ROAD CONTRACT NO. R-9061

FEDERAL ROAD REGION NO.	STATE	PROJECT NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
5	IND.	F239(10)	1972	1	166

INDEX

SHEET NO.	DESIGNATION	B.P.R. APPROVAL	DATE ADOPTED & OR LATEST REVISION *
	TITLE SHEET		
	ST'D DIV. LANE (INTERSTATE)		
	ST'D DIV. LANE (INTERSTATE)		
	ST'D CONT. REINF. CONC. PAVEMENT SHEET		
	ST'D CONT. REINF. CONC. PAVEMENT SHEET		
	ST'D CROSS SECTION.		
	ST'D CROSS SECTION.		
	TYPICAL CROSS SECTION		
	ST'D. 8 INCH RAMP SECTION		
	ST'D. 10 INCH RAMP SECTION		
	PLAT NO. 1		
	ST'D. PAVEMENT JOINTS SHEET A		
	PLAN AND PROFILE		
	STRUCTURE DATA		
	STRUCTURE DATA		
	DEMOLITION PORTION ITEMS		
	ESTIMATE OF QUANTITIES		
	ESTIMATE OF QUANTITIES		
	MISCELLANEOUS STANDARDS, SHEET		
	MISCELLANEOUS STANDARDS, SHEET		
	MISCELLANEOUS STANDARDS, SHEET		
	MISCELLANEOUS STANDARDS, SHEET		
	MISCELLANEOUS STANDARDS, SHEET		
	MISCELLANEOUS STANDARDS, SHEET		
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	MISCELLANEOUS STANDARDS, SHEET		
	MISCELLANEOUS STANDARDS, SHEET		
	MISCELLANEOUS STANDARDS, SHEET		
	MISCELLANEOUS STANDARDS, SHEET		
	GUARD RAIL SHEET GR-		
	GUARD RAIL SHEET GR-		
	GUARD RAIL SHEET GR-		
	GUARD RAIL SHEET GR-		
	ST'D. FOR SUPERELEVATION		
	ST'D. FOR SUPERELEVATION AND WIDENING OF CURVES		
	ST'D. DETOUR SIGNS, SHEET 1		
	ST'D. DETOUR SIGNS, SHEET 2		
	ST'D. DETOUR SIGNS, SHEET 3		
	ST'D. DETOUR SIGNS, SHEET 3A		
	ST'D. DETOUR SIGNS, SHEET 5		
	CONSTRUCTION IDENTIFICATION SIGNS		
	CROSS SECTIONS		

* BUREAU OF PUBLIC ROADS APPROVAL PENDING

REVISIONS		
SHEET NO.	DATE	REVISED

STATE OF INDIANA

INDIANA STATE HIGHWAY COMMISSION

PLAN AND PROFILE OF PROPOSED STATE HIGHWAY

'F' PROJECT NO. 239 {(8) P.E. (9) R/W (10) CONST.

F-PROJECT NO. 239

BEGINNING AT A POINT APPROXIMATELY 56 FEET NORTH OF THE CENTERLINE OF PRESENT STATE ROAD NO. 18, SAID POINT BEING APPROXIMATELY 972 FEET WEST OF AND 62 FEET NORTH OF THE SOUTH EAST CORNER OF SECTION 4, T-24-N, R-8-E IN CENTER TOWNSHIP AND EXTENDING IN AN EASTERLY DIRECTION FOR A DISTANCE OF 18,694.29 FEET WEST OF THE 1/4 SECTION LINE OF SECTION 7, T-24-N, R-9-E IN MONROE TOWNSHIP, ALL IN GRANT COUNTY.

GROSS LENGTH:- 3.541 MI.
NET LENGTH:- 3.541 MI.

SCALES:-
PLAN {LONG:- 1"=100' TRANS:-1"=100' PROFILE {HORIZ:-1"=100' VERT:- 1"=10'

MAX. GRADE 2.78%

DESIGN DATA	
A.D.T. (1967)	12700 V.P.D.
A.D.T. (1987) PROJECTED	25420 V.P.D.
D.H.V.	3034 V.P.D.
DIRECTIONAL DISTRIBUTION	55 %
TRUCKS, D.H.V. 7 % A.D.T.	19 %
DESIGN SPEED	70 M.P.H.
ACCESS CONTROL	Partial

LEGEND

Ⓐ STANDARD BARRICADE TYPE III

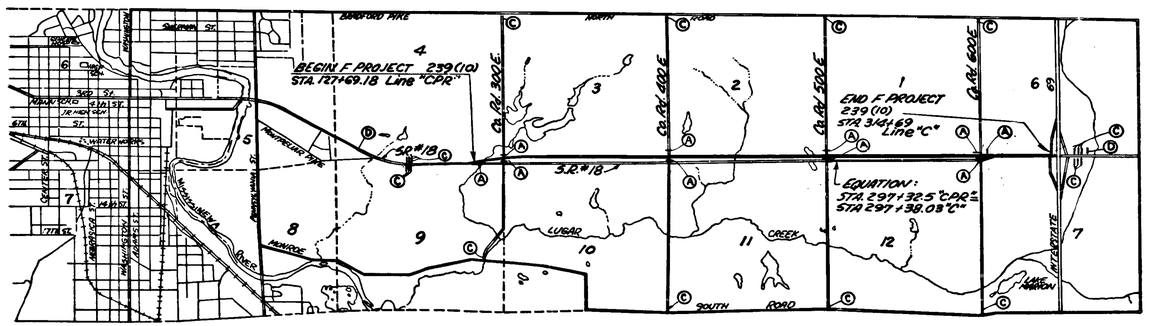
Ⓒ TYPICAL SIGN STANDARDS "A" & "B"

Ⓓ CONSTRUCTION IDENTIFICATION SIGN

NOTE: ANY REFERENCE TO E.H.S.-F-PROJECT NO. 239 (10) ON THE CONTRACT PLANS AND CONTRACT DOCUMENT SHALL BE CONSTRUED TO MEAN F-239(10)

GRANT COUNTY

MARION



SCALE 1"=2000'

APPROVED 4-26-1972

CHIEF ENGINEER- INDIANA STATE HIGHWAY COMMISSION

DESIGNED BY Bruno F. Cauzzo

SENIOR DESIGNER Bruno F. Cauzzo

RECOMMENDED FOR APPROVAL 4-24-72

ASSISTANT ENGINEER OF ROAD DESIGN

RECOMMENDED FOR APPROVAL 4-24-72

ENGINEER OF ROAD DESIGN Byron R. Burch

INDIANA STATE HIGHWAY COMMISSION

BYRON R. BURCH REGISTERED No. 5938 STATE OF INDIANA PROFESSIONAL ENGINEER

FEDERAL HIGHWAY ADMINISTRATION
DEPARTMENT OF TRANSPORTATION

APPROVED

DIVISION ENGINEER DATE

ROAD FILE:-

PROJECT NO.	LINE	SHEET NO.	TOTAL SHEETS	FILE
F-239(10)	C'CPR	1	166	

INDIANA STATE HIGHWAY COMMISSION
STANDARD SPECIFICATIONS DATED 1971
TO BE USED WITH THESE PLANS.

April 14, 1964

UTILITIES

ELECTRIC
INDIANA MICHIGAN ELECTRIC CO.
2101 SPY RUN AVE. FT. WAYNE, IND. 46801

TELEPHONE
INDIANA BELL TELEPHONE CO. INC.
3838 N. RURAL ST. INDIANAPOLIS, IND. 46205

GAS
CENTRAL INDIANA GAS CO.
300 E. MAIN ST. MUNCIE, IND. 47305

REVISIONS

SHEET NO.	DATE	REVISED
1	10-22-70	Beginning of Project Moved Ahead Sta. 127+69.19 Line "C.P.R." Per Rd Design Dept
12	10-22-70	Permanent R/W to Begin @ Sta 96+ Rt Line "C.P.R." - Per Rd Design Dept
13	10-22-70	Shows Temp R/W Req'd For Temp. Runaround - Per Rd. Design Dept.
12 13	1-17-71	LA R/W A.C.L. Added on Lt - Per Rd. Design Dept.
14, 16, 17 18, 19, 20, 22, 25, 26, 31, 34	2-3-71	Revised as Shown - Per Rd. Design Dept.
16, 34 & 36	7-1-71	CLASS I Ukr. Pipe Eliminated - Per Rd. Design Dept.
25, 33, 34	8-13-71	L.A. R/W & L.S. R.A. No.5 Rev. - Per Rd. Design Dept.
22, 23, 34, 36	10-29-71	Revised as Shown - Per Rd Design Dept.
25, 33	1-19-77	R/W + Geometrics Revised - Per Rd. Design Dept.
12	3-15-72	L.A. R/W A.C.L. & Drive Opening Given - Per Rd. Design Dept.
1 & 38	8-30-72	STD. BARRICADE REVISION.
36 & 39	9-29-72	STR NO. 71 GAGE CHANGED - Per Rd. Design Dept.

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 ___.
	Standard single lane pavement sections ________ as shown on Sheet No. 3A to be used on this project.
**	A 8" C-R-C Pavement shall be used.
**	Typical cross-section as shown on Sheets No. 3-4, & 5 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"
**	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. ___
	The final Cross-Sections of the "Grading Contract" shall be the original cross-sections of the "Paving Contract" except 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.
	Quantities for Pipe Culvert Headwalls are based on using Standard Headwalls for retaining 2:1 or 3:1 slopes, and Private Drive Headwalls for retaining 4:1 or flatter slopes.
**	For "Kinds of Pipe" permitted for each size and classification as shown on the Structure Data Sheet, see Miscellaneous Standard Sheet "MP" & "MP-1"
	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 Underdrains shall be 0.20%. Where the profile grade is less than 0.20%, special grades for Underdrains shall be established by the Engineer.
**	The Contractor must accept the plan quantities of Subbase as given on the Estimate of Quantities Sheet. (1)
**	County Roads ____ 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 (C.L.T.F.) or Farm Field Type Fence (F.F.T.F.) as specified in the plans.
	Curves shall be Superelevated 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.
	Contraction Joints shall be placed at the beginning and end of all radii, at street and alley intersections.
	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, or the Semi Ellipse Aluminum 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 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 Semi Ellipse Aluminum Tubular Section or the Steel Tubular Section.
	Wherever reference is made, on the design plans to Subbase Type I or II or Subbase Type II, this reference is to be interpreted as "Subbase" and the materials required will conform to a "Supplemental Specification for Subbase".
**	All Highway Drainage Structures over 36" in Diameter have been Designed on a basis of a 10 Year Storm Frequency. The
**	The Quantity "Crown Vetch Seeding" Shown on the Estimate of Quantities Sheet is to be used at Their Locations Where Slopes are 2:1 or Steeper or in an area Requiring sand Cuts or Sand Fills or as Directed by the Engineers.
(1)	Subject to the Conditions as Set Out in 304.07 of the Standard Specifications
**	The Engineer May Change the Type of Fence Shown on the Plans Upon Receipt of Reasonable, Written Justification from the Property Owner.

** REPRESENTS GENERAL NOTES REQUIRED

R/W INDEX

SHEET NO	DESIGNATION
1	Title Sheet
2	General Notes
3	Plat No. 1
4-6	Typical Cross Sections
7-34	Plan & Profile Sheets
35-41	Detail Sheets
42	Approach Table
43-228	Cross Sections
12 & 13	Permanent & Temp. R/W Req'd.

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FEDERAL ROAD REGION NO.	STATE	PROJECT NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
5	IND.	F239(10)	1971	2	166

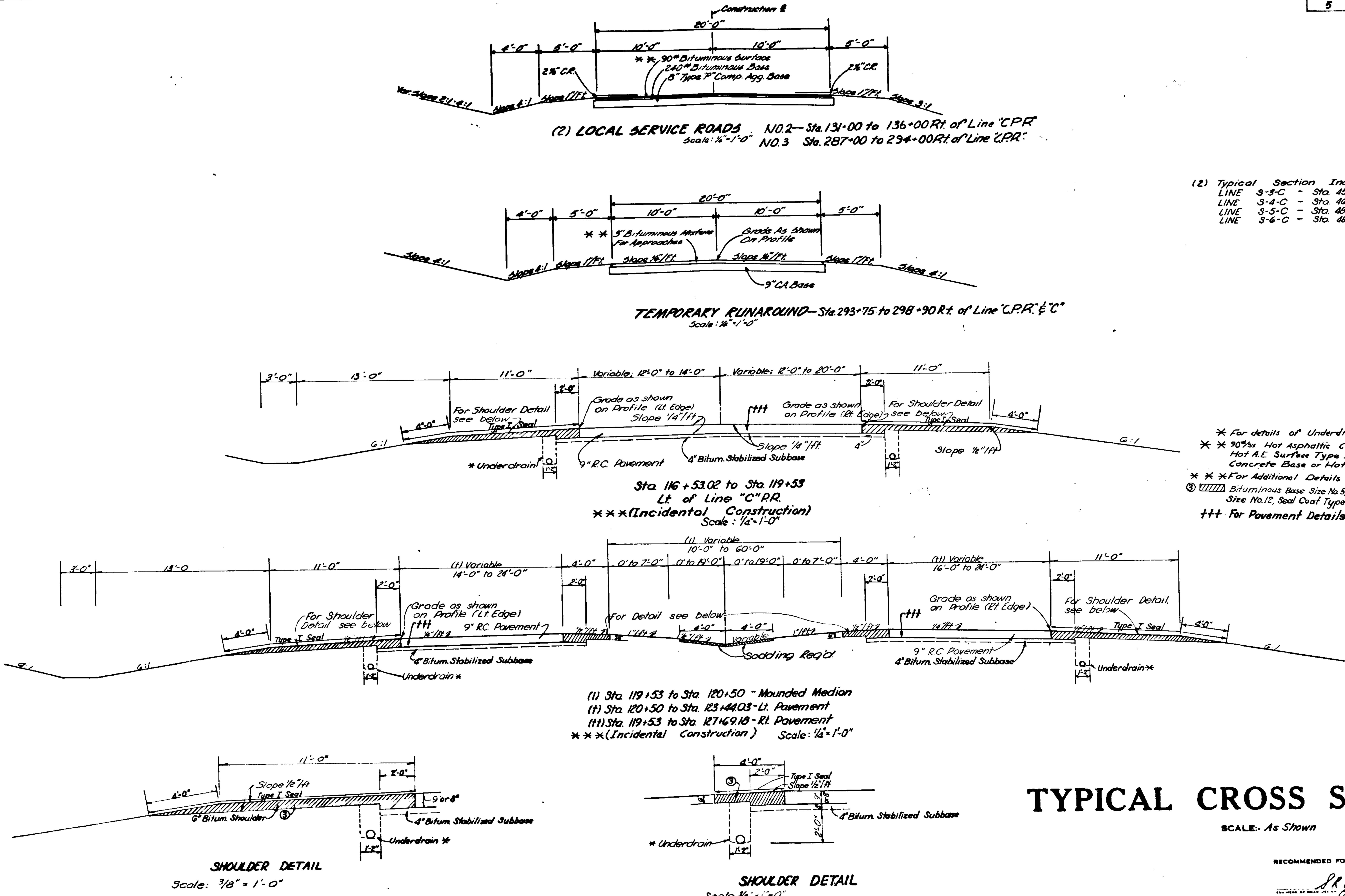
SHEET NO.	DESIGNATION	B.P.R. APPROVAL	DATE ADOPTED "A" or LATEST REVISION "R"
1	TITLE SHEET		
2	INFORMATION SHEET		
	ST'D DIV. LANE ( )		
	ST'D DIV. LANE ( )		
	ST'D DIV. LANE ( )		
	ST'D. SINGLE LANE PAVEMENT SECTIONS		
3-4 & 5	TYPICAL CROSS SECTION		
	ST'D RAMP SECTION		
6	ST'D. CONT. REINF. CONC. PAV'T SHEET "CRC-A"	6-17-71	R-10-1-70
7	ST'D CONT. REINF. CONC. PAV'T SHEET "CRC-B"	6-17-71	R-10-1-70
8	ST'D. CONT. REINF. CONC. PAV'T. SHEET "CRC-C"	*	R-1-6-72
9	ST'D. PAVEMENT JOINTS SHEET "A"	*	R-1-5-72
10	PLAT NO. 1		
11-30	PLAN AND PROFILE		
31-35	DETAILS		
	TABLE OF QUANTITIES		
36-37	STRUCTURE DATA		
37A-37C	AERIAL MOSAIC		
38-39	ESTIMATE OF QUANTITIES		
40	MISCELLANEOUS STANDARDS, SHEET "MA"	9-29-71	R-1-4-71
	MISCELLANEOUS STANDARDS, SHEET "MA-1"		
	MISCELLANEOUS STANDARDS, SHEET "MA-2"		
41	MISCELLANEOUS STANDARDS, SHEET "MB"	1-26-70	R-12-1-69
	MISCELLANEOUS STANDARDS, SHEET "MB-1"		
42	MISCELLANEOUS STANDARDS, SHEET "MB-2"	3-9-72	R-1-3-72
	MISCELLANEOUS STANDARDS, SHEET "MC"		
43-44	MISCELLANEOUS STANDARDS, SHEET "MC-1"	*	R-10-1-70
44A	MISCELLANEOUS STANDARDS, SHEET "MD"	7-2-71	R-3-1-71
	MISCELLANEOUS STANDARDS, SHEET "MD-1"		
	MISCELLANEOUS STANDARDS, SHEET "MD-2"		
	MISCELLANEOUS STANDARDS, SHEET "MD-3"		
44B	MISCELLANEOUS STANDARDS, SHEET "ME"	6-9-71	R-3-1-71
45	MISCELLANEOUS STANDARDS, SHEET "ME-1"	6-11-69	R-4-1-69
46	MISCELLANEOUS STANDARDS, SHEET "ME-2"	11-5-69	R-10-1-69
46A	MISCELLANEOUS STANDARDS, SHEET "MH"	2-8-66	R-10-18-65
47	MISCELLANEOUS STANDARDS, SHEET "MH-1"	8-9-71	R-5-3-71
48	MISCELLANEOUS STANDARDS, SHEET "MH-2"	8-9-71	R-5-3-71
49	MISCELLANEOUS STANDARDS, SHEET "MI"	6-25-69	R-4-1-69
	MISCELLANEOUS STANDARDS, SHEET "MI-1"		
50	MISCELLANEOUS STANDARDS, SHEET "MJ"	6-20-69	R-4-1-69
51	MISCELLANEOUS STANDARDS, SHEET "MJ-1"	3-23-70	R-12-1-69
52	MISCELLANEOUS STANDARDS, SHEET "MN-1"	3-16-72	R-1-3-72
53	MISCELLANEOUS STANDARDS, SHEET "MN"	5-26-70	R-4-1-70
54	MISCELLANEOUS STANDARDS, SHEET "MP"	6-17-71	R-10-1-70
55	MISCELLANEOUS STANDARDS, SHEET "MQ"	8-17-71	R-1-4-71
55A	MISCELLANEOUS STANDARDS, SHEET "MR"	8-17-71	R-1-4-71
56	MISCELLANEOUS STANDARDS, SHEET "MS"	8-25-69	R-6-19-69
57	MISCELLANEOUS STANDARDS, SHEET "MP-1"	4-9-70	R-2-2-70
58	MISCELLANEOUS STANDARDS, SHEET "MS-1"	12-19-68	R-10-3-68
59-60	MISCELLANEOUS STANDARDS, SHEET "MT-1"	*	R-12-1-71
60A	MISCELLANEOUS STANDARDS, SHEET "MT-3"	*	A-Oct-71
	MISCELLANEOUS STANDARDS, SHEET "MT-13"		
	MISCELLANEOUS STANDARDS, SHEET "MT-6A"		
	MISCELLANEOUS STANDARDS, SHEET "MT-6B"		
	MISCELLANEOUS STANDARDS, SHEET "MT-12"		
	MISCELLANEOUS STANDARDS, SHEET "MV"		
	MISCELLANEOUS STANDARDS, SHEET "MV-1"		
	MISCELLANEOUS STANDARDS, SHEET "MV-2"		
	MISCELLANEOUS STANDARDS, SHEET "MV-3"		
	MISCELLANEOUS STANDARDS, SHEET "MV-4"		
	ST'D. STS. CONN. FOR EXTENSION		
	ST'D. R.C. BOX CULV.		
	ST'D. R.C. BOX CULV. SK END & WING DET. SK.		
	ST'D. R.C. BOX CULV. SK END & WING DET. SK.		
	ST'D R.C. CULV. W.O.F.		
	ST'D R.C. CULV. U.F.		
	ST'D R.C. CULV. W.O.F. SK.		
	ST'D R.C. CULV. U.F. SK.		
	GUARD RAIL SHEET GR-1		
	GUARD RAIL SHEET GR-2		
61	GUARD RAIL SHEET GR-3	*	A-Feb. 1971
	STEEL BEAM GUARD RAIL SHEET GR-3		
	ALUMINUM BEAM GUARD RAIL SHEET GR-3A		
	GUARD RAIL SHEET GR-4		
62	ALUMINUM GUARD RAIL DETAILS SHEET GR-5	2-2-72	R-10-1-71
63	STEEL TUBE GUARD RAIL DETAILS SHEET GR-6	*	A-Feb. 1971
64	GUARD RAIL PIER CONNECTION DETAILS SHEET GR-10	*	R-3-1-71
	ST'D FOR SUPERELEVATION ( )		
	ST'D FOR SUPERELEVATION ( )		
65	ST'D DETOUR SIGNS, SHEET 1	*	A-APRIL 72
66	ST'D DETOUR SIGNS, SHEET 2	*	A-APRIL 72
67	ST'D DETOUR SIGNS, SHEET 3	*	A-APRIL 72
68	ST'D DETOUR SIGNS, SHEET 4	*	A-APRIL 72
69	ST'D DETOUR SIGNS, SHEET 5	*	R-7-1-71
70	SPECIAL SIGNS	9-7-71	R-7-1-71
71	CONSTRUCTION IDENTIFICATION SIGNS, SHEET 1		
	ST'D HEADWALLS		
71A-166	CROSS SECTIONS		

* F.H.W.A. APPROVAL PENDING

MAY , 1957

PROJECT	LINE	SHEET NO.	TOTAL SHEETS	FILE
F239(10)	"C"	2	166	

FEDERAL ROAD REGION NO.	STATE	PROJECT NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
5	IND.	F 239(10)	1971	3&4	166



(2) Typical Section Includes For S-Lines as Follows:
LINE S-3-C - Sta. 45+75 to Sta. 51+23.3
LINE S-4-C - Sta. 46+00 to Sta. 51+51.5
LINE S-5-C - Sta. 48+15 to Sta. 51+27
LINE S-6-C - Sta. 48+19 to Sta. 52+03

* For details of Underdrains see Misc. Std. Sheet "U-N"
** 90#/sy Hot Asphaltic Concrete Surface Type "B" or Hot A.E. Surface Type III on 240#/sy Hot Asphaltic Concrete Base or Hot A.E. Base.
*** For Additional Details See Sheet NO. 31
③ Bituminous Base Size No. 5, Covering Aggregate Size No. 12, Seal Coat Type I
††† For Pavement Details See Standard Sheet

TYPICAL CROSS SECTIONS

SCALE:- As Shown

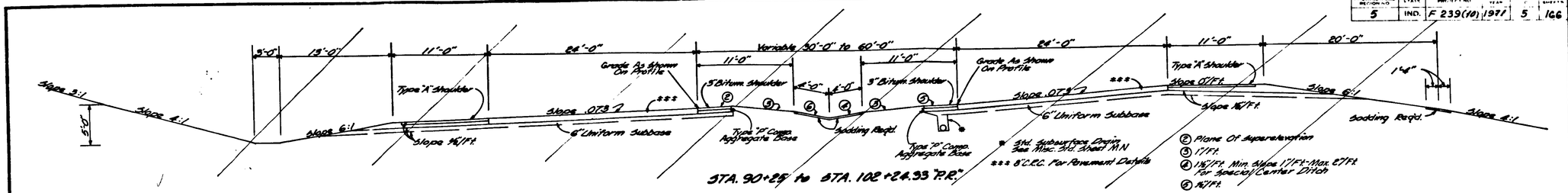
RECOMMENDED FOR APPROVAL 4-24-70

S.R. Yoder

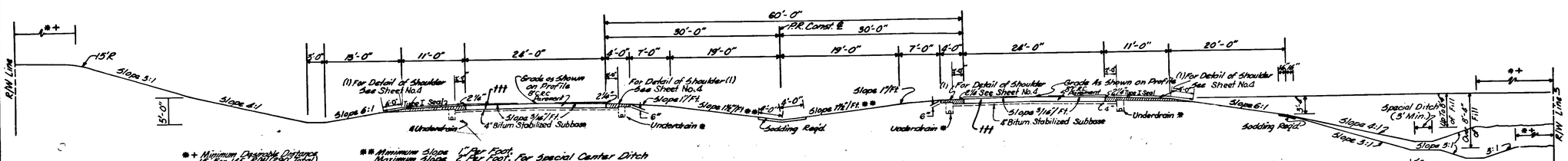
SEPTEMBER 1963

F 239(10) "C" 3&4

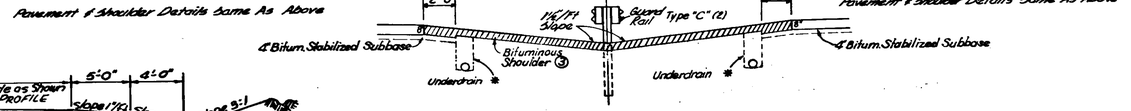
FEDERAL ROAD SECTION NO	STATE	PROJECT NO	FISCAL YEAR	SHEET NO	TOTAL SHEETS
5	IND.	F 239(10)	1971	5	166



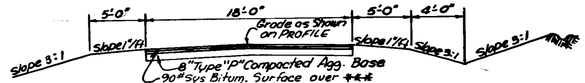
STA. 90+25 to STA. 102+24.33 "P.R."



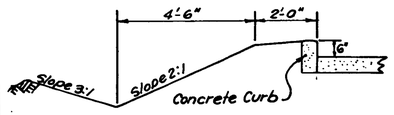
STA. 127+69.18 to STA. 292+69 LINE "C.P.R."
STA. 292+69 to STA 314+69 LINE "C.P.R." & "C" (Variable Median From 60'-0" to 16'-0")
Scale 1/8" = 1'-0"



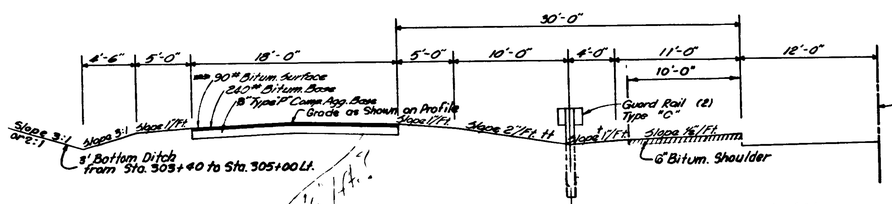
VARIABLE BITUMINOUS MEDIAN
STA. 303+70 to STA 314+69 LINE "C"
Scale 1/4" = 1'-0"



TYPICAL SECTION - LOCAL SERVICE ROAD No. 5 Rt.
STA. 305+60 to STA. 308+70 (See Details on Sheet No. 33 and Cross Sections
Scale: 3/16" = 1'-0"



TYPICAL CURB & SHOULDER SECTION
STA. 305+25 to STA. 308+15 Lt.
Local Service Road No. 4 Lt.
See Details on Sheet No. 33
and Cross Sections



TYPICAL SECTION - LOCAL SERVICE ROAD No. 4 Lt.
STA. 302+20 to STA. 308+15 (See Details Sheet No. 33 and Cross Sections
Scale: 3/16" = 1'-0"

③ Bituminous Base Size No. 5 Covering Aggregate Size No. 12, Seal Coat Type I
††† For Pavement Details See Standard Sheet
‡ For Details of Underdrains see Misc. Std. Sheet "M-N"
*** 90#/Sys Hot Asphaltic Concrete Surface Type "B" or Hot A.E. Surface Type III on 240#/Sys. Hot Asphaltic Concrete Base or Hot A.E. Base
(1) For Shoulder Details See Sheet No. 4
(2) For Guard Rail Limits See Sheet No. 33
† 2"/ft Slope from Sta. 303+20 to Sta. 306+40
1"/ft Slope from Sta. 307+00 to Sta. 307+80
†† 1"/ft Slope from Sta. 303+20 to Sta. 306+40
2"/ft. Slope from Sta. 307+00 to Sta. 307+80

TYPICAL CROSS SECTIONS

SCALE:- As Shown

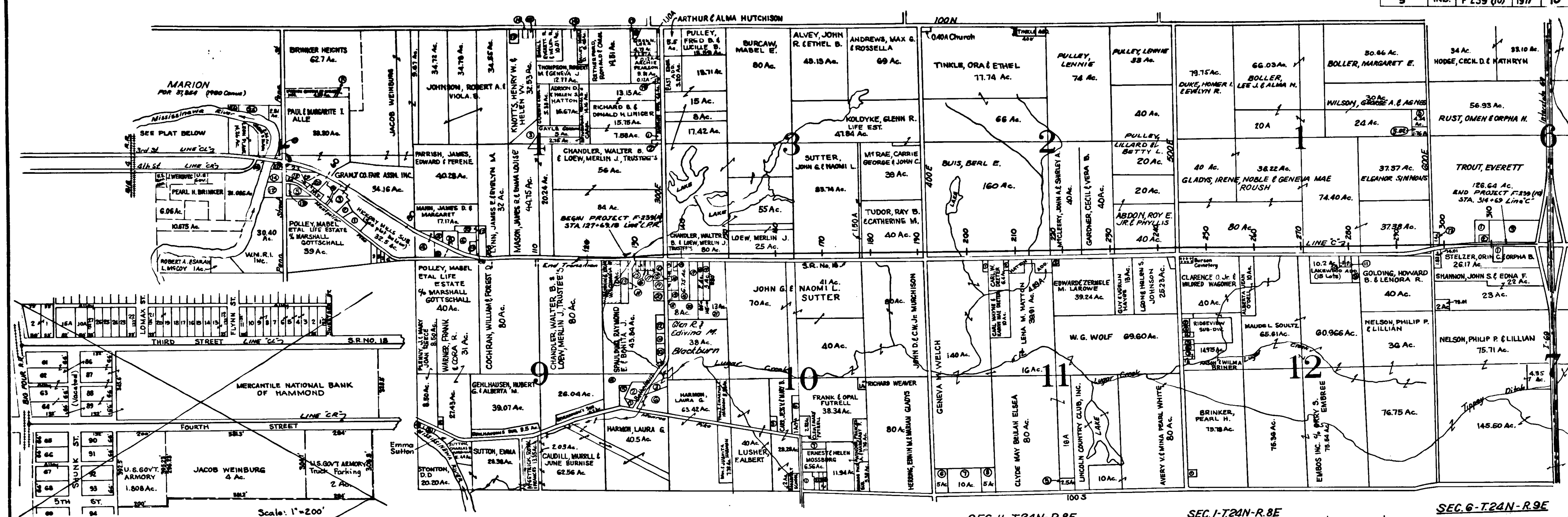
RECOMMENDED FOR APPROVAL 4-24-70

ENGINEER OF RECORD

PROJECT NO	CODE	SHEET NO	TOTAL SHEETS
F 239(10)	"C"	5	

SEPTEMBER 1963

FEDERAL ROAD REGION NO.	STATE	PROJECT NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
5	IND.	F 239 (10)	1971	10	166



PROPERTY OWNER'S WITHIN CORP LIMITS

LOT NO.	OWNER
1 & 2	Florise Pierson
0.15 Ac.	Mary E. Bogue, % S. P. Good, Sr.
0.10 Ac.	W. C. Nicholson
27	Geo. J. Milford
26	Iva & Delight Treadwell
25	Albert & Anne Young
24	Geo. C. Lee Life Est. of Mary Taylor % Duffy Agency
23	Orville & Pauline Jackson
22	Anna Ross
21	Ray Shugart
20 & 19	Maymie Warfel
18	Laura Hayes
17	Wm. Kidwell & Zella Kidwell Hart
16	Harold & Marcella Dodson
15	Tony P. Motsch
14	Charles Bradford
13 & 12	Luella McGwin
11	Local Realty Co. Inc.
10	Arnold & Elsie Stewart
9 & 8	Eugene A. & Addie Whitehurst
7	Fannie Rupert
6,5,4 & 3	Fannie Wingo
2	Alfred Borden
1	Charles & Pauline Boyce.
65,66 & 67	Alonzo W. & Henrietta Marsh
90,91 & 92	Sylvia Gusler and Jane Goldthwaite

PROPERTY OWNER'S IN SEC. 5-T.24N-R.8E

1	Floyd G. Belville	2.5 Ac.
2	Edwin G. & Fern Davison	1.64 Ac.
3	Frances Helene Hutchinson	4.58 Ac.
4	Donnal & Bernice D. Earnhart	1.51 Ac.
5	Fred W. Bradford	0.58 Ac.
6	Ollie & Alta Teddler	0.75 Ac.
7	Grant County	0.25 Ac.
8	Raymond & Millie Strong	0.50 Ac.
9	John L. Maynard	1.75 Ac.
10	David P. & Virginia Bachmeyer	0.50 Ac.
11	Grant County (Road)	0.20 Ac.
12	Leslie Dale & Hester Wolff	3.4 Ac.
13	Marilyn Sue Chalmers	0.6 Ac.
14	Betty Jo & Edw. W. Emery & Mary Dickey	3.69 Ac.
15	Paul & Margaret T. Allen	1.20 Ac.
16	Jacob Weinburg & John H. Adams	0.80 Ac.
17	Myrtle Mickel etal	1.75 Ac.
18	Carol Cronel 1.90 Ac. + (96'x82.5') & (16.5'x264' Lane)	
19	Milford Smith	1.0 Ac.
20	Judith Mary & M. Marguerite Heaton	1.31 & 0.5 Ac.
21	Pearl D. & Dorothy Odle	0.70 Ac.
22	Pearl D. & Dorothy Odle 0.54 Ac. 40'x250' & 12'x250' Lane	
23	Belle Smith, Oral Glenn & Georgiana Burton	3.8 Ac.
	Belle Smith east	1.9 Ac.
	Georgiana Burton west	1.9 Ac.
24	Noah J. & Letha A. Leming	

PROPERTY OWNER'S IN SEC. 4-T.24N-R.8E

1	Richard B. & Donna J. Liniger (183'E & 169'N)	0.67 Ac.
2	Wayne & Norma Briner (250'x80')	0.50 Ac.
3	Ronald L. & Carol Retherford	3.36 Ac.
4	Charles E. & Magdalene Kriegbaum	6.00 Ac.
5	Marion & Ruth Hass	1.50 Ac.
6	Phillip W. & Thelma Culbertson	4.00 Ac.
7	Wm. Kenneth Wolff	2.70 Ac.
8	Charles E. & Magdalene Kriegbaum	1.41 Ac.
9	Clarence E. & Inez Albertine Loftis	1.0 Ac.
10	Leslie D. & Hester Wolff	23 Ac. & .05 Ac.
11	Lawrence E. & Doris I. McIntire	0.50 Ac.
12	Joseph & Laura Clouse	3.0 Ac.
13	Ruben & Rose Wells Turner	1.5 Ac.
14	Guy E. Jr. & Betty Jean Howell	0.5 Ac.
15	Ralph & Kathryn Van Duyn	0.47 Ac.
16	Robert & Dorothy Mae Gronendyke	0.54 Ac.
17	Oscar Z. & Mary M. Smith	0.50 & 0.41 Ac.
18	John A. & Virginia Mae Forrester	0.50 Ac.
19	John Edward Rapp	0.46 Ac.

SEC. 9 - T.24N-R.8E

1	Buddy Jr. & Betty Ruth King	0.52 Ac.
2	Leonard W. & Erma Estalene Wilson	Ac.
3	Glen R. & Edwin M. Blackburn	2.75 Ac.
4	Rollin R. & Dorothy P. Brown	6.15 Ac.
5	Gayle & Phyllis Ann Guerin	1.98 Ac.
6	Leonard & Estalene Wilson	5.0 Ac.
7	Grace Bible Church	1.39 Ac.
8	S. Allen Johnson & James D. Dennison	0.53 Ac.
9	Fred & Sallee B. Elliott	0.51 Ac.
10	Delmare & Frances Barnes	2.0 Ac.
11	Homer William & Myrtle Neva Wagener	1.0 Ac.
12	Herbert William & Lois Brewer	2 Ac.
13	Ora William & Georgiana Jones	4 Ac.
15	Lawrence F. & Margarte M. Emery	0.48 & 0.48 Ac.
16 & 18	Robert D. & Martha L. Fornshell	0.08 & 0.48 Ac.
17	Robert V. & Celesta J. Veach	0.48 Ac.
19	Patrick E. & Margaret Joan Foreman	1.00 Ac.
20	Billie Joe & Ruth Joan Hodge	1.00 Ac.
14	First Federal Savings & Loan	1.25 & 11.75 Ac.

