

### INDEX

SHEET NO.	TITLE SHEET	DESIGNATION	B.P.R. APPROVAL	DATE ADOPTED OR LATEST REVISION
1	TITLE SHEET			
2	STD. DIV. LANE (INTERSTATE)			
3	STD. DIV. LANE (INTERSTATE)			
4	STD. CROSS SECTION			
5	STD. CROSS SECTION			
6	TYPICAL CROSS SECTION			
7	STD. 20 INCH RAMP SECTION			
8	STD. 20 INCH RAMP SECTION			
9A	PLAT NO. 1			
9B	PLAT NO. 2 FOR RW NOT INCLUDED IN CONSTRUCTION PLAN			
10	PLAN AND PROFILE			
11-36	MISCELLANEOUS STANDARDS			
11	MISCELLANEOUS STANDARDS, SHEET MA			
12	MISCELLANEOUS STANDARDS, SHEET MB			
13	MISCELLANEOUS STANDARDS, SHEET MC			
14	MISCELLANEOUS STANDARDS, SHEET MD			
15	MISCELLANEOUS STANDARDS, SHEET ME			
16	MISCELLANEOUS STANDARDS, SHEET MF			
17	MISCELLANEOUS STANDARDS, SHEET MG			
18	MISCELLANEOUS STANDARDS, SHEET MH			
19	MISCELLANEOUS STANDARDS, SHEET MI			
20	MISCELLANEOUS STANDARDS, SHEET MJ			
21	MISCELLANEOUS STANDARDS, SHEET MK			
22	MISCELLANEOUS STANDARDS, SHEET ML			
23	MISCELLANEOUS STANDARDS, SHEET MN			
24	MISCELLANEOUS STANDARDS, SHEET MO			
25	MISCELLANEOUS STANDARDS, SHEET MP			
26	MISCELLANEOUS STANDARDS, SHEET MQ			
27	MISCELLANEOUS STANDARDS, SHEET MR			
28	MISCELLANEOUS STANDARDS, SHEET MS			
29	MISCELLANEOUS STANDARDS, SHEET MT			
30	MISCELLANEOUS STANDARDS, SHEET MU			
31	MISCELLANEOUS STANDARDS, SHEET MV			
32	MISCELLANEOUS STANDARDS, SHEET MW			
33	MISCELLANEOUS STANDARDS, SHEET MX			
34	MISCELLANEOUS STANDARDS, SHEET MY			
35	MISCELLANEOUS STANDARDS, SHEET MZ			
36	MISCELLANEOUS STANDARDS, SHEET NA			

## STATE OF INDIANA INDIANA STATE HIGHWAY COMMISSION

# PLAN AND PROFILE OF PROPOSED STATE HIGHWAY

ST F PROJECT NO. 70 (15) CONST  
F PROJECT NO. 70 (14) R/W  
(13) PE

BEGINNING AT A POINT ON THE HOWARD-MIAMI COUNTY LINE APPROXIMATELY 47' WEST OF THE NORTH LINE OF SEC. 31 T25N R3E AND EXTENDING IN A NORTHERLY DIRECTION FOR APPROXIMATELY 25418.8 FEET TO A POINT APPROXIMATELY 4292.8 FEET NORTH OF THE SOUTH LINE OF SEC. 12 T25N R3E, ALL IN MIAMI COUNTY.

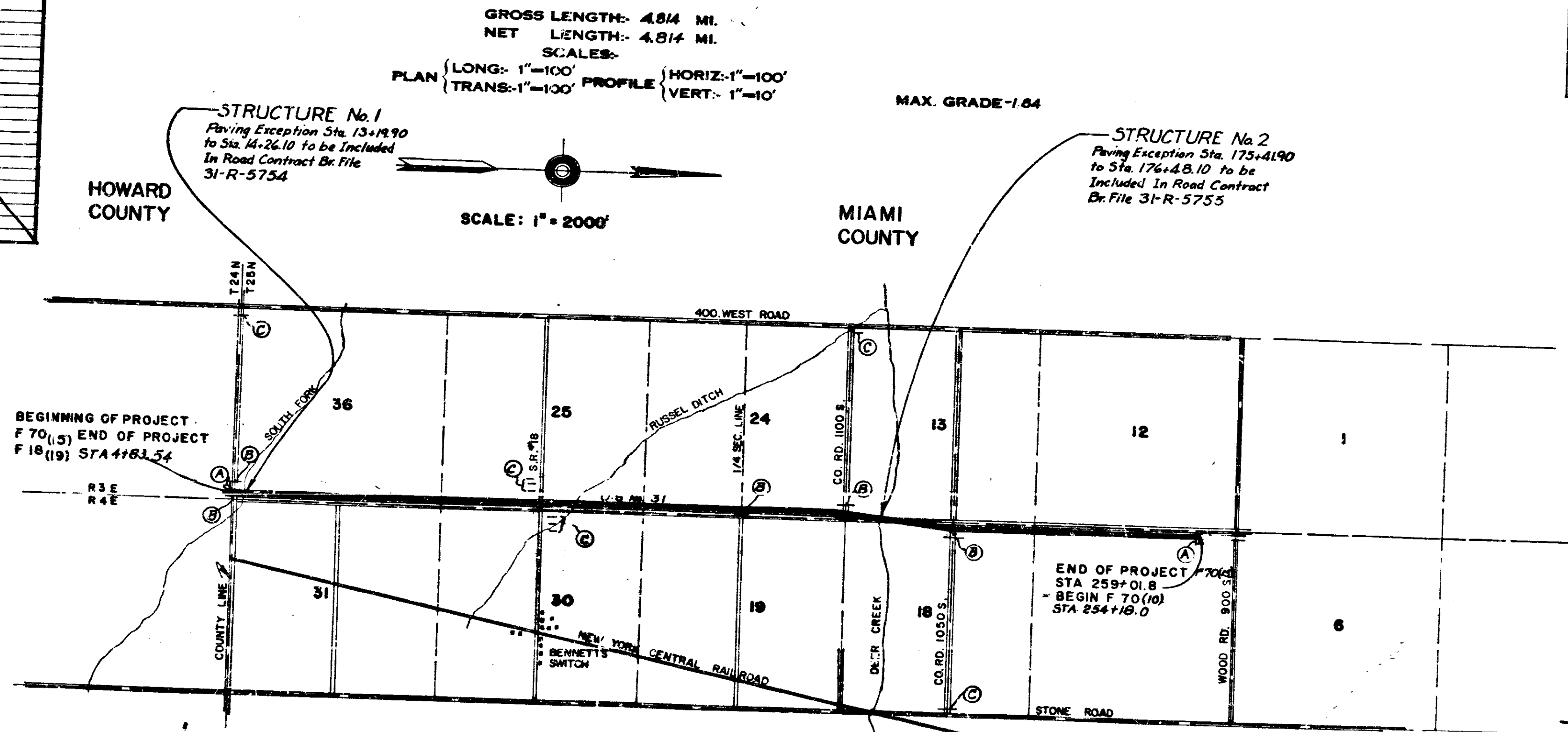
FEDERAL ROAD DIVISION NO.	STATE	PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
4	IND.	ST-700	1967	1	137

DESIGN DATA	
A.D.T. (1960)	11240 V.P.D.
A.D.T. (1960) PROJECTED	22290 V.P.D.
D.H.V.	24932 V.P.D.
DIRECTIONAL DISTRIBUTION:	55 %
TRUCKS D.H.V. %	ADT 23 %
DESIGN SPEED	70 M.P.H.
ACCESS CONTROL	Partial

THESE PLANS INCLUDE RW FOR STRUC. No. 1 Br. File 31-R-5754  
& STRUC. No. 2 Br. File 31-R-5755

**NOTE**  
This project to be financed by the expenditure of state primary funds. All project numbers appearing on plan & profile and cross section sheets to be referred to as ST-F-70 (16)

LEGEND	
(A)	STANDARD BARRICADE TYPE "A"
(B)	STANDARD BARRICADE TYPE "B"
(C)	CONSTRUCTION SIGN TYPE "A"



REVISIONS		
SHEET NO.	DATE	REVISED
15	3-27-60	Per Design Dept.
6-7-8-16	10-7-60	Per L.A. Div.
10-11-12-16	10-7-60	Per L.A. Div.
88-36	1-3-63	Per Design Dept.
8	3-20-60	Per Design Dept.
34	4-8-69	Per Design Dept.
16	5-12-63	Per Design Dept.
34	7-27-69	Per Design Dept.
17, 18 & 19	8-15-63	Per Design Dept.
16, 34	5-22-70	Per L.A. Div.
15, 42	7-31-70	Per Rd. Division Dept.
21	8-29-71	Per L.A. Division
16	11-4-71	Per Design Dept.
14, 15, 32, 40, 42, 45	3-3-72	Per Design Dept.

R/W INDEX	
SHEET NO.	DESCRIPTION
1	TITLE SHEET
2	TYPICAL CROSS SECTION
3A	PLAT NO. 1
3B, 3C, 3D	PLAT NO. 2 AERIAL MOSAIC
3E	PLAN AND PROFILE APPROACHES
36	STRUCTURE DATA
61-134	CROSS SECTIONS

INDIANA STATE HIGHWAY COMMISSION  
STANDARD SPECIFICATIONS DATED 1969  
APPROVED WITH THESE PLANS

APPROVED 10-29-69  
*[Signature]*  
CHIEF ENGINEER, INDIANA STATE HIGHWAY COMMISSION

DESIGNED BY R. S. Johnson  
ROAD CHIEF C. E. Ullman

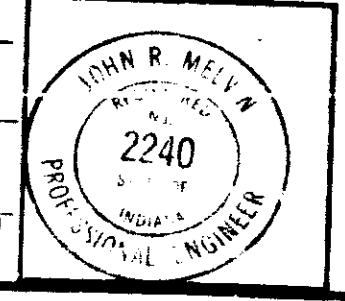
RECOMMENDED FOR APPROVAL 10-20-69  
*[Signature]*  
ASSISTANT ENGINEER OF PLANS AND SPECIFICATIONS

RECOMMENDED FOR APPROVAL 10-22-69  
*[Signature]*  
ENGINEER OF WORKS & SUPERVISOR OF CONSTRUCTION, INDIANA STATE HIGHWAY COMMISSION

BUREAU OF PUBLIC ROADS  
DEPARTMENT OF COMMERCE

APPROVED  
DIVISION ENGINEER  
DATE

ROAD FILE :-



# UTILITIES

INDIANA BELL TELEPHONE CO. INC. KOKOMO, IND.  
 STA. 2+50 to 259+01.8

PUBLIC SERVICE CO. OF IND. KOKOMO, IND.  
 STA. 2+50 to 84+20

MIAMI CASS CO. R.E.M.C. PERU, IND.  
 STA. 84+20 to 259+01.8

KOKOMO GAS & FUEL CO. KOKOMO, IND.

## REVISIONS

SHEET NO.	DATE	REVISED
SEE SHEET NO. 1		

## GENERAL NOTES

Standard divided lane sections for Federal Aid Projects as shown on Sheet No. to be used on this project.

Standard ramp section to be used on this project. Pavement thickness shall be as shown on Sheet No. to be used on this project.

Standard single lane pavement sections as shown on Sheet No. to be used on this project.

A.B.C.E.C. Pavement shall be used.

Typical cross-section as shown on Sheets No. 3 to be used on this project.

Standards under dates as listed in the Index on this Sheet to be used on this project.

Grade line as shown on profile represents top of finished surface.

All Ditches of 1% grade and over shall be sodded except where ditch is in rock cut or where Paved Side Ditch is to be constructed.

Sodding shall be placed as shown on Standard and Typical Cross-Sections and on Miscellaneous Standard Sheet "MB" specified.

All Earth Shoulders, Median Area, Cut, and Fill slopes shall be plain or mulched seeded except where sodding is specified.

Overhaul and Added Haul Quantities as shown in the Balances are for information only.

Excavation Quantities as shown include estimated excavation for Public and Private Approaches. See Table on Sheet No. that partial or complete cross-sections shall be taken if necessary to determine the actual quantities of Excavation. Paper Relocation is to be cross-sectioned by the Project Engineer before construction. Where existing surface is located outside the Limits of new construction between Sta. and Sta. the contractor will be required to remove the present roadway surface and base as directed by the Engineer.

For "Kinds of Pipe" permitted for each size and classification as shown on the Structures Data Sheet, see Miscellaneous Standard Sheet "MP" and "MP-F".

Such part of existing downspout drains that are disturbed by replacing the curb shall be replaced and connected as directed by the Engineer. Payment for this work shall be included in the Contract unit price for "Curb".

The minimum grade for Subsurface Drains shall be 0.20%. Where the profile grade is less than 0.20%, special grades for Subsurface Drains shall be established by the Engineer.

The Contractor must accept the plan quantities of Subbase as given on the Estimate of Quantities Sheet.

County Road shall have 4 "Edge Lines" and "Skip Center Line" as set out in "Special Provisions" and "Yellow Barrier Lines" shall be placed as shown on plans.

All Limited Access R/W (L.A. R/W) to be fenced with Chain Link Type Fence (6' L.A. R/W) or Farm Field Type Fence (F.F.T.F.) as specified in the plans.

Curves shall be Super-elevated according to the Standards of (Except Special "Super-Transitions" shall be detailed on Sheet No. ).

A Keyway Joint is to be constructed on Median side of each pavement.

Contraction Joints shall be placed at all manholes within pavement limits.

When Guard Rail Type "A" is called for on this project the Contractor shall use the Steel Beam Section only.

When Guard Rail Type "B" is called for on this project the Contractor shall have the option of using either the Steel Beam Section, the Semi Ellipse Aluminum Tubular Section, or the Steel Tubular Section.

When Guard Rail Type "C" is called for on this project the Contractor shall have the option of using either the Steel Beam Section, the Semi Ellipse Aluminum Tubular Section, or the Steel Tubular Section.

When Guard Rail Type "D" is called for on this project the Contractor shall have the option of using either the Steel Beam Section, the Semi Ellipse Aluminum Tubular Section, or the Steel Tubular Section.

When Guard Rail Type "E" is called for on this project the Contractor shall have the option of using either the Steel Beam Section, the Semi Ellipse Aluminum Tubular Section, or the Steel Tubular Section.

When Guard Rail Type "F" is called for on this project the Contractor shall have the option of using either the Steel Beam Section, the Semi Ellipse Aluminum Tubular Section, or the Steel Tubular Section.

When Guard Rail Type "G" is called for on this project the Contractor shall have the option of using either the Steel Beam Section, the Semi Ellipse Aluminum Tubular Section, or the Steel Tubular Section.

When Guard Rail Type "H" is called for on this project the Contractor shall have the option of using either the Steel Beam Section, the Semi Ellipse Aluminum Tubular Section, or the Steel Tubular Section.

When Guard Rail Type "I" is called for on this project the Contractor shall have the option of using either the Steel Beam Section, the Semi Ellipse Aluminum Tubular Section, or the Steel Tubular Section.

Whenever reference is made on the materials required will conform to a "Supplemental Specification for Subbase" interpreted as "Subbase" and the materials required will conform to a "Supplemental Specification for Subbase".

The quantity Seed Mixture (Crown-Shoulder), shown on the estimate of quantities sheet is to be used of those locations where the slopes are 2:1 or steeper or in an area requiring seed cut or sand fills or as directed by the Engineer.

The Contractor must accept plan quantities of "B" Barrow for Structures Backfill as given on the Estimate of Quantity subject to the conditions of the Standard Specifications.

The Contractor must accept plan quantities of Subbase as given on the Estimate of Quantity sheet subject to the conditions as set out in 304.07 of the Standard Specifications.

All Highway Drainage Structures 42" and over diameter have been designed on the basis of a 10 year storm frequency (Except Structures having a design flood of more than 500 cubic feet per second, are shown on the plan-profile sheets of the culvert locations).

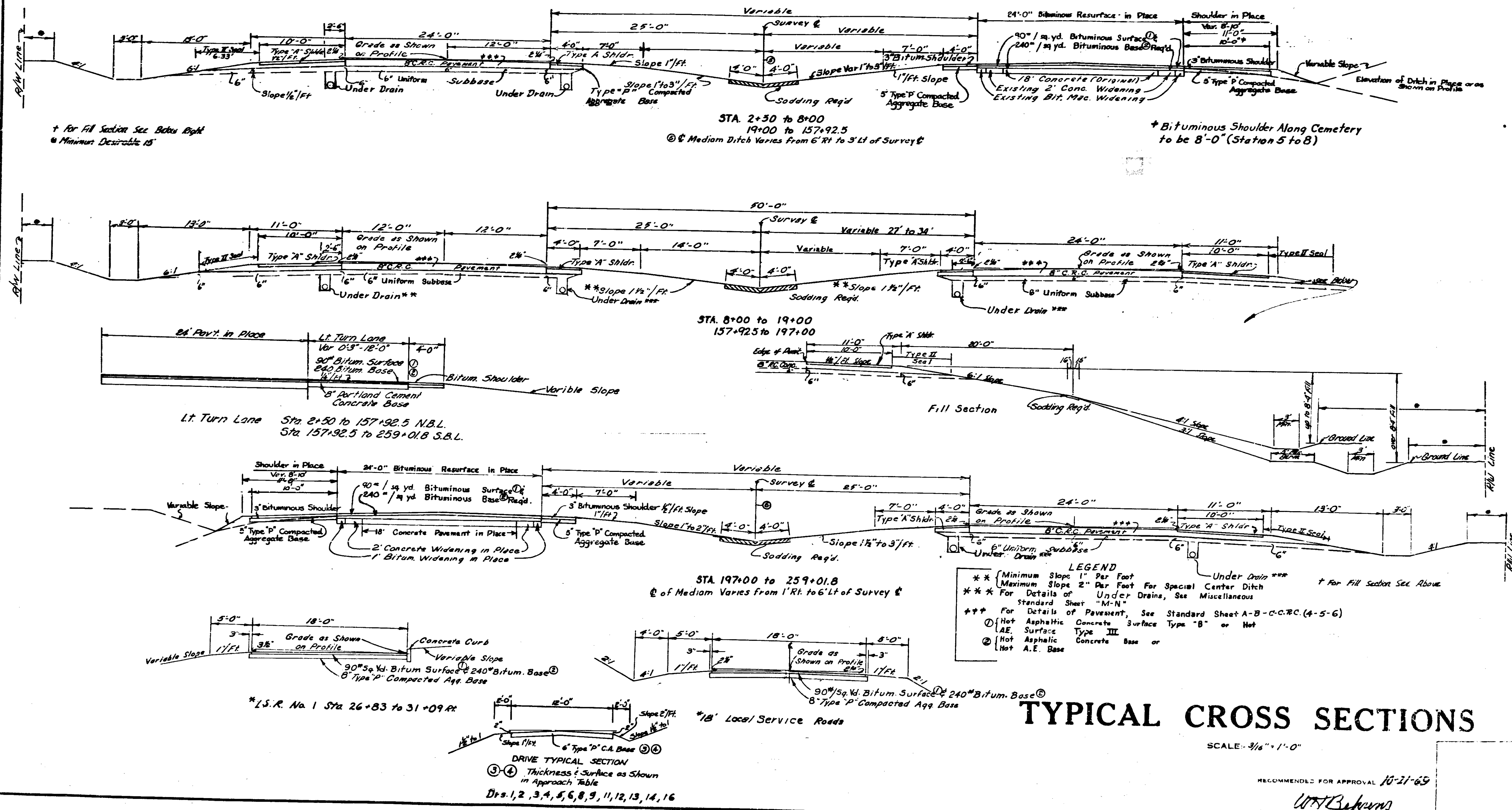
\*\*\* REPRESENTS GENERAL NOTES REQUIRED

R/W INDEX	
SHEET NO.	DESIGNATION
SEE SHEET NO. 1	

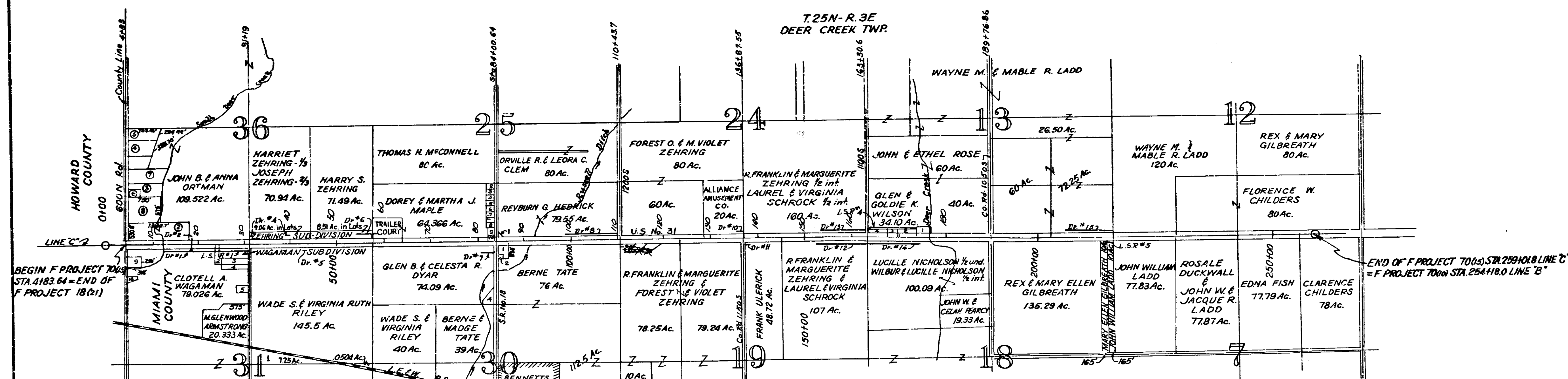
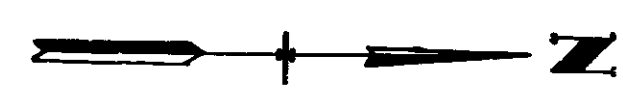
## INDEX

SHEET NO.	DESIGNATION	B.P.R. APPROVAL	DATE ADOPTED OR LATEST REVISION
1	TITLE SHEET		
2	INFORMATION SHEET		
	ST'D DIV. LANE ( )		
	ST'D DIV. LANE ( )		
	ST'D DIV. LANE ( )		
3	ST'D SINGLE LANE PAVEMENT SECTIONS		
	TYPICAL CROSS SECTION		
	ST'D RAMP SECTION		
4	ST'D CONT. REINF. CONC. PAV'T SHEET "CRC-A"		
5	ST'D CONT. REINF. CONC. PAV'T SHEET "CRC-B"		
6	ST'D CONT. REINF. CONC. PAV'T SHEET "CRC-C"		
7	ST'D PAVEMENT JOINTS SHEET "A"		
8	PLAT NO. 1		
9-30	PLAN AND PROFILE		
31-40	DETAILS		
41	TABLE OF QUANTITIES		
42-43	STRUCTURE DATA		
	DEMOLITION PORTION ITEMS		
44-45	ESTIMATE OF QUANTITIES		
46	MISCELLANEOUS STANDARDS, SHEET "MA"		
	MISCELLANEOUS STANDARDS, SHEET "MA-1"	6-27-69	R 4-1-69
	MISCELLANEOUS STANDARDS, SHEET "MA-2"		
47	MISCELLANEOUS STANDARDS, SHEET "MB"		
48	MISCELLANEOUS STANDARDS, SHEET "MB-1"	1-26-70	R 12-1-69
49	MISCELLANEOUS STANDARDS, SHEET "MB-2"	2-9-66	A 7-65
50	MISCELLANEOUS STANDARDS, SHEET "MC"	4-21-69	R 10-18-68
	MISCELLANEOUS STANDARDS, SHEET "MC-1"		
	MISCELLANEOUS STANDARDS, SHEET "MC-2"		
50A	MISCELLANEOUS STANDARDS, SHEET "MD"		
	MISCELLANEOUS STANDARDS, SHEET "MD-1"		
	MISCELLANEOUS STANDARDS, SHEET "MD-2"	8-21-68	R 7-26-68
51	MISCELLANEOUS STANDARDS, SHEET "ME"		
52	MISCELLANEOUS STANDARDS, SHEET "ME-1"	8-6-69	R 6-19-69
53	MISCELLANEOUS STANDARDS, SHEET "ME-2"	8-11-69	R 4-1-69
54	MISCELLANEOUS STANDARDS, SHEET "MG"	11-5-69	R 10-1-69
55	MISCELLANEOUS STANDARDS, SHEET "MH"	4-20-65	R 3-10-65
56	MISCELLANEOUS STANDARDS, SHEET "MH-1"	2-8-66	R 10-18-65
57	MISCELLANEOUS STANDARDS, SHEET "MH-2"		
58	MISCELLANEOUS STANDARDS, SHEET "MI"	6-23-69	R 4-1-69
59	MISCELLANEOUS STANDARDS, SHEET "MI-1"	6-25-69	R 4-1-69
60	MISCELLANEOUS STANDARDS, SHEET "MI-2"	6-19-69	R 4-1-69
61	MISCELLANEOUS STANDARDS, SHEET "MJ"		
62	MISCELLANEOUS STANDARDS, SHEET "MK"		
63	MISCELLANEOUS STANDARDS, SHEET "ML"	6-27-69	R 4-1-69
64	MISCELLANEOUS STANDARDS, SHEET "MN"		
65	MISCELLANEOUS STANDARDS, SHEET "MO"	6-27-69	R 4-1-69
66	MISCELLANEOUS STANDARDS, SHEET "MP"		
67	MISCELLANEOUS STANDARDS, SHEET "MP-F"	6-27-69	R 4-1-69
68	MISCELLANEOUS STANDARDS, SHEET "MQ"	6-27-69	R 4-1-69
69	MISCELLANEOUS STANDARDS, SHEET "MR"	8-25-69	R 6-19-69
70	MISCELLANEOUS STANDARDS, SHEET "MS"	12-19-68	R 10-3-68
71	MISCELLANEOUS STANDARDS, SHEET "MT"		
72	MISCELLANEOUS STANDARDS, SHEET "MT-3"	1-20-70	R 9-2-69
73	MISCELLANEOUS STANDARDS, SHEET "MT-7"	1-19-70	A July 69
74	MISCELLANEOUS STANDARDS, SHEET "MT-6A"	1-21-70	R 12-1-67
75	MISCELLANEOUS STANDARDS, SHEET "MT-6B"		
76	MISCELLANEOUS STANDARDS, SHEET "MT-12"		
77	MISCELLANEOUS STANDARDS, SHEET "MV"		
78	MISCELLANEOUS STANDARDS, SHEET "MV-1"		
79	MISCELLANEOUS STANDARDS, SHEET "MV-2"		
80	MISCELLANEOUS STANDARDS, SHEET "MV-3"		
81	MISCELLANEOUS STANDARDS, SHEET "MV-4"		
82	ST'D STR. CONC. FOR EXTENSION		
83	ST'D STR. CONC. FOR EXTENSION		
84	ST'D STR. CONC. FOR EXTENSION		
85	ST'D STR. CONC. FOR EXTENSION		
86	ST'D STR. CONC. FOR EXTENSION		
87	ST'D STR. CONC. FOR EXTENSION		
88	ST'D STR. CONC. FOR EXTENSION		
89	ST'D STR. CONC. FOR EXTENSION		
90	ST'D STR. CONC. FOR EXTENSION		
91	ST'D STR. CONC. FOR EXTENSION		
92	ST'D STR. CONC. FOR EXTENSION		
93	ST'D STR. CONC. FOR EXTENSION		
94	ST'D STR. CONC. FOR EXTENSION		
95	ST'D STR. CONC. FOR EXTENSION		
96	ST'D STR. CONC. FOR EXTENSION		
97	ST'D STR. CONC. FOR EXTENSION		
98	ST'D STR. CONC. FOR EXTENSION		
99	ST'D STR. CONC. FOR EXTENSION		
100	ST'D STR. CONC. FOR EXTENSION		

FEDERAL ROAD DISTRICT NO.	STATE	PROJECT NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
4	IND.	37-F 70(16)	1970	3	157



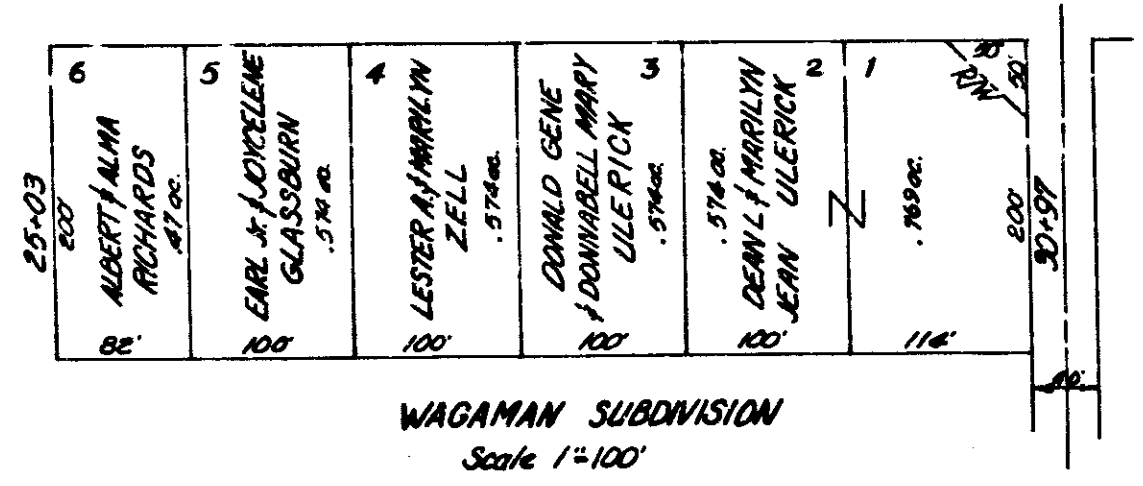
FEDERAL ROAD DISTRICT NO.	STATE	PROJECT NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
4	IND.	ST-F 70 (15)	1970	8	157



