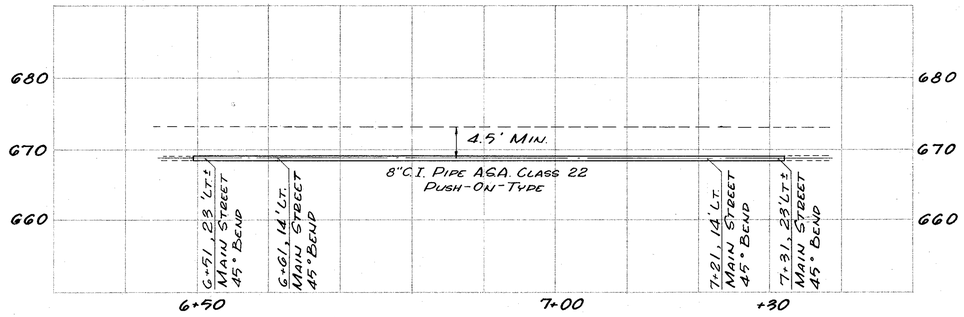


YORKVILLE WATER LINE PROFILES

FED. RD. DIVISION	STATE	PROJECT	
2	OHIO		

356
560

JEFFERSON COUNTY
JEF.-7-0.20



8" WATER LINE RELOCATION MAIN STREET
RAYLAND

Anchor blocks shall be provided at every third length of pipe between Sta. 7+35 and Sta. 8+12, and between Sta. 9+35 and Sta. 13+40±. Spaced about one for every 50' horizontal measurement or as directed by the engineer. See detail Sheet No. 347

PROP. 8" DUCTILE IRON WATER LINE TO TILTONSVILLE STORAGE TANK

WATER LINE PROFILES

BRUNING 44-560 10943

LIGHTING GENERAL NOTES

FHWA REGION	STATE	PROJECT	
5	OHIO		

357
560

JEFFERSON COUNTY
JEF- 7 -0.20

SPECIFICATIONS
THESE NOTES ARE SUPPLEMENTAL TO ITEMS 625 AND 713 OF THE STATE OF OHIO DEPARTMENT OF TRANSPORTATION CONSTRUCTION AND MATERIAL SPECIFICATIONS.

REFERENCE SHALL BE MADE TO STANDARD CONSTRUCTION DRAWINGS AS SHOWN ON TITLE SHEET.

625.03 - GENERAL
THE POWER SUPPLYING AGENCY FOR THIS PROJECT IS
THE OHIO POWER COMPANY, STEUBENVILLE DIVISION
STEUBENVILLE OHIO
SERVICE≋ 480 VOLT 2-WIRE GROUNDED NEUTRAL SUPPLY.

625.07 - 713.11 LUMINAIRES.
400/WATT LUMINAIRES SHALL HAVE DUAL RATED 240/480 VOLT INTEGRAL REGULATOR BALLASTS AND SHALL BE GENERAL ELECTRIC M400, WESTINGHOUSE OV-25, MCGRAW-EDISON 'UNISTYLE', OR EQUAL APPROVED BY THE ENGINEER.

625.07 - 713.13 UNDERPASS LUMINAIRES
250-WATT UNDERPASS LUMINAIRES SHALL BE HOLOPHANE 'UNDERPASS WALLPACK', OR EQUAL WESTINGHOUSE, MCGRAW-EDISON, OR GENERAL ELECTRIC UNDERPASS UNIT APPROVED BY THE ENGINEER, AND SHALL BE FURNISHED WITH AN INTEGRAL FUSE HOLDER AND 10 AMPERE FUSE. THE INTEGRAL BALLAST SHALL BE OF A REGULATOR TYPE RATED FOR 480 VOLTS.

625.08 - 713.14 LAMPS
MERCURY LAMPS SHALL BE GENERAL ELECTRIC 'BONUS LINE', WESTINGHOUSE 'LIFEGUARD', SYLVANIA 'ROUGH SERVICE', OR EQUAL APPROVED BY THE ENGINEER.

LIGHT POLE ANCHOR BOLTS FOR BRIDGES AND RETAINING WALLS
ANCHOR BOLTS FOR MOUNTING LIGHT POLES ON BRIDGES AND RETAINING WALLS SHALL CONFORM TO THE REQUIREMENTS OF 713.01 AND DETAILS SHOWN ON THE PLANS AND STANDARD DRAWINGS, OR THE APPROVED SHOP DRAWINGS FOR THE RESPECTIVE POLES TO BE PLACED THEREON. PAYMENT SHALL BE MADE AT THE UNIT PRICE BID FOR EACH SET OF THE SIZE REQUIRED AND NECESSARY TO INSTALL ONE POLE, AND THIS PAYMENT SHALL CONSTITUTE FULL COMPENSATION FOR FURNISHING AND PLACING THE BOLTS.

ITEM 625 - CONDUIT JACKED UNDER PAVEMENT, AS PER PLAN
THIS ITEM SHALL CONSIST OF FURNISHING AND INSTALLING CONDUIT OF THE SIZE OR SIZES INDICATED UNDER EXISTING PAVEMENT AND CONTIGUOUS SHOULDERS BY AN APPROVED METHOD SUCH AS 'DRILLING' OR 'JACKING'.
THE CONTRACTOR SHALL PLACE THE CONDUIT WITH THE LEAST AMOUNT OF DISTURBANCE TO THE EXISTING PAVEMENT, SUBBASE, BERM PAVEMENT, OR SHOULDERS OF THE ROADWAY. ALL PUSH PITS OR ANY NECESSARY EXCAVATIONS SHALL BE BACKFILLED AND RESTORED IN ACCORDANCE WITH 625.01. MEASUREMENT OF THE CONDUIT SHALL BE THE ACTUAL AMOUNT OF LINEAL FEET INSTALLED UNDER PAVEMENT AND SHOULDERS, MEASURED IN PLACE, AS ACCEPTED BY THE ENGINEER. THE UNIT PRICE BID FOR ITEM 625 'CONDUIT JACKED UNDER PAVEMENT, AS PER PLAN' SHALL BE FULL COMPENSATION FOR EXCAVATION, DRILLING OR JACKING, BACKFILLING, COMPACTION, RESTORATION, AND ALL LABOR, MATERIAL, EQUIPMENT, AND INCIDENTALS NECESSARY TO COMPLETE THE WORK AS SPECIFIED.

CONDUIT ON STRUCTURES
EXPANSION FITTINGS FOR CONDUIT ON STRUCTURES SHALL BE OZ TYPE AX, CROUSE-HINDS TYPE XJ-4, APPLETON TYPE XJ-4, OR EQUAL APPROVED BY THE ENGINEER.
EACH EXPANSION FITTING SHALL HAVE A COPPER EXTERNAL BONDING JUMPER.

ITEM 625 - SERVICE TO UNDERPASS LIGHTING, AS PER PLAN
THIS ITEM SHALL CONSIST OF PROVIDING COMPLETE ELECTRICAL SERVICE, EXCEPT FOR LUMINAIRES, LAMPS, AND STRUCTURE GROUNDING FOR AN UNDERPASS LIGHTING SYSTEM ON BRIDGE NO. JEF-7-0166 AND JEF-7-0288.
THE INSTALLATION WORK SHALL INCLUDE CONDUITS, CONDUIT GROUNDING, MOUNTINGS, FITTINGS, JUNCTION BOXES, CABLES, AND ALL INCIDENTALS NECESSARY TO COMPLETE, READY FOR USE, THE SERVICE AS DETAILED ON SHEET NO. 373 & 373A

THE LUMP SUM PRICE BID FOR 'ITEM 625- SERVICE TO UNDERPASS LIGHTING, AS PER PLAN' SHALL INCLUDE PAYMENT FOR ALL EQUIPMENT, LABOR, AND MATERIALS NECESSARY TO COMPLETE THE WORK AS SPECIFIED. COMPONENT PARTS NOT SPECIFICALLY MENTIONED BUT REQUIRED FOR SATISFACTORY OPERATION OF THIS ITEM SHALL BE FURNISHED AND CONSIDERED PAID FOR AS PART OF THE ITEM.

HIGH VOLTAGE DIRECT CURRENT TESTS
A HIGH VOLTAGE TEST, AS DESCRIBED IN SUPPLEMENTAL SPECIFICATION 839 SHALL BE PERFORMED ON ALL SECONDARY FEEDER CABLE DISTRIBUTION CABLE, AND DUCT-CABLE SYSTEMS TO BE INSTALLED ON THIS PROJECT. THE TEST SHALL NOT BE PERFORMED UNTIL AFTER ALL NEW CONSTRUCTION, SUCH AS GUARD RAIL, FENCES, DELINEATOR POSTS, SIGNS ET CETERA, IN THE IMMEDIATE VICINITY OF THE LOCATION OF THE CABLE RUN BEING TESTED HAS BEEN COMLETED. PAYMENT SHALL BE AS PER 839.05.

STANDARD CONSTRUCTION DRAWING HL-3
POLE BASE DETAILS SHOWN ON THIS DRAWING ARE ESSENTIALLY FOR GALVANIZED STEEL POLES. FOR ALUMINUM DESIGNS, OR OTHER PERMITTED STEEL MATERIAL DESIGNS, VARIATIONS FROM THE DETAILS WILL BE ACCEPTABLE, AS APPROVED BY THE ENGINEER.

STANDARD CONSTRUCTION DRAWING HL-15
WEEPHOLE DIAMETERS OF 1/8 INCH SHOWN ON THIS DRAWING SHALL BE INCREASED TO 1/4 INCH.

CONNECTOR KITS.
AT THE OPTION OF THE CONTRACTOR, TYPE IX CABLE CONNECTIONS MAY BE SUBSTITUTED WHERE TYPE II OR III CABLE CONNECTIONS ARE SPECIFIED IN HAND HOLES OR TRANSFORMER BASES OF LIGHT POLES.

TYPE I THROUGH TYPE VII CABLE CONNECTIONS IN PULL BOXES, JUNCTION BOXES, AND OTHER ENCLOSURES BELOW GROUND MAY BE ACCOMPLISHED BY THE USE OF EITHER OF THE FOLLOWING:

1. A SLEEVE OR TEE CABLE CONNECTOR CONFORMING TO THE GENERAL REQUIREMENTS OF STYLE "S" OR "H", OR OTHER CONNECTING DEVICE APPROVED BY THE ENGINEER. THE CONNECTOR SHALL BE INSTALLED IN ACCORDANCE WITH THE MANUFACTURER'S DIRECTIONS AND CONNECTION SHALL BE SEALED AND WATERPROOFED WITH A HI-DIELECTRIC COMPOUND SUCH AS "AQUA SEAL" AS MANUFACTURED BY KEARNEY, OR EQUAL APPROVED BY THE ENGINEER. THE SEALING MATERIAL SHALL BE APPLIED IN ACCORDANCE WITH THE MANUFACTURER'S DIRECTIONS TO MAKE A WATERTIGHT CONNECTION. CONNECTIONS NOT ACCOMPLISHED IN-LINE OR IN TEE FORM SHALL BE ADDITIONALLY PROTECTED BY USE OF A HI-DIELECTRIC PVC, OR OTHER APPROVED MATERIAL, BOOT WITH AN APPROVED FASTENING DEVICE.
2. A PREASSEMBLED KIT, AS MANUFACTURED BY JOY OR BUSSMAN, OR APPROVED EQUAL WITH A WATERPROOF OR WATER-TIGHT RATING ACCEPTABLE TO THE ENGINEER.

PLAN SPECIFICATION REFERENCES.
REFERENCE TO ITEM 625 AND 713 IN THESE PLANS SHALL BE CONSIDERED TO READ AS RESPECTIVE REFERENCES TO ITEMS S625 AND S713.

ESTIMATED QUANTITIES.

A). AN ESTIMATED QUANTITY OF "360 LIN. FT. OF 605, 4 INCH SHALLOW PIPE UNDERDRAINS" IS PROVIDED IN THE LIGHTING GENERAL SUMMARY FOR USE AS DIRECTED BY THE ENGINEER IN PROVIDING POSITIVE DRAINAGE FOR PULL BOXES IN FILL AREAS. IT IS INTENDED THAT ALL PULL BOXES IN THESE AREAS BE PROVIDED WITH SUCH DRAINAGE, PROVIDED THE LENGTH OF UNDERDRAIN NECESSARY TO OBTAIN A SATISFACTORY OUTFALL DOES NOT EXCEED 20 FEET APPROXIMATELY. A PERFORATED PVC PIPE OR CONDUIT MATERIAL APPROVED BY THE ENGINEER MAY BE USED IN THE CONSTRUCTION OF THIS ITEM.

B). AN ESTIMATED QUANTITY OF "20 EACH OF 625 MARKERS" IS PROVIDED IN THE LIGHTING GENERAL SUMMARY FOR USE AS DIRECTED BY THE ENGINEER IN PROVIDING GROUND SURFACE INDICATION OF THE LOCATION OF UNDERGROUND CIRCUITS. THE MARKERS SHALL BE LOCATED DIRECTLY OVER THE CENTERLINE OF THE CABLE OR DUCT. IT IS INTENDED THAT A MARKER SHALL BE PROVIDED AT A POINT MIDWAY BETWEEN ADJACENT SIDE MOUNTED LIGHT UNITS WHERE THE DISTANCE BETWEEN THE UNITS EXCEED 300 FEET BUT DOES NOT EXCEED 450 FEET, AND AT INTERVALS OF APPROXIMATELY 200 FEET ON ALL OTHER CIRCUIT SECTIONS LOCATED OUTSIDE OF PAVED AREAS.

PULL BOX - 713.09
THE AIR BELL AS DETAILED ON STANDARD CONSTRUCTION DRAWING HL-10 SHALL BE DELETED, AND THE COVER DETAIL REFERENCE CHANGED FROM "713.08" TO "S 713.09."

ELECTRICAL SERVICE FOR ILLUMINATED SIGNS.
THE PAY ITEMS IN THE LIGHTING GENERAL SUMMARY INCLUDE THE PULL BOX OR JUNCTION BOX ADJACENT TO EACH LIGHTED SIGN AND THE ELECTRICAL SERVICE CONNECTIONS LEADING IN TO THE BOX, INCLUDING CONNECTOR KITS IN THE PULL BOX OR JUNCTION BOX. THE QUANTITIES FOR ELECTRICAL SERVICE FROM THE CONNECTOR KITS IN THE PULL BOX OR JUNCTION BOX TO THE SIGN ARE INCLUDED IN THE TRAFFIC CONTROL GENERAL SUMMARY.

GENERAL SUMMARY LIGHTING QUANTITIES

Rev. Quan. Calc. G.P.S. 5-74
Rev. Quan. Ch'd G.V. 6-74

A. E. STILSON & ASSOC.
Quantities Calculated F.O. July 1971
Quantities Checked G.P.S. Aug. 1971

FED. RD. DIVISION	STATE	PROJECT	
2	OHIO		

358
560

JEFFERSON COUNTY
JEF-7-0.20

REFERENCE LINE			STRUCTURES					ROADWAY									PROJECT TOTAL	ITEM	UNIT	DESCRIPTION	REFERENCE LINE
	STRUCTURE Nº		0131	0166	0238	0245	0288	* From Sheet #362													
	SUB-SUMMARY SHEET	357	359	360			361	359			360		361		361A	361B				Code 7223	
	DETAIL SHEET Nº		366	367	368	368	369	364	365	366	367	368	369	372	370	371					
1								8	4	5	3	2	1	4	12	8	47	$625	EACH	LIGHT POLE, DESIGN AT15B34.2	1
2											1	6		2			9	$625	EACH	LIGHT POLE, DESIGN AT10B34.2	2
3				1													1	$625	EACH	LIGHT POLE, DESIGN ST10B34.2 (BRIDGE MOUNTED)	3
4								3	3		2	7	5		4	6	30	$625	EACH	LIGHT POLE, DESIGN T15B34.2	4
5												2	1		5	5	14	$625	EACH	LIGHT POLE, DESIGN T10B34.2	5
6												1		1			2	$625	EACH	LIGHT POLE, DESIGN AT18B34.2	6
7															1		1	$625	EACH	LIGHT POLE, DESIGN AT30B34.2	7
8																					8
9								11	7	5	6	18	7	7	22	19	102	$625	EACH	LIGHT POLE FOUNDATION, 24"x6' DEEP	9
10																					10
11								1	1	5	1	12	1	3	5	5	34	$625	EACH	LUMINAIRE, TYPE II, 400 WATT §713.11	11
12				1				10	6		5	6	6	4	13	10	61	$625	EACH	LUMINAIRE, TYPE III, 400 WATT §713.11	12
13															4	4	8	$625	EACH	LUMINAIRE, TYPE III, 400 WATT WITH PHOTOELECTRIC CONTROL UNIT §713.11	13
14				7			3										10	$625	EACH	LUMINAIRE, UNDERPASS, 250 WATT MERCURY §713.13	14
15																					15
16				7			3										10	$625	EACH	LAMP, 250 WATT §713.14 MERCURY	16
17				1				11	7	5	6	18	7	7	22	19	103	$625	EACH	LAMP, 400 WATT §713.14 MERCURY	17
18		20															20	$625	EACH	MARKERS	18
19								5	3	8	7	17	8	5	9	9	71	$625	EACH	PULLBOX, 18" CIRCULAR §713.09	19
20								1		1			1		8	9	20	$625	EACH	PULLBOX, 24" CIRCULAR §713.09	20
21								3565	1999	1979	1990	4965	1782	1861	6327	6256	30,724	$625	LIN. FT.	TRENCH, 24" DEEP	21
22				2			1	*2 11	7	5	6	18	7	7	24	23	113	$625	EACH	GROUND ROD	22
23																					23
24															206	735	941	$625	LIN. FT.	CONDUIT 1½" §713.04	24
25			290	1785	274	445	432					55			108		3361	$625	LIN. FT.	CONDUIT 2" §713.04	25
26								467	175	169	170	269	119	99	254	1032	2751	$625	LIN. FT.	CONDUIT 3" §713.04	26
27												47					47	$625	LIN. FT.	CONDUIT 3" §713.04, JACKED UNDER PAVEMENT, AS PER PLAN	27
28								6		8	4	20	16	4	28	26	112	$625	EACH	CONNECTOR KIT, TYPE I, AS PER PLAN	28
29				1				12	7	5	6	18	7	7	31	28	122	$625	EACH	CONNECTOR KIT, TYPE II, AS PER PLAN	29
30				1				12	7	5	6	18	7	7	13	10	86	$625	EACH	CONNECTOR KIT, TYPE III, AS PER PLAN	30
31							2	8	4	2	6	10	2	2		5	41	$625	EACH	CONNECTOR KIT, TYPE VII-B, AS PER PLAN	31
32				85				1078	686	490	588	1740	676	672	2122	1798	9935	$625	LIN. FT.	Nº 10 AWG, POLE AND BRACKET CABLE	32
33								3218	1894	1890	1900	4807	1839	1692	4064	2939	24,243	$625	LIN. FT.	1½" DUCT CABLE WITH TWO Nº 4 AWG, 600 VOLT CABLES	33
34														685	3712	2413	6810	$625	LIN. FT.	1½" DUCT CABLE WITH THREE Nº 4 AWG, 600 VOLT CABLES	34
35				1940		930	440	1054	390	398	380	1960	764	238	886	3653	13,033	$625	LIN. FT.	Nº 4 AWG, 600 VOLT DISTRIBUTION CABLE	35
36															645	2211	2856	$625	LIN. FT.	No. 1/0 AWG, 600 VOLT SECONDARY FEEDER CABLE	36
37			1														1	$625	EACH	STRUCTURE GROUNDING SYSTEM, BRIDGE Nº JEF-7-0131	37
38				1													1	$625	EACH	STRUCTURE GROUNDING SYSTEM, BRIDGE Nº JEF-7-0166	38
39					1												1	$625	EACH	STRUCTURE GROUNDING SYSTEM, BRIDGE Nº JEF-7-0238	39
40						1											1	$625	EACH	STRUCTURE GROUNDING SYSTEM, BRIDGE Nº JEF-7-0245	40
41							1										1	$625	EACH	STRUCTURE GROUNDING SYSTEM, BRIDGE Nº JEF-7-0288	41
42				LUMP(2)													LUMP	$625	LUMP	SERVICE TO UNDERPASS LIGHTING, AS PER PLAN, BRIDGE Nº JEF-7-0166	42
43							LUMP										LUMP	$625	LUMP	SERVICE TO UNDERPASS LIGHTING, AS PER PLAN, BRIDGE Nº JEF-7-0288	43
44			1	5 | 1*	1		1										9*	$625	EACH	JUNCTION BOX, 18"x8"x6"	44
45			1	6	1	1											9	$625	SET	LIGHT POLE ANCHOR BOLTS FOR STRUCTURE §713.01	45
46										LUMP							LUMP	$625	LUMP	SERVICE POLE AND CONTROL CENTER Nº 1	46
47													LUMP				LUMP	$625	LUMP	SERVICE POLE AND CONTROL CENTER Nº 2	47
48																LUMP	LUMP	$625	LUMP	SERVICE POLE AND CONTROL CENTER Nº 3	48
49																					49
50															LUMP		LUMP	$625	LUMP	N.B. WEIGH STATION SERVICE POLE, SAFETY SWITCH AND ENCLOSURE	50
51																LUMP	LUMP	$625	LUMP	S.B. WEIGH STATION SERVICE POLE, SAFETY SWITCH AND ENCLOSURE	51
52																					52
53																	LUMP	839	LUMP	HIGH VOLTAGE TEST	53
54		360															360	605	LIN. FT.	4 - INCH SHALLOW PIPE UNDERDRAINS	54
55																					55

* 1 Junction box at C-11 is 100 % STATE.

Rev. Quan. Calc. G.P.S. 5-74
Rev. Quan. Ck'd. G.Y. 6-74

A. E. STILSON & ASSOC.
Quantities Calculated E.P. July 1971
Quantities Checked G.P.S. Aug. 1971

FED. RD. DIVISION	STATE	PROJECT	
2	OHIO		

359
560

JEFFERSON COUNTY
JEF-7-0.20

REFERENCE Nº	SIDE	FROM STATION	TO AND INCLUDING STATION	LIGHT POLE DESIGN AT15B34.2	LIGHT POLE DESIGN 715B34.2	LIGHT POLE FOUNDATION 24"x6'-0"		LUMINAIRE, TYPE II 400 WATT	LUMINAIRE, TYPE III 400 WATT	LAMP 400 WATT	PULLBOX 18" CIRCULAR	PULLBOX 24" CIRCULAR	TRENCH 24" DEEP	GROUND ROD	CONDUIT 3"				CONNECTOR KIT TYPE I	CONNECTOR KIT TYPE II	CONNECTOR KIT TYPE III	CONNECTOR KIT TYPE III B	DUCT CABLE, 600 V. 1½" TWO Nº 4	DIST. CABLE, 600 V. Nº 4	POLE AND BRACKET CABLE Nº 10			
				EA.		EA.		EA.	EA.	EA.	EA.	EA.	L.F.	EA.	L.F.				EA.	EA.	EA.	EA.	L.F.	L.F.	L.F.			
1																												
2	RT.	6+45 PUBLIC RD.	6+72 PUBLIC RD.	1		1			1	1		1	28	1					2	1	1	2	38		98			
3	RT./LT.	6+72 PUBLIC RD.	6+75 PUBLIC RD.								1		66		66				2					152				
4	RT./LT.	6+75 PUBLIC RD.	19+25 RAMP "C"								1		955									2	985					
5	RT.	13+00 RAMP "C"																										
6	RT.	17+00 RAMP "C"																										
7	RT.	19+25 SR-7	20+60 SR-7		1	1			1	1			135	1						1	1		145		98			
8	RT.	20+60 SR-7	24+90 SR-7		1	1			1	1			430	1						1	1		440		98			
9	RT.	24+90 SR-7	29+95 SR-7		1	1			1	1			505	1						1	1		515		98			
10	RT./LT.	3+05 PUBLIC RD.	3+15 PUBLIC RD.	1		1			1	1	1		76	1	76				2	1	1			172	98			
11	RT.	3+15 PUBLIC RD.	3+95 PUBLIC RD.	1		1			1	1			81	1	81					1	1			182	98			
12	RT.	3+95 PUBLIC RD.	5+35 PUBLIC RD.										165							1	1		175					
13																												
14	RT./LT.	5+90 PUBLIC RD.		1		1			1	1			74	1	74					1	1			168	98			
15																												
16	LT.	15+40 RAMP "B"	15+70 RAMP "B"	1		1		1		1	1		30	1						1	1	2	40		98			
17	LT./RT.	15+70 RAMP "B"	15+76 SR-7	1		1			1	1			47	1	47					1	1			114	98			
18	LT.	15+70 RAMP "B"	17+12 SR-7	1		1			1	1			140	1						1	1		150		98			
19	LT.	17+12 SR-7	19+25 SR-7								1		215									2	225					
20	LT./RT.	19+25 SR-7											123		123									266				
21	LT.	19+25 SR-7	24+20 SR-7	1		1			1	1			495	1						1	1		505		98			
TOTAL SHEET Nº 364				8	3	11		1	10	11	5	1	3565	11	467				6	12	12	8	3218	1054	1078			
22	RT.	54+50 SR-7	60+15 SR-7		1	1			1	1	1		566	1						1	1		576		98			
23																												
24	LT./RT.	60+15 SR-7									1		120		120							2		260				
25	RT.	60+15 SR-7	61+36 SR-7		1	1			1	1			123	1						1	1		133		98			
26	RT.	61+36 SR-7	62+75 RAMP "D"								1		135									2	145					
27	RT.	62+75 RAMP "D"	62+80 SR-7	1		1			1	1			55	1	55					1	1			130	98			
28	RT.	62+75 RAMP "D"	63+30 RAMP "D"		1	1		1		1			55	1						1	1		65		98			
29	RT.	63+30 RAMP "D"	65+00 RAMP "D"										170										170					
30	LT.	52+60 SR-7	56+60 SR-7	2		2			2	2			400	2						2	2		410		196			
31	LT.	56+60 SR-7	60+15 SR-7										355										365					
32	LT.	60+15 SR-7	60+35 SR-7	1		1			1	1			20	1						1	1		30		98			
32A	RT.	57+00 SR 7																										
TOTAL SHEET Nº 365				7	3	7		1	6	7	3		1999	7	175				7	7	4	1894	390	686			

REFERENCE Nº	SIDE	FROM STATION	TO AND INCLUDING STATION	LIGHT POLE DESIGN AT10B34.2		LIGHT POLE FOUNDATION 24"x6'-0"	LUMINAIRE, TYPE II 400 WATT	LAMP 400 WATT	PULLBOX 18" CIRCULAR	PULLBOX 24" CIRCULAR	GROUND ROD	TRENCH 24" DEEP	CONDUIT 2"	CONDUIT 3"	CONNECTOR KIT TYPE I	CONNECTOR KIT TYPE II	CONNECTOR KIT TYPE III	CONNECTOR KIT TYPE III B	DUCT CABLE, 600V. 1½" TWO Nº 4	DIST. CABLE, 600 V. Nº 4	POLE AND BRACKET CABLE Nº 10		SERVICE POLE AND CONTROL CENTER Nº 1 18"x8"x6"	JUNCTION BOX	STRUCTURE GROUNDING SYSTEM	LIGHT POLE ANCHOR BOLSTER STRUCTURE
				EA.		EA.	EA.	EA.	EA.	EA.	EA.	L.F.	L.F.	L.F.	EA.	EA.	EA.	EA.	L.F.	L.F.	L.F.		Lump	EA.	EA.	SET
33																										
34	RT.	65+00 RAMP "D"	13+15 FARM LANE	1		1	1	1			1	490				1	1		500		98					
35	RT.	13+15 FARM LANE	13+60 FARM LANE							1		45			4				55							
36	RT.	13+65 FARM LANE																								
37	RT./LT.	13+58 FARM LANE	13+60 FARM LANE						1			50		50	2					120			1			
38	RT./LT.	13+58 FARM LANE	70+45 RAMP "C"						1			64						2	74							
39	RT.	70+45 RAMP "C"	75+10 RAMP "C"						1			473							483							
40	RT.	75+10 RAMP "C"	78+00 RAMP "C"									293							303							
41	LT.	69+00 RAMP "A"	70+60 RAMP "B"	2		2	2	2			2	180					2	2	190		196					
42	RT./LT.	70+60 RAMP "B"							1			34		34	2					88						
43	RT./LT.	70+60 RAMP "B"	10+60 FARM LANE	1		1	1	1			1	100					1	1	110		98					
44	LT.	10+60 FARM LANE	12+25 FARM LANE	1		1	1	1			1	165					1	1	175		98					
45	RT./LT.	12+25 FARM LANE	70+45 RAMP "C"									85		85						190						
46	LT.	69+05 SR-7	70+50 SR-7						2				145													
47	RT.	69+05 SR-7	70+50 SR-7						2				145													
48	RT.	70+00 SR-7	JEF-7-0131																					1		
49	RT.	70+00 SR-7	JEF-7-0131																							1
50	RT./LT.	69+55 SR-7	JEF-7-0131																						1	
TOTAL SHEET Nº 366				5		5	5	5	8	1	5	1979	290	169	8	5	5	2	1890	398	490		1	1	1	1

LIGHTING QUANTITIES SUB-SUMMARY

Rev. Quan. Calc. G.P.S. 5-74
Rev. Quan. Ck'd G.V. 6-74

A. E. STILSON & ASSOC.
Quantities Calculated E.O. July 1971
Quantities Checked G.P.S. Aug. 1971

FED. RD. DIVISION	STATE	PROJECT	
2	OHIO		

360
560

JEFFERSON COUNTY
JEF-7-0.20

REFERENCE Nº	SIDE	FROM STATION	TO AND INCLUDING STATION	LIGHT POLE DESIGN AT15B34.2	LIGHT POLE DESIGN AT10B34.2	DESIGN AT10B34.2	DESIGN ST10B34.2(BM)	LIGHT POLE FOUNDATION 24'x6'-0"	LUMINAIRE TYPE II 400 WATT	LUMINAIRE TYPE III 400 WATT	LUMINAIRE UNDERPASS 250 WATT	LAMP 250 WATT	LAMP 400 WATT	PULLBOX 18"CIRCULAR	CONDUIT 2"	CONDUIT 3"	CONNECTOR KIT TYPE I	CONNECTOR KIT TYPE II	CONNECTOR KIT TYPE III	CONNECTOR KIT TYPE III B	DUCT CABLE 600 V. 1½" TWO Nº 4	DIST. CABLE 600 V. Nº 4	POLE AND BRACKET CABLE Nº 10	TRENCH 24" DEEP	GROUND ROD	LIGHT POLE ANCHOR BOLTS FOR STRUCTURE	STRUCTURE GROUNDING SYSTEM JEF-7-0166	18"x 8"x 6" JUNCTION BOX	SERVICE TO UNDERPASS LIGHTING AS PER PLAN
				EA.	EA.	EA.		EA.	EA.	EA.	EA.	EA.	EA.	EA.	L.F.	L.F.	EA.	EA.	EA.	EA.	L.F.	L.F.	L.F.	L.F.	EA.	SET	EA.	EA.	Lump
1	RT.	78+00 RAMP "C"	82+75 SR-7											1						2	480			470					
2	RT.	78+80 RAMP "C"																											
3	RT./LT.	82+75 SR-7												1		120				2		260		120					
4	RT.	82+75 SR-7	82+90 SR-7	1				1		1			1				1	1			25		98	15	1				
5	RT.	82+90 SR-7	86+70 SR-7	1				1		1			1				1	1			382		98	372	1				
6	RT.	86+70 SR-7	87+00 SR-7											1			2				40			30					
7	RT.	87+00 SR-7	96+50 SR-7											1	950		2					1940							
8	RT.	88+76 SR-7																								1		1	
9	RT.	90+50 SR-7	JEF-7-0166 PIER 3																								1		
10	RT.	91+38 SR-7	BRIDGE MOUNTED				1			1			1				1	1					85			1		1	
11	RT.	93+00 ± SR-7	JEF-7-0166 PIER 5																								1		
12	RT.	93+73 SR-7																								1		1	
13	LT.	78+20 RAMP "B"	78+78 RAMP "B"			1		1	1				1	1			1	1	2	68			98	58	1				
14	LT.	78+78 RAMP "B"	78+95 SR-7		1			1		1			1			50		1				120	98	50	1				
15	LT.	78+78 RAMP "B"	80+40 SR-7		1			1		1			1					1	1		160		98	150	1				
16	LT.	80+40 SR-7	82+75 SR-7																		255			245					
17	LT.	82+75 SR-7	87+40 SR-7		1			1		1			1					1	1		490		98	480	1				
18	LT.	88+55 SR-7	96+90 SR-7											2	835														
19	LT.	90+15 SR-7																								1		1	
20	LT.	92+66 SR-7																								1		1	
21	LT.	95+12 SR-7																								1		1	
22	RT./LT.	90+10 ± SR-7	PIER Nº 2											4	4										1				1
23	RT./LT.	95+60 ± SR-7	PIER Nº 7											3	3										1				1
TOTAL SHEET Nº 367				2	3	1	1	6	1	6	7	7	7	7	1785	170	4	7	7	6	1900	2320	673	1990	8	6	1	6	2

REFERENCE Nº	SIDE	FROM STATION	TO AND INCLUDING STATION	LIGHT POLE DESIGN AT15B34.2	DESIGN T15B34.2	DESIGN AT10B34.2	DESIGN T10B34.2	DESIGN AT18B34.2	LIGHT POLE FOUNDATION 24'x6'-0"	LUMINAIRE TYPE II 400 WATT	LUMINAIRE TYPE III 400 WATT	LAMP 400 WATT	GROUND ROD	PULLBOX 18"CIRCULAR	TRENCH 24" DEEP	CONDUIT 2"	CONDUIT 3"	CONNECTOR KIT TYPE I	CONNECTOR KIT TYPE II	CONNECTOR KIT TYPE III	CONNECTOR KIT TYPE III B	DUCT CABLE 600 V. 1½" TWO Nº 4	DIST. CABLE 600 V. Nº 4	POLE AND BRACKET CABLE Nº 10	3" CONDUIT JACKED UNDER PAVEMENT AS PER PLAN	STRUCTURE JEF-7-0245 GROUNDING SYSTEM	STRUCTURE JEF-7-0238 GROUNDING SYSTEM	18"x 8"x 6" JUNCTION BOX	LIGHT POLE ANCHOR BOLTS FOR STRUCTURE
				EA.	EA.	EA.		EA.	EA.	EA.	EA.	EA.	EA.	EA.	L.F.	L.F.	L.F.	EA.	EA.	EA.	EA.	L.F.	L.F.	L.F.	L.F.			EA.	EA.	SET
24	LT.	125+65 SR-7	127+02 SR-7											2		137													
25	LT.	128+95 SR-7	129+05 SR-7		1			1			1	1	1	1	10			2	1	1		20		98					
26	LT.	129+05 SR-7	131+25 SR-7											1		220		2					460						
27	LT.	131+25 SR-7	133+60 SR-7		1			1			1	1	1		235				1	1		245		98					
28	LT.	133+60 SR-7	137+50 SR-7		1			1			1	1	1		390				1	1		400		98					
29	LT.	137+50 SR-7	144+60 RAMP "A"		1			1	1		1	1			710				1	1		730		98					
30	LT.	140+50 SR-7																											
31	LT.	144+60 RAMP "A"	144+90 RAMP "A"											1	90			2				100							
32	LT.	144+90 RAMP "A"	145+37 RAMP "A"			1		1	1		1	1							1	1			114	88	47				
33	LT.	145+37 RAMP "A"	139+94 RAMP "B"			1		1	1		1	1			233				1	1		243		88					
34	RT.	126+15 SR-7	JEF-7-0238																								1		
35	RT.	125+65 SR-7	127+02 SR-7											2		137		2											
36	RT.	127+02 SR-7	129+00 SR-7											1	198			2				208							
37	RT.	130+39 SR-7																										1	
38	RT.	130+55 ± SR-7	JEF-7-0245																								1		
39	RT.	129+00 SR-7	131+25 SR-7											1		225		2					470						
40	RT.	131+25 SR-7	132+98 SR-7		1			1			1	1	1		173				1	1		183		98					
41	RT.	132+98 SR-7	137+85 SR-7		1			1			1	1	1		485				1	1		495		98					
42	RT.	137+85 SR-7	139+00 SR-7											1	115						2	125							
43	RT./LT.	139+00 SR-7	139+22 SR-7	1				1			1	1	1		66		66		1	1			152	98					
44	RT.	139+00 SR-7	139+35 RAMP "D"			1		1	1		1	1			35				1	1		45		98					
45	RT.	139+35 RAMP "D"	141+60 SR-7											1	225						2	235							
46	RT.	141+60 RAMP "D"	142+00 RAMP "D"			1		1	1		1	1			40				1	1		50		88					
47	RT.	141+60 RAMP "D"	139+50 RAMP "C"												64						2		148						
48	RT.	139+50 RAMP "C"	144+00 SR-7												540							460							
49	RT.	142+50 RAMP "C"																											
50	RT.	139+50 SER. RD. "A"	141+70 SER. RD. "A"			2		2	2		2	2			220				2	2		230		196					
51	RT./LT.	141+70 SER. RD. "A"												1	48		48	2					116						
52	RT./LT.	141+70 SER. RD. "A"	139+50 SR-7												125							135							
53	RT.	125+22 SER. RD. "A"	127+32 SER. RD. "A"			2		2	2		2	2			210				2	2		220		196					
54	RT./LT.	127+32 SER. RD. "A"												1	46		46	2					112						
55	LT.	127+32 SER. RD. "A"	52+45 S R-150	1				1	1		1	1	1		110				1	1	2	130		98					
56	RT./LT.	52+45 SR-150	127+02 SR-7												55	55							130						
57	RT.	50+22 SR-150	50+90 SR-150					1	1		1	1	1		68			2	1	1		78		104					
58	RT./LT.	50+90 SR-150			1			1	1		1	1			46		46		1	1			112	98					
59	LT.	50+90 SR-150	52+45 SR-150												155							165							
60	Lt. Rt.	144+27 RAMP "A"	144+00 RAMP "B"											2	363		63	2			2	310	146						
TOTAL SHEET Nº 368				2	7	6	2	1	18	12	6	18	18	17	4965	774	269	20	18	18	10	4807	1960	1740	47	1	1	1	2

LIGHTING QUANTITIES SUB-SUMMARY

Rev. Quan. Calc. G.P.S. 5-74
Rev. Quan. Ck'd G.V. 6-74

A. E. STILSON & ASSOC.
Quantities Calculated E.o. July 1971
Quantities Checked G.P.S. Aug 1971

FED. RD. DIVISION	STATE	PROJECT	
2	OHIO		

361
560

JEFFERSON COUNTY
JEF-7-0.20

REFERENCE Nº	SIDE	FROM STATION	TO AND INCLUDING STATION	LIGHT POLE DESIGN AT15B34.2	LIGHT POLE DESIGN T10B34.2	LIGHT POLE DESIGN AT18B34.2	LIGHT POLE DESIGN T15B34.2	LIGHT POLE FOUNDATION 24"x6'-0"	LUMINAIRE, TYPE II 400 WATT	LUMINAIRE, TYPE III 400 WATT	LUMINAIRE, UNDERPASS 250 WATT	LAMP 250 WATT	LAMP 400 WATT	GROUND ROD	PULLBOX 24" CIRCULAR	PULLBOX 18" CIRCULAR	TRENCH 24" DEEP	CONDUIT 2"	CONDUIT 3"		CONNECTOR KIT TYPE I	CONNECTOR KIT TYPE II	CONNECTOR KIT TYPE III	CONNECTOR KIT TYPE III B		DUCT CABLE 600 V. 1½" TWO Nº 4	DUCT CABLE 600 V. 1½" THREE Nº 4	DIST. CABLE 600 V. Nº 4	POLE AND BRACKET CABLE Nº 10		STRUCTURE JEF-7-0288 GROUNDING SYSTEM	18"x8"x6" JUNCTION BOX	SERVICE TO UNDERPASS LIGHTING AS PER PLAN	SERVICE POLE AND CONTROL CENTER Nº 2
				EA.	EA.	EA.	EA.	EA.	EA.	EA.	EA.	EA.	EA.	EA.	EA.	EA.	L.F.	L.F.	L.F.	EA.	EA.	EA.	EA.	EA.		L.F.	L.F.	L.F.	L.F.		EA.	EA.	LUMP	LUMP
																																	LUMP
1	LT.	152+85,90LT. SR-7														1	231				2					241								
2	RT.	144+00 SR-7	145+50 SR-7				1	1		1			1	1			150					1	1			160			98					
3	RT.	145+50 SR-7	149+49 SR-7				1	1		1			1	1			399					1	1			409			98					
4	RT.	149+49 SR-7	151+80 SR-7													1	231				2					241								
5	RT.	151+80 SR-7	153+90 SR-7													1		210			2							440						
6	LT./RT.	152+85 ± SR-7 STRUCT.	152+85 90° LT.								3	3		1										2							1	LUMP		
7	RT.	153+90 SR-7	154+23 SR-7				1	1		1			1	1			33					1	1			43			98					
8	LT./RT.	154+23 SR-7	154+35 SR-7													1	12		.78		2							198						
9	LT.	145+15 SR-7	145+25 RAMP "B"													1	41		41					2				102						
10	LT.	144+20 SR-7	145+15 SR-7	1				1		1			1	1		1	95				2	1	1			105			98					
11	LT.	144+00 RAMP "B"	145+25 RAMP "B"		1			1	1				1	1			125					1	1			145			88					
12	LT.	145+25 RAMP "B"	145+68 SR-7				1	1		1			1	1			42					1	1			52			98					
13	LT.	145+68 SR-7	150+50 SR-7				1	1		1			1	1			482					1	1			492			98					
14	LT.	150+50 SR-7	151+52 SR-7													1	102				2					112								
15	LT.	152+52 SR-7	153+66 SR-7													1		222			4							464						
16	LT.	153+66 ± SR-7	154+35 SR-7												1	1	70				2					80								
17	LT./RT.	152+65 SR-7	JEF-7-0288																											1				
TOTAL SHEET Nº 369				1	1		5	7	1	6	3	3	7	8	1	8	1782	432	119		16	7	7	4	1839		1204	676		1	1	LUMP	LUMP
NOTE : FOR SUB-SUMMARY OF SHEETS 370 AND 371, SEE SHEET No's. 361A & 361B																																		
17	LT.	225+00 SR-7	227+78 SR-7													1	278									278								
18	LT.	227+78 SR-7	230+25 SR-7	1				1		1			1	1			247					1	1			257			98					
19	LT.	225+00 SR-7	231+75 SR-7													1	150										685							
20	RT.	225+00 SR-7	226+30 SR-7	1				1		1			1	1			130					1	1			140			98					
21	RT.	226+30 SR-7	230+55 SR-7	1				1		1			1	1			425					1	1			435			98					
22	RT.	230+55 SR-7	231+20 ± SR-7			1		1	1				1	1			86					1	1			96			104					
23	RT.	231+20 ± SR-7	231+23 ± SR-7													1	13							2		23								
24	RT.	231+23 ± SR-7	231+80 ± SR-7													1	57		57		2							134						
25	RT.	231+80 ± SR-7	232+30 SR-7	1				1		1			1	1			85					1	1			95			98					
26	RT./LT.	231+23 ± SR-7	230+05 T.R. 155													1	128				2					138								
27	LT./RT.	230+05 T.R. 155			1			1	1				1	1			42		42			1	1					104	88					
28	RT.	230+05 T.R. 155	232+25 T.R. 155		1			1	1				1	1			220					1	1			230			88					
TOTAL SHEET Nº 372				4	2	1		7	3	4			7	7		5	1861		99		4	7	7	2	1692	685	238	672					

LIGHTING QUANTITIES SUB-SUMMARY

Rev. Quan. Calc. G.P.S. 5-74
Rev. Quan. Ck'd G.V. 6-74

A. E. STILSON & ASSOC.
Quantities Calculated F.O. July 1971
Quantities Checked G.P.S. Aug. 1971

FED. RD. DIVISION	STATE	PROJECT	
2	OHIO		

361A
560

JEFFERSON COUNTY
JEF-7-0.20

REFERENCE №	SIDE	FROM STATION	TO AND INCLUDING STATION	LIGHT POLE DESIGN AT15B34.2	LIGHT POLE DESIGN T15B34.2	LIGHT POLE DESIGN T10B34.2	LIGHT POLE DESIGN AT30B34.2		LIGHT POLE FOUNDATION 24"x6'-0"	LUMINAIRE TYPE II 400 WATT	LUMINAIRE TYPE III 400 WATT	LUMINAIRE TYPE III WITH PHOTOELECTRIC CONTROL UNIT 400 WATT	LAMP 400 WATT		GROUND ROD		TRENCH 24" DEEP	PULLBOX 18"CIRCULAR	PULLBOX 24" CIRCULAR		CONDUIT 1½"	CONDUIT 2"	CONDUIT 3"		CONNECTOR KIT TYPE I	CONNECTOR KIT TYPE II	CONNECTOR KIT TYPE III		DUCT CABLE 600 V. № 4 1½" TWO	DUCT CABLE 600 V. № 4 1½" THREE	DIST. CABLE 600 V. № 4	POLE AND BRACKET CABLE № 10	SECONDARY FEEDER CABLE 600 V. № 1/0	M.B. WEIGH STATION SERVICE POLE
				EA.	EA.	EA.	EA.		EA.	EA.	EA.	EA.	EA.		EA.		L.F.	EA.	EA.		L.F.	L.F.	L.F.		EA.	EA.	EA.		L.F.	L.F.	L.F.	L.F.	L.F.	Lump
1	LT.	190+90 SR-7	195+60 SR-7	2					2		2		2		2		470									2	2		480			196		
2	LT.	195+60 SR-7	199+83 SR-7	1					1		1		1		1		423									1	1		433			98		
3	LT.	199+83 SR-7	204+10 RAMP "A"														427	1							2				437					
4	LT.	204+10 RAMP "A"	204+10 SR-7	1					1		1		1		1		40						40			1	1				100	98		
5	LT.	204+10 SR-7	206+60 SR-7	1					1		1		1		1		250									1	1		260			98		
6	LT.	206+60 SR-7	209+10 SR-7	1					1		1		1		1		250									1	1		260			98		
7	LT.	209+10 SR-7	211+00 SR-7														190												190					
8	RT.	191+75 SR-7	195+48 SR-7	1					1		1		1		1		373	1								1	1		383			98		
9	RT.	195+48 SR-7	198+75 SR-7				1		1		1		1		1		334									1	1		344			128		
10	RT.	198+75 SR-7	200+40 RAMP "D"														165	1							2				175					
11	RT.	200+40 RAMP "D"	200+38 SR-7	1					1		1		1		1		50						50			1	1				120	98		
12	RT.	200+38 SR-7	202+90 SR-7	1					1		1		1		1		252									1	1		262			98		
13	RT.	202+90 SR-7	205+40 SR-7	1					1		1		1		1		250									1	1		260			98		
14	RT.	205+40 SR-7	207+90 SR-7	1					1		1		1		1		250									1	1		260			98		
15	RT.	207+90 SR-7	210+45 SR-7	1					1		1		1		1		255									1	1		265			98		
16	RT.	210+45 SR-7	211+00 SR-7														55												55					
17	RT.	200+95 RAMP "D"	202+85 RAMP "D"			1			1	1			1		1		190		1						6	2				200		98		
18	RT./LT.	202+85 RAMP "D"															34		1				34		6						264			
19	LT.	202+85 RAMP "D"	205+32 RAMP "D"			1			1	1			1		1		247									2			257			85		
20	LT.	205+32 RAMP "D"	207+40 RAMP "D"			1			1	1			1		1		208									2			218			85		
21	LT.	207+40 RAMP "D"	209+30 RAMP "D"			1			1	1			1		1		190									2			200			85		
22	LT.	209+30 RAMP "D"	210+10 RAMP "C"														80		1						6				90					
23	RT.	190+70 SR-7	202+85 RAMP "D"														160	1											1232					
24	LT.	202+85 RAMP "D"	206+60 RAMP "D"															1											385					
25	LT.	206+60 RAMP "D"	210+10 RAMP "C"																										350					
26	RT./LT.	210+10 RAMP "C"															33		1				33								258			
27	RT./LT.	210+15 RAMP "C"															38		2				38		3						144		114	
28	LT.	210+15 RAMP "C"	210+50 RAMP "C"			1			1	1			1		1		35									2			45			85		
29	RT./LT.	210+20 RAMP "C"															44	2			44													
30	LT.	210+20 RAMP "C"	211+28 RAMP "C"														108	1			108													
31	RT./LT.	211+28 RAMP "C"															54	1			54													
32	LT.	210+15 RAMP "C"	211+23 RAMP "C"														108		1			108											324		
33	RT./LT.	211+23 RAMP "C"															59		1				59		3								207		
34	RT.	211+20 RAMP "C"																																LUMP
35	RT.	PARKING LOT SYSTEM			4				4			4	4		4		705	1								8			735			380			
36	LT.	209+00± SR-7	R/W FENCE GROUNDING												1																			
37	RT.	211+40± SR-7	R/W FENCE GROUNDING												1																			
TOTAL SHEET № 370				12	4	5	1		22	5	13	4	22		24		6327	9	8		206	108	254		28	31	13		4064	3712	886	2122	645	LUMP

LIGHTING QUANTITIES SUB-SUMMARY

Rev. Quan. Calc. G.P.S. 5-74
Rev. Quan Ch'd G.V. 6-74

A. E. STILSON & ASSOC.
Quantities Calculated E.o. July 1971
Quantities Checked G.P.S. Aug. 1971

FED. RD. DIVISION	STATE	PROJECT	
2	OHIO		

(3618 560)

JEFFERSON COUNTY
JEF-7-0.20

REFERENCE Nº	SIDE	FROM STATION	TO AND INCLUDING STATION	LIGHT POLE DESIGN AT15B34.2	LIGHT POLE DESIGN T15B34.2	LIGHT POLE DESIGN T10B34.2		LIGHT POLE FOUNDATION 24"x6'-0"	LUMINAIRE TYPE II 400 WATT	LUMINAIRE TYPE III 400 WATT	LUMINAIRE TYPE III WITH PHOTOELECTRIC CONTROL UNIT 400 WATT	LAMP 400 WATT		GROUND ROD		TRENCH 24" DEEP	PULLBOX 18" CIRCULAR	PULLBOX 24" CIRCULAR		CONDUIT 1½"	CONDUIT 3"		CONNECTOR KIT TYPE I	CONNECTOR KIT TYPE II	CONNECTOR KIT TYPE III	CONNECTOR KIT TYPE III B		DUCT CABLE 600 V. 1½" TWO Nº 4	DUCT CABLE 600 V. 1½" THREE Nº 4	DIST. CABLE 600 V. Nº 4	SECONDARY FEEDER CABLE 600 V. Nº 1/0	POLE AND BRACKET CABLE Nº 10		S.B. WEIGH STATION SERVICE POLE	SERVICE POLE AND CONTROL CENTER Nº 3
				EA.	EA.	EA.		EA.	EA.	EA.	EA.	EA.		EA.		L.F.	EA.	EA.		L.F.	L.F.		EA.	EA.	EA.	EA.		L.F.	L.F.	L.F.	L.F.	L.F.		Lump	Lump
1	RT.	211+00 SR-7	212+95 SR-7	1				1		1		1		1		195								1	1			205				98			
2	RT.	212+95 SR-7	215+45 SR-7	1				1		1		1		1		250								1	1			260				98			
3	RT.	215+45 SR-7	217+95 SR-7	1				1		1		1		1		250								1	1			260				98			
4	RT.	217+95 SR-7	218+44 SR-7													49	1						2					59							
5	RT.	218+44 SR-7	218+48 RAMP "C"													38	1				38		2							96					
6	RT.	218+48 RAMP "C"	222+60 SR-7		1			1		1		1		1		415								1	1			425				98			
7	RT.	222+60 SR-7	225+00 SR-7													240												250							
8	LT.	211+00 SR-7	211+65 SR-7	1				1		1		1		1		65								1	1			75				98			
9	LT.	211+65 SR-7	214+20 SR-7	1				1		1		1		1		255								1	1			265				98			
10	LT.	214+20 SR-7	216+70 SR-7	1				1		1		1		1		250								1	1			260				98			
11	LT.	216+70 SR-7	218+44 SR-7													174		1					2			2		184							
12	RT./LT.	218+44 SR-7	45' LT. to 45' RT.													90					90									400					
13	LT.	218+44 SR-7	219+20 SR-7	1				1		1		1		1		76								1	1			86				98			
14	LT.	219+20 SR-7	221+90 SR-7	1				1		1		1		1		270								1	1			280				98			
15	LT.	221+90 RAMP "B"	221+90 SR-7													49	1				49		2							118					
16	LT.	221+90 RAMP "B"	223+35 RAMP "B"		1			1		1		1		1		145								1	1			155				98			
17	LT.	223+35 RAMP "B"	225+00 RAMP "B"													165												175							
18	RT.	211+85 RAMP "A"	212+15 RAMP "A"			1		1	1			1		1		30		1						2		3			40			85			
19	RT.	212+15 RAMP "A"	213+06 RAMP "B"			1		1	1			1		1		91								2					101			85			
20	RT.	213+06 RAMP "B"	215+00 RAMP "B"			1		1	1			1		1		194								2					204			85			
21	RT.	215+00 RAMP "B"	216+90 RAMP "B"			1		1	1			1		1		190								2					200			85			
22	RT.	216+90 RAMP "B"	218+42 RAMP "B"													152		1					3						162						
23	RT.	218+42 RAMP "B"	219+45 RAMP "B"													103		1					6						226						
24	RT./LT.	219+45 RAMP "B"														34		1			34		6							264					
25	LT.	219+45 RAMP "B"	221+15 RAMP "B"			1		1	1			1		1		170								2					180			98			
26	LT.	219+45 RAMP "B"	225+00 RAMP "B"													75	1												565						
27	RT./LT.	212+08 RAMP "A"														37	2			37															
28	RT.	212+08 RAMP "A"	218+37 RAMP "B"													629	1			629															
29	LT.	218+37 RAMP "B"	218+39 RAMP "B"													69	1			69															
30	RT./LT.	212+15 RAMP "A"														35		1			35										240	105			
31	RT.	212+15 RAMP "A"	215+98 RAMP "B"													383		1			383										1149	1149			
32	RT.	215+98 RAMP "B"	218+42 RAMP "B"													244					244										762	732			
33	RT./LT.	218+42 RAMP "B"														65		1			65		3									225			
34	LT.	218+44 SR-7	218+47 RAMP "B"													94		1			94										624					
35	LT.	218+37, 50' LT. RAMP "B"																																LUMP	
36	LT.	218+44, 35' LT. RAMP "B"																																	LUMP
37	LT.	PARKING LOT SYSTEM			4			4			4	4		4		685	1							8					735			380			
38	RT./LT.	FENCE GROUNDING UNDER POWER LINES												4																					
TOTAL SHEET Nº 371				8	6	5		19	5	10	4	19		23		6256	9	9		735	1032		26	28	10	5		2939	241 3	3653	2211	1798		LUMP	LUMP

LIGHTING QUANTITIES SUB-SUMMARY

FED. RD. DIVISION	STATE	PROJECT	
2	OHIO		

362
560

JEFFERSON COUNTY
JEF-7-0.20

KEY PLAN LEGEND

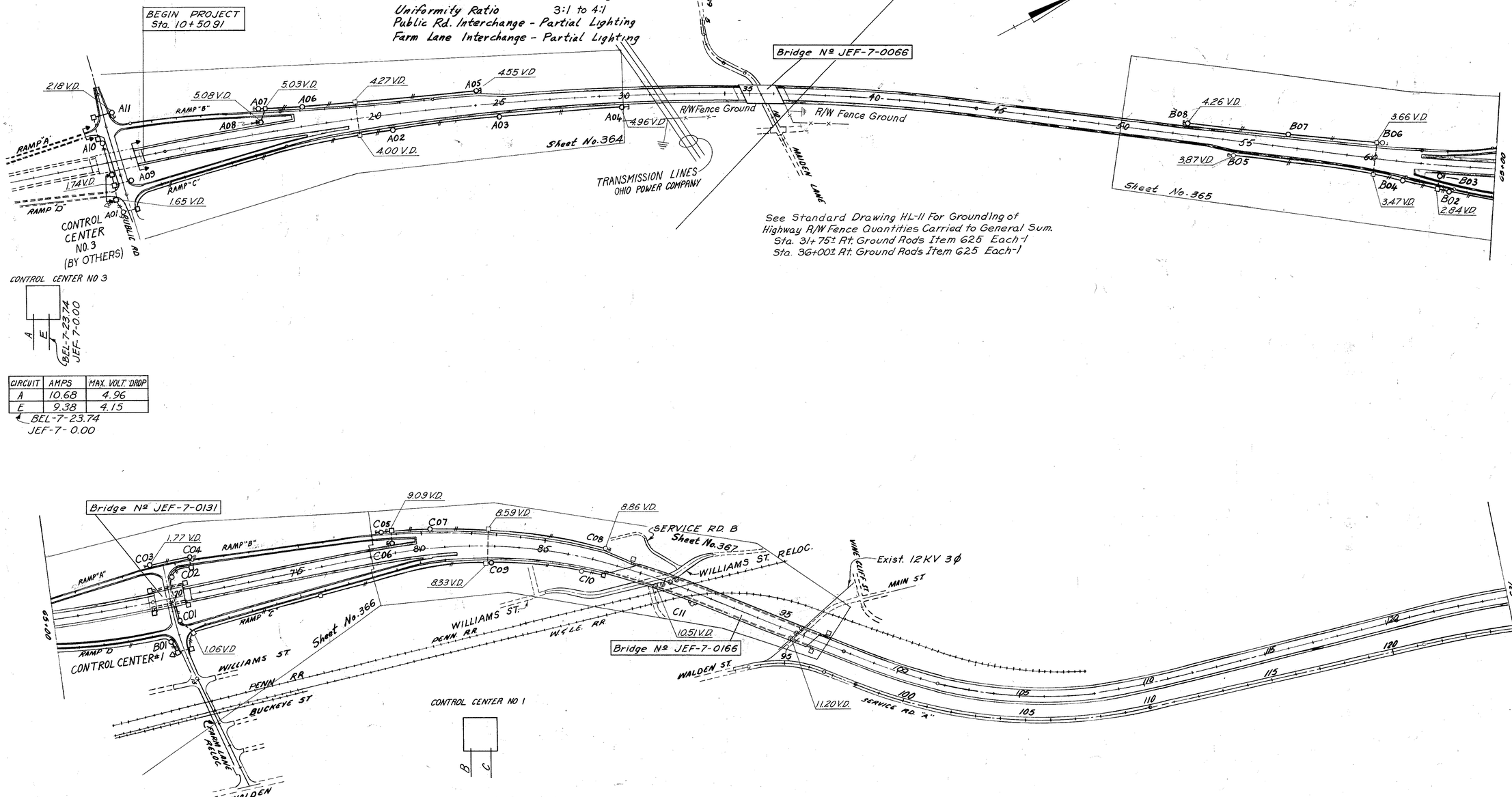
- △ Lighting Control Center
- ○ 400 Watt Light Pole
- □ Pullbox
- —#— No. 4 AWG Duct Cable
- ——— 3" Conduit
- ==== 2" Conduit
- ⊙ Underpass Luminaire
- ■ Marker

DESIGN CRITERIA

Initial Intensity:

SR 7	1.2 FC Avg. Initial
Ramps	1.2 FC Avg. Initial
Underpasses	2.0 FC Avg. Initial
Side Streets	1.2 FC Avg. Initial

Uniformity Ratio 3:1 to 4:1
Public Rd. Interchange - Partial Lighting
Farm Lane Interchange - Partial Lighting



CONTROL CENTER NO 3

CIRCUIT	AMPS	MAX. VOLT. DROP
A	10.68	4.96
E	9.38	4.15

BEL-7-23.74
JEF-7-0.00

CONTROL CENTER NO 1

CIRCUIT	AMPS	MAX. VOLT. DROP
B	7.77	4.26
C	15.20	11.20

See Standard Drawing HL-11 For Grounding of Highway R/W Fence Quantities Carried to General Sum.
Sta. 31+75± At Ground Rods Item 625 Each-1
Sta. 36+00± At Ground Rods Item 625 Each-1

KEY PLAN

FED. RD. DIVISION	STATE	PROJECT	
2	OHIO		

363
560

JEFFERSON COUNTY
JEFF-7-0.20

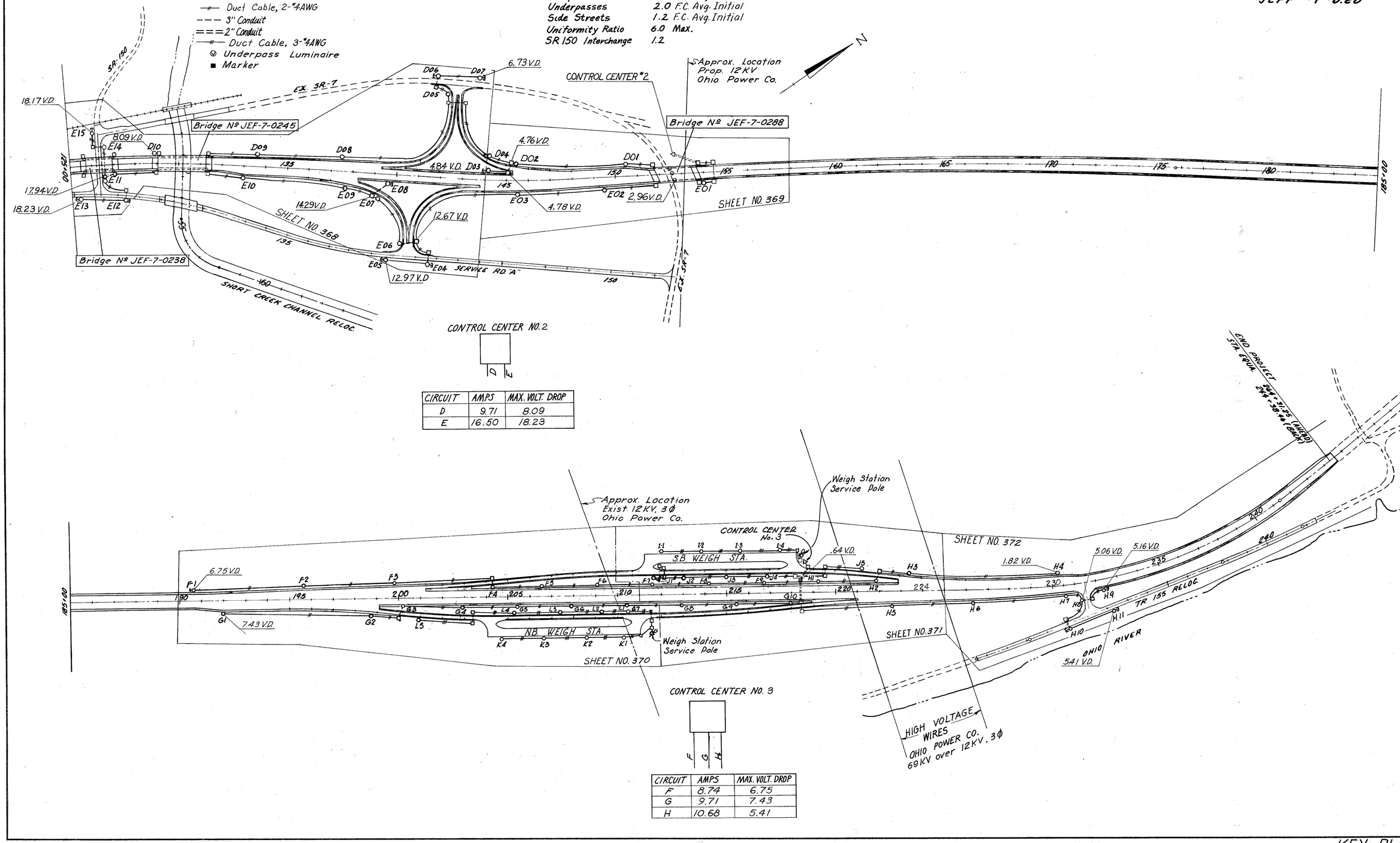
KEY PLAN LEGEND

- △ Lighting Controller
- ○ 400 Watt
- □ Pullbox
- —// Duct Cable, 2-#4AWG
- - - 3" Conduit
- ===2" Conduit
- —// Duct Cable, 3-#4AWG
- Ⓤ Underpass Luminaire
- ■ Marker

DESIGN CRITERIA

Initial Intensity:

SR-7	1.2 F.C. Avg. Initial
Ramps	1.2 F.C. Avg. Initial
Underpasses	2.0 F.C. Avg. Initial
Side Streets	1.2 F.C. Avg. Initial
Uniformity Ratio	6.0 Max.
SR 150 Interchange	1.2



CIRCUIT	AMPS	MAX. VOLT. DROP
D	9.71	8.09
E	16.50	18.23

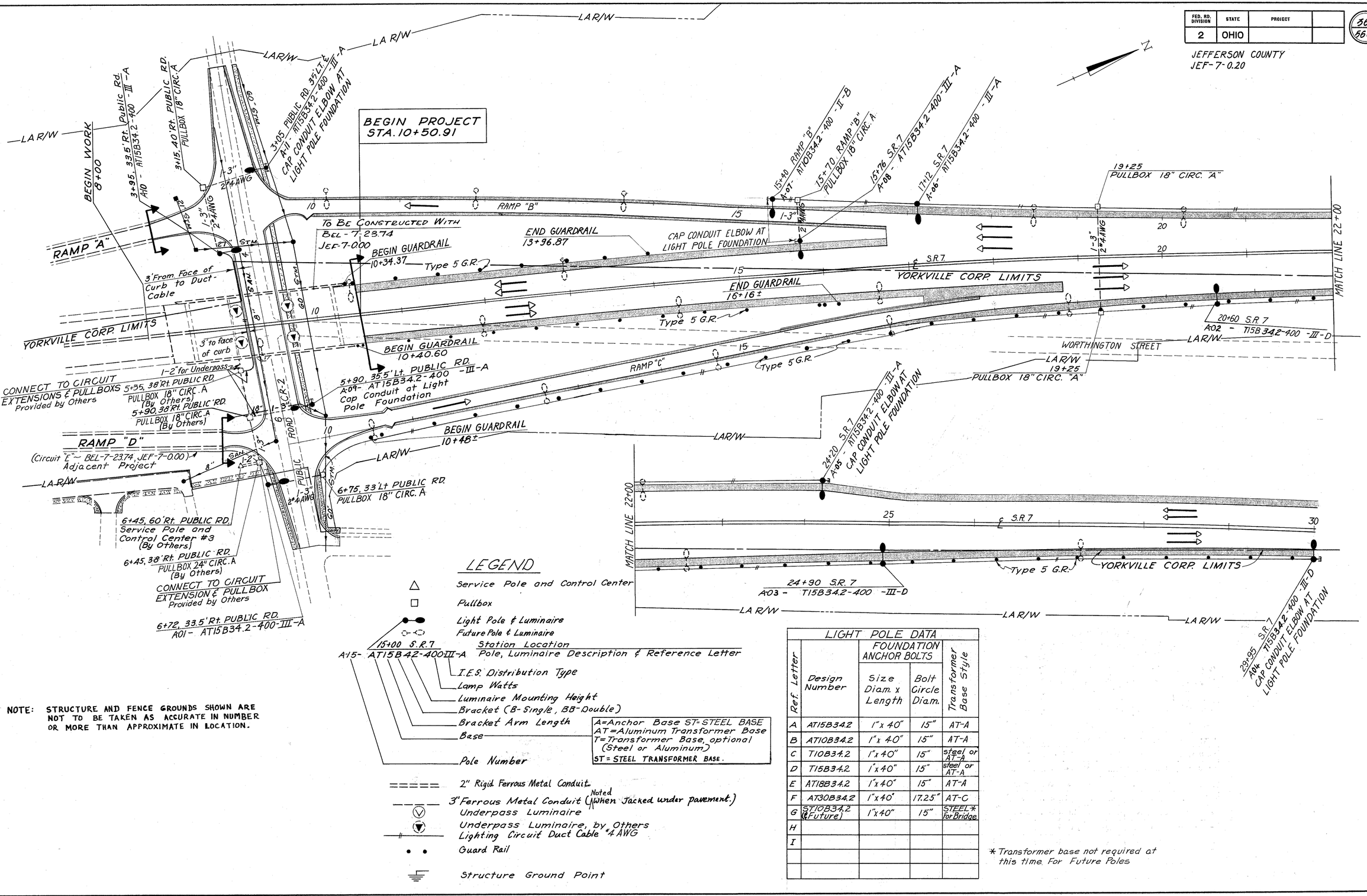
CIRCUIT	AMPS	MAX. VOLT. DROP
F	8.74	6.75
G	9.71	7.43
H	10.68	5.41

KEY PLAN

FED. RD. DIVISION	STATE	PROJECT	
2	OHIO		

364
560

JEFFERSON COUNTY
JEF-7-0.20



LEGEND

- Service Pole and Control Center
- Pullbox
- Light Pole & Luminaire
- Future Pole & Luminaire
- A-15- AT15B42-400III-A — 15+00 S.R.7 (Station Location); Pole, Luminaire Description & Reference Letter
  - I.E.S. Distribution Type
  - Lamp Watts
  - Luminaire Mounting Height
  - Bracket (B-Single, BB-Double)
  - Bracket Arm Length
  - Base
  - Pole Number

A=Anchor Base ST=STEEL BASE
AT=Aluminum Transformer Base
T=Transformer Base, optional (Steel or Aluminum)
ST=STEEL TRANSFORMER BASE.

- 2" Rigid Ferrous Metal Conduit
- 3" Ferrous Metal Conduit (Noted When Jacked under pavement.)
- Underpass Luminaire
- Underpass Luminaire, by Others
- Lighting Circuit Duct Cable #4 AWG
- Guard Rail
- Structure Ground Point

NOTE: STRUCTURE AND FENCE GROUNDS SHOWN ARE NOT TO BE TAKEN AS ACCURATE IN NUMBER OR MORE THAN APPROXIMATE IN LOCATION.

LIGHT POLE DATA

Ref. Letter	Design Number	Foundation Anchor Bolts: Size Diam. x Length	Foundation Anchor Bolts: Bolt Circle Diam.	Transformer Base Style
A	AT15B34.2	1"x 40"	15"	AT-A
B	AT10B34.2	1"x 40"	15"	AT-A
C	T10B34.2	1"x 40"	15"	steel or AT-A
D	T15B34.2	1"x 40"	15"	steel or AT-A
E	AT18B34.2	1"x 40"	15"	AT-A
F	AT30B34.2	1"x 40"	17.25"	AT-C
G	ST10B34.2 (Future)	1"x 40"	15"	STEEL* for Bridge
H				
I				

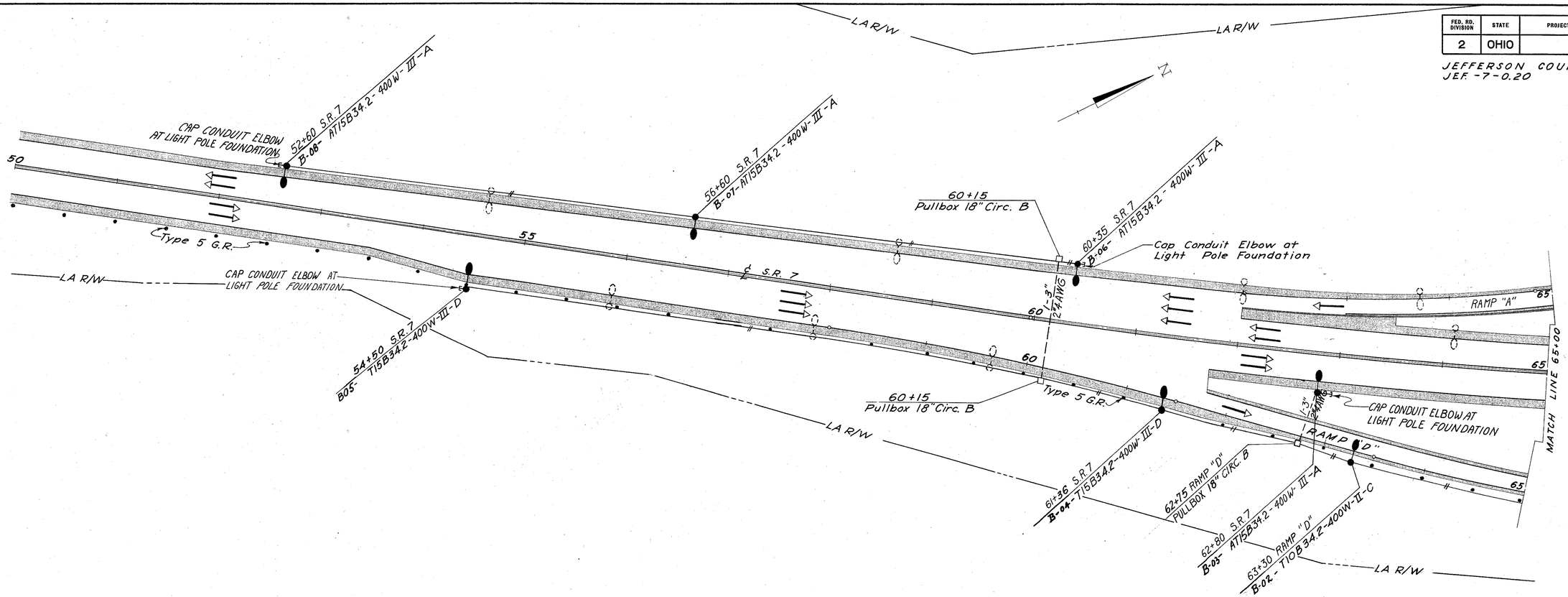
* Transformer base not required at this time. For Future Poles

LIGHTING PLANS 7+00 to 30+00

FED. RD. DIVISION	STATE	PROJECT	
2	OHIO		

365
560

JEFFERSON COUNTY
JEF. -7-0.20



ELECTRICAL QUANTITIES

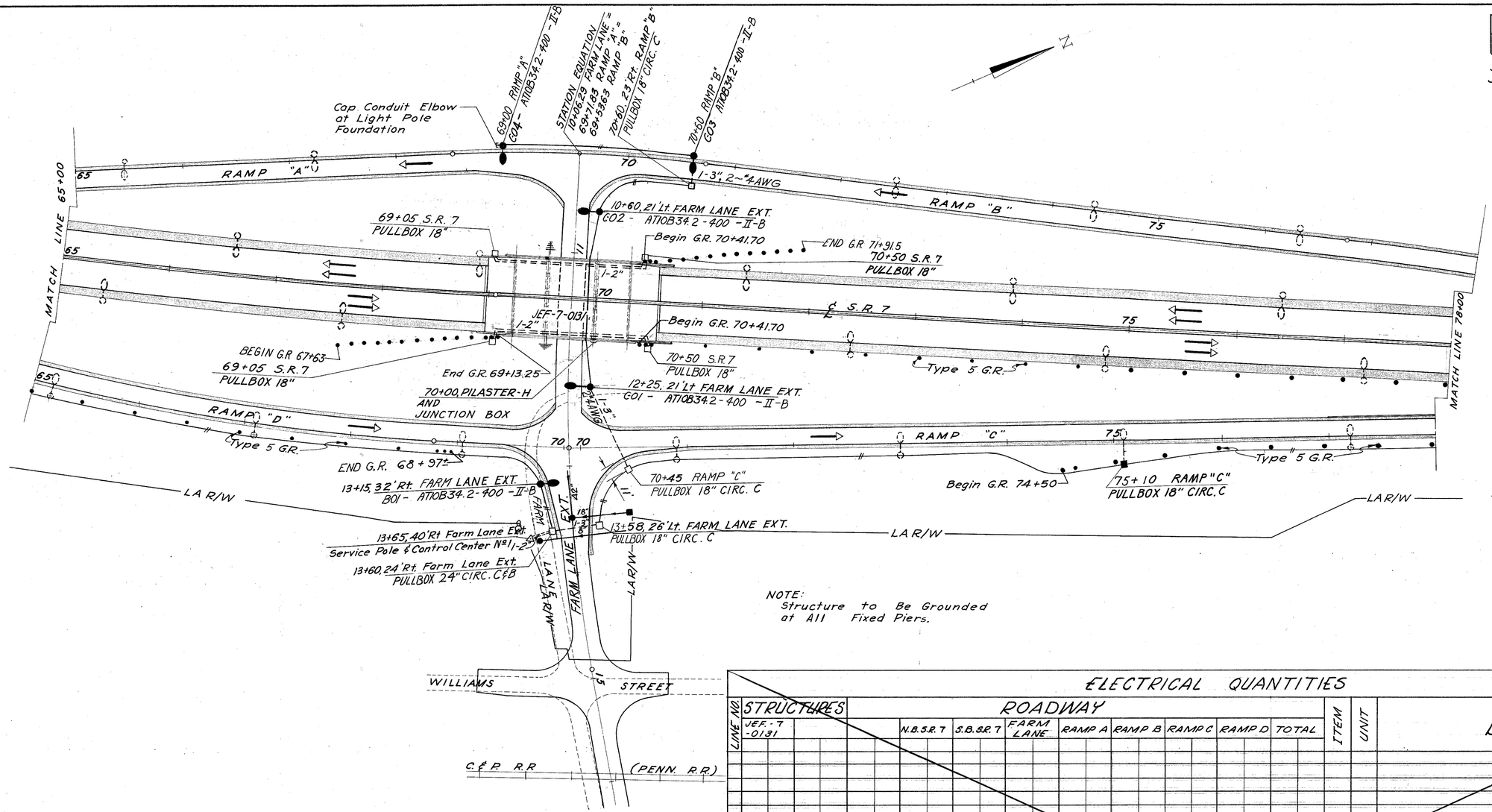
LINE NO.	N.B. S.R.7	S.B. S.R.7	RAMP A	RAMP D	TOTAL	ITEM	UNIT	DESCRIPTION	LINE NO.

LIGHTING PLANS 50+00 to 65+00

FED. RD. DIVISION	STATE	PROJECT	
2	OHIO		

366-560

JEFFERSON COUNTY
JEF.-7-0.20



NOTE:
Structure to Be Grounded at All Fixed Piers.

ELECTRICAL QUANTITIES

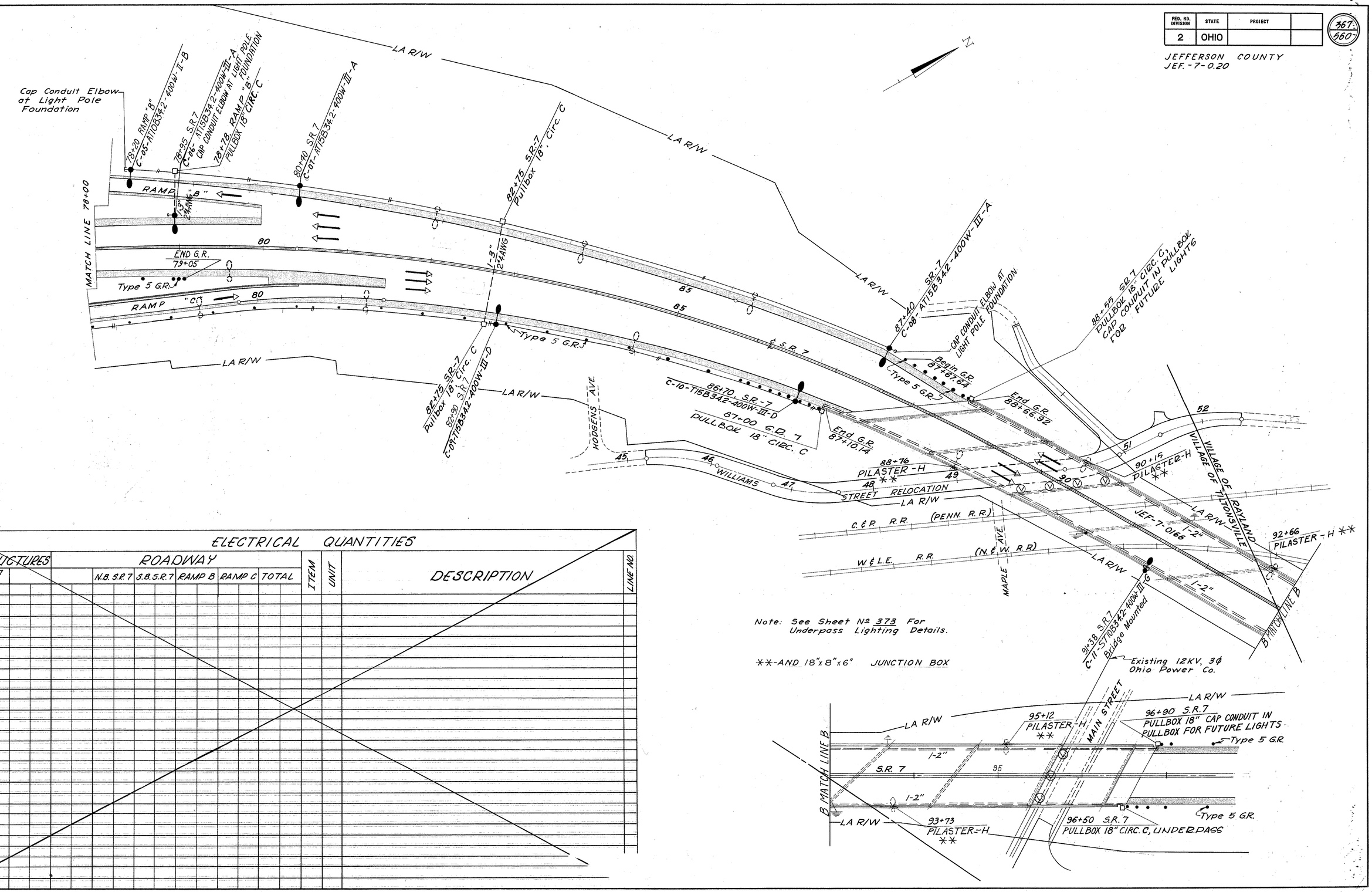
LINE NO.	STRUCTURES	ROADWAY								ITEM	UNIT	DESCRIPTION	LINE NO.
	JEF.-7 -0131	N.B.S.R.7	S.B.S.R.7	FARM LANE	RAMP A	RAMP B	RAMP C	RAMP D	TOTAL				

LIGHTING PLANS 65+00 to 78+00

FED. RD. DIVISION	STATE	PROJECT	
2	OHIO		

367
360

JEFFERSON COUNTY
JEF.-7-0.20



ELECTRICAL QUANTITIES

LINE NO	STRUCTURES	ROADWAY					ITEM	UNIT	DESCRIPTION	LINE NO
	JEF.-7 -0168	N.B. S.R.7	S.B. S.R.7	RAMP B	RAMP C	TOTAL				

LIGHTING PLANS 78+00 to 97+00

FED. RD. DIVISION	STATE	PROJECT	
2	OHIO		

368
560

JEFFERSON COUNTY
JEF.-7-0.20

WARREN TWP.
VILLAGE OF RAYLAND

LA R/W

CAP CONDUIT ELBOW AT LIGHT POLE FOUNDATION

Type 5 G.R.

A MATCH LINE A

128+95 SR 7
D-10- 115B34.2 400 III-D

129+05 SR 7
PULLBOX 18" CIRC. D

131+25 SR 7
PULLBOX 18" CIRC. D

JEF-7-0245

130

2-#4AWG

1-2"

129+00 SR 7
PULLBOX 18" CIRC. E

SHORT CREEK
℄ CHANNEL RELOC.

130+39
PILASTER-I

131+25 SR 7
PULLBOX 18" CIRC. E

132+98 SR 7
E-18- 115B34.2 - 400W-III-D

133+80 S.R. 7
D-09- 115B34.2-400W-III-D

135

℄ S.R. 7

137+50 S.R. 7
D-08- 115B34.2-400W-III-D

Type 5 G.R.

140

145+37± 100'Lt. RAMP "A"
D-06-AT10B34.2 -400-II-B

Exist. R/W

Ex. S.R. 7

10" Gas

CAP CONDUIT ELBOW

1-3" 2-#4AWG JACKED UNDER PAV'T

8'

144+90± 100 Lt RAMP "A"
PULLBOX 18" CIRC. "D"

144+60 RAMP "A"
D-05- 115B34.2 - 400W-II-D

144+27 RAMP "A"
PULLBOX CIRC. "D"

1-3"
2-#4 AWG

144

141+00 RAMP "B"
PULLBOX 18" CIRC. D

96

RAMP "B"

143

139+94 RAMP "B" 90 Lt.
D-07-AT10B34.2-400-II-B

MATCH LINE 144+00

50+22, S.R. 150 Ext.
E-15- AT18B34.2-400-II-E
Cap Conduit Elbow at
Light Pole Foundation

W.&L.E. RR. (N.E.W. RR.)

Exist. R.R. R/W

Exist. S.R. 7

50

SR 150

50+90 S.R. 150
PULLBOX 18" CIRC. "D"

50+90 150 EXT
E-14- 115B34.2-400-II-D

1-3"
2-#4AWG

Type 5 G.R.

126+45
PILASTER-H

125+65 SR 7
PULLBOX 18" CIRC. D, CAP CONDUIT
IN PULLBOX FOR FUTURE LIGHTS

127+02-SR 7, PULLBOX 18" CIRC. "D"
CAP CONDUIT IN PULLBOX FOR FUTURE LIGHTS

Begin G.R.
126+98.56

128

℄ S.R. 7

End G.R.
125+70.06

JEF-7-0238

126

125

EXIST

52

127+02-SR 7 PULLBOX 18" CIRC "E"
CAP 2" CONDUIT TO BRIDGE FOR
FUTURE LIGHTS

MATCH LINE A

52+45 SR 150
PULLBOX 18" CIRC E

52+52 150 EXT
E-11- AT15B34.2 - 400-II-A

125+65 SR 7
PULLBOX 18" CIRC. E, CAP CONDUIT
IN PULLBOX FOR FUTURE LIGHTS

"B"

SERVICE RD "A"

127+32, 23' Lt. SERVICE RD. "A"
PULLBOX 18" CIRC. E

1-3"
2-#4AWG

125+22, 23' Rt. SERVICE RD. "A"
E-13- AT10B34.2 - 400-II-B

127+32, 23' Rt SERVICE RD. "A"
E-12- AT10B34.2 - 400-II-B

CAP CONDUIT ELBOW AT
LIGHT POLE FOUNDATION

NOTE: Structure to be grounded
at All fixed piers.

137+85 S.R.7
E-09- 115B34.2- 400W-III-D

End G.R.
138+44.5

139+22 S.R.7
E-08- AT15B34.2- 400W-III-A

139+00 RAMP "D"
PULLBOX 18" CIRC. E

139+35 RAMP "D"
E-07-AT10B34.2-400W-II-B

RAMP 140 "D"

141+60 Ramp "D"
PULLBOX 18" CIRC. "E"

142+00 RAMP "D"
E-06-AT10B34.2-400-II-B

CAP CONDUIT ELBOW AT
LIGHT POLE FOUNDATION

RAMP "C" 142

Type 5 G.R.

VILLAGE OF RAYLAND
WARREN TWP.

139+50 RAMP "C"
PULLBOX 18" CIRC. E

141+70 SERVICE RD. "A"
PULLBOX 18" CIRC. E

SERVICE ROAD

139+50 SERVICE RD "A"
E-05- T10B34.2-400W-II-C
CAP CONDUIT ELBOW AT
LIGHT POLE FOUNDATION

141+70 SERVICE RD. "A"
E-04- T10B34.2 - 400W-II-C

MATCH LINE 144+00

LIGHTING PLANS 125+00 to 144+00

FED. RD. DIVISION	STATE	PROJECT	
2	OHIO		

369
560

JEFFERSON COUNTY
JEF.-7-0.20



NOTE: See Sheet No. 373A For Underpass Lighting Details -LA R/W-

ELECTRICAL QUANTITIES

LINE NO.	STRUCTURES		ROADWAY					ITEM	UNIT	DESCRIPTION	LINE NO.
	JEF.-7 0288			N.B. S.R. 7	S.B. S.R. 7	RAMP B	TOTAL				

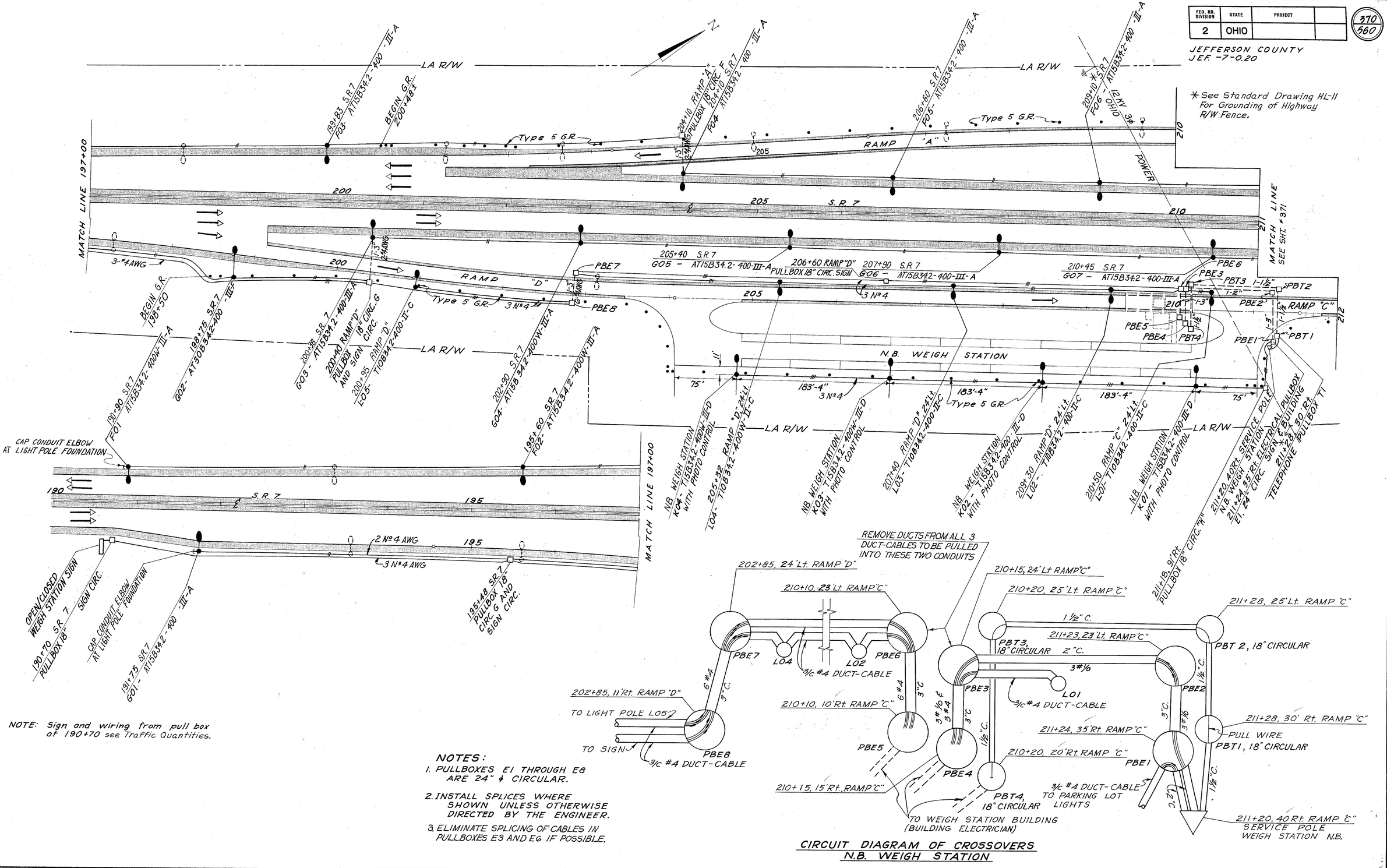
LIGHTING PLANS 144+00 to 158+00

FED. RD. DIVISION	STATE	PROJECT	
2	OHIO		

370
560

JEFFERSON COUNTY
JEF. -7-0.20

* See Standard Drawing HL-11 For Grounding of Highway R/W Fence.



NOTE: Sign and wiring from pull box at 190+70 see Traffic Quantities.

NOTES:
1. PULLBOXES E1 THROUGH E8 ARE 24" ϕ CIRCULAR.
2. INSTALL SPLICES WHERE SHOWN UNLESS OTHERWISE DIRECTED BY THE ENGINEER.
3. ELIMINATE SPLICING OF CABLES IN PULLBOXES E3 AND E6 IF POSSIBLE.

CIRCUIT DIAGRAM OF CROSSOVERS
N.B. WEIGH STATION

LIGHTING PLANS 190+00 to 211+00

FED. RD. DIVISION	STATE	PROJECT	
2	OHIO		

371
560

JEFFERSON COUNTY
JEF.-7-0.20

NOTE:
See Standard Dwg. HL-11 for Grounding of Highway R/W Fences.

S.B. WEIGH STATION I-01- T15B34.2-400-III-D WITH PHOTO CONTROL UNIT

S.B. WEIGH STATION I-02- T15B34.2-400-III-D WITH PHOTO CONTROL UNIT

S.B. WEIGH STATION I-03- T15B34.2-400-III-D WITH PHOTO CONTROL UNIT

S.B. WEIGH STATION I-04- T15B34.2-400-III-D WITH PHOTO CONTROL UNIT

218+38, 91' Lt. "B" P.B. CIRC. 1"

218+37, 50' Lt. RAMP "B" SERVICE POLE S.B. WEIGH STATION

218+44, 35' Lt. RAMP "B" CONTROL CENTER No. 3

LA R/W

75' 183'4" 183'4" 183'4"

Type 5 G.R.

11'

S.B. WEIGH STATION

PBT4 PBE5 PBT1 PBE1 PBE2 PBE7

214+20 S.R.7 F08 - AT15B34.2-400-III-A

215+00 RAMP "B", 23' Rt. J03- T10B34.2-400-II-C

215+98, PULLBOX 24" SIGN CIRC. & SERVICE

PBT2 PBT3 PBE4

213+06 RAMP "B" 23' Rt J-02- T10B34.2-400-II-C

216+90 RAMP "B", 23' Rt. J-04- T10B34.2-400-II-C

216+70 S.R.7 F09 - AT15B34.2-400-III-A 6-#4 AWG

PBE3 PBE6

219+20 S.R.7 H01- AT15B34.2-400-III-A

RAMP "B" 2-#4 AWG 2

6-#4 AWG 220

221+15 RAMP "B" J05- T10B34.2-400-II-C

221+90 RAMP "B" PULLBOX 18" CIRC. H

221+90 S.R.7 H02- AT15B34.2-400-III-A

223+35 RAMP "B" H03- T15B34.2-400-III-D

223+75 PULLBOX 18" SIGN CIRC.

S.R.7

LA R/W

Type 5 G.R.

Prop. LA Fence Type 47

SEE SHT. #370 MATCH LINE

MATCH LINE 225+00 SEE SHT. #372

RAMP "C"

211+65 S.R.7 F07- AT15B34.2-400-III-A

211+85 RAMP "A" 23' Rt. J-01- T10B34.2-400-II-C

212+95 S.R.7 G08 - AT15B34.2-400-III-A

215+45 S.R.7 G09 - AT15B34.2-400-III-A

217+95 S.R.7 G10- AT15B34.2-400-III-A

218+44, 45' Rt. PULLBOX 18" CIRC. G&H

218+48 RAMP "C" PULLBOX 18" CIRC. "H"

222+60 S.R.7 H05- T15B34.2-400-III-A

HIGH VOLTAGE WIRES

218+37, 50' Lt. RAMP "B" SERVICE POLE WEIGH STATION S.B.

3/c #4 DUCT-CABLE TO PARKING LOT LIGHTS

218+39, 45' Lt. RAMP "B"

212+08, 15' Lt. RAMP "A"

212+15, 10' Lt. RAMP "A"

TO WEIGH STATION BUILDING ELECTRICIAN

218+44, 35' Lt. RAMP "B" CONTROL CENTER No. 4 ROADWAY LIGHTING

PULL WIRE

PBT4 18" CIRCULAR

PBT1 18" CIRCULAR

PB E1

218+41, 40' Lt. RAMP "B"

218+47, 30' Lt. RAMP "B"

3/c #4 DUCT-CABLE

TO SIGN

TO LIGHT POLE J05

PBE7

219+45, 11' Lt. RAMP "B"

212+08, 23' Rt. RAMP "A"

PBE5 ≤6#4, 3#1/0

218+37, 23' Rt. RAMP "B"

PBE2 ≤6#4

PBT3 18" CIRCULAR

PBT2 18" CIRCULAR

219+45 23' Rt. RAMP "B"

3/c #4 DUCT-CABLE TO LIGHT POLE J01

PBE4 J02 J04 PBE3 PBE6

3/c #4 DUCT-CABLE

218+42, 24' Rt. RAMP "B"

212+15, 24' Rt. RAMP "A"

CIRC. "F" CIRC. "H"

2/c #4 DUCT-CABLE

218+44, 45' Lt. S.R. 7 PULLBOX 24" CIRC. "F", "G", & "H"

CIRCUIT DIAGRAM OF CROSSOVER S.B. WEIGH STATION

NOTES:

1. PULLBOXES E1 THROUGH E7 ARE 24" ϕ CIRCULAR.
2. INSTALL SPLICES WHERE SHOWN UNLESS OTHERWISE DIRECTED BY THE ENGINEER

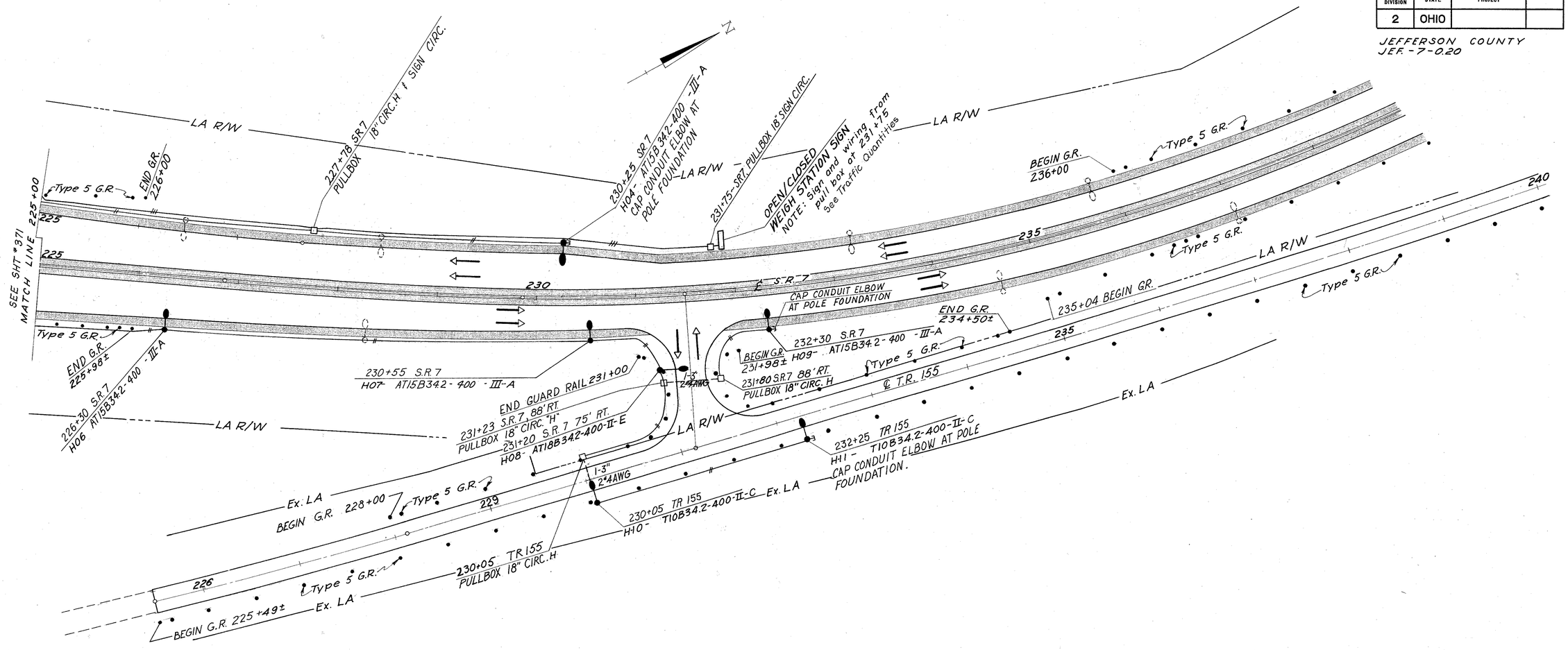
LINE NO.	N.B. S.R.7	S.B. S.R.7	N.B. WEIGH STATION	S.B. WEIGH STATION	TOTAL	ITEM	UNIT	LINE NO.

LIGHTING PLANS 211+00 to 225+00

FED. RD. DIVISION	STATE	PROJECT	
2	OHIO		

372
560

JEFFERSON COUNTY
JEF.-7-0.20

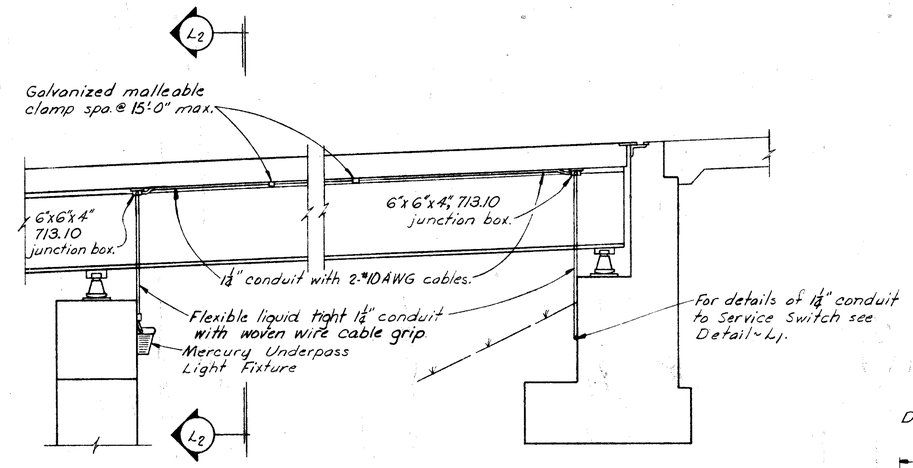


LIGHTING PLANS 225+00 to 238+00

FED. RD. DIVISION	STATE	PROJECT	TYPE FUNDS
2	OHIO		

373
360

JEFFERSON COUNTY
JEF-7-0.20

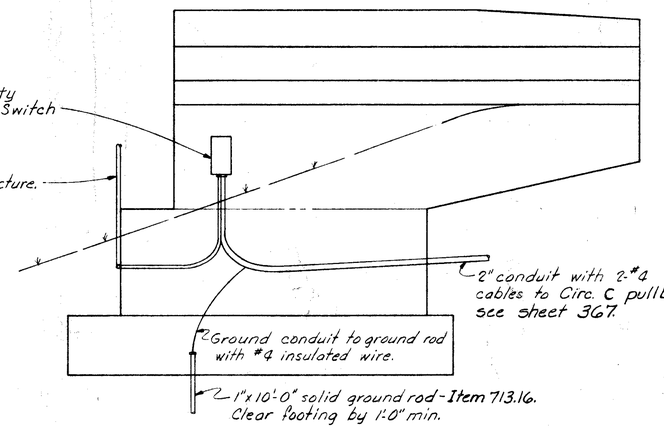


Pier 7 (Main St.)
Pier 2 (Williams St.)

E. Abut. (Main St.)
W. Abut. (Williams St.)

LONGITUDINAL SECTION

Looking North at Main St.
Looking South at Williams St.



DETAIL-L1

(As shown for East end of bridge; Opp. hand for West end of bridge)

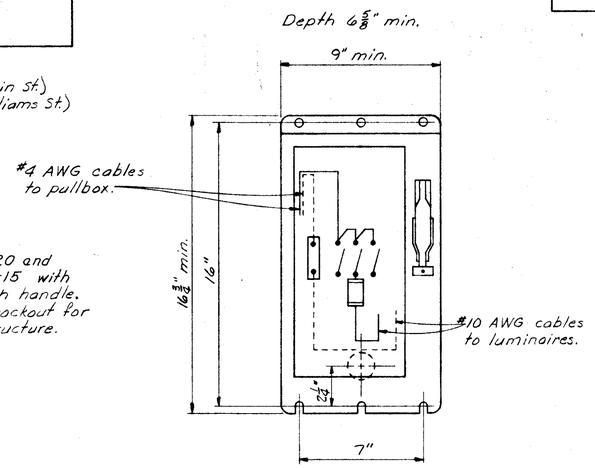
NOTES

Conduit - All conduit shall be rigid ferrous metal, as per 713.04.

Junction Boxes - All junction boxes shall be as per Item 713.10. Payment shall be included with service to underpass lighting.

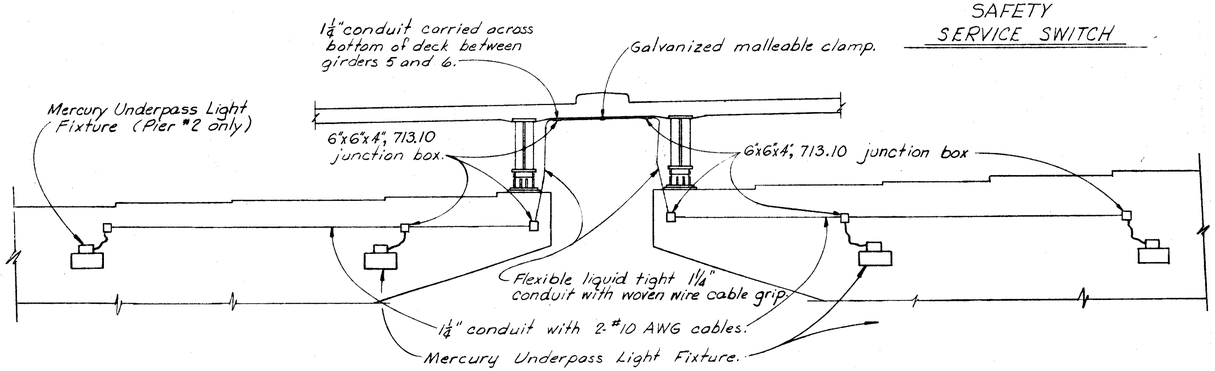
Light Fixture Location - For location of light fixtures see Pier 2 Details and Pier 7 Details, sheets 437 and 441.

Luminaire Mounting - For Details of Underpass Luminaire Mounting see Standard Construction Drawing HL-6



Enclosure as per 713.20 and standard drawing HL-15 with flange mounted switch handle. Space provided for knockout for wiring direct into structure.
480 volt
30 amp switch
20 amp fuse

SAFETY SERVICE SWITCH



SECTION-L2-L2

ALDEN E. STILSON & ASSOCIATES, LIMITED
CONSULTING ENGINEERS
CLEVELAND, OHIO COLUMBUS, OHIO WHEELING, W. VA.

UNDERPASS LIGHTING DETAILS

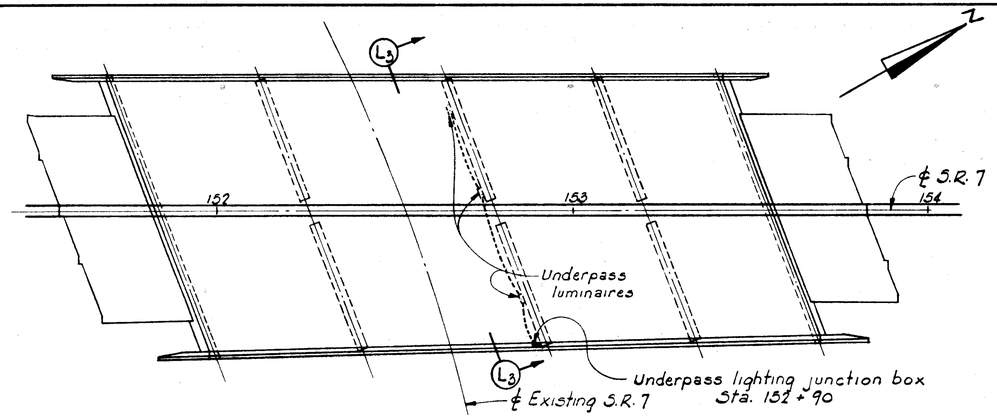
BRIDGE NO. JEF-7-0166
SR-7 OVER WILLIAMS ST. RELOC.,
C&P RR. W&LE RR AND MAIN ST.
JEFFERSON COUNTY STA. 88+25.99 TO STA. 96+43.06

DESIGNED	DRAWN	TRACED	CHECKED	REVIEWED	DATE	REVISED
RT	DW		DLM			

FED. RD. DIVISION	STATE	PROJECT	TYPE FUNDS
2	OHIO		

373A 560

JEFFERSON COUNTY
JEF-7-0.20



SCHEMATIC PLAN

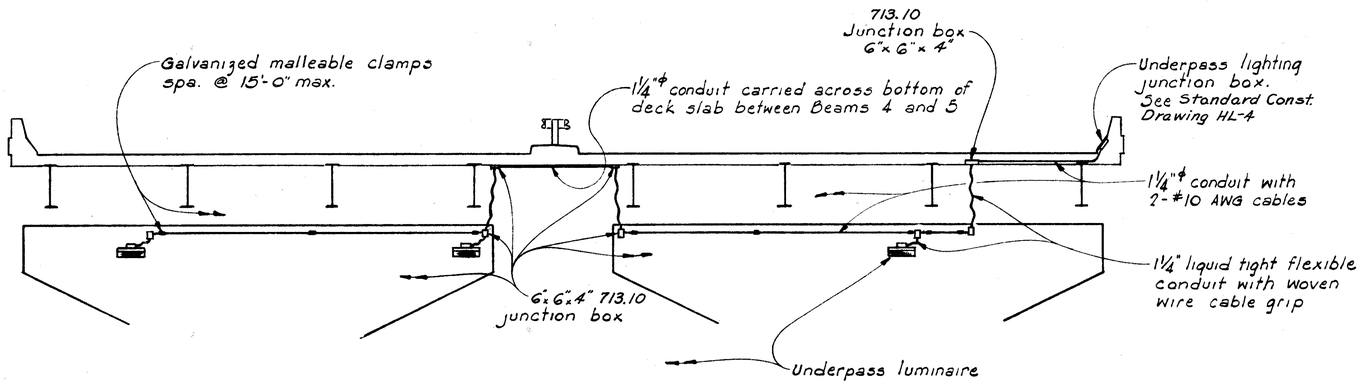
NOTES

Conduit - All conduit shall be rigid ferrous metal, as per 713.04.

Junction Boxes - All junction boxes shall be as per 713.10. Payment for all junction boxes shall be included with service to underpass lighting.

Light Fixture Location - For location of light fixtures, see Pier Details, Sheet 496.

Luminaire Mounting - For details of underpass luminaire mounting, see Standard Const. Drawing HL-6



SECTION L3-L3

ALDEN E. STILSON & ASSOCIATES, LIMITED
CONSULTING ENGINEERS
CLEVELAND, OHIO COLUMBUS, OHIO WHEELING, W. VA.

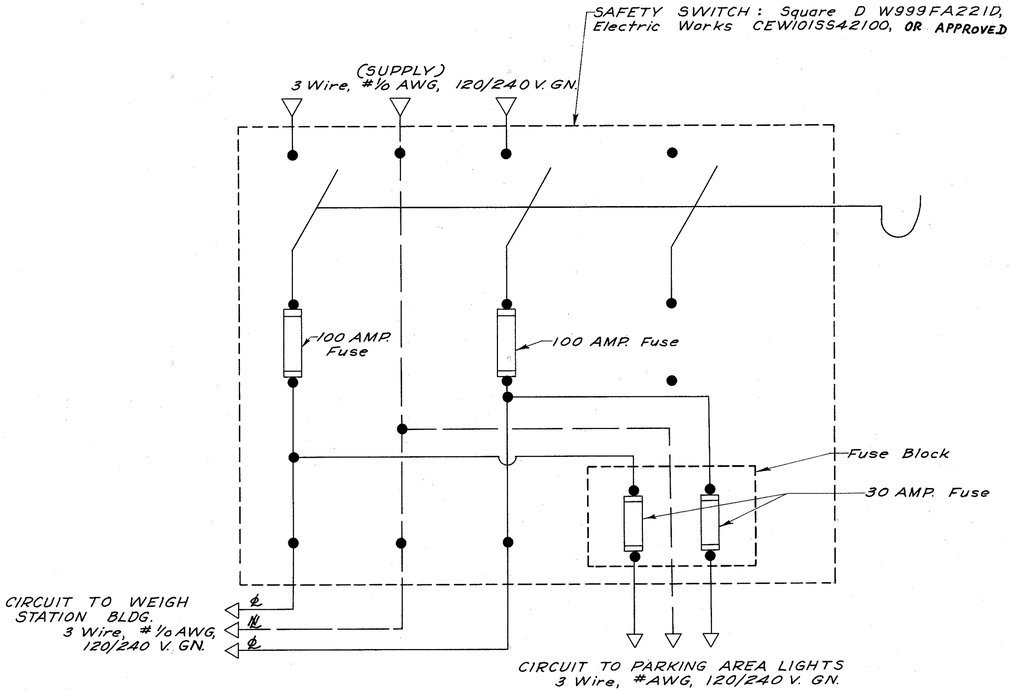
UNDERPASS LIGHTING DETAILS
BRIDGE NO. JEF-7-0288
SR-7 Over EXISTING SR-7 and FUTURE OHIO EDISON SPUR
STA. 151+81.23 to STA. 153+56.55
JEFFERSON COUNTY

DESIGNED	DRAWN	TRACED	CHECKED	REVIEWED	DATE	REVISED
HT	HT		RT			

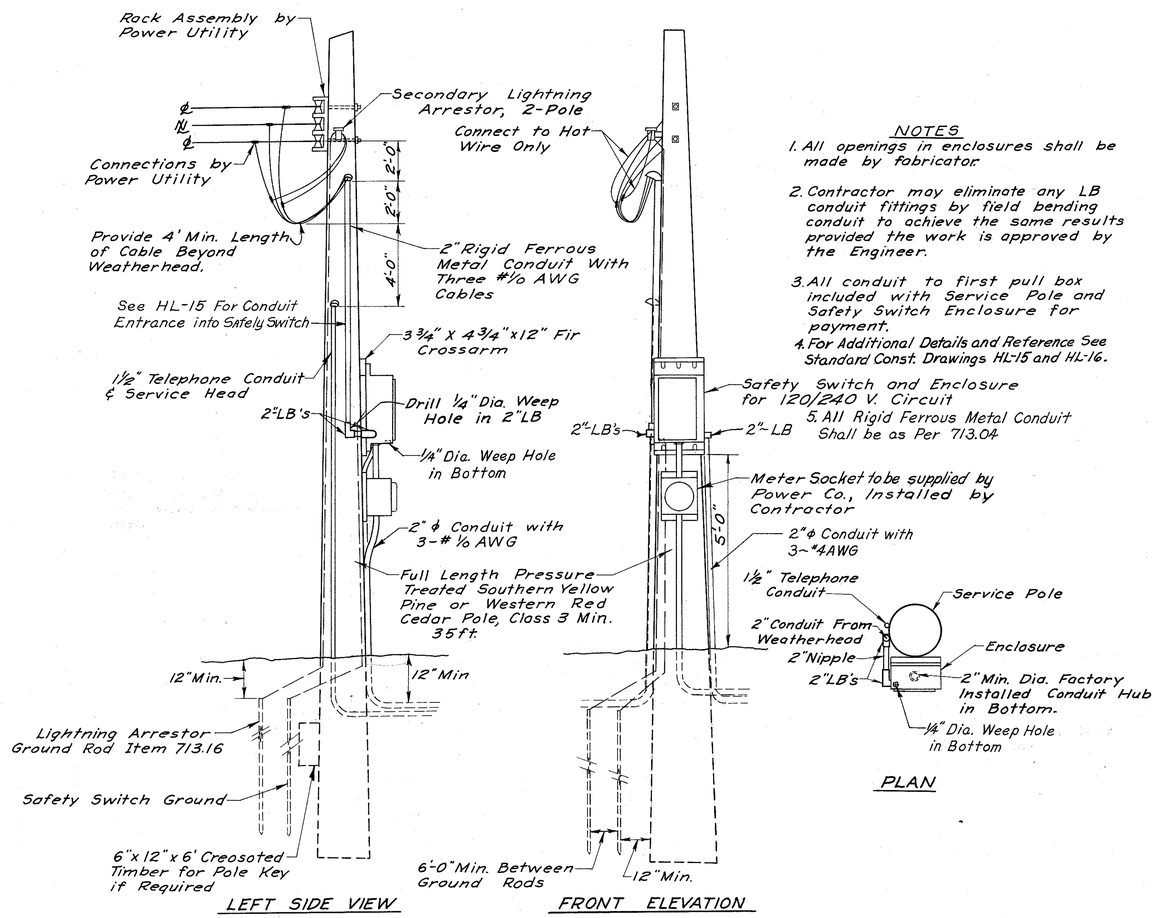
FED. RD. DIVISION	STATE	PROJECT	
2	OHIO		

374
560

JEFFERSON COUNTY
JEF-7-0.20



SAFETY SWITCH WIRING DIAGRAM 120/240 VOLT



NOTES

1. All openings in enclosures shall be made by fabricator.
2. Contractor may eliminate any LB conduit fittings by field bending conduit to achieve the same results provided the work is approved by the Engineer.
3. All conduit to first pull box included with Service Pole and Safety Switch Enclosure for payment.
4. For Additional Details and Reference See Standard Const. Drawings HL-15 and HL-16.
5. All Rigid Ferrous Metal Conduit Shall be as Per 713.04

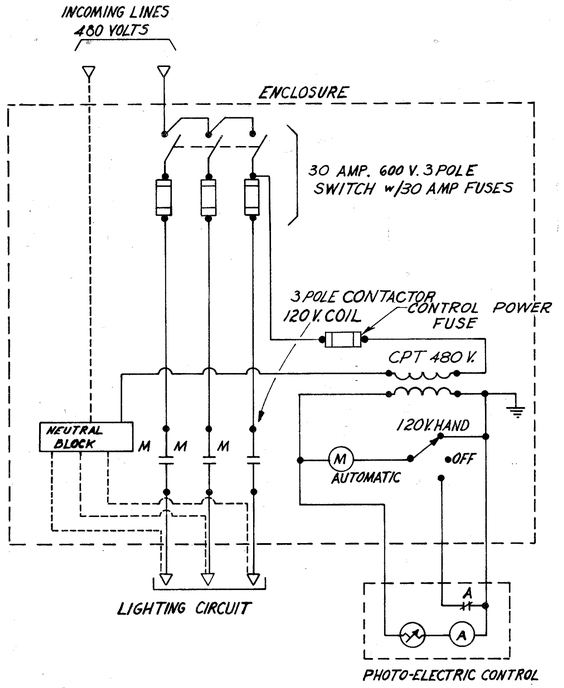
WEIGH STATION SERVICE POLE

SRUNING 44-560 10943

FED. RD. DIVISION	STATE	PROJECT	
2	OHIO		

375
560

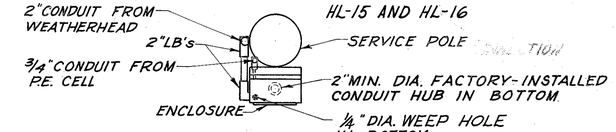
JEFFERSON COUNTY
JEF-T-0.20



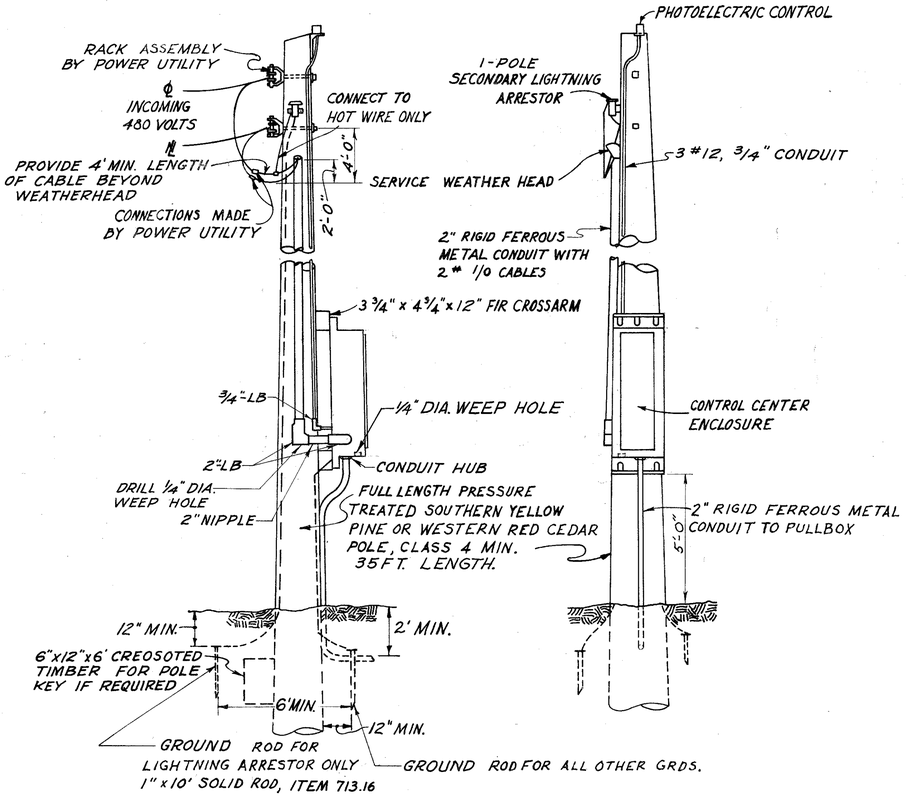
TYPICAL CONTROL CENTER WIRING DIAGRAM

NOTES

1. ALL OPENINGS IN ENCLOSURES SHALL BE MADE BY FABRICATOR.
2. CONTRACTOR MAY ELIMINATE ANY LB CONDUIT FITTINGS BY FIELD BENDING CONDUIT TO ACHIEVE THE SAME RESULTS PROVIDED THE WORK IS APPROVED BY THE ENGINEER.
3. ALL CONDUIT TO FIRST PULL BOX INCLUDED WITH SERVICE POLE AND CONTROL CENTER FOR PAYMENT.
4. FOR ADDITIONAL DETAILS & REFERENCE SEE STANDARD CONST. DRAWING HL-15 AND HL-16



PLAN



LIGHTING CONTROL CENTER

LIGHTING DETAILS

815 SIGN ERECTION, EXTRUSHEET OR FLAT SHEET TYPE
THE CONTRACTOR SHALL ERECT SIGN PANELS AS INDICATED ON THE SCHEMATIC SIGNING PLAN SHEET NUMBER(S) 382-392 . THE PANELS WILL BE FURNISHED BY OTHERS AND SHALL BE MOUNTED ON THE BRACKETS OR BEAM SUPPORTS PROVIDED IN THE PLANS.
ALL SIGN MATERIAL AND ACCESSORIES WILL BE FURNISHED AND TRANSPORTED BY OTHERS TO A DELIVERY POINT DESIGNATED BY THE CONTRACTOR ON OR NEAR THE SUBJECT PROJECT. THE CONTRACTOR SHALL BE RESPONSIBLE FOR THE HANDLING, PROTECTION AND STORAGE OF THE SIGN PANELS AND ACCESSORIES FROM THE TIME OF UNLOADING BY OTHERS AT THE DELIVERY POINT.
LARGE GUIDE SIGNS (OVER 8 FEET IN HEIGHT) MAY BE DELIVERED IN TWO PIECES. WORK SHALL ALSO CONSIST OF ASSEMBLY OF THESE PANELS INCLUDING ATTACHMENT OF DEMOUNTABLE SIGN LEGEND, WHERE NECESSARY, AND ERECTION OF SIGNS IN CONFORMANCE WITH THE SCHEMATIC SIGN PLAN.
THE CONTRACTOR SHALL SUBMIT, IN THREE COPIES, A SCHEDULE FOR SIGN ERECTION TO THE ENGINEER AT LEAST 120 CALENDAR DAYS PRIOR TO THE START OF ANY SCHEDULED ERECTION WORK. THE SCHEDULE SHALL INCLUDE PROPOSED DATES, SIGN NUMBERS, AND DELIVERY POINT. THE ENGINEER WILL FURNISH COPIES OF THE SCHEDULE TO THE DISTRICT TRAFFIC ENGINEER AND TO THE ENGINEER OF DESIGN SERVICES, 25 SOUTH FRONT STREET, COLUMBUS, OHIO, 43215.
THE PRICE BID PER SQUARE FOOT FOR 'ITEM 815, SIGN ERECTION, BY TYPE', SHALL INCLUDE PAYMENT FOR ALL NECESSARY EQUIPMENT, LABOR, AND TOOLS TO STORE, ASSEMBLE, AND ERECT THE SIGNS AS SPECIFIED.

816 STRUCTURAL SUPPORTS, STEEL BEAM (TYPE)
THE STRUCTURAL STEEL BEAM SUPPORTS INCLUDING 6 POUND BEAMS, 4 POUND POST AND HARDWARE SHALL BE GALVANIZED IN ACCORDANCE WITH ASTM A-123 AND A-153 RESPECTIVELY. ALL FABRICATION SHALL BE COMPLETED PRIOR TO GALVANIZING.
QUANTITIES FOR ITEM 816 'STRUCTURAL SUPPORTS, STEEL BEAM (TYPE)' APPEARING IN THE QUANTITY TABLES ARE APPROXIMATE. THE CONTRACTOR SHALL BE RESPONSIBLE FOR DETERMINING EXACT SUPPORT LENGTHS PRIOR TO FABRICATION AND GALVANIZING OF SUPPORTS. PAYMENT SHALL BE AT THE CONTRACT UNIT PRICE BID PER LIN. FT. WHICH PRICE AND PAYMENT SHALL INCLUDE ALL COSTS IN CONNECTION WITH THE PLACEMENT OF THE SUPPORTS.
THE COST OF THE CONCRETE USED FOR EMBEDMENT WILL BE A SEPARATE PAY ITEM.

816 BREAKAWAY SIGN SUPPORT CONNECTION
THIS ITEM CONSISTS OF CUTTING AND DRILLING THE STRUCTURAL SUPPORT, FURNISHING AND ATTACHING THE FUSE PLATE, AND FURNISHING AND ATTACHING THE BASE PLATES FOR EACH STRUCTURAL SIGN SUPPORT AS INDICATED ON THE PLANS.
ALL MATERIALS, LABOR AND EQUIPMENT REQUIRED TO FABRICATE AND INSTALL THIS ITEM FOR EACH SIGN SUPPORT (EXCLUSIVE OF THE STRUCTURAL SIGN SUPPORT) WILL BE MEASURED AND PAID FOR AT THE UNIT PRICE BID FOR ITEM 816 EACH BREAKAWAY SIGN SUPPORT CONNECTION.

816 STRUCTURAL SUPPORTS, 6 LB. BEAM, AS PER PLAN DRIVEN
THIS ITEM SHALL CONSIST OF THE FURNISHING, ASSEMBLY, AND INSTALLATION OF TWO (2) 3 LB. PER FOOT DRIVE POSTS (6 LB. BEAM) IN COMBINATION WITH A SQUARE SEAMLESS TUBULAR POST EXTENSION SPLICED TO THE TOP OF THE 6 LB. BEAM. DETAILS ARE SHOWN ON SHEET 395 .
SQUARE TUBULAR POST MATERIAL SHALL CONFORM TO ASTM-570 GRADE "B" AFTER FABRICATION.
WORK SHALL INCLUDE ALL LABOR, MATERIALS, EQUIPMENT, TOOLS, AND HARDWARE NECESSARY TO PERFORM THE REQUIRED ITEM OF WORK.
BASIS OF PAYMENT SHALL BE FOR STRUCTURAL SUPPORTS, 6 LB. BEAM, AS PER PLAN PER LINEAR FOOT MEASURED BY TOTAL LENGTH OF COMBINATION BEAM FROM END TO END.

816 STRUCTURAL SUPPORTS DRIVEN TYPE

DRIVEN TYPE STRUCTURAL SUPPORTS WILL BE DRIVEN TO A DEPTH OF FIVE FEET (5 FT.) MINIMUM BELOW GROUND LINE IN SUCH A MANNER THAT NO DEFORMATION WITHIN THE LENGTH OF THE SUPPORT, OR DAMAGE TO THE SUPPORT, WILL OCCUR.

PRIOR TO INSTALLATION EACH SUPPORT SHALL BE SIGNIFICANTLY MARKED WITH PAINT AT A LOCATION ON THE SUPPORT 5 FT. 6 IN. FROM THE EMBEDDED END, AND APPROVED BY THE ENGINEER.

'STRUCTURAL SUPPORTS 6 LB. BEAM, DRIVEN AND 6 LB. BEAM, DRIVEN AS PER PLAN' WILL INCLUDE THE 10 IN.X 12 IN.X 1/4 IN. SOIL PLATE DETAILED IN THE PLANS.

PAYMENT FOR INSTALLATION OF SIGN SUPPORTS BY THE ABOVE METHOD SHALL BE INCLUDED IN THE COST OF THE VARIOUS SUPPORT TYPES SPECIFIED INCLUDING ALL LABOR, EQUIPMENT AND MATERIALS REQUIRED.

202 REMOVAL OF EXISTING SIGN INSTALLATIONS, AS PER PLAN
THIS WORK SHALL CONSIST OF THE REMOVAL OF ALL EXISTING SIGN INSTALLATIONS ON MAIN ROADWAY, RAMPS AND APPROACH ROADWAYS WITHIN WORK LIMITS OF THIS PROJECT.
WORK SHALL ALSO INCLUDE REMOVAL OF SIGN SUPPORTS AND FOUNDATIONS AS REQUIRED IN SECTION 202.
ALL SIGNS SUPPORTS AND ACCESSORIES REMOVED SHALL BE STORED NEATLY WITHIN THE LIMITS OF THE PROJECT AT LOCATIONS APPROVED BY THE ENGINEER FOR REMOVAL BY STATE FORCES. THIS WORK SHALL INCLUDE DISPOSAL OF ALL WASTE MATERIAL.
TO ASSURE MAINTENANCE OF ADEQUATE TRAFFIC CONTROL AT ALL TIMES, NO SIGNS ARE TO BE REMOVED WITHOUT THE APPROVAL OF THE ENGINEER.
PAYMENT FOR REMOVAL OF EXISTING SIGNS SHALL INCLUDE ALL NECESSARY LABOR AND EQUIPMENT REQUIRED TO PERFORM THE REQUIRED WORK AS INDICATED ABOVE.
BASIS OF PAYMENT SHALL BE AS FOLLOWS FOR SIGNS FORTY (40) SQUARE FEET OR GREATER
REMOVAL OF EXISTING MAJOR SIGN INSTALLATIONS AS PER PLAN AT THE CONTRACT PRICE PER EACH.
BASIS OF PAYMENT SHALL BE AS FOLLOWS FOR ALL OTHER SIGNS REMOVAL OF EXISTING SIGN INSTALLATIONS AS PER PLAN AT THE CONTRACT LUMP SUM PRICE.

623 CONSTRUCTION LAYOUT STAKES FOR SIGNS

THE CONTRACTOR SHALL STAKE OUT ALL SIGN SUPPORTS IN ACCORDANCE WITH SUPPLEMENTAL SPECIFICATION 816 PRIOR TO INSTALLATION OF ANY FOUNDATIONS OR SUPPORTS.
AFTER STAKEOUT THE CONTRACTOR SHALL NOTIFY THE ENGINEER A MINIMUM OF SEVEN (7) DAYS IN ADVANCE OF SCHEDULED WORK.
SUPPORT LOCATIONS FOR EACH SUPPORT WILL BE FIELD CHECKED TAKING INTO ACCOUNT BOTH UNDERGROUND AND OVERHEAD OBSTRUCTIONS AND CONFLICTS AND APPROVED BY THE ENGINEER WHO SHALL COORDINATE WITH THE DISTRICT AND/OR CITY TRAFFIC ENGINEER PRIOR TO PROCEEDING WITH CONSTRUCTION WORK REQUIRED.
IF BOTH MAJOR AND MINOR TYPE SUPPORTS ARE INCLUDED WITHIN THE PROJECT IT WILL BE PERMISSIBLE TO PERFORM THE CONSTRUCTION STAKEOUT AND FIELD INSPECTION IN TWO (2) STAGES, ONE FOR MAJOR SUPPORTS AND ONE FOR MINOR SUPPORTS.
COST FOR THIS ITEM OR WORK WILL BE INCLUDED IN THE LUMP SUM BID FOR ITEM 623 'CONSTRUCTION LAYOUT STAKES'

620 INTERIM DELINEATORS, AS PER PLAN
THIS WORK SHALL CONSIST OF FURNISHING AND INSTALLING INTERIM DELINEATORS AS SPECIFIED ON PLAN SHEETS.
THIS ITEM SHALL INCLUDE 2 POUNDS PER FOOT STEEL DRIVE POSTS 4 FT. - 0 IN. LONG BOLTED TO INSIDE OF INTERIM BARRELS FURNISHED UNDER 606 USING A MINIMUM OF THREE 5/16 IN. STEEL BOLTS SPACED ON 12 IN. CENTERS. POST FLANGES SHALL BE 90 DEGREES TO INTERIM EDGE LINES FACING APPROACHING TRAFFIC.
TYPE D DELINEATORS SHALL BE MOUNTED ON THE DRIVE POST FLANGES WITH THE TOP OF THE DELINEATOR 4 FT. ABOVE THE PAVEMENT.
THE QUANTITY FURNISHED AND INSTALLED WILL BE PAID FOR AT THE PRICE BID PER EACH WHICH PRICE SHALL BE FULL COMPENSATION FOR FURNISHING AND INSTALLING DRIVE POSTS AND DELINEATORS INCLUDING NECESSARY HARDWARE, LABOR AND EQUIPMENT.

EXISTING SIGNS
EXISTING SIGNS LOCATED WITHIN THE ROADWORK AREAS WHICH ARE NECESSARY FOR INTERIM OR PERMANENT TRAFFIC CONTROL SHALL BE REMOVED AND RE-ERECTED IN LOCATIONS INDICATED BY THE PLANS OR AS APPROVED BY THE ENGINEER. STOP SIGNS WILL BE MAINTAINED AT ALL TIMES WHILE TRAFFIC IS MAINTAINED. THE COST OF REMOVAL, RE-ERECTION AND SUBSEQUENT REMOVAL IF REQUIRED SHALL BE CONSIDERED A SUBSIDIARY WORK ITEM, THE COST OF WHICH SHALL BE INCLUDED IN THE PRICE BID FOR THE ROADWAY WORK ITEMS. THE SIGNS WHICH ARE TO BE RE-ERECTED ON THE BERMS SHALL BE LOCATED WITH THE CENTER LINE OR SUPPORT ON THE P.I. OF THE SHOULDER.

816 CONCRETE FOUNDATIONS, FOR SIGN SUPPORTS
PAYMENT FOR THIS ITEM SHALL BE BASED ON PLAN DIMENSIONS (OR DIMENSIONS AS MODIFIED BY THE ENGINEER IN LIEU OF PLAN QUANTITIES) AS REQUIRED IN SUPPLEMENTAL SPECIFICATION 816.
BASIS OF PAYMENT SHALL BE AS FOLLOWS.
CONCRETE FOR GROUND MOUNTED SIGN SUPPORT FOUNDATIONS, PER CUBIC YARD.

815 INTERIM COVERING FOR SIGNS
THIS ITEM SHALL CONSIST OF FURNISHING AND INSTALLING AN INTERIM COVER AND ATTACHMENT MATERIALS FOR SIGNS SO INDICATED IN THE PLANS OR AS DIRECTED BY THE ENGINEER. THIS ITEM SHALL ALSO INCLUDE THE SUBSEQUENT REMOVAL OF COVERS WHEN DIRECTED BY THE ENGINEER.
MATERIAL FOR COVERING SHALL BE PLASTIC COATED BURLAP BLANKETS IN CONFORMANCE WITH 705.05.
THE ENGINEER SHALL APPROVE THE METHOD PROPOSED FOR ATTACHING INTERIM COVERS TO SIGNS PRIOR TO INSTALLATION OF COVERS.
WORK SHALL INCLUDE ALL NECESSARY MATERIAL, HARDWARE, LABOR, AND EQUIPMENT REQUIRED TO PERFORM THE REQUIRED ITEM OF WORK.
BASIS OF PAYMENT SHALL BE INTERIM COVERING FOR SIGNS, PER SQUARE FOOT.
A QUANTITY OF 30 SQ. FT. FOR ITEM 815, INTERIM COVERING FOR SIGNS, HAS BEEN INCLUDED TO COVER SIGNS AS DERECTED BY THE ENGINEER.

815 VARIABLE SIGN MESSAGE UNIT, AS PER PLAN
THIS ITEM SHALL CONSIST OF FURNISHING AND INSTALLATION OF THE COMPLETION VARIABLE SIGN MESSAGE UNIT IN A WS-3 SIGN WHICH IS PAID FOR AS A SEPARATE PAY ITEM.
THE VARIABLE SIGN MESSAGE UNIT SHALL BE FABRICATED IN ACCORDANCE WITH SPECIFICATIONS AND DETAILS SHOWN ON SHEET 401 .
THE FRONT PANEL 6 FT. - 6 IN. X 18 IN. SHALL BE INTERIM COVERED WITH 1/2 IN. MARINE PLYWOOD.
THE WORK SHALL ALSO INCLUDE FURNISHING AND INSTALLATION OF ALL CABLE AND 2 IN. CONDUIT FROM THE ADJACENT PULL BOX TO THE SIGN, AND TO AND INCLUDING THE PHOTOELECTRIC CELL.
DETAIL SHOP DRAWINGS OF CABINET AND ELECTRICAL DETAILS INCLUDING ATTACHMENT HARDWARE MUST BE SUBMITTED A MINIMUM OF 90 DAYS PRIOR TO SCHEDULED DELIVERY OF SIGNS.
THE BASIS OF PAYMENT SHALL BE AT THE CONTRACT UNIT PRICE FOR EACH UNIT WHICH SHALL INCLUDE ALL LABOR, MATERIALS, TOOLS, EQUIPMENT, AND OTHER INCIDENTALS TO PROVIDE A COMPLETE AND ACCEPTED ITEM OF WORK.

A. E. STILSON & ASSOC.
Quantities Calculated J.R.F. 4-74
Quantities Checked D.L.B. 4-74

RAILROAD CROSS-BUCK SIGNS
RELOCATION AND MAINTENANCE OF EXISTING RAILROAD CROSS-BUCK SIGNS IS THE RESPONSIBILITY OF THE RAILROADS.
EXISTING CROSS-BUCKS ARE NOT TO BE DISTRUBED BY THE CONTRACTOR AND IF RELOCATION IS REQUIRED, CONTRACT THE APPROPRIATE RAILROAD AND THE PUBLIC UTILITIES COMMISSION OF OHIO.

621 RAILROAD PAVEMENT MARKING
THIS ITEM SHALL CONSIST OF FURNISHING AND INSTALLATION OF ALL PAVEMENT MARKING, NECESSARY ON ONE (1) APPROACH TO A RAILROAD GRADE CROSSING, ON THE LANE OF PAVEMENT CARRYING TRAFFIC APPROACHING THE CROSSING.
BASIS OF PAVEMENT SHALL BE PER EACH, INCLUDING ALL MATERIALS, LABOR AND EQUIPMENT NECESSARY TO ACCOMPLISH THIS WORK.

INTERIM PAVEMENT MARKING, BY TYPE
THIS WORK SHALL CONSIST OF THE FURNISHING AND INSTALLATION OF INTERIM REMOVALE MARKINGS AS SPECIFIED HEREIN AND SHOWN ON THE PLANS.
1. MATERIAL
MATERIAL SHALL CONSIST OF BACKING COATED WITH A PRESSURE SENSITIVE ADHESIVE AND A WEATHER AND TRAFFIC RESISTANT REFLECTIVE WHITE OR YELLOW COLORED SURFACE AND ADDITIONAL REQUIREMENTS AS FOLLOWS.
A. REFLECTION- THE WHITE AND YELLOW STRIPPING MATERIAL SHALL BE REFLEX-REFLECTIVE, REFLECTING WHITE OR YELLOW RESPECTIVELY AND SHALL BE READILY VISIBLE WHEN VIEWED WITH ATOMOBILE HEADLIGHTS AT NIGHT.
B. ADHESIVE - THE STRIPING MATERIAL SHALL HAVE A PRECOATED PRESSURE-SENSITIVR ADHESIVE WHICH SHALL NOT REQUIRE A LINER FOR PROTECTION FROM CONTAMINATION, PREADHESION, OR BLOCKING WITHIN THE ROLL AS DELIVERED.
C. CONFORMABILITY - THE STRIPING MATERIAL SHALL BE THIN, FLEXIBLE, FORMABLE, AND FOLLOWING APPLICATION, SHALL REMAIN CONFORMED TO THE TEXTURE OF THE PAVEMENT SURFACE.
D. REMOVABILITY - THE STRIPING MATERIAL BACKING SHALL PERMIT REMOVAL WITHOUT REQUIRING SANDBLAST, SOLVENT, OR GRINDING METHODS.
E. DURABILITY - THE STRIPING MATERIAL APPLIED IN ACCORDANCE WITH RECOMMENDED PROCEDURES SHALL BE WEATHER RESISTAND AND SHOW NO APPRECIABLE FACING, LIFTING OR SHRINKAGE, PRIOR TO COMPLETION OF THIS PROJECT.
F. GENERAL - THE STRIPING MATERIAL AS SUPPLIED SHALL BE OF GOOD APPEARANCE, FREE FROM CRACKS, AND EDGES SHALL BE TRUE, STRAIGHT, AND UNBROKEN. THE STRIPPING MATERIAL SHALL BE SUPPLIES IN ROLLS AND THERE SHALL BE NO MORE THAN 3 SPLICES PER 60 YARDS OF LENGTH.
THE STRIPING MATERIAL SHALL BE PREPARED FOR DELIVERY IN STANDARD COMMERCIAL CONTAINERS SO CONSTRUCTED AS TO INSURE ACCEPTANCE BY THE CARRIER AND PREVENT DAMAGE DURING PROPER SHIPMENT AND STORAGE.
THE CONTRACTOR SHALL STORE THE MATERIAL IN A COOL, DRY LOCATION WHERE TEMPERATURE WILL NOT EXCEED 100 DEGREES F. PRIOR TO APPLICATION OF MARKING ON ROADWAY SURFACES.
2. ROAD SURFACE PREPARATION
THE ROAD SURFACE MUST BE CLEAR AND DRY, FREE OF OILS AND GREASE, DUST OR DIRT. ALL SURFACES MUST BE PRIMED.
CONCRETE PAVEMENT SHALL BE SURFACE TREATED IN ACCORDANCE WITH SECTION 621.04. SURFACE SHALL THEN BE GENEROUSLY FLUSHED WITH CLEAN WATER AND ALLOWED TO DRY THROUGHLY PRIOR TO APPLICATION OF PRIMER AND INTERIM MARKINGS.
3. PRIMING
METHOD OF PRIMING SHALL BE AS APPROVED BY THE ENGINEER. THE CONTRACTOR SHALL SUBMIT A PROPOSAL FOR TYPE OF PRIMING TO BE USED. COST FOR PRIMING SURFACES SHALL BE INCIDENTAL TO THE COST OF VARIOUS ITEMS INCLUDED IN ITEM 615, TEMPORARY ROADS, AS PER PLAN.
4. APPLICATION
INTERIM LINES SHALL BE APPLIED TO THE ROAD SURFACE WITH A ROLLER TYPE APPLICATOR AND ROLLED IMMEDIATELY AFTERWARDS BY RUBBER-TIRED ROLLER WITH APPROXIMATE SINGLE WHEEL LOAD BETWEEN ONE THOUSAND (1,000) AND TWO THOUSAND (2,000) POUNDS.
5. SPECIAL PLAN DETAILS
DETAILS FOR LOCATION OF INTERIM MARKINGS ARE SHOWN OF SIGN LOCATION PLAN SHEETS.
6. BASIS OF PAYMENT
COST OF FURNISHING AND ISNTALLATION OF INTERIM PAVEMENT MARKING SHALL BE INCLUDED AT THE CONTRACT UNIT PRICE PER LINEAR FOOT.

816 STRUCTURAL SUPPORTS, DRIVEN, AS PER PLAN
ALL 4 POUND POST TO BE PLACED IN CONCRETE MEDIANS SHALL BE DRIVEN THROUGH A SIX-INCH DIAMETER HOLE IN THE CONCRETE TO A DEPTH OF FIVE FEET BELOW THE SURFACE. SUPPORTS SHALL BE DRIVEN USING A DRIVING CAP IN SUCH A MANNER THAT NO DEFORMATION WITHIN THE LENGTH OF THE SUPPORT OR DAMAGE TO THE SUPPORT WILL OCCUR.
PRIOR TO INSTALLATION EACH SUPPORT SHALL BE SIGNIFICANTLY MARKED WITH PAINT AT A LOCATION ON THE SUPPORT 5 FT.-6 IN. FROM THE EMBEDDED END AND APPROVED BY THE ENGINEER.
THE HOLE IN THE CONCRETE SHALL BE FILLED WITH ASPHALT OR PORTLAND CONCRETE AFTER THE POST IS IN THE PROPER POSITION.
REFERENCE THE TSP-1 DRAWING, SHEET NO. *400* OF THIS PLAN.
BASIS OF PAYMENT FOR THIS ITEM OF WORK WILL BE AT THE UNIT PRICE PER LINEAR FOOT, WHICH SHALL INCLUDE ALL LABOR TOOLS AND INCIDENTALS NECESSARY TO PERFORM THE REQUIRED WORK.
NOTE. THIS NOTE CAN BE USED FOR 3 OR 4 POUND POSTS AND 6 OR 8 POUND BEAMS.

FHWA REGION	STATE	PROJECT	
5	OHIO		

379
560

JEFFERSON COUNTY
JEF- 7 - 0.20

* 100% State

TOTAL	ITEM	UNIT	DESCRIPTION (Code 7223)
LUMP	202	LUMP	REMOVAL OF EXISTING SIGN INSTALLATIONS, AS PER PLAN
950	606	L.F.	Guard Rail, Type G
154	620	EA.	DELINEATORS, TYPE A, POST MOUNTED
254	620	EA.	DELINEATORS, TYPE D, POST MOUNTED
13	620	EA.	DELINEATORS, TYPE A, BRACKET MOUNTED
8	620	EA.	DELINEATORS, TYPE D, BRACKET MOUNTED
6	620	EA.	INTERIM DELINEATORS, AS PER PLAN
24.47	621	MI.	EDGE LINES
9.16	621	MI.	4 IN. LANE LINES
1425	621	L.F.	INTERIM 4 IN. EDGE LINE
1.84	621	MI.	CENTER LINES
4622	621	L.F.	CHANNELIZING LINES
2387	621	L.F.	CURB MARKING
60	621	S.F.	ISLAND MARKING
1833	621	L.F.	24 IN. BROAD TRANSVERSE LINES
353	621	L.F.	24 IN. STOP LINES
170	621	L.F.	8 IN. CROSSWALK LINES
2560	621	L.F.	PARKING LOT STALL MARKING
7	621	EA.	LANE ARROWS
4	621	EA.	RAILROAD PAVEMENT MARKING
2	621	EA.	WORD "ONLY" ON PAVEMENT
841	815	S.F.	SIGN ERECTION, FLAT SHEET TYPE
1826	815	S.F.	SIGN ERECTION, EXTRU SHEET TYPE
* 241	815	S.F.	INTERIM COVERING FOR SIGNS
2	815	EA.	VARIABLE SIGN MESSAGE UNIT, AS PER PLAN
435	816	L.F.	STRUCTURAL SUPPORT, 4 POUND POST, DRIVEN
30	816	L.F.	STRUCTURAL SUPPORT, 4 POUND POST, DRIVEN, AS PER PLAN
1706	816	L.F.	STRUCTURAL SUPPORT, 6 POUND BEAM, DRIVEN
45	816	L.F.	STRUCTURAL SUPPORT, 6 POUND BEAM, DRIVEN, AS PER PLAN
448	816	L.F.	STRUCTURAL SUPPORT STEEL BEAM, 10WF21
4	816	EA.	BREAKAWAY SIGN SUPPORT CONNECTION
5.0	816	C.Y.	CONCRETE FOR GROUND MOUNTED SIGN SUPPORT FOUNDATIONS

A. E. STILSON & ASSOC.
Quantities Calculated J.R.F. 4-74
Quantities Checked D.L.B. 4-74

Rev. 1-17-75 A.W.G.

TRAFFIC CONTROL GENERAL SUMMARY

ITEM 621

606

STATION FROM	STATION TO	Side	Edge Line White L.F.	4" Lane Line L.F.	Interim Pav't. Mark 4" Edge Line L.F.	Centerline Double Solid Yellow L.F.	Channelizing Line White L.F.	Edge Line Yellow L.F.	Curb Marking White L.F.	Island Marking Yellow S.F.	24" Broad Transverse White L.F.	24" Broad Transverse Yellow L.F.	24" Stop Lines L.F.	8" Cross Walk L.F.	Parking Lot Stall Markings L.F.	Lane Arrows Each	R.R. Pav't. Marking Each	Center-lines Broken Single L.F.	Temp. Beam Rail L.F.
South Bound																			
16+75.00	to 31+00.00	L	1425.00		14.25														925
31+00.00	to 52+00.00	L	2100.00	2100.00				2100.00											
52+00.00	to 62+00.00	L	1440.00	1240.00			200	1000.00											
62+00.00	to 79+96.00	L	1796.00	1796.00				1796.00											
79+96.00	to 88+40.68	L	844.68	1044.69			718	844.68			387								
88+40.68	to 129+20.85	L	4080.17	4080.17				4080.17											
129+20.85	to 139+20.85	L	1440.00	1240.00			200	1000.00											
139+20.85	to 145+25.00	L	604.15	604.15				604.15											
145+25.00	to 151+50.00	L	625.00	785.00			400	625.00			225								
151+50.00	to 191+25.00	L	3975.00	3975.00				3975.00											
191+25.00	to 201+25.00	L	1440.00	1240.00			200	1000.00											
201+25.00	to 222+90.00	L	2165.00	2165.00				2165.00											
222+90.00	to 231+25.00	L	820.00	1075.00			571	835.00			348								
231+25.00	to 232+10.00	L	85.00	85.00				85.00											
232+10.00	to 234+50.00	L	240.00	240.00				240.00											
234+50.00	to 244+63.96	L	1013.46	1013.46				1013.46											
North Bound																			
10+50.49	to 18+82.00	R	831.51	831.51				831.51											25
18+82.00	to 28+82.00	R	1440.00	1240.00			200	1000.00											
28+82.00	to 53+50.00	R	2468.00	2468.00				2468.00											
53+50.00	to 61+75.00	R	825.00	1105.00			434	825.00			217								
61+75.00	to 81+50.00	R	1975.00	1975.00				1975.00											
81+50.00	to 91+50.00	R	1440.00	1240.00			200	1000.00											
91+50.00	to 131+97.60	R	4047.60	4047.60				4047.60											
131+97.60	to 138+19.60	R	622.00	822.00			341	622.00			190								
138+19.60	to 143+75.00	R	555.40	555.40				555.40											
143+75.00	to 153+75.00	R	1440.00	1240.00			200	1000.00											
153+75.00	to 190+75.00	R	3700.00	3700.00				3700.00											
190+75.00	to 199+13.50	R	838.50	1078.50			568	838.50			327								
199+13.50	to 221+00.00	R	2186.50	2186.50				2186.50											
221+00.00	to 231+00.00	R	1440.00	1240.00			200	1000.00											
231+00.00	to 232+10.00	R		110.00				110.00											
232+10.00	to 244+63.96	R	1253.46	1253.46				1253.46											
Public Road Interchange																			
1+79.00	to 7+77.00 Public Rd.	R&L	434.00			692	124					139	22.0	80					
9+87.00	to 16+75.00 Ramp "B"	R&L	688.00					688.00								1			
10+75.00	to 18+82.00 Ramp "C"	R&L	807.00					707.00	335										
Farm Lane Interchange																			
62+00.00	to 69+71.83 Ramp "A"	R&L	771.83					764.00	303										
61+75.00	to 70+05.72 Ramp "D"	R&L	884.00					820.00					20.5			1			
10+06.29	to 19+86.40 Farm Lane	R&L				905							106.0	90			2		
69+89.80	to 81+50.00 Ramp "C"		1212.00					1053.00	443										
69+53.63	to 79+82.00 Ramp "B"		1028.37					1027.63					28.0			1			
SR-150 Interchange																			
139+20.00	to 145+17.00 Ramp "A"	R&L	650.30					440.00	190										
140+10.00	to 145+30.00 Ramp "B"	R&L	572.00			23		462.00		30.0			33.0			1			
5+50.00	to 12+47.00 Ex. SR-7	℄				600													
138+18.00	to 142+57.90 Ramp "D"	R&L	495.00			23		382.00		30.0			33.0			1			
138+52.69	to 143+75.00 Ramp "C"	R&L	576.00					365.00	182										
South Bound Weigh Station																			
201+25.00	to 212+06.50 Ramp "A"	R&L	926.50					981.50	470										
212+86.50	to 217+45.50	R&L	459.00					459.00							1280				
217+45.50	to 222+95.00 Ramp "B"	R&L	410.50					549.50											
North Bound Weigh Station																			
199+13.00	to 204+87.50 Ramp "D"	R&L	435.50					574.50											
204+87.50	to 209+46.50	R&L	459.00					459.00							1280				
210+26.50	to 221+04.43 Ramp "C"	R&L	922.93					977.93	464										
50+00.00	to 53+13.00 SR-150	R&L	915.00			308	66						61.5			2*	2		
4+50.00	to 10+25.00 TR-109	℄		575.00															
45+22.25	to 52+47.11 Williams St. Reloc.	℄				725													
Service Road "A"																			
93+70.00	to 122+82.00	R&L	6136.00															2912	
122+82.00	to 129+53.00	R&L	1222.00			600													
129+53.00	to 137+15.00	R&L	1524.00															762	
137+15.00	to 144+00.00	R&L	987.00			600													
144+00.00	to 152+72.00	R&L	1799.00															862	
225+49.34	to 230+77.00 TR-155	℄				300													
231+75.00	to 242+50.00 TR-155	℄				300													
Connection Between SR-7 & TR-155			310.00			84							49.0						
TOTAL			73,781.36	48,351.44	14.25	5160	4622	55,486.49	2387	60	1694	139	353	170	2560	7	4	4536	950
TOTAL MI.			13.97	9.16		0.98		10.5										0.86	

A.E. STILSON & ASSOCIATES LIMITED
Quantities Calculated J.R.F. Mar. 1968
Quantities Checked D.L.B. Mar. 1968

ITEM 620 DELINEATORS

STATION FROM	STATION TO	Side	Interval L.F.	Post A Ea.	Post D Ea.	Bracket A Ea.	Bracket D Ea.
Public Rd. Interchange							
Ramp "B"							
10+25	25+25	L	100		16		
Ramp "C"							
10+75	28+75	R	100		19		
Farm La. Interchange							
Ramp "A"							
52+00	62+00	L	100		11		
62+00	63+60	L	80		2		
63+60	65+20	R	80		3		
65+20	69+20	L	100		5		
Ramp "B"							
70+40	88+40	L	100		19		
Ramp "C"							
70+70	79+70	R	100		10		
79+70	81+50	R	60		3		
81+50	91+50	R	100		6		4
Ramp "D"							
53+50	69+50	R	100		17		
SR 150 Interchange							
Ramp "A"							
129+25	139+25	L	100		9		2
139+25	139+95	L	70		1		
139+95	140+45	L	50		1		
140+45	143+15	R	30		10		
143+15	143+55	R	40		1		
Ramp "B"							
141+70		R	60		1		
142+30		R	40		1		
142+70	143+60	R	30		4		
144+00		R	40		1		
144+60		R	60		1		
145+30		R	70		1		
145+30	148+50	L	80		5		
148+50	151+50	L	100		3		
Ramp "C"							
140+15	142+55	L	30		9		
142+55		R	50		1		
143+05		R	70		1		
143+75	153+75	R	100		9		2
Ramp "D"							
132+00	136+00	R	100		5		
136+00	137+60	R	80		2		
138+90		R&L	70		2		
138+90		L	60		1		
139+40		L	50		1		
139+80		L	40		1		
140+10	141+00	L	30		4		
Weigh Stations							
Ramp "A"							
191+25	210+25	L	100		20		
Ramp "B"							
219+25	231+25	L	100		13		
Ramp "C"							
212+00	216+00	R	100		5		
215+95	218+95	L	100		4		
219+00	231+00	R	100		13		
Ramp "D"							
190+75	202+75	R	100		13		

* WORD "ONLY" EA. 2

FED. RD. DIVISION	STATE	PROJECT	
2	OHIO		

380
560

JEFFERSON COUNTY
JEF-7-0.20

ITEM 620 DELINEATORS

STATION FROM	STATION TO	Side	Interval L.F.	Post A Ea.	Post D Ea.	Bracket A Ea.	Bracket D Ea.	Interim Delineators as per plan Ea.
South Bound S.R.7								
10+75	16+75	L	200	4				
18+00	25+50							6
27+00	51+00	L	200	12		1		
64+00	78+00	L	200	7		1		
79+93		L		1				
90+00	128+00	L	200	15		5		
141+00	145+00	L	200	3				
153+50	189+50	L	200	18		1		
204+00	222+00	L	200	10				
233+00	243+00	L	200	6				
North Bound S.R.7								
11+00	17+00	R	200	4				
30+00	52+00	R	200	11		1		
62+00	80+00	R	200	9		1		
93+00	131+00	R	200	17		3		
139+00	141+00	R	200	2				
142+73				1				
153+75	189+75	R	200	18				
200+00	218+00	R	200	10				
233+00	243+00	R	200	6				
TOTAL				154	254	13	8	6

A.E. STILSON & ASSOC.
Quantities Calculated J.R.F. 4-74
Quantities Checked D.L.B. 4-74

SUB - SUMMARY

A. E. STILSON & ASSOCIATES LIMITED
DES. DEL Oct. 1968
CHK. RM Nov. 1968

FED. RD. DIVISION	STATE	PROJECT	
2	OHIO		

381
560

JEFFERSON COUNTY
JEFF-7-0.20

Reference No.	STEEL DRIVE POSTS 816								816					815				202
	ONE POST				TWO POSTS		THREE POST		STRUCTURAL SUPPORT TWO POST			Break away Connection	Conc. Type "C"	Flat Sheet Signs	Extrusheet Signs	Interim Covering for Signs Variable Sign Message Unit as per plan		Removal of Ex. Sign
	4" Post	6" Beam	4" Post As Plan 6" Beam As Per Plan		4" Post	6" Beam		6" Beam	10 WF 21									
	L.F.	L.F.	L.F.	L.F.	L.F.	L.F.		L.F.	L.F.			Each	C.Y.	S.F.	S.F.	S.F.	Each	Lump
1.						30.									18.			
2.						32.									30.			
3.									44.			2.	2.5.		91.			
4.						30.									21.			
5.									44.			2.	2.5.		91.			
6.		16.												18				
7.	15.													9.4				
8.						33.									24.			
9.									48.						91.			
10.									50.						91.			
11.		16.												18				
12.						30.									18.			
13.						32.									30.			
14.									45.						91.			
15.						32.									27.			
16.									47.						91.			
17.						33.									30.			
18.						30.									18.			
19.		15.												18				
20.	15.													9.4				
21.						31.									18.			
22.		19												21.				
23.									40						56.			
24.		19												21.				
25.						30.								18.				
26.	14.													9.4				
27.		15.												18				
28.						33.									30.			
29.						31.									18.			
30.									40						56.			
31.									50						96.			
32.	15													12				
33.	15													12				
34.									40						56			
35.						33.									30			
36.		15.												18				
37.						30.								18.				
38.						30.									24.			
39.	15													9.4				
40.		16												21.		3		
41.						33.									24.		24.	
42.		19												21.		3		
43		15.												18				
44.						30.									24.		24	
45.						31.									32		32	1
46	15													12				
47.						30.									18		18	
48	30													12				
49.						31.									24.		24	
50.						31.									18.		18	
51.						33.									32.		32	1
52.						30.									24.		24	
53.		14.												16				
54.		14.												18				
55.					27.										10.5			
56.		15.												25				
57.				15										15				
58.						27.									20		7.5	
59.	17.													6				
60.	17.													6				
61.						27.									20		7.5	
63.		16.													17.5			
64.		15.												25				
65.				15										12				

Reference No.	STEEL DRIVE POST 816							816			815				202
	ONE POST				TWO POSTS		THREE POST	STRUCTURAL SUPPORT TWO POSTS		Break away Connection	Conc. Type "C"	Flat Sheet Signs	Extrusheet Signs	Interim Covering for Signs Variable Sign Message Unit as per plan	Removal of Ex. Sign
	4" Post	6" Beam	4" Post As Per Plan 6" Beam As Per Plan		4" Post	6" Beam	6" Beam	10 WF 21							
	L.F.	L.F.	L.F.	L.F.	L.F.	L.F.	L.F.	L.F.		Each	C.Y.	S.F.	S.F.	S.F. Each	Lump
66.						27.							20		
67.		14.										9			
68.		16.											17.5		
69.				15								15			
70.		15.										18			
71.		16.											17.5		
72.	14.											7			
73.		14.										9			
74.		14.										9			
75.	14.											7			
76.		14.										9			
77.		14.										8			
78.		14.										8			
79.		14.										8			
80.		14.										8			
81.		16.											17.5		
82.	5.5					26.						6	16		
83.		16.											17.5		
84.			15									12			
85.		14.										9			
86.		14.										9			
87.			15									12			
88.		16.											17.5		
89.		16											17.5		
90.						26.						6	16		
91.		14.										9			
92.		16.											17.5		
93.	14											7			
94.	6.5					26.						8	12		
95.					26.								12		
96.	6.5					26.						8	12		
97.		14.										9			
98.	6.5					26.						8	12		
99.	6.5					24.						8	6		
103.		14										17.5			
104.		14										9			
105.		14										9			
106.	13.	14										16			
107.	13.											8			
108	30											12			
General Notes														30	
A.		16.										16			
B.		15.										20			
C.	10.											9			
D.	10.											9			
E.	10.											9			
F.	10.											9			
G.	10.											9			
H.	10.											9			
I.	10.											9			
J.	14.											7.5			
K.													91.		
L.							52.						48.		
M.							49.						48.		
1 thru 13 R.															Lump (13)
TOTAL	382	621	30	45	53	984		101		448	4	5.0	841	1826	X 241 2 Lump

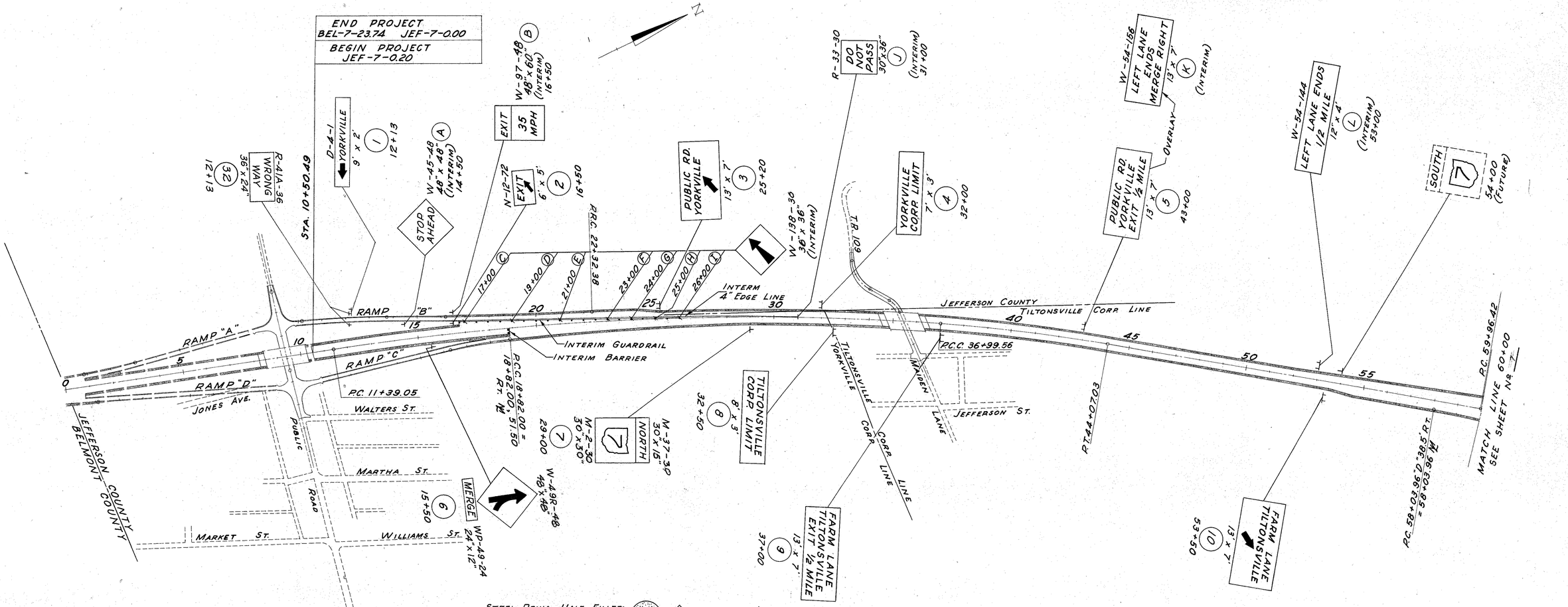
A. E. STILSON & ASSOC.
Quantities Calculated J.R.F. 4-74
Quantities Checked D.L.B. 4-74

SUB - SUMMARY

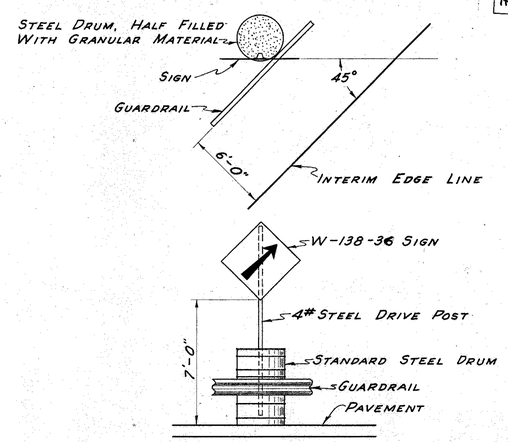
FED. RD. DIVISION	STATE	PROJECT	
2	OHIO		

382
560

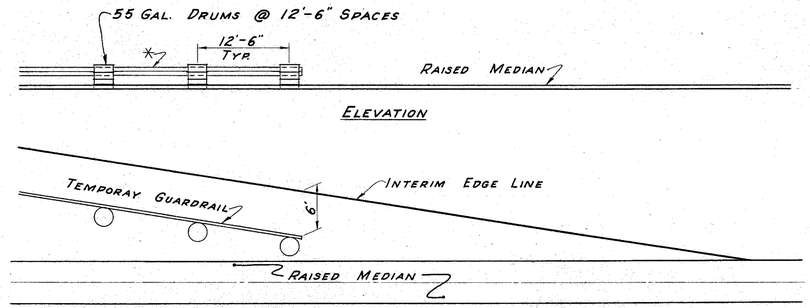
JEFFERSON COUNTY
JEF. -7-0.20



ITEM 620 INTERIM MONO-DIRECTIONAL DELINEATORS, AS PER PLAN. THE DELINEATORS SHALL BE SPACED APPROXIMATELY MIDWAY BETWEEN SIGNS ON BARRELS. A QUANTITY OF 6 ARE NEEDED.



SIGN ATTACHMENT TO TEMPORARY GUARDRAIL



* - SEE ITEM 606 TEMPORARY GUARDRAIL

INTERIM EDGE LINE & TEMPORARY GUARDRAIL DETAIL

SIGN LOCATION 0+00 to 60+00

FED. RD. DIVISION	STATE	PROJECT	
2	OHIO		

383
560

JEFFERSON COUNTY
JEF. -7-0.20

SEE SHEET No. 1
MATCH LINE 60+00

SEE SHEET No. 2
MATCH LINE 120+00

W-49R-48
48"x48"

WP-49-24
24"x12"

MERGE

(11)
66+00

W-55-144
ENDS
EXPRESSWAY
1 MILE
12"x4"
(M)
(INTERIM)
71+00

R-41A-36
WRONG
WAY
36"x24"
(47)
72+30
RAMP "B"

TILTONSVILLE
9' x 2'
(12)
72+30 RAMP "B"

D-4-1

N-12-72
EXIT
6' x 5'
(13)
79+70 RAMP "B"

PCC 85+60.08 @ 38.5° Lt.
= 85+60.08 M

FARM LANE
TILTONSVILLE
13' x 7'
(14)
88+40.68

TILTONSVILLE
CORP. LIMIT
9' x 3'
(15)
97+00

FARM LANE
TILTONSVILLE
EXIT 1/2 MILE
13' x 7'
(16)
107+25

RAYLAND
EXIT 1/2 MILE
8' x 7'
(23)
111+50

(150)

PCC 62+00.00 N, 5.5° Lt.

RAMP "A"

RAMP "B"

RAMP "C"

RAMP "D"

RAMP "B"

SERVICE RD. "B"

SERVICE ROAD "A"

WILLIAMS ST.

WILLIAMS ST. RELOC.

MAIN ST.

KINKUS ST.

MAPLE ST.

Ex. S.R. 7

WALDEN ST.

FARM LANE RELOC.

W & L.E. RR.

PENN. RR.

BUCKEYE ST.

T.S. 76+40.68

S.C. 80+84.98

PCC 81+55.00, 15.5° Lt. "C"

C.S. 87+59.09

S.T. 91+59.09

T.S. 97+71.80

S.C. 101+71.80

S.C. 108+12.75

S.T. 112+12.75

RAYLAND COBB LINE
TILTONSVILLE CORP. LINE

(17)
62+00
N-12-72
EXIT
6' x 5'
RAMP "D"

(18)
69+10
TILTONSVILLE
9' x 2'
RAMP "D"

(19)
78+10
MERGE
WP-49-24
24" x 12"

W-49R-48
48" x 48"

R-41A-36
WRONG
WAY
36"x24"
(33)
67+10 RAMP "D"

(20)
87+00
M-37-30
30"x30"

NORTH

M-37-30
30"x18"

(21)
96+75
RAYLAND
CORP. LIMIT
6' x 3'

(22)
102+00
R-16A-36
36"x36"

TRUCKS
50
SPEED
LIMIT
60
ONE WAY

R-10-36
36"x48"

55

SIGN LOCATION 60+00 to 120+00

FED. RD. DIVISION	STATE	PROJECT	
2	OHIO		

384
560

JEFFERSON COUNTY
JEF.-7-0.20

N

MATCH LINE 120+00
SEE SHEET No. 7

MATCH LINE 180+00
SEE SHEET No. 9

S.R. 150

S.R. 150 Ext.

W. & L.E. R.R.

SHORT CREEK

RAYLAND CORP. LINE

Ex. S.R. 7

RAMP "A"

RAMP "B"

RAMP "C"

RAMP "D"

SERVICE ROAD "A"

SHORT CREEK CHANNEL RELOC.

RAYLAND CORP LINE

P.C. 120+43.17

P.T. 132+48.87

P.C. 142+33.64

P.T. 142+74.28

P.C. 155+52.80

P.T. 175+67.66

R-10-36
36"x48"
SPEED LIMIT 60
TRUCKS 50
Overlay 55
(24) 125+00

N-1-40
RAYLAND CORP. LIMIT
6'x3'
(25) 13+40 ℄ Ex. S.R. 7

M-38-30
30"x15"
SOUTH 7
M-2-30
30"x30"
(26) 131+50

R-41A-36
36"x24"
WRONG WAY
(00) 142+95.5

W-49R-48
48"x48"

WP-49-24
24"x12"
MERGE
(27) 141+50

N-12-72
6'x5'
EXIT
(28) 145+20

RAYLAND CORP LIMIT
6'x3'
(29) 148+50

150
RAYLAND
7'x8'
(30) 151+40

150
RAYLAND
EXIT ½ MILE
12"x8"
(31) 172+00

M-37-30
30"x16"
NORTH 7
M-2-30
30"x30"
(39) 155+00

NORTH 7 SOUTH
RAYLAND
TILTONSVILLE
D-2-72
6'x2'
D-1-72
6'x1'
D-1-72
6'x1'
(38) 57+40 ℄ Ex. S.R.-7

R-10-36
36"x48"
SPEED LIMIT 60
TRUCKS 50
Overlay 55
R-16-36
36"x36"
(40) 165+00

WEIGH STATION
½ MILE
6'x4'
(41) 175+00

W.S.-1-72

150
RAYLAND
7'x8'
(34) 132+00

N-12-72
6'x5'
EXIT
(35) 138+25

MERGE
WP-49-24
24"x12"
(36) 141+50

W-49R-48
48"x48"

N-1-40
RAYLAND CORP. LIMIT
6'x3'
(37) 138+50

R-41A-36
WRONG WAY
36"x24"
(48) 139+72.5

LEGEND
▨ INTERIM COVERING FOR SIGNS

SIGN LOCATION 120+00 to 180+00

FED. RD. DIVISION	STATE	PROJECT	
2	OHIO		

385
560

JEFFERSON COUNTY
JEF-7-0.20

SEE SHEET No. 8
MATCH LINE 180+00

R-10-36
36"x48"
SPEED LIMIT 60
Overlay 55
TRUCKS 50
R-16-36
36"x36"
(42) 181+00

R-103-22
ALL TRUCKS ENTER WEIGH STATION
6' x 3'
(50) 181+75

WS-3-96
WEIGH STATION CLOSED
8' x 4'
(51) 190+75

WS-4-72
WEIGH STATION
6' x 4'
(52) 196+25

W-49R-48
48"x48"
WP-49-24
24"x12"
MERGE
(43) 206+50

W-26-48
48"x48"
(53) 215+00

W-49R-48
48"x48"
WP-49-24
24"x12"
MERGE
(54) 218+00

WS-4-72
WEIGH STATION
6' x 4'
(44) 222+75

WS-3-96
WEIGH STATION CLOSED
8' x 4'
(45) 231+75

R-103-72
ALL TRUCKS ENTER WEIGH STATION
6' x 3'
(47) 240+25

WS-1-72
WEIGH STATION 1/2 MILE
6' x 4'
(49) 290+00 Lt. on Adjoining Project

D-12-84
TWP RD. 155
7' x 1.5'
(55) 227+00

P.C. 201+25.00 "A"
=201+25.00, 57.0° Lt. N

P.C. 194+55.19 "A"
=194+55.19 N

P.T. 227+65.35=
227+61.13 N 44.0° Rt.