SEC. 10-T.24N-R.8E

1	Shirley L. & Estella L. Wade	3 Ac.
2	Melvin D. & Ruth A. Berry	1.02 Ac.
3 & 4	John O. & Barbara Walker	1 & 0.48 Ac.
5	Frank M. & Martha K. Kimes	1.20 Ac.
6	Eugene C. & Lois D. Carr	1.97 Ac.
7	Kenneth & Genita McKee	2 Ac.
8	David & Doris Rogers	1 Ac.
9	Elizabeth Theda Tingle	.575 Ac.
10	Harold & Phyllis Maxwell	.425 Ac.
11	George Ring	1 Ac.
12	Abraham Jr. & Dorothy L. Moulton	1 Ac.
13	George H. & Linda K. Wagner	.32 Ac.
14	Roy & Myrtle M. Purvis	1.93 Ac.
15	Abraham Jr. & Dorothy Lee Moulton	.75 Ac.
16	Ford L. & Ethel M. Pennington	6.75 Ac.
17	Not determined	3.5± Ac.
18	Rollie & June Purvis	2 Ac.
19	Harmon & Rosemary Benbow	3 Ac.
20	Verlin C. & Carrie E. Miller	8 Ac.
21	Milford Finance Corp	13 Ac.

SEC. 11-T.24N-R.8E

1	Lucille C. Gorrell	1 Ac.
2	Larry David & Delores McAtee	0.60 Ac.
3	Robert D. & Janet M. Larowe	0.76 Ac.
4	Donald D. Mary Jane Holloway	0.77 Ac.
5	Harold L. & Shirley B. Kendall	2.5 Ac.
6	Melvin L. & Fairy A. Herring	5 Ac.
7	Valley C. & Milbred M. Luzadder	10 Ac.
8	William E. & Charlotte L. Nelson	5 Ac.

SEC. 1-T.24N-R.8E

5	Leo & Glenmore Herring	4.24 Ac.
5.02	Carl Dewayne & Carolyn Elizabeth Hoke	1.76 Ac.

▨ - LAND LOCKED PARCEL

SEC. 6-T.24N-R.9E

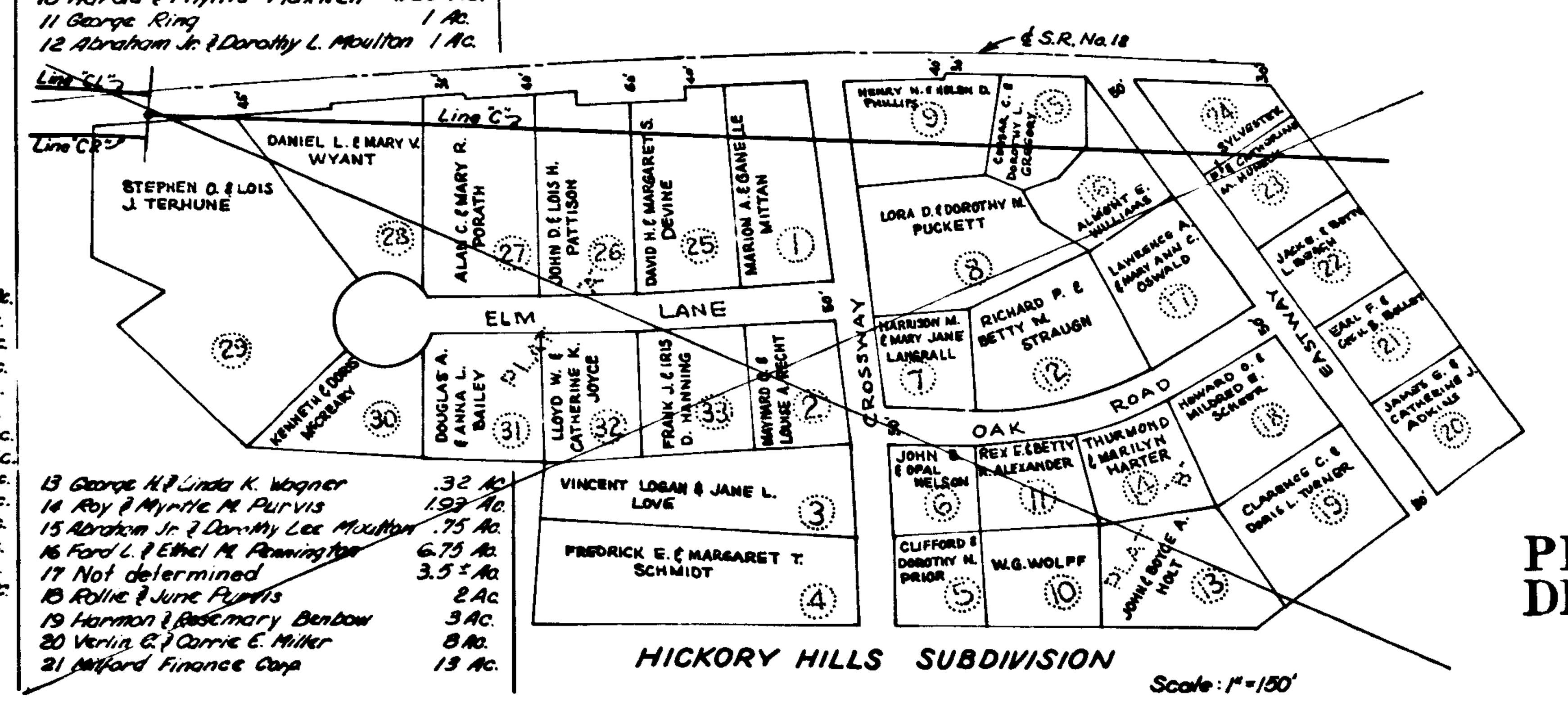
73	G. L. Ferguson	1.0 Ac.
1	Phillips Petroleum	2.84 Ac.
2	Reproco of Indiana Inc.	0.96 Ac.
3	Marathon Oil Co.	12.10 Ac.

SEC. 7-T.24N-R.9E

74.01	Orville Dee & Mary Louise Lee	1.83 Ac.
78.01	Thomas M. & Bonnie D. Lee	2.00 Ac.
1	Amer. Oil Co. (long term lease from Orin C. & Orpha B. Stelzer)	2.03 Ac.

SEC. 12-T.24N-R.8E

1	Jesse & Ruth Velasquez	0.66 Ac.
2	Wayne & Norma Briner	0.579 Ac.
3	James A. & Helen I. Cain	0.56 Ac.
4	Roland L. & Wanda B. Conley	0.50 Ac.
5	Charles R. & Jean Gates	0.50 Ac.
6	James W. & Nancy E. Harris	0.50 Ac.
7	John R. & Lola Jean Banter	0.50 Ac.
8	" " " " "	0.20 Ac.
9	Ralph C. & Charlene Shideler	2.00 Ac.
10	William O. & Pauline E. Rice	0.16 & 0.46 Ac.
11	Arthur A. & Ivy E. Sorenson	0.16 & 0.46 Ac.

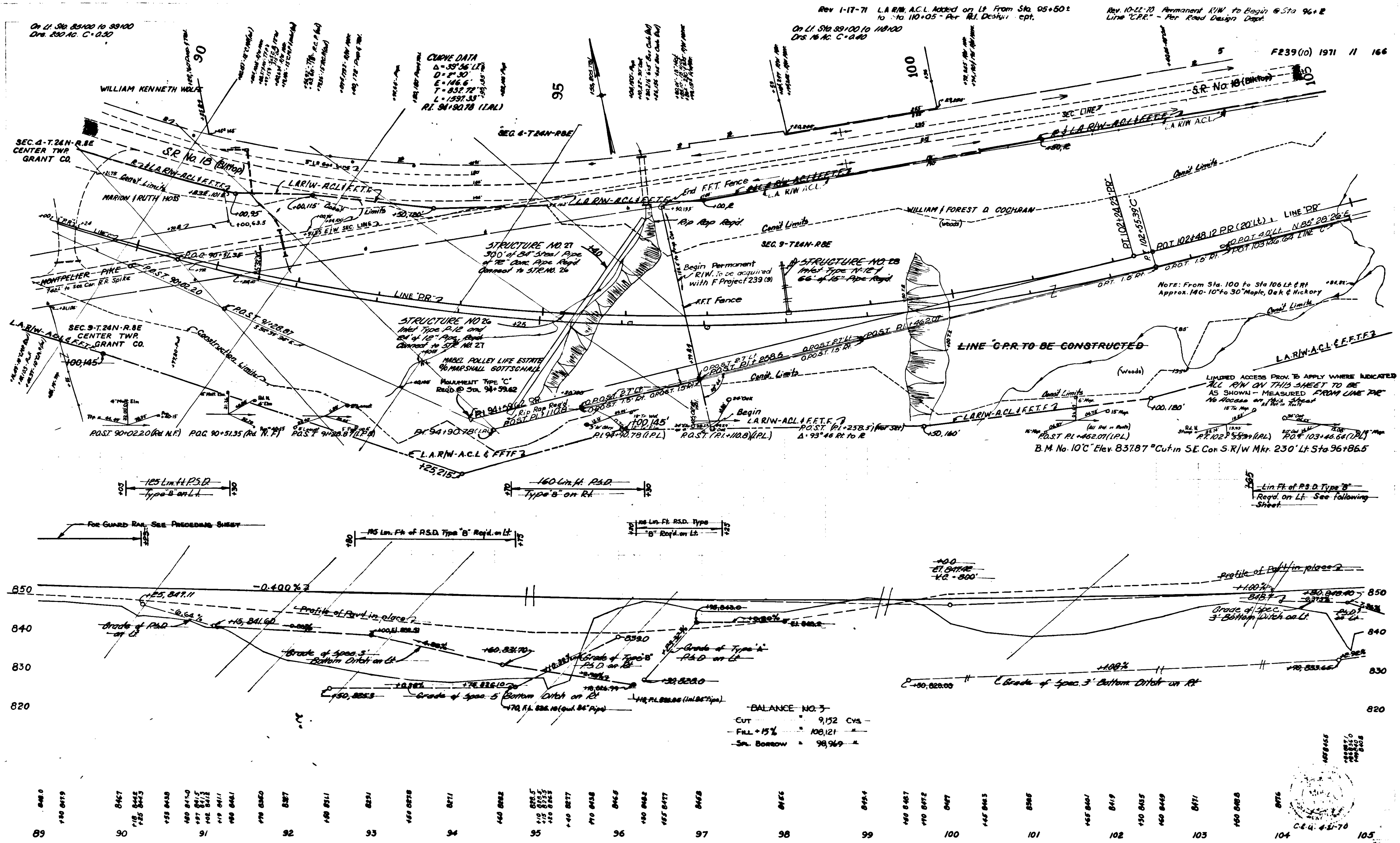


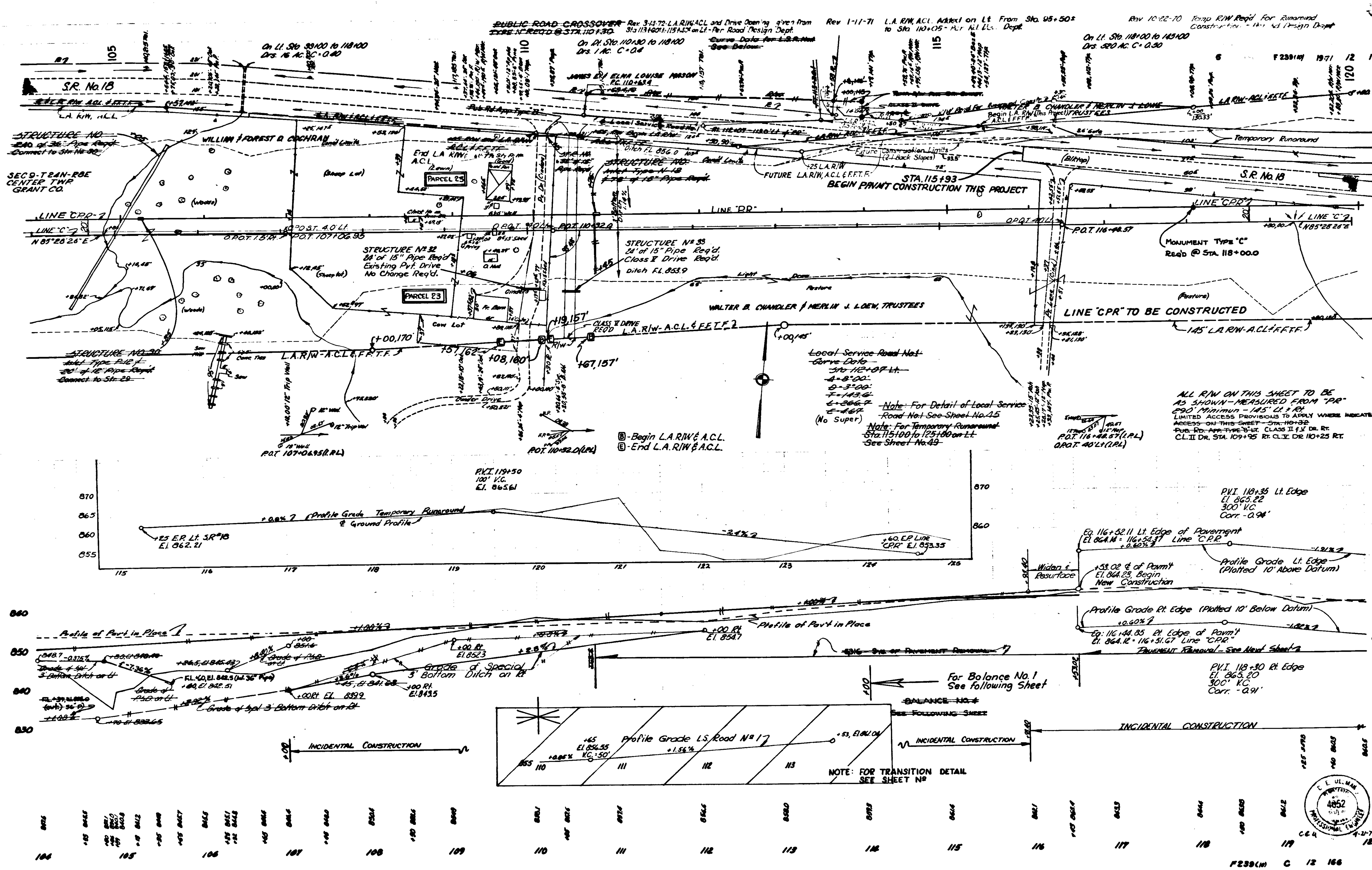
PLAT NO. 1 FOR DESIGN DEPT.

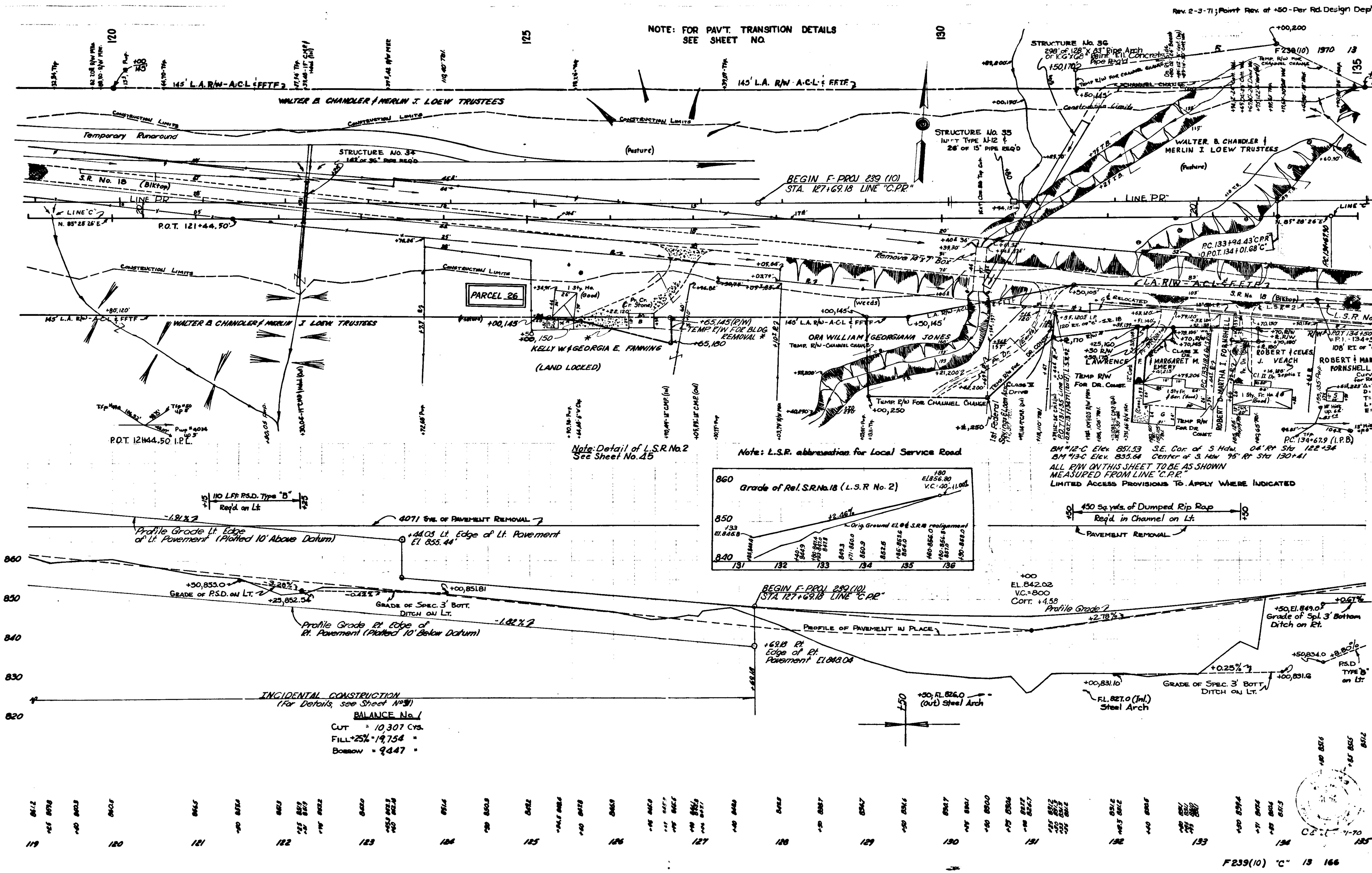
SCALE: 1" = 1000'

November 6, 1964

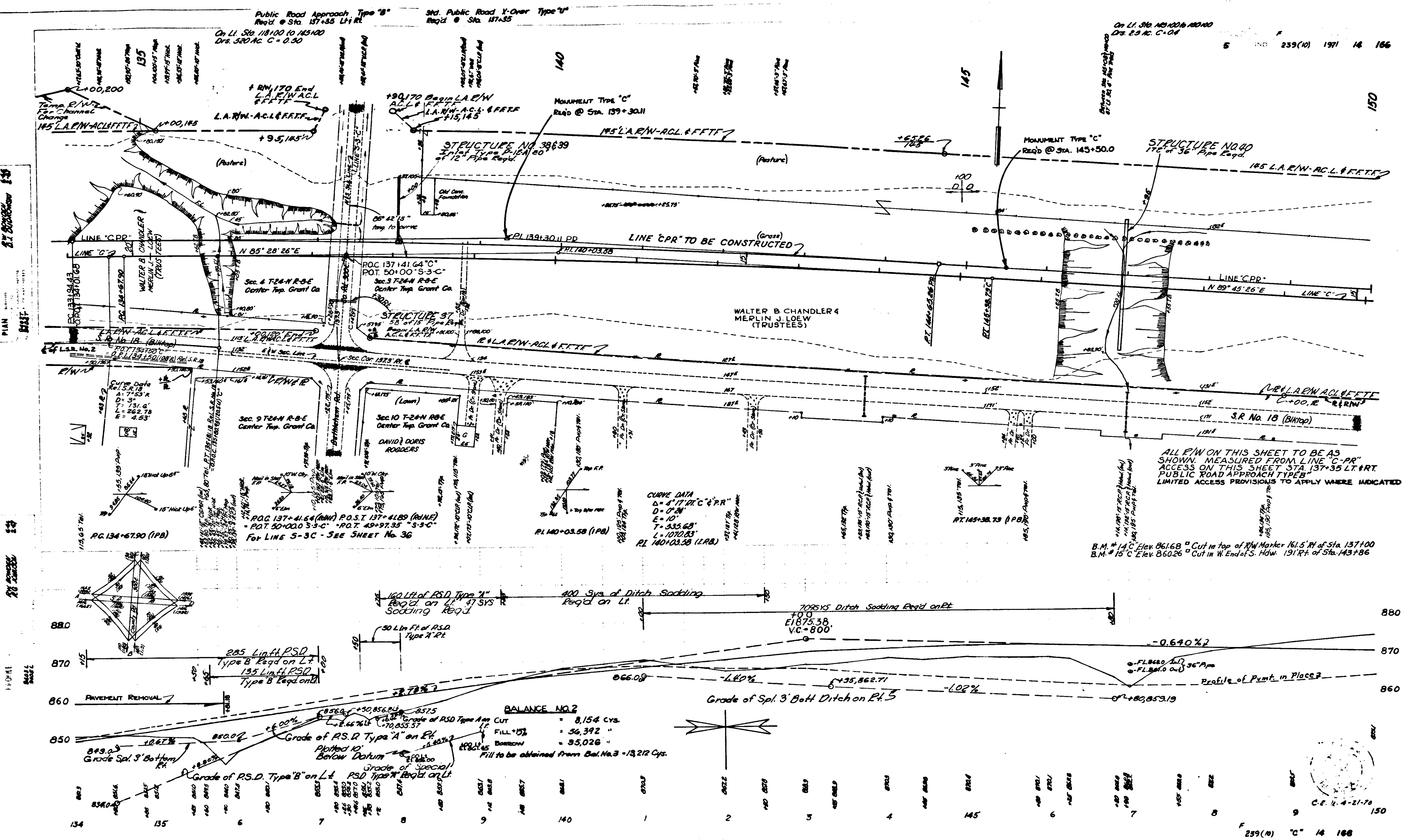
PROJECT NO.	LINE	SHEET NO.	TOTAL SHEETS	FILE
F 239 (10)	C	10	166	


Rev. 1-17-71 L.A. R/W, A.C.L. Added on Lt. From Sta. 95+50± to Sta 110+05 - Per Rd. Design Dept.
Rev. 10-22-70 Permanent R/W to Begin @ Sta. 96+ ℞ Line "C.P.R." - Per Road Design Dept.
F239(10) 1971 11 166
On Lt. Sta. 85+00 to 93+00 Drs. 250 Ac. C=0.30
On Lt. Sta. 99+00 to 118+00 Drs. 16 Ac. C=0.40
CURVE DATA
Δ = 39°36' Lt.
D = 2°30'
E = 146.6'
T = 832.72'
L = 1597.33'
P.I. 94+90.78 (I.P.L.)
WILLIAM KENNETH WOLFE
SEC. 4-T.24N-R.8E CENTER TWP. GRANT CO.
S.R. No. 18 (Blktop)
MARION & RUTH HOSS
MONTPELIER PIKE
SEC. 9-T.24N-R.8E CENTER TWP. GRANT CO.
SEC. 4-T.24N-R.8E
SEC. 9-T.24N-R.8E
LINE "PR"
STRUCTURE NO. 27
300' of 84" Steel Pipe of 72" Conc. Pipe Reqd. Connect to STR. NO. 26
STRUCTURE NO. 26
Inlet Type P-12 and 84' of 12" Pipe Reqd. Connect to STR. NO. 27
STRUCTURE NO. 28
Inlet Type N-12 & 66' of 15" Pipe Reqd.
MABEL POLLEY LIFE ESTATE % MARSHALL GOTTSCHALK
Monument Type "C" Reqd. @ Sta. 94+39.62
WILLIAM & FOREST D. COCHRAN
Begin Permanent R/W to be acquired with F Project 239 (9)
Rip Rap Reqd.
End F.F.T. Fence
F.F.T. Fence
L.A. R/W-A.C.L. & F.F.T.F.
Const. Limits
Construction Limits
LINE "C.P.R. TO BE CONSTRUCTED"
Note: From Sta. 100 to Sta 106 Lt. & Rt. Approx. 140- 10" to 30" Maple, Oak & Hickory
LIMITED ACCESS PROV. TO APPLY WHERE INDICATED ALL R/W ON THIS SHEET TO BE AS SHOWN - MEASURED FROM LINE "PR" No Access on this sheet
P.O.T. 102+48.12 PR (20' Lt.) LINE "PR" N 85°28'26" E
P.T. 102+24.23 PR
P.I. 102+53.39 "C"
P.O.S.T. 90+02.20 (Rd. N.F.)
P.O.C. 90+51.35 (Rd. N.F.)
P.O.S.T. 91+28.87 (I.P.L.)
P.I. 94+90.78 (I.P.L.)
P.O.S.T. (P.I.+110.8) (I.P.L.)
P.O.S.T. (P.I.+258.5) (Rd. Sec.)
Δ = 93°46' Rt. to ℞
P.O.S.T. P.I.+462.07 (I.P.L.)
P.O.T. 103+46.66 (I.P.L.)
B.M. No. 10"C" Elev. 837.87 "Cut in S.E. Cor. S.R/W Mkr. 230' Lt. Sta 96+86.5
125 Lin. Ft. P.S.D. Type "B" on Lt.
160 Lin. Ft. P.S.D. Type "B" on Rt.
165 Lin. Ft. of P.S.D. Type "B" Reqd. on Lt. See Following Sheet
For Guard Rail See Preceding Sheet
115 Lin. Ft. of P.S.D. Type "B" Reqd. on Lt.
115 Lin. Ft. P.S.D. Type "B" Reqd. on Lt.
-0.400%
Profile of Pavt. in place
Grade of P.S.D. on Lt.
Grade of Spec. 3' Bottom Ditch on Lt.
Grade of Spec. 5' Bottom Ditch on Rt.
Grade of Type "B" P.S.D. on Rt.
Grade of Type "B" P.S.D. on Lt.
Grade of Spec. 3' Bottom Ditch on Rt.
Grade of Spec. 3' Bottom Ditch on Lt.
+1.00%
BALANCE NO. 3
CUT 9,152 CYS.
FILL +15% 108,121
SPL. BORROW 98,969
850 840 830 820
89 90 91 92 93 94 95 96 97 98 99 100 101 102 103 104 105
C.E.U. 4-21-70


PUBLIC ROAD CROSSOVER TYPE "C" REQ'D @ STA. 110+30
Rev 3-12-72 L.A. R/W, A.C.L. and Drive Opening given from
Rev 1-11-71 L.A. R/W, A.C.L. Added on Lt From Sta. 95+50± to Sta. 110+05 - Per R/W Eng. Dept.
Rev 10-22-70 Temp R/W Req'd For Runaround Construction
On Lt. Sta. 99+00 to 118+00
On Rt. Sta. 110+30 to 118+00
On Lt. Sta. 118+00 to 145+00
F239(10) 1971 12 166
S.R. No. 18
L.A. R/W, A.C.L.
STRUCTURE NO. 30
WILLIAM & FOREST Q. COCHRAN
JAMES E. & ELNA LOUISE MASON
WALTER B. CHANDLER & MERLIN J. LOEW TRUSTEES
End L.A. R/W A.C.L.
PARCEL 25
PARCEL 23
SEC 9-T24N-R8E
CENTER TWP.
GRANT CO.
LINE "CPR-2"
LINE "C"
LINE "PR"
LINE "CPR"
N 85°28'26" E
P.O.T. 107+06.93
P.O.T. 110+32.0
P.O.T. 116+48.57
STRUCTURE Nº 32
24" of 15" Pipe Req'd
Existing Pvt. Drive
No Change Req'd.
STRUCTURE Nº 33
24" of 15" Pipe Req'd.
Class II Drive Req'd.
Ditch F.L. 853.9
STRUCTURE NO. 31
FUTURE L.A. R/W, A.C.L. & F.F.T.F.
STA. 115+93
BEGIN PAVMT CONSTRUCTION THIS PROJECT
Future Construction Limits
Temporary Runaround
MONUMENT TYPE "C"
Req'd @ STA. 118+00.0
LINE "CPR" TO BE CONSTRUCTED
145' L.A. R/W - A.C.L. & F.F.T.F.
L.A. R/W - A.C.L. & F.F.T.F.
Local Service Road No. 1
Curve Data
Note: For Detail of Local Service Road No. 1 See Sheet No. 45
Note: For Temporary Runaround Sta. 115+00 to 125+00 on Lt. See Sheet No. 49
(No Super)
Ⓑ - Begin L.A. R/W & A.C.L.
Ⓔ - End L.A. R/W & A.C.L.
ALL R/W ON THIS SHEET TO BE AS SHOWN - MEASURED FROM "PR"
290' Minimum - 145' Lt. & Rt.
LIMITED ACCESS PROVISIONS TO APPLY WHERE INDICATED
P.V.I. 119+50
100' V.C.
El. 865.61
Profile Grade Temporary Runaround
& Ground Profile
+25 E.P. Lt. SR 18
El. 862.21
+60 E.P. Line "CPR" El. 853.35
P.V.I. 118+35 Lt. Edge
El. 865.22
300' V.C.
Corr. -0.94'
Eq. 116+52.11 Lt. Edge of Pavement
Profile Grade Lt. Edge (Plotted 10' Above Datum)
+53.02 & of Pav'm't
El. 864.23, Begin New Construction
Widen & Resurface
Profile Grade Rt. Edge (Plotted 10' Below Datum)
Eq. 116+44.85 Rt. Edge of Pav'm't
P.V.I. 118+30 Rt. Edge
El. 865.20
300' V.C.
Corr. -0.91'
Profile of Pavt in Place
Grade of Special 3' Bottom Ditch on Rt.
Grade of Spl. 3' Bottom Ditch on Rt.
For Balance No. 1
See Following Sheet
Pavement Removal - See Next Sheet
INCIDENTAL CONSTRUCTION
Profile Grade L.S. Road Nº 1
NOTE: FOR TRANSITION DETAIL SEE SHEET Nº
104 105 106 107 108 109 110 111 112 113 114 115 116 117 118 119 120
C. E. ULMAN
4852
PROFESSIONAL ENGINEER
4-21-70
F239(10) C 12 166

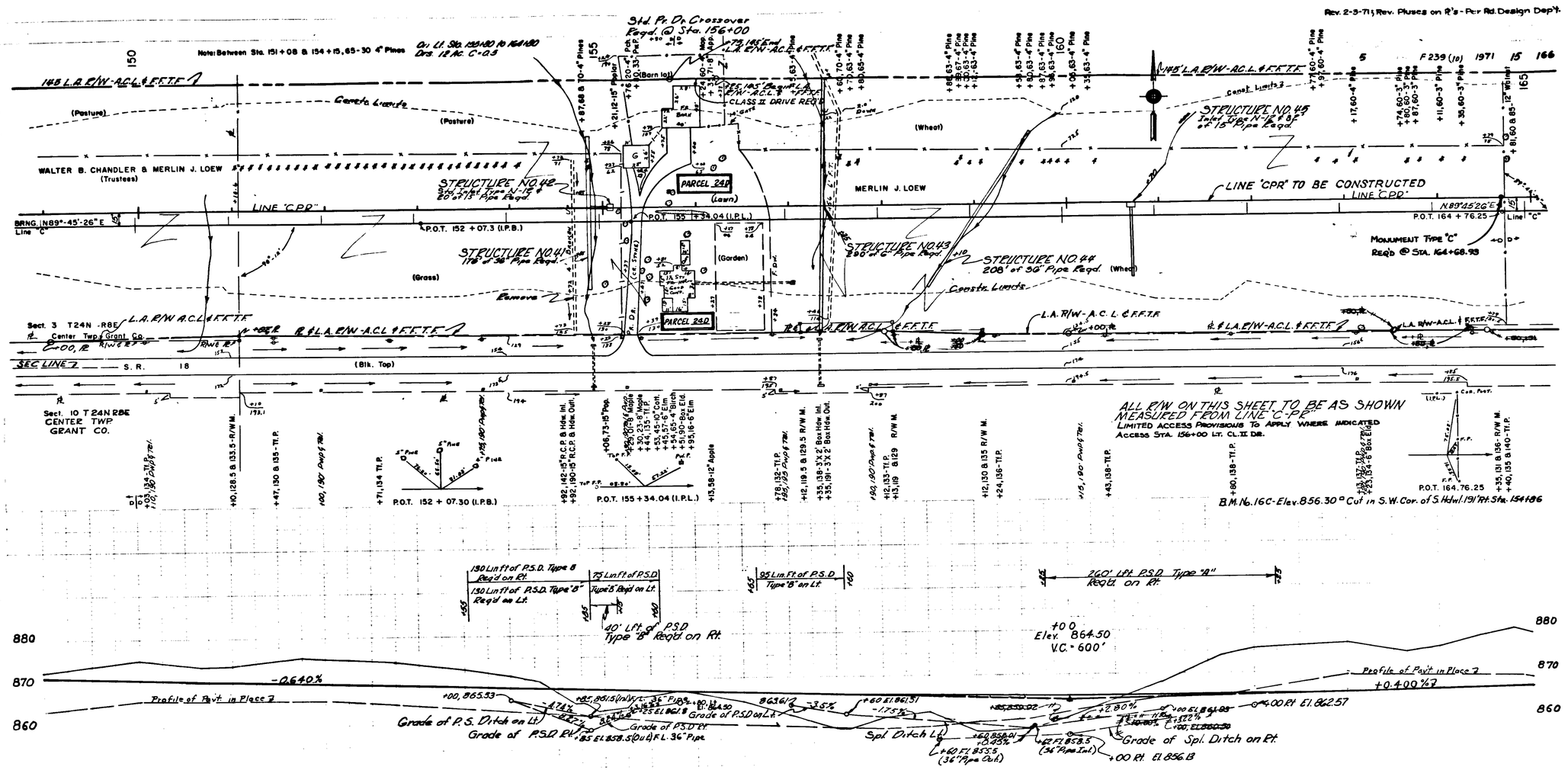


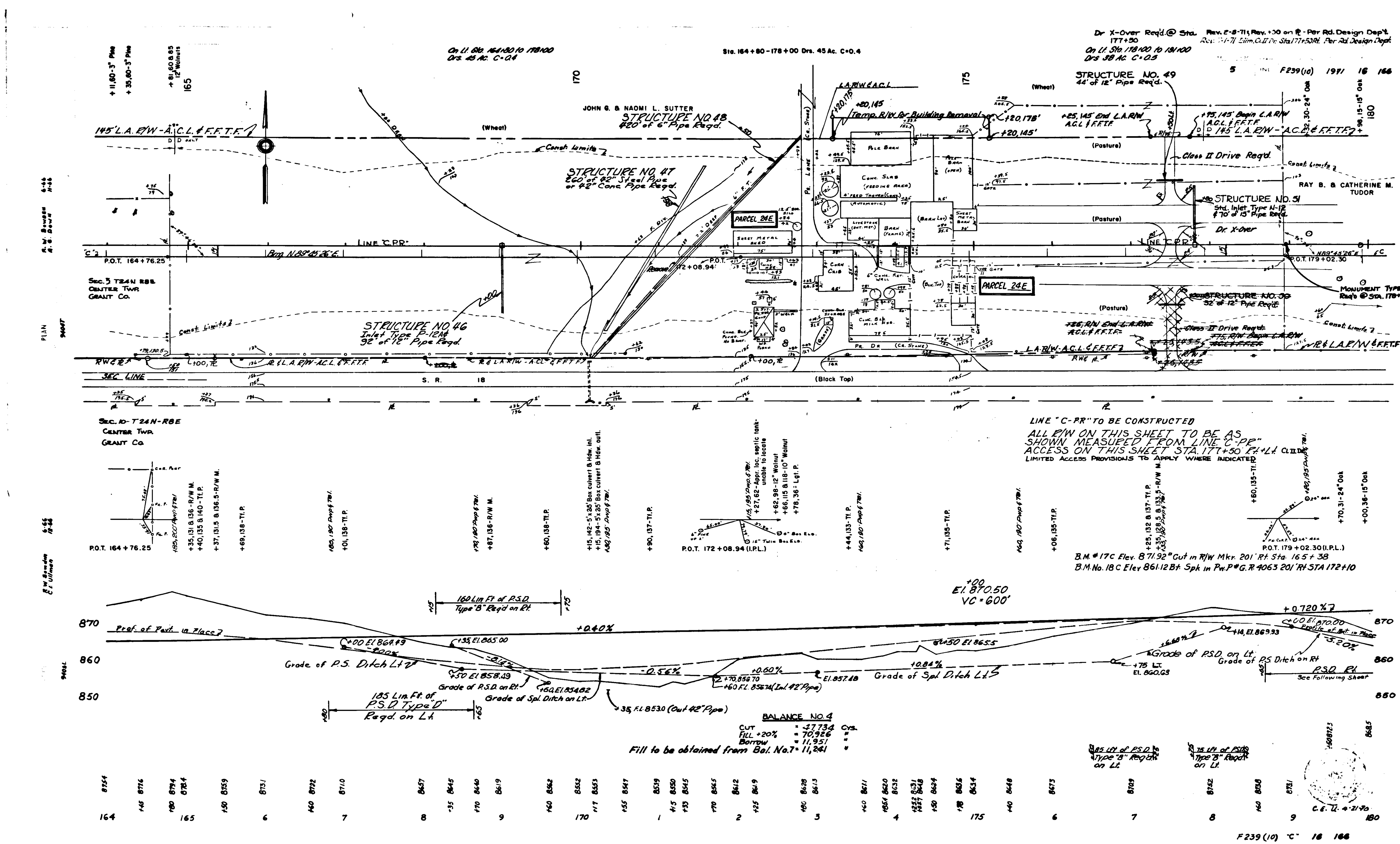
Rev. 2-3-71; Point Rev. at +50 - Per Rd. Design Dep't
NOTE: FOR PAV'T. TRANSITION DETAILS SEE SHEET NO.
F239(10) 1970 13 166
145' L.A. R/W - A.C.L. & FFTF
WALTER B. CHANDLER & MERLIN J. LOEW TRUSTEES
CONSTRUCTION LIMITS
Temporary Runaround
STRUCTURE No. 34
(Pasture)
S.R. No. 18 (Blktop)
LINE "PR"
LINE "C"
N. 85°28'26" E
P.O.T. 121+44.50
BEGIN F-PROJ 239 (10)
STA. 127+69.18 LINE "C.P.R."
STRUCTURE No. 35
STRUCTURE No. 36
WALTER B. CHANDLER & MERLIN J. LOEW TRUSTEES
(Pasture)
Remove 10'x7' Box
P.C. 133+94.43 "C.P.R."
P.O.T. 134+01.68 "C"
PARCEL 26
KELLY W. & GEORGIA E. FANNING
(LAND LOCKED)
TEMP. E/W FOR BLDG REMOVAL
ORA WILLIAM & GEORGIANA JONES
Temp. R/W - Channel Change
Temp. R/W For Channel Change
LAWRENCE
MARGARET M. EMERY
Temp R/W For Dr. Const.
ROBERT D. & MARTHA I. FORNSHELL
ROBERT & CELES J. VEACH
ROBERT & MARTHA I. FORNSHELL
L.S.R. No. 2
P.C. 134+67.9 (I.P.B.)
P.O.T. 121+44.50 I.P.L.
Note: Detail of L.S.R. No. 2 See Sheet No. 45
Note: L.S.R. abbreviation for Local Service Road
BM #12-C Elev. 851.53 S.E. Cor. of S. Hdw. 04' Rt Sta 122+34
BM #13-C Elev. 835.64 Center of S. Hdw. 95' Rt Sta 130+41
ALL R/W ON THIS SHEET TO BE AS SHOWN MEASURED FROM LINE "C.P.R."
LIMITED ACCESS PROVISIONS TO APPLY WHERE INDICATED
Grade of Rel. S.R. No. 18 (L.S.R. No. 2)
Orig. Ground El. & S.R. 18 realignment
110 LFt. P.S.D. Type "B" Req'd on Lt.
4071 Sq. yd. of Pavement Removal
450 Sq. yds. of Dumped Rip Rap Req'd in Channel on Lt.
Pavement Removal
Profile Grade Lt. Edge of Lt. Pavement (Plotted 10' Above Datum)
+44.05 Lt. Edge of Lt. Pavement El. 855.44
Grade of P.S.D. on Lt.
Grade of Spec. 3' Bott. Ditch on Lt.
Profile Grade Rt. Edge of Rt. Pavement (Plotted 10' Below Datum)
BEGIN F-PROJ 239 (10) STA. 127+69.18 LINE "C.P.R."
+69.18 Rt. Edge of Rt. Pavement El. 848.04
Profile of Pavement in Place
Profile Grade
+00 El. 842.02 V.C. = 800 Corr. +4.58
+50, El. 849.0 Grade of Spl. 3' Bottom Ditch on Rt.
+50; El. 826.0 (out) Steel Arch
F.L. 827.0 (Inl.) Steel Arch
Grade of Spec. 3' Bott. Ditch on Lt.
P.S.D. Type "B" on Lt.
INCIDENTAL CONSTRUCTION (For Details, see Sheet No. 31)
BALANCE No. 1
Cut = 10,307 Cys.
Fill + 25% = 19,754 "
Borrow = 9447 "
860 850 840 830 820
119 120 121 122 123 124 125 126 127 128 129 130 131 132 133 134 135
F239(10) "C" 13 166