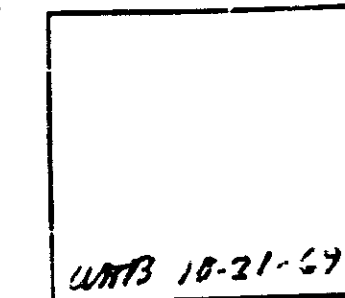
BEGIN F PROJECT 70 (15)  
STA. 4183.64 = END OF  
F PROJECT 18 (21)

END OF F PROJECT 70 (15) STA. 25910.8 LINE 'C'  
= F PROJECT 70 (15) STA. 254118.0 LINE 'B'

SECT	INDEX	PROPERTY OWNER	ACRES
36	2	DWIGHT D & ANNA FITZ	16.633
36	3	DELBERT D & GLORY WINSLOW	4.013
36	4	JESSIE J & JESSIE SEALS	4.745
36	5	RICHARD O & LILLIAN L PHILLIPS	4.734
36	6	WAYNE F & FAYE L KILE	1.453
36	7	DELBERT & GLORY & OTTO & EDITH WINSLOW 1/4	8.78
25	1	STATE OF INDIANA	0.45
25	2	DONALD R & MARY CALDWELL	0.60
25	3	OSCAR H & DMA L WILLIAMS	0.716
25	4	ROBERT A & WANDA R MARCUS	0.60
25	5	CLARENCE SCHMIDT	0.60
25	6	WILLIAM S & MARY ANDERSON	0.716
25	7	JAMES H GOULD	0.716
25	8	RICHARD EUGENE & DORIS L HARSHMAN	0.716
25	9	CHARLES W & MYRTLE WILKINS	0.66
25	10	CHARLES W & MYRTLE WILKINS	0.3116
13	1	EVA FRANCINE MINOR	1.50
13	2	DONALD R & MARY K CALDWELL	1.50
13	3	AUSTIN & MARTHA TOMLISON	1.80
13	4	ROBERT L & MARY AGNES WILLIAMS	1.35
31	1	ALFRED & DOROTHY MACHIN	7.25
31	2	ALBERT E & ALMA N RICHARDS	1.61
31	3	R A & JUANITA E BARKDULL	12.55
31	4	LYLE EUGENE & BETTY JEAN KELLETT	12.55
31	5	ANDREW E & NADINE V STARR	0.731
31	6	FRANK & ROSELYN JOYCE ZODY	2.0
31	7	MARK & DORIS OYE	2.0
31	8	CEMETERY	
31	9	CARL W & PAULINE M HODSON	
31	10	TROY D & MARTHA K RICHARDS	1.48
30	1	HOWARD R MARTIN	1.73
30	2	ROBERT F & ETTA BOSSITER	0.27
30	4	RICHARD E & MILDRED STOEKINGER	2.04



PLAT # 1  
FOR DESIGN DEPT.  
Scale: 1"=1000'

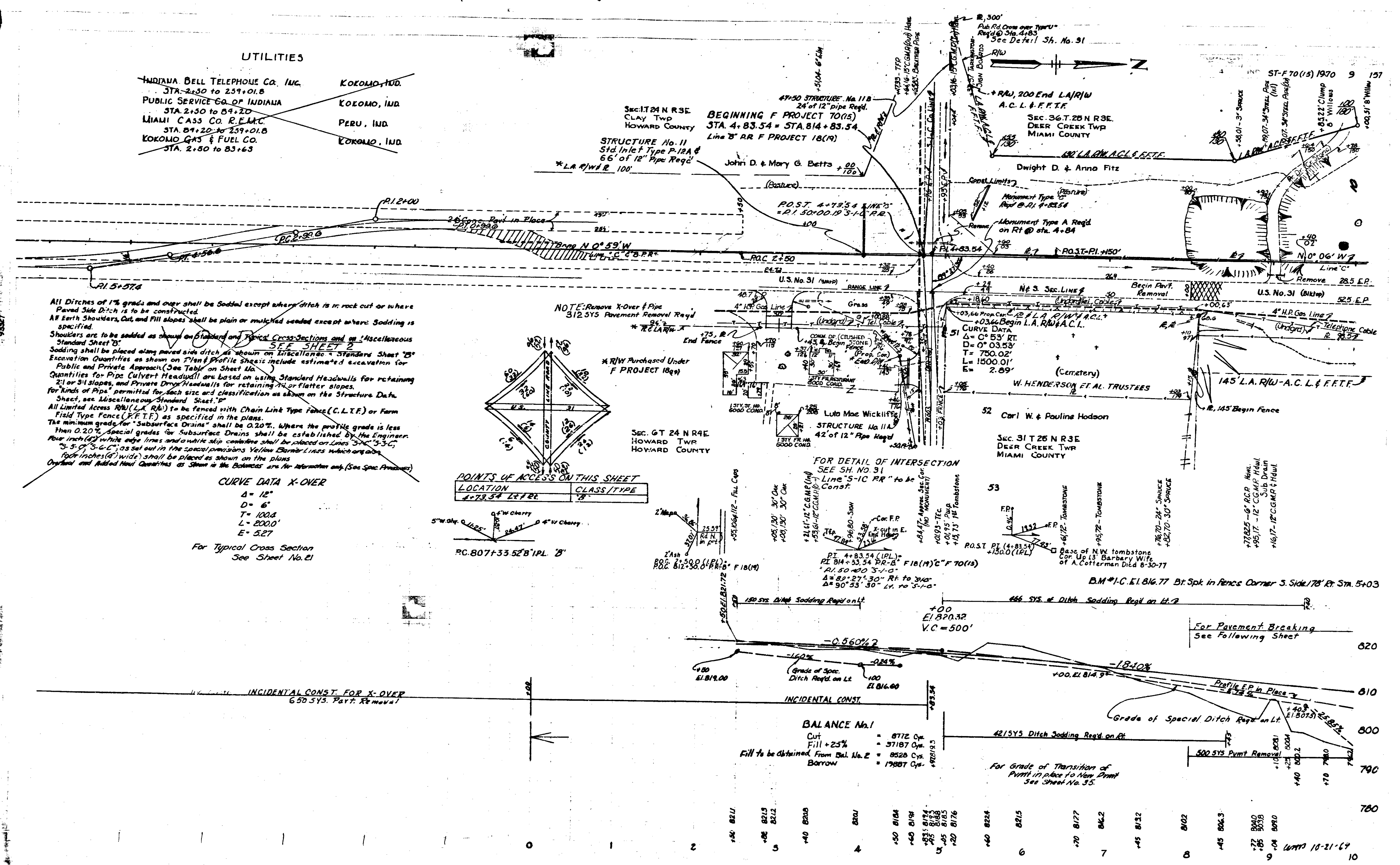


UTILITIES

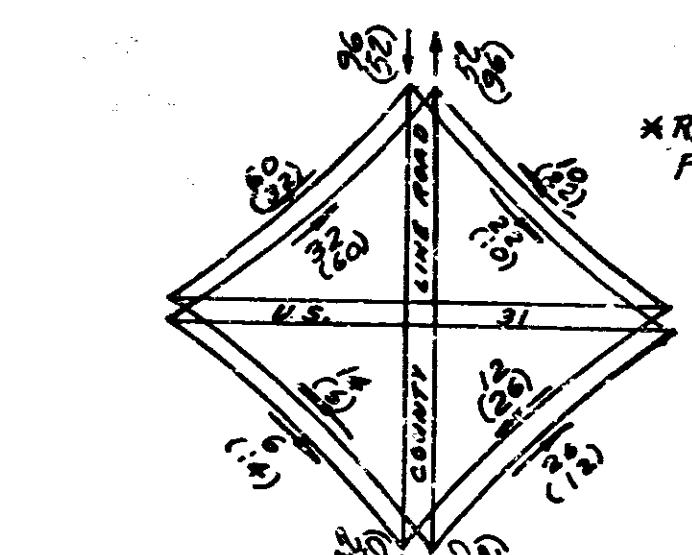
INDIANA BELL TELEPHONE Co. INC. KOKOMO, IND.  
 STA. 2+30 to 259+01.8  
 PUBLIC SERVICE Co. OF INDIANA KOKOMO, IND.  
 STA. 2+30 to 89+20  
 MIAMI GAS Co. R.F.M.C. PERU, IND.  
 STA. 89+20 to 259+01.8  
 KOKOMO GAS & FUEL Co. KOKOMO, IND.  
 STA. 2+50 to 83+63

Sec. 17 24 N R3E  
 CLAY Twp  
 HOWARD COUNTY  
 BEGINNING F PROJECT 70(15)  
 STA. 4+83.54 = STA. 814 + 83.54  
 Line "B" RR F PROJECT 18(19)  
 STRUCTURE No. 11  
 Std. Inlet Type P-18A  
 66' of 12" Pipe Reg'd  
 \*L.A. R/W R. 100'

RAW, 200' End L.A./R/W  
 A.C.L. & F.F.T.F.  
 Sec. 36 T. 26 N R3E  
 DEER CREEK TWP  
 MIAMI COUNTY



All Ditches of 1% grade and over shall be sodded except where ditch is in rock out or where Paved Side Ditch is to be constructed.  
 All Earth Shoulders, Cut, and Fill slopes shall be plain or mulched sodded except where Sodding is specified.  
 Shoulders are to be sodded as shown on Standard and Typical Cross-Sections and on Miscellaneous Standard Sheet 'D'.  
 Sodding shall be placed along paved side ditch as shown on Miscellaneous Standard Sheet 'B'.  
 Excavation Quantities as shown on Plan Profile Sheets include estimated excavation for Public and Private Approach (See Table on Sheet 'A').  
 Quantities for Pipe Culvert Headwall are based on using Standard Headwalls for retaining 2:1 or 3:1 slopes, and Private Drop Headwalls for retaining 7:4 or flatter slopes.  
 For kinds of Pipe, permitted for each size and classification as shown on the Structure Data Sheet, see Miscellaneous Standard Sheet 'D'.  
 All Limited Access RW (L.A. RW) to be fenced with Chain Link Type Fence (C.L.T.F.) or Farm Field Type Fence (F.F.T.F.) as specified in the plans.  
 The minimum grade for "Subsurface Drains" shall be 0.20%. Where the profile grade is less than 0.20%, special grades for Subsurface Drains shall be established by the Engineer.  
 Four inch (4") white edge lines and a white skip centerline shall be placed on Lines "3", "3-C", "3-S", "3-G-C", as set out in the special provisions Yellow Barrier Lines which are 40 inches (4") wide shall be placed as shown on the plans.  
 Depth and added haul quantities as shown in the Balances are for information only (See Spec. Provisions).

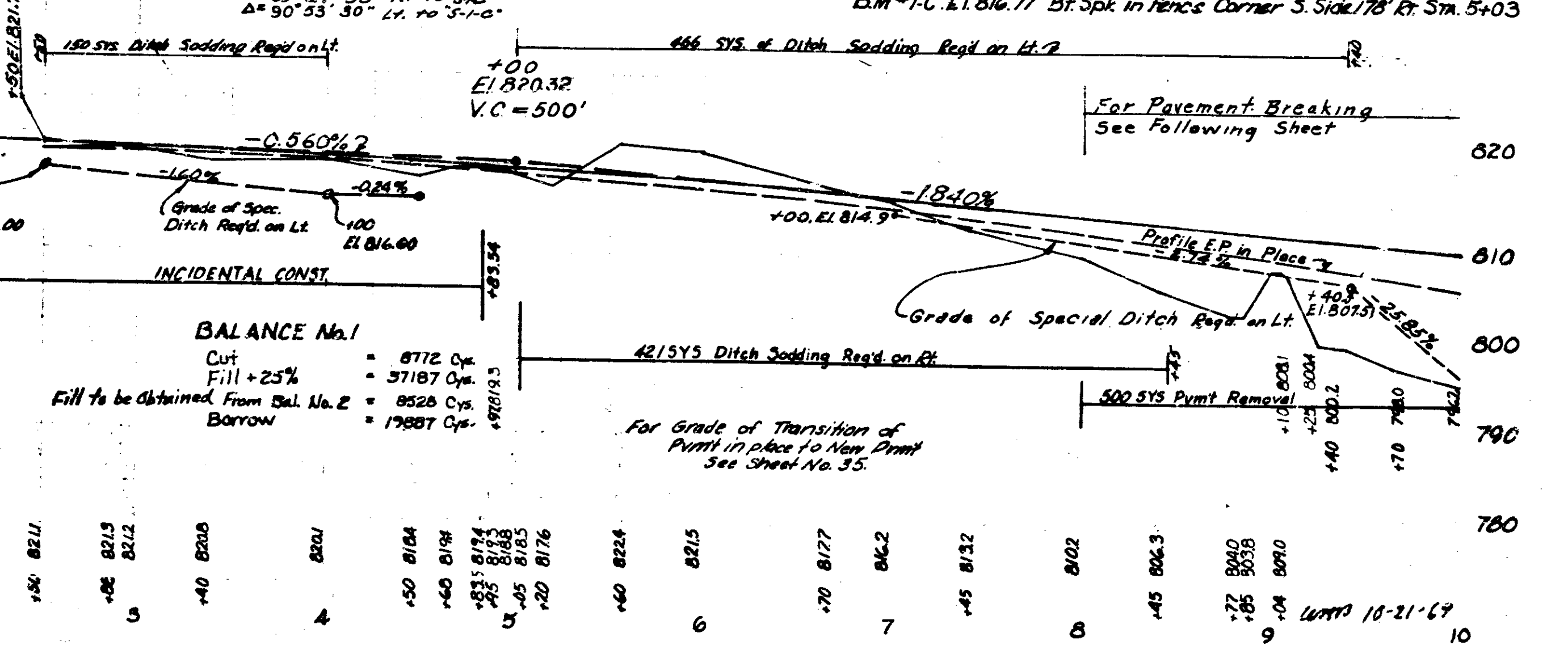


CURVE DATA X-OVER  
 $\Delta = 12^\circ$   
 $D = 12'$   
 $T = 100.4'$   
 $L = 2000'$   
 $E = 5.27'$   
 For Typical Cross Section  
 See Sheet No. 21

POINTS OF ACCESS ON THIS SHEET

LOCATION	CLASS/TYPE
4+73.54 LT RR	"B"

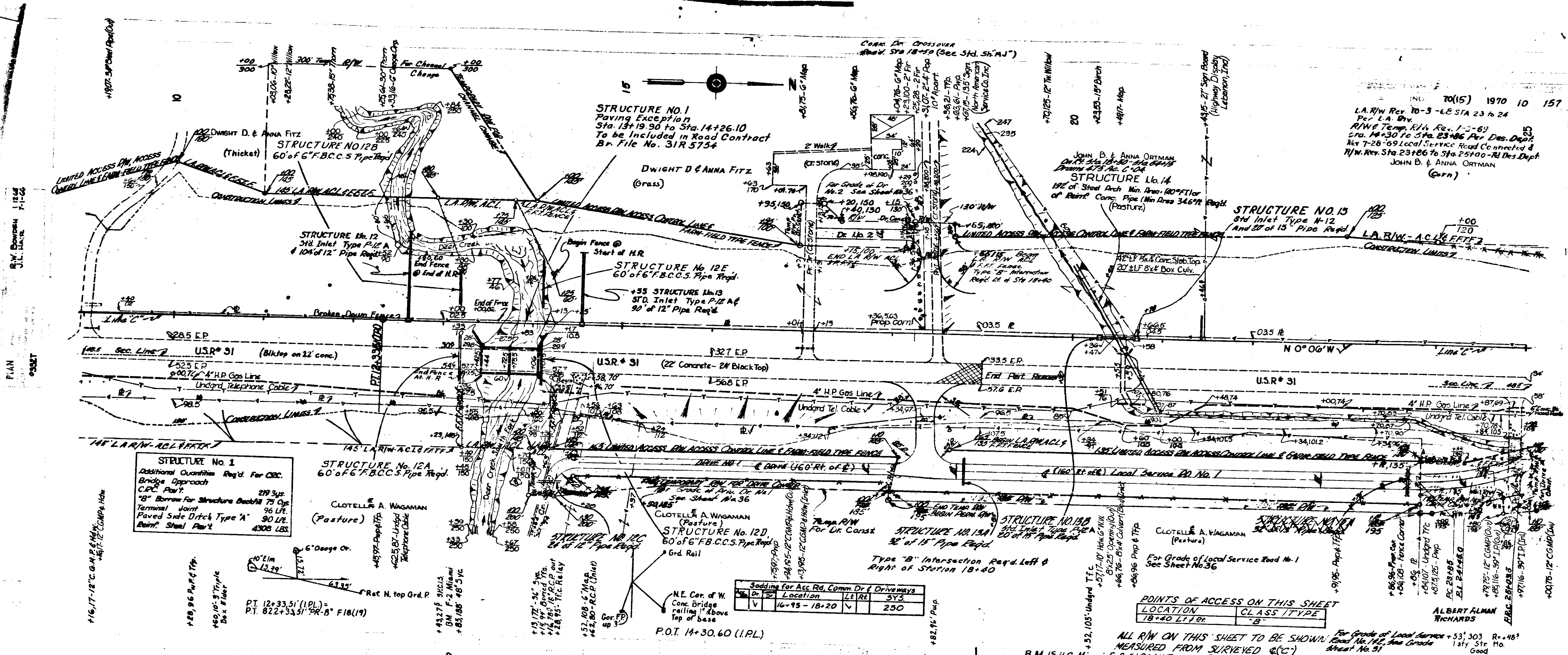
NOTE: Remove X-Over Pipe  
 312.5YS Pavement Removal Reg'd  
 \*R.C.L.A. RW  
 \*RW Purchased Under  
 F PROJECT 18(19)  
 Sec. 6 T. 24 N R4E  
 HOWARD TWP  
 HOWARD COUNTY  
 Luta Mae Wickliffe  
 STRUCTURE No. 11A  
 42' of 12" Pipe Reg'd  
 FOR DETAIL OF INTERSECTION  
 SEE SH. NO. 31  
 Line "S-C" RR to be  
 Const.  
 B.M. #1-C. E.I. 816.77 Bt Spk in Fence Corner S. Side 178' Rt. Sta. 5+03



BALANCE No. 1  
 Cut = 8772 Cys.  
 Fill + 25% = 37187 Cys.  
 Fill to be obtained From Bal. No. 2 = 8528 Cys.  
 Borrow = 17987 Cys.

PLAN BY W. B. BOWDEN, J. L. NEIR  
 12-55  
 12-55  
 12-55

NO. 70(15) 1970 10 157  
 L.A. RW Rev 10-3-68 STA 23 to 24  
 Per L.A. Div.  
 R/W Temp. Riv. Rev. 1-2-69  
 Sta. 14+30 to Sta. 23+86 Per Des. Dept.  
 Rev 7-28-69 Local Service Road Connected to  
 T/W Rev. Sta. 23+86 to Sta. 25+00 - RI Des. Dept.  
 JOHN D. & ANNA ORTMAN  
 (Corn)

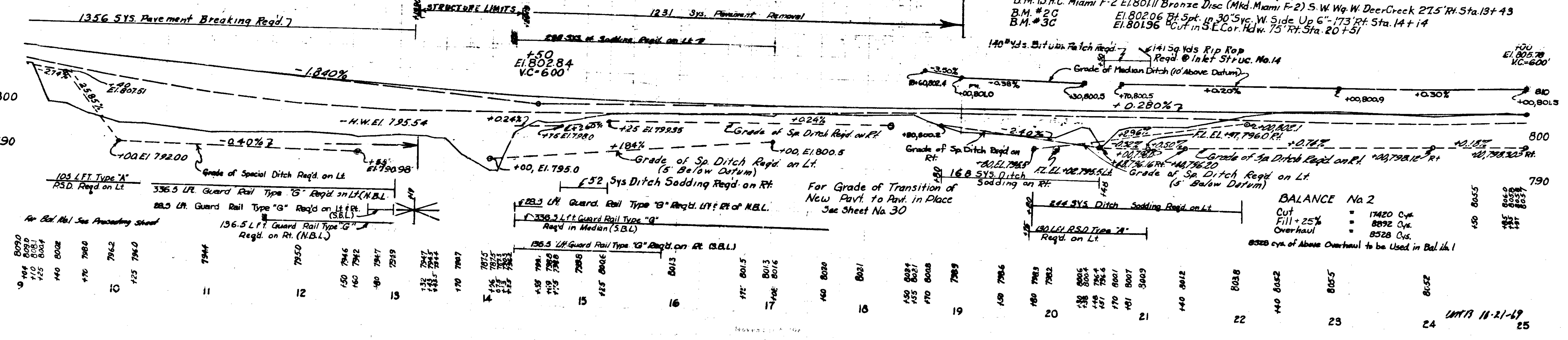


**STRUCTURE No. 1**  
 Additional Quantities Req'd. For C.C.  
 Bridge Approach  
 C.C.P. Pav't  
 219 3/4' 219 3/4'  
 8" Borrow for Structure Deck/11 75 Cft  
 Terminal Joint 96 LF.  
 Paved Side Ditch Type 'A' 90 LF.  
 Runw. Sheet Pav't 4308 LBZ

Dr. No.	Location	LI RE	DRYS
V	16+95 - 18+20	V	250

LOCATION	CLASS / TYPE
18+40 LT 1st	"B"

**POINTS OF ACCESS ON THIS SHEET**  
 ALL RW ON THIS SHEET TO BE SHOWN FOR GRADE OF LOCAL SERVICE ROAD NO. 1  
 MEASURED FROM SURVEYED (C-C)  
 B.M. 15.H.C. Miami F-2 El. 801.11 Bronze Disc (Mk'd. Miami F-2) S.W. Wq. W. Deer Creek 215' Rt. Sta. 13+43  
 B.M. #2C El. 802.06 Bt. Spt. in 30' Syc. W. Side Up 6" - 173' Rt. Sta. 14+14  
 B.M. #3C El. 801.96 Bt. Spt. in S.E. Cor. Hd. W. 75' Rt. Sta. 20+51

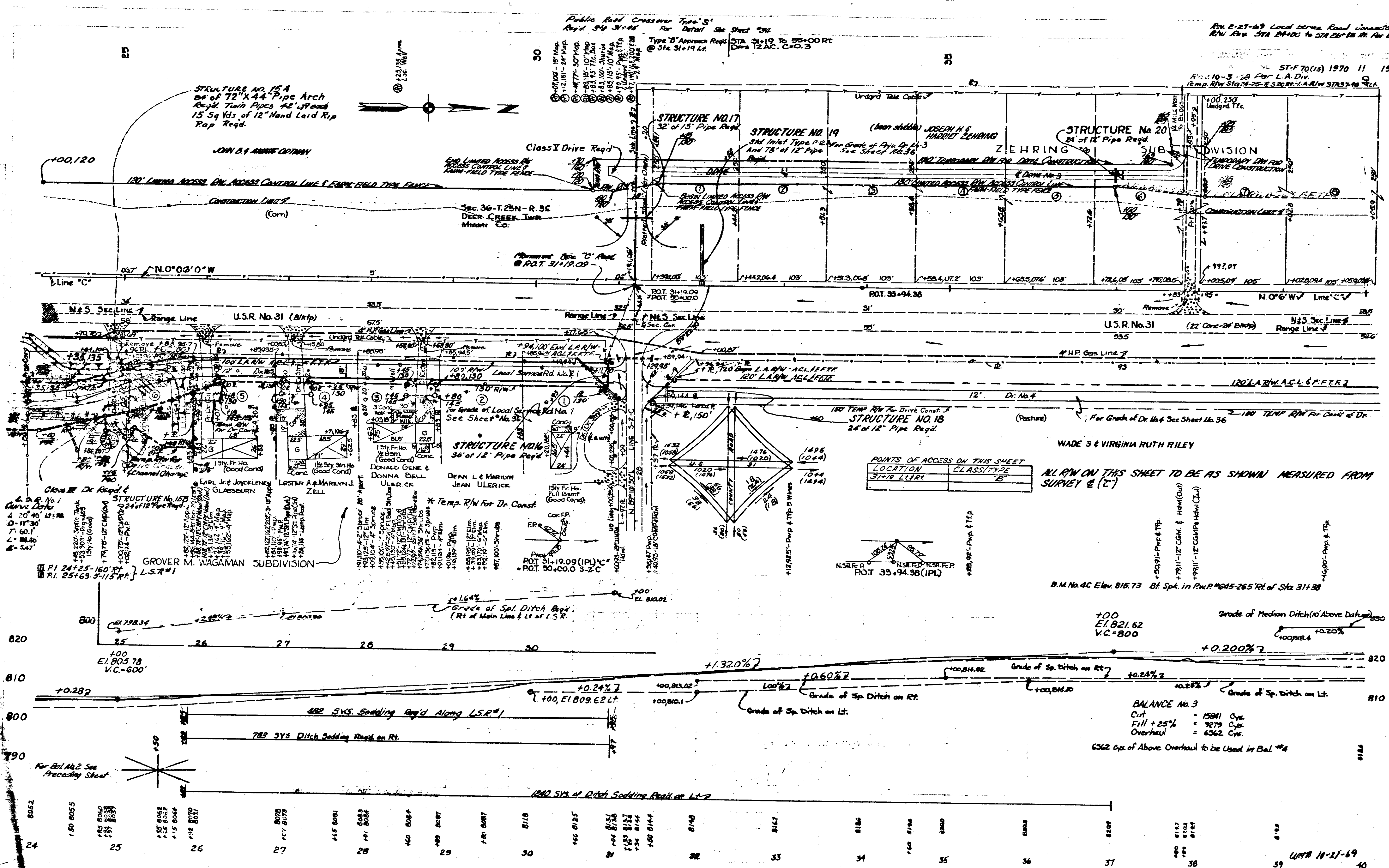


**BALANCE No. 2**

Cut	17420 Cys.
Fill	8792 Cys.
Overhaul	8528 Cys.

8528 Cys. of Above Overhaul to be Used in Bal. 1/1

ST-F 70(15) 11 157  
 Rev. 10-3-69 Local Service Road Connected to  
 R/W Rev. 57A 24+00 to 57A 26+15.18 For Design  
 Dept.



POINTS OF ACCESS ON THIS SHEET

LOCATION	CLASSIFICATION
31+19.38	25

ALL R/W ON THIS SHEET TO BE AS SHOWN MEASURED FROM SURVEY E (C)

BALANCE No. 3  
 Cut = 1584 Cys.  
 Fill + 25% = 9279 Cys.  
 Overhaul = 6362 Cys.  
 6362 Cys. of Above Overhaul to be Used in Bal. #4

8052	8053	8054	8055	8056	8057	8058	8059	8060	8061	8062	8063	8064	8065	8066	8067	8068	8069	8070	8071	8072	8073	8074	8075	8076	8077	8078	8079	8080	8081	8082	8083	8084	8085	8086	8087	8088	8089	8090
------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------





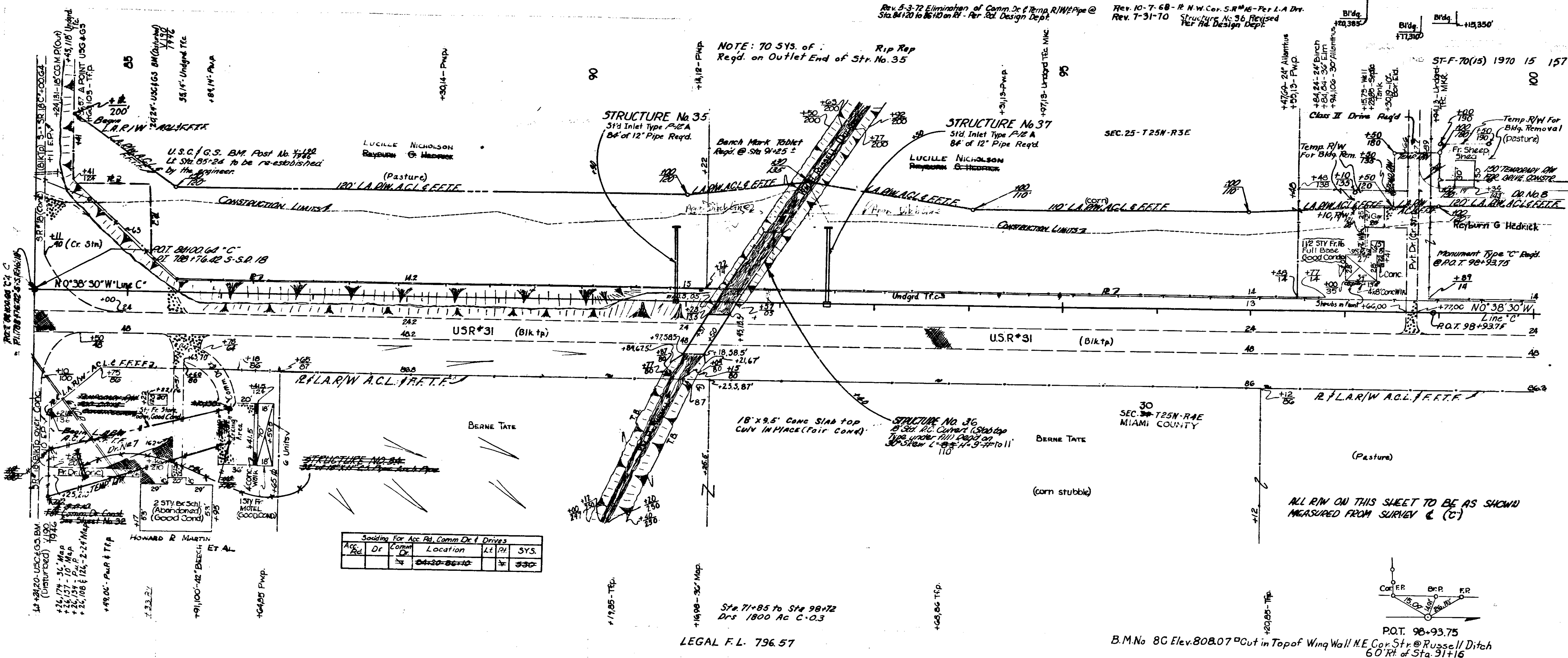




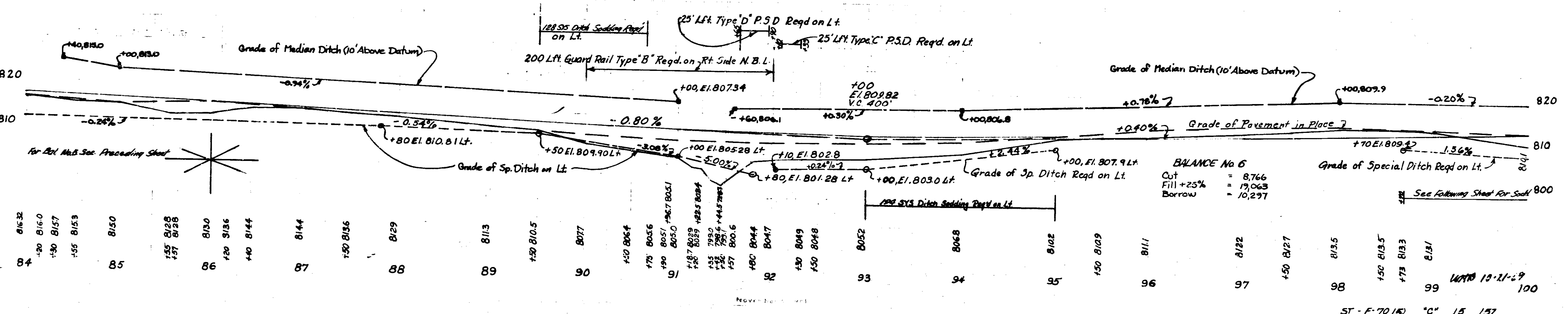
Rev. 5-3-72 Elimination of Conn. Dr. & Temp. R/W Pipe @ Sta. 84+20 to 86+10 on Rt. - Per. Rd. Design Dept.