P.T. 221+04.43 "B"
=221+00.00, 57.0° Rt. N

S.C. 229+86.13

C.S. 241+40.55

S.T. 264+33.34

(8-R) 270+00 Lt.

(9-R) 275+00 Lt.

185 190 195 200 205 210 215 220 225 230 235 240

RAMP "A"
RAMP "B"
S.B. WEIGH STATION
N.B. WEIGH STATION
RAMP "A"
RAMP "B"

(7-R) 265
(6-R) 235 RELOC.
Ex. S.R. 7
(5-R) 235
T.R. 155
(4-R) 230
(3-R) 230A
(2-R) 230
(1-R)

OHIO RIVER

END PROJECT
STA. 244+38.46
STA. EQUA. 244+38.46 BACK =
264+31.25 AHEAD

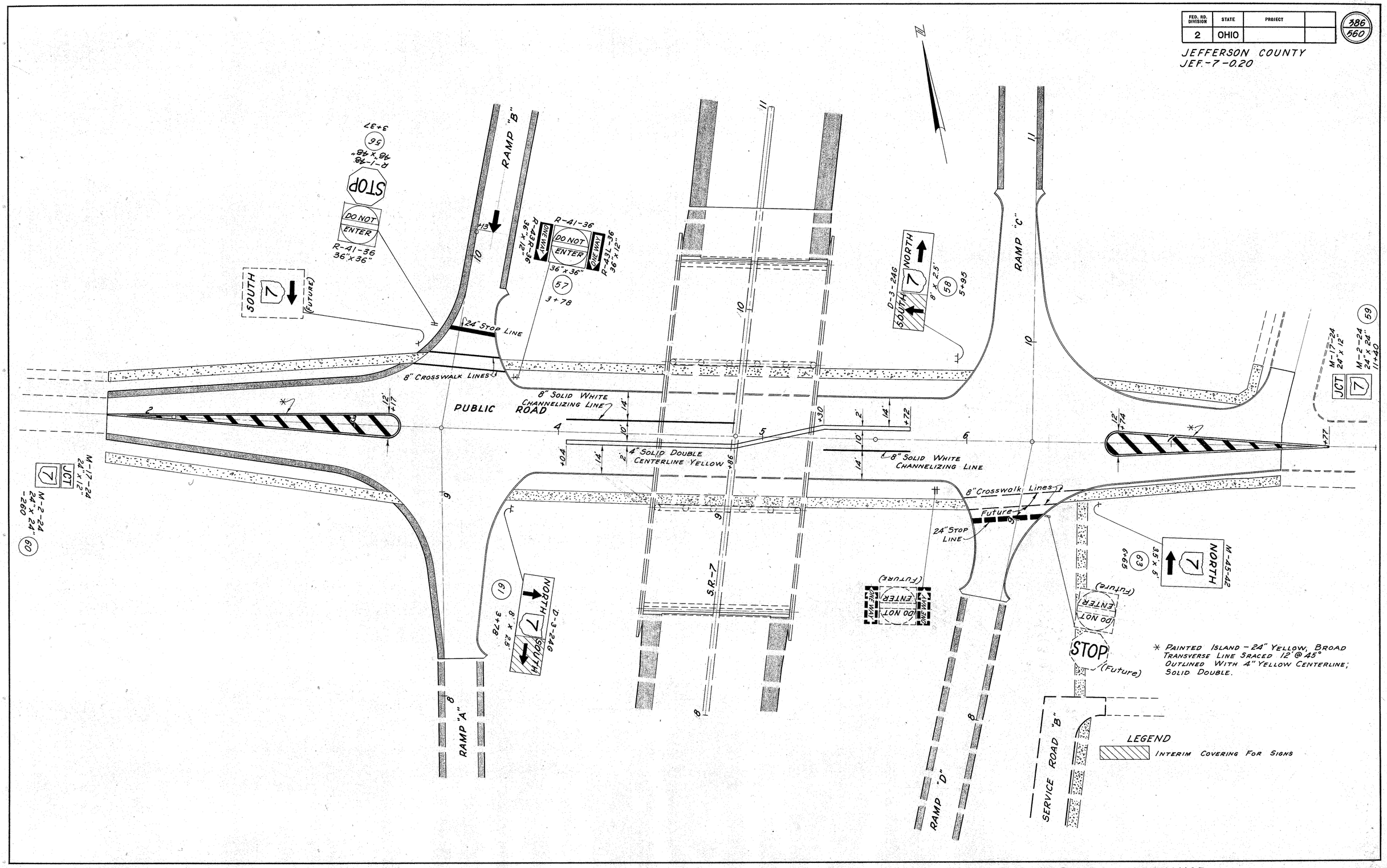
LEGEND
INTERIM COVERING FOR SIGNS

SIGN LOCATION 180+00 to 244+38.46

FED. RD. DIVISION	STATE	PROJECT	
2	OHIO		

386
560

JEFFERSON COUNTY
JEF.-7-0.20

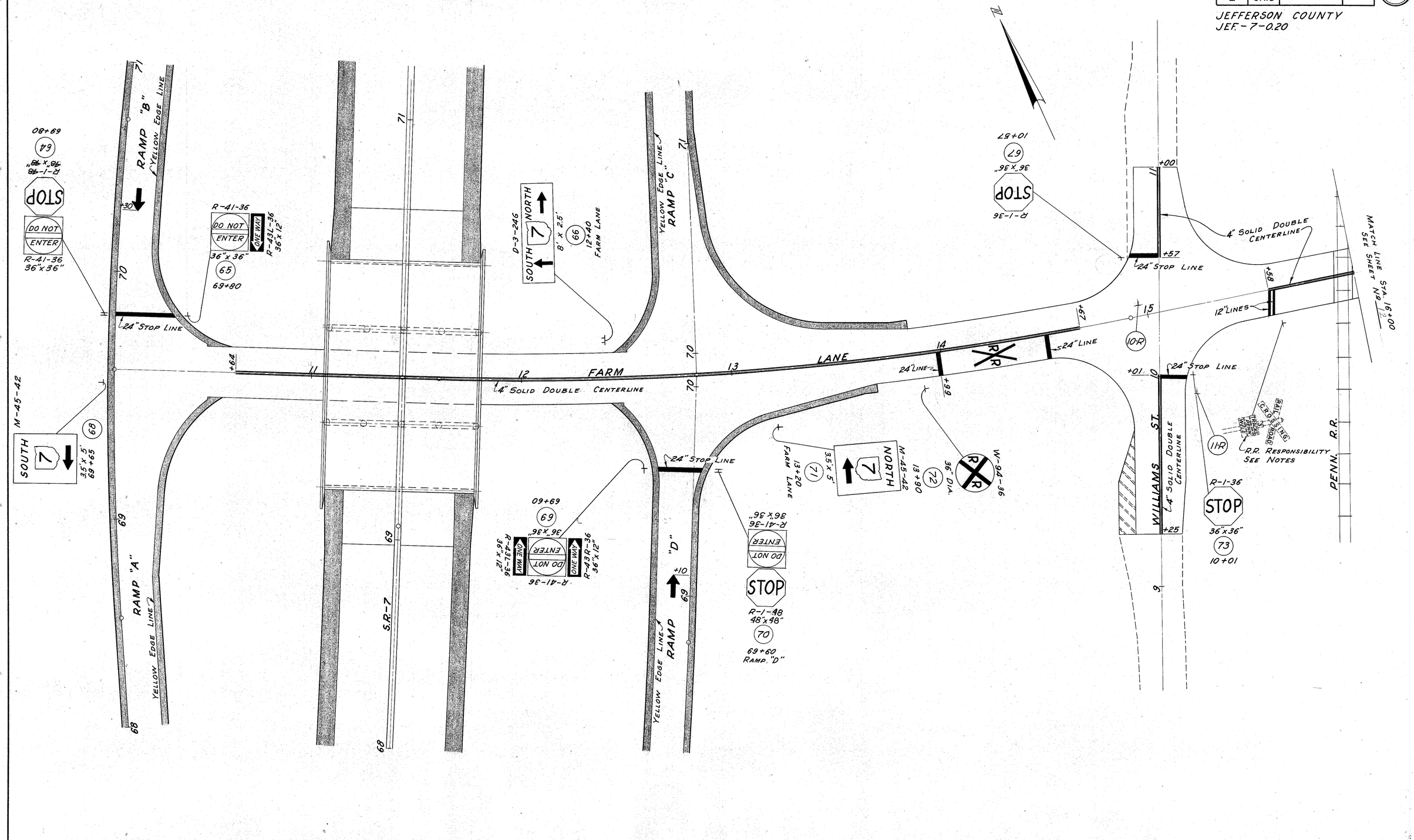


PUBLIC ROAD INTERCHANGE

FED. RD. DIVISION	STATE	PROJECT	
2	OHIO		

387
560

JEFFERSON COUNTY
JEF.-7-0.20

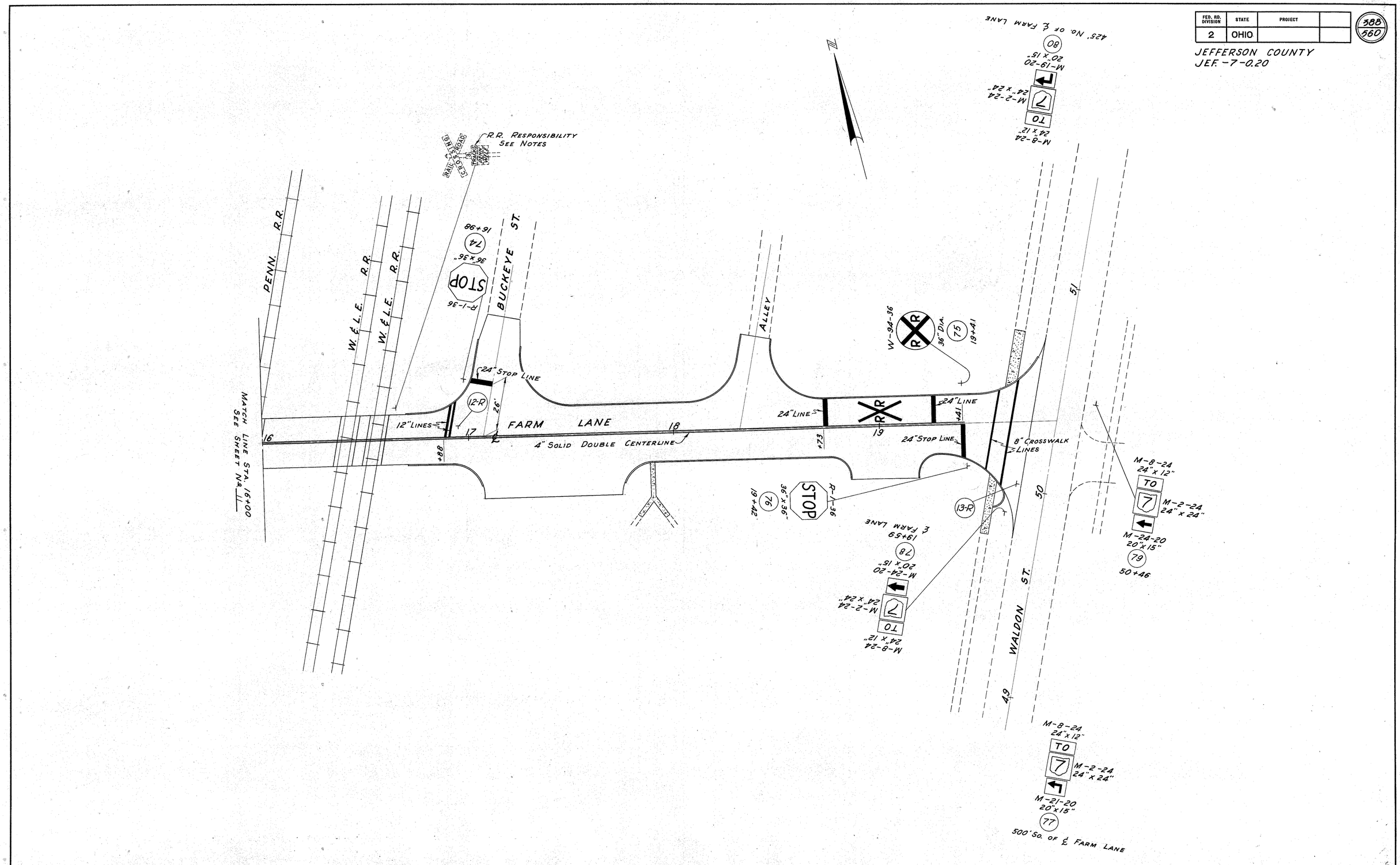


FARM LANE INTERCHANGE

FED. RD. DIVISION	STATE	PROJECT	
2	OHIO		

388
560

JEFFERSON COUNTY
JEF.-7-0.20

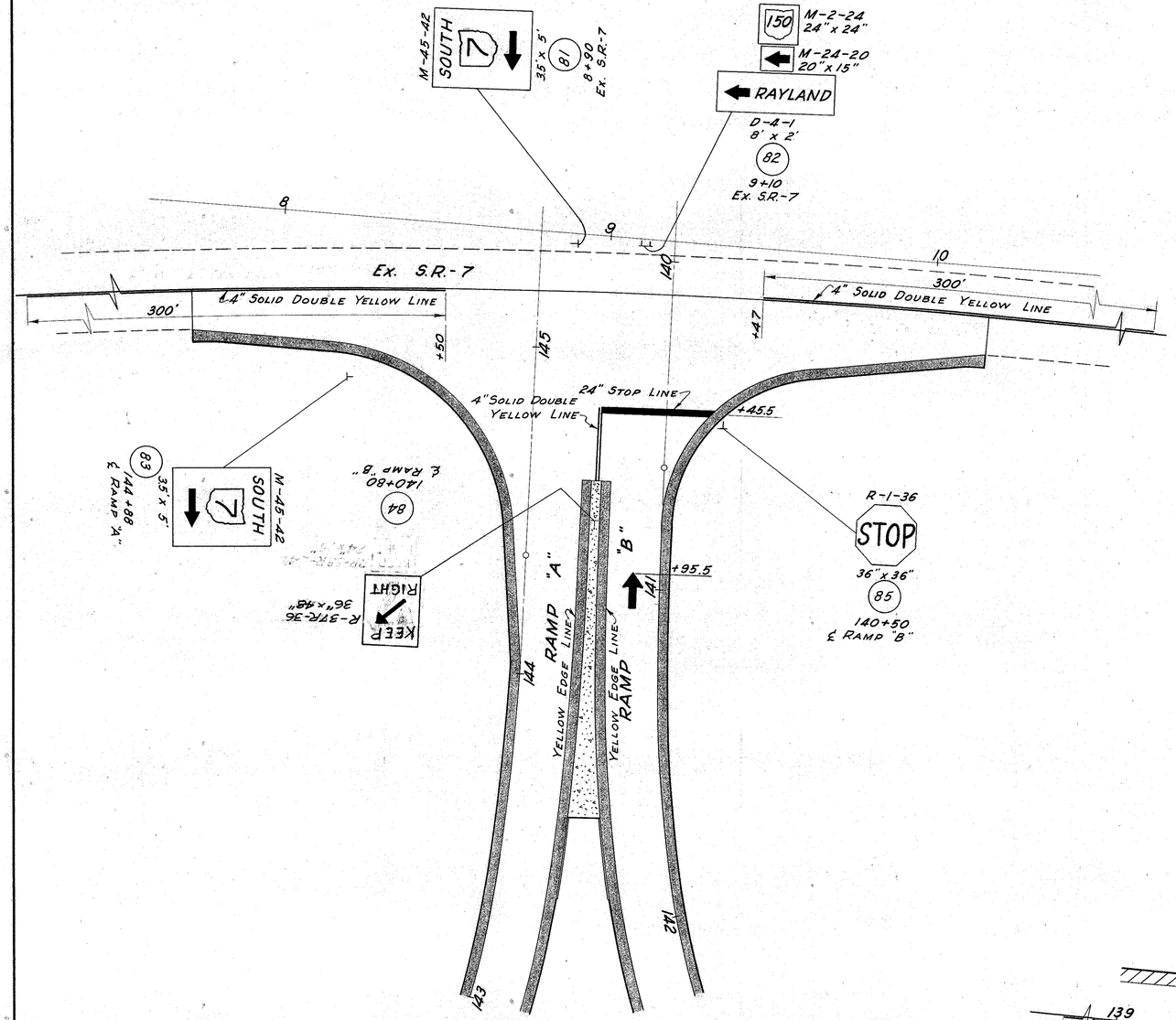


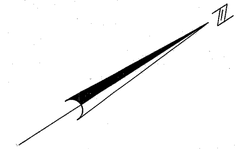
FARM LANE

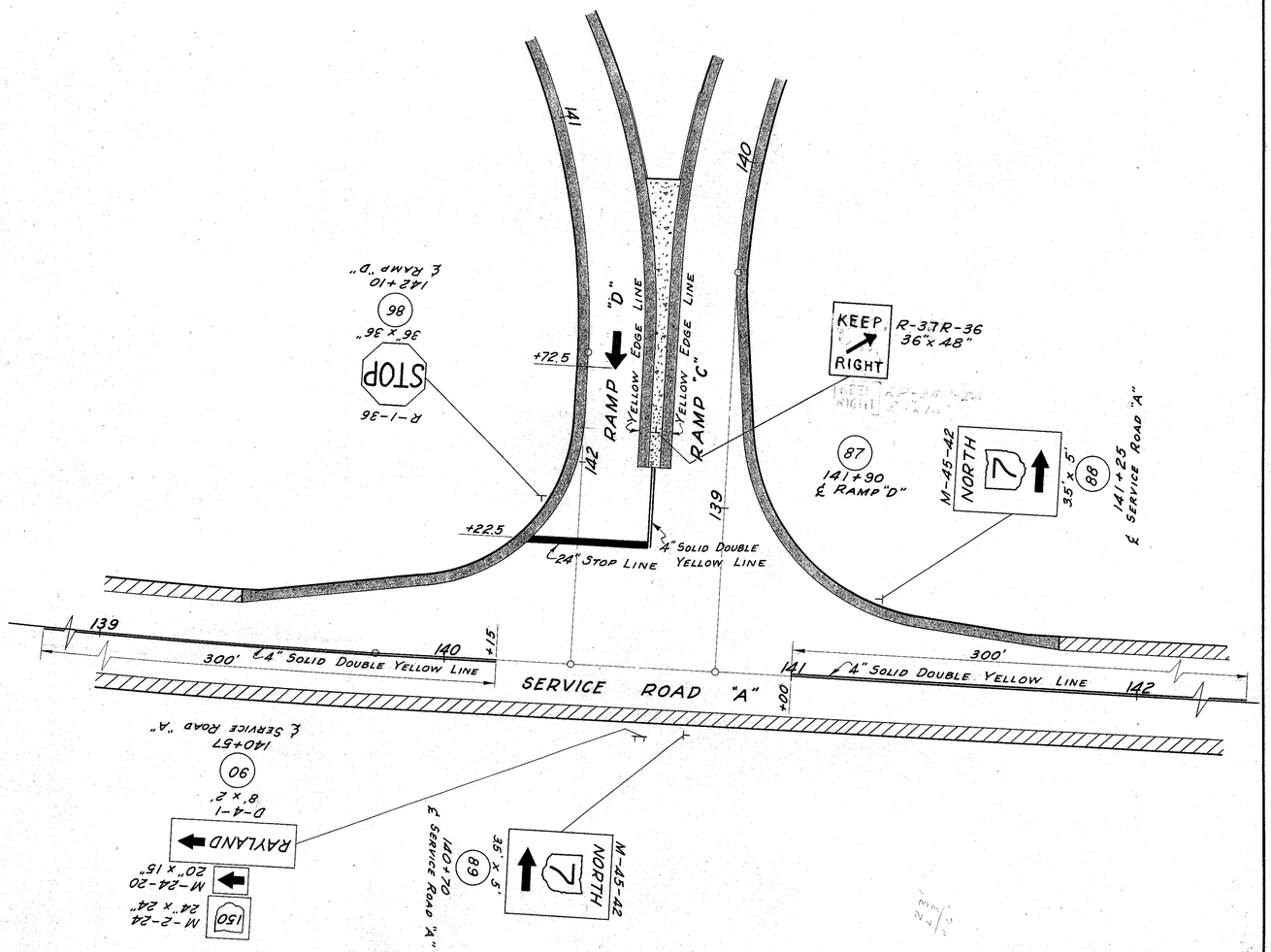
FED. RD. DIVISION	STATE	PROJECT	
2	OHIO		

389
560

JEFFERSON COUNTY
JEF.-7-0.20





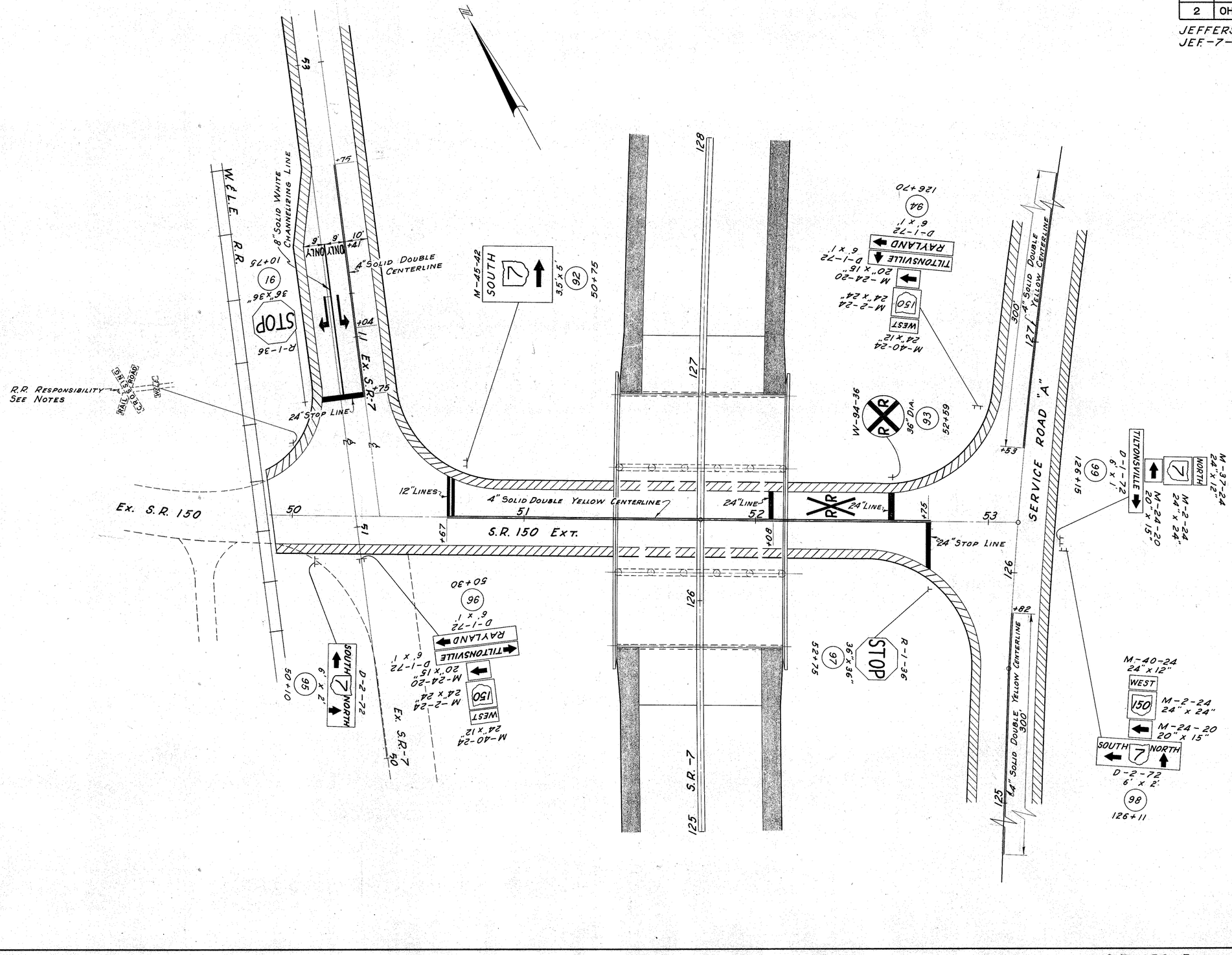


S.R. 150 INTERCHANGE

FED. RD. DIVISION	STATE	PROJECT	
2	OHIO		

390
560

JEFFERSON COUNTY
JEF.-7-0.20

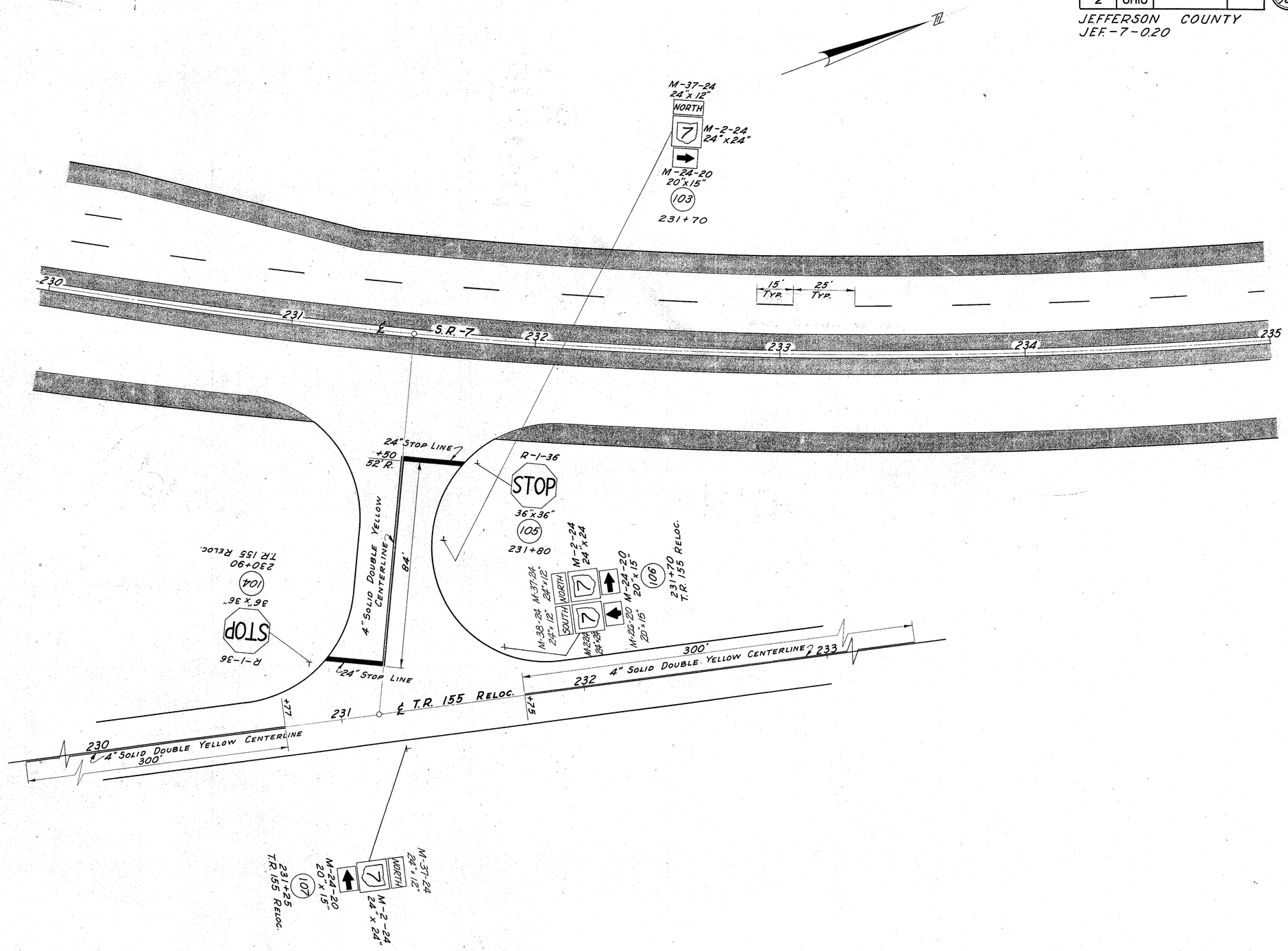


S.R. 150 EXT.

FED. RD. DIVISION	STATE	PROJECT	
2	OHIO		

391
560

JEFFERSON COUNTY
JEF.-7-0.20

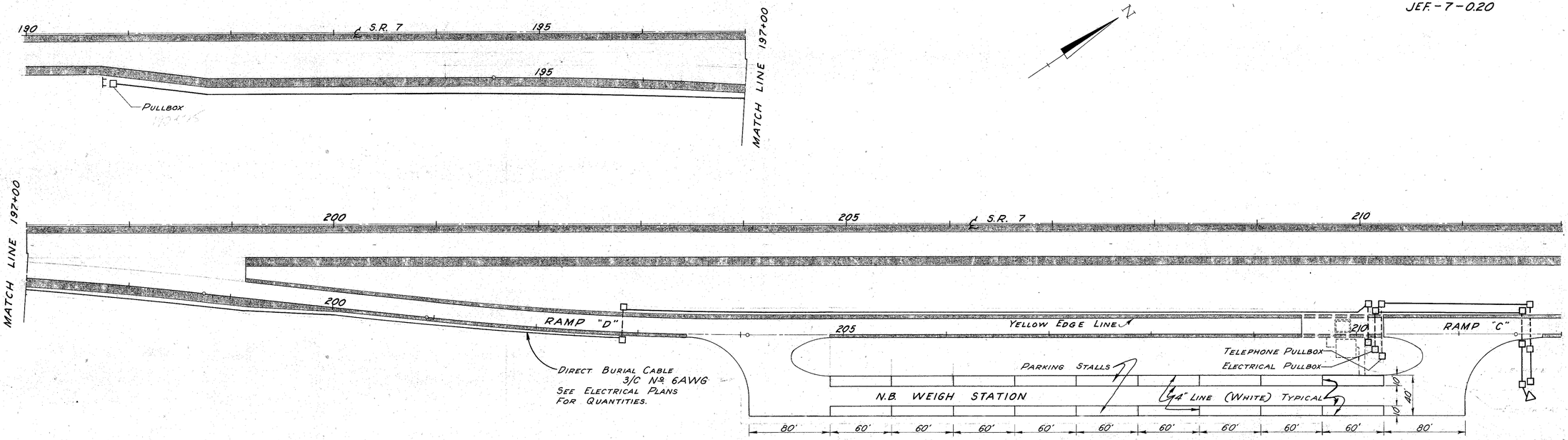


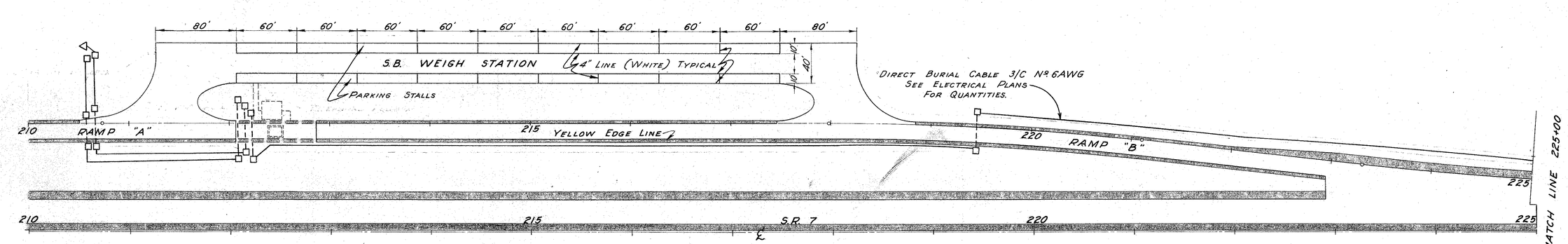
T.R. 155 CONNECTION

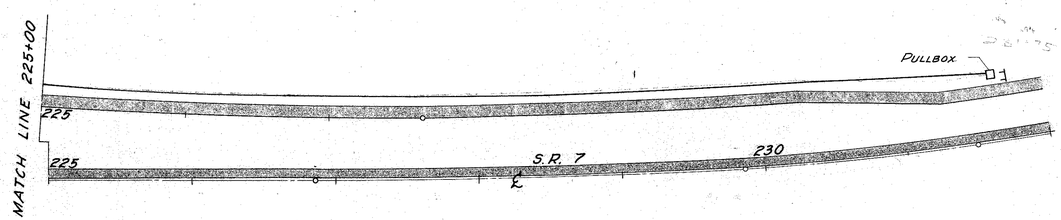
FED. RD. DIVISION	STATE	PROJECT	
2	OHIO		

392
560

JEFFERSON COUNTY
JEF.-7-0.20







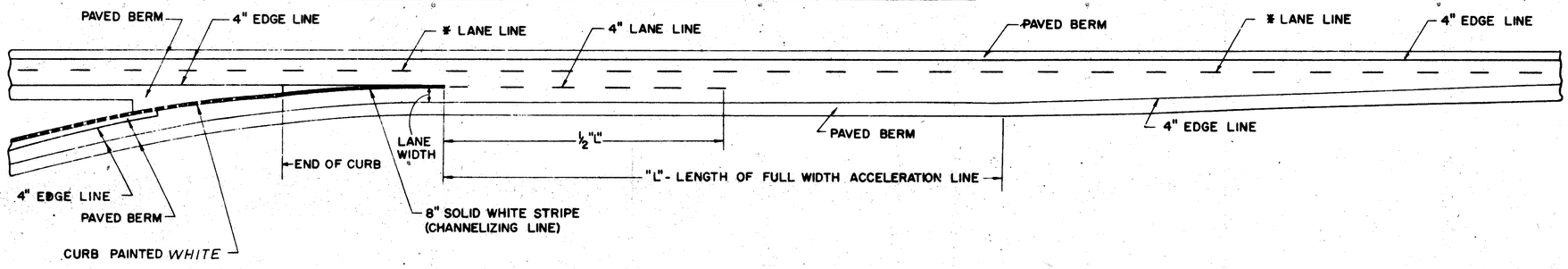
WEIGH STATION TRAFFIC CONTROL

FED. RD. DIVISION	STATE	PROJECT	
2	OHIO		

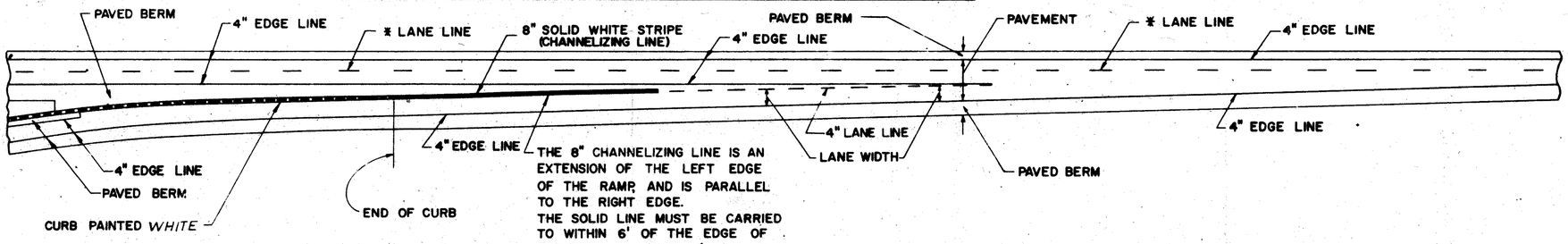
393
560

JEFFERSON COUNTY
JEF-7-0.20

ENTRANCE TERMINAL - PARALLEL ACCELERATION LANE

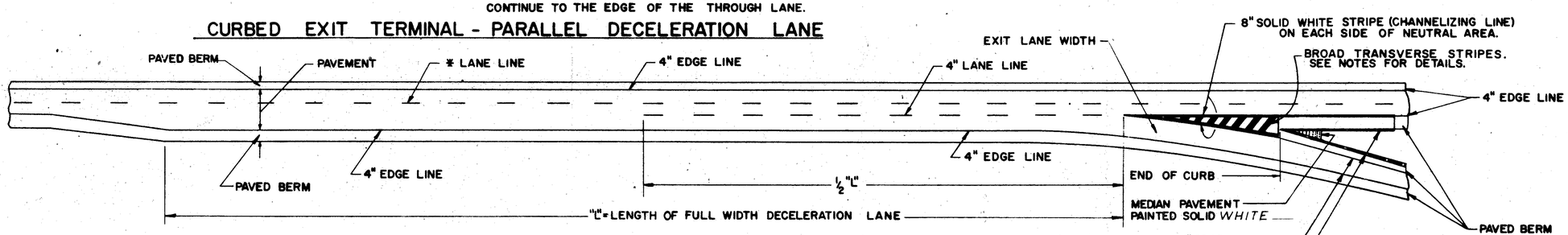


ENTRANCE TERMINAL - TAPERED ACCELERATION LANE

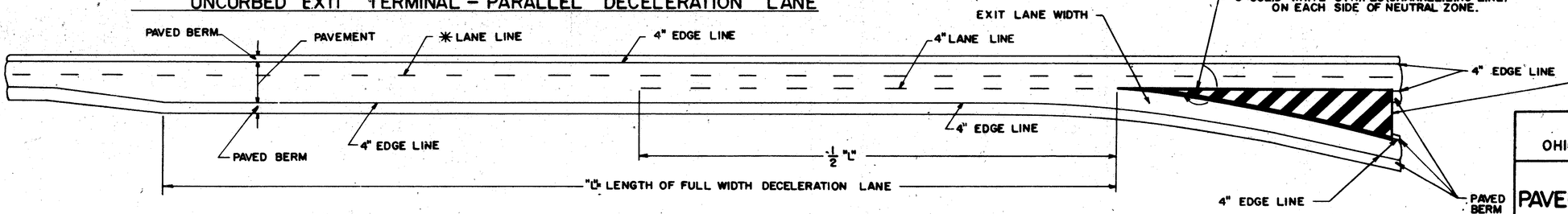


THE 8" CHANNELIZING LINE IS AN EXTENSION OF THE LEFT EDGE OF THE RAMP, AND IS PARALLEL TO THE RIGHT EDGE. THE SOLID LINE MUST BE CARRIED TO WITHIN 6' OF THE EDGE OF THE THROUGH LANE, OR TO THE END OF THE RAMP CURVE IF CLOSER. THE 4" DASHED LINE SHOULD CONTINUE TO THE EDGE OF THE THROUGH LANE.

CURBED EXIT TERMINAL - PARALLEL DECELERATION LANE



UNCURBED EXIT TERMINAL - PARALLEL DECELERATION LANE



NOTES

DIAGONAL STRIPES AT EXIT RAMPS SHALL BE 24" BROAD TRANSVERSE STRIPES, 62I.II, WITH A 6' SPACE BETWEEN STRIPES.

* 6" LANE LINE ON INTERSTATE HIGHWAYS ONLY.
4" LANE LINE ON ALL OTHER HIGHWAYS.

BUREAU OF TRAFFIC
OHIO DEPARTMENT OF HIGHWAYS

PAVEMENT MARKING 621

DATE
7-17-61
4-6-62
5-24-65
9-2?-67
4-17-69
1-11-72

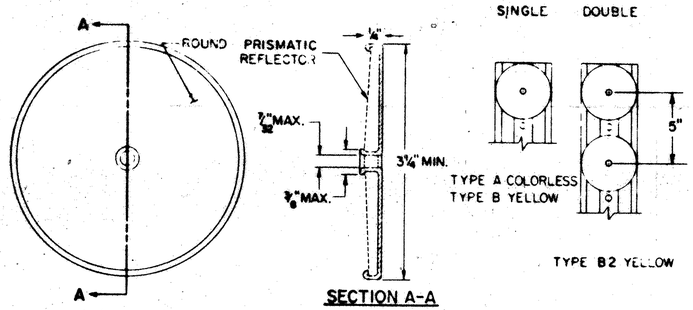
APPROVED Robert E. Lower
ENGINEER OF TRAFFIC

FHWA REGION	STATE	PROJECT	
5	OHIO		

394/560

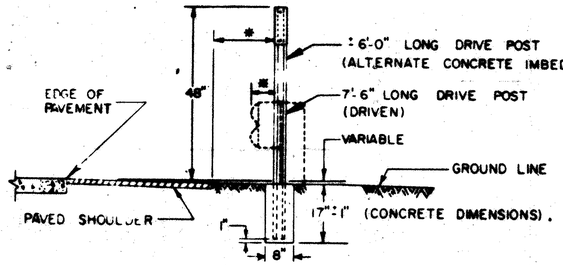
JEFFERSON COUNTY
JEF-7-0.20

ROUND DELINEATORS



SECTION A-A

RECTANGULAR SHEET DELINEATORS



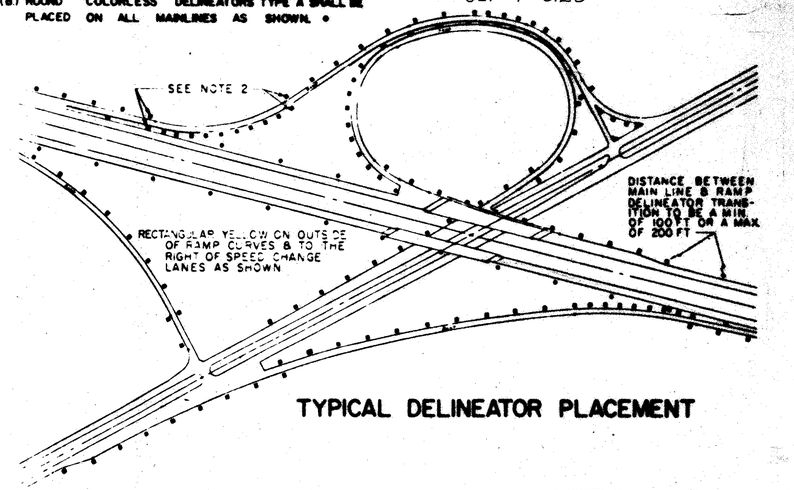
LATERAL PLACEMENT OF DELINEATORS

* DELINEATORS SHALL BE 6" BEHIND FACE OF TYPICAL GUARDRAIL LOCATION BUT WITH A MINIMUM DISTANCE OF 2'6" FROM EDGE OF PAVED SHOULDER WHERE GUARDRAIL IS NOT PRESENT.

NOTE:

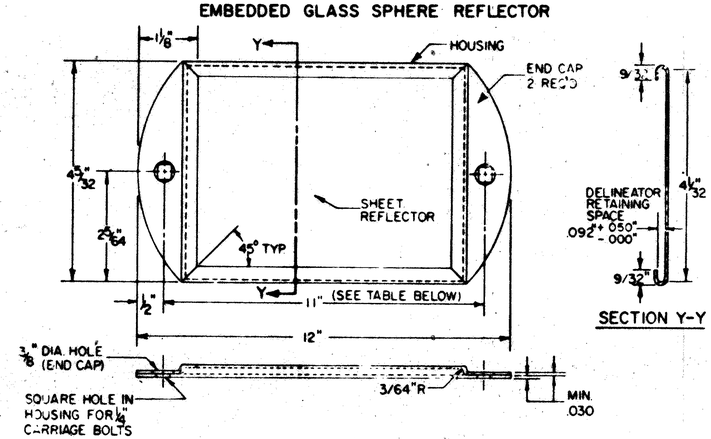
(A) RECTANGULAR YELLOW DELINEATORS TYPE D SHALL BE PLACED ON ALL RAMPS AS SHOWN. *

(B) ROUND COLORLESS DELINEATORS TYPE A SHALL BE PLACED ON ALL MAINLINES AS SHOWN. *



TYPICAL DELINEATOR PLACEMENT

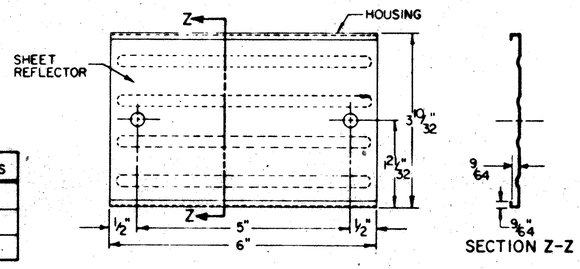
EMBEDDED GLASS SPHERE REFLECTOR



SECTION Y-Y

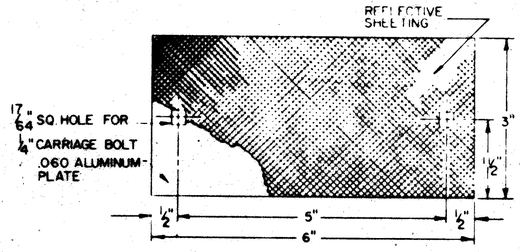
ACRYLIC PLASTIC PRISMATIC REFLECTOR

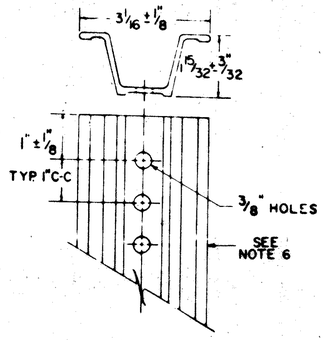
RECTANGULAR TYPES
C- COLORLESS
D- YELLOW
E- RED



SECTION Z-Z

REFLECTIVE SHEETING REFLECTOR





2 LB./FT. DELINEATOR DRIVE POST



TAMPER RESISTANT FASTENERS SHALL BE USED TO FASTEN DELINEATORS TO POST AS/OR SIMILAR TO ONE SHOWN ABOVE.

TAMPER RESISTANT FASTNERS

DELINEATOR SPACING ON RAMP HORIZONTAL CURVES

RADII, FT. FROM	RADII, FT. TO	SPACING ON CURVE	* TRANSITION SPACING	
TANGENT	1,801	100'	100'	100'
1,800	1,401	80'	100'	100'
1,400	1,001	70'	100'	100'
1,000	751	60'	100'	100'
750	551	50'	80'	100'
550	326	40'	70'	100'
325	——	30'	60'	100'

* SUCH AS 40' TO 70' TO 100' OR 100' TO 80' TO 50' OR ANY OTHER COMBINATION SHOWN ABOVE.

NOTES

1. TYPE A DELINEATORS ON THE RIGHT OF THE THROUGH ROADWAY ARE TO BE SPACED AT 200 FT. INTERVALS THROUGHOUT, REGARDLESS OF CURVES.

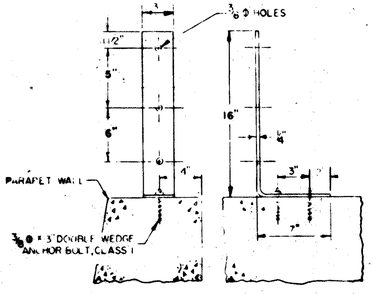
2. WHEN CROSSING FROM LEFT TO RIGHT OR FROM RIGHT TO LEFT ON THE RAMPS THE DELINEATORS AT THE POINT OF CROSSOVER ARE TO BE AT THE SAME STATION ON EACH SIDE.

3. NO DELINEATORS ARE TO BE PLACED IN PAVED BERM

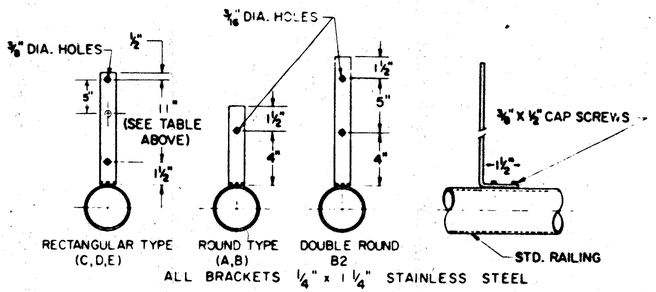
4. WHEN RADII OF CURVE ON RAMPS REQUIRE 100' SPACING THE DELINEATORS SHALL BE PLACED ON THE RIGHT IN RELATION TO THE FLOW OF TRAFFIC.

5. IN ADDITION TO MATERIALS LISTED IN 620.02, RECTANGULAR SHEET REFLECTORS MAY CONSIST OF REFLECTIVE SHEETING COMPOSED OF GLASS SPHERES IMBEDDED IN A WEATHER PROOF SYNTHETIC RESIN SHEET, THE REFLECTIVE FACE OF WHICH SHALL BE PLACED BEHIND AND SEALED TO A WEATHERPROOF RIGID PLASTIC FACE OF METHYL METHACRYLATE OF 0.060 INCHES MINIMUM THICKNESS.

6. SUPPLEMENTING THE DRIVE POST DETAILS SHOWN, ALTERNATE POST SECTIONS MAY BE FURNISHED. ANY ALTERNATE SECTION FURNISHED SHALL MEET ALL THE MATERIAL REQUIREMENTS OF 620, HAVE A SHAPE APPROXIMATELY AS DETAILED, AND HAVE A MOMENT OF INERTIA EQUAL TO OR GREATER THAN THE SECTION DETAILED. THE REQUIREMENTS OF 712.20 REALTIVE TO MAXIMUM WEIGHT TOLERANCE ARE HEREBY WAIVED. NO ALTERNATE SECTION FURNISHED SHALL EXCEED THE WEIGHT OF THE CORRESPONDING SECTION BY MORE THAN 10 PERCENT.



BRIDGE PARAPET BRACKET



BRIDGE RAIL BRACKET

BUREAU OF DESIGN SERVICES
DIVISION OF HIGHWAYS
OHIO DEPARTMENT OF TRANSPORTATION

DELINEATOR DETAILS

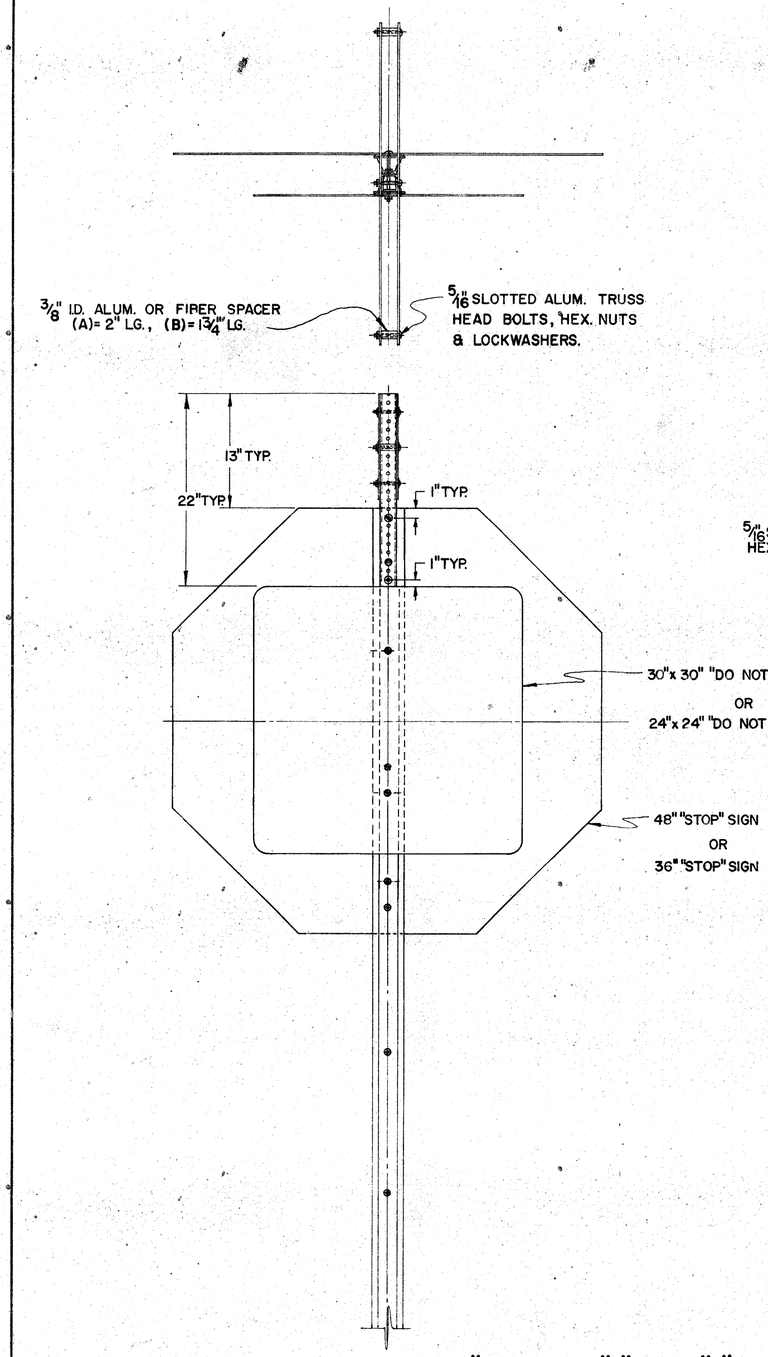
DATE 1/1/73 3/12/73

APPROVED _____
ENGINEER OF DESIGN SERVICES

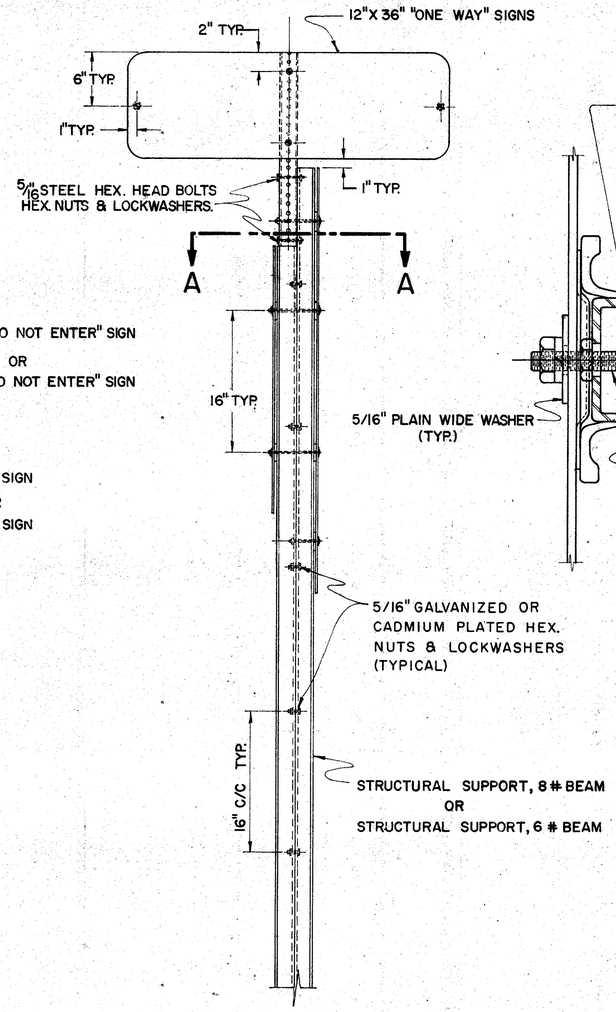
FED. RD. DIVISION	STATE	PROJECT	
2	OHIO		

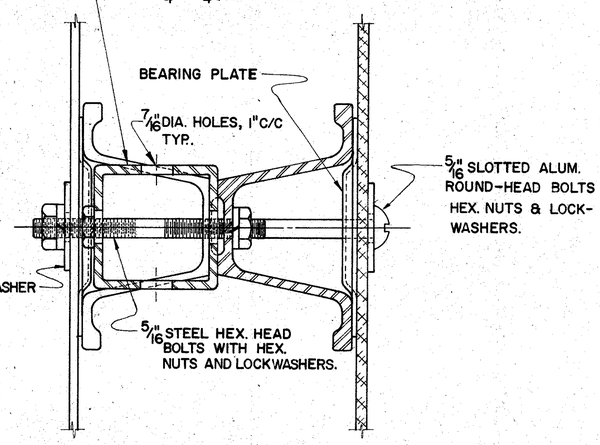
395
560

JEFFERSON COUNTY
JEF-7-0.20

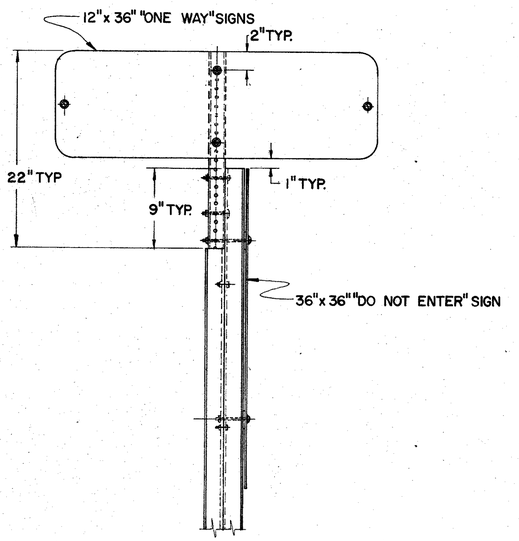


"ONE WAY", "STOP", "DO NOT ENTER",
SIGN INSTALLATION.





SECTION A-A



"ONE WAY", "DO NOT ENTER"
SIGN INSTALLATION

NOTES

MATERIALS

ALL SIGN MATERIALS SHALL BE IN ACCORDANCE WITH SUPPLEMENT SPECIFICATION 815.

ALL STRUCTURAL MATERIALS SHALL BE IN ACCORDANCE WITH SUPPLEMENT SPECIFICATION 816.

FOR SPECIFICATIONS FOR THE 2" & 1 3/4" SQUARE STEEL POST SEE GENERAL NOTES, SHEET NO. 377.

BUREAU OF TRAFFIC
OHIO DEPARTMENT OF HIGHWAYS

SPECIAL "ONE WAY" SIGN SUPPORT DETAILS	SOW	DATE 2-7-66 4-18-67

APPROVED _____
ENGINEER OF TRAFFIC

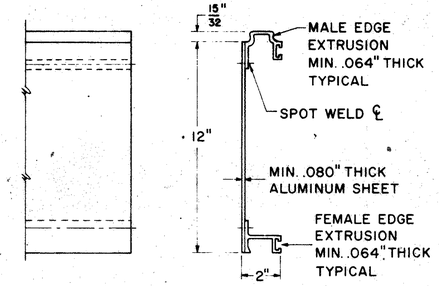
SPECIAL "ONE WAY" SIGN SUPPORT DETAILS

FED. RD. DIVISION	STATE	PROJECT	
2	OHIO		

396
560

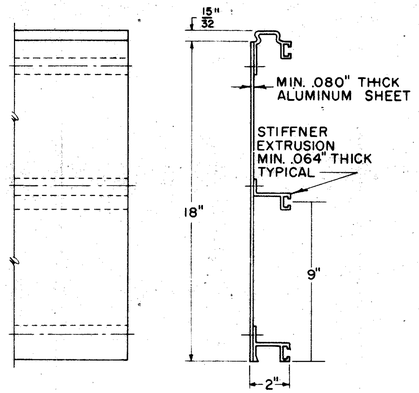
JEFFERSON COUNTY
JEF-7-0.20

12" EXTRUSHEET PANEL



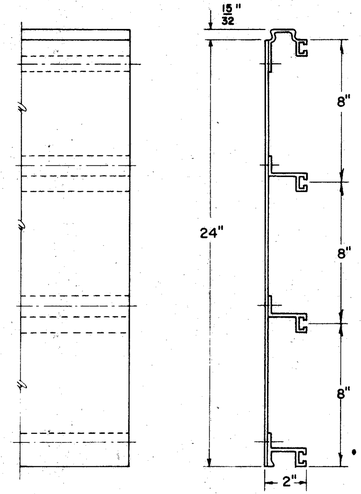
FRONT VIEW SIDE VIEW

18" EXTRUSHEET PANEL



FRONT VIEW SIDE VIEW

24" EXTRUSHEET PANEL



FRONT VIEW SIDE VIEW

NOTES:

EXTRUSHEET PANELS SHALL BE ALUMINUM; SPOT WELDING AND ALL MATERIALS SHALL CONFORM WITH SUPPLEMENTAL SPECIFICATION NO. 815

COMBINATIONS OF 12", 18", AND 24" PANELS ARE USED TO ATTAIN REQUIRED SIGN HEIGHT.

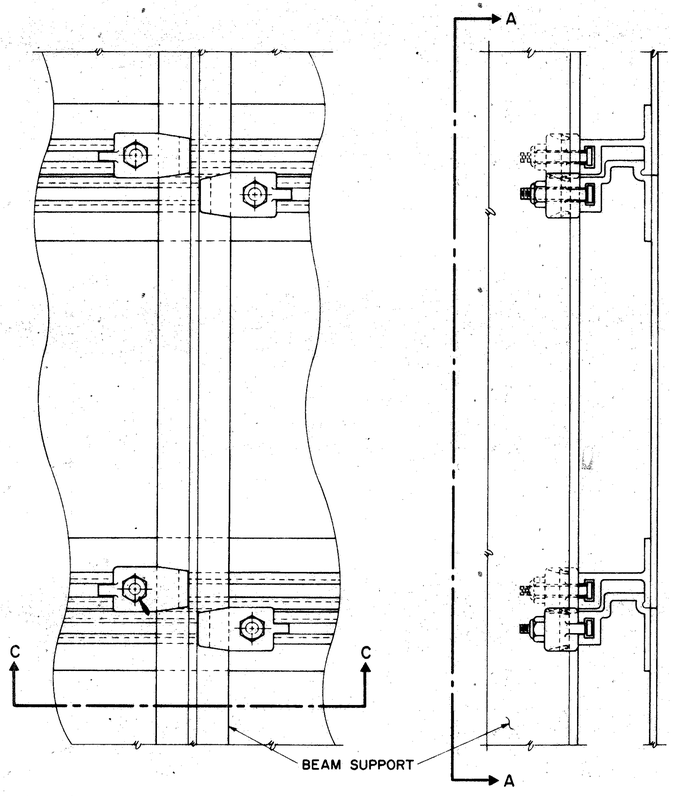
INDIVIDUAL PANELS SHALL BE THE SAME LENGTH AS THE HORIZONTAL LENGTH OF SIGN WITH NO SPLICES.

PANELS SHALL BE INTERLOCKED AND ERECTED WITH THE MALE EXTRUSION LOCATED AT THE TOP EDGE OF THE SIGN.

EXTRUSHEET PANELS SHALL BE FASTENED TO EACH VERTICAL SUPPORT MEMBER WITH MOUNTING CLIPS; ALTERNATELY AT EACH HORIZONTAL EXTRUSION; BOTH SIDES AT EACH JOINT, AND ON BOTH SIDES AT TOP AND BOTTOM EDGE OF SIGN.

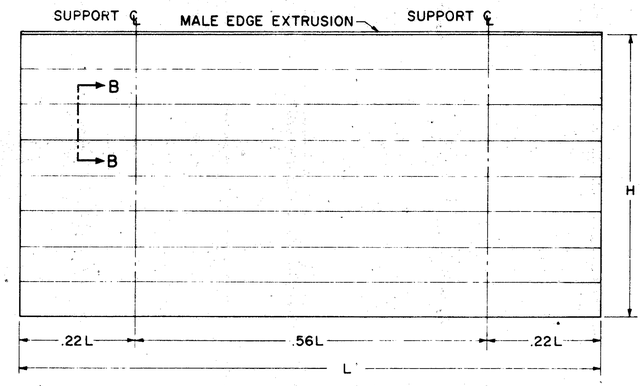
THE PANELS SHALL BE DESIGNED TO WITHSTAND A WIND LOAD OF 35 POUNDS PER SQUARE FOOT, IN ACCORDANCE WITH THE A.A.S.H.O. SPECIFICATION FOR DESIGN AND CONSTRUCTION OF STRUCTURAL SUPPORTS FOR HIGHWAY SIGNS.

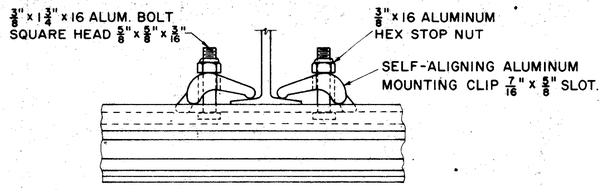
THE MAXIMUM SIGN LENGTH FOR TWO SUPPORTS IS 19'-0".
THE MAXIMUM SIGN LENGTH FOR THREE SUPPORTS IS 29'-0".



SECTION A-A SECTION B-B

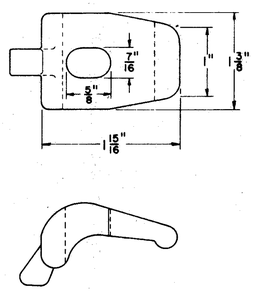
GENERAL ARRANGEMENT





SECTION C-C

CLIP DETAIL



SPOT WELDS

PANEL SIZE	MAXIMUM SPOT WELD SPACING	
	CENTER TO CENTER	BETWN ROWS
12 INCH	4 INCH	10 INCH
18 & 24 INCH	4 INCH	8 INCH

BUREAU OF TRAFFIC
OHIO DEPARTMENT OF HIGHWAYS

ALUMINUM EXTRUSHEET PANEL SIGN

ECD 1

DATE
9-25-63
5-19-64
10-21-65
5-24-67

APPROVED Fred C Dailey
ENGINEER OF TRAFFIC

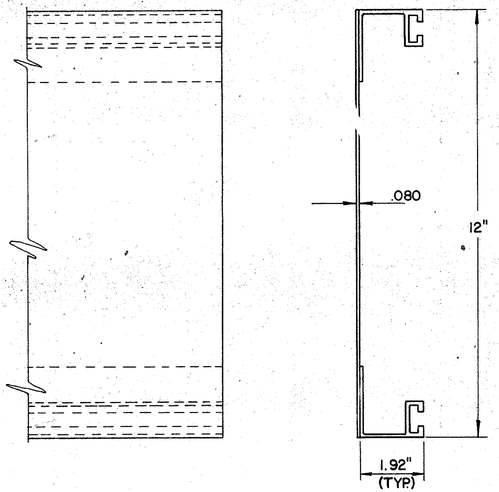
ALUMINUM EXTRUSHEET PANEL SIGN

FED. RD. DIVISION	STATE	PROJECT	
2	OHIO		

397
560

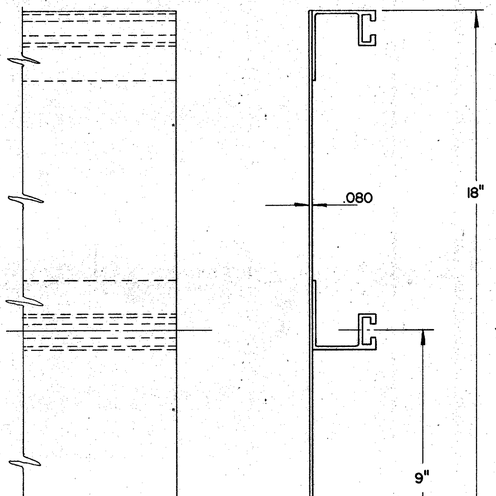
JEFFERSON COUNTY
JEF-7-0.20

12" BOLTED-EXTRUSHEET PANEL



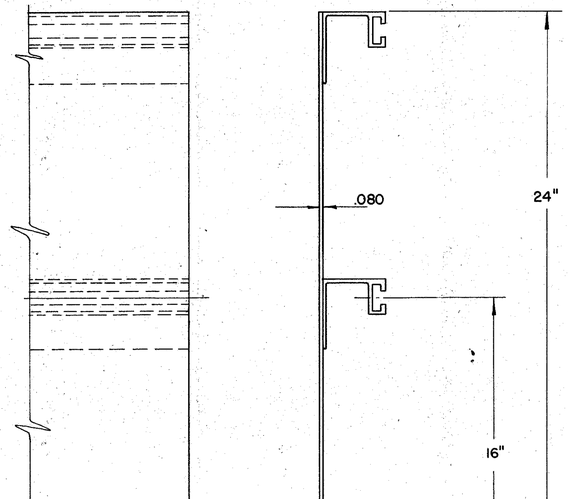
FRONT VIEW SIDE VIEW

18" BOLTED-EXTRUSHEET PANEL



FRONT VIEW SIDE VIEW

24" BOLTED-EXTRUSHEET PANEL



FRONT VIEW SIDE VIEW

NOTES

EXTRU-SHEET PANELS SHALL BE ALUMINUM; SPOT WELDING, MATERIALS AND HARDWARE SHALL CONFORM WITH SPECIFICATION NO. 815

COMBINATIONS OF 12", 18" AND 24" PANELS ARE TO BE USED TO ATTAIN REQUIRED SIGN HEIGHT.

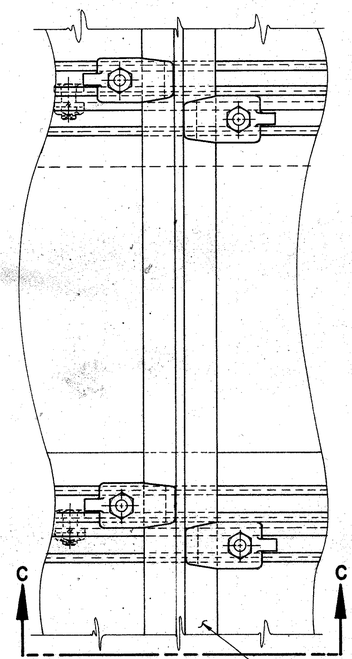
INDIVIDUAL PANELS SHALL BE THE SAME LENGTH AS THE HORIZONTAL LENGTH OF SIGN, WITH NO SPLICES.

THE PANELS SHALL BE ERECTED HORIZONTALLY AND BOLTED ON 24" CENTERS.

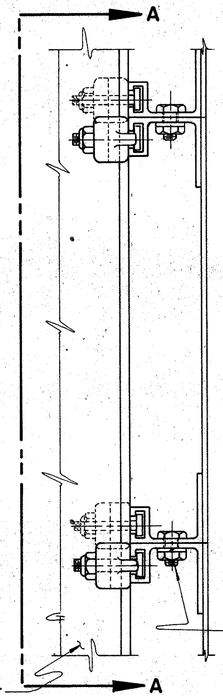
THE PANELS SHALL BE FASTENED TO EACH VERTICAL SUPPORT MEMBER WITH MOUNTING CLIPS; ALTERNATELY AT EACH HORIZONTAL EXTRUSION; BOTH SIDES AT EACH JOINT, AND BOTH SIDES AT TOP AND BOTTOM EDGES OF SIGN.

THE PANELS SHALL BE DESIGNED IN ACCORDANCE WITH THE A.A.S.H.O SPECIFICATION FOR THE DESIGN AND CONSTRUCTION OF STRUCTURAL SUPPORTS FOR HIGHWAY SIGNS, BASE ON A WIND LOAD OF 35#/SQ.FT.

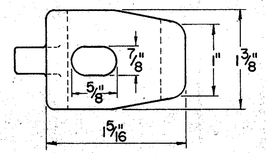
THE MAXIMUM SIGN LENGTH FOR TWO SUPPORTS IS 19'-0". THE MAXIMUM SIGN LENGTH FOR THREE SUPPORTS IS 29'-0".

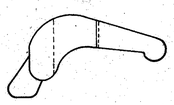


SECTION A-A

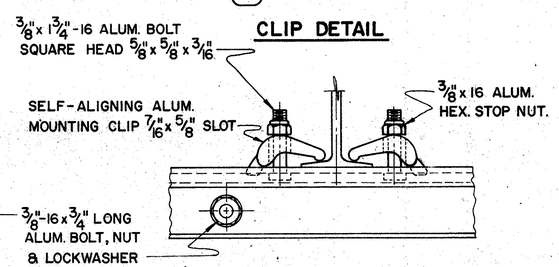


SECTION B-B

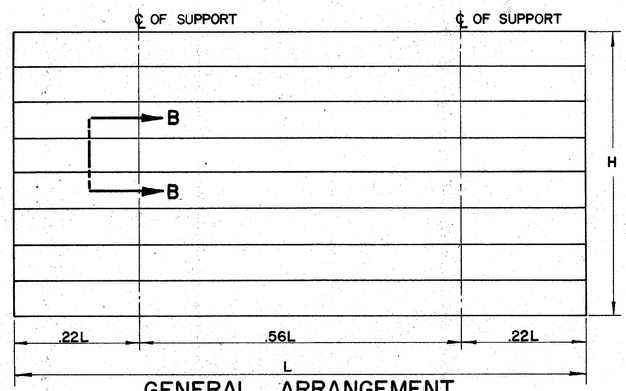




CLIP DETAIL



SECTION C-C



GENERAL ARRANGEMENT

SPOT WELDS

PANEL SIZE	MAXIMUM SPOT WELD SPACING	
	CENTER TO CENTER	BETWN ROWS
12 INCH	4 INCH	10 INCH
18 & 24 INCH	4 INCH	8 INCH

BUREAU OF TRAFFIC
OHIO DEPARTMENT OF HIGHWAYS

ALUMINUM BOLTED EXTRUSHEET PANEL SIGN

ECD 2

DATE 10-14-65

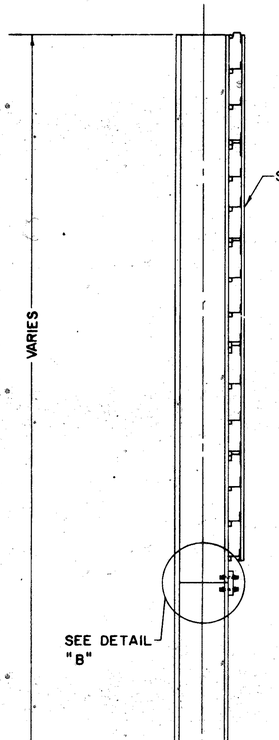
APPROVED Fred C. Talbot
ENGINEER OF TRAFFIC

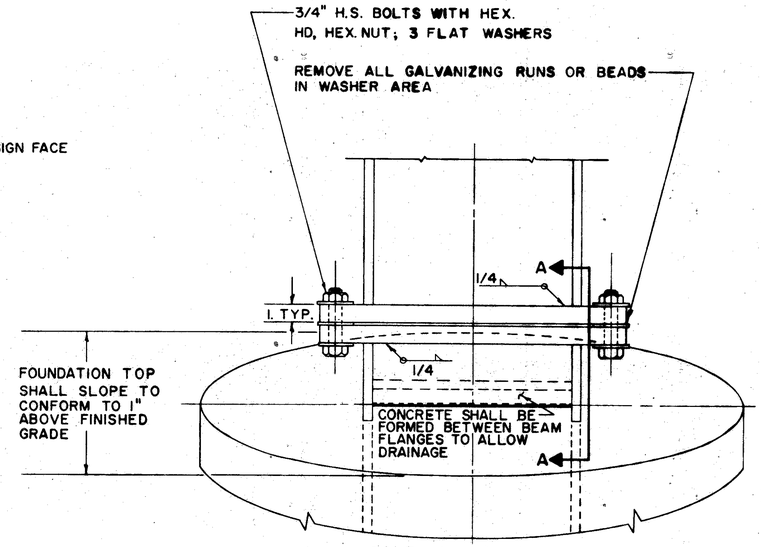
ALUMINUM BOLTED-EXTRUSHEET PANEL SIGN

FED. RD. DIVISION	STATE	PROJECT	
2	OHIO		

398
660

JEFFERSON COUNTY
JEF-7-0.20

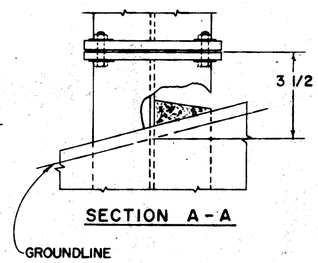




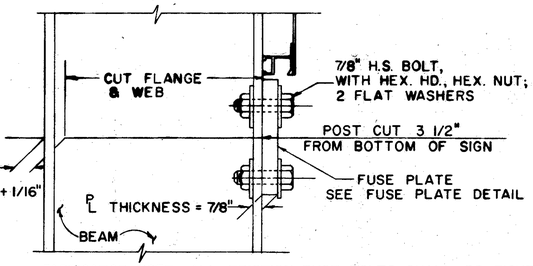
BOLTING PROCEDURE

1. ASSEMBLE POST TO STUB W/BOLTS & ONE FLAT WASHER ON EACH BOLT BETWEEN PLATES.
2. TIGHTEN ALL BOLTS THE MAXIMUM POSSIBLE W/12" TO 15" WRENCH TO BED & TO CLEAN BOLT THREADS. LOOSEN EACH BOLT IN TURN & RETIGHTEN BOLTS IN A SYSTEMATIC ORDER TO THE PRESCRIBED TORQUE OF 750 IN. LBS.
3. BURR THREADS AT JUNCTION W/NUT USING A CENTER PUNCH TO PREVENT NUT LOOSENING.

NOTE: TIGHTEN THE H.S. BOLTS IN THE BASE CONNECTION ONLY TO GIVEN TORQUE DO NOT OVER TIGHTEN



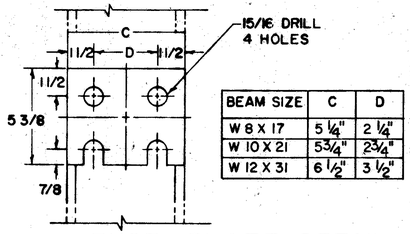
SECTION A-A



FABRICATOR NOTE: ALL FRICTION FUSE BOLTS SHALL BE TIGHTENED IN THE SHOP FOLLOWING A METHOD APPROVED BY THE ENGINEER. TIGHTENING SHALL BE TO SUCH A DEGREE AS TO OBTAIN MINIMUM RESIDUAL TENSION IN EACH BOLT OF 36,050 LBS.

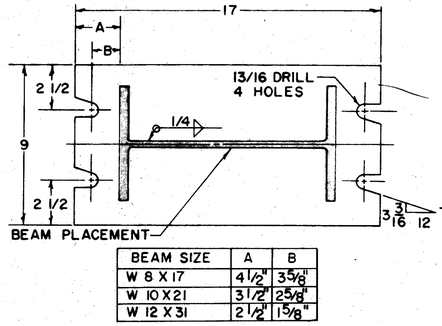
NOTE: INSTALL FUSE PLATE WITH NOTCHES TOWARD BASE

DETAIL "B"



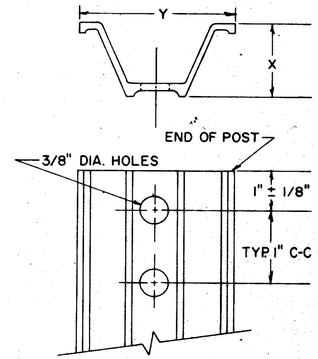
BEAM SIZE	C	D
W 8 X 17	5 1/4"	2 1/4"
W 10 X 21	5 3/4"	2 3/4"
W 12 X 31	6 1/2"	3 1/2"

FUSE PLATE DETAIL



BEAM SIZE	A	B
W 8 X 17	4 1/2"	3 5/8"
W 10 X 21	3 1/2"	2 5/8"
W 12 X 31	2 1/2"	1 5/8"

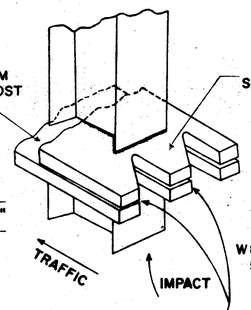
BASE PLATE DETAIL
(TOP VIEW)

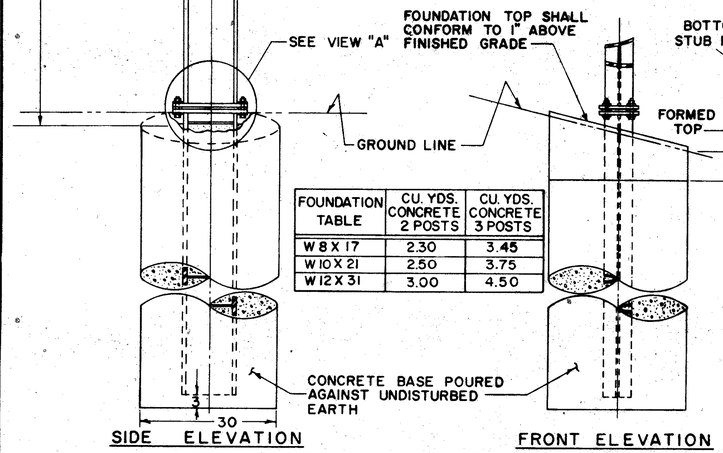


WEIGHT PER FOOT	X ± 3/32"	Y ± 1/8"
2.00 #	1 15/32"	3 1/16"
3.00 #	1 7/8"	3 1/2"
4.00 #	2"	3 5/8"

DRIVE POST DETAIL

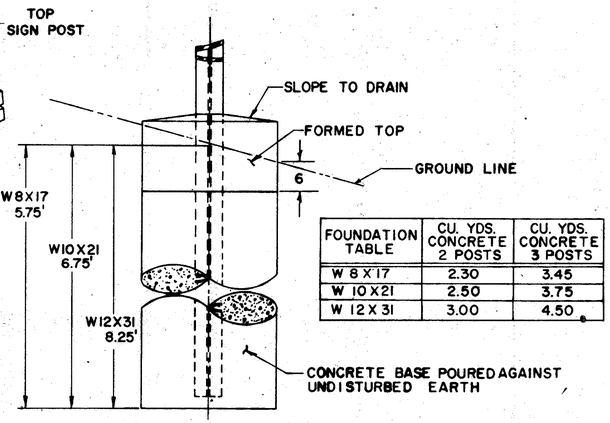
BREAKAWAY SIGN SUPPORT BASE PLATE ORIENTATION





FOUNDATION TABLE	CU. YDS. CONCRETE 2 POSTS	CU. YDS. CONCRETE 3 POSTS
W 8 X 17	2.30	3.45
W 10 X 21	2.50	3.75
W 12 X 31	3.00	4.50

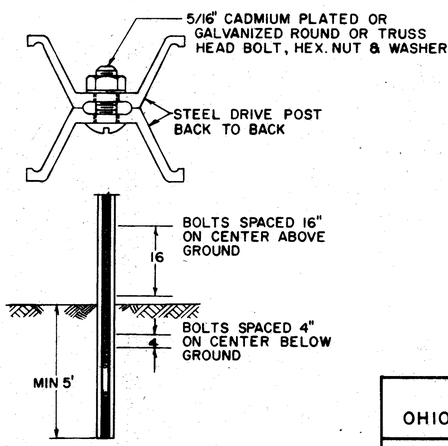
BREAK-AWAY SUPPORT



FOUNDATION TABLE	CU. YDS. CONCRETE 2 POSTS	CU. YDS. CONCRETE 3 POSTS
W 8 X 17	2.30	3.45
W 10 X 21	2.50	3.75
W 12 X 31	3.00	4.50

FRONT ELEVATION
STANDARD SUPPORT

STRUCTURAL SUPPORTS



6# BEAM DETAIL

NOTES: ALL MATERIALS SHALL CONFORM TO THE STATE OF OHIO, CONSTRUCTION & MATERIALS SPECIFICATIONS OR AS OTHERWISE SPECIFIED

1) 511 FOUNDATIONS
2) 711.01 STRUCTURAL STEEL SHAPES & PLATES
3) 711.09 H.S. STEEL BOLTS, NUTS & WASHERS

ALL DIMENSIONS IN INCHES UNLESS OTERWISE SHOWN

BUREAU OF TRAFFIC
OHIO DEPARTMENT OF HIGHWAYS

GROUND MOUNTED SIGN SUPPORTS

GMSS

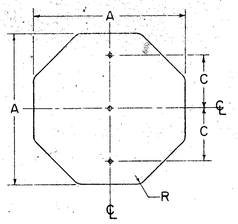
APPROVED _____
ENGINEER OF TRAFFIC

DATE
5-10-68
7-12-68
5-23-69
9-16-69
12-20-71

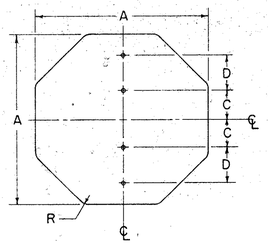
FED. RD DIVISION	STATE	PROJECT	
2	OHIO		

399
560

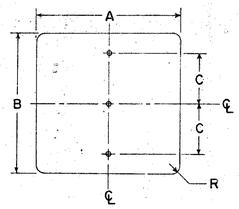
JEFFERSON COUNTY
JEF - 7 - 0.20



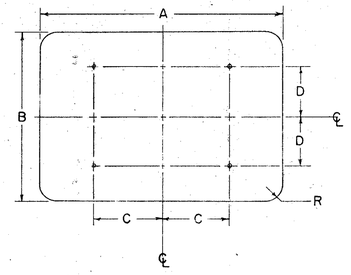
A	C	R	GAUGE
30	8	1 1/2	.080
36	8	1 1/2	.080



A	C	D	R	GAUGE
48	8	10	1 1/2	.100

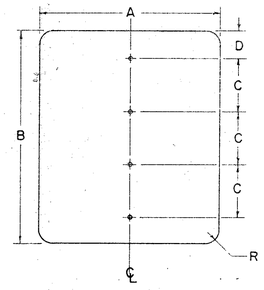


A	B	C	R	GAUGE
24	30	8	1 1/2	.063
24	48	15	1 1/2	.100
30	36	11	1 1/2	.080
30	42	12	1 1/2	.080
36	36	11	1 1/2	.080
36	42	15	1 1/2	.080
36	48	15	1 1/2	.080
48	24	10	3	.100
48	36	13	3	.100

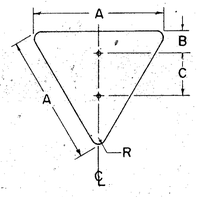


A	B	C	D	R	GAUGE
48	48	22	16	3	.100
48	60	22	22	3	.100

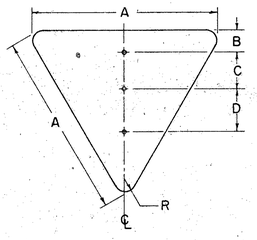
SPEED LIMIT SIGNS ON TWO SUPPORTS



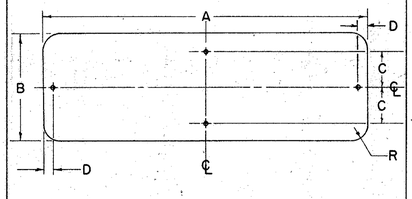
A	B	C	D	R	GAUGE
48	48	12	6	3	.100
48	60	15	7 1/2	3	.100



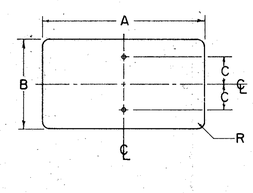
A	B	C	R	GAUGE
36	3	16	2 1/2	.080



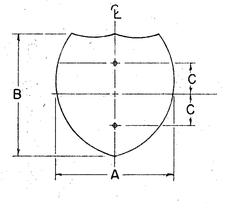
A	B	C	D	R	GAUGE
48	4	10	15	3	.100
60	5	10	15	4	.100



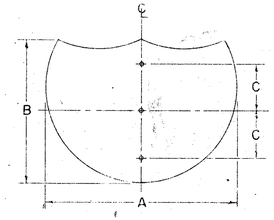
A	B	C	D	R	GAUGE
36	12	4	1	1 1/2	.080
72	12	—	16	1 1/2	.100
60	12	—	13	1 1/2	.100



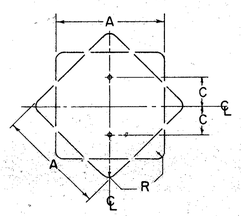
A	B	C	R	GAUGE
12	6	1 1/2	1 1/2	.063
20	15	6	1 1/2	.063
24	12	4 1/2	1 1/2	.063
24	18	7 1/2	1 1/2	.063
8	26	8	1	.063
36	18	7 1/2	1 1/2	.080



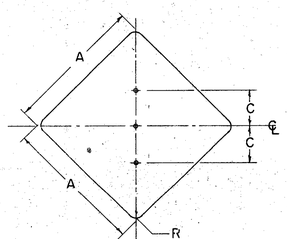
A	B	C	GAUGE
24	24	8	.063
30	24	8	.080



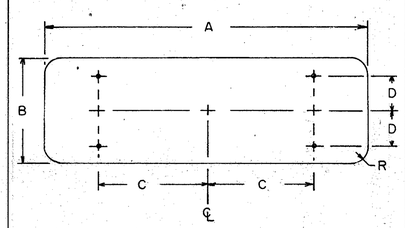
A	B	C	GAUGE
36	36	11	.080
48	36	11	.100



A	C	R	GAUGE
18	7 1/2	1 1/2	.063
24	8	1 1/2	.063
30	8	1 1/2	.080

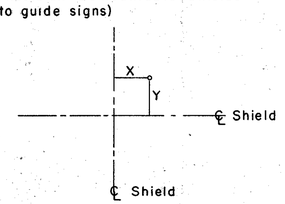


A	C	R	GAUGE
36	12	1 1/2	.080
48	14	3	.100



A	B	C	D	R	GAUGE
72	18	20	6	1 1/2	.100
72	24	20	8	1 1/2	.100
60	30	17	10	1 1/2	.100
96	18	27	6	1 1/2	.100

Location of holes on "Demountable Shields" (attached to guide signs)



SIZE	NO. HOLES	X	Y
(26) 24X24	4	7	7
30X24	4	8	8
(39) 36X36	4	10	10
		0	10
48X36	6	15	10

For notes on fastening see drawing for miscellaneous "Signing Items" sheet.

NOTES:

ALL DIMENSIONS ARE IN INCHES UNLESS OTHERWISE SHOWN.

MATERIAL

FLAT SIGN BLANKS SHALL BE FURNISHED IN ALUMINUM ALLOY 6061-T6, (ASTM-B209, GSIIA-T6) WITH MILL FINISH.

BOLT HOLES

THE BOLT HOLES SHALL BE 3/8" IN DIAMETER, AND MAY BE DRILLED, BLANKED OR PUNCHED TO FINISHED SIZE.

BUREAU OF TRAFFIC
OHIO DEPARTMENT OF HIGHWAYS

SIGN BLANK DETAILS

SBD

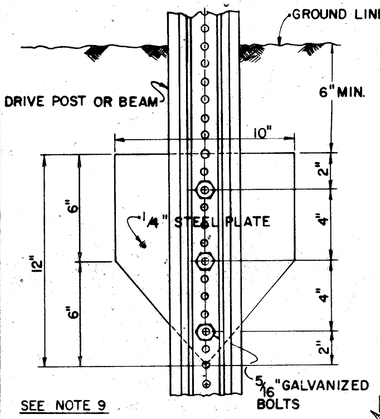
DATE
4-14-67
5-10-68
10-1-68
5-27-69
6-18-69

APPROVED _____
ENGINEER OF TRAFFIC

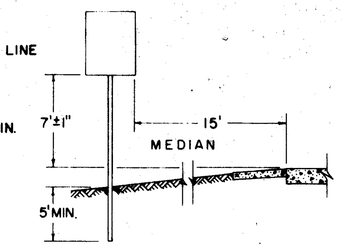
FED. RD. DIVISION	STATE	PROJ.	
2	OHIO		

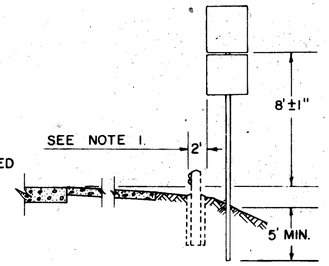
400
560

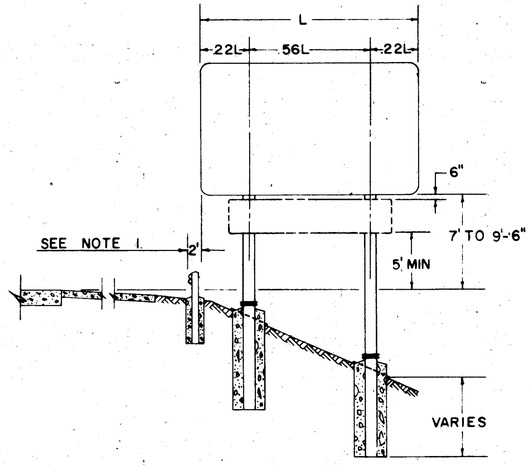
JEFFERSON COUNTY
JEF-7-0.20

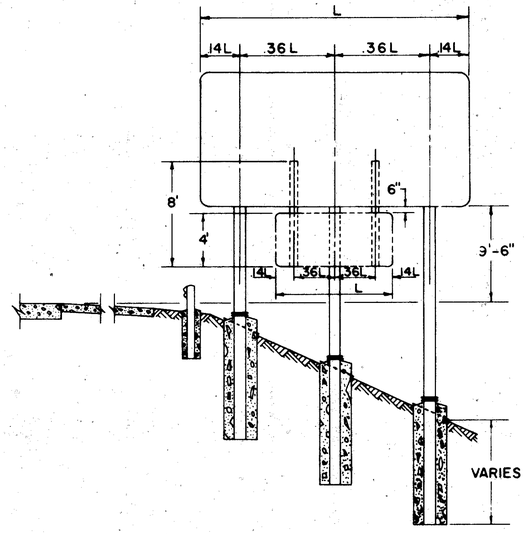


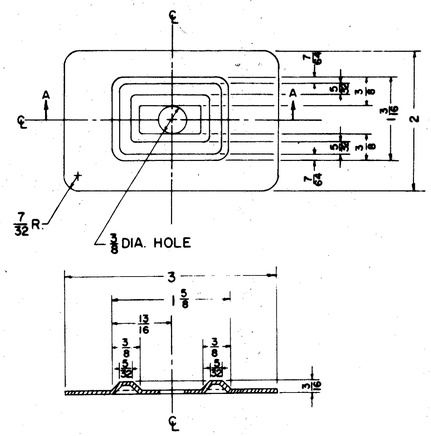
SOIL PLATE DETAIL







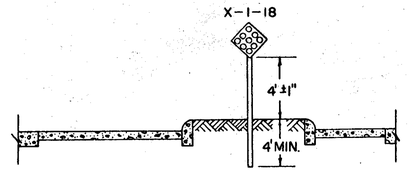


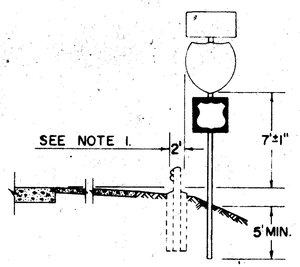


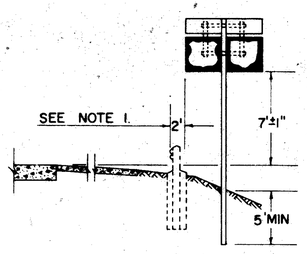
SECTION AA

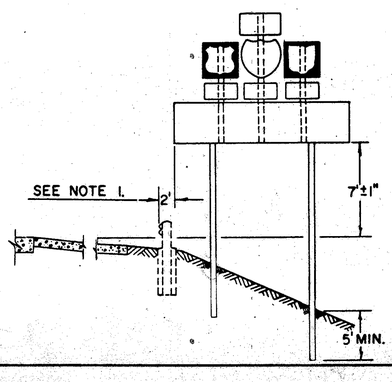
NOTE:
THE PLATE IS SYMMETRICAL ABOUT EITHER CENTERLINE.
METAL SHALL BE 16 GAUGE STEEL.
ALL DIMENSIONS ARE IN INCHES.

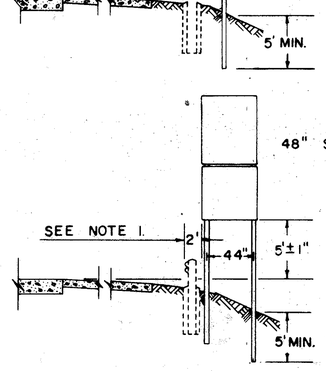
BEARING PLATE DETAIL

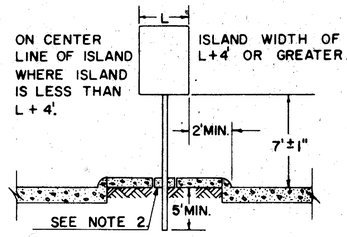


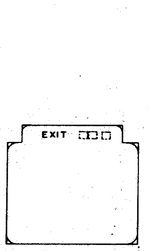


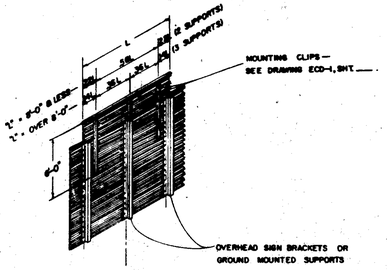








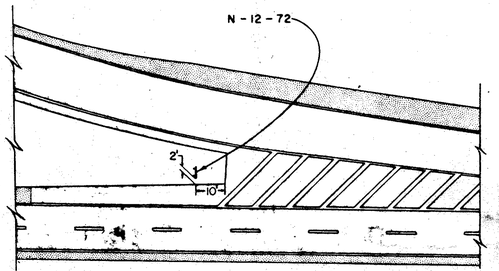




"EXIT" SIGN ATTACHMENT DETAIL

SIGN SUPPORT SPACING

L=FT	2 SUPPORTS .22	2 SUPPORTS .56	3 SUPPORTS .14	3 SUPPORTS .36	L=FT	2 SUPPORTS .22	2 SUPPORTS .56	3 SUPPORTS .14	3 SUPPORTS .36
5.0	1.10	2.80	0.70	1.80	17.0	3.74	9.52	2.38	6.12
6.0	1.32	3.36	0.84	2.16	18.0	3.96	10.08	2.52	6.48
7.0	1.54	3.92	0.98	2.52	19.0	4.18	10.64	2.66	6.84
8.0	1.76	4.48	1.12	2.88	20.0			2.80	7.20
9.0	1.98	5.04	1.26	3.24	21.0			2.94	7.56
10.0	2.20	5.60	1.40	3.60	22.0			3.08	7.92
11.0	2.42	6.16	1.54	3.96	23.0			3.22	8.28
12.0	2.64	6.72	1.68	4.32	24.0			3.36	8.64
13.0	2.86	7.28	1.82	4.68	25.0			3.50	9.00
14.0	3.08	7.84	1.96	5.04	26.0			3.64	9.36
15.0	3.30	8.40	2.10	5.40	27.0			3.78	9.72
16.0	3.52	8.96	2.24	5.76	28.0			3.92	10.08



NOTES

1. THE NEAR EDGE OF ALL MAIN LINE SIGNS, EXCEPT GORE INSTALLATIONS, SHALL BE LOCATED TWO FEET (2') BACK OF GUARD RAIL FACE. THIS DIMENSION SHALL BE DETERMINED BY ROADWAY TYPICAL SECTION & USED WHETHER OR NOT GUARD RAIL IS PRESENT.
   ON RAMPS THE NEAR EDGE OF SIGNS SHALL BE LOCATED TWO FEET (2') BACK OF GUARD RAIL FACE. THIS DIMENSION WILL BE DETERMINED AND USED AS FOR MAIN LINE ABOVE.
   ON APPROACHES THE NEAR EDGE OF SIGNS SHALL BE
   (A) TWO FOOT (2') BEHIND EXISTING GUARD RAIL
   (B) TWO FEET (2') FROM THE EDGE OF PAVED OR TRAVELED SHOULDER WITH A MINIMUM OF 6' FROM EDGE OF ROADWAY PAVEMENT.

2. POSTS PLACED IN CONCRETE MEDIANS SHALL BE INSTALLED BY DRIVING THROUGH A 6" SLEEVE OR CORE DRILLED HOLE. THE HOLE SHALL BE FILLED WITH ASPHALTIC CONCRETE AFTER THE POST IS IN THE PROPER POSITION.

3. HORIZONTAL BACK BRACING SHALL ALWAYS BE MOUNTED ON THE FRONT FLANGE OF THE SUPPORT EXCEPT WHERE SIGNS ARE MOUNTED BACK TO BACK. BACK BRACING SHALL NEVER EXTEND ABOVE TOP EDGE OF UPPERMOST SIGN PLATE AND SHALL BE ATTACHED TO SUPPORTS USING 5/16" GALVANIZED STEEL BOLTS.

4. SCREWS, NUTS, AND WASHERS FOR SIGN ERECTION SHALL BE ALUMINUM EXCEPT AS NOTED ABOVE. 5/16" TRUSS HEAD SLOTTED MACHINE SCREWS WITH HEX. NUTS PLAIN AND LOCKWASHERS SHALL BE USED. PLAIN WASHERS SHALL BE 5/16" "WIDE", USED ON SIGN FACE ONLY

5. SIGN INSTALLATIONS SHALL BE PLACED SO THAT SUPPORTS ARE NOT PLACED IN DRAINAGE DITCHES.

6. HORIZONTAL CLEARANCES SHOWN PERTAIN TO NON-CURBED SECTIONS. SECTIONS WITH UNMOUNTABLE CURB SHALL HAVE A HORIZONTAL CLEARANCE OF 2'-0" MINIMUM FROM THE CURB FACE TO THE SIGN EDGE.

7. VERTICAL AND HORIZONTAL CLEARANCE BETWEEN SIGNS ON ONE ASSEMBLY SHALL BE A MAXIMUM OF 2" AND A MINIMUM OF 1".

8. GALVANIZED STEEL BEARING PLATES SHALL BE INCLUDED BETWEEN ALL SHEET ALUMINUM SIGNS ATTACHED TO VERTICAL SUPPORTS AT EACH SIGN BOLT LOCATION.

9. SOIL PLATES SHALL BE ATTACHED TO ALL 6 LB. BEAMS BETWEEN POSTS AS DETAILED ON THIS SHEET, EXCEPT WHERE BEAMS ARE PLACED IN CONCRETE MEDIANS AS COVERED IN NOTE 2.

BUREAU OF TRAFFIC
OHIO DEPARTMENT OF HIGHWAYS

TYPICAL PLACEMENT OF SIGNS

TPS-1

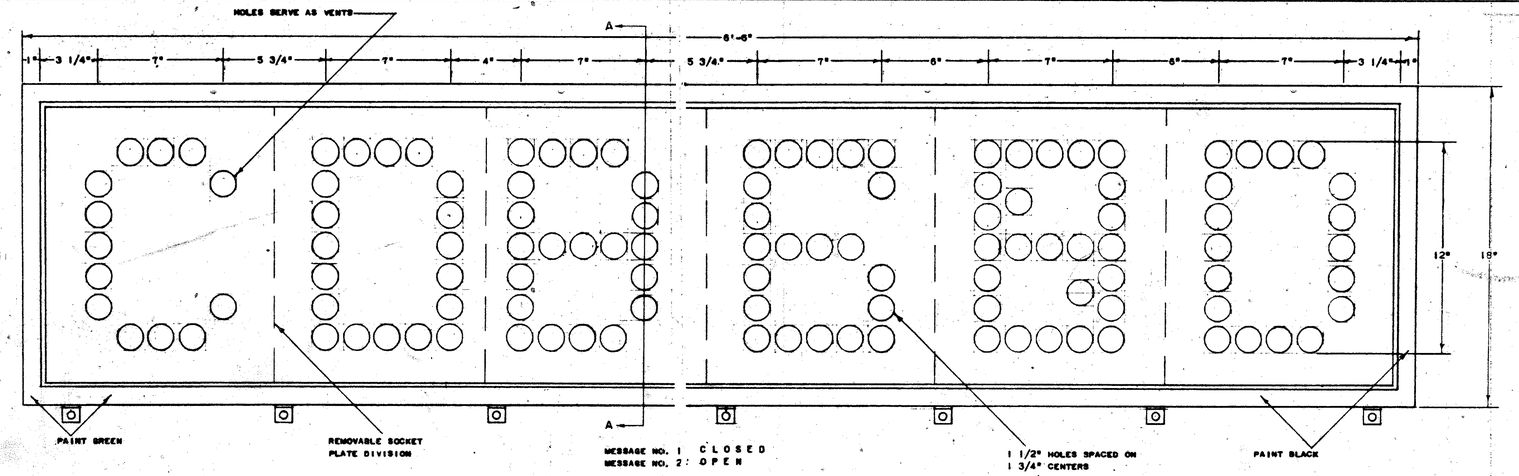
DATE
9-27-67
7-12-68
5-13-69
3-5-71
12-21-71
3-7-72

APPROVED _____
ENGINEER OF TRAFFIC

FED. RD. DIVISION	STATE	PROJECT	
2	OHIO		

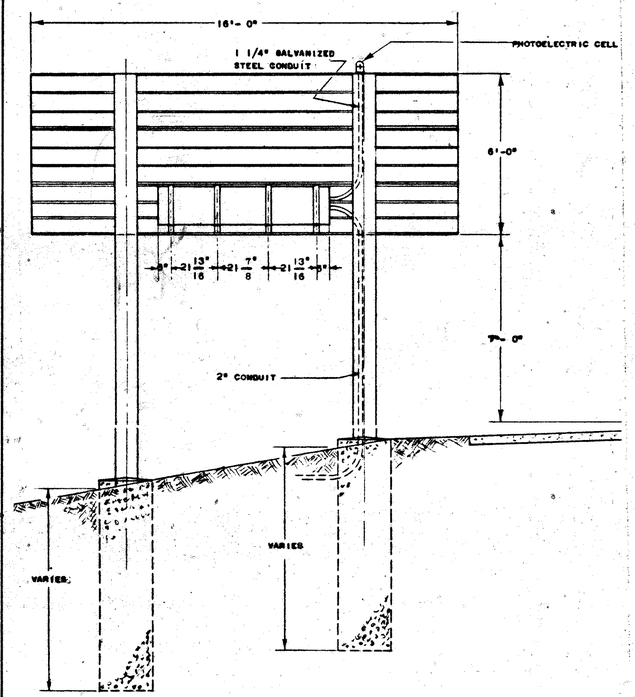
401
560

JEFFERSON COUNTY
JEF - 7 - 0.20

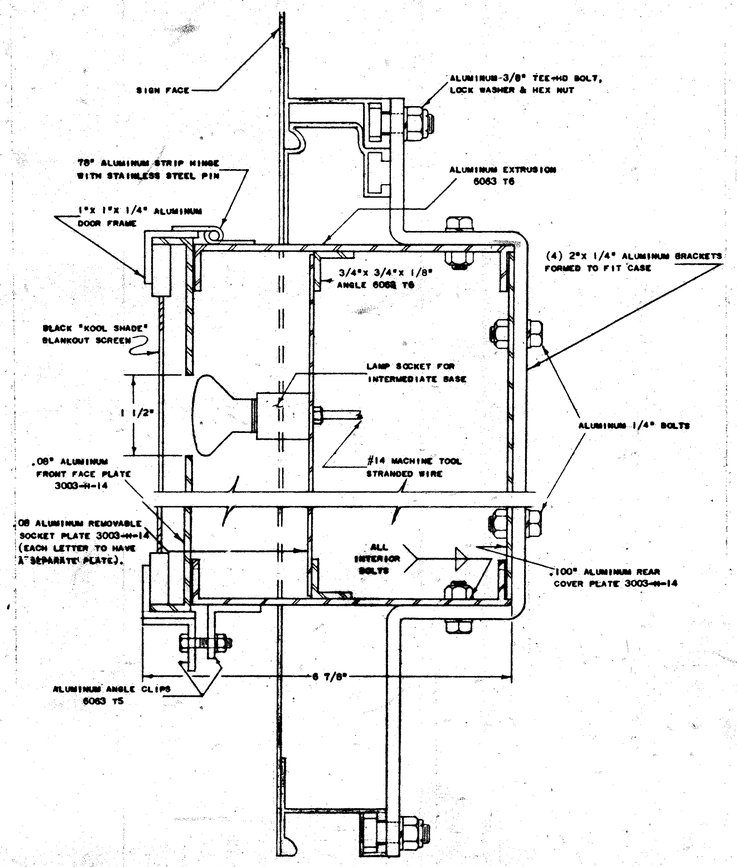


NOTE:
1) ALL LETTERS SPACED OPTICALLY FOR MATRIX SIGNS

FRONT PANEL



REAR ELEVATION



SECTION VIEW A-A

NOTES

FINISH

GREEN PAINT USED FOR EXTERIOR FRAME FINISH SHALL BE IN ACCORDANCE WITH THE OHIO HIGHWAY DEPARTMENT CONSTRUCTION AND MATERIAL SPECIFICATION 708.10. BLACK PAINT USED FOR THE FRAME FINISH SHALL BE IN ACCORDANCE WITH CONSTRUCTION AND MATERIAL SPECIFICATION 708.11.

ELECTRICAL

BURIED CABLE FROM THE SCALE HOUSE TO THE SIGN SITE WILL BE INSTALLED BY OTHERS AND WILL TERMINATE IN A PULL BOX NEAR THE SIGN. THE PRICE BID FOR THIS SIGN SHALL INCLUDE THE CONDUIT ENCLOSED EXTENSION OF THE 3C-AWG6 WIRE FROM THE PULL BOX TO THE ELECTRICAL UNIT HOUSING ON THE SIGN. CONDUIT SHALL BE 2" GALVANIZED STEEL AND IS TO BE SECURELY FASTENED TO THE SIGN SUPPORT.

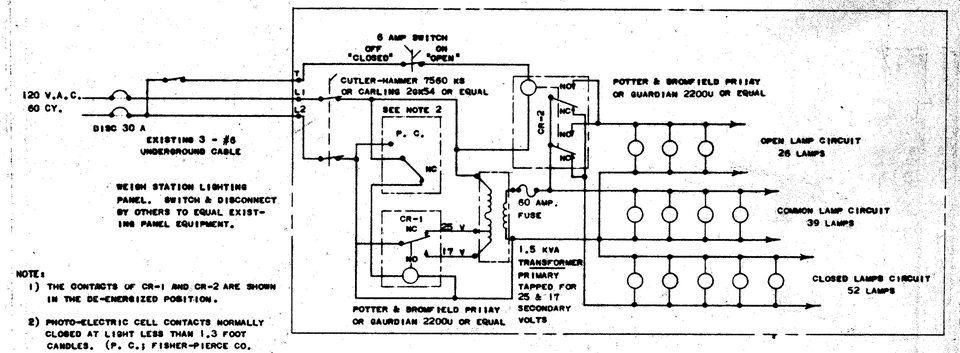
THE PHOTOELECTRIC CONTROL CIRCUIT WILL BE WIRED SO THAT LAMP INTENSITY IS MAXIMUM DURING DAYLIGHT, AND MINIMUM AT NIGHT.

LAMPS

THE LAMPS USED SHALL BE 24V, 20R12N AS MANUFACTURED BY GENERAL ELECTRIC, WESTINGHOUSE, OR AN APPROVED EQUAL.

ACCEPTANCE

THE ELECTRICAL CIRCUITS SHALL BE ENERGIZED AND THE SIGN SHALL BE TESTED FOR PROPER ILLUMINATION OF THE "OPEN" AND "CLOSED" MESSAGES, AND ALSO FOR PROPER SWITCHING OF THE INTENSITY FOR DAY OR NIGHT OPERATION BEFORE ACCEPTANCE IS MADE.



NOTE:
1) THE CONTACTS OF CR-1 AND CR-2 ARE SHOWN IN THE DE-ENERGIZED POSITION.
2) PHOTO-ELECTRIC CELL CONTACTS NORMALLY CLOSED AT LIGHT LESS THAN 1.3 FOOT CANDLES. (P. C.; FISHER-PIERCE CO. MODEL 6620 OR TORK MODEL 2000 OR EQUAL).

WIRING DIAGRAM

BUREAU OF TRAFFIC
OHIO DEPARTMENT OF HIGHWAYS

WEIGH STATION

WS-3A

DATE 10-27-66

APPROVED Frank Jarboe
ENGINEER OF TRAFFIC

FED. RD. DIVISION	STATE	PROJECT	
2	OHIO		

401-A
560

JEFFERSON COUNTY
JEF.-7-0.20

ØA ØB
Public Rd
Ramps A-B

ØA ØB
Public Rd.
Ramps C-D

RAMP "B"
RAMP "C"
RAMP "A"
RAMP "D"
SERVICE ROAD "B"
PUBLIC ROAD
S.R.-7
Future Conduit and Loop
Common Trench
12" conduit
3" Conduit
24" Pullbox
Cabinet +05, 37 Rt. 24
Cabinet +77, 30' Rt.
24" Pullbox +82
24" STOP LINE
8" CROSSWALK LINES
8" SOLID WHITE CHANNELIZING LINE
2" SOLID DOUBLE CENTERLINE YELLOW
Lighting Circuit
Signal Conduit 1½"
8" Crosswalk Lines
Future
DO NOT ENTER
R-41-36 36"x36"
R-431-36 36"x12"
ONE WAY
SOUTH 7 (FUTURE)
NORTH 7 SOUTH
NORTH 7
D-3-246 8"x25"
M-45-42 35"x5"
M-1-7-24 24"x12"
M-2-24 24"x24" 11+40
M-2-24 24"x24" -260
M-17-24 24"x12"
W-47-36
Sta-2+00
+85
+96
+86
+84 37' Rt.
+25
+30
+72
+74
+77
+82
+92, 32' Lt.
+66, 33' Lt.
+99 36' Rt.
+70 30' Rt.
+18
+01
+10, 37' Lt.
+13
+17
8+12
9+37
3+78
5+95
6+69
10'
12'
14'
15'
16'
17'
11'
8'
9'
2'
24' Stop Line
Stage
Quantities Carried to Sub-Summaries for Ramps A-B
Quantities Carried to Sub-Summaries for Ramps C-D

Timing / Phase	Public Rd A	Ramps A-B B	Public Rd A	Ramps C-D B
Min Green	30	—	—	—
Initial	—	10.0	12	10.0
Vehicle	—	4.0	5	4.0
Maximum	—	2.5	40	30
Yellow	4.0	3.5	4.0	3.5
All Red	1.5	1.0	1.5	1.0
Recall	—	Off	—	Off
Walk	7	—	7	7
Ped Clear	8	—	7.5	12.5

Display Chart

Signal No. \ Interval	A R/W	A Cy	A CR	B R/W	B Cy	B CR	A R/W	A Cy	A CG	B R/W	B Cy	B Cr	Flashing
1,2,3,4	G	Y	R	R	R	R							Y
5,6	R	R	R	G	Y	R							R
2-b	W/Ped*	DW	DW	DW	DW	DW							D
7,8,9,10							G	Y	R	R	R	R	Y
11,12							R	R	R	G	Y	R	R
c,d,e,f							W/Ped*	DW	DW	DW	DW	DW	D
g,h							DW	DW	DW	W/Ped*	DW	DW	D

* Dwell Interval

* Painted Island - 24" Yellow, Broad Transverse Line Spaced 12' @ 45° Outlined With 4" Yellow Centerline, Solid Double.

LEGEND
Interim Covering For Signs
Pedestrian Push Button

Rev. 9-23-74

PUBLIC ROAD INTERCHANGE - SIGNALS

FHWA REGION	STATE	PROJECT	
5	OHIO		

401-B
560

JEF - 7 - 0.20

842 SIGNAL CONTROLLER, BY TYPE, INSTALLATION ONLY.

Signal control equipment of the type specified in the plans shall be furnished by the state assembled and prewired in the signal control cabinet to be installed on the project by the contractor.

The contractor shall notify the project engineer by letter (in quadruplicate) 90 days prior to desired delivery date of the prewired cabinet. The project engineer shall distribute copies of the letter to: (1) Division Traffic Engineer, (2) Bureau of Design Services, 25 South Front St., Columbus, Ohio, (3) Bureau of Traffic, Electrical Section, 450 East Town St, Columbus Ohio. The notification shall contain the following: Location to which cabinet is to be delivered on project site, date of delivery (cabinet will be delivered between 8:00 AM and 5:00 PM of the day specific except Saturdays, Sundays and holidays.) The cabinet supplied as part of this contract shall be available for pick-up by the State at the same location and time. The contractor shall furnish all labor and equipmenment required to unload and load the cabinets. The conctractor shall mount the controller with cabinet on its foundation and make the necessary field wiring connections to provide a signal controller complete and operable in accordance with the signal operation shown in the plans.

The contractor shall be responsible for any damage to the controller and equipment from the time of delivery by the state for installation.

Payment for 842 "Signal Controller, by type, Installation Only" shall be made at the contract unit price for each signal controller installed which price shall include all labor, materials, and equipment necessary for the complete item of work.

842 CONTROLLER CABINET 7.7

The cabinet be clean-cut in design and appearance and shall conform to the following:

It shall be made of die cast aluminum alloy with a wall thickness of approximately one-quarter inch and minimum of 18,000 psi yield strength.

The minimum inside dimension shall be: height 38", width 28" and depth 12 7/16".

The cabinet shall contain at least 7.7 cubic feet of usable volume.

Hinged door, with police panel, shall be provided on the front of the cabinet which shall include substantially the full area of the front of the cabinet.

All doors shall be fully gasketed with elastomeric gasketing material so that when closed they shall fit closely to the gasketing material, making the cabinet weather resistent and dust tight. Three point latching shall be provided for this purpose.

The doors shall be provided with lock with permanent type lubrication and a weather-proof tab and furnished with two keys for both the door and the police panel.

An elbow vent shall be mounted on both sides of the cabinet base and shall be mechanically screened and baffled to protect against rain, dust and all types of foreign objects.

There shall be one bar door stop at approximately 135°.

The door pins, recessed to prevent break and entry, shall be grease-lubricated and fabricated of a non-corroding material.

Cabinet shall contain two cast metal or plywood (3/4") shelves for the support of traffic control equipment. The shelves shall be adjustable on a minimum of 1½" centers from a 10" from the top of the cabinet to the bottom of the cabinet.

The cabinet shall be base mounted and furnished with two 3/4" anchor bolts. A drawing showing proper construction of the cabinet foundation and method of mounting the cabinet shall be furnished with the cabinet base.

The cabinet shall be equipped with a ventilating fan 134 C.F.M. at 0.160" of water static pressure. Separate adjustable thermostat.

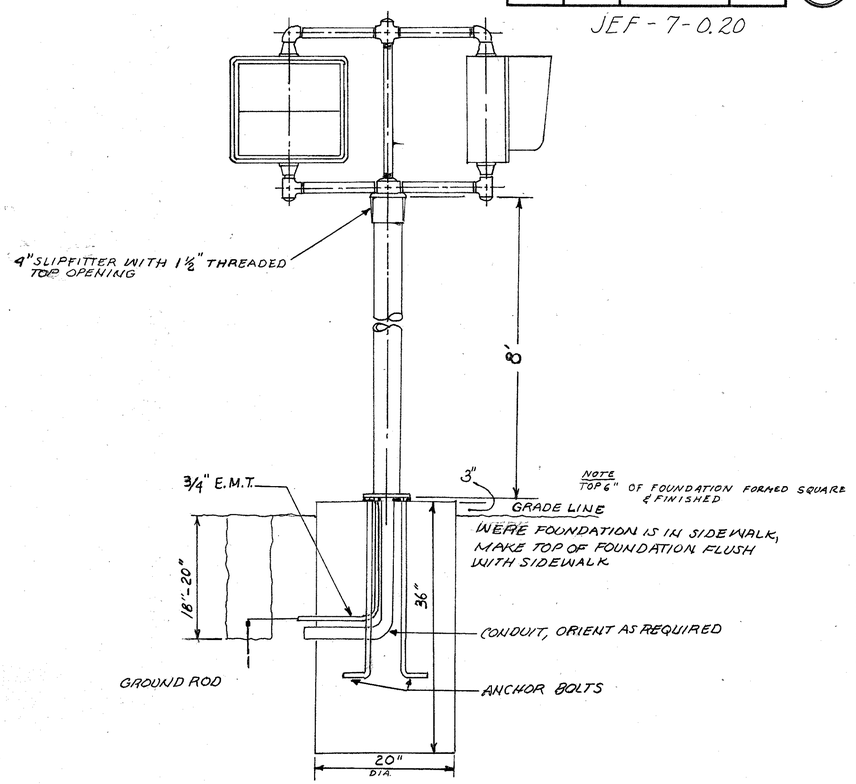
All cast peices shall be clean, smooth, and free from flaws, cracks, blowholes, and other imperfections.

The cabinet and fan housing shall be prime coated and shall be finished with two coats of yellow enamel paint using Federal Standard 595 color #13655.

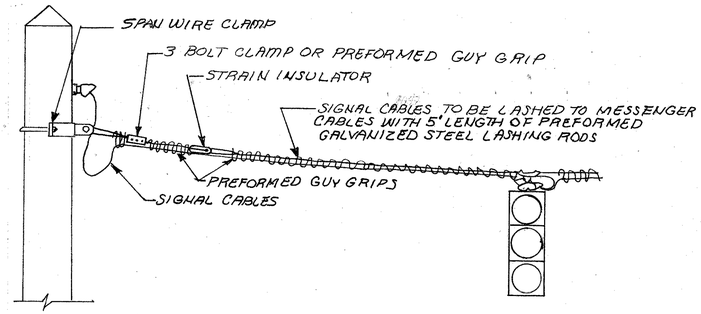
Payment for Item 842 Signal Controller Cabinet, 07.7 C.F. shall be at the unit price bid per each, complete, with all accessories and anchor bolt furnished.

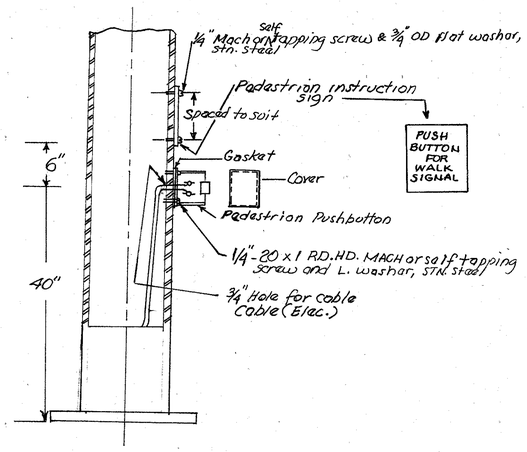
Code 7223

ITEM	A-B	C-D	QTY	UNIT	DESCRIPTION
842	2	2	4	Ea.	Combination Signal Strain Pole 3 GA, 12" x 32'
625	2	2	4	Ea.	Luminaire bracket arm, 15'
625	4	5	9	Ea.	Pullbox 18"ST13.09
625	1	1	2	Ea.	Pullbox 24"ST13.09
625	480	483	963	L.F.	Conduit 1½" ST13.04
625	10	12	22	L.F.	Conduit 3" ST13.04
625	370	410	740	L.F.	Trench
842	2		2	Ea.	Loop Detector Amplifier
842	394	134	528	L.F.	Loop Detector Wire
842	345	385	730	L.F.	Loop Detector Lead in Cable
842	104	146	250	L.F.	Loop Detector Pavement Cutting
842	4.4	4.4	8.8	C.Y.	Concrete for Anchor Base Foundations
842	0.7	0.7	1.4	C.Y.	Concrete for Controller Foundations
842	1		1	Ea.	Signal Controller, 2 phase semi-actuated with coordination unit and cabinet, installation only
842		1	1	Ea.	Signal Controller, 2 phase fully-actuated with cabinet, installation only
842	2	2	4	Ea.	Vehicular Signal head, 3 section 12 inch lens, 1 way
842	2	2	4	Ea.	Vehicular Signal head, 3 section 12 inch lens 2 way
842	2	6	8	Ea.	Pedestrian Signal head, Type A-2
842	4	4	8	Ea.	Covering of Traffic Signals
842	—	2	2	Ea.	Pedestrian Pushbutton, with sign R.13C-9, 9"x12"
842	103	104	207	L.F.	Messenger Wire, 7 strand (3/8 dia) with accessories
842	147	537	684	L.F.	Signal Cable, 8/C No. 14AWG
842	125	127	252	L.F.	Signal Cable, 5/C No. 14AWG
842	280	240	520	L.F.	Interconnect Cable, 5/C 14 AWG
842	40	40	80	L.F.	Power Cable, 2/C No. 8 AWG
842	1	1	2	Ea.	Power Service
842	2	2	4	Ea.	Cable Support Assembly
842	1	2	3	Ea.	Pedestal, 8 feet
842	0.3	0.6	0.9	C.Y.	Concrete for Pedestal Foundation
842	1	1	2	Ea.	Signal Controller Cabinet, 7.7 Cu.Ft., Furnished only

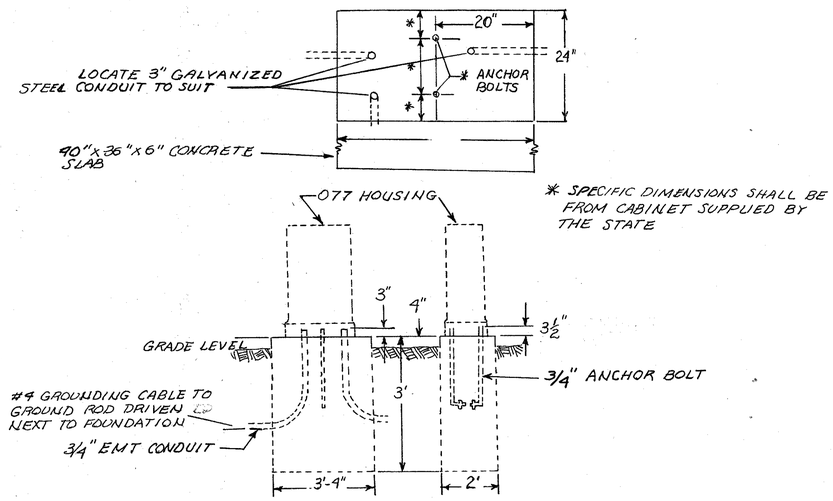


SIGNAL SUPPORT, PEDESTAL MOUNTED DETAILS





PEDESTRIAN PUSH BUTTON INSTALLATION DETAILS



FOUNDATION DETAILS FOR CONTROLLER CABINET

Rev. 9-23-74

FHWA REGION	STATE	PROJECT	
5	OHIO		

401-C
560

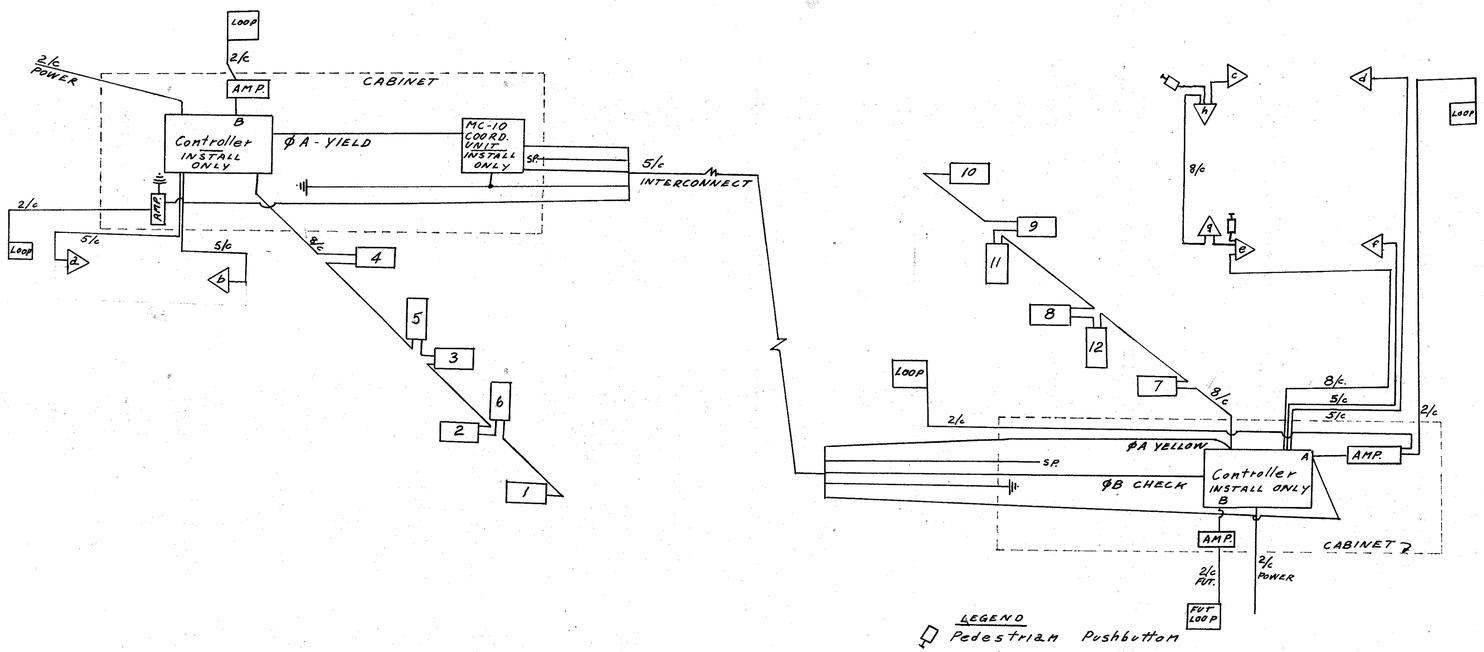
JEF-7-0.20

COORDINATION

Signal at Ramps A-B shall be allowed to yield to phase B calls A preset time (Adjustable 0 to 45 seconds: set at 8 seconds) following display of phase A yellow at Ramps C-D.

A safety timer (Adjustable 30 to 180 seconds: set at 60 seconds) shall allow yield to phase B at Ramps A-B in the event the controller at Ramps C-D does not receive a call to phase B.

WIRING DIAGRAM

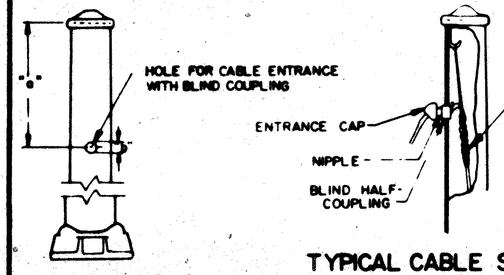


Rev. 9-23-74

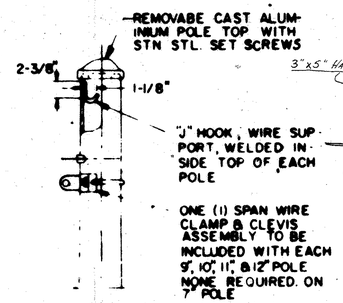
FHWA REGION	STATE	PROJECT	
5	OHIO		

401-D 560

JEF 7 = 0.20



TYPICAL CABLE STRAIN RELIEF & ENTRANCE CAP DETAILS



POLE TOP DETAILS

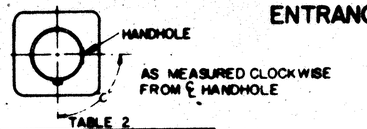
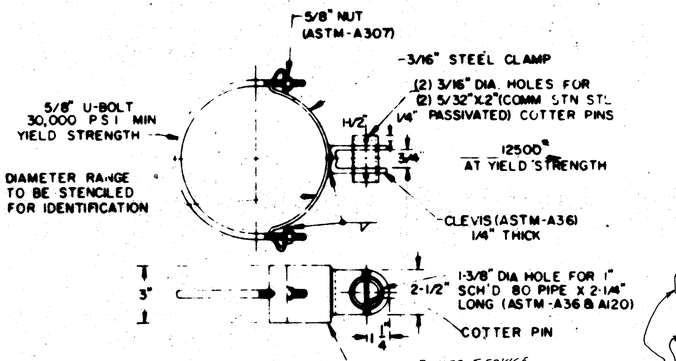


TABLE 2

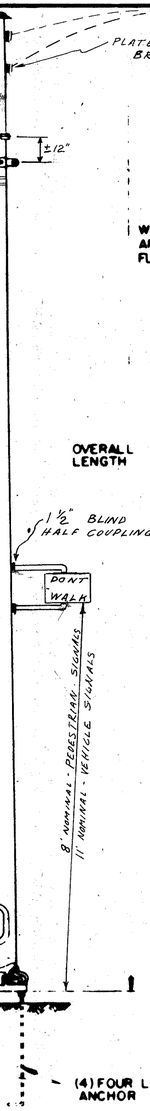
CONFIG	"a"	"b"	"c"
A	30°	2"	90°
B	30°	2"	180°
C	30°	2"	270°
D	45°	2"	90°
E	45°	2"	180°
F	45°	2"	270°
G	NO HOLE REQUIRED		

CABLE ENTRANCE LOCATION DETAIL

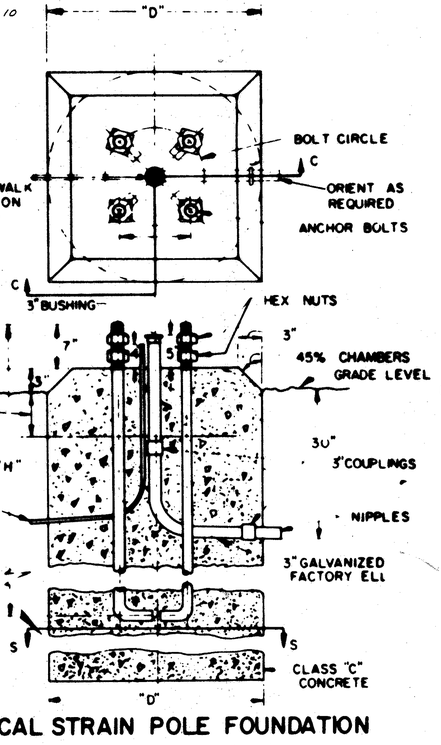


TYPE	CLAMP RANGE MIN.	CLAMP RANGE MAX.
I	31"	36"
II	36"	44"
III	44"	52"
IV	52"	58"
V	58"	68"
VI	68"	79"
VII	79"	90"
VIII	90"	101"
IX	101"	113"
X	113"	121"
XI	121"	134"
XII	134"	145"
XIII	145"	155"
XIV	155"	165"

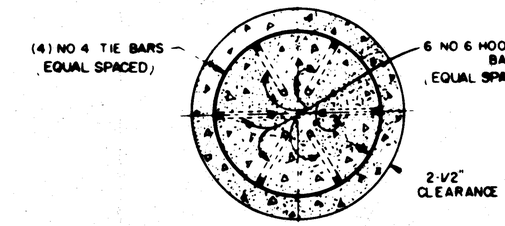
SPAN WIRE CLAMP DETAILS



STEEL STRAIN POLE



TYPICAL STRAIN POLE FOUNDATION



SECTION - S-S

NOTES:

MATERIAL SPECIFICATIONS

1. TAPERED TUBES (S A E - 1020 STEEL. PROCESSED TO MINIMUM YIELD STRESS OF 55,000 P S I.
2. CAST ANCHOR BASE & HANDHOLE FRAME - ASTM-A27-GRADE 65-35
3. HANDHOLE COVER PLATE - 11 GA STEEL SAE - 1015
4. CAST ALUMINUM POLE TOP - ALUMINUM ALLOY 43
5. SPAN WIRE CLAMP - LOW ALLOY, HIGH STRENGTH STEEL ASTM-A242 - OR 375, LOAD PRODUCING DISTORTION 12,500 LBS. DIRECT TENSION
6. ALL BOLTS & NUTS LESS THAN 5/8" DIA. PASSIVATED STAINLESS STEEL AISI-300 SERIES - COMMERCIAL GRADE.
7. ALL OTHER NUTS & BOLTS 5/8" DIA & OVER - ASTM-A307 AND GALVANIZED IN ACCORDANCE WITH ASTM-A153
8. ANCHOR BASE & U-BOLTS - HIGH STRENGTH STEEL - MINIMUM YIELD STRESS 55,000 LBS SQ IN - MIN. ULTIMATE 90,000 P S I
9. WELDING ROD - ASTM-A233 - CLASS E60XX OR 70XX
10. GALVANIZING - WHEN SPECIFIED ASTM-A123

TRAFFIC SIGNAL POLE FOUNDATIONS

THE CONTRACTOR SHALL STAKE THE LONGITUDINAL AND LATERAL LOCATION, AND THE ELEVATION OF THE TOP OF EACH FOUNDATION SUBJECT TO THE APPROVAL OF THE ENGINEER. THE CONTRACTOR SHALL BE RESPONSIBLE FOR THE PROPER ELEVATION, OFFSET, AND LEVEL OF EACH FOUNDATION. THE FOUNDATION LOCATIONS MAY BE CHANGED AS DIRECTED BY THE ENGINEER, IN CASE OF SLOPE OR SUBSURFACE DIFFICULTIES.

EXCAVATION SHALL BE IN ACCORDANCE WITH THE REQUIREMENTS OF ITEM 503. EXCAVATION SHALL BE TO THE DIMENSIONS SHOWN ON THE PLANS, AND SHALL BE PERFORMED BY MEANS OF AN EARTH AUGER OF THE SPECIFIED DIA. UNLESS OTHERWISE DIRECTED BY THE ENGINEER.

WHERE SUBSURFACE OBSTRUCTIONS ARE ENCOUNTERED, THE ENGINEER MAY REQUIRE THE CONTRACTOR TO REMOVE THE OBSTRUCTION OR TO REPLACE THE EXCAVATED MATERIAL AND RELOCATE THE FOUNDATION.

IF CAVING OF THE EXCAVATION OCCURS, THE CONTRACTOR SHALL EXCAVATE THE SPECIFIED DEPTH MAINTAINING THE THE SIDES AS NEARLY VERTICAL AS POSSIBLE. NO PAYMENT SHALL BE MADE FOR ANY EXCAVTION, CONCRETE, OR REINFORCING STEEL USED IN EXCESS OF THE PLAN QUANTITIES.

CONCRETE, CLASS C, SHALL BE PLACED IN ACCORDANCE WITH THE REQUIREMENTS OF ITEM 511, AND SHALL BE PLACED AGAINST UNDISTURBED SOIL OR COMPACTED EMBANKMENT. STEEL REINFORCEMENT BARS, WHERE REQUIRED, SHALL BE POSITIONED AS SHOWN ON THE PLANS AND PLACED IN ACCORDANCE WITH ITEM 509.

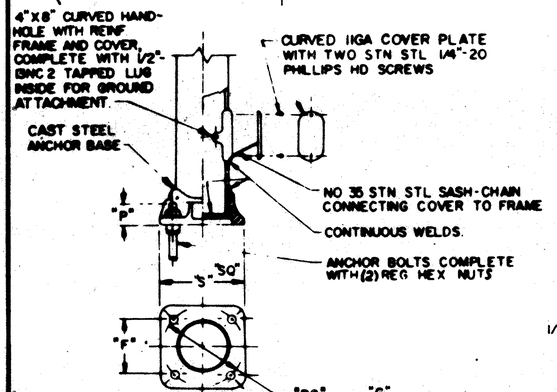
CYLINDRICAL ANCHOR BASE TYPE FOUNDATIONS FOR TRAFFIC SIGNAL POLES SHALL HAVE ANCHOR BOLTS AND CONDUIT ACCURATELY HELD IN POSITION WITH A TEMPLET WHILE CONCRETE IS PLACED. FORMS SHALL BE USED FOR THE UPPER PORTIONS OF ALL FOUNDATIONS AND NO BACKFILLING SHALL BE PERMITTED FROM THE BOTTOM TO SIX INCHES BELOW THE GRADE LEVEL. NO GROUTING OF CONCRETE SHALL BE PERMITTED BETWEEN THE FOUNDATION TOP AND THE POLE BASE.

TRAFFIC SIGNAL POLE

WHERE A WIRE ENTRANCE IS REQUIRED, THE SERVICE ENTRANCE HEAD SHALL BE LOCATED APPROXIMATELY 12" BELOW SPAN WIRE CLAMP.

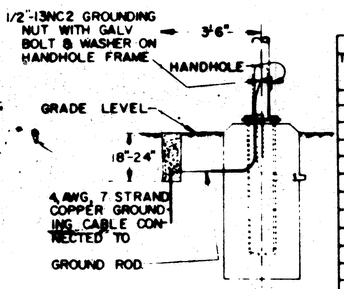
GROUND ROD

GROUND ROD SHALL BE IN ACCORDANCE WITH TYPICAL GROUND ROD DETAIL AND TESTED IN ACCORDANCE WITH 625.22 "CONSTRUCTION AND MATERIAL SPECIFICATIONS."



ANCHOR BASE DATA						ANCHOR BOLT DATA			
POLE DIA	"BC"	"F"	"S"	"P"	SIZE	"L"	"T"	"G"	
7"	10"	7 1/2	10 1/2	2 1/4	H4 X 48	42"	6"	10"	
9"	12 1/2	9 3/4	12 3/4	3"	H 2" X 60	54"	9"	11"	
10"	15 1/2	12 3/4	14 1/8	3 3/4	H 2 1/2" X 60	54"	9"	11"	
11"	16"	13 3/4	15 3/8	3 3/4	H 2 1/2" X 72	66"	9"	11"	
12"	16"	13 3/4	15 3/8	3 3/4	H 3 1/4" X 90"	84"	9"	11"	
13"	16"	13 3/4	15 3/8	3 3/4	H 3 1/4" X 90"	84"	9"	11"	

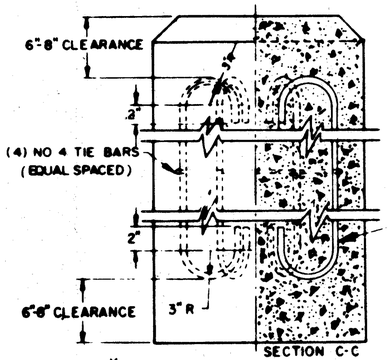
TYPICAL HANDHOLE, ANCHOR BASE & ANCHOR BOLT DETAILS



TYPICAL GROUND ROD DETAIL

TYPE	BASE DIA	TOP DIA	OVERALL LENGTH	WALL THICKNESS	DESIGN DATA FOR TRANS. LOAD AT 18" DOWN (ASSUMED 2200 PSF SOIL B.C. & 3000 PSI CONC.) MOMENT	SHEAR	"H"	"D"
1	7.0"	4.20"	20.0'	(3 GA) .250"	32,700#	2135#	42"	24"
2	9.0"	6.36"	26.0'		64,100#	2730#	54"	24"
3	10.0"	6.36"			44,700#	3400#	54"	24"
4	11.0"	7.36"			36,700#	4110#	84"	30"
5	12.0"	8.36"			24,700#	4950#	84"	36"
6	14.0"	10.36"			15,700#	6864#	84"	36"
7	10.0"	6.06"	28.0'		54,700#	3140#	54"	24"
8	11.0"	7.08"			41,700#	3850#	84"	30"
9	12.0"	8.08"			31,700#	4590#	84"	36"
10	9.0"	4.80"	30.0'		110,700#	2350#	54"	24"
11	10.0	5.80"			74,700#	2980#	54"	24"
12	11.0"	6.80"			53,700#	3560#	84"	30"
13	12.0"	7.80"			39,700#	4260#	84"	36"
COMB.	12.0	7.52	32.0	.250"			84"	36"

STRAIN POLE TYPES



SECTION C-C

TYPICAL REINFORCING STEEL SECTIONS

BUREAU OF TRAFFIC

OHIO DEPARTMENT OF HIGHWAYS

MODIFIED

STEEL STRAIN POLE & FOUNDATION DETAILS

APPROVED _____

ENGINEER OF TRAFFIC

Rev. 9-23-74

FED. RD. DIVISION	STATE	PROJECT	
2	OHIO		

401-E 560

JEF. 7 - 0.20

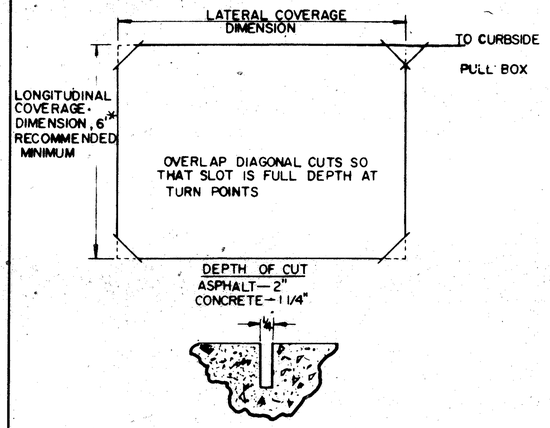


FIGURE 1
TYPICAL LOOP SLOT CONSTRUCTION

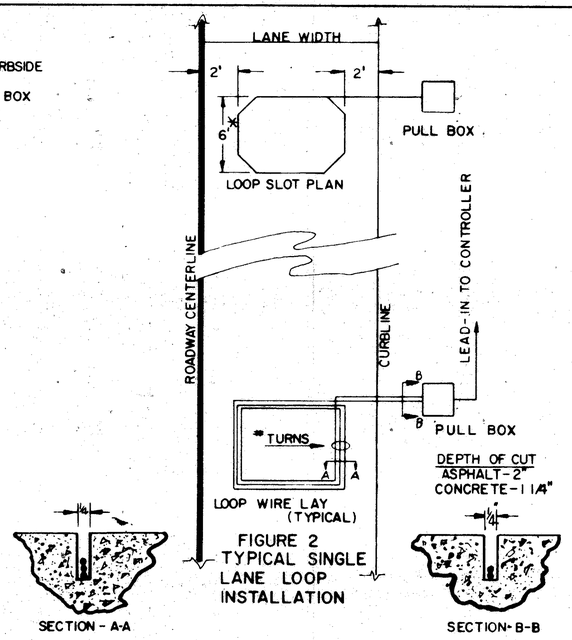


FIGURE 2
TYPICAL SINGLE LANE LOOP INSTALLATION

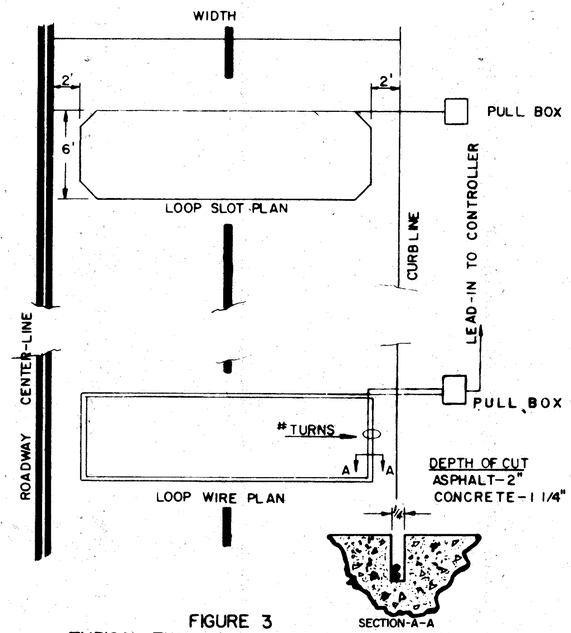


FIGURE 3
TYPICAL TWO LANE LOOP INSTALLATION

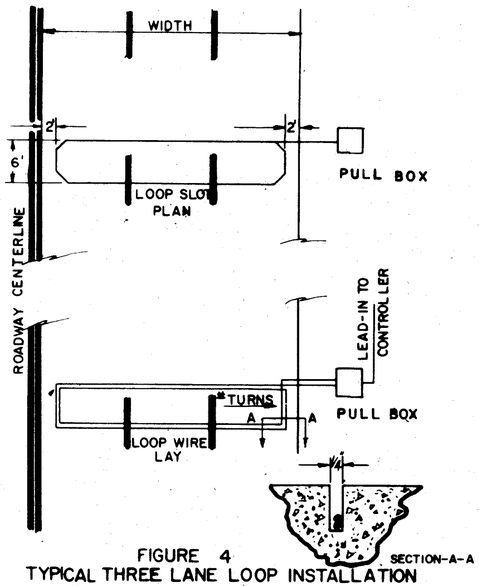


FIGURE 4
TYPICAL THREE LANE LOOP INSTALLATION

TABLE-1 ROADWAY LOOP CONSTRUCTION

LOOP PERIMETER	NO. OF TURNS
UP TO 40 FEET	3
40 TO 160 FEET	2
160 AND UP	1

MAINTAIN 6' MINIMUM DIMENSION IN DIRECTION OF TRAVEL.

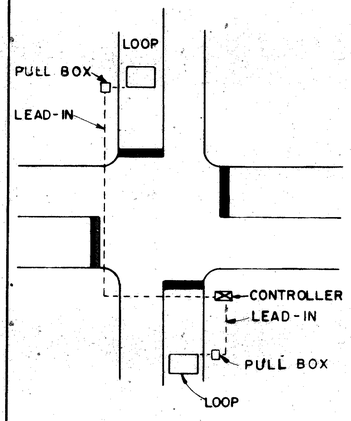


FIGURE 5
TYPICAL LEAD-IN DETAIL

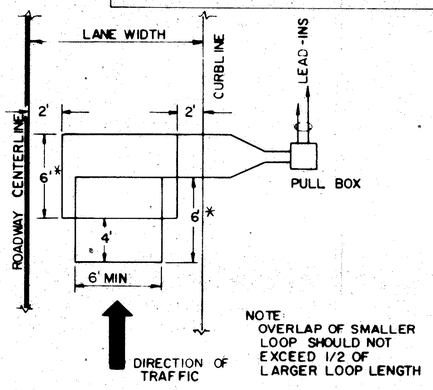


FIGURE 6
TYPICAL DIRECTIONAL DETECTION LOOP INSTALLATION (OVERLAPPED)

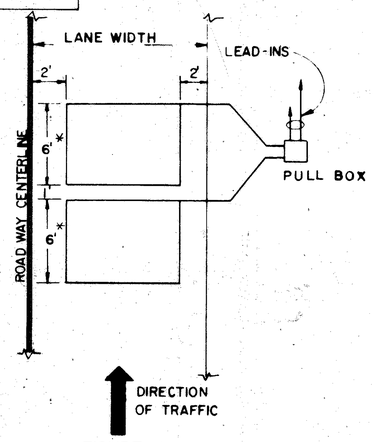


FIGURE 7
TYPICAL DIRECTIONAL DETECTION LOOP INSTALLATION (ADJACENT)

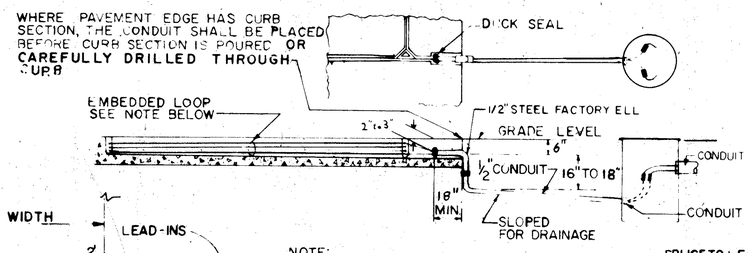


FIGURE 8
INTERFACE BETWEEN EMBEDDED LOOP AND ROAD SIDE PULL BOX

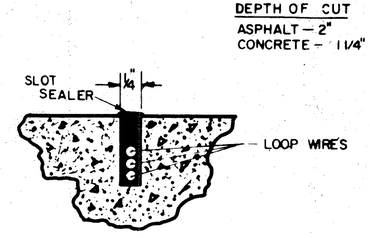


FIGURE 9
TYPICAL SLOT SEALING DETAIL

ROADWAY LOOP INSTALLATION

THE ROADWAY WIRE LOOP IS POSITIONED IN THE PAVEMENT IN A SAWED SLOT THAT OUTLINES THE REQUIRED DETECTION AREA. THE SLOT **SHALL** BE 1/4" WIDE AND FROM 1 1/4" **OR** 2" DEEP. RIGHT ANGLE TURNS **SHALL** BE CHAMFERED TO PREVENT SHARP BENDS OF WIRE (SEE FIG. 1), THE SLOT MUST BE BRUSHED AND BLOWN CLEAN OF ALL LOOSE MATERIAL. THE LOOP WIRE MUST BE CAREFULLY PUSHED INTO THE SLOT WITH A BLUNT STICK TO AVOID DAMAGING ITS INSULATION. RESISTANCE OF THE WIRE LOOP TO GROUND SHOULD BE CHECKED AFTER THE WIRE IS PLACED IN THE SLOT, BOTH BEFORE AND AFTER THE SLOT IS SEALED. THIS IS ESPECIALLY IMPORTANT IF THE ROADWAY WIRE LOOP IS SPLICED TO LEAD-IN CABLE AT CURBSIDE JUNCTION BOX. A RESISTANCE OF LESS THAN 10 MEGOHMS INDICATES A FAULTY SPLICE OR WIRE INSTALLATION WHICH MUST BE CORRECTED BEFORE THE ROADWAY LOOP IS SEALED IN PLACE.

INSTALLATIONS IN NEW ASPHALT PAVEMENT SHALL BE MADE IN THE SUBBASE PRIOR TO PLACING THE TOP COURSE.

SEALING

A FLEXIBLE EMBEDDING SEALANT NO. 491-H.P. MANUFACTURED BY EUCLID CHEMICAL CO. OF CLEVELAND, OHIO OR *E-707* MANUFACTURED BY *THE BONDO CORP OF NORTHFORD*, CONNECTICUT OR EQUIVALENT. SHALL BE MIXED ACCORDING TO DIRECTIONS, POURED INTO THE SAW SLOTS AND LEFT UNDISTURBED UNTIL CURED INTO A SOLID MASS.

* DIMENSIONS
IN CASES WHERE THE LATERAL DIMENSION WOULD BE LESS THAN EIGHT (8) FEET, THE LONGITUDINAL DIMENSION SHALL BE INCREASED TO OBTAIN A MINIMUM AREA OF 48 S.F.

BUREAU OF TRAFFIC
OHIO DEPARTMENT OF HIGHWAYS

EMBEDDED VEHICLE DETECTOR LOOP DETAILS

Rev 11-3-67
Rev 6-1-71
Rev 2-3-72

APPROVED _____
ENGINEER OF TRAFFIC

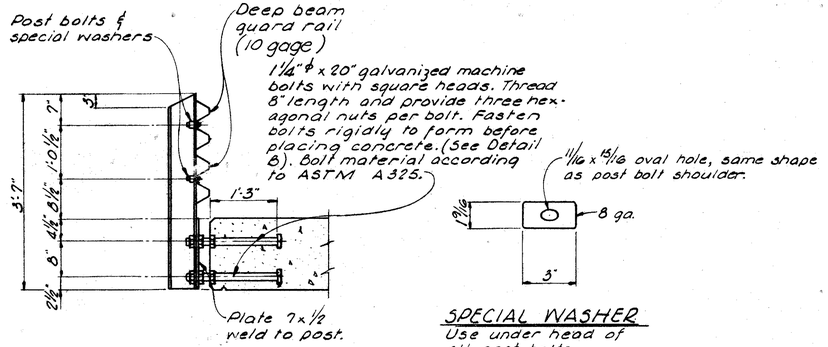
Rev. 9-23-74

MICROFILMED
OCT 28 1982

FED. RD. DIVISION	STATE	PROJECT	TYPE FUNDS
2	OHIO		

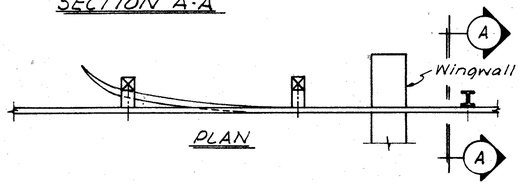
402
560

JEFFERSON COUNTY
JEF-7-0.20

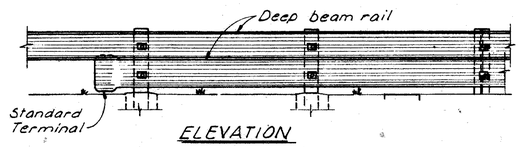


SECTION A-A

SPECIAL WASHER
Use under head of all post bolts.



PLAN

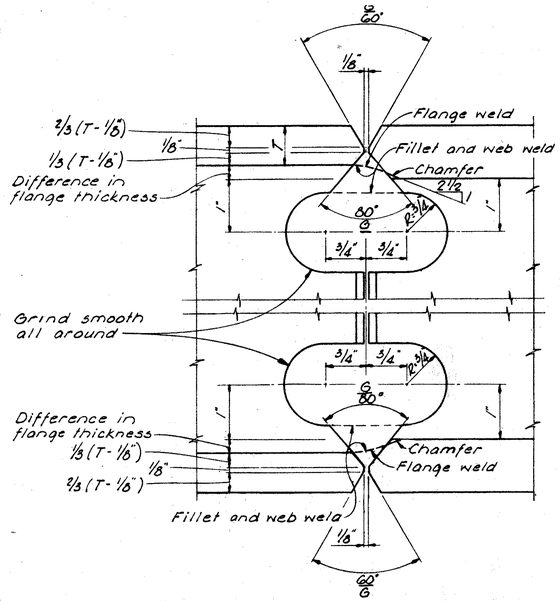


ELEVATION

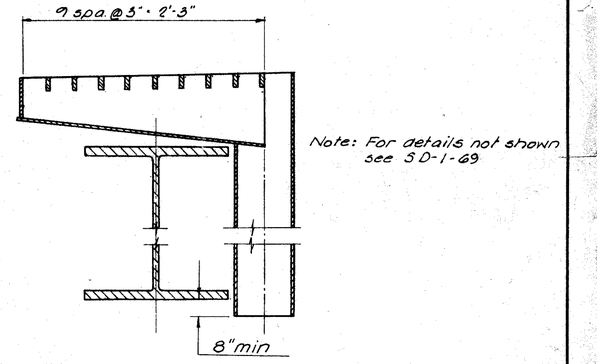
TERMINATION of LOWER RAIL

STANDARD BRIDGE RAILING
(Deep Beam Type)

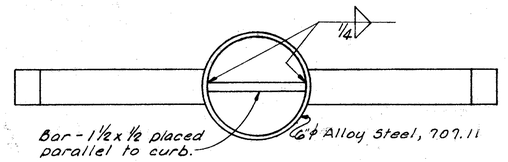
Note: That portion of the lower guard rail which projects beyond the bridge limits shall be included with the roadway railing for payment.

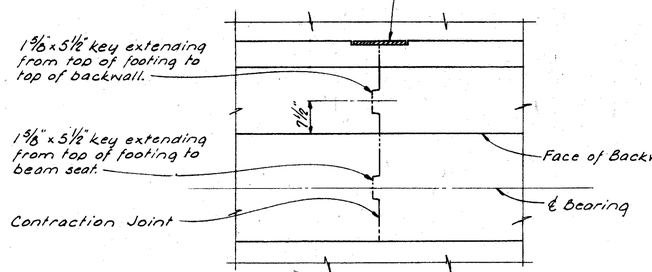


END PREPARATION of ROLLED BEAMS for SHOP WELDING.

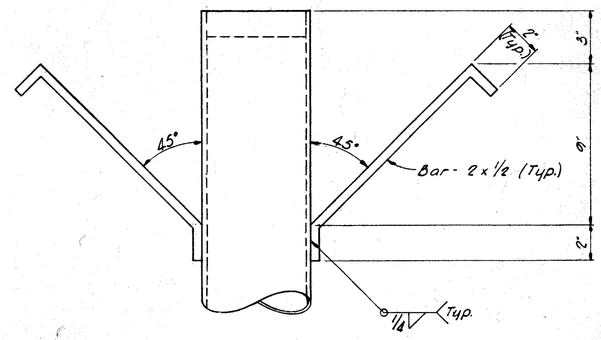


SCUPPER DETAIL
(Steel Beam and Girder Bridges)



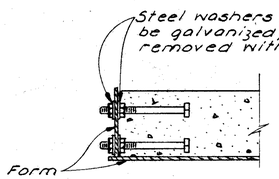


ABUTMENT CONTRACTION JOINT DETAIL
(Reinforcing steel shall not extend thru joint)



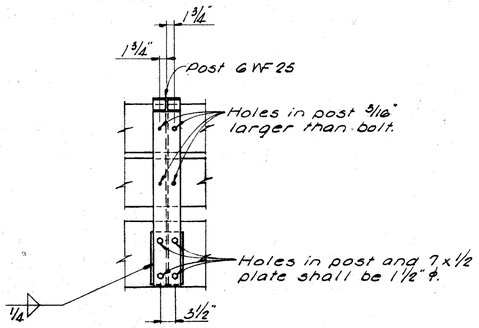
SCUPPER DETAIL
(Concrete Slab Bridge)

Note: Scuppers for steel beam and girder bridges, including support angles shall be galvanized in accordance with 711.02. Adequate temporary bracing shall be provided during construction.



DETAIL B

All material shall be galvanized as per Sec. 711.02 unless noted.



ELEVATION of RAILING POST

ALDEN E. STILSON & ASSOCIATES, LIMITED
CONSULTING ENGINEERS
COLUMBUS, OHIO

COMMON DETAILS
BRIDGE

JEFFERSON COUNTY

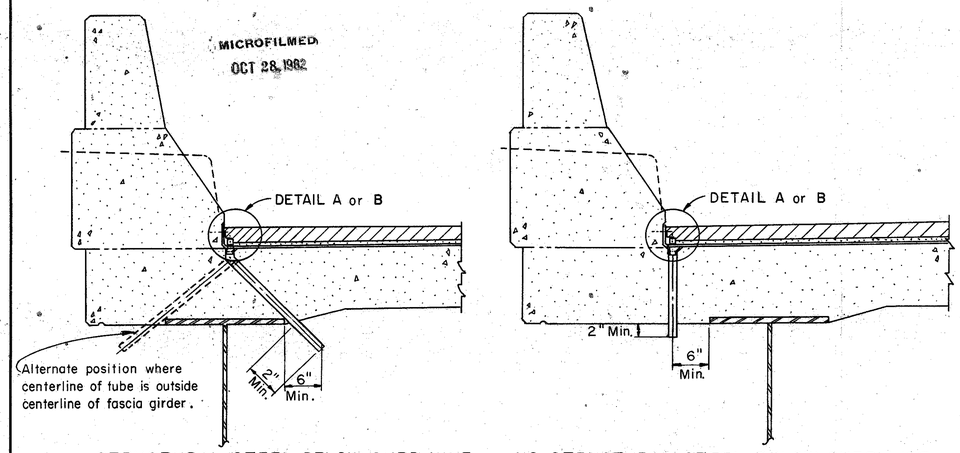
DESIGNED	DRAWN	TRACED	CHECKED	REVIEWED	DATE	REVISED
fwd	fwd		RT	J.E.V.	8/7/68	

MICROFILMED
OCT 28 1982

FHWA REGION	STATE	PROJECT	
5	OHIO		

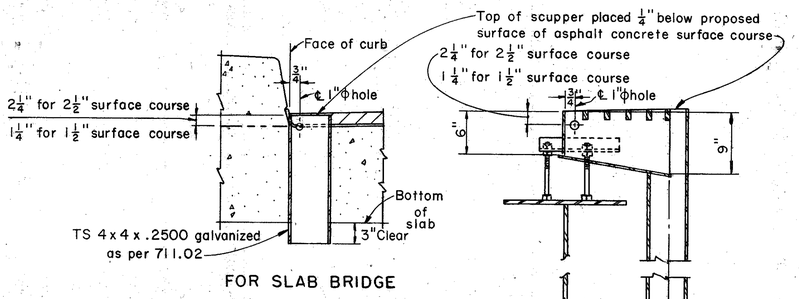
402A
560

JEFFERSON COUNTY
JEF-7-0.20



STRUCTURAL STEEL BELOW CURB LINE NO STRUCTURAL STEEL BELOW CURB LINE

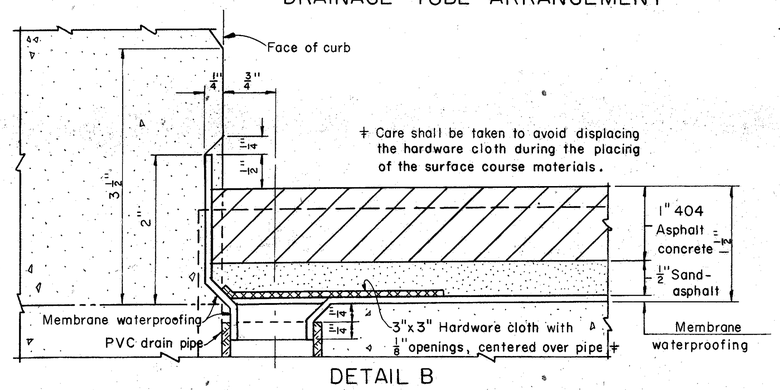
DRAINAGE TUBE ARRANGEMENT



FOR SLAB BRIDGE FOR GIRDER OR BEAM BRIDGE

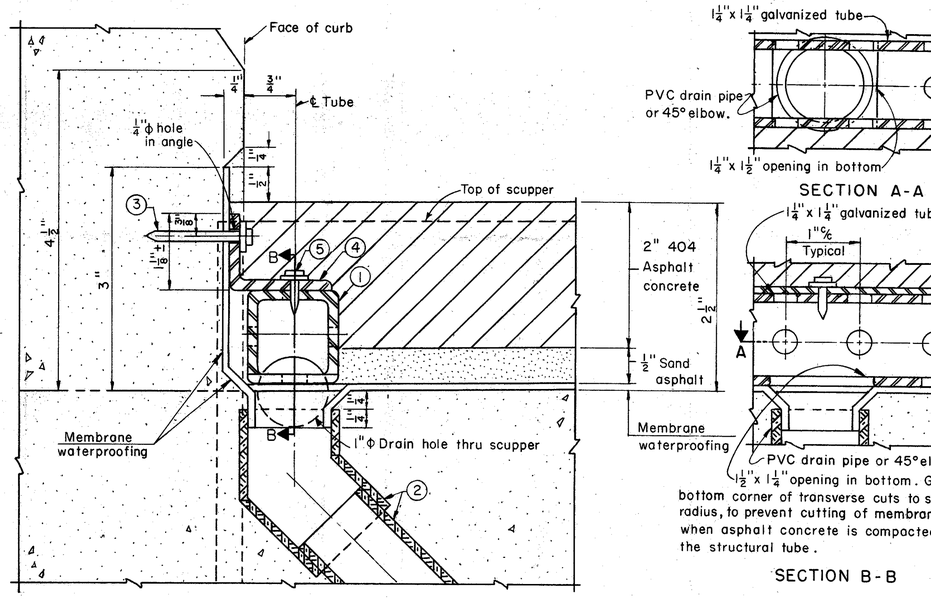
SCUPPER DETAILS

(Scupper details conform to SD-1-69 except as noted)



DETAIL B

SUBDRAINAGE FOR 1½" SURFACE COURSE



DETAIL A

SUBDRAINAGE FOR 2½" SURFACE COURSE

SUBDRAINAGE FOR ASPHALT CONCRETE SURFACE COURSE

The subdrainage system shall consist of PVC pipes and fittings and structural tubes as specified on this sheet. The pipes shall be spaced at approximately six foot intervals with a pipe placed within one foot of each expansion joint, except that they shall be relocated or extended as necessary for any discharge to clear bridge seats, structural members such as beams, diaphragms and crossbracing by at least six (6) inches. Pipes shall not be placed over or within four (4) feet of a pavement or sidewalk, within ten (10) feet of the centerline of a railroad track or along curb lines where the deck configuration does not permit water to accumulate.

Where the plans specify a two and one half (2½) inch surface course, the subdrainage shall be as shown on Detail A. The structural tube may be placed in any convenient lengths using butt joints. The price bid per linear foot for this drainage system shall include all PVC pipe and fittings, structural tubes, and all labor necessary to complete the item. The quantity will be the actual length of structural tube required. Payment will be made at the contract price for: Item 518, Lin. Ft., Subdrainage for wearing course, as per plan.

Where the plans specify a one and one half (1½) inch surface course, the subdrainage shall be as shown in Detail B. The price bid for each drain shall include the PVC pipe and fitting, the hardware cloth and all necessary labor to complete the item. Payment will be made at the contract price for: Item 518, Ea., Subdrainage for wearing course, as per plan.

If no sand-asphalt is specified, the 404 shall be either 2½" placed in two 1¼" courses or 1½" placed in one course.

① - 1¼"x1¼" galvanized, perforated, structural tube with $\frac{11}{32}$" ± ϕ holes 1" on centers on all four sides as shown. Cut 1½" ± x 1¼" opening in bottom, centered over each PVC drain pipe. The steel for the structural tube shall conform to the following:
PREGALVANIZED, ASTM A446, Grade A Steel, Galvanizing as per ASTM A525.
POSTGALVANIZED, ASTM A569 or A366, Galvanizing as per 711.02.

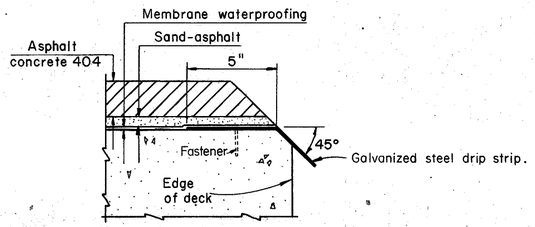
The minimum steel thickness shall be 0.105".
Any damaged galvanizing shall be repaired as per AASHO M36.

② - 1" PVC DRAIN PIPE AND 45° ELBOW, SCHEDULE 40. Position accurately to match ½"x1¼" openings in perforated tube. Place membrane to lap into the pipe, and seal the hole around the lip of the pipe. (This operation is important to the servicability of the membrane.) The drain pipe and elbow shall comply with the dimensions and markings of ASTM D1785 and ASTM D 2466, Type I and II respectively. The elbow shall be used only where structural steel is below curb line. Where the elbow is not adequate to provide clearance between the PVC pipe and the structural steel, the elbow shall be canted as required and cut on a line ¼" below and parallel with the deck surface. The solvent cement for the pipe and fittings shall conform to ASTM D2564.

③ - 1½"x$\frac{5}{32}$"x¼" flat head drive pin and washer.
Fastening of the structural tube by methods other than shown shall be subject to approval by the Engineer. (Driving pins into bridge deck is prohibited.)

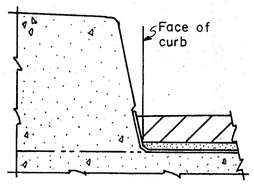
④ - L 1½"x1½"x⅛", 3" long, clipped and galvanized, or bent galvanized steel plate 2½"x3"x0.105" thick. Attach to curb at approximately 10'-0"℄ except near joints, where the angle shall be placed within 6" of the end of each tube section.

⑤ - ½"x⅛"x¼" flat head drive pin and washer driven thru angle and tube.



DRIP STRIP
BRIDGES WITHOUT CURBS

Galvanized Steel Drip Strip: Prior to applying deck membrane waterproofing a bent galvanized steel drip strip, 8"x0.105" shall be installed along the edges of the deck as shown. The strips shall be fastened at 3'-0"℄ maximum with power driven pins or # 10 galvanized expansion screws, subject to the approval of the Engineer. The strips shall be placed the full length of the deck. Where splices are required a 3"(min.) lap shall be used, with a fastener through the lap. Steel shall meet the requirements of ASTM A568 and galvanizing shall be in accordance with 711.02. Payment shall be at the contract price bid for Item Special, Sq. Ft., Galvanized steel drip strip, which shall include all materials, labor, tools and incidentals necessary to complete the item.



SHAPE OF SIDEWALK CURB

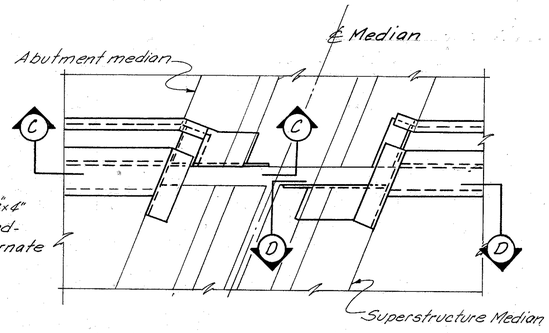
STATE OF OHIO
DEPARTMENT OF TRANSPORTATION
DIVISION OF HIGHWAYS
BUREAU OF BRIDGES

DECK DRAINAGE DETAILS FOR BRIDGES WITH ASPHALT CONCRETE SURFACE COURSE

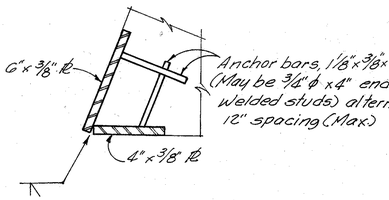
JEFFERSON COUNTY

DESIGNED	DRAWN	TRACED	CHECKED	REVIEWED	DATE	REVISED
DLM	GF	——	CPD	WJJ	7-27-73	

MICROFILMED
OCT 28 1982

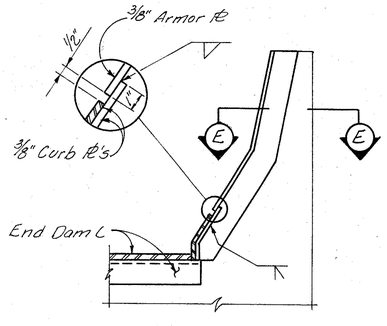


PLAN

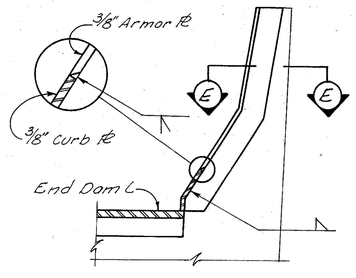


SECTION E-E

Note: Modify Curb plates, as shown, to incorporate Median Barrier Armor. For details of Curb plates and end dam, see Std. Dwg. SD-1-69.