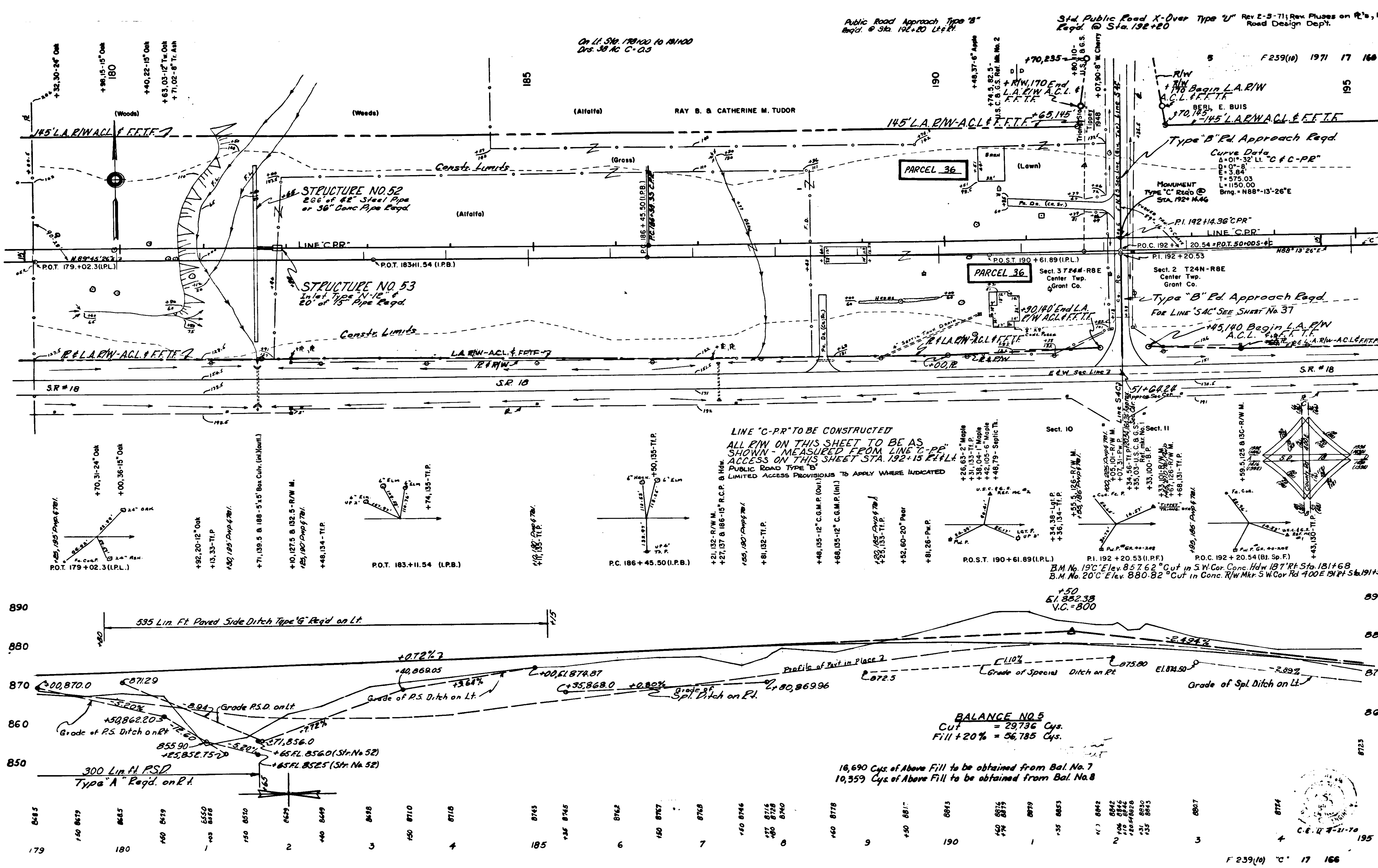
239(10) 1971 14 166
Public Road Approach Type "B" Req'd @ Sta. 137+35 Lt+Rt.
Std. Public Road X-Over Type "U" Req'd @ Sta. 137+35
On Lt. Sta. 118+00 to 145+00 Drs. 520 AC. C=0.50
On Lt. Sta. 145+00 to 180+00 Drs. 25 AC. C=0.4
MONUMENT TYPE "C" REQ'D @ STA. 139+30.11
MONUMENT TYPE "C" REQ'D @ STA. 145+50.0
STRUCTURE NO. 38 & 39
STRUCTURE NO. 40
STRUCTURE 37
LINE "CPR" TO BE CONSTRUCTED
LINE "CPR"
LINE "C"
N 85° 28' 26" E
N 89° 45' 26" E
WALTER B. CHANDLER & MERLIN J. LOEW (TRUSTEES)
Sec. 4 T-24-N R-8-E Center Twp. Grant Co.
Sec. 3 T-24-N R-8-E Center Twp. Grant Co.
Sec. 9 T-24-N R-8-E Center Twp. Grant Co.
Sec. 10 T-24-N R-8-E Center Twp. Grant Co.
DAVID & DORIS ROGERS
S.R. No. 18 (Blktop)
(Pasture)
(Lawn)
P.O.C. 137+41.64 "C"
P.O.T. 50+00 "S-3-C"
For Line S-3C - See Sheet No. 36
CURVE DATA
P.I. 140+03.58 (I.P.B.)
P.C. 134+67.90 (IPB)
P.T. 145+38.73 (IPB)
ALL R/W ON THIS SHEET TO BE AS SHOWN. MEASURED FROM LINE "C-PR"
ACCESS ON THIS SHEET STA. 137+35 LT. & RT. PUBLIC ROAD APPROACH TYPE "B"
LIMITED ACCESS PROVISIONS TO APPLY WHERE INDICATED
B.M. # 14 "C" Elev. 861.68 □ Cut in top of R/W Marker 161.5' Rt. of Sta. 137+00
B.M. # 15 "C" Elev. 860.26 □ Cut in W. End of S. Hdw. 191' Rt. of Sta. 143+86
160 Lft. of P.S.D. Type "A" Req'd on Lt. 47 SYS Sodding Req'd
400 SYS of Ditch Sodding Req'd on Lt.
7095YS Ditch Sodding Req'd on Rt.
50 Lin Ft of P.S.D. Type "A" Rt.
285 Lin ft P.S.D. Type B Req'd on Lt.
135 Lin ft P.S.D. Type B Req'd on Rt.
PAVEMENT REMOVAL
E1.875.38 V.C.=800'
-0.640%
-1.60%
-1.02%
Profile of Pvmt. in Place
Grade of Spl. 3' Bott Ditch on Rt.
Grade of P.S.D. Type "A" on Rt.
Grade of P.S.D. Type "B" on Lt.
Grade Spl. 3' Bottom Rt.
Plotted 10' Below Datum
Grade of Special P.S.D. Type "A" Req'd on Lt.
BALANCE NO. 2
CUT = 8,154 CYS.
FILL +15% = 56,392 "
BORROW = 35,026 "
Fill to be obtained from Bal. No. 3 = 13,212 Cys.
880 870 860 850
134 135 6 7 8 9 140 1 2 3 4 145 6 7 8 9 150
C.E. 4-21-70
239(10) "C" 14 168

Rev. 2-3-71; Rev. Pluses on R's - Per Rd. Design Dep't.

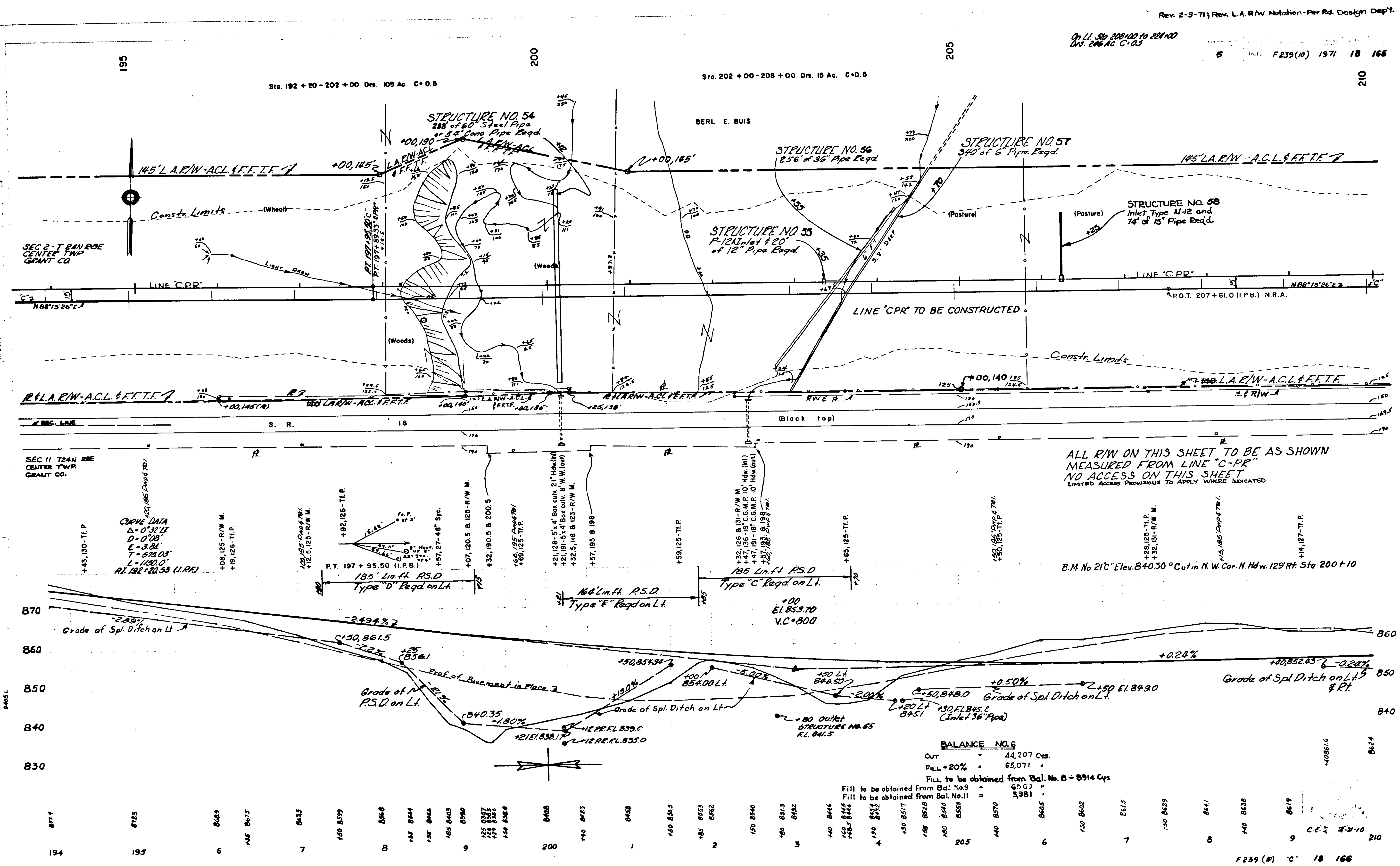




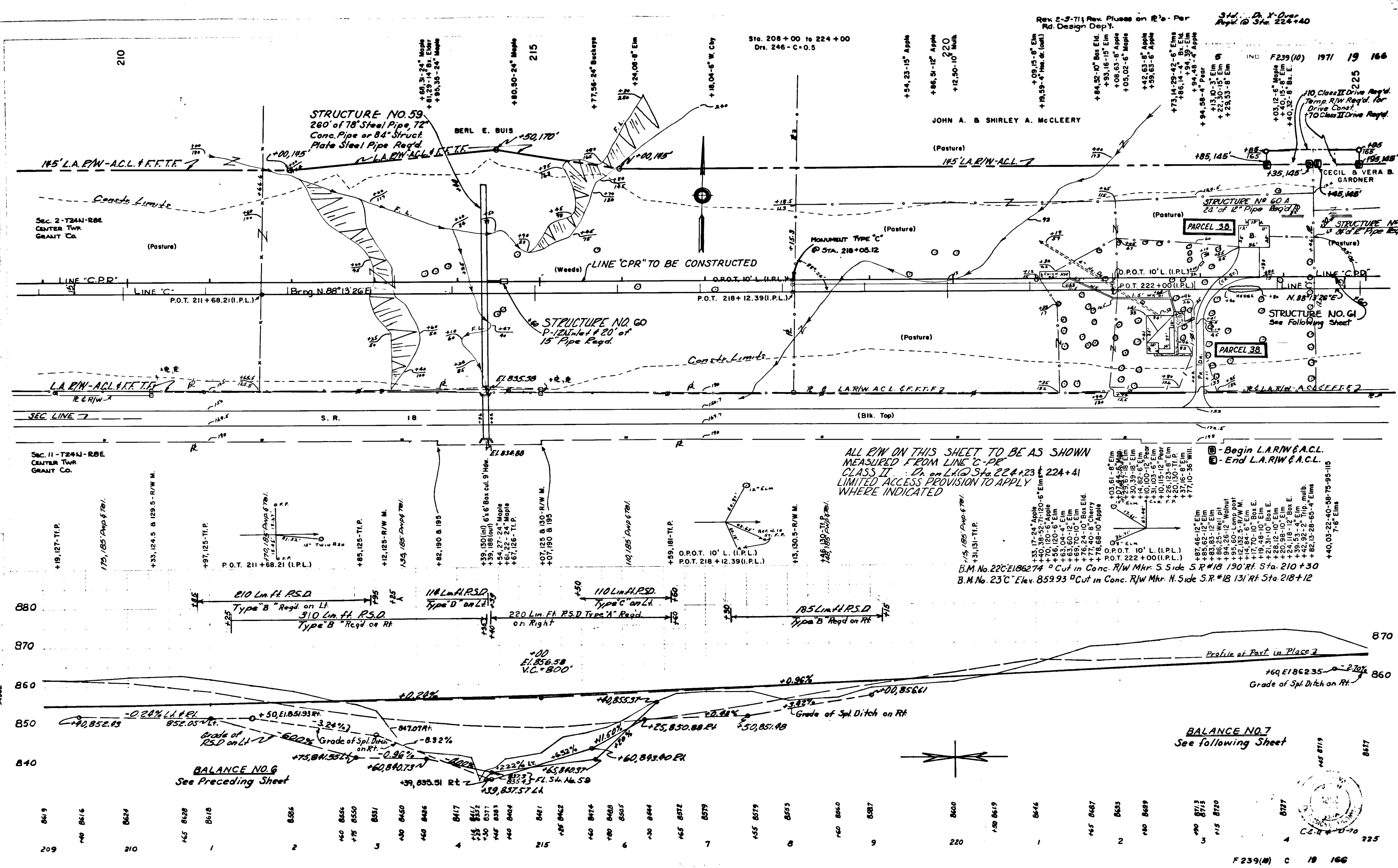
Dr X-Over Req'd @ Sta. 177+50
Rev. 2-8-71; Rev. +00 on Rt - Per Rd. Design Dep't.
On Lt. Sta. 164+80 to 178+00 Drs. 45 Ac. C=0.4
Sta. 164+80 - 178+00 Drs. 45 Ac. C=0.4
On Lt. Sta. 178+00 to 181+00 Drs 38 Ac. C=0.5
F239(10) 1971 16 166
JOHN G. & NAOMI L. SUTTER
STRUCTURE NO. 48
20' of 6" Pipe Req'd.
STRUCTURE NO. 47
260' of 42" Steel Pipe or 42" Conc Pipe Req'd.
STRUCTURE NO. 46
Inlet Type P-12A
92' of 12" Pipe Req'd.
STRUCTURE NO. 49
44' of 12" Pipe Req'd.
STRUCTURE NO. 51
Std. Inlet Type N-12
70' of 15" Pipe Req'd.
STRUCTURE NO. 50
32' of 12" Pipe Req'd.
145' L.A. R/W - A.C.L. & F.F.T.F.
(Wheat)
(Pasture)
Const. Limits
LINE "C-PR"
P.O.T. 164+76.25
P.O.T. 172+08.94
P.O.T. 179+02.30
Brg. N89°45'36"E
PARCEL 24E
Temp. R/W for Building Removal
L.A. R/W & A.C.L.
+20,145
+20,178'
+25,145' End L.A. R/W A.C.L. & F.F.T.F.
+75,145' Begin L.A. R/W A.C.L. & F.F.T.F.
Class II Drive Req'd.
Dr. X-Over
RAY B. & CATHERINE M. TUDOR
Monument Type "C" Req'd @ Sta. 178+95.08
Sec. 3 T24N R8E Center Twp. Grant Co.
Sec. 10-T24N-R8E Center Twp. Grant Co.
SEC. LINE
S. R. 18
(Black Top)
Pole Barn
Conc. Slab (Feeding Area)
Livestock (Aut. Wtr.)
Barn (Frame)
Sheet Metal Bldg.
Corn Crib
Conc. Blk. Milk Rm.
Pr. Lane
Pr. Dr. (Cr. Stone)
LINE "C-PR" TO BE CONSTRUCTED
ALL R/W ON THIS SHEET TO BE AS SHOWN MEASURED FROM LINE "C-PR"
ACCESS ON THIS SHEET STA. 177+50 Rt.+Lt. Cl. II Dr.
LIMITED ACCESS PROVISIONS TO APPLY WHERE INDICATED
B.M. #17C Elev. 871.92 "Cut in R/W Mkr. 201' Rt. Sta. 165+38
B.M. No. 18C Elev. 861.12 Bt. Spk. in Pw. P. # G.R. 4063 201' Rt. STA 172+10
+00 El. 870.50
VC = 600'
160 Lin Ft of P.S.D. Type "B" Req'd on Rt.
185 Lin. Ft. of P.S.D. Type "D" Req'd. on Lt.
Prof. of Pavt. in Place
+0.40%
+0.720%
-0.56%
+0.60%
+0.84%
-3.20%
Grade of P.S. Ditch Lt.
Grade of P.S.D. on Rt.
Grade of Spl. Ditch on Lt.
Grade of Spl. Ditch Lt.
Grade of P.S.D. on Lt.
Grade of P.S. Ditch on Rt.
P.S.D. Rt. See Following Sheet
+00 El. 864.49
+35 El. 865.00
+50 El. 858.49
+50 El. 854.82
+35 F.L. 853.0 (Out 42" Pipe)
+60 F.L. 856.74 (Inl. 42" Pipe)
El. 857.48
+50 El. 865.5
+18 El. 869.93
+75 Lt. El. 860.63
BALANCE NO. 4
CUT = 47,734 Cys.
FILL +20% = 70,926
Borrow = 11,951
Fill to be obtained from Bal. No. 7 = 11,241
85 Lin. Ft. of P.S.D. Type "B" Req'd. on Lt.
75 Lin. Ft. of P.S.D. Type "B" Req'd. on Lt.
870
860
850
164 165 6 7 8 9 170 1 2 3 4 175 6 7 8 9 180
F239(10) "C" 16 166

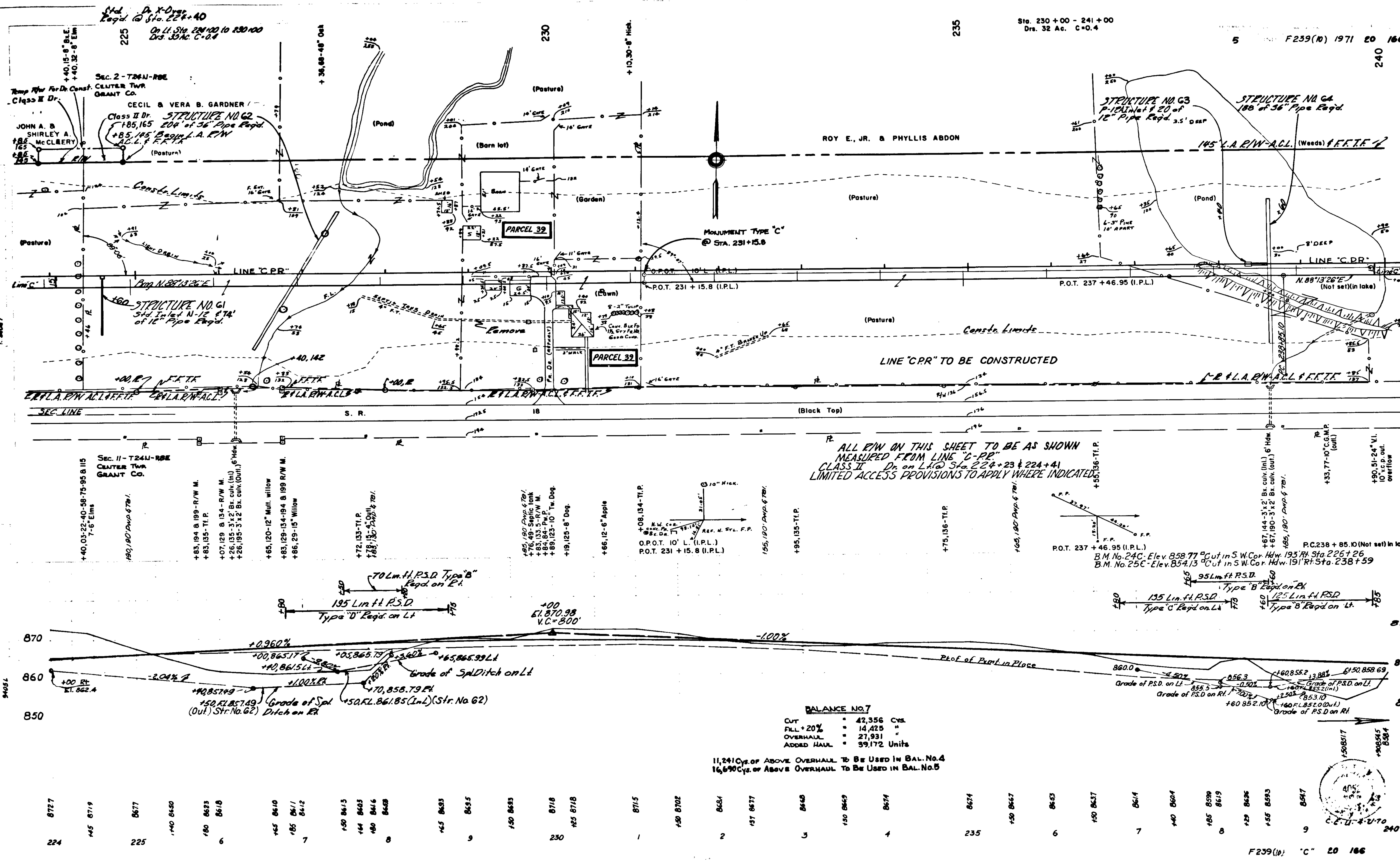


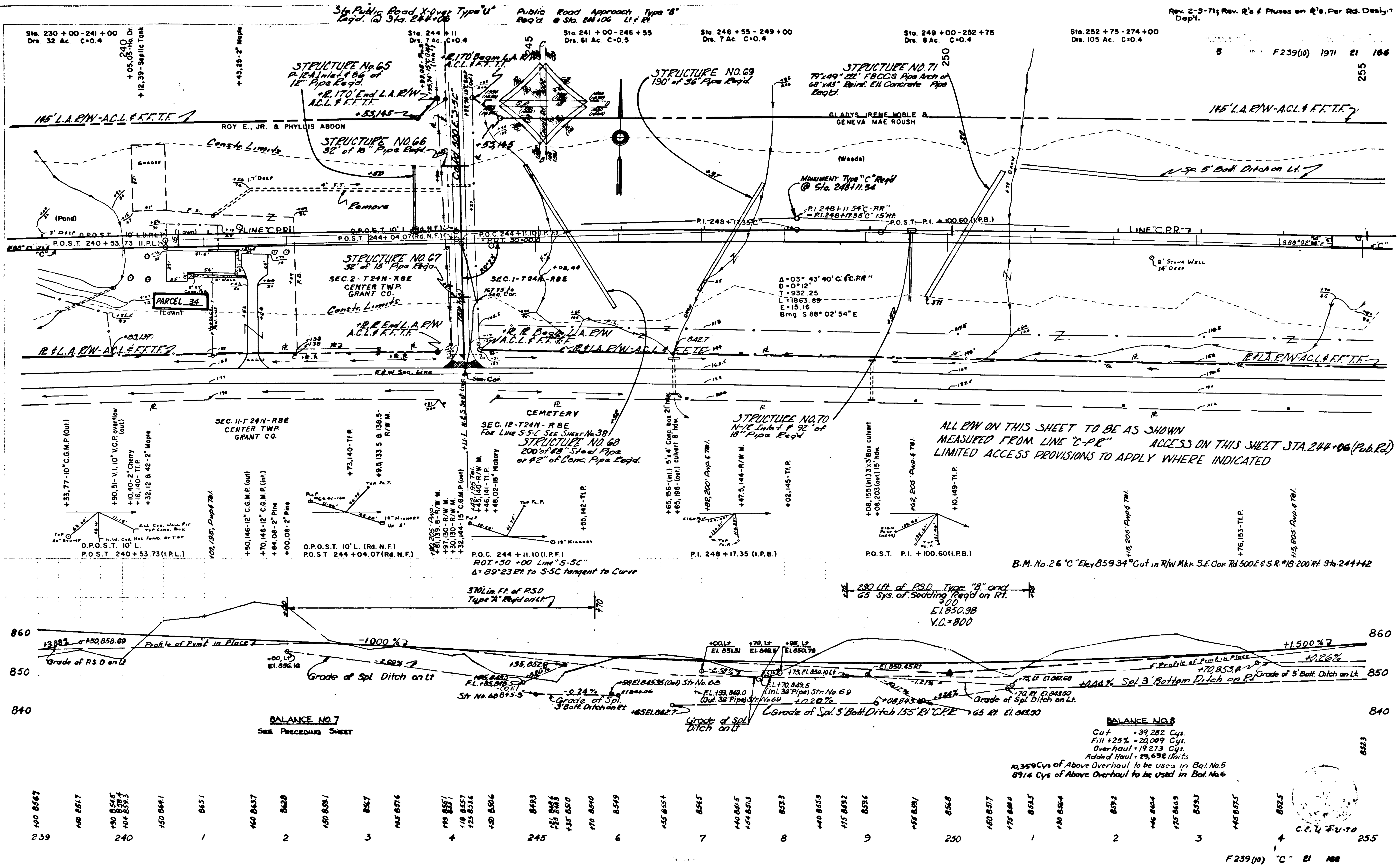
Std. Public Road X-Over Type "U" Reqd. @ Sta. 192+20
Rev 2-5-71; Rev. Pluses on Rt's, Per Road Design Dept.
Public Road Approach Type "B" Reqd. @ Sta. 192+20 Lt.&Rt.
On Lt. Sta. 178+00 to 181+00 Drs. 38 AC C-0.5
F 239(10) 1971 17 166
RAY B. & CATHERINE M. TUDOR
BERL E. BUIS
(Woods)
(Alfalfa)
(Grass)
(Lawn)
145' L.A. R/W-A.C.L. & F.F.T.F.
Constr. Limits
STRUCTURE NO. 52
266' of 42" Steel Pipe or 36" Conc. Pipe Reqd.
STRUCTURE NO. 53
Inlet Type "N-12" & 20' of 15" Pipe Reqd.
PARCEL 36
LINE "C-PR"
P.O.T. 179+02.3 (I.P.L.)
P.O.T. 183+11.54 (I.P.B.)
P.C. 186+45.50 (I.P.B.)
P.O.S.T. 190+61.89 (I.P.L.)
P.I. 192+14.36 "C-PR"
P.O.C. 192+20.54 = P.O.T. 50+00 "S-4C"
P.I. 192+20.53
Monument Type "C" Reqd. @ Sta. 192+14.46
Curve Data
Δ = 01°-32' Lt. "C & C-PR"
D = 0°-5'
E = 3.84
T = 575.03
L = 1150.00
Brng. = N88°-13'-26"E
Type "B" Rd. Approach Reqd.
Type "B" Rd. Approach Reqd. For Line "S4C" See Sheet No. 37
+30,140 End L.A. R/W A.C.L. & F.F.T.F.
+45,140 Begin L.A. R/W A.C.L. & F.F.T.F.
+R/W,170 End L.A. R/W A.C.L. & F.F.T.F.
+70,145 Begin L.A. R/W A.C.L. & F.F.T.F.
Sect. 3 T24N-R8E Center Twp. Grant Co.
Sect. 2 T24N-R8E Center Twp. Grant Co.
Sect. 10
Sect. 11
S.R. #18
S.R. 18
LINE "C-PR" TO BE CONSTRUCTED
ALL R/W ON THIS SHEET TO BE AS SHOWN - MEASURED FROM LINE "C-PR"
ACCESS ON THIS SHEET STA. 192+15 Rt. & Lt.
PUBLIC ROAD TYPE "B"
LIMITED ACCESS PROVISIONS TO APPLY WHERE INDICATED
B.M. No. 19 "C" Elev. 857.62 "Cut in S.W. Cor. Conc. Hdw. 18.7' Rt. Sta. 181+68
B.M. No. 20 "C" Elev. 880.82 "Cut in Conc. R/W Mkr. S.W. Cor. Rd. 400E 19.1' Rt. Sta. 191+54
535 Lin. Ft. Paved Side Ditch Type "G" Reqd. on Lt.
300 Lin. Ft. P.S.D. Type "A" Reqd. on Rt.
+0.72%
-2.494%
+50 El. 882.38 V.C. = 800
Grade P.S.D. on Lt.
Grade of P.S. Ditch on Rt.
Grade of P.S. Ditch on Lt.
Grade of Spl. Ditch on Rt.
Grade of Special Ditch on Rt.
Grade of Spl. Ditch on Lt.
Profile of Pvt. in Place
+65 FL. 856.0 (Str. No. 52)
+65 FL. 852.5 (Str. No. 52)
BALANCE NO. 5
Cut = 29,736 Cys.
Fill + 20% = 56,785 Cys.
16,690 Cys. of Above Fill to be obtained from Bal. No. 7
10,359 Cys. of Above Fill to be obtained from Bal. No. 8
890
880
870
860
850
179
180
185
190
195
F 239(10) "C" 17 166