Rev. 10-7-68 - R.N.W. Cor. S.R.#16 - Per. L.A. Div. Rev. 7-31-70 Structures No. 36, Revised Per. Rd. Design Dept.

NOTE: 70 SYS. of Rip Rep Req'd. on Outlet End of Str. No. 35



Sta.	Dr.	Comp.	Location	Lt.	Rt.	SYS.
84+20	Dr.	Comp.	84+20-86+10	Lt.	Rt.	330



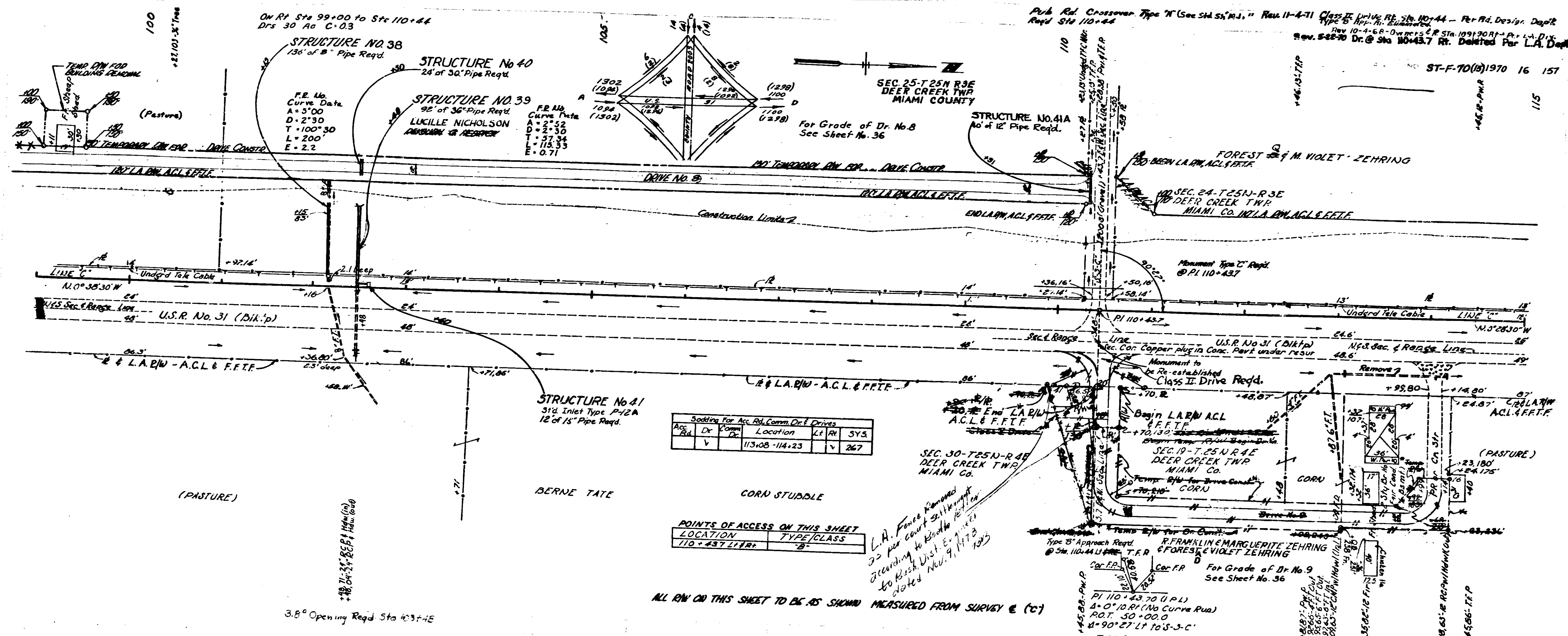
R.L. Bowman 11-68

R. Bowden 11-68  
C. Utman 1-68

PROFILE  
8538L

ST - F-70 (15) "C" 15 157

Pub. Rd. Crossover Type "K" (See Std. S-10-1, "Rat. 11-4-71 Class II (with Rt. Sta. 10+44 - Per. Rd. Design Dept. Rev. 10-4-68 - Owners & R. Sta. 109+90 to P. & A. Div. Rev. 5-22-70 Dr. @ Sta. 10+43.7 Rt. Deleted Per L.A. Dept. ST-F-70(19) 16 157



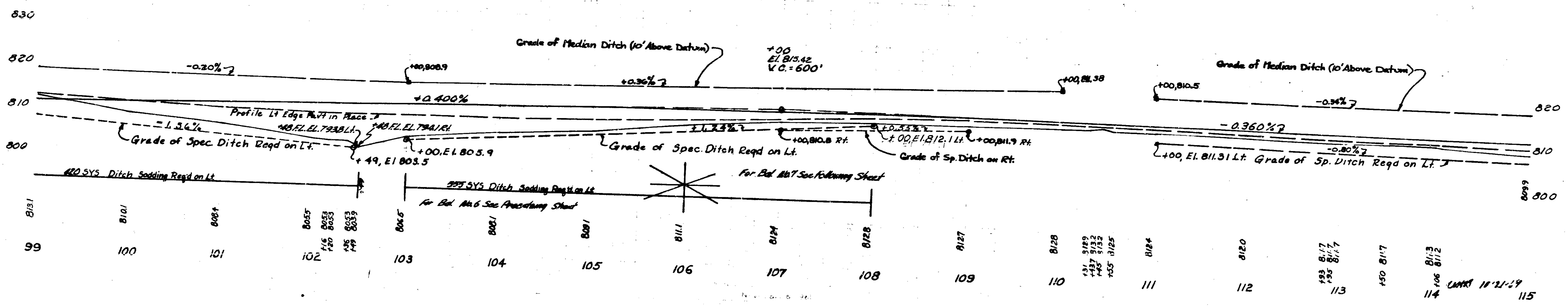
Acc. Rd.	Dr.	Vorn.	Loc.	Lt.	Rt.	SYS.
V			113.08 - 114.23	V		267

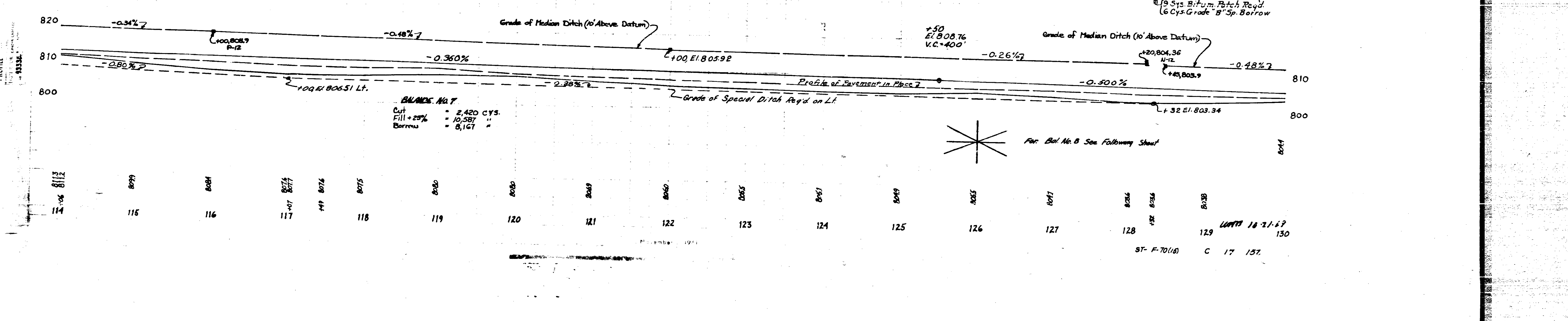
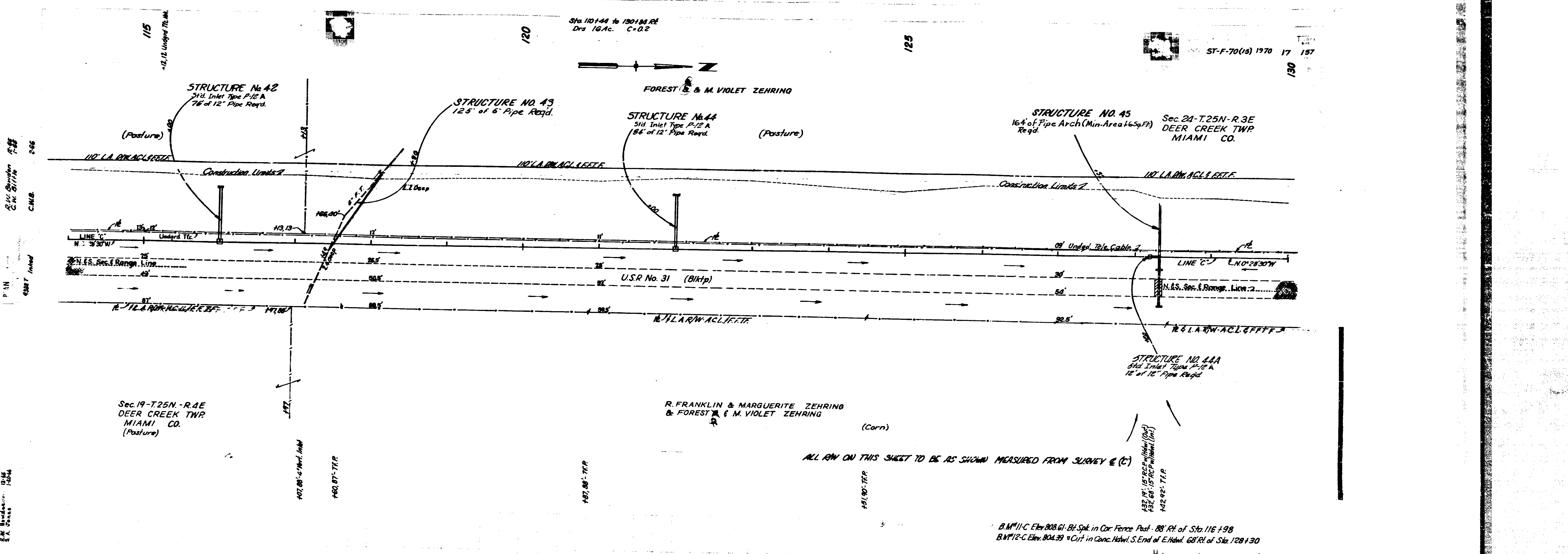
LOCATION	TYPE/CLASS
110+43.7 Lt. R.	B

L.A. Fence Removed  
 25' per count 21' height  
 according to Road to  
 to Wash. Dist. Ex. 117  
 dated Nov. 9, 1935

ALL R/W ON THIS SHEET TO BE AS SHOWN MEASURED FROM SURVEY E (C)

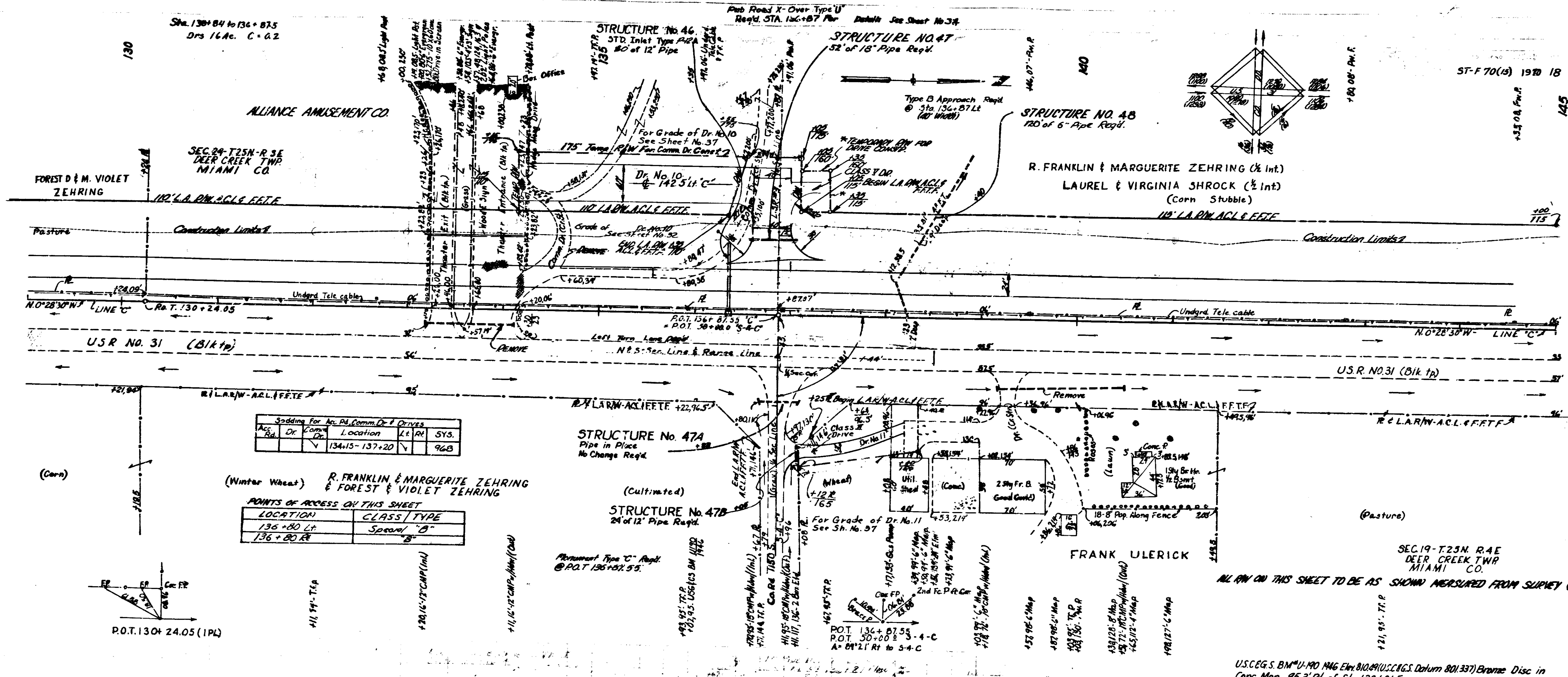
BM 9-C Elev. 808.63 = C ut in S. End of E. Hdwl. 71' Rt. of Sta. 102+43  
 B.M. 10-C Elev. 811.55 Bt. Spk. in P.W.P. (None) 213' Lt. Sta. 110+56





Sta. 130+84 to 136+87.5  
Drs 14 Ac. C-6.2

Pub Road X-Over Type U  
Reqd. STA. 136+87.5



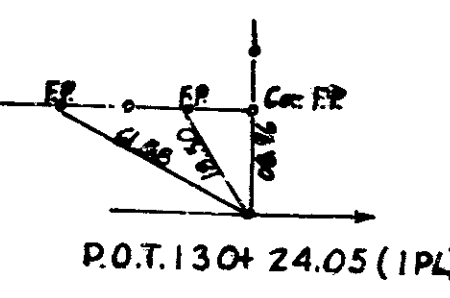
Sodding for No. 48, Comm. Dr. & Drives

Acc. Rd.	Dr.	Comm. Dr.	Location	LT	RA	SYS.
			134+15-137+20			96B

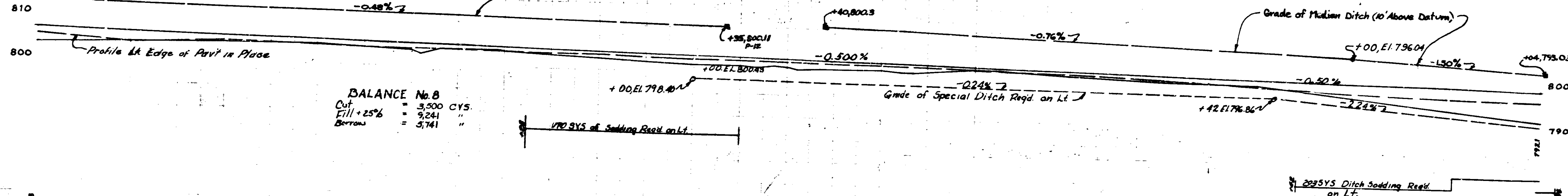
(Winter Wheat) R. FRANKLIN & MARGUERITE ZEHRING & FOREST & VIOLET ZEHRING

POINTS OF ACCESS ON THIS SHEET

LOCATION	CLASS / TYPE
136+80 Lt	Special "B"
136+80 Rt	"B"



Grade of Median Ditch (10' Above Datum)

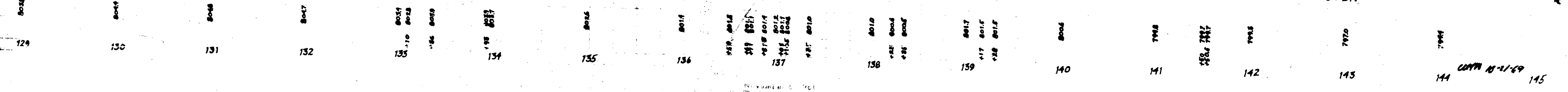


BALANCE No. 8

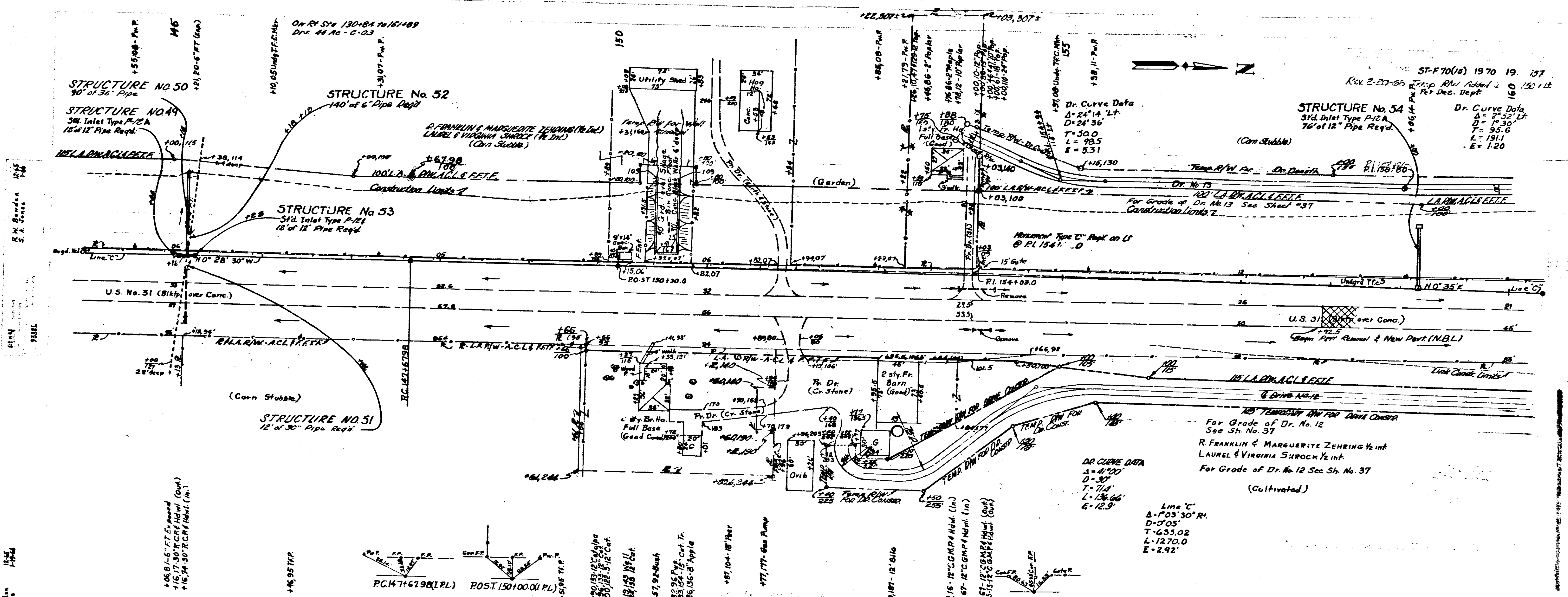
Cut	= 3,500 CYS.
Fill + 25%	= 9,241 "
Borrow	= 3,741 "

170 SYS of Sodding Reqd. on Lt.

2225YS Ditch Sodding Reqd. on Lt.



ST-F70(18) 1970 19 157  
 Rev 2-20-65  
 Dr. Des. Dept.

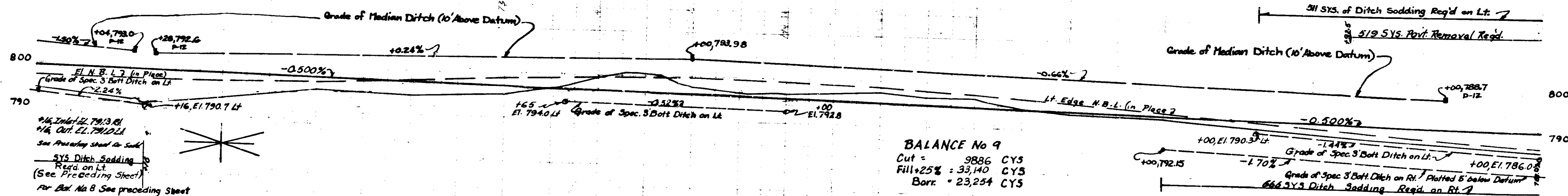


PLAN  
 S.M. Jordan  
 1964

DR. CURVE DATA  
 $\Delta = 41^{\circ}20'$   
 $D = 30'$   
 $T = 71.4'$   
 $L = 136.66'$   
 $E = 12.9'$

Line 'C'  
 $\Delta = 103^{\circ}30' R$   
 $D = 505'$   
 $T = 633.02'$   
 $L = 1270.0'$   
 $E = 2.92'$

ALL DIM ON THIS SHEET TO BE AS SHOWN MEASURED FROM SURVEY & (C)  
 BM#13-C ELEV. 794.82 = Cut 17' End of Hdw. E - 73.5' Rt. Sta. 145+21  
 BM#14-C ELEV. 802.19 Rd. Nail in Pwr. in Barnyard - 184' Rt. Sta. 152+21

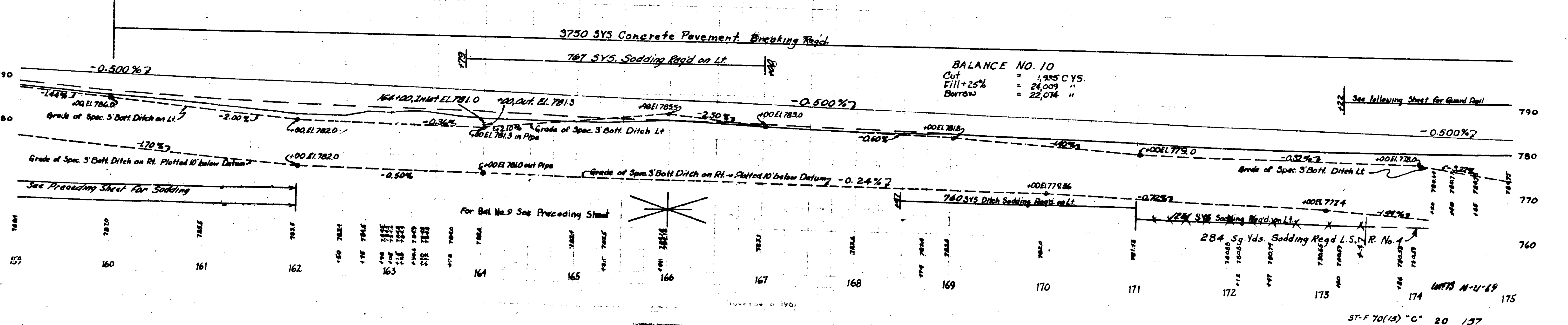
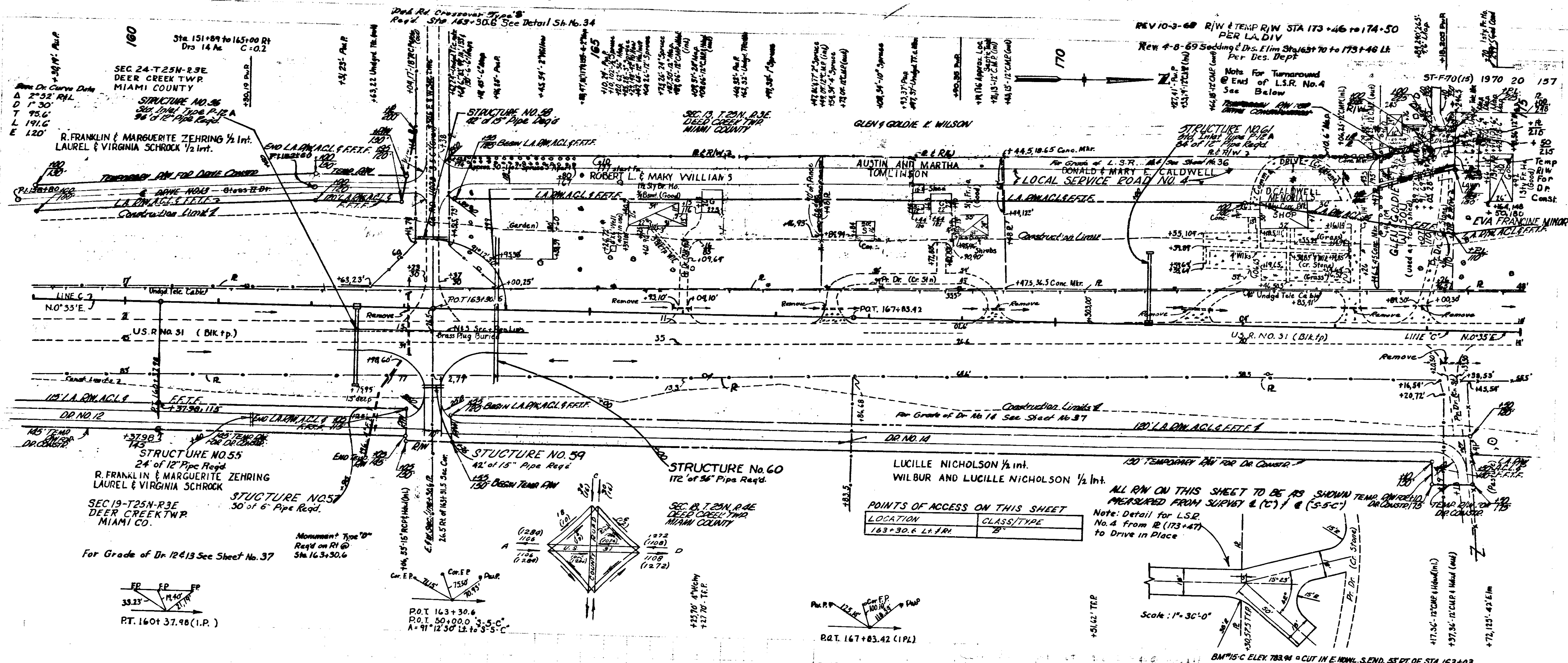


BALANCE No 9  
 Cut = 9886 CY  
 Fill + 25% = 33,140 CY  
 Barr. = 23,254 CY

794	795	796	797	798	799	800	801	802	803	804	805	806	807	808	809	810	811	812	813	814	815	816	817	818	819	820	821	822	823	824	825	826	827	828	829	830	831	832	833	834	835	836	837	838	839	840	841	842	843	844	845	846	847	848	849	850	851	852	853	854	855	856	857	858	859	860
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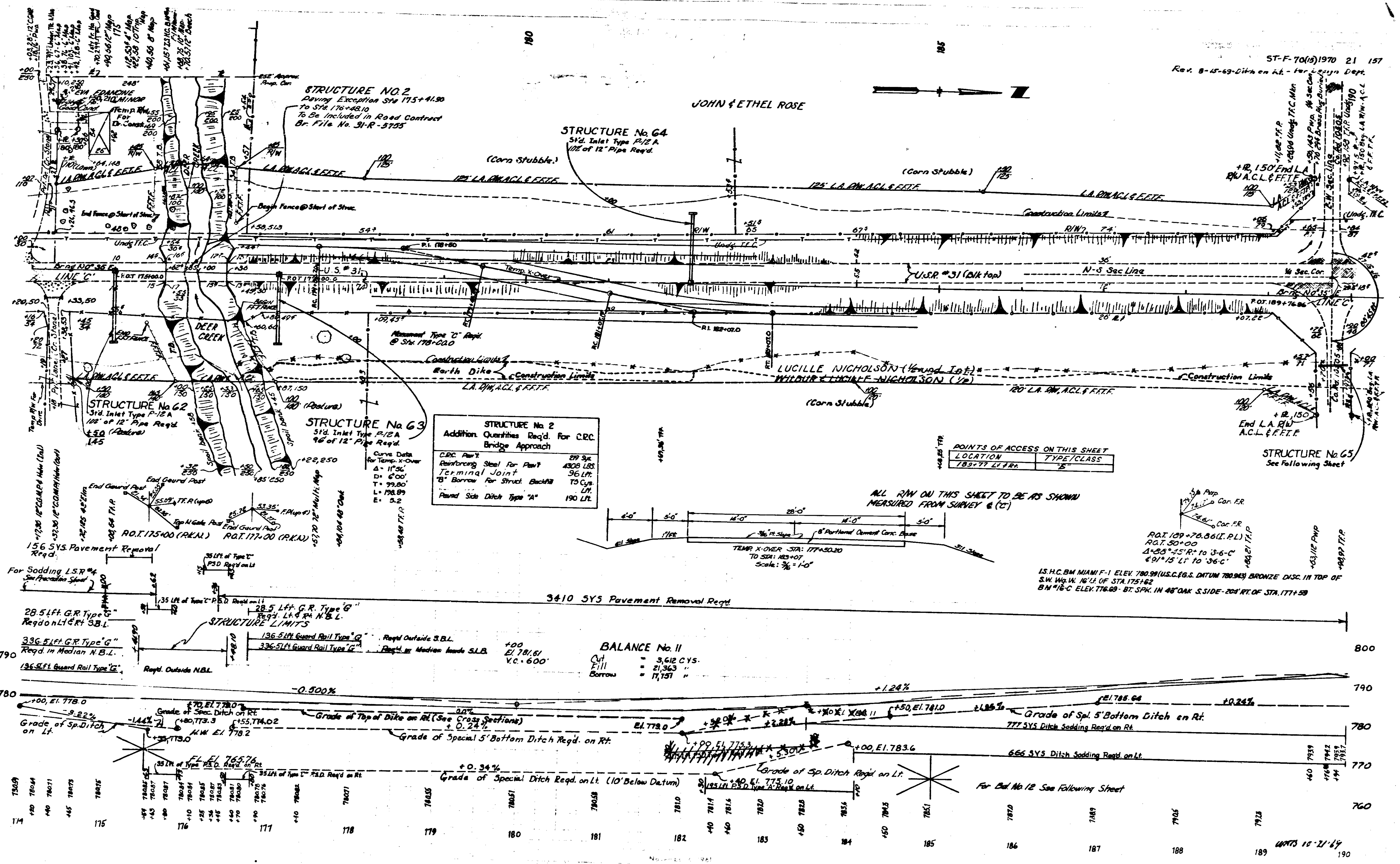
ST-F70(18) 'C' 19 157

S.W. Bowden 12-56  
 S.A. Jones 1-19-56  
 C.M. Sullivan 7-56  
 93327





JOHN & ETHEL ROSE

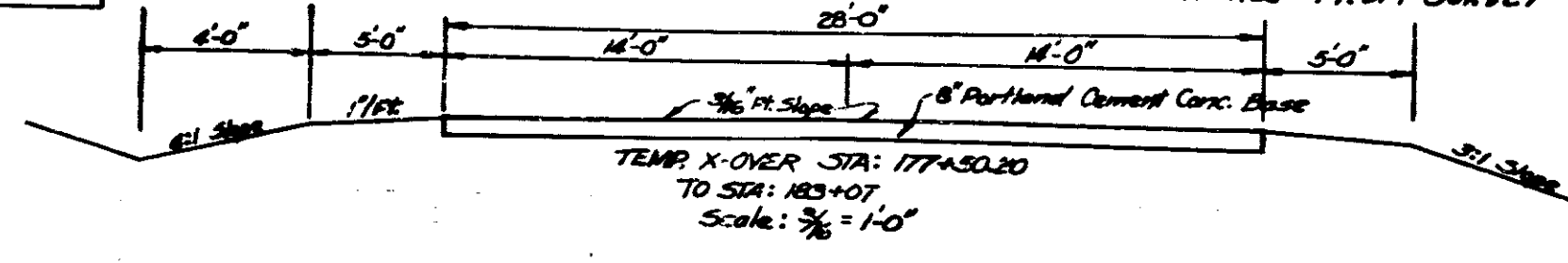


**STRUCTURE No. 2**  
 Addition. Quantities Req'd. For C.R.C. Bridge Approach

C.R.C. Paving	299 Sq.
Reinforcing Steel For Pav't	4308 LBS.
Terminal Joint	36 Lf.
"B" Barrer For Struct. Back	70 Cys.
LF	190
Paved Side Ditch Type "A"	190 Lf.

