CONTRACT NO. R-7859

FEDERAL ROAD DIVISION NO.	STATE	F PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
4	IND.	70(10)	1964	1	242

INDEX

* B.P.R. APPROVAL PENDING

REVISIONS

SHEET NO.	DATE	REVISED
28	6-29-66	Relocate Bldg. #701 & Sign.
8, 10, 11, 12, 26, 43.	6-29-66	Eliminate "Reset" CLSF (Use New)
15	8-23-66	Temp. R/W to Perm. R/W.
18 & 30	9-30-66	Locate existing Bldg. of THERMOGAS Co.
11 & 27	11-17-66	Add Cl. II Dr. Lt. Line "S-10-B" St. 52+30
16 42, 43, 194, 196	1-21-67	Temp. R/W for Drive Const. AR#8
16	3-6-67	Temp. R/W - Bldg. Rem. Sta. 510, 160' RT.
[illegible] 43	6-2-67	Add Str's 57A, B & C.
14	10-4-67	PRIVATE DRIVE @ Sta. 453+61
9	10-5-67	Approach @ Sta. 820+57 (Line "S-8-B")
5, 13, 40, 140-143.	10-17-68	Access Rd. No. 2 Eliminated
[illegible]	10-17-68	Str's 67, 68, & 74.
[illegible], 27, 40, 41, 140.	10-17-68	Class IV Drives
[illegible]	10-17-68	Bal. No. 10 & 11. - Temp. R/W.
2, 32-B, 37 & 43.	1-15-69	STR. NO. 46-A, Added.
3	2-5-69	Add. Bitum. Safety Shldr's
43	2-5-69	Add. Qty's for Shldr's
14, 30, 43	4-29-69	Added Temp. R/W, Rev. Str. 89
14	6-20-69	Temp. R/W
4, 14, 43	6-30-69	[illegible] RD 4
14 [illegible], 43	11-6-69	ACCESS RD 4A EXTENDED

STATE HIGHWAY COMMISSION OF INDIANA.
STANDARD SPECIFICATIONS DATED 1963
TO BE USED WITH THESE PLANS.

STATE OF INDIANA

INDIANA STATE HIGHWAY COMMISSION

PLAN AND PROFILE OF PROPOSED

STATE HIGHWAY

F PROJECT NO. 70(10) CONSTR.

(8) P.E.
(10) CONSTR.

ST-F-PROJECT NO. 70(9) R/W

BEGINNING AT A POINT APPROXIMATELY 1000.0 FEET SOUTH AND 33.0 FEET EAST OF THE NORTHWEST CORNER OF SECTION 7, T.25N., R.4E. AND EXTENDING IN A NORTHERLY DIRECTION ADJACENT TO THE NORTH & SOUTH SECTION LINE AND R.3E. LINE TO A POINT APPROXIMATELY 1212.7 FEET NORTH AND 350.0 FEET EAST OF THE SOUTH WEST CORNER OF SECTION 6, T.26N., R.4E. ALL IN MIAMI COUNTY.

GROSS LENGTH:- 6.353 MI.
NET LENGTH:- 6.353 MI.
SCALES:-
PLAN {LONG:- 1"=100', TRANS:- 1"=100'} PROFILE {HORIZ:- 1"=100', VERT:- 1"=10'}

MAX. GRADE: 2.552%

R/W FOR THIS PROJECT INCLUDES R/W FOR SEPARATE CONTRACT STRUCTURE F PROJECT NO. 70(11)

THESE PLANS HAVE BEEN REVISED FEBRUARY 1968 TO INCLUDE THE SPECIAL CRITERIA OF "HIGHWAY DESIGN AND OPERATIONAL PRACTICES RELATED TO HIGHWAY SAFETY" DATED FEBRUARY 1967

THESE PLANS PREPARED BY
CHAS. W. COLE & SON
ENGINEERS
SOUTH BEND, INDIANA

DESIGN DATA	
A.D.T. (1968)	10,130 V.P.D.
A.D.T. (1988) PROJECTED	17,030 V.P.D.
D.H.V. 1988	1,870 V.P.H.
DIRECTIONAL DISTRIBUTION	56%
TRUCKS	20%
DESIGN SPEED	70 M.P.H.
ACCESS CONTROL	PARTIAL

October 1, 1965
DATE

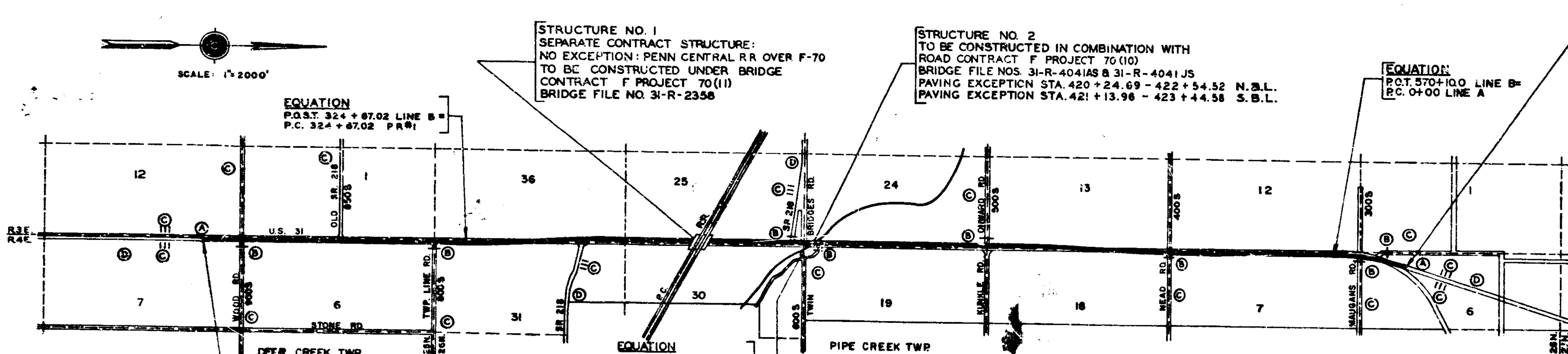
REGISTERED PROFESSIONAL ENGINEER
STATE OF INDIANA NO. 3653

LEGEND FOR BARRICADES AND SIGNS

- (A) BARRICADE TYPE A
- (B) BARRICADE TYPE B
- (C) CONSTRUCTION SIGN TYPE A
- (D) CONSTRUCTION IDENTIFICATION SIGN

MIAMI COUNTY

END F PROJ. 70(10) STA. 19+50.0 LINE 'A'
BEGIN F PROJ. 875(8) STA. 19+50.0 LINE 'A'



BEGIN F PROJ. 70(10) STA. 254+18.0 AHEAD LINE 'B'
END F PROJ. 70(13) STA. 254+18.0 BACK LINE 'B'

RECOMMENDED FOR APPROVAL 8-12-68
R. L. Van Cleave
SQUAD CHIEF — INDIANA STATE HIGHWAY COMMISSION

RECOMMENDED FOR APPROVAL 8-12-68
Rollin E. Garrard
ASSISTANT ENG. OF PLANS AND SPECIFICATIONS
INDIANA STATE HIGHWAY COMMISSION

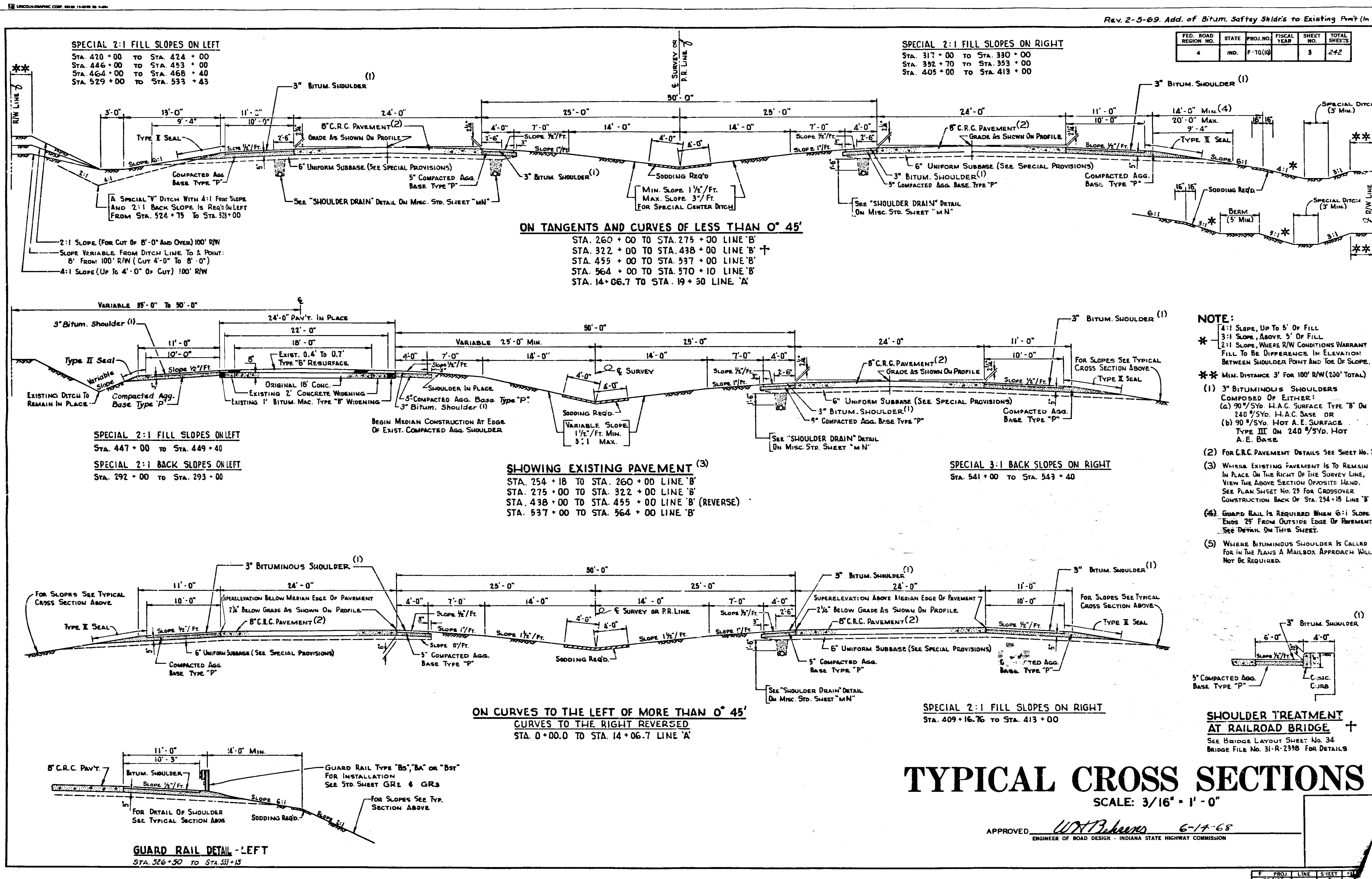
RECOMMENDED FOR APPROVAL 12-31-65
C. J. Klingelhoefer
ENGINEER OF PLANS AND SPECIFICATIONS
INDIANA STATE HIGHWAY COMMISSION

APPROVED 1-3-66
CHIEF ENGINEER — INDIANA STATE HIGHWAY COMMISSION

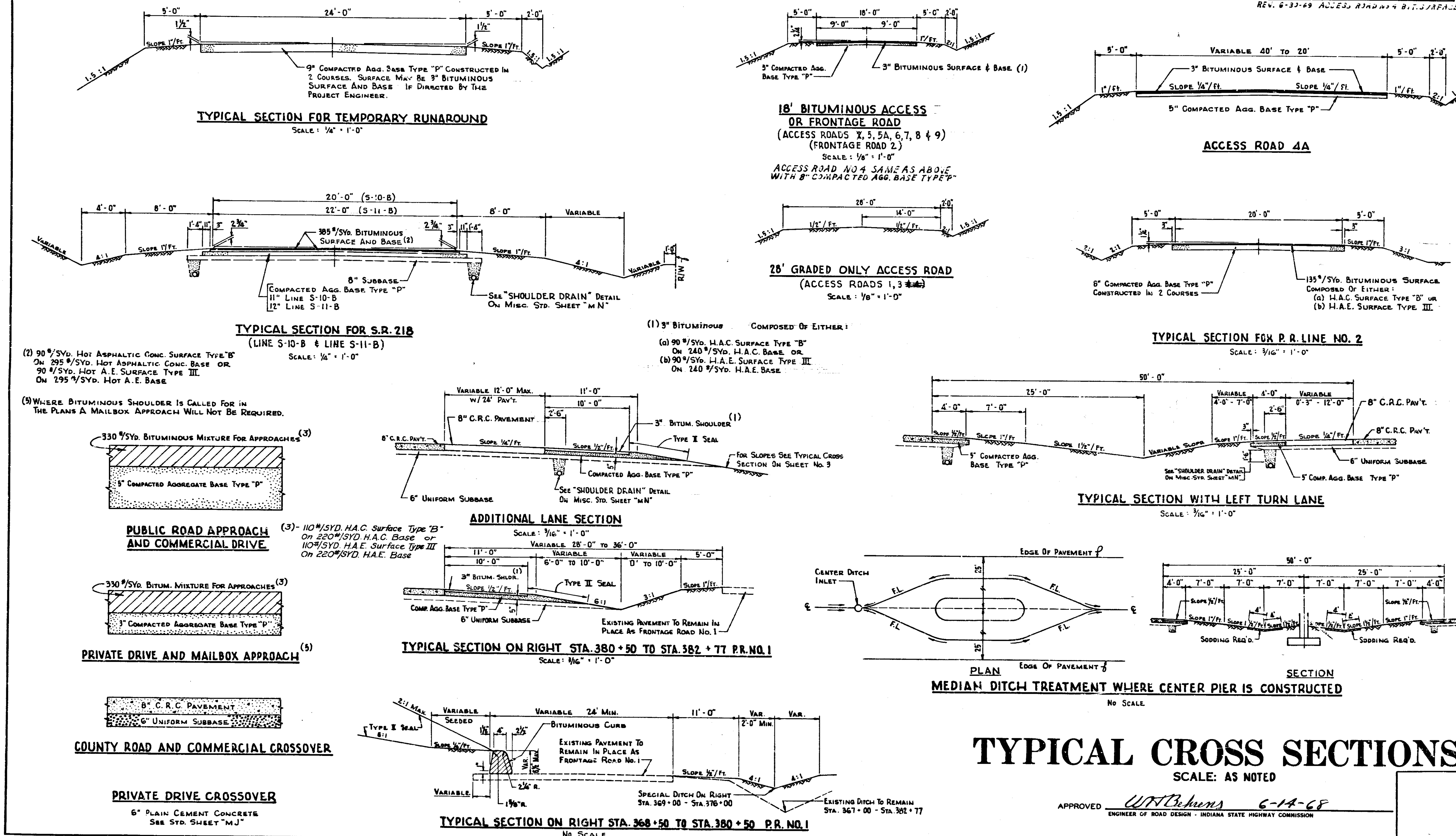
BUREAU OF PUBLIC ROADS
DEPARTMENT OF TRANSPORTATION
APPROVED

DIVISION ENGINEER | DATE

ROAD FILE:-


Rev. 2-5-69. Add. of Bitum. Saftey Shldr's to Existing Pvm't (In F
FED. ROAD REGION NO. 4 | STATE IND. | PROJ. NO. F-70(10) | FISCAL YEAR | SHEET NO. 3 | TOTAL SHEETS 242
SPECIAL 2:1 FILL SLOPES ON LEFT
STA. 420 + 00 TO STA. 424 + 00
STA. 446 + 00 TO STA. 453 + 00
STA. 464 + 00 TO STA. 468 + 40
STA. 529 + 00 TO STA. 533 + 43
SPECIAL 2:1 FILL SLOPES ON RIGHT
STA. 317 + 00 TO STA. 330 + 00
STA. 352 + 70 TO STA. 353 + 00
STA. 405 + 00 TO STA. 413 + 00
3" Bitum. Shoulder (1)
8" C.R.C. Pavement (2)
Grade As Shown On Profile
Type II Seal
6" Uniform Subbase (See Special Provisions)
5" Compacted Agg. Base Type "P"
Compacted Agg. Base Type "P"
See "Shoulder Drain" Detail On Misc. Std. Sheet "MN"
Sodding Req'd
Min. Slope 1½"/Ft. Max. Slope 3"/Ft. For Special Center Ditch
A Special "V" Ditch With 4:1 Front Slope And 2:1 Back Slope Is Req'd On Left From Sta. 524 + 75 To Sta. 528 + 00
2:1 Slope (For Cut Of 8'-0" And Over) 100' R/W
Slope Variable From Ditch Line To A Point 8' From 100' R/W (Cut 4'-0" To 8'-0")
4:1 Slope (Up To 4'-0" Of Cut) 100' R/W
Special Ditch (3' Min.)
Berm (5' Min.)
Sodding Req'd.
℄ Survey or P.R. Line
R/W Line
ON TANGENTS AND CURVES OF LESS THAN 0° 45'
STA. 260 + 00 TO STA. 275 + 00 LINE 'B'
STA. 322 + 00 TO STA. 438 + 00 LINE 'B' †
STA. 455 + 00 TO STA. 537 + 00 LINE 'B'
STA. 564 + 00 TO STA. 570 + 10 LINE 'B'
STA. 14+06.7 TO STA. 19 + 50 LINE 'A'
Variable 35'-0" To 50'-0"
24'-0" Pav't. In Place
Exist. 0.4' To 0.7' Type "B" Resurface
Original 18' Conc.
Existing 2' Concrete Widening
Existing 1' Bitum. Mac. Type "B" Widening
Shoulder In Place
5" Compacted Agg. Base Type "P"
3" Bitum. Shoulder (1)
Existing Ditch To Remain In Place
Variable Slope
Begin Median Construction At Edge Of Exist. Compacted Agg. Shoulder
Variable Slope 1½"/Ft. Min. 3:1 Max.
For Slopes See Typical Cross Section Above
SPECIAL 2:1 FILL SLOPES ON LEFT
Sta. 447 + 00 to Sta. 449 + 40
SPECIAL 2:1 BACK SLOPES ON LEFT
Sta. 292 + 00 to Sta. 293 + 00
SHOWING EXISTING PAVEMENT (3)
STA. 254 + 18 TO STA. 260 + 00 LINE 'B'
STA. 275 + 00 TO STA. 322 + 00 LINE 'B'
STA. 438 + 00 TO STA. 455 + 00 LINE 'B' (REVERSE)
STA. 537 + 00 TO STA. 564 + 00 LINE 'B'
SPECIAL 3:1 BACK SLOPES ON RIGHT
Sta. 541 + 00 to Sta. 543 + 40
NOTE:
* 4:1 Slope, Up To 5' Of Fill
3:1 Slope, Above 5' Of Fill
2:1 Slope, Where R/W Conditions Warrant Fill To Be Difference In Elevation Between Shoulder Point And Toe Of Slope.
** Min. Distance 3' For 100' R/W (230' Total)
(1) 3" Bituminous Shoulders Composed Of Either:
(a) 90#/SYd. H.A.C. Surface Type "B" On 240#/SYd. H.A.C. Base or
(b) 90#/SYd. Hot A.E. Surface Type III On 240#/SYd. Hot A.E. Base
(2) For C.R.C. Pavement Details See Sheet No. 2
(3) Where Existing Pavement Is To Remain In Place On The Right Of The Survey Line, View The Above Section Opposite Hand. See Plan Sheet No. 25 For Crossover Construction Back Of Sta. 254 + 18 Line 'B'
(4) Guard Rail Is Required When 6:1 Slope Ends 25' From Outside Edge Of Pavement. See Detail On This Sheet.
(5) Where Bituminous Shoulder Is Called For In The Plans A Mailbox Approach Will Not Be Required.
3" Bituminous Shoulder (1)
Superelevation Below Median Edge Of Pavement 2¼" Below Grade As Shown On Profile
Superelevation Above Median Edge Of Pavement 2¼" Below Grade As Shown On Profile
℄ Survey or P.R. Line
ON CURVES TO THE LEFT OF MORE THAN 0° 45'
CURVES TO THE RIGHT REVERSED
STA. 0 + 00.0 TO STA. 14 + 06.7 LINE 'A'
SPECIAL 2:1 FILL SLOPES ON RIGHT
Sta. 409 + 16.76 to Sta. 413 + 00
5" Compacted Agg. Base Type "P"
Conc. Curb
SHOULDER TREATMENT AT RAILROAD BRIDGE †
See Bridge Layout Sheet No. 34
Bridge File No. 31-R-2338 For Details
8" C.R.C. Pav't.
Bitum. Shoulder
Guard Rail Type "Bs", "BA" or "Bst" For Installation See Std. Sheet GR2 & GR3
For Slopes See Typ. Section Above
For Detail Of Shoulder See Typical Section Above
Sodding Req'd.
GUARD RAIL DETAIL - LEFT
STA. 526+50 TO STA. 533+15
TYPICAL CROSS SECTIONS
SCALE: 3/16" = 1'-0"
APPROVED W.H. Behrens 6-14-68
ENGINEER OF ROAD DESIGN - INDIANA STATE HIGHWAY COMMISSION
F-70(10) | LINE | SHEET 3

FED. ROAD REGION NO.	STATE	PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
4	IND.	F-70(10)	1964	4	242



TYPICAL SECTION FOR TEMPORARY RUNAROUND
Scale: 1/4" = 1'-0"
9" Compacted Agg. Base Type "P" Constructed In 2 Courses. Surface May Be 3" Bituminous Surface And Base If Directed By The Project Engineer.
18' BITUMINOUS ACCESS OR FRONTAGE ROAD
(ACCESS ROADS X, 5, 5A, 6, 7, 8 & 9)
(FRONTAGE ROAD 2)
Scale: 1/8" = 1'-0"
ACCESS ROAD NO 4 SAME AS ABOVE WITH 8" COMPACTED AGG. BASE TYPE "P"
3" Compacted Agg. Base Type "P"
3" Bituminous Surface & Base (1)
ACCESS ROAD 4A
3" Bituminous Surface & Base
5" Compacted Agg. Base Type "P"
28' GRADED ONLY ACCESS ROAD
(ACCESS ROADS 1, 3)
Scale: 1/8" = 1'-0"
TYPICAL SECTION FOR S.R. 218
(LINE S-10-B & LINE S-11-B)
Scale: 1/4" = 1'-0"
385#/SYd. Bituminous Surface And Base (2)
8" Subbase
Compacted Agg. Base Type "P"
11" Line S-10-B
12" Line S-11-B
See "SHOULDER DRAIN" Detail On Misc. Std. Sheet "MN"
(2) 90#/SYd. Hot Asphaltic Conc. Surface Type "B" On 295#/SYd. Hot Asphaltic Conc. Base or 90#/SYd. Hot A.E. Surface Type III On 295#/SYd. Hot A.E. Base
(5) Where Bituminous Shoulder Is Called For In The Plans A Mailbox Approach Will Not Be Required.
(1) 3" Bituminous Composed Of Either:
(a) 90#/SYd. H.A.C. Surface Type "B" On 240#/SYd. H.A.C. Base or
(b) 90#/SYd. H.A.E. Surface Type III On 240#/SYd. H.A.E. Base
TYPICAL SECTION FOR P. R. LINE NO. 2
Scale: 3/16" = 1'-0"
6" Compacted Agg. Base Type "P" Constructed In 2 Courses
135#/SYd. Bituminous Surface Composed Of Either:
(a) H.A.C. Surface Type "B" or
(b) H.A.E. Surface Type III
330#/SYd. Bituminous Mixture For Approaches (3)
5" Compacted Aggregate Base Type "P"
PUBLIC ROAD APPROACH AND COMMERCIAL DRIVE
(3) - 110#/SYD. H.A.C. Surface Type "B" On 220#/SYD. H.A.C. Base or 110#/SYD. H.A.E. Surface Type III On 220#/SYD. H.A.E. Base
ADDITIONAL LANE SECTION
Scale: 3/16" = 1'-0"
8" C.R.C. Pavement
3" Bitum. Shoulder (1)
Type II Seal
For Slopes See Typical Cross Section On Sheet No. 3
Compacted Agg. Base Type "P"
6" Uniform Subbase
See "SHOULDER DRAIN" Detail On Misc. Std. Sheet "MN"
TYPICAL SECTION WITH LEFT TURN LANE
Scale: 3/16" = 1'-0"
8" C.R.C. Pav't.
6" Uniform Subbase
5" Compacted Agg. Base Type "P"
5" Comp. Agg. Base Type "P"
330#/SYd. Bitum. Mixture For Approaches (3)
3" Compacted Aggregate Base Type "P"
PRIVATE DRIVE AND MAILBOX APPROACH (5)
TYPICAL SECTION ON RIGHT STA. 380+50 TO STA. 382+77 P.R. NO. 1
Scale: 3/16" = 1'-0"
Existing Pavement To Remain In Place As Frontage Road No. 1
Center Ditch Inlet
Edge Of Pavement
PLAN
SECTION
Sodding Req'd.
MEDIAN DITCH TREATMENT WHERE CENTER PIER IS CONSTRUCTED
No Scale
8" C.R.C. Pavement
6" Uniform Subbase
COUNTY ROAD AND COMMERCIAL CROSSOVER
PRIVATE DRIVE CROSSOVER
6" Plain Cement Concrete See Std. Sheet "MJ"
Bituminous Curb
Existing Pavement To Remain In Place As Frontage Road No. 1
Special Ditch On Right Sta. 369+00 - Sta. 376+00
Existing Ditch To Remain Sta. 367+00 - Sta. 382+77
TYPICAL SECTION ON RIGHT STA. 368+50 TO STA. 380+50 P.R. NO. 1
No Scale

TYPICAL CROSS SECTIONS

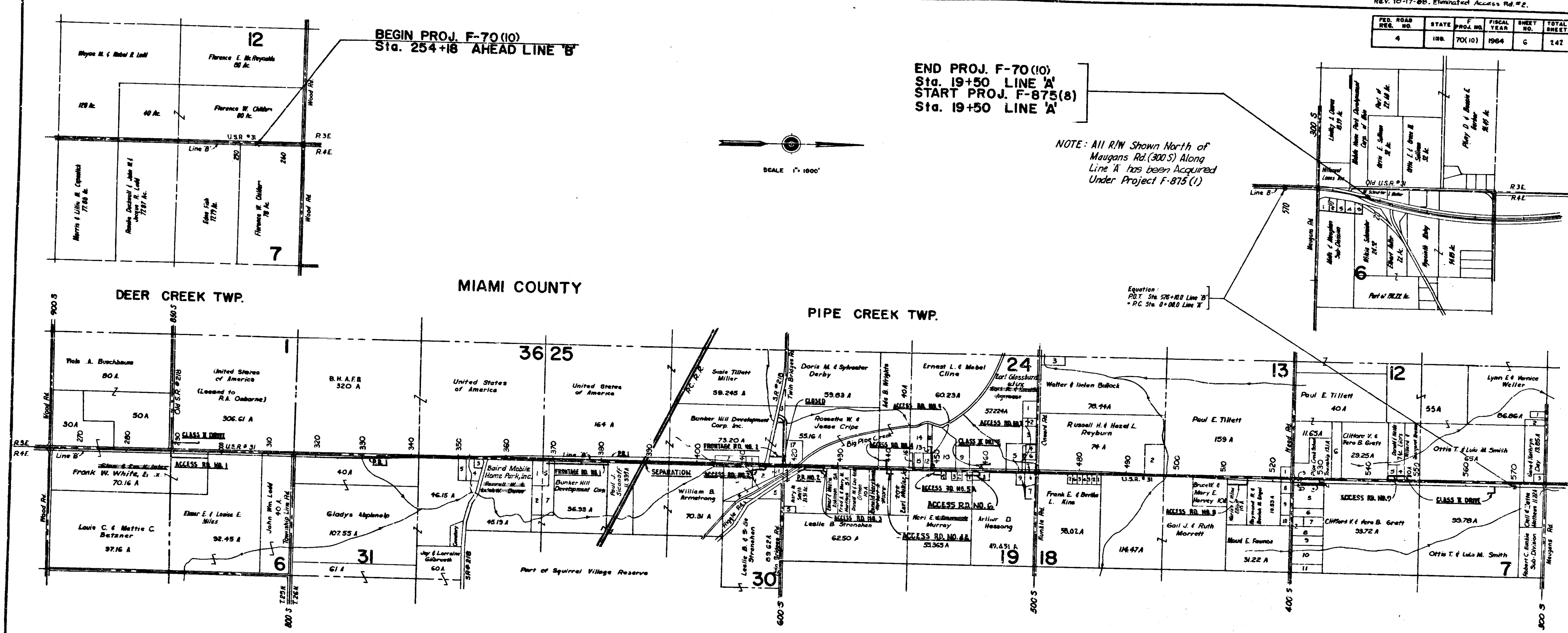
SCALE: AS NOTED

APPROVED W.H. Behrens 6-14-68
ENGINEER OF ROAD DESIGN - INDIANA STATE HIGHWAY COMMISSION

F PROJ	LINE	SHEET	FILE
70(10)		4	

Rev. 10-17-66. Eliminated Access Rd. #2.

FED. ROAD REG. NO.	STATE	F PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
4	IND.	70(10)	1964	6	142



SECTION 31 T.26N., R.4E.

PARCEL	OWNER	ACREAGE
1	Clifford E. & Martha M. Hutchcroft	2.59
2	Do.	2.91
3	Tremarco Corp.	0.962
4	Donald H. & Blanche H. Meck	3.038
5	Rancy & Ozark B. McCurtain	2

SECTION 30 T.26N., R.4E.

PARCEL	OWNER	ACREAGE
1	Paul B. & Dorothy E. Kelly	0.807
2	Do.	3.45
3	Do.	8.34
4	Do.	1
5	Berniece Mays	6.93
6	Clifford E. & Martha Hutchcroft	1.58
7	Do.	4.88

SECTION 25 T.26N., R.3E.

PARCEL	OWNER	ACREAGE
1	Ethel Joyce [illegible]	0.57
2	State of Indiana	
3	State of Indiana	

SECTION 24 T.26N. R.3E.

PARCEL	OWNER	ACREAGE
1	Perry D. & Margaret M. Whipker	3A
2	Ross C. & Nina M. Morgan	1.458
3	Robert & Margaret Swinford	2.916
4	Wm. R. Biddle	1
5	Do.	4.385
6	Geo. W. & Flo. L. Carson	1
7	Clarence L. & Thola Biddle	1
8	Do.	1.06
9	C. Clinton & Betty L. Fisher	12.37
10	Do.	
11	Cecil & Laura Turnpaugh	1.148
12	Do.	
13	Jerry D. & Rita K. King	0.275
14	Dennis Wayne & Linda Barber	5±
15	Fred Blue	1.6
16	Don L. & Wilma E. Long	0.803
17	[illegible] Wm. H. Meyer	4.84

SECTION 19 T.26N., R.4E.

PARCEL	OWNER	ACREAGE
1	Bernard H. Seegebarth	0.592
2	Harold Turner	0.53
3	Do.	0.53
4	Logan [illegible] Adkins	0.53
5	Wayne W. & Betty L. Smith	0.98
6	Edwin L. & Frances C. Webb	2.515
7	Lewis A. & Gloria V. Babbitt	1.5
8	[illegible] Ruth M. Crane	3.124
9	Wesley A. & Louise H. Smith	1.00

SECTION 18 T.26N., R.4E.

PARCEL	OWNER	ACREAGE
Lots 1 thru 7	Frank Kins' Sub-Division	4.018
8	Robert & Florence McKinley	1.425
9	Robert L. & Vivian C. Marquis	2.155
10	Franklin R. & Shirely A. Horshman	1.12

SECTION 12 T.26N., R.3E.

PARCEL	OWNER	ACREAGE	
1	Elmer A. & Daisy A. Oakes	1.04	
2	James & Inis Oakes	1.5	
3	[illegible]	1.15	Thermogas Co. of Peru
4	Chas. E. Jr. & Maryellen Bowman	1	
5	Donald & Neide Ellers	2	
6	Thomas O. & M.A. Shirely	6	

SECTION 7 T.26N., R.4E.

PARCEL	OWNER	ACREAGE	
1	Clarence L. & Tivola V. Biddle	0.50	(Residue is Land Locked)
2	Homer & Gladys L. Glassburn	1.83	(Residue is Land Locked)
3	[illegible] Alta Dillman, etal	0.50	
4	Donald C. & Genevieve I. Pier	0.50	
5	Philip & Bertha Hines	6	
6	Edward A. & Mildred Kuehl	2.66	
7	Wm. F. & Ina V. Maugans	3	
8	Ade & Martha Hessong	3	
9	May R. Frick	3.04	
10	Chas. D. & Grace M. Shepler	7	
11	Adeline Lowe	3.08	

SECTION 13 T.26N., R.3E.

PARCEL	OWNER	ACERAGE
1	Quincy R. & Katherine Orsman	1.00
2	Earl F. & Wanilda L. Wells	6.06
3	Charles W. & Edith C. Mills	1.96

LAND LOCKED - NO ACCESS PROVIDED

SECTION 6 T.26 N., R.4.E.

PARCEL	OWNER
1	Russell J. & Dorothy A. Maugans
2	William J. & Margaret Mills
3	Glen E. & Virginia Lee Shively
4	Marquis A. & Hazel E. Thrush
5	Roy Jarvis

PLAT 1
FOR DESIGN DEPT.

DETAILS

PROJ. NO.	LINE	SHEET No.	FILE
F-70(10)		6	

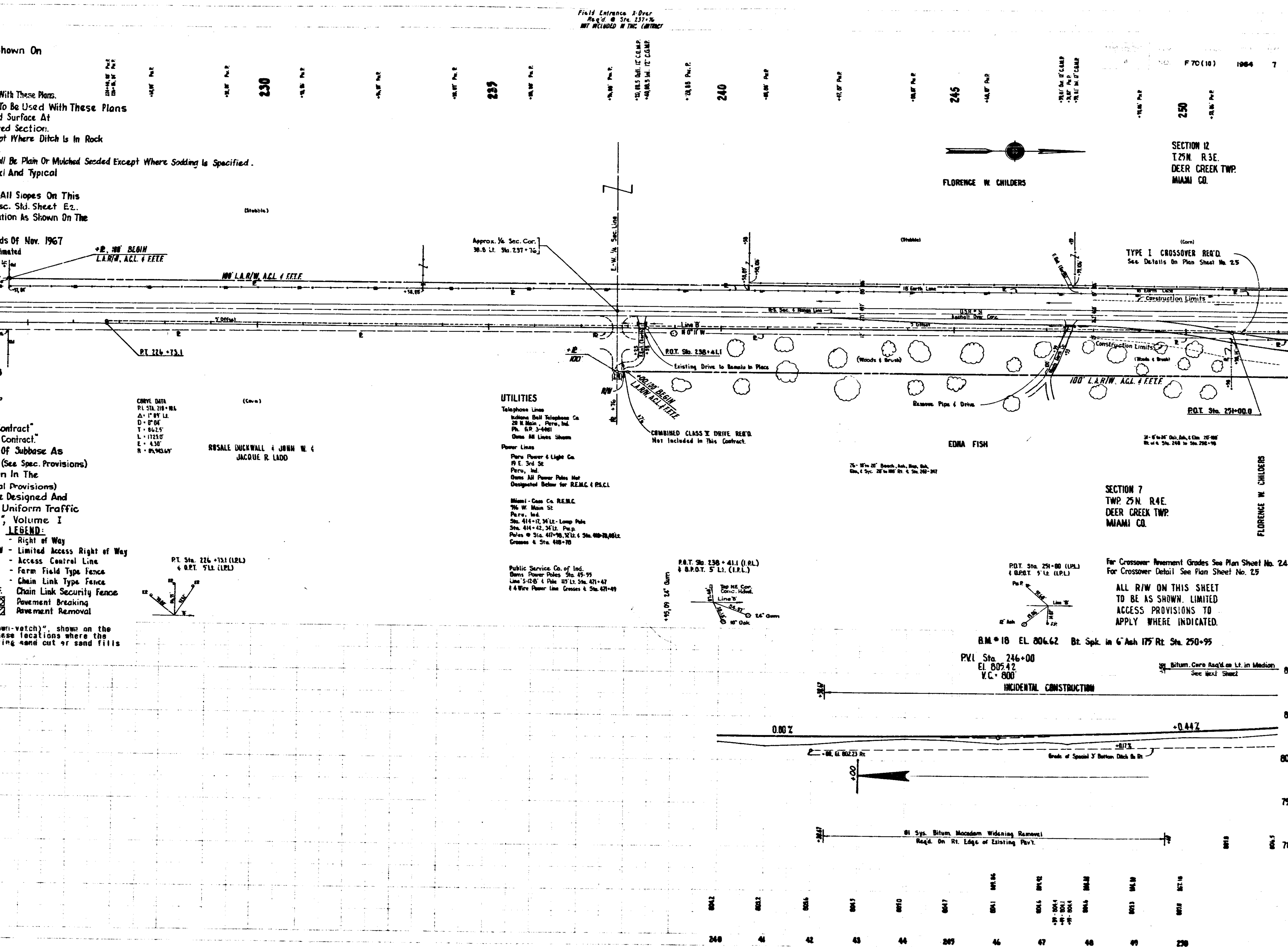
F 70 (10) 1964 7 142

GENERAL NOTES

1. Std. C.R.C. Pavement Section Dated Rev. 6-26-68 As Shown On Sheet No. 2 To Be Used On This Project.
2. Typical Cross Sections As Shown On Sheet Nos. 3 & 4 To Be Used On This Project.
3. S.H.D. of I. Standard Specifications Dated 1963 To Be Used With These Plans.
4. Standards Under Dates Listed In Index On Title Sheet To Be Used With These Plans
5. Grade Line As Shown On Profile Represents Top Of Finished Surface At Centerline Of Each Pavement Except At Superelevated Section.
6. 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.
7. All Earth Shoulder, Median Area, Cut and Fill Slopes Shall Be Plain Or Mulched Seeded Except Where Sodding Is Specified.
8. Sodding Shall Be Placed As Shown On Standard And Typical Cross Sections And On Misc. Std. Sheet "MB".
9. Pipe End Sections Are To Be Used For Retaining All Slopes On This Project Except Where Noted In The Plans. See Misc. Std. Sheet E2.
10. For Kinds Of Pipe Permitted For Each Size And Classification As Shown On The Structure Data Sheets, See Misc. Std. Sheet "MP"
11. Curves Shall Be Superelevated According To The Standards Of Nov. 1967
12. Excavation Quantities As Shown On P & P Sheets includes Estimated Excavation For Private And Public Approaches.
13. All L.A.R/W To Be Fenced With F.F.T.F., C.L.T.F. Or C.L. Security Fence As Specified In The Plans.
14. A Keyway Joint Is To Be Constructed On Median Side Of Each Pavement.
15. All Highway Drainage Structures Over 42" Diameter Have Been Designed On The Basis Of A 10 Year Storm Frequency.
16. Paper Relocations To Be Cross Sectioned By The Project Engineer Before Construction.
17. Location Of Subsurface Drain Shown On Sheet No. 33
18. The Minimum Grade For Subsurface Drains Shall Be 0.20%. Where The Profile Grade Is Less Than 0.20%, Special Grades For Subsurface Drains Shall Be Established By The Engineer.
19. The Final Cross Sections Of The "Bridge Grading Contract" Shall Be The Original Cross Sections Of The "Paving Contract."
20. The Contractor Must Accept The Plan Quantity Of Subbase As Given On The "Estimate Of Quantities Sheet." (See Spec. Provisions)
21. Overhaul And Added Haul Quantities As Shown In The Balances Are For Information Only. (See Special Provisions)
22. All Signs And Traffic Control Devices Shall Be Designed And Erected As Specified In "Indiana Manual On Uniform Traffic Control Devices For Streets And Highways", Volume I
23. Temporary Traffic Lane Markings Are Required At All Crossovers. (See Special Provisions)
24. Where Bunker Hill Air Force Base Appears On These Plans, It Shall Be Interpreted To Mean Grissom Air Force Base.
25. The quantity "Furnishing and Placing Seed (crown-vetch)", shown on the estimate of quantity sheet is to be used at these locations where the slopes are 2:1 or steeper or in an area requiring sand cut or sand fills or as directed by the Engineer.

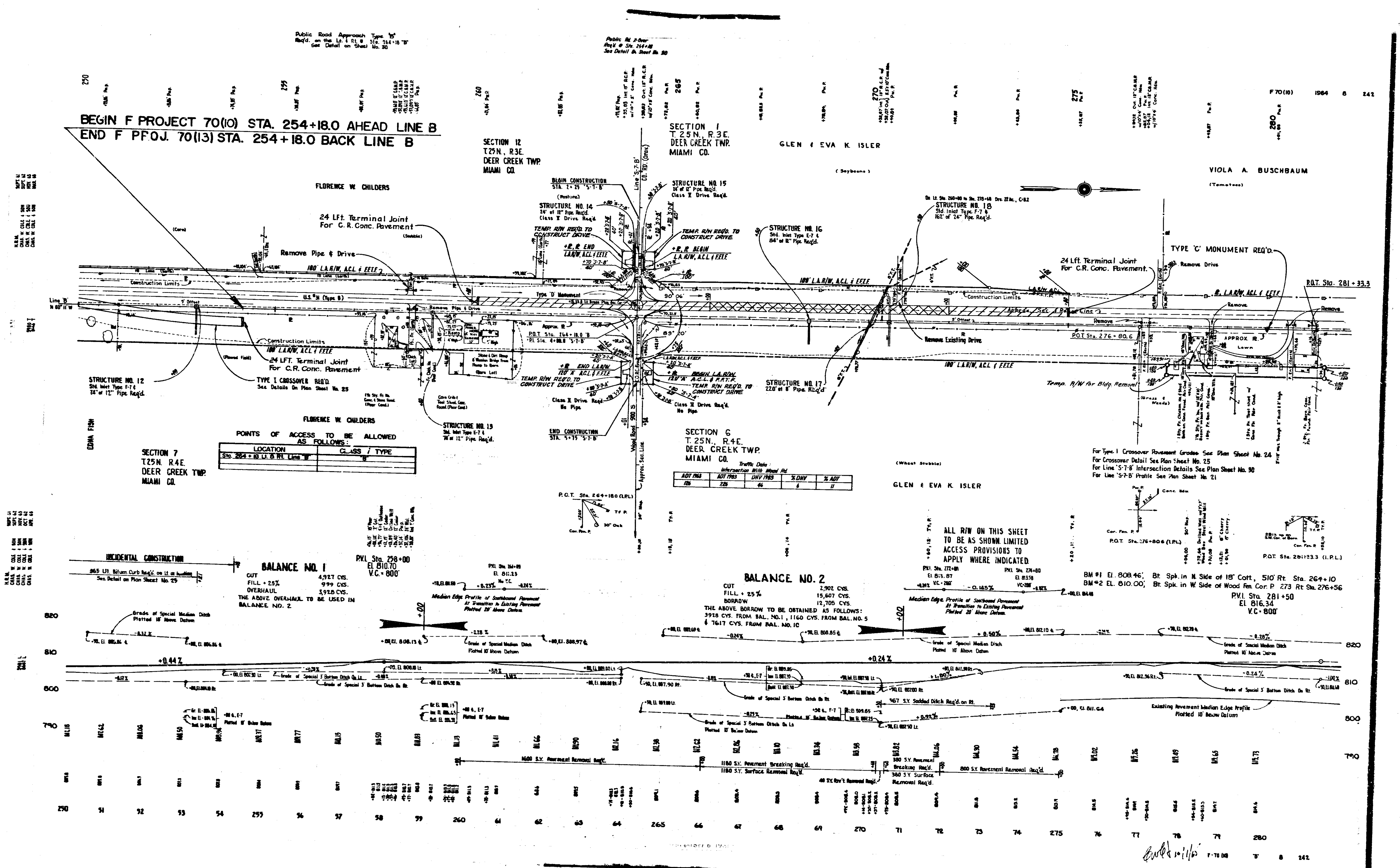
LEGEND:

R/W	- Right of Way
L.A.R/W	- Limited Access Right of Way
A.C.L.	- Access Control Line
F.F.T.F.	- Farm Field Type Fence
C.L.T.F.	- Chain Link Type Fence
C.L.S.F.	Chain Link Security Fence
(cross-hatch)	Pavement Breaking
(hatch)	Pavement Removal