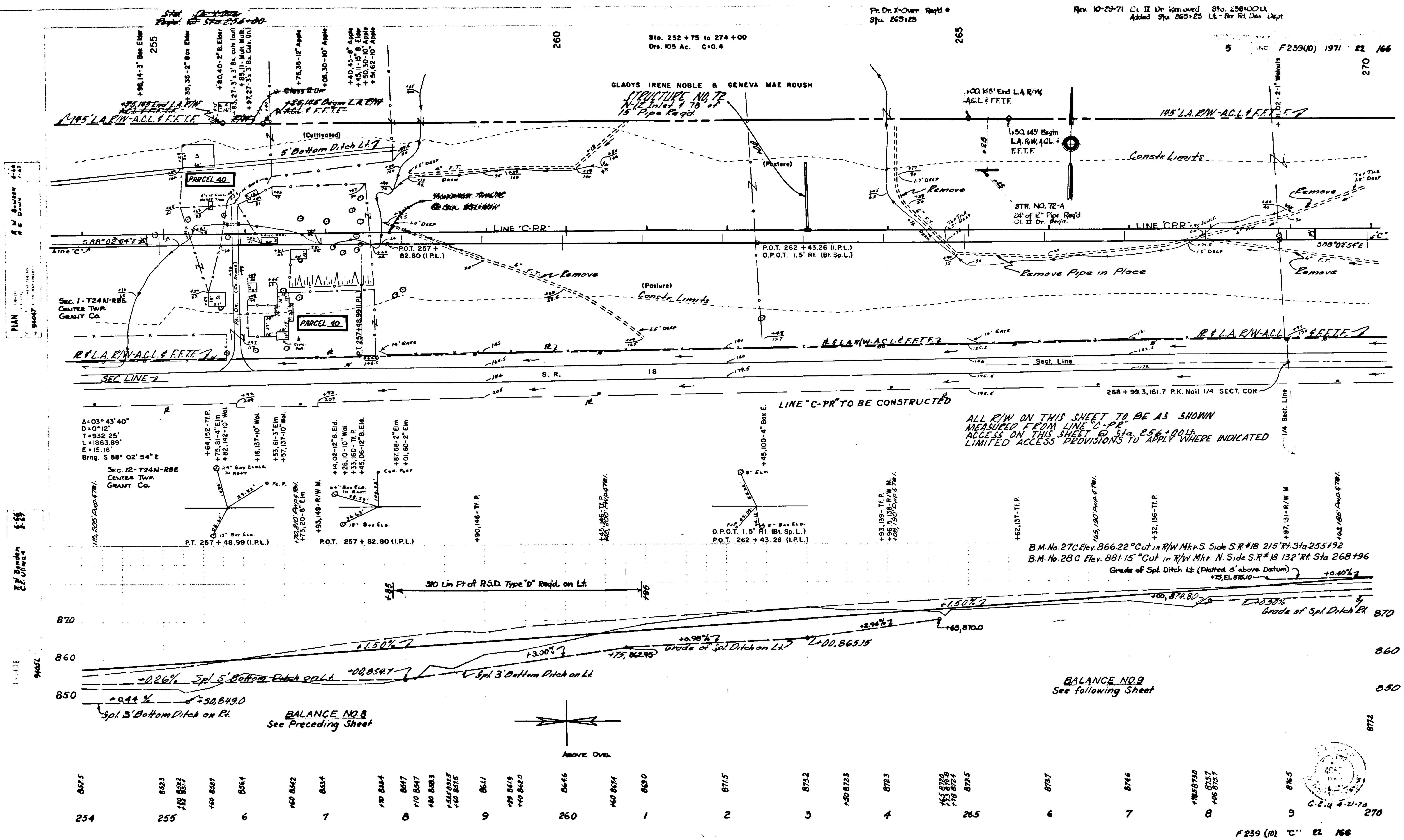
Rev. 2-3-71 ; Rev. L.A. R/W Notation-Per Rd. Design Dep't.
On Lt. Sta 208+00 to 224+00
Drs. 286 Ac. C=0.3
5 IND F239(10) 1971 18 166
195
200
205
210
Sta. 192+20-202+00 Drs. 105 Ac. C=0.5
Sta. 202+00-208+00 Drs. 15 Ac. C=0.5
STRUCTURE NO. 54
288' of 60" Steel Pipe or 54" Conc. Pipe Req'd.
BERL E. BUIS
STRUCTURE NO. 56
256' of 36" Pipe Req'd.
STRUCTURE NO. 57
340' of 6" Pipe Req'd.
145' L.A.R/W-ACL & F.F.T.F.
Constr. Limits
(Wheat)
(Pasture)
STRUCTURE NO. 58
Inlet Type N-12 and 74' of 15" Pipe Req'd.
STRUCTURE NO. 55
P-12 Inlet +20' of 12" Pipe Req'd.
SEC 2-T 24N R8E
CENTER TWP
GRANT CO.
Light Draw
(Woods)
(Weeds)
LINE "C-PR"
N88°15'26"E
P.O.T. 207+61.0 (I.P.B.) N.R.A.
LINE "CPR" TO BE CONSTRUCTED
PLAN
S. R. 18
(Black top)
SEC. LINE
SEC 11 T24N R8E
CENTER TWP.
GRANT CO.
ALL R/W ON THIS SHEET TO BE AS SHOWN MEASURED FROM LINE "C-PR"
NO ACCESS ON THIS SHEET
LIMITED ACCESS PROVISIONS TO APPLY WHERE INDICATED
CURVE DATA
Δ = 0°32' Lt.
D = 0°08'
E = 3.84'
T = 575.03'
L = 1150.0'
P.I. 192+20.53 (I.P.F.)
P.T. 197+95.50 (I.P.B.)
185' Lin. ft. P.S.D
Type "D" Req'd on Lt.
164' Lin. ft. P.S.D.
Type "F" Req'd on Lt.
185 Lin. ft. P.S.D
Type "C" Req'd on Lt.
+00
El. 853.70
V.C. = 800
B.M. No 21 "C" Elev. 840.30 "O" Cut in N.W. Cor. N. Hdw. 129' Rt. Sta 200+10
-2.89%
Grade of Spl. Ditch on Lt.
-2.494%
+50, 861.5
-7.2%
+25 856.1
Prof. of Pavement in Place
Grade of P.S.D. on Lt.
840.35
-1.80%
+21 El. 838.17
+12 P.E. F.L. 839.0
+12 P.E. F.L. 835.0
Grade of Spl. Ditch on Lt.
+50, 854.94
+13.0%
+00 854.00 Lt.
-5.00%
+50 Lt. 846.50
-2.00%
+80 Outlet STRUCTURE NO. 55 F.L. 841.5
+50, 848.0
+20 Lt. 845.1
+30 F.L. 845.2 (Inlet 36" Pipe)
+0.50%
Grade of Spl. Ditch on Lt.
+50 El. 849.0
+0.24%
+40, 852.43
-0.24%
Grade of Spl. Ditch on Lt. & Rt.
870
860
850
840
830
BALANCE NO. 6
Cut = 44,207 Cys.
Fill + 20% = 65,071 "
Fill to be obtained from Bal. No. 8 - 8914 Cys
Fill to be obtained from Bal. No. 9 = 6569 "
Fill to be obtained from Bal. No. 11 = 5381 "
194
195
6
7
8
9
200
1
2
3
4
205
6
7
8
9
210
F239 (10) "C" 18 166


Rev. 2-3-71; Rev. Pluses on R's - Per Rd. Design Dep't.
Std. Dr. X-Over Req'd @ Sta. 224+40
IND F239(10) 1971 19 166
Sta. 208+00 to 224+00
Drs. 246-C-0.5
210
215
220
225
STRUCTURE NO. 59
260' of 78" Steel Pipe, 72" Conc. Pipe or 84" Struct. Plate Steel Pipe Req'd.
BERL E. BUIS
JOHN A. & SHIRLEY A. McCLEERY
CECIL & VERA B. GARDNER
145' L.A. R/W-A.C.L. & F.F.T.F.
145' L.A. R/W-A.C.L.
Constr. Limits
Sec. 2-T24N-R8E
Center Twp.
Grant Co.
(Pasture)
(Weeds)
LINE "CPR" TO BE CONSTRUCTED
LINE "C.P.R."
LINE "C"
P.O.T. 211+68.21 (I.P.L.)
Brng. N.88°13'26"E
P.O.T. 218+12.39 (I.P.L.)
O.P.O.T. 10' L. (I.P.L.)
P.O.T. 222+00 (I.P.L.)
Monument Type "C" @ Sta. 218+05.12
STRUCTURE NO. 60
P-12 Inlet & 20' of 15" Pipe Req'd.
STRUCTURE NO. 60 A
24' of 12" Pipe Req'd.
STRUCTURE NO. 60 B
18' of 12" Pipe Req'd.
STRUCTURE NO. 61
See Following Sheet
PARCEL 38
+10, Class II Drive Req'd.
Temp. R/W Req'd. for Drive Const.
+70 Class II Drive Req'd.
El. 835.38
El. 834.88
SEC LINE
S.R. 18
(Blk. Top)
Sec. 11-T24N-R8E
Center Twp.
Grant Co.
ALL R/W ON THIS SHEET TO BE AS SHOWN MEASURED FROM LINE "C-PR"
CLASS II Dr. on Lt. @ Sta. 224+23 & 224+41
LIMITED ACCESS PROVISION TO APPLY WHERE INDICATED
B - Begin L.A. R/W & A.C.L.
E - End L.A. R/W & A.C.L.
B.M. No. 22"C" El. 862.74 □ Cut in Conc. R/W Mkr. S. Side S.R. #18 190' Rt. Sta. 210+30
B.M. No. 23"C" Elev. 859.93 □ Cut in Conc. R/W Mkr. N. Side S.R. #18 131' Rt. Sta. 218+12
PLAN
PROFILE
210 Lin. Ft. P.S.D. Type "B" Req'd on Lt.
310 Lin. Ft. P.S.D. Type "B" Req'd on Rt.
118 Lin. Ft. P.S.D. Type "D" on Lt.
220 Lin. Ft. P.S.D. Type "A" Req'd. on Right
110 Lin. Ft. P.S.D. Type "C" on Lt.
185 Lin. Ft. P.S.D. Type "B" Req'd on Rt.
+00 El. 856.58 V.C. = 800'
+0.24%
+0.96%
-0.24% Lt. & Rt.
Profile of Pavt. in Place
Grade of Spl. Ditch on Rt.
Grade of P.S.D. on Lt.
+39, 835.51 Rt.
+39, 837.57 Lt.
Fl. Str. No. 59
BALANCE NO. 6
See Preceding Sheet
BALANCE NO. 7
See following Sheet
880
870
860
850
840
209
210
215
220
225
F239(10) C 19 166

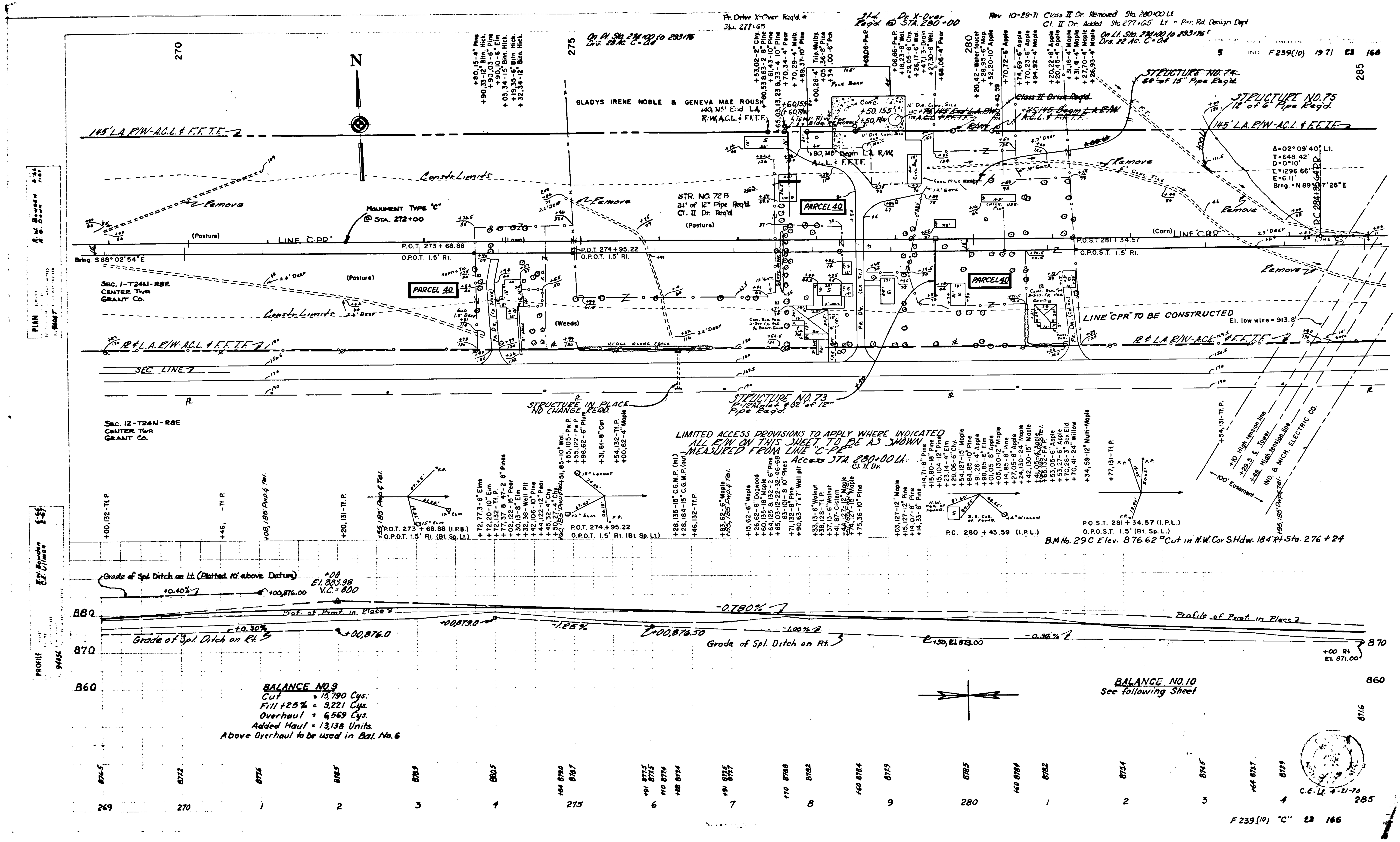

Std. Dr. X-Over Reqd. @ Sta. 224+40
On Lt. Sta. 224+00 to 230+00 Drs. 33 Ac. C=0.4
Sta. 230+00 - 241+00 Drs. 32 Ac. C=0.4
5 F239(10) 1971 20 166
225
230
235
240
+40,15-8" Bx.E. +40,32-8" Elm
+36,88-48" Oak
+10,30-8" Hick.
Sec. 2-T24N-R8E Center Twp. Grant Co.
Temp R/W For Dr. Const. Class II Dr.
JOHN A. & SHIRLEY A. McCLEERY
CECIL & VERA B. GARDNER
Class II Dr. +85,165
STRUCTURE NO. 62 204' of 36" Pipe Reqd.
+85,145' Begin L.A. R/W A.C.L. & F.F.T.F.
(Pasture)
(Pond)
(Barn lot)
(Garden)
(Lawn)
ROY E., JR. & PHYLLIS ABDON
STRUCTURE NO. 63 P-12A Inlet & 20 of 12" Pipe Reqd. 3.5' DEEP
STRUCTURE NO. 64 188' of 36" Pipe Reqd.
145' L.A. R/W-A.C.L. (Weeds) & F.F.T.F.
6-3" Pine 10' APART
8' DEEP
Constr. Limits
Light Drain
PARCEL 39
Monument Type "C" @ Sta. 231+15.8
LINE "C.P.R."
Line "C"
Brg. N.88°13'26"E
O.P.O.T. 10' L. (I.P.L.)
P.O.T. 231+15.8 (I.P.L.)
P.O.T. 237+46.95 (I.P.L.)
N.88°13'26"E (Not set)(in lake)
STRUCTURE NO. 61 Std. Inlet N-12 & 74' of 12" Pipe Reqd.
Septic Tank Drain 4" F.T.
Remove
8-2" Tulip
Conc. Blk. Fd. 1½ Sty Fr. Hs. Good Cond.
Pr. Dr. (Asphalt)
3' Walk
4" F.T. Broken Up
+40,142
LINE "C.P.R." TO BE CONSTRUCTED
P.C. 238+85.10
R & L.A. R/W A.C.L. & F.F.T.F.
SEC. LINE
S. R. 18
(Black Top)
PLAN
R.W. Bowden 6-66
R.G. Dewn 12-66
Sec. 11-T24N-R8E Center Twp. Grant Co.
ALL R/W ON THIS SHEET TO BE AS SHOWN MEASURED FROM LINE "C-P.R."
CLASS II Dr. on Lt. @ Sta. 224+23 & 224+41
LIMITED ACCESS PROVISIONS TO APPLY WHERE INDICATED.
+40,03-22-40-58-75-95 & 115 7-6" Elms
190,190' Pwp. & Tel.
+83,194 & 199-R/W M.
+83,135-Tf.P.
+07,129 & 134-R/W M.
+26,135-3'x2' Bx. culv. (Inl.) 6' Hdw.
+26,195-3'x2' Bx. culv. (Outl.)
+65,120-12" Mult. willow
+83,129-134-194 & 199 R/W M.
+86,29-15" Willow
+72,133-Tf.P.
+78,15-4" Outl.
+83,130' Pwp. & Tel.
+85,190' Pwp. & Tel.
+76,49-Septic tank
+83,133.5-R/W M.
+84,84-Pw.P.
+89,123-10" Tw. Dog.
+19,125-8" Dog.
+66,12-6" Apple
+08,134-Tf.P.
10" Hick.
N.W. Cor. Conc. Pr. Bx. Dr.
Ref. N. Stl. F.P.
O.P.O.T. 10' L. (I.P.L.)
P.O.T. 231+15.8 (I.P.L.)
155,190' Pwp. & Tel.
+95,135-Tf.P.
+75,136-Tf.P.
+65,190' Pwp. & Tel.
+55,136-Tf.P.
P.O.T. 237+46.95 (I.P.L.)
+67,144-3'x2' Bx. culv. (Inl.) 6' Hdw.
+67,190-3'x2' Bx. culv. (out.)
+85,190' Pwp. & Tel.
+33,77-10" C.G.M.P. (outl.)
+90,51-24" V.I. 10" v.c.p. out. overflow
P.C. 238+85.10 (Not set) in lake
B.M. No. 24C - Elev. 858.77 □Cut in S.W. Cor. Hdw. 193' Rt. Sta. 226+26
B.M. No. 25C - Elev. 854.13 □Cut in S.W. Cor. Hdw. 191' Rt. Sta. 238+59
R.W. Bowden
C.E. Ullman
70 Lin. ft. P.S.D. Type "B" Reqd. on Rt.
195 Lin. ft. P.S.D. Type "D" Reqd. on Lt.
95 Lin. ft. P.S.D. Type "B" Reqd. on Rt.
135 Lin. ft. P.S.D. Type "C" Reqd. on Lt.
125 Lin. ft. P.S.D. Type "B" Reqd. on Lt.
+00 El. 870.98 V.C.=800'
+0.960%
-1.00%
-2.04%
+00 Rt. El. 862.4
+00,865.17
+40,861.5 Lt.
+40,857.49
+50 F.L. 857.49 (Out.) Str. No. 62
Grade of Spl. Ditch on Rt.
+1.00% Rt.
+05,865.79
+3.60%
+65,865.99 Lt.
Grade of Spl. Ditch on Lt.
+70,858.79 Rt.
+50 F.L. 861.85 (In.L.)(Str. No. 62)
Prof. of Pvmt. in Place
860.0
Grade of P.S.D. on Lt.
855.5
Grade of P.S.D. on Rt.
856.3
-0.50%
+60 855.2
+3.88%
+50 858.69
Grade of P.S.D. on Lt.
+60 F.L. 855.2 (Inl.)
+2.50%
853.10
+60 852.10
+60 F.L. 852.0 (Out.)
Grade of P.S.D. on Rt.
+50 851.7
+90 854.5 858.4
870
860
850
PROFILE
BALANCE NO. 7
CUT = 42,356 CYS.
FILL + 20% = 14,425 "
OVERHAUL = 27,931 "
ADDED HAUL = 39,172 Units
11,241 Cys. of Above Overhaul To Be Used In Bal. No. 4
16,690 Cys. of Above Overhaul To Be Used In Bal. No. 5
872.7 | +45 871.9 | 867.7 | +40 865.0 | +80 862.5 | 861.8 | +65 861.0 | +85 861.1 861.2 | +50 861.3 | +64 860.5 | +80 861.6 | 864.8 | +65 869.3 | 869.5 | +50 869.3 | 871.8 | +25 871.8 | 871.5 | +50 870.2 | 868.4 | +37 867.7 | 866.8 | +50 866.9 | 867.4 | 867.4 | +50 866.7 | 865.3 | +50 863.7 | 861.4 | +40 860.4 | +85 859.9 861.9 | +29 862.6 | +55 859.3 | 854.7
224 225 6 7 8 9 230 1 2 3 4 235 6 7 8 9 240
C.E.U. 4-U-70
F239(10) "C" 20 166



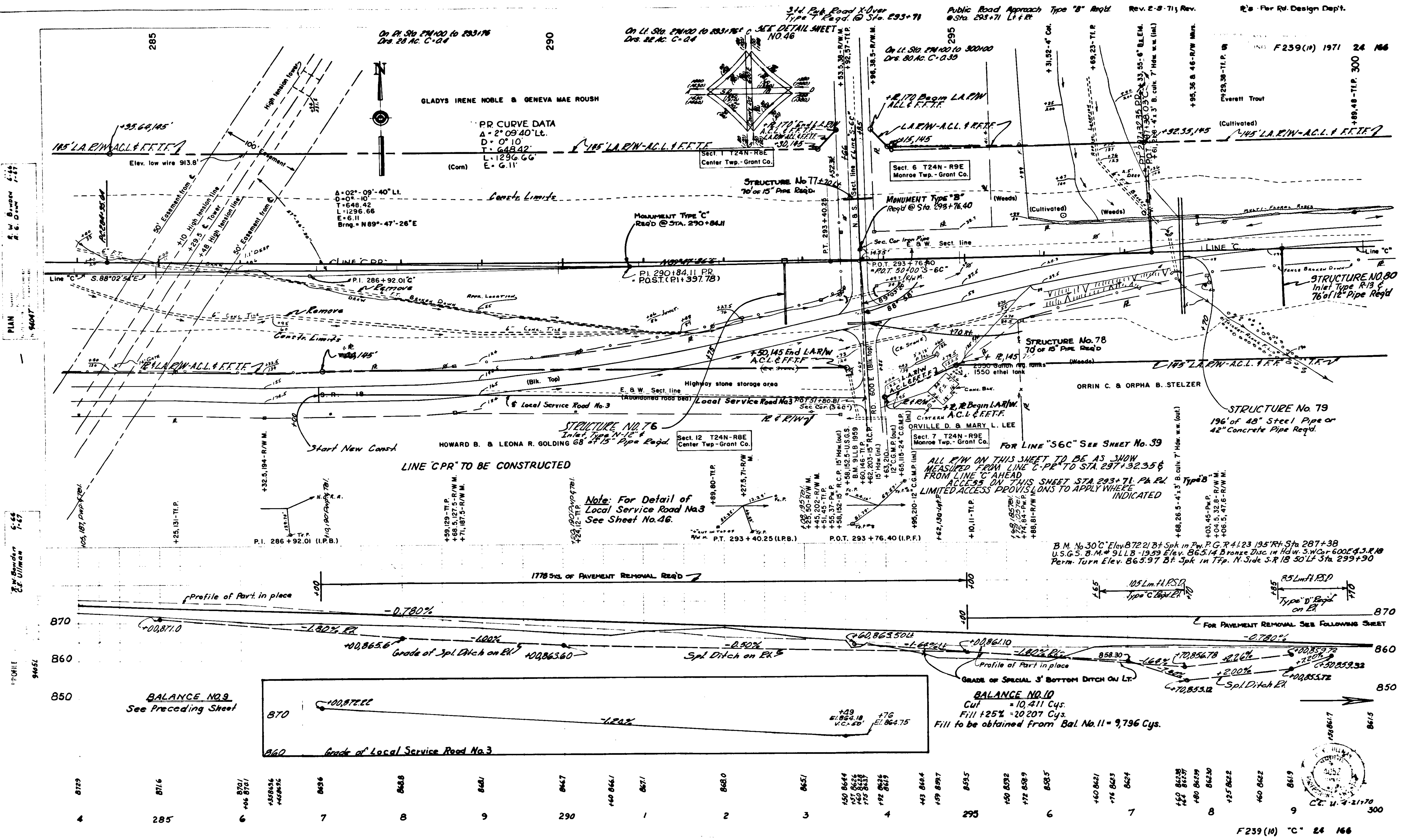
Sta. Public Road X-Over Type "U" Reqd. @ Sta. 244+06
Public Road Approach Type "B" Req'd. @ Sta. 244+06 Lt. & Rt.
Rev. 2-3-71; Rev. R's & Pluses on R's, Per Rd. Design Dep't.
Sta. 230+00-241+00 Drs. 32 Ac. C=0.4
Sta. 244+11 Drs. 7 Ac. C=0.4
Sta. 241+00-246+55 Drs. 61 Ac. C=0.5
Sta. 246+55-249+00 Drs. 7 Ac. C=0.4
Sta. 249+00-252+75 Drs. 8 Ac. C=0.4
Sta. 252+75-274+00 Drs. 105 Ac. C=0.4
F239(10) 1971 21 166
STRUCTURE No. 65
STRUCTURE NO. 66 32' of 18" Pipe Reqd.
STRUCTURE NO. 67 32' of 15" Pipe Reqd.
STRUCTURE NO. 68 200' of 48" Steel Pipe or 42" of Conc. Pipe Reqd.
STRUCTURE NO. 69 190' of 36" Pipe Reqd.
STRUCTURE NO. 70 N-12 Inlet & 92' of 18" Pipe Reqd.
STRUCTURE NO. 71 79"x49" Ell. FBCCS Pipe Arch or 68"x43" Reinf. Ell. Concrete Pipe Reqd.
145' L.A. R/W-A.C.L. & F.F.T.F.
ROY E., JR. & PHYLLIS ABDON
GLADYS IRENE NOBLE & GENEVA MAE ROUSH
Constr. Limits
Remove
Sp. 5' Bott. Ditch on Lt.
MONUMENT Type "C" Reqd @ Sta. 248+11.54
LINE "C-PR"
P.O.S.T. 240+53.73 (I.P.L.)
P.O.S.T. 244+04.07 (Rd. N.F.)
P.O.C. 244+11.10 (I.P.F.)
P.I. 248+17.35 "C"
P.O.S.T.-P.I. +100.60 (I.P.B.)
Δ=03° 43' 40" C. "C-PR"
D=0°12'
T=932.25
L=1863.89
E=15.16
Brng. S 88° 02' 54" E
PARCEL 34
SEC. 2-T24N-R8E CENTER TWP. GRANT CO.
SEC. 1-T24N-R8E
SEC. 11-T24N-R8E CENTER TWP. GRANT CO.
SEC. 12-T24N-R8E For Line S-5-C See Sheet No. 38
CEMETERY
ALL R/W ON THIS SHEET TO BE AS SHOWN MEASURED FROM LINE "C-PR"
ACCESS ON THIS SHEET STA. 244+06 (Pub. Rd.)
LIMITED ACCESS PROVISIONS TO APPLY WHERE INDICATED
B.M. No. 26 "C" Elev. 859.34 "Cut in R/W Mkr. S.E. Cor. Rd. 500E & S.R. #18 200' Rt. Sta. 244+42
370 Lin. Ft. of P.S.D. Type "A" Req'd on Lt.
230 Lft. of P.S.D. Type "B" and 65 Sys. of Sodding Req'd on Rt.
El. 850.98
V.C.=800
-1.000%
+1.500%
+0.26%
Profile of Pvmt. in Place
Grade of R.S.D. on Lt.
Grade of Spl. Ditch on Lt.
Grade of Spl. 3' Bott. Ditch on Rt.
Grade of Spl. 5' Bott. Ditch 155' Rt. C.P.R.
Spl. 3' Bottom Ditch on Rt.
Grade of 5' Bott. Ditch on Lt.
BALANCE NO. 7 See Preceding Sheet
BALANCE NO. 8
Cut = 39,282 Cys.
Fill +25% = 20,009 Cys.
Overhaul = 19,273 Cys.
Added Haul = 29,632 Units
10,359 Cys of Above Overhaul to be used in Bal. No. 5
8914 Cys of Above Overhaul to be used in Bal. No. 6
239 240 1 2 3 4 245 6 7 8 9 250 1 2 3 4 255
860 850 840
F239(10) "C" 21 166



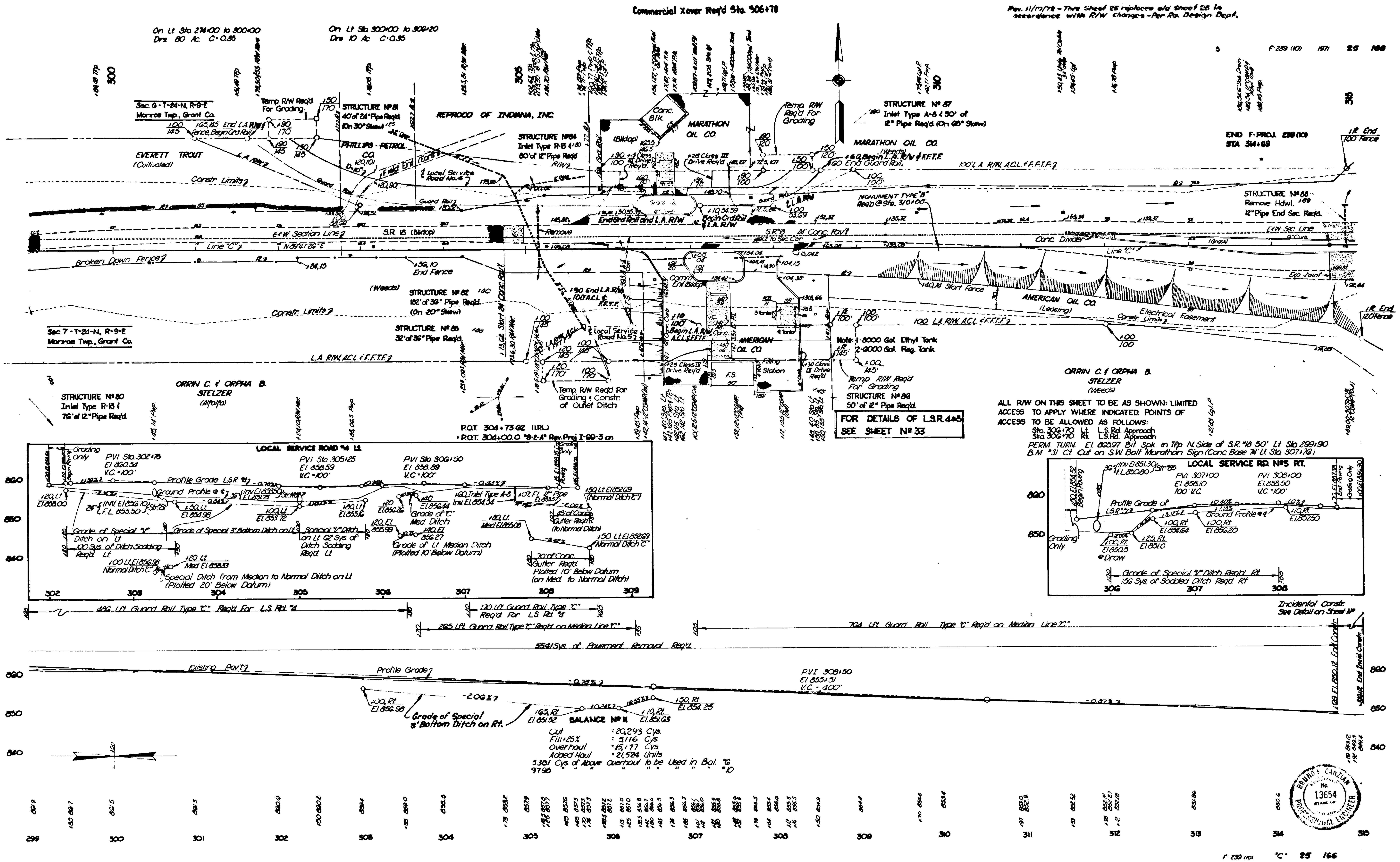
Sta. 252+75 to 274+00
Drs. 105 Ac. C=0.4
F239(10) 1971 22 166
GLADYS IRENE NOBLE & GENEVA MAE ROUSH
STRUCTURE NO. 72
N-12 Inlet & 78' of 15" Pipe Req'd.
Pr. Dr. X-Over Req'd @ Sta. 265+25
Rev. 10-29-71 Cl. II Dr. Removed Sta. 258+00 Lt. Added Sta. 265+25 Lt. - Per Rd. Des. Dept.
145' L.A. R/W-A.C.L. & F.F.T.F.
5' Bottom Ditch Lt.
(Cultivated)
(Pasture)
PARCEL 40
Constr. Limits
LINE "C-PR"
STR. NO. 72-A
24' of 12" Pipe Req'd
Cl. II Dr. Req'd.
P.O.T. 257 + 82.80 (I.P.L.)
P.O.T. 262 + 43.26 (I.P.L.)
O.P.O.T. 1.5' Rt. (Bt. Sp. L.)
Remove
Remove Pipe in Place
S 88° 02' 54" E
Sec. 1-T24N-R8E Center Twp. Grant Co.
Sec. 12-T24N-R8E Center Twp. Grant Co.
Sect. Line
S. R. 18
SEC LINE
268 + 99.3, 161.7 P.K. Nail 1/4 SECT. COR.
LINE "C-PR" TO BE CONSTRUCTED
ALL R/W ON THIS SHEET TO BE AS SHOWN MEASURED FROM LINE "C-PR"
ACCESS ON THIS SHEET @ Sta. 256+00 Lt.
LIMITED ACCESS PROVISIONS TO APPLY WHERE INDICATED
Δ=03° 43' 40"
D=0° 12'
T=932.25'
L=1863.89'
E=15.16'
Brng. S 88° 02' 54" E
P.T. 257 + 48.99 (I.P.L.)
P.O.T. 257 + 82.80 (I.P.L.)
O.P.O.T. 1.5' Rt. (Bt. Sp. L.)
P.O.T. 262 + 43.26 (I.P.L.)
B.M. No. 27C Elev. 866.22 "Cut in R/W Mkr. S. Side S.R. #18 215' Rt. Sta. 255+92
B.M. No. 28C Elev. 881.15 "Cut in R/W Mkr. N. Side S.R. #18 132' Rt. Sta. 268+96
Grade of Spl. Ditch Lt. (Plotted 5' above Datum)
310 Lin Ft of P.S.D. Type "D" Req'd. on Lt.
+1.50%
+0.26% Spl. 5' Bottom Ditch on Lt.
Spl. 3' Bottom Ditch on Lt.
+3.00%
+0.98%
Grade of Spl. Ditch on Lt.
+2.94%
+0.30%
Grade of Spl. Ditch Rt.
+0.44%
Spl. 3' Bottom Ditch on Rt.
BALANCE NO. 8 See Preceding Sheet
BALANCE NO. 9 See following Sheet
Above Orig.
870
860
850
254 255 6 7 8 9 260 1 2 3 4 265 6 7 8 9 270
F239 (10) "C" 22 166



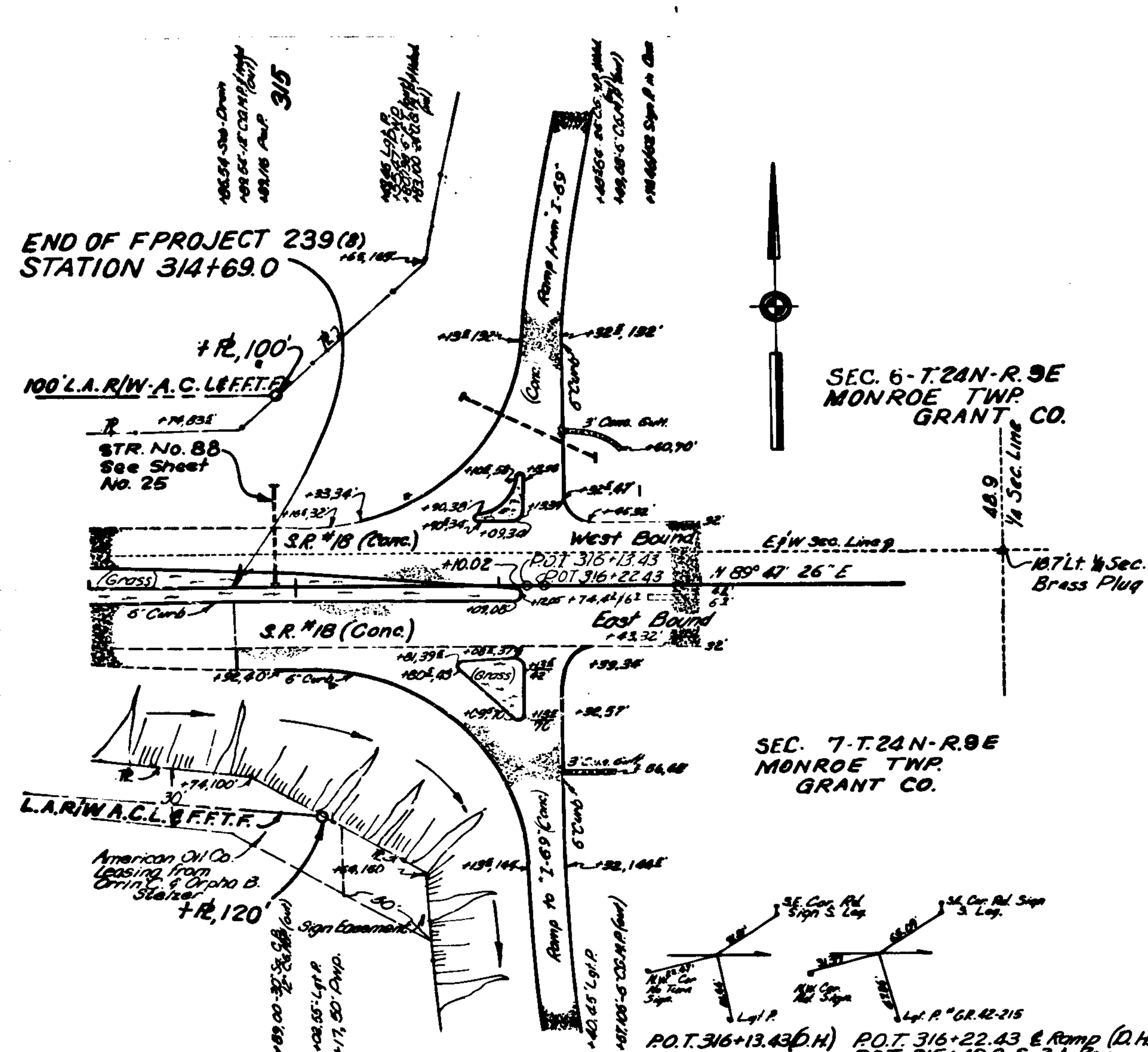
Rev 10-29-71 Class II Dr. Removed Sta. 280+00 Lt.
Cl. II Dr. Added Sta 277+65 Lt - Per. Rd. Design Dept.
Pr. Drive X-Over Req'd. @ Sta. 277+65
Std. Dr. X-Over Req'd. @ STA. 280+00
5 IND F239(10) 1971 23 166
270
275
280
285
N
GLADYS IRENE NOBLE & GENEVA MAE ROUSH
145' L.A. R/W-A.C.L. & F.F.T.F.
Constr. Limits
Remove
MONUMENT TYPE "C" @ STA. 272+00
LINE "C-PR"
(Pasture)
(Lawn)
(Weeds)
(Corn)
P.O.T. 273+68.88
O.P.O.T. 1.5' Rt.
P.O.T. 274+95.22
O.P.O.T. 1.5' Rt.
P.O.S.T. 281+34.57
O.P.O.S.T. 1.5' Rt.
Brng. S 88° 02' 54" E
Sec. 1-T24N-R8E
CENTER TWP.
GRANT Co.
Sec. 12-T24N-R8E
CENTER TWP.
GRANT Co.
PARCEL 40
STR. NO. 72 B
23' of 12" Pipe Req'd.
Cl. II Dr. Req'd.
STRUCTURE NO. 74
64' of 15" Pipe Req'd.
STRUCTURE NO. 75
12' of 6" Pipe Req'd.
STRUCTURE NO. 73
Pipe Req'd.
STRUCTURE IN PLACE NO CHANGE REQ'D.
Δ=02° 09' 40" Lt.
T=648.42'
D=0°10'
L=1296.86'
E=6.11'
Brng. = N 89° 47' 26" E
P.C. 280+43.59
LINE "CPR" TO BE CONSTRUCTED
El. low wire = 913.8'
R & L.A. R/W-A.C.L. & F.F.T.F.
SEC. LINE
HEDGE ALONG FENCE
LIMITED ACCESS PROVISIONS TO APPLY WHERE INDICATED
ALL R/W ON THIS SHEET TO BE AS SHOWN
-MEASURED FROM LINE "C-PR"
Access STA. 280+00 Lt.
Cl. II Dr.
High tension line
IND. & MICH. ELECTRIC CO.
100' Easement
P.O.T. 273+68.88 (I.P.B.)
O.P.O.T. 1.5' Rt. (Bt. Sp. Lt.)
P.O.T. 274+95.22
O.P.O.T. 1.5' Rt. (Bt. Sp. Lt.)
P.C. 280+43.59 (I.P.L.)
P.O.S.T. 281+34.57 (I.P.L.)
O.P.O.S.T. 1.5' (Bt. Sp. L.)
B.M. No. 29C Elev. 876.62 "□" Cut in N.W. Cor. S. Hdw. 184' Rt. Sta. 276+24
PLAN
PROFILE
880
870
860
Grade of Spl. Ditch on Lt. (Plotted 10' above Datum)
+0.40%
+00, 876.00
+00
El. 883.98
V.C. = 800
-0.780%
Prof. of Pvmt. in Place
Profile of Pvmt. in Place
+0.30%
Grade of Spl. Ditch on Rt.
+00, 876.0
+00, 879.0
-1.25%
+00, 876.50
-1.00%
+50, El. 873.00
-0.30%
+00 Rt. El. 871.00
BALANCE NO. 9
Cut = 15,790 Cys.
Fill +25% = 9,221 Cys.
Overhaul = 6,569 Cys.
Added Haul = 13,138 Units.
Above Overhaul to be used in Bal. No. 6
BALANCE NO. 10
See following Sheet
269
270
1
2
3
4
275
6
7
8
9
280
1
2
3
4
285
F239(10) "C" 23 166