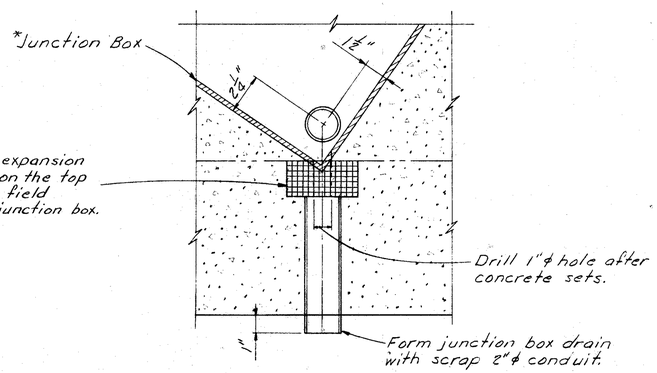


SECTION C-C

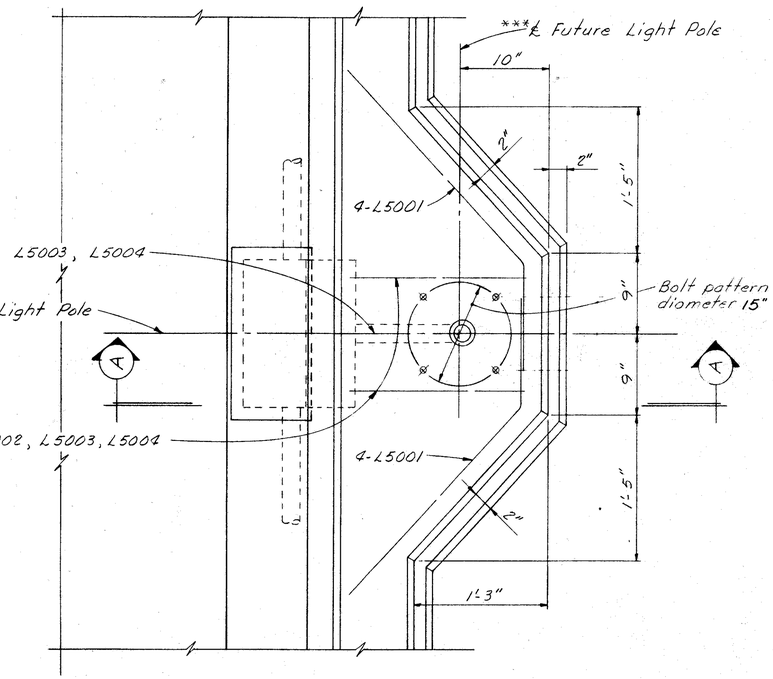


SECTION D-D

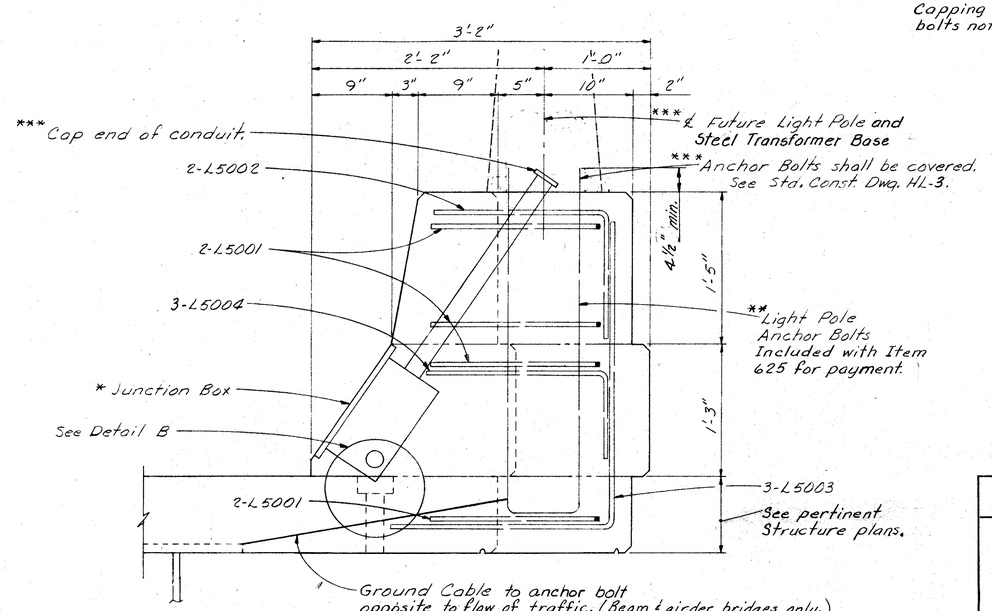
MEDIAN BARRIER ARMOR DETAILS



DETAIL B



Note: See Lighting Plans for Light Pole anchor bolt material and size.



SECTION-A-A

TYPE "B" BRIDGE RACEWAY WITH JUNCTION BOX

FED. RD. DIVISION	STATE	PROJECT	TYPE FUNDS
2	OHIO		

403
560

JEFFERSON COUNTY
JEF-7-0.20

LIGHTING NOTES

Bridge Lighting - Item 625 includes the installation of all electrical equipment on the bridge and wingwall to the adjacent Roadway Pull Box. For additional details and notes see Highway Lighting Details and Notes and Standard Construction Drawing HL-3, and HL-4.
Quantities - The reinforcing steel for light pole support are included with the bar List and are included with the structure quantities for payment. For detail listing of quantities, see General Lighting Summary, sheet 359.

Conduit - All conduit shall be in rigid ferrous metal, as per 713.04

Expansion Fitting - Fittings shall be O-Z Company, Type "AX" or Crouse-Hinds, Type XJ or Appleton, Type XJ and shall be located so as to permit equal expansion or contraction from 60°F. Included with conduit for payment.

* Junction Box - To be OZ Cat. No. YR161206, Thomas & Betts 10998, Hope H7048 or other approved equal.

** Anchor Bolts - Apply light coat of red weather-resistant paint to projected portion of bolt

*** Light Pole located at Sta. 91+38 on JEF-7-0166 Structure is to be installed with structure. Capping end of conduit and covering anchor bolts not required.

ALDEN E. STILSON & ASSOCIATES, LIMITED
CONSULTING ENGINEERS
CLEVELAND, OHIO COLUMBUS, OHIO WHEELING, W. VA.

COMMON DETAILS

BRIDGE

JEFFERSON COUNTY

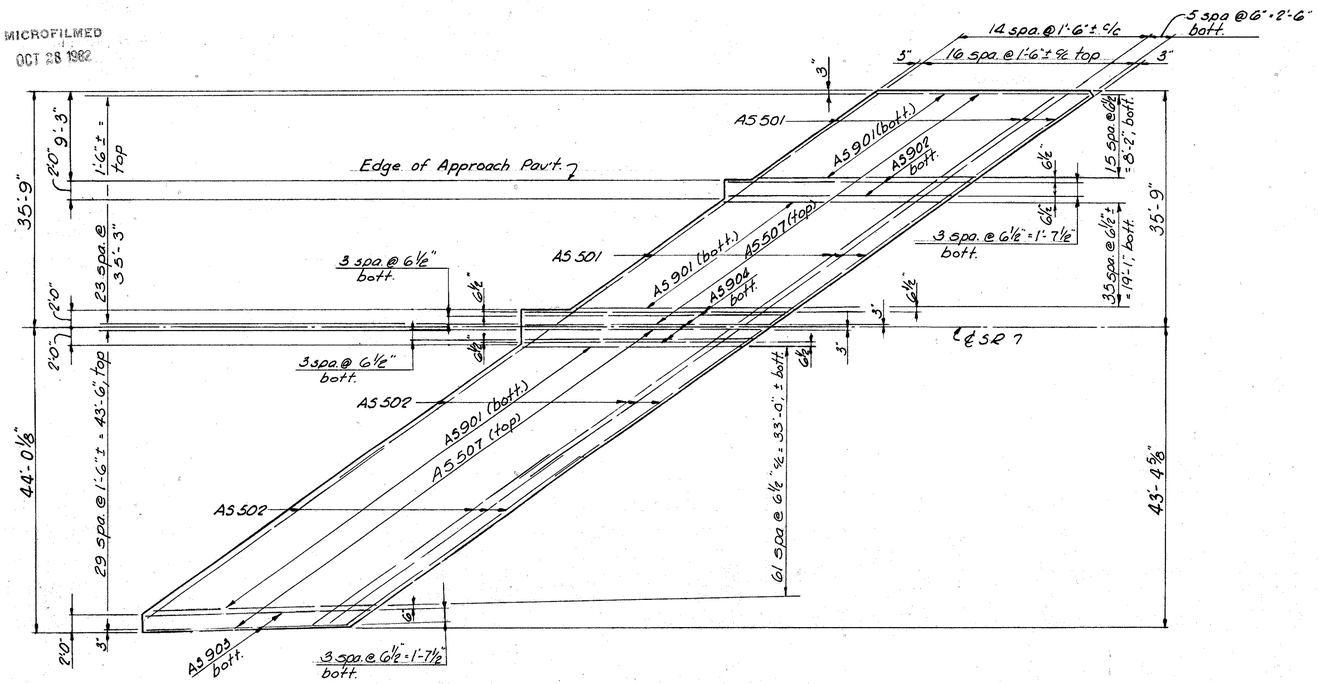
DESIGNED	DRAWN	TRACED	CHECKED	REVIEWED	DATE	REVISED
R.T.	DW		PHB.	JEV	11/29/68	

MICROFILMED
OCT 28 1982

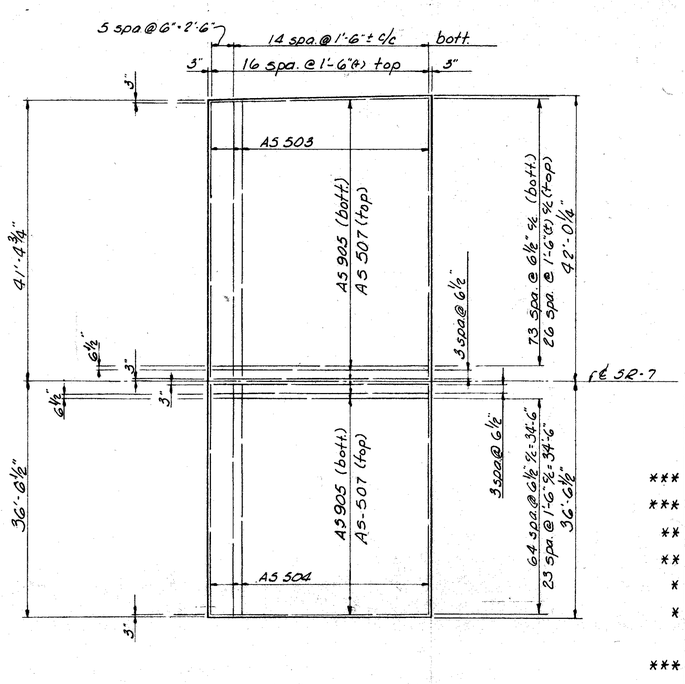
FED. RD. DIVISION	STATE	PROJECT	TYPE FUNDS
2	OHIO		

404
560

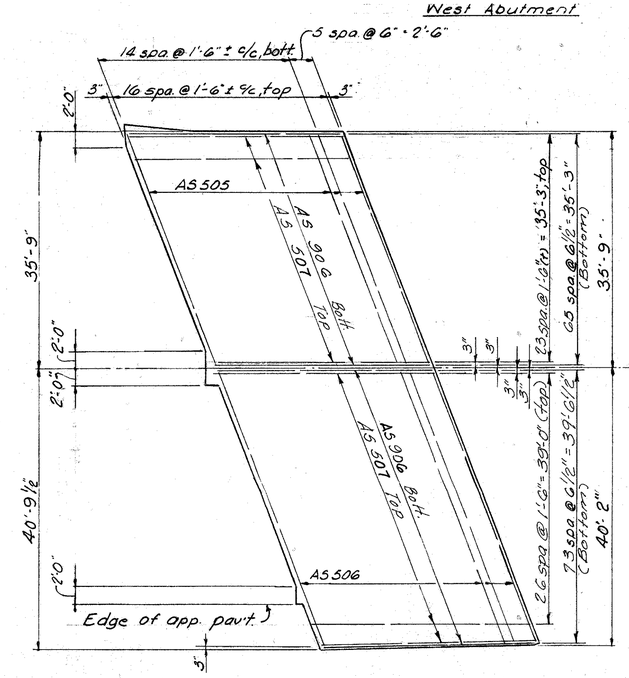
JEFFERSON COUNTY
JEF-7-0.20

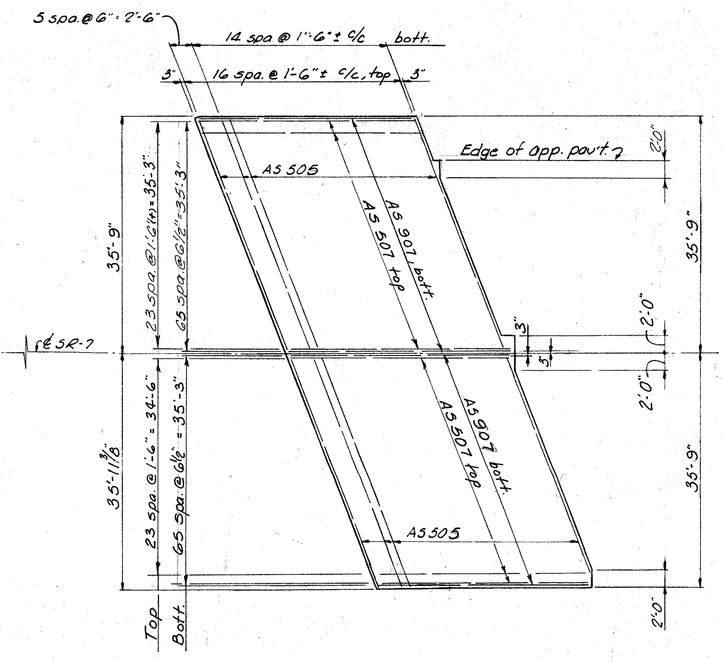


BRIDGE Nº: JEF-7-0166
West Abutment

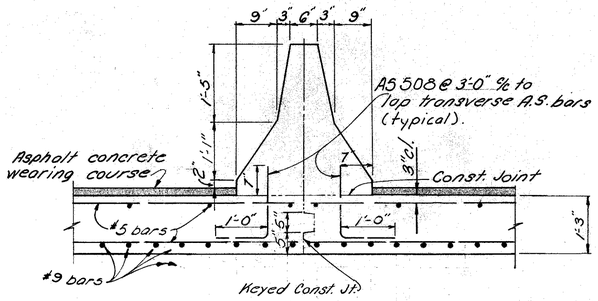


BRIDGE Nº: JEF-7-0245
North Abutment





BRIDGE Nº: JEF-7-0288
South Abutment — North Abutment



DETAIL of CONCRETE BARRIER

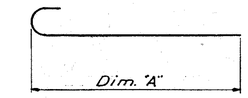
(Typical for all bridges except Service Rd. "A" over Short Creek or JEF-7-0241.)

NOTES

For notes and details not shown see Standard Drawing A5-1-72

Reinforcing steel shall not extend through construction joint.

All other approach slabs shall conform to Standard Drawing A5-1-72



STEEL LIST

	Mark	Nº	Length	Dim. "A"	Dim. "A" Increment
***	AS 501	74	33'-0	—	—
***	AS 502	74	44'-0	—	—
**	AS 503	37	41'-0	—	—
**	AS 504	37	36'-0	—	—
*	AS 505	111	38'-0	—	—
*	AS 506	37	43'-3	—	—
	AS 507	204	24'-6	—	—
***	AS 901	114	25'-9	24'-6	—
***	AS 902	1 series of 4	25'-9 to 28'-3	24'-6 to 27'-0	10
***	AS 903	1 series of 4	23'-3 to 25'-9	22'-0 to 24'-6	10
***	AS 904	1 series of 8	25'-9 to 31'-7	24'-6 to 30'-4	10
**	AS 905	139	25'-9	24'-6	—
*	AS 906	140	25'-9	24'-6	—
*	AS 907	132	25'-9	24'-6	—
	AS 508	72	2'-6	—	—

*** Bridge Nº: JEF-7-0166
** Bridge Nº: JEF-7-0245
* Bridge Nº: JEF-7-0288

A tack coat shall be applied to the approach slab at the rate of 0.10 gal. per sq. yd.

The jacking holes are not required when an asphalt surface course is used.

7

ALDEN E. STILSON & ASSOCIATES, LIMITED
CONSULTING ENGINEERS
CLEVELAND, OHIO COLUMBUS, OHIO WHEELING, W. VA.

APPROACH SLAB DETAILS

JEFFERSON COUNTY

DESIGNED	DRAWN	TRACED	CHECKED	REVIEWED	DATE	REVISED
fwd	fwd		R.T.	JEV	4/7/69	

MICROFILMED
OCT 29 1982

FED. RD. DIVISION	STATE	PROJECT	TYPE FUNDS

405
560

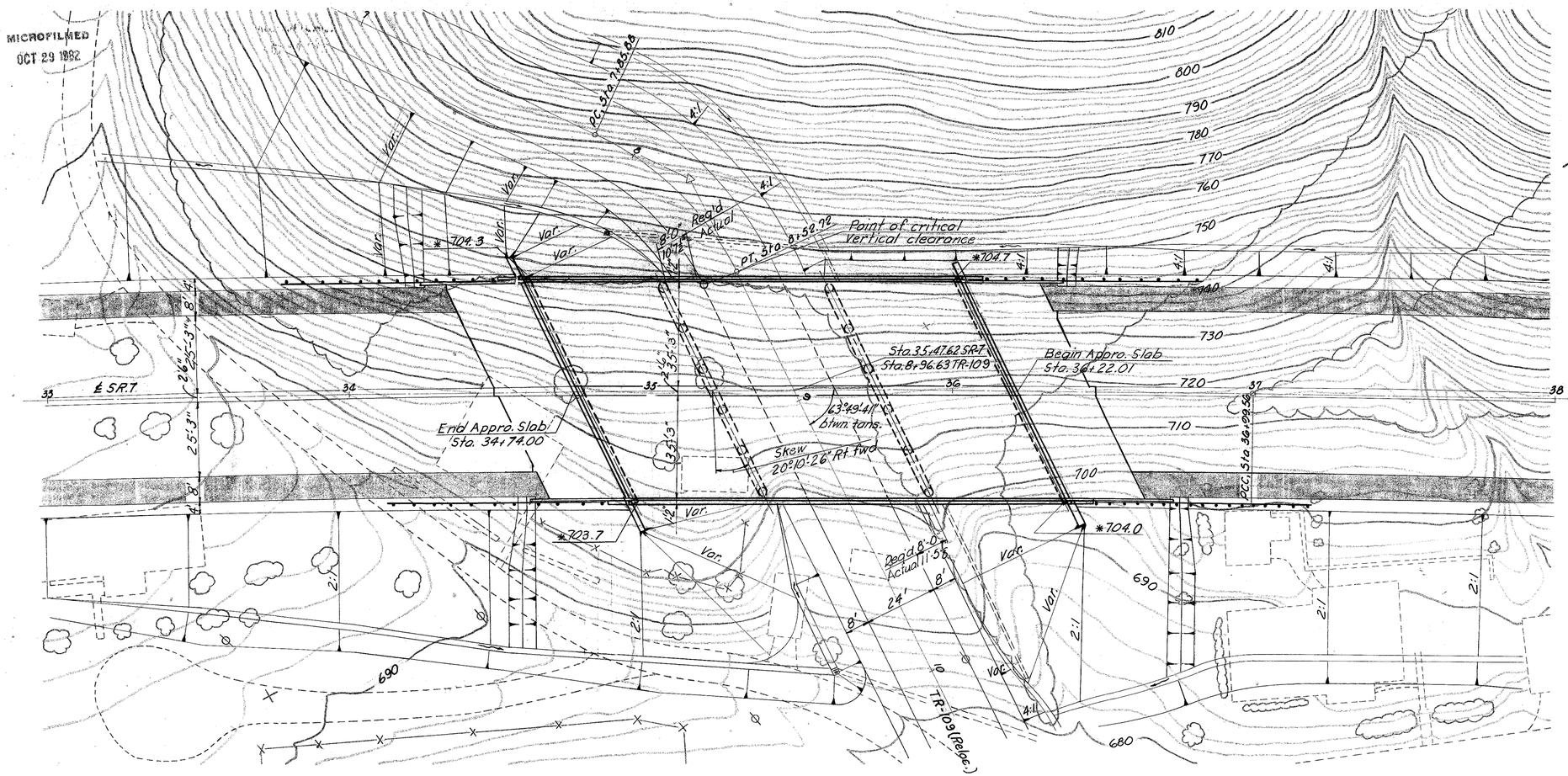
JEFFERSON COUNTY
JEF-7-0.20

N

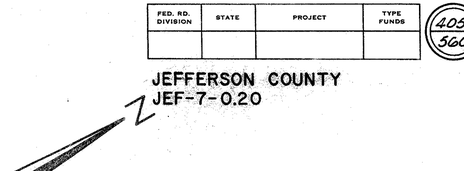
PROPOSED STRUCTURE

TYPE: Continuous steel beam with reinforced concrete deck and substructure
SPANS: 44'-0", 55'-0", 44'-0" along ℄ S.R.-7
ROADWAY: 73'-0" f/f* concrete barrier type parapet with 2'-6" barrier median
LOADING: HS 20-44
WEARING SURFACE: 2½" Asphalt Concrete
SKEW: 26°-10'-26" Rt fwd. with respect to ref. chord
ALIGNMENT: 0°30' curve right
APPROACH SLABS: 25'-0" long. See Sheet 404.
SUPERELEVATION: 0.0156 ft/ft

Horizontal clearance is measured to edge of through pavement.



PLAN



LAYOUT DIAGRAM

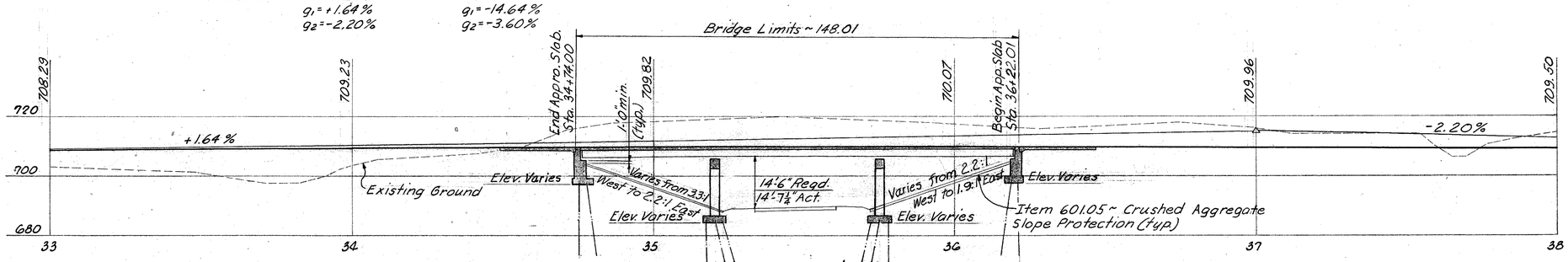
Elevations marked with an asterisk are at top of slope at face of abutment

Earthwork limits shown are schematic. Actual slopes shall conform to plan cross-sections.

All piles shall be HP 10×42 steel piles
Estimated average pay lengths are:
Abutments = 25'
Piers = 15'

CURVE DATA

SR-7		TR 109 (RELOC)
PI = 24+24.66	PVI = 37+00	PVI = 9+00
Δ = 12°48'09"	VC = 1100'	VC = 325'
D = 0°30'	Elev. = 715.24	Elev. = 683.08
L = 2560.51	Corr. = -5.28	Corr. = +4.49
T = 1285.61'	PG = 709.96	PG = 687.57
	g_1 = +1.64%	g_1 = -14.64%
	g_2 = -2.20%	g_2 = -3.60%



PROFILE along ℄ SR-7

ALDEN E. STILSON & ASSOCIATES, LIMITED
CONSULTING ENGINEERS
COLUMBUS, OHIO

1/14

SITE PLAN
BRIDGE N° JEF-7-0066
SR-7 over TR-109 (Reloc.)
JEFFERSON COUNTY
STA. 34 + 74.00
STA. 36 + 22.01

DESIGNED	DRAWN	TRACED	CHECKED	REVIEWED	DATE	REVISED
OLM	OLM	D.R.	HT	J.E.V.	11/17/67	

FED. RD. DIVISION	STATE	PROJECT	TYPE FUNDS
2	OHIO		

406
560

JEFFERSON COUNTY
JEF-7-0.20

REFERENCES:

MICROFILMED
OCT 29 1982

Standard Drawings:

End Dam, End Crossframe, & Scuppers	SD-1-60 Sheets 1, 2 & 3 Dated 6-12-60
Railing Details	BR-1-67, Sheet 1 Revised 10-15-71
Rocker & Bolster Details	RB-1-55, Revised 2-2-59
Approach Slab Details	AS-1 72 Revised 6-30-72
Highway Lighting	HL-5 Dated 3-6-73

Supplemental Specifications:

Chemical Admixture for Concrete Type A, B or D.	808, Dated 1-1-71
Concrete Curing and Protective Membrane	836, Dated 1-1-71.

Common Details:

Abutment Contraction Joints	Sheet 402
Scuppers	Sheet 402 & 402A
Subdrainage For Wearing Course	Sheet 402A
Median Barrier Armor	Sheet 403

DESIGN SPECIFICATIONS: This structure conforms to the "Standard Specifications for Highway Bridges" adopted by the American Association of State Highway Officials, 1965, including the Ohio "Supplement" to these specifications.

DESIGN DATA:

Design Loading - HS 20-44

Concrete Class C - unit stress 1200 p.s.i. for superstructure
unit stress 1333 p.s.i. for substructure

Structural Steel - ASTM A36 - unit stress 20,000 p.s.i.

Reinforcing Steel - ASTM A615, A616, A617. Unit Stress 20,000 p.s.i. Spiral reinforcement may be plain bars ASTM A82, A306, A499 or A615.

PILES shall be driven to refusal on bedrock or to 20 blows per inch for the last few inches of penetration. The design load is 35 tons per pile for the abutment piles and 35 tons per pile for the piles.

BACKWALL CONCRETE: In addition to the provisions of 511.08, backwall concrete shall not be placed until after the deck concrete in the span adjacent to the backwall has been placed.

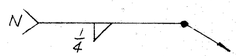
BEARING ANCHORS: At the option of the Contractor, bearing anchors (or formed holes), located and supported by templates, may be cast in place.

FOUNDATION BEARING PRESSURE: Pier footings for western four columns are designated for a maximum bearing pressure of 5 tons per square foot and the western portion of abutment footings for 5 tons per square foot.

FOOTINGS for western four pier columns and western portion of abutments shall extend a minimum of 3 inches into bedrock or to the elevation shown, whichever is lower.

END DAM PAINTING: Portions of the end dams which will be in contact with steel or with concrete shall not be painted. All other portions shall be cleaned and painted in accordance with 514.

WELDS on non-stress carrying members are shown thus:



ITEM	TOTAL	UNIT	DESCRIPTION	ABUTS	PIERS	SUPER	GENERAL		
503	LUMP	SUM	COFFERDAMS, CRIBS AND SHEETING				LUMP		
503	370	C.Y.	UNCLASSIFIED EXCAVATION	265	105				
503	230	C.Y.	ROCK EXCAVATION	120	110				
505	LUMP	SUM	TEST PILE				LUMP		
507	800	L.F.	STEEL PILES, HP 10 x 42	500	300				
509	143247	LB	REINFORCING STEEL	18966	29776	94505			
511	328	C.Y.	CLASS C CONCRETE, SUPERSTRUCTURE			328			
511	124	C.Y.	CLASS C CONCRETE, PIERS ABOVE FOOTINGS		124				
511	185	C.Y.	CLASS C CONCRETE, ABUTMENTS ABOVE FOOTINGS	185					
511	190	C.Y.	CLASS C CONCRETE, FOOTINGS	116	74				
512	16	L.F.	PREMOLDED SEALING STRIP	16					
513	225900	LB	STRUCTURAL STEEL			225900			
514	225900	LB	FIELD PAINTING OF STRUCTURAL STEEL			225900			
518	93	C.Y.	POROUS BACKFILL	93					
518	172	L.F.	6 INCH PERFORATED, HELICAL CMP, 707.01	172					
518	118	L.F.	6 INCH NON-PERFORATED, HELICAL CMP, 707.01, INCLUDING SPECIALS	118					
518	7	EA	SCUPPERS INCLUDING SUPPORTS			7			
518	432	L.F.	SUBDRAINAGE FOR WEARING COURSE, AS PER PLAN			432			
601	930	S.Y.	CRUSHED AGGREGATE SLOPE PROTECTION				930		
625			SEE SHEET 359 FOR LIGHTING SUMMARY						
808	328	UNIT	CHEMICAL ADMIXTURE FOR CONCRETE, TYPE A, B OR D			328			
404	63	C.Y	Asphalt Concrete (70-85 or AC 20)			63			
Spec.	16	C.Y	Sand Asphalt			16			
* Spec.	1125	S.Y.	Membrane Waterproofing, sheet type			1125			

* SEE PROPOSAL NOTE

ALDEN E. STILSON & ASSOCIATES, LIMITED
CONSULTING ENGINEERS
COLUMBUS, OHIO

2 / 14

GENERAL NOTES
AND
ESTIMATED QUANTITIES
BRIDGE No. JEF-7-0066
SR-7 over TR-109 (RELOC.)
JEFFERSON COUNTY STA. 34+74.00 to STA. 36+22.01

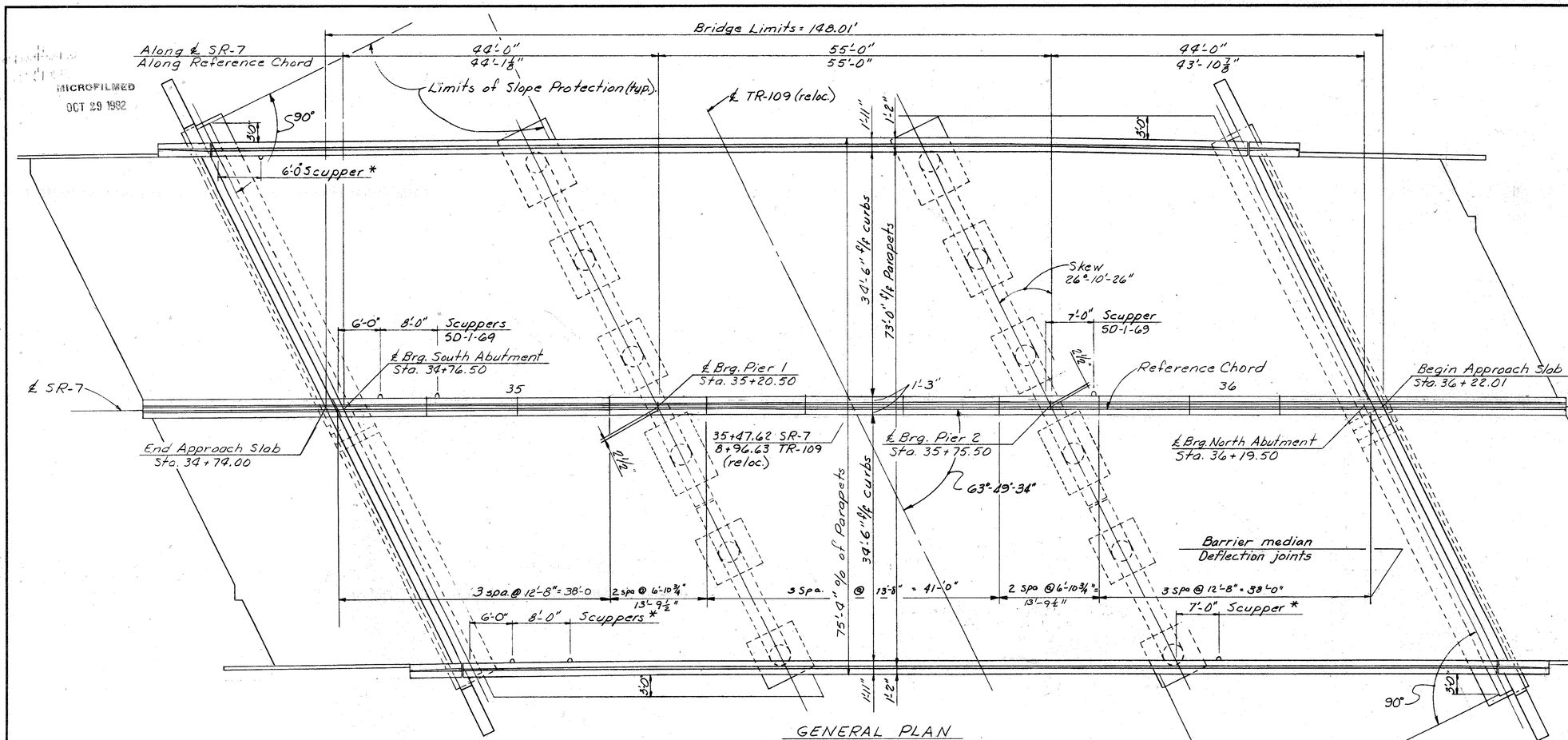
DESIGNED	DRAWN	TRACED	CHECKED	REVISED	DATE	REV. NO.
RT 7/24/68			VB 11/6/68	JEV	11/29/68	

MICROFILMED
OCT 29 1982

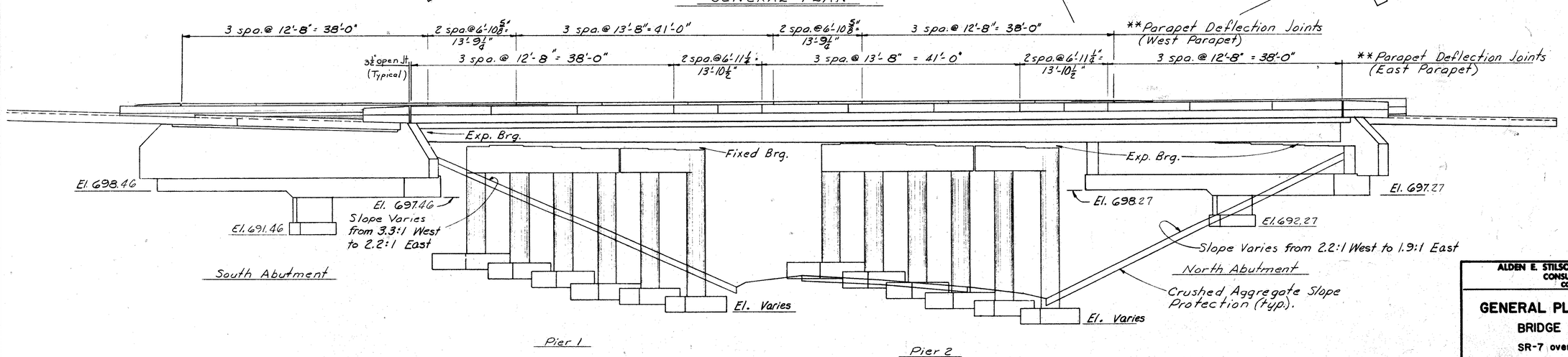
FED. RD. DIVISION	STATE	PROJECT	TYPE FUNDS
2	OHIO		

407
560

JEFFERSON COUNTY
JEF-7-0.20



GENERAL PLAN



(Piles not shown.)

GENERAL ELEVATION

NOTES

*For Scupper details see Common Details sheet 402, & 402A.

**Parapet Deflection Joint spacing is measured along face of parapet.

Length of Parapets:
West parapet ~ 144'-6½"
East parapet ~ 144'-9"

For Parapet Deflection Joint Details, see Std. Dwg. BR-1-67.

Preformed Expansion Joint Filler in the deflection joints may be either ¼" gray sponge rubber or ¼" gray cellular polyvinyl chloride (PVC) sponge.

ALDEN E. STILSON & ASSOCIATES, LIMITED
CONSULTING ENGINEERS
COLUMBUS, OHIO

3/14

GENERAL PLAN and ELEVATION

BRIDGE No. JEF-7-0066
SR-7 over TR-109 (RELOC.)
JEFFERSON COUNTY
STA. 34+74.00 to STA. 36+22.01

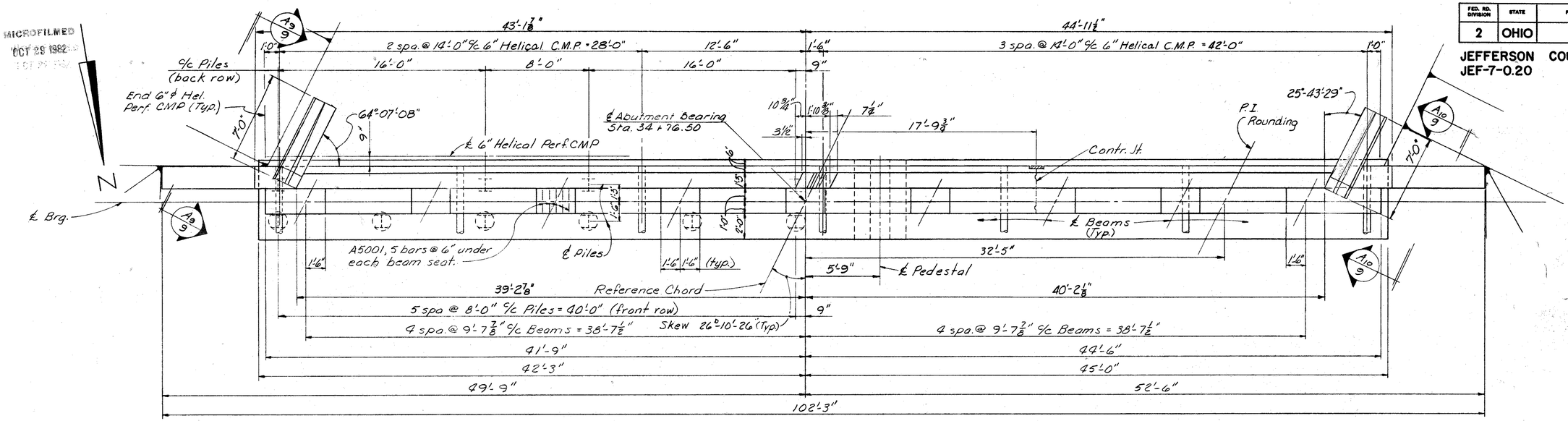
DESIGNED	DRAWN	TRACED	CHECKED	REVIEWED	DATE	REVISED
RT	DW		VB	J.E.V.	11/29/83	

MICROFILMED
OCT 28 1982

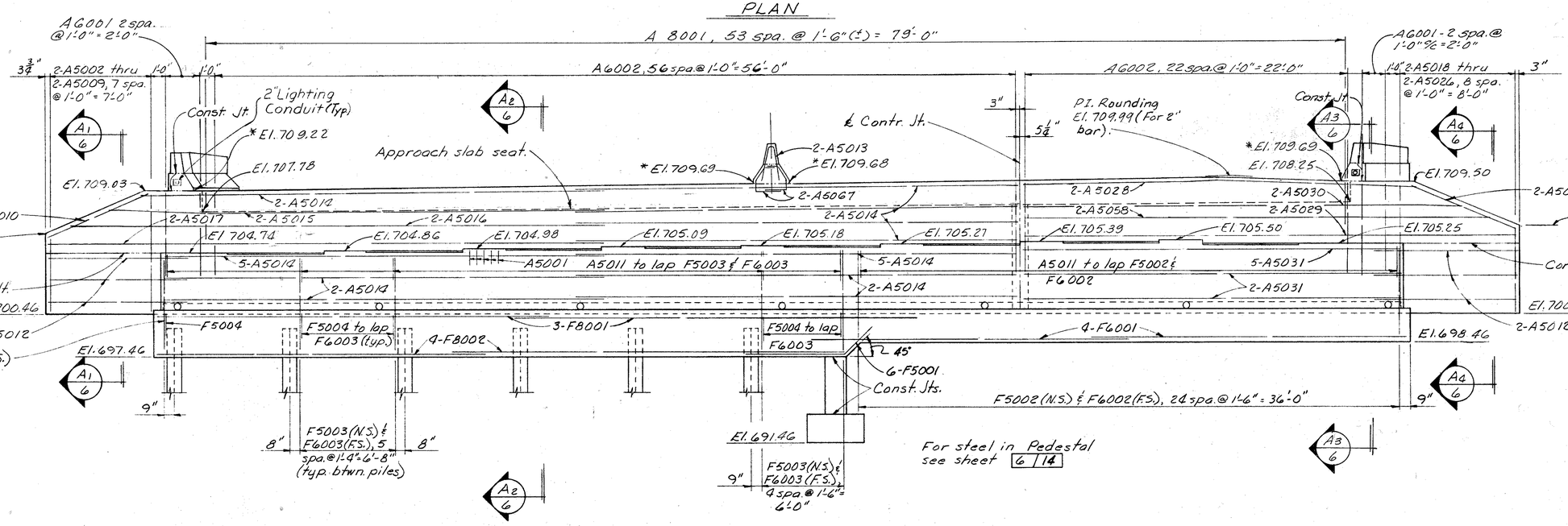
FED. RD. DIVISION	STATE	PROJECT	TYPE FUNDS
2	OHIO		

408
560

JEFFERSON COUNTY
JEF-7-0.20



PLAN



For steel in Pedestal see sheet 6 | 14

ELEVATION

NOTE

For additional notes and details see sheet 6 | 14
Reinforcing steel location:
N.S. indicates near side
F.S. indicates far side

ALDEN E. STILSON & ASSOCIATES, LIMITED
CONSULTING ENGINEERS
COLUMBUS, OHIO

4 | 14

SOUTH ABUTMENT DETAILS

BRIDGE No. JEF-7-0066

SR-7 over TR-109 (RELOC.)

JEFFERSON COUNTY STA. 34+74.00 to STA. 36+22.01

DESIGNED	DRAWN	TRACED	CHECKED	REVIEWED	DATE	REVISED
RT	DW		VB	J.E.V.	11/29/68	

MICROFILMED
OCT 29 1982

FED. RD. DIVISION	STATE	PROJECT	TYPE FUNDS
2	OHIO		

409
560

JEFFERSON COUNTY
JEF-7-0.20

N

End 6"ϕ Hel. Perf. CMP (Typ.)

43'-4½"

2 spa. @ 14'-0" = 28'-0" 6" Helical C.M.P.

12'-6"

45'-3½"

3 spa. @ 14'-0" = 42'-0" 6" Helical C.M.P.

6'-3" 15'-0" 7'-6" 15'-0"

℄ Piles (back row)

℄ Abutment Bearing Sta. 36+19.50

℄ 6" Helical Perf. CMP

S 63°-33'-07" E

26°-37'-36"

Contr. Jt.

℄ Beams

℄ Brg.

A5001, 5 bars @ 6" under each beam seat.

℄ Pedestal

℄ Piles

P.I. Rounding

Reference Chord

Skew 26°-10'-26" (Typ)

39'-5⅜"

40'-5¾"

31'-0½"

6'-3"

5 spa. @ 7'-6" = 37'-6" (front row)

4 spa. @ 9'-7⅞" = 38'-7½"

4 spa. @ 9'-7⅞" = 38'-7½"

42'-0"

44'-9"

42'-6"

45'-3"

50'-0"

52'-9"

102'-9"

PLAN

A6001, 2 spa. @ 1'-0" = 2'-0"

A 8001, 53 spa. @ 1'-6" (±) = 79'-0"

A6002, 56 spa. @ 1'-0" = 56'-0"

A6002, 22 spa. @ 1'-0" = 22'-0"

A6001, 2 spa. @ 1'-0" = 2'-0"

2-A5034 thru 2-A5041 7 spa @ 1'-0" = 7'-0"

A5048 thru A5056, 8 spa. @ 1'-0" = 8'-0"

P.I. Rounding El. 710.46 (For 2" bar). Approach slab seat.

Const. Jt.

*El. 710.15

2" Lighting Conduit (Typ)

Const. Jt.

℄ Contr. Jt.

*El. 710.05

*El. 710.05

*El. 709.50

709.31

El. 710.96

El. 708.71

El. 708.06

2-A5042

2-A5043

2-A5044

2-A5033

2-A5057

El. 707.07

2-A5032

2-A5039

2-A5044

2-A5045

2-A5046

2-A5047

El. 706.39

El. 705.70

El. 705.92

El. 705.79

El. 705.65

El. 705.54

El. 705.43

El. 705.29

El. 705.16

El. 705.02

A5001

A5011 to lap F5002 ℄ F6002

5-A5044

A5011 to lap F5003 ℄ F6003

5-A5033

Const. Jt.

2-A5012

2-A5044

2-A5033

Const. Jt.

El. 699.27

El. 700.27

El. 698.27

4-F6004

F5004 to lap F6003

3-F8003

4-F8004

F5004 to lap F6003 (Typ)

4-F8004

F5004

2-A5012

F5003 (N.S.) ℄ F6003 (F.S.)

El. 697.27

6-F5001 @ 45°

Const. Jts.

9"

F5002 (N.S.) ℄ F6002 (F.S.), 26 spa. @ 1'-6" = 39'-0"

El. 692.27

F5003 (N.S.) ℄ F6003 (F.S.), 4 spa. @ 1'-6" = 6'-0"

For steel in Pedestal see sheet 6/14

F5003 (N.S.) ℄ F6003 (F.S.), 5 spa. @ 1'-3" = 6'-3" (typ. btwn. piles)

7⅛"

7⅛"

9"

ELEVATION

NOTE

For additional notes and details see sheet 6/14
Reinforcing steel location
N.S. indicates near side
F.S. indicates far side

ALDEN E. STILSON & ASSOCIATES, LIMITED
CONSULTING ENGINEERS
COLUMBUS, OHIO

5/14

NORTH ABUTMENT DETAILS

BRIDGE No. JEF-7-0066

SR-7 over TR-109 (RELOC.)
JEFFERSON COUNTY STA. 34+74.00 to STA. 36+22.01

DESIGNED	DRAWN	TRACED	CHECKED	REVIEWED	DATE	REVISED
RT	DW		VB	J.E.V.	11/23/68	

MICROFILMED
OCT 29 1982

FED. RD. DIVISION	STATE	PROJECT	TYPE FUNDS
2	OHIO		

410
560

JEFFERSON COUNTY
JEF-7-0.20

NOTES

All piles shall be HP 10 x 42
(V) indicates vertical piles.
(B) indicates battered piles 1:4.

Top of backwall shall conform to roadway crown.

*Elevations marked with an asterisk are to top of 2" edge bar.

Porous backfill, 1'-6" thick, full length of abutment and wings, shall extend up to the plane of the subgrade and laterally to the surface of the embankment slopes.

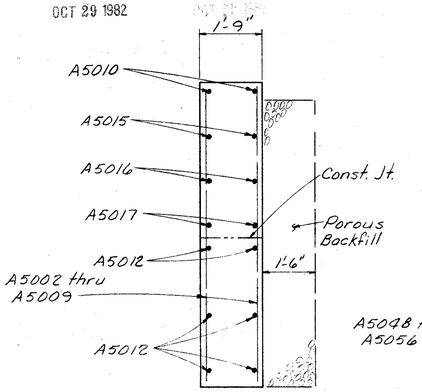
Outside ends of 6" ϕ Helical Perf. CMP shall be capped.

Shape of median on backwall shall conform to shape of median on superstructure.

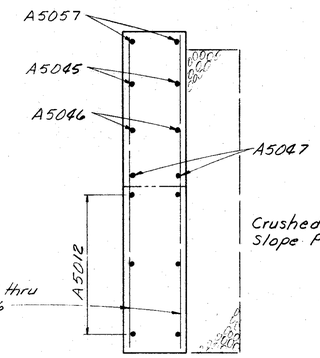
For Contraction Joint details see Common Details sheet 402.

For additional notes and details see sheets 4/14 and 5/14

All reinforcing in footing shall have 3" minimum cover.

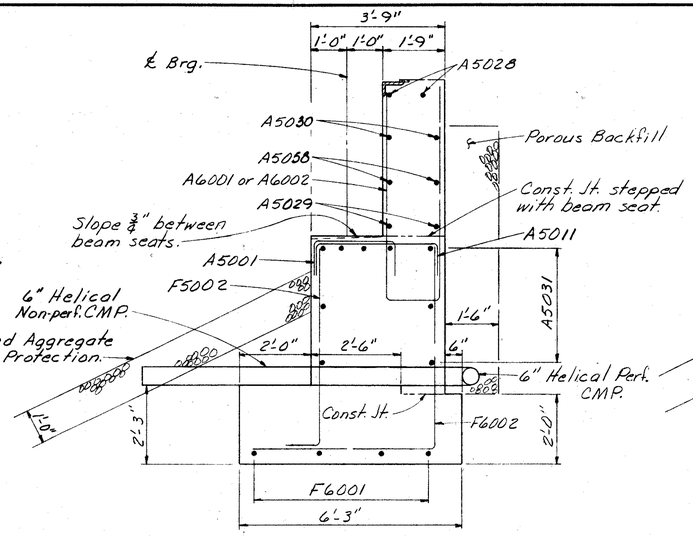


SECTION~A1/4

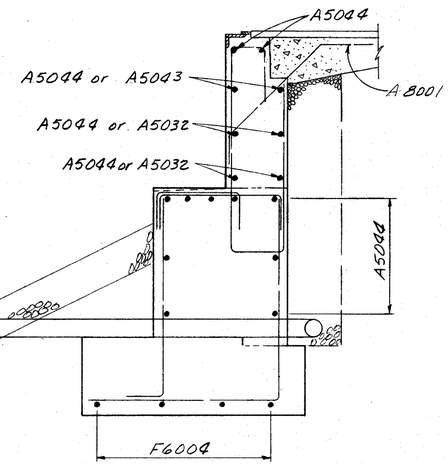


SECTION~A8/5

Same as Section A1/4 except as noted.



SECTION~A3/4



SECTION~A6/5

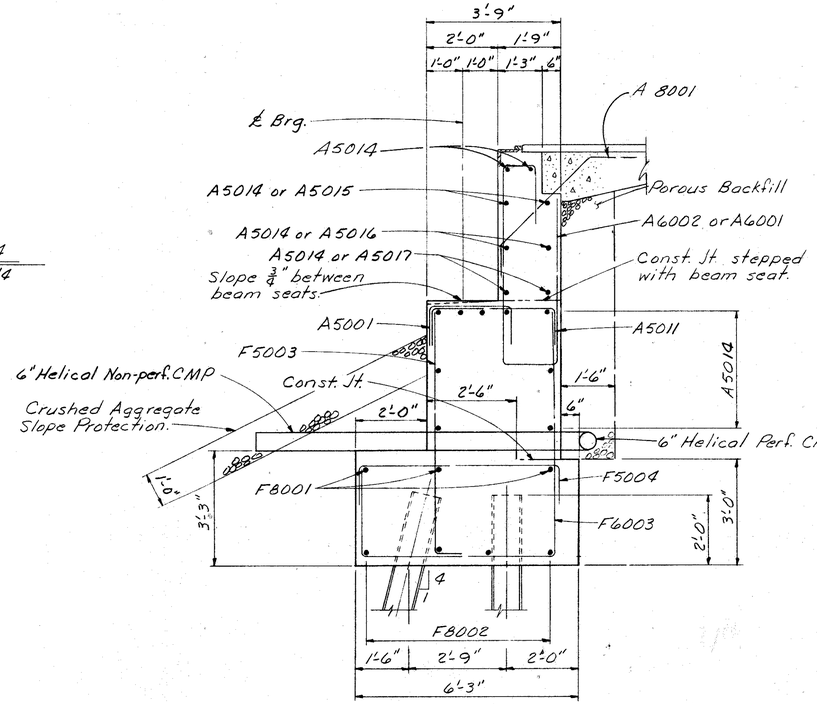
Same as Section A3/4 except as noted.

SECTION~A4/4

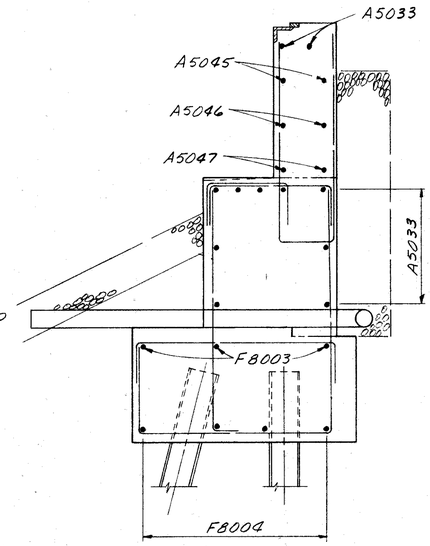
Same as Section~A1/4 except as noted.

SECTION~A5/5

Same as Section~A1/4 except as noted.

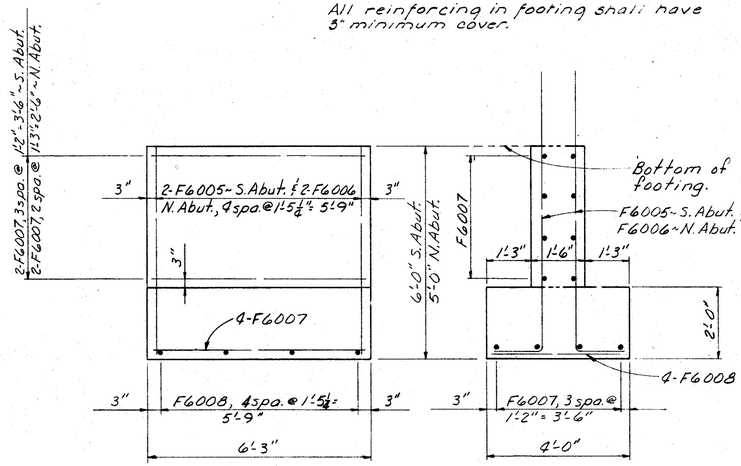


SECTION~A2/4



SECTION~A7/5

Same as Section~A2/4 except as noted.



PEDESTAL FOR SOUTH & NORTH ABUTMENTS

(For location see sheets 4 & 5/14)

ALDEN E. STILSON & ASSOCIATES, LIMITED
CONSULTING ENGINEERS
COLUMBUS, OHIO

6/14

ABUTMENT DETAILS

BRIDGE No. JEF-7-0066

SR-7 over TR-109 (RELOC.)

JEFFERSON COUNTY STA. 34+74.00 to STA. 36+22.01

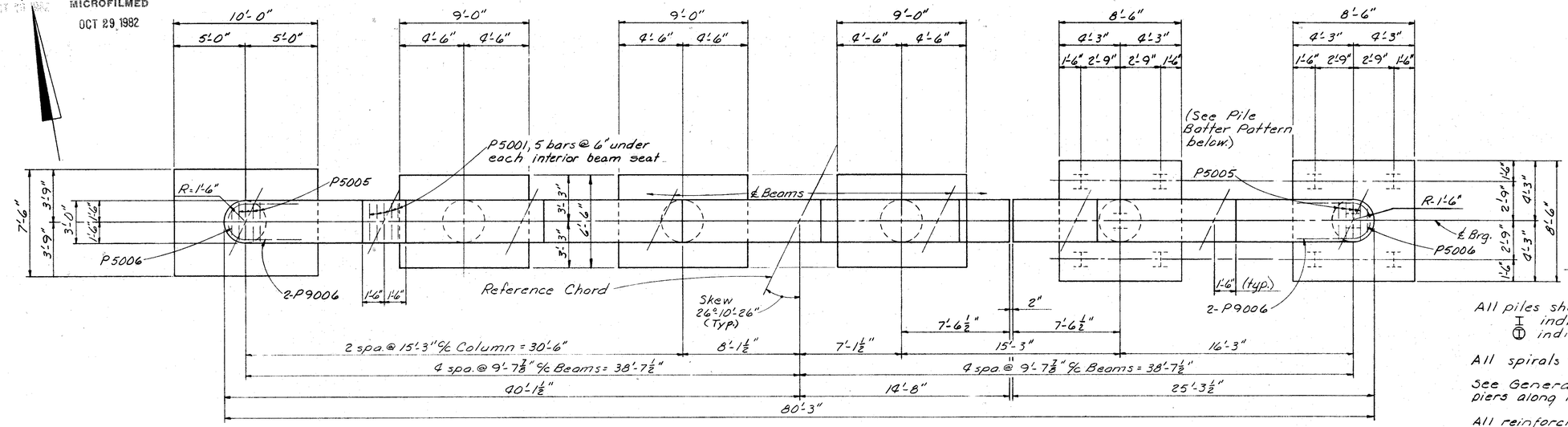
DESIGNED	DRAWN	TRACED	CHECKED	REVIEWED	DATE	REVISED
RT	DW		VB	J.E.V.	11/29/68	

MICROFILMED
OCT 29 1982

FED. RD. DIVISION	STATE	PROJECT	TYPE FUNDS
2	OHIO		

411
560

JEFFERSON COUNTY
JEF-7-0.20



PLAN

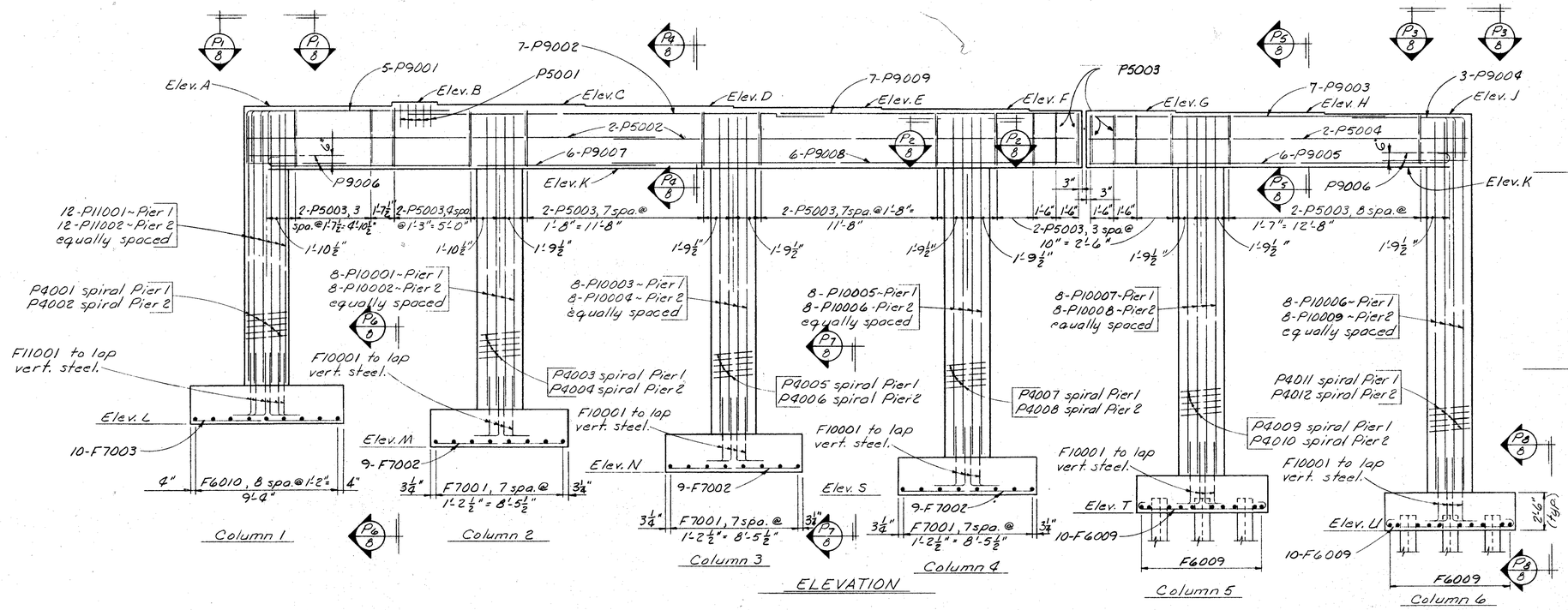
NOTES

All piles shall be HP 10 x 42
⊥ indicates vertical piles.
⊙ indicates batter piles 1:4.

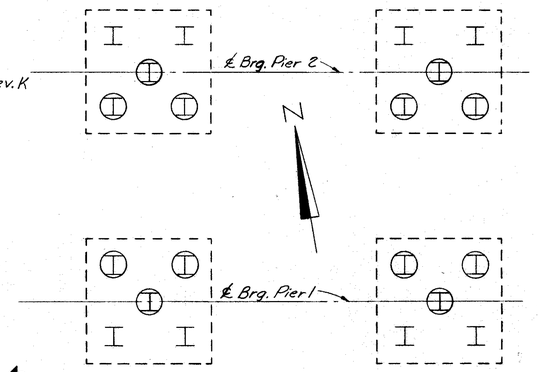
All spirals shall have 4 1/2" pitch.

See General Plan for layout of piers along the Reference Chord.

All reinforcing in footing shall have 3" minimum cover.



ELEVATION



PILE BATTER PATTERN

TABLE of ELEVATIONS

	Elev. A	Elev. B	Elev. C	Elev. D	Elev. E	Elev. F	Elev. G	Elev. H	Elev. J	Elev. K	Elev. L	Elev. M	Elev. N	Elev. S	Elev. T	Elev. U
Pier 1	705.25	705.47	705.35	705.23	705.14	705.04	704.92	704.80	704.67	701.17	686.03	684.61	683.20	681.83	680.52	679.32
Pier 2	705.42	705.63	705.51	705.38	705.28	705.17	705.04	704.91	704.78	701.28	686.61	683.03	681.33	679.77	678.53	677.31

ALDEN E. STILSON & ASSOCIATES, LIMITED
CONSULTING ENGINEERS
COLUMBUS, OHIO

7 | 14

PIERS 1 & 2 DETAILS

BRIDGE No. JEF-7-0066

SR-7 over TR-109 (RELOC.)

JEFFERSON COUNTY

STA. 34+74.00 to STA. 36+22.01

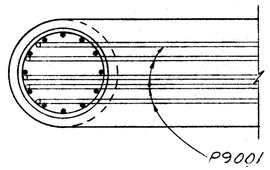
DESIGNED	DRAWN	TRACED	CHECKED	REVIEWED	DATE	REVISED
RT	DW		VB	J.E.V.	11/29/68	

MICROFILMED
OCT 29 1982

FED. RD. DIVISION	STATE	PROJECT	TYPE FUNDS
2	OHIO		

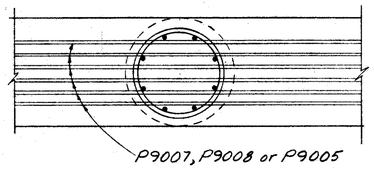
412
560

JEFFERSON COUNTY
JEF-7-0.20



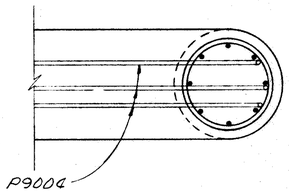
VIEW~P_1/7

Column 1



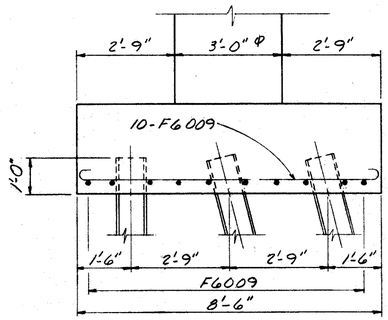
SECTION~P_2/7

Columns 2 thru 5



VIEW~P_3/7

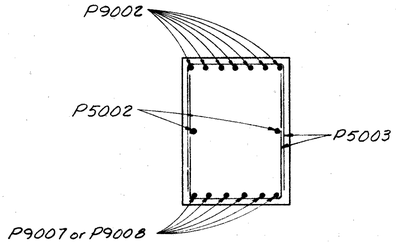
Column 6



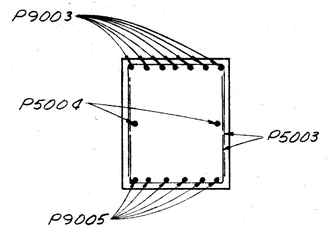
SECTION~P_8/7

Columns 5 & 6

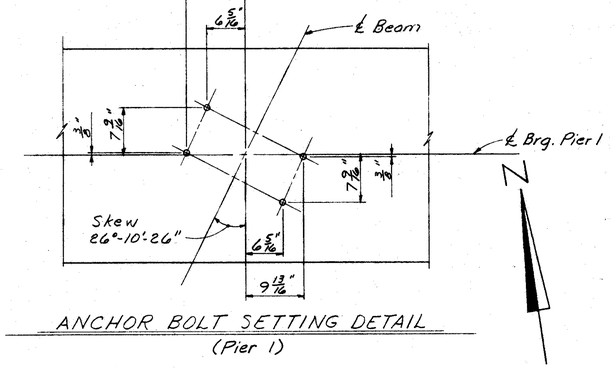
Pier 1 shown, Pier 2 opposite hand.



SECTION~P_4/7



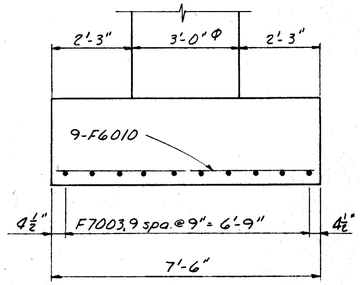
SECTION~P_5/7



ANCHOR BOLT SETTING DETAIL

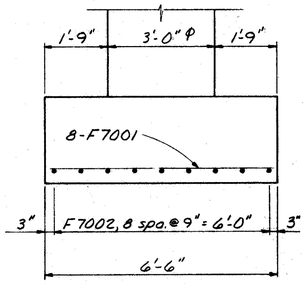
(Pier 1)

Special care shall be taken in placing reinforcing steel in the vicinity of the bridge seat so as to avoid interference with the drilling of anchor bolt holes.



SECTION~P_6/7

Column 1



SECTION~P_7/7

Columns 2, 3 & 4

ALDEN E. STILSON & ASSOCIATES, LIMITED
CONSULTING ENGINEERS
COLUMBUS, OHIO

8/14

PIERS 1 & 2 DETAILS

BRIDGE No. JEF-7-0066

SR-7 over TR-109 (RELOC.)

JEFFERSON COUNTY

STA. 34+74.00 to STA. 36+22.01

DESIGNED	DRAWN	TRACED	CHECKED	REVIEWED	DATE	REVISED
RT	DW		VB	J.E.V.	11/29/68	

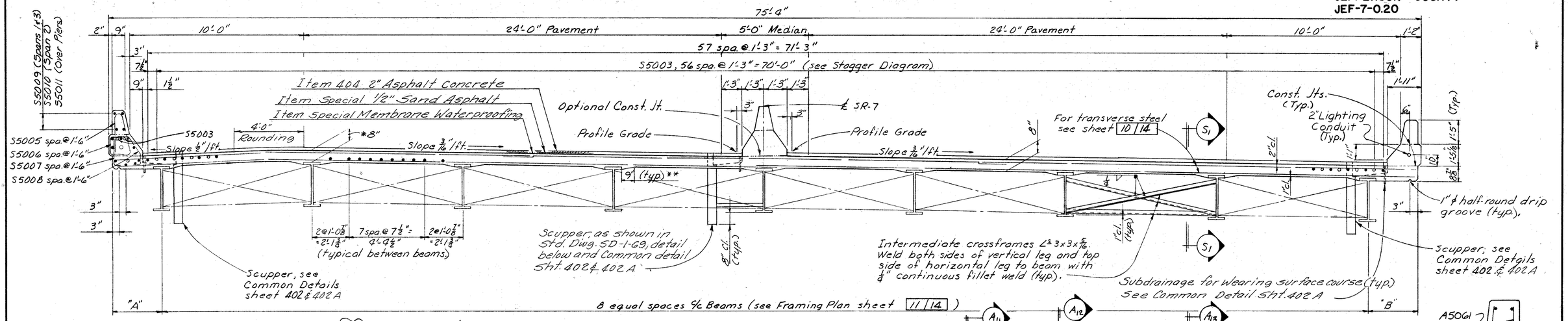
MICROFILMED
OCT 29 1982

All longitudinal reinforcing steel shall be S5001 or S5002 unless otherwise noted.

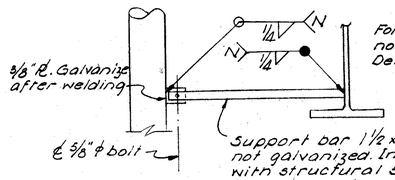
FED. RD. DIVISION	STATE	PROJECT	TYPE FUNDS
2	OHIO		

413
560

JEFFERSON COUNTY
JEF-7-0.20



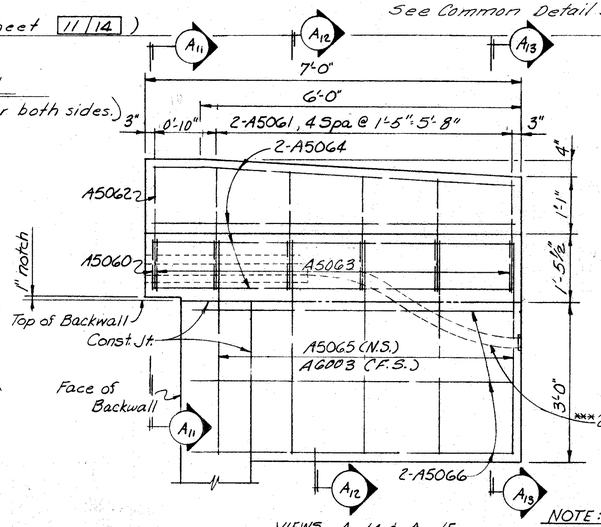
Note: For reinforcing steel in 6'-0" Parapet transition see details on this sheet.



For scupper galvanizing note see Common Details, sheet 402.

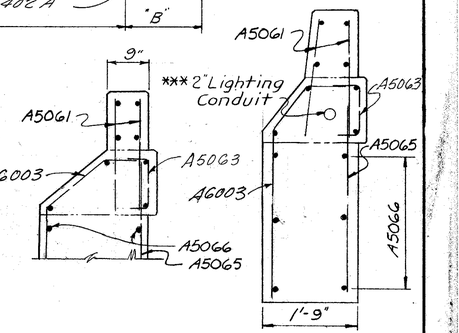
SCUPPER DETAIL

TRANSVERSE SECTION
(Parapet reinforcing steel typical for both sides.)



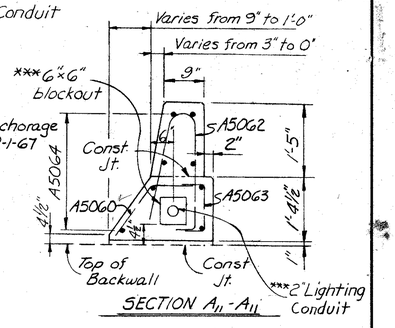
VIEWS A10/4 ℄ A10/5

NOTE:
For Guardrail Anchorage see Std. Dwg. BR-1-67



SECTION A13-A13 SECTION A12-A12

Reinforcing and dimensions not shown are same as SECTION A11-A11



SECTION A11-A11

NOTES

* The distance shown from the top of deck slab to top of beam is the nominal dimension. The quantity of deck concrete to be paid for shall be based on this dimension even though deviation from it may be necessary because the top flange of the beam may not have the exact camber or conformation required to place it parallel to the finished grade.

** A typical haunch width of 9" shall be used for computing quantity of concrete. However, the haunch width may vary between 6" and 12" provided that the slope shall not be more than 1:4 for a haunch less than 9" in width.

Field bending of transverse slab steel shall be included in Item 509 for payment.

Lap S5001 and S5002 bars 1'-7" min.

Longitudinal reinforcing steel shall be field cut as necessary to avoid interference with scuppers.

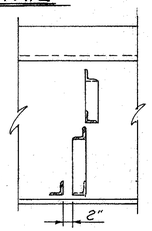
Concrete Parapet is included in Item 511 Class "C" Concrete, Superstructure for Payment. Reinforcing Steel in Concrete Parapet is included in Item 509 for Payment.

Steel end dam and end crossframes shall conform to SD-1-69.

DECK FINISHING: Concrete deck shall be in accordance with 451.09 and 451.12, except that the roadway surface shall be finished with a burlap drag to provide a uniform surface with a gritty texture.
For additional notes and details see sheets 10 14 thru 12 14

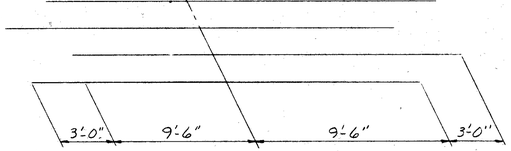
STEEL ERECTION: During the erection of end dams and cross frames care shall be taken to insure that stringers, bearing parts and bridge seats remain in bearing contact.

*** For additional details of Lighting Conduit and 5"x5" blockout in wingwalls see Std. Const. Dwg. HL-5.



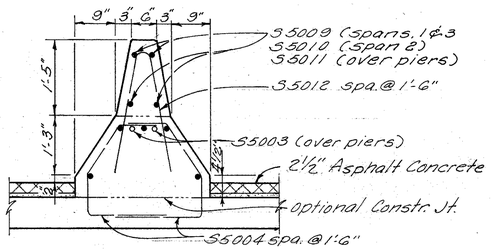
SECTION S1-S1

DIAGRAM SHOWING STAGGER of S5003 BARS over PIERS

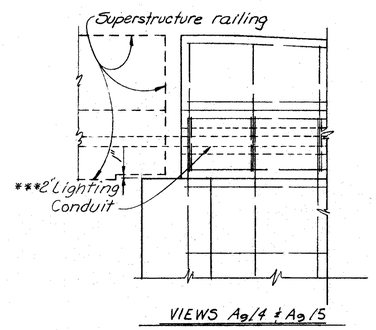


Slab Cantilevers			
	Location	"A"	"B"
Span 1	℄ Brg. S. Abut	2'-10 5/8"	2'-10 7/8"
	.25	2'-11 5/8"	2'-10 3/8"
	.50	3'-0 3/8"	2'-9 7/8"
	Splice 1	3'-1 3/8"	2'-9 3/4"
Span 2	℄ Brg. Pier 1	3'-1 5/8"	2'-9 3/8"
	.25	3'-2 1/8"	2'-9 3/8"
	.50	3'-2 1/2"	2'-9 1/2"
	.75	3'-2 7/8"	2'-9 7/8"
Span 3	℄ Brg. Pier 2	3'-2 5/8"	2'-10 3/8"
	Splice 2	3'-2 1/2"	2'-10 7/8"
	.50	3'-2 1/4"	2'-11 5/8"
	.75	3'-1 5/8"	3'-0 1/2"
	℄ Brg. N. Abut	3'-1 1/8"	3'-1 1/2"

See sheet 414 for Slab Cantilevers table.



MEDIAN DETAIL



VIEWS A9/4 ℄ A9/5

Reinforcing and dimensions not shown are same as VIEWS A10/4 ℄ A10/5

ALDEN E. STILSON & ASSOCIATES, LIMITED
CONSULTING ENGINEERS
COLUMBUS, OHIO

9 14

SUPERSTRUCTURE DETAILS

BRIDGE No. JEF-7-0066

SR-7 over TR-109 (RELOC.)
JEFFERSON COUNTY
STA. 34 + 74.00 to STA. 36 + 22.01

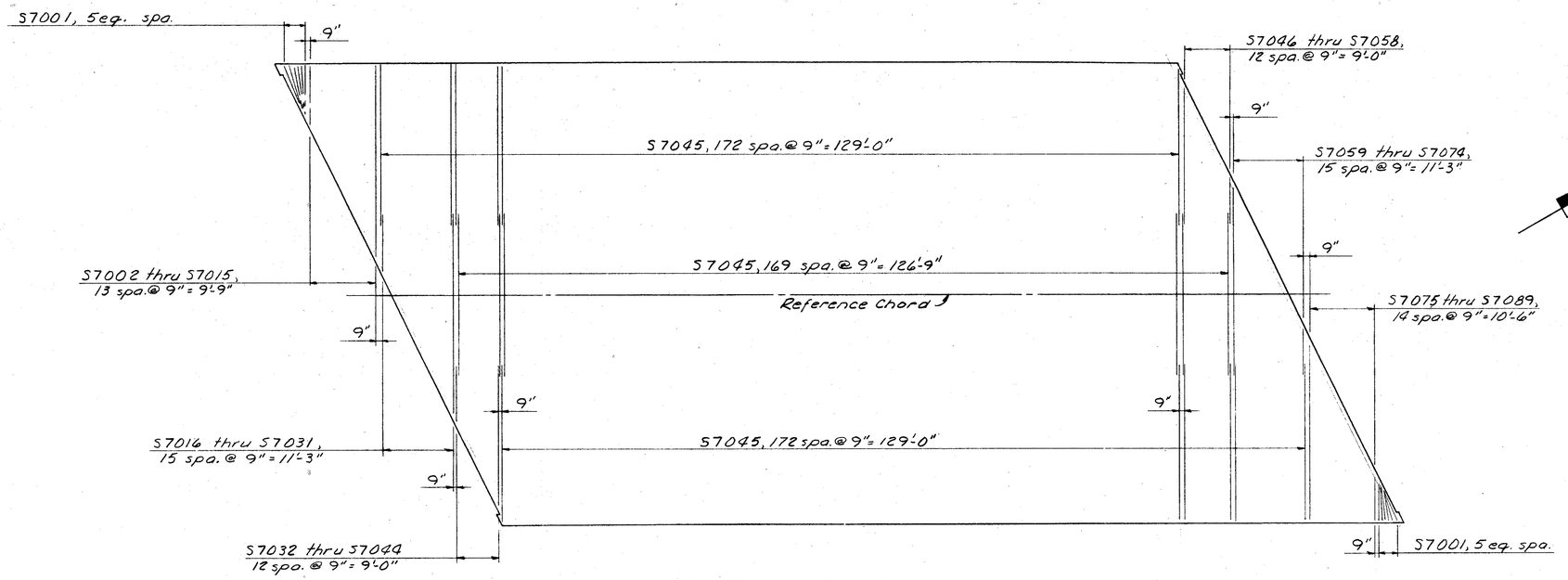
DESIGNED	DRAWN	TRACED	CHECKED	REVIEWED	DATE	REVISED
RT	DW		VB	J.E.V.	11/29/68	9-2-75

MICROFILMED
OCT 29 1982

FED. RD. DIVISION	STATE	PROJECT	TYPE FUNDS
2	OHIO		

414
560

JEFFERSON COUNTY
JEF-7-0.20



TOP TRANSVERSE REINFORCING

N

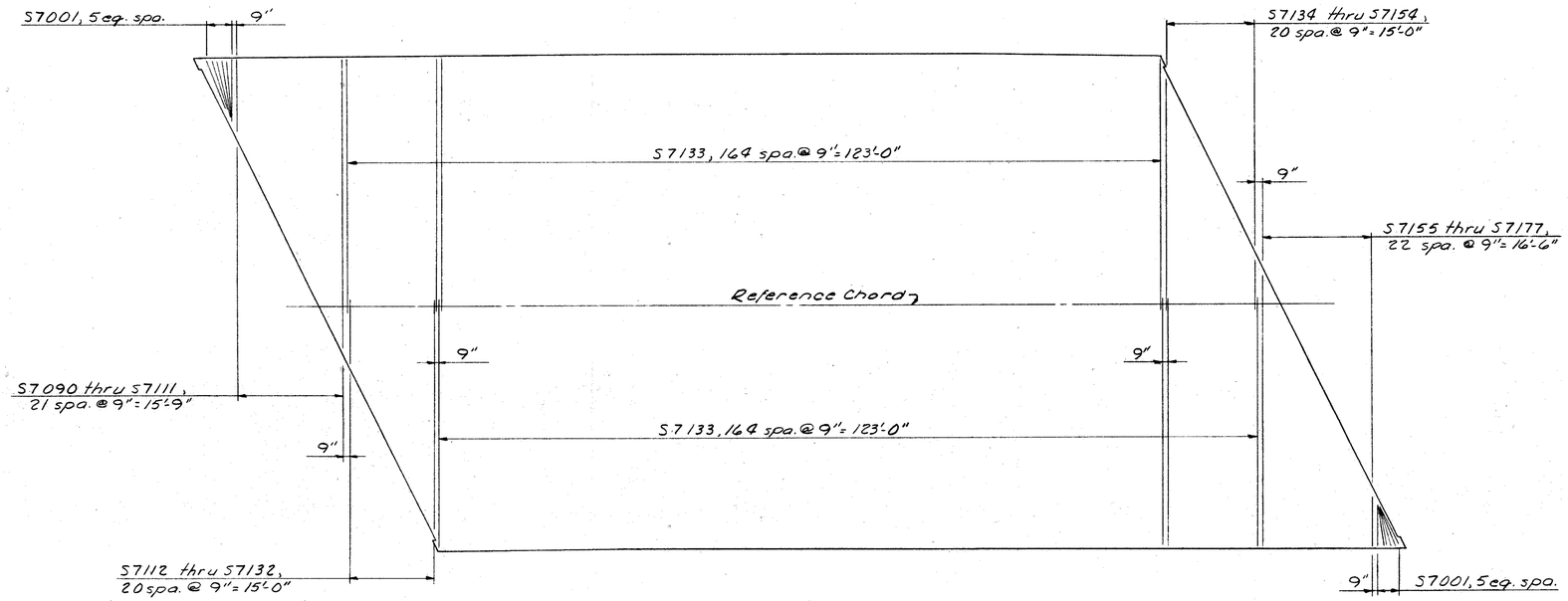
Slab Cantilevers			
	Location	"A"	"B"
Span 1	℄ Brg. S. Abut.	2'-8 5/8"	2'-8 7/8"
	.25	2'-9 5/8"	2'-8 7/8"
	.50	2'-10 3/8"	2'-7 7/8"
	Splice 1	2'-11 3/8"	2'-7 3/4"
Span 2	℄ Brg. Pier 1	2'-11 5/8"	2'-7 3/8"
	.25	3'-0 1/8"	2'-7 3/8"
	.50	3'-0 1/2"	2'-7 1/2"
	.75	3'-0 5/8"	2'-7 5/8"
Span 3	℄ Brg. Pier 2	3'-0 5/8"	2'-8 3/8"
	Splice 2	3'-0 1/2"	2'-8 3/8"
	.50	3'-0 1/8"	2'-9 5/8"
	.75	2'-11 5/8"	2'-10 1/2"
	℄ Brg. N. Abut.	2'-11 1/8"	2'-11 1/2"

NOTES

Transverse reinforcing steel shall be placed normal to ℄ SR-7 except at acute corners of slab.

Lap transverse reinforcing steel 2'-2" min.

For additional notes and details see sheets 9/14, 11/14 and 12/14



BOTTOM TRANSVERSE REINFORCING

ALDEN E. STILSON & ASSOCIATES, LIMITED
CONSULTING ENGINEERS
COLUMBUS, OHIO
10/14

SUPERSTRUCTURE DETAILS

BRIDGE No. JEF-7-0066

SR-7 over TR-109 (RELOC.)

JEFFERSON COUNTY STA. 34+74.00 to STA. 36+22.01

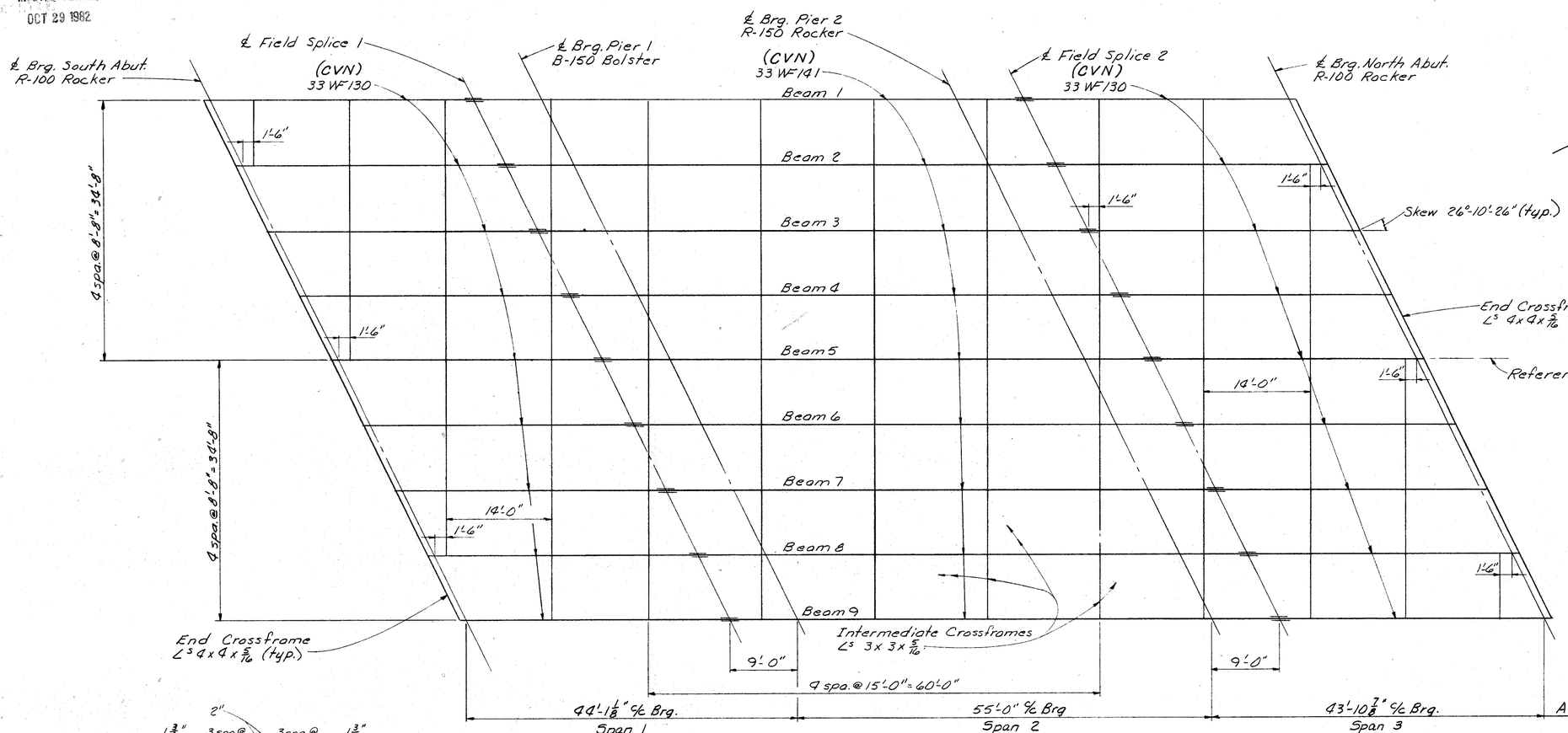
DESIGNED	DRAWN	TRACED	CHECKED	REVIEWED	DATE	REVISED
RT	DW		VB	J.E.V.	11/29/68	9-2-75

MICROFILMED
OCT 29 1982

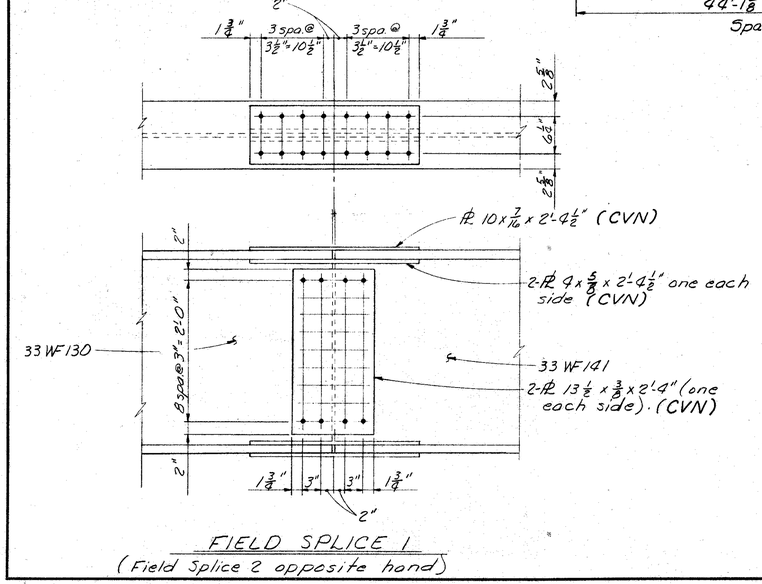
FED. RD. DIVISION	STATE	PROJECT	TYPE FUNDS
2	OHIO		

415
560

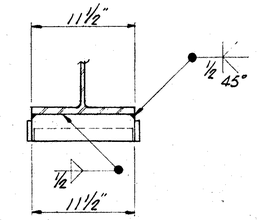
JEFFERSON COUNTY
JEF-7-0.20



FRAMING PLAN



FIELD SPLICE 1
(Field Splice 2 opposite hand)



BEARING UNIT to FLANGE CONNECTION for B-150 & R-150

NOTES

All beams are parallel to reference chord.

Bolts shall be 1" ℄ high strength.

Bolt heads shall be placed on the fascia side of the exterior beams and on bottom side of the bottom flange.

Place bearing devices parallel to ℄ beams at all substructure units.

Place Intermediate crossframes normal to beams

For additional notes and details see sheets 9 | 14 , 10 | 14 and 12 | 14

Bearing Devices under Beams 1 & 9 shall be fabricated without 1/2" keeper plates.

END DAM: Provide a 1/4" x 3" bar welded to main angle as shown on SD-1-69. Modify thickness of 2" bar to conform.

Where "(CVN)" follows a shape or plate size designation, the material shall meet specified minimum notch toughness requirements. The Fabricator shall submit to the Director a procedure designed for positive identification of material through all phases of fabrication. No material shall be fabricated until the Director has approved the procedure.

CHARPY TEST: Designated structural steel shapes and plates shall have a minimum longitudinal Charpy V-notch energy absorption value (CVN) of 15 ft. lb. at 40° F. Sampling and testing procedures shall be in accordance with ASTM A673. The (H) frequency of heat testing shall be used, and the test data shall be recorded on the Test Reports by 501.07 of the Construction and Material Specifications.

ALDEN E. STILSON & ASSOCIATES, LIMITED
CONSULTING ENGINEERS
COLUMBUS, OHIO

11 | 14

SUPERSTRUCTURE DETAILS

BRIDGE No. JEF-7-0066

SR-7 over TR-109 (RELOC.)

JEFFERSON COUNTY STA. 34+74.00 to STA. 36+22.01

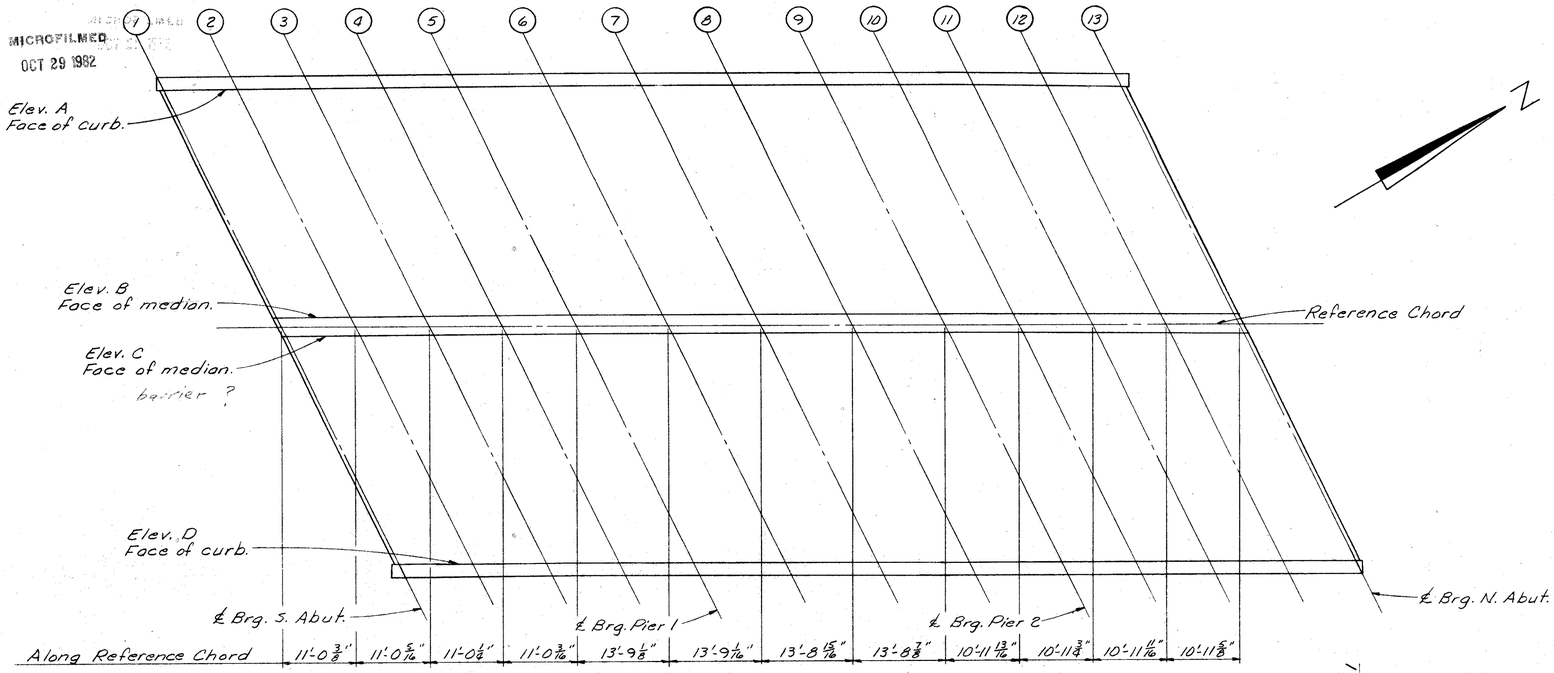
DESIGNED	DRAWN	TRACED	CHECKED	REVIEWED	DATE	REVISED
RT	DW		VB	J.E.V.	11/29/68	

MICROFILMED
OCT 29 1982

FED. RD. DIVISION	STATE	PROJECT	TYPE FUNDS
2	OHIO		

416
560

JEFFERSON COUNTY
JEF-7-0.20



Along Reference Chord	11'-0 3/8"	11'-0 5/16"	11'-0 1/4"	11'-0 3/16"	13'-9 1/8"	13'-9 1/16"	13'-8 15/16"	13'-8 7/8"	10'-11 13/16"	10'-11 3/4"	10'-11 11/16"	10'-11 5/8"

NOTE

For additional notes and details see sheets 9|14 thru 11|14

SCREED LINE LOCATIONS

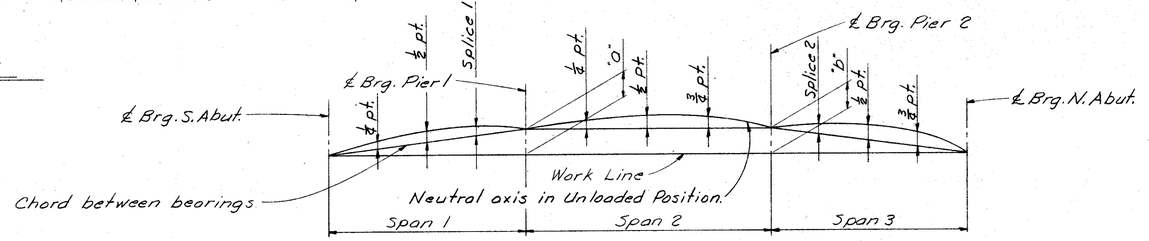
Screed elevations are at top of slab before the concrete deck is placed. Proper allowance has been made for the dead load deflection due to the weight of the concrete.

TABLE of SCREED ELEVATIONS

Locations	Elevations			
	A	B	C	D
1	709.53	709.50	709.51	709.05
2	709.60	709.57	709.57	709.11
3	709.66	709.62	709.62	709.15
4	709.70	709.65	709.66	709.18
5	709.74	709.69	709.69	709.21
6	709.80	709.74	709.75	709.26
7	709.86	709.79	709.79	709.29
8	709.89	709.81	709.82	709.31
9	709.91	709.83	709.83	709.32
10	709.94	709.85	709.85	709.33
11	709.96	709.87	709.87	709.34
12	709.97	709.87	709.87	709.34
13	709.97	709.86	709.86	709.33

DEFLECTION and CAMBER

Beams	Camber Description	Span 1			Span 2			Span 3		
		1/4	1/2	Splice 1	1/4	1/2	3/4	Splice 2	1/2	3/4
1 & 9	Defl. due to weight of steel.	0	0	0	0	1/16	0	0	0	0
	Defl. due to rem. Dead Load.	1/8	1/8	1/16	1/8	3/16	1/8	1/16	1/8	1/8
	Adjust. due to curvature.	1/16	1/8	1/16	1/8	3/16	1/8	1/16	1/8	1/16
	Required shop camber.	3/16	1/4	1/8	1/4	7/16	1/4	1/8	1/4	3/16
2 thru 8	Defl. due to weight of steel.	0	0	0	0	1/16	0	0	0	0
	Defl. due to rem. Dead Load.	1/8	3/16	1/16	1/8	1/4	1/8	1/16	3/16	1/8
	Adjust. due to curvature.	1/16	1/8	1/16	1/8	3/16	1/8	1/16	1/8	1/16
	Required shop camber.	3/16	5/16	1/8	1/4	1/2	1/4	1/8	5/16	3/16



CAMBER and BLOCKING DIAGRAM

BLOCKING TABLE

Beams	Dimensions	
	"a"	"b"
1	1	1
2	7/8	7/8
3	7/8	7/8
4	7/8	7/8
5	15/16	15/16
6	7/8	7/8
7	7/8	7/8
8	7/8	7/8
9	7/8	7/8

ALDEN E. STILSON & ASSOCIATES, LIMITED
CONSULTING ENGINEERS
COLUMBUS, OHIO

12|14

SUPERSTRUCTURE DETAILS

BRIDGE No. JEF-7-0066

SR-7 over TR-109 (RELOC.)

JEFFERSON COUNTY STA. 34+74.00 to STA. 36+22.01

DESIGNED	DRAWN	TRACED	CHECKED	REVIEWED	DATE	REVISED
RT	DW		VB	J.E.V.	11/29/68	

MICROFILMED
OCT 29 1982

NOTES

1. INDICATES SERIES BAR. EACH BAR VARIES FROM ADJACENT BAR(S) BY TABULATED AMOUNT (S), CALCULATED TO NEAREST $\frac{1}{8}$". WEIGHT SHOWN IS FOR ENTIRE SERIES UTILIZING AVERAGE LENGTH.
2. BARS INCLUDED WITH ITEM 517, RAILING, FOR PAYMENT.
3. COST OF FIELD BENDING SHALL BE INCLUDED WITH ITEM 509.
4. LIGHT POLE SUPPORT BARS INCLUDED WITH ITEM 509 FOR PAYMENT.
5. END PREPARATION AND FIELD WELDING INCLUDED WITH ITEM 509.
6. "LENGTH" SHOWN FOR SPIRAL BARS IS DISTANCE FROM TOP OF FOOTING TO BOTTOM OF PIER CAP. "NO. TURNS" SHOWN IS "LENGTH" DIVIDED BY PITCH, PLUS 3 TURNS (NUMBER OF CLOSED COILS), EXPRESSED AS NEAREST WHOLE NUMBER.

SPIRAL BARS SHALL NOT HAVE DEFORMATIONS BUT SHALL IN OTHER RESPECTS CONFORM TO ITEM 509. $1\frac{1}{2}$ CLOSED COILS SHALL BE PROVIDED AT ENDS OF EACH SPIRAL UNIT. FOUR STEEL CHANNEL, TEE, OR ANGLE SPACERS, WEIGHING APPROXIMATELY 0.80 LB. PER LIN. FT OF SPACER SHALL BE PROVIDED FOR EACH SPIRAL UNIT. THEY SHALL BE EQUALLY SPACED ALONG PERIPHERY OF COIL. WEIGHT OF SPACERS, AT 0.80 LB. PER. LIN. FT. WILL BE PAID FOR AS REINFORCING STEEL AND IS INCLUDED IN TABULATED WEIGHT.

FED. RD. DIVISION	STATE	PROJECT	TYPE FUNDS
2	OHIO		

JEFFERSON COUNTY
JEF-7-0.20

417
560

MARK	NUM.	LENGTH	WEIGHT	TYPE	A	B	C	D	E	NOTE
				ABUTMENTS						
F 5001	12	10- 7	132	12	8- 0	1-10		1-10		
F 5002	52	6- 9	366	1	0- 8	6- 3				
F 5003	72	7- 3	544	1	0- 8	6- 9				
F 5004	72	8- 3	620	1		1- 7	5- 4	1- 7		
F 6001	8	21- 8	760	ST						
F 6002	52	11- 5	892	1	5- 4	6- 3				
F 6003	72	14- 4	1550	9		6- 9	5- 4		2- 7	
F 6004	8	23- 2	278	ST						
F 6005	8	8- 6	102	1	1- 0	7- 8				
F 6006	8	7- 6	90	1	1- 0	6- 8				
F 6007	22	5- 9	190	ST						
F 6008	8	3- 6	42	ST						
F 8001	6	26- 6	425	ST						
F 8002	8	25- 6	545	ST						
F 8003	6	25- 3	405	ST						
F 8004	8	24- 3	518	ST						
A 5001	90	5- 1	477	1		1- 7	2- 2	1- 7		
A 5002	2	5- 4		ST						1
THRU			112		VARY	LENGTH	BY 0'- 4 3/4"			
A 5009	2	8- 1		ST						1
A 5010	2	7- 0	15	ST						
A 5011	124	8- 2	1056	1		2- 6	3- 5	2- 6		
A 5012	24	9- 3	232	ST						
A 5013	4	4- 7	19	4	2-3	1-1	2-3			
A 5014	28	31- 0	905	ST						
A 5015	2	33-10	71	ST						
A 5016	2	36- 9	77	ST						
A 5017	2	38- 3	80	ST						
A 5018	2	8- 7		ST						1
THRU			135		VARY	LENGTH	BY 0'- 4 1/4"			
A 5026	2	5- 9		ST						1
A 5027	2	7-11	17	ST						
A 5028	2	26- 9	56	ST						3
A 5029	6	34- 3	214	ST						

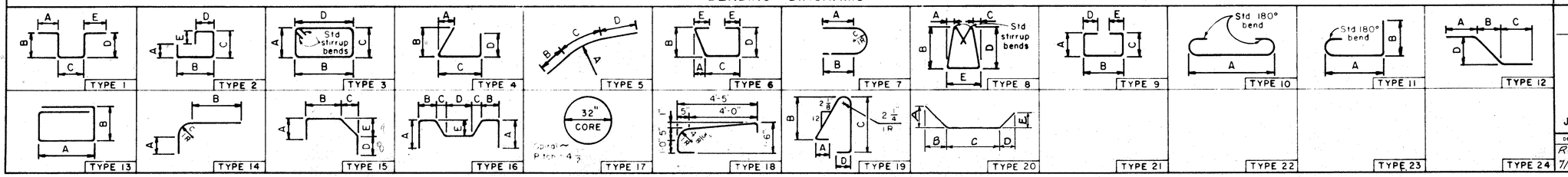
MARK	NUM.	LENGTH	WEIGHT	TYPE	A	B	C	D	E	NOTE
			ABUTMENTS				(CONTINUED)			
A 5030	2	30- 1	63	ST						
A 5031	9	26- 2	246	ST						
A 5032	2	38- 6	80	ST						
A 5033	11	27- 1	311	ST						
A 5034	2	6- 5		ST						1
THRU			130		VARY	LENGTH	BY 0'- 4 3/4"			
A 5041	2	9- 2		ST						1
A 5042	2	7- 0	15	ST						
A 5043	2	33-10	71	ST						
A 5044	28	31- 1	908	ST						3
A 5045	2	30- 3	63	ST						
A 5046	2	33- 7	70	ST						
A 5047	2	34- 8	72	ST						
A 5048	2	8- 6		ST						1
THRU			134		VARY	LENGTH	BY 0'- 4 1/8"			
A 5056	2	5- 9		ST						1
A 5057	2	8- 0	17	ST						
A 5058	2	33- 3	69	ST						
A 5059	2	36- 8	76	ST						
A 5060	4	1-10	8	15			0-11	0- 8	0-9	
A 5061	40	2-2	90	ST						
A 5062	4	5-8	24	19		2-4	2-7	0- 8		
A 5063	24	2-1	52	1		0- 7	1-2	0- 7		
A 5064	32	6- 8	223	ST						
A 5065	20	4- 2	87	ST						
A 5066	24	6- 0	150	ST						
A 5067	8	3-10	32	15	1-6	0-9	0-11	0-8	0-9	
A 6001	12	12-11	233	1		5-11	1- 5	5-11		
A 6002	160	15- 0	3605	2	4- 7	1- 5	5-11	0-11	2-10	
A 6003	20	5-0	150	15		3-2	1-0	0-8	0-9	
A8001	108	5-5	1562	20	1-1	1-1	3-7	0-6	0-6	

MARK	NUM.	LENGTH	WEIGHT	TYPE	A	B	C	D	E	NOTE
				PIERS						
F 6009	80	9- 4	1121	10	8- 0					
F 6010	18	7- 0	189	ST						
F 7001	48	6- 0	589	ST						
F 7002	54	8- 6	938	ST						
F 7003	20	9- 6	388	ST						
F10001	80	6- 7	2266	1	1- 5	5- 6				
F11001	24	7- 2	914	1	1- 8	5-10				
P 4001	1	12- 7	244	17	NO. TURNS= 37		NO. SPACERS	= 4		6
P 4002	1	14- 2	271	17	NO. TURNS= 41		NO. SPACERS	= 4		6
P 4003	1	14- 0	265	17	NO. TURNS= 40		NO. SPACERS	= 4		6
P 4004	1	15- 9	299	17	NO. TURNS= 45		NO. SPACERS	= 4		6
P 4005	1	15- 5	292	17	NO. TURNS= 44		NO. SPACERS	= 4		6
P 4006	1	17- 5	326	17	NO. TURNS= 49		NO. SPACERS	= 4		6
P 4007	1	16-11	319	17	NO. TURNS= 48		NO. SPACERS	= 4		6
P 4008	1	19- 0	359	17	NO. TURNS= 54		NO. SPACERS	= 4		6
P 4009	1	18- 1	339	17	NO. TURNS= 51		NO. SPACERS	= 4		6
P 4010	1	20- 3	379	17	NO. TURNS= 57		NO. SPACERS	= 4		6
P 4011	1	19- 4	365	17	NO. TURNS= 55		NO. SPACERS	= 4		6
P 4012	1	21- 5	399	17	NO. TURNS= 60		NO. SPACERS	= 4		6
P 5001	70	5- 5	395	1		1- 6	2- 8	1- 6		
P 5002	8	27- 4	228	ST						
P 5003	182	8- 9	1661	1		3- 2	2- 8	3- 2		
P 5004	4	23- 6	98	ST						
P 5005	16	5- 1	85	1		1- 6	2- 4	1- 6		
P 5006	4	4- 5	18	1		1- 6	1- 8	1- 6		
P 9001	10	15-10	538	1	3- 6	12- 7				
P 9002	14	32- 8	1555	ST						
P 9003	14	22- 0	1047	ST						

BAR SIZE DESIGNATION

BAR SIZE IS INDICATED IN THE BAR MARK. THE FIRST DIGIT WHERE FOUR DIGITS ARE USED, AND THE FIRST TWO DIGITS WHERE FIVE DIGITS ARE USED, INDICATE THE BAR SIZE NUMBER. FOR EXAMPLE, A7001 IS A NO.7 SIZE BAR AND A10140 IS A NO.10 SIZE.

BENDING DIAGRAMS



ALDEN E. STILSON & ASSOCIATES, LIMITED
CONSULTING ENGINEERS
COLUMBUS, OHIO

13 / 14

REINFORCING STEEL LIST

BRIDGE No. JEF-7-0066

SR-7 over TR-109 (RELOC.)

JEFFERSON COUNTY STA. 34+74.00 to STA. 36+22.01

DESIGNED	DRAWN	TRACED	CHECKED	REVIEWED	DATE	REVISED
RT. 7/26/68			VB 11/6/68	JEV 11/29/68		

MICROFILMED
OCT 28 1982

NOTES

1. INDICATES SERIES BAR. EACH BAR VARIES FROM ADJACENT BAR(S) BY TABULATED AMOUNT (S), CALCULATED TO NEAREST $\frac{1}{8}$". WEIGHT SHOWN IS FOR ENTIRE SERIES UTILIZING AVERAGE LENGTH.
2. BARS INCLUDED WITH ITEM 517, RAILING, FOR PAYMENT.
3. COST OF FIELD BENDING SHALL BE INCLUDED WITH ITEM 509.
4. LIGHT POLE SUPPORT BARS INCLUDED WITH ITEM 509 FOR PAYMENT.
5. END PREPARATION AND FIELD WELDING INCLUDED WITH ITEM 509.
6. "LENGTH" SHOWN FOR SPIRAL BARS IS DISTANCE FROM TOP OF FOOTING TO BOTTOM OF PIER CAP.
"NO. TURNS" SHOWN IS "LENGTH" DIVIDED BY PITCH, PLUS 3 TURNS (NUMBER OF CLOSED COILS), EXPRESSED AS NEAREST WHOLE NUMBER.

SPIRAL BARS SHALL NOT HAVE DEFORMATIONS BUT SHALL IN OTHER RESPECTS CONFORM TO ITEM 509 $1\frac{1}{2}$ CLOSED COILS SHALL BE PROVIDED AT ENDS OF EACH SPIRAL UNIT. FOUR STEEL CHANNEL, TEE, OR ANGLE SPACERS, WEIGHING APPROXIMATELY 0.80 LB. PER LIN. FT. OF SPACER SHALL BE PROVIDED FOR EACH SPIRAL UNIT. THEY SHALL BE EQUALLY SPACED ALONG PERIPHERY OF COIL. WEIGHT OF SPACERS, AT 0.80 LB. PER. LIN. FT. WILL BE PAID FOR AS REINFORCING STEEL AND IS INCLUDED IN TABULATED WEIGHT.

FED. RD. DIVISION	STATE	PROJECT	TYPE FUNDS
2	OHIO		

JEFFERSON COUNTY
JEF-7-0.20

418
560

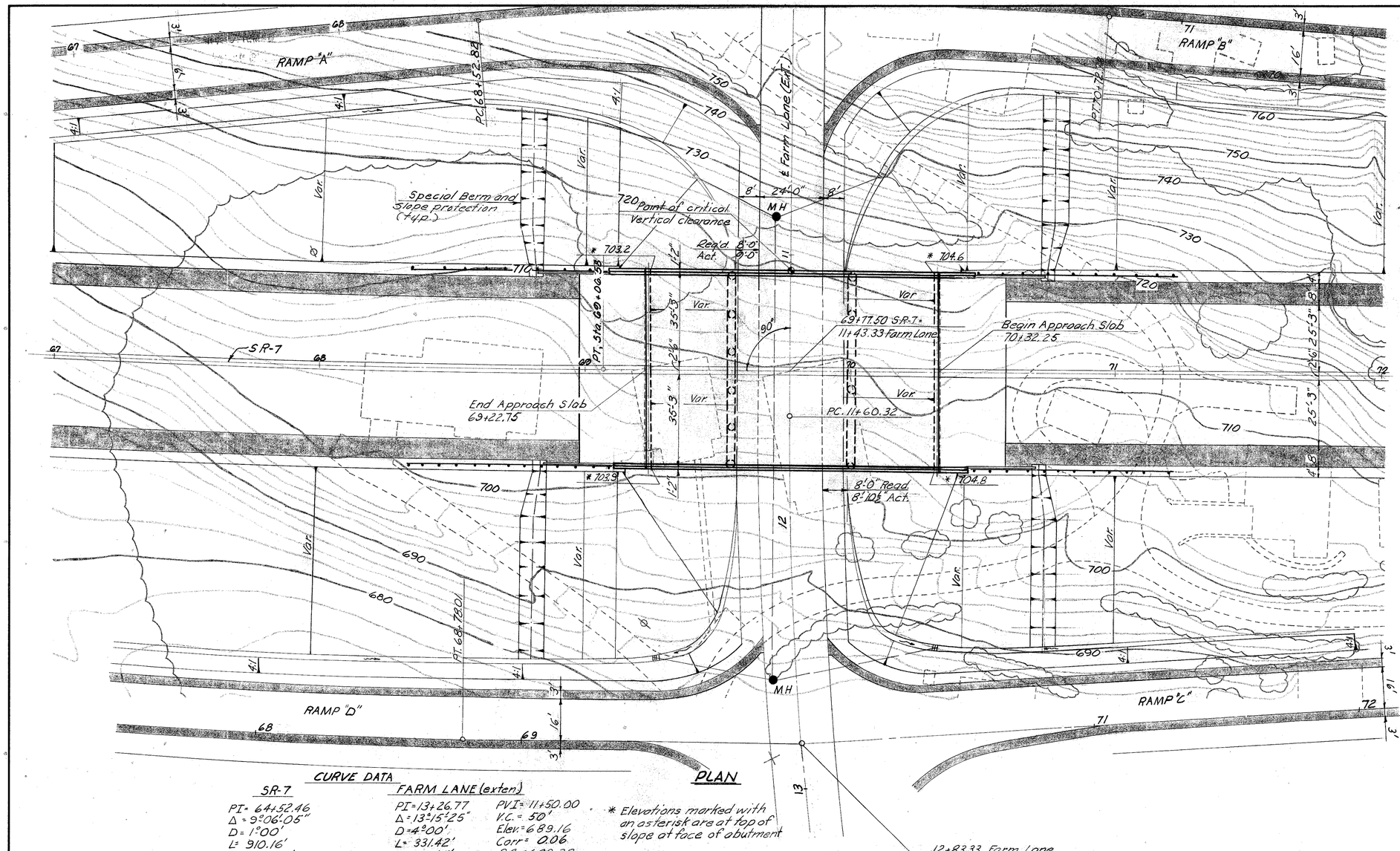
MARK	NUM.	LENGTH	WEIGHT	TYPE	A	B	C	D	E	NOTE
				PIERS			(CONTINUED)			
P 9004	6	9- 0	184	1	3- 2	6- 1				
P 9005	12	24- 9	1010	11	23- 6					
P 9006	8	9- 3	252	7	2-10	2-10	1- 1			
P 9007	12	29- 0	1183	11	27- 9					
P 9008	12	27- 9	1132	ST						
P 9009	14	15- 0	714	ST						
P10001	8	17- 8	608	ST						
P10002	8	19- 5	668	ST						
P10003	8	18-10	648	ST						
P10004	8	20-10	717	ST						
P10005	8	20- 3	697	ST						
P10006	16	22- 4	1538	ST						
P10007	8	21- 4	734	ST						
P10008	8	23- 5	806	ST						
P10009	8	24- 5	841	ST						
P11001	12	16- 2	1031	ST						
P11002	12	17- 8	1126	ST						

FED. RD. DIVISION	STATE	PROJECT	TYPE FUNDS

419
560

MICROFILMED
OCT 29 1982

JEFFERSON COUNTY
JEF-7-0.20



PROPOSED STRUCTURE

TYPE: continuous reinforced concrete slab with reinforced concrete substructure.
SPANS: 31'-6", 45'-0", 31'-6" ℄ brgs.
ROADWAY: 73'-0" f.f. concrete barrier parapet with 2'-6" barrier median.
LOADING: HS20-44
WEARING SURFACE: 1½" Asphalt concrete
SKEW: None
ALIGNMENT: Tangent
APPROACH SLABS: 25'-0" long. See Sheet 404.
SUPERELEVATION: SB. lanes ⅜" f.f.
N.B. lanes Varies from .024½ up @ Sta. 68+25 to .0156½ down @ Sta. 12+25

Horizontal clearances are measured to edge of through pavement.

Earthwork limits shown are schematic. Actual slopes shall conform to plan cross-sections.

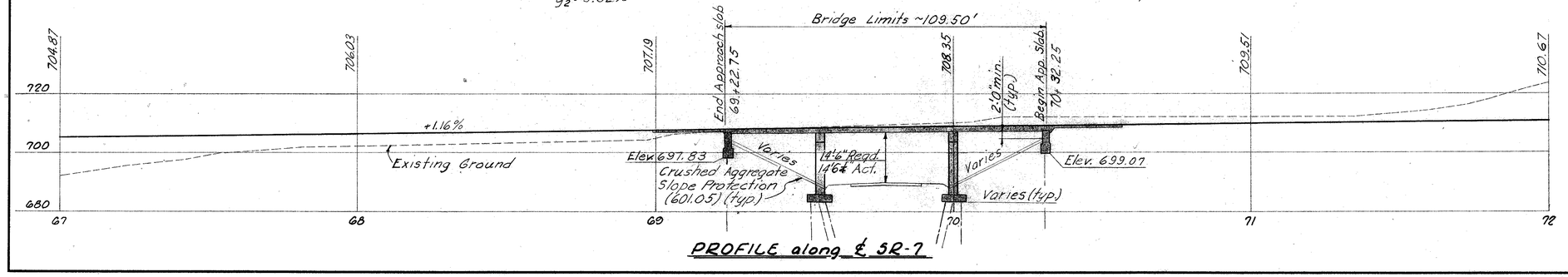
All piles shall be HP 10×42 steel piles
Estimated average pay length shall be:
South Abutment - 30'
Pier 1 - 17'
Pier 2 - 20'
North Abutment - 38'

CURVE DATA

SR-7	FARM LANE (exten)	
PI = 64+52.46	PI = 13+26.77	PVI = 11+50.00
Δ = 9°06'05"	Δ = 13°15'25"	V.C. = 50'
D = 1°00'	D = 4°00'	Elev. = 689.16
L = 910.16'	L = 331.42'	Corr = 0.06
T = 456.04'	T = 166.45'	P.G. = 689.22
		g_1 = -4.56%
		g_2 = -3.52%

* Elevations marked with an asterisk are at top of slope at face of abutment

PLAN



PROFILE along ℄ SR-7

ALDEN E. STILSON & ASSOCIATES, LIMITED
CONSULTING ENGINEERS
COLUMBUS, OHIO

1 / 8

SITE PLAN

BRIDGE N⁰ JEF-7-0131
SR-7 over FARM LANE (Exten)
JEFFERSON COUNTY
STA. 69 +22.75 to STA. 70 +32.25

DESIGNED	DRAWN	TRACED	CHECKED	REVIEWED	DATE	REVISED
DLM	DLM	D.R.	HT	J.E.V.	11/15/67	

FED. RD. DIVISION	STATE	PROJECT	TYPE FUNDS
2	OHIO		

420
560

JEFFERSON COUNTY
JEF-7-0.20

MICROFILMED
OCT 29 1982

REFERENCES:

Standard Drawings:

Railing Details	BR-1-67	Sheet 2 Revised 10-15-71
Approach Slab Details	AS-1-72	Dated 6-30-72
Highway Lighting	HL-5	Dated 9-6-73
	HL-4	Dated 9-6-73

Supplemental Specifications:

Chemical Admixture for Concrete Type A, B or D.	808	Dated 1-1-71
Concrete Curing and Protective Membrane.	836	Dated 1-1-71

Common Details:

Lighting	Sheet 403
Scuppers	Sheet 402 & 402 A
Subdrainage for Wearing Course	Sheet 402A

DESIGN SPECIFICATIONS: This structure conforms to "Standard Specifications for Highway Bridges" adopted by the American Association of State Highway Officials, 1965, including the Ohio "Supplement" to these specifications.

DESIGN DATA:

Design Loading - HS 20-44

Concrete Class "C" - unit stress 1200 psi for superstructure
- unit stress 1333 psi for substructure

Reinforcing Steel - ASTM A615, A616, or A617 - Unit Stress 20,000 psi. Spiral reinforcement may be plain bars ASTM A82, A306, A499 or A615.

PILES shall be driven to refusal on bedrock or to 20 blows per inch for the last few inches of penetration. The design load is 35 tons per pile for the abutment piles and 35 tons per pile for the pier piles.

ITEM	TOTAL	UNIT	DESCRIPTION	ABUTS	PIERS	SUPER	GENERAL		
503	427	C.Y.	UNCLASSIFIED EXCAVATION	205	222				
404	23	C.Y.	Asphalt Concrete (70-85 or AC 20)			23			
505	LUMP	SUM	TEST PILE				LUMP		
507	2150	L.F.	STEEL PILES, HP 10 × 42	820	1330				
509	170299	LB	REINFORCING STEEL	12938	35888	121473			
511	566	C.Y.	CLASS C CONCRETE, SUPERSTRUCTURE			566			
511	122	C.Y.	CLASS C CONCRETE, ABUTMENTS	122					
511	101	C.Y.	CLASS C CONCRETE, PIERS ABOVE FOOTINGS		101				
511	70	C.Y.	CLASS C CONCRETE, FOOTINGS		70				
518	35	C.Y.	POROUS BACKFILL	35					
518	136	L.F.	6 INCH PERFORATED, HELICAL CMP, 707.01	136					
518	50	L.F.	6 INCH NON-PERFORATED, HELICAL CMP, 707.01, INCLUDING SPECIALS	50					
518	23	EA.	SCUPPERS, 6 INCH ALLOY STEEL, 707.11			23			
518	42	EA.	SUBDRAINAGE FOR WEARING COURSE, AS PER PLAN			42			
601	634	S.Y.	CRUSHED AGGREGATE SLOPE PROTECTION				634		
625			SEE SHEET 359 FOR LIGHTING SUMMARY						
808	566	UNIT	CHEMICAL ADMIXTURE FOR CONCRETE, TYPE A, B OR D			566			
SPEC.	12	C.Y.	Sand Asphalt			12			
* SPEC.	840	S.Y.	Membrane Waterproofing sheet type			840			

* See Proposal Note

ALDEN E. STILSON & ASSOCIATES, LIMITED
CONSULTING ENGINEERS
COLUMBUS, OHIO

2/8

GENERAL NOTES AND ESTIMATED QUANTITIES
BRIDGE No. JEF-7-0131
SR-7 over FARM LANE (Exten)
JEFFERSON COUNTY
STA. 69 + 22.75 to STA. 70 + 32.25

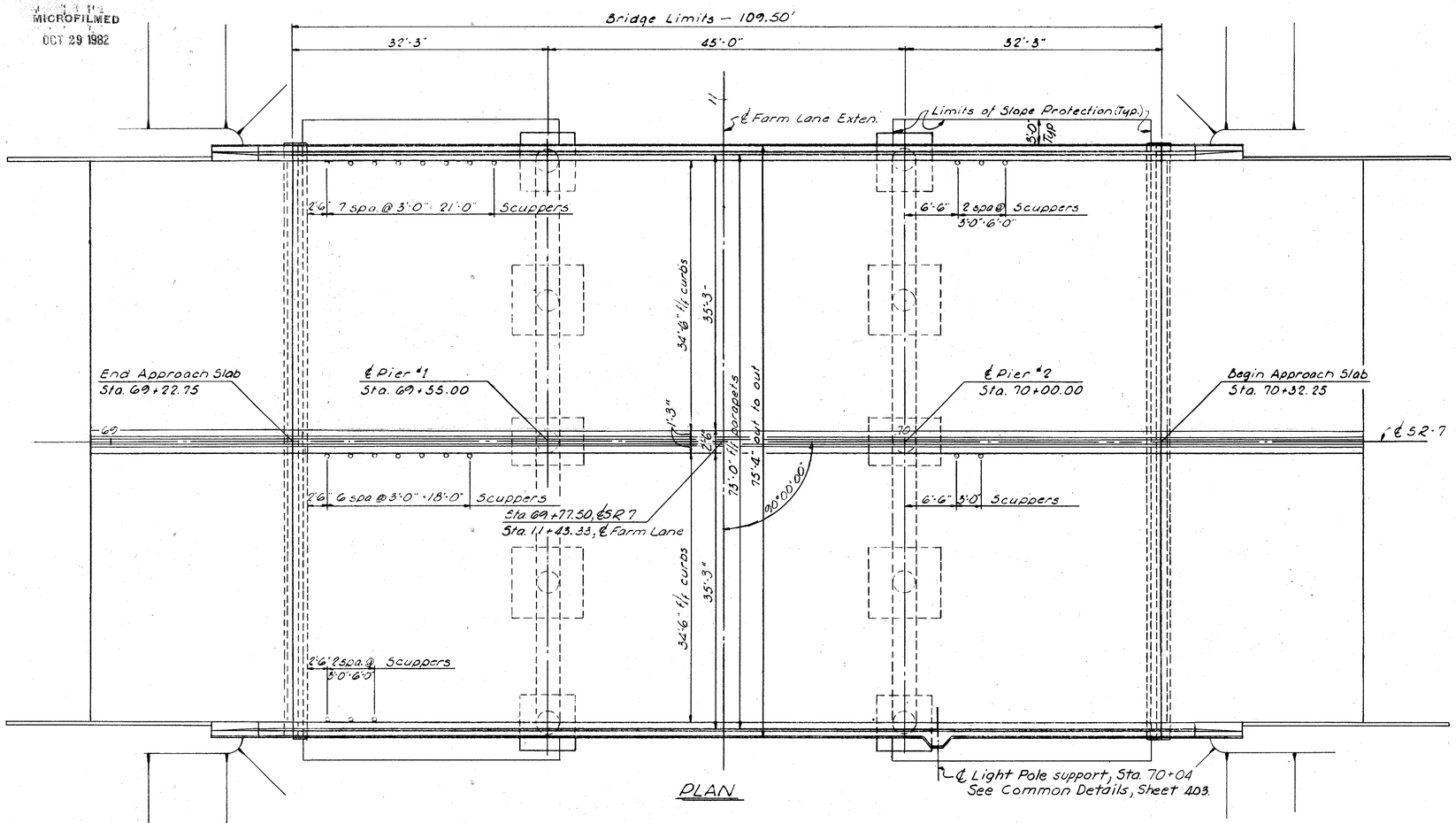
DESIGNED	DRAWN	TRACED	CHECKED	REVIEWED	DATE	REVISED
FWD 3/28/68			RT 11/7/68	JEV	8/7/68	

MICROFILMED
OCT 29 1982

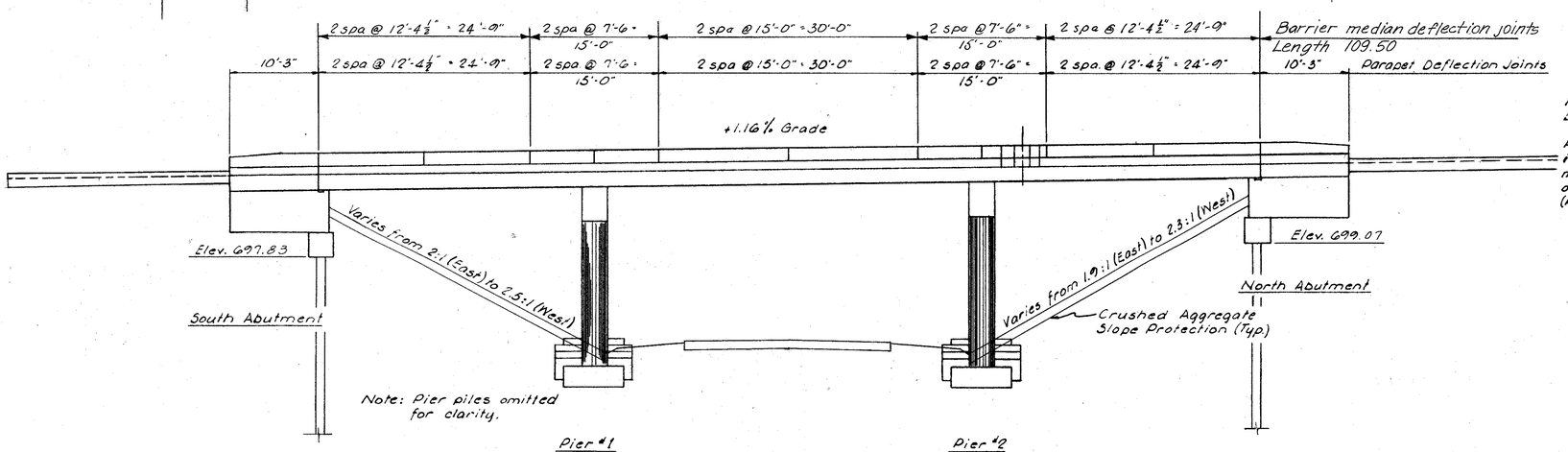
FED. RD. DIVISION	STATE	PROJECT	TYPE FUNDS
2	OHIO		

421
560

JEFFERSON COUNTY
JEF-7-0.20



For Scupper details see Common Details, Sheet 402, & 402 A



For Parapet Deflection Joint Details see Std Drwg BR-1-67

Preformed Expansion Joint Filler in the deflection joints may be either ½" gray sponge rubber or ¼" gray cellular polyvinyl chloride (PVC) sponge.

ALDEN E. STILSON & ASSOCIATES, LIMITED
CONSULTING ENGINEERS
COLUMBUS, OHIO

3 / 8

GENERAL PLAN and ELEVATION

BRIDGE No. JEF-7-0131
SR-7 over FARM LANE (Exten)
JEFFERSON COUNTY STA. 69 + 22.75 to STA. 70 + 32.25

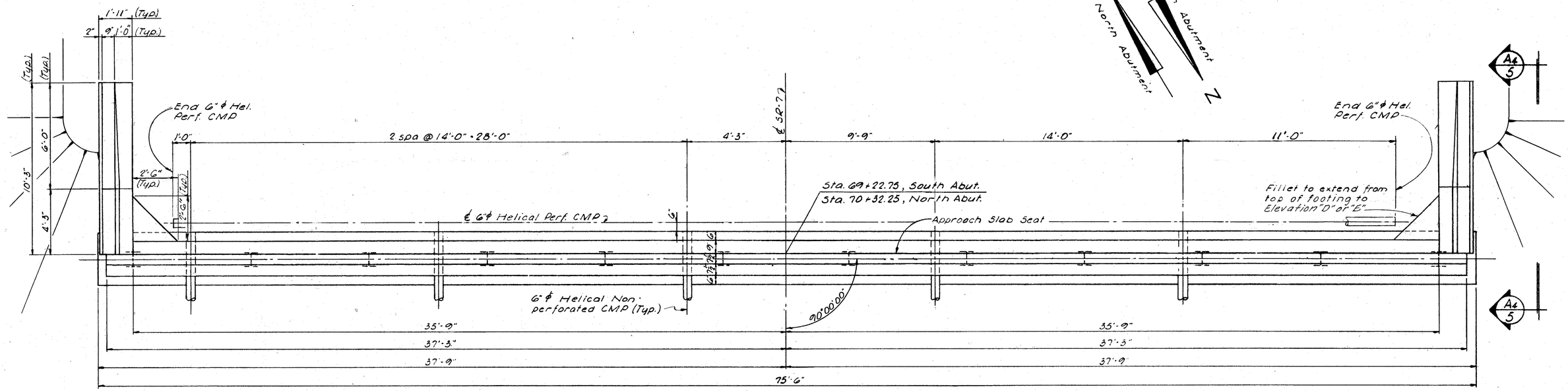
DESIGNED	DRAWN	TRACED	CHECKED	REVIEWED	DATE	REVISED
fwd	fwd		R.T.	JEY	8/1/68	

MICROFILMED
OCT 29 1982

FED. RD. DIVISION	STATE	PROJECT	FUNDS
2	OHIO		

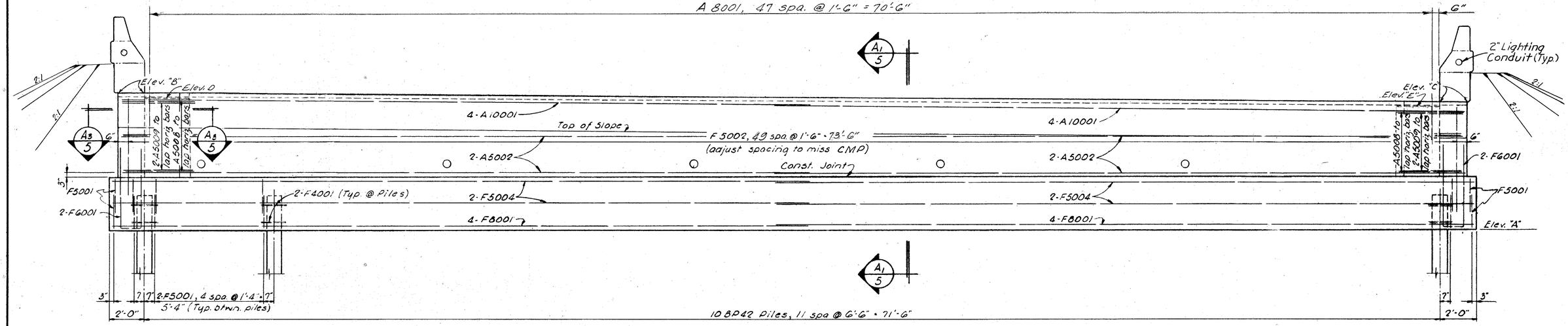
422
560

JEFFERSON COUNTY
JEF-7-0.20



PLAN

A 8001, 47 spa. @ 1'-6" = 70'-6"



ELEVATION

TABLE of ELEVATIONS

	Elev. "A"	Elev. "B"	Elev. "C"	Elev. "D"	Elev. "E"
South Abutment	697.83	705.72	705.10	705.39	704.77
North Abutment	699.07	706.35	706.69	706.26	706.60

See Sheet 5 | 8 for Notes.

ALDEN E. STILSON & ASSOCIATES, LIMITED
CONSULTING ENGINEERS
COLUMBUS, OHIO

4 | 8

NORTH and SOUTH ABUTMENT DETAILS

BRIDGE No. JEF-7-0131
SR-7 over FARM LANE (Exten)
JEFFERSON COUNTY STA. 69 + 22.75 to STA. 70 + 32.25

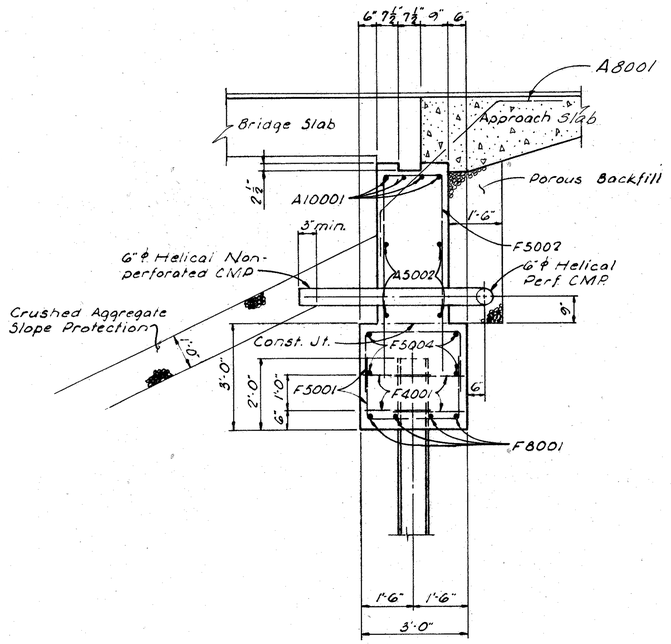
DESIGNED	DRAWN	TRACED	CHECKED	REVIEWED	DATE	REVISED
fwd	fwd		R.T.	JEV	8/17/68	

MICROFILMED
OCT 29 1982

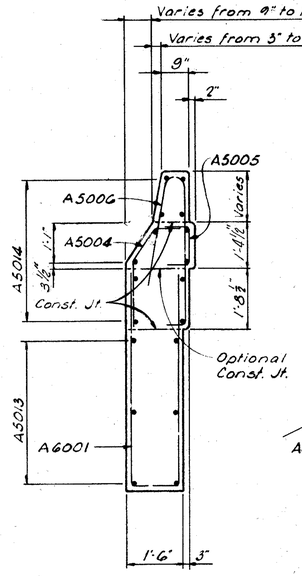
FED. RD. DIVISION	STATE	PROJECT	TYPE FUNDS
2	OHIO		

423
560

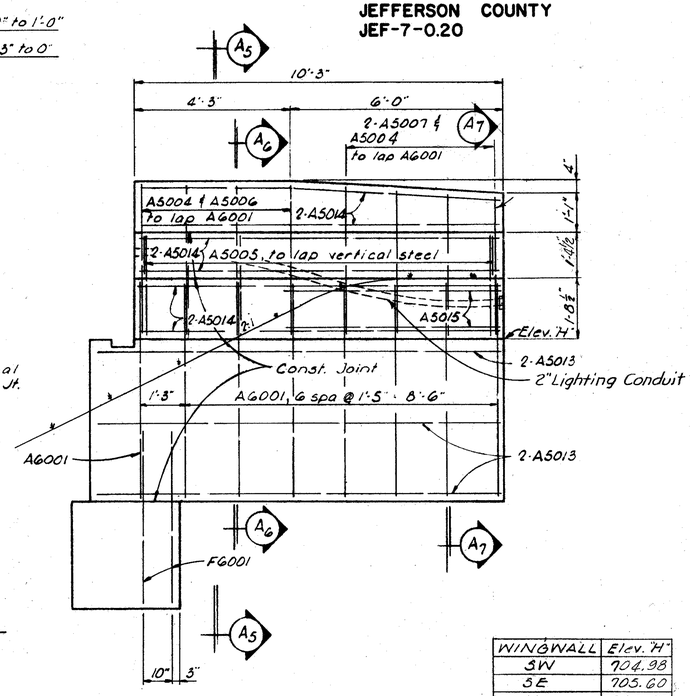
JEFFERSON COUNTY
JEF-7-0.20



SECTION $A_1/4$

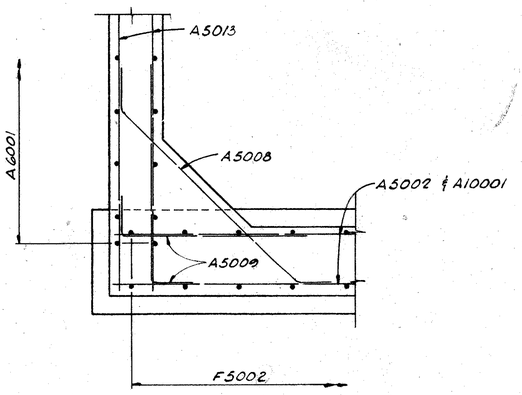


SECTION A_5-A_5



VIEW $A_4/4$

WINGWALL	Elev. "H"
SW	704.98
SE	705.60
NW	706.47
NE	706.81



SECTION $A_3/4$

NOTES

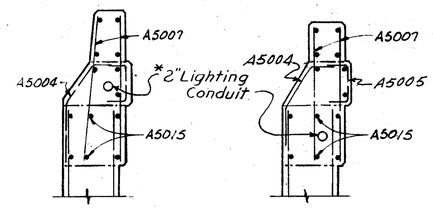
Porous backfill shall be placed between inside faces of wingwalls and shall extend up to the plane of the subgrade.

Field bending of A5014 in parapet shall be included in Item 509 for payment.

Quantities of Concrete and Reinforcing Steel for Railing shall be included with their appropriate Item for payment.

All reinforcing in footing shall have 3" minimum cover.

* For additional details of lighting conduit and 5"x5" blockout in wingwalls see Std. Const. Dwg. HL-5



SECTION A_6-A_6 SECTION A_7-A_7

Note: Reinforcing which is not labeled is same as Section A_5

ALDEN E. STILSON & ASSOCIATES, LIMITED
CONSULTING ENGINEERS
COLUMBUS, OHIO

5 / 8

ABUTMENT DETAILS

BRIDGE No. JEF-7-0131
SR-7 over FARM LANE (Exten)
JEFFERSON COUNTY STA. 69 + 22.75 to STA. 70 + 32.25

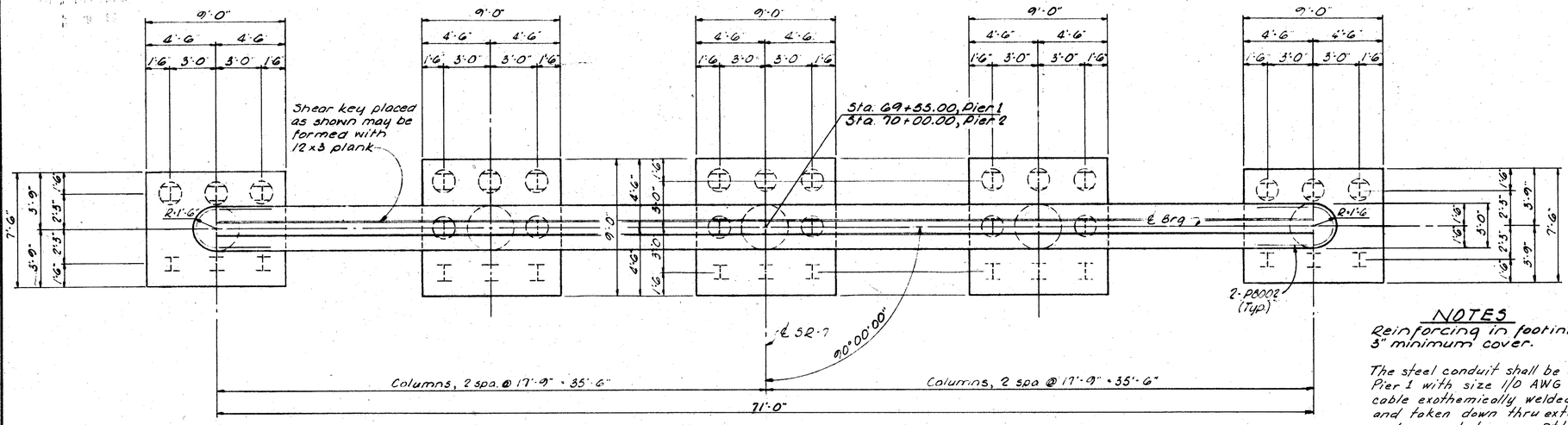
DESIGNED	DRAWN	TRACED	CHECKED	REVIEWED	DATE	REVISED
fwd	fwd		R.T.	J.E.V.	8/7/68	

MICROFILMED
OCT. 29 1982

FED. RD. DIVISION	STATE	PROJECT	TYPE FUNDS
2	OHIO		

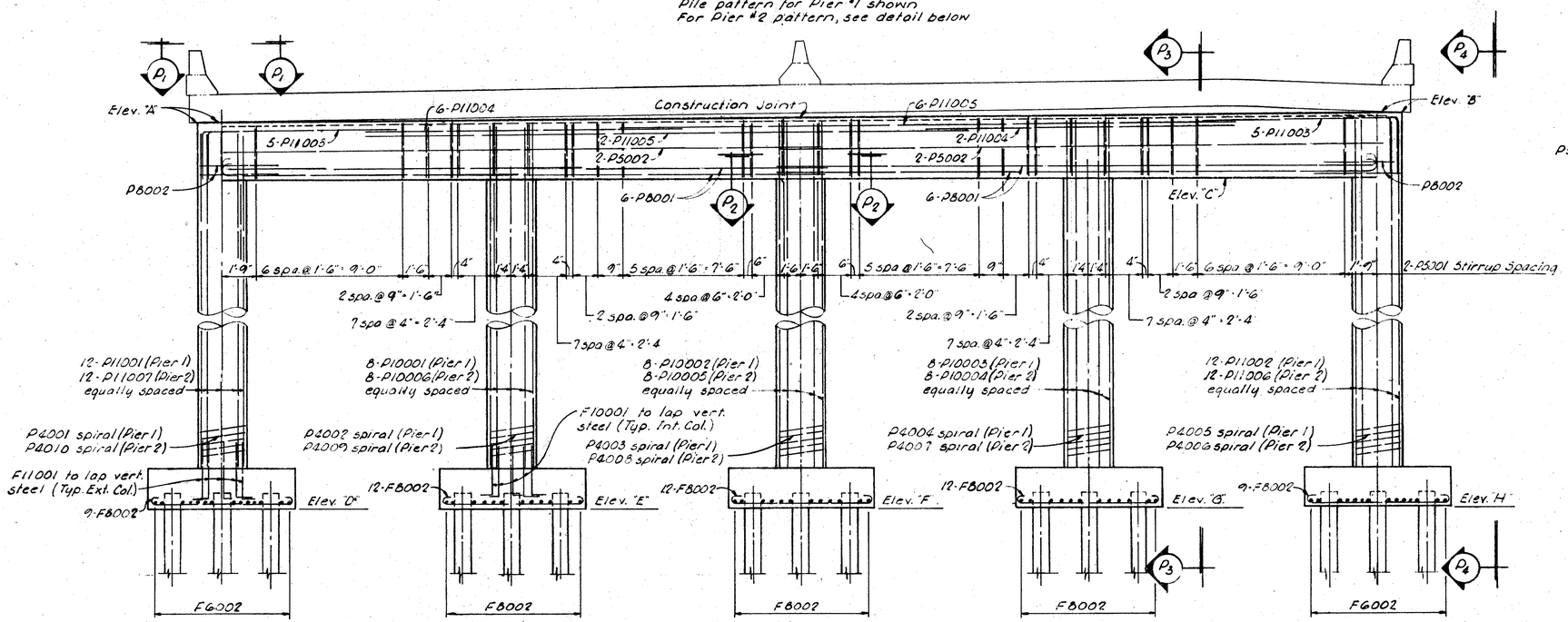
121/560

JEFFERSON COUNTY
JEF-7-0.20



PLAN

Pile pattern for Pier #1 shown
For Pier #2 pattern, see detail below



Col. 1 | Col. 2 | Col. 3 | Col. 4 | Col. 5

ELEVATION

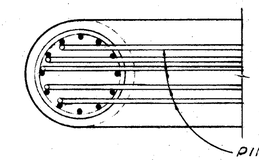
NOTES

P11003, P11004 and P11005 shall be lapped 4'-2".
All piles shall be 10 BP 42 steel piles.
All spirals shall have 4½" pitch.
I indicates vertical pile.
(I) indicates battered pile 1:4

TABLE of ELEVATIONS

	Elev. "A"	Elev. "B"	Elev. "C"	Elev. "D"	Elev. "E"	Elev. "F"	Elev. "G"	Elev. "H"
Pier #1	705.47	706.00	701.97	685.33	684.58	683.83	683.08	682.33
Pier #2	705.99	706.41	702.49	685.33	684.58	683.83	683.08	682.33

N



VIEW P_1-P_1

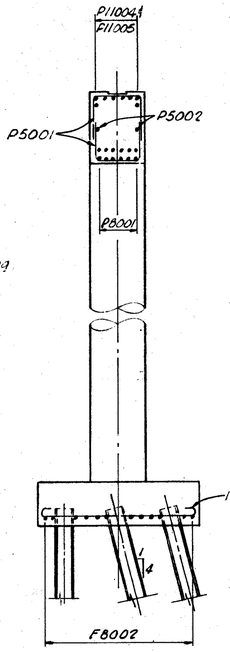


SECTION P_2-P_2

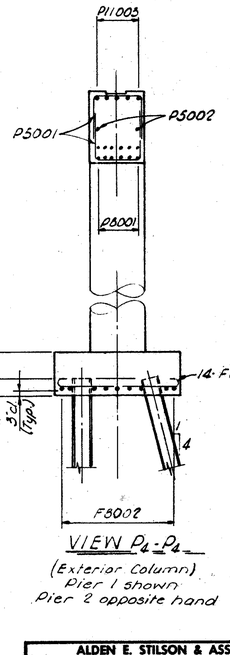
NOTES

Reinforcing in footing shall have 3" minimum cover.

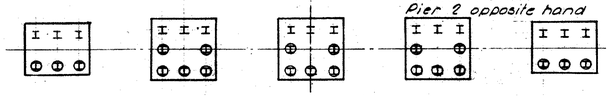
The steel conduit shall be grounded at Pier 1 with size 1/0 AWG bare copper cable exothermically welded to the conduit and taken down thru exterior column and grounded as per Std. Const. Dwg. HL-4.



SECTION P_3-P_3
(Interior Column)
Pier 1 shown
Pier 2 opposite hand



VIEW P_4-P_4
(Exterior Column)
Pier 1 shown
Pier 2 opposite hand



PILE PATTERN for PIER 2

ALDEN E. STILSON & ASSOCIATES, LIMITED
CONSULTING ENGINEERS
COLUMBUS, OHIO

6 / 8

PIERS 1&2 DETAILS

BRIDGE No. JEF-7-0131
SR-7 over FARM LANE (Exten)
JEFFERSON COUNTY STA. 69 + 22.75 to STA. 70 + 32.25

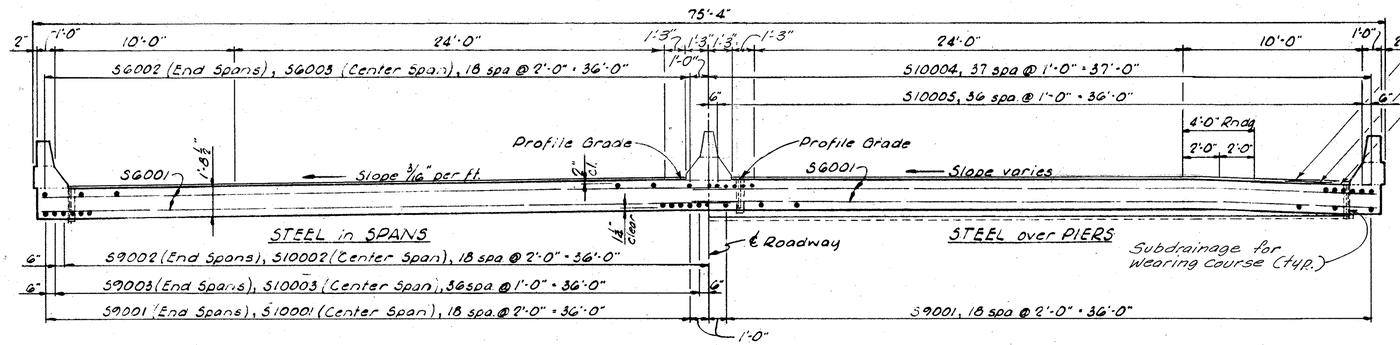
DESIGNED	DRAWN	TRACED	CHECKED	REVIEWED	DATE	REVISED
fwd	fwd		R.T.	J.E.V.	8/7/98	

MICROFILMED
OCT 29 1982

FED. RD. DIVISION	STATE	PROJECT	TYPE FUNDS
2	OHIO		

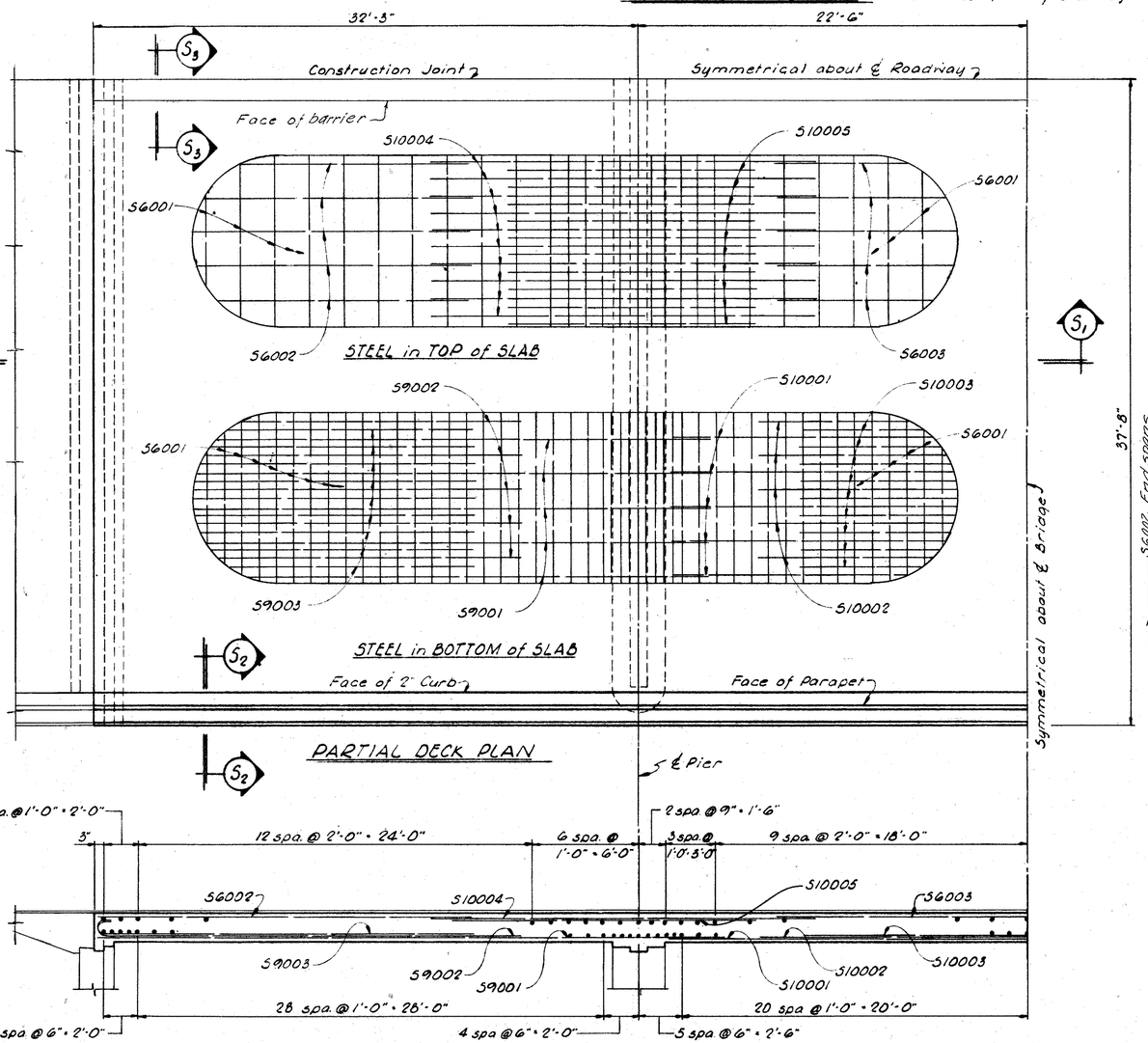
425/560

JEFFERSON COUNTY
JEF-7-0.20



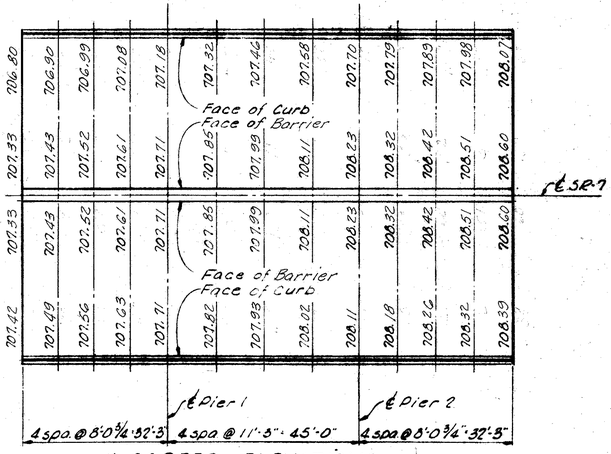
TRANSVERSE SECTION

Note: Reinforcing steel symmetrical about ℄ Roadway.



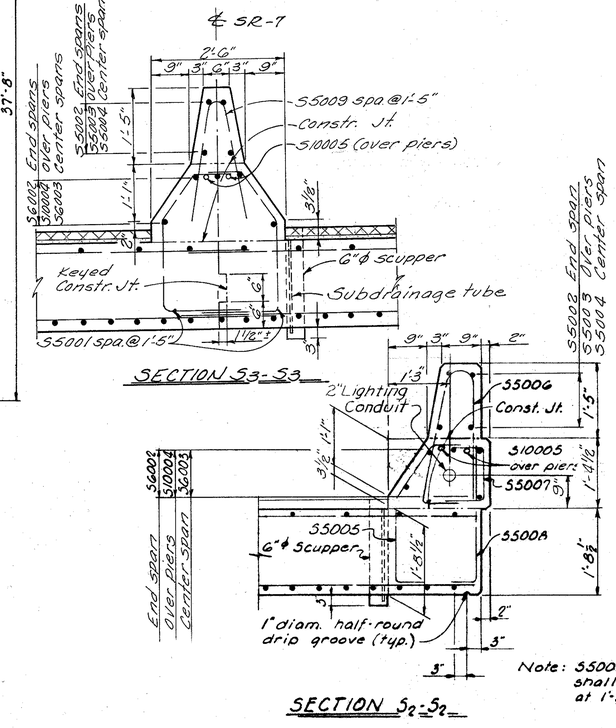
SECTION S1-S1

Note: All transverse steel S6001



* SCREED ELEVATIONS

* Screed elevations are at top of slab before the concrete deck is placed. Proper allowance has been made for the dead load deflection due to the weight of the concrete. Allowance for the deflection of falsework members has not been included.



NOTES

For Wearing Course Subdrainage Details see Common Detail Sht. 402 A.

For Scupper Details, see Common Details, Sheet 402 & 402 A

Field bending of S6001 shall be included in Item 509 for payment

Top longitudinal steel shall lap 1'-11"
Bottom longitudinal steel shall lap 2'-10"

Quantities of Concrete and Reinforcing Steel for Railing shall be included with their apropriate Item for payment.

Deck Finishing: See note on Sheet 413.

ALDEN E. STILSON & ASSOCIATES, LIMITED
CONSULTING ENGINEERS
COLUMBUS, OHIO

7 / 8

SUPERSTRUCTURE DETAILS

BRIDGE No. JEF-7-0131
SR-7 over FARM LANE (Exten)
JEFFERSON COUNTY STA. 69 + 22.75 to STA. 70 + 32.25

DESIGNED	DRAWN	TRACED	CHECKED	REVIEWED	DATE	REVISED
fwd	fwd		R.T.	J.E.V.	8/7/68	

MICROFILMED
OCT 29 1982

NOTES

1. INDICATES SERIES BAR. EACH BAR VARIES FROM ADJACENT BAR(S) BY TABULATED AMOUNT (S), CALCULATED TO NEAREST $\frac{1}{8}$". WEIGHT SHOWN IS FOR ENTIRE SERIES UTILIZING AVERAGE LENGTH.
2. BARS INCLUDED WITH ITEM 517, RAILING, FOR PAYMENT.
3. COST OF FIELD BENDING SHALL BE INCLUDED WITH ITEM 509.
4. LIGHT POLE SUPPORT BARS INCLUDED WITH ITEM 509 FOR PAYMENT.
5. END PREPARATION AND FIELD WELDING INCLUDED WITH ITEM 509.
6. "LENGTH" SHOWN FOR SPIRAL BARS IS DISTANCE FROM TOP OF FOOTING TO BOTTOM OF PIER CAP.
"NO. TURNS" SHOWN IS "LENGTH" DIVIDED BY PITCH, PLUS 3 TURNS (NUMBER OF CLOSED COILS), EXPRESSED AS NEAREST WHOLE NUMBER.

SPIRAL BARS SHALL NOT HAVE DEFORMATIONS BUT SHALL IN OTHER RESPECTS CONFORM TO ITEM 509. $1\frac{1}{2}$ CLOSED COILS SHALL BE PROVIDED AT ENDS OF EACH SPIRAL UNIT. FOUR STEEL CHANNEL, TEE, OR ANGLE SPACERS, WEIGHING APPROXIMATELY 0.80 LB. PER LIN. FT. OF SPACER SHALL BE PROVIDED FOR EACH SPIRAL UNIT. THEY SHALL BE EQUALLY SPACED ALONG PERIPHERY OF COIL. WEIGHT OF SPACERS, AT 0.80 LB. PER. LIN. FT. WILL BE PAID FOR AS REINFORCING STEEL AND IS INCLUDED IN TABULATED WEIGHT.

FED. RD. DIVISION	STATE	PROJECT	TYPE FUNDS
2	OHIO		

426
560

JEFFERSON COUNTY
JEF-7-0.20

MARK	NUM.	LENGTH	WEIGHT	TYPE	A	B	C	D	E	NOTE
				ABUTMENTS						
F 4001	96	5- 4	342	1		1-11	1- 9	1-11		
F 5001	236	6- 5	1579	1		2- 1	2- 6	2- 1		
F 5002	100	13-11	1452	1		6- 3	1- 8	6- 3		
F 5004	16	38- 5	641	ST						
F 6001	8	10- 4	124	1		4- 9	1- 2	4- 9		
F 8001	16	38-10	1659	ST						
A 5002	16	37-11	633	ST						
A 5004	32	3- 6	117	15		1- 7	1- 0	0- 9	0- 9	
A 5005	32	1-11	64	1		0- 7	1- 0	0- 7		
A 5006	16	7-11	132	19		3- 3	4- 0	0- 7		
A 5007	32	3- 8	122	ST						
A 5008	12	9-9	122	16			1- 1	6-9	1- 1	
A 5009	24	7- 5	186	1	1- 7	6- 0				
A 5013	24	11- 2	280	ST						
A 5014	48	9-11	496	ST						
A 5015	8	5-10	49	ST						3
A 6001	32	12- 2	585	1		5- 8	1- 2	5- 8		
A 8001	96	6-7	1687	20	1-1	1-1	4-9	0-6	0-6	
A10001	16	38- 9	2668	ST						
					PIERS					
F 6002	56	8- 4	701	10	7- 0					
F 8002	180	10- 8	5126	10	8- 6					
F10001	48	6- 7	1360	1	1- 5	5- 6				

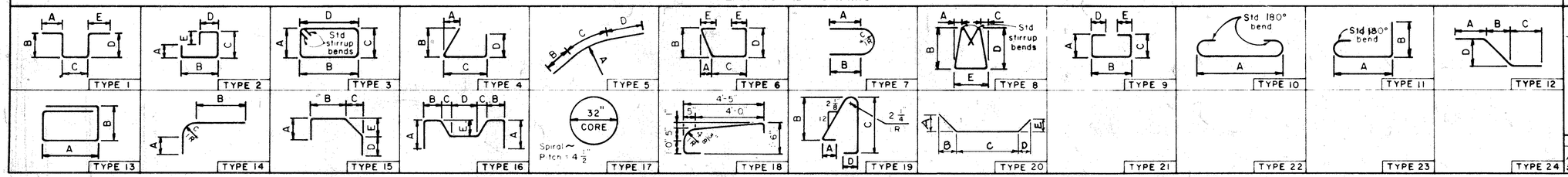
MARK	NUM.	LENGTH	WEIGHT	TYPE	A	B	C	D	E	NOTE
				PIERS			(CONTINUED)			
F11001	48	7- 2	1828	1	1- 8	5-10				
P 4001	1	14- 1	271	17	NO. TURNS= 41		NO. SPACERS = 4			6
P 4002	1	14-10	285	17	NO. TURNS= 43		NO. SPACERS = 4			6
P 4003	1	15- 7	298	17	NO. TURNS= 45		NO. SPACERS = 4			6
P 4004	1	16- 4	311	17	NO. TURNS= 47		NO. SPACERS = 4			6
P 4005	1	17- 1	325	17	NO. TURNS= 49		NO. SPACERS = 4			6
P 4006	1	17- 7	332	17	NO. TURNS= 50		NO. SPACERS = 4			6
P 4007	1	16-10	319	17	NO. TURNS= 48		NO. SPACERS = 4			6
P 4008	1	16- 1	305	17	NO. TURNS= 46		NO. SPACERS = 4			6
P 4009	1	15- 4	292	17	NO. TURNS= 44		NO. SPACERS = 4			6
P 4010	1	14- 7	278	17	NO. TURNS= 42		NO. SPACERS = 4			6
P 5001	320	8- 9	2920	1		3- 2	2- 8	3- 2		
P 5002	8	36- 4	303	ST						
P 8001	48	37-10	4849	11	36- 9					
P 8002	8	8- 3	176	7	2- 6	2- 6	1- 0			
P10001	8	18- 0	620	ST						
P10002	8	18-10	648	ST						
P10003	8	19-10	683	ST						
P10004	8	20- 3	697	ST						
P10005	8	19- 4	666	ST						
P10006	8	18- 6	637	ST						
P11001	12	17- 1	1089	ST						
P11002	12	20- 8	1318	ST						
P11003	20	16- 5	1744	1	3- 3	13- 6				
P11004	16	20- 9	1764	ST						
P11005	16	38- 6	3273	ST						
P11006	12	21- 1	1344	ST						
P11007	12	17- 8	1126	ST						
				SUPERSTRUCTURE						
S 5001	156	4- 1	664	15	0- 7	1- 8	1-0	0- 9	0-9	
S 5002	48	12- 0	601	ST						
S 5003	48	7- 2	359	ST						
S 5004	24	14- 8	367	ST						

MARK	NUM.	LENGTH	WEIGHT	TYPE	A	B	C	D	E	NOTE
				SUPERSTRUCTURE			(CONTINUED)			
S 5005	156	4- 0	651	15	0- 7	1- 7	1- 0	0- 9	0- 9	
S 5006	156	6- 0	976	19	0- 8	2- 5	2- 5	0- 7		
S 5007	156	1-11	312	1		0- 7	1- 0	0- 7		
S 5008	156	3- 0	488	1	0- 7	2- 7				
S 5009	78	4-7	373	4	2-3	1-1	2-3			
S 6001	384	38- 3	22061	ST						3
S 6002	106	20- 6	3264	ST						
S 6003	53	26- 3	2090	ST						
S 9001	76	36- 5	9410	ST						
S 9002	74	26- 9	6730	11	25- 6					
S 9003	148	24- 0	12077	11	22- 9					
S10001	38	42- 0	6868	ST						
S10002	37	31- 0	4936	ST						
S10003	174	27- 0	20215	ST						
S10004	180	24- 8	19106	ST						
S10005	160	14- 4	9868	ST						
				LIGHT POLE						
L 5001	8	3- 2	26	6	0- 7	0- 7	2- 4			4
L 5002	2	2-11	6	1	1-10	1- 3				4
L 5003	3	5- 6	17	1	2-10	2-10				4
L 5004	3	2- 7	8	1	1- 8	1- 1				4
				REPLACEMENT STEEL FOR SPIRALS						
RE 4001	1	6- 3		5	1-3 1/2		6- 3			
				REPLACEMENT STEEL						
RE 4002	1	5-4		1	1-11	1-9	1-11			
RE 5001	1	6- 7		ST						
RE 6001	2	6-10		ST						
RE 8001	1	7- 6		ST						
RE 9001	2	7-10		ST						
RE10001	4	8- 2		ST						
RE11001	1	8- 6		ST						

BAR SIZE DESIGNATION

BAR SIZE IS INDICATED IN THE BAR MARK. THE FIRST DIGIT WHERE FOUR DIGITS ARE USED, AND THE FIRST TWO DIGITS WHERE FIVE DIGITS ARE USED, INDICATE THE BAR SIZE NUMBER. FOR EXAMPLE, A7001 IS A NO.7 SIZE BAR AND A10140 IS A NO.10 SIZE.

BENDING DIAGRAMS



ALDEN E. STILSON & ASSOCIATES, LIMITED
CONSULTING ENGINEERS
COLUMBUS, OHIO

8 | 8

REINFORCING STEEL LIST

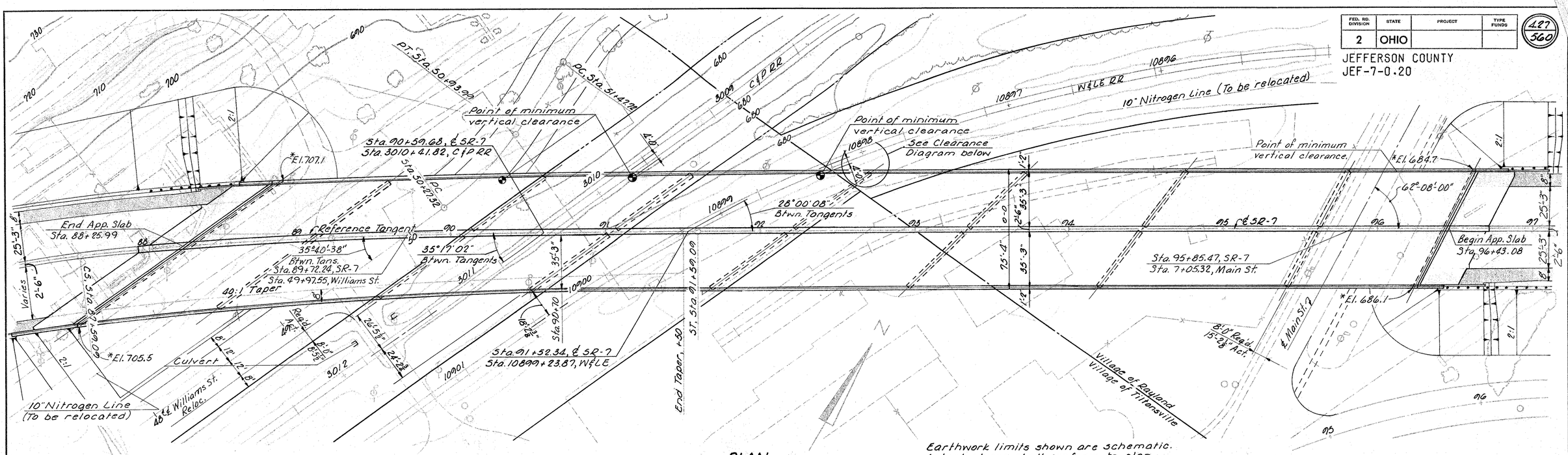
BRIDGE No. JEF-7-0131
SR-7 over FARM LANE (Exten)
JEFFERSON COUNTY
STA. 69 + 22.75 to STA. 70 + 32.25

DESIGNED	DRAWN	TRACED	CHECKED	REVIEWED	DATE	REVISED
fwd 3/28/68			RT 7/11/68	JEV 8/7/68		

FED. RD. DIVISION	STATE	PROJECT	TYPE FUNDS
2	OHIO		

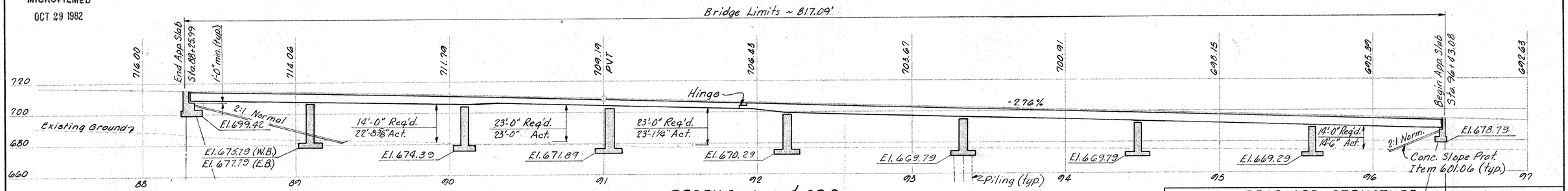
427
560

JEFFERSON COUNTY
JEF-7-0.20

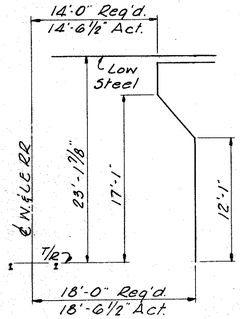


PLAN

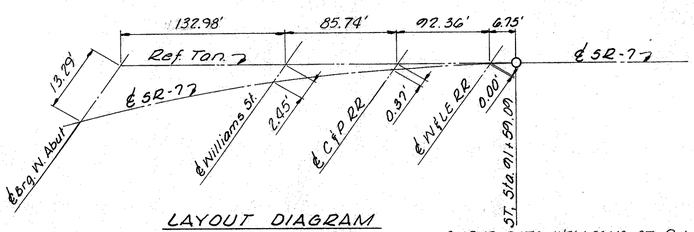
Earthwork limits shown are schematic. Actual slopes shall conform to plan cross-sections.



PROFILE along ℄ SR-7



CLEARANCE DIAGRAM NORMAL to TRACK



LAYOUT DIAGRAM

NOTES
Reference Tangent is the extension of the forward tangent from Sta. 91+59.09 back.

Piers shall be T-type, 3'-0" thick.

*Elevations marked with an asterisk are top of slope at face of abutment.

All piles shall be 12"ϕ Cast-in-place reinforced concrete piles. Estimated average pay lengths are:
Rear Abutment ~ 50'
Pier 1 ~ 32'
Pier 2 ~ 30'
Pier 3 ~ 40'
Pier 4 ~ 50'
Piers 5, 6 & 7 ~ 55'
Forward Abutment ~ 65'

PROPOSED STRUCTURE

TYPE: Continuous welded steel girder with reinforced concrete deck and substructure.
SPANS: 78'-9", 102'-0", 93'-0", 115'-3", 3@112'-0", 85'-3" c/c brg. along ℄ SR-7
ROADWAY: Variable f/f concrete barrier type parapet with 2'-6" barrier median. Average f/f parapet 74.9'.
LOADING: HS20-44.
WEARING SURFACE: 2½" Asphalt concrete.
SKEW: Varies from 54°-19'-22" to 27°-52'-00" Lt. Fwd with respect to Ref. Tan.
ALIGNMENT: Spiral right and tangent.
APPROACH SLABS: See Sheet 402, 25'-0" long.
SUPERELEVATION: S.B. Lanes — Varies from 0.071 @ 87+75 to 0.0 @ 91+50; varies from 0 @ 91+50 to 0.0156 @ 93+00; 0.0156 from 93+00 ahead.
N.B. Lanes — Varies from 0.071 @ 87+75 to 0.0156 @ 90+67.61; 0.0156 from 90+67.61 ahead.

CURVE DATA - WILLIAMS ST. Reloc.
PI: Sta. 50+61.00
Δ: 20°00'
Dc: 30°00'
Lc: 66.67'
PVI: Sta. 49+50.00
VC: 100'
Elev: 681.51
Corr: +0.14
PG: 681.65
g1: -0.68% g2: +0.44%

CURVE DATA — SR-7
PI: Sta. 84+17.41
Δ: 33°33'07"
Dc: 3°00'
Lc: 718.41
Ls: 400'
PVI: Sta. 85+00.00
VC: 1200'
Elev: 725.75
Corr: -5.88
PG: 719.87
g1: 1.16% g2: -2.76%

CURVE DATA — W&LE RR
PI: Sta. 10897+82.38
Δ: 32°31'21"
D: 5°45'05"
R: 996.61'
T: 290.70'
Lc: 565.70'

1989 ADT = 18,450

1/130

ALDEN E. STILSON & ASSOCIATES, LIMITED
CONSULTING ENGINEERS
CLEVELAND, OHIO COLUMBUS, OHIO WHEELING, W. VA.

SITE PLAN

BRIDGE NO. JEF-7-0166
SR-7 OVER WILLIAMS ST. RELOC., C&P RR, W&LE RR AND MAIN ST.
STA. 88+25.99 TO STA. 96+43.08
JEFFERSON COUNTY

DESIGNED	DRAWN	TRACED	CHECKED	REVIEWED	DATE	REVISED
fwd	fwd		RT	JEV	3/16/70	

MICROFILMED
OCT 29 1982

FED. RD. DIVISION	STATE	PROJECT	TYPE FUNDS
2	OHIO		

428
560

JEFFERSON COUNTY
JEF-7-0.20

MICROFILMED
OCT 29 1982

STANDARD DRAWING REFERENCES

DESCRIPTION	DWG. NO.	SHT.	DATE
END DAM AND END CROSSFRAME	SD-1-69	1-2	6-12-69
SCUPPERS	SD-1-69	3	6-12-69
BRIDGE ROADWAY RAILING	BR-1-67	1	10-15-71
ROCKERS AND BOLSTERS	RB-1-55		2-2-59 R
APPROACH SLABS	AS-1-72		6-30-72
HIGHWAY LIGHTING	HL-4 & HL-7		9-6-73
	HL-5 & HL-6		9-6-73

(R INDICATES REVISED DATE)

SUPPLEMENTAL SPECIFICATION REFERENCES

DESCRIPTION	NO.	DATE
CHEMICAL ADMIXTURE FOR CONCRETE, TYPE A, B OR D	808	1-1-71
CONCRETE CURING AND PROTECTIVE MEMBRANE	836	1-1-71
SELF-LUBRICATING BRONZE BEARING PLATES	927	1-1-71
SPECIAL PILE TESTS	838	3-18-70

COMMON DETAIL REFERENCES

CONTRACTION JOINTS	SHEET	402
LIGHTING	SHEET	403
SCUPPERS	SHEET	402 & 402A
Subdrainage for Wearing Course	Sheet	402-A

DESIGN SPECIFICATIONS

THIS STRUCTURE CONFORMS TO THE 'STANDARD SPECIFICATIONS FOR HIGHWAY BRIDGES' ADOPTED BY THE AMERICAN ASSOCIATION OF STATE HIGHWAY OFFICIALS, 1969, INCLUDING THE OHIO 'SUPPLEMENT' TO THESE SPECIFICATIONS.