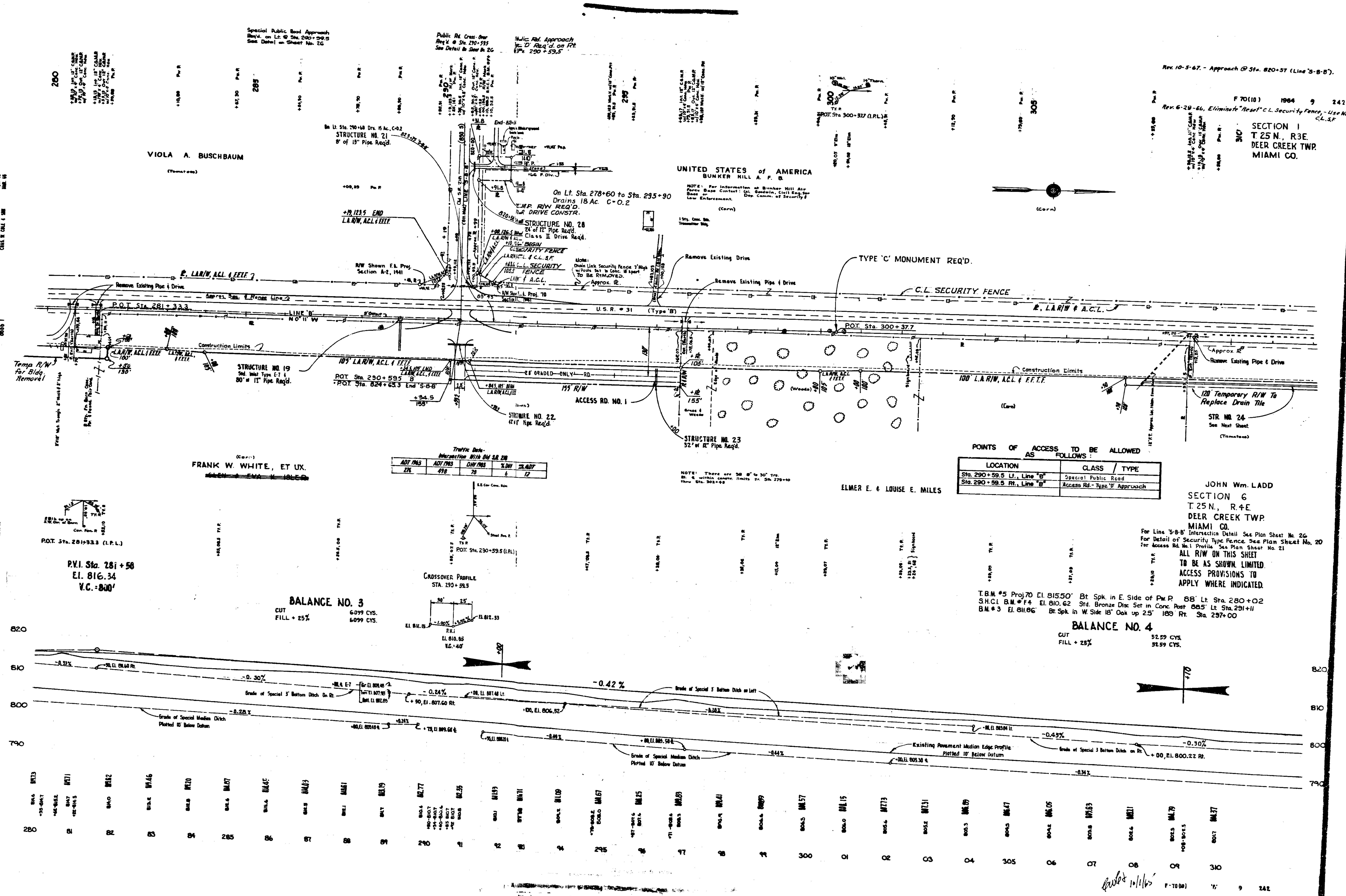


November 5, 1961

F 70(10) 1964 7 142



F 70(10) 1964 B 242
BEGIN F PROJECT 70(10) STA. 254+18.0 AHEAD LINE B
END F PROJ. 70(13) STA. 254+18.0 BACK LINE B
Public Road Approach Type "B" Req'd. on the Lt. & Rt. @ Sta. 264+18 "B" See Detail on Sheet No. 30
SECTION 12 T.25N., R.3E. DEER CREEK TWP. MIAMI CO.
SECTION 1 T.25N., R.3E. DEER CREEK TWP. MIAMI CO.
SECTION 6 T.25N., R.4E. DEER CREEK TWP. MIAMI CO.
SECTION 7 T.25N. R.4E. DEER CREEK TWP. MIAMI CO.
FLORENCE W. CHILDERS
GLEN & EVA K. ISLER
VIOLA A. BUSCHBAUM
EDNA FISH
24 Lft. Terminal Joint For C.R. Conc. Pavement
Remove Pipe & Drive
BEGIN CONSTRUCTION STA. 2+25 'S-7-B'
END CONSTRUCTION STA. 5+75 'S-7-B'
STRUCTURE NO. 12
STRUCTURE NO. 13
STRUCTURE NO. 14
STRUCTURE NO. 15
STRUCTURE NO. 16
STRUCTURE NO. 17
STRUCTURE NO. 18
TEMP. R/W REQ'D. TO CONSTRUCT DRIVE
TYPE 'C' MONUMENT REQ'D.
P.O.T. Sta. 281+33.3
P.O.T. Sta. 276+80.6
P.O.T. Sta. 264+18.0 'B'
Type 'D' Monument
Construction Limits
Remove Existing Drive
TYPE I CROSSOVER REQ'D. See Details On Plan Sheet No. 25
Temp. R/W for Bldg. Removal
POINTS OF ACCESS TO BE ALLOWED AS FOLLOWS:
LOCATION | CLASS / TYPE
Sta. 254+18 Lt. & Rt. Line "B" | "B"
Traffic Data: Intersection With Wood Rd.
ADT 1968 | ADT 1983 | DHV 1983 | % DHV | % ADT
126 | 226 | 46 | 8 | 11
For Type I Crossover Pavement Grades See Plan Sheet No. 24
For Crossover Detail See Plan Sheet No. 25
For Line 'S-7-B' Intersection Details See Plan Sheet No. 30
For Line 'S-7-B' Profile See Plan Sheet No. 21
ALL R/W ON THIS SHEET TO BE AS SHOWN. LIMITED ACCESS PROVISIONS TO APPLY WHERE INDICATED.
INCIDENTAL CONSTRUCTION
BALANCE NO. 1
CUT 4,927 CYS.
FILL + 25% 999 CYS.
OVERHAUL 3,928 CYS.
THE ABOVE OVERHAUL TO BE USED IN BALANCE NO. 2
P.V.I. Sta. 258+00 EL. 810.70 V.C. = 800'
BALANCE NO. 2
CUT 2,902 CYS.
FILL + 25% 15,607 CYS.
BORROW 12,705 CYS.
THE ABOVE BORROW TO BE OBTAINED AS FOLLOWS: 3928 CYS. FROM BAL. NO. 1, 1160 CYS. FROM BAL. NO. 5 & 7617 CYS. FROM BAL. NO. 10
BM #1 El. 808.46', Rr. Spk. in N. Side of 18" Cott., 510' Rt. Sta. 264+10
BM #2 El. 810.00', Rr. Spk. in W. Side of Wood Fen. Cor. P. 273 Rt. Sta. 276+56
P.V.I. Sta. 281+50 EL. 816.34 V.C. = 800'
+0.44 %
+0.24 %
Median Edge Profile of Southbound Pavement At Transition to Existing Pavement Plotted 20' Above Datum
Grade of Special Median Ditch Plotted 10' Above Datum
Grade of Special 3' Bottom Ditch
Existing Pavement Median Edge Profile Plotted 10' Below Datum
1600 S.Y. Pavement Removal Req'd.
1180 S.Y. Pavement Breaking Req'd.
1180 S.Y. Surface Removal Req'd.
380 S.Y. Pavement Breaking Req'd.
380 S.Y. Surface Removal Req'd.
800 S.Y. Pavement Removal Req'd.
967 S.Y. Sodded Ditch Req'd. on Rt.
820
810
800
790
250 51 52 53 54 255 56 57 58 59 260 61 62 63 64 265 66 67 68 69 270 71 72 73 74 275 76 77 78 79 280
F-70(10) B 8 242

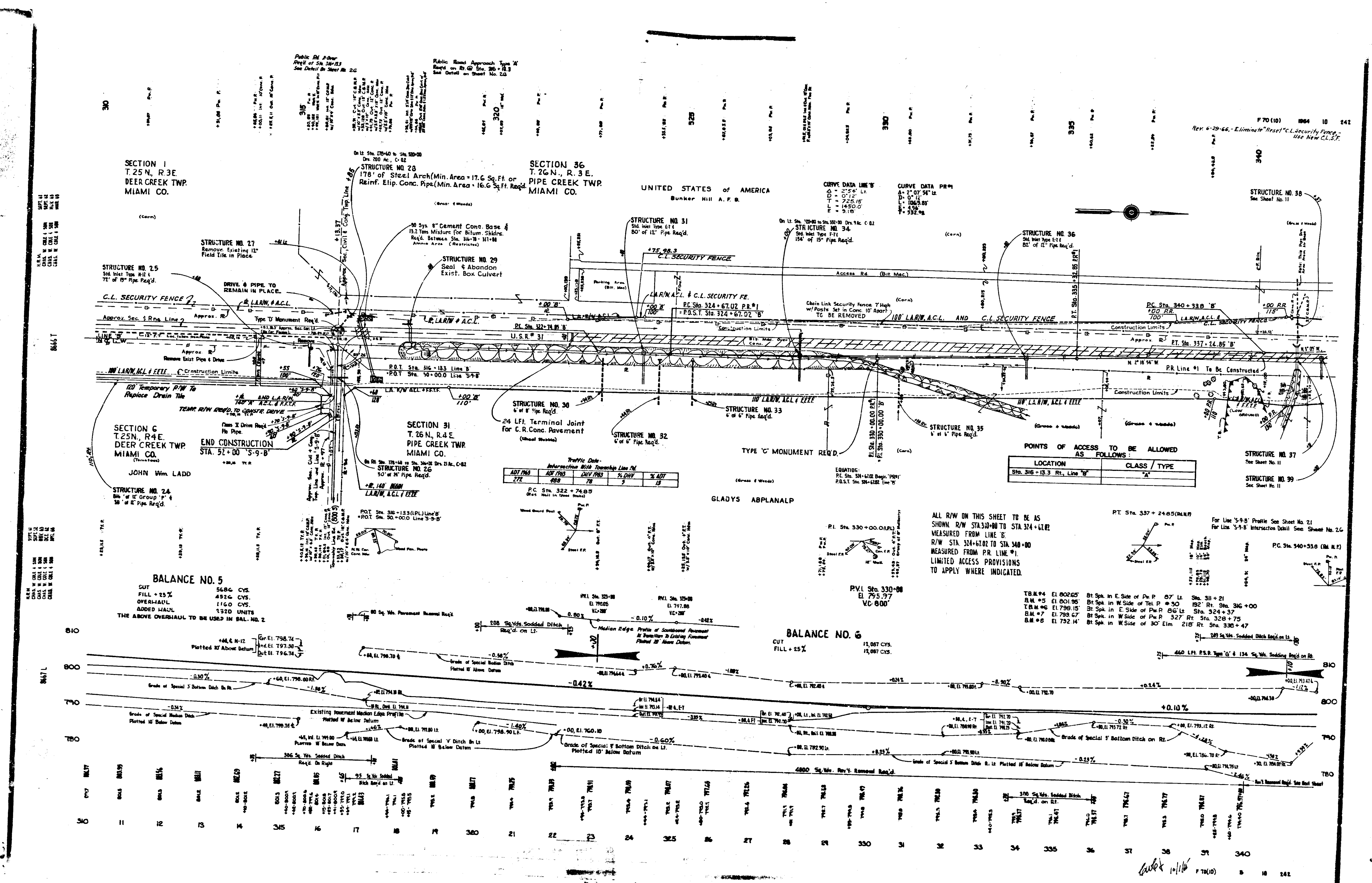


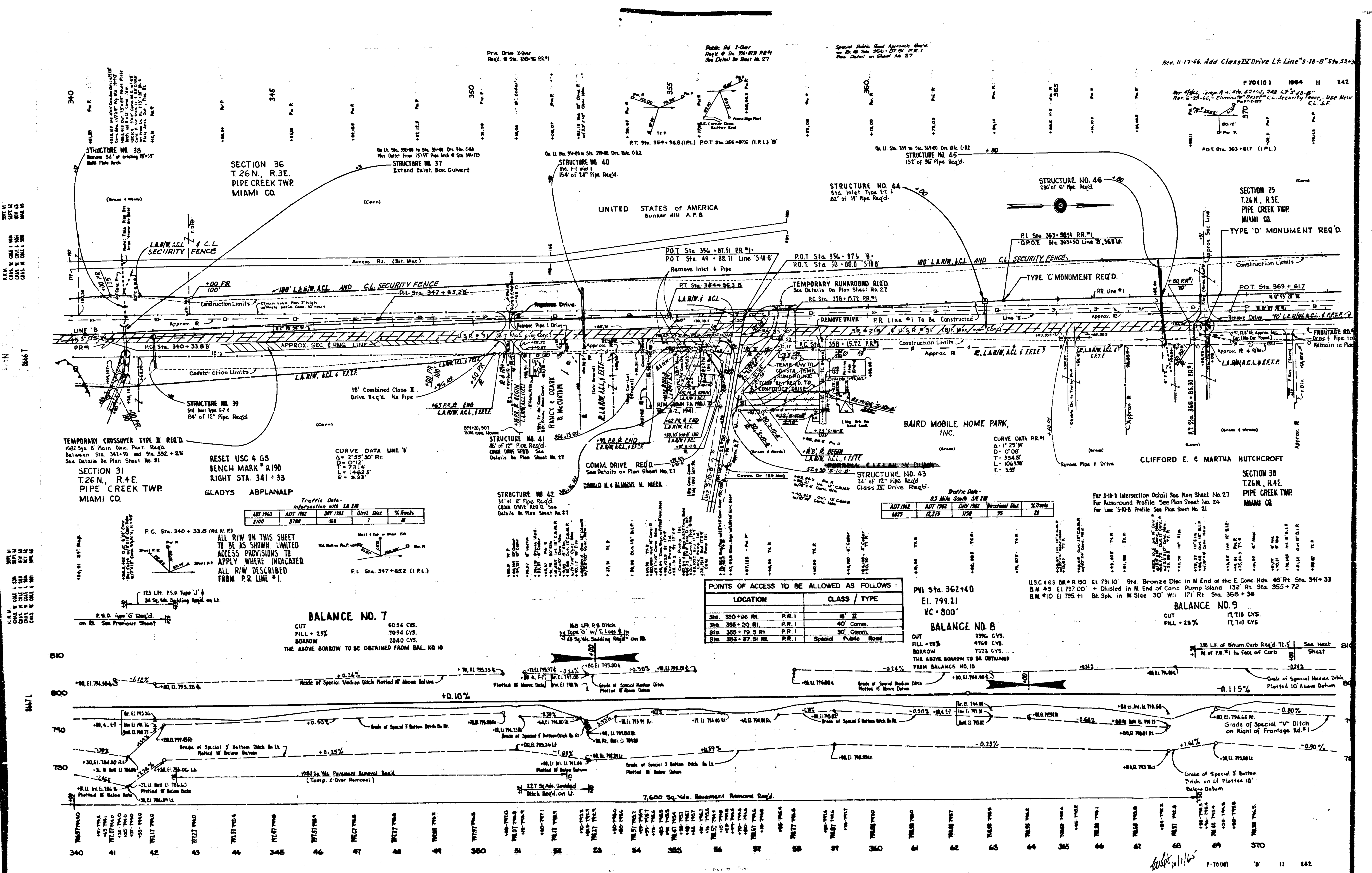
Traffic Data-
Intersection With Old S.R. 218

ADT 1963	ADT 1983	DHV 1983	% DHV	% ADT
276	498	78	6	17

POINTS OF ACCESS TO BE ALLOWED AS FOLLOWS:

LOCATION	CLASS / TYPE
Sta. 290+59.5 Lt., Line "B"	Special Public Road
Sta. 290+59.5 Rt., Line "B"	Access Rd.- Type 'D' Approach


F 70 (10) 1964 10 242
Rev. 6-29-66,- Eliminate "Reset" C.L. Security Fence - Use New C.L.S.F.
SECTION 1
T. 25 N., R. 3 E.
DEER CREEK TWP.
MIAMI CO.
SECTION 36
T. 26 N., R. 3 E.
PIPE CREEK TWP.
MIAMI CO.
UNITED STATES of AMERICA
Bunker Hill A.F.B.
STRUCTURE NO. 28
178' of Steel Arch (Min. Area = 17.6 Sq. Ft. or Reinf. Elip. Conc. Pipe (Min. Area = 16.6 Sq. Ft. Req'd.
STRUCTURE NO. 27
Remove Existing 12" Field Tile in Place
STRUCTURE NO. 25
STRUCTURE NO. 29
Seal & Abandon Exist. Box Culvert
STRUCTURE NO. 31
80' of 12" Pipe Req'd.
STRUCTURE NO. 34
154' of 15" Pipe Req'd.
STRUCTURE NO. 36
STRUCTURE NO. 38
See Sheet No. 11
C.L. SECURITY FENCE
DRIVE & PIPE TO REMAIN IN PLACE
Access Rd. (Bit. Mac.)
Chain Link Security Fence 7' High w/ Posts Set in Conc. 10' Apart TO BE REMOVED
100' LA R/W, A.C.L. AND C.L. SECURITY FENCE
P.C. Sta. 324 + 67.02 P.R.#1
= P.O.S.T. Sta. 324 + 67.02 'B'
P.C. Sta. 340 + 33.8 'B'
P.T. Sta. 337 + 24.85 'B'
P.R. Line #1 To Be Constructed
Construction Limits
U.S.R.# 31
P.O.T. Sta. 316 + 13.3 Line 'B'
= P.O.T. Sta. 50 + 00.0 Line 'S-9-B'
120' Temporary R/W To Replace Drain Tile
TEMP. R/W REQ'D. TO CONSTR. DRIVE
SECTION 6
T. 25 N., R. 4 E.
DEER CREEK TWP.
MIAMI CO.
END CONSTRUCTION
STA. 52 + 00 'S-9-B'
JOHN Wm. LADD
STRUCTURE NO. 24
STRUCTURE NO. 30
6' of 8" Pipe Req'd.
24 LFt. Terminal Joint for C.R. Conc. Pavement
SECTION 31
T. 26 N., R. 4 E.
PIPE CREEK TWP.
MIAMI CO.
STRUCTURE NO. 26
50' of 24" Pipe Req'd.
STRUCTURE NO. 32
6' of 6" Pipe Req'd.
STRUCTURE NO. 33
6' of 6" Pipe Req'd.
TYPE 'C' MONUMENT REQ'D.
STRUCTURE NO. 35
6' of 6" Pipe Req'd.
STRUCTURE NO. 37
See Sheet No. 11
STRUCTURE NO. 39
See Sheet No. 11
GLADYS ABPLANALP
Traffic Data - Intersection With Township Line Rd.
ADT 1965 | ADT 1983 | DHV 1983 | % DHV | % ADT
272 | 488 | 78 | 5 | 13
POINTS OF ACCESS TO BE ALLOWED AS FOLLOWS:
LOCATION | CLASS / TYPE
Sta. 316 + 13.3 Rt., Line 'B' | 'A'
ALL R/W ON THIS SHEET TO BE AS SHOWN. R/W STA. 310+00 TO STA. 324+67.02 MEASURED FROM LINE 'B'. R/W STA. 324+67.02 TO STA. 348+00 MEASURED FROM P.R. LINE #1. LIMITED ACCESS PROVISIONS TO APPLY WHERE INDICATED.
For Line 'S-9-B' Profile See Sheet No. 21
For Line 'S-9-B' Intersection Detail See Sheet No. 26
BALANCE NO. 5
CUT 5686 CYS.
FILL + 25% 4526 CYS.
OVERHAUL 1160 CYS.
ADDED HAUL 3320 UNITS
THE ABOVE OVERHAUL TO BE USED IN BAL. NO. 2
BALANCE NO. 6
CUT 13,087 CYS.
FILL + 25% 13,087 CYS.
P.V.I. Sta. 330+00
El. 795.97
V.C. 600'
T.B.M.#4 El. 802.65 Bt. Spk. in E. Side of Pw. P. 87' Lt. Sta. 311 + 21
B.M.#5 El. 801.95 Bt. Spk. in W. Side of Tel. P. #30 182' Rt. Sta. 316 + 00
T.B.M.#6 El. 799.15 Bt. Spk. in E. Side of Pw. P. 86' Lt. Sta. 324 + 37
B.M.#7 El. 799.67 Bt. Spk. in W. Side of Pw. P. 327' Rt. Sta. 328 + 75
B.M.#8 El. 752.14 Bt. Spk. in W. Side of 30" Elm 218' Rt. Sta. 338 + 47
208 Sq. Yds. Sodded Ditch Req'd. on Lt.
Existing Pavement Median Edge Profile Plotted 10' Below Datum
Grade of Special 'V' Ditch On Lt. Plotted 10' Below Datum
Grade of Special 5' Bottom Ditch on Rt.
4800 Sq. Yds. Rem'l. Removal Req'd.
-0.42%
+0.10%
810
800
790
780
310 11 12 13 14 315 16 17 18 19 320 21 22 23 24 325 26 27 28 29 330 31 32 33 34 335 36 37 38 39 340
F 70 (10) 8 10 242



Traffic Data - Intersection with S.R. 218

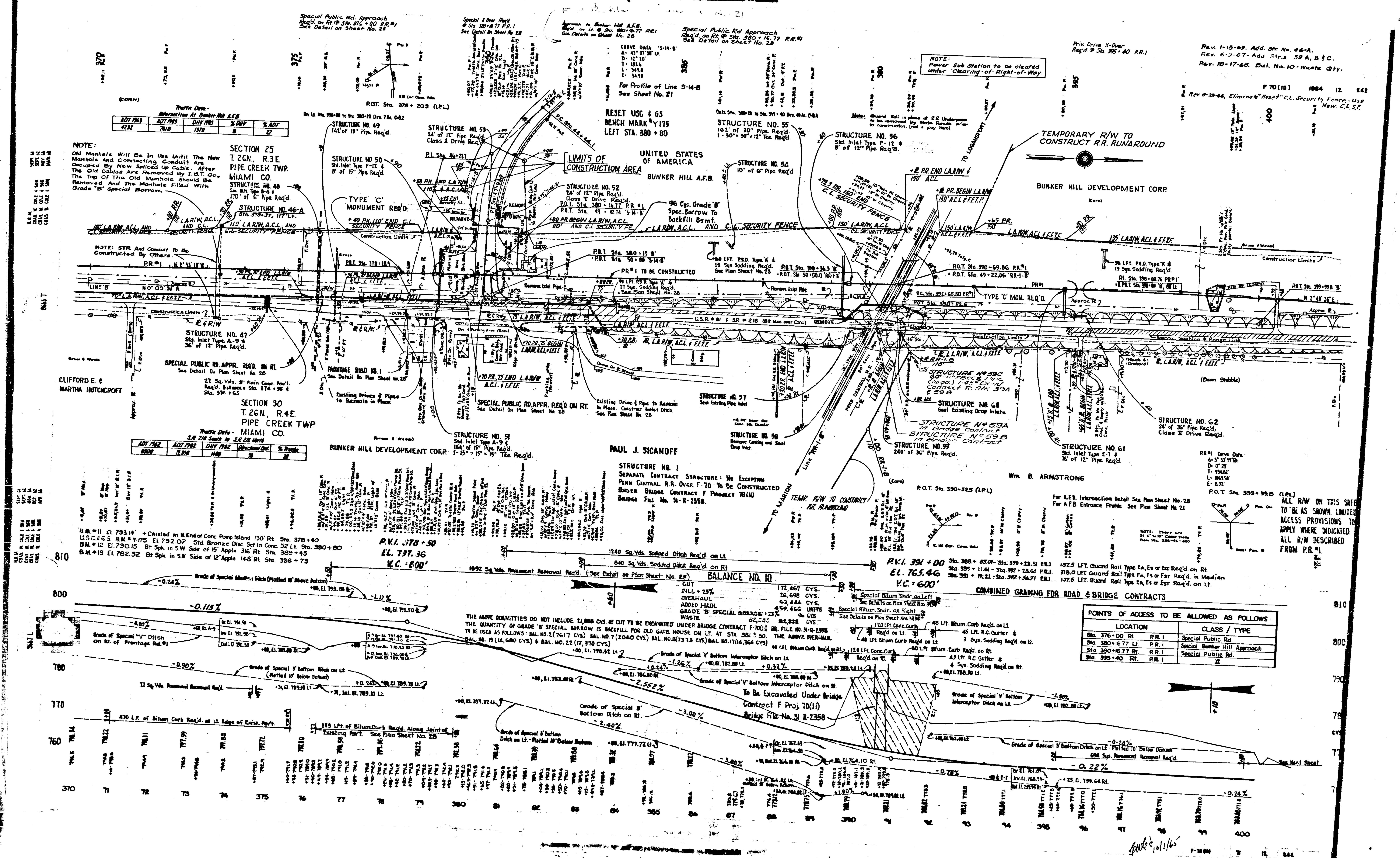
ADT 1963	ADT 1982	DHV 1982	Dirt'l. Dist	% Trucks
2100	3788	368	7	18

Traffic Data - 0.5 Mile South S.R. 218

ADT 1962	ADT 1982	DHV 1982	Directional Dist	% Trucks
6825	12,275	1158	93	28

POINTS OF ACCESS TO BE ALLOWED AS FOLLOWS:

LOCATION		CLASS / TYPE
Sta. 350+96 Rt.	P.R.1	18' II
Sta. 355+20 Rt.	P.R.1	40' Comm.
Sta. 355+79.5 Rt.	P.R.1	30' Comm.
Sta. 358+87.51 Rt.	P.R.1	Special Public Road



Traffic Data - Intersection At Bunker Hill A.F.B.

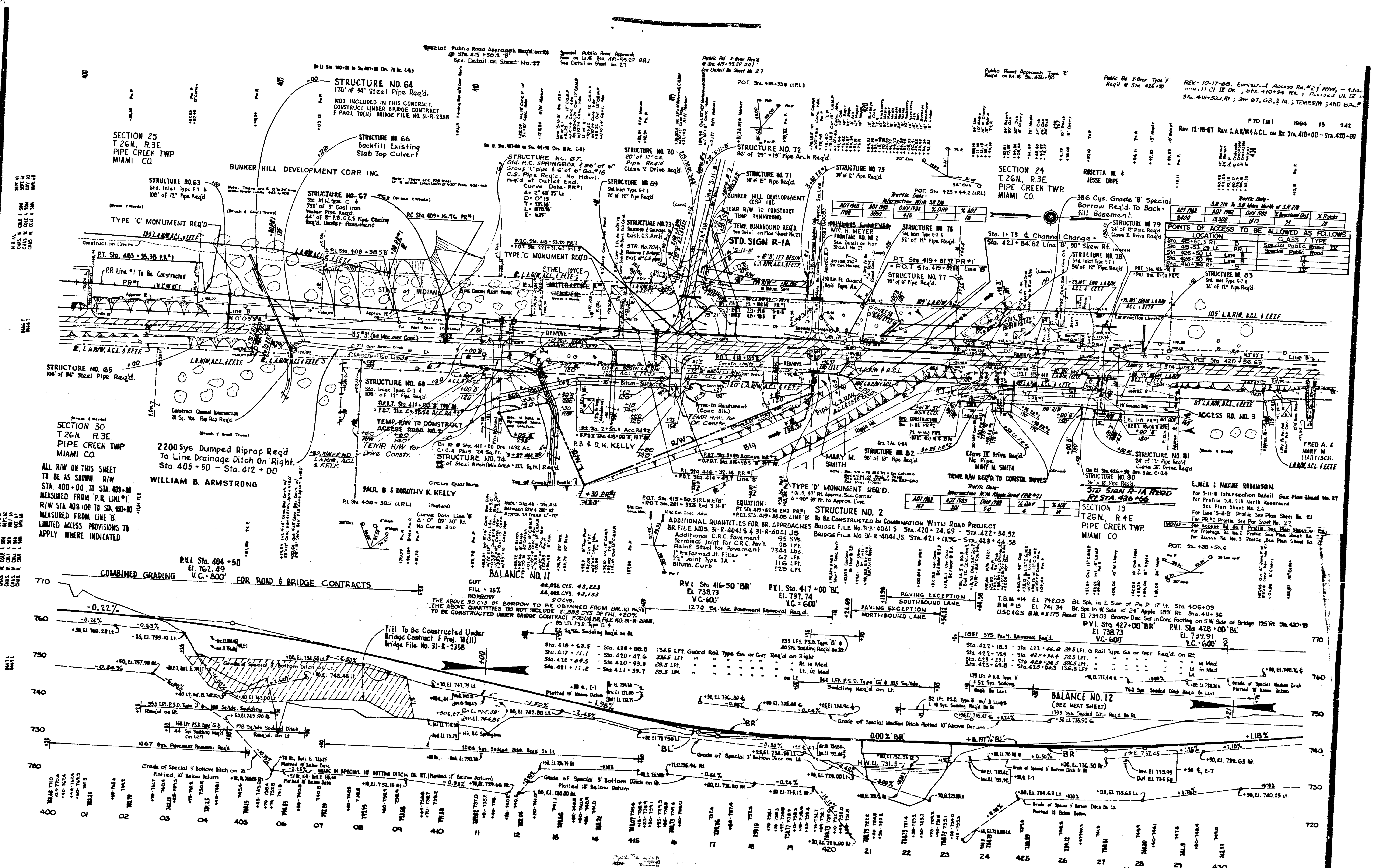
ADT 1963	ADT 1983	DHV 1983	% DHV	% ADT
4232	7618	1370	8	27

Traffic Data - S.R. 218 South to S.R. 218 North

ADT 1962	ADT 1982	DHV 1982	Directional Dist.	% Trucks
8500	15,350	1480	53	28

POINTS OF ACCESS TO BE ALLOWED AS FOLLOWS:

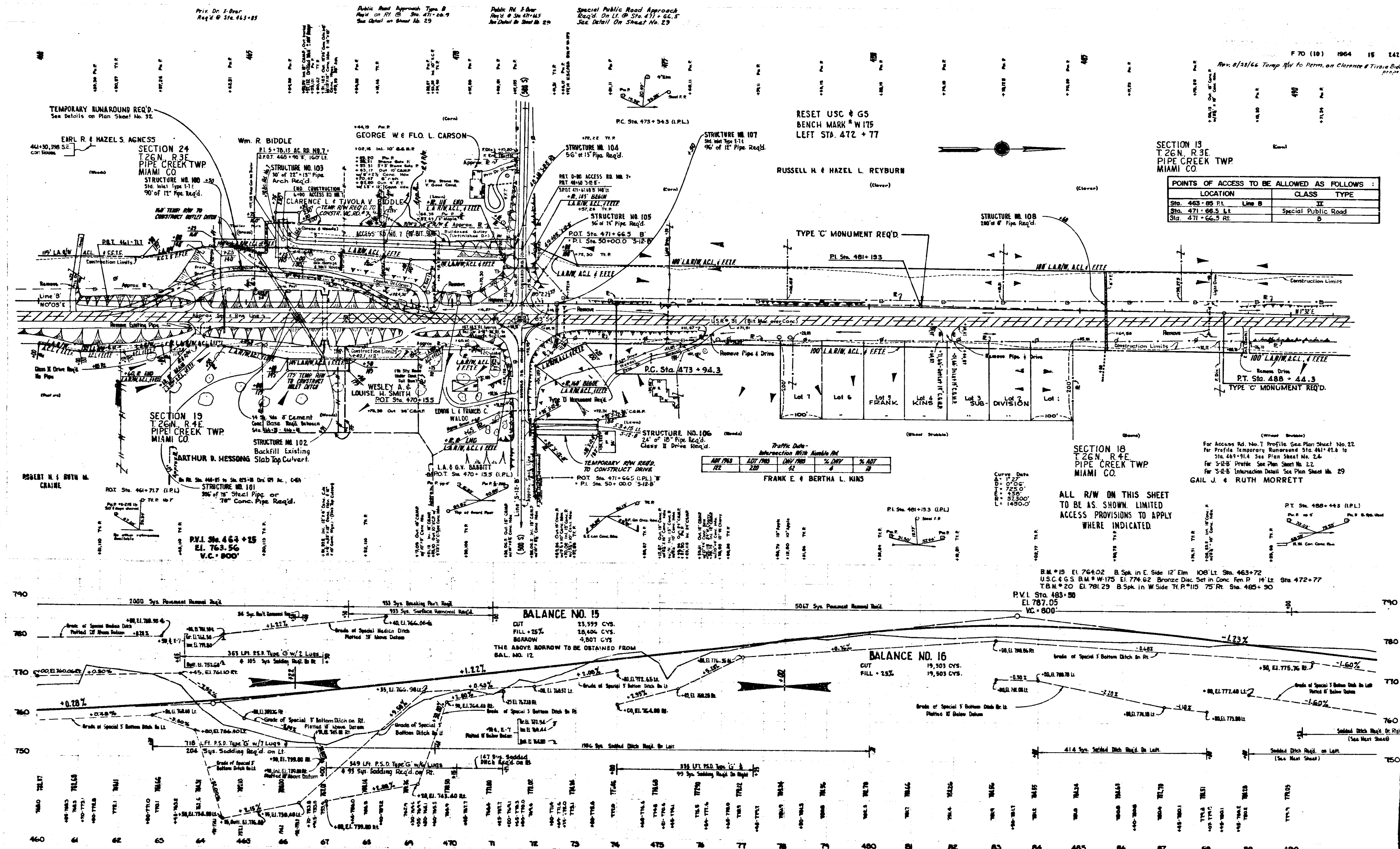
LOCATION		CLASS / TYPE
Sta. 376+00 Rt.	P.R. I	Special Public Rd.
Sta. 380+16.77 Lt.	P.R. I	Special Bunker Hill Approach
Sta. 380+16.77 Rt.	P.R. I	Special Public Rd.
Sta. 395+40 Rt.	P.R. I	II



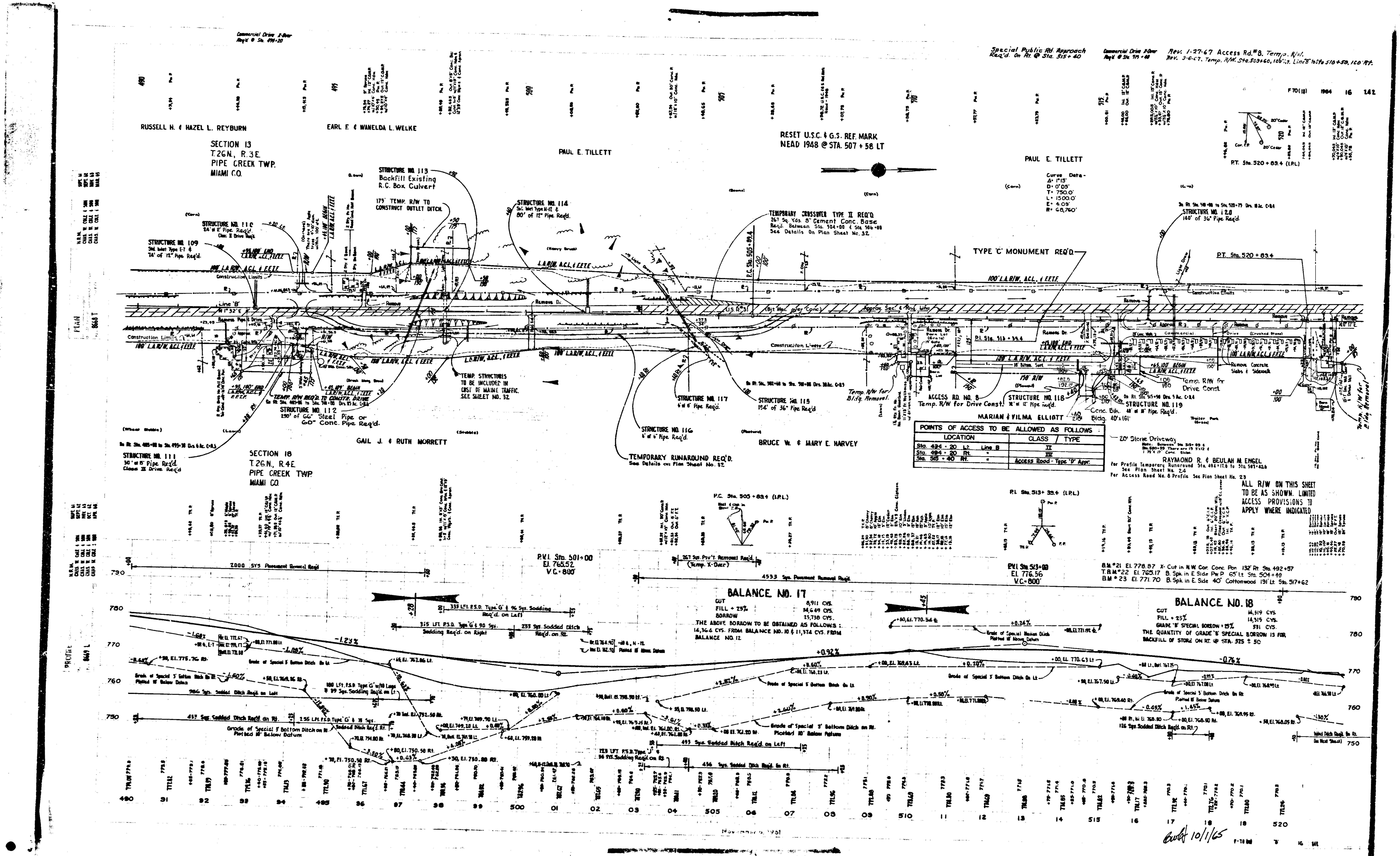
F70 (10) 1964 13 242
REV - 10-17-68. Eliminated Access Rd. #2 & R/W, - Added one (1) Cl. IV Dr., Sta. 410+94 Rt.; Revised Cl. IV Dr. Sta. 415+53.3, Rt; Str. 67, 68, & 74.; TEMP. R/W; AND BAL.
Rev. 12-18-67 Rev. L.A.R/W & A.C.L. on Rt. Sta. 410+00 - Sta. 420+00
Special Public Road Approach Req'd. on Rt. @ Sta. 415+50.3 'B' See Detail on Sheet No. 27
Special Public Road Approach Req'd. on Lt. @ Sta. 415+53.29 P.R.1 See Detail on Sheet No. 27
Public Rd. X-Over Req'd @ Sta. 415+53.29 P.R.1 See Detail on Sheet No. 27
Public Road Approach Type 'C' Req'd. on Rt. @ Sta. 426+90
Public Rd. X-Over Type 'F' Req'd. @ Sta. 426+90
STRUCTURE NO. 64
170' of 54" Steel Pipe Req'd.
NOT INCLUDED IN THIS CONTRACT. CONSTRUCT UNDER BRIDGE CONTRACT F PROJ. 70(11) BRIDGE FILE NO. 31-R-2358
SECTION 25
T.26N., R.3E.
PIPE CREEK TWP.
MIAMI CO.
STRUCTURE NO. 66
Backfill Existing Slab Top Culvert
BUNKER HILL DEVELOPMENT CORP. INC.
STRUCTURE NO. 63
Std. Inlet Type E-7 & 108' of 12" Pipe Req'd.
STRUCTURE NO. 67
Std. M.H. Type C & 750' of 5" Cast Iron Water Pipe Req'd. 44' of 8" E.B.C.C.S. Pipe Casing Req'd. Under Pavement
TYPE 'C' MONUMENT REQ'D.
P.T. Sta. 403+35.38 P.R.#1
P.R. Line #1 To Be Constructed
P.I. Sta. 408+38.58
P.C. Sta. 409+16.76 PR#1
STATE of INDIANA
PIPE CREEK REST PARK
U.S. #31 (Bit. Mac. over Conc.)
STRUCTURE NO. 65
106' of 54" Steel Pipe Req'd.
Construct Channel Intersection 28 Sq. Yds. Rip Rap Req'd.
STRUCTURE NO. 67.
Std. R.C. SPRINGBOX & 96' of 6" Group 'I' pipe & 6' of 6" Ga. #18 C.S. Pipe Req'd. No Hdwl. req'd at Outlet End.
Curve Data - PR#1
Δ = 2° 40' 35" Lt.
D = 0° 15'
T = 535.38'
L = 1070.96'
E = 6.25'
STRUCTURE NO. 70
20' of 12" C.S. Pipe Req'd. Class V Drive Req'd.
STRUCTURE NO. 69
Std. Inlet Type E-7 & 74' of 12" Pipe Req'd
STRUCTURE NO. 73
Remove & Salvage Exist. C.S. Arch
STR. No. 70A
Remove & Salvage Exist. 12" C.S. pipe
STRUCTURE NO. 72
86' of 29" x 18" Pipe Arch Req'd.
STRUCTURE NO. 71
38' of 15" Pipe Req'd.
BUNKER HILL DEVELOPMENT CORP. INC.
TEMP. R/W TO CONSTRUCT TEMP. RUNAROUND
TEMP. RUNAROUND REQ'D. See Detail on Plan Sheet No. 27
STD. SIGN R-1A
STRUCTURE NO. 75
38' of 12" Pipe Req'd.
P.O.T. Sta. 418+33.9 (I.P.L.)
P.O.T. Sta. 423+44.2 (I.P.L.)
Traffic Data - Intersection With S.R. 218
ADT 1963 | ADT 1983 | DHV 1983 | % DHV | % ADT
1700 | 3050 | 426 | 7 | 18
WM. H. MEYER
FRONTAGE RD. NO. 2 See Detail on Plan Sheet No. 27
STRUCTURE NO. 76
52' of 12" Pipe Req'd.
P.T. Sta. 419+87.32 PR#1 = P.O.T. Sta. 419+85.08 Line 'B'
STRUCTURE NO. 77
70' of 6" Pipe Req'd.
SECTION 24
T.26N., R.3E.
PIPE CREEK TWP.
MIAMI CO.
ROSETTA W. & JESSE CRIPE
386 Cys. Grade 'B' Special Borrow Req'd. To Backfill Basement.
Sta. 1+73 & Channel Change = Sta. 421+84.82 Line 'B', 50° Skew Rt.
STRUCTURE NO. 79
24' of 12" Pipe Req'd. Class I Drive Req'd.
STRUCTURE NO. 78
Std. Inlet Type E-7 & 56' of 12" Pipe Req'd.
Traffic Data - S.R. 218 To 3.0 Miles North of S.R. 218
ADT 1962 | ADT 1982 | DHV 1982 | % Directional Dist. | % Trucks
8400 | 13,300 | 1475 | 54 | 28
POINTS OF ACCESS TO BE ALLOWED AS FOLLOWS
LOCATION | CLASS / TYPE
Sta. 415+50.3 Rt. B | Special Public Road IV
Sta. 415+53.29 Lt. P.R.1 | Special Public Road
Sta. 426+50 Lt. Line B | II
Sta. 426+50 Rt. Line B | C
Sta. 410+94 Rt. 'B' | IV
STRUCTURE NO. 83
Std. Inlet Type E-7 & 74' of 12" Pipe Req'd.
105' L.A.R/W, A.C.L. & F.E.T.F.
P.O.T. Sta. 428+56.6B
ACCESS RD. NO. 3
FRED A. & MARY M. HARTISCH.
STRUCTURE NO. 68
Std. Inlet Type E-7 & 108' of 12" Pipe Req'd.
TEMP. R/W TO CONSTRUCT ACCESS ROAD NO. 2
TEMP. R/W for Drive Constr.
STRUCTURE NO. 74
On Rt. @ Sta. 411+00 Drs. 1492 Ac. C=0.4 Plus 24 Sq. Ft.
68' of Steel Arch (Min. Area = 122 Sq. Ft.) Req'd.
Drive-In Restaurant (Conc. Blk.)
TEMP. R/W for Dr. Constr.
P.B. & D.K. KELLY
Big Pipe Creek
Riggle Rd.
MARY M. SMITH
STRUCTURE NO. 82
38' of 18" Pipe Req'd.
Class IV Drive Req'd. No Pipe
MARY M. SMITH
TEMP. R/W REQ'D. TO CONSTR. DRIVES
STRUCTURE NO. 81
24' of 12" Pipe Req'd. Class IV Drive Req'd
STRUCTURE NO. 80
36' of 18" Pipe Req'd.
STD SIGN R-1A REQD Rt STA. 426+66
SECTION 30
T.26N. R.3E.
PIPE CREEK TWP.
MIAMI CO.
2200 Sys. Dumped Riprap Req'd To Line Drainage Ditch On Right. Sta. 405+50 - Sta. 412+00
WILLIAM B. ARMSTRONG
ALL R/W ON THIS SHEET TO BE AS SHOWN. R/W STA. 400+00 TO STA. 408+00 MEASURED FROM 'P.R. LINE #1'. R/W STA. 408+00 TO STA. 430+00 MEASURED FROM LINE 'B'. LIMITED ACCESS PROVISIONS TO APPLY WHERE INDICATED.
PAUL B. & DOROTHY K. KELLY
Curve Data Line 'B' Δ = 0° 09' 30" Rt. No Curve Run
TYPE 'D' MONUMENT REQ'D.
EQUATION: P.T. STA. 419+87.50 END P.R.#1 = P.O.T. STA. 419+85.08 LINE 'B'
ADDITIONAL QUANTITIES FOR BR. APPROACHES BR. FILE NOS. 31-R-4041 S & 31-R-4041 JS
Additional C.R.C. Pavement 95 SYs.
Terminal Joint for C.R.C. Pav't. 98 LFt.
Reinf. Steel for Pavement 7344 Lbs.
1" Preformed Jt. Filler 62 LFt.
1/2" Joint Type IA 116 LFt.
Bitum. Curb 120 LFt.
STRUCTURE NO. 2
To Be Constructed In Combination With Road Project
Bridge File No. 31-R-4041 S Sta. 420+24.69 - Sta. 422+54.52
Bridge File No. 31-R-4041 JS Sta. 421+13.96 - Sta. 423+44.58
SECTION 19
T.26N., R.4E.
PIPE CREEK TWP.
MIAMI CO.
ELMER & MAXINE ROBINSON
For S-11-B Intersection Detail See Plan Sheet No. 27
For Profile S.R. 218 North Runaround See Plan Sheet No. 24
For Line 'S-11-B' Profile See Plan Sheet No. 21
For PR#2 Profile See Plan Sheet No. 22
VOID - For Access Rd. No. 2 Profile See Plan Sheet No.
For Frontage Rd. No. 2 Profile See Plan Sheet No. 2
For Access Rd. No. 3 Profile See Plan Sheet No. 2
T.B.M. #14 El. 742.09 Bt. Spk. in E. Side of Pw. P. 17' Lt. Sta. 406+09
B.M. #15 El. 741.34 Bt. Spk. in W. Side of 24" Apple 189' Rt. Sta. 411+36
U.S.C.&G.S. B.M. #X-175 Reset El. 734.03 Bronze Disc Set in Conc. Footing on S.W. Side of Bridge 135' Rt. Sta. 420+18
P.V.I. Sta. 404+50 El. 762.49 V.C. = 800'
COMBINED GRADING FOR ROAD & BRIDGE CONTRACTS
BALANCE NO. 11
CUT
FILL + 25% 44,022 CYS. 43,223
BORROW 44,082 CYS. 43,133 90 CYS.
THE ABOVE 90 CYS OF BORROW TO BE OBTAINED FROM BAL. 10 WASTE
THE ABOVE QUANTITIES DO NOT INCLUDE 21,888 CYS OF FILL +20% TO BE CONSTRUCTED UNDER BRIDGE CONTRACT F-70(11) BR. FILE NO. 31-R-2358.
P.V.I. Sta. 416+50 'BR' El. 738.73 V.C. = 600'
P.V.I. Sta. 417+00 'BL' El. 737.74 V.C. = 600'
1270 Sq. Yds. Pavement Removal Req'd.
PAVING EXCEPTION SOUTHBOUND LANE
PAVING EXCEPTION NORTHBOUND LANE
P.V.I. Sta. 427+00 'BR' El. 738.73 V.C. = 600'
P.V.I. Sta. 428+00 'BL' El. 739.91 V.C. = 600'
Fill To Be Constructed Under Bridge Contract F Proj. 70(11) Bridge File No. 31-R-2358
85 LFt. P.S.D. Type G & 22 Sq. Yds. Sodding Req'd. on Rt.
Sta. 418+63.5 - Sta. 420+00.0 134.5 LFt. Guard Rail Type GA or GST Req'd on Right
Sta. 417+11.1 - Sta. 420+47.6 336.5 LFt. Rt. in Med.
Sta. 420+64.5 - Sta. 420+93.8 28.5 LFt. Lt. in Med.
Sta. 421+11.2 - Sta. 421+39.7 28.5 LFt. on Lt.
135 LFt. P.S.D. Type 'G' & 40 Sys. Sodding Req'd. on Rt.
360 LFt. P.S.D. Type 'G' & 185 Sq. Yds. Sodding Req'd. on Lt.
1851 SYS Pav't. Removal Req'd.
Sta. 422+18.3 - Sta. 422+46.8 28.5 LFt. G. Rail Type GA or GST Req'd. on Rt.
Sta. 422+65.9 - Sta. 422+94.4 28.5 LFt. in Med.
Sta. 423+23.1 - Sta. 426+24.5 301.5 LFt. Lt. in Med.
Sta. 423+69.8 - Sta. 425+06.3 136.5 LFt. Lt.
BALANCE NO. 12 (SEE NEXT SHEET)
1793 Sys. Sodded Ditch Req'd. On Rt.
760 Sys. Sodded Ditch Req'd. On Left
355 LFt. P.S.D. Type 'J' & 108 Sq. Yds. Sodding Req'd. on Rt.
168 LFt. P.S.D. Type 'G' & 44 Sys. Sodding Req'd. On Left
178 Sq. Yds. Sodded Ditch Req'd. On Lt.
1067 Sys. Pavement Removal Req'd.
1064 Sys. Sodded Ditch Req'd. On Lt.
Grade of Special 3' Bottom Ditch on Lt.
Grade of Special 3' Bottom Ditch on Rt. Plotted 10' Below Datum
GRADE OF SPECIAL 10' BOTTOM DITCH ON RT. (Plotted 10' Below Datum)
Grade of Special Median Ditch Plotted 10' Above Datum
H.W. EL. 731.5
-0.22%
-0.24%
-0.63%
-2.50%
+2.60%
-1.50%
-1.98%
-2.45%
0.00% 'BR'
+0.197% 'BL'
+1.18%
770
760
750
740
730
720
400 01 02 03 04 405 06 07 08 09 410 11 12 13 14 415 16 17 18 19 420 21 22 23 24 425 26 27 28 29 430
F-70 (11) 13 242

POINTS OF ACCESS TO BE ALLOWED AS FOLLOWS

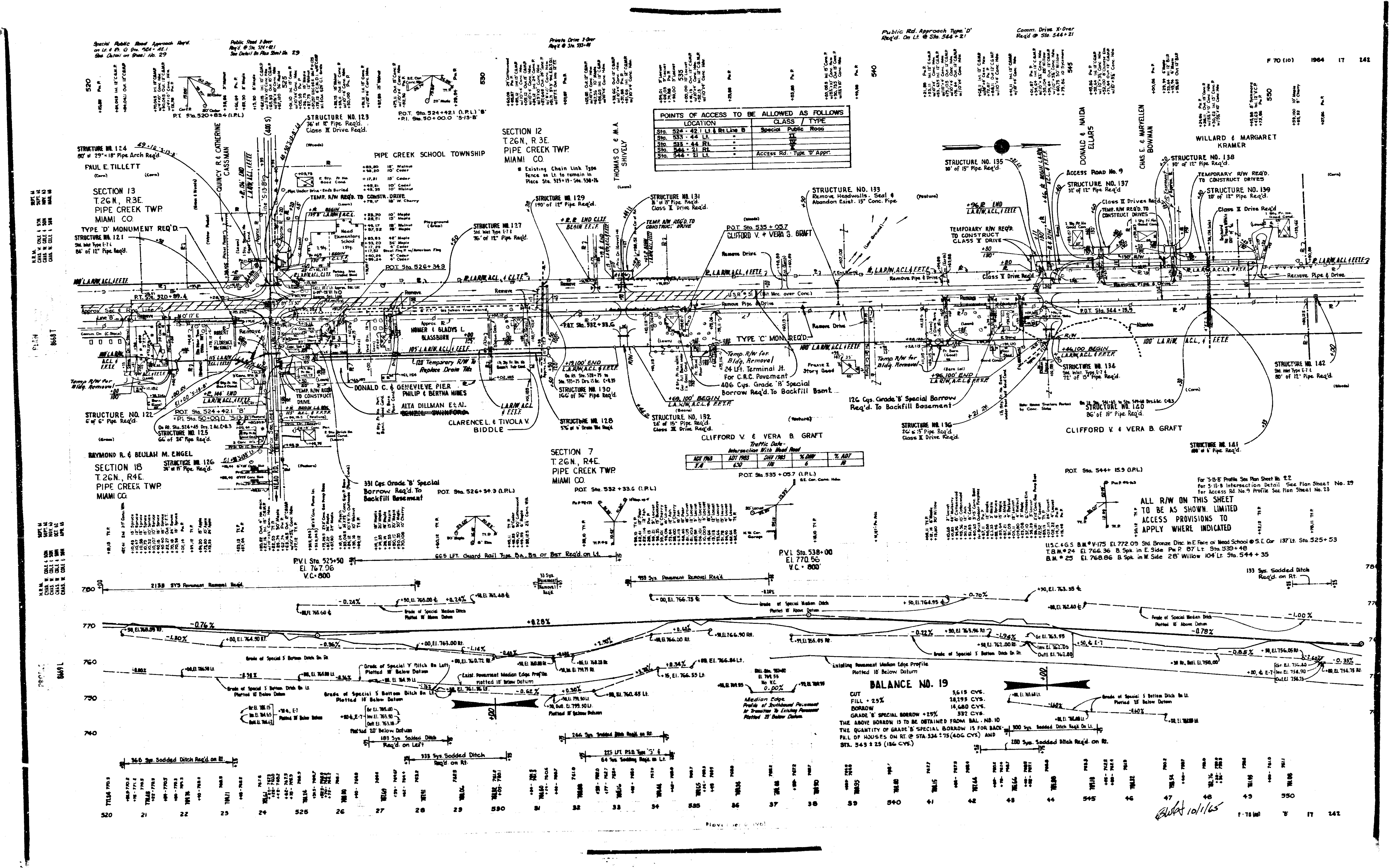
LOCATION		CLASS / TYPE
Sta. 432 + 74 Rt.	Line B	IV
Sta. 440 + 25 Rt.	•	Access Rd. - Type 'D' Appr.
Sta. 440 + 25 Lt.	•	Access Rd. - Type 'D' Appr. (Graded Only)
Sta. 446 + 15 Lt.	•	II
Sta. 450 + 45 Lt.	•	Access Rd. - Type 'D' Appr.
Sta. 450 + 75 Rt.	•	Access Rd. - Type 'D' Appr.
Sta. 453 + 85 Rt.	•	II
Sta. 454 + 18 Lt.	•	II
Sta. 454 + 23 Rt.	•	II
Sta. 459 + 60 Lt.	•	II
Sta. 459 + 60 Rt.	•	Access Rd. - Type 'D' Appr.