Std. Pub. Road X-Over Type "I" Req'd. @ Sta. 293+71
Public Road Approach Type "B" Req'd. @ Sta. 293+71 Lt. & Rt.
Rev. 2-8-71
R's For Rd. Design Dep't.
F239(10) 1971 24 166
On Rt. Sta. 291+00 to 293+76 Drs. 28 Ac. C=0.4
On Lt. Sta. 291+00 to 293+76 Drs. 28 Ac. C=0.4
SEE DETAIL SHEET NO. 46
On Lt. Sta. 294+00 to 300+00 Drs. 80 Ac. C=0.35
GLADYS IRENE NOBLE & GENEVA MAE ROUSH
P.R. CURVE DATA
Δ = 2° 09' 40" Lt.
D = 0° 10'
T = 648.42
L = 1296.66
E = 6.11
Δ = 02° - 09' - 40" Lt.
D = 0° - 10'
T = 648.42
L = 1296.66
E = 6.11
Brng. = N 89° - 47' - 26" E
145' L.A. R/W - A.C.L. & F.F.T.F.
Elev. low wire 913.8'
High tension tower
100' Easement
50' Easement from ℄
+10 High tension line
+29.5 ℄ Tower
+48 High tension line
Sect. 1 T24N-R8E Center Twp. - Grant Co.
Sect. 6 T24N-R9E Monroe Twp. - Grant Co.
Sect. 12 T24N-R8E Center Twp - Grant Co.
Sect. 7 T24N-R9E Monroe Twp. - Grant Co.
STRUCTURE No. 77 +30 Lt. 70' of 15" Pipe Req'd.
MONUMENT TYPE "B" Req'd @ Sta. 293+76.40
MONUMENT TYPE "C" Req'd @ Sta. 290+84.11
Constr. Limits
LINE "CPR"
LINE "C"
Line "C" S. 88° 02' 54" E
P.I. 286+92.01 "C"
P.I. 290+84.11 P.R.
P.O.S.T. (P.I. + 397.78)
P.O.T. 293+76.40
P.O.T. 50+00 "S-6C"
Remove
STRUCTURE NO. 80 Inlet Type R-19 & 76' of 12" Pipe Req'd
STRUCTURE No. 78 70' of 15" Pipe Req'd
STRUCTURE No. 79 196' of 48" Steel Pipe or 42" Concrete Pipe Req'd.
STRUCTURE NO. 76 Inlet Type "N-12" & 68' of 15" Pipe Req'd.
+50,145 End L.A. R/W A.C.L. & F.F.T.F.
+R, 145 Begin L.A. R/W A.C.L. & F.F.T.F.
Highway stone storage area
E. & W. Sect. line
(Abandoned road bed)
Local Service Road No. 3
℄ Local Service Road No. 3
ORRIN C. & ORPHA B. STELZER
ORVILLE D. & MARY L. LEE
HOWARD B. & LEONA R. GOLDING
Everett Trout
(Cultivated)
(Weeds)
(Corn)
Start New Const.
LINE "CPR" TO BE CONSTRUCTED
Note: For Detail of Local Service Road No. 3 See Sheet No. 46.
FOR LINE "S6C" SEE SHEET No. 39
ALL R/W ON THIS SHEET TO BE AS SHOWN MEASURED FROM LINE "C-PR" TO STA. 297+32.35 ℄ FROM LINE "C" AHEAD
ACCESS ON THIS SHEET STA. 293+71 Pb. Rd. Type "B" LIMITED ACCESS PROVISIONS TO APPLY WHERE INDICATED
P.I. 286+92.01 (I.P.B.)
P.T. 293+40.25 (I.P.B.)
P.O.T. 293+76.40 (I.P.F.)
B.M. No. 30 "C" Elev. 872.21 Bt. Spk in Pw. P. G. R. 41.23 195' Rt. Sta. 287+38
U.S.G.S. B.M. # 9 L.L.B. - 1959 Elev. 865.14 Bronze Disc in Hdw. S.W. Cor. 600 E. & S.R. 18
Perm. Turn Elev. 865.97 Bt. Spk in Tfp. N. Side S.R. 18 50' Lt. Sta. 299+90
1778 Sys. OF PAVEMENT REMOVAL REQ'D
105 Lin. Ft. P.S.D. Type "C" Req'd. Rt.
85 Lin. Ft. P.S.D. Type "D" Req'd. on Rt.
℄ FOR PAVEMENT REMOVAL SEE FOLLOWING SHEET
Profile of Pavt. in place
-0.780%
-1.80% Rt.
-1.00%
-0.50%
Grade of Spl. Ditch on Rt.
Spl. Ditch on Rt.
GRADE OF SPECIAL 3' BOTTOM DITCH ON LT.
BALANCE NO. 9 See Preceding Sheet
BALANCE NO. 10
Cut = 10,411 Cys.
Fill +25% = 20,207 Cys.
Fill to be obtained from Bal. No. 11 = 9,796 Cys.
Grade of Local Service Road No. 3
-1.24%
870
860
850
PLAN
PROFILE
285
290
295
300
F239(10) "C" 24 166



Commercial Xover Req'd Sta. 306+70
Rev. 11/10/72 - This Sheet 25 replaces old Sheet 25 in accordance with R/W changes - Per Rd. Design Dept.
F-239 (10) 1971 25 166
On Lt. Sta 274+00 to 300+00 Drs. 80 Ac. C-0.35
On Lt. Sta 300+00 to 309+20 Drs. 10 Ac. C-0.35
Sec. 6-T-24-N, R-9-E Monroe Twp., Grant Co.
Temp R/W Req'd For Grading
STRUCTURE Nº 81 40' of 24" Pipe Req'd. (On 30° Skew)
REPROCO OF INDIANA, INC.
PHILLIPS PETROL. CO.
STRUCTURE Nº 84 Inlet Type R-13 & 80' of 12" Pipe Req'd
Conc. Blk
MARATHON OIL CO.
(Blktop)
Temp R/W Req'd For Grading
STRUCTURE Nº 87 Inlet Type A-8 & 30' of 12" Pipe Req'd. (On 65° Skew)
MARATHON OIL CO.
END F-PROJ. 239 (10) STA 314+69
EVERETT TROUT (Cultivated)
Constr. Limits
Local Service Road No. 4
Field Entr.
Guard Rail
End Grd Rail and L.A. R/W
Begin Grd Rail & L.A. R/W
MONUMENT TYPE "B" Req'd @ Sta. 310+00
100' L.A. R/W, A.C.L. & F.F.T.F.
STRUCTURE Nº 88 Remove Hdwl. 12" Pipe End Sec. Req'd.
E-W Section Line
S.R. 18 (Blktop)
S.R. 18 Conc. Pav't
Conc. Divider
E-W Sec. Line
Line "C"
Broken Down Fence
End Fence
Start Fence
AMERICAN OIL CO. (Leasing)
Electrical Easement
Exp. Joint
R End 120 Fence
(Weeds)
STRUCTURE Nº 82 162' of 30" Pipe Req'd. (On 20° Skew)
STRUCTURE Nº 85 32' of 36" Pipe Req'd.
End L.A. R/W 100' A.C.L. & F.F.T.F.
Local Service Road No. 5
Begin L.A. R/W A.C.L. & F.F.T.F.
AMERICAN OIL CO.
Note: 1-8000 Gal. Ethyl Tank 2-9000 Gal. Reg. Tank
Filling Station
F.S.
Sec. 7-T-24-N, R-9-E Monroe Twp., Grant Co.
L.A. R/W, A.C.L. & F.F.T.F.
Temp R/W Req'd For Grading & Constr. of Outlet Ditch
Temp R/W Req'd For Grading
STRUCTURE Nº 86 50' of 12" Pipe Req'd.
STRUCTURE Nº 80 Inlet Type R-13 & 76' of 12" Pipe Req'd.
ORRIN C. & ORPHA B. STELZER (Alfalfa)
ORRIN C. & ORPHA B. STELZER (Weeds)
P.O.T. 304+73.62 (I.P.L.)
= P.O.T. 304+00.0 "S-2-A" Rev. Proj. I-69-3 (-)
FOR DETAILS OF L.S.R. 4 & 5 SEE SHEET Nº 33
ALL R/W ON THIS SHEET TO BE AS SHOWN: LIMITED ACCESS TO APPLY WHERE INDICATED. POINTS OF ACCESS TO BE ALLOWED AS FOLLOWS:
Sta. 306+70 Lt. L.S. Rd. Approach
Sta. 306+70 Rt. L.S. Rd. Approach
PERM. TURN. El. 862.97 Bit. Spk. in Tfp. N. Side of S.R. "18 50' Lt. Sta. 299+90
B.M. "31 Ct. Cut on S.W. Bolt Marathon Sign (Conc Base) 74' Lt. Sta. 307+76
LOCAL SERVICE ROAD "4 Lt.
PVI Sta. 302+75 El. 860.54 V.C. = 100'
PVI Sta. 305+25 El. 858.59 V.C. = 100'
PVI Sta. 306+50 El. 858.89 V.C. = 100'
Profile Grade LSR "4
Ground Profile
Grade of Special "V" Ditch on Lt.
100 Sys. of Ditch Sodding Req'd Lt.
Grade of Special 3' Bottom Ditch on Lt.
Special "V" Ditch on Lt. 62 Sys. of Ditch Sodding Req'd Lt.
Grade of "C" Med. Ditch
Grade of Lt. Median Ditch (Plotted 10' Below Datum)
Inlet Type A-8
Normal Ditch "C"
Special Ditch from Median to Normal Ditch on Lt. (Plotted 20' Below Datum)
70' of Conc. Gutter Req'd. Plotted 10' Below Datum (on Med. to Normal Ditch)
Grading Only
LOCAL SERVICE RD. Nº 5 RT.
PVI 307+00 El. 858.10 100' V.C.
PVI 308+00 El. 858.50 V.C. = 100'
Profile Grade of LSR "5
Ground Profile
Grade of Special "V" Ditch Req'd Rt. 156 Sys. of Sodded Ditch Req'd Rt.
486 Lft. Guard Rail Type "C" Req'd For L.S. Rd. "4
130 Lft. Guard Rail Type "C" Req'd For L.S. Rd. "4
265 Lft. Guard Rail Type "C" Req'd on Median Line "C"
764 Lft. Guard Rail Type "C" Req'd on Median Line "C"
Incidental Constr. See Detail on Sheet Nº
5541 Sys. of Pavement Removal Req'd
Existing Pav't
Profile Grade
PVI 308+50 El. 855.15 V.C. = 400'
-0.24%
-2.06%
-0.87%
Grade of Special 3' Bottom Ditch on Rt.
BALANCE Nº 11
Cut = 20,293 Cys.
Fill+25% = 5,116 Cys.
Overhaul = 15,177 Cys.
Added Haul = 21,524 Units
5381 Cys. of Above Overhaul to be Used in Bal. "6
9796 " " " " " " " "10
860
850
840
299 300 301 302 303 304 305 306 307 308 309 310 311 312 313 314 315
BRUNO CANZIAN No. 13654 STATE OF ... PROFESSIONAL ENGINEER
F-239 (10) "C" 25 166



EQUATION
P.O.T. 316+13.43 (D.H.)
P.O.T. 10+17.77 Ramp N.W.C. Proj I-60-3(7)39
= P.O.T. 315+40.0 S-2A Rev.
= P.O.T. 0+00.0 Ramp S.W.C.

ALL R/W ON THIS SHEET TO BE AS SHOWN MEASURED FROM LINE "C"

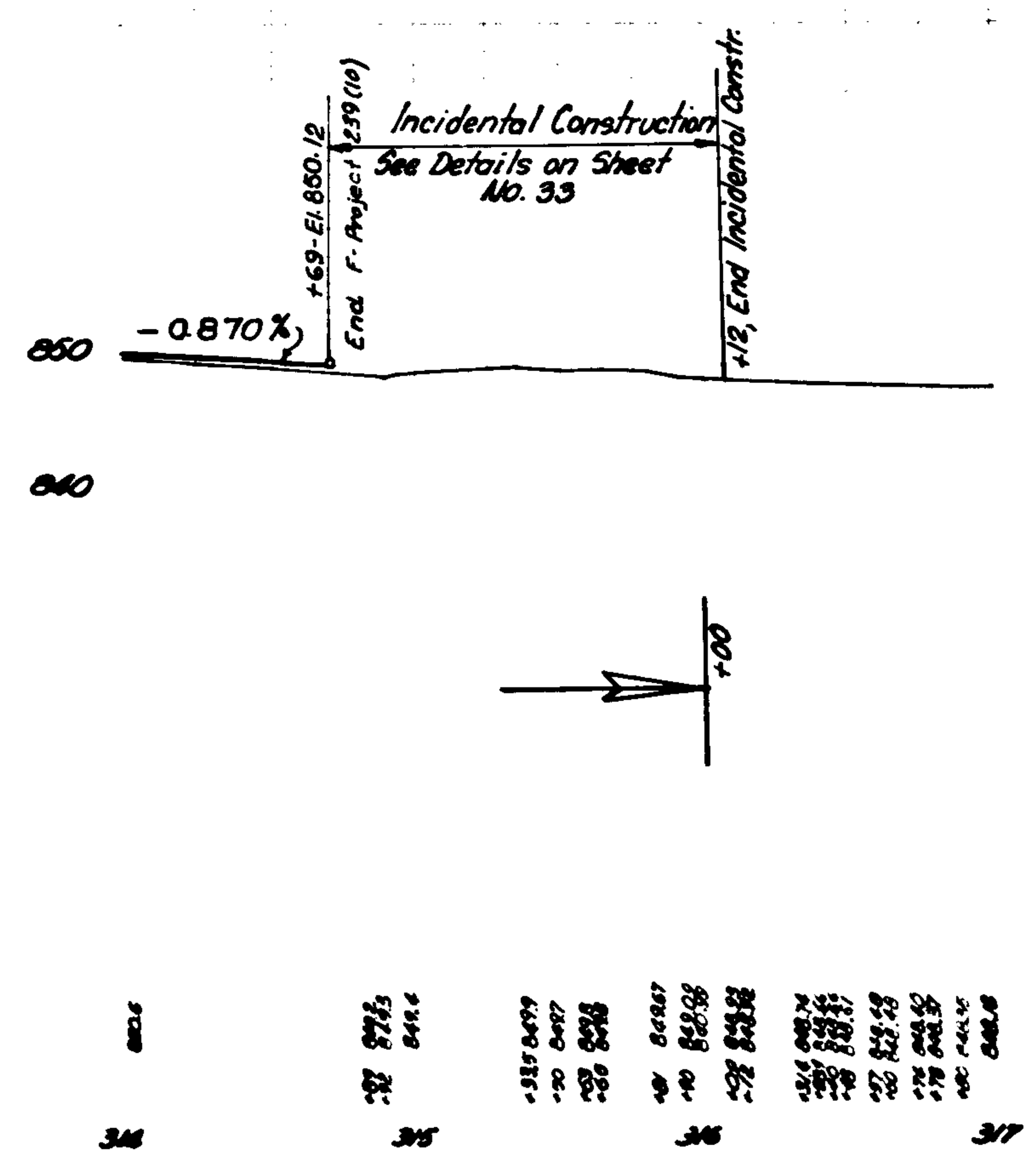
TRANSITION 60' to 16' MEDIAN

STATION	DISTANCE RT. AND LT. FROM P.R. TOE
284+35.82	30.0'
285+00	29.4'
286+00	28.5'
+35	28.2'
287+00	27.6'
288+00	26.7'
289+00	25.8'
290+00	24.9'
+60	24.4'
291+00	24.0'
292+00	23.1'
293+00	22.2'
+50	21.7'
+57	21.7'
+60	21.7'
+75	21.5'
+76.4	21.5'
+92	21.4'
294+00	21.3'
+43	20.9'
+59	20.8'
295+00	20.4'
+50	20.0'
+72	19.8'
296+00	19.5'
+60	19.0
+76	18.8
297+00	18.6
+60	18.1
+64	18.0'
+80	17.9'
298+00	17.7'
+25	17.5'
+60	17.2'
299+00	16.8'
+50	16.4'
300+00	15.9'
301+00	15.0'
302+00	14.1'
+50	13.7'
303+00	13.2'
+36	12.9'
+55	12.7'
304+00	12.3'
+73.6	11.6'
+88	11.5'
305+00	11.4'
+18	11.3'
+25	11.2'
+45	11.0'
+65	10.8'
+70	10.8'
+74	10.8'
98.5	10.5'
306+00	10.5'
+15	10.4'
+25	10.3'
+35.5	10.2'
+42	10.1'
+46	10.1'
+50	10.1'
+63	10.0'
+74	9.9'
+85	9.8'
307+00	9.6'
+01	9.6'
+12	9.5'
+22	9.4'
+30	9.3'
+48	9.2'
+52	9.1'
+73	9.0'
+84	8.9'
308+00	8.7'
+12	8.6'
+16	8.6'
+50	8.3'
+80.72	8.0'

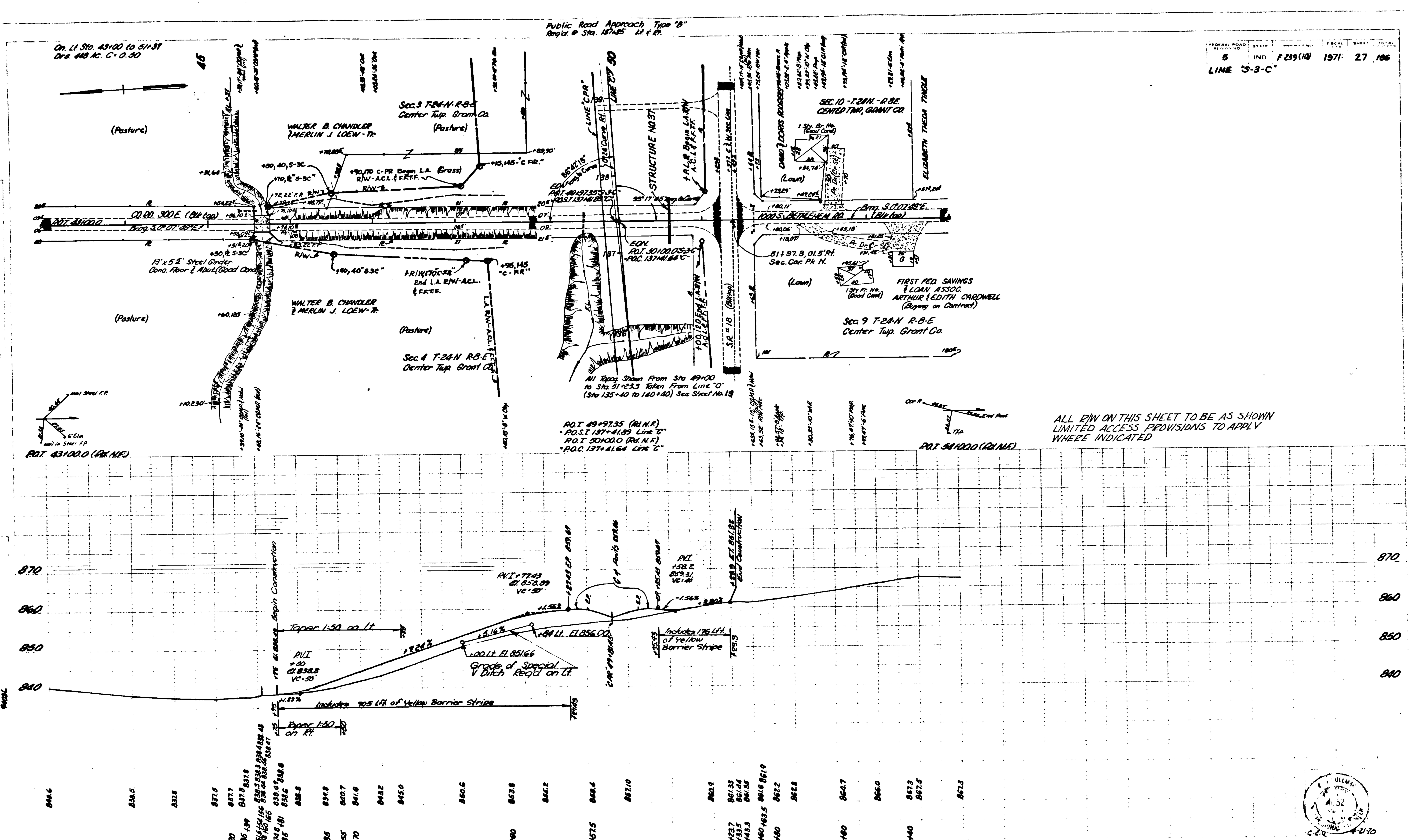
TRANSITION 20' TO 60' MEDIAN

STATION	DISTANCE RT. AND LT. FROM P.R. TO E.P.
P.C. 86+26.9	10.00
+50	10.31
+75	10.62
87+00	10.92
+25	11.23
+50	11.55
+75	11.86
88+00	12.17
+25	12.48
+50	12.80
+75	13.11
89+00	13.42
+25	13.73
+50	14.05
+75	14.36
90+00	14.67
+25	14.98
50	15.30
+75	15.61
91+00	15.92
+25	16.23
+50	16.55
+75	16.86
92+00	17.18
+25	17.49
+50	17.80
+75	18.12
93+00	18.43
+25	18.74
+50	19.06
+75	19.37
94+00	19.68
+25	19.99
+50	20.31
+75	20.62
95+00	20.93
+25	21.24
+50	21.56
+75	21.87
96+00	22.18
+25	22.49
+50	22.81
+75	23.12
97+00	23.44
+25	23.74
+50	24.06
+75	24.38
98+00	24.9
+25	25.00
+50	25.32
+75	25.63
99+00	25.94
+25	26.25
+50	26.57
+75	26.88
100+00	27.19
+25	27.50
+50	27.82
+75	28.13
101+00	28.44
+25	28.75
+50	29.07
+75	29.38
102+00	29.70
P.T. 102+24.33	30.00

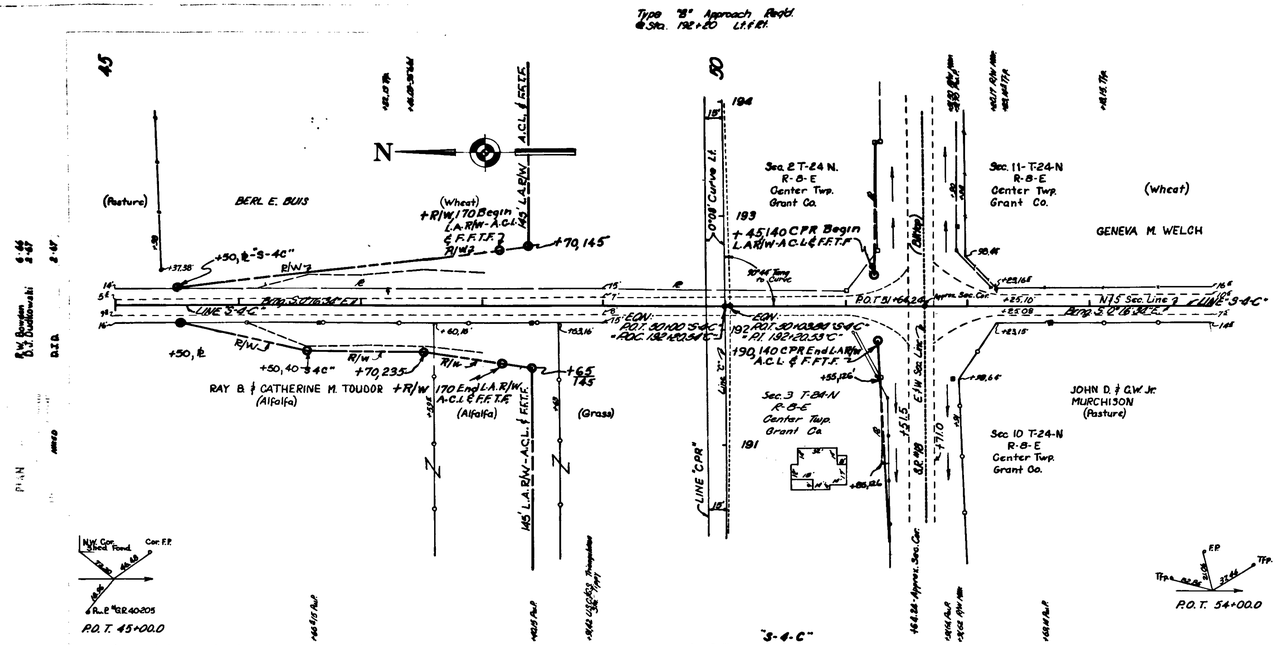
I.S.H.C. B.M. # F6 Elev. 864.59 - Bronze disc in wheel cb. S.W. Cor. I-69 overpass (S.B.L.)

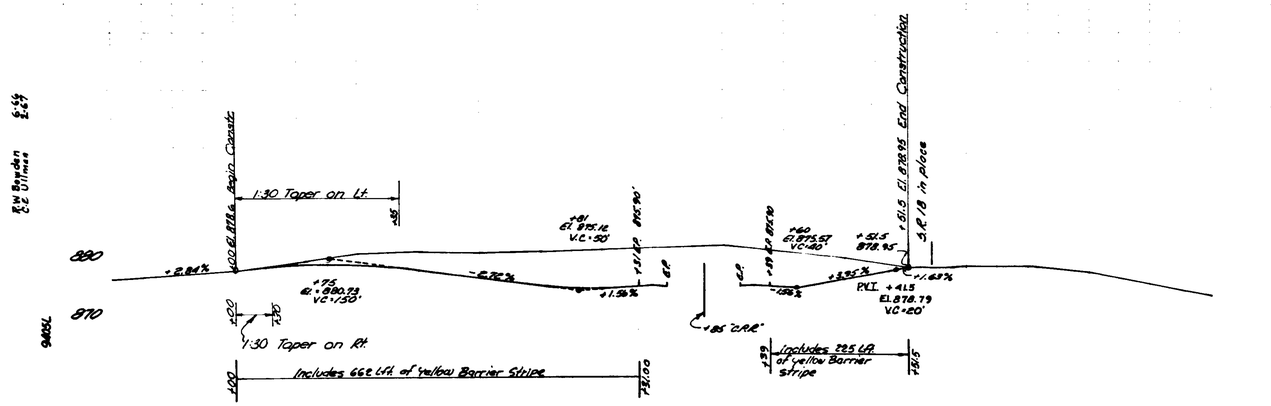


C.E. 4-21-70



FEDERAL ROAD REGION NO. 5 | STATE IND | PROJECT NO. F 239(10) | FISCAL YEAR 1971 | SHEET 27 | TOTAL SHEETS 166
LINE "S-3-C"
Public Road Approach Type "B"
Req'd. @ Sta. 137+35 Lt. & Rt.
On. Lt. Sta. 43+00 to 51+37
Drs. 44.8 Ac. C=0.50
(Pasture)
WALTER B. CHANDLER & MERLIN J. LOEW - Tr.
Sec. 3 T-24-N-R-8-E
Center Twp. Grant Co.
+90,170 C-PR Begin L.A. (Gross)
R/W - A.C.L. & F.F.T.F.
+15,145-"C PR."
CO. RD. 300 E. (Blk top)
P.O.T. 43+00.0
Brng. S.0°07'29"E.
13' x 5 ½' Steel Girder
Conc. Floor & Abut. (Good Cond.)
End L.A. R/W-A.C.L. & F.F.T.F.
L.A. R/W-A.C.L. & F.F.T.F.
Sec. 4 T-24-N R-8-E
Center Twp. Grant Co.
LINE "C" PR.
LINE "C" 30
STRUCTURE NO. 37
+ R.L. & Begin L.A. R/W A.C.L. & F.F.T.F.
EQN. P.O.T. 49+97.35 S-3-C = P.O.S.T. 137+41.89 "C"
EQN. P.O.T. 50+00.0 S-3-C = P.O.C. 137+41.64 "C"
100 S. BETHLEHEM RD.
Brng. S.0°07'29"E. (Blk top)
S.R. #18 (Blktop)
51+37.3, 01.5' Rt. Sec. Cor. Pk N.
SEC. 10 - T.24N. - R.8E. CENTER TWP., GRANT CO.
DAVID & DORIS RODGERS
ELIZABETH THEDA TINGLE
1 Sty. Br. Ho. (Good Cond.)
(Lawn)
FIRST FED. SAVINGS & LOAN ASSOC.
ARTHUR & EDITH CARDWELL (Buying on Contract)
1 Sty. Fr. Ho. (Good Cond.)
Sec. 9 T-24-N R-8-E
Center Twp. Grant Co.
All Topog. Shown From Sta. 49+00 to Sta. 51+23.3 Taken From Line "C" (Sta 135+40 to 140+40) See Sheet No. 19
P.O.T. 49+97.35 (Rd. N.F.)
= P.O.S.T. 137+41.89 Line "C"
P.O.T. 50+00.0 (Rd. N.F.)
= P.O.C. 137+41.64 Line "C"
P.O.T. 43+00.0 (Rd. N.F.)
P.O.T. 54+00.0 (Rd. N.F.)
ALL R/W ON THIS SHEET TO BE AS SHOWN
LIMITED ACCESS PROVISIONS TO APPLY
WHERE INDICATED
870
860
850
840
Begin Construction
Taper 1:50 on Lt.
P.V.I. +00 El. 838.8 VC=50'
+7.24%
+5.16%
+.00 Lt. El. 851.66
Grade of Special V Ditch Req'd on Lt.
+84 Lt. El. 856.00
P.V.I. + 77.43 El. 858.89 VC=50'
P.V.I. +58.2 859.31 VC=40
-1.56%
End Construction
Includes 705 Lft. of Yellow Barrier Stripe
Taper 1:50 on Rt.
Includes 176 Lft. of Yellow Barrier Stripe
43 44 45 46 47 48 49 50 51 52 53 54





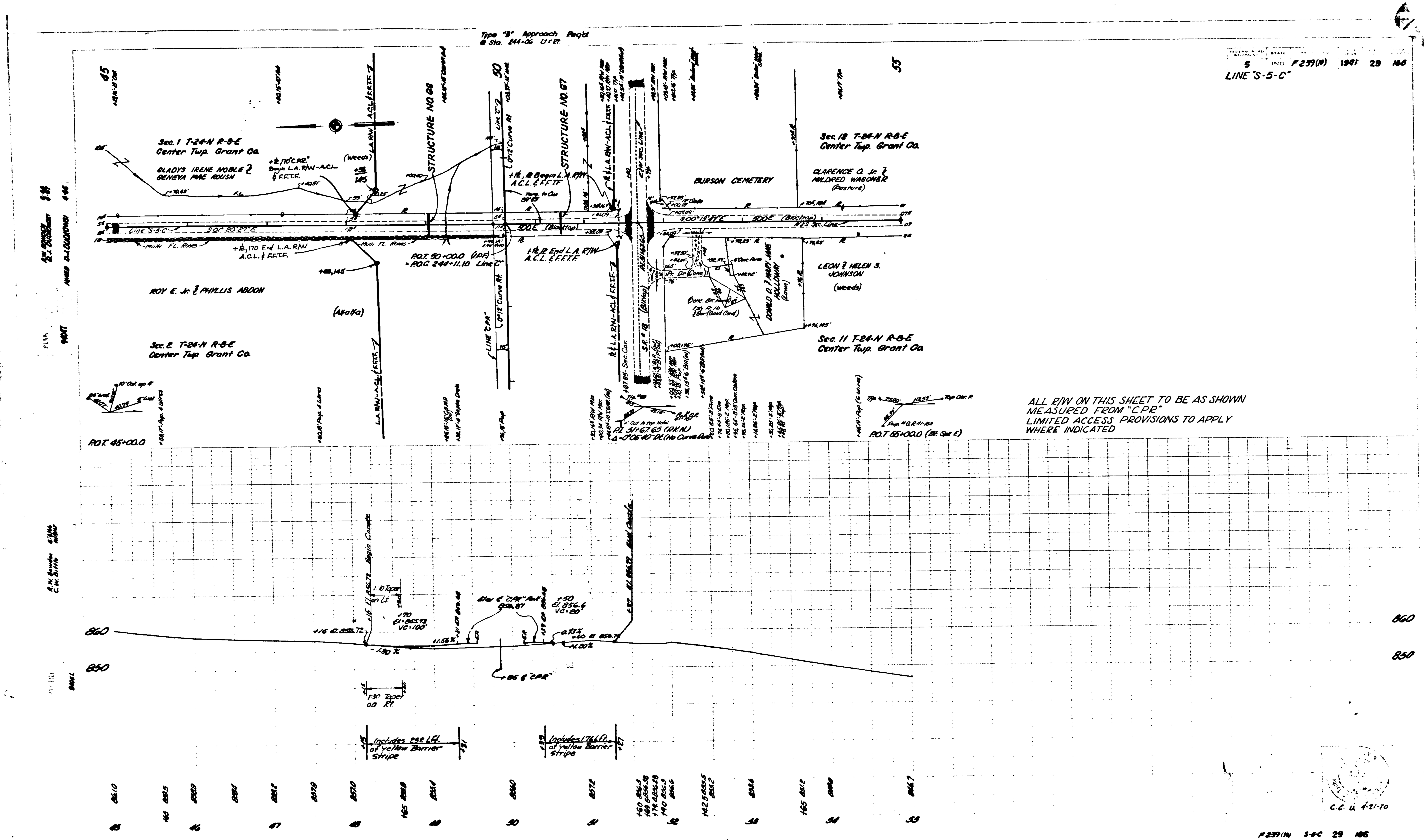
F 239(10) 1971 28 166

LINE "S-4-C"