**POINTS OF ACCESS ON THIS SHEET**

LOCATION	TYPE/CLASS
183+77 L.T.R.A.	"B"



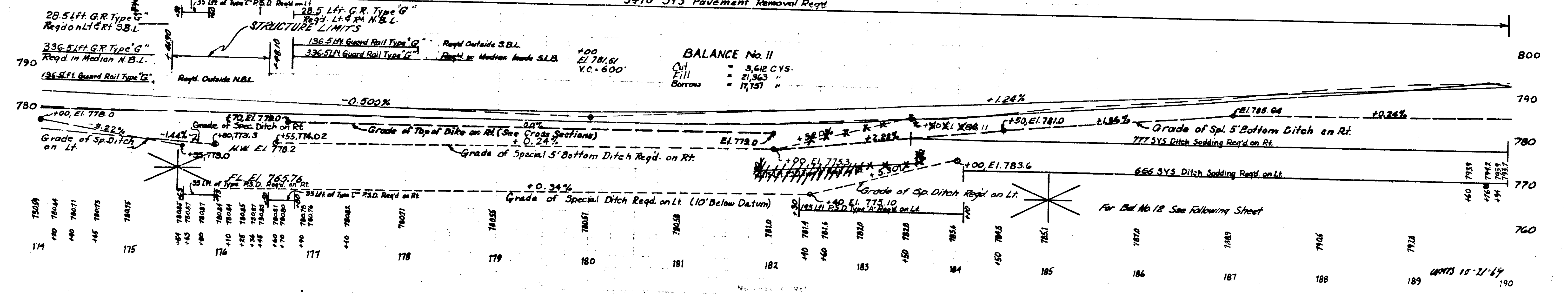
ALL R/W ON THIS SHEET TO BE AS SHOWN MEASURED FROM SURVEY & (C)

LS H.C. BM MIAMI F-1 ELEV. 780.99 (U.S.C. B.S. DATUM 780.94) BRONZE DISC. IN TOP OF S.W. COR. 16' 1/2" OF STA. 175+62  
 BN #16-C ELEV. 776.69 - BT. SPK. IN 48" DIA. S. SIDE - 204' RT. OF STA. 177+59

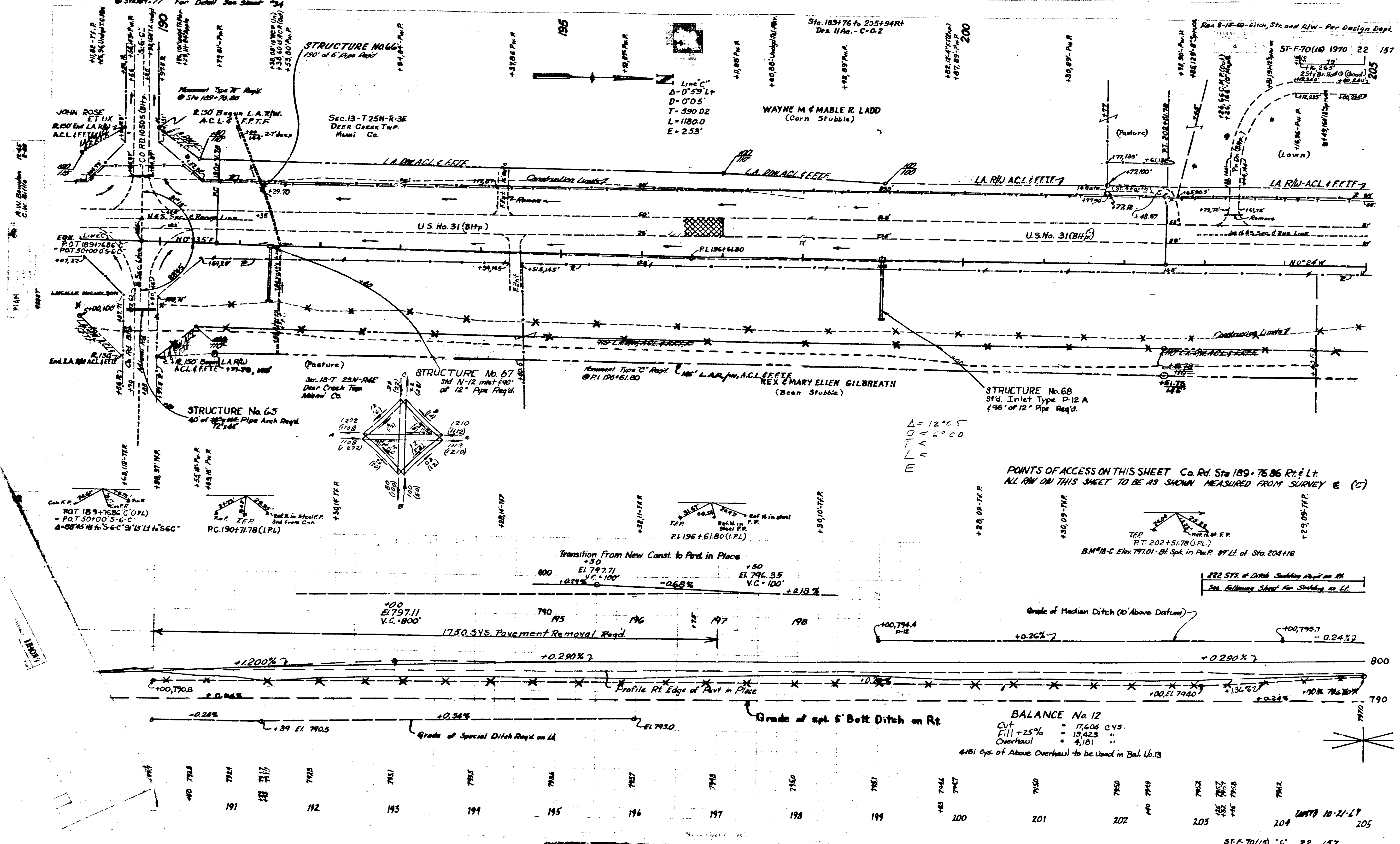
3410 SYS Pavement Removal Req'd

**BALANCE No. 11**

Cut	= 3,612 CYS.
Fill	= 21,363 "
Borrow	= 17,151 "



Public Rd. Cross-over Type "3"  
 © Sta. 189.77 For Detail See Sheet "34"



WAYNE M & MABLE R. LADD  
 (Corn Stubble)

Line "C"  
 $\Delta = 0^{\circ}59'14''$   
 $D = 0^{\circ}05'$   
 $T = 590.02$   
 $L = 1180.0$   
 $E = 2.53'$

Sec. 13-T25N-R-3E  
 DEER CREEK TWP.  
 MIAMI CO.

Sec. 10-T 25N-R-4E  
 DEER CREEK TWP.  
 MIAMI CO.

REX & MARY ELLEN GILBREATH  
 (Bean Stubble)

STRUCTURE No. 68  
 Std. Inlet Type P-12 A  
 4'96" of 12" Pipe Req'd.

POINTS OF ACCESS ON THIS SHEET Co. Rd. Sta. 189.76.86 Rt. E. Lt.  
 ALL RW ON THIS SHEET TO BE AS SHOWN MEASURED FROM SURVEY @ (c)

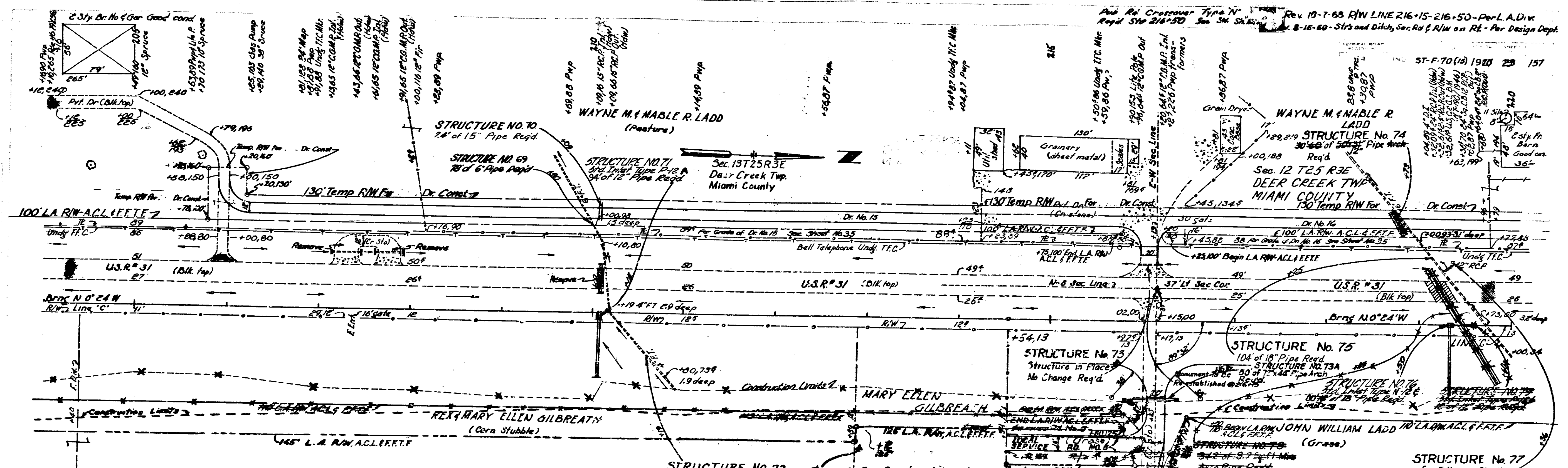
222 SYS. of Ditch Sinking Road on Rt.  
 See Following Sheet for Sinking on Lt.

BALANCE No. 12  
 Cut = 17,604 cys.  
 Fill + 25% = 13,423 "  
 Overhaul = 4,181 "  
 4181 cys. of Above Overhaul to be used in Bal. 16.13

790	791	792	793	794	795	796	797	798	799	800
191	192	193	194	195	196	197	198	199	200	201
202	203	204	205	206	207	208	209	210	211	212

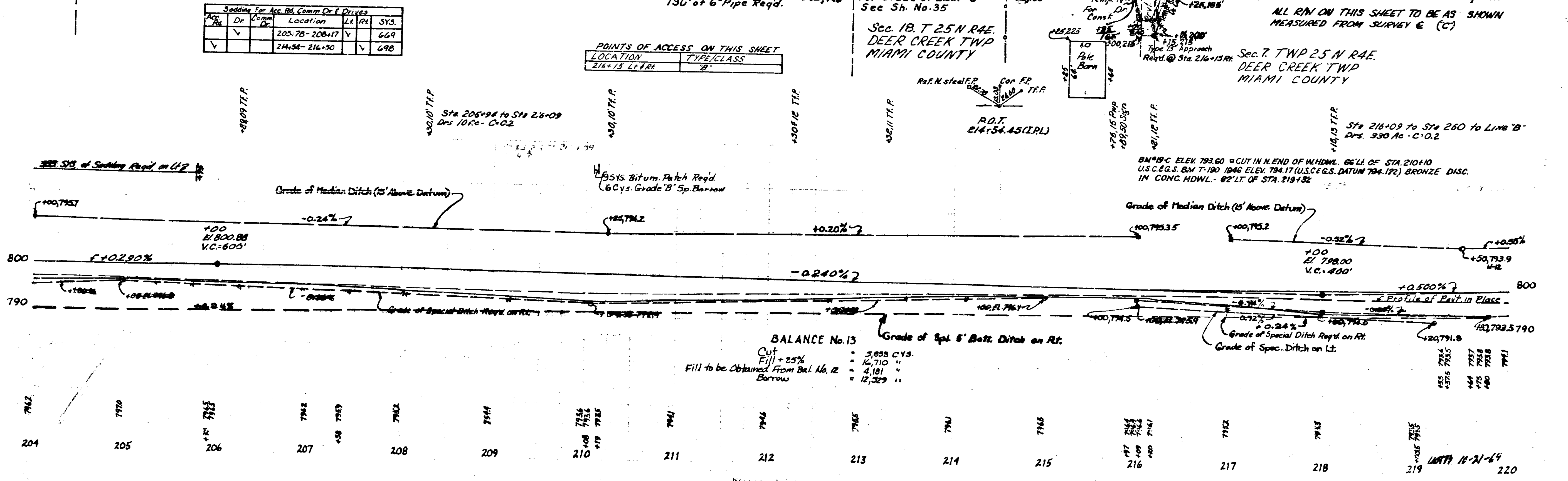
ST-F-70(15) 'C' 22 157

Prop Rd. Crossover Type IV Rev. 10-7-65 RW LINE 216+15-216+50-Per L.A.D.W.  
 Reg'd Sta 216+30 See Sta. Sh. 11-12-64  
 Rev. 8-15-60-Strs and Ditch, Sec. Rd & R/W on Rt - Per Design Dept



Loc	Dr	Comm	Location	Lt	Rt	SYS.
✓	✓	✓	205+75-208+17	✓	✓	669
✓	✓	✓	214+34-216+30	✓	✓	698

LOCATION	TYPE/CLASS
216+75 Lt & Rt	"B"



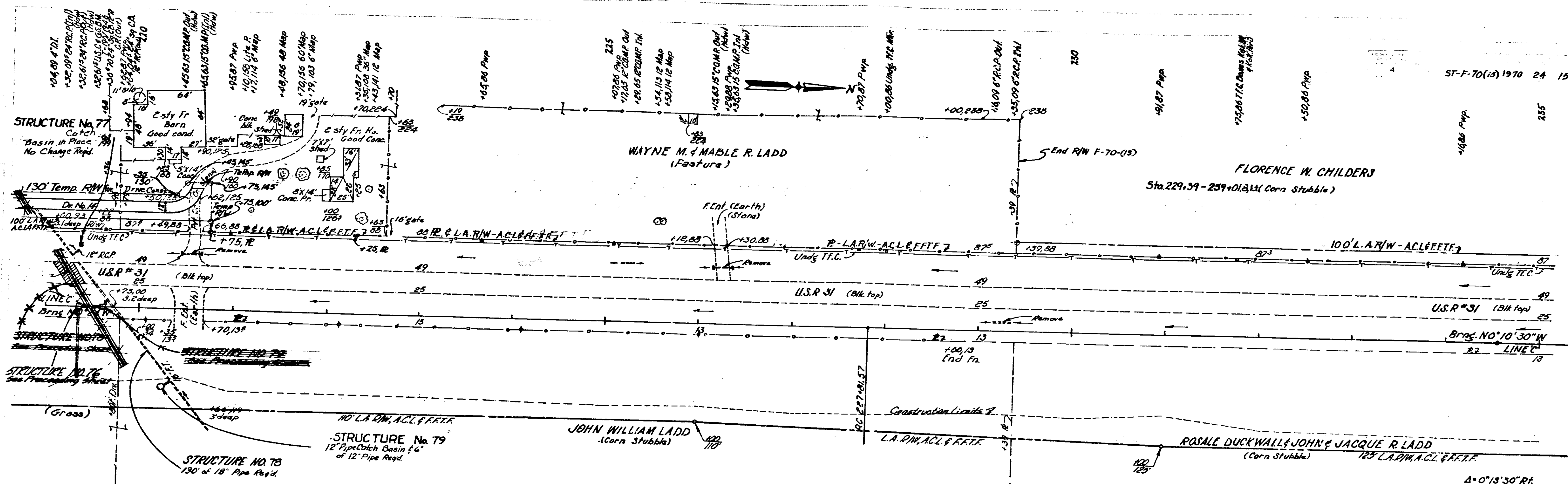
BALANCE No. 13  
 Cut = 3,893 CYS.  
 Fill + 25% = 16,710 "  
 Fill to be Obtained From Bal. No. 12 = 4,181 "  
 Borrow = 12,329 "

E. M. Bowden 245  
S. X. Jones 246

PLAN  
9337

E. M. Bowden 245  
S. X. Jones 246

PROFILE

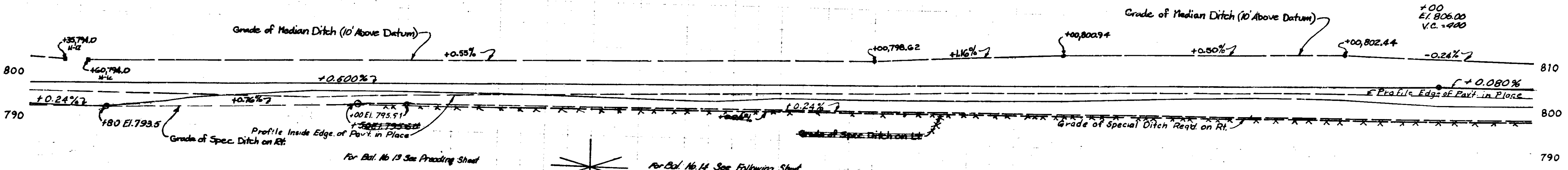


Sodding for Acc. Rd. Comm. Dr. & Drives

Acc. Rd.	Dr.	Comm. Dr.	Location	Lt. Rt.	SYS.
✓	✓	✓	219+74 - 220+75	✓	219

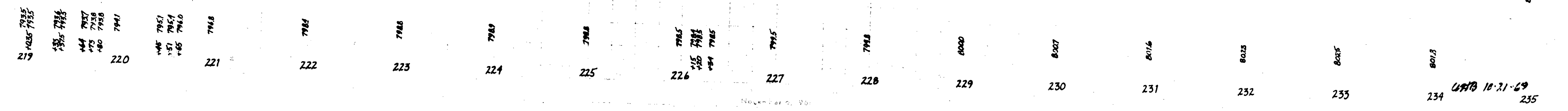
Δ = 0°15'30" R/L  
 D = 0'01"  
 T = 675.0  
 L = 1350.0  
 E = 0.66

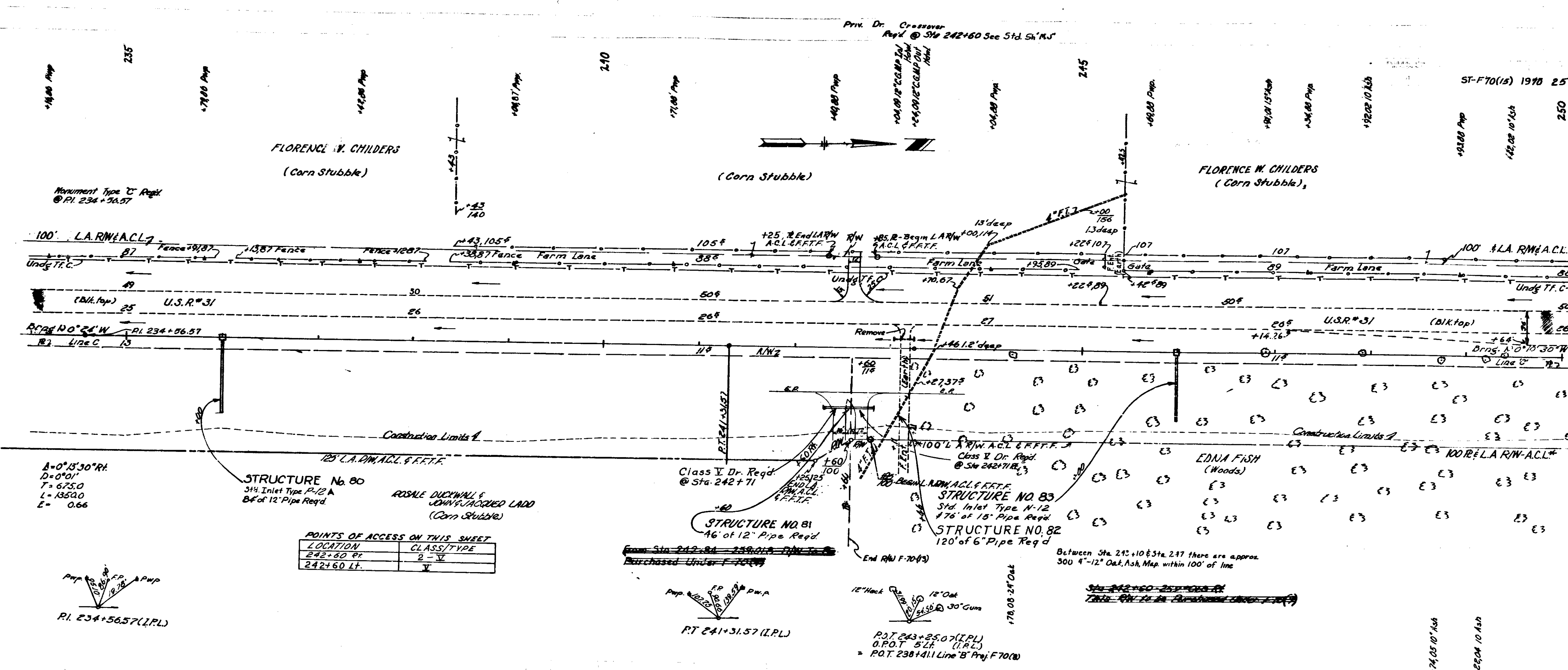
R/W ON THIS SHEET TO BE AS SHOWN MEASURED FROM SURVEY & (C)  
 BM #20-C Elev. 804.50 Bt. Spk. in E. Face of Conc. Cor. F.P. up 35' 8" Lt. of Sta. 229+39



For Bal. No. 13 See Preceding Sheet

For Bal. No. 14 See Following Sheet

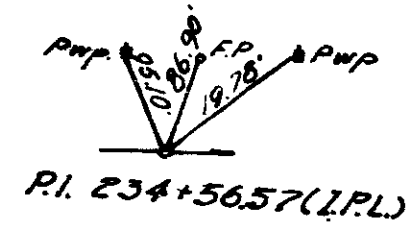




POINTS OF ACCESS ON THIS SHEET

LOCATION	CLASS/TYPE
242+60 Pt.	2-V
242+60 Lt.	V

A=0°13'30"RH  
 D=0°01'  
 T=675.0  
 L=1350.0  
 E=0.66

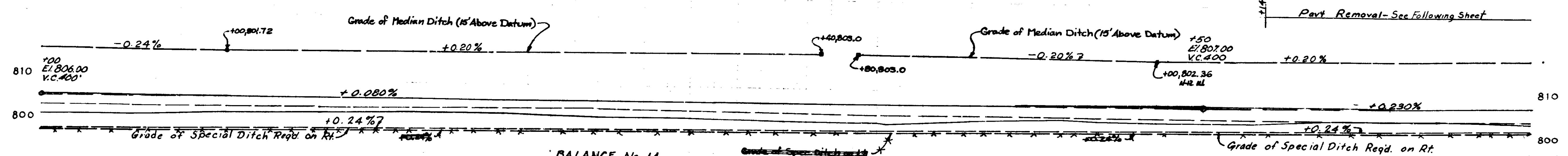


STRUCTURE NO. 81  
 46' of 12" Pipe Reg'd

STRUCTURE NO. 82  
 120' of 6" Pipe Reg'd

Between Sta. 242+10 & Sta. 247 there are approx. 300 4"-12" Out. Ash, Map. within 100' of line

B.M. #21-C Elev. 802.67 Bl. Spk. in 14" Ironwood S. Side, 196' Rt. of Sta. 243+49



BALANCE No. 14  
 Cut = 1670 C.Y.S.  
 Fill +25% = 1401 "  
 Borrow = 12401 "