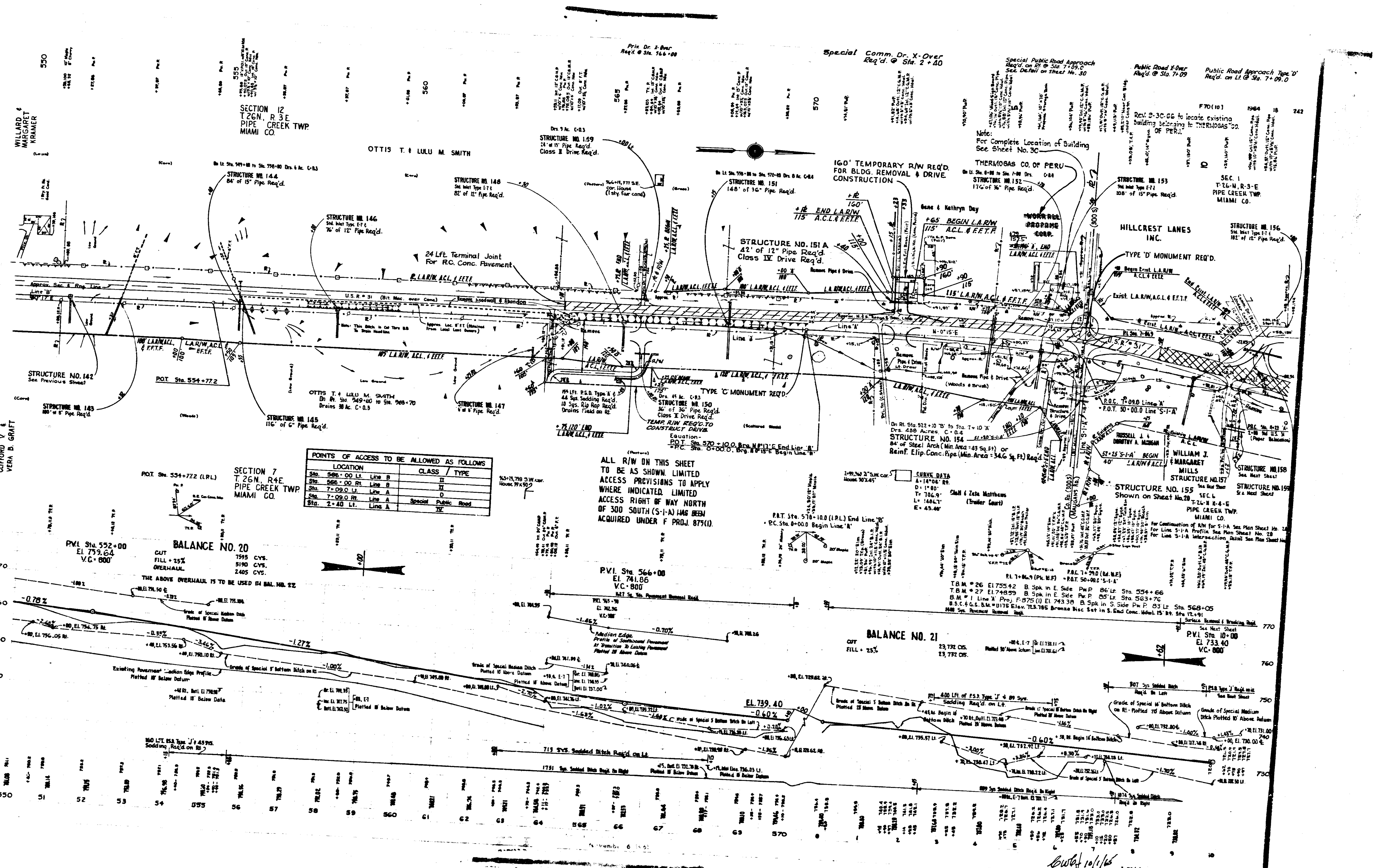
F 70 (10) 1964 15 242
Rev. 6/28/66 Temp R/W to Perm. on Clarence & Tivola Biddle property
Priv. Dr. I-Over Req'd @ Sta. 463+85
Public Road Approach Type B Req'd on Rt. @ Sta. 471+66.5 See Detail on Sheet No. 29
Special Public Road Approach Req'd. On Lt. @ Sta. 471+66.5 See Detail On Sheet No. 29
TEMPORARY RUNAROUND REQ'D. See Details on Plan Sheet No. 32
EARL R. & HAZEL S. AGNESS
SECTION 24
T.26N., R.3E.
PIPE CREEK TWP.
MIAMI CO.
STRUCTURE NO. 100
Std. Inlet Type I-11
90' of 12" Pipe Req'd.
Wm. R. BIDDLE
STRUCTURE NO. 103
30' of 22" x 13" Pipe Arch Req'd.
CLARENCE L. & TIVOLA V. BIDDLE
GEORGE W. & FLO. L. CARSON
STRUCTURE NO. 104
56' of 15" Pipe Req'd.
STRUCTURE NO. 105
36' of 15" Pipe Req'd.
P.O.T. Sta. 471+66.5 'B'
= P.I. Sta. 50+00.0 'S-12-B'
STRUCTURE NO. 107
90' of 12" Pipe Req'd.
P.C. Sta. 473+54.3 (I.P.L.)
RESET USC & GS
BENCH MARK # W 175
LEFT STA. 472 + 77
RUSSELL H. & HAZEL L. REYBURN
TYPE 'C' MONUMENT REQ'D.
P.I. Sta. 481+13.3
STRUCTURE NO. 108
SECTION 13
T.26N., R.3E.
PIPE CREEK TWP.
MIAMI CO.
POINTS OF ACCESS TO BE ALLOWED AS FOLLOWS:
LOCATION | CLASS | TYPE
Sta. 463+85 Rt. Line B | II
Sta. 471+66.5 Lt. | Special Public Road
Sta. 471+66.5 Rt. | B
Line 'B'
USR # 31
P.C. Sta. 473 + 94.3
Lot 7 | Lot 6 | Lot 5 FRANK | Lot 4 KINS | Lot 3 SUB- | Lot 2 DIVISION | Lot 1
100' L.A.R/W, ACL. & F.E.T.E.
100' LA.R/W, A.C.L. & F.E.T.E.
P.T. Sta. 488 + 44.3
TYPE 'C' MONUMENT REQ'D.
WESLEY A. & LOUISE H. SMITH
P.O.T. Sta. 470+13.5
SECTION 19
T.26N., R.4E.
PIPE CREEK TWP.
MIAMI CO.
ARTHUR D. HESSONG
STRUCTURE NO. 101
306' of 15" Steel Pipe or 78" Conc. Pipe Req'd.
STRUCTURE NO. 102
Backfill Existing Slab Top Culvert.
EDWIN L. & FRANCES C. WALDO
L.A. & G.V. BABBITT
P.O.T. Sta. 470+13.5 (I.P.L.)
TEMPORARY R/W REQ'D. TO CONSTRUCT DRIVE.
P.O.T. Sta. 471+66.5 (I.P.L.) 'B'
= P.I. Sta. 50+00.0 'S-12-B'
STRUCTURE NO. 106
24' of 18" Pipe Req'd.
Class II Drive Req'd.
Traffic Data - Intersection With Rumble Rd.
ADT 1963 | ADT 1983 | DHV 1983 | % DHV | % ADT
FRANK E. & BERTHA L. KINS
SECTION 18
T.26N., R.4E.
PIPE CREEK TWP.
MIAMI CO.
For Access Rd. No. 7 Profile See Plan Sheet No. 22
For Profile Temporary Runaround Sta. 461+41.6 to Sta. 469+91.4 See Plan Sheet No. 24
For S-12-B Profile See Plan Sheet No. 22
For S-12-B Intersection Detail See Plan Sheet No. 29
GAIL J. & RUTH MORRETT
ALL R/W ON THIS SHEET TO BE AS SHOWN. LIMITED ACCESS PROVISIONS TO APPLY WHERE INDICATED.
ROBERT H. & RUTH M. CRAINE
P.O.T. Sta. 461+71.7 (I.P.L.)
P.V.I. Sta. 464 + 25
EL. 763.56
V.C. = 800'
P.T. Sta. 488+44.3 (I.P.L.)
B.M. # 19 El. 764.02 B. Spk. in E. Side 12" Elm 108' Lt. Sta. 463+72
U.S.C.&G.S. B.M. # W-175 El. 774.62 Bronze Disc Set in Conc. Fen. P. 14' Lt. Sta. 472+77
T.B.M. # 20 El. 781.29 B. Spk. in W. Side Tel. P. #115 75' Rt. Sta. 485+90
P.V.I. Sta. 483+50
El. 787.05
V.C. = 800'
BALANCE NO. 15
CUT 23,599 CYS.
FILL + 25% 28,406 CYS.
BORROW 4,807 CYS.
THE ABOVE BORROW TO BE OBTAINED FROM BAL. NO. 12
BALANCE NO. 16
CUT 19,503 CYS.
FILL + 25% 19,503 CYS.
2000 Sys. Pavement Removal Req'd.
5067 Sys. Pavement Removal Req'd.
+1.22%
+0.28%
-1.23%
-1.60%
790
780
770
760
750
460 61 62 63 64 465 66 67 68 69 470 71 72 73 74 475 76 77 78 79 480 81 82 83 84 485 86 87 88 89 490
F-70 (10) 15 242



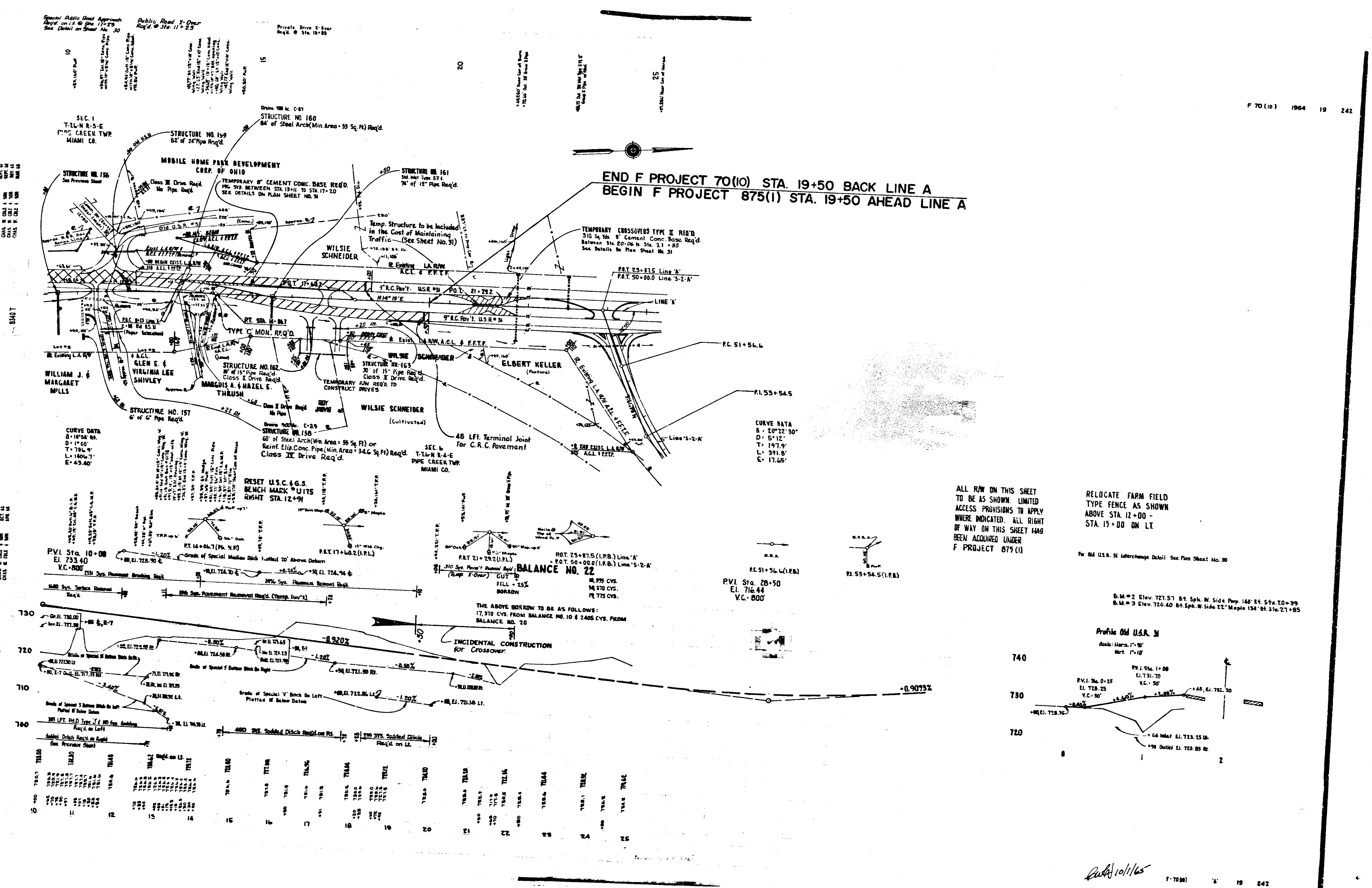
Special Public Rd. Approach Req'd. On Rt. @ Sta. 515+40
Rev. 1-27-67 Access Rd. #8, Temp. R/W.
F70(18) 1964 16 142
RUSSELL H. & HAZEL L. REYBURN
EARL E. & WANELDA L. WELKE
SECTION 13
T.26N., R.3E.
PIPE CREEK TWP.
MIAMI CO.
PAUL E. TILLETT
RESET U.S.C. & G.S. REF. MARK
NEAD 1948 @ STA. 507 + 58 LT
PAUL E. TILLETT
P.T. Sta. 520 + 83.4 (L.P.L.)
STRUCTURE NO. 113
Backfill Existing
R.C. Box Culvert
175' TEMP. R/W TO CONSTRUCT OUTLET DITCH
STRUCTURE NO. 114
80' of 12" Pipe Req'd.
TEMPORARY CROSSOVER TYPE II REQ'D.
See Details On Plan Sheet No. 32
STRUCTURE NO. 120
140' of 36" Pipe Req'd.
STRUCTURE NO. 110
STRUCTURE NO. 109
24' of 12" Pipe Req'd.
TYPE 'C' MONUMENT REQ'D.
P.T. Sta. 520 + 83.4
Curve Data
Δ = 1°15'
D = 0°05'
T = 750.0'
L = 1500.0'
E = 4.09'
R = 68,760'
100' L.A. R/W, A.C.L. & F.E.T.E.
Construction Limits
Line 'B'
TEMP. STRUCTURES TO BE INCLUDED IN MAINT. OF TRAFFIC. SEE SHEET NO. 32.
STRUCTURE NO. 112
290' of 66" Steel Pipe or 60" Conc. Pipe Req'd.
STRUCTURE NO. 111
30' of 15" Pipe Req'd.
STRUCTURE NO. 117
6' of 6" Pipe Req'd.
STRUCTURE NO. 115
154' of 36" Pipe Req'd.
STRUCTURE NO. 116
6' of 6" Pipe Req'd.
TEMPORARY RUNAROUND REQ'D.
See Details on Plan Sheet No. 32
Temp. R/W for Bldg. Removal
ACCESS RD. NO. 8
Temp. R/W for Drive Const.
STRUCTURE NO. 118
STRUCTURE NO. 119
Temp. R/W for Drive Const.
MARIAN & VILMA ELLIOTT
GAIL J. & RUTH MORRETT
SECTION 18
T.26N., R.4E.
PIPE CREEK TWP.
MIAMI CO.
BRUCE W. & MARY E. HARVEY
RAYMOND R. & BEULAH M. ENGEL
20' Stone Driveway
ALL R/W ON THIS SHEET TO BE AS SHOWN. LIMITED ACCESS PROVISIONS TO APPLY WHERE INDICATED
POINTS OF ACCESS TO BE ALLOWED AS FOLLOWS:
LOCATION | CLASS / TYPE
Sta. 494 + 20 Lt. Line B | II
Sta. 494 + 20 Rt. | III
Sta. 515 + 40 Rt. | Access Road - Type 'D' Appr.
P.C. Sta. 505 + 83.4 (L.P.L.)
P.I. Sta. 513 + 33.4 (L.P.L.)
P.V.I. Sta. 501+00
El. 765.52
V.C. = 800'
P.V.I. Sta. 513+00
El. 776.56
V.C. = 800'
2000 SYS. Pavement Removal Req'd.
4533 Sys. Pavement Removal Req'd.
B.M. #21 El. 778.87 X Cut in N.W. Cor. Conc. Pier 132' Rt. Sta. 492+57
T.B.M. #22 El. 765.17 B. Spk. in E. Side Pw. P. 65' Lt. Sta. 504+48
B.M. #23 El. 771.70 B. Spk. in E. Side 40' Cottonwood 191' Lt. Sta. 517+62
BALANCE NO. 17
CUT 8,911 CYS.
FILL + 25% 34,649 CYS.
BORROW 25,738 CYS.
THE ABOVE BORROW TO BE OBTAINED AS FOLLOWS: 14,364 CYS. FROM BALANCE NO. 10 & 11,374 CYS. FROM BALANCE NO. 12.
BALANCE NO. 18
CUT 14,519 CYS.
FILL + 25% 14,315 CYS.
GRADE 'B' SPECIAL BORROW + 15% 531 CYS.
THE QUANTITY OF GRADE 'B' SPECIAL BORROW IS FOR BACKFILL OF STORE ON RT. @ STA. 525 ± 50
-1.23%
+0.92%
-0.74%
Grade of Special 5' Bottom Ditch on Lt.
Grade of Special 5' Bottom Ditch on Rt.
Plotted 10' Below Datum
PROFILE
PLAN
790
780
770
760
750
490 91 92 93 94 495 96 97 98 99 500 01 02 03 04 505 06 07 08 09 510 11 12 13 14 515 16 17 18 19 520
Built 10/1/65

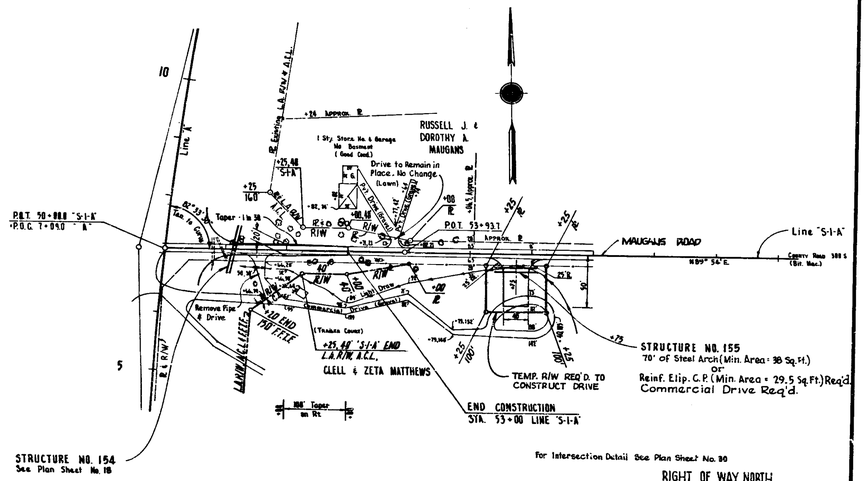


F 70 (10) 1964 17 141
POINTS OF ACCESS TO BE ALLOWED AS FOLLOWS
LOCATION | CLASS / TYPE
Sta. 524 - 42.1 Lt. & Rt. Line B | Special Public Road
Sta. 533 - 44 Lt. | II
Sta. 533 - 44 Rt. | IV
Sta. 544 - 21 Rt. | II
Sta. 544 - 21 Lt. | Access Rd. - Type 'D' Appr.
SECTION 12 T.26N., R.3E. PIPE CREEK TWP. MIAMI CO.
SECTION 13 T.26N., R.3E. PIPE CREEK TWP. MIAMI CO.
SECTION 18 T.26N., R.4E. PIPE CREEK TWP. MIAMI CO.
SECTION 7 T.26N., R.4E. PIPE CREEK TWP. MIAMI CO.
PIPE CREEK SCHOOL TOWNSHIP
QUINCY R. & CATHERINE CASSMAN
PAUL E. TILLETT
THOMAS O. & M.A. SHIVELY
DONALD C. & NAIDA ELLARS
CHAS E. & MARYELLEN BOWMAN
WILLARD & MARGARET KRAMER
RAYMOND R. & BEULAH M. ENGEL
HOMER & GLADYS L. GLASSBURN
DONALD C. & GENEVIEVE PIER
PHILIP & BERTHA HINES
ALTA DILLMAN Et. Al.
CLARENCE L. & TIVOLA V. BIDDLE
CLIFFORD V. & VERA B. GRAFT
TYPE 'D' MONUMENT REQ'D.
TYPE 'C' MON. REQ'D.
STRUCTURE NO. 121
STRUCTURE NO. 122
STRUCTURE NO. 123
STRUCTURE NO. 124
STRUCTURE NO. 125
STRUCTURE NO. 126
STRUCTURE NO. 127
STRUCTURE NO. 128
STRUCTURE NO. 129
STRUCTURE NO. 130
STRUCTURE NO. 131
STRUCTURE NO. 132
STRUCTURE NO. 133 Remove Headwalls. Seal & Abandon Exist. 15" Conc. Pipe
STRUCTURE NO. 134
STRUCTURE NO. 135
STRUCTURE NO. 136
STRUCTURE NO. 137
STRUCTURE NO. 138
STRUCTURE NO. 139
STRUCTURE NO. 140
STRUCTURE NO. 141
STRUCTURE NO. 142
331 Cys. Grade 'B' Special Borrow Req'd. To Backfill Basement
406 Cys. Grade 'B' Special Borrow Req'd. To Backfill Bsmt.
126 Cys. Grade 'B' Special Borrow Req'd. To Backfill Basement
ALL R/W ON THIS SHEET TO BE AS SHOWN. LIMITED ACCESS PROVISIONS TO APPLY WHERE INDICATED
P.V.I. Sta. 525+50 El. 767.06 V.C. = 800'
P.V.I. Sta. 538+00 El. 770.56 V.C. = 800'
665 LFT. Guard Rail Type Ba, Bs or Bsr Req'd. on Lt.
BALANCE NO. 19
CUT 5,615 CYS.
FILL + 25% 28,295 CYS.
BORROW 14,680 CYS.
GRADE 'B' SPECIAL BORROW + 25% 532 CYS.
THE ABOVE BORROW IS TO BE OBTAINED FROM BAL. NO. 10
THE QUANTITY OF GRADE 'B' SPECIAL BORROW IS FOR BACKFILL OF HOUSES ON RT. @ STA. 534 ± 75 (406 CYS.) AND STA. 543 ± 25 (126 CYS.)
Existing Pavement Median Edge Profile Plotted 10' Below Datum
Grade of Special 3' Bottom Ditch On Rt.
780
770
760
750
740
520 21 22 23 24 525 26 27 28 29 530 31 32 33 34 535 36 37 38 39 540 41 42 43 44 545 46 47 48 49 550
BWH 10/1/65



POINTS OF ACCESS TO BE ALLOWED AS FOLLOWS		
LOCATION		CLASS / TYPE
Sta. 566+00 Lt.	Line B	II
Sta. 566+00 Rt.	Line B	II
Sta. 7+09.0 Lt.	Line A	D
Sta. 7+09.0 Rt.	Line A	Special Public Road
Sta. 2+40 Lt.	Line A	IV

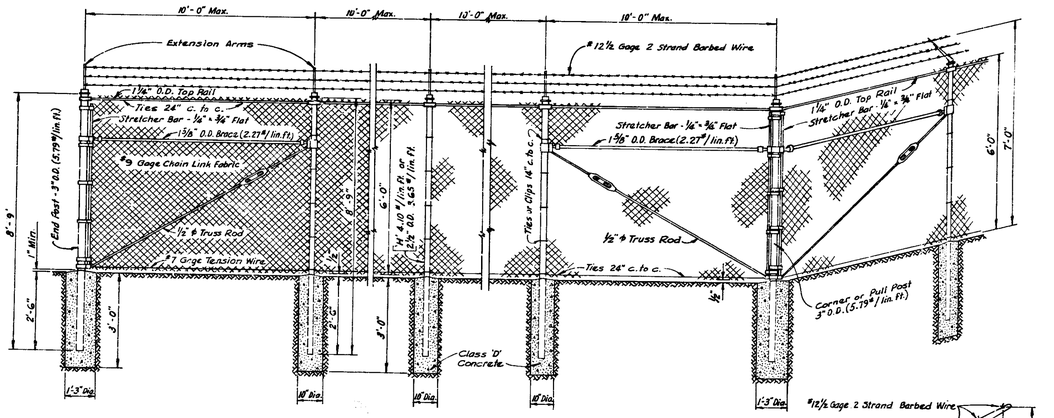

F 70 (10) 1964 19 242
END F PROJECT 70(10) STA. 19+50 BACK LINE A
BEGIN F PROJECT 875(1) STA. 19+50 AHEAD LINE A
MOBILE HOME PARK DEVELOPMENT CORP. OF OHIO
STRUCTURE NO. 160
84' of Steel Arch (Min. Area = 35 Sq. Ft.) Req'd.
STRUCTURE NO. 159
STRUCTURE NO. 161
STRUCTURE NO. 156
TEMPORARY 8" CEMENT CONC. BASE REQ'D.
Temp. Structure to be Included in the Cost of Maintaining Traffic (See Sheet No. 31)
WILSIE SCHNEIDER
TEMPORARY CROSSOVERS TYPE II REQ'D.
P.O.T. 25+87.5 Line 'A'
P.O.T. 50+00.0 Line 'S-2-A'
LINE 'A'
P.C. 51+56.6
P.I. 53+54.5
Line 'S-2-A'
TYPE 'C' MON. REQ'D.
WILLIAM J. & MARGARET MILLS
GLEN E. & VIRGINIA LEE SHIVLEY
MARQUIS A. & HAZEL E. THRUSH
STRUCTURE NO. 162
STRUCTURE NO. 163
TEMPORARY R/W REQ'D. TO CONSTRUCT DRIVES
ELBERT KELLER
WILSIE SCHNEIDER (Cultivated)
STRUCTURE NO. 157
STRUCTURE NO. 158
60' of Steel Arch (Min. Area = 35 Sq. Ft.) or Reinf. Elip. Conc. Pipe (Min. Area = 34.6 Sq. Ft.) Req'd.
Class IV Drive Req'd.
48 LFt. Terminal Joint For C.R.C. Pavement
SEC. 6 T-26-N R-4-E PIPE CREEK TWP. MIAMI CO.
SEC. 1 T-26-N R-3-E PIPE CREEK TWP. MIAMI CO.
CURVE DATA
Δ = 14°04' Rt.
D = 1°00'
T = 706.9'
L = 1406.7'
E = 43.40'
CURVE DATA
Δ = 20°22'30"
D = 5°12'
T = 197.9'
L = 391.8'
E = 17.65'
RESET U.S.C. & G.S. BENCH MARK "U 115" RIGHT STA. 12+91
BALANCE NO. 22
CUT
FILL + 25%
BORROW
THE ABOVE BORROW TO BE AS FOLLOWS: 17,370 CYS. FROM BALANCE NO. 10 & 2405 CYS. FROM BALANCE NO. 20
INCIDENTAL CONSTRUCTION for Crossover
P.V.I. Sta. 10+00
El. 753.40
V.C. = 800'
P.V.I. Sta. 28+50
El. 716.44
V.C. = 800'
-0.920%
+0.9073%
ALL R/W ON THIS SHEET TO BE AS SHOWN. LIMITED ACCESS PROVISIONS TO APPLY WHERE INDICATED. ALL RIGHT OF WAY ON THIS SHEET HAS BEEN ACQUIRED UNDER F PROJECT 875(1).
RELOCATE FARM FIELD TYPE FENCE AS SHOWN ABOVE STA. 12+00 - STA. 15+00 ON LT.
B.M. #2 Elev. 727.57
B.M. #3 Elev. 720.40
Profile Old U.S.R. 31
740
730
720
710
700
10
11
12
13
14
15
16
17
18
19
20
21
22
23
24
25
F-70(10) 'A' 19 242



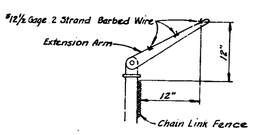
for Intersection Detail See Plan Sheet No. 20

RIGHT OF WAY NORTH OF 300 S (S-1-A) HAS BEEN ACQUIRED UNDER F PROJ. 875 (1).

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

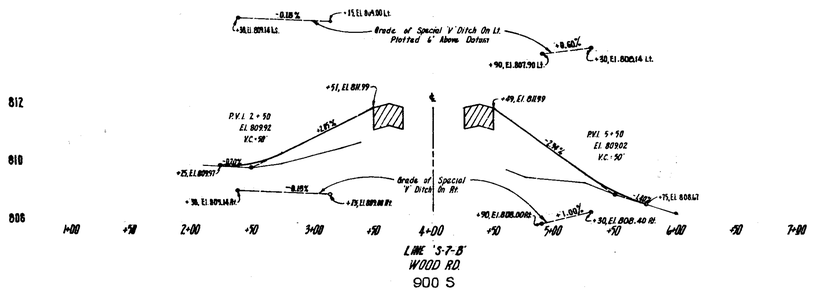


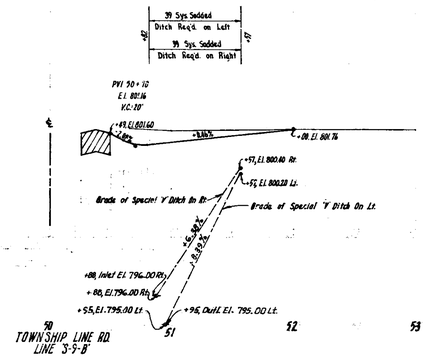
DETAIL OF SECURITY TYPE FENCE
Not to Scale.

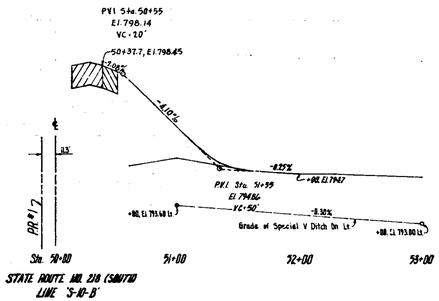


November 6, 1961

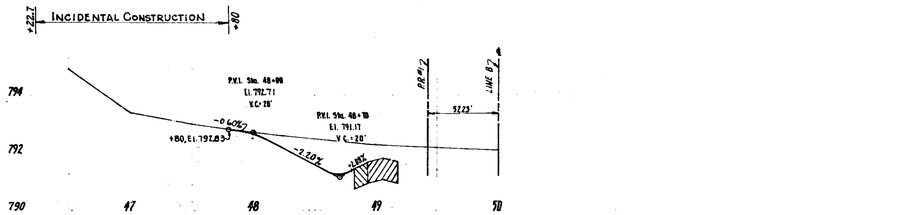
Curtis 10/1/65

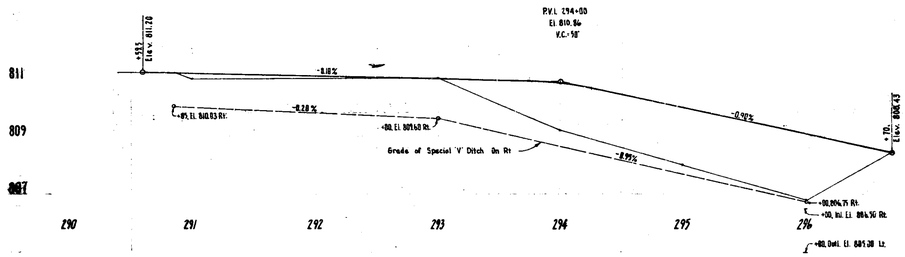


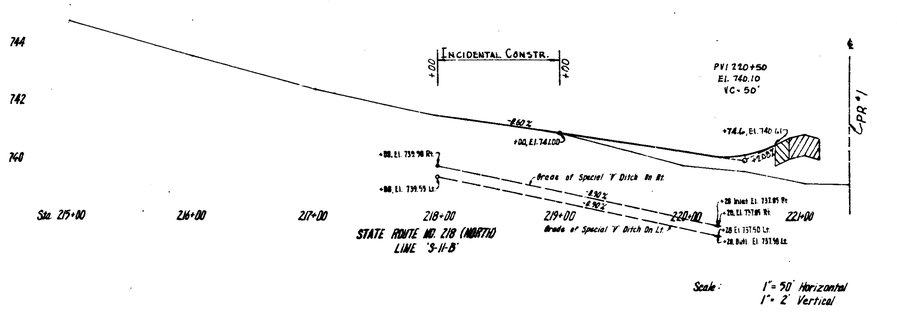




PROFILES OF:
(1) LINE 'S-7-B'
(2) LINE 'S-9-B'
(3) LINE 'S-10-B'
(4) ENTRANCE TO BUNKER HILL A.F.B. 'S-14-B'
(5) ACCESS RD. NO. 1
(6) LINE S-11-B

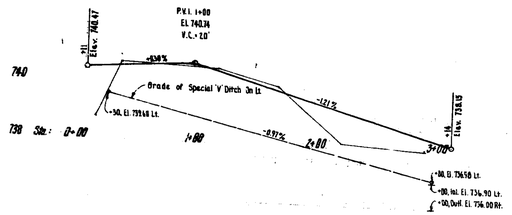






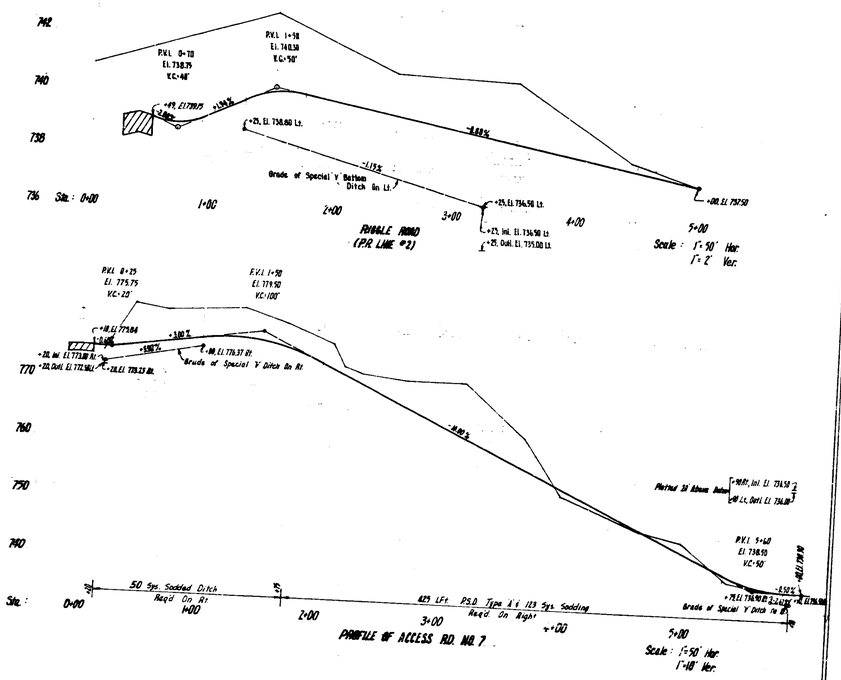
Scale: 1" = 50' Horizontal
1" = 2' Vertical

10/1/65



PROFILE OF FRONTAGE RD. NO. 2

Scale: 1"=50' Hor.
1"= 2' Ver.



RIVALE ROAD
(P.R. LINE #2)

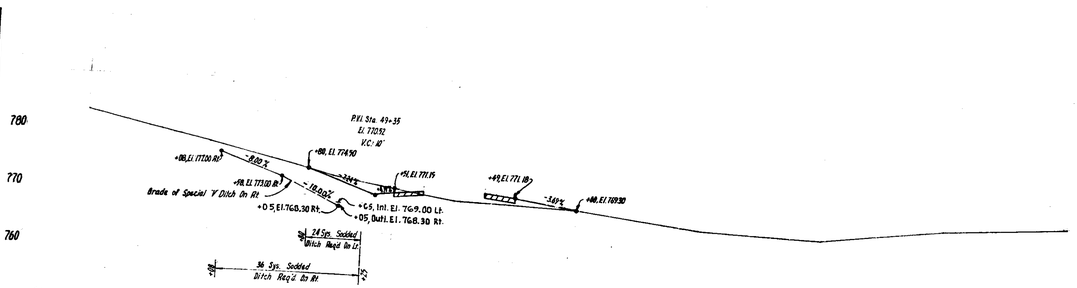
Scale: 1"=50' Hor.
1"= 2' Ver.

50 Lys. Sodded Ditch Reqd On Rt.

425 LFt. P.S.D. Type A x 113 Sys. Sodding Reqd. On Right

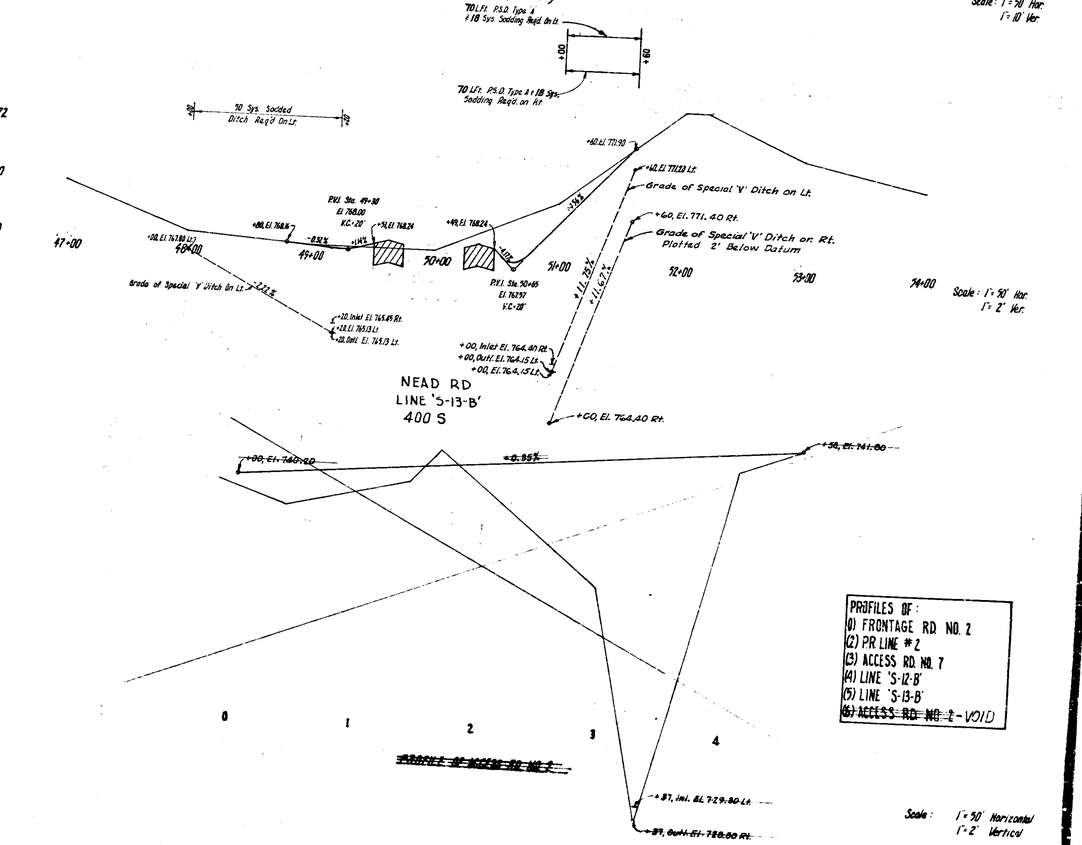
PROFILE OF ACCESS RD. NO. 7

Scale: 1"=50' Hor.
1"=10' Ver.



PROFILE OF ONWARD ROAD & KUNKLE ROAD
LINE S-12-B (500 S)

Scale: 1"=50' Hor.
1"=10' Ver.