DESIGN DATA

DESIGN LOADING - HS20-44
CONCRETE CLASS C - UNIT STRESS 1200 PSI FOR SUPERSTRUCTURE
UNIT STRESS 1333 PSI FOR SUBSTRUCTURE
STRUCTURAL STEEL - ASTM A36 - UNIT STRESS 20000 PSI
REINFORCING STEEL - ASTM A615, A616 OR A617 - UNIT STRESS 20000 PSI.

BACKWALL CONCRETE: IN ADDITION TO THE PROVISIONS OF 511.08, BACKWALL CONCRETE SHALL NOT BE PLACED UNTIL AFTER THE DECK CONCRETE IN THE SPAN ADJACENT TO THE BACKWALL HAS BEEN PLACED.

BEARING ANCHORS: AT THE OPTION OF THE CONTRACTOR, BEARING ANCHORS (OR FORMED HOLES) LOCATED AND SUPPORTED BY TEMPLATES, MAY BE CAST IN PLACE.

EMBANKMENT CONSTRUCTION

THE EMBANKMENTS SHALL BE CONSTRUCTED TO THE LEVEL OF THE SUBGRADE FOR A MINIMUM DISTANCE OF 200 FEET BACK OF THE ABUTMENTS. EXCAVATION SHALL THEN BE MADE FOR PIER NO. 1. THE EMBANKMENTS SHALL BE PLACED 30 DAYS PRIOR TO ANY EXCAVATION AND PILE DRIVING AT THE ABUTMENTS.

PILES

PILES SHALL BE DRIVEN TO A MINIMUM BEARING CAPACITY OF 45 TONS PER PILE FOR THE ABUTMENTS AND PIERS.

UTILITY LINES

ALL EXPENSE INVOLVED IN RELOCATING AND INSTALLING THE AFFECTED UTILITY LINES SHALL BE BORNE BY THE OWNERS. THE CONTRACTOR AND OWNERS ARE REQUESTED TO COOPERATE BY ARRANGING THEIR WORK IN SUCH A MANNER THAT INCONVENIENCE TO EITHER WOULD BE HELD TO A MINIMUM.

MAINTENANCE OF TRAFFIC

TWO LANES OF TRAFFIC SHALL BE MAINTAINED ON WILLIAMS ST. RELOC. AND MAIN ST. AT ALL TIMES.

CONSTRUCTION CLEARANCE

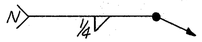
CONSTRUCTION CLEARANCE OF 20 FEET VERTICALLY ABOVE THE TOP OF THE RAILROAD RAILS AND 8 FEET HORIZONTALLY FROM THE CENTER OF THE TRACKS SHALL BE MAINTAINED AT ALL TIMES.

RAILROAD AERIAL LINES

RAILROAD AERIAL LINES WILL BE RELOCATED BY THE RAILROAD. THE CONTRACTOR SHALL USE ALL PRECAUTIONS NECESSARY TO SEE THAT THE LINES ARE NOT DISTURBED DURING THE CONSTRUCTION STAGE AND SHALL COOPERATE WITH THE RAILROAD IN THE RELOCATION OF THESE LINES. THE COST OF THE RELOCATION SHALL BE INCLUDED IN THE RAILROAD FORCE ACCOUNT WORK.

WELDS

WELDS ON NON-STRESS CARRYING MEMBERS ARE SHOWN THUS-



ITEM	TOTAL	UNIT	DESCRIPTION	ABUTS	PIERS	SUPER	GENERAL
503	LUMP	SUM	COFFERDAMS, CRIBS AND SHEETING				LUMP
503	1850	C.Y.	UNCLASSIFIED EXCAVATION	730	1120		
404	358	C.Y.	Asphalt Concrete (70-85 or AC20)			358	
505	LUMP	SUM	TEST PILE				LUMP
506	LUMP	SUM	PILE TEST LOAD				LUMP
506	1	EA	SUBSEQUENT PILE TEST LOAD				1
507	18720	L.F.	12 INCH CAST-IN-PLACE REINFORCED CONCRETE PILES	3170	15550		
	818035				239409		
509	(814849)	LB	REINFORCING STEEL	38100	(236223)	54052G	
511	2107	C.Y.	CLASS C CONCRETE, SUPERSTRUCTURE			2107	
511	1167	C.Y.	CLASS C CONCRETE, PIERS ABOVE FOOTINGS		1167		
511	332	C.Y.	CLASS C CONCRETE, ABUTMENTS ABOVE FOOTINGS	332			
511	583	C.Y.	CLASS C CONCRETE, FOOTINGS	196	387		
512	56	L.F.	PREMOLDED SEALING STRIP	56			
513	1977500	LB	STRUCTURAL STEEL			1977500	
514	1977500	LB	FIELD PAINTING OF STRUCTURAL STEEL			1977500	
516	32	S.F.	1 INCH PREFORMED EXPANSION JOINT FILLER	32			
518	205	C.Y.	POROUS BACKFILL	205			
518	40	EA	SCUPPERS INCLUDING SUPPORTS			40	
518	39	L.F.	TROUGH HORIZONTAL CONDUCTORS			39	
518	220	L.F.	6 INCH PERFORATED, HELICAL CMP, 707.01	220			
518	107	L.F.	6 INCH NON-PERFORATED, HELICAL CMP, INCLUDING	107			
			SPECIALS, 707.01				
518	53	L.F.	4 INCH STD PIPE DOWNSPOUT, ALLOY STEEL (707.11)				53
			OR HOT-DIP GALVANIZED STEEL, INCLUDING SPECIALS				
518	24	L.F.	6 INCH STD PIPE DOWNSPOUT, ALLOY STEEL (707.11)				24
			OR HOT-DIP GALVANIZED STEEL, INCLUDING SPECIALS				
518	2387	L.F	SUBDRAINAGE FOR WEARING COURSE AS PER PLAN			2387	
601	1560	S.Y.	CONCRETE SLOPE PROTECTION				1560
625			SEE SHEET 359 FOR LIGHTING SUMMARY				
808	207	UNIT	CHEMICAL ADMIXTURE FOR CONCRETE, TYPE A, B OR D			207	
838	3	HR.	SPECIAL PILE TESTS				3
SPEC.	90	C.Y.	Sand Asphalt			90	
* SPEC.	6537	S.Y.	Membrane Waterproofing sheet type			6537	

* See Proposal Note

2 130

ALDEN E. STILSON & ASSOCIATES, LIMITED
CONSULTING ENGINEERS
CLEVELAND, OHIO COLUMBUS, OHIO WHEELING, W. VA.

GENERAL NOTES AND ESTIMATED QUANTITIES

BRIDGE NO. JEF-7-0166
SR-7 OVER WILLIAMS ST. RELOC.,
C&P RR, W&LE RR AND MAIN ST.
STA. 88+25.99 TO
JEFFERSON COUNTY STA. 96+43.08

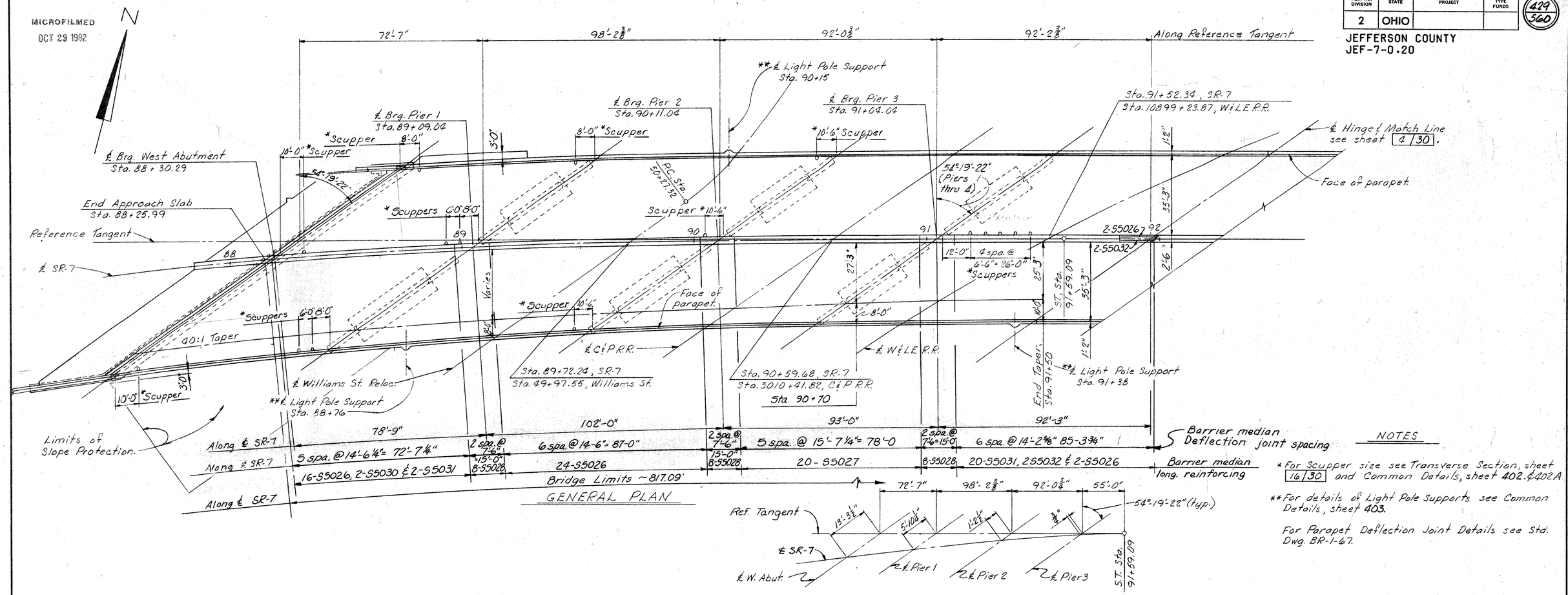
DESIGNED	DRAWN	TRACED	CHECKED	REVIEWED	DATE	REVISED
RT			PHB 9-30-70	fwd 10/4/70	1-27-75	

MICROFILMED
OCT 29 1982

FED. RD. DIVISION	STATE	PROJECT	TYPE FUNDS
2	OHIO		

429/560

JEFFERSON COUNTY
JEF-7-0.20

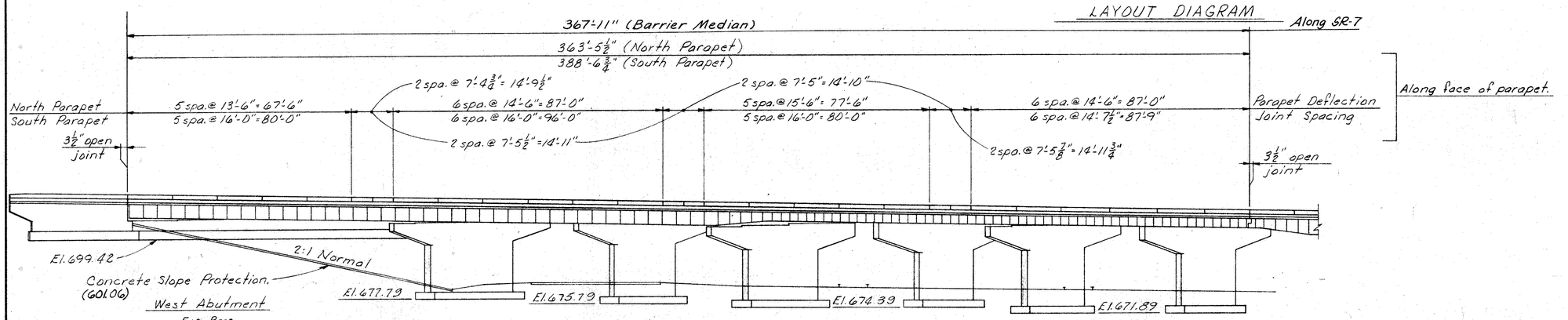


NOTES

* For Scupper size see Transverse Section, sheet 16/30 and Common Details, sheet 402.&402A

** For details of Light Pole Supports see Common Details, sheet 403.

For Parapet Deflection Joint Details see Std. Dwg. BR-1-67.



3/30

ALDEN E. STILSON & ASSOCIATES, LIMITED
CONSULTING ENGINEERS
CLEVELAND, OHIO COLUMBUS, OHIO WHEELING, W. VA.

GENERAL PLAN AND ELEVATION

BRIDGE NO. JEF-7-0166
SR-7 OVER WILLIAMS ST. RELOC., C&P RR. W&LE RR AND MAIN ST.
STA. 88+25.99 TO STA. 96+43.08
JEFFERSON COUNTY

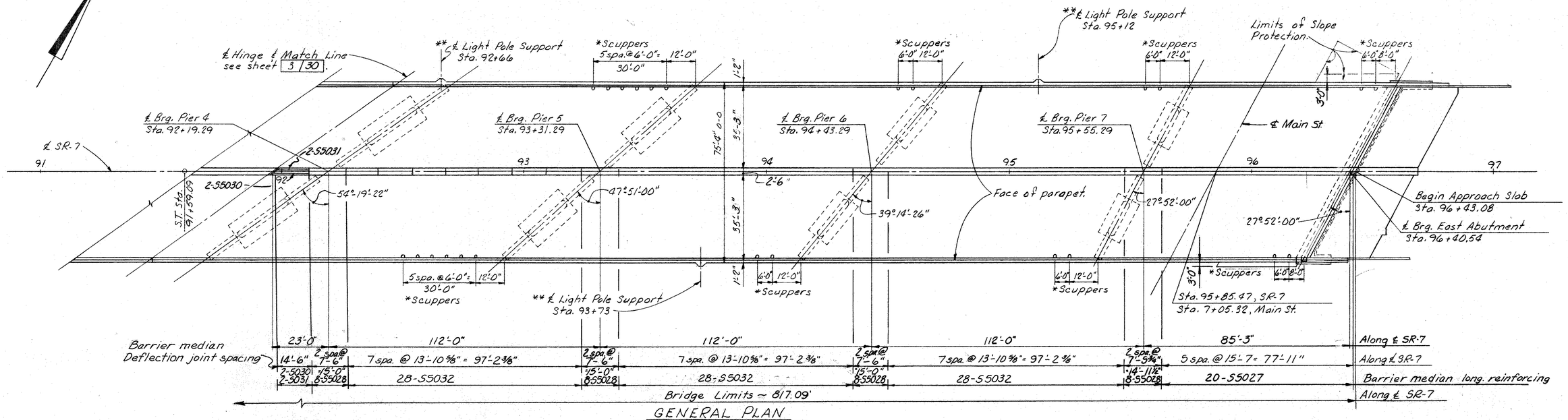
DESIGNED	DRAWN	TRACED	CHECKED	REVIEWED	DATE	REVISED
RT	DW		DLM	cwd	10/4/70	

MICROFILMED
OCT 29 1982

FED. RD. DIVISION	STATE	PROJECT	TYPE FUNDS
2	OHIO		

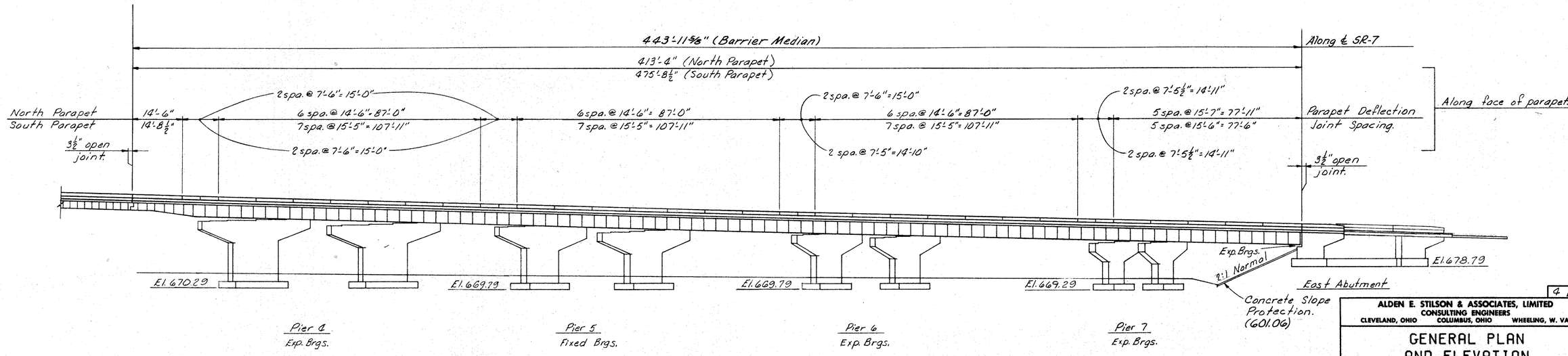
430/560

JEFFERSON COUNTY
JEF-7-0.20



GENERAL PLAN

For additional notes and details see sheet 3/30.



GENERAL ELEVATION
(Piles not shown.)

4/30

ALDEN E. STILSON & ASSOCIATES, LIMITED
CONSULTING ENGINEERS
CLEVELAND, OHIO COLUMBUS, OHIO WHEELING, W. VA.

GENERAL PLAN AND ELEVATION

BRIDGE NO. JEF-7-0166
SR-7 OVER WILLIAMS ST. RELOC., C&P RR. W&LE RR AND MAIN ST.
JEFFERSON COUNTY STA. 88+25.99 TO STA. 96+43.08

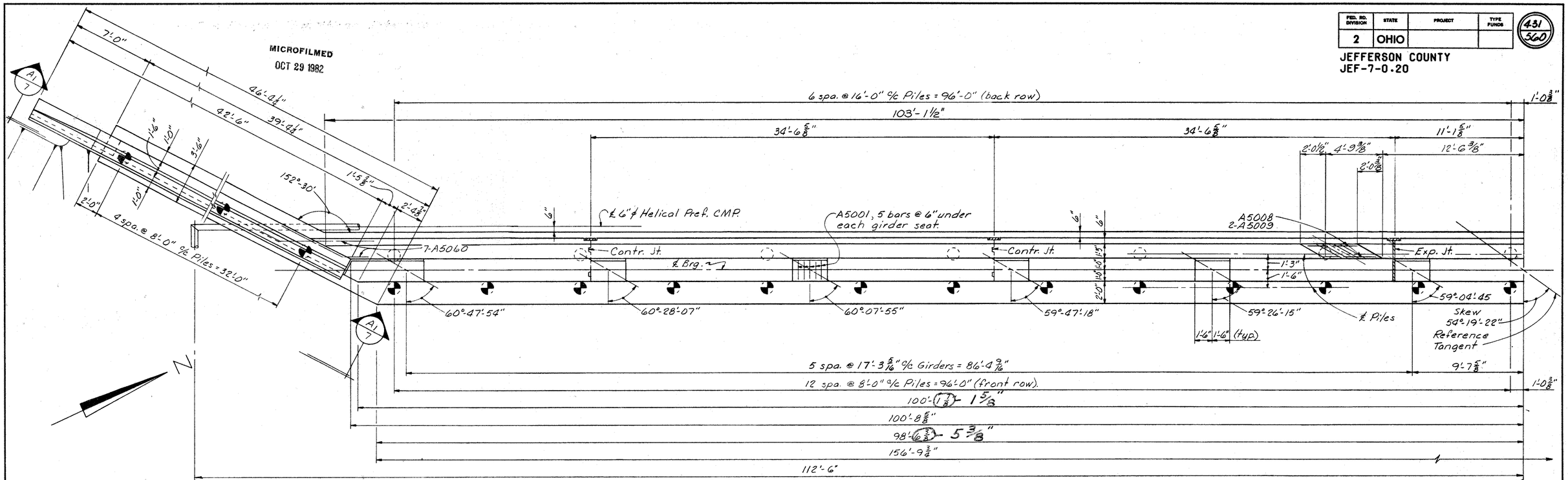
DESIGNED	DRAWN	TRACED	CHECKED	REVIEWED	DATE	REVISED
RT	DW		DLM	cwd	10/1/70	

MICROFILMED
OCT 29 1982

FED. RD. DIVISION	STATE	PROJECT	TYPE FUNDS
2	OHIO		

431
560

JEFFERSON COUNTY
JEF-7-0.20



Reinforcing Steel location :
N.S. indicates near side
F.S. indicates far side

5 130

ALDEN E. STILSON & ASSOCIATES, LIMITED
CONSULTING ENGINEERS
CLEVELAND, OHIO COLUMBUS, OHIO WHEELING, W. VA.

WEST ABUTMENT DETAILS

BRIDGE NO. JEF-7-0166
SR-7 OVER WILLIAMS ST. RELOC.,
C&P RR. W&LE RR AND MAIN ST.
JEFFERSON COUNTY STA. 88+25.99 TO STA. 96+43.08

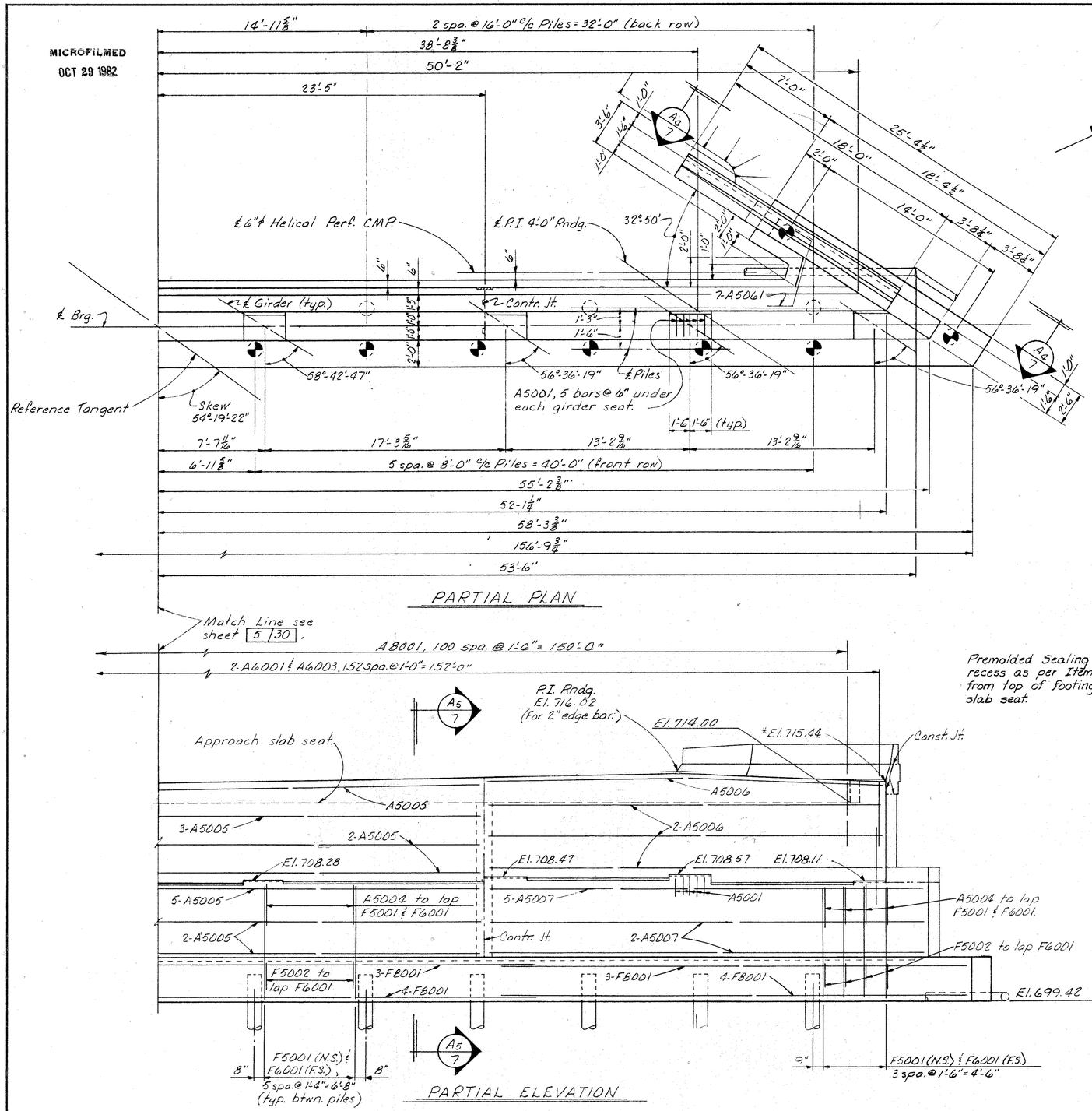
DESIGNED	DRAWN	TRACED	CHECKED	REVIEWED	DATE	REVISED
RT	DW		PHB	CWD	10/4/70	7-21-75

MICROFILMED
OCT 29 1982

FED. RD. DIVISION	STATE	PROJECT	TYPE FUNDS
2	OHIO		

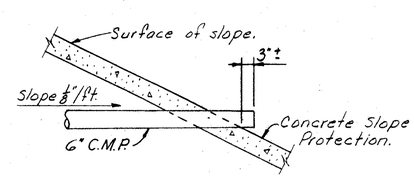
432
560

JEFFERSON COUNTY
JEF-7-0.20

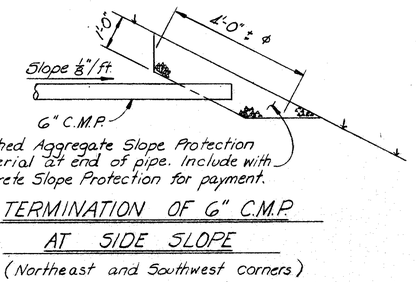


PARTIAL PLAN

PARTIAL ELEVATION

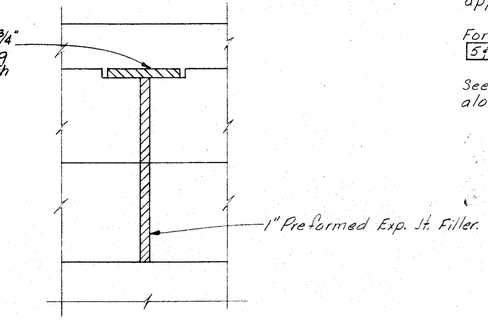


TERMINATION OF 6" C.M.P. AT FRONT SLOPE
(Northwest and Southeast corners)



Crushed Aggregate Slope Protection material at end of pipe. Include with Concrete Slope Protection for payment.

TERMINATION OF 6" C.M.P. AT SIDE SLOPE
(Northeast and Southwest corners)



ABUTMENT EXPANSION JOINT DETAIL
(Reinforcing steel shall not extend thru joint.)

NOTES

All piles shall be 12"ϕ Cast-in-place reinforced concrete piles: ○ indicates vertical. ◔ indicates battered 1:4.

Reinforcing steel location:
N.S. indicates near side.
F.S. indicates far side.

Top of backwall shall conform to the roadway crown.

* Elevations marked with an asterisk are to top of 2" edge bar.

Porous Backfill shall extend up to the subgrade and laterally to the ends of wingwalls.

All reinforcing in footings shall have 3" minimum cover.

Only that portion of the CMP located in the Porous Backfill shall be perforated.

Shape of median on backwall shall conform to shape of median on superstructure.

For Contraction joint details, see Common Details sheet 402.

Quantities of concrete and reinforcing steel for Railing shall be included with their appropriate Item for payment.

For additional notes and details see sheets 5 ℄ 7 /30

See General Plan for layout of West Abutment along the Reference Tangent.

6 /30

ALDEN E. STILSON & ASSOCIATES, LIMITED
CONSULTING ENGINEERS
CLEVELAND, OHIO COLUMBUS, OHIO WHEELING, W. VA.

WEST ABUTMENT DETAILS

BRIDGE NO. JEF-7-0166
SR-7 OVER WILLIAMS ST. RELOC.,
C&P RR, W&LE RR AND MAIN ST.
JEFFERSON COUNTY STA. 88+25.99 TO STA. 96+43.08

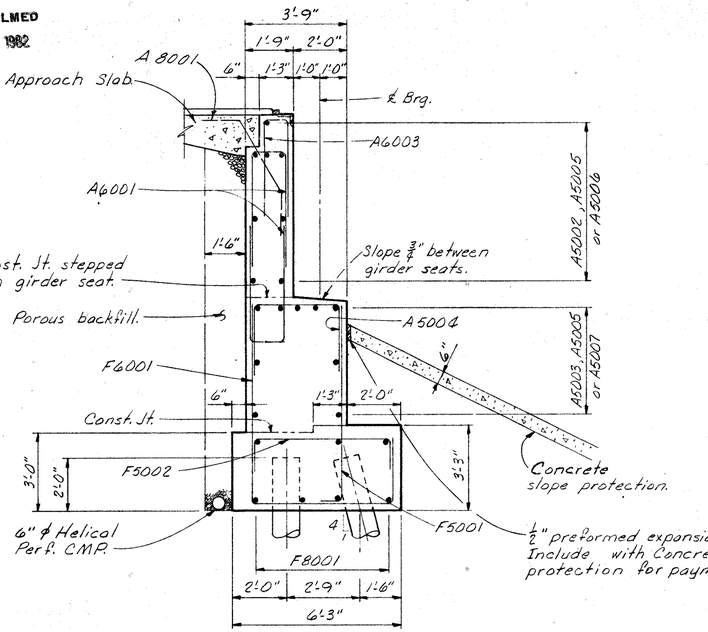
DESIGNED	DRAWN	TRACED	CHECKED	REVIEWED	DATE	REVISED
RT	DW		PHB	fwd	10/4/70	

MICROFILMED
OCT 29 1982

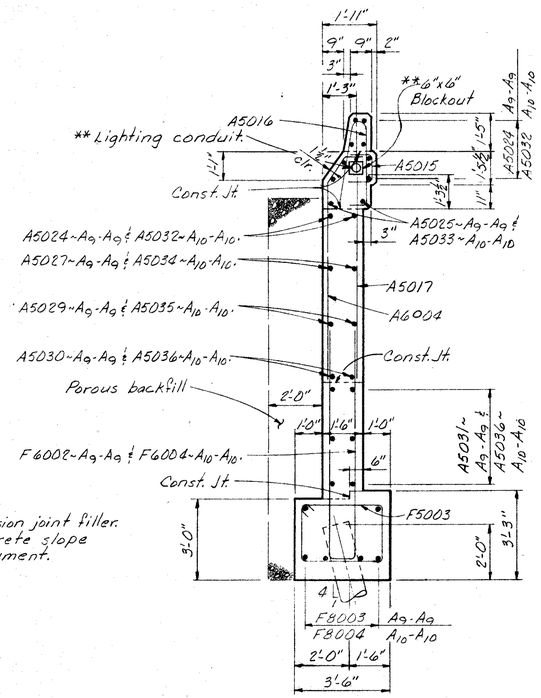
FED. RD. DIVISION	STATE	PROJECT	TYPE FUNDS
2	OHIO		

433
560

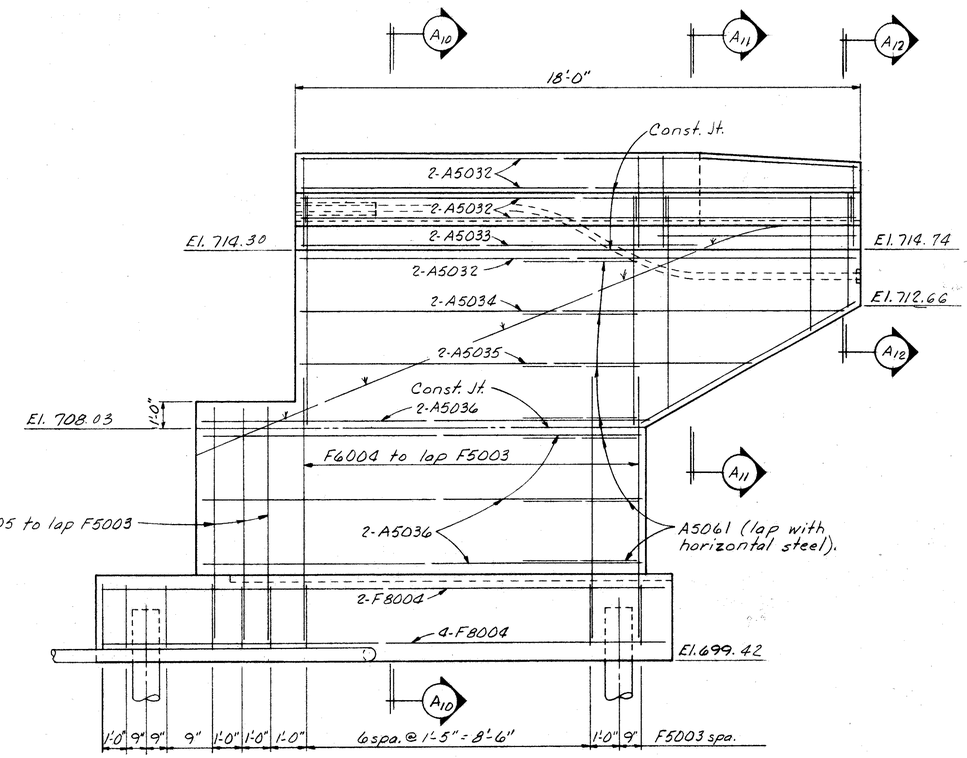
JEFFERSON COUNTY
JEF-7-0.20



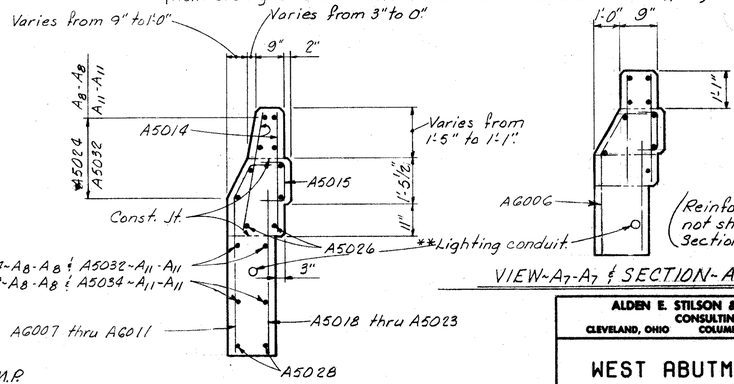
SECTIONS ~ A3/5 ℄ A5/6
(Between girder seats)



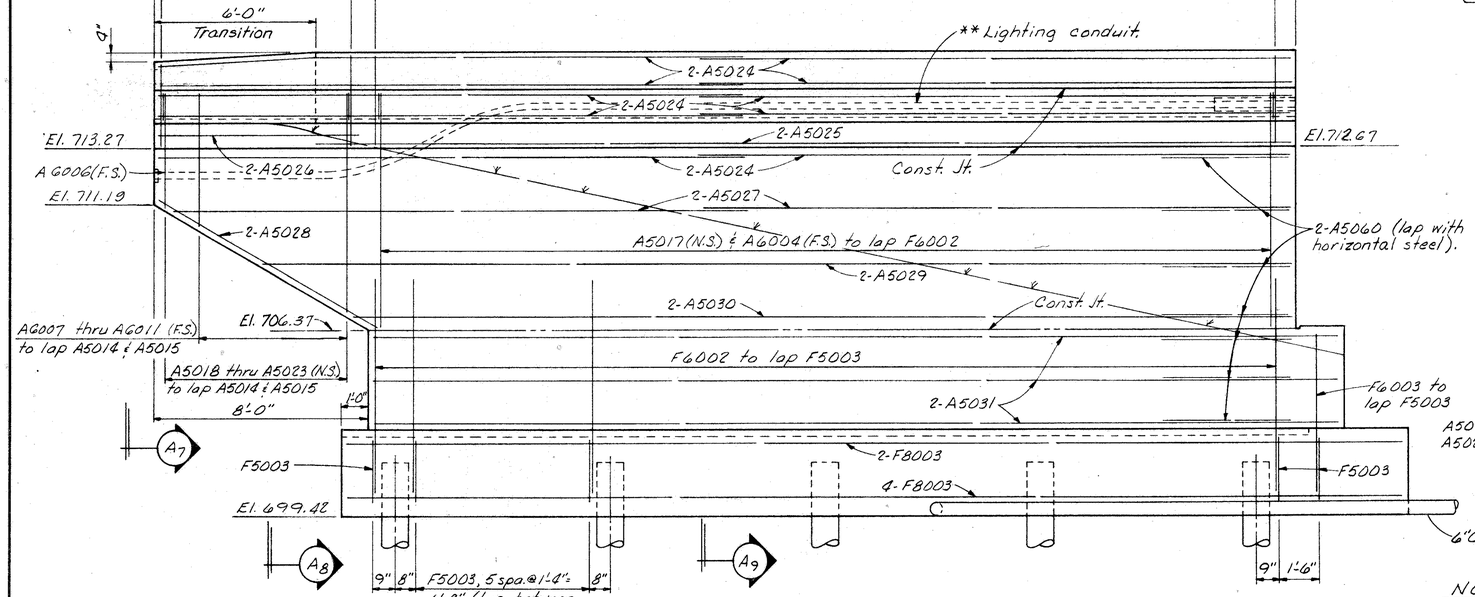
SECTIONS ~ A9-A9 ℄ A10-A10



VIEW ~ A4/6 NORTHWEST WINGWALL
(Reinforcing and dimensions not shown same as View ~ A1/5.)



VIEW ~ A7-A7 ℄ SECTION ~ A12-A12



VIEW ~ A1/5 SOUTHWEST WINGWALL

Reinforcing steel location:
N.S. indicates near side.
F.S. indicates far side.

NOTES

** For additional details of Lighting conduit and 5"x5" Blockout see Std. Const. Dwg. HL-5.

For additional notes and details see sheets 5&6 | 30.

SECTIONS ~ A8-A8 - A11-A11

7 | 30

ALDEN E. STILSON & ASSOCIATES, LIMITED
CONSULTING ENGINEERS
CLEVELAND, OHIO COLUMBUS, OHIO WHEELING, W. VA.

WEST ABUTMENT DETAILS

BRIDGE NO. JEF-7-0166
SR-7 OVER WILLIAMS ST. RELOC.,
C&P RR. W&LE RR AND MAIN ST.
JEFFERSON COUNTY
STA. 88+25.99 TO
STA. 96+43.08

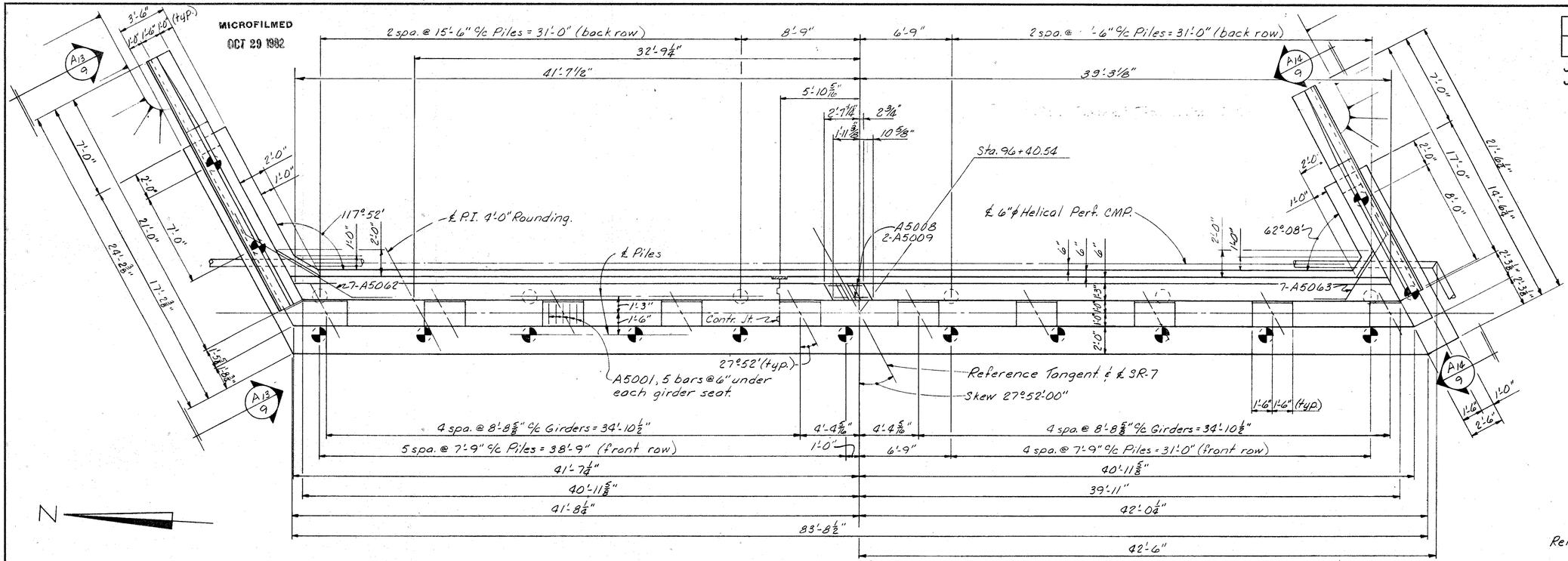
DESIGNED	DRAWN	TRACED	CHECKED	REVIEWED	DATE	REVISED
RT	DW		PHB	cwd	10/14/70	

MICROFILMED
OCT 29 1982

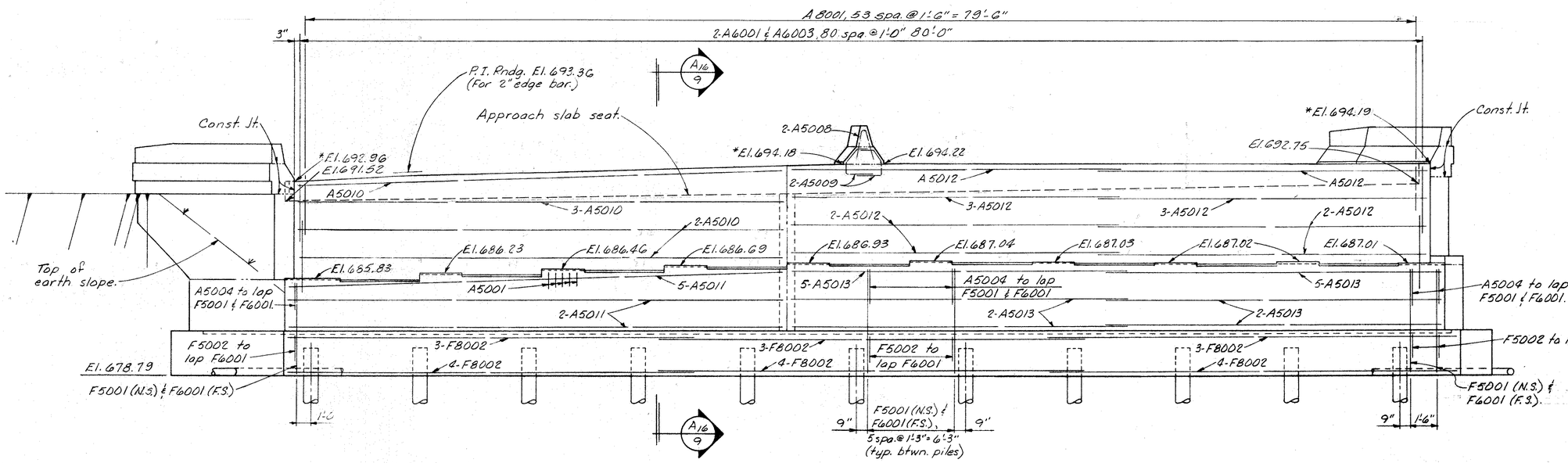
FED. RD. DIVISION	STATE	PROJECT	TYPE FUNDS
2	OHIO		

434
560

JEFFERSON COUNTY
JEF-7-0.20



PLAN



ELEVATION

NOTES

Reinforcing steel location:
N.S. indicates near side.
F.S. indicates far side.

For additional notes and details see sheets 6 ℄ 9 | 30.

8 | 30

ALDEN E. STILSON & ASSOCIATES, LIMITED
CONSULTING ENGINEERS
CLEVELAND, OHIO COLUMBUS, OHIO WHEELING, W. VA.

EAST ABUTMENT DETAILS

BRIDGE NO. JEF-7-0166
SR-7 OVER WILLIAMS ST. RELOC.,
C&P RR. M&LE RR AND MAIN ST.
JEFFERSON COUNTY STA. 95+25.89 TO STA. 96+43.08

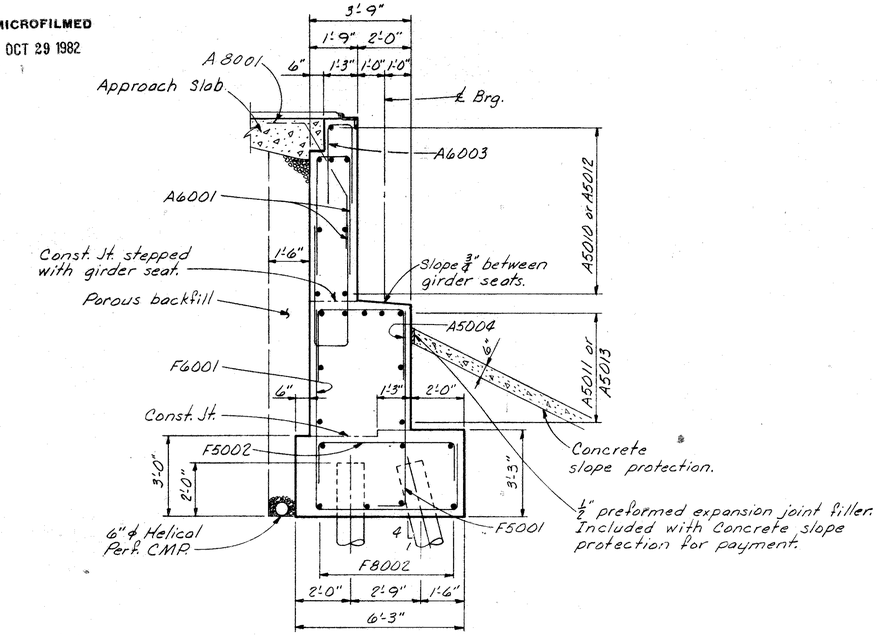
DESIGNED	DRAWN	TRACED	CHECKED	REVIEWED	DATE	REVISED
RT	DW		PHB	jmd	10/4/70	

MICROFILMED
OCT 29 1982

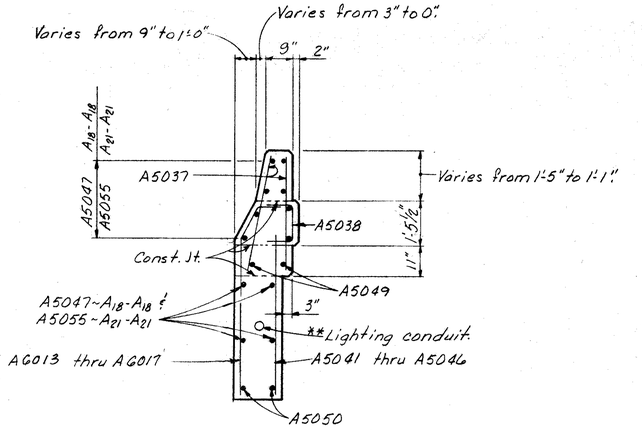
FED. RD. DIVISION	STATE	PROJECT	TYPE FUNDS
2	OHIO		

435
560

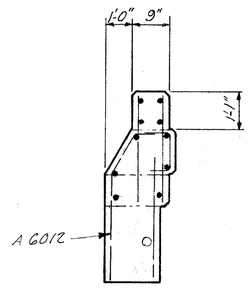
JEFFERSON COUNTY
JEF-7-0.20



SECTION~A16/8
(Between girder seats.)

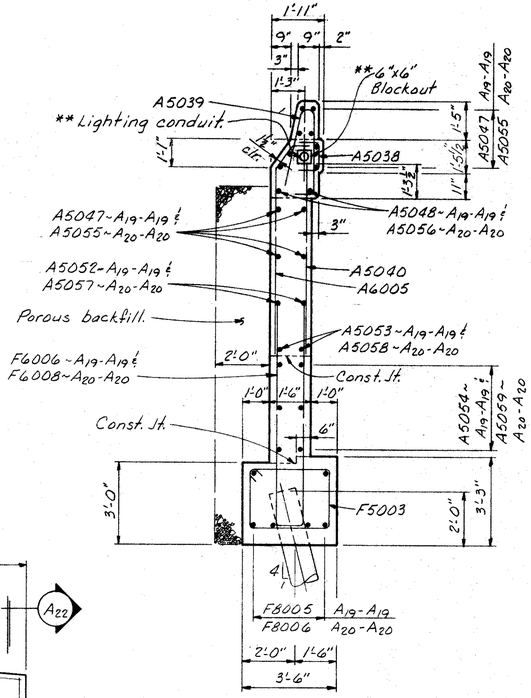


SECTIONS~A18~A18 ℄ A21~A21

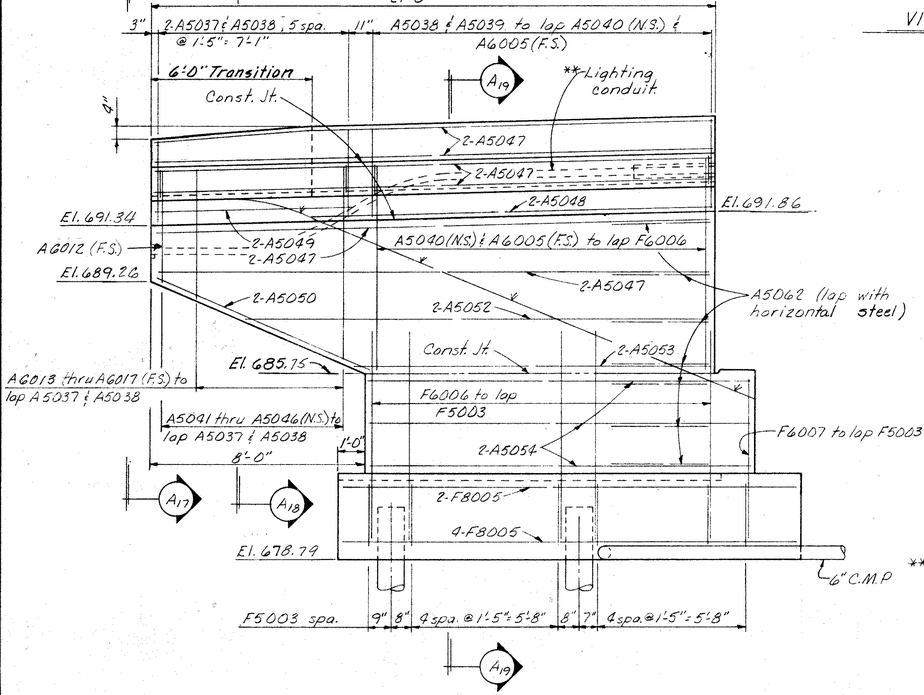


VIEW~A17~A17 ℄ SECTION~A22~A22

(Reinforcing and dimensions not shown same as Sections~A18~A18 ℄ A21~A21.)



SECTIONS~A19~A19 ℄ A20~A20



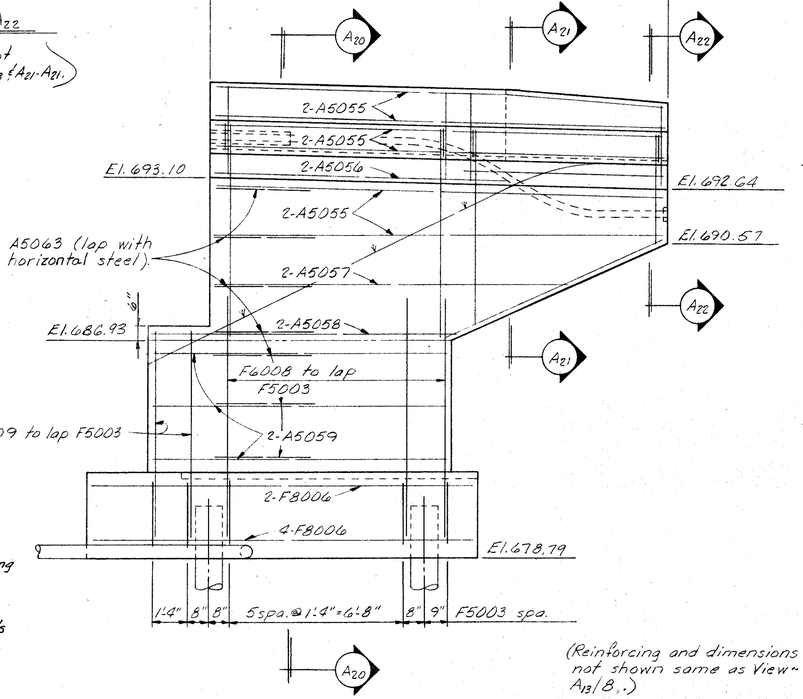
VIEW~A13/8 NORTHEAST WINGWALL

NOTES

Reinforcing steel location:
N.S. indicates near side.
F.S. indicates far side.

** For additional details of Lighting conduit and 5"x5" Blackout see Std. Const. Dwg. HL-5.

For additional notes and details see sheets 6 ℄ 8 / 30.



VIEW~A10/8 SOUTHEAST WINGWALL

(Reinforcing and dimensions not shown same as View~A13/8.)

9/30

ALDEN E. STILSON & ASSOCIATES, LIMITED
CONSULTING ENGINEERS
CLEVELAND, OHIO COLUMBUS, OHIO WHEELING, W. VA.

EAST ABUTMENT DETAILS

BRIDGE NO. JEF-7-0166
SR-7 OVER WILLIAMS ST. RELOC.,
C&P RR. W&LE RR AND MAIN ST.
JEFFERSON COUNTY
STA. 88+25.99 TO STA. 96+43.08

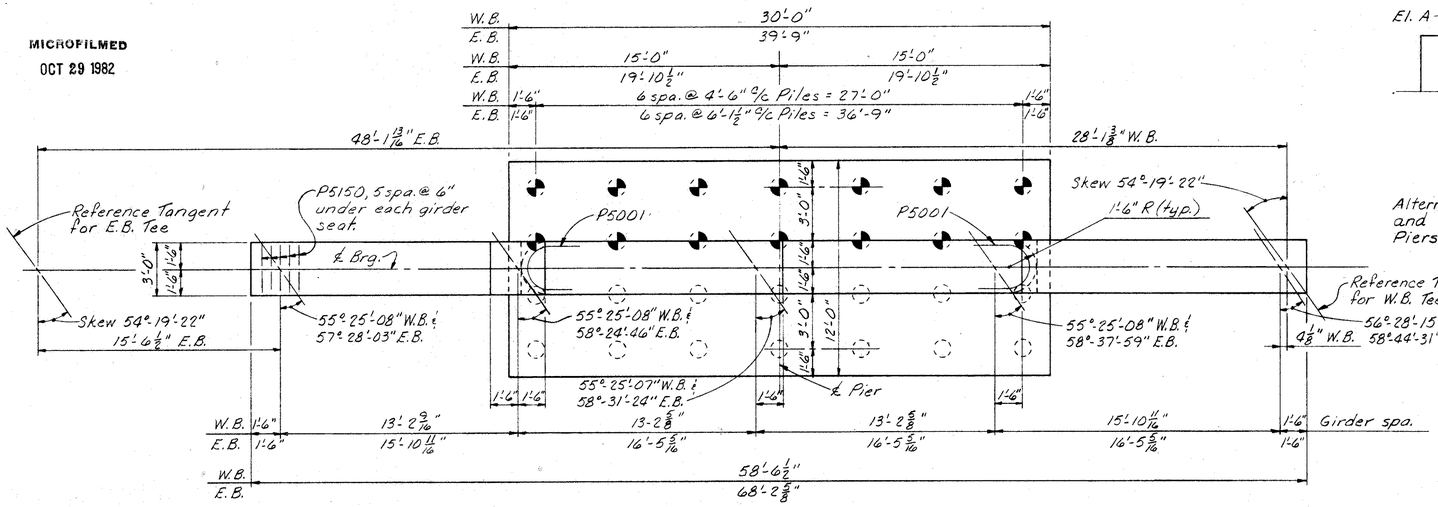
DESIGNED	DRAWN	TRACED	CHECKED	REVIEWED	DATE	REVISED
RT	DW		PHB	fwd	10/4/70	

MICROFILMED
OCT 29 1982

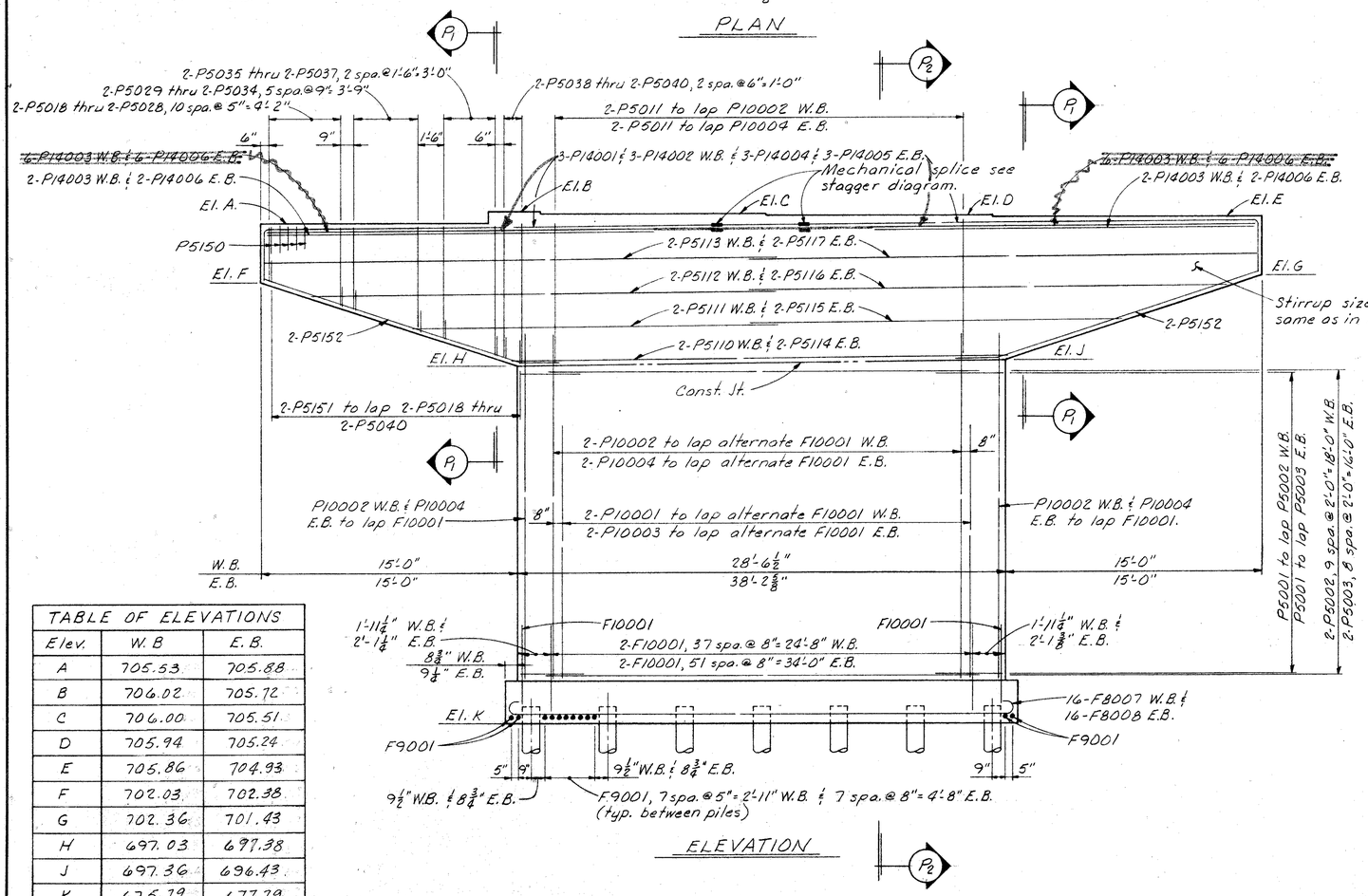
FED. RD. DIVISION	STATE	PROJECT	TYPE FUNDS
2	OHIO		

436
360

JEFFERSON COUNTY
JEF-7-0.20

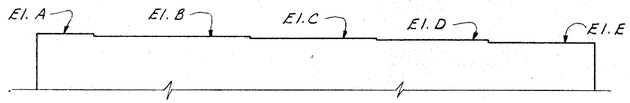


PLAN

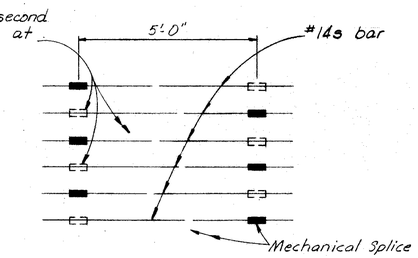


ELEVATION

TABLE OF ELEVATIONS		
Elev.	W. B	E. B.
A	705.53	705.88
B	706.02	705.72
C	706.00	705.51
D	705.94	705.24
E	705.86	704.93
F	702.03	702.38
G	702.36	701.43
H	697.03	697.38
J	697.36	696.43
K	675.79	677.79



GIRDER SEATS FOR E.B. PIER



STAGGER DIAGRAM

(For Mechanical Splice)

Mechanical splice shall be designed to develope 125% of the specified yield strength of the bar.

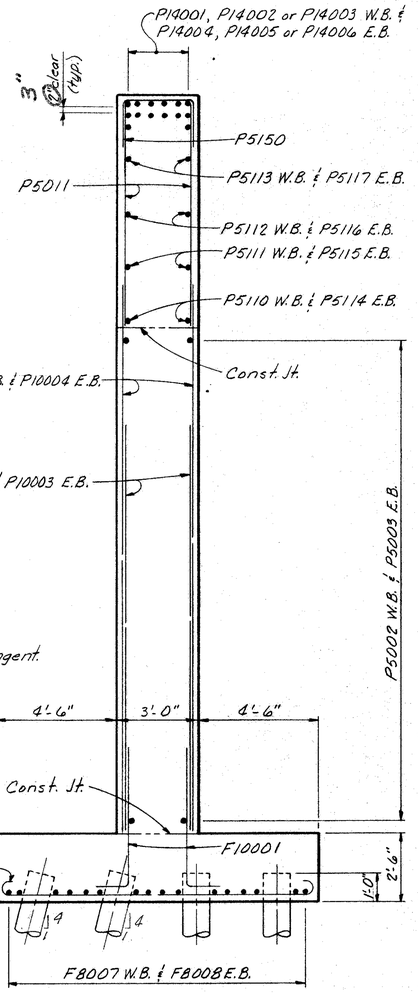
Include with Item 509 for payment.

NOTES

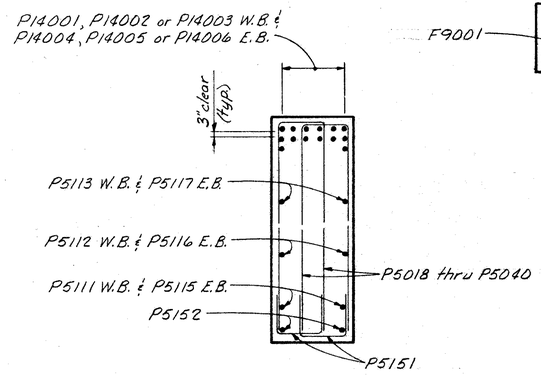
All piles shall be 12" ϕ Cast-in-Place reinforced concrete.
- ○ Vertical piles
- ◔ Battered piles 1:4.

All reinforcing in footing shall have 3" minimum cover.

See General Plan for location of ℄ bearing along Reference Tangent.



SECTION ~ P_2-P_2



SECTION ~ P-P

10/30

ALDEN E. STILSON & ASSOCIATES, LIMITED
CONSULTING ENGINEERS
CLEVELAND, OHIO COLUMBUS, OHIO WHEELING, W. VA.

PIER 1 DETAILS

BRIDGE NO. JEF-7-0166
SR-7 OVER WILLIAMS ST. RELOC.,
C&P RR. W&LE RR AND MAIN ST.
JEFFERSON COUNTY STA. 88+25.99 TO STA. 96+43.08

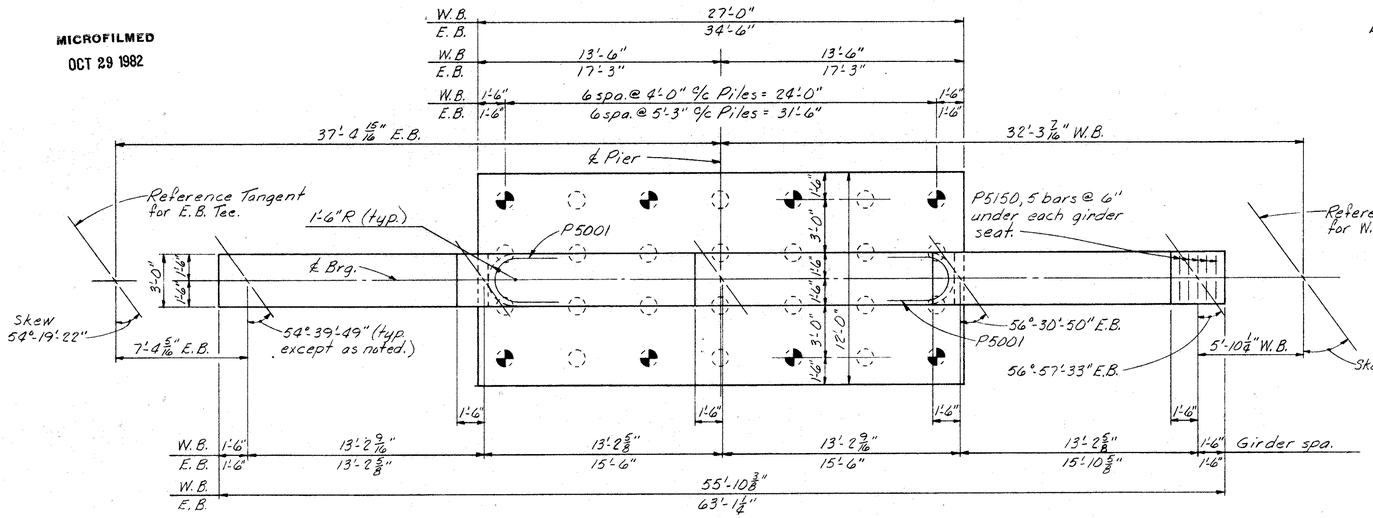
DESIGNED	DRAWN	TRACED	CHECKED	REVIEWED	DATE	REVISED
RT	DW		PHB	fwd 10/21/70		1-29-76

MICROFILMED
OCT 29 1982

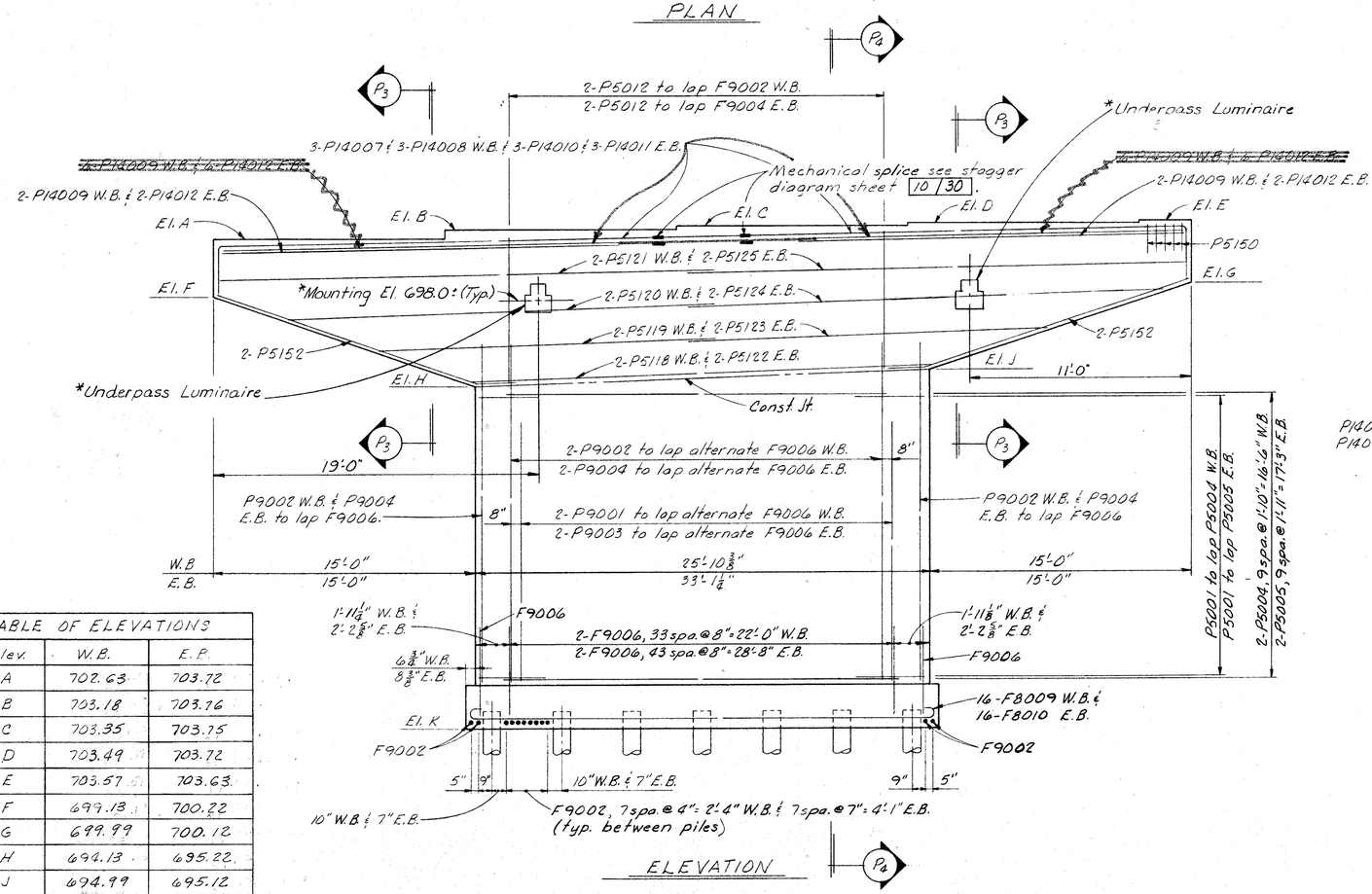
FED. RD. DIVISION	STATE	PROJECT	TYPE FUNDS
2	OHIO		

457
560

JEFFERSON COUNTY
JEF-7-0.20

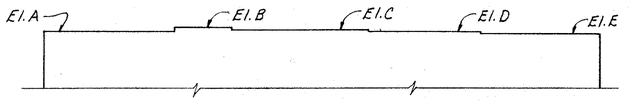


PLAN



ELEVATION

TABLE OF ELEVATIONS		
Elev.	W.B.	E.B.
A	702.63	703.72
B	703.18	703.76
C	703.35	703.75
D	703.49	703.72
E	703.57	703.63
F	699.13	700.22
G	699.99	700.12
H	694.13	695.22
J	694.99	695.12
K	674.39	674.39



GIRDER SEATS FOR E.B. PIER

NOTES

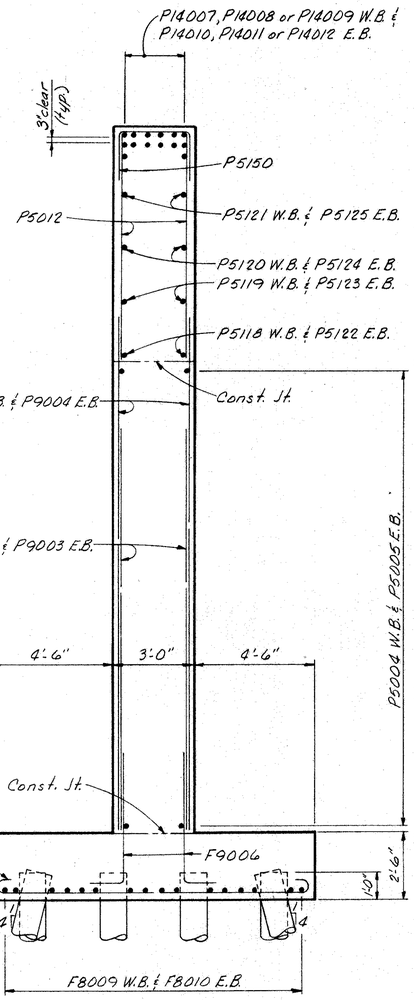
All piles shall be 12" ℄ Cast-in-Place reinforced concrete.
○ Vertical piles.
◒ Battered piles 1:4.

All reinforcing in footing shall have 3" minimum cover.

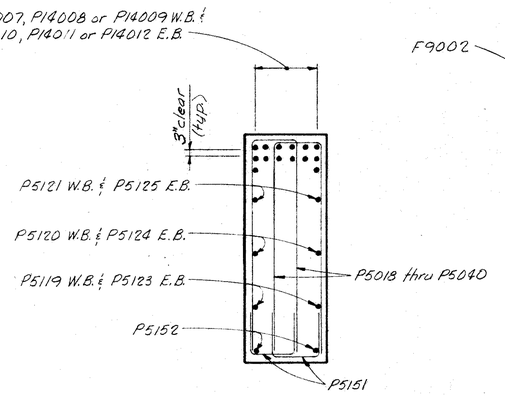
See General Plan for location of ℄ bearing along Reference Tangent.

Cantilever Stirrup size and spacing are the same as in Pier 1, sheet 10/30.

*For details of luminaire mounting, see Underpass Lighting Details, sheet 373, and STD. Dwg. HL-6



SECTION ~ P_4 - P_4



SECTION ~ P_3 - P_3

11/30

ALDEN E. STILSON & ASSOCIATES, LIMITED
CONSULTING ENGINEERS
CLEVELAND, OHIO COLUMBUS, OHIO WHEELING, W. VA.

PIER 2 DETAILS

BRIDGE NO. JEF-7-0166
SR-7 OVER WILLIAMS ST. RELOC.,
C&P RR. W&LE RR AND MAIN ST.
JEFFERSON COUNTY STA. 88+25.99 TO STA. 96+43.08

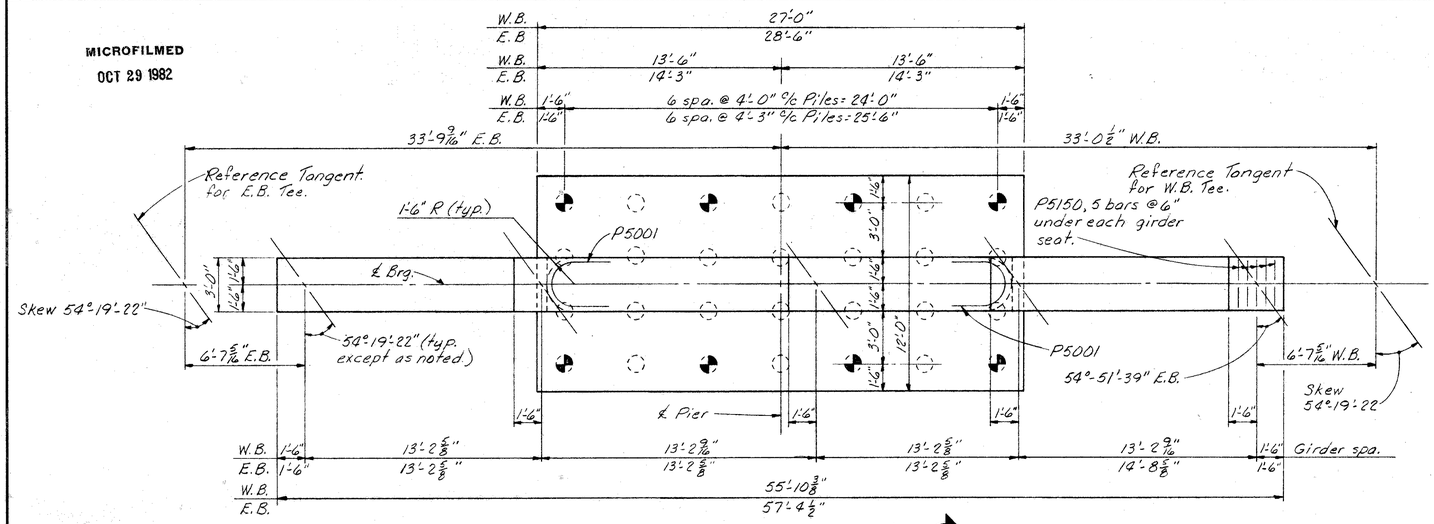
DESIGNED	DRAWN	TRACED	CHECKED	REVIEWED	DATE	REVISED
RT	DW		PHB	cmd	10/4/70	1-24-75

MICROFILMED
OCT 29 1982

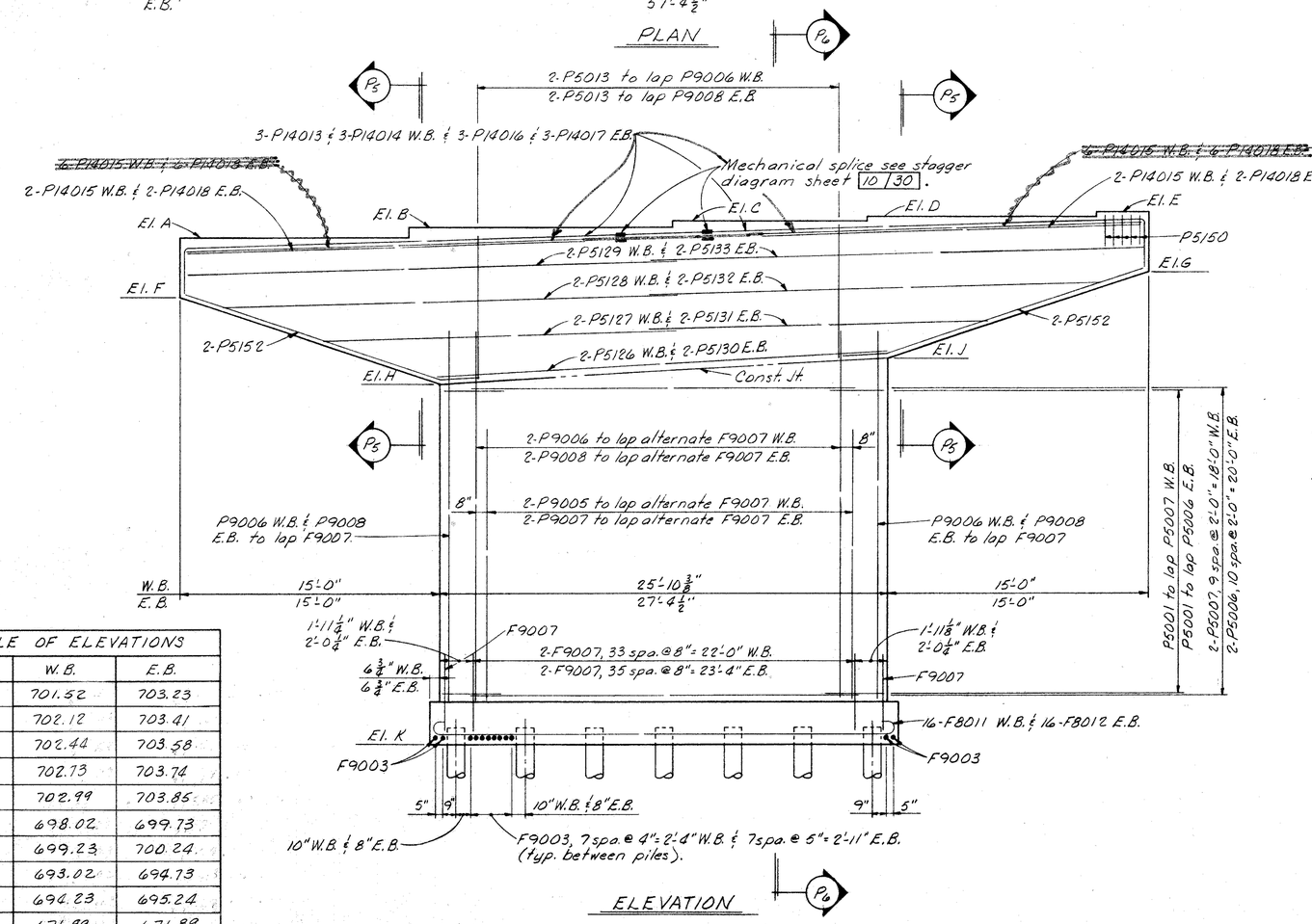
FED. RD. DIVISION	STATE	PROJECT	TYPE FUNDS
2	OHIO		

438
560

JEFFERSON COUNTY
JEF-7-0.20



PLAN



ELEVATION

TABLE OF ELEVATIONS		
Elev.	W.B.	E.B.
A	701.52	703.23
B	702.12	703.41
C	702.44	703.58
D	702.73	703.74
E	702.99	703.85
F	698.02	699.73
G	699.23	700.24
H	693.02	694.73
J	694.23	695.24
K	671.89	671.89

NOTES

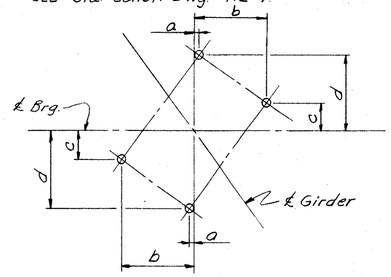
All piles shall be 12" ϕ Cast-in-Place reinforced concrete.
○ Vertical piles.
◆ Battered piles 1:4.

All reinforcing in footing shall have 3" minimum cover.

See General Plan for location of ℄ bearing along Reference Tangent.

Cantilever Stirrup size and spacing are the same as in Pier 1, sheet 10/30.

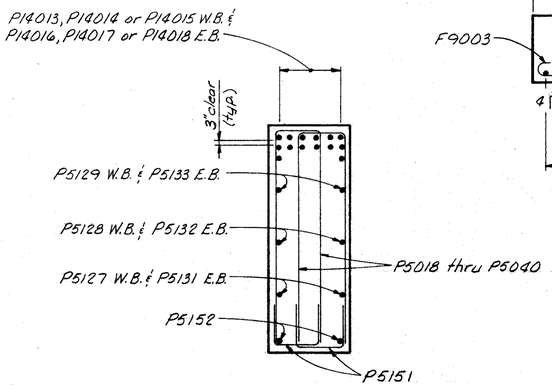
For superstructure grounding details at Pier 3, see Std. Const. Dwg. HL-7.



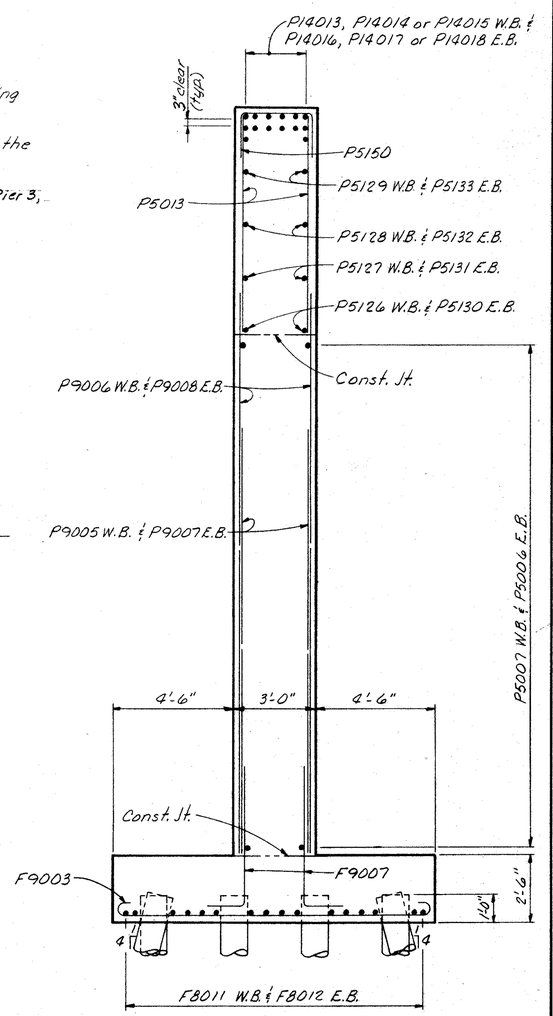
ANCHOR BOLT SETTING DETAIL

Special care shall be taken in placing reinforcing steel in the vicinity of the bridge seat so as to avoid interference with the drilling of anchor bolt holes in Pier 3.

	Girders 1 thru 9	Girder 10
a	3/4"	5/8"
b	1'-0 1/8"	1'-0 1/16"
c	4 7/8"	4 15/16"
d	1'-1"	1'-1"



SECTION ~ P_5-P_5



SECTION ~ P_6-P_6

12/130

ALDEN E. STILSON & ASSOCIATES, LIMITED
CONSULTING ENGINEERS
CLEVELAND, OHIO COLUMBUS, OHIO WHEELING, W. VA.

PIER 3 DETAILS

BRIDGE NO. JEF-7-0166
SR-7 OVER WILLIAMS ST. RELOC..
C&P RR. W&LE RR AND MAIN ST.
STA. 88+25.99 TO
JEFFERSON COUNTY STA. 96+43.08

DESIGNED	DRAWN	TRACED	CHECKED	REVIEWED	DATE	REVISED
RT	DW		PHB	fwd	10/6/70	1-29-75

MICROFILMED
OCT 29 1982

FED. RD. DIVISION	STATE	PROJECT	TYPE FUNDS
2	OHIO		

439/560

JEFFERSON COUNTY
JEF-7-0.20

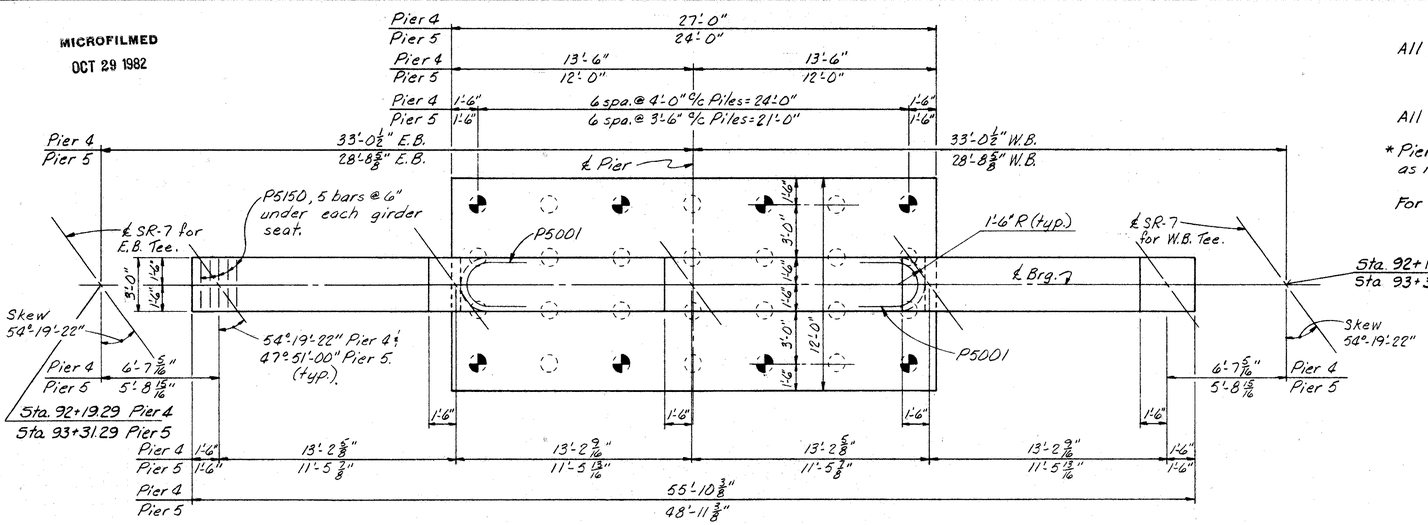
NOTES

All piles shall be 12" ϕ Cast-in-Place reinforced concrete.
○ Vertical piles
◔ Battered piles 1:4

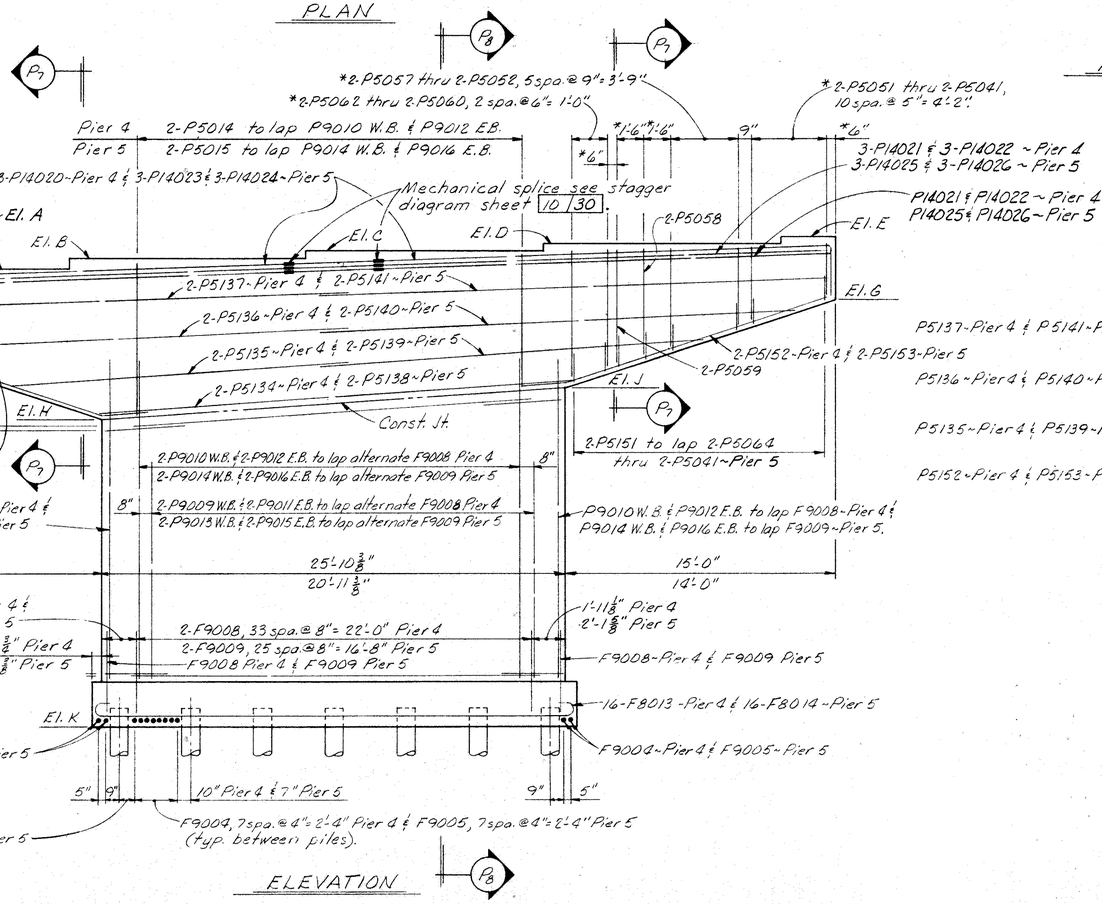
All reinforcing in footing shall have 3" minimum cover.

* Pier 4 cantilever stirrups size and spacing are the same as in Pier 1, sheet 10/30 Pier 5 shown.

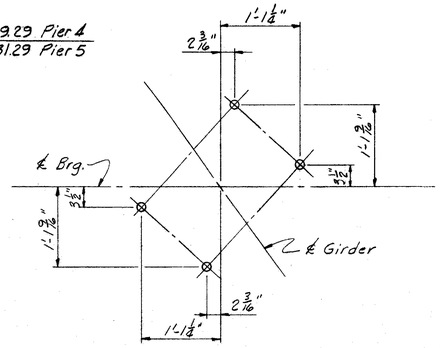
For superstructure grounding at Pier 5, see Std. Const. Dwg. HL-7.



PLAN

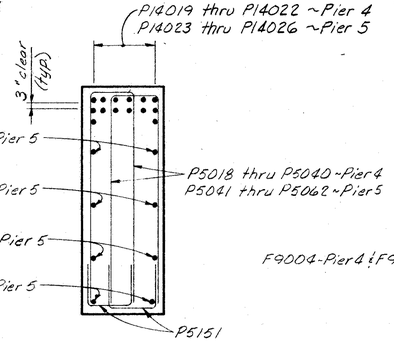


ELEVATION

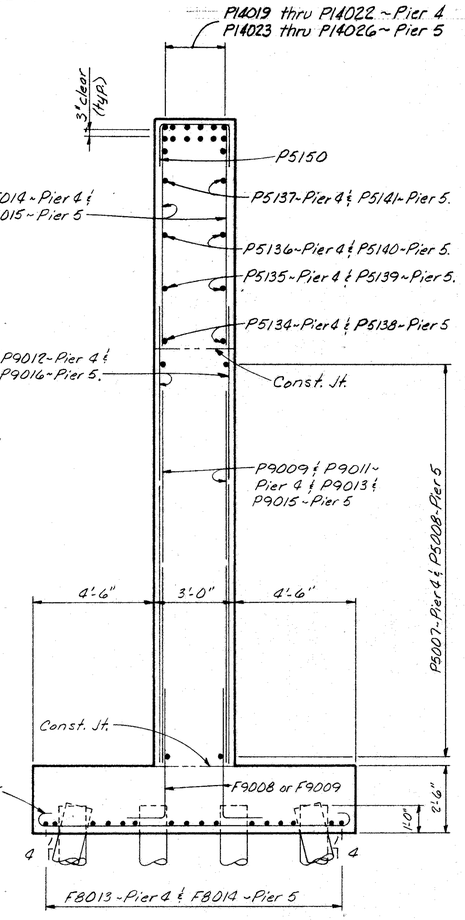


ANCHOR BOLT SETTING DETAIL

Special care shall be taken in placing reinforcing steel in the vicinity of the bridge seat so as to avoid interference with the drilling of anchor bolt holes in Pier 5 only.



SECTION ~ P_7-P_7



SECTION ~ P_8-P_8

TABLE OF ELEVATIONS

Elev.	Pier 4 W.B.	Pier 4 E.B.	Pier 5 W.B.	Pier 5 E.B.
A	696.02	698.05	693.12	694.92
B	696.62	698.23	693.64	695.04
C	697.02	698.41	694.00	695.13
D	697.41	698.58	694.33	695.25
E	697.78	698.76	694.69	695.36
F	698.52	694.55	689.62	691.42
G	693.91	695.08	690.83	691.75
H	687.52	689.55	684.95	686.75
J	688.91	690.08	686.16	687.08
K	670.29	670.29	669.79	669.79

13/130

ALDEN E. STILSON & ASSOCIATES, LIMITED
CONSULTING ENGINEERS
CLEVELAND, OHIO COLUMBUS, OHIO WHEELING, W. VA.

PIER 4 AND 5 DETAILS

BRIDGE NO. JEF-7-0166
SR-7 OVER WILLIAMS ST. RELOC.,
C&P RR, W&LE RR AND MAIN ST.
STA. 88+25.99 TO
JEFFERSON COUNTY STA. 96+43.08

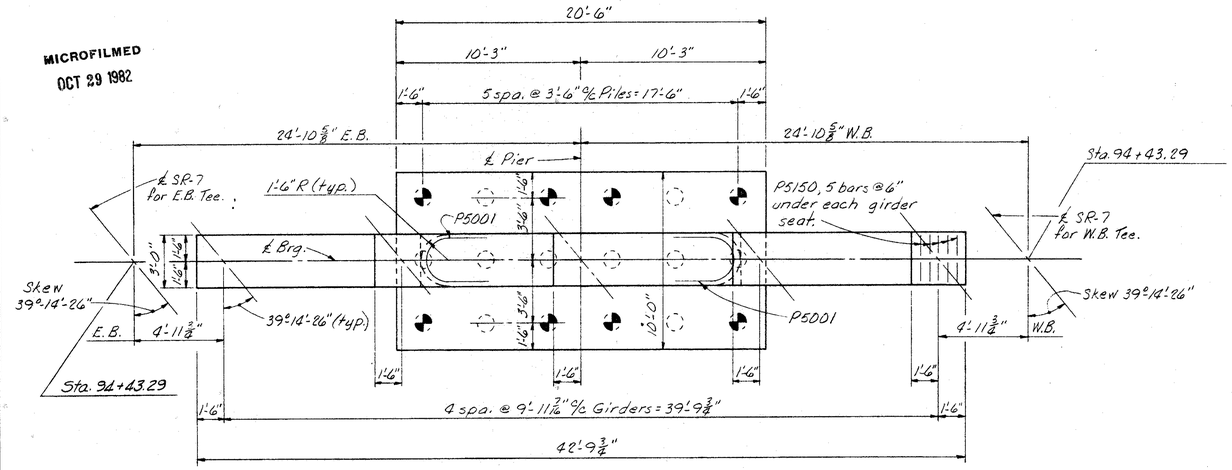
DESIGNED	DRAWN	TRACED	CHECKED	REVIEWED	DATE	REVISED
RT	DW		PHB	fwd	10/4/70	

MICROFILMED
OCT 29 1982

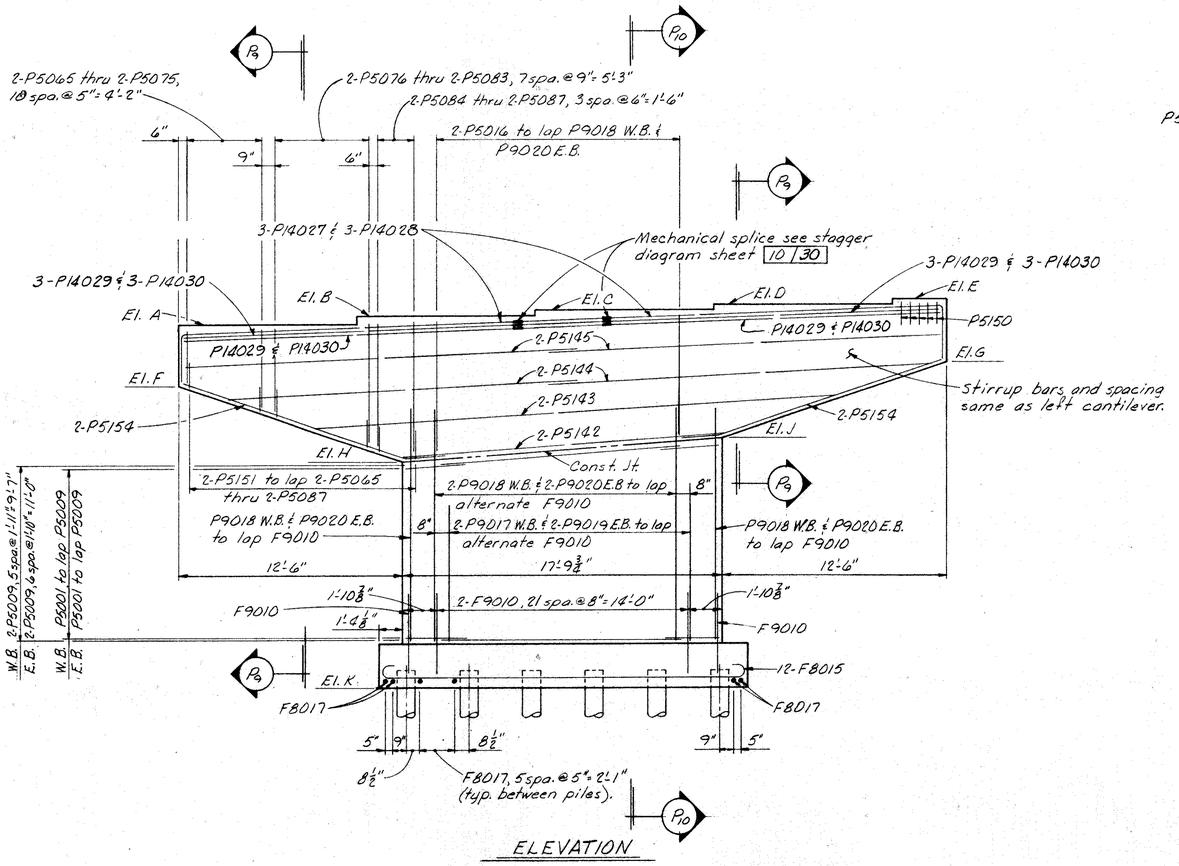
FED. RD. DIVISION	STATE	PROJECT	TYPE FUNDS
2	OHIO		

440
560

JEFFERSON COUNTY
JEF-7-0.20



PLAN

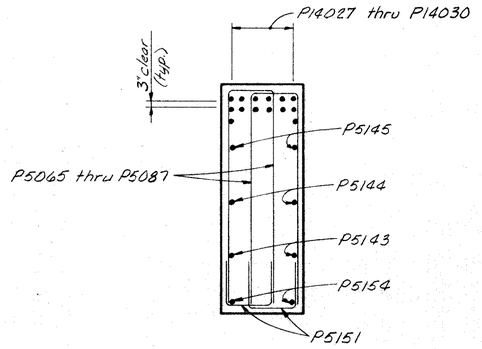


ELEVATION

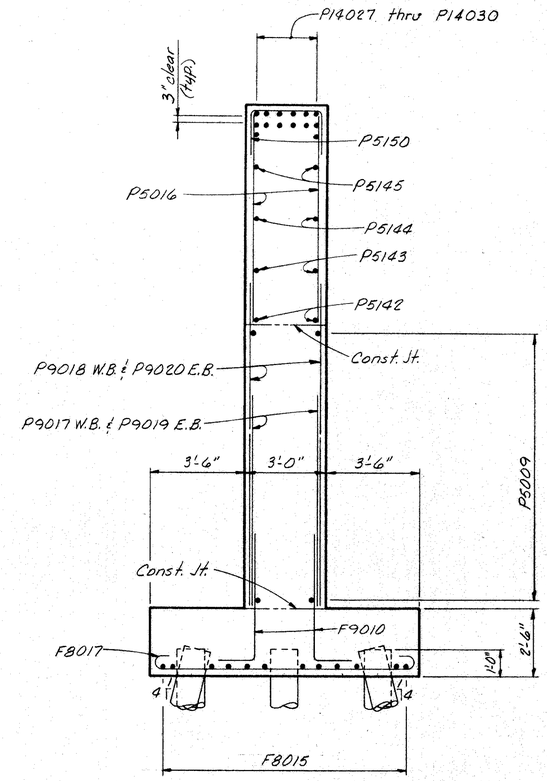
NOTES

All piles shall be 12" ϕ Cast-in-Place reinforced concrete.
○ Vertical piles.
◔ Battered piles 1:4.

All reinforcing in footing shall have 3" minimum cover.



SECTION-P8-P8



SECTION-P9-P10

TABLE OF ELEVATIONS

Elev.	W.B.	E.B.
A	690.31	691.80
B	690.76	691.85
C	691.06	691.89
D	691.33	691.94
E	691.63	691.99
F	686.81	688.30
G	687.83	688.44
H	682.64	684.13
J	683.66	684.27
K	669.79	669.79

14 | 30

ALDEN E. STILSON & ASSOCIATES, LIMITED
CONSULTING ENGINEERS
CLEVELAND, OHIO COLUMBUS, OHIO WHEELING, W. VA.

PIER 6 DETAILS

BRIDGE NO. JEF-7-0166
SR-7 OVER WILLIAMS ST. RELOC., C&P RR, W&LE RR AND MAIN ST.
JEFFERSON COUNTY STA. 88+25.99 TO STA. 96+43.08

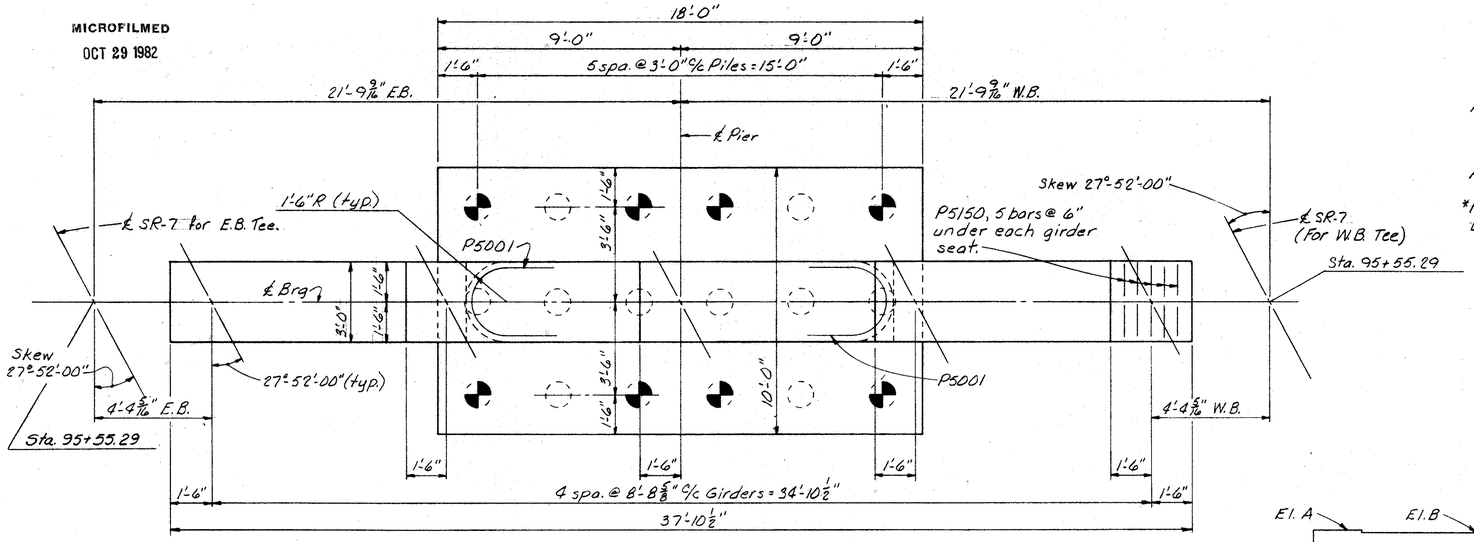
DESIGNED	DRAWN	TRACED	CHECKED	REVIEWED	DATE	REVISED
RT	DW		PHB	fwd	10/4/70	

MICROFILMED
OCT 29 1982

FED. RD. DIVISION	STATE	PROJECT	TYPE FUNDS
2	OHIO		

441/560

JEFFERSON COUNTY
JEF-7-0.20



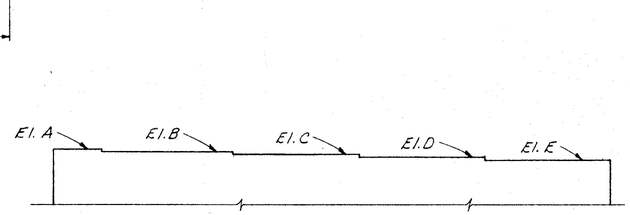
PLAN

NOTES

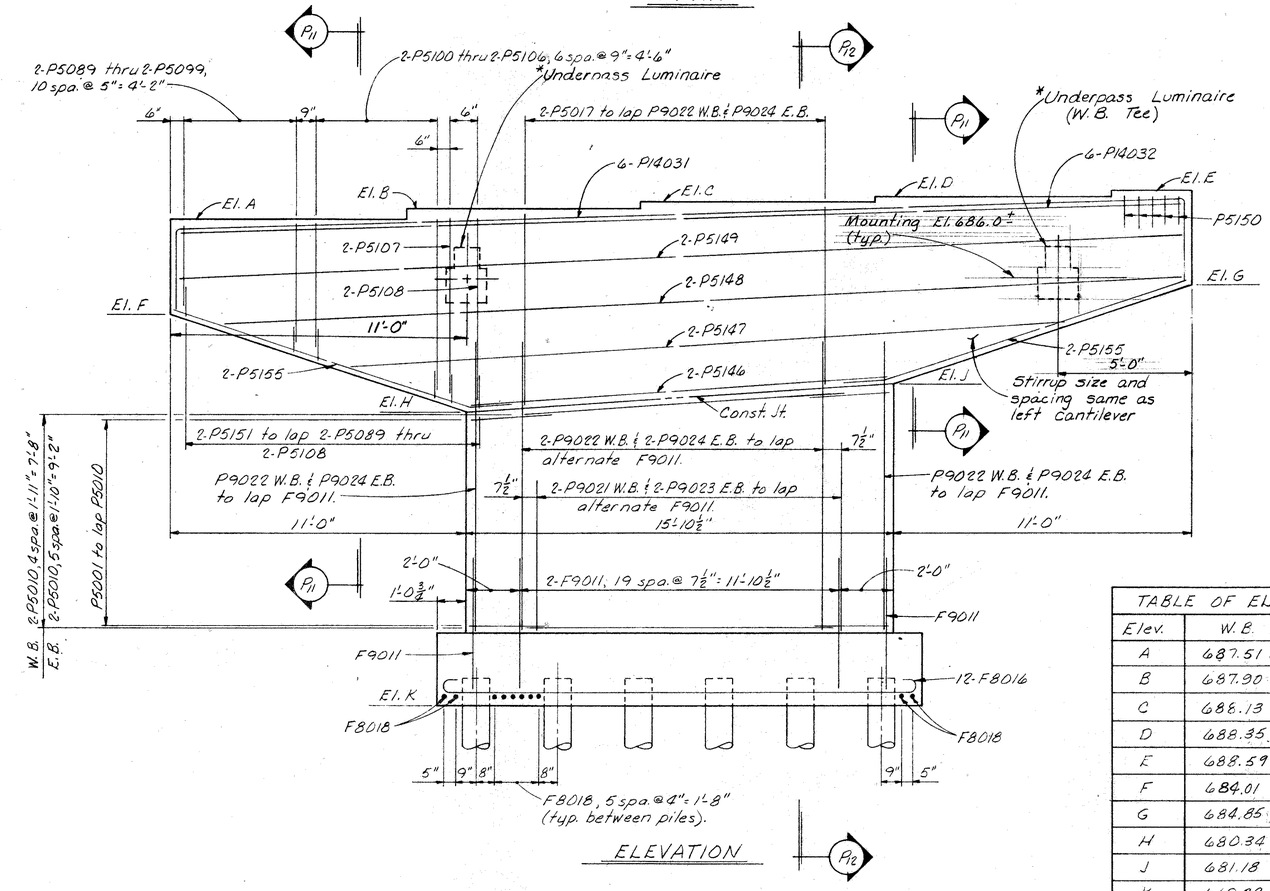
All piles shall be 12" ϕ Cast-in-Place reinforced concrete.
○ Vertical piles.
⊕ Battered piles 1:4.

All reinforcing in footing shall have 3" minimum cover.

*For details of luminaire mounting, see Underpass Lighting Details, sheet 373. and STD. DWG HL-7-6

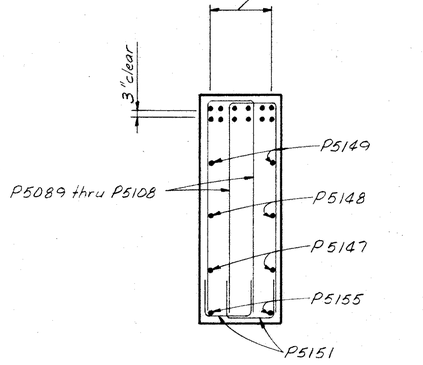


GIRDER SEATS FOR E.B. PIER

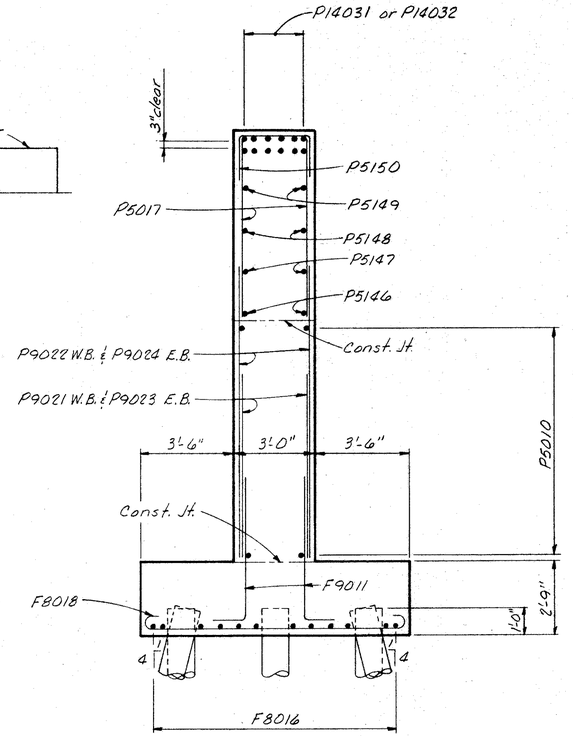


ELEVATION

TABLE OF ELEVATIONS		
Elev.	W.B.	E.B.
A	687.51	688.70
B	687.90	688.69
C	688.13	688.67
D	688.35	688.66
E	688.59	688.66
F	684.01	685.20
G	684.85	685.16
H	680.34	681.52
J	681.18	681.49
K	669.29	669.29



SECTION ~ P11 - P11



SECTION ~ P12 - P12

15130

ALDEN E. STILSON & ASSOCIATES, LIMITED
CONSULTING ENGINEERS
CLEVELAND, OHIO COLUMBUS, OHIO WHEELING, W. VA.

PIER 7 DETAILS

BRIDGE NO. JEF-7-0166
SR-7 OVER WILLIAMS ST. RELOC.,
C&P RR, W&LE RR AND MAIN ST.
STA. 88+25.99 TO
JEFFERSON COUNTY STA. 96+43.08

DESIGNED	DRAWN	TRACED	CHECKED	REVIEWED	DATE	REVISED
RT	DW		PHB	fwd	10/4/70	

MICROFILMED
OCT 29 1982

NOTE: Deck Reinforcing bars: At the contractor's option, a portion (not to exceed 25%) of the upper longitudinal bars 34'-5" in the deck slab may be placed beneath the upper transverse bars for support of the top mat.

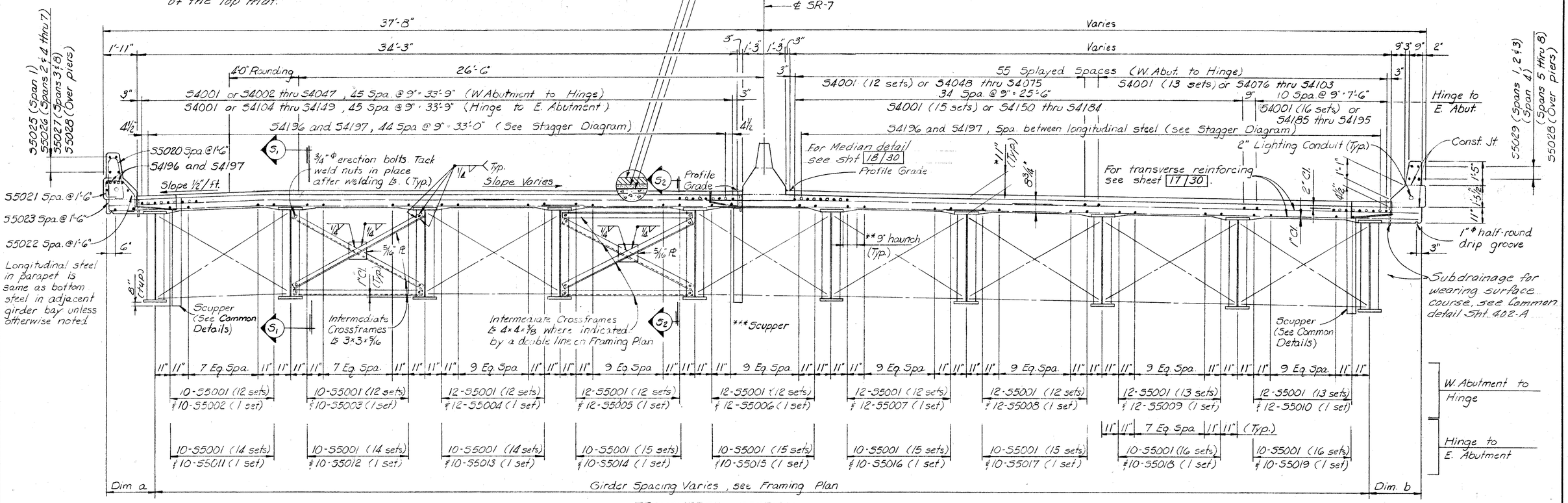
Item 404, 2" Asphalt Concrete
Item Special, 1½" Sand Asphalt
Item Special, Membrane Waterproofing

Note: Deck Finishing: Concrete deck shall be in accordance with 451.09 and 451.12, except that the roadway surface shall be finished with a burlap drag to provide a uniform surface with a gritty texture.

FED. RD. DIVISION	STATE	PROJECT	TYPE FUNDS
2	OHIO		

JEFFERSON COUNTY
JEF-7-0.20

442
560



TRANSVERSE SECTION
(Looking ahead station)

NOTES

*This is the design dimension. The quantity of deck concrete to be paid shall be based upon this dimension, even though deviation from it may be necessary because the top flange of the girder may not have the exact camber or conformation required to place it parallel to the finished grade. Deduction shall be made for the volume of encased steel plates as per 511.18.

** A HAUNCH WIDTH of 9" shall be used for computing quantity of concrete. However, the haunch width may vary between 6" and 12" provided that the slope shall be not more than 1:4 for a haunch less than 9" in width.

PREFORMED EXPANSION JOINT FILLER in the railing parapet deflection joints may be either ½" gray sponge rubber or ½" gray cellular polyvinal chloride (PVC) sponge.

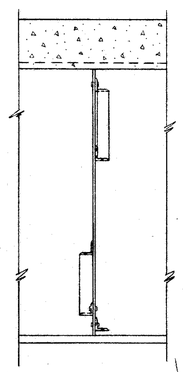
Quantities of concrete and reinforcing steel for railing shall be included with their appropriate Items for payment.

Lap #4 longitudinal bars 1'-3" and #5 longitudinal bars 1'-7".

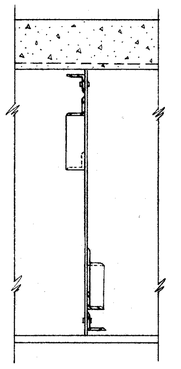
*** Scuppers are as shown on Std. Dwg. SD-1-69 and Common Details Sht. 402 A, except those in Span 4 are modified as shown on Sheet 27/30.

Dimensions and reinforcing steel for one parapet same as other parapet, except as noted.

SLAB CANTILEVERS		
Location	Dim. a	Dim. b
W. Abut.	3-0	3-1⅛
.2 Span 1	3-1¼	2-10⅜
.4 Span 1	3-1⅝	2-9½
.6 Span 1	3-1	2-10⅜
Field Splice A	3-0	3-0⅛
Pier 1	3-2⅛	2-7⅞
.2 Span 2	3-3⅛	2-5¾
.4 Span 2	3-3	2-5¾
.6 Span 2	3-2	2-8
Field Splice B	3-0	3-0⅛
Pier 2	3-0½	2-9¾
.2 Span 3	3-0¼	2-8⅞
.4 Span 3	2-11¾	2-9¼
.6 Span 3	2-10⅞	2-10⅜
Field Splice C	2-9¾	3-0½
Pier 3	do	2-6⅞
.2 Span 4	do	2-3¼
.4 Span 4	do	2-5
.6 Span 4	do	2-7¼
Hinge to E. Abut.	do	2-9¾



SECTION S1-S1



SECTION S2-S2

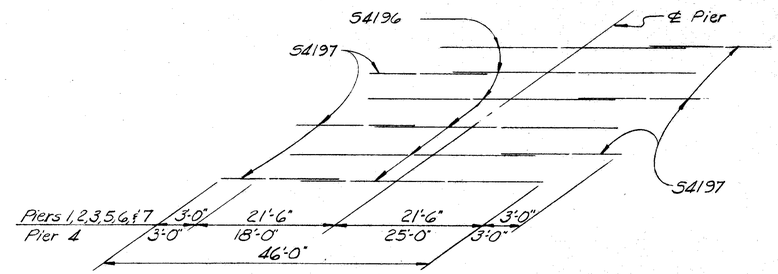


DIAGRAM SHOWING STAGGER OF 54196 and 54197 BARS OVER PIERS

16/30

ALDEN E. STILSON & ASSOCIATES, LIMITED
CONSULTING ENGINEERS
CLEVELAND, OHIO COLUMBUS, OHIO WHEELING, W. VA.

SUPERSTRUCTURE DETAILS

BRIDGE NO. JEF-7-0166
SR-7 OVER WILLIAMS ST. RELOC.., C&P RR, W&LE RR AND MAIN ST.
STA. 88+25.99 TO STA. 96+43.08
JEFFERSON COUNTY

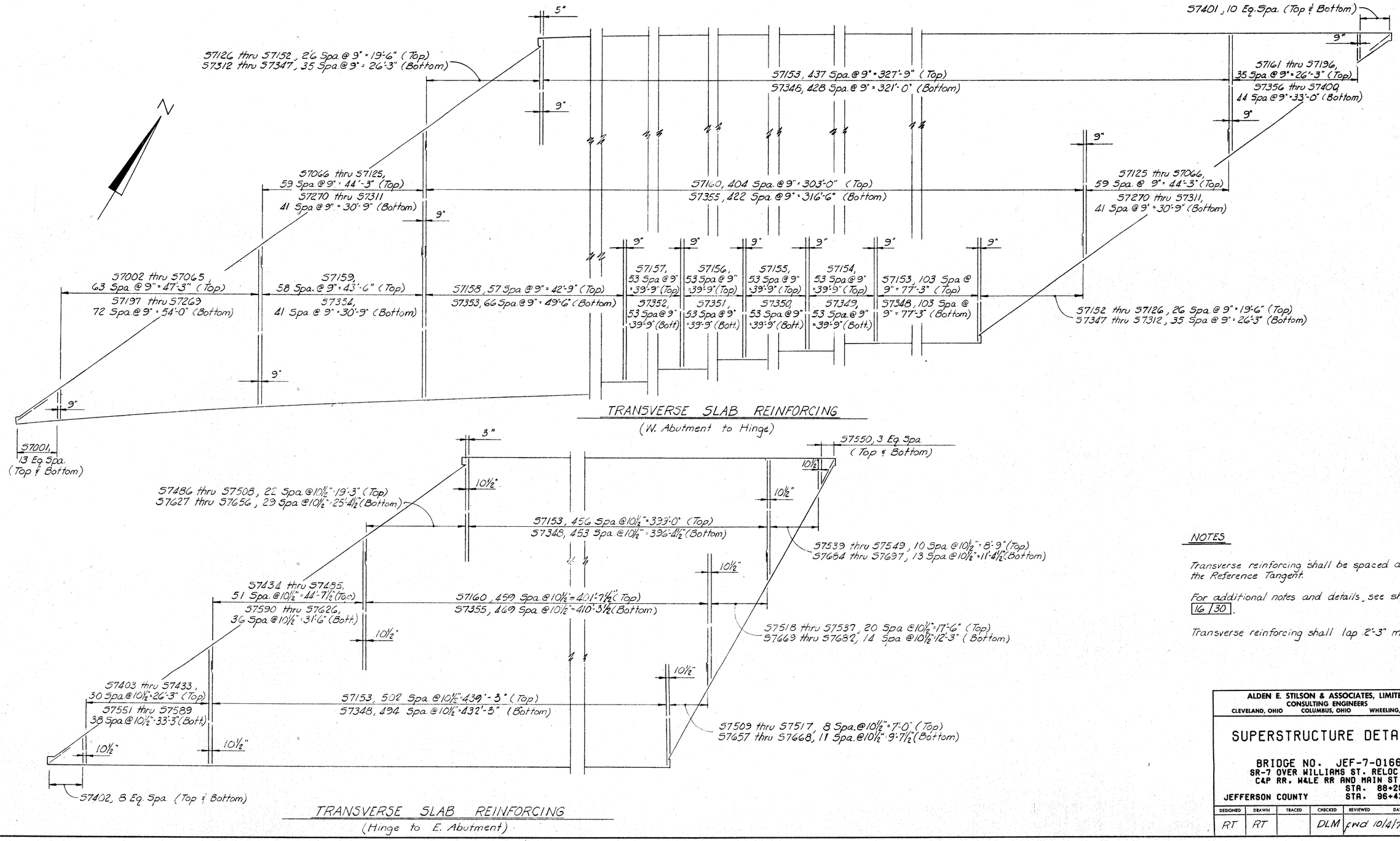
DESIGNED	DRAWN	TRACED	CHECKED	REVIEWED	DATE	REVISED
RT	RT		DLM	pwd	10/4/70	

MICROFILMED
OCT 29 1982

FED. RD. DIVISION	STATE	PROJECT	TYPE FUNDS
2	OHIO		

443
560

JEFFERSON COUNTY
JEF-7-0.20



TRANSVERSE SLAB REINFORCING
(W. Abutment to Hinge)

TRANSVERSE SLAB REINFORCING
(Hinge to E. Abutment)

NOTES

Transverse reinforcing shall be spaced along the Reference Tangent.

For additional notes and details, see sheet 16 | 30.

Transverse reinforcing shall lap 2'-3" min.

17 | 30

ALDEN E. STILSON & ASSOCIATES, LIMITED
CONSULTING ENGINEERS
CLEVELAND, OHIO COLUMBUS, OHIO WHEELING, W. VA.

SUPERSTRUCTURE DETAILS

BRIDGE NO. JEF-7-0166
SR-7 OVER WILLIAMS ST. RELOC.,
C&P RR, W&LE RR AND MAIN ST.
STA. 88+25.99 TO
JEFFERSON COUNTY STA. 96+43.08

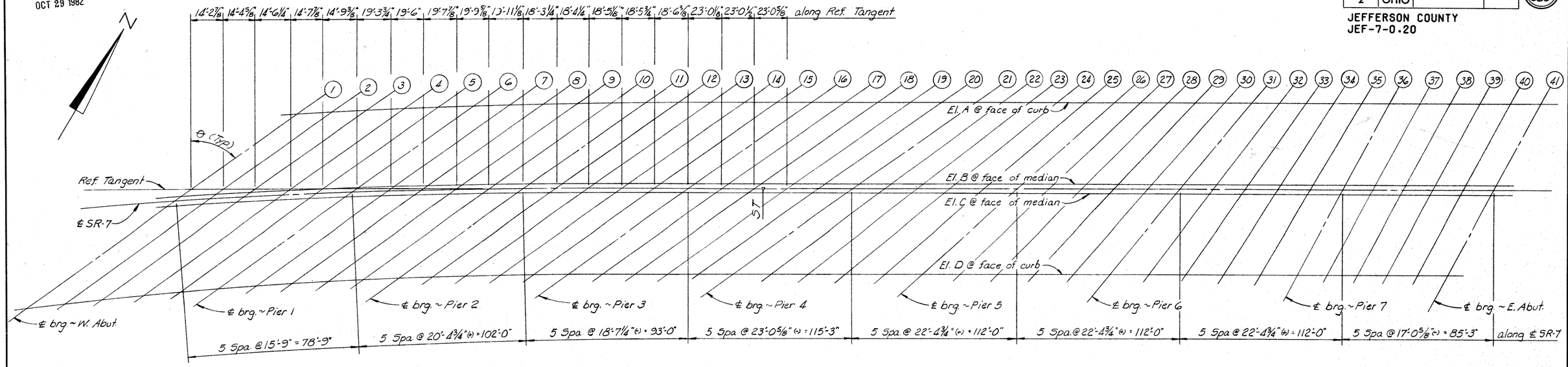
DESIGNED	DRAWN	TRACED	CHECKED	REVIEWED	DATE	REVISED
RT	RT		DLM	fwd	10/4/70	

MICROFILMED
OCT 29 1982

FED. RD. DIVISION	STATE	PROJECT	TYPE FUNDS
2	OHIO		

444
560

JEFFERSON COUNTY
JEF-7-0.20

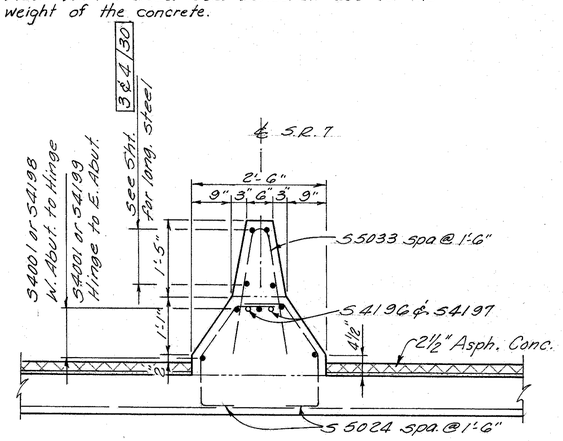


SCREED PLAN

SCREED ELEVATIONS

Line	θ	El. A	El. B	El. C	El. D	Line	θ	El. A	El. B	El. C	El. D
(1)	54°19'22"	715.17	715.18	715.29	713.56	(22)	53°01'42"	703.07	705.03	705.13	705.87
(2)	do	714.79	714.90	715.01	713.31	(23)	51°44'01"	702.49	704.44	704.52	705.22
(3)	do	714.40	714.60	714.71	713.17	(24)	50°26'21"	701.94	703.82	703.92	704.55
(4)	do	713.98	714.27	714.38	713.02	(25)	49°08'40"	701.36	703.19	703.28	703.84
(5)	do	713.56	713.94	714.05	712.85	(26)	47°51'00"	700.78	702.56	702.64	703.15
(6)	do	713.13	713.61	713.70	712.67	(27)	46°07'41"	700.24	701.96	702.04	702.48
(7)	do	712.58	713.18	713.28	712.44	(28)	44°24'22"	699.70	701.37	701.44	701.83
(8)	do	712.02	712.75	712.86	712.21	(29)	42°41'04"	699.14	700.75	700.82	701.15
(9)	do	711.44	712.28	712.38	711.93	(30)	40°57'45"	698.55	700.11	700.18	700.46
(10)	do	710.81	711.78	711.88	711.61	(31)	39°14'26"	697.98	699.48	699.54	699.78
(11)	do	710.16	711.25	711.35	711.27	(32)	36°57'57"	697.43	698.88	698.93	699.12
(12)	do	709.58	710.79	710.89	710.97	(33)	34°41'28"	696.89	698.29	698.34	698.47
(13)	do	708.99	710.32	710.42	710.66	(34)	32°24'58"	696.33	697.67	697.72	697.79
(14)	do	708.39	709.84	709.93	710.33	(35)	30°08'29"	695.74	697.03	697.08	697.10
(15)	do	707.77	709.33	709.42	709.97	(36)	27°52'00"	695.17	696.40	696.44	696.40
(16)	do	707.18	708.82	708.92	709.60	(37)	do	694.71	695.94	695.97	695.93
(17)	do	706.53	708.24	708.33	709.11	(38)	do	694.26	695.59	695.53	695.48
(18)	do	705.87	707.65	707.74	708.52	(39)	do	693.80	695.03	695.06	695.03
(19)	do	705.16	707.01	707.10	707.87	(40)	do	693.32	694.55	694.59	694.55
(20)	do	704.40	706.30	706.39	707.17	(41)	do	692.82	694.05	694.08	694.05
(21)	do	703.68	705.64	705.74	706.53						

Screed elevations are at top of slab before the concrete deck is placed. Proper allowance has been made for the dead load deflection due to the weight of the concrete.



BARRIER DETAIL

18 130

ALDEN E. STILSON & ASSOCIATES, LIMITED
CONSULTING ENGINEERS
CLEVELAND, OHIO COLUMBUS, OHIO WHEELING, W. VA.

SUPERSTRUCTURE DETAILS

BRIDGE NO. JEF-7-0166
SR-7 OVER WILLIAMS ST. RELOC.,
C&P RR, W&LE RR AND MAIN ST.
JEFFERSON COUNTY STA. 88+25.99 TO STA. 96+43.08

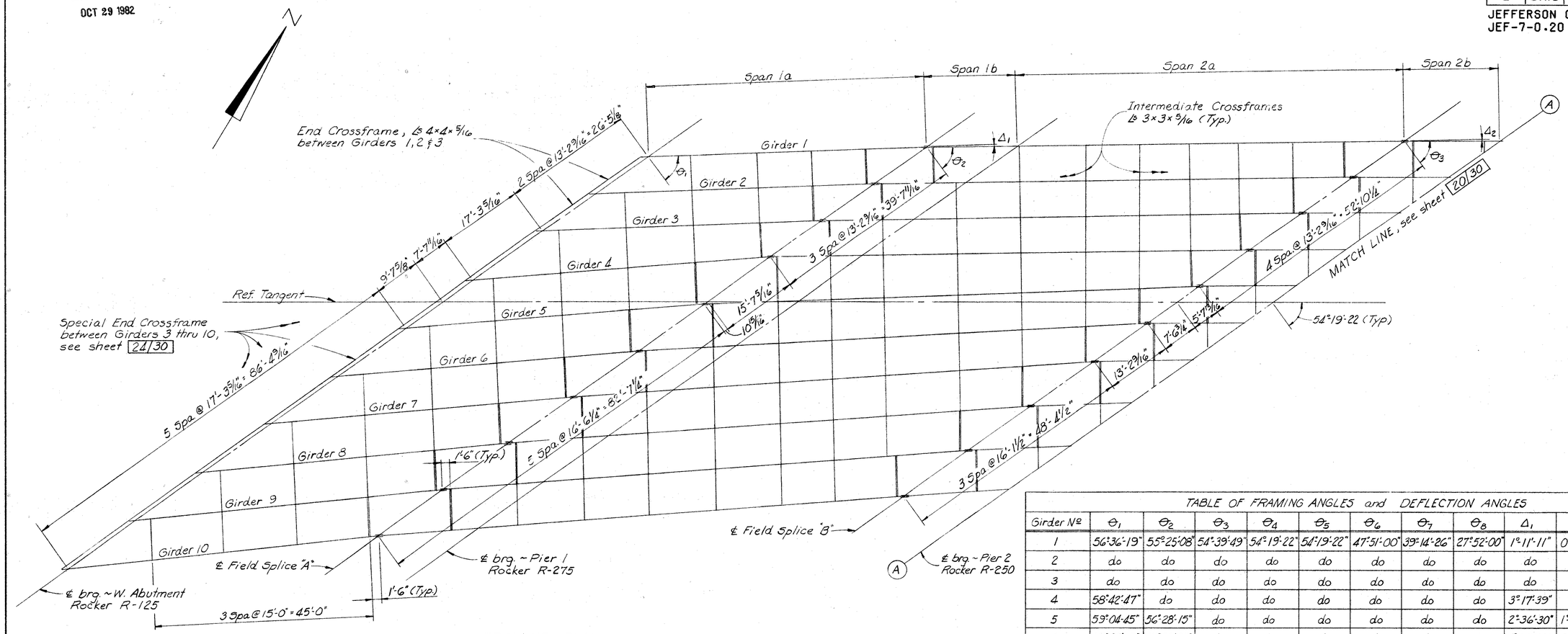
DESIGNED	DRAWN	TRACED	CHECKED	REVIEWED	DATE	REVISED
RT	RT		DLM	cwd	10/4/70	

MICROFILMED
OCT 29 1982

FED. RD. DIVISION	STATE	PROJECT	TYPE FUNDS
2	OHIO		

445/560

JEFFERSON COUNTY
JEF-7-0.20



FRAMING PLAN

TABLE OF FRAMING ANGLES and DEFLECTION ANGLES

Girder Nº	θ_1	θ_2	θ_3	θ_4	θ_5	θ_6	θ_7	θ_8	Δ_1	Δ_2	Δ_3	Δ_4
1	56°36'-19"	55°25'08"	54°39'49"	54°19'22"	54°19'22"	47°51'00"	39°14'26"	27°52'00"	1°11'11"	0°45'19"	0°20'27"	——
2	do	do	do	do	do	do	do	do	do	do	do	——
3	do	do	do	do	do	do	do	do	do	do	do	——
4	58°42'47"	do	do	do	do	do	do	do	3°17'39"	do	do	——
5	59°04'45"	56°28'15"	do	do	do	do	do	do	2°36'30"	1°48'26"	do	——
6	59°26'15"	57°28'03"	do	do	do	do	do	do	1°58'12"	2°48'14"	do	——
7	59°47'18"	58°24'46"	do	do	do	do	do	do	1°22'32"	3°44'57"	do	——
8	60°07'55"	58°31'24"	55°39'47"	do	do	do	do	do	1°36'31"	2°51'37"	1°20'24"	——
9	60°28'07"	58°37'59"	56°36'50"	do	do	do	do	do	1°50'08"	2°01'09"	2°17'28"	——
10	60°47'54"	58°44'31"	56°57'33"	54°51'39"	do	do	do	do	2°03'23"	1°46'58"	2°05'54"	0°32'17"

For additional notes and details see sheets 20&21/30.

TABLE OF GIRDER LENGTHS

Girder Nº	Span 1a	Span 1b	Span 2a	Span 2b	Span 3a	Span 3b	Span 4a	Span 4b	Span 5a	Span 5b	Span 5c	Span 6a	Span 6b	Span 6c	Span 7a	Span 7b	Span 7c	Span 8
1	57'-3 1/2"	19'-0 1/4"	80'-3 7/8"	20'-2 3/8"	73'-9"	18'-11 1/8"	92'-2 3/8"	23'-0"	——	79'-6 1/8"	22'-6"	——	79'-6 1/8"	22'-6"	——	79'-6 1/8"	22'-6"	85'-3"
2	do	do	do	do	do	do	do	do	——	81'-8 3/4"	do	——	81'-8 3/4"	do	——	81'-8 3/4"	do	do
3	do	do	do	do	do	do	do	do	——	83'-11 3/8"	do	——	83'-11 3/8"	do	——	83'-11 3/8"	do	do
4	60'-8 5/16"	do	do	do	do	do	do	do	——	86'-2"	do	——	86'-2"	do	——	86'-2"	do	do
5	61'-4 3/8"	19'-6 5/8"	82'-6 7/16"	do	do	do	do	do	——	88'-4 11/16"	do	——	88'-4 11/16"	do	——	88'-4 11/16"	do	do
6	62'-0 1/8	20'-0 15/16"	84'-9 1/4"	do	do	do	do	do	22'-6"	68'-1 5/16"	do	22'-6"	68'-1 5/16"	do	22'-6"	68'-1 5/16"	do	do
7	62'-8"	20'-7 3/8"	87'-0 1/16"	do	do	do	do	do	do	70'-4"	do	do	70'-4"	do	do	70'-4"	do	do
8	63'-3 13/16"	20'-8 1/8"	87'-3 3/4"	20'-8 1/2"	75'-7 3/8"	do	do	do	do	72'-6 5/8"	do	do	72'-6 5/8"	do	do	72'-6 5/8"	do	do
9	63'-11 11/16"	20'-8 15/16"	87'-7"	21'-2 3/4"	77'-6 1/8"	do	do	do	do	74'-9 1/4"	do	do	74'-9 1/4"	do	do	74'-9 1/4"	do	do
10	64'-7 9/16"	20'-9 3/4"	87'-10 5/16"	21'-5 1/8"	78'-2 3/4"	19'-2 1/8"	93'-5 1/8"	do	do	76'-11 7/8"	do	do	76'-11 7/8"	do	do	76'-11 7/8"	do	do

19/30

ALDEN E. STILSON & ASSOCIATES, LIMITED
CONSULTING ENGINEERS
CLEVELAND, OHIO COLUMBUS, OHIO WHEELING, W. VA.

SUPERSTRUCTURE DETAILS

BRIDGE NO. JEF-7-0166
SR-7 OVER WILLIAMS ST. RELOC..
C&P RR. W&LE RR AND MAIN ST.
JEFFERSON COUNTY STA. 88+25.99 TO STA. 96+43.08

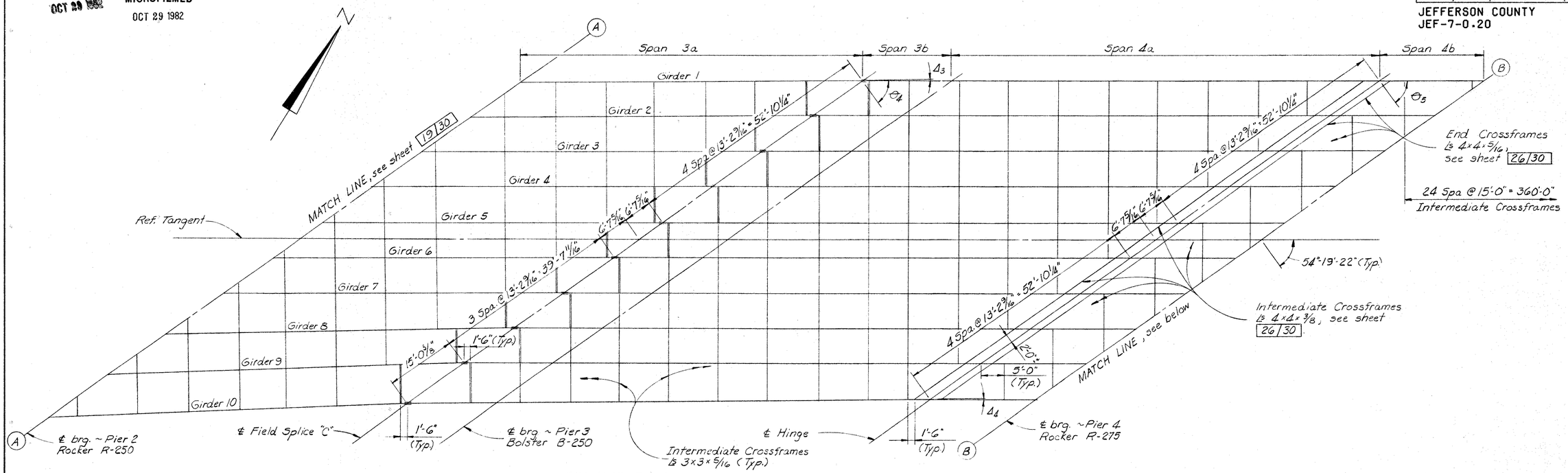
DESIGNED	DRAWN	TRACED	CHECKED	REVIEWED	DATE	REVISED
RT	RT		DLM	fwd	10/4/70	

MICROFILMED
OCT 29 1982
MICROFILMED
OCT 29 1982

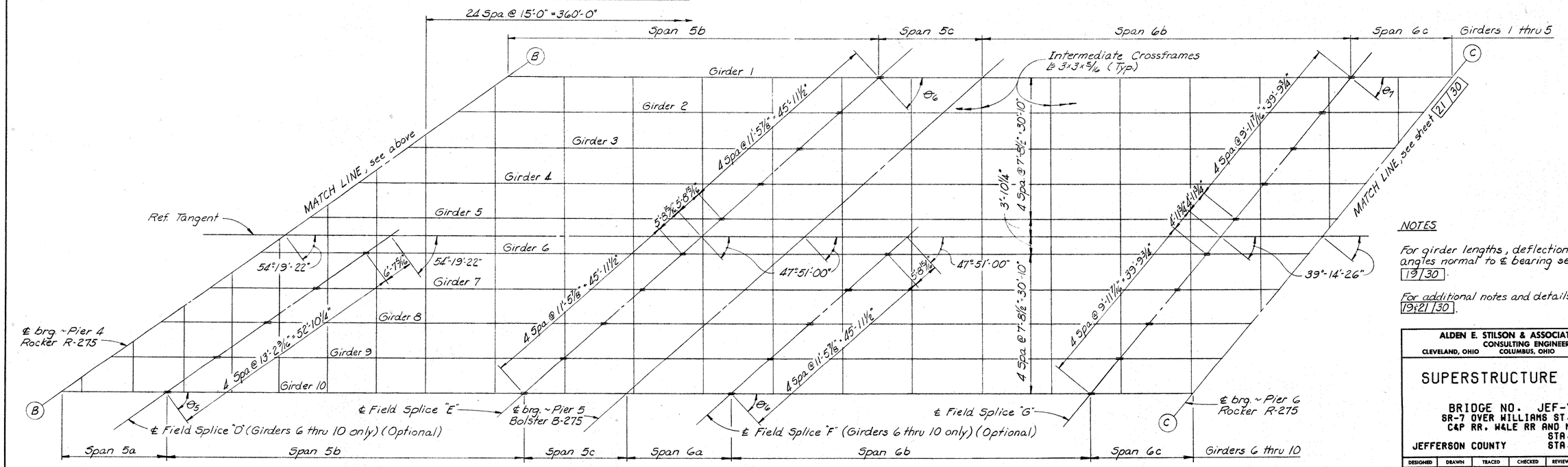
FED. RD. DIVISION	STATE	PROJECT	TYPE FUNDS
2	OHIO		

446
560

JEFFERSON COUNTY
JEF-7-0.20



FRAMING PLAN



FRAMING PLAN

NOTES

For girder lengths, deflection angles, and angles normal to ℄ bearing see sheet 19/30.

For additional notes and details see sheets 19 & 21/30.

20/30

ALDEN E. STILSON & ASSOCIATES, LIMITED
CONSULTING ENGINEERS
CLEVELAND, OHIO COLUMBUS, OHIO WHEELING, W. VA.

SUPERSTRUCTURE DETAILS

BRIDGE NO. JEF-7-0166
SR-7 OVER WILLIAMS ST. RELOC.,
C&P RR, W&LE RR AND MAIN ST.
JEFFERSON COUNTY STA. 88+25.99 TO STA. 96+43.08

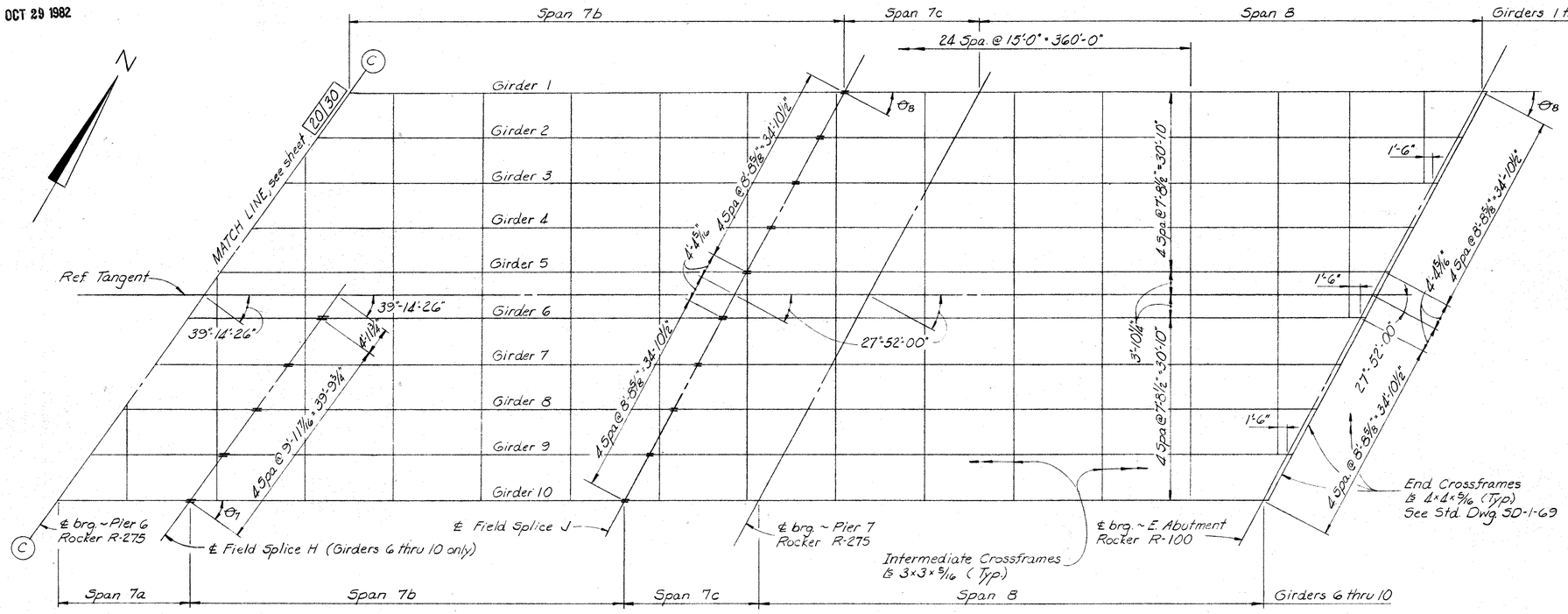
DESIGNED	DRAWN	TRACED	CHECKED	REVIEWED	DATE	REVISED
RT	RT		DLM	fwd	10/4/70	

MICROFILMED
OCT 29 1982

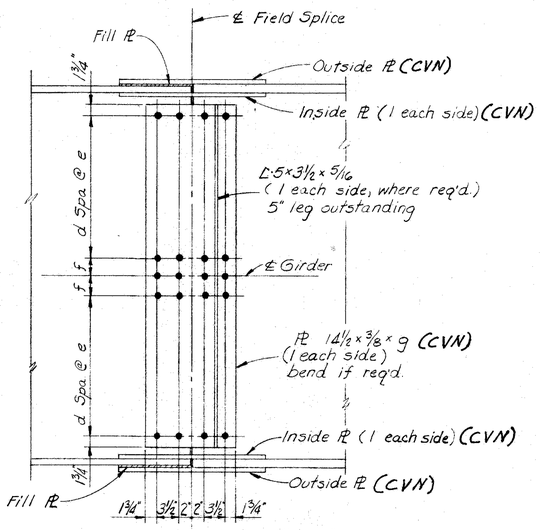
FED. RD. DIVISION	STATE	PROJECT	TYPE FUNDS
2	OHIO		

447/560

JEFFERSON COUNTY
JEF-7-0.20

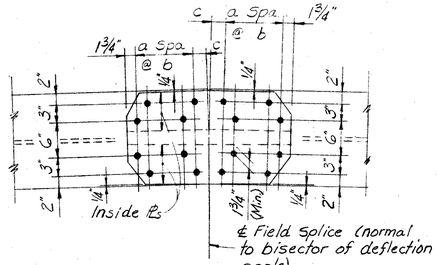


FRAMING PLAN

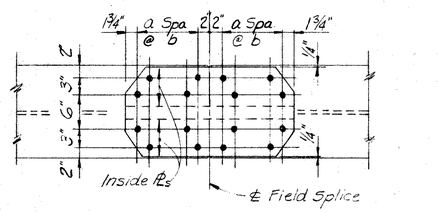


ELEVATION

Field Splices A, B, C, E, G, and J shown
Field Splices D, F, and H opposite hand.



FLANGE DETAIL
(Field Splices A, B, & C)



FLANGE DETAIL
(Field Splices D thru J)

FIELD SPLICE DETAILS

Bearings shall be in accordance with Std. Dwg. RB-1-55 except that upper plate element shall be beveled to match roadway grade. Tabulated plate thickness C shall apply at centerline of plate.

FIELD SPLICE VARIABLES

Splice	Girder	a	b	c	d	e	f	g	Outside PL	Inside PL	Fill PL
A	1 & 2	3	2"	2 1/16"	5	4½"	4 3/4"	4'-10"	* ⅜" thick	* 7/16" thick	* ¼" thick
	3	3	2"	2 1/16"	5	4½"	4 3/4"	4'-10"	* ⅜" thick	* 7/16" thick	* 5/8" thick
	4 thru 10	3	2"	2 3/16"	5	4½"	4 3/4"	4'-10"	* ⅜" thick	* 7/16" thick	* 15/16" thick **
B	1 thru 4	3	2"	2 1/16"	5	4½"	4 3/4"	4'-10"	* ⅜" thick	* 7/16" thick	* 3/16" thick
	5 & 7	3	2"	2 1/16"	5	4½"	4 3/4"	4'-10"	* ⅜" thick	* 7/16" thick	* 5/16" thick
	8, 9 & 10	3	2"	2 3/16"	5	4½"	4 3/4"	4'-10"	* ⅜" thick	* ½" thick	* ½" thick
C	1 thru 7	5	3½"	2 1/16"	2	5"	5¼"	2'-10"	* ½" thick	* 5/8" thick	* 1 5/16" thick **
	8, 9 & 10	5	2"	2 1/8"	2	5"	5¼"	2'-10"	* 9/16" thick	* 11/16" thick	* 1 3/16" thick **
D	6 & 7	5	2"	—	5	4½"	4 3/4"	4'-10"	15½ × ½ × 2'-3½"	6½ × 2 1/16" × 2'-3½"	15½ × 9/16" × 1'-1¾"
	8, 9 & 10	5	2"	—	5	4½"	4 3/4"	4'-10"	15½ × ½ × 2'-3½"	6½ × 5/8 × 2'-3½"	15½ × 7/16" × 1'-1¾"
E	1, 2 & 3	3	2"	—	5	4½"	4 3/4"	4'-10"	15½ × ⅜ × 1'-7½"	6½ × 7/16" × 1'-7½"	15½ × 9/16" × 0'-9¾"
	4 thru 7	3	2"	—	5	4½"	4 3/4"	4'-10"	15½ × ⅜ × 1'-7½"	6½ × ½ × 1'-7½"	15½ × 11/16" × 0'-9¾"
	8, 9 & 10	5	2"	—	5	4½"	4 3/4"	4'-10"	15½ × 7/16" × 2'-3½"	6½ × 9/16" × 2'-3½"	15½ × 13/16" × 1'-1¾"
F	6 & 7	3	2"	—	5	4½"	4 3/4"	4'-10"	15½ × ⅜ × 1'-7½"	6½ × 7/16" × 1'-7½"	15½ × 13/16" × 0'-9¾" **
	8, 9 & 10	3	2"	—	5	4½"	4 3/4"	4'-10"	15½ × ⅜ × 1'-7½"	6½ × ½ × 1'-7½"	15½ × 11/16" × 0'-9¾" **
G	1, 2 & 3	3	2"	—	5	4½"	4 3/4"	4'-10"	15½ × ⅜ × 1'-7½"	6½ × 7/16" × 1'-7½"	15½ × 9/16" × 0'-9¾"
	4 thru 7	3	2"	—	5	4½"	4 3/4"	4'-10"	15½ × ⅜ × 1'-7½"	6½ × 7/16" × 1'-7½"	15½ × 13/16" × 0'-9¾" *
	8, 9 & 10	3	2"	—	5	4½"	4 3/4"	4'-10"	15½ × ⅜ × 1'-7½"	6½ × 7/16" × 1'-7½"	15½ × 11/16" × 0'-9¾" **
H	6 & 7	3	2"	—	5	4½"	4 3/4"	4'-10"	15½ × ⅜ × 1'-7½"	6½ × 7/16" × 1'-7½"	15½ × 13/16" × 0'-9¾" *
	8, 9 & 10	3	2"	—	5	4½"	4 3/4"	4'-10"	15½ × ⅜ × 1'-7½"	6½ × ½ × 1'-7½"	15½ × 1 × 0'-9¾" **
J	1, 2 & 3	3	2"	—	5	4½"	4 3/4"	4'-10"	15½ × ⅜ × 1'-7½"	6½ × 7/16" × 1'-7½"	15½ × 7/16" × 0'-9¾"
	4 thru 7	3	2"	—	5	4½"	4 3/4"	4'-10"	15½ × ⅜ × 1'-7½"	6½ × 7/16" × 1'-7½"	15½ × 9/16" × 0'-9¾"
	8, 9 & 10	3	2"	—	5	4½"	4 3/4"	4'-10	15½ × ⅜ × 1'-7½"	6½ × 7/16" × 1'-7½"	15½ × ⅝ × 0'-9¾"

* PL widths and lengths vary, see FLANGE DETAIL for Field Splices A, B, & C.
** Fill PLs to be fabricated from 2 approx. equal thickness PLs.

NOTES

Place intermediate crossframes normal to Girder 1.

Crossframes indicated by double lines on the Framing Plan are ℓ 4×4×⅜, see Transverse Section sheet 16/30 for details. These crossframes shall be placed immediately upon completion of all bolting of the adjacent field splices before stress is induced into these splices.

Place bearing device normal to Girder it is supporting at all substructure units and at hinge.

Bearing devices under Girders 1 and 10 shall be fabricated without ½" keeper PLs.

For girder lengths, deflections, and angles normal to ℄ bearing, see sheet 19/30.

Steel end dam, curb plates, and median plates shall conform to Std. Dwg. SD-1-69.

For additional notes and details, see sheets 19 & 20/30.

End Dam: Provide a 3" bar, ¼" minimum thickness, welded to the main angle as shown on SD-1-69. When the roadway gradient at the end dam exceeds 2.0% the bar shall be beveled. Modify thickness of 2" bar to conform.

Steel Erection: During the erection of end dams and crossframes care shall be taken to ensure that stringers, bearing parts and bridge seats remain in bearing contact.

Bolts ~ 1" ϕ high strength

Bolt heads shall be placed on the fascia side of Girders 1 and 10 and on the bottom surface of all bottom flanges.

Reverse outstanding leg of L 5×3½×5/16 or move L a distance equal to bolt spacing where necessary to maintain stiffener or crossframe spacing.

21/30

ALDEN E. STILSON & ASSOCIATES, LIMITED
CONSULTING ENGINEERS
CLEVELAND, OHIO COLUMBUS, OHIO WHEELING, W. VA.

SUPERSTRUCTURE DETAILS

BRIDGE NO. JEF-7-0166
SR-7 OVER WILLIAMS ST. RELOC.,
C&P RR. W&LE RR AND MAIN ST.
STA. 88+25.99 TO
JEFFERSON COUNTY STA. 96+43.08

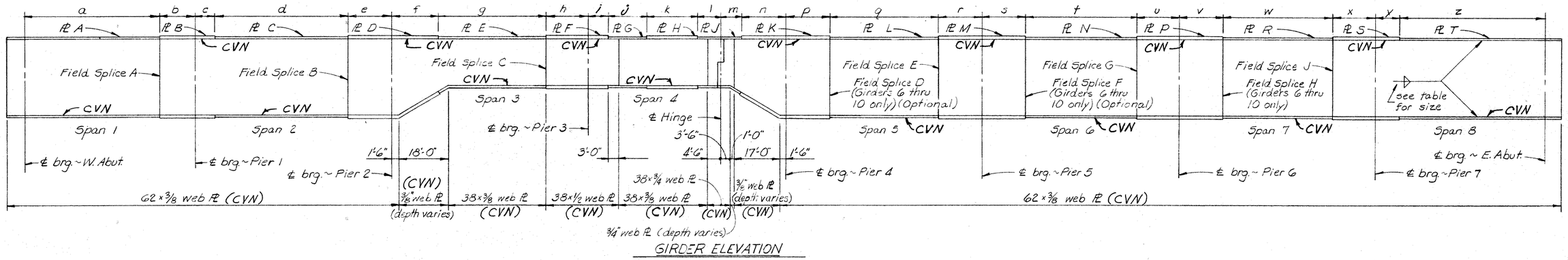
DESIGNED	DRAWN	TRACED	CHECKED	REVIEWED	DATE	REVISED
RT	RT		DLM	GWD	10/4/90	

MICROFILMED
OCT 29 1982

FED. RD. DIVISION	STATE	PROJECT	TYPE FUNDS
2	OHIO		

448
560

JEFFERSON COUNTY
JEF-7-0.20



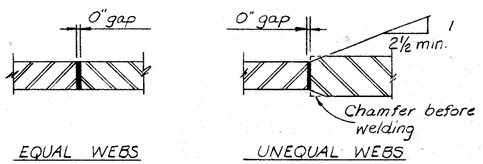
GIRDER ELEVATION

HORIZONTAL PL LENGTHS (along ℄ Girders)

Girder	a	b	c	d	e	f	g	h	i	j	k	l	m	n	p	q	r	s	t	u	v	w	x	y	z
1	57'-3 1/2"	19'-0 1/4"	5'-0"	75'-3 1/8"	20'-2 3/8"	15'-6"	58'-3"	18'-11 1/8"	13'-0"	19'-0"	49'-0"	11'-2 3/8"	7'-6"	15'-6"	26'-0"	53'-6 1/8"	22'-6"	13'-0"	66'-6 1/8"	22'-6"	11'-0"	68'-6 1/8"	22'-6"	10'-6"	74'-9"
2	do	do	do	do	do	do	do	do	do	do	do	do	do	do	do	55'-8 3/4"	do	do	68'-8 3/4"	do	do	70'-8 3/4"	do	do	do
3	do	do	10'-0"	70'-3 1/8"	do	do	do	do	do	do	do	do	do	do	do	57'-11 3/8"	do	do	70'-11 3/8"	do	do	72'-11 3/8"	do	do	do
4	60'-8 5/8"	do	do	do	do	do	do	do	do	do	do	do	do	do	do	60'-2"	do	do	73'-2"	do	do	75'-2"	do	do	do
5	61'-4 3/8"	19'-6 5/8"	do	72'-6 7/16"	do	do	do	do	do	do	do	do	do	do	do	62'-4 7/16"	do	do	75'-4 7/16"	do	do	77'-4 7/16"	do	do	do
6	62'-0 1/8"	20'-0 15/16"	do	74'-9 1/4"	do	do	do	do	do	do	do	do	do	do	22'-6"	68'-1 5/16"	do	22'-6"	68'-1 5/16"	do	22'-6"	68'-1 5/16"	do	do	do
7	62'-8"	20'-7 3/8"	do	77'-0 7/16"	do	do	do	do	do	do	do	do	do	do	do	70'-4"	do	do	70'-4"	do	do	70'-4"	do	do	do
8	63'-3 13/16"	20'-8 1/8"	do	77'-3 3/4"	20'-8 1/2"	do	60'-1 3/8"	do	do	do	do	do	do	do	do	72'-6 5/16"	do	do	72'-6 5/8"	do	do	72'-6 5/8"	do	do	do
9	63'-11 11/16"	20'-8 15/16"	do	77'-7"	21'-2 3/4"	do	62'-0 1/8"	do	do	do	do	do	do	do	do	74'-3 1/4"	do	do	74'-3 1/4"	do	do	74'-3 1/4"	do	do	do
10	64'-7 9/16"	20'-9 3/4"	do	77'-10 5/16"	21'-5 1/8"	do	62'-8 3/4"	19'-2 1/8"	do	do	do	12'-5 1/8"	do	do	do	76'-11 7/8"	do	do	76'-11 7/8"	do	do	76'-11 7/8"	do	do	do

FLANGE PLs and WELD SIZES

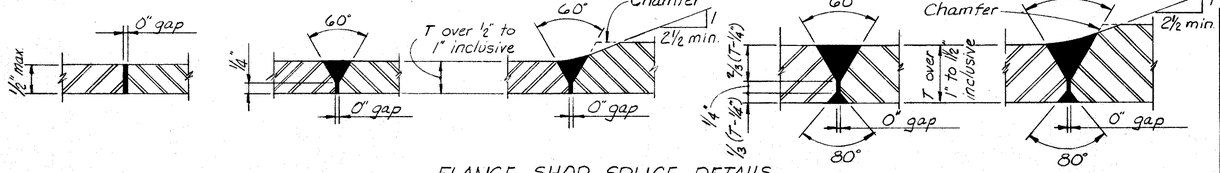
Girder	PL A	Weld	PL B	Weld	PL C	Weld	PL D	Weld	PL E	Weld	PL F	Weld	PL G	Weld	PL H	Weld	PL J	Weld	PL K	Weld	PL L	Weld	PL M	Weld	PL N	Weld	PL P	Weld	PL R	Weld	PL S	Weld	PL T	Weld
1	16x 3/4	1/4	16x 1	5/16	16x 3/4	1/4	16x 15/16	5/16	16x 15/16	5/16	16x 2 1/4	3/8	16x 1	5/16	16x 1 5/8	3/8	16x 1	5/16	16x 1 7/16	5/16	16x 3/4	1/4	16x 1 5/16	5/16	16x 3/4	1/4	16x 1 5/16	5/16	16x 3/4	1/4	16x 1 5/16	5/16	16x 3/4	1/4
2	do	do	do	do	do	do	do	do	do	do	do	do	do	do	do	do	do	do	do	do	do	do	do	do	do	do	do	do	do	do	do	do	do	do
3	do	do	16x 1 3/8	do	do	do	do	do	do	do	do	do	do	do	do	do	do	do	do	do	do	do	do	do	do	do	do	do	do	do	do	do	do	do
4	do	do	16x 1 11/16	3/8	do	do	do	do	do	do	do	do	do	do	do	do	do	do	do	do	16x 7/8	5/16	16x 1 3/16	3/8	do	do	16x 1 3/16	3/8	do	do	16x 1 5/16	do	do	do
5	do	do	do	do	16x 1 3/16	5/16	16x 1 1/8	do	do	do	do	do	do	do	do	do	do	do	do	do	do	do	do	do	do	do	do	do	do	do	do	do	do	do
6	do	do	do	do	do	do	do	do	do	do	do	do	do	do	do	do	do	do	do	do	do	do	do	do	do	do	do	do	do	do	do	do	do	do
7	do	do	do	do	do	do	do	do	do	do	do	do	do	do	do	do	do	do	do	do	do	do	do	do	do	do	do	do	do	do	do	do	do	do
8	do	do	do	do	do	do	16x 1 5/16	do	16x 1 1/16	do	do	do	do	do	do	do	do	do	do	do	16x 1	do	16x 1 13/16	do	do	do	16x 1 3/16	do	16x 1 3/16	5/16	16x 1 7/16	do	do	do
9	do	do	do	do	do	do	do	do	do	do	do	do	do	do	16x 1 11/16	do	do	do	do	do	do	do	do	do	do	do	do	do	do	do	do	do	do	do
10	do	do	do	do	do	do	do	do	do	do	do	do	do	do	do	do	do	do	do	do	do	do	do	do	do	do	do	do	do	do	do	do	do	do



EQUAL WEBS UNEQUAL WEBS

WEB SHOP SPLICE DETAILS

Weld from both sides centering welds on joint. Welds shall be back-gouged and welded after welding far side.



FLANGE SHOP SPLICE DETAILS

Butt weld for flanges over 1 1/2" thick shall conform to joint details of the AWS Specs. Welds shall be back-gouged and welded after welding far side, then ground flush, the finish grinding being parallel to the direction of stress.

NOTES

Shop splices for webs and flanges shall be a minimum of 6" clear from transverse intermediate stiffeners.

Shop web splices may be made at any camber point, the location being determined by available plate lengths.

For additional notes and details see sheets 23/30.

22130

ALDEN E. STILSON & ASSOCIATES, LIMITED
CONSULTING ENGINEERS
CLEVELAND, OHIO COLUMBUS, OHIO WHEELING, W. VA.

GIRDER DETAILS

BRIDGE NO. JEF-7-0166
SR-7 OVER WILLIAMS ST. RELOC.,
C&P RR. W&LE RR AND MAIN ST.
JEFFERSON COUNTY STA. 88+25.99 TO STA. 96+43.08

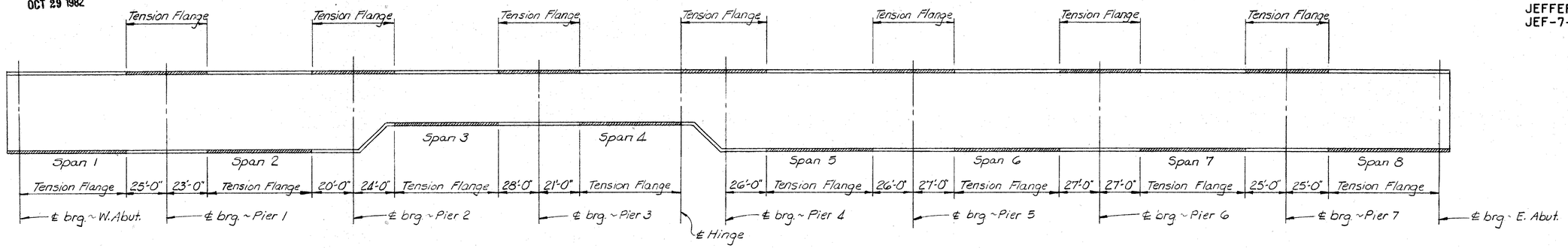
DESIGNED	DRAWN	TRACED	CHECKED	REVIEWED	DATE	REVISED
RT	RT		DLM	fwd	10/4/70	

MICROFILMED
OCT 29 1982

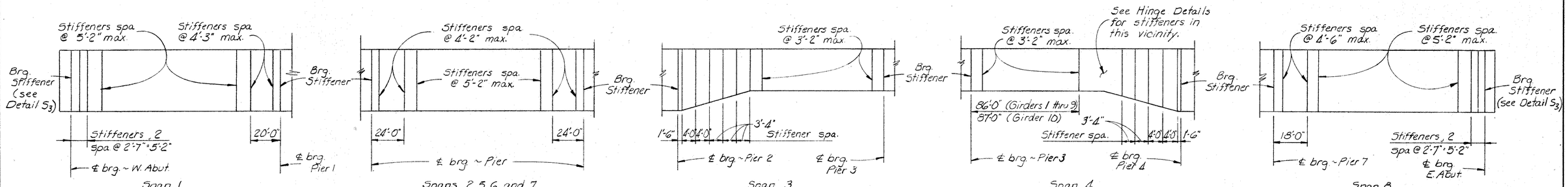
FED. RD. DIVISION	STATE	PROJECT	TYPE FUNDS
2	OHIO		

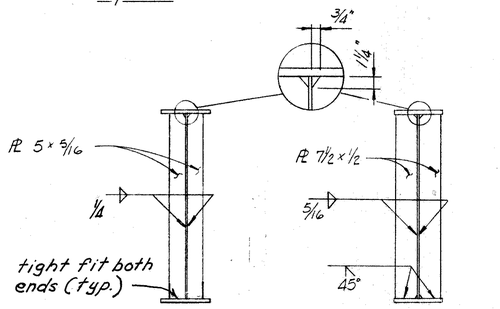
449/560

JEFFERSON COUNTY
JEF-7-0.20



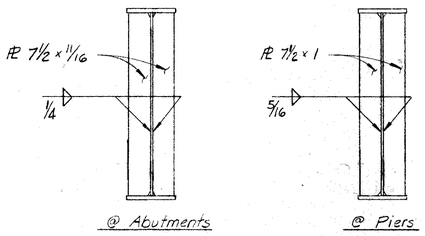
TENSION FLANGE LOCATIONS





Use at ends of haunches only

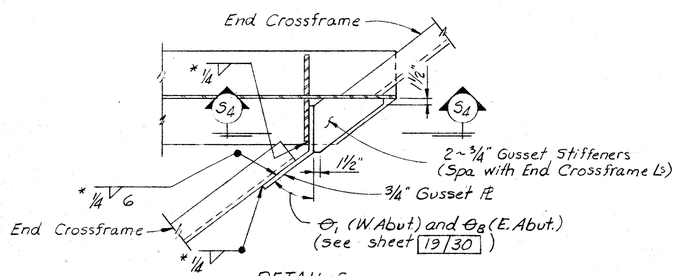
INTERMEDIATE STIFFENER DETAILS



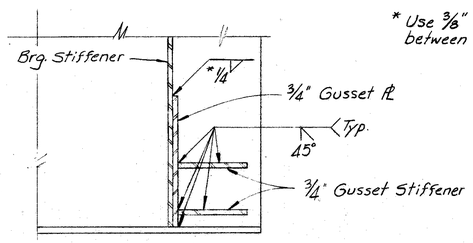
BEARING STIFFENER DETAIL

Clip corners of Bearing Stiffener same as Intermediate Stiffener

INTERMEDIATE STIFFENER SPACING



DETAIL S3
(E. Abut. shown, W. Abut. opposite hand)



SECTION S4-S4

* Use 3/8" weld at W. Abut. between Girders 3 and 10.

CHARPY TEST NOTES

Where (CVN) is called for, the material shall meet specified minimum notch toughness requirements. The Fabricator shall submit to the Director a procedure designed for positive identification of material through all phases of fabrication. No material shall be fabricated until the Director has approved the procedure.

Designated structural steel shapes and plates shall have a minimum longitudinal Charpy V-notch energy absorption value (CVN) of 15 ft. lb. at 40° F. Sampling and testing procedures shall be in accordance with ASTM A673. The (H) frequency of heat testing shall be used, and the test data shall be recorded on the Test Reports required by 501.07 of the Construction and Material Specifications.

NOTES

Locate intermediate stiffeners to serve as attachments for intermediate crossframes.

For additional notes and details see sheets 22/30.

23/30

ALDEN E. STILSON & ASSOCIATES, LIMITED
CONSULTING ENGINEERS
CLEVELAND, OHIO COLUMBUS, OHIO WHEELING, W. VA.