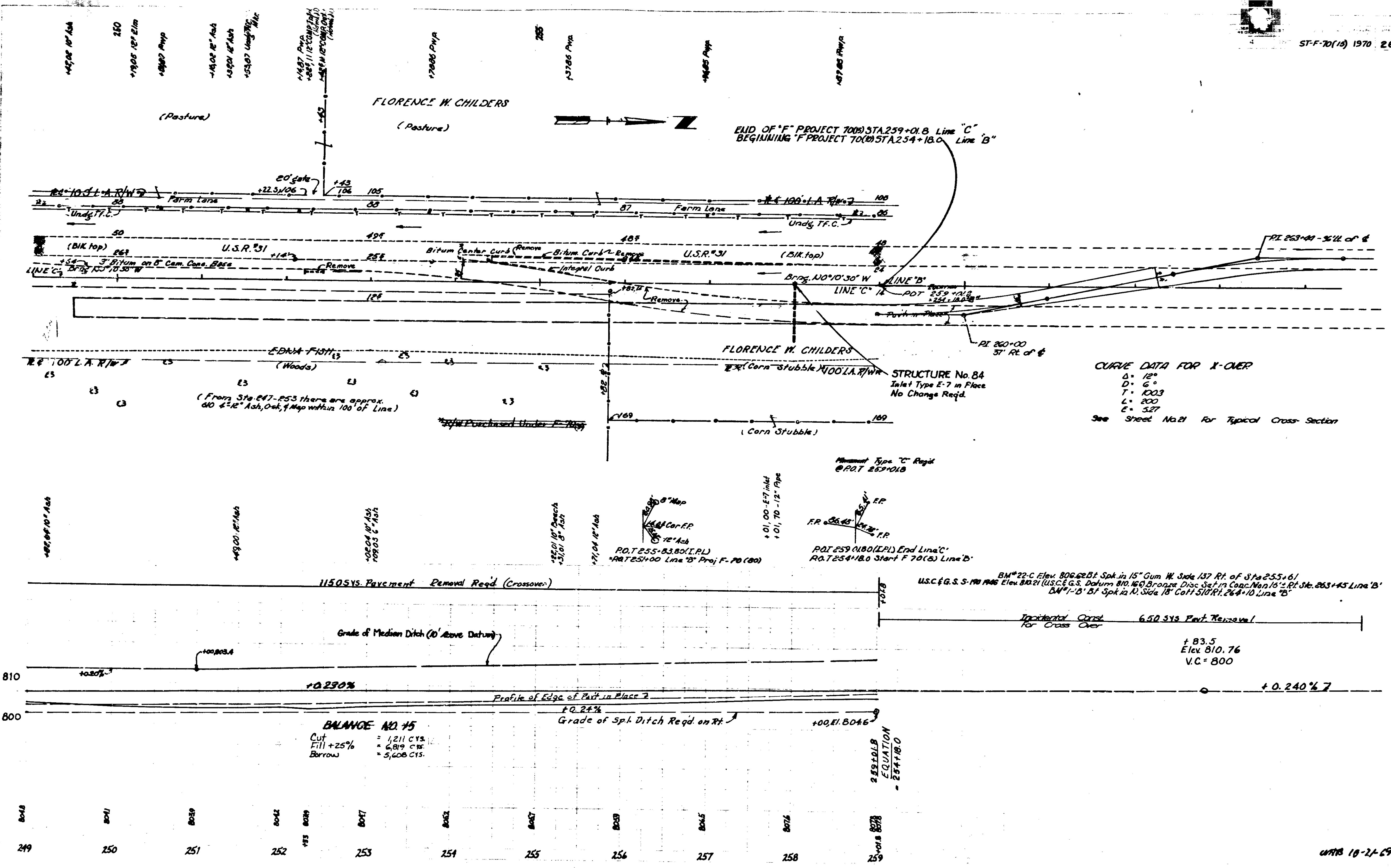
For Bal. No. 15 See Following Sheet

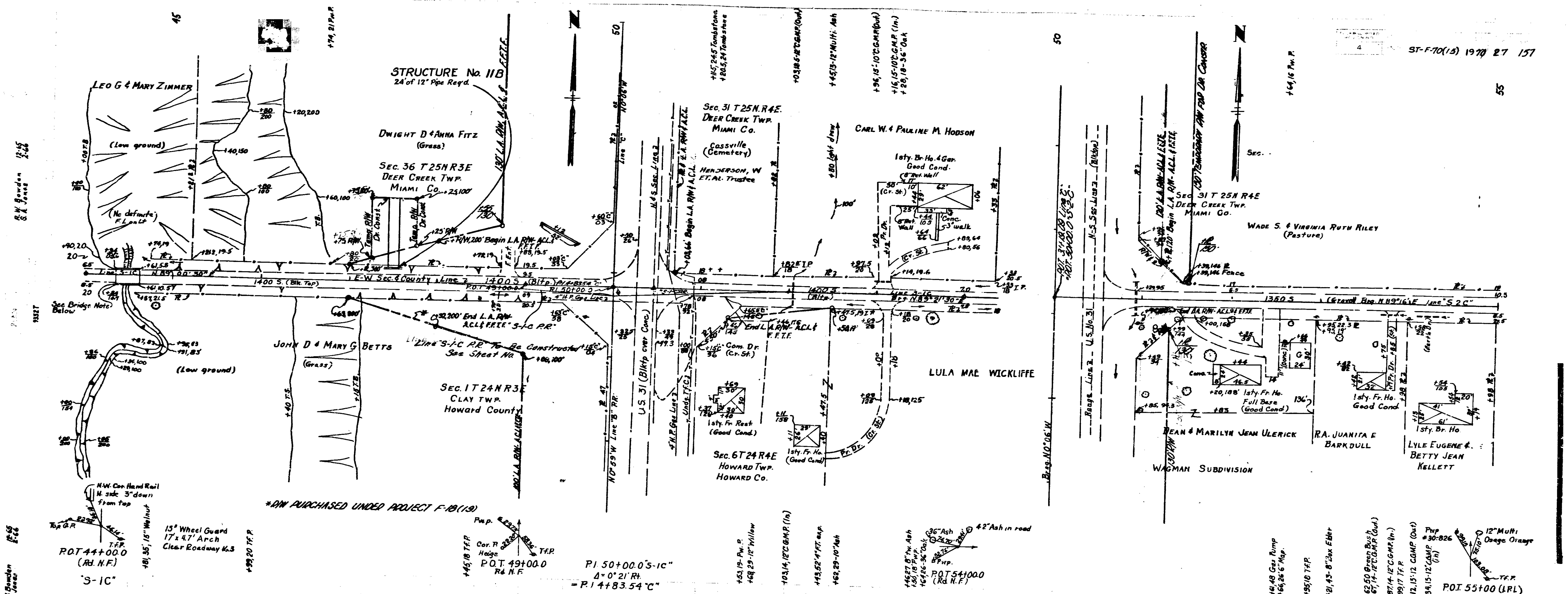
Station	Station	Station	Station	Station	Station	Station	Station	Station	Station	Station	Station	Station	Station	Station	Station	Station	Station	Station
234	235	236	237	238	239	240	241	242	243	244	245	246	247	248	249	250	251	252

PLAN  
SHEET

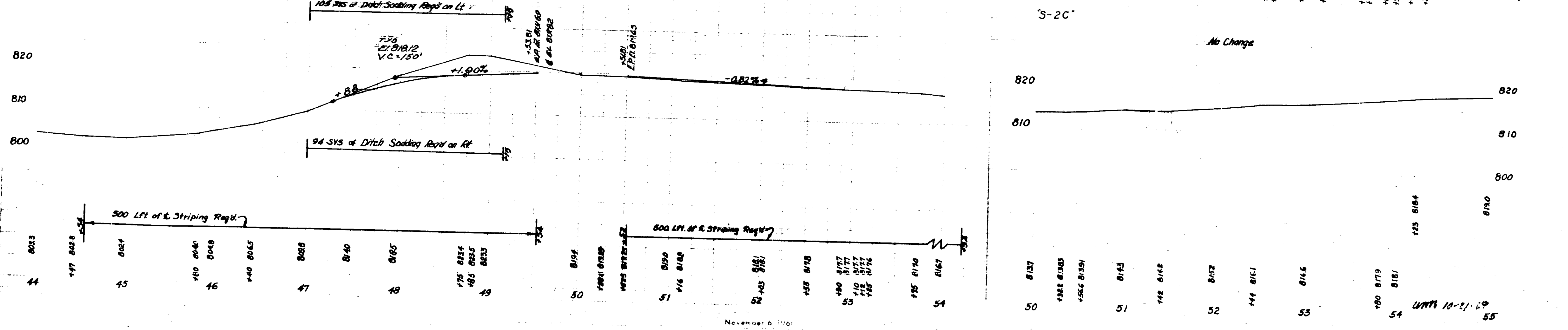
B. W. Jordan  
1968

PIORRE  
SHEET

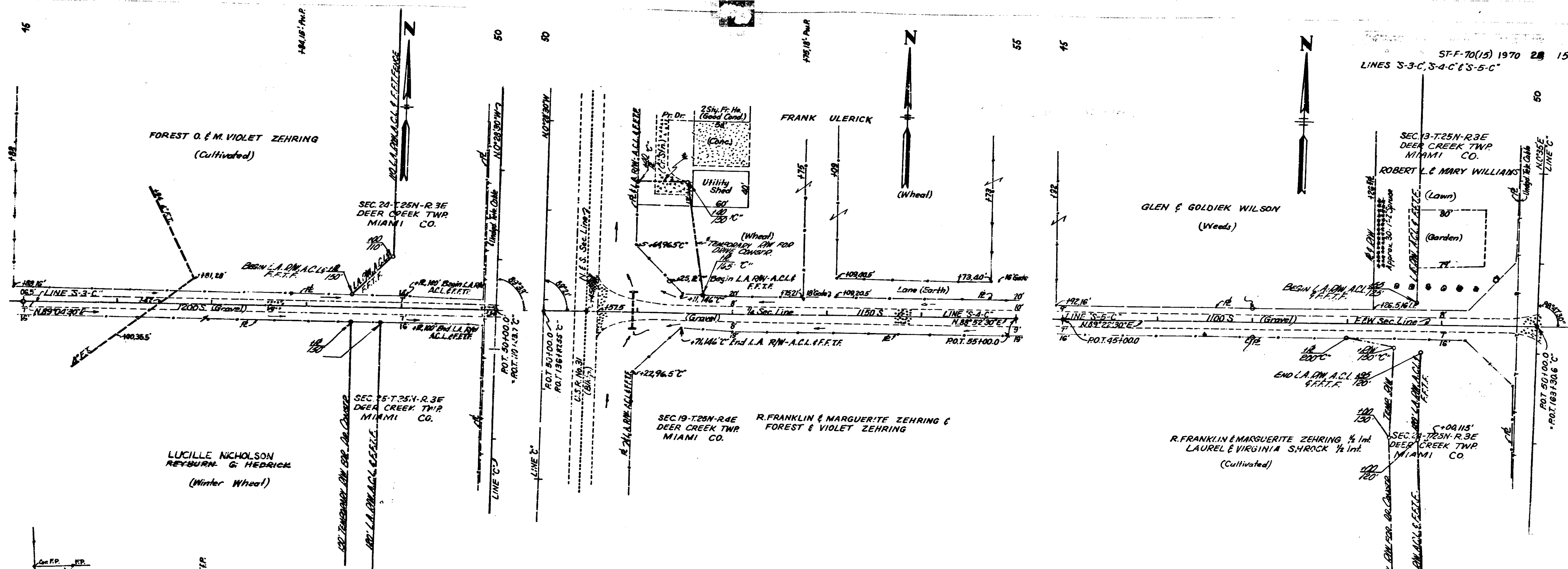




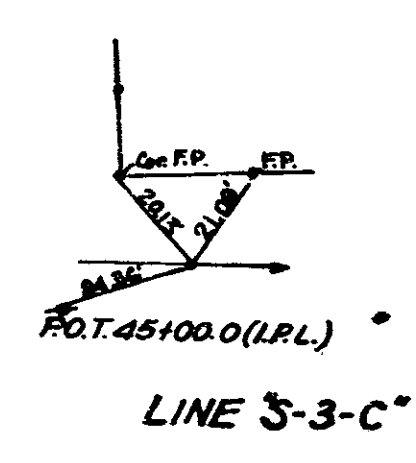
\*RD PURCHASED UNDER PROJECT F-10(19)



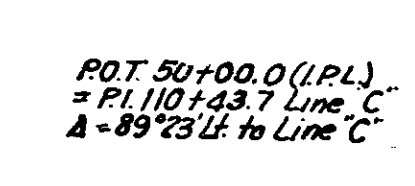
November 6, 1960



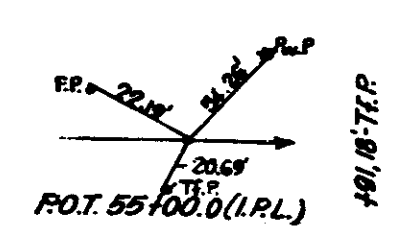
S.F.F. 70(15) 1970 28 157  
 LINES S-3-C, S-4-C & S-5-C



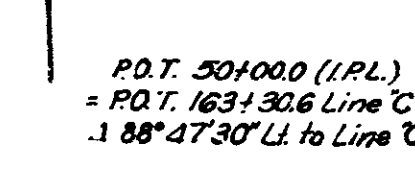
LINE S-3-C



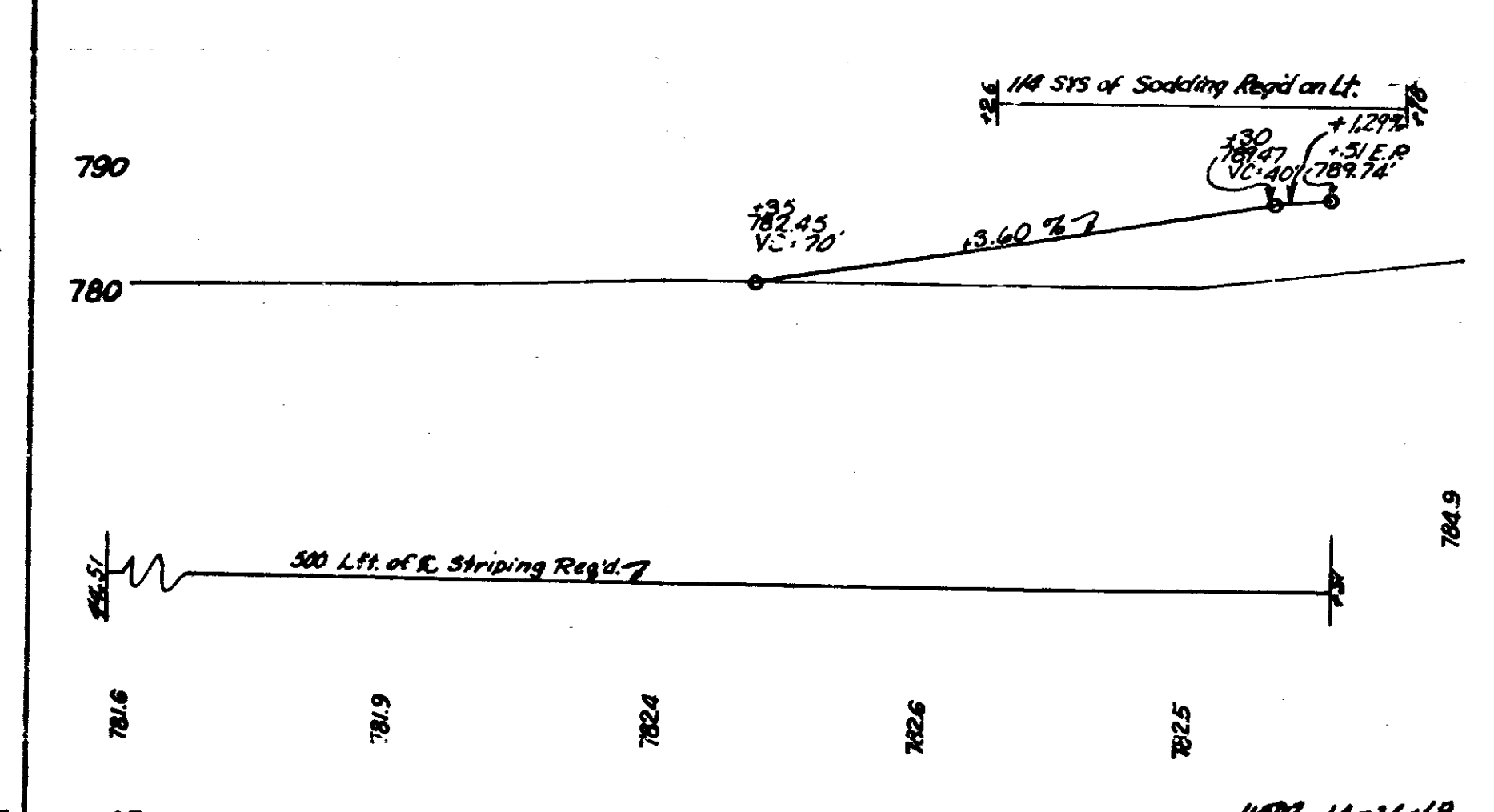
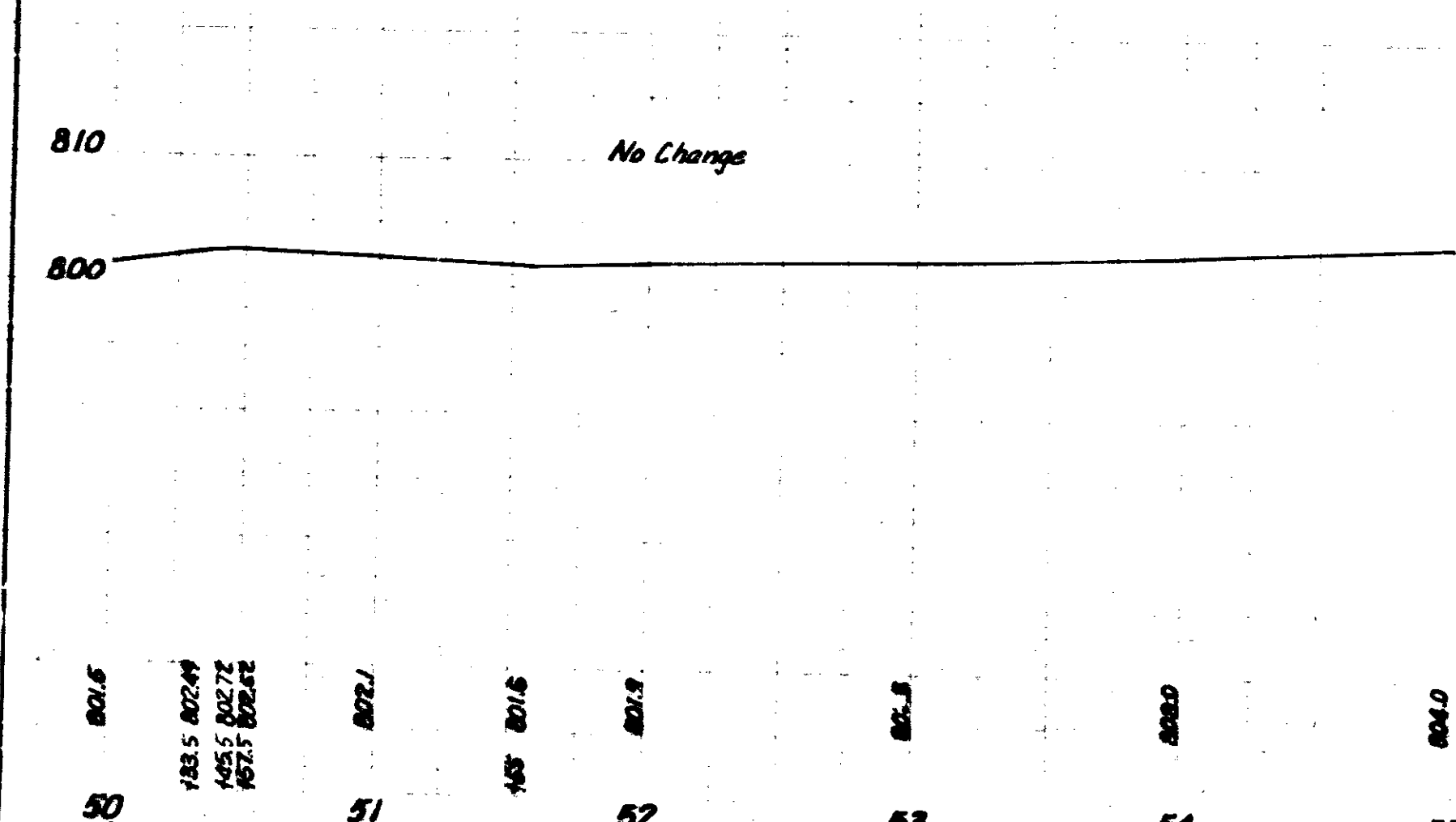
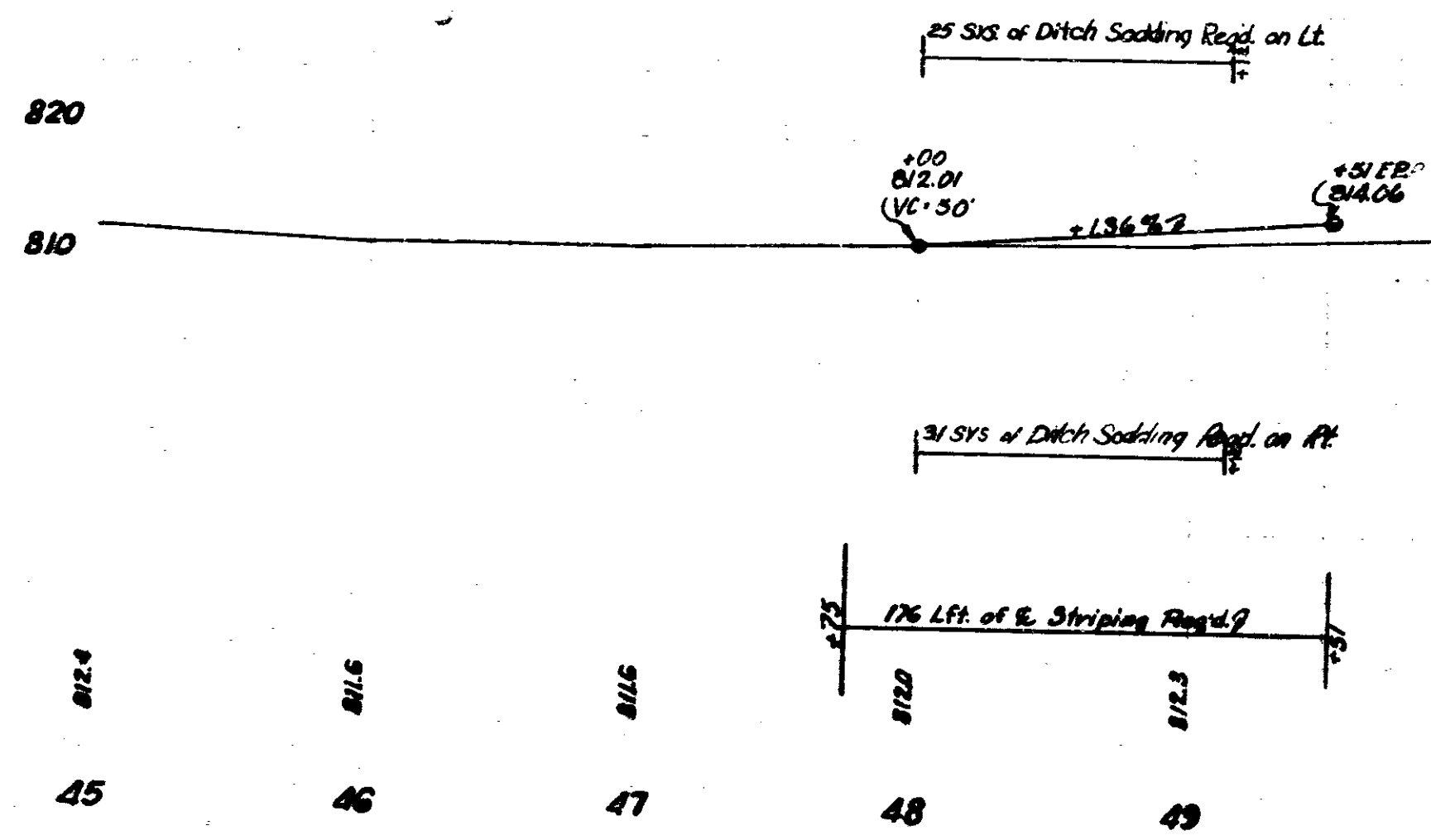
LINE S-4-C



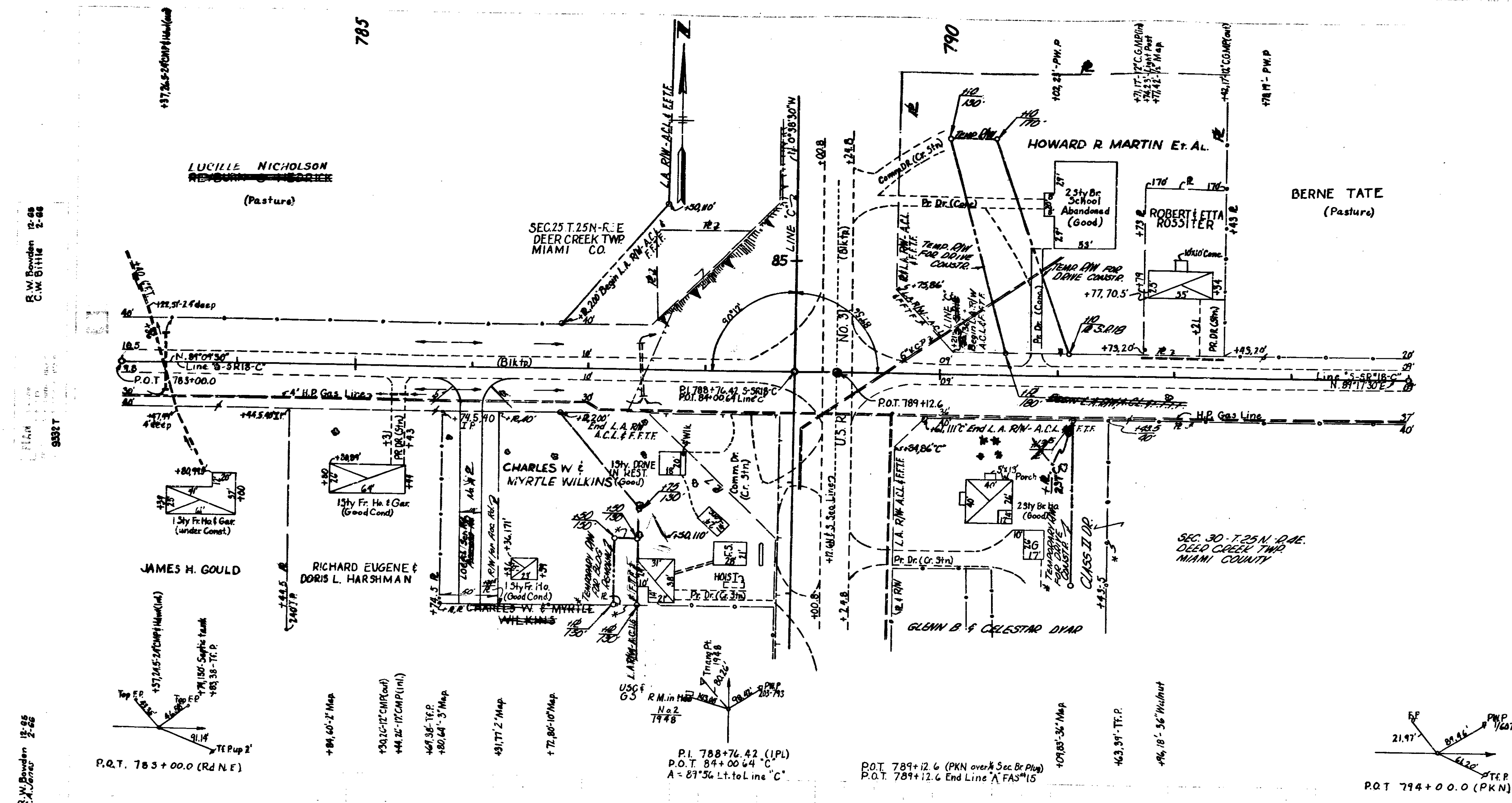
LINE S-5-C



LINE S-5-C

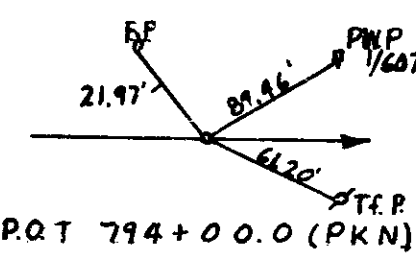






B.W. Bowden 12-88  
 C.W. Bittler 2-88

S.W. Bowden 12-88  
 S.W. Bittler 2-88



83	8375 81630 +47 81641	84	+75 81644 81649	+45 81650	85	81651 81650 81650 81650 +160 81649 +75 81649	86	81648 +80 81657	87	81643	+83 81632	88	81631	89	81632 81631 81631 81631 81631	90	81632	91	+81 81628 81629	92	81629 +50 81627 +41 81624 +45 81624	93	81626	94	80995
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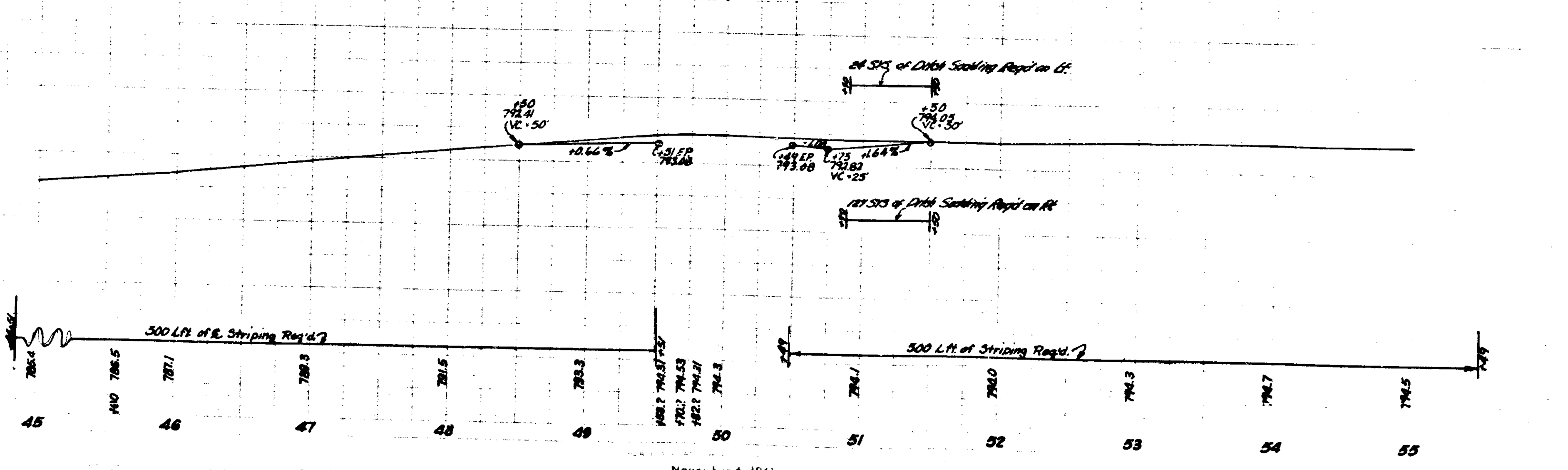
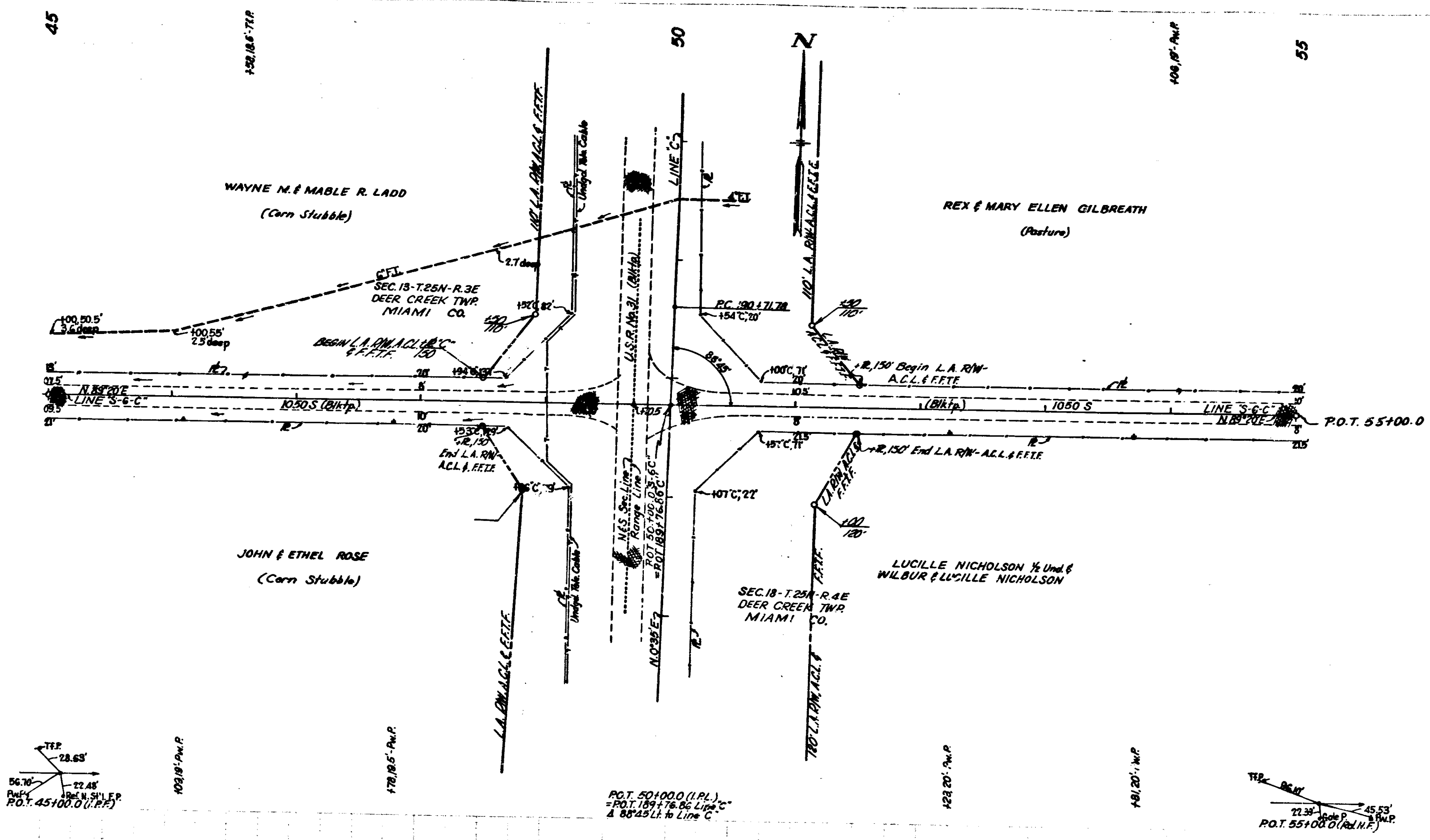
November 6 1960