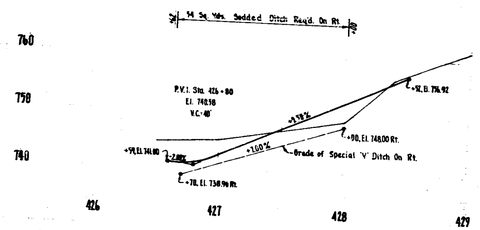


~~PROFILE OF ACCESS RD. NO. 2~~

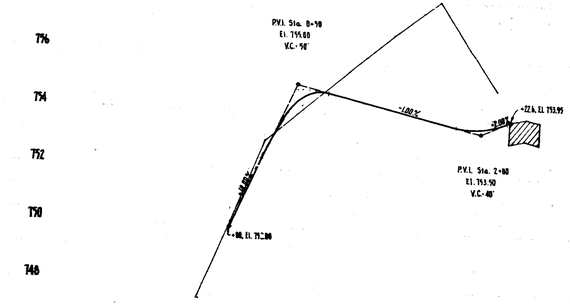
PROFILES OF:
(1) FRONTAGE RD. NO. 2
(2) PR LINE # 2
(3) ACCESS RD. NO. 7
(4) LINE 'S-12-B'
(5) LINE 'S-13-B'
~~(6) ACCESS RD. NO. 2 - VOID~~

Scale: 1"=50' Horizontal
1"=2' Vertical

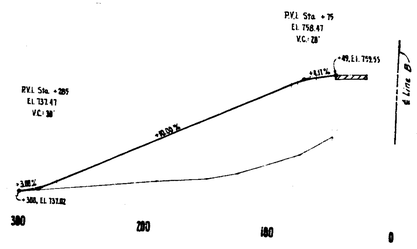
10/11/65



Profile Access Rd. No. 3



Profile Access Rd. No. 4

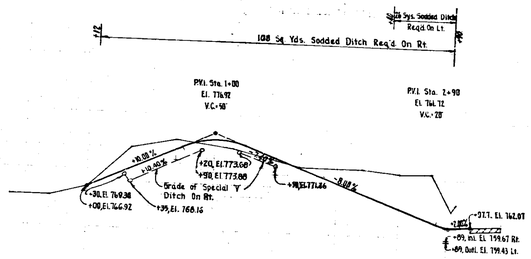


Profile Access Rd. No. 5

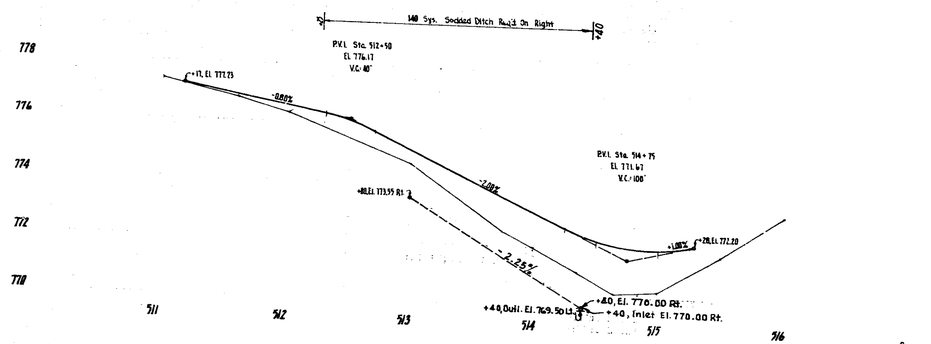
SCALE :
Horizontal - 1"= 50'
Vertical - 1"= 10'

SCALE
Horizontal - 1"= 50'
Vertical - 1"= 2'

SCALE
Horizontal - 1"= 50'
Vertical - 1"= 10'

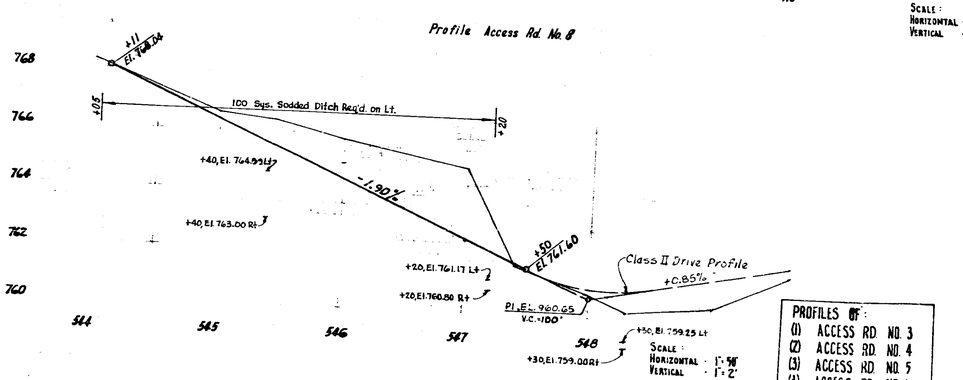


Profile Access Rd. No. 6



Profile Access Rd. No. 8

SCALE :
HORIZONTAL - 1"= 50'
VERTICAL - 1"= 2'

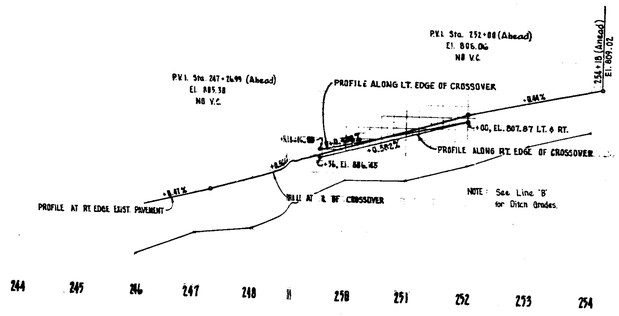


Profile Access Rd. No. 9

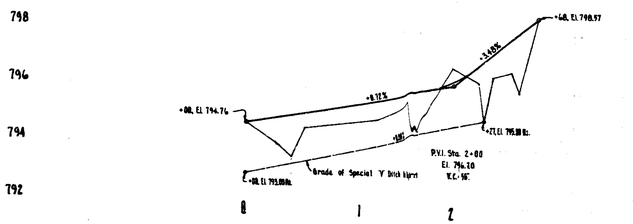
SCALE :
HORIZONTAL - 1"= 50'
VERTICAL - 1"= 2'

PROFILES OF :
(1) ACCESS RD. NO. 3
(2) ACCESS RD. NO. 4
(3) ACCESS RD. NO. 5
(4) ACCESS RD. NO. 6
(5) ACCESS RD. NO. 8
(6) ACCESS RD. NO. 9

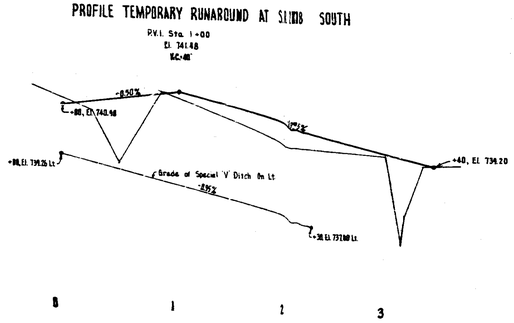
10/1/65



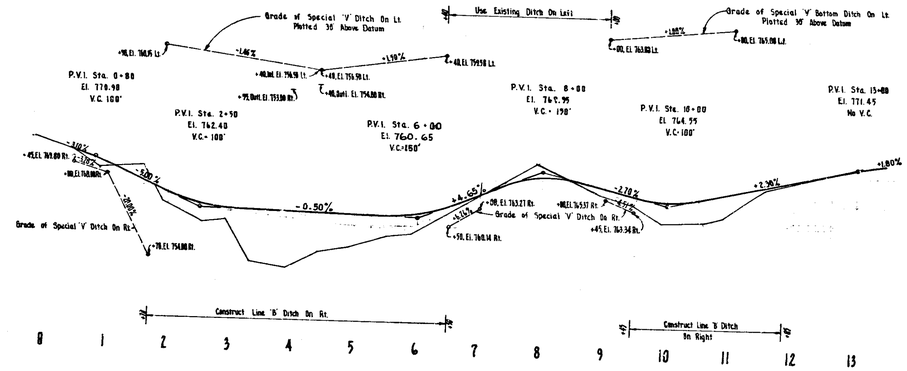
PROFILE OF TEMPORARY CROSSOVER TYPE I
Sta. 242 + 30.67 - 249 'B'



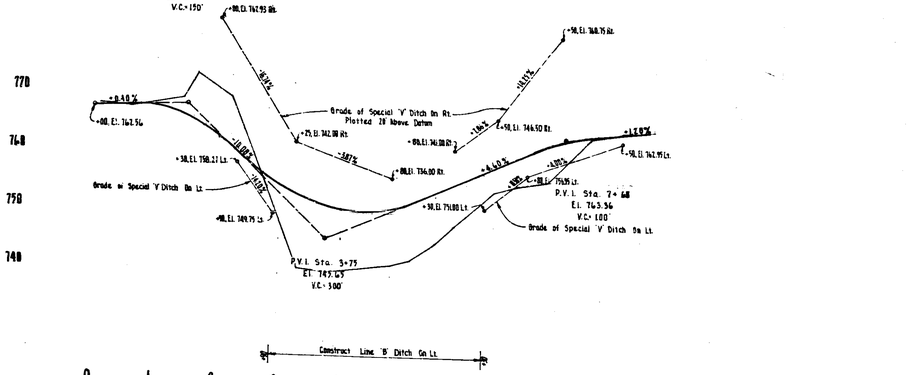
PROFILE TEMPORARY RUNAROUND AT SR218 SOUTH



PROFILE OF TEMPORARY RUNAROUND AT SR218 NORTH



PROFILE TEMPORARY RUNAROUND STA. 494+176 - STA 507+406



PROFILE TEMPORARY RUNAROUND STA. 461+42.6 - STA. 469+91.4

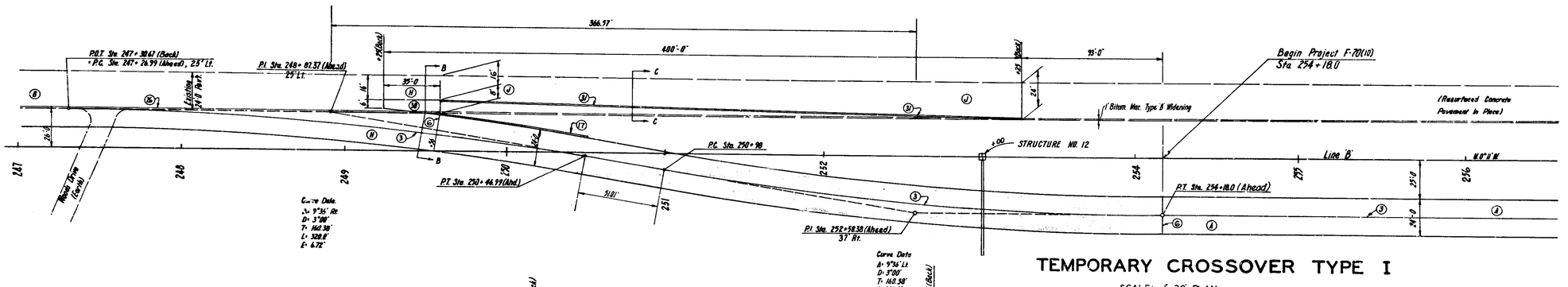
PROFILES OF X-OVERS & RUNAROUNDS AT:
(1) Sta. 242+30.67 - Sta. 254+18
(2) S.R. 218 South
(3) S.R. 218 North
(4) Sta. 461+42.6 - Sta. 469+91.4
(5) Sta. 494+17.6 - Sta. 507+40.6

10/1/65

FED. ROAD REG. NO.	STATE	F. PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
4	IND.	70(10)	1964	25	242

RESURFACE QUANTITIES NOT SHOWN ON THE TABLE OF QUANTITIES AND APPROACHES

8" Reinf. Conc. Pavement	1232	Syd.
Bitum. Center Curb Type 'B'	28	"
Integral Conc. " " 'B'	91	L Ft.
Bitum. Mat'l For Tack Coat	1	Ton

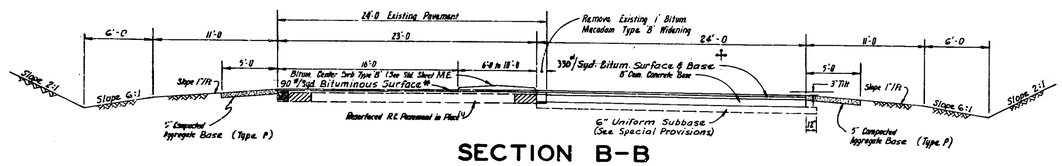


TEMPORARY CROSSOVER TYPE I

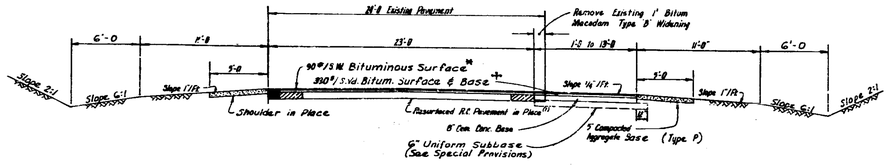
SCALE: 1"=30' PLAN

NOTE: † 350 #/Syd. Bituminous Surface & Base Composed of Either:
(1) 50 #/Syd. H.A.C. Surface Type 'B' on 240 #/Syd. H.A.C. Base.
(2) 90 #/Syd. H.A.E. Surface Type III on 260 #/Syd. H.A.E. Base.

** 90 #/Syd. Bituminous Surface Composed of Either:
(1) H.A.C. Surface Type 'B' or
(2) H.A.E. Surface Type III

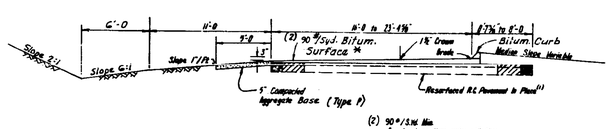


SECTION B-B



(1) See Existing Pavement Typical Section On Plan Sheet No. 3

SECTION A-A



(2) 90 #/Sq.Yd. Min. Construct so that water will flow over, from curb, not along it. Use additional H.A.C. Surface Type 'B' or H.A.E. Surface Type III for Wedge & Leveling

SECTION C-C

SCALE: 3/16" = 1'-0

LEGEND

- Ⓐ Longitudinal Joint
- Ⓑ Construction Joint
- Ⓒ Integral Concrete Curb Type 'B'
- Ⓓ Anchor Bolt Joint
- Ⓔ Bituminous Center Curb Type 'B'
- Ⓕ Bituminous Curb
- Ⓖ 8" C.R.C. Pavement
- Ⓗ See Section 'A'-'A'.
- Ⓘ See Section 'B'-'B'.
- Ⓙ See Section 'C'-'C'.
- 8" Reinf. Conc. Pavement

DETAILS

Ewbj 10/1/65

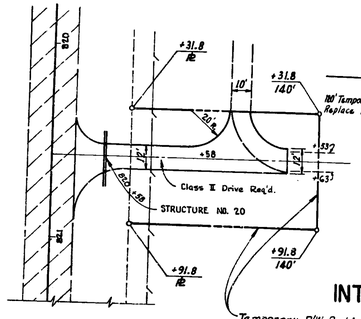
PROJ. NO.	LINE	SHEET NO.	FT. G.
F-70(10)	B	25	

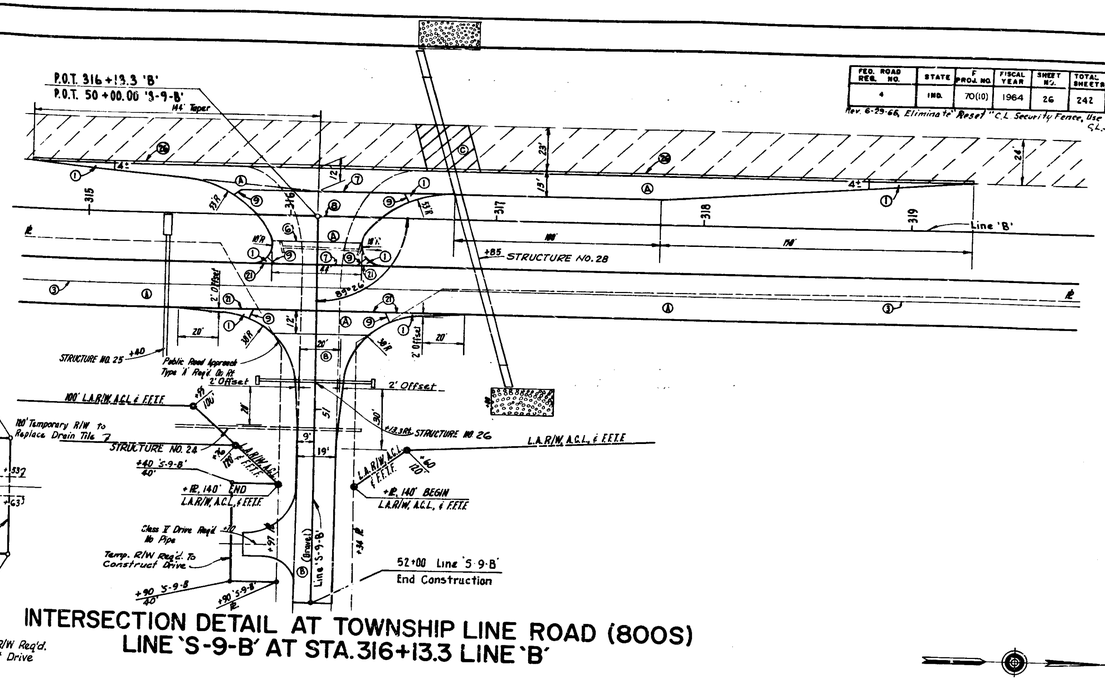
FED. ROAD REG. NO.	STATE	F PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
4	IND.	70(10)	1964	26	242

Rev. 6-29-66, Eliminate Reset "C.L. Security Fence, Use New S.L.S.F.

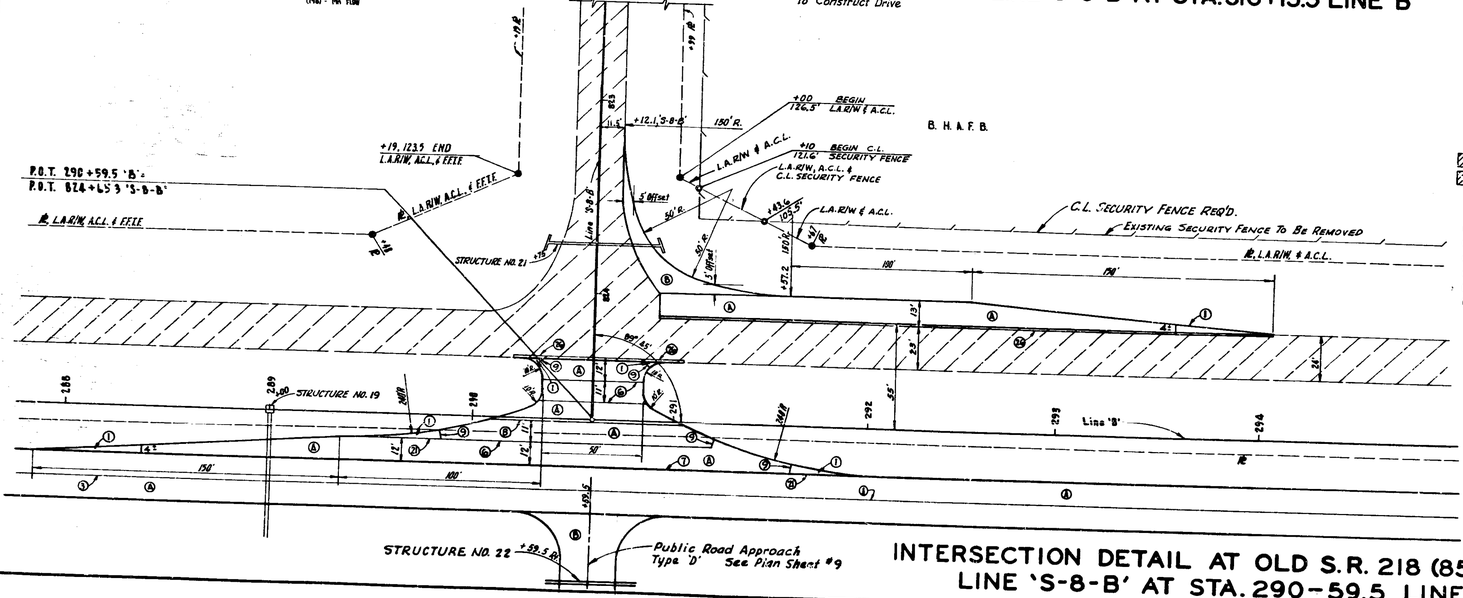
DESIGN HOURLY VOLUME ESTIMATED FOR 1985
AT TOWNSHIP LINE RD. (S-9-B)
DIRECTIONAL DHV
639 - AM FLOW
(851) - PM FLOW

DESIGN HOURLY VOLUME ESTIMATED FOR 1985
AT OLD S.R. 218 (S-8-B)
DIRECTIONAL DHV
638 - AM FLOW
(798) - PM FLOW





INTERSECTION DETAIL AT TOWNSHIP LINE ROAD (800S) LINE 'S-9-B' AT STA. 316+13.3 LINE 'B'



INTERSECTION DETAIL AT OLD S.R. 218 (850S) LINE 'S-8-B' AT STA. 290-59.5 LINE 'B'

LEGEND

- (A) 8" C.R.C. Pavement
- (B) 330 #/S.Y.D. Bituminous Mixture for Approaches over 5" Compacted Aggregate Type 'P'
- (C) 330 #/S.Y.D Mixture for Bituminous Shoulder over 8" Cement Concrete Base
- (3) Longitudinal Joint
- Pavement to be Removed
- Existing Pavement to Remain in Place
- (1) Ear Construction Type 'A'
- (6) Construction Joint
- (7) Keyway Joint
- (8) 1" Preformed Expansion Jt. w/Load Transfer
- (9) 1" " Joint Filler
- (21) Keyway Construction Joint
- (26) Anchor Bolt Joint

DETAILS

Scale 1"=30'

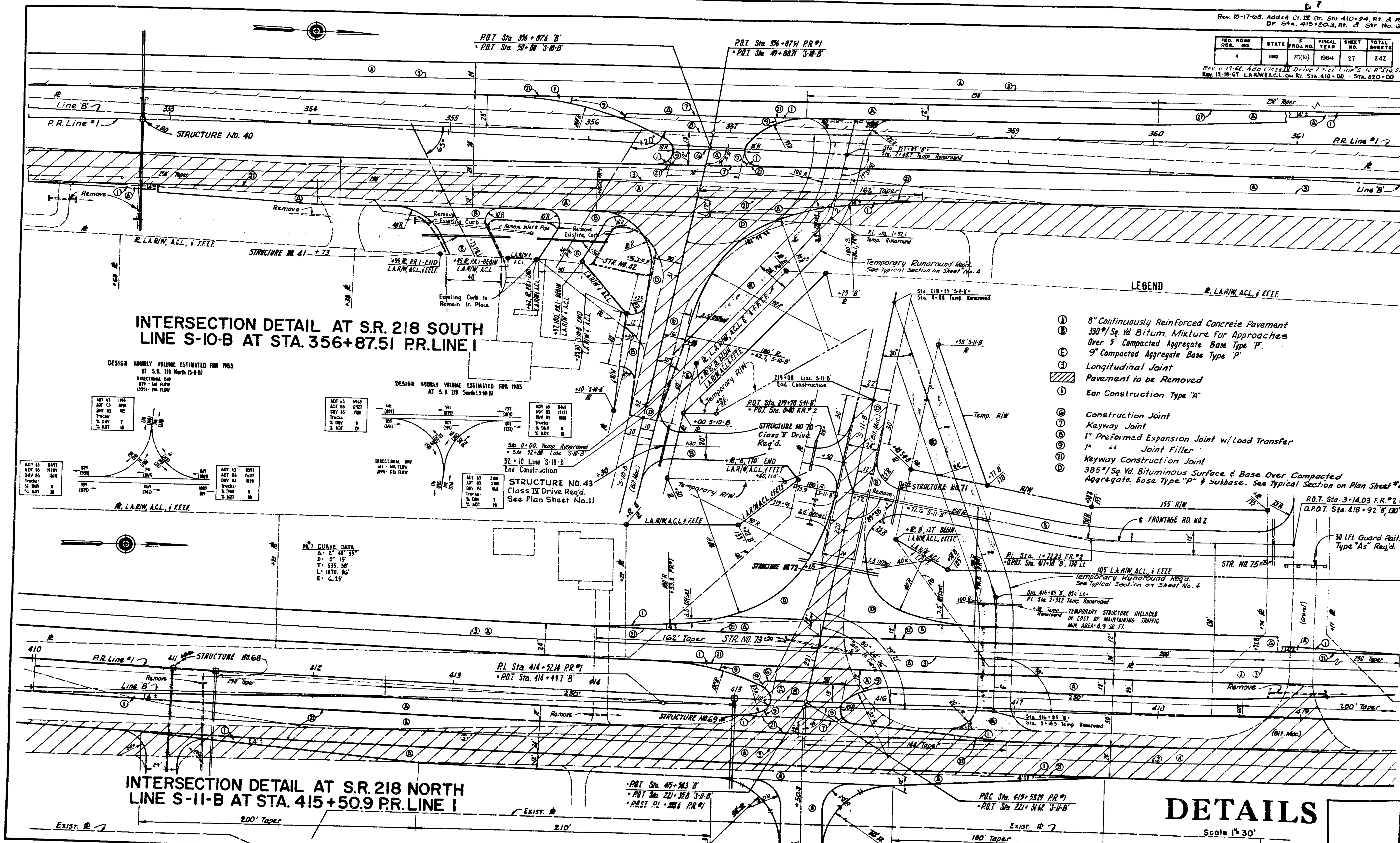
10/1/66

PROJ. NO.	LINE	SHEET NO.	FILE
F-70 (10)		26	

Rev. 10-17-68. Added Cl. IV Dr. Sta. 410+94, Rt. & Rev. Cl. IV Dr. Sta. 415+50.3, Rt. & Str. No. 68.

FED. ROAD REG. NO.	STATE	F PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
4	IND.	70(10)	1964	27	242

Rev 11-17-66. Add Class IV Drive Lt. of Line "S-10-B" Sta. 52+30.
Rev. 12-18-67 L.A.R/W & A.C.L. on Rt. Sta. 410+00 - Sta. 420+00

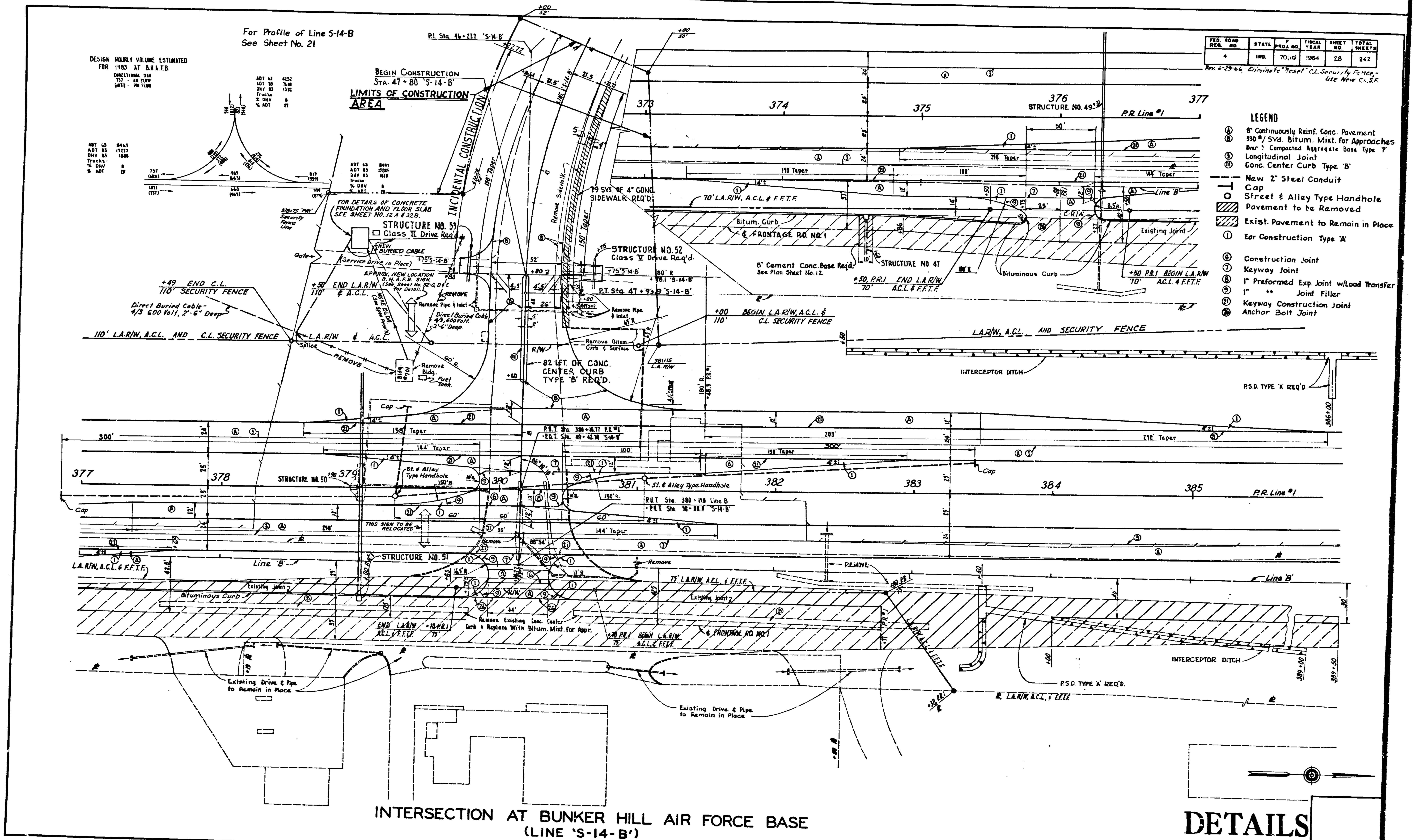


DETAILS

Scale 1" = 30'

PROJ. No	LINE	SHEET No
F-70 (10)	P.K.1	27

FED. ROAD REG. NO.	STATE	F PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
4	IND.	70(10)	1964	28	242



For Profile of Line S-14-B
See Sheet No. 21
DESIGN HOURLY VOLUME ESTIMATED FOR 1983 AT B.H.A.F.B.
BEGIN CONSTRUCTION
STA. 47 + 80 'S-14-B'
LIMITS OF CONSTRUCTION AREA
INCIDENTAL CONSTRUCTION
FOR DETAILS OF CONCRETE FOUNDATION AND FLOOR SLAB SEE SHEET NO. 32 A & 32 B.
STRUCTURE NO. 53
Class II Drive Req'd.
STRUCTURE NO. 52
Class V Drive Req'd.
79 SYS. OF 4" CONC. SIDEWALK REQ'D.
70' L.A.R/W, A.C.L. & F.F.T.F.
Bitum. Curb
FRONTAGE RD. NO. 1
STRUCTURE NO. 47
8" Cement Conc. Base Req'd.
See Plan Sheet No. 12
+50 P.R.I. END L.A.R/W A.C.L. & F.F.T.F.
+50 P.R.I. BEGIN L.A.R/W A.C.L. & F.F.T.F.
Bituminous Curb
Existing Joint
STRUCTURE NO. 49
P.R. Line #1
+49 END C.L. 110' SECURITY FENCE
+50 END L.A.R/W & A.C.L.
Direct Buried Cable - 4/3 600 Volt, 2'-6" Deep
110' L.A.R/W, A.C.L. AND C.L. SECURITY FENCE
P.T. Sta. 47 + 95.9 'S-14-B'
+00 BEGIN L.A.R/W, A.C.L. & C.L. SECURITY FENCE
L.A.R/W, A.C.L. AND SECURITY FENCE
INTERCEPTOR DITCH
P.S.D. TYPE 'A' REQ'D.
82 LFT. OF CONC. CENTER CURB TYPE 'B' REQ'D.
Remove Bldg.
Fuel Tank
STRUCTURE NO. 50
STRUCTURE NO. 51
St. & Alley Type Handhole
THIS SIGN TO BE RELOCATED
Line 'B'
L.A.R/W, A.C.L. & F.F.T.F.
Bituminous Curb
Existing Joint
Remove Existing Conc. Center Curb & Replace With Bitum. Mixt. For Appr.
END L.A.R/W A.C.L. & F.F.T.F.
BEGIN L.A.R/W A.C.L. & F.F.T.F.
FRONTAGE RD. NO. 1
75' L.A.R/W, A.C.L. & F.F.T.F.
Existing Drive & Pipe to Remain in Place
P.R. Line #1
LEGEND
Ⓐ 8" Continuously Reinf. Conc. Pavement
Ⓑ 330#/ SYd. Bitum. Mixt. for Approaches Over 5" Compacted Aggregate Base Type 'P'
③ Longitudinal Joint
⑪ Conc. Center Curb Type 'B'
New 2" Steel Conduit
Cap
Street & Alley Type Handhole
Pavement to be Removed
Exist. Pavement to Remain in Place
① For Construction Type 'A'
⑥ Construction Joint
⑦ Keyway Joint
⑧ 1" Preformed Exp. Joint w/Load Transfer
⑨ 1" " Joint Filler
㉑ Keyway Construction Joint
㉔ Anchor Bolt Joint

Rev. 6-29-66, Eliminate "Reset" C.L. Security Fence - Use New C.L.S.F.

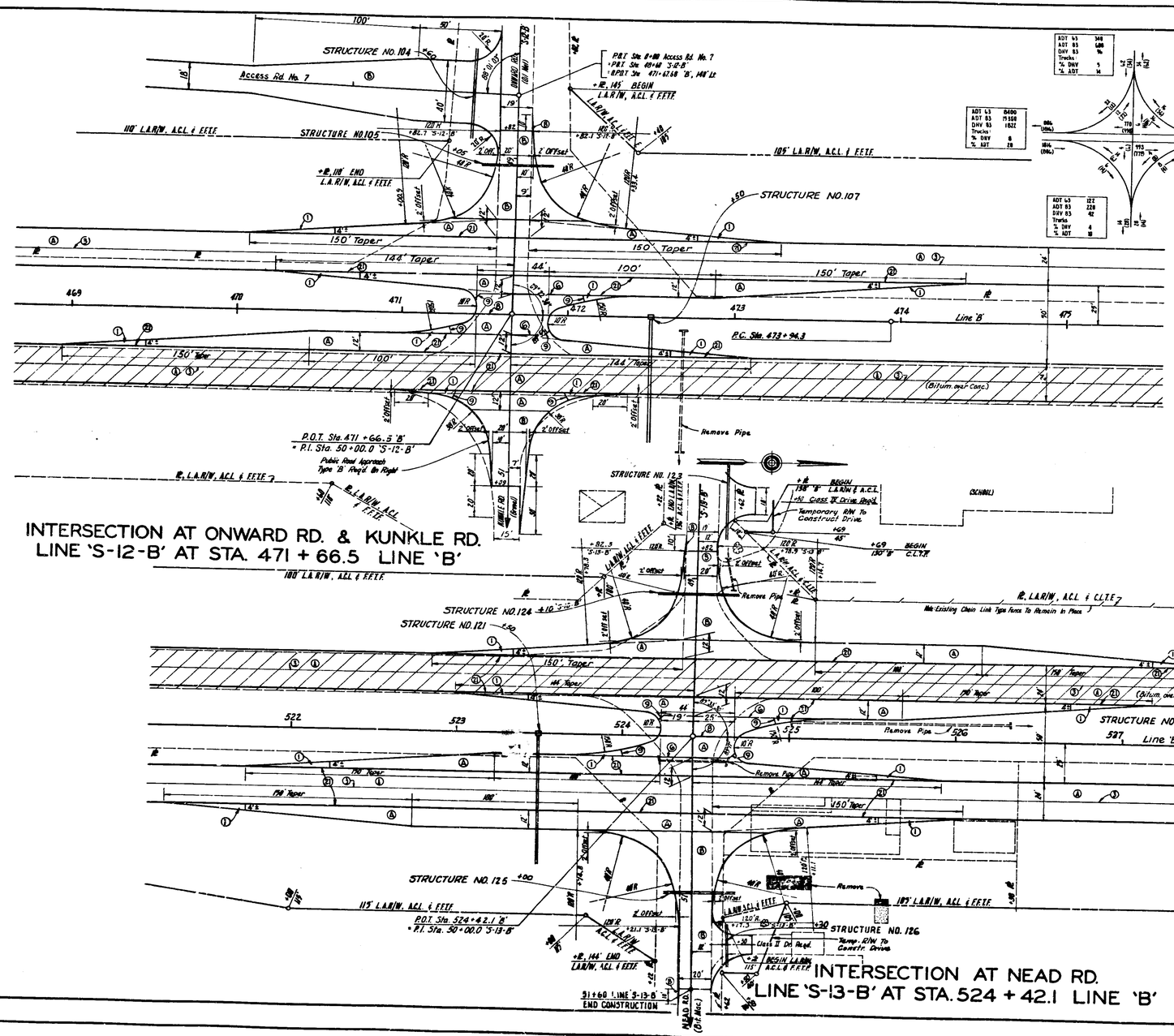
INTERSECTION AT BUNKER HILL AIR FORCE BASE
(LINE 'S-14-B')

DETAILS

SCALE: 1" = 30'

10/1/65

PROJ. NO.	LINE	SHEET NO.	FILE
F-70(10)	P.R.I.	28	



INTERSECTION AT ONWARD RD. & KUNKLE RD.
LINE 'S-12-B' AT STA. 471 + 66.5 LINE 'B'

INTERSECTION AT NEAD RD.
LINE 'S-13-B' AT STA. 524 + 42.1 LINE 'B'

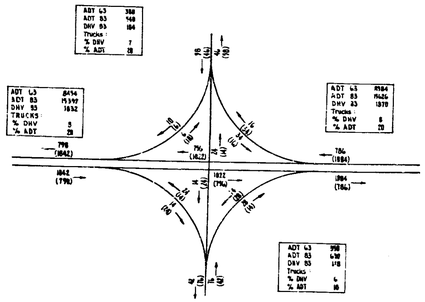
DESIGN HOURLY VOLUME ESTIMATED FOR 1983 AT KUNKLE & ONWARD RD

DIRECTIONAL DHV
880 - AM FLOW
(1016) - PM FLOW

FED. ROAD REG. NO.	STATE	F PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
4	IND.	70(10)	1964	29	242

LEGEND

- (A) 8" P.C. Pavement
- (B) 330 lb/Sq. Yd. Bitum. Mixt. for Approaches over 5" Compacted Aggregate Base Type 'P'
- (3) Longitudinal Joint
- Pavement to be Removed
- (1) Ear Construction Type 'A'
- (6) Construction Joint
- (7) Keyway Joint
- (8) 1" Preformed Expansion Joint w/Load Transfer
- (9) 1" " Joint Filler
- (21) Keyway Construction Joint



DESIGN HOURLY VOLUME ESTIMATED FOR 1983 AT NEAD ROAD (5-13-B)

DIRECTIONAL DHV
798 - AM FLOW
(1842) - PM FLOW

DETAILS

SCALE: 1" = 30'

10/1/65 Bwb

PROJ. NO.	LINE	SHEET NO.	FILE
F-70(10)	B	29	

FED. ROAD REG. NO.	STATE	PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
4	IND.	70(10)	1964	30	242

Rel. 2-30-66 to locate existing building belonging to THERMOGAS CO. of PERU.

INTERSECTION AT WOOD ROAD (900 S.) LINE 'S-7-B' AT STA. 264+18 'B'.

DESIGN HOURLY VOLUME ESTIMATED FOR 1983 AT WOOD RD. (S-7-B)

DIRECTIONAL DIV
652 - AM FLOW
(798) - PM FLOW

LEGEND

- (A) 8" C.R.C. Pavement
- (B) 330#/Sq. Yd. Bitum. Mixture for Approaches over 5" Compacted Aggregate Base Type 'P'
- (5) Longitudinal Joint
- Pavement to be Removed
- (1) Ear Construction Type 'A'
- (6) Construction Joint
- (7) Keyway Joint
- (8) 1" Preformed Expan. Joint w/Load Transfer
- (9) 1" " Joint Filler
- (21) Keyway Construction Joint

DESIGN HOURLY VOLUME ESTIMATED FOR 1983 AT MAUGANS RD. (S-1-A)

DIRECTIONAL DIV
784 - AM FLOW
(1084) - PM FLOW

DESIGN HOURLY VOLUME ESTIMATED FOR 1985 AT OLD U.S. 31

DIRECTIONAL DIV
788 - AM FLOW
1184 - PM FLOW

INTERSECTIONS AT MAUGANS RD. (S-1-A) & OLD U.S. 31

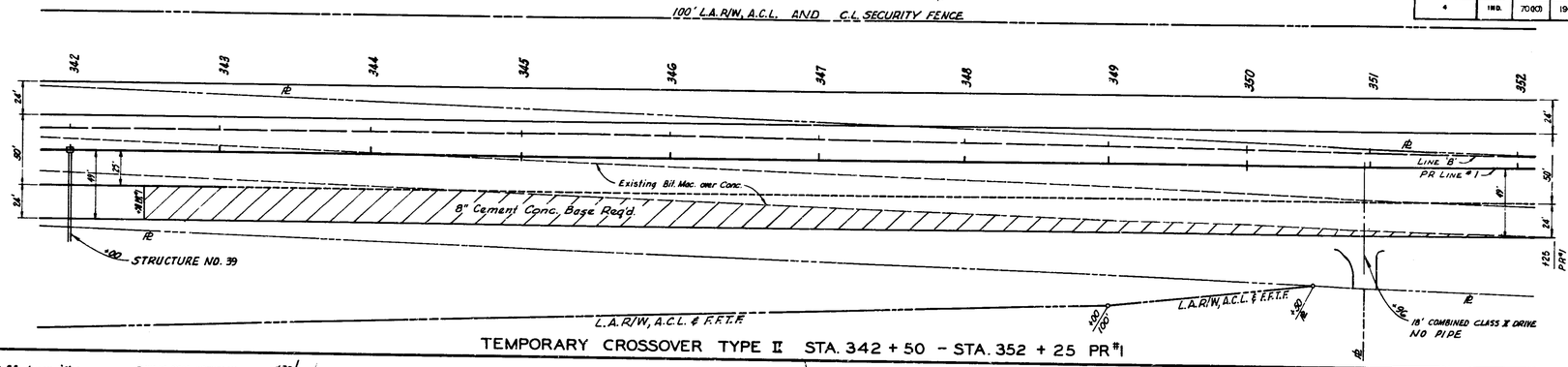
DETAILS

SCALE: 1"=30'

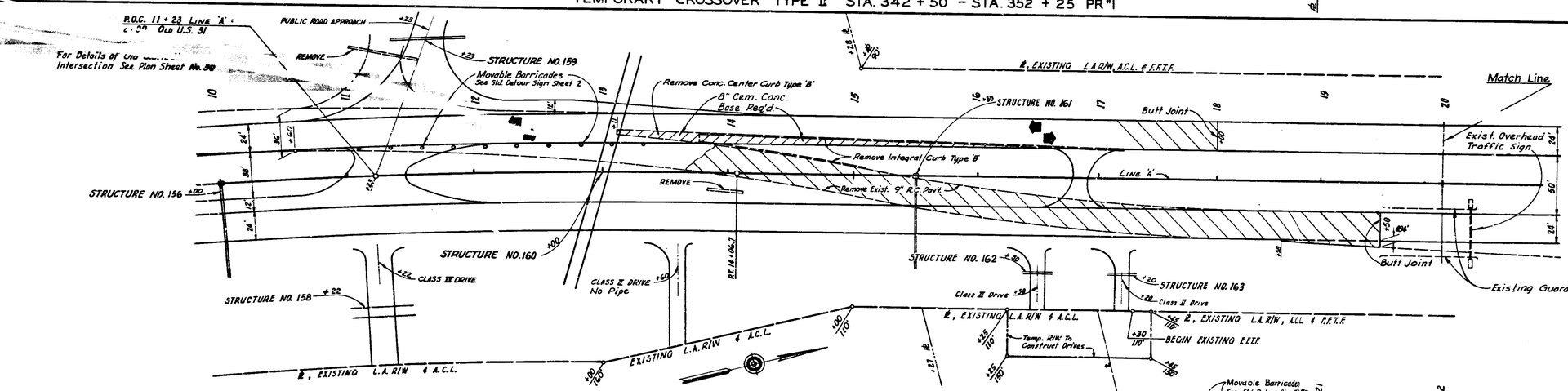
10/1/65 Errata

PROJ. NO.	LINE	SHEET NO.	FILM
F-70 (10)		30	

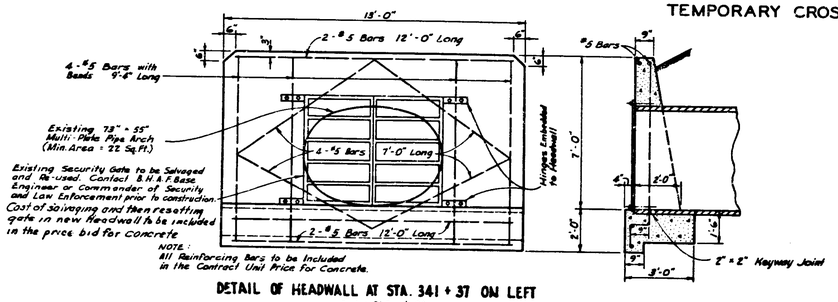
FED. ROAD REG. NO.	STATE	F PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
4	IND.	7080	1964	31	242



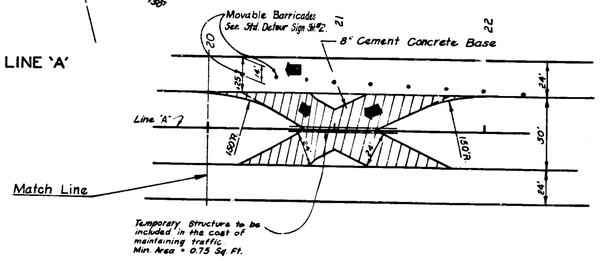
TEMPORARY CROSSOVER TYPE II STA. 342 + 50 - STA. 352 + 25 PR #1



TEMPORARY CROSSOVER TYPE II STA. 10 + 00 - STA. 20 + 00 LINE 'A'



DETAIL OF HEADWALL AT STA. 341 + 37 ON LEFT
Scale: 3/8" = 1'-0"



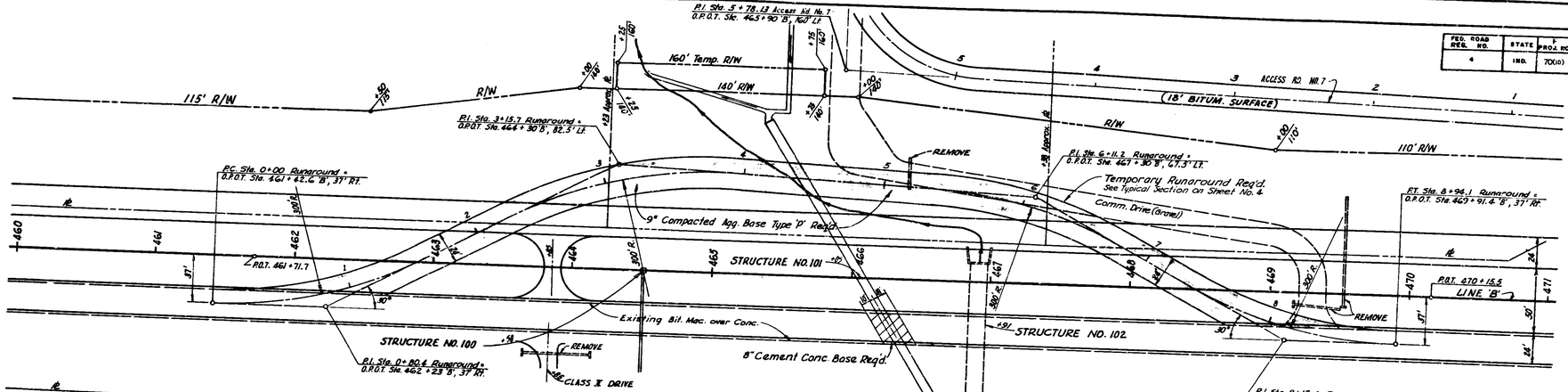
DETAILS

SCALE: 1" = 40'

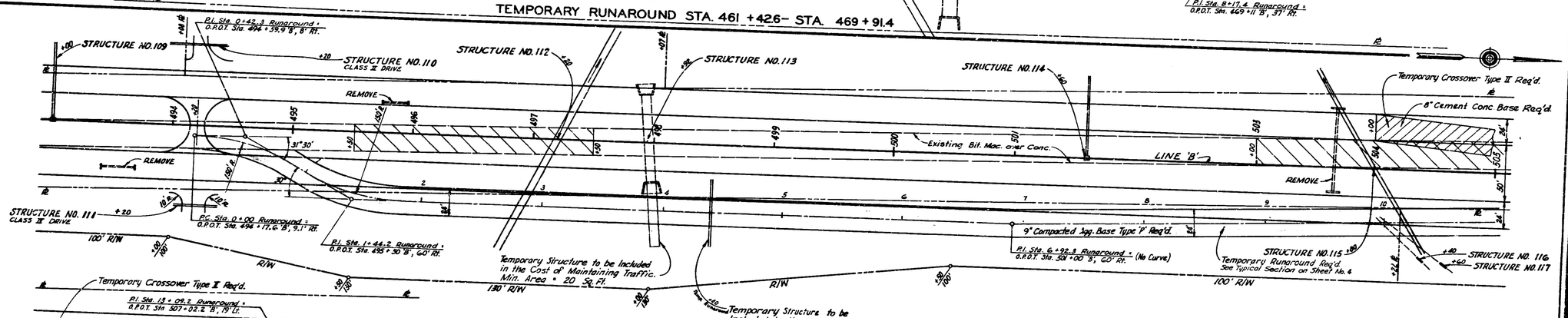
10/1/65

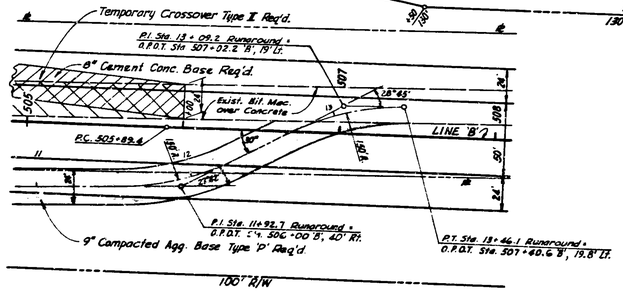
PROJ. NO.	LINE	SHEET NO.	FILE
F-10 (10)		31	

FED. ROAD REG. NO.	STATE	PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
4	IND.	70(10)	1964	32	242



TEMPORARY RUNAROUND STA. 461 +42.6 – STA. 469 + 91.4





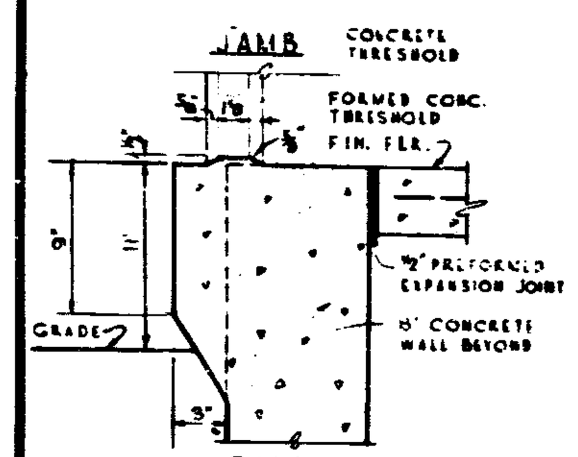
TEMPORARY RUNAROUND AND CROSSOVER TYPE I
STA. 494 +17.6 – STA. 507 + 40.6