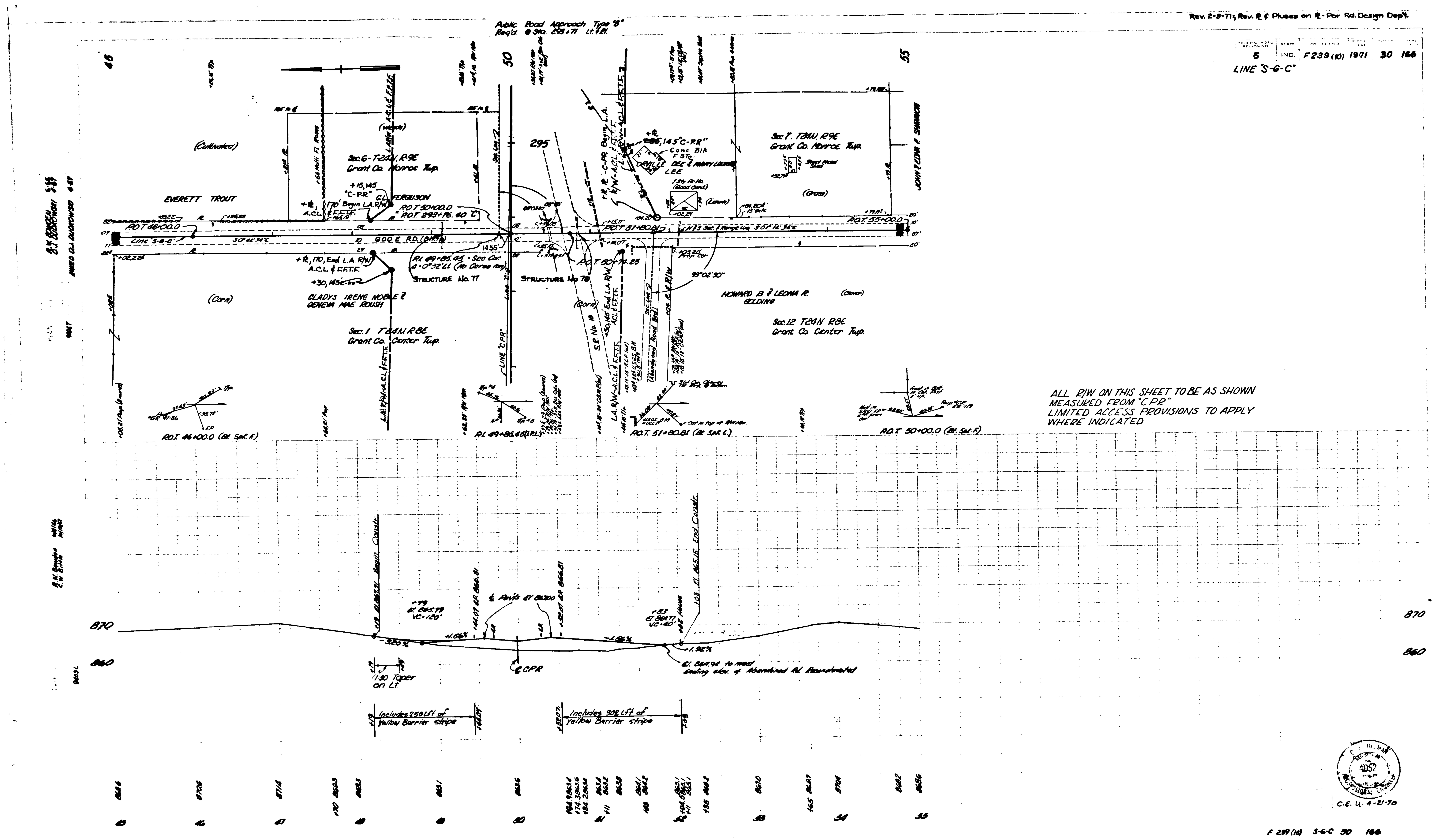
ALL R/W ON THIS SHEET TO BE SHOWN
LIMITED ACCESS PROVISIONS TO APPLY
WHERE INDICATED

C.E.U. 4-21-70

F239(10) S-4C 28 166

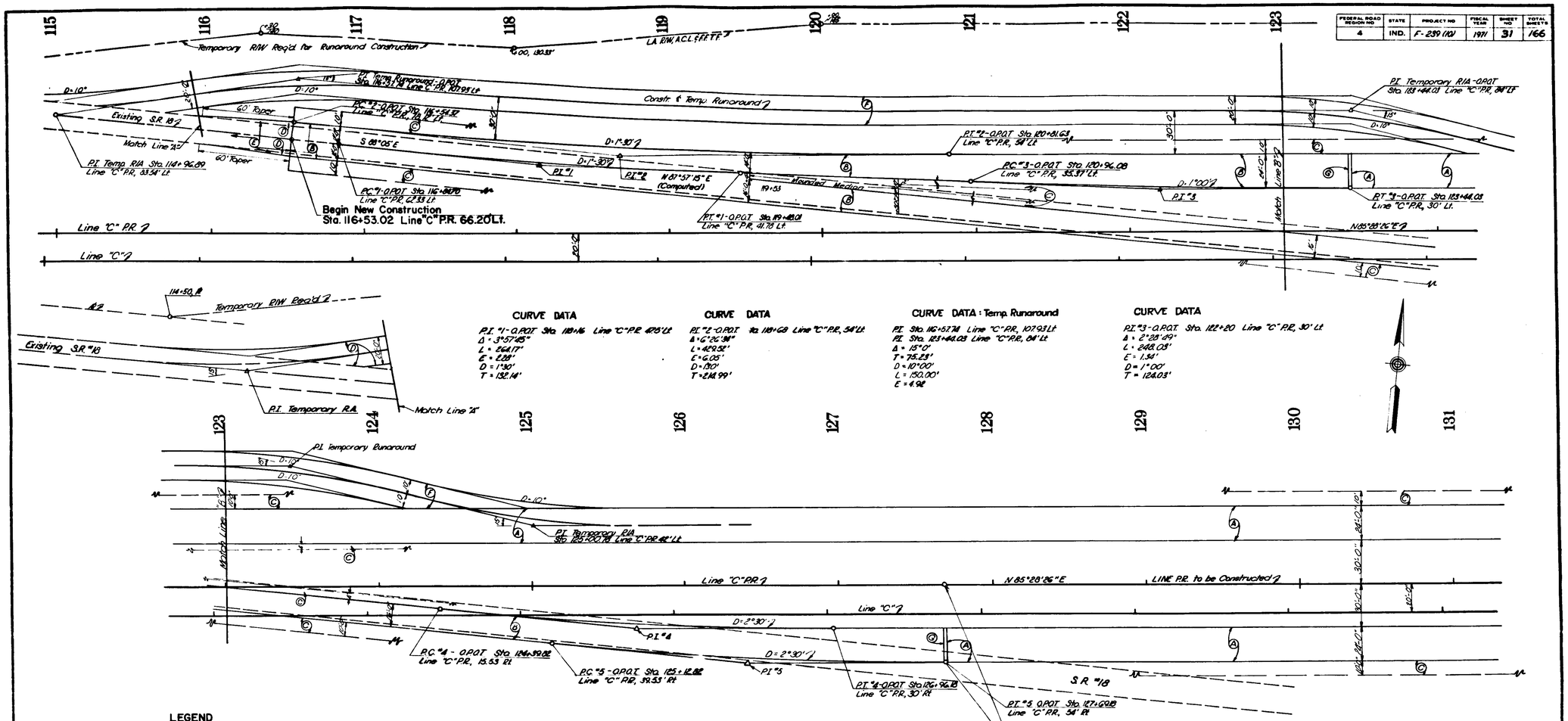


5 IND F 239(10) 1981 29 166
LINE "S-5-C"
Type "B" Approach Req'd. @ Sta. 244+06 Lt. & Rt.
STRUCTURE NO. 66
STRUCTURE NO. 67
Sec. 1 T-24-N R-8-E Center Twp. Grant Co.
GLADYS IRENE NOBLE & GENEVA MAE ROUSH
Sec. 12 T-24-N R-8-E Center Twp. Grant Co.
CLARENCE O. Jr. & MILDRED WAGONER (Pasture)
BURSON CEMETERY
LEON & HELEN S. JOHNSON (weeds)
ROY E. Jr. & PHYLLIS ABDON
(Alfalfa)
Sec. 2 T-24-N R-8-E Center Twp. Grant Co.
Sec. 11 T-24-N R-8-E Center Twp. Grant Co.
P.O.T. 50+00.0 (A.P.)
= P.O.C. 244+11.10 Line "C"
P.I. 51+67.65 (P.K.N.)
P.O.T. 45+00.0
P.O.T. 55+00.0
ALL R/W ON THIS SHEET TO BE AS SHOWN MEASURED FROM "CPR"
LIMITED ACCESS PROVISIONS TO APPLY WHERE INDICATED
860
850
Includes 292 Lft. of Yellow Barrier Stripe
Includes 176 Lft. of Yellow Barrier Stripe
45
46
47
48
49
50
51
52
53
54
55
C.E.U. 4-21-70
F 239(10) S-5-C 29 166



Public Road Approach Type "B"
Rev. 2-5-71, Rev. ℄ Pluses on ℄-Por Rd. Design Dep't.
5 IND. F239(10) 1971 30 166
LINE "S-6-C"
(Cultivated)
Sec.6-T24N, R9E
Grant Co. Monroe Twp.
EVERETT TROUT
Sec.7 T24N, R9E
Grant Co. Monroe Twp.
JOHN & EDNA F. SHANNON
P.O.T. 46+00.0
P.O.T. 55+00.0
Line "S-6-C"
900 E. RD.
STRUCTURE No. 77
STRUCTURE No. 78
(Corn)
GLADYS IRENE NOBLE & GENEVA MAE ROUSH
Sec.1 T24N, R8E
Grant Co. Center Twp.
HOWARD B. & LEONA R. GOLDING
Sec.12 T24N R8E
Grant Co. Center Twp.
LINE "CPR"
ALL R/W ON THIS SHEET TO BE AS SHOWN
MEASURED FROM "CPR"
LIMITED ACCESS PROVISIONS TO APPLY
WHERE INDICATED
P.O.T. 46+00.0 (Bt. Spk. F)
P.O.T. 51+80.81 (Bt. Spk. L)
P.O.T. 50+00.0 (Bt. Spk. F)
870
860
1:30 Taper on Lt.
℄ CPR
Includes 250 Lft of Yellow Barrier stripe
Includes 302 Lft of Yellow Barrier stripe
F 239 (10) S-6-C 30 166

FEDERAL ROAD REGION NO	STATE	PROJECT NO	FISCAL YEAR	SHEET NO	TOTAL SHEETS
4	IND.	F-239 (10)	1971	31	166



CURVE DATA
P.I. "1" - Q.P.O.T. Sta. 118+16 Line "C" P.R. 42.35' Lt.
Δ = 3°57'45"
L = 264.17'
E = 2.28'
D = 1°30'
T = 132.14'

CURVE DATA
P.I. "2" - Q.P.O.T. Sta. 119+68 Line "C" P.R. 54' Lt.
Δ = 6°26'38"
L = 429.52'
E = 6.05'
D = 1°30'
T = 214.99'

CURVE DATA : Temp. Runaround
P.I. Sta. 116+57.14 Line "C" P.R. 107.93' Lt.
P.I. Sta. 123+44.03 Line "C" P.R. 84' Lt.
Δ = 15°0'
T = 75.29'
D = 10°00'
L = 150.00'
E = 4.98'

CURVE DATA
P.I. "3" - Q.P.O.T. Sta. 122+20 Line "C" P.R. 30' Lt.
Δ = 2°28'09"
L = 248.03'
E = 1.34'
D = 1°00'
T = 124.03'

CURVE DATA
P.I. "4" - Q.P.O.T. Sta. 125+68 Line "C" P.R. 30' Rt.
P.I. "5" - Q.P.O.T. Sta. 126+41 Line "C" P.R. 54' Rt.
Δ = 6°30'38"
L = 257.71'
E = 5.65'
D = 2°30'
T = 128.98'

LEGEND

- (A) 8" C.R.C. Pavement
- (B) 9" R.C. Pavement
- (C) 3" Bituminous Shoulder
- (D) Widening with Bituminous Mixture
- (E) 90" Sys. Bituminous Surface over 240" Sys. Bituminous Base
- (F) 90" Sys. Bituminous Surface, 240" Sys Bituminous Base over 9" Type "P" Compacted Aggregate Base
- (G) Transverse Construction Joint

PAVEMENT TRANSITION
BEGINNING OF PROJECT
DETAILS
Scale: 1"=30'-0"

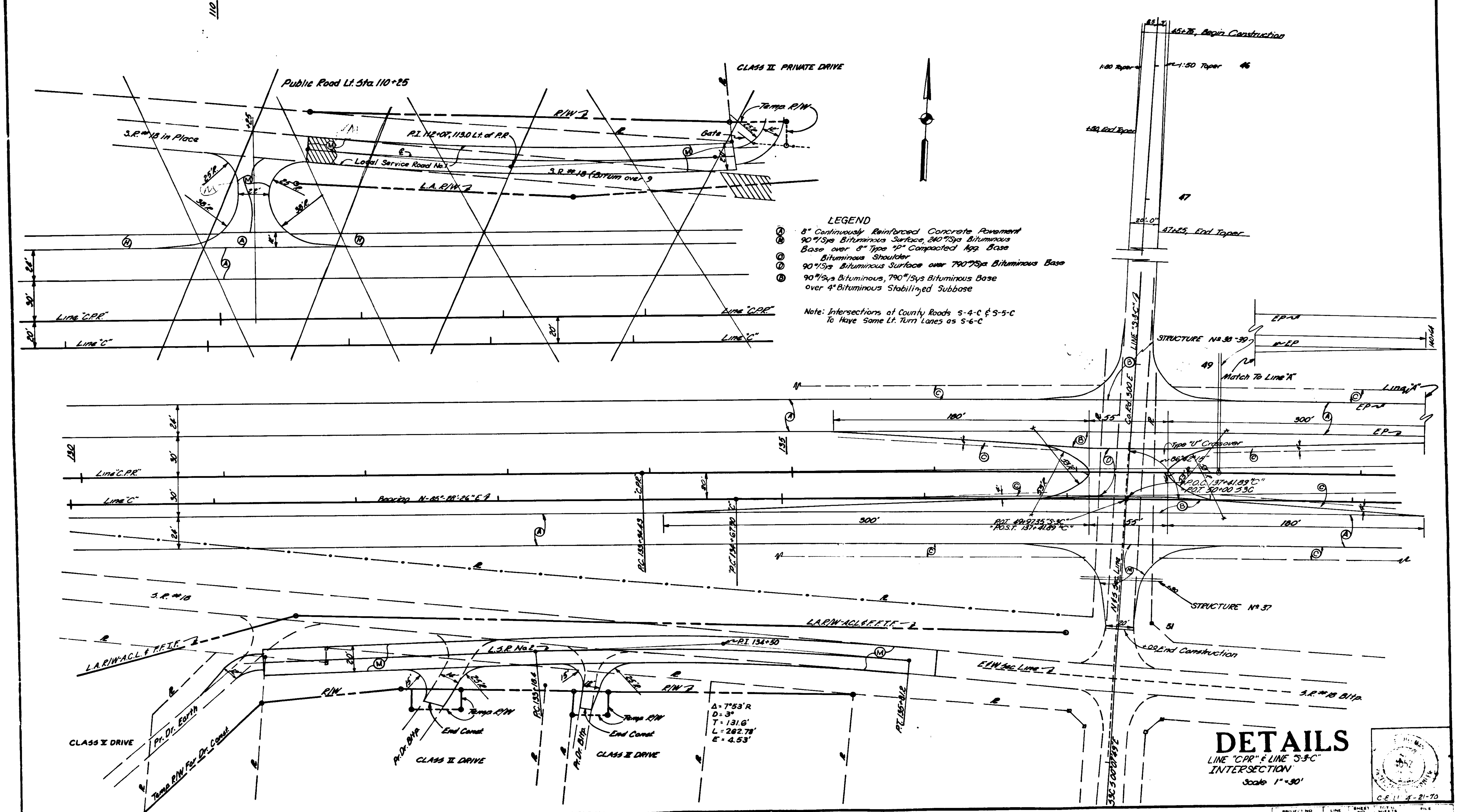
STATE OF INDIANA 13554 REGISTERED ENGINEER

November 6, 1964

PROJECT NO	LINE	SHEET NO	TOTAL SHEETS	FILE
F-239 (10)	E-PR	31	166	

Public Rd. X-Over Type "U" Type "B"
Approach Req'd. @ Sta. 137+41.89 LINE "C"

FEDERAL ROAD REGION NO	STATE	PROJECT NO	FISCAL YEAR	SHEET NO	TOTAL SHEETS
4	IND.	F-239(10)	1971	32	166



DETAILS

LINE "CPR" & LINE "S-3-C" INTERSECTION

Scale 1" = 50'

C.E.L. 4-21-70

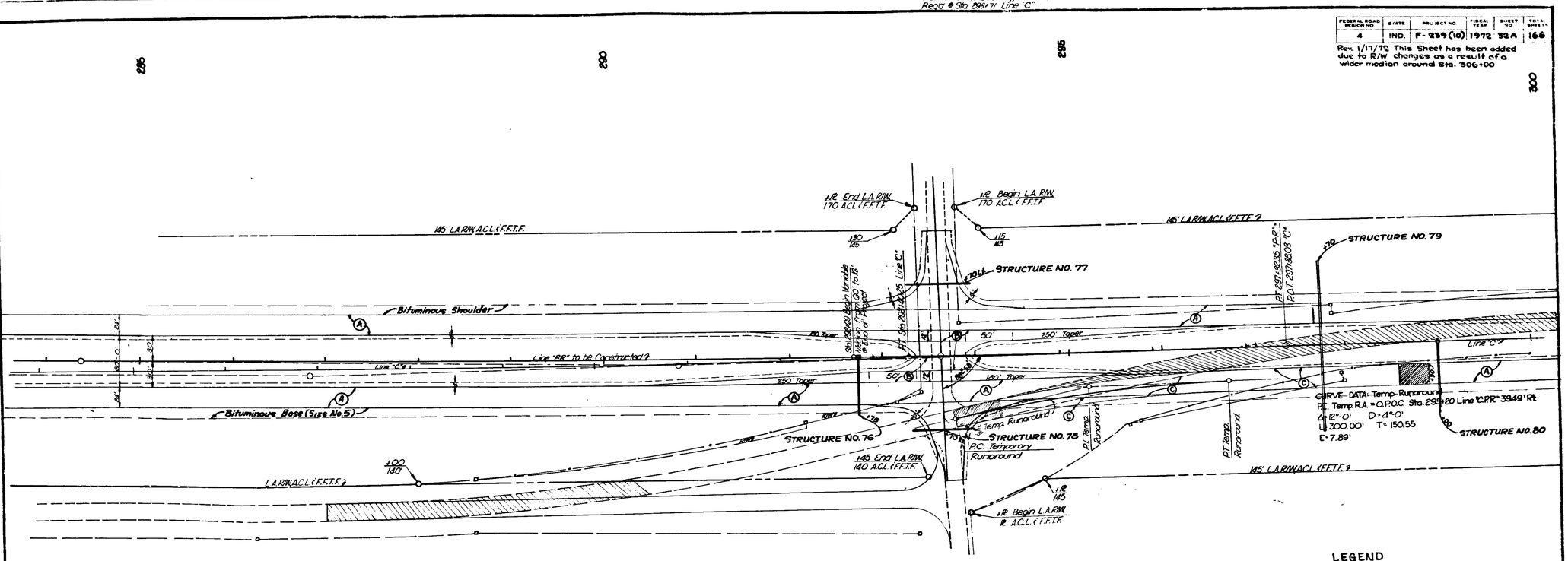
November 6, 1964

PROJECT NO	LINE	SHEET NO	TOTAL SHEETS
F-239(10)	"C"	32	166

FEDERAL ROAD REGION NO.	STATE	PROJECT NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
4	IND.	F-239(10)	1972	32A	166

Rev. 1/17/72 This Sheet has been added due to R/W changes as a result of a wider median around Sta. 306+00

Public Rd X-Over Type "I", Type "B" Approach
Regd @ Sta 291+71 Line "C"



LEGEND

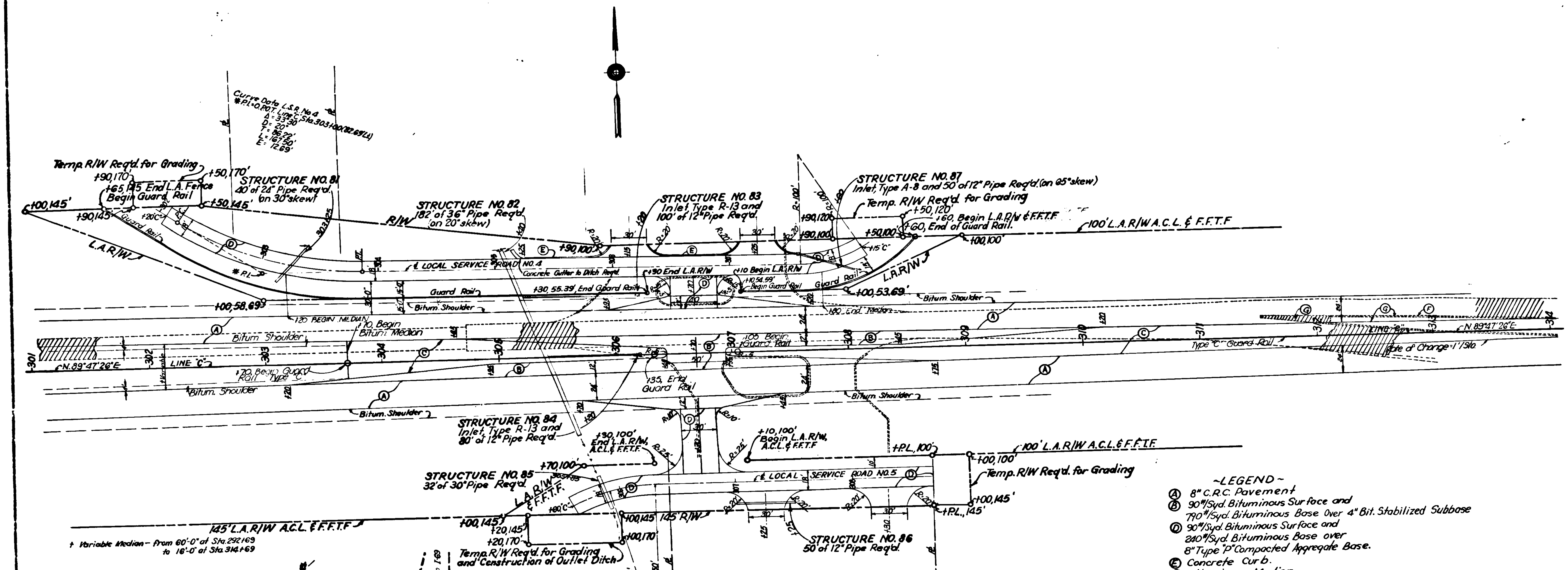
- Ⓐ 8" CRC Pavement
- Ⓑ 90 #/Sys Surface Over 790 #/Sys Base over 4" Bituminous Stabilized Subbase
- Pavement Removal
- Temporary Runoround
- Ⓒ Temporary Runoround (See Typical Section)

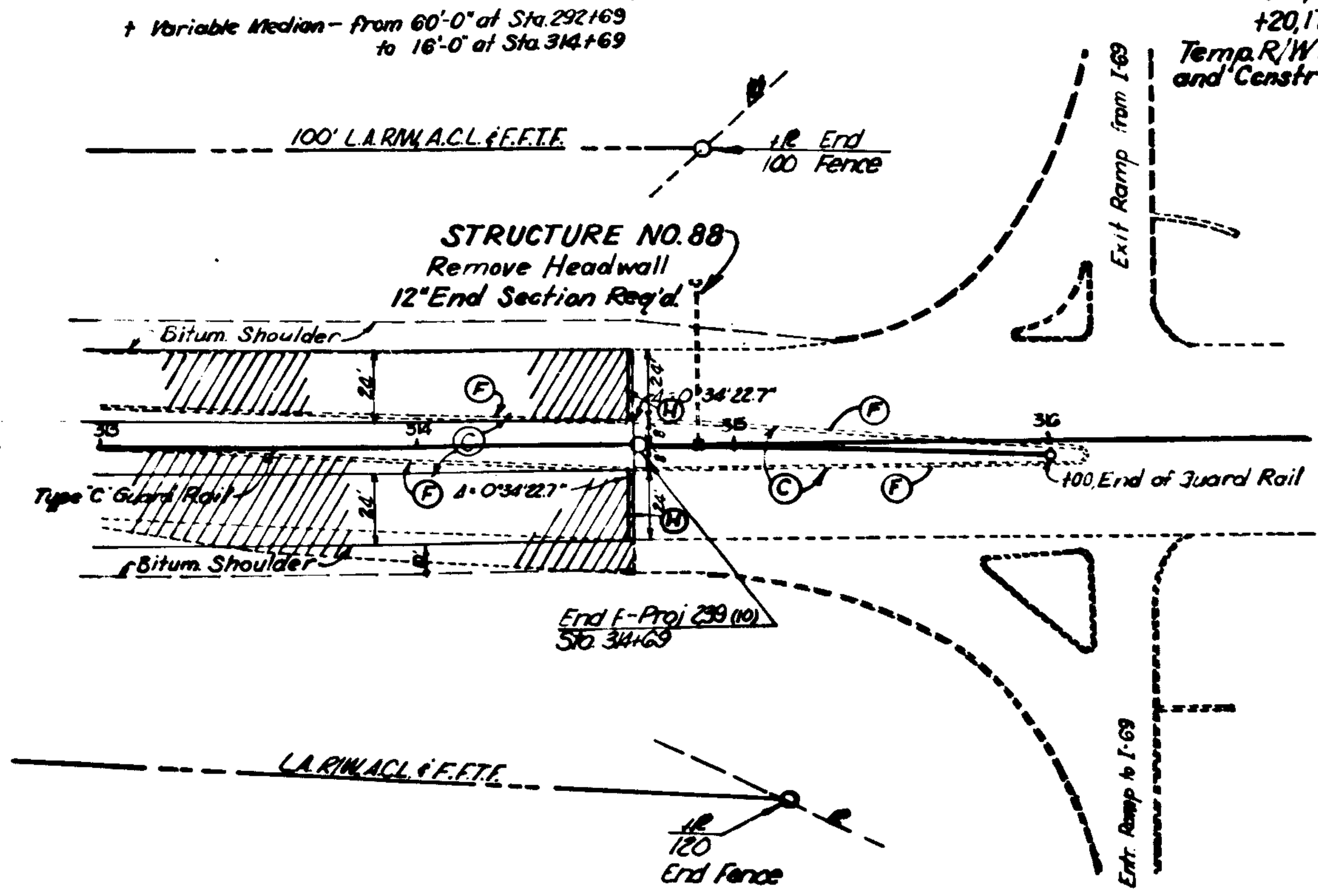
LINE "S-6-C" & LINE "C.P.R." INTERSECTION DETAILS

DECEMBER 1968

Rev. 1/19/72 This Sheet 33 replaces old Sheet 33 in accordance with R/W changes Per Rd. Design Dept.

FEDERAL ROAD REGION NO.	STATE	PROJECT NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
4	IND.	F 239 (10)	1971	33	100





VARIABLE MEDIAN TRANSITION (Rate of Change 1'/Sta.)					
STATION	DISTANCE FROM ℄ LEFT (FT.)	DISTANCE FROM ℄ RIGHT (FT.)	STATION	DISTANCE FROM ℄ LEFT (FT.)	DISTANCE FROM ℄ RIGHT (FT.)
292+69	30.00	30.00	304+00	18.69	18.69
293+00	29.69	29.69	305+00	17.69	17.69
294+00	28.69	28.69	306+00	16.69	16.69
295+00	27.69	27.69	306+70 (X over)	15.99	15.99
296+00	26.69	26.69	307+00	15.69	15.69
297+00	25.69	25.69	308+00	14.69	14.69
298+00	24.69	24.69	309+00	13.69	13.69
299+00	23.69	23.69	310+00	12.69	12.69
300+00	22.69	22.69	311+00	11.69	11.69
301+00	21.69	21.69	312+00	10.69	10.69
302+00	20.69	20.69	313+00	9.69	9.69
303+00	19.69	19.69	314+00	8.69	8.69
			314+69	8.00	8.00

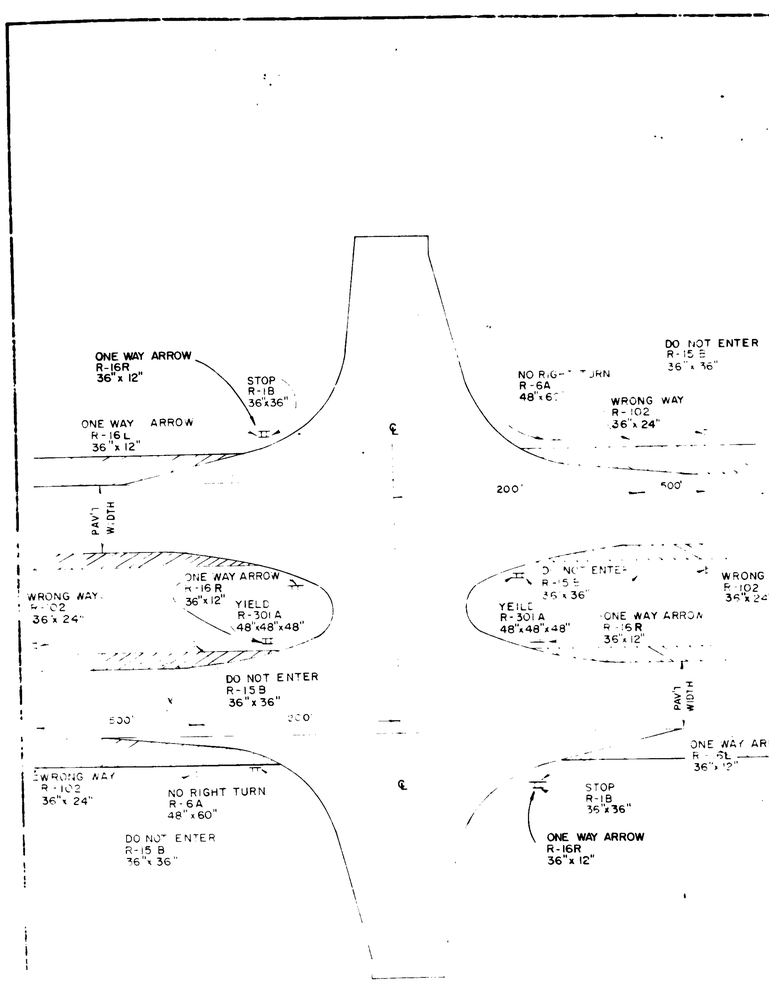
~LEGEND~

- (A) 8" C.R.C. Pavement
- (B) 90#/Syd. Bituminous Surface and 710#/Syd. Bituminous Base Over 4" Bit. Stabilized Subbase
- (D) 90#/Syd. Bituminous Surface and 240#/Syd. Bituminous Base over 8" Type "P" Compacted Aggregate Base.
- (E) Concrete Curb.
- (C) Bituminous Median
- (F) Curb Removal
- (G) Temporary Widening (880#/Sys. Bit. Base)
- ▨ Pavement Removal
- (H) Terminal Joint

SCALE: 1"=40'

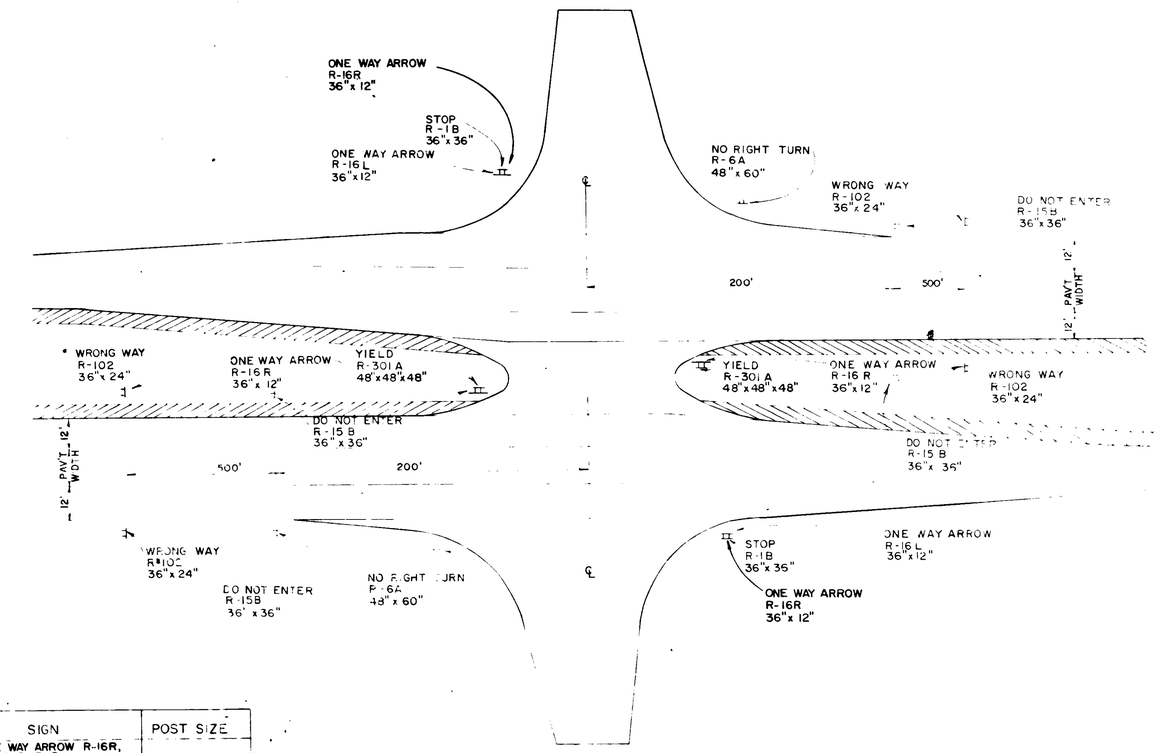
DETAILS

BRUNO T. CANZIAN, No. 13654, PROFESSIONAL ENGINEER



COUNTY ROAD AND
CROSSOVER WITHOUT TURN LANES

SIGN	POST SIZE
ONE WAY ARROW R-16R, STOP R-1B & ONE WAY ARROW R-16L	2 [illegible] TYPE B
NO RIGHT TURN R-6A	2 [illegible] TYPE B
WRONG WAY R-102	2 [illegible] TYPE B
DO NOT ENTER R-15B	2 [illegible] TYPE B
YIELD R-301A & ONE WAY ARROW R-16R	2 [illegible] TYPE B
ONE WAY ARROW R-16R	TYPE [illegible]



COUNTY ROAD AND
CROSSOVER WITH TURN LANES

DETAILS

Rev 10-29-71 Cl. II Dr. & X-Over Sta. 256+00 Lt. & Sta. 280+00 Lt. Deleted
Cl. II Dr. & X-Over Sta. 265+25 Lt. & Sta. 211+65 Lt. Added - Per Rd. Des. Dept.
Rev. 7-1-71 Elim. Cl. II Dr. Sta. 110+50 Rt. - Per Rd. Design Dept.
Rev. 8-3-71 [illegible] - Per Rd. Design Dept.
Rev. 1/20/72 Local Service Roads No. 4 & 5 Revised, See Sheet 33 - Per Rd. Design Dept.