GIRDER DETAILS

BRIDGE NO. JEF-7-0166
SR-7 OVER WILLIAMS ST. RELOC.,
C&P RR. W&LE RR AND MAIN ST.
JEFFERSON COUNTY STA. 88+25.99 TO STA. 96+43.08

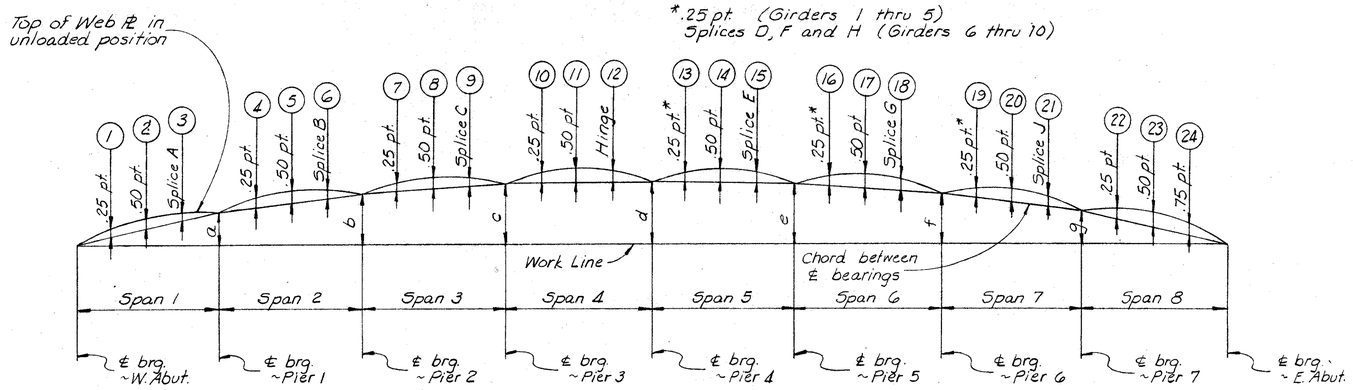
DESIGNED	DRAWN	TRACED	CHECKED	REVIEWED	DATE	REVISED
RT	RT		DLM	cwd	10/4/70	

MICROFILMED
OCT 29 1982

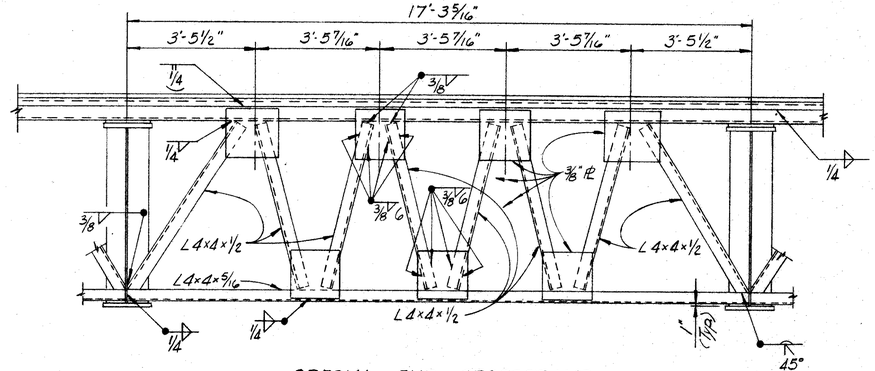
FED. RD. DIVISION	STATE	PROJECT	TYPE FUNDS
2	OHIO		

450
560

JEFFERSON COUNTY
JEF-7-0.20



CAMBER AND BLOCKING DIAGRAM



SPECIAL END CROSSFRAME
(Between Girders 3 thru 10 @ W. Abut)
For additional details see Std. Dwg. SD-1-69

DEFLECTIONS and CAMBERS

Girder	Camber Description	Span 1			Span 2			Span 3			Span 4			Span 5			Span 6			Span 7			Span 8		
		1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24
1	Def. due to weight of steel	1/16	1/16	0	1/16	1/8	1/16	0	0	0	3/16	5/16	1/16	0	1/8	0	0	1/8	0	0	1/8	0	0	1/8	1/16
	Def. due to remaining D.L.	1/8	3/16	1/16	1/4	1/2	1/4	0	1/16	-1/16	3/4	1 1/8	5/16	1/16	1/4	1/16	3/16	1/2	1/8	1/8	3/8	1/16	1/8	3/8	3/8
	Adjust. req'd. for curvature	1/4	5/16	1/8	7/16	9/16	1/4	3/16	3/16	0	0	0	0	-9/16	-1/2	-1/2	0	0	0	0	0	0	0	0	0
	SHOP CAMBER	7/16	9/16	3/16	3/4	1 3/16	9/16	3/16	1/4	-1/16	15/16	1 7/16	3/8	-1/2	-1/8	-7/16	3/16	5/8	1/8	1/8	1/2	1/16	1/8	1/2	7/16
2 thru 4	Def. due to weight of steel	1/16	1/16	0	1/16	1/8	1/16	0	0	0	3/16	5/16	1/16	0	1/8	0	0	1/8	0	0	1/8	0	0	1/8	1/16
	Def. due to remaining D.L.	3/16	3/16	1/16	5/16	9/16	1/4	0	1/8	-1/16	3/4	1 5/16	3/8	1/8	3/8	1/8	1/4	1/2	3/16	3/16	1/2	1/8	3/16	9/16	3/8
	Adjust. req'd. for curvature	3/16	5/16	5/16	5/16	7/16	5/16	1/4	5/16	3/16	-3/16	-1/8	-1/16	-1/4	-1/2	-1/4	0	0	0	0	0	0	0	0	0
	SHOP CAMBER	7/16	9/16	3/8	11/16	1 1/8	5/8	1/4	7/16	1/8	3/4	1 1/2	3/8	-1/8	0	-1/8	1/4	5/8	3/16	3/16	5/8	1/8	3/16	11/16	7/16
5 & 6	Def. due to weight of steel	1/16	1/16	0	1/16	1/8	1/16	0	0	0	3/16	3/8	1/16	0	1/8	0	0	1/8	0	0	1/8	0	0	1/8	1/16
	Def. due to remaining D.L.	1/4	5/16	1/8	3/8	5/8	5/16	0	1/8	-1/16	13/16	1 3/16	1/4	3/16	7/16	3/16	1/4	1/2	3/16	1/4	1/2	3/16	1/8	7/16	5/16
	Adjust. req'd. for curvature	1/4	7/16	1/2	7/16	5/8	3/16	5/16	7/16	5/16	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	SHOP CAMBER	9/16	13/16	5/8	7/8	1 3/8	15/16	5/16	9/16	1/4	1	1 9/16	5/16	3/16	9/16	3/16	1/4	5/8	3/16	1/4	5/8	3/16	1/8	9/16	3/8
7 thru 9	Def. due to weight of steel	1/16	1/16	0	1/16	1/8	1/16	0	0	0	3/16	5/16	1/16	1/16	1/8	1/16	0	1/8	0	1/16	1/8	1/16	0	1/16	1/16
	Def. due to remaining D.L.	5/16	3/8	1/8	3/8	5/8	5/16	1/16	3/16	0	3/4	1 1/8	3/16	3/8	5/8	1/4	3/16	1/2	3/16	5/16	5/8	5/16	1/8	3/8	5/16
	Adjust. req'd. for curvature	3/16	3/8	7/16	1/2	3/4	3/4	7/16	5/8	1/2	1/16	1/16	0	0	0	0	0	0	0	0	0	0	0	0	0
	SHOP CAMBER	9/16	13/16	9/16	15/16	1 1/2	1 1/8	1/2	13/16	1/2	1	1 1/2	1/4	7/16	3/4	5/16	3/16	5/8	3/16	3/8	3/4	3/8	1/8	7/16	3/8
10	Def. due to weight of steel	1/16	1/16	0	1/16	1/8	1/16	0	0	0	3/16	5/16	1/16	1/16	3/16	1/16	0	1/8	0	1/16	3/16	1/16	0	1/16	1/16
	Def. due to remaining D.L.	1/4	5/16	1/8	5/16	9/16	1/4	0	3/16	0	11/16	1 1/16	1/8	3/8	11/16	1/4	1/4	1/2	1/8	3/8	11/16	5/16	0	7/16	1/4
	Adjust. req'd. for curvature	-15/16	-3/8	1/4	7/16	5/8	9/16	7/16	5/8	1/2	1	1 1/16	1/4	0	0	0	0	0	0	0	0	0	0	0	0
	SHOP CAMBER	-5/8	0	3/8	13/16	1 5/16	7/8	7/16	13/16	1/2	1 7/8	2 1/16	7/16	7/16	7/8	5/16	1/4	5/8	1/8	7/16	7/8	3/8	0	1/2	5/16

minus (-) value indicates that the top of web ℄ in unloaded position is below the chord between bearing points.

BLOCKING DIMENSIONS

Girder	a	b	c	d	e	f	g
1	2 1/8	1 3/16	- 2 11/16	- 4 3/16	- 4 1/4	- 2 13/16	- 1 5/16
2	2 1/4	1 5/16	- 1 9/16	- 3 5/16	- 3 7/8	- 2 1/2	- 1 1/8
3	2 5/16	3 1/16	1 3/8	- 1 5/16	- 1 9/16	- 1	- 7/16
4	5 3/16	6 5/16	5 3/8	3	1 5/8	1 1/16	7/16
5	6 5/8	10 1/8	9 3/8	7 1/16	5 1/16	3 3/16	1 3/8
6	7 13/16	1-0 7/8	1-0 5/8	9 15/16	7 3/16	4 5/8	2
7	9 1/2	1-4 7/8	1-5 1/2	1-1 13/16	10 1/8	6 7/16	2 3/4
8	11	1-8 1/8	1-10 1/2	1-5 13/16	1-1 1/16	8 1/4	3 1/2
9	1-0 5/16	1-11 5/16	2-3 3/4	1-10 1/4	1-4 1/4	10 1/4	4 1/4
10	1-0 3/8	2-1 5/16	2-7 9/16	2-2 1/4	1-7 1/8	1-0 1/16	4 15/16

minus (-) value indicates that the work line is above the bearing points.

POURING SEQUENCE : The first pour shall commence at the hinge and progress to the West Abutment. The second pour shall commence at the hinge and progress to the East Abutment.

24130

ALDEN E. STILSON & ASSOCIATES, LIMITED
CONSULTING ENGINEERS
CLEVELAND, OHIO COLUMBUS, OHIO WHEELING, W. VA.

SUPERSTRUCTURE DETAILS

BRIDGE NO. JEF-7-0166
SR-7 OVER WILLIAMS ST. RELOC.,
C&P RR, W&LE RR AND MAIN ST.
STA. 88+25.99 TO
JEFFERSON COUNTY STA. 96+43.08

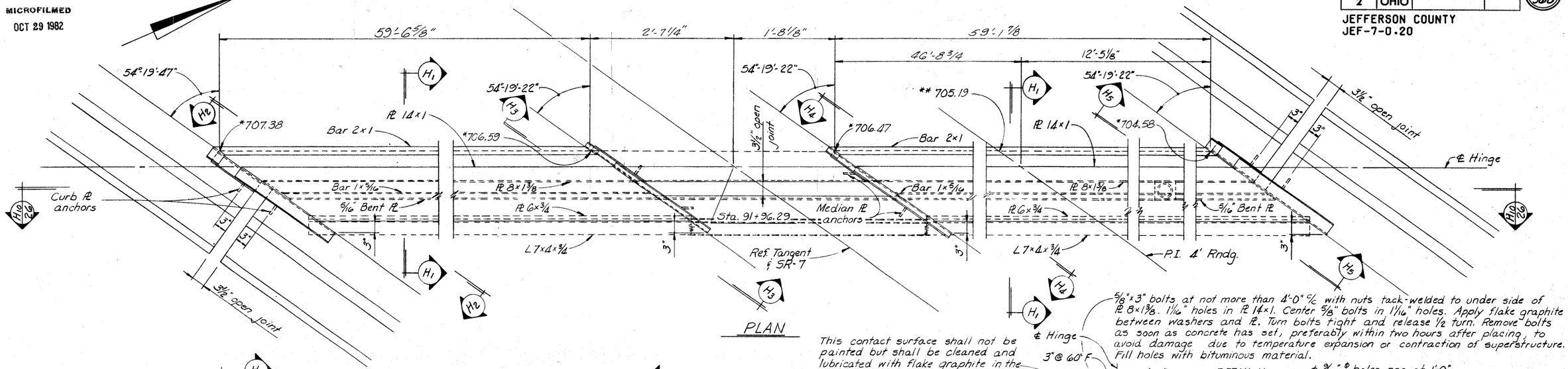
DESIGNED	DRAWN	TRACED	CHECKED	REVIEWED	DATE	REVISED
RT	RT.		DLM	CWD	10/4/90	

MICROFILMED
OCT 29 1982

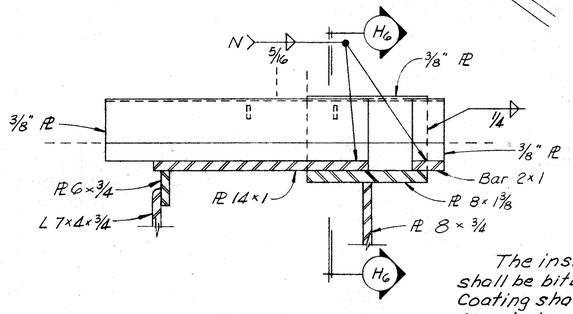
FED. RD. DIVISION	STATE	PROJECT	TYPE FUNDS
2	OHIO		

451/560

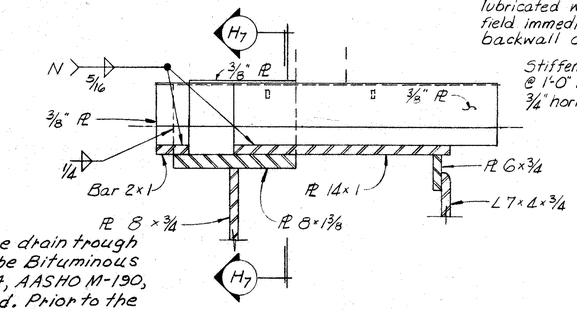
JEFFERSON COUNTY
JEF-7-0.20



PLAN



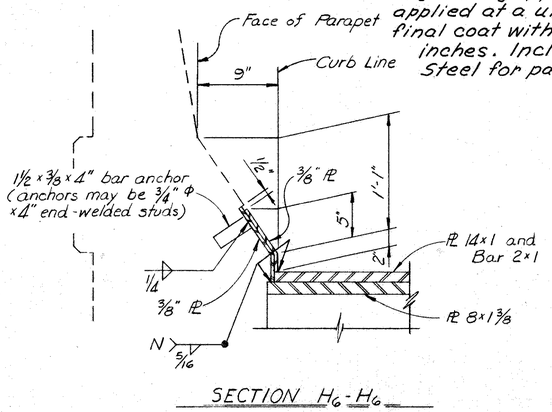
SECTION H_2-H_2
(SECTION H_5-H_5 Similar)



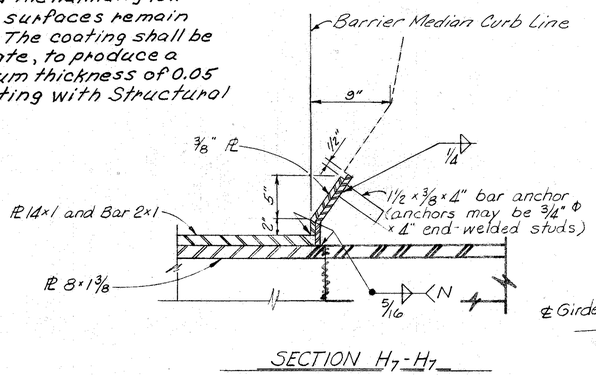
SECTION H_3-H_3
(SECTION H_4-H_4 Similar)

NOTE

The inside surface of the drain trough shall be bituminous coated. The Bituminous Coating shall be as per Sect. 4, AASHO M-190, brush, trowel or spray applied. Prior to the application of the coating, the surfaces shall be wiped with a suitable solvent, using clean dry cloths, to remove contaminate traces. The temperature during the application shall be at least 40°F. and the humidity low enough so that the steel surfaces remain dry during application. The coating shall be applied at a uniform rate, to produce a final coat with a minimum thickness of 0.05 inches. Include coating with Structural Steel for payment.

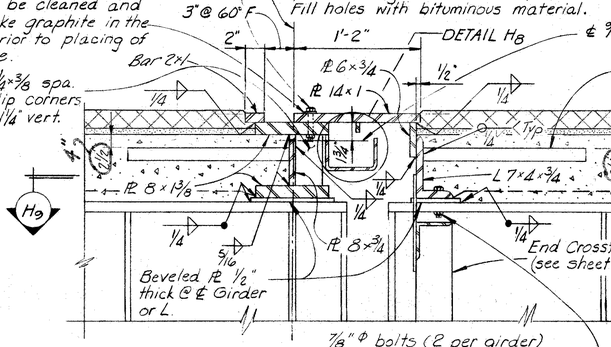


SECTION H_6-H_6

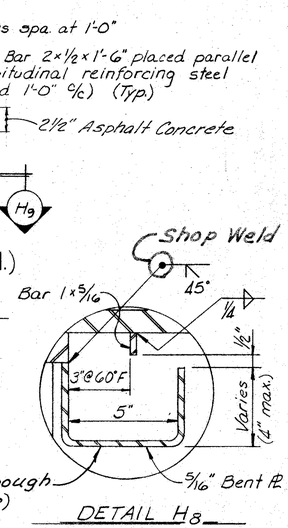


SECTION H_7-H_7

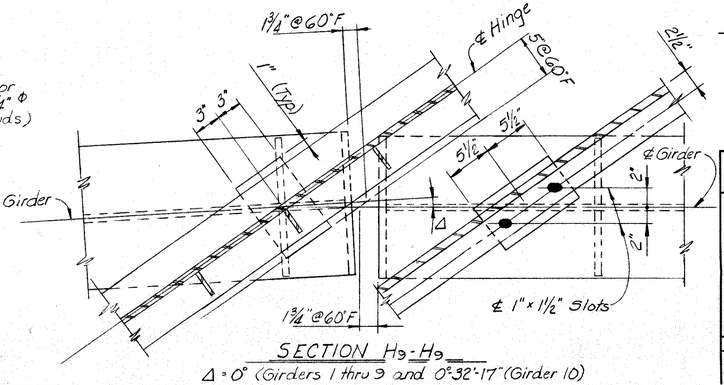
This contact surface shall not be painted but shall be cleaned and lubricated with flake graphite in the field immediately prior to placing of backwall concrete.



SECTION H_1-H_1



DETAIL H_8



SECTION H_9-H_9
Δ = 0° (Girders 1 thru 9 and 0°32'-17" (Girder 10)

NOTES

* Elevations are at top of Bar 2x1

** Elevation is at P.I. of 4' rounding.

For additional Hinge Details see sheet 26/30.

25/30

ALDEN E. STILSON & ASSOCIATES, LIMITED
CONSULTING ENGINEERS
CLEVELAND, OHIO COLUMBUS, OHIO WHEELING, W. VA.

HINGE DETAILS

BRIDGE NO. JEF-7-0166
SR-7 OVER WILLIAMS ST. RELOC.,
C&P RR. W&LE RR AND MAIN ST.
STA. 88+25.99 TO
JEFFERSON COUNTY STA. 96+43.08

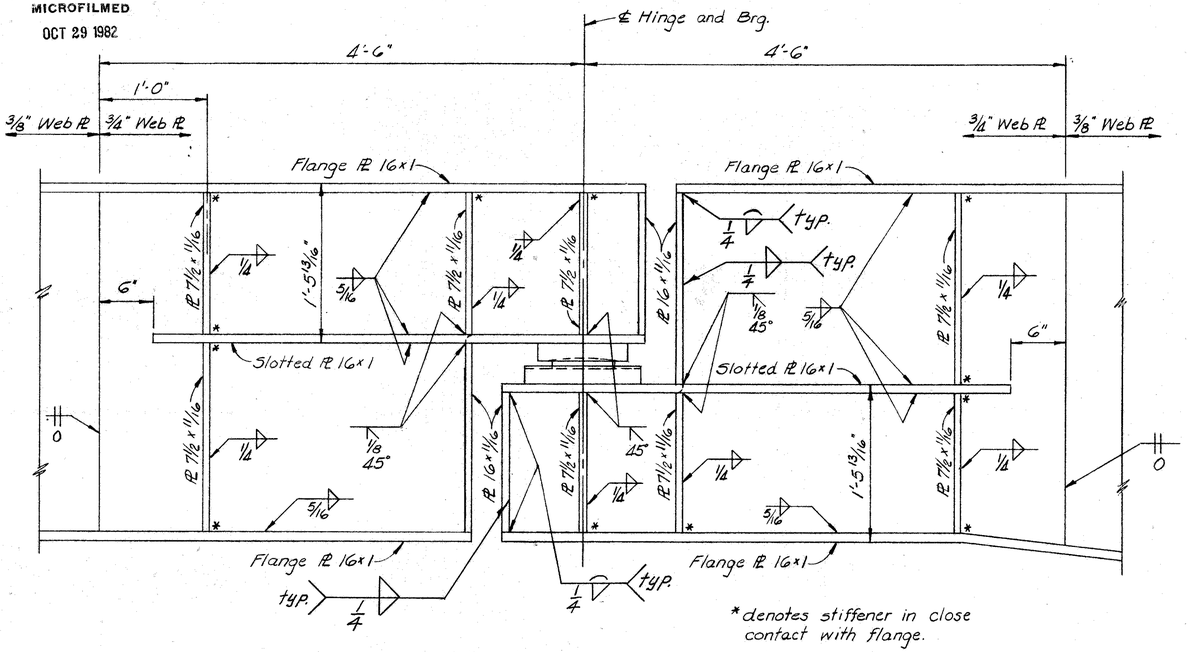
DESIGNED	DRAWN	TRACED	CHECKED	REVIEWED	DATE	REVISED
RT	RT		DLM	FWA 10/4/70		11/8/75

MICROFILMED
OCT 29 1982

FED. RD. DIVISION	STATE	PROJECT	TYPE FUNDS
2	OHIO		

452
560

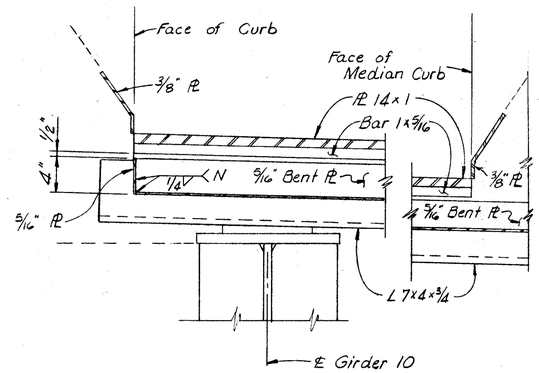
JEFFERSON COUNTY
JEF-7-0.20

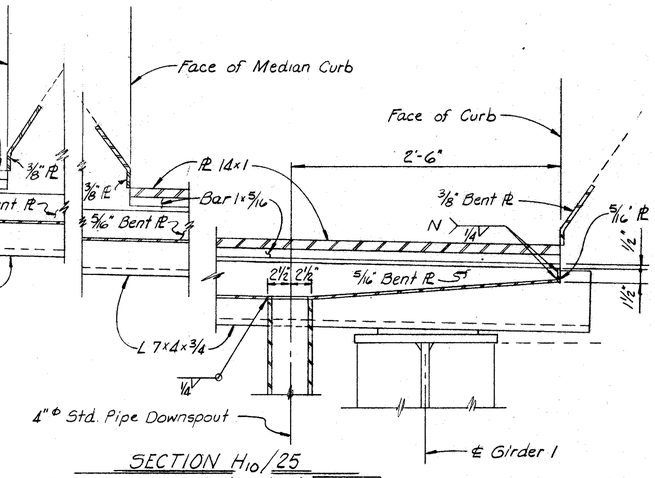


*denotes stiffener in close contact with flange.

HINGE ELEVATION

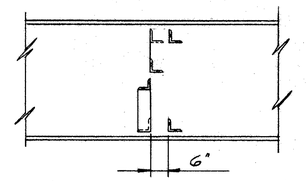
Clip corners of stiffeners 3/4" horizontal and 1/4" vertical.



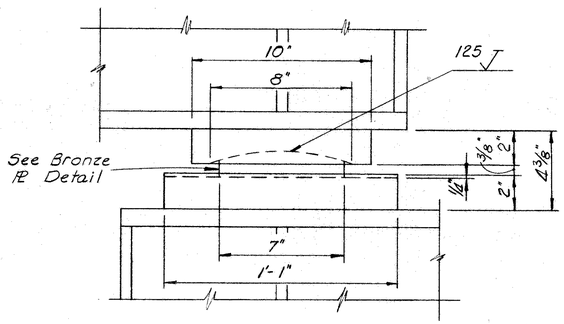


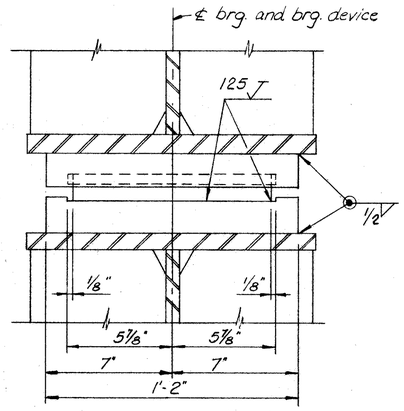
SECTION H10/25

See Drainage Details, sheet 27/30 for details below superstructure deck.



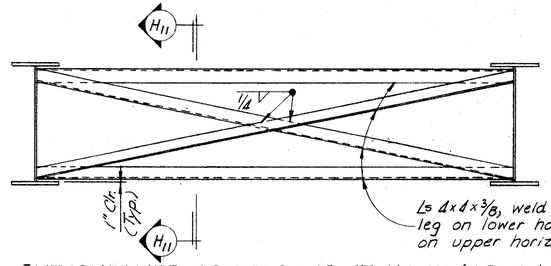
SECTION H11-H11



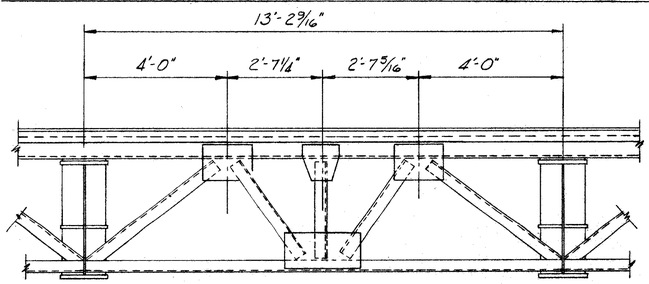


HINGE BEARING DETAILS

(Place ℄ Hinge Brg. device normal to supporting girder)

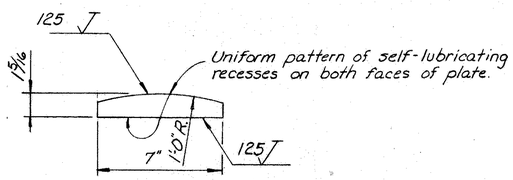


INTERMEDIATE CROSSFRAME AT HINGE (SPAN 4a.)



END CROSSFRAME AT HINGE (SPAN 4b.)

(For additional details see Std. Dwg. SD-1-69)



SELF-LUBRICATING BRONZE PLATE DETAIL

(Include with Item 513 for payment)

For additional Hinge Details, see sheet 25/30.

26/30

ALDEN E. STILSON & ASSOCIATES, LIMITED
CONSULTING ENGINEERS
CLEVELAND, OHIO COLUMBUS, OHIO WHEELING, W. VA.

HINGE DETAILS

BRIDGE NO. JEF-7-0166
SR-7 OVER WILLIAMS ST. RELOC.,
C&P RR. W&LE RR AND MAIN ST.
JEFFERSON COUNTY STA. 88+25.99 TO STA. 96+43.08

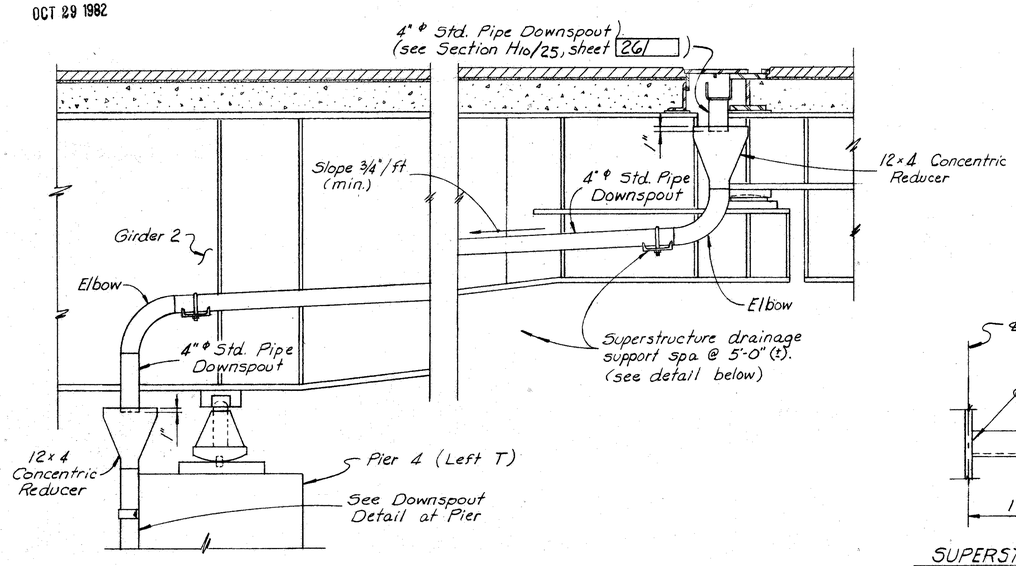
DESIGNED	DRAWN	TRACED	CHECKED	REVIEWED	DATE	REVISED
RT	RT		DLM	fwd	10/4/70	

MICROFILMED
OCT 29 1982

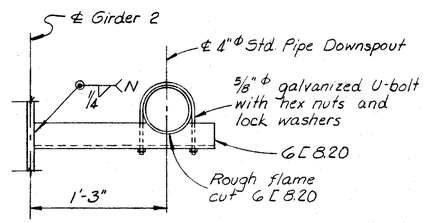
FED. RD. DIVISION	STATE	PROJECT	TYPE FUNDS
2	OHIO		

453
560

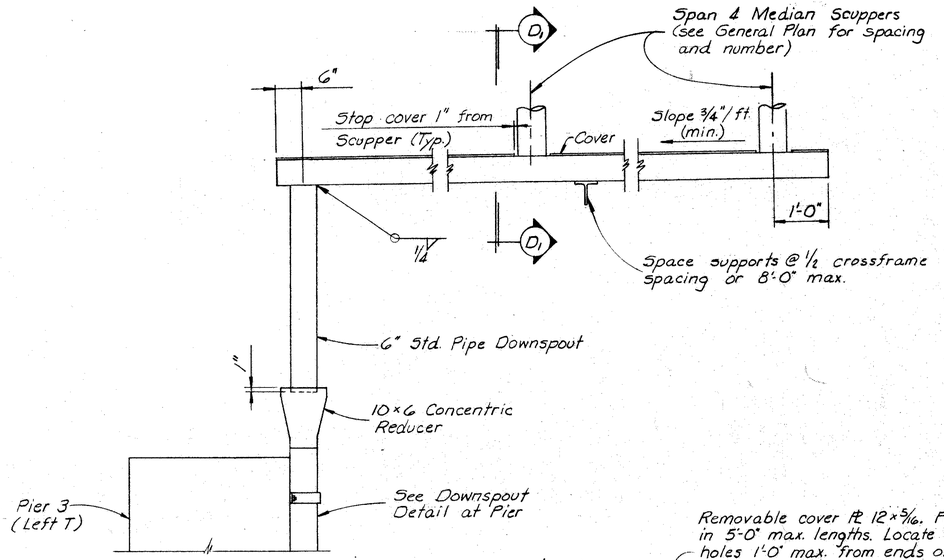
JEFFERSON COUNTY
JEF-7-0.20



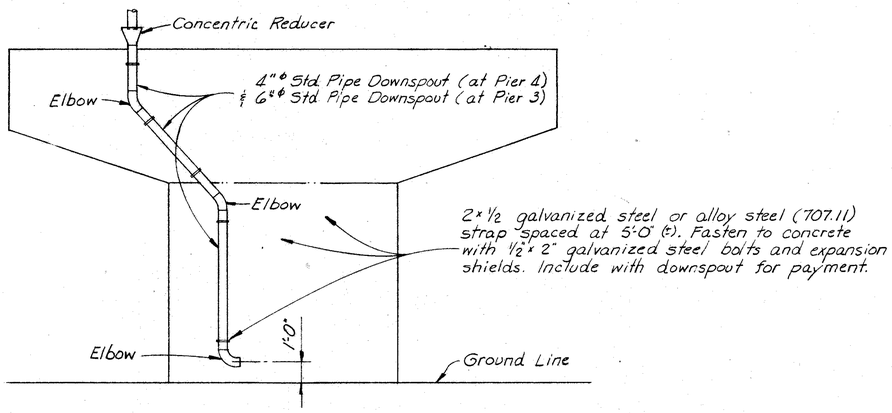
SUPERSTRUCTURE DRAINAGE AT HINGE
(Looking South)



SUPERSTRUCTURE DRAINAGE SUPPORT
Include with downspout for payment

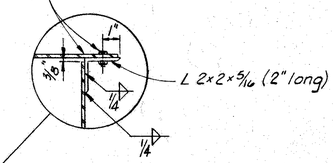


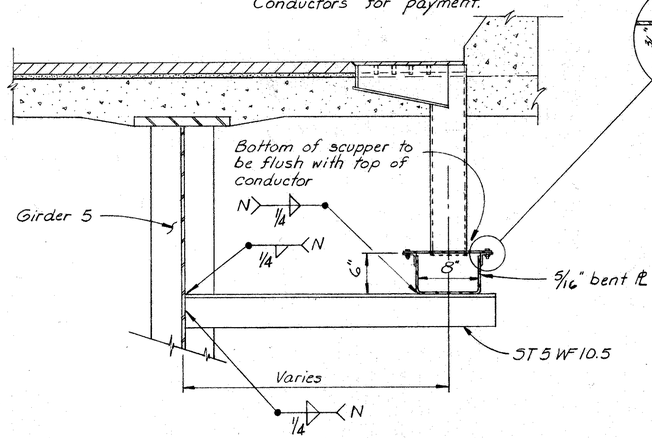
CONDUCTOR DETAILS
Conductor and supports included with Item 518, Trough Horizontal Conductors for payment.



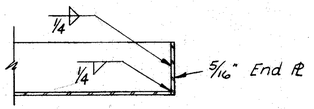
DOWNSPOUT DETAIL AT PIER
(Pier 3 shown, Pier 4 opposite hand)

Removable cover PL 12×5/16. Furnish in 5'-0" max. lengths. Locate 3/16" ϕ holes 1'-0" max. from ends of each cover. Use 3/8" washers and 3/8"×1" stainless steel bolts and washers.





SECTION D1-D1



SECTION THRU CONDUCTOR
(@ ends)

27130

ALDEN E. STILSON & ASSOCIATES, LIMITED
CONSULTING ENGINEERS
CLEVELAND, OHIO COLUMBUS, OHIO WHEELING, W. VA.

DRAINAGE DETAILS

BRIDGE NO. JEF-7-0166
SR-7 OVER WILLIAMS ST. RELOC.,
C&P RR. W&LE RR AND MAIN ST.
JEFFERSON COUNTY STA. 88+25.99 TO STA. 96+43.08

DESIGNED	DRAWN	TRACED	CHECKED	REVIEWED	DATE	REVISED
RT	RT		DLM	fwd 10/4/70		

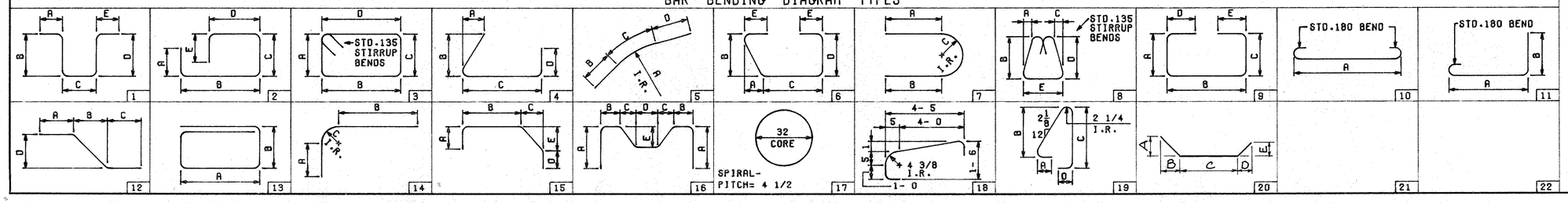
MICROFILMED
OCT 29 1982

MARK	NUM.	LENGTH	WEIGHT	TYPE	A	B	C	D	E	NOTE
				ABUTMENTS						
F 5001	176	7- 0	1285	1	0- 8	6- 6				
F 5002	176	8- 3	1514	1		1- 7	5- 4	1- 7		
F 5003	61	10- 7	673	3	2- 0	3- 0	2- 0	3- 0		
F 6001	176	14- 1	3723	1		6- 6	5- 4	2- 7		
F 6002	26	17-10	696	1		8- 6	1- 2	8- 6		
F 6003	1	13- 4	20	1		6- 3	1- 2	6- 3		
F 6004	8	21- 2	254	1		10- 2	1- 2	10- 2		
F 6005	3	18-10	85	1		9- 0	1- 2	9- 0		
F 6006	10	17-10	268	1		8- 6	1- 2	8- 6		
F 6007	1	13- 4	20	1		6- 3	1- 2	6- 3		
F 6008	7	20- 4	214	1		9- 9	1- 2	9- 9		
F 6009	2	16-10	51	1		8- 0	1- 2	8- 0		
F 8001	35	33- 6	3131	ST						
F 8002	21	29- 6	1654	ST						
F 8003	6	39- 0	625	ST						
F 8004	6	17-10	286	ST						
F 8005	6	16-10	270	ST						
F 8006	6	14- 0	224	ST						
A 5001	100	4-11	513	1		1- 6	2- 2	1- 6		
A 5002	7	20- 3	148	ST						
A 5003	9	19- 8	185	ST						
A 5004	176	10- 4	1897	1		3- 7	3- 5	3- 7		
A 5005	51	34- 0	1809	ST						
A 5006	7	27- 9	203	ST						
A 5007	9	30- 9	289	ST						
A 5008	4	4-11	21	4	2-5	1-2	2-5			
A 5009	8	3- 6	29	15	0-7	1-1	1-0	0-9	0-9	
A 5010	8	34-10	291	ST						
A 5011	9	35- 6	333	ST						
A 5012	16	23- 9	396	ST						
A 5013	18	24- 3	455	ST						
A 5014	24	3- 2	79	ST						
A 5015	46	2- 3	108	1		0- 8	1- 2	0- 8		
A 5016	34	6- 8	236	19		2- 7	3- 4	0- 8		
A 5017	34	7- 8	272	ST						
A 5018	2	3- 5		ST						1
THRU			71		VARY LENGTH BY			0-10	5/ 8	
A 5023	2	7-10		ST						1
A 5024	20	21-10	455	ST						3
A 5025	2	36- 6	76	ST						
A 5026	4	7- 3	30	ST						
A 5027	2	21- 7	45	ST						
A 5028	4	9- 3	39	ST						
A 5029	2	38- 3	80	ST						
A 5030	2	35- 0	73	ST						
A 5031	6	35- 6	222	ST						
A 5032	10	17- 8	184	ST						3
A 5033	2	12- 0	25	ST						
A 5034	2	17- 3	36	ST						
A 5035	2	13- 6	28	ST						
A 5036	8	13- 3	111	ST						
A 5037	24	3- 5	86	ST						
A 5038	29	2- 3	68	1		0- 8	1- 2	0- 8		
A 5039	17	6- 8	118	19		2- 7	3- 4	0- 8		
A 5040	17	7- 6	133	ST						
A 5041	2	3- 5		ST						1
THRU			64		VARY LENGTH BY			0- 7	3/ 4	
A 5046	2	6- 8		ST						1
A 5047	12	20- 8	259	ST						3
A 5048	2	15- 0	31	ST						
A 5049	4	7- 3	30	ST						
A 5050	4	8- 6	35	ST						

MARK	NUM.	LENGTH	WEIGHT	TYPE	A	B	C	D	E	NOTE
				ABUTMENTS					(CONTINUED)	
A 5052	2	17- 3	36	ST						
A 5053	2	13- 0	27	ST						
A 5054	6	14- 0	88	ST						
A 5055	12	16- 8	209	ST						3
A 5056	2	11- 0	23	ST						
A 5057	2	13- 3	28	ST						
A 5058	2	9- 0	19	ST						
A 5059	6	10-11	68	ST						
A 5060	14	9- 0	131	6	1- 7	0-10	7- 3			
A 5061	7	8- 1	59	16			0- 5	5- 0	1- 7	
A 5062	7	12- 1	88	16			1- 4	9- 0	0-10	
A 5063	7	8- 7	63	16			0-10	5- 6	1- 4	
A 6001	468	10- 5	7322	1		4- 8	1- 5	4- 8		
A 6003	234	6- 3	2197	1		2-10	0-11	2-10		
A 6004	34	9- 2	468	15		7- 4	0-11	0- 9	0- 9	
A 6005	17	8-10	226	15		7-0	0-11	0- 9	0- 9	
A 6006	2	5-2	16	15		3-3	0-11	0-9	0-9	
A 6007	2	6-0	18	15		4-2	0-11	0-9	0-9	
A 6008	2	6-10	21	15		4-11	0-11	0-9	0-9	
A 6009	2	7-8	23	15		5-9	0-11	0-9	0-9	
A 6010	2	8-5	25	15		6-6	0-11	0-9	0-9	
A 6011	2	9-3	28	15		7-4	0-11	0-9	0-9	
A 6012	2	5-2	16	15		3-3	0-11	0-9	0-9	
A 6013	2	5-10	18	15		3-11	0-11	0-9	0-9	
A 6014	2	6-5	19	15		4-6	0-11	0-9	0-9	
A 6015	2	7-1	21	15		5-2	0-11	0-9	0-9	
A 6016	2	7-8	23	15		5-9	0-11	0-9	0-9	
A 6017	2	8-3	25	15		6-5	0-11	0-9	0-9	
A 8001	155	5-5	2364	20	1-1	1-1	3-7	0-6	0-6	
					PIER					
F 8007	16	31- 8	1353	10	29- 6					
F 8008	16	41- 5	1769	10	39- 3					
F 8009	16	28- 8	1225	10	26- 6					
F 8010	16	36- 2	1545	10	34- 0					
F 8011	16	28- 8	1225	10	26- 6					
F 8012	16	30- 2	1289	10	28- 0					
F 8013	32	28- 8	2449	10	26- 6					
F 8014	32	25- 8	2193	10	23- 6					
F 8015	24	22- 2	1420	10	20- 0					
F 8016	24	19- 8	1260	10	17- 6					
F 8017	68	11- 8	2118	10	9- 6					
F 8018	68	11- 8	2118	10	9- 6					
F 9001	104	14- 0	4950	10	11- 6					
F 9002	104	14- 0	4950	10	11- 6					
F 9003	104	14- 0	4950	10	11- 6					
F 9004	104	14- 0	4950	10	11- 6					
F 9005	104	14- 0	4950	10	11- 6					
F 9006	160	6- 1	3309	1	1- 3	5- 1				
F 9007	144	6- 1	2978	1	1- 3	5- 1				
F 9008	140	6- 1	2896	1	1- 3	5- 1				
F 9009	108	6- 1	2234	1	1- 3	5- 1				
F 9010	92	6- 1	1903	1	1- 3	5- 1				
F 9011	84	6- 4	1809	1	1- 3	5- 4				
F10001	184	6- 6	5146	1	1- 5	5- 5				
P 5001	232	7- 2	1734	7	1- 7	1- 7	1- 3			
P 5002	20	25- 6	532	ST						
P 5003	18	35- 2	660	ST						
P 5004	20	22-10	476	ST						
P 5005	20	30- 1	628	ST						

MARK	NUM.	LENGTH	WEIGHT	TYPE	A	B	C	D	E	NOTE
				PIER					(CONTINUED)	
P 5006	22	24- 4	558	ST						
P 5007	54	22-10	1286	ST						
P 5008	30	17-11	561	ST						
P 5009	26	14- 9	400	ST						
P 5010	22	12-10	294	ST						
P 5011	90	8- 0	751	ST						
P 5012	78	8- 0	651	ST						
P 5013	70	8- 0	584	ST						
P 5014	68	8- 0	567	ST						
P 5015	52	7- 8	416	ST						
P 5016	44	7- 2	329	ST						
P 5017	40	6- 8	278	ST						
P 5018	32	8- 2		1		3- 4	1- 9	3- 4		1
THRU			3488		VARY LENGTH BY			0- 3	1/ 4	
					VARY DIM. B BY			0- 1	5/ 8	
					VARY DIM. D BY			0- 1	5/ 8	
P 5028	32	10-10		1		4- 8	1- 9	4- 8		1
P 5029	32	11- 6		1		5- 0	1- 9	5- 0		1
THRU			2553		VARY LENGTH BY			0- 6		
					VARY DIM. B BY			0- 3		
					VARY DIM. D BY			0- 3		
P 5034	32	14- 0		1		6- 3	1- 9	6- 3		1
P 5035	32	15- 0		1		6- 9	1- 9	6- 9		1
THRU			1602		VARY LENGTH BY			1- 0		
					VARY DIM. B BY			0- 6		
					VARY DIM. D BY			0- 6		
P 5037	32	17- 0		1		7- 9	1- 9	7- 9		1
P 5038	32	17- 4		1		7-11	1- 9	7-11		1
THRU			1769		VARY LENGTH BY			0- 4		
					VARY DIM. B BY			0- 2		
					VARY DIM. D BY			0- 2		
P 5040	32	18- 0		1		8- 3	1- 9	8- 3		1
P 5041	8	8- 2		1		3- 4	1- 9	3- 4		1
THRU			872		VARY LENGTH BY			0- 3	1/ 4	
					VARY DIM. B BY			0- 1	5/ 8	
					VARY DIM. D BY			0- 1	5/ 8	
P 5051	8	10-10		1		4- 8	1- 9	4- 8		1
P 5052	8	11- 6		1		5- 0	1- 9	5- 0		1
THRU			638		VARY LENGTH BY			0- 6		
					VARY DIM. B BY			0- 3		
					VARY DIM. D BY			0- 3		
P 5057	8	14- 0		1		6- 3	1- 9	6- 3		1
P 5058	8	15- 0	125	1		6- 9	1- 9	6- 9		
P 5059	8	16- 0	134	1		7- 3	1- 9	7- 3		
P 5060	8	16- 4		1		7- 5	1- 9	7- 5		1
THRU			417		VARY LENGTH BY			0- 4		
					VARY DIM. B BY			0- 2		
					VARY DIM. D BY			0- 2		
P 5062	8	17- 0		1		7- 9	1- 9	7- 9		1
P 5065	8	8- 2		1		3- 4	1- 9	3- 4		1
THRU			872		VARY LENGTH BY			0- 3	1/ 4	
					VARY DIM. B BY			0- 1	5/ 8	
					VARY DIM. D BY			0- 1	5/ 8	
P 5075	8	10-10		1		4- 8	1- 9	4- 8		1
P 5076	8	11- 6		1		5- 0	1- 9	5- 0		1
THRU			884		VARY LENGTH BY			0- 6		
					VARY DIM. B BY			0- 3		
					VARY DIM. D BY			0- 3		
P 5083	8	15- 0		1		6- 9	1- 9	6- 9		1
P 5084	8	15- 4		1		6-11	1- 9	6-11		1
THRU			528		VARY LENGTH BY			0- 4		
					VARY DIM. B BY			0- 2		
					VARY DIM. D BY			0- 2		
P 5087	8	16- 4		1		7- 5	1- 9	7- 5		1

BAR BENDING DIAGRAM TYPES



FED. RD. DIVISION	STATE	PROJECT	TYPE FUNDS
2	OHIO		

454
560

JEFFERSON COUNTY
JEF-7-0.20

MICROFILMED
OCT 29 1982

NOTES

1. INDICATES SERIES BAR. EACH BAR VARIES FROM ADJACENT BAR(S) BY TABULATED AMOUNT(S), CALCULATED TO NEAREST 1/8 INCH. WEIGHT SHOWN IS FOR ENTIRE SERIES UTILIZING AVERAGE LENGTH.
2. BARS INCLUDED WITH ITEM 517, RAILING, FOR PAYMENT.
3. COST OF FIELD BENDING SHALL BE INCLUDED WITH ITEM 509.
4. LIGHT POLE SUPPORT BARS INCLUDED WITH ITEM 509 FOR PAYMENT.
5. END PREPARATION AND FIELD WELDING INCLUDED WITH ITEM 509.
6. 'LENGTH' SHOWN FOR SPIRAL BARS IS DISTANCE FROM TOP OF FOOTING TO BOTTOM OF PIER CAP.
   'NO. TURNS' SHOWN IS 'LENGTH' DIVIDED BY PITCH, PLUS 3 TURNS (NUMBER OF CLOSED COILS), EXPRESSED AS NEAREST WHOLE NUMBER.
   SPIRAL BARS SHALL NOT HAVE DEFORMATIONS BUT SHALL IN OTHER RESPECTS CONFORM TO ITEM 509. 1 1/2 CLOSED COILS SHALL BE PROVIDED AT ENDS OF EACH SPIRAL UNIT. FOUR STEEL CHANNEL, TEE OR ANGLE SPACERS, WEIGHING APPROXIMATELY 0.80 LB. PER LIN. FT. OF SPACER SHALL BE PROVIDED FOR EACH SPIRAL UNIT. THEY SHALL BE EQUALLY SPACED ALONG PERIPHERY OF COIL. WEIGHT OF SPACERS, AT 0.80 LB. PER LIN. FT. WILL BE PAID FOR AS REINFORCING STEEL AND IS INCLUDED IN TABULATED WEIGHT.

BAR SIZE DESIGNATION

BAR SIZE IS INDICATED IN THE BAR MARK. THE FIRST DIGIT WHERE FOUR DIGITS ARE USED, AND FIRST TWO DIGITS WHERE FIVE DIGITS ARE USED, INDICATE THE BAR SIZE NUMBER. FOR EXAMPLE, A7001 IS A NO. 7 SIZE BAR AND A10140 IS A NO. 10 SIZE.

28130

ALDEN E. STILSON & ASSOCIATES, LIMITED
CONSULTING ENGINEERS
CLEVELAND, OHIO COLUMBUS, OHIO WHEELING, W. VA.

REINFORCING STEEL LIST

BRIDGE NO. JEF-7-0166
SR-7 OVER WILLIAMS ST. RELOC.,
C&P RR, W&LE RR AND MAIN ST.
JEFFERSON COUNTY STA. 88+25.99 TO STA. 96+43.08

DESIGNED	DRAWN	TRACED	CHECKED	REVIEWED	DATE	REVISED
RT			PHB	fwd 10/4/90		

MICROFILMED
OCT 29 1982

MARK	NUM.	LENGTH	WEIGHT	TYPE	A	B	C	D	E	NOTE
					PIER				(CONTINUED)	
P 5089	8	8- 2		1		3- 4	1- 9	3- 4		1
THRU			872		VARY	LENGTH	BY	0- 3	1/ 4	
					VARY	DIM. B	BY	0- 1	5/ 8	
					VARY	DIM. D	BY	0- 1	5/ 8	
P 5099	8	10-10		1		4- 8	1- 9	4- 8		1
P 5100	8	11- 6		1		5- 0	1- 9	5- 0		1
THRU			759		VARY	LENGTH	BY	0- 6		
					VARY	DIM. B	BY	0- 3		
					VARY	DIM. D	BY	0- 3		
P 5106	8	14- 6		1		6- 6	1- 9	6- 6		1
P 5107	8	14-10	124	1		6- 8	1- 9	6- 8		
P 5108	8	15- 2	127	1		6-10	1- 9	6-10		
P 5110	2	28- 6	59	ST						
P 5111	4	21- 1	88	ST						
P 5112	4	27- 1	113	ST						
P 5113	4	29-11	125	ST						
P 5114	2	38- 2	80	ST						
P 5115	4	25-11	108	ST						
P 5116	4	31-11	133	ST						
P 5117	4	34- 9	145	ST						
P 5118	2	25-10	54	ST						
P 5119	4	19- 9	82	ST						
P 5120	4	25- 9	107	ST						
P 5121	4	28- 7	119	ST						
P 5122	2	33- 1	69	ST						
P 5123	4	23- 4	97	ST						
P 5124	4	29- 4	122	ST						
P 5125	4	32- 2	134	ST						
P 5126	2	25-10	54	ST						
P 5127	4	19- 9	82	ST						
P 5128	4	25- 9	107	ST						
P 5129	4	28- 7	119	ST						
P 5130	2	27- 4	57	ST						
P 5131	4	20- 6	86	ST						
P 5132	4	26- 6	111	ST						
P 5133	4	29- 4	122	ST						
P 5134	4	25-10	108	ST						
P 5135	8	19- 9	165	ST						
P 5136	8	25- 9	215	ST						
P 5137	8	28- 7	238	ST						
P 5138	4	20-11	87	ST						
P 5139	8	17- 3	144	ST						
P 5140	8	23- 3	194	ST						
P 5141	8	25- 1	209	ST						
P 5142	4	17- 9	74	ST						
P 5143	4	29- 9	124	ST						
P 5144	8	21- 8	181	ST						
P 5145	8	22- 0	184	ST						
P 5146	4	15-10	66	ST						
P 5147	4	26- 4	110	ST						
P 5148	4	35- 8	149	ST						
P 5149	4	37- 4	156	ST						
P 5150	350	5- 5	1977	1		1- 6	2- 8	1- 6		
P 5151	1256	5- 2	6768	1		1-10	1- 9	1-10		
P 5152	32	17- 3	576	12	15- 8	1- 6		0- 6		
P 5153	5	16- 2	84	12	14- 7	1- 6		0- 6		
P 5154	8	14- 7	122	12	13- 0	1- 6		0- 6		
P 5155	8	13- 0	108	12	11- 5	1- 6		0- 6		
P 9001	34	15- 2	1753	ST						
P 9002	36	19-10	2428	ST						
P 9003	44	15- 5	2306	ST						
P 9004	46	19-11	3115	ST						
P 9005	34	16- 0	1850	ST						
P 9006	36	21- 9	2662	ST						

MARK	NUM.	LENGTH	WEIGHT	TYPE	A	B	C	D	E	NOTE
					PIER				(CONTINUED)	
P 9007	36	16- 6	2020	ST						
P 9008	38	22- 7	2918	ST						
P 9009	34	14- 1	1628	ST						
P 9010	36	18- 1	2213	ST						
P 9011	34	14- 9	1705	ST						
P 9012	36	19- 1	2336	ST						
P 9013	26	13- 0	1149	ST						
P 9014	28	15- 5	1468	ST						
P 9015	26	13- 4	1179	ST						
P 9016	28	16- 3	1547	ST						
P 9017	22	11- 4	848	ST						
P 9018	24	13- 3	1081	ST						
P 9019	22	11- 9	879	ST						
P 9020	24	13- 8	1115	ST						
P 9021	20	10- 1	686	ST						
P 9022	22	11- 3	841	ST						
P 9023	20	10- 4	703	ST						
P 9024	22	11- 4	848	ST						
P10001	38	17- 3	2821	ST						
P10002	40	20- 8	3557	ST						
P10003	52	15- 8	3506	ST						
P10004	54	18- 9	4357	ST						
P14001	~~12~~ 6	29- 2	~~1338~~	1	26- 6	3- 2			2678	
P14002	~~12~~ 6	34- 2	~~1568~~	1	31- 6	3- 2			3137	
P14003	~~4~~ 16	26- 0	~~3182~~	ST					796	
P14004	~~12~~ 6	34- 0	~~1561~~	1	31- 4	3- 2			3121	
P14005	~~12~~ 6	39- 0	~~1790~~	1	36- 4	3- 2			3580	
P14006	~~4~~ 16	26- 0	~~3182~~	ST					796	
P14007	~~12~~ 6	27-10	~~1278~~	1	25- 2	3- 2			2555	
P14008	~~12~~ 6	32-10	~~1507~~	1	30- 2	3- 2			3014	
P14009	~~4~~ 16	26- 0	~~3182~~	ST					796	
P14010	~~12~~ 6	31- 6	~~1446~~	1	28-10	3- 2			2892	
P14011	~~12~~ 6	36- 6	~~1675~~	1	33-10	3- 2			3051	
P14012	~~4~~ 16	26- 0	~~3182~~	ST					796	
P14013	~~12~~ 6	27-10	~~1278~~	1	25- 2	3- 2			2555	
P14014	~~12~~ 6	32-10	~~1507~~	1	30- 2	3- 2			3014	
P14015	~~4~~ 16	26- 0	~~3182~~	ST					796	
P14016	~~12~~ 6	28- 7	~~1312~~	1	25-11	3- 2			2624	
P14017	~~12~~ 6	33- 7	~~1541~~	1	30-11	3- 2			3083	
P14018	~~4~~ 16	26- 0	~~3182~~	ST					796	
P14019	12	27-10	2555	1	25- 2	3- 2				
P14020	12	32-10	3014	1	30- 2	3- 2				
P14021	16	25- 0	3060	ST						
P14022	16	30- 0	3672	ST						
P14023	12	24- 4	2234	1	21- 8	3- 2				
P14024	12	29- 4	2693	1	26- 8	3- 2				
P14025	16	21- 6	2632	ST						
P14026	16	26- 6	3244	ST						
P14027	12	21- 4	1958	1	18- 8	3- 2				
P14028	12	26- 4	2417	1	23- 8	3- 2				
P14029	16	18- 6	2264	ST						
P14030	16	23- 6	2876	ST						
P14031	12	42- 9	3924	1		3- 2	37- 4	3- 2		
P14032	12	37- 0	3397	ST						

FED. RD. DIVISION	STATE	PROJECT	TYPE FUNDS
2	OHIO		

455
560

JEFFERSON COUNTY
JEF-7-0.20

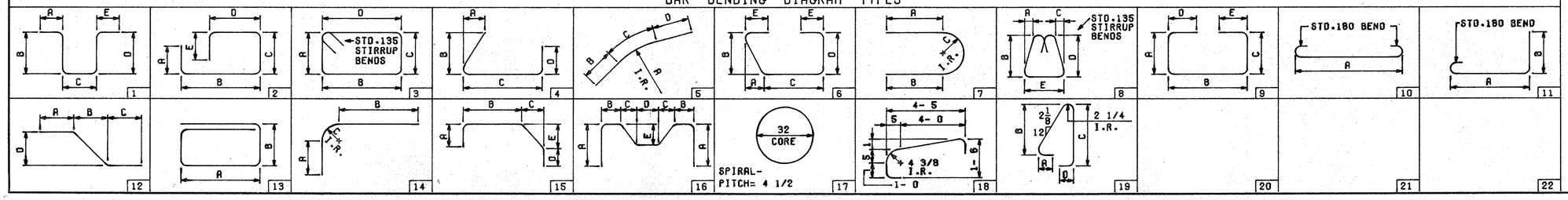
NOTES

1. INDICATES SERIES BAR. EACH BAR VARIES FROM ADJACENT BAR(S) BY TABULATED AMOUNT(S), CALCULATED TO NEAREST 1/8 INCH. WEIGHT SHOWN IS FOR ENTIRE SERIES UTILIZING AVERAGE LENGTH.
2. BARS INCLUDED WITH ITEM 517, RAILING, FOR PAYMENT.
3. COST OF FIELD BENDING SHALL BE INCLUDED WITH ITEM 509.
4. LIGHT POLE SUPPORT BARS INCLUDED WITH ITEM 509 FOR PAYMENT.
5. END PREPARATION AND FIELD WELDING INCLUDED WITH ITEM 509.
6. 'LENGTH' SHOWN FOR SPIRAL BARS IS DISTANCE FROM TOP OF FOOTING TO BOTTOM OF PIER CAP.
   'NO. TURNS' SHOWN IS 'LENGTH' DIVIDED BY PITCH, PLUS 3 TURNS (NUMBER OF CLOSED COILS), EXPRESSED AS NEAREST WHOLE NUMBER.
   SPIRAL BARS SHALL NOT HAVE DEFORMATIONS BUT SHALL IN OTHER RESPECTS CONFORM TO ITEM 509. 1 1/2 CLOSED COILS SHALL BE PROVIDED AT ENDS OF EACH SPIRAL UNIT. FOUR STEEL CHANNEL, TEE OR ANGLE SPACERS, WEIGHING APPROXIMATELY 0.80 LB. PER LIN. FT. OF SPACER SHALL BE PROVIDED FOR EACH SPIRAL UNIT. THEY SHALL BE EQUALLY SPACED ALONG PERIPHERY OF COIL. WEIGHT OF SPACERS, AT 0.80 LB. PER LIN. FT. WILL BE PAID FOR AS REINFORCING STEEL AND IS INCLUDED IN TABULATED WEIGHT.

BAR SIZE DESIGNATION

BAR SIZE IS INDICATED IN THE BAR MARK. THE FIRST DIGIT WHERE FOUR DIGITS ARE USED, AND FIRST TWO DIGITS WHERE FIVE DIGITS ARE USED, INDICATE THE BAR SIZE NUMBER. FOR EXAMPLE, A7001 IS A NO. 7 SIZE BAR AND A10140 IS A NO. 10 SIZE.

BAR BENDING DIAGRAM TYPES



29130

ALDEN E. STILSON & ASSOCIATES, LIMITED
CONSULTING ENGINEERS
CLEVELAND, OHIO COLUMBUS, OHIO WHEELING, W. VA.

REINFORCING STEEL LIST

BRIDGE NO. JEF-7-0166
SR-7 OVER WILLIAMS ST. RELOC.,
C&P RR, W&LE RR AND MAIN ST.
JEFFERSON COUNTY STA. 88+25.99 TO STA. 96+43.08

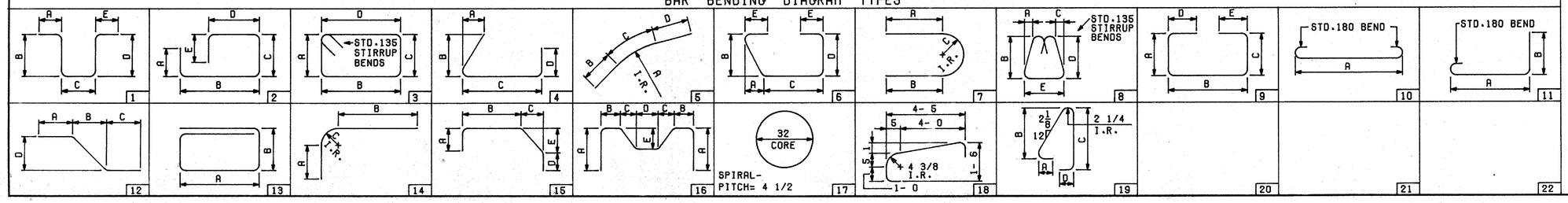
DESIGNED	DRAWN	TRACED	CHECKED	REVIEWED	DATE	REVISED
RT			PHB	rwa 10/4/70		1-24-75

MARK	NUM.	LENGTH	WEIGHT	TYPE	A	B	C	D	E	NOTE
			SUPERSTRUCTURE							
S 4001	2727	30- 0	54649	ST						
S 4002	1	18- 0		ST						1
THRU			615		VARY	LENGTH	BY	0- 1	1/ 8	
S 4047	1	22- 0		ST						1
S 4048	1	22- 0		ST						1
THRU			531		VARY	LENGTH	BY	0- 5	5/ 8	
S 4075	1	34- 9		ST						1
S 4076	1	6- 0		ST						1
THRU			231		VARY	LENGTH	BY	0- 5	5/ 8	
S 4103	1	18- 9		ST						1
S 4104	1	9- 0		ST						1
THRU			753		VARY	LENGTH	BY	0- 8	1/ 4	
S 4149	1	40- 0		ST						1
S 4150	1	11- 0		ST						1
THRU			532		VARY	LENGTH	BY	0- 8	1/ 4	
S 4184	1	34- 6		ST						1
S 4185	1	6- 6		ST						1
THRU			73		VARY	LENGTH	BY	0- 8	3/ 8	
S 4195	1	13- 6		ST						1
S 4196	702	30- 0	14068	ST						
S 4197	702	17- 3	8089	ST						
S 4198	5	22- 6	75	ST						
S 4199	5	40- 0	134	ST						
S 5001	2997	30- 0	93776	ST						
S 5002	17	22- 0	390	ST						
S 5003	10	21- 6	224	ST						
S 5004	12	25- 0	313	ST						
S 5005	12	28- 6	357	ST						
S 5006	12	32- 0	401	ST						
S 5007	12	35- 6	444	ST						
S 5008	12	39- 0	488	ST						
S 5009	12	12- 6	156	ST						
S 5010	19	19- 0	377	ST						
S 5011	17	21- 0	372	ST						
S 5012	10	27- 6	287	ST						
S 5013	10	34- 6	360	ST						
S 5014	10	12- 6	130	ST						
S 5015	10	19- 0	198	ST						
S 5016	10	26- 0	271	ST						
S 5017	10	33- 6	349	ST						
S 5018	10	11- 0	115	ST						
S 5019	17	20- 0	355	ST						
S 5020	1095	5-8	6412	19	0- 8	2- 7	2-4			
S 5021	1095	2- 3	2570	1		0- 8	1- 2	0- 8		
S 5022	1095	3- 3	3712	15	0- 7	0- 10	1- 0	0- 9	0- 9	
S 5023	1095	2- 3	2570	1	0- 7	1-10				
S 5024	1080	3-6	3943	15	0- 7	1- 1	1-0	0-9	0-9	
S 5025	20	13- 2	275	ST						
S 5026	194	14- 2	2867	ST						
S 5027	184	15- 1	2895	ST						
S 5028	168	7- 0	1227	ST						
S 5029	64	15- 8	1046	ST						
S 5030	4	14- 4	60	ST						
S 5031	24	13- 9	344	ST						
~~S 5032~~	~~86~~	~~13- 6~~	~~1211~~	~~ST~~						
~~S 5039~~	~~440~~	~~4-11~~	~~2705~~	~~4~~	~~2-8~~	~~1-2~~	~~2-8~~			
S 7001	28	6- 9	386	ST						
S 7002	1	7- 3		ST						1
THRU			2698		VARY	LENGTH	BY	0- 5	1/ 8	
S 7065	1	34- 0		ST						1
S 7066	2	6- 6		ST						1
THRU			5488		VARY	LENGTH	BY	0- 6	1/ 2	
S 7125	2	38- 3		ST						1

MARK	NUM.	LENGTH	WEIGHT	TYPE	A	B	C	D	E	NOTE
			SUPERSTRUCTURE					(CONTINUED)		
S 7126	2	6- 3		ST						1
THRU			1462		VARY	LENGTH	BY	0- 6	1/ 2	
S 7152	2	20- 3		ST						1
S 7153	1502	22- 3	68309	ST						3
S 7154	54	23- 3	2566	ST						
S 7155	54	24- 3	2677	ST						
S 7156	54	25- 3	2787	ST						
S 7157	54	26- 3	2897	ST						
S 7158	58	27- 3	3231	ST						
S 7159	59	28- 9	3467	ST						
S 7160	865	34- 9	61440	ST						3
S 7161	1	25- 9		ST						1
THRU			1196		VARY	LENGTH	BY	0- 6	1/ 2	
S 7196	1	6- 9		ST						1
S 7197	1	7- 3		ST						1
THRU			3432		VARY	LENGTH	BY	0- 5	1/ 4	
S 7269	1	38- 9		ST						1
S 7270	2	6- 0		ST						1
THRU			2940		VARY	LENGTH	BY	0- 6	1/ 2	
S 7311	2	28- 3		ST						1
S 7312	2	6- 3		ST						1
THRU			2318		VARY	LENGTH	BY	0- 6	1/ 2	
S 7347	2	25- 3		ST						1
S 7348	1482	27- 3	82546	ST						3
S 7349	54	28- 3	3118	ST						
S 7350	54	29- 3	3228	ST						
S 7351	54	30- 3	3339	ST						
S 7352	54	31- 3	3449	ST						
S 7353	67	32- 3	4417	ST						
S 7354	42	33- 9	2897	ST						
S 7355	893	25- 0	45632	ST						3
S 7356	1	30- 6		ST						1
THRU			1713		VARY	LENGTH	BY	0- 6	1/ 2	
S 7400	1	6- 9		ST						1
S 7401	22	6- 3	281	ST						
S 7402	18	6- 6	239	ST						
S 7403	1	7- 3		ST						1
THRU			1053		VARY	LENGTH	BY	0- 7	1/ 2	
S 7433	1	26- 0		ST						1
S 7434	1	6- 9		ST						1
THRU			2405		VARY	LENGTH	BY	0- 7	1/ 2	
S 7485	1	38- 6		ST						1
S 7486	1	6- 6		ST						1
THRU			629		VARY	LENGTH	BY	0- 7	1/ 2	
S 7508	1	20- 3		ST						1
S 7509	1	19- 9		ST						1
THRU			241		VARY	LENGTH	BY	1- 7	7/ 8	
S 7517	1	6- 6		ST						1
S 7518	1	37- 6		ST						1
THRU			889		VARY	LENGTH	BY	1- 7	7/ 8	
S 7537	1	6- 0		ST						1
S 7539	1	24- 3		ST						1
THRU			360		VARY	LENGTH	BY	1- 7	3/ 4	
S 7549	1	7- 9		ST						1
S 7550	8	6- 0	98	ST						
S 7551	1	7- 3		ST						1
THRU			1525		VARY	LENGTH	BY	0- 7	1/ 2	
S 7589	1	31- 0		ST						1
S 7590	1	6- 9		ST						1
THRU			1361		VARY	LENGTH	BY	0- 7	1/ 2	
S 7626	1	29- 3		ST						1
S 7627	1	7- 0		ST						1
THRU			989		VARY	LENGTH	BY	0- 7	1/ 2	
S 7656	1	25- 3		ST						1

MARK	NUM.	LENGTH	WEIGHT	TYPE	A	B	C	D	E	NOTE
			SUPERSTRUCTURE					(CONTINUED)		
S 7657	1	24- 9		ST						1
THRU			383		VARY	LENGTH	BY	1- 7	7/ 8	
S 7668	1	6- 6		ST						1
S 7669	1	27- 9		ST						1
THRU			486		VARY	LENGTH	BY	1- 7	7/ 8	
S 7682	1	6- 3		ST						1
S 7684	1	29- 6		ST						1
THRU			533		VARY	LENGTH	BY	1- 8	1/ 8	
S 7697	1	7- 9		ST						1
			LIGHT POLE SUPPORTS							
L 5001	48	3- 2	159	6	0- 7	0- 7	2- 4			4
L 5002	12	2-11	37	1	1-10	1- 3				4
L 5003	18	5- 6	103	1	2-10	2-10				4
L 5004	18	2- 7	48	1	1- 8	1- 1				4
			REPLACEMENT STEEL							
RE 4001	4	6- 3		ST						
RE 5001	9	6- 7		ST						
RE 6001	1	6- 10		ST						
RE 7001	17	7- 2		ST						
RE 8001	2	7- 6		ST						
RE 9001	4	7- 10		ST						
RE 10001	1	8- 2		ST						
RE 14001	4	2- 6		ST						

BAR BENDING DIAGRAM TYPES



FED. RD. DIVISION	STATE	PROJECT	TYPE FUNDS
2	OHIO		

456
560

JEFFERSON COUNTY
JEF-7-0.20

MICROFILMED
OCT 29 1982

NOTES

1. INDICATES SERIES BAR. EACH BAR VARIES FROM ADJACENT BAR(S) BY TABULATED AMOUNT(S), CALCULATED TO NEAREST 1/8 INCH. WEIGHT SHOWN IS FOR ENTIRE SERIES UTILIZING AVERAGE LENGTH.
2. BARS INCLUDED WITH ITEM 517, RAILING, FOR PAYMENT.
3. COST OF FIELD BENDING SHALL BE INCLUDED WITH ITEM 509.
4. LIGHT POLE SUPPORT BARS INCLUDED WITH ITEM 509 FOR PAYMENT.
5. END PREPARATION AND FIELD WELDING INCLUDED WITH ITEM 509.
6. 'LENGTH' SHOWN FOR SPIRAL BARS IS DISTANCE FROM TOP OF FOOTING TO BOTTOM OF PIER CAP.
   'NO. TURNS' SHOWN IS 'LENGTH' DIVIDED BY PITCH, PLUS 3 TURNS (NUMBER OF CLOSED COILS), EXPRESSED AS NEAREST WHOLE NUMBER.
   SPIRAL BARS SHALL NOT HAVE DEFORMATIONS BUT SHALL IN OTHER RESPECTS CONFORM TO ITEM 509. 1 1/2 CLOSED COILS SHALL BE PROVIDED AT ENDS OF EACH SPIRAL UNIT. FOUR STEEL CHANNEL, TEE OR ANGLE SPACERS, WEIGHING APPROXIMATELY 0.80 LB. PER LIN. FT. OF SPACER SHALL BE PROVIDED FOR EACH SPIRAL UNIT. THEY SHALL BE EQUALLY SPACED ALONG PERIPHERY OF COIL. WEIGHT OF SPACERS, AT 0.80 LB. PER LIN. FT. WILL BE PAID FOR AS REINFORCING STEEL AND IS INCLUDED IN TABULATED WEIGHT.

BAR SIZE DESIGNATION

BAR SIZE IS INDICATED IN THE BAR MARK. THE FIRST DIGIT WHERE FOUR DIGITS ARE USED, AND FIRST TWO DIGITS WHERE FIVE DIGITS ARE USED, INDICATE THE BAR SIZE NUMBER. FOR EXAMPLE, A7001 IS A NO. 7 SIZE BAR AND A10140 IS A NO. 10 SIZE.

30/30

ALDEN E. STILSON & ASSOCIATES, LIMITED
CONSULTING ENGINEERS
CLEVELAND, OHIO COLUMBUS, OHIO WHEELING, W. VA.

REINFORCING STEEL LIST

BRIDGE NO. JEF-7-0166
SR-7 OVER WILLIAMS ST. RELOC., C&P RR. W&LE RR AND MAIN ST.
JEFFERSON COUNTY STA. 88+25.99 TO STA. 96+43.08

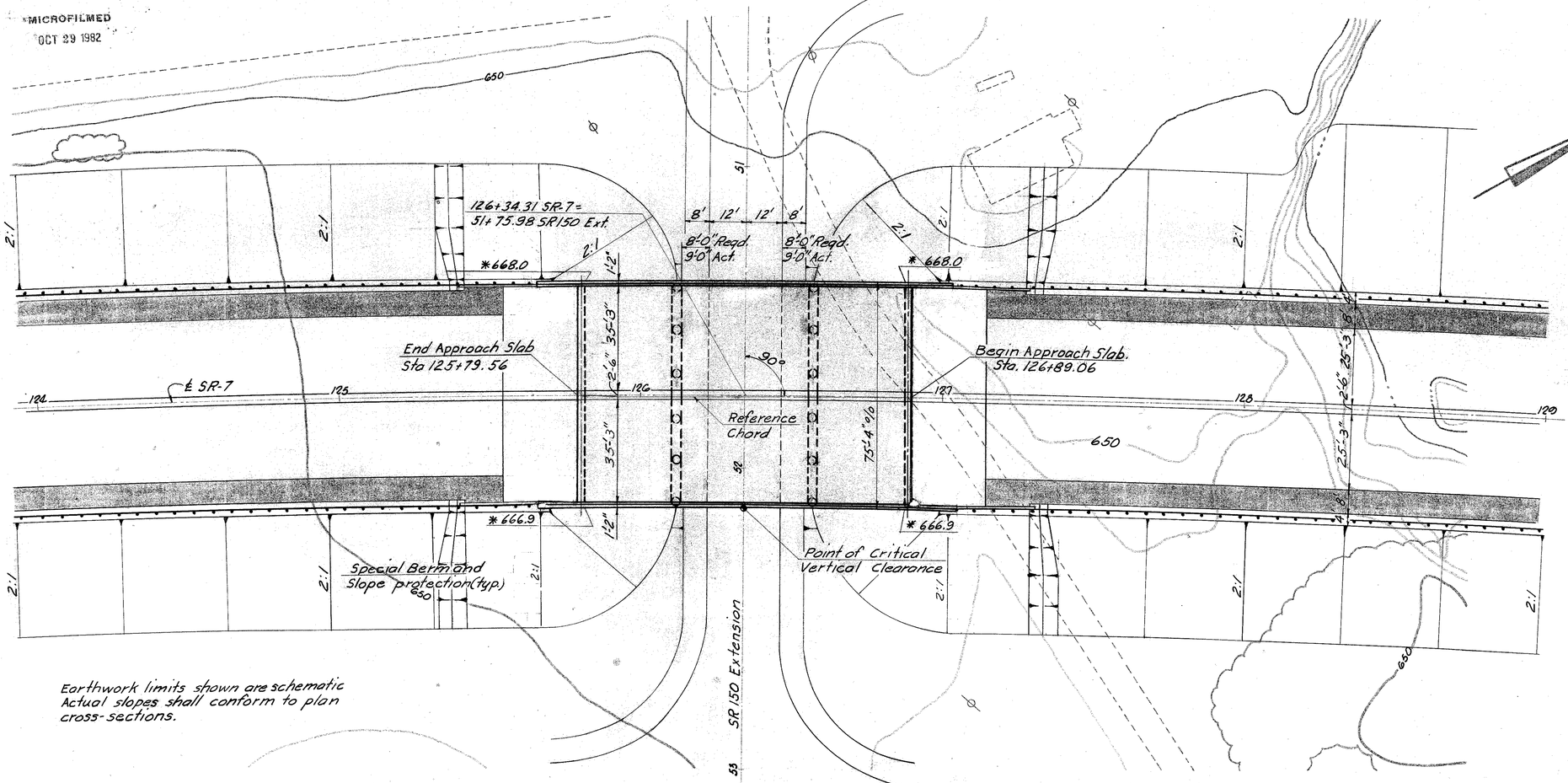
DESIGNED	DRAWN	TRACED	CHECKED	REVIEWED	DATE	REVISED
RT			OLM	fwd 10/4/70		

MICROFILMED
OCT 29 1982

FED. RD. DIVISION	STATE	PROJECT	TYPE FUNDS

457
560

JEFFERSON COUNTY
JEF-7-0.20



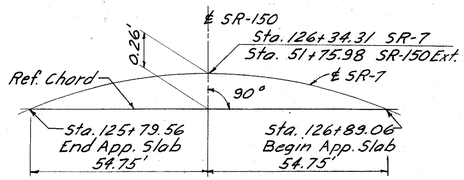
Earthwork limits shown are schematic
Actual slopes shall conform to plan
cross-sections.

PLAN

PROPOSED STRUCTURE

TYPE: Continuous reinforced concrete slab with reinforced concrete substructure
SPANS: 31'-6", 45'-0", 31'-6" ℄ brgs along SR-7
ROADWAY: 73'-0" H/F concrete barrier parapet with 2'-6" barrier median
LOADING: H S 20-44
WEARING SURFACE: 1½ Asphalt Concrete
SKEW: None with respect to reference chord.
ALIGNMENT 1°00' curve rt.
APPROACH SLABS: 25'-0" long. See Sheet 404.
SUPERELEVATION: .024 ft/ft.

Horizontal clearances are measured to edge of through pavement.



LAYOUT DIAGRAM

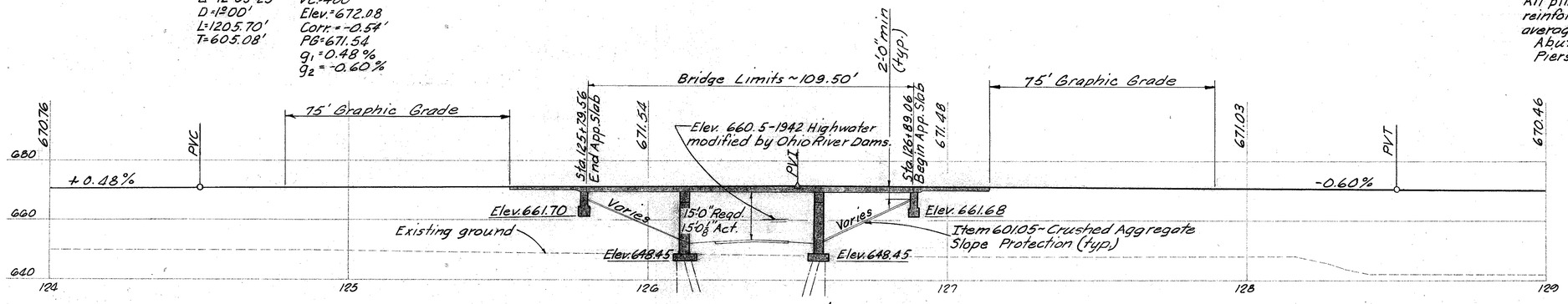
* Elevations marked with an asterisk are at top of slope at face of abutment.

CURVE DATA
SR-7

PI=126+48.25
Δ=12°03'25"
D=1°00'
L=1205.70'
T=605.08'
PVI=126+50
VC=400'
Elev.=672.08
Corr.=-0.57'
PB=671.54
g_1=0.48%
g_2=-0.60%

Profile elevations and graphic grades provide for the inclusion of the 1½" asphalt concrete wearing course.

All piles shall be 12"ø Cast-in-place reinforced concrete piles. Estimated average pay length shall be:
Abutments ~ 35'
Piers ~ 40'



PROFILE along ℄ SR-7

ALDEN E. STILSON & ASSOCIATES, LIMITED
CONSULTING ENGINEERS
COLUMBUS, OHIO

1 / 8

SITE PLAN
BRIDGE Nº JEF-7-0238
SR-7 over SR150 EXTENSION
JEFFERSON COUNTY
STA. 125+79.56 to
STA. 126+89.06

DESIGNED	DRAWN	TRACED	CHECKED	REVIEWED	DATE	REVISED
DLM	DLM	D.R.	HT	J.E.V.	11/15/67	

MICROFILMED
OCT 29 1982

REG. NO. DIVISION	STATE	PROJECT	SHEET NUMBER
2	OHIO		

458
560

JEFFERSON COUNTY
JEF-7-0.20

REFERENCES:

Standard Drawings:

Railing Details	BR-1-67 Sheet 2 Revised 10-15-71	
Approach Slab Details	AS-1-72 Dated 6-30-72	
Highway Lighting	HL-4	Dated 9-6-73
	HL-5	" 9-6-73
	HL-7	" 9-6-73

Supplemental Specifications:

Chemical Admixture for Concrete Type A, B or D	808	Dated 1-1-71
Concrete Curing and Protective Membrane.	836	Dated 1-1-71
Special Pile Tests	838	Dated 1-1-71
Common Details		
Lighting	Sheet 403	
Scuppers	Sheet 402 & 402A	
Subdrainage for wearing course	Sheet 402A	

DESIGN SPECIFICATIONS: This structure conforms to "Standard Specifications for Highway Bridges" adopted by the American Association of State Highway Officials, 1965, including the Ohio "Supplement" to these specifications.

DESIGN DATA:

Design Loading: HS 20-44

Concrete Class "C": Unit stress 1200 p.s.i. for superstructure
Unit stress 1333 p.s.i. for substructure

Reinforcing Steel: ASTM A615, A616, or A617. Unit stress 20,000 p.s.i. Spiral reinforcement may be plain bars ASTM A82, A306, A499 or A615.

PROCEDURE: The embankments shall be constructed to the level of the subgrade for a minimum distance of 200 feet back of the abutments. The abutment construction shall not be initiated until 60 days after the completion of the embankment. The pier construction shall not be initiated until 30 days after the completion of the embankment.

PILES shall be driven to a minimum bearing capacity of 40 tons per pile for the abutments and 40 tons per pile for the piers.

ITEM	TOTAL	UNIT	DESCRIPTION	ABUTS	PIERS	SUPER	GENERAL		
503	LUMP	SUM	COFFERDAMS, CRIBS AND SHEETING				LUMP		
503	423	C.Y.	UNCLASSIFIED EXCAVATION	204	219				
505	LUMP	SUM	TEST PILE				LUMP		
507	4200	L.F.	12 INCH CAST-IN-PLACE REINFORCED CONCRETE PILES	1320	2880				
509	169293	LB.	REINFORCING STEEL	12938	34882	121,473			
511	566	C.Y.	CLASS C CONCRETE, SUPERSTRUCTURE			566			
511	122	C.Y.	CLASS C CONCRETE, ABUTMENTS	122					
511	104	C.Y.	CLASS C CONCRETE, PIERS ABOVE FOOTINGS		104				
511	68	C.Y.	CLASS C CONCRETE, FOOTINGS		68				
518	36	C.Y.	POROUS BACKFILL	36					
518	136	L.F.	6 INCH PERFORATED, HELICAL CMP, 707.01	136					
518	50	L.F.	6 INCH NON-PERFORATED, HELICAL CMP, 707.01, INCLUDING SPECIALS	50					
518	23	EA.	SCUPPERS, 6 INCH ALLOY STEEL, 707.11			23			
518	42	EA.	SUBDRAINAGE FOR WEARING COURSE, AS PER PLAN			42			
601	628	S.Y.	CRUSHED AGGREGATE SLOPE PROTECTION				628		
625			SEE SHEET 559 FOR LIGHTING SUMMARY						
808	566	UNIT	CHEMICAL ADMIXTURE FOR CONCRETE, TYPE A, B OR D			566			
838	3	HR.	SPECIAL Pile Tests				3		
404	23	C.Y.	Asphalt Concrete (70-85 or AC 20)			23			
Spec.	12	C.Y.	Sand Asphalt			12			
* Spec.	840	S.Y.	Membrane Waterproofing, sheet type			840			

* See Proposal Note

ALDEN E. STILSON & ASSOCIATES, LIMITED
CONSULTING ENGINEERS
COLUMBUS, OHIO

2 / 8

GENERAL NOTES AND ESTIMATED QUANTITIES

BRIDGE No. JEF-7-0238
SR-7 over SR 150 EXTENSION
JEFFERSON COUNTY
STA. 125+79.56 to STA. 126+89.06

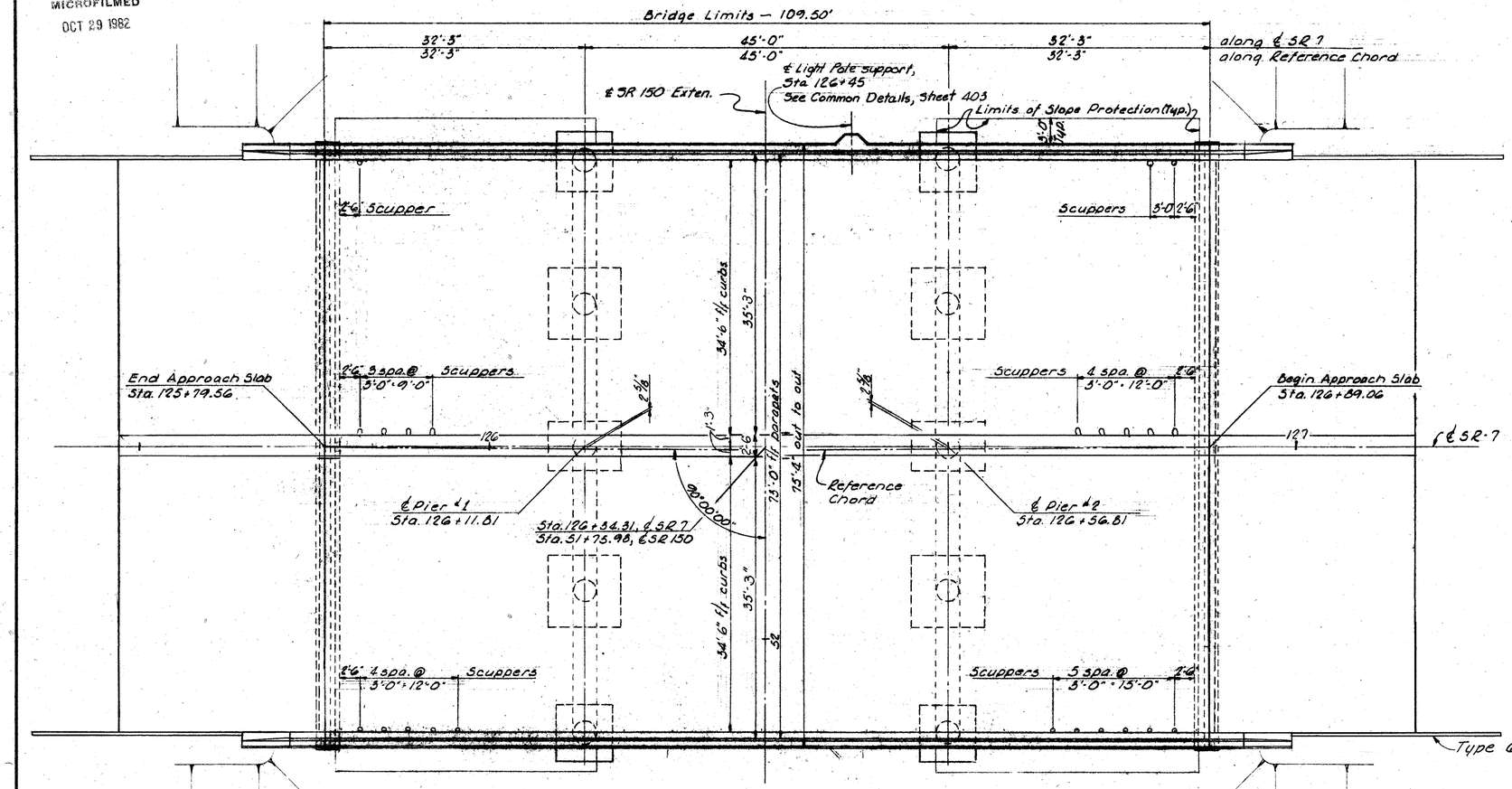
DESIGNED	DRAWN	TRACED	CHECKED	REVIEWED	DATE	REVISED
RT 8/1/68			FWO 8/20/68	JEV 9/10/68		

MICROFILMED
OCT 29 1982

FED. RD. DIVISION	STATE	PROJECT	TYPE FUNDS
2	OHIO		

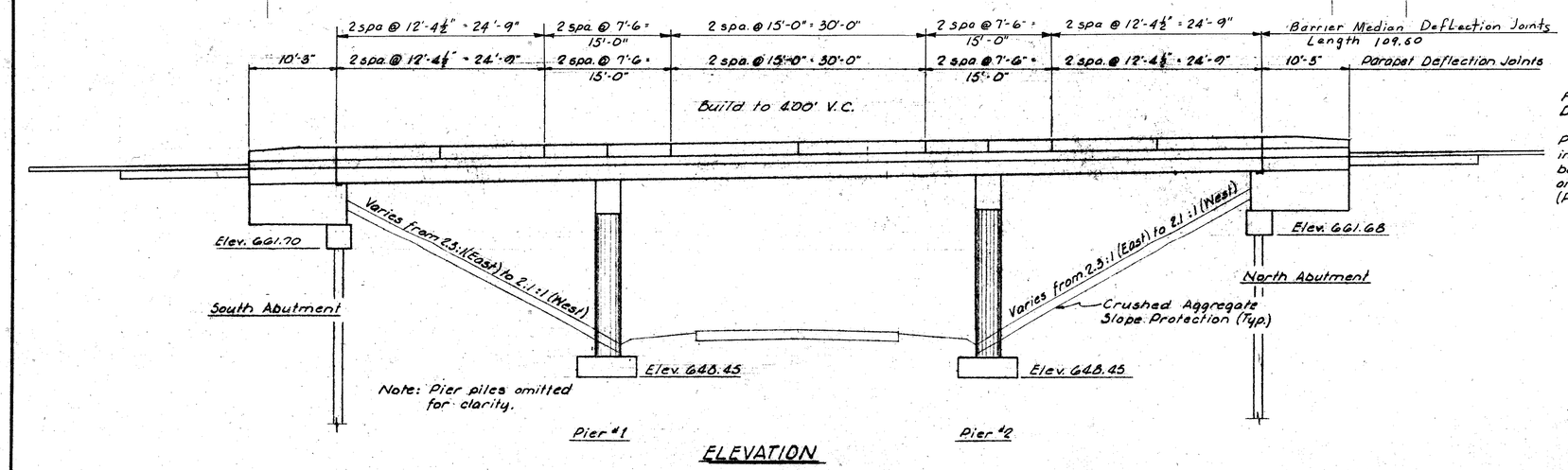
459
560

JEFFERSON COUNTY
JEF-7-0.20



PLAN

For Scupper details see Common Details, Sheet 402. & 402A



ELEVATION

For Parapet Deflection Joint Details see Std. Drwg BR-1-67.

Preformed Expansion Joint Filler in the deflection joints may be either 1/4" gray sponge rubber or 1/4" gray cellular polyvinyl chloride (PVC) sponge.

ALDEN E. STILSON & ASSOCIATES, LIMITED
CONSULTING ENGINEERS
COLUMBUS, OHIO

3/8

GENERAL PLAN and ELEVATION
BRIDGE No. JEF-7-0238
SR-7 over SR 150 Extension
JEFFERSON COUNTY STA. 125 + 79.56 to STA. 126 + 89.06

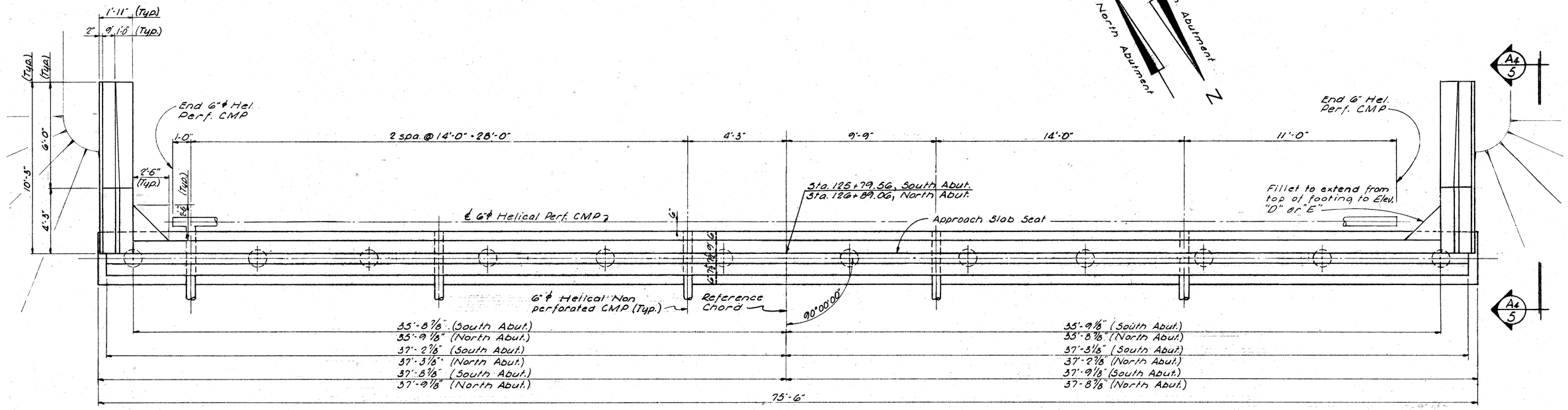
DESIGNED	DRAWN	TRACED	CHECKED	REVIEWED	DATE	REVISED
FWD	FWD		R.T.	JEV	3/10/68	

MICROFILMED
OCT 29 1982

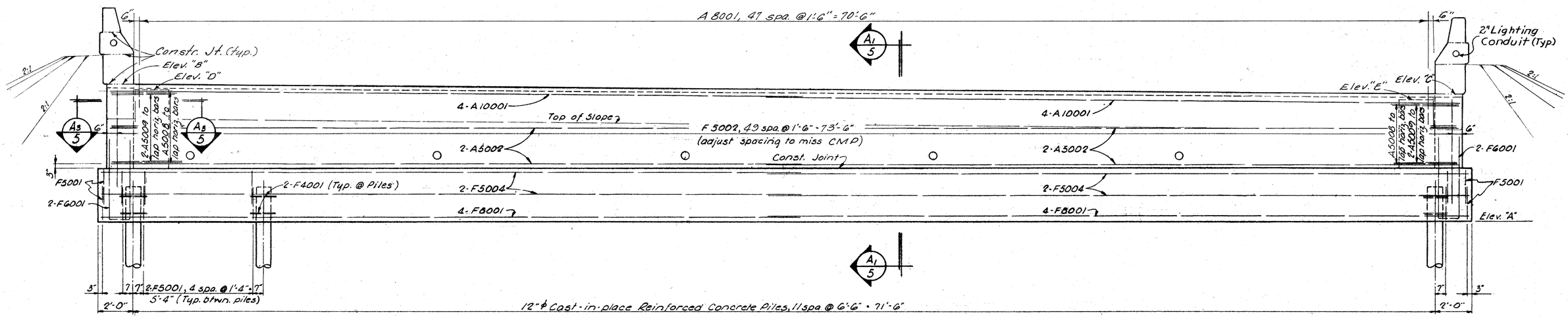
FED. RD. DIVISION	STATE	PROJECT	TYPE FUNDS
2	OHIO		

460
560

JEFFERSON COUNTY
JEF-7-0.20



PLAN



ELEVATION

TABLE of ELEVATIONS

	Elev. "A"	Elev. "B"	Elev. "C"	Elev. "D"	Elev. "E"
South Abutment	661.70	668.87	670.03	668.63	669.82
North Abutment	661.68	670.02	668.85	669.81	668.64

See SH. 5 / 8 for Notes

ALDEN E. STILSON & ASSOCIATES, LIMITED
CONSULTING ENGINEERS
COLUMBUS, OHIO

4 / 8

NORTH and SOUTH ABUTMENT DETAILS

BRIDGE No. JEF-7-0238
SR-7 over SR 150 Extension
JEFFERSON COUNTY STA. 125 + 79.56 to STA. 126 + 89.06

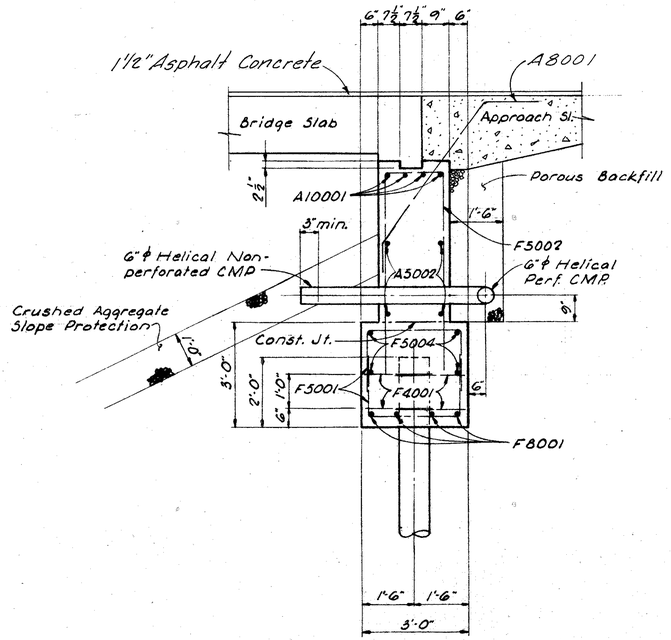
DESIGNED	DRAWN	TRACED	CHECKED	REVIEWED	DATE	REVISED
fwd	fwd		R.T.	JEV	9/10/68	

MICROFILMED
OCT 29 1982

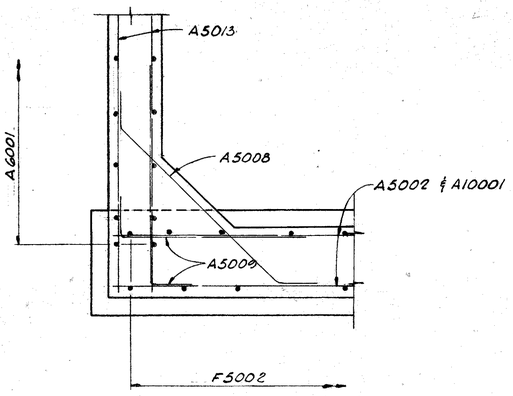
FED. RD. DIVISION	STATE	PROJECT	TYPE FUNDS
2	OHIO		

461
560

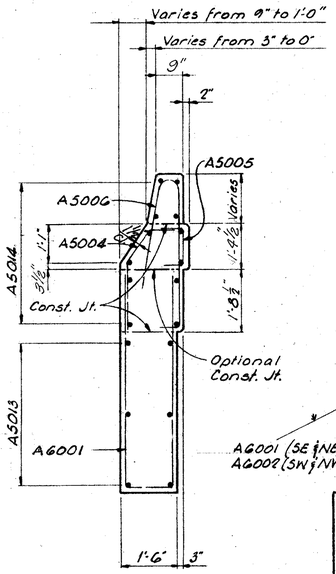
JEFFERSON COUNTY
JEF-7-0.20



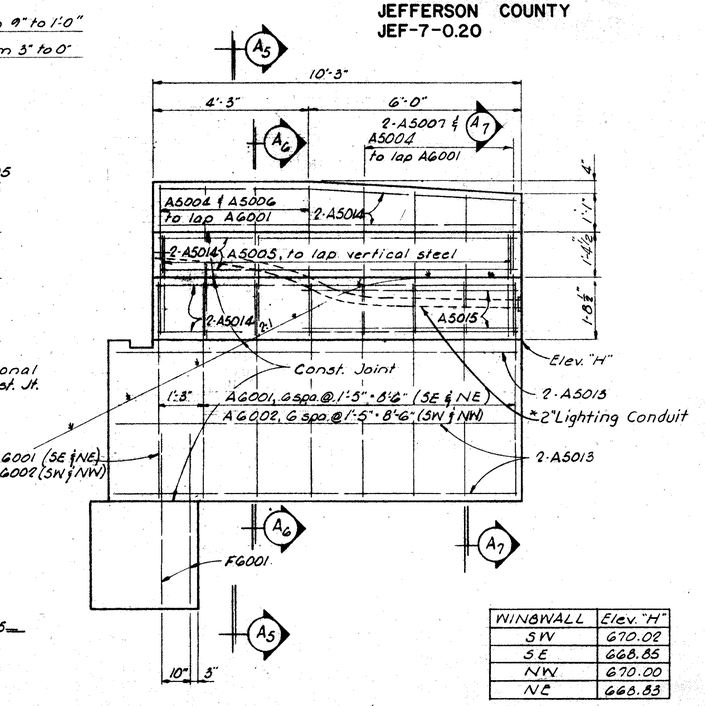
SECTION A1/4



SECTION A3/4



SECTION A5-A5



VIEW A4/4

WINGWALL	Elev. "H"
SW	670.02
SE	668.85
NW	670.00
NE	668.83

NOTES

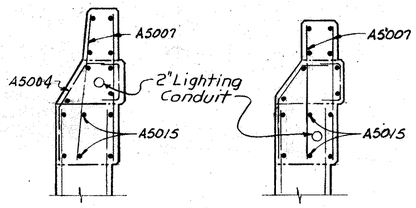
Porous backfill shall be placed between inside faces of wingwalls and shall extend up to the plane of the subgrade.

Field bending of A5014 in parapet shall be included in Item 509 for payment.

Quantities of Concrete and Reinforcing Steel for Railing shall be included with their appropriate Item for payment.

All reinforcing in footing shall have 3" minimum cover.

* For additional details of Lighting conduit in wingwalls see Std. Const. Dwg. HL-5



SECTION A6-A6 SECTION A7-A7

Note: Reinforcing which is not labeled is same as Section A5

ALDEN E. STILSON & ASSOCIATES, LIMITED
CONSULTING ENGINEERS
COLUMBUS, OHIO

5/8

ABUTMENT DETAILS

BRIDGE No. JEF-7-0238

SR-7 over SR 150 Extension

JEFFERSON COUNTY STA. 125 + 79.56 to STA. 126 + 89.06

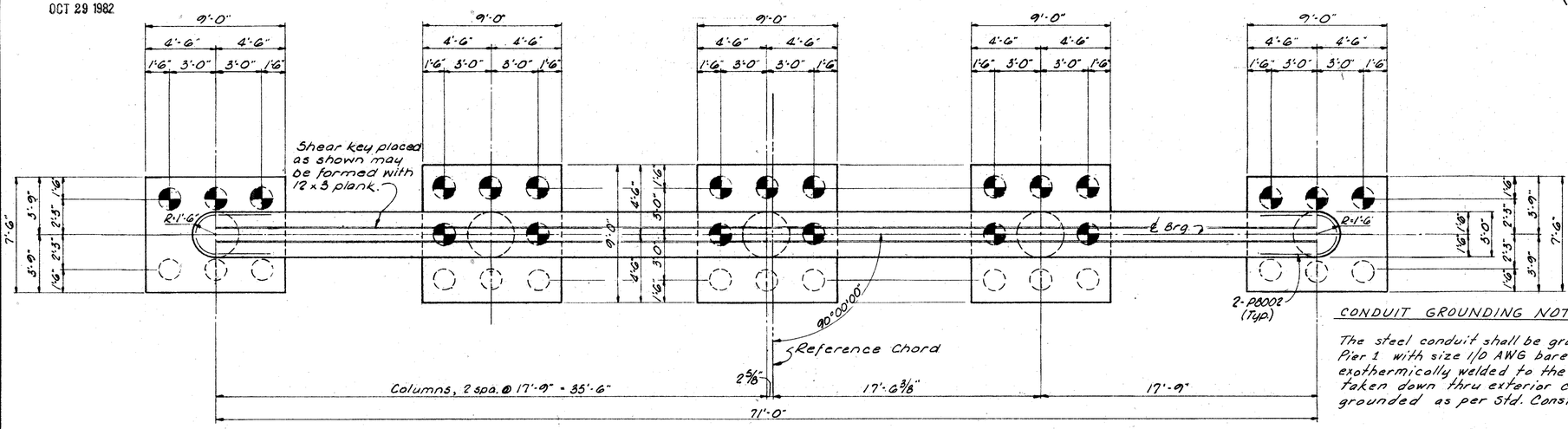
DESIGNED	DRAWN	TRACED	CHECKED	REVIEWED	DATE	REVISED
FWD	FWD		R.T.	JEV	9/10/68	

MICROFILMED
OCT 29 1982

FED. RD. DIVISION	STATE	PROJECT	TYPE FUNDS
2	OHIO		

462
560

JEFFERSON COUNTY
JEF-7-0.20



PLAN

CONDUIT GROUNDING NOTE

The steel conduit shall be grounded at Pier 1 with size 1/0 AWG bare copper cable exothermically welded to the conduit and taken down thru exterior column and grounded as per Std. Const. Dwg. HL-7.

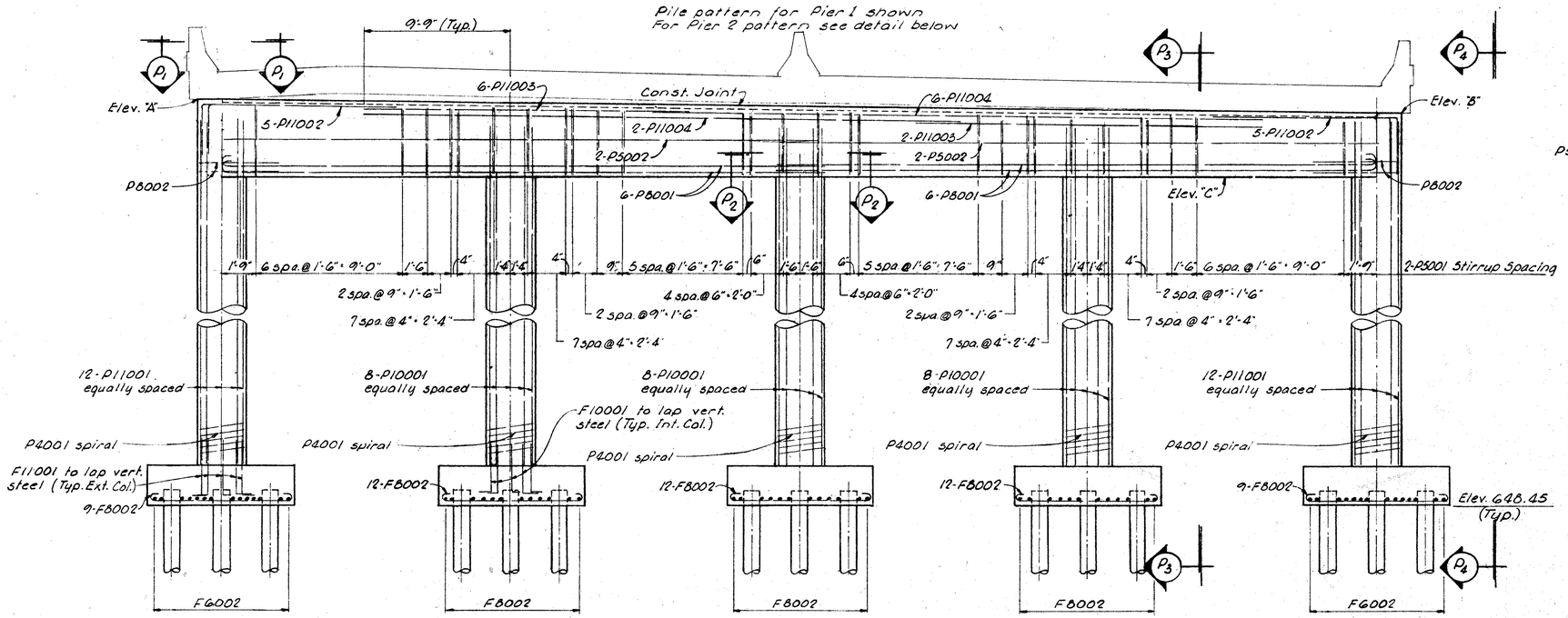


VIEW P_1-P_1



SECTION P_2-P_2

Pile pattern for Pier 1 shown
For Pier 2 pattern see detail below



ELEVATION

TABLE of ELEVATIONS			
	Elev "A"	Elev. "B"	Elev. "C"
Pier #1	670.06	668.89	665.39
Pier #2	670.05	668.89	665.39

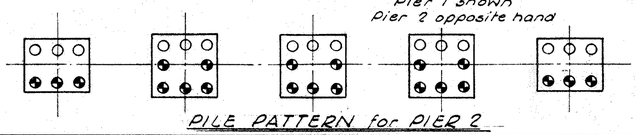
NOTES

P11002, P11003 and P11004 shall be lapped 4'-2".
All piles shall be 12"ϕ Cast-in-place reinf. conc. piles
All spirals shall have 4½" pitch.
◯ indicates vertical pile
◔ indicates battered pile 1:4

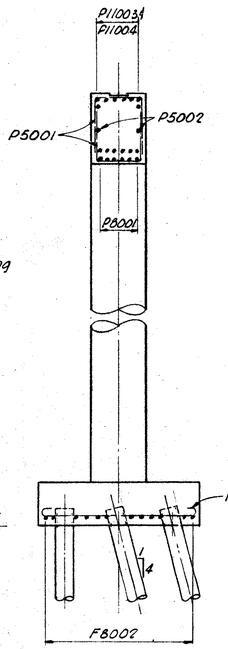
NOTES

See General Plan for layout of piers along the reference chord.

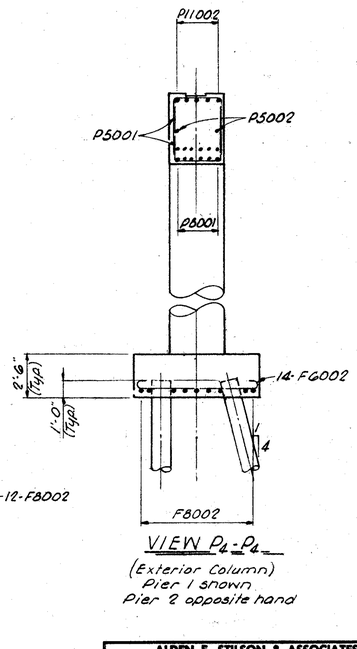
All reinforcing in footing shall have 3" minimum clearance.



PILE PATTERN for PIER 2



SECTION P_3-P_3
(Interior Column)
Pier 1 shown
Pier 2 opposite hand



VIEW P_4-P_4
(Exterior Column)
Pier 1 shown
Pier 2 opposite hand

ALDEN E. STILSON & ASSOCIATES, LIMITED
CONSULTING ENGINEERS
COLUMBUS, OHIO

6/8

PIERS 1&2 DETAILS

BRIDGE No. JEF-7-0238
SR-7 over SR 150 Extension
JEFFERSON COUNTY STA. 125 + 79.56 to STA. 126 + 89.06

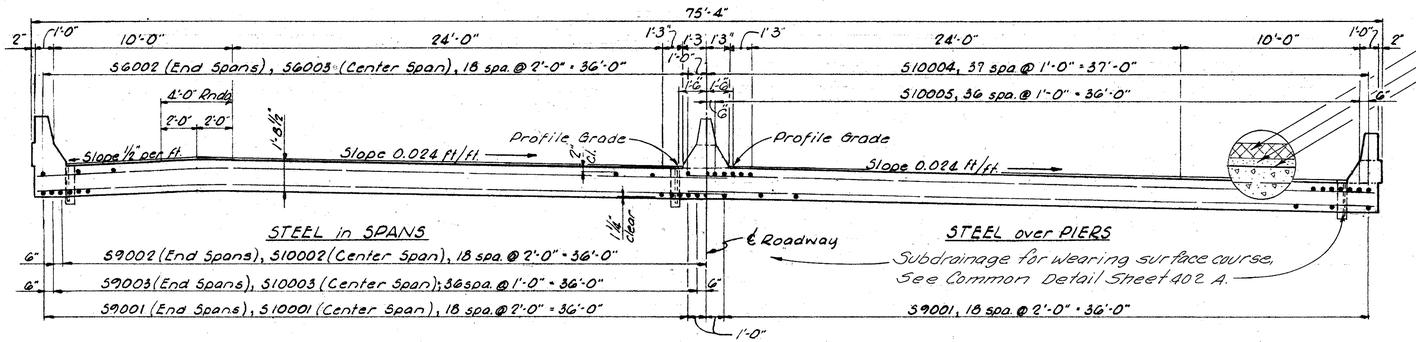
DESIGNED	DRAWN	TRACED	CHECKED	REVIEWED	DATE	REVISED
fwd	fwd		R.T.	JEV	9/10/68	

MICROFILMED
OCT 29 1982

FED. RD. DIVISION	STATE	PROJECT	TYPE FUNDS
2	OHIO		

463
560

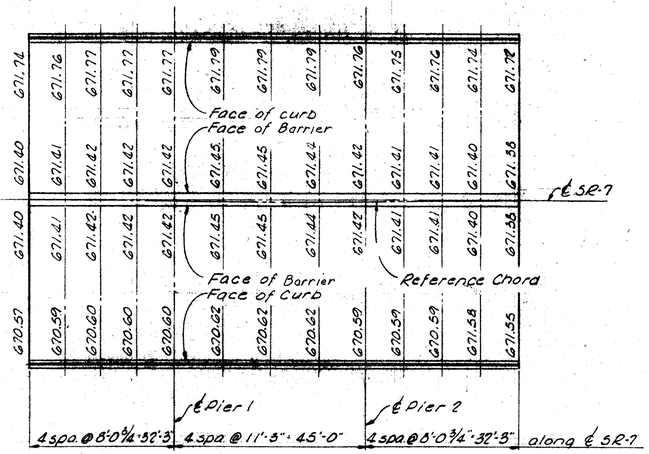
JEFFERSON COUNTY
JEF-7-0.20



TRANSVERSE SECTION

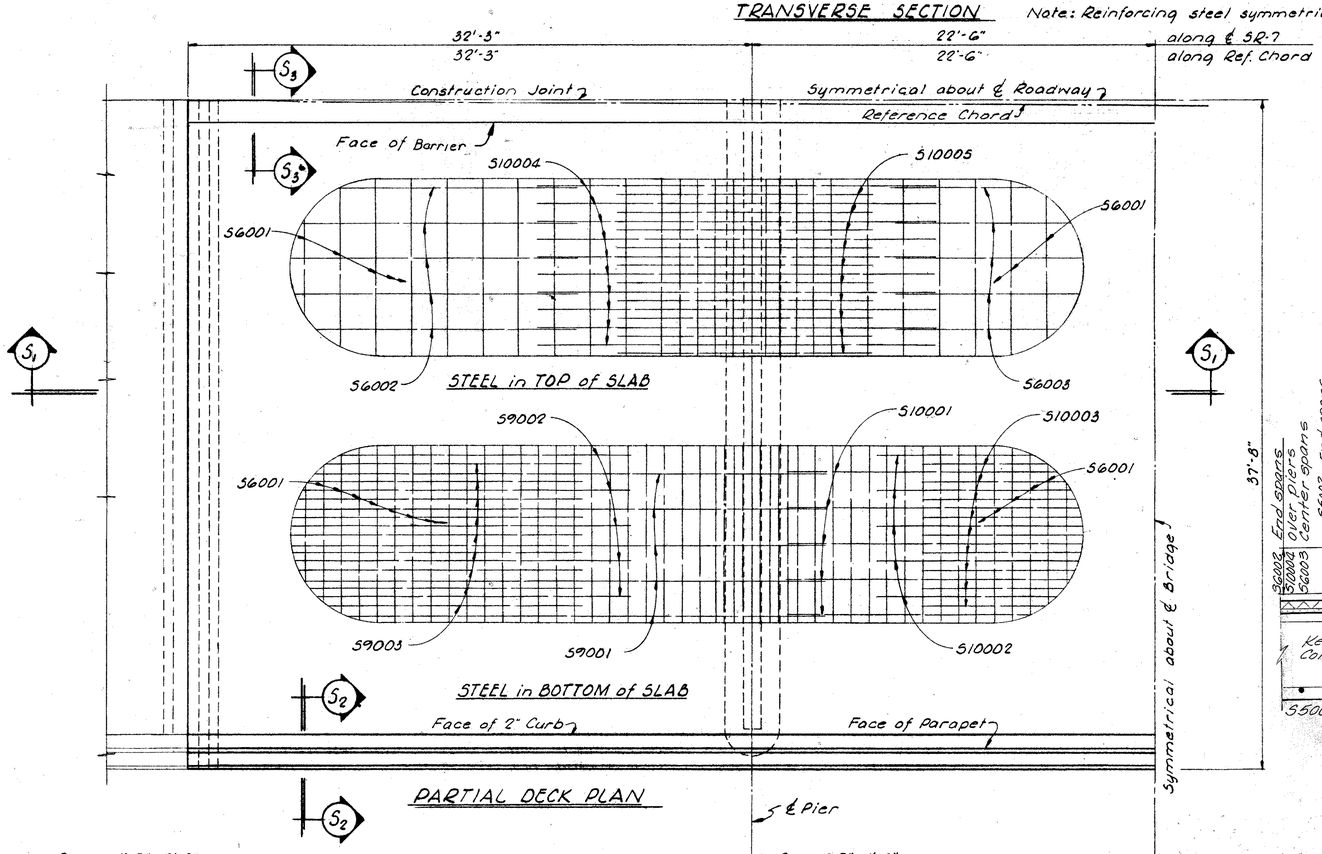
Note: Reinforcing steel symmetrical about ℄ Roadway.

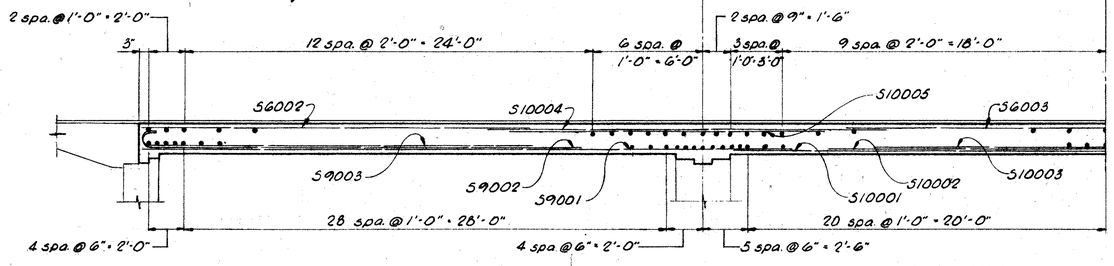
Item 404, 1" Asphalt Concrete.
Item Special, ½ Sand Asphalt.
Item Special, Membrane Waterproofing



* SCREED ELEVATIONS

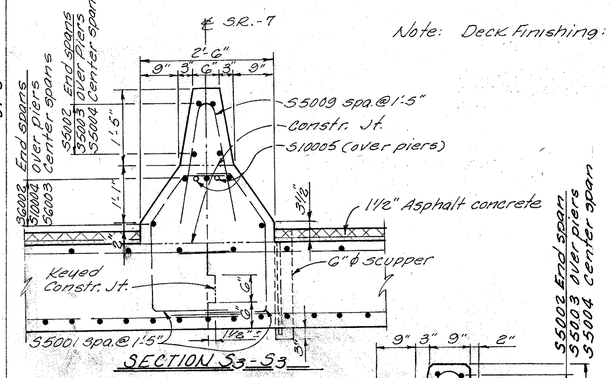
* Screed elevations are at top of slab before the concrete deck is placed. Proper allowance has been made for the dead load deflection due to the weight of the concrete. Allowance for the deflection of the falsework members has not been included.



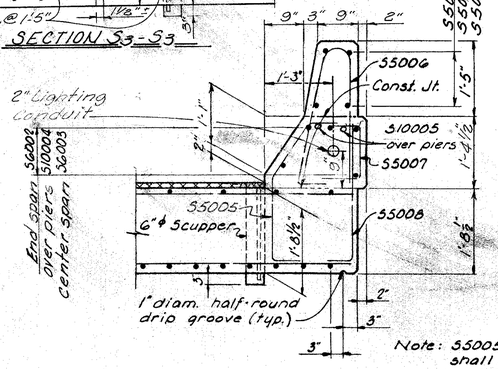


SECTION S1-S1

Note: All transverse steel S6001



Note: Deck Finishing: See note on sheet 413.



Note: S5005 thru S5008 shall be spaced at 1'-5" c/c.

NOTES

For Scupper Details see Common Details Sheet 402 & 402 A

Field bending of S6001 shall be included in Item 509 for payment.

Top longitudinal steel shall lap 1'-11"
Bottom longitudinal steel shall lap 2'-10"

Quantities of Concrete and Reinforcing Steel for Railing shall be included with their appropriate Items for payment.

ALDEN E. STILSON & ASSOCIATES, LIMITED
CONSULTING ENGINEERS
COLUMBUS, OHIO

7/8

SUPERSTRUCTURE DETAILS

BRIDGE No. JEF-7-0238
SR-7 over SR 150 Extension
JEFFERSON COUNTY STA. 125 + 79.56 to STA. 126 + 89.06

DESIGNED	DRAWN	TRACED	CHECKED	REVIEWED	DATE	REVISED
fwd	fwd		RJT	JEV	9/10/68	

MICROFILMED
OCT 29 1982

FED. RD. DIVISION	STATE	PROJECT	TYPE FUNDS
2	OHIO		

464
560

JEFFERSON COUNTY
JEF-7-0.20

NOTES

1. INDICATES SERIES BAR. EACH BAR VARIES FROM ADJACENT BAR(S) BY TABULATED AMOUNT (S), CALCULATED TO NEAREST $\frac{1}{8}$". WEIGHT SHOWN IS FOR ENTIRE SERIES UTILIZING AVERAGE LENGTH.
2. BARS INCLUDED WITH ITEM 517, RAILING, FOR PAYMENT.
3. COST OF FIELD BENDING SHALL BE INCLUDED WITH ITEM 509.
4. LIGHT POLE SUPPORT BARS INCLUDED WITH ITEM 509 FOR PAYMENT.
5. END PREPARATION AND FIELD WELDING INCLUDED WITH ITEM 509.
6. "LENGTH" SHOWN FOR SPIRAL BARS IS DISTANCE FROM TOP OF FOOTING TO BOTTOM OF PIER CAP. "NO. TURNS" SHOWN IS "LENGTH" DIVIDED BY PITCH, PLUS 3 TURNS (NUMBER OF CLOSED COILS), EXPRESSED AS NEAREST WHOLE NUMBER.

SPIRAL BARS SHALL NOT HAVE DEFORMATIONS BUT SHALL IN OTHER RESPECTS CONFORM TO ITEM 509. $1\frac{1}{2}$ CLOSED COILS SHALL BE PROVIDED AT ENDS OF EACH SPIRAL UNIT. FOUR STEEL CHANNEL, TEE, OR ANGLE SPACERS, WEIGHING APPROXIMATELY 0.80 LB. PER LIN. FT. OF SPACER SHALL BE PROVIDED FOR EACH SPIRAL UNIT. THEY SHALL BE EQUALLY SPACED ALONG PERIPHERY OF COIL. WEIGHT OF SPACERS, AT 0.80 LB. PER. LIN. FT. WILL BE PAID FOR AS REINFORCING STEEL AND IS INCLUDED IN TABULATED WEIGHT.

MARK	NUM.	LENGTH	WEIGHT	TYPE	A	B	C	D	E	NOTE
				ABUTMENTS						
F 4001	96	5- 4	342	1		1-11	1- 9	1-11		
F 5001	236	6- 5	1579	1		2- 1	2- 6	2- 1		
F 5002	100	14- 5	1504	1		6- 6	1- 8	6- 6		
F 5004	16	38- 5	641	ST						
F 6001	8	10- 4	124	1		4- 9	1- 2	4- 9		
F 8001	16	38-10	1659	ST						
A 5002	16	37-11	633	ST						
A 5004	32	3- 6	117	15		1- 7	1- 0	0- 9	0- 9	
A 5005	32	1-11	64	1		0- 7	1- 0	0- 7		
A 5006	16	7-11	132	19		3- 3	4- 0	0- 7		
A 5007	32	3- 8	122	ST						
A 5008	12	9- 9	122	16			1- 1	6- 9	1- 1	
A 5009	24	7- 5	186	1	1- 7	6- 0				
A 5013	24	11- 2	280	ST						
A 5014	48	9-11	496	ST						3
A 5015	8	5-10	49	ST						
A 6001	16	12- 2	292	1		5- 8	1- 2	5- 8		
A 6002	16	14- 2	340	1		6- 8	1- 2	6- 8		
A 8001	96	6-7	1687	20	1-1	1-1	4-9	0-6	0-6	
A10001	16	38- 9	2668	ST						

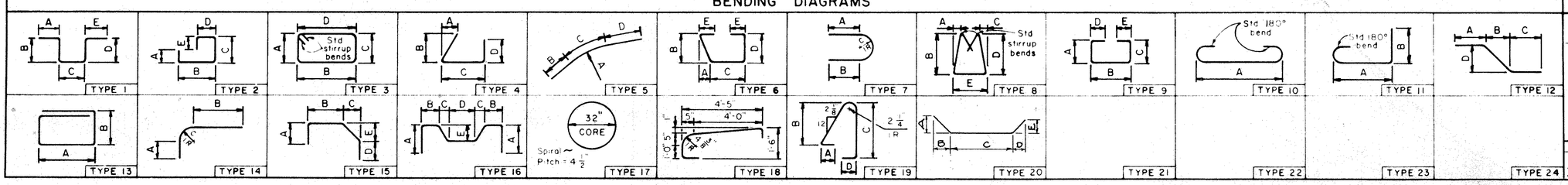
MARK	NUM.	LENGTH	WEIGHT	TYPE	A	B	C	D	E	NOTE
				PIERS						
F 6002	56	8- 4	701	10	7- 0					
F 8002	180	10- 8	5126	10	8- 6					
F10001	48	6- 7	1360	1	1- 5	5- 6				
F11001	48	7- 2	1828	1	1- 8	5-10				
P 4001	10	14- 5	2722	17	NO. TURNS = 41		NO. SPACERS = 40			
P 5001	320	8- 9	2920	1		3- 2	2- 8	3- 2		
P 5002	8	36- 4	303	ST						
P 8001	48	37-10	4849	11	36- 9					
P 8002	8	8- 3	176	7	2- 6	2- 6	1- 0			
P10001	48	17- 7	3632	ST						
P11001	48	17- 7	4484	ST						
P11002	20	16- 5	1744	1	3- 3	13- 6				
P11003	16	20- 9	1764	ST						
P11004	16	38- 6	3273	ST						
				SUPERSTRUCTURE						
S 5001	156	4-1	664	15	0-7	1-8	1-0	0-9	0-9	
S 5002	48	12- 0	601	ST						
S 5003	48	7- 2	359	ST						
S 5004	24	14- 8	367	ST						
S 5005	156	4- 0	651	15	0- 7	1- 7	1- 0	0- 9	0- 9	

MARK	NUM.	LENGTH	WEIGHT	TYPE	A	B	C	D	E	NOTE
				SUPERSTRUCTURE (CONTINUED)						
S 5006	156	6- 0	976	19	0- 8	2- 5	2- 5	0- 7		
S 5007	156	1-11	312	1		0- 7	1- 0	0- 7		
S 5008	156	3- 0	488	1	0- 7	2- 7				
S 5009	78	4-7	373	4	2-3	1-1	2-3			
S 6001	384	38- 3	22061	ST						3
S 6002	106	20- 6	3264	ST						
S 6003	53	26- 3	2090	ST						
S 9001	76	36- 5	9410	ST						
S 9002	74	26- 9	6730	11	25- 6					
S 9003	148	24- 0	12077	11	22- 9					
S10001	38	42- 0	6868	ST						
S10002	37	31- 0	4936	ST						
S10003	174	27- 0	20215	ST						
S10004	180	24- 8	19106	ST						
S10005	160	14- 4	9868	ST						
				LIGHT POLE						
L 5001	8	3- 2	26	6	0- 7	0- 7	2- 4			4
L 5002	2	2-11	6	1	1-10	1- 3				4
L 5003	3	5- 6	17	1	2-10	2-10				4
L 5004	3	2- 7	8	1	1- 8	1- 1				4
				REPLACEMENT STEEL FOR SPIRALS						
RE 4001	1	6- 3		5	1-3 1/2		6- 3			
				REPLACEMENT STEEL						
RE 4002	1	5-4		1	1-11	1-9	1-11			
RE 5001	1	6- 7		ST						
RE 6001	2	6-10		ST						
RE 8001	1	7- 6		ST						
RE 9001	2	7-10		ST						
RE10001	4	8- 7		ST						
RE11001	1	8- 6		ST						

BAR SIZE DESIGNATION

BAR SIZE IS INDICATED IN THE BAR MARK. THE FIRST DIGIT WHERE FOUR DIGITS ARE USED, AND THE FIRST TWO DIGITS WHERE FIVE DIGITS ARE USED, INDICATE THE BAR SIZE NUMBER. FOR EXAMPLE, A7001 IS A NO.7 SIZE BAR AND A10140 IS A NO.10 SIZE.

BENDING DIAGRAMS



ALDEN E. STILSON & ASSOCIATES, LIMITED
CONSULTING ENGINEERS
COLUMBUS, OHIO

8/8

REINFORCING STEEL LIST

BRIDGE No. JEF-7-0238

SR-7 over SR 150 EXTENSION

JEFFERSON COUNTY

STA. 125+79.56 to
STA. 126+89.06

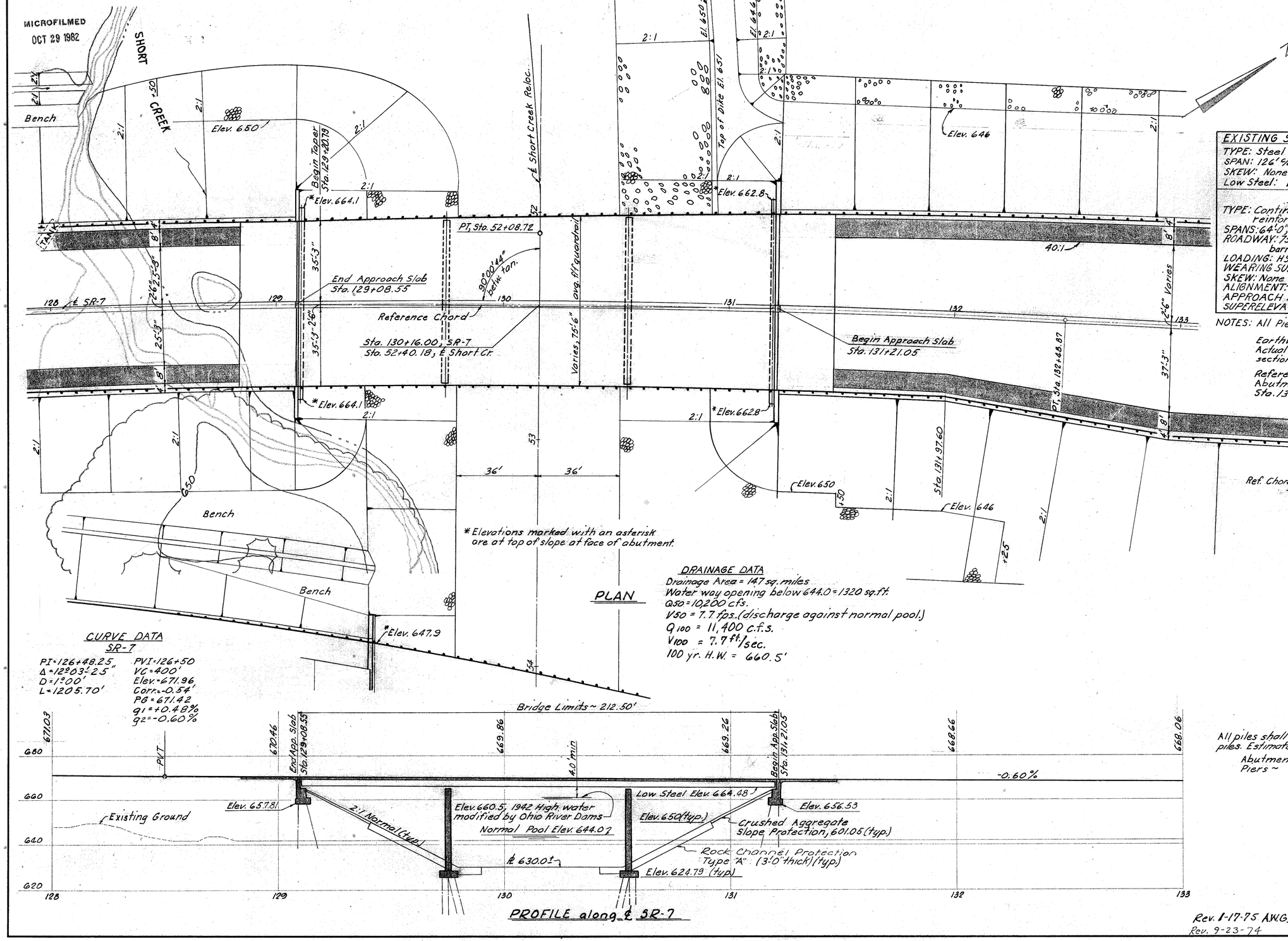
DESIGNED	DRAWN	TRACED	CHECKED	REVIEWED	DATE	REVISED
RT 7/31/68			FND 8/20/68	JEV 9/10/68		

MICROFILMED
OCT 29 1982

FED. RD. DIVISION	STATE	PROJECT	TYPE FUNDS

468
560

JEFFERSON COUNTY
JEF-7-0.20



LAYOUT DIAGRAM

PLAN

* Elevations marked with an asterisk are at top of slope at face of abutment.

EXISTING STRUCTURE ~ SR-7 over Short Creek

TYPE: Steel through-truss (Collapsed)
SPAN: 126'-6" Brgs.
SKEW: None
Low Steel: Elev. 649.0

PROPOSED STRUCTURE

TYPE: Continuous steel beam with reinforced concrete deck and substructure.
SPANS: 64'-0", 80'-0", 64'-0" along ℄ SR-7.
ROADWAY: 75'-6" Avg. width f/f guardrail with 2'-6" barrier median
LOADING: H 520-44
WEARING SURFACE: 2 1/2" Asphalt Concrete
SKEW: None with respect to Reference Chord.
ALIGNMENT: 1°00' curve right.
APPROACH SLABS: 25'-0" long. See Sheet 204.
SUPERELEVATION: 0.024 f/f.

NOTES: All Piers shall be T-Type 3'-0" thick.

Earthwork limits shown are schematic. Actual slopes shall conform to plan cross-sections.

Reference Chord is a line between ℄ Abutment Brgs. Sta. 129+10.80 to Sta. 131+18.80.

DRAINAGE DATA

Drainage Area = 14.7 sq. miles
Water way opening below 644.0 = 1320 sq. ft.
Q50 = 10,200 cfs.
V50 = 7.7 fps. (discharge against normal pool.)
Q100 = 11,400 c.f.s.
V100 = 7.7 ft./sec.
100 yr. H.W. = 660.5'

CURVE DATA SR-7

PI = 126+48.25
Δ = 12°03'25"
D = 1°00'
L = 1205.70'

PVI = 126+50
VC = 400'
Elev. = 671.96
Corr. = -0.54'
PB = 671.42
g1 = +0.48%
g2 = -0.60%

PROFILE along ℄ SR-7

All piles shall be HP 12×53 steel bearing piles. Estimated average pay lengths are:
Abutments ~ 70'
Piers ~ 40'

Rev. 1-17-75 A.W.G.
Rev. 9-23-74

ALDEN E. STILSON & ASSOCIATES, LIMITED
CONSULTING ENGINEERS
COLUMBUS, OHIO
1/12

SITE PLAN

BRIDGE Nº JEF-7-0245
SR-7 over SHORT CREEK (Reloc.)
JEFFERSON COUNTY
STA. 129+08.55 to STA. 131+21.05

DESIGNED	DRAWN	TRACED	CHECKED	REVIEWED	DATE	REVISED
DLM	DLM	D.R.	rwd	J.E.V.	11/15/67	

FED. RD. DESIGNATION	STATE	PROJECT	SHEET NO.
2	OHIO		

409
560

JEFFERSON COUNTY
JEF-7-0.20

REFERENCES:

MICROFILMED
OCT 29 1982

Standard Drawings:

End Dam, End Crossframe, Scuppers, & Bolted Splices	SD-1-69, Sheets 1, 2, 3 & 4 Dated 6-12-69
Rocker & Bolster Details	RB-1-55, Revised 2-2-59
Approach Slab Details	AS-1-72, Revised 6-30-72
Highway Lighting	HL-4 Dated 9-6-73
	HL-5 " 9-6-73
	HL-7 " 9-6-73

Supplemental Specifications:

Chemical Admixture for Concrete Type A, B or D	808	Dated 1-1-71
Concrete Curing and Protective Coat Membrane	836	Dated 1-1-71

Common Details:

Galvanized Steel drip Strip	Sheet 402-A
Guard Rail	**Sheet 402**
End Preparation of Rolled Beams for Shop Welding	**Sheet 402**
Subdrainage for Wearing Course	Sheet 402-A
Abutment Contraction Joint	**Sheet 402**

DESIGN SPECIFICATIONS: This structure conforms to the "Standard Specifications for Highway Bridges" adopted by the American Association of State Highway Officials, 1965, including the Ohio "Supplement" to these specifications.

DESIGN DATA:

Design Loading - HS 20-44

Concrete Class C - unit stress 1200 p.s.i. for superstructure
unit stress 1333 p.s.i. for substructure

Structural Steel - ASTM A36 - unit stress 20,000 p.s.i.

Reinforcing Steel - ASTM A615, A616, or A617. Unit Stress 20,000 p.s.i.

PROCEDURE: See Roadway Plans for Placement of Embankment. The embankments shall be constructed to the level of the subgrade for a minimum distance of 200 feet back of the abutments. Excavation shall then be made for the abutments and piers.

PILES shall be driven to refusal on bedrock or to 20 blows per inch for the last few inches of penetration. The design load is 40 tons per pile for the abutment piles and 50 tons per pile for the pier piles.

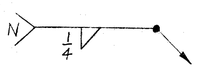
BACKWALL CONCRETE: In addition to the provisions of 511.08, backwall concrete shall not be placed until after the deck concrete in the span adjacent to the backwall has been placed.

BEARING ANCHORS: At the option of the Contractor, bearing anchors (or formed holes), located and supported by templates, may be cast in place.

PILE TEST LOAD shall be according to 506 except that the maximum load required shall be 150 tons.

END DAM PAINTING: Portions of the end dams which will be in contact with steel or with concrete shall not be painted. All other portions shall be cleaned and painted in accordance with 514.

WELDS on non-stress carrying members are shown thus:



END DUMPED ROCK: The Contractor shall exercise extreme care in the selection and placing of end dumped rock in the vicinity of the abutments to insure adequate pile penetration.

ITEM	TOTAL	UNIT	DESCRIPTION	ABUTS	PIERS	SUPER	GENERAL		
503	LUMP	SUM	COFFERDAMS, CRIBS AND SHEETING				LUMP		
503	620	C.Y.	UNCLASSIFIED EXCAVATION	363	257				
404	95	C.Y.	Asphalt Concrete (70-85 or AC 20)			95			
505	LUMP	SUM	TEST PILE				LUMP		
506	LUMP	SUM	PILE TEST LOAD				LUMP		
506	1	EA	SUBSEQUENT PILE TEST LOAD				1		
507	4780	L.F.	STEEL PILES, HP 12 x 53	2380	2400				
509	206054	LB	REINFORCING STEEL	18155	56265	131634			
511	441	C.Y.	CLASS C CONCRETE, SUPERSTRUCTURE			441			
511	315	C.Y.	CLASS C CONCRETE, PIERS ABOVE FOOTINGS		315				
511	167	C.Y.	CLASS C CONCRETE, ABUTMENTS ABOVE FOOTINGS	167					
511	192	C.Y.	CLASS C CONCRETE, FOOTINGS	119	73				
512	17	L.F.	PREMOLDED SEALING STRIP	17					
513	453900	LB	STRUCTURAL STEEL			453900			
514	453900	LB.	FIELD PAINTING OF STRUCTURAL STEEL			453900			
517	425.06	L.F.	RAILING (TWO DEEP BEAM RAILS WITH STEEL POST AND BOLTS) 10 GAGE			425.06			
518	93	C.Y.	POROUS BACKFILL	93					
518	159	L.F.	6 INCH PERFORATED, HELICAL CMP, 707.01	159					
518	108	L.F.	6 INCH NON-PERFORATED, HELICAL CMP, 707.01, INCLUDING SPECIALS	108					
518	13	EA	SCUPPERS INCLUDING SUPPORTS			13			
518	202	L.F.	SUBDRAINAGE FOR WEARING COURSE, AS PER PLAN			202			
601	545	S.Y.	CRUSHED AGGREGATE SLOPE PROTECTION				545		
625			SEE SHEET 359 FOR LIGHTING SUMMARY						
808	441	UNIT	CHEMICAL ADMIXTURE FOR CONCRETE, TYPE A, B OR D			441			
SPEC.	24	C.Y.	SAND ASPHALT			24			
* SPEC.	1,711	S.Y.	MEMBRANE WATERPROOFING			1711			
SPEC.	279	S.F.	Galvanized steel drip strip			279			

* See Proposal Note

ALDEN E. STILSON & ASSOCIATES, LIMITED
CONSULTING ENGINEERS
COLUMBUS, OHIO

2/12

GENERAL NOTES AND ESTIMATED QUANTITIES

BRIDGE Nº JEF-7-0245

SR-7 over SHORT CREEK (Reloc.)

JEFFERSON COUNTY

STA. 129+ 08.55 to
STA. 131 + 21.05

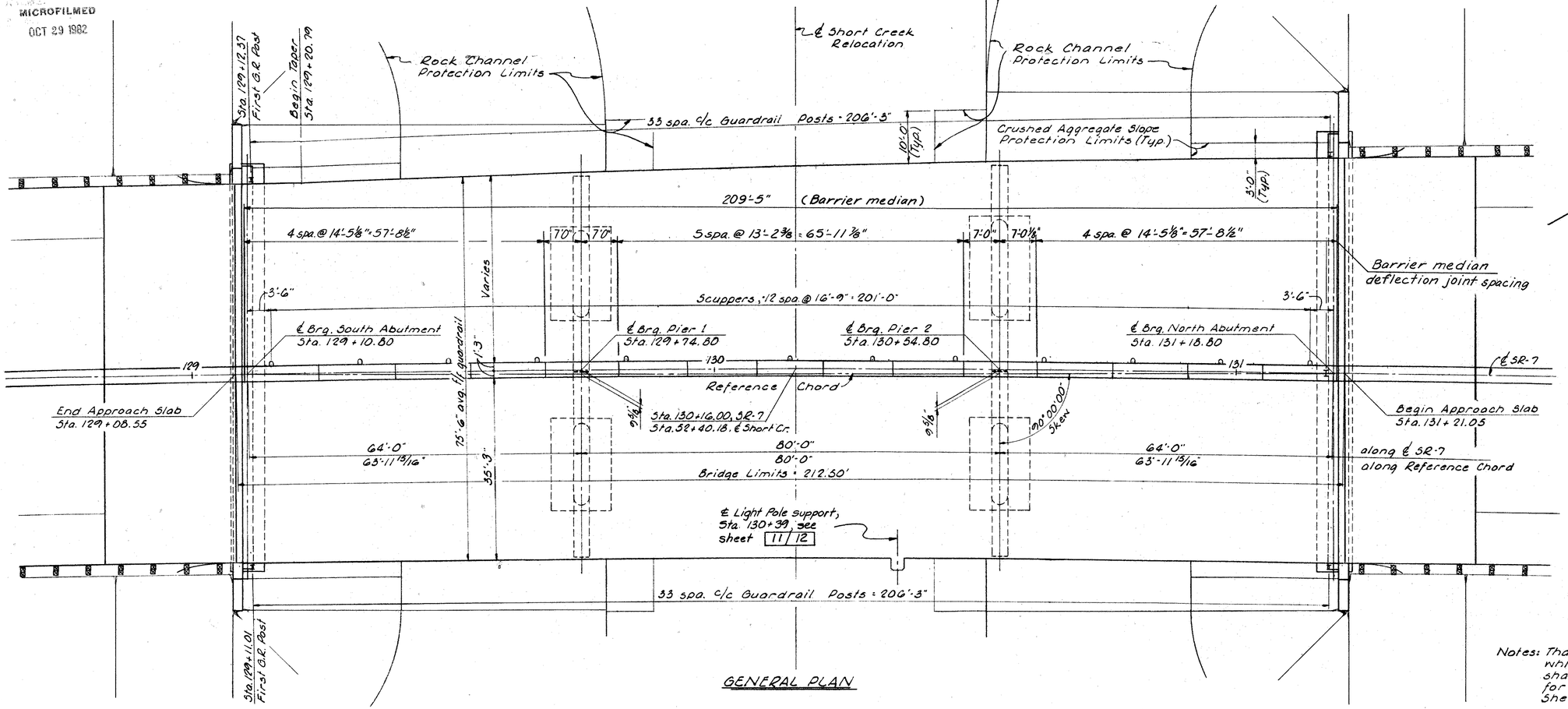
DESIGNED	DRAWN	TRACED	CHECKED	REVIEWED	DATE	REVISED
FWA 6/27/68			RT 7/9/68	JEV 7/17/68		

MICROFILMED
OCT 29 1982

FED. RD. DIVISION	STATE	PROJECT	TYPE FUNDS
2	OHIO		

470
560

JEFFERSON COUNTY
JEF-7-0.20

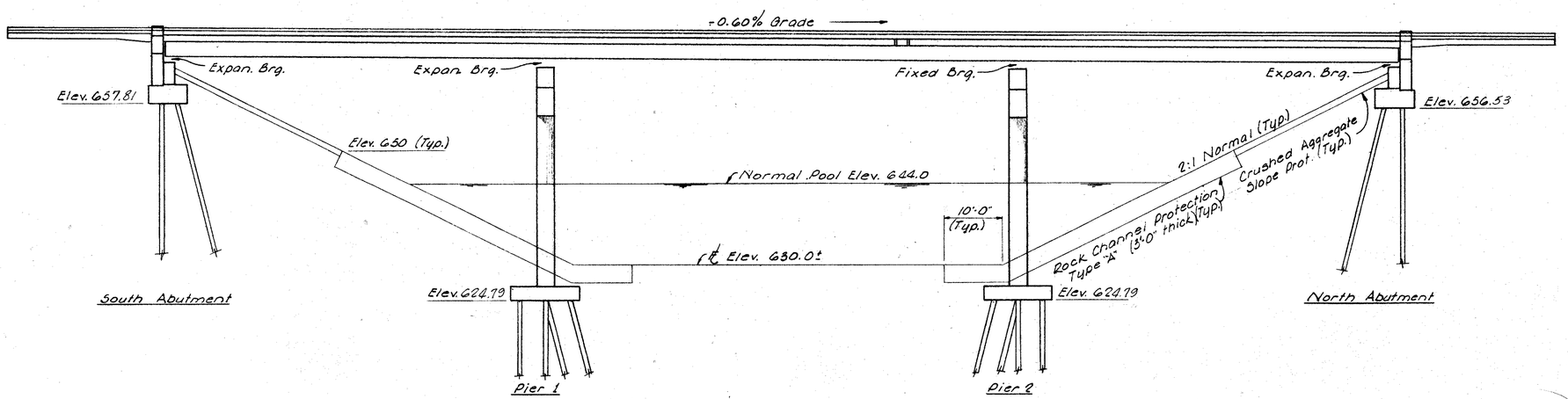


GENERAL PLAN

Notes: That portion of the lower guard rail which projects beyond the bridge limits shall be included with the bridge railing for payment. See Common Details, Sheet 402 for details.

For Rock Channel Protection quantity see Roadway Plans

Scupper spacing shall be adjusted, if necessary, to clear crossframes by 6", piers by 5'-0, and abutments by 2'-6".



GENERAL ELEVATION

ALDEN E. STILSON & ASSOCIATES, LIMITED
CONSULTING ENGINEERS
COLUMBUS, OHIO

3/12

GENERAL PLAN and ELEVATION

BRIDGE Nº JEF-7-0245

SR-7 over SHORT CREEK (Reloc.)

JEFFERSON COUNTY STA. 129+08.55 to STA. 131+21.05

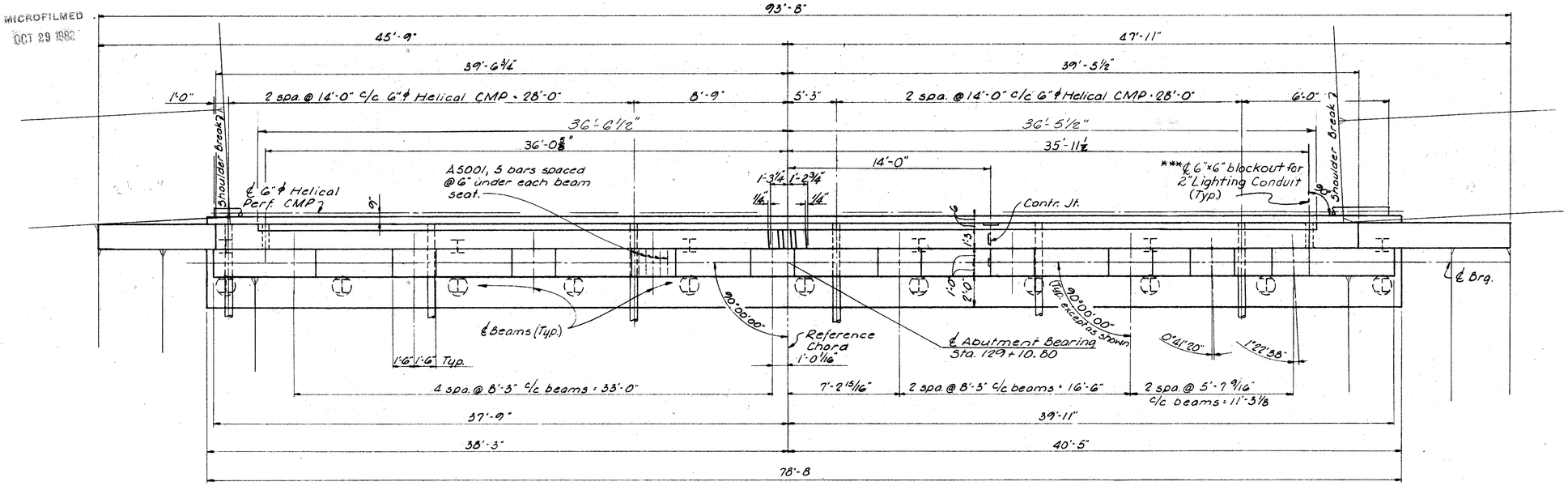
DESIGNED	DRAWN	TRACED	CHECKED	REVIEWED	DATE	REVISED
fwd	fwd		R.T.	JEV	7/17/68	

MICROFILMED
OCT 29 1982

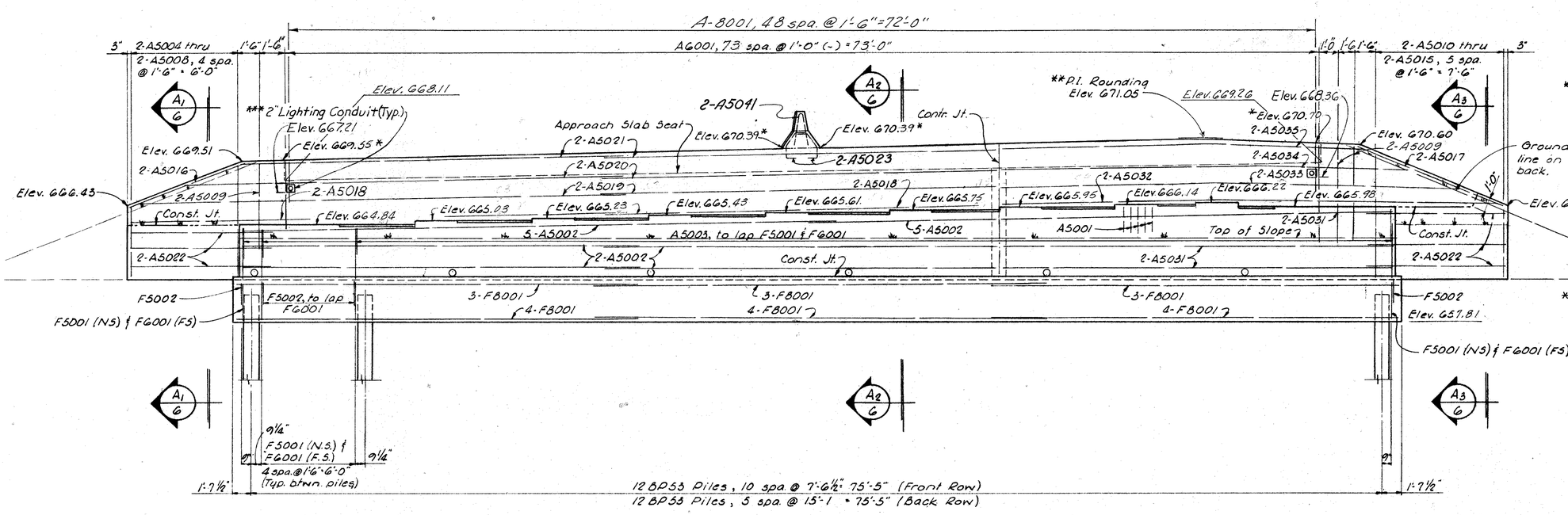
FED. RD. DIVISION	STATE	PROJECT	TYPE FUNDS
2	OHIO		

471
560

JEFFERSON COUNTY
JEF-7-0.20



PLAN



ELEVATION

NOTES

I indicates vertical pile

⊕ indicates battered pile 1:4

N.S. indicates near side.
F.S. indicates far side.

Top of backwall shall conform to roadway crown.

* Elevations marked with an asterisk are to top of 2" edge bar at end of bar.

Porous backfill, 1'-6" thick, full length of abutment and wings, shall extend up to the plane of the subgrade and laterally to the surface of the embankment slopes.

Outside ends of the 6"ϕ Helical Perf. CMP shall be capped.

Shape of barrier on backwall shall conform to shape of barrier on superstructure.

For additional details see Sheet 6/12

** Elevation at 2" edge bar.

For Contraction Joint Details see Common Details, Sheet 402.

Field bending of transverse bars shall be included in Item 509 for payment.

All reinforcing in footings shall have 3" minimum cover.

*** For addition details of Lighting Conduit and 6"×6" blockout in wingwalls see Std. Const. Dwg. HL-5.

ALDEN E. STILSON & ASSOCIATES, LIMITED
CONSULTING ENGINEERS
COLUMBUS, OHIO

4/12

SOUTH ABUTMENT DETAILS

BRIDGE Nº JEF-7-0245

SR-7 over SHORT CREEK (Reloc.)

JEFFERSON COUNTY STA. 129+08.55 to STA. 131+21.05

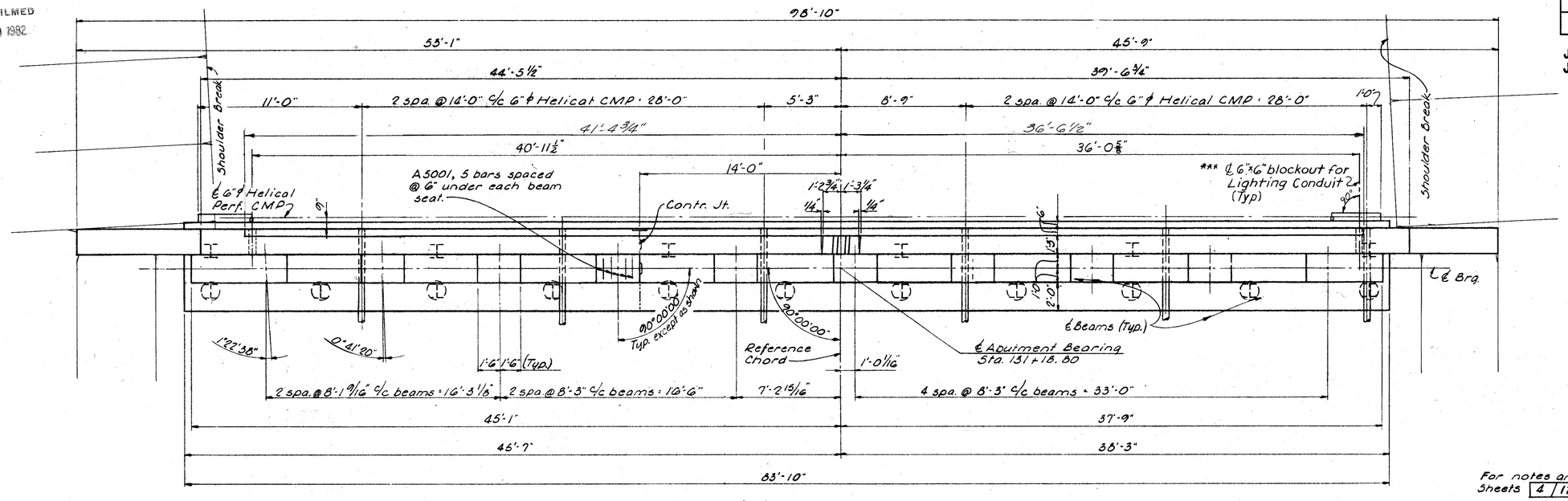
DESIGNED	DRAWN	TRACED	CHECKED	REVIEWED	DATE	REVISED
FWD	FWD		R.T.	JEV	7/17/68	

MICROFILMED
OCT 29 1982

FED. RD. DIVISION	STATE	PROJECT	TYPE FUNDS
2	OHIO		

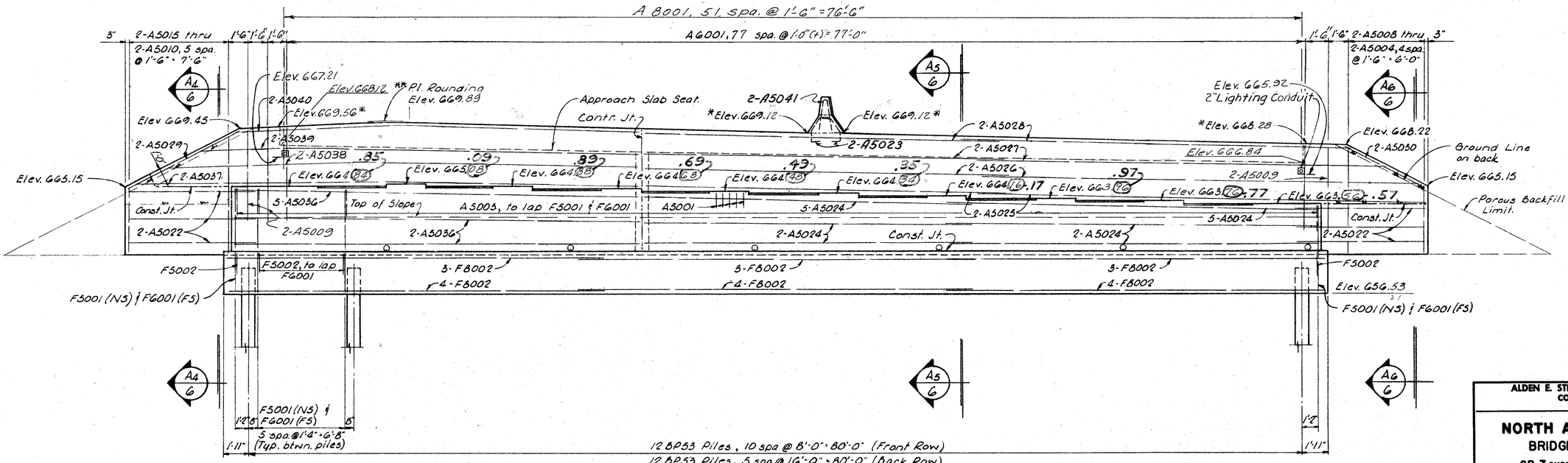
472
360

JEFFERSON COUNTY
JEF-7-0.20



PLAN

For notes and additional details see Sheets 4/12 and 6/12



ELEVATION

ALDEN E. STILSON & ASSOCIATES, LIMITED
CONSULTING ENGINEERS
COLUMBUS, OHIO

5/12

NORTH ABUTMENT DETAILS

BRIDGE Nº JEF-7-0245

SR-7 over SHORT CREEK (Reloc.)

JEFFERSON COUNTY STA. 129+08.55 to STA. 131+21.05

DESIGNED	DRAWN	TRACED	CHECKED	REVIEWED	DATE	REVISED
fwd	fwd		R.T.	JEV	7/17/68	8-29-75

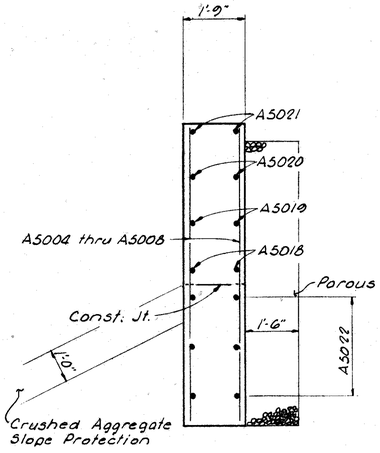
MICROFILMED
OCT 29 1982

FED. RD. DIVISION	STATE	PROJECT	TYPE FUNDS
2	OHIO		

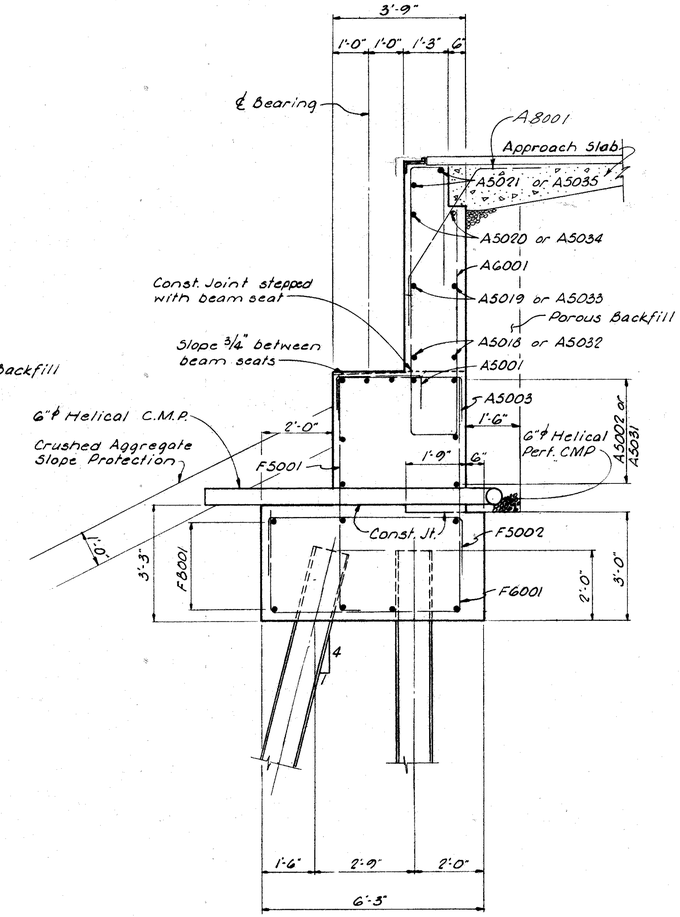
473
560

JEFFERSON COUNTY
JEF-7-0.20

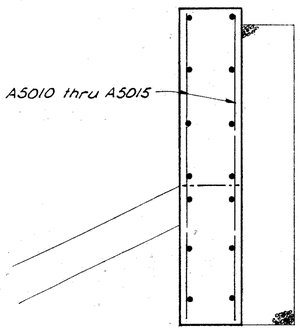
For notes and additional details see Sheets 4/12 and 5/12



SECTION A_1/4

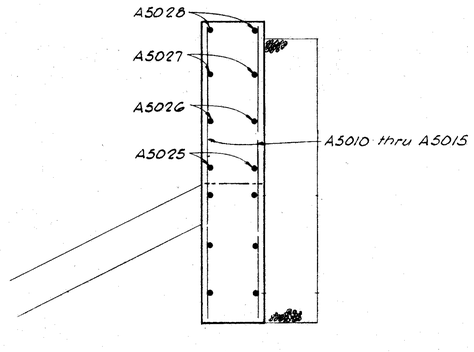


SECTION A_2/4



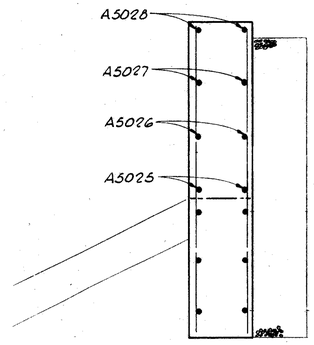
SECTION A_3/4

Same as Section A_1/4 except as noted



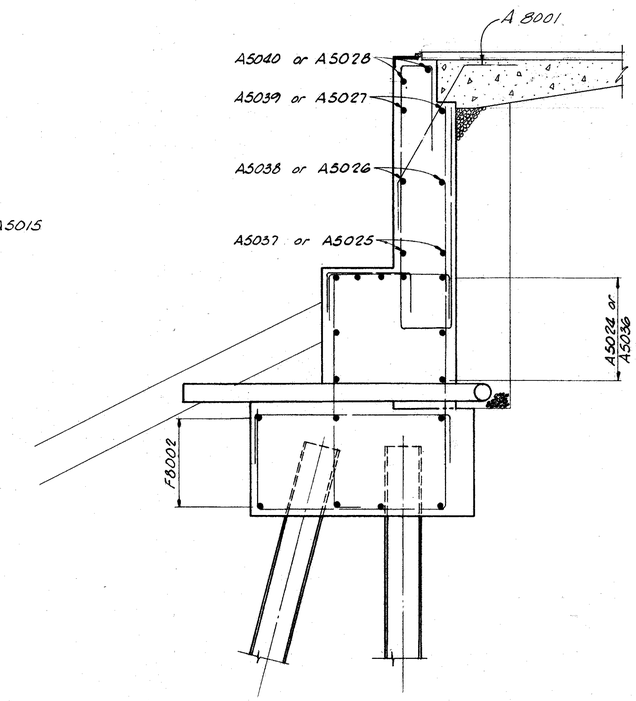
SECTION A_4/5

Same as Section A_1/4 except as noted.



SECTION A_6/5

Same as Section A_1/4 except as noted.



SECTION A_5/5

Same as Section A_2/4 except as noted.

ALDEN E. STILSON & ASSOCIATES, LIMITED
CONSULTING ENGINEERS
COLUMBUS, OHIO

6/12

ABUTMENT DETAILS

BRIDGE No. JEF-7-0245

SR-7over SHORT CREEK (Reloc.)

JEFFERSON COUNTY

STA. 129+08.55 to STA. 131+21.05

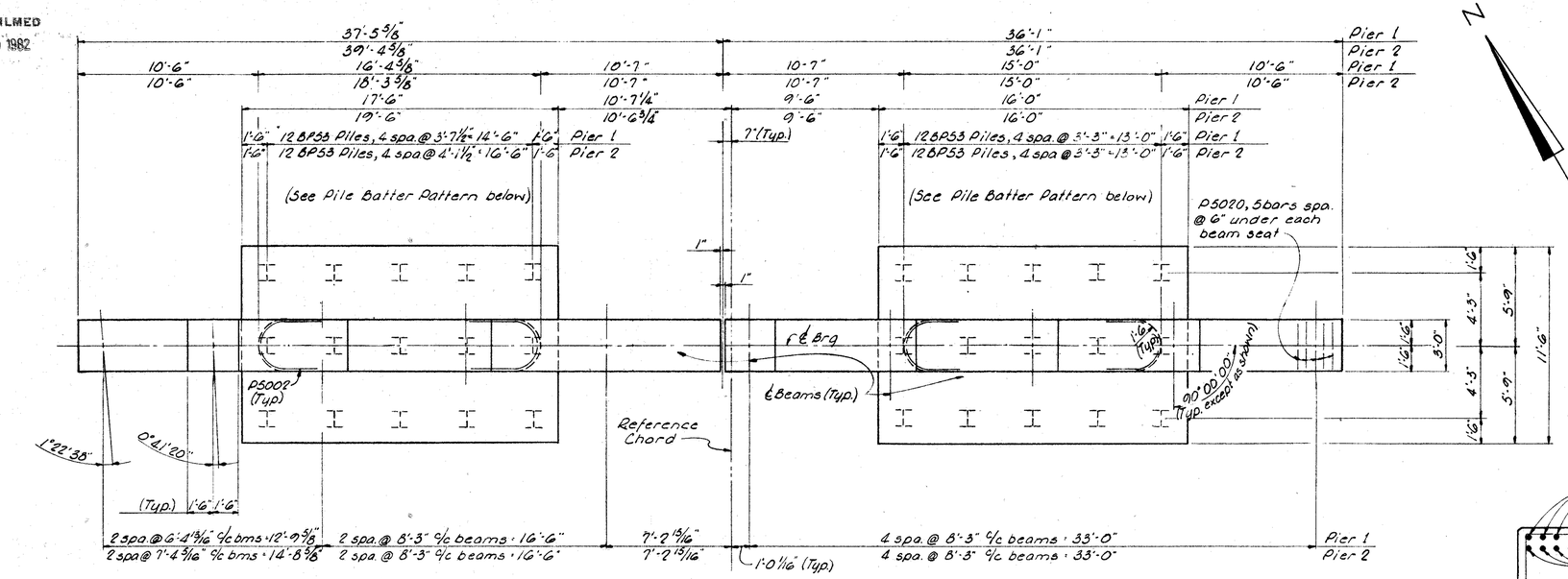
DESIGNED	DRAWN	TRACED	CHECKED	REVIEWED	DATE	REVISED
FWD	FWD		R.T.	JEV	7/17/68	

MICROFILMED
OCT 29 1982

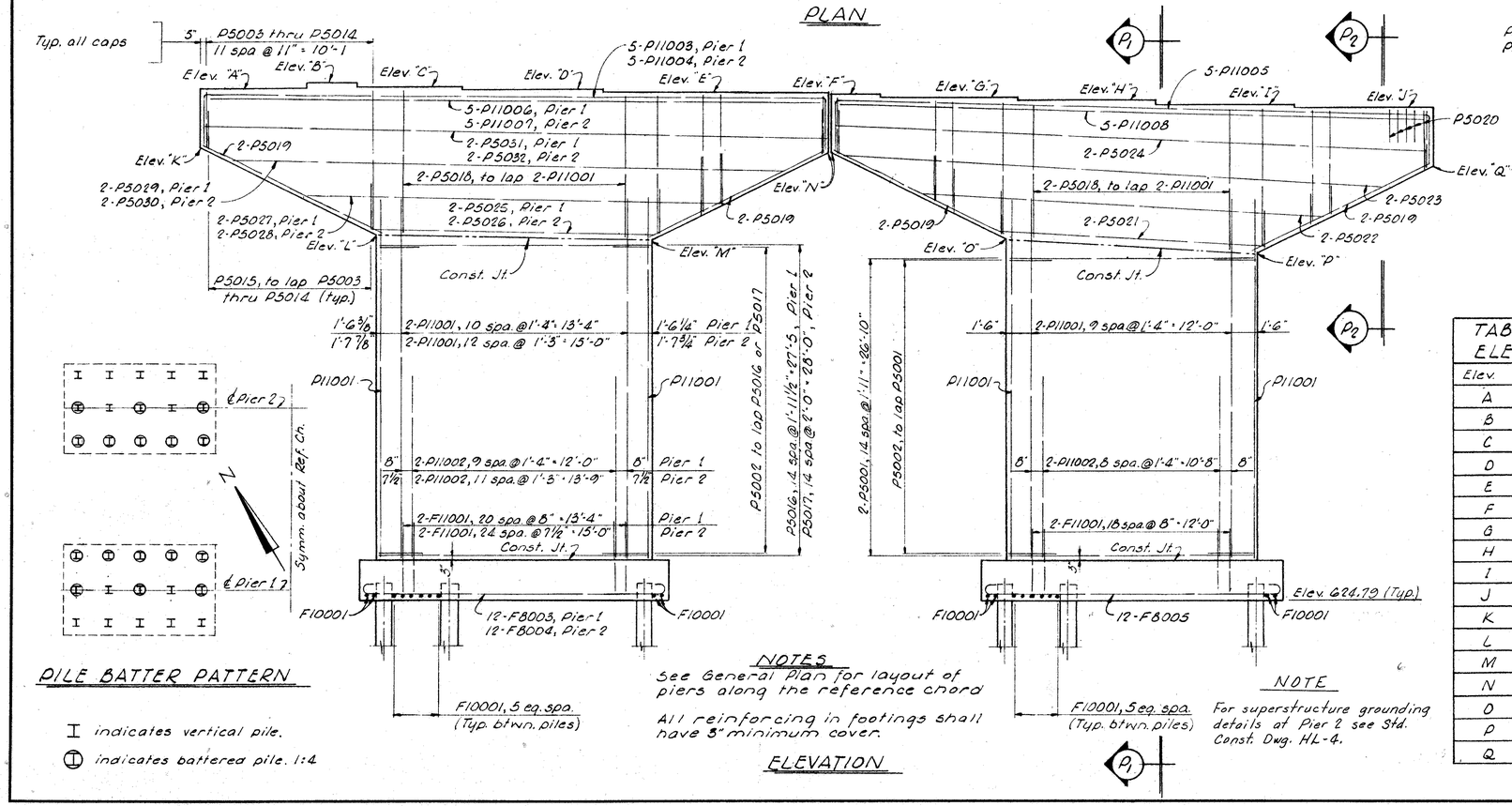
FED. RD. DIVISION	STATE	PROJECT	TYPE FUNDS
2	OHIO		

474
560

JEFFERSON COUNTY
JEF-7-0.20



PLAN



PILE BATTER PATTERN

I indicates vertical pile.