DETAILS

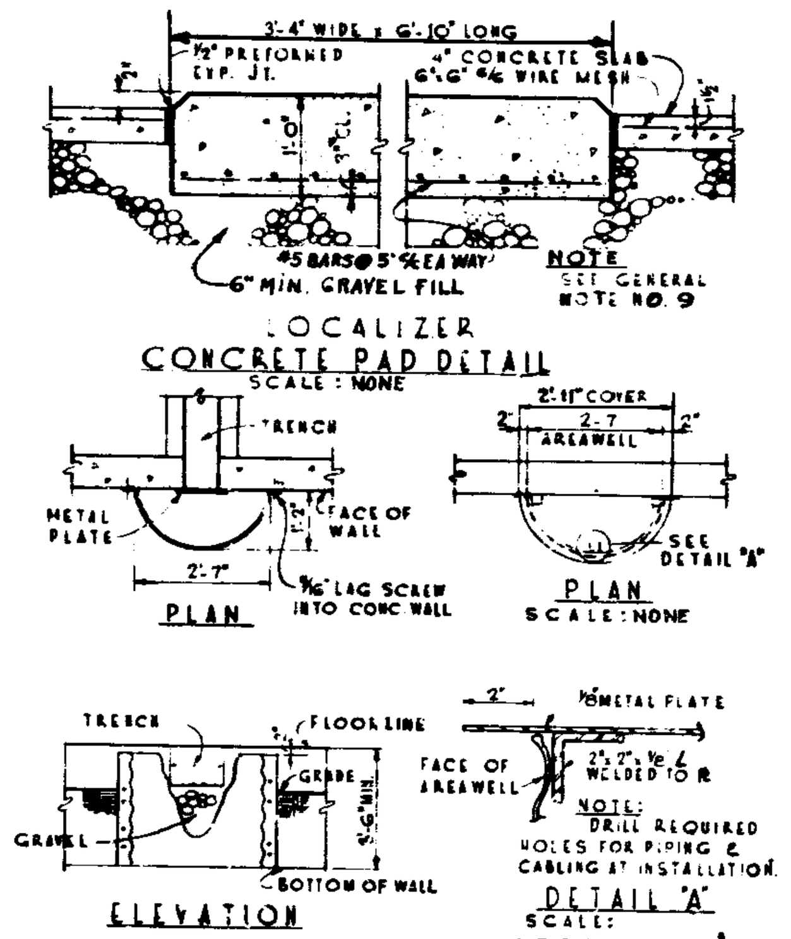
SCALE: 1" = 40'

PROJ. No.	LINE	SHEET No.
F-70 (10)	B	32

FEDERAL ROAD REGION NO.	STATE	F PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
4	IND.	70 (10)	1964	32-A	242



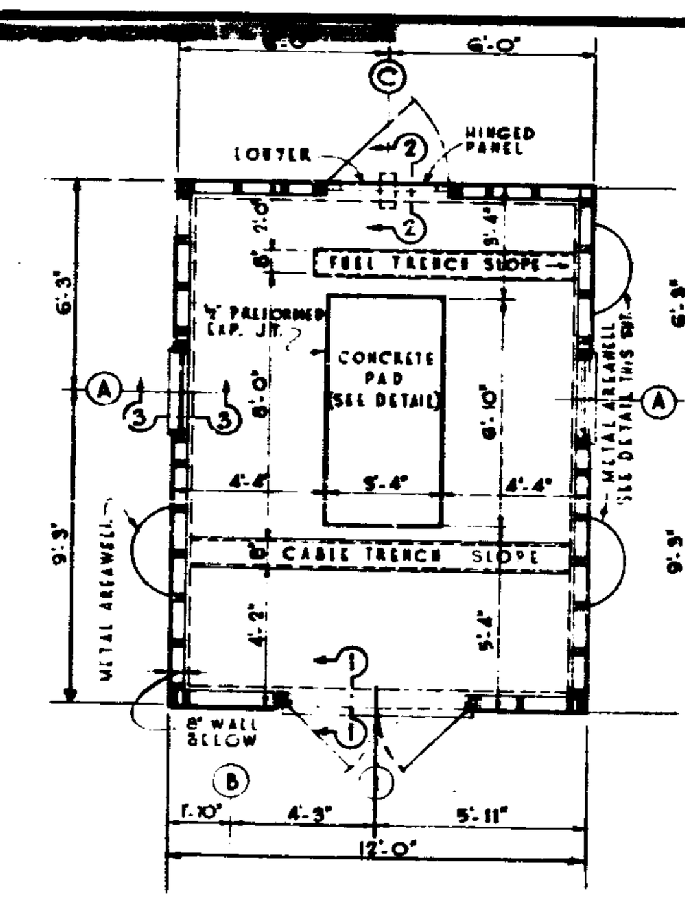
TYPICAL DETAILS - DOOR ①
SCALE: NONE



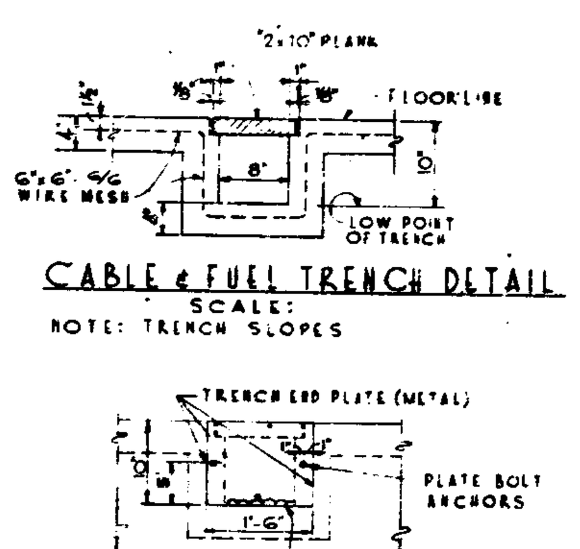
LOCALIZER CONCRETE PAD DETAIL
SCALE: NONE

DETAIL OF AREA WELL
SCALE: NONE

AREA WELL COVER DETAIL

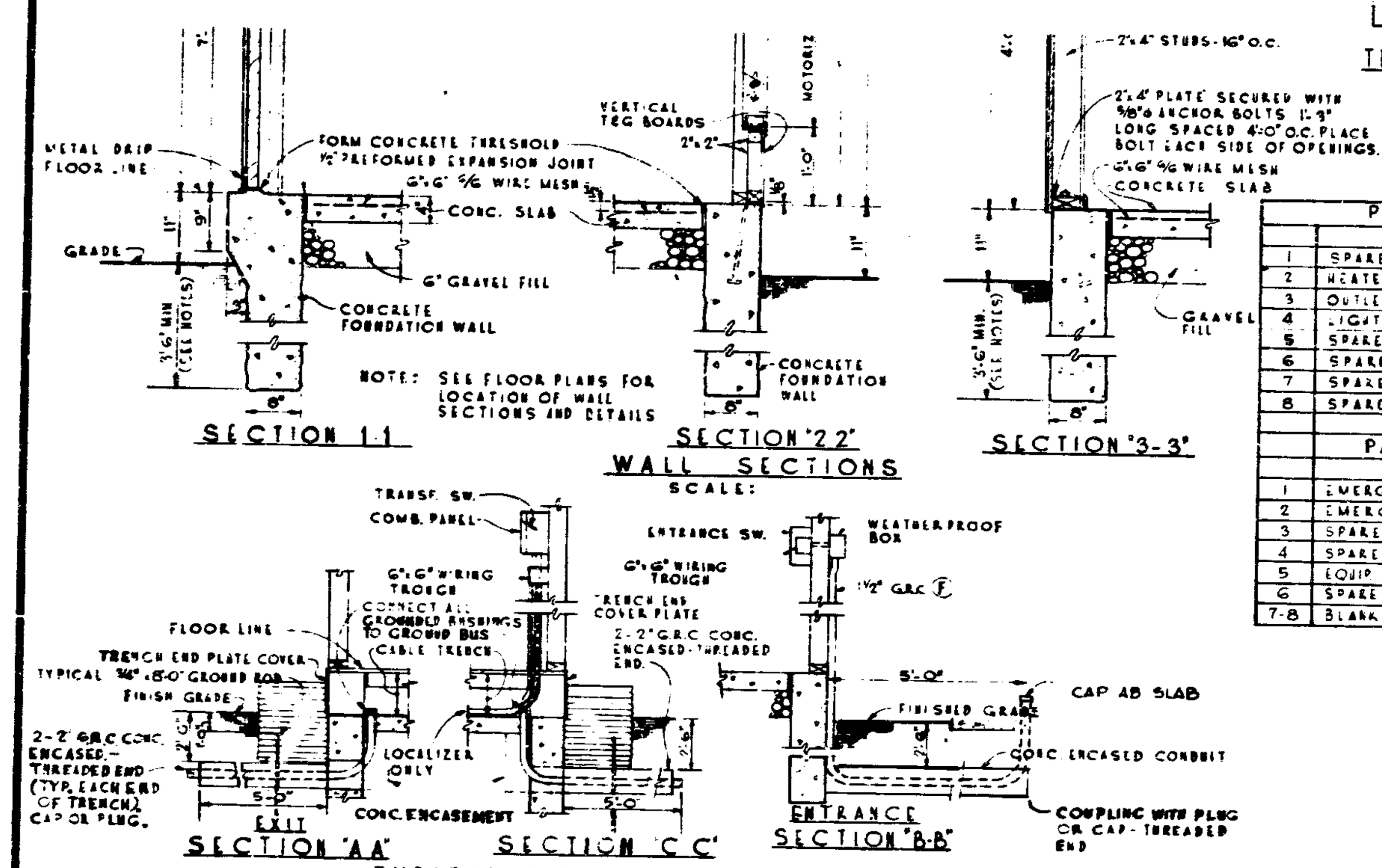


FLOOR PLAN
SCALE: NONE



CABLE & FUEL TRENCH DETAIL
SCALE:
NOTE: TRENCH SLOPES

TRENCH END DETAIL
SCALE:



SECTION 1-1 — SECTION 2-2 — SECTION 3-3
WALL SECTIONS
SCALE:

SECTION 'AA' — SECTION 'CC' — SECTION 'B-B'
TYPICAL CABLE DETAILS
(NO SCALE)

PANEL 5A		
	USE	SIZE BRKR
1	SPARE	30A-2P
2	HEATER	30A-2P
3	OUTLETS	20A-1P
4	LIGHTS	20A-1P
5	SPARE	20A-1P
6	SPARE	20A-P
7	SPARE	30A-2P
8	SPARE	20A-2P

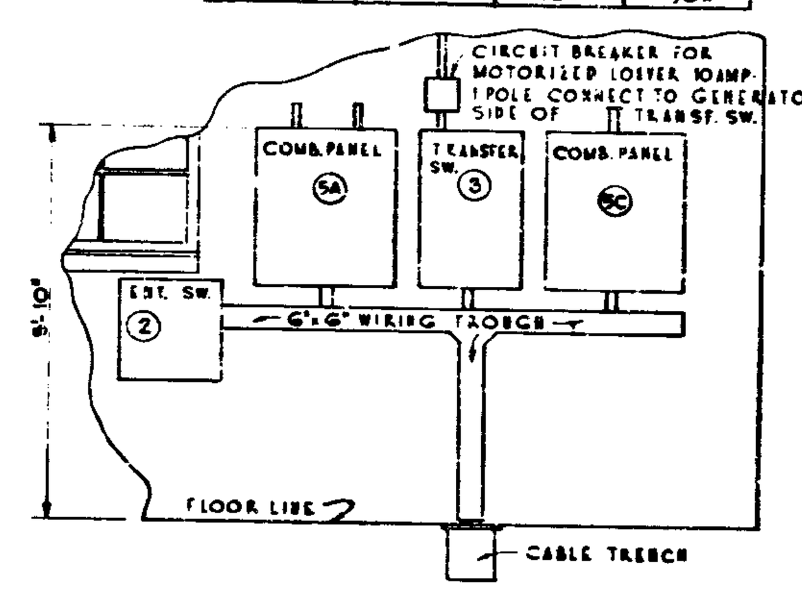
PANEL 5C		
	USE	SIZE BRKR
1	EMERGENCY LIGHTS	20A-1P
2	EMERGENCY OUTLETS	20A-1P
3	SPARE	20A-1P
4	SPARE	20A-1P
5	EQUIP SHELTER ELEC EQUIP	70A-2P
6	SPARE	30A-2P
7-8	BLANK	———

ELECTRICAL EQUIPMENT SCHEDULE (EXISTING)

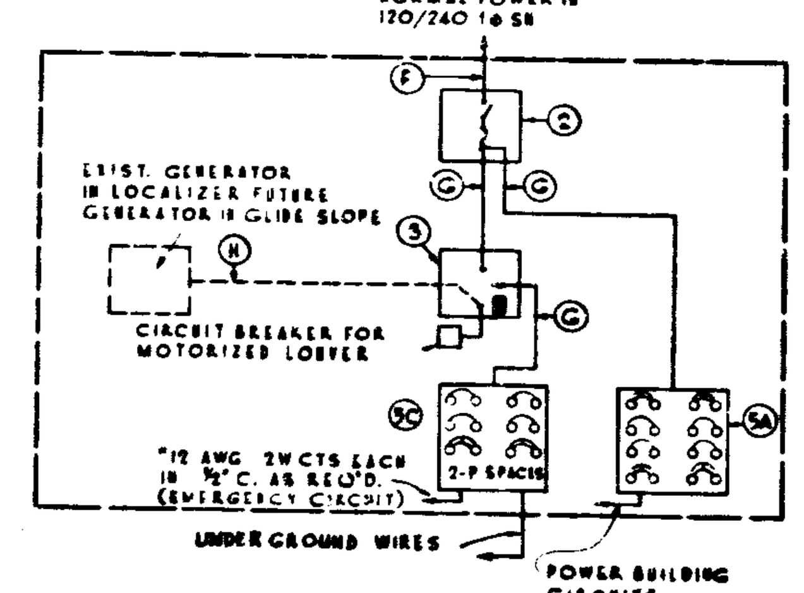
PANEL	DISTRIBUTION
2	ENTRANCE SERVICE SWITCH SEE TABLE I
3	AUTOMATIC POWER TRANSFER SWITCH 10 KW 1Φ 120/240V
H HC T	ELECTRIC UNIT HEATER, CONTACTOR & THERMOSTAT 5KV, 240V 1Φ
4-G	TRANSFORMER 15 KVA 1Φ 7200/120-240V W/(2) OIL FUSED CUTOUTS & MOUNTING BOX
* 4-L	TRANSFORMER 10 KVA 1Φ 7200/120-240V W/(1) OIL FUSED CUTOUTS & MOUNTING BOX
5A	COMBINATION PANEL SEE PANEL SCHEDULE
5C	COMBINATION PANEL " " "

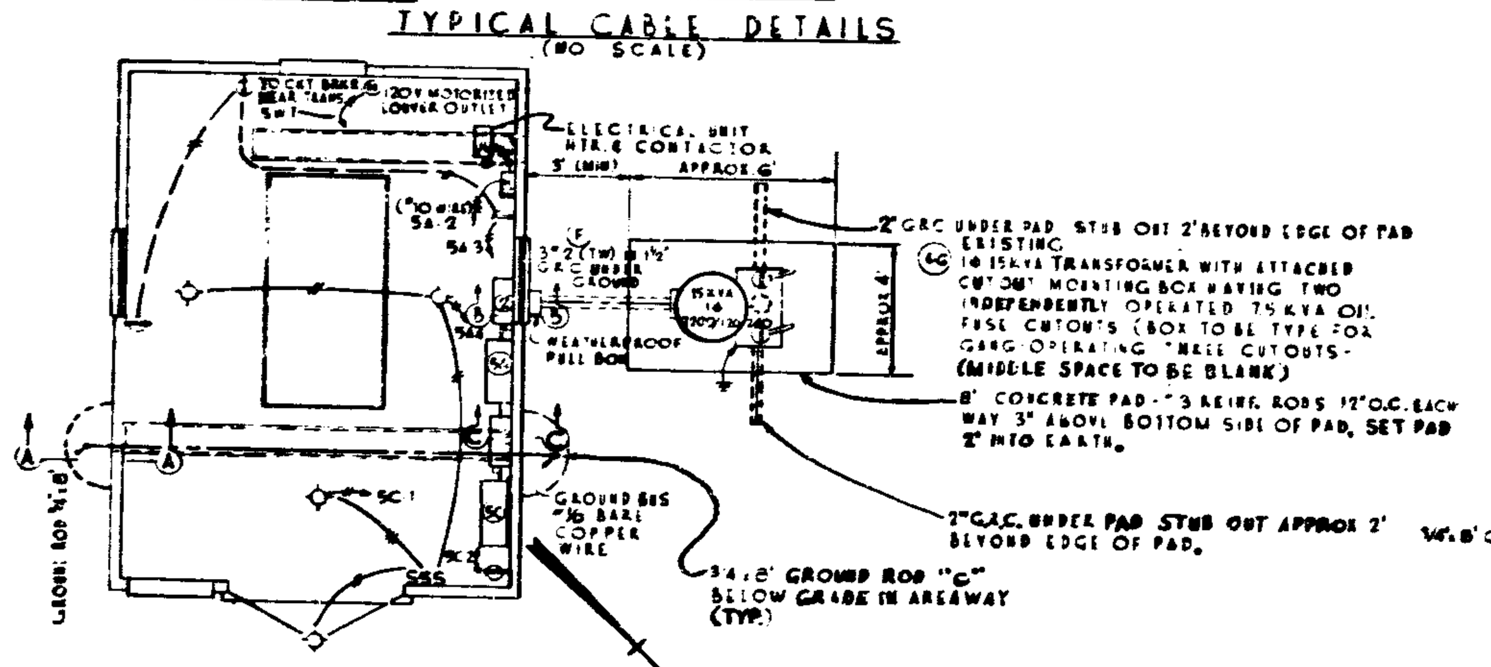
? * EXISTING TRANSFORMER TO BE SALVAGED & STORED AS DIRECTED BY THE RESIDENT OFFICER IN CHARGE OF CONSTRUCTION.

TABLE I			
SYMBOL	DESCRIPTION	GLIDE SLOPE	LOCALIZER
(F)	WIRE CONDUIT	(NOT IN THIS 1½"	CONTRACT) 1½"
(G)	WIRE CONDUIT	3-#4 1¼"	3-#6 1¼"
(H) (BY CONT)	WIRE CONDUIT	3-#4 1¼"	3-#6 1¼"
(2)	SWITCH POLE FUSE	100A 2 3 S.N. 70A	60A 2 3 S.N. 50A

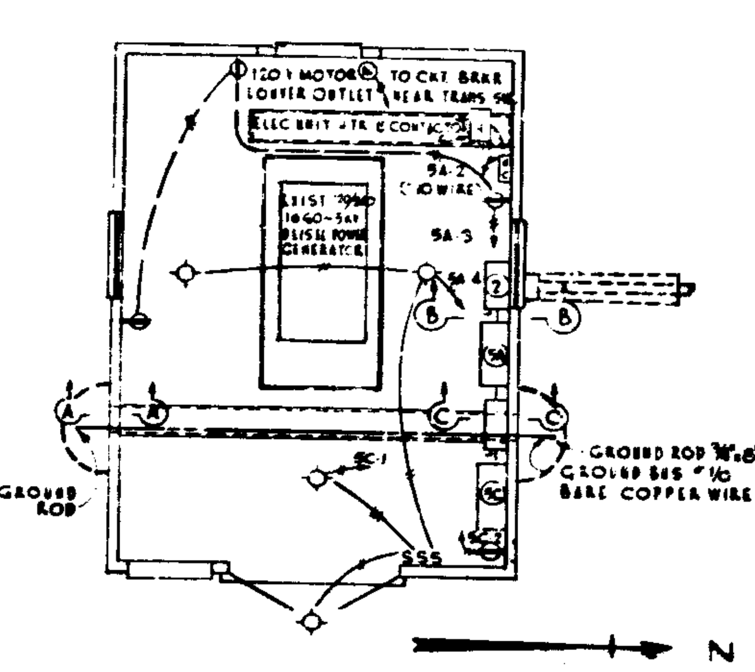


ELEVATION
NO SCALE

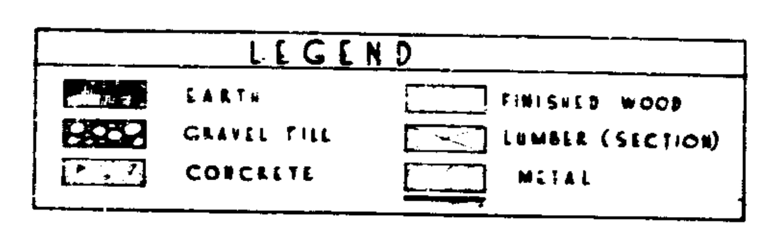




PLAN GLIDE SLOPE POWER UNIT
SCALE:



PLAN — LOCALIZER POWER UNIT
SCALE: NONE



GENERAL NOTES

EXCAVATION - GENERAL EXCAVATION SHALL BE SUCH THAT FOUNDATION WALL SHALL REST ON UNDISTURBED SOIL IF THE 3'-6" MIN. SHOWN DOES NOT DO SO.
ASSUMED VALUE OF SOIL: 1500 LBS/SQ.FT.

2) CONCRETE: ALL CONCRETE SHALL BE 2500 LBS/SQ.IN.

3) REINFORCING STEEL: ALL REINFORCING STEEL SHALL BE DEFORMED, OF INTERMEDIATE OR HARD GRADE.
DESIGN STRESS: 20,000 LBS/SQ.IN.

4) LUMBER: GRADE OF STRUCTURAL LUMBER USED SHALL BE OF A STRESS GRADE SPECIES WITH AN ALLOWABLE FIBER STRESS IN BENDING OF 1450 LBS/SQ.IN. MINIMUM.

5) SILLS TO BE FASTENED TO THE FOUNDATION WITH 5/8"Φ x 15" LONG ANCHOR BOLTS NOT OVER 4'-0" O.C. AT LEAST TWO BOLTS TO EACH SILL. BOLTS TO PROJECT 3" ABOVE SILL.

6) ALL EXISTING MECHANICAL AND ELECTRICAL EQUIPMENT SHALL BE MOVED AND/OR REINSTALLED AT THE NEW LOCATION. ALL SUCH ITEMS MADE UNSERVICEABLE DURING THE RELOCATION SHALL BE REPAIRED OR REPLACED [redacted] AT NO ADDITIONAL COST. [redacted]

7) FOUNDATION, SLABS, AND OTHER EXISTING CONSTRUCTION NOT MOVED TO THE NEW LOCATION SHALL BE DEMOLISHED AND DISPOSED OF AS DIRECTED BY THE PROJECT ENGINEER IN CHARGE OF CONSTRUCTION.

[redacted]

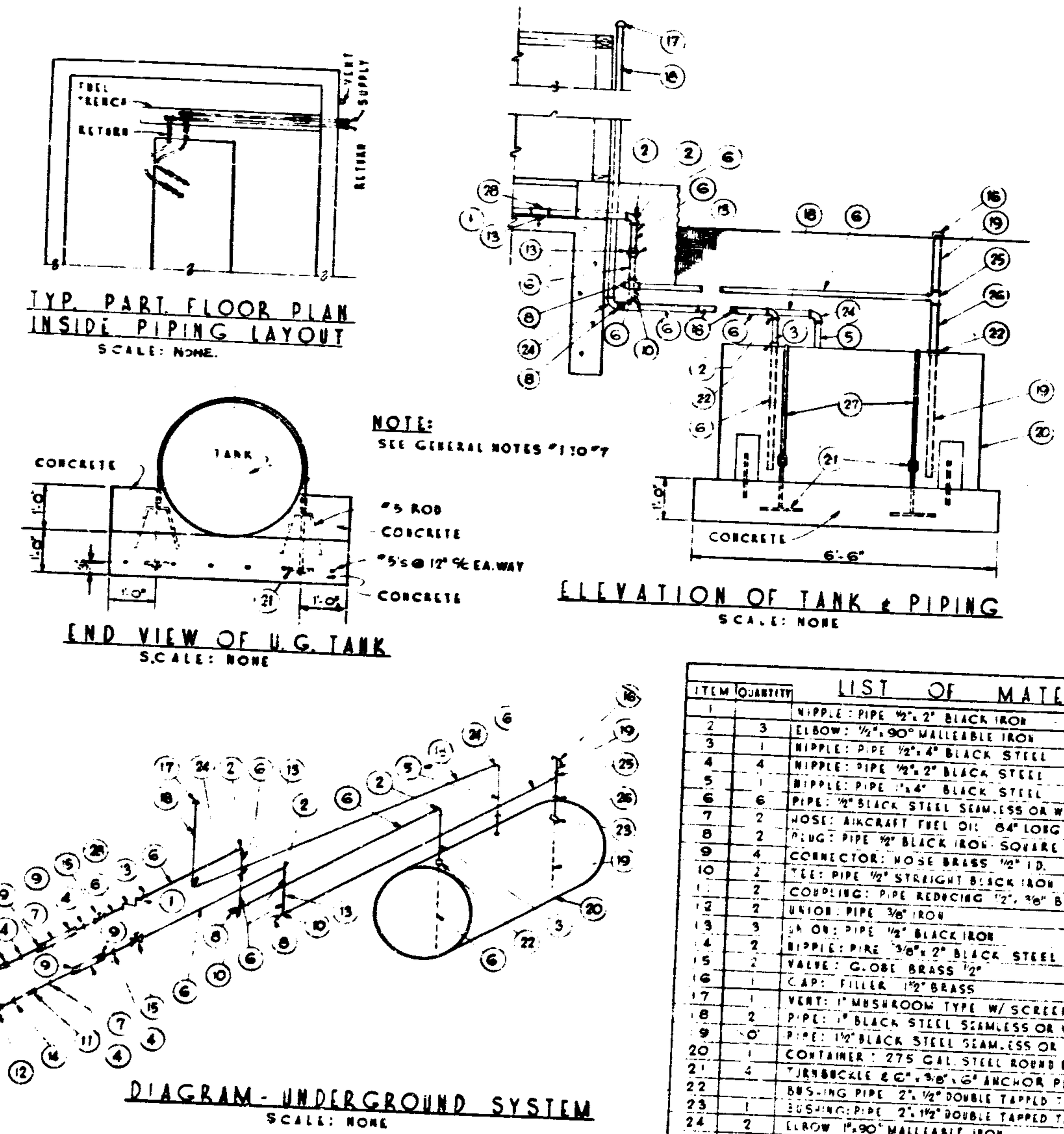
ELECTRICAL NOTES

1) ALL ELECTRICAL WORK AND MATERIALS SHALL BE IN ACCORDANCE WITH THE 1956 EDITION OF "NATIONAL ELECTRICAL CODE".

PROJECT NO.	LINE	SHEET NO.	FILE
F-70 (10)	RR 1	32-A	

Rev. 1-15-69. Add Str. No. 46-A Detail.
Revisions Added Jan. 15, 1968

Federal Road Region No.	State	F Proj. No.	Fiscal Year	Sheet No.	Total Sheets
4	IND	70 (10)	1964	32-B	242.



TYP. PART FLOOR PLAN INSIDE PIPING LAYOUT
SCALE: NONE.

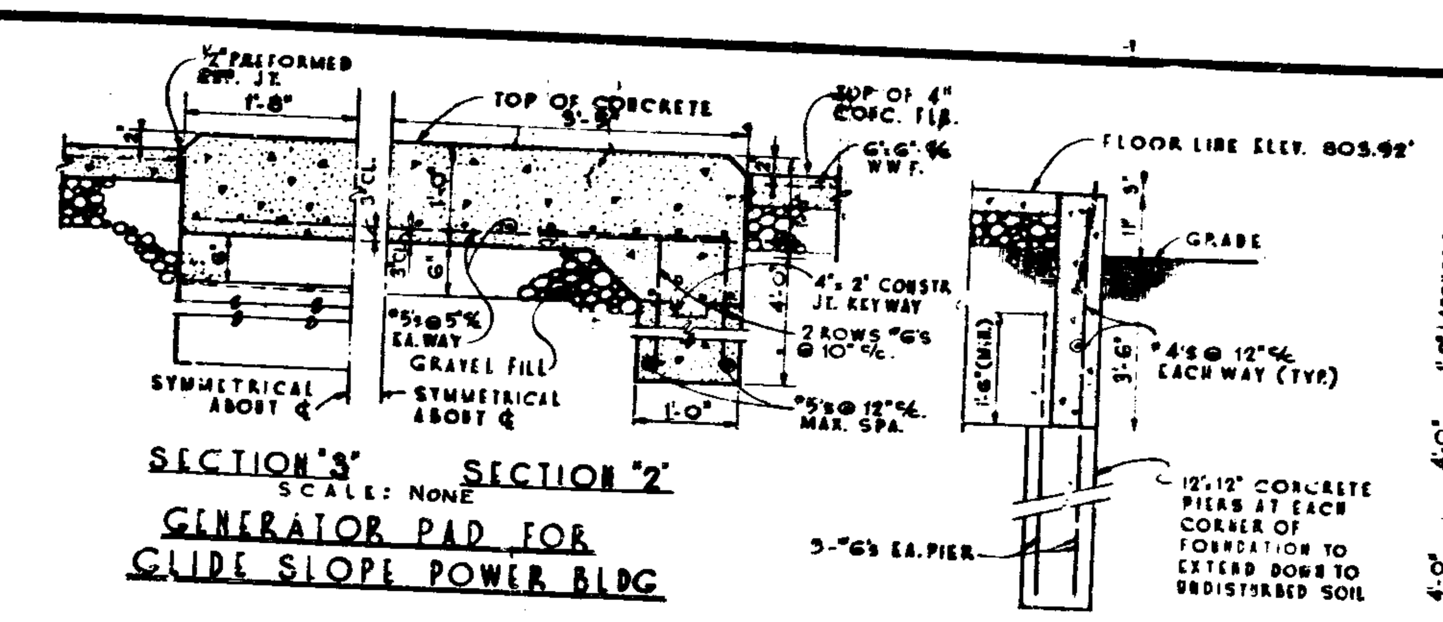
END VIEW OF U.G. TANK
SCALE: NONE

NOTE: SEE GENERAL NOTES "1 TO 7"

ELEVATION OF TANK & PIPING
SCALE: NONE

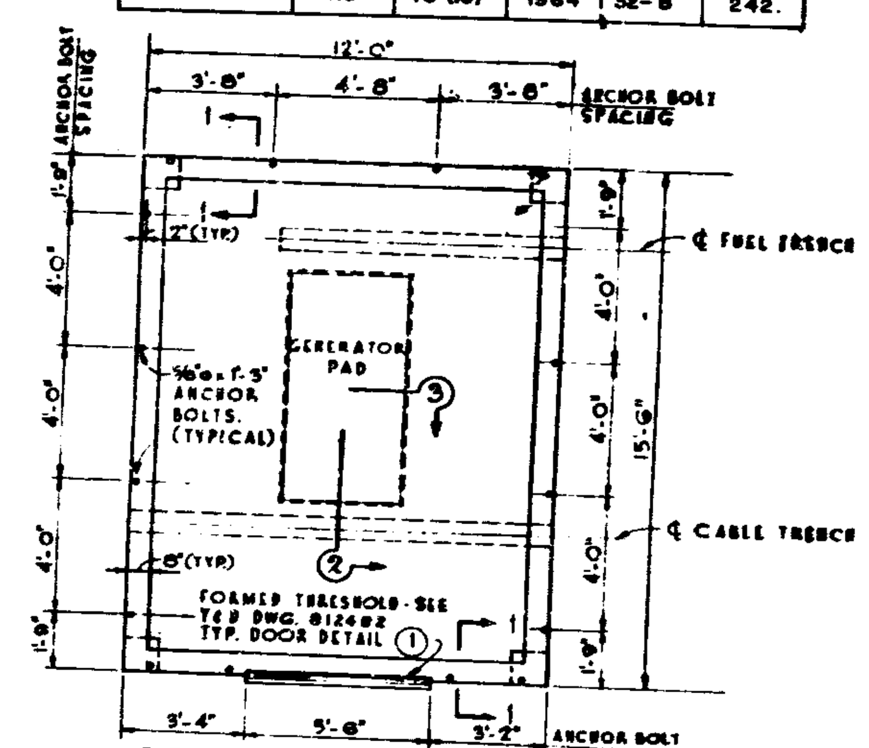
DIAGRAM - UNDERGROUND SYSTEM
SCALE: NONE

ITEM	QUANTITY	LIST OF MATERIALS
1		NIPPLE: PIPE ½" x 2" BLACK IRON
2	3	ELBOW: ½" x 90° MALLEABLE IRON
3	1	NIPPLE: PIPE ½" x 4" BLACK STEEL
4	4	NIPPLE: PIPE ½" x 2" BLACK STEEL
5	1	NIPPLE: PIPE 1" x 4" BLACK STEEL
6	6	PIPE: ½" BLACK STEEL SEAMLESS OR WELDED
7	2	HOSE: AIRCRAFT FUEL OIL 84" LONG x ½"
8	2	PLUG: PIPE ½" BLACK IRON SQUARE HEAD
9	4	CONNECTOR: HOSE BRASS ½" I.D.
10	2	TEE: PIPE ½" STRAIGHT BLACK IRON
11	2	COUPLING: PIPE REDUCING ½" x ⅜" BLACK IRON
12	2	UNION: PIPE ⅜" IRON
13	3	UNION: PIPE ½" BLACK IRON
14	2	NIPPLE: PIPE ⅜" x 2" BLACK STEEL
15	2	VALVE: GLOBE BRASS ½"
16	1	CAP: FILLER 1½" BRASS
17	1	VENT: 1" MUSHROOM TYPE W/ SCREEN
18	2	PIPE: 1" BLACK STEEL SEAMLESS OR WELDED
19	10'	PIPE: 1½" BLACK STEEL SEAMLESS OR WELDED
20	1	CONTAINER: 275 GAL. STEEL ROUND BELOW GROUND
21	4	TURNBUCKLE & 6" x ⅜" x 6" ANCHOR PLATE
22		BUSHING PIPE 2" x ½" DOUBLE TAPPED TANK BLACK IRON
23	1	BUSHING: PIPE 2" x 1½" DOUBLE TAPPED TANK BLACK IRON
24	2	ELBOW 1" x 90° MALLEABLE IRON
25	1	TEE, PIPE, REDUCING 1½" x 1½" x ½" BLACK IRON
26	1	NIPPLE PIPE 1½" x 6" BLACK STEEL
27	2	ROD 1" ϕ
28	1	VALVE CHECK SWING HORIZONTAL BRASS ½"

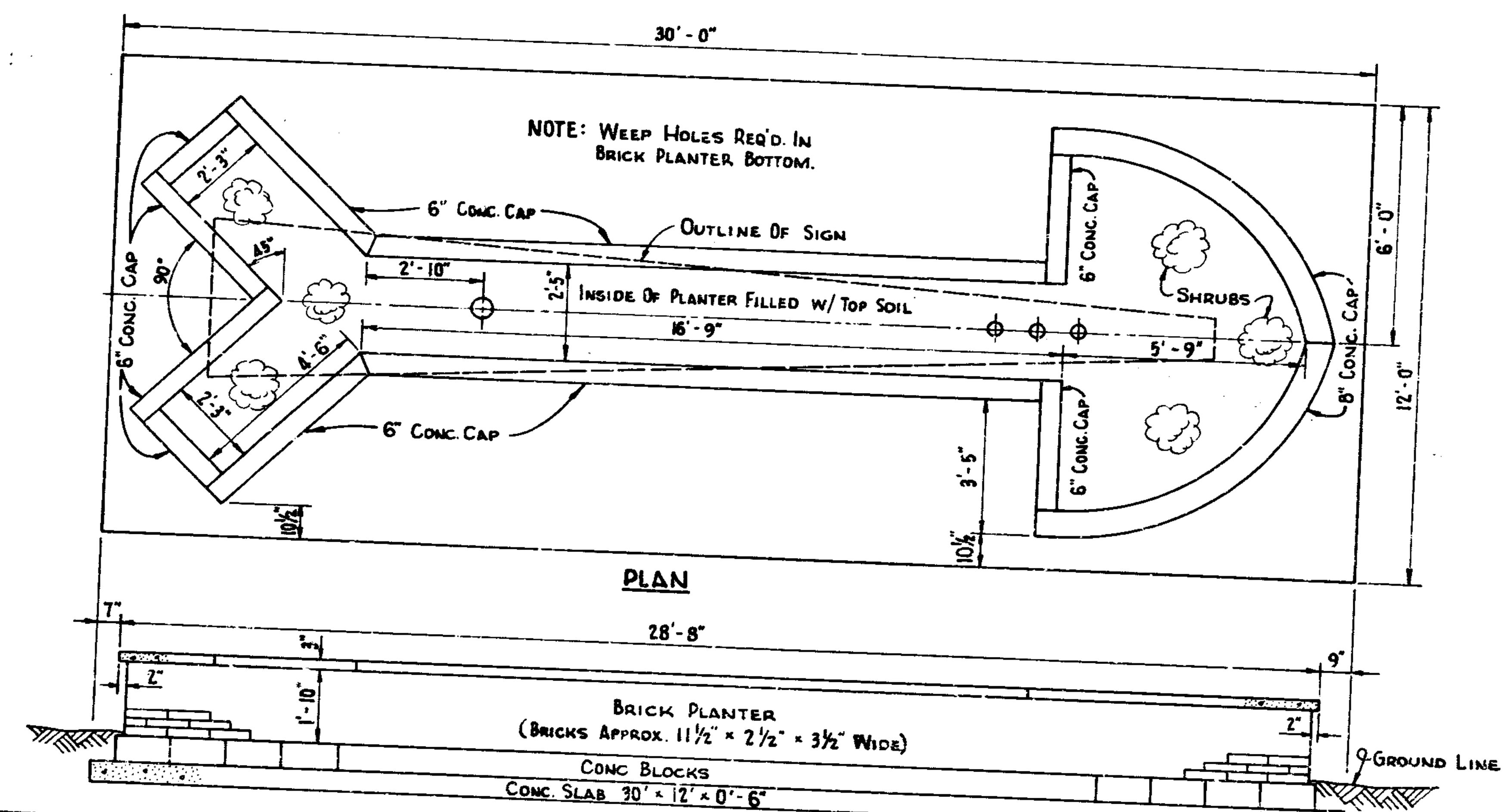


SECTION "3" SECTION "2"
SCALE: NONE
GENERATOR PAD FOR GLIDE SLOPE POWER BLDG.

SECTION "1-1"
SCALE: NONE



FOUNDATION PLAN GLIDE SLOPE POWER BUILDING
SCALE: NONE



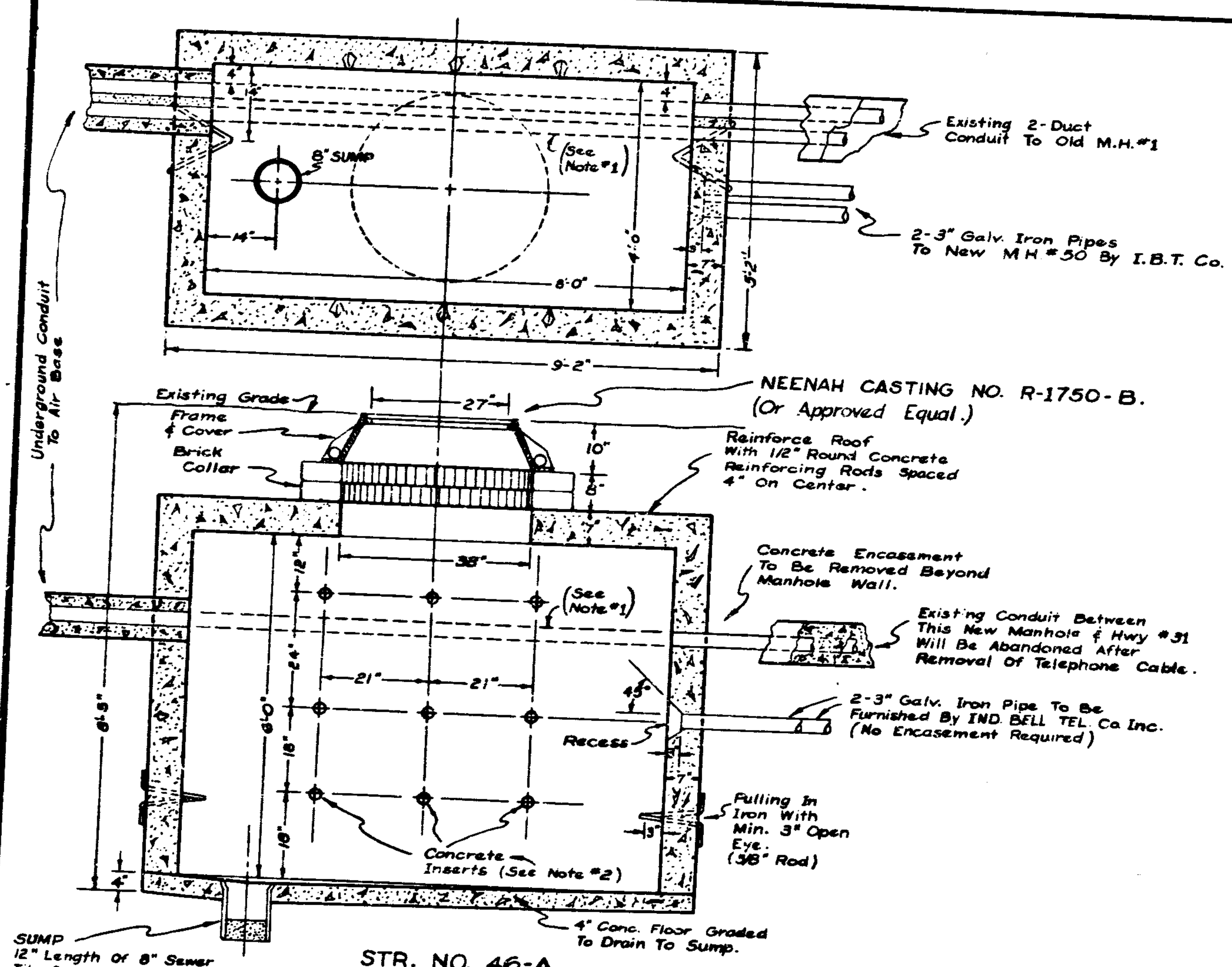
PLAN

ELEVATION
Scale: ⅜" = 1'-0"

BUNKER HILL A.F.B. SIGN AND BASE
PROPOSED DESIGN FOR RELOCATION
For Details Of Sign See Sheet Nos. 32-C & 32-D

GENERAL NOTES

1. THREADED PIPE CONNECTIONS SHALL BE SEALED WITH OIL AND GASOLINE RESISTANT COMPOUND.
2. TANK AND PIPE CONNECTIONS SHALL BE TESTED UNDER 5 LBS AIR PRESSURE; HOLD ONE-HALF HOUR.
3. EXISTING OIL TANK AND FITTINGS SHALL BE REUSED
4. GENERAL EXCAVATING SHALL NOT BE LOWER THAN THAT REQUIRED TO PROVIDE A SUITABLE SUBGRADE AT LEVELS SHOWN IN THE DETAILS.
5. FOR LOCATION OF OIL TANKS, SEE Y & D DWG. 812481
6. ALL CONCRETE SHALL BE 2500 P.S.I.
7. SEE Y & D DWG. 812482 FOR GLIDE SLOPE POWER BLDG. DETAILS; FOR LOCATION, SEE Y & D DWG. 812481
8. ALL EARTH FILL UNDER HARSTANDS, SLABS & FOUNDATIONS SHALL BE COMPACTED TO 90% MAXIMUM DENSITY AT OPTIMUM MOISTURE

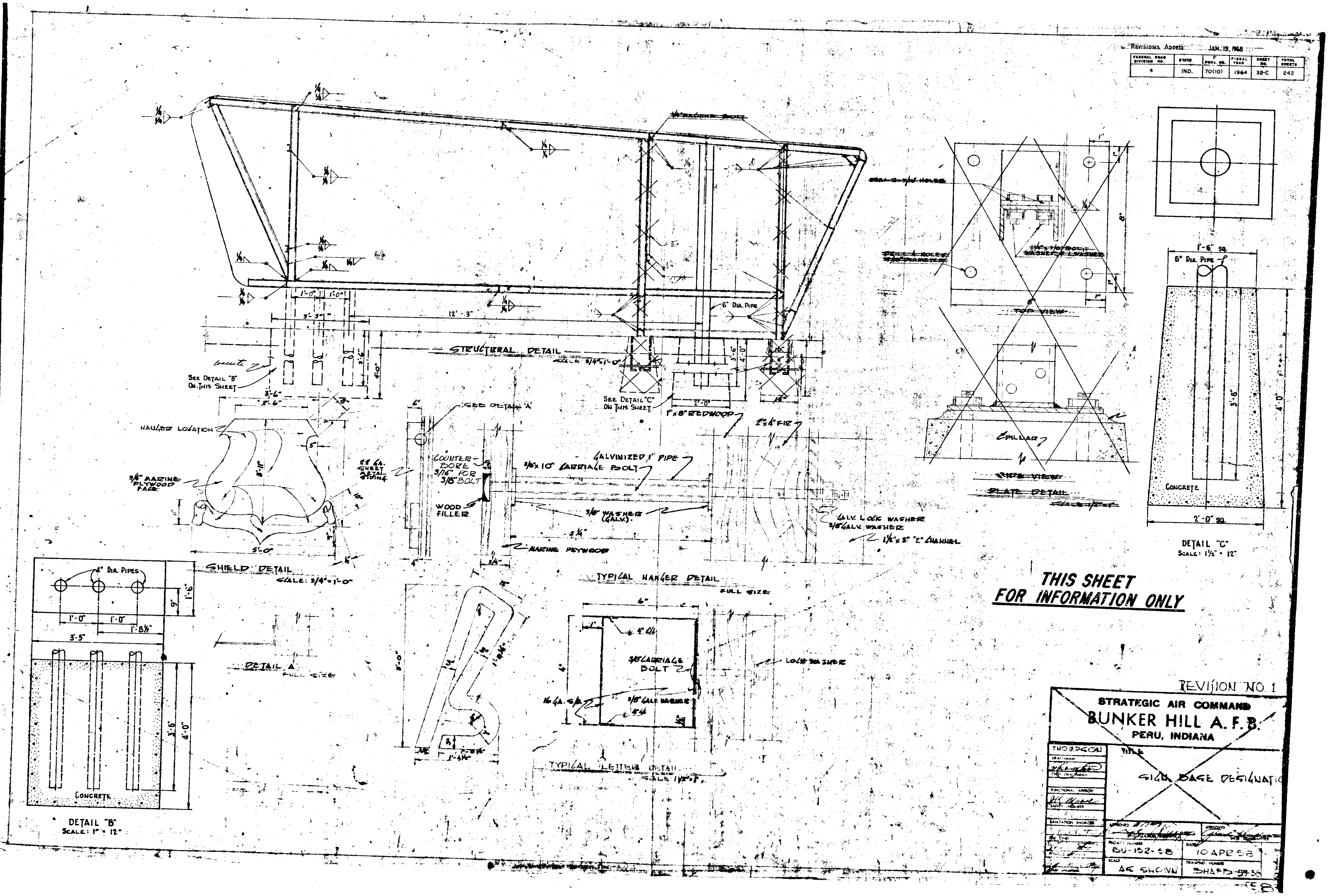


STR. NO. 46-A
(Sta. 373 + 37)

NOTES:

1. The 2-Duct Conduit Must Be Removed From The 2-Cables Within The Manhole With Caution & Protection Of Cable.
2. Concrete Inserts For 2 1/2" Long 1/2" Machine Bolts Should Be Used (18 Required). These Will Secure Cable Racks To The Manhole Walls. Contact E.J. Walters, Const. Manager, I.B.T. Co. At Kokomo, Ind. (Tel. 457-5311 or 457-9107) For 37 Hole Cable Racks (6 Required) To Be Installed By Contractor.
3. Coordinate All Work Operations With I.B.T. Co..
4. Existing Conduit May Be Cut [illegible] Flush With Inside Surface Of Manhole Walls. A [illegible]ss Is Required For The New Conduit.
5. This Manhole Is Located On Grissom Air Force Base Property And Will Be Owned By The Air Base.