FEDERAL ROAD REGION NO.	STATE	PROJECT NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
4	IND.	F239(10)	1971	34	166

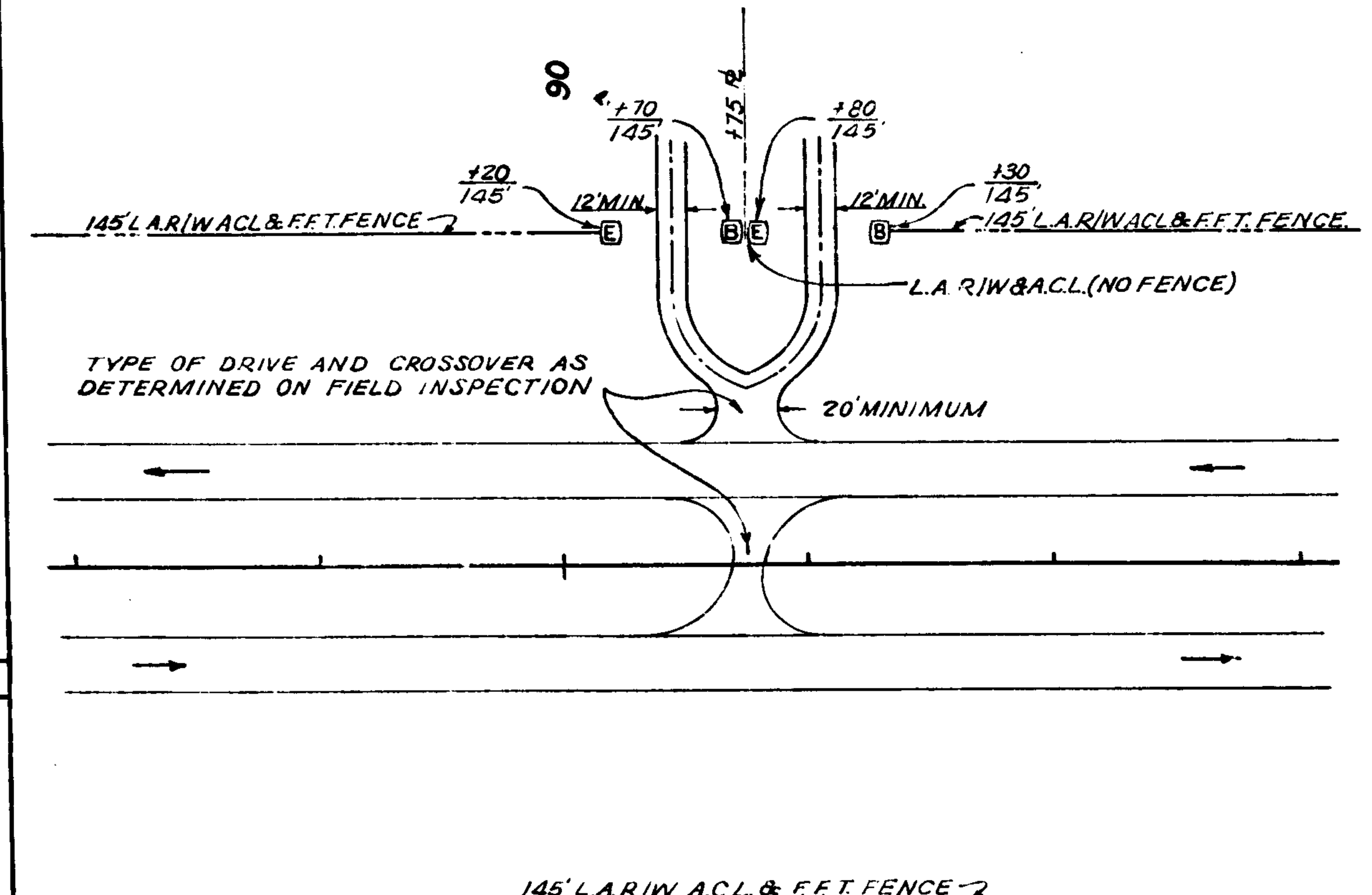
APPROACH TABLE

	LOCATION	DESCRIPTION	EXCAVATION CU. YDS. CUT	EXCAVATION CU. YDS. FILL	WIDTH W	RADII R	Grade Less Than 10' Not Shown	LENGTH L	790# S.Y.S. Bit. Base SYS.	880# BITUM. MIXTURE FOR X-OVERS SYS.	Bituminous Stabilized Subbase SYS.	BITUM. MIXTURE FOR APPROA. 330#/SYS. SYS.	Type "P" Compacted Aggr. Base 3" SYS.	Type "P" Compacted Aggr. Base 6" SYS.	90# Bitum. Surface SYS.	240# Bitum. Base SYS.	Remarks	CONC. CURB LFT.
	50+65.79 LT.	"SICL" PENN ST.												262	112	112	SEE DETAIL SHEET NO. 12	
	50+65.79 RT.	" "												425	343	343	" " 12	
	68+20 TO 71+67 LT.	CLASS IV DRIVE	1131	48	20	20		375						852	852	852	DRIVE TO FAIRGROUNDS	
	74+80 LT.	[illegible] ST., TYPE B			23	29-47.5'		77		78				242	242	242	SEE DETAIL SHEET NO. 14	
S1C	74+80 RT.	" "			16	[illegible]		117		404				185	185	185	" " 14	
	74+80	SPECIAL X-OVER	0	0						200							" " 14	
	87+50 RT.	MONTPELIER PIKE, TYPE B			20	[illegible]		309		114				717	717	717		
	87+50 X-O	X-OVER, TYPE "K"	0	0	40	38-38 / 30-35		[illegible]		345							SEE DETAIL SHEET NO. 15	
S2C	109+95 RT.	CLASS II DRIVE	0	25	12	15-25		91				111	111					
	110+25 RT.	CLASS V DRIVE	0	25				91										
	110+12	ROAD X-OVER, TYPE "N"	0	40				60		412								
	110+32 LT.	PUB. RD., TYPE "B"	0	20	22	38-38'		67						180	180	180		
	110+63 TO 113+65 LT.	LOCAL SERVICE ROAD NO. [illegible]	23	120	20			302						681	681	681		
	115+00 to 125+00 Lt.	TEMP RUNAROUND			20			814				1868		1868*				
S3C	137+35 LT.	PUB. ROAD, TYPE "B"	395	860	20	37.7°-37.94°		352						1131	1131	1131	COUNTY ROAD 300 "E"	
	137+35	RD. X-OVER, TYPE U	0		55					296							" "	
	137+35 RT.	PUB. RD., TYPE "B"			20	[illegible]		88						620	620	620	" "	
	156+00 LT.	CLASS II DRIVE	23	0	12	15-25'		91				142	142					
	156+00	DR. X-OVER	0	0				60		168.4								
	177+50 LT.	CLASS II DRIVE	0	110	12	15-25'		91				142	142					
	177+50	X-OVER	0	0	12			60		168.4								
	~~[illegible]~~	~~CLASS II DRIVE~~	~~[illegible]~~	~~0~~	~~12~~	~~[illegible]~~		~~[illegible]~~				~~[illegible]~~	~~[illegible]~~					
†	110+06 Rt.	Existing Pr. Drive															4 Tons of Type "P" C.A. Req'd Pipe. No Paving Req'd	
	192+20 LT.	PUB. RD. TYPE "B"	2649	0	20	37.9°-38.2°		331						1077	1077	1077	COUNTY ROAD 400 "E"	
S4C	192+20	X-OVER, TYPE U	0	0	55	53				296							" "	
	192+20 RT.	PUB. RD. APP. TYPE B	471	0	20	39.2°-37.9°		113						776	776	776	" "	
	265+25	Pr. Dr. X-Over			12					168.4							Added	
	224+10 LT.	CLASS II DRIVE			12	15-25'		106				162	162					
	224+70 LT.	CLASS II DRIVE	59	0	12	15-25'		106				162	162					
	224+40	DRIVE X-OVER	0	0	12			60		168.4								
	265+25 Lt.	Class II Dr.			12	15'-25'		91				142	142				Drive Added	
	244+06 LT.	PUB. RD., TYPE "B"	57	160	20	37.9°-38.[illegible]		116						617	617	617	COUNTY ROAD 500 "E"	
S5C	244+06	X-OVER, TYPE "U"			55	53'				296								
	244+06 RT.	PUB. RD., TYPE "B"				37.9°-[illegible]		88						570	570	570	COUNTY ROAD 500 "E"	
	~~[illegible] LT.~~	~~CLASS II DRIVE~~			~~12~~	~~15-25'~~		~~[illegible]~~				~~142~~	~~142~~				Deleted	
	~~[illegible]~~	~~DRIVE X-OVER~~			~~12~~					~~168.4~~							Deleted	
	~~[illegible] LT.~~	~~CLASS II DRIVE~~	7	0	~~12~~	~~15-25'~~		~~91~~				~~142~~	~~142~~				Deleted	
	~~[illegible]~~	~~DRIVE X-OVER~~	0	0		~~12~~		~~[illegible]~~		168.4							Deleted	
	211+65	Pr. Dr. X-Over			12					168.4							Added	
	287+00 TO 293+64 RT.	LOCAL SERVICE RD. NO. 3				20		664						1475	1475	1475		
	277+65 Lt.	Cl. II Dr.			12	15'-25'		91				142	142				Drive Added	
	293+63 Lt.	PUB. RD., TYPE "B"	[illegible]	83	20	[illegible]		125						653	653	653	COUNTY ROAD 600 "E"	
S6C	293+63	X-OVER, TYPE "U"	0	0	60			43		296							" "	
	293+63 Rt.	PUB. RD., TYPE "B"	23	229	20	37.9°-38.2°		151						712	712	712	" "	
	293+75 to 298+90	Temp Runaround			20							981		981#				
	302+20 To 308+15	LOCAL SERVICE RD. NO. 4			18			588						1412	1412	1412	SEE DETAIL SHEET NO. 33	190
	306+15 Lt.	CLASS III DRIVE			30	2'-20'		11				55		55			LT OF L.S.R. NO. 4, SEE DETAIL SHEET NO. 33	
	307+25 Lt.	CLASS III DRIVE			30	2'-20'		11				55		55			" " " " "	
	306+70	Public Crossover			50	2'-5'		42	1647		1647	84		84	1647		Includes Lt. Turn Lanes See Sheet No. 33	
	305+60 To 308+70	L.S. Rd. No. 5			18			313						986	986	986	See Detail on Sheet No. 33	
	307+25 Rt.	CLASS IV DRIVE			30	2'-20'		17				76		76			RT OF L.S.R. NO. 5, SEE DETAIL SHEET NO. 33	
	308+30 Rt.	CLASS IV DRIVE			30	2'-20'		17				76		76			" " " " "	
	131+25 To 135+91 Rt.	LOCAL SERVICE ROAD			20			166						1036	1036	1036		
	131+2[illegible]	CLASS V															SEE DETAIL SHEET NO. 18	
	132+70 RT.	CLASS II			12	15-25		32				67	67					
	133+61 RT.	CLASS II			12	15-2[illegible]		29				59	59					
†	110+46 Rt.	Class V Drive	0	25	12	15-25'		278										
	APPROACH	TOTALS	3684	1441					1647*	2026	1647	4125	1014	14,176	12,712	11,065		

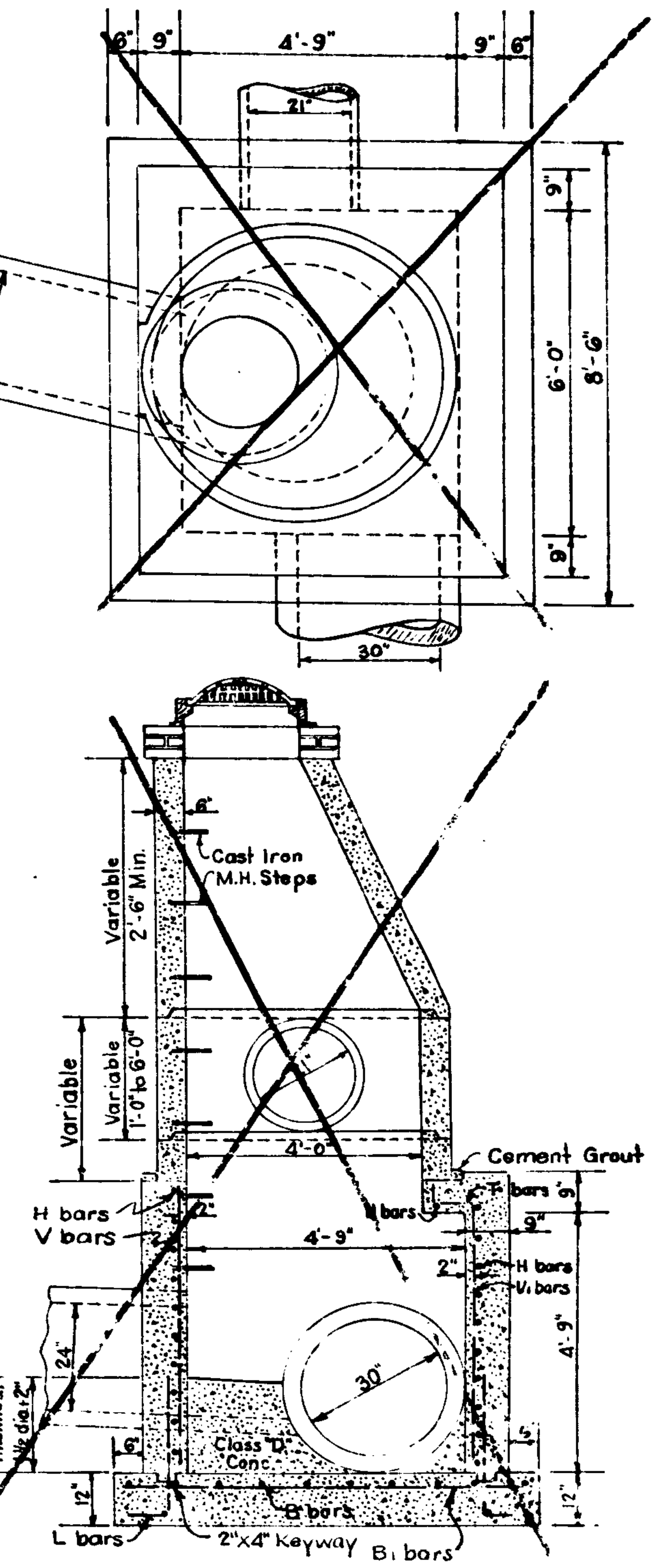
\# 9" Type "P" Comp. Agg. Base to be Used For Temp. Runarounds

† Out of Sequence

* Lt. Turn Lanes for S-Lines Included in Main Line Computations



TYPICAL LAYOUT OF ADJACENT DRIVES WITH A COMMON CROSSOVER
Scale: 1" = 50'



~~SPECIAL~~ **MANHOLE**
~~TYPE D with Neenah Casting R-2560-C-2 or equal.~~
Scale: 1/2" = 1'-0"

APPROACH TABLE & DETAILS

MARCH 1968

PROJECT NO.		SHEET NO.	TOTAL
F 239(10)	C	34	166

FEDERAL ROAD REGION NO.	STATE	PROJECT NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
5	IND.	F 239 (10)	1971	35	166

UNDERDRAINS

UNDERDRAINS

LINE	LOCATION FROM	LOCATION TO	LANE	6" GROUP "K" PIPE LFT.	OUTLET STATION	OUTLET	6" TEES	45° ELBOW	6" F.B.C.C.S. NON-PER. PIPE LFT.	AGGREGATE for UNDERDRAINS CYS.	DELINEATOR POSTS EACH	REMARKS
			LEFT PAVEMENT									
"C" PR	117+25	121+50	Lt. Edge	425	123+87 Lt.			1	54		1	Begin Underdrain at High Pt. on Curve
"	123+00	128+50	Lt. Edge	578	125+87 Lt.			1	54		1	Drains at Left Shoulder
"	125+44	130+20	Rt. Edge	704	130+20 Lt.		1		57		1	Drain Lt. at Low Pt. on Curve
"	130+20	138+00	Rt. Edge	780	130+20 Lt.							" " " " " " "
"	138+00	145+50	Rt. Edge	750	138+06 Lt.		1					Connect to Structure No. 88-89
"	138+00	145+50	Lt. Edge	750	138+06 Lt.		1					" " " " " "
"	145+50	146+95	Rt. Edge	145	146+95 Lt.		1-36°+6"					" " " " " 40
"	145+50	146+95	Lt. Edge	145	146+95 Lt.		1-36°+6"					" " " " " "
"	146+95	159+23	Rt. Edge	1,228	159+23 Lt.		1-36°+6"					" " " " " 44
"	146+95	159+40	Lt. Edge	1,245	159+40 Lt.		1-36°+6"					" " " " " "
"	159+23	160+70	Rt. Edge	175	160+70 Lt.		1		57		1	Drain Lt. at Low Pt. on Curve
"	159+40	160+70	Lt. Edge	130	160+70 Lt.		1-Cross					" " " " " "
"	160+70	168+50	Rt. Edge	780	160+70 Lt.							Drain at Low Pt. on Curve
"	160+70	168+22	Lt. Edge	732	160+70 Lt.							" " " " " "
"	168+50	177+80	Rt. Edge	970	167+85 Lt.			1	54		1	Drain at Lt. Shoulder
"	177+80	189+30	Rt. Edge	1,150	177+80 Lt.		1					Connect to Structure No. 51
"	177+80	180+50	Lt. Edge	270	177+80 Lt.		1					" " " " "
"	184+00	189+30	Lt. Edge	530	183+69 Lt.			1	54			Drain at Lt. Shoulder
"	189+30	199+00	Rt. Edge	1,010	199+63 Lt.			1	54		*	" " " "
"	189+30	196+00	Lt. Edge	670	196+37 Lt.			1	54		1	" " " "
"	199+00	206+25	Rt. Edge	725	206+25 Lt.		1					Connect to Structure No. 58
"	204+50	206+25	Lt. Edge	175	206+25 Lt.		1					" " " " " "
"	206+25	216+00	Rt. Edge	975	206+25 Lt.		1					" " " " " "
"	206+25	212+50	Lt. Edge	625	206+25 Lt.		1					" " " " " "
"	216+00	227+10	Rt. Edge	1,150	215+72 Lt.							Connect to Drain on Lt.
"	215+72	227+25	Lt. Edge	1,153	215+35 Lt.		1-6" Y		54		1	Drain at Lt. Shoulder
"	227+10	229+90	Rt. Edge	280	227+10 Lt.		1-36°+6"					Connect to Structure No. 62
"	228+50	229+90	Lt. Edge	140	228+13 Lt.			1	54		1	Drain at Lt. Shoulder
"	229+90	237+50	Rt. Edge	800	237+78 Lt.			1				Connect to Drain on Lt.
"	229+90	237+78	Lt. Edge	788	238+15 Lt.		1-6" Y		54		1	Drain at Lt. Shoulder
"	237+50	243+50	Lt. Edge	600	243+50 Lt.		1					Connect to Structure No. 65
"	239+50	243+50	Lt. Edge	400	243+50 Lt.		1					" " " " "
"	243+50	244+50	Lt. Edge	100	245+15 Lt.			1	54		1	Drain at Lt. Shoulder
"	243+50	247+50	Rt. Edge	400	247+50 Lt.		1-36°+6"					Connect to Structure No. 69
"	245+25	247+65	Lt. Edge	240	247+65 Lt.		1-36°+6"					" " " " "
"	247+50	249+20	Rt. Edge	170	249+20 Lt.							Connect to Drain on Lt.
"	247+65	249+20	Lt. Edge	155	249+20 Lt.		1-Cross		57		1	Drain at Lt. Shoulder
"	249+20	250+30	Rt. Edge	110	249+20 Lt.							Connect to Drain on Lt.
"	249+20	250+45	Lt. Edge	125	249+20 Lt.							Drain Lt. at Low Pt. on Curve
"	250+30	255+50	Rt. Edge	520	250+30 Lt.		1-7"+6"+6"					Connect to Structure No. 71
"	250+45	255+22	Lt. Edge	477	250+45 Lt.		1-7"+6"+6"					" " " " "
"	255+50	263+00	Rt. Edge	750	254+50 Lt.			1	54		1	Drain at Lt. Shoulder
"	260+00	263+00	Lt. Edge	300	259+63 Lt.			1	54		1	" " " "
"	263+00	273+25	Rt. Edge	1,025	263+00 Lt.		1					Connect to Structure No. 72
"	263+00	273+25	Lt. Edge	1,025	263+00 Lt.		1					" " " " "
"	273+25	279+00	Rt. Edge	699	279+00 Rt.		1		57		1	Drain Rt. thru Rt. Pavm't & Rt. Shoulder
"	273+25	279+00	Lt. Edge	603	279+00 Rt.			*1				Connect to Drain on Rt.
"	279+00	289+00	Rt. Edge	1,094	289+00 Rt.		1		57		1	Drain Rt. thru Rt. Pavm't & Rt. Shoulder
"	279+00	289+00	Lt. Edge	1,028	289+00 Rt.			*1				Connect to Drain on Rt.
"	289+00	298+50	Rt. Edge	990	298+78 Lt.			1				" " " " Lt.
"	289+00	294+00	Lt. Edge	500	294+37 Lt.			1	54		1	Drain at Lt. Shoulder
"	297+78	298+78	Lt. Edge	100	299+15 Lt.				54		1	" " " "
"	298+50	305+00	Rt. Edge	650	305+00 Lt.		1-6" Y					Connect to Structure No. 81
"	298+78	305+00	Lt. Edge	650	305+00 Lt.		1-36°+6"					" " " " "
"	305+00	314+69	Rt. Edge	997	314+69 Lt.		1					Connect to Drain on Lt.
"	305+00	314+69	Lt. Edge	969	314+69 Lt.		1		57		1	Drain at Lt. Shoulder
			RIGHT PAVEMENT									
"C" PR	117+20	121+50	Rt. Edge	430	121+87 Rt.			1	54		1	Begin Underdrain at High Pt. on Curve
"	127+69	130+20	Lt. Edge	279	130+20 Rt.		1		57		1	Drain Rt. at Low Pt. on Curve
"	130+20	136+50	Lt. Edge	630	130+20 Rt.							" " " " " " "
"	132+50	135+50	Rt. Edge	300	132+13 Rt.			1	54		1	Drain at Rt. Shoulder
"	136+50	145+50	Lt. Edge	940	135+85 Rt.			1	54		1	" " " "
"	136+50	142+50	Rt. Edge	600	136+13 Rt.			1	54		1	" " " "
"	145+50	154+50	Lt. Edge	940	154+78 Rt.			1				Connect to Drain on Rt.
"	149+00	154+78	Rt. Edge	578	155+15 Rt.		1-6" Y		54		1	Drain at Rt. Shoulder
"	154+50	160+70	Lt. Edge	620	160+70 Rt.		1					Connect to Structure No. 85
"	155+80	156+50	Rt. Edge	120	136+87 Rt.			1	54		1	Drain at Rt. Shoulder

* Denotes 90° Elbows

UNDERDRAINS

LINE	LOCATION FROM	LOCATION TO	LANE	6" GROUP "K" PIPE LFT.	OUTLET STATION	OUTLET	6" TEES	45° ELBOW	6" F.B.C.C.S. NON-PER. PIPE LFT.	AGGREGATE for UNDERDRAINS CYS.	DELINEATOR POSTS EACH	REMARKS
"C" PR	160+70	170+00	Lt. Edge	930	160+70 Rt.		1					Connect to Structure No. 45
"	160+70	169+00	Rt. Edge	830	160+70 Rt.		1					" " " " "
"	170+00	180+00	Lt. Edge	1,040	169+35 Rt.			1	54		1	Drain at Rt. Shoulder
"	175+50	179+50	Rt. Edge	400	179+13 Rt.			1	54		1	" " " "
"	180+00	189+30	Lt. Edge	970	179+35 Rt.			1	54		1	" " " "
"	189+30	197+00	Lt. Edge	910	197+28 Rt.							Connect to Drain on Rt.
"	189+30	197+28	Rt. Edge	798	197+65 Rt.		1-6" Y		54		1	Drain at Rt. Shoulder
"	197+00	206+30	Lt. Edge	938	206+30 Rt.		1					Connect to Drain on Rt.
"	204+50	206+30	Rt. Edge	180	206+30 Rt.		1-Cross		57		1	Drain at Rt. Shoulder at Low Pt.
"	206+30	213+00	Lt. Edge	870	206+30 Rt.							" " " " " " "
"	206+30	213+50	Rt. Edge	720	206+30 Rt.							" " " " " " "
"	213+00	224+60	Lt. Edge	1,000	214+35 Rt.			1	54		1	Drain at Rt. Shoulder
"	218+50	224+60	Rt. Edge	610	217+85 Rt.			1	54		1	" " " "
"	224+60	229+90	Lt. Edge	530	224+60 Rt.		1					Connect to Structure No. 61
"	224+60	225+60	Rt. Edge	100	224+60 Rt.		1					" " " " "
"	228+00	229+90	Rt. Edge	190	227+63 Rt.			1	54			Drain at Rt. Shoulder
"	229+90	239+00	Lt. Edge	930	229+65 Rt.			1	54		1	" " " "
"	229+90	237+50	Rt. Edge	760	237+87 Rt.			1	54		1	" " " "
"	239+00	249+50	Lt. Edge	1,050	249+50 Rt.		1					Connect to Structure No. 70
"	239+50	245+00	Rt. Edge	550	245+37 Rt.			1	54		1	Drain at Rt. Shoulder
"	246+00	249+50	Rt. Edge	350	249+50 Rt.		1					Connect to Structure No. 76
"	249+50	258+00	Lt. Edge	850	249+50 Rt.		1					" " " " " "
"	249+50	254+00	Rt. Edge	450	249+50 Rt.		1					" " " " " "
"	255+50	258+00	Rt. Edge	250	255+13 Rt.			1	54		1	Drain at Rt. Shoulder
"	258+00	270+00	Lt. Edge	1,284	258+00 Lt.		1				1	Drain Lt. thru Lt. Pavm't at Lt. Shoulder
"	258+00	270+00	Rt. Edge	1,228	258+00 Lt.			*1				Connect to Drain on Lt.
"	270+00	273+25	Lt. Edge	365	269+72 Rt.			1				" " " " Rt.
"	270+00	273+25	Rt. Edge	385	269+35 Rt.		1-6" Y		54		1	Drain at Rt. Shoulder
"	273+25	279+50	Lt. Edge	625	279+50 Rt.		1					Connect to Structure No. 73
"	273+25	279+50	Rt. Edge	625	279+50 Rt.		1					" " " " "
"	279+50	289+00	Lt. Edge	950	289+00 Rt.		1					Connect to 6" Gross Drain
"	279+50	289+00	Rt. Edge	950	289+00 Rt.		1					" " " " "
"	289+00	292+75	Lt. Edge	375	292+75 Rt.		1					Connect to Structure No. 76
"	292+75	305+00	Lt. Edge	1,225	305+00 Rt.		1-36°+6"					" " " " " 81
"	289+00	305+00	Rt. Edge	600	305+00 Rt.		1-36°+6"					" " " " " "
"	305+00	314+69	Lt. Edge	1,025	314+69 Lt.							Drain Lt. thru Lt. Pavm't at Lt. Shoulder
"	305+00	314+69	Rt. Edge	997	314+69 Lt.							Connect to Drain on Lt.
		Sub Total		~~66,922~~								
Increase	*due to Stabilized*	*Subbase*		*78,824*								
						Tees	-49 57					
						Crosses	5					
						Y's	-6 7		2320			
						Project Totals		~~3940~~ 3924		~~3945~~		

6" Group "K" Pipe ..... 78,824 Lin. Ft.
57 ~~49~~ Tees @ 5' ..... 285 ~~245~~ " "
3 Crosses @ 5' ..... 15 " "
7 ~~6~~ Y's @ 5' ..... 35 ~~30~~ " "
40 35 Elbows @ 2' ..... 80 ~~70~~ " "
Project Total 6" Group "K" Pipe ..... ~~67,282~~ 79,239 Lin. Ft.

Aggregate for Underdrains ~~67,282~~ 79,239 x 0.09 Cys per Lin. Ft. = ~~6,055~~ 7,132 Cys.

DETAILS

DECEMBER 1968

PROJECT NO.	LINE	SHEET NO.	TOTAL SHEETS	FILE
F239(10)	"C" PR.	35	166	

Rev. 10-29-71 Str. Nº 74 Deleted, Str. Nºs 72A & 72B Added- Per Rd. Des. Dept.

STRUCTURE DATA

✱ IF CONTRACTOR ELECTS TO USE METAL PIPE, GAGES AS SHOWN BELOW ARE TO BE USED. Rev. 7-1-71 Pipe Elim. @ Sta. 177+50 Rt - Per Rd Design Dept. Rev. 9-29-72 STR. NO. 71, GAGE CHANGED FROM 12 to 8 GA. Per Rd. DESIGN

Structure Number	Location	Size Inches	Group	Description (See Std. Sheet "MP" for acceptable types of pipe within each group)	Length Feet	Skew	Cover	Flow Line Up Stream Elev.	Flow Line Down Stream Elev.	Concrete Class "A" Cu. Yds.	B Borrow	Rip-Rap	✱ Steel	✱ Alum.	Culvert Pipe End Section Each	Velocity F.P.S.	Remarks	Method of Backfill
†																		
32	110+06 Rt	15	D	Pipe Req'd	24		2.0						16	16	2		Set Pipe in Rt. Ditch	B
33	110+45 Rt	15	D	Pipe Req'd	24		2.0						16	16			Set Pipe in Rt. Ditch	B
34	122+25	36	A	Pipe Req'd	138	5°	5.0	852.0	843.6				16		2		Constr. Inlet & Outlet Ditches Remove Existing Pipe	A
35	[illegible]30+80	15	D	Pipe Req'd.; Inlet, Type N-12	26			843.19	830.0								Connect to Str. Nº 33	B
36	131+05	[illegible]x83 / 106x68	R3	S.P.S. Pipe Arch or Reinf. Conc. Ell. Pipe Req'd	208	30°	13.0	827.5	825.5	5.79			12 T&S 10 Bott.			7.2 / 15.5	15 Sys. of Rip-Rap to be Includ-ed in the Cost of Conc. Pipe	A
37	137+30 Rt	15	D	Pipe Req'd	58		1.2						16	14	2		Set Pipe in Rt. Ditch	B
38&39	138+00	12	A	Pipe Req'd.; Inlet Type P-12 A	80		2.8	856.26	853.00				16		1		Drain at Left Ditch	A
40	146+95	36	A	Pipe Req'd	172		5.0	808.0	801.0				16		2		Constr. Inlet & Outlet Ditches	A
41	154+85	36	A	Pipe Req'd	176		4.0	861.5	858.5				16		2		Constr. Inlet & Outlet Ditches	A
42	155+05	15	D	Pipe Req'd. Inlet Type N-12	20			863.02									Connect to Structure Nº41	B
43	157+35	6	L	Pipe Req'd	290						75						Connect to 6" Pipes in Place	
44	159+10	36	A	Pipe Req'd	208	30°	4.5	858.5	855.5				16		2		Constr. Inlet & Outlet Ditches	A
45	160+70	15	A	Pipe Req'd, Inlet Type N-12	82		2.5	858.62	858.4				16		1		Drain at Right Ditch Construct Outlet Ditch	A
46	169+0[illegible]	12	A	Pipe Req'd.; Inlet P-12 A	92		4.0						16		1		Construct Outlet Ditch	A
47	170+98	42	A	Pipe Req'd	260	30°	8.0	856.74	853.6	2.50		2	16			V_1=9.8 / V_2=15.1	Two Anchors Req'd. 4 Sys of Additional Riprap to be Incl. in Cost of Conc. Pipe Constr. Inlet & Outlet Ditches	A
48	171+50	6	L	Pipe Req'd	420						108						Remove Pipe in Place	
49	177+50 Lt	12	D	Pipe Req'd.	44		6.5						16	16	2		Set Pipe in Left Ditch	B
~~50~~	~~177+50 Rt~~	~~12~~	~~D~~	~~Pipe Req'd~~	~~32~~		~~1.0~~						~~16~~	12	~~2~~		~~Set Pipe in Right Ditch~~	~~B~~
51	1[illegible]7+80	15	A	Pipe Req'd.; Inlet Type N-12	70		2.5	807.87	807.70				16		1		Drain at Lt. Ditch Construct Outlet Ditch	A
52	181+65	42		F.B.C.C.S. Pipe or	266		16.0	856.0	852.5	2.50		O	16			8.2	Two Anchors Req'd. Connect to Structure No. 53	A
		36		Reinf. Conc. Pipe Req'd.												12.7	4 Sys. of Rip-Rap to be Incl. in Cost of Conc. Pipe.	
53	181+90	15	D	Pipe Req'd. Inlet Type N-12	20			870.82							1		Connect to Structure Nº52	B
54	200+12	60		Strutted F.B.C.C.S. Pipe or	288		18.0	838.0	835.0	3.55		3	12			10.5	Two Anchors Req'd. 5 Sys of Additional Rip-Rap to be Incl.	A
		54		Reinf. Conc. Pipe Req'd.												16	in Cost of Conc. Pipe Constr. Inlet & Outlet Ditches	
55	203+35	12	D	Pipe Req'd.; Inlet Type P-12A	20			851.09									Connect to Structure No.56	B
56	203+55	36	A	Pipe Req'd	256	35°	7.75'	845.2	841.5				16		2		Constr. Inlet & Outlet Ditches	A
57	203+70	6	L	Pipe Req'd.	340						87							
58	206+25	15	A	Pipe Req'd.; Inlet Type N-12	74		2.75	849.93	849.30				16		1		Constr. Outlet Ditch	A

Structure Number	Location	Size Inches	Group	Description (See Std. Sheet "MP" for acceptable type of pipe within each group)	Length Feet	Skew	Cover	Flow Line Up Stream Elev.	Flow Line Down Stream Elev.	Concrete Class "A" Cu. Yds.	B Borrow	Rip-Rap	✱ Steel	✱ Alum.	Culvert Pipe End Section Each	Velocity	Remarks	Method of Backfill
59	214+40	84		F.B.C.C.S. Pipe or	260		13.0	837.3	835.4	4.71			8			7.9	Two Anchors Req'd. 9 Sys. of Rip-Rap to be Incl. in Cost	A
		72		Reinf. Conc. or								O				14.6	of Concrete Pipe. Constr.	
		84		S.P.S. Req'd.									10 T&S 8 Bott.			7.4	Inlet & Outlet Ditches.	
60	214+60	15	D	Pipe Req'd.; Inlet Type P-12 A	20			849.92									Connect to Str. Nº 59	B
60 A	224+10 Lt.	12	D	Pipe Req'd	24		1.8						16	16	2		Set Pipe in Lt. Ditch	B
60 B	224+70 Lt.	12	D	Pipe Req'd.	24		1.8						16	16	2		Set Pipe in Lt. Ditch	B
61	224+60	12	D	Pipe Req'd.; Inlet Type N-12	74			861.43	861.20						1		Construct Outlet Ditch	B
62	227+00	36	A	Pipe Req'd.	204	30°	3.0	861.85	857.49				16		2		Constr. Inlet & Outlet Ditches	A
63	238+40	12	D	Pipe Req'd.; Inlet Type P-12 A	20			857.63									Connect to Str. No. 64	B
64	238+60	36	A	Pipe Req'd	188		5.0'	855.2	852.0				16		2		Constr. Inlet & Outlet Ditches	A
65	243+50	12	D	Pipe Req'd.; Inlet Type P-12 A	86			852.53	852.13						1		Construct Outlet Ditch	B
66	244+05 Lt	18	D	Pipe Req'd.	32		1.5						16	14	2		Set Pipe in Left Ditch	B
67	244+05 Rt	15	D	Pipe Req'd	32		1.6						16	16	2		Set Pipe in Right Ditch	B
68	245+32	48		F.B.C.C.S. Pipe or	200	30°	4.0	848.5	848.35	2.50		2	16			9.1	Two Anchors Req'd. 3 Sys of Additional Rip-Rap to be Incl.	A
		42		Reinf. Conc. Pipe Req'd.												13.9	in the Cost of Conc. Pipe Constr. Inlet & Outlet Ditches	
69	247+37	36	A	Pipe Req'd	190	30°	2.0	849.5	846.0				16		2		Constr. Inlet & Outlet Ditches	A
70	249+50	18	A	Pipe Req'd.; Inlet Type N-12	92		3.0	848.49	846.7				16		1		Constr. Outlet Ditch on Right	A
71	250+20	79"x49"		F.B.C.C.S. Pipe Arch or	222	30°	3.5	847.58	843.6	3.25		3	~~12~~ 8			10	Two Anchors Req'd. 11 Sys of Additional Rip-Rap to be Incl.	A
		68"x43"	R1	Reinf. Conc. Ellip. Pipe												17.6	in the Cost of Conc. Pipe. Constr. Inlet & Outlet Ditches	
72	263+00	15	A	Pipe Req'd.; Inlet Type N-12	78		3.5	865.84	865.15				16		1		Construct Outlet Ditch	A
72A	265+25 Lt	12	D	Pipe Req'd.	24		1.0						[illegible]	[illegible]			Set Pipe in Lt. Ditch	
73	279+50	12	A	Pipe Req'd.; Inlet Type P-12 A	82		2.8	873.18	873.00				16		1		Construct Outlet Ditch	A
72B	277+[illegible]5 Lt	12	D	Pipe Req'd.	24		1.0						16	14	2		Set Pipe in Lt. Ditch	
~~74~~	~~280+00 Lt.~~	~~15~~	~~D~~	~~Pipe Req'd.~~	~~24~~		~~1.3~~						~~16~~	~~14~~	~~2~~		~~Set Pipe in Left Ditch~~	B
75	283+00 Lt.	6		Drain Tile	12						3						Connect to Field Tile in Place	
76	292+75	15	A	Pipe Req'd.; Inlet Type N-12	68		3.0	863.16	862.10				16		1		Constr. Outlet Ditch	A
77	293+70 Lt.	15	D	Pipe Req'd.	70		1						16	12	2		Set Pipe in Lt. Ditch	B

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.
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F.B.C.C.S.A.-------FULLY BITUMINOUS COATED CORRUGATED STEEL ARCH.
F.B.C.C.A.A.A.-----FULLY BITUMINOUS COATED CORRUGATED ALUMINUM ALLOY ARCH.
C.S.A.-------------CORRUGATED STEEL ARCH.
C.A.A.A.-----------CORRUGATED ALUMINUM ALLOY ARCH.
S.P.S.A.-----------STRUCTURAL PLATE STEEL ARCH.

† STR. NOS. FOR THIS PROJECT TO BEGIN AT STR. NO. 32

OCTOBER 1969

Project No.	Line	Sheet No.	Tot. Sh.	File
F-239 (10)	"C"	36	166	

Rev. 1-22-70 Str. No's 80-88 Revised or Added due to wider Median Sta. 306+00± Per Rd. Design Unit.