Ⓘ indicates battered pile. 1:4

NOTES

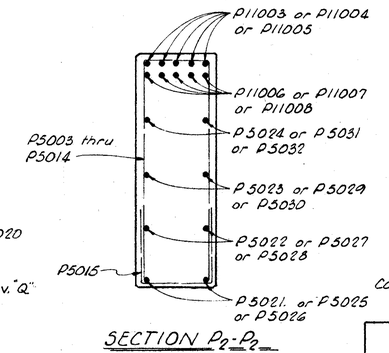
See General Plan for layout of piers along the reference chord

All reinforcing in footings shall have 3" minimum cover.

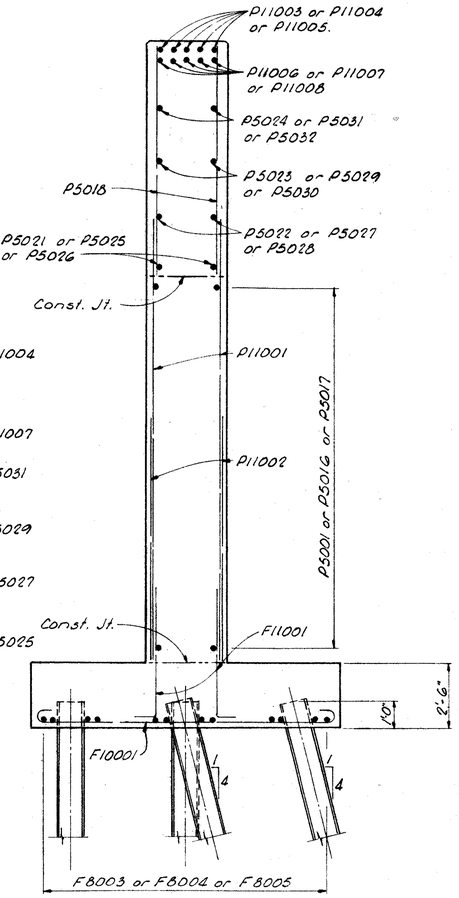
ELEVATION

NOTE

For superstructure grounding details at Pier 2 see Std. Const. Dwg. HL-4.



SECTION P2-P2

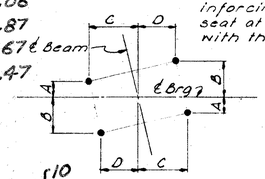


SECTION P1-P1

(Pier 1 shown, Pier 2 opposite hand.)

TABLE of ELEVATIONS			
Elev.	Pier 1	Pier 2	
A	665.18	664.73	.76
B	665.42	664.93	.96
C	665.26	664.78	.79
D	665.07	664.58	.59
E	664.87	664.38	.39
F	664.74	664.23	.26
G	664.54	664.03	.06
H	664.35	663.82	.87
I	664.15	663.62	.67 ℄ Beam
J	663.95	663.42	.47
K	661.68	661.25	
L	656.43	656.00	
M	655.79	655.30	
N	661.04	660.55	
O	655.79	655.30	
P	655.20	654.71	
Q	660.45	659.96	

Note: Special care shall be taken in placing reinforcing steel in the vicinity of the bridge seat at Pier 2 so as to avoid interference with the drilling of anchor bolt holes.



ANCHOR BOLT PLACEMENT				
Beam	"A"	"B"	"C"	"D"
1 thru 8	6"	6"	10"	10"
~~9~~	~~5 7/8~~	~~6 1/8~~	~~10 1/8~~	~~9 7/8~~
~~10~~	~~5 3/4~~	~~6 1/4~~	~~10 1/8~~	~~9 7/8~~

ALDEN E. STILSON & ASSOCIATES, LIMITED
CONSULTING ENGINEERS
COLUMBUS, OHIO

7/12

PIER 1&2 DETAILS
BRIDGE N² JEF-7-0245
SR-7 over SHORT CREEK (Reloc.)
JEFFERSON COUNTY
STA. 129+08.55 to STA. 131+21.05

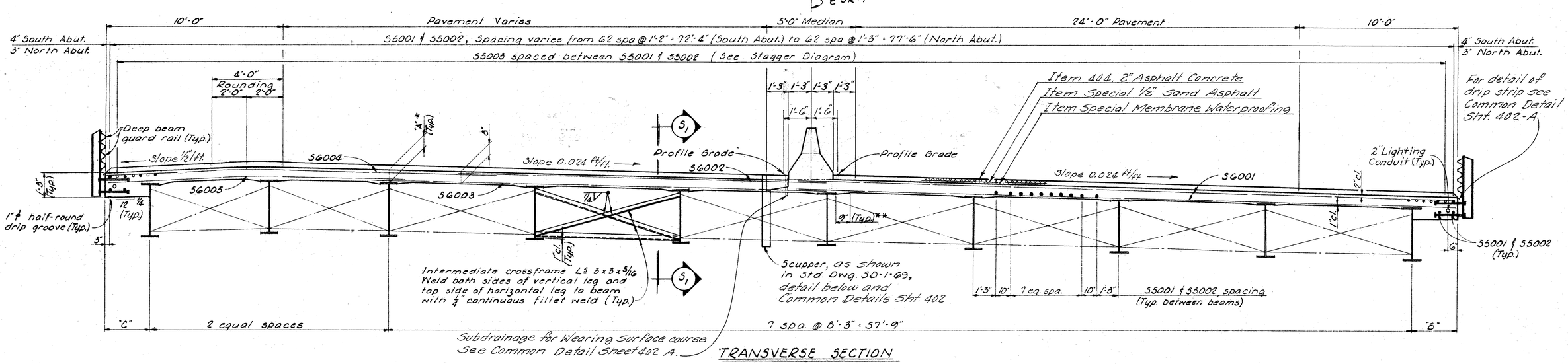
DESIGNED	DRAWN	TRACED	CHECKED	REVIEWED	DATE	REVISED
fwd	fwd		R.T.	JEV	7/17/68	~~5-23-75~~ 8-29-75

MICROFILMED
OCT 29 1982

FED. RD. DIVISION	STATE	PROJECT	TYPE FUNDS
2	OHIO		

475
560

JEFFERSON COUNTY
JEF-7-0.20



TRANSVERSE SECTION

Note: Deck Finishing: Concrete deck shall be in accordance with 451.09 and 451.12, except that the roadway surface shall be finished with a burlap drag to provide a uniform surface with a gritty texture.

NOTES

* The distance shown from the top of deck slab to top of beam is the nominal dimension. The quantity of deck concrete to be paid for shall be based on this dimension even though deviation from it may be necessary because the top flange of the beam may not have the exact camber or conformation required to place it parallel to the finished grade.

** A typical haunch width of 9" shall be used for computing quantity of concrete. However, the haunch width may vary between 6" and 12" provided that the slope shall not be

Field bending of transverse slab steel shall be included in Item 509 for payment.

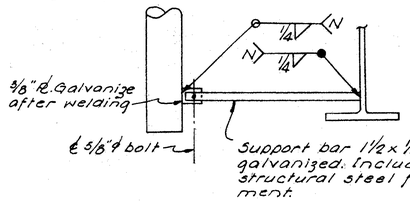
For railing details see Common Details, Sheet 402.

For additional notes and details see sheets 9/12 and 10/12

Transverse reinforcing shall be placed parallel to abutments and shall be spaced @ 7" c/c along ℄ SR-7.

Lap S5001 & S5002 bars 1'-7".

STEEL ERECTION: During the erection of the end dams and crossframes care shall be taken to insure that stringers, bearing parts and bridge seats remain in bearing contact.



SCUPPER DETAIL
(For scupper galvanizing note see Common Details, Sheet 402.)

SLAB THICKNESS *	
Location	"A"
℄ Brg. South Abut.	8" → 8 1/4"
℄ Brg. Pier 1	8 1/4"
℄ Brg. Pier 2	8 3/8" → 8 1/4"
℄ Brg. North Abut.	8 1/4" → 8 1/8"

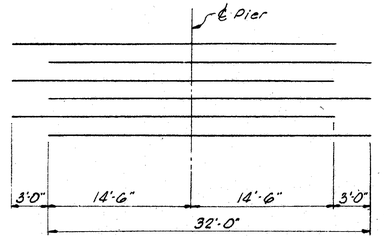
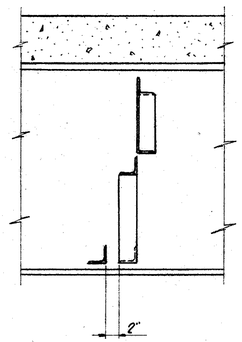
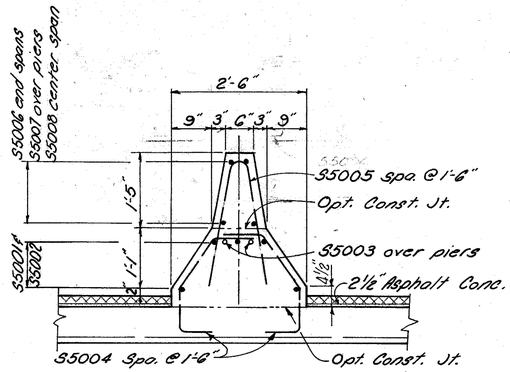


DIAGRAM SHOWING STAGGER of S5003 BARS OVER PIERS



SECTION S1-S1



BARRIER DETAIL

SLAB CANTILEVERS			
Location		"B"	"C"
South Abutment		2'-6"	1'-6"
1/4 Point	Span 1	2'-2 3/8"	1'-6 1/2"
1/2 Point	do	2'-0 1/8"	1'-9 3/8"
3/4 Point	do	1'-10"	1'-11 3/8"
Pier 1		1'-8 1/4"	2'-1 1/2"
Field Splice 1		1'-7 1/8"	2'-2 3/4"
1/4 Point	Span 2	1'-6 3/8"	2'-3 1/2"
3/4 Point	do	1'-7 1/8"	2'-3 1/4"
Pier 2		1'-8 1/4"	2'-2 1/8"
Field Splice 2		1'-10"	2'-0 5/8"
1/2 Point	Span 3	2'-0 1/8"	1'-10 3/4"
3/4 Point	do	2'-2 3/8"	1'-8 1/4"
North Abutment		2'-6"	1'-5 1/8"

ALDEN E. STILSON & ASSOCIATES, LIMITED
CONSULTING ENGINEERS
COLUMBUS, OHIO

8/12

SUPERSTRUCTURE DETAILS

BRIDGE Nº JEF-7-0245
SR-7 over SHORT CREEK (Reloc.)
JEFFERSON COUNTY
STA. 129+08.55 to STA. 131+21.05

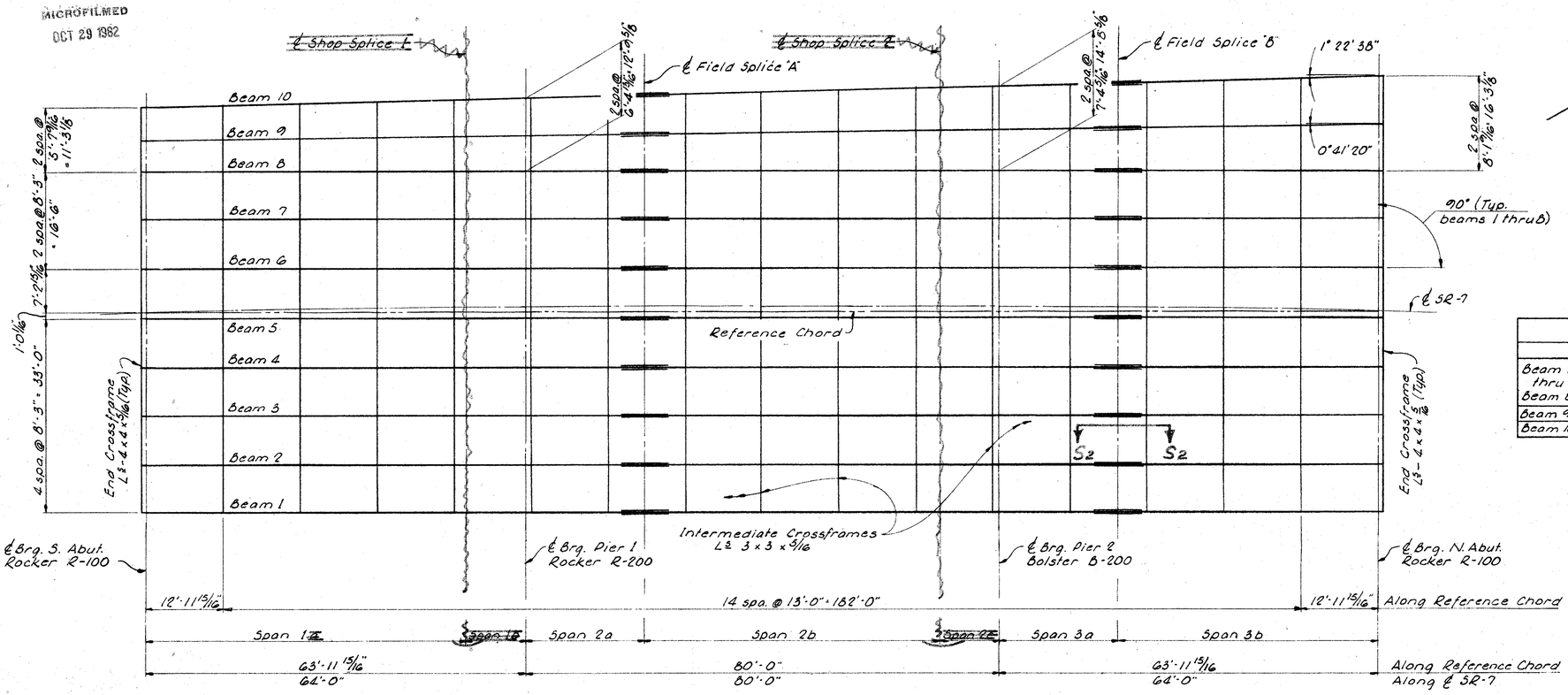
DESIGNED	DRAWN	TRACED	CHECKED	REVIEWED	DATE	REVISED
FWD	FWD		R.T.	JEV	7/17/68	3-23-75

MICROFILMED
OCT 29 1982

FED. RD. DIVISION	STATE	PROJECT	TYPE FUNDS
2	OHIO		

476/560

JEFFERSON COUNTY
JEF-7-0.20



FRAMING PLAN

TABLE of BEAM SIZES

From	To	Beam Size
South Abutment	(Shop) Splice (1) A	36 WF 170
~~Shop Splice F~~	~~Field Splice 1E~~	~~36 WF 230~~
Field Splice 'A'	(Shop) Splice (2) B	36 WF 170
~~Shop Splice E~~	~~Field Splice 2E~~	~~36 WF 230~~
Field Splice 'B'	North Abutment	36 WF 170

Field
230
230
Field

TABLE of HORIZONTAL BEAM LENGTHS

	Span 1	Span 1B	Span 2a	Span 2b	Span 2B	Span 3a	Span 3b
Beam 1 thru Beam 8	63' / 63'-11 15/16" / 64'	10'-0"	20'-0"	60' / 60'-0" / 60'	10'-0"	16'-0"	47'-11 15/16"
Beam 9	64'-0"	do	do	do	do	do	do
Beam 10	64' / 64'-0 1/16"	do	20'-0 1/16"	60' / 60'-0 3/16" / 60'	do	16'-0 1/16"	48'-0 1/8"

NOTES

Place bearing devices parallel to ℄ brg at all substructure units.

Place Intermediate Crossframes normal to parallel beams.

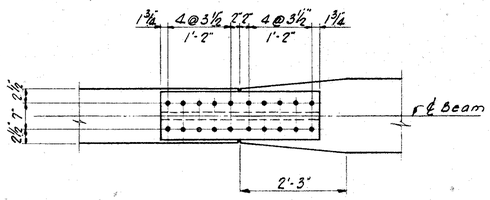
For additional notes and details see Sheets 8/12 and 10/12

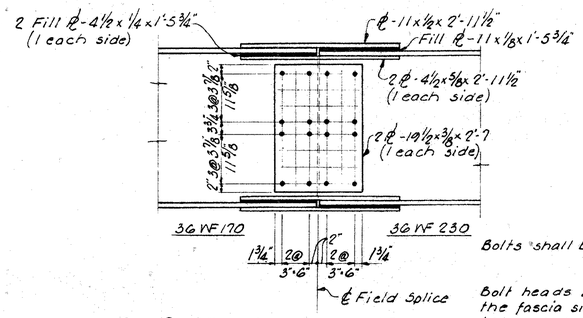
End finish and end crossframes shall conform to 30-1-69.

End Dam: Provide a 1/4" x 3" bar, welded to the main angle as shown on SD-1-69.

Bearing Devices under Beams 1 & 10 shall be fabricated without 1/2" keeper plates.

Field splice "A" shall be in accordance with Std. Dwg. SD-1-69, Sheet 4 of 4.

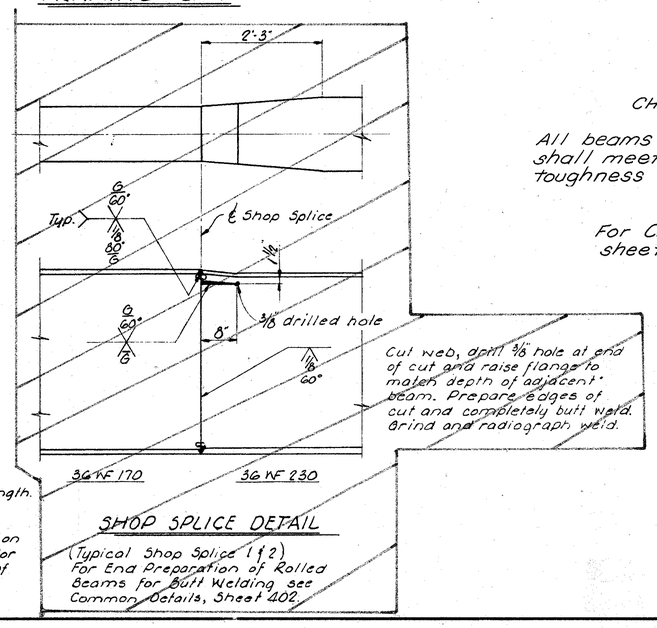




S2-S2 FIELD SPLICE DETAIL
~~(Typical Field Splice A ℄ B)~~

Bolts shall be 1" ℄ high strength.

Bolt heads shall be placed on the fascia side of the exterior beams and on bottom side of the bottom flange.



SHOP SPLICE DETAIL
(Typical Shop Splice 1 ℄ 2)
For End Preparation of Rolled Beams for Butt Welding see Common Details, Sheet 402

CHARPY TEST

All beams and field splice material shall meet specified minimum notch toughness requirements.

For Charpy Test notes see sheet 415

ALDEN E. STILSON & ASSOCIATES, LIMITED
CONSULTING ENGINEERS
COLUMBUS, OHIO
2/12

SUPERSTRUCTURE DETAILS
BRIDGE N² JEF-7-0245
SR-7 over SHORT CREEK (Reloc.)
JEFFERSON COUNTY
STA. 129+08.55 to STA 131+21.05

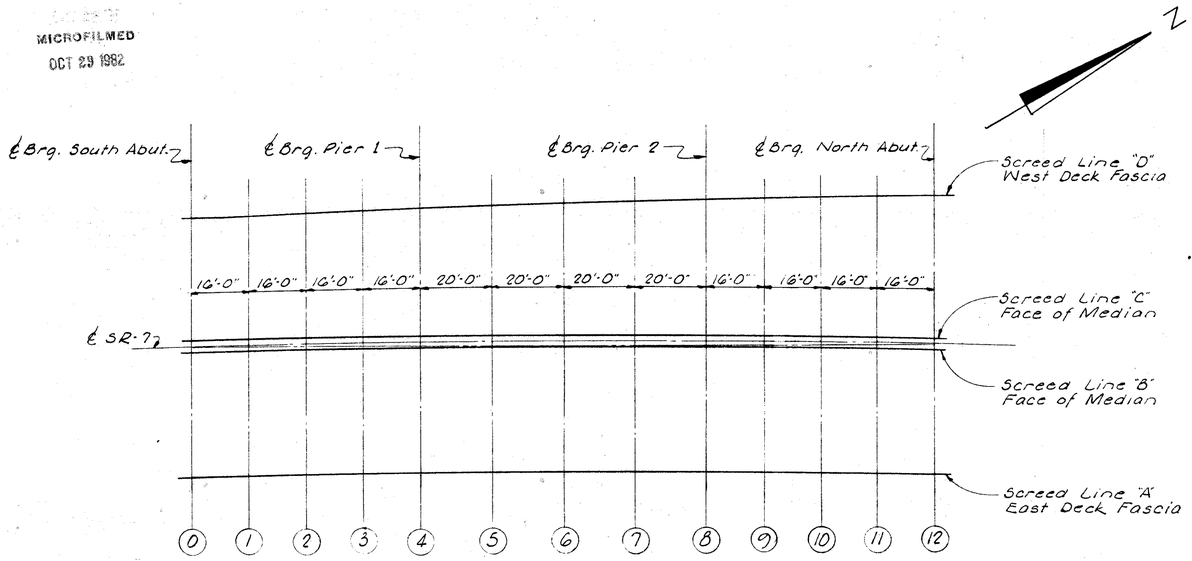
DESIGNED	DRAWN	TRACED	CHECKED	REVIEWED	DATE	REVISED
fwd	fwd		R.T.	JEV	7/17/68	3-29-75

MICROFILMED
OCT 29 1982

FED. RD. DIVISION	STATE	PROJECT	TYPE FUNDS
2	OHIO		

477
560

JEFFERSON COUNTY
JEF-7-0.20



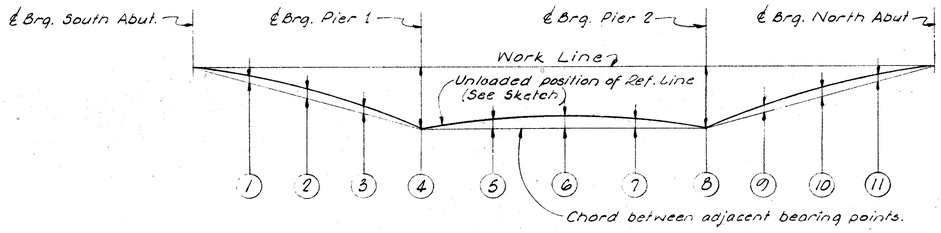
.11 .11

SCREED ELEVATIONS				
	"A"	"B"	"C"	"D"
0	669.35	670.19	670.19	670.50
1	669.28	670.12	670.12	670.43
2	669.20	670.02	670.02	670.36
3	669.07	669.91	669.91	670.24
4	668.96	669.80	669.80	670.15
5	668.86	669.70	669.70	670.06
6	668.76	669.60	669.60	669.97
7	668.62	669.46	669.46	669.84
8	668.48	669.32	669.32	669.72
9	668.40	669.24	669.24	669.66
10	668.33	669.16	669.16	669.59
11	668.22	669.06	669.06	669.49
12	668.09	668.94	668.94	669.37

.18 — .35 — .59

Screed elevations are at top of slab before the concrete deck is placed. Proper allowance has been made for the dead load deflection due to the weight of the concrete.

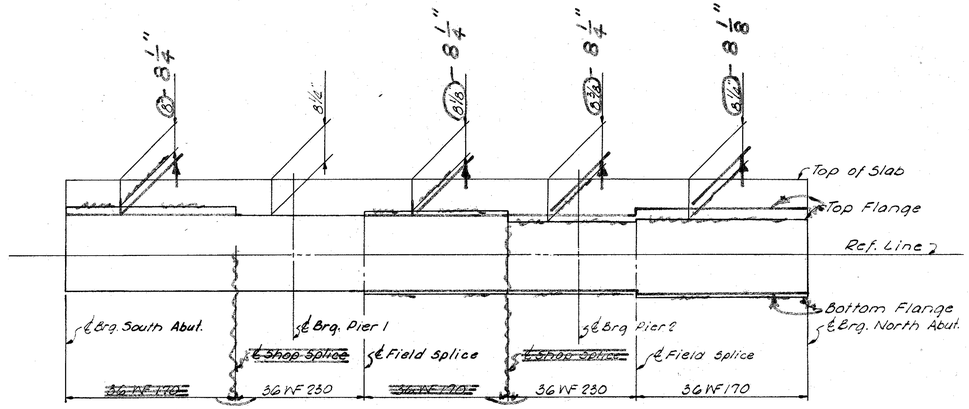
For additional notes and details see Sheets 8 | 12 and 9 | 12



CAMBER and BLOCKING DIAGRAM

VERTICAL OFFSETS from WORK LINE to BEARING POINTS		
Beam	④	⑤
1	1/4	1/4
2	do	do
3	do	do
4	do	do
5	1/8	1/8
6	1/4	1/4
7	do	do
8	do	do
9	- 1/8 *	0
10	- 1/4 *	-3/8 *

* Vertical offsets shown as (-) indicate bearing point is above work line.



SLAB THICKNESS DIAGRAM

DEFLECTION and CAMBER	SPAN 1						SPAN 2						SPAN 3					
	1/4 Point ①		1/2 Point ②		3/4 Point ③		Splice Point ⑤		1/2 Point ⑥		3/4 Point ⑦		Splice Point ⑨		1/2 Point ⑩		3/4 Point. ⑪	
	Int.	Ext.	Int.	Ext.	Int.	Ext.	Int.	Ext.	Int.	Ext.	Int	Ext.	Int.	Ext.	Int.	Ext.	Int	Ext.
Deflection due to weight of steel	1/16	1/16	1/16	1/16	1/16	1/16	1/16	1/16	1/8	1/8	1/16	1/16	1/16	1/16	1/16	1/16	1/16	1/16
Deflection due to remaining D.L.	3/16	3/8	3/8	7/16	1/8	3/16	1/4	1/4	1/2	1/2	1/4	1/4	3/16	1/4	3/8	7/16	5/16	3/8
Adjustment reqd. for curvature	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Required Shop Camber	3/8	1/16	1/16	1/2	5/16	1/4	5/16	5/16	3/8	3/8	7/16	3/16	1/4	5/16	7/16	1/2	3/8	7/16

1/4 — 5/16 — 5/16 — 3/8 — 5/16 — 3/8 — 1/8 — 3/16 — 3/16 — 1/4 — 3/8 — 1/2 — 7/16 — 3/16 — 3/16 — 1/4

ALDEN E. STILSON & ASSOCIATES, LIMITED
CONSULTING ENGINEERS
COLUMBUS, OHIO

10 | 12

SUPERSTRUCTURE DETAILS

BRIDGE No. JEF-7-0245
SR-7 over SHORT CREEK (Reloc.)
JEFFERSON COUNTY STA. 129+08.55 to STA. 131+21.05

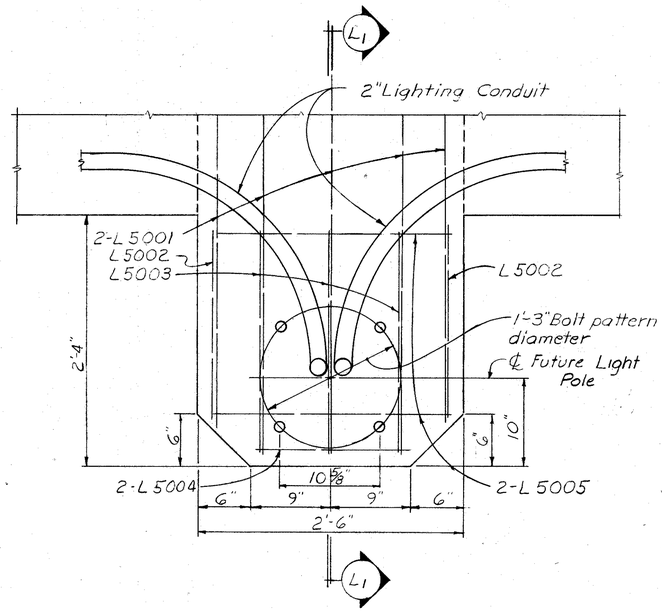
DESIGNED	DRAWN	TRACED	CHECKED	REVIEWED	DATE	REVISED
fwd	fwd		R.T.	JEV	7/17/68	3-29-75

MICROFILMED
OCT 23 1982

FED. RD. DIVISION	STATE	PROJECT	TYPE FUNDS
2	OHIO		

478
360

JEFFERSON COUNTY
JEF-7-0.20



LIGHTING NOTES

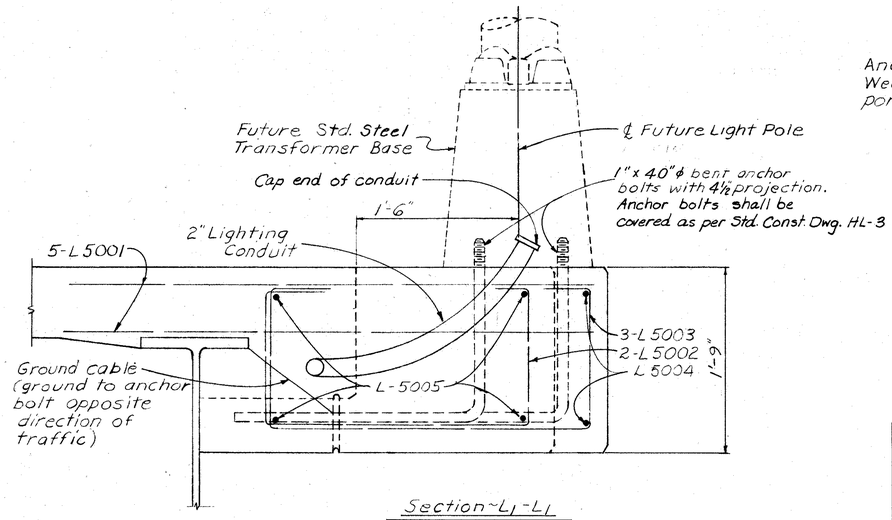
Bridge Lighting - Item 625 includes the installation of all electrical equipment on the bridge and wingwall to the adjacent Roadway Pull Box. For additional details and notes and Standard Drawing HL-5.

Quantities - The reinforcing steel for light pole support are included with the bar List and are included with the structure quantities for payment. For detail listing of quantities see General Lighting, Sheet 359.

Conduit - All conduit shall be rigid ferrous metal, as per 713.04

Expansion Fitting - Fittings shall be O-Z Company, Type "AX" or Crouse-Hinds, Type XJ or Appleton, Type XJ and shall be located so as to permit equal expansion or contraction from 60°F. Included with conduit for payment.

Anchor Bolts - Apply light coat of red Weather resistant paint to projected portion of bolt.



Section-L1-L1

LIGHT POLE SUPPORT

11/12

ALDEN E. STILSON & ASSOCIATES, LIMITED
CONSULTING ENGINEERS
CLEVELAND, OHIO COLUMBUS, OHIO WHEELING, W. VA.

LIGHT POLE DETAILS

BRIDGE N² JEF-7-0245
SR-7 over SHORT CREEK (Reloc.)
JEFFERSON COUNTY STA. 129+08.55 to STA. 131+21.05

DESIGNED	DRAWN	TRACED	CHECKED	REVIEWED	DATE	REVISED
FWD	JA		R.T.	JEV	7/17/68	

MICROFILMED
OCT 29 1982

FED. RD. DIVISION	STATE	PROJECT	TYPE FUNDS
2	OHIO		

479
560

JEFFERSON COUNTY
JEF-7-0.20

NOTES

1. INDICATES SERIES BAR. EACH BAR VARIES FROM ADJACENT BAR(S) BY TABULATED AMOUNT (S), CALCULATED TO NEAREST $\frac{1}{8}$". WEIGHT SHOWN IS FOR ENTIRE SERIES UTILIZING AVERAGE LENGTH.
2. BARS INCLUDED WITH ITEM 517, RAILING, FOR PAYMENT.
3. COST OF FIELD BENDING SHALL BE INCLUDED WITH ITEM 509.
4. LIGHT POLE SUPPORT BARS INCLUDED WITH ITEM 509 FOR PAYMENT.
5. END PREPARATION AND FIELD WELDING INCLUDED WITH ITEM 509.
6. "LENGTH" SHOWN FOR SPIRAL BARS IS DISTANCE FROM TOP OF FOOTING TO BOTTOM OF PIER CAP.
"NO. TURNS" SHOWN IS "LENGTH" DIVIDED BY PITCH, PLUS 3 TURNS (NUMBER OF CLOSED COILS), EXPRESSED AS NEAREST WHOLE NUMBER.

SPIRAL BARS SHALL NOT HAVE DEFORMATIONS BUT SHALL IN OTHER RESPECTS CONFORM TO ITEM 509 $1\frac{1}{2}$ CLOSED COILS SHALL BE PROVIDED AT ENDS OF EACH SPIRAL UNIT. FOUR STEEL CHANNEL, TEE, OR ANGLE SPACERS, WEIGHING APPROXIMATELY 0.80 LB. PER LIN. FT. OF SPACER SHALL BE PROVIDED FOR EACH SPIRAL UNIT. THEY SHALL BE EQUALLY SPACED ALONG PERIPHERY OF COIL. WEIGHT OF SPACERS, AT 0.80 LB. PER. LIN. FT. WILL BE PAID FOR AS REINFORCING STEEL AND IS INCLUDED IN TABULATED WEIGHT.

MARK	NUM.	LENGTH	WEIGHT	TYPE	A	B	C	D	E	NOTE
				ABUTMENTS						
F 5001	114	7- 0	832	1	0- 8	6- 6				
F 5002	114	8- 3	981	1		1- 7	5- 4	1- 7		
F 6001	114	14- 1	2411	1		6- 6	5- 4	2- 7		
F 8001	21	27-10	1561	ST						
F 8002	21	29- 6	1654	ST						
A 5001	100	4-11	513	1		1- 6	2- 2	1- 6		
A 5002	18	26- 6	498	ST						
A 5003	114	9- 4	1110	1		3- 1	3- 5	3- 1		
A 5004	4	5- 1		ST						1
THRU			137		VARY	LENGTH	BY 0'- 9 0/0''			
A 5008	4	8- 1		ST						1
A 5009	12	6- 3	78	ST						
A 5010	4	8-10		ST						1
THRU			174		VARY	LENGTH	BY 0'- 9 0/0''			
A 5015	4	5- 1		ST						1
A 5016	2	6- 8	14	ST						
A 5017	2	9- 1	19	ST						
A 5018	4	30- 6	127	ST						
A 5019	4	30- 3	126	ST						
A 5020	4	28- 9	120	ST						
A 5021	4	27- 5	114	ST						
A 5022	24	9- 7	240	ST						
A 5023	8	3-4	28	15	0- 7	0-11	1-0	0-9	0-9	
A 5024	27	26- 6	746	ST						
A 5025	4	30- 6	127	ST						
A 5026	4	30- 3	126	ST						
A 5027	4	28-10	120	ST						
A 5028	4	27- 5	114	ST						
A 5029	2	9- 2	19	ST						
A 5030	2	6- 7	14	ST						
A 5031	9	25- 7	240	ST						
A 5032	2	33- 1	69	ST						
A 5033	2	30- 5	63	ST						
A 5034	2	27- 9	58	ST						
A 5035	2	25- 1	52	ST						3
A 5036	9	30- 9	289	ST						
A 5037	2	38- 5	80	ST						
A 5038	2	35- 8	74	ST						
A 5039	2	32-11	69	ST						

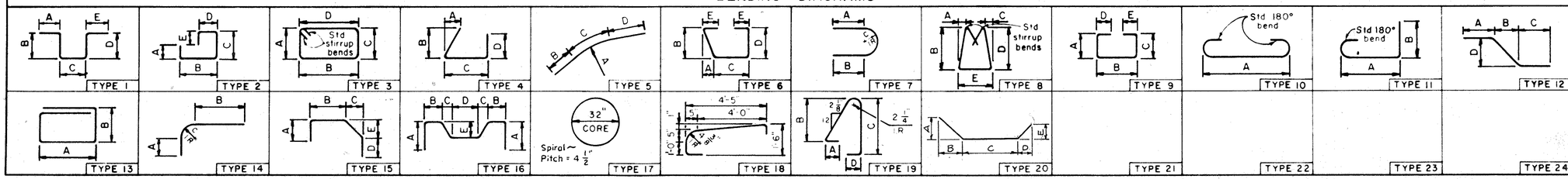
MARK	NUM.	LENGTH	WEIGHT	TYPE	A	B	C	D	E	NOTE
				ABUTMENTS				(CONTINUED)		
A 5040	2	30- 2	63	ST						3
A 5041	4	4-7	19	4	2-3	1-1	2-3			
A 6001	152	15-10	3615	2	5-0	1- 5	6- 4	0-11	2-10	
A8001	101	5-5	1461	20	1-1	1-1	3-7	0-6	0-6	
					PIERS					
F 8003	12	19- 2	614	10	17- 0					
F 8004	12	21- 2	678	10	19- 0					
F 8005	24	17- 8	1132	10	15- 6					
F10001	168	13-10	10000	10	11- 0					
F11001	168	7- 2	6397	1	1- 8	5-10				
P 5001	60	12- 0	751	ST						
P 5002	120	7- 2	897	7	1- 7	1- 7	1- 3			
P 5003	8	9- 1		1		3- 4	2- 8	3- 4		1
THRU			1410		VARY	LENGTH	BY 0'-10 7/8''			
					VARY	DIM. B	BY 0'- 5 1/2''			
					VARY	DIM. D	BY 0'- 5 1/2''			
P 5014	8	19- 1		1		8- 4	2- 8	8- 4		1
P 5015	96	5- 7	559	1		1- 7	2- 8	1- 7		
P 5016	30	13- 4	417	ST						
P 5017	30	15- 3	477	ST						
P 5018	88	8- 4	765	ST						
P 5019	16	11- 9	196	ST						
P 5020	100	5- 5	565	2		1- 6	2- 8	1- 6		
P 5021	4	15- 6	65	ST						
P 5022	4	23- 6	98	ST						
P 5023	4	32- 6	136	ST						
P 5024	4	35- 7	148	ST						
P 5025	2	16-10	35	ST						
P 5026	2	18- 9	39	ST						
P 5027	2	25- 0	52	ST						
P 5028	2	26- 9	56	ST						
P 5029	2	33- 0	69	ST						
P 5030	2	34- 9	72	ST						
P 5031	2	37- 1	77	ST						
P 5032	2	39- 0	81	ST						
P11001	96	31- 1	15854	ST						
P11002	80	14- 7	6198	ST						
P11003	5	42- 9	1136	9	3- 2	37- 1	3- 2			

MARK	NUM.	LENGTH	WEIGHT	TYPE	A	B	C	D	E	NOTE
				PIERS			(CONTINUED)			
P11004	5	44- 8	1187	9	3- 2	39- 0	3- 2			
P11005	10	41- 3	2192	9	3- 2	35- 7	3- 2			
P11006	5	37- 1	985	ST						
P11007	5	39- 0	1036	ST						
P11008	10	35- 7	1891	ST						
				SUPERSTRUCTURE						
~~S 5006~~	~~32~~	~~14- 1~~	~~470~~	~~ST~~						
~~S 5007~~	~~16~~	~~6- 8~~	~~111~~	~~ST~~						
S 5008	20	12- 10	268	ST						
S 5001	972	30- 0	3044	ST						
S 5002	162	38- 4	6477	ST						
S 5003	128	32- 0	4272	ST						
S 5004	280	3- 4	973	15	0- 7	0-11	1-0	0-9	0-9	
S 5005	140	4- 7	669	4	2-3	1-1	2-3			
S 6001	718	37- 2	40 82	ST						
S 6002	359	20- 8	11144	ST						
S 6003	359	25- 0	13480	ST						
S 6004	359	23- 8	12761	ST						3
S 6005	359	19- 4	10425	ST						3
				LIGHT POLE						
L 5001	10	4- 4	45	ST						4
L 5002	2	5-10	12	9	1- 5	2- 6	1- 5	0- 6	0- 6	4
L 5003	3	6- 3	20	9	1- 5	2-11	1- 5	0- 6	0- 6	4
L 5004	2	1- 2	2	ST						4
L 5005	4	2- 2	9	ST						4
				REPLACEMENT STEEL						
RE 5001	3	6- 7		ST						
RE 6001	5	6-10		ST						
RE 8001	1	7- 6		ST						
RE10001	1	8- 2		ST						
RE11001	2	8- 6		ST						

BAR SIZE DESIGNATION

BAR SIZE IS INDICATED IN THE BAR MARK. THE FIRST DIGIT WHERE FOUR DIGITS ARE USED, AND THE FIRST TWO DIGITS WHERE FIVE DIGITS ARE USED, INDICATE THE BAR SIZE NUMBER. FOR EXAMPLE, A7001 IS A NO.7 SIZE BAR AND A10140 IS A NO.10 SIZE.

BENDING DIAGRAMS



ALDEN E. STILSON & ASSOCIATES, LIMITED
CONSULTING ENGINEERS
COLUMBUS, OHIO

12/12

REINFORCING STEEL LIST
BRIDGE Nº JEF-7-0245
SR-7 over SHORT CREEK (Reloc.)

JEFFERSON COUNTY

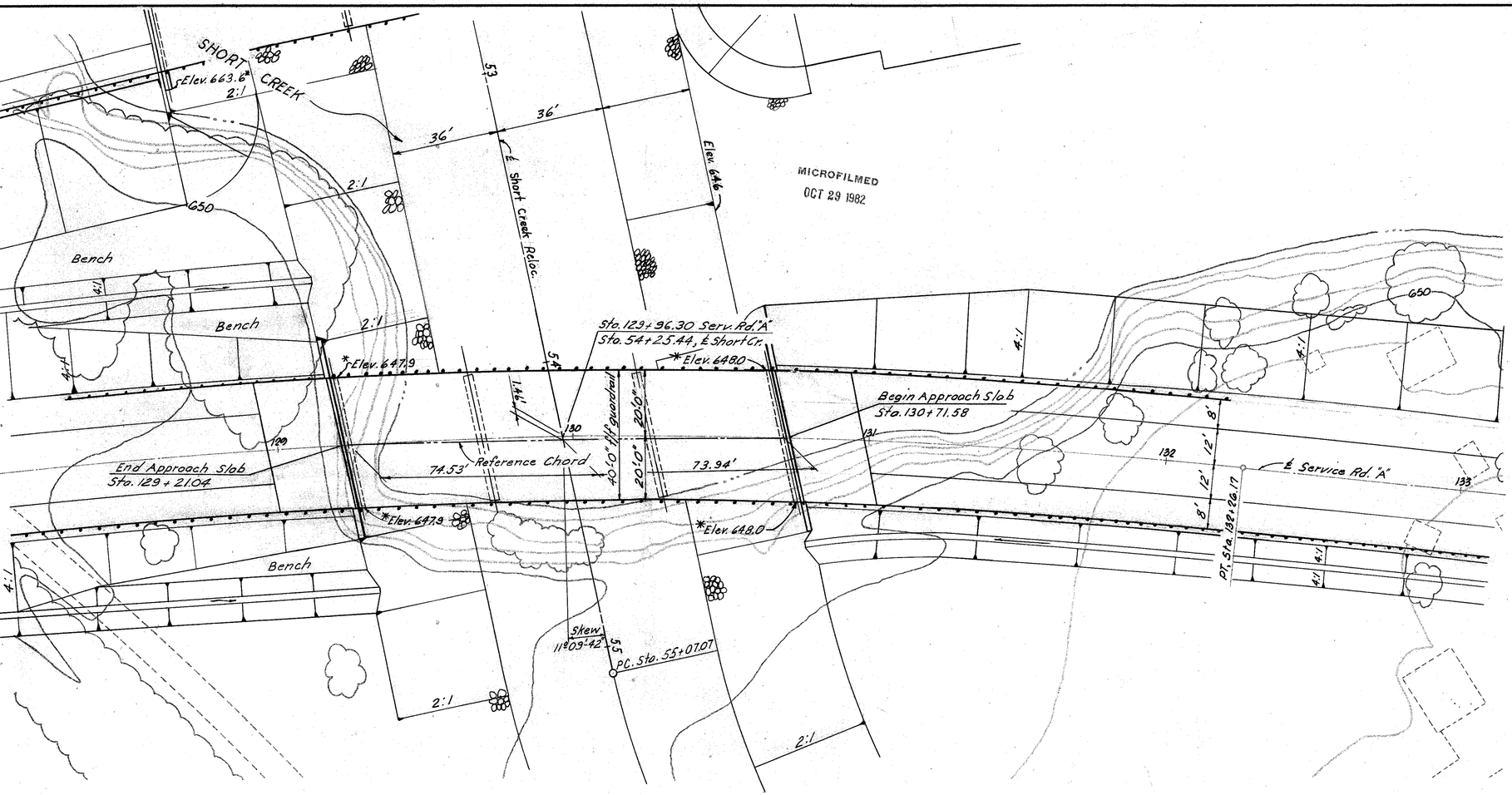
STA. 129+ 08.55 to
STA. 131 + 21.05

DESIGNED	DRAWN	TRACED	CHECKED	REVIEWED	DATE	REVISED
FWA 6/27/68			RT 7/3/68	JEV 7/17/68		

FED. RD. DIVISION	STATE	PROJECT	TYPE FUNDS

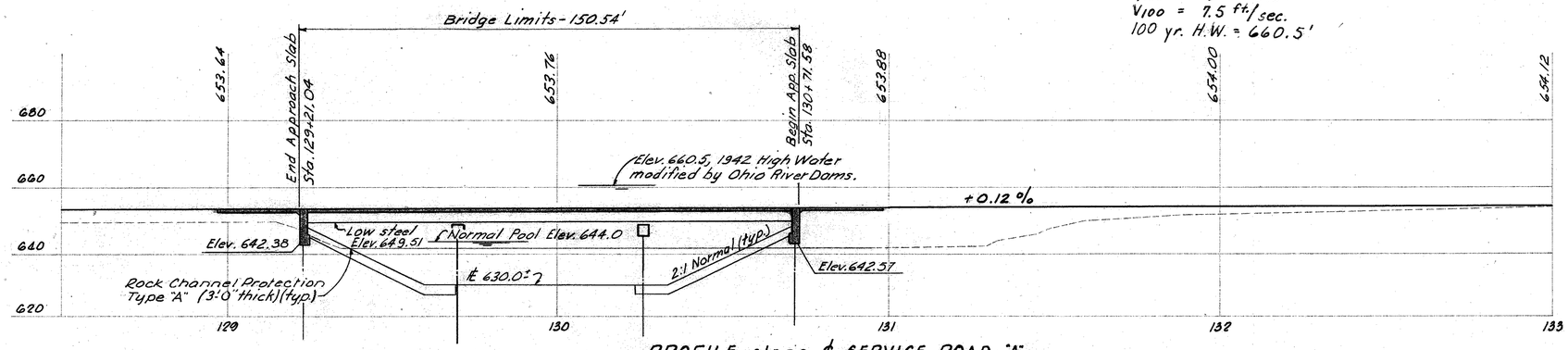
480
560

JEFFERSON COUNTY
JEF-7-0.20



PLAN

Curve Data Service Rd. "A"
PI = 128+95.58
Δ = 20°02'32"
Dc = 3°00'
Lc = 668.07'



PROFILE along ℄ SERVICE ROAD "A"

PROPOSED STRUCTURE

TYPE: Continuous steel beam with reinforced concrete deck, integral abutments and capped-pile piers.
SPANS: 45-6", 57-6", 45-6" along ℄ Serv. Rd. "A"
ROADWAY: 40'-0" ††† guardrail
LOADING: HS 20-44.
WEARING SURFACE: 2½" Asphalt concrete
SKEW: 11°09'42" Rt. fwd. with respect to reference chord.
ALIGNMENT: 3°00' curve right.
APPROACH SLABS: AS-1-72, 25'-0" long.
SUPERELEVATION: 0.032 ft/ft.

NOTES:

Reference Chord is o line between ℄ Brgs of abutments Sta. 129+22.05 to Sta 130+70.55

Elevations marked with an asterisk are at top of slope at face of abutment.

Earthwork limits shown are schematic. Actual slopes shall conform to plan cross-sections.

All piles shall be 14" ϕ Cast-in-place Reinforced Concrete.
Estimated average pay lengths are:
Abutments: 45'
Piers: 55'

DRAINAGE DATA

Drainage Area = 147 sq. miles.
Q50 = 10,200 cfs
Water way opening below 644.0 = 1370 sq. ft.
V50 = 7.5 fps (discharging against normal pool.)
Q100 = 11,400 cfs
V100 = 7.5 ft/sec.
100 yr. H.W. = 660.5'

Rev. 1-17-75 A.W.G.

ALDEN E. STILSON & ASSOCIATES, LIMITED
CONSULTING ENGINEERS
COLUMBUS, OHIO

1 / 0

SITE PLAN
BRIDGE

SERVICE RD. "A" over SHORT CREEK (Reloc.)
JEFFERSON COUNTY
STA. 129+21.04 to
STA. 130+71.58

DESIGNED	DRAWN	TRACED	CHECKED	REVIEWED	DATE	REVISED
GEA	GEA	D.R.	DLM	J.E.V.	11/13/67	

MICROFILMED
OCT 29 1982

FED. AID PROJECT NO.	STATE		SHEET NO.
2	OHIO		

481
560

JEFFERSON COUNTY
JEF-7-0.20

REFERENCES:

Standard Drawings:

Bolted Splices	SD-1-69, Sheet 4 Dated 6-12-69
Approach Slab Details	AS-1-72, Revised 6-30-72

Supplemental Specifications:

Chemical Admixture for Concrete Type A, B or D.	808	Dated 1-1-71
Concrete Curing and Protective Membrane	836	Dated 1-1-71
Special Pile Tests	838	Dated 1-1-71

Common Details:

DRIP STRIP	Sheet 402 A
Guard Rail	Sheet 402

DESIGN SPECIFICATIONS: This structure conforms to the "Standard Specifications for Highway Bridges" adopted by the American Association of State Highway Officials, 1965, including the Ohio "Supplement" to these specifications.

DESIGN DATA:

Design Loading - HS 20-44

Concrete Class C - unit stress 1200 p.s.i. for superstructure
unit stress 1333 p.s.i. for substructure

Structural Steel - ASTM A36 - unit stress 20,000 p.s.i.

Reinforcing Steel - ASTM A615, A616 or A617. Unit stress 20,000 p.s.i.

PROCEDURE: See Roadway Plans for placement of embankment. The embankments shall be constructed to the level of the subgrade for a minimum distance of 200 feet back of the abutments. Excavation shall then be made for the abutments.

PILES shall be driven to a minimum bearing capacity of 35 tons per pile for the abutments and 40 tons per pile for the piers.

MACHINE FINISH: The concrete bridge deck shall be finished by the use of a finishing machine.

END DUMPED ROCK: The Contractor shall exercise extreme care in the selection and placing of end dumped rock in the vicinity of the abutments to insure adequate pile penetration. Piles may be spudded if necessary. Cost of spudding shall be included with the unit price bid for 14" Ø cast-in-place reinforced concrete piles.

	ITEM	TOTAL	UNIT	DESCRIPTION	ABUTS	PIERS	SUPER	GENERAL		
	503	137	C.Y.	UNCLASSIFIED EXCAVATION	137					
	505	LUMP	SUM	TEST PILE				LUMP		
	507	1800	L.F.	14 INCH CAST-IN-PLACE REINFORCED CONCRETE PILES	810	990				
	509	59727	LB	REINFORCING STEEL	7386	3985	48356			
	511	178	C.Y.	CLASS C CONCRETE, SUPERSTRUCTURE			178			
	511	34	C.Y.	CLASS C CONCRETE, PIER CAPS		34				
	511	57	C.Y.	CLASS C CONCRETE, ABUTMENTS ABOVE FOOTINGS	57					
	511	40	C.Y.	CLASS C CONCRETE, FOOTINGS	40					
	512	104	L.F.	PREMOLDED SEALING STRIP				104		
	513	121400	LB	STRUCTURAL STEEL			121400			
	514	121400	LB.	FIELD PAINTING OF STRUCTURAL STEEL			121400			
	516	12	S.F.	1/2 INCH THICK ELASTOMERIC BEARING PADS			12			
	516	87	S.F.	1 INCH PREFORMED EXPANSION JOINT FILLER				87		
	516	77	S.F.	1/4 INCH PREFORMED EXPANSION JOINT FILLER				77		
	517	301.10	L.F.	RAILING (TWO DEEP BEAM RAILS WITH STEEL POST AND BOLTS) 10 Gage			301.10			
	518	46	C.Y.	POROUS BACKFILL	46					
	518	116	L.F.	6 INCH PERFORATED, HELICAL CMP, 707.01	116					
	518	60	L.F.	6 INCH NON-PERFORATED, HELICAL CMP, 707.01, INCLUDING SPECIALS	60					
	808	178	UNIT	CHEMICAL ADMIXTURE FOR CONCRETE, TYPE A, B OR D			178			
	838	3	HR.	SPECIAL PILE TESTS				3		
	SPEC	196	S.F.	GALVANIZED STEEL DRIP STRIP			196			
	404	37	C.Y.	ASPHALT CONCRETE (70-85 or AC 20)			37			
	SPEC	9	C.Y.	SAND ASPHALT			9			
*	SPEC	669	S.Y.	MEMBRANE WATERPROOFING, Sheet type			669			

* See Proposal Note

ALDEN E. STILSON & ASSOCIATES, LIMITED
CONSULTING ENGINEERS
COLUMBUS, OHIO

2 / 9

GENERAL NOTES
AND
ESTIMATED QUANTITIES
BRIDGE

SERVICE RD."A"over SHORT CR. (Reloc.)
JEFFERSON COUNTY STA. 129+21.04 to STA. 130+71.58

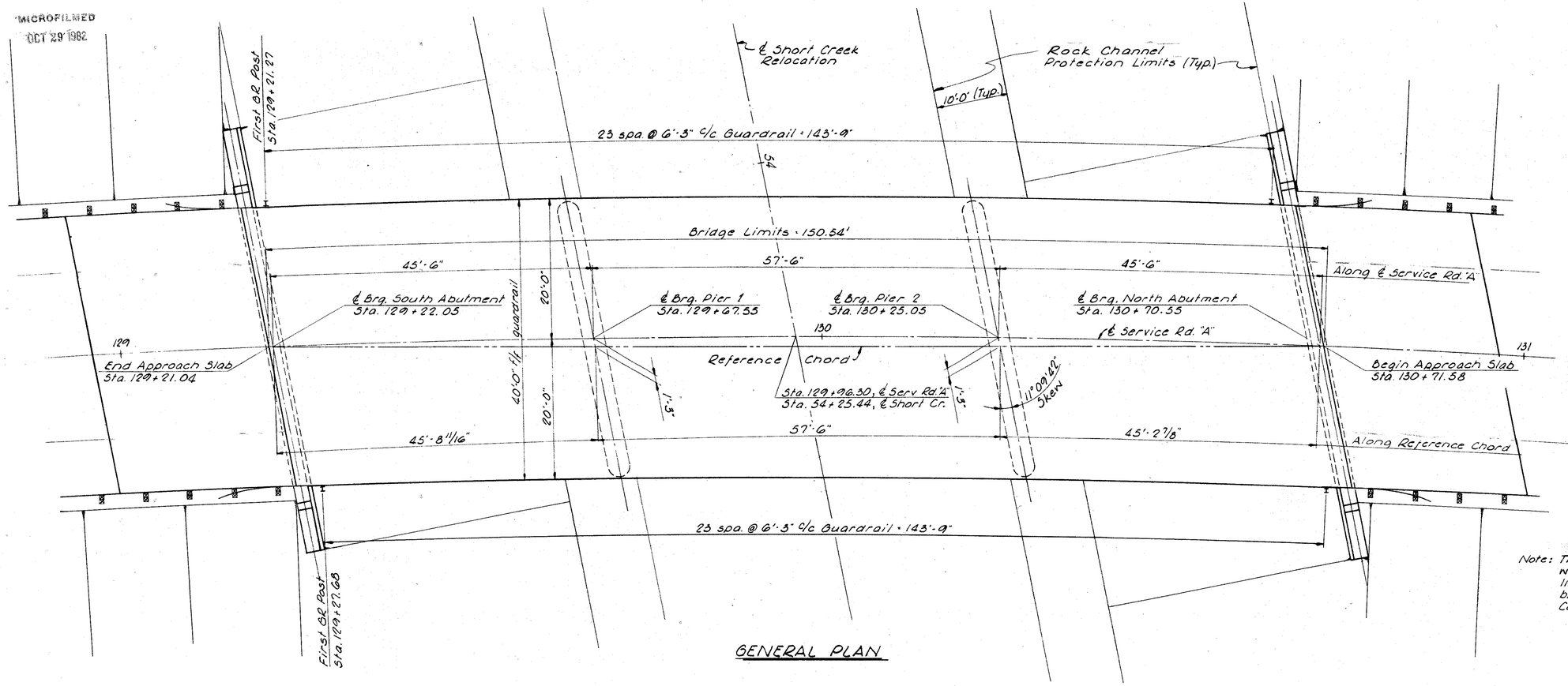
DESIGNED	DRAWN	TRACED	CHECKED	REVIEWED	DATE	REVISED
FWA 6/19/68			RT 7/15/69	JEV 9/5/68		

MICROFILMED
OCT 29 1982

FED. RD. DIVISION	STATE	PROJECT	TYPE FUNDS
2	OHIO		

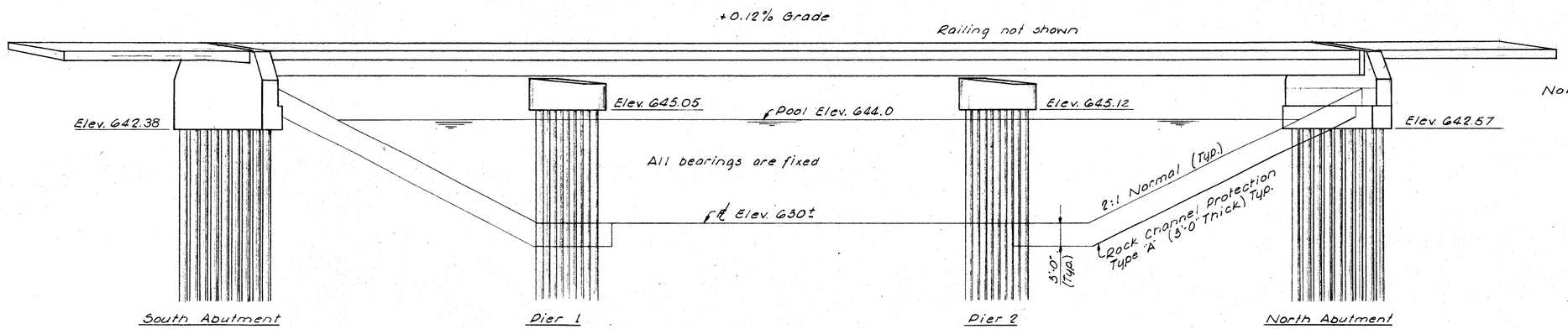
482
560

JEFFERSON COUNTY
JEF-7-0.20



GENERAL PLAN

Note: That portion of the lower guard rail which projects beyond the bridge limits shall be included with the bridge railing for payment. See Common Details, Sheet 402 for details.



GENERAL ELEVATION

Note: For Rock Channel Protection quantity see Roadway Plans.

ALDEN E. STILSON & ASSOCIATES, LIMITED
CONSULTING ENGINEERS
COLUMBUS, OHIO

3 / 9

GENERAL PLAN and ELEVATION
BRIDGE
SERVICE RD. "A" over SHORT CR. (Reloc.)
JEFFERSON COUNTY — STA. 129+21.04 to STA. 130+71.58

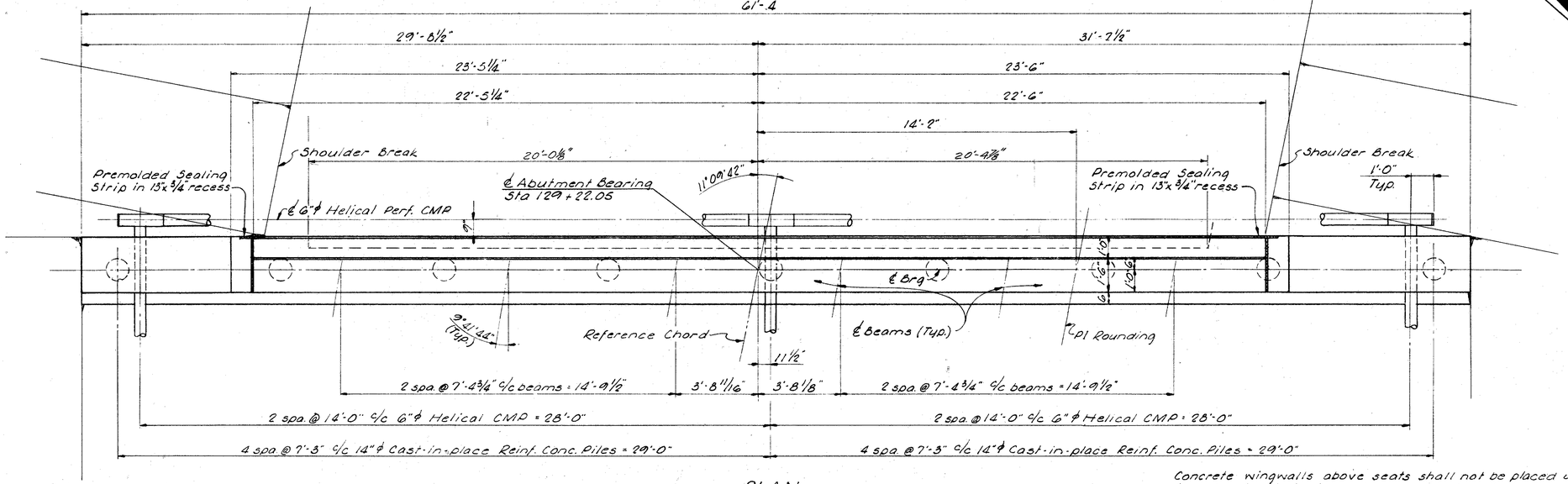
DESIGNED	DRAWN	TRACED	CHECKED	REVIEWED	DATE	REVISED
fwd	fwd		RT	J.E.V.	9/5/68	

MICROFILMED
OCT 29 1982

FED. RD. DIVISION	STATE	PROJECT	TYPE FUNDS
2	OHIO		

483
560

JEFFERSON COUNTY
JEF-7-0.20



PLAN

NOTES

Porous Backfill 1'-6" thick full length of abutment and wings, shall extend up to the plane of the subgrade and laterally to the surface of the embankment slopes.

Outside ends of 6"ϕ Helical Perf. CMP shall be capped.

Reinforcing Bars shown on this sheet which are prefixed by "S" are Superstructure Bars and are shown here for placement only.

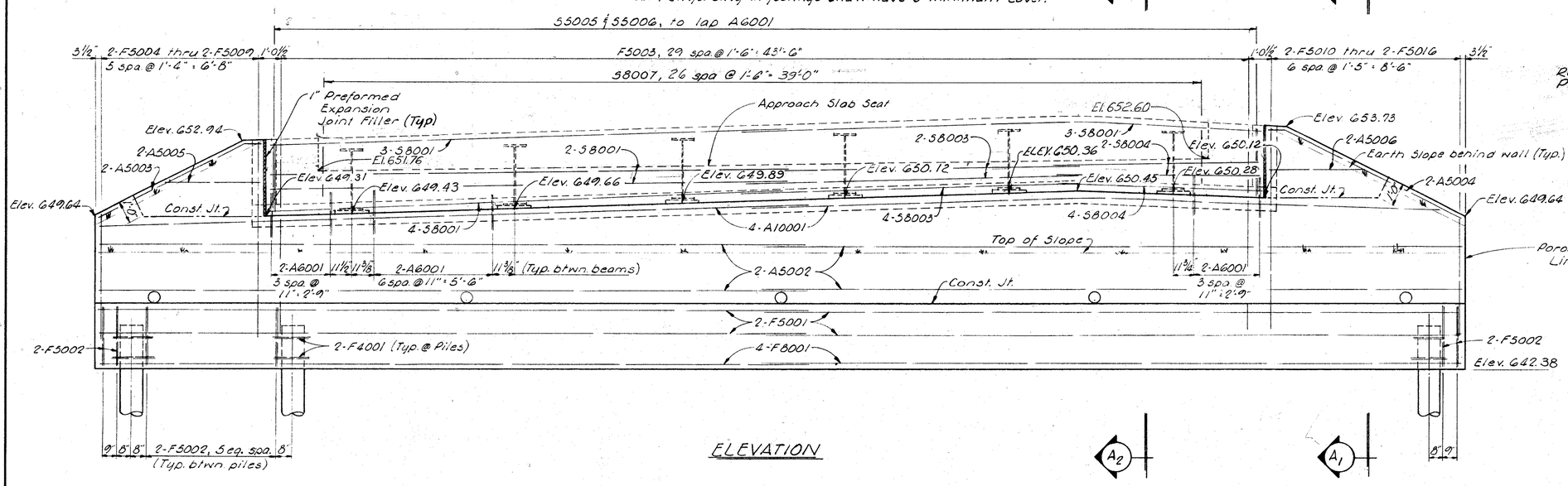
Field bending of transverse bars shall be included with Item 509 for payment.

All reinforcing in footings shall have 3" minimum cover.

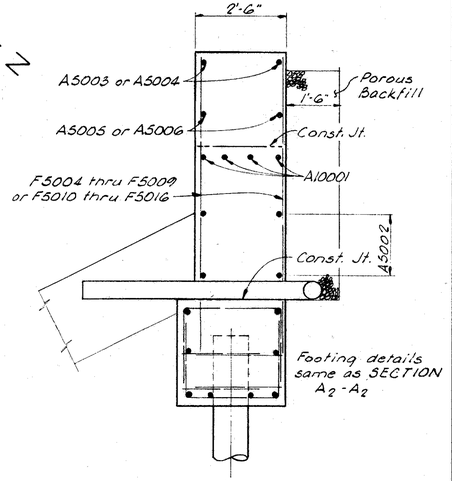
Concrete wingwalls above seats shall not be placed until the structural steel has been erected and the bars which are to be threaded through the beam webs have been placed.

Preformed Expansion Joint Filler shall extend full length of beam seat.

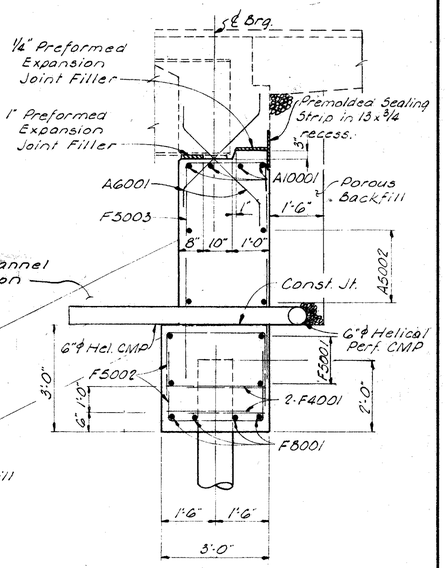
Premolded Sealing Strip shall extend full length of beam seat and from beam seat to top of slab.



ELEVATION



SECTION A1-A1



SECTION A2-A2

ALDEN E. STILSON & ASSOCIATES, LIMITED
CONSULTING ENGINEERS
COLUMBUS, OHIO

4 / 9

SOUTH ABUTMENT DETAILS
BRIDGE

SERVICE RD. "A" over SHORT CR. (Reloc.)
JEFFERSON COUNTY STA. 129+21.04 to STA. 130+71.58

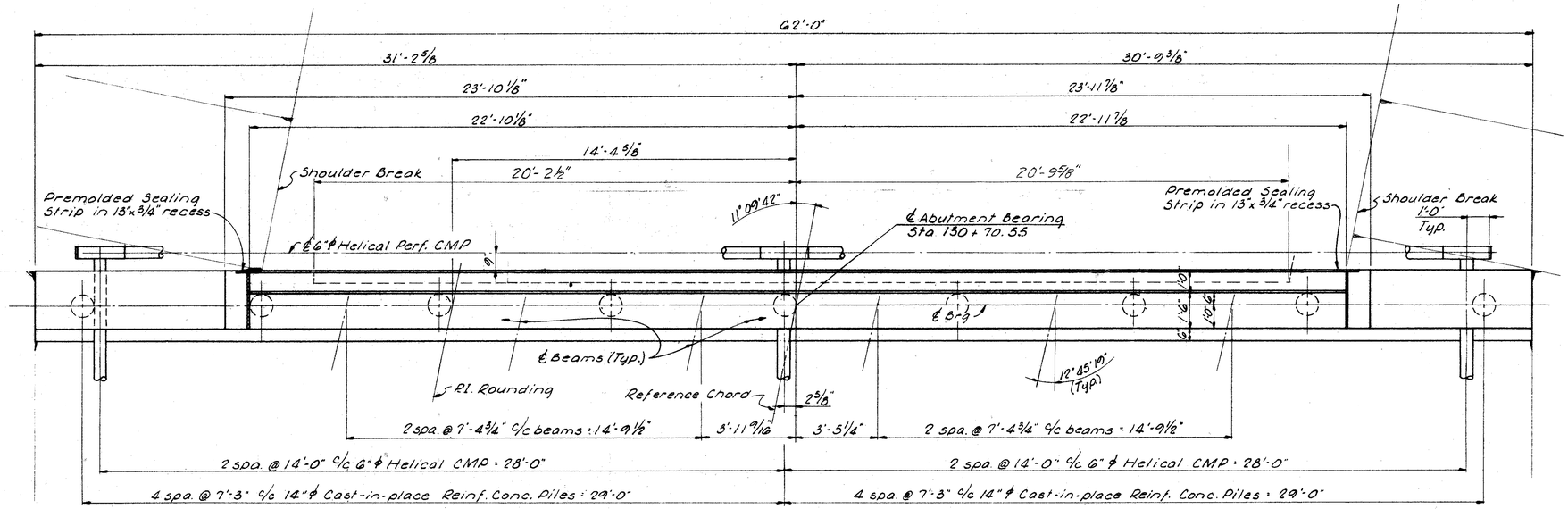
DESIGNED	DRAWN	TRACED	CHECKED	REVIEWED	DATE	REVISED
fwd	fwd		RT	J.E.V.	9/5/68	

MICROFILMED
OCT 29 1982

FED. RD. DIVISION	STATE	PROJECT	TYPE FUNDS
2	OHIO		

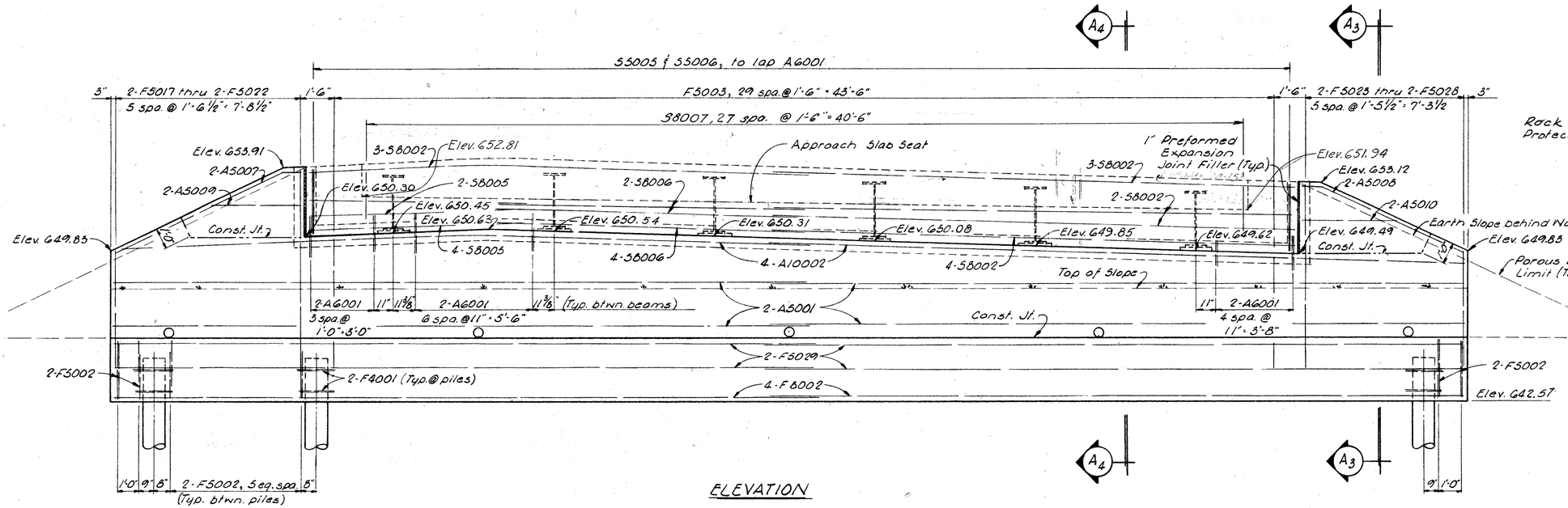
484
560

JEFFERSON COUNTY
JEF-7-0.20

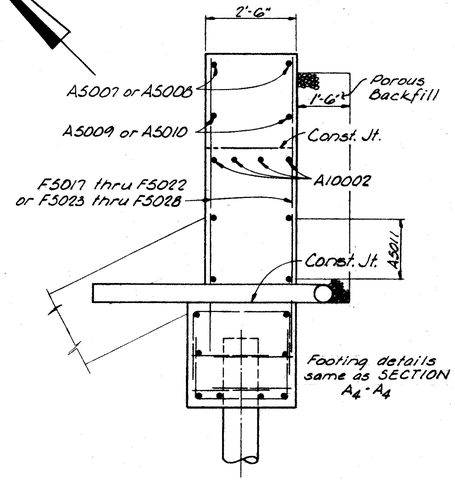


PLAN

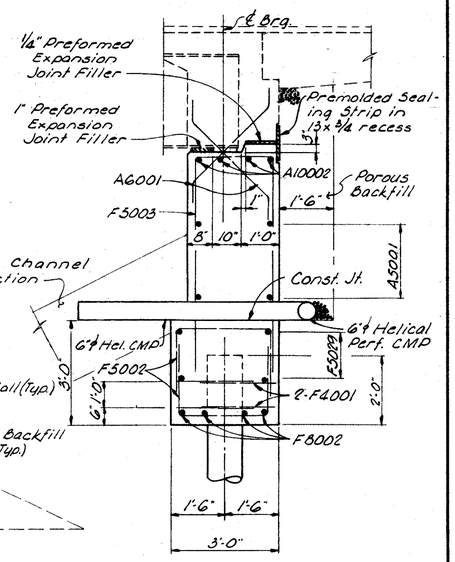
For notes see Sheet 4/9



ELEVATION



SECTION A3-A3



SECTION A4-A4

ALDEN E. STILSON & ASSOCIATES, LIMITED
CONSULTING ENGINEERS
COLUMBUS, OHIO

5/9

NORTH ABUTMENT DETAILS

BRIDGE

SERVICE RD. "A" over SHORT CR. (Reloc.)
JEFFERSON COUNTY STA. 129+21.04 to STA. 130+71.58

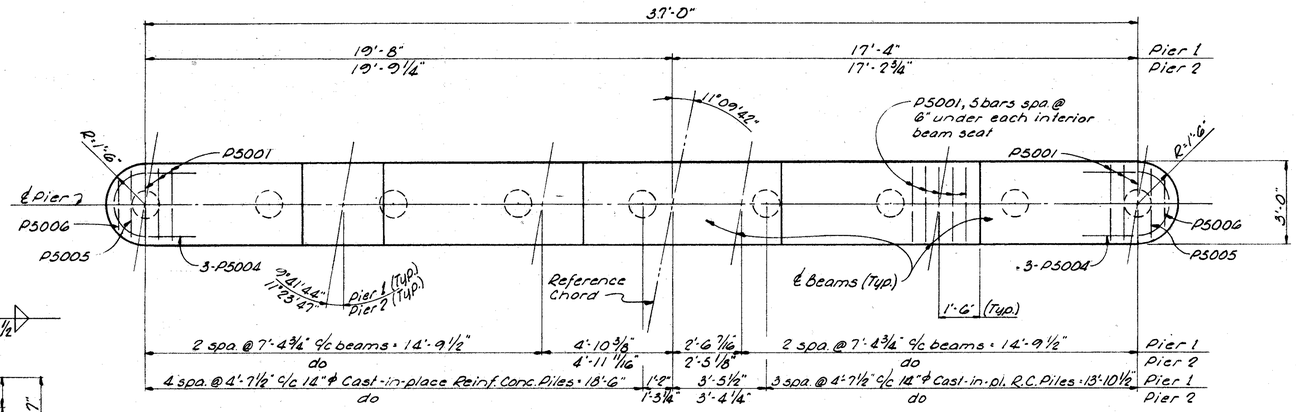
DESIGNED	DRAWN	TRACED	CHECKED	REVIEWED	DATE	REVISED
fwd	fwd		RT	J.E.V.	9/5/68	

MICROFILMED
OCT 29 1982

FED. RD. DIVISION	STATE	PROJECT	TYPE FUNDS
2	OHIO		

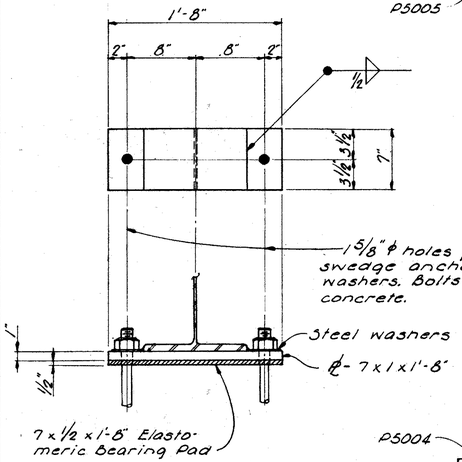
485
560

JEFFERSON COUNTY
JEF-7-0.20

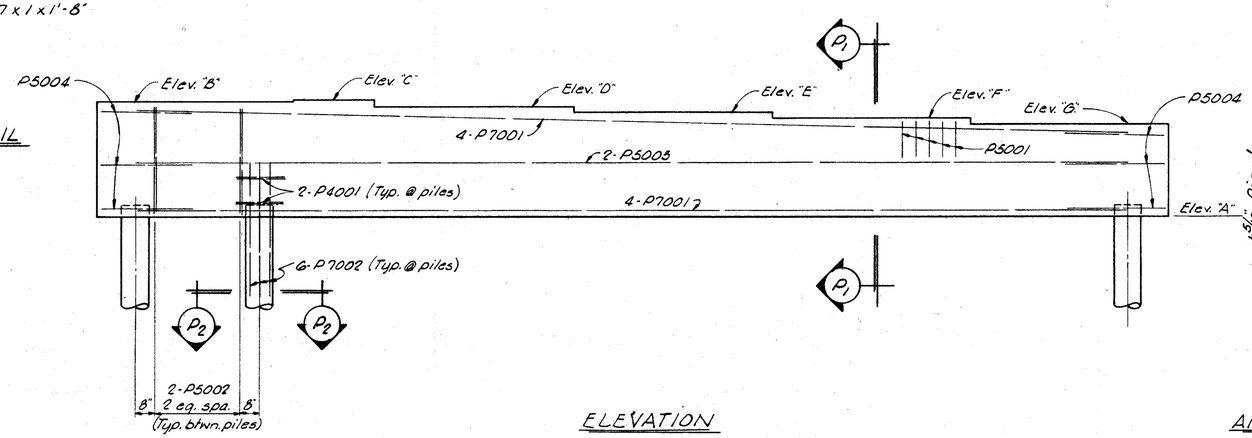


PLAN

See General Plan for layout of piers along Reference Chord.

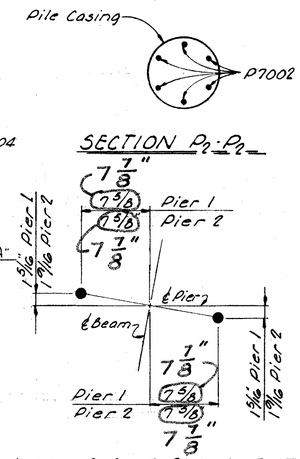


PIER BEARING DEVICE DETAIL

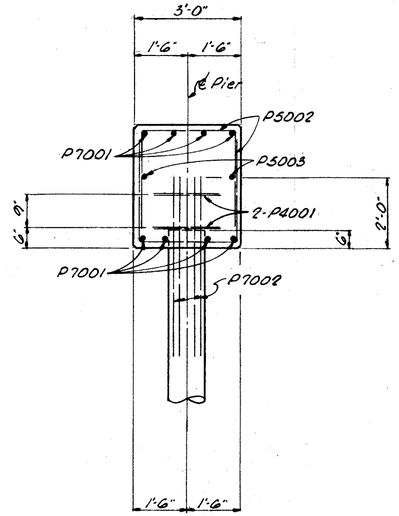


ELEVATION

ELEVATIONS		
Elev.	Pier 1	Pier 2
A	645.94	646.02
B	650.30	650.36
C	650.37	650.44
D	650.14	650.21
E	649.90	649.98
F	649.67	649.75
G	649.44	649.52



ANCHOR BOLT PLACEMENT



SECTION P1-P1

BRIDGE SEAT REINFORCING: Special care shall be taken in placing reinforcing steel in the vicinity of the bridge seats so as to avoid interference with the drilling of anchor bolt holes.

BEARING ANCHORS: At the option of the Contractor, bearing anchors (or formed holes), located and supported by templates, may be cast in place.

ALDEN E. STILSON & ASSOCIATES, LIMITED
CONSULTING ENGINEERS
COLUMBUS, OHIO

6 | 9

PIER DETAILS

BRIDGE

SERVICE RD. "A" over SHORT CR. (Reloc.)

JEFFERSON COUNTY STA. 129+21.04 to STA. 130+71.58

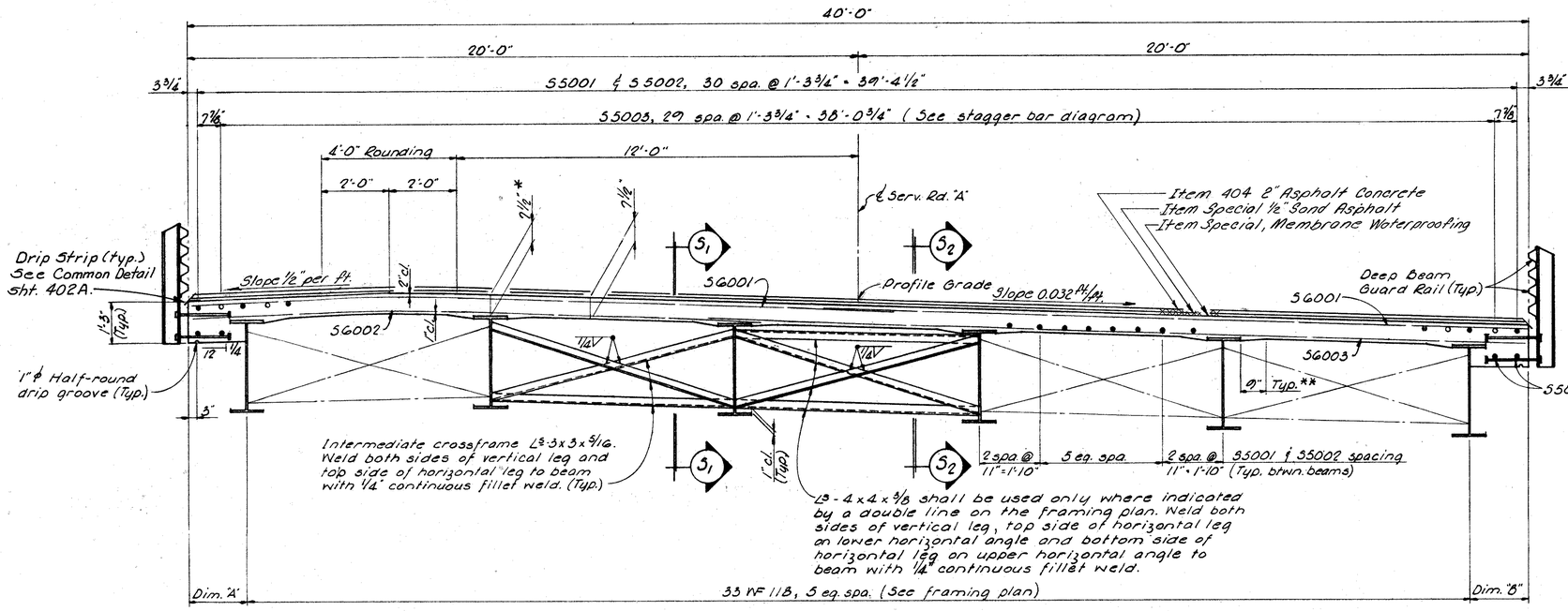
DESIGNED	DRAWN	TRACED	CHECKED	REVIEWED	DATE	REVISED
fwd	fwd		RT	J.E.V.	9/5/68	523-75

MICROFILMED
OCT 29 1982

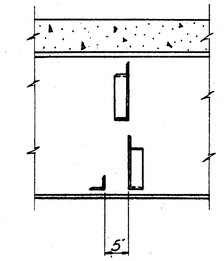
FED. RD. DIVISION	STATE	PROJECT	TYPE FUNDS
2	OHIO		

486
560

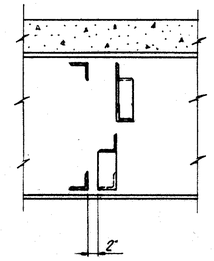
JEFFERSON COUNTY
JEF-7-0.20



TRANSVERSE SECTION



SECTION S_1-S_1



SECTION S_2-S_2

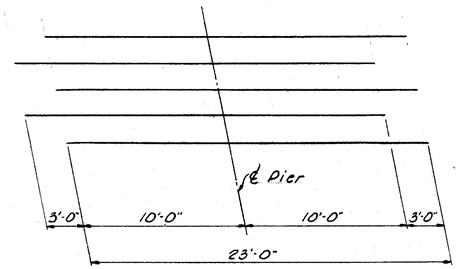
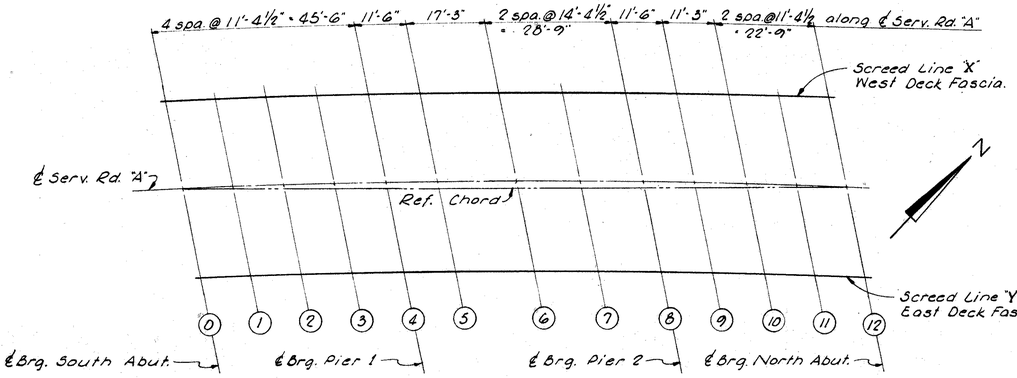


DIAGRAM SHOWING STAGGER of S5003 BARS over PIERS



SCREED PLAN

SCREED ELEVATIONS		
	X	Y
0	653.65	652.82
1	653.68	652.84
2	653.69	652.87
3	653.70	652.86
4	653.70	652.88
5	653.73	652.90
6	653.76	652.93
7	653.77	652.94
8	653.77	652.95
9	653.79	652.96
10	653.81	652.98
11	653.83	653.00
12	653.83	653.00

CHARPY TEST
All beams and field splice material shall meet specified minimum notch toughness requirements.

For Charpy Test notes see sheet 415.

NOTES

DECK FINISHING: Concrete deck shall be in accordance with 451.09 and 451.12, except that the roadway surface shall be finished with a burlap drag to provide a uniform surface with a gritty texture.

* The distance shown from the top of deck slab to top of beam is the nominal dimension. The quantity of deck concrete to be paid for shall be based on this dimension even though deviation from it may be necessary because the top flange of the beam may not have the exact camber or conformation required to place it parallel to the finished grade.

** A typical haunch width of 9" shall be used in computing quantity of concrete. However, the haunch width may vary between 6" and 12" provided that the slope shall not be more than 1:4 for a haunch less than 9" in width.

For railing details see Common Details, Sheet 402.

Lap S5001 and S5002 bars 1'-7".

S6001 bars shall be placed parallel to abutments and spaced @ 7 1/16" c/c along ℄ Service Rd. "A". Field bending shall be included in Item 509 for payment.

For additional notes and details see sheet 8 / 9

Screed elevations are to top of slab before the concrete deck is placed. Proper allowance has been made for the dead load deflection due to the weight of the concrete and falsework members.

SLAB CANTILEVERS		
Location	"A"	"B"
South Abutment	1'-9"	1'-8 1/2"
1/4 Point	1'-10 5/8"	1'-7 3/8"
1/2 Point	1'-11 3/8"	1'-7
3/4 Point	1'-11 3/8"	1'-7 3/8"
Pier 1	1'-10 5/8"	1'-8 5/8"
Field Splice 1	1'-9"	1'-10 1/4"
1/2 Point	1'-11 1/8"	1'-9 3/8"
3/4 Point	1'-11 1/2"	1'-9 3/8"
Pier 2	1'-10 5/8"	1'-11 1/4"
Field Splice 2	1'-9"	2'-1 1/2"
1/2 Point	1'-9 3/4"	2'-1 1/4"
3/4 Point	1'-9 3/4"	2'-1 1/8"
North Abutment	1'-9"	2'-3 1/4"

ALDEN E. STILSON & ASSOCIATES, LIMITED
CONSULTING ENGINEERS
COLUMBUS, OHIO

7 / 9

SUPERSTRUCTURE DETAILS
BRIDGE
SERVICE RD. "A" over SHORT CR. (Reloc.)
JEFFERSON COUNTY
STA. 129+21.04 to STA. 130+71.58

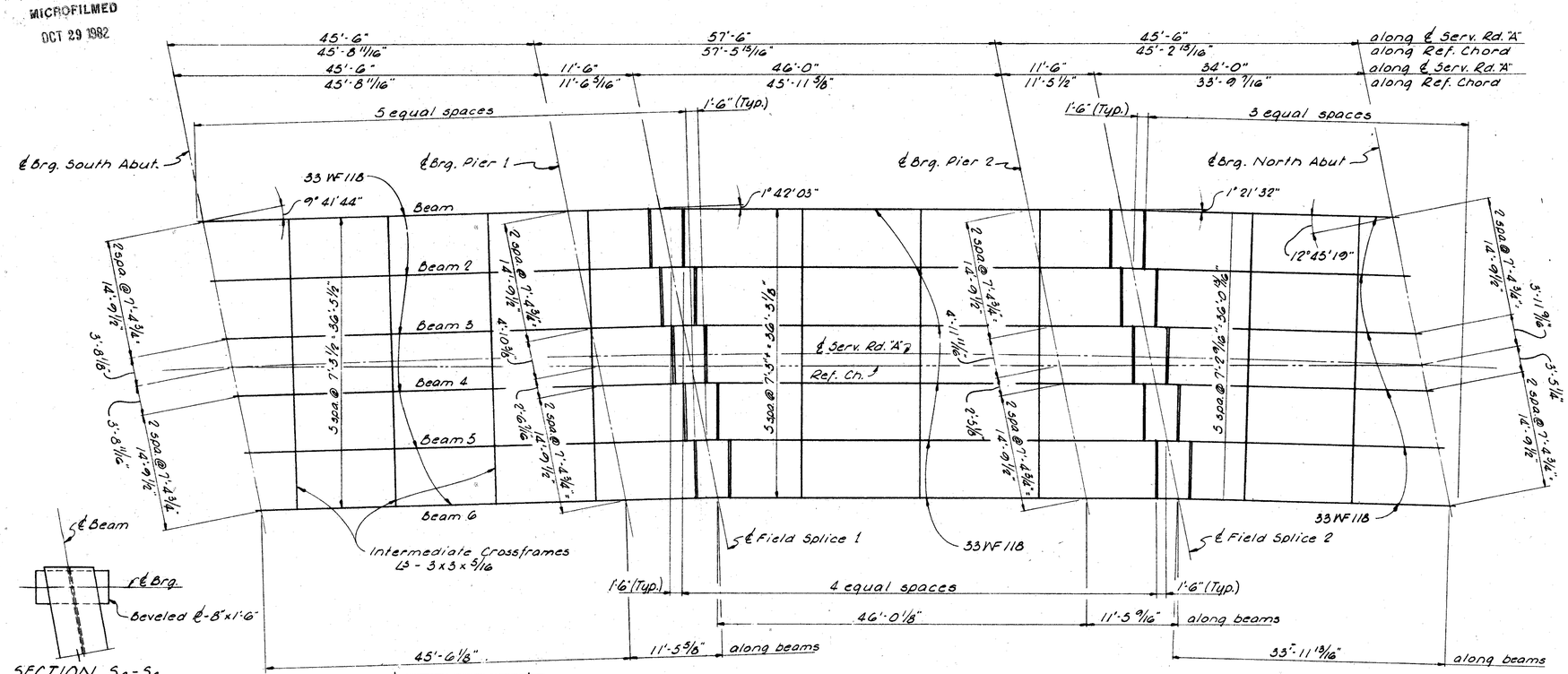
DESIGNED	DRAWN	TRACED	CHECKED	REVIEWED	DATE	REVISED
fwd	fwd		RT	J.E.V.	9/5/68	

MICROFILMED
OCT 29 1982

FED. RD. DIVISION	STATE	PROJECT #	TYPE FUNDS
2	OHIO		

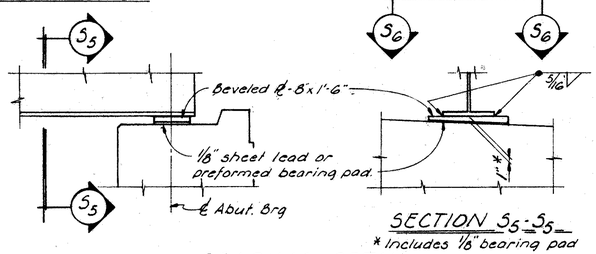
487
560

JEFFERSON COUNTY
JEF-7-0.20



FRAMING PLAN

SECTION S6-S6



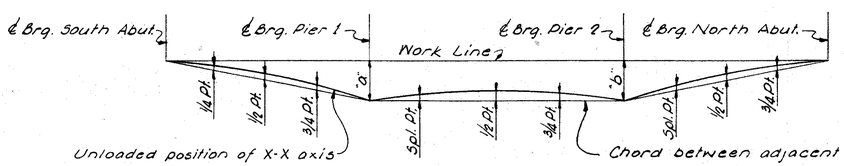
SECTION S5-S5

* Includes 1/8" bearing pad

BEARING DETAIL

VERTICAL OFFSETS from WORK LINE to BEARING POINTS		
Beam	"a"	"b"
1	-1/16"	-1/16"
2 thru 6	1/16"	1/16"

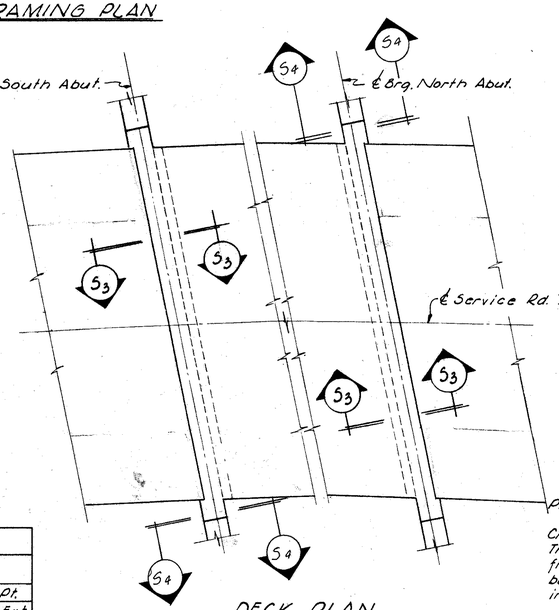
Vertical offsets shown as (-) indicate bearing point is above work line.



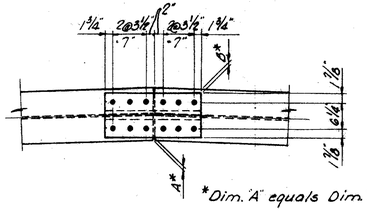
CAMBER and BLOCKING DIAGRAM

DEFLECTION and CAMBER	SPAN 1						SPAN 2						SPAN 3					
	1/4 Pt.		1/2 Pt.		3/4 Pt.		Splice Pt.		1/2 Pt.		3/4 Pt.		Splice Pt.		1/2 Pt.		3/4 Pt.	
	Int.	Ext.	Int.	Ext.	Int.	Ext.	Int	Ext.	Int	Ext.	Int	Ext.	Int.	Ext.	Int.	Ext.	Int.	Ext.
Deflection due to weight of steel	0	0	1/16	1/16	0	0	0	0	1/16	1/16	0	0	0	0	1/16	1/16	0	0
Deflection due to remaining D.L.	1/8	1/8	3/16	3/16	1/16	1/16	1/8	1/8	1/4	1/4	3/16	1/8	1/16	1/16	3/16	3/16	1/8	1/8
Adjustment req'd. for curvature	0	0	-1/16	-1/16	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Required Shop Camber	1/8	1/8	3/16	3/16	1/16	1/16	1/8	1/8	3/16	3/16	3/16	1/8	1/16	1/16	1/4	1/4	1/8	1/8

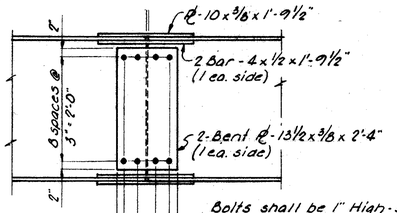
FRAMING PLAN



DECK PLAN

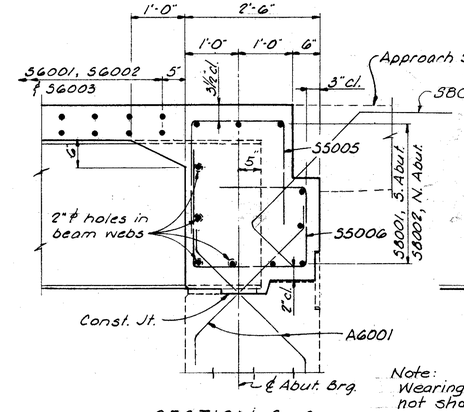


*Dim. "A" equals Dim. "B"



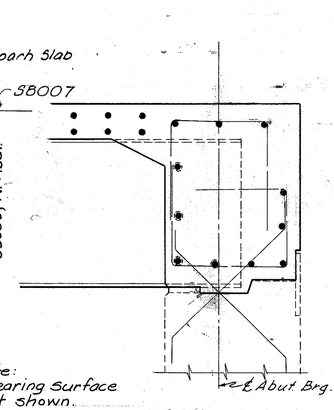
Bolts shall be 1" High-strength.
Bolt heads shall be placed on the fascia side of the exterior beams and the bottom side of the bottom flange.

FIELD SPLICE DETAIL



SECTION S3-S3

Note: Wearing Surface not shown.



SECTION S4-S4

For placement of bars and Approach Slab Seat Elev. see Sheets 4 9 and 5 9

Place intermediate crossframes normal to beams.

Crossframes indicated by double lines are 4 - L3-4 x 4 x 3/8. See Transverse Section Sheet 7 9 for details. These cross-frames shall be placed immediately upon completion of all bolting of the adjacent field splices before stress is induced into these splices.

Place bearing devices normal to beams at piers.

For additional notes and details, see Sheet 7 9

ALDEN E. STILSON & ASSOCIATES, LIMITED
CONSULTING ENGINEERS
COLUMBUS, OHIO
8 9

SUPERSTRUCTURE DETAILS

BRIDGE
SERVICE RD. "A" over SHORT CR. (Reloc.)
JEFFERSON COUNTY
STA. 129 + 21.04 to STA. 130 + 71.58

DESIGNED	DRAWN	TRACED	CHECKED	REVIEWED	DATE	REVISED
fwd	fwd		RT	J.E.V.	9/5/68	

MICROFILMED
OCT 29 1982

FED. RD. DIVISION	STATE	PROJECT	TYPE FUNDS
2	OHIO		

488
560

JEFFERSON COUNTY
JEF-7-0.20

NOTES

1. INDICATES SERIES BAR. EACH BAR VARIES FROM ADJACENT BAR(S) BY TABULATED AMOUNT (S), CALCULATED TO NEAREST $\frac{1}{8}$". WEIGHT SHOWN IS FOR ENTIRE SERIES UTILIZING AVERAGE LENGTH.
2. BARS INCLUDED WITH ITEM 517, RAILING, FOR PAYMENT.
3. COST OF FIELD BENDING SHALL BE INCLUDED WITH ITEM 509.
4. LIGHT POLE SUPPORT BARS INCLUDED WITH ITEM 509 FOR PAYMENT.
5. END PREPARATION AND FIELD WELDING INCLUDED WITH ITEM 509.
6. "LENGTH" SHOWN FOR SPIRAL BARS IS DISTANCE FROM TOP OF FOOTING TO BOTTOM OF PIER CAP.
"NO. TURNS" SHOWN IS "LENGTH" DIVIDED BY PITCH, PLUS 3 TURNS (NUMBER OF CLOSED COILS), EXPRESSED AS NEAREST WHOLE NUMBER.

SPIRAL BARS SHALL NOT HAVE DEFORMATIONS BUT SHALL IN OTHER RESPECTS CONFORM TO ITEM 509. $1\frac{1}{2}$ CLOSED COILS SHALL BE PROVIDED AT ENDS OF EACH SPIRAL UNIT. FOUR STEEL CHANNEL, TEE, OR ANGLE SPACERS, WEIGHING APPROXIMATELY 0.80 LB. PER LIN. FT. OF SPACER SHALL BE PROVIDED FOR EACH SPIRAL UNIT. THEY SHALL BE EQUALLY SPACED ALONG PERIPHERY OF COIL. WEIGHT OF SPACERS, AT 0.80 LB. PER. LIN. FT. WILL BE PAID FOR AS REINFORCING STEEL AND IS INCLUDED IN TABULATED WEIGHT.

MARK	NUM.	LENGTH	WEIGHT	TYPE	A	B	C	D	E	NOTE
				ABUTMENTS						
F 4001	72	5- 4	257	1		1-11	1- 9	1-11		
F 5001	8	31- 4	261	ST						
F 5002	208	6- 5	1392	1		2- 1	2- 6	2- 1		
F 5003	60	14-11	933	1		6- 6	2- 2	6- 6		
F 5004	2	5- 8		ST						1
THRU			93		VARY	LENGTH	BY	0'- 8 0/0''		
F 5009	2	9- 0		ST						1
F 5010	2	9- 8		ST						1
THRU			113		VARY	LENGTH	BY	0'- 8 0/0''		
F 5016	2	5- 8		ST						1
F 5017	2	5- 8		ST						1
THRU			98		VARY	LENGTH	BY	0'-10 0/0''		
F 5022	2	9-10		ST						1
F 5023	2	9-10		ST						1
THRU			98		VARY	LENGTH	BY	0'-10 0/0''		
F 5028	2	5- 8		ST						1
F 5029	8	31- 8	264	ST						
A 5001	8	31- 8	264	ST						
A 5002	8	31- 4	261	ST						
A 5003	2	7- 6	16	12	6- 8	0- 9		0- 4		
A 5004	2	9- 6	20	12	8- 8	0- 9		0- 4		
A 5005	2	4- 4	9	ST						
A 5006	2	4- 4	9	ST						
A 5007	2	8- 9	18	12	7-11	0- 9		0- 4		
A 5008	2	7-11	17	12	7- 1	0- 9		0- 4		
A 5009	2	4- 2	9	ST						
A 5010	2	4- 5	9	ST						
A 6001	174	3-11	1024	12	0- 6	2- 1	0- 6	2- 1		
A10001	8	32- 0	1102	ST						3
A10002	8	32- 6	1119	ST						3

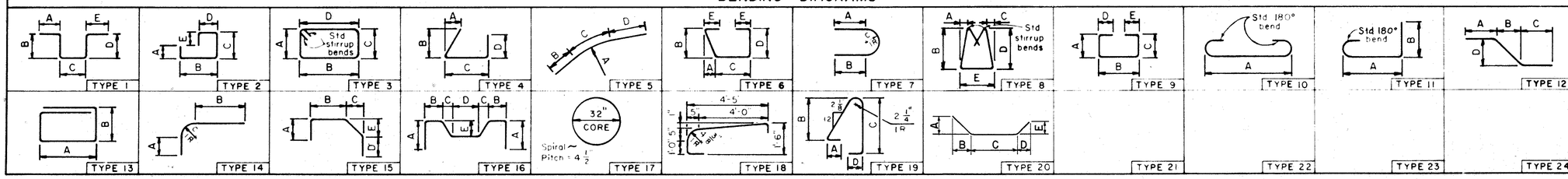
MARK	NUM.	LENGTH	WEIGHT	TYPE	A	B	C	D	E	NOTE
				PIERS						
P 4001	72	5- 4	257	1		1-11	1- 9	1-11		
P 5001	52	5- 5	294	1		1- 6	2- 8	1- 6		
P 5002	96	8- 9	876	1		3- 2	2- 8	3- 2		
P 5003	4	37- 0	154	ST						
P 5004	12	7- 2	90	7	1- 7	1- 7	1- 3			
P 5005	4	0- 0	0	ST						
P 5006	4	0- 0	0	ST						
P 7001	16	37- 0	1210	ST						
P 7002	108	5- 0	1104	ST						
				SUPERSTRUCTURE						
S 5001	300	30- 0	9387	ST						
S 5002	75	37- 4	2920	ST						
S 5003	60	23- 0	1439	ST						
S 5005	87	5- 9	522	1		2- 2	1- 8	2- 2		
S 5006	87	6-10	620	2	2- 2	2- 1	1- 5	1- 7		
S 6001	468	21- 2	14879	ST						3
S 6002	234	17- 7	6180	ST						3
S 6003	234	24- 9	8699	ST						
S 8001	14	23- 7	882	ST						3
S 8002	14	24- 0	897	ST						3
S 8003	8	16- 8	356	ST						
S 8004	8	9- 5	201	ST						
S 8005	8	9- 6	203	ST						
S 8006	8	17- 0	363	ST						
S 8007	55	5- 6	808	20	1- 1	1- 1	3- 7	0- 6	0- 6	

MARK	NUM.	LENGTH	WEIGHT	TYPE	A	B	C	D	E	NOTE
				REPLACEMENT		STEEL				
RE 4001	1	5-4		1	1-11	1-9	1-11			
RE 5001	2	6- 7		ST						
RE 6001	2	6-10		ST						
RE 7001	1	7- 2		ST						
RE 8001	1	7- 6		ST						
RE10001	1	8- 2		ST						

BAR SIZE DESIGNATION

BAR SIZE IS INDICATED IN THE BAR MARK. THE FIRST DIGIT WHERE FOUR DIGITS ARE USED, AND THE FIRST TWO DIGITS WHERE FIVE DIGITS ARE USED, INDICATE THE BAR SIZE NUMBER. FOR EXAMPLE, A7001 IS A NO.7 SIZE BAR AND A10140 IS A NO.10 SIZE.

BENDING DIAGRAMS



ALDEN E. STILSON & ASSOCIATES, LIMITED
CONSULTING ENGINEERS
COLUMBUS, OHIO

9 / 9

REINFORCING STEEL LIST

BRIDGE

SERVICE RD. "A" over SHORT CR. (Reloc.)
JEFFERSON COUNTY
STA. 129 + 21.04 to STA. 130 + 71.58

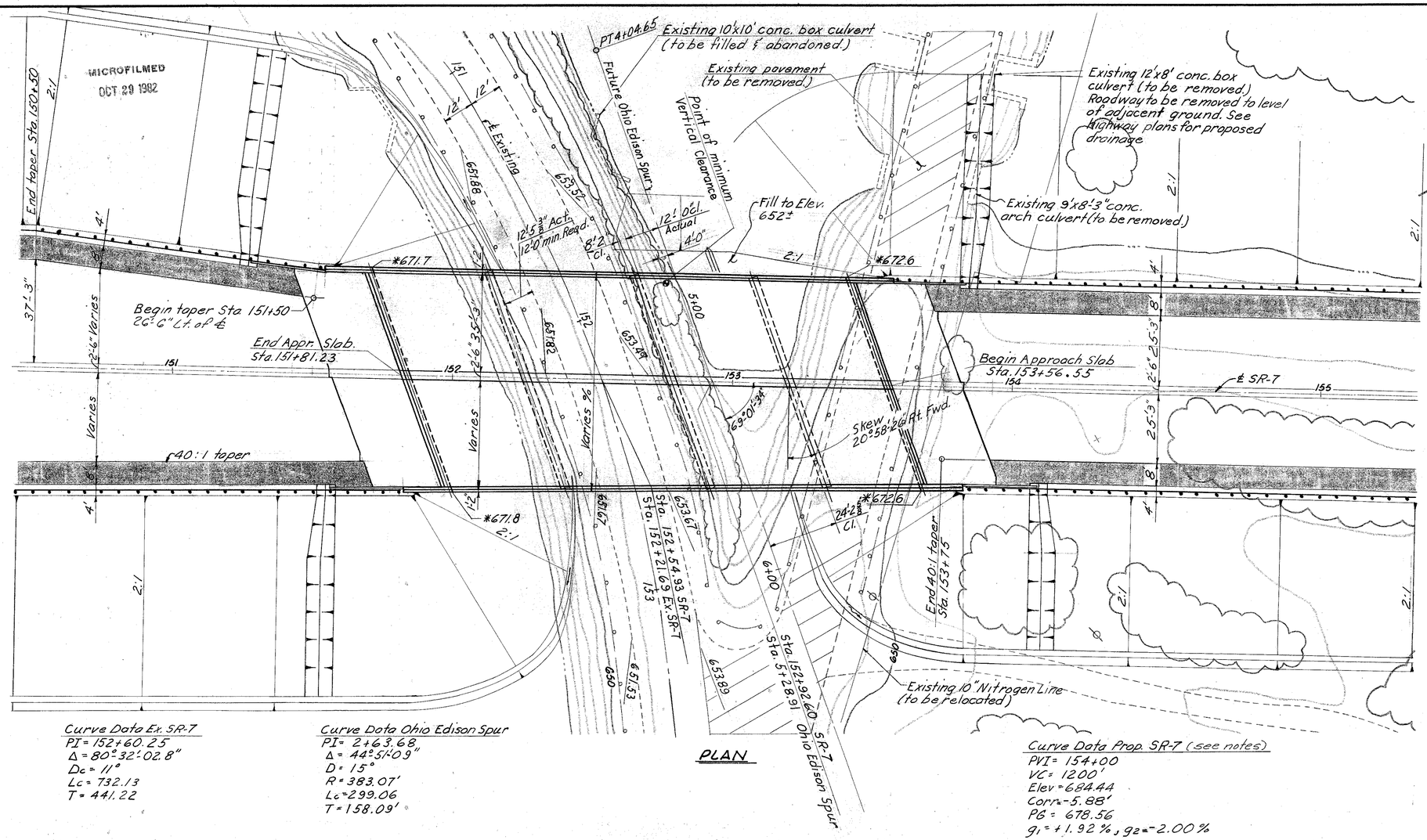
DESIGNED	DRAWN	TRACED	CHECKED	REVIEWED	DATE	REVISED
FWD 6/19/68			RT 7/15/69	JEV 9/5/68		

FED. RD. DIVISION	STATE	PROJECT	TYPE FUNDS

489
560

JEFFERSON COUNTY
JEF-7-0.20

MICROFILMED
OCT 29 1982



PLAN

Curve Data Ex. SR-7
PI = 152+60.25
Δ = 80°32'-02.8"
Dc = 11°
Lc = 732.13
T = 441.22

Curve Data Ohio Edison Spur
PI = 2+63.68
Δ = 44°51'-09"
D = 15°
R = 383.07'
Lc = 299.06
T = 158.09'

Curve Data Prop. SR-7 (see notes)
PVI = 154+00
VC = 1200'
Elev = 684.44
Corr = -5.88'
PG = 678.56
g_1 = +1.92%, g_2 = -2.00%

PROPOSED STRUCTURE

TYPE: Continuous steel beam with reinforced concrete slab and substructure.
SPANS: 42'-0", 52'-6", 42'-0", 34'-0" along ℄ SR-7.
ROADWAY: 75'-10½" avg. width f/f concrete barrier type parapet with 2'-6" barrier median.

LOADING: HS 20-44
WEARING SURFACE: 1½" Asphalt Concrete.
SKEW: 20°-58'-26" Rt fwd.
ALIGNMENT: Tangent.
APPROACH SLABS: 25'-0" long. See Sheet 402.

NOTES:

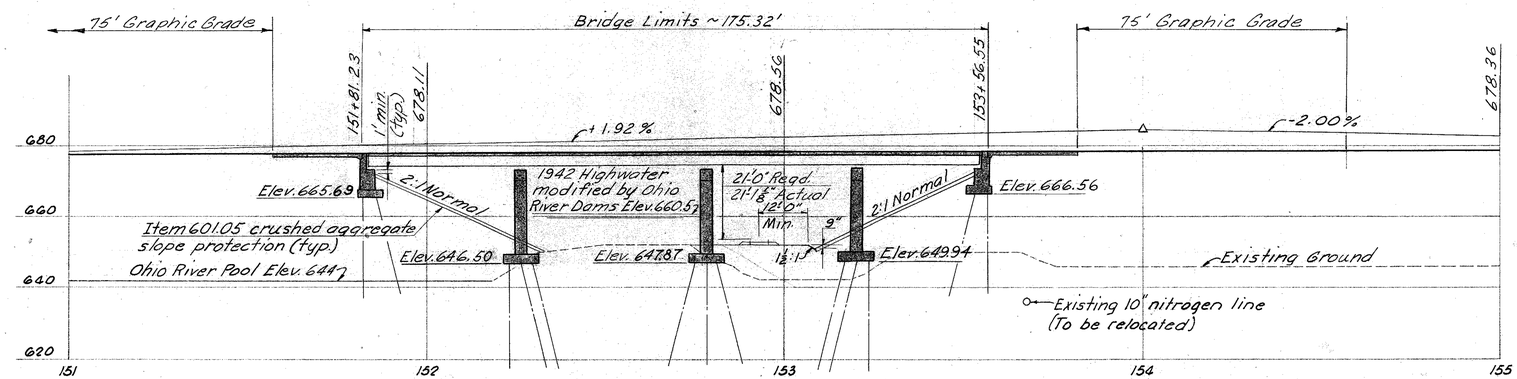
Elevations marked with an asterisk are at top of slope at face of abutment.

Profile elevation and graphic grade, provide for the inclusion of the 1½" Asphalt Concrete Wearing Course.

Earthwork limits shown are schematic. Actual slope shall conform to plan cross-section.

All piles shall be 12"ø cast-in-place reinforced concrete piles: Estimated average pay lengths

Abutments: 65'
Piers: 50'



PROFILE along ℄ SR 7

ALDEN E. STILSON & ASSOCIATES, LIMITED
CONSULTING ENGINEERS
COLUMBUS, OHIO

1 / 14

SITE PLAN

BRIDGE N° JEF-7-0288
SR-7 over EXISTING SR-7 and FUTURE OHIO EDISON SPUR
JEFFERSON COUNTY
STA. 151+81.23 to STA. 153+56.55

DESIGNED	DRAWN	TRACED	CHECKED	REVIEWED	DATE	REVISED
GEA	GEA	D.R.	DLM	J.E.V.	11/15/67	

MICROFILMED
OCT 29 1982

2	OHIO		

490
560

JEFFERSON COUNTY
JEF-7-0.20

REFERENCES:

Standard Drawings:

End Dam, End Crossframe, & Scuppers	SD-1-69, Sheets 1, 2 & 3 Dated 6-12-69
Railing Details	BR-1-67, Sheet 1 *Revised 10-15-71*
Rocker & Bolster Details	RB-1-55, Revised 2-2-59
Approach Slab Details	AS-1-72 *Dated 6-30-72*
Highway Lighting	HL-5 Dated 9-6-73 HL-7 " 9-6-73

Supplemental Specifications:

Chemical Admixture for Concrete Type A, B or D	808	Dated 1-1-71
Concrete Curing and Protective Membrane	836	Dated 1-1-71
Special Pile Tests	*838*	*Dated 1-1-71*

Common Details:

Median Barrier Armor	Sheet 403
Abutment Contraction Joints	**Sheet 402**
Scuppers	**Sheet 402 & 402A**
SUBDRAINAGE FOR WEARING COURSE	Sheet 402A
End Preparation of Rolled Beam for Shop Welding	**Sheet 402**

DESIGN SPECIFICATIONS: This structure conforms to the "Standard Specifications for Highway Bridges" adopted by the American Association of State Highway Officials, 1965, including the Ohio "Supplement" to these specifications.

DESIGN DATA:

Design Loading - HS 20-44

Concrete Class C - unit stress 1200 p.s.i. for superstructure
unit stress 1333 p.s.i. for substructure

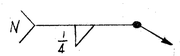
Structural Steel - ASTM A36 - unit stress 20,000 p.s.i.

Reinforcing Steel - ASTM A615, A616 or A617. Unit stress 20,000 p.s.i.

PROCEDURE: The embankments shall be constructed to the level of the subgrade for a minimum distance of 200 feet back of the abutments. Excavation and pile driving shall not be performed for the abutments and for Piers No. 1 & 3 for a period of 60 days.

PILES shall be driven to a minimum bearing capacity of 40 tons per pile for the abutments and wingwalls and 40 tons per pile for the piers.

WELDS on non-stress carrying members are shown thus:



END DAM PAINTING: Portions of end dam which will be in contact with steel or with concrete shall not be painted. All other portions shall be cleaned and painted in accordance with 514.

BACKWALL CONCRETE: In addition to the provisions of 511.08, backwall concrete shall not be placed until after the deck concrete in the span adjacent to the backwall has been placed.

BEARING ANCHORS: At the option of the Contractor, bearing anchors (or formed holes), located and supported by templates, may be cast in place.

ITEM	TOTAL	UNIT	DESCRIPTION	ABUTS	PIERS	SUPER	GENERAL		
503	LUMP	SUM	COFFERDAMS, CRIBS AND SHEETING				LUMP		
503	670	C.Y.	UNCLASSIFIED EXCAVATION	390	280				
505	LUMP	SUM	TEST PILE				LUMP		
507	6370	L.F.	12 INCH CAST-IN-PLACE REINFORCED CONCRETE PILES	2470	3900				
509	208050	LB	REINFORCING STEEL	20982	44605	142463			
511	454	C.Y.	CLASS C CONCRETE, SUPERSTRUCTURE			454			
511	304	C.Y.	CLASS C CONCRETE, PIERS ABOVE FOOTINGS		304				
511	163	C.Y.	CLASS C CONCRETE, ABUTMENTS ABOVE FOOTINGS	163					
511	215	C.Y.	CLASS C CONCRETE, FOOTINGS	128	87				
512	15	L.F.	PREMOLDED SEALING STRIP	15					
513	250500	LB	STRUCTURAL STEEL			250500			
514	250500	LB	FIELD PAINTING OF STRUCTURAL STEEL			250500			
518	69	C.Y.	POROUS BACKFILL	69					
518	149	L.F.	6 INCH PERFORATED, HELICAL CMP, 707.01	149					
518	108	L.F.	6 INCH NON-PERFORATED, HELICAL CMP, 707.01, INCLUDING SPECIALS	108					
518	8	EA	SCUPPERS INCLUDING SUPPORTS			8			
518	38	EA	SUBDRAINAGE FOR WEARING COURSE, AS PER PLAN			38			
601	995	S.Y.	CRUSHED AGGREGATE SLOPE PROTECTION				995		
625			SEE SHEET 359 FOR LIGHTING SUMMARY						
808	454	UNIT	CHEMICAL ADMIXTURE FOR CONCRETE, TYPE A, B OR D			454			
838	3	HR.	SPECIAL PILE TESTS				3		
404	42	C.Y.	Asphalt Concrete (70-85 or AC 20)			42			
Spec.	21	C.Y.	Sand Asphalt			21			
* Spec.	1515	S.Y.	Membrane Waterproofing, sheet type			1515			

* See Proposal Note

ALDEN E. STILSON & ASSOCIATES, LIMITED
CONSULTING ENGINEERS
COLUMBUS OHIO

2 / 14

GENERAL NOTES AND ESTIMATED QUANTITIES
BRIDGE No. JEF-7-0288
SR-7 over EXISTING SR-7 and FUTURE OHIO EDISON SPUR
JEFFERSON COUNTY STA. 151 + 81.23 to STA. 153 + 56.55

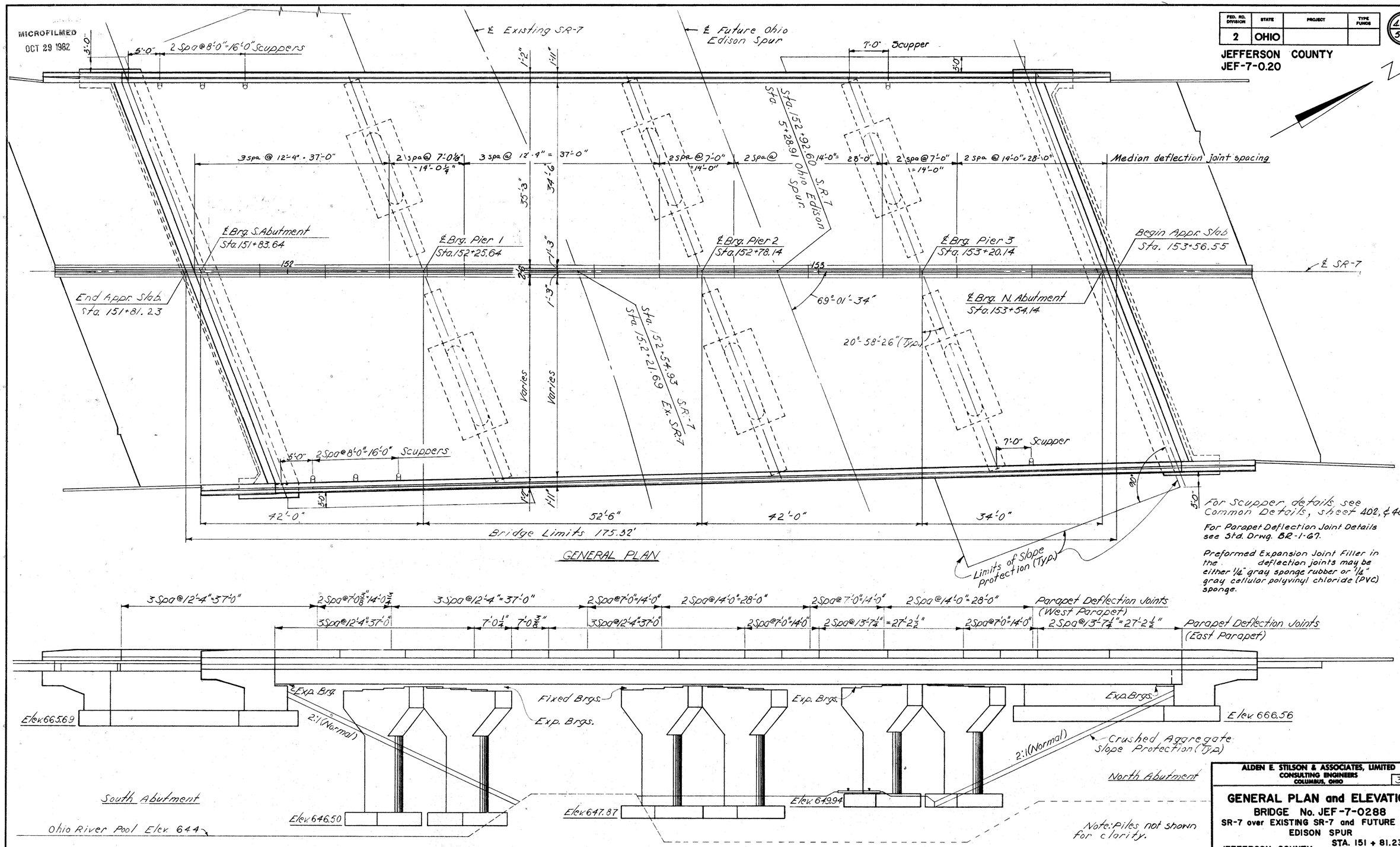
DESIGNED	DRAWN	TRACED	CHECKED	REVIEWED	DATE	REVISED
RT 8/15/68			fwd 8/23/68	JEV	10/30/68	

MICROFILMED
OCT 29 1982

FED. RD. DIVISION	STATE	PROJECT	TYPE FUNDS
2	OHIO		

491
560

JEFFERSON COUNTY
JEF-7-0.20



GENERAL PLAN

For Scupper details see Common Details, Sheet 402, & 402A.

For Parapet Deflection Joint Details see Std. Drwg. BR-1-67.

Preformed Expansion Joint Filler in the deflection joints may be either 1/4" gray sponge rubber or 1/4" gray cellular polyvinyl chloride (PVC) sponge.

Pier 1 GENERAL ELEVATION Pier 2 Pier 3

ALDEN E. STILSON & ASSOCIATES, LIMITED
CONSULTING ENGINEERS
COLUMBUS, OHIO

3/14

GENERAL PLAN and ELEVATION

BRIDGE No. JEF-7-0288
SR-7 over EXISTING SR-7 and FUTURE OHIO EDISON SPUR
JEFFERSON COUNTY
STA. 151 + 81.23 to STA. 153 + 56.55

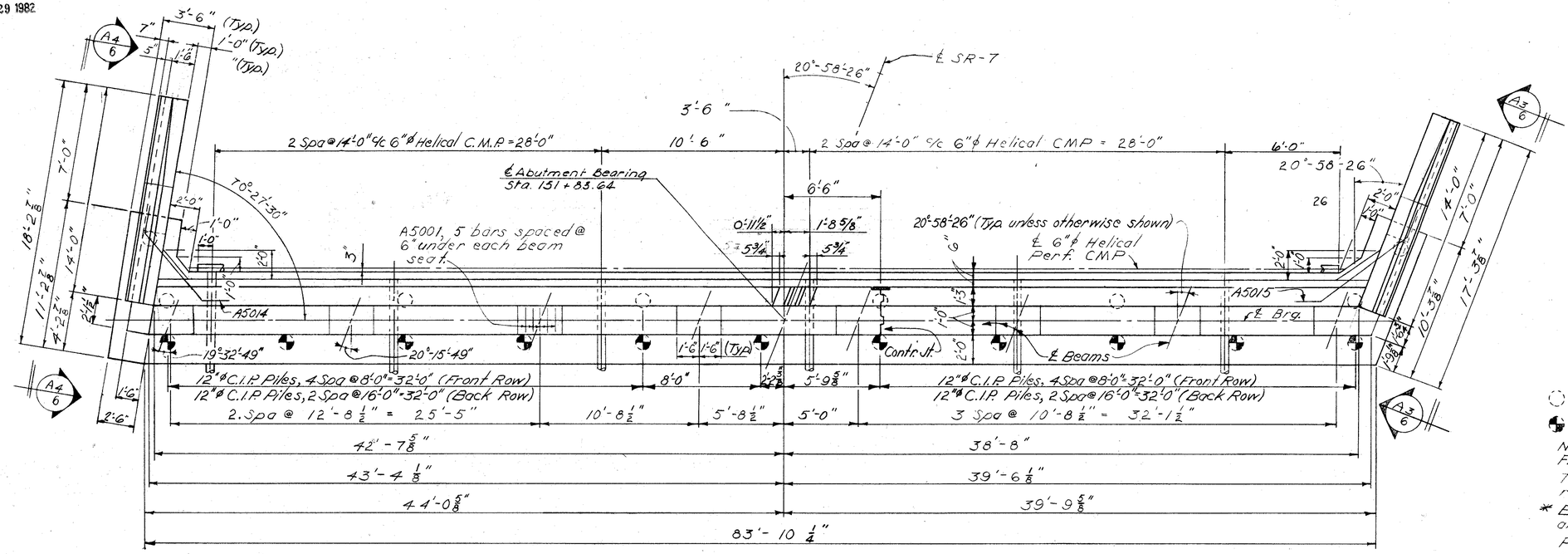
DESIGNED	DRAWN	TRACED	CHECKED	REVIEWED	DATE	REVISED
RT	ELK		fwd	J.E.V	10/30/68	

MICROFILMED
OCT 29 1982

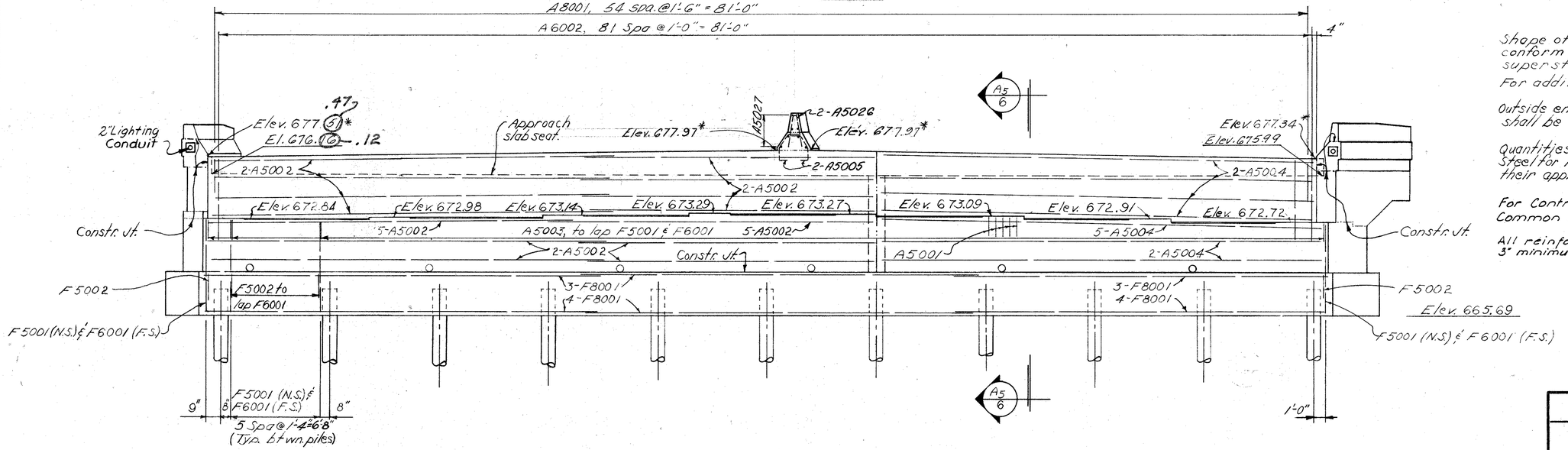
FED. RD. DIVISION	STATE	PROJECT	TYPE FUNDS
2	OHIO		

492
560

JEFFERSON COUNTY
JEF-7-0.20



PLAN



ELEVATION

NOTES

○ indicates vertical cast-in-place piles

◔ indicates battered cast-in-place piles 1:4
N.S. indicates near side.
F.S. indicates far side.

Top of backwall shall conform to roadway crown.

* Elevations marked with an asterisk are to top of 2" edge bar.

POROUS BACKFILL, 1'-6" thick shall be placed between inside faces of wingwalls and shall extend up to the plane of the subgrade.

Shape of barrier on backwall shall conform to shape of median on superstructure.
For additional details see sheet 6/14

Outside ends of 6"ϕ Helical Perf. C.M.P. shall be capped.

Quantities of Concrete and Reinforcing Steel for Railing shall be included with their appropriate Item for payment.

For Contraction Joint Detail see Common Details, Sheet 402.

All reinforcing in footing shall have 3" minimum cover.

ALDEN E. STILSON & ASSOCIATES, LIMITED
CONSULTING ENGINEERS
COLUMBUS, OHIO

4/14

SOUTH ABUTMENT DETAILS

BRIDGE No. JEF-7-0288
SR-7 over EXISTING SR-7 and FUTURE OHIO EDISON SPUR
JEFFERSON COUNTY
STA. 151 + 81.23 to STA. 153 + 56.55

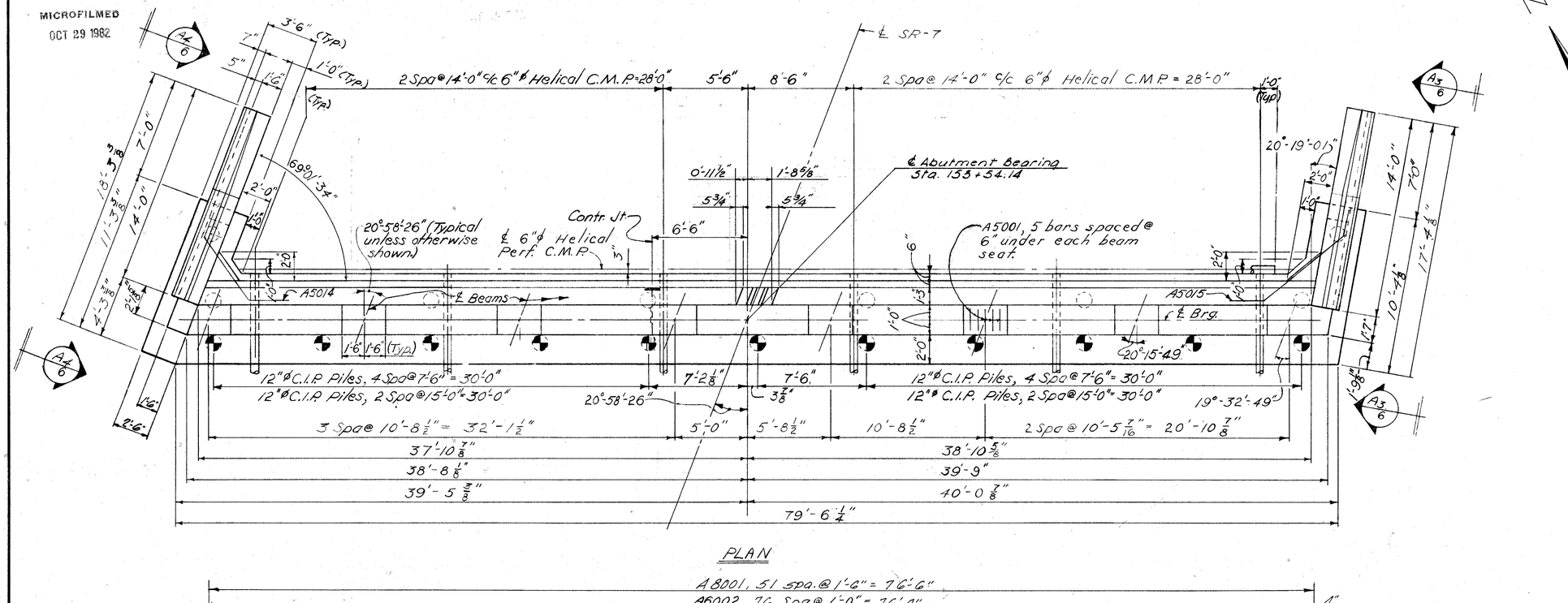
DESIGNED	DRAWN	TRACED	CHECKED	REVIEWED	DATE	REVISED
RT	ELK		fwd	J.E.V.	10/30/68	12-9-75

MICROFILMED
OCT 29 1982

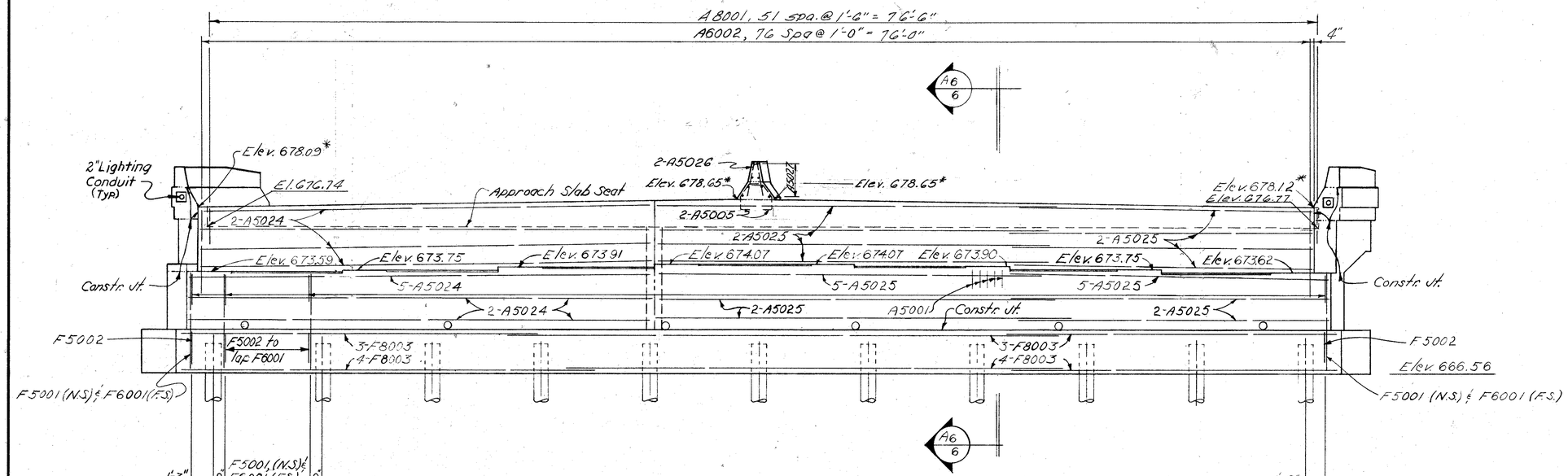
FED. RD. DIVISION	STATE	PROJECT	TYPE FUNDS
2	OHIO		

493
560

JEFFERSON COUNTY
JEF-7-0.20



PLAN



ELEVATION

For notes and additional details see sheets 4/14 and 6/14

ALDEN E. STILSON & ASSOCIATES, LIMITED
CONSULTING ENGINEERS
COLUMBUS, OHIO

5/14

NORTH ABUTMENT DETAILS

BRIDGE No. JEF-7-0288
SR-7 over EXISTING SR-7 and FUTURE OHIO EDISON SPUR
JEFFERSON COUNTY
STA. 151+81.23 to STA. 153+56.55

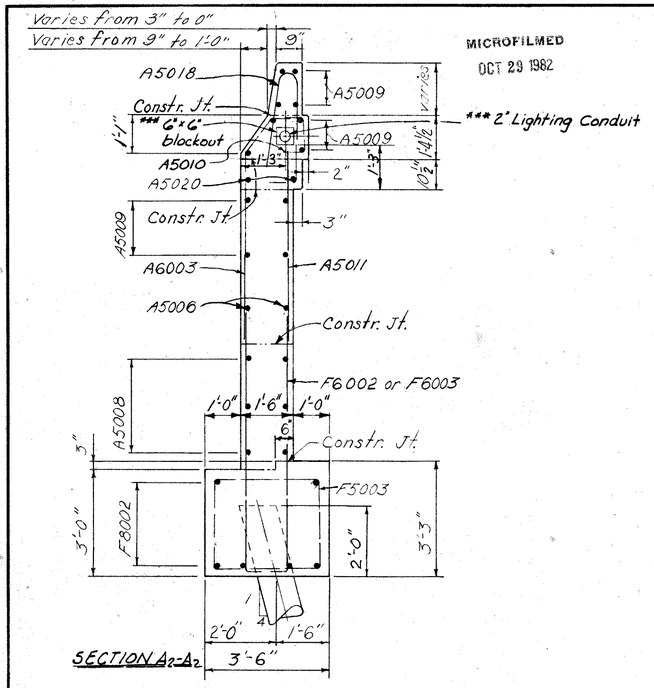
DESIGNED	DRAWN	TRACED	CHECKED	REVIEWED	DATE	REVISED
RT	ELK		fwd	J.E.V.	10/30/68	

FED. RD. DIVISION	STATE	PROJECT	TYPE FUNDS
2	OHIO		

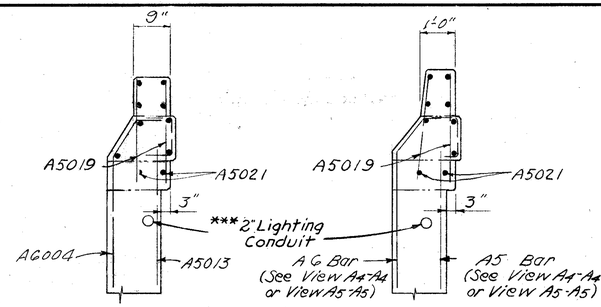
494
560

JEFFERSON COUNTY
JEF-7-0.20

MICROFILMED
OCT 29 1982



SECTION A_2-A_2

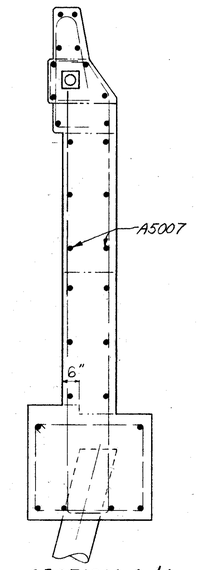


END VIEW

SECTION A_6-A_6

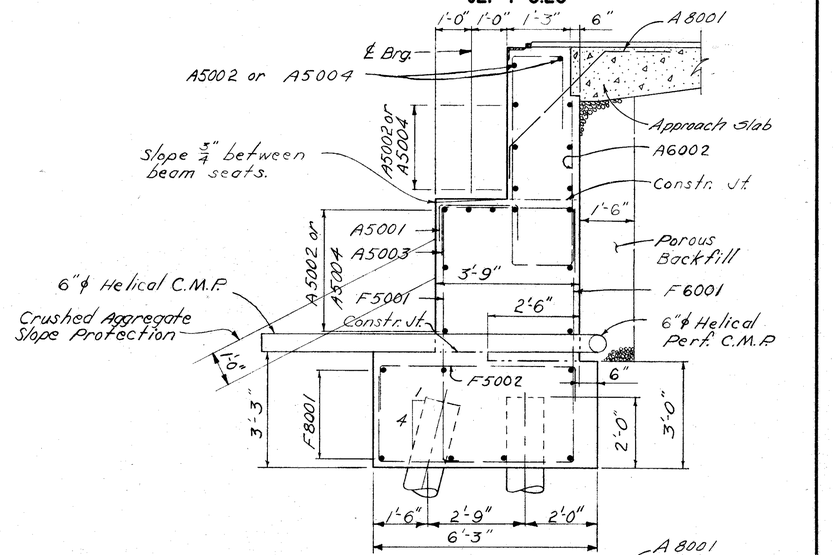
Note: Reinforcing not labeled same as Section $A_2/4$ & $A_2/5$

TABLE of ELEV.		
	S. Abut.	N. Abut.
A	672.84	673.59
B	673.34	674.09
C	674.28	675.01
D	676.41	677.14
E	676.49	677.12
F	665.69	666.56
G	672.04	672.82
H	672.72	673.62
I	674.14	675.03
J	676.38	677.15
K	676.27	677.16

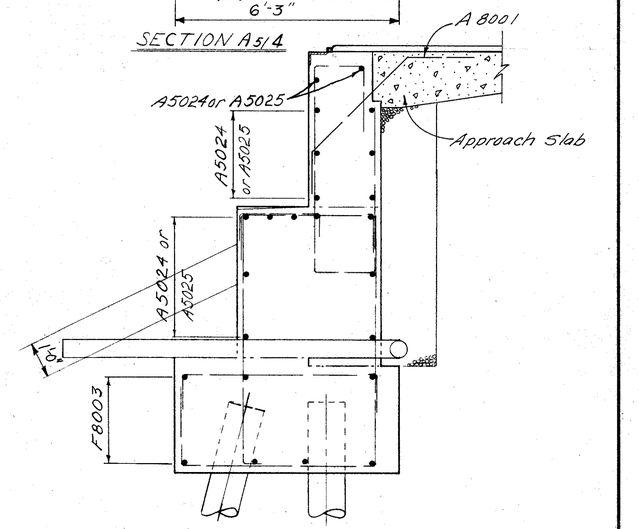


SECTION A_1/A_1

Same as SECTION A_2-A_2 except as noted

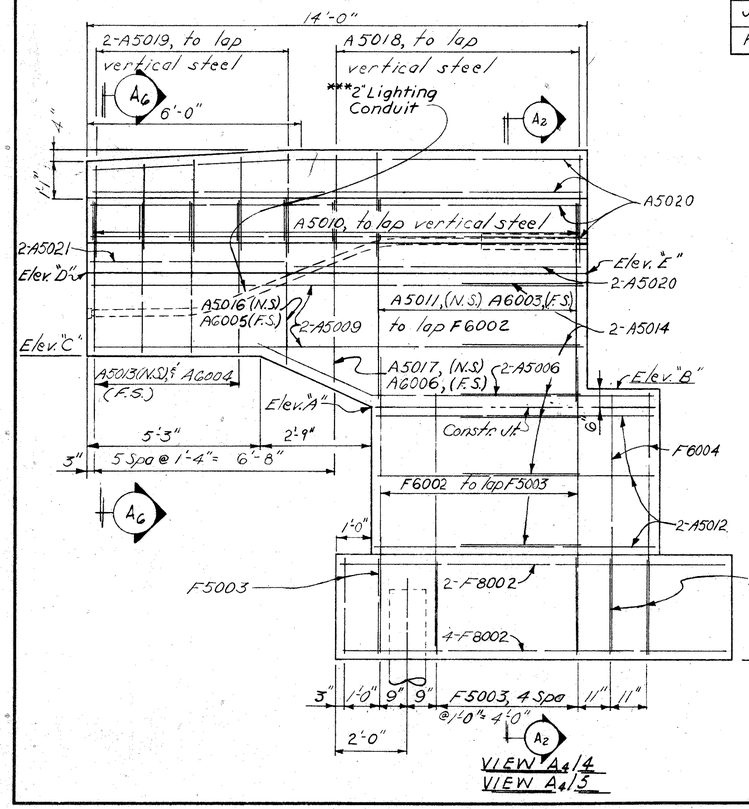


SECTION $A_5/4$

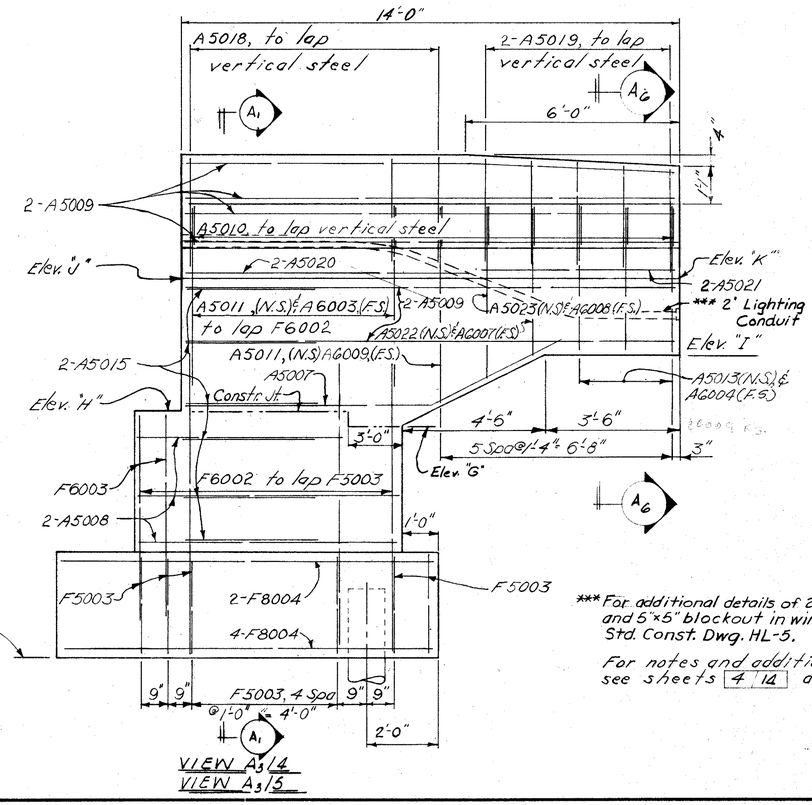


SECTION $A_6/5$

Same as section $A_5/4$ except as noted.



Elevation "F"



*** For additional details of 2" Lighting Conduit and 5"x5" blockout in wingwall see Std. Const. Dwg. HL-5.

For notes and additional details see sheets 4 | 14 and 5 | 14.

ALDEN E. STILSON & ASSOCIATES, LIMITED
CONSULTING ENGINEERS
COLUMBUS, OHIO

6 | 14

ABUTMENT DETAILS

BRIDGE No. JEF-7-0288
SR-7 over EXISTING SR-7 and FUTURE OHIO EDISON SPUR
JEFFERSON COUNTY
STA. 151 + 81.23 to STA. 153 + 56.55

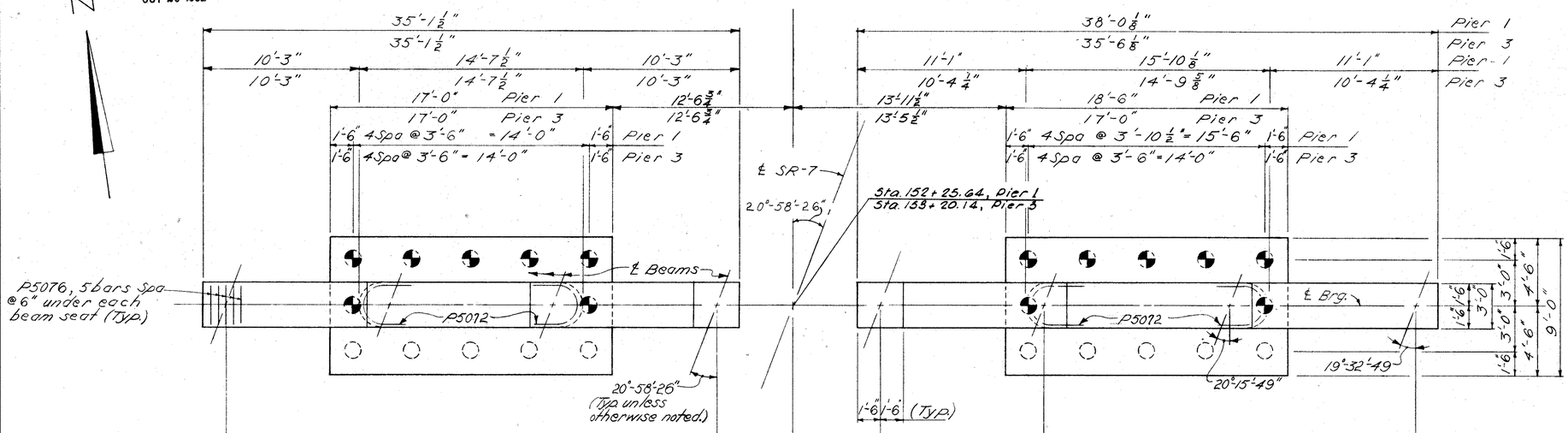
DESIGNED	DRAWN	TRACED	CHECKED	REVIEWED	DATE	REVISED
RT	ELK		fwd	J.E.V.	10/30/68	

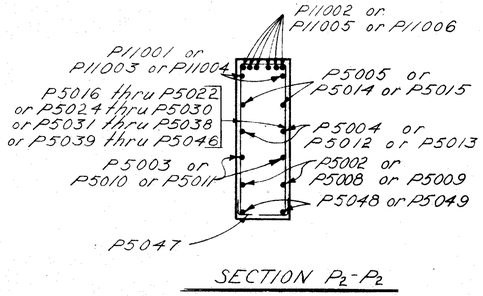
MICROFILMED
OCT 29 1982

FED. RD. DIVISION	STATE	PROJECT	TYPE FUNDS
2	OHIO		

495
560

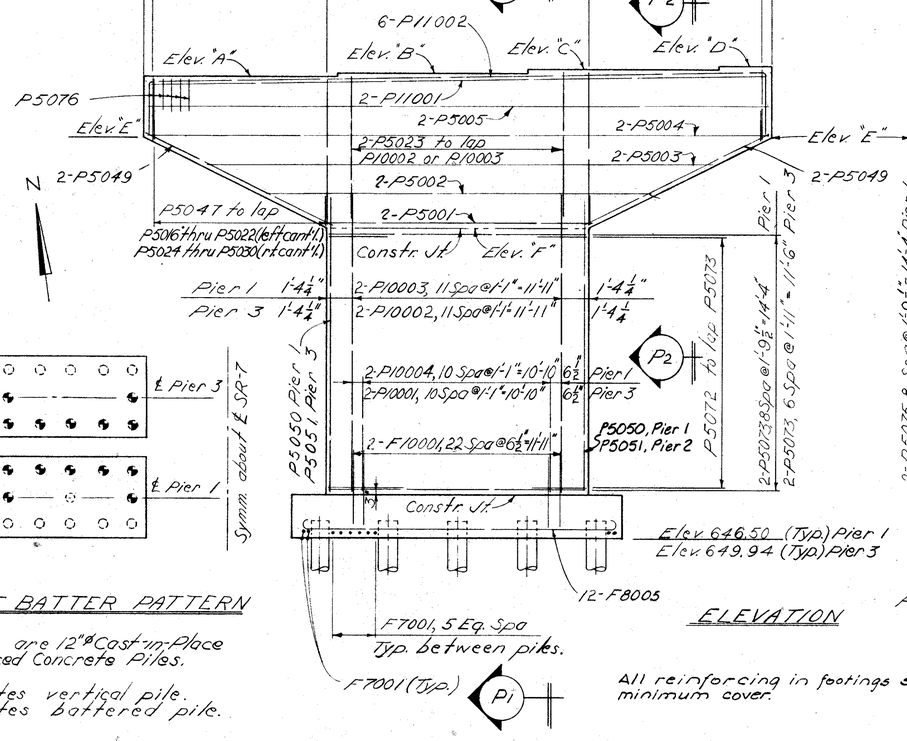
JEFFERSON COUNTY
JEF-7-0.20





SECTION P_2-P_2

ELEVATIONS		
	Pier 1	Pier 3
A	672.60	673.28
B	672.77	673.45
C	672.95	673.60
D	673.13	673.78
E	669.10	669.78
F	663.97	664.65
G	673.14	673.78
H	672.98	673.62
J	672.83	673.47
K	672.70	673.33



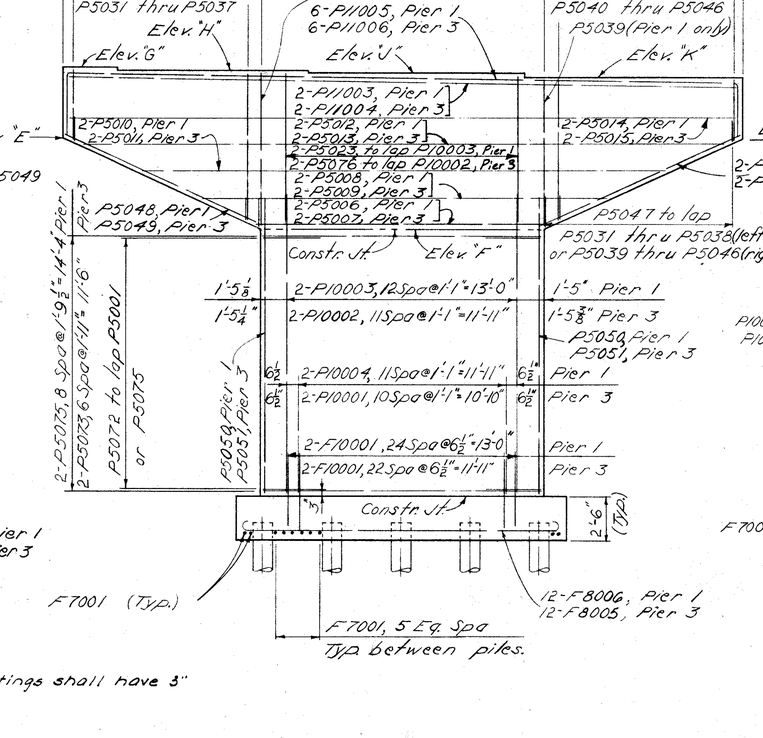
PILE BATTER PATTERN

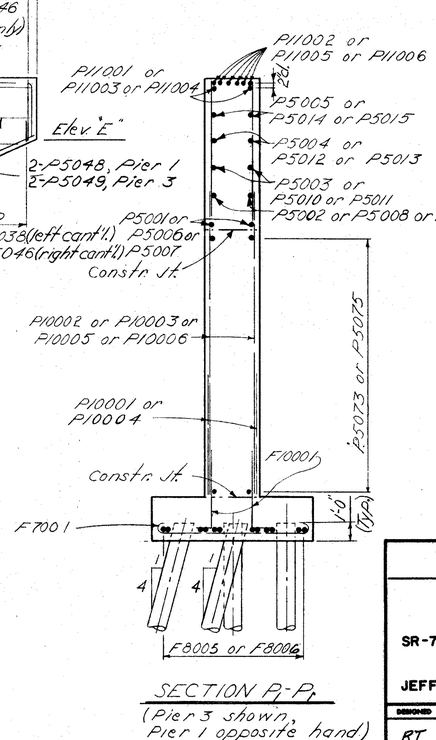
All piles are 12"ø Cast-in-Place Reinforced Concrete Piles.

○ indicates vertical pile.
◔ indicates battered pile.

ELEVATION

All reinforcing in footings shall have 3" minimum cover.





SECTION P_1-P_1
(Pier 3 shown, Pier 1 opposite hand)

ALDEN E. STILSON & ASSOCIATES, LIMITED
CONSULTING ENGINEERS
COLUMBUS, OHIO

7 14

PIERS 1 & 3 DETAILS

BRIDGE No. JEF-7-0288
SR-7 over EXISTING SR-7 and FUTURE OHIO EDISON SPUR
JEFFERSON COUNTY
STA. 151+81.23 to STA. 153+56.55

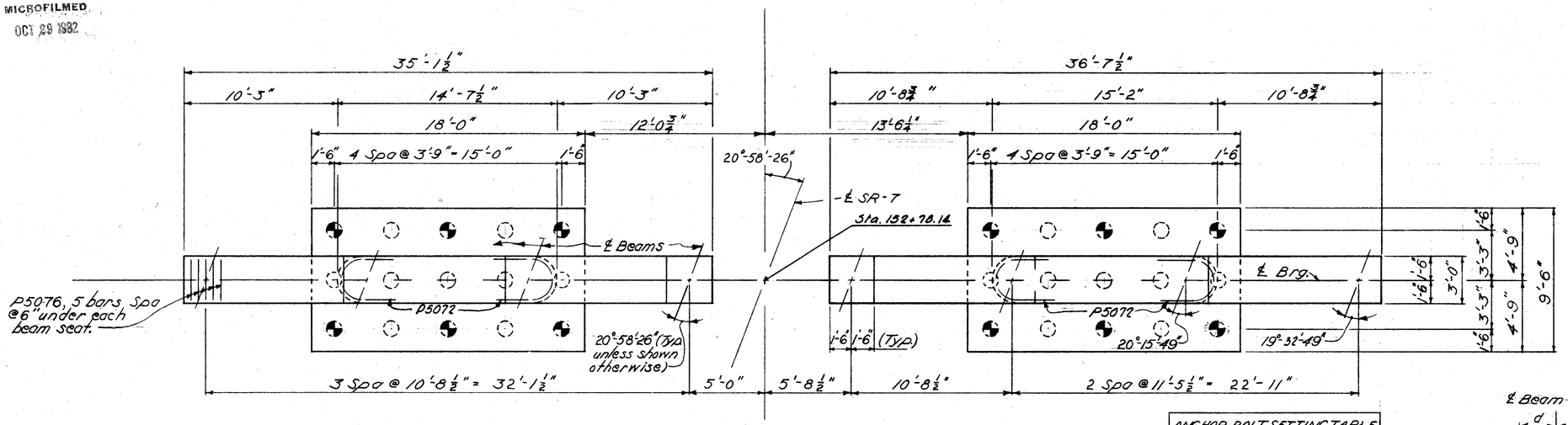
DESIGNED	DRAWN	TRACED	CHECKED	REVIEWED	DATE	REVISED
RT	ELK		fnd	J.E.V.	10/30/68	

MICROFILMED
OCT 29 1982

FED. RD. DIVISION	STATE	PROJECT	TYPE FUNDS
2	OHIO		

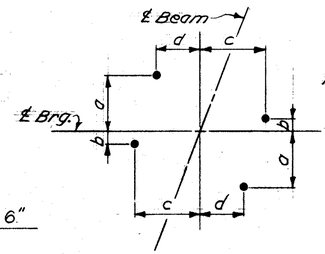
496
560

JEFFERSON COUNTY
JEF-7-0.20

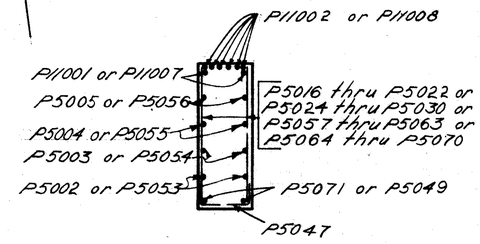


PLAN

ANCHOR BOLT SETTING TABLE				
Beam	"a"	"b"	"c"	"d"
Beams 1 thru 6	9 3/16"	2"	11½"	7 3/16"
Beam 7	9 1/16"	2 3/16"	11 7/16"	7 3/16"
Beam 8	9"	2 5/16"	11 7/16"	7 1/16"



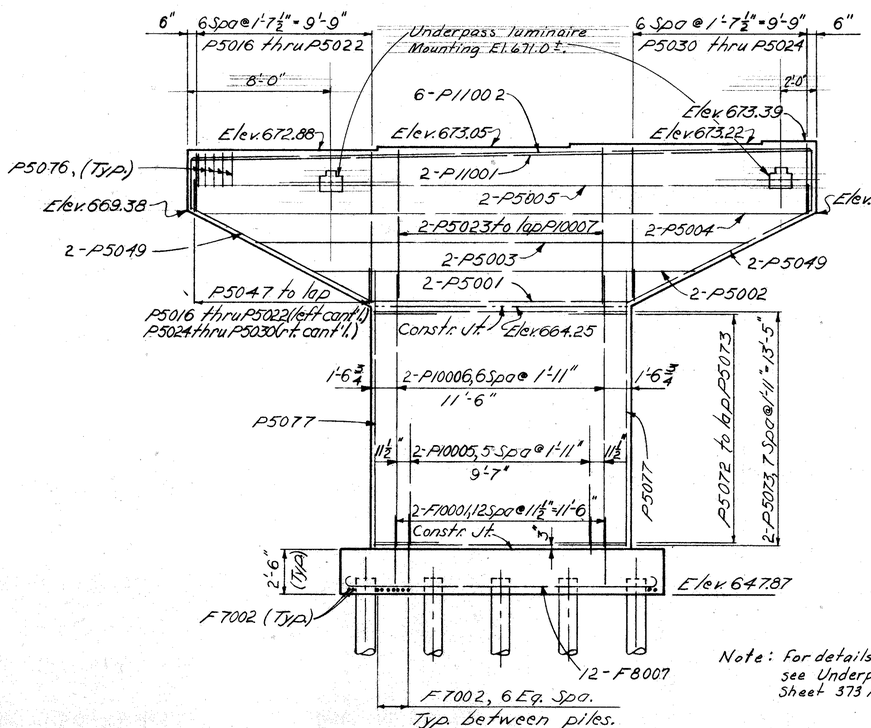
ANCHOR BOLT SETTING DETAIL



SECTION P3-P3

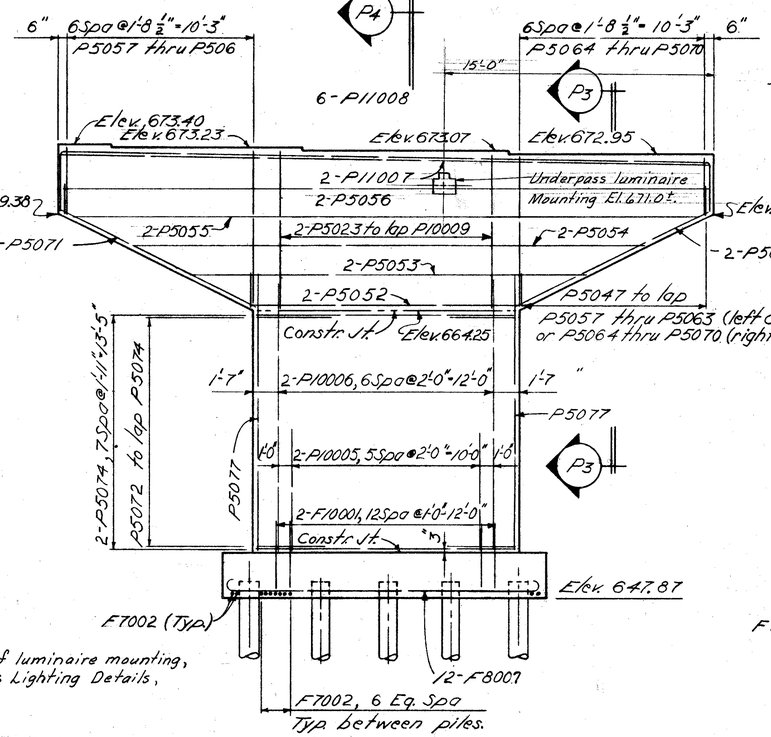
Note:
Special care shall be taken in placing reinforcing steel in the vicinity of the bridge seat so as to avoid interference with the drilling of anchor bolt holes.

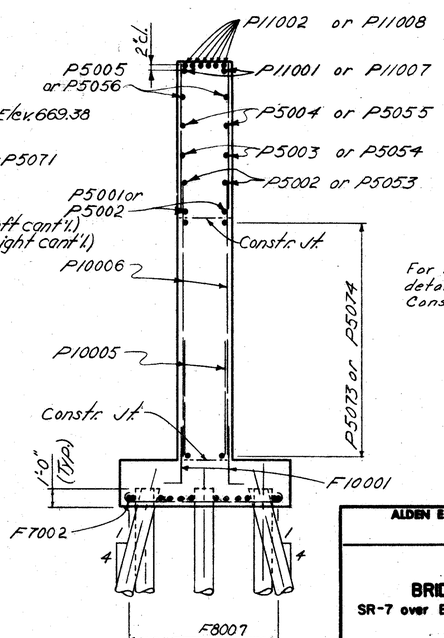
For notes see sheet 7 | 14



ELEVATION

Note: For details of luminaire mounting, see Underpass Lighting Details, Sheet 373 A.





SECTION P4-P4

NOTE
For superstructure grounding details at Pier 2 see Std. Const. Dwg. HL-7.

ALDEN E. STILSON & ASSOCIATES, LIMITED
CONSULTING ENGINEERS
COLUMBUS, OHIO

8 | 14

PIER 2 DETAILS
BRIDGE No. JEF-7-0288
SR-7 over EXISTING SR-7 and FUTURE OHIO EDISON SPUR
JEFFERSON COUNTY
STA. 151 + 81.23 to STA. 153 + 56.55

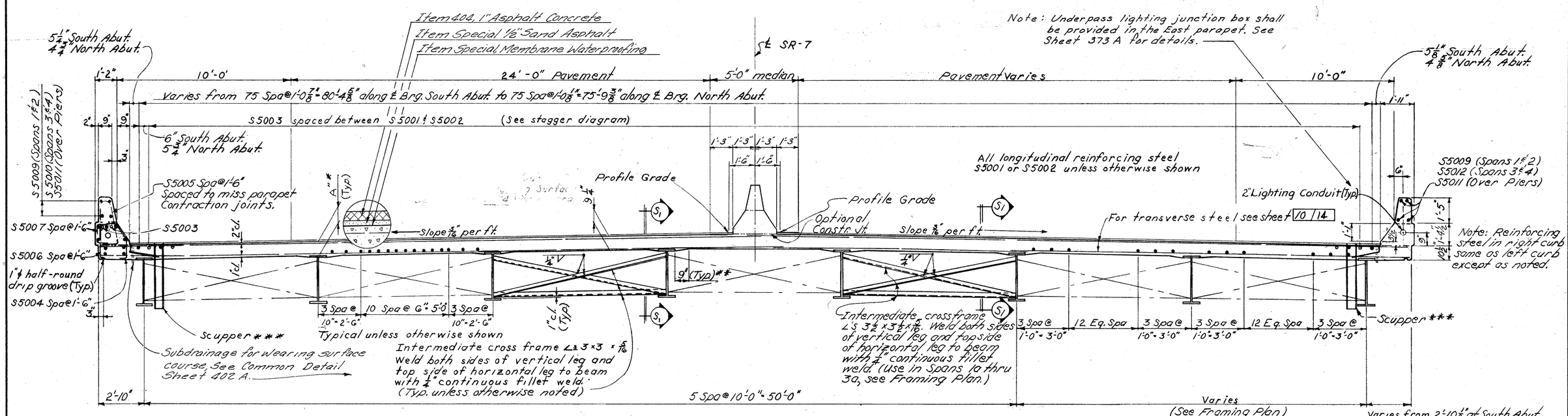
DESIGNED	DRAWN	TRACED	CHECKED	REVIEWED	DATE	REVISED
RT	ELK		fwd	J.E.V.	10/30/68	

MICROFILMED
OCT 29 1982

FED. RD. DIVISION	STATE	PROJECT	TYPE FUNDS
2	OHIO		

497
560

JEFFERSON COUNTY
JEF-7-0.20



TRANSVERSE SECTION

NOTES

* The distance shown from the top of deck slab to top of beam is the nominal dimension. The quantity of deck concrete to be paid for shall be based on this dimension even though deviation from it may be necessary because the top flange of the beam may not have the exact camber or conformation required to place it parallel to the finished grade.

** A haunch width of 9" shall be used for computing quantity of concrete. However, the haunch width may vary between 6" and 12" provided that the slope shall not be more than 1:4 for a haunch less than 9" in width.

*** For detail of scupper, see Common Details, sheet 402 & 402 A

Field bending of transverse slab steel shall be included in Item 509 for payment.

Lap S5001 & S5002 bars 1'-7"

For additional notes and details see sheets 10 / 14 thru 12 / 14

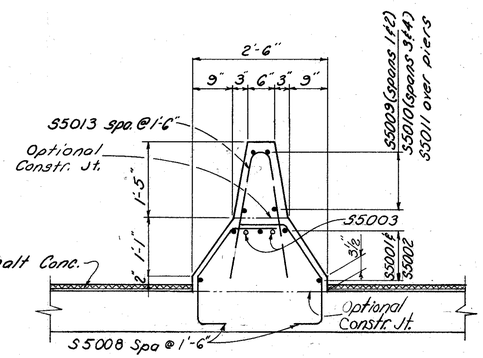
Quantities of concrete and Reinforcing steel for railing shall be included with their appropriate Item for payment.

End Dam: Provide a ¼" x 3" bar welded to the main angle as shown on SD-1-69. Modify thickness of 2" bar to conform.

Steel Erection: During the erection of end dams and crossframes care shall be taken to insure that stringers, bearing parts and bridge seats remain in bearing contact.

SLAB THICKNESS "A"*

	Beams # 1 thru # 5 & # 8	Beams # 6 & # 7
South Abut.	9 1/4" - 9 3/8"	9 3/8" - 9 1/2"
Pier # 1	9 3/8"	9 1/2"
Pier # 2	9 1/4"	9 1/4"
Pier # 3	9 1/2"	9 3/8"
North Abut.	9 1/2"	9 3/8"



BARRIER DETAIL

Note: Deck Finishing: Concrete deck shall be in accordance with 451.09 and 451.12, except that the roadway surface shall be finished with a burlap drag to provide a uniform surface with a gritty texture.

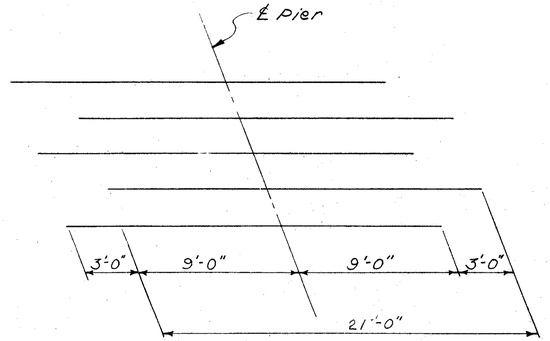
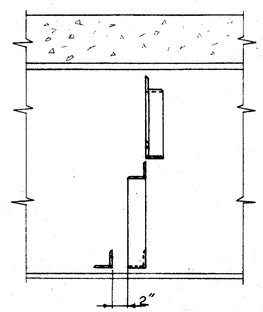


DIAGRAM SHOWING STAGGER of S5003 BARS OVER PIERS



SECTION S1-S1

CHARPY TEST NOTES

All stringers and field splice material shall meet specified minimum notch toughness requirements.

See sheet 415 for other Charpy Test Notes.