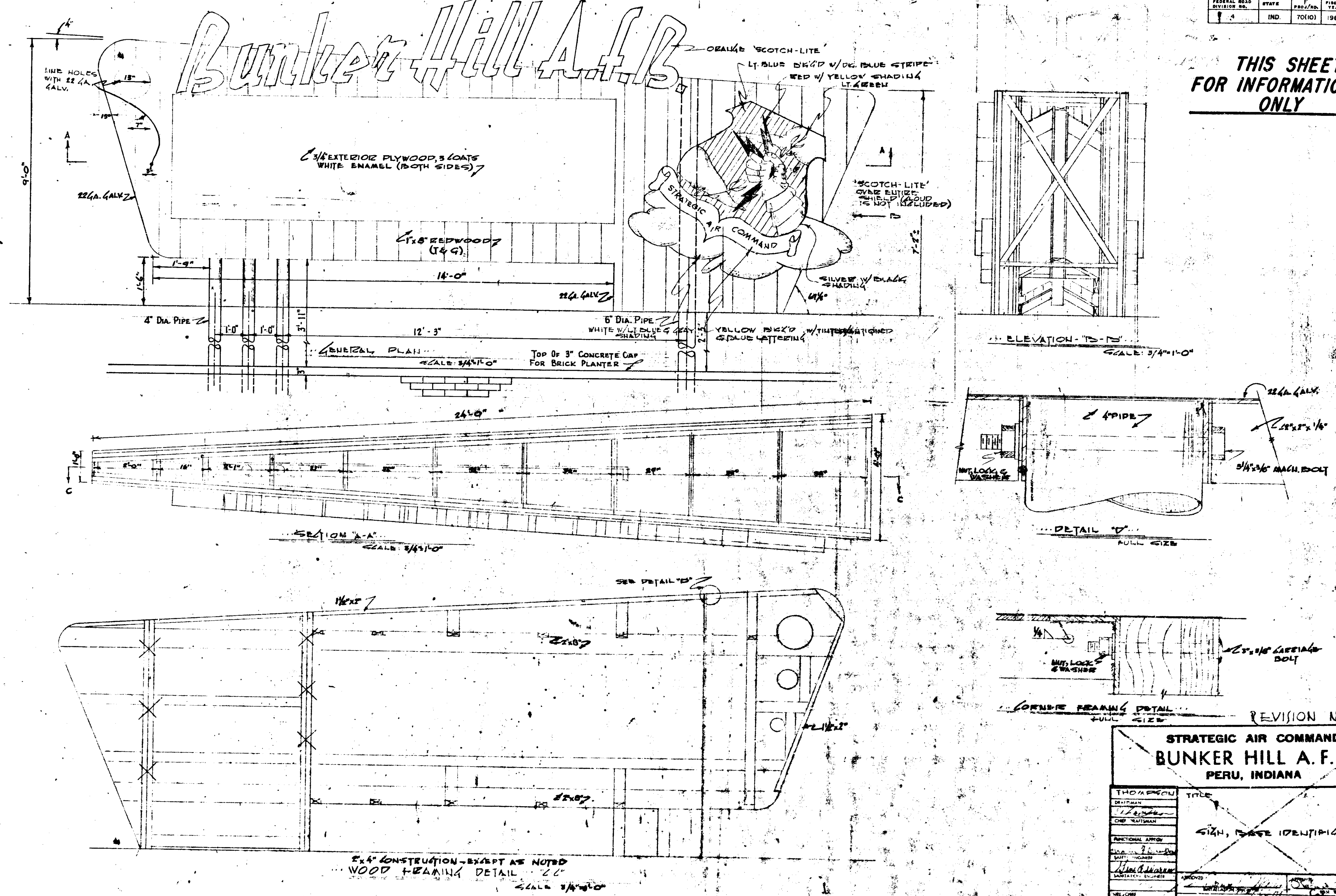
PROJ. NO.	LINE	SHEET NO.	TOTAL	FILE
F-70 (10)	PR. 1.	32-B	242	


Revisions Added: JAN. 19, 1968
FEDERAL ROAD DIVISION NO. 4 | STATE IND. | PROJ. NO. 70(10) | FISCAL YEAR 1964 | SHEET NO. 32-C | TOTAL SHEETS 242
STRUCTURAL DETAIL
SCALE: 3/4"=1'-0"
SEE DETAIL "B" ON THIS SHEET
SEE DETAIL "C" ON THIS SHEET
6" DIA. PIPE
1"x8" REDWOOD
2"x4" FIR
HANGER LOCATION
3/4" MARINE PLYWOOD FACE
SHIELD DETAIL
SCALE: 3/4"=1'-0"
SEE DETAIL "A"
COUNTER-BORE 3/16" FOR 3/8" BOLT
WOOD FILLER
28 GA. SHEET METAL FACING
3/8"x10" CARRIAGE BOLT
GALVANIZED 1" PIPE
3/8" WASHER (GALV.)
GALV. LOCK WASHER
3/8" GALV. WASHER
1 1/2"x3" "C" CHANNEL
MARINE PLYWOOD
TYPICAL HANGER DETAIL
FULL SIZE
DETAIL A
FULL SIZE
4" DIA. PIPES
CONCRETE
DETAIL "B"
SCALE: 1" = 12"
TOP VIEW
SIDE VIEW
PLATE DETAIL
PILLAR
6" DIA. PIPE
CONCRETE
DETAIL "C"
SCALE: 1 1/2" = 12"
3/8" CARRIAGE BOLT
3/8" GALV. WASHER
LOCK WASHER
TYPICAL LETTER DETAIL
THIS SHEET FOR INFORMATION ONLY
REVISION NO. 1
STRATEGIC AIR COMMAND
BUNKER HILL A.F.B.
PERU, INDIANA
THOMPSON
SIGN BASE DESIGNATIO
BU-152-58
10 APR 58
AS SHOWN

Revisions Added Jan. 15, 1968

Federal Road Division No.	State	F Proj./No.	Fiscal Year	Sheet No.	Total Sheets
4	IND.	70(10)	1964	32-D	242

THIS SHEET FOR INFORMATION ONLY



Revision No. 1

STRATEGIC AIR COMMAND

BUNKER HILL A. F. B.

PERU, INDIANA

Thompson — Draftsman	Title: Sign, Base Identification
Chief Draftsman	
Functional Approv.	
Safety Engineer	
Sanitation Engineer	Approved: Installation Engineer
Wel. Chief	Project Number: BU-192-58
Project Engineer	Date: 27 May 58
Engineer	Scale: As Shown
	Drawing Number: BHAFB-59-58
	Sheet 1 of 3

58-2

Rev. 10-17-66. Sta. 411+00 & Lengths.

PIPE FOR SUBSURFACE DRAINS

FED. ROAD REG. NO.	STATE	F PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
4	IDA.	70 (10)	1964	33	242

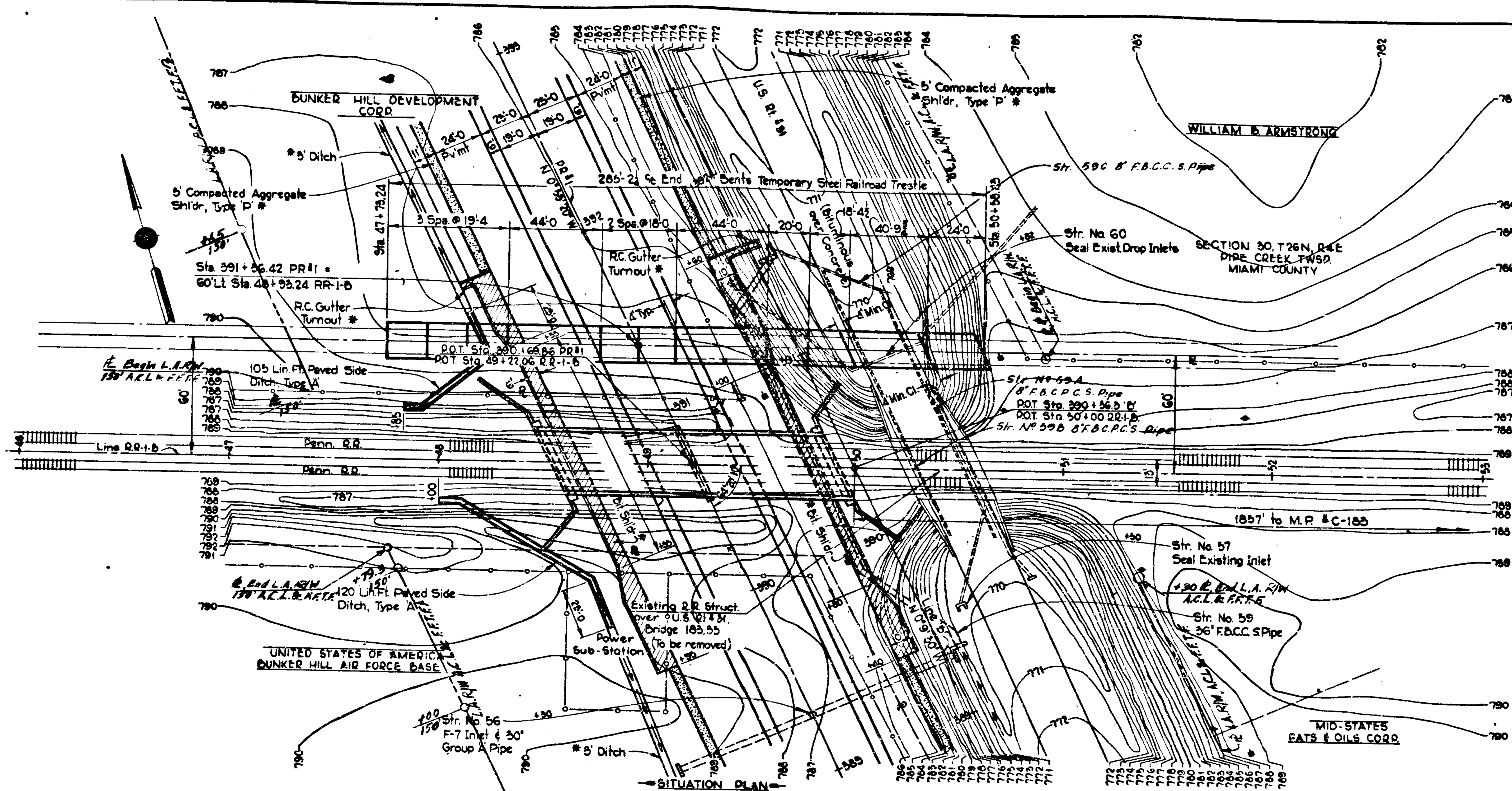
LINE	LANE	STATION	LENGTH FEET 6" GROUP 'K' PIPE	DELINEATOR POSTS	SODDING SQ.YDS.	6" NON-PERF. F.B.C.C.S. OUTLET PIPE LIN. FT.	REMARKS
B	Lt.-Median	259 + 00 to 275 + 00	1610, 1-45° Bend				
B	Left	322 + 00 to 324 + 67.02	267				Connect To Structure No. 13 @ Sta. 259 + 00
							Equation: Sta. 324 + 67.02 "B" = Sta. 324 + 67.02 P.R.#1
P.R.#1	Left	324 + 67.02 to 339 + 00	1433, 1-6"×6"×6" Tee	1	2	22	Drain Thru Shoulder On Left @ Sta. 332 + 00
B	Lt.-Median	322 + 00 to 324 + 67.02	267				
							Equation: Sta. 324 + 67.02 "B" = Sta. 324 + 67.02 P.R.#1
P.R.#1	Lt.-Median	324 + 67.02 to 334 + 00	963, 1-6"×6"×6" Tee				
P.R.#1	Lt.-Median	334 + 00 to 342 + 00	800				Connect To Structure No. 36 @ Sta. 334 + 00
P.R.#1	Lt.-Median	342 + 00 to 352 + 80	1110, 1-45° Bend				
P.R.#1	Left	345 + 00 to 352 + 00	700, 1-90° Bend	1	2	22	" " " No. 39 @ Sta. 342 + 00
P.R.#1	Lt.-Median	352 + 80 to 379 + 00	2640, 2-45° Bends				Drain Thru Shoulder On Left @ Sta. 345 + 00
P.R.#1	Left	378 + 00 to 404 + 00	2600, 1-90° Bend	1	2	22	Connect To Structure No.40 @ Sta. 352 + 80 & No. 50 @ Sta. 379 + 00
P.R.#1	Lt.-Median	379 + 00 to 389 + 30	1060, 1-6"×6"×6" Wye				Drain Thru Shoulder On Left @ Sta. 404 + 00
P.R.#1	Lt.-Median	389 + 30 to 395 + 00	600, 1-6"×6"×6" Wye				Connect To Structure No. 56 @ Sta. 389 + 40
P.R.#1	Lt.-Median	395 + 00 to 411 + ~~00~~ 30	1660 ~~1630~~, 1-6"×6"×6" Wye				" " " No. 61 @ Sta. 395 + 00
P.R.#1	Left	407 + 00 to 408 + 60	160, 1-90° Bend	1	2	22	" " " No. 68 @ Sta. 411 + ~~00~~ 30
P.R.#1	Left	411 + 00 to 419 + 00	800, 1-90° Bend	1	2	22	Drain Thru Shoulder On Left @ Sta. 408 + 60
P.R.#1	Lt.-Median	411 + ~~00~~ 30 to 419 + 87.32	~~908~~ 878				" " " " " " @ Sta. 419 + 00
							Equation: Sta. 419 + 87.32 P.R.#1 = Sta. 419 + 85.08 "B"
B	Lt.-Median	419 + 85.08 to 420 + 25	50, 1-45° Bend				
B	Lt.-Median	423 + 50 to 433 + 50	1030, 1-45° Bend				Connect To Structure No. 76 @ Sta. 420 + 25
B	Left	425 + 00 to 435 + 00	1000, 1-90° Bend	1	2	22	" " " No. 78 @ Sta. 423 + 50
B	Left	439 + 00 to 440 + 35	135, 1-90° Bend	1	2	22	Drain Thru Shoulder On Left @ Sta. 425 + 00
B	Left	444 + 00 to 445 + 45	145, 1-90° Bend	1	2	22	" " " " " " @ Sta. 439 + 00
B	Lt.-Median	433 + 50 to 455 + 00	2180, 1-6"×6"×6" Wye				" " " " " " @ Sta. 444 + 00
B	Lt.-Median	455 + 00 to 464 + 50	980, 1-6"×6"×6" Wye				Connect To Structure No. 85 @ Sta. 433 + 50
B	Left	456 + 00 to 464 + 70	670, 1-90° Bend	1	2	22	" " " No. 94 @ Sta. 455 + 00
B	Left	469 + 35 to 480 + 00	1065, 1-90° Bend	1	2	22	Drain Thru Shoulder On Left @ Sta. 458 + 00
B	Lt.-Median	464 + 50 to 483 + 50	1910, 1-6"×6"×6" Wye				" " " " " " @ Sta. 469 + 35
B	Lt.-Median	483 + 50 to 501 + 60	1840, 1-45° Bend				Connect To Structure No. 100 @ Sta. 464 + 50
B	Left	489 + 00 to 496 + 00	700, 1-90° Bend	1	2	22	" " " No. 114 @ Sta. 501 + 60
B	Left	507 + 00 to 511 + 00	400, 1-90° Bend	1	2	22	Drain Thru Shoulder On Left @ Sta. 496 + 00
B	Left	524 + 00 to 526 + 40	240, 1-90° Bend	1	2	22	" " " " " " @ Sta. 507 + 00
B	Lt.-Median	501 + 60 to 527 + 50	2700, 1-45° Bend				" " " " " " @ Sta. 526 + 40
B	Lt.-Median	527 + 50 to 537 + 00	950, 1-6"×6"×6" Tee				Connect To Structure No. 114 @ Sta. 501 + 60
B	Lt.-Median	564 + 00 to 570 + 10	675				Connect To Structure No. 127 @ Sta. 527 + 50
							Equation: Sta. 570 + 10 "B" = Sta. 0 + 00 "A"
A	Lt.-Median	0 + 00 to 6 + 00	630, 1-6"×6"×6" Wye				
A	Lt.-Median	6 + 00 to 18 + 00	1230, 1-90° Bend				Connect To Structure No. 153 @ Sta. 6 + 00
							Crossover To Subsurface Drain On Left @ Sta. 18 + 00
B	Left	564 + 00 to 570 + 10	610, 1-90° Bend				
							Drain Thru Shoulder On Left @ Sta. 570 + 10
A	Left	16 + 50 to 18 + 00	150, 1-6"×6"×6" Tee.				" " " " " " @ Sta. 18 + 00
		Sub-Total (Left Lane)					
		Lines B, P.R.#1, & A	36,838	13	26	286	
		14 - 90° Bends @ 2'	28				
		7 - 45° Bends @ 2'	14				
		4 - 6" × 6" × 6" Tee's @ 5'	20				
		7 - 6" × 6" × 6" Wye's @ 5'	35				

LINE	LANE	STATION	LENGTH FEET 6" GROUP 'K' PIPE	DELINEATOR POSTS	SODDING SQ.YDS.	6" NON-PERF. F.B.C.C.S. OUTLET PIPE LIN. FT.	REMARKS
B	Rt.-Median	253 + 00 to 259 + 00	630, 1-45° Bend				
B	Rt.-Median	259 + 00 to 280 + 00	2110, 1-6"×6"×6" Wye				Connect To Structure No. 12 @ Sta. 253 + 00
B	Rt.-Median	280 + 00 to 315 + 40	3550, 1-6"×6"×6" Wye				" " " No. 13 @ Sta. 259 + 00
B	Right	312 + 00 to 324 + 67.02	1267				" " " No. 25 @ Sta. 315 + 40
							Equation: Sta. 324 + 67.02 "B" = Sta. 324 + 67.02 P.R.#1
P.R.#1	Right	324 + 67.02 to 332 + 00	733, 1-6"×6"×6" Tee	1	2	22	Drain Thru Shoulder On Right @ Sta. 332 + 00
P.R.#1	Right	332 + 00 to 339 + 00	700				" " " " " " @ Sta. 332 + 00
B	Rt.-Median	315 + 40 to 324 + 67.02	947				
							Equation: Sta. 324 + 67.02 "B" = Sta. 324 + 67.02 P.R.#1
P.R.#1	Rt.-Median	324 + 67.02 to 334 + 00	963, 1-6"×6"×6" Tee				
P.R.#1	Rt.-Median	334 + 00 to 342 + 00	800				Connect To Structure No. 36 @ Sta. 334 + 00
P.R.#1	Rt.-Median	342 + 00 to 352 + 80	1110, 1-6"×6"×6" Wye				
P.R.#1	Right	345 + 00 to 350 + 00	500, 1-90° Bend	1	2	22	" " " No. 39 @ Sta. 342 + 00
P.R.#1	Right	378 + 00 to 402 + 00	2400, 1-90° Bend	1	2	22	Drain Thru Shoulder On Right @ Sta. 345 + 00
P.R.#1	Rt.-Median	352 + 80 to 379 + 00	2640, 2-45° Bends				" " " " " " @ Sta. 402 + 00
P.R.#1	Rt.-Median	379 + 00 to 389 + 30	1060, 1-6"×6"×6" Wye				Connect To Structure No.40 @ Sta. 342 + 00 & No. 50 @ Sta. 379 + 00
P.R.#1	Rt.-Median	389 + 30 to 395 + 00	600, 1-6"×6"×6" Wye				" " " No. 56 @ Sta. 389 + 40
P.R.#1	Rt.-Median	395 + 00 to 411 + ~~00~~ 30	1660 ~~1630~~, 1-6"×6"×6" Wye				" " " No. 61 @ Sta. 395 + 00
P.R.#1	Rt.-Median	411 + ~~00~~ 30 to 419 + 87.32	~~908~~ 878				" " " No. 68 @ Sta. 411 + ~~00~~ 30
							Equation: Sta. 419 + 87.32 P.R.#1 = Sta. 419 + 85.08 "B"
B	Rt.-Median	419 + 85.08 to 420 + 25	50, 1-45° Bend				
B	Rt.-Median	423 + 50 to 433 + 50	1030, 1-45° Bend				Connect To Structure No. 76 @ Sta. 420 + 25
B	Rt.-Median	433 + 50 to 438 + 00	480, 1-6"×6"×6" Wye				" " " No. 78 @ Sta. 423 + 50
B	Right	425 + 00 to 438 + 00	1300, 1-90° Bend	1	2	22	" " " No. 85 @ Sta. 433 + 50
B	Right	456 + 00 to 464 + 00	800, 1-90° Bend	1	2	22	Drain Thru Shoulder On Right @ Sta. 425 + 00
B	Rt.-Median	453 + 00 to 464 + 50	972, 1-90° Bend				" " " " " " @ Sta. 456 + 00
B	Rt.-Median	464 + 50 to 501 + 60	3762, 1-6"×6"×6" Wye				Connect To Structure No. 94 @ Sta. 455 + 00
B	Right	476 + 65 to 478 + 50	185, 1-90° Bend	1	2	22	" " " No.100 @ Sta. 464 + 50
B	Right	489 + 00 to 495 + 00	600, 1-90° Bend	1	2	22	Drain Thru Shoulder On Right @ Sta. 476 + 65
B	Right	501 + 50 to 503 + 50	200, 1-90° Bend	1	2	22	" " " " " " @ Sta. 495 + 00
B	Right	508 + 00 to 514 + 00	600, 1-90° Bend	1	2	22	" " " " " " @ Sta. 501 + 50
B	Right	518 + 70 to 526 + 00	730, 1-90° Bend	1	2	22	" " " " " " @ Sta. 508 + 00
B	Rt.-Median	501 + 60 to 527 + 50	2598, 1-6"×6"×6" Tee				" " " " " " @ Sta. 526 + 00
B	Rt.-Median	527 + 50 to 558 + 00	1060, 2-45° Bends				Connect To Structure No. 114 @ Sta. 501 + 60
B	Rt.-Median	538 + 00 to 538 + 00	2010, 1-6"×6"×6" Wye				" " " No. 127 @ Sta. 527 + 50
							" " " No. 146 @ Sta. 558 + 00
B	Right	541 + 00 to 545 + 45	445, 1-90° Bend	1	2	22	" " " " " " @ Sta. 545 + 45
B	Right	549 + 60 to 555 + 45	585, 1-90° Bend	1	2	22	" " " " " " @ Sta. 555 + 45
B	Right	558 + 00 to 569 + 00	1100, 1-90° Bend	1	2	22	" " " " " " @ Sta. 569 + 00
B	Rt.-Median	558 + 00 to 570 + 10	1230, 1-90° Bend	1	2	22	Drain Across Right Pavement And Thru Shoulder On Right @ Sta. 570 + 00
A	Rt.-Median	14 + 00 to 19 + 50	580, 1-90° Bend	1	2	22	Crossover To Right Shoulder @ Sta. 19 + 40 And Drain Thru Shoulder On Right @ Sta. 19 + 50
		Sub-Total (Right Lane)					
		Lines B, P.R.#1, & A	42,865	15	30	330	
		15 - 90° Bends @ 2'	30				
		7 - 45° Bends @ 2'	14				
		3 - 6" × 6" × 6" Tee's @ 5'	15				
		9 - 6" × 6" × 6" Wye's @ 5'	45				
S-10-B	Left	50 + 60 to 52 + 00	140, 1-90° Bend	1	2	10	Drain Thru Shoulder On Left @ Sta. 52 + 00
S-10-B	Right	50 + 60 to 52 + 00	140, 1-90° Bend	1	2	14	" " " " Right @ Sta. 52 + 00
S-11-B	Left	219 + 00 to 220 + 36	136, 1-90° Bend	1	2	12	" " " " Left @ Sta. 220 + 36
S-11-B	Right	219 + 00 to 220 + 36	136, 1-90° Bend	1	2	12	" " " " Right @ Sta. 220 + 36
		Sub-Total					
		Lines S-10-B & S-11-B	552	4	8	48	
		4 - 90° Bends @ 2'	8				
		TOTAL	80,263	32	64	664	

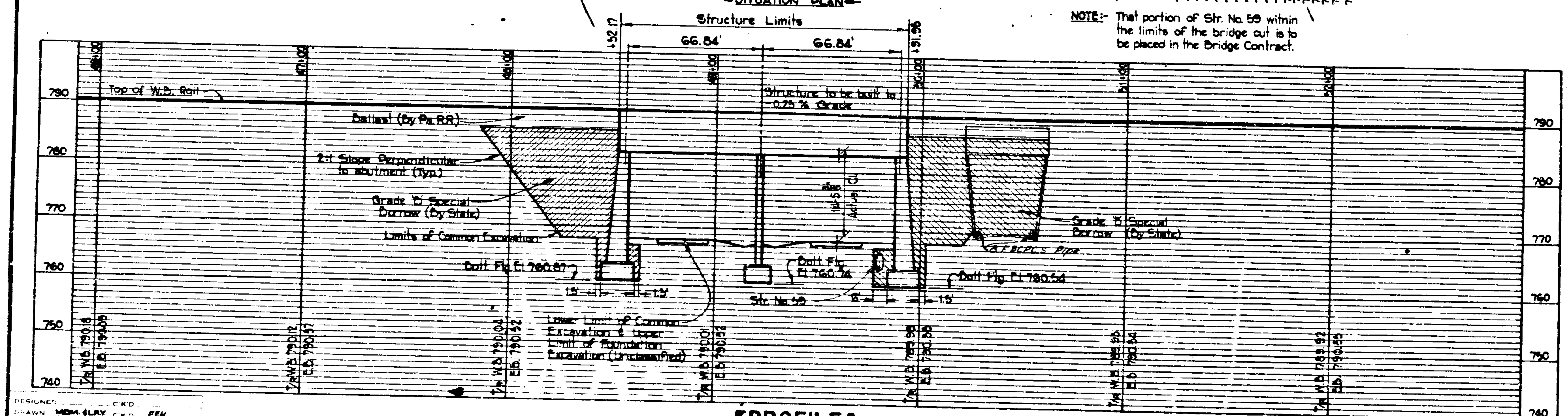
PROJECT NO.	LINE	SHEET NO.	TOTAL SHEETS	FILE
F-70(10)		33	242	

PUB. ROAD REG. NO.	STATE	PROJECT NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
4	IND	F-70(10)	1966	34	242

BRIDGES OVER 20' SPAN



NOTE:- That portion of Str. No. 59 within the limits of the bridge cut is to be placed in the Bridge Contract.

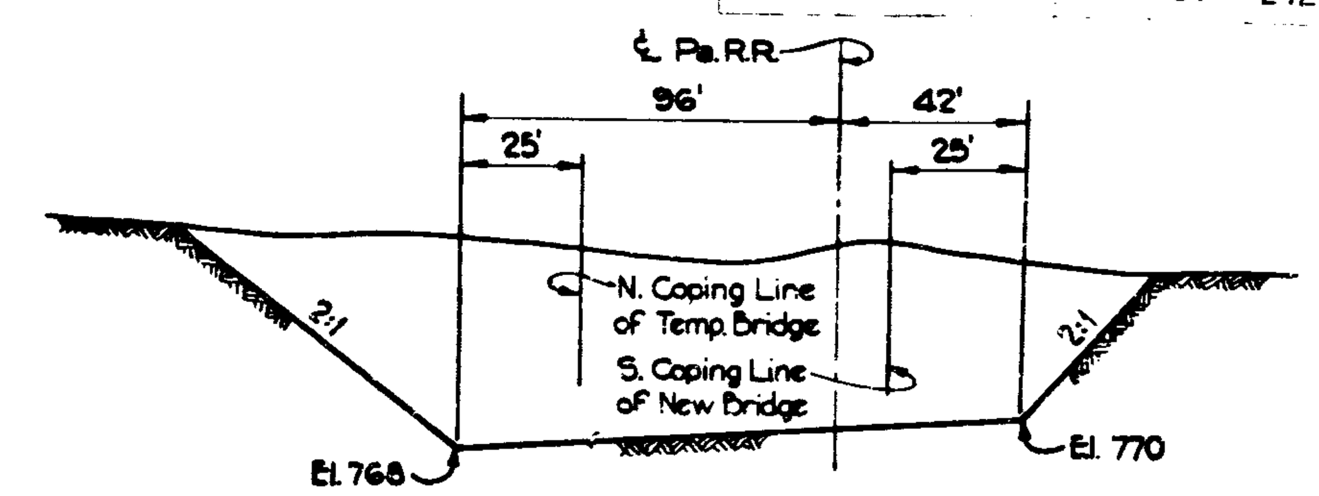


"PROFILE"

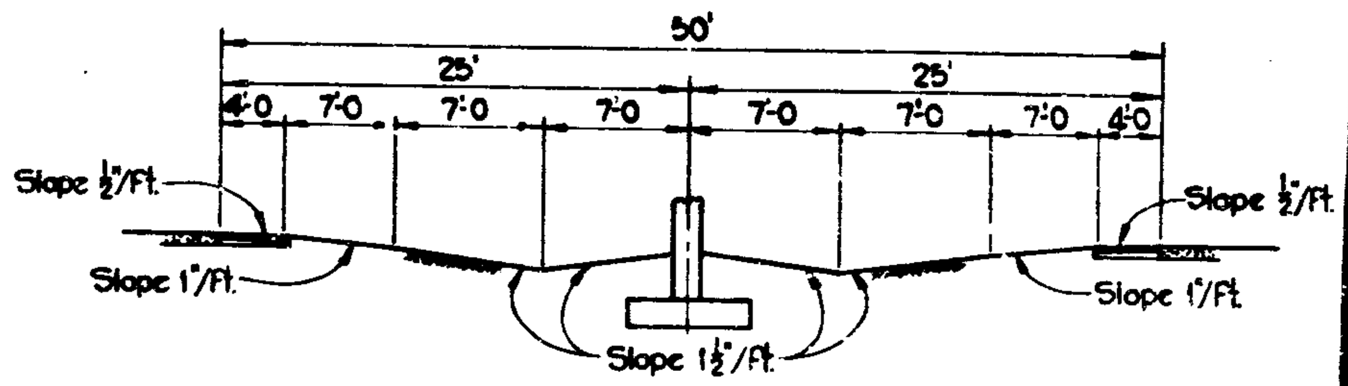
HOR. SCALE – 1" = 50' ; VERT. SCALE – 1" = 10'

DESIGNED ______ CK'D ______
DRAWN MDM. & LRY. CK'D FEH
TRACED ______ CK'D ______

5-21-58 Earthwork Summary
Rev. 10-19-67: Curb, Elev.
Rev. 5-10-67 Add Str. 54A, 54B, 54C



SECTION SHOWING LIMITS OF EXCAVATION IN BRIDGE CONTRACT
(Looking East)



TYPICAL SECTION THRU MEDIAN DITCH

EARTHWORK SUMMARY FOR PERMANENT BRIDGE AND APPROACHES

Common Excavation	21,888	Cu. Yds.
Excess Foundation Excavation	1,320	Cu. Yds.
** Fill + 20 %	21,888	Cu. Yds.
Excess Excavation	1,320	Cu. Yds.
Grade 'B' Special Borrow	4,300	Cu. Yds.

** To be placed on U.S. 31 between Sta. 403+25 and Sta. 409+20

* Denotes Items not included in Bridge Contract

TRAIN DATA:-
20 Trains Daily – All Freight

UTILITY OWNERS

Telephone	Indiana Bell Telephone Company Peru Indiana.
Electric	Peru Power & Light Company Peru Indiana.

FOR INFORMATION ONLY

— LAYOUT —

CONTINUOUS WELDED DECK GIRDER RAILROAD BRIDGE
2 SPANS 66'-10⅛", 66'-10⅛" SKEW 25°40' LEFT
DOUBLE TRACK

PENNSYLVANIA RAILROAD OVER U.S. 31

INDIANA STATE HIGHWAY COMMISSION

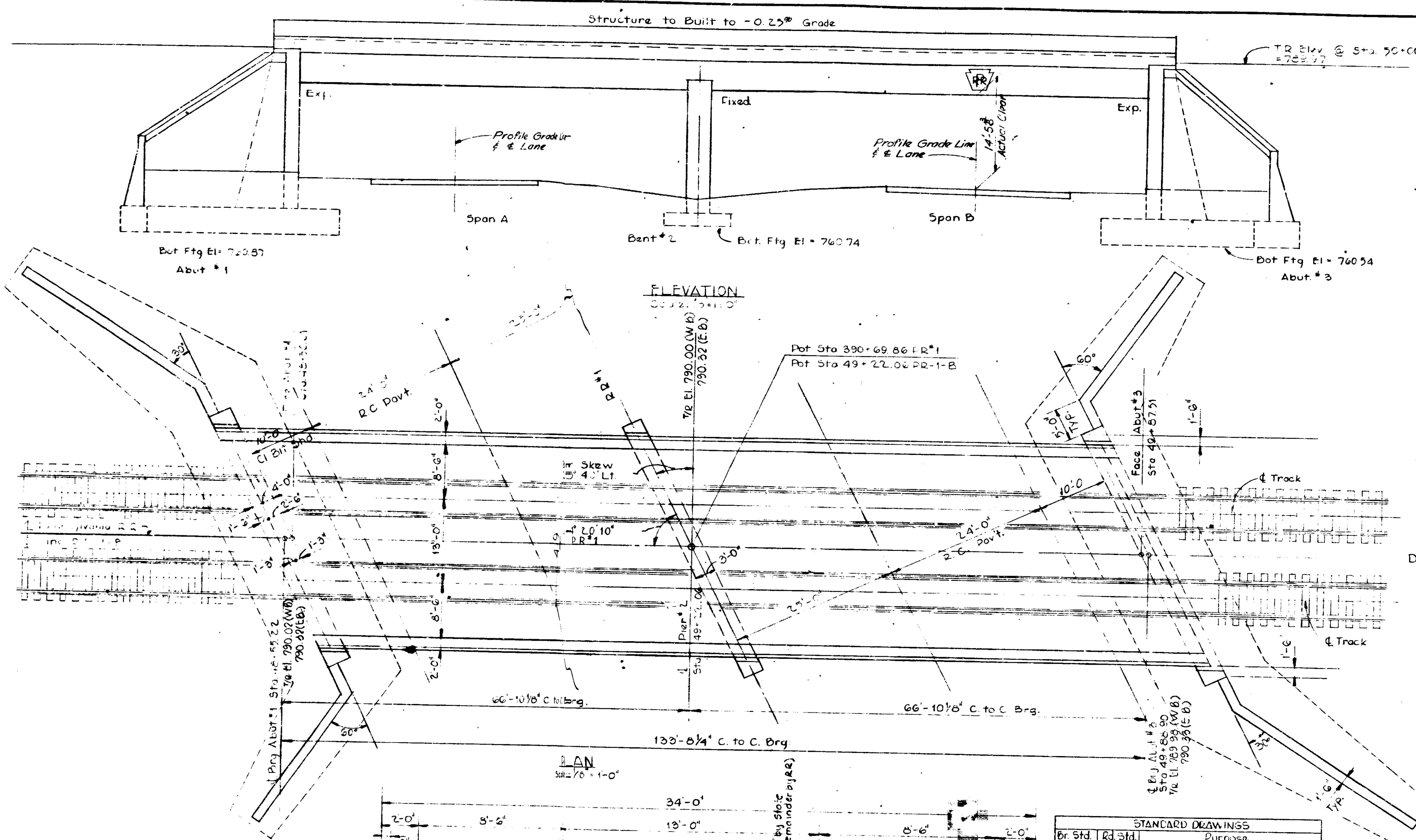
MIAMI COUNTY

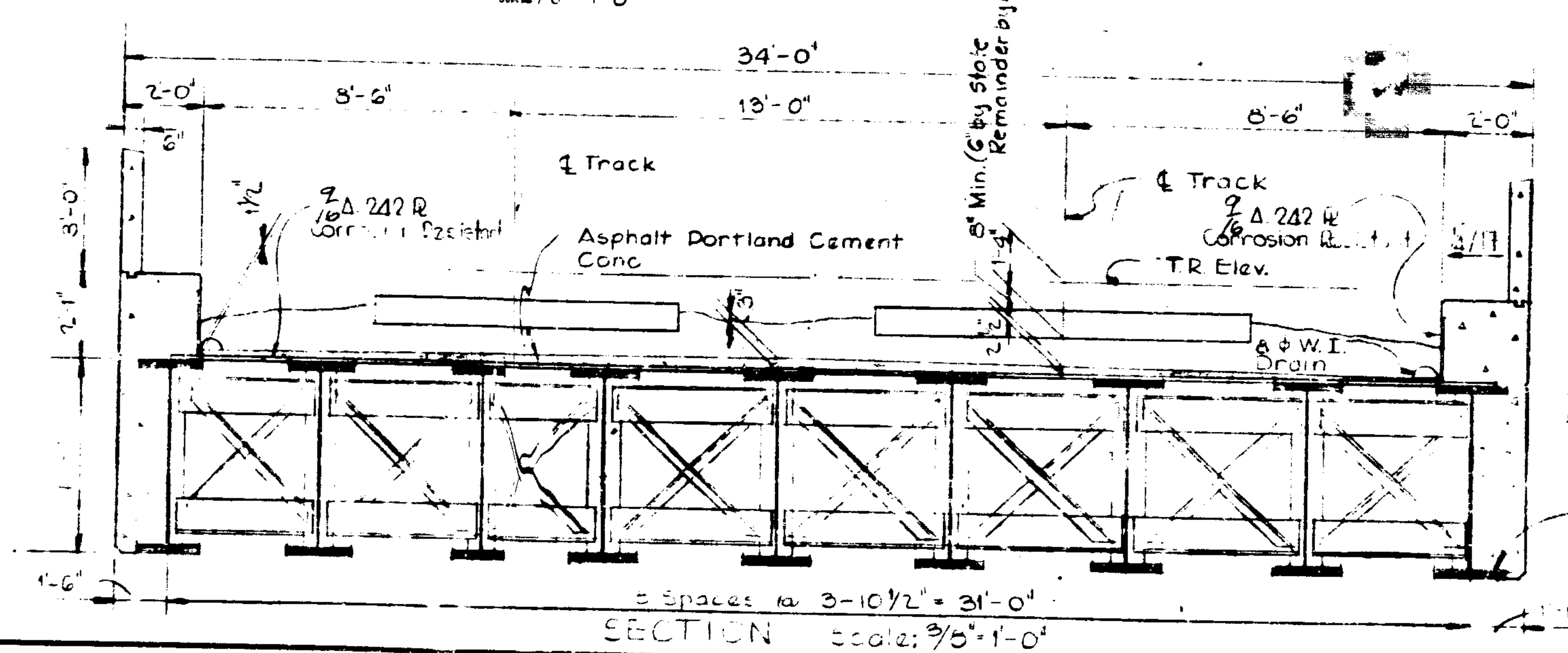
SCALE:- 1" = 50' Unless Noted — FEB. 8, 1966

SUBMITTED FOR APPROVAL:-

DRAWING:- 51 OF
PROJECT:- F 70 (11)
BRIDGE CONTRACT NO.
BRIDGE FILE:- 31R-2558

BRIDGES OVER 20' SPAN					
PUB ROAD REG NO	STATE	PROJECT NO	FISCAL YEAR	SHEET NO	TOTAL SHEETS
4	IND	F-70(10)	1966	35	242





GENERAL NOTES:

All material and workmanship shall be in accordance with Indiana State Highway Commission Standard Specifications dated 1963 except as noted.
AREA "Specifications for Reinforced Concrete Bridges and other Structures" dated 1959 and "Specifications for Steel Railway Bridges" dated 1963 except as noted.
All welding shall be in accordance with A.W.S. "Specifications for Welded Highway and Railway Bridges" Dated 1963
Exist Bridge No. 183.35 at site. Reinf. Conc. Slab. Pennsylvania Railroad over US 31. Structure will remain, except as noted
Depth of footings to be extended if necessary. See Art B403.2 (a) Specifications.
Piles shall have minimum bearing value shown on detail drawings. Determine pile Lengths by Art F-103 of Specifications
Piles shall be driven to elevation shown on plans or below if necessary to obtain desired bearing
Reinforcing steel covering shall be 3 inches in footing except bottom steel which shall be 4 inches and 2 inches in all other parts unless noted
Concrete in footings, wingwalls, abutments to be class "E"
Concrete in superstructure, including railing, Pier caps to be class "F"
Concrete in pier columns to be class "D"
Concrete in paved side ditches to be Class "D"
Continuous concrete pours shall be required between construction joints as shown on detail plans.
Waterproof abutments, wingwalls back of mudwalls in accordance with the specifications
Bevel forms ¼" under copings; and chamfer exposed edges 1 inc. unless noted.
Bituminous concrete deck covering shall be in accordance with specifications for Asphalt Portland Cement Concrete. See special provisions.
See special provisions for items included in this contract.

DESIGN DATA:

Live Load shall be Cooper E-72 Loading, AREA Impact for Diesel

For Typical Cross-Section of Runaround See Dwg Sh 5
For Typical Cross-Section of U.S.-31 See Sh. 2.
For Typical Cross-Section of Pa R.R. See Sh. 6

STANDARD DRAWINGS		
Br. Std.	Rd. Std.	Purpose
C1		Reinforcing Bar Notes & Details
	M8	Paved Side Ditch Type A
	GR-1	Straight Beam Guard Rail
	Mp	Pipe Groups
	ME-1	Pipe Culvert Anchors.
	Sh. 1	Standard Detour Signs
	Sh. 2	" "
	Sh. 3	" " "
	Sh. 3A	" " "

FOR INFORMATION ONLY

CONT WELDED DECK GIRDER R.R. BRIDGE 2 SPANS @ 66'-10⅛"
SKEW 25° 40' LT
DOUBLE TRACK
PENNSYLVANIA RR OVER US 31

GENERAL PLAN

INDIANA STATE HIGHWAY COMMISSION

MIAMI COUNTY

SCALE:- As Noted FEB. 8, 1966

SUBMITTED FOR APPROVAL:- [signature]

DRAWING: S 2 OF 11
PROJECT:- F-70(11)
BRIDGE CONTRACT NO.
BRIDGE FILE:- 31-R-2358

DESIGNED ____ CKD ____
DRAWN CEL & RDE CKD ____
TRACED ____ CKD ____

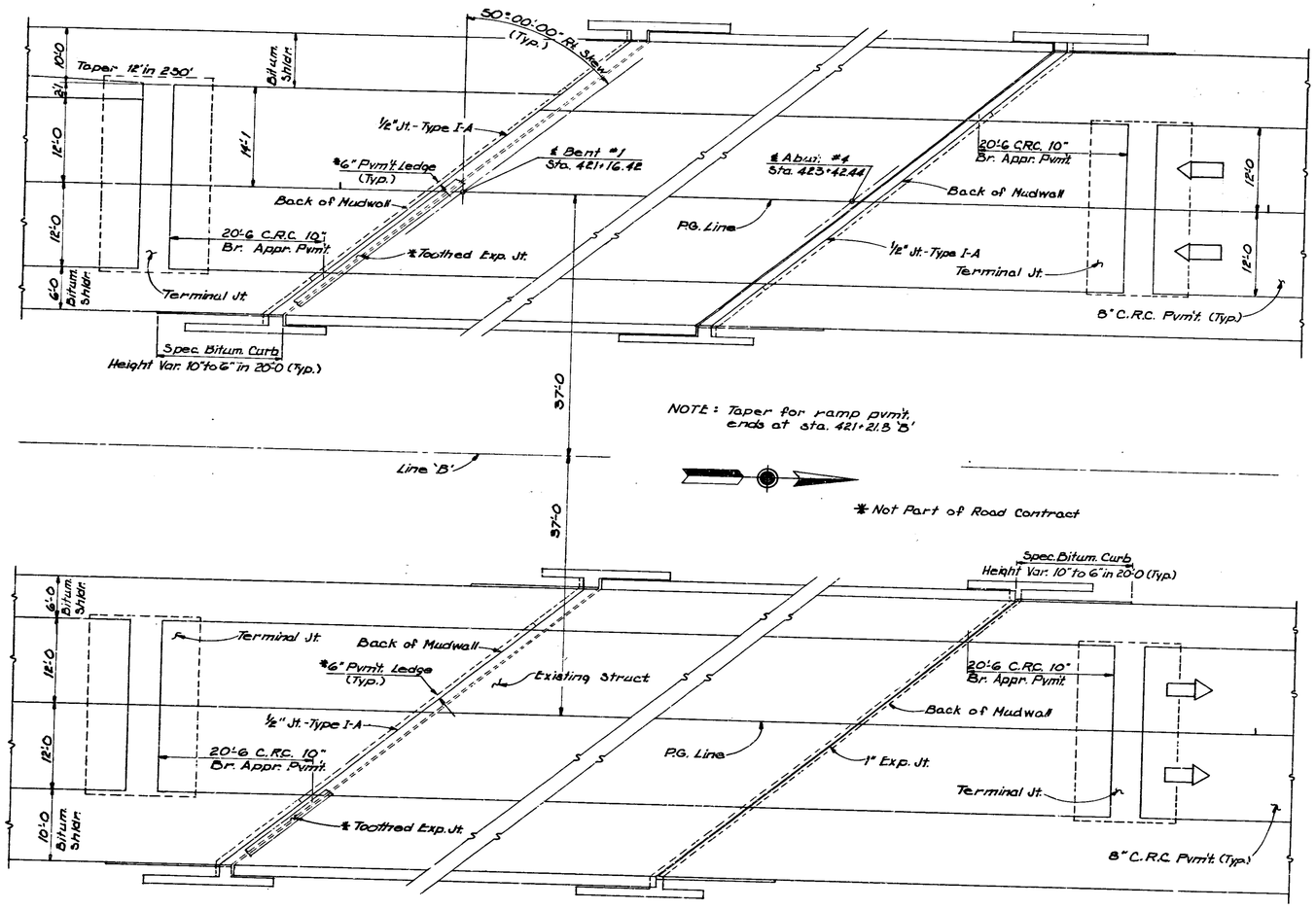
Rev 3-26-68 Std. Drwgs.

November 6, 1961

Rev 9-19-67 9/16 Deck Pl
Rev 3-0-67 W.I. Drain, Ballast
Rev. 10-19-67: P.G. Line & Curbs removed.

PROJECT NO	LINE	SHEET NO	TOTAL SHEETS	FILE

FED. ROAD REGION NO.	STATE	PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
4	IND.	F-70(10)	1964	36	242



NOTE: Taper for ramp pvmt. ends at sta. 421+21.8 'B'

* Not Part of Road Contract

APPROACH DETAILS

Scale: 1/8" 1'-0

BILL OF MATERIALS

ITEM	QUANTITY	
Additional Concrete Pvmt. reqd. for C.R.C. Br. Approaches	**	93 sq. yd.
Additional Steel reqd. for C.R.C. Br. Approaches	7344	#
Terminal Joint	98	Lin. Ft.
1/2" Joint Type I-A	115	Lin. Ft.
1" Preformed Exp. Joint	62	Lin. Ft.
Special Bitum. Curb	120	Lin. Ft.

** Additional thickness of approach slab converted to equivalent sq. yd. of 8" C.R.C. pvmt.

Bridge File No's:
31-R-4041AS (Existing structure with proposed widenin
31-R-4041JS

R. C. BRIDGE APPROACH
PIPE CREEK

F. PROJ.	LINE	SHEET	FILE
70 (10)		36	

SEE STD. SHEET "MP" FOR ACCEPTABLE TYPES OF PIPE WITHIN EACH GROUP.