UNTA 10-21-79

PLAN  
 E. W. Gardner  
 S. H. Jones  
 12-65  
 2-66  
 15587

PROFILE  
 E. W. Gardner  
 S. H. Jones  
 12-65  
 2-66  
 15587

SF-F-70(1A) 30 157  
 LINE "S-6-C" 30



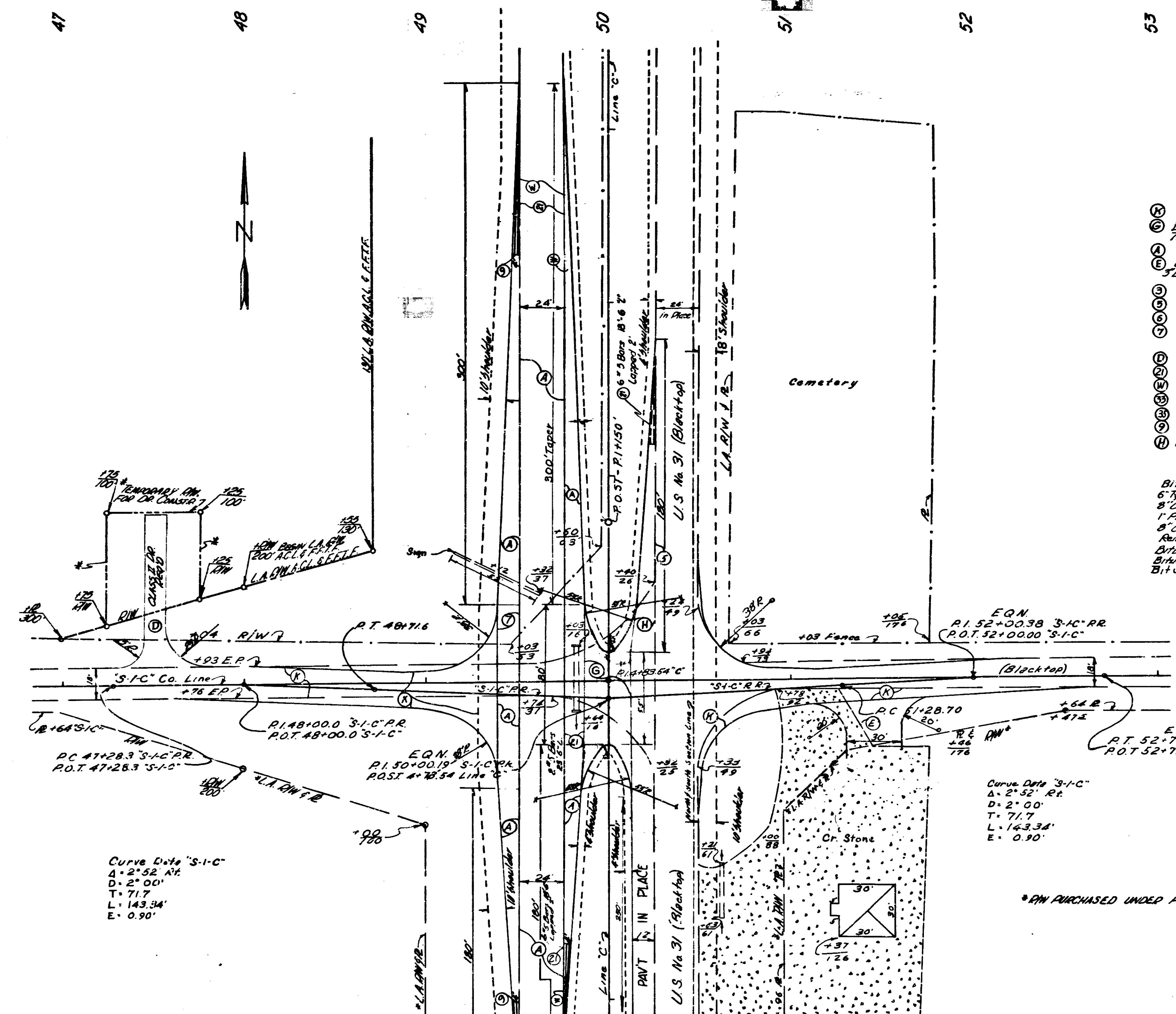
URTA 15-21-69

ST - F 7015 S-6-C 30 157

FEDERAL ROAD DISTRICT NO.	STATE	PROJECT NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
4	IND.	ST-F 70(15)	1970	31	157

47 48 49 50 51 52 53

8  
7  
6  
5  
4  
3



- LEGEND**
- (X) 8" Type 'P' Comp. Agg. Base 240# Bitum. Base 90# Bitum. Surface
  - (Y) Bitum. Mixture for X-Overs 90# Bitum. Surface
  - (Z) 750# Bitum. Base
  - (A) 8" Continuous Reinforced Concrete Pavement
  - (B) 6" Type 'P' Compacted Aggregate Base & Bitum. Mixture for Approaches
  - (C) Longitudinal Joint
  - (D) Butt Joint
  - (E) Construction Joint
  - (F) Keyway Joint
  - (G) 5" Type 'P' Comp. Agg. Base & 5" Bitum. Mix. For Approaches
  - (H) Keyway Construction Joint
  - (I) Ear Construction Type A (Steel End Area to Equal 0.6% of Concrete End Area)
  - (J) Ear Construction Type C
  - (K) Faced Side Ditch Type A
  - (L) 1" Preformed Joint Filler
  - (M) 8" Conc. Base - 240# Bitum. Base - 90# Bitum. Surface

**ADDITIONAL QUANTITIES**

Bitum. Mixture for Approaches	38.6 Tons
6" Type 'P' Compacted Aggregate Base	87 Tons
8" Continuous Reinforced Conc. Pavement	898 Sys
1" Preformed Joint Filler	16 Lin Ft.
8" Concrete Base	190 Sys.
Reinforcing Steel for Pavement	678 Lbs.
Bitum. Base	177 Tons
Bitum. Surface	44 Tons
Bitum. Mixture for X-Over	238 Sys.

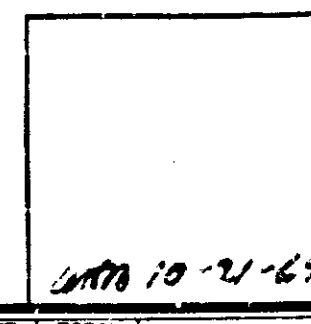
Curve Data "S-I-C"  
 A = 2° 52' 34"  
 D = 2° 00'  
 T = 71.7  
 L = 143.34'  
 E = 0.90'

Curve Data "S-I-C"  
 A = 2° 52' Rt.  
 D = 2° 00'  
 T = 71.7  
 L = 143.34'  
 E = 0.90'

\*P.W. PURCHASED UNDER F-PROJECT 18(15)

# DETAILS

Scale 1" = 30' 0"  
 Line "S-I-C" Co. Rd.



November 6, 1964

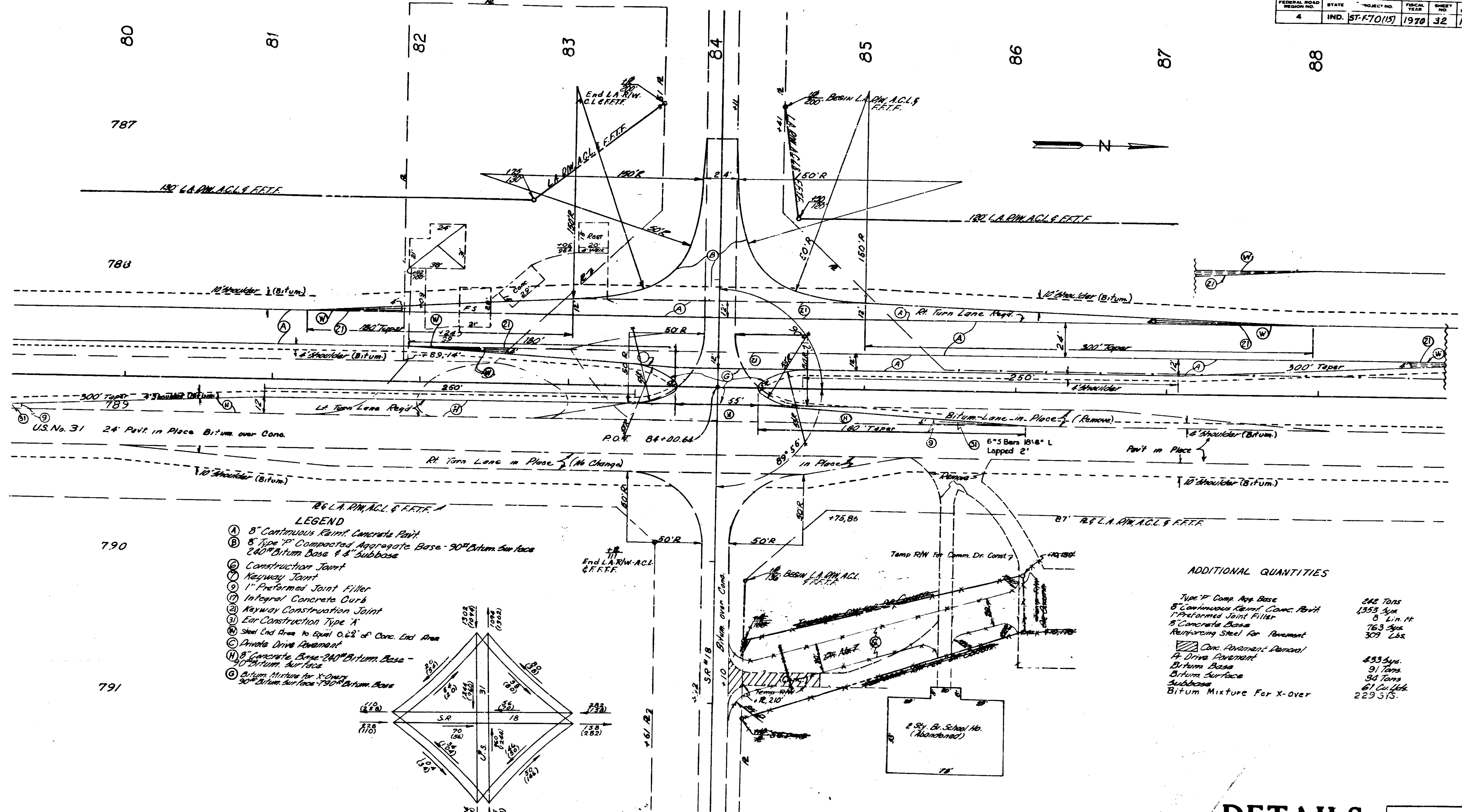
PROJECT NO.	LINE	SHEET NO.	TOTAL SHEETS	FILE
ST-F 70(15)	"C"	31	157	

DATE 10-21-64

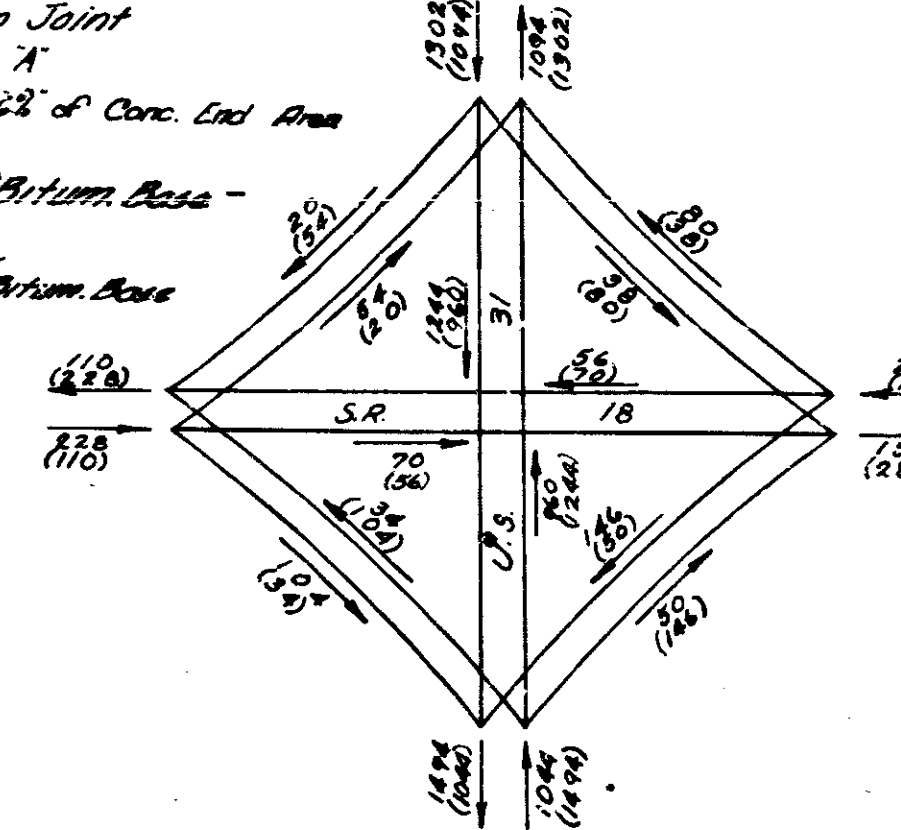
Rev. 5-3-72 Elimination of Dr. No. 7 & Temp. R/W  
 Sta. 84+20 to 86+10 - Pav. Rd. Design Dept.

FEDERAL ROAD DISTRICT NO.	STATE	PROJECT NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
4	IND.	ST-F70(15)	1970	32	137

80 81 82 83 84 85 86 87 88



- LEGEND**
- (A) 8" Continuous Reinf. Concrete Pavt.
  - (B) 8" Type 1" Compacted Aggregate Base - 90" Bitum. Sur face
  - (C) Construction Joint
  - (D) Keyway Joint
  - (E) 1" Preformed Joint Filler
  - (F) Integral Concrete Curb
  - (G) Keyway Construction Joint
  - (H) Ear Construction Type X
  - (I) Steel End Area to Equal 0.63' of Conc. End Area
  - (J) Drive Drive Pavement
  - (K) 8" Concrete Base - 240" Bitum. Base - 90" Bitum. Sur face
  - (L) Bitum. Mixture for X-over
  - (M) 30" Bitum. Sur face - 70" Bitum. Base



**ADDITIONAL QUANTITIES**

Type 1" Comp. Agg. Base	242 Tons
8" Continuous Reinf. Conc. Pavt.	1358 Sq. Yd.
1" Preformed Joint Filler	8 Lin. Ft.
8" Concrete Base	763 Agg.
Reinforcing Steel for Pavement	309 Lbs.
Conc. Pavement Removal	433 Sq. Yd.
Drive Pavement	91 Tons
Bitum. Base	54 Tons
Bitum. Surface	61 Cu. Yds.
Subbase	229.515

# DETAILS

SCALE 1"=30'-0"  
 S.R. No. 18

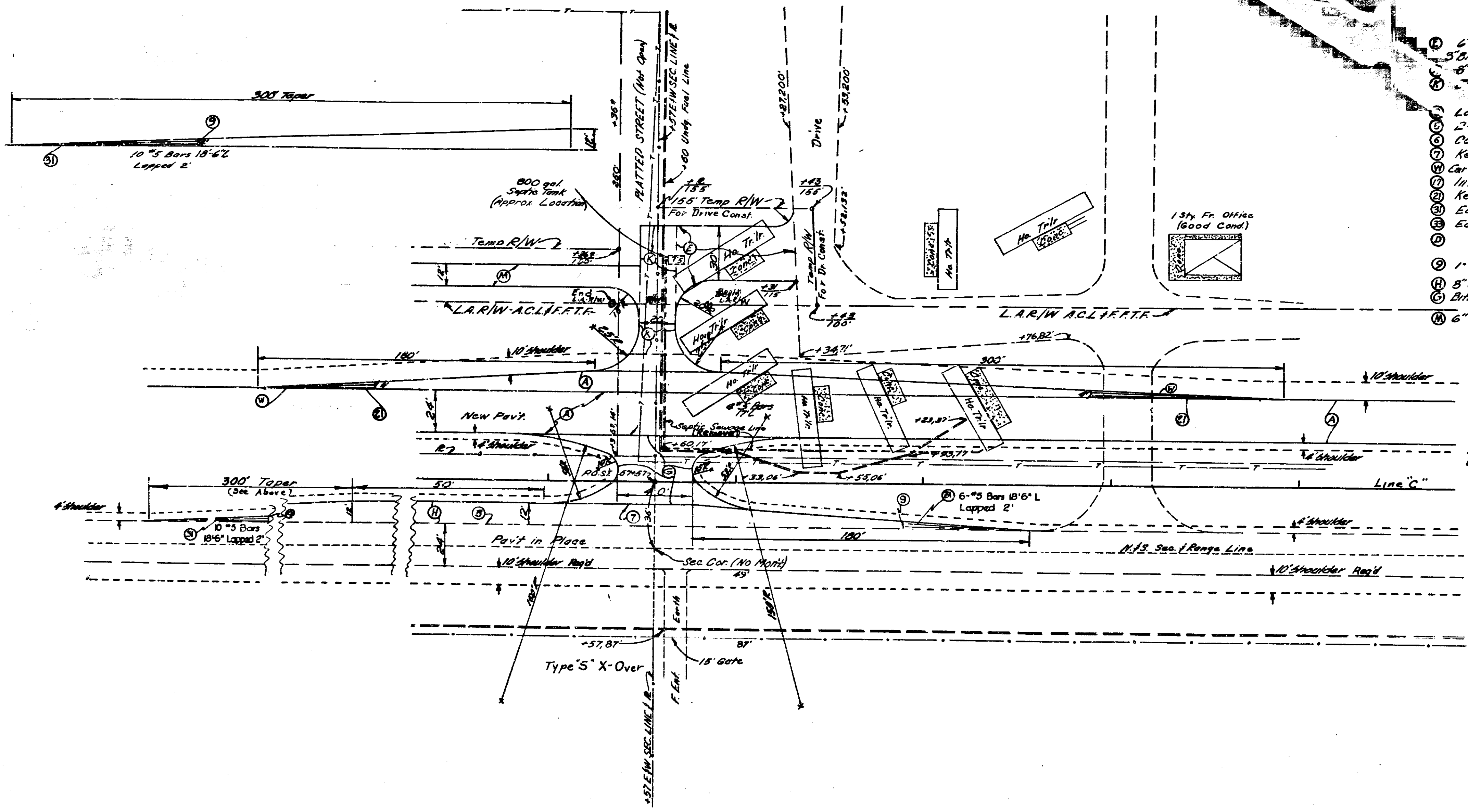
November 6, 1964

PROJECT	LINE	SHEET	TOTAL SHEETS	FILE
ST-F70(15)	C	32	137	

11-21-64

57 58 59 60 61

FEDERAL ROAD DISTRICT NO.	STATE	PROJECT NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
4	IND.	ST-F-70(18)	1970	33	157



- LEGEND**
- ① 6" Type P Compacted Aggregate Base & 5" Bitum. Mixture for Approaches
  - ② 8" Continuous Reinf. Conc. Pavt.
  - ③ 4" Bitum. Base 90# Bitum. Surface 8" Type P Compacted Aggregate Base
  - ④ Longitudinal Joint
  - ⑤ 2" Int. Joint
  - ⑥ Construction Joint
  - ⑦ Keyway Joint
  - ⑧ Car Const. Type 20" Steel 40 lbs. to Equal 0.6% of Conc. End Area
  - ⑨ Integral Construction Joint
  - ⑩ Keyway Construction Joint
  - ⑪ Ear Construction Type A
  - ⑫ Ear Construction Type C
  - ⑬ 5" Bitum. Mixture for Approaches - a Type P Compacted Aggregate Base
  - ⑭ 1" Preformed Joint Filler
  - ⑮ 8" Conc. Base & 2.0" Bitum. Base - 90# Bitum. Surface
  - ⑯ Bitum. Mixture for X-Overs 90# Bitum. Surface
  - ⑰ 1.0" Bitum. Base
  - ⑱ 6" Type P Compacted Aggregate Base

**ADDITIONAL QUANTITIES**

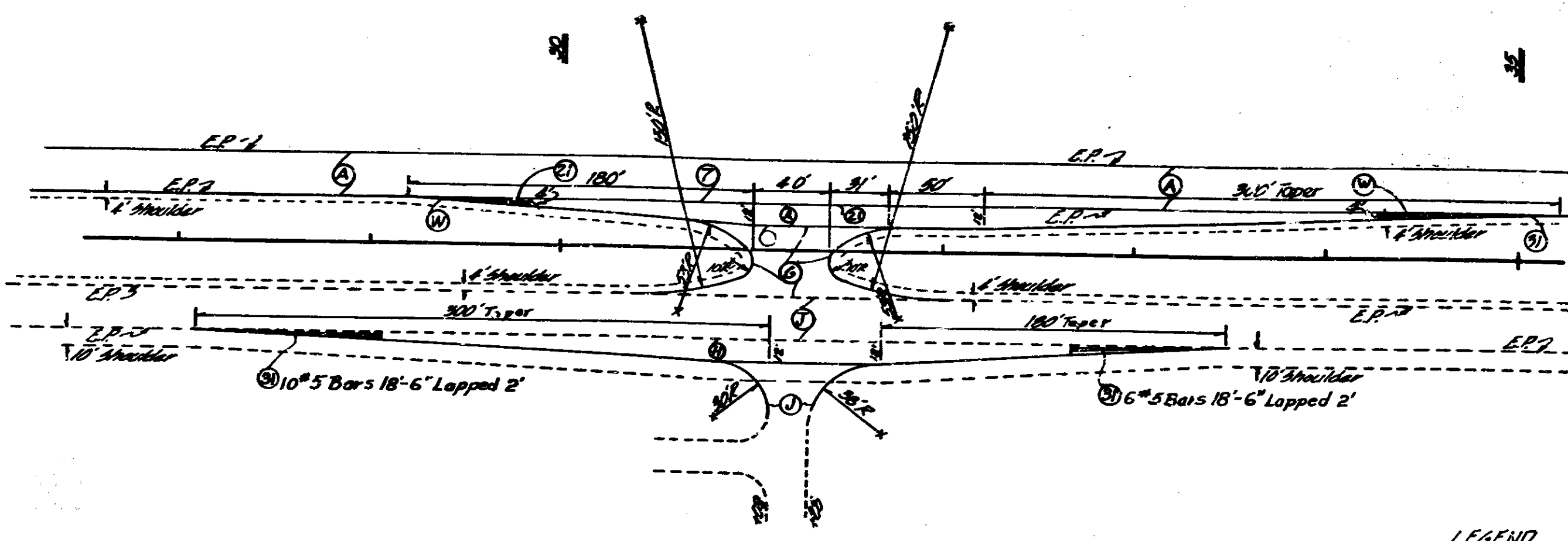
8" Continuous Reinf. Conc. Pavt.	411 Sys.
Bitum. Mixture for Approaches	38 Tons
1" Preformed Joint Filler	8 Lin ft
Type P Comp. Aggregate Base	178 Tons
Reinforcing Steel for Pavement	334 Lbs.
8" Concrete Base	493 Sys.
Bitum. Base	59 Tons
Bitum. Surface	82 Tons
Bitum. Mixture for X-Over	285 Sys.