ALDEN E. STILSON & ASSOCIATES, LIMITED
CONSULTING ENGINEERS
COLUMBUS, OHIO

9 / 14

SUPERSTRUCTURE DETAILS

BRIDGE No. JEF-7-0288
SR-7 over EXISTING SR-7 and FUTURE OHIO EDISON SPUR
JEFFERSON COUNTY
STA. 151 + 81.23 to STA. 153 + 56.55

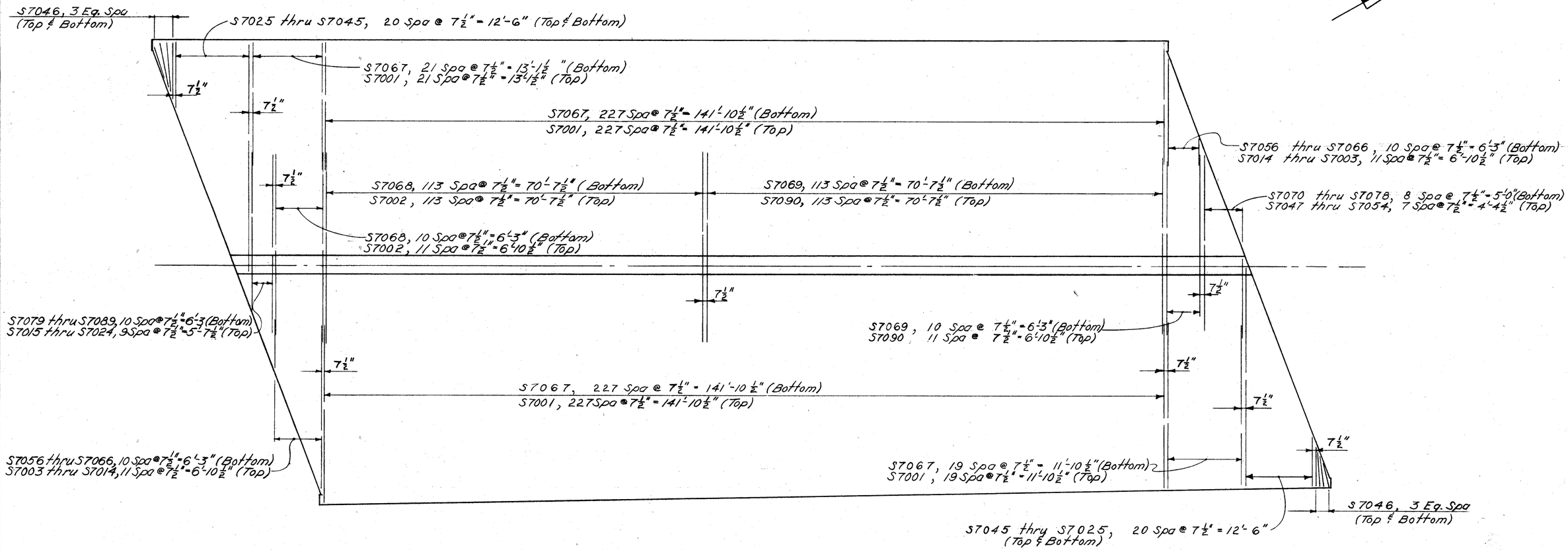
DESIGNED	DRAWN	TRACED	CHECKED	REVIEWED	DATE	REVISED
RT	ELK		cwd	J.E.N.	10/30/68	9-29-75

MICROFILMED
OCT 29 1982

FED. RD. DIVISION	STATE	PROJECT	TYPE FUNDS
2	OHIO		

498
560

JEFFERSON COUNTY
JEF-7-0.20



For additional notes and details, see sheet 9 14

TRANSVERSE SLAB REINFORCING

ALDEN E. STILSON & ASSOCIATES, LIMITED
CONSULTING ENGINEERS
COLUMBUS, OHIO

10 14

SUPERSTRUCTURE DETAILS
BRIDGE No. JEF-7-0288
SR-7 over EXISTING SR-7 and FUTURE OHIO EDISON SPUR
JEFFERSON COUNTY
STA. 151 + 81.23 to STA. 153 + 56.55

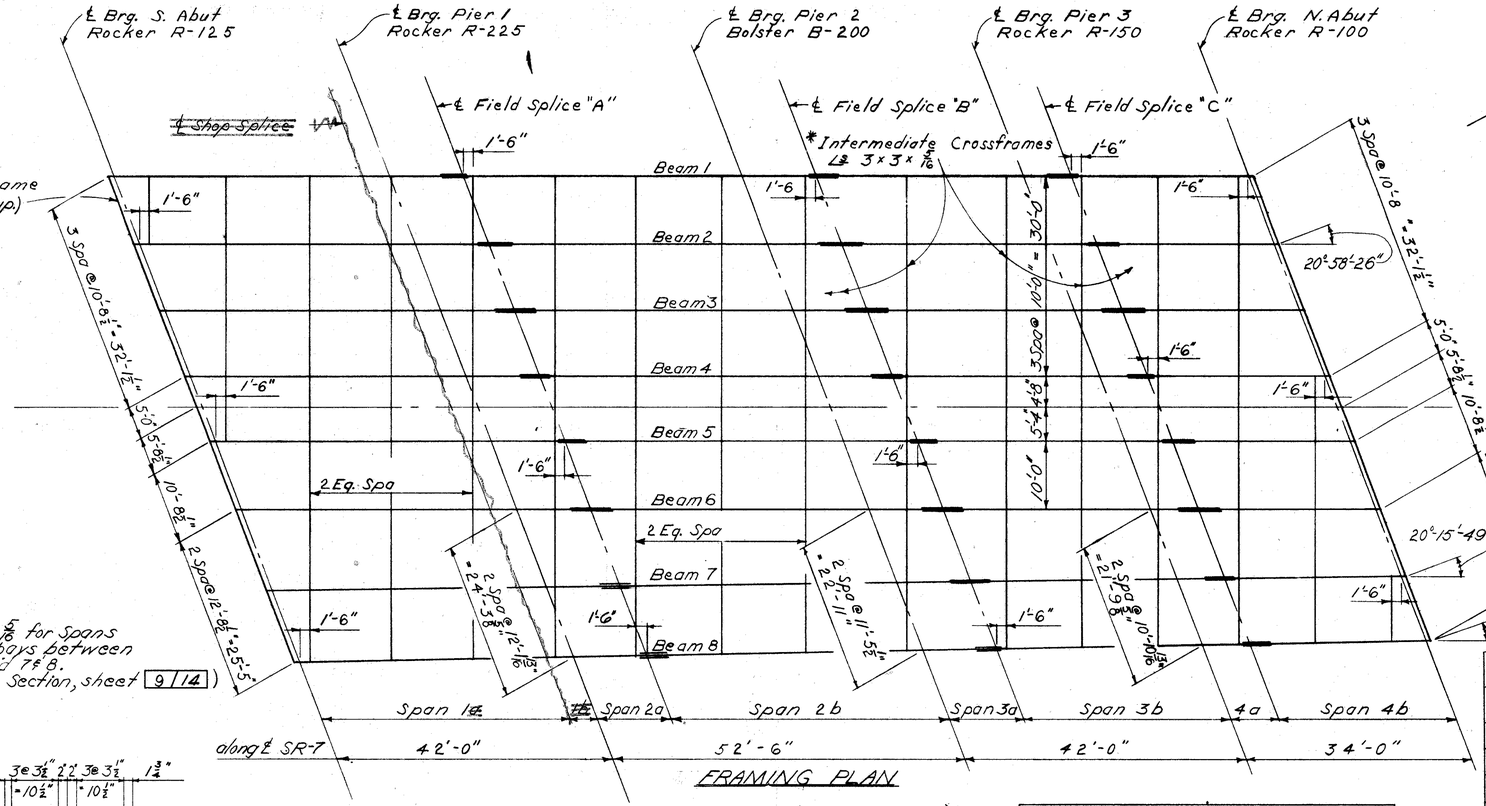
DESIGNED	DRAWN	TRACED	CHECKED	REVIEWED	DATE	REVISED
RT	ELK		fwd	J.E.V.	10/30/68	

MICROFILMED
OCT 29 1982

FED. RD. DIVISION	STATE	PROJECT	TYPE FUNDS
2	OHIO		

499
560

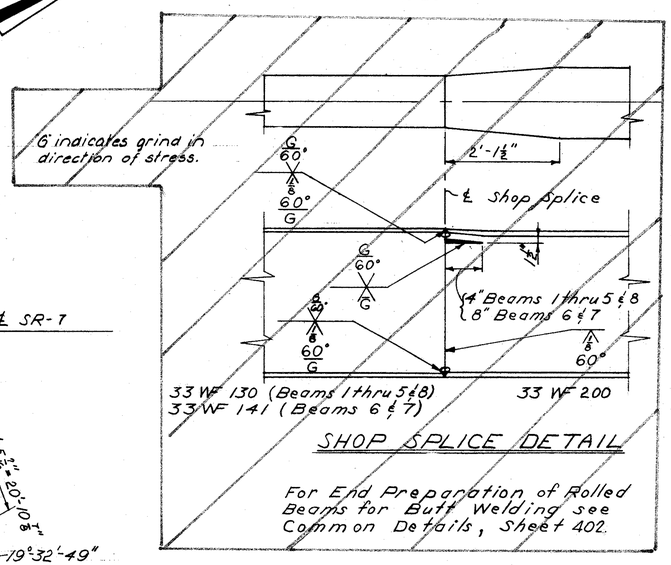
JEFFERSON COUNTY
JEF-7-0.20



FRAMING PLAN

* Use L's 3 1/2 x 3 1/2 x 5/16 for Spans 1a thru 3a in Bays between Beams 6 & 7 and 7 & 8. (See Transverse Section, sheet 9 | 14)

G indicates grind in direction of stress.

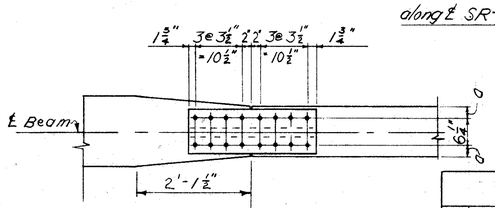


SHOP SPLICE DETAIL

For End Preparation of Rolled Beams for Butt Welding see Common Details, Sheet 402.

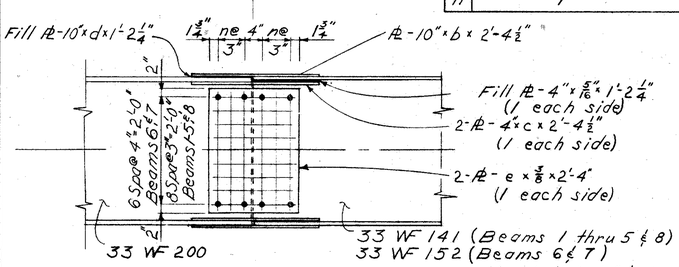
TABLE of BEAM SIZES, 200

From	Field To	Beams 1 thru 5 & 8	Beams 6 & 7
S. Abutment	Shop Splice "A"	33 WF 130	33 WF 141
~~Shop Splice~~	~~Field Splice "A"~~	~~33 WF 200~~	~~33 WF 200~~
Field Splice "A"	Field Splice "B"	33 WF 141	33 WF 152
Field Splice "B"	Field Splice "C"	33 WF 118	33 WF 118
Field Splice "C"	N. Abutment	33 WF 118	33 WF 118



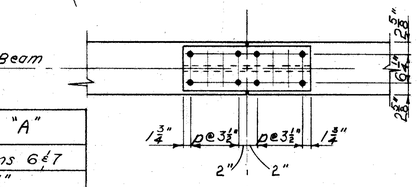
FIELD SPLICE "A"

	Beams 1 thru 5 & 8	Beams 6 & 7
a	2 5/8"	2 11/16"
b	7/16"	1/2"
c	5/8"	11/16"
d	1/8"	1/4"
e	13 1/2"	19 1/2"
n	1	2



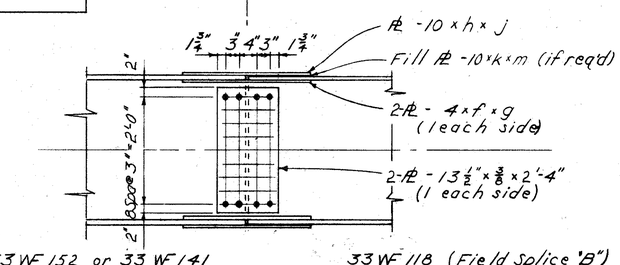
FIELD SPLICE DETAIL
(Field Splice "A")

Bolt heads shall be placed on the fascia side of the exterior beams and on bottom side of the bottom flange.



FIELD SPLICE "B" & "C"

	Beams 1 thru 5 & 8		Beams 6 & 7	
	"B"	"C"	"B"	"C"
f	9/16"	1/2"	9/16"	1/2"
g	2'-4 1/2"	1'-9 1/2"	2'-4 1/2"	1'-9 1/2"
h	7/16"	3/8"	7/16"	3/8"
j	2'-4 1/2"	1'-9 1/2"	2'-4 1/2"	1'-9 1/2"
k	3/16"	——	5/16"	——
m	1'-2 1/2"	——	1'-2 1/2"	——
p	3	2	3	2



FIELD SPLICE DETAIL
(Typical Field Splice "B" & "C")

TABLE of HORIZONTAL BEAM LENGTHS

	Span 1a	Span 1b	Span 2a	Span 2b	Span 3a	Span 3b	Span 4a	Span 4b
Beam 1 thru Beam 6	42'-0" (38) 41'-9 5/8"	4'-0"	11'-0"	41'-6"	11'-0"	31'-0"	7'-0"	27'-0"
Beam 7	37'-9 7/8"	3'-11 3/4"	10'-11 3/8"	41'-3 11/16"	10'-11 3/8"	30'-10 5/16"	6'-11 5/8"	26'-10 1/2"
Beam 8	37'-7 13/16" 41'-7 3/8"	3'-11 9/16"	10'-10 15/16"	41'-1 7/16"	10'-10 13/16"	30'-8 5/8"	6'-11 1/4"	26'-9 1/16"

NOTES

Place bearing devices normal to ℄ beams at all substructure units.

Place Intermediate crossframes normal to parallel beams.

For additional notes and details see sheets 9 | 14 & 12 | 14

End finish shall conform to Std. Dwg. SD-1-69.

Bearing devices under beams 1 & 8 shall be fabricated without 1/8" keeper plates.

ALDEN E. STILSON & ASSOCIATES, LIMITED
CONSULTING ENGINEERS
COLUMBUS, OHIO
11 | 14

SUPERSTRUCTURE DETAILS

BRIDGE No. JEF-7-0288
SR-7 over EXISTING SR-7 and FUTURE OHIO EDISON SPUR
JEFFERSON COUNTY
STA. 151 + 81.23 to STA. 153 + 56.55

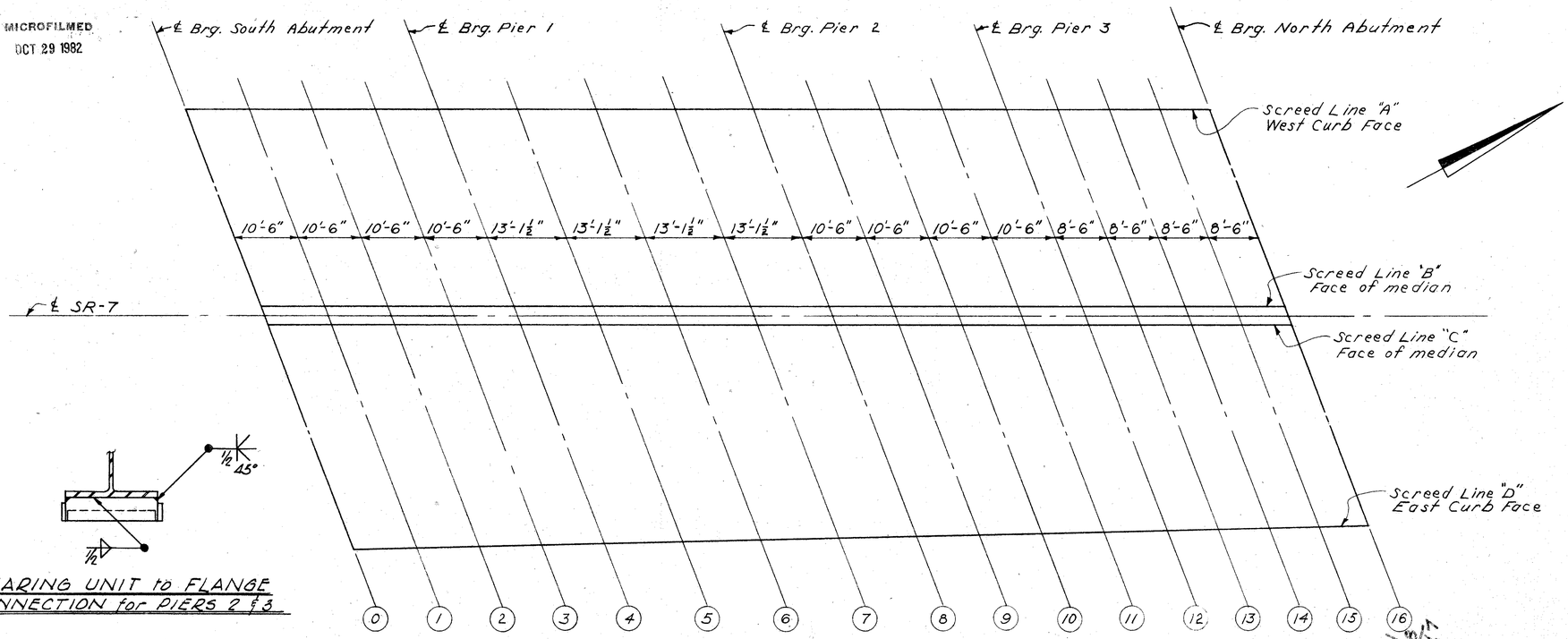
DESIGNED	DRAWN	TRACED	CHECKED	REVIEWED	DATE	REVISED
RT	ELK		pwd	J.E.V.	10/30/68	9-29-75

MICROFILMED
OCT 29 1982

FED. RD. DIVISION	STATE	PROJECT	TYPE FUNDS
2	OHIO		

500
560

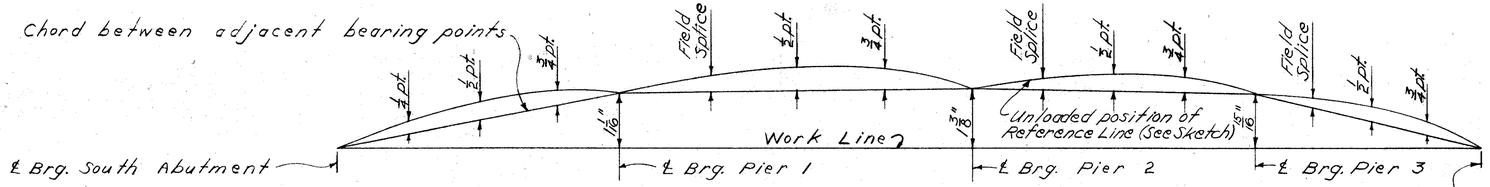
JEFFERSON COUNTY
JEF-7-0.20



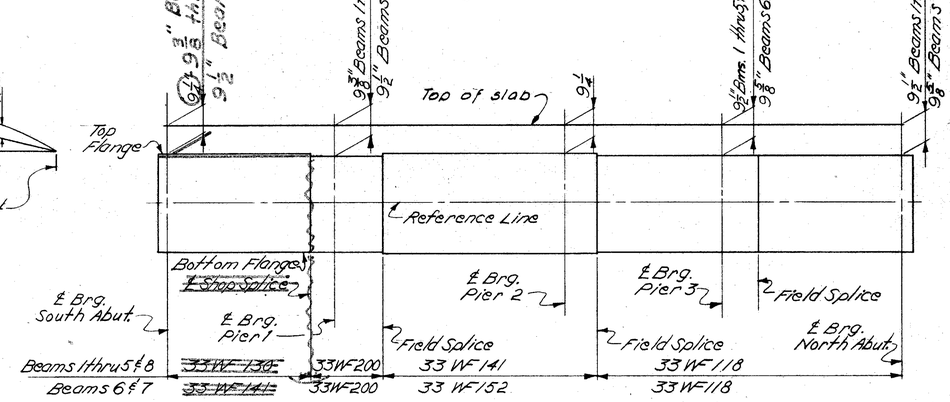
BEARING UNIT to FLANGE CONNECTION for PIERS 2 & 3

SCREED ELEVATIONS					
	"A"	"B"	"C"	"D"	
0	677.26	677.88	677.89	677.38	.96
1 .33 .35	677.34	677.96	677.97	677.47	.45
2 .40 .02	677.41	678.03	678.04	677.53	.03 .52
3	677.46	678.08	678.09	677.56	
4	677.51	678.13	678.14	677.62	
5	677.59	678.21	678.22	677.68	
6	677.66	678.28	678.29	677.75	
7	677.71	678.32	678.33	677.79	
8	677.78	678.36	678.37	677.85	
9	677.82	678.40	678.41	677.88	
10	677.87	678.44	678.44	677.92	
11	677.89	678.47	678.47	677.94	
12	677.92	678.49	678.49	677.97	
13	677.95	678.51	678.51	677.99	
14	677.97	678.53	678.53	677.99	
15	677.99	678.54	678.54	678.01	
16	678.00	678.54	678.54	678.03	

Screed elevations are at top of slab before the concrete deck is placed. Proper allowance has been made for the dead load deflection due to the weight of the concrete.



CAMBER and BLOCKING DIAGRAM



SLAB THICKNESS DIAGRAM

DEFLECTION and CAMBER	SPAN 1												SPAN 2											
	¼ point				½ point				¾ point				splice point				½ point				¾ point			
	Bm.1	2-5	6&7	8	Bm.1	2-5	6&7	8	Bm.1	2-5	6&7	8	Bm.1	2-5	6&7	8	Bm.1	2-5	6&7	8	Bm.1	2-5	6&7	8
Deflection due to weight of steel	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Deflection due to remaining D.L.	1/16	1/16	1/16	1/16	1/16	1/16	1/16	1/16	1/16	1/16	1/16	1/16	1/16	1/8	1/8	1/16	1/16	1/4	1/4	1/16	1/8	1/16	1/16	1/8
Adjustment regd. for curvature	1/16	1/16	1/16	1/16	1/8	1/8	1/8	1/8	1/16	1/16	1/16	1/16	1/16	1/16	1/16	1/16	1/8	1/8	1/8	1/8	1/16	1/16	1/16	1/16
Required shop camber	1/8	1/8	3/16	1/8	1/8	3/16	1/4	1/4	1/16	1/8	1/8	1/8	1/8	3/16	1/16	1/8	1/16	1/4	1/4	1/16	1/16	1/4	1/4	1/16

DEFLECTION and CAMBER	SPAN 3												SPAN 4											
	splice point				½ point				¾ point				splice point				½ point				¾ point			
	Bm.1	2-5	6&7	8	Bm.1	2-5	6&7	8	Bm.1	2-5	6&7	8	Bm.1	2-5	6&7	8	Bm.1	2-5	6&7	8	Bm.1	2-5	6&7	8
Deflection due to weight of steel	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Deflection due to remaining D.L.	0	0	0	0	1/16	1/16	1/16	1/16	0	1/16	1/16	1/16	1/16	1/16	1/16	1/16	1/8	1/8	1/8	1/8	1/16	1/8	1/8	1/16
Adjustment regd. for curvature	1/16	1/16	1/16	1/16	1/8	1/8	1/8	1/8	1/16	1/16	1/16	1/16	0	0	0	0	1/16	1/16	1/16	1/16	0	0	0	0
Required shop camber	1/16	1/16	1/16	1/16	3/16	3/16	3/16	1/8	1/16	1/8	1/8	1/8	1/16	1/16	1/16	1/16	3/16	3/16	3/16	3/16	1/16	1/8	1/8	1/16

For additional notes and details see sheets 9 | 14 and 11 | 14

ALDEN E. STILSON & ASSOCIATES, LIMITED
CONSULTING ENGINEERS
COLUMBUS, OHIO

12 | 14

SUPERSTRUCTURE DETAILS

BRIDGE No. JEF-7-0288
SR-7 over EXISTING SR-7 and FUTURE OHIO EDISON SPUR
JEFFERSON COUNTY
STA. 151 + 81.23 to STA. 153 + 56.55

DESIGNED	DRAWN	TRACED	CHECKED	REVIEWED	DATE	REVISED
RT	ELK		rwd	J.E.V.	10/30/68	3-29-75

MICROFILMED
OCT 29 1982

NOTES

1. INDICATES SERIES BAR. EACH BAR VARIES FROM ADJACENT BAR(S) BY TABULATED AMOUNT (S), CALCULATED TO NEAREST $\frac{1}{8}$". WEIGHT SHOWN IS FOR ENTIRE SERIES UTILIZING AVERAGE LENGTH.
2. BARS INCLUDED WITH ITEM 517, RAILING, FOR PAYMENT.
3. COST OF FIELD BENDING SHALL BE INCLUDED WITH ITEM 509.
4. LIGHT POLE SUPPORT BARS INCLUDED WITH ITEM 509 FOR PAYMENT.
5. END PREPARATION AND FIELD WELDING INCLUDED WITH ITEM 509.
6. "LENGTH" SHOWN FOR SPIRAL BARS IS DISTANCE FROM TOP OF FOOTING TO BOTTOM OF PIER CAP.
"NO. TURNS" SHOWN IS "LENGTH" DIVIDED BY PITCH, PLUS 3 TURNS (NUMBER OF CLOSED COILS), EXPRESSED AS NEAREST WHOLE NUMBER.

SPIRAL BARS SHALL NOT HAVE DEFORMATIONS BUT SHALL IN OTHER RESPECTS CONFORM TO ITEM 509. $1\frac{1}{2}$ CLOSED COILS SHALL BE PROVIDED AT ENDS OF EACH SPIRAL UNIT. FOUR STEEL CHANNEL, TEE, OR ANGLE SPACERS, WEIGHING APPROXIMATELY 0.80 LB. PER LIN. FT. OF SPACER SHALL BE PROVIDED FOR EACH SPIRAL UNIT. THEY SHALL BE EQUALLY SPACED ALONG PERIPHERY OF COIL. WEIGHT OF SPACERS, AT 0.80 LB. PER. LIN. FT. WILL BE PAID FOR AS REINFORCING STEEL AND IS INCLUDED IN TABULATED WEIGHT.

FED. RD DIVISION	STATE	PROJECT	TYPE FUNDS
2	OHIO		

JEFFERSON COUNTY
JEF-7-0.20

501
560

MARK	NUM.	LENGTH	WEIGHT	TYPE	A	B	C	D	E	NOTE
					ABUTMENTS					
F 5001	114	7- 0	832	1	0- 8	6- 6				
F 5002	114	8- 3	981	1		1- 7	5- 4	1- 7		
F 5003	28	11- 7	338	3	2- 6	3- 0	2- 6	3- 0		
F 6001	114	14- 1	2411	1		6- 6	5- 4	2- 7		
F 6002	24	17- 8	637	1		8- 5	1- 2	8- 5		
F 6003	4	14- 2	85	1		6- 8	1- 2	6- 8		
F 6004	4	15- 2	91	1		7- 2	1- 2	7- 2		
F 8001	21	29- 8	1663	ST						
F 8002	12	10- 4	331	ST						
F 8003	21	29- 0	1626	ST						
F 8004	12	9-10	315	ST						
A 5001	80	4-11	410	1		1- 6	2- 2	1- 6		
A 5002	34	26-10	952	ST						
A 5003	114	7- 6	892	1		2- 2	3- 5	2- 2		
A 5004	17	32- 8	579	ST						
A 5005	8	3- 4	28	15	0- 7	0-11	1- 0	0- 9	0- 9	
A 5006	4	10-11	46	12	7-10	2- 9		1- 5		
A 5007	4	10- 5	43	12	7- 4	2- 9		1- 5		
A 5008	12	7- 2	90	ST						
A 5009	48	13- 8	684	ST						3
A 5010	48	1-11	96	1		0- 7	1- 0	0- 7		
A 5011	26	4- 9	129	ST						
A 5012	12	7- 9	97	ST						
A 5013	14	3- 2	46	ST						
A 5014	12	8- 6	106	16			0-11	5- 6	1- 3	
A 5015	12	10- 9	135	16			1- 4	7- 7	0-11	
A 5016	2	3- 4	7	ST						
A 5017	2	4- 0	8	ST						
A 5018	28	6- 3	183	19		2- 5	3- 1	0- 8		
A 5019	20	2-10	59	ST						
A 5020	8	8- 3	69	ST						
A 5021	8	7- 3	60	ST						
A 5022	2	3- 6	7	ST						
A 5023	2	4- 2	9	ST						

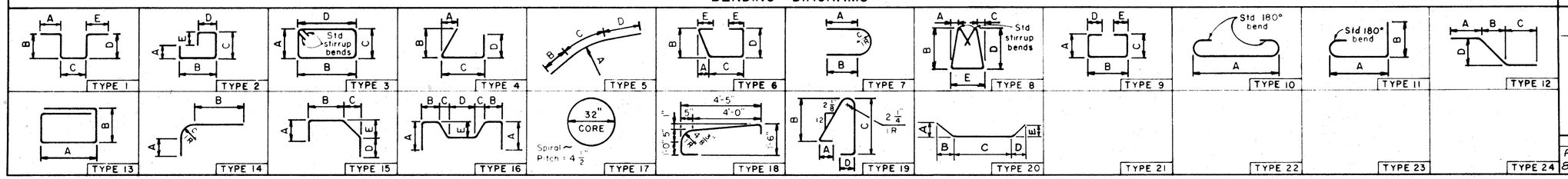
MARK	NUM.	LENGTH	WEIGHT	TYPE	A	B	C	D	E	NOTE
					ABUTMENTS		(CONTINUED)			
A 5024	17	31- 2	553	ST						
A 5025	34	23-10	845	ST						
A 5026	4	4- 7	19	4	2-3	1-1	2-3			
A 5027	16	1'- 0		ST						
A 6002	159	14-10	2651	2	4- 6	1- 5	5-10	0-11	2-10	
A 6003	24	6- 6	234	15		4- 7	1- 0	0- 9	0- 9	
A 6004	14	5-1	107	15		3- 2	1- 0	0- 9	0- 9	
A 6005	2	5-3	16	15		3- 4	1- 0	0- 9	0- 9	
A 6006	2	5-11	18	15		4- 0	1- 0	0- 9	0- 9	
A 6007	2	5-6	17	15		3- 6	1- 0	0- 9	0- 9	
A 6008	2	6-1	18	15		4- 2	1- 0	0- 9	0- 9	
A 6009	2	6-8	20	15		4- 9	1- 0	0- 9	0- 9	
A8001	107	5-5	1548	20	1-1	1-1	3-7	0-6	0-6	
					PIERS					
F 7001	112	10- 2	2327	10	8- 6					
F 7002	64	10- 8	1395	10	9- 0					
F 8005	36	18- 8	1794	10	16- 6					
F 8006	12	20- 2	646	10	18- 0					
F 8007	24	19- 8	1260	10	17- 6					
F10001	240	6- 7	6799	1	1- 5	5- 6				
P 5001	6	14- 7	91	ST						
P 5002	6	20- 6	128	ST						
P 5003	6	27- 3	171	ST						
P 5004	6	33- 7	210	ST						
P 5005	6	34- 9	217	ST						
P 5006	2	15-10	33	ST						
P 5007	2	14- 9	31	ST						

MARK	NUM.	LENGTH	WEIGHT	TYPE	A	B	C	D	E	NOTE
					PIERS		(CONTINUED)			
P 5008	2	22-10	48	ST						
P 5009	2	21- 2	44	ST						
P 5010	2	29-10	62	ST						
P 5011	2	27- 7	58	ST						
P 5012	2	36-10	77	ST						
P 5013	2	34- 0	71	ST						
P 5014	2	37- 8	79	ST						
P 5015	2	35- 2	73	ST						
P 5016	3	9- 3		1		3- 5	2- 8	3- 5		1
THRU			308		VARY	LENGTH BY 1'- 7 3/8"				
					VARY	DIM. B BY 0'- 9 5/8"				
					VARY	DIM. D BY 0'- 9 5/8"				
P 5022	3	18-11		1		8- 3	2- 8	8- 3		1
P 5023	126	8- 4	1095	ST						
P 5024	3	10- 3		1		3-11	2- 8	3-11		1
THRU			327		VARY	LENGTH BY 1'- 6 5/8"				
					VARY	DIM. B BY 0'- 9 3/8"				
					VARY	DIM. D BY 0'- 9 3/8"				
P 5030	3	19- 7		1		8- 7	2- 8	8- 7		1
P 5031	2	10- 3		1		3-11	2- 8	3-11		1
THRU			218		VARY	LENGTH BY 1'- 6 5/8"				
					VARY	DIM. B BY 0'- 9 3/8"				
					VARY	DIM. D BY 0'- 9 3/8"				
P 5037	2	19- 7		1		8- 7	2- 8	8- 7		1
P 5038	1	8-11	9	ST						
P 5039	1	8- 7	9	ST						
P 5040	2	14- 1		1		8- 3	2- 8	3- 5		1
THRU			170		VARY	LENGTH BY 0'- 9 5/8"				
					VARY	DIM. B BY 0'- 9 5/8"				
P 5046	2	9- 3		1		3- 5	2- 8	3- 5		1
P 5047	86	5- 7	501	1		1- 7	2- 8	1- 7		
P 5048	4	12- 4	51	ST						
P 5049	16	11- 5	191	ST						
P 5050	4	16- 7	69	ST						
P 5051	4	13- 7	57	ST						
P 5052	2	14-11	31	ST						
P 5053	2	21- 8	45	ST						
P 5054	2	28- 5	59	ST						
P 5055	2	35- 2	73	ST						
P 5056	2	36- 3	76	ST						

BAR SIZE DESIGNATION

BAR SIZE IS INDICATED IN THE BAR MARK. THE FIRST DIGIT WHERE FOUR DIGITS ARE USED, AND THE FIRST TWO DIGITS WHERE FIVE DIGITS ARE USED, INDICATE THE BAR SIZE NUMBER. FOR EXAMPLE, A7001 IS A NO.7 SIZE BAR AND A10140 IS A NO.10 SIZE.

BENDING DIAGRAMS



ALDEN E. STILSON & ASSOCIATES, LIMITED
CONSULTING ENGINEERS
COLUMBUS, OHIO

13/14

REINFORCING STEEL LIST

BRIDGE No. JEF-7-0288
SR-7 over EXISTING SR-7 and FUTURE OHIO EDISON SPUR
JEFFERSON COUNTY
STA. 151 + 81.23 to STA. 153 + 56.55

DESIGNED	DRAWN	TRACED	CHECKED	REVIEWED	DATE	REVISED
RT 8/15/68			FWD 8/23/68	JEV	10/30/68	

MICROFILMED
OCT 29 1982

FED. RD. DIVISION	STATE	PROJECT	TYPE FUNDS
2	OHIO		

JEFFERSON COUNTY
JEF-7-0.20

302
360

NOTES

1. INDICATES SERIES BAR. EACH BAR VARIES FROM ADJACENT BAR(S) BY TABULATED AMOUNT (S), CALCULATED TO NEAREST $\frac{1}{8}$". WEIGHT SHOWN IS FOR ENTIRE SERIES UTILIZING AVERAGE LENGTH.
2. BARS INCLUDED WITH ITEM 517, RAILING, FOR PAYMENT.
3. COST OF FIELD BENDING SHALL BE INCLUDED WITH ITEM 509.
4. LIGHT POLE SUPPORT BARS INCLUDED WITH ITEM 509 FOR PAYMENT.
5. END PREPARATION AND FIELD WELDING INCLUDED WITH ITEM 509.
6. "LENGTH" SHOWN FOR SPIRAL BARS IS DISTANCE FROM TOP OF FOOTING TO BOTTOM OF PIER CAP.
"NO. TURNS" SHOWN IS "LENGTH" DIVIDED BY PITCH, PLUS 3 TURNS (NUMBER OF CLOSED COILS), EXPRESSED AS NEAREST WHOLE NUMBER.

SPIRAL BARS SHALL NOT HAVE DEFORMATIONS BUT SHALL IN OTHER RESPECTS CONFORM TO ITEM 509. $1\frac{1}{2}$ CLOSED COILS SHALL BE PROVIDED AT ENDS OF EACH SPIRAL UNIT. FOUR STEEL CHANNEL, TEE, OR ANGLE SPACERS, WEIGHING APPROXIMATELY 0.80 LB. PER LIN. FT. OF SPACER SHALL BE PROVIDED FOR EACH SPIRAL UNIT. THEY SHALL BE EQUALLY SPACED ALONG PERIPHERY OF COIL. WEIGHT OF SPACERS, AT 0.80 LB. PER. LIN. FT. WILL BE PAID FOR AS REINFORCING STEEL AND IS INCLUDED IN TABULATED WEIGHT.

MARK	NUM.	LENGTH	WEIGHT	TYPE	A	B	C	D	E	NOTE
				PIERS			(CONTINUED)			
P 5057	1	10- 3		1		3-11	2- 8	3-11		1
THRU			109		VARY	LENGTH	BY 1'- 6 5/8"			
					VARY	DIM. B	BY 0'- 9 3/8"			
					VARY	DIM. D	BY 0'- 9 3/8"			
P 5063	1	19- 7		1		8- 7	2- 8	8- 7		1
P 5064	1	18-11		1		8- 3	2- 8	8- 3		1
THRU			103		VARY	LENGTH	BY 1'- 7 3/8"			
					VARY	DIM. B	BY 0'- 9 5/8"			
					VARY	DIM. D	BY 0'- 9 5/8"			
P 5070	1	9- 3		1		3- 5	2- 8	3- 5		1
P 5071	4	12- 1	50	ST						
P 5072	96	7- 2	718	7	1- 7	1- 7	1- 3			
P 5073	62	11- 7	749	ST						
P 5074	16	12- 2	203	ST						
P 5075	18	12-10	241	ST						
P 5076	120	5- 5	678	1		1- 6	2- 8	1- 6		
P 5077	4	15- 6	65	ST						
P10001	44	9- 8	1830	ST						
P10002	48	13- 7	2806	ST						
P10003	50	16- 7	3568	ST						
P10004	46	8- 2	1616	ST						
P10005	24	9- 2	947	ST						
P10006	28	15- 6	1868	ST						
P11001	6	34- 9	1108	ST						
P11002	18	40- 5	3865	1		3- 2	34- 9	3- 2		
P11003	2	37- 8	400	ST						
P11004	2	35- 2	374	ST						
P11005	6	43- 4	1381	1		3- 2	37- 8	3- 2		
P11006	6	40-10	1302	1		3- 2	35- 2	3- 2		
P11007	2	36- 3	385	ST						
P11008	6	41-11	1336	1		3- 2	36- 3	3- 2		
					SUPERSTRUCTURE					
S 5001	1040	30- 0	32542	ST						
S 5002	208	29- 2	6328	ST						

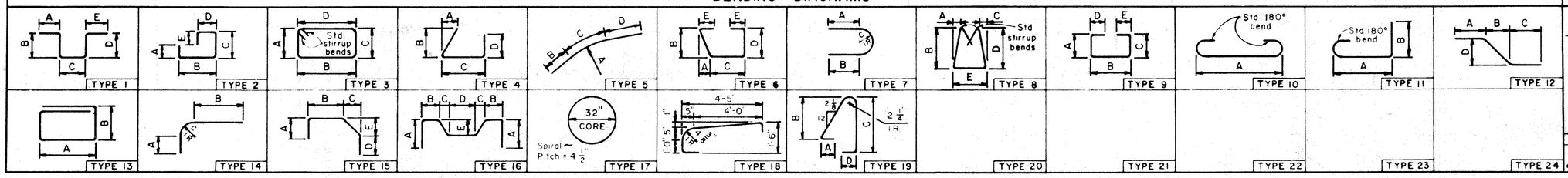
MARK	NUM.	LENGTH	WEIGHT	TYPE	A	B	C	D	E	NOTE
				SUPERSTRUCTURE			(CONTINUED)			
S 5003	237	21- 0	5191	ST						
S 5004	229	3- 2	756	15	0- 7	0- 9	1- 0	0- 9	0- 9	
S 5005	229	5- 4	1274	19		2- 2	2- 5	0- 8		
S 5006	229	2- 2	518	1	0- 7	1- 9				
S 5007	229	1-11	458	1		0- 7	1- 0	0- 7		
S 5008	229	3-4	796	15	0-7	0-11	1-0	0-9	0-9	
S 5009	72	12- 0	901	ST						
S 5010	32	13- 8	456	ST						
S 5011	72	6- 8	501	ST						
S 5012	16	13- 3	221	ST						
S 5013	115	4- 7	550	4	2-3	1-1	2-3			
S 7001	498	30- 0	30537	ST						
S 7002	126	23- 5	6031	ST						
S 7003	2	10- 0		ST						1
THRU			932		VARY	LENGTH	BY 1'- 7 5/8"			
S 7014	2	28- 0		ST						1
S 7015	1	14-11		ST						1
THRU			456		VARY	LENGTH	BY 1'- 7 5/8"			
S 7024	1	29- 8		ST						1
S 7025	4	7- 7		ST						1
THRU			4085		VARY	LENGTH	BY 1'- 7 1/2"			
S 7045	4	40- 0		ST						1
S 7046	16	6- 0	196	ST						
S 7047	1	25- 9		ST						1
THRU			328		VARY	LENGTH	BY 1'- 7 5/8"			
S 7054	1	14- 4		ST						1
S 7056	2	23- 0		ST						1
THRU			667		VARY	LENGTH	BY 1'- 7 5/8"			
S 7066	2	6- 8		ST						1
S 7067	498	25- 0	25448	ST						
S 7068	125	33- 5	8538	ST						
S 7069	125	31- 8	8091	ST						
S 7070	1	32- 3		ST						1
THRU			470		VARY	LENGTH	BY 1'- 8 1/8"			
S 7078	1	18-10		ST						1
S 7079	1	18-10		ST						1
THRU			612		VARY	LENGTH	BY 1'- 8 1/8"			
S 7089	1	35- 7		ST						1
S 7090	126	21- 8	5580	ST						

MARK	NUM.	LENGTH	WEIGHT	TYPE	A	B	C	D	E	NOTE
				REPLACEMENT	STEEL					
RE 5001	4	6- 7		ST						
RE 6001	1	6-10		ST						
RE 7001	5	7- 2		ST						
RE 8001	1	7- 6		ST						
RE10001	1	8- 2		ST						
RE11001	1	8- 6		ST						

BAR SIZE DESIGNATION

BAR SIZE IS INDICATED IN THE BAR MARK. THE FIRST DIGIT WHERE FOUR DIGITS ARE USED, AND THE FIRST TWO DIGITS WHERE FIVE DIGITS ARE USED, INDICATE THE BAR SIZE NUMBER. FOR EXAMPLE, A7001 IS A NO. 7 SIZE BAR AND A10140 IS A NO. 10 SIZE.

BENDING DIAGRAMS



ALDEN E. STILSON & ASSOCIATES, LIMITED
CONSULTING ENGINEERS
COLUMBUS, OHIO

14 | 14

REINFORCING STEEL LIST

BRIDGE No. JEF-7-0288
SR-7 over EXISTING SR-7 and FUTURE OHIO EDISON SPUR
JEFFERSON COUNTY
STA. 151 + 81.23 to STA. 153 + 56.55

DESIGNED	DRAWN	TRACED	CHECKED	REVIEWED	DATE	REVISED
RT 8/15/68			fwd 8/23/68	JEV 10/30/68		

TE-95
400 8-64

GENERAL INFORMATION

INTRODUCTION

THE PROJECT CONSISTS OF THE RELOCATION OF 4.4 MILES OF SR 7, BEGINNING IN YORKVILLE, AT THE PUBLIC ROAD-WORTHINGTON STREET INTERSECTION, EXTENDING NORTHWARD THROUGH TILTONVILLE, RAYLAND, AND WARRENTON, TERMINATING AT EXISTING SR 7, 550 FEET NORTH OF THE EXISTING SR 7-TOWNSHIP ROAD 155 INTERSECTION. INCLUDED IN THIS REPORT ARE THE SOIL PROFILES OF PUBLIC ROAD INTERCHANGE RAMPS B AND C, RELOCATED TOWNSHIP ROAD 109, FARM LANE EXTENSION, FARM LANE INTERCHANGE RAMPS A, B, C, AND D, RELOCATED MAIN STREET, SERVICE ROAD A, SR 150 INTERCHANGE RAMPS A, B, C, AND D, AND RELOCATED TOWNSHIP ROAD 155.

FOR MAXIMUM PROPOSED CUTS AND FILL EMBANKMENTS, SEE THE PROJECT INDEX ON THIS SHEET.

GEOLOGY AND OBSERVATIONS OF THE PROJECT

THE ALIGNMENT TRAVERSES THE FLOODPLAIN AND WEST VALLEY WALL OF THE OHIO RIVER, IN AN AREA WHERE THIN TO MODERATELY DEEP RESIDUAL SOILS (ON THE VALLEY WALL) AND MODERATELY DEEP TO DEEP ALLUVIAL AND OUTWASH DEPOSITS (ON THE FLOODPLAIN) OVERLIE SHALES, SANDSTONE, MUDSTONE, LIMESTONE, AND COAL, OF PENNSYLVANIAN AGE. ROCK EXPOSURES WERE OBSERVED AND MEASURED ALONG THE VALLEY WALL AND IN THE SMALL STREAMS AND GULLIES THAT DISSECT THE VALLEY WALL. EXTENSIVE FLOODING HAS OCCURRED IN THE AREA BETWEEN RELOCATED SR 7 STATIONS 128+50 AND 152+00, AND AREAS OF POOR SURFACE DRAINAGE WERE OBSERVED IN THE VICINITIES OF RELOCATED SR 7 STATIONS 154+00 TO 181+00.

EXPLORATION

EXPLORATORY BORINGS WERE MADE BY MEANS OF TRUCK-MOUNTED MECHANICAL SOIL AUGER, HAND AUGER (IN DIFFICULT ACCESS AREAS) AND ROTARY-TYPE DRILL RIG, BETWEEN NOVEMBER 28 AND DECEMBER 20, 1967. INCLUDED IN THIS REPORT ARE LOGS OF BORINGS MADE FOR A PRELIMINARY INVESTIGATION AND FOR THE STRUCTURE FOUNDATION INVESTIGATIONS ON THE PROJECT.

INVESTIGATIONAL FINDINGS

MATERIALS ENCOUNTERED IMMEDIATELY BELOW PROPOSED GRADE WERE COMPRISED OF SANDY GRAVELS (A-1-b AND A-2-4), SANDY SILT (A-4a), SILT CLAY (A-6a), AND CLAY (A-7-6), GENERALLY HAVING LOW MOISTURE CONTENTS AND MOISTURE CONTENTS IN THE LOWER PORTIONS OF THE PLASTIC RANGE, AS WELL AS SANDSTONE AND SHALE BEDROCK.

BEDROCK IS ANTICIPATED IN THE FOLLOWING EXCAVATION AREAS:

SR 7-

STATIONS 10+00 TO 13+50 - SANDSTONE IN THE LEFT DITCH. RAMP B - SANDSTONE AT GRADE AND IN THE LEFT DITCH AND LEFT BACKSLOPE.

STATIONS 13+50 TO 18+00 - SANDSTONE AT BOTH GRADES AND IN THE LEFT DITCH. RAMP B - SANDSTONE AT GRADE AND IN THE LEFT DITCH WITH SANDSTONE AND SHALE IN THE LEFT BACKSLOPE.

STATIONS 18+00 TO 31+50 - SANDSTONE AT BOTH GRADES AND IN THE LEFT DITCH AND LEFT BACKSLOPE.

STATIONS 31+50 TO 32+00 - SANDSTONE AT LEFT GRADE AND IN THE LEFT DITCH AND LEFT BACKSLOPE.

STATIONS 34+00 TO 34+50 - SANDSTONE AT LEFT GRADE AND IN THE LEFT DITCH AND LEFT BACKSLOPE.

STATIONS 34+50 TO 38+00 - SANDSTONE AT BOTH GRADES AND IN THE LEFT DITCH AND LEFT BACKSLOPE.

STATIONS 38+00 TO 43+00 - SANDSTONE IN THE LEFT DITCH AND LEFT BACKSLOPE.

STATIONS 47+00 TO 50+50 - POSSIBLY SANDSTONE IN THE LEFT DITCH AND LEFT BACKSLOPE.

STATIONS 65+50 TO 74+00 - SANDSTONE IN THE LEFT DITCH OR SLOPE BETWEEN SR 7 AND RAMP A. RAMPS A AND B - SANDSTONE AT GRADE AND IN THE LEFT DITCH AND LOWER AND MIDDLE PORTIONS OF THE LEFT BACKSLOPE, WITH SHALE AND SOME LIMESTONE AND INDURATED CLAY IN THE UPPER PORTION OF THE LEFT BACKSLOPE.

STATIONS 74+00 TO 81+00 - SANDSTONE AT BOTH GRADES AND IN THE LEFT DITCH. RAMP B - SANDSTONE AT GRADE AND IN THE LEFT DITCH AND IN THE LOWER AND MIDDLE PORTIONS OF THE LEFT BACKSLOPE, WITH SHALE AND SOME LIMESTONE AND INDURATED CLAY IN THE UPPER PORTION OF THE LEFT BACKSLOPE.

STATIONS 81+00 TO 84+00 - SANDSTONE AT BOTH GRADES AND IN THE LEFT DITCH AND IN THE LOWER AND MIDDLE PORTIONS OF THE LEFT BACKSLOPE, WITH SHALE IN THE UPPER PORTION OF THE LEFT BACKSLOPE.

STATIONS 84+00 TO 85+50 - SANDSTONE IN THE LEFT DITCH AND LEFT BACKSLOPE.

TOWNSHIP ROAD 109-

STATIONS 5+00 TO 6+00 - SANDSTONE IN THE LEFT DITCH AND LEFT BACKSLOPE.

STATIONS 6+00 TO 9+00 - SANDSTONE AT GRADE AND IN THE DITCHES AND BACKSLOPES.

FARM LANE EXTENSION-

STATIONS 10+00 TO 11+00 - SANDSTONE AT GRADE AND IN THE DITCHES AND BACKSLOPES.

FROST SUSCEPTIBLE SILT WAS ENCOUNTERED WITHIN THREE FEET BELOW PROPOSED GRADE AT SERVICE ROAD A STATION 95+75.

IN THE EMBANKMENT FOUNDATION AREAS, MATERIALS WERE PREDOMINANTLY COMPRISED OF WET SANDY SILTS (A-4a AND A-4b) AND SILT CLAY (A-6a) THAT GENERALLY HAD MOISTURE CONTENTS IN THE LOWER PORTIONS OF THE PLASTIC RANGE, AS WELL AS OCCASIONAL SANDY GRAVELS (A-1-b AND A-2-4) AND CLAY (A-7-6), GENERALLY HAVING LOW MOISTURE CONTENTS AND MOISTURE CONTENTS BELOW THE PLASTIC RANGE.

WET MATERIALS WITH AND WITHOUT ORGANIC MATTER WERE ENCOUNTERED AT RELOCATED SR 7 STATIONS 10+20, 30+75, 31+75, 70+37, 85+25, 89+48, 90+00, 92+10, 95+70, 100+00, 109+50, 119+00, THROUGHOUT THE FLOODPLAIN AREA BETWEEN STATIONS 125+00 AND 235+00, SERVICE ROAD A STATIONS 95+75 AND 100+00, AND TOWNSHIP ROAD 155 STATIONS 226+00 AND 238+50.

LEGEND FOR PROJECT AVERAGE RESULTS OF TESTS—255 SAMPLES TESTED

DESCRIPTION	H.R.B. CLASS	OHIO CLASS	% AGG.	% C. SAND	% F. SAND	% SILT	% CLAY	LIQUID LIMIT	PLASTICITY INDEX	WATER CONTENT	SAMPLES TESTED
GRAVEL	A-1-a(0)	A-1-a	65	17	10	-	8	-	NP	NP	9	-
GRAVEL OR STONE FRAGMENTS WITH SAND	A-1-b(0)	A-1-b	49	17	17	8	9	NP	NP	15	7
FINE SAND	A-3(0)	A-3	24	25	49	-	2	-	NP	NP	16	1
COARSE AND FINE SAND	-----	A-3a	17	19	39	9	16	NP	NP	18	3
GRAVEL OR STONE FRAGMENTS WITH SAND AND SILT	A-2-4(0)	A-2-4	46	9	16	13	16	28	4	16	14
GRAVEL OR STONE FRAGMENTS WITH SAND, SILT AND CLAY	A-2-6(0)	A-2-6	55	5	13	9	18	34	11	19	3
SANDY SILT	A-4(6)	A-4a	6	1	30	35	28	26	2	23	58
SILT	A-4(8)	A-4b	0	0	10	56	34	30	5	25	57
SILT AND CLAY	A-6(9)	A-6a	6	2	10	39	43	36	13	24	73
SILTY CLAY	A-6(11)	A-6b	11	3	11	30	45	38	18	23	8
ELASTIC CLAY	A-7-5(13)	A-7-5	5	2	6	39	48	49	17	20	4
CLAY	A-7-6(12)	A-7-6	15	3	7	28	47	44	17	22	26
UNDERCLAY			VISUAL CLASSIFICATION								-
WEATHERED INDURATED CLAY			VISUAL CLASSIFICATION								-
WEATHERED SHALE			VISUAL CLASSIFICATION								-
WEATHERED SANDSTONE			VISUAL CLASSIFICATION								-
INDURATED CLAY, MUDSTONE, CLAYSTONE OR MUDSHALE			VISUAL CLASSIFICATION (CLASSIFICATIONS ARE AS NOTED)								-
SHALE			VISUAL CLASSIFICATION								1
SANDSTONE			VISUAL CLASSIFICATION								-
LIMESTONE			VISUAL CLASSIFICATION								-
BOULDERY ZONE			VISUAL CLASSIFICATION								-
COAL			VISUAL CLASSIFICATION								-
VARIOUS OTHER MATERIALS			VISUAL CLASSIFICATION								-

TOPSOIL=X'=APPROXIMATE DEPTH.

AUGER BORING-PLAN VIEW.

DRIVE SAMPLE AND/OR CORE BORING-PLAN VIEW.

AUGER BORING PLOTTED TO VERTICAL SCALE ONLY.

DRIVE SAMPLE AND/OR CORE BORING PLOTTED TO VERTICAL SCALE ONLY.

WATER CONTENT NEARLY EQUAL TO OR GREATER THAN LIQUID LIMIT.

INDICATES A NON-PLASTIC MATERIAL WITH A HIGH WATER CONTENT.

W — FREE WATER.

NUMBER OF BLOWS FOR "STANDARD-PENETRATION" TEST.
X=NUMBER OF BLOWS FOR FIRST 6 INCHES.
Y=NUMBER OF BLOWS FOR SECOND 6 INCHES.

NOTE: FIGURES BESIDE BORINGS INDICATE WATER CONTENT IN PERCENT. E.G. 15

R — ELECTRICAL RESISTIVITY PROBE-PLAN VIEW.

R — ELECTRICAL RESISTIVITY PROBE PLOTTED TO VERTICAL SCALE ONLY.

TFR — TOP OF FIRM ROCK.

Revised 5/15/68

SOIL PROFILE

JEFFERSON COUNTY

JEF-7-0.20

OHIO STATE HIGHWAY TESTING LABORATORY
1620 W. BROAD ST. COLUMBUS 23, OHIO

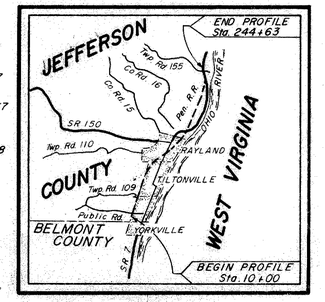
1/53

1/26

RF-430(16)

NOTE: INFORMATION SHOWN BY THIS SUBGRADE PROFILE WAS OBTAINED SOLELY FOR USE IN ESTABLISHING DESIGN CONTROLS FOR THE PROJECT. THE STATE OF OHIO DOES NOT GUARANTEE THE ACCURACY OF THIS DATA AND IT IS NOT TO BE CONSTRUED AS A PART OF THE PLANS GOVERNING CONSTRUCTION OF THE PROJECT.

Recon- J.F.S., J.S.M. 11/9/67
Drilling Auger- J.P.W. W.S.B. 11/28/67 to 12/8/67
Core- A.V. 12/6/67 to 12/20/67
Drafting- A.F. - 3/19/68
Resistivity- W.W.S- 5/6/68
Revised Drafting- L.N.L. -5/15/68



LOCATION MAP

PROJECT INDEX

STATIONS FROM		TO	PLAN VIEW SHEET	PROFILE SHEET	CUT MAX.	FILL EMB. MAX.
RELOCATED SR 7						
10+00	-	42+00	4	4	68'	22'
42+00	-	74+00	5	5	74'	26'
74+00	-	93+00	6	6	65'	33'
93+00	-	125+00	7	7	-	27'
125+00	-	157+00	8	8	-	42'
157+00	-	189+00	9	9	-	32'
189+00	-	221+00	10	10	-	25'
221+00	-	244+63	11	11	1'	17'
PUBLIC ROAD INTERCHANGE						
RAMP B						
9+00	-	18+00	4	12	100'	-
RAMP C						
9+00	-	19+00	4	12	4'	16'
TOWNSHIP ROAD 109						
4+00	-	12+00	4	12	85'	-
FARM LANE INTERCHANGE						
FARM LANE						
10+00	-	20+00	5	13	65'	4'
RAMP A						
62+00	-	70+00	5	14	22'	-
RAMP B						
69+00	-	81+00	5-6	14	110'	-
RAMP C						
69+00	-	82+00	5-6	15	18'	7'
RAMP D						
61+00	-	71+00	5	15	11'	26'
MAIN STREET						
4+00	-	10+00	7	13	1'	2'
SERVICE ROAD A						
93+00	-	153+00	7-8	16	1'	25'
SR 150 INTERCHANGE						
RAMP A						
139+00	-	146+00	8	17	-	22'
RAMP B						
140+00	-	146+00	8	17	-	21'
RAMP C						
138+00	-	144+00	8	17	-	32'
RAMP D						
137+00	-	143+00	8	17	-	30'
TOWNSHIP ROAD 155						
225+00	-	243+00	11	17	3'	10'

SOIL PROFILE
JEFFERSON COUNTY
JEF-7-0.20

OHIO STATE HIGHWAY TESTING LABORATORY
1620 W. BROAD ST. COLUMBUS 23, OHIO

2/53

2/26

SUMMARY OF SOIL TEST DATA

NOTE: NP SHOWN IN LIQUID LIMIT AND PLASTICITY INDEX COLUMNS INDICATES THAT THE MATERIAL IS NON-PLASTIC.
*DENOTES SAMPLE TAKEN AT OR NEAR GRADE.

STATION & OFFSET	DEPTH FROM	TO	% AGG.	% C.S.	% F.S.	% SILT	% CLAY	L.L.	P.I.	% W.C.	SHTL CLASS.
RELOCATED SR 7											
22+50 CL	0.0	-4.5	36	5	21	16	22	NP	NP	11	A-4a
30+10 CL	0.0	-4.0	36	8	10	21	25	39	13	14	A-6a
30+75 52'Rt	0.8	-5.0	42	10	15	14	19	31	7	12	A-2-4
	5.0	-10.0	35	6	17	18	24	36	11	24	A-6a
	10.0	-15.0	51	5	15	9	20	NP	NP	22	A-2-4
	15.0	-20.0	50	5	15	9	21	35	13	20	A-2-6
31+75 CL	0.8	-5.0	64	6	8	10	12	33	11	18	A-2-6*
	5.0	-10.0	48	6	20	8	18	NP	NP	23	A-2-4
	10.0	-15.0	49	5	15	9	22	35	11	19	A-2-6
	15.0	-18.0	45	5	18	8	24	31	10	20	A-2-4
	18.0	-21.0	60	4	13	9	14	30	8	27	A-2-4
40+00 CL	0.0	-2.0	8	2	5	22	63	47	17	18	A-7-5
	2.0	-6.0	34	1	3	16	46	45	16	18	A-7-6*
43+50 CL	0.0	-5.0	24	3	9	21	43	50	24	23	A-7-6
	5.0	-8.0	17	4	14	22	43	39	19	19	A-6b
48+00 CL	0.0	-5.5	31	3	4	21	41	44	19	16	A-7-6
51+50 CL	0.0	-5.0	28	4	7	21	40	43	17	22	A-7-6*
	5.0	-10.0	25	7	10	19	39	40	15	26	A-6a
	10.0	-14.0	33	6	8	16	37	46	22	25	A-7-6
53+00 60'Rt	0.0	-4.0	23	8	8	19	42	42	13	12	A-7-6
56+50 43'Lt	0.0	-5.0	8	3	6	26	57	38	16	14	A-6b *
	5.0	-10.0	8	5	6	24	57	38	14	17	A-6a
	10.0	-15.0	11	4	8	27	50	38	16	20	A-6b
56+50 54'Rt	0.0	-4.0	23	5	7	20	45	40	15	20	A-6a
	4.0	-6.0	13	29	25	5	28	31	6	16	A-3a
	6.0	-11.0	20	8	9	26	37	37	12	21	A-6a
	11.0	-15.0	5	5	7	30	53	39	13	28	A-6a
59+00 25'Lt	0.8	-5.0	0	2	3	20	75	42	16	21	A-7-6*
	5.0	-10.0	0	5	6	22	67	36	13	17	A-6a
	10.0	-15.0	3	9	7	23	58	38	14	17	A-6a
	15.0	-20.0	14	7	7	29	43	25	12	15	A-6a
61+00 CL	0.8	-6.0	4	3	6	26	61	43	16	16	A-7-6
	6.0	-11.0	9	3	6	28	54	40	19	17	A-6b
	11.0	-16.0	1	9	11	31	48	34	14	19	A-6a
	16.0	-19.0	30	5	8	22	35	36	11	20	A-6a
	19.0	-24.0	19	3	11	28	29	24	5	13	A-4a
	24.0	-26.0	44	10	17	15	14	NP	NP	16	A-2-4
64+50 44'Rt	0.0	-5.0	3	3	7	60	27	53	17	27	A-7-5
	5.0	-10.0	15	6	11	13	55	46	18	25	A-7-6
	10.0	-15.0	7	4	9	30	50	44	13	29	A-7-5
	15.0	-20.0	19	2	5	29	45	44	15	29	A-7-6
85+25 CL	0.0	-5.0	7	2	4	36	51	40	12	24	A-6a
	5.0	-10.0	10	3	6	26	55	46	17	27	A-7-6
	10.0	-15.0	23	4	6	30	37	54	32	18	A-7-6
	15.0	-20.0	8	3	9	37	47	39	16	21	A-6b
	20.0	-25.0	13	2	3	38	44	35	14	20	A-6a
	25.0	-30.0	4	1	3	53	39	29	7	27	A-4b
90+00 CL	0.8	-5.0	0	1	2	64	33	31	10	23	A-4b
	5.0	-10.0	0	0	3	81	16	NP	NP	25	A-4b
	10.0	-15.0	0	0	5	77	18	NP	NP	25	A-4b
	15.0	-19.0	0	0	7	76	17	NP	NP	23	A-4b
	19.0	-24.0	0	0	2	64	34	NP	NP	29	A-4b
	24.0	-25.0	37	14	14	22	13	NP	NP	15	A-2-4
100+00 CL	0.0	-4.0	0	1	14	45	40	36	11	24	A-6a
	4.0	-8.0	0	2	9	48	41	35	13	20	A-6a
	8.0	-10.0	38	15	11	12	24	39	11	17	A-6a
	10.0	-14.0	16	2	5	56	21	NP	NP	26	A-4b
	14.0	-18.0	22	13	38	13	14	NP	NP	21	A-3a
	18.0	-22.0	24	25	49	-	2 -	NP	NP	16	A-3
	22.0	-27.0	17	14	54	8	7	NP	NP	16	A-3a
104+00 CL	0.8	-5.0	6	1	8	47	38	29	11	20	A-6a
	5.0	-10.0	0	1	5	55	39	29	7	24	A-4b
	10.0	-15.0	0	1	4	63	32	30	9	25	A-4b
	15.0	-20.0	0	1	3	61	35	31	8	25	A-4b
109+50 CL	0.8	-5.0	0	6	7	34	53	40	13	26	A-6a
	5.0	-10.0	19	10	18	21	32	29	7	19	A-4a
	10.0	-15.0	17	24	33	11	15	25	7	24	A-2-4
	15.0	-20.0	31	25	25	10	9	NP	NP	21	A-1-b
	20.0	-25.0	37	25	23	7	8	NP	NP	17	A-1-b
	25.0	-30.0	32	32	28	-	8 -	NP	NP	17	A-1-b
115+10 CL	0.8	-5.0	0	1	12	50	37	30	6	20	A-4b
	5.0	-10.0	0	1	25	49	25	25	4	19	A-4a
	10.0	-15.0	0	0	11	58	31	28	6	23	A-4b
	15.0	-20.0	0	1	18	50	31	29	6	24	A-4b
119+00 CL	0.8	-5.0	0	0	4	50	46	38	14	23	A-6a
	5.0	-10.0	0	1	17	50	32	27	5	21	A-4b
	10.0	-15.0	0	0	20	47	33	25	4	21	A-4a
	15.0	-20.0	0	0	23	47	30	24	4	23	A-4a
123+50 CL	0.8	-5.0	0	0	5	51	44	37	12	20	A-6a
	5.0	-10.0	0	0	12	54	34	29	7	21	A-4b
	10.0	-15.0	0	0	5	50	45	32	8	24	A-4b
	15.0	-20.0	0	0	3	52	45	35	12	25	A-6a
127+10 CL	0.0	-5.0	0	0	3	51	46	39	13	21	A-6a
	5.0	-10.0	0	0	5	50	45	37	14	24	A-6a
	10.0	-15.0	0	0	16	45	39	36	15	26	A-6a
	15.0	-20.0	0	0	16	50	34	28	7	25	A-4b
	20.0	-25.0	0	0	7	50	43	32	8	27	A-4b
	25.0	-30.0	0	0	19	45	36	28	11	28	A-6a
154+00 CL	0.8	-5.0	0	0	10	45	45	33	11	22	A-6a
	5.0	-10.0	0	0	35	36	29	NP	NP	23	A-4a
	10.0	-15.0	0	0	33	37	30	NP	NP	30	A-4a
	15.0	-20.0	0	0	27	38	35	31	11	27	A-6a
	20.0	-25.0	0	0	32	34	34	NP	NP	28	A-4a
	25.0	-30.0	0	0	26	39	35	31	12	27	A-6a
159+00 CL	0.8	-5.0	0	0	26	40	34	29	11	21	A-6a
	5.0	-10.0	0	0	38	31	31	24	5	24	A-4a
	10.0	-15.0	0	0	47	25	28	NP	NP	22	A-4a
	15.0	-20.0	0	0	45	28	27	22	1	24	A-4a
	20.0	-25.0	0	0	34	34	32	24	3	26	A-4a
	25.0	-30.0	0	0	49	23	28	NP	NP	25	A-4a
165+00 30'Rt	0.8	-5.0	0	0	3	45	52	39	11	27	A-6a
	5.0	-10.0	0	0	22	41	37	27	3	24	A-4a
	10.0	-15.0	0	0	26	38	36	31	11	24	A-6a
	15.0	-20.0	0	0	29	37	34	27	6	29	A-4a
	20.0	-25.0	0	0	27	37	36	29	7	29	A-4a
	25.0	-30.0	6	0	32	34	28	NP	NP	29	A-4a
170+00 45'Rt	0.8	-5.0	0	0	9	50	41	33	11	23	A-6a
	5.0	-10.0	0	0	39	33	28	26	6	22	A-4a
	10.0	-15.0	0	0	31	40	29	25	3	25	A-4a
	15.0	-20.0	0	0	38	34	28	NP	NP	24	A-4a
	20.0	-25.0	0	0	37	35	28	NP	NP	25	A-4a
	25.0	-30.0	0	0	37	32	31	24	2	25	A-4a
175+00 120'Rt	0.8	-5.0	0	0	12	48	40	30	11	28	A-6a
	5.0	-10.0	0	0	34	36	30	25	4	25	A-4a
	10.0	-15.0	0	0	30	40	30	30	9	22	A-4a
	15.0	-20.0	0	0	37	33	30	NP	NP	29	A-4a
	20.0	-25.0	0	0	30	36	34	31	9	29	A-4a
	25.0	-30.0	0	0	47	23	30	NP	NP	33	A-4a
182+00 CL	0.8	-5.0	0	0	2	43	55	53	22	26	A-7-5
	5.0	-10.0	0	0	9	46	45	35	11	25	A-6a
	10.0	-15.0	0	0	21	39	40	40	17	32	A-6b
	15.0	-20.0	0	0	22	35	43	35	11	37	A-6a
	20.0	-25.0	0	0	22	34	44	39	15	33	A-6a
	25.0	-30.0	0	0	21	36	43	39	15	36	A-6a
185+00 CL	0.8	-5.0	0	0	5	53	42	35	10	24	A-4b
	5.0	-10.0	0	0	46	30	25	NP	NP	24	A-4a
	10.0	-16.0	0	0	31	41	28	25	5	26	A-4a
	16.0	-21.0	0	0	5	70	25	NP	NP	27	A-4b
	21.0	-25.0	0	1	35	36	28	NP	NP	36	A-4a
	25.0	-28.0	0	0	40	32	28	NP	NP	32	A-4a
190+00 CL	0.8	-5.0	0	0	2	55	43	37	12	23	A-6a
	5.0	-10.0	0	0	8	52	40	34	10	28	A-4b
	10.0	-14.0	0	0	11	50	39	NP	NP	24	A-4b
	14.0	-17.0	0	0	13	50	37	NP	NP	29	A-4b
	17.0	-21.0	0	0	17	50	33	29	7	27	A-4b
	21.0	-26.0	0	0	13	46	41	37	24	33	A-6b
194+00 CL	0.8	-5.0	0	1	5	50	44	NP	NP	40	A-4b
	5.0	-10.0	0	0	6	49	45	38	11	29	A-6a
	10.0	-15.0	0	0	13	51	36	NP	NP	29	A-4b
	15.0	-20.0	0	0	9	53	38	36	11	35	A-6a
	20.0	-22.0	0	0	8	53	39	34	9	31	A-4b
	22.0	-25.0	0	0	6	50	44	41	16	32	A-7-6
199+00 CL	0.8	-5.0	0	1	5	50	44	NP	NP	26	A-4b
	5.0	-10.0	0	0	10	52	38	NP	NP	24	A-4b
	10.0	-15.0	0	0	16	50	34	NP	NP	27	A-4b
	15.0	-20.0	0	0	25	49	26	NP	NP	27	A-4a
	20.0	-25.0	0	0	19	51	30	NP	NP	25	A-4b
	25.0	-30.0	0	0	20	50	30	NP	NP	27	A-4b
205+00 CL	0.8	-5.0	0	0	14	50	36	30	7	22	A-4b
	5.0	-10.0	0	0	37	33	30	NP	NP	24	A-4a
	10.0	-15.0	0	0	36	38	26	NP	NP	23	A-4a
	15.0	-18.0	0	0	34	35	31	NP	NP	21	A-4a
	18.0	-20.0	0	0	24	41	35	NP	NP	22	A-4a
208+00 CL	0.8	-5.0	41	9	9	15	26	NP	NP	18	A-4a
	5.0	-10.0	0	0	7	47	46	34	11	24	A-6a
	10.0	-15.0	0	0	21	50	29	NP	NP	21	A-4b
210+00 95'Rt	0.8	-5.0	12	7	10	28	43	39	11	25	A-6a
	5.0	-10.0	0	0	17	57	26	31	8	24	A-4b
	10.0	-15.0	0	0	14	50	36	29	7	23	A-4b
	15.0	-18.0	0	0	25	53	22	NP	NP	24	A-4b
213+00 110'Lt	0.0	-5.0	24	7	14	20	35	38	12	23	A-6a
	5.0	-10.0	13	2	7	30	48	42	19	29	A-7-6
	10.0	-14.0	32	6	19	14	29	36	17	25	A-6b
	14.0	-18.0	0	0	9	46	45	31	11	22	A-6a
214+00 105'Rt	0.8	-5.0	4	1	8	33	54	43	15	20	A-7-6
	5.0	-10.0	0	0	9	47	44	36	11	25	A-6a
	10.0	-15.0	0	0	9	47	44	34	11	28	A-6a
	15.0	-20.0	0	0	11	53	36	NP	NP	24	A-4b
219+00 CL	0.8	-5.0	0	0	3	50	47	NP	NP	29	A-4b
	5.0	-10.0	0	0	1	43	56	42	14	24	A-7-6
	10.0	-15.0	0	0	4	47	49	36	14	28	A-6a
	15.0	-20.0	0	0	5	54	41	32	8	29	A-4b
	20.0	-22.0	0	0	4	53	43	34	11	30	A-6a
224+20 80'Lt	0.8	-5.0	0	1	6	45	48	44	15	32	A-7-6
	5.0	-10.0	0	0	1	48	51	43	16	29	A-7-6
	10.0	-16.0	0	0	6	55	39	36	11	27	A-6a
	16.0	-20.0	0	0	4	58	38	34	10	31	A-4b
	20.0	-25.0	0	0	5	55	40	39	15	32	A-6a
	25.0	-30.0	0	0	4	55	41	38	10	33	A-4b
227+00 CL	0.8	-5.0	0	3	10	48	39	36	12	31	A-6a
	5.0	-10.0	0	1	7	47	45	39	13	31	A-6a
	10.0	-15.0	0	0	1	46	53	44	15	28	A-7-6
	15.0	-20.0	0	0	8	54	38	36	14	28	A-6a
	20.0	-22.0	0	1	7	52	40	36	12	28	A-6a
230+00 75'Lt	0.8	-5.0	0	1	9	47	43	36	11	32	A-6a
	5.0	-10.0	0	1	7	46	46	37	11	30	A-6a
	10.0	-15.0	0	1	6	48	45	38	13	31	A-6a
	15.0	-20.0	0	0	8	52	40	41	16	24	A-7-6
230+00 75'Rt	0.8	-5.0	0	0	11	50	39	31	9	16	A-4b
	5.0	-10.0	0	0	3	48	49	35	12	24	A-6a
	10.0	-15.0	0	0	2	49	49	37	13	26	A-6a
	15.0	-20.0	0	1	10	50	39	34	12	27	A-6a
	20.0	-25.0	0	0	19	46	35	28	11	27	A-6a
	25.0	-30.0	0	0	29	42	29	26	7	26	A-4a
234+00 CL	0.6	-5.0	0	0	13	45	42	31	11	20	A-6a
	5.0	-10.0	0	0	4	50	46	35	9	22	A-4b
	10.0	-15.0	0	0	6	52	42	34	10	24	A-4b
	15.0	-20.0	0	0	36	33	31	NP	NP	23	A-4a
239+00 CL	0.0	-5.0	47	6	8	19	20	25	4	9	A-4a *
PUBLIC ROAD INTERCHANGE											
RAMP B											
10+00 BL	0.0	-5.0	(24	20	20	17	19	NP	NP	14)	
			BLACK COAL FRAGMENTS WITH SANDY SILT								VISUAL
	5.0	-7.5	60	4	11	9	16	NP	NP	12	A-1-b *
RAMP C											
13+00 12'Lt	0.0	-5.0	22	3	10	21	44	42	14	23	A-7-6
	5.0	-10.0	38	6	11	14	31	40	13	22	A-6a
	10.0	-14.0	37	7	13	14	29	43	17	20	A-7-6
	14.0	-19.0	24	2	11	22	41	37	12	26	A-6a
	19.0	-20.0	0	0	18	61	21	NP	NP	20	A-4b
RELOCATED TOWNSHIP ROAD 109											
9+35 CL	0.6	-5.0	15	6	8	26	45	37	13	18	A-6a
	5.0	-8.0	20	6	8	26	40	35	11	16	A-6a
	8.0	-10.0	14	7	8	26	45	45	19	17	A-7-6
FARM LANE INTERCHANGE											
RAMP C											
71+58 7'Rt	0.8	-5.0	27	2	6	20	45	46	17	17	A-7-5 *
	5.0	-10.0	0	0	16	54	30	NP	NP	14	A-4b
	10.0	-15.0	0	0	32	48	20	NP	NP	18	A-4a
75+00 9'Rt	0.0	-5.0	14	2	7	27	50	40	12	23	A-6a
	5.0	-10.0	12	3	5	35	45	37	11	20	A-6a
	10.0	-15.0	18	3	5	30	44	39	12	21	A-6a
RAMP D											
66+65 3'Rt	0.8	-5.0	27	8	11	21	33	41	14	19	A-7-6
	5.0	-10.0	8	2	7	33	50	43	15	23	A-7-6
	10.0	-15.0	0	0	3	66	31	29	7	17	A-4b
	15.0	-18.0	0	0	9	67	24	NP	NP	19	A-4b
	18.0	-22.0	63	5	5	13	14	28	7	13	A-2-4
	22.0	-26.0	65	7	8	9	11	27	8	11	A-2-4
	26.0	-30.0	33	16	32	9	10	NP	NP	8	A-2-4 *
SERVICE ROAD A											
95+75 CL	0.8	-5.0	0	0	32	50	18	22	2	22	A-4b *
	5.0	-10.0	0	0	41	43	16	NP	NP	22	A-4a
	10.0	-15.0	1	1	36	39	23	NP	NP	24	A-4a
	15.0	-20.0	25	3	22	32	18	NP	NP	23	A-4a
	20.0	-25.0	70	9	5	7	9	29	5	15	A-1-b
	25.0	-30.0	44	16	19	11	10	NP	NP	13	A-1-b
100+00 CL	0.8	-5.0	0	0	12	47	41	31	11	22	A-6a
	5.0	-10.0	0	1	4	48	47	37	12	23	A-6a
	10.0	-15.0	0	1	4	58	37	31	8	25	A-4b
	15.0	-19.0	0	0	3	59	38	31	9	25	A-4b
	19.0	-24.0	0	0	2	60	38	28	4	29	A-4b
	24.0	-25.0	7	5	14	49	25	30	4	30	A-4a
	25.0	-27.0	0	3	56	23	18	NP	NP	25	A-4a
	27.0	-30.0	46	2	13	26	13	26	5	29	A-4a
106+00 CL	0.8	-5.0	0	4	10	45	41	33	11	24	A-6a
	5.0	-10.0	0	1	12	57	30	28	6	23	A-4b
	10.0	-15.0	0	0	4	59	37	32	9	25	A-4b
	15.0	-20.0	3	1	17	50	29	26	5	27	A-4b
RELOCATED TOWNSHIP ROAD 155											
226+00 12'Rt	0.0	-2.0	44	6	16	18	16	NP	NP	16	A-2-4 *
	2.0	-5.0	0	0	28	37	35	NP	NP	21	A-4a *
	5.0	-10.0	0	0	31	36	33	NP	NP	19	A-4a
231+00 22'Rt	0.0	-4.0	66	7	7	11	9	NP	NP	10	A-1-b
	4.0	-10.0	0	0	21	43	36	NP	NP	18	A-4a
238+50 CL	0.0	-3.0	42	10	14	17	17	26	7	9	A-2-4
	3.0	-8.0	1	1	35	35	28	NP	NP	19	A-4a
	8.0	-13.0	0	0	3	59	38	28	7	20	A-4b
	13.0	-18.0	1	0	32	34	33	NP	NP	22	A-4a
	18.0	-21.0	0	0	38	34	28	NP	NP	23	A-4a
	21.0	-25.0	0	0	37	34	29	NP	NP	23	A-4a
242+00 12'Rt	0.0	-5.0	52	9	7	17	15	24	4	7	A-2-4 *
	5.0	-7.0	37	8	16	20	19	25	6	8	A-4a
	7.0	-9.0	37	5	16	21	21	24	7	10	A-4a

SOIL PROFILE
JEFFERSON COUNTY
JEF-7-0.20

OHIO STATE HIGHWAY TESTING LABORATORY
1620 W. BROAD ST. COLUMBUS 23, OHIO

3/53

3/26

SUMMARY OF DRIVE SAMPLE SOIL TEST DATA

NOTE: NP SHOWN IN LIQUID LIMIT AND PLASTICITY INDEX COLUMNS INDICATES THAT THE MATERIAL IS NON-PLASTIC.

STATION & OFFSET	DEPTH FROM	TO	% AGG.	% C.S.	% F.S.	% SILT	% CLAY	L.L.	P.I.	% W.C.	SHTL CLASS.
					RELOCATED SR 7						
10+20 34'Rt	5.0-6.0		30	13	25	16	16	NP	NP	15	A-2-4
	7.5-8.5		45	9	20	11	15	24	7	20	A-2-4
	10.0-11.0		34	18	15	15	18	27	8	24	A-2-4
	12.5-13.5		25	5	19	22	29	30	11	27	A-6a
	15.0-16.0		32	6	16	18	28	30	11	24	A-6a
	17.5-18.5		26	4	19	25	26	33	12	24	A-6a
	20.0-21.0		40	15	18	12	15	23	7	14	A-2-4
	25.0-26.0		38	12	22	15	13	26	7	35	A-2-4
	30.0-31.0		33	10	21	25	11	NP	NP	17	A-4a
	35.0-36.0		11	8	50	20	11	NP	NP	17	A-3a
	40.0-41.0		14	4	11	44	27	30	12	23	A-6a
	45.0-45.5	(14		12	9	40	25	28	8	20)	
		RED SOFT MUDSTONE									VISUAL
	50.0-50.5	(30		1	4	38	27	36	14	12)	
		RED SOFT MUDSTONE									VISUAL
14+77 45'Lt	5.0-6.0		26	13	19	20	22	35	12	19	A-6a
	10.0-11.0	(64		5	21	4	6	28	8	5)	
		BROWN WEATHERED SANDSTONE									VISUAL
	15.0-15.5	(60		4	24	2	10	NP	NP	12)	
		BROWN WEATHERED SANDSTONE									VISUAL
14+89 175'Lt	5.0-6.0		7	3	3	35	52	33	8	22	A-4a
	10.0-11.0		0	1	14	52	33	29	6	19	A-4b
25+85 209'Lt	5.0-6.0		0	20	16	36	28	34	15	23	A-6a
	10.0-10.5		42	11	8	17	22	35	11	13	A-6a
	15.0-16.0		73	15	6	3	3	NP	NP	10	A-1-a
	20.0-20.5		54	6	4	15	21	31	8	9	A-4a
25+85 45'Lt	5.0-6.0		43	5	13	14	25	26	8	14	A-4a
	10.0-11.0		75	5	12	3	5	NP	NP	14	A-1-a
34+90 22'Rt	5.0-6.0		10	5	11	27	47	30	11	18	A-6a
	10.0-11.0		8	21	15	6	20	30	10	17	A-2-4
	15.0-16.0		4	7	16	37	36	NP	NP	12	A-4a
	20.0-21.0		26	11	38	12	13	NP	NP	17	A-2-4
	25.0-26.0	BROWN AND GRAY SILTY GRAVELLY SAND								12	VISUAL
	27.5-28.5		8	17	45	18	12	NP	NP	14	A-3a
	30.0-31.0		11	14	39	17	19	NP	NP	16	A-4a
	32.5-33.5		18	8	42	18	14	NP	NP	14	A-3a
	35.0-36.0		14	11	26	27	22	24	5	15	A-4a
	37.5-38.5		13	20	31	22	14	NP	NP	19	A-4a
	40.0-41.0		25	10	32	15	18	25	6	21	A-2-4
36+09 20'Lt	5.0-6.0		3	7	36	24	30	NP	NP	12	A-4a
	10.0-11.0		17	7	28	20	28	NP	NP	14	A-4a
45+25 67'Lt	5.0-6.0		0	8	11	30	51	33	12	21	A-6a
	10.0-11.0		0	8	7	29	56	42	21	22	A-7-6
	15.0-16.0		0	7	13	29	51	36	13	22	A-6a
	20.0-21.0		43	6	11	14	26	33	13	22	A-6a
	25.0-26.0		43	9	12	15	21	27	6	18	A-4a
	30.0-31.0		44	13	20	11	12	NP	NP	15	A-1-b
	35.0-36.0		33	15	16	15	21	27	9	25	A-4a

STATION & OFFSET	DEPTH FROM	TO	% AGG.	% C.S.	% F.S.	% SILT	% CLAY	L.L.	P.I.	% W.C.	SHTL CLASS.
69+19 36'Lt	5.0-6.0		42	3	5	15	35	43	15	21	A-7-6*
	10.0-11.0		13	4	10	22	51	44	17	22	A-7-6
	15.0-16.0		17	2	4	27	50	46	15	11	A-7-5
	20.0-21.0		41	3	9	20	27	41	13	34	A-7-6
	25.0-26.0		24	25	19	21	11	NP	NP	17	A-2-4
	30.0-31.0		20	2	3	36	39	37	9	17	A-4a
	32.5-33.5		16	4	15	37	28	29	6	19	A-4a
	35.0-36.0		15	3	18	38	26	27	5	16	A-4a
	37.5-38.5		16	4	8	40	32	25	6	19	A-4a
70+37 35'Rt	5.0-6.0		24	4	7	28	37	39	14	23	A-6a
	10.0-11.0		30	3	7	23	37	38	13	22	A-6a
	15.0-16.0		22	5	10	18	45	-	-	16	A-6a
	20.0-21.0		22	4	8	30	36	33	12	15	A-6a
	25.0-26.0		16	2	9	51	22	30	6	23	A-4b
	27.5-28.5		2	1	14	63	20	30	7	24	A-4b
	30.0-31.0		2	1	16	64	17	NP	NP	21	A-4b
	32.5-33.5		3	1	16	63	17	NP	NP	21	A-4b
	35.0-36.0		4	1	13	68	14	NP	NP	24	A-4b
	37.5-38.5		3	1	14	67	15	NP	NP	25	A-4b
	40.0-41.0		15	3	33	31	18	NP	NP	16	A-4a
70+89 43'Lt	5.0-6.0		21	5	6	24	44	48	21	24	A-7-6
	10.0-10.3		75	3	5	6	11	NP	NP	10	A-1-b
	15.0-16.0		21	5	5	32	37	40	14	24	A-6a
	20.0-21.0		43	16	17	12	12	26	6	10	A-1-b
	25.0-26.0		28	8	16	30	18	NP	NP	15	A-4a
	35.0-35.2	BROWN SANDSTONE FRAGMENTS AND BOULDERS								11	VISUAL
	37.0-38.0		40	3	3	25	29	38	14	20	A-6a
75+00 259'Lt	5.0-6.0		(13		4	16	34	33	31	11	10)
		GRAY BROKEN CLAY SHALE									VISUAL
89+48 35'Rt	5.0-6.0		0	0	6	76	18	NP	NP	23	A-4b
	7.5-8.5		0	0	3	79	18	NP	NP	25	A-4b
	10.0-11.0		0	0	3	78	19	NP	NP	25	A-4b
	12.5-13.5		0	0	8	82	10	NP	NP	26	A-4b
	15.0-16.0		0	0	3	75	22	NP	NP	32	A-4b
	17.5-18.5		2	1	4	75	18	NP	NP	26	A-4b
	20.0-21.0		0	0	6	65	29	NP	NP	27	A-4b
	25.0-26.0		28	52	11	-	9 -	NP	NP	15	A-1-b
	30.0-31.0		51	21	14	-	14 -	NP	NP	8	A-1-a
	35.0-35.5		82	9	4	2	3	NP	NP	4	A-1-a
92+10 CL	5.0-6.0		0	1	18	54	27	NP	NP	22	A-4b
	7.5-8.5		0	0	23	52	25	NP	NP	23	A-4b
	10.0-11.0		15	2	11	49	23	NP	NP	23	A-4a
	12.5-13.5		7	3	17	55	18	NP	NP	22	A-4b
	15.0-16.0		26	5	10	40	19	NP	NP	22	A-4a
	17.5-18.5		35	22	18	13	12	NP	NP	11	A-1-b
	20.0-21.0		66	17	11	-	6 -	NP	NP	12	A-1-a
	22.5-23.5		60	17	12	-	11 -	NP	NP	9	A-1-a
	25.0-26.0	BROWN GRAVELLY SANDY SILT								24	VISUAL
	30.0-31.0		64	14	11	-	11 -	NP	NP	9	A-1-a
	35.0-35.6		47	11	24	9	9	NP	NP	8	A-1-b
	40.0-41.0		58	17	15	-	10 -	NP	NP	9	A-1-a
	45.0-45.6		54	13	22	-	11 -	NP	NP	14	A-1-b
	50.0-51.0		61	8	10	11	10	23	1	22	A-1-b
	55.0-55.2	GRAY WEATHERED SHALE								7	VISUAL

STATION & OFFSET	DEPTH FROM	TO	% AGG.	% C.S.	% F.S.	% SILT	% CLAY	L.L.	P.I.	% W.C.	SHTL CLASS.
95+70 35'Lt	5.0-6.0		0	1	29	48	22	NP	NP	21	A-4a
	7.5-8.5		0	0	31	47	22	NP	NP	21	A-4a
	10.0-11.0		0	0	35	47	18	NP	NP	21	A-4a
	12.5-13.5		15	6	31	33	15	NP	NP	19	A-4a
	15.0-16.0		38	12	28	13	9	NP	NP	11	A-2-4
	17.5-18.5		49	25	17	-	9 -	NP	NP	14	A-1-b
	20.0-21.0	GRAY SAND								39	VISUAL
	25.0-26.0		61	26	9	-	4 -	NP	NP	9	A-1-a
	30.0-31.0	BROWN GRAVEL								4	VISUAL
	35.0-36.0	GRAY GRAVEL								3	VISUAL
	40.0-41.0		38	22	30	-	10 -	NP	NP	20	A-1-b
	45.0-46.0		36	28	25	-	11 -	NP	NP	18	A-1-b
	50.0-51.0		25	25	30	10	10	NP	NP	17	A-1-b
	55.0-56.0		47	19	17	9	8	NP	NP	10	A-1-b
	65.0-65.5		36	5	11	37	11	NP	NP	19	A-4a
125+77 33'Lt	5.0-6.0		0	0	4	44	52	36	10	26	A-6a
	7.5-8.5		0	0	4	47	49	36	13	23	A-6a
	10.0-11.0		0	0	4	48	48	39	14	25	A-6a
	12.5-13.5		1	0	5	51	43	35	14	32	A-6a
	15.0-16.0		0	0	7	53	40	34	15	25	A-6a
	17.5-18.5		0	0	2	51	47	35	13	25	A-6a
	20.0-21.0		0	0	6	51	43	31	10	25	A-4b
	22.5-23.5		0	0	13	50	37	29	7	29	A-4b
	25.0-26.0		0	0	12	51	37	27	7	27	A-4b
	30.0-31.0		5	6	26	39	24	24	5	27	A-4a
	35.0-36.0		36	12	16	23	13	24	6	20	A-4a
	40.0-41.0		43	14	23	12	8	NP	NP	10	A-1-b
	45.0-45.0		70	14	8	-	8 -	NP	NP	6	A-1-a
	50.0-51.0		16	62	13	-	9 -	NP	NP	6	A-1-b
	55.0-56.0		34	21	27	11	7	NP	NP	5	A-1-b
131+70 35'Rt	0.0-1.0		0	2	13	35	50	47	18	60	A-7-6
	1.0-2.0		0	1	16	38	45	64	31	64	A-7-5
	3.5-4.5		0	2	17	56	25	NP	NP	61	A-4b
	6.0-7.0		0	3	15	43	39	57	21	72	A-7-5
	8.5-9.5		27	23	42	12	23	NP	NP	37	A-3a
	11.0-12.0		25	28	30	-	17 -	NP	NP	19	A-1-b
	13.5-14.5		8	43	14	-	35 -	NP	NP	31	A-3a
	16.0-17.0		49	19	21	-	11 -	NP	NP	13	A-1-b
	18.5-19.5		11	31	37	-	21 -	NP	NP	14	A-3a
	21.0-22.0		38	15	17	16	14	NP	NP	11	A-2-4
	26.0-27.0		55	9	15	10	11	NP	NP	12	A-1-b
	31.0-32.0		29	15	25	13	17	NP	NP	14	A-2-4
	36.0-37.0		61	22	11	-	6 -	NP	NP	10	A-1-a
	41.0-42.0		0	92	7	-	1 -	NP	NP	22	A-1-b
	46.0-47.0		0	81	17	-	2 -	NP	NP	25	A-1-b
	51.0-51.8		37	39	18	-	6 -	NP	NP	14	A-1-b
151+71 35'Lt	0.0-1.0	GRAY SILTY CLAY								46	VISUAL
	1.5-2.5		0	1	2	37	60	51	20	47	A-7-6
	4.0-5.0		0	1	2	40	57	42	24	39	A-7-6
	6.5-7.5		0	0	1	39	60	49	14	35	A-7-6
	9.0-10.0		0	0	1	45	54	44	24	33	A-7-6
	11.5-12.5		0	0	2	39	59	52	16	26	A-7-6
	14.0-15.0		0	0	3	39	58	52	23	45	A-7-6
	16.5-17.5		2	6	17	35	40	53	21	42	A-7-5
	19.0-20.0		25	4	19	25	27	34	21	47	A-7-5
	24.0-25.0		31	11	27	16	15	NP	NP	13	A-6a
	29.0-30.0		37	12	22	13	16	NP	NP	19	A-2-4
	34.0-35.0		6	77	15	-	2 -	NP	NP	23	A-2-4
	39.0-40.0		30	61	8	-	1 -	NP	NP	19	A-3a
	44.0-45.0		4	81	13	-	2 -	NP	NP	15	A-1-b
	49.0-50.0		5	85	8	-	2 -	NP	NP	25	A-3a
											A-1-b

STATION & OFFSET	DEPTH FROM	TO	% AGG.	% C.S.	% F.S.	% SILT	% CLAY	L.L.	P.I.	% W.C.	SHTL CLASS.
					FARM LANE INTERCHANGE						
					RAMP B						
70+42 89'Lt	5.0-6.0		55	3	7	9	26	36	16	8	A-2-6
80+28 42'Lt	5.0-6.0		54	2	7	20	17	33	10	12	A-4a
					SERVICE ROAD A						
130+15 20'Lt	0.0-1.0		0	2	20	38	40	60	23	74	A-7-5
	3.7-4.7		0	5	20	40	35	NP	NP	75	A-4a
	9.7-10.7		0	4	19	41	36	61	26	66	A-7-5
	13.7-14.7		0	4	19	43	34	NP	NP	70	A-4a
	16.2-17.2		0	2	5	51	42	NP	NP	69	A-4b
	18.7-19.7		4	1	10	39	46	NP	NP	55	A-4a
	21.2-22.2		18	12	16	26	28	42	15	51	A-7-6
	23.7-24.7		16	6	24	24	20	NP	NP	22	A-4a
	26.2-27.2		42	10	21	10	17	NP	NP	17	A-2-4
	28.7-29.7		39	12	28	9	12	-	-	11	A-1-b
	31.2-32.2		9	46	33	-	12 -	NP	NP	26	A-1-b
	33.7-34.7		37	12	29	12	10	NP	NP	15	A-2-4
	38.7-39.7		45	24	19	-	12 -	NP	NP	13	A-1-b
	43.7-44.7		0	89	10	-	1 -	NP	NP	24	A-1-b
	48.7-49.7		0	73	23	-	4 -	NP	NP	25	A-1-b
	53.7-54.7		26	65	7	-	2 -	NP	NP	14	A-1-b
131+70 20'Rt	5.0-6.0		0	1	22	37	40	28	10	19	A-4a
	10.0-11.0		0	0	21	53	26	26	7	21	A-4b
	12.5-13.5		0	0	24	43	33	27	8	23	A-4a
	15.0-16.0		0	0	41	35	24	NP	NP	23	A-4a
	17.5-18.5		0	0	36	35	29	NP	NP	23	A-4a
	20.0-21.0		0	0	29	45	26	NP	NP	24	A-4a
	22.6-23.5		0	0	38	32	30	NP	NP	22	A-4a
	25.0-26.0		0	0	29	40	31	NP	NP	28	A-4a
	27.5-28.5		0	0	35	35	30	NP	NP	26	A-4a
	30.0-31.0		41	9	23	9	18	NP	NP	13	A-2-4
	35.0-36.0		56	12	16	-	16 -	NP	NP	10	A-1-b
	40.0-41.0		48	10	22	9	11	NP	NP	11	A-1-b
	45.0-46.0		56	23	12	-	9 -	NP	NP	7	A-1-a
	50.0-51.0		26	58	11	-	5 -	NP	NP	19	A-1-b
	55.0-56.0		0	32	62	-	6 -	NP	NP	30	A-3
	60.0-61.0		2	78	14	-	6 -	NP	NP	17	A-1-b

TE - 127
1800-12-66

SOIL PROFILE

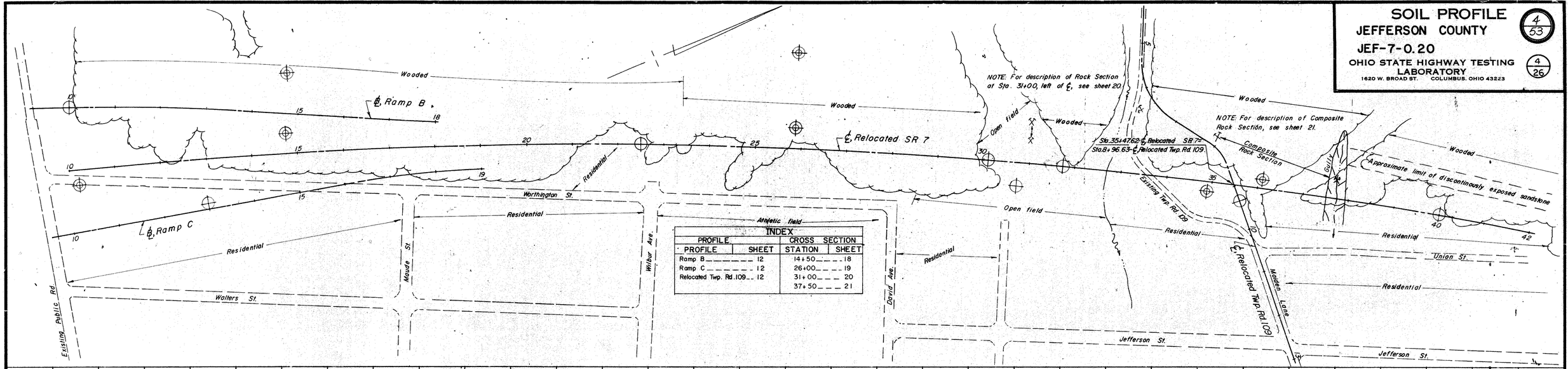
JEFFERSON COUNTY

JEF-7-0.20

OHIO STATE HIGHWAY TESTING LABORATORY
1620 W. BROAD ST. COLUMBUS, OHIO 43223

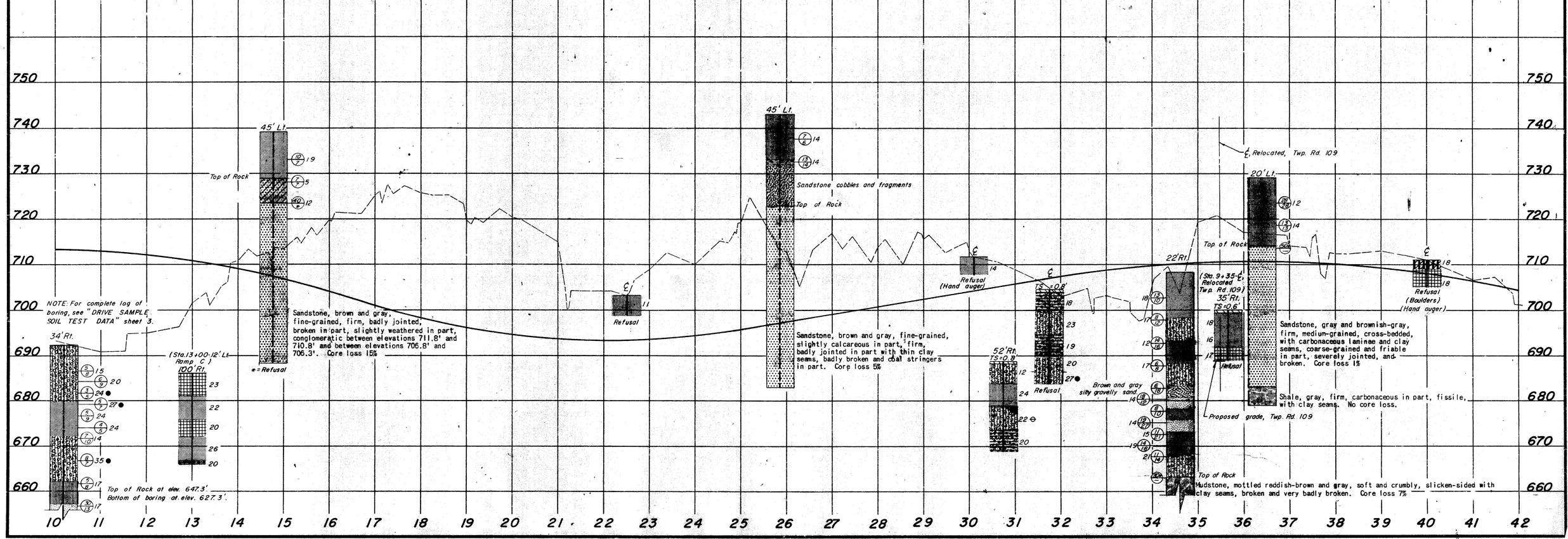
4/53

4/26



INDEX

PROFILE		CROSS SECTION	
PROFILE	SHEET	STATION	SHEET
Ramp B	12	14+50	18
Ramp C	12	26+00	19
Relocated Twp. Rd. 109	12	31+00	20
		37+50	21



TE - 127
1500-12-66

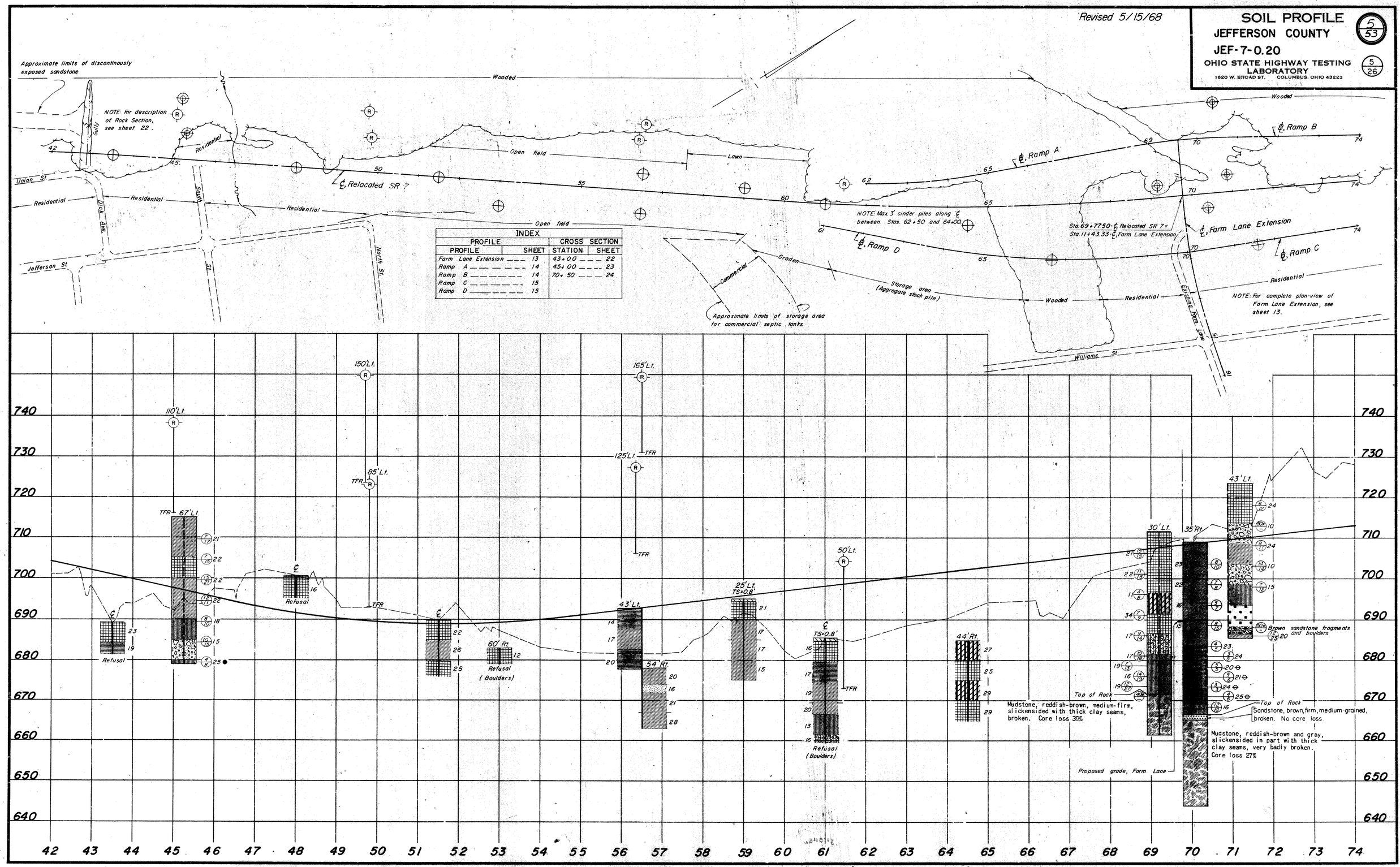
Revised 5/15/68

SOIL PROFILE
JEFFERSON COUNTY
JEF-7-0.20

5/53

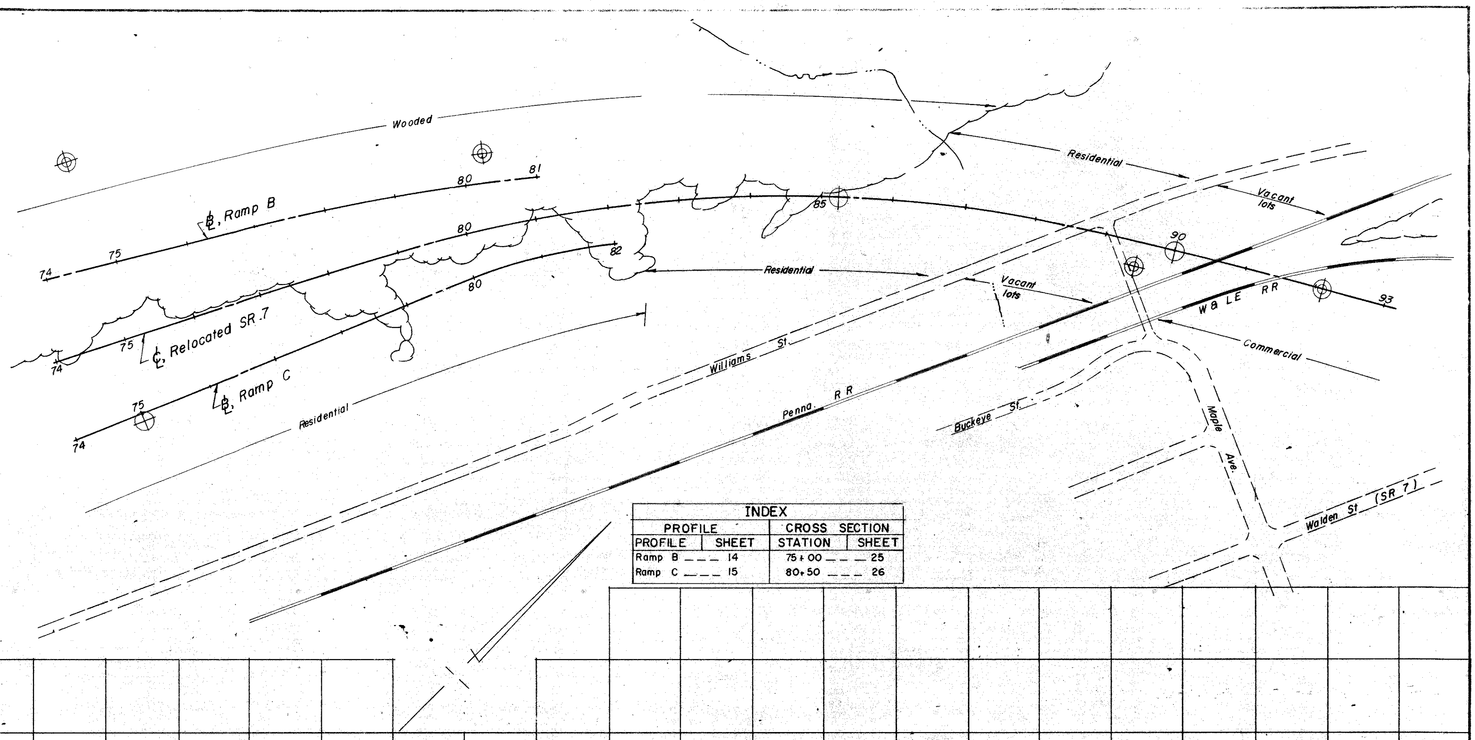
OHIO STATE HIGHWAY TESTING LABORATORY
1620 W. BROAD ST. COLUMBUS, OHIO 43223

5/26



INDEX

PROFILE		CROSS SECTION	
PROFILE	SHEET	STATION	SHEET
Farm Lane Extension	13	43+00	22
Ramp A	14	45+00	23
Ramp B	14	70+50	24
Ramp C	15		
Ramp D	15		



INDEX			
PROFILE		CROSS SECTION	
PROFILE	SHEET	STATION	SHEET
Ramp B	14	75+00	25
Ramp C	15	80+50	26

(Sta. 80+28-42' Lt, Ramp B) 105' Lt.

Sandstone, gray, firm, medium- and coarse-grained, occasionally cross-bedded, generally massive, micaceous in part, broken and jointed. Core loss 1%

NOTE: For log of boring, see cross section Sta. 80+50 sheet 26.

(Sta. 75+00-9' Rt., Ramp C) 115' Rt.

℄ 35' Rt.

℄ 75+0.6'

℄

Brown gravelly sandy silt.

Top of Rock

Sandstone, gray, very fine-grained, firm with arenaceous shale seams throughout, cross-bedded in part, very badly broken in upper 1.0', broken and jointed in remainder. No core loss.

Refusal

Refusal

Top of Rock

Refusal

760 750 740 730 720 710 700 690 680 670 660 650 640 630 620

74 75 76 77 78 79 80 81 82 83 84 85 86 87 88 89 90 91 93

STA. 92+10, ℄

A. Shale, brownish-gray, medium-firm, arenaceous, with fine-grained sandstone intervals, very badly broken and jointed. No core loss.

B. Shale, gray, firm, carbonaceous and fissile in part, broken and jointed. Core loss 18%

SOIL PROFILE

JEFFERSON COUNTY

JEF-7-0.20

OHIO STATE HIGHWAY TESTING LABORATORY
1620 W. BROAD ST. COLUMBUS 23, OHIO

6/26

5/35

TE - 127
1500-12-66

SOIL PROFILE

JEFFERSON COUNTY

JEF-7-0.20

OHIO STATE HIGHWAY TESTING LABORATORY
1620 W. BROAD ST. COLUMBUS, OHIO 43223

7/53

7/26

PROFILE INDEX	
PROFILE	SHEET
Relocated Main St.	13
Service Rd. A.	16

Penna. R.R.

Vine Cliff St.

Commercial

Main St.

Walden St.

(SR 7)

Max. 6' emb.

Max. 8' emb.

Max. 12' emb.

Max. 2' emb.

W A L E R R.

℄ Relocated SR 7

℄ Proposed Service Rd. A.

Commercial (Parking lot)

Golf course

Golf driving range

93 95 100 105 110 115 120 125

710 700 690 680 670 660 650 640 630 620 610 600

35' L1

WS

Gray sand

Brown gravel

Gray gravel

*= Refusal
WS = Wash sample

℄ TS=0.8'

(Sta. 106+00-℄, Service Rd.) 98' Rt.

W

93 94 95 96 97 98 99 100 101 102 103 104 105 106 107 108 109 110 111 112 113 114 115 116 117 118 119 120 121 122 123 124 125

TE - 127
1600-12-66

SOIL PROFILE

JEFFERSON COUNTY

JEF-7-0.20

OHIO STATE HIGHWAY TESTING LABORATORY

1620 W. BROAD ST. COLUMBUS, OHIO 43223

8/53

8/26

Existing SR 150

SHORT CREEK

W & L E R R

Existing SR 7

Parking Lot

Water

℄ Proposed Channel Relocation

℄ Proposed SR 150 Extension

Sta. 126+34.31-℄ Relocated SR 7= Sta. 51+75.98-℄ Proposed SR 150 Extension

Brush

Sta. 130+16.00 - ℄ Relocated SR 7 = Sta. 52+40.18 - ℄ Proposed Channel Relocation

℄ Ramp D

℄ Ramp A

℄ Ramp B

℄ Ramp C

℄ Relocated SR 7

℄ Proposed Service Rd. A

Golf driving range

Existing SR 7

Approximate limits of low poor drainage area

Cultivated

PROFILE	INDEX SHEET
Service Rd. A	13
Ramp A	17
Ramp B	17
Ramp C	17
Ramp D	17

℄ Proposed SR 150 Extension

℄ Proposed Channel Relocation

33' Lt.

℄

35' Rt.

Normal water at approx. elev. 644.0'

℄ TS=0.8'

35' Lt.

Gray silty clay

Trace of organic

Slightly organic

Slightly organic

Trace of organic

Top of Rock

Shale, gray, firm, very arenaceous, with numerous firm, very fine-grained sandstone intervals, broken and jointed. Core loss 2%

WS = Wash Sample

Top of Rock

Shale, brownish-gray, soft and crumbly, weathered in upper 2.5' and very badly broken, gray, firm, carbonaceous in part, fissile, broken in remainder Core loss 6%

* = Refusal

Top of Rock

Shale, dark-gray, carbonaceous in part, fissile, firm, broken and jointed. Core loss 10%

680 670 660 650 640 630 620 610 600 590 580 570

125 126 127 128 129 130 131 132 133 134 135 136 137 138 139 140 141 142 143 144 145 146 147 148 149 150 151 152 153 154 155 156 157

TE - 127
1800-12-66

SOIL PROFILE

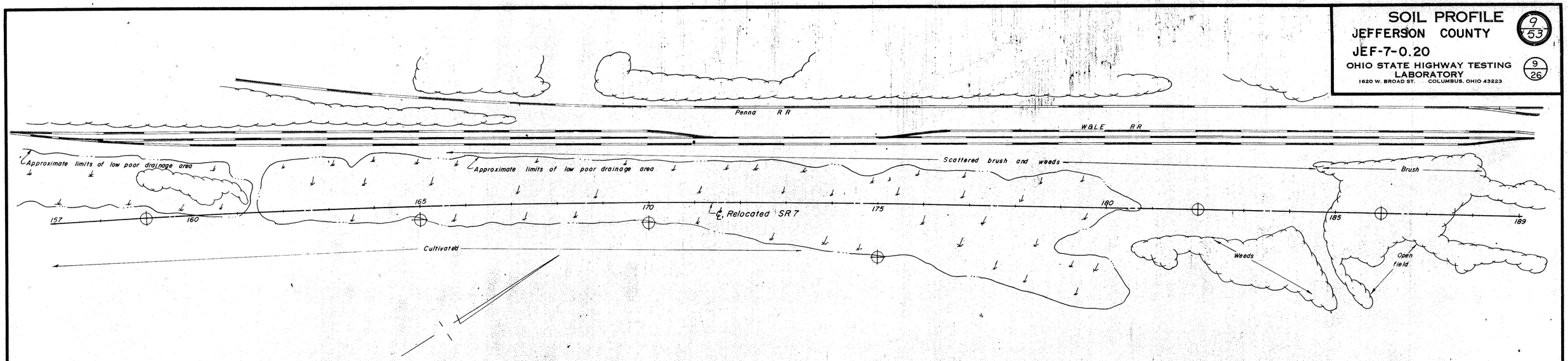
JEFFERSON COUNTY

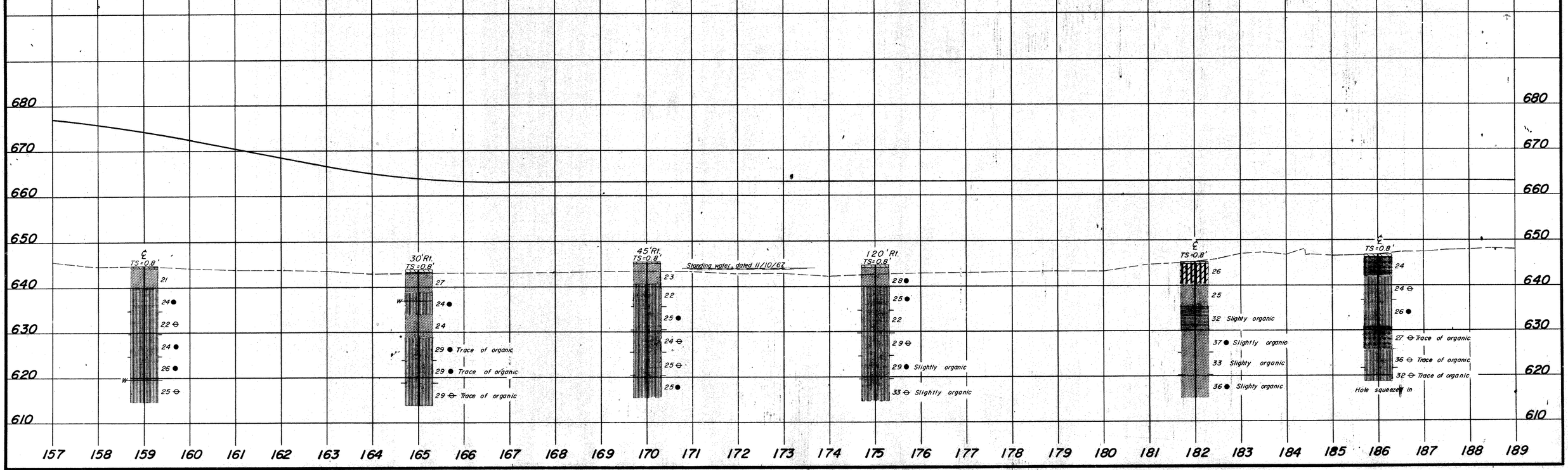
JEF-7-0.20

OHIO STATE HIGHWAY TESTING LABORATORY
1620 W. BROAD ST. COLUMBUS, OHIO 43223

9/53

9/26





TE - 127
1800-12-66

SOIL PROFILE

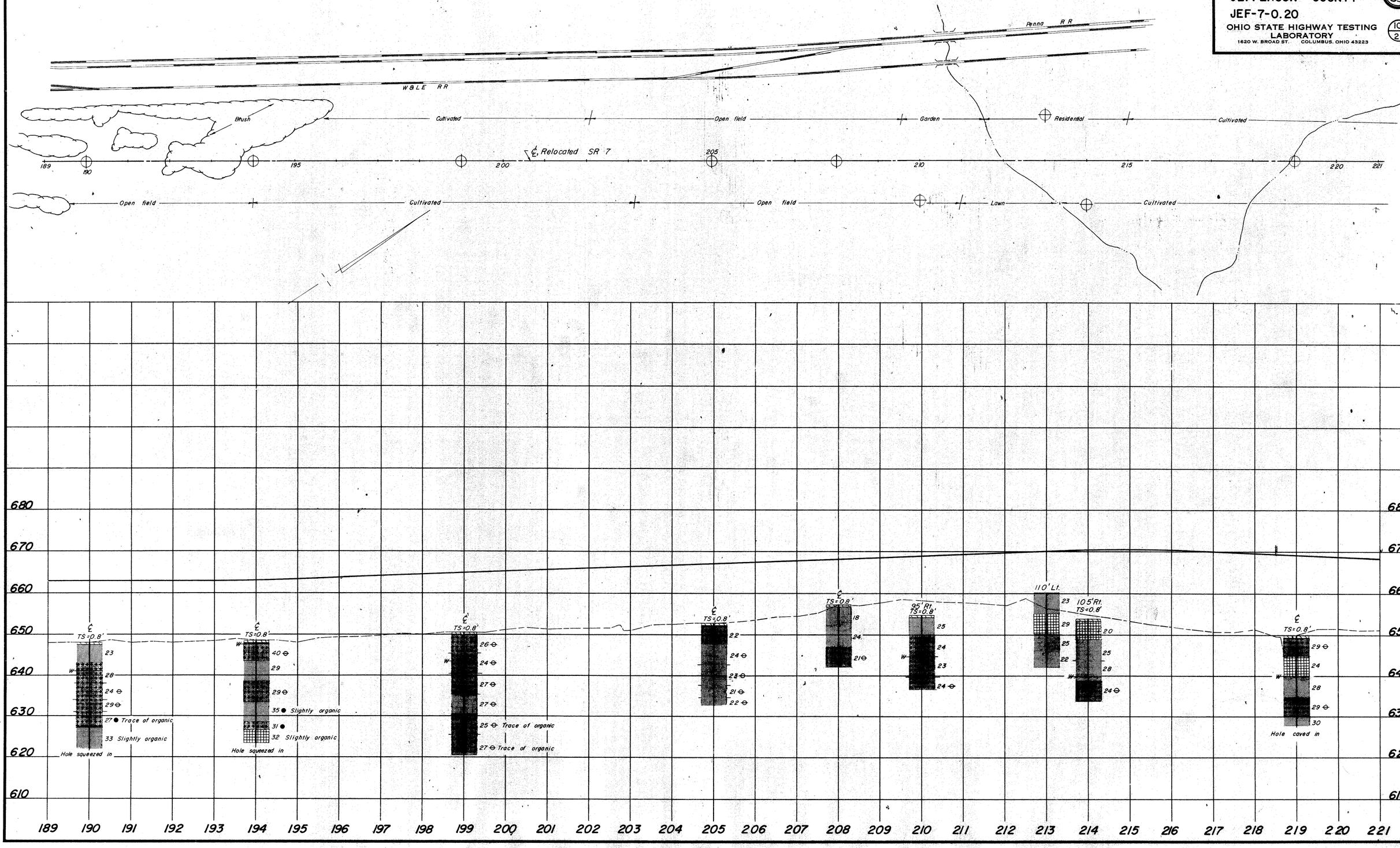
JEFFERSON COUNTY

JEF-7-0.20

10/53

OHIO STATE HIGHWAY TESTING LABORATORY
1620 W. BROAD ST. COLUMBUS, OHIO 43223

10/26



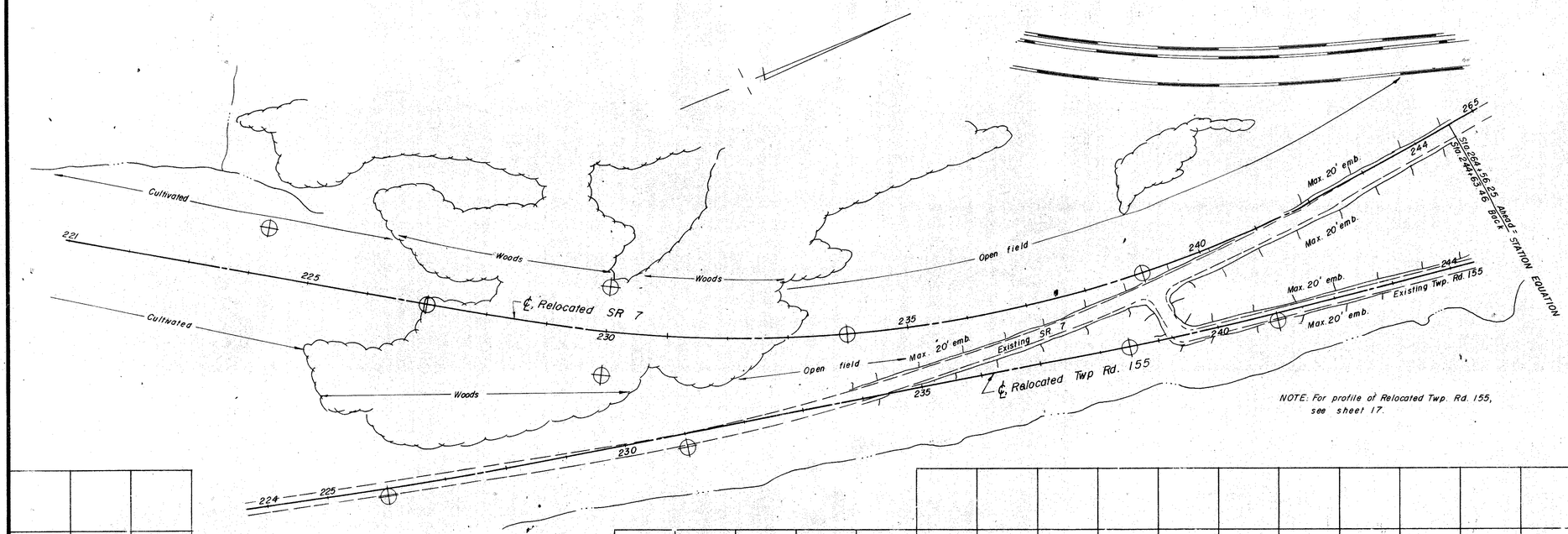
TE - 127
1500-12-66

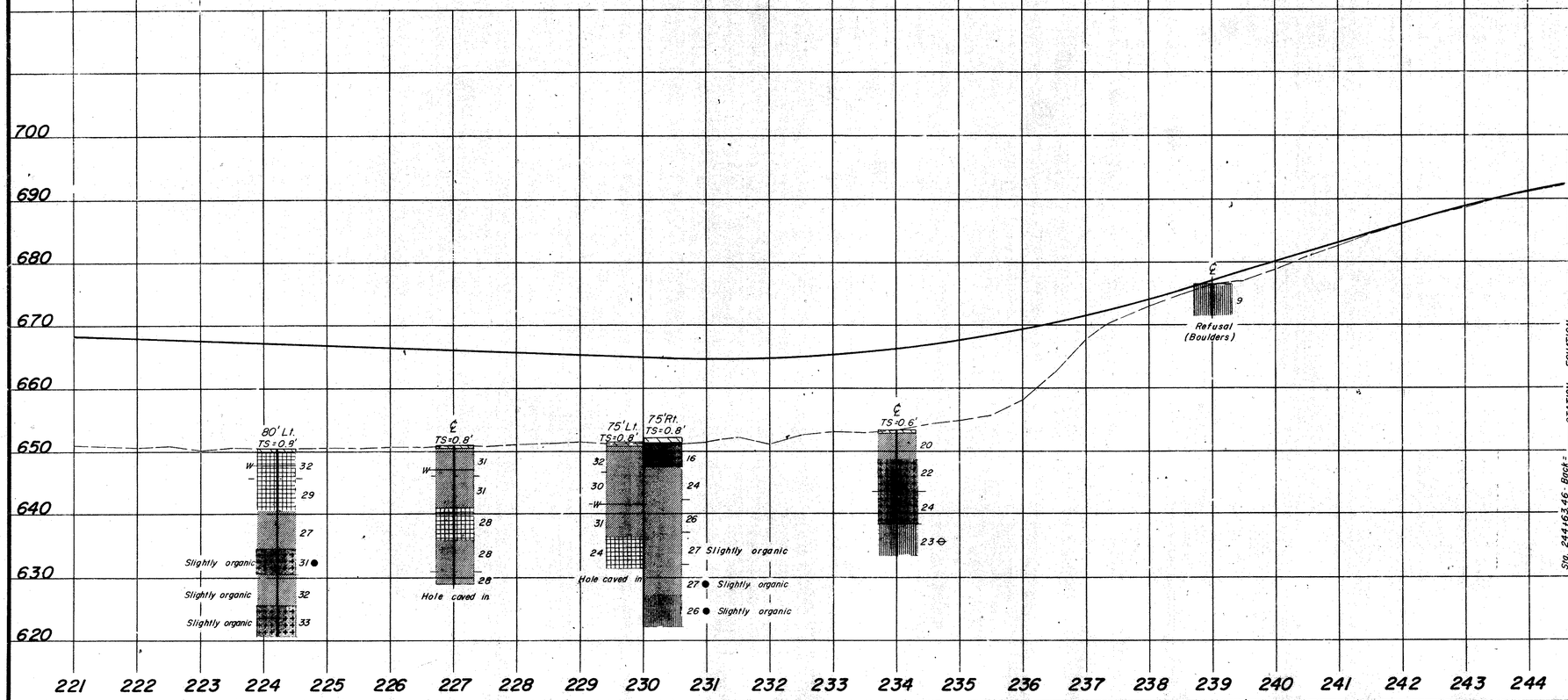
SOIL PROFILE

JEFFERSON COUNTY (11/53)

JEF-7-0.20

OHIO STATE HIGHWAY TESTING LABORATORY (11/26)
1620 W. BROAD ST. COLUMBUS, OHIO 43223





SOIL PROFILE

JEFFERSON COUNTY

JEF-7-0.20

OHIO STATE HIGHWAY TESTING LABORATORY
1620 W. BROAD ST. COLUMBUS 23, OHIO

12/53

12/26

PUBLIC RD. INTERCHANGE RAMP B

(Sta. 14+89-175' Lt., Relocated SR 7)
88' Lt.

Shale, gray, arenaceous, slightly argillaceous, calcareous in part, poorly fissile, firm, jointed, with few clay and limestone seams. Core loss 4%

Shale, dark-gray, fossiliferous, slightly carbonaceous, poorly fissile, firm, badly jointed. No core loss.

Sandstone, gray, fine-grained, slightly argillaceous, firm, with few carbonaceous shale stringers in part, with many shale seams between elevations 764.7' and 760.7', calcareous between elevations 757.2' and 755.2', thin-bedded with few joints. No core loss.

(Sta. 14+77-45' Lt., Relocated SR 7)
43' Rt.

19
Top of Rock
5
12

Conglomeratic sandstone, gray, with sub-angular pebbles (max. 0.2' thick), fine-grained matrix, slightly calcareous, firm, jointed. No core loss.

Shale, gray, very arenaceous, non-fissile, firm, with few sandstone seams. No core loss.

℄ Existing Public Rd

NOTE: For log of boring, see cross section Sta. 14+50, sheet 18.

Sandstone, brown and gray, fine-grained, firm, badly jointed, broken in part, slightly weathered in part, conglomeratic between elevations 711.8' and 710.8' and between elevations 706.8' and 706.3'. Core loss 15%

Black coal fragments with sandy silt.

12
Refusal

*=Refusal

PUBLIC RD. INTERCHANGE RAMP C

℄ Existing Public Rd.

(Sta. 10+20-34' Rt. Relocated SR 7)
102' Lt.

15
20
24
27
24
24
14
35
17
17
23
20
12

12' Lt.

23
22
20
26
20

Top of Rock
Bottom of boring at elev. 627.3'
* = Refusal

Mudstone, mottled brown and gray, medium-firm, slickensided, with thin clay seams, broken. Core loss 24 %.

COMPOSITE ROCK SECTION
(Between Stas. 35+00 and 38+00, Relocated SR 7)

Rock Section
32 Rt.

Sandstone, thin-to-medium bedded and crossbedded.

Sandstone, coarse-grained, calcareous, with clay balls and ironstone concretion.

Sandstone, firm, massive.

Sandstone, firm, thin-bedded.

(Sta. 34+90-22' Rt., Relocated SR 7)
60' Rt.

Proposed grade, SR 7

℄ TS=0.6

18
16
17
Refusal

Brown and gray silty gravelly sand

Top of Rock

Mudstone, mottled reddish-brown and gray, soft and crumbly, slickensided with clay seams, broken and very badly broken. Core loss 7%

TWP. RD. 109

SOIL PROFILE

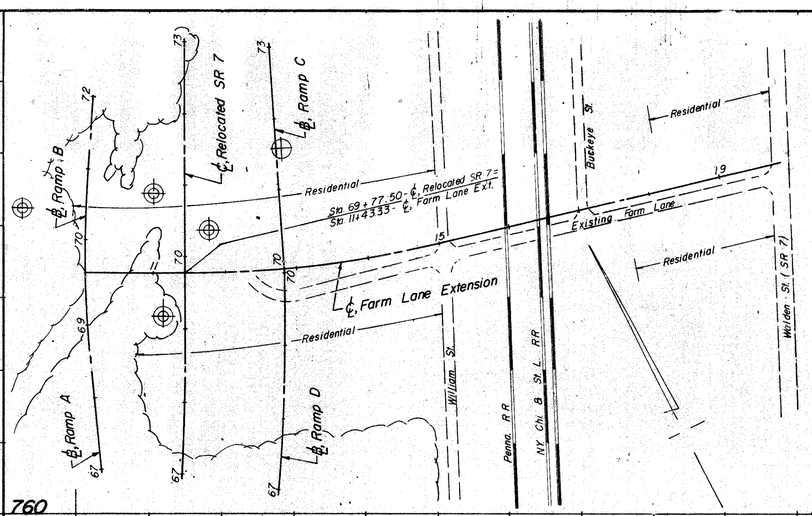
JEFFERSON COUNTY

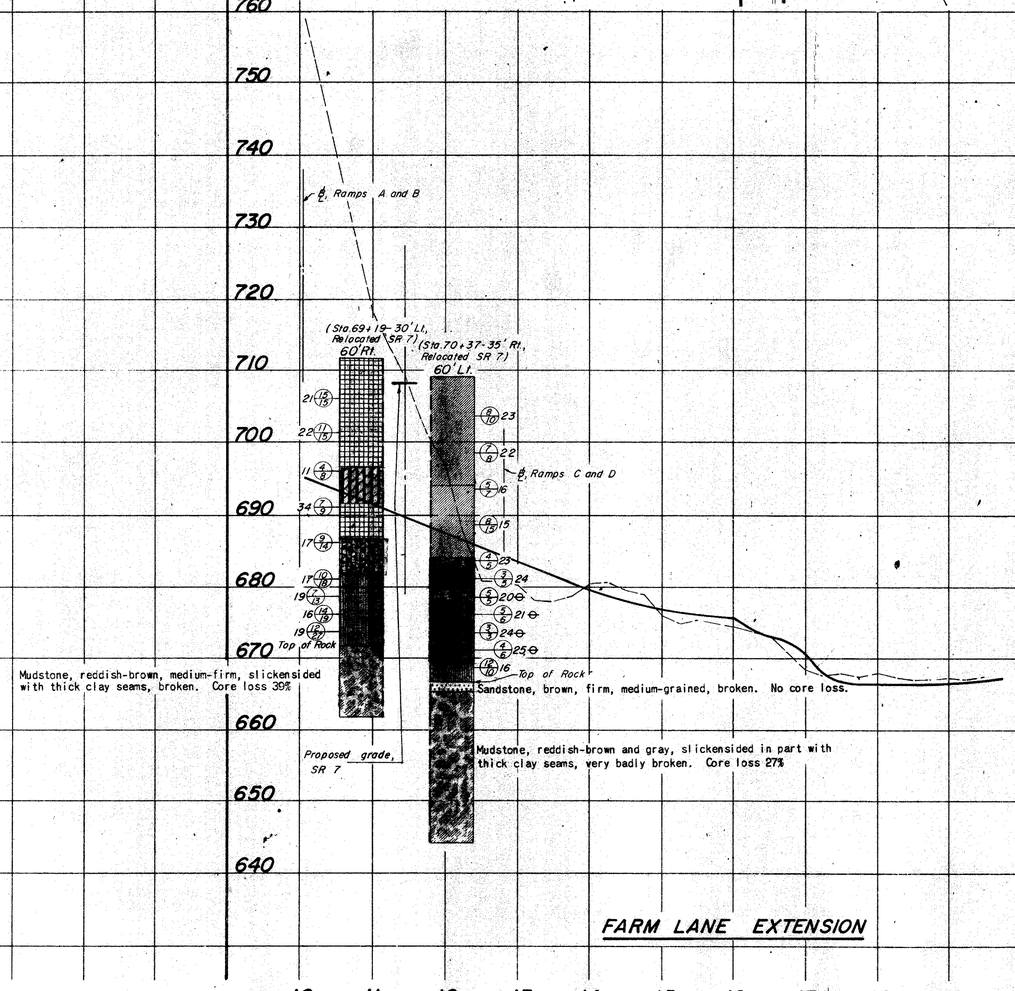
JEF-7-0.20

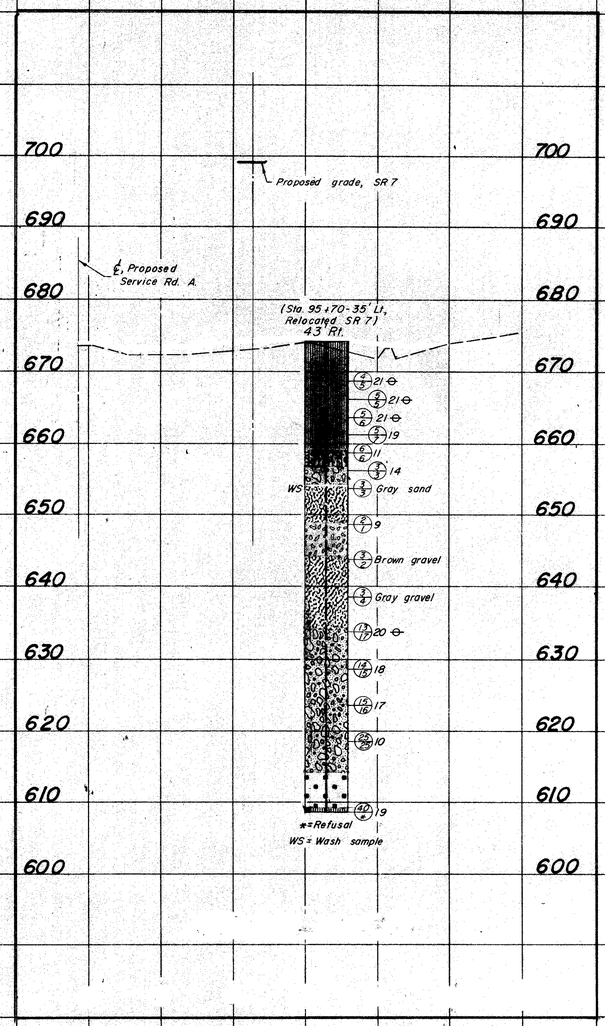
OHIO STATE HIGHWAY TESTING LABORATORY
1620 W BROAD ST. COLUMBUS 23, OHIO

13/53

13/26







FARM LANE EXTENSION

10 11 12 13 14 15 16 17 18 19 20

SOIL PROFILE

JEFFERSON COUNTY

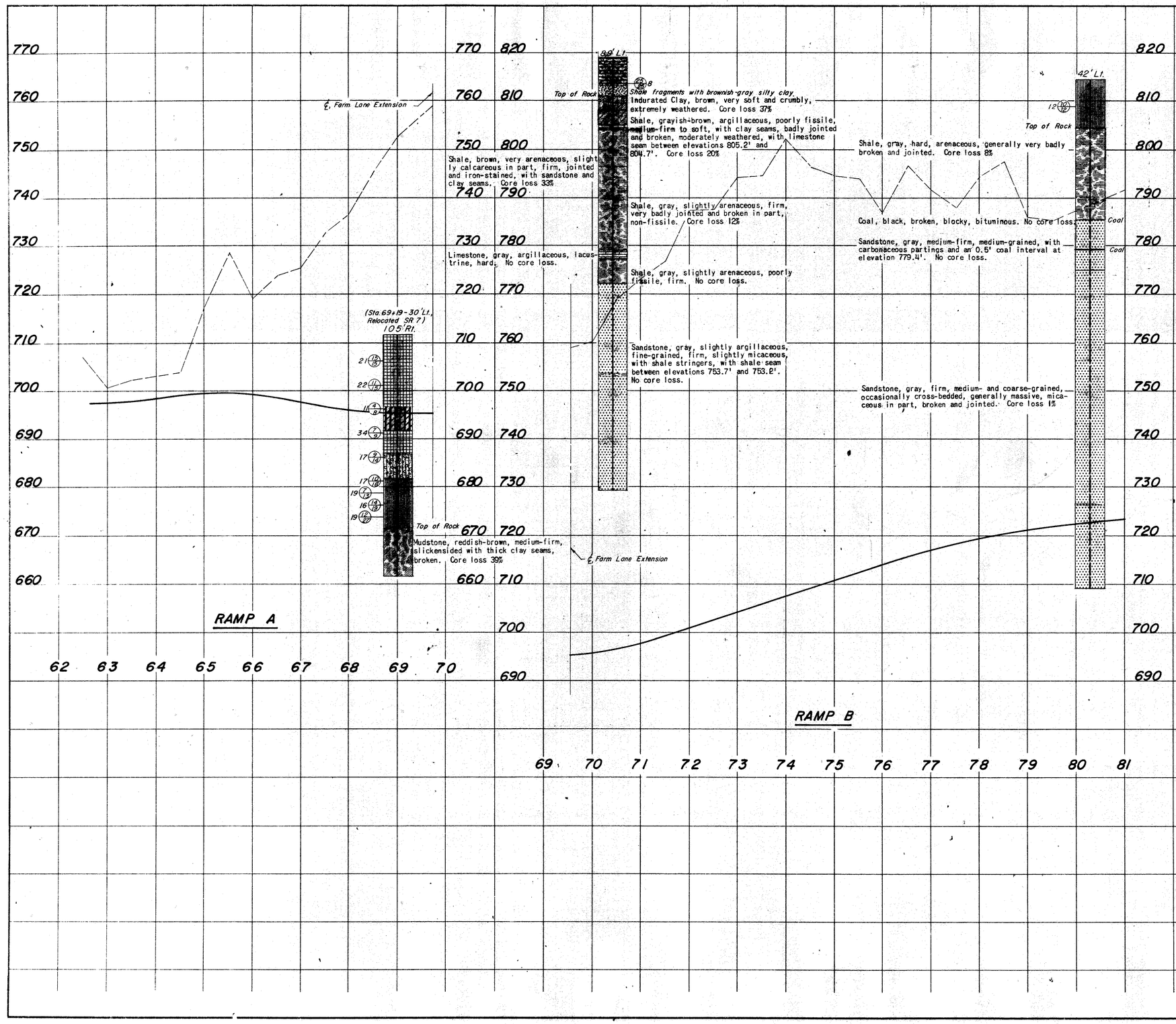
JEF-7-0.20

OHIO STATE HIGHWAY TESTING LABORATORY
1620 W. BROAD ST. COLUMBUS 23, OHIO

14/53

14/26

FARM LANE INTERCHANGE



SOIL PROFILE

JEFFERSON COUNTY

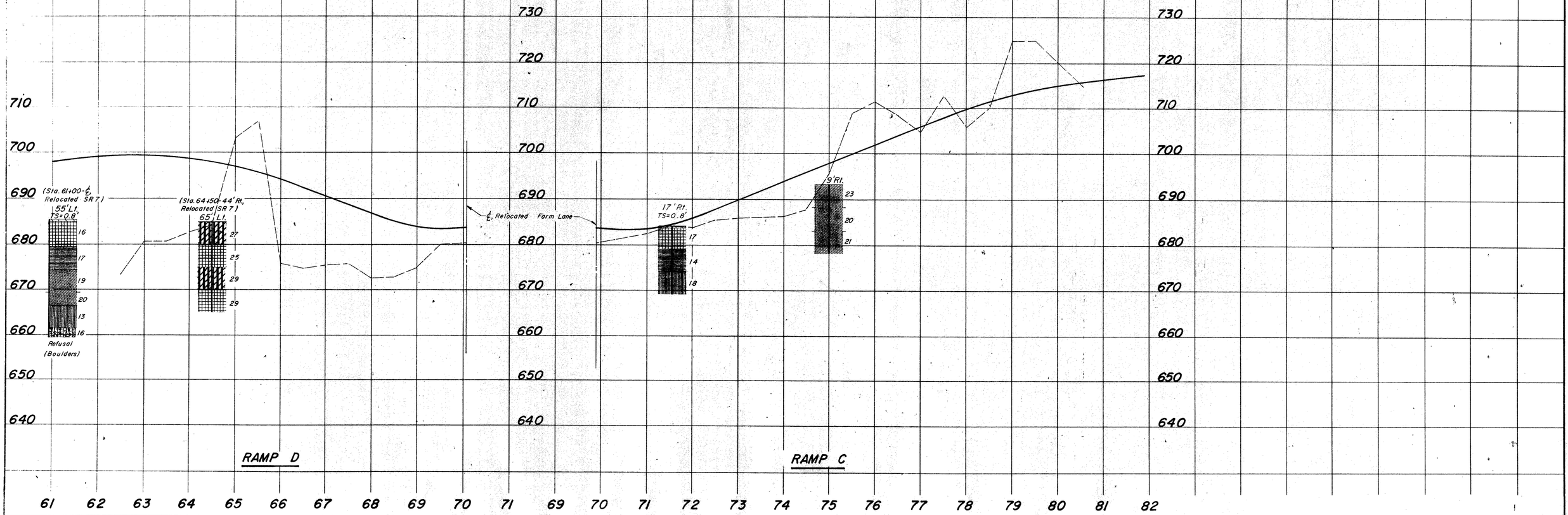
JEF- 7-0.20

OHIO STATE HIGHWAY TESTING LABORATORY
1620 W. BROAD ST. COLUMBUS 23, OHIO

15/53

15/26

FARM LANE INTERCHANGE



SOIL PROFILE

JEFFERSON COUNTY

JEF-7-0.20

OHIO STATE HIGHWAY TESTING LABORATORY
1620 W. BROAD ST. COLUMBUS 23, OHIO

16/53

16/26

℄ TS=0.8' — 22 ● 22 ⊖ 24 ⊖ 23 ⊖ W 12 10 13

℄ TS=0.8' — 22 23 25 W 26 29 30 25 ⊖ 29 ●

℄ TS=0.8' — 24 23 25 27 W

(Sta. 109+50-℄, Relocated SR 7) 100' Lt. TS=0.8' — 26 19 24 ● W 21 ⊖ 17 17

(Sta. 115+10-℄, Relocated SR 7) 108' Lt. TS=0.8' — 20 19 23 24

(Sta. 119+00-℄, Relocated SR 7) 117' Lt. TS=0.8' — 23 21 21 23 ●

(Sta. 123+50-℄, Relocated SR 7) 122' Lt. TS=0.8' — 20 21 W 24 25

SERVICE RD. A

93 94 95 96 97 98 99 100 101 102 103 104 105 106 107 108 109 110 111 112 113 114 115 116 117 118 119 120 121 122 123 124 125

680 670 660 650 640 630 620 610 600

℄, Proposed Channel Relocation

℄, Ramp D

℄, Ramp C

(Sta. 127+10-℄, Relocated SR 7) 140' Lt. — 21 24 26 25 ● 27 Trace of organic 28 ●

20' Lt. — Slightly organic 74 ● (1/1) 75 ⊖ (1/1) Slightly organic 66 ● (1/2) Slightly organic 70 ⊖ (1/2) 69 ⊖ (3/3) 55 ⊖ (3/3) 51 ● (3/3) 22 ⊖ (7/10) 17 (7/7) 11 (12/24) 26 ⊖ (20/20) 15 (16/21) 13 (14/28) 24 ⊖ Wash Sample 25 ⊖ (30/30) 14 (22/30) Top of Rock Bottom of boring at elev. 575.1' A.

20' Rt. — (3/4) 19 (4/5) 21 (2/5) 23 ⊖ (2/4) 23 ⊖ (3/4) 23 ⊖ (8/20) 24 ⊖ (9/20) 22 ⊖ (8/8) 28 ⊖ (2/5) 26 ⊖ (6/11) 13 (8/10) 10 (16/18) 11 (14/14) 7 (18/20) 19 (14/17) 30 ⊖ (16/16) 17 Top of Rock at elev. 581.5' Bottom of boring at elev. 570.5'

Normal water at approx. elev. 644.0'

Sta. 130+15 - 20' Lt.

A. Sandstone, gray, firm, argillaceous, with arenaceous shale intervals and clay seams, fine-grained, very badly broken and jointed. Core loss 16 %.

SERVICE RD. A

125 126 127 128 129 130 131 132 133 134 135 136 137 138 139 140 141 142 143 144 145 146 147 148 149 150 151 152 153

660 650 640 630 620 610 600 590

SOIL PROFILE

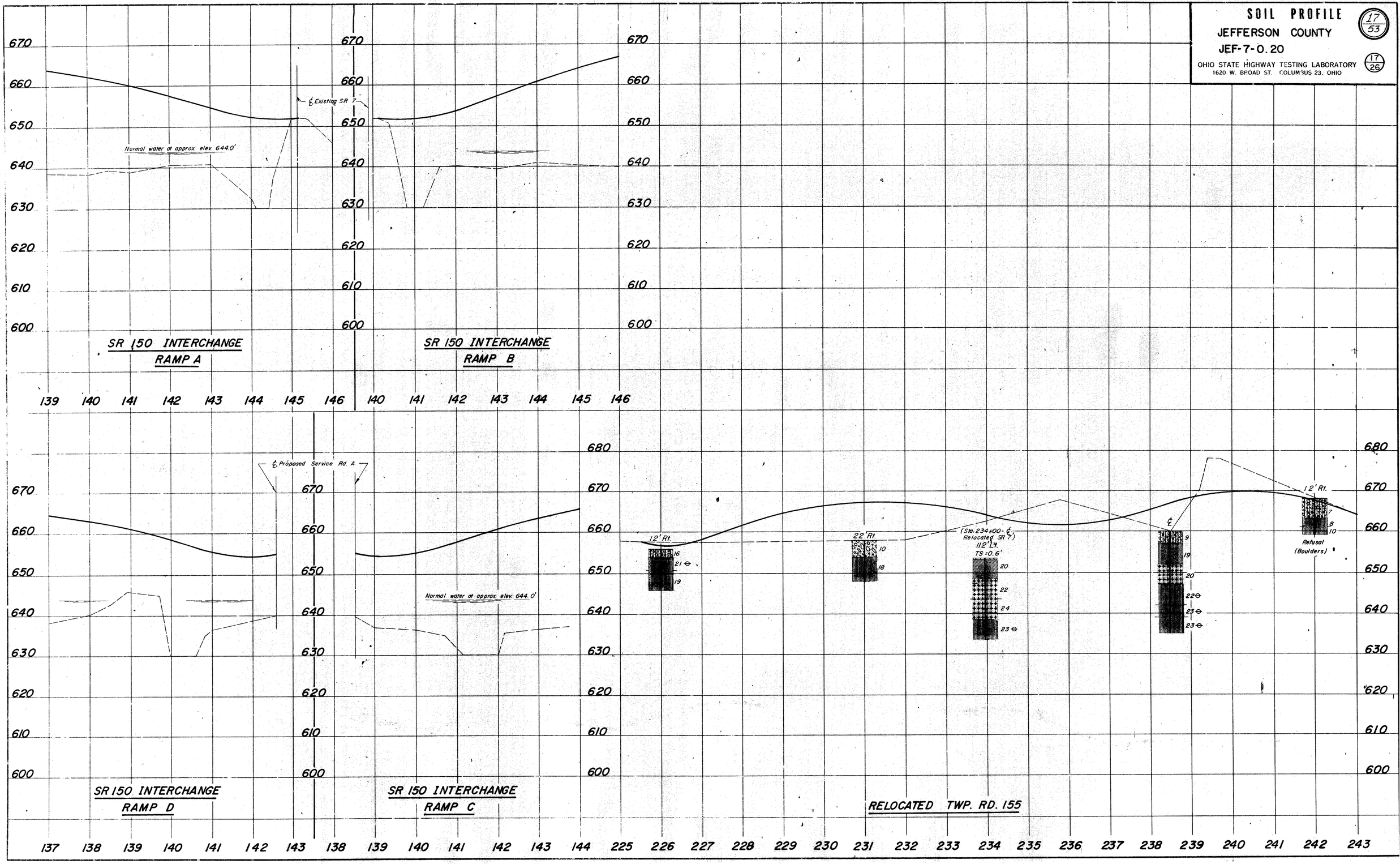
JEFFERSON COUNTY

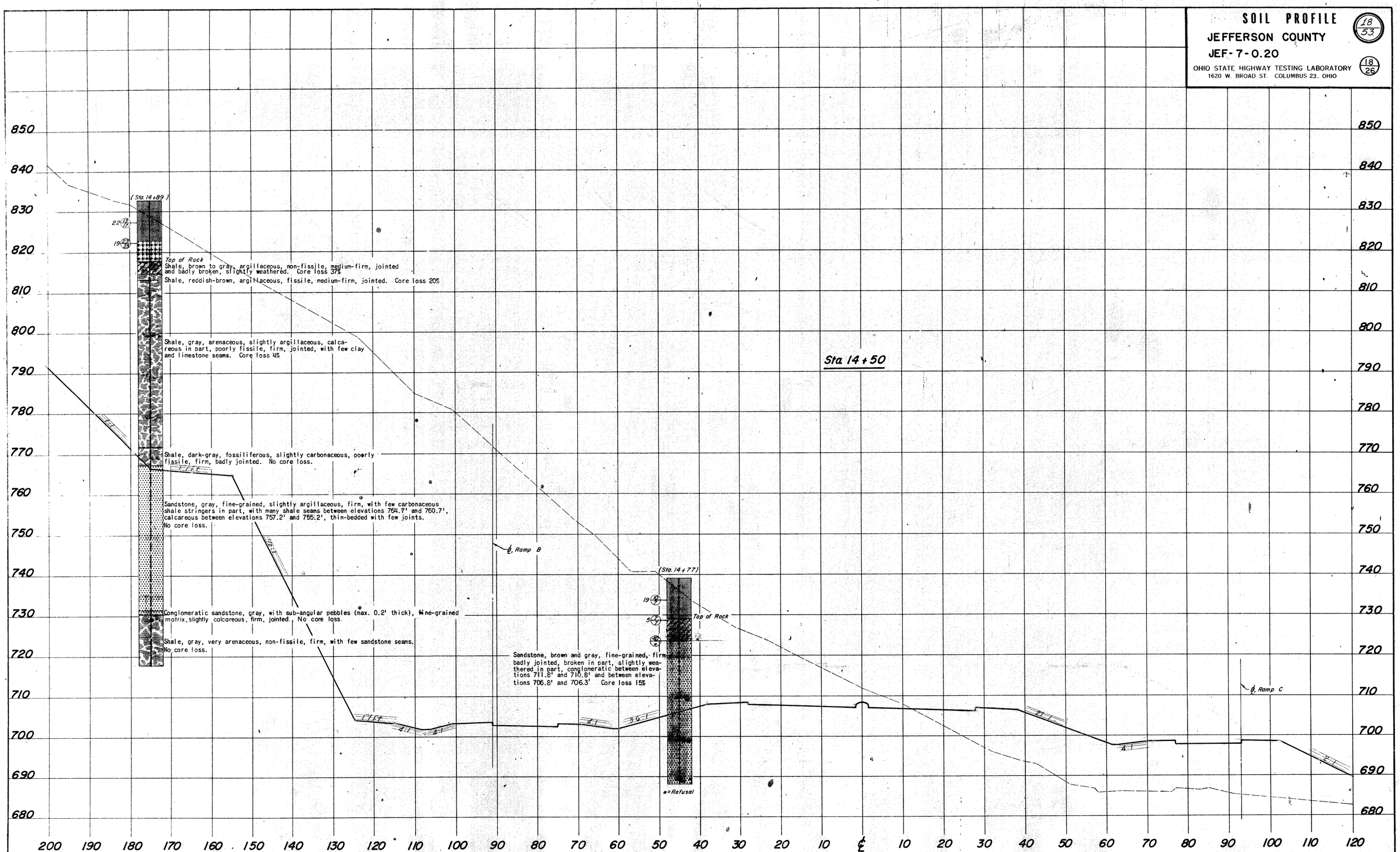
JEF-7-0.20

OHIO STATE HIGHWAY TESTING LABORATORY
1620 W. BROAD ST. COLUMBUS 23, OHIO

17/53

17/26




SOIL PROFILE
JEFFERSON COUNTY
JEF-7-0.20
OHIO STATE HIGHWAY TESTING LABORATORY
1620 W. BROAD ST. COLUMBUS 23, OHIO
18/53
18/26
(Sta. 14+89)
Top of Rock
Shale, brown to gray, argillaceous, non-fissile, medium-firm, jointed and badly broken, slightly weathered. Core loss 37%
Shale, reddish-brown, argillaceous, fissile, medium-firm, jointed. Core loss 20%
Shale, gray, arenaceous, slightly argillaceous, calcareous in part, poorly fissile, firm, jointed, with few clay and limestone seams. Core loss 4%
Shale, dark-gray, fossiliferous, slightly carbonaceous, poorly fissile, firm, badly jointed. No core loss.
Sandstone, gray, fine-grained, slightly argillaceous, firm, with few carbonaceous shale stringers in part, with many shale seams between elevations 764.7' and 760.7', calcareous between elevations 757.2' and 755.2', thin-bedded with few joints. No core loss.
Conglomeratic sandstone, gray, with sub-angular pebbles (max. 0.2' thick), fine-grained matrix, slightly calcareous, firm, jointed. No core loss.
Shale, gray, very arenaceous, non-fissile, firm, with few sandstone seams. No core loss.
Sta. 14+50
℄, Ramp B
(Sta. 14+77)
Top of Rock
Sandstone, brown and gray, fine-grained, firm, badly jointed, broken in part, slightly weathered in part, conglomeratic between elevations 711.8' and 710.8' and between elevations 706.8' and 706.3' Core loss 15%
*=Refusal
℄, Ramp C
850
840
830
820
810
800
790
780
770
760
750
740
730
720
710
700
690
680
200 190 180 170 160 150 140 130 120 110 100 90 80 70 60 50 40 30 20 10 ℄ 10 20 30 40 50 60 70 80 90 100 110 120

SOIL PROFILE

(19/53)

JEFFERSON COUNTY

JEF-7-0.20

(19/26)

OHIO STATE HIGHWAY TESTING LABORATORY
1620 W. BROAD ST. COLUMBUS 23, OHIO

(Sta. 25+85)

10/8 23

50/5 13

13/20 10

50/3 9

Top of Rock

Shale, gray, very calcareous in part, argillaceous, non-fissile, medium-firm, badly jointed with slickensides, broken. Core loss 10%

Shale, gray, fissile, argillaceous, medium-firm, crumbly in part, broken. Core loss 1%

Sandstone, gray, very fine-grained, argillaceous, calcareous in part, firm. No core loss.

Coal

Coal, black, blocky. Core loss 40%
Underclay, gray, soft and crumbly. Core loss 90%

Shale, gray, non-fissile, firm. Core loss 10%
Indurated Clay, gray, soft and crumbly, very badly broken. Core loss 80%

Shale, gray, poorly fissile, slightly arenaceous and carbonaceous, firm. No core loss.

Sandstone, gray, fine-grained, firm, with few coal stringers. Core loss 1%

Coal

Coal, black, blocky. No core loss.

Sandstone, gray, fine-grained, firm, with few coal stringers. No core loss.

*= Refusal

Sta. 26+00

(Sta. 25+85)

14/6

14/13

Sandstone cobbles and fragments

Top of Rock

Sandstone, brown and gray, fine-grained, slightly calcareous in part, firm, badly jointed in part with thin clay seams, badly broken and coal stringers in part. Core loss 5%

850 840 830 820 810 800 790 780 770 760 750 740 730 720 710 700 690 680 670 660

220 210 200 190 180 170 160 150 140 130 120 110 100 90 80 70 60 50 40 30 20 10 ℄ 10 20 30 40 50 60 70 80 90 100

SOIL PROFILE

JEFFERSON COUNTY

JEF-7-0.20

OHIO STATE HIGHWAY TESTING LABORATORY
1620 W. BROAD ST. COLUMBUS 23, OHIO

20/53

20/26

Sandstone, brown, medium-grained, firm and massive.

Sta. 31+00

Covered interval

Sandstone, brown, medium-grained and firm.

(Sta. 31+75)
TS=0.8'
18
23
19
20
27
Refusal

(Sta. 30+75)
TS=0.6'
12
24
22
20

810 800 790 780 770 760 750 740 730 720 710 700 690 680 670 660

160 150 140 130 120 110 100 90 80 70 60 50 40 30 20 10 ℄ 10 20 30 40 50 60 70 80 90 100 110 120 130 140 150 160

SOIL PROFILE

JEFFERSON COUNTY

JEF-7- 0.20

OHIO STATE HIGHWAY TESTING LABORATORY
1620 W. BROAD ST. COLUMBUS 23, OHIO

21/53

21/26

COMPOSITE ROCK-SECTION
Between Stas. 35+00 and 38+00

Sandstone boulders with mudstone and siltstone fragments.

Sandstone, firm, massive.

Sandstone, firm, thin-bedded.

1.8:1

1/8:1

1"/ft

4:1

4:1

Sta. 37+50

800 790 780 770 760 750 740 730 720 710 700 690 680 670 660 650

160 150 140 130 120 110 100 90 80 70 60 50 40 30 20 10 ℄ 10 20 30 40 50 60 70 80 90 100 110 120 130 140 150 160

SOIL PROFILE

JEFFERSON COUNTY

JEF-7-0.20

OHIO STATE HIGHWAY TESTING LABORATORY
1620 W. BROAD ST. COLUMBUS 23, OHIO

22/53

22/26

790
780
770
760
750
740
730
720
710
700
690
680
670

ROCK SECTION

Mudstone, gray to brown and firm.

Sandstone, gray, hard and firm, massive.

Sta. 43+00

1:1

1"/ft.

4:1

4:1

160 150 140 130 120 110 100 90 80 70 60 50 40 30 20 10 ℄ 10 20 30 40 50 60 70 80 90 100 110 120 130 140 150 160

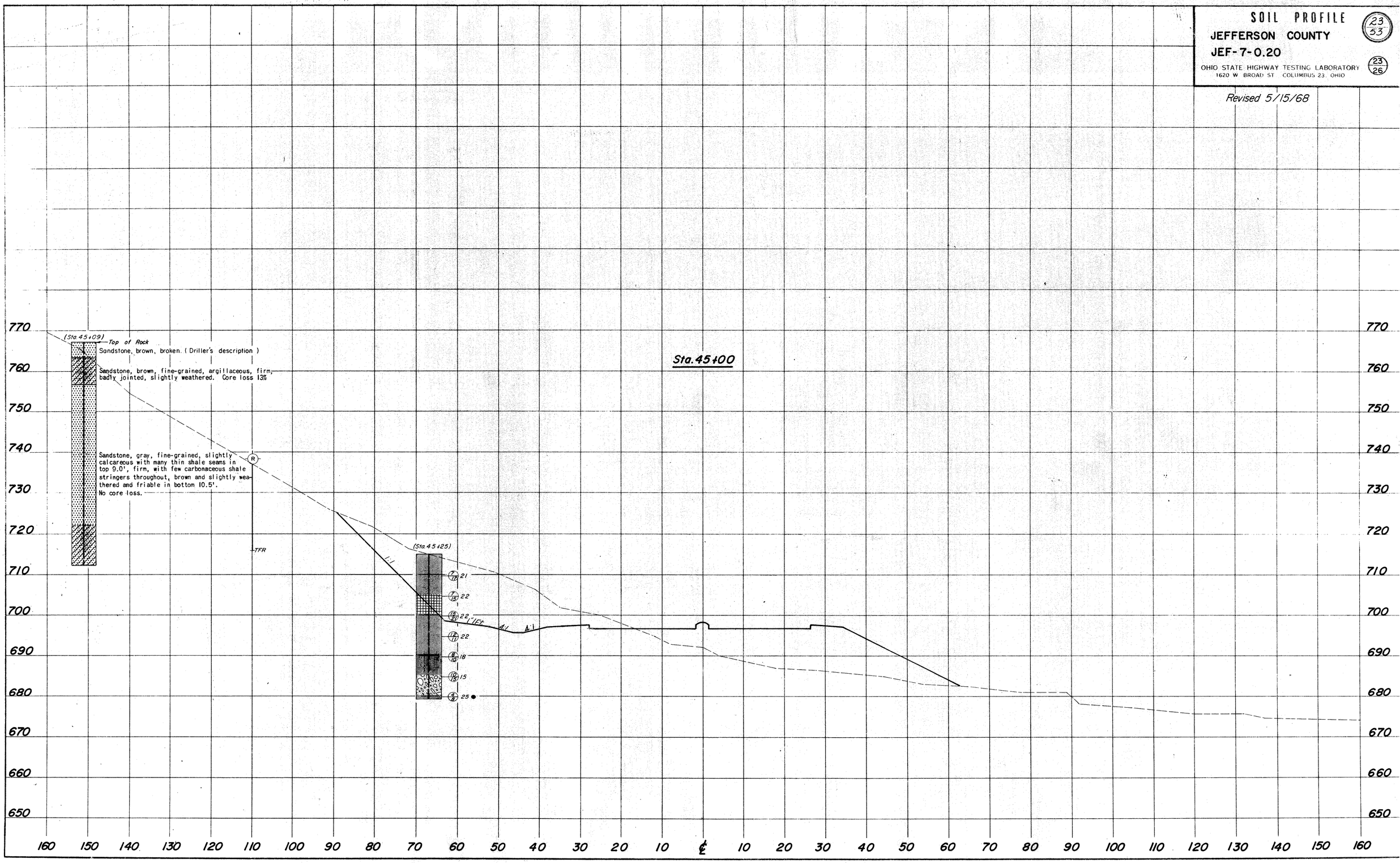
SOIL PROFILE
JEFFERSON COUNTY
JEF-7-0.20

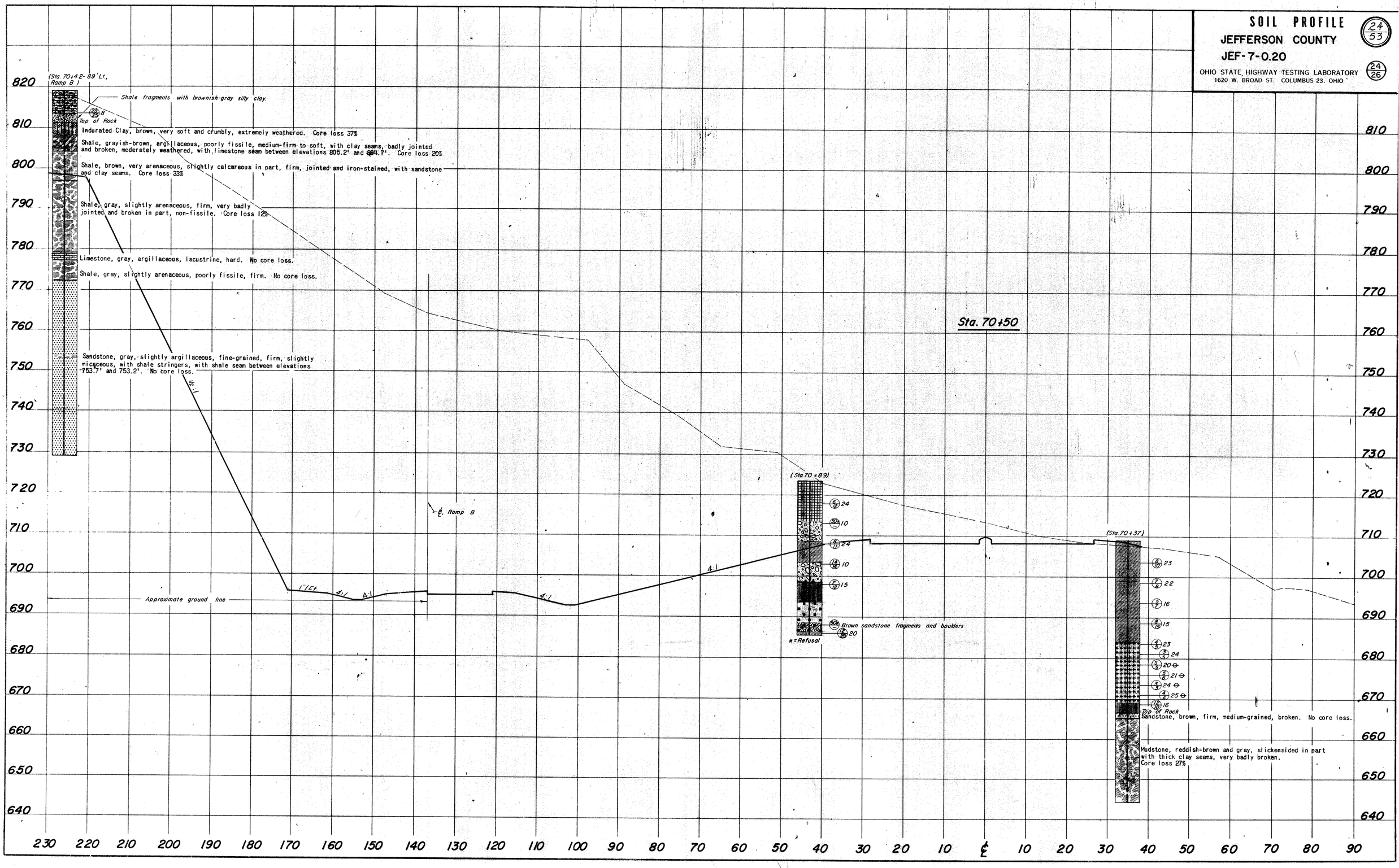
OHIO STATE HIGHWAY TESTING LABORATORY
1620 W. BROAD ST. COLUMBUS 23, OHIO

23/53

23/26

Revised 5/15/68




SOIL PROFILE
JEFFERSON COUNTY
JEF-7-0.20
OHIO STATE HIGHWAY TESTING LABORATORY
1620 W. BROAD ST. COLUMBUS 23, OHIO
24/53
24/26
(Sta. 70+42-89' Lt., Ramp B)
Shale fragments with brownish-gray silty clay.
Top of Rock
Indurated Clay, brown, very soft and crumbly, extremely weathered. Core loss 37%
Shale, grayish-brown, argillaceous, poorly fissile, medium-firm to soft, with clay seams, badly jointed and broken, moderately weathered, with limestone seam between elevations 805.2' and 804.7'. Core loss 20%
Shale, brown, very arenaceous, slightly calcareous in part, firm, jointed and iron-stained, with sandstone and clay seams. Core loss 33%
Shale, gray, slightly arenaceous, firm, very badly jointed and broken in part, non-fissile. Core loss 12%
Limestone, gray, argillaceous, lacustrine, hard. No core loss.
Shale, gray, slightly arenaceous, poorly fissile, firm. No core loss.
Sandstone, gray, slightly argillaceous, fine-grained, firm, slightly micaceous, with shale stringers, with shale seam between elevations 753.7' and 753.2'. No core loss.
Sta. 70+50
(Sta. 70+89)
Brown sandstone fragments and boulders
*=Refusal
(Sta. 70+37)
Top of Rock
Sandstone, brown, firm, medium-grained, broken. No core loss.
Mudstone, reddish-brown and gray, slickensided in part with thick clay seams, very badly broken. Core loss 27%
Approximate ground line
Ramp B
4:1
1:1 Ft.
820
810
800
790
780
770
760
750
740
730
720
710
700
690
680
670
660
650
640
230 220 210 200 190 180 170 160 150 140 130 120 110 100 90 80 70 60 50 40 30 20 10 ℄ 10 20 30 40 50 60 70 80 90

SOIL PROFILE

JEFFERSON COUNTY

JEF- 7-0.20

OHIO STATE HIGHWAY TESTING LABORATORY
1620 W. BROAD ST. COLUMBUS 23, OHIO

25/53

25/26

Top of Rock

25/26 Gray broken clay shale.

STA. 75+00, 259'LT.

A. Sandstone, gray, calcareous, hard, firm, fine-grained, dense with clay seams. Core loss 60%

B. Clay shale, brown, with clay seams and a 4" stringer of hard, gray, calcareous sandstone at elevation 854.3'. Core loss 32%

C. Claystone, soft, blue-gray. No core loss.

D. Limestone, gray, broken, freshwater in thin nodular layers with clay seams in upper portion, and a hard firm 6" layer at base. Core loss 76%

E. Claystone, soft, brown in upper 1', blue-gray in lower portion. Core loss 25%

F. Limestone, impure, blue-gray in 3" layers with mud balls and clay seams. No core loss.

G. Mudstone, blue-gray, broken with iron-stained joints Core loss 26%

H. Mudshale, gray, broken in upper 2' with clay seams and occasional scattered limestone nodules. Firm and hard in basal portion with a hard shaly 4" limestone layer at elevation 823.3'. Core loss 4%

I. Sandstone, hard, firm, gray, calcareous. No core loss.

J. Shale, silty, hard, firm, blue-gray, with a 3" sandstone stringer at elevation 818.6'. No core loss.

K. Sandstone, gray, hard, firm, medium-grained with thin coal streaks and clay seams at base. No core loss.

L. Shale, silty to sandy shale, gray, firm, micaceous, with clay seams. Core loss 2%

M. Sandstone, hard, gray, shaly, fine-grained. No core loss.

N. Shale, silty, hard, firm, blue-gray, micaceous with clay seams. No core loss.

Sta. 75+00

℄, Ramp B

℄, Ramp C

(Sta. 75+00: 9' Rt., Ramp C)

23
20
21

1"/Ft.

16:1

17 Ft.

4:1

4:1

4:1

5:1

8:1

22:1

4:1

860 850 840 830 820 810 800 790 780 770 760 750 740 730 720 710 700 690 680 670

270 260 250 240 150 140 130 120 110 100 90 80 70 60 50 40 30 20 10 ℄ 10 20 30 40 50 60 70 80 90 100 110 120 130

SOIL PROFILE

JEFFERSON COUNTY

JEF-7-0.20

(26/53)

(26/26)

OHIO STATE HIGHWAY TESTING LABORATORY
1620 W. BROAD ST. COLUMBUS 23, OHIO

(Sta. 80+28-42' Lt., Ramp B)

12 (10)

Top of Rock

Shale, gray, hard, arenaceous, generally very badly broken and jointed. Core loss 8%

1:1

1"/Ft.

Coal, black, broken, blocky, bituminous. No core loss.

Sandstone, gray, medium-firm, medium-grained with carbonaceous partings and an 0.5' coal interval at elevation 779.4'. No core loss.

1:1

Sandstone, gray, firm, medium- and coarse-grained occasionally cross-bedded, generally massive, micaceous in part, broken and jointed. Core loss 1%

1"/Ft.

4:1

4:1

Sta. 80+50

℄ Ramp B

℄ Ramp C

840 830 820 810 800 790 780 770 760 750 740 730 720 710 700 690 680

160 150 140 130 120 110 100 90 80 70 60 50 40 30 20 10 ℄ 10 20 30 40 50 60 70 80 90 100 110 120 130 140 150 160

TE - 118
600 - 4 - 66

MICROFILMED
OCT 29 1982

GEOLOGY OF THE SITE

THE STRUCTURE SITE IS LOCATED ON THE TERRACED FLOODPLAIN OF THE OHIO RIVER, IN AN AREA WHERE MODERATELY DEEP ALLUVIUM AND VALLEY FILL OVERLIES SHALE AND SANDSTONE BEDROCK, OF PENNSYLVANIAN AGE.

EXPLORATION

THE EXPLORATION CONSISTED OF TWO DRIVE SAMPLE BORINGS, MADE BETWEEN SEPTEMBER 10 AND 13, 1968.

INVESTIGATIONAL FINDINGS

BORINGS ENCOUNTERED LOOSE TO VERY DENSE SANDS AND GRAVELS. THE BORINGS WERE TERMINATED AT 51 AND 56-FOOT DEPTHS, ELEVATIONS 599 AND 594 FEET, AFTER PENETRATING 20 FEET OF MATERIAL REQUIRING IN EXCESS OF 30 BLOWS PER FOOT IN THE STANDARD PENETRATION TEST. RUNNING SAND WAS ENCOUNTERED IN BOTH BORINGS.