STRUCTURE DATA

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

Rev 1-15-69. Add. Str No. 46-A.

Rev. 10-17-68. Str. No. 67.
REV. 6-9-67 - Add Str.s 59A, B, & C.

Federal Road Region No.	State	Project No.	Fiscal Year	Sheet No.	Total Sheets
4	IND.	F 70(10)	1964	37	242

Structure Number	Location	Size	Description	Length "L"	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.	Remarks	Culvert Pipe End Section Each	Plans on Sheet No.
1			Separate Contract Structure									No Exception: Penn Central RR Over F-70 To Be Constructed Under Bridge Contract F Proj. 70(11) Bridge File No. 31-R-2358		
2			Combination Structure									To Be Constructed In Combination With Road Project Bridge File No. 31-R-4041S Sta. 420+24.69 - Sta. 422+54.52 37' Rt. Bridge File No. 31-R-4041JS Sta. 421+13.96 - Sta. 423+44.58 37' Lt.		
	Line 'B'													
12	253+00	12"	Std. Inlet Type E-7 & Group 'A' Pipe (Ga. No. 16 F.B.C.C.S./P.I.)	74'		3.0'	804.56	804.10	—	3.8		Connect To Subsurface Drain	1	8
13	259+00	12"	Std. Inlet Type E-7 & Group 'A' Pipe (Ga. No. 16 F.B.C.C.S./P.I.)	74'		3.1'	806.63	806.50	—	3.8		Connect To Subsurface Drain	1	8
	Line 'S-7-B'													
14	2+50 Rt.	12"	Group 'D' Pipe (Ga. No. 16 C.S.) (Ga. No. 12 C.A.A.)	24'		1.0'	809.13	809.09	—	—		Class V Drive Req'd.	2	8
15	2+50 Lt.	12"	Group 'D' Pipe (Ga. No. 16 C.S.) (Ga. No. 12 C.A.A.)	24'		1.0'	809.13	809.09	—	—		Class V Drive Req'd.	2	8
	Line 'B'													
16	268+50	12"	Std. Inlet Type E-7 & Group 'A' Pipe (Ga. No. 16 F.B.C.C.S./P.I.)	84'		4.7'	807.35	807.30	—	4.0			1	8
17	270+05	8"	Group 'L' Pipe	220'			805.25	804.65	—	22.2		Connect To Existing 8" Field Tile Lt. & Rt. Remove F. Tile In Place		8
18	270+50	24"	Std. Inlet Type F-7 & Group 'A' Pipe (Ga. No. 16 F.B.C.C.S./P.I.)	162'		4.2'	807.50	807.00	—	15.1		Remove Existing 15" R.C. Pipe.	2	8
19	289+00	12"	Std. Inlet Type E-7 & Group 'A' Pipe (Ga. No. 16 F.B.C.C.S./P.I.)	80'		4.3'	807.98	807.85	—	5.1			1	9
	Line 'S-8-B'													
20	820+58 Lt.	12"	Group 'D' Pipe (Ga. No. 16 C.S.) (Ga. No. 12 C.A.A.)	24'		1.0'	807.60	807.40	—	—		Class II Drive Req'd.	2	9
21	823+75	15"	Group 'D' Pipe (Ga. No. 16 C.S.) (Ga. No. 12 C.A.A.)	8'		1.0'	—	—	—	—		Extend Existing 15" Concrete Pipe On Left Of Line 'S-8-B'	1	9
	Line 'B'													
22	290+59.5 Rt.	18"	Group 'D' Pipe (Ga No. 16 C.S.) (Ga. No. 16 C.A.A.)	42'		2.5'	807.17	807.03	—	—		Public Road Approach Type 'D' Req'd.	2	9
	Access Rd. No. 1													
23	296+00	12"	Group 'D' Pipe (Ga. No. 16 C.S.) (Ga. No. 16 C.A.A.)	32'		1.5'	806.50	806.00	—	—			2	9
	Line 'B'													
24	307+90± Rt.	12"	Group 'P' Pipe	816'			—	—	—	—				
24	316+13.3, 110' Rt.	12"	Group 'D' Pipe (Ga. No. 16 C.S.) (Ga. No. 16 C.A.A.)	30'			—	797.00	—	—		No Pipe End Section Req'd. @ Outlet End.		10
25	315+40	15"	Std. Inlet Type N-12 & Group 'A' Pipe (Ga. No. 16 F.B.C.C.S./P.I.)	72'		3.5'	797.30	796.74	—	4.7		Connect To Subsurface Drain	1	10
26	316+13.3 Rt.	24"	Group 'D' Pipe (Ga. No. 16 C.S.) (Ga. No. 16 C.A.A.)	50'		3.0'	796.55	795.71	—	—		Public Road Approach Type 'A' Req'd.	2	10
27	316+41 Lt.	—		—			—	—	0.2	—		Remove Existing 12" Field Tile In Place (Sta. 308+00 - Sta. 316+41)		10
28	316+85	—	F.B.C.C.S.A. Ga. No. 12 (M.A. = 17.6 Sq. Ft.) or Rein. Elip. Conc. Pipe (M.A. = 16.6 Sq. Ft.)	178'	15°	3.2'	795.00	794.11	2.95	63.3		Backfill With Sand & Seal Tile Under Existing Pavement. Pipe Arch Anchors Req'd. Each End. Construct Inlet Ditch. 50 Sq. Yds. Rip Rap Req'd. On Lt. & 50 Sq. Yds. Rip Rap Req'd On Rt.		10
29	318+00 Lt.	5'×5	Existing R.C. Box Culvert	—			—	—	1.33			Seal & Abandon Exist. 5'×5' Box Culvert. See Special Provisions		10
30	322+94 Rt.	8"	C.S. Pipe (Ga. No. 16)	6'			—	—	—	—		No Pipe End Section Req'd.		10
31	324+00	12"	Std. Inlet Type E-7 & Group 'A' Pipe (Ga. No. 16 F.B.C.C.S./P.I.)	80'		4.7'	793.14	791.95	—	14.5			1	10
32	324+44 Rt.	6"	C.S. Pipe (Ga. No. 18)	6'			—	—	—	—		No Pipe End Section Req'd.		10
	P.R. Line No. 1													
33	325+25 Rt.	6"	C.S. Pipe (Ga. No. 18)	6'			—	—	—	—		No Pipe End Section Req'd.		10
34	328+00	15"	Std. Inlet Type F-7 & Group 'A' Pipe (Ga. No. 16 F.B.C.C.S./P.I.)	154'		3.3'	792.50	790.30	—	33.1			2	10
35	330+59 Rt.	6"	C.S. Pipe (Ga. No. 18)	6'			—	—	—	—		No Pipe End Section Req'd.		10
36	334+00	12"	Std. Inlet Type E-7 & Group 'A' Pipe (Ga. No. 16 F.B.C.C.S./P.I.)	82'		4.3'	791.20	790.25	—	11.5		Connect To Subsurface Drain	1	10
37	341+31	6'×4'	Std. Reinf. Conc. Culvert & W-1 Wings	114		6'	786.16	784.09	61.20	169.4	16,171	Extend Exist. Conc. Culvert With 54 Lin. Ft. Lt. & 60 Lin. Ft. Rt. See Sheet No. 64 For Std. Structure Connections For Extensions.		11
38	341+37	73"×55"	Multi Plate Steel Arch (Min. Area: 22 Sq. Ft.)	—			—	786.63	5.83	—		Remove 54' Of Existing Arch. Rebuild Headwall. Salvage & Use Existing Metal Gates.		11
39	342+00	12"	Std. Inlet Type E-7 & Group 'A' Pipe (Ga. No. 16 F.B.C.C.S./P.I.)	84'		4.3'	791.76	790.75	—	7.8		See Detail On Plan Sheet No. 31. Connect To Subsurface Drain	1	11

Structure Number	Location	Size	Description	Length "L"	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.	Remarks	Culvert Pipe End Section Each	Plans on Sheet No.
	P.R. Line No. 1 Cont'd.													
40	352+80	24"	Std. Inlet Type F-7 & Group 'A' Pipe (Ga. No. 16 F.B.C.C.S./P.I.)	154'		5.0'	792.04	789.85	—	29.0		Remove Exist. Pipe. Connect To Subsurface Drain	2	11
41	354+73 Rt.	12"	Group 'D' Pipe (Ga. No. 16 C.S.) (Ga. No. 12 C.A.A.)	46'		1.0'	794.24	794.18	—	—		Commercial Drive Req'd.	2	11
42	356+36 Rt.	12"	Group 'D' Pipe (Ga. No. 16 C.S.) (Ga. No. 12 C.A.A.)	34'		1.0'	794.39	794.32	—	—		Commercial Drive Req'd.	2	11
	Line 'S-10-B'													
43	52+30	12"	Group 'D' Pipe (Ga. No. 16 C.S.) (Ga. No. 12 C.A.A.)	24'		1.0'	793.00	792.75	—	—		Class IV Drive Req'd.	2	11
	P.R. Line No. 1													
44	363+00	15"	Std. Inlet Type E-7 & Group 'A' Pipe (Ga. No. 16 F.B.C.C.S./P.I.)	82'		4.5'	793.30	793.02	—	7.8			1	11
45	367+80	36"	Group 'A' Pipe (Ga. No. 16 F.B.C.C.S./P.I.)	152'		5.0'	793.50	790.25	—	59.4		Construct Outlet Ditch. Remove Existing Pipe.	2	11
46	367+80	6"	Group 'L' Pipe	230'			—	—	—	—		Connect To Exist. 6" Field Tile Lt. & Rt. Remove F. Tile In Place		11
46-A	373+37	117' Lt.	Telephone Manhole											
47	374+60 Rt.	12"	Std. Inlet Type A-9 & Group 'A' Pipe (Ga. No. 16 F.B.C.C.S./P.I.)	36'			791.98	790.50	—	—		See Details On Sheet No. 32-B.	1	12
48	375+88	6"	Std. Manhole Type B-4 & Group 'L' Pipe	170'			787.50	787.00	—	—		Remove Field Tile In Place		12
49	376+31	15"	Group 'A' Pipe (Ga. No. 16 F.B.C.C.S./P.I.)	142'			789.10	—	—	10.6		Connect To Exist. 15" Pipe On Rt.	1	12
50	378+90	15"	Std. Inlet Type P-12 & Group 'A' Pipe (Ga. No. 16 F.B.C.C.S./P.I.)	8'			790.00	—	—			Barrier Slope Req'd. Connect To Structure No. 51 & To Subsurface Drain		12
51	379+00 Rt.	15"	Std. Inlet Type A-9 & Group 'A' Pipe (Ga. No. 16 F.B.C.C.S./P.I.)	164'			790.30	789.75	—	12.0		Connect To Structure No. 50. 1 - 15" × 15" × 15" Tee Req'd.	1	12
	Line 'S-14-B'													
52	47+75 Lt.	12"	Group 'D' Pipe (Ga. No. 16 C.S.) (Ga. No. 16 C.A.A.)	24'		1.5'	791.00	790.75	—	—		Class V Drive Req'd.	2	12
53	47+75 Rt.	12"	Group 'D' Pipe (Ga. No. 16 C.S.) (Ga. No. 16 C.A.A.)	24'		1.5'	791.00	790.75	—	—		Class II Drive Req'd.	2	12
	P.R. Line No. 1													
54	386+40± Lt.	6"	C.S. Pipe (Ga. No. 18)	10'			—	—	—	—		20' Of Concrete Gutter. No Pipe End Section Req'd. @ Outlet End.		12
55	389+30	30"	Group 'A' Pipe (Ga. No. 16 F.B.C.C.S./P.I.)	162'		2.7'	764.82	764.10	1.75	44.8		"L" Headwall Req'd. Outlet End Only. 1 - 30" × 30" × 12" Tee Req'd. Connect To Structure No. 56	1	12
56	389+40	12"	Std. Inlet Type P-12 & Group 'A' Pipe (Ga. No. 16 F.B.C.C.S./P.I.)	8'			767.43	764.50	—			Connect To Structure No. 55 & To Subsurface Drain		12
57	389+50 Rt.	—		—			—	—	0.10	—		Seal Existing Pipe Inlet.		12
58	389+90 Rt.	—		—			—	—	0.20	—		Remove Casting & Seal Drop Inlet.	[illegible]	[illegible]
59A	390+50 Rt.	8"										~~In Bridge Contract~~	[illegible]	[illegible]
59	390+40 Rt.	36"	F.B.C.C.S. Pipe/P.I. (Ga. No. 16) 2 - 22° 30' Bends & 2 - 45° Bends	240'			764.10	762.48	1.75	49.0		Inlet Thru "L" Headwall Of Structure No. 56. "L" Headwall Req'd. Outlet End. Outlet Structure No. 59C Thru Howl.	[illegible]	[illegible]
59B	390+50 Rt.	8"										~~In Bridge Contract~~		
60	390+82 Rt.	—		—			—	—	0.40	—		Seal Existing Drop Inlets.	[illegible]	[illegible]
59C	391+50	8"	F.B.C.C.S. (Ga. No. 16)	60'								Outlet Thru "L" Headwall Of Structure No. 59. 1 - 45° Bend & 1 - Wye Req'd. Connect To Structure Nos. 59A & 59B		
61	395+00	12"	Std. Inlet Type E-7 & Group 'A' Pipe (Ga. No. 16 F.B.C.C.S./P.I.)	76'		3.0'	760.39	759.95	—	7.6		Connect To Subsurface Drain	1	[illegible]
62	395+40 Rt.	36"	Group 'D' Pipe (Ga. No. 16 C.S.)	24'			759.63	759.57	—	—		Class II Drive Req'd.	2	[illegible]
63	404+00	12"	Std. Inlet Type E-7 & Group 'A' Pipe (Ga. No. 16 F.B.C.C.S./P.I.)	108'		6.1'	756.06	749.15	—	4.1			1	[illegible]
64	405+00	54"	Strutted F.B.C.C.S./P.I. Ga. No. 14	—	28°	16.5'	742.76	737.00	—			Not Included In This Contract. Construct Under Br. Contract F Proj. 70(11) Bridge File No. 31-R-2358. Connect To Structure No. 65		[illegible]
65	405+00	54"	Strutted F.B.C.C.S./P.I. Ga. No. 14	108'	28°	23.0'	737.00	733.25	3.18	44.0		1 - 54" Band Req'd. Connect To Structure No. 64. Construct Inlet & Outlet Ditches. 15 Sq. Yds. Rip Rap Req'd. On Lt. Pipe Anchors Req'd. Each End.		[illegible]
66	405+72 Rt.	4'×5'	Existing R.C. Box Culvert	—			—	—	—	65.0		Remove Top Slab & Backfill With Grade 'B' Special Borrow		[illegible]
67	409+63	6" / 6"	Std. R.C. Springbox; Group 'L' Pipe; (Ga. #18, C.S. Pipe Req'd)	96' / 6'								No Hdwl. Req'd at Outlet End.		
67	409+63	3" / 8"	Std. Manhole Type C; C.I. Water Pipe; F.B.C.C.S. Pipe	750' / 44'			738.30					Casing Req'd. Under Pavement		

November 6, 1961

[signature] 10/1/65

Project No.	Line	Sheet No.	Total Sheets
F 70(10)		37	242

SEE STD. SHEET "MP" FOR ACCEPTABLE TYPES OF PIPE WITHIN EACH GROUP.

STRUCTURE DATA

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

Rev. 10-17-68. Strs 68 & 74. A-V. Str 98A Added

FEDERAL ROAD REGION NO.	STATE	PROJECT NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
4	IND.	F 70 (10)	1964	38	242

STRUCTURE NUMBER	LOCATION	DESCRIPTION SIZE	DESCRIPTION	LENGTH "L"	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.	REMARKS	CULVERT PIPE END SECTION EACH	PLANS ON SHEET NO.
	P.R. LINE No. 1 CONT'D.													
68	411+90 +3C	12"	STD. INLET TYPE E-7 & GA. No. 16 PIPE (F.B.C.C.S. [P.I.) 2 - 22° 30' BENDS REQ'D.	108'		3.3	744.84 745.49	731.00 730.99	—	3.5		CONNECT TO SUBSURFACE DRAIN	1	13
69	415+00	12"	STD. INLET TYPE E-7 & GROUP 'A' PIPE (GA. No. 16 F.B.C.C.S. [P.I.)	76'		3.2'	737.88	737.75	—	3.8			1	13
	LINE 'S-11-B'													
70	218+50 Rt.	12"	C.S. PIPE (GA. No. 16)	20'			738.66	738.44	—	—				
70A	219+91 Rt.	12"	EXISTING C.S. PIPE	20'								CLASS II DRIVE REQ'D		
71	219+70 Lt.	15"	GROUP 'D' PIPE (GA. No. 16 C.S.) (GA. No. 14 C.A.A.)	36'		1.5'	738.20	737.84	—	—		REMOVE AND SALVAGE	2	13
72	220+28	29"x18"	GROUP H-1 PIPE ARCH (GA. No. 16 C.S.) (GA. No. 12 C.A.A.)	86'		1.6'	737.85	737.50	—	—		REMOVE EXISTING PIPE	2	13
73	220+90	22"x13"	EXISTING C.S. ARCH	48'			—	—	—	—			2	13
	ACCESS RD. No. 2 410+94 Rt.		P.R. No. 1									REMOVE & SALVAGE		13
74	3+37 4'-10"	15'-10" 4'-10"	S.R.S. ARCH (MIN AREA = 122 S.F.)	68' 52'		4.2'	(729.83) 729.50	(729.17) 729.20	8.12	—		STRUCTURAL PLATES: GA. No. 8 TOP & SIDES, GA. No. 8 BOTTOM (12 10) STRUCTURAL PLATE PIPE ANCHORS REQ'D. EACH END. REMOVE PIPE IN PLACE.		13
	FRONTAGE RD. No. 2													
75	3+00	12"	GROUP 'D' PIPE (GA. No. 16 C.S.) (GA. No. 12 C.A.A.)	38'		1.0'	736.90	736.00	—	—		CONSTRUCT OUTLET DITCH	2	13
	LINE 'B'													
76	420+25	12"	STD. INLET TYPE E-7 & GROUP 'A' PIPE (GA. No. 16 F.B.C.C.S. [P.I.)	52'			733.44	731.50	—	—		DRAIN THRU SLOPEWALL. CONNECT TO SUBSURFACE DRAIN		13
77	420+75 37' Lt.	6"	F.B.C. YARP C.S. PIPE (GA. No. 18)	70'			—	—	—	—		DRAIN THRU SLOPE ON LT.		13
78	423+50	12"	STD. INLET TYPE E-7 & GROUP 'A' PIPE (GA. No. 16 F.B.C.C.S. [P.I.)	36'			733.96	732.00	—	—		DRAIN THRU SLOPEWALL. CONNECT TO SUBSURFACE DRAIN		13
79	426+50 Lt.	12"	GROUP 'D' PIPE (GA. No. 16 C.S.) (GA. No. 12 C.A.A.)	24'		1.0'	737.26	736.16	—	—		CLASS II DRIVE REQ'D.		
80	426+50 Rt.	18"	GROUP 'D' PIPE (GA. No. 16 C.S.) (GA. No. 10 C.A.A.)	36'		1.0'	736.16	736.05	—	—		REMOVE EXISTING PIPE.	2	13
81	426+56 Rt.	12"	GROUP 'D' PIPE (GA. No. 16 C.S.) (GA. No. 12 C.A.A.)	24'		1.0'	738.90	738.50	—	—		CLASS IV DRIVE REQ'D.	2	13
	P.R. LINE No. 2												2	13
82	3+25	18"	GROUP 'D' PIPE (GA. No. 16 C.S.) (GA. No. 16 C.A.A.)	38'		2.0'	735.75	735.35	—	—		CONSTRUCT OUTLET DITCH		
	LINE 'B'												2	13
83	427+50	12"	STD. INLET TYPE E-7 & GROUP 'A' PIPE (GA. No. 16 F.B.C.C.S. [P.I.)	74'		3.5'	737.04	735.50	—	11.4				
84	432+74 Rt.	12"	GROUP 'D' PIPE (GA. No. 16 C.S.) (GA. No. 12 C.A.A.)	24'		1.0'	743.75	743.10	—	—		CLASS II DRIVE REQ'D.	1	13
85	439+50	12"	STD. INLET TYPE E-7 & GROUP 'A' PIPE (GA. No. 16 F.B.C.C.S. [P.I.)	78'		3.1'	762.20	761.55	—	11.3		CONNECT TO SUBSURFACE DRAIN	2	14
86	436+97	6'x6'	STD. REINF. CONC. BOX CULVERT # W-1 WINGS	75'		6'	738.00	736.00	43.90	180.5	11,280	EXTEND EXISTING CONC. BOX CULVERT ON LT. SEE SHEET No. G4 FOR STD. STRUCTURE CONNECTIONS FOR EXTENSIONS CONSTRUCT OUTLET DITCH. CONNECT TO EXISTING 18" PIPE	1	14
87	440+80	18"	STD. INLET TYPE E-7 & GROUP 'A' PIPE (GA. No. 16 F.B.C.C.S. [P.I.)	126'	45°	4.2'	750.85	745.00	—	8.0				14
	ACCESS RD. No. 4A													
88	440+60	18"	GROUP 'D' PIPE (GA. No. 16 C.S.)	40'		2.0'	754.50	750.50	—	—		CLASS II DRIVE REQ'D.	2	14
89	446+95	5'x5'	STD. REINF. CONC. BOX CULVERT # W-1 WINGS	76'	15°	14'	740.00	737.00	43.30	238.5	11,375	EXTEND EXIST. CONC. BOX CULVERT ON LT. CONSTRUCT OUTLET DITCH. SEE SHEET No. G4 FOR STD. STRUCT. CONNECTIONS FOR EXTENSIONS		14
90	447+50	12"	STD. INLET TYPE E-7 & GA. No. 16 PIPE (F.B.C.C.S. [P.I.) 2 - 22° 30' BENDS REQ'D.	116'		5.2'	762.78	758.50	—	3.5			1	13
91	451+60	12"	STD. INLET TYPE E-7 & GA. No. 16 PIPE (F.B.C.C.S. [P.I.) 2 - 22° 30' BENDS REQ'D.	104'		6.3'	762.99	760.00	—	3.5			1	14
92	453+85 Rt.	15"	GROUP 'D' PIPE (GA. No. 16 C.S.) (GA. No. 12 C.A.A.)	24'		1.0'	755.55	755.50	—	—		CLASS II DRIVE REQ'D.	2	14
93	454+23 Rt.	15"	GROUP 'D' PIPE (GA. No. 16 C.S.) (GA. No. 12 C.A.A.)	24'		1.0'	754.59	754.45	—	—		CLASS II DRIVE REQ'D.	2	14
94	455+00	12"	STD. INLET TYPE E-7 & GA. No. 16 PIPE (F.B.C.C.S. [P.I.) 2 - 22° 30' BENDS REQ'D.	100'		5.6'	754.44	748.00	—	3.5		CONNECT TO SUBSURFACE DRAIN	1	14

STRUCTURE NUMBER	LOCATION	DESCRIPTION SIZE	DESCRIPTION	LENGTH "L"	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.	REMARKS	CULVERT PIPE END SECTION EACH	PLANS ON SHEET NO.
	LINE 'B' CONT'D.													
95	455+36.5	5'x5'	STD. REINF. CONC. BOX CULVERT # W-1 WINGS	100'		12'	748.00	742.00	50.90	303.5	13,367	EXTEND EXIST. CONC. BOX CULVERT WITH 92 LIN. FT. LEFT & 8 LIN. FT. RIGHT		14
96	459+60 Lt.	15"	GROUP 'D' PIPE (GA. No. 16 C.S.) (GA. No. 16 C.A.A.)	24'		2.0'	757.94	757.86	—	—		SEE SHEET No. G4 FOR STD. STRUCTURE CONNECTIONS FOR EXTENSIONS		
97	459+60 Rt.	15"	GROUP 'D' PIPE (GA. No. 16 C.S.) (GA. No. 12 C.A.A.)	30'		1.0'	759.47	759.40	—	—		CLASS II DRIVE REQ'D.	2	14
	ACCESS RD. No. 6												2	14
98	0+35	12"	GROUP 'D' PIPE (GA. No. 16 C.S.) (GA. No. 12 C.A.A.)	30'		1.0'	768.16	767.50	—	—				
	LINE 'B'												2	14
99	459+60	12"	GROUP 'A' PIPE (GA. No. 16 F.B.C.C.S. [P.I.)	16'			759.68	759.30	—	7.2		COMM. DRIVE X-OVER REQ'D.	2	14
100	464+50	12"	STD. INLET TYPE E-7 & GROUP 'A' PIPE (GA. No. 16 F.B.C.C.S. [P.I.)	90'		3.8'	759.80	753.60	—	10.4		CONNECT TO SUBSURFACE DRAIN	1	15
101	466+05	78" 78"	STRUTTED F.B.C.C.S. [P.I. GA. No. 10 OR R.C. CULVERT PIPE	306'	30°	22	795.00	796.00	4.71	288.9		STRUCTURAL PLATES STEEL: GA. No. 10 TOP & SIDES, GA. No. 8 BOTTOM PIPE ANCHORS REQ'D. EACH END. CONSTRUCT OUTLET DITCH. SEE SPECIAL PROVISIONS. 90 SYS. RIPRAP REQ'D @ OUTLET END		15
102	466+91	12'x6'	EXISTING CONC. BOX CULVERT	—			—	—	—	460.0		REMOVE WINGS ON RT. REMOVE TOP SLAB & BACKFILL WITH GRADE 'B' SPECIAL BORROW		15
	ACCESS RD. No. 7													
103	5+90	22"x13"	GROUP H-1 PIPE ARCH (GA. No. 16 C.S.) (GA. No. 12 C.A.A.)	30'		1.5'	734.50	736.00	—	—		CONSTRUCT OUTLET DITCH.	2	15
	LINE 'S-12-B'													
104	48+60 Rt.	15"	GROUP 'D' PIPE (GA. No. 16 C.S.) (GA. No. 12 C.A.A.)	56'		1.0'	773.00	772.50	—	—			2	15
105	49+05	24"	GROUP 'D' PIPE (GA. No. 16 C.S.) (GA. No. 14 C.A.A.)	56'		2.0'	768.55	768.31	—	—			2	15
106	53+15 Lt.	18"	GROUP 'D' PIPE (GA. No. 16 C.S.) (GA. No. 16 C.A.A.)	24'		3.0'	764.50	761.50	—	—		CLASS II DRIVE REQ'D.	2	15
	LINE 'B'												2	15
107	472+50	12"	STD. INLET TYPE E-7 & GROUP 'A' PIPE (GA. No. 16 F.B.C.C.S. [P.I.)	96'		4.7	769.44	764.00	—	23.0			1	15
108	485+68	6"	GROUP 'L' PIPE	200'			—	—	—	37.0		CONNECT TO EXIST. 6" FIELD TILE LT. & RT. REMOVE FIELD TILE IN PLACE		15
109	493+00	12"	STD. INLET TYPE E-7 & GROUP 'A' PIPE (GA. No. 16 F.B.C.C.S. [P.I.)	74'		3.0	771.17	771.00	—	7.2			1	16
110	494+20 Lt.	12"	GROUP 'D' PIPE (GA. No. 16 C.S.) (GA. No. 12 C.A.A.)	24'		1.0'	769.81	769.55	—	—		CLASS II DRIVE REQ'D.	2	16
111	494+20 Rt.	15"	GROUP 'D' PIPE (GA. No. 16 C.S.) (GA. No. 16 C.A.A.)	30'		2.0'	770.36	769.66	—	—		CLASS IV DRIVE REQ'D.	2	16
112	497+20	66" 60"	F.B.C.C.S. [P.I. GA. No. 12 OR R.C. CULVERT PIPE	256'	25°	14	780.52	778.50	3.92	231.0		STRUCTURAL PLATES STEEL: GA. No. 12 TOP & SIDES, GA. No. 10 BOTTOM PIPE ANCHORS REQ'D EACH END. CONSTRUCT INLET & OUTLET PITCHES		16
113	497+92	8'x5'	EXISTING R.C. BOX CULVERT	—			—	—	—	225.0		REMOVE TOP SLAB & BACKFILL WITH GRADE 'B' SPECIAL BORROW		16
114	501+60	12"	STD. INLET TYPE N-12 & GROUP 'A' PIPE (GA. No. 16 F.B.C.C.S. [P.I.)	80'		4.0'	762.50	760.50	—	3.5		CONNECT TO SUBSURFACE DRAIN	1	16

November 6, 1961

PROJECT NO.	LINE	SHEET NO.	TOTAL SHEETS	FILE
F 70 (10)		38	242	

SEE STD. SHEET "MP" FOR ACCEPTABLE TYPES OF PIPE WITHIN EACH GROUP.

STRUCTURE DATA

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

FEDERAL ROAD REGION NO.	STATE	PROJECT NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
4	IND.	F 70(10)	1964	39	242

STRUCTURE NUMBER	LOCATION	DESCRIPTION SIZE	DESCRIPTION	LENGTH "L"	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.	REMARKS	CULVERT PIPE END SECTION EACH	CULVERT PIPE END SECTION PLANS ON SHEET NO.
	LINE 'B' CONT'D.													
115	504+00	36"	GROUP 'A' PIPE (GA. No. 16 F.B.C.C.S./P.I.)	194'	30°	6'	761.00	757.00	—	51.5		CONSTRUCT INLET DITCH. REMOVE EXISTING PIPE.	2	16
116	504+40 Rt.	6"	C.S. PIPE (GA. No. 18)	6'			—	—	—	—		NO PIPE END SECTION REQ'D.		16
117	504+60 Rt.	8"	C.S. PIPE (GA. No. 16)	6'			—	—	—	—		NO PIPE END SECTION REQ'D.		16
	ACCESS RD. No. 8													16
118	514+40	12"	GROUP 'D' PIPE (GA. No. 16 C.S.) (GA. No. 12 C.A.A.)	32'		1.0'	770.90	768.50	—	—		CONSTRUCT OUTLET DITCH.		
	LINE 'B'												2	16
119	515+40 Rt.	18"	GROUP 'D' PIPE (GA. No. 16 C.S.) (GA. No. 10 C.A.A.)	40'		1.0'	769.30	768.90	—	—				
120	517+00	36"	GROUP 'A' PIPE (GA. No. 16 F.B.C.C.S./P.I.)	140'		3'	768.50	767.25	—	—			2	16
121	523+30	12"	STD. INLET TYPE E-7 & GROUP 'A' PIPE (GA. No. 16 F.B.C.C.S./P.I.)	84'			764.63	764.62	—	7.4			2	16
122	524+00 Rt.	6"	C.S. PIPE (GA. No. 18)	6'			—	—	—	—		NO PIPE END SECTION REQ'D.	1	17
	LINE 'S-13-B'													17
123	48+50 Lt.	12"	GROUP 'D' PIPE (GA. No. 16 C.S.) (GA. No. 12 C.A.A.)	36'		1.0'	767.02	766.36	—	—		REMOVE EXISTING PIPE ON LT. @ STA. 49+00 CLASS III DRIVE REQ'D.	2	17
124	49+10	29"-18"	GROUP H-1 PIPE ARCH (GA. No. 16 C.S.) (GA. No. 12 C.A.A.)	80'		1.8'	765.45	765.18	—	—			2	17
125	51+00	24"	GROUP 'D' PIPE (GA. No. 16 C.S.) (GA. No. 12 C.A.A.)	66'		1.5'	764.35	764.14	—	—			2	17
126	51+30 Lt.	15"	GROUP 'D' PIPE (GA. No. 16 C.S.) (GA. No. 12 C.A.A.)	24'		1.0'	769.40	767.00	—	—		CLASS II DRIVE REQ'D.	2	17
	LINE 'B'												2	17
127	527+50	12"	STD. INLET TYPE E-7 & GROUP 'A' PIPE (GA. No. 16 F.B.C.C.S./P.I.)	76'		3.7'	763.50	763.18	—	3.9		CONNECT TO SUBSURFACE DRAIN	1	17
128	525+62 Rt. 531+98 Rt.	6"	DRAIN TILE	576'			—	—	—	—		12" x 12" x 6" TEE REQ'D.		17
129	531+98	12"	GROUP 'L' PIPE	190'			—	—	—	—		CONNECT TO EXISTING 12" FIELD TILE LT. & RT. REMOVE F. TILE IN PLACE		17
130	531+50	36"	GROUP 'A' PIPE (GA. No. 16 F.B.C.C.S./P.I.)	166'		7'	759.75	759.50	—	15.1		REMOVE EXISTING DROP INLET.	2	17
131	539+44 Lt.	15"	GROUP 'D' PIPE (GA. No. 16 C.S.) (GA. No. 10 C.A.A.)	21'		2.5'	763.03	762.16	—	—		REMOVE EXISTING PIPE & DRIVE. CLASS II DRIVE REQ'D.	2	17
132	539+46 Rt.	15"	GROUP 'D' PIPE (GA. No. 16 C.S.) (GA. No. 12 C.A.A.)	26'		1.0'	764.75	763.90	—	—		CLASS III DRIVE REQ'D.	2	17
133	538+90	15"	EXISTING CONC. PIPE	—		—	—	—	0.20	—		SEAL & ABANDON. REMOVE HEADWALLS.	2	17
134	543+50	15"	STD. INLET TYPE E-7 & GROUP 'A' PIPE (GA. No. 16 F.B.C.C.S./P.I.)	72'		2.7'	762.05	762.00	—	4.7				17
135	544+21 Lt.	15"	GROUP 'D' PIPE (GA. No. 16 C.S.) (GA. No. 12 C.A.A.)	30'		1.0'	763.84	763.68	—	—		REMOVE EXISTING PIPE & DRIVE. CLASS III DRIVE REQ'D.	1	17
136	544+21 Rt.	15"	GROUP 'D' PIPE (GA. No. 16 C.S.) (GA. No. 16 C.A.A.)	26'		3.0'	761.50	761.10	—	—		CLASS II DRIVE REQ'D.	2	17
	ACCESS RD. No. 9												2	17
137	545+40	12"	GROUP 'D' PIPE (GA. No. 16 C.S.) (GA. No. 12 C.A.A.)	32'		1.0'	764.40	763.00	—	—				
138	547+20	12"	GROUP 'D' PIPE (GA. No. 16 C.S.) (GA. No. 12 C.A.A.)	30'		1.0'	761.50	761.20	—	—			2	17
	LINE 'B'												2	17
139	548+30 Lt.	12"	GROUP 'D' PIPE (GA. No. 16 C.S.) (GA. No. 12 C.A.A.)	20'		1.0'	759.00	758.80	—	—		CONSTRUCT INLET & OUTLET DITCHES.	2	17
140	548+30	15"	GROUP 'A' PIPE (GA. No. 16 F.B.C.C.S./P.I.)	86'			—	758.00	—	6.9		EXTEND PIPE IN PLACE.	1	17
141	548+33	6"	GROUP 'L' PIPE	100'			—	—	—	7.3		CONNECT TO EXIST. 4" F. TILE LT. & RT. REMOVE F. TILE IN PLACE		17
142	551+00	12"	STD. INLET TYPE E-7 & GROUP 'A' PIPE (GA. No. 16 F.B.C.C.S./P.I.)	80'		6.0'	754.90	754.75	—	7.7			1	17
143	552+32	8"	GROUP 'L' PIPE	100'			—	—	—	35.6		CONNECT TO EXIST. 8" F. TILE LT. & RT. REMOVE F. TILE IN PLACE		18
144	555+40	15"	GROUP 'A' PIPE (GA. No. 16 F.B.C.C.S./P.I.)	84'			—	750.50	—	—		EXTEND PIPE IN PLACE.	1	18
145	555+55	6"	GROUP 'L' PIPE	110'			—	—	—	—		CONNECT TO EXIST. 6" FIELD TILE LT. & RT. REMOVE F. TILE IN PLACE		18
		6"	C.S. PIPE (GA. No. 18)	6'			—	749.00	—	23.0				
146	558+00	12"	STD. INLET TYPE E-7 & GROUP 'A' PIPE (GA. No. 16 F.B.C.C.S./P.I.)	76'		3.4'	747.75	747.50	—	7.4		CONNECT TO SUBSURFACE DRAIN	1	18

STRUCTURE NUMBER	LOCATION	DESCRIPTION SIZE	DESCRIPTION	LENGTH "L"	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.	REMARKS	CULVERT PIPE END SECTION EACH	CULVERT PIPE END SECTION PLANS ON SHEET NO.
	LINE 'B' CONT'D.													
147	563+25 Rt.	6"	C.S. PIPE (GA. No. 18)	6'			—	—	—	—				
148	565+50	12"	STD. INLET TYPE E-7 & GROUP 'A' PIPE (GA. No. 16 F.B.C.C.S./P.I.)	82'		4.3'	738.55	737.00	—	12.0		1-45° BEND REQ'D.		18
149	566+00 Lt.	15"	GROUP 'D' PIPE (GA. No. 16 C.S.) (GA. No. 12 C.A.A.)	24'		1.0'	741.05	740.95	—	—			1	18
150	566+00 Rt.	36"	GROUP 'D' PIPE (GA. No. 16 C.S.) (GA. No. 10 C.A.A.)	36'		4'	736.33	735.75	—	—		REMOVE EXISTING PIPE. CLASS II DRIVE REQ'D.	2	18
151	568+15	36"	GROUP 'A' PIPE (GA. No. 16 F.B.C.C.S./P.I.)	148'		3'	736.08	732.53	—	26.2		CLASS I DRIVE REQ'D.	2	18
	LINE 'A'											REMOVE EXISTING STRUCTURE.	2	18
151A	2+40 Lt.	12"	GROUP 'D' PIPE (GA. No. 16 C.S.) (GA. No. 12 C.A.A.)	42'		1.0'	635.90	635.70	—	—				
152	6+70	36"	GROUP 'A' PIPE (GA. No. 16 F.B.C.C.S./P.I.)	176'		6'	730.22	723.23	—	42.6		CLASS IV DRIVE REQ'D. REMOVE EXISTING STRUCTURE	2	18
153	6+00	15"	STD. INLET TYPE E-7 & GA. No. 16 PIPE (F.B.C.C.S./P.I.) 2-22° 30' BENDS REQ'D.	108'		3.1'	930.61	721.71	—	3.6		REMOVE EXISTING STRUCTURE.	2	18
	LINE 'S-1-A'											CONNECT TO SUBSURFACE DRAIN	1	18
154	51+20		S.P.S. ARCH (MIN. AREA = 43 S.F.) OR GROUP R1 PIPE (SEE SPEC. PROVISIONS)	84'		2.5'	720.40	719.50	4.72	—		STRUCTURAL PLATES: GA. No. 12 T.F.S. GA. No. 10 BOTTOM STR. PLATE PIPE ANCHORS REQ'D. AT EACH END. REMOVE EXIST. STRUCTURES		18
155	55+75 Rt.		S.P.S. ARCH (MIN. AREA = 38 S.F.) OR GROUP R1 PIPE (SEE SPEC. PROVISIONS)	70'		2.5'	726.90	726.00	4.37	—		STRUCTURAL PLATES: GA. No. 12 T.F.S. GA. No. 10 BOTTOM STRUCTURAL PLATE PIPE ANCHORS REQ'D. AT BOTH ENDS. COMM. DRIVE REQ'D.		20
	LINE 'A'												1	18
156	10+00	12"	STD. INLET TYPE E-7 & GA. No. 16 PIPE (F.B.C.C.S./P.I.) 2-22° 30' BENDS REQ'D	102'		4.2'	721.50	717.13	—	3.6				
157	10+62 Rt.	6"	C.S. PIPE (GA. No. 18)	6'			—	—	—	—		NO PIPE END SECTION REQ'D.		19
158	11+22 Rt.		S.P.S. ARCH (MIN. AREA = 55 S.F.) OR GROUP R2 PIPE (SEE SPEC. PROVISIONS)	60'		8'	716.20	716.10	8.46	—		STRUCTURAL PLATES: GA. No. 12 T.F.S. GA. No. 10 BOTTOM STR. PLATE PIPE ANCHORS REQ'D. AT EACH END. CLASS II DRIVE REQ'D.		19
	OLD U.S. No. 31 (PAPER RELOCATION)													
159	0+80	24"	GROUP 'D' PIPE (GA. No. 16 C.S.) (GA. No. 16 C.A.A.)	62'		3.0'	723.25	720.85	—	—		REMOVE EXISTING PIPE	2	19
	LINE 'A'													
160	13+00	11'-3" x 6'-9"	EXIST. STRUCT. PLATE STEEL ARCH (MIN. AREA = 55 SQ. FT.)	84'	15°		715.25	—	2.73	—		EXTEND ON RIGHT. STR. PLATES: GA. No. 12 TOP & SIDES, GA. No. 10 BOTTOM STR. PLATE PIPE ANCHOR REQ'D. AT INLET END ONLY. FIELD CONNECT TO EXISTING STRUCTURE		19
161	15+50	12"	STD. INLET TYPE E-7 & GROUP 'A' PIPE (GA. No. 16 F.B.C.C.S./P.I.)	76'		3.1'	726.25	723.90	—	—			1	19
162	16+50 Rt.	15"	GROUP 'D' PIPE (GA. No. 16 C.S.) (GA. No. 16 C.A.A.)	30'		3.0'	722.10	721.90	—	—		CLASS II DRIVE REQ'D.	2	19
163	17+20 Rt.	15"	GROUP 'D' PIPE (GA. No. 16 C.S.) (GA. No. 16 C.A.A.)	30'		4.0'	721.75	721.55	—	—		CLASS II DRIVE REQ'D.	2	19
							TOTAL		255.82	3011.5	51,791			

UNDISTRIBUTED QUANTITIES

6"	GROUP 'L'	2400
8"	GROUP 'L'	1600
10"	GROUP 'L'	800
6"	DRAINTILE	2400
8"	DRAINTILE	1600
10"	DRAINTILE	800

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

November 6, 1961

10/1/65

PROJECT NO.	LINE	SHEET NO.	TOTAL SHEETS	FILE
F 70(10)		39	242	

Rev. 10-17-68. Eliminated Access Rd. No. 2 and Added Cl. IV Dr. @ Sta. 410+94, Rt. 'B'

TABLE OF QUANTITIES AND APPROACHES

FED. ROAD REGION NO.	STATE	F PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
4	IND.	70(10)	1964	40	242

DESIGN DATA AND QUANTITIES BASED ON MAX. OF 10% GRADE EXCEPT AS NOTED **

Location	Description	Excavation Cu. Yds. Cut	Excavation Cu. Yds. Fill	Width 'W'	Radii 'R'	Grade Less Than 10% Not Shown	Length 'L'	Distance Beyond R/W Line	Compacted Aggregate Type 'P' Base – Sq. Yards 3"	5"	8"	11"	12"	Bituminous Surface Tons 90#/SYD	135#/SYD	Bituminous Base Tons 240#/SYD	295#/SYD	8" Cement Concrete Base Sq. Yds.	8" C.R.C. Pavement SYS.	Bituminous Curb LFT.	Conc. Curb LFT.	Bitum. Mixt. for Approach Tons	Reinf. Steel for Pavement LBS.	1" Preformed Expan. Joint w/Load Trans. LFT.	Bitum. Mat'l for Prime Tons	R.C. Gutter Lin. Ft.	1" Preformed Joint Filler LFT.	6" Plain Cem. Conc. Pav't SYS.
Line 'B'																												
Sta. 262+26.59 - Sta. 254+18	Temp. X-over Type I	See cross	sections	See	Spec.	Detail	on Sheet	#25 (2)		934 (1)				193		67		1019		365			173		X			
Line 'S-7-B'	(Wood Rd.) at	Sta. 264	+18 'B'	Lt. &	Rt.																							
Sta. 2+58 Lt.	V	0	3	12'	15'&25'		25'	21'																				
Sta. 2+58 Rt.	V	0	3	12'	15'&25'		25'	21'																				
Sta. 3+51	Public Road Appr. Type 'B'	18	62	See	Std. Detail					175									99			29	151		0.26		10	
	Lt. Turn Lane	See cross	sections	See	Spec.	Detail	on Sheet	#30											362				223					
	Public Road X-over	0	51	See	Spec.	Detail	on Sheet	#30											185				102	47			20	
	Lt. Turn Lane	See cross	sections	See	Spec.	Detail	on Sheet	#30											362				223					
Sta. 4+49	Public Rd. Appr. Type 'B'	25	57	See	Std. Detail					165									99			27	151		0.24		10	
Sta. 5+58 Lt.	V	0	1	12'	15'&25'		25'	21'																				
Sta. 5+58 Rt.	II	2	0	12'	15'&25'		25'	21'	54													9			0.08			
Line 'S-8-B'	(Old S.R. 218)	at Sta.	290+59.5	'B'	Lt.																							
Sta. 820+58 Lt.	II	35	6	12'	15'&25'		110'	88'	167													28			0.24			
Sta. 824+10.3	Special Public Road Approach	—	—	See	Spec.	Detail	on Sheet	#26		99												16			0.14			
	Rt. Turn Lane	See cross	sections	See	Spec.	Detail	on Sheet	#26											347				115					
	Public Road Crossover	0	51	See	Spec.	Detail	on Sheet	#26											407				115	87			20	
	Lt. Turn Lane	See cross	sections	See	Spec.	Detail	on Sheet	#26											396				238				5	
Line 'B'																												
Sta. 290+59.5 Rt.	Public Rd. Appr. Type 'B' Bitum. Surf.	3	150	28'	25'		96'			304												58			0.44			
Access Rd. No. 1 Sta. 290+73.5 - Sta. 296+64																												
	Public Rd. Graded Only	438	501	28'	25'		590.5'																					
Line 'S-9-B'	(Twp. Line Rd.) at	Sta. 316+13.3	'B' Rt.																									
	Lt. Turn Lane	See cross	sections	See	Spec.	Detail	on Sheet	#26											484				234	[illegible]				
	Public Road Crossover	0	51	See	Spec.	Detail	on Sheet	#26											269				162	6[illegible]			20	
Sta. 50+51	Public Road Appr. Type A	71	0	See	Std. Detail					360									99			60	151		0.53		10	
Sta. 51+78 Rt.	V	1	3	12'	15'&25'		25'	23'																				
Line P.R. #1																												
Sta. 342+58 - 352+25	Temp. X-over Type II	357	0	Var. 8-24'			875'											1582										
Sta. 358+96	Priv. Dr. Crossover	0	25	See	Std. Detail																		125	12			20	130
Sta. 358+96 Rt.	II Combined	0	15	18'	5'&20'		27		64													11			0.09			
Sta. 354+13 Rt.	Comm. Drive III	6	19	48'	See plan		41'			182												30			0.27			

DESIGN DATA AND QUANTITIES BASED ON MAX. OF 10% GRADE EXCEPT AS NOTED **

Location	Description	Excavation Cu. Yds. Cut	Excavation Cu. Yds. Fill	Width 'W'	Radii 'R'	Grade Less Than 10% Not Shown	Length 'L'	Distance Beyond R/W Line	Compacted Aggregate Type 'P' Base – Sq. Yards 3"	5"	8"	11"	12"	Bituminous Surface Tons 90#/SYD	135#/SYD	Bituminous Base Tons 240#/SYD	295#/SYD	8" Cement Concrete Base Sq. Yds.	8" C.R.C. Pavement SYS.	Bituminous Curb LFT.	Conc. Curb LFT.	Bitum. Mixt. for Approach Tons	Reinf. Steel for Pavement LBS.	1" Preformed Expan. Joint w/Load Trans. LFT.	Bitum. Mat'l for Prime Tons	R.C. Gutter Lin. Ft.	1" Preformed Joint Filler LFT.	6" Plain Cem. Conc. Pav't SYS.
Line P.R. 1 (Cont.)																												
Sta. 356+36 Rt.	Comm. Dr.	3	9	30'	10'		45'			141												23			0.21			
Line 'S-10-B'	(S.R. 218 South) at	Sta. 356+87.51	P.R. #1, Rt.																									
	Lt. Turn Lane	See cross	sections	See	Spec.	Detail	on Sheet	#27											760				310					
	Public Rd. Crossover	0	51	See	Spec.	Detail	on Sheet	#27											319				162	79			20	
	Rt. Turn Lane	See cross	sections	See	Spec.	Detail	on Sheet	#27											665				302					
Sta. 50+41.47	Special Public Rd. Approach	167	93	See	Spec.	Detail	on Sheet	#27				781		35			111								1.14			
Sta. 51+55 Rt.	Comm. Dr.	6	3	48'	10'		12'			58												10			0.09			
Sta. 52+30 Lt.	IV	2	4	20'	20'		250'	230'		594												98			0.87			
	Temporary Runaround	54	47	14'	See Spec. Det. on Sheet #27		266.1'						710												X			
Line P.R. #1																												
Sta. 376+00 Rt.	Rt. Turn Lane	See cross	sections	See	Spec.	Detail	on Sheet	#28											396				223					
Sta. 376+00 Rt.	Special Public Rd. Approach	See cross	sections	See	Spec.	Detail	on Sheet	#28											115				76				10	
Line 'S-14-B' (Entrance to Bunker Hill A.F.B. Sta. 380+16.77 P.R. #1 Lt.)																												
Sta. 47+75 Rt.	II	0	14	12'	15'&25'		25'		54													9			0.08			
Sta. 47+75 Lt.	V	0	33	12'	15'		15'																					
Sta. 46+93.74	Special Appr.	468	0	See	Spec.	Detail	on Sheet	#28 (3)		894												148			1.31			
	Rt. Turn Lane	See cross-	sections	See	Spec.	Detail	on Sheet	#28											732				295					
	Lt. Turn Lane	See cross-	sections	See	Spec.	Detail	on Sheet	#28											361				223					
	Special Crossover	0	51	See	Spec.	Detail	on Sheet	#28											234				204	48			20	
	Lt. Turn Lane	See cross-	sections	See	Spec.	Detail	on Sheet	#28											628				295					
Line P.R. #1																												
Sta. 380+16.77 Rt.	Special Public Road Approach	0	38	See	Spec.	Detail	on Sheet	#28											191				173				20	
Frontage Rd. #1 (Existing U.S. 31 Sta. 368+50 to Sta. 382+77 Line 'B' to Remain)																				1073								
P.O.T. Sta. 390+69.86 Left																				85	120					45		
P.O.T. Sta. 390+69.86 Right																				100	120					45		
Sta. 395+48	Private Dr. Crossover	0	25	See	Std. Detail																		125	12			28	130
Sta. 395+48 Rt.	II	87	70	12'	5'&20'	11.8%	98'		141																			
Sta. 410+94, Rt.	IV		687	24'			79'			211												23 / 35			0.21 / 0.30			
Access Rd. No. 2 Sta. 0+00 to Sta. 4+58.5 @ Sta. 415+50.3 'B', 137' Rt.																												
	Bitum. Surf.	799	1398	18'	See plan		458.5'			906				41		129									1.32			

** APPROACHES REQUIRING GRADES OVER 10% WILL BE SPECIAL CASES
PROPOSED RELOCATED DRIVES WILL BE SHOWN ON THE PLANS OR DESCRIBED UNDER "REMARKS".
(1) COMPACTED AGG. BASE FOR SHOULDERS. SEE DETAILS ON PLAN SHEET NO. 25
(2) FOR ADDITIONAL TEMP. X-OVER QUANTITIES SEE PLAN SHEET NO. 25
(3) SEE DETAIL ON PLAN SHEET NO. 28 FOR 82 LFT. OF CONC. CENTER CURB TYPE B AND 79 SQ.YDS. OF CONC. SIDEWALK

DETAILS

10/1/65

Proj. No.	Line	Sheet No.	File
F-70 (8)		40	

Rev. 10-17-68. Cl. IV Dr. @ Sta. 415+50.3, Rt. Line 'B'.