**DETAILS**  
 SCALE 1"=30'  
 STA 57+57

November 6, 1964

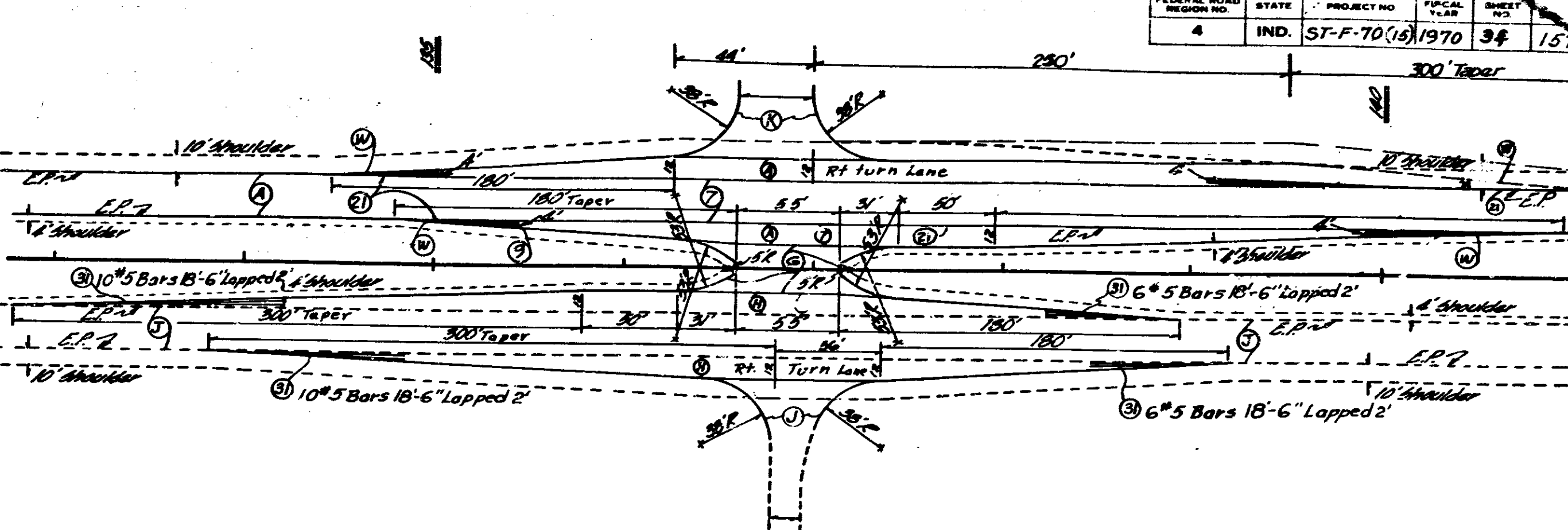
PROJECT NO.	LINE	SHEET	TOTAL SHEETS	FILE
ST-F-70(18)	C	33	157	

13-21-67



Sta. 31+20 Type "U"

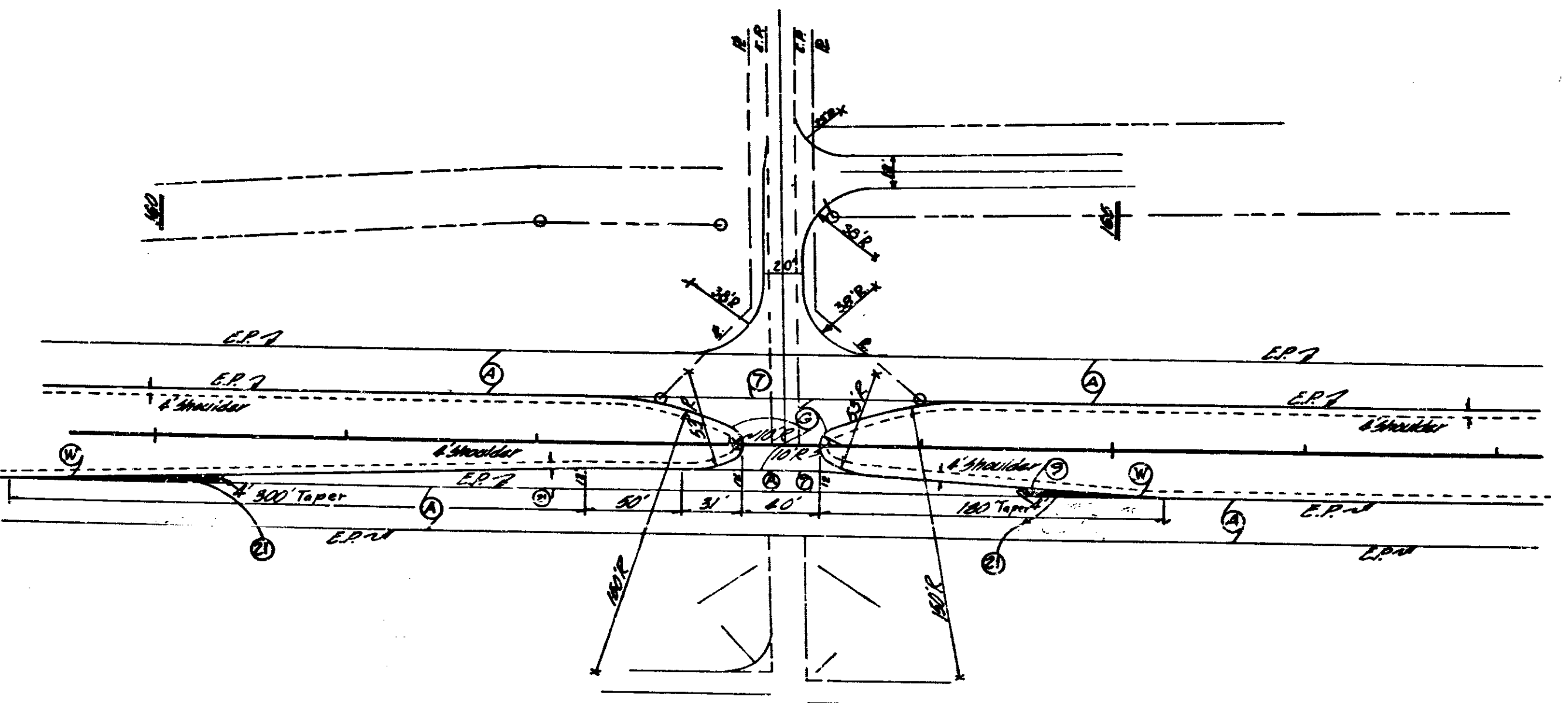
Additional Quantities	
8" C.R.C.	481 yds.
8" Conc. Base	393 yds.
Bitum. Mix. For X-Over	39 yds.
Bitum. Base	45 Tons
Bitum. Surf	18 Tons



Sta. 156+87 Type "U"

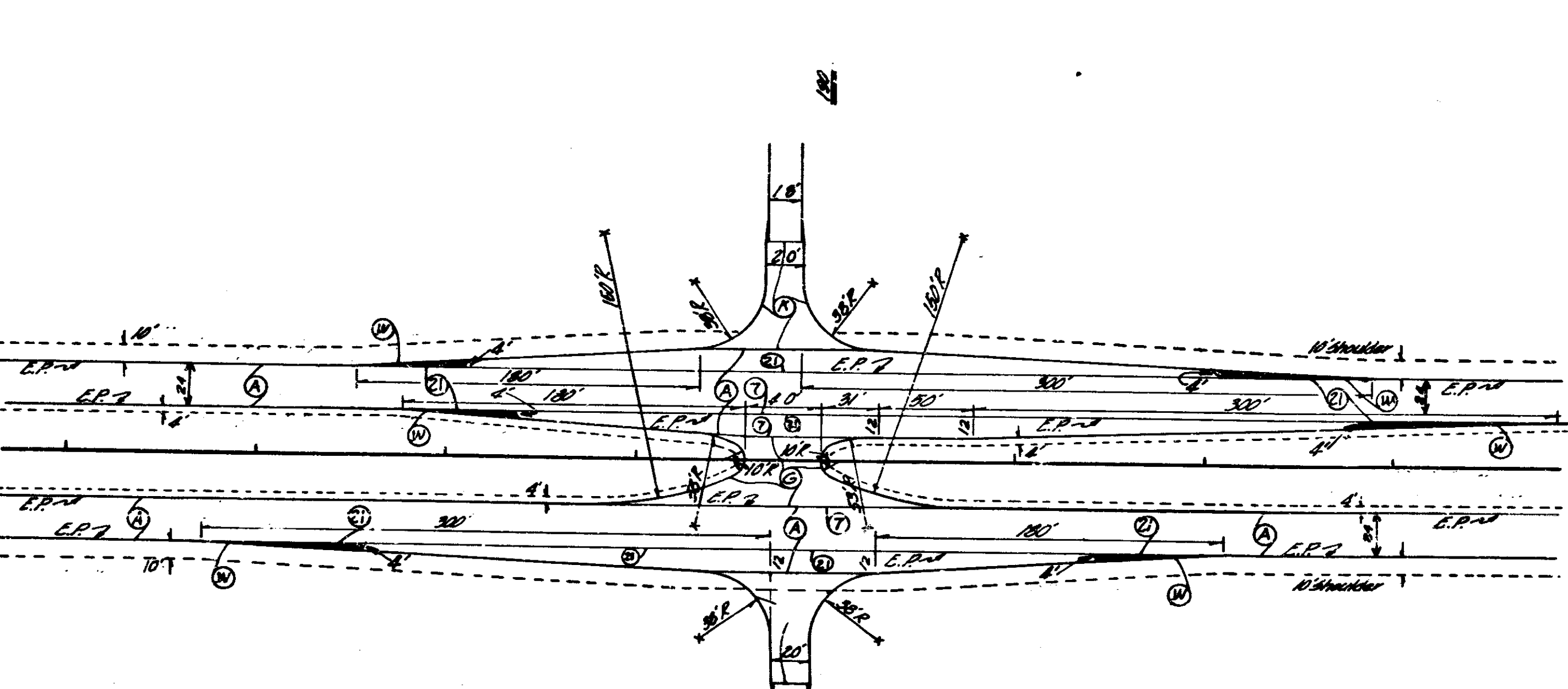
Additional Quantities	
8" C.R.C.	1214 Sys.
8" Conc. Base	896 Sys.
Bitum. Mixture For X-Over	285 Sys.
Bitum. Base	103 Tons
Bitum. Surf	40 Tons

- LEGEND**
- ① - 8" Continuous Rein. Conc. Pavt.
  - ② - 8" Type "F" Comp. Agg. Base - 3" Bitum. Base - 90° Bitum. Surface
  - ③ - Bitum. Mixture For X-Over - 3" Bitum. Surface - 7" Bitum. Base
  - ④ - 8" Conc. Base - 8" Bitum. Base - 90° Bitum. Surface
  - ⑤ - 90° Bitum. Surface - 3" Bitum. Base - 8" Type "F" Comp. Agg. Base w/ 4" Subbase
  - ⑥ - 1" Preformed Joint Filler
  - ⑦ - For Construction Type "A" Steel End Area to Equal 0.6% of Conc. End Area 2" Bars as Minimum
  - ⑧ - Keyway Joint
  - ⑨ - 24" Bitum. Base - 90° Bitum. Surface
  - ⑩ - Keyway Constr. Joint



Sta. 123+306 Type "S"

Additional Quantities	
8" C.R.C.	481 yds.
Bitum. Mix. For X-Over	285 yds.



Sta. 188+77 Type "S"

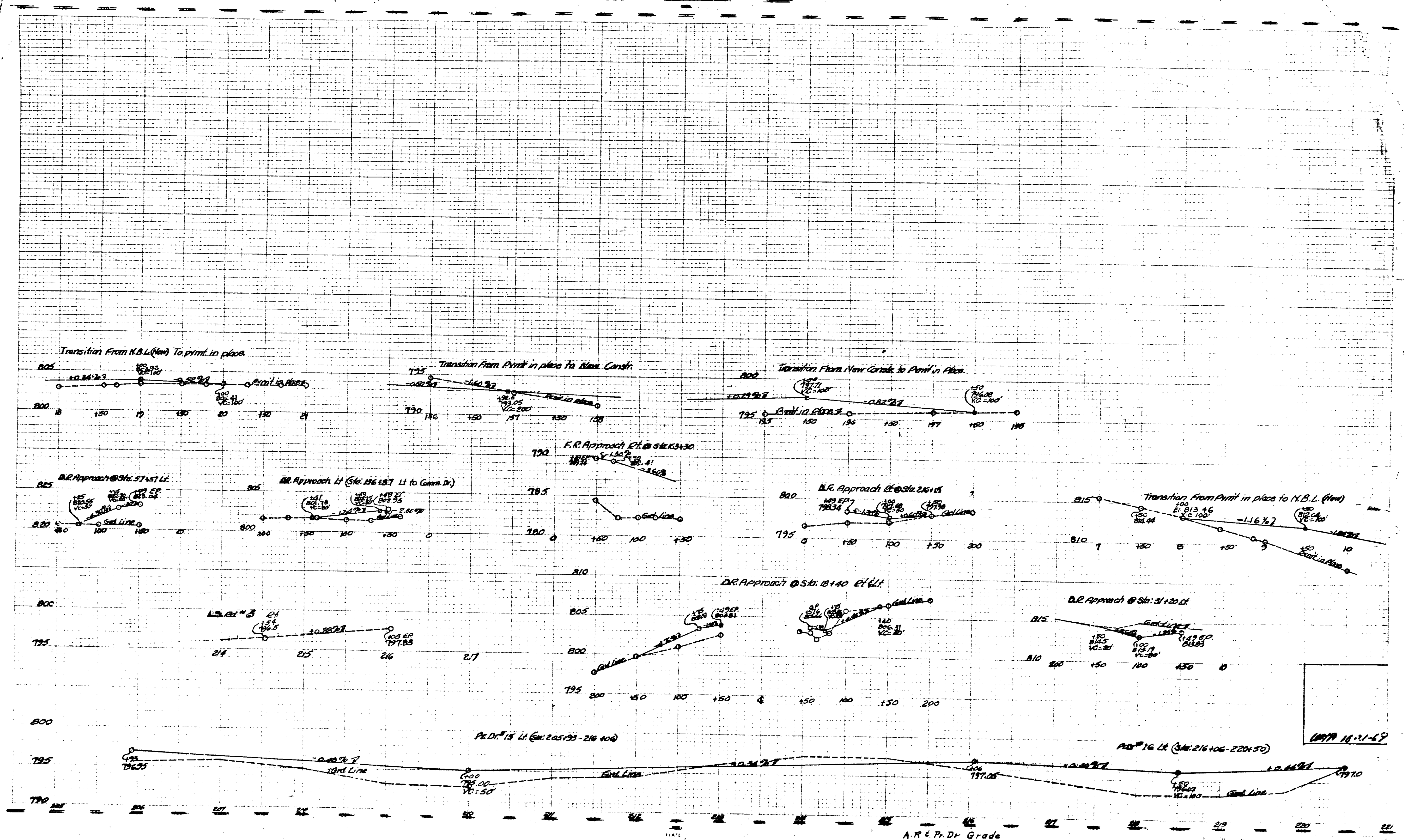
Additional Quantities	
8" C.R.C.	1271 Sys.
Bitum. Mix. For X-Over	285 Sys.

Scale: 1" = 50'-0"

# DETAILS

X-Over

GRADE FOR D.R. & L.S. APPROACH



November 6, 1961

A.R. & Pr. Dr. Grade

1970 35 157

LS RD & DR. GRADES, PAGES



LEGEND  
 L.S. = LOCAL SERVICE  
 Dr. = DRIVE

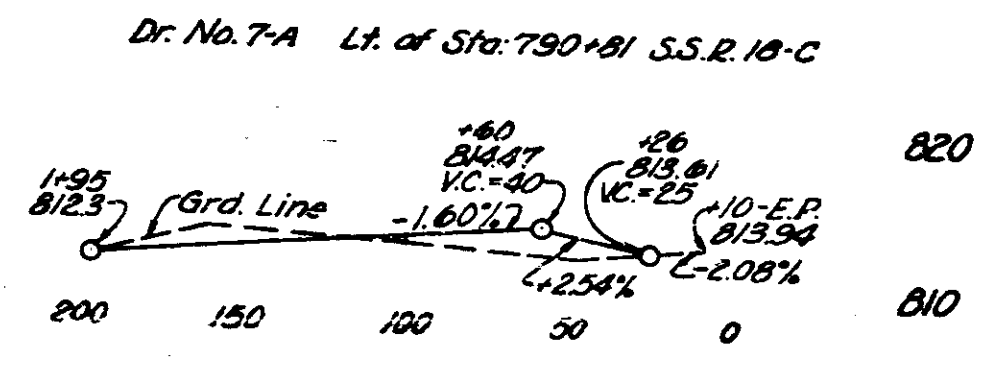
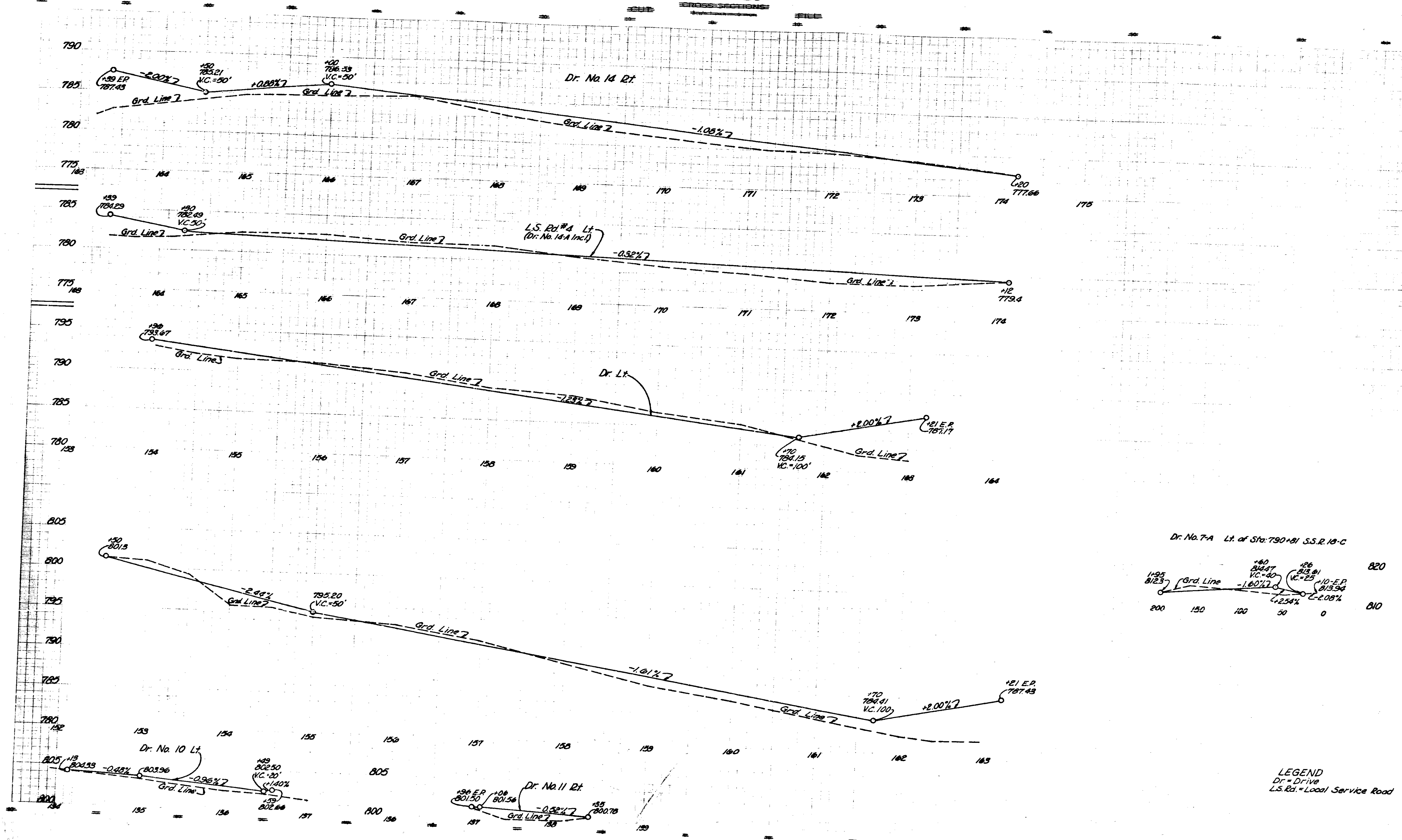
LEGEND L.S. Rd. #1  
 ○ = CONSTRUCTION LIMITS (DITCHES)  
 ■ = STANDARD DITCH

November 6, 1961

ST  
 70/15 1970 36 157  
 "C"

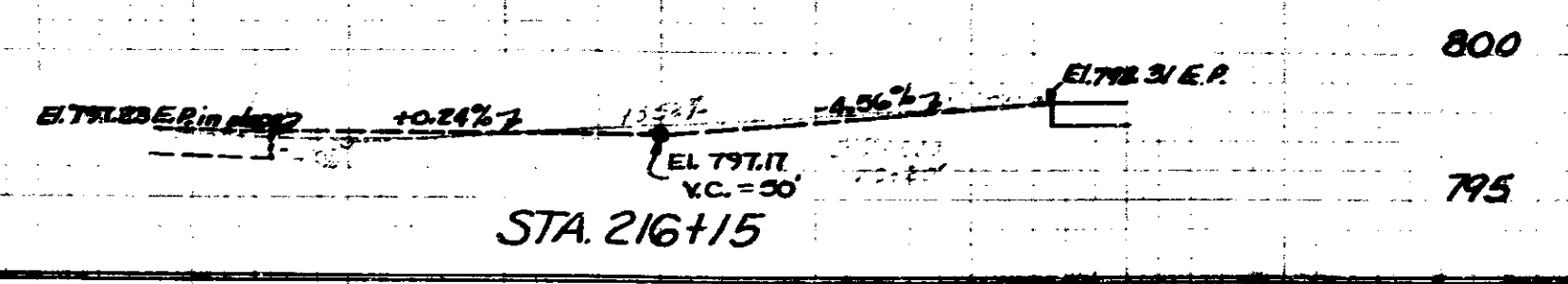


DR. GRADES

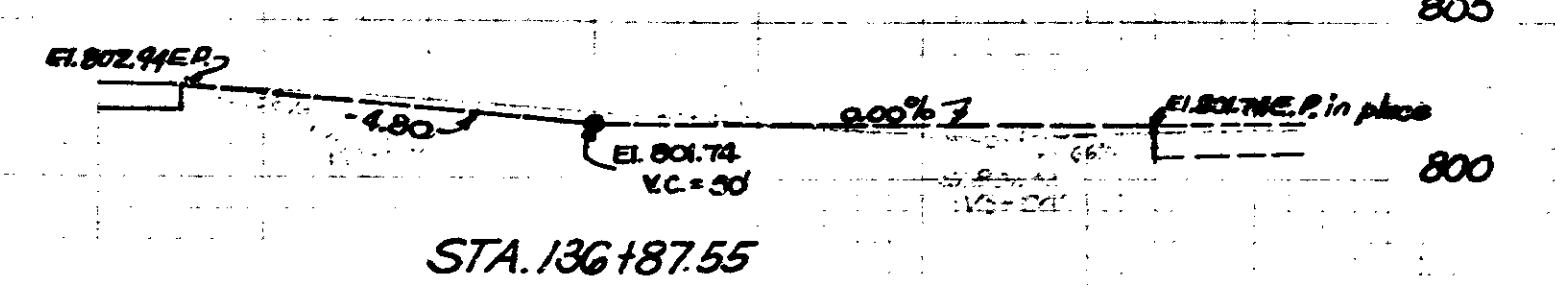


LEGEND  
 Dr. = Drive  
 L.S. Rd. = Local Service Road

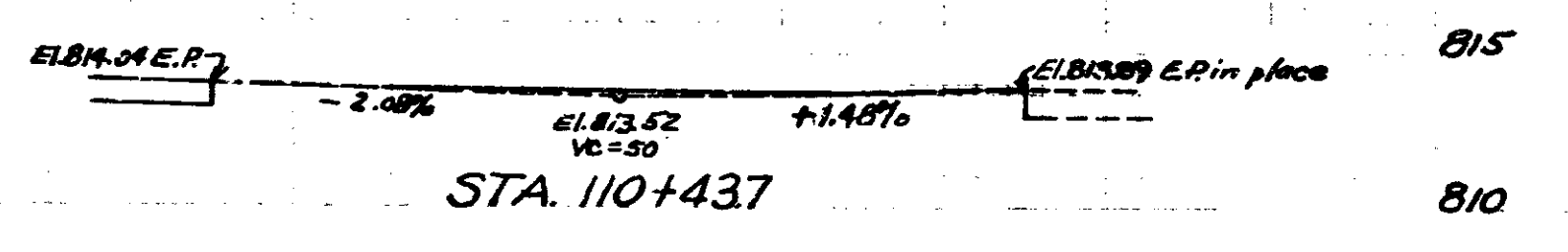
CUT CROSS SECTIONS FILL



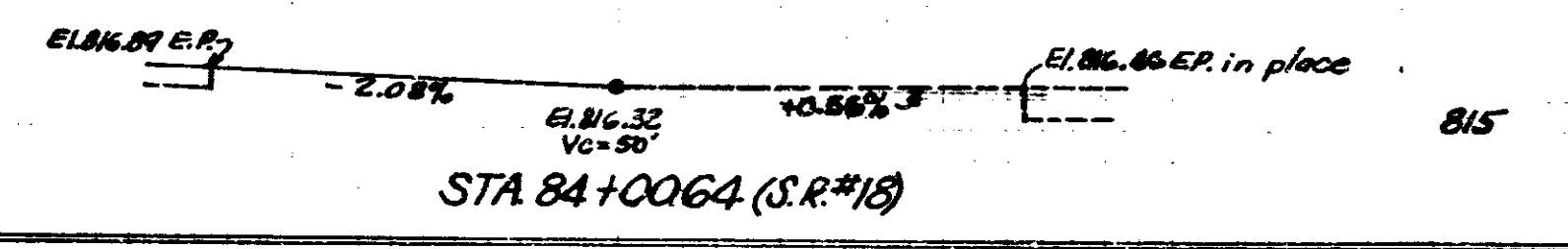
800  
795



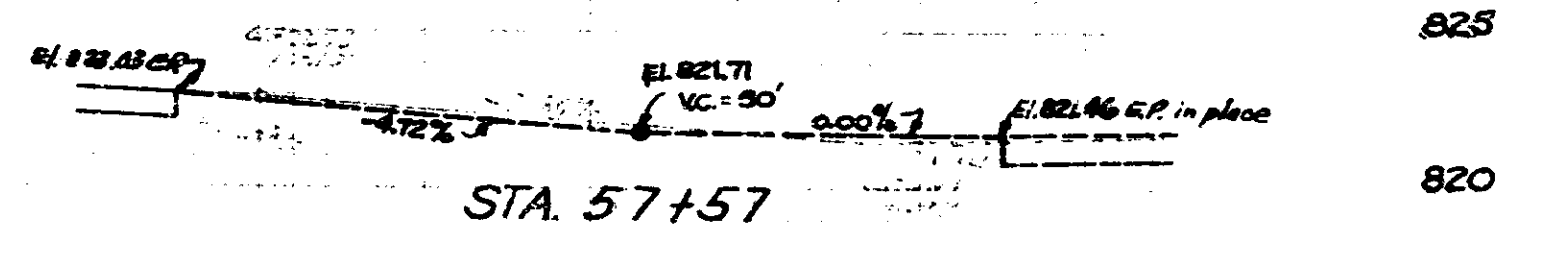
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800



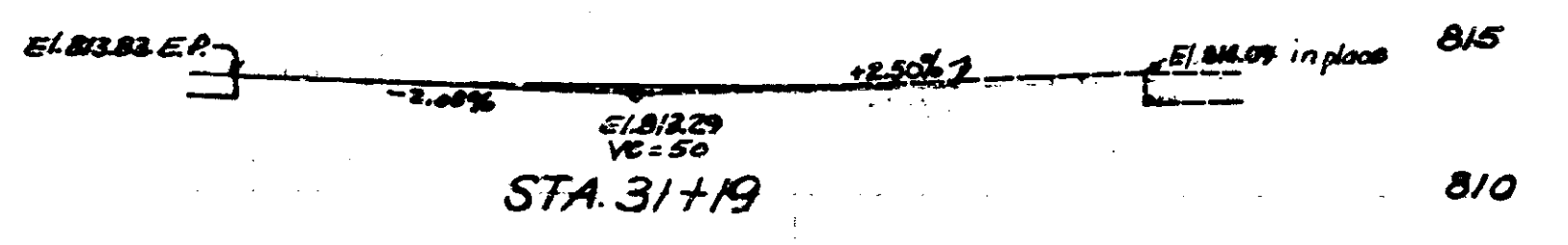
815  
810



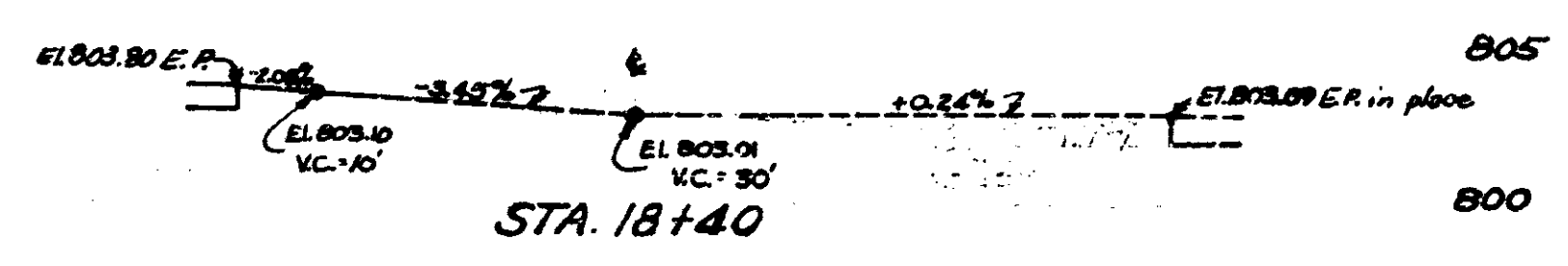
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815



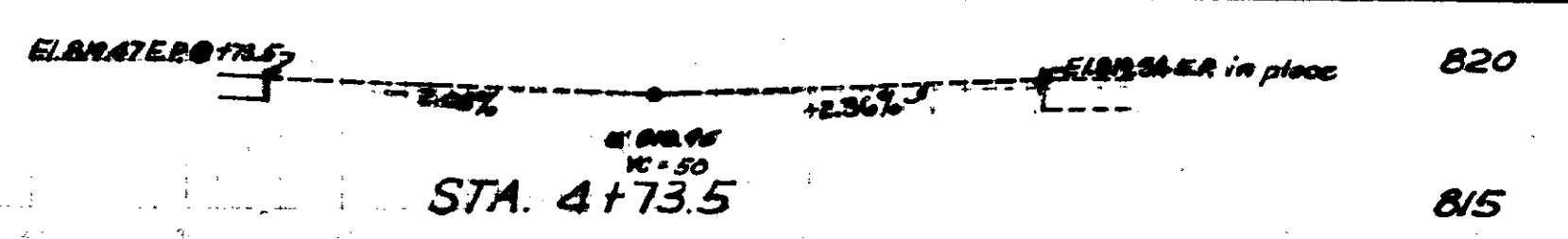
825  
820



815  
810



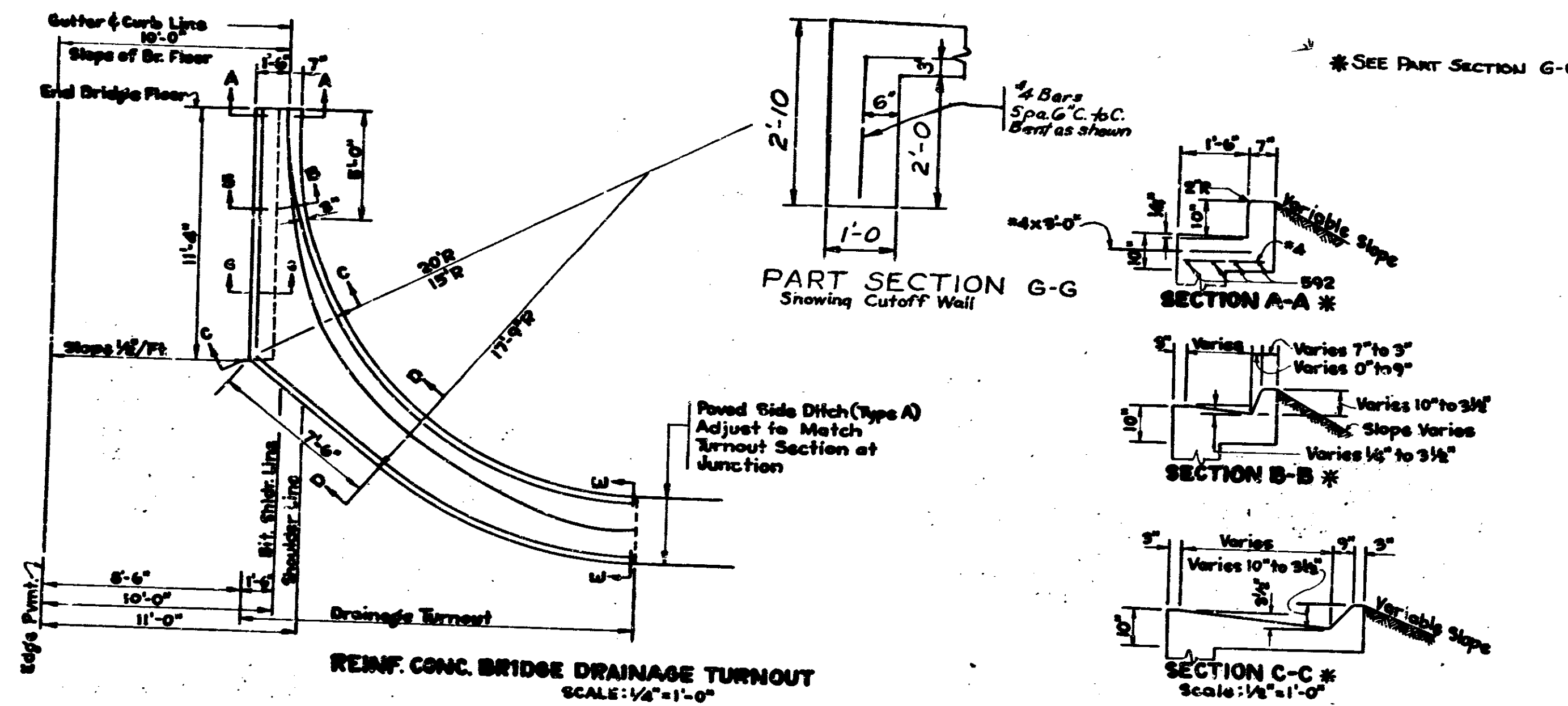
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800