LEGEND

- Auger Boring Location - Plan View.
- Press and / or Drive Sample and / or Core Boring Location - Plan View.
- Drive Rod Penetration Resistance Sounding Location - Plan View.
- Capped Pile
- Footing
- Footing on Pile
- TR — Top of Rock
- Horizontal Bar on Boring Log Indicates the Depth the Sample Was Taken.
- X/Y — Figures Beside the Boring Log in Profile Indicate the Number of Blows for Standard Penetration Test.
  X = Number of Blows for First 6 inches.
  Y = Number of Blows for Second 6 inches.
- Drive Rod Penetration Resistance Sounding Log - Profile
- Casing
- Resistance "R" < 10,000 lbs.
- Resistance "R" > 10,000 lbs.
- Z — Indicates Final Measurement of Penetration, in Inches.
- W — Indicates Free Water Elevation.
- Indicates Static Water Elevation.

SYMBOLS OF ROCK TYPES

- Coal
- Weathered Indurated Clay
- Indurated Clay
- Weathered Shale
- Shale
- Weathered Sandstone
- Sandstone

GENERAL INFORMATION

Drive Rod Penetration Sounding Tests

Drive rod penetration resistance tests constitute driving a 1.315-inch diameter steel rod, with a 45° cone point, into the ground, using a 122-pound drop-hammer with a free fall of five feet. At one or two-foot depth intervals, a measurement is taken to determine the amount of penetration achieved in three hammer drops. This reading is converted to an empirical value for capacity "R", in thousands of pounds (which is a measure of both the point resistance and frictional resistance on the rod), by using charts prepared by the Ohio Department of Highways, Bureau of Bridges, on the basis of correlation study of rod penetration with past performance of pile driving. For interpretation, a graph is prepared by plotting the value "R" against the depth at which the reading was taken, and connecting the plotted points. The curve so obtained reflects the density of subsurface materials in a manner that can be readily compared with data from similar tests at other locations on the structure site. From this comparison, the overall uniformity of subsurface condition may be evaluated.

Drive Sample Borings - Drive-Press Sample Borings

Drive sample borings are made by means of a rotary-type drill rig, employing a 2" O.D., 1-3/8" I.D. sampler, at 2-1/2 and / or 5-foot depth intervals, driven by means of a 140 - pound drop-hammer with a free fall of 30 inches. The number of blows required to drive the sampler 12 inches is considered the standard penetration test.

Drive-press sample borings are made by means of a rotary-type drill rig, employing a 2" O.D., 1-3/8" I.D. drive sampler, and 3" O.D. thin-wall press sampler. The press sampler is advanced by continuous uniform pressure, applied by the drill rig.

The boring log sheets show a graphic plot of the information obtained, including depth and elevation of the sample, number of blows for the standard penetration tests in two 6-inch increments, depth of press samples, field sample number, sample description - based on laboratory tests and the Casagrande AC classification system-and gradation, plasticity, and moisture content determinations. Results of strength and consolidation testing, if performed, appear on separate enclosures.

At depths where materials are bouldery or gravelly to the extent that the sampler can not be driven, a wash sample is procured for visual classification, in order to determine the general character of the material. These samples are not considered sufficiently representative to warrant laboratory testing.

LOG OF BORING

Date Started 9-11-68 — Sampler Type SS — Dia 1 3/8" — Water Elev —
Date Completed 9-13-68 — Casing Length 50' — Dia 3 1/2"
Boring No B-1 — Station & Offset 21-20, 90' Rt. (Culvert) — Surface Elev 649.6'

Elev.	Depth	Std. Pen (N)	Rec ft.	Loss ft.	Description	Sample No	Physical Characteristics: % Agg	% C.S.	% F.S.	% Silt	% Clay	L.L.	P.I.	W.C.	SHTL Class.
649.6	0														
	2														
644.6	4														
	6	7/10			Brown Silt and Clay	1	5	0	5	44	46	36	14	22	A-6a
	8														
639.6	10														
	12	7/11			Brown Sandy Silt	2	0	2	23	44	31	22	7	16	A-4a
634.6	14														
	16	5/5			Brown Silty Sandy Gravel	3	44	8	17	16	15	24	7	21	A-2-4
629.6	18														
	20	14/9			Brown Silty Sandy Gravel	4	48	13	19	10	10	NP	NP	14	A-1-b
624.6	22														
	24														
	26	14/11			Brown Silty Gravelly Sand	5	41	26	21	4	8	NP	NP	16	A-1-b
619.6	28														
	30	11/28			Brown Silty Sandy Gravel	6	56	14	15	-15	-	NP	NP	9	A-1-a
614.6	32														
	34														
	36	14/36			Brownish-Gray Sandy Gravel	7	55	29	11	- 5	-	NP	NP	12	A-1-a
609.6	38														
	40	14/17			Brown Gravelly Sand	8	39	21	31	- 9	-	NP	NP	13	A-1-b
604.6	42														
	44														
	46	14/17			Brownish-Gray Sand(Wash Sample)	9	0	67	31	- 2	-	NP	NP	23	A-1-b
	48														
599.6	50				BOTTOM OF BORING										
598.8		50" (0.8')			Brownish-Gray Gravelly Sand(Wash Sample)(Heaved 5.0' in Casing) *Refusal	10	22	41	35	- 2	-	NP	NP	18	A-1-b

LOG OF BORING

Date Started 9-10-68 — Sampler Type SS — Dia 1 3/8" — Water Elev —
Date Completed 9-11-68 — Casing Length 55' — Dia 3 1/2"
Boring No B-2 — Station & Offset 21+48, 75' Rt. (Culvert) — Surface Elev 649.8'

Elev	Depth	Std. Pen (N)	Rec ft.	Loss ft.	Description	Sample No	Physical Characteristics: % Agg	% C.S.	% F.S.	% Silt	% Clay	L.L.	P.I.	W.C	SHTL Class.
649.8	0														
	2														
644.8	4														
	6	7/7			Brown Sandy Silt	1	1	2	37	30	30	NP	NP	19	A-4a
	8														
639.8	10														
	12	4/4			Brown Sandy Silt	2	0	1	41	30	28	NP	NP	21	A-4a
634.8	14														
	16	13/11			Brown Silty Sandy Gravel	3	62	2	16	9	11	NP	NP	11	A-1-b
629.8	18														
	20	11/12			Brownish-Gray Gravel and Sand	4	-	-	-	-	-	-	-	11	Visual
624.8	22														
	24														
	26	11/9			Brown Gravelly Sand	5	46	28	19	- 7	-	NP	NP	10	A-1-b
619.8	28														
	30				Brown Silty Gravelly Sand with Coal Blossom(Heaved 1.5' in Casing)	6	29	29	32	3	7	NP	NP	27	A-1-b
	32														
614.8	34														
	36	9/25			Brownish-Gray Gravelly Sand	7	43	30	21	- 6	-	NP	NP	13	A-1-b
609.8	38														
	40	12/19			Brown Silty Sandy Gravel	8	48	20	21	-11	-	NP	NP	10	A-1-b
604.8	42														
	44														
	46	50" (0.8')			Brown Gravelly Sand	9	32	14	44	-10	-	NP	NP	17	A-3
	48														
599.8	50														
	52	14/36			Brown Silty Sand	10	9	44	37	-10	-	NP	NP	17	A-1-b
	54														
594.8					BOTTOM OF BORING										
593.8	56	50" (0.9')			Gray Silty Gravelly Sand (Heaved 4.0' in Casing) *Refusal	11	25	39	22	-14	-	NP	NP	11	A-1-b

Particle Size Definitions

Boulders	Cobbles	Gravel	Coarse Sand	Fine Sand	Silt	Clay
8"	3"	2.0mm (No. 10 sieve)	0.42mm (No. 40 sieve)	0.074mm (No. 200 sieve)	0.005mm	

NOTE: Information shown by this subsurface investigation was obtained solely for the use in establishing design controls for the project. The State of Ohio does not guarantee the accuracy of this data and it is not to be construed as a part of the plans governing construction of the project.

OHIO DEPARTMENT OF HIGHWAYS
TESTING LABORATORY
1620 WEST BROAD STREET, COLUMBUS 23, OHIO

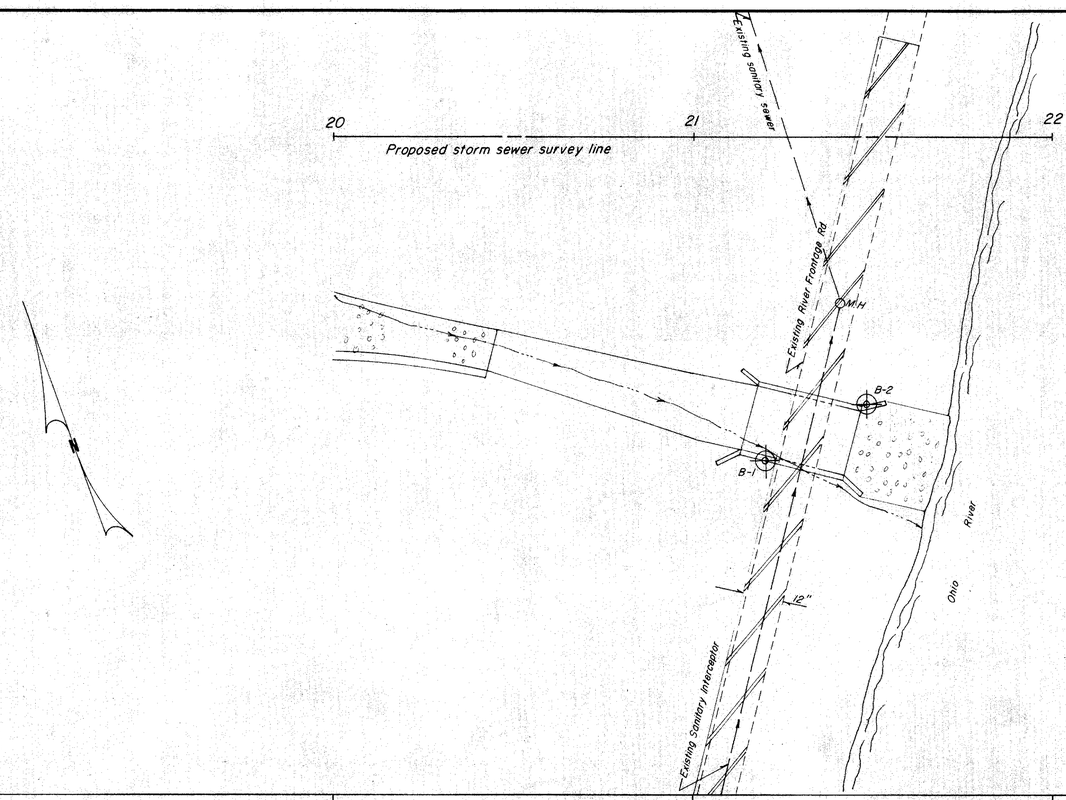
STRUCTURE FOUNDATION INVESTIGATION
BRIDGE NO. JEF-7
BOX CULVERT OVER
STORM SEWER OUTFALL DITCH
SEC. JEF-7-0.20

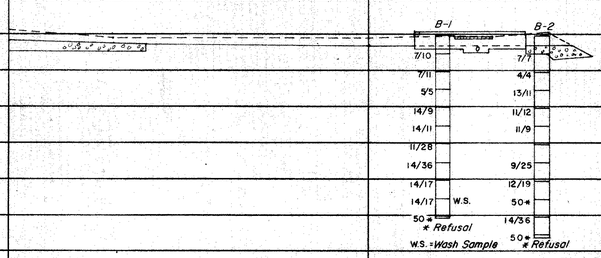
CHECKED BY	REVIEWED BY	DATE
L.N.L.	R.D.R.	9/27/68

TE - 119
1000 - 4 - 66

MICROFILMED
OCT 29 1982

JEF-7-0.20





660
650
640
630
620
610
600
590

20 21 22

SCALE: 1" = 20'

OHIO DEPARTMENT OF HIGHWAYS TESTING LABORATORY 1620 WEST BROAD STREET, COLUMBUS 23, OHIO			
STRUCTURE FOUNDATION INVESTIGATION BRIDGE NO. JEF-7 BOX CULVERT OVER STORM SEWER OUTFALL DITCH SEC. JEF-7-0.20			
PLAN AND PROFILE			
DRAWN BY	CHECKED BY	REVIEWED BY	DATE
K.J.S.	L.N.L.	R.D.R.	9/27/68

FHWA REGION	STATE	PROJECT	TYPE FUNDS
5	OHIO	STATE	

28A-53

JEFFERSON COUNTY
JEF-7-0.20

LOG OF BORING

Date Started 6-19-68 Sampler: Type SS Dia 1 3/8" Water Elev. ____
Date Completed 6-20-68 Casing: Length ____ Dia. ____

Project Identification: JEFFERSON
JEF-7-0.20

Boring No. 1 Station & Offset 14+43, 280'Lt.-Ramp B Surface Elev. 884.7'

Elev.	Depth	Std. Pen. (N)	Rec. ft.	Loss ft.	Description	Field No.	Lab Nos. So	% Agg	% C.S	% F.S	% Silt	% Clay	L.L.	P.I.	W.C.	SHTL Class
884.7	0															
882.2	2															
	4	5/6			Brownish-Gray Elastic Clay	1	72821	0	1	5	20	74	64	32	29	A-7-5
879.7	6				Limestone Boulders	2			V	I	S	U	A	L		
877.2	8	5/5			Brown Silty Clay	3	72822	0	3	6	30	61	43	14	32	A-7-6
874.7	10															
	12	10/13			Brownish-Gray Silty Clay	4	72823	0	1	2	45	52	37	8	17	A-4a
871.7					TOP OF ROCK											
870.7	14		2.2	0.8	Limestone, gray, hard, dense. No core loss.											
	16															
	18		2.0	3.0	Clay shale, dark-brown, crumbly, fissile in part, slickensides, poor recovery. Core loss 60%											
863.7	20															
	22															
861.2	24		2.9	2.1	Coal, blocky, marcasite and vitrain throughout, poor recovery. Core loss 84%											
859.7	26				Siltstone, dark-gray, very fissile at elevations 860.2' to 859.7', hard. No core loss.											
	28		3.5	1.5	Limestone, gray, hard, dense, clay seam at elevations 858.2'. Core loss 33%											
855.7	30															
854.7	32				Claystone, soft, dark-gray, crumbly. Core loss 20%											
	34		4.5	0.5	Siltstone, pyritiferous, thin-bedded in part, hard, dense, good recovery. Core loss 10%											
	36		4.5	0.5												

Boring No. 1 Station & Offset 14+43, 280'Lt.-Ramp B Surface Elev. 884.7' Project: JEF-7-0.20

Elev.	Depth	Rec. ft.	Loss ft.	Description
	38			
844.7	40	4.5	0.5	Siltstone, pyritiferous, thin-bedded in part, hard, dense. No core loss.
	42			BOTTOM OF BORING
	44			
	46			
	48			
	50			
	52			
	54			
	56			
	58			
	60			
	62			
	64			
	66			
	68			

State of Ohio
Department of Highways
Testing Laboratory

LOG OF BORING

Date Started 6-20-68 Sampler: Type SS Dia 1 3/8" Water Elev. ____
Date Completed 6-21-68 Casing: Length 20.0' Dia. 3 1/2"

Project Identification: JEFFERSON
JEF-7-0.20

Boring No. 2 Station & Offset 14+50, 240'Lt.-Ramp B Surface Elev. 881.5'

Elev.	Depth	Std. Pen. (N)	Rec. ft.	Loss ft.	Description	Field No.	Lab Nos. So	% Agg	% C.S	% F.S	% Silt	% Clay	L.L.	P.I.	W.C.	SHTL Class
881.5	0															
	2															
879.5	4	3/5			Brownish-Gray Sandy Silty Clay	1	72824	0	5	10	25	60	44	17	32	A-7-6
876.5	6	6/10			Brownish-Gray Silty Clay	2	72825	4	4	6	27	59	41	14	19	A-7-6
	8															
871.5	10															
870.0	12	5/5			Brownish-Gray Sandy Silt and Clay With Some Stone Fragments	3	72826	22	9	9	18	42	35	12	21	A-6a
	14				VOID											
866.5	16	4/5			Brown Silty Sand	4	72827	6	21	19	24	30	NP	NP	43	A-4a
864.0	18	5/5			Brown Silty Sand	5	72828	-	-	-	-	-	-	-	38	Visual
861.5	20	25/29			Gray Sandy Silt and Clay, Trace of Stone Fragments	6	72829	4	8	10	26	52	30	10	14	A-4a
	22															
857.5	24		1.0	3.0	TOP OF ROCK											
856.5	26				Limestone, gray, hard, dense. No core loss.											
	28		4.9	0.1	Siltstone, dark-gray, clayey zone at elevations 855.5' to 855.1', hard. No core loss.											
852.9	30															
851.5					Clay shale, soft, crumbly, dark-gray, calcareous. Core loss 7%											
	32				BOTTOM OF BORING											
	34															
	36															

Particle Sizes: Agg: >2.00mm, Coarse Sand = 2.00 - 0.42mm, Fine Sand = 0.42 - 0.074 mm, Silt = 0.074 - 0.005 mm, Clay = <0.005 mm

TE - 118
600 - 4 - 66

MICROFILMED
OCT 29 1968

GEOLOGY OF THE SITE
THE STRUCTURE SITE IS LOCATED AT THE BASE OF THE WEST VALLEY WALL OF THE OHIO RIVER, IN AN AREA WHERE SHALLOW RESIDUAL SOILS AND MODERATELY DEEP ALLUVIUM OVERLIES SHALE, SANDSTONE, AND MUDSTONE, OF PENNSYLVANIAN AGE.

EXPLORATION
THE EXPLORATION CONSISTED OF TWO DRIVE SAMPLE-CORE BORINGS AND SIX DRIVE ROD PENETRATION TESTS, MADE BETWEEN OCTOBER 10 AND 12, 1967.

INVESTIGATIONAL FINDINGS
BORING B-2, REPRESENTING THE ENTIRE RIGHT SIDE OF THE STRUCTURE, DISCLOSED MEDIUM DENSE TO DENSE SANDS, SILTS, AND GRAVELS AND SOME CLAY TO BEDROCK SURFACE, ENCOUNTERED AT 45-FOOT DEPTH, ELEVATION 663 FEET. THE BORING WAS TERMINATED AT 60-FOOT DEPTH, ELEVATION 648 FEET, AFTER PENETRATING 15 FEET OF BEDROCK. BORING B-7, REPRESENTING THE ENTIRE LEFT SIDE OF THE STRUCTURE, DISCLOSED MEDIUM DENSE TO VERY DENSE SANDY SILTS TO BEDROCK SURFACE, ENCOUNTERED AT 15-FOOT DEPTH, ELEVATION 714 FEET. THE BORING WAS TERMINATED AT 50-FOOT DEPTH, ELEVATION 679 FEET, AFTER PENETRATING 35 FEET OF BEDROCK.

THE ROD SOUNDINGS AT LOCATIONS NUMBERS 1 AND 5 ENCOUNTERED RAPID INCREASE IN RESISTANCE TO PENETRATION WITH INCREASING DEPTH, AND WERE TERMINATED AT 8-FOOT DEPTHS, ELEVATIONS 731 AND 726 FEET, CONSIDERED TO BE ON BEDROCK SURFACE. ROD SOUNDINGS AT LOCATIONS NUMBERS 2, 4, 6, AND 8 ENCOUNTERED GENERALLY MEDIUM HIGH RESISTANCE WITH INCREASING DEPTH AND WERE TERMINATED DUE TO REFUSAL TO PENETRATION AT 28 TO 48-FOOT DEPTHS, ELEVATIONS 669 TO 661 FEET, CONSIDERED TO BE ON OR BELOW BEDROCK SURFACE.

NO FREE WATER WAS OBSERVED IN ANY OF THE ROD SOUNDING HOLES.

ON THE BASIS OF TESTS, BEDROCK SURFACE IS CONSIDERED TO SLOPE STEEPLY FROM THE LEFT SIDE TO THE RIGHT SIDE OF THE SITE BETWEEN ELEVATIONS 731 AND 655 FEET.

FOLLOWING IS A TABLE SHOWING THE SUBSTRUCTURE UNITS AND THE PROPOSED FOOTING ELEVATIONS AS SHOWN ON THE SITE PLAN, AND THE APPROXIMATE ELEVATION OF BEDROCK SURFACE, AS DETERMINED BY TESTS:

SUBSTRUCTURE UNIT	PROPOSED FOOTING ELEV.	APPROXIMATE ELEVATION OF BEDROCK LEFT SIDE	RIGHT SIDE
REAR ABUTMENT	696.7'	726'	655'
REAR PIER	684.3'	726'	655'
FORWARD PIER	684.8'	731'	670'
FORWARD ABUTMENT	697.0'	730'	665'

IF IT IS INTENDED TO FOUND A PORTION OF THE STRUCTURE ON BEDROCK, IT IS CONSIDERED ADVISABLE TO INSPECT THE OPEN EXCAVATION IN THE FIELD IN ORDER TO INSURE THAT THE OPEN EXCAVATION IS EXTENDED TO ROCK THROUGHOUT THAT PORTION INTENDED TO BE ON ROCK.

LOG OF BORING

Date Started 10-12-67 — Sampler Type SS — Dia. 1 3/8" — Water Elev. ———
Date Completed 10-17-67 — Casing: Length 45' — Dia. 3 1/2"
Boring No. B-2 — Station & Offset 34+90, 22' Rt. (Rear Abutment) — Surface Elev. 708.2'

Elev.	Depth	Std. Pen. (N)	Rec. ft.	Loss ft.	Description	Sample No.	% Agg.	% C.S.	% F.S.	% Silt	% Clay	L.L.	P.I.	W.C.	SHTL Class.
708.2	0														
	2														
	4														
703.2	6	10/13			Brown Sandy Clay	1	10	5	11	27	47	30	11	18	A-6a
	8														
698.2	10	8/12			Brown and Gray Silty Sand	2	8	21	45	6	20	30	10	17	A-2-4
	12														
	14														
693.2	16	14/16			Brown Sandy Silt	3	4	7	16	37	36	NP	NP	12	A-4a
	18														
688.2	20	6/8			Brown and Gray Silty Gravelly Sand	4	26	11	38	12	13	NP	NP	17	A-2-4
	22														
683.2	24														
	26	6/18			Brown and Gray Silty Gravelly Sand	5	-	-	-	-	-	-	-	12	
680.7	28	18/12			Brown Silty Sand	6	8	17	45	18	12	NP	NP	14	A-3a
678.2	30	8/10			Brown Silty Sand	7	11	14	39	17	19	NP	NP	16	A-4a
675.7	32	19/27			Brown Silty Gravelly Sand	8	18	8	42	18	14	NP	NP	14	A-3a
673.2	34	11/21			Brown Sandy Silt	9	14	11	26	27	22	24	5	15	A-4a
670.7	36														
668.2	38	14/18			Gray and Brown Silty Sand	10	13	20	31	22	14	NP	NP	19	A-4a
	40	11/14			Brown and Gray Silty Gravelly Sand	11	25	10	32	15	18	25	6	21	A-2-4
663.2	42														
	44														
	46	30* (0.2)			TOP OF ROCK										
	48		4.2	0.6											
	50				Mudstone, mottled reddish-brown and gray, soft and crumbly, slicken-sided with clay seams, broken and very badly broken. Core Loss 7%.											
	52														
	54		4.7	0.3											
	56														
	58		5.0	0.0											
648.2	60				BOTTOM OF BORING										

*Refusal

LEGEND

- Auger Boring Location - Plan View.
- Press and / or Drive Sample and / or Core Boring Location - Plan View.
- Drive Rod Penetration Resistance Sounding Location - Plan View.
- Capped Pile
- Footing
- Footing on Pile
- TR — Top of Rock
- Horizontal Bar on Boring Log Indicates the Depth the Sample Was Taken.
- X/Y — Figures Beside the Boring Log in Profile Indicate the Number of Blows for Standard Penetration Test. X = Number of Blows for First 6 inches. Y = Number of Blows for Second 6 inches.
- Drive Rod Penetration Resistance Sounding Log - Profile
- Casing
- Resistance "R" < 10,000 lbs.
- Resistance "R" > 10,000 lbs.
- Z — Indicates Final Measurement of Penetration, in Inches.
- W — Indicates Free Water Elevation.
- Indicates Static Water Elevation.

SYMBOLS OF ROCK TYPES

- Coal
- Weathered Indurated Clay
- Indurated Clay
- Weathered Shale
- Shale
- Weathered Sandstone
- Sandstone
- Leached Dolomite
- Dolomite

LOG OF BORING

Date Started 10-25-67 — Sampler Type SS — Dia. 1 3/8" — Water Elev. ———
Date Completed 10-26-67 — Casing: Length 15' — Dia. 3 1/2"
Boring No. B-7 — Station & Offset 36+09, 20' Lt. (Forward Pier) — Surface Elev. 729.0'

Elev.	Depth	Std. Pen. (N)	Rec. ft.	Loss ft.	Description	Sample No.	% Agg.	% C.S.	% F.S.	% Silt	% Clay	L.L.	P.I.	W.C.	SHTL Class.
729.0	0														
	2														
	4														
724.0	6	28/28			Brown Sandy Silt	1	3	7	36	24	30	NP	NP	12	A-4a
	8														
719.0	10	13/13			Brown Gravelly Sandy Silt	2	17	7	28	20	28	NP	NP	14	A-4a
	12														
714.0	14														
	16	50* (0.7)			TOP OF ROCK										
	18		4.0	0.3											
	20														
	22		5.0	0.0											
	24														
	26				Sandstone, gray and brownish-gray, firm, medium-grained, cross-bedded, with carbonaceous laminae and clay seams, coarse-grained and friable in part, severely jointed, and broken. Core Loss 1%.											
	28		4.5	0.5											
	30														
	32														
	34		3.3	1.7											
	36														
	38		5.0	0.0											
	40														
	42														
	44		5.0	0.0											
683.0	46														
	48		5.0	0.0	Shale, gray, firm, carbonaceous in part, fissile, with clay seams. No Core Loss.										
679.0	50				BOTTOM OF BORING										

*Refusal

GENERAL INFORMATION

Drive Rod Penetration Sounding Tests

Drive rod penetration resistance tests constitute driving a 1.315-inch diameter steel rod, with a 45° cone point, into the ground, using a 122-pound drop-hammer with a free fall of five feet. At one or two-foot depth intervals, a measurement is taken to determine the amount of penetration achieved in three hammer drops. This reading is converted to an empirical value for capacity "R", in thousands of pounds (which is a measure of both the point resistance and frictional resistance on the rod), by using charts prepared by the Ohio Department of Highways, Bureau of Bridges, on the basis of correlation study of rod penetration with past performance of pile driving. For interpretation, a graph is prepared by plotting the value "R" against the depth at which the reading was taken, and connecting the plotted points. The curve so obtained reflects the density of subsurface materials in a manner that can be readily compared with data from similar tests at other locations on the structure site. From this comparison, the overall uniformity of subsurface condition may be evaluated.

Drive Sample Borings - Drive-Press Sample Borings

Drive sample borings are made by means of a rotary-type drill rig, employing a 2" O.D., 1-3/8" I.D. sampler, at 2-1/2 and / or 5-foot depth intervals, driven by means of a 140 -# pound drop-hammer with a free fall of 30 inches. The number of blows required to drive the sampler 12 inches is considered the standard penetration test.

Drive-press sample borings are made by means of a rotary-type drill rig, employing a 2" O.D., 1-3/8" I.D. drive sampler, and 3" O.D. thin-wall press sampler. The press sampler is advanced by continuous uniform pressure, applied by the drill rig.

The boring log sheets show a graphic plot of the information obtained, including depth and elevation of the sample, number of blows for the standard penetration tests in two 6-inch increments, depth of press samples, field sample number, sample description - based on laboratory tests and the Casagrande AC classification system-and gradation, plasticity, and moisture content determinations. Results of strength and consolidation testing, if performed, appear on separate enclosures.

At depths where materials are bouldery or gravelly to the extent that the sampler can not be driven, a wash sample is procured for visual classification, in order to determine the general character of the material. These samples are not considered sufficiently representative to warrant laboratory testing.

Particle Size Definitions

Boulders	Cobbles	Gravel	Coarse Sand	Fine Sand	Silt	Clay
	8"	3"	2.0mm (No. 10 sieve)	0.42mm (No. 40 sieve)	0.074mm (No. 200 sieve)	0.005mm

NOTE: Information shown by this subsurface investigation was obtained solely for the use in establishing design controls for the project. The State of Ohio does not guarantee the accuracy of this data and it is not to be construed as a part of the plans governing construction of the project.

OHIO DEPARTMENT OF HIGHWAYS
TESTING LABORATORY
1620 WEST BROAD STREET, COLUMBUS 23, OHIO

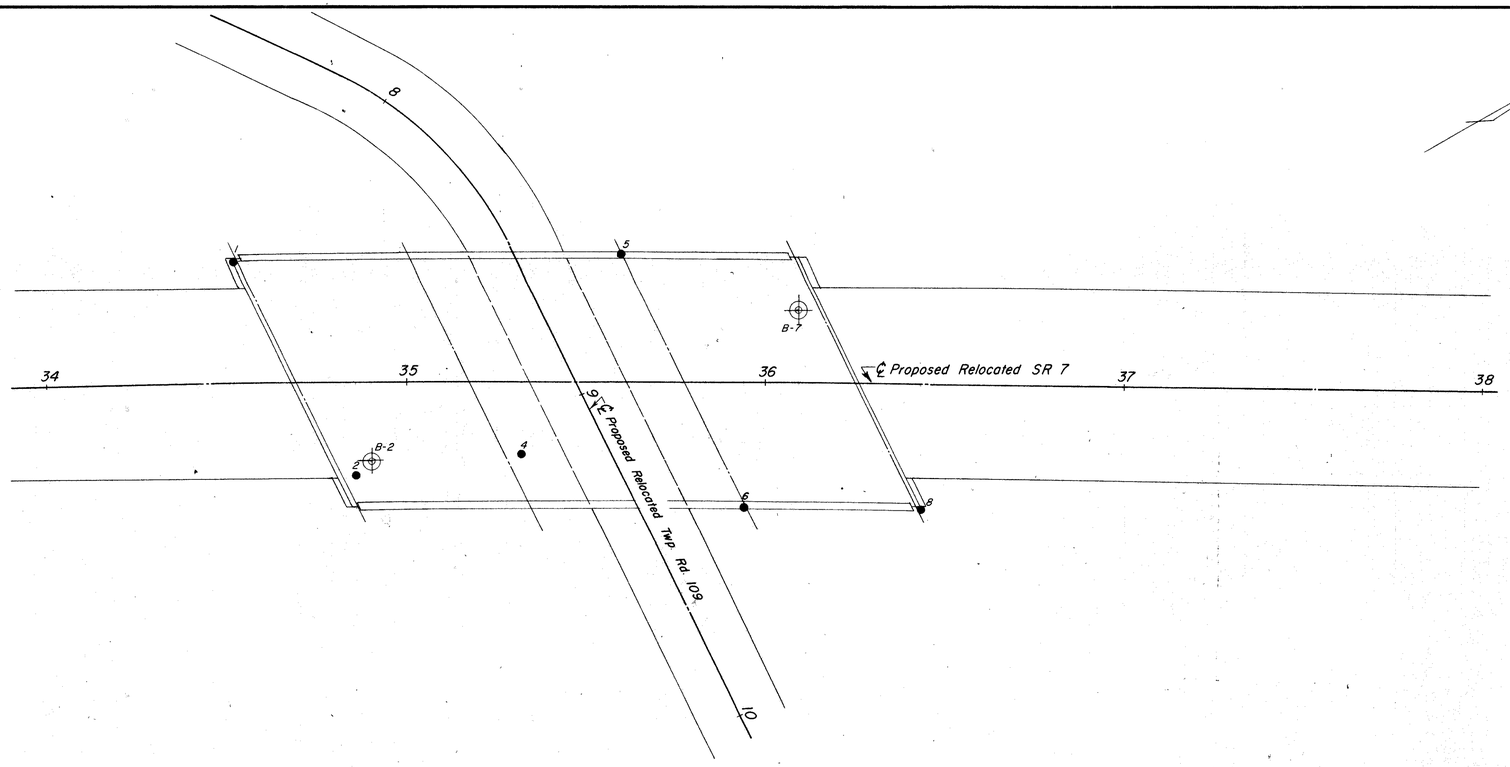
STRUCTURE FOUNDATION INVESTIGATION
BRIDGE NO. JEF-7-0066
OVER RELOCATED TWP. RD. 109
SEC. JEF-7-0.20

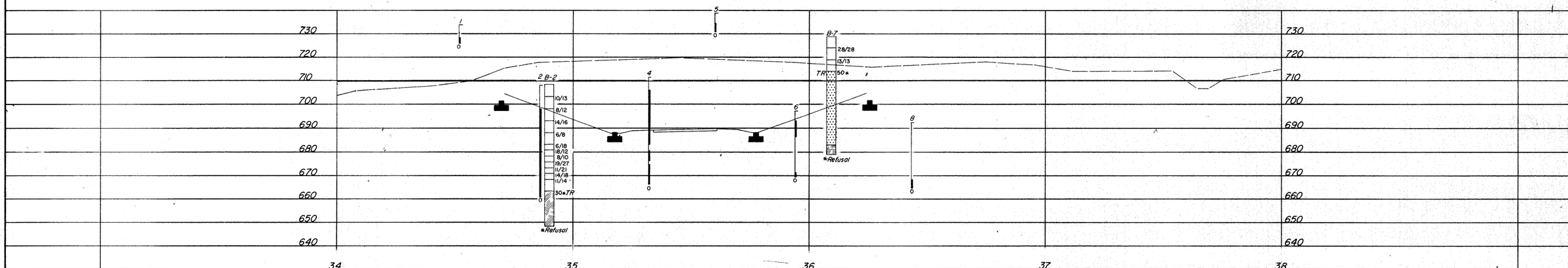
CHECKED BY	REVIEWED BY	DATE
L.N.L.	R.D.R.	11/20/67

TE - 119
1000 - 4 - 66

MICROFILMED
OCT 29 1982

JEF-7-0.20





SCALE: 1" = 20'

OHIO DEPARTMENT OF HIGHWAYS
TESTING LABORATORY
1620 WEST BROAD STREET, COLUMBUS 23, OHIO

STRUCTURE FOUNDATION INVESTIGATION
BRIDGE NO. JEF-7-0066
OVER RELOCATED TWP. RD. 109
SEC. JEF-7-0.20

PLAN AND PROFILE

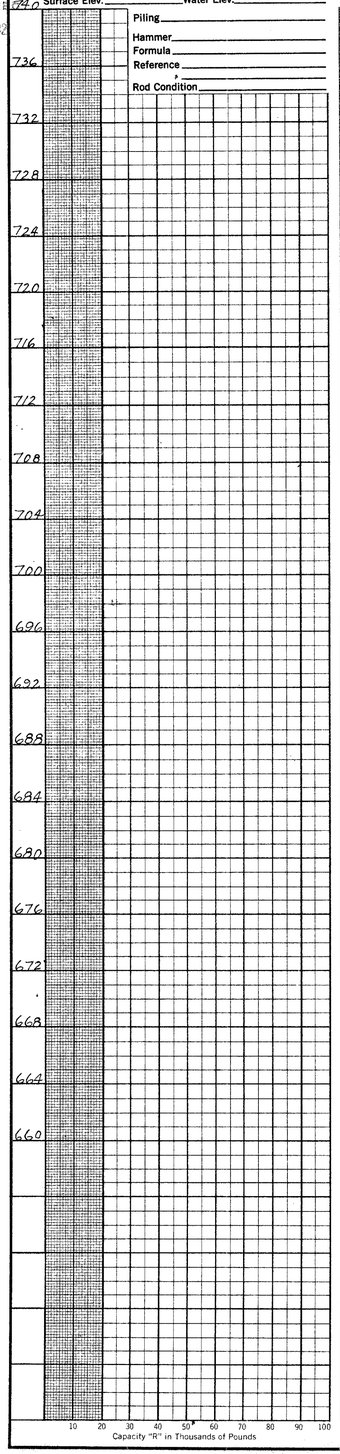
DRAWN BY	CHECKED BY	REVIEWED BY	DATE
J.E.C.	L.N.L.	R.D.R.	11/20/67

TE-114
1000-1-64

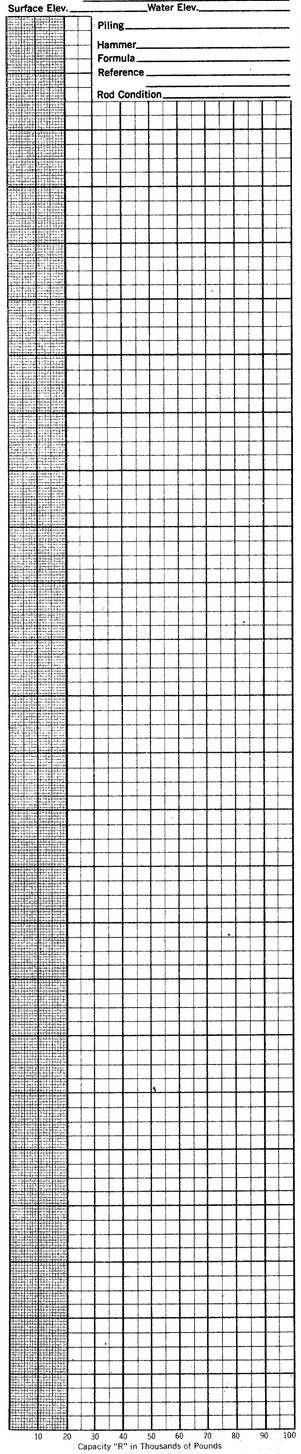
MICROFILMED
OCT 29 1982

JEF-7-0.20

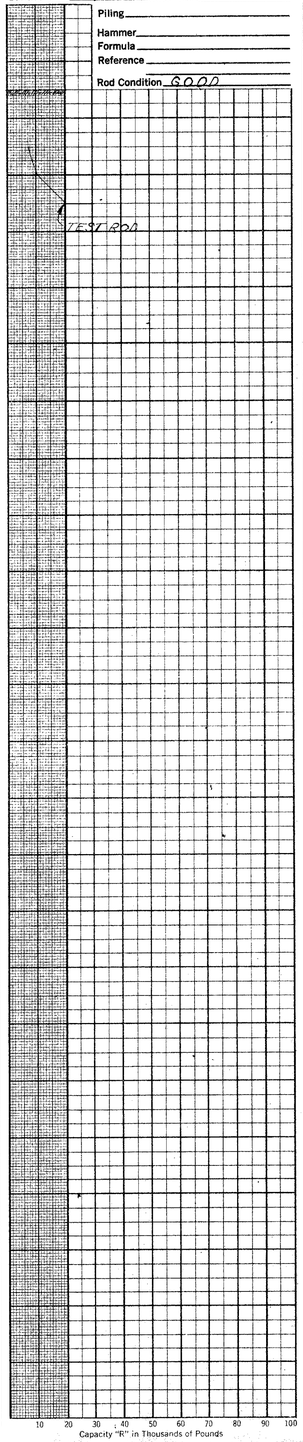
Test Location No. ____
Station & Offset ____
Surface Elev. ____ Water Elev. ____
Piling ____
Hammer ____
Formula ____
Reference ____
Rod Condition ____



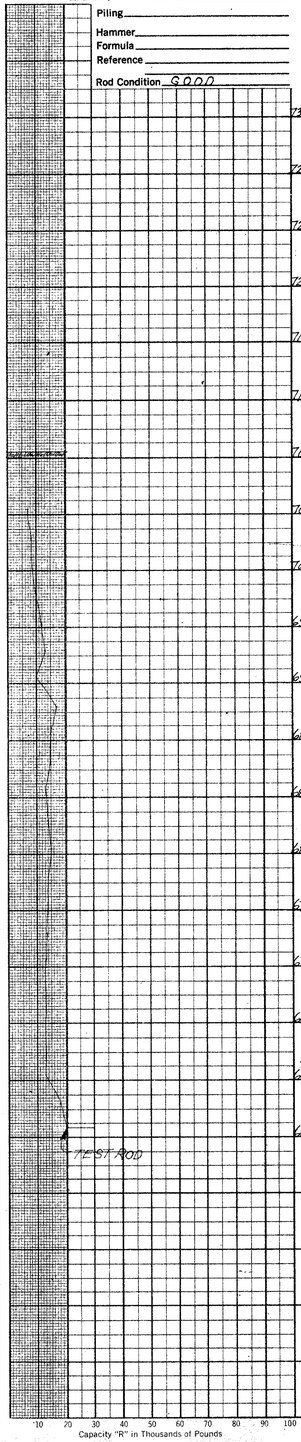
Test Location No. ____
Station & Offset ____
Surface Elev. ____ Water Elev. ____
Piling ____
Hammer ____
Formula ____
Reference ____
Rod Condition ____



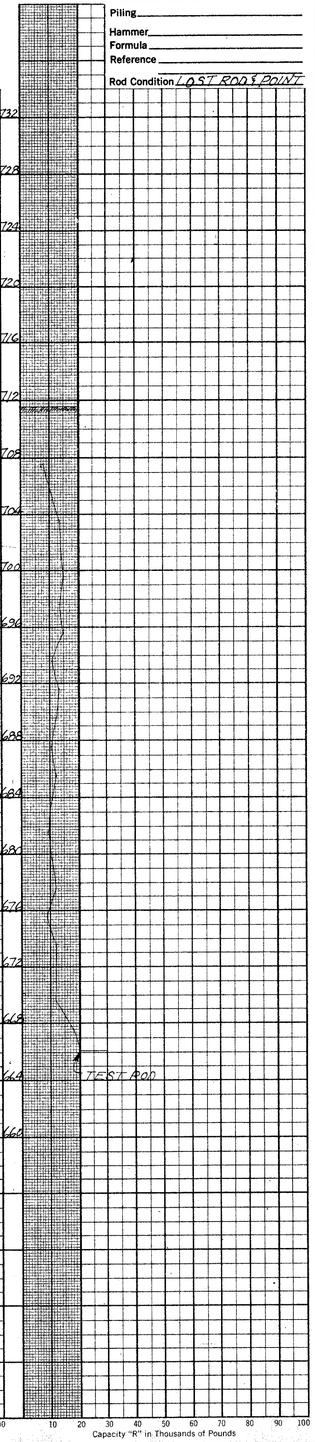
Test Location No. 1
Station & Offset 34+52, 33' LT
REAR ABUTMENT
Surface Elev. 734.0' Water Elev. ____
Piling ____
Hammer ____
Formula ____
Reference ____
Rod Condition GOOD



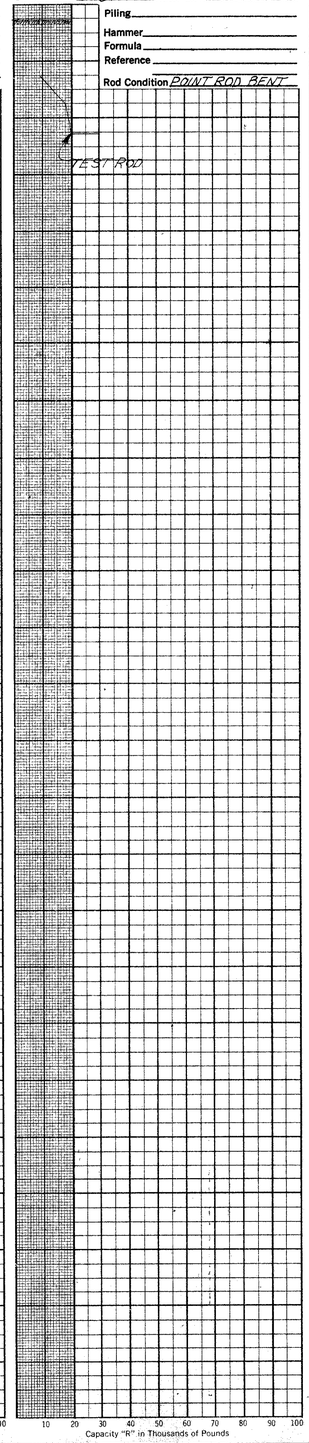
Test Location No. 2
Station & Offset 34+86, 26' RT
REAR ABUTMENT
Surface Elev. 708.7 Water Elev. ____
Piling ____
Hammer ____
Formula ____
Reference ____
Rod Condition GOOD



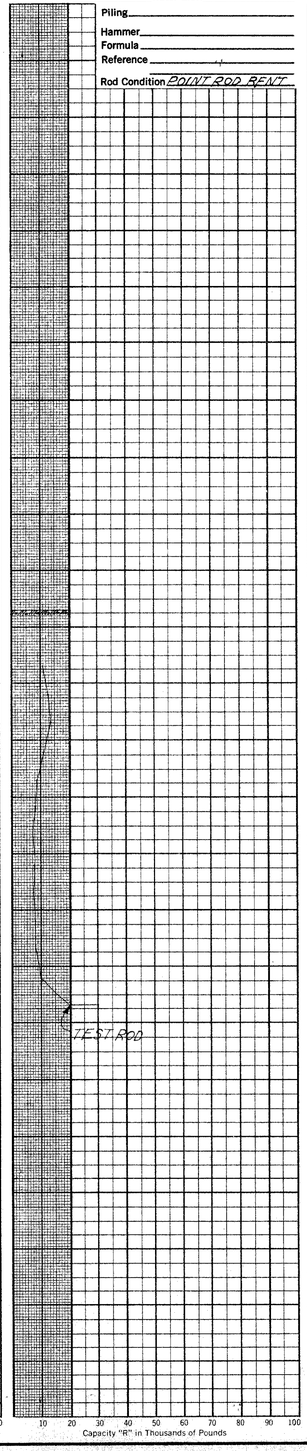
Test Location No. 4
Station & Offset 35+32, 20' RT.
REAR PIER
Surface Elev. 716 Water Elev. ____
Piling ____
Hammer ____
Formula ____
Reference ____
Rod Condition LOST ROD & POINT



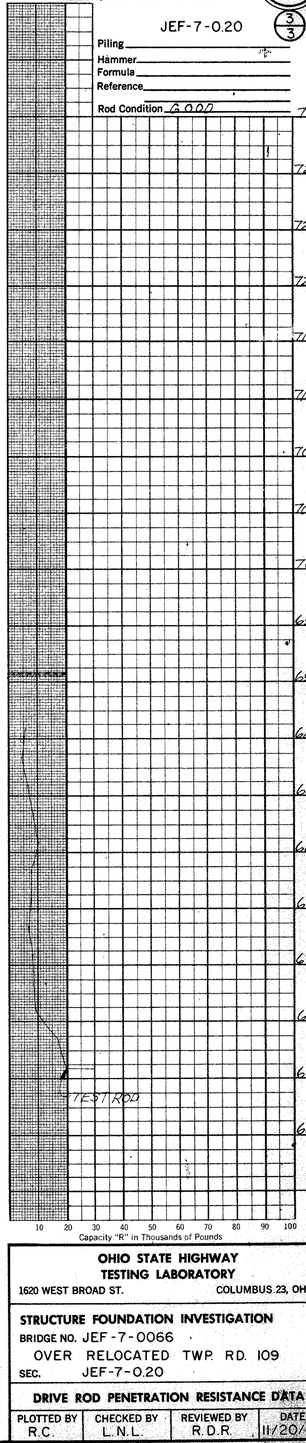
Test Location No. 5
Station & Offset 35+60, 35' LT
FORWARD PIER
Surface Elev. 738.9' Water Elev. ____
Piling ____
Hammer ____
Formula ____
Reference ____
Rod Condition POINT ROD BENT



Test Location No. 6
Station & Offset 35+94, 35' RT
FORWARD PIER
Surface Elev. 697.2 Water Elev. ____
Piling ____
Hammer ____
Formula ____
Reference ____
Rod Condition POINT ROD BENT



Test Location No. 8
Station & Offset 36+43, 35' RT
FORWARD ABUTMENT
Surface Elev. 692.7' Water Elev. ____
Piling ____
Hammer ____
Formula ____
Reference ____
Rod Condition GOOD



OHIO STATE HIGHWAY
TESTING LABORATORY
1620 WEST BROAD ST. COLUMBUS 23, OHIO

STRUCTURE FOUNDATION INVESTIGATION
BRIDGE NO. JEF-7-0066
OVER RELOCATED TWP. RD. 109
SEC. JEF-7-0.20

DRIVE ROD PENETRATION RESISTANCE DATA

PLOTTED BY	CHECKED BY	REVIEWED BY	DATE
R.C.	L.N.L.	R.D.R.	11/20/67

TE - 118
600 - 4 - 66

MICROFILMED
OCT 29 1992

JEFFERSON COUNTY
JEF-7-0.20

GEOLOGY OF THE SITE
THE STRUCTURE SITE IS LOCATED ON THE TERRACED WEST VALLEY WALL OF THE OHIO RIVER, IN AN AREA WHERE MODERATELY DEEP ALLUVIUM AND RESIDUAL SOILS OVERLIE SANDSTONE AND MUDSTONE, OF PENNSYLVANIAN AGE.

EXPLORATION
THE EXPLORATION CONSISTED OF TWO DRIVE SAMPLE-CORE BORINGS, MADE BETWEEN SEPTEMBER 27 AND OCTOBER 6, 1967, AND SIX DRIVE ROD PENETRATION TESTS, MADE BETWEEN OCTOBER 24 AND 26, 1967.

INVESTIGATIONAL FINDINGS
BORING B-1, IN THE REAR PORTION OF THE SITE, ENCOUNTERED VERY STIFF CLAYS AND MEDIUM DENSE GRAVELLY SILTS TO BEDROCK SURFACE, ENCOUNTERED AT 40-FOOT DEPTH, ELEVATION 672 FEET. THE BORING WAS TERMINATED AT 50-FOOT DEPTH, ELEVATION 662 FEET, AFTER PENETRATING 10 FEET OF BEDROCK. BORING B-8, IN THE FORWARD PORTION OF THE SITE, ENCOUNTERED STIFF TO VERY STIFF GRAVELLY CLAY TO 21-FOOT DEPTH, ELEVATION 688 FEET; BELOW THIS, LOOSE TO MEDIUM DENSE AND VERY MOIST SILTS TO BEDROCK SURFACE, ENCOUNTERED AT 42-FOOT DEPTH, ELEVATION 667 FEET. THE BORING WAS TERMINATED AT 65-FOOT DEPTH, ELEVATION 644 FEET, AFTER PENETRATING 23 FEET OF ROCK.

THE ROD SOUNDINGS ENCOUNTERED GENERALLY MEDIUM HIGH RESISTANCE WITH INCREASING DEPTH AND WERE TERMINATED DUE TO REFUSAL OR NEAR REFUSAL TO PENETRATION AT 17 TO 57-FOOT DEPTHS, ELEVATIONS 696 TO 648 FEET. ROD SOUNDINGS NUMBERS 4 AND 8 ARE CONSIDERED TO HAVE TERMINATED ON OR BELOW BEDROCK SURFACE. THE REMAINING SOUNDINGS ARE CONSIDERED TO HAVE TERMINATED IN DENSE MATERIAL, AS REVEALED BY BORING B-1.

NO FREE WATER WAS OBSERVED IN ANY OF THE ROD SOUNDING HOLES.

LEGEND

- Auger Boring Location - Plan View.
- Press and / or Drive Sample and / or Core Boring Location - Plan View.
- Drive Rod Penetration Resistance Sounding Location - Plan View.
- Capped Pile
- Footing
- Footing on Pile
- TR — Top of Rock
- Horizontal Bar on Boring Log Indicates the Depth the Sample Was Taken.
- X/Y — Figures Beside the Boring Log in Profile Indicate the Number of Blows for Standard Penetration Test.
  X = Number of Blows for First 6 inches.
  Y = Number of Blows for Second 6 inches.
- Drive Rod Penetration Resistance Sounding Log - Profile
- Casing
- Resistance "R" < 10,000 lbs.
- Resistance "R" > 10,000 lbs.
- Z — Indicates Final Measurement of Penetration, in Inches.
- W — Indicates Free Water Elevation.
- Indicates Static Water Elevation.

SYMBOLS OF ROCK TYPES

- Coal
- Weathered Indurated Clay
- Indurated Clay
- Weathered Shale
- Shale
- Weathered Sandstone
- Sandstone
- Leached Dolomite
- Dolomite
- Leached Limestone
- Limestone

GENERAL INFORMATION

Drive Rod Penetration Sounding Tests

Drive rod penetration resistance tests constitute driving a 1.315-inch diameter steel rod, with a 45° cone point, into the ground, using a 122-pound drop-hammer with a free fall of five feet. At one or two-foot depth intervals, a measurement is taken to determine the amount of penetration achieved in three hammer drops. This reading is converted to an empirical value for capacity "R", in thousands of pounds (which is a measure of both the point resistance and frictional resistance on the rod), by using charts prepared by the Ohio Department of Highways, Bureau of Bridges, on the basis of correlation study of rod penetration with past performance of pile driving. For interpretation, a graph is prepared by plotting the value "R" against the depth at which the reading was taken, and connecting the plotted points. The curve so obtained reflects the density of subsurface materials in a manner that can be readily compared with data from similar tests at other locations on the structure site. From this comparison, the overall uniformity of subsurface condition may be evaluated.

Drive Sample Borings - Drive-Press Sample Borings

Drive sample borings are made by means of a rotary-type drill rig, employing a 2" O.D., 1-3/8" I.D. sampler, at 2-1/2 and / or 5-foot depth intervals, driven by means of a 140 - pound drop-hammer with a free fall of 30 inches. The number of blows required to drive the sampler 12 inches is considered the standard penetration test.

Drive-press sample borings are made by means of a rotary-type drill rig, employing a 2" O.D., 1-3/8" I.D. drive sampler, and 3" O.D. thin-wall press sampler. The press sampler is advanced by continuous uniform pressure, applied by the drill rig.

The boring log sheets show a graphic plot of the information obtained, including depth and elevation of the sample, number of blows for the standard penetration tests in two 6-inch increments, depth of press samples, field sample number, sample description - based on laboratory tests and the Casagrande AC classification system - and gradation, plasticity, and moisture content determinations. Results of strength and consolidation testing, if performed, appear on separate enclosures.

At depths where materials are bouldery or gravelly to the extent that the sampler can not be driven, a wash sample is procured for visual classification, in order to determine the general character of the material. These samples are not considered sufficiently representative to warrant laboratory testing.

Particle Size Definitions

Boulders	Cobbles	Gravel	Coarse Sand	Fine Sand	Silt	Clay
8"	3"	2.0mm	0.42mm	0.074mm	0.005mm	
			No. 10 sieve	No. 40 sieve	No. 200 sieve	

NOTE: Information shown by this subsurface investigation was obtained solely for the use in establishing design controls for the project. The State of Ohio does not guarantee the accuracy of this data and it is not to be construed as a part of the plans governing construction of the project.

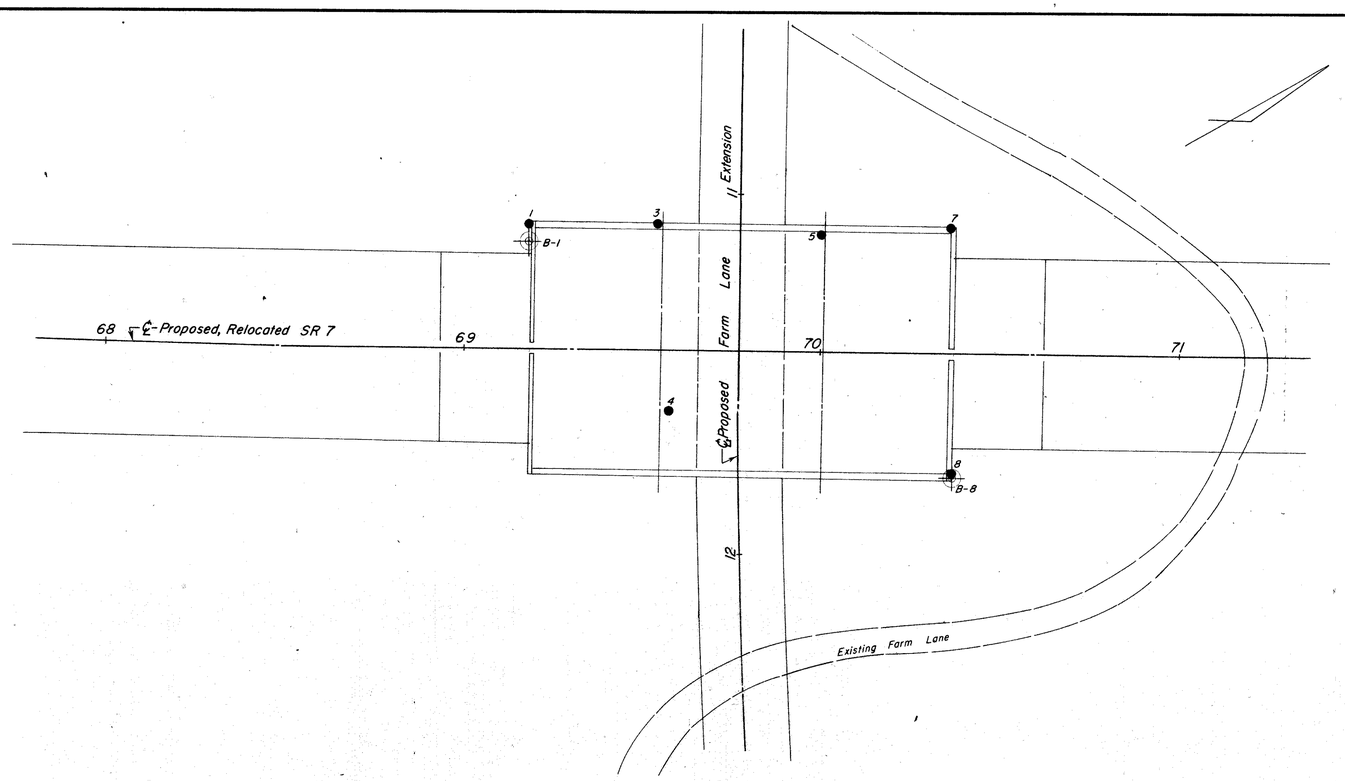
OHIO DEPARTMENT OF HIGHWAYS
TESTING LABORATORY
1620 WEST BROAD STREET, COLUMBUS 23, OHIO

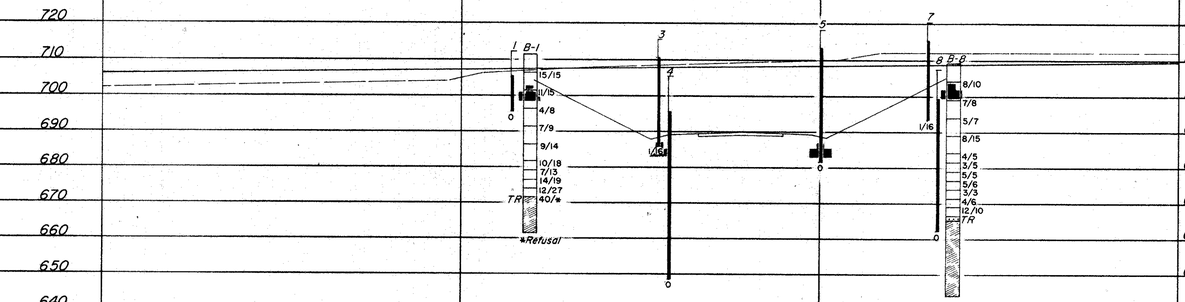
STRUCTURE FOUNDATION INVESTIGATION
BRIDGE NO. JEF-7-0131
OVER FARM LANE EXTENSION
SEC. JEF-7-0.20

CHECKED BY	REVIEWED BY	DATE
L.N.L.	R.D.R.	11/7/67

TE - 119
1000 - 4 - 66

MICROFILMED
OCT 23 1967





SCALE: 1" = 20'

OHIO DEPARTMENT OF HIGHWAYS
TESTING LABORATORY
1620 WEST BROAD STREET, COLUMBUS 23, OHIO

STRUCTURE FOUNDATION INVESTIGATION
BRIDGE NO. JEF-7-0131
OVER FARM LANE EXTENSION
SEC. JEF-7-0.20

PLAN AND PROFILE

DRAWN BY	CHECKED BY	REVIEWED BY	DATE
J.E.C.	L.N.L.	R.D.R.	11/7/67

TE - 122
600 - 11 - 64

MICROFILMED
OCT 29 1982

LOG OF BORING

Date Started 10-4-67 Sampler Type SS Dia. 1 3/8" Water Elev. —
Date Completed 10-6-67 Casing: Length 35' Dia. 3 1/2"
Boring No. B-1 Station & Offset 69+19, 30' Lt. (Rear Abutment) Surface Elev. 711.7'

Elev.	Depth	Std. Pen. (N)	Rec. ft.	Loss ft.	Description	Sample No.	Physical Characteristics: % Agg.	% C.S.	% F.S.	% Silt	% Clay	L.L.	P.I.	W.C.	SHTL Class.
711.7	0														
	2														
	4														
706.7	6	15/15			Brown Gravelly Clay	1	42	3	5	15	35	43	15	21	A-7-6
	8														
701.7	10	11/15			Brown Sandy Clay	2	13	4	10	22	51	44	17	22	A-7-6
	12														
696.7	14	4/8			Brown Gravelly Clay	3	17	2	4	27	50	46	15	11	A-7-5
	16														
691.7	18	7/9			Gray Gravelly Clay	4	41	3	9	20	27	41	13	34	A-7-6
	20														
686.7	22	9/14			Brown Silty Gravelly Sand	5	24	25	19	21	11	NP	NP	17	A-2-4
	24														
681.7	26	10/18			Brown and Gray Gravelly Silt	6	20	2	3	36	39	37	9	17	A-4a
679.2	28	7/13			Brown and Gray Gravelly Sandy Silt	7	16	4	15	37	28	29	6	19	A-4a
676.7	30	14/19			Brown and Gray Gravelly Sandy Silt	8	15	3	18	38	26	27	5	16	A-4a
674.2	32	12/27			Brown and Gray Silt with Stone Fragments	9	16	4	8	40	32	25	6	19	A-4a
671.7	34														
	36														
	38														
	40	40/*			TOP OF ROCK										
	42		4.2	0.3	Mudstone, reddish-brown, medium-firm, slickensided with thick clay seams, broken. Core Loss 39%.										
	44														
	46														
	48		1.6	3.4											
661.7	50				BOTTOM OF BORING										

*Refusal

LOG OF BORING

Date Started 9-27-67 Sampler Type SS Dia. 1 3/8" Water Elev. —
Date Completed 10-4-67 Casing: Length 47' Dia. 3 1/2"
Boring No. B-8 Station & Offset 70+37, 35' Rt. (Forward Abutment) Surface Elev. 709.1'

Elev.	Depth	Std. Pen. (N)	Rec. ft.	Loss ft.	Description	Sample No.	Physical Characteristics: % Agg.	% C.S.	% F.S.	% Silt	% Clay	L.L.	P.I.	W.C.	SHTL Class.
709.1	0														
	2														
	4														
704.1	6	8/10			Brown Gravelly Clay	1	24	4	7	28	37	39	14	23	A-6a
	8														
699.1	10	7/8			Brown Gravelly Clay	2	30	3	7	23	37	38	13	22	A-6a
	12														
694.1	14	5/7			Brown and Gray Gravelly Clay	3	22	5	10	18	45	-	-	16	-
	16														
689.1	18	8/15			Brown Gravelly Clay	4	22	4	8	30	36	33	12	15	A-6a
	20														
684.1	22	4/5			Brown and Gray Gravelly Silt	5	16	2	9	51	22	30	6	23	A-4b
681.6	24	3/5			Brown Clayey Silt	6	2	1	14	63	20	30	7	24	A-4b
679.1	26	5/5			Brown Silt	7	2	1	16	64	17	NP	NP	20	A-4b
676.6	28	5/6			Brown Sandy Silt	8	3	1	16	63	17	NP	NP	21	A-4b
674.1	30	3/3			Brown Silt	9	4	1	13	68	14	NP	NP	24	A-4b
671.6	32	4/6			Brown Silt	10	3	1	14	67	15	NP	NP	25	A-4b
669.1	34	12/10			Brown Gravelly Sandy Silt	11	15	3	33	31	18	NP	NP	16	A-4a
666.6	36				TOP OF ROCK										
665.3	38		2.2	0.3	Sandstone, brown, firm, medium-grained, broken. No Core Loss.										
	40														
	42														
	44														
	46														
	48														
	50														
	52														
	54				Mudstone, reddish-brown and gray, slickensided in part with thick clay seams, very badly broken. Core Loss 27%										
	56														
	58		3.4	1.6											
	60														
	62														
	64		3.9	1.1											
644.1					BOTTOM OF BORING										

OHIO DEPARTMENT OF HIGHWAYS
TESTING LABORATORY
1620 WEST BROAD STREET, COLUMBUS 23, OHIO

STRUCTURE FOUNDATION INVESTIGATION
BRIDGE NO. JEF-7-0131
OVER FARM LANE EXTENSION
SEC. JEF-7-0.20

BORING DATA

TYPED BY	CHECKED BY	REVIEWED BY	DATE
S.A.J.	R.C.	R.D.R.	11/7/67

TE-114
1000-1-64

MICROFILMED
OCT 29 1982

35/53

4/4

JEF-7-0.20

Test Location No. ____
Station & Offset ____
Surface Elev. ____ Water Elev. ____
Piling ____
Hammer ____
Formula ____
Reference ____
Rod Condition ____

Capacity "R" in Thousands of Pounds

Test Location No. ____
Station & Offset ____
Surface Elev. ____ Water Elev. ____
Piling ____
Hammer ____
Formula ____
Reference ____
Rod Condition ____

Capacity "R" in Thousands of Pounds

Test Location No. 1
Station & Offset 69+19, 35' LT. REAR ABUTMENT
Surface Elev. 712.3 Water Elev. ____
Piling ____
Hammer ____
Formula ____
Reference ____
Rod Condition GOOD

TEST ROD

Capacity "R" in Thousands of Pounds

Test Location No. 3
Station & Offset 69+55, 35' LT. REAR PIER
Surface Elev. 715.8 Water Elev. ____
Piling ____
Hammer ____
Formula ____
Reference ____
Rod Condition GOOD

TEST ROD

Capacity "R" in Thousands of Pounds

Test Location No. 4
Station & Offset 69+58, 17' RT. REAR PIER
Surface Elev. 705.5 Water Elev. ____
Piling ____
Hammer ____
Formula ____
Reference ____
Rod Condition POINT ROD BENT

TEST ROD

Capacity "R" in Thousands of Pounds

Test Location No. 5
Station & Offset 70+00 33' LT. FORWARD PIER
Surface Elev. 718.2 Water Elev. ____
Piling ____
Hammer ____
Formula ____
Reference ____
Rod Condition POINT ROD BENT

TEST ROD

Capacity "R" in Thousands of Pounds

Test Location No. 7
Station & Offset 70+36, 35' LT. FORWARD ABUTMENT
Surface Elev. 720.1' Water Elev. ____
Piling ____
Hammer ____
Formula ____
Reference ____
Rod Condition ROD BENT 12'

TEST ROD

Capacity "R" in Thousands of Pounds

Test Location No. 8
Station & Offset 70+37, 34' RT. FORWARD ABUTMENT
Surface Elev. 707.7 Water Elev. ____
Piling ____
Hammer ____
Formula ____
Reference ____
Rod Condition GOOD

TEST ROD

Capacity "R" in Thousands of Pounds

OHIO STATE HIGHWAY
TESTING LABORATORY
1620 WEST BROAD ST. COLUMBUS 23, OHIO

STRUCTURE FOUNDATION INVESTIGATION
BRIDGE NO. JEF-7-0131
OVER FARM LANE EXTENSION
SEC. JEF-7-0.20

DRIVE ROD PENETRATION RESISTANCE DATA

PLOTTED BY	CHECKED BY	REVIEWED BY	DATE
R.C.	L.N.L.	R.D.R.	11/7/67

TE - 118
600 - 4 - 66

MICROFILMED
OCT 29 1982

GEOLOGY OF THE SITE

THE STRUCTURE SITE IS LOCATED ON THE TERRACED FLOODPLAIN OF THE OHIO RIVER, AT THE BASE OF THE WEST VALLEY WALL. MODERATELY DEEP ALLUVIUM AND VALLEY FILL OVERLIE SANDSTONE AND SHALE BEDROCK, OF PENNSYLVANIAN AGE.

EXPLORATION

THE EXPLORATION CONSISTED OF ONE DRIVE SAMPLE BORING, TWO DRIVE SAMPLE-CORE BORINGS, AND EIGHT DRIVE ROD PENETRATION TESTS, MADE BETWEEN OCTOBER 10 AND 20, 1967, AND BETWEEN JANUARY 3 AND 10, 1968.

INVESTIGATIONAL FINDINGS

BORING B-3, IN THE REAR PORTION OF THE SITE, ENCOUNTERED LOOSE TO MEDIUM-DENSE, VERY MOIST SILT TO 25-FOOT DEPTH, ELEVATION 657 FEET; BELOW THIS, MEDIUM-DENSE TO VERY DENSE SAND AND GRAVEL TO BEDROCK SURFACE, ENCOUNTERED AT 40-FOOT DEPTH, ELEVATION 642 FEET. THE BORING WAS TERMINATED AT 55-FOOT DEPTH, ELEVATION 627 FEET, AFTER PENETRATING 15 FEET OF BEDROCK. BORING B-7, IN THE CENTER PORTION OF THE STRUCTURE SITE, ENCOUNTERED WET, LOOSE, AND VERY DENSE GRAVELS AND SILTS, WITH ORGANIC MATERIAL AT 50-FOOT DEPTH, ELEVATION 627 FEET. THE BORING WAS TERMINATED AT 66-FOOT DEPTH, ELEVATION 611 FEET, AFTER PENETRATING 11 FEET BELOW BEDROCK SURFACE, ENCOUNTERED AT 55-FOOT DEPTH, ELEVATION 622 FEET. BORING B-14, IN THE FORWARD PORTION OF THE SITE, ENCOUNTERED VERY LOOSE TO LOOSE SILTS; SANDS AND GRAVELS TO 40-FOOT DEPTH, ELEVATION 634 FEET; BELOW THIS, DENSE TO VERY DENSE SAND AND GRAVEL TO 65-FOOT DEPTH, ELEVATION 609 FEET, WHERE THE BORING WAS TERMINATED AFTER PENETRATING 25 FEET OF MATERIAL REQUIRING IN EXCESS OF 30 BLOWS PER FOOT IN THE STANDARD PENETRATION TEST.

THE ROD SOUNDINGS GENERALLY ENCOUNTERED UNIFORMLY MEDIUM-HIGH RESISTANCE TO PENETRATION WITH INCREASING DEPTH, AND WERE TERMINATED DUE TO REFUSAL OR NEAR-REFUSAL TO PENETRATION AT 32 TO 75-FOOT DEPTHS, ELEVATIONS 649 TO 600 FEET, CONSIDERED TO BE ON OR NEAR BEDROCK SURFACE IN THE REAR PORTIONS OF THE SITE, AND IN DENSE SAND AND GRAVEL IN THE FORWARD PORTIONS OF THE SITE.

NO FREE WATER WAS OBSERVED IN ANY OF THE ROD SOUNDING HOLES.

LEGEND

- Auger Boring Location - Plan View.
- Press and / or Drive Sample and / or Core Boring Location - Plan View.
- Drive Rod Penetration Resistance Sounding Location - Plan View.
- Capped Pile
- Footing
- Footing on Pile
- TR — Top of Rock
- Horizontal Bar on Boring Log Indicates the Depth the Sample Was Taken.
- X/Y — Figures Beside the Boring Log in Profile Indicate the Number of Blows for Standard Penetration Test.
  - X = Number of Blows for First 6 inches.
  - Y = Number of Blows for Second 6 inches.
- Drive Rod Penetration Resistance Sounding Log - Profile
- Casing
- Resistance "R" < 10,000 lbs.
- Resistance "R" > 10,000 lbs.
- Z — Indicates Final Measurement of Penetration, in Inches.
- W — Indicates Free Water Elevation.
- Indicates Static Water Elevation.

SYMBOLS OF ROCK TYPES

- Coal
- Weathered Indurated Clay
- Indurated Clay
- Weathered Shale
- Shale
- Boulders
- Weathered Sandstone
- Sandstone
- Leached Dolomite
- Dolomite
- Leached Limestone
- Limestone

GENERAL INFORMATION

Drive Rod Penetration Sounding Tests

Drive rod penetration resistance tests constitute driving a 1.315-inch diameter steel rod, with a 45° cone point, into the ground, using a 122-pound drop-hammer with a free fall of five feet. At one or two-foot depth intervals, a measurement is taken to determine the amount of penetration achieved in three hammer drops. This reading is converted to an empirical value for capacity "R", in thousands of pounds (which is a measure of both the point resistance and frictional resistance on the rod), by using charts prepared by the Ohio Department of Highways, Bureau of Bridges, on the basis of correlation study of rod penetration with past performance of pile driving. For interpretation, a graph is prepared by plotting the value "R" against the depth at which the reading was taken, and connecting the plotted points. The curve so obtained reflects the density of subsurface materials in a manner that can be readily compared with data from similar tests at other locations on the structure site. From this comparison, the overall uniformity of subsurface condition may be evaluated.

Drive Sample Borings - Drive-Press Sample Borings

Drive sample borings are made by means of a rotary-type drill rig, employing a 2" O.D., 1-3/8" I.D. sampler, at 2-1/2 and / or 5-foot depth intervals, driven by means of a 140 - pound drop-hammer with a free fall of 30 inches. The number of blows required to drive the sampler 12 inches is considered the standard penetration test.

Drive-press sample borings are made by means of a rotary-type drill rig, employing a 2" O.D., 1-3/8" I.D. drive sampler, and 3" O.D. thin-wall press sampler. The press sampler is advanced by continuous uniform pressure, applied by the drill rig.

The boring log sheets show a graphic plot of the information obtained, including depth and elevation of the sample, number of blows for the standard penetration tests in two 6-inch increments, depth of press samples, field sample number, sample description - based on laboratory tests and the Casagrande AC classification system - and gradation, plasticity, and moisture content determinations. Results of strength and consolidation testing, if performed, appear on separate enclosures.

At depths where materials are bouldery or gravelly to the extent that the sampler can not be driven, a wash sample is procured for visual classification, in order to determine the general character of the material. These samples are not considered sufficiently representative to warrant laboratory testing.

Particle Size Definitions

Boulders	Cobbles	Gravel	Coarse Sand	Fine Sand	Silt	Clay
8"	3"	2.0mm (No. 10 sieve)	0.42mm (No. 40 sieve)	0.074mm (No. 200 sieve)		0.005mm

Revised 1/26/68

NOTE: Information shown by this subsurface investigation was obtained solely for the use in establishing design controls for the project. The State of Ohio does not guarantee the accuracy of this data and it is not to be construed as a part of the plans governing construction of the project.

OHIO DEPARTMENT OF HIGHWAYS
TESTING LABORATORY
1620 WEST BROAD STREET, COLUMBUS 23, OHIO

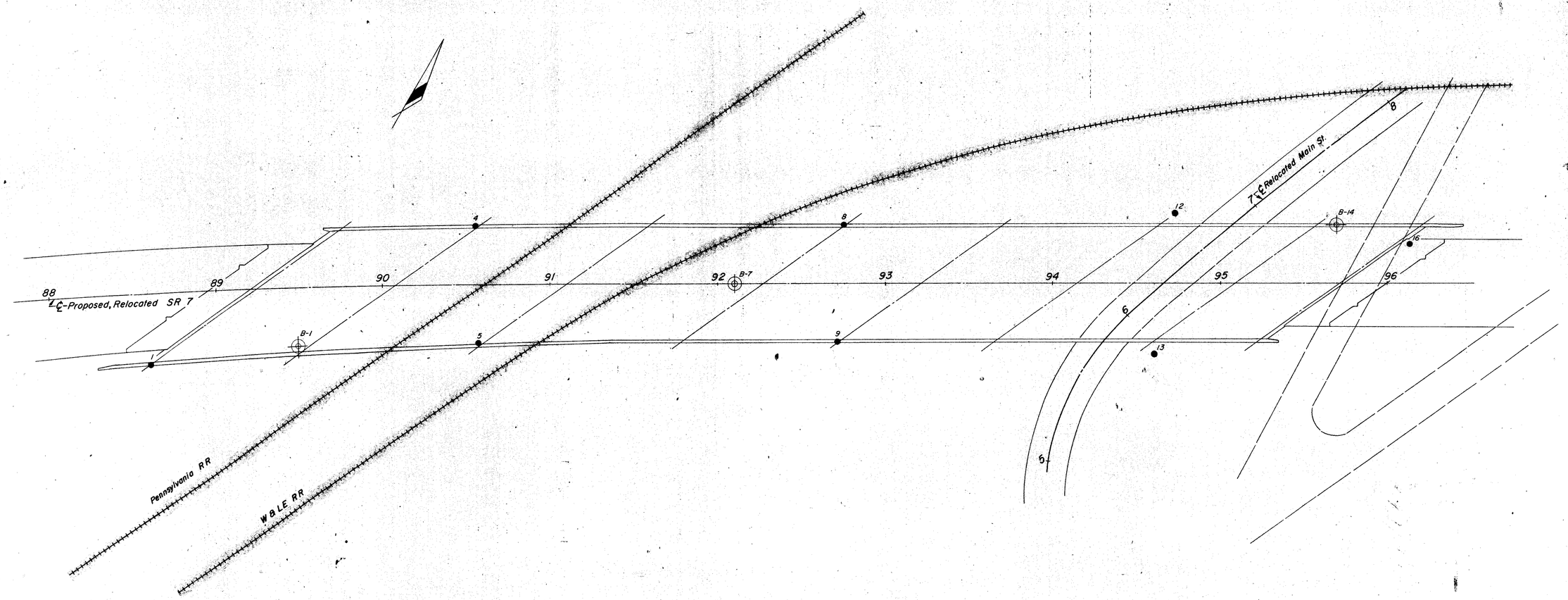
STRUCTURE FOUNDATION INVESTIGATION
BRIDGE NO. JEF-7-0166
OVER PENNA. RR, W & L E RR AND RELOCATED MAIN ST.
SEC. JEF-7-0.20

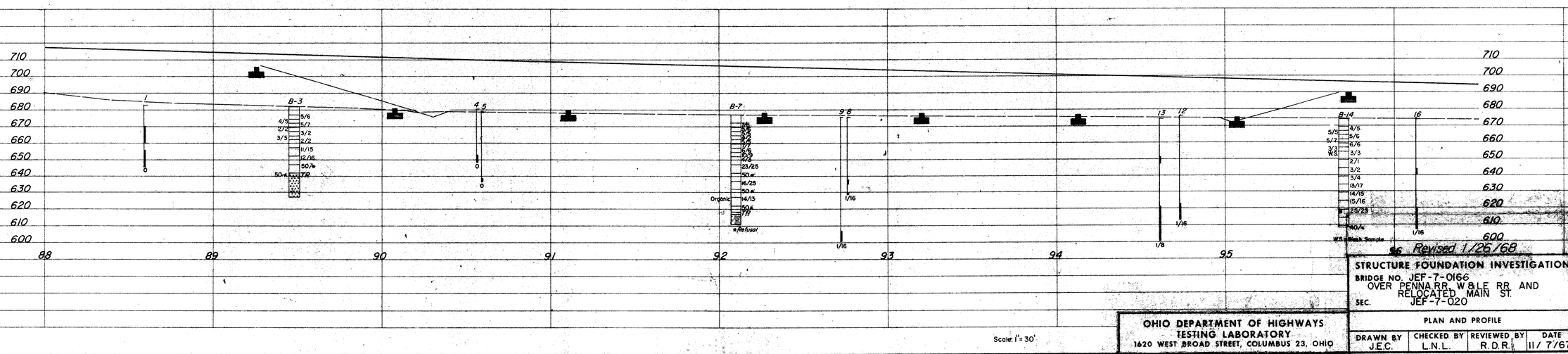
CHECKED BY	REVIEWED BY	DATE
L.N.L.	R.D.R.	11/7/67

TE - 120
200 - 11 - 64

MICROFILMED
OCT 29 1982

JEF-7-0.20





Scale: 1"= 30'

Revised 1/26/68

STRUCTURE FOUNDATION INVESTIGATION

BRIDGE NO. JEF-7-0166
OVER PENNA.RR. W&LE RR AND RELOCATED MAIN ST.
SEC. JEF-7-020

PLAN AND PROFILE

DRAWN BY	CHECKED BY	REVIEWED BY	DATE
J.E.C.	L.N.L.	R.D.R.	11/ 7/67

OHIO DEPARTMENT OF HIGHWAYS
TESTING LABORATORY
1620 WEST BROAD STREET, COLUMBUS 23, OHIO

TE - 122
600 - 11 - 64

MICROFILMED
OCT 29 1982

LOG OF BORING

Date Started 10-10-67 | Sampler Type SS | Dia. 1 3/8" | Water Elev. —
Date Completed 10-11-67 | Casing: Length 37' | Dia. 3 1/2"
Boring No. B-3 | Station & Offset 89+48, 35' Rt. (First Pier) | Surface Elev. 682.1'

Elev.	Depth	Std. Pen. (N)	Rec. ft	Loss ft	Description	Sample No.	% Agg.	% C.S.	% F.S.	% Silt	% Clay	L.L.	P.I.	W.C.	SHTL Class.
682.1	0														
	2														
	4														
677.1	6	5/6			Brown Silt	1	0	0	6	76	18	NP	NP	23	A-4b
674.6	8	4/5			Brown Silt	2	0	0	3	79	18	NP	NP	25	A-4b
672.1	10	5/7			Brown Silt	3	0	0	3	78	19	NP	NP	25	A-4b
669.6	12	2/2			Brown Silt	4	0	0	8	82	10	NP	NP	26	A-4b
667.1	14	3/2			Brown Silt	5	0	0	3	75	22	NP	NP	32	A-4b
664.6	16	3/3			Brown Silt	6	2	1	4	75	18	NP	NP	26	A-4b
662.1	18	2/2			Gray Silt	7	0	0	6	65	29	NP	NP	27	A-4b
	20														
657.1	22														
	24														
	26	11/15			Brownish-Gray Gravelly Sand	8	28	52	11	-9-		NP	NP	15	A-1-b
652.1	28														
	30	12/16			Brown and Gray Silty Sandy Gravel	9	51	21	14	-14-		NP	NP	8	A-1-a
647.1	32														
	34														
	36	50/*			Brown Gravel	10	82	9	4	2	3	NP	NP	4	A-1-a
642.2	38														
	40														
	42	50* (0.2')	4.8	0.0	TOP OF ROCK										
	44														
	46		5.0	0.0	Sandstone, gray, very fine-grained, firm, with arenaceous shale seams throughout, cross-bedded in part, very badly broken in upper 1.0' foot, broken and jointed in remainder. No Core Loss.										
	48														
	50														
	52		5.0	0.0											
	54														
627.1					BOTTOM OF BORING										

*Refusal

LOG OF BORING

Date Started 1-3-68 | Sampler Type SS | Dia. 1 3/8" | Water Elev. —
Date Completed 1-10-68 | Casing: Length 50' | Dia. 3 1/2"
Boring No. B-7 | Station & Offset 92+10, CL. (3rd Pier) | Surface Elev. 677.0'

Elev.	Depth	Std. Pen. (N)	Rec. ft	Loss ft	Description	Sample No.	% Agg.	% C.S.	% F.S.	% Silt	% Clay	L.L.	P.I.	W.C.	SHTL Class.
677.0	0														
	2														
	4														
672.0	6	7/6			Brown Silt	1	0	1	18	54	27	NP	NP	22	A-4b
669.5	8	5/6			Brown Sandy Silt	2	0	0	23	52	25	NP	NP	23	A-4b
667.0	10	5/5			Brown Gravelly Silt	3	15	2	11	49	23	NP	NP	23	A-4a
664.5	12	4/2			Brown Sandy Silt	4	7	3	17	55	18	NP	NP	22	A-4b
662.0	14	5/5			Brown Sandy Gravelly Silt	5	26	5	10	40	19	NP	NP	22	A-4a
659.5	16	7/7			Brown Silty Gravelly Sand	6	35	22	18	13	12	NP	NP	11	A-1-b
657.0	18	6/6			Brown Sandy Gravel	7	66	17	11	-6-		NP	NP	12	A-1-a
654.5	20	10/9			Brown Silty Sandy Gravel	8	60	17	12	-11-		NP	NP	9	A-1-a
652.0	22	4/3			Brown Gravelly Sandy Silt	9	V	I	S	U	A	L		24	
	24														
647.0	26	23/25			Gray Silty Sandy Gravel	10	64	14	11	-11-		NP	NP	9	A-1-a
	28														
	30														
642.0	32	50* (0.6')			Gray Silty Sandy Gravel	11	47	11	24	9	9	NP	NP	8	A-1-b
	34														
637.0	36	14/15			Gray Sandy Gravel	12	58	17	15	-10-		NP	NP	9	A-1-a
	38														
	40														
632.0	42	50* (0.6')			Gray Silty Sandy Gravel	13	54	13	22	-11-		NP	NP	14	A-1-b
	44														
	46														
627.0	48	14/13			Gray Organic Silty Sandy Gravel	14	61	8	10	11	10	23	1	22	A-1-b
624.5	50				TOP OF WEATHERED ROCK										
	52														
622.0	54														
	56	50* (0.2')			Gray Weathered Shale	15	-	-	-	-	-	-	-	7	Visual
618.4	58		1.4	3.6	TOP OF ROCK										
617.0	60				Shale, brownish-gray, medium-firm, arenaceous, with fine-grained sandstone										
	62				interbeds very badly broken and jointed. No Core Loss.										
	64		4.4	0.6	Shale, gray, firm, carbonaceous and fissile in part, broken and jointed. Core Loss 18%.										
611.0	66		1.0	0.0	BOTTOM OF BORING										

*Refusal

LOG OF BORING

Date Started 10-11-67 | Sampler Type SS | No. 1 3/8" | Water Elev. —
Date Completed 10-12-67 | Casing: Length 59' | Dia. 3 1/2"
Boring No. B-14 | Station & Offset 95+70, 35' Lt. (Sixth Pier) | Surface Elev. 676.3'

Elev.	Depth	Std. Pen. (N)	Rec. ft	Loss ft	Description	Sample No.	% Agg.	% C.S.	% F.S.	% Silt	% Clay	L.L.	P.I.	W.C.	SHTL Class.
674.3	0														
	2														
	4														
669.3	6	4/5			Brown Sandy Silt	1	0	1	29	48	22	NP	NP	21	A-4a
666.8	8														
	10	5/5			Brown Sandy Silt	2	0	0	31	47	22	NP	NP	21	A-4a
664.3	12	5/6			Brown Sandy Silt	3	0	0	35	47	18	NP	NP	21	A-4a
661.8	14	5/7			Brown Gravelly Sandy Silt	4	15	6	31	33	15	NP	NP	19	A-4a
659.3	16	6/6			Brown Silty Gravelly Sand	5	38	12	28	13	9	NP	NP	11	A-1-b
656.8	18	3/3			Brown Sandy Gravel	6	49	25	17	-9-		NP	NP	14	A-1-a
654.3	20	3/3			Gray Sand (Wash Sample)	7	-	-	-	-	-	-	-	39	
	22														
649.3	24														
	26	2/1			Gray Sandy Gravel	8	61	26	9	-4-		NP	NP	9	A-1-a
644.3	28														
	30	3/2			Brown Gravel	9	-	-	-	-	-	-	-	4	
639.3	32														
	34	3/4			Gray Gravel	10	-	-	-	-	-	-	-	3	
634.3	36														
	38														
	40	15/17			Gray Silty Gravelly Sand	11	38	22	30	-10-		NP	NP	20	A-1-b
629.3	42														
	44														
	46	14/15			Gray Silty Gravelly Sand	12	36	28	25	-11-		NP	NP	18	A-1-b
624.3	48														
	50	15/16			Brown Silty Gravelly Sand	13	25	25	30	10	10	NP	NP	17	A-1-b
	52														
619.3	54														
	56	25/25			Brown and Gray Silty Sandy Gravel	14	47	19	17	9	8	NP	NP	10	A-1-b
614.3	58														
	60														
	62				No Sample Recovered - Boulders(Driller's Description)		V	I	S	U	A	L			
	64				BOTTOM OF BORING										
609.3	66	40/*			Brown and Gray Sandy Gravelly Silt	15	36	5	11	37	11	NP	NP	19	A-4a

*Refusal

OHIO DEPARTMENT OF HIGHWAYS
TESTING LABORATORY
1620 WEST BROAD STREET COLUMBUS 23, OHIO

STRUCTURE FOUNDATION INVESTIGATION

BRIDGE NO. JEF-7-0186
OVER PENNA. RR, W & L E. RR AND RELOCATED MAIN ST.
SEC. JEF-7-0.20

BORING DATA

TYPED BY	CHECKED BY	REVIEWED BY	DATE
S.A.J.	R.C.	R.D.R.	1/26/68

TE-114
1000-11-64

MICROFILMED
OCT 29 1968

39
53
4
4

JEF-7-0.20

Test Location No. 1
Station & Offset 82+50 42' RT
Surface Elev. 683.0 Water Elev.
REAR ABUTMENT
Piling
Hammer
Formula
Reference
Rod Condition GOOD
TEST ROD
Capacity "R" in Thousands of Pounds

Test Location No. 4
Station & Offset 90+56 35' LT
Surface Elev. 680.6 Water Elev.
FIRST PIER
Piling
Hammer
Formula
Reference
Rod Condition GOOD
TEST ROD
Capacity "R" in Thousands of Pounds

Test Location No. 5
Station & Offset 90+57 35' RT
Surface Elev. 678.8 Water Elev.
SECOND PIER
Piling
Hammer
Formula
Reference
Rod Condition GOOD
TEST ROD
Capacity "R" in Thousands of Pounds

Test Location No. 8
Station & Offset 92+76 35' LT
Surface Elev. 675.7 Water Elev.
THIRD PIER
Piling
Hammer
Formula
Reference
Rod Condition GOOD
TEST ROD
Capacity "R" in Thousands of Pounds

Test Location No. 9
Station & Offset 92+72 35' RT
Surface Elev. 675.3 Water Elev.
FOURTH PIER
Piling
Hammer
Formula
Reference
Rod Condition GOOD
TEST ROD
Capacity "R" in Thousands of Pounds

Test Location No. 12
Station & Offset 94+73 42' LT
Surface Elev. 676.1 Water Elev.
FIFTH PIER
Piling
Hammer
Formula
Reference
Rod Condition GOOD
TEST ROD
Capacity "R" in Thousands of Pounds

Test Location No. 13
Station & Offset 94+61 42' RT
Surface Elev. 674.4 Water Elev.
SIXTH PIER
Piling
Hammer
Formula
Reference
Rod Condition GOOD
TEST ROD
Capacity "R" in Thousands of Pounds

Test Location No. 16
Station & Offset 96+13.23' LT
Surface Elev. 674.8 Water Elev.
FORWARD ABUTMENT
Piling
Hammer
Formula
Reference
Rod Condition GOOD
TEST ROD
Capacity "R" in Thousands of Pounds

OHIO STATE HIGHWAY
TESTING LABORATORY
1620 WEST BROAD ST. COLUMBUS 23, OHIO

STRUCTURE FOUNDATION INVESTIGATION

BRIDGE NO. JEF-7-0166
OVER PENNA. RR, W&LE RR AND RELOCATED MAIN ST.
SEC. JEF-7-020

DRIVE ROD PENETRATION RESISTANCE DATA

PLOTTED BY	CHECKED BY	REVIEWED BY	DATE
R.C.	L.N.L.	R.D.R.	11/7/67

Revised 1/26/68

TE - 118
600 - 4 - 66

MICROFILMED
OCT 29 1968

JEFFERSON COUNTY
JEF-7-0.20

GEOLOGY OF THE SITE
THE STRUCTURE SITE IS LOCATED ON THE TERRACED FLOODPLAIN OF THE OHIO RIVER, IN AN AREA WHERE MODERATELY DEEP ALLUVIUM OVERLIES SHALE BEDROCK, OF PENNSYLVANIAN AGE.

EXPLORATION
THE EXPLORATION CONSISTED OF TWO DRIVE SAMPLE-CORE BORINGS AND FOUR DRIVE ROD PENETRATION TESTS, MADE BETWEEN OCTOBER 4 AND 31, 1967.

INVESTIGATIONAL FINDINGS
BORINGS DISCLOSED LOOSE TO MEDIUM DENSE INTERVALS OF SANDY AND GRAVELLY SILTS AND MEDIUM STIFF TO STIFF SILTS AND CLAYS TO 35-FOOT DEPTHS, ELEVATION 614 FEET; BELOW THIS, MEDIUM-DENSE SANDS AND GRAVELS TO BEDROCK SURFACE, ENCOUNTERED AT 58-FOOT DEPTHS, ELEVATION 591 FEET. THE BORINGS WERE TERMINATED AT 70-FOOT DEPTHS, ELEVATION 579 FEET, AFTER PENETRATING 12 FEET OF BEDROCK.

THE ROD SOUNDINGS ENCOUNTERED UNIFORMLY MEDIUM-HIGH RESISTANCE TO PENETRATION WITH INCREASING DEPTH AND WERE TERMINATED DUE TO REFUSAL TO PENETRATION AT 58-FOOT DEPTHS, ELEVATIONS 592 AND 591 FEET, CONSIDERED TO BE ON BEDROCK SURFACE, AS REVEALED BY THE BORINGS.

NO FREE WATER WAS OBSERVED IN ANY OF THE ROD SOUNDING HOLES.

LEGEND

- Auger Boring Location - Plan View.
- Press and / or Drive Sample and / or Core Boring Location - Plan View.
- Drive Rod Penetration Resistance Sounding Location - Plan View.
- Capped Pile
- Footing
- Footing on Pile
- TR — Top of Rock
- Horizontal Bar on Boring Log Indicates the Depth the Sample Was Taken.
- X/Y — Figures Beside the Boring Log in Profile Indicate the Number of Blows for Standard Penetration Test.
  X = Number of Blows for First 6 inches.
  Y = Number of Blows for Second 6 inches.
- Drive Rod Penetration Resistance Sounding Log - Profile
- Casing
- Resistance "R" < 10,000 lbs.
- Resistance "R" > 10,000 lbs.
- Z — Indicates Final Measurement of Penetration, in Inches.
- W — Indicates Free Water Elevation.
- Indicates Static Water Elevation.

SYMBOLS OF ROCK TYPES

- Coal
- Weathered Indurated Clay
- Indurated Clay
- Weathered Shale
- Shale
- Weathered Sandstone
- Sandstone
- Leached Dolomite
- Dolomite
- Leached Limestone
- Limestone

GENERAL INFORMATION

Drive Rod Penetration Sounding Tests

Drive rod penetration resistance tests constitute driving a 1.315-inch diameter steel rod, with a 45° cone point, into the ground, using a 122-pound drop-hammer with a free fall of five feet. At one or two-foot depth intervals, a measurement is taken to determine the amount of penetration achieved in three hammer drops. This reading is converted to an empirical value for capacity "R", in thousands of pounds (which is a measure of both the point resistance and frictional resistance on the rod), by using charts prepared by the Ohio Department of Highways, Bureau of Bridges, on the basis of correlation study of rod penetration with past performance of pile driving. For interpretation, a graph is prepared by plotting the value "R" against the depth at which the reading was taken, and connecting the plotted points. The curve so obtained reflects the density of subsurface materials in a manner that can be readily compared with data from similar tests at other locations on the structure site. From this comparison, the overall uniformity of subsurface condition may be evaluated.

Drive Sample Borings - Drive-Press Sample Borings

Drive sample borings are made by means of a rotary-type drill rig, employing a 2" O.D., 1-3/8" I.D. sampler, at 2-1/2 and / or 5-foot depth intervals, driven by means of a 140 - pound drop-hammer with a free fall of 30 inches. The number of blows required to drive the sampler 12 inches is considered the standard penetration test.

Drive-press sample borings are made by means of a rotary-type drill rig, employing a 2" O.D., 1-3/8" I.D. drive sampler, and 3" O.D. thin-wall press sampler. The press sampler is advanced by continuous uniform pressure, applied by the drill rig.

The boring log sheets show a graphic plot of the information obtained, including depth and elevation of the sample, number of blows for the standard penetration tests in two 6-inch increments, depth of press samples, field sample number, sample description - based on laboratory tests and the Casagrande AC classification system - and gradation, plasticity, and moisture content determinations. Results of strength and consolidation testing, if performed, appear on separate enclosures.

At depths where materials are bouldery or gravelly to the extent that the sampler can not be driven, a wash sample is procured for visual classification, in order to determine the general character of the material. These samples are not considered sufficiently representative to warrant laboratory testing.

Particle Size Definitions

Boulders	Cobbles	Gravel	Coarse Sand	Fine Sand	Silt	Clay
8"	3"	2.0mm (No. 10 sieve)	0.42mm (No. 40 sieve)	0.074mm (No. 200 sieve)	0.005mm	

NOTE: Information shown by this subsurface investigation was obtained solely for the use in establishing design controls for the project. The State of Ohio does not guarantee the accuracy of this data and it is not to be construed as a part of the plans governing construction of the project.

OHIO DEPARTMENT OF HIGHWAYS
TESTING LABORATORY
1620 WEST BROAD STREET, COLUMBUS 23, OHIO

STRUCTURE FOUNDATION INVESTIGATION
BRIDGE NO. JEF-7-0238
OVER SR 150 EXTENSION
SEC. JEF-7-0.20

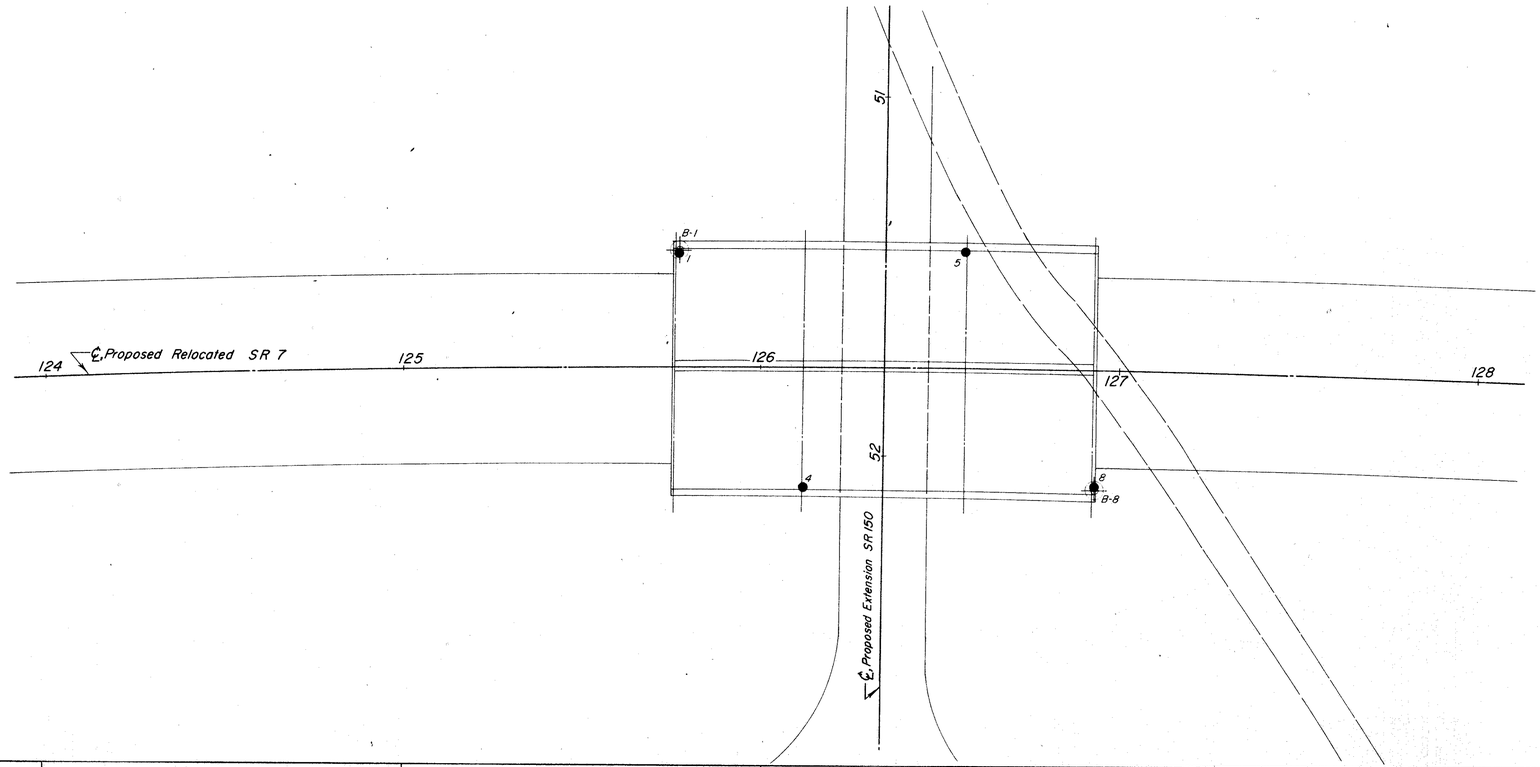
CHECKED BY	REVIEWED BY	DATE
L.N.L.	R.D.R.	11/13/67

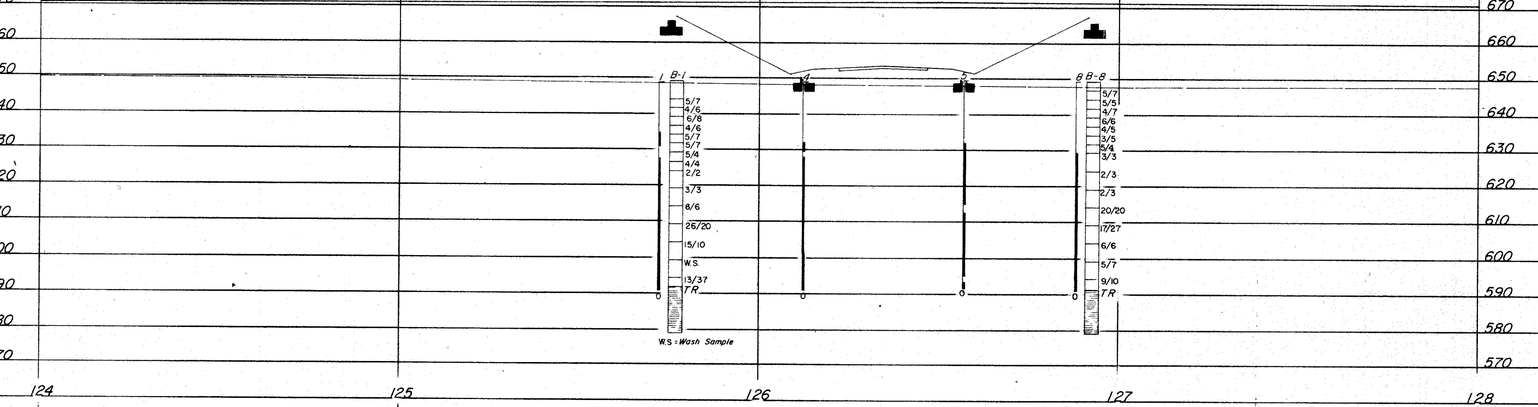
TE - 119
1000 - 4 - 66

MICROFILMED
OCT 29 1969

41/53
2/4

JEF-7-0.20





SCALE: 1" = 20'

OHIO DEPARTMENT OF HIGHWAYS
TESTING LABORATORY
1620 WEST BROAD STREET, COLUMBUS 23, OHIO

STRUCTURE FOUNDATION INVESTIGATION
BRIDGE NO. JEF-7-0238
OVER SR 150 EXTENSION
SEC. JEF-7-0.20

PLAN AND PROFILE

DRAWN BY	CHECKED BY	REVIEWED BY	DATE
J.E.C.	L.N.L.	R.D.R.	11/13/67

TE - 172
6/00 - 11 - 66

MICROFILMED
OCT 29 1968

LOG OF BORING

Date Started 10-6-67 | Sampler Type SS | Dia. 1 3/8" | Water Elev. ———
Date Completed 10-11-67 | Casing: Length 57.5' | Dia. 3 1/2"
Boring No. B-1 | Station & Offset 125+77, 33' Lt. (Rear Abutment) | Surface Elev. 649.0'

Elev.	Depth	Std. Pen. (N)	Rec. ft.	Loss ft.	Description	Sample No.	Physical Characteristics: % Agg.	% C.S.	% F.S.	% Silt	% Clay	L.L.	P.I.	W.C.	SHTL Class.
649.0	0														
	2														
	4														
644.0	6	5/7			Brown Silt and Clay	1	0	0	4	44	52	36	13	26	A-6a
641.5	8														
	10	4/6			Brown Silt and Clay	2	0	0	4	47	49	36	13	23	A-6a
639.0	10														
	12	6/8			Brown Silt and Clay	3	0	0	4	48	48	39	14	25	A-6a
636.5	14	4/6			Brown Silt and Clay	4	1	0	5	51	43	35	14	32	A-6a
634.0	16	5/7			Brown Silt and Clay	5	0	0	7	53	40	34	15	25	A-6a
631.5	18	5/7			Brown and Gray Silt and Clay	6	0	0	2	51	47	35	13	25	A-6a
629.0	20	5/4			Brown and Gray Clayey Silt	7	0	0	6	51	43	31	10	25	A-4b
626.5	22														
	24	4/4			Brown and Gray Clayey Silt	8	0	0	13	50	37	29	7	29	A-4b
624.0	26	2/2			Brown and Gray Clayey Silt	9	0	0	12	51	37	27	7	27	A-4b
	28														
619.0	30	3/3			Gray Sandy Silt	10	5	6	26	39	24	24	5	27	A-4a
	32														
	34														
614.0	36	6/6			Brown Silty Sandy Gravel	11	36	12	16	23	13	24	6	20	A-4a
609.0	40	26/20			Brown Silty Sandy Gravel	12	43	14	23	12	8	NP	NP	10	A-1-b
	42														
	44														
604.0	46	15/10			Brown Sandy Gravel	13	70	14	8	- 8 -		NP	NP	6	A-1-a
	48														
599.0	50				Brown Gravelly Sand (Wash Sample)	14	16	62	13	- 9 -		NP	NP	6	A-1-b
	52														
	54														
594.0	56	13/37			Brown Silty Gravelly Sand	15	34	21	27	11	7	NP	NP	5	A-1-b
591.5	58				TOP OF ROCK										
	60		2.2	0.3											
	62				Shale, gray, firm, very arenaceous, with numerous firm, very fine-grained sandstone intervals, broken and jointed. Core Loss 2%.											
	64														
	66		10.0	0.0											
	68														
579.0	70				BOTTOM OF BORING										

LOG OF BORING

Date Started 10-4-67 | Sampler Type SS | Dia. 1 3/8" | Water Elev. ———
Date Completed 10-5-67 | Casing: Length 60' | Dia. 3 1/2"
Boring No. B-8 | Station & Offset 126+93, 33' Rt. (Forward Abutment) | Surface Elev. 649.3'

Elev.	Depth	Std. Pen. (N)	Rec. ft.	Loss ft.	Description	Sample No.	Physical Characteristics: % Agg.	% C.S.	% F.S.	% Silt	% Clay	L.L.	P.I.	W.C.	SHTL Class.
649.3	0														
	2														
646.8	4	5/7			Brown Gravelly Clay	1	16	1	3	38	42	37	11	24	A-6a
644.3	6	5/5			Brown Silt	2	8	1	5	50	36	NP	NP	25	A-4b
641.8	8	4/7			Brown Clayey Silt	3	15	0	4	42	39	36	8	24	A-4a
639.3	10	6/6			Brown Gravelly Clay	4	14	0	9	39	38	34	12	27	A-6a
636.8	12														
	14	4/5			Brown Sandy Silt	5	13	0	18	40	29	27	5	25	A-4a
634.3	16	3/5			Brown and Gray Gravelly Clay	6	14	0	11	40	35	33	12	25	A-6a
631.8	18	5/4			Gray Gravelly Silt	7	20	0	3	43	34	33	10	28	A-4a
629.3	20	3/3			Gray Gravelly Clay	8	22	0	1	37	40	39	16	29	A-6b
	22														
624.3	24														
	26	2/3			Gray Gravelly Silt	9	19	0	10	40	31	28	7	33	A-4a
	28														
619.3	30	2/3			Brown and Gray Gravelly Sandy Silt	10	18	2	17	33	30	28	8	29	A-4a
	32														
	34														
614.3	36	20/20			Brown and Gray Silty Sandy Gravel	11	44	9	23	15	9	21	1	12	A-1-b
609.3	40	17/27			Brown Silty Sandy Gravel *	12	46	14	18	13	9	NP	NP	9	A-1-b
	42														
	44														
604.3	46	6/6			Brown Silty Sandy Gravel *	13	66	12	11	-11 -		NP	NP	9	A-1-a
	48														
599.3	50	5/7			Brown Silty Sandy Gravel *	14	57	14	16	-13 -		NP	NP	8	A-1-a
	52														
	54														
594.3	56	9/10			Brown Clayey Sandy Gravel	15	49	15	17	13	6	35	12	12	A-2-6
591.3	58				TOP OF ROCK										
	60														
	62		4.8	0.2											
	64				Shale, gray, firm, very arenaceous with fine-grained sandstone intervals throughout, broken and jointed. Core Loss 2%.											
	66														
	68		5.0	0.0											
579.3	70				BOTTOM OF BORING										

* Sand heaved 1.5' in casing

OHIO DEPARTMENT OF HIGHWAYS
TESTING LABORATORY
1620 WEST BROAD STREET, COLUMBUS 23, OHIO

STRUCTURE FOUNDATION INVESTIGATION
BRIDGE NO. JEF-7-0238
OVER SR 150 EXTENSION
SEC. JEF-7-0.20

BORING DATA

TYPED BY	CHECKED BY	REVIEWED BY	DATE
S.A.J.	R.C.	R.D.R.	11/13/67

TE-11A
1000-11-64

MICROFILMED
OCT 29 1968

JEF-7-0.20

Test Location No. ____
Station & Offset ____
Surface Elev. ____ Water Elev. ____
Piling ____
Hammer ____
Formula ____
Reference ____
Rod Condition ____

Capacity "R" in Thousands of Pounds

Test Location No. ____
Station & Offset ____
Surface Elev. ____ Water Elev. ____
Piling ____
Hammer ____
Formula ____
Reference ____
Rod Condition ____

Capacity "R" in Thousands of Pounds

Test Location No. ____
Station & Offset ____
Surface Elev. ____ Water Elev. ____
Piling ____
Hammer ____
Formula ____
Reference ____
Rod Condition ____

Capacity "R" in Thousands of Pounds

Test Location No. ____
Station & Offset ____
Surface Elev. ____ Water Elev. ____
Piling ____
Hammer ____
Formula ____
Reference ____
Rod Condition ____

Capacity "R" in Thousands of Pounds

Test Location No. 1
Station & Offset 125+77.32' LT
REAR ABUTMENT
Surface Elev. 648.8' Water Elev. ____
Piling ____
Hammer ____
Formula ____
Reference ____
Rod Condition GOOD

TEST ROD

Capacity "R" in Thousands of Pounds

Test Location No. 4
Station & Offset 126+12 33' RT
REAR PIER
Surface Elev. 648.9' Water Elev. ____
Piling ____
Hammer ____
Formula ____
Reference ____
Rod Condition GOOD

TEST ROD

Capacity "R" in Thousands of Pounds

Test Location No. 5
Station & Offset 126+57 33' LT
FORWARD PIER
Surface Elev. 649.5 Water Elev. ____
Piling ____
Hammer ____
Formula ____
Reference ____
Rod Condition GOOD

TEST ROD

Capacity "R" in Thousands of Pounds

Test Location No. 8
Station & Offset 126+93.32' RT
FORWARD ABUTMENT
Surface Elev. 649.2' Water Elev. ____
Piling ____
Hammer ____
Formula ____
Reference ____
Rod Condition ____

TEST ROD

Capacity "R" in Thousands of Pounds

OHIO STATE HIGHWAY TESTING LABORATORY
1620 WEST BROAD ST. COLUMBUS 23, OHIO

STRUCTURE FOUNDATION INVESTIGATION
BRIDGE NO. JEF-7-0238
OVER SR 150 EXTENSION
SEC. JEF-7-0.20

DRIVE ROD PENETRATION RESISTANCE DATA

PLOTTED BY	CHECKED BY	REVIEWED BY	DATE
R.C.	L.N.L.	R.D.R.	11/13/67

MICROFILMED
OCT 29 1968

JEFFERSON COUNTY
JEF-7-0.20

GEOLOGY OF THE SITE
THE STRUCTURE SITE IS LOCATED ON THE TERRACED FLOODPLAIN OF THE OHIO RIVER, ON A PORTION OF THE FLOODPLAIN BEING INCISED BY SHORT CREEK. MODERATELY DEEP ALLUVIUM AND VALLEY FILL OVERLIES SHALE AND SANDSTONE BEDROCK, OF PENNSYLVANIAN AGE.

EXPLORATION
THE EXPLORATION CONSISTED OF TWO DRIVE SAMPLE-CORE BORINGS, MADE BETWEEN OCTOBER 19 AND 25, 1967.

INVESTIGATIONAL FINDINGS
BORINGS DISCLOSED EXTREMELY WET, VERY SOFT ORGANIC SILTS AND CLAYS TO 8 AND 17-FOOT DEPTHS, ELEVATIONS 630 AND 625 FEET; BELOW THIS, VERY LOOSE TO PREDOMINANTLY DENSE SANDS, SILTS, AND GRAVELS TO BEDROCK SURFACE, ENCOUNTERED AT 54 AND 55-FOOT DEPTHS, ELEVATIONS 587 AND 586 FEET. THE BORINGS WERE TERMINATED AT 66 AND 68-FOOT DEPTHS, ELEVATION 574 FEET, AFTER PENETRATING 12 AND 13 FEET OF BEDROCK.

LEGEND

- Auger Boring Location - Plan View.
- Press and / or Drive Sample and / or Core Boring Location - Plan View.
- Drive Rod Penetration Resistance Sounding Location - Plan View.
- Capped Pile
- Footing
- Footing on Pile
- TR — Top of Rock
- Horizontal Bar on Boring Log Indicates the Depth the Sample Was Taken.
- X/Y — Figures Beside the Boring Log in Profile Indicate the Number of Blows for Standard Penetration Test.
  X = Number of Blows for First 6 inches.
  Y = Number of Blows for Second 6 inches.
- Drive Rod Penetration Resistance Sounding Log - Profile
- Casing
- Resistance "R" < 10,000 lbs.
- Resistance "R" > 10,000 lbs.
- Z — Indicates Final Measurement of Penetration, in Inches.
- W — Indicates Free Water Elevation.
- Indicates Static Water Elevation.
- Coal
- Weathered Indurated Clay
- Indurated Clay
- Weathered Shale
- Shale

LOG OF BORING

Date Started 10-24-67 | Sampler Type SS | Dia. 1 3/8" | Water Elev. 643.8'
Date Completed 10-25-67 | Casing: Length 57' | Dia. 3 1/2"
Boring No. B-1 | Station & Offset 129+19, 35' Lt. (Rear Abutment) | Surface Elev. 641.9'

Elev.	Depth	Std. Pen. (N)	Rec. ft.	Loss ft.	Description	Sample No.	Physical Characteristics: % Agg.	% C.S.	% F.S.	% Silt	% Clay	L.L.	P.I.	W.C.	SHTL Class.
641.9	0														
	2	1/1			Gray Sandy Silt	1	0	2	29	30	39	NP	NP	56	A-4a
638.8	4	1/1			Brown Sandy Silt, Slightly Organic	2	0	4	32	28	36	NP	NP	58	A-4a
636.3	6	1/1			Gray Sandy Silt, Trace of Organic	3	0	5	40	24	31	NP	NP	51	A-4a
633.8	8	1/1			Gray Sandy Silt, Trace of Organic	4	0	4	32	30	34	NP	NP	60	A-4a
631.3	10	1/2			Gray Sandy Silt, Trace of Organic	5	0	5	37	28	30	NP	NP	53	A-4a
628.8	12	2/2			Brownish-Gray Silt and Clay	6	0	1	10	39	50	46	12	50	A-7-5
626.3	14	4/8			Brownish-Gray Gravelly Sandy Clay	7	15	3	13	30	39	43	15	55	A-7-6
623.8	16	7/3			Brown Gravelly Sand	8	21	48	23	- 8 -		NP	NP	16	A-1-b
621.3	18	7/7			Brown Silty Gravelly Sand	9	32	25	23	-20 -		NP	NP	17	A-1-b
618.8	20	15/15			Brown Silty Sandy Gravel	10	60	15	13	-12 -		NP	NP	13	A-1-a
613.8	25	7/2			Brown Silty Sandy Gravel	11	52	11	13	11	13	NP	NP	15	A-1-b
608.8	30	18/22			Brown Silty Sandy Gravel	12	38	13	22	11	16	NP	NP	8	A-2-4
603.8	35	16/20			Brown Sandy Gravel	13	69	13	10	- 8 -		NP	NP	12	A-1-a
598.8	40	13/18			Brown Gravelly Sand	14	17	58	21	- 4 -		NP	NP	20	A-1-b
593.8	45	15/20			Brown Gravelly Sand	15	38	49	11	- 2 -		NP	NP	17	A-1-b
588.8	50	17/20			Brown Sand	16	0	61	36	- 3 -		NP	NP	23	A-1-b
586.8	52		3.0	0.0	TOP OF ROCK										
	60		10.0	0.0	Shale, gray and brownish-gray, firm, very arenaceous with thin argillaceous, fine-grained sandstone intervals, carbonaceous in part in bottom 5.0' with very badly broken intervals, broken and jointed. No Core Loss.										
573.8	68				BOTTOM OF BORING										

LOG OF BORING

Date Started 10-19-67 | Sampler Type SS | Dia. 1 3/8" | Water Elev. 643.8'
Date Completed 10-24-67 | Casing: Length 58' | Dia. 3 1/2"
Boring No. B-8 | Station & Offset 131+70, 35' Rt. (Forward Abutment) | Surface Elev. 639.8'

Elev.	Depth	Std. Pen. (N)	Rec. ft.	Loss ft.	Description	Sample No.	Physical Characteristics: % Agg.	% C.S.	% F.S.	% Silt	% Clay	L.L.	P.I.	W.C.	SHTL Class.
639.8	0														
638.8	2	1/1			Brown Silty Clay, Trace of Organic	1	0	2	13	35	50	47	18	60	A-7-6
		1/1			Brown Clay, Trace of Organic	2	0	1	16	38	45	64	31	64	A-7-5
636.3	4	1/1			Brownish-Gray Silt	3	0	2	17	56	25	NP	NP	61	A-4b
633.8	6	1/2			Gray Clay, Slightly Organic	4	0	3	15	43	39	57	21	72	A-7-5
631.3	8	3/4			Brown Silty Sand	5	0	23	42	12	23	NP	NP	37	A-3a
628.8	10	10/8			Brown Silty Gravelly Sand	6	25	28	30	-17 -		NP	NP	19	A-1-b
626.3	12	2/1			Brown Silty Sand	7	8	43	14	-35 -		NP	NP	31	A-3a
623.8	14	5/3			Brown Silty Sandy Gravel	8	49	19	21	-11 -		NP	NP	13	A-1-b
621.3	16	12/12			Brown Silty Sand	9	11	31	37	-21 -		NP	NP	14	A-3a
618.8	18	11/15			Brown Silty Sandy Gravel	10	38	15	17	16	14	NP	NP	11	A-2-4
613.8	23	12/14			Brown Silty Sandy Gravel	11	55	9	15	10	11	NP	NP	12	A-1-b
608.8	28	20/22			Brown Silty Gravelly Sand	12	29	15	26	13	17	NP	NP	14	A-2-4
603.8	33	10/22			Brown Sandy Gravel	13	61	22	11	- 6 -		NP	NP	10	A-1-a
598.8	38	15/18			Brown Sand	14	0	92	7	- 1 -		NP	NP	22	A-1-b
593.8	43				Brown Sand	15	0	81	17	-2 -		NP	NP	25	A-1-b
588.8	48	50* (0.8)			Brown Gravelly Sand	16	37	39	18	-6 -		NP	NP	14	A-1-b
585.8	51		1.9	0.1	TOP OF ROCK										
	60		9.4	0.6	Shale, brownish-gray, soft and crumbly, weathered in upper 2.5' and very badly broken, gray, firm, carbonaceous in part, fissile, broken in remainder. Core Loss 6%.										
573.8	66				BOTTOM OF BORING										

*Refusal

GENERAL INFORMATION

Drive Rod Penetration Sounding Tests

Drive rod penetration resistance tests constitute driving a 1.315-inch diameter steel rod, with a 45° cone point, into the ground, using a 122-pound drop-hammer with a free fall of five feet. At one or two-foot depth intervals, a measurement is taken to determine the amount of penetration achieved in three hammer drops. This reading is converted to an empirical value for capacity "R", in thousands of pounds (which is a measure of both the point resistance and frictional resistance on the rod), by using charts prepared by the Ohio Department of Highways, Bureau of Bridges, on the basis of correlation study of rod penetration with past performance of pile driving. For interpretation, a graph is prepared by plotting the value "R" against the depth at which the reading was taken, and connecting the plotted points. The curve so obtained reflects the density of subsurface materials in a manner that can be readily compared with data from similar tests at other locations on the structure site. From this comparison, the overall uniformity of subsurface condition may be evaluated.

Drive Sample Borings - Drive-Press Sample Borings

Drive sample borings are made by means of a rotary-type drill rig, employing a 2" O.D., 1-3/8" I.D. sampler, at 2-1/2 and / or 5-foot depth intervals, driven by means of a 140 - pound drop-hammer with a free fall of 30 inches. The number of blows required to drive the sampler 12 inches is considered the standard penetration test.

Drive-press sample borings are made by means of a rotary-type drill rig, employing a 2" O.D., 1-3/8" I.D. drive sampler, and 3" O.D. thin-wall press sampler. The press sampler is advanced by continuous uniform pressure, applied by the drill rig.

The boring log sheets show a graphic plot of the information obtained, including depth and elevation of the sample, number of blows for the standard penetration tests in two 6-inch increments, depth of press samples, field sample number, sample description - based on laboratory tests and the Casagrande AC classification system - and gradation, plasticity, and moisture content determinations. Results of strength and consolidation testing, if performed, appear on separate enclosures.

At depths where materials are bouldery or gravelly to the extent that the sampler can not be driven, a wash sample is procured for visual classification, in order to determine the general character of the material. These samples are not considered sufficiently representative to warrant laboratory testing.

Particle Size Definitions

Boulders	Cobbles	Gravel	Coarse Sand	Fine Sand	Silt	Clay
8"	3"	2.0mm (No. 10 sieve)	0.42mm (No. 40 sieve)	0.074mm (No. 200 sieve)	0.005mm	

NOTE: Information shown by this subsurface investigation was obtained solely for the use in establishing design controls for the project. The State of Ohio does not guarantee the accuracy of this data and it is not to be construed as a part of the plans governing construction of the project.

OHIO DEPARTMENT OF HIGHWAYS
TESTING LABORATORY
1620 WEST BROAD STREET, COLUMBUS 23, OHIO

STRUCTURE FOUNDATION INVESTIGATION
BRIDGE NO. JEF-7-0245
OVER RELOCATED SHORT CREEK
SEC. JEF-7-0.20

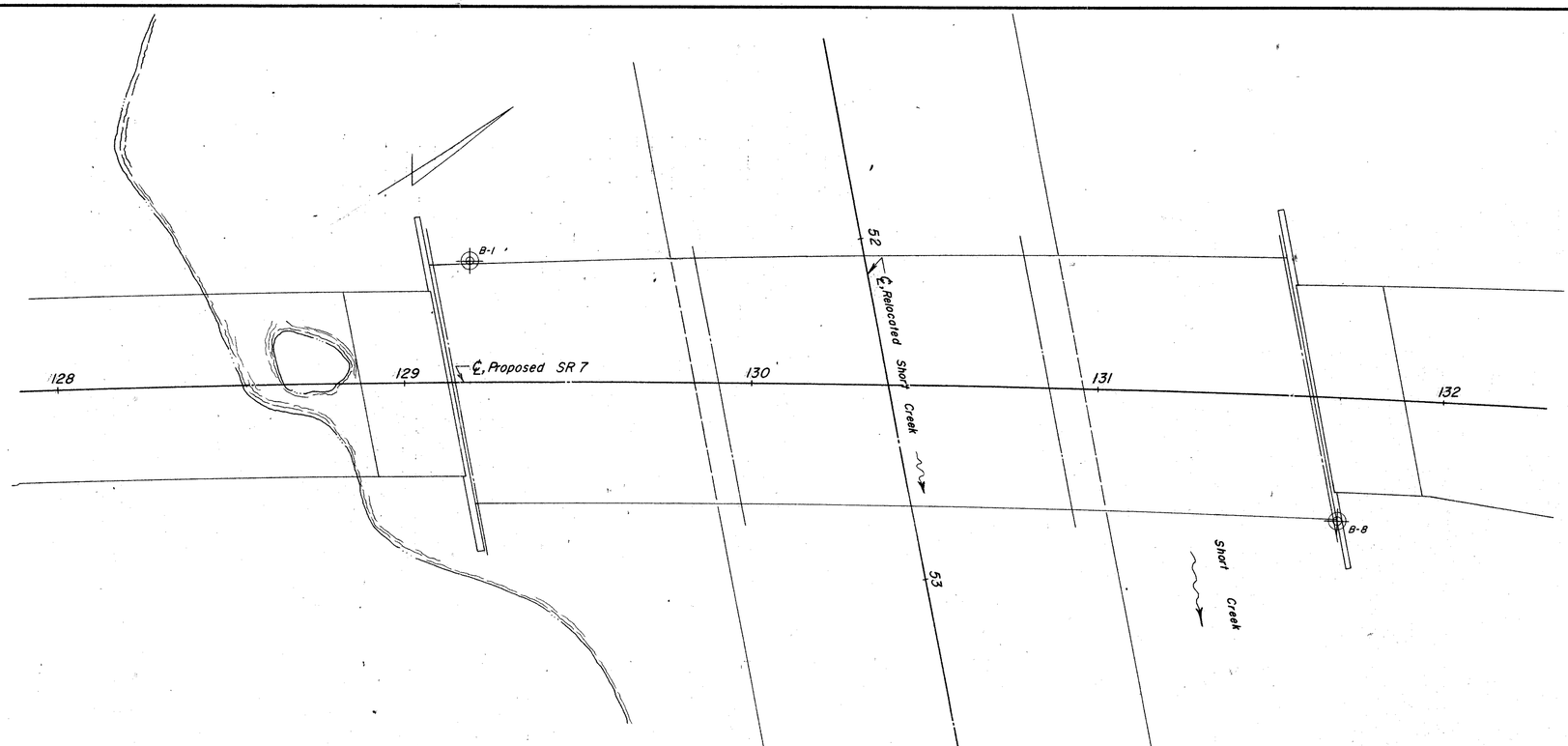
CHECKED BY	REVIEWED BY	DATE
L.N.L.	R.D.R.	11/22/67

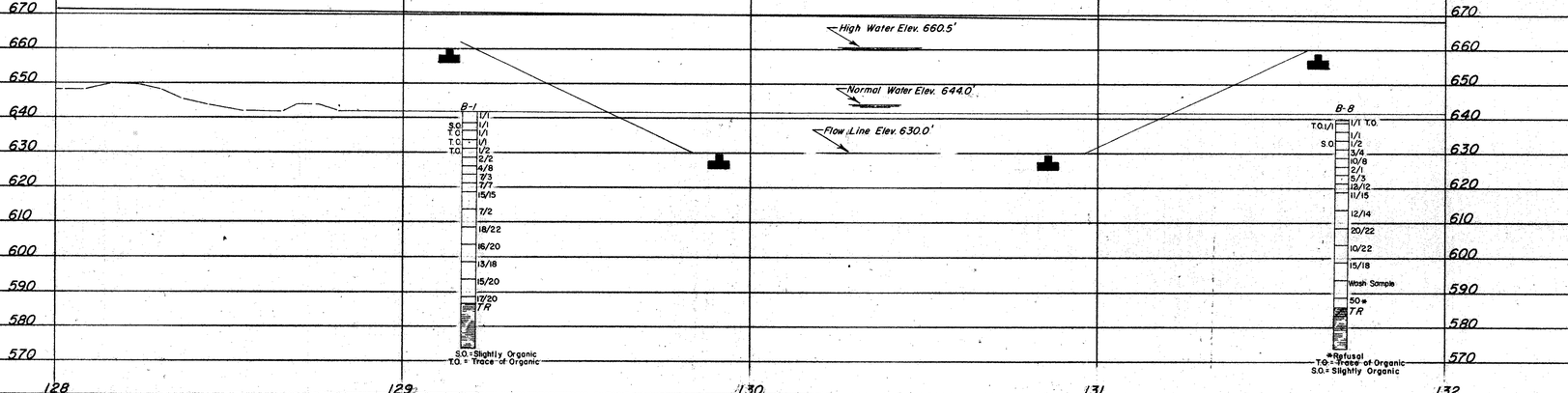
TE - 119
1000 - 4 - 66

MICROFILMED
OCT 29 1968

15/53
2/2

JEF-7-0.20





SCALE: 1" = 20'

OHIO DEPARTMENT OF HIGHWAYS
TESTING LABORATORY
1620 WEST BROAD STREET, COLUMBUS 23, OHIO

STRUCTURE FOUNDATION INVESTIGATION
BRIDGE NO. JEF-7-0245
OVER RELOCATED SHORT CREEK
SEC. JEF-7-0.20

PLAN AND PROFILE

DRAWN BY	CHECKED BY	REVIEWED BY	DATE
J.E.C.	L.N.L.	R.D.R.	11/22/67

TE - 118
600 - 4 - 66

MICROFILMED
OCT 29 1968

GEOLOGY OF THE SITE
THE STRUCTURE SITE IS LOCATED ON THE TERRACED FLOODPLAIN OF THE OHIO RIVER AT THE CONFLUENCE WITH SHORT CREEK. DEEP ALLUVIUM AND VALLEY FILL OVERLIES SHALE AND SANDSTONE BEDROCK, OF PENNSILVANIAN AGE.

EXPLORATION
THE EXPLORATION CONSISTED OF TWO DRIVE SAMPLE-CORE BORINGS AND FOUR DRIVE ROD PENETRATION TESTS, MADE BETWEEN OCTOBER 11 AND NOVEMBER 1, 1967.

INVESTIGATIONAL FINDINGS
BORING B-3, IN THE REAR PORTION OF THE SITE, DISCLOSED VERY SOFT TO STIFF, EXTREMELY WET CLAYS AND VERY LOOSE TO LOOSE SILTS, ALSO EXTREMELY WET, TO 22-FOOT DEPTH, ELEVATION 620 FEET. ORGANIC MATERIAL WAS ENCOUNTERED FROM GROUND SURFACE TO 15-FOOT DEPTH, ELEVATION 628 FEET. BELOW ELEVATION 620 FEET, THE BORING ENCOUNTERED MEDIUM DENSE TO DENSE SILTS, SANDS, AND GRAVELS, TO BEDROCK SURFACE, ENCOUNTERED AT 55-FOOT DEPTH, ELEVATION 587 FEET. BORING B-8, IN THE FORWARD PORTION OF THE SITE, ENCOUNTERED LOOSE VERY MOIST SILTS TO 28-FOOT DEPTH, ELEVATION 623 FEET; BELOW THIS, MEDIUM DENSE TO DENSE SANDS AND GRAVELS TO BEDROCK SURFACE, ENCOUNTERED AT 69-FOOT DEPTH, ELEVATION 582 FEET. THE BORINGS WERE TERMINATED AT 67 AND 80-FOOT DEPTHS, ELEVATIONS 575 AND 571 FEET, AFTER PENETRATING 11 AND 12 FEET OF BEDROCK.

THE ROD SOUNDINGS ENCOUNTERED LOW TO MEDIUM HIGH RESISTANCE TO PENETRATION WITH INCREASING DEPTH, AND WITH EXCEPTION OF SOUNDING NUMBER 4, WERE TERMINATED DUE TO REFUSAL TO PENETRATION AT 59 TO 63-FOOT DEPTHS, ELEVATIONS 591 TO 585 FEET, CONSIDERED TO BE ON BEDROCK SURFACE OR IN THE DENSE MATERIALS ABOVE BEDROCK SURFACE, AS REVEALED BY THE BORINGS. ROD SOUNDING NUMBER 4 WAS TERMINATED DUE TO ROD BREAKAGE.

NO FREE WATER WAS OBSERVED IN ANY OF THE ROD SOUNDING HOLES.

LEGEND

- Auger Boring Location - Plan View.
- Press and / or Drive Sample and / or Core Boring Location - Plan View.
- Drive Rod Penetration Resistance Sounding Location - Plan View.
- Capped Pile
- Footing
- Footing on Pile
- TR — Top of Rock
- Horizontal Bar on Boring Log Indicates the Depth the Sample Was Taken.
- X/Y — Figures Beside the Boring Log in Profile Indicate the Number of Blows for Standard Penetration Test.
  X = Number of Blows for First 6 inches.
  Y = Number of Blows for Second 6 inches.
- Drive Rod Penetration Resistance Sounding Log - Profile
- Casing
- Resistance "R" < 10,000 lbs.
- Resistance "R" > 10,000 lbs.
- Z — Indicates Final Measurement of Penetration, in Inches.
- W — Indicates Free Water Elevation.
- Indicates Static Water Elevation.

SYMBOLS OF ROCK TYPES

- Coal
- Weathered Indurated Clay
- Indurated Clay
- Weathered Shale
- Shale
- Weathered Sandstone
- Sandstone
- Leached Dolomite
- Dolomite
- Leached Limestone
- Limestone

GENERAL INFORMATION

Drive Rod Penetration Sounding Tests

Drive rod penetration resistance tests constitute driving a 1.315-inch diameter steel rod, with a 45° cone point, into the ground, using a 122-pound drop-hammer with a free fall of five feet. At one or two-foot depth intervals, a measurement is taken to determine the amount of penetration achieved in three hammer drops. This reading is converted to an empirical value for capacity "R", in thousands of pounds (which is a measure of both the point resistance and frictional resistance on the rod), by using charts prepared by the Ohio Department of Highways, Bureau of Bridges, on the basis of correlation study of rod penetration with past performance of pile driving. For interpretation, a graph is prepared by plotting the value "R" against the depth at which the reading was taken, and connecting the plotted points. The curve so obtained reflects the density of subsurface materials in a manner that can be readily compared with data from similar tests at other locations on the structure site. From this comparison, the overall uniformity of subsurface condition may be evaluated.

Drive Sample Borings - Drive-Press Sample Borings

Drive sample borings are made by means of a rotary-type drill rig, employing a 2" O.D., 1-3/8" I.D. sampler, at 2-1/2 and / or 5-foot depth intervals, driven by means of a 140 - pound drop-hammer with a free fall of 30 inches. The number of blows required to drive the sampler 12 inches is considered the standard penetration test.

Drive-press sample borings are made by means of a rotary-type drill rig, employing a 2" O.D., 1-3/8" I.D. drive sampler, and 3" O.D. thin-wall press sampler. The press sampler is advanced by continuous uniform pressure, applied by the drill rig.

The boring log sheets show a graphic plot of the information obtained, including depth and elevation of the sample, number of blows for the standard penetration tests in two 6-inch increments, depth of press samples, field sample number, sample description - based on laboratory tests and the Casagrande AC classification system-and gradation, plasticity, and moisture content determinations. Results of strength and consolidation testing, if performed, appear on separate enclosures.

At depths where materials are bouldery or gravelly to the extent that the sampler can not be driven, a wash sample is procured for visual classification, in order to determine the general character of the material. These samples are not considered sufficiently representative to warrant laboratory testing.

Particle Size Definitions

Boulders	Cobbles	Gravel	Coarse Sand	Fine Sand	Silt	Clay
8"	3"	2.0mm (No. 10 sieve)	0.42mm (No. 40 sieve)	0.074mm (No. 200 sieve)	0.005mm	

NOTE: Information shown by this subsurface investigation was obtained solely for the use in establishing design controls for the project. The State of Ohio does not guarantee the accuracy of this data and it is not to be construed as a part of the plans governing construction of the project.

OHIO DEPARTMENT OF HIGHWAYS
TESTING LABORATORY
1620 WEST BROAD STREET, COLUMBUS 23, OHIO

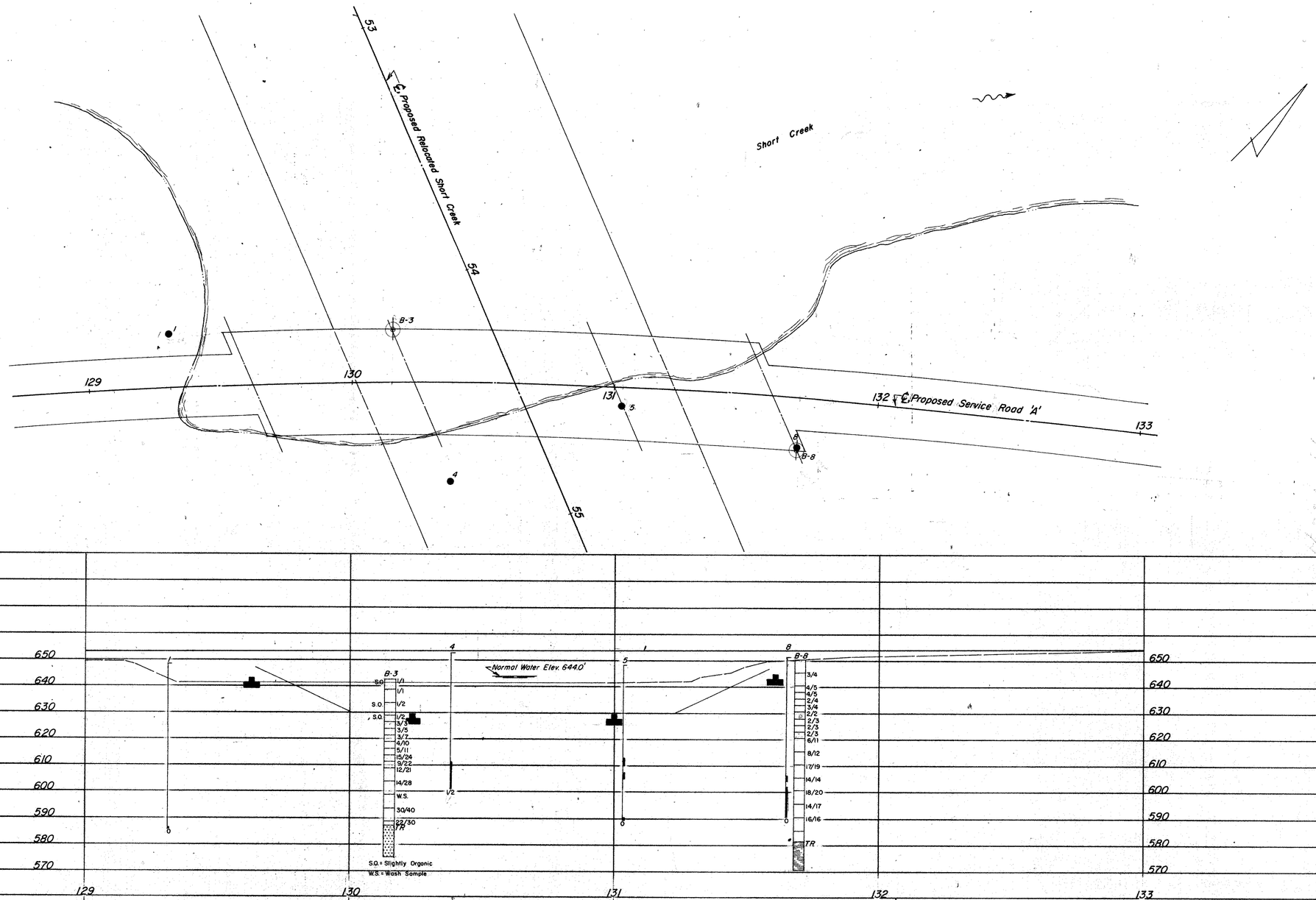
STRUCTURE FOUNDATION INVESTIGATION
BRIDGE NO. JEF-7-SERVICE ROAD 'A'
OVER RELOCATED SHORT CREEK
SEC. JEF-7-0.20

CHECKED BY	REVIEWED BY	DATE
L.N.L.	R.D.R.	11/15/67

TE - 119
1000 - 4 - 66

MICROFILMED
OCT 29 1982

JEF-7-0.20



SCALE: 1" = 20'

OHIO DEPARTMENT OF HIGHWAYS
TESTING LABORATORY
1620 WEST BROAD STREET, COLUMBUS 23, OHIO

STRUCTURE FOUNDATION INVESTIGATION
BRIDGE NO. JEF-7-SERVICE ROAD 'A'
OVER RELOCATED SHORT CREEK
SEC. JEF-7-0.20

PLAN AND PROFILE

DRAWN BY	CHECKED BY	REVIEWED BY	DATE
J.E.C.	L.N.L.	R.D.R.	11/15/67

TE - 122
600 - 11 - 64

MICROFILMED
OCT 28 1982

LOG OF BORING

Date Started 10-16-67 | Sampler Type SS | Dia. 1 3/8" | Water Elev. 643.8'
Date Completed 10-19-67 | Casing: Length 58' | Dia. 3 1/2"
Boring No. B-5 | Station & Offset 130+15, 20' Lt. (Rear Pier) | Surface Elev. 642.5'

Elev.	Depth	Std. Pen. (N)	Rec. ft.	Loss ft.	Description	Sample No.	Physical Characteristics: % Agg.	% C.S.	% F.S.	% Silt	% Clay	L.L.	P.I.	W.C.	SHTL Class.
642.5	0	1/1			Brown Sandy Clay, Slightly Organic	1	0	2	20	38	40	60	23	74	A-7-5
638.8	4	1/1			Brown Sandy Silt	2	0	5	20	40	35	NP	NP	75	A-4a
633.8	10	1/2			Brownish-Gray Sandy Clay, Slightly Organic	3	0	4	19	41	36	61	26	66	A-7-5
628.8	14	1/2			Brownish-Gray Sandy Silt, Slightly Organic	4	0	4	19	43	34	NP	NP	70	A-4a
626.3	16	3/3			Brown Silt	5	0	2	5	51	42	NP	NP	69	A-4b
623.8	20	3/5			Brown Silt	6	4	1	10	39	46	NP	NP	55	A-4a
621.3	22	3/7			Brown Gravelly Sandy Clay	7	18	12	16	26	28	42	15	51	A-7-6
618.8	24	4/10			Brown Gravelly Sandy Silt	8	16	6	34	24	20	NP	NP	22	A-4a
616.3	26	5/11			Brown Silty Sandy Gravel	9	42	10	21	10	17	NP	NP	17	A-2-4
613.8	30	15/24			Brown Silty Gravelly Sand	10	39	12	28	9	12	-	-	11	-
611.3	32	9/22			Brown Silty Sand	11	9	46	33	-12	-	NP	NP	26	A-1-b
608.8	34	12/21			Brown Silty Gravelly Sand	12	37	12	29	12	10	NP	NP	15	A-2-4
603.8	40	14/28			Brown Silty Sandy Gravel	13	45	24	19	-12	-	NP	NP	13	A-1-b
598.8	44				Gray Sand (Wash Sample)	14	0	89	10	-	1	-	NP	NP	24	A-1-b
593.8	50	30/40			Gray Sand	15	0	73	23	-	4	-	NP	NP	25	A-1-b
588.8	54	22/30			Gray Gravelly Sand	16	26	65	7	-	2	-	NP	NP	14	A-1-b
587.1	56		1.9	0.1	TOP OF ROCK Sandstone, gray, firm, argillaceous, with arenaceous shale intervals, and clay seams, fine-grained, very badly broken and jointed. Core Loss 16%.										
575.1	66		8.2	1.8	BOTTOM OF BORING										

LOG OF BORING

Date Started 10-11-67 | Sampler Type SS | Dia. 1 3/8" | Water Elev.
Date Completed 10-13-67 | Casing: Length 69' | Dia. 3 1/2"
Boring No. B-8 | Station & Offset 131+70, 20' Rt. (Forward Abutment) | Surface Elev. 650.5'

Elev.	Depth	Std. Pen. (N)	Rec. ft.	Loss ft.	Description	Sample No.	Physical Characteristics: % Agg.	% C.S.	% F.S.	% Silt	% Clay	L.L.	P.I.	W.C.	SHTL Class.
650.5	0														
645.5	6	3/4			Brown Sandy Silt	1	0	1	22	37	40	28	10	19	A-4a
640.5	10	4/5			Brown Sandy Silt	2	0	0	21	53	26	26	7	21	A-4b
638.0	12	4/5			Brown Sandy Silt	3	0	0	24	43	33	27	8	23	A-4a
635.5	16	2/4			Brown Sandy Silt	4	0	0	41	35	24	NP	NP	23	A-4a
633.0	18	3/4			Brown Sandy Silt	5	0	0	36	35	29	NP	NP	23	A-4a
630.5	20	2/2			Brown Sandy Silt	6	0	0	29	45	26	NP	NP	24	A-4a
628.0	22	2/3			Brown Sandy Silt	7	0	0	38	32	30	NP	NP	22	A-4a
625.5	25	2/3			Brown Sandy Silt	8	0	0	29	40	31	NP	NP	28	A-4a
623.0	28	2/3			Brown Sandy Silt	9	0	0	35	35	30	NP	NP	26	A-4a
620.5	32	6/11			Brown Silty Sandy Gravel	10	41	9	23	9	18	NP	NP	13	A-2-4
615.5	36	8/12			Brown Silty Sandy Gravel	11	56	12	16	-16	-	NP	NP	10	A-1-b
610.5	40	17/19			Brown Silty Sandy Gravel	12	48	10	22	9	11	NP	NP	11	A-1-b
605.5	46	14/14			Brown Sandy Gravel	13	56	23	12	-	9	-	NP	NP	7	A-1-a
600.5	52	18/20			Brown Gravelly Sand	14	26	58	11	-	5	-	NP	NP	19	A-1-b
595.5	56	14/17			Brown Sand	15	0	32	62	-	6	-	NP	NP	30	A-3
590.5	60	16/16			Brown Sand	16	2	78	14	-	6	-	NP	NP	17	A-1-b
585.5	66				No Sample Recovered										
581.5	68				TOP OF ROCK										
570.5	80		9.6	0.4	Shale, dark-gray and carbonaceous in upper 4.0 feet, gray and arenaceous in remainder, firm, broken and jointed. Core Loss 4%.										
					BOTTOM OF BORING										

OHIO DEPARTMENT OF HIGHWAYS
TESTING LABORATORY
1620 WEST BROAD STREET, COLUMBUS 23, OHIO

STRUCTURE FOUNDATION INVESTIGATION
BRIDGE NO. JEF - 7 - SERVICE ROAD 'A' OVER RELOCATED SHORT CREEK
SEC. JEF - 7 - 0.20

BORING DATA

TYPED BY	CHECKED BY	REVIEWED BY	DATE
S.A.J.	R. C.	R.D.R.	11/15/67

TE-114
1000-1-64
MICROFILMED
OCT 29 1968

JEF-7-0.20

Test Location No. ____
Station & Offset ____
Surface Elev. ____ Water Elev. ____
Piling ____
Hammer ____
Formula ____
Reference ____
Rod Condition ____

Test Location No. ____
Station & Offset ____
Surface Elev. ____ Water Elev. ____
Piling ____
Hammer ____
Formula ____
Reference ____
Rod Condition ____

Test Location No. ____
Station & Offset ____
Surface Elev. ____ Water Elev. ____
Piling ____
Hammer ____
Formula ____
Reference ____
Rod Condition ____

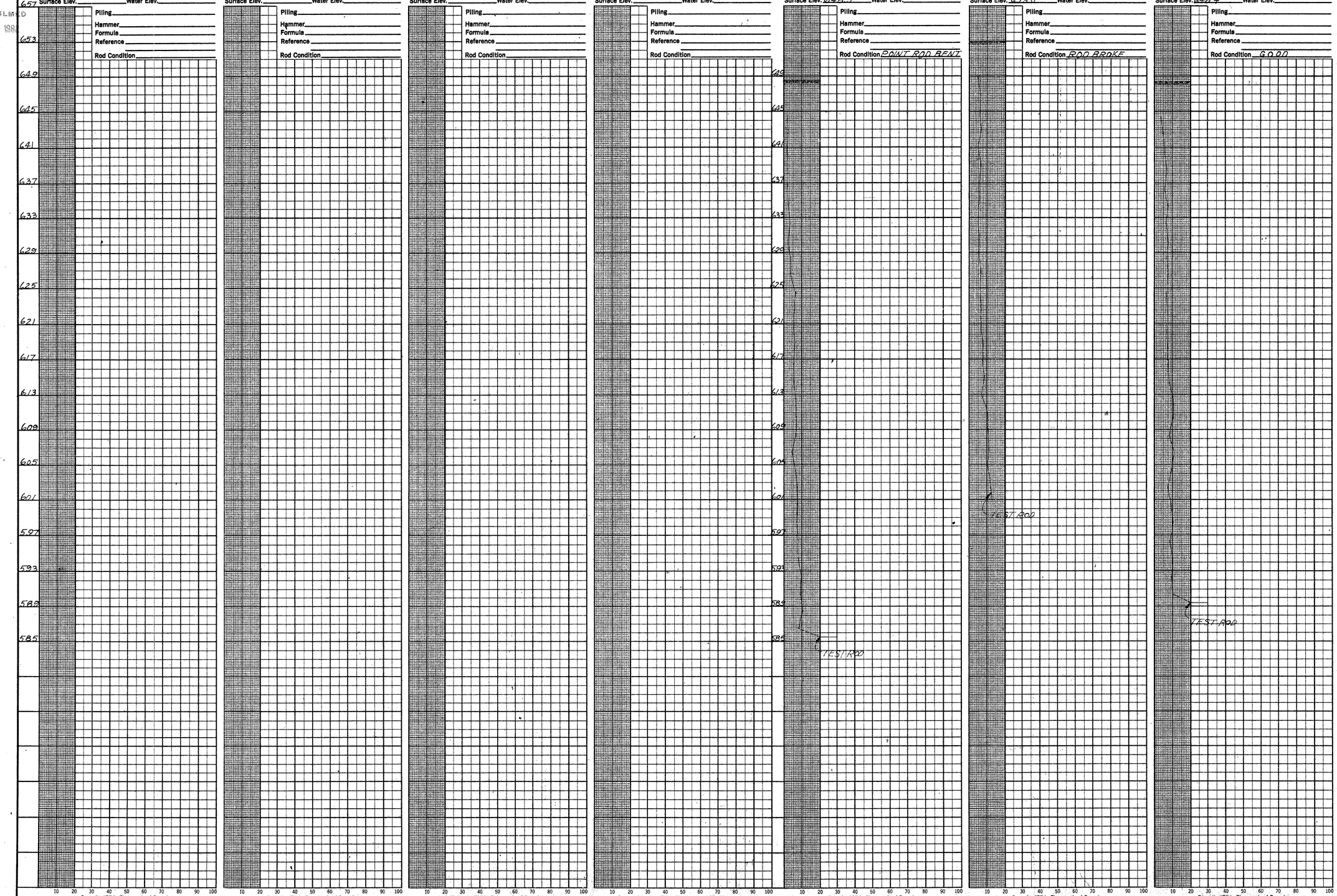
Test Location No. ____
Station & Offset ____
Surface Elev. ____ Water Elev. ____
Piling ____
Hammer ____
Formula ____
Reference ____
Rod Condition ____

Test Location No. 1
Station & Offset 129+31, 20' LT
REAR ABUTMENT
Surface Elev. 648.5 Water Elev. ____
Piling ____
Hammer ____
Formula ____
Reference ____
Rod Condition POINT ROD BENT

Test Location No. 4
Station & Offset 130+38, 38' RT.
REAR PIER
Surface Elev. 653.0' Water Elev. ____
Piling ____
Hammer ____
Formula ____
Reference ____
Rod Condition ROD BROKE

Test Location No. 5
Station & Offset 131+03, 7' RT.
FORWARD PIER
Surface Elev. 648.4' Water Elev. ____
Piling ____
Hammer ____
Formula ____
Reference ____
Rod Condition GOOD

Test Location No. 8
Station & Offset 131+70, 19' RT.
FORWARD ABUTMENT
Surface Elev. 651.5' Water Elev. ____
Piling ____
Hammer ____
Formula ____
Reference ____
Rod Condition ____



OHIO STATE HIGHWAY TESTING LABORATORY
1620 WEST BROAD ST. COLUMBUS 23, OHIO

STRUCTURE FOUNDATION INVESTIGATION
BRIDGE NO. JEF-7-SERVICE ROAD 'A'
OVER RELOCATED SHORT CREEK
SEC. JEF-7-0.20

DRIVE ROD PENETRATION RESISTANCE DATA

PLOTTED BY	CHECKED BY	REVIEWED BY	DATE
R.C.	L.N.L.	R.D.R.	11/15/67

TE - 118
600 - 4 - 66

MICROFILMED
OCT 29 1982

JEFFERSON COUNTY
JEF-7-0.20

GEOLOGY OF THE SITE
THE STRUCTURE SITE IS LOCATED ON THE TERRACED FLOODPLAIN OF THE OHIO RIVER IN AN AREA WHICH IS BEING INCISED BY SHORT CREEK. EXISTING ROADWAY EMBANKMENT AND MODERATELY DEEP ALLUVIUM AND VALLEY FILL OVERLIE SHALE BEDROCK, OF PENNSYLVANIAN AGE.

EXPLORATION
THE EXPLORATION CONSISTED OF TWO DRIVE SAMPLE-CORE BORINGS AND FOUR DRIVE ROD PENETRATION TESTS, MADE BETWEEN OCTOBER 19 AND NOVEMBER 6, 1967.

INVESTIGATIONAL FINDINGS
BORING B-1, IN SHORT CREEK AT THE REAR PORTION OF THE SITE, ENCOUNTERED VERY MOIST, OCCASIONALLY ORGANIC, SOFT TO STIFF SILTS AND CLAYS TO 18-FOOT DEPTH, ELEVATION 620 FEET; BELOW THIS, LOOSE TO DENSE SANDS AND GRAVELS TO BEDROCK SURFACE, ENCOUNTERED AT 52-FOOT DEPTH, ELEVATION 586 FEET. THE BORING WAS TERMINATED AT 99-FOOT DEPTH, ELEVATION 579 FEET, AFTER PENETRATING 7 FEET OF BEDROCK. BORING B-8, IN THE FORWARD PORTION OF THE SITE, ENCOUNTERED LOOSE TO MEDIUM DENSE SANDS AND SILTS TO 35-FOOT DEPTH, ELEVATION 616 FEET; BELOW THIS, VERY DENSE SANDS AND GRAVELS TO BEDROCK SURFACE, ENCOUNTERED AT 65-FOOT DEPTH, ELEVATION 586 FEET. THE BORING WAS TERMINATED AT 80-FOOT DEPTH, ELEVATION 571 FEET, AFTER PENETRATING 15 FEET OF BEDROCK.

THE ROD SOUNDINGS ENCOUNTERED GRADUALLY INCREASING RESISTANCE TO PENETRATION WITH INCREASING DEPTH, AND WERE TERMINATED DUE TO REFUSAL TO PENETRATION AT 63 AND 66-FOOT DEPTHS, ELEVATION 587 FEET, CONSIDERED TO BE UPON BEDROCK SURFACE.

NO FREE WATER WAS OBSERVED IN ANY OF THE ROD SOUNDING HOLES.

LEGEND

- Auger Boring Location - Plan View.
- Press and / or Drive Sample and / or Core Boring Location - Plan View.
- Drive Rod Penetration Resistance Sounding Location - Plan View.
- Capped Pile
- Footing
- Footing on Pile
- TR — Top of Rock
- Horizontal Bar on Boring Log Indicates the Depth the Sample Was Taken.
- X/Y — Figures Beside the Boring Log in Profile Indicate the Number of Blows for Standard Penetration Test.
  X = Number of Blows for First 6 inches.
  Y = Number of Blows for Second 6 inches.
- Drive Rod Penetration Resistance Sounding Log - Profile
- Casing
- Resistance "R" < 10,000 lbs.
- Resistance "R" > 10,000 lbs.
- Z — Indicates Final Measurement of Penetration, in Inches.
- W — Indicates Free Water Elevation.
- Indicates Static Water Elevation.

SYMBOLS OF ROCK TYPES

- Coal
- Weathered Indurated Clay
- Indurated Clay
- Weathered Shale
- Shale
- Weathered Sandstone
- Sandstone
- Leached Dolomite
- Dolomite
- Leached Limestone
- Limestone

GENERAL INFORMATION

Drive Rod Penetration Sounding Tests

Drive rod penetration resistance tests constitute driving a 1.315-inch diameter steel rod, with a 45° cone point, into the ground, using a 122-pound drop-hammer with a free fall of five feet. At one or two-foot depth intervals, a measurement is taken to determine the amount of penetration achieved in three hammer drops. This reading is converted to an empirical value for capacity "R", in thousands of pounds (which is a measure of both the point resistance and frictional resistance on the rod), by using charts prepared by the Ohio Department of Highways, Bureau of Bridges, on the basis of correlation study of rod penetration with past performance of pile driving. For interpretation, a graph is prepared by plotting the value "R" against the depth at which the reading was taken, and connecting the plotted points. The curve so obtained reflects the density of subsurface materials in a manner that can be readily compared with data from similar tests at other locations on the structure site. From this comparison, the overall uniformity of subsurface condition may be evaluated.

Drive Sample Borings - Drive-Press Sample Borings

Drive sample borings are made by means of a rotary-type drill rig, employing a 2" O.D., 1-3/8" I.D. sampler, at 2-1/2 and / or 5-foot depth intervals, driven by means of a 140 - pound drop-hammer with a free fall of 30 inches. The number of blows required to drive the sampler 12 inches is considered the standard penetration test.

Drive-press sample borings are made by means of a rotary-type drill rig, employing a 2" O.D., 1-3/8" I.D. drive sampler, and 3" O.D. thin-wall press sampler. The press sampler is advanced by continuous uniform pressure, applied by the drill rig.

The boring log sheets show a graphic plot of the information obtained, including depth and elevation of the sample, number of blows for the standard penetration tests in two 6-inch increments, depth of press samples, field sample number, sample description - based on laboratory tests and the Casagrande AC classification system - and gradation, plasticity, and moisture content determinations. Results of strength and consolidation testing, if performed, appear on separate enclosures.

At depths where materials are bouldery or gravelly to the extent that the sampler can not be driven, a wash sample is procured for visual classification, in order to determine the general character of the material. These samples are not considered sufficiently representative to warrant laboratory testing.

Particle Size Definitions

Boulders	Cobbles	Gravel	Coarse Sand	Fine Sand	Silt	Clay
8"	3"	2.0mm (No. 10 sieve)	0.42mm (No. 40 sieve)	0.074mm (No. 200 sieve)	0.005mm	

NOTE: Information shown by this subsurface investigation was obtained solely for the use in establishing design controls for the project. The State of Ohio does not guarantee the accuracy of this data and it is not to be construed as a part of the plans governing construction of the project.

OHIO DEPARTMENT OF HIGHWAYS
TESTING LABORATORY
1620 WEST BROAD STREET, COLUMBUS 23, OHIO

STRUCTURE FOUNDATION INVESTIGATION
BRIDGE NO. JEF-7-0288
OVER EXISTING SR 7 AND W&LE SPUR TRACK
SEC. JEF-7-0.20

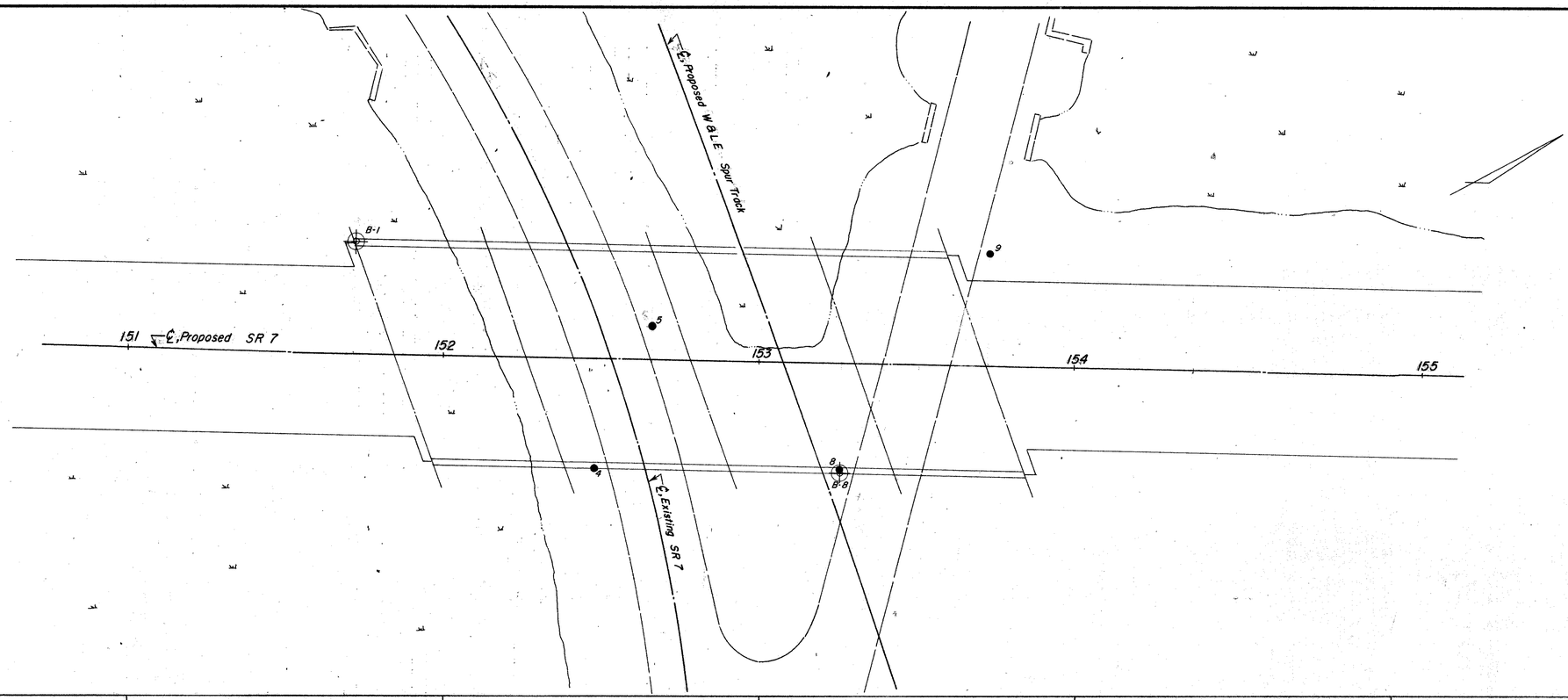
CHECKED BY	REVIEWED BY	DATE
L.N.L.	R.D.R.	11/22/67

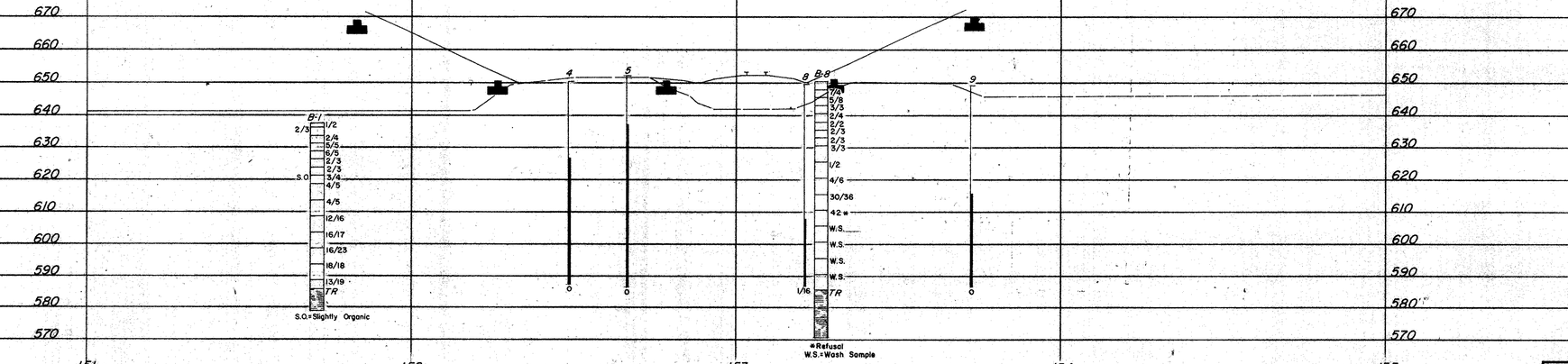
FE - 119
10 - 4 - 66

MICROFILMED
OCT 29 1968

JEF-7-0.20

51/53 2/4





SCALE: 1" = 20'

OHIO DEPARTMENT OF HIGHWAYS
TESTING LABORATORY
1620 WEST BROAD STREET, COLUMBUS 23, OHIO

STRUCTURE FOUNDATION INVESTIGATION

BRIDGE NO. JEF-7-0288
OVER EXISTING SR 7 AND W&LE SPUR TRACK
SEC. JEF-7-0.20

PLAN AND PROFILE

DRAWN BY	CHECKED BY	REVIEWED BY	DATE
J.E.C.	L.N.L.	R.D.R.	11/22/67

TE - 122
10 - 11 - 64

MICROFILMED
OCT 29 1968

JEF-7-0.20

LOG OF BORING

Date Started 10-26-67 | Sampler Type SS | Dia. 1 3/8" | Water Elev. 643.8'
Date Completed 10-27-67 | Casing: Length 58' | Dia. 3 1/2"
Boring No. B-1 | Station & Offset 151+71, 35' Lt. (Rear Abutment) | Surface Elev. 637.8'

Elev.	Depth	Std. Pen. (N)	Rec. ft.	Loss ft.	Description	Sample No.	% Agg.	% C.S.	% F.S.	% Silt	% Clay	L.L.	P.I.	W.C.	SHTL Class.
637.8	0														
		1/2			Gray Silty Clay	1	–	–	–	–	–	46	20	47	–
636.3	2														
		2/3			Gray Clay	2	0	1	2	37	60	51	24	39	A-7-6
633.8	4														
		2/4			Gray Silt and Clay	3	0	1	2	40	57	42	14	35	A-7-6
631.3	6														
	8	5/5			Brown Clay	4	0	0	1	39	60	49	24	33	A-7-6
628.8	10														
		6/5			Brown Silty Clay	5	0	0	1	45	54	44	16	26	A-7-6
626.3	12														
		2/3			Brown Clay	6	0	0	2	39	59	52	23	45	A-7-6
623.8	14														
		2/3			Brownish-Gray Clay	7	0	0	3	39	58	52	21	42	A-7-5
621.3	16														
	18	3/4			Gray Sandy Clay, Slightly Organic	8	2	6	17	35	40	53	21	47	A-7-5
618.8	20	4/5			Brown Sandy Gravelly Clay	9	25	4	19	25	27	34	13	43	A-6a
	22														
613.8	24	4/5			Brown Silty Gravelly Sand	10	31	11	27	16	15	NP	NP	19	A-2-4
	26														
	28														
608.8	30	12/16			Brown Silty Sandy Gravel	11	37	12	22	13	16	NP	NP	23	A-2-4
	32														
603.8	34	16/17			Gray Sand	12	6	77	15	–	2	–	NP	NP	19	A-3a
	36														
	38														
598.8	40	16/23			Gray Gravelly Sand (Sand heaved in casing 0.5')	13	30	61	8	–	1	–	NP	NP	15	A-1-b
	42														
593.8	44	18/18			Gray Sand (Sand heaved in casing 0.5')	14	4	81	13	–	2	–	NP	NP	25	A-3a
	46														
	48														
588.8	50	13/19			Gray Sand (Sand heaved in casing 0.5')	15	5	85	8	–	2	–	NP	NP	25	A-1-b
585.8	52				TOP OF ROCK										
			2.0	0.0											
	54				Shale, dark-gray, carbonaceous in part, fissile, firm, broken and jointed. Core Loss 10%.										
	56														
			4.3	0.7											
578.8	58				BOTTOM OF BORING										

LOG OF BORING

Date Started 10-19-67 | Sampler Type SS | Dia. 1 3/8" | Water Elev. –
Date Completed 10-24-67 | Casing: Length 65' | Dia. 3 1/2"
Boring No. B-8 | Station & Offset 153+26, 35' Rt. (Forward Pier) | Surface Elev. 650.5'

Elev.	Depth	Std. Pen. (N)	Rec. ft.	Loss ft.	Description	Sample No.	% Agg.	% C.S.	% F.S.	% Silt	% Clay	L.L.	P.I.	W.C.	SHTL Class.
650.5	0														
	2														
648.0	4	7/4			Gray Silty Sandy Gravel	1	50	10	11	17	12	NP	NP	13	A-2-4
645.5	6	5/8			Gray Sandy Gravelly Silt	2	27	8	16	27	22	26	7	13	A-4a
643.0	8	3/3			Brownish-Gray Sandy Gravelly Silt	3	16	3	12	33	36	31	10	23	A-4a
640.5	10	2/4			Brown Sandy Silt	4	0	0	24	39	37	27	6	23	A-4a
638.0	12														
	14	2/2			Brown Sandy Silt	5	0	0	32	38	30	NP	NP	27	A-4a
635.5	16	2/3			Brown Sandy Silt	6	0	0	37	35	28	NP	NP	25	A-4a
633.0	18	2/3			Brown Sandy Silt	7	0	1	39	32	28	NP	NP	26	A-4a
630.5	20	3/3			Brown Sandy Silt	8	0	1	33	35	31	26	7	27	A-4a
	22														
625.5	24	1/2			Gray Sandy Clay	9	0	0	42	31	27	28	11	24	A-6a
	26														
	28														
620.5	30	4/6			Gray Sandy Silt	10	–	–	–	–	–	–	–	27	
	32														
	34														
615.5	36	30/36			Brown Sandy Gravel	11	54	16	21	–	9	–	NP	NP	7	A-1-a
	38														
610.5	40	42" (0.8)			Gray Silty Sandy Gravel	12	40	15	23	12	10	NP	NP	12	A-1-b
	42														
	44														
605.5	46	W.S.			Gray Gravelly Sand (heaved 2.0' in casing)	13	19	64	16	–	1	–	NP	NP	21	A-1-b
	48														
600.5	50	W.S.			Gray Sand (heaved 2.0' in casing)	14	0	37	59	–	4	–	NP	NP	22	A-3
	52														
	54														
595.5	56	W.S.			Gray Sand (heaved 3.0' in casing)	15	0	47	49	–	4	–	NP	NP	24	A-3
	58														
590.5	60	W.S.			Gray Gravelly Sand (heaved 1.5' in casing)	16	46	46	7	–	1	–	NP	NP	16	A-1-b
	62														
	64														
585.5	66				TOP OF ROCK										
	68														
			4.4	0.6											
	70														
	72				Shale, gray, firm, arenaceous, with thin intervals of fine-grained, argillaceous, sandstone, broken and jointed. Core Loss 1%.										
	74														
			5.0	0.0											
	76														
	78														
570.5	80				BOTTOM OF BORING										
			4.9	0.1											

Natural

OHIO DEPARTMENT OF HIGHWAYS
TESTING LABORATORY
1620 WEST BROAD STREET, COLUMBUS 23, OHIO

STRUCTURE FOUNDATION INVESTIGATION
BRIDGE NO. JEF-7-0288
OVER EXISTING SR 7 AND W & L E SPUR TRACK
SEC. JEF-7-0.20

BORING DATA

TYPED BY	CHECKED BY	REVIEWED BY	DATE
S.A.J.	R.C.	R.D.R.	11/22/67

MICROFILMED
OCT 29 1982

53
53
4
4

JEF-7-0.20

Test Location No. ____
Station & Offset ____
Surface Elev. ____ Water Elev. ____
Piling ____
Hammer ____
Formula ____
Reference ____
Rod Condition ____

Test Location No. ____
Station & Offset ____
Surface Elev. ____ Water Elev. ____
Piling ____
Hammer ____
Formula ____
Reference ____
Rod Condition ____

Test Location No. ____
Station & Offset ____
Surface Elev. ____ Water Elev. ____
Piling ____
Hammer ____
Formula ____
Reference ____
Rod Condition ____

Test Location No. ____
Station & Offset ____
Surface Elev. ____ Water Elev. ____
Piling ____
Hammer ____
Formula ____
Reference ____
Rod Condition ____

Test Location No. 4
Station & Offset 152+40 35' RT. REAR PIER
Surface Elev. 650.2 Water Elev. ____
Piling ____
Hammer ____
Formula ____
Reference ____
Rod Condition GOOD

Test Location No. 5
Station & Offset 152+66 10' LT CENTER PIER
Surface Elev. 652.6 Water Elev. ____
Piling ____
Hammer ____
Formula ____
Reference ____
Rod Condition ____

Test Location No. 8
Station & Offset 153+26 34' RT FORWARD PIER
Surface Elev. 649.8 Water Elev. ____
Piling ____
Hammer ____
Formula ____
Reference ____
Rod Condition GOOD

Test Location No. 9
Station & Offset 153+72 35' LT FORWARD ABUTMENT
Surface Elev. 649.1 Water Elev. ____
Piling ____
Hammer ____
Formula ____
Reference ____
Rod Condition GOOD

657 653 649 645 641 637 633 629 625 621 617 613 609 605 601 597 593 589 585

TEST ROD

10 20 30 40 50 60 70 80 90 100
Capacity "R" in Thousands of Pounds

OHIO STATE HIGHWAY TESTING LABORATORY
1620 WEST BROAD ST. COLUMBUS 23, OHIO

STRUCTURE FOUNDATION INVESTIGATION
BRIDGE NO. JEF-7-0288 OVER EXISTING SR 7 AND W&LE SPUR TRACK
SEC. JEF-7-0.20

DRIVE ROD PENETRATION RESISTANCE DATA

PLOTTED BY	CHECKED BY	REVIEWED BY	DATE
R.C.	L.N.L.	R.D.R.	11/22/67