Rev. 11-6-69 ACCESS ROAD NO 4A

FED. ROAD REGION NO.	STATE	F PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
4	IND.	70(10)	1964	41	242

Rev. 6-30-69 Access Road No. 4 Bit. Surface Ac...

TABLE OF QUANTITIES AND APPROACHES

DESIGN DATA AND QUANTITIES BASED ON MAX. OF 10% GRADE EXCEPT AS NOTED**

Location	Description	Excavation Cu. Yds. Cut	Excavation Cu. Yds. Fill	Width 'W'	Radii 'R'	Grade Less Than 10% Not Shown	Length 'L'	Distance Beyond R/W Line	Compacted Aggregate Type 'P' Base – Sq. Yards 3"	5"	8"	11"	12"	Bituminous Surface Tons 90#/SYD	135#/SYD	Bituminous Base Tons 240#/SYD	295#/SYD	8" Cement Concrete Base Sq. Yds.	8" C.R.C. Pavement SYS.	Bituminous Curb LFT.	Conc. Curb LFT.	Bitum. Mixt. for Approach Tons	Reinf. Steel for Pavement LBS.	1" Preformed Expan. Joint w/Load Trans. LFT.	Bitum. Mat'l for Prime Tons	R.C. Gutter Lin. Ft.	1" Preformed Joint Filler LFT.	6" Plain Cem. Conc. Pav't SYS.
Line 'S-11-B' (S.R. 218 North) at Sta. 415+50.3 B, Lt.																												
Sta. 219+50 Rt.	V	0	15	12'	15'&25'		27'																					
Sta. 220+82.62	Special Public Road Approach	289	41	See	Spec. Detail on Sheet #27								733	33			105						291		1.07			
	Rt. Turn Lane	See Cross-Sections		See	Spec. Detail on Sheet #27 (S.B.)														691				301					
	Lt. Turn Lane	See Cross-Sections		See	Spec. Detail on Sheet #27 (S.B.)														515				280				5	
	Public Rd. Crossover	0	51	See	Spec. Detail on Sheet #27														319				280	52				
	Lt. Turn Lane	See Cross-Sections		See	Spec. Detail on Sheet #27 (N.B.)														664				295				20	
	Rt. Turn Lane	See Cross-Sections		See	Spec. Detail on Sheet #27 (N.B.)														687				280					
Line "B"																												
Sta. 415+50.3, Rt.	~~[illegible]~~	Cl. IV Dr.		See	Spec. Detail on Sheet #27					233 (~~361~~)												11 (~~60~~)			0.34 (~~0.53~~)			
	Temporary [illegible]	289	3	24'	See Spec. Detail		310.6						826												X			
Frontage Rd. No. 2 Sta. 0+00 - 3+14.0 @ Sta. 219+70 'S-11-B', Lt.																												
	Public Road Bitum. Surface	579	41	18'	See Plan		303.9'			634				29		76									0.93			
Line 'B'																												
Sta. 426+50 Lt.	II	7	26	12'	5'&20'		45		70													12			0.10			
Sta. 426+58	Pub. Rd. X-Over Type 'F'	0	51	See	Std. Detail														313				238	47			20	
Sta. 426+50 Rt.	Public Road Appr. Type 'C'	—	—	See	Std. Detail			(See PR#2 for Quantities)																				
Sta. 426+58 Rt.	III	59	8	18'	20'	10%	64'	22		148												24			0.22			
Line P.R.#2 (Riggle Rd.) Sta. 0+00 - 5+00 @ Sta. 426+50 'B', Rt.																												
	Public Road Bitum. Surface	2173	0	28'	See Plan		451'				961				60				99						1.40		10	
Sta. 3+58 Lt.	III	51	3	18'	20'	10%	44'	19'		107												18			0.16			
Access Rd. No. 3 Sta. 426+59 - Sta. 428+52 'B', 140' Rt.																												
	Public Road Graded Only	761	246	28'	25'		193'																					
Line 'B'																												
Sta. 432+74 Rt.	IV	1005	8	18'	10'	10%	136	84'		277												46			0.12			
Sta. 432+74	Comm. Dr. Crossover	0	32	See	Std. Detail														197				125	24			20	
Access Rd. No. 4 Sta. 0+00 - Sta. 2+76 @ Sta. 440+25 'B', Lt.																												
	Type 'D' Appr. ~~[illegible]~~	1370	0	28'	See Plan		223'				476			22		57									0.69			
Line 'B'																												
Sta. 440+25	Spec. Comm. Dr. X-Over	0	25	40'	19'&31'		50'												286				125	30			20	
Access Rd. No. 4A Sta. 440+25 to 441+78 B, 135' Rt.																												
		120	1012	40'-20'	35'		231'			915 (~~792~~)				42 (~~36~~)		111 (~~96~~)									1.16			
Sta. 440+25 Rt.	II	5	0	12'	25'				48													8			0.07			
[illegible]				27'						67				3		8												

DESIGN DATA AND QUANTITIES BASED ON MAX. OF 10% GRADE EXCEPT AS NOTED**

Location	Description	Excavation Cu. Yds. Cut	Excavation Cu. Yds. Fill	Width 'W'	Radii 'R'	Grade Less Than 10% Not Shown	Length 'L'	Distance Beyond R/W Line	Compacted Aggregate Type 'P' Base – Sq. Yards 3"	5"	8"	11"	12"	Bituminous Surface Tons 90#/SYD	135#/SYD	Bituminous Base Tons 240#/SYD	295#/SYD	8" Cement Concrete Base Sq. Yds.	8" C.R.C. Pavement SYS.	Bituminous Curb LFT.	Conc. Curb LFT.	Bitum. Mixt. for Approach Tons	Reinf. Steel for Pavement LBS.	1" Preformed Expan. Joint w/Load Trans. LFT.	Bitum. Mat'l for Prime Tons	R.C. Gutter Lin. Ft.	1" Preformed Joint Filler LFT.	6" Plain Cem. Conc. Pav't SYS.
Line 'B'																												
Sta. 446+15 Lt.	II	8	147	12'	5'&20'	13.9%	90'	40'	130													22			0.19			
Sta. 446+15	Private Drive Crossover	0	25	See	Std. Detail																		125	12			20	130
Access Rd. No. 5 @ Sta. 450+60 Lt.																												
	Public Rd. Appr. Type 'D' - Bitum. Sur.	0	2322	18'	25'	See Profile	251'			532				24		64												
Line 'B'																												
Sta. 450+60	Comm. Drive Crossover	0	32	See	Std. Detail														197				125	24			20	
Access Rd. No. 5A Sta. 450+75 to Sta. 452+16 B, 135' Rt.																												
		106	46	18'	15'&25'		240'			547				25		66												
Sta. 450+75 Rt.	II	5	0		15'		15'		31																0.80			
Sta. 453+85 Rt.	II			12'	15'&25'	20%	86'		135													5			0.05			
Sta. 454+00	Spec. Comm. Dr. X-Over	0	25	40	19'&31'		50'												341			22	125	50	0.20		20	
Sta. 454+18 Lt.	II	4	132	12	15'&25'	10%	81'	22'	128													21						
Sta. 454+23 Rt.	II	3	28	12'	15'&25'		64'		106													18						
Sta. 459+60 Lt.	II	57	46	12'	5'&20'		96'	46'	138													23						
Sta. 459+68	Comm. Dr. Crossover	0	32	See	Std. Detail														197				125	24			20	
Class II Drive On Lt. Sta. 459+66 to Sta. 460+90 'B', 135' Lt.																												
	II	288	10	12'	15'&25'		124'	124'	186													31			0.27			
Access Rd. No. 6 Sta. 0+00 to Sta. 3+56.7 @ Sta. 459+60 'B', Rt.																												
	Public Rd. Appr. Type 'D' - Bitum. Surf.	1226	71	18'	See Plan		307.7'			645				29		77									0.94			
Sta. 1+05 Rt.	V	8	2	12'	15'&25'	17%	25'	4'																				
Line 'B'																												
Sta. 463+85	Pvt. Dr. X-Over	0	25	See	Std. Detail																		125	12			20	130
Sta. 463+85 Rt.	II	11	3	12'	5'&20'		52		80													13			0.12			
Temporary Turnaround Sta. 461+42.6 - Sta. 469+51.4																												
		755	0	24'	See Spec. Detail on Sheet #32								1958												X			
Access Rd. No. 7 Sta. 0+00 to Sta. 6+00 @ Sta. 48+60 'S-12-B' Rt.																												
	Bitum. Surface	5269	28	18'	20' See Plan		589'	549'		1197				54		144									1.75			
Line 'S-12-B' (Bowers & Winkle Rd.) At Sta. 411+66.5 Line B Lt. & Rt.																												
Sta. 49+51	Special Public Road Approach	47	8	See	Spec. Detail on Sheet #29					229									280			38	477		0.33			
	Lt. Turn Lane	See Cross-Sections		See	Spec. Detail on Sheet #29														362				223					
	Public Rd. Crossover	0	51	See	Spec. Detail on Sheet #29														185				204	46			20	
	Lt. Turn Lane	See Cross-Sections		See	Spec. Detail on Sheet #29														362				223					

** APPROACHES REQUIRING GRADES OVER 10% WILL BE SPECIAL CASES.
PROPOSED RELOCATED DRIVES WILL BE SHOWN ON THE PLANS OR DESCRIBED UNDER "REMARKS".

DETAILS

BWR 10/1/65

Proj. No.	Line	Sheet No.	File
F-70 (10)		41	

Rev. 10-17-68. Qty Totals.
Rev. 1-27-67-Access Rd #8, Temp R/W.

FED. ROAD REGION NO.	STATE	F PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
4	IND.	70(10)	1964	42	242

TABLE OF QUANTITIES AND APPROACHES

DESIGN DATA AND QUANTITIES BASED ON MAX. OF 10% GRADE EXCEPT AS NOTED **

Location	Description	Excavation Cu. Yds. Cut	Excavation Cu. Yds. Fill	Width 'W'	Radii 'R'	Grade less than 10% not shown	Length 'L'	Distance beyond R/W line	Compacted Aggregate Type 'P' Base – Sq. Yards 3"	5"	8"	11"	12"	Bituminous Surface Tons 90#/SYD	135#/SYD	Bituminous Surface Tons 240#/SYD	295#/SYD	8" Cement Concrete Base Sq. Yds.	8" C.R.C. Pavement SYS.	Bituminous Curb Lin. Ft.	Conc. Curb LFT.	Bitum. Mixt. for Approach Tons	Reinf. Steel for Pavement LBS.	1" Preformed Expan. Joint w/Load Trans LFT.	Bitum. Mat'l for Prime Tons	R.C. Gutter Lin. Ft.	1" Preformed Joint Filler LFT.	6" Plain Cem. Conc. Pav't SYS.
Line 'S-12-B'	(Cont.)									178																		
Sta. 50 + 49	Public Rd. Approach Type B	—	—	See	Std.	Detail																						
																			99			30	151		0.26		10	
Sta. 55+15 Lt.	II	7	105	12'	15'&25'		175'	145'	254																			
																						42			0.37			
Line 'B'																												
Sta. 494+28 Lt	II	0	7	12'	5'&20'		40'		64																			
																						11			0.09			
Sta. 494+28	Comm. Dr. X-over	0	32	See	Std.	Detail																						
																			197				125	24			20	
Sta. 494+28 Rt.	III	18	527	20'	See Plan		283'	148'		456																		
																						75			0.67			
Temporary Runaround Sta. 494+17.6 to Sta. 507+40.6																												
		754	0	24'	See Special Detail on Sheet #32		1346.1'						3288															
Sta. 504+88 - 5[illegible]+00	Temp. X-over Type II	—	—	24'	See Special Detail on Sheet #32		200'											267										
Sta. 515+40	Comm. Drive Crossover	0	37	40	19'&31'		50'																					
																			286				125	24			20	
Sta. 515+48 Rt	Special Public Road Appr. Bitum. Surf.	36	52	28'	35'		85'			287																		
																						48			0.42			
Access Rd. No. 8 Sta. 511+17 to Sta. 515+28 'B', 125' Rt.																												
	Public Road Bitum. Surface	461	113	18'	30'		411'			852				38		102												
Sta. 514+64.5	Comm. Dr.			20'	15'-60'		60'	44'		225															1.24			
Sta. 515+54.0	Comm. Dr.			18'	30'		30'	19'		82												37			0.33			
Line 'S-13-B'	(Nead Rd.)	At Sta. 524+42.1 'B' Lt. & Rt.																				14			0.12			
Sta. 48+98 Lt	IV	8	1	18'	20'		28'	12'		59																		
																						10			0.09			
Sta. 49 + 51	Special Public Road Approach	—	—	See	Spec.	Detail	on Sheet #29			234																		
																						39			0.34			
	Rt. Turn Lane	See Cross Sections		See	Spec.	Detail	on Sheet #29																					
																			440				230					
	Lt. Turn Lane	See Cross Sections		See	Spec.	Detail	on Sheet #29																					
																			362				223					
	Public Rd. Crossover	0	51	See	Spec.	Detail	on Sheet #29																					
																			185				204	48			20	
	Lt. Turn Lane	See Cross-Sections		See	Spec.	Detail	on Sheet #29																					
																			362				223					
	Rt. Turn Lane	See Cross-Sections		See	Spec.	Detail	on Sheet #29																					
																			440				230					
Sta. 50 + 49	Special Public Road Approach	97	8	See	Spec.	Detail	on Sheet #29			331																		
																						55			0.48			
Sta. 51+30 Lt.	II	1	6	12'	15'&25'		25'	18'	54																			
																						9			0.08			
Line B																												
Sta. 533+44 Lt.	II	0	10	12'	5'&20'		40'	10'	64																			
																						11			0.09			
Sta. 533+44	Priv. Dr. Cross-over	0	25	See	Std.	Detail																						
																							125	12			20	130
Sta. 533+44 Rt.	IV	0	23	18'	10'		40'			85																		
																						14			0.12			
Sta. 544+21 Lt.	Public Road Appr. Type 'A' Bitum. Surf.	43	18	20'	20'		46			132																		
																						22			0.19			
Sta. 544+21	Comm. Drive X-over	30	5	See	Std.	Detail																						
																			197				125	24			28	
Sta. 544+21 Rt.	II	0	48	12'	5'&20'		40'		64																			
																						11			0.09			
Access Rd. No. 9 Sta. 544+11 to Sta. 547+50 'B' 104' Lt.																												
	Public Road Bitum. Surface	708	7	18'&20'	20'&25'		339			688				31		83												
																									1.00			
Sta. 544+11 Lt.	V	2	0	12'	5'&20'		15'																					
Sta. 545+60 Lt.	II	13	0	12'	15'&25'		25'	14'	54																			
																						9			0.08			
Sta. 547+40 Lt.	II	8	0	12'	15'		25'	14'	44																			
																						7			0.06			

DESIGN DATA AND QUANTITIES BASED ON MAX. OF 10% GRADE EXCEPT AS NOTED **

Location	Description	Excavation Cu. Yds. Cut	Excavation Cu. Yds. Fill	Width 'W'	Radii 'R'	Grade less than 10% not shown	Length 'L'	Distance beyond R/W line	Compacted Aggregate Type 'P' Base – Sq. Yards 3"	5"	8"	11"	12"	Bituminous Surface Tons 90#/SYD	135#/SYD	Bituminous Base Tons 240#/SYD	295#/SYD	8" Cement Concrete Base Sq. Yds.	8" C.R.C. Pavement SYS.	Bituminous Curb LFT.	Conc. Curb LFT.	Bitum. Mixt. for Approach Tons	Reinf. Steel for Pavement LBS.	1" Preformed Expan. Joint w/Load Trans LFT.	Bitum. Mat'l for Prime Tons	R.C. Gutter Lin. Ft.	1" Preformed Joint Filler LFT.	6" Plain Cem. Conc. Pav't SYS.
Access Rd. No. 9	(continued)																											
Sta. 547+50 Lt.	II	17	29	12'			207'		282																			
Line 'B'																						47			0.41			
Sta. 566+00 Lt.	II	5	0	12'	5'&20'		28'		48																			
																						8			0.07			
Sta. 566+00	Private Dr. Crossover	0	25	See	Std.	Detail																						
																							125	12			20	130
Sta. 566+00 Rt.	II	413	172	12'	5'&20'		314'	254'	429																			
																						71			0.63			
Line 'S-1-A' (Maugans Rd) At Sta. 1+09.8 'A' Lt. & Rt.																												
Sta. 49 + 51	Public Road Approach Type D	—	—	See	Std.	Details				93																		
																			53			15	87		0.14		10	
	Lt. Turn Lane	See Cross-Sections		See	Spec.	Details	on Sheet #30																					
																			354				217				5	
	Public Road Cross Over	0	51	See	Spec.	Details	on Sheet #30																					
																			248				102	46			20	
	Rt. Turn Lane	See Cross-Sections		See	Spec.	Details	on Sheet #30																					
																			433				230					
Sta. 50 + 49	Special Public Road Approach	373	362	See	Spec.	Details	on Sheet #30			624																		
																						183			0.91			
Sta. 55+75 Rt.	Comm. Drive	3	471	40'	75'	10%	83'	70'		399																		
																						66			0.58			
Line 'A'																												
Sta. 2 + 40 Lt.	IV	12	0	30'	20'		86'			258																		
																						43			0.38			
Sta. 2 + 40	Comm. Drive Crossover	0	32	30'	19'&31'		50'																					
																			230				125	30			20	
Old U.S. #31 Sta. 0+00 to Sta. 2+00 At Sta. 11+23 'A', Lt.																												
Sta. 0+55 Rt.	IV	17	0	See on Sheet #30	Spec.	Detail	33			129																		
																						21			0.19			
Sta. 1+47.9	Special Public Road Approach	23	856	See	Spec.	Detail	on Sheet #30			687																		
																						113			1.00			
	Rt. Turn Lane	See Cross-Sections		See	Spec.	Detail	on Sheet #30																					
																			352				191				5	
	Public Rd. Cross Over	0	51	See	Spec.	Detail	on Sheet #30																					
																			267				178	49			25	
	Lt. Turn Lane	See Cross-Sections		See	Spec.	Detail	on Sheet #30																					
Line 'A'																			566				102				10	
Sta. 11+22 Rt.	IV	11	1025	20'	10'		100'			227																		
																						38			0.33			
Sta. 13+60 Rt.	II	36	126	12'	5'&20'		85'		125																			
																						21			0.18			
Sta. 16+50 Rt.	II	107	73	12'	5'&20'	10%	80'	30'	117																			
																						19			0.17			
Sta. 16+85	Priv. Dr. Cross-over	0	25	See	Std.	Detail																						
																							125	12			20	130
Sta. 17+20 Rt.	II	41	106	12'	5'&20'	10%	80	38'	117																			
																						19			0.17			
Sta. 18+15 - 20+04	Temp. X-over Type II	13	138	24'	150'	See	Spec. Detail on Sheet #31											309										
										13,484				327		774						1,946			29.53			
							TOTALS		3248	16,307	961	781	733	568	60	903	216	3177	18,194	1623	240	1960	11,761	949	30.94	90	665	910

** APPROACHES REQUIRING GRADES OVER 10% WILL BE SHOWN ON THE PLANS OR DESCRIBED UNDER "REMARKS"
PROPOSED RELOCATED DRIVES WILL BE SHOWN ON THE PLANS OR DESCRIBED UNDER "REMARKS"

DETAILS

10/1/65

Proj. No.	Line	Sheet No.	File
F-70 (10)		42	

DEMOLITION PORTION ITEMS

PARCEL NUMBER	DESCRIPTION OF STRUCTURE	LOCATION
(1)	HOUSE	STA 257+82, 39'Rt. LINE 'B'
(11)	HOUSE	STA 398+78, 28'Lt. LINE 'B'
(12)	HOUSE GARAGE	STA 413+73, 90.5'Lt. LINE 'B' STA 413+27, 109'Lt. LINE 'B'
(14)	BARN With (2) Attached SHEDS	STA 425+30, 20'Lt. LINE 'B'
(29)	HOUSE	STA 530+68, 14'Rt. LINE 'B'
(35)	BARN GARAGE With Attached SHED	STA 494+61, 98'Rt. LINE 'C' STA 493+30, 10.1'Rt. LINE 'B'
(36)	HOUSE SHED	STA 495+25, 57'Lt. LINE 'B'
(40)	HOUSE	STA 521+42, 72'Rt. LINE 'B'
(42)	HOUSE With Attached FRAME BUILDING QUONSET HUT	STA 525+80, 48'Rt. LINE 'B' STA 526+00, 52'Rt. LINE 'B'
(44)	HOUSE TOOL SHED PRIVY	STA 527+27, 47'Rt. LINE 'B'
(45)	BLOCK SILO GARAGE And SHED SHED HOUSE	STA 541+32, 102'Rt. LINE 'B' STA 535+16, 98'Rt. LINE 'B' STA 534+42, 10'Rt. LINE 'B'
(53)	HOUSE (FRAME)	STA 01+39.97'Lt. LINE 'A'
(59)	HOUSE SHED TOOL SHED BARN With Attached SHED	STA 278+13, 22'Rt. STA 277+66, 91'Rt. STA 279+29, 98'Rt. STA 280+70, 66'Rt.

PARCEL NUMBER	DESCRIPTION OF STRUCTURE	LOCATION

Rev. 10-17-68. Qty Totals
Rev. 1-15-69. Add. Str. No. 46-A.
Rev. 4-29-69 Cl. "D" Conc. & Reinf. Steel
REV. [illegible] CHGD 8" F.B.C.C.M.
REV. 6-31-69 ADDED BIT. QUANTITIES ACCESS RD. [illegible]
REV. 11-6-69 ADDED QUANTITIES FOR ACCESS RD. No. 4A

FEDERAL ROAD REGION NO.	STATE	PROJECT	YEAR	SHEET NO.	TOTAL SHEETS
4	IND.	F-708(1)	1964	43	242

Rev. 6-29-65; Eliminate "Reset" Ch. Security Fence - See [illegible]
Rev.-2-5-69. Added Qty's for Bitum. Shld's.

ESTIMATE OF QUANTITIES

GRADING

ITEM	UNIT	QUANTITY
CLEARING RIGHT-OF-WAY		LUMP SUM
LINEAR GRADING	MILE	
COMMON EXCAVATION	CYS	505,380
SOLID ROCK EXCAVATION	CYS	
WATERWAY EXCAVATION	CYS	
CLASS "Y" EXCAVATION	CYS	
WET EXCAVATION	CYS	
UNCLASSIFIED EXCAVATION	CYS	
SPECIAL BORROW	CYS	
OVERHAUL	CYS	
ADDED HAUL	UNITS	
WASTE	CYS	
PEAT EXCAVATION	CYS	
PEAT EXCAVATION 15 TO 25 FT.	CYS	
PEAT EXCAVATION 25 TO 35 FT.	CYS	
SURCHARGE 4'	LFT	
SURCHARGE 4'-8'	LFT	
SURCHARGE 8'-12'	LFT	
SURCHARGE 12'-16'	LFT	
SURCHARGE 16'-20'	LFT	
SURCHARGE 20'-24'	LFT	
MACHINE OPERATION	HRS	
MACHINE AVAILABILITY	HRS	
2" CASED TEST HOLE	LFT	
4" CASED TEST HOLE	LFT	
6" CASED TEST HOLE	LFT	
2" CASED DYNAMITE HOLES	LFT	
4" CASED DYNAMITE HOLES	LFT	
6" CASED DYNAMITE HOLES	LFT	
GRADE "B" SPECIAL BORROW	CYS	1345
GRADE "B" SPECIAL BORROW FOR STRUCTURE BACKFILL	CYS	4022
PAVEMENT REMOVAL	SYS	50,886
SALVAGED PAVEMENT	SYS	
SURFACE REMOVAL	SYS	4093
BREAKING PAVEMENT	SYS	5024
CURB REMOVAL	LFT	
CENTER CURB REMOVAL		
CENTER CURB REMOVAL		
COMBINED CURB AND GUTTER REMOVAL	LFT	
LIP GUTTER REMOVAL	LFT	
GUTTER REMOVAL	LFT	
WALK REMOVAL	SYS	
STEPS REMOVAL	SYS	
GUARD RAIL SALVAGE	LFT	
RETAINING WALL REMOVAL		
RETAINING WALL REMOVAL		
PAVED SIDE DITCH REMOVAL	LFT	
REMOVAL OF PRESENT STRUCTURE	LUMP SUM	
REMOVAL OF PRESENT STRUCTURE	LUMP SUM	
TREE REMOVAL	¹⁄cir.	

PAVEMENT

ITEM	UNIT	QUANTITY
CEMENT CONCRETE BASE (8")	SYS	3575
CEMENT CONCRETE BASE (")	SYS	
H.E.S. CEMENT CONCRETE BASE (")	SYS	
H.E.S. CEMENT CONCRETE BASE (")	SYS	
CONCRETE PATCHES	SYS	
CLASS I CONCRETE PATCHES	SYS	
CLASS II CONCRETE PATCHES	SYS	
CLASS III CONCRETE PATCHES	SYS	
CLASS IV CONCRETE PATCHES	SYS	
BITUMINOUS MIXTURE FOR PATCHES	TON	
CLASS I BITUMINOUS PATCHES	TON	
CLASS II BITUMINOUS PATCHES	TON	
CLASS III BITUMINOUS PATCHES	TON	
CLASS IV BITUMINOUS PATCHES	TON	
HOT ASPHALTIC CONCRETE BASE WIDENING	TON	
HOT A.E. BASE WIDENING	TON	
BITUMINOUS COATED AGGREGATE BASE WIDENING	TON	
CONCRETE WIDENING	SYS	
FILLING CRACKS AND JOINTS	TON	
BITUMINOUS MATERIAL FOR UNDERSEAL	TON	
DRILLING HOLES	EACH	
SUBBASE, TYPE II	CYS	
SUBBASE	CYS	49,080
SALVAGED ROAD MATERIAL FOR SUBBASE	CYS	
BITUMINOUS COATED AGGREGATE (DENSE GRADED)	TON	
TYPE "P" COMPACTED AGGREGATE BASE (1)	TON	48,630 / 43,752 / ~~48,558~~
TYPE " " COMPACTED AGGREGATE SURFACE	TON	
TYPE " " COMPACTED AGGREGATE SHOULDER	TON	
PURE CALCIUM CHLORIDE FOR TEMP. RUNAROUND & SHOULDERS	TON	12
HOT ASPHALTIC CONCRETE BASE	TON	
HOT ASPHALTIC CONCRETE BINDER	TON	
HOT ASPHALTIC CONCRETE BINDER FOR WEDGE AND LEVELING	TON	
HOT ASPHALTIC CONCRETE SURFACE, TYPE " "	TON	
HOT A.E. BASE	TON	
HOT A.E. BINDER	TON	
HOT A.E. BINDER FOR WEDGE AND LEVELING	TON	618
HOT A.E. SURFACE, TYPE " "	TON	839
BITUMINOUS SURFACE (2)	TON	~~387~~
BITUMINOUS BASE (3)	TON	~~393~~
BITUMINOUS COATED AGGREGATE BASE	TON	4297 / 1071
BITUMINOUS COATED AGGREGATE BINDER	TON	
BITUMINOUS COATED AGGREGATE BINDER FOR WEDGE AND LEVELING	TON	
BITUMINOUS COATED AGGREGATE SURFACE	TON	
MIXTURE FOR BITUMINOUS SHOULDER	TON	13,032
BITUMINOUS MATERIAL APPLIED, PRIME	TON	175 / ~~148~~
BITUMINOUS MATERIAL APPLIED, TACK COAT	TON	6
BITUMINOUS MATERIAL APPLIED, SEAL	TON	101
COVERING AGGREGATE	TON	769
AGGREGATE FOR SHOULDER DRAINS	TON	

ITEM	UNIT	QUANTITY
CONTINUOUSLY REINFORCED CONCRETE PAVEMENT (8")	SYS	144,192
REINFORCED CEMENT CONCRETE PAVEMENT (8")	SYS	1,232
REINFORCED CEMENT CONCRETE PAVEMENT (")	SYS	
H.E.S. REINFORCED CEMENT CONCRETE PAVEMENT (")	SYS	
H.E.S. REINFORCED CEMENT CONCRETE PAVEMENT (")	SYS	
H.E.S. REINFORCED CEMENT CONCRETE PAVEMENT (")	SYS	
PLAIN CEMENT CONCRETE PAVEMENT (")	SYS	
PLAIN CEMENT CONCRETE PAVEMENT (6")	SYS	910
H.E.S. PLAIN CEMENT CONCRETE PAVEMENT (")	SYS	
PRIVATE DRIVE PAVEMENT	SYS	
COMMERICAL DRIVE PAVEMENT	SYS	
CEMENT CONCRETE FOR CROSSOVER	SYS	
BITUMINOUS MIXTURE FOR CROSSOVER	TON	
CONTRACTION JOINT, TYPE "D-1"	LFT	277
1 INCH PREFORMED EXPANSION JOINT WITH LOAD TRANSFER	LFT	949
TERMINAL JOINT FOR C.R.C. PAVEMENT	LFT	336
1½ INCH PREFORMED JOINT FILLER	LFT	
1 INCH PREFORMED JOINT FILLER	LFT	727
1¼ INCH POLYCHLOROPRENE FILLER	LFT	
REINFORCING STEEL FOR PAVEMENT	LB	19,105
ANCHOR BOLTS	EACH	
BITUMINOUS MIXTURE FOR FRONTAGE ROADS	TON	
BITUMINOUS MIXTURE FOR APPROACHES (4)	TON	1946
SALVAGED ROAD MATERIAL FOR APPROACHES	CYS	
SALVAGED ROAD MATERIAL FOR BASE	CYS	
SALVAGED SURFACE MATERIAL FOR APPROACHES	CYS	

(1) INCLUDES FOR	UNIT	QUANTITY
PRIVATE DRIVES	TON	541
COMMERCIAL DRIVES	TON	952
FRONTAGE RDS., ACC. RDS., PUBLIC RD. APPRS., & TYPE I TEMP. X-OVER	TON	~~3869~~
COMP. AGG. SHLDR. & CURB REPLACE.	TON	315
BITUMINOUS SHOULDER	TON	37,530
S.R. APPROACHES	TON	966
RIGGLE ROAD (P.R.#2)	TON	427
TEMPORARY RUNAROUND	TON	4523

(2) INCLUDES FOR	UNIT	QUANTITY
TYPE I TEMP. X-OVER	TON	25
S.R. APPROACHES	TON	68
ACCESS ROADS	TON	~~237~~
FRONTAGE ROADS	TON	29
RIGGLE ROAD (P.R.#2)	TON	60
RESURFACE EXIST. U.S.31 PAV'T.	TON	166

(3) INCLUDES FOR	UNIT	QUANTITY
TYPE I TEMP. X-OVER	TON	67
S.R. APPROACHES	TON	216
ACCESS ROADS	TON	~~209~~
FRONTAGE ROADS	TON	76

(4) INCLUDES FOR	UNIT	QUANTITY
PUBLIC ROAD APPROACHES	TON	853
PRIVATE DRIVES	TON	540
COMMERCIAL DRIVES	TON	553

MISCELLANEOUS

ITEM	UNIT	QUANTITY
6 INCH HAND LAID RIPRAP	SYS	
12 INCH HAND LAID RIPRAP	SYS	
GROUTED RIPRAP	SYS	
RIPRAP	SYS	195
PLACING HAND LAID RIPRAP 6"	SYS	
PLACING HAND LAID RIPRAP 12"	SYS	
PRECAST CONCRETE RIPRAP	SYS	
SLOPEWALL	SYS	
CONCRETE SLOPEWALL (")	SYS	
STANDARD LIP GUTTER	LFT	
PAVED SIDE DITCH, TYPE "A"	LFT	1,606
PAVED SIDE DITCH, TYPE "B"	LFT	82
PAVED SIDE DITCH, TYPE "G"	LFT	5,709
PAVED SIDE DITCH, TYPE "J"	LFT	1,708
PAVED SIDE DITCH, TYPE " "	LFT	
INTEGRAL CONCRETE CURB	LFT	
INTEGRAL CONCRETE CURB TYPE "B"	LFT	91
INTEGRAL CONCRETE CURB TYPE "C"	LFT	
CONCRETE CURB	LFT	240
CONCRETE CURB, TYPE "B"	LFT	
BITUMINOUS CURB	LFT	1743
CONCRETE GUTTER	LFT	20
REINFORCED CONCRETE GUTTER	LFT	90
RECONSTRUCTED CONCRETE CURB	LFT	
RECONSTRUCTED COMBINED CONCRETE CURB AND GUTTER	LFT	
RESET CURB	LFT	
CONCRETE CENTER CURB		
CONCRETE CENTER CURB		
CONCRETE CENTER CURB, TYPE " "		
CONCRETE CENTER CURB, TYPE "B"	LFT	82
CONCRETE CENTER CURB, TYPE " "		
CONCRETE CENTER CURB TYPE " "		
BITUMINOUS CENTER CURB, TYPE "B"	SYS	28
BITUMINOUS CENTER CURB, TYPE " "		
STRAIGHT BEAM GUARD RAIL	LFT	
DOUBLE-FACED STRAIGHT BEAM GUARD RAIL	LFT	
SHOP-CURVED BEAM GUARD RAIL	LFT	
SHOP-CURVED DOUBLE-FACED BEAM GUARD RAIL	LFT	
RESET WIRE-ROPE GUARD RAIL	LFT	
RESETTING GUARD RAIL	LFT	
GUARD RAIL POST	EACH	
GUARD RAIL, TYPE As	LFT	30
GUARD RAIL, TYPE Ba, Bs or Bst	LFT	665
GUARD RAIL, TYPE Ea, Es or Est	LFT	275
GUARD RAIL, TYPE Fa, Fs or Fst	LFT	318
GUARD RAIL, TYPE Ga or Gst	LFT	1025
RESETTING CHAIN LINK SECURITY FENCE	LFT	
FENCE (FARM FIELD TYPE)	LFT	55,633
FENCE (CHAIN LINK TYPE)	LFT	298
FENCE (CHAIN LINK SECURITY 6')	LFT	6,465
GATES (SINGLE)	EACH	
GATES (DOUBLE)	EACH	
RESETTING FARM FIELD TYPE FENCE	LFT	
RESETTING CHAIN LINK TYPE FENCE	LFT	
GUIDE POST, TYPE " "	EACH	
GUIDE POST, TYPE " "	EACH	
RESET GUIDE POST	EACH	
DELINEATORS, TYPE " "	EACH	
DELINEATOR POST	EACH	32
BARRICADES, TYPE "A"	EACH	2
BARRICADES, TYPE "B"	EACH	8
PERMANENT BARRICADES, TYPE "A"	EACH	
PERMANENT BARRICADES, TYPE "B"	EACH	
CONSTRUCTION SIGN, TYPE "A"	EACH	27
STANDARD SIGNS	EACH	

MISCELLANEOUS

ITEM	UNIT	QUANTITY
CONCRETE HEADER, TYPE "A"	LFT	
CONCRETE HEADER, TYPE "B"	LFT	
RECONSTRUCTED CONCRETE HEADER	LFT	
ANCHOR BOLTS	EACH	365
CEMENT CONCRETE SIDEWALK	SYS	79
" EXPANSION JOINT FOR SIDEWALK	LFT	
CROSSWALK	SYS	
RIGHT-OF-WAY MARKERS	EACH	26
RESET RIGHT-OF-WAY MARKERS	EACH	
MONUMENTS, TYPE "D"	EACH	7
MONUMENTS, TYPE "C"	EACH	15
MONUMENTS RE-ESTABLISHED	EACH	
CASTINGS ADJUSTED TO GRADE, MONUMENTS	EACH	
BENCH MARK POST	EACH	3
RESETTING BENCH MARK POST	EACH	
RAILROAD CROSSBUCK SIGN, TYPE "A"	EACH	
RAILROAD CROSSBUCK SIGN, TYPE "B"	EACH	
ADVANCE RAILROAD WARNING SIGN	EACH	

MISCELLANEOUS

ITEM	UNIT	QUANTITY
STRUCTURE NO. 46-A		LUMP SUM
CONDUIT (2")	LFT	730
HAND HOLE FOR STREET AND ALLEY	EACH	2
HAND HOLE FOR SIDEWALK	EACH	
PEDESTAL FOUNDATION, TYPE "A"	EACH	
PEDESTAL FOUNDATION, TYPE "B"	EACH	
STEEL POLE FOUNDATION, TYPE "A"	EACH	
FURNISHING AND PLACING SEED (CROWN VETCH)	LBS	152
SODDING	SYS	56,613
FURNISHING AND PLACING AGRICULTURAL LIMESTONE	TON	172
FURNISHING AND PLACING FERTILIZER	TON	17
FURNISHING AND PLACING SEED	LB	9,422
FURNISHING AND APPLYING MULCHING MATERIAL	TON	172
PLAIN SEEDING	SYS	
MULCHED SEEDING	SYS	
PAINT FOR TEMPORARY PAVEMENT STRIPE	LFT.	10,390
TAPE FOR TEMPORARY PAVEMENT STRIPE	LFT	2,400
STD. SIGN R-1A	EA.	2
MAINTAINING TRAFFIC		LUMP SUM
RELOCATING BUILDING NO. 701		LUMP SUM
RELOCATING B.H.A.F.B. SIGN		LUMP SUM
PAINT FOR 4" PAV'T STRIPE	LFT.	570

STRUCTURE SUMMARY

PIPE ARCHES: LINEAL FEET

KIND \ MIN. AREA SQ. FT. # / KIND	STEEL 17.6	CONC. 16.6	STEEL 38.0	CONC. 29.5	STEEL 43.8	CONC. 34.6	STEEL 55.0	CONC. 34.0	10'-3" x 6'-9"	15'-10" x 9'-10"	22" x 13"	29" x 18"
GAGE STRUCT. PLATES STEEL — TOP & SIDES			12		12		12		12	12		
GAGE STRUCT. PLATES STEEL — BOTTOM			10		10		10		10	10		
GAGE	12										10	16
F.B.C.C.S. ARCH OR GROUP R-1	178											
GROUP												
GROUP H-1												
GROUP H-2											30	166
GROUP H-3												
GROUP H-4												
STR. PLATE STEEL ARCH OR GROUP R1			70		84							
CORR. STEEL PIPE ARCH												
STRUCT. PLATE STEEL ARCH / REINF. ELLIPTICAL CONC.									84	68		
STR. PLATE STEEL ARCH OR GROUP R2							60					
BIT. COAT CORR. METAL PIPE ARCH WITH PAVED INVERT												
CULVERT PIPE END SECTION											EACH 2	EACH 4

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

STRUCTURE SUMMARY (CON'T)

CIRCULAR PIPE: LINEAL FEET

KIND \ SIZE	4"	6"	8"	10"	12"	15"	18"	21"	24"	30"	36"	42"	48"	54"	60"	66" STEEL 60" CONC.	72"	78"	84"
GAGE C.S. PIPE		#18	#16		#16	#16	#16		#16	#16	#16			#14					
GAGE STRUCT. PLATES — TOP & SIDES																#12		#10	
GAGE STRUCT. PLATES — BOTTOM																#12		#10	
GROUP A																#10		#8	
GROUP B					1958	869	126		318	162	976								
GROUP C																			
GROUP D					658														
GROUP E					~~534~~	444	220		234		60								
GROUP F																			
GROUP L		3306	1920		990														
GROUP P					816														
EXTRA STRENGTH REINF. CONC.																			
F.B.C.C.S./P.I., STRUC. PLATE STEEL or R.C. CULVERT																			
CORRUGATED STEEL		64	121		40											254		*306	
FULLY BITUM. COATED CORR. STEEL			62																
FULLY BITUM. COATED CORR. STEEL WITH PAVED INVERT					550	112													
SEWER											248			*108					
R.C. SEWER OR V.C. SEWER																			
R.C. SEWER OR CONC. SEWER																			
CONCRETE SEWER																			
REINF. CONC. SEWER																			
VIT. CLAY SEWER																			
DRAINTILE		2976	1600	800															
FULLY BITUMINOUS COATED PERFORATED CORR. STEEL		70																	
CULVERT PIPE END SECTIONS (EA.)					76 / ~~74~~	41	13		12	1	16								

* STRUTTED

ITEM	QUANTITY	UNIT
PIPE: GROUP "K" FOR SUBSURFACE DRAINAGE 6"	80,263	LIN. FT.
PIPE: FULLY BIT. COATED NON-PERF. C.S. FOR SUBSURFACE DRAINAGE 6"	664	LIN. FT.
AGGREGATE FOR SUBSURFACE DRAINAGE	6020	CYS
CAST IRON MECHANICAL JOINT PIPE-3"		LIN. FT.

REINF. CONCRETE SPRINGBOXES - EACH	
	1

MANHOLES TYPE	MANHOLES EACH	CATCH BASINS TYPE	CATCH BASINS EACH	INLETS TYPE	INLETS EACH	INLETS TYPE	INLETS EACH
B-4	1			A-9	2	N-12	2
				E-7	32	P-12	2
				F-7	3		

ITEM	UNIT	QUANTITY
CONCRETE CLASS "D" FOR STRUCTURES	CYS	~~256~~ 257
REINFORCING STEEL FOR STRUCTURES	LB	~~51,791~~ 52,183

ITEMS TO MITIGATE R/W DAMAGES

ITEM	ACCESS ROAD 1		3	4	4A	5	5A	6	7	8	9	TOTAL
COMMON EXCAVATION	438		761	1370	120	—	106	1226	5269	461	708	11,258 CYS
COMP. AGG. BASE TYPE "P"	—		—	[illegible]	275	147.7	151.9	179.1	332.4	236.6	191.0	1,710.2 TON
BITUM. SURFACE & BASE	—		—	77	169	88	91	106	198	140	114	1.037 TON
BITUM. MAT'L. FOR PRIME	—		—	[illegible]	1.16	0.78	0.80	0.94	1.75	1.24	1.00	8.99 TON
12" GROUP "D" PIPE (C.S.)	32'	—	—	—	24	—	—	30'	—	32'	62'	156 LFT.
18" GROUP "D" PIPE (C.S.)	—	—	—	—	40'	—	—	—	—	—	—	40 LFT.
22" x 13" GROUP "H" PIPE ARCH (C.S.)	—	—	—	—	—	—	—	—	30'	—	—	30 LFT.
15'-10" x 9'-10" S.P.S. ARCH MIN. AREA = 122 SQ. FT.	—		—	—	—	—	—	—	—	—	—	62 LFT.
CULVERT PIPE END SECTION	2	—	—	—	[illegible]	—	—	2	2	2	4	14 EACH
FURNISHING & PLACING: AGRICULTURAL LIMESTONE	1.5		0.4	0.4	0.2	0.4	0.1	0.4	1.5	0.7	0.3	7.1 TON
FERTILIZER	.15		.04	.04	.01	.04	.01	.04	.15	.07	.03	0.69 TON
SEED	80		24	24	8	22	6	24	85	39	19	394 LBS
MULCHING MATERIAL	1.5		0.4	0.4	0.2	0.4	0.1	0.4	1.5	0.7	0.3	7.1 TON
CROWN VETCH	0.87	—	0.46	0.23	0.23	1.64	0.57	0.36	1.88	0.67	0.76	7.67 LBS.

SEPTEMBER 1963

[illegible] 10/1/65

FEDERAL ROAD DIVISION NO.	STATE	F PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
4	IND.	70 (10)	1964	32-E	242

THIS SHEET FOR INFORMATION ONLY

NOTE:
ALL CHANNELS CUT IN CONCRETE, FOR CONDUIT, TO BE REPLACED WITH ASPHALT.

REVISION NO. 1

STRATEGIC AIR COMMAND
BUNKER HILL A. F. B.
PERU, INDIANA

THOMPSON

TITLE: SIGN, BASE DESIGNATION

PROJECT NUMBER: BU-152-58
DATE: 26 MAY 58
SCALE: AS SHOWN
DRAWING NUMBER: BHAFB-57-58
SHEET 3 of 3

59-