820  
815

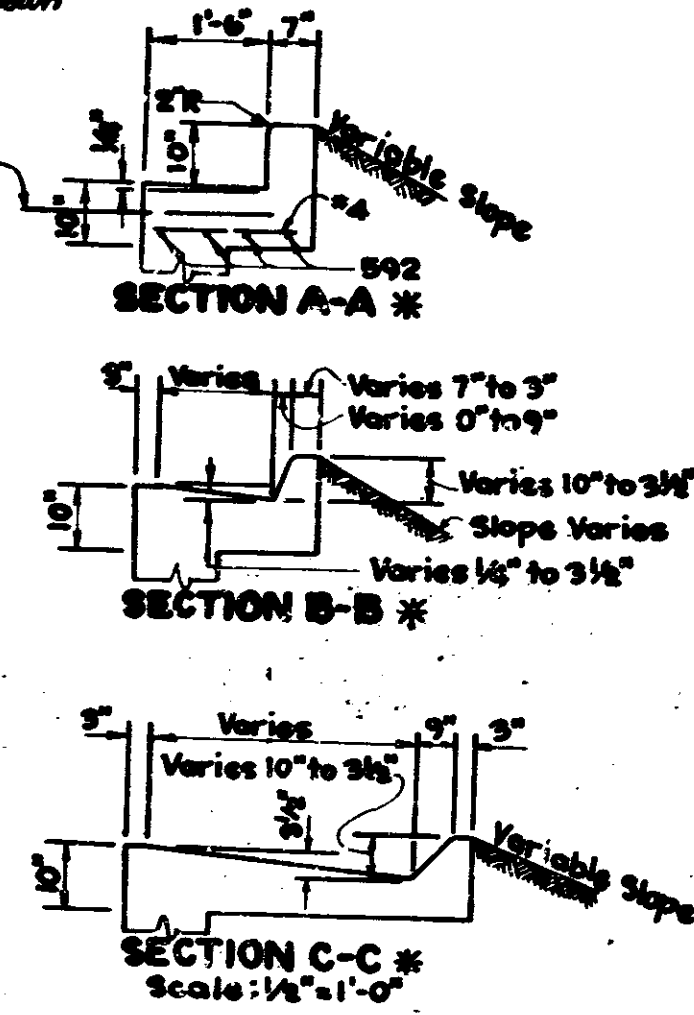
10-2-69

GRADES OF CROSSOVERS

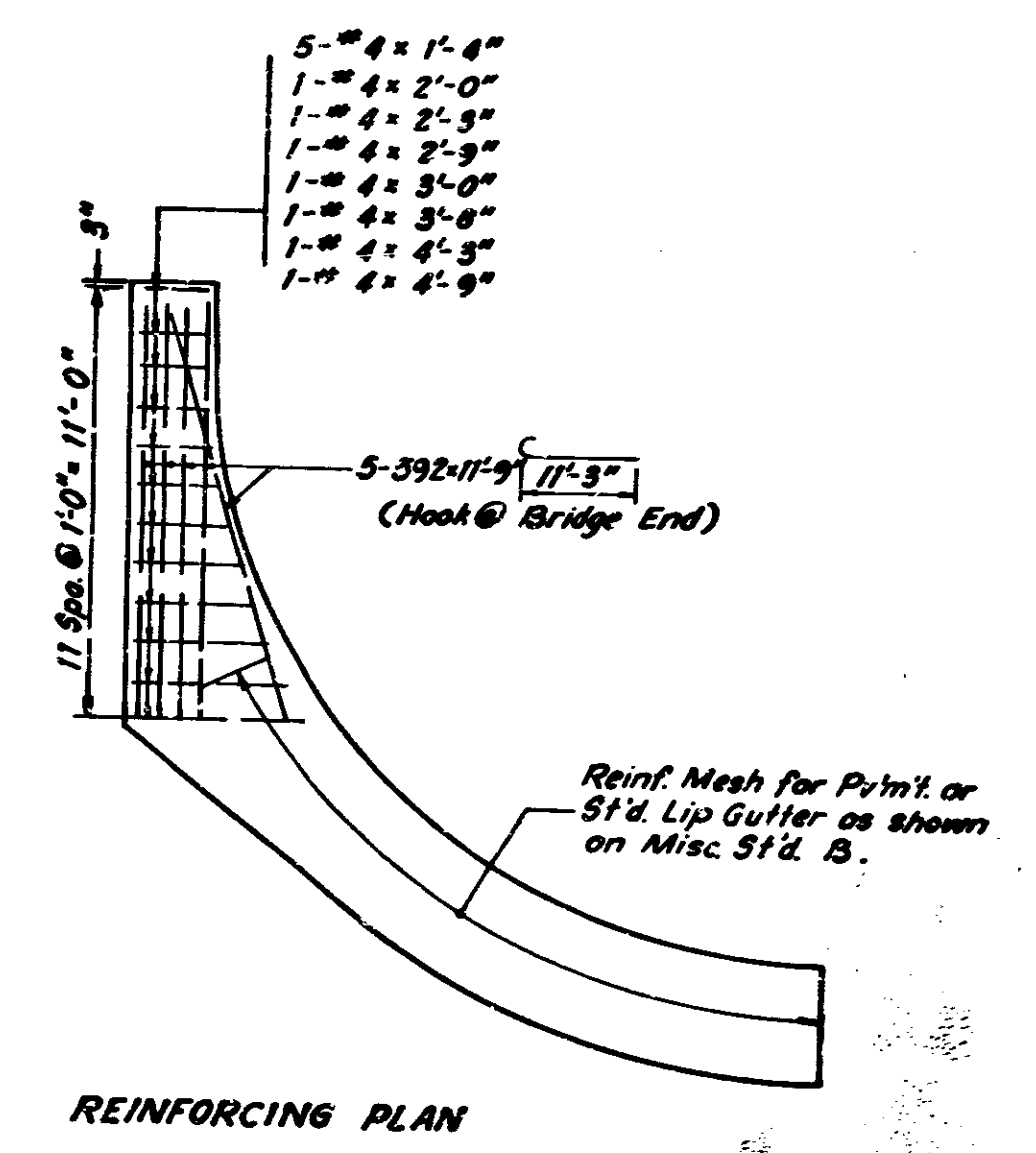
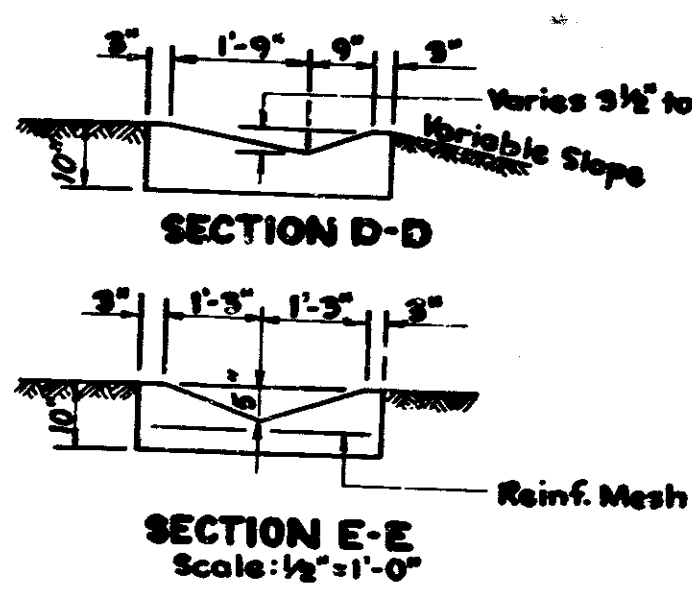


REINF. CONC. BRIDGE DRAINAGE TURNOUT  
SCALE: 1/4"=1'-0"

REINFORCED CONCRETE BRIDGE DRAINAGE TURNOUT



NOTE: Reinforced Concrete Bridge Drainage Turnout Will Be Measured and Paid for as 45 Lin. Ft. of Paved Side Ditch, Type "A". The Cost of Reinforcing Steel Including Mesh to be included in the Cost of the Reinforced Concrete Bridge Drainage Turnout.



REINFORCING PLAN

INDIANA STATE HIGHWAY COMMISSION

SCALE:-  
RECOMMENDED FOR APPROVAL: \_\_\_\_\_ 196  
DRAWING: OF \_\_\_\_\_  
PROJECT: ST. 70(1-5)  
BRIDGE CONTRACT NO. \_\_\_\_\_  
BRIDGE FILE: \_\_\_\_\_







Rev 5-3-72 Delete Sta No 34 Per Rd Design Dept.

Rev 7-31-70 Structure No 34 Revised Per Rd Design Dept.

STRUCTURE DATA

\* F CONTRACTOR ELECTS TO USE METAL PIPE GAGES AS SHOWN BELOW ARE TO BE USED

STATION	SIZE INCHES	GROUP	DESCRIPTION	LENGTH FEET	SKEW	COVER	FLOW LINE			CONCRETE CLASS	SPECIAL SPECIAL	METHOD OF BACK FILL	GAGES OR THICKNESS		PIPE SECTION	VELOCITY	REMARKS
							UP STREAM ELEV.	DOWN STREAM ELEV.	DOWN STREAM				STEEL	ALUM.			
			REINF. CONC. GIRDER-BRIDGE PROJ.													EXCEPTION-STA. 13+19.83 TO STA. 14+26.17 BRIDGE OVER DEER CREEK TO BE INCLUDED IN ROAD CONTRACT.	
			REINF. CONC. GIRDER-BRIDGE PROJ.													EXCEPTION-STA. 175+41.83 TO STA. 176+48.17 BRIDGE OVER DEER CREEK TO BE INCLUDED IN ROAD CONTRACT.	
11.	4x00	12	A STD. INLET, TYPE P-12A	66		1.2	816.0		8	A	16		1				
11A.	47+50	5-1-C	D	24		1.0			1	B	16	12	2			UNDER DR.	
11B.	51+50	5-1-C	D	42		1.5			1	B	16	16	2				
12.	12+40	12	A STD. INLET, TYPE P-12A	204		2.9	796.0		9	A	16		1			2-22" 30' ELBOWS REQUIRED	
12A.	13+18	LT.	6	60													
12B.	13+18	RT.	6	60													
12C.	14+26	12	D	24		1.1			1	B	16	12	2			UNDER DR.	
12D.	14+28	RT.	6	60													
12E.	14+28	LT.	6	60													
13.	14+55	12	A STD. INLET, TYPE P-12A	90		4.5	796.0		9	A	16		1				
13A.	18+85	RT.	15	32		1.6			1	B	16	16	2			UNDER LOCAL SERVICE RD. NO. 1	
13B.	28+30	15	A STD. INLET, TYPE P-12A	20		4.3			3	A	16						
14.	20+48	Min. 40 Max. 40	S.P.S. ARCH	192	30	1.4	796.0	795.6	4.69	252	A	8 7/8	7 1/2			1-DOUBLE 15" ON 15" TEE REQ'D; CONNECT TO STR. 14	
15.	20+40	15	A STD. INLET, TYPE N-12A	20		4.3	799.5		1	B	16		1			REMOVE STRUCTURE IN PLACE. 9 5/8" of 12" HL. Top Req'd. (to be included in cost of flow)	
15A.	25+15	RT.	7 1/2 x 7 1/2	64		1.4			6.37	14	B	12	2			1-DOUBLE 15" ON 15" TEE REQ'D; CONNECT TO STR. 14	
16.	30+95	RT.	12	36		1.0			1	B	16	12	2			CONSTRUCT IN TWO PARALLEL LINES, 2 @ 42" EACH	
17.	31+20	LT.	15	32		1.0			1	B	16	12	2			UNDER LOCAL SERVICE RD. NO. 2	
18.	31+60	RT.	12	24		1.0			1	B	16	12	2			UNDER DR.	
19.	32+15	12	A STD. INLET, TYPE P-12A	24		1.0			1	B	16	12	2			UNDER DR.	
20.	37+00	12	D	24		1.0	810.1		8	A	16		1				
21.	46+00	12	A STD. INLET, TYPE N-12A	86		5.3	816.8		1	B	16	12	2			UNDER DR.	
22.	57+10	LT.	12	24		1.0	816.8		8	A	16		1				
23.	57+16	LT.	12	24		1.0										UNDER DR.	
24.	57+46	RT.	12	24		2.0			2	B	12	10	2				
25.	57+67	RT.	12	24		2.0			1	A	16	16	2				
26.	67+53	10	L	110												STRUCTURE IN PLACE; NO CHANGE REQ'D.	
15B.	24+90	RT.	12	24		4.0			2	B	16	16	2			REPLACE 8" F.T. IN PLACE.	
27.	69+65	15	A STD. INLET, TYPE N-12A	12		3.6	815.2		1	B	16		1			UNDER DRIVE.	
28.	69+77	45x87	F.B.C.C.S.A.	160		3.6	815.5	815.2	23	A	16		2			1-DOUBLE 15" TEE REQ'D; CONNECT TO STR. 28	
29.	77+80	12	A STD. INLET, P-12A	96		5.7	813.8		9	A	16		1			CONNECT TO STR. 27	
30.	80+25	6	L	125													
31.	83+37	RT.							20	A						REPLACE F.T. IN PLACE.	
31A.	83+30	12	A STD. INLET, TYPE P-12A	82		4.0	812.0		8	A	16		1			REMOVE CATCH BASIN & PLUG 6" PIPE.	
32.	83+65	RT.	12	24		1.0			1	B	16	12	2				
33.	84+00	LT.	15	24		5.2			2	B	16	16	2			REMOVE PIPE IN PLACE.	
34.	84+00	LT.	15	24		5.0			2	B	16	16	2			REMOVE PIPE IN PLACE.	
35.	90+90	12	A STD. INLET, TYPE P-12A	84		4.4	805.6		4	B	16	16	2			UNDER DR. NO. 1	
36.	91+40	18" STD. R.C. CULVERT (SLAB TYPE UNDER FILL) H = 4' x 10' 11"		110	30'	3.2	797.9	791.5	43.33	700	A	30 1/2	3 1/2			Verify A/B	
37.	92+90	12	A STD. INLET, TYPE P-12A	84		5.0	807.9										

\*Reinf. Steel For Strucs.

STRUCTURE NUMBER	LOCATION	SIZE INCHES	GROUP	DESCRIPTION	LENGTH FEET	SKEW	COVER	FLOW LINE			CONCRETE CLASS	SPECIAL SPECIAL	METHOD OF BACK FILL	GAGES OR THICKNESS		PIPE SECTION	VELOCITY	REMARKS
								UP STREAM ELEV.	DOWN STREAM ELEV.	DOWN STREAM				STEEL	ALUM.			
39.	102+48	36	A		92		5.1	804.1	803.8		39	A	16		2			
40.	102+50	30	D		24		2.0				1	B	16	12	2		UNDER DR.	
41.	103+60	15	A	STD. INLET, TYPE P-12A	12			805.9			10	A	16		1			
41A.	110+31	31	D		40		1.0				1	B	16	12	2		UNDER DR.	
42.	116+00	12	A	STD. INLET, TYPE P-12A	76		3.7				8	A	16		1			
43.	117+90	6	L		125													
44.	122+00	12	A	STD. INLET, TYPE P-12A	84		4.8	805.1			8	A	16		1		REPLACE 6" F.T. IN PLACE.	
44A.	128+20	12	A	STD. INLET, TYPE P-12A	12		3.5	802.2			1	A	16				CONNECT TO STR. 45.	
45.	128+32	12	A		164		1.4	803.5			26	A	16		2		REMOVE PIPE IN PLACE; CONNECT TO STR. 44-A	
46.	136+35	12	A	STD. INLET, TYPE P-12A	80		3.5	798.7			8	A	16		1			
47.	136+80	RT.	15	D	52		2.3				2	B	16	16	2			
47A.	136+88	RT.																
47B.	137+05	12	D		24		1.0				1	B	16	12	2		PIPE IN PLACE; NO CHANGE REQ'D.	
48.	138+40	LT.	6	L	120						16	B					UNDER DRIVE.	
49.	145+04	12	A	STD. INLET, TYPE P-12A	12		1.0				1	A	16				TERMINATE PIPE IN PLACE.	
50.	145+16	36	A		90		5.0	791.4	791.0		49	A	16		1		CONNECT TO STR. 50.	
50A.	145+16	RT.	30	A	12			791.4			4	A	16				1-DOUBLE 12" ON 30" TEE REQ'D; CONNECT TO STR. 49-51	
51.	145+16	LT.	30	A	12						1	A	16				EXTEND 30" PIPE ON INLET END OF PIPE.	
52.	145+18	6	L		140						19	B					1-6" TO 3/8" REDUCER REQ'D. REMOVE HGL. IN PLACE. CONNECT TO PIPE IN PLACE AND STRUCTURE NO. 50	
53.	145+28	12	A	STD. INLET, TYPE P-12A	12		1.0	790.7			1	A	16				REPLACE 4" F.T. IN PLACE.	
54.	159+00	12	A	STD. INLET, TYPE P-12A	76		3.7	787.5			8	A	16		1		CONNECT TO STR. 50.	
55.	161+40	RT.	12	D	24		1.0				1	B	16	12	2			
56.	162+50	12	A	STD. INLET, TYPE P-12A	96		3.5	784.7			9	A	16		1		2-22" 30' ELBOWS REQ'D.	
57.	162+96	RT.	6	L	50						8	B					UNDER DR.; TERMINATE PIPE IN PLACE.	
58.	163+36	LT.	15	D	42		4.7				1	B	16	16	2			
59.	163+36	RT.	15	D	42		5.1				1	B	16	16	2			
60.	164+00	36	A		172		4.3	782.5	782.2		61	A	16		2		REMOVE PIPE IN PLACE @ STA. 163+06	
61.	171+00	12	A	STD. INLET, TYPE P-12A	84		3.8	777.9			8	A	16		1			
62.	175+00	12	A	STD. INLET, TYPE P-12A	102		4.0	774.6			9	A	16		1			
62A.	175+40	LT.	6		60												2-22" 30' ELBOWS REQ'D.	
62B.	175+40	RT.	6		60												BRIDGE PLANS	
62C.	176+50	LT.	6		60												BRIDGE PLANS	
62D.	176+50	RT.	6		60												BRIDGE PLANS	
63.	177+00	12	A	STD. INLET, TYPE P-12A	60												BRIDGE PLANS	
64.	182+00	12	A	STD. INLET, TYPE P-12A	36		4.0	774.2			9	A	16		1		2-22" 30' ELBOWS REQ'D.	
65.	189+79	RT.	16-8-1/2		40		3.2	774.9			9	A	16		1		2-22" 30' ELBOWS REQ'D.	
66.	191+35	6	L		190						34	B					REPLACE PIPE IN PLACE.	
67.	191+40	12	A	STD. INLET, TYPE N-12A	90		3.2	791.0			8	A	16		1		2-22" 30' ELBOWS REQ'D.	
68.	199+00	12	A	STD. INLET, TYPE P-12A	96		4.5	793.0			8	A	16		1		2-22" 30' ELBOWS REQ'D.	

F.B.C.C.S./P.I. --- FULLY BITUMINOUS COATED CORRUGATED STEEL WITH PAVED INVERT. F.B.C.C.S.A./P.I. --- FULLY BITUMINOUS COATED CORRUGATED ALUMINUM ALLOY WITH PAVED INVERT. F.B.C.C.S. --- FULLY BITUMINOUS COATED CORRUGATED STEEL. C.S.A. --- CORRUGATED STEEL ARCH. C.A.A. --- CORRUGATED ALUMINUM ALLOY ARCH. S.P.S. --- STRUCTURAL PLATE STEEL ARCH.

F.B.C.C.S./P.I. --- FULLY BITUMINOUS COATED CORRUGATED STEEL ARCH WITH PAVED INVERT. F.B.C.C.S.A./P.I. --- FULLY BITUMINOUS COATED CORRUGATED ALUMINUM ALLOY ARCH WITH PAVED INVERT. F.B.C.C.S.A. --- FULLY BITUMINOUS COATED CORRUGATED STEEL ARCH. C.S.A. --- CORRUGATED STEEL ARCH. C.A.A. --- CORRUGATED ALUMINUM ALLOY ARCH. S.P.S.A. --- STRUCTURAL PLATE STEEL ARCH.

MARCH 1966

PROJECT NO. 57-F-70(5) DATE 4-2-67

STRUCTURE DATA

\* IF CONTRACTOR ELECTS TO USE METAL PIPE GAGES AS SHOWN BELOW ARE TO BE USED

STATION NUMBER	LOCATION	SIZE INCHES	GROUP	DESCRIPTION	LENGTH FEET	SKEW	COVER	FLOW LINE				GAGES OR CONEUS		REMARKS
								UP STREAM ELEV.	DOWN STREAM ELEV.	CONCRETE CLASS	SPECIAL BRICK	GRADE 'B'	METHOD OF BACK FILL	
69	209+90	6		DRAIN TILE	78									REPLACE 6" F.T. IN PLACE
70	210+09	15	D		24		1.0							REMOVE PIPE IN PLACE
71	210+15	12	A	STD. INLET, TYPE P-12A	94		1.2							2-22" 30' ELBOWS REQ'D., CONNECT TO STR. 70
72	210+19	6	L		130									REPLACE PIPE IN PLACE
73	216+00 LT.													PIPE IN PLACE; NO CHANGE REQ'D.
73A	216+15 RT.	24	B	C.S. ARCH	50		1.3			2.95	9	B	12	
74	218+73 LT.	12	B		30		3.9				1	B	10	
75	219+73	18	L		104						31	B		REPLACE F.T. IN PLACE
76	219+35	12	A	STD. INLET, TYPE P-12A	80		1.3				8	A	76	CONNECT TO STR. 77
77	219+36 LT.			CATCH BASIN, IN PLACE										NO CHANGE REQ'D.
78	219+73	18	L		130						60	B		REPLACE F.T. IN PLACE
79	220+26 RT.	12	L	PIPE CATCH BASIN, 6'	12									CONNECT TO STR. 78
80	236+00	12	A	STD. INLET, TYPE P-12A	84		4.8			800.1	8	A	16	
81	242+60 RT.	12	D		46		2.1					B	16	UNDER DRS.
82	243+46	6	L		120						20	B		
83	246+00	15	A	STD. INLET, TYPE N-12	76		4.4			801.5	9	A	16	
84	258+00													TYPE E-7 INLET, IN PLACE; NO CHANGE REQ'D.

UNDISTRIBUTED QUANTITIES

6" SEWER PIPE (Group L)	2000	LIN. FT.
8" SEWER PIPE (Group L)	2000	LIN. FT.
10" SEWER PIPE (Group L)	1900	LIN. FT.
6" DRAIN TILE	2000	LIN. FT.
8" DRAIN TILE	2000	LIN. FT.
10" DRAIN TILE	1500	LIN. FT.
12" PIPE CATCH BASIN	2	EACH
15" PIPE CATCH BASIN	2	EACH

LEGEND FOR ABBREVIATIONS:  
 F.B.C.C.S./P.I. --- FULLY BITUMINOUS COATED CORRUGATED STEEL WITH PAVED INVERT.  
 F.B.C.C.A.A./P.I. --- FULLY BITUMINOUS COATED CORRUGATED ALUMINUM ALLOY WITH PAVED INVERT.  
 F.B.C.C.S. --- FULLY BITUMINOUS COATED CORRUGATED STEEL.  
 C.S. --- CORRUGATED STEEL.  
 C.A.A. --- CORRUGATED ALUMINUM ALLOY.  
 S.P.S. --- STRUCTURAL PLATE STEEL.  
 F.B.C.C.S.A./P.I. --- FULLY BITUMINOUS COATED CORRUGATED STEEL ARCH WITH PAVED INVERT.  
 F.B.C.C.A.A./P.I. --- FULLY BITUMINOUS COATED CORRUGATED ALUMINUM ALLOY ARCH WITH PAVED INVERT.  
 F.B.C.C.S.A. --- FULLY BITUMINOUS COATED CORRUGATED STEEL ARCH.  
 F.B.C.C.A.A. --- FULLY BITUMINOUS COATED CORRUGATED ALUMINUM ALLOY ARCH.  
 C.S.A. --- CORRUGATED STEEL ARCH.  
 C.A.A. --- CORRUGATED ALUMINUM ALLOY ARCH.  
 S.P.S.A. --- STRUCTURAL PLATE STEEL ARCH.





# ESTIMATE OF QUANTITIES (CON'T.) STRUCTURE SUMMARY

FEDERAL ROAD DISTRICT NO.	STATE	PROJECT NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
4	IND.	ST-F-70(B)	1970	49	157

KIND	SIZE	CIRCULAR PIPE: LINEAL FEET															
		4"	6"	8"	10"	12"	12"	15"	18"	18"	24"	30"	36"				
GAGE	STEEL					15		16	16				16	16			
GAGE	ALUMINUM																
GAGE STRUCT. TOP & SIDES																	
PLATE STEEL BOTTOM																	
THICK STRUCT. TOP & SIDES																	
PLATE ALUM. BOTTOM																	
GROUP "A"						2046		140				24	354				
GROUP "D"						418		278				24					
GROUP																	
GROUP																	
GROUP																	
GROUP "C"						3000	2136	1610				234					
GROUP "P"								12				58					
GROUP																	
REINFORCED CONCRETE																	
EXTRA STRENGTH REINF. CONC.																	
HEAVY DUTY REINF. CONC.																	
VITRIFIED CLAY CULVERT																	
CORR. STEEL OR CORR. ALUM. ALLOY																	
FULLY BITUM. COATED CORR. STEEL OR FULLY BITUM. CORR. ALUMINUM ALLOY																	
FULLY BITUM. COATED CORR. STEEL WITH PAVED INVERT OR FULLY BITUM. COATED CORR. ALUMINUM ALLOY WITH PAVED INVERT																	
FULLY BITUM. COATED CORR. STEEL WITH PAVED INVERT OR BITUM.																	
FULLY BITUMINOUS COATED PERFORATED CORR. STEEL OR FULLY BITUMINOUS COATED PERFORATED ALUMINUM ALLOY																	
DRAIN TILE: STANDARD						2452	2000	1500									
DRAIN TILE: HEAVY DUTY							30	84									
DRAIN TILE: EXTRA						182											

\* STRUTTED

## STRUCTURE SUMMARY (CON'T.)

KIND	SPAN AREA SQ. FT. *	PIPE ARCHES: LINEAL FEET																
		STEEL	STEEL	STEEL	STEEL	CONC.	STEEL	CONC.	STEEL	STEEL	STEEL	STEEL	ALUMINUM	STEEL	ALUMINUM	STEEL	ALUMINUM	
GAGE STRUCT. TOP & SIDES																		
PLATE STEEL BOTTOM																		
THICK STRUCT. TOP & SIDES																		
PLATE ALUM. BOTTOM																		
GAGE		12	12	16	12			12	14									
GROUP G-1						164												
GROUP G-																		
GROUP G-																		
GROUP H-1						40												
GROUP H-																		
CONC. STEEL																		
PIPE ARCH.		52	54					50										
STRUCT. PLATE STEEL ARCH OR GROUP R-1								192										
BIT. COAT. CORR. STEEL PIPE ARCH OR BIT. COAT. CORR. ALUMINUM ALLOY PIPE ARCH.																		
BIT. COAT. CORR. STEEL PIPE ARCH WITH PAVED INVERT OR BIT. COAT. CORR. ALUM. ALLOY PIPE ARCH WITH PAVED INVERT.																		
REINF. ELLIPTICAL CONCRETE																		
BIT. COAT. CORR. STEEL PIPE ARCH								84	160									

(\*) SPAN AND RISE WHEN OTHER THAN GROUP "G" OR GROUP "H" IS SPECIFIED.

PIPE GROUP "K" FOR UNDER DRAINS	6"	21,488	LSL. FT.
PIPE FULLY BIT. COATED NON PERFORATED CORR. STEEL	6"	702	LINEAL FT.
PIPE FULLY BIT. COATED CORR. STEEL	6"	480	LINEAL FT.
AGGREGATE FOR UNDER DRAINS		3171	CYS.

AUTO DRAINAGE GATES		
SIZE	HEAD	EACH

CASTINGS FURNISHED AND ADJUSTED TO GRADE		
TYPE	QUANTITY	EACH

ITEM	UNIT	QUANTITY
CONCRETE CLASS "A" FOR STRUCTURES	CYS	2,333
REINFORCING STEEL FOR STRUCTURES	LB	38,254
CONCRETE CLASS "F" FOR STRUCTURES	CYS	
CONCRETE CLASS "A" FOR INTEGRAL CURB WALK	CYS	

INLETS			
TYPE	EACH	TYPE	EACH
P-12A	24		
X-12	5		

CATCH BASINS	
TYPE	EACH

INLETS USING CASTING IN PLACE		CATCH BASINS USING CASTING IN PLACE	
TYPE	EACH	TYPE	EACH

MANHOLES		PIPE CATCH BASINS		RECONSTRUCTED	
TYPE	EACH	SIZE	EACH	LINEAL FT.	LINEAL FT.
		12"	3		
		18"	2		

MANHOLE CATCH BASIN INLET	
SIZE	EACH
12"	2
18"	2

PIPE END SECTION			
SIZE	EACH	SIZE	EACH
12"	2	18"x11"	2
15"	16	22"x13"	2
24"	1	33"x27"	2
30"	2		
36"	5		

END STR