STRUCTURE DATA

✱ IF CONTRACTOR ELECTS TO USE METAL PIPE, GAGES AS SHOWN BELOW ARE TO BE USED

Structure Number	Location	Size Inches	Group	Description (See Std Sheet "MP" for acceptable types of pipe within each group)	Length Feet	Skew	Cover	Flow Line Up Stream Elev.	Flow Line Down Stream Elev.	Concrete Class A Cu. Yds.	B Borrow	Rip-Rap	Gages or Thickness ✱ Steel	Gages or Thickness ✱ Alum.	Culvert Pipe End-Section Each	Velocity	Remarks	Method of Backfill
78	298+70 Rt	15	D	Pipe Req'd.	70		1						16	12	2		Set Pipe in Right Ditch	B
79	297+70	48		F.B.C.C.S. Pipe or	196		5.0	856.78	858.12	2.50		2	16			9.9	Two Anchors Req'd. 3 Sys of Additional Rip-Rap to be Incl. in the Cost of Conc. Pipe Constr. Inlet & Outlet Ditches	A
		42		Reinf. Conc. Pipe Req'd.												15.1		
80	299+00			Inlet Type R-13 ℄														
		12	A	Pipe Req'd	76		5.4	857.23	856.00				16		1		Drain @ Rt. Ditch. Constr. Outlet Ditch	A
81	303+25 L.S. Rd. "4 Lt.	24	D	Pipe Req'd.	40	30°	2.0	856.70	855.50				16	14	2		Constr. Inlet & Outlet Ditches	B
82	305+00 Lt	36	A	Pipe Req'd.	182	20°	2.0	853.50	851.75				16		2		Constr. Inlet & Outlet Ditches	A
83	306+20 Rt			Inlet Type R-13 ℄														
		12	D	Pipe Req'd	100		1.5	853.49	853.10				16	16			Connect to Str. No. 82 1-36"x12" Tee Req'd	B
84	306+20 Lt			Inlet Type R-13 ℄														
		12	D	Pipe Req'd	80		1.5	853.76	852.70				16	16			Connect to Str. No. 82 1-36"x12" Tee Req'd	B
85	305+85 L.S. Rd. "5 Rt	30	D	Pipe Req'd.	32		1.7	851.30	850.80				16	12	2		Constr. Inlet & Outlet Ditches	B
86	307+30 L.S. Rd. "5 Rt.	12	D	Pipe Req'd	50		1.5	856.5	856.4				16	16	2		Set Pipe in Rt. Ditch Under Drive	B
87	307+60 L.S. Rd. "4 Lt.			Inlet Type A-8 ℄														
		12	D	Pipe Req'd	50		3.4	854.54	853.57				16	16	1		Drain Rt. See Detail Sheet 33 and P&P Sheet 25	B
88	314+89	12		Inlet & Pipe in Place											1		Remove Headwall. 1-12" Pipe End Section Req'd	
							Total Class "A" Conc.			20.09								
Undistributed Pipe Group "L"																		
		8"			600						161							
		10"			600						166							
		12"			600						182							
Draintile Class Standard																		
		6"			600						154							
		8"			600						161							
		10"			600						166							
		12"			600						182							
									Total "B" Borrow		1445							

Structure Number	Location	Size Inches	Group	Description (See Std Sheet "MP" for acceptable type of pipe within each group)	Length Feet	Skew	Cover	Flow Line Up Stream Elev.	Flow Line Down Stream Elev.	Concrete Class "D" Cu. Yds.	Special Borrow Grade "B" Cu. Yds.	Reinforcing Steel Lbs.	Gages or Thickness ✱ Steel	Gages or Thickness ✱ Alum.	Culvert Pipe End Section Each	Remarks

LEGEND FOR ABBREVIATIONS

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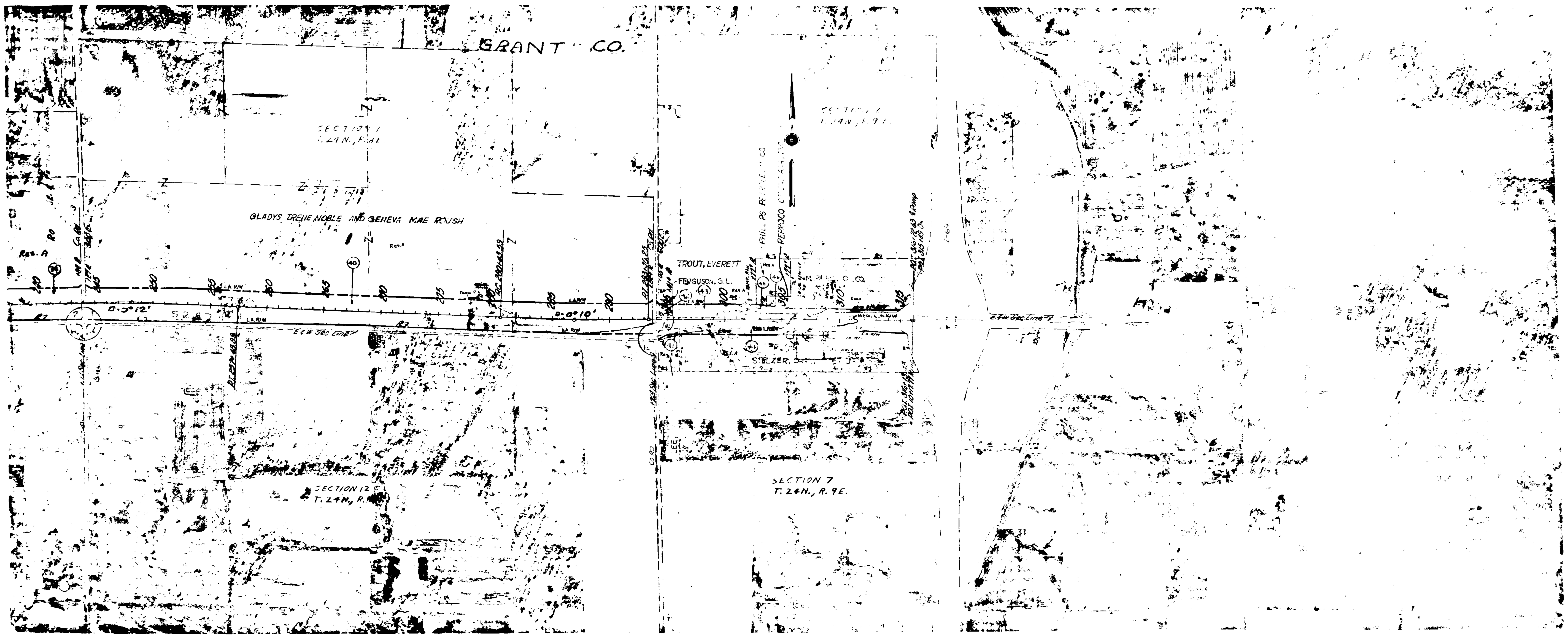
F.B.C.C.S.A.--------FULLY BITUMINOUS COATED CORRUGATED STEEL ARCH.
F.B.C.C.A.A.A.-----FULLY BITUMINOUS COATED CORRUGATED ALUMINUM ALLOY ARCH.
C.S.A.-------------CORRUGATED STEEL ARCH.
C.A.A.A.-----------CORRUGATED ALUMINUM ALLOY ARCH.
S.P.S.A.-----------STRUCTURAL PLATE STEEL ARCH.


GRANT CO.
GLADYS IRENE NOBLE AND GENEVA MAE ROUSH
TROUT, EVERETT
FERGUSON, G.L.
STELZER
SECTION 12
T. 24N., R.
SECTION 7
T. 24N., R. 9E.

F 235 (10) 37A

GRANT CO.

CHANDLER, W. B. ET. AL. (TRUSTEE)

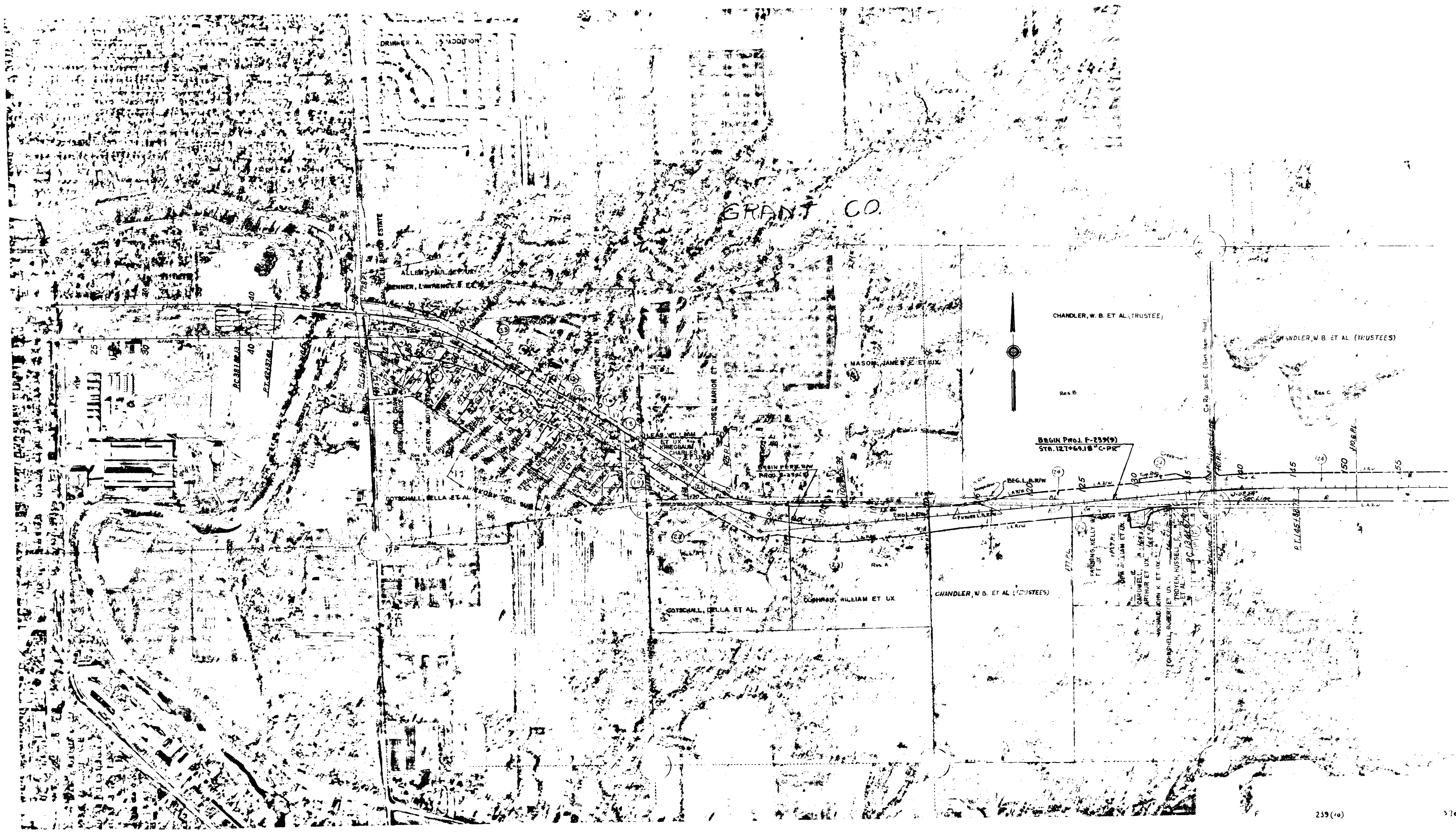
BUS, EARL

ROY E. & R. & PHYLLIS ARTON

GLADYS IRENE NOBLE, AND GENEVA MAE BOUSH

239 (a)

318



GRANT CO.
CHANDLER, W. B. ET AL (TRUSTEE)
CHANDLER, W. B. ET AL (TRUSTEES)
MASON, JAMES E. ET UX
BEGIN PROJ. F-239(9)
STA. 127+69.18 "C-PR"
GOTSCHALL, DELLA ET AL
CHANDLER, W. B. ET AL (TRUSTEES)
F
239(10)
37c

ESTIMATE OF QUANTITIES

FEDERAL ROAD REGION NO	STATE	PROJECT NO	FISCAL YEAR	SHEET NO	TOTAL SHEETS
5	IND.	F-239(10)	1971	38	166

GRADING

CODE NO.	DESCRIPTION	UNIT	QUANTITY
01001	MOBILIZATION	L.S.	1
01002	CLEARING RIGHT-OF-WAY	L.S.	1
01005	CLEARING	L.S.	
01010	GRUBBING	L.S.	
01015	CLEARING & GRUBBING	L.S.	
02245	TREE REMOVAL 6 INCH	EA.	
02250	TREE REMOVAL 12 INCH	EA.	
02255	TREE REMOVAL 18 INCH	EA.	
02260	TREE REMOVAL 30 INCH	EA.	
02265	TREE REMOVAL 48 INCH	EA.	
02270	TREE REMOVAL 60 INCH	EA.	
02285	REMOVAL OF PRESENT STRUCTURE	L.S.	
03000	REMOVAL OF HOUSES AND BUILDINGS FROM PARCEL (26)	L.S.	1
03000	REMOVAL OF HOUSES AND BUILDINGS FROM PARCEL (46)	L.S.	1
03000	REMOVAL OF HOUSES AND BUILDINGS FROM PARCEL (46)	L.S.	1
03000	REMOVAL OF HOUSES AND BUILDINGS FROM PARCEL (34)	L.S.	1
03000	REMOVAL OF HOUSES AND BUILDINGS FROM PARCEL (36)	L.S.	1
03000	REMOVAL OF HOUSES AND BUILDINGS FROM PARCEL (38)	L.S.	1
03000	REMOVAL OF HOUSES AND BUILDINGS FROM PARCEL (39)	L.S.	1
03000	REMOVAL OF HOUSES AND BUILDINGS FROM PARCEL (40)	L.S.	1
03000	REMOVAL OF HOUSES AND BUILDINGS FROM PARCEL (23)	L.S.	1
03000	REMOVAL OF HOUSES AND BUILDINGS FROM PARCEL ( )	L.S.	
02235	BREAKING PAVEMENT	SYS.	
02240	REMOVAL OF PAVEMENT	SYS.	11,168
02080	LINEAR GRADING	MILE	
02090	COMMON EXCAVATION	CYS.	305907
02010	ROCK EXCAVATION	CYS.	
02020	UNCLASSIFIED EXCAVATION	CYS.	
02100	PEAT EXCAVATION	CYS.	
02215	CASED TEST HOLE	LFT.	
02220	HOLE FOR TESTING OR FOR DYNAMITING 2 INCH	LFT.	
02225	HOLE FOR TESTING OR FOR DYNAMITING 4 INCH	LFT.	
02290	SETTLEMENT PLATES	EA.	
02295	PIEZOMETERS	EA.	
02300	SAND DRAINS	LFT.	
02070	BORROW	CYS.	5248
02050	B BORROW	CYS.	1445

PAVEMENT

CODE NO.	DESCRIPTION	UNIT	QUANTITY
04000	REPAIRING	MILE	
04010	PORTLAND CEMENT CONCRETE FOR PATCHING	SYS.	
04015	COMPACTED AGGREGATE FOR PATCHING	TON	
04020	BITUMINOUS MIXTURE FOR PATCHING	TON	
04025	WIDENING WITH BITUMINOUS MIXTURE	TON	
04030	WIDENING WITH CEMENT CONCRETE	SYS.	
04035	WIDENING WITH COMPACTED AGGREGATE	TON	
04040	PORTLAND CEMENT CONCRETE BASE	SYS.	
04045	TYPE P COMPACTED AGGREGATE FOR BASE (SIZE NO. 53)	TON	6628
04055	TYPE O COMPACTED AGGREGATE FOR BASE (SIZE NO. 53)	TON	
04065	TYPE P COMPACTED AGGREGATE FOR SURFACE (SIZE NO. 73)	TON	
04075	TYPE O COMPACTED AGGREGATE FOR SURFACE (SIZE NO. 73)	TON	
04085	TYPE P COMPACTED AGGREGATE FOR SHOULDER (SIZE NO. 73)	TON	
04095	TYPE O COMPACTED AGGREGATE FOR SHOULDER (SIZE NO. 73)	TON	
04105	PURE CALCIUM CHLORIDE	TON	
04115	PURE CALCIUM CHLORIDE (FOR SHOULDERS)	TON	
04125	HOT ASPHALT EMULSION (AE) BASE	TON	
04135	HOT ASPHALT EMULSION (AE) BINDER	TON	
04145	HOT ASPHALT EMULSION(AE)SURFACE	TON	
04155	HOT ASPHALT CONCRETE BASE	TON	
04165	HOT ASPHALT CONCRETE BINDER	TON	
04175	HOT ASPHALT CONCRETE SURFACE	TON	
04255	BITUMINOUS BASE (1)	TON	3300
04256	BITUMINOUS BASE NO. 5	TON	11,395
04265	BITUMINOUS BINDER	TON	
04275	BITUMINOUS SURFACE (2)	TON	723
04285	BITUMINOUS MIXTURE FOR SHOULDERS	TON	
04295	BITUMINOUS MIXTURE FOR APPROACHES (3)	TON	681
04300	BITUMINOUS MIXTURE FOR CROSSOVERS	TON	891
04335	FILLING CRACKS & JOINTS IN CONCRETE PAVEMENT OR BASE	TON	
04345	SEALING CRACKS & JOINTS IN BITUMINOUS PAVEMENT	TON	
04355	BITUMINOUS MATERIAL FOR SEAL COAT	TON	123
04365	BITUMINOUS MATERIAL FOR PRIME COAT	TON	22
04375	BITUMINOUS MATERIAL FOR TACK COAT	TON	
04385	COVER AGGREGATE	TON	201
04386	COVER AGGREGATE NO. 12	TON	799
04395	AGGREGATES FOR SHOULDER DRAINS	TON	

(2) INCLUDES FOR ROAD APPROACHES — TON 277

(1) INCLUDES FOR ROAD APPROACHES — TON 739

(1) INCLUDES FOR FRONTAGE ROADS — TON 589

(2) INCLUDES FOR FRONTAGE RD. — TON 221

(3) INCLUDES FOR PRIVATE DRIVES — TON 169

(3) INCLUDES FOR COMMERCIAL DRIVES — TON 93

CODE NO.	DESCRIPTION	UNIT	QUANTITY
04403	SUBBASE	CYS.	
04406	BITUMINOUS STABILIZED SUBBASE	TON	27,881
05000	CONTINUOUSLY REINFORCED CEMENT CONCRETE PAVEMENT 6 IN	SYS.	
05010	CONTINUOUSLY REINFORCED CEMENT CONCRETE PAVEMENT 7 IN	SYS.	
05020	CONTINUOUSLY REINFORCED CEMENT CONCRETE PAVEMENT 8 IN	SYS.	100,837
05030	CONTINUOUSLY REINFORCED CEMENT CONCRETE PAVEMENT 9 IN	SYS.	
05040	CONTINUOUSLY REINFORCED CEMENT CONCRETE PAVEMENT 10 IN	SYS.	
05050	CONCRETE PAVEMENT REINFORCED 6 IN	SYS.	
05060	CONCRETE PAVEMENT REINFORCED 7 IN	SYS.	
05070	CONCRETE PAVEMENT REINFORCED 8 IN	SYS.	3487
05080	CONCRETE PAVEMENT REINFORCED 9 IN	SYS.	
05090	CONCRETE PAVEMENT REINFORCED 10 IN	SYS.	
05100	CONCRETE PAVEMENT, HIGH EARLY STRENGTH 7 IN	SYS.	
05110	CONCRETE PAVEMENT, HIGH EARLY STRENGTH 8 IN	SYS.	
05120	CONCRETE PAVEMENT, HIGH EARLY STRENGTH 9 IN	SYS.	
05130	CONCRETE PAVEMENT, HIGH EARLY STRENGTH 10 IN	SYS.	
05140	CONCRETE PAVEMENT, PLAIN 6 IN	SYS.	
05150	CONCRETE PAVEMENT, PLAIN 7 IN	SYS.	
05160	CONCRETE PAVEMENT, PLAIN 8 IN	SYS.	
05170	CONCRETE PAVEMENT, PLAIN 9 IN	SYS.	
05180	CONCRETE PAVEMENT, PLAIN 10 IN	SYS.	
05210	CONCRETE PAVEMENT, PLAIN HIGH EARLY STRENGTH 8 IN	SYS.	
05220	CONCRETE PAVEMENT, PLAIN HIGH EARLY STRENGTH 9 IN	SYS.	
05230	CONCRETE PAVEMENT, PLAIN HIGH EARLY STRENGTH 10 IN	SYS.	
05240	CONTRACTION JOINT, TYPE D-1	LFT.	
05250	1/2 INCH PREFORMED JOINT MATERIAL	LFT.	
05260	1 INCH PREFORMED JOINT MATERIAL	LFT.	
05270	1 1/2 INCH PREFORMED JOINT MATERIAL	LFT.	
05280	EXPANSION JOINT, PREFORMED WITH LOAD TRANSFER 1 IN	LFT.	
05290	REINFORCING STEEL FOR PAVEMENT	LBS.	
05300	ANCHOR BOLTS	EACH	
05310	TERMINAL JOINTS	LFT.	96
05320	CEMENT CONCRETE PAVEMENT FOR PRIVATE DRIVES	SYS.	
05330	CEMENT CONCRETE PAVEMENT FOR COMMERCIAL DRIVES	SYS.	
05340	CEMENT CONCRETE PAVEMENT FOR CROSSOVER	SYS.	
05390	SALVAGED ROAD MATERIAL	CYS.	

MISCELLANEOUS

CODE NO.	DESCRIPTION	UNIT	QUANTITY
06000	GUARD RAIL, TYPE A	LFT.	
06005	GUARD RAIL, TYPE B	LFT.	
06010	GUARD RAIL, TYPE C	LFT.	1685
06015	GUARD RAIL, TYPE D	LFT.	
06020	GUARD RAIL, TYPE E	LFT.	
06025	GUARD RAIL, TYPE F	LFT.	
06030	GUARD RAIL, TYPE G	LFT.	
06035	RESET GUARD RAIL	LFT.	
06040	47 IN FENCE, FARM FIELD	LFT.	39902
06045	48 IN FENCE, CHAIN LINK	LFT.	500†
06050	GATE, FARM FIELD	EACH	
06055	GATE, CHAIN LINK	EACH	
06060	RESETTING FENCE, FARM FIELD	LFT.	
06065	RESETTING FENCE, CHAIN LINK	LFT.	
06070	CONCRETE SIDEWALK	SYS.	
06075	BITUMINOUS SIDEWALK	TON	
06080	RECONSTRUCTED SIDEWALK	SYS.	
06085	RE-LAID SIDEWALK	SYS.	
06090	CURB, INTEGRAL	LFT.	
06095	CURB, INTEGRAL CONCRETE, TYPE B	LFT.	
06100	CURB, INTEGRAL CONCRETE, TYPE C	LFT.	
06120	CURB, CONCRETE	LFT.	190
06121	CURB, CONCRETE, TYPE B	LFT.	
06130	CURB, BITUMINOUS	LFT.	
06140	CURB & GUTTER, COMBINED	LFT.	
06145	CURB & GUTTER, COMBINED, TYPE B	LFT.	
06150	CURB & GUTTER, COMBINED, TYPE C	LFT.	
06170	GUTTER, STANDARD LIP	LFT.	
06175	CONCRETE GUTTER	LFT.	
06176	CEMENT CONCRETE GUTTER	CYS.	
06185	CONCRETE GUTTER, REINFORCED	LFT.	
06195	RESET CURB	LFT.	
06200	CENTER CURB, CONCRETE, TYPE A	LFT.	
06205	CENTER CURB, CONCRETE, TYPE B	LFT.	
06210	CENTER CURB, CONCRETE, TYPE C	LFT.	
06215	CENTER CURB, CONCRETE, TYPE D	LFT.	
06240	CENTER CURB, CONCRETE, TYPE A	SYS.	
06245	CENTER CURB, CONCRETE, TYPE B	SYS.	
06250	CENTER CURB, CONCRETE, TYPE C	SYS.	
06255	CENTER CURB, CONCRETE, TYPE D	SYS.	
06280	CENTER CURB, BITUMINOUS, TYPE A	LFT.	
06285	CENTER CURB, BITUMINOUS, TYPE B	LFT.	
06290	SPECIAL CENTER CURB, BITUMINOUS TYPE A	LFT.	
06295	SPECIAL CENTER CURB, BITUMINOUS TYPE B	LFT.	
06300	CENTER CURB, BITUMINOUS, TYPE A	SYS.	
06305	CENTER CURB, BITUMINOUS, TYPE B	SYS.	
06310	SPECIAL CENTER CURB, BITUMINOUS TYPE A	SYS.	
06315	SPECIAL CENTER CURB, BITUMINOUS TYPE B	SYS.	
06320	CURB REMOVAL	LFT.	
06335	PAVED SIDE DITCH, TYPE A	LFT.	1360
06340	PAVED SIDE DITCH, TYPE B	LFT.	2315
06345	PAVED SIDE DITCH, TYPE C	LFT.	535
06350	PAVED SIDE DITCH, TYPE D	LFT.	1074
06355	PAVED SIDE DITCH, TYPE E	LFT.	
06360	PAVED SIDE DITCH, TYPE F	LFT.	164
06365	PAVED SIDE DITCH, TYPE G	LFT.	535
06370	PAVED SIDE DITCH, TYPE H	LFT.	
06375	PAVED SIDE DITCH, TYPE J	LFT.	
06380	PAVED SIDE DITCH, TYPE K	LFT.	
06385	PAVED SIDE DITCH, TYPE L	LFT.	
06390	PAVED SIDE DITCH, TYPE M	LFT.	

CODE NO.	DESCRIPTION	UNIT	QUANTITY
06395	RIPRAP	SYS.	
06400	DUMPED RIPRAP	TON	
06405	REVETMENT RIPRAP	TON	
06410	HAND-LAID RIPRAP 6 IN	SYS.	
06415	HAND-LAID RIPRAP 12 IN	SYS.	
06420	GROUTED RIPRAP 6 IN	SYS.	
06425	GROUTED RIPRAP 12 IN	SYS.	
06430	PLACING HAND-LAID RIPRAP 6 IN	SYS.	
06435	PLACING HAND-LAID RIPRAP 12 IN	SYS.	
06440	PLACING GROUTED RIPRAP 6 IN	SYS.	
06445	PLACING GROUTED RIPRAP 12 IN	SYS.	
06455	SLOPEWALL	SYS.	
06460	CONCRETE SLOPEWALL 4 IN	SYS.	
06465	CONCRETE SLOPEWALL 5 IN	SYS.	
06470	CONCRETE HEADER, TYPE A	LFT.	
06475	CONCRETE HEADER, TYPE B	LFT.	
06480	CONCRETE HEADER, TYPE C	LFT.	
06481	CEMENT CONCRETE HEADER	LFT.	
06485	RECONSTRUCTED CONCRETE HEADER	LFT.	
06490	RIGHT-OF-WAY MARKER	EACH	
06495	RESET RIGHT-OF-WAY MARKER	EACH	
06500	MONUMENT, TYPE A	EACH	2
06505	MONUMENT, TYPE B	EACH	11
06510	MONUMENT, TYPE C	EACH	
06515	MONUMENT, TYPE D	EACH	
06520	RE-ESTABLISHED MONUMENT	EACH	
06525	CASTING ADJUSTED TO GRADE, MONUMENT	EACH	
06530	BENCH-MARK POST	EACH	3
06535	RESET BENCH-MARK POST	EACH	
06540	AGRICULTURAL LIMESTONE (1)	TON	74
06545	FERTILIZER (2)	TON	58
06549	MULCHING MATERIAL (URBAN)	TON	
06550	MULCHING MATERIAL (3)	TON	290
06551	MULCHING MATERIAL (WOOD CELLULOSE FIBER)	TON	
06552	PLAIN SEEDING	LBS.	
06554	SEED MIXTURES (URBAN)	LBS.	
06555	SEED MIXTURES (84.7 ACRES)	LBS.	9314
06556	TEMPORARY SEED MIXTURES (URBAN)	LBS.	
06557	TEMPORARY SEED MIXTURES(63.9AC)	LBS.	6636
06560	CROWN VETCH SEEDING	LBS.	
06565	MULCHED SEEDING	SYS.	
06567	WATER (4)	MG.	1015
06570	TOP SOIL	CYS.	
06574	SODDING(URBAN)	SYS.	
06575	SODDING	SYS.	27311
06580	STEEL PIPE (CONDUIT) 2 IN	LFT.	
06585	STEEL PIPE (CONDUIT) 3 IN	LFT.	
06595	NON-METALLIC PIPE (CONDUIT) 2 IN	LFT.	
06600	NON-METALLIC PIPE (CONDUIT) 3 IN	LFT.	
06610	HANDHOLE FOR STREET OR ALLEY	EACH	
06615	HANDHOLE FOR SIDEWALK	EACH	
06618	RUMBLE STRIP	LFT.	

(4) INCLUDES FOR SODDING — M6 110

(1) INCLUDES FOR TEMP. SEEDING — TON 30.2

(2) INCLUDES FOR TEMP. SEEDING — TON 23.0

(3) INCLUDES FOR TEMP. SEEDING — TON 121.0

CODE NO.	DESCRIPTION	UNIT	QUANTITY
06620	STANDARD BARRICADE, TYPE III	EACH	13
06625	STANDARD BARRICADE, TYPE II	EACH	
06630	PERMANENT BARRICADE, TYPE A	EACH	
06635	PERMANENT BARRICADE, TYPE B	EACH	
06640	CONSTRUCTION SIGN, TYPE A	EACH	11
06645	CONSTRUCTION SIGN, TYPE B	EACH	10
06650	STOP SIGN, TYPE R-1A	EACH	8
06652	DO NOT PASS SIGN, TYPE R-11-A	EACH	
06655	YIELD SIGN, TYPE R-301	EACH	
06657	PASS WITH CARE SIGN, TYPE R-12A	EACH	
06660	CURVE SIGN, TYPE W-2AR	EACH	
06665	CURVE SIGN, TYPE W-2AL	EACH	
06670	REVERSE CURVE SIGN, TYPE W-4AR	EACH	
06675	REVERSE CURVE SIGN, TYPE W-4AL	EACH	
06680	LARGE ARROW SIGN, TYPE W-11A	EACH	
06685	STOP AHEAD SIGN, TYPE W-13A	EACH	8
06690	FRONTAGE ROAD SIGN, TYPE M-26	EACH	
06695	NO OUTLET DEAD END SIGN, TYPE M-29	EACH	
06700	RAILROAD ADVANCE WARNING SIGN, TYPE W-32A	EACH	
06705	RAILROAD CROSSBUCK SIGN, TYPE W-33	EACH	
06710	PAINTED LINE * 4 IN	LFT.	6819
06715	TEMPORARY PAVEMENT MARKING (PAINT)	LFT.	1872
06720	TEMPORARY PAVEMENT MARKING (TAPE)	LFT.	8530
06725	DELINEATOR WITH POST, TYPE D-1 3 IN	EACH	
06740	DELINEATOR WITH POST, TYPE D-2 3 IN	EACH	
06755	DELINEATOR WITH POST, TYPE D-3 3 IN	EACH	
06770	DELINEATOR POST	EACH	45
	STOP, R-1B	EACH	10
	ONE-WAY ARROW, R-16R	EACH	20
	DO NOT ENTER, R-15B	EACH	20
	NO RIGHT TURN, R-6A	EACH	10
	WRONG WAY, R-10Z	EACH	20
	YIELD, R-301A	EACH	10
	ONE-WAY ARROW, R-16L	EACH	10

*INCLUDES FOR YELLOW BARRIER STRIPE — LFT. 2728

CODE NO.	DESCRIPTION	UNIT	QUANTITY
06775	MAINTAINING TRAFFIC	LSUM	1
06776	FHWA ORDER INTERIM 7-2(2) TRAINEES (3)	HRS.	3000
06780	FIELD OFFICE (ROAD)(120 SQ.FT.)	MOS.	
06785	FIELD OFFICE (ROAD)(240 SQ.FT.)	MOS.	
06790	FIELD OFFICE (ROAD)(300 SQ.FT.)	MOS.	
06800	FIELD OFFICE (ROAD)(400 SQ.FT.)	MOS.	27
06802	FIELD OFFICE (ROAD)(440 SQ.FT.)	MOS.	
06803	FIELD OFFICE (ROAD)(500 SQ.FT.)	MOS.	
06805	FIELD LABORATORY (120 SQ. FT.)	MOS.	
06810	FIELD LABORATORY (240 SQ. FT.)	MOS.	21
06815	FIELD LABORATORY (300 SQ. FT.)	MOS.	
06820	FIELD LABORATORY (400 SQ. FT.)	MOS.	
06825	FIELD OFFICE (BRIDGE) (120 SQ. FT.)	MOS.	
06830	FIELD OFFICE (BRIDGE) (240 SQ. FT.)	MOS.	
06835	FIELD OFFICE (BRIDGE) (300 SQ. FT.)	MOS.	
06840	FIELD OFFICE (BRIDGE) (400 SQ. FT.)	MOS.	
06845	CONSTRUCTION ENGINEERING	LSUM	

† UNDISTRIBUTED QUANTITY

THE QUANTITIES SHOWN ON THIS SHEET INCLUDE THE FOLLOWING ITEMS TO MITIGATE RIGHT-OF-WAY DAMAGES

ITEM	UNIT	QUANTITY

NOVEMBER 1971

PROJECT NO	LINE NO	SHEET NO	TOTAL SHEETS	FILE
F-239(10)	C.P.R.	38	166	

Rev. 9-29-72 STR No. 71, GAGE CHANGED FROM 12 GA. To 8 GA. Per Rd Design Dept.

FEDERAL ROAD REGION NO.	STATE	PROJECT NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
4	IND.	F-239 (10)	1971	39	166

ESTIMATE OF QUANTITIES (CON'T.)

STRUCTURE SUMMARY

CIRCULAR PIPE: LINEAL FEET

KIND \ SIZE		4"	6"	8"	10"	12"	15"	18"	36"	42"	42" Steel or 36" Conc.	60" Steel or 54" Conc.	84" Steel or 72" Conc.	48" Steel or 42" Conc.	24"	30"
GAGE	STEEL					16	16	16	16	16	16	12	8	10	16	16
GAGE STRUCT. PLATES STEEL	TOP & SIDES												10			
	BOTTOM												8			
THICK. STRUCT. PLATES ALUM.	TOP & SIDES															
	BOTTOM															
GROUP - "A"						330	372	92	1714	260						
GROUP - "D"						620	364	32							40	32
GROUP																
GROUP																
GROUP																
GROUP																
GROUP																
GROUP																
GROUP																
GROUP - "L"			1050	600	600	600										
REINFORCED CONCRETE																
EXTRA STRENGTH REINF. CONC.																
HEAVY DUTY REINF. CONC.																
VITRIFIED CLAY CULVERT																
STRUCT. PLATE STEEL OR F.B.C.C.S. OR REINF. CONC.													260			
FULLY BITUM. COATED CORR. STEEL OR REINF. CONC.											266			396		
FULLY BITUM. COATED CORR. STEEL OR REINF. CONCRETE												288 *				
FULLY BITUM. COATED CORR. STEEL WITH PAVED INVERT																
DRAINTILE STANDARD			612	600	600	600										
FULLY BITUMINOUS COATED PERFORATED CORR. STEEL OR FULLY BITUMINOUS COATED PERFORATED ALUMINUM ALLOY																

* STRUTTED

STRUCTURE SUMMARY (CON'T.)

PIPE ARCHES: LINEAL FEET

KIND \ MIN AREA SQ. FT. *		79"x49" STEEL	65"x43" CONCRETE	128"x85" STEEL	CONCRETE 106"x68"
GAGE STRUCT. PLATES STEEL	TOP & SIDES			12	
	BOTTOM			10	
THICK. STRUCT. PLATES ALUM.	TOP & SIDES				
	BOTTOM				
GAGE		#8			
GROUP G-					
GROUP G-					
GROUP G-					
GROUP H-					
GROUP H-					
GROUP H-					
CORR. STEEL OR CORR. ALUM. ALLOY PIPE ARCH.					
STRUCT. PLATE STEEL PIPE ARCH OR REINF. ELLIPTICAL CONCRETE PIPE				298	
F.B.C.C.S. PIPE ARCH OR REINF. ELLIPTICAL CONCRETE PIPE		222			
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 WITH PAVED INVERT					

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

PIPE: GROUP "K" FOR UNDERDRAINS 6"	79,239	LIN. FT.
PIPE: FULLY BIT. COATED NON PERFORATED CORR. STEEL (GAGE 18) FOR UNDERDRAINS 6"	2,320	LIN. FT.
AGGREGATE FOR UNDERDRAINS	7132	CYS

ITEM	UNIT	QUANTITY
CONCRETE CLASS "A" IN STRUCTURES	CYS	20.09
REINFORCING STEEL FOR STRUCTURES	LB	
CONCRETE CLASS "F" FOR STRUCTURES	CYS	
CONCRETE CLASS "F" FOR INTEGRAL CURB WALK	CYS	

INLETS

TYPE	EACH	TYPE	EACH
N-12	10		
P-12A	7		
R-13	3		
A-8	1		

CATCH BASINS

TYPE	EACH

MANHOLES

TYPE	EACH

PIPE CATCH BASINS

SIZE	EACH

RECONSTRUCTED

	LIN. FT.
MANHOLE	
CATCH BASIN	
INLET	

AUTO DRAINAGE GATES

SIZE	HEAD	EACH

CASTINGS ADJUSTED TO GRADE

EACH

REINF. CONCRETE SPRING BOXES

EACH

CASTINGS FURNISHED AND ADJUSTED TO GRADE

TYPE " "		EACH
TYPE " "		EACH

INLETS USING CASTING IN PLACE

TYPE	EACH

CATCH BASINS USING CASTING IN PLACE

TYPE	EACH

PIPE END SECTIONS

SIZE	EACH
12"	20
15"	16
18"	3
30"	2
24"	2
36